



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:06 PM GMT

PDB ID : 4V8C  
Title : Crystal structure analysis of ribosomal decoding (near-cognate tRNA-leu complex with paromomycin).  
Authors : Jenner, L.; Demeshkina, N.; Yusupov, M.; Yusupova, G.  
Deposited on : 2011-12-07  
Resolution : 3.30 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](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : rb-20026688  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk26865

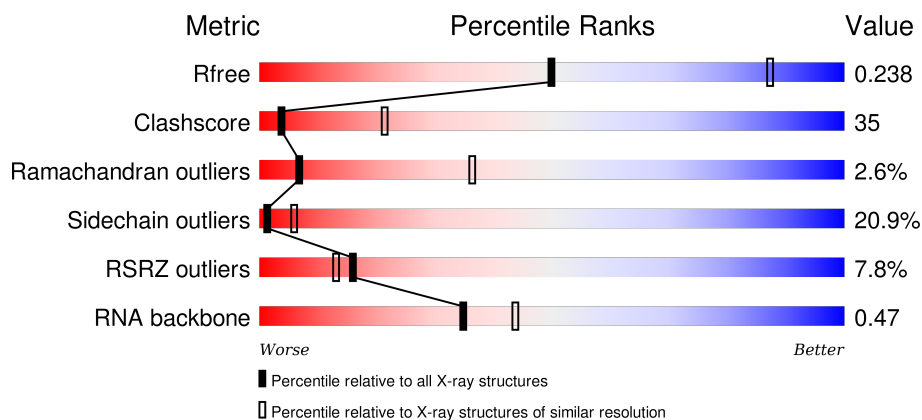
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.30 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))
$R_{free}$	91344	2060 (3.40-3.20)
Clashscore	102246	1058 (3.38-3.22)
Ramachandran outliers	100387	1038 (3.38-3.22)
Sidechain outliers	100360	1037 (3.38-3.22)
RSRZ outliers	91569	2070 (3.40-3.20)
RNA backbone	2183	1005 (3.82-2.78)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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	2912	<div> <div>28%</div> <div>50%</div> <div>20%</div> <div>•</div> </div>
1	BA	2912	<div> <div>27%</div> <div>51%</div> <div>20%</div> <div>•</div> </div>
2	AB	122	<div> <div>32%</div> <div>48%</div> <div>18%</div> <div>•</div> </div>
2	BB	122	<div> <div>25%</div> <div>56%</div> <div>19%</div> <div>•</div> </div>

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Mol	Chain	Length	Quality of chain
3	AD	276	
3	BD	276	
4	AE	206	
4	BE	206	
5	AF	210	
5	BF	210	
6	AG	182	
6	BG	182	
7	AH	180	
7	BH	180	
8	AK	148	
8	BK	148	
9	AM	140	
9	BM	140	
10	AN	122	
10	BN	122	
11	AO	150	
11	BO	150	
12	AP	141	
12	BP	141	
13	A0	118	
13	B0	118	
14	AQ	112	
14	BQ	112	
15	AR	146	

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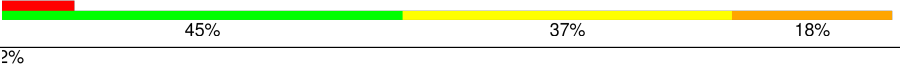
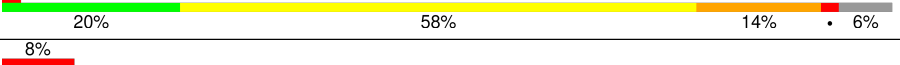

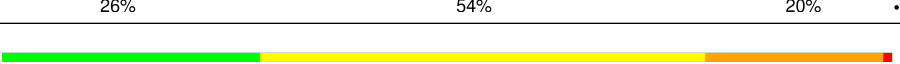
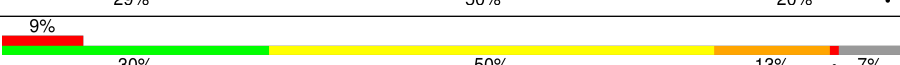
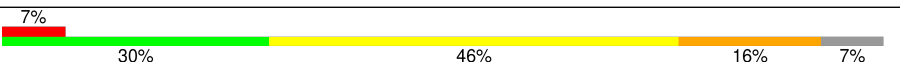

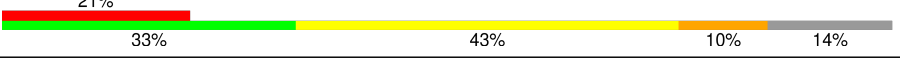
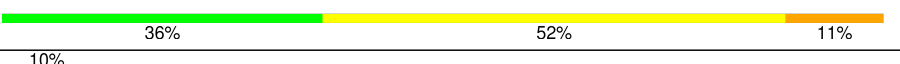





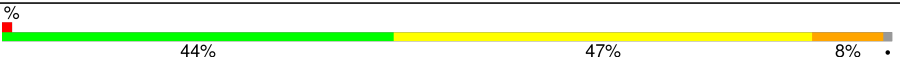
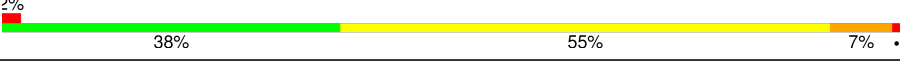

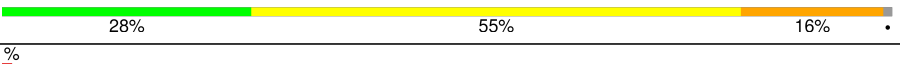
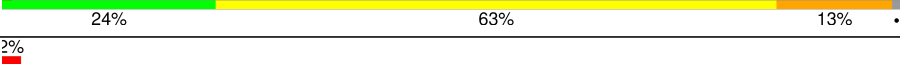



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Mol	Chain	Length	Quality of chain
15	BR	146	
16	A1	118	
16	B1	118	
17	A2	101	
17	B2	101	
18	AS	113	
18	BS	113	
19	AT	96	
19	BT	96	
20	AU	110	
20	BU	110	
21	AV	206	
21	BV	206	
22	A3	85	
22	B3	85	
23	AZ	98	
23	BZ	98	
24	AW	72	
24	BW	72	
25	AX	60	
25	BX	60	
26	A4	71	
26	B4	71	
27	A5	60	
27	B5	60	

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Mol	Chain	Length	Quality of chain
28	A6	54	
28	B6	54	
29	A7	49	
29	B7	49	
30	A8	65	
30	B8	65	
31	CA	1506	
31	DA	1506	
32	CE	256	
32	DE	256	
33	CF	239	
33	DF	239	
34	CG	208	
34	DG	208	
35	CH	162	
35	DH	162	
36	CI	101	
36	DI	101	
37	CJ	156	
37	DJ	156	
38	CK	138	
38	DK	138	
39	CL	128	
39	DL	128	
40	CM	105	

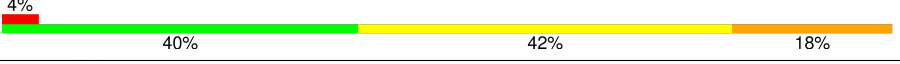
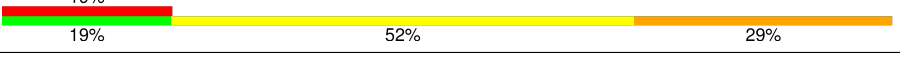
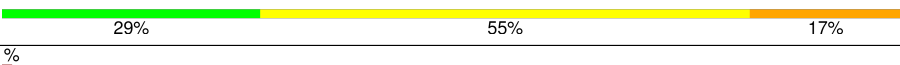
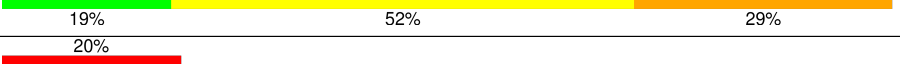
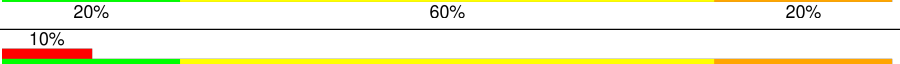
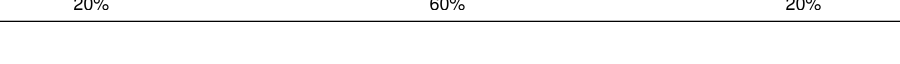
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Mol	Chain	Length	Quality of chain
40	DM	105	
41	CN	129	
41	DN	129	
42	CO	132	
42	DO	132	
43	CP	126	
43	DP	126	
44	CQ	61	
44	DQ	61	
45	CR	89	
45	DR	89	
46	CS	88	
46	DS	88	
47	CT	105	
47	DT	105	
48	CU	88	
48	DU	88	
49	CV	93	
49	DV	93	
50	CW	106	
50	DW	106	
51	CX	27	
51	DX	27	
52	CB	87	
52	DB	87	

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Mol	Chain	Length	Quality of chain
53	CC	77	
53	CD	77	
53	DC	77	
53	DD	77	
54	C1	10	
54	D1	10	

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
55	MG	A1	201	-	-	-	X
55	MG	A6	101	-	-	-	X
55	MG	AA	3001	-	-	-	X
55	MG	AA	3002	-	-	-	X
55	MG	AA	3004	-	-	-	X
55	MG	AA	3006	-	-	-	X
55	MG	AA	3010	-	-	-	X
55	MG	AA	3012	-	-	-	X
55	MG	AA	3016	-	-	-	X
55	MG	AA	3021	-	-	-	X
55	MG	AA	3024	-	-	-	X
55	MG	AA	3027	-	-	-	X
55	MG	AA	3031	-	-	-	X
55	MG	AA	3034	-	-	-	X
55	MG	AA	3037	-	-	-	X
55	MG	AA	3040	-	-	-	X
55	MG	AA	3044	-	-	-	X
55	MG	AA	3045	-	-	-	X
55	MG	AA	3047	-	-	-	X
55	MG	AA	3051	-	-	-	X
55	MG	AA	3052	-	-	-	X
55	MG	AA	3053	-	-	-	X
55	MG	AA	3054	-	-	-	X
55	MG	AA	3055	-	-	-	X
55	MG	AA	3057	-	-	-	X
55	MG	AA	3058	-	-	-	X
55	MG	AA	3068	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	AA	3074	-	-	-	X
55	MG	AA	3081	-	-	-	X
55	MG	AA	3082	-	-	-	X
55	MG	AA	3083	-	-	-	X
55	MG	AA	3085	-	-	-	X
55	MG	AA	3086	-	-	-	X
55	MG	AA	3092	-	-	-	X
55	MG	AA	3093	-	-	-	X
55	MG	AA	3094	-	-	-	X
55	MG	AA	3098	-	-	-	X
55	MG	AA	3106	-	-	-	X
55	MG	AA	3112	-	-	-	X
55	MG	AA	3113	-	-	-	X
55	MG	AA	3116	-	-	-	X
55	MG	AA	3119	-	-	-	X
55	MG	AA	3123	-	-	-	X
55	MG	AA	3124	-	-	-	X
55	MG	AA	3125	-	-	-	X
55	MG	AA	3128	-	-	-	X
55	MG	AA	3135	-	-	-	X
55	MG	AA	3138	-	-	-	X
55	MG	AA	3139	-	-	-	X
55	MG	AA	3141	-	-	-	X
55	MG	AA	3144	-	-	-	X
55	MG	AA	3150	-	-	-	X
55	MG	AA	3153	-	-	-	X
55	MG	AA	3154	-	-	-	X
55	MG	AA	3160	-	-	-	X
55	MG	AA	3162	-	-	-	X
55	MG	AA	3165	-	-	-	X
55	MG	AA	3168	-	-	-	X
55	MG	AA	3174	-	-	-	X
55	MG	AA	3177	-	-	-	X
55	MG	AA	3186	-	-	-	X
55	MG	AA	3195	-	-	-	X
55	MG	AA	3212	-	-	-	X
55	MG	AA	3214	-	-	-	X
55	MG	AA	3222	-	-	-	X
55	MG	AA	3223	-	-	-	X
55	MG	AA	3228	-	-	-	X
55	MG	AA	3233	-	-	-	X
55	MG	AA	3245	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	AA	3247	-	-	-	X
55	MG	AA	3249	-	-	-	X
55	MG	AA	3253	-	-	-	X
55	MG	AA	3262	-	-	-	X
55	MG	AA	3263	-	-	-	X
55	MG	AA	3266	-	-	-	X
55	MG	AA	3267	-	-	-	X
55	MG	AA	3269	-	-	-	X
55	MG	AA	3272	-	-	-	X
55	MG	AA	3277	-	-	-	X
55	MG	AA	3307	-	-	-	X
55	MG	AA	3310	-	-	-	X
55	MG	AA	3315	-	-	-	X
55	MG	AA	3322	-	-	-	X
55	MG	AA	3323	-	-	-	X
55	MG	AA	3328	-	-	-	X
55	MG	AA	3336	-	-	-	X
55	MG	AA	3343	-	-	-	X
55	MG	AA	3351	-	-	-	X
55	MG	AA	3355	-	-	-	X
55	MG	AA	3356	-	-	-	X
55	MG	AA	3379	-	-	-	X
55	MG	AA	3400	-	-	-	X
55	MG	AA	3408	-	-	-	X
55	MG	AA	3428	-	-	-	X
55	MG	AA	3448	-	-	-	X
55	MG	AA	3459	-	-	-	X
55	MG	AA	3462	-	-	-	X
55	MG	AA	3464	-	-	-	X
55	MG	AA	3489	-	-	-	X
55	MG	AA	3497	-	-	-	X
55	MG	AA	3513	-	-	-	X
55	MG	AA	3521	-	-	-	X
55	MG	AA	3530	-	-	-	X
55	MG	AA	3538	-	-	-	X
55	MG	AA	3540	-	-	-	X
55	MG	AA	3541	-	-	-	X
55	MG	AA	3548	-	-	-	X
55	MG	AA	3549	-	-	-	X
55	MG	AA	3550	-	-	-	X
55	MG	AA	3551	-	-	-	X
55	MG	AA	3565	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	AA	3567	-	-	-	X
55	MG	AA	3568	-	-	-	X
55	MG	AA	3570	-	-	-	X
55	MG	AA	3574	-	-	-	X
55	MG	AA	3578	-	-	-	X
55	MG	AA	3588	-	-	-	X
55	MG	AA	3590	-	-	-	X
55	MG	AA	3592	-	-	-	X
55	MG	AA	3599	-	-	-	X
55	MG	AA	3603	-	-	-	X
55	MG	AA	3609	-	-	-	X
55	MG	AA	3623	-	-	-	X
55	MG	AA	3625	-	-	-	X
55	MG	AB	202	-	-	-	X
55	MG	AB	215	-	-	-	X
55	MG	AB	217	-	-	-	X
55	MG	AE	303	-	-	-	X
55	MG	AF	303	-	-	-	X
55	MG	AO	201	-	-	-	X
55	MG	AO	203	-	-	-	X
55	MG	BA	3009	-	-	-	X
55	MG	BA	3010	-	-	-	X
55	MG	BA	3012	-	-	-	X
55	MG	BA	3023	-	-	-	X
55	MG	BA	3037	-	-	-	X
55	MG	BA	3058	-	-	-	X
55	MG	BA	3067	-	-	-	X
55	MG	BA	3081	-	-	-	X
55	MG	BA	3086	-	-	-	X
55	MG	BA	3094	-	-	-	X
55	MG	BA	3100	-	-	-	X
55	MG	BA	3107	-	-	-	X
55	MG	BA	3118	-	-	-	X
55	MG	BA	3125	-	-	-	X
55	MG	BA	3127	-	-	-	X
55	MG	BA	3129	-	-	-	X
55	MG	BA	3135	-	-	-	X
55	MG	BA	3136	-	-	-	X
55	MG	BA	3140	-	-	-	X
55	MG	BA	3144	-	-	-	X
55	MG	BA	3145	-	-	-	X
55	MG	BA	3152	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	BA	3155	-	-	-	X
55	MG	BA	3156	-	-	-	X
55	MG	BA	3157	-	-	-	X
55	MG	BA	3158	-	-	-	X
55	MG	BA	3163	-	-	-	X
55	MG	BA	3167	-	-	-	X
55	MG	BA	3169	-	-	-	X
55	MG	BA	3174	-	-	-	X
55	MG	BA	3178	-	-	-	X
55	MG	BA	3179	-	-	-	X
55	MG	BA	3180	-	-	-	X
55	MG	BA	3187	-	-	-	X
55	MG	BA	3189	-	-	-	X
55	MG	BA	3203	-	-	-	X
55	MG	BA	3208	-	-	-	X
55	MG	BA	3211	-	-	-	X
55	MG	BA	3217	-	-	-	X
55	MG	BA	3218	-	-	-	X
55	MG	BA	3219	-	-	-	X
55	MG	BA	3220	-	-	-	X
55	MG	BA	3224	-	-	-	X
55	MG	BA	3227	-	-	-	X
55	MG	BA	3228	-	-	-	X
55	MG	BA	3229	-	-	-	X
55	MG	BA	3231	-	-	-	X
55	MG	BA	3233	-	-	-	X
55	MG	BA	3236	-	-	-	X
55	MG	BA	3237	-	-	-	X
55	MG	BA	3238	-	-	-	X
55	MG	BA	3239	-	-	-	X
55	MG	BA	3242	-	-	-	X
55	MG	BA	3254	-	-	-	X
55	MG	BA	3266	-	-	-	X
55	MG	BA	3278	-	-	-	X
55	MG	BA	3279	-	-	-	X
55	MG	BA	3283	-	-	-	X
55	MG	BA	3288	-	-	-	X
55	MG	BA	3309	-	-	-	X
55	MG	BA	3317	-	-	-	X
55	MG	BA	3324	-	-	-	X
55	MG	BA	3325	-	-	-	X
55	MG	BA	3329	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	BA	3331	-	-	-	X
55	MG	BA	3350	-	-	-	X
55	MG	BA	3355	-	-	-	X
55	MG	BA	3363	-	-	-	X
55	MG	BA	3366	-	-	-	X
55	MG	BA	3367	-	-	-	X
55	MG	BA	3369	-	-	-	X
55	MG	BA	3376	-	-	-	X
55	MG	BA	3384	-	-	-	X
55	MG	BA	3396	-	-	-	X
55	MG	BA	3404	-	-	-	X
55	MG	BA	3412	-	-	-	X
55	MG	BA	3446	-	-	-	X
55	MG	BA	3447	-	-	-	X
55	MG	BA	3481	-	-	-	X
55	MG	BA	3484	-	-	-	X
55	MG	BA	3489	-	-	-	X
55	MG	BA	3490	-	-	-	X
55	MG	BA	3492	-	-	-	X
55	MG	BA	3494	-	-	-	X
55	MG	BA	3496	-	-	-	X
55	MG	BA	3512	-	-	-	X
55	MG	BA	3514	-	-	-	X
55	MG	BB	207	-	-	-	X
55	MG	BR	202	-	-	-	X
55	MG	CA	1610	-	-	-	X
55	MG	CA	1620	-	-	-	X
55	MG	CA	1628	-	-	-	X
55	MG	CA	1632	-	-	-	X
55	MG	CA	1636	-	-	-	X
55	MG	CA	1639	-	-	-	X
55	MG	CA	1645	-	-	-	X
55	MG	CA	1651	-	-	-	X
55	MG	CA	1658	-	-	-	X
55	MG	CA	1663	-	-	-	X
55	MG	CA	1667	-	-	-	X
55	MG	CA	1678	-	-	-	X
55	MG	CA	1679	-	-	-	X
55	MG	CA	1691	-	-	-	X
55	MG	CA	1711	-	-	-	X
55	MG	CA	1712	-	-	-	X
55	MG	CA	1715	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	CA	1717	-	-	-	X
55	MG	CA	1722	-	-	-	X
55	MG	CA	1760	-	-	-	X
55	MG	CA	1767	-	-	-	X
55	MG	CA	1780	-	-	-	X
55	MG	CA	1792	-	-	-	X
55	MG	CA	1819	-	-	-	X
55	MG	CA	1836	-	-	-	X
55	MG	DA	1604	-	-	-	X
55	MG	DA	1606	-	-	-	X
55	MG	DA	1610	-	-	-	X
55	MG	DA	1616	-	-	-	X
55	MG	DA	1617	-	-	-	X
55	MG	DA	1621	-	-	-	X
55	MG	DA	1638	-	-	-	X
55	MG	DA	1644	-	-	-	X
55	MG	DA	1645	-	-	-	X
55	MG	DA	1646	-	-	-	X
55	MG	DA	1649	-	-	-	X
55	MG	DA	1653	-	-	-	X
55	MG	DA	1656	-	-	-	X
55	MG	DA	1664	-	-	-	X
55	MG	DA	1667	-	-	-	X
55	MG	DA	1670	-	-	-	X
55	MG	DA	1675	-	-	-	X
55	MG	DA	1677	-	-	-	X
55	MG	DA	1684	-	-	-	X
55	MG	DA	1685	-	-	-	X
55	MG	DA	1689	-	-	-	X
55	MG	DA	1690	-	-	-	X
55	MG	DA	1710	-	-	-	X
55	MG	DA	1715	-	-	-	X
55	MG	DA	1721	-	-	-	X
55	MG	DA	1722	-	-	-	X
55	MG	DA	1728	-	-	-	X
55	MG	DA	1737	-	-	-	X
55	MG	DA	1747	-	-	-	X
55	MG	DA	1748	-	-	-	X
55	MG	DA	1752	-	-	-	X
55	MG	DA	1753	-	-	-	X
55	MG	DA	1755	-	-	-	X
55	MG	DA	1756	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	DA	1763	-	-	-	X
55	MG	DA	1782	-	-	-	X
55	MG	DA	1795	-	-	-	X
55	MG	DA	1799	-	-	-	X
55	MG	DA	1801	-	-	-	X
56	PAR	CA	1841	-	-	-	X
56	PAR	DA	1805	-	-	-	X

## 2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 299682 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 RNA (2912-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
1	BA	2909	Total	C	N	O	P	0	0	0
			62647	27884	11716	20139	2908			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	161	U	-	EXPRESSION TAG	GB AP008226.1
AA	654A	A	G	CONFLICT	GB AP008226.1
AA	654E	C	G	CONFLICT	GB AP008226.1
AA	654P	G	C	CONFLICT	GB AP008226.1
AA	654T	A	C	CONFLICT	GB AP008226.1
AA	1058	U	G	CONFLICT	GB AP008226.1
AA	1080	A	C	CONFLICT	GB AP008226.1
BA	158	U	-	EXPRESSION TAG	GB AP008226.1
BA	654A	A	G	CONFLICT	GB AP008226.1
BA	654E	C	G	CONFLICT	GB AP008226.1
BA	654P	G	C	CONFLICT	GB AP008226.1
BA	654T	A	C	CONFLICT	GB AP008226.1
BA	1058	U	G	CONFLICT	GB AP008226.1
BA	1080	A	C	CONFLICT	GB AP008226.1

- Molecule 2 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
2	BB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
3	BD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
4	BE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
5	BF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 6 is a protein called 50S ribosomal protein L5.

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

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			
7	BH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	BK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
9	BM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
10	BN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
11	BO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	BP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	A0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	B0	117	Total	C	N	O	S	0	0	0
			960	599	202	159				

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	AQ	111	Total	C	N	O	0	0	0
			882	556	176	150			
14	BQ	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
15	BR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	A1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
16	B1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	A2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
17	B2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
18	BS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

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

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			
20	BU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AV	175	Total	C	N	O	S	0	0	0
			1397	892	251	251	3			
21	BV	179	Total	C	N	O	S	0	0	0
			1428	911	255	259	3			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	A3	76	Total	C	N	O	S	0	0	0
			607	376	128	102	1			
22	B3	77	Total	C	N	O	S	0	0	0
			613	379	129	104	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			
23	BZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AW	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BW	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AX	59	Total	C	N	O		0	0	0
			469	298	90	81				
25	BX	59	Total	C	N	O		0	0	0
			469	298	90	81				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	A4	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
26	B4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	A5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	B5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	A6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
28	B6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	A7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			
29	B7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			



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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	A8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			
30	B8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			

- Molecule 31 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	CA	1506	Total	C	N	O	P	0	0	0
			32369	14408	5997	10459	1505			
31	DA	1506	Total	C	N	O	P	0	0	0
			32372	14408	5997	10461	1506			

- Molecule 32 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	CE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
32	DE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 33 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	CF	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
33	DF	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 34 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	CG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
34	DG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 35 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	CH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
35	DH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 36 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	CI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
36	DI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 37 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	CJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
37	DJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 38 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	CK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
38	DK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 39 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	CL	127	Total	C	N	O		0	0	0
			1010	639	197	174				
39	DL	127	Total	C	N	O		0	0	0
			1010	639	197	174				

- Molecule 40 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	CM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	DM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 41 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	CN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
41	DN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 42 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	CO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
42	DO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 43 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	CP	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
43	DP	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 44 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	CQ	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
44	DQ	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 45 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	CR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
45	DR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 46 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	CS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
46	DS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 47 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	CT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
47	DT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 48 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	CU	72	Total	C	N	O	0	0	0
			591	376	117	98			
48	DU	72	Total	C	N	O	0	0	0
			591	376	117	98			

- Molecule 49 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	CV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			
49	DV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

- Molecule 50 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	CW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
50	DW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 51 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	CX	25	Total	C	N	O	0	0	0
			217	134	52	31			
51	DX	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 52 is a RNA chain called TRNA-LEU.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	CB	87	Total	C	N	O	P	9	0	0
			1861	829	333	612	87			
52	DB	87	Total	C	N	O	P	8	0	0
			1861	829	333	612	87			

- Molecule 53 is a RNA chain called TRNA-FMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	CC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
53	CD	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
53	DC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
53	DD	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
CC	18	C	U	CONFLICT	GB AP012306.1
CD	18	C	U	CONFLICT	GB AP012306.1
DC	18	C	U	CONFLICT	GB AP012306.1
DD	18	C	U	CONFLICT	GB AP012306.1

- Molecule 54 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	C1	10	Total	C	N	O	P	0	0	0
			205	92	26	77	10			
54	D1	10	Total	C	N	O	P	0	0	0
			205	92	26	77	10			

- Molecule 55 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

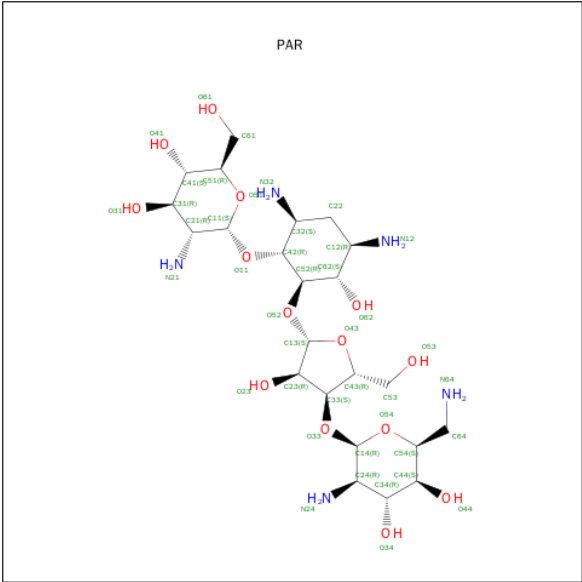
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	BA	528	Total Mg 528 528	0	0
55	CA	240	Total Mg 240 240	0	0
55	AB	17	Total Mg 17 17	0	0
55	A6	1	Total Mg 1 1	0	0
55	BE	3	Total Mg 3 3	0	0
55	B1	1	Total Mg 1 1	0	0
55	C1	1	Total Mg 1 1	0	0
55	CD	1	Total Mg 1 1	0	0
55	BP	1	Total Mg 1 1	0	0
55	CN	2	Total Mg 2 2	0	0
55	A2	1	Total Mg 1 1	0	0
55	DC	8	Total Mg 8 8	0	0
55	B5	1	Total Mg 1 1	0	0
55	BB	15	Total Mg 15 15	0	0
55	AE	4	Total Mg 4 4	0	0
55	DG	2	Total Mg 2 2	0	0
55	AA	626	Total Mg 626 626	0	0
55	CQ	2	Total Mg 2 2	0	0
55	A5	2	Total Mg 2 2	0	0
55	CG	2	Total Mg 2 2	0	0
55	A1	1	Total Mg 1 1	0	0
55	AD	1	Total Mg 1 1	0	0

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*Continued from previous page...*

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	CT	1	Total 1	Mg 1	0	0
55	DH	1	Total 1	Mg 1	0	0
55	CC	7	Total 7	Mg 7	0	0
55	DS	1	Total 1	Mg 1	0	0
55	B3	1	Total 1	Mg 1	0	0
55	BR	2	Total 2	Mg 2	0	0
55	AZ	1	Total 1	Mg 1	0	0
55	DA	204	Total 204	Mg 204	0	0
55	AU	1	Total 1	Mg 1	0	0
55	A0	1	Total 1	Mg 1	0	0
55	CB	5	Total 5	Mg 5	0	0
55	A7	2	Total 2	Mg 2	0	0
55	BD	1	Total 1	Mg 1	0	0
55	AO	3	Total 3	Mg 3	0	0
55	A3	1	Total 1	Mg 1	0	0
55	AF	3	Total 3	Mg 3	0	0
55	DB	2	Total 2	Mg 2	0	0

- Molecule 56 is PAROMOMYCIN (three-letter code: PAR) (formula: C<sub>23</sub>H<sub>45</sub>N<sub>5</sub>O<sub>14</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
56	CA	1	Total	C	N	O	0	0
			42	23	5	14		
56	DA	1	Total	C	N	O	0	0
			42	23	5	14		

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

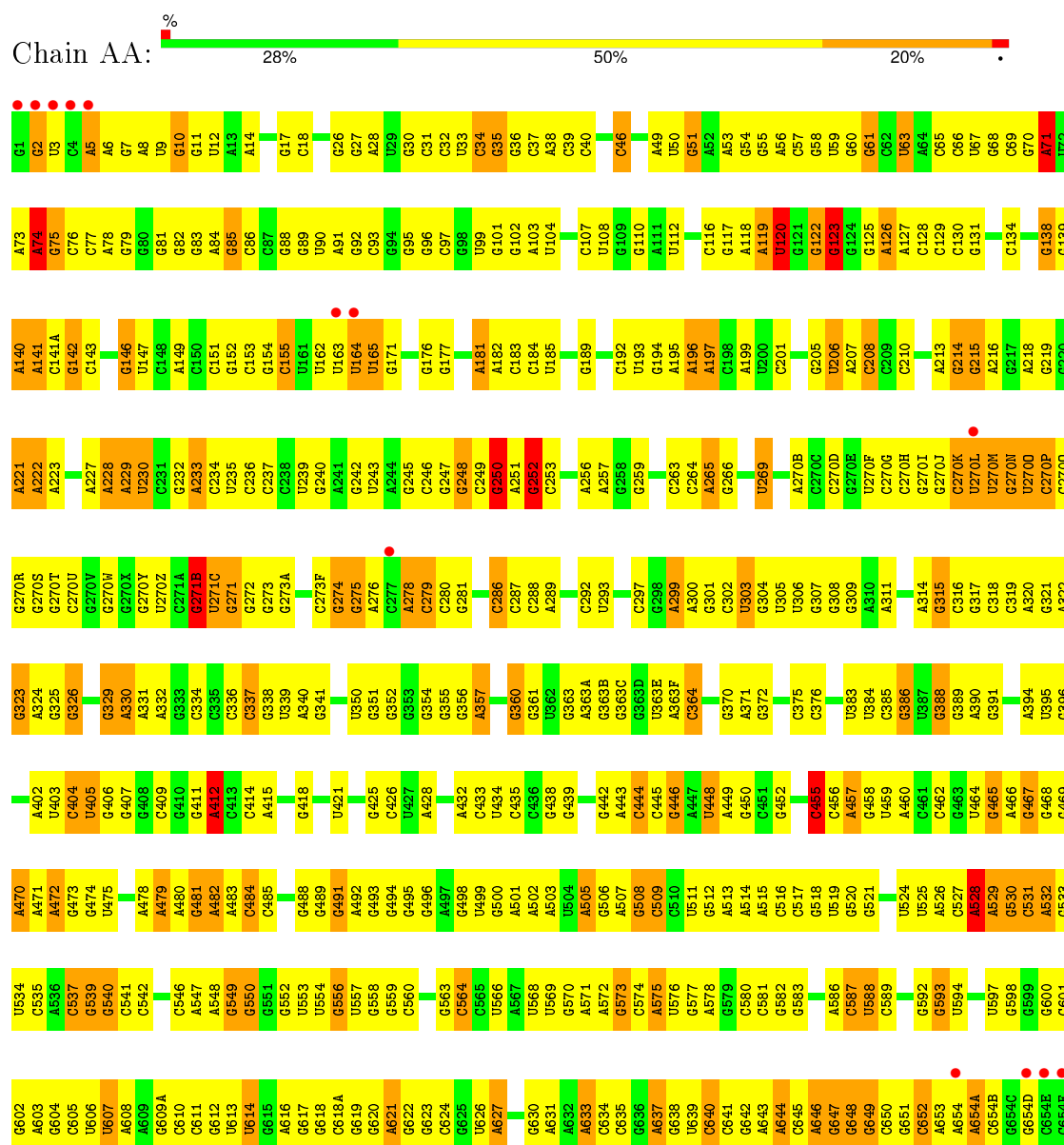
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	DG	1	Total	Zn	0	0
			1	1		
57	CQ	1	Total	Zn	0	0
			1	1		
57	DQ	1	Total	Zn	0	0
			1	1		
57	CG	1	Total	Zn	0	0
			1	1		



### 3 Residue-property plots

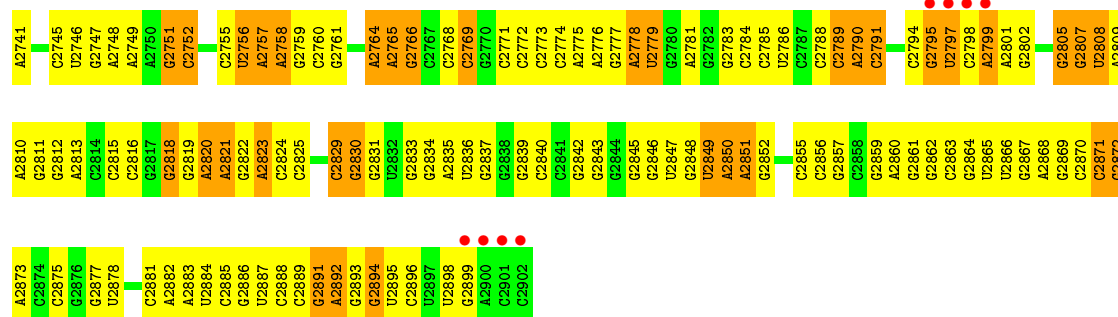
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ( $\text{RSRZ} > 2$ ). 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: RNA (2912-MER)

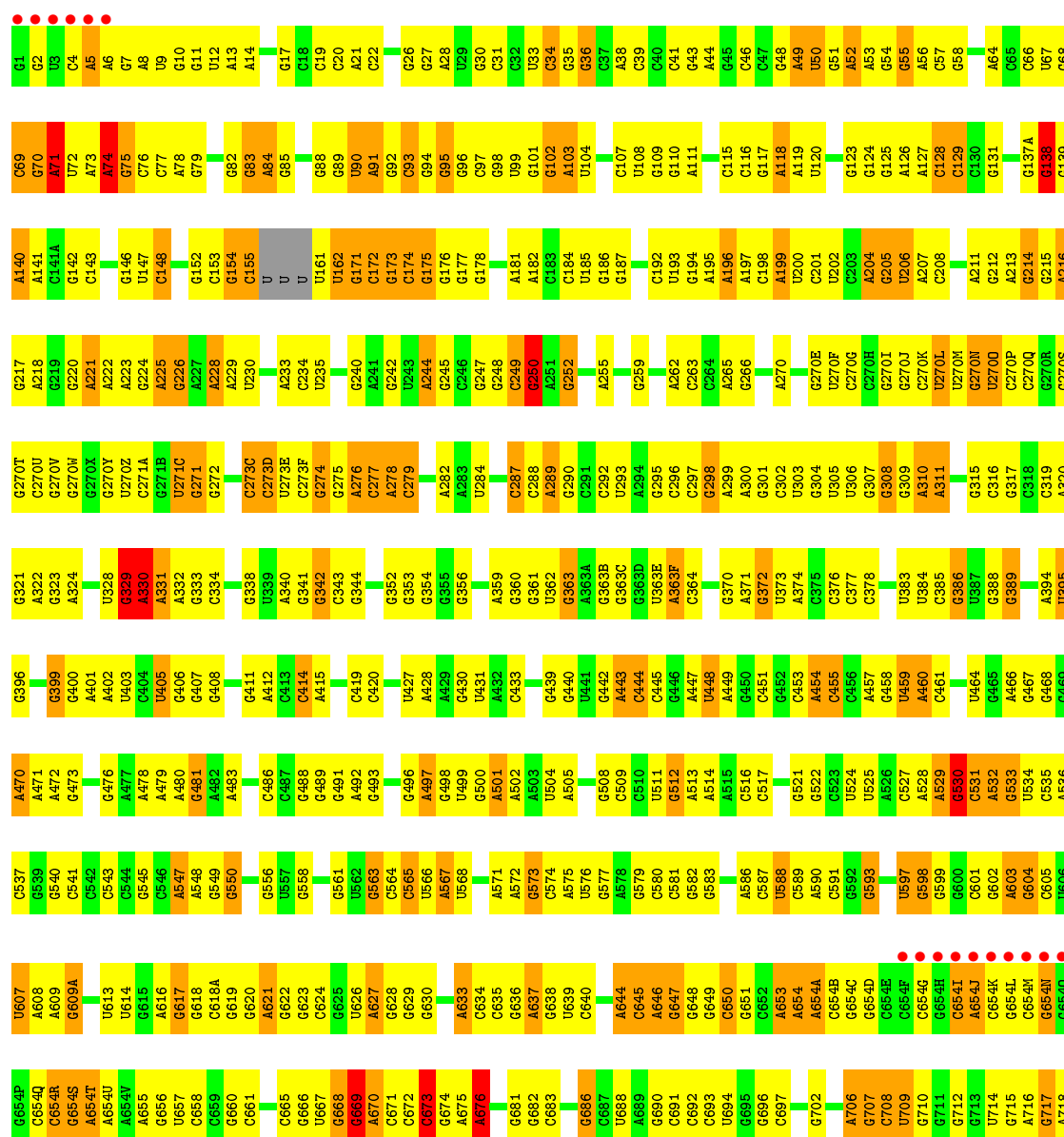






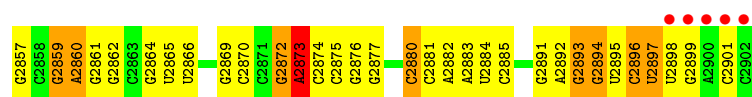


● Molecule 1: RNA (2912-MER)

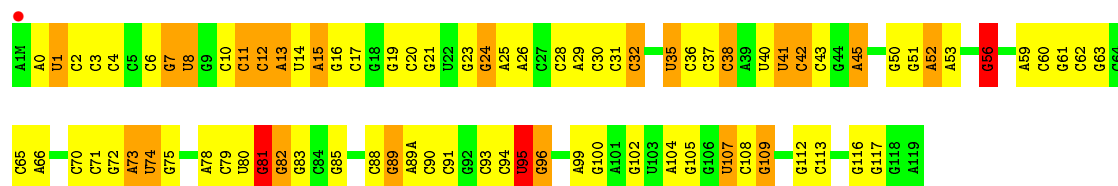




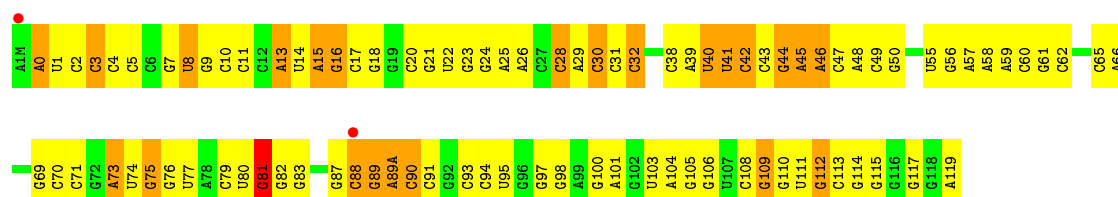
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C2787	U2720	C2648	G2576	U2511	A2434	G2367	A2304	C2236	G2160	U2099	G1964	G1888	A1802	A1732
C2788	A2721	U2649	A2577	U2512	A2435	G2368	A2305	G2237	C2161	G2100	G1965	A1889	C1802	C1733
C2789	C2722	U2650	G2578	G2513	G2436	G2371	C2306	G2238	G2162	G2099	A1966	U1805	C1734	C1735
A2790	C2723	U2651	C2579	G2514	U2437	G2372	G2307	G2239	C2163	C2103	C1967	C1893	A1810	C1741
C2791	C2724	U2652	U2580	G2515	U2438	G2373	G2308	C2240	C2164	G2104	C1968	C1894	C1811	C1742
C2794	A2725	U2653	G2581	G2516	A2439	G2374	A2309	A2241	C2165	C2105	A1969	C1895	A1812	G1743
C2795	U2726	U2654	G2582	C2517	C2440	G2375	A2310	G2242	G2166	C2107	A1970	G1896	G1746	G1747
C2796	C2727	U2655	A2583	U2519	A2441	A2376	A2311	U2244	U2167	G2108	A1971	C1897	C1813	
U2797	U2728	A2657	C2442	G2520	C2443	A2377	C2312	U2245	C2168	U2109	A1972	U1898	A1814	
C2798	C2729	U2658	U2443	U2521	G2444	A2378	C2313	U2246	A2169	G2110	A1973	U1899	A1815	
A2801	C2730	U2659	G2445	G2522	U2445	G2379	C2314	A2247	A2170	G2111	C1974	A1900	G1816	
C2802	U2731	U2660	G2446	G2523	G2446	C2381	C2315	A2248	A2171	C2112	A1981	A1901	C1817	G1750
C2803	C2732	C2663	G2447	U2524	G2447	G2382	C2317	U2249	U2172	G2113	C1982	C1902	U1818	C1752
C2804	A2733	U2664	A2448	G2525	A2448	G2383	G2318	G2250	A2173	U2114	C1983	G1903	A1819	C1753
C2805	U2734	A2665	U2449	U2526	U2449	G2384	C2319	G2251	C2174	A2211	U1984	U1906	A1820	C1754
C2806	C2735	C2666	A2450	C2527	A2450	G2385	A2320	G2252	C2175	G2115	G1985	G1907	A1821	A1755
C2807	C2736	C2667	A2451	U2528	A2451	C2386	G2321	G2253	C2177	U2116	A1986	C1908	G1822	G1756
U2808	C2737		C2452	U2529	C2452	U2387	A2322	C2254		U2117		C1909	U1826	U1757
C2809	U2738	G2672	A2453	U2530	A2453	A2388	A2323	G2255	U2180	U2118	G1989		G1827	G1758
A2810	C2739	G2673	G2454	U2531	G2454	G2389	C2324		G2181	A2119	C1990	A1913	C1827	A1759
C2812	A2740	U2601	U2532	U2532		U2390	G2325	C2258	G2182	G2120	U1991	C1914	G1828	A1760
A2813		A2602		U2537		G2391	C2326	C2259	C2183	U2122	G1992	U1915	A1829	C1761
C2814	C2744	G2603		C2538		C2392	A2327	C2260	C2184	G2123	C1993	A1916	C1830	A1762
C2815	U2745	C2606	C2466	U2539	C2467	A2393	A2328	C2261	C2185	G2124	U1995	U1833	U1833	G1764
C2816	C2746	G2607	C2468	C2540	C2468	C2394	G2329	U2262	G2186	G2125	C1996	U1834	C1765	C1765
C2817	U2747	U2608	A2469	U2541	A2469	G2395	G2330	C2263	G2187	A2126	C1997	G1835	C1767	C1767
C2818	A2748	C2609	A2470	A2542	C2470	G2396	U2331	C2264	C2188	G2127	G1998	U1923	A1763	A1763
C2819	U2749	U2610	C2471	G2543	C2471		U2332	A2268	U2189	C2128	C1999	C1924	G1766	G1766
A2820	C2751	U2611	U2472	U2544	U2472	G2400	A2333	A2269	G2190	U2130	G2000	C1925	U1775	U1775
A2821	C2752	U2612	U2473		U2473	U2401	G2334	G2270	G2191	G2131	A2001	C1926	U1841	C1771
C2822	A2753		C2474	U2547	C2474	A2403	A2335	G2271	G2192	U2132	G2002	U1926	G1842	G1772
A2823	C2754	U2615	G2475	G2548	G2475	C2404	G2336	A2272	G2193	G2133	C1843	C1927	C1773	C1773
C2824	C2755	C2616	A2476	G2549	A2476	G2405	G2337	A2273		U2134	C2007	G1929	C1774	C1774
C2825	U2756	C2617	C2477	C2551	C2477	U2406	G2338	A2274	U2197	A2135	C2008	U1930	U1776	U1776
G2833	A2758	G2618		C2552			G2339	G2276	A2198	C2136	G2009	A1848	U1777	U1777
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U2835	C2760	C2620	C2483	U2554	C2483		G2342	A2278	C2205	C2138	U2011	G1850	U1779	U1779
C2836	U2761	A2621	G2484	U2555	G2484	G2415	C2343	G2280	U2208	C2140	G2012	G1856	A1780	A1780
C2837	C2762	C2622	G2485	C2556	G2485	G2416	G2344	G2281	C2209	G2141	A2014	G1857	C1782	C1782
C2838	G2763		U2486	G2557		A2417	G2345	G2282	G2210	C2142	A2015	G1858	A1783	A1783
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C2840	A2765	C2626		C2559			G2347	G2284	U2212	C2144	U2017	U1945	A1785	A1785
C2841	C2766	A2629	G2494	U2562	G2494	U2419	G2348	C2285	U2213	C2145	C2018	U1946	A1786	A1786
C2842	C2767	G2630	G2495	U2563	G2495	A2418	G2349	C2286	U2214	C2146	A2019	U1947	A1787	A1787
C2843	C2768	G2631	C2496	C2564	C2496	G2420	C2350	A2287	G2215	C2147	A2020	G1949	C1788	C1788
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A2851	C2715	A2639	U2504	C2571	U2504	G2428	A2360	G2297	G2228	G2155	C2029	C1957	C1795	C1795
C2854	U2716	G2645	U2505	A2572	U2505	G2429	A2361	U2298	U2232	C2156	A2030	C1958	U1796	U1796
C2855	C2717	U2506	U2506	C2573	U2506	A2430	C2364	G2299	U2233	U2157	G2031	C1959	C1797	C1797
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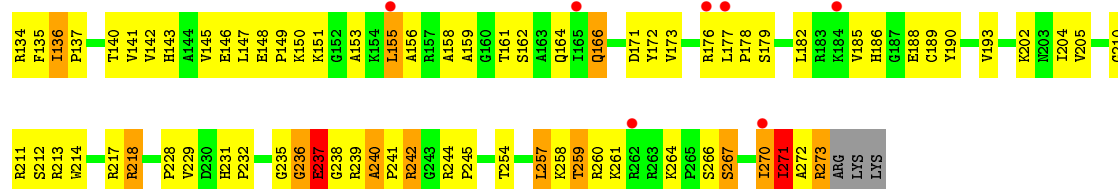
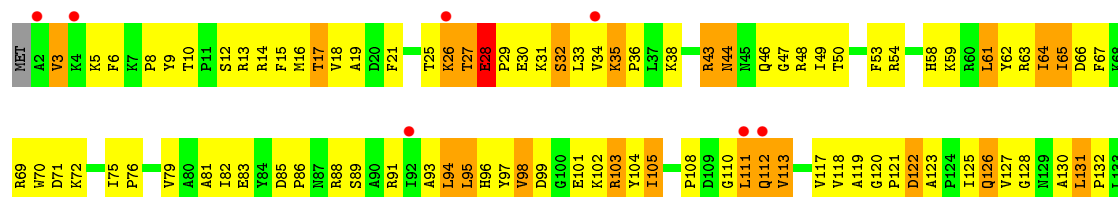
• Molecule 2: 5S RIBOSOMAL RNA



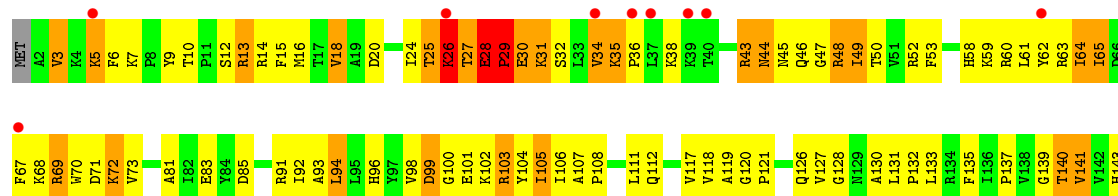
• Molecule 2: 5S RIBOSOMAL RNA

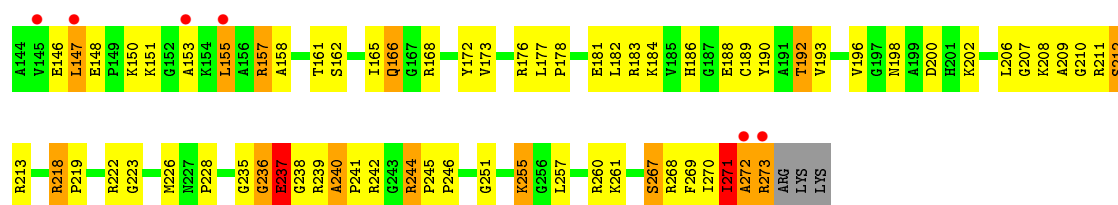


• Molecule 3: 50S ribosomal protein L2

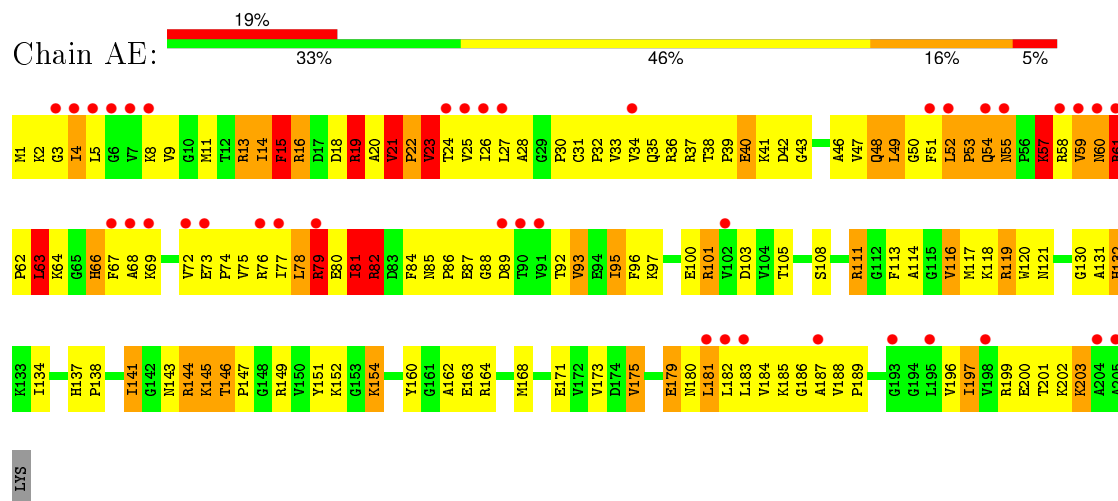


• Molecule 3: 50S ribosomal protein L2

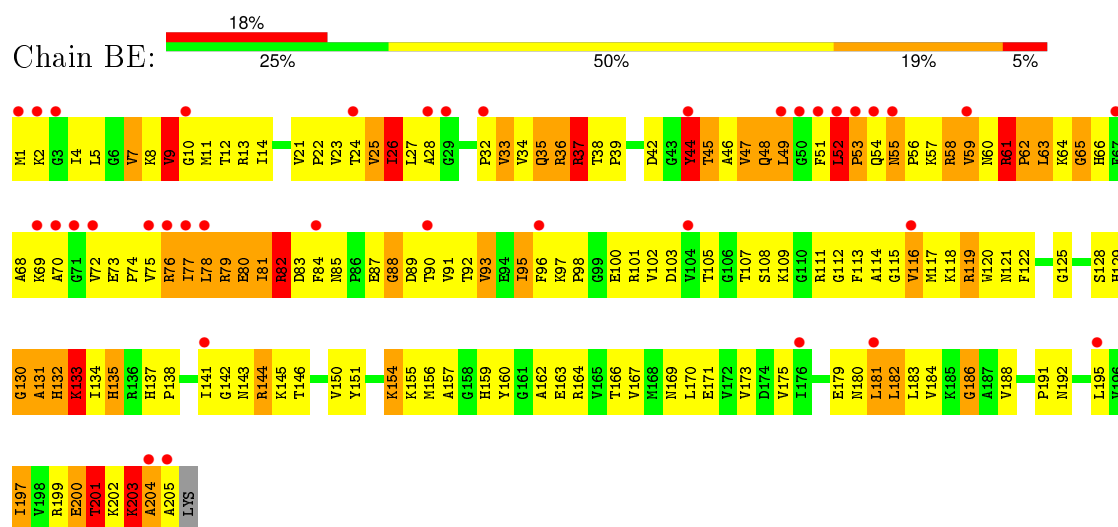




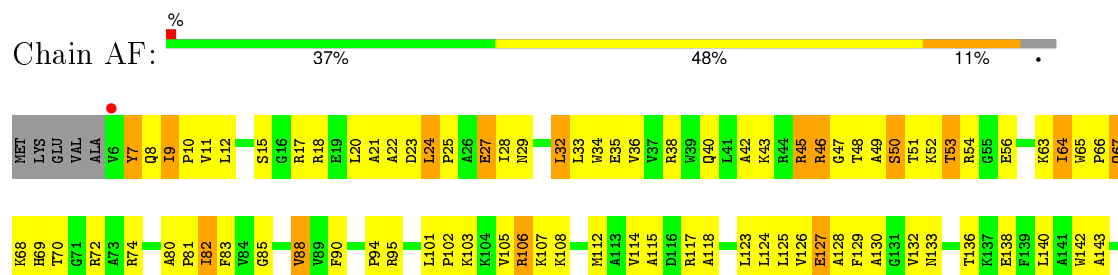
• Molecule 4: 50S ribosomal protein L3



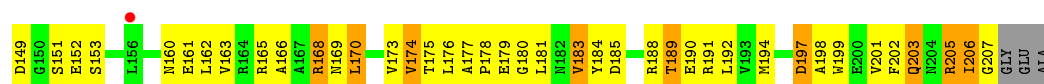
• Molecule 4: 50S ribosomal protein L3



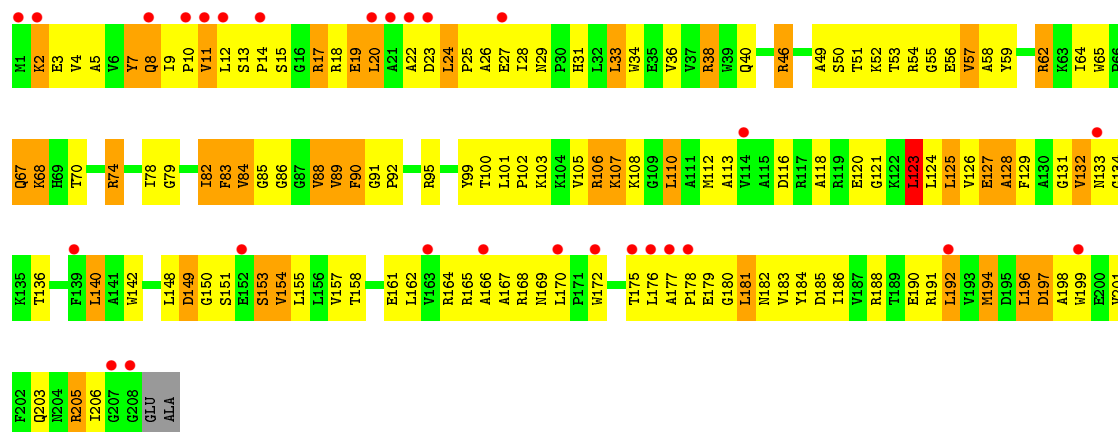
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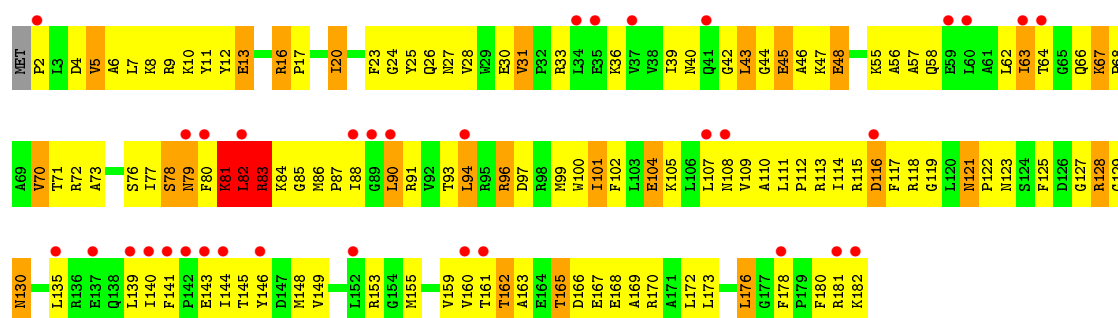




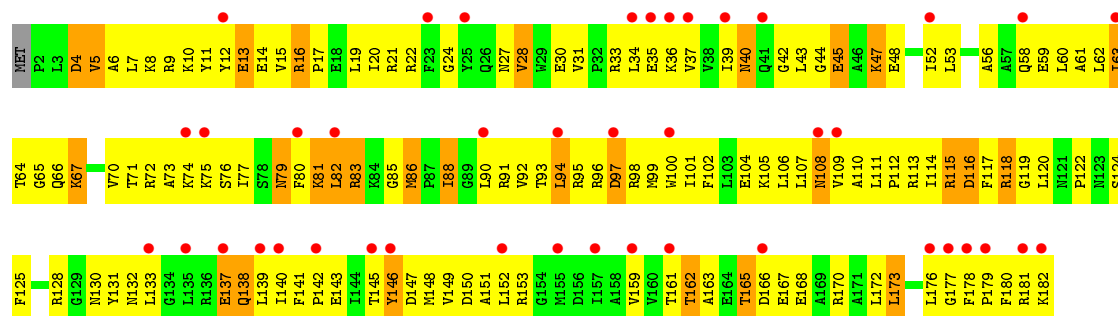
• Molecule 5: 50S ribosomal protein L4



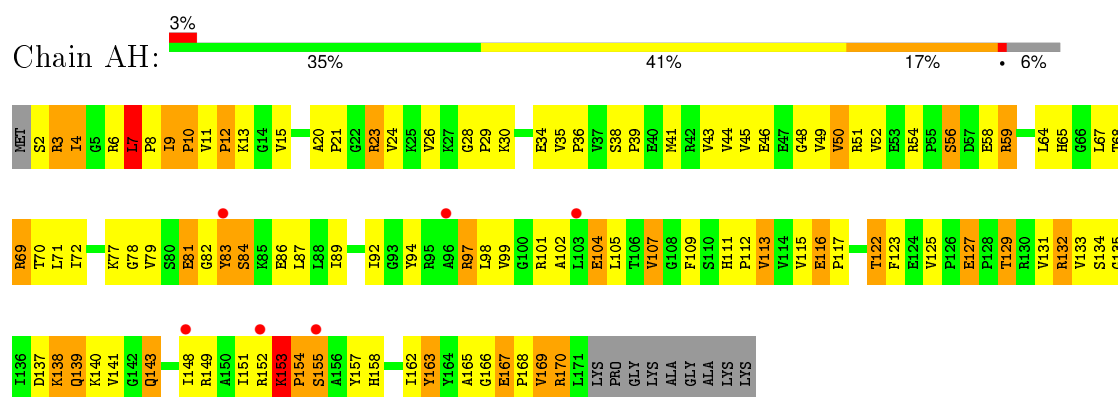
• Molecule 6: 50S ribosomal protein L5



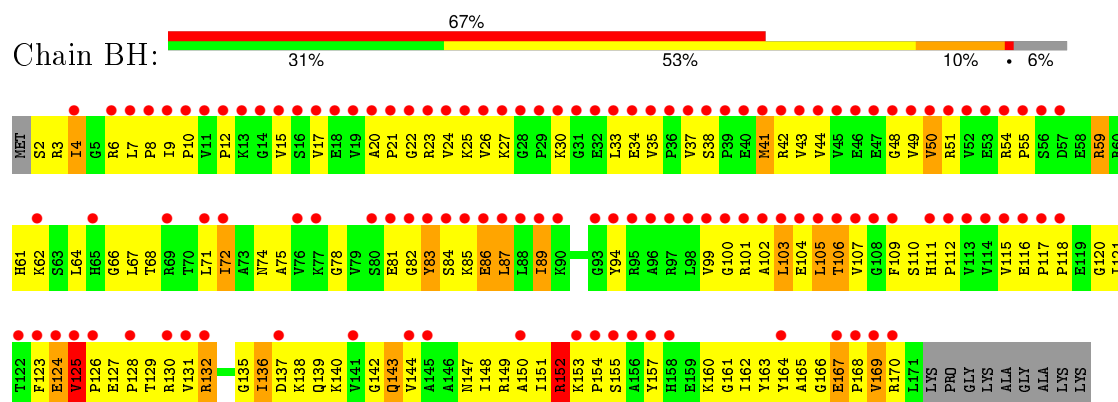
• Molecule 6: 50S ribosomal protein L5



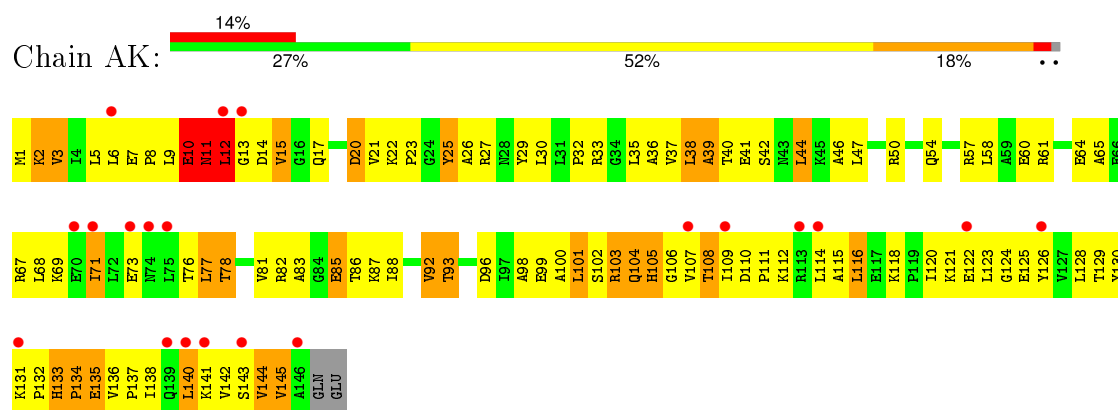
• Molecule 7: 50S ribosomal protein L6



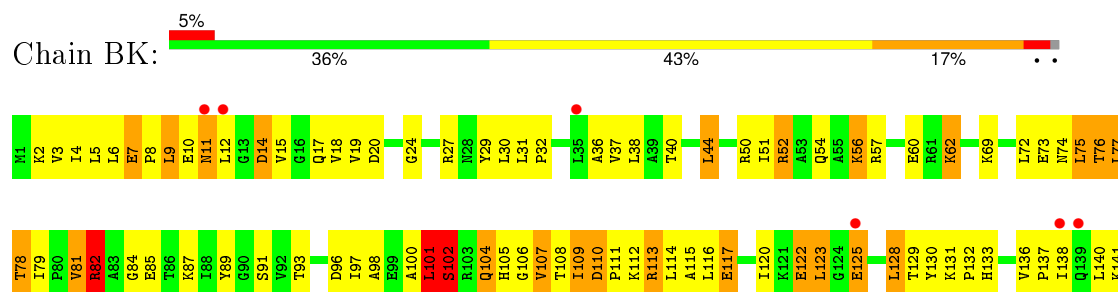
• Molecule 7: 50S ribosomal protein L6

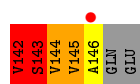


• Molecule 8: 50S ribosomal protein L9

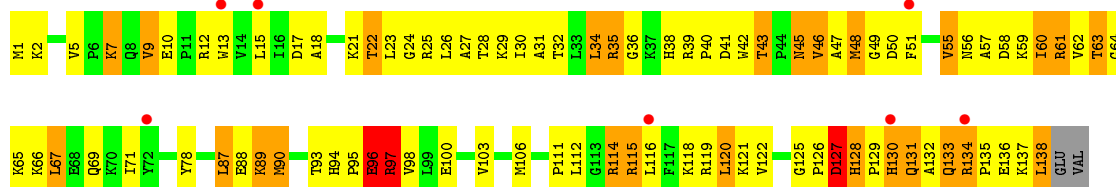


• Molecule 8: 50S ribosomal protein L9

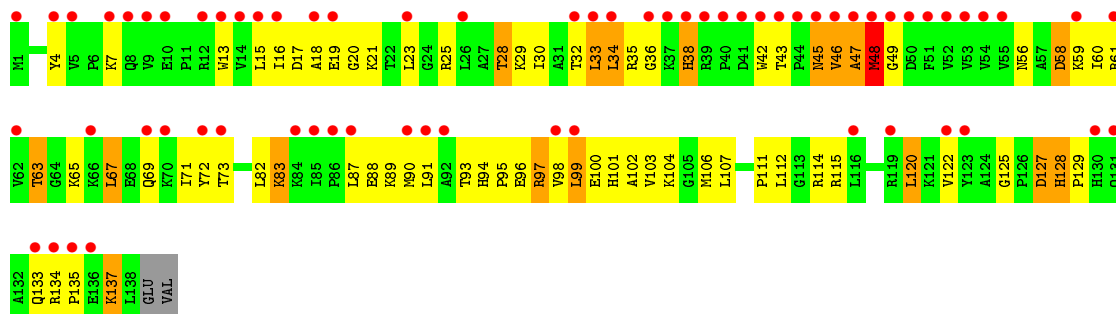




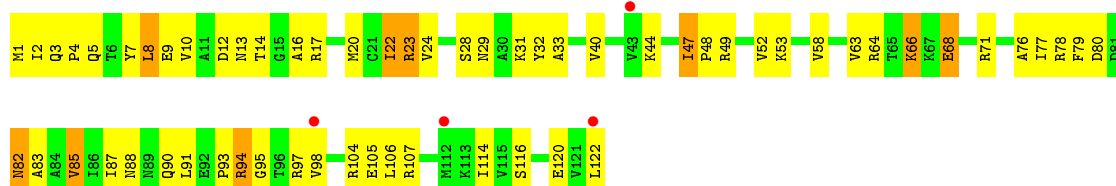
• Molecule 9: 50S ribosomal protein L13



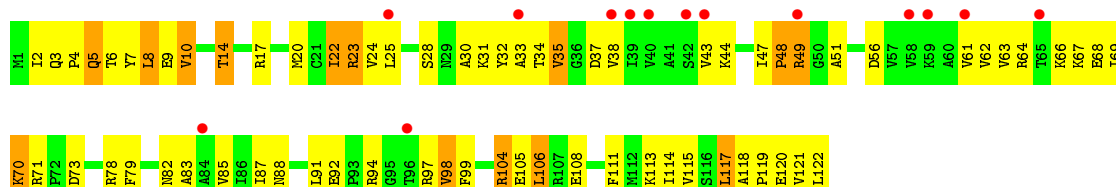
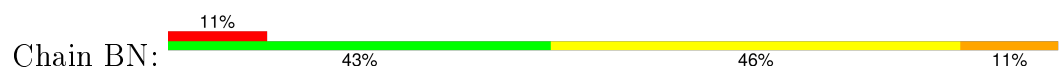
• Molecule 9: 50S ribosomal protein L13



• Molecule 10: 50S ribosomal protein L14



• Molecule 10: 50S ribosomal protein L14



• Molecule 11: 50S ribosomal protein L15

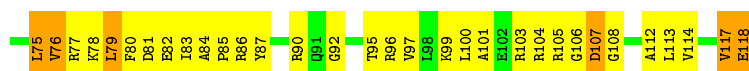
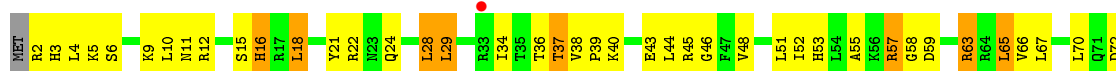




- Molecule 13: 50S ribosomal protein L17



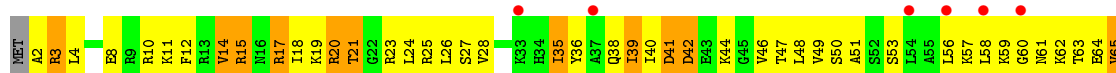
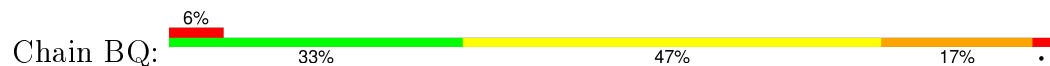
- Molecule 13: 50S ribosomal protein L17



- Molecule 14: 50S ribosomal protein L18

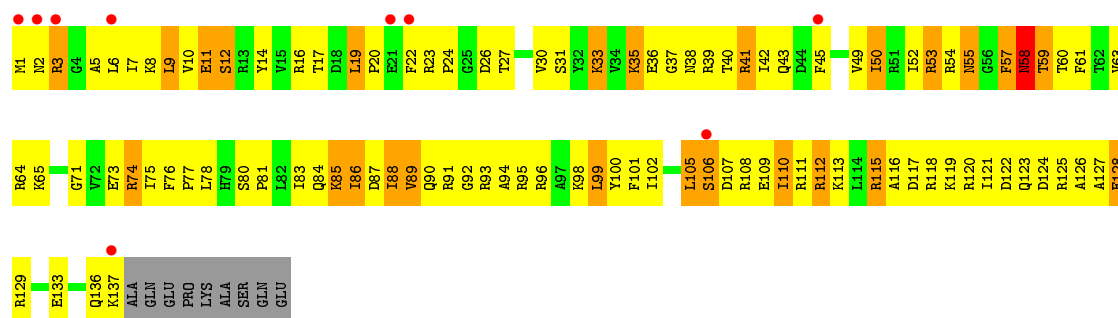


- Molecule 14: 50S ribosomal protein L18

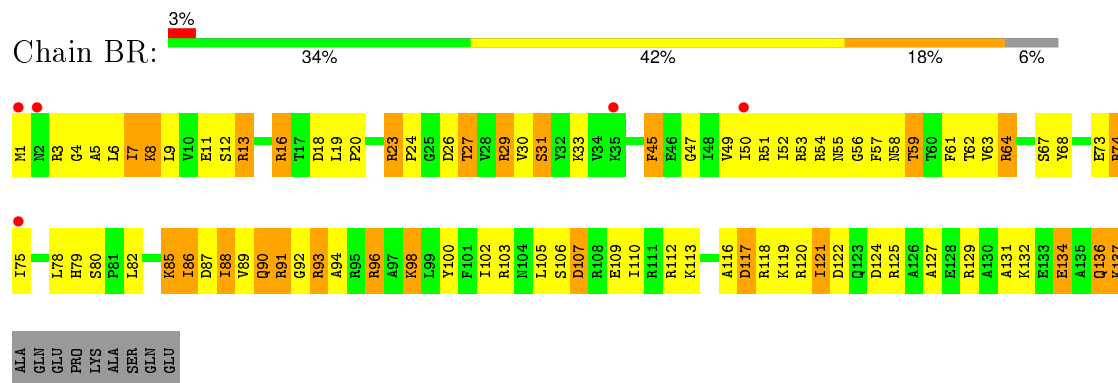


- Molecule 15: 50S ribosomal protein L19

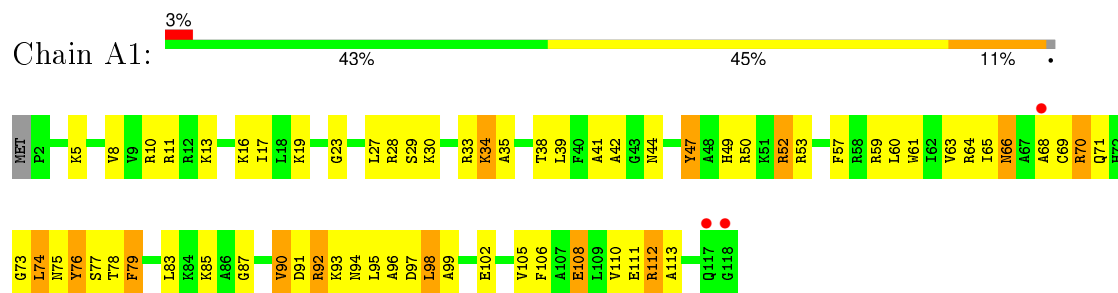




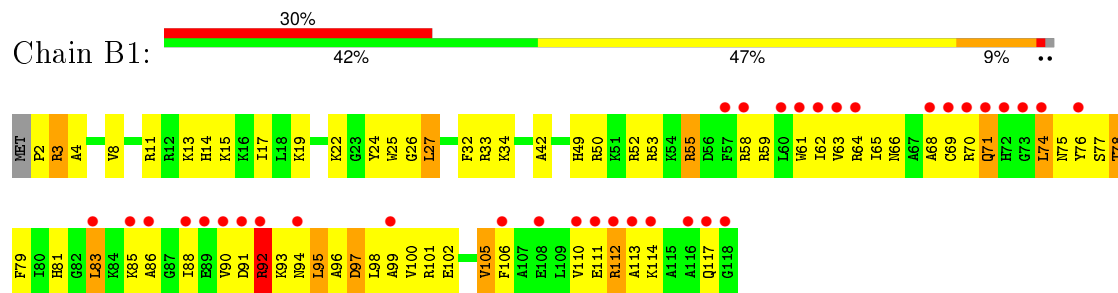
- Molecule 15: 50S ribosomal protein L19



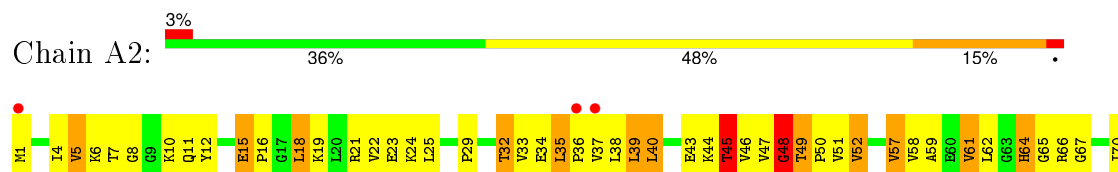
- Molecule 16: 50S ribosomal protein L20



- Molecule 16: 50S ribosomal protein L20

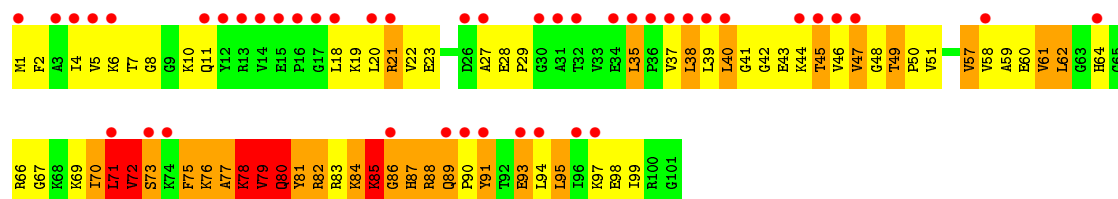


- Molecule 17: 50S ribosomal protein L21

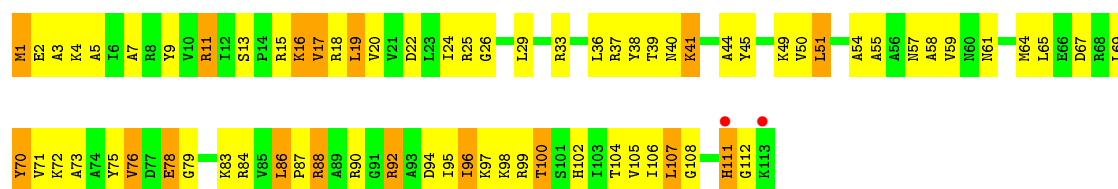




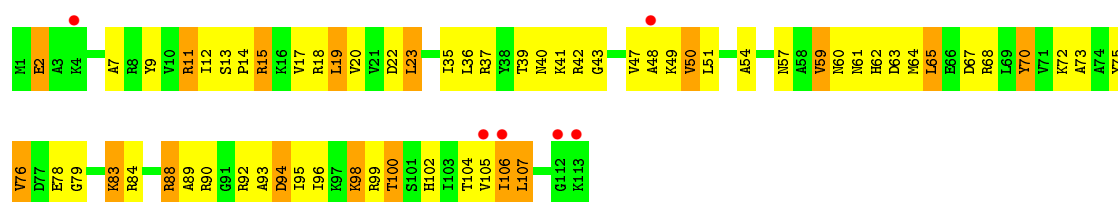
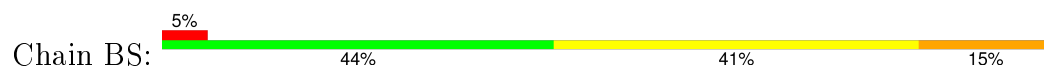
• Molecule 17: 50S ribosomal protein L21



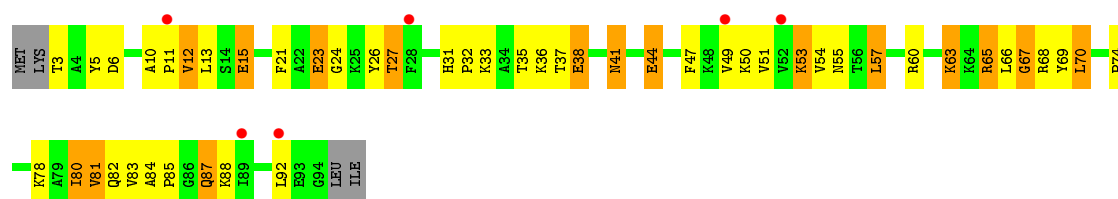
• Molecule 18: 50S ribosomal protein L22



• Molecule 18: 50S ribosomal protein L22



• Molecule 19: 50S ribosomal protein L23

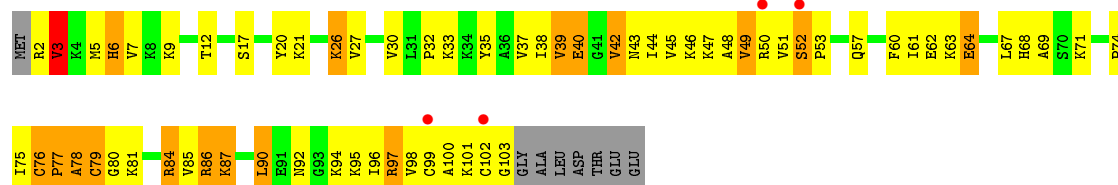


• Molecule 19: 50S ribosomal protein L23

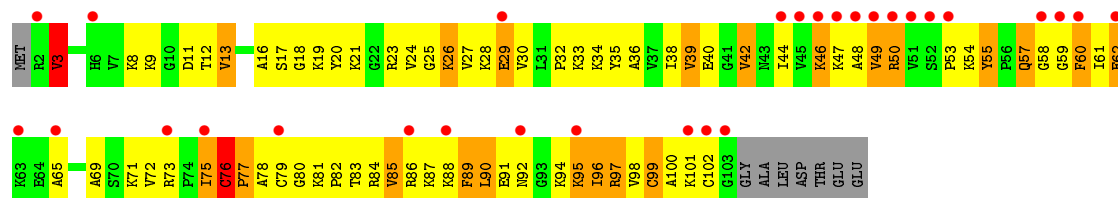




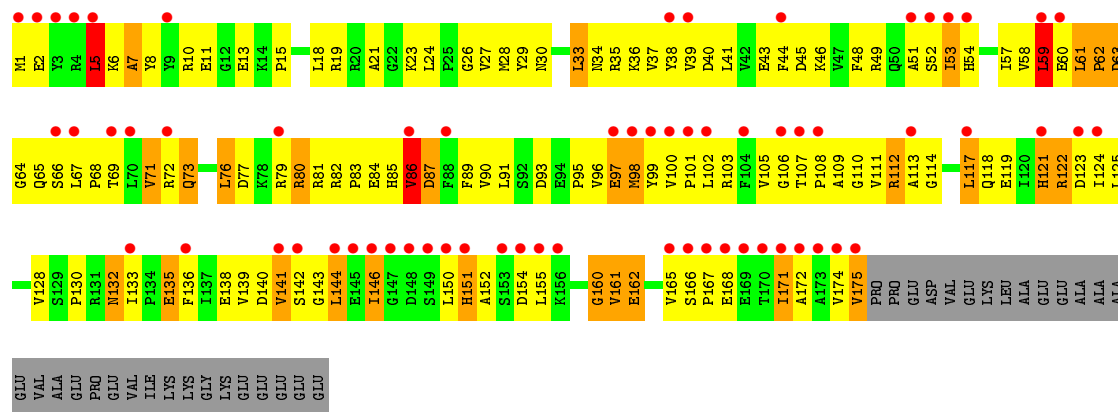
- Molecule 20: 50S ribosomal protein L24



- Molecule 20: 50S ribosomal protein L24



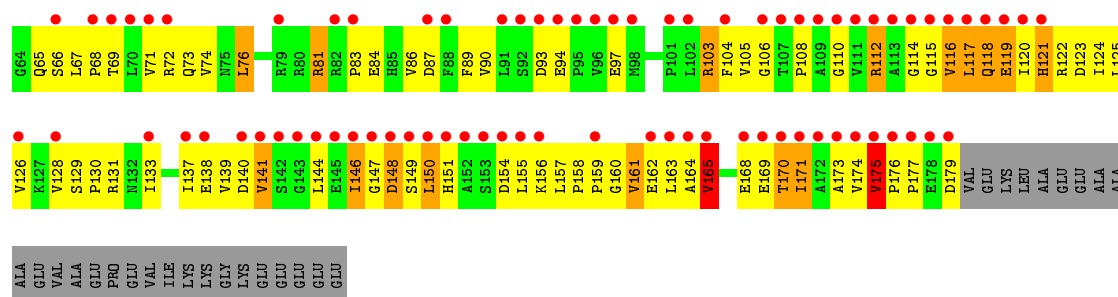
- Molecule 21: 50S ribosomal protein L25



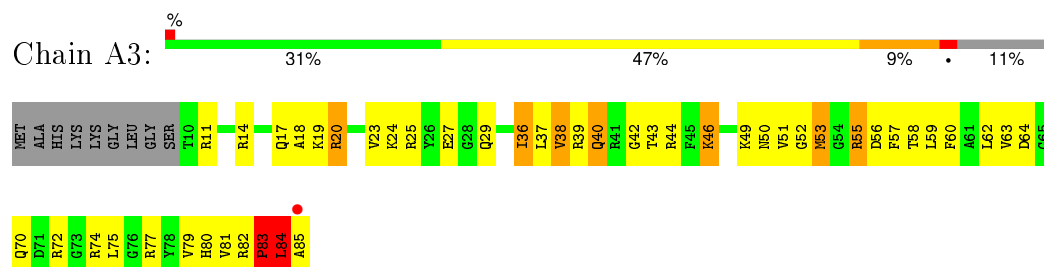
- Molecule 21: 50S ribosomal protein L25



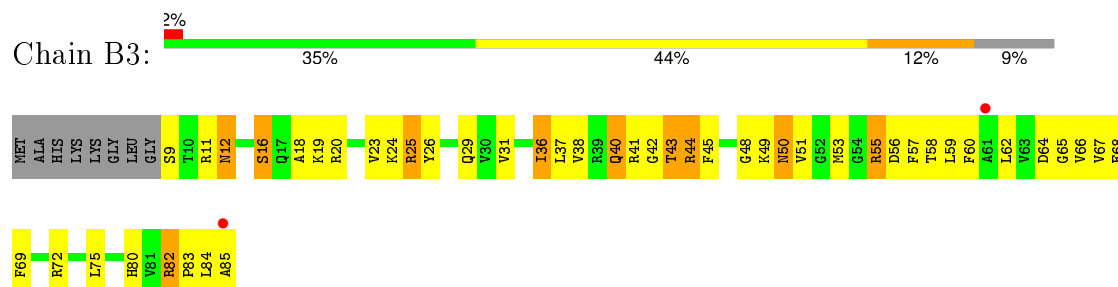




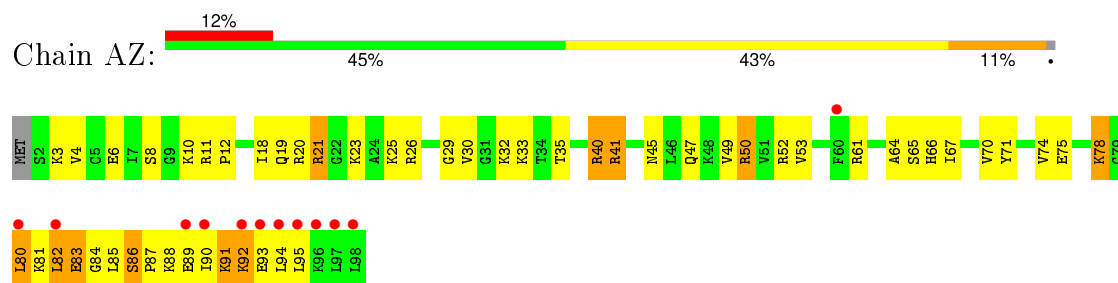
- Molecule 22: 50S ribosomal protein L27



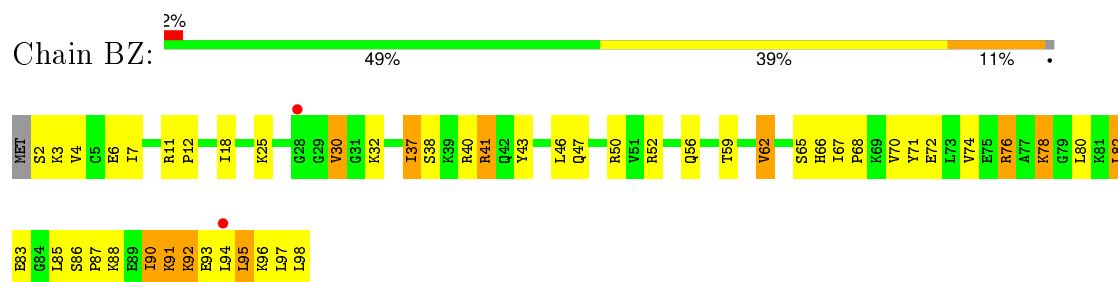
- Molecule 22: 50S ribosomal protein L27



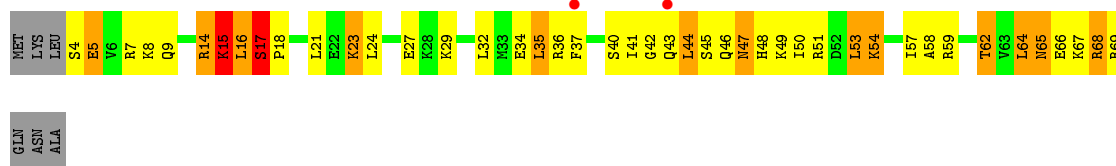
- Molecule 23: 50S ribosomal protein L28



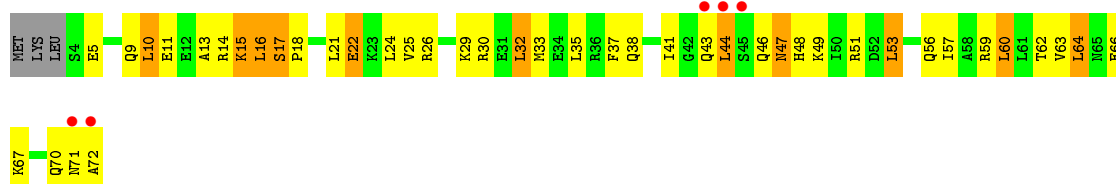
- Molecule 23: 50S ribosomal protein L28



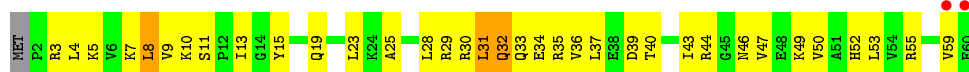
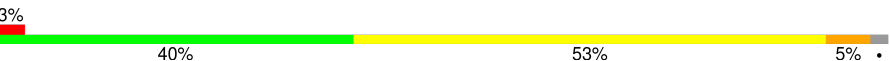
## • Molecule 24: 50S ribosomal protein L29

Chain AW: 


## • Molecule 24: 50S ribosomal protein L29

Chain BW: 

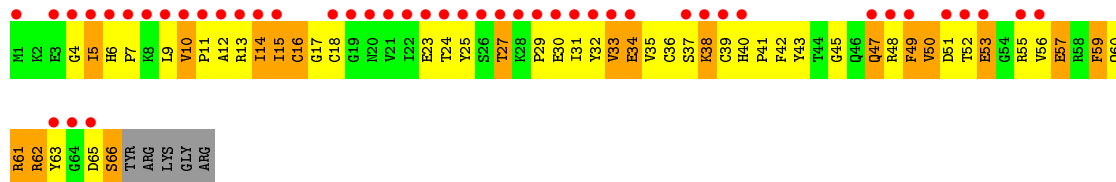

## • Molecule 25: 50S ribosomal protein L30

Chain AX: 


## • Molecule 25: 50S ribosomal protein L30

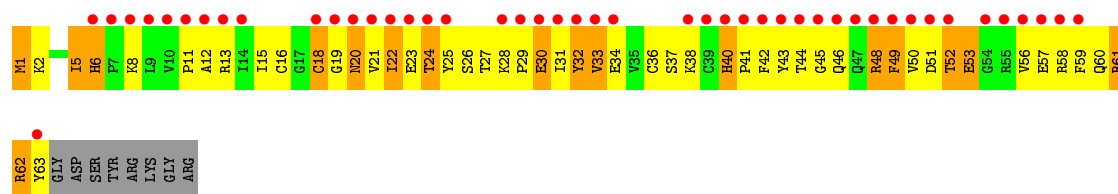
Chain BX: 

## • Molecule 26: 50S ribosomal protein L31

Chain A4: 

## • Molecule 26: 50S ribosomal protein L31

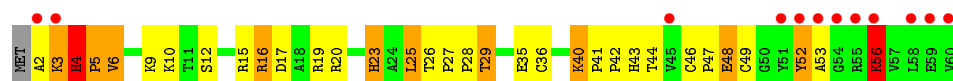
Chain B4: 



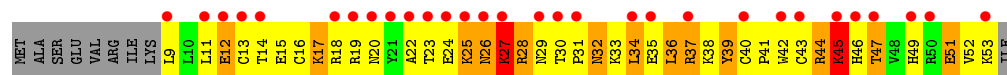
- Molecule 27: 50S ribosomal protein L32



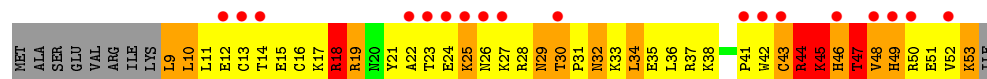
- Molecule 27: 50S ribosomal protein L32



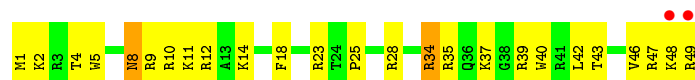
- Molecule 28: 50S ribosomal protein L33



- Molecule 28: 50S ribosomal protein L33



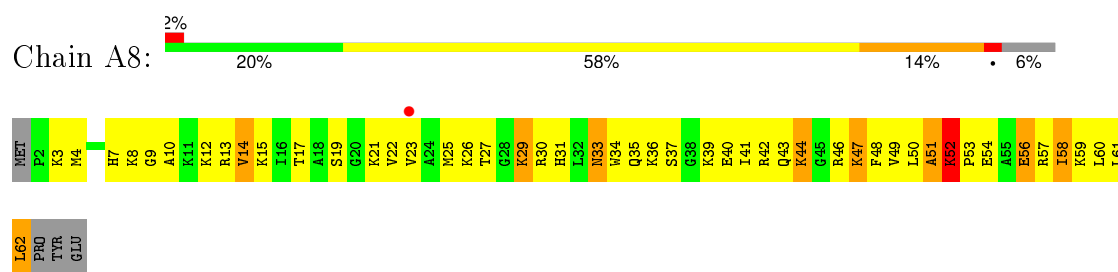
- Molecule 29: 50S ribosomal protein L34



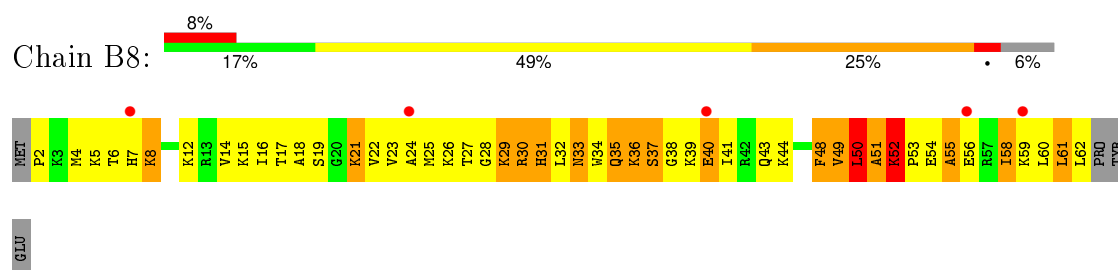
- Molecule 29: 50S ribosomal protein L34



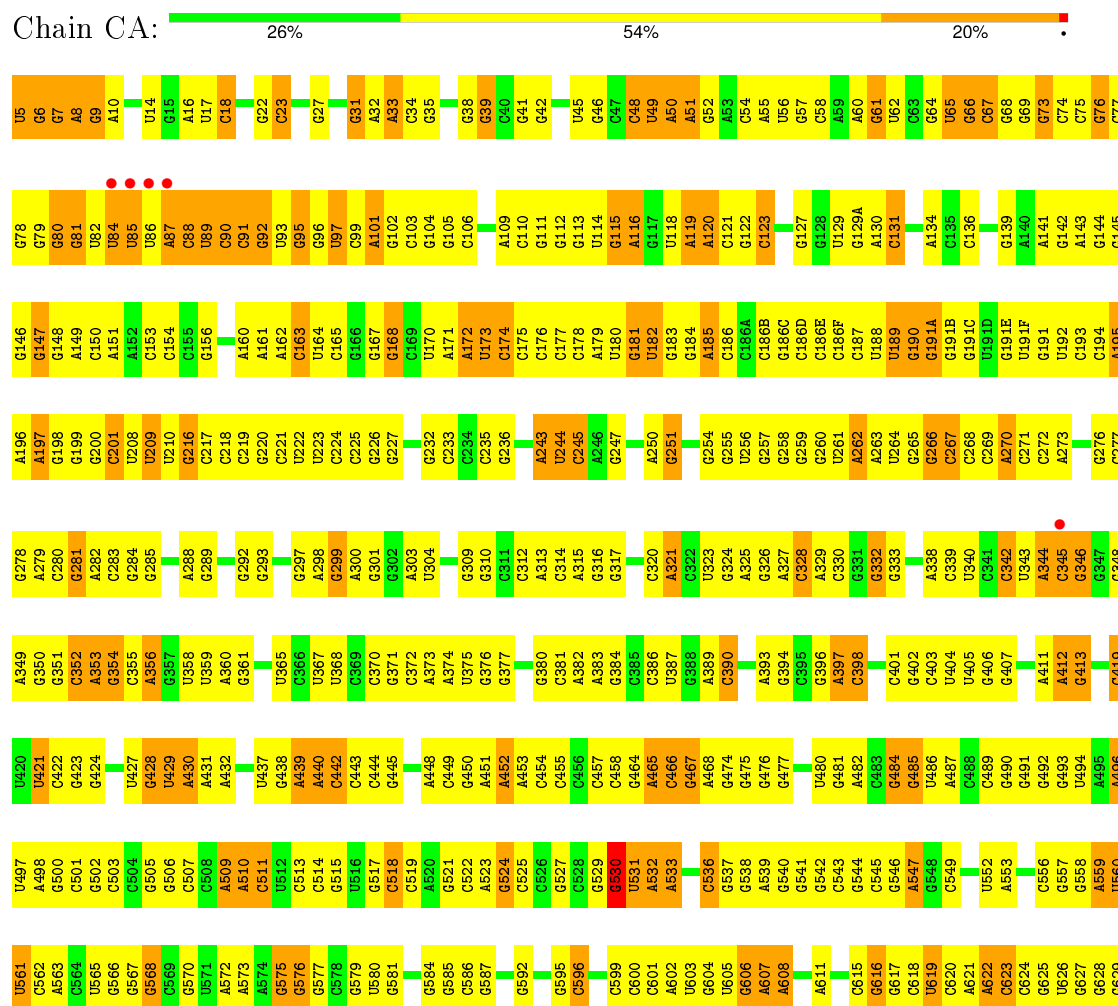
- Molecule 30: 50S ribosomal protein L35

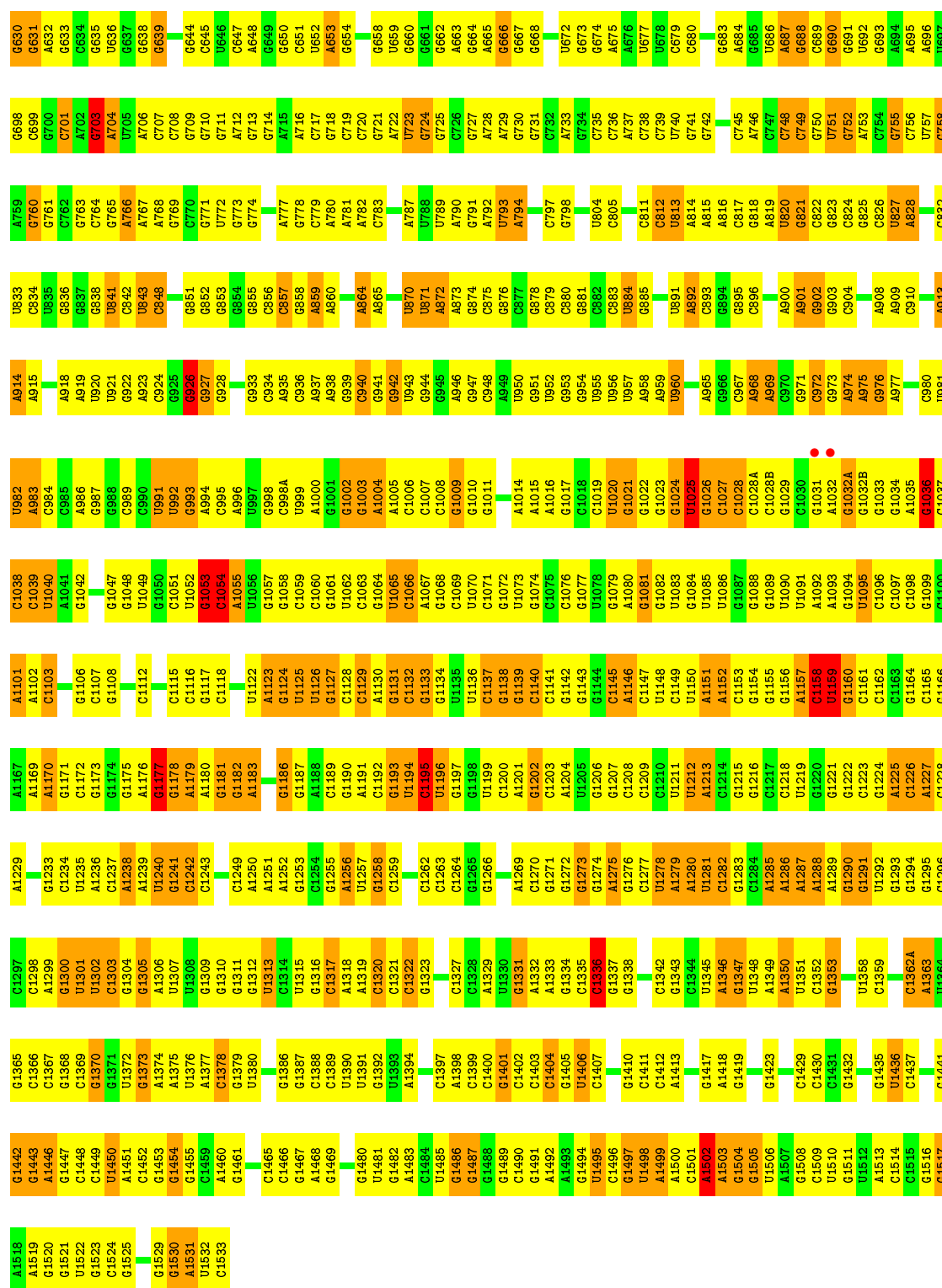


- Molecule 30: 50S ribosomal protein L35



- Molecule 31: 16S ribosomal RNA



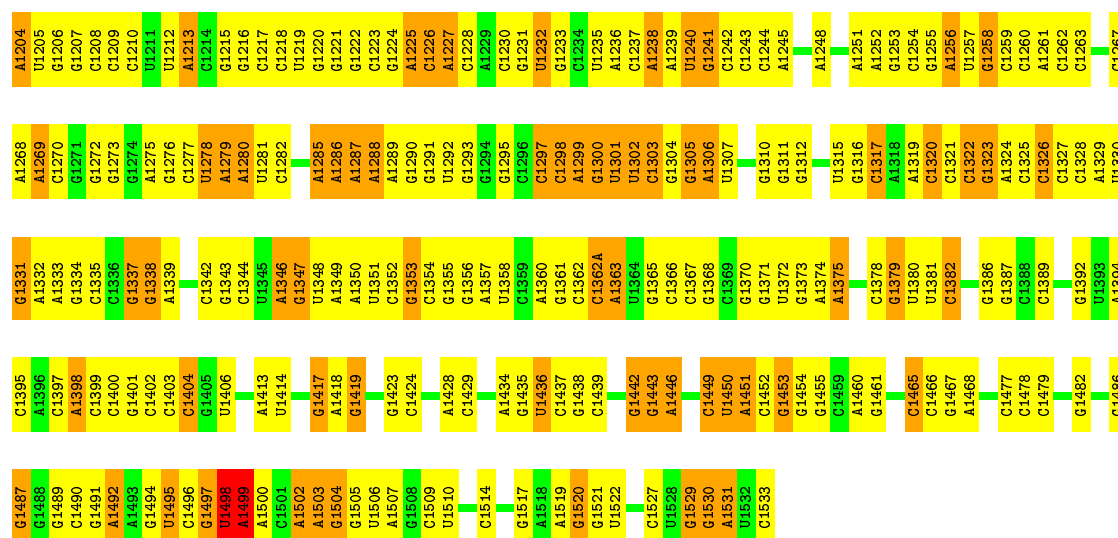


● Molecule 31: 16S ribosomal RNA

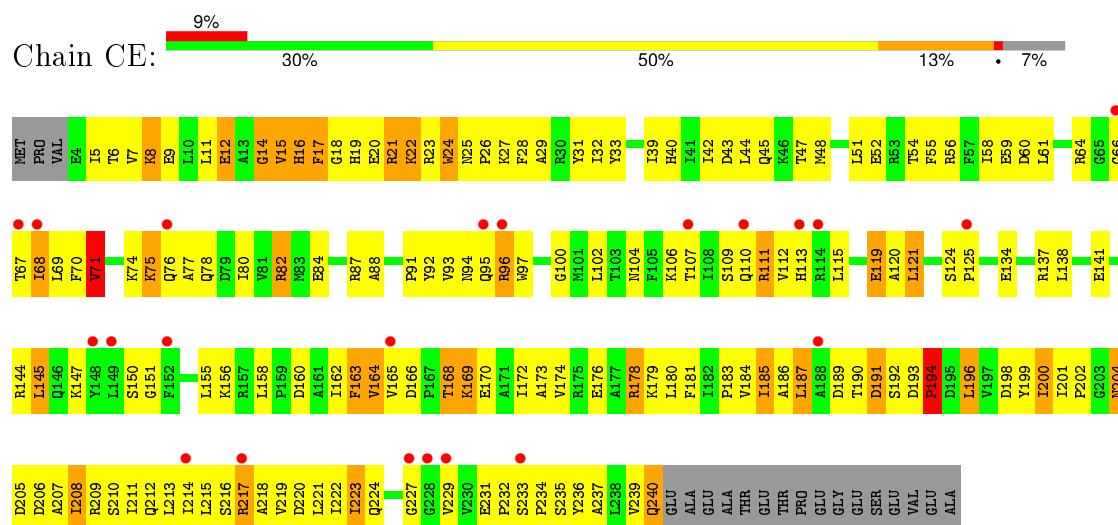
Chain DA: 29% 50% 20%



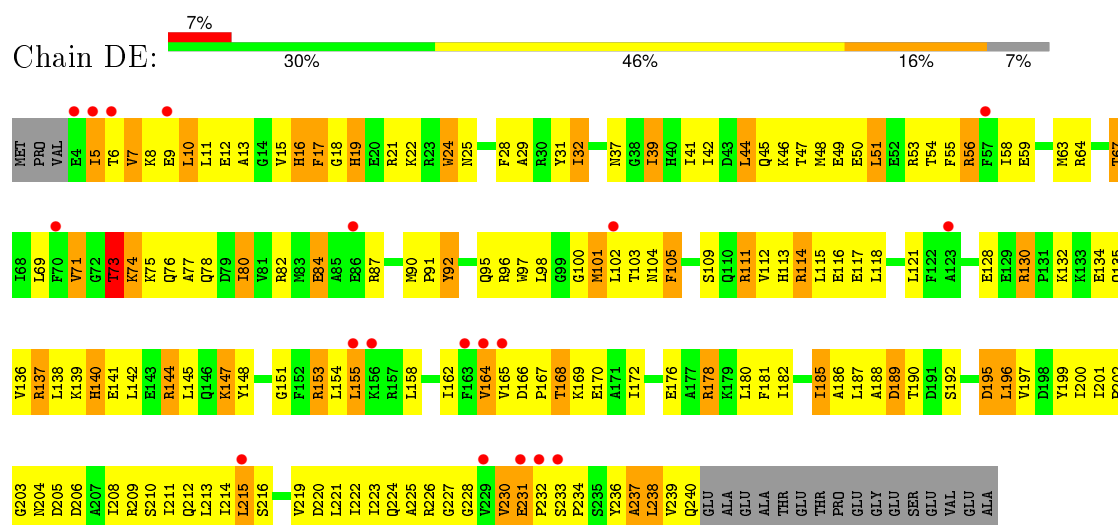
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C1140	C1019	U960	C893	A814	G742	G667	G592	G527	C444	A373	G299	C221	C154	G79
G1141	U1020	A815	G894	A816	G745	G668	G593	C528	G445	A374	A300	U222	G155	G80
G1142	G1021	C962	G895	A817	G746	U669	C596	C529	A448	U375	G301	U223	G156	G81
G1143	G1022	G963	C896	G818	A747	G673	G597	G530	A449	G376	G302	C224	G157	U84
G1144	G1023	A964	C897	G819	G748	G674	G600	U531	A450	C379	G309	C225	U85	U86
G1145	U1024	A965	G898	U820	G749	U677	G601	A532	A451	A382	C312	U229	A160	U87
G1146	U1025	G966	C899	G822	G750	U678	G604	A533	A452	A383	A313	G230	A161	U88
C1147	G1026	G967	G821	G823	G751	C680	G605	U534	A453	G384	U164	G231	A162	U89
U1148	C1027	A968	A901	C922	G752	U679	G606	A535	C457	G385	C165	C235	C166	C90
G1149	C1028	A969	G902	G824	G753	U686	G607	U536	A458	C386	G167	C236	G168	C91
U1150	G1028A	G970	A907	C825	A754	U687	A608	A539	G459	U387	C320	C241	G169	G92
U1151	C1028B	C972	A908	C826	G755	A687	A609	G540	A460	G390	A321	C242	C169	U93
A1152	G1029	G973	A909	U827	G756	G688	U609	G541	A461	A384	G316	U230	U170	A101
C1153	C1030	A974	C910	G829	G757	C689	U610	G542	A462	G391	C322	G230	A162	U87
G1154	G1031	A975	G901	G830	G758	G690	G612	G543	A463	G392	A323	U244	C163	U88
G1155	A1032	A976	A913	G831	A759	G691	G613	G544	C457	A397	G324	C245	C165	C90
G1156	G1032A	A977	A914	U831	G760	U692	A614	G545	A458	A398	G325	C246	G166	C91
A1157	G1032B	A978	A915	C832	G761	G693	C615	G546	G464	G399	G326	G247	G167	G92
C1158	G1033	C979	U920	G836	G762	G694	C616	G547	A465	G402	A327	C248	G168	G95
U1159	G1034	U921	U921	G837	G763	A695	G617	A547	A466	G403	A328	C249	C169	U93
G1160	A1035	U981	U922	G838	G764	A696	C618	U550	A467	U404	G332	G254	U173	G105
C1161	G1036	U982	G923	G839	A765	A703	C619	U551	G474	U405	G333	G255	C174	C106
C1162	C1037	A983	C924	U841	A766	A704	A621	U552	G475	G406	G334	G256	C175	G107
C1163	C1038	C984	G925	U842	A767	C707	A622	U553	G476	G407	A338	U257	C176	G108
A1170	U1040	C985	G926	U843	A768	G708	C623	C554	G477	C403	A339	G258	C177	G109
G1171	A1041	A986	G927	U844	G769	G709	C624	C555	A478	G404	U340	G259	C178	A109
C1172	G1042	G987	G928	C949	C770	G710	C625	C556	G479	U404	G332	G254	C179	C110
G1173	C1043	G988	G929	C950	C771	G711	C626	G557	G480	U405	G333	G255	C180	G111
G1174	A1044	C989	G930	U851	G772	G712	U626	G558	G481	G406	G334	G256	C181	G112
G1175	C1045	C990	C931	G852	G773	G713	G627	G559	G482	G407	A338	G257	C182	G113
A1176	A1046	U991	C932	G853	G774	G714	G628	A959	G483	G408	U340	G258	C183	U114
C1177	G1047	U992	G933	G854	G775	G715	G629	U560	G484	G409	G341	G259	C184	G115
A1178	C1113	G993	G934	G855	G776	G716	G630	U561	G485	G410	G342	G260	C185	G116
A1179	C1114	A994	C935	G856	G777	A715	G631	C562	G486	G411	C343	G261	C186	G117
G1180	G1115	C995	A935	C857	G778	A716	A632	A563	G487	G412	C344	G262	C187	G118
G1181	U1052	A996	C936	C857	C779	U719	A633	C564	G488	G413	C345	G263	C188	G119
G1182	G1053	U997	A937	G858	A780	C720	C634	G567	A489	U420	G350	C264	G191A	G120A
A1183	C1054	G998	A938	A859	A781	G721	G635	G568	U490	U421	G351	C265	G191B	G120B
G1184	A1055	C998A	G939	A860	A782	A722	U636	C569	A498	G422	C352	C271	G191C	G120C
G1185	U1056	U999	C940	G861	U783	U723	C647	G570	G500	G423	C353	C272	G191D	G120D
G1186	G1057	A1000	G941	C862	U784	U724	A648	U571	G501	G424	C354	A273	G191	G121
G1187	G1058	G1001	G942	U863	U785	G725	G649	A572	G502	U425	C355	A274	G192	G122
A1188	C1059	G1002	U943	U864	U786	G726	G650	A573	G503	G426	A356	G278	G193	G123
C1189	G1060	G1003	G944	G869	A790	C727	G651	A574	C504	U427	G357	A279	C193	G124
G1190	G1061	U1025	G945	U870	G791	G727	C652	G575	G505	G428	U358	A280	C194	A134
A1191	U1062	A1005	A946	U871	A792	A728	U652	G576	A509	U429	U359	G281	A195	G131
C1192	C1063	C1006	G947	A872	U793	A729	A653	G577	A510	G430	G361	A282	A196	G132
G1193	G1064	C1007	C948	A873	A794	G730	G654	G577	A511	C433	G362	G283	A197	G133
U1194	U1065	G1008	A949	G874	G795	C731	A655	U580	C511	C434	A363	C284	G198	A141
C1195	C1066	U1009	U950	C877	G800	C732	C656	U581	U512	U434	A364	G285	C201	G142
U1196	A1067	G1010	G951	C878	U801	G734	G657	U582	C513	C435	U365	G286	G208	G143
G1197	G1068	G1011	U952	C879	A802	C735	G660	A583	U516	C436	C366	G287	U209	G144
G1198	C1069	U1012	G953	C879	G803	C736	G661	G584	G517	U437	U367	A288	U210	G145
G1199	G1134	G1013	G954	C883	U804	A737	G662	G587	C518	G438	U368	G289	G216	G146
C1200	C1071	A1014	U955	U883	U804	A738	A663	G587	A439	G439	C369	G290	G217	A149
A1201	U1072	A1015	U956	U884	C811	C739	A664	G587	A440	C440	C370	U296	C218	C150
G1202	U1073	U885	U957	U885	C812	U740	A665	C590	A520	C442	G371	G297	C219	A152



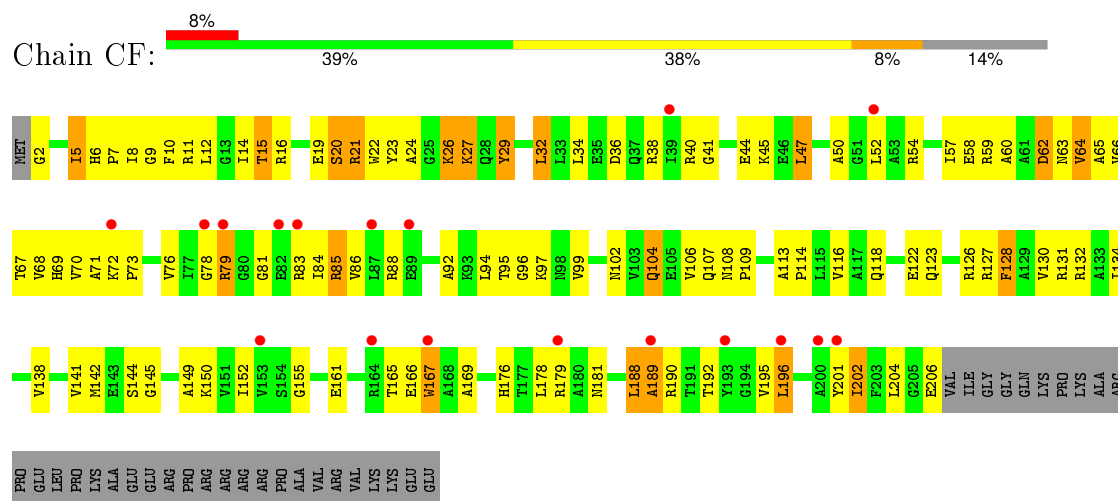
### • Molecule 32: 30S RIBOSOMAL PROTEIN S2



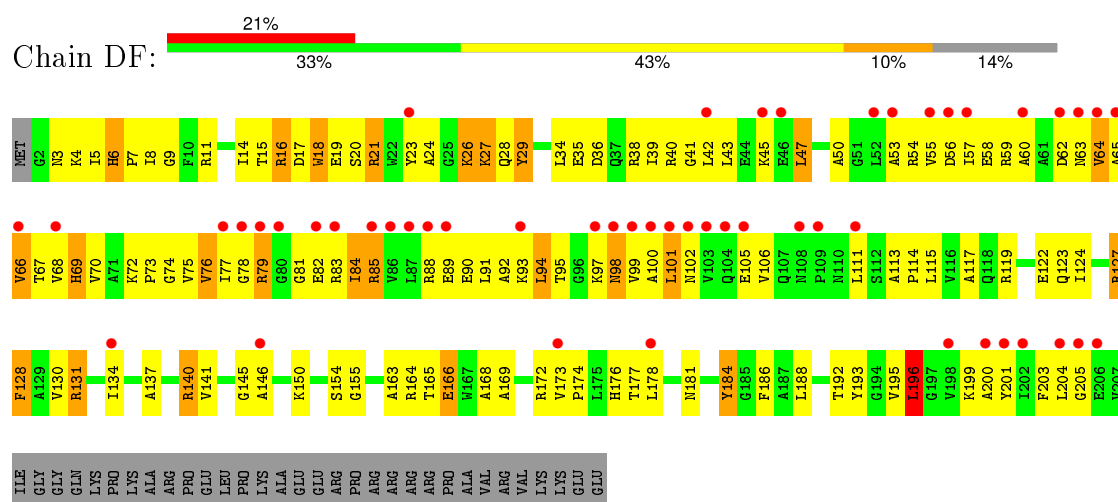
### • Molecule 32: 30S RIBOSOMAL PROTEIN S2



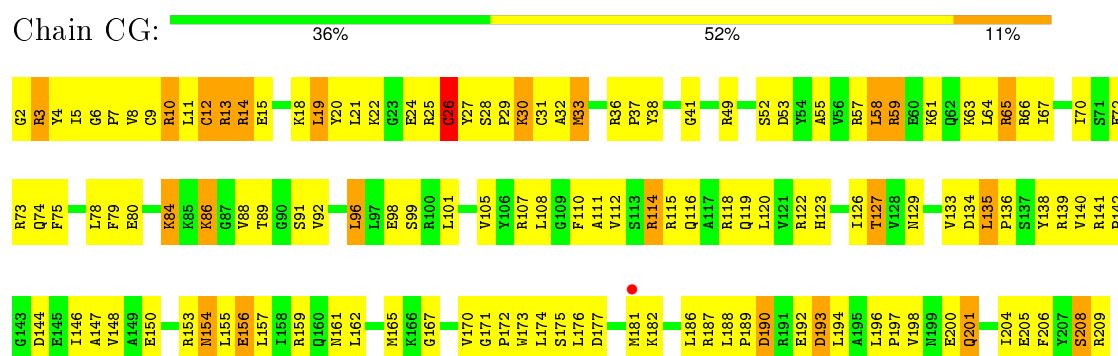
- Molecule 33: 30S RIBOSOMAL PROTEIN S3



- Molecule 33: 30S RIBOSOMAL PROTEIN S3



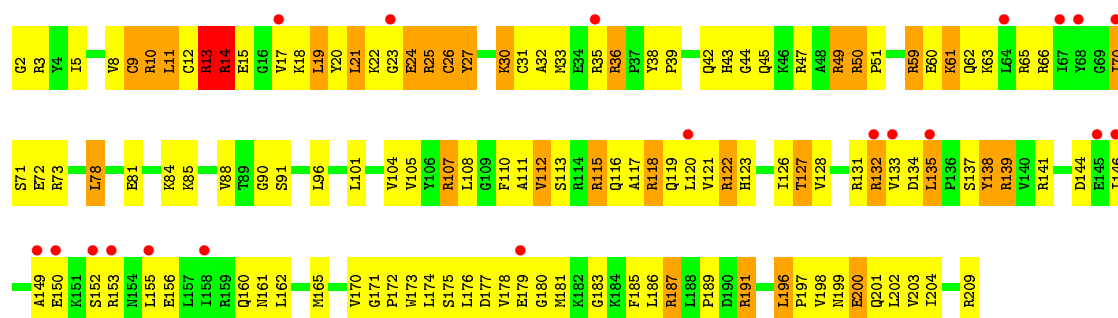
- Molecule 34: 30S RIBOSOMAL PROTEIN S4



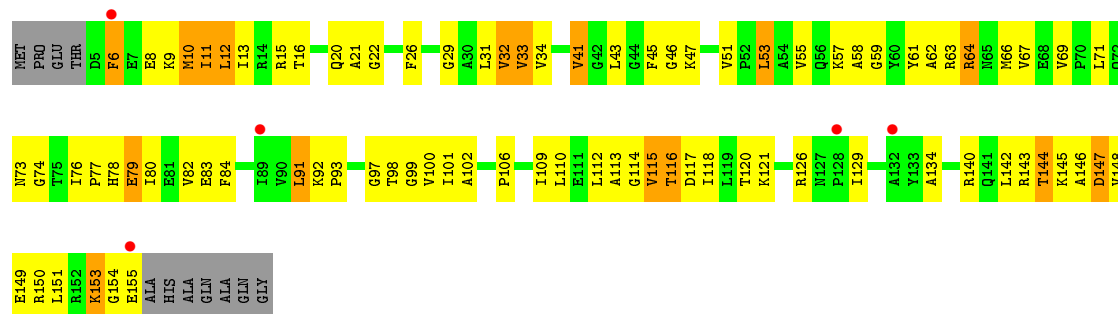
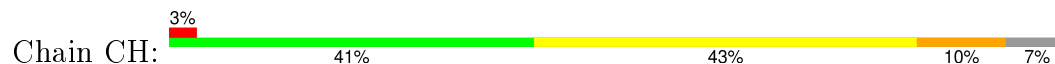
- Molecule 34: 30S RIBOSOMAL PROTEIN S4



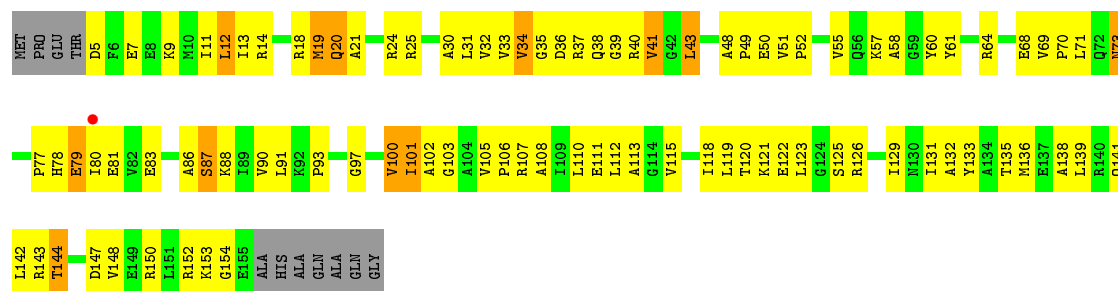




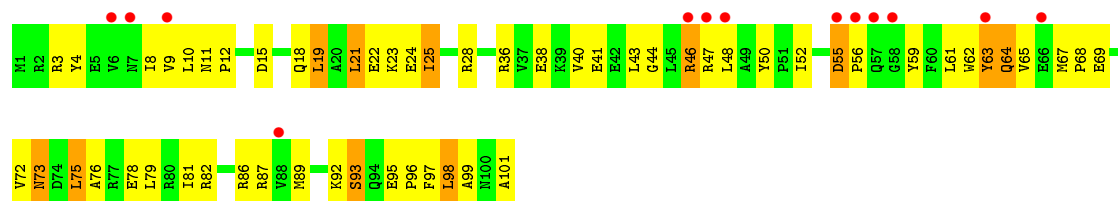
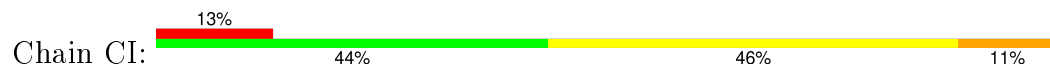
• Molecule 35: 30S RIBOSOMAL PROTEIN S5



• Molecule 35: 30S RIBOSOMAL PROTEIN S5

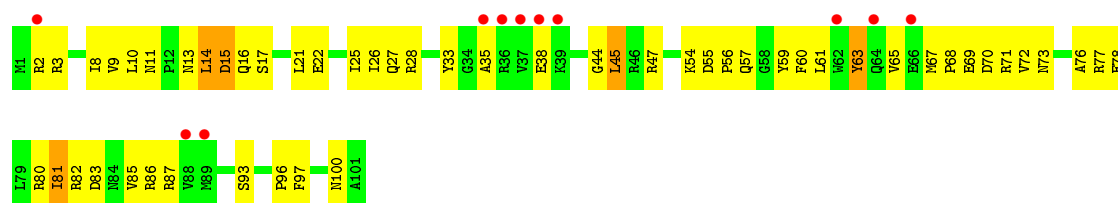


• Molecule 36: 30S RIBOSOMAL PROTEIN S6

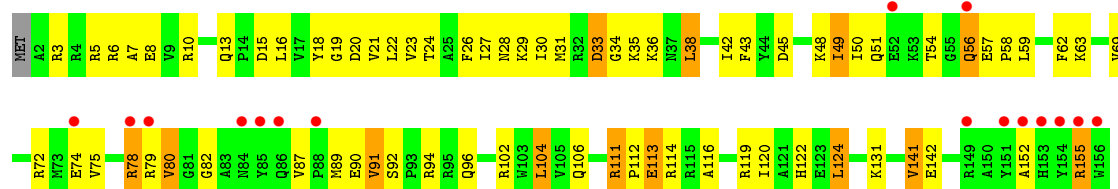


• Molecule 36: 30S RIBOSOMAL PROTEIN S6

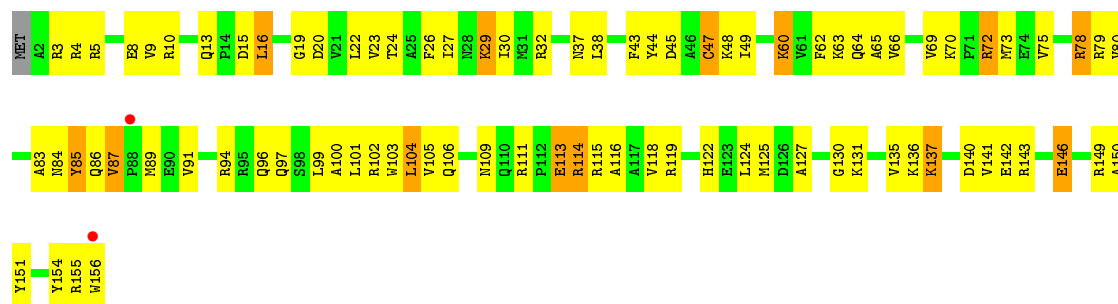
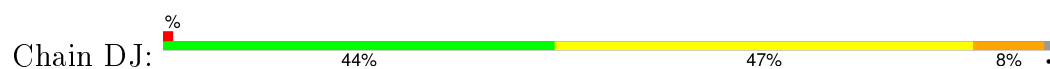




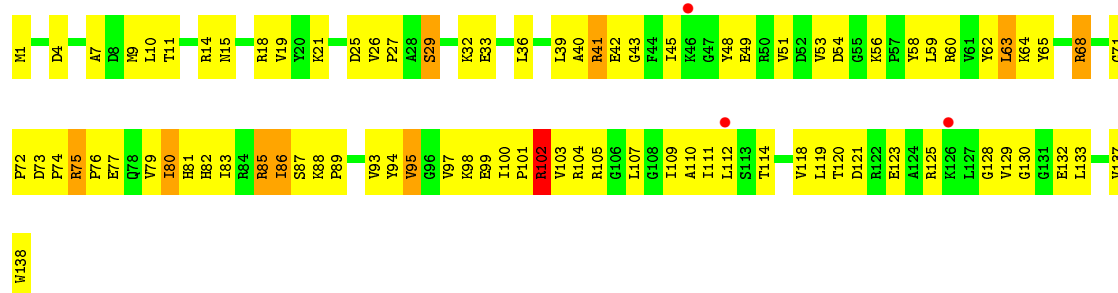
• Molecule 37: 30S RIBOSOMAL PROTEIN S7



• Molecule 37: 30S RIBOSOMAL PROTEIN S7



• Molecule 38: 30S RIBOSOMAL PROTEIN S8

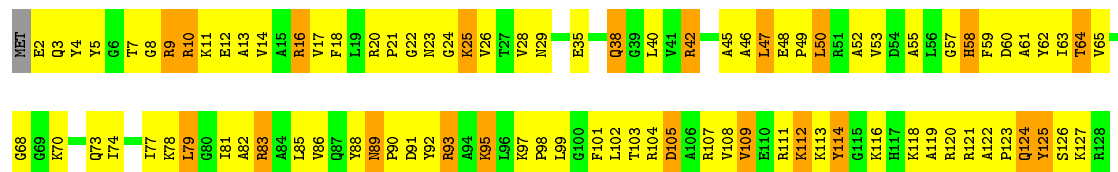


• Molecule 38: 30S RIBOSOMAL PROTEIN S8

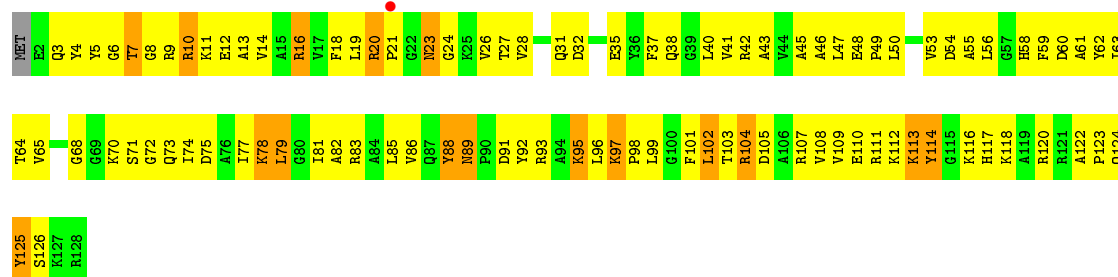




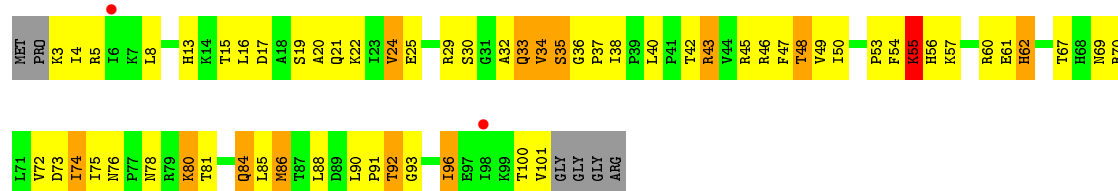
• Molecule 39: 30S RIBOSOMAL PROTEIN S9



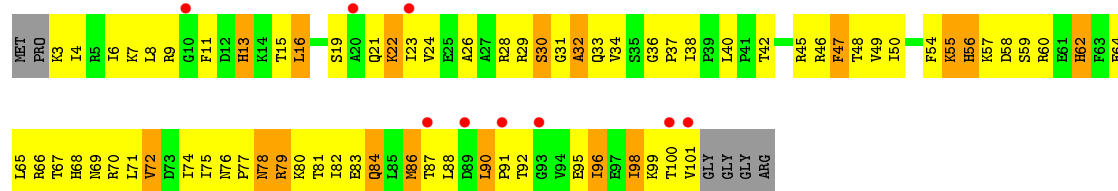
• Molecule 39: 30S RIBOSOMAL PROTEIN S9



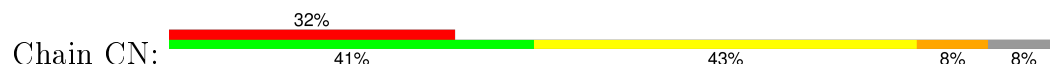
• Molecule 40: 30S RIBOSOMAL PROTEIN S10

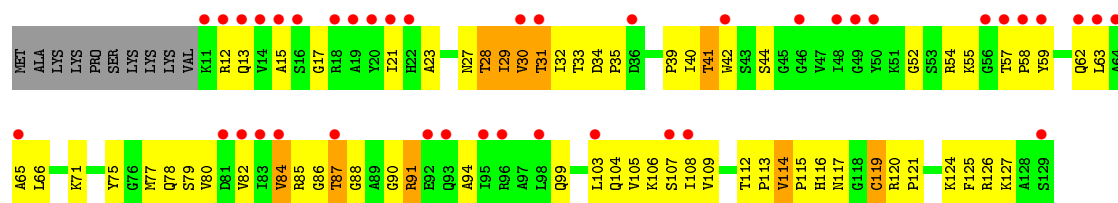


• Molecule 40: 30S RIBOSOMAL PROTEIN S10

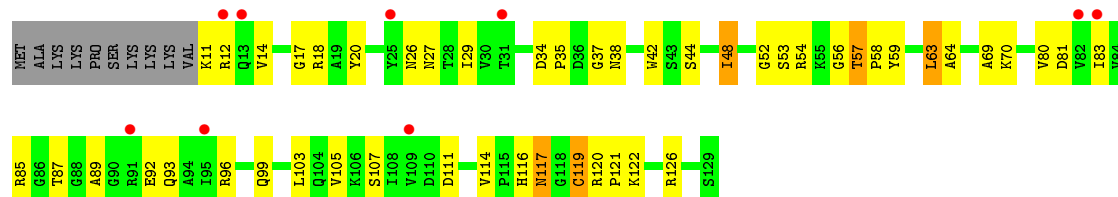


• Molecule 41: 30S RIBOSOMAL PROTEIN S11

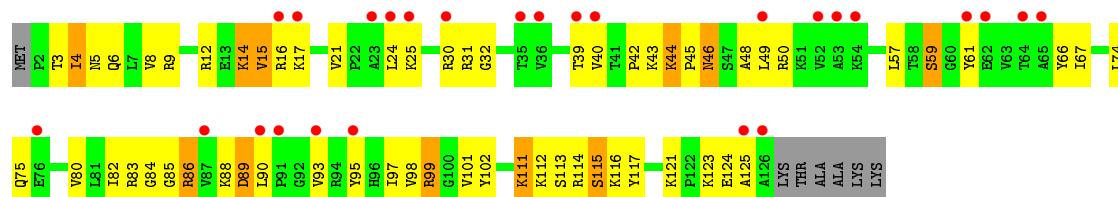




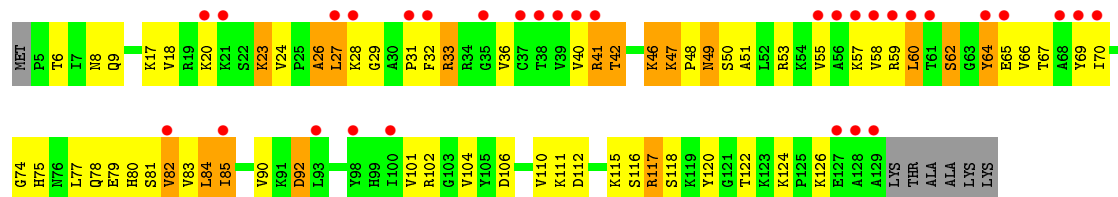
• Molecule 41: 30S RIBOSOMAL PROTEIN S11



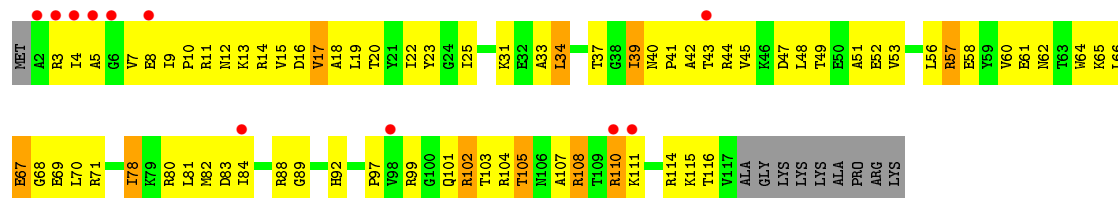
• Molecule 42: 30S RIBOSOMAL PROTEIN S12



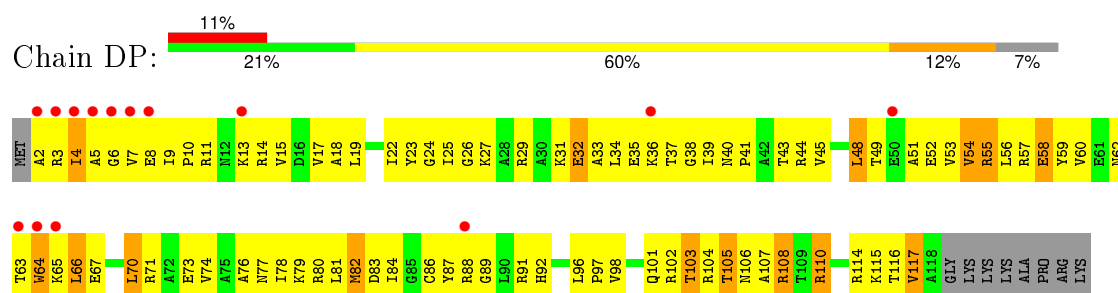
• Molecule 42: 30S RIBOSOMAL PROTEIN S12



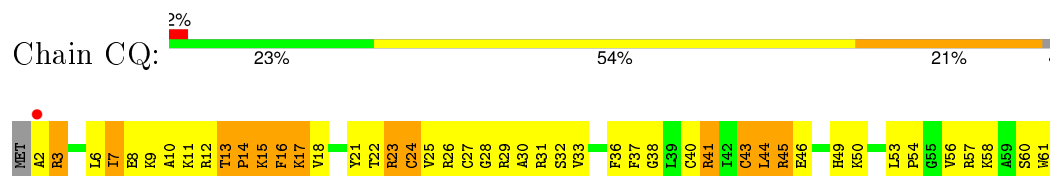
• Molecule 43: 30S RIBOSOMAL PROTEIN S13



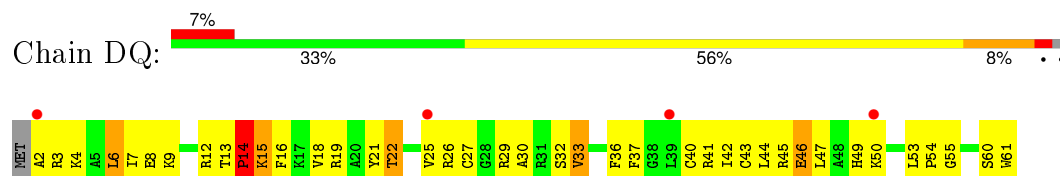
• Molecule 43: 30S RIBOSOMAL PROTEIN S13



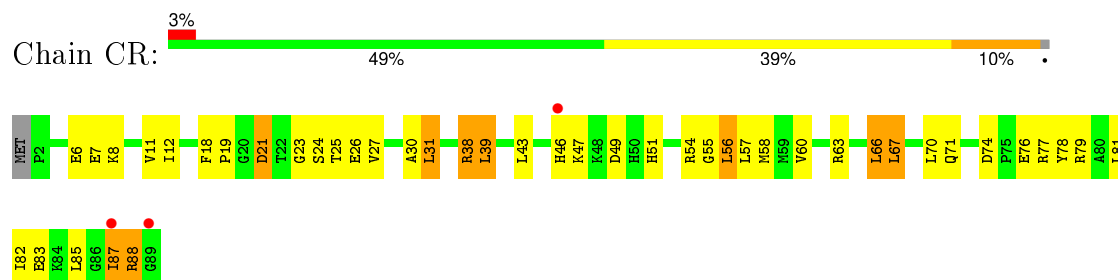
• Molecule 44: 30S RIBOSOMAL PROTEIN S14



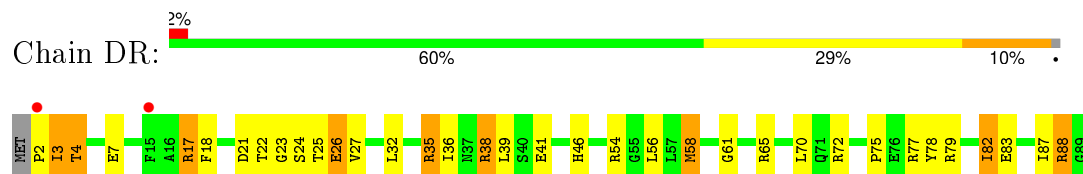
• Molecule 44: 30S RIBOSOMAL PROTEIN S14



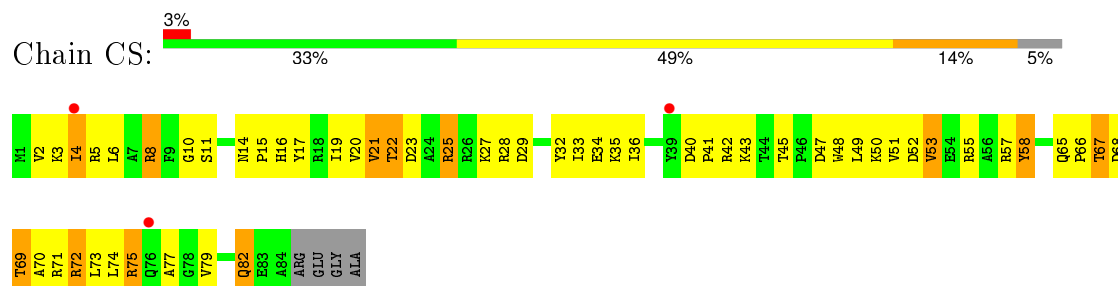
• Molecule 45: 30S RIBOSOMAL PROTEIN S15



• Molecule 45: 30S RIBOSOMAL PROTEIN S15

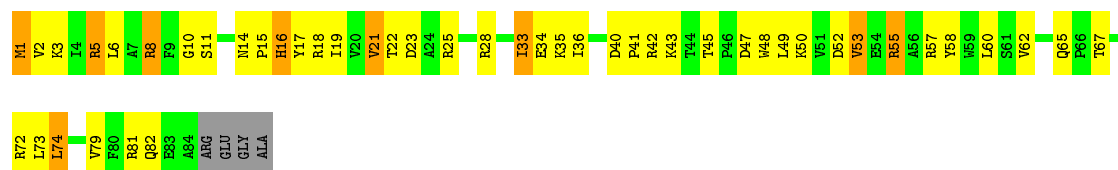


• Molecule 46: 30S RIBOSOMAL PROTEIN S16



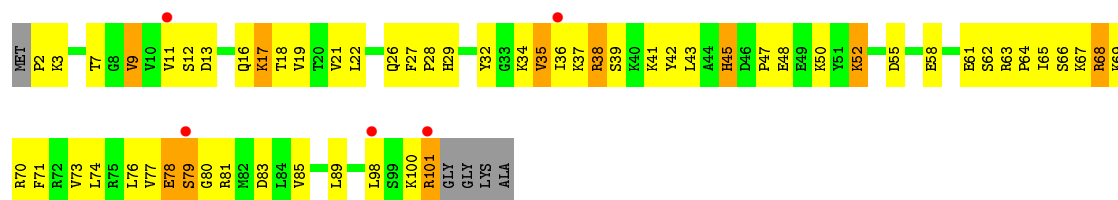
● Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain DS: 



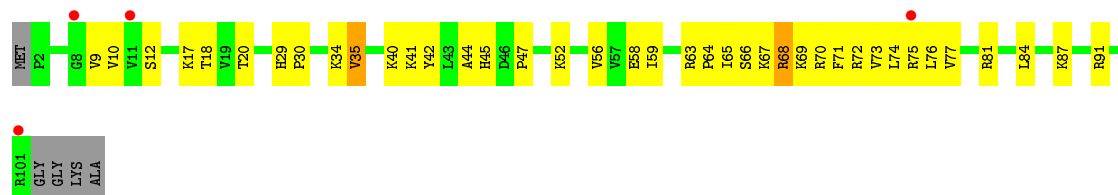
● Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain CT: 



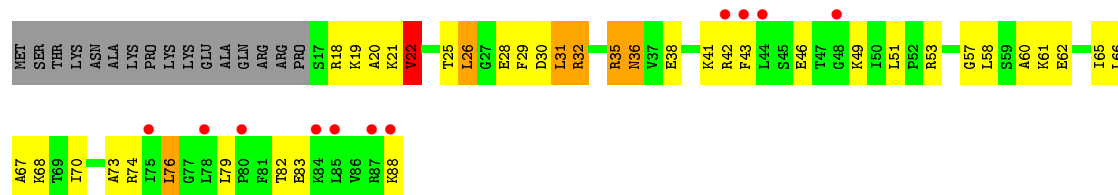
● Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain DT:  4% 58% 35% 5%



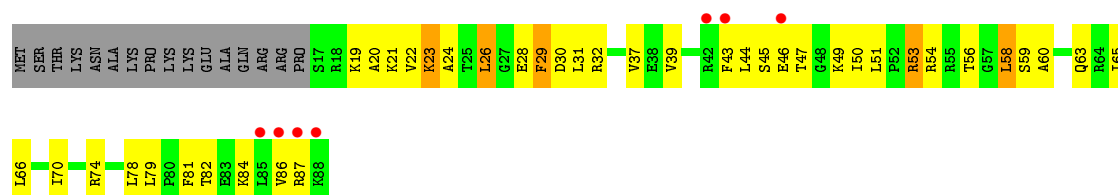
● Molecule 48: 30S RIBOSOMAL PROTEIN S18

Chain CU: 

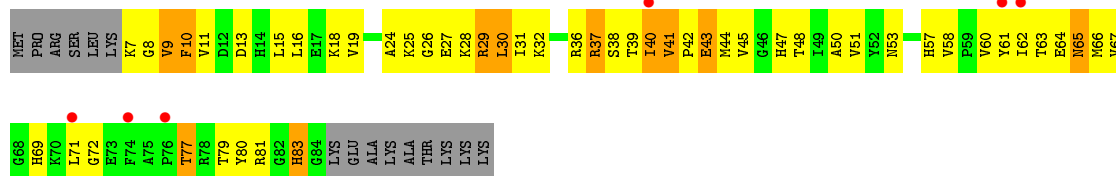


● Molecule 48: 30S RIBOSOMAL PROTEIN S18

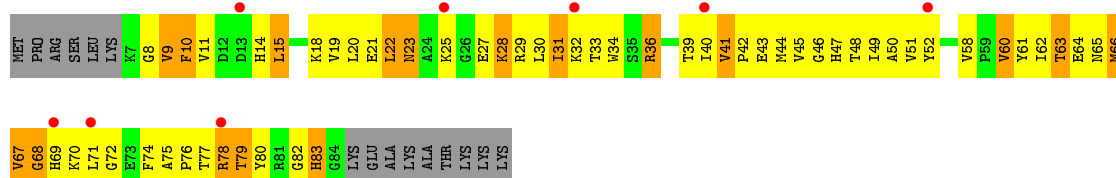
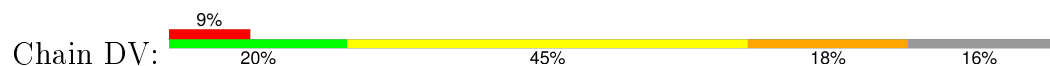
Chain DU: 



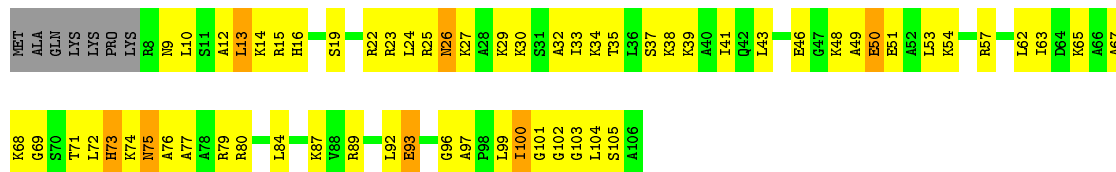
## • Molecule 49: 30S RIBOSOMAL PROTEIN S19



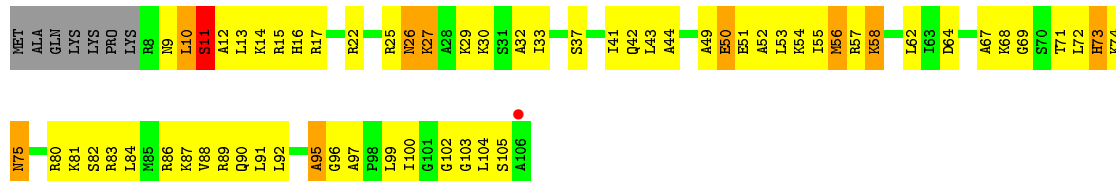
## • Molecule 49: 30S RIBOSOMAL PROTEIN S19



## • Molecule 50: 30S RIBOSOMAL PROTEIN S20



## • Molecule 50: 30S RIBOSOMAL PROTEIN S20



## • Molecule 51: 30S RIBOSOMAL PROTEIN THX

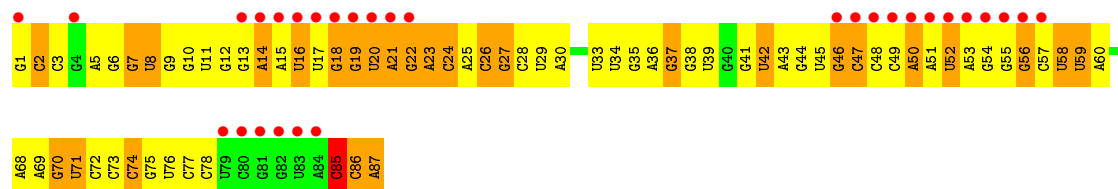
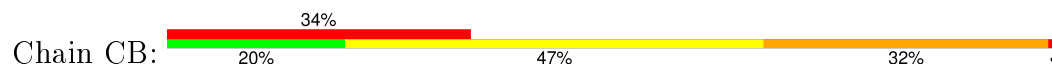


## • Molecule 51: 30S RIBOSOMAL PROTEIN THX





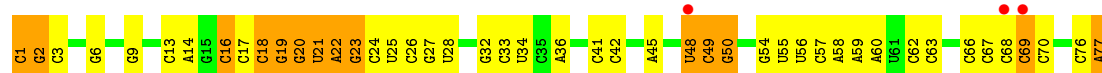
• Molecule 52: TRNA-LEU



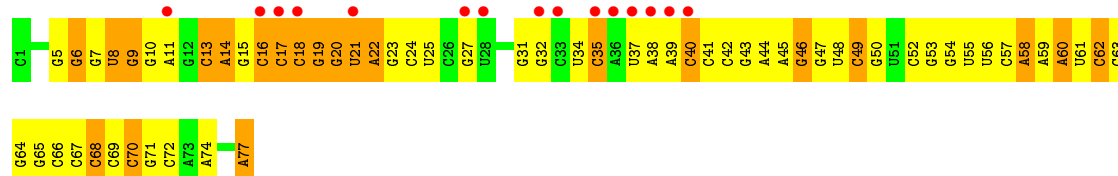
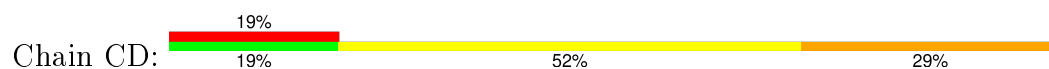
• Molecule 52: TRNA-LEU



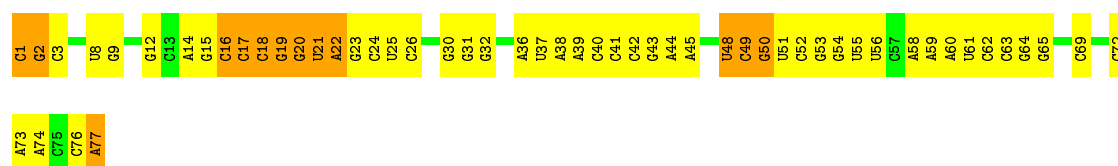
• Molecule 53: TRNA-FMET



• Molecule 53: TRNA-FMET

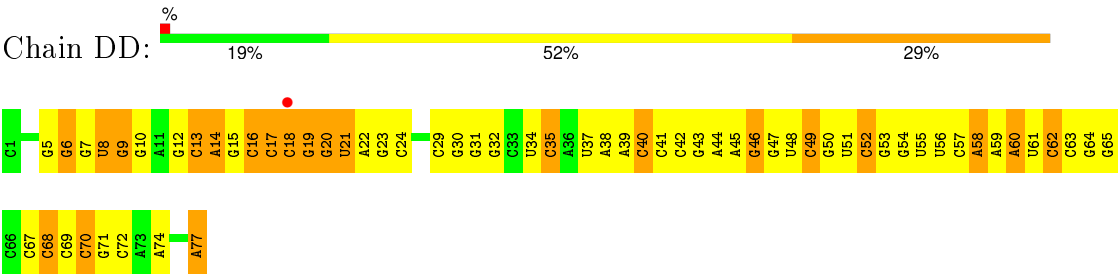


• Molecule 53: TRNA-FMET

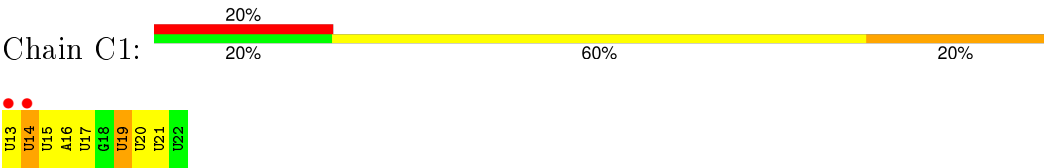


• Molecule 53: TRNA-FMET

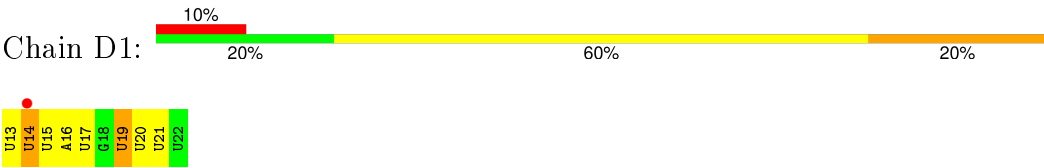




• Molecule 54: MRNA



• Molecule 54: MRNA



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	209.43 Å   448.15 Å   619.40 Å 90.00°   90.00°   90.00°	Depositor
Resolution (Å)	189.73 – 3.30 224.07 – 3.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (189.73-3.30) 95.4 (224.07-3.30)	Depositor EDS
$R_{merge}$	0.28	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.99 (at 3.33 Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.7.1_743)	Depositor
R, $R_{free}$	0.199 , 0.237 0.198 , 0.238	Depositor DCC
$R_{free}$ test set	2000 reflections (0.24%)	DCC
Wilson B-factor (Å <sup>2</sup> )	101.9	Xtriage
Anisotropy	0.181	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 87.0	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.26$	Xtriage
Outliers	1 of 864978 reflections (0.000%)	Xtriage
$F_o, F_c$ correlation	0.95	EDS
Total number of atoms	299682	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	114.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.59% of the height of the origin peak. No significant pseudotranslation is detected.*

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

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 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, MG, PAR

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	0.62	12/70233 (0.0%)	1.11	353/109643 (0.3%)
1	BA	0.56	6/70167 (0.0%)	1.03	240/109541 (0.2%)
2	AB	0.53	0/2928	1.07	13/4568 (0.3%)
2	BB	0.45	0/2928	0.93	6/4568 (0.1%)
3	AD	0.55	0/2165	0.81	3/2919 (0.1%)
3	BD	0.47	0/2165	0.73	1/2919 (0.0%)
4	AE	0.44	0/1601	0.73	1/2160 (0.0%)
4	BE	0.41	0/1601	0.72	1/2160 (0.0%)
5	AF	0.45	0/1620	0.72	0/2194
5	BF	0.38	0/1662	0.67	0/2249
6	AG	0.36	0/1499	0.60	0/2016
6	BG	0.30	0/1499	0.55	0/2016
7	AH	0.41	0/1332	0.71	0/1802
7	BH	0.29	0/1332	0.58	0/1802
8	AK	0.38	0/1151	0.72	1/1558 (0.1%)
8	BK	0.36	0/1151	0.66	1/1558 (0.1%)
9	AM	0.45	0/1131	0.71	0/1525
9	BM	0.32	0/1131	0.58	0/1525
10	AN	0.41	0/943	0.66	0/1269
10	BN	0.40	0/943	0.61	0/1269
11	AO	0.39	0/1162	0.71	1/1544 (0.1%)
11	BO	0.33	0/1162	0.64	1/1544 (0.1%)
12	AP	0.41	0/1143	0.59	0/1527
12	BP	0.33	0/1143	0.52	0/1527
13	A0	0.41	0/982	0.71	1/1312 (0.1%)
13	B0	0.40	0/974	0.67	0/1302
14	AQ	0.40	0/892	0.69	1/1187 (0.1%)
14	BQ	0.34	0/892	0.62	1/1187 (0.1%)
15	AR	0.45	0/1155	0.70	0/1542
15	BR	0.41	0/1155	0.63	0/1542
16	A1	0.46	0/982	0.67	0/1306
16	B1	0.38	0/982	0.59	0/1306

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	A2	0.44	0/790	0.71	0/1057
17	B2	0.33	0/790	0.59	0/1057
18	AS	0.43	0/911	0.69	0/1220
18	BS	0.42	0/911	0.65	0/1220
19	AT	0.52	0/739	0.69	0/993
19	BT	0.48	0/739	0.66	0/993
20	AU	0.48	0/798	0.72	0/1064
20	BU	0.43	0/798	0.72	0/1064
21	AV	0.35	0/1427	0.67	2/1935 (0.1%)
21	BV	0.28	0/1460	0.56	0/1982
22	A3	0.46	0/615	0.69	0/819
22	B3	0.40	0/621	0.64	0/827
23	AZ	0.46	0/770	0.78	0/1022
23	BZ	0.43	0/770	0.75	0/1022
24	AW	0.51	0/560	0.75	0/741
24	BW	0.40	0/583	0.62	0/771
25	AX	0.35	0/474	0.61	0/635
25	BX	0.33	0/474	0.54	0/635
26	A4	0.39	0/545	0.73	1/733 (0.1%)
26	B4	0.34	0/527	0.65	0/709
27	A5	0.45	0/473	0.67	0/639
27	B5	0.40	0/473	0.73	0/639
28	A6	0.47	0/396	0.68	0/529
28	B6	0.36	0/396	0.60	0/529
29	A7	0.50	0/438	0.71	0/575
29	B7	0.40	0/438	0.62	0/575
30	A8	0.56	0/494	0.87	0/649
30	B8	0.40	0/494	0.58	0/649
31	CA	0.49	1/36234 (0.0%)	0.94	68/56554 (0.1%)
31	DA	0.46	0/36237	0.90	64/56558 (0.1%)
32	CE	0.31	0/1959	0.55	0/2642
32	DE	0.30	0/1959	0.54	0/2642
33	CF	0.34	0/1629	0.54	0/2195
33	DF	0.32	0/1636	0.57	1/2205 (0.0%)
34	CG	0.42	1/1733 (0.1%)	0.62	0/2318
34	DG	0.38	0/1733	0.63	0/2318
35	CH	0.38	0/1171	0.58	0/1576
35	DH	0.34	0/1171	0.58	0/1576
36	CI	0.38	0/856	0.58	0/1154
36	DI	0.36	0/856	0.55	0/1154
37	CJ	0.31	0/1276	0.48	0/1709
37	DJ	0.32	0/1276	0.48	0/1709
38	CK	0.36	0/1136	0.64	0/1527

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	DK	0.31	0/1136	0.54	0/1527
39	CL	0.30	0/1029	0.52	0/1379
39	DL	0.29	0/1029	0.53	0/1379
40	CM	0.32	0/814	0.61	1/1095 (0.1%)
40	DM	0.31	0/814	0.59	0/1095
41	CN	0.37	0/900	0.61	0/1213
41	DN	0.36	0/900	0.59	0/1213
42	CO	0.45	0/991	0.75	1/1327 (0.1%)
42	DO	0.41	0/991	0.65	0/1327
43	CP	0.33	0/938	0.59	0/1258
43	DP	0.29	0/943	0.53	0/1265
44	CQ	0.42	1/501 (0.2%)	0.68	1/664 (0.2%)
44	DQ	0.32	0/501	0.57	0/664
45	CR	0.38	0/745	0.64	0/992
45	DR	0.35	0/745	0.53	0/992
46	CS	0.31	0/721	0.55	0/970
46	DS	0.38	0/721	0.60	0/970
47	CT	0.36	0/847	0.56	0/1131
47	DT	0.34	0/847	0.55	0/1131
48	CU	0.35	0/596	0.62	0/790
48	DU	0.36	0/596	0.57	0/790
49	CV	0.34	0/638	0.57	0/860
49	DV	0.29	0/638	0.63	0/860
50	CW	0.32	0/765	0.55	0/1007
50	DW	0.35	0/765	0.63	0/1007
51	CX	0.29	0/221	0.49	0/288
51	DX	0.27	0/221	0.48	0/288
52	CB	0.44	0/2080	0.80	1/3242 (0.0%)
52	DB	0.46	0/2080	0.80	3/3242 (0.1%)
53	CC	0.46	0/1835	0.85	0/2859
53	CD	0.28	0/1835	0.66	2/2859 (0.1%)
53	DC	0.44	0/1835	0.83	0/2859
53	DD	0.27	0/1835	0.63	1/2859 (0.0%)
54	C1	0.69	0/226	0.84	0/348
54	D1	0.58	0/226	0.81	0/348
All	All	0.51	21/324077 (0.0%)	0.93	771/485305 (0.2%)

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
3	AD	0	6
3	BD	0	3
4	AE	0	1
4	BE	0	6
5	BF	0	2
6	AG	0	1
6	BG	0	1
7	AH	0	2
7	BH	0	4
8	AK	0	5
8	BK	0	5
9	AM	0	1
11	AO	0	3
11	BO	0	3
13	B0	0	1
14	AQ	0	2
14	BQ	0	3
15	AR	0	2
16	A1	0	2
17	A2	0	1
20	BU	0	2
21	AV	0	3
21	BV	0	3
22	A3	0	2
24	AW	0	2
24	BW	0	1
26	A4	0	3
26	B4	0	1
27	A5	0	3
27	B5	0	1
28	A6	0	1
28	B6	0	1
30	A8	0	2
32	CE	0	3
32	DE	0	4
33	CF	0	1
33	DF	0	1
34	DG	0	1
38	CK	0	1
40	CM	0	1
40	DM	0	1
42	CO	0	2
44	CQ	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
44	DQ	0	1
45	CR	0	1
50	DW	0	1
All	All	0	98

All (21) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	BA	1143	A	N7-C5	-9.76	1.33	1.39
1	BA	1342	A	N7-C5	-8.93	1.33	1.39
1	BA	2873	A	N7-C5	-8.51	1.34	1.39
1	BA	2287	A	N9-C4	-8.15	1.32	1.37
1	AA	1021	A	N9-C4	-8.08	1.32	1.37
34	CG	26	CYS	CB-SG	7.61	1.95	1.82
1	AA	1142(A)	A	N9-C4	-6.90	1.33	1.37
1	AA	197	A	N3-C4	-6.62	1.30	1.34
1	AA	1698	A	N9-C4	-6.62	1.33	1.37
1	AA	807	U	C2-N3	6.59	1.42	1.37
1	BA	2447	G	C6-N1	6.40	1.44	1.39
1	AA	2287	A	N9-C4	-6.20	1.34	1.37
1	BA	774	A	N9-C4	-5.86	1.34	1.37
1	AA	673	C	C2-N3	5.70	1.40	1.35
1	AA	2430	A	N9-C4	-5.47	1.34	1.37
1	AA	783	A	C5-C6	-5.31	1.36	1.41
31	CA	1436	U	C2-N3	5.27	1.41	1.37
1	AA	1899	G	N9-C4	-5.21	1.33	1.38
1	AA	774	A	N9-C4	-5.19	1.34	1.37
1	AA	783	A	N7-C5	-5.14	1.36	1.39
44	CQ	24	CYS	CB-SG	5.02	1.90	1.82

All (771) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	CA	1025	U	C5-C4-O4	-13.19	117.99	125.90
1	BA	933	A	C6-C5-N7	-12.57	123.50	132.30
1	AA	1899	G	N3-C4-N9	-12.39	118.57	126.00
1	BA	1899	G	N3-C4-N9	-12.35	118.59	126.00
1	BA	2720	U	C2-N3-C4	-11.91	119.85	127.00
1	BA	1602	U	C2-N3-C4	-11.79	119.92	127.00
1	BA	933	A	C4-N9-C1'	11.75	147.45	126.30
31	CA	1495	U	N1-C2-O2	11.59	130.92	122.80
1	BA	2873	A	N1-C6-N6	11.48	125.49	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BA	1012	U	C2-N3-C4	-11.47	120.12	127.00
31	DA	1025	U	C5-C4-O4	-11.29	119.12	125.90
1	BA	933	A	C8-N9-C1'	-11.21	107.52	127.70
1	AA	2430	A	C2-N3-C4	-11.12	105.04	110.60
1	AA	2447	G	C5-C6-O6	-10.77	122.14	128.60
1	AA	1332	G	C2-N3-C4	-10.74	106.53	111.90
1	AA	774	A	C2-N3-C4	-10.70	105.25	110.60
1	BA	1602	U	N1-C2-O2	-10.49	115.46	122.80
1	BA	933	A	C4-C5-C6	10.35	122.17	117.00
1	BA	2447	G	C5-C6-O6	-10.24	122.46	128.60
1	BA	774	A	C2-N3-C4	-10.05	105.57	110.60
1	AA	783	A	C5-N7-C8	-10.03	98.89	103.90
1	AA	906	G	C5-C6-O6	10.00	134.60	128.60
1	AA	1698	A	C2-N3-C4	-9.99	105.61	110.60
1	AA	633	A	N1-C6-N6	9.98	124.59	118.60
1	AA	120	U	C5-C4-O4	9.97	131.88	125.90
1	BA	783	A	C5-N7-C8	-9.92	98.94	103.90
31	DA	1495	U	N1-C2-O2	9.86	129.70	122.80
1	BA	933	A	N3-C4-N9	9.84	135.27	127.40
1	AA	2447	G	C6-N1-C2	-9.80	119.22	125.10
1	BA	2447	G	N1-C6-O6	9.74	125.74	119.90
1	BA	1899	G	C8-N9-C1'	9.74	139.66	127.00
2	AB	81	G	C5-C6-O6	-9.71	122.77	128.60
31	CA	1465	C	C2-N3-C4	-9.62	115.09	119.90
31	CA	1495	U	N3-C2-O2	-9.57	115.50	122.20
1	AA	673	C	C2-N3-C4	-9.56	115.12	119.90
1	AA	1899	G	C2-N3-C4	-9.54	107.13	111.90
1	BA	1342	A	N1-C6-N6	9.38	124.23	118.60
1	AA	1899	G	N3-C4-C5	9.36	133.28	128.60
1	BA	2598	A	N1-C6-N6	9.35	124.21	118.60
1	BA	1781	C	C2-N1-C1'	9.27	128.99	118.80
1	BA	1899	G	C4-N9-C1'	-9.25	114.47	126.50
1	AA	2430	A	N1-C6-N6	9.18	124.11	118.60
1	BA	2430	A	C2-N3-C4	-9.18	106.01	110.60
2	AB	95	U	C5-C4-O4	9.15	131.39	125.90
1	BA	2873	A	C6-C5-N7	-9.10	125.93	132.30
1	AA	784	A	N1-C6-N6	-9.00	113.20	118.60
31	DA	1036	G	C5-C6-O6	8.85	133.91	128.60
1	AA	1142(A)	A	C5-N7-C8	-8.81	99.50	103.90
1	AA	1021	A	C2-N3-C4	-8.75	106.22	110.60
2	AB	81	G	C6-C5-N7	-8.75	125.15	130.40
1	BA	1143	A	N1-C6-N6	8.70	123.82	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BA	1786	A	N1-C6-N6	8.60	123.76	118.60
1	BA	2873	A	C2-N3-C4	-8.59	106.31	110.60
1	AA	783	A	C4-C5-N7	8.58	114.99	110.70
1	BA	1899	G	N3-C4-C5	8.57	132.88	128.60
1	AA	1786	A	N7-C8-N9	8.53	118.06	113.80
31	CA	1053	G	C4-N9-C1'	-8.48	115.47	126.50
31	CA	1177	G	C4-C5-N7	-8.47	107.41	110.80
1	BA	1602	U	N1-C2-N3	8.43	119.96	114.90
31	CA	1177	G	N1-C6-O6	-8.37	114.88	119.90
1	AA	630	G	C2-N3-C4	-8.36	107.72	111.90
1	AA	1021	A	C5-N7-C8	-8.35	99.72	103.90
31	DA	1036	G	N1-C6-O6	-8.33	114.90	119.90
2	BB	95	U	C5-C4-O4	8.27	130.86	125.90
31	CA	1436	U	C2-N3-C4	-8.24	122.06	127.00
1	AA	140	A	N7-C8-N9	8.22	117.91	113.80
1	BA	1143	A	C4-C5-C6	8.21	121.11	117.00
1	AA	1786	A	C2-N3-C4	-8.13	106.54	110.60
31	DA	1036	G	C4-C5-N7	-8.13	107.55	110.80
2	BB	81	G	C5-C6-O6	-8.05	123.77	128.60
1	AA	2595	G	N9-C4-C5	-8.05	102.18	105.40
31	CA	1036	G	C5-C6-O6	8.05	133.43	128.60
1	AA	208	C	C6-N1-C2	8.02	123.51	120.30
1	BA	933	A	N9-C4-C5	-8.02	102.59	105.80
1	AA	679	C	C6-N1-C2	8.01	123.50	120.30
1	AA	807	U	C2-N3-C4	-8.00	122.20	127.00
1	BA	530	G	C6-C5-N7	-7.99	125.61	130.40
31	DA	1036	G	N9-C4-C5	7.98	108.59	105.40
31	DA	1177	G	C4-C5-N7	-7.95	107.62	110.80
1	AA	140	A	N1-C6-N6	7.95	123.37	118.60
31	DA	993	G	N3-C4-N9	7.87	130.72	126.00
1	BA	2378	A	N1-C6-N6	7.87	123.32	118.60
1	BA	2873	A	C5-C6-N1	-7.85	113.77	117.70
1	BA	2275	C	C6-N1-C2	-7.83	117.17	120.30
1	AA	906	G	N3-C4-N9	-7.83	121.30	126.00
1	AA	1962	C	N1-C2-O2	7.83	123.60	118.90
1	BA	2873	A	C4-C5-C6	7.81	120.90	117.00
1	BA	1899	G	N9-C4-C5	7.81	108.52	105.40
1	BA	1899	G	N3-C2-N2	-7.79	114.44	119.90
1	BA	783	A	N7-C8-N9	7.79	117.70	113.80
1	BA	933	A	N1-C6-N6	7.78	123.27	118.60
31	CA	1054	C	C2-N1-C1'	7.78	127.36	118.80
1	BA	2287	A	C2-N3-C4	-7.78	106.71	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	140	A	C8-N9-C4	-7.77	102.69	105.80
1	AA	783	A	N1-C6-N6	7.75	123.25	118.60
1	AA	906	G	N9-C4-C5	7.74	108.50	105.40
1	AA	1899	G	C8-N9-C1'	7.73	137.05	127.00
1	AA	906	G	N1-C6-O6	-7.73	115.26	119.90
2	AB	81	G	N3-C4-N9	7.68	130.61	126.00
1	BA	933	A	C6-N1-C2	-7.65	114.01	118.60
31	CA	1053	G	C8-N9-C1'	7.64	136.93	127.00
1	AA	140	A	C5-N7-C8	-7.63	100.08	103.90
1	BA	250	G	N3-C4-N9	7.62	130.57	126.00
1	BA	933	A	N1-C2-N3	7.62	133.11	129.30
1	BA	780	G	C5-C6-O6	-7.60	124.04	128.60
1	BA	933	A	N7-C8-N9	7.60	117.60	113.80
1	AA	2598	A	N1-C6-N6	7.58	123.15	118.60
1	BA	2595	G	N9-C4-C5	-7.57	102.37	105.40
1	BA	2287	A	N3-C4-C5	7.57	132.10	126.80
31	CA	1177	G	N9-C4-C5	7.57	108.43	105.40
1	BA	1342	A	C6-C5-N7	-7.56	127.00	132.30
1	AA	2062	A	C8-N9-C4	7.53	108.81	105.80
1	BA	530	G	C4-C5-N7	7.47	113.79	110.80
1	AA	621	A	C2-N3-C4	-7.45	106.88	110.60
1	AA	2681	C	C6-N1-C2	-7.43	117.33	120.30
31	CA	1177	G	C5-C6-O6	7.43	133.06	128.60
1	BA	1143	A	C2-N3-C4	-7.43	106.89	110.60
1	AA	633	A	C6-C5-N7	-7.41	127.11	132.30
1	BA	530	G	N1-C6-O6	7.40	124.34	119.90
1	AA	74	A	C2-N3-C4	-7.40	106.90	110.60
1	BA	1342	A	C4-C5-C6	7.39	120.69	117.00
1	AA	2712	U	C5-C4-O4	7.38	130.33	125.90
1	BA	783	A	C8-N9-C4	-7.38	102.85	105.80
1	AA	1142(A)	A	C2-N3-C4	-7.37	106.91	110.60
1	AA	1962	C	C6-N1-C2	-7.37	117.35	120.30
11	BO	147	LEU	CA-CB-CG	7.37	132.24	115.30
31	DA	1177	G	N1-C6-O6	-7.36	115.48	119.90
1	AA	633	A	C4-C5-C6	7.36	120.68	117.00
1	BA	1786	A	C5-N7-C8	-7.34	100.23	103.90
2	AB	81	G	C4-C5-N7	7.31	113.72	110.80
1	BA	2447	G	C6-N1-C2	-7.29	120.73	125.10
31	CA	1159	U	N1-C2-O2	7.28	127.90	122.80
1	BA	1143	A	C6-C5-N7	-7.27	127.21	132.30
1	BA	250	G	N3-C2-N2	7.27	124.99	119.90
1	BA	933	A	C4-C5-N7	7.25	114.32	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	CA	299	G	C5-C6-O6	7.25	132.95	128.60
1	BA	633	A	N1-C6-N6	7.24	122.94	118.60
31	DA	1177	G	N9-C4-C5	7.22	108.29	105.40
1	AA	409	C	C6-N1-C2	7.21	123.19	120.30
1	AA	1937	A	N1-C6-N6	-7.20	114.28	118.60
1	AA	250	G	N3-C2-N2	7.20	124.94	119.90
1	BA	2598	A	C6-C5-N7	-7.16	127.29	132.30
1	AA	2712	U	N3-C4-O4	-7.15	114.39	119.40
1	BA	1781	C	C6-N1-C1'	-7.15	112.22	120.80
1	BA	2451	A	C5-N7-C8	-7.15	100.33	103.90
1	AA	783	A	N7-C8-N9	7.14	117.37	113.80
31	DA	1495	U	N3-C2-O2	-7.13	117.20	122.20
1	BA	2062	A	N9-C4-C5	-7.13	102.95	105.80
1	BA	2713	A	N1-C6-N6	7.13	122.88	118.60
1	BA	807	U	C2-N3-C4	-7.11	122.74	127.00
31	CA	1053	G	C6-C5-N7	7.10	134.66	130.40
31	CA	1036	G	C4-C5-N7	-7.09	107.97	110.80
1	AA	201	C	C6-N1-C2	7.05	123.12	120.30
1	AA	1678	G	C4-C5-N7	7.03	113.61	110.80
31	CA	1159	U	N3-C2-O2	-7.02	117.29	122.20
1	AA	103	A	N1-C6-N6	7.01	122.81	118.60
1	AA	1142(A)	A	N1-C6-N6	6.99	122.80	118.60
1	BA	2061	G	N1-C6-O6	6.99	124.09	119.90
1	BA	2430	A	C5-C6-N1	-6.97	114.22	117.70
1	AA	1427	A	C8-N9-C4	-6.96	103.02	105.80
1	AA	2595	G	C8-N9-C4	6.96	109.18	106.40
1	AA	1698	A	N3-C4-C5	6.95	131.66	126.80
31	CA	530	G	C4-N9-C1'	6.95	135.54	126.50
1	BA	2598	A	C4-C5-C6	6.93	120.47	117.00
1	AA	676	A	C2-N3-C4	-6.92	107.14	110.60
1	AA	2595	G	C2-N3-C4	-6.92	108.44	111.90
31	CA	1036	G	N1-C6-O6	-6.91	115.75	119.90
1	BA	2287	A	C5-N7-C8	-6.91	100.44	103.90
1	AA	210	C	C6-N1-C2	6.89	123.06	120.30
1	AA	1899	G	N9-C4-C5	6.89	108.16	105.40
31	DA	690	G	C6-C5-N7	-6.88	126.27	130.40
1	AA	1021	A	N3-C4-C5	6.86	131.60	126.80
1	AA	783	A	C6-C5-N7	-6.86	127.50	132.30
1	BA	933	A	C5-C6-N6	-6.85	118.22	123.70
1	AA	2287	A	C2-N3-C4	-6.85	107.18	110.60
1	AA	2451	A	N9-C4-C5	6.84	108.54	105.80
1	AA	621	A	N1-C6-N6	6.84	122.70	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BA	2447	G	N3-C4-N9	6.83	130.10	126.00
1	BA	2681	C	C5-C4-N4	6.82	124.97	120.20
1	AA	2685	G	N3-C4-N9	-6.82	121.91	126.00
1	BA	2595	G	C2-N3-C4	-6.82	108.49	111.90
1	AA	462	C	N1-C2-O2	-6.81	114.81	118.90
14	BQ	110	LEU	CA-CB-CG	6.80	130.95	115.30
1	AA	906	G	C6-C5-N7	6.79	134.48	130.40
1	AA	1786	A	C8-N9-C4	-6.79	103.09	105.80
1	BA	933	A	N3-C4-C5	-6.79	122.05	126.80
1	BA	2720	U	N1-C2-N3	6.79	118.97	114.90
1	AA	1786	A	C5-N7-C8	-6.78	100.51	103.90
31	DA	1025	U	C6-N1-C1'	-6.78	111.71	121.20
1	AA	446	G	N9-C4-C5	-6.77	102.69	105.40
1	AA	140	A	C6-C5-N7	-6.74	127.58	132.30
1	AA	676	A	C5-N7-C8	-6.74	100.53	103.90
1	BA	2499	C	C6-N1-C2	-6.74	117.61	120.30
1	BA	250	G	C6-C5-N7	-6.72	126.37	130.40
1	BA	103	A	N1-C6-N6	6.72	122.63	118.60
1	AA	1332	G	C6-C5-N7	-6.72	126.37	130.40
1	AA	83	G	C2-N3-C4	-6.71	108.54	111.90
1	BA	1332	G	C2-N3-C4	-6.71	108.54	111.90
1	BA	1786	A	C6-C5-N7	-6.71	127.60	132.30
26	A4	45	GLY	N-CA-C	-6.70	96.34	113.10
1	AA	83	G	N9-C4-C5	-6.70	102.72	105.40
1	AA	1977	A	C2-N3-C4	-6.70	107.25	110.60
1	AA	906	G	C4-C5-N7	-6.69	108.12	110.80
31	DA	1177	G	C5-C6-O6	6.67	132.60	128.60
1	BA	2287	A	N3-C4-N9	-6.67	122.06	127.40
1	BA	1143	A	C5-C6-N1	-6.67	114.37	117.70
1	AA	783	A	C5-C6-N6	-6.66	118.38	123.70
31	DA	1025	U	C2-N1-C1'	6.65	125.68	117.70
1	AA	676	A	C8-N9-C4	-6.63	103.15	105.80
1	AA	676	A	N7-C8-N9	6.63	117.12	113.80
1	AA	807	U	N1-C2-N3	6.63	118.88	114.90
1	BA	1899	G	C2-N3-C4	-6.63	108.59	111.90
1	AA	201	C	C2-N3-C4	-6.63	116.59	119.90
31	DA	300	A	N1-C6-N6	6.62	122.57	118.60
1	AA	729	G	C8-N9-C4	-6.62	103.75	106.40
1	AA	103	A	N9-C4-C5	-6.61	103.16	105.80
1	BA	630	G	C2-N3-C4	-6.61	108.60	111.90
1	BA	1786	A	N7-C8-N9	6.60	117.10	113.80
1	BA	530	G	C2-N3-C4	-6.60	108.60	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BA	2776	A	C8-N9-C4	-6.60	103.16	105.80
1	AA	2346	A	C2-N3-C4	-6.59	107.31	110.60
1	AA	2447	G	N3-C4-N9	6.58	129.95	126.00
1	AA	807	U	N1-C2-O2	-6.58	118.19	122.80
1	AA	1786	A	C6-C5-N7	-6.57	127.70	132.30
1	AA	383	U	N1-C2-O2	6.56	127.39	122.80
1	BA	2053	G	N1-C6-O6	6.55	123.83	119.90
31	DA	993	G	C8-N9-C1'	-6.55	118.48	127.00
1	AA	1332	G	C5-N7-C8	-6.55	101.03	104.30
1	BA	906	G	C5-C6-O6	6.54	132.53	128.60
1	BA	1786	A	C2-N3-C4	-6.54	107.33	110.60
1	BA	2544	G	N1-C6-O6	6.54	123.82	119.90
1	AA	1496	A	C8-N9-C4	-6.53	103.19	105.80
1	BA	74	A	C2-N3-C4	-6.52	107.34	110.60
31	CA	97	U	N1-C2-O2	6.52	127.36	122.80
1	AA	2606	C	N1-C2-O2	-6.52	114.99	118.90
31	CA	1053	G	N3-C4-N9	-6.52	122.09	126.00
31	DA	993	G	C4-N9-C1'	6.50	134.94	126.50
1	AA	2713	A	C2-N3-C4	-6.48	107.36	110.60
1	AA	2287	A	C5-N7-C8	-6.48	100.66	103.90
1	BA	2617	C	C6-N1-C2	6.46	122.89	120.30
1	BA	1332	G	N3-C4-N9	-6.46	122.12	126.00
1	AA	1312	U	C5-C4-O4	6.46	129.77	125.90
1	AA	1786	A	N1-C6-N6	6.45	122.47	118.60
1	AA	1899	G	C4-N9-C1'	-6.45	118.11	126.50
1	AA	1142(A)	A	C4-C5-N7	6.45	113.92	110.70
1	AA	2544	G	N1-C6-O6	6.45	123.77	119.90
31	CA	1025	U	C6-N1-C1'	-6.45	112.17	121.20
1	AA	1332	G	N1-C6-O6	6.45	123.77	119.90
31	DA	1036	G	C6-C5-N7	6.44	134.26	130.40
2	AB	24	G	N3-C4-C5	-6.43	125.38	128.60
1	AA	2586	C	N1-C2-O2	-6.43	115.04	118.90
31	DA	270	A	C5-N7-C8	-6.41	100.70	103.90
1	BA	2062	A	N1-C6-N6	6.40	122.44	118.60
52	DB	85	C	C2-N1-C1'	6.39	125.83	118.80
1	AA	893	C	C2-N1-C1'	6.38	125.82	118.80
1	AA	807	U	C5-C4-O4	-6.37	122.08	125.90
1	AA	1799	G	N3-C4-C5	-6.37	125.41	128.60
31	CA	1036	G	N9-C4-C5	6.37	107.95	105.40
1	AA	1914	C	C6-N1-C2	-6.37	117.75	120.30
1	BA	2595	G	C8-N9-C4	6.37	108.95	106.40
1	BA	1143	A	C8-N9-C4	-6.36	103.25	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BA	1786	A	C4-C5-N7	6.34	113.87	110.70
1	AA	1022	G	C8-N9-C4	-6.34	103.86	106.40
1	AA	1332	G	N3-C4-C5	6.34	131.77	128.60
1	BA	2447	G	C6-C5-N7	-6.33	126.60	130.40
2	AB	81	G	C6-N1-C2	-6.33	121.31	125.10
1	BA	748	G	C4-N9-C1'	-6.32	118.28	126.50
31	DA	1495	U	C2-N1-C1'	6.32	125.28	117.70
1	AA	446	G	C6-C5-N7	-6.32	126.61	130.40
31	CA	1025	U	N3-C4-C5	6.32	118.39	114.60
31	CA	1195	C	C6-N1-C2	-6.31	117.78	120.30
31	CA	1177	G	C6-C5-N7	6.31	134.18	130.40
1	AA	1340	U	N1-C2-O2	-6.30	118.39	122.80
1	AA	1204	A	C2-N3-C4	-6.29	107.46	110.60
31	DA	993	G	N9-C4-C5	-6.28	102.89	105.40
1	AA	528	A	C2-N3-C4	-6.27	107.46	110.60
1	BA	774	A	N3-C4-C5	6.26	131.18	126.80
1	BA	2392	A	C2-N3-C4	-6.26	107.47	110.60
1	BA	140	A	C8-N9-C4	-6.25	103.30	105.80
1	AA	871	U	C5-C4-O4	-6.25	122.15	125.90
31	CA	1465	C	C5-C4-N4	-6.24	115.83	120.20
1	AA	568	U	N3-C2-O2	6.24	126.57	122.20
1	AA	1678	G	C5-N7-C8	-6.24	101.18	104.30
1	AA	2377	A	C8-N9-C4	6.24	108.30	105.80
1	AA	1653	G	N3-C4-C5	-6.23	125.48	128.60
1	BA	783	A	C4-C5-N7	6.23	113.81	110.70
31	CA	1468	A	N1-C6-N6	6.22	122.33	118.60
1	AA	800	A	N1-C6-N6	-6.21	114.87	118.60
1	AA	784	A	N9-C4-C5	6.21	108.28	105.80
31	DA	1499	A	C8-N9-C4	6.20	108.28	105.80
1	AA	1332	G	C4-C5-N7	6.18	113.27	110.80
1	AA	140	A	C4-C5-N7	6.18	113.79	110.70
1	AA	127	A	N1-C6-N6	6.17	122.30	118.60
31	DA	993	G	N3-C2-N2	6.17	124.22	119.90
1	BA	2430	A	N1-C6-N6	6.17	122.30	118.60
1	AA	825	C	N1-C2-O2	-6.17	115.20	118.90
1	BA	1992	G	N3-C4-C5	-6.16	125.52	128.60
53	CD	18	C	C2-N1-C1'	6.15	125.57	118.80
1	BA	676	A	C8-N9-C4	-6.15	103.34	105.80
31	CA	1054	C	C5-C6-N1	6.15	124.07	121.00
1	BA	2451	A	C8-N9-C4	-6.14	103.34	105.80
1	AA	800	A	C5-C6-N6	6.13	128.61	123.70
1	BA	1143	A	N1-C2-N3	6.13	132.37	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	CA	1242	C	C6-N1-C2	6.13	122.75	120.30
1	AA	791	C	C6-N1-C2	6.13	122.75	120.30
31	CA	1332	A	N1-C6-N6	6.12	122.28	118.60
1	AA	446	G	C4-C5-N7	6.12	113.25	110.80
1	BA	1496	A	N7-C8-N9	6.11	116.86	113.80
31	CA	1465	C	N3-C4-C5	6.11	124.34	121.90
1	AA	728	G	C8-N9-C4	6.11	108.84	106.40
1	AA	1496	A	N7-C8-N9	6.10	116.85	113.80
1	BA	103	A	N9-C4-C5	-6.10	103.36	105.80
1	AA	673	C	C5-C4-N4	-6.09	115.93	120.20
1	BA	1602	U	C5-C6-N1	-6.09	119.65	122.70
1	AA	2375	G	C8-N9-C4	6.09	108.83	106.40
31	DA	449	C	C6-N1-C2	-6.08	117.87	120.30
31	CA	910	C	C6-N1-C2	6.08	122.73	120.30
1	AA	929	G	N1-C6-O6	6.08	123.55	119.90
1	BA	2503	A	C8-N9-C4	-6.08	103.37	105.80
1	AA	679	C	N1-C2-O2	-6.07	115.26	118.90
31	DA	1036	G	C8-N9-C1'	6.07	134.89	127.00
1	AA	465	G	C5-C6-O6	6.07	132.24	128.60
1	BA	250	G	N3-C4-C5	-6.07	125.57	128.60
1	AA	467	G	C4-C5-N7	-6.07	108.37	110.80
2	BB	81	G	C6-C5-N7	-6.06	126.76	130.40
31	CA	320	C	C2-N1-C1'	-6.06	112.14	118.80
1	AA	2392	A	C2-N3-C4	-6.05	107.57	110.60
1	AA	917	A	N1-C6-N6	6.05	122.23	118.60
31	DA	690	G	C4-C5-N7	6.04	113.22	110.80
1	AA	1314	C	C2-N1-C1'	6.04	125.44	118.80
1	AA	2451	A	C8-N9-C4	-6.04	103.39	105.80
1	AA	2447	G	C5-C6-N1	6.03	114.52	111.50
1	AA	142	G	C4-N9-C1'	-6.03	118.66	126.50
1	BA	676	A	N7-C8-N9	6.03	116.81	113.80
31	CA	1025	U	N3-C4-O4	6.03	123.62	119.40
1	AA	1962	C	N3-C2-O2	-6.02	117.69	121.90
1	AA	1962	C	C2-N1-C1'	6.02	125.42	118.80
1	BA	1312	U	C5-C4-O4	6.02	129.51	125.90
1	AA	74	A	C5-C6-N1	-6.02	114.69	117.70
21	AV	59	LEU	CA-CB-CG	6.02	129.14	115.30
1	BA	530	G	N9-C4-C5	-6.02	102.99	105.40
1	BA	1602	U	C2-N1-C1'	-6.01	110.48	117.70
1	AA	564	C	N1-C2-O2	-6.01	115.30	118.90
1	BA	140	A	N7-C8-N9	6.00	116.80	113.80
1	BA	2081	C	C6-N1-C2	6.00	122.70	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	121	C	N1-C2-O2	5.99	122.50	118.90
31	DA	108	G	C4-N9-C1'	5.99	134.29	126.50
1	BA	748	G	C8-N9-C1'	5.99	134.78	127.00
31	DA	901	A	N1-C6-N6	5.99	122.19	118.60
1	BA	807	U	C5-C4-O4	-5.98	122.31	125.90
1	AA	103	A	C8-N9-C1'	-5.98	116.94	127.70
1	BA	226	G	N3-C2-N2	-5.98	115.71	119.90
31	DA	270	A	N1-C6-N6	5.97	122.18	118.60
1	AA	1790	C	C6-N1-C2	5.97	122.69	120.30
1	AA	673	C	N1-C2-O2	-5.96	115.32	118.90
1	AA	138	G	C8-N9-C4	-5.96	104.02	106.40
1	BA	933	A	C5-N7-C8	-5.96	100.92	103.90
1	AA	2451	A	C5-N7-C8	-5.95	100.92	103.90
1	BA	2447	G	N3-C4-C5	-5.95	125.63	128.60
1	AA	2540	C	C6-N1-C2	5.94	122.68	120.30
1	BA	2681	C	N3-C4-N4	-5.94	113.84	118.00
31	DA	993	G	C6-C5-N7	-5.94	126.84	130.40
31	CA	1336	C	C2-N1-C1'	5.93	125.32	118.80
1	AA	1210	A	C6-C5-N7	-5.92	128.15	132.30
31	DA	1530	G	C4-N9-C1'	-5.92	118.80	126.50
1	AA	1950	G	C2-N3-C4	-5.91	108.94	111.90
1	BA	226	G	N3-C4-N9	-5.91	122.45	126.00
1	AA	774	A	N3-C4-C5	5.91	130.94	126.80
1	AA	71	A	C5-N7-C8	-5.91	100.95	103.90
1	AA	1937	A	C5-C6-N6	5.90	128.42	123.70
1	BA	2447	G	C4-C5-C6	5.90	122.34	118.80
1	AA	2584	U	N3-C2-O2	-5.89	118.08	122.20
1	BA	1142(A)	A	C5-N7-C8	-5.88	100.96	103.90
1	AA	780	G	C5-C6-O6	-5.88	125.07	128.60
1	AA	2430	A	C5-C6-N1	-5.88	114.76	117.70
1	AA	1964	G	N9-C4-C5	-5.88	103.05	105.40
1	AA	2344	U	C2-N3-C4	-5.87	123.48	127.00
1	AA	774	A	N3-C4-N9	-5.87	122.70	127.40
1	BA	2282	G	C8-N9-C4	-5.86	104.05	106.40
1	AA	146	G	N3-C4-C5	5.86	131.53	128.60
31	DA	108	G	C4-C5-N7	5.86	113.14	110.80
1	AA	140	A	C5-C6-N6	-5.85	119.02	123.70
1	AA	1210	A	N1-C6-N6	5.85	122.11	118.60
1	AA	1340	U	C2-N3-C4	-5.85	123.49	127.00
1	BA	676	A	C5-N7-C8	-5.85	100.98	103.90
1	AA	679	C	N3-C2-O2	5.83	125.98	121.90
1	AA	1678	G	C6-C5-N7	-5.83	126.90	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BA	1602	U	C5-C4-O4	-5.83	122.40	125.90
1	AA	1653	G	N3-C4-N9	5.82	129.49	126.00
31	CA	97	U	N3-C2-O2	-5.82	118.13	122.20
1	BA	565	C	C5-C4-N4	-5.82	116.13	120.20
1	AA	194	G	C8-N9-C4	5.81	108.72	106.40
42	CO	85	GLY	N-CA-C	-5.81	98.58	113.10
1	AA	1698	A	N3-C4-N9	-5.80	122.76	127.40
1	AA	2287	A	N3-C4-C5	5.80	130.86	126.80
1	AA	2199	A	C4-C5-C6	5.80	119.90	117.00
1	AA	2598	A	N9-C4-C5	-5.80	103.48	105.80
1	BA	1204	A	C2-N3-C4	-5.79	107.70	110.60
40	CM	86	MET	N-CA-C	-5.79	95.36	111.00
31	DA	108	G	C8-N9-C1'	-5.79	119.47	127.00
31	DA	383	A	N1-C6-N6	5.79	122.08	118.60
1	BA	630	G	N9-C4-C5	-5.79	103.08	105.40
1	BA	633	A	C4-C5-C6	5.79	119.89	117.00
31	DA	1465	C	C2-N3-C4	-5.79	117.01	119.90
1	BA	1278	A	C8-N9-C4	5.78	108.11	105.80
1	BA	1950	G	C5-N7-C8	-5.78	101.41	104.30
1	AA	1189	A	N1-C6-N6	5.78	122.07	118.60
1	BA	1963	U	C2-N1-C1'	5.78	124.63	117.70
31	DA	428	G	C4-N9-C1'	-5.77	119.00	126.50
1	BA	329	G	N1-C6-O6	-5.77	116.44	119.90
1	AA	2006	C	C6-N1-C2	5.77	122.61	120.30
31	DA	1025	U	N3-C4-O4	5.77	123.44	119.40
1	AA	1251	C	C6-N1-C2	5.77	122.61	120.30
31	DA	993	G	C4-C5-N7	5.76	113.10	110.80
53	CD	18	C	N1-C2-O2	5.75	122.35	118.90
1	AA	1678	G	C2-N3-C4	-5.75	109.03	111.90
1	BA	1340	U	C2-N3-C4	-5.74	123.56	127.00
1	AA	2447	G	N1-C6-O6	5.74	123.34	119.90
1	BA	1012	U	N1-C2-N3	5.74	118.34	114.90
1	BA	2595	G	C4-C5-N7	5.74	113.09	110.80
1	AA	2499	C	C2-N1-C1'	5.73	125.11	118.80
1	AA	871	U	C2-N3-C4	-5.72	123.57	127.00
1	AA	1572	A	C8-N9-C4	5.72	108.09	105.80
3	AD	28	GLU	N-CA-C	-5.72	95.56	111.00
31	CA	703	G	C4-N9-C1'	5.72	133.93	126.50
1	AA	2447	G	N3-C4-C5	-5.71	125.74	128.60
2	AB	95	U	C2-N1-C1'	-5.71	110.84	117.70
1	AA	252	G	N9-C4-C5	5.71	107.68	105.40
1	BA	84	A	C8-N9-C4	5.71	108.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	446	G	N1-C6-O6	5.70	123.32	119.90
1	AA	1698	A	C5-N7-C8	-5.70	101.05	103.90
1	BA	1012	U	C5-C4-O4	-5.70	122.48	125.90
1	AA	845	G	N3-C4-C5	5.69	131.45	128.60
1	AA	633	A	N9-C4-C5	-5.69	103.52	105.80
1	AA	1021	A	C4-C5-N7	5.69	113.55	110.70
1	AA	784	A	C5-C6-N6	5.69	128.25	123.70
1	AA	462	C	C2-N1-C1'	-5.68	112.55	118.80
1	BA	1496	A	C8-N9-C4	-5.68	103.53	105.80
1	BA	1653	G	N3-C4-C5	-5.68	125.76	128.60
31	CA	511	C	C2-N1-C1'	-5.68	112.56	118.80
1	BA	748	G	C6-C5-N7	5.67	133.80	130.40
1	AA	2375	G	N9-C4-C5	-5.66	103.14	105.40
31	CA	1332	A	C6-C5-N7	-5.66	128.34	132.30
1	AA	621	A	C5-N7-C8	-5.66	101.07	103.90
1	AA	807	U	N3-C4-O4	5.65	123.36	119.40
1	AA	955	C	C6-N1-C2	5.65	122.56	120.30
31	DA	428	G	C8-N9-C1'	5.65	134.35	127.00
1	AA	194	G	N3-C4-C5	5.65	131.42	128.60
1	BA	633	A	C5-C6-N1	-5.65	114.88	117.70
31	DA	1177	G	C6-C5-N7	5.64	133.79	130.40
1	BA	780	G	C2-N3-C4	5.63	114.72	111.90
31	CA	690	G	C6-C5-N7	-5.63	127.02	130.40
1	BA	1899	G	C6-C5-N7	5.63	133.78	130.40
1	AA	1141	U	N1-C2-N3	5.62	118.27	114.90
1	AA	691	C	C6-N1-C2	5.62	122.55	120.30
1	AA	783	A	C8-N9-C4	-5.62	103.55	105.80
8	AK	12	LEU	CA-CB-CG	5.62	128.22	115.30
1	BA	52	A	N1-C6-N6	5.62	121.97	118.60
1	AA	893	C	C6-N1-C1'	-5.61	114.06	120.80
31	DA	690	G	N1-C6-O6	5.61	123.27	119.90
31	CA	530	G	C8-N9-C1'	-5.61	119.71	127.00
1	BA	2392	A	C5-C6-N1	-5.60	114.90	117.70
31	CA	892	A	N1-C6-N6	5.60	121.96	118.60
1	AA	810	U	C5-C4-O4	-5.60	122.54	125.90
1	AA	1312	U	N3-C4-C5	-5.60	111.24	114.60
1	AA	1340	U	C5-C4-O4	-5.60	122.54	125.90
1	AA	122	G	N3-C4-C5	5.60	131.40	128.60
1	BA	1204	A	N1-C6-N6	5.60	121.96	118.60
1	BA	2873	A	N1-C2-N3	5.59	132.10	129.30
1	AA	784	A	C6-C5-N7	5.59	136.22	132.30
1	AA	2506	U	C2-N1-C1'	5.58	124.39	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1689	A	N1-C6-N6	-5.58	115.25	118.60
1	BA	673	C	C2-N3-C4	-5.58	117.11	119.90
1	AA	141	A	C5-N7-C8	-5.57	101.11	103.90
1	AA	1950	G	C8-N9-C4	-5.57	104.17	106.40
1	AA	1674	G	C4-N9-C1'	5.57	133.74	126.50
1	AA	1971	A	N1-C6-N6	5.57	121.94	118.60
1	AA	2392	A	C8-N9-C4	-5.56	103.58	105.80
1	AA	676	A	N3-C4-N9	-5.55	122.96	127.40
1	AA	1992	G	N3-C4-C5	-5.55	125.83	128.60
1	BA	2451	A	N7-C8-N9	5.55	116.57	113.80
31	CA	1495	U	C2-N1-C1'	5.55	124.36	117.70
1	AA	1950	G	N7-C8-N9	5.54	115.87	113.10
1	AA	1962	C	C5-C6-N1	5.54	123.77	121.00
1	AA	1506	C	C2-N1-C1'	5.54	124.89	118.80
2	AB	95	U	C6-N1-C1'	5.53	128.95	121.20
1	AA	2287	A	N3-C4-N9	-5.53	122.98	127.40
1	BA	1612	C	C6-N1-C2	5.53	122.51	120.30
1	BA	2346	A	C2-N3-C4	-5.53	107.83	110.60
1	AA	467	G	N9-C4-C5	5.53	107.61	105.40
31	DA	690	G	C5-N7-C8	-5.53	101.53	104.30
1	AA	1366	A	N1-C6-N6	5.53	121.92	118.60
1	AA	122	G	C8-N9-C4	5.53	108.61	106.40
1	AA	774	A	N1-C2-N3	5.52	132.06	129.30
31	CA	690	G	N1-C6-O6	5.52	123.21	119.90
31	DA	1436	U	C2-N3-C4	-5.52	123.69	127.00
1	AA	123	G	N3-C4-C5	5.51	131.36	128.60
1	AA	1763	G	C8-N9-C4	5.51	108.61	106.40
1	BA	847	U	N1-C2-O2	-5.51	118.94	122.80
1	BA	2430	A	N1-C2-N3	5.51	132.06	129.30
1	BA	2062	A	C5-C6-N6	-5.51	119.29	123.70
31	CA	1502	A	C2-N3-C4	-5.51	107.84	110.60
1	AA	1021	A	N3-C4-N9	-5.51	122.99	127.40
1	AA	2490	G	N7-C8-N9	5.50	115.85	113.10
4	AE	132	HIS	N-CA-C	5.50	125.86	111.00
31	CA	1025	U	C2-N1-C1'	5.50	124.30	117.70
31	CA	1054	C	C6-N1-C1'	-5.50	114.20	120.80
1	BA	2713	A	C6-C5-N7	-5.49	128.46	132.30
1	AA	2490	G	C8-N9-C4	-5.49	104.20	106.40
1	BA	2720	U	N3-C4-C5	5.49	117.89	114.60
1	AA	2430	A	N3-C4-C5	5.48	130.63	126.80
1	BA	1968	G	N3-C4-C5	5.48	131.34	128.60
1	AA	2622	C	C6-N1-C2	5.47	122.49	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	81	G	N1-C6-O6	5.47	123.18	119.90
1	BA	633	A	C6-C5-N7	-5.46	128.48	132.30
1	AA	1313	U	N3-C4-O4	5.45	123.22	119.40
1	AA	2829	C	C6-N1-C2	5.45	122.48	120.30
31	DA	690	G	C2-N3-C4	-5.45	109.17	111.90
1	AA	1066	U	C2-N1-C1'	5.45	124.24	117.70
1	AA	1674	G	C8-N9-C1'	-5.45	119.92	127.00
1	BA	780	G	N1-C6-O6	5.45	123.17	119.90
1	BA	1379	A	N1-C6-N6	5.45	121.87	118.60
31	CA	690	G	N7-C8-N9	5.45	115.82	113.10
1	AA	2259	G	N1-C6-O6	5.44	123.17	119.90
1	BA	2344	U	C2-N3-C4	-5.44	123.74	127.00
1	AA	630	G	N3-C4-C5	5.43	131.32	128.60
1	AA	1950	G	C5-N7-C8	-5.43	101.58	104.30
1	AA	2294	C	C2-N1-C1'	5.43	124.77	118.80
1	AA	2595	G	C4-C5-N7	5.43	112.97	110.80
1	AA	142	G	C8-N9-C1'	5.43	134.06	127.00
1	AA	1810	A	N1-C6-N6	5.43	121.86	118.60
1	BA	807	U	N1-C2-N3	5.42	118.16	114.90
1	BA	1256	G	C4-N9-C1'	5.42	133.55	126.50
1	AA	1786	A	N1-C2-N3	5.42	132.01	129.30
1	AA	210	C	C5-C6-N1	-5.42	118.29	121.00
2	AB	81	G	N9-C4-C5	-5.42	103.23	105.40
14	AQ	110	LEU	CA-CB-CG	5.41	127.75	115.30
1	AA	1627	G	C5-C6-N1	-5.41	108.80	111.50
31	CA	1336	C	N1-C2-O2	5.41	122.15	118.90
1	BA	676	A	C2-N3-C4	-5.41	107.90	110.60
1	BA	630	G	C8-N9-C4	5.40	108.56	106.40
1	AA	842	G	N9-C4-C5	-5.40	103.24	105.40
3	AD	111	LEU	CA-CB-CG	5.39	127.70	115.30
1	BA	2378	A	C6-C5-N7	-5.39	128.53	132.30
1	AA	110	G	C6-C5-N7	5.39	133.63	130.40
1	AA	271(B)	G	C4-N9-C1'	5.39	133.50	126.50
31	CA	1406	U	C2-N3-C4	-5.39	123.77	127.00
1	BA	389	G	C5-C6-O6	-5.38	125.37	128.60
1	AA	1799	G	C8-N9-C4	-5.38	104.25	106.40
1	AA	2434	A	N1-C6-N6	5.38	121.83	118.60
1	AA	2555	U	N1-C2-O2	-5.38	119.03	122.80
1	BA	2713	A	C2-N3-C4	-5.38	107.91	110.60
1	AA	455	C	C6-N1-C2	5.38	122.45	120.30
1	AA	1019	U	N1-C2-O2	-5.37	119.04	122.80
1	BA	2392	A	C8-N9-C4	-5.37	103.65	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	BD	238	GLY	N-CA-C	-5.37	99.68	113.10
1	BA	1011	G	C4-N9-C1'	-5.37	119.53	126.50
1	AA	1209	G	N1-C6-O6	5.36	123.12	119.90
31	DA	270	A	C4-C5-N7	5.36	113.38	110.70
1	AA	201	C	C5-C4-N4	-5.36	116.45	120.20
31	DA	893	C	C6-N1-C2	5.36	122.44	120.30
1	AA	1528	A	N7-C8-N9	5.36	116.48	113.80
1	BA	2081	C	N1-C2-O2	-5.36	115.69	118.90
1	AA	2253	G	C5-C6-O6	-5.35	125.39	128.60
1	AA	2588	G	N1-C2-N3	5.35	127.11	123.90
1	AA	1528	A	C8-N9-C4	-5.35	103.66	105.80
31	CA	690	G	C5-N7-C8	-5.35	101.63	104.30
1	AA	784	A	C4-C5-N7	-5.35	108.03	110.70
1	BA	1012	U	N3-C4-C5	5.35	117.81	114.60
1	AA	666	G	N3-C4-C5	5.34	131.27	128.60
1	AA	71	A	C2-N3-C4	-5.33	107.93	110.60
1	AA	1937	A	N9-C4-C5	5.33	107.93	105.80
1	AA	1899	G	N3-C2-N2	-5.33	116.17	119.90
1	BA	2432	A	N1-C6-N6	5.33	121.80	118.60
1	BA	83	G	C2-N3-C4	-5.33	109.24	111.90
1	BA	1427	A	C8-N9-C4	-5.33	103.67	105.80
1	BA	530	G	C5-C6-O6	-5.33	125.40	128.60
1	BA	748	G	N1-C6-O6	-5.33	116.70	119.90
1	BA	2196	C	N1-C2-O2	-5.32	115.71	118.90
31	DA	31	G	C4-N9-C1'	5.32	133.41	126.50
1	AA	126	A	N9-C4-C5	5.31	107.92	105.80
1	AA	1142(A)	A	N3-C4-C5	5.31	130.52	126.80
1	BA	2609	U	C2-N1-C1'	-5.31	111.33	117.70
1	AA	802	A	C5-C6-N6	-5.31	119.45	123.70
1	AA	2065	C	C6-N1-C2	5.31	122.42	120.30
1	BA	2598	A	N9-C4-C5	-5.31	103.68	105.80
1	AA	1141	U	C2-N3-C4	-5.31	123.82	127.00
1	BA	800	A	N1-C6-N6	-5.31	115.42	118.60
1	BA	2713	A	C5-N7-C8	-5.31	101.25	103.90
1	BA	1695	G	C6-C5-N7	-5.30	127.22	130.40
1	BA	2502	G	C8-N9-C4	-5.30	104.28	106.40
2	BB	81	G	N1-C6-O6	5.30	123.08	119.90
31	CA	901	A	N1-C2-N3	5.30	131.95	129.30
1	BA	2062	A	N3-C4-N9	5.30	131.64	127.40
1	AA	1210	A	N7-C8-N9	5.30	116.45	113.80
1	BA	1064	C	C6-N1-C1'	5.30	127.16	120.80
1	AA	1614	A	C2-N3-C4	-5.29	107.95	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1616	A	C5-N7-C8	-5.29	101.25	103.90
31	DA	801	U	C2-N1-C1'	5.29	124.05	117.70
31	DA	428	G	N3-C4-N9	-5.29	122.83	126.00
1	AA	1521	G	C8-N9-C4	-5.29	104.28	106.40
13	A0	75	LEU	CA-CB-CG	5.29	127.47	115.30
1	AA	745	G	C5-C6-O6	-5.29	125.43	128.60
1	BA	1012	U	C5-C6-N1	-5.29	120.06	122.70
1	AA	195	A	N1-C6-N6	5.28	121.77	118.60
1	AA	793	A	C8-N9-C4	-5.28	103.69	105.80
1	AA	1653	G	C4-N9-C1'	5.28	133.36	126.50
31	DA	1465	C	C2-N1-C1'	5.28	124.61	118.80
1	BA	1210	A	C3'-C2'-C1'	5.28	105.72	101.50
11	AO	26	GLY	N-CA-C	-5.27	99.92	113.10
1	AA	2004	G	N3-C4-N9	-5.27	122.84	126.00
31	DA	913	A	C8-N9-C4	-5.27	103.69	105.80
1	BA	250	G	C4-N9-C1'	5.26	133.34	126.50
1	AA	1130	U	N3-C2-O2	-5.26	118.52	122.20
1	BA	783	A	C2-N3-C4	-5.26	107.97	110.60
1	BA	1342	A	C5-C6-N6	-5.26	119.49	123.70
1	BA	774	A	N3-C4-N9	-5.26	123.19	127.40
31	CA	299	G	C5-C6-N1	-5.25	108.87	111.50
31	CA	926	G	C8-N9-C4	-5.25	104.30	106.40
31	DA	328	C	C6-N1-C2	-5.25	118.20	120.30
1	AA	189	G	C8-N9-C4	5.24	108.50	106.40
1	BA	2053	G	C5-C6-O6	-5.24	125.46	128.60
31	CA	1158	C	C6-N1-C2	-5.24	118.20	120.30
1	BA	83	G	C6-C5-N7	-5.23	127.26	130.40
31	CA	299	G	C4-C5-N7	-5.23	108.71	110.80
1	AA	2447	G	C6-C5-N7	-5.23	127.26	130.40
31	CA	758	G	N3-C4-C5	5.23	131.22	128.60
1	BA	201	C	C6-N1-C2	5.23	122.39	120.30
52	CB	85	C	C2-N1-C1'	5.23	124.55	118.80
1	BA	786	C	C6-N1-C2	5.22	122.39	120.30
1	AA	265	A	C2-N3-C4	-5.22	107.99	110.60
1	AA	776	G	N9-C4-C5	5.22	107.49	105.40
1	AA	810	U	C6-N1-C2	5.22	124.13	121.00
1	AA	2331	G	C2-N3-C4	-5.22	109.29	111.90
1	BA	800	A	C5-C6-N6	5.22	127.88	123.70
1	AA	138	G	N7-C8-N9	5.21	115.71	113.10
31	CA	1495	U	C2-N3-C4	5.21	130.13	127.00
1	BA	597	U	N1-C2-O2	-5.21	119.15	122.80
1	AA	103	A	C4-C5-C6	5.20	119.60	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1036	G	C8-N9-C4	5.20	108.48	106.40
1	AA	2050	C	N1-C2-O2	-5.20	115.78	118.90
2	BB	81	G	N3-C4-N9	5.20	129.12	126.00
1	BA	74	A	C5-C6-N1	-5.19	115.10	117.70
1	AA	201	C	C5-C6-N1	-5.19	118.40	121.00
1	BA	1313	U	C5-C4-O4	-5.19	122.78	125.90
1	BA	330	A	C2-N3-C4	-5.19	108.00	110.60
1	BA	1725	G	N3-C4-N9	5.19	129.11	126.00
1	AA	1021	A	N1-C6-N6	5.19	121.71	118.60
1	AA	2056	G	C5-C6-O6	-5.18	125.49	128.60
1	BA	250	G	N1-C2-N2	-5.18	111.53	116.20
1	AA	409	C	N3-C2-O2	5.18	125.53	121.90
1	AA	2688	U	C5-C4-O4	5.18	129.01	125.90
1	AA	1955	U	C5-C6-N1	-5.17	120.11	122.70
1	BA	1653	G	C4-N9-C1'	5.17	133.22	126.50
1	AA	2083	G	N1-C6-O6	5.16	123.00	119.90
1	AA	2430	A	N1-C2-N3	5.16	131.88	129.30
1	AA	560	C	C6-N1-C2	5.16	122.36	120.30
3	AD	46	GLN	C-N-CA	5.16	133.13	122.30
31	DA	898	G	N3-C4-C5	5.16	131.18	128.60
1	AA	250	G	N3-C4-N9	5.15	129.09	126.00
1	AA	1261	C	C6-N1-C2	5.15	122.36	120.30
1	AA	633	A	C5-C6-N1	-5.15	115.12	117.70
1	BA	2287	A	C4-C5-N7	5.15	113.27	110.70
1	AA	2297	C	C2-N1-C1'	-5.15	113.14	118.80
1	BA	669	G	C3'-C2'-C1'	5.14	105.61	101.50
1	AA	103	A	C4-N9-C1'	5.14	135.55	126.30
1	AA	1209	G	C5-C6-O6	-5.14	125.52	128.60
31	DA	993	G	N1-C2-N2	-5.14	111.57	116.20
1	AA	286	C	C6-N1-C2	5.14	122.36	120.30
1	AA	1332	G	C5-C6-N1	-5.14	108.93	111.50
1	AA	2712	U	N1-C2-N3	5.14	117.98	114.90
1	BA	731	C	C6-N1-C2	5.14	122.36	120.30
31	DA	121	C	C2-N1-C1'	5.14	124.45	118.80
31	DA	266	G	N1-C6-O6	-5.14	116.82	119.90
1	AA	74	A	C5-N7-C8	-5.13	101.33	103.90
1	AA	1019	U	C2-N3-C4	-5.13	123.92	127.00
44	CQ	24	CYS	CA-CB-SG	5.13	123.24	114.00
31	DA	121	C	C6-N1-C1'	-5.13	114.64	120.80
1	AA	2283	C	N1-C2-O2	-5.13	115.82	118.90
1	AA	1915	U	N3-C2-O2	-5.13	118.61	122.20
1	AA	84	A	C8-N9-C4	5.13	107.85	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1607	C	C2-N1-C1'	5.12	124.44	118.80
1	AA	1612	C	N3-C2-O2	5.12	125.48	121.90
52	DB	85	C	N1-C2-O2	5.12	121.97	118.90
1	BA	2049	G	N3-C4-C5	5.12	131.16	128.60
2	BB	95	U	C6-N1-C1'	5.12	128.37	121.20
31	CA	190	G	C4-N9-C1'	5.12	133.15	126.50
1	AA	2344	U	N1-C2-O2	-5.12	119.22	122.80
1	BA	906	G	N1-C6-O6	-5.12	116.83	119.90
1	AA	1022	G	N9-C4-C5	5.11	107.44	105.40
1	AA	1790	C	N3-C4-C5	5.11	123.94	121.90
1	BA	1950	G	N7-C8-N9	5.11	115.65	113.10
31	CA	1025	U	C2-N3-C4	-5.11	123.94	127.00
1	BA	780	G	N1-C2-N2	5.11	120.80	116.20
1	AA	893	C	N1-C2-O2	5.11	121.96	118.90
1	BA	1655	A	N1-C6-N6	5.11	121.66	118.60
4	BE	61	ARG	C-N-CD	-5.10	109.38	120.60
1	AA	803	U	C5-C6-N1	-5.10	120.15	122.70
1	BA	1625	C	C2-N1-C1'	-5.10	113.19	118.80
1	BA	2447	G	N3-C2-N2	-5.10	116.33	119.90
31	CA	530	G	N3-C4-C5	-5.10	126.05	128.60
1	AA	681	G	C8-N9-C4	5.09	108.44	106.40
1	AA	683	C	C6-N1-C2	5.09	122.34	120.30
1	AA	1807	G	C2-N3-C4	-5.09	109.35	111.90
1	BA	2447	G	N1-C2-N3	5.09	126.96	123.90
1	BA	906	G	N9-C4-C5	5.09	107.44	105.40
1	AA	134	C	C6-N1-C2	5.09	122.34	120.30
2	AB	81	G	C5-C6-N1	5.09	114.05	111.50
1	AA	2499	C	C6-N1-C2	-5.09	118.27	120.30
1	AA	2083	G	C2-N3-C4	-5.09	109.36	111.90
1	AA	2609	U	C5-C6-N1	-5.09	120.16	122.70
33	DF	196	LEU	CA-CB-CG	5.09	127.00	115.30
31	DA	1200	C	N1-C2-O2	5.08	121.95	118.90
52	DB	85	C	C6-N1-C1'	-5.08	114.70	120.80
1	AA	2553	G	N1-C6-O6	-5.08	116.85	119.90
1	BA	2062	A	C8-N9-C1'	-5.08	118.55	127.70
1	BA	2440	C	C6-N1-C2	5.08	122.33	120.30
1	BA	2544	G	C6-C5-N7	-5.08	127.35	130.40
1	AA	2392	A	N7-C8-N9	5.08	116.34	113.80
1	BA	774	A	N1-C6-N6	5.08	121.65	118.60
31	DA	1406	U	C2-N3-C4	-5.08	123.95	127.00
1	BA	1340	U	C5-C4-O4	-5.08	122.86	125.90
1	AA	1195	G	N3-C2-N2	-5.07	116.35	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	765	G	N1-C6-O6	5.07	122.94	119.90
1	BA	2713	A	C5-C6-N1	-5.07	115.17	117.70
1	BA	1201	C	C6-N1-C2	5.07	122.33	120.30
31	CA	690	G	C8-N9-C4	-5.06	104.38	106.40
1	AA	2378	A	N1-C6-N6	5.06	121.64	118.60
1	AA	933	A	C6-N1-C2	-5.06	115.56	118.60
53	DD	18	C	C2-N1-C1'	5.06	124.37	118.80
1	AA	122	G	C2-N3-C4	-5.06	109.37	111.90
1	AA	412	A	C8-N9-C4	5.06	107.82	105.80
1	AA	797	C	C6-N1-C2	5.06	122.32	120.30
1	AA	1699	G	N9-C4-C5	5.06	107.42	105.40
1	AA	2565	A	C8-N9-C4	5.05	107.82	105.80
1	AA	1249	U	C5-C6-N1	-5.05	120.17	122.70
1	AA	1783	A	N1-C6-N6	-5.05	115.57	118.60
1	AA	2211	G	C6-C5-N7	-5.05	127.37	130.40
31	DA	1498	U	C6-N1-C2	-5.05	117.97	121.00
2	AB	56	G	C4-N9-C1'	5.05	133.06	126.50
31	CA	23	C	C6-N1-C2	-5.04	118.28	120.30
1	AA	2277	G	N9-C4-C5	5.04	107.42	105.40
1	AA	2490	G	C5-N7-C8	-5.04	101.78	104.30
21	AV	86	VAL	CB-CA-C	-5.04	101.82	111.40
31	CA	73	G	C4-N9-C1'	5.04	133.05	126.50
31	DA	320	C	C6-N1-C2	5.04	122.32	120.30
1	BA	1842	G	C8-N9-C4	5.04	108.42	106.40
1	BA	2518	A	C2-N3-C4	-5.04	108.08	110.60
1	AA	729	G	N9-C4-C5	5.03	107.41	105.40
1	AA	2555	U	C2-N1-C1'	-5.03	111.66	117.70
1	BA	2622	C	C2-N1-C1'	-5.03	113.26	118.80
1	AA	1810	A	C5-C6-N6	-5.03	119.67	123.70
8	BK	102	SER	N-CA-C	-5.03	97.41	111.00
1	AA	790	C	N3-C2-O2	5.03	125.42	121.90
1	BA	1992	G	N3-C4-N9	5.03	129.02	126.00
1	AA	446	G	C2-N3-C4	-5.02	109.39	111.90
1	AA	2871	C	C6-N1-C2	5.02	122.31	120.30
1	BA	1332	G	N3-C4-C5	5.02	131.11	128.60
1	BA	1814	G	C8-N9-C4	-5.02	104.39	106.40
31	DA	1465	C	C5-C4-N4	-5.02	116.69	120.20
1	AA	1314	C	C6-N1-C1'	-5.01	114.78	120.80
1	BA	138	G	C4-N9-C1'	5.01	133.02	126.50
1	BA	1725	G	C4-N9-C1'	5.01	133.02	126.50
1	AA	391	G	C6-N1-C2	-5.01	122.09	125.10
1	BA	71	A	C5-N7-C8	-5.00	101.40	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	630	G	C8-N9-C4	5.00	108.40	106.40
1	AA	1786	A	C4-C5-C6	5.00	119.50	117.00
31	CA	703	G	C8-N9-C1'	-5.00	120.50	127.00
31	CA	1436	U	C5-C4-O4	-5.00	122.90	125.90
1	AA	2458	G	C8-N9-C1'	-5.00	120.50	127.00
1	BA	729	G	C8-N9-C4	-5.00	104.40	106.40

There are no chirality outliers.

All (98) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	A1	90	VAL	Peptide
16	A1	92	ARG	Peptide
17	A2	48	GLY	Peptide
22	A3	83	PRO	Peptide
22	A3	84	LEU	Peptide
26	A4	38	LYS	Peptide
26	A4	40	HIS	Peptide
26	A4	51	ASP	Peptide
27	A5	4	HIS	Peptide
27	A5	46	CYS	Peptide
27	A5	47	PRO	Peptide
28	A6	27	LYS	Peptide
30	A8	51	ALA	Peptide
30	A8	52	LYS	Peptide
3	AD	122	ASP	Peptide
3	AD	236	GLY	Peptide
3	AD	237	GLU	Peptide
3	AD	27	THR	Peptide
3	AD	28	GLU	Peptide
3	AD	47	GLY	Peptide
4	AE	131	ALA	Peptide
6	AG	13	GLU	Peptide
7	AH	153	LYS	Peptide
7	AH	7	LEU	Peptide
8	AK	10	GLU	Peptide
8	AK	104	GLN	Peptide
8	AK	116	LEU	Peptide
8	AK	134	PRO	Peptide
8	AK	82	ARG	Peptide
9	AM	96	GLU	Peptide
11	AO	115	LEU	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
11	AO	26	GLY	Peptide
11	AO	36	LYS	Peptide
14	AQ	110	LEU	Peptide
14	AQ	89	ARG	Peptide
15	AR	115	ARG	Peptide
15	AR	3	ARG	Peptide
21	AV	160	GLY	Peptide
21	AV	5	LEU	Peptide
21	AV	63	ASP	Peptide
24	AW	15	LYS	Peptide
24	AW	17	SER	Peptide
13	B0	106	GLY	Peptide
26	B4	40	HIS	Peptide
27	B5	56	LYS	Peptide
28	B6	18	ARG	Peptide
3	BD	236	GLY	Peptide
3	BD	237	GLU	Peptide
3	BD	29	PRO	Peptide
4	BE	186	GLY	Peptide
4	BE	201	THR	Peptide
4	BE	203	LYS	Peptide
4	BE	61	ARG	Peptide
4	BE	65	GLY	Peptide
4	BE	88	GLY	Peptide
5	BF	123	LEU	Peptide
5	BF	2	LYS	Peptide
6	BG	13	GLU	Peptide
7	BH	124	GLU	Peptide
7	BH	125	VAL	Peptide
7	BH	152	ARG	Peptide
7	BH	155	SER	Peptide
8	BK	101	LEU	Peptide
8	BK	112	LYS	Peptide
8	BK	142	VAL	Peptide
8	BK	143	SER	Peptide
8	BK	82	ARG	Peptide
11	BO	115	LEU	Peptide
11	BO	139	LYS	Peptide
11	BO	36	LYS	Peptide
14	BQ	108	GLY	Peptide
14	BQ	109	GLY	Peptide
14	BQ	56	LEU	Peptide

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Mol	Chain	Res	Type	Group
20	BU	46	LYS	Peptide
20	BU	76	CYS	Peptide
21	BV	148	ASP	Peptide
21	BV	175	VAL	Peptide
21	BV	61	LEU	Peptide
24	BW	43	GLN	Peptide
32	CE	14	GLY	Peptide
32	CE	194	PRO	Peptide
32	CE	71	VAL	Peptide
33	CF	189	ALA	Peptide
38	CK	102	ARG	Peptide
40	CM	55	LYS	Peptide
42	CO	14	LYS	Peptide
42	CO	44	LYS	Peptide
44	CQ	13	THR	Peptide
45	CR	87	ILE	Peptide
32	DE	231	GLU	Peptide
32	DE	237	ALA	Peptide
32	DE	71	VAL	Peptide
32	DE	73	THR	Peptide
33	DF	47	LEU	Peptide
34	DG	13	ARG	Peptide
40	DM	56	HIS	Peptide
44	DQ	14	PRO	Peptide
50	DW	11	SER	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	62707	0	31613	2746	0
1	BA	62647	0	31583	2774	1
2	AB	2617	0	1328	105	0
2	BB	2617	0	1328	133	0
3	AD	2115	0	2195	263	0
3	BD	2115	0	2195	244	0
4	AE	1568	0	1634	288	0
4	BE	1568	0	1634	286	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	AF	1585	0	1632	143	0
5	BF	1627	0	1680	208	0
6	AG	1474	0	1535	200	0
6	BG	1474	0	1535	164	0
7	AH	1307	0	1382	158	0
7	BH	1307	0	1382	148	2
8	AK	1136	0	1223	128	0
8	BK	1136	0	1223	102	0
9	AM	1104	0	1180	139	0
9	BM	1104	0	1180	102	0
10	AN	933	0	996	53	0
10	BN	933	0	996	68	0
11	AO	1145	0	1228	245	0
11	BO	1145	0	1228	306	0
12	AP	1122	0	1179	208	0
12	BP	1122	0	1179	250	0
13	A0	968	0	1033	81	0
13	B0	960	0	1021	82	0
14	AQ	882	0	943	101	0
14	BQ	882	0	943	104	0
15	AR	1141	0	1202	128	0
15	BR	1141	0	1202	132	0
16	A1	964	0	1022	109	0
16	B1	964	0	1022	108	0
17	A2	779	0	852	98	1
17	B2	779	0	852	182	0
18	AS	900	0	964	86	0
18	BS	900	0	964	56	0
19	AT	725	0	778	60	0
19	BT	725	0	778	60	0
20	AU	785	0	878	95	0
20	BU	785	0	878	113	0
21	AV	1397	0	1430	140	0
21	BV	1428	0	1454	142	0
22	A3	607	0	628	66	0
22	B3	613	0	633	59	0
23	AZ	763	0	848	61	0
23	BZ	763	0	848	59	0
24	AW	558	0	610	47	0
24	BW	581	0	629	63	0
25	AX	469	0	518	36	0
25	BX	469	0	518	33	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	A4	533	0	522	78	0
26	B4	515	0	510	109	0
27	A5	459	0	480	78	1
27	B5	459	0	480	72	0
28	A6	389	0	404	90	0
28	B6	389	0	404	110	0
29	A7	430	0	480	28	0
29	B7	430	0	480	32	0
30	A8	488	0	560	105	0
30	B8	488	0	560	153	0
31	CA	32369	0	16339	1550	2
31	DA	32372	0	16338	1515	1
32	CE	1924	0	1975	186	0
32	DE	1924	0	1975	206	0
33	CF	1605	0	1668	123	0
33	DF	1612	0	1677	160	0
34	CG	1703	0	1764	180	0
34	DG	1703	0	1763	158	1
35	CH	1155	0	1213	81	0
35	DH	1155	0	1213	91	0
36	CI	843	0	857	59	1
36	DI	843	0	857	48	0
37	CJ	1257	0	1296	72	0
37	DJ	1257	0	1296	90	0
38	CK	1116	0	1177	100	0
38	DK	1116	0	1177	62	0
39	CL	1010	0	1037	111	0
39	DL	1010	0	1037	130	0
40	CM	801	0	849	86	0
40	DM	801	0	849	95	0
41	CN	885	0	904	76	0
41	DN	885	0	904	45	0
42	CO	975	0	1062	63	0
42	DO	975	0	1062	89	0
43	CP	928	0	987	77	0
43	DP	933	0	992	108	0
44	CQ	492	0	529	55	0
44	DQ	492	0	529	56	0
45	CR	734	0	771	55	0
45	DR	734	0	771	44	0
46	CS	705	0	725	63	0
46	DS	705	0	725	45	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	CT	834	0	904	79	0
47	DT	834	0	904	44	0
48	CU	591	0	662	31	0
48	DU	591	0	662	43	0
49	CV	624	0	636	74	0
49	DV	624	0	636	100	0
50	CW	763	0	861	76	0
50	DW	763	0	861	71	0
51	CX	217	0	234	20	0
51	DX	217	0	234	28	0
52	CB	1861	0	938	84	0
52	DB	1861	0	938	82	0
53	CC	1643	0	837	69	0
53	CD	1643	0	837	98	0
53	DC	1643	0	837	78	0
53	DD	1643	0	837	111	0
54	C1	205	0	103	9	0
54	D1	205	0	103	9	0
55	A0	1	0	0	0	0
55	A1	1	0	0	0	0
55	A2	1	0	0	0	0
55	A3	1	0	0	0	0
55	A5	2	0	0	0	0
55	A6	1	0	0	0	0
55	A7	2	0	0	0	0
55	AA	626	0	0	0	0
55	AB	17	0	0	0	0
55	AD	1	0	0	0	0
55	AE	4	0	0	0	0
55	AF	3	0	0	0	0
55	AO	3	0	0	0	0
55	AU	1	0	0	0	0
55	AZ	1	0	0	0	0
55	B1	1	0	0	0	0
55	B3	1	0	0	0	0
55	B5	1	0	0	0	0
55	BA	528	0	0	0	0
55	BB	15	0	0	0	0
55	BD	1	0	0	0	0
55	BE	3	0	0	0	0
55	BP	1	0	0	0	0
55	BR	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	C1	1	0	0	0	0
55	CA	240	0	0	0	0
55	CB	5	0	0	0	0
55	CC	7	0	0	0	0
55	CD	1	0	0	0	0
55	CG	2	0	0	0	0
55	CN	2	0	0	0	0
55	CQ	2	0	0	0	0
55	CT	1	0	0	0	0
55	DA	204	0	0	0	0
55	DB	2	0	0	0	0
55	DC	8	0	0	0	0
55	DG	2	0	0	0	0
55	DH	1	0	0	0	0
55	DS	1	0	0	0	0
56	CA	42	0	45	4	0
56	DA	42	0	45	5	0
57	CG	1	0	0	0	0
57	CQ	1	0	0	0	0
57	DG	1	0	0	0	0
57	DQ	1	0	0	0	0
All	All	299682	0	201028	17558	5

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 35.

All (17558) 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)
11:BO:62:LEU:CD1	30:B8:30:ARG:HH11	1.03	1.63
11:BO:71:VAL:CG1	11:BO:72:PRO:HD3	1.32	1.59
4:AE:23:VAL:HG12	4:AE:185:LYS:CA	1.33	1.59
1:BA:2015:A:C1'	27:B5:2:ALA:HA	1.42	1.48
4:BE:51:PHE:CG	4:BE:52:LEU:HB3	1.45	1.47
30:B8:22:VAL:CB	30:B8:50:LEU:HD23	1.46	1.44
12:AP:24:GLY:HA3	12:AP:25:ASP:CB	1.41	1.43
27:B5:4:HIS:HB3	27:B5:5:PRO:CD	1.47	1.42
1:BA:2015:A:H1'	27:B5:2:ALA:CA	1.49	1.42
1:AA:2015:A:H1'	27:A5:2:ALA:CA	1.46	1.42
1:BA:1225:C:O3'	17:B2:85:LYS:CB	1.67	1.41
1:AA:1056:G:N2	1:AA:1103:A:H62	1.02	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1226:G:P	17:B2:85:LYS:HB2	1.62	1.39
17:B2:76:LYS:HB2	17:B2:80:GLN:CB	1.49	1.39
12:AP:79:LEU:CD2	12:AP:80:GLU:HG2	1.50	1.39
17:B2:71:LEU:H	17:B2:86:GLY:CA	1.34	1.39
1:AA:2015:A:C1'	27:A5:2:ALA:HA	1.54	1.38
1:BA:226:G:N2	1:BA:228:A:N6	1.72	1.37
17:B2:76:LYS:CB	17:B2:80:GLN:HB2	1.54	1.36
12:BP:24:GLY:HA3	12:BP:25:ASP:CB	1.41	1.36
11:AO:61:ARG:HB2	11:AO:61:ARG:NH2	1.39	1.35
11:BO:61:ARG:HB2	11:BO:61:ARG:NH2	1.39	1.35
1:BA:226:G:H21	1:BA:228:A:N6	0.86	1.35
3:AD:35:LYS:HD2	3:AD:104:TYR:CD1	1.61	1.34
1:AA:2811:G:OP1	4:AE:61:ARG:CD	1.73	1.34
11:BO:62:LEU:CD1	30:B8:30:ARG:NH1	1.88	1.34
1:BA:226:G:N2	1:BA:228:A:H61	1.21	1.34
1:AA:2467:C:O2	12:AP:124:LYS:NZ	1.63	1.31
30:B8:22:VAL:HB	30:B8:50:LEU:CD2	1.58	1.31
12:AP:79:LEU:HD23	12:AP:80:GLU:N	1.46	1.30
4:BE:51:PHE:CE1	4:BE:52:LEU:HG	1.66	1.28
4:BE:39:PRO:HD3	4:BE:45:THR:OG1	1.23	1.28
1:BA:2681:C:C5	1:BA:2725:A:N6	2.00	1.27
1:AA:2811:G:OP1	4:AE:61:ARG:HD3	1.29	1.27
34:CG:12:CYS:SG	34:CG:19:LEU:CD2	2.23	1.26
4:AE:23:VAL:CG1	4:AE:185:LYS:CA	2.13	1.26
1:BA:1225:C:O3'	17:B2:85:LYS:HB2	1.13	1.26
12:BP:2:LEU:O	12:BP:70:PRO:HG2	1.30	1.26
11:BO:71:VAL:HG13	11:BO:72:PRO:CD	1.66	1.25
4:BE:37:ARG:HD3	4:BE:44:TYR:OH	1.08	1.25
1:BA:847:U:C4	1:BA:933:A:N6	2.03	1.25
11:BO:64:LYS:HB3	30:B8:25:MET:CG	1.68	1.24
27:B5:3:LYS:HE3	27:B5:3:LYS:CA	1.66	1.24
14:BQ:27:SER:HA	14:BQ:88:ASP:CB	1.66	1.24
1:BA:9:U:N3	1:BA:2629:A:N6	1.84	1.24
4:AE:23:VAL:CG1	4:AE:185:LYS:HA	1.68	1.24
28:A6:44:ARG:O	28:A6:45:LYS:HD2	1.09	1.24
1:BA:882:G:H1	1:BA:894:C:N4	1.35	1.23
1:AA:1056:G:N2	1:AA:1103:A:N6	1.86	1.23
12:AP:79:LEU:HD22	12:AP:80:GLU:CG	1.68	1.23
4:AE:23:VAL:CG1	4:AE:185:LYS:HB3	1.69	1.22
11:AO:64:LYS:CB	30:A8:25:MET:HG3	1.67	1.22
4:AE:23:VAL:HB	4:AE:184:VAL:O	1.37	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BP:75:THR:HG21	12:BP:87:LYS:CE	1.67	1.22
4:BE:51:PHE:CD1	4:BE:52:LEU:HG	1.75	1.22
3:BD:35:LYS:HD2	3:BD:104:TYR:CD1	1.75	1.22
4:BE:51:PHE:CZ	4:BE:52:LEU:HD12	1.73	1.21
30:B8:51:ALA:C	30:B8:53:PRO:HD2	1.58	1.21
31:DA:1160:G:O6	31:DA:1181:G:O6	1.58	1.20
4:AE:3:GLY:CA	4:AE:81:ILE:HG13	1.72	1.20
1:AA:1899:G:H22	1:AA:1902:C:N4	1.40	1.20
1:BA:1899:G:H22	1:BA:1902:C:N4	1.38	1.19
4:AE:23:VAL:HG12	4:AE:185:LYS:N	1.55	1.19
1:AA:2309:A:C4	1:AA:2310:A:C8	2.30	1.19
1:AA:49:A:N7	1:AA:120:U:C5	2.10	1.19
12:BP:2:LEU:O	12:BP:70:PRO:CG	1.91	1.19
21:BV:175:VAL:HG22	21:BV:176:PRO:HD3	1.23	1.19
1:BA:847:U:C5	1:BA:933:A:N6	2.11	1.19
17:B2:71:LEU:N	17:B2:86:GLY:HA2	1.56	1.19
4:BE:37:ARG:CD	4:BE:44:TYR:OH	1.91	1.18
11:BO:101:VAL:HG23	11:BO:106:LEU:CD1	1.74	1.18
12:BP:26:TYR:CD1	12:BP:139:GLU:HG2	1.78	1.18
31:DA:975:A:H4'	31:DA:976:G:H5''	1.20	1.18
31:DA:448:A:OP2	31:DA:485:G:N2	1.73	1.18
4:AE:23:VAL:CB	4:AE:184:VAL:O	1.91	1.18
1:BA:2571:C:H5'	1:BA:2572:A:H5''	1.25	1.18
11:BO:64:LYS:CB	30:B8:25:MET:HG3	1.72	1.17
28:B6:45:LYS:HE3	28:B6:45:LYS:HA	1.21	1.17
4:AE:23:VAL:CG1	4:AE:185:LYS:CB	2.22	1.17
4:BE:51:PHE:CD1	4:BE:52:LEU:HB3	1.78	1.17
28:B6:48:VAL:CG1	28:B6:49:HIS:H	1.56	1.16
7:BH:127:GLU:HG2	7:BH:128:PRO:HD2	1.28	1.16
1:AA:811:U:H2'	11:AO:21:ARG:O	1.42	1.16
11:AO:15:ARG:HG2	11:AO:15:ARG:HH11	1.10	1.16
11:AO:65:ARG:HH11	11:AO:65:ARG:HG3	1.07	1.16
4:AE:79:ARG:HA	4:AE:79:ARG:NE	1.47	1.15
45:CR:87:ILE:HG22	45:CR:88:ARG:H	1.11	1.15
30:B8:22:VAL:CB	30:B8:50:LEU:CD2	2.17	1.15
11:AO:47:ASP:OD1	11:AO:50:ARG:NH2	1.79	1.15
27:B5:4:HIS:HB3	27:B5:5:PRO:HD3	1.16	1.15
1:AA:2811:G:OP1	4:AE:61:ARG:CG	1.93	1.15
29:A7:8:ASN:ND2	29:A7:11:LYS:H	1.43	1.15
28:B6:48:VAL:HG13	28:B6:49:HIS:N	1.55	1.14
12:BP:64:ILE:HA	12:BP:106:VAL:HG12	1.27	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2309:A:C5	1:AA:2310:A:N7	2.14	1.14
28:A6:44:ARG:O	28:A6:45:LYS:CD	1.96	1.14
1:AA:631:A:OP2	30:A8:46:ARG:NH2	1.80	1.14
2:AB:15:A:H5'	2:AB:16:G:C8	1.81	1.14
12:AP:79:LEU:O	12:AP:81:VAL:HG13	1.47	1.13
11:AO:71:VAL:CG1	11:AO:72:PRO:HD3	1.78	1.13
14:AQ:88:ASP:O	14:AQ:89:ARG:HB3	1.44	1.13
24:AW:4:SER:HB2	24:AW:5:GLU:OE2	1.47	1.13
11:BO:19:VAL:CG2	11:BO:27:HIS:HB3	1.79	1.13
17:B2:77:ALA:O	17:B2:78:LYS:HD3	1.48	1.13
1:BA:586:A:C5'	5:BF:89:VAL:HG21	1.77	1.13
11:BO:62:LEU:HD12	30:B8:30:ARG:NH1	1.51	1.13
4:BE:51:PHE:CD1	4:BE:52:LEU:CB	2.32	1.12
4:AE:3:GLY:HA3	4:AE:81:ILE:CG1	1.78	1.12
1:AA:2309:A:C4	1:AA:2310:A:H8	1.64	1.13
12:BP:66:ILE:HG13	12:BP:67:ARG:N	1.60	1.12
11:BO:71:VAL:CG1	11:BO:72:PRO:CD	2.21	1.12
4:AE:23:VAL:HG13	4:AE:185:LYS:HB3	1.31	1.12
11:BO:62:LEU:HD11	30:B8:30:ARG:HH11	1.02	1.12
27:B5:4:HIS:O	27:B5:6:VAL:HG23	1.47	1.12
3:AD:35:LYS:NZ	3:AD:104:TYR:HB2	1.63	1.12
53:DC:17:C:H3'	53:DC:18:C:H5''	1.20	1.12
3:BD:35:LYS:HE2	3:BD:104:TYR:HB2	1.24	1.11
31:CA:1053:G:H5'	31:CA:1054:C:H5'	1.23	1.11
4:AE:22:PRO:O	4:AE:23:VAL:HG13	1.48	1.11
4:BE:51:PHE:CD1	4:BE:52:LEU:CG	2.32	1.11
6:AG:73:ALA:HB2	6:AG:82:LEU:HD21	1.15	1.11
30:B8:33:ASN:H	30:B8:36:LYS:HE2	0.99	1.11
31:DA:1004:A:H1'	31:DA:1036:G:N1	1.64	1.11
12:AP:64:ILE:HG22	12:AP:65:PHE:N	1.61	1.11
4:BE:51:PHE:CE1	4:BE:52:LEU:CG	2.33	1.11
34:CG:12:CYS:SG	34:CG:19:LEU:HD22	1.89	1.11
12:BP:26:TYR:CD1	12:BP:139:GLU:CG	2.33	1.10
1:BA:2840:C:H5''	13:B0:53:HIS:HD2	1.10	1.10
1:AA:2468:G:H4'	1:AA:2469:A:OP1	1.39	1.10
11:BO:62:LEU:CD1	30:B8:30:ARG:HD2	1.81	1.10
4:AE:23:VAL:HG12	4:AE:185:LYS:HA	1.14	1.10
53:CC:17:C:H3'	53:CC:18:C:H5''	1.15	1.10
12:BP:66:ILE:CG1	12:BP:67:ARG:H	1.59	1.10
12:AP:68:ILE:HD13	12:AP:103:MET:HG2	1.29	1.10
1:BA:1070:A:H5'	1:BA:1071:G:H5''	1.33	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2393:A:H5'	11:AO:62:LEU:HB3	1.34	1.10
14:BQ:27:SER:CA	14:BQ:88:ASP:HB2	1.81	1.10
4:BE:56:PRO:HB3	4:BE:57:LYS:CE	1.80	1.10
4:BE:56:PRO:CA	4:BE:57:LYS:HD3	1.81	1.10
3:BD:44:ASN:HB3	3:BD:49:ILE:HA	1.24	1.10
4:BE:56:PRO:HG3	4:BE:57:LYS:NZ	1.66	1.10
20:AU:79:CYS:SG	20:AU:80:GLY:N	2.23	1.10
15:AR:74:ARG:HG2	15:AR:74:ARG:HH11	1.04	1.10
1:AA:2610:C:H4'	1:AA:2611:U:OP2	1.50	1.10
2:BB:74:U:H2'	2:BB:75:G:H5''	1.13	1.10
4:AE:60:ASN:C	4:AE:61:ARG:HD2	1.70	1.09
5:BF:89:VAL:HG12	5:BF:90:PHE:H	1.05	1.09
15:AR:36:GLU:HG3	15:AR:41:ARG:HD2	1.28	1.09
27:B5:3:LYS:CE	27:B5:3:LYS:HA	1.82	1.09
4:BE:56:PRO:HB3	4:BE:57:LYS:HE2	1.21	1.09
42:DO:23:LYS:HE2	42:DO:23:LYS:H	1.17	1.09
14:AQ:106:ARG:HA	14:AQ:110:LEU:HD11	1.32	1.09
1:BA:389:G:H1	11:BO:71:VAL:HG12	1.14	1.09
12:BP:24:GLY:CA	12:BP:25:ASP:CB	2.30	1.09
11:BO:64:LYS:CD	30:B8:25:MET:SD	2.40	1.09
12:BP:27:VAL:HG13	12:BP:105:GLU:OE2	1.52	1.09
31:CA:1305:G:H22	31:CA:1331:G:H2'	1.02	1.09
31:DA:168:G:H2'	31:DA:169:C:H5''	1.25	1.09
1:AA:2317:C:H2'	1:AA:2318:G:H5'	1.13	1.09
30:B8:22:VAL:HG12	30:B8:50:LEU:HD21	1.20	1.09
17:B2:80:GLN:HE21	17:B2:80:GLN:HA	1.09	1.09
12:AP:75:THR:HB	12:AP:88:GLY:HA3	1.34	1.09
1:BA:2275:C:O2'	12:BP:84:GLY:CA	2.01	1.09
11:BO:71:VAL:HG12	11:BO:72:PRO:HD3	1.11	1.08
4:BE:52:LEU:HD22	4:BE:52:LEU:O	1.53	1.08
4:BE:52:LEU:H	4:BE:53:PRO:HD2	1.07	1.08
1:AA:2404:C:H1'	11:AO:67:MET:HE3	1.28	1.08
4:AE:119:ARG:HH11	4:AE:119:ARG:HG3	1.06	1.08
23:AZ:85:LEU:C	23:AZ:87:PRO:HD2	1.72	1.08
11:BO:62:LEU:HD13	30:B8:30:ARG:HD2	1.09	1.08
17:B2:71:LEU:N	17:B2:86:GLY:CA	2.11	1.08
11:AO:64:LYS:HB3	30:A8:25:MET:HG3	1.09	1.08
1:AA:49:A:N7	1:AA:120:U:H5	1.45	1.08
4:BE:56:PRO:HA	4:BE:57:LYS:HD3	1.09	1.08
31:CA:1178:G:H5'	39:CL:93:ARG:HH21	1.17	1.08
11:AO:9:ASN:HB3	11:AO:10:PRO:HD2	1.35	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:57:PHE:O	15:AR:58:ASN:HB3	1.54	1.08
12:AP:24:GLY:CA	12:AP:25:ASP:CB	2.30	1.08
12:BP:75:THR:HG21	12:BP:87:LYS:HE2	1.08	1.08
11:BO:65:ARG:HG3	11:BO:65:ARG:HH11	1.07	1.08
1:BA:2393:A:H5'	11:BO:62:LEU:HB3	1.30	1.08
11:BO:71:VAL:HG13	11:BO:72:PRO:HD3	1.11	1.08
2:BB:74:U:C2'	2:BB:75:G:H5''	1.84	1.08
11:BO:15:ARG:CG	11:BO:15:ARG:HH11	1.67	1.08
1:BA:672:C:C2'	1:BA:673:C:H5''	1.83	1.08
48:DU:53:ARG:HG3	48:DU:63:GLN:HE21	1.16	1.08
12:AP:66:ILE:HG13	12:AP:67:ARG:H	1.11	1.07
7:AH:83:TYR:HB3	7:AH:135:GLY:H	1.13	1.07
1:AA:2032:G:H21	4:AE:146:THR:HG23	1.19	1.07
1:AA:1899:G:N2	1:AA:1902:C:H41	1.52	1.07
1:AA:2317:C:C2'	1:AA:2318:G:H5'	1.84	1.07
1:BA:2014:A:HO2'	27:B5:2:ALA:N	1.51	1.07
17:B2:73:SER:HB2	17:B2:83:ARG:HA	1.33	1.07
1:BA:2415:G:H4'	11:BO:67:MET:H	1.07	1.07
1:BA:2306:C:H3'	1:BA:2307:G:H5''	1.36	1.07
27:B5:16:ARG:HG2	27:B5:16:ARG:HH11	1.07	1.07
1:AA:1105:U:H2'	1:AA:1106:G:H8	1.16	1.07
2:AB:12:C:O2	22:A3:74:ARG:NH1	1.87	1.07
4:AE:74:PRO:HG2	4:AE:77:ILE:HG22	1.30	1.07
1:AA:2404:C:H1'	11:AO:67:MET:CE	1.85	1.07
28:B6:25:LYS:HB3	30:B8:34:TRP:CH2	1.90	1.06
7:BH:125:VAL:HG22	7:BH:126:PRO:HD3	1.27	1.06
1:BA:1332:G:N2	1:BA:1609:A:HO2'	1.52	1.06
11:BO:47:ASP:OD2	11:BO:49:ARG:HG2	1.55	1.06
4:BE:51:PHE:CG	4:BE:52:LEU:CB	2.39	1.06
31:DA:1256:A:OP2	33:DF:26:LYS:NZ	1.87	1.06
15:BR:74:ARG:HH11	15:BR:74:ARG:HG2	0.96	1.06
30:B8:29:LYS:HG2	30:B8:29:LYS:O	1.44	1.06
4:AE:14:ILE:HG23	4:AE:15:PHE:N	1.68	1.06
4:AE:23:VAL:HG13	4:AE:185:LYS:CB	1.83	1.06
11:AO:21:ARG:HE	11:AO:21:ARG:HA	1.12	1.06
12:BP:32:TYR:OH	12:BP:111:GLU:CB	2.04	1.06
12:AP:24:GLY:HA3	12:AP:25:ASP:HB2	1.08	1.06
1:BA:1899:G:N2	1:BA:1902:C:H41	1.52	1.06
34:DG:139:ARG:HH11	34:DG:139:ARG:HG3	1.18	1.06
27:B5:4:HIS:CB	27:B5:5:PRO:CD	2.30	1.05
30:B8:51:ALA:C	30:B8:53:PRO:CD	2.23	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:15:ARG:CG	11:AO:15:ARG:HH11	1.67	1.05
32:DE:111:ARG:HH11	32:DE:111:ARG:HG2	0.98	1.05
31:CA:1139:G:N2	31:CA:1143:G:O6	1.89	1.05
20:BU:13:VAL:HG21	20:BU:72:VAL:HB	1.32	1.05
11:BO:64:LYS:HD2	30:B8:25:MET:SD	1.96	1.05
1:AA:2371:G:H4'	28:A6:45:LYS:CG	1.86	1.05
34:DG:13:ARG:HG2	34:DG:14:ARG:N	1.71	1.05
31:DA:376:G:H5''	46:DS:5:ARG:HD3	1.39	1.05
12:AP:24:GLY:HA3	12:AP:25:ASP:HB3	1.31	1.05
1:BA:273(C):C:N4	1:BA:363(C):G:H1	1.52	1.05
3:BD:27:THR:HG21	3:BD:83:GLU:HG2	1.37	1.05
8:BK:82:ARG:HH21	31:CA:56:U:H4'	1.14	1.05
45:DR:17:ARG:HG3	45:DR:17:ARG:HH11	1.18	1.05
11:BO:64:LYS:CB	30:B8:25:MET:CG	2.33	1.05
11:AO:65:ARG:HH21	30:A8:15:LYS:HB2	1.16	1.05
28:B6:48:VAL:O	28:B6:49:HIS:HB2	1.52	1.05
1:AA:1884:A:H2'	1:AA:1885:A:H5''	1.30	1.05
12:BP:30:GLY:CA	12:BP:107:ALA:HB2	1.87	1.05
3:BD:166:GLN:HA	3:BD:166:GLN:HE21	1.19	1.05
4:BE:48:GLN:C	4:BE:49:LEU:HG	1.74	1.04
34:CG:22:LYS:HB2	34:CG:26:CYS:HB2	1.11	1.04
12:BP:66:ILE:HG13	12:BP:67:ARG:H	0.88	1.04
30:B8:33:ASN:N	30:B8:36:LYS:HE2	1.69	1.04
1:BA:1332:G:N2	1:BA:1609:A:O2'	1.88	1.04
31:CA:1263:C:H2'	31:CA:1264:C:H6	1.22	1.04
1:AA:1026:U:H1'	1:AA:1027:A:O5'	1.57	1.04
5:BF:25:PRO:HB3	5:BF:28:ILE:HG13	1.36	1.04
37:DJ:113:GLU:HB2	37:DJ:119:ARG:HG2	1.39	1.04
6:AG:67:LYS:HE2	26:A4:6:HIS:CE1	1.91	1.04
34:DG:13:ARG:HG2	34:DG:14:ARG:H	0.90	1.04
49:CV:41:VAL:HB	49:CV:42:PRO:HA	1.38	1.04
4:AE:50:GLY:HA2	4:AE:77:ILE:HA	1.39	1.04
5:BF:82:ILE:HD13	5:BF:82:ILE:O	1.54	1.04
11:BO:15:ARG:HH11	11:BO:15:ARG:HG2	1.10	1.04
53:DD:5:G:N2	53:DD:70:C:N3	2.06	1.04
1:AA:2210:G:H3'	1:AA:2211:G:C8	1.92	1.04
11:BO:5:ASP:O	11:BO:6:LEU:O	1.74	1.04
4:BE:52:LEU:H	4:BE:53:PRO:CD	1.70	1.03
31:DA:1160:G:H1	31:DA:1177:G:N2	1.54	1.03
11:BO:19:VAL:HG23	11:BO:27:HIS:HB3	1.06	1.03
12:BP:24:GLY:HA3	12:BP:25:ASP:HB2	1.04	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:674:G:H1'	5:AF:74:ARG:HD3	1.39	1.03
28:A6:46:HIS:O	28:A6:47:THR:HG23	1.58	1.03
1:AA:252:G:OP2	11:AO:50:ARG:NH1	1.91	1.03
41:CN:17:GLY:HA3	41:CN:77:MET:HE3	1.35	1.03
34:DG:107:ARG:HG2	34:DG:107:ARG:HH11	1.18	1.03
32:CE:16:HIS:HE2	32:CE:213:LEU:HD13	1.19	1.03
32:CE:67:THR:HG21	32:CE:155:LEU:HG	1.36	1.03
1:BA:586:A:H5'	5:BF:89:VAL:HG21	1.03	1.02
31:CA:975:A:H4'	31:CA:976:G:H5''	1.39	1.02
31:CA:792:A:H4'	31:CA:793:U:O5'	1.57	1.02
1:AA:566:U:OP1	11:AO:29:LYS:HE3	1.59	1.02
31:CA:1004:A:H5''	31:CA:1025:U:O4	1.56	1.02
5:BF:67:GLN:HG3	5:BF:67:GLN:O	1.56	1.02
4:AE:14:ILE:HG23	4:AE:15:PHE:H	0.89	1.02
12:AP:79:LEU:HD22	12:AP:80:GLU:HG2	1.02	1.02
11:AO:61:ARG:HH21	11:AO:61:ARG:CB	1.73	1.02
1:BA:882:G:N2	1:BA:894:C:N3	2.07	1.02
1:AA:2311:A:C4	6:AG:80:PHE:CE1	2.47	1.02
31:CA:1160:G:H1	31:CA:1177:G:N2	1.57	1.02
1:AA:885:C:C2	1:AA:890:A:N6	2.27	1.02
6:AG:96:ARG:HH11	6:AG:96:ARG:HG2	1.21	1.02
23:BZ:91:LYS:HB2	23:BZ:91:LYS:NZ	1.70	1.02
11:BO:64:LYS:HB3	30:B8:25:MET:HG3	1.23	1.02
1:AA:906:G:O2'	12:AP:67:ARG:NH2	1.92	1.02
34:DG:13:ARG:CG	34:DG:14:ARG:H	1.71	1.02
14:BQ:59:LYS:HD2	14:BQ:60:GLY:H	1.18	1.02
11:BO:61:ARG:HH21	11:BO:61:ARG:CB	1.73	1.02
4:BE:81:ILE:HG23	4:BE:82:ARG:N	1.74	1.02
31:CA:1182:G:H4'	31:CA:1183:A:H5'	1.38	1.02
5:AF:45:ARG:HG2	5:AF:45:ARG:HH11	1.21	1.02
5:AF:101:LEU:HD12	5:AF:102:PRO:HD2	1.39	1.02
11:BO:62:LEU:HD11	30:B8:30:ARG:NH1	1.59	1.02
4:BE:52:LEU:HD13	4:BE:52:LEU:C	1.79	1.02
17:B2:78:LYS:O	17:B2:79:VAL:HG13	1.60	1.02
12:BP:24:GLY:HA3	12:BP:25:ASP:HB3	1.37	1.02
12:BP:75:THR:CG2	12:BP:87:LYS:HE2	1.90	1.02
12:AP:66:ILE:CG1	12:AP:67:ARG:H	1.71	1.02
26:A4:16:CYS:HB2	26:A4:36:CYS:H	1.18	1.02
1:AA:249:C:O2	30:A8:12:LYS:HE3	1.58	1.02
30:B8:22:VAL:CG1	30:B8:50:LEU:HD21	1.89	1.01
3:BD:35:LYS:HD2	3:BD:104:TYR:HD1	1.02	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B6:47:THR:HG22	28:B6:47:THR:O	1.59	1.01
12:AP:65:PHE:O	12:AP:66:ILE:HG23	1.60	1.01
1:BA:2840:C:H5''	13:B0:53:HIS:CD2	1.95	1.01
52:CB:19:G:H4'	52:CB:20:U:OP2	1.60	1.01
1:AA:883:G:H1	1:AA:893:C:N4	1.57	1.01
17:B2:70:ILE:O	17:B2:71:LEU:HB2	1.56	1.01
3:AD:35:LYS:HD3	3:AD:63:ARG:HB3	1.40	1.01
4:BE:81:ILE:CG2	4:BE:82:ARG:H	1.73	1.01
12:BP:26:TYR:HD1	12:BP:139:GLU:CG	1.70	1.01
1:AA:620:G:H4'	1:AA:621:A:H5''	1.37	1.01
17:B2:78:LYS:O	17:B2:79:VAL:HG22	1.60	1.01
11:BO:19:VAL:HG23	11:BO:27:HIS:CB	1.89	1.01
1:BA:946:G:O2'	1:BA:947:G:H5'	1.58	1.01
31:CA:27:G:H4'	34:CG:209:ARG:HG3	1.41	1.01
11:BO:105:LEU:O	11:BO:105:LEU:HD13	1.61	1.01
11:AO:50:ARG:HG3	11:AO:50:ARG:HH21	0.88	1.01
1:AA:2473:U:H2'	1:AA:2474:C:H5''	1.42	1.01
1:BA:2137:C:H42	1:BA:2154:G:H1	1.02	1.01
11:AO:71:VAL:HG12	11:AO:72:PRO:HD3	1.42	1.01
6:AG:77:ILE:HG21	6:AG:80:PHE:CZ	1.96	1.01
31:CA:1305:G:N2	31:CA:1331:G:H2'	1.75	1.01
43:DP:49:THR:HG22	43:DP:51:ALA:H	1.24	1.01
42:DO:17:LYS:HD3	42:DO:18:VAL:H	1.23	1.01
17:B2:76:LYS:H	17:B2:80:GLN:CG	1.73	1.00
4:BE:37:ARG:HD2	4:BE:80:GLU:OE2	1.61	1.00
11:AO:64:LYS:HB3	30:A8:25:MET:CG	1.88	1.00
30:A8:59:LYS:HB2	30:A8:59:LYS:NZ	1.74	1.00
31:CA:1321:C:H3'	31:CA:1322:C:H5''	1.43	1.00
11:BO:9:ASN:HB3	11:BO:10:PRO:HD2	1.44	1.00
4:AE:23:VAL:HG12	4:AE:184:VAL:C	1.79	1.00
30:A8:14:VAL:HG11	30:A8:60:LEU:HD11	1.42	1.00
11:AO:50:ARG:HG3	11:AO:50:ARG:NH2	1.68	1.00
31:DA:1004:A:H8	31:DA:1036:G:H22	1.09	1.00
12:AP:66:ILE:HD12	12:AP:67:ARG:N	1.76	1.00
4:BE:132:HIS:O	4:BE:133:LYS:HB2	1.60	1.00
1:BA:1689:A:N6	1:BA:1698:A:H2	1.58	1.00
11:BO:62:LEU:HD12	30:B8:30:ARG:HH11	0.83	1.00
1:AA:2371:G:O2'	28:A6:46:HIS:CD2	2.14	1.00
3:BD:35:LYS:CD	3:BD:104:TYR:HD1	1.74	1.00
1:AA:1250:G:N7	11:AO:18:ARG:NH2	2.09	1.00
32:CE:8:LYS:HE3	32:CE:11:LEU:HB2	1.37	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:452:A:OP2	46:CS:43:LYS:NZ	1.95	1.00
34:CG:19:LEU:HD22	34:CG:19:LEU:H	1.23	1.00
1:BA:2287:A:H62	1:BA:2344:U:H3	1.04	1.00
1:AA:2211:G:H4'	1:AA:2212:A:OP2	1.57	1.00
1:BA:1022:G:O2'	1:BA:1023:U:OP2	1.80	1.00
1:BA:2068:U:N3	1:BA:2430:A:H2	1.58	1.00
4:AE:23:VAL:HA	4:AE:185:LYS:HA	1.44	1.00
31:CA:748:C:H4'	31:CA:749:C:O5'	1.58	1.00
1:BA:1225:C:O3'	17:B2:85:LYS:HB3	1.59	1.00
39:DL:4:TYR:HB2	39:DL:19:LEU:HB2	1.42	1.00
31:CA:1004:A:N1	31:CA:1024:G:H2'	1.76	0.99
31:DA:503:C:OP2	42:DO:116:SER:HB3	1.62	0.99
1:BA:672:C:H2'	1:BA:673:C:H5''	1.42	0.99
26:A4:16:CYS:SG	26:A4:18:CYS:N	2.33	0.99
33:DF:111:LEU:HD11	33:DF:145:GLY:HA3	1.44	0.99
12:AP:78:PRO:O	12:AP:79:LEU:HB2	1.62	0.99
4:AE:79:ARG:CA	4:AE:79:ARG:HE	1.75	0.99
40:CM:48:THR:HA	40:CM:62:HIS:HB3	1.41	0.99
4:BE:48:GLN:HA	4:BE:80:GLU:HA	1.43	0.99
1:AA:960:A:H61	12:AP:83:MET:HE2	1.24	0.99
1:AA:1728:G:H3'	1:AA:1729:A:C5'	1.92	0.99
7:AH:153:LYS:HG3	7:AH:162:ILE:H	1.24	0.99
47:CT:76:LEU:HD12	47:CT:77:VAL:H	1.27	0.99
1:AA:2811:G:OP1	4:AE:61:ARG:HG2	1.61	0.99
21:AV:6:LYS:HA	21:AV:60:GLU:HB2	1.45	0.99
9:AM:133:GLN:HE21	9:AM:133:GLN:H	1.01	0.99
1:BA:389:G:N1	11:BO:71:VAL:HG12	1.77	0.99
1:AA:2415:G:H4'	11:AO:67:MET:H	1.25	0.99
5:BF:89:VAL:HG12	5:BF:90:PHE:N	1.77	0.99
40:DM:99:LYS:HD3	40:DM:100:THR:H	1.27	0.99
1:AA:1287:A:N7	13:A0:107:ASP:HB3	1.76	0.99
1:AA:2309:A:C5	1:AA:2310:A:C8	2.48	0.99
6:AG:73:ALA:CB	6:AG:82:LEU:HD21	1.91	0.99
1:AA:1113:U:H5'	7:AH:2:SER:HB2	1.43	0.99
14:BQ:27:SER:OG	14:BQ:88:ASP:OD1	1.79	0.99
1:AA:2733:A:H2'	1:AA:2734:A:H5''	1.45	0.99
1:AA:2371:G:C4'	28:A6:45:LYS:HG3	1.93	0.98
32:DE:42:ILE:HD11	32:DE:202:PRO:HB2	1.43	0.98
1:AA:2635:C:H5''	4:AE:78:LEU:HB2	1.41	0.98
31:DA:1004:A:H5''	31:DA:1025:U:O4	1.61	0.98
12:BP:19:GLY:H	12:BP:98:LYS:HZ3	1.08	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CH:126:ARG:HG3	35:CH:126:ARG:HH11	1.24	0.98
5:AF:29:ASN:H	5:AF:112:MET:CE	1.74	0.98
17:B2:71:LEU:H	17:B2:86:GLY:HA2	0.84	0.98
3:AD:35:LYS:HB3	3:AD:63:ARG:HA	1.44	0.98
30:B8:33:ASN:H	30:B8:36:LYS:CE	1.76	0.98
27:B5:36:CYS:SG	27:B5:49:CYS:HB3	2.03	0.98
15:AR:58:ASN:HD22	15:AR:58:ASN:C	1.67	0.98
5:AF:67:GLN:HG3	5:AF:67:GLN:O	1.61	0.98
14:AQ:14:VAL:O	14:AQ:18:ILE:HD13	1.61	0.98
1:AA:2701:C:H3'	1:AA:2702:U:H5''	1.44	0.98
31:DA:1183:A:O2'	31:DA:1184:G:OP1	1.80	0.98
32:DE:137:ARG:HH12	32:DE:140:HIS:HB2	1.26	0.98
20:BU:81:LYS:HD3	20:BU:97:ARG:CZ	1.93	0.98
11:BO:101:VAL:CG2	11:BO:106:LEU:HD12	1.93	0.98
1:AA:389:G:H1	11:AO:71:VAL:HG12	1.26	0.98
1:AA:2468:G:N2	1:AA:2482:G:N7	2.10	0.98
1:AA:607:U:H3	1:AA:621:A:H2	1.01	0.98
13:B0:37:THR:HG23	13:B0:39:PRO:HD2	1.43	0.98
1:AA:1053:C:H42	1:AA:1106:G:H1	1.02	0.98
47:CT:77:VAL:O	47:CT:78:GLU:HB2	1.63	0.98
31:DA:1263:C:H42	31:DA:1272:G:H1	1.02	0.98
28:A6:25:LYS:HD2	30:A8:34:TRP:HE1	1.26	0.98
32:CE:32:ILE:HD11	32:CE:40:HIS:HB3	1.44	0.98
31:CA:1446:A:OP1	31:CA:1446:A:H4'	1.61	0.97
35:DH:101:ILE:HD11	35:DH:119:LEU:HD23	1.42	0.97
31:DA:1321:C:N4	31:DA:1322:C:H41	1.62	0.97
15:AR:16:ARG:HE	15:AR:19:LEU:HD21	1.26	0.97
3:BD:35:LYS:HE3	3:BD:64:ILE:C	1.84	0.97
3:BD:35:LYS:HE3	3:BD:64:ILE:O	1.63	0.97
31:DA:963:G:N3	40:DM:55:LYS:NZ	2.10	0.97
31:DA:191:G:O2'	50:DW:103:GLY:HA2	1.64	0.97
4:AE:36:ARG:NH2	4:AE:88:GLY:HA2	1.79	0.97
1:BA:586:A:H5'	5:BF:89:VAL:CG2	1.94	0.97
12:AP:64:ILE:HG22	12:AP:65:PHE:H	1.14	0.97
11:BO:79:ARG:NE	11:BO:110:TYR:CE1	2.31	0.97
4:BE:25:VAL:HG12	4:BE:26:ILE:H	1.24	0.97
3:AD:35:LYS:CD	3:AD:104:TYR:CD1	2.46	0.97
1:AA:2309:A:C6	1:AA:2310:A:N7	2.33	0.97
13:B0:37:THR:HG22	13:B0:40:LYS:H	1.29	0.97
7:AH:59:ARG:HH11	7:AH:59:ARG:HG3	1.25	0.97
5:AF:178:PRO:HB2	5:AF:201:VAL:HG11	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:79:LEU:HD23	12:AP:80:GLU:H	0.82	0.97
1:BA:2415:G:H4'	11:BO:67:MET:N	1.78	0.97
20:AU:81:LYS:HZ3	20:AU:96:ILE:HD12	1.25	0.97
39:CL:112:LYS:HA	39:CL:119:ALA:HB2	1.45	0.97
1:BA:1062:G:H1	1:BA:1076:C:H42	1.11	0.97
5:BF:46:ARG:HH11	5:BF:46:ARG:HG2	1.26	0.97
31:CA:201:C:H42	31:CA:216:G:H1	1.06	0.97
1:BA:2807:G:N1	1:BA:2893:G:O6	1.98	0.97
30:B8:22:VAL:CG1	30:B8:50:LEU:CD2	2.42	0.97
4:AE:79:ARG:HA	4:AE:79:ARG:HE	0.80	0.97
11:BO:101:VAL:HG23	11:BO:106:LEU:HD12	0.99	0.97
23:BZ:87:PRO:HA	23:BZ:90:ILE:HG23	1.44	0.97
17:B2:35:LEU:HG	17:B2:37:VAL:HG11	1.43	0.97
12:BP:26:TYR:CE1	12:BP:139:GLU:HB2	1.99	0.97
1:BA:2372:G:H4'	28:B6:46:HIS:CE1	1.99	0.97
35:DH:83:GLU:HB3	35:DH:88:LYS:HG3	1.45	0.97
28:B6:25:LYS:CD	30:B8:34:TRP:HH2	1.78	0.97
13:A0:100:LEU:HD11	13:A0:113:LEU:HD13	1.47	0.97
31:CA:1211:U:H5'	31:CA:1212:U:OP1	1.65	0.96
11:AO:19:VAL:HG23	11:AO:20:GLY:H	1.26	0.96
6:AG:161:THR:HG22	6:AG:163:ALA:H	1.30	0.96
34:CG:12:CYS:HA	34:CG:19:LEU:HD21	1.45	0.96
31:DA:502:G:OP1	42:DO:118:SER:HB3	1.64	0.96
12:BP:78:PRO:O	12:BP:79:LEU:HD12	1.64	0.96
3:AD:182:LEU:O	3:AD:271:ILE:HG12	1.65	0.96
3:BD:186:HIS:HD2	3:BD:188:GLU:H	1.13	0.96
1:AA:780:G:H21	1:AA:783:A:H62	1.08	0.96
1:AA:2255:G:N2	12:AP:85:LYS:HE2	1.81	0.96
17:B2:76:LYS:H	17:B2:80:GLN:HG2	1.26	0.96
3:AD:270:ILE:HG22	3:AD:271:ILE:H	1.30	0.96
4:AE:23:VAL:HG12	4:AE:185:LYS:CB	1.92	0.96
6:AG:82:LEU:O	6:AG:82:LEU:HD22	1.66	0.96
1:AA:2287:A:H62	1:AA:2344:U:H3	1.04	0.96
1:BA:483:A:H4'	20:BU:49:VAL:HA	1.47	0.96
1:BA:74:A:H4'	1:BA:75:G:O5'	1.64	0.96
28:B6:45:LYS:HA	28:B6:45:LYS:CE	1.96	0.96
30:A8:14:VAL:CG1	30:A8:60:LEU:HD11	1.96	0.96
5:AF:46:ARG:HG2	5:AF:46:ARG:HH11	1.25	0.96
1:BA:2420:C:H41	30:B8:31:HIS:HB3	1.28	0.96
12:BP:32:TYR:OH	12:BP:111:GLU:HB2	1.65	0.96
31:DA:168:G:C2'	31:DA:169:C:H5''	1.95	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:138:G:N2	19:BT:44:GLU:OE2	1.98	0.96
1:BA:2275:C:O2'	12:BP:84:GLY:HA3	1.62	0.96
1:AA:155:C:H42	1:AA:171:G:H1	1.07	0.96
46:DS:8:ARG:HG2	46:DS:8:ARG:HH11	1.27	0.96
4:AE:201:THR:HG22	4:AE:203:LYS:H	1.31	0.96
9:BM:97:ARG:HH11	9:BM:97:ARG:HG2	1.28	0.96
1:BA:776:G:H4'	1:BA:777:A:O5'	1.65	0.96
32:CE:96:ARG:H	32:CE:96:ARG:HD2	1.28	0.96
31:DA:1305:G:HO2'	31:DA:1306:A:H8	1.04	0.95
34:DG:30:LYS:HB2	34:DG:35:ARG:HD2	1.45	0.95
1:AA:2113:U:H5'	1:AA:2114:A:H8	1.28	0.95
34:CG:7:PRO:HB2	34:CG:10:ARG:HD2	1.47	0.95
21:AV:19:ARG:NH1	21:AV:84:GLU:O	1.99	0.95
1:AA:67:U:H3	1:AA:74:A:H2	1.02	0.95
31:CA:1028(B):C:N4	31:CA:1032(A):G:H1	1.64	0.95
9:BM:34:LEU:O	9:BM:49:GLY:HA3	1.66	0.95
4:AE:14:ILE:CG2	4:AE:15:PHE:H	1.73	0.95
17:B2:77:ALA:O	17:B2:78:LYS:HB2	1.65	0.95
11:AO:19:VAL:HG23	11:AO:20:GLY:N	1.79	0.95
17:A2:47:VAL:HG22	17:A2:48:GLY:H	1.29	0.95
1:AA:1019:U:H3	1:AA:1142(A):A:H62	1.07	0.95
1:BA:9:U:H3	1:BA:2629:A:N6	1.56	0.95
39:DL:28:VAL:HG22	39:DL:63:ILE:HB	1.47	0.95
32:DE:111:ARG:NH1	32:DE:111:ARG:HG2	1.78	0.95
16:A1:8:VAL:HG23	16:A1:11:ARG:HH21	1.29	0.95
12:AP:79:LEU:CD2	12:AP:80:GLU:H	1.78	0.95
1:BA:84:A:N6	1:BA:102:G:O2'	1.99	0.95
1:AA:1310:G:OP2	29:A7:9:ARG:NH1	1.99	0.95
19:AT:67:GLY:O	19:AT:69:TYR:N	1.97	0.95
1:AA:1056:G:H21	1:AA:1103:A:H62	0.98	0.95
30:A8:59:LYS:HZ2	30:A8:59:LYS:HB2	1.24	0.95
4:BE:116:VAL:O	4:BE:117:MET:HB3	1.65	0.95
1:BA:676:A:H8	1:BA:2069:G:H21	1.06	0.95
1:BA:2015:A:C1'	27:B5:2:ALA:CA	2.23	0.95
4:AE:60:ASN:OD1	4:AE:62:PRO:HG2	1.66	0.95
41:CN:79:SER:HB2	41:CN:106:LYS:HD2	1.49	0.95
1:BA:2210:G:H3'	1:BA:2211:G:C5	2.02	0.95
1:AA:2712:U:H5'	1:AA:2712:U:O2	1.66	0.95
42:CO:86:ARG:HG3	42:CO:86:ARG:HH11	1.32	0.95
30:B8:22:VAL:C	30:B8:50:LEU:CD2	2.35	0.95
1:AA:2394:C:OP1	11:AO:63:PRO:HD2	1.65	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2275:C:HO2'	12:BP:84:GLY:HA3	1.31	0.95
1:BA:2394:C:OP1	11:BO:63:PRO:HD2	1.64	0.95
4:BE:51:PHE:CE1	4:BE:52:LEU:CD1	2.50	0.95
1:AA:259:G:O2'	1:AA:621:A:O2'	1.85	0.95
12:BP:79:LEU:O	12:BP:79:LEU:HD12	1.67	0.95
1:BA:93:C:H5'	1:BA:94:G:OP2	1.67	0.95
24:AW:50:ILE:HD12	24:AW:51:ARG:H	1.28	0.95
12:AP:66:ILE:CD1	12:AP:67:ARG:N	2.30	0.94
15:AR:54:ARG:O	15:AR:55:ASN:HB3	1.68	0.94
33:CF:19:GLU:HA	33:CF:54:ARG:HH12	1.28	0.94
1:AA:142:G:H1'	19:AT:37:THR:HG21	1.49	0.94
4:BE:51:PHE:CZ	4:BE:52:LEU:CD1	2.51	0.94
4:AE:61:ARG:H	4:AE:62:PRO:CD	1.80	0.94
53:CC:17:C:H3'	53:CC:18:C:C5'	1.97	0.94
31:DA:1003:G:H2'	31:DA:1004:A:H5'	1.50	0.94
1:BA:2777:G:H5''	1:BA:2778:A:H5'	1.50	0.94
1:AA:1105:U:H2'	1:AA:1106:G:C8	2.02	0.94
5:BF:82:ILE:C	5:BF:82:ILE:HD13	1.88	0.94
5:AF:29:ASN:H	5:AF:112:MET:HE1	1.26	0.94
11:BO:61:ARG:CB	11:BO:61:ARG:NH2	2.30	0.94
31:DA:992:U:H3	31:DA:1044:A:H62	1.12	0.94
1:AA:1179:C:H2'	1:AA:1180:C:H5''	1.45	0.94
43:CP:14:ARG:HB2	43:CP:17:VAL:HG23	1.45	0.94
12:AP:79:LEU:CD2	12:AP:80:GLU:N	2.30	0.94
6:AG:67:LYS:HG3	26:A4:6:HIS:CE1	2.02	0.94
4:BE:39:PRO:CD	4:BE:45:THR:OG1	2.14	0.94
3:BD:35:LYS:CE	3:BD:104:TYR:HB2	1.96	0.94
1:BA:674:G:H1'	5:BF:74:ARG:HD3	1.47	0.94
31:DA:1300:G:O2'	31:DA:1301:U:O5'	1.86	0.94
31:CA:838:G:H1	31:CA:848:C:H42	0.97	0.94
1:AA:1689:A:H62	1:AA:1698:A:H2	1.03	0.94
34:CG:12:CYS:SG	34:CG:19:LEU:HD23	2.07	0.94
31:DA:141:A:H1'	31:DA:182:U:O2	1.68	0.94
1:BA:1250:G:N7	11:BO:18:ARG:NH2	2.16	0.94
1:AA:2406:U:O4	11:AO:70:GLN:HB2	1.67	0.94
28:B6:25:LYS:HB3	30:B8:34:TRP:CZ3	2.03	0.94
1:AA:905:U:H2'	1:AA:906:G:H5''	1.46	0.94
50:CW:71:THR:HG22	50:CW:72:LEU:H	1.31	0.94
1:BA:1048:A:H2	1:BA:1112:G:H21	1.16	0.94
1:BA:1300:U:H4'	1:BA:1301:A:C5'	1.98	0.94
1:AA:953:A:OP2	12:AP:16:ARG:HD3	1.68	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1354:A:OP1	3:AD:38:LYS:NZ	2.01	0.94
12:AP:24:GLY:CA	12:AP:25:ASP:HB2	1.96	0.94
1:AA:2811:G:P	4:AE:61:ARG:HG2	2.08	0.94
53:DC:17:C:H3'	53:DC:18:C:C5'	1.97	0.94
1:AA:1884:A:C2'	1:AA:1885:A:H5''	1.97	0.94
53:CD:5:G:N2	53:CD:70:C:N3	2.16	0.94
1:AA:483:A:H4'	20:AU:49:VAL:HA	1.50	0.94
4:AE:79:ARG:CA	4:AE:79:ARG:NE	2.30	0.93
31:DA:1004:A:H2	31:DA:1024:G:C8	1.86	0.93
1:AA:1053:C:N4	1:AA:1106:G:H1	1.65	0.93
31:DA:612:C:O2	31:DA:629:G:N2	2.01	0.93
1:BA:71:A:OP2	1:BA:71:A:H3'	1.69	0.93
40:DM:79:ARG:O	40:DM:83:GLU:HB2	1.67	0.93
45:DR:87:ILE:HG22	45:DR:88:ARG:H	1.31	0.93
31:DA:1139:G:H22	31:DA:1143:G:H1	1.01	0.93
19:AT:49:VAL:HG11	19:AT:83:VAL:HG22	1.50	0.93
4:AE:61:ARG:N	4:AE:61:ARG:HD2	1.77	0.93
34:DG:24:GLU:OE2	34:DG:24:GLU:N	2.01	0.93
1:AA:1728:G:H3'	1:AA:1729:A:H5'	1.47	0.93
31:CA:820:U:H4'	31:CA:821:G:OP2	1.68	0.93
1:AA:1359:A:N1	1:AA:1372:U:N3	2.16	0.93
1:AA:1026:U:H4'	1:AA:1027:A:OP1	1.64	0.93
37:DJ:78:ARG:CZ	37:DJ:80:VAL:HB	1.99	0.93
34:DG:108:LEU:HD21	34:DG:183:GLY:HA3	1.48	0.93
31:CA:382:A:H2'	31:CA:383:A:C8	2.04	0.93
1:AA:1778:U:H2'	1:AA:1784:A:N6	1.83	0.93
4:BE:51:PHE:HA	4:BE:52:LEU:CB	1.98	0.93
5:AF:103:LYS:HA	5:AF:106:ARG:HG3	1.48	0.93
2:AB:40:U:H1'	2:AB:45:A:H61	1.33	0.93
2:BB:3:C:H42	2:BB:117:G:H1	0.94	0.93
9:BM:42:TRP:HA	9:BM:48:MET:CE	1.98	0.93
11:AO:61:ARG:O	11:AO:62:LEU:HD23	1.68	0.93
6:AG:82:LEU:HA	6:AG:86:MET:CE	1.99	0.93
1:AA:2251:G:OP1	12:AP:82:ARG:NH1	2.02	0.93
3:AD:43:ARG:NH1	3:AD:44:ASN:OD1	2.01	0.93
11:BO:62:LEU:CD1	30:B8:30:ARG:CD	2.46	0.93
11:BO:62:LEU:HD13	30:B8:30:ARG:CD	1.96	0.93
1:BA:226:G:H21	1:BA:228:A:H62	1.14	0.93
5:BF:82:ILE:C	5:BF:82:ILE:CD1	2.37	0.93
14:BQ:87:PHE:CE1	14:BQ:102:ALA:HB2	2.04	0.93
32:DE:236:TYR:HA	32:DE:239:VAL:HB	1.50	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:64:G:H4'	31:DA:65:U:O5'	1.68	0.93
17:B2:76:LYS:HG2	17:B2:80:GLN:CG	1.98	0.93
4:BE:48:GLN:O	4:BE:49:LEU:HG	1.68	0.93
1:AA:594:U:H5'	30:A8:61:LEU:HD13	1.47	0.93
23:BZ:92:LYS:HE3	23:BZ:97:LEU:HG	1.47	0.93
1:AA:1024:G:H3'	1:AA:1025:G:H5''	1.51	0.93
1:AA:2137:C:H42	1:AA:2154:G:H1	1.02	0.93
1:AA:363(B):G:H2'	1:AA:363(C):G:H8	1.32	0.93
1:AA:819:A:OP2	1:AA:1187:G:N2	2.01	0.92
1:BA:2872:G:C4	1:BA:2873:A:N1	2.36	0.92
12:BP:32:TYR:OH	12:BP:111:GLU:HB3	1.67	0.92
1:BA:945:A:C4	1:BA:2448:A:C2	2.56	0.92
1:BA:1826:G:H4'	3:BD:242:ARG:HH21	1.32	0.92
31:CA:836:G:OP1	48:CU:61:LYS:NZ	2.00	0.92
28:B6:25:LYS:HD2	30:B8:34:TRP:HH2	1.35	0.92
1:BA:2681:C:H6	1:BA:2683:C:H41	1.15	0.92
12:BP:32:TYR:CZ	12:BP:111:GLU:HB2	2.04	0.92
1:BA:1012:U:O4	9:BM:25:ARG:HA	1.70	0.92
31:CA:827:U:H5	31:CA:872:A:N1	1.65	0.92
31:CA:156:G:H1	31:CA:165:C:H42	1.16	0.92
1:BA:943:U:OP2	11:BO:36:LYS:HG3	1.68	0.92
1:AA:1077:A:H3'	1:AA:1078:U:C5'	1.98	0.92
12:AP:66:ILE:CG1	12:AP:67:ARG:N	2.30	0.92
21:AV:72:ARG:NH2	21:AV:97:GLU:O	2.00	0.92
23:AZ:41:ARG:HH11	23:AZ:41:ARG:HG3	1.34	0.92
31:DA:1127:G:N3	31:DA:1147:C:N4	2.17	0.92
11:AO:15:ARG:NH1	11:AO:15:ARG:HG2	1.77	0.92
4:AE:111:ARG:HD2	4:AE:160:TYR:CE1	2.05	0.92
7:AH:151:ILE:O	7:AH:153:LYS:CD	2.18	0.92
1:AA:1533:C:H42	1:AA:1538:G:H1	1.08	0.92
34:CG:22:LYS:HB2	34:CG:26:CYS:CB	1.99	0.92
5:BF:24:LEU:HD12	5:BF:25:PRO:HD3	1.50	0.92
3:AD:35:LYS:HD2	3:AD:104:TYR:CE1	2.05	0.92
1:BA:946:G:H2'	1:BA:947:G:H8	1.34	0.92
1:BA:1111:A:H4'	7:BH:3:ARG:HD3	1.52	0.92
53:CD:6:G:N2	53:CD:69:C:N3	2.18	0.92
1:AA:847:U:O4	1:AA:933:A:N1	2.02	0.92
21:BV:60:GLU:HA	21:BV:66:SER:HA	1.50	0.92
9:AM:56:ASN:N	9:AM:125:GLY:O	2.02	0.92
11:BO:61:ARG:O	11:BO:62:LEU:HD23	1.68	0.91
3:AD:35:LYS:HD2	3:AD:104:TYR:HD1	1.24	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BR:74:ARG:NH1	15:BR:74:ARG:HG2	1.75	0.91
31:DA:279:A:H5''	31:DA:280:C:H3'	1.49	0.91
3:AD:72:LYS:HB3	3:AD:75:ILE:HD12	1.49	0.91
32:CE:204:ASN:ND2	32:CE:206:ASP:H	1.68	0.91
12:AP:19:GLY:O	12:AP:98:LYS:HD3	1.69	0.91
30:A8:52:LYS:N	30:A8:53:PRO:HD2	1.85	0.91
14:BQ:86:ALA:O	14:BQ:87:PHE:HB2	1.70	0.91
32:DE:19:HIS:CE1	32:DE:204:ASN:HB3	2.05	0.91
4:AE:48:GLN:HE22	4:AE:77:ILE:HD12	1.35	0.91
11:AO:50:ARG:CG	11:AO:50:ARG:HH21	1.79	0.91
11:BO:15:ARG:NH1	11:BO:15:ARG:HG2	1.76	0.91
26:A4:62:ARG:O	26:A4:66:SER:HA	1.70	0.91
45:DR:26:GLU:OE2	45:DR:77:ARG:NH1	2.03	0.91
48:DU:53:ARG:HH21	48:DU:60:ALA:N	1.69	0.91
1:AA:2656:U:H3	1:AA:2665:A:H2	1.19	0.91
18:BS:9:TYR:H	18:BS:102:HIS:HD2	1.18	0.91
31:DA:452:A:O2'	31:DA:453:A:O4'	1.87	0.91
1:AA:2068:U:N3	1:AA:2430:A:H2	1.69	0.91
33:DF:84:ILE:HD11	33:DF:88:ARG:HH21	1.32	0.91
27:B5:4:HIS:HB3	27:B5:5:PRO:HD2	1.49	0.91
17:B2:71:LEU:H	17:B2:86:GLY:HA3	1.34	0.91
3:BD:35:LYS:CG	3:BD:64:ILE:H	1.84	0.91
11:AO:19:VAL:CG2	11:AO:20:GLY:N	2.34	0.91
1:BA:1728:G:N1	1:BA:1730:U:OP2	2.03	0.91
1:BA:2795:G:H3'	1:BA:2797:U:H5''	1.53	0.91
1:BA:2311:A:O2'	1:BA:2312:U:H5'	1.71	0.91
2:BB:83:G:H1	2:BB:93:C:H42	1.12	0.91
1:BA:528:A:H2	1:BA:2043:C:H5'	1.36	0.91
15:AR:74:ARG:HG2	15:AR:74:ARG:NH1	1.82	0.91
31:CA:1004:A:H1'	31:CA:1036:G:C6	2.06	0.91
1:BA:945:A:C5	1:BA:2448:A:C2	2.58	0.91
1:AA:860:U:H5	1:AA:917:A:C2	1.87	0.91
1:BA:1420:U:O2'	1:BA:1421:G:OP1	1.88	0.91
4:AE:23:VAL:CG1	4:AE:184:VAL:O	2.19	0.91
4:BE:52:LEU:N	4:BE:53:PRO:HD2	1.85	0.91
24:AW:50:ILE:HD12	24:AW:51:ARG:N	1.84	0.91
1:BA:2583:G:H21	52:DB:87:A:H8	0.91	0.91
40:CM:61:GLU:OE1	44:CQ:58:LYS:HE2	1.68	0.91
31:CA:1128:C:HO2'	31:CA:1130:A:H8	0.96	0.91
1:AA:654(G):C:O2	1:AA:654(N):G:N1	2.04	0.91
34:CG:65:ARG:NH1	34:CG:70:ILE:O	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:66:A:H61	2:BB:108:C:H5''	1.36	0.91
42:DO:41:ARG:HB3	42:DO:41:ARG:HH11	1.34	0.91
1:AA:811:U:C2'	11:AO:21:ARG:O	2.20	0.90
31:DA:345:C:H1'	31:DA:346:G:C2	2.07	0.90
31:DA:560:U:O2'	31:DA:561:U:OP2	1.89	0.90
31:DA:1255:G:OP1	40:DM:45:ARG:NH1	2.03	0.90
1:AA:907:U:H5'	12:AP:23:GLY:O	1.69	0.90
1:BA:885:C:C4	1:BA:890:A:N6	2.39	0.90
3:BD:65:ILE:HD11	3:BD:67:PHE:CE2	2.06	0.90
1:BA:2872:G:C5	1:BA:2873:A:N1	2.39	0.90
1:AA:1496:A:H8	1:AA:1577:C:HO2'	0.92	0.90
13:A0:33:ARG:NH2	27:A5:55:ARG:HG2	1.86	0.90
9:AM:137:LYS:HG3	9:AM:138:LEU:H	1.37	0.90
1:AA:1240:U:O2'	1:AA:1241:A:H5'	1.70	0.90
27:B5:4:HIS:CB	27:B5:5:PRO:HD2	2.00	0.90
21:BV:175:VAL:O	21:BV:177:PRO:HD3	1.70	0.90
31:CA:1497:G:H2'	31:CA:1498:U:H5'	1.53	0.90
31:CA:789:U:H5	31:CA:792:A:OP2	1.54	0.90
49:DV:22:LEU:O	49:DV:27:GLU:HA	1.71	0.90
31:CA:686:U:O2'	31:CA:687:A:O5'	1.87	0.90
11:AO:61:ARG:CB	11:AO:61:ARG:NH2	2.30	0.90
12:AP:110:THR:HG23	12:AP:113:GLN:OE1	1.71	0.90
1:AA:2583:G:H21	52:CB:87:A:H8	0.93	0.90
31:DA:1322:C:O2'	31:DA:1323:G:H5'	1.71	0.90
31:CA:1145:C:H5''	31:CA:1146:A:OP1	1.70	0.90
50:CW:100:ILE:HG13	50:CW:102:GLY:H	1.33	0.90
7:BH:117:PRO:HB3	7:BH:123:PHE:CE1	2.05	0.90
35:DH:91:LEU:HD12	35:DH:120:THR:HG22	1.50	0.90
29:A7:8:ASN:HD21	29:A7:11:LYS:H	1.12	0.90
26:A4:50:VAL:HG11	43:CP:65:LYS:HB3	1.54	0.90
1:AA:330:A:O2'	1:AA:331:A:H8	1.53	0.90
39:CL:45:ALA:O	39:CL:78:LYS:NZ	2.04	0.90
30:B8:52:LYS:N	30:B8:53:PRO:CD	2.35	0.90
1:AA:2210:G:H3'	1:AA:2211:G:N7	1.86	0.90
20:BU:76:CYS:O	20:BU:78:ALA:N	2.04	0.90
21:BV:69:THR:HG22	21:BV:90:VAL:HA	1.52	0.90
3:AD:65:ILE:HD11	3:AD:67:PHE:CE2	2.07	0.90
4:BE:81:ILE:CG2	4:BE:82:ARG:N	2.30	0.90
1:BA:1729:A:O2'	1:BA:1731:G:N2	2.04	0.90
1:BA:2748:A:N7	1:BA:2754:U:O4	2.04	0.90
1:BA:1359:A:H62	1:BA:1372:U:H3	1.14	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CN:40:ILE:HG22	41:CN:75:TYR:HD2	1.36	0.90
6:AG:81:LYS:O	6:AG:82:LEU:HB3	1.71	0.90
34:DG:13:ARG:C	34:DG:15:GLU:H	1.76	0.90
13:A0:34:ILE:HG22	13:A0:114:VAL:HB	1.54	0.90
50:CW:33:ILE:O	50:CW:37:SER:OG	1.90	0.90
1:AA:1803:A:H4'	3:AD:259:THR:CG2	2.02	0.90
14:BQ:88:ASP:O	14:BQ:89:ARG:HB3	1.71	0.89
31:CA:1003:G:H2'	31:CA:1004:A:H5'	1.53	0.89
31:DA:1330:U:H4'	43:DP:23:TYR:CE2	2.07	0.89
12:AP:68:ILE:CD1	12:AP:103:MET:HG2	2.03	0.89
31:CA:1025:U:O2'	31:CA:1026:G:O5'	1.89	0.89
50:DW:89:ARG:NH1	50:DW:105:SER:OG	2.05	0.89
31:CA:1286:A:H5''	51:CX:26:LYS:HD2	1.53	0.89
1:BA:774:A:H2	1:BA:787:U:HO2'	0.95	0.89
31:CA:827:U:H5''	31:CA:828:A:OP2	1.71	0.89
17:A2:15:GLU:HG3	17:A2:16:PRO:HD2	1.54	0.89
36:CI:101:ALA:HB2	48:CU:28:GLU:HG2	1.53	0.89
6:AG:27:ASN:HB3	6:AG:30:GLU:HG3	1.51	0.89
31:DA:362:G:O2'	42:DO:33:ARG:NH2	2.05	0.89
3:AD:35:LYS:CD	3:AD:104:TYR:HD1	1.83	0.89
11:AO:9:ASN:HB3	11:AO:10:PRO:CD	2.02	0.89
2:BB:3:C:N4	2:BB:117:G:H1	1.70	0.89
38:CK:87:SER:HB2	38:CK:93:VAL:HB	1.52	0.89
54:D1:13:U:H2'	54:D1:13:U:O2	1.70	0.89
28:B6:52:VAL:HG22	28:B6:53:LYS:H	1.38	0.89
1:AA:2317:C:H2'	1:AA:2318:G:C5'	2.02	0.89
11:BO:65:ARG:HG3	11:BO:65:ARG:NH1	1.79	0.89
5:BF:31:HIS:CG	11:BO:9:ASN:OD1	2.26	0.89
31:DA:1263:C:N4	31:DA:1272:G:H1	1.69	0.89
1:AA:2068:U:H3	1:AA:2430:A:H2	0.92	0.89
15:BR:54:ARG:HA	15:BR:59:THR:HB	1.52	0.89
4:AE:18:ASP:O	4:AE:19:ARG:O	1.90	0.89
35:DH:57:LYS:HG2	35:DH:61:TYR:HE2	1.36	0.89
15:BR:93:ARG:HG2	15:BR:117:ASP:HB3	1.54	0.89
1:BA:9:U:C2	1:BA:2629:A:N6	2.41	0.89
1:AA:873:G:H1	1:AA:904:C:H42	1.18	0.89
1:AA:74:A:H4'	1:AA:75:G:O5'	1.71	0.89
31:CA:1285:A:H4'	31:CA:1286:A:O5'	1.70	0.89
31:DA:632:A:H1'	31:DA:633:G:OP2	1.72	0.89
1:BA:1021:A:H61	1:BA:1142(A):A:H61	1.19	0.89
1:AA:654(G):C:N3	1:AA:654(N):G:O6	2.06	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:992:U:H4'	31:CA:993:G:O5'	1.71	0.89
4:BE:12:THR:HG22	15:BR:58:ASN:HD21	1.33	0.89
32:DE:82:ARG:HA	32:DE:92:TYR:HE1	1.38	0.89
4:BE:36:ARG:HH21	4:BE:88:GLY:HA3	1.38	0.89
1:AA:2310:A:N3	1:AA:2310:A:H3'	1.88	0.89
1:AA:1689:A:N6	1:AA:1698:A:H2	1.70	0.89
10:BN:49:ARG:HD3	10:BN:49:ARG:H	1.35	0.89
1:AA:993:G:OP1	16:A1:50:ARG:NH2	2.06	0.89
32:DE:185:ILE:HG22	32:DE:199:TYR:HB2	1.53	0.89
4:BE:44:TYR:HD1	4:BE:44:TYR:H	1.17	0.89
1:AA:889:C:H3'	1:AA:890:A:H4'	1.55	0.89
2:BB:39:A:N6	26:B4:1:MET:HB3	1.88	0.89
38:CK:87:SER:HB2	38:CK:93:VAL:CB	2.02	0.89
3:AD:35:LYS:HD3	3:AD:63:ARG:CB	2.02	0.89
1:BA:946:G:O2'	1:BA:947:G:C5'	2.20	0.89
1:BA:1140:C:H1'	1:BA:1143:A:H8	1.36	0.89
18:AS:58:ALA:HB1	18:AS:64:MET:HG3	1.55	0.89
17:B2:72:VAL:O	17:B2:73:SER:HB3	1.72	0.88
1:AA:389:G:N1	11:AO:71:VAL:HG12	1.86	0.88
1:AA:2371:G:C4'	28:A6:45:LYS:CG	2.49	0.88
12:AP:75:THR:CB	12:AP:88:GLY:HA3	2.04	0.88
31:CA:1502:A:H2	31:CA:1505:G:H22	1.17	0.88
31:CA:523:A:H61	42:CO:89:ASP:HB2	1.35	0.88
1:AA:1479:G:N7	1:AA:1510:A:N6	2.20	0.88
3:BD:91:ARG:HH11	3:BD:91:ARG:HG2	1.38	0.88
10:BN:2:ILE:HD12	10:BN:6:THR:HG21	1.54	0.88
42:DO:84:LEU:HD12	42:DO:104:VAL:HG11	1.55	0.88
4:AE:1:MET:HB3	4:AE:200:GLU:OE1	1.73	0.88
33:CF:126:ARG:HH11	33:CF:126:ARG:HG3	1.37	0.88
1:BA:1226:G:OP1	17:B2:85:LYS:HB2	1.73	0.88
4:BE:151:TYR:HD2	4:BE:154:LYS:NZ	1.71	0.88
41:CN:91:ARG:HH11	41:CN:91:ARG:HG3	1.38	0.88
34:CG:22:LYS:CB	34:CG:26:CYS:HB2	2.01	0.88
3:BD:43:ARG:HH11	3:BD:44:ASN:HD21	1.19	0.88
1:BA:672:C:H2'	1:BA:673:C:C5'	2.02	0.88
1:AA:1533:C:N4	1:AA:1538:G:H1	1.72	0.88
1:AA:1210:A:H8	1:AA:1210:A:H5'	1.35	0.88
45:CR:39:LEU:HD13	45:CR:56:LEU:HB2	1.55	0.88
5:AF:205:ARG:HG3	5:AF:205:ARG:HH11	1.37	0.88
1:BA:2880:C:H1'	13:B0:92:GLY:HA3	1.55	0.88
33:DF:164:ARG:NH1	33:DF:166:GLU:OE1	2.05	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:A1:92:ARG:O	16:A1:94:ASN:N	2.06	0.88
31:DA:328:C:O2	31:DA:328:C:H2'	1.70	0.88
3:BD:28:GLU:HB3	3:BD:29:PRO:HD2	1.56	0.88
33:DF:35:GLU:HG3	33:DF:38:ARG:HH21	1.38	0.88
5:BF:155:LEU:HD23	5:BF:186:ILE:HD13	1.54	0.88
29:B7:8:ASN:ND2	29:B7:11:LYS:H	1.71	0.88
4:AE:61:ARG:N	4:AE:62:PRO:CD	2.37	0.88
31:DA:1321:C:H41	31:DA:1322:C:H41	1.09	0.88
46:DS:8:ARG:HH11	46:DS:8:ARG:CG	1.85	0.88
24:BW:70:GLN:HG2	24:BW:71:ASN:H	1.38	0.88
47:CT:55:ASP:HA	47:CT:79:SER:HA	1.53	0.88
25:AX:10:LYS:NZ	25:AX:15:TYR:OH	2.05	0.88
10:AN:68:GLU:OE2	10:AN:78:ARG:NH1	2.06	0.88
20:BU:87:LYS:HB3	20:BU:92:ASN:HB3	1.56	0.88
45:CR:87:ILE:HG22	45:CR:88:ARG:N	1.88	0.88
5:BF:89:VAL:CG1	5:BF:90:PHE:H	1.84	0.88
31:CA:1263:C:H2'	31:CA:1264:C:C6	2.09	0.88
34:CG:5:ILE:HG22	34:CG:6:GLY:H	1.39	0.88
2:BB:74:U:H2'	2:BB:75:G:C5'	2.03	0.88
26:B4:61:ARG:HG3	26:B4:62:ARG:HH21	1.38	0.88
1:BA:545:G:H21	1:BA:548:A:H62	1.22	0.88
1:BA:2404:C:H1'	11:BO:67:MET:CE	2.04	0.88
1:AA:882:G:H2'	1:AA:883:G:C8	2.07	0.88
47:CT:67:LYS:HA	47:CT:70:ARG:HH12	1.38	0.88
18:AS:9:TYR:H	18:AS:102:HIS:HD2	1.21	0.88
31:CA:611:A:H61	31:CA:629:G:H1	1.19	0.88
12:BP:3:MET:HB2	12:BP:93:TYR:CD1	2.09	0.88
4:BE:52:LEU:N	4:BE:53:PRO:CD	2.30	0.87
4:AE:54:GLN:HA	4:AE:54:GLN:NE2	1.88	0.87
34:CG:33:MET:CE	34:CG:37:PRO:HA	2.04	0.87
1:AA:1138:G:H21	9:AM:106:MET:HE3	1.38	0.87
9:AM:47:ALA:HB2	9:AM:112:LEU:HD11	1.56	0.87
11:AO:65:ARG:NH1	11:AO:65:ARG:HG3	1.79	0.87
4:AE:36:ARG:HH22	4:AE:88:GLY:HA2	1.35	0.87
23:AZ:85:LEU:C	23:AZ:87:PRO:CD	2.41	0.87
5:AF:101:LEU:HD12	5:AF:102:PRO:CD	2.03	0.87
16:B1:59:ARG:O	16:B1:63:VAL:HG23	1.74	0.87
1:AA:654(M):C:H2'	1:AA:654(N):G:C8	2.09	0.87
1:BA:1405:U:H2'	1:BA:1406:U:C6	2.08	0.87
41:DN:29:ILE:HG22	41:DN:44:SER:HB2	1.54	0.87
31:DA:975:A:C4'	31:DA:976:G:H5''	2.02	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1132:C:H2'	31:CA:1133:G:C8	2.09	0.87
12:BP:69:PHE:CD1	12:BP:70:PRO:HD2	2.09	0.87
31:DA:1352:C:OP1	51:DX:3:LYS:NZ	2.06	0.87
1:AA:2427:C:H5''	1:AA:2428:G:OP1	1.75	0.87
12:AP:66:ILE:HG13	12:AP:67:ARG:N	1.88	0.87
4:BE:56:PRO:HG3	4:BE:57:LYS:HZ3	1.36	0.87
10:BN:68:GLU:HB3	10:BN:78:ARG:HH11	1.39	0.87
31:DA:812:C:H1'	31:DA:813:U:OP2	1.74	0.87
31:DA:1025:U:O2'	31:DA:1026:G:O4'	1.92	0.87
1:BA:2583:G:N2	52:DB:87:A:H8	1.73	0.87
4:AE:61:ARG:N	4:AE:61:ARG:CD	2.36	0.87
31:DA:1277:C:HO2'	31:DA:1279:A:H8	0.90	0.87
31:CA:1004:A:H1'	31:CA:1036:G:N1	1.90	0.87
43:CP:57:ARG:HB2	43:CP:57:ARG:HH11	1.38	0.87
8:BK:7:GLU:HA	8:BK:15:VAL:HG22	1.56	0.87
54:D1:14:U:H4'	54:D1:14:U:OP1	1.73	0.87
1:BA:1496:A:H8	1:BA:1577:C:O2'	1.57	0.87
1:AA:774:A:H2	1:AA:787:U:HO2'	0.90	0.87
31:DA:1443:G:H3'	31:DA:1446:A:H5''	1.54	0.87
3:BD:44:ASN:CB	3:BD:49:ILE:HA	2.05	0.87
31:CA:1124:G:H3'	31:CA:1145:C:H41	1.40	0.87
31:CA:838:G:H1	31:CA:848:C:N4	1.71	0.87
36:CI:24:GLU:HG2	36:CI:28:ARG:NH2	1.90	0.87
21:BV:175:VAL:CG2	21:BV:176:PRO:HD3	2.04	0.87
1:BA:1323:U:H2'	1:BA:1324:G:H5'	1.56	0.87
1:AA:860:U:H5	1:AA:917:A:H2	1.20	0.87
31:CA:1346:A:H5''	39:CL:120:ARG:NH1	1.90	0.87
27:A5:33:CYS:SG	27:A5:40:LYS:NZ	2.47	0.87
11:BO:50:ARG:HG3	30:B8:59:LYS:HD3	1.56	0.86
31:CA:255:G:H1'	47:CT:16:GLN:HE21	1.38	0.86
1:BA:819:A:OP2	1:BA:1187:G:N2	2.07	0.86
1:BA:2318:G:H1	14:BQ:2:ALA:HA	1.39	0.86
11:BO:64:LYS:HB2	30:B8:25:MET:HG3	1.55	0.86
11:BO:106:LEU:HD22	11:BO:106:LEU:O	1.75	0.86
31:DA:1321:C:H41	31:DA:1322:C:N4	1.72	0.86
31:DA:1330:U:H4'	43:DP:23:TYR:HE2	1.38	0.86
4:BE:12:THR:O	4:BE:23:VAL:HG22	1.74	0.86
1:BA:287:C:H2'	1:BA:288:C:H6	1.37	0.86
31:CA:560:U:O2'	31:CA:561:U:OP2	1.92	0.86
37:CJ:62:PHE:HD1	37:CJ:124:LEU:HD21	1.38	0.86
17:B2:76:LYS:HG2	17:B2:80:GLN:CD	1.95	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:A6:41:PRO:HD2	28:A6:46:HIS:N	1.89	0.86
1:BA:2415:G:C4'	11:BO:67:MET:H	1.89	0.86
21:AV:61:LEU:O	21:AV:64:GLY:HA2	1.75	0.86
1:AA:1864:U:H2'	1:AA:1869:G:H5''	1.57	0.86
11:AO:21:ARG:NE	11:AO:21:ARG:HA	1.90	0.86
12:BP:59:ARG:O	12:BP:60:ARG:HB2	1.76	0.86
28:B6:11:LEU:HD23	28:B6:26:ASN:HB3	1.58	0.86
12:BP:30:GLY:HA3	12:BP:107:ALA:HB2	1.54	0.86
26:B4:56:VAL:HA	26:B4:60:GLN:HE21	1.40	0.86
26:A4:59:PHE:O	26:A4:63:TYR:HB2	1.74	0.86
15:AR:3:ARG:HB3	15:AR:7:ILE:HG13	1.55	0.86
1:AA:2723:C:OP1	13:A0:3:HIS:HD2	1.57	0.86
29:B7:19:ARG:HH11	29:B7:19:ARG:HG2	1.39	0.86
1:AA:762:U:H4'	1:AA:763:G:O5'	1.75	0.86
6:AG:72:ARG:HH21	6:AG:87:PRO:HD3	1.41	0.86
11:BO:81:GLN:HB3	11:BO:106:LEU:CD2	2.05	0.86
1:BA:138:G:H22	19:BT:44:GLU:CD	1.79	0.86
35:DH:142:LEU:O	35:DH:143:ARG:NE	2.09	0.86
1:BA:259:G:H21	1:BA:621:A:H8	1.22	0.86
7:AH:4:ILE:HG13	7:AH:6:ARG:NE	1.89	0.86
4:AE:14:ILE:CG2	4:AE:21:VAL:HG13	2.05	0.86
4:BE:51:PHE:CB	4:BE:52:LEU:HB3	2.06	0.86
31:DA:1305:G:H22	31:DA:1331:G:H2'	1.39	0.86
1:BA:2415:G:O3'	11:BO:66:GLY:HA3	1.74	0.86
17:B2:44:LYS:O	17:B2:46:VAL:N	2.07	0.86
1:BA:322:A:H3'	5:BF:169:ASN:HD21	1.41	0.86
12:BP:24:GLY:CA	12:BP:25:ASP:HB2	1.97	0.86
1:AA:2311:A:H3'	1:AA:2312:U:C5	2.11	0.86
31:CA:1077:G:N2	31:CA:1080:A:OP2	2.08	0.86
7:AH:151:ILE:O	7:AH:153:LYS:HD2	1.74	0.86
32:DE:16:HIS:HD2	32:DE:209:ARG:HB3	1.39	0.86
31:DA:421:U:H5''	31:DA:422:C:OP2	1.74	0.86
6:BG:161:THR:HG22	6:BG:163:ALA:H	1.41	0.86
11:AO:71:VAL:HG13	11:AO:72:PRO:CD	2.06	0.86
31:DA:1305:G:O2'	31:DA:1306:A:O5'	1.94	0.86
31:DA:1002:G:H2'	31:DA:1003:G:C8	2.11	0.86
31:CA:686:U:H1'	41:CN:42:TRP:HE1	1.38	0.86
15:BR:62:THR:HG22	15:BR:75:ILE:HG12	1.56	0.86
4:BE:39:PRO:HD3	4:BE:45:THR:HG1	1.34	0.86
11:AO:50:ARG:HD3	30:A8:7:HIS:CD2	2.11	0.86
1:BA:1459:G:H2'	1:BA:1460:A:H5'	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:A0:33:ARG:HG3	13:A0:115:GLU:HB3	1.54	0.85
22:B3:38:VAL:HG12	22:B3:40:GLN:HG2	1.56	0.85
7:AH:10:PRO:HD2	7:AH:50:VAL:O	1.76	0.85
4:AE:59:VAL:HG21	4:AE:73:GLU:HB3	1.57	0.85
28:A6:44:ARG:C	28:A6:45:LYS:HD2	1.96	0.85
1:AA:2113:U:H5'	1:AA:2114:A:C8	2.10	0.85
4:BE:37:ARG:HD3	4:BE:44:TYR:HH	1.06	0.85
23:AZ:85:LEU:O	23:AZ:87:PRO:N	2.09	0.85
42:DO:60:LEU:HB2	42:DO:64:TYR:HB2	1.57	0.85
31:CA:1348:U:H4'	39:CL:120:ARG:HD2	1.57	0.85
1:AA:821:A:O2'	1:AA:945:A:H3'	1.76	0.85
5:BF:84:VAL:C	5:BF:86:GLY:H	1.74	0.85
3:BD:35:LYS:NZ	3:BD:104:TYR:H	1.74	0.85
53:DD:15:G:N2	53:DD:49:C:O2	2.08	0.85
3:AD:182:LEU:H	3:AD:272:ALA:HB3	1.42	0.85
27:A5:40:LYS:HG2	27:A5:47:PRO:HD2	1.56	0.85
5:AF:184:TYR:O	5:AF:188:ARG:HG3	1.75	0.85
28:B6:15:GLU:HG2	28:B6:47:THR:HG21	1.56	0.85
12:AP:65:PHE:C	12:AP:66:ILE:HG23	1.95	0.85
15:BR:26:ASP:CB	15:BR:91:ARG:HA	2.06	0.85
40:CM:8:LEU:HD12	40:CM:20:ALA:HB2	1.58	0.85
1:AA:1332:G:N2	1:AA:1609:A:O2'	2.10	0.85
27:B5:3:LYS:HA	27:B5:3:LYS:HE3	0.87	0.85
12:BP:11:LYS:HD3	12:BP:87:LYS:HG2	1.59	0.85
28:B6:48:VAL:HG13	28:B6:49:HIS:H	0.71	0.85
12:AP:64:ILE:O	12:AP:65:PHE:CG	2.30	0.85
12:AP:64:ILE:CG2	12:AP:65:PHE:N	2.37	0.85
1:BA:1057:A:N1	1:BA:1081:U:O4	2.09	0.85
31:CA:1128:C:O2'	31:CA:1130:A:H8	1.59	0.85
16:B1:61:TRP:O	16:B1:65:ILE:HD13	1.77	0.85
49:DV:67:VAL:HG12	49:DV:68:GLY:H	1.40	0.85
33:CF:64:VAL:HG23	33:CF:99:VAL:HA	1.57	0.85
31:CA:1034:G:H2'	31:CA:1035:A:C8	2.12	0.85
31:DA:631:G:H3'	31:DA:632:A:C8	2.11	0.85
17:A2:35:LEU:HD22	17:A2:35:LEU:H	1.40	0.85
1:BA:864:G:C6	1:BA:865:C:N4	2.44	0.85
9:AM:131:GLN:NE2	9:AM:132:ALA:H	1.75	0.85
5:BF:178:PRO:HB2	5:BF:201:VAL:HG11	1.59	0.85
1:AA:2829:C:H2'	1:AA:2830:G:H5''	1.57	0.85
1:BA:1464:C:HO2'	1:BA:1528:A:H8	0.88	0.85
1:AA:518:G:H4'	18:AS:18:ARG:NH1	1.92	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1141:U:H2'	9:BM:63:THR:HG21	1.59	0.85
1:AA:271(B):G:H4'	1:AA:271(C):U:O5'	1.76	0.85
31:DA:353:A:H5'	31:DA:353:A:H8	1.42	0.85
32:DE:231:GLU:HB3	32:DE:232:PRO:CD	2.05	0.85
4:AE:14:ILE:HG21	4:AE:21:VAL:HG13	1.59	0.85
11:AO:71:VAL:HG13	11:AO:72:PRO:HD3	1.55	0.85
4:AE:59:VAL:C	4:AE:60:ASN:ND2	2.30	0.85
28:B6:44:ARG:O	28:B6:45:LYS:HB2	1.76	0.85
31:CA:793:U:H3'	31:CA:794:A:H5''	1.57	0.85
31:CA:1004:A:H8	31:CA:1036:G:H1	1.23	0.85
1:AA:620:G:H4'	1:AA:621:A:C5'	2.06	0.85
11:AO:31:ALA:O	11:AO:32:THR:HG22	1.77	0.85
32:CE:14:GLY:HA3	32:CE:209:ARG:HH21	1.41	0.85
17:B2:80:GLN:NE2	17:B2:80:GLN:HA	1.88	0.84
1:BA:1188:U:C2'	1:BA:1189:A:H5'	2.07	0.84
14:AQ:27:SER:HA	14:AQ:88:ASP:HB3	1.59	0.84
31:DA:1003:G:C2'	31:DA:1004:A:H5'	2.07	0.84
3:BD:43:ARG:NH1	3:BD:44:ASN:HD21	1.74	0.84
15:AR:74:ARG:CG	15:AR:74:ARG:HH11	1.87	0.84
1:BA:273(D):C:H42	1:BA:363(B):G:H1	1.20	0.84
49:CV:65:ASN:H	49:CV:65:ASN:HD22	1.20	0.84
47:CT:76:LEU:CD1	47:CT:78:GLU:H	1.89	0.84
31:CA:1028(B):C:N3	31:CA:1032(A):G:N2	2.25	0.84
47:CT:52:LYS:HE2	47:CT:79:SER:OG	1.77	0.84
17:B2:80:GLN:O	17:B2:81:TYR:CD1	2.30	0.84
4:BE:80:GLU:O	4:BE:81:ILE:HB	1.77	0.84
31:CA:974:A:O2'	31:CA:975:A:OP2	1.93	0.84
31:CA:1003:G:C2'	31:CA:1004:A:H5'	2.07	0.84
1:BA:1252:G:N3	16:B1:33:ARG:HD2	1.91	0.84
32:CE:141:GLU:O	32:CE:145:LEU:HB2	1.77	0.84
12:BP:65:PHE:O	12:BP:66:ILE:HG13	1.77	0.84
5:BF:51:THR:HG21	5:BF:92:PRO:HD2	1.57	0.84
17:B2:35:LEU:O	17:B2:37:VAL:HG22	1.77	0.84
7:AH:4:ILE:HB	7:AH:6:ARG:HG3	1.59	0.84
44:DQ:13:THR:N	44:DQ:14:PRO:HD3	1.93	0.84
1:BA:654(B):C:H2'	1:BA:654(C):G:C8	2.12	0.84
8:AK:102:SER:O	8:AK:106:GLY:HA2	1.78	0.84
7:BH:137:ASP:HB2	7:BH:140:LYS:HE2	1.58	0.84
31:CA:664:G:H22	31:CA:741:G:H1	1.23	0.84
14:BQ:26:LEU:O	14:BQ:88:ASP:N	2.08	0.84
12:BP:75:THR:HB	12:BP:88:GLY:HA3	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DR:17:ARG:CG	45:DR:17:ARG:HH11	1.89	0.84
1:BA:1496:A:H8	1:BA:1577:C:HO2'	0.87	0.84
7:AH:4:ILE:HD11	7:AH:7:LEU:HD11	1.56	0.84
16:A1:112:ARG:CG	16:A1:112:ARG:HH11	1.90	0.84
31:CA:129(A):G:C2	31:CA:188:U:O2'	2.30	0.84
4:BE:51:PHE:CE2	4:BE:52:LEU:HD12	2.11	0.84
3:AD:96:HIS:CD2	3:AD:102:LYS:HE2	2.13	0.84
28:A6:15:GLU:HG2	28:A6:16:CYS:H	1.42	0.84
31:DA:1305:G:H5'	51:DX:4:GLY:HA3	1.59	0.84
1:BA:2571:C:H5'	1:BA:2572:A:C5'	2.08	0.84
53:DC:62:C:H2'	53:DC:63:C:H6	1.43	0.84
28:B6:25:LYS:CE	30:B8:34:TRP:HH2	1.90	0.84
1:BA:1689:A:N6	1:BA:1698:A:C2	2.39	0.84
20:BU:96:ILE:HG12	20:BU:101:LYS:HG3	1.58	0.84
9:BM:97:ARG:CG	9:BM:97:ARG:HH11	1.89	0.84
17:A2:47:VAL:CG2	17:A2:48:GLY:H	1.89	0.84
9:AM:1:MET:HE1	16:A1:95:LEU:HD21	1.58	0.84
1:AA:2756:U:H4'	1:AA:2757:A:OP1	1.75	0.84
1:BA:2406:U:O4	11:BO:70:GLN:HB2	1.78	0.84
1:AA:2062:A:N3	1:AA:2062:A:H2'	1.93	0.84
7:AH:92:ILE:HD12	7:AH:92:ILE:H	1.40	0.84
1:AA:1264:G:H5'	27:A5:11:THR:HG21	1.58	0.84
15:AR:16:ARG:NE	15:AR:19:LEU:HD21	1.91	0.84
15:BR:13:ARG:H	15:BR:13:ARG:HD3	1.42	0.84
4:BE:81:ILE:HG23	4:BE:82:ARG:H	1.37	0.84
31:DA:363:A:N7	42:DO:33:ARG:NH1	2.26	0.84
3:AD:27:THR:O	3:AD:28:GLU:HB2	1.75	0.84
5:BF:153:SER:OG	5:BF:190:GLU:HG3	1.78	0.84
17:B2:75:PHE:CD1	17:B2:75:PHE:O	2.30	0.84
37:DJ:16:LEU:HD12	39:DL:42:ARG:HA	1.58	0.84
1:BA:2580:U:H4'	4:BE:130:GLY:HA3	1.59	0.84
1:AA:1535:U:H3'	1:AA:1536:A:H5''	1.60	0.84
26:B4:18:CYS:SG	26:B4:19:GLY:HA2	2.18	0.84
1:BA:2420:C:H41	30:B8:31:HIS:CB	1.89	0.84
4:AE:23:VAL:CA	4:AE:185:LYS:HA	2.07	0.84
31:DA:1131:G:H2'	31:DA:1132:C:H6	1.42	0.84
31:DA:1133:G:H2'	31:DA:1134:G:H8	1.42	0.84
40:CM:55:LYS:NZ	40:CM:55:LYS:HB3	1.93	0.84
1:AA:1191:G:OP1	11:AO:32:THR:OG1	1.96	0.84
1:BA:2795:G:H3'	1:BA:2797:U:C5'	2.06	0.84
1:AA:309:G:N3	1:AA:329:G:O2'	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:686:U:H1'	41:DN:42:TRP:HE1	1.43	0.84
6:AG:67:LYS:HE2	26:A4:6:HIS:HE1	1.38	0.83
26:B4:21:VAL:HG22	26:B4:22:ILE:H	1.41	0.83
31:DA:965:A:C2	31:DA:969:A:C2	2.66	0.83
34:CG:170:VAL:HG22	34:CG:171:GLY:H	1.43	0.83
1:BA:2015:A:O4'	27:B5:2:ALA:HB2	1.78	0.83
4:BE:51:PHE:CE1	4:BE:52:LEU:HD12	2.13	0.83
1:AA:2635:C:H5''	4:AE:78:LEU:CB	2.07	0.83
6:AG:82:LEU:HA	6:AG:86:MET:HE3	1.58	0.83
31:CA:1053:G:C5'	31:CA:1054:C:H5'	2.07	0.83
31:DA:345:C:O2'	31:DA:346:G:O5'	1.95	0.83
15:BR:56:GLY:O	15:BR:59:THR:HG23	1.77	0.83
18:AS:18:ARG:HG2	18:AS:76:VAL:HG13	1.60	0.83
31:DA:1191:A:P	33:DF:3:ASN:HD21	2.01	0.83
30:B8:22:VAL:CA	30:B8:50:LEU:HD23	2.08	0.83
4:AE:78:LEU:HG	4:AE:79:ARG:N	1.91	0.83
47:CT:76:LEU:HD12	47:CT:77:VAL:N	1.93	0.83
6:AG:129:GLY:HA2	6:AG:166:ASP:HB3	1.61	0.83
31:CA:1004:A:C5'	31:CA:1025:U:O4	2.26	0.83
35:CH:74:GLY:O	35:CH:115:VAL:HA	1.77	0.83
52:DB:31:C:O2	52:DB:41:G:N2	2.11	0.83
28:B6:45:LYS:HE3	28:B6:45:LYS:CA	2.06	0.83
10:AN:107:ARG:NH1	15:AR:36:GLU:OE2	2.11	0.83
53:CD:15:G:N2	53:CD:49:C:O2	2.09	0.83
1:BA:1827:C:OP2	3:BD:222:ARG:NH1	2.11	0.83
3:BD:242:ARG:HD2	3:BD:242:ARG:N	1.92	0.83
7:AH:64:LEU:O	7:AH:68:THR:OG1	1.94	0.83
25:BX:29:ARG:H	25:BX:33:GLN:HE22	1.24	0.83
34:CG:33:MET:HE1	34:CG:37:PRO:HA	1.57	0.83
1:BA:885:C:N4	1:BA:890:A:H62	1.77	0.83
1:AA:1899:G:N2	1:AA:1902:C:C5	2.47	0.83
28:B6:17:LYS:HB2	28:B6:44:ARG:HH22	1.42	0.83
1:BA:2137:C:N4	1:BA:2154:G:H1	1.75	0.83
5:AF:127:GLU:OE2	5:AF:127:GLU:HA	1.75	0.83
1:BA:2422:A:H4'	1:BA:2423:U:OP1	1.77	0.83
17:A2:59:ALA:HB2	17:A2:96:ILE:HD13	1.59	0.83
17:B2:76:LYS:N	17:B2:80:GLN:HG2	1.93	0.83
1:BA:1899:G:N2	1:BA:1902:C:C5	2.47	0.83
1:AA:873:G:H1	1:AA:904:C:N4	1.77	0.83
1:AA:2298:A:H62	1:AA:2318:G:H8	1.27	0.83
34:DG:107:ARG:CG	34:DG:107:ARG:HH11	1.92	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2346:A:H5''	1:AA:2383:G:O4'	1.79	0.83
1:AA:140:A:H8	1:AA:1408:C:HO2'	0.83	0.83
1:BA:654(C):G:H2'	1:BA:654(D):G:O4'	1.79	0.83
31:DA:142:G:H1	31:DA:221:C:H42	1.24	0.83
8:AK:92:VAL:HG13	8:AK:120:ILE:HG23	1.61	0.83
1:BA:1858:G:O2'	1:BA:1884:A:N6	2.12	0.83
30:B8:22:VAL:O	30:B8:50:LEU:HD22	1.79	0.83
53:CD:19:G:H1'	53:CD:59:A:C2	2.14	0.83
30:B8:51:ALA:CA	30:B8:53:PRO:HD2	2.09	0.83
4:AE:51:PHE:CD1	4:AE:52:LEU:HG	2.13	0.83
40:CM:48:THR:HG23	40:CM:62:HIS:ND1	1.93	0.83
31:DA:509:A:O2'	31:DA:510:A:OP1	1.97	0.83
31:DA:186:C:H1'	50:DW:81:LYS:NZ	1.93	0.83
3:AD:270:ILE:O	3:AD:271:ILE:HG23	1.78	0.83
1:AA:2137:C:N4	1:AA:2154:G:H1	1.76	0.83
1:BA:6:A:H4'	9:BM:129:PRO:HB2	1.60	0.83
49:DV:9:VAL:HG11	49:DV:11:VAL:HG12	1.61	0.83
43:CP:13:LYS:O	43:CP:44:ARG:NH1	2.10	0.83
3:AD:35:LYS:HG2	3:AD:64:ILE:H	1.43	0.83
12:BP:62:GLY:O	12:BP:63:LYS:HB2	1.78	0.83
1:BA:712:G:H1	1:BA:719:C:H42	1.26	0.83
53:CC:17:C:C3'	53:CC:18:C:H5''	2.04	0.82
14:AQ:11:LYS:HD3	14:AQ:91:PRO:HD3	1.60	0.82
40:CM:50:ILE:HD11	40:CM:57:LYS:HD2	1.61	0.82
28:B6:25:LYS:CB	30:B8:34:TRP:CH2	2.61	0.82
31:CA:1160:G:N1	31:CA:1177:G:N2	2.26	0.82
26:A4:63:TYR:CE1	49:CV:42:PRO:HD3	2.12	0.82
33:DF:111:LEU:HD21	33:DF:146:ALA:H	1.45	0.82
20:AU:76:CYS:SG	20:AU:77:PRO:HD3	2.18	0.82
6:AG:121:ASN:HD22	6:AG:123:ASN:H	1.24	0.82
3:BD:96:HIS:CE1	3:BD:102:LYS:HD3	2.14	0.82
31:CA:60:A:H4'	31:CA:61:G:H5'	1.61	0.82
1:BA:511:U:H3'	1:BA:512:G:H5''	1.59	0.82
7:AH:46:GLU:OE1	7:AH:51:ARG:NH1	2.12	0.82
4:BE:51:PHE:CA	4:BE:52:LEU:CB	2.57	0.82
31:DA:1004:A:C2	31:DA:1024:G:C8	2.66	0.82
2:BB:42:C:O2	6:BG:93:THR:N	2.10	0.82
18:AS:29:LEU:HD21	18:AS:33:ARG:CZ	2.09	0.82
5:BF:157:VAL:HB	5:BF:194:MET:HB3	1.61	0.82
1:AA:900:A:H5'	1:AA:901:A:OP2	1.79	0.82
3:AD:34:VAL:HG22	3:AD:35:LYS:HG3	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2392:A:H2	1:BA:2424:C:H42	1.23	0.82
41:CN:78:GLN:O	41:CN:103:LEU:HA	1.80	0.82
45:CR:38:ARG:HH11	45:CR:38:ARG:HG2	1.43	0.82
4:AE:61:ARG:H	4:AE:62:PRO:HD3	1.42	0.82
4:BE:48:GLN:O	4:BE:49:LEU:CG	2.27	0.82
31:CA:1160:G:O6	31:CA:1181:G:O6	1.98	0.82
31:CA:1175:G:H2'	31:CA:1176:A:C8	2.14	0.82
11:BO:80:TYR:CE1	11:BO:111:ARG:HG2	2.14	0.82
1:AA:155:C:N4	1:AA:171:G:H1	1.77	0.82
1:BA:607:U:H3	1:BA:621:A:H2	1.27	0.82
31:DA:421:U:O2	31:DA:421:U:H2'	1.78	0.82
31:CA:538:G:H5''	42:CO:111:LYS:HB2	1.58	0.82
31:DA:750:G:N3	45:DR:23:GLY:HA3	1.92	0.82
30:B8:30:ARG:O	30:B8:31:HIS:HB2	1.76	0.82
1:AA:1478:G:H2'	1:AA:1479:G:H8	1.43	0.82
1:BA:1678:G:H22	1:BA:1989:G:H22	1.25	0.82
9:AM:133:GLN:NE2	9:AM:133:GLN:H	1.78	0.82
1:BA:2210:G:H3'	1:BA:2211:G:C4	2.14	0.82
7:AH:11:VAL:HB	7:AH:12:PRO:HD2	1.59	0.82
3:BD:69:ARG:NH2	3:BD:128:GLY:O	2.12	0.82
4:AE:60:ASN:C	4:AE:61:ARG:CD	2.47	0.82
28:A6:45:LYS:HA	28:A6:45:LYS:HE3	1.59	0.82
1:BA:885:C:N4	1:BA:890:A:N6	2.26	0.82
2:BB:75:G:H5'	2:BB:75:G:H8	1.42	0.82
31:CA:201:C:N4	31:CA:216:G:H1	1.78	0.82
1:AA:1869:G:H5'	1:AA:1869:G:H8	1.42	0.82
1:AA:370:G:H4'	1:AA:371:A:OP2	1.79	0.82
17:B2:78:LYS:C	17:B2:79:VAL:HG22	1.95	0.82
1:BA:9:U:N3	1:BA:2629:A:C6	2.46	0.82
1:BA:1537:C:H2'	1:BA:1538:G:C8	2.14	0.82
33:CF:20:SER:HB3	33:CF:40:ARG:HH22	1.44	0.82
31:DA:600:C:H2'	31:DA:601:C:H6	1.43	0.82
1:BA:1012:U:C2	1:BA:1143:A:C2	2.68	0.82
1:AA:2733:A:C2'	1:AA:2734:A:H5''	2.09	0.82
1:AA:2285:C:OP1	28:A6:28:ARG:HD3	1.80	0.82
20:AU:96:ILE:HG23	20:AU:101:LYS:HG2	1.59	0.82
37:CJ:23:VAL:HG12	37:CJ:43:PHE:HE2	1.45	0.82
11:AO:64:LYS:CD	30:A8:25:MET:SD	2.68	0.82
11:AO:64:LYS:CB	30:A8:25:MET:CG	2.53	0.82
31:DA:1292:U:H2'	31:DA:1293:G:C8	2.15	0.82
46:CS:53:VAL:HG12	46:CS:79:VAL:HG22	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:97:ARG:HA	9:AM:100:GLU:HB2	1.61	0.82
7:BH:152:ARG:CZ	7:BH:153:LYS:HG2	2.10	0.82
15:AR:93:ARG:HG3	15:AR:93:ARG:HH11	1.43	0.82
21:BV:128:VAL:HG22	21:BV:129:SER:H	1.43	0.82
13:B0:37:THR:HG22	13:B0:40:LYS:HB2	1.61	0.81
33:CF:181:ASN:ND2	33:CF:204:LEU:HB2	1.94	0.81
1:AA:856:C:H2'	1:AA:857:C:H6	1.45	0.81
4:AE:13:ARG:HH11	4:AE:13:ARG:CB	1.93	0.81
6:AG:64:THR:HG23	6:AG:66:GLN:H	1.43	0.81
17:B2:87:HIS:O	17:B2:87:HIS:CG	2.31	0.81
20:BU:13:VAL:CG2	20:BU:72:VAL:HB	2.09	0.81
6:BG:37:VAL:O	6:BG:94:LEU:HD23	1.80	0.81
1:AA:860:U:C5	1:AA:917:A:H2	1.98	0.81
1:BA:1310:G:OP2	29:B7:9:ARG:NH1	2.12	0.81
43:CP:13:LYS:O	43:CP:44:ARG:HD2	1.81	0.81
45:DR:24:SER:HB3	45:DR:27:VAL:HG23	1.62	0.81
17:B2:80:GLN:O	17:B2:81:TYR:CG	2.32	0.81
31:DA:448:A:P	31:DA:485:G:H22	2.03	0.81
30:B8:33:ASN:N	30:B8:36:LYS:CE	2.37	0.81
23:AZ:86:SER:N	23:AZ:87:PRO:HD2	1.94	0.81
34:DG:139:ARG:CG	34:DG:139:ARG:HH11	1.94	0.81
3:BD:166:GLN:HA	3:BD:166:GLN:NE2	1.93	0.81
32:CE:8:LYS:H	32:CE:8:LYS:HE2	1.46	0.81
23:BZ:91:LYS:HZ2	23:BZ:91:LYS:HB2	1.41	0.81
1:BA:1022:G:H22	1:BA:1142(A):A:H2	1.27	0.81
31:DA:173:U:H5''	31:DA:197:A:O4'	1.79	0.81
33:CF:40:ARG:O	33:CF:44:GLU:HG2	1.79	0.81
9:AM:34:LEU:HD21	9:AM:120:LEU:HB2	1.62	0.81
35:CH:8:GLU:OE1	35:CH:63:ARG:NH2	2.12	0.81
1:AA:2815:C:H5'	27:A5:29:THR:HG21	1.60	0.81
4:AE:16:ARG:HG3	4:AE:16:ARG:O	1.79	0.81
31:CA:677:U:H3	31:CA:713:G:H22	1.29	0.81
40:DM:22:LYS:HD2	40:DM:26:ALA:HB2	1.62	0.81
37:DJ:20:ASP:HB3	37:DJ:23:VAL:HG23	1.62	0.81
27:A5:4:HIS:HB3	27:A5:5:PRO:HD3	1.60	0.81
1:AA:2790:A:H1'	1:AA:2893:G:O2'	1.80	0.81
28:B6:44:ARG:C	28:B6:45:LYS:HD2	2.00	0.81
53:DC:17:C:C3'	53:DC:18:C:H5''	2.07	0.81
3:BD:43:ARG:HH11	3:BD:44:ASN:ND2	1.79	0.81
5:BF:34:TRP:CZ3	11:BO:8:PRO:HB3	2.15	0.81
31:CA:105:G:H2'	31:CA:106:C:C6	2.16	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BT:60:ARG:CG	19:BT:60:ARG:HH11	1.93	0.81
17:B2:71:LEU:N	17:B2:86:GLY:HA3	1.90	0.81
3:BD:35:LYS:HB3	3:BD:63:ARG:HA	1.62	0.81
50:DW:64:ASP:OD1	50:DW:81:LYS:HD2	1.81	0.81
45:DR:87:ILE:HG22	45:DR:88:ARG:N	1.96	0.81
32:DE:16:HIS:CE1	32:DE:213:LEU:HD13	2.16	0.81
32:CE:204:ASN:HD22	32:CE:206:ASP:H	1.29	0.81
1:BA:1257:C:H4'	5:BF:83:PHE:CD2	2.15	0.81
1:BA:1819:A:H4'	1:BA:1820:U:O5'	1.80	0.81
24:BW:41:ILE:HD11	24:BW:44:LEU:HG	1.62	0.81
1:BA:910:A:H62	12:BP:12:GLN:HA	1.46	0.81
12:BP:26:TYR:HD1	12:BP:139:GLU:HG2	1.25	0.81
39:DL:114:TYR:HE1	40:DM:60:ARG:O	1.63	0.81
12:BP:66:ILE:O	12:BP:67:ARG:HB2	1.79	0.81
15:BR:90:GLN:HE21	15:BR:91:ARG:H	1.26	0.81
9:AM:96:GLU:O	9:AM:97:ARG:HB2	1.80	0.81
41:CN:99:GLN:HE21	41:CN:105:VAL:HG21	1.45	0.81
1:AA:654(A):A:H2	1:AA:654(T):A:N1	1.79	0.81
1:BA:309:G:N3	1:BA:329:G:O2'	2.14	0.81
31:DA:1497:G:H2'	31:DA:1498:U:H5'	1.60	0.81
13:B0:24:GLN:HE22	13:B0:36:THR:HG21	1.44	0.81
31:CA:530:G:H4'	31:CA:531:U:OP2	1.79	0.81
31:DA:1502:A:H2	31:DA:1505:G:H1	1.26	0.81
3:AD:166:GLN:HE21	3:AD:166:GLN:HA	1.45	0.81
1:BA:708:C:H42	1:BA:723:G:H1	1.27	0.81
4:BE:47:VAL:O	4:BE:80:GLU:HA	1.80	0.81
31:DA:1176:A:N6	31:DA:1177:G:C6	2.49	0.81
37:DJ:16:LEU:HD11	39:DL:45:ALA:HB2	1.63	0.81
1:AA:1404:C:O2'	1:AA:1405:U:H5'	1.81	0.81
1:BA:2872:G:C8	1:BA:2873:A:C2	2.69	0.81
1:AA:847:U:C4	1:AA:933:A:N1	2.48	0.81
31:DA:328:C:O2'	31:DA:329:A:OP2	1.97	0.81
9:AM:46:VAL:CG1	9:AM:48:MET:HG3	2.11	0.81
1:AA:2688:U:H5	1:AA:2720:U:OP2	1.64	0.81
25:BX:59:VAL:HG12	25:BX:60:GLU:H	1.46	0.81
32:DE:233:SER:HB3	32:DE:234:PRO:HD2	1.63	0.81
31:CA:87:A:OP1	31:CA:87:A:H4'	1.79	0.81
12:BP:24:GLY:CA	12:BP:25:ASP:HB3	2.05	0.81
4:BE:56:PRO:HG3	4:BE:57:LYS:HZ1	1.41	0.81
1:BA:2125:G:N2	1:BA:2172:U:O5'	2.14	0.81
19:AT:84:ALA:HB1	19:AT:85:PRO:HD2	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1416:G:O2'	1:BA:1417:C:O5'	1.97	0.81
8:AK:131:LYS:HB3	8:AK:132:PRO:HA	1.62	0.81
21:AV:111:VAL:HG11	21:AV:146:ILE:HB	1.62	0.81
1:BA:2015:A:H1'	27:B5:2:ALA:N	1.95	0.81
3:AD:35:LYS:HE3	3:AD:64:ILE:C	1.99	0.81
12:BP:30:GLY:HA2	12:BP:107:ALA:HB2	1.60	0.81
31:CA:254:G:OP1	47:CT:67:LYS:O	1.99	0.81
1:AA:287:C:H2'	1:AA:288:C:H6	1.44	0.81
21:AV:105:VAL:HG22	21:AV:106:GLY:H	1.44	0.81
31:DA:209:U:H4'	31:DA:210:U:OP2	1.79	0.81
4:BE:79:ARG:HH11	4:BE:79:ARG:CG	1.94	0.81
1:BA:1057:A:H2	1:BA:1081:U:H3	1.25	0.81
19:BT:60:ARG:HH11	19:BT:60:ARG:HG3	1.43	0.81
15:AR:64:ARG:HB2	15:AR:73:GLU:HG2	1.61	0.81
11:AO:71:VAL:CG1	11:AO:72:PRO:CD	2.58	0.80
31:DA:1160:G:O6	31:DA:1181:G:C6	2.34	0.80
15:AR:58:ASN:ND2	15:AR:58:ASN:C	2.30	0.80
31:CA:1036:G:H5'	31:CA:1037:C:OP2	1.81	0.80
6:AG:96:ARG:CG	6:AG:96:ARG:HH11	1.94	0.80
9:AM:13:TRP:O	9:AM:135:PRO:HD2	1.82	0.80
1:AA:67:U:N3	1:AA:74:A:H2	1.78	0.80
26:B4:20:ASN:CG	26:B4:21:VAL:H	1.83	0.80
49:DV:20:LEU:O	49:DV:23:ASN:HB3	1.82	0.80
8:BK:144:VAL:HG22	8:BK:145:VAL:HG23	1.60	0.80
32:DE:168:THR:HG23	32:DE:192:SER:HB3	1.62	0.80
31:DA:273:A:H2'	31:DA:274:A:H5'	1.61	0.80
4:AE:116:VAL:O	4:AE:117:MET:HB3	1.81	0.80
14:BQ:27:SER:CB	14:BQ:88:ASP:OD1	2.28	0.80
31:CA:1028(B):C:H42	31:CA:1032(A):G:H1	1.22	0.80
1:BA:609(A):G:N2	1:BA:619:G:H1'	1.96	0.80
52:CB:37:G:H1	54:C1:19:U:H3	1.29	0.80
41:CN:57:THR:HG22	41:CN:59:TYR:H	1.45	0.80
31:DA:1128:C:H5"	39:DL:16:ARG:HH22	1.44	0.80
31:DA:1129:C:C4	31:DA:1139:G:C2	2.69	0.80
4:AE:4:ILE:HD13	4:AE:28:ALA:HB1	1.63	0.80
28:B6:15:GLU:CG	28:B6:47:THR:HG21	2.11	0.80
31:CA:1004:A:H8	31:CA:1036:G:N1	1.79	0.80
12:BP:79:LEU:C	12:BP:79:LEU:HD12	2.02	0.80
5:BF:101:LEU:O	5:BF:106:ARG:NH1	2.14	0.80
7:AH:86:GLU:H	7:AH:86:GLU:CD	1.80	0.80
14:AQ:83:LYS:O	14:AQ:109:GLY:HA2	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DE:17:PHE:HE2	32:DE:44:LEU:HA	1.46	0.80
1:BA:2191:G:O2'	1:BA:2192:G:OP1	2.00	0.80
4:AE:23:VAL:CG1	4:AE:184:VAL:C	2.48	0.80
1:BA:2210:G:H4'	1:BA:2211:G:OP2	1.82	0.80
1:BA:2467:C:H4'	12:BP:123:HIS:CD2	2.17	0.80
15:AR:105:LEU:O	15:AR:107:ASP:OD1	2.00	0.80
16:B1:17:ILE:HD12	16:B1:32:PHE:HE2	1.45	0.80
17:A2:44:LYS:CG	17:A2:45:THR:H	1.95	0.80
9:AM:59:LYS:HE3	9:AM:61:ARG:HH12	1.45	0.80
17:B2:76:LYS:CB	17:B2:80:GLN:CB	2.30	0.80
3:BD:27:THR:HG21	3:BD:83:GLU:CG	2.10	0.80
12:BP:59:ARG:HG2	12:BP:59:ARG:HH21	1.46	0.80
31:CA:1004:A:H8	31:CA:1036:G:H22	1.29	0.80
6:BG:83:ARG:O	6:BG:86:MET:HB2	1.81	0.80
23:AZ:78:LYS:O	23:AZ:78:LYS:HD2	1.82	0.80
30:B8:22:VAL:O	30:B8:50:LEU:CD2	2.30	0.80
28:A6:46:HIS:O	28:A6:47:THR:CG2	2.30	0.80
1:BA:2372:G:C4'	28:B6:46:HIS:CE1	2.65	0.80
12:AP:64:ILE:O	12:AP:65:PHE:CD2	2.34	0.80
23:AZ:92:LYS:HA	23:AZ:95:LEU:HB2	1.63	0.80
1:BA:1141:U:OP2	9:BM:63:THR:OG1	1.99	0.80
1:AA:1864:U:C2'	1:AA:1869:G:H5''	2.11	0.80
33:CF:95:THR:HG22	33:CF:97:LYS:H	1.46	0.80
32:CE:60:ASP:HB3	32:CE:64:ARG:NH1	1.96	0.80
17:B2:82:ARG:CG	17:B2:82:ARG:HH11	1.95	0.80
12:BP:90:VAL:O	12:BP:90:VAL:CG1	2.30	0.80
12:AP:66:ILE:O	12:AP:67:ARG:HB2	1.79	0.80
1:AA:1885:A:H8	1:AA:1885:A:H5'	1.47	0.80
1:BA:1652:A:H62	13:B0:11:ASN:HD21	1.28	0.80
19:BT:51:VAL:H	19:BT:83:VAL:HG23	1.46	0.80
1:BA:2019:A:N7	27:B5:9:LYS:HE3	1.96	0.80
1:AA:1388:G:O2'	1:AA:1389:G:H5'	1.81	0.80
31:DA:254:G:OP1	47:DT:67:LYS:O	1.98	0.80
27:B5:16:ARG:HG2	27:B5:16:ARG:NH1	1.87	0.80
7:BH:4:ILE:HG13	7:BH:6:ARG:HG2	1.63	0.80
1:AA:1188:U:H4'	17:A2:79:VAL:HG22	1.64	0.80
7:BH:102:ALA:HB1	7:BH:115:VAL:O	1.82	0.80
16:A1:92:ARG:NH1	17:A2:11:GLN:O	2.14	0.80
27:A5:40:LYS:HZ3	27:A5:46:CYS:C	1.85	0.80
15:BR:50:ILE:HD11	15:BR:102:ILE:HD11	1.64	0.80
49:DV:9:VAL:CG1	49:DV:11:VAL:HG12	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BV:157:LEU:HB3	21:BV:161:VAL:HG12	1.64	0.80
1:AA:1786:A:H2	1:AA:2606:C:H1'	1.47	0.80
1:BA:2438:U:O3'	1:BA:2439:A:H3'	1.82	0.80
31:DA:1346:A:H1'	31:DA:1347:G:OP2	1.82	0.80
1:BA:958:U:OP2	12:BP:14:ARG:NH1	2.14	0.80
1:AA:2394:C:P	11:AO:62:LEU:HB2	2.22	0.80
39:DL:53:VAL:HG13	39:DL:95:LYS:HE3	1.62	0.80
11:BO:50:ARG:HG3	11:BO:50:ARG:HH21	1.47	0.80
37:CJ:22:LEU:HD23	37:CJ:62:PHE:HE2	1.46	0.80
8:AK:2:LYS:HB2	8:AK:39:ALA:HB2	1.64	0.80
8:BK:4:ILE:HG12	8:BK:18:VAL:HG22	1.63	0.80
31:DA:748:C:H4'	31:DA:749:C:O5'	1.79	0.80
12:AP:21:THR:CG2	12:AP:21:THR:O	2.30	0.80
4:AE:14:ILE:O	4:AE:15:PHE:HB2	1.80	0.80
3:AD:35:LYS:HZ3	3:AD:104:TYR:HB2	1.45	0.80
1:BA:1056:G:H5''	1:BA:1057:A:H5'	1.64	0.80
11:BO:9:ASN:HB3	11:BO:10:PRO:CD	2.12	0.80
20:BU:97:ARG:HH21	20:BU:98:VAL:HB	1.44	0.80
9:AM:115:ARG:O	9:AM:118:LYS:N	2.15	0.80
43:DP:80:ARG:NH1	49:DV:66:MET:SD	2.55	0.80
5:BF:116:ASP:OD2	11:BO:1:MET:N	2.14	0.80
4:AE:22:PRO:O	4:AE:23:VAL:CG1	2.30	0.79
17:B2:76:LYS:CG	17:B2:80:GLN:HB2	2.12	0.79
1:AA:2371:G:O4'	28:A6:45:LYS:HG3	1.80	0.79
11:BO:101:VAL:CG2	11:BO:106:LEU:CD1	2.56	0.79
43:CP:3:ARG:HD3	43:CP:7:VAL:HG13	1.61	0.79
1:AA:1728:G:H8	1:AA:1732:A:H62	1.30	0.79
2:BB:40:U:O2	2:BB:45:A:N6	2.15	0.79
41:CN:40:ILE:HG22	41:CN:75:TYR:CD2	2.16	0.79
22:A3:23:VAL:HG13	22:A3:38:VAL:HG23	1.63	0.79
1:AA:2219:G:H2'	1:AA:2224:G:H5'	1.62	0.79
33:DF:117:ALA:HB2	33:DF:200:ALA:HB2	1.64	0.79
4:AE:60:ASN:OD1	4:AE:62:PRO:CG	2.30	0.79
4:BE:36:ARG:HG2	4:BE:36:ARG:HH11	1.46	0.79
1:AA:593:G:H1'	30:A8:4:MET:HE1	1.65	0.79
1:BA:528:A:C2	1:BA:2043:C:H5'	2.16	0.79
1:AA:944:G:H3'	1:AA:944:G:N3	1.97	0.79
11:AO:38:GLN:O	11:AO:41:ARG:HB2	1.81	0.79
8:AK:107:VAL:HG12	8:AK:108:THR:H	1.47	0.79
21:AV:76:LEU:H	21:AV:76:LEU:HD23	1.47	0.79
52:DB:7:G:H3'	52:DB:8:U:C5'	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BP:26:TYR:CD1	12:BP:139:GLU:HG3	2.17	0.79
28:B6:47:THR:O	28:B6:47:THR:CG2	2.30	0.79
34:DG:13:ARG:HD3	34:DG:13:ARG:H	1.47	0.79
12:BP:21:THR:CG2	12:BP:21:THR:O	2.30	0.79
9:BM:30:ILE:O	9:BM:34:LEU:HD22	1.82	0.79
1:AA:676:A:H8	1:AA:2069:G:H21	1.27	0.79
46:DS:53:VAL:HG12	46:DS:79:VAL:HG22	1.64	0.79
4:BE:51:PHE:HA	4:BE:52:LEU:HB2	1.64	0.79
11:AO:64:LYS:HB2	30:A8:25:MET:HG3	1.64	0.79
1:BA:2154:G:H2'	1:BA:2155:G:H8	1.48	0.79
20:AU:76:CYS:O	20:AU:78:ALA:N	2.15	0.79
5:BF:46:ARG:HH11	5:BF:46:ARG:CG	1.96	0.79
1:AA:140:A:C8	1:AA:1408:C:O2'	2.34	0.79
31:DA:362:G:H4'	42:DO:33:ARG:HH21	1.45	0.79
7:AH:4:ILE:H	7:AH:4:ILE:HD13	1.45	0.79
4:AE:13:ARG:HH11	4:AE:13:ARG:HB3	1.48	0.79
39:DL:125:TYR:HD2	39:DL:126:SER:N	1.80	0.79
41:DN:69:ALA:HB1	41:DN:103:LEU:HD21	1.63	0.79
21:BV:105:VAL:HG22	21:BV:106:GLY:H	1.48	0.79
1:AA:76:C:O2'	24:AW:62:THR:HG21	1.82	0.79
2:AB:71:C:H2'	2:AB:72:G:H8	1.46	0.79
11:BO:61:ARG:HH21	11:BO:61:ARG:HB2	0.77	0.79
31:DA:1160:G:H1	31:DA:1177:G:H22	0.84	0.79
11:BO:105:LEU:O	11:BO:105:LEU:CD1	2.30	0.79
1:BA:1058:U:H3	1:BA:1080:A:H61	1.26	0.79
8:BK:82:ARG:HH21	31:CA:56:U:C4'	1.95	0.79
52:CB:18:G:H1'	52:CB:19:G:OP1	1.82	0.79
4:BE:182:LEU:HD12	4:BE:183:LEU:H	1.46	0.79
42:DO:62:SER:HB2	42:DO:64:TYR:HD1	1.47	0.79
1:AA:1434:A:H61	1:AA:1558:A:H62	1.30	0.79
20:AU:87:LYS:HD2	20:AU:92:ASN:HB3	1.64	0.79
11:AO:114:ILE:HD11	11:AO:130:PHE:HD1	1.48	0.79
12:AP:65:PHE:O	12:AP:66:ILE:CG2	2.30	0.79
4:BE:66:HIS:NE2	4:BE:73:GLU:OE1	2.15	0.79
1:AA:654(A):A:C2	1:AA:654(T):A:N1	2.51	0.79
15:AR:50:ILE:HD11	15:AR:102:ILE:HD11	1.64	0.79
3:BD:246:PRO:HD2	3:BD:255:LYS:HE2	1.63	0.79
31:DA:942:G:H21	39:DL:124:GLN:NE2	1.80	0.79
1:BA:205:G:H1'	1:BA:206:U:OP2	1.82	0.79
3:AD:35:LYS:HD3	3:AD:63:ARG:CA	2.12	0.79
11:BO:64:LYS:HB3	30:B8:25:MET:HG2	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BQ:27:SER:HA	14:BQ:88:ASP:HB2	0.84	0.79
6:AG:82:LEU:HD22	6:AG:82:LEU:C	2.02	0.79
11:BO:105:LEU:O	11:BO:106:LEU:HB2	1.82	0.79
28:B6:38:LYS:NZ	28:B6:46:HIS:HD2	1.81	0.79
7:AH:30:LYS:HD2	7:AH:81:GLU:H	1.47	0.79
45:DR:17:ARG:HG3	45:DR:17:ARG:NH1	1.95	0.79
1:AA:1049:C:H2'	1:AA:1050:A:H5''	1.64	0.79
20:BU:97:ARG:NH2	20:BU:98:VAL:HB	1.98	0.79
31:CA:601:C:H2'	31:CA:602:A:H8	1.48	0.79
1:BA:2712(A):A:H5''	1:BA:2713:A:OP2	1.82	0.79
24:AW:15:LYS:H	24:AW:67:LYS:NZ	1.81	0.79
31:DA:963:G:H21	40:DM:55:LYS:HD3	1.48	0.79
12:AP:65:PHE:O	12:AP:66:ILE:CG1	2.30	0.79
8:BK:82:ARG:NH2	31:CA:56:U:H4'	1.96	0.79
5:BF:125:LEU:H	5:BF:125:LEU:HD23	1.46	0.79
5:BF:123:LEU:HA	5:BF:192:LEU:O	1.82	0.79
1:BA:1689:A:N7	1:BA:1698:A:N1	2.31	0.79
31:DA:192:U:H2'	31:DA:193:C:H6	1.48	0.79
18:BS:9:TYR:H	18:BS:102:HIS:CD2	2.00	0.79
42:DO:27:LEU:HD23	42:DO:33:ARG:HG2	1.65	0.79
5:BF:102:PRO:HB2	5:BF:105:VAL:HG23	1.63	0.79
1:AA:1470:G:H5''	1:AA:1471:A:OP1	1.83	0.79
42:CO:15:VAL:HG23	42:CO:16:ARG:H	1.47	0.79
17:B2:69:LYS:HD3	17:B2:85:LYS:HD2	1.65	0.79
3:AD:35:LYS:HZ1	3:AD:104:TYR:HB2	1.44	0.79
40:DM:54:PHE:CD2	40:DM:55:LYS:HD2	2.18	0.79
12:AP:90:VAL:CG1	12:AP:90:VAL:O	2.30	0.79
1:AA:363(B):G:H2'	1:AA:363(C):G:C8	2.17	0.79
34:DG:175:SER:HB3	34:DG:186:LEU:HD11	1.64	0.79
39:CL:53:VAL:HG23	39:CL:95:LYS:HD2	1.65	0.79
35:CH:91:LEU:HD12	35:CH:120:THR:HG22	1.64	0.79
31:DA:382:A:H2'	31:DA:383:A:C8	2.17	0.79
4:BE:44:TYR:O	4:BE:45:THR:HB	1.81	0.79
12:BP:75:THR:HG21	12:BP:87:LYS:HE3	1.62	0.79
12:AP:66:ILE:HD12	12:AP:67:ARG:C	2.02	0.79
1:AA:2646:C:OP2	1:AA:2732:G:O2'	2.01	0.79
12:BP:78:PRO:O	12:BP:79:LEU:CD1	2.31	0.79
4:BE:11:MET:HA	4:BE:24:THR:HA	1.65	0.79
17:B2:44:LYS:C	17:B2:46:VAL:H	1.86	0.79
50:CW:65:LYS:HG3	50:CW:68:LYS:HE2	1.64	0.79
26:A4:15:ILE:HD12	26:A4:32:TYR:HD1	1.48	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:BK:125:GLU:HB2	8:BK:141:LYS:HD3	1.65	0.79
17:A2:29:PRO:HA	17:A2:61:VAL:HG23	1.64	0.79
31:DA:652:U:H1'	31:DA:653:A:H2	1.48	0.79
32:CE:33:TYR:HB2	32:CE:43:ASP:HB2	1.64	0.79
17:B2:78:LYS:O	17:B2:79:VAL:CG2	2.30	0.78
12:BP:65:PHE:O	12:BP:66:ILE:CG1	2.30	0.78
1:BA:2276:G:OP1	12:BP:84:GLY:HA2	1.83	0.78
31:CA:1178:G:H5'	39:CL:93:ARG:NH2	1.98	0.78
15:AR:54:ARG:O	15:AR:55:ASN:CB	2.31	0.78
7:AH:59:ARG:HH11	7:AH:59:ARG:CG	1.96	0.78
1:AA:2126:A:N6	1:AA:2163:C:H1'	1.98	0.78
1:BA:2747:G:O6	1:BA:2755:C:H5''	1.83	0.78
47:CT:52:LYS:HE2	47:CT:79:SER:HG	1.46	0.78
31:DA:235:C:H5'	47:DT:70:ARG:HG2	1.66	0.78
15:AR:39:ARG:HG2	15:AR:40:THR:H	1.47	0.78
13:B0:21:TYR:OH	13:B0:43:GLU:HG2	1.83	0.78
1:BA:859:G:O2'	1:BA:916:G:O6	2.00	0.78
1:BA:2849:U:O2'	1:BA:2866:U:O2	1.99	0.78
31:CA:1256:A:N6	31:CA:1278:U:OP2	2.16	0.78
1:AA:2438:U:O3'	1:AA:2439:A:H3'	1.82	0.78
36:CI:67:MET:HB2	36:CI:68:PRO:HD2	1.65	0.78
1:BA:2523:G:H5'	1:BA:2523:G:H8	1.49	0.78
35:DH:144:THR:O	35:DH:148:VAL:HG23	1.84	0.78
12:AP:24:GLY:CA	12:AP:25:ASP:HB3	2.05	0.78
1:BA:2681:C:H5	1:BA:2725:A:N6	1.68	0.78
4:AE:78:LEU:O	4:AE:79:ARG:HB2	1.82	0.78
6:AG:78:SER:HB2	53:CC:57:C:O2'	1.84	0.78
31:DA:1002:G:H2'	31:DA:1003:G:H8	1.46	0.78
12:AP:65:PHE:HD2	12:AP:105:GLU:O	1.66	0.78
2:BB:83:G:H1	2:BB:93:C:N4	1.82	0.78
49:DV:18:LYS:O	49:DV:22:LEU:HB2	1.83	0.78
23:BZ:41:ARG:HG3	23:BZ:43:TYR:CE2	2.18	0.78
31:CA:223:U:H2'	31:CA:224:C:H6	1.47	0.78
31:CA:1096:C:H2'	31:CA:1097:C:H6	1.48	0.78
17:B2:28:GLU:HB3	17:B2:29:PRO:HD2	1.65	0.78
13:B0:118:GLU:OE1	13:B0:118:GLU:HA	1.83	0.78
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.48	0.78
1:BA:1062:G:H1	1:BA:1076:C:N4	1.80	0.78
31:CA:1176:A:N6	31:CA:1177:G:C6	2.51	0.78
21:AV:7:ALA:HB2	21:AV:59:LEU:HD13	1.65	0.78
30:A8:33:ASN:HA	30:A8:36:LYS:HE3	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:16:ARG:HD3	15:AR:19:LEU:HD11	1.64	0.78
1:BA:1342:A:C6	1:BA:1397:U:C5	2.71	0.78
1:AA:1771:C:H1'	1:AA:1786:A:C8	2.18	0.78
19:AT:57:LEU:CD1	19:AT:78:LYS:HB2	2.13	0.78
3:BD:25:THR:O	3:BD:27:THR:N	2.16	0.78
31:DA:1142:G:H2'	31:DA:1143:G:O4'	1.83	0.78
1:AA:1729:A:O2'	1:AA:1730:U:H5''	1.83	0.78
1:BA:68:G:H2'	1:BA:69:C:H6	1.48	0.78
1:AA:67:U:N3	1:AA:74:A:C2	2.50	0.78
3:AD:44:ASN:ND2	3:AD:44:ASN:N	2.31	0.78
21:AV:130:PRO:HA	21:AV:133:ILE:HD11	1.65	0.78
17:B2:78:LYS:O	17:B2:79:VAL:CG1	2.30	0.78
3:AD:35:LYS:CG	3:AD:64:ILE:H	1.96	0.78
28:B6:25:LYS:CE	30:B8:34:TRP:CH2	2.67	0.78
1:BA:672:C:O2'	1:BA:673:C:H5''	1.83	0.78
32:CE:7:VAL:HB	32:CE:217:ARG:HH21	1.48	0.78
32:DE:137:ARG:NH1	32:DE:137:ARG:O	2.14	0.78
1:BA:90:U:O2'	1:BA:91:A:H8	1.66	0.78
1:AA:1434:A:H61	1:AA:1558:A:N6	1.82	0.78
1:AA:805:G:O4'	11:AO:38:GLN:NE2	2.16	0.78
42:DO:47:LYS:HB3	42:DO:48:PRO:HD2	1.64	0.78
47:DT:63:ARG:HG2	47:DT:64:PRO:HD2	1.65	0.78
1:BA:2128:C:H2'	1:BA:2129:C:C6	2.18	0.78
1:AA:2081:C:OP1	23:AZ:19:GLN:NE2	2.16	0.78
1:BA:2420:C:N4	30:B8:31:HIS:HB3	1.97	0.78
31:DA:1139:G:N2	31:DA:1143:G:H1	1.81	0.78
1:AA:1884:A:H2'	1:AA:1885:A:C5'	2.12	0.78
53:DD:56:U:H3	53:DD:58:A:H8	1.30	0.78
29:A7:48:LYS:O	29:A7:49:ARG:HB3	1.82	0.78
33:CF:19:GLU:HA	33:CF:54:ARG:NH1	1.99	0.78
1:AA:1359:A:C2	1:AA:1372:U:O4	2.37	0.78
14:BQ:87:PHE:CZ	14:BQ:102:ALA:HB2	2.19	0.78
1:BA:2439:A:H5'	1:BA:2439:A:C8	2.19	0.78
11:BO:30:THR:HG21	11:BO:35:HIS:H	1.47	0.78
3:AD:89:SER:HB2	3:AD:159:ALA:HB2	1.66	0.78
19:AT:12:VAL:HG13	19:AT:27:THR:O	1.84	0.78
1:BA:2119:A:N6	1:BA:2170:A:N7	2.31	0.78
13:B0:37:THR:CG2	13:B0:40:LYS:H	1.96	0.78
31:DA:1095:U:P	31:DA:1108:G:H1	2.06	0.78
31:DA:827:U:H3	31:DA:872:A:H62	1.27	0.78
31:DA:84:U:H2'	31:DA:84:U:O2	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2199:A:H5'	23:AZ:50:ARG:HH21	1.47	0.78
12:BP:66:ILE:O	12:BP:104:PHE:N	2.16	0.78
12:BP:66:ILE:CG1	12:BP:67:ARG:N	2.32	0.78
31:CA:1037:C:H2'	31:CA:1038:C:C6	2.19	0.78
1:AA:1728:G:C2	1:AA:1730:U:OP2	2.37	0.78
1:AA:1141:U:H6	9:AM:63:THR:HG1	1.28	0.78
1:AA:1264:G:H5'	27:A5:11:THR:CG2	2.13	0.78
1:AA:2864:G:OP1	15:AR:119:LYS:HD2	1.84	0.78
31:CA:1190:G:H5'	33:CF:176:HIS:CE1	2.19	0.78
31:DA:1286:A:C8	31:DA:1287:A:H4'	2.18	0.78
31:CA:1239:A:H62	31:CA:1299:A:H62	1.32	0.78
3:AD:35:LYS:HZ1	3:AD:65:ILE:HA	1.47	0.78
4:AE:197:ILE:HD11	4:AE:199:ARG:HE	1.49	0.78
12:AP:34:LEU:HD11	12:AP:129:THR:HB	1.64	0.78
5:BF:31:HIS:CB	11:BO:9:ASN:OD1	2.31	0.78
1:BA:2467:C:H2'	1:BA:2468:G:O4'	1.83	0.78
11:BO:96:THR:OG1	11:BO:97:PRO:HD2	1.84	0.78
42:CO:123:LYS:HE3	42:CO:125:ALA:HB3	1.64	0.78
31:DA:365:U:H5''	31:DA:366:C:OP1	1.84	0.78
1:AA:1069:A:H4'	1:AA:1070:A:H5''	1.66	0.78
11:BO:64:LYS:CG	30:B8:25:MET:SD	2.72	0.78
9:AM:133:GLN:N	9:AM:133:GLN:HE21	1.80	0.78
1:AA:2125:G:N1	1:AA:2172:U:OP1	2.17	0.78
6:BG:64:THR:HG23	6:BG:66:GLN:H	1.48	0.78
1:AA:2327:A:H2'	1:AA:2328:A:C8	2.18	0.78
17:A2:44:LYS:O	17:A2:46:VAL:HG12	1.83	0.78
2:AB:37:C:C2'	2:AB:38:C:H5'	2.14	0.78
37:DJ:26:PHE:O	37:DJ:30:ILE:HG13	1.84	0.78
33:CF:142:MET:O	33:CF:145:GLY:N	2.16	0.78
1:AA:1014:U:H2'	1:AA:1015:G:H5''	1.63	0.78
38:CK:4:ASP:OD1	38:CK:85:ARG:NH1	2.17	0.78
17:B2:72:VAL:O	17:B2:73:SER:CB	2.32	0.77
1:BA:1060:U:H5''	1:BA:1061:U:C5	2.18	0.77
31:CA:1305:G:H22	31:CA:1331:G:C2'	1.91	0.77
49:CV:41:VAL:HB	49:CV:42:PRO:CA	2.13	0.77
5:AF:198:ALA:HA	5:AF:201:VAL:HG12	1.64	0.77
1:AA:1179:C:C2'	1:AA:1180:C:H5''	2.13	0.77
45:CR:43:LEU:HD12	45:CR:56:LEU:HD23	1.66	0.77
33:DF:35:GLU:HA	33:DF:38:ARG:HE	1.49	0.77
54:D1:14:U:O2'	54:D1:15:U:O4'	2.00	0.77
9:BM:19:GLU:HG3	9:BM:59:LYS:HB3	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:111:ALA:HB2	34:CG:120:LEU:HD12	1.66	0.77
26:A4:34:GLU:HG2	26:A4:35:VAL:N	1.95	0.77
19:BT:80:ILE:HG13	19:BT:80:ILE:O	1.82	0.77
32:CE:178:ARG:HH11	32:CE:178:ARG:HB2	1.49	0.77
1:AA:631:A:P	30:A8:46:ARG:HH21	2.07	0.77
1:AA:242:G:H5'	30:A8:62:LEU:HD22	1.66	0.77
12:BP:31:ASP:O	12:BP:134:ARG:HB2	1.84	0.77
28:B6:25:LYS:HD2	30:B8:34:TRP:CH2	2.17	0.77
31:CA:819:A:H4'	31:CA:820:U:OP2	1.83	0.77
50:CW:53:LEU:HB3	50:CW:102:GLY:HA3	1.65	0.77
5:BF:79:GLY:HA2	5:BF:86:GLY:HA2	1.64	0.77
1:BA:270(I):G:H1	1:BA:270(Q):C:H42	1.32	0.77
31:CA:443:C:H2'	31:CA:444:C:H6	1.49	0.77
46:CS:28:ARG:HG2	46:CS:29:ASP:OD2	1.85	0.77
22:B3:36:ILE:HD13	22:B3:36:ILE:O	1.84	0.77
22:A3:64:ASP:HB2	22:A3:85:ALA:HB2	1.67	0.77
9:BM:56:ASN:H	9:BM:125:GLY:HA3	1.48	0.77
1:BA:1226:G:P	17:B2:85:LYS:CB	2.58	0.77
31:DA:1306:A:N6	31:DA:1331:G:H1'	1.99	0.77
12:BP:59:ARG:O	12:BP:60:ARG:CB	2.33	0.77
1:AA:2473:U:C2'	1:AA:2474:C:H5''	2.13	0.77
20:BU:96:ILE:HD12	20:BU:98:VAL:HG12	1.67	0.77
1:AA:1178:C:O2	1:AA:1178:C:H2'	1.85	0.77
31:DA:77:C:H42	31:DA:92:G:H1	1.30	0.77
1:AA:1588:C:H2'	1:AA:1589:C:H6	1.50	0.77
50:CW:89:ARG:HH21	50:CW:104:LEU:HD11	1.48	0.77
1:AA:1505:C:H2'	1:AA:1506:C:H6	1.50	0.77
35:CH:79:GLU:HB3	35:CH:92:LYS:HG3	1.65	0.77
1:BA:242:G:H5''	30:B8:62:LEU:HD13	1.66	0.77
11:AO:61:ARG:HH21	11:AO:61:ARG:HB2	0.77	0.77
34:CG:26:CYS:HA	34:CG:31:CYS:HA	1.66	0.77
3:BD:35:LYS:HG2	3:BD:64:ILE:H	1.47	0.77
12:BP:26:TYR:HD1	12:BP:139:GLU:HG3	1.49	0.77
31:CA:1004:A:H8	31:CA:1036:G:N2	1.82	0.77
9:BM:42:TRP:HA	9:BM:48:MET:HE3	1.66	0.77
17:B2:70:ILE:O	17:B2:71:LEU:CB	2.32	0.77
39:DL:95:LYS:HD3	39:DL:96:LEU:H	1.49	0.77
12:AP:66:ILE:HD13	12:AP:68:ILE:O	1.84	0.77
1:BA:2275:C:HO2'	12:BP:84:GLY:CA	1.90	0.77
1:AA:2287:A:N6	1:AA:2344:U:H3	1.79	0.77
9:BM:46:VAL:O	9:BM:47:ALA:CB	2.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:90:U:O2'	1:BA:91:A:C8	2.37	0.77
32:DE:16:HIS:CD2	32:DE:209:ARG:HB3	2.19	0.77
25:BX:7:LYS:HE2	25:BX:32:GLN:O	1.84	0.77
52:DB:14:A:N6	52:DB:21:A:H61	1.82	0.77
1:BA:1614:A:H62	18:BS:93:ALA:HB2	1.49	0.77
9:BM:58:ASP:N	9:BM:58:ASP:OD1	2.17	0.77
21:AV:113:ALA:N	21:AV:114:GLY:HA2	1.97	0.77
31:DA:673:G:H2'	31:DA:674:G:C8	2.19	0.77
5:BF:53:THR:HG23	5:BF:55:GLY:H	1.49	0.77
6:AG:77:ILE:HG21	6:AG:80:PHE:CE2	2.20	0.77
31:CA:975:A:C4'	31:CA:976:G:H5''	2.14	0.77
1:BA:2392:A:H8	11:BO:60:MET:HB2	1.50	0.77
12:AP:29:PHE:HB2	12:AP:105:GLU:OE2	1.85	0.77
11:BO:16:ARG:HH11	11:BO:16:ARG:HG3	1.49	0.77
31:CA:1004:A:C8	31:CA:1036:G:N1	2.53	0.77
6:AG:96:ARG:NH1	6:AG:96:ARG:HG2	1.93	0.77
1:AA:2772:C:H5'	4:AE:168:MET:HE1	1.65	0.77
3:AD:132:PRO:HD3	3:AD:190:TYR:CZ	2.19	0.77
32:CE:54:THR:HG21	32:CE:201:ILE:HD11	1.66	0.77
50:DW:12:ALA:O	50:DW:15:ARG:HB2	1.85	0.77
1:BA:1887:C:H2'	1:BA:1888:G:H5''	1.67	0.77
34:CG:162:LEU:O	34:CG:165:MET:HB2	1.85	0.77
12:BP:64:ILE:CA	12:BP:106:VAL:HG12	2.14	0.77
4:BE:131:ALA:O	4:BE:132:HIS:CB	2.33	0.77
1:AA:1727:U:H5''	1:AA:1728:G:OP2	1.84	0.77
31:CA:838:G:N2	31:CA:848:C:N3	2.31	0.77
16:B1:92:ARG:HD3	16:B1:94:ASN:HB3	1.67	0.77
31:CA:606:G:H22	31:CA:631:G:H8	1.28	0.77
1:AA:273(F):C:H3'	1:AA:274:G:H5''	1.65	0.77
38:DK:64:LYS:HD2	38:DK:79:VAL:HG21	1.67	0.77
50:DW:82:SER:O	50:DW:86:ARG:HB2	1.84	0.77
1:AA:1316:U:H2'	1:AA:1317:A:H8	1.49	0.77
3:AD:35:LYS:HG2	3:AD:64:ILE:N	1.99	0.77
4:AE:74:PRO:CG	4:AE:77:ILE:HG22	2.14	0.77
11:AO:64:LYS:HD2	30:A8:25:MET:SD	2.24	0.77
12:BP:90:VAL:O	12:BP:90:VAL:HG12	1.82	0.77
28:B6:29:ASN:H	28:B6:29:ASN:ND2	1.79	0.77
1:BA:2404:C:H1'	11:BO:67:MET:HE3	1.65	0.77
7:AH:153:LYS:CG	7:AH:162:ILE:H	1.98	0.77
20:AU:76:CYS:HB3	20:AU:96:ILE:CD1	2.15	0.77
1:AA:1169:G:H1	1:AA:1180:C:H42	1.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1533:C:H2'	1:AA:1534:G:C8	2.20	0.77
24:BW:14:ARG:HG3	24:BW:15:LYS:HE3	1.67	0.77
31:CA:276:G:O3'	47:CT:68:ARG:NH1	2.16	0.77
43:DP:84:ILE:HG21	49:DV:63:THR:HG21	1.67	0.77
31:CA:143:A:H2	31:CA:220:G:H1	1.32	0.77
3:BD:148:GLU:HB2	3:BD:151:LYS:HD2	1.67	0.77
21:BV:150:LEU:HD22	21:BV:154:ASP:HB2	1.67	0.77
31:DA:250:A:H1'	31:DA:251:G:OP2	1.83	0.77
31:CA:953:G:H5'	31:CA:965:A:H61	1.50	0.77
33:DF:63:ASN:HB3	33:DF:98:ASN:HB3	1.66	0.77
1:AA:1093:G:H5'	7:AH:170:ARG:HH22	1.47	0.77
1:AA:540:G:H5'	1:AA:541:C:OP2	1.84	0.77
3:AD:35:LYS:NZ	3:AD:65:ILE:HA	1.97	0.77
6:AG:83:ARG:N	6:AG:86:MET:HE1	2.00	0.77
1:AA:49:A:C8	1:AA:120:U:C5	2.73	0.77
40:CM:49:VAL:CG2	44:CQ:41:ARG:HB2	2.14	0.77
40:CM:55:LYS:HZ3	40:CM:55:LYS:HB3	1.47	0.77
1:BA:946:G:H2'	1:BA:947:G:C8	2.17	0.77
13:A0:33:ARG:HH22	27:A5:55:ARG:HG2	1.46	0.77
1:BA:654(R):C:N4	1:BA:654(S):G:O6	2.18	0.77
1:BA:1681:G:HO2'	1:BA:1762:A:C2'	1.98	0.77
1:AA:1790:C:H5''	1:AA:1791:A:OP1	1.85	0.77
3:AD:123:ALA:CB	3:AD:131:LEU:HG	2.14	0.77
37:DJ:79:ARG:HG2	37:DJ:84:ASN:HD21	1.50	0.77
4:BE:51:PHE:O	4:BE:74:PRO:HB2	1.84	0.77
1:AA:594:U:H5'	30:A8:61:LEU:CD1	2.14	0.77
1:BA:517:C:OP1	27:B5:16:ARG:NH2	2.18	0.77
20:AU:81:LYS:NZ	20:AU:96:ILE:HD12	2.00	0.77
1:AA:780:G:N2	1:AA:783:A:H62	1.82	0.77
8:BK:5:LEU:HD11	8:BK:19:VAL:HG12	1.67	0.77
19:AT:60:ARG:HH22	29:A7:47:ARG:HH12	1.31	0.77
20:BU:40:GLU:OE2	20:BU:40:GLU:HA	1.84	0.77
3:AD:127:VAL:HA	3:AD:193:VAL:HG23	1.66	0.77
1:BA:1336:A:H2'	1:BA:1337:G:H8	1.49	0.77
1:BA:1688:U:O2	1:BA:1700:A:H5'	1.86	0.77
38:CK:129:VAL:HG23	38:CK:130:GLY:H	1.49	0.77
1:BA:993:G:O4'	17:B2:87:HIS:CE1	2.38	0.76
1:BA:1188:U:O2'	1:BA:1189:A:H5'	1.86	0.76
4:BE:56:PRO:CB	4:BE:57:LYS:CE	2.61	0.76
15:BR:8:LYS:HB3	15:BR:8:LYS:NZ	1.98	0.76
1:AA:71:A:H2	19:AT:31:HIS:HE1	1.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:9:TYR:H	18:AS:102:HIS:CD2	2.02	0.76
15:BR:92:GLY:HA2	15:BR:116:ALA:HA	1.67	0.76
1:BA:1336:A:H2'	1:BA:1337:G:C8	2.20	0.76
31:DA:411:A:C5	31:DA:413:G:H1'	2.20	0.76
1:BA:2746:U:H4'	7:BH:138:LYS:HG3	1.67	0.76
2:BB:104:A:H2'	2:BB:105:G:O4'	1.84	0.76
50:CW:10:LEU:HD21	50:CW:12:ALA:HB3	1.67	0.76
49:CV:30:LEU:O	49:CV:30:LEU:HD22	1.84	0.76
1:BA:1328:G:H2'	1:BA:1330:C:C5	2.20	0.76
1:AA:1606:G:H5''	1:AA:1607:C:OP1	1.86	0.76
31:CA:439:A:OP2	31:CA:493:G:N2	2.17	0.76
1:AA:2292:C:O2'	1:AA:2293:C:H5'	1.85	0.76
31:CA:503:C:OP2	42:CO:113:SER:OG	2.03	0.76
1:AA:652:C:H5'	1:AA:653:A:OP2	1.84	0.76
31:CA:1128:C:H5'	39:CL:16:ARG:HH12	1.47	0.76
23:BZ:92:LYS:HE2	23:BZ:93:GLU:H	1.49	0.76
21:AV:62:PRO:O	21:AV:63:ASP:HB3	1.83	0.76
1:BA:1826:G:H4'	3:BD:242:ARG:NH2	2.00	0.76
26:B4:1:MET:C	26:B4:2:LYS:HD3	2.05	0.76
1:AA:1203:G:H3'	1:AA:1204:A:H5''	1.65	0.76
1:AA:1678:G:N2	1:AA:1989:G:H22	1.81	0.76
31:DA:928:G:O2'	31:DA:1533:C:OP1	2.04	0.76
31:CA:119:A:H4'	31:CA:120:A:O5'	1.85	0.76
3:BD:70:TRP:CH2	3:BD:150:LYS:HA	2.20	0.76
53:DD:31:G:H2'	53:DD:32:G:C8	2.20	0.76
1:AA:2371:G:H4'	28:A6:45:LYS:HG3	1.56	0.76
6:AG:82:LEU:O	6:AG:82:LEU:HD13	1.84	0.76
41:CN:17:GLY:HA3	41:CN:77:MET:CE	2.13	0.76
1:AA:1178:C:H4'	1:AA:1179:C:OP1	1.85	0.76
3:BD:223:GLY:HA2	3:BD:226:MET:HG3	1.65	0.76
31:DA:1077:G:N2	31:DA:1080:A:OP2	2.17	0.76
31:CA:737:A:H2'	31:CA:738:C:C6	2.21	0.76
1:AA:2705:A:O2'	1:AA:2852:G:OP1	2.03	0.76
51:CX:15:ARG:CG	51:CX:15:ARG:HH11	1.97	0.76
21:AV:54:HIS:NE2	21:AV:123:ASP:OD2	2.19	0.76
31:CA:791:G:C6	31:CA:792:A:N6	2.51	0.76
1:AA:882:G:H3'	1:AA:883:G:H5''	1.67	0.76
1:AA:2346:A:H4'	1:AA:2347:C:OP2	1.84	0.76
34:CG:10:ARG:HB2	34:CG:10:ARG:NH1	1.99	0.76
7:AH:43:VAL:HG12	7:AH:52:VAL:HG22	1.66	0.76
3:BD:64:ILE:CG1	3:BD:64:ILE:O	2.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:242:G:H5'	30:A8:62:LEU:CD2	2.15	0.76
3:AD:166:GLN:CA	3:AD:166:GLN:HE21	1.97	0.76
20:BU:39:VAL:HG23	20:BU:40:GLU:H	1.49	0.76
31:DA:1149:C:H2'	31:DA:1150:U:C6	2.21	0.76
12:BP:66:ILE:O	12:BP:67:ARG:CB	2.34	0.76
2:AB:43:C:OP1	6:AG:67:LYS:NZ	2.18	0.76
5:BF:67:GLN:CG	5:BF:67:GLN:O	2.32	0.76
17:A2:47:VAL:CG2	17:A2:48:GLY:N	2.47	0.76
1:BA:674:G:C1'	5:BF:74:ARG:HD3	2.15	0.76
31:CA:1226:C:OP2	43:CP:103:THR:OG1	2.01	0.76
1:AA:314:A:C2'	1:AA:315:G:H5'	2.15	0.76
1:AA:796:C:H2'	1:AA:797:C:C6	2.21	0.76
53:CC:48:U:O2'	53:CC:49:C:OP2	2.02	0.76
31:DA:1027:C:O2	31:DA:1035:A:N6	2.19	0.76
12:BP:2:LEU:O	12:BP:70:PRO:HG3	1.83	0.76
1:AA:1899:G:H21	1:AA:1902:C:H5	1.34	0.76
1:AA:1899:G:N2	1:AA:1902:C:H5	1.84	0.76
23:AZ:85:LEU:O	23:AZ:87:PRO:CD	2.33	0.76
34:DG:9:CYS:SG	34:DG:22:LYS:HD2	2.25	0.76
1:AA:881:G:H3'	1:AA:882:G:O4'	1.85	0.76
4:BE:25:VAL:HG12	4:BE:26:ILE:N	1.97	0.76
12:BP:79:LEU:C	12:BP:79:LEU:CD1	2.54	0.76
3:BD:91:ARG:NH1	3:BD:91:ARG:HG2	1.99	0.76
27:A5:40:LYS:NZ	27:A5:46:CYS:HB3	2.01	0.76
32:CE:212:GLN:O	32:CE:216:SER:HB2	1.84	0.76
2:BB:15:A:H5'	2:BB:16:G:C8	2.21	0.76
1:AA:654:A:N3	1:AA:654:A:H2'	1.99	0.76
5:BF:127:GLU:OE1	5:BF:127:GLU:HA	1.86	0.76
28:B6:44:ARG:O	28:B6:45:LYS:CB	2.31	0.76
1:AA:905:U:C2'	1:AA:906:G:H5''	2.16	0.76
31:CA:1502:A:H2	31:CA:1505:G:N2	1.84	0.76
40:DM:99:LYS:HD3	40:DM:100:THR:N	1.99	0.76
3:AD:44:ASN:HD22	3:AD:44:ASN:H	1.34	0.76
1:AA:330:A:O2'	1:AA:331:A:C8	2.37	0.76
39:CL:79:LEU:HD13	39:CL:83:ARG:HD2	1.68	0.76
8:BK:78:THR:HB	8:BK:104:GLN:HE22	1.51	0.76
1:AA:1126:A:H4'	1:AA:1127:A:O5'	1.83	0.76
39:CL:121:ARG:NH1	39:CL:122:ALA:O	2.18	0.76
1:AA:1060:U:H1'	1:AA:1061:U:OP2	1.86	0.76
53:CC:20:G:C2	53:CC:58:A:N3	2.53	0.76
31:DA:1321:C:H3'	31:DA:1322:C:H5''	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BF:18:ARG:HG2	5:BF:19:GLU:N	2.00	0.76
1:AA:1537:C:H2'	1:AA:1538:G:C8	2.21	0.76
2:BB:39:A:C6	26:B4:1:MET:HB3	2.21	0.76
50:DW:56:MET:HE2	50:DW:88:VAL:HG11	1.68	0.76
15:BR:26:ASP:HB2	15:BR:91:ARG:HA	1.65	0.76
8:BK:101:LEU:HD23	8:BK:101:LEU:H	1.49	0.76
35:CH:102:ALA:HB1	35:CH:106:PRO:HG2	1.65	0.76
32:DE:153:ARG:HG3	32:DE:154:LEU:H	1.50	0.76
46:DS:1:MET:HE1	46:DS:65:GLN:HG2	1.67	0.76
1:BA:1967:C:H2'	1:BA:1968:G:H5'	1.67	0.76
11:BO:62:LEU:HD12	30:B8:30:ARG:CD	2.16	0.76
1:AA:2394:C:OP1	11:AO:62:LEU:HB2	1.85	0.76
12:BP:64:ILE:HA	12:BP:106:VAL:CG1	2.14	0.76
32:CE:61:LEU:HD23	32:CE:68:ILE:HD11	1.66	0.76
1:AA:1042:G:H1	1:AA:1113:U:H3	1.34	0.76
1:AA:2116:G:P	1:AA:2165:G:H22	2.08	0.76
31:CA:818:G:O2'	31:CA:819:A:H5'	1.86	0.76
1:BA:2354:G:O2'	22:B3:36:ILE:HD12	1.86	0.76
11:BO:124:LYS:HA	11:BO:143:GLY:O	1.86	0.76
1:BA:1427:A:H4'	1:BA:1428:C:O5'	1.85	0.76
17:B2:77:ALA:O	17:B2:78:LYS:CB	2.32	0.75
3:AD:71:ASP:HB3	3:AD:103:ARG:NH2	2.01	0.75
11:BO:64:LYS:CB	30:B8:25:MET:SD	2.74	0.75
43:DP:22:ILE:HB	43:DP:25:ILE:HG13	1.66	0.75
5:AF:45:ARG:HH11	5:AF:45:ARG:CG	1.99	0.75
2:AB:40:U:H1'	2:AB:45:A:N6	2.00	0.75
1:AA:637:A:H4'	1:AA:638:G:O5'	1.86	0.75
19:BT:12:VAL:HG13	19:BT:27:THR:HG23	1.68	0.75
1:BA:734:A:O2'	1:BA:1635:G:H5'	1.85	0.75
37:CJ:78:ARG:HD2	37:CJ:80:VAL:HG22	1.67	0.75
1:BA:2875:C:H4'	15:BR:5:ALA:HB2	1.68	0.75
26:A4:37:SER:HB3	26:A4:42:PHE:HB3	1.68	0.75
1:BA:1899:G:N2	1:BA:1902:C:H5	1.85	0.75
30:A8:59:LYS:NZ	30:A8:59:LYS:CB	2.48	0.75
53:DD:15:G:H2'	53:DD:60:A:C2	2.21	0.75
1:AA:883:G:H1	1:AA:893:C:H42	0.80	0.75
31:CA:686:U:HO2'	31:CA:687:A:C5'	1.98	0.75
31:CA:235:C:H5'	47:CT:70:ARG:HG2	1.68	0.75
1:BA:864:G:N7	12:BP:22:LYS:NZ	2.28	0.75
1:BA:2656:U:H3	1:BA:2665:A:H2	1.33	0.75
21:BV:146:ILE:HG13	21:BV:147:GLY:H	1.50	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:186:HIS:HD2	3:AD:188:GLU:H	1.34	0.75
33:DF:77:ILE:O	33:DF:83:ARG:HB3	1.86	0.75
32:DE:178:ARG:NH2	38:DK:74:PRO:HG3	2.01	0.75
11:AO:16:ARG:HH11	11:AO:16:ARG:HG3	1.49	0.75
1:BA:1005:C:C1'	1:BA:1143:A:C2	2.69	0.75
37:CJ:23:VAL:HG12	37:CJ:43:PHE:CE2	2.20	0.75
32:DE:82:ARG:HA	32:DE:92:TYR:CE1	2.21	0.75
1:BA:2135:A:O2'	1:BA:2160:G:H4'	1.87	0.75
31:CA:624:C:O3'	46:CS:10:GLY:HA2	1.86	0.75
15:AR:108:ARG:HA	15:AR:111:ARG:HE	1.49	0.75
17:B2:76:LYS:H	17:B2:80:GLN:CB	1.98	0.75
4:BE:44:TYR:O	4:BE:45:THR:CB	2.34	0.75
31:CA:411:A:H62	31:CA:413:G:H21	1.34	0.75
6:AG:83:ARG:HB3	6:AG:83:ARG:HH11	1.51	0.75
12:BP:134:ARG:HH22	21:BV:122:ARG:HH11	1.32	0.75
1:BA:2112:G:H22	53:DD:57:C:N4	1.84	0.75
37:CJ:62:PHE:CD1	37:CJ:124:LEU:HD21	2.20	0.75
16:A1:112:ARG:HG3	16:A1:112:ARG:HH11	1.49	0.75
21:BV:158:PRO:O	21:BV:161:VAL:HG13	1.87	0.75
1:AA:1734:C:H2'	1:AA:1735:C:H5''	1.69	0.75
3:BD:270:ILE:HG22	3:BD:271:ILE:N	2.01	0.75
11:AO:75:ILE:HD13	11:AO:75:ILE:H	1.52	0.75
53:CC:62:C:H2'	53:CC:63:C:H6	1.52	0.75
1:BA:2372:G:H4'	28:B6:46:HIS:NE2	2.00	0.75
12:AP:68:ILE:HD13	12:AP:103:MET:CG	2.14	0.75
12:AP:88:GLY:O	12:AP:89:ASN:HB2	1.87	0.75
5:BF:31:HIS:HB2	11:BO:9:ASN:OD1	1.87	0.75
4:BE:8:LYS:O	4:BE:9:VAL:HG22	1.87	0.75
1:AA:1022:G:O2'	1:AA:1023:U:OP2	2.03	0.75
1:BA:2340:G:O2'	1:BA:2341:G:H5'	1.87	0.75
12:BP:19:GLY:N	12:BP:98:LYS:HZ3	1.83	0.75
1:BA:12:U:H2'	1:BA:12:U:O2	1.85	0.75
1:AA:2371:G:O2'	28:A6:46:HIS:HD2	1.68	0.75
6:AG:73:ALA:HB1	6:AG:82:LEU:HD11	1.69	0.75
31:DA:1004:A:C5'	31:DA:1025:U:O4	2.34	0.75
11:BO:47:ASP:OD1	11:BO:50:ARG:NH2	2.19	0.75
1:AA:1022:G:H22	1:AA:1142(A):A:H2	1.30	0.75
16:B1:100:VAL:O	16:B1:101:ARG:HG2	1.87	0.75
1:AA:330:A:HO2'	1:AA:331:A:H8	1.22	0.75
42:DO:49:ASN:N	42:DO:49:ASN:HD22	1.84	0.75
1:AA:34:C:O2'	1:AA:35:G:OP2	2.02	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DK:10:LEU:HD22	38:DK:83:ILE:HD11	1.67	0.75
31:DA:32:A:C2	31:DA:33:A:C4	2.74	0.75
5:AF:107:LYS:HE3	5:AF:207:GLY:H	1.50	0.75
1:AA:2392:A:H8	11:AO:60:MET:HB2	1.51	0.75
4:AE:35:GLN:HE21	4:AE:37:ARG:HD2	1.51	0.75
4:BE:37:ARG:HD3	4:BE:44:TYR:CZ	2.21	0.75
30:B8:26:LYS:HA	30:B8:48:PHE:HE1	1.51	0.75
2:AB:15:A:H5'	2:AB:16:G:H8	1.49	0.75
12:AP:65:PHE:O	12:AP:66:ILE:HG13	1.87	0.75
1:BA:2776:A:H3'	1:BA:2776:A:OP1	1.87	0.75
6:BG:109:VAL:O	6:BG:113:ARG:HG3	1.87	0.75
17:A2:39:LEU:CD1	17:A2:51:VAL:HG22	2.17	0.75
31:DA:1443:G:H3'	31:DA:1446:A:C5'	2.16	0.75
1:AA:1056:G:O4'	1:AA:1086:A:H8	1.69	0.75
42:DO:17:LYS:HD3	42:DO:18:VAL:N	2.01	0.75
1:BA:90:U:C2'	1:BA:91:A:H5''	2.17	0.75
4:BE:11:MET:HE3	4:BE:186:GLY:HA2	1.69	0.75
31:DA:273:A:C2'	31:DA:274:A:H5'	2.16	0.75
35:CH:110:LEU:HD13	35:CH:118:ILE:HD13	1.69	0.75
1:BA:747:U:OP2	27:B5:3:LYS:HD2	1.87	0.74
4:AE:60:ASN:OD1	4:AE:62:PRO:CD	2.35	0.74
30:B8:26:LYS:HA	30:B8:48:PHE:CE1	2.22	0.74
1:AA:2402:C:H5	1:AA:2415:G:H22	1.35	0.74
1:AA:2315:G:H2'	1:AA:2316:C:C6	2.23	0.74
1:BA:673:C:H6	1:BA:673:C:H5'	1.51	0.74
1:AA:2734:A:H5'	1:AA:2734:A:H8	1.51	0.74
4:BE:151:TYR:HD2	4:BE:154:LYS:HZ3	1.33	0.74
1:BA:1342:A:C2	1:BA:1397:U:C2	2.75	0.74
9:AM:96:GLU:O	9:AM:96:GLU:HG2	1.87	0.74
17:A2:44:LYS:CD	17:A2:45:THR:H	1.99	0.74
54:C1:13:U:O2	54:C1:13:U:H2'	1.86	0.74
7:BH:143:GLN:HE21	7:BH:143:GLN:HA	1.52	0.74
45:DR:39:LEU:HD12	45:DR:56:LEU:HD13	1.69	0.74
20:BU:90:LEU:HD23	20:BU:90:LEU:H	1.52	0.74
4:BE:81:ILE:O	4:BE:82:ARG:CB	2.35	0.74
6:AG:83:ARG:NH1	6:AG:83:ARG:HB3	2.01	0.74
48:DU:56:THR:OG1	48:DU:63:GLN:NE2	2.20	0.74
31:CA:792:A:H1'	31:CA:794:A:N7	2.02	0.74
1:AA:142:G:C1'	19:AT:37:THR:HG21	2.17	0.74
9:BM:36:GLY:HA3	9:BM:48:MET:HE2	1.68	0.74
26:B4:20:ASN:CG	26:B4:21:VAL:N	2.39	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2583:G:N2	52:CB:87:A:H8	1.78	0.74
31:CA:1346:A:H5''	39:CL:120:ARG:HH12	1.50	0.74
21:AV:121:HIS:HB3	21:AV:123:ASP:O	1.88	0.74
33:CF:73:PRO:O	33:CF:76:VAL:HG22	1.86	0.74
31:CA:31:G:O2'	31:CA:48:C:N4	2.20	0.74
53:CD:16:C:H5''	53:CD:17:C:OP2	1.87	0.74
31:DA:60:A:H4'	31:DA:61:G:O5'	1.86	0.74
34:CG:201:GLN:HA	34:CG:201:GLN:HE21	1.52	0.74
35:CH:11:ILE:H	35:CH:11:ILE:HD13	1.50	0.74
43:DP:10:PRO:HB2	43:DP:18:ALA:HB1	1.69	0.74
4:AE:14:ILE:O	4:AE:15:PHE:CB	2.35	0.74
12:BP:35:VAL:HG22	12:BP:130:LYS:HB3	1.68	0.74
1:BA:2275:C:O2'	12:BP:84:GLY:HA2	1.86	0.74
4:AE:119:ARG:NH1	4:AE:119:ARG:HG3	1.86	0.74
53:DD:8:U:H3	53:DD:14:A:H62	1.34	0.74
13:B0:37:THR:HG23	13:B0:39:PRO:CD	2.18	0.74
3:AD:270:ILE:HG22	3:AD:271:ILE:N	2.02	0.74
1:AA:2275:C:O2'	12:AP:84:GLY:HA3	1.87	0.74
46:DS:8:ARG:HG2	46:DS:8:ARG:NH1	2.00	0.74
1:BA:2872:G:C4	1:BA:2873:A:C2	2.75	0.74
9:AM:40:PRO:O	16:A1:64:ARG:HG2	1.88	0.74
31:DA:1285:A:H1'	31:DA:1286:A:OP2	1.87	0.74
1:BA:2303:G:C2'	1:BA:2304:G:H5'	2.17	0.74
4:AE:66:HIS:HD1	4:AE:66:HIS:C	1.91	0.74
1:AA:517:C:OP1	27:A5:16:ARG:NH2	2.20	0.74
22:A3:53:MET:HA	22:A3:58:THR:O	1.88	0.74
12:AP:79:LEU:CD2	12:AP:80:GLU:CG	2.40	0.74
3:AD:35:LYS:NZ	3:AD:64:ILE:O	2.21	0.74
1:AA:2808:U:H5'	1:AA:2891:G:O6	1.86	0.74
1:AA:1026:U:H1'	1:AA:1027:A:C5'	2.17	0.74
31:CA:789:U:C5	31:CA:792:A:OP2	2.39	0.74
31:CA:1004:A:H5''	31:CA:1025:U:C4	2.22	0.74
1:AA:881:G:H3'	1:AA:882:G:C4'	2.18	0.74
28:A6:25:LYS:HZ3	28:A6:27:LYS:HD3	1.52	0.74
31:CA:1027:C:H4'	31:CA:1028:C:OP1	1.86	0.74
1:AA:1598:C:H2'	1:AA:1599:C:H6	1.52	0.74
1:AA:956:G:OP2	12:AP:14:ARG:NH2	2.21	0.74
50:DW:26:ASN:HB3	50:DW:71:THR:OG1	1.87	0.74
24:BW:10:LEU:O	24:BW:14:ARG:HB2	1.86	0.74
5:AF:185:ASP:HA	5:AF:188:ARG:HD3	1.69	0.74
31:DA:690:G:H2'	31:DA:691:G:O4'	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:571:A:O2'	17:A2:78:LYS:NZ	2.20	0.74
31:CA:1090:U:H2'	31:CA:1091:U:H6	1.53	0.74
6:AG:165:THR:OG1	6:AG:168:GLU:HG3	1.88	0.74
31:CA:928:G:O2'	31:CA:1533:C:OP1	2.06	0.74
38:CK:27:PRO:HG3	38:CK:58:TYR:HE2	1.53	0.74
1:BA:1225:C:H4'	17:B2:85:LYS:HB3	1.70	0.74
4:AE:54:GLN:HE21	4:AE:54:GLN:HA	1.50	0.74
39:DL:95:LYS:HD3	39:DL:96:LEU:N	2.02	0.74
12:BP:26:TYR:HE1	12:BP:139:GLU:HB2	1.50	0.74
12:BP:26:TYR:CE1	12:BP:139:GLU:CB	2.71	0.74
12:BP:64:ILE:HD13	12:BP:106:VAL:HG11	1.70	0.74
31:CA:1305:G:C5'	51:CX:4:GLY:HA3	2.18	0.74
31:CA:630:G:H2'	31:CA:631:G:O4'	1.87	0.74
17:A2:44:LYS:C	17:A2:46:VAL:H	1.90	0.74
19:AT:60:ARG:NH2	29:A7:47:ARG:HH12	1.85	0.74
44:CQ:43:CYS:HA	44:CQ:46:GLU:HG3	1.70	0.74
1:AA:559:G:H22	16:A1:49:HIS:CD2	2.04	0.74
3:AD:17:THR:CG2	3:AD:204:ILE:HA	2.18	0.74
1:BA:2392:A:H8	11:BO:60:MET:CB	2.00	0.74
1:BA:195:A:OP1	11:BO:46:LYS:HD2	1.87	0.74
31:CA:1004:A:O4'	31:CA:1025:U:N3	2.20	0.74
6:AG:114:ILE:HD13	6:AG:140:ILE:HG21	1.70	0.74
3:BD:271:ILE:O	3:BD:272:ALA:CB	2.34	0.74
31:DA:534:U:H5'	31:DA:535:A:OP2	1.86	0.74
1:BA:2420:C:H5	30:B8:31:HIS:O	1.69	0.74
30:B8:50:LEU:O	30:B8:51:ALA:HB2	1.87	0.74
1:AA:1060:U:H5'	1:AA:1061:U:C5	2.23	0.74
31:DA:1133:G:H1	31:DA:1141:C:N4	1.85	0.74
28:B6:9:LEU:HD13	28:B6:11:LEU:HD21	1.69	0.74
4:BE:55:ASN:H	4:BE:56:PRO:HD2	1.51	0.74
11:BO:15:ARG:CB	11:BO:15:ARG:HH11	2.01	0.74
12:BP:30:GLY:HA2	12:BP:107:ALA:CB	2.18	0.74
33:DF:43:LEU:O	33:DF:47:LEU:HB2	1.87	0.74
1:BA:2162:G:H2'	1:BA:2163:C:H6	1.50	0.74
15:AR:122:ASP:OD2	31:CA:1443:G:O2'	2.05	0.74
10:AN:63:VAL:HG12	10:AN:106:LEU:HD11	1.68	0.74
3:AD:108:PRO:HG3	3:AD:143:HIS:CE1	2.22	0.74
7:AH:13:LYS:HA	7:AH:13:LYS:HE2	1.69	0.74
17:B2:80:GLN:HE21	17:B2:80:GLN:CA	1.90	0.74
31:CA:411:A:N7	31:CA:413:G:N3	2.36	0.74
1:AA:2415:G:H4'	11:AO:67:MET:N	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DL:85:LEU:HD12	39:DL:86:VAL:N	2.02	0.74
4:AE:78:LEU:HD21	4:AE:79:ARG:HD2	1.68	0.74
28:B6:45:LYS:CA	28:B6:45:LYS:CE	2.62	0.74
1:BA:2371:G:O2'	28:B6:46:HIS:ND1	2.20	0.74
31:CA:547:A:OP1	34:CG:73:ARG:NH2	2.20	0.74
21:AV:117:LEU:HD13	21:AV:118:GLN:H	1.53	0.74
4:BE:51:PHE:CA	4:BE:52:LEU:HB3	2.16	0.74
30:B8:22:VAL:HG12	30:B8:50:LEU:CD2	2.02	0.74
12:BP:66:ILE:HA	12:BP:104:PHE:HA	1.70	0.74
5:BF:51:THR:CG2	5:BF:92:PRO:HD2	2.18	0.74
1:BA:273(C):C:H42	1:BA:363(C):G:H1	0.79	0.74
1:AA:442:G:H1'	5:AF:48:THR:HG21	1.70	0.74
9:BM:97:ARG:NH1	9:BM:97:ARG:HG2	2.03	0.74
1:AA:2157:G:O2'	1:AA:2158:A:O5'	2.04	0.74
1:BA:77:C:OP1	24:BW:59:ARG:HD3	1.88	0.74
31:CA:438:G:H4'	34:CG:123:HIS:CG	2.22	0.74
31:CA:811:C:H4'	31:CA:900:A:N6	2.03	0.74
33:DF:29:TYR:OH	44:DQ:54:PRO:HD2	1.88	0.74
31:CA:127:G:N2	47:CT:61:GLU:OE1	2.19	0.74
42:DO:70:ILE:HD13	42:DO:77:LEU:HD12	1.70	0.74
31:DA:554:C:H2'	31:DA:555:C:H6	1.53	0.74
19:AT:55:ASN:HB2	19:AT:80:ILE:HG13	1.69	0.74
1:AA:2415:G:O3'	11:AO:66:GLY:HA3	1.88	0.74
1:AA:2469:A:O2'	12:AP:56:ARG:NE	2.21	0.74
43:CP:84:ILE:CG1	49:CV:66:MET:HG2	2.17	0.74
20:AU:44:ILE:HG13	20:AU:45:VAL:H	1.53	0.74
38:CK:87:SER:HB2	38:CK:93:VAL:N	2.01	0.74
1:BA:322:A:H3'	5:BF:169:ASN:ND2	2.01	0.74
1:BA:1257:C:O2'	5:BF:83:PHE:O	2.06	0.74
1:AA:1937:A:O2'	1:AA:1938:A:OP1	2.06	0.74
38:CK:101:PRO:HG2	38:CK:133:LEU:HD11	1.70	0.74
20:AU:40:GLU:HA	20:AU:40:GLU:OE1	1.87	0.74
1:AA:2615:U:H2'	1:AA:2616:C:H6	1.53	0.74
20:BU:42:VAL:HG22	20:BU:65:ALA:HB3	1.68	0.74
36:CI:69:GLU:O	36:CI:72:VAL:HG12	1.88	0.74
1:BA:661:C:H1'	11:BO:12:ALA:O	1.88	0.74
31:CA:1454:G:OP1	50:CW:39:LYS:NZ	2.21	0.74
1:AA:2309:A:N3	1:AA:2310:A:H8	1.85	0.73
20:AU:76:CYS:HB3	20:AU:96:ILE:HD13	1.69	0.73
1:AA:142:G:H1'	19:AT:37:THR:CG2	2.18	0.73
1:AA:1359:A:H2'	1:AA:1360:A:H5'	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DO:46:LYS:NZ	42:DO:47:LYS:HD3	2.03	0.73
1:BA:1287:A:N7	13:B0:107:ASP:HB3	2.03	0.73
39:DL:85:LEU:HD13	39:DL:92:TYR:HD2	1.52	0.73
6:AG:81:LYS:O	6:AG:82:LEU:CB	2.36	0.73
31:DA:1320:C:O2	49:DV:36:ARG:NH2	2.21	0.73
12:BP:134:ARG:HH22	21:BV:122:ARG:NH1	1.85	0.73
43:CP:3:ARG:HG2	43:CP:9:ILE:CG1	2.18	0.73
1:AA:674:G:C1'	5:AF:74:ARG:HD3	2.17	0.73
31:CA:1004:A:C4	31:CA:1025:U:C2	2.76	0.73
14:BQ:59:LYS:HD2	14:BQ:60:GLY:N	1.98	0.73
31:DA:1298:C:H41	37:DJ:114:ARG:HB3	1.51	0.73
1:BA:1300:U:H4'	1:BA:1301:A:H5''	1.69	0.73
31:CA:156:G:H1	31:CA:165:C:N4	1.85	0.73
29:B7:19:ARG:NH1	29:B7:19:ARG:HG2	2.03	0.73
31:DA:350:G:H5'	31:DA:351:G:OP2	1.88	0.73
50:DW:87:LYS:O	50:DW:91:LEU:HG	1.88	0.73
6:AG:107:LEU:HD21	6:AG:178:PHE:CD1	2.23	0.73
1:BA:566:U:OP1	11:BO:29:LYS:HE3	1.88	0.73
35:DH:51:VAL:HB	35:DH:52:PRO:HD3	1.69	0.73
1:AA:323:G:H5'	5:AF:169:ASN:HD21	1.51	0.73
27:A5:56:LYS:HD2	27:A5:56:LYS:H	1.52	0.73
14:BQ:78:LEU:HD11	14:BQ:107:GLU:HB3	1.69	0.73
4:BE:81:ILE:HG22	4:BE:82:ARG:H	1.52	0.73
31:DA:1145:C:O2'	31:DA:1146:A:N7	2.21	0.73
31:DA:976:G:N2	31:DA:1362:C:H2'	2.03	0.73
28:B6:18:ARG:NH2	28:B6:43:CYS:SG	2.60	0.73
31:CA:1132:C:H2'	31:CA:1133:G:H8	1.51	0.73
7:AH:153:LYS:HZ3	7:AH:153:LYS:H	1.33	0.73
1:AA:1047:G:H2'	1:AA:1110:G:N1	2.03	0.73
6:AG:107:LEU:HD21	6:AG:178:PHE:CE1	2.23	0.73
42:CO:3:THR:H	42:CO:6:GLN:HE21	1.37	0.73
40:DM:33:GLN:HB2	40:DM:75:ILE:HG12	1.69	0.73
31:CA:1412:C:H2'	31:CA:1413:A:C8	2.24	0.73
4:BE:52:LEU:CD2	4:BE:52:LEU:O	2.33	0.73
28:B6:38:LYS:HZ2	28:B6:46:HIS:HD2	1.36	0.73
1:BA:2840:C:C5'	13:B0:53:HIS:HD2	1.96	0.73
11:BO:47:ASP:OD2	11:BO:49:ARG:CG	2.33	0.73
1:BA:483:A:H5'	20:BU:49:VAL:HG22	1.69	0.73
53:CD:55:U:H3	53:CD:59:A:H62	1.36	0.73
1:AA:71:A:C2	19:AT:31:HIS:HE1	2.06	0.73
9:AM:58:ASP:H	9:AM:60:ILE:HD11	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:390:C:O3'	46:CS:28:ARG:NH2	2.22	0.73
3:BD:137:PRO:O	3:BD:140:THR:HG23	1.87	0.73
31:CA:1073:U:H2'	31:CA:1074:G:H8	1.50	0.73
12:AP:27:VAL:HG23	12:AP:138:ASP:OD2	1.89	0.73
31:DA:620:C:H2'	31:DA:621:A:O4'	1.88	0.73
1:BA:2219:G:H2'	1:BA:2224:G:H5'	1.69	0.73
4:BE:197:ILE:HD11	4:BE:199:ARG:HH21	1.52	0.73
1:BA:9:U:C4	1:BA:2629:A:C6	2.76	0.73
28:A6:40:CYS:HA	28:A6:46:HIS:HA	1.69	0.73
4:AE:3:GLY:HA3	4:AE:81:ILE:HG13	0.85	0.73
11:AO:15:ARG:CB	11:AO:15:ARG:HH11	2.01	0.73
12:BP:27:VAL:CG1	12:BP:105:GLU:OE2	2.33	0.73
1:BA:2392:A:C8	11:BO:60:MET:HB2	2.24	0.73
11:BO:50:ARG:HH21	11:BO:50:ARG:CG	2.01	0.73
1:BA:1024:G:H3'	1:BA:1025:G:H5''	1.70	0.73
1:AA:1786:A:H1'	1:AA:1938:A:N6	2.03	0.73
35:CH:10:MET:SD	35:CH:13:ILE:HD13	2.28	0.73
1:BA:2292:C:O2'	1:BA:2293:C:H5'	1.87	0.73
31:DA:1348:U:H3	31:DA:1374:A:H2	1.37	0.73
34:CG:92:VAL:O	34:CG:96:LEU:HD22	1.88	0.73
3:AD:69:ARG:NH2	3:AD:128:GLY:O	2.20	0.73
1:BA:2393:A:H5'	11:BO:62:LEU:CB	2.15	0.73
17:B2:76:LYS:HB2	17:B2:80:GLN:HB3	1.67	0.73
1:BA:2112:G:N2	53:DD:57:C:N3	2.36	0.73
19:BT:8:ILE:HD11	19:BT:43:VAL:HG12	1.69	0.73
16:B1:91:ASP:C	16:B1:93:LYS:H	1.90	0.73
26:B4:12:ALA:H	26:B4:24:THR:HG21	1.53	0.73
16:A1:98:LEU:HD23	16:A1:99:ALA:N	2.03	0.73
31:DA:328:C:H4'	31:DA:329:A:H5'	1.71	0.73
14:BQ:24:LEU:HB2	14:BQ:85:VAL:HG12	1.70	0.73
31:CA:673:G:H2'	31:CA:674:G:C8	2.23	0.73
1:AA:1292:U:H2'	1:AA:1293:C:C6	2.24	0.73
51:DX:5:ASP:O	51:DX:11:GLY:HA3	1.87	0.73
1:AA:1394:U:C5	1:AA:1395:A:C5	2.75	0.73
6:BG:173:LEU:O	6:BG:178:PHE:HB2	1.88	0.73
1:AA:1899:G:H22	1:AA:1902:C:H41	0.75	0.73
34:DG:62:GLN:HE22	34:DG:65:ARG:HE	1.36	0.73
28:A6:30:THR:HA	28:A6:31:PRO:C	2.09	0.73
13:A0:24:GLN:HE22	13:A0:36:THR:HG21	1.54	0.73
15:BR:90:GLN:HE22	15:BR:121:ILE:HD11	1.54	0.73
9:AM:26:LEU:O	9:AM:30:ILE:HG13	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BV:158:PRO:HG2	21:BV:161:VAL:H	1.54	0.73
3:AD:17:THR:HG22	3:AD:204:ILE:HA	1.70	0.73
14:AQ:28:VAL:HG11	14:AQ:98:VAL:HG13	1.68	0.73
1:AA:1952:A:C6	10:AN:22:ILE:HD11	2.23	0.73
31:DA:179:A:H2'	31:DA:180:U:C6	2.24	0.73
6:BG:59:GLU:CD	6:BG:153:ARG:HH21	1.92	0.73
1:AA:2233:U:H2'	1:AA:2234:G:C8	2.23	0.73
14:AQ:34:HIS:HB2	14:AQ:36:TYR:HE1	1.52	0.73
12:AP:78:PRO:O	12:AP:79:LEU:CB	2.37	0.73
12:BP:26:TYR:CE1	12:BP:139:GLU:CG	2.71	0.73
31:DA:974:A:P	44:DQ:41:ARG:HH12	2.11	0.73
30:A8:8:LYS:O	30:A8:12:LYS:HG3	1.89	0.73
1:BA:141:A:C8	1:BA:1408:C:H1'	2.23	0.73
31:DA:997:U:H2'	31:DA:998:G:C8	2.24	0.73
1:BA:2557:G:H2'	1:BA:2558:C:C6	2.24	0.73
1:AA:822:U:C2'	1:AA:823:G:H5'	2.18	0.73
33:DF:40:ARG:HG2	33:DF:55:VAL:HG11	1.70	0.73
1:BA:1800:C:OP2	3:BD:183:ARG:NH2	2.21	0.73
5:AF:118:ALA:HB2	5:AF:123:LEU:HD23	1.70	0.73
31:DA:1177:G:OP2	39:DL:97:LYS:NZ	2.21	0.73
6:AG:80:PHE:O	6:AG:81:LYS:O	2.07	0.73
31:DA:976:G:H5'	31:DA:1358:U:O2'	1.88	0.73
53:DC:16:C:O2'	53:DC:62:C:OP1	2.05	0.73
1:BA:1138:G:H21	9:BM:106:MET:HE3	1.54	0.73
1:AA:1036:G:OP1	7:AH:59:ARG:HB2	1.89	0.73
20:AU:84:ARG:HH12	20:AU:97:ARG:HB2	1.54	0.73
24:AW:46:GLN:HA	24:AW:46:GLN:OE1	1.88	0.73
9:BM:42:TRP:HA	9:BM:48:MET:HE1	1.70	0.73
26:B4:16:CYS:HA	26:B4:33:VAL:HG23	1.71	0.73
32:DE:54:THR:HG23	32:DE:199:TYR:HB3	1.71	0.73
21:AV:109:ALA:HB1	21:AV:144:LEU:HB2	1.70	0.73
13:A0:44:LEU:HD22	13:A0:48:VAL:HG23	1.69	0.73
37:DJ:105:VAL:O	37:DJ:109:ASN:ND2	2.20	0.73
50:DW:49:ALA:HA	50:DW:52:ALA:HB3	1.71	0.73
33:CF:34:LEU:CD2	33:CF:38:ARG:HH11	2.02	0.73
1:AA:771:G:OP1	29:A7:10:ARG:NH1	2.21	0.73
4:AE:23:VAL:HA	4:AE:186:GLY:H	1.54	0.73
17:B2:71:LEU:CA	17:B2:86:GLY:HA2	2.19	0.73
34:CG:31:CYS:HB3	34:CG:33:MET:HB2	1.71	0.73
7:BH:127:GLU:HG2	7:BH:128:PRO:CD	2.14	0.73
28:B6:25:LYS:CD	30:B8:34:TRP:CH2	2.67	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CV:40:ILE:HG12	49:CV:41:VAL:HG13	1.71	0.73
1:AA:140:A:H8	1:AA:1408:C:O2'	1.64	0.73
52:DB:59:U:O2'	52:DB:70:G:H4'	1.88	0.73
22:A3:53:MET:HB2	22:A3:59:LEU:HD23	1.69	0.73
12:BP:7:MET:HB3	12:BP:10:ARG:NH2	2.03	0.73
52:CB:23:A:O2'	52:CB:24:C:OP1	2.06	0.73
11:BO:146:VAL:HG13	11:BO:147:LEU:HD13	1.70	0.73
18:BS:65:LEU:HD13	18:BS:68:ARG:HD2	1.71	0.73
34:DG:101:LEU:HD23	34:DG:121:VAL:CG1	2.19	0.73
9:AM:128:HIS:HD2	9:AM:129:PRO:O	1.72	0.73
30:B8:22:VAL:HB	30:B8:50:LEU:HD23	0.75	0.72
12:AP:23:GLY:HA2	12:AP:25:ASP:HB2	1.71	0.72
1:AA:1069:A:H4'	1:AA:1070:A:C5'	2.19	0.72
17:B2:77:ALA:O	17:B2:78:LYS:CD	2.32	0.72
4:BE:56:PRO:CB	4:BE:57:LYS:HE2	2.13	0.72
3:BD:48:ARG:HH11	3:BD:48:ARG:HG3	1.52	0.72
12:AP:90:VAL:HG12	12:AP:90:VAL:O	1.89	0.72
16:B1:66:ASN:HD21	16:B1:70:ARG:HE	1.37	0.72
31:DA:631:G:H5''	31:DA:632:A:N7	2.04	0.72
5:BF:83:PHE:O	5:BF:84:VAL:HB	1.87	0.72
1:BA:204:A:O2'	1:BA:205:G:OP2	2.06	0.72
31:DA:920:U:H2'	31:DA:921:U:C6	2.23	0.72
13:B0:87:TYR:HE1	13:B0:117:VAL:HG12	1.53	0.72
4:BE:179:GLU:HB3	4:BE:181:LEU:HD22	1.71	0.72
1:AA:1412:A:H2'	1:AA:1413:G:C8	2.24	0.72
24:AW:16:LEU:O	24:AW:16:LEU:HG	1.88	0.72
1:AA:534:U:H5'	16:A1:42:ALA:HB1	1.70	0.72
8:AK:13:GLY:HA3	8:AK:17:GLN:OE1	1.88	0.72
12:BP:19:GLY:HA3	12:BP:98:LYS:HZ2	1.54	0.72
31:DA:452:A:O2'	31:DA:453:A:O5'	2.07	0.72
24:BW:70:GLN:HG2	24:BW:71:ASN:N	2.03	0.72
26:B4:58:ARG:O	26:B4:61:ARG:HB3	1.89	0.72
1:BA:287:C:H2'	1:BA:288:C:C6	2.24	0.72
17:A2:44:LYS:HD2	17:A2:45:THR:H	1.52	0.72
24:AW:17:SER:HB3	24:AW:67:LYS:HD3	1.70	0.72
1:AA:1416:G:O2'	1:AA:1417:C:O5'	2.06	0.72
32:DE:178:ARG:HH11	32:DE:178:ARG:HB2	1.54	0.72
1:AA:2306:C:H3'	1:AA:2307:G:C5'	2.19	0.72
32:DE:7:VAL:HG22	32:DE:8:LYS:H	1.53	0.72
38:CK:64:LYS:HB3	38:CK:79:VAL:HG21	1.70	0.72
1:BA:1864:U:OP1	1:BA:2410:G:O2'	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DH:9:LYS:HB2	35:DH:112:LEU:HD11	1.70	0.72
7:BH:168:PRO:O	7:BH:169:VAL:HG12	1.88	0.72
1:AA:232:G:OP2	1:AA:232:G:H8	1.69	0.72
33:CF:107:GLN:OE1	33:CF:107:GLN:N	2.21	0.72
1:BA:2015:A:O4'	27:B5:2:ALA:CB	2.36	0.72
30:B8:50:LEU:O	30:B8:51:ALA:CB	2.36	0.72
17:B2:73:SER:CB	17:B2:83:ARG:HA	2.15	0.72
34:CG:19:LEU:N	34:CG:19:LEU:HD22	2.01	0.72
28:B6:43:CYS:O	28:B6:44:ARG:HB2	1.89	0.72
14:AQ:10:ARG:O	14:AQ:14:VAL:HG12	1.88	0.72
53:DC:21:U:O2'	53:DC:22:A:H5'	1.89	0.72
39:CL:16:ARG:HB2	39:CL:64:THR:HG22	1.69	0.72
34:DG:31:CYS:HB3	34:DG:33:MET:HB2	1.70	0.72
4:BE:182:LEU:HD12	4:BE:183:LEU:N	2.05	0.72
1:BA:141:A:H8	1:BA:1595:G:H21	1.35	0.72
1:AA:2068:U:N3	1:AA:2430:A:C2	2.46	0.72
1:AA:2555:U:H2'	1:AA:2556:C:H5'	1.70	0.72
15:BR:90:GLN:NE2	15:BR:91:ARG:H	1.87	0.72
7:BH:78:GLY:O	7:BH:136:ILE:HG22	1.89	0.72
47:DT:67:LYS:HA	47:DT:70:ARG:HH12	1.53	0.72
3:AD:130:ALA:C	3:AD:131:LEU:HD12	2.09	0.72
1:BA:635:C:O2'	1:BA:639:U:OP1	2.08	0.72
1:AA:581:C:OP1	16:A1:33:ARG:HG3	1.88	0.72
4:AE:23:VAL:CB	4:AE:185:LYS:HA	2.18	0.72
30:B8:50:LEU:HD22	30:B8:50:LEU:H	1.54	0.72
4:BE:56:PRO:CG	4:BE:57:LYS:NZ	2.50	0.72
22:B3:18:ALA:HB3	22:B3:20:ARG:HE	1.54	0.72
34:DG:139:ARG:NH1	34:DG:139:ARG:HG3	1.95	0.72
1:BA:273(C):C:N3	1:BA:363(C):G:N2	2.35	0.72
42:DO:117:ARG:HB3	42:DO:122:THR:HB	1.71	0.72
1:AA:784:A:C5	3:AD:229:VAL:HG21	2.24	0.72
31:DA:1297:C:H1'	31:DA:1298:C:OP2	1.90	0.72
50:DW:30:LYS:HG2	50:DW:80:ARG:HH22	1.55	0.72
1:AA:774:A:H2	1:AA:787:U:O2'	1.69	0.72
12:AP:21:THR:O	12:AP:21:THR:HG22	1.89	0.72
1:BA:2522:U:H2'	1:BA:2523:G:H5''	1.71	0.72
1:BA:2128:C:H4'	1:BA:2173:A:N6	2.05	0.72
33:DF:18:TRP:CD1	44:DQ:54:PRO:HA	2.23	0.72
52:CB:7:G:H3'	52:CB:8:U:C5'	2.17	0.72
31:CA:619:U:O2	34:CG:135:LEU:HD22	1.90	0.72
1:BA:781:A:H2	1:BA:1776:G:N3	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BV:5:LEU:HG	21:BV:47:VAL:HG21	1.72	0.72
4:AE:21:VAL:HG23	4:AE:185:LYS:HD2	1.72	0.72
4:AE:14:ILE:HD11	15:AR:14:TYR:OH	1.90	0.72
1:AA:2789:C:H1'	1:AA:2892:A:H2	1.54	0.72
31:DA:973:G:O3'	44:DQ:41:ARG:NH2	2.22	0.72
30:A8:61:LEU:O	30:A8:62:LEU:HB2	1.88	0.72
31:CA:1118:C:OP1	39:CL:9:ARG:HD3	1.90	0.72
53:DD:19:G:H2'	53:DD:58:A:N6	2.05	0.72
20:AU:96:ILE:HG12	20:AU:99:CYS:O	1.89	0.72
32:CE:60:ASP:O	32:CE:64:ARG:HG2	1.90	0.72
1:BA:2127:G:H21	1:BA:2173:A:H8	1.38	0.72
31:CA:517:G:N1	31:CA:533:A:OP2	2.21	0.72
1:AA:1329:U:H5''	1:AA:1330:C:H5	1.54	0.72
26:B4:63:TYR:OH	49:DV:41:VAL:HG22	1.90	0.72
1:BA:1203:G:H3'	1:BA:1204:A:H5''	1.71	0.72
31:DA:1004:A:H1'	31:DA:1036:G:H1	1.50	0.72
48:DU:22:VAL:CG1	48:DU:56:THR:HA	2.20	0.72
53:DD:9:G:O2'	53:DD:10:G:C8	2.43	0.72
6:AG:105:LYS:HE3	6:AG:143:GLU:OE1	1.88	0.72
38:CK:87:SER:CB	38:CK:93:VAL:H	2.03	0.72
31:DA:606:G:N2	31:DA:631:G:H2'	2.04	0.72
1:BA:1496:A:C8	1:BA:1577:C:O2'	2.38	0.72
32:CE:80:ILE:HG21	32:CE:212:GLN:HA	1.72	0.72
31:DA:407:G:OP1	34:DG:115:ARG:NH2	2.22	0.72
15:AR:45:PHE:HE2	15:AR:63:VAL:HB	1.54	0.72
14:AQ:26:LEU:HD23	14:AQ:87:PHE:HD1	1.55	0.72
1:BA:2485:G:H5''	12:BP:46:GLN:HE21	1.54	0.72
1:AA:297:C:H5''	20:AU:85:VAL:HG21	1.71	0.72
37:CJ:24:THR:HA	37:CJ:27:ILE:HG13	1.70	0.72
7:BH:118:PRO:HD2	7:BH:121:ILE:HG13	1.70	0.72
1:BA:1786:A:H1'	1:BA:1938:A:N6	2.04	0.72
1:AA:1266:G:O4'	18:AS:15:ARG:NH2	2.23	0.72
1:BA:1430:C:H2'	1:BA:1431:U:C6	2.24	0.72
1:AA:1065:U:C5	1:AA:1066:U:H6	2.07	0.72
1:AA:2371:G:H4'	28:A6:45:LYS:HG2	1.69	0.72
45:CR:87:ILE:CG2	45:CR:88:ARG:H	1.97	0.72
28:B6:31:PRO:O	28:B6:32:ASN:HB2	1.88	0.72
12:AP:64:ILE:O	12:AP:65:PHE:CB	2.37	0.72
4:BE:56:PRO:HB3	4:BE:57:LYS:CD	2.18	0.72
6:AG:67:LYS:O	6:AG:67:LYS:HD2	1.88	0.72
11:BO:80:TYR:CD1	11:BO:111:ARG:HB3	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DO:46:LYS:HZ2	42:DO:47:LYS:HD3	1.54	0.72
37:DJ:97:GLN:HE21	37:DJ:101:LEU:HD11	1.55	0.72
44:CQ:29:ARG:HD3	44:CQ:40:CYS:HB2	1.72	0.72
18:AS:57:ASN:O	18:AS:61:ASN:HB2	1.90	0.72
34:CG:112:VAL:HG12	34:CG:116:GLN:OE1	1.90	0.72
4:BE:52:LEU:CD1	4:BE:52:LEU:C	2.54	0.72
1:AA:2789:C:H3'	1:AA:2790:A:H5''	1.71	0.72
1:BA:885:C:C4	1:BA:890:A:C6	2.77	0.72
14:AQ:89:ARG:O	14:AQ:89:ARG:HG2	1.87	0.72
32:CE:185:ILE:HB	32:CE:199:TYR:HB2	1.72	0.72
7:AH:153:LYS:HB3	7:AH:154:PRO:CD	2.19	0.72
31:CA:200:G:H1	31:CA:217:C:H42	1.35	0.72
7:BH:117:PRO:HB3	7:BH:123:PHE:HE1	1.55	0.72
17:B2:29:PRO:O	17:B2:61:VAL:HG12	1.88	0.72
1:BA:2105:C:H2'	1:BA:2106:G:H8	1.55	0.72
50:CW:73:HIS:HB3	50:CW:74:LYS:HG2	1.69	0.72
31:DA:657:G:H21	45:DR:22:THR:HG1	1.36	0.72
1:BA:1557:C:H5''	1:BA:1558:A:OP2	1.89	0.72
54:C1:14:U:O2'	54:C1:15:U:O4'	2.06	0.72
31:CA:824:C:H4'	38:CK:1:MET:HB2	1.72	0.72
1:AA:2182:G:H2'	1:AA:2183:C:C6	2.25	0.72
1:BA:2784:C:O2	4:BE:37:ARG:NH2	2.23	0.72
1:AA:2402:C:O2'	1:AA:2403:C:OP1	2.05	0.72
31:DA:1132:C:O2'	31:DA:1133:G:H5'	1.89	0.72
1:AA:518:G:H4'	18:AS:18:ARG:HH11	1.54	0.72
31:DA:1347:G:N2	31:DA:1373:G:H2'	2.05	0.72
31:CA:173:U:H5''	31:CA:197:A:O4'	1.89	0.72
1:AA:1505:C:H2'	1:AA:1506:C:C6	2.24	0.72
31:DA:1382:C:H1'	37:DJ:79:ARG:NH1	2.05	0.72
11:BO:127:ALA:O	11:BO:147:LEU:N	2.19	0.72
54:C1:14:U:H4'	54:C1:14:U:OP1	1.89	0.72
27:B5:20:ARG:HG2	27:B5:23:HIS:CD2	2.24	0.72
33:CF:78:GLY:O	33:CF:79:ARG:HG2	1.90	0.72
1:AA:336:C:H5''	20:AU:6:HIS:CD2	2.24	0.72
31:DA:736:C:H2'	31:DA:737:A:C8	2.25	0.72
31:CA:765:G:H5''	31:CA:766:A:OP1	1.90	0.72
4:AE:57:LYS:HD3	4:AE:57:LYS:O	1.90	0.72
10:BN:119:PRO:HB2	15:BR:68:TYR:CE2	2.23	0.72
12:AP:79:LEU:HD22	12:AP:80:GLU:HG3	1.69	0.72
27:B5:16:ARG:NH1	27:B5:17:ASP:OD1	2.23	0.72
7:AH:153:LYS:N	7:AH:153:LYS:HD2	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1183:A:HO2'	31:DA:1184:G:P	2.11	0.72
1:AA:2154:G:H2'	1:AA:2155:G:C8	2.24	0.72
1:AA:2154:G:H2'	1:AA:2155:G:H8	1.54	0.72
33:DF:84:ILE:HD11	33:DF:88:ARG:NH2	2.05	0.72
1:BA:2309:A:H2'	1:BA:2310:A:O4'	1.90	0.72
1:BA:2748:A:C8	1:BA:2754:U:O4	2.42	0.72
32:DE:92:TYR:CE2	32:DE:151:GLY:HA3	2.25	0.72
31:CA:1277:C:HO2'	31:CA:1279:A:H8	1.37	0.72
12:AP:26:TYR:O	12:AP:26:TYR:CD1	2.43	0.72
31:DA:179:A:H2'	31:DA:180:U:H6	1.55	0.72
14:AQ:34:HIS:HB2	14:AQ:36:TYR:CE1	2.24	0.72
20:AU:42:VAL:HB	20:AU:67:LEU:HD11	1.71	0.72
41:DN:92:GLU:OE2	41:DN:96:ARG:NH1	2.22	0.72
1:BA:2015:A:H1'	27:B5:2:ALA:HA	0.74	0.71
3:AD:35:LYS:HA	3:AD:64:ILE:HG22	1.70	0.71
1:BA:1070:A:H5'	1:BA:1071:G:C5'	2.16	0.71
1:BA:140:A:H8	1:BA:1408:C:HO2'	1.33	0.71
9:BM:36:GLY:HA3	9:BM:48:MET:CE	2.19	0.71
1:BA:2872:G:C8	1:BA:2873:A:H2	2.08	0.71
6:BG:47:LYS:HG2	6:BG:48:GLU:N	2.04	0.71
1:BA:2355:C:H5'	22:B3:36:ILE:HD11	1.72	0.71
18:BS:88:ARG:HD3	18:BS:94:ASP:OD1	1.90	0.71
31:DA:411:A:H62	31:DA:413:G:H21	1.38	0.71
31:DA:664:G:H22	31:DA:741:G:H1	1.35	0.71
52:CB:14:A:N6	52:CB:21:A:H61	1.88	0.71
11:AO:11:GLY:O	11:AO:13:ASN:N	2.22	0.71
53:DC:73:A:C6	53:DC:74:A:C6	2.77	0.71
1:BA:1062:G:O6	1:BA:1075:C:N4	2.23	0.71
4:AE:119:ARG:HD3	4:AE:160:TYR:CD2	2.25	0.71
1:AA:1728:G:N1	1:AA:1730:U:OP2	2.24	0.71
32:DE:74:LYS:NZ	32:DE:205:ASP:O	2.19	0.71
1:BA:1169:G:H2'	1:BA:1170:G:O4'	1.90	0.71
11:AO:39:LYS:HG3	11:AO:45:LEU:HD23	1.71	0.71
23:AZ:23:LYS:HB3	23:AZ:29:GLY:HA3	1.70	0.71
10:BN:47:ILE:HG13	10:BN:48:PRO:HD2	1.72	0.71
12:BP:83:MET:N	12:BP:83:MET:SD	2.63	0.71
16:A1:69:CYS:SG	16:A1:79:PHE:HD1	2.13	0.71
31:CA:498:A:H4'	31:CA:500:G:OP1	1.90	0.71
10:BN:115:VAL:HG13	10:BN:121:VAL:HG21	1.72	0.71
1:BA:389:G:N1	11:BO:71:VAL:CG1	2.52	0.71
31:DA:1133:G:H1	31:DA:1141:C:H42	1.37	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DL:82:ALA:HB1	39:DL:96:LEU:HD21	1.70	0.71
6:AG:80:PHE:O	6:AG:80:PHE:CD1	2.43	0.71
14:AQ:106:ARG:HB2	14:AQ:106:ARG:NH1	2.05	0.71
5:BF:25:PRO:CB	5:BF:28:ILE:HG13	2.18	0.71
1:BA:2112:G:H22	53:DD:57:C:H42	1.38	0.71
11:AO:29:LYS:HD3	11:AO:30:THR:HG22	1.72	0.71
12:AP:83:MET:SD	12:AP:83:MET:N	2.63	0.71
20:AU:97:ARG:HE	20:AU:98:VAL:HG23	1.54	0.71
1:AA:1597:A:H5''	1:AA:1598:C:OP1	1.91	0.71
12:AP:19:GLY:O	12:AP:98:LYS:CD	2.38	0.71
15:BR:93:ARG:HG2	15:BR:117:ASP:CB	2.19	0.71
1:AA:287:C:H2'	1:AA:288:C:C6	2.25	0.71
31:DA:130:A:C8	47:DT:63:ARG:HG3	2.24	0.71
1:BA:2131:G:OP1	1:BA:2132:U:H3'	1.89	0.71
1:AA:2199:A:H3'	1:AA:2205:C:H6	1.55	0.71
14:AQ:26:LEU:CD2	14:AQ:87:PHE:HD1	2.03	0.71
4:AE:27:LEU:HD13	15:AR:1:MET:HE2	1.72	0.71
31:DA:779:C:C2'	31:DA:780:A:H5'	2.20	0.71
18:AS:83:LYS:O	18:AS:84:ARG:HD3	1.90	0.71
50:CW:13:LEU:HD12	50:CW:13:LEU:C	2.11	0.71
1:BA:1386:C:OP2	1:BA:1396:U:H5	1.73	0.71
17:B2:49:THR:O	17:B2:50:PRO:C	2.26	0.71
1:BA:389:G:H1	11:BO:71:VAL:CG1	2.00	0.71
30:B8:22:VAL:C	30:B8:50:LEU:HD21	2.11	0.71
21:BV:115:GLY:HA3	21:BV:174:VAL:CG1	2.21	0.71
12:BP:64:ILE:HG23	12:BP:106:VAL:CG1	2.21	0.71
31:CA:1004:A:H8	31:CA:1036:G:C2	2.08	0.71
7:BH:4:ILE:HB	7:BH:6:ARG:NH1	2.05	0.71
20:AU:47:LYS:HG3	20:AU:60:PHE:CE1	2.26	0.71
12:AP:19:GLY:HA3	12:AP:98:LYS:NZ	2.05	0.71
35:DH:81:GLU:HG2	35:DH:90:VAL:HG13	1.72	0.71
7:AH:86:GLU:HG3	7:AH:165:ALA:HB3	1.72	0.71
32:CE:166:ASP:HB3	32:CE:169:LYS:HB2	1.72	0.71
3:AD:126:GLN:O	3:AD:193:VAL:HG21	1.90	0.71
53:DD:31:G:H2'	53:DD:32:G:H8	1.52	0.71
1:BA:2378:A:H4'	14:BQ:23:ARG:HH11	1.54	0.71
52:CB:23:A:H3'	52:CB:24:C:C5	2.26	0.71
12:AP:35:VAL:HG13	12:AP:130:LYS:HB3	1.72	0.71
39:CL:3:GLN:OE1	39:CL:20:ARG:NH1	2.24	0.71
38:CK:41:ARG:HG3	38:CK:41:ARG:HH11	1.56	0.71
31:CA:1047:G:C2'	31:CA:1048:G:H5'	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:74:PRO:HG2	4:AE:77:ILE:CG2	2.16	0.71
31:DA:1322:C:O2	31:DA:1322:C:H2'	1.90	0.71
43:DP:22:ILE:HB	43:DP:25:ILE:CG1	2.20	0.71
11:AO:50:ARG:HD3	30:A8:7:HIS:HD2	1.53	0.71
14:AQ:106:ARG:HA	14:AQ:110:LEU:CD1	2.18	0.71
31:CA:1180:A:OP1	39:CL:103:THR:OG1	2.07	0.71
11:BO:6:LEU:O	11:BO:7:ARG:HB3	1.89	0.71
5:AF:29:ASN:N	5:AF:112:MET:HE1	2.03	0.71
1:AA:2348:U:H4'	28:A6:42:TRP:CD1	2.25	0.71
1:AA:1171:G:C5	1:AA:1174:A:N6	2.58	0.71
31:DA:1442:G:H2'	31:DA:1443:G:O5'	1.90	0.71
1:BA:1678:G:N2	1:BA:1989:G:H22	1.87	0.71
41:CN:121:PRO:HG2	41:CN:126:ARG:HG3	1.72	0.71
34:CG:79:PHE:HE1	34:CG:204:ILE:HG12	1.54	0.71
31:DA:1170:A:H8	31:DA:1170:A:O5'	1.74	0.71
1:AA:1805:U:O2	3:AD:50:THR:HB	1.90	0.71
40:DM:13:HIS:C	40:DM:13:HIS:CD2	2.64	0.71
31:CA:112:G:OP1	46:CS:27:LYS:HD2	1.90	0.71
31:CA:310:G:OP1	46:CS:27:LYS:NZ	2.24	0.71
1:BA:2331:G:O3'	22:B3:43:THR:HG22	1.91	0.71
1:AA:1054:A:H2'	1:AA:1055:G:C8	2.25	0.71
1:AA:49:A:C8	1:AA:120:U:H5	2.06	0.71
12:BP:64:ILE:HG22	12:BP:65:PHE:H	1.55	0.71
1:AA:1026:U:C4'	1:AA:1027:A:OP1	2.38	0.71
1:BA:68:G:H2'	1:BA:69:C:C6	2.25	0.71
1:AA:2119:A:H61	1:AA:2170:A:N6	1.88	0.71
31:CA:192:U:H4'	50:CW:102:GLY:O	1.91	0.71
18:AS:58:ALA:CB	18:AS:64:MET:HG3	2.21	0.71
24:BW:15:LYS:HD3	24:BW:67:LYS:NZ	2.04	0.71
1:BA:1171:G:H1	1:BA:1178:C:H42	1.36	0.71
1:BA:1678:G:H22	1:BA:1989:G:N2	1.87	0.71
2:AB:37:C:H2'	2:AB:38:C:H5'	1.71	0.71
1:AA:1925:C:C2'	1:AA:1926:U:H5'	2.21	0.71
1:BA:2148:G:H2'	1:BA:2149:G:H8	1.55	0.71
52:CB:30:A:N6	52:CB:42:U:O4	2.19	0.71
1:AA:1963:U:OP1	1:AA:1963:U:H6	1.73	0.71
1:AA:2432:A:C4	23:AZ:33:LYS:HG2	2.25	0.71
17:B2:76:LYS:HB2	17:B2:80:GLN:HB2	0.73	0.71
1:BA:228:A:H8	1:BA:228:A:H3'	1.56	0.71
31:DA:1132:C:H2'	31:DA:1133:G:C8	2.26	0.71
5:BF:51:THR:HB	5:BF:88:VAL:HG11	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2468:G:C4'	1:AA:2469:A:OP1	2.30	0.71
4:BE:55:ASN:H	4:BE:56:PRO:CD	2.02	0.71
31:CA:1306:A:N6	31:CA:1331:G:H1'	2.06	0.71
35:CH:126:ARG:HG3	35:CH:126:ARG:NH1	1.97	0.71
31:CA:1442:G:C6	31:CA:1446:A:N6	2.59	0.71
53:CD:8:U:H3	53:CD:14:A:H62	1.38	0.71
12:AP:14:ARG:HG2	12:AP:41:TRP:HH2	1.55	0.71
1:BA:527:C:N4	1:BA:2779:U:OP2	2.23	0.71
15:BR:26:ASP:HB3	15:BR:91:ARG:HA	1.70	0.71
14:BQ:24:LEU:HD12	14:BQ:41:ASP:HB2	1.73	0.71
1:BA:2836:U:H2'	1:BA:2837:G:C8	2.26	0.71
41:CN:107:SER:O	41:CN:108:ILE:HD13	1.91	0.71
23:AZ:11:ARG:HB2	23:AZ:12:PRO:HD2	1.73	0.71
30:B8:51:ALA:O	30:B8:53:PRO:N	2.24	0.71
3:BD:35:LYS:CE	3:BD:64:ILE:O	2.38	0.71
3:BD:35:LYS:HD3	3:BD:64:ILE:N	2.05	0.71
3:BD:64:ILE:HG12	3:BD:64:ILE:O	1.89	0.71
28:B6:10:LEU:H	28:B6:10:LEU:HD12	1.55	0.71
43:CP:3:ARG:HG2	43:CP:9:ILE:HG12	1.73	0.71
1:AA:674:G:H1'	5:AF:74:ARG:CD	2.18	0.71
30:A8:29:LYS:HB3	30:A8:44:LYS:HG2	1.73	0.71
31:CA:1446:A:OP1	31:CA:1446:A:C4'	2.36	0.71
1:BA:900:A:H3'	1:BA:901:A:H8	1.56	0.71
8:AK:29:TYR:O	8:AK:32:PRO:HD2	1.90	0.71
6:AG:104:GLU:CD	26:A4:23:GLU:HG3	2.11	0.71
6:AG:108:ASN:HA	26:A4:38:LYS:HB2	1.72	0.71
31:CA:881:G:P	42:CO:9:ARG:HH22	2.13	0.71
12:BP:23:GLY:HA2	12:BP:25:ASP:HB2	1.73	0.71
6:AG:82:LEU:CA	6:AG:86:MET:CE	2.68	0.71
7:AH:30:LYS:CD	7:AH:81:GLU:H	2.03	0.71
23:BZ:85:LEU:HB2	23:BZ:87:PRO:HD2	1.73	0.71
1:AA:1729:A:H2'	1:AA:1731:G:N7	2.06	0.71
1:AA:1359:A:H2	1:AA:1372:U:O4	1.72	0.71
5:BF:84:VAL:C	5:BF:86:GLY:N	2.35	0.71
21:BV:108:PRO:HB3	21:BV:141:VAL:O	1.90	0.71
3:BD:271:ILE:O	3:BD:272:ALA:HB3	1.91	0.71
52:DB:48:C:O2'	52:DB:49:C:OP1	2.08	0.71
26:A4:10:VAL:HG22	26:A4:11:PRO:HD2	1.71	0.71
19:BT:57:LEU:CD2	19:BT:78:LYS:HB2	2.21	0.71
46:CS:21:VAL:HG23	46:CS:34:GLU:O	1.90	0.71
52:CB:6:G:N2	52:CB:78:C:O2	2.22	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BE:103:ASP:OD1	4:BE:201:THR:HG23	1.91	0.71
31:DA:1329:A:H2'	31:DA:1330:U:O4'	1.89	0.71
1:BA:2272:U:H5''	1:BA:2273:A:OP1	1.91	0.71
7:AH:153:LYS:HG3	7:AH:162:ILE:N	2.04	0.71
27:B5:40:LYS:HE2	27:B5:44:THR:O	1.91	0.71
31:CA:1027:C:C4'	31:CA:1028:C:OP1	2.38	0.71
1:BA:1278:A:H2'	1:BA:1279:G:C8	2.26	0.71
31:CA:93:U:H2'	31:CA:95:G:O4'	1.91	0.71
32:CE:80:ILE:HD13	32:CE:212:GLN:HB2	1.71	0.71
6:AG:173:LEU:HD22	6:AG:178:PHE:CE2	2.26	0.71
14:AQ:36:TYR:N	14:AQ:36:TYR:HD1	1.89	0.71
11:AO:11:GLY:C	11:AO:13:ASN:H	1.90	0.71
31:CA:989:C:H42	31:CA:1216:G:H1	1.36	0.71
36:CI:36:ARG:NH2	36:CI:38:GLU:HG2	2.06	0.71
6:AG:130:ASN:HB3	6:AG:160:VAL:HA	1.70	0.71
35:DH:60:TYR:O	35:DH:64:ARG:HG3	1.90	0.71
41:CN:21:ILE:HB	41:CN:84:VAL:HG12	1.72	0.71
27:A5:4:HIS:HB3	27:A5:5:PRO:CD	2.21	0.70
3:AD:35:LYS:CE	3:AD:104:TYR:HB2	2.20	0.70
3:BD:28:GLU:HB3	3:BD:29:PRO:CD	2.20	0.70
31:DA:1298:C:OP2	37:DJ:114:ARG:NH2	2.24	0.70
1:AA:483:A:H4'	20:AU:49:VAL:CA	2.20	0.70
1:BA:296:C:O2'	1:BA:297:C:H5'	1.91	0.70
9:AM:60:ILE:HD13	9:AM:60:ILE:H	1.55	0.70
33:DF:60:ALA:HB1	40:DM:91:PRO:HG2	1.73	0.70
1:BA:2327:A:H2'	1:BA:2328:A:C8	2.26	0.70
1:AA:2799:A:H5''	1:AA:2801:A:OP2	1.90	0.70
4:BE:36:ARG:NH1	4:BE:85:ASN:OD1	2.24	0.70
4:AE:46:ALA:HB2	4:AE:82:ARG:HA	1.73	0.70
31:DA:1305:G:C5'	51:DX:4:GLY:HA3	2.20	0.70
28:B6:27:LYS:NZ	28:B6:28:ARG:HH12	1.88	0.70
1:BA:779:U:OP1	3:BD:49:ILE:HG22	1.91	0.70
31:CA:1023:G:H3'	31:CA:1024:G:H5''	1.71	0.70
31:CA:1036:G:H3'	31:CA:1037:C:C6	2.26	0.70
17:B2:35:LEU:HG	17:B2:37:VAL:CG1	2.17	0.70
31:CA:827:U:C5	31:CA:872:A:N1	2.56	0.70
1:BA:259:G:O2'	1:BA:621:A:O2'	2.10	0.70
31:DA:1372:U:OP1	39:DL:72:GLY:N	2.24	0.70
11:BO:128:HIS:HA	11:BO:147:LEU:HA	1.73	0.70
53:DD:64:G:H2'	53:DD:65:G:C8	2.25	0.70
31:CA:484:G:O2'	31:CA:485:G:OP2	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:138:LYS:HA	7:AH:141:VAL:HB	1.72	0.70
53:CC:1:C:C2'	53:CC:2:G:OP2	2.39	0.70
1:BA:2394:C:OP1	11:BO:62:LEU:HB2	1.90	0.70
4:AE:23:VAL:HG12	4:AE:184:VAL:O	1.86	0.70
1:AA:1056:G:H21	1:AA:1103:A:N6	1.66	0.70
31:CA:411:A:C5	31:CA:413:G:H1'	2.27	0.70
1:BA:2404:C:H1'	11:BO:67:MET:HE1	1.72	0.70
11:BO:15:ARG:CG	11:BO:15:ARG:NH1	2.39	0.70
1:BA:2311:A:N3	6:BG:82:LEU:HG	2.06	0.70
1:AA:1798:U:H5'	3:AD:259:THR:HG22	1.70	0.70
27:A5:33:CYS:HB2	27:A5:40:LYS:HD3	1.73	0.70
1:AA:943:U:O2'	1:AA:944:G:H5'	1.91	0.70
52:CB:7:G:H3'	52:CB:8:U:H5'	1.72	0.70
1:AA:1379:A:H1'	1:AA:1380:G:OP1	1.90	0.70
7:AH:94:TYR:CE1	7:AH:107:VAL:O	2.44	0.70
8:BK:79:ILE:HB	8:BK:142:VAL:HB	1.72	0.70
1:BA:362:U:H5'	1:BA:363:G:OP2	1.91	0.70
1:AA:229:A:H1'	1:AA:230:U:OP2	1.91	0.70
17:B2:69:LYS:HG3	17:B2:86:GLY:HA3	1.74	0.70
1:BA:1225:C:C3'	17:B2:85:LYS:HB3	2.22	0.70
48:DU:53:ARG:HG3	48:DU:63:GLN:NE2	2.00	0.70
12:BP:19:GLY:H	12:BP:98:LYS:NZ	1.88	0.70
17:B2:5:VAL:HA	17:B2:37:VAL:HB	1.74	0.70
1:BA:2298:A:H1'	1:BA:2321:G:N2	2.05	0.70
1:BA:1459:G:C2'	1:BA:1460:A:H5'	2.20	0.70
31:CA:693:G:C4	54:C1:13:U:H1'	2.26	0.70
1:AA:299:A:H5'	1:AA:300:A:OP2	1.91	0.70
38:CK:41:ARG:NH2	38:CK:123:GLU:OE1	2.24	0.70
15:AR:26:ASP:HB2	15:AR:91:ARG:HA	1.72	0.70
1:AA:2209:C:O2	1:AA:2216:G:C2	2.44	0.70
7:AH:115:VAL:O	7:AH:115:VAL:HG12	1.90	0.70
1:AA:85:G:OP2	20:AU:9:LYS:HB2	1.90	0.70
44:DQ:22:THR:OG1	44:DQ:33:VAL:HG11	1.91	0.70
36:DI:11:ASN:O	36:DI:14:LEU:HD22	1.90	0.70
9:AM:45:ASN:HD22	9:AM:45:ASN:H	1.37	0.70
4:BE:48:GLN:NE2	4:BE:78:LEU:HD13	2.07	0.70
4:BE:47:VAL:HG11	4:BE:49:LEU:HD23	1.73	0.70
1:BA:777:A:O2'	1:BA:778:G:H5'	1.90	0.70
7:BH:102:ALA:HA	7:BH:117:PRO:HD3	1.73	0.70
42:DO:47:LYS:CB	42:DO:48:PRO:HD2	2.22	0.70
8:BK:128:LEU:O	8:BK:138:ILE:HG22	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:8:LYS:HE3	4:AE:24:THR:HG21	1.72	0.70
1:AA:602:G:N2	1:AA:655:A:C8	2.58	0.70
34:CG:25:ARG:O	34:CG:28:SER:N	2.24	0.70
35:CH:15:ARG:HD2	35:CH:26:PHE:CD2	2.27	0.70
3:BD:35:LYS:HA	3:BD:64:ILE:HG23	1.74	0.70
1:AA:2315:G:H2'	1:AA:2316:C:H6	1.57	0.70
9:AM:131:GLN:HE21	9:AM:132:ALA:H	1.39	0.70
1:BA:2211:G:H3'	1:BA:2212:A:N3	2.05	0.70
1:AA:779:U:OP1	3:AD:49:ILE:HG13	1.91	0.70
31:DA:600:C:H2'	31:DA:601:C:C6	2.26	0.70
14:AQ:83:LYS:O	14:AQ:109:GLY:CA	2.40	0.70
3:AD:120:GLY:O	3:AD:123:ALA:HB2	1.91	0.70
1:AA:2392:A:C8	11:AO:60:MET:HB2	2.27	0.70
6:AG:173:LEU:O	6:AG:178:PHE:HB2	1.92	0.70
4:AE:39:PRO:HA	4:AE:43:GLY:H	1.55	0.70
53:CD:9:G:H4'	53:CD:47:G:H5'	1.74	0.70
3:AD:110:GLY:O	3:AD:112:GLN:HG3	1.92	0.70
11:AO:58:THR:HG22	11:AO:58:THR:O	1.92	0.70
22:A3:83:PRO:O	22:A3:84:LEU:HB2	1.90	0.70
1:AA:1270:C:H5''	1:AA:1271:G:H5'	1.72	0.70
42:DO:23:LYS:HE2	42:DO:23:LYS:N	1.99	0.70
14:AQ:106:ARG:NH2	14:AQ:107:GLU:HB2	2.05	0.70
1:BA:2307:G:O2'	1:BA:2308:G:N7	2.24	0.70
20:AU:81:LYS:HZ3	20:AU:96:ILE:CD1	2.04	0.70
31:CA:611:A:N6	31:CA:629:G:H1	1.88	0.70
5:AF:129:PHE:HA	5:AF:142:TRP:NE1	2.06	0.70
49:DV:9:VAL:O	49:DV:10:PHE:CB	2.39	0.70
7:BH:152:ARG:HB2	7:BH:154:PRO:HD3	1.72	0.70
1:AA:1771:C:C1'	1:AA:1786:A:C8	2.75	0.70
31:CA:1047:G:H2'	31:CA:1048:G:H5'	1.72	0.70
31:DA:1449:C:O3'	31:DA:1450:U:H4'	1.89	0.70
31:CA:658:G:C5	31:CA:659:U:C5	2.79	0.70
20:BU:61:ILE:HG22	20:BU:62:GLU:H	1.57	0.70
35:DH:102:ALA:HB1	35:DH:106:PRO:HG2	1.73	0.70
24:BW:17:SER:OG	24:BW:18:PRO:HA	1.91	0.70
17:A2:24:LYS:HA	17:A2:92:THR:HG23	1.74	0.70
34:DG:107:ARG:HG2	34:DG:107:ARG:NH1	1.96	0.70
53:CD:15:G:H2'	53:CD:60:A:C2	2.27	0.70
6:BG:104:GLU:HG2	26:B4:23:GLU:HG2	1.74	0.70
6:AG:109:VAL:HG13	26:A4:33:VAL:HG21	1.73	0.70
17:B2:28:GLU:O	17:B2:61:VAL:HG11	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:25:LEU:H	17:A2:92:THR:CG2	2.05	0.70
15:BR:47:GLY:HA3	15:BR:63:VAL:HG12	1.74	0.70
1:AA:10:G:N2	1:AA:2802:G:OP1	2.25	0.70
2:AB:52:A:H62	14:AQ:33:LYS:HG3	1.56	0.70
24:BW:9:GLN:HE22	24:BW:56:GLN:HG2	1.56	0.70
1:AA:1085:A:H4'	1:AA:1086:A:OP1	1.91	0.70
11:BO:64:LYS:HD3	30:B8:25:MET:SD	2.31	0.70
1:AA:2469:A:H5''	1:AA:2469:A:N3	2.07	0.70
5:BF:34:TRP:CH2	11:BO:8:PRO:HB3	2.27	0.70
1:AA:1111:A:H5'	7:AH:3:ARG:NH1	2.07	0.70
32:DE:48:MET:HA	32:DE:51:LEU:HB2	1.73	0.70
1:AA:1147:C:H2'	1:AA:1148:A:H5''	1.73	0.70
38:CK:25:ASP:OD2	38:CK:60:ARG:HG2	1.90	0.70
39:CL:81:ILE:O	39:CL:85:LEU:HG	1.91	0.70
1:BA:2016:U:H1'	27:B5:6:VAL:HG13	1.74	0.70
17:B2:76:LYS:HG2	17:B2:80:GLN:HG2	1.73	0.70
4:AE:60:ASN:O	4:AE:61:ARG:HD2	1.92	0.70
11:AO:64:LYS:HD2	30:A8:25:MET:CE	2.22	0.70
4:AE:105:THR:OG1	4:AE:199:ARG:NH2	2.25	0.70
30:B8:40:GLU:H	30:B8:43:GLN:HG3	1.56	0.70
40:CM:5:ARG:HB2	40:CM:73:ASP:OD2	1.92	0.70
1:BA:1651:G:OP1	13:B0:37:THR:HG21	1.92	0.70
1:AA:2131:G:H1'	1:AA:2158:A:H62	1.57	0.70
8:BK:75:LEU:HD23	8:BK:76:THR:H	1.57	0.70
1:AA:2392:A:H8	11:AO:60:MET:CB	2.04	0.70
14:BQ:83:LYS:HD2	14:BQ:109:GLY:H	1.57	0.70
34:CG:28:SER:HB3	34:CG:29:PRO:HD2	1.74	0.70
1:AA:1929:G:H4'	1:AA:1930:G:OP1	1.90	0.70
53:DD:29:C:H2'	53:DD:30:G:H8	1.57	0.70
34:DG:3:ARG:NH2	34:DG:5:ILE:HG12	2.07	0.70
34:CG:107:ARG:NH2	34:CG:194:LEU:HD21	2.07	0.70
9:BM:67:LEU:HD23	9:BM:88:GLU:HG2	1.73	0.70
39:CL:18:PHE:HD1	39:CL:62:TYR:HD2	1.39	0.70
1:BA:311:A:H2	1:BA:331:A:H5''	1.57	0.70
11:AO:84:ASN:ND2	11:AO:115:LEU:HB2	2.06	0.70
17:B2:82:ARG:NH1	17:B2:82:ARG:HG3	2.05	0.69
28:A6:41:PRO:HD2	28:A6:46:HIS:H	1.55	0.69
1:BA:888:C:H4'	1:BA:889:C:C5'	2.22	0.69
11:AO:65:ARG:NH2	30:A8:15:LYS:HB2	1.99	0.69
1:AA:2309:A:H2'	1:AA:2310:A:O4'	1.92	0.69
31:CA:1118:C:H1'	31:CA:1179:A:C4	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1181:G:C2	31:CA:1182:G:N2	2.60	0.69
1:BA:1140:C:C1'	1:BA:1143:A:H8	2.05	0.69
1:AA:1287:A:C8	13:A0:107:ASP:HB3	2.27	0.69
53:CD:19:G:H2'	53:CD:58:A:N6	2.07	0.69
37:CJ:16:LEU:HD12	39:CL:42:ARG:HA	1.72	0.69
31:CA:74:C:H42	31:CA:96:G:H1	1.39	0.69
1:BA:2378:A:H8	1:BA:2378:A:O5'	1.75	0.69
1:AA:2376:A:N1	14:AQ:87:PHE:HD2	1.90	0.69
1:AA:336:C:H5''	20:AU:6:HIS:HD2	1.57	0.69
6:BG:111:LEU:HB2	6:BG:112:PRO:HD3	1.73	0.69
33:DF:11:ARG:O	33:DF:14:ILE:O	2.11	0.69
52:CB:27:G:H3'	52:CB:28:C:H6	1.57	0.69
1:AA:2335:A:O2'	1:AA:2336:A:OP2	2.10	0.69
1:AA:1514:U:H2'	1:AA:1514:U:O2	1.90	0.69
52:DB:5:A:H61	52:DB:79:U:H3	1.40	0.69
1:AA:1060:U:H5'	1:AA:1061:U:H5	1.57	0.69
28:B6:35:GLU:O	28:B6:36:LEU:HB2	1.91	0.69
28:B6:25:LYS:HE3	30:B8:34:TRP:CH2	2.27	0.69
49:CV:42:PRO:O	49:CV:45:VAL:HG22	1.92	0.69
32:CE:61:LEU:HD11	32:CE:66:GLY:HA3	1.74	0.69
1:AA:2383:G:O2'	1:AA:2384:G:H5'	1.92	0.69
16:B1:110:VAL:O	16:B1:114:LYS:HG2	1.91	0.69
1:BA:943:U:OP2	11:BO:36:LYS:HE3	1.91	0.69
3:AD:72:LYS:HE3	3:AD:75:ILE:HD12	1.72	0.69
32:DE:50:GLU:O	32:DE:54:THR:OG1	2.06	0.69
5:BF:103:LYS:HA	5:BF:106:ARG:HG3	1.72	0.69
9:AM:89:LYS:O	9:AM:93:THR:HG22	1.92	0.69
40:DM:33:GLN:CB	40:DM:75:ILE:HG12	2.21	0.69
1:BA:460:A:H5''	1:BA:461:C:OP2	1.92	0.69
31:CA:182:U:O2	31:CA:182:U:H2'	1.92	0.69
31:CA:280:C:H3'	31:CA:281:G:H5'	1.74	0.69
1:BA:1794:U:O2'	1:BA:1795:C:H5'	1.92	0.69
1:AA:1992:G:O2'	1:AA:1993:U:OP2	2.09	0.69
3:BD:35:LYS:CA	3:BD:64:ILE:HG23	2.22	0.69
42:DO:23:LYS:CE	42:DO:23:LYS:H	1.99	0.69
1:BA:1142(A):A:C8	1:BA:1144:G:N7	2.60	0.69
1:AA:2276:G:P	12:AP:84:GLY:HA2	2.32	0.69
50:CW:26:ASN:HA	50:CW:29:LYS:HG2	1.74	0.69
32:DE:185:ILE:CG2	32:DE:199:TYR:HB2	2.20	0.69
1:BA:259:G:HO2'	1:BA:621:A:HO2'	1.39	0.69
25:BX:59:VAL:HG12	25:BX:60:GLU:N	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:114:ILE:HD11	11:AO:130:PHE:CD1	2.27	0.69
1:BA:1434:A:H61	1:BA:1558:A:H62	1.40	0.69
13:B0:67:LEU:HD12	13:B0:76:VAL:HG21	1.74	0.69
49:CV:32:LYS:HA	49:CV:50:ALA:HB3	1.75	0.69
33:CF:58:GLU:H	33:CF:65:ALA:HB3	1.58	0.69
1:BA:1188:U:H2'	1:BA:1189:A:H5'	1.73	0.69
3:AD:35:LYS:CD	3:AD:63:ARG:HB3	2.19	0.69
6:AG:82:LEU:CA	6:AG:86:MET:HE1	2.22	0.69
3:BD:43:ARG:NH1	3:BD:44:ASN:ND2	2.37	0.69
1:BA:528:A:C2	1:BA:2042:A:H2'	2.26	0.69
26:B4:56:VAL:HG23	26:B4:60:GLN:HG3	1.74	0.69
1:AA:1771:C:C1'	1:AA:1786:A:H8	2.06	0.69
3:AD:148:GLU:HB2	3:AD:151:LYS:HD2	1.73	0.69
8:AK:7:GLU:HA	8:AK:15:VAL:HG12	1.73	0.69
21:BV:120:ILE:HB	21:BV:169:GLU:OE2	1.93	0.69
21:AV:45:ASP:O	21:AV:49:ARG:HG2	1.92	0.69
31:DA:818:G:O2'	31:DA:819:A:H5'	1.92	0.69
13:A0:117:VAL:HG22	13:A0:118:GLU:H	1.56	0.69
38:CK:29:SER:HB3	38:CK:32:LYS:HE3	1.74	0.69
15:AR:11:GLU:OE1	15:AR:11:GLU:N	2.25	0.69
4:AE:23:VAL:HA	4:AE:186:GLY:N	2.07	0.69
14:AQ:88:ASP:O	14:AQ:89:ARG:CB	2.31	0.69
1:BA:2154:G:H2'	1:BA:2155:G:C8	2.28	0.69
1:BA:140:A:C8	1:BA:1408:C:O2'	2.45	0.69
19:AT:83:VAL:HG13	19:AT:87:GLN:HB3	1.74	0.69
16:B1:91:ASP:O	16:B1:93:LYS:N	2.26	0.69
32:DE:12:GLU:HB2	32:DE:16:HIS:CE1	2.28	0.69
1:BA:2872:G:C5	1:BA:2873:A:C2	2.79	0.69
1:AA:860:U:C5	1:AA:917:A:C2	2.75	0.69
14:AQ:4:LEU:O	14:AQ:5:THR:HG23	1.93	0.69
3:BD:130:ALA:C	3:BD:131:LEU:HD12	2.13	0.69
41:CN:85:ARG:HD3	41:CN:113:PRO:HD3	1.74	0.69
2:BB:50:G:OP1	14:BQ:63:THR:HG23	1.92	0.69
3:BD:267:SER:O	3:BD:268:ARG:HB3	1.89	0.69
1:BA:1485:G:O2'	1:BA:1486:A:H5'	1.91	0.69
1:AA:1219:G:OP2	16:A1:19:LYS:HE3	1.91	0.69
38:CK:81:HIS:ND1	38:CK:138:TRP:OXT	2.25	0.69
27:B5:3:LYS:CE	27:B5:3:LYS:CA	2.56	0.69
1:AA:2015:A:C1'	27:A5:2:ALA:CA	2.36	0.69
28:B6:23:THR:O	28:B6:24:GLU:HB2	1.93	0.69
3:BD:48:ARG:NH1	3:BD:48:ARG:HG3	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:164:U:H2'	31:DA:165:C:H6	1.57	0.69
34:DG:30:LYS:O	34:DG:30:LYS:HG2	1.89	0.69
33:CF:92:ALA:HB2	33:CF:99:VAL:HG22	1.74	0.69
3:AD:131:LEU:HB2	3:AD:136:ILE:HD11	1.74	0.69
1:AA:2693:A:H2'	1:AA:2694:G:H8	1.58	0.69
38:CK:14:ARG:O	38:CK:18:ARG:HD3	1.90	0.69
12:BP:135:ASP:OD1	12:BP:137:TYR:HD2	1.75	0.69
1:BA:780:G:H21	1:BA:783:A:H62	1.40	0.69
3:AD:35:LYS:CG	3:AD:64:ILE:N	2.55	0.69
12:BP:102:VAL:O	12:BP:102:VAL:HG12	1.91	0.69
1:BA:669:G:O2'	1:BA:670:A:OP1	2.11	0.69
4:AE:111:ARG:HD2	4:AE:160:TYR:CD1	2.26	0.69
4:BE:132:HIS:O	4:BE:133:LYS:CB	2.36	0.69
1:BA:997:G:OP1	16:B1:93:LYS:HD2	1.93	0.69
6:BG:37:VAL:HG23	6:BG:99:MET:HE3	1.73	0.69
1:AA:1204:A:O2'	1:AA:1205:U:OP2	2.10	0.69
5:BF:107:LYS:HE2	5:BF:205:ARG:HD2	1.74	0.69
21:BV:150:LEU:O	21:BV:170:THR:O	2.10	0.69
32:DE:91:PRO:HG3	32:DE:154:LEU:HB3	1.75	0.69
1:AA:1412:A:H2'	1:AA:1413:G:H8	1.58	0.69
35:CH:67:VAL:HG21	35:CH:140:ARG:HA	1.73	0.69
30:B8:30:ARG:O	30:B8:31:HIS:CB	2.40	0.69
17:B2:77:ALA:C	17:B2:78:LYS:HD3	2.13	0.69
3:AD:35:LYS:HG2	3:AD:64:ILE:HG23	1.75	0.69
4:BE:47:VAL:CG1	4:BE:48:GLN:N	2.55	0.69
4:BE:47:VAL:CG1	4:BE:49:LEU:HD23	2.23	0.69
31:DA:1305:G:H22	31:DA:1331:G:C2'	2.05	0.69
1:AA:811:U:C4	11:AO:21:ARG:NH2	2.61	0.69
31:DA:1004:A:O4'	31:DA:1025:U:N3	2.25	0.69
1:BA:1313:U:H4'	1:BA:1332:G:H4'	1.75	0.69
6:AG:2:PRO:HB3	26:A4:25:TYR:CE1	2.27	0.69
7:AH:151:ILE:O	7:AH:153:LYS:HD3	1.92	0.69
1:BA:443:A:H5''	1:BA:444:C:OP1	1.93	0.69
19:AT:84:ALA:HB3	19:AT:87:GLN:NE2	2.08	0.69
39:CL:78:LYS:HE3	39:CL:101:PHE:HE2	1.56	0.69
18:AS:64:MET:O	18:AS:65:LEU:HB2	1.93	0.69
5:AF:205:ARG:HG3	5:AF:205:ARG:NH1	2.01	0.69
1:AA:2502:G:H5''	1:AA:2503:A:H5''	1.74	0.69
33:CF:40:ARG:HH11	33:CF:40:ARG:HG3	1.58	0.69
52:DB:18:G:O2'	52:DB:19:G:OP2	2.10	0.69
31:DA:409:G:H1	31:DA:433:C:H42	1.41	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:310:G:P	46:CS:27:LYS:HZ1	2.16	0.69
1:BA:2111:C:C2	1:BA:2118:U:O2'	2.46	0.69
34:CG:29:PRO:C	34:CG:30:LYS:HD3	2.13	0.69
22:B3:49:LYS:H	22:B3:80:HIS:HD1	1.39	0.69
18:BS:50:VAL:CG2	18:BS:105:VAL:HG23	2.22	0.69
36:DI:33:TYR:CE1	36:DI:78:GLU:HG3	2.27	0.69
1:AA:2898:U:H2'	1:AA:2899:G:C8	2.27	0.69
45:CR:76:GLU:OE1	45:CR:79:ARG:NH1	2.25	0.69
1:AA:911:A:H2'	12:AP:9:TYR:OH	1.93	0.69
31:CA:706:A:H1'	41:CN:29:ILE:HD11	1.75	0.69
1:BA:1270:C:H5''	1:BA:1271:G:O5'	1.93	0.69
33:DF:70:VAL:O	33:DF:106:VAL:N	2.25	0.69
31:CA:1218:C:OP2	44:CQ:9:LYS:NZ	2.24	0.69
43:DP:86:CYS:O	43:DP:89:GLY:N	2.24	0.69
31:DA:1267:C:H2'	31:DA:1267:C:O2	1.92	0.69
37:CJ:57:GLU:OE1	37:CJ:57:GLU:N	2.25	0.69
31:DA:1178:G:H5'	39:DL:93:ARG:HH21	1.57	0.69
1:AA:2311:A:N3	6:AG:80:PHE:CE1	2.59	0.69
31:DA:1054:C:N4	52:DB:35:G:N9	2.40	0.69
29:A7:8:ASN:HD22	29:A7:11:LYS:H	1.39	0.69
30:B8:37:SER:O	30:B8:39:LYS:O	2.11	0.69
1:BA:1006:C:C2	1:BA:1138:G:N2	2.61	0.69
1:BA:1005:C:O4'	1:BA:1143:A:H2	1.75	0.69
26:B4:32:TYR:O	26:B4:33:VAL:HG22	1.92	0.69
31:CA:606:G:N2	31:CA:631:G:H8	1.91	0.69
1:BA:857:C:H4'	22:B3:23:VAL:HG21	1.73	0.69
1:AA:1313:U:H2'	1:AA:1610:A:C2	2.28	0.69
3:AD:25:THR:HB	3:AD:82:ILE:H	1.56	0.69
13:B0:100:LEU:HD21	13:B0:113:LEU:HD13	1.73	0.69
39:DL:10:ARG:HD2	39:DL:105:ASP:HB3	1.75	0.69
3:AD:155:LEU:HD23	3:AD:177:LEU:HD22	1.75	0.69
14:BQ:19:LYS:O	14:BQ:20:ARG:HD3	1.92	0.69
1:BA:993:G:OP1	16:B1:50:ARG:NH2	2.25	0.69
4:BE:37:ARG:CD	4:BE:44:TYR:HH	1.89	0.69
1:BA:2371:G:H4'	28:B6:45:LYS:HG3	1.75	0.69
5:AF:42:ALA:O	5:AF:45:ARG:HB2	1.93	0.69
5:AF:45:ARG:HG2	5:AF:45:ARG:NH1	1.98	0.69
1:BA:1689:A:H62	1:BA:1698:A:H2	0.83	0.69
34:CG:13:ARG:CD	34:CG:38:TYR:O	2.41	0.69
1:BA:2688:U:H5	1:BA:2720:U:OP2	1.75	0.69
26:B4:11:PRO:HA	26:B4:25:TYR:H	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2583:G:N2	52:DB:87:A:C8	2.55	0.69
37:DJ:44:TYR:HA	37:DJ:47:CYS:HB2	1.73	0.69
18:BS:59:VAL:HA	18:BS:64:MET:H	1.58	0.69
38:DK:109:ILE:HG12	38:DK:110:ALA:N	2.07	0.69
31:CA:667:G:H4'	45:CR:51:HIS:CE1	2.27	0.69
1:BA:824:A:H1'	1:BA:2358:G:N7	2.07	0.69
1:BA:2811:G:OP1	4:BE:61:ARG:HB2	1.93	0.69
1:AA:2758:A:C2	1:AA:2759:G:H1'	2.28	0.69
1:AA:2015:A:N3	27:A5:2:ALA:N	2.41	0.68
31:DA:1160:G:N2	31:DA:1161:C:C6	2.61	0.68
11:AO:50:ARG:HG2	30:A8:59:LYS:HD3	1.75	0.68
31:CA:1178:G:N2	31:CA:1181:G:N7	2.31	0.68
1:AA:2702:U:OP1	1:AA:2702:U:H6	1.76	0.68
1:BA:2823:A:OP1	4:BE:113:PHE:HB2	1.92	0.68
20:AU:81:LYS:HD3	20:AU:96:ILE:HB	1.75	0.68
31:CA:382:A:H2'	31:CA:383:A:H8	1.57	0.68
1:AA:475:U:C4	1:AA:481:G:O6	2.45	0.68
9:AM:42:TRP:HA	9:AM:48:MET:CE	2.23	0.68
36:CI:24:GLU:HG2	36:CI:28:ARG:HH22	1.55	0.68
1:BA:654(D):G:N2	1:BA:654(R):C:N3	2.42	0.68
1:BA:712:G:H1	1:BA:719:C:N4	1.91	0.68
6:AG:121:ASN:ND2	6:AG:123:ASN:H	1.91	0.68
31:CA:437:U:H2'	31:CA:438:G:O4'	1.93	0.68
1:BA:2816:C:O3'	13:B0:99:LYS:NZ	2.25	0.68
24:BW:17:SER:HB2	24:BW:18:PRO:C	2.12	0.68
1:BA:1011:G:H2'	1:BA:1013:C:O4'	1.93	0.68
11:BO:71:VAL:HG13	11:BO:72:PRO:N	2.08	0.68
12:AP:75:THR:HB	12:AP:88:GLY:CA	2.18	0.68
34:DG:31:CYS:C	34:DG:33:MET:H	1.94	0.68
13:B0:38:VAL:HG22	13:B0:112:ALA:HB2	1.73	0.68
6:AG:26:GLN:HG3	6:AG:30:GLU:OE2	1.93	0.68
49:DV:9:VAL:O	49:DV:10:PHE:HB2	1.92	0.68
7:BH:151:ILE:C	7:BH:152:ARG:HG3	2.14	0.68
31:DA:1285:A:H4'	31:DA:1286:A:O5'	1.93	0.68
31:CA:1299:A:H2'	31:CA:1301:U:H1'	1.75	0.68
31:DA:689:C:H2'	31:DA:690:G:H5'	1.76	0.68
33:CF:34:LEU:HD21	33:CF:38:ARG:HH11	1.56	0.68
31:DA:1016:A:H2'	31:DA:1017:G:O4'	1.93	0.68
1:BA:2147:G:H2'	1:BA:2148:G:O4'	1.92	0.68
1:BA:696:G:H2'	1:BA:697:C:H6	1.58	0.68
31:CA:167:G:C2'	31:CA:168:G:H5'	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:1:U:H3	2:BB:119:A:H2	1.40	0.68
21:AV:51:ALA:HB1	21:AV:57:ILE:HD11	1.75	0.68
36:CI:78:GLU:O	36:CI:81:ILE:HG13	1.92	0.68
43:DP:110:ARG:CG	43:DP:110:ARG:HH11	2.06	0.68
1:BA:797:C:OP2	5:BF:62:ARG:HG3	1.93	0.68
3:BD:206:LEU:HD22	3:BD:211:ARG:HG2	1.74	0.68
1:BA:247:G:H4'	1:BA:386:G:C5	2.27	0.68
21:BV:115:GLY:HA3	21:BV:174:VAL:HG12	1.73	0.68
6:AG:115:ARG:HH22	43:CP:7:VAL:HB	1.58	0.68
41:CN:15:ALA:HB1	41:CN:78:GLN:HE21	1.58	0.68
34:DG:173:TRP:HA	34:DG:187:ARG:HD3	1.74	0.68
31:CA:1399:C:C2	31:CA:1502:A:N6	2.61	0.68
15:AR:16:ARG:HE	15:AR:19:LEU:CD2	2.03	0.68
1:AA:443:A:H1'	1:AA:1201:C:O4'	1.92	0.68
1:AA:1803:A:H4'	3:AD:259:THR:HG21	1.74	0.68
41:CN:59:TYR:CZ	41:CN:63:LEU:HD11	2.28	0.68
1:AA:2772:C:H5'	4:AE:168:MET:CE	2.24	0.68
32:CE:165:VAL:HG23	32:CE:166:ASP:N	2.08	0.68
53:DD:29:C:H2'	53:DD:30:G:C8	2.28	0.68
18:AS:40:ASN:O	18:AS:41:LYS:HG2	1.94	0.68
46:DS:21:VAL:HG22	46:DS:33:ILE:HG13	1.74	0.68
20:BU:53:PRO:HD2	20:BU:57:GLN:O	1.92	0.68
1:AA:2373:G:H1	1:AA:2380:C:H42	1.41	0.68
1:BA:2646:C:OP2	1:BA:2732:G:O2'	2.09	0.68
4:BE:52:LEU:HD13	4:BE:52:LEU:O	1.94	0.68
4:BE:81:ILE:O	4:BE:82:ARG:HB2	1.91	0.68
1:BA:847:U:C4	1:BA:933:A:C6	2.82	0.68
31:DA:1131:G:H2'	31:DA:1132:C:C6	2.27	0.68
39:DL:18:PHE:HD1	39:DL:62:TYR:HD2	1.41	0.68
1:AA:1899:G:N2	1:AA:1902:C:N4	2.24	0.68
47:CT:77:VAL:HG12	47:CT:77:VAL:O	1.92	0.68
12:BP:21:THR:HG22	12:BP:21:THR:O	1.93	0.68
1:AA:70:G:H21	1:AA:71:A:H62	1.42	0.68
1:BA:1110:G:O2'	1:BA:1111:A:O4'	2.11	0.68
9:AM:1:MET:CE	16:A1:95:LEU:HD21	2.22	0.68
31:CA:626:U:C2	31:CA:627:G:C8	2.82	0.68
31:CA:87:A:H2'	31:CA:88:C:C6	2.28	0.68
1:BA:2849:U:O4	15:BR:23:ARG:NH2	2.25	0.68
1:AA:1316:U:H2'	1:AA:1317:A:C8	2.29	0.68
49:DV:41:VAL:O	49:DV:44:MET:HB2	1.92	0.68
1:BA:1011:G:H1	1:BA:1150:C:H42	1.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2646:C:H2'	1:BA:2647:U:O4'	1.93	0.68
40:DM:56:HIS:O	40:DM:58:ASP:O	2.12	0.68
37:CJ:5:ARG:HG2	37:CJ:7:ALA:H	1.58	0.68
4:AE:31:CYS:HB3	4:AE:49:LEU:HG	1.76	0.68
31:CA:652:U:H1'	31:CA:653:A:C2	2.28	0.68
32:CE:18:GLY:N	32:CE:42:ILE:HG22	2.08	0.68
9:BM:137:LYS:HA	9:BM:137:LYS:NZ	2.08	0.68
31:DA:1122:U:O4	31:DA:1123:A:N6	2.26	0.68
1:AA:1568:G:OP2	3:AD:63:ARG:NH2	2.25	0.68
3:BD:35:LYS:HZ1	3:BD:104:TYR:H	1.41	0.68
1:AA:2312:U:H5'	6:AG:88:ILE:HG21	1.76	0.68
39:DL:114:TYR:CE1	40:DM:60:ARG:O	2.47	0.68
29:A7:8:ASN:ND2	29:A7:11:LYS:N	2.29	0.68
31:CA:1306:A:H61	31:CA:1331:G:H1'	1.58	0.68
31:CA:57:G:H2'	31:CA:58:C:C6	2.27	0.68
1:AA:607:U:N3	1:AA:621:A:C2	2.59	0.68
7:AH:3:ARG:NE	7:AH:3:ARG:HA	2.08	0.68
5:AF:29:ASN:H	5:AF:112:MET:HE3	1.59	0.68
30:A8:29:LYS:NZ	30:A8:44:LYS:HB2	2.08	0.68
34:CG:13:ARG:HG3	34:CG:14:ARG:N	2.07	0.68
16:A1:8:VAL:HG23	16:A1:11:ARG:NH2	2.08	0.68
1:AA:1689:A:N6	1:AA:1698:A:C2	2.49	0.68
16:B1:65:ILE:HD11	16:B1:96:ALA:CB	2.24	0.68
22:A3:40:GLN:NE2	22:A3:42:GLY:O	2.26	0.68
7:AH:86:GLU:HG3	7:AH:165:ALA:CB	2.23	0.68
7:AH:86:GLU:O	7:AH:131:VAL:O	2.10	0.68
30:B8:60:LEU:C	30:B8:61:LEU:HG	2.13	0.68
1:AA:2335:A:C8	1:AA:2337:G:C5	2.82	0.68
52:DB:6:G:N2	52:DB:78:C:O2	2.24	0.68
39:DL:43:ALA:HA	39:DL:74:ILE:HD13	1.72	0.68
1:AA:1932:A:H2'	1:AA:1933:G:O4'	1.92	0.68
24:BW:47:ASN:ND2	24:BW:47:ASN:H	1.91	0.68
1:AA:2572:A:N7	4:AE:145:LYS:HB2	2.09	0.68
5:BF:8:GLN:HG2	5:BF:124:LEU:HD11	1.76	0.68
1:BA:2112:G:N3	1:BA:2169:A:N6	2.42	0.68
32:CE:7:VAL:HG23	32:CE:8:LYS:HE2	1.76	0.68
1:AA:619:G:H5''	1:AA:620:G:OP2	1.92	0.68
1:AA:2564:A:OP1	1:AA:2648:C:H4'	1.93	0.68
1:BA:2893:G:H4'	1:BA:2894:G:O5'	1.93	0.68
37:CJ:15:ASP:O	37:CJ:19:GLY:HA2	1.94	0.68
38:CK:87:SER:HB2	38:CK:93:VAL:H	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1342:A:OP1	19:BT:36:LYS:NZ	2.26	0.68
1:BA:1342:A:C6	1:BA:1397:U:C6	2.82	0.68
1:BA:2129:C:H2'	1:BA:2130:U:H5'	1.76	0.68
3:AD:123:ALA:HB1	3:AD:131:LEU:HG	1.76	0.68
49:DV:42:PRO:O	49:DV:43:GLU:HG2	1.94	0.68
10:BN:106:LEU:HD22	10:BN:111:PHE:HB2	1.76	0.68
31:CA:983:A:H5''	31:CA:984:C:OP2	1.92	0.68
32:CE:124:SER:HB2	32:CE:125:PRO:HD2	1.75	0.68
33:CF:70:VAL:HG12	33:CF:72:LYS:H	1.59	0.68
7:AH:137:ASP:HB3	7:AH:140:LYS:HB3	1.75	0.68
1:AA:302:C:H2'	1:AA:303:U:H6	1.58	0.68
33:DF:150:LYS:HG3	33:DF:169:ALA:HB2	1.75	0.68
3:AD:8:PRO:HB3	3:AD:14:ARG:HB2	1.75	0.68
8:BK:110:ASP:OD2	8:BK:130:TYR:HE1	1.77	0.68
1:BA:2419:U:O4	30:B8:31:HIS:CG	2.46	0.68
1:AA:2610:C:C4'	1:AA:2611:U:OP2	2.37	0.68
53:DD:57:C:H2'	53:DD:58:A:O4'	1.93	0.68
1:BA:1005:C:H2'	1:BA:1006:C:C6	2.29	0.68
31:CA:7:G:H5'	31:CA:298:A:O4'	1.93	0.68
5:AF:32:LEU:HD12	5:AF:32:LEU:C	2.14	0.68
1:AA:1141:U:H6	9:AM:63:THR:OG1	1.77	0.68
2:BB:42:C:H4'	6:BG:67:LYS:HD3	1.76	0.68
11:AO:97:PRO:HB3	11:AO:112:LEU:HB2	1.76	0.68
1:BA:2173:A:H2'	1:BA:2173:A:N3	2.08	0.68
31:CA:1336:C:H4'	31:CA:1336:C:OP1	1.92	0.68
1:AA:1581:G:C6	1:AA:1582:C:C4	2.82	0.68
32:DE:59:GLU:HG3	32:DE:221:LEU:HD11	1.74	0.68
31:CA:750:G:N3	45:CR:23:GLY:HA3	2.09	0.68
4:AE:147:PRO:HB2	4:AE:149:ARG:HG2	1.76	0.68
31:DA:608:A:H2'	31:DA:609:A:O4'	1.92	0.68
31:DA:1378:C:H5	31:DA:1379:G:N9	1.91	0.68
5:BF:149:ASP:OD1	5:BF:149:ASP:N	2.22	0.68
36:DI:67:MET:HB2	36:DI:68:PRO:HD2	1.76	0.68
15:AR:78:LEU:HD13	15:AR:78:LEU:O	1.93	0.68
31:CA:1269:A:H2	31:CA:1312:G:N3	1.92	0.68
34:CG:19:LEU:CD2	34:CG:19:LEU:H	2.03	0.68
1:BA:887:A:H3'	1:BA:888:C:H5'	1.76	0.68
4:AE:79:ARG:HG3	4:AE:197:ILE:HG21	1.74	0.68
15:AR:74:ARG:HD3	15:AR:76:PHE:CZ	2.28	0.68
6:AG:67:LYS:CE	26:A4:6:HIS:CE1	2.73	0.68
1:AA:2211:G:C4'	1:AA:2212:A:OP2	2.39	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1024:G:H4'	31:CA:1024:G:OP1	1.94	0.68
9:BM:128:HIS:CE1	9:BM:134:ARG:HD2	2.29	0.68
1:AA:535:C:O3'	16:A1:53:ARG:NH1	2.26	0.68
29:B7:8:ASN:HD22	29:B7:8:ASN:C	1.95	0.68
31:CA:626:U:H2'	31:CA:627:G:H8	1.59	0.68
6:AG:94:LEU:H	6:AG:94:LEU:HD23	1.56	0.68
1:BA:708:C:N4	1:BA:723:G:H1	1.92	0.68
17:B2:28:GLU:HB3	17:B2:29:PRO:CD	2.22	0.68
3:AD:131:LEU:HD22	3:AD:136:ILE:HD13	1.75	0.68
53:DD:42:C:H2'	53:DD:43:G:C8	2.29	0.68
1:AA:1693:U:O2'	3:AD:14:ARG:NH2	2.27	0.68
1:AA:524:U:H4'	1:AA:554:U:H4'	1.76	0.68
37:CJ:38:LEU:HD12	37:CJ:38:LEU:O	1.94	0.68
44:DQ:26:ARG:NH1	44:DQ:47:LEU:HD21	2.08	0.68
3:AD:71:ASP:HB3	3:AD:103:ARG:HH21	1.59	0.68
4:BE:47:VAL:HG13	4:BE:48:GLN:H	1.59	0.68
34:CG:12:CYS:HA	34:CG:19:LEU:CD2	2.21	0.68
31:DA:1128:C:C2'	31:DA:1129:C:O5'	2.42	0.68
1:BA:1899:G:H21	1:BA:1902:C:H5	1.41	0.68
1:BA:1899:G:H22	1:BA:1902:C:H41	0.76	0.68
31:DA:1321:C:N4	31:DA:1322:C:N4	2.37	0.68
31:DA:963:G:H21	40:DM:55:LYS:CD	2.05	0.68
12:BP:37:LEU:HD21	12:BP:130:LYS:HB2	1.76	0.68
31:CA:1305:G:H5'	51:CX:4:GLY:HA3	1.76	0.68
1:AA:2349:G:OP2	30:A8:42:ARG:HD3	1.94	0.68
1:AA:2712:U:H1'	1:AA:2712(A):A:C8	2.29	0.68
7:BH:7:LEU:HD12	7:BH:8:PRO:HD3	1.76	0.68
15:BR:26:ASP:O	15:BR:49:VAL:HG12	1.93	0.68
1:BA:654(D):G:H1	1:BA:654(Q):C:H42	1.40	0.68
1:BA:2128:C:O2'	1:BA:2173:A:C2	2.47	0.68
31:CA:735:C:H2'	31:CA:736:C:H6	1.59	0.68
34:DG:101:LEU:HD23	34:DG:121:VAL:HG11	1.73	0.68
2:AB:25:A:O2'	2:AB:26:A:H5'	1.93	0.68
5:BF:134:GLY:HA2	5:BF:166:ALA:HB2	1.76	0.68
1:AA:1593:G:H2'	1:AA:1594:G:C8	2.29	0.68
20:AU:90:LEU:HD22	20:AU:90:LEU:H	1.59	0.68
1:AA:1085:A:C2	1:AA:1086:A:N7	2.62	0.68
1:AA:2895:U:H2'	1:AA:2896:C:O4'	1.94	0.68
31:DA:983:A:N1	31:DA:1222:G:N2	2.42	0.68
31:DA:1325:C:H4'	51:DX:17:THR:HG21	1.76	0.68
31:DA:1002:G:H1	31:DA:1038:C:H42	1.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BD:49:ILE:HD11	3:BD:52:ARG:HA	1.75	0.68
1:AA:2346:A:O2'	28:A6:24:GLU:OE2	2.09	0.68
25:BX:52:HIS:CD2	25:BX:52:HIS:H	2.11	0.68
1:AA:1496:A:H5'	1:AA:1497:U:OP1	1.94	0.68
15:AR:107:ASP:H	15:AR:110:ILE:HG23	1.59	0.68
26:A4:42:PHE:O	26:A4:42:PHE:CD1	2.47	0.68
31:CA:618:C:H5''	31:CA:619:U:H5''	1.75	0.68
41:CN:30:VAL:HG21	41:CN:65:ALA:HA	1.75	0.68
11:BO:41:ARG:HD2	11:BO:41:ARG:N	2.08	0.68
31:CA:529:G:O6	42:CO:46:ASN:ND2	2.26	0.68
1:BA:370:G:OP1	1:BA:403:U:N3	2.25	0.68
1:AA:2537:U:H2'	1:AA:2538:C:C6	2.28	0.68
39:CL:26:VAL:HG13	39:CL:61:ALA:HB3	1.76	0.68
11:BO:58:THR:HG22	11:BO:58:THR:O	1.92	0.68
3:BD:25:THR:HG23	3:BD:26:LYS:N	2.07	0.67
31:DA:1117:G:O3'	39:DL:104:ARG:HD2	1.95	0.67
1:AA:885:C:O2	1:AA:890:A:N6	2.27	0.67
5:AF:101:LEU:CD1	5:AF:102:PRO:HD2	2.20	0.67
1:BA:2688:U:H3'	1:BA:2688:U:O2	1.94	0.67
15:AR:39:ARG:HG2	15:AR:40:THR:N	2.08	0.67
1:AA:2849:U:H1'	1:AA:2866:U:O2	1.94	0.67
20:AU:42:VAL:O	20:AU:42:VAL:HG12	1.93	0.67
2:BB:0:A:H2'	2:BB:1:U:C6	2.29	0.67
7:BH:86:GLU:H	7:BH:86:GLU:CD	1.98	0.67
31:DA:9:G:H5'	35:DH:122:GLU:OE2	1.93	0.67
29:B7:26:GLY:O	29:B7:30:VAL:HG23	1.94	0.67
3:BD:35:LYS:CD	3:BD:104:TYR:CD1	2.60	0.67
1:AA:2115:G:H2'	1:AA:2116:G:H8	1.57	0.67
40:DM:84:GLN:O	40:DM:88:LEU:HB3	1.94	0.67
19:AT:83:VAL:CG1	19:AT:87:GLN:HB3	2.24	0.67
41:CN:57:THR:HG22	41:CN:59:TYR:N	2.09	0.67
42:CO:123:LYS:HG3	42:CO:125:ALA:H	1.59	0.67
3:AD:186:HIS:CD2	3:AD:188:GLU:H	2.11	0.67
3:AD:70:TRP:CD1	3:AD:70:TRP:C	2.68	0.67
1:AA:2580:U:H4'	4:AE:130:GLY:HA3	1.76	0.67
11:AO:85:LEU:HA	11:AO:88:LEU:HD22	1.76	0.67
41:DN:57:THR:HG22	41:DN:58:PRO:HD2	1.75	0.67
31:CA:1086:U:H3	31:CA:1099:G:H22	1.42	0.67
1:AA:404:C:H1'	1:AA:405:U:OP2	1.93	0.67
1:BA:671:C:OP1	11:BO:42:SER:O	2.11	0.67
30:B8:39:LYS:HG2	30:B8:40:GLU:N	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:81:LYS:HG2	20:AU:97:ARG:HD3	1.76	0.67
5:AF:46:ARG:HG2	5:AF:46:ARG:NH1	2.03	0.67
9:BM:46:VAL:O	9:BM:47:ALA:HB3	1.94	0.67
37:DJ:78:ARG:HB2	37:DJ:156:TRP:HZ3	1.59	0.67
1:BA:2689:U:H4'	1:BA:2690:C:OP2	1.94	0.67
31:CA:523:A:N6	42:CO:89:ASP:HB2	2.08	0.67
50:DW:12:ALA:O	50:DW:15:ARG:N	2.28	0.67
32:CE:88:ALA:HB2	32:CE:219:VAL:HG13	1.76	0.67
1:BA:2773:C:OP1	4:BE:166:THR:OG1	2.12	0.67
52:CB:22:G:N2	52:CB:59:U:O4'	2.26	0.67
31:DA:1219:U:OP1	44:DQ:19:ARG:NH1	2.26	0.67
31:CA:1170:A:H2'	31:CA:1171:G:O4'	1.93	0.67
14:BQ:53:SER:O	14:BQ:57:LYS:HA	1.94	0.67
1:AA:2139:C:H2'	1:AA:2140:C:H5'	1.75	0.67
35:CH:76:ILE:HG13	35:CH:93:PRO:HB3	1.76	0.67
1:BA:1790:C:H5'	1:BA:1791:A:OP1	1.94	0.67
31:DA:498:A:H4'	31:DA:500:G:OP1	1.93	0.67
11:BO:57:THR:C	11:BO:59:LEU:H	1.97	0.67
4:AE:5:LEU:HD21	4:AE:79:ARG:HB3	1.76	0.67
4:BE:62:PRO:C	4:BE:64:LYS:H	1.97	0.67
1:BA:2169:A:H1'	53:DD:57:C:O4'	1.95	0.67
1:AA:2162:G:H2'	1:AA:2163:C:C6	2.29	0.67
17:A2:48:GLY:O	17:A2:49:THR:O	2.13	0.67
10:BN:2:ILE:HG13	10:BN:8:LEU:HD11	1.76	0.67
15:BR:122:ASP:OD2	31:DA:1443:G:O2'	2.12	0.67
13:B0:24:GLN:NE2	13:B0:36:THR:HG21	2.10	0.67
13:B0:97:VAL:HG22	13:B0:114:VAL:HG22	1.77	0.67
17:A2:44:LYS:O	17:A2:46:VAL:N	2.28	0.67
34:CG:30:LYS:HD3	34:CG:30:LYS:N	2.09	0.67
3:AD:146:GLU:HB2	3:AD:189:CYS:HB3	1.76	0.67
1:AA:1099:G:H2'	1:AA:1100:C:O4'	1.94	0.67
31:CA:342:C:C2	31:CA:348:G:N2	2.63	0.67
1:BA:478:A:N1	1:BA:500:G:H4'	2.09	0.67
42:CO:21:VAL:HG12	42:CO:24:LEU:HG	1.75	0.67
1:AA:2724:C:OP1	4:AE:118:LYS:HE3	1.93	0.67
11:BO:71:VAL:HG12	11:BO:72:PRO:CD	2.05	0.67
27:B5:5:PRO:O	27:B5:6:VAL:CB	2.43	0.67
2:AB:42:C:O2	6:AG:93:THR:N	2.24	0.67
12:BP:79:LEU:HD13	12:BP:80:GLU:HB2	1.77	0.67
3:AD:43:ARG:HD2	3:AD:44:ASN:OD1	1.95	0.67
7:AH:4:ILE:HG21	7:AH:6:ARG:NH1	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:922:U:O2'	22:A3:29:GLN:OE1	2.13	0.67
22:A3:42:GLY:O	22:A3:57:PHE:HD1	1.77	0.67
14:BQ:83:LYS:O	14:BQ:109:GLY:HA3	1.95	0.67
8:AK:78:THR:HG23	8:AK:141:LYS:NZ	2.09	0.67
1:BA:2394:C:P	11:BO:62:LEU:HB2	2.34	0.67
31:DA:1005:A:C2	31:DA:1006:C:H1'	2.30	0.67
46:DS:5:ARG:NH1	46:DS:22:THR:HG21	2.10	0.67
32:CE:12:GLU:HA	32:CE:16:HIS:CD2	2.30	0.67
1:AA:1024:G:C3'	1:AA:1025:G:H5''	2.24	0.67
1:BA:2312:U:O2'	1:BA:2313:C:H5'	1.94	0.67
9:AM:42:TRP:O	16:A1:64:ARG:NH2	2.28	0.67
31:DA:811:C:H4'	31:DA:900:A:N6	2.09	0.67
32:CE:18:GLY:H	32:CE:42:ILE:HG22	1.59	0.67
37:CJ:79:ARG:CZ	37:CJ:82:GLY:HA2	2.25	0.67
45:CR:70:LEU:HD11	45:CR:77:ARG:HG3	1.77	0.67
1:AA:1162:G:H21	17:A2:89:GLN:HE22	1.43	0.67
1:AA:1062:G:H2'	1:AA:1063:G:C8	2.29	0.67
30:A8:52:LYS:N	30:A8:53:PRO:CD	2.55	0.67
1:BA:2357:U:OP1	22:B3:20:ARG:NH1	2.28	0.67
15:AR:53:ARG:HB3	15:AR:53:ARG:HH11	1.58	0.67
26:A4:63:TYR:OH	49:CV:41:VAL:O	2.08	0.67
49:CV:65:ASN:HD22	49:CV:65:ASN:N	1.93	0.67
26:B4:21:VAL:HG22	26:B4:22:ILE:HG12	1.76	0.67
50:CW:100:ILE:HG13	50:CW:101:GLY:N	2.08	0.67
1:AA:1007:C:OP1	9:AM:35:ARG:NH1	2.28	0.67
43:CP:57:ARG:HB2	43:CP:57:ARG:NH1	2.10	0.67
8:AK:77:LEU:HD12	8:AK:140:LEU:HB2	1.74	0.67
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.30	0.67
1:BA:2143:C:H2'	1:BA:2144:U:O4'	1.95	0.67
31:DA:373:A:C2	31:DA:374:A:C8	2.83	0.67
11:AO:55:ARG:O	11:AO:56:SER:C	2.33	0.67
7:BH:124:GLU:N	7:BH:124:GLU:OE1	2.26	0.67
39:DL:77:ILE:O	39:DL:81:ILE:HG12	1.93	0.67
1:AA:2348:U:H4'	28:A6:42:TRP:HD1	1.60	0.67
17:B2:6:LYS:H	17:B2:37:VAL:HG12	1.59	0.67
50:CW:22:ARG:O	50:CW:26:ASN:ND2	2.28	0.67
1:BA:330:A:H2	1:BA:1210:A:HO2'	1.43	0.67
21:AV:107:THR:HB	21:AV:108:PRO:HD2	1.75	0.67
1:AA:2219:G:C2'	1:AA:2224:G:H5'	2.24	0.67
52:DB:23:A:O2'	52:DB:24:C:OP1	2.10	0.67
31:DA:412:A:O2'	31:DA:413:G:OP2	2.11	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:116:VAL:HG21	33:CF:202:ILE:HD11	1.76	0.67
1:AA:2698:U:H2'	1:AA:2699:C:C6	2.29	0.67
1:AA:1590:U:H2'	1:AA:1591:G:C8	2.29	0.67
8:AK:114:LEU:O	8:AK:115:ALA:HB3	1.95	0.67
31:CA:1008:C:H42	31:CA:1021:G:H1	1.42	0.67
32:DE:56:ARG:HH11	32:DE:56:ARG:HA	1.58	0.67
22:A3:17:GLN:NE2	22:A3:17:GLN:HA	2.10	0.67
12:BP:34:LEU:HB2	12:BP:118:LEU:HD22	1.76	0.67
31:DA:57:G:H2'	31:DA:58:C:C6	2.30	0.67
4:BE:51:PHE:CD2	4:BE:52:LEU:HB3	2.24	0.67
1:BA:1005:C:O4'	1:BA:1143:A:C2	2.48	0.67
1:AA:2701:C:H3'	1:AA:2702:U:C5'	2.24	0.67
13:A0:24:GLN:HE22	13:A0:36:THR:CG2	2.08	0.67
1:BA:2512:C:H5''	1:BA:2513:G:OP2	1.95	0.67
1:BA:676:A:H8	1:BA:2069:G:N2	1.87	0.67
1:AA:2690:C:H5''	1:AA:2872:G:H21	1.60	0.67
7:BH:102:ALA:HB1	7:BH:116:GLU:HA	1.77	0.67
36:CI:101:ALA:HB2	48:CU:28:GLU:CG	2.24	0.67
13:B0:34:ILE:HG22	13:B0:114:VAL:HB	1.75	0.67
31:CA:1298:C:C6	37:CJ:114:ARG:NH1	2.62	0.67
32:CE:178:ARG:HH11	32:CE:178:ARG:CB	2.08	0.67
12:BP:7:MET:HB3	12:BP:10:ARG:CZ	2.25	0.67
49:DV:45:VAL:HA	49:DV:62:ILE:HG22	1.75	0.67
1:BA:2847:U:OP1	15:BR:98:LYS:HD3	1.95	0.67
40:DM:48:THR:HA	40:DM:62:HIS:HB3	1.77	0.67
32:DE:197:VAL:HG12	32:DE:200:ILE:HG13	1.74	0.67
1:BA:653:A:H5''	1:BA:654:A:OP2	1.93	0.67
53:CD:37:U:O4	53:CD:38:A:N6	2.28	0.67
1:BA:2150:U:H2'	1:BA:2151:G:H8	1.60	0.67
7:BH:12:PRO:O	7:BH:15:VAL:HG22	1.94	0.67
3:BD:5:LYS:NZ	3:BD:5:LYS:HB2	2.10	0.67
39:CL:127:LYS:O	39:CL:127:LYS:HG2	1.95	0.67
31:DA:982:U:H5''	44:DQ:6:LEU:HD11	1.75	0.67
34:DG:153:ARG:HD3	34:DG:181:MET:SD	2.35	0.67
4:BE:79:ARG:NH1	4:BE:79:ARG:HG3	2.10	0.67
14:BQ:10:ARG:O	14:BQ:14:VAL:HG12	1.93	0.67
31:DA:1177:G:H2'	31:DA:1178:G:N3	2.10	0.67
6:AG:77:ILE:HG23	6:AG:77:ILE:O	1.95	0.67
31:DA:973:G:H3'	31:DA:974:A:H5''	1.76	0.67
11:AO:50:ARG:CG	30:A8:59:LYS:HD3	2.25	0.67
7:AH:30:LYS:HZ3	7:AH:83:TYR:HE2	1.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DD:55:U:H3	53:DD:59:A:H62	1.43	0.67
20:BU:84:ARG:NH2	20:BU:97:ARG:HB2	2.10	0.67
40:DM:79:ARG:H	40:DM:79:ARG:HD3	1.59	0.67
16:B1:66:ASN:ND2	16:B1:70:ARG:HE	1.93	0.67
31:DA:363:A:C2	42:DO:31:PRO:HG2	2.29	0.67
1:AA:1509:C:H3'	1:AA:1510:A:H5''	1.75	0.67
31:CA:606:G:H1	31:CA:631:G:H5''	1.60	0.67
53:DD:42:C:H2'	53:DD:43:G:H8	1.59	0.67
3:BD:270:ILE:CG2	3:BD:271:ILE:N	2.57	0.67
1:AA:320:A:H2'	5:AF:136:THR:HG21	1.78	0.67
1:BA:634:C:H2'	1:BA:635:C:C6	2.30	0.67
11:AO:57:THR:C	11:AO:59:LEU:H	1.97	0.67
12:AP:106:VAL:HG21	12:AP:114:ALA:HB1	1.76	0.67
1:AA:801:G:O4'	5:AF:54:ARG:HD3	1.94	0.67
10:BN:98:VAL:HG13	10:BN:117:LEU:HB3	1.76	0.67
1:AA:2795:G:H3'	1:AA:2797:U:C5'	2.25	0.67
21:BV:52:SER:O	21:BV:52:SER:OG	2.11	0.67
31:CA:116:A:H61	31:CA:313:A:H1'	1.60	0.67
43:DP:13:LYS:HA	43:DP:44:ARG:NH1	2.10	0.67
1:AA:1063:G:H1	1:AA:1075:C:H42	1.42	0.66
6:AG:73:ALA:CB	6:AG:82:LEU:CD2	2.71	0.66
31:DA:1320:C:C2	49:DV:72:GLY:HA3	2.30	0.66
14:AQ:11:LYS:HD2	14:AQ:15:ARG:HH21	1.59	0.66
1:BA:2255:G:N2	12:BP:85:LYS:HE2	2.10	0.66
34:DG:22:LYS:HB2	34:DG:26:CYS:HB2	1.77	0.66
9:BM:45:ASN:CG	9:BM:45:ASN:O	2.30	0.66
45:DR:25:THR:HG21	45:DR:70:LEU:HB2	1.77	0.66
26:B4:1:MET:O	26:B4:2:LYS:HD3	1.95	0.66
1:AA:1385:G:H4'	1:AA:1386:C:OP1	1.94	0.66
31:DA:235:C:C5'	47:DT:70:ARG:HG2	2.25	0.66
1:AA:2439:A:O2'	1:AA:2440:C:OP2	2.13	0.66
36:DI:15:ASP:OD1	36:DI:17:SER:N	2.28	0.66
26:B4:40:HIS:HB3	26:B4:45:GLY:HA3	1.76	0.66
31:CA:250:A:H4'	31:CA:251:G:C5'	2.25	0.66
4:AE:81:ILE:CG2	4:AE:84:PHE:HB2	2.26	0.66
31:DA:975:A:H4'	31:DA:976:G:C5'	2.13	0.66
31:DA:980:C:H5''	31:DA:981:U:C5	2.31	0.66
12:AP:66:ILE:CD1	12:AP:67:ARG:H	2.01	0.66
1:AA:2469:A:H2'	1:AA:2470:G:O4'	1.95	0.66
20:AU:81:LYS:HG2	20:AU:97:ARG:CD	2.25	0.66
45:DR:75:PRO:O	45:DR:79:ARG:HG3	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:527:C:OP2	1:BA:2779:U:H5	1.78	0.66
24:BW:14:ARG:HG3	24:BW:15:LYS:CE	2.26	0.66
1:BA:620:G:H5'	1:BA:620:G:N3	2.09	0.66
7:AH:92:ILE:HD12	7:AH:92:ILE:N	2.09	0.66
1:BA:1678:G:N2	1:BA:1989:G:N2	2.42	0.66
6:AG:112:PRO:HB3	26:A4:37:SER:CB	2.25	0.66
19:BT:57:LEU:HD21	19:BT:78:LYS:HB2	1.76	0.66
1:AA:2579:C:H2'	1:AA:2580:U:O4'	1.95	0.66
31:CA:1065:U:O2'	31:CA:1066:C:OP2	2.11	0.66
45:CR:21:ASP:OD1	45:CR:24:SER:HB3	1.96	0.66
1:BA:2010:G:H5''	18:BS:42:ARG:HB2	1.77	0.66
46:CS:36:ILE:HG13	46:CS:36:ILE:O	1.96	0.66
38:CK:10:LEU:HD22	38:CK:83:ILE:HD11	1.77	0.66
1:BA:1472:A:C2'	1:BA:1473:G:H5'	2.26	0.66
33:DF:113:ALA:HB3	33:DF:114:PRO:HD3	1.77	0.66
53:DD:20:G:H2'	53:DD:20:G:N3	2.09	0.66
25:AX:5:LYS:HB2	25:AX:36:VAL:HG12	1.75	0.66
1:AA:1257:C:H4'	5:AF:83:PHE:CD2	2.30	0.66
31:DA:1328:C:OP1	51:DX:21:TYR:OH	2.10	0.66
29:A7:8:ASN:HD21	29:A7:11:LYS:N	1.90	0.66
1:AA:1045:A:N3	1:AA:1111:A:N6	2.43	0.66
1:AA:864:G:O2'	1:AA:865:C:H5'	1.96	0.66
43:CP:65:LYS:O	43:CP:66:LEU:HD23	1.95	0.66
42:DO:24:VAL:HG12	42:DO:26:ALA:HB2	1.77	0.66
31:CA:219:C:H2'	31:CA:220:G:O4'	1.95	0.66
1:AA:2439:A:C8	1:AA:2439:A:H5'	2.31	0.66
1:BA:2128:C:H4'	1:BA:2173:A:C6	2.30	0.66
3:AD:136:ILE:HG22	3:AD:137:PRO:HD2	1.77	0.66
1:AA:1152:C:H1'	16:A1:77:SER:HB2	1.78	0.66
22:A3:11:ARG:O	22:A3:14:ARG:NH2	2.29	0.66
5:AF:176:LEU:HD21	5:AF:180:GLY:O	1.95	0.66
1:AA:2728:U:H2'	1:AA:2729:G:C8	2.30	0.66
19:AT:15:GLU:CD	19:AT:15:GLU:H	1.98	0.66
36:DI:82:ARG:HB2	36:DI:85:VAL:HG23	1.77	0.66
12:AP:39:PRO:HA	12:AP:97:VAL:O	1.96	0.66
3:AD:35:LYS:HG2	3:AD:64:ILE:CG2	2.25	0.66
6:AG:82:LEU:HA	6:AG:86:MET:HE1	1.73	0.66
31:DA:1036:G:H2'	31:DA:1037:C:C2	2.30	0.66
5:BF:25:PRO:HB3	5:BF:28:ILE:CG1	2.18	0.66
5:BF:29:ASN:N	5:BF:112:MET:HE1	2.10	0.66
34:CG:7:PRO:HB2	34:CG:10:ARG:CD	2.22	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DR:87:ILE:CG2	45:DR:88:ARG:H	2.04	0.66
1:BA:2839:G:H5'	13:B0:46:GLY:HA2	1.78	0.66
20:BU:17:SER:HB2	20:BU:71:LYS:CE	2.26	0.66
1:AA:1385:G:O2'	1:AA:1396:U:C6	2.49	0.66
7:AH:169:VAL:HG13	7:AH:170:ARG:H	1.60	0.66
3:AD:127:VAL:HA	3:AD:193:VAL:CG2	2.26	0.66
1:BA:1204:A:O2'	1:BA:1205:U:OP2	2.11	0.66
31:DA:1123:A:H4'	40:DM:36:GLY:HA3	1.78	0.66
33:CF:70:VAL:HG12	33:CF:72:LYS:N	2.11	0.66
31:DA:792:A:H4'	31:DA:793:U:O5'	1.96	0.66
35:CH:9:LYS:O	35:CH:33:VAL:HG23	1.96	0.66
31:CA:376:G:H5''	46:CS:5:ARG:HD2	1.77	0.66
15:BR:125:ARG:HB3	15:BR:129:ARG:NH2	2.11	0.66
9:AM:62:VAL:CG2	9:AM:66:LYS:HD2	2.25	0.66
1:BA:2016:U:H1'	27:B5:6:VAL:CG1	2.26	0.66
4:AE:60:ASN:N	4:AE:60:ASN:ND2	2.43	0.66
15:AR:57:PHE:O	15:AR:58:ASN:CB	2.35	0.66
1:AA:61:G:H5'	24:AW:50:ILE:HG12	1.76	0.66
15:BR:26:ASP:OD2	15:BR:120:ARG:NH2	2.25	0.66
5:BF:84:VAL:O	5:BF:86:GLY:N	2.27	0.66
1:AA:2829:C:C2'	1:AA:2830:G:H5''	2.26	0.66
32:DE:168:THR:CG2	32:DE:192:SER:HB3	2.24	0.66
1:AA:1394:U:C5	1:AA:1395:A:C4	2.84	0.66
41:CN:124:LYS:HE3	41:CN:125:PHE:CE1	2.30	0.66
16:B1:34:LYS:HE2	16:B1:34:LYS:HA	1.78	0.66
1:BA:1053:C:H3'	1:BA:1054:A:H5''	1.76	0.66
1:AA:2100:G:H1	1:AA:2189:U:H3	1.43	0.66
1:AA:528:A:N1	1:AA:2042:A:H2'	2.10	0.66
4:AE:59:VAL:HG13	4:AE:59:VAL:O	1.95	0.66
1:BA:2683:C:OP1	15:BR:53:ARG:NH2	2.28	0.66
34:CG:12:CYS:CA	34:CG:19:LEU:HD21	2.22	0.66
1:BA:932:G:H4'	1:BA:933:A:O5'	1.94	0.66
3:BD:34:VAL:HG13	3:BD:35:LYS:HG3	1.76	0.66
12:BP:64:ILE:HG23	12:BP:106:VAL:HG12	1.75	0.66
53:DD:22:A:C2	53:DD:47:G:H2'	2.30	0.66
1:AA:2285:C:P	28:A6:28:ARG:HD3	2.36	0.66
42:CO:86:ARG:NH1	42:CO:86:ARG:HG3	2.09	0.66
1:AA:1699:G:H4'	1:AA:1700:A:OP2	1.94	0.66
34:DG:108:LEU:HD23	34:DG:110:PHE:CE1	2.30	0.66
1:AA:1533:C:H5'	1:AA:1534:G:OP2	1.96	0.66
1:AA:863:A:O2'	1:AA:864:G:H5'	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:78:LYS:HE3	39:CL:101:PHE:CE2	2.31	0.66
9:AM:96:GLU:CG	9:AM:96:GLU:O	2.43	0.66
1:BA:709:U:H2'	1:BA:710:G:C8	2.31	0.66
32:CE:178:ARG:HH11	32:CE:178:ARG:CG	2.08	0.66
14:AQ:34:HIS:HB3	14:AQ:53:SER:OG	1.95	0.66
31:CA:751:U:H5''	31:CA:752:G:OP2	1.95	0.66
1:AA:270(R):G:H2'	1:AA:270(S):G:C8	2.31	0.66
31:CA:1450:U:O2'	31:CA:1451:A:H8	1.79	0.66
36:CI:4:TYR:HD1	36:CI:92:LYS:HA	1.60	0.66
1:BA:1583:A:H5'	1:BA:1585:C:O5'	1.96	0.66
1:BA:1412:A:H2'	1:BA:1413:G:C8	2.30	0.66
45:CR:87:ILE:HG22	45:CR:88:ARG:HG2	1.76	0.66
1:BA:669:G:O2'	1:BA:670:A:P	2.53	0.66
12:BP:98:LYS:HB3	12:BP:99:PRO:HD2	1.76	0.66
42:CO:86:ARG:CG	42:CO:86:ARG:HH11	2.04	0.66
53:CD:5:G:H1	53:CD:69:C:H42	1.42	0.66
16:B1:97:ASP:OD2	16:B1:98:LEU:N	2.29	0.66
31:CA:686:U:O4	31:CA:703:G:H1'	1.94	0.66
24:BW:15:LYS:HD3	24:BW:67:LYS:HZ1	1.61	0.66
1:BA:259:G:N2	1:BA:621:A:H8	1.93	0.66
31:DA:316:G:OP2	31:DA:351:G:O2'	2.14	0.66
1:BA:1252:G:O4'	16:B1:33:ARG:HD3	1.96	0.66
33:DF:7:PRO:O	33:DF:11:ARG:NH1	2.29	0.66
1:BA:2563:U:O2	1:BA:2565:A:H8	1.79	0.66
31:DA:1226:C:C4	43:DP:104:ARG:HB2	2.29	0.66
1:BA:854:G:H2'	1:BA:855:G:H8	1.60	0.66
31:CA:1213:A:O2'	31:CA:1215:G:N7	2.27	0.66
19:BT:26:TYR:OH	19:BT:88:LYS:HB2	1.95	0.66
21:BV:116:VAL:HG12	21:BV:117:LEU:H	1.59	0.66
35:CH:98:THR:HG22	35:CH:99:GLY:N	2.10	0.66
4:AE:22:PRO:C	4:AE:23:VAL:HG22	2.15	0.66
27:B5:5:PRO:O	27:B5:6:VAL:HB	1.96	0.66
6:AG:82:LEU:O	6:AG:82:LEU:CD2	2.40	0.66
1:AA:573:G:O2'	1:AA:574:C:H3'	1.95	0.66
31:CA:316:G:OP2	31:CA:351:G:O2'	2.13	0.66
39:CL:48:GLU:N	39:CL:49:PRO:HD2	2.11	0.66
31:DA:422:C:O2'	31:DA:423:G:N3	2.29	0.66
4:BE:179:GLU:O	4:BE:180:ASN:HB2	1.94	0.66
1:BA:171:G:H2'	1:BA:172:C:C6	2.31	0.66
31:DA:1151:A:O2'	31:DA:1152:A:O5'	2.14	0.66
16:A1:29:SER:OG	16:A1:30:LYS:HE2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:598:G:C1'	11:AO:12:ALA:HB2	2.26	0.66
13:A0:57:ARG:HB3	13:A0:59:ASP:OD1	1.96	0.66
36:CI:62:TRP:CH2	36:CI:64:GLN:HG3	2.30	0.66
31:CA:1491:G:C5	56:CA:1841:PAR:H21	2.31	0.66
1:AA:671:C:OP1	11:AO:42:SER:O	2.13	0.66
1:BA:147:U:H2'	1:BA:148:C:H5''	1.78	0.66
37:DJ:69:VAL:HG22	37:DJ:135:VAL:HG23	1.76	0.66
1:BA:994:C:OP1	16:B1:53:ARG:NH2	2.29	0.66
21:BV:175:VAL:HG13	21:BV:176:PRO:CD	2.25	0.66
1:BA:1899:G:N2	1:BA:1902:C:N4	2.23	0.66
15:AR:60:THR:HG22	15:AR:77:PRO:HA	1.78	0.66
34:DG:24:GLU:O	34:DG:27:TYR:HB2	1.96	0.66
1:BA:1019:U:HO2'	1:BA:1021:A:H2	1.38	0.66
47:CT:76:LEU:HD12	47:CT:78:GLU:H	1.60	0.66
1:AA:2689:U:OP2	1:AA:2719:G:N2	2.24	0.66
1:AA:2583:G:N2	52:CB:87:A:C8	2.59	0.66
31:DA:1446:A:OP1	31:DA:1446:A:H4'	1.96	0.66
19:BT:11:PRO:HD3	24:BW:37:PHE:CD2	2.31	0.66
21:AV:105:VAL:HG13	21:AV:140:ASP:HB3	1.77	0.66
33:DF:18:TRP:N	33:DF:18:TRP:HE3	1.94	0.66
34:DG:178:VAL:HG12	34:DG:179:GLU:H	1.61	0.66
34:CG:52:SER:O	34:CG:55:ALA:HB3	1.95	0.66
1:AA:2111:C:H41	1:AA:2147:G:N2	1.93	0.66
11:BO:11:GLY:C	11:BO:13:ASN:H	1.99	0.66
18:AS:24:ILE:HG21	18:AS:36:LEU:HD21	1.78	0.66
17:B2:82:ARG:HH11	17:B2:82:ARG:HG3	1.58	0.66
3:AD:33:LEU:HD13	3:AD:34:VAL:N	2.10	0.66
14:BQ:11:LYS:O	14:BQ:15:ARG:HB2	1.96	0.66
31:DA:1160:G:N1	31:DA:1177:G:N2	2.26	0.66
1:AA:1971:A:C4	3:AD:241:PRO:HD3	2.31	0.66
53:CC:21:U:O2'	53:CC:22:A:H5'	1.96	0.66
31:DA:973:G:OP1	40:DM:57:LYS:NZ	2.17	0.66
31:CA:1053:G:O6	31:CA:1199:U:H2'	1.95	0.66
1:BA:1065:U:H3	1:BA:1073:A:H61	1.43	0.66
1:BA:672:C:C2'	1:BA:673:C:C5'	2.65	0.66
1:BA:273(D):C:N4	1:BA:363(B):G:H1	1.93	0.66
5:BF:3:GLU:HA	5:BF:24:LEU:HD23	1.77	0.66
1:BA:443:A:H1'	1:BA:1201:C:O4'	1.95	0.66
1:AA:1178:C:H2'	1:AA:1179:C:C6	2.31	0.66
32:DE:209:ARG:HG2	32:DE:240:GLN:HE21	1.60	0.66
34:CG:170:VAL:HG22	34:CG:171:GLY:N	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:80:ILE:HD11	32:CE:208:ILE:HG23	1.78	0.66
16:A1:69:CYS:HG	16:A1:79:PHE:HD1	1.40	0.66
31:CA:881:G:OP2	42:CO:9:ARG:NH2	2.28	0.66
53:CC:1:C:H2'	53:CC:2:G:OP2	1.95	0.66
6:BG:117:PHE:CD1	6:BG:118:ARG:O	2.48	0.66
1:BA:278:A:H4'	1:BA:279:C:OP1	1.96	0.66
31:DA:426:G:OP1	34:DG:38:TYR:OH	2.08	0.66
11:BO:120:ALA:HB1	11:BO:138:LEU:HB3	1.78	0.66
34:CG:108:LEU:HB3	34:CG:110:PHE:CD1	2.31	0.66
3:AD:176:ARG:HG2	3:AD:176:ARG:HH11	1.60	0.66
12:AP:79:LEU:O	12:AP:81:VAL:CG1	2.35	0.65
11:BO:50:ARG:HD3	30:B8:7:HIS:HE2	1.60	0.65
47:CT:77:VAL:O	47:CT:78:GLU:CB	2.38	0.65
31:DA:186:C:H1'	50:DW:81:LYS:HZ1	1.61	0.65
1:BA:2893:G:H5'	1:BA:2894:G:OP1	1.96	0.65
1:AA:2275:C:O2'	12:AP:84:GLY:CA	2.44	0.65
1:AA:458:G:O2'	29:A7:39:ARG:HD3	1.94	0.65
1:AA:2689:U:H5''	1:AA:2713:A:C2	2.31	0.65
18:AS:3:ALA:HB2	18:AS:64:MET:HE3	1.77	0.65
1:AA:1480:G:C2	1:AA:1482:U:O2	2.50	0.65
33:DF:34:LEU:HD12	33:DF:34:LEU:O	1.96	0.65
31:CA:1226:C:H2'	43:CP:103:THR:HB	1.77	0.65
5:BF:9:ILE:HG12	5:BF:14:PRO:HA	1.77	0.65
42:CO:3:THR:HG23	42:CO:6:GLN:HE21	1.59	0.65
5:BF:132:VAL:HG22	5:BF:133:ASN:H	1.62	0.65
1:AA:2875:C:H4'	15:AR:5:ALA:HB2	1.79	0.65
7:BH:111:HIS:ND1	7:BH:112:PRO:HD2	2.09	0.65
31:CA:1123:A:H4'	40:CM:36:GLY:HA3	1.76	0.65
48:DU:29:PHE:HD1	48:DU:39:VAL:HG11	1.61	0.65
24:BW:16:LEU:H	24:BW:16:LEU:HD12	1.60	0.65
9:AM:7:LYS:HD2	9:AM:7:LYS:H	1.59	0.65
1:AA:547:A:H3'	1:AA:548:A:C8	2.31	0.65
3:AD:30:GLU:HG3	3:AD:63:ARG:NH2	2.12	0.65
4:AE:59:VAL:HG21	4:AE:73:GLU:CB	2.26	0.65
3:BD:25:THR:C	3:BD:27:THR:H	1.96	0.65
31:DA:1126:U:O4	31:DA:1281:U:C6	2.49	0.65
28:B6:52:VAL:HG22	28:B6:53:LYS:HG3	1.76	0.65
8:BK:82:ARG:HH11	8:BK:146:ALA:HA	1.59	0.65
26:A4:57:GLU:HA	26:A4:60:GLN:HB2	1.78	0.65
6:AG:101:ILE:HG13	26:A4:25:TYR:O	1.95	0.65
1:AA:1049:C:C2'	1:AA:1050:A:H5''	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1263:C:N3	31:DA:1272:G:N2	2.43	0.65
20:AU:44:ILE:HG13	20:AU:45:VAL:N	2.12	0.65
16:B1:65:ILE:HD11	16:B1:96:ALA:HB1	1.78	0.65
1:BA:1420:U:O2'	1:BA:1421:G:P	2.53	0.65
31:DA:560:U:HO2'	31:DA:561:U:P	2.16	0.65
16:A1:90:VAL:O	16:A1:92:ARG:N	2.29	0.65
1:BA:1342:A:N1	1:BA:1602:U:C2	2.64	0.65
9:AM:31:ALA:O	9:AM:34:LEU:N	2.29	0.65
49:DV:28:LYS:HG2	49:DV:29:ARG:H	1.61	0.65
14:AQ:5:THR:OG1	14:AQ:8:GLU:HG3	1.96	0.65
18:BS:50:VAL:HG22	18:BS:105:VAL:HG23	1.78	0.65
1:AA:2264:C:O2	1:AA:2264:C:H2'	1.96	0.65
1:BA:38:A:H2'	1:BA:39:C:C6	2.30	0.65
24:BW:24:LEU:HD22	24:BW:60:LEU:HD21	1.78	0.65
1:AA:1165:U:H2'	1:AA:1166:C:C6	2.30	0.65
31:DA:201:C:H4'	31:DA:208:U:OP1	1.97	0.65
45:DR:61:GLY:O	45:DR:65:ARG:HD2	1.95	0.65
30:B8:52:LYS:N	30:B8:53:PRO:HD3	2.11	0.65
31:DA:1320:C:OP1	49:DV:70:LYS:HE3	1.96	0.65
15:AR:41:ARG:HH11	15:AR:41:ARG:HB2	1.61	0.65
1:AA:1053:C:N3	1:AA:1106:G:N2	2.39	0.65
1:BA:1323:U:C2'	1:BA:1324:G:H5'	2.26	0.65
5:AF:101:LEU:O	5:AF:106:ARG:NH1	2.29	0.65
31:DA:625:G:H2'	31:DA:626:U:H6	1.62	0.65
31:DA:630:G:N3	31:DA:630:G:H2'	2.11	0.65
51:DX:25:LYS:HE3	51:DX:26:LYS:HG3	1.78	0.65
33:DF:63:ASN:O	33:DF:64:VAL:HB	1.96	0.65
27:A5:57:VAL:O	27:A5:57:VAL:HG13	1.96	0.65
31:DA:1374:A:H2'	31:DA:1375:A:H5'	1.77	0.65
18:AS:13:SER:HB3	18:AS:16:LYS:HD3	1.77	0.65
16:A1:79:PHE:HE1	16:A1:106:PHE:CZ	2.15	0.65
39:DL:32:ASP:HB3	39:DL:35:GLU:HB2	1.78	0.65
41:DN:48:ILE:HG13	41:DN:63:LEU:HB3	1.75	0.65
36:DI:3:ARG:NH1	36:DI:38:GLU:OE1	2.29	0.65
7:BH:81:GLU:HG2	7:BH:83:TYR:HB2	1.78	0.65
24:AW:42:GLY:O	24:AW:44:LEU:N	2.29	0.65
16:A1:34:LYS:HE3	16:A1:34:LYS:HA	1.78	0.65
1:AA:909:A:H2'	1:AA:912:C:C5	2.32	0.65
3:BD:35:LYS:HE2	3:BD:104:TYR:CB	2.15	0.65
31:DA:1135:U:H4'	31:DA:1136:U:H5	1.62	0.65
3:BD:44:ASN:HB2	3:BD:48:ARG:O	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1129:C:N3	31:CA:1139:G:O6	2.30	0.65
11:BO:6:LEU:O	11:BO:7:ARG:CB	2.45	0.65
31:CA:1004:A:C2	31:CA:1024:G:C8	2.84	0.65
1:AA:885:C:H2'	1:AA:890:A:H61	1.61	0.65
1:BA:1141:U:H2'	9:BM:63:THR:CG2	2.27	0.65
1:AA:2648:C:H2'	1:AA:2649:U:C6	2.32	0.65
4:BE:4:ILE:HG23	4:BE:95:ILE:HD11	1.78	0.65
50:CW:71:THR:HG22	50:CW:72:LEU:N	2.10	0.65
1:AA:2134:A:N6	1:AA:2157:G:H1'	2.11	0.65
1:AA:1533:C:H3'	1:AA:1534:G:H5''	1.76	0.65
9:AM:114:ARG:O	9:AM:115:ARG:HB2	1.95	0.65
1:BA:1177:A:H5'	1:BA:1178:C:OP1	1.96	0.65
1:AA:856:C:H2'	1:AA:857:C:C6	2.31	0.65
1:AA:286:C:O2'	1:AA:287:C:H5'	1.96	0.65
31:CA:1073:U:H2'	31:CA:1074:G:C8	2.31	0.65
18:BS:59:VAL:HG23	18:BS:65:LEU:H	1.61	0.65
24:BW:17:SER:HB2	24:BW:18:PRO:O	1.96	0.65
3:AD:155:LEU:HD23	3:AD:177:LEU:CD2	2.27	0.65
45:CR:74:ASP:CG	45:CR:77:ARG:HG2	2.16	0.65
32:DE:46:LYS:HA	32:DE:49:GLU:HB2	1.77	0.65
1:BA:176:G:O2'	1:BA:177:G:H5'	1.97	0.65
31:CA:1106:G:H2'	31:CA:1107:C:H6	1.61	0.65
30:B8:29:LYS:CG	30:B8:29:LYS:O	2.30	0.65
11:BO:62:LEU:HD12	30:B8:30:ARG:CZ	2.26	0.65
4:AE:20:ALA:C	4:AE:21:VAL:HG12	2.17	0.65
27:B5:5:PRO:O	27:B5:6:VAL:HG23	1.96	0.65
3:AD:96:HIS:NE2	3:AD:102:LYS:HE2	2.11	0.65
4:AE:60:ASN:OD1	4:AE:62:PRO:HD2	1.96	0.65
1:BA:882:G:N1	1:BA:894:C:N4	2.19	0.65
31:DA:1206:G:O2'	33:DF:193:TYR:HA	1.97	0.65
44:CQ:45:ARG:NH1	44:CQ:49:HIS:HE1	1.94	0.65
31:DA:1004:A:H1'	31:DA:1036:G:C2	2.31	0.65
5:BF:24:LEU:CD1	5:BF:25:PRO:HD3	2.24	0.65
1:BA:2168:G:N3	1:BA:2168:G:H2'	2.11	0.65
32:CE:8:LYS:H	32:CE:8:LYS:CE	2.10	0.65
31:CA:1080:A:H5''	31:CA:1081:G:OP2	1.97	0.65
31:CA:920:U:O4'	31:CA:1080:A:C2	2.50	0.65
5:BF:181:LEU:HD21	5:BF:186:ILE:HD11	1.77	0.65
15:BR:26:ASP:HB2	15:BR:90:GLN:O	1.95	0.65
27:A5:40:LYS:HB2	27:A5:46:CYS:SG	2.36	0.65
1:BA:2531:A:H4'	7:BH:157:TYR:CD2	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:8:A:H5'	35:CH:101:ILE:HG22	1.77	0.65
31:CA:1298:C:H4'	31:CA:1299:A:C4	2.32	0.65
1:AA:1506:C:H5'	1:AA:1507:A:OP2	1.97	0.65
52:DB:14:A:H61	52:DB:21:A:N6	1.94	0.65
4:AE:8:LYS:HE3	4:AE:24:THR:CG2	2.26	0.65
45:CR:26:GLU:OE2	45:CR:77:ARG:NH1	2.30	0.65
34:DG:122:ARG:NH2	34:DG:134:ASP:HB3	2.11	0.65
1:BA:861:A:C2	1:BA:917:A:C4	2.84	0.65
15:BR:107:ASP:N	15:BR:107:ASP:OD1	2.30	0.65
31:DA:951:G:OP2	43:DP:102:ARG:NH2	2.29	0.65
17:A2:1:MET:HG3	17:A2:43:GLU:HG2	1.78	0.65
33:DF:130:VAL:O	33:DF:134:ILE:HG12	1.97	0.65
33:DF:94:LEU:HD12	33:DF:95:THR:H	1.61	0.65
1:AA:990:A:OP2	1:AA:991:C:OP2	2.15	0.65
1:BA:152:G:H1	1:BA:174:C:H42	1.42	0.65
21:AV:1:MET:CE	21:AV:135:GLU:HB3	2.27	0.65
31:DA:1278:U:H2'	31:DA:1278:U:O2	1.95	0.65
6:AG:57:ALA:HB2	6:AG:90:LEU:HD21	1.79	0.65
31:CA:1059:C:O2	40:CM:53:PRO:HG3	1.97	0.65
1:AA:2275:C:H6	1:AA:2275:C:H5'	1.61	0.65
34:CG:65:ARG:CG	34:CG:65:ARG:HH11	2.10	0.65
50:CW:57:ARG:NH1	50:CW:102:GLY:HA2	2.11	0.65
31:CA:66:G:O4'	31:CA:173:U:C4	2.49	0.65
13:B0:86:ARG:HG2	13:B0:118:GLU:OE2	1.96	0.65
9:BM:56:ASN:H	9:BM:125:GLY:CA	2.10	0.65
50:CW:89:ARG:NH2	50:CW:104:LEU:HD11	2.10	0.65
6:AG:135:LEU:HD23	6:AG:140:ILE:HD11	1.79	0.65
45:DR:2:PRO:HB2	45:DR:3:ILE:HD13	1.79	0.65
50:DW:44:ALA:HB1	50:DW:91:LEU:HB2	1.79	0.65
31:CA:310:G:P	46:CS:27:LYS:NZ	2.69	0.65
53:CC:1:C:H3'	53:CC:1:C:H6	1.62	0.65
17:A2:25:LEU:H	17:A2:92:THR:HG21	1.62	0.65
1:BA:459:U:H5''	29:B7:40:TRP:CD2	2.30	0.65
40:CM:37:PRO:HA	40:CM:72:VAL:HG22	1.77	0.65
31:CA:567:G:H2'	31:CA:568:G:O4'	1.96	0.65
7:AH:20:ALA:HB1	7:AH:21:PRO:HD2	1.77	0.65
26:B4:49:PHE:CD1	26:B4:50:VAL:HG13	2.31	0.65
1:AA:2811:G:P	4:AE:61:ARG:CG	2.78	0.65
4:BE:38:THR:OG1	4:BE:39:PRO:HD2	1.96	0.65
21:BV:76:LEU:HD23	21:BV:76:LEU:N	2.11	0.65
31:CA:49:U:O2'	31:CA:50:A:H3'	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CV:65:ASN:H	49:CV:65:ASN:ND2	1.93	0.65
52:CB:18:G:H1'	52:CB:19:G:P	2.36	0.65
31:DA:992:U:O2'	31:DA:993:G:OP2	2.15	0.65
4:BE:101:ARG:CZ	4:BE:171:GLU:HB2	2.27	0.65
5:BF:78:ILE:HA	5:BF:83:PHE:CD1	2.31	0.65
6:AG:166:ASP:HA	6:AG:169:ALA:HB3	1.79	0.65
31:DA:197:A:H1'	31:DA:198:G:OP2	1.97	0.65
7:BH:152:ARG:HD2	7:BH:153:LYS:H	1.60	0.65
1:BA:2854:G:N2	1:BA:2864:G:C4	2.65	0.65
11:BO:96:THR:OG1	11:BO:97:PRO:CD	2.44	0.65
33:DF:79:ARG:HE	33:DF:79:ARG:N	1.94	0.65
4:BE:202:LYS:HD2	4:BE:202:LYS:N	2.12	0.65
13:A0:74:LYS:C	13:A0:76:VAL:H	2.00	0.65
32:DE:95:GLN:HB3	32:DE:148:TYR:HD1	1.61	0.65
1:BA:877:U:O4	1:BA:899:A:N6	2.28	0.65
1:AA:1651:G:N7	13:A0:11:ASN:ND2	2.44	0.65
32:DE:180:LEU:O	32:DE:181:PHE:HB2	1.94	0.65
1:BA:2638:G:O2'	1:BA:2639:A:C8	2.50	0.65
1:AA:2404:C:H1'	11:AO:67:MET:HE1	1.77	0.65
3:BD:27:THR:O	3:BD:28:GLU:HB2	1.95	0.65
14:AQ:110:LEU:HA	14:AQ:112:PHE:CZ	2.31	0.65
31:CA:790:A:C6	31:CA:791:G:C6	2.85	0.65
40:DM:4:ILE:HB	40:DM:74:ILE:HD11	1.79	0.65
13:B0:37:THR:HG22	13:B0:40:LYS:N	2.09	0.65
31:CA:201:C:N4	31:CA:209:U:O2	2.29	0.65
26:B4:12:ALA:H	26:B4:24:THR:CG2	2.10	0.65
1:AA:2555:U:C2'	1:AA:2556:C:H5'	2.27	0.65
31:DA:464:G:O6	31:DA:466:C:H5'	1.95	0.65
21:BV:93:ASP:HB2	21:BV:131:ARG:HH21	1.61	0.65
22:A3:40:GLN:HE22	22:A3:43:THR:HA	1.62	0.65
8:AK:130:TYR:C	8:AK:131:LYS:HD2	2.17	0.65
39:DL:105:ASP:OD2	39:DL:107:ARG:HD3	1.97	0.65
8:BK:76:THR:HG23	8:BK:77:LEU:H	1.62	0.65
33:DF:63:ASN:CB	33:DF:98:ASN:HB3	2.27	0.65
12:BP:34:LEU:HD11	12:BP:129:THR:HB	1.78	0.65
1:AA:2875:C:O2'	15:AR:5:ALA:HB3	1.97	0.65
23:BZ:46:LEU:HA	23:BZ:62:VAL:O	1.97	0.65
32:CE:220:ASP:O	32:CE:223:ILE:HG13	1.97	0.65
21:BV:16:SER:O	21:BV:20:ARG:HG3	1.96	0.65
21:BV:15:PRO:HB2	21:BV:19:ARG:NH2	2.11	0.65
21:BV:19:ARG:NH1	21:BV:84:GLU:HB2	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BS:2:GLU:OE1	18:BS:72:LYS:NZ	2.30	0.65
1:AA:614:U:O4	5:AF:175:THR:HG22	1.96	0.65
1:BA:2443:C:OP1	5:BF:68:LYS:HG2	1.97	0.65
31:DA:186(F):C:H2'	31:DA:187:C:O4'	1.96	0.65
19:BT:72:LYS:NZ	19:BT:75:ASP:OD1	2.29	0.65
17:B2:99:ILE:HG22	17:B2:99:ILE:O	1.96	0.65
1:BA:274:G:C8	1:BA:274:G:OP1	2.49	0.65
6:BG:79:ASN:H	6:BG:79:ASN:HD22	1.43	0.65
11:AO:101:VAL:CG2	11:AO:106:LEU:HB3	2.25	0.65
44:CQ:12:ARG:C	44:CQ:14:PRO:HD2	2.17	0.65
1:AA:1065:U:H1'	1:AA:1074:G:N2	2.12	0.65
1:AA:1071:G:O6	1:AA:1091:G:O6	2.15	0.65
3:AD:33:LEU:CD1	3:AD:34:VAL:H	2.10	0.65
3:BD:34:VAL:O	3:BD:34:VAL:CG1	2.45	0.65
12:AP:66:ILE:CD1	12:AP:68:ILE:O	2.44	0.65
31:CA:1133:G:H2'	31:CA:1134:G:H8	1.60	0.65
32:CE:7:VAL:CB	32:CE:217:ARG:HH21	2.09	0.65
1:AA:2701:C:C3'	1:AA:2702:U:H5''	2.21	0.65
1:AA:2126:A:H61	1:AA:2163:C:H1'	1.59	0.65
31:DA:1243:C:OP1	51:DX:8:THR:HG21	1.97	0.65
1:AA:2157:G:HO2'	1:AA:2158:A:P	2.19	0.65
37:CJ:23:VAL:CG1	37:CJ:43:PHE:HE2	2.09	0.65
31:CA:1286:A:H5''	51:CX:26:LYS:CD	2.26	0.65
18:AS:58:ALA:HB1	18:AS:64:MET:CG	2.25	0.65
31:CA:606:G:H5''	31:CA:607:A:H5'	1.78	0.65
7:AH:12:PRO:HD3	7:AH:48:GLY:O	1.97	0.65
1:AA:821:A:HO2'	1:AA:945:A:H3'	1.59	0.65
7:BH:152:ARG:CB	7:BH:154:PRO:HD3	2.27	0.65
1:AA:1093:G:H5'	7:AH:170:ARG:NH2	2.12	0.65
31:DA:1348:U:N3	31:DA:1374:A:H2	1.94	0.65
16:A1:79:PHE:O	16:A1:79:PHE:HD2	1.80	0.65
12:BP:137:TYR:CE1	21:BV:83:PRO:HG3	2.31	0.65
33:CF:113:ALA:HB3	33:CF:114:PRO:HD3	1.78	0.65
1:BA:479:A:N3	1:BA:481:G:H5''	2.12	0.65
1:AA:122:G:H2'	1:AA:123:G:H5''	1.79	0.65
31:CA:1291:G:O2'	39:CL:38:GLN:OE1	2.15	0.65
1:AA:176:G:O2'	1:AA:177:G:H5'	1.97	0.65
1:BA:2629:A:O2'	1:BA:2630:G:H5'	1.97	0.65
28:A6:43:CYS:HB3	28:A6:44:ARG:NH1	2.11	0.65
12:AP:66:ILE:O	12:AP:67:ARG:CB	2.44	0.65
1:AA:2212:A:N3	1:AA:2215:G:C2	2.64	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:16:ARG:NH2	15:AR:83:ILE:O	2.30	0.65
53:CD:57:C:H2'	53:CD:58:A:O4'	1.97	0.65
1:AA:1188:U:O2'	1:AA:1189:A:H5'	1.97	0.65
32:DE:92:TYR:CD2	32:DE:151:GLY:HA3	2.32	0.65
16:A1:92:ARG:NH1	16:A1:94:ASN:HD22	1.95	0.65
47:CT:43:LEU:HD12	47:CT:68:ARG:HG2	1.79	0.65
31:CA:606:G:H5''	31:CA:607:A:C5'	2.27	0.65
17:A2:29:PRO:HA	17:A2:61:VAL:CG2	2.27	0.65
1:BA:2135:A:OP2	1:BA:2135:A:H8	1.79	0.65
31:CA:955:U:H1'	31:CA:1227:A:N6	2.12	0.65
35:DH:37:ARG:HG2	35:DH:112:LEU:HA	1.77	0.65
8:BK:110:ASP:OD1	8:BK:130:TYR:OH	2.09	0.65
1:BA:1292:U:H2'	1:BA:1293:C:C6	2.32	0.65
8:BK:27:ARG:HG2	23:BZ:71:TYR:CE1	2.32	0.65
1:BA:2473:U:O2	1:BA:2473:U:H2'	1.97	0.65
1:AA:807:U:H2'	1:AA:808:G:O5'	1.95	0.65
12:AP:51:ARG:O	12:AP:55:VAL:HG13	1.97	0.65
50:CW:43:LEU:HA	50:CW:46:GLU:HG2	1.78	0.65
21:BV:53:ILE:HG22	21:BV:71:VAL:O	1.96	0.65
1:AA:1102:C:H2'	1:AA:1103:A:H8	1.62	0.64
3:AD:33:LEU:HD13	3:AD:34:VAL:H	1.62	0.64
21:BV:76:LEU:HD23	21:BV:76:LEU:H	1.61	0.64
40:DM:54:PHE:CE1	40:DM:55:LYS:HE3	2.32	0.64
30:B8:34:TRP:O	30:B8:36:LYS:N	2.30	0.64
1:AA:2469:A:N7	1:AA:2470:G:H1'	2.12	0.64
31:CA:27:G:C4'	34:CG:209:ARG:HG3	2.22	0.64
1:AA:2287:A:N6	1:AA:2344:U:N3	2.43	0.64
1:AA:2168:G:N2	1:AA:2170:A:OP2	2.30	0.64
1:BA:2069:G:C2'	1:BA:2070:G:H5'	2.27	0.64
1:BA:91:A:H2'	1:BA:92:G:O4'	1.98	0.64
31:DA:1298:C:P	37:DJ:114:ARG:HH22	2.20	0.64
1:AA:1291:C:H5'	1:AA:1536:A:H5'	1.79	0.64
26:B4:34:GLU:HB2	43:DP:57:ARG:NH2	2.12	0.64
4:BE:12:THR:HG22	15:BR:58:ASN:ND2	2.11	0.64
42:DO:32:PHE:HB3	42:DO:84:LEU:CD2	2.27	0.64
1:AA:945:A:O2'	1:AA:946:G:H4'	1.97	0.64
7:AH:92:ILE:CD1	7:AH:92:ILE:H	2.10	0.64
1:AA:2328:A:H2'	1:AA:2329:G:C8	2.32	0.64
31:DA:922:G:H4'	35:DH:20:GLN:HA	1.79	0.64
24:AW:18:PRO:HA	24:AW:21:LEU:HB2	1.77	0.64
1:BA:2116:G:OP1	1:BA:2165:G:N2	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1952:A:C2	10:AN:22:ILE:HG13	2.32	0.64
16:A1:79:PHE:C	16:A1:79:PHE:HD2	1.99	0.64
1:AA:2629:A:O2'	1:AA:2630:G:H5''	1.97	0.64
31:DA:937:A:H1'	31:DA:1379:G:N2	2.12	0.64
7:AH:97:ARG:NH2	7:AH:104:GLU:OE2	2.29	0.64
31:CA:396:G:O2'	31:CA:398:C:OP1	2.09	0.64
3:AD:273:ARG:O	3:AD:273:ARG:CG	2.44	0.64
1:AA:1069:A:O2'	1:AA:1072:C:OP1	2.15	0.64
3:AD:30:GLU:HG3	3:AD:63:ARG:CZ	2.27	0.64
31:DA:1133:G:N2	31:DA:1141:C:N3	2.46	0.64
31:DA:974:A:OP2	44:DQ:41:ARG:NH1	2.29	0.64
12:BP:68:ILE:CG2	12:BP:103:MET:HB3	2.27	0.64
5:BF:108:LYS:O	5:BF:112:MET:HG3	1.97	0.64
5:BF:24:LEU:HB3	5:BF:25:PRO:HD2	1.79	0.64
31:CA:792:A:N3	31:CA:794:A:C5	2.65	0.64
43:DP:40:ASN:OD1	43:DP:41:PRO:HD2	1.97	0.64
1:AA:1050:A:H2'	1:AA:1051:G:O4'	1.97	0.64
16:B1:98:LEU:O	16:B1:99:ALA:HB3	1.97	0.64
7:BH:102:ALA:O	7:BH:103:LEU:HB3	1.97	0.64
10:BN:68:GLU:HA	10:BN:78:ARG:HB3	1.80	0.64
1:BA:289:A:H5'	1:BA:290:G:OP2	1.97	0.64
31:DA:1399:C:C2	31:DA:1502:A:N6	2.65	0.64
21:AV:141:VAL:HG12	21:AV:142:SER:H	1.62	0.64
15:AR:107:ASP:HB2	31:CA:1432:G:OP1	1.96	0.64
20:BU:39:VAL:HG23	20:BU:40:GLU:N	2.11	0.64
14:AQ:36:TYR:CD1	14:AQ:36:TYR:N	2.61	0.64
1:AA:581:C:H2'	1:AA:582:G:H8	1.63	0.64
49:DV:42:PRO:HA	49:DV:45:VAL:HG13	1.78	0.64
1:BA:900:A:N3	1:BA:900:A:H2'	2.11	0.64
53:CD:21:U:H2'	53:CD:22:A:H5''	1.79	0.64
1:AA:1165:U:H2'	1:AA:1166:C:H6	1.62	0.64
3:AD:264:LYS:O	3:AD:267:SER:HB2	1.96	0.64
1:BA:2845:G:O2'	1:BA:2846:G:H5'	1.96	0.64
31:CA:1194:U:H2'	31:CA:1195:C:C6	2.32	0.64
52:DB:26:C:H5'	52:DB:27:G:OP2	1.98	0.64
37:CJ:54:THR:OG1	37:CJ:56:GLN:HG2	1.97	0.64
21:AV:52:SER:OG	21:AV:52:SER:O	2.14	0.64
35:CH:64:ARG:HH11	35:CH:64:ARG:HG3	1.62	0.64
1:BA:990:A:H8	1:BA:990:A:H5'	1.62	0.64
1:AA:902:C:O2'	1:AA:903:C:H5'	1.97	0.64
4:BE:51:PHE:C	4:BE:74:PRO:CB	2.65	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BD:65:ILE:HD11	3:BD:67:PHE:CZ	2.33	0.64
31:DA:1320:C:H2'	31:DA:1321:C:C6	2.32	0.64
1:BA:2275:C:H5'	1:BA:2275:C:H6	1.63	0.64
39:CL:93:ARG:HB2	39:CL:93:ARG:HH11	1.63	0.64
1:AA:1049:C:H2'	1:AA:1050:A:C5'	2.26	0.64
28:A6:24:GLU:HG3	28:A6:25:LYS:H	1.63	0.64
31:CA:843:U:H5'	31:CA:848:C:C5	2.33	0.64
1:BA:2311:A:C2	6:BG:82:LEU:HG	2.32	0.64
4:BE:23:VAL:HA	4:BE:184:VAL:O	1.97	0.64
1:AA:1517:G:H2'	1:AA:1518:C:C6	2.32	0.64
26:B4:61:ARG:CG	26:B4:62:ARG:HH21	2.11	0.64
22:A3:25:ARG:HA	22:A3:29:GLN:NE2	2.11	0.64
45:DR:24:SER:HB3	45:DR:27:VAL:CG2	2.27	0.64
14:AQ:35:ILE:C	14:AQ:36:TYR:HD1	2.00	0.64
1:BA:2329:G:N2	22:B3:41:ARG:HB3	2.13	0.64
17:A2:89:GLN:HE21	17:A2:89:GLN:HA	1.61	0.64
31:CA:1062:U:H2'	31:CA:1063:C:C6	2.32	0.64
23:BZ:4:VAL:HG12	23:BZ:11:ARG:HB3	1.79	0.64
31:DA:892:A:C2	31:DA:907:A:C4	2.86	0.64
31:DA:1435:G:H2'	31:DA:1436:U:C6	2.32	0.64
31:DA:160:A:H1'	31:DA:344:A:C5	2.33	0.64
32:CE:97:TRP:CH2	32:CE:176:GLU:HG3	2.31	0.64
1:BA:1569:A:O2'	3:BD:38:LYS:HG3	1.97	0.64
31:CA:719:C:O2'	48:CU:49:LYS:HB3	1.97	0.64
27:A5:3:LYS:O	27:A5:4:HIS:O	2.13	0.64
39:DL:24:GLY:HA2	39:DL:59:PHE:O	1.97	0.64
23:AZ:91:LYS:O	23:AZ:93:GLU:N	2.31	0.64
32:CE:217:ARG:CZ	32:CE:217:ARG:HB2	2.28	0.64
31:CA:1004:A:H2	31:CA:1024:G:C8	2.15	0.64
1:BA:483:A:C4'	20:BU:49:VAL:HA	2.26	0.64
1:BA:1826:G:C4'	3:BD:242:ARG:HH21	2.08	0.64
47:CT:66:SER:OG	47:CT:69:LYS:HB2	1.98	0.64
31:CA:277:C:P	47:CT:68:ARG:HH12	2.19	0.64
31:DA:266:G:H1	31:DA:270:A:H62	1.44	0.64
31:DA:1095:U:H2'	31:DA:1096:C:O4'	1.97	0.64
1:AA:1607:C:H4'	1:AA:1608:A:O5'	1.97	0.64
14:AQ:86:ALA:O	14:AQ:87:PHE:HB3	1.98	0.64
31:CA:989:C:N4	31:CA:1216:G:H1	1.95	0.64
38:CK:51:VAL:HG11	38:CK:60:ARG:HG3	1.80	0.64
49:DV:48:THR:HA	49:DV:61:TYR:HA	1.79	0.64
42:DO:57:LYS:HG3	42:DO:67:THR:HG22	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:305:U:H2'	1:BA:306:U:C6	2.32	0.64
5:AF:152:GLU:HG3	5:AF:191:ARG:HD2	1.78	0.64
14:AQ:111:GLU:OE1	14:AQ:111:GLU:HA	1.96	0.64
47:DT:59:ILE:HG22	47:DT:71:PHE:HD1	1.62	0.64
27:A5:2:ALA:O	27:A5:3:LYS:HD2	1.97	0.64
3:AD:34:VAL:O	3:AD:34:VAL:HG13	1.97	0.64
4:AE:61:ARG:N	4:AE:62:PRO:HD2	2.10	0.64
1:BA:892:G:N7	1:BA:893:C:N4	2.45	0.64
4:AE:78:LEU:HG	4:AE:79:ARG:H	1.59	0.64
6:AG:78:SER:O	6:AG:81:LYS:N	2.30	0.64
53:CC:20:G:HO2'	53:CC:21:U:H5	1.42	0.64
31:DA:976:G:OP1	44:DQ:32:SER:N	2.23	0.64
28:B6:28:ARG:HB3	28:B6:30:THR:O	1.97	0.64
1:BA:1058:U:H3	1:BA:1080:A:N6	1.96	0.64
1:BA:1070:A:H8	1:BA:1096:A:HO2'	1.44	0.64
34:DG:25:ARG:HG3	34:DG:26:CYS:N	2.11	0.64
43:DP:37:THR:HG21	43:DP:56:LEU:HD23	1.79	0.64
20:AU:76:CYS:CB	20:AU:96:ILE:HD13	2.28	0.64
1:AA:2164:C:H2'	1:AA:2165:G:H8	1.63	0.64
42:DO:41:ARG:HD2	42:DO:42:THR:H	1.62	0.64
49:DV:23:ASN:HA	49:DV:27:GLU:CG	2.27	0.64
34:CG:5:ILE:HG22	34:CG:6:GLY:N	2.10	0.64
12:BP:3:MET:CB	12:BP:93:TYR:CD1	2.80	0.64
31:CA:129(A):G:C2	31:CA:191(A):G:C8	2.86	0.64
49:DV:41:VAL:HG12	49:DV:42:PRO:HD2	1.80	0.64
52:CB:27:G:H5'	52:CB:28:C:OP2	1.98	0.64
39:DL:78:LYS:NZ	39:DL:78:LYS:HB2	2.12	0.64
7:BH:41:MET:CE	7:BH:64:LEU:HB2	2.27	0.64
1:BA:1839:G:C8	1:BA:1927:A:H1'	2.33	0.64
1:AA:2055:C:OP1	27:A5:8:LYS:NZ	2.28	0.64
1:BA:2537:U:H2'	1:BA:2538:C:C6	2.32	0.64
31:CA:243:A:H4'	31:CA:244:U:H5''	1.78	0.64
31:DA:126:G:H4'	31:DA:634:C:H1'	1.78	0.64
31:DA:67:C:H2'	31:DA:68:G:C8	2.31	0.64
39:CL:70:LYS:O	39:CL:74:ILE:HG13	1.97	0.64
1:AA:1427:A:H4'	1:AA:1428:C:O5'	1.98	0.64
1:BA:2016:U:C1'	27:B5:6:VAL:CG1	2.75	0.64
31:CA:412:A:H1'	31:CA:413:G:OP2	1.98	0.64
34:CG:33:MET:HE2	34:CG:37:PRO:HA	1.80	0.64
1:BA:848:G:H2'	1:BA:849:A:C8	2.33	0.64
1:BA:885:C:N3	1:BA:890:A:C6	2.65	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BD:35:LYS:HZ3	3:BD:104:TYR:H	1.44	0.64
4:AE:80:GLU:O	4:AE:82:ARG:N	2.30	0.64
1:BA:2470:G:OP1	12:BP:56:ARG:NH2	2.29	0.64
31:DA:1023:G:H3'	31:DA:1024:G:H5''	1.79	0.64
31:CA:1139:G:C2	31:CA:1143:G:O6	2.50	0.64
1:AA:1858:G:H2'	1:AA:1883:G:H22	1.61	0.64
14:BQ:61:ASN:O	14:BQ:65:VAL:HB	1.98	0.64
21:AV:7:ALA:HB3	21:AV:61:LEU:HB3	1.79	0.64
1:BA:986:C:C2'	1:BA:987:G:H5'	2.27	0.64
32:DE:237:ALA:O	32:DE:238:LEU:HB3	1.97	0.64
1:AA:2137:C:N3	1:AA:2154:G:N2	2.35	0.64
1:AA:1494:A:O2'	1:AA:1495:A:H5'	1.97	0.64
35:DH:57:LYS:HG2	35:DH:61:TYR:CE2	2.26	0.64
16:A1:98:LEU:HD23	16:A1:98:LEU:C	2.17	0.64
31:DA:1316:G:H2'	31:DA:1317:C:H5''	1.79	0.64
31:CA:1256:A:H4'	31:CA:1258:G:C4	2.33	0.64
31:CA:737:A:H2'	31:CA:738:C:H6	1.61	0.64
12:AP:26:TYR:O	12:AP:27:VAL:C	2.34	0.64
31:DA:1014:A:H4'	49:DV:14:HIS:ND1	2.13	0.64
1:BA:2105:C:H2'	1:BA:2106:G:C8	2.33	0.64
52:CB:26:C:H5'	52:CB:27:G:OP2	1.98	0.64
7:BH:41:MET:HE2	7:BH:64:LEU:HB2	1.79	0.64
43:CP:39:ILE:HD13	43:CP:52:GLU:HB3	1.79	0.64
1:BA:1274:A:N3	1:BA:1297:C:H1'	2.13	0.64
1:BA:2315:G:OP1	6:BG:36:LYS:NZ	2.29	0.64
32:CE:236:TYR:HA	32:CE:239:VAL:HG21	1.80	0.64
34:CG:84:LYS:N	34:CG:84:LYS:HD2	2.12	0.64
1:BA:1992:G:C8	1:BA:1992:G:O5'	2.51	0.64
1:AA:247:G:H4'	1:AA:386:G:C5	2.33	0.64
4:AE:35:GLN:HE21	4:AE:37:ARG:CD	2.10	0.64
31:DA:1275:A:H2'	31:DA:1276:G:O4'	1.97	0.64
6:AG:78:SER:O	6:AG:79:ASN:C	2.36	0.64
6:AG:82:LEU:C	6:AG:86:MET:CE	2.66	0.64
31:DA:1312:G:H1	31:DA:1325:C:H42	1.44	0.64
31:DA:963:G:HO2'	40:DM:54:PHE:HZ	1.40	0.64
3:AD:44:ASN:HD22	3:AD:44:ASN:N	1.94	0.64
1:BA:2872:G:O2'	1:BA:2873:A:H5'	1.98	0.64
1:BA:2754:U:H5'	1:BA:2755:C:OP2	1.97	0.64
1:AA:1482:U:O4	1:AA:1510:A:C8	2.51	0.64
1:AA:1469:A:H2'	1:AA:1470:G:H8	1.62	0.64
3:AD:125:ILE:HG22	3:AD:125:ILE:O	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1734:C:C2'	1:AA:1735:C:H5''	2.28	0.64
44:DQ:36:PHE:HD1	44:DQ:37:PHE:CD2	2.16	0.64
53:CD:9:G:O3'	53:CD:46:G:O2'	2.16	0.64
1:AA:1590:U:H2'	1:AA:1591:G:H8	1.61	0.64
11:BO:11:GLY:O	11:BO:13:ASN:N	2.30	0.64
1:AA:2584:U:H2'	1:AA:2585:U:H2'	1.78	0.64
43:DP:108:ARG:HD3	43:DP:114:ARG:HG2	1.80	0.64
9:AM:67:LEU:O	9:AM:88:GLU:HG3	1.98	0.64
31:CA:856:C:H2'	31:CA:857:C:H5'	1.78	0.64
1:BA:883:G:H2'	1:BA:884:C:C6	2.32	0.64
34:CG:190:ASP:O	34:CG:193:ASP:HB2	1.97	0.64
46:DS:49:LEU:HD12	46:DS:50:LYS:H	1.62	0.64
1:AA:2015:A:O4'	27:A5:2:ALA:HB2	1.98	0.64
1:AA:1080:A:H2'	1:AA:1081:U:C6	2.32	0.64
31:DA:1159:U:O2'	31:DA:1160:G:N7	2.31	0.64
31:DA:1326:C:OP1	51:DX:17:THR:OG1	2.09	0.64
28:B6:48:VAL:CG1	28:B6:49:HIS:N	2.29	0.64
31:DA:1004:A:C1'	31:DA:1036:G:N1	2.53	0.64
1:AA:2298:A:H2'	1:AA:2299:G:O4'	1.98	0.64
31:CA:465:A:N6	31:CA:467:G:C2	2.66	0.64
1:AA:2162:G:H2'	1:AA:2163:C:H6	1.62	0.64
1:BA:2747:G:H2'	1:BA:2748:A:H8	1.63	0.64
26:B4:59:PHE:HE1	49:DV:68:GLY:HA3	1.62	0.64
31:DA:425:G:O3'	34:DG:45:GLN:NE2	2.31	0.64
52:DB:31:C:H2'	52:DB:32:C:H6	1.63	0.64
49:DV:8:GLY:O	49:DV:9:VAL:HB	1.97	0.64
31:CA:78:G:H1	31:CA:91:C:H42	1.45	0.64
52:DB:7:G:H3'	52:DB:8:U:H5'	1.78	0.64
26:A4:14:ILE:HA	26:A4:31:ILE:O	1.98	0.64
27:A5:16:ARG:HG3	27:A5:17:ASP:N	2.12	0.64
53:DC:1:C:C2'	53:DC:2:G:OP2	2.45	0.64
1:BA:172:C:H2'	1:BA:173:G:H8	1.63	0.64
1:BA:21:A:O2'	1:BA:22:C:H5'	1.97	0.64
51:CX:12:LYS:HB3	51:CX:22:ARG:HD2	1.79	0.64
31:DA:587:G:N2	31:DA:754:C:OP2	2.30	0.64
43:DP:33:ALA:HA	43:DP:59:TYR:HE2	1.63	0.64
1:AA:775:G:C4	1:AA:794:G:C8	2.85	0.64
31:DA:843:U:H3'	31:DA:848:C:O4'	1.97	0.64
1:AA:999:U:H5''	1:AA:1154:G:O6	1.98	0.64
1:AA:1276:A:O2'	13:A0:16:HIS:HE1	1.80	0.64
17:B2:78:LYS:O	17:B2:79:VAL:CB	2.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CC:20:G:O2'	53:CC:21:U:H5	1.81	0.64
11:BO:105:LEU:N	11:BO:105:LEU:HD12	2.13	0.64
45:CR:87:ILE:CG2	45:CR:88:ARG:N	2.59	0.64
12:BP:32:TYR:HH	12:BP:111:GLU:HB2	1.62	0.64
16:B1:98:LEU:C	16:B1:100:VAL:H	1.98	0.64
3:AD:72:LYS:HD3	3:AD:97:TYR:CE2	2.32	0.64
4:AE:18:ASP:O	4:AE:19:ARG:C	2.35	0.64
1:AA:1331:A:O2'	1:AA:1332:G:H8	1.81	0.64
31:CA:404:U:H2'	31:CA:405:U:C6	2.33	0.64
7:BH:169:VAL:HG22	7:BH:170:ARG:H	1.61	0.64
32:DE:195:ASP:O	38:DK:68:ARG:NH2	2.31	0.64
1:AA:1665:A:C2'	1:AA:1666:G:H5'	2.27	0.64
18:BS:35:ILE:HG23	27:B5:28:PRO:HD2	1.80	0.64
19:AT:3:THR:O	19:AT:6:ASP:HB2	1.97	0.64
1:BA:55:G:H2'	1:BA:56:A:H8	1.61	0.64
9:BM:104:LYS:HA	9:BM:107:LEU:HD12	1.80	0.64
1:BA:2052:G:O4'	4:BE:142:GLY:HA3	1.98	0.64
36:DI:61:LEU:HD23	36:DI:63:TYR:OH	1.98	0.64
31:DA:596:C:H2'	31:DA:596:C:O2	1.97	0.64
34:CG:173:TRP:CD1	34:CG:174:LEU:HG	2.32	0.64
4:BE:1:MET:N	4:BE:83:ASP:O	2.31	0.64
1:BA:228:A:H3'	1:BA:228:A:C8	2.33	0.64
11:AO:63:PRO:HA	30:A8:13:ARG:HB3	1.79	0.64
43:DP:23:TYR:HB3	43:DP:67:GLU:HA	1.78	0.64
32:CE:67:THR:HG21	32:CE:155:LEU:CG	2.23	0.64
31:DA:1238:A:N7	31:DA:1303:C:H1'	2.13	0.64
9:AM:137:LYS:HG3	9:AM:138:LEU:N	2.12	0.64
31:DA:339:C:C2'	31:DA:340:U:H5'	2.28	0.64
1:BA:310:A:OP1	20:BU:18:GLY:HA2	1.97	0.64
31:CA:955:U:H1'	31:CA:1227:A:H61	1.63	0.64
31:DA:580:U:H2'	31:DA:581:G:O4'	1.98	0.64
10:AN:13:ASN:ND2	10:AN:97:ARG:HB3	2.13	0.64
1:BA:534:U:O2'	16:B1:49:HIS:HD2	1.81	0.64
2:AB:50:G:OP1	14:AQ:63:THR:HG23	1.97	0.64
1:AA:950:G:H2'	1:AA:951:C:C6	2.33	0.64
33:DF:127:ARG:HG2	33:DF:127:ARG:HH11	1.63	0.64
19:AT:41:ASN:HD22	19:AT:41:ASN:N	1.95	0.64
1:BA:2014:A:O2'	27:B5:2:ALA:N	2.26	0.63
30:B8:22:VAL:CA	30:B8:50:LEU:CD2	2.71	0.63
1:AA:246:C:C2'	1:AA:247:G:H5'	2.28	0.63
3:AD:64:ILE:O	3:AD:64:ILE:HG12	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1903:G:OP1	3:AD:241:PRO:HB2	1.98	0.63
53:DC:59:A:H4'	53:DC:60:A:OP1	1.96	0.63
53:DC:62:C:H2'	53:DC:63:C:C6	2.30	0.63
28:B6:25:LYS:HE3	30:B8:34:TRP:CZ2	2.32	0.63
28:B6:11:LEU:HD23	28:B6:26:ASN:CB	2.27	0.63
12:AP:66:ILE:HD12	12:AP:67:ARG:CA	2.27	0.63
14:AQ:106:ARG:N	14:AQ:110:LEU:HD21	2.13	0.63
1:AA:2286:A:H8	28:A6:37:ARG:HH11	1.47	0.63
1:AA:1019:U:HO2'	1:AA:1021:A:H2	1.43	0.63
1:BA:2312:U:OP1	6:BG:74:LYS:N	2.29	0.63
38:CK:86:ILE:HG22	38:CK:87:SER:H	1.63	0.63
17:A2:38:LEU:HD12	17:A2:57:VAL:HG12	1.78	0.63
1:AA:1005:C:O2'	9:AM:28:THR:HG21	1.98	0.63
9:AM:112:LEU:O	9:AM:116:LEU:HG	1.99	0.63
31:DA:1065:U:C5	31:DA:1190:G:H1'	2.33	0.63
1:BA:2531:A:H4'	7:BH:157:TYR:HD2	1.63	0.63
1:BA:2162:G:H2'	1:BA:2163:C:C6	2.31	0.63
2:BB:15:A:H5'	2:BB:16:G:H8	1.60	0.63
14:AQ:37:ALA:HB2	14:AQ:101:LEU:HD21	1.79	0.63
11:AO:55:ARG:HG3	11:AO:55:ARG:O	1.97	0.63
34:DG:178:VAL:HG12	34:DG:179:GLU:N	2.13	0.63
31:CA:1106:G:C4	31:CA:1107:C:C5	2.86	0.63
21:BV:1:MET:HG2	21:BV:2:GLU:H	1.63	0.63
31:DA:946:A:H2'	31:DA:947:G:C8	2.33	0.63
1:AA:852:G:H2'	1:AA:853:G:H8	1.61	0.63
11:AO:24:GLY:C	11:AO:26:GLY:H	1.99	0.63
31:CA:430:A:OP1	34:CG:9:CYS:HB2	1.98	0.63
31:DA:1148:U:OP1	39:DL:7:THR:HG21	1.98	0.63
1:AA:1899:G:O2'	1:AA:1900:A:P	2.56	0.63
6:AG:83:ARG:N	6:AG:86:MET:CE	2.60	0.63
1:AA:873:G:H1'	12:AP:29:PHE:HE2	1.63	0.63
12:AP:65:PHE:O	12:AP:66:ILE:CB	2.46	0.63
5:BF:82:ILE:O	5:BF:82:ILE:CD1	2.37	0.63
9:AM:130:HIS:HB3	9:AM:134:ARG:HH11	1.64	0.63
1:AA:2700:C:O2'	1:AA:2701:C:H5'	1.97	0.63
1:BA:1653:G:H1	13:B0:11:ASN:ND2	1.96	0.63
1:AA:2169:A:C6	1:AA:2170:A:N1	2.66	0.63
1:AA:1778:U:H2'	1:AA:1784:A:H62	1.64	0.63
1:BA:6:A:H4'	9:BM:129:PRO:CB	2.27	0.63
9:BM:128:HIS:HB2	9:BM:129:PRO:HD2	1.79	0.63
1:AA:1480:G:C6	1:AA:1482:U:N3	2.65	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BR:90:GLN:HE21	15:BR:91:ARG:N	1.95	0.63
26:B4:56:VAL:HG22	26:B4:57:GLU:H	1.64	0.63
1:AA:2688:U:C5	1:AA:2720:U:OP2	2.49	0.63
7:AH:131:VAL:HG12	7:AH:132:ARG:N	2.13	0.63
1:BA:2129:C:C4	1:BA:2130:U:N3	2.66	0.63
1:BA:1967:C:C2'	1:BA:1968:G:H5'	2.28	0.63
53:CD:38:A:H2'	53:CD:39:A:O4'	1.97	0.63
31:DA:618:C:H5'	31:DA:619:U:H5''	1.80	0.63
23:BZ:11:ARG:HB2	23:BZ:12:PRO:HD2	1.80	0.63
1:AA:270(M):U:H1'	1:AA:270(N):G:C5	2.32	0.63
1:AA:1094:U:O2'	1:AA:1096:A:OP1	2.15	0.63
48:DU:66:LEU:HD11	48:DU:70:ILE:HD11	1.80	0.63
3:BD:108:PRO:HB3	3:BD:143:HIS:HE1	1.63	0.63
10:BN:87:ILE:HG23	10:BN:88:ASN:O	1.98	0.63
1:BA:2610:C:H4'	1:BA:2611:U:OP2	1.97	0.63
22:B3:51:VAL:N	22:B3:62:LEU:HD12	2.14	0.63
14:AQ:51:ALA:HB3	14:AQ:73:LEU:HG	1.80	0.63
4:BE:47:VAL:O	4:BE:80:GLU:CA	2.46	0.63
31:DA:1124:G:O2'	31:DA:1145:C:C4	2.50	0.63
31:DA:1127:G:H22	31:DA:1145:C:H1'	1.63	0.63
31:DA:1160:G:N3	31:DA:1160:G:H2'	2.14	0.63
39:DL:28:VAL:CG2	39:DL:63:ILE:HB	2.26	0.63
53:DC:18:C:O2'	53:DC:19:G:OP1	2.15	0.63
40:CM:55:LYS:O	40:CM:56:HIS:CG	2.51	0.63
31:CA:975:A:H62	40:CM:60:ARG:HH12	1.46	0.63
31:DA:1007:C:C2	31:DA:1023:G:N2	2.66	0.63
4:BE:56:PRO:CB	4:BE:57:LYS:HD3	2.27	0.63
31:CA:1002:G:C4	31:CA:1003:G:C8	2.85	0.63
1:AA:887:A:H5'	1:AA:888:C:OP1	1.98	0.63
1:AA:883:G:C6	1:AA:884:C:O2	2.52	0.63
1:BA:945:A:C5	1:BA:2448:A:N1	2.65	0.63
5:AF:32:LEU:HD21	5:AF:108:LYS:HB3	1.79	0.63
50:CW:26:ASN:HB2	50:CW:71:THR:HG23	1.80	0.63
51:CX:25:LYS:O	51:CX:26:LYS:HB3	1.97	0.63
32:DE:231:GLU:HB3	32:DE:232:PRO:HD3	1.78	0.63
31:DA:1191:A:OP1	33:DF:3:ASN:ND2	2.30	0.63
1:AA:1014:U:C2'	1:AA:1015:G:H5''	2.28	0.63
31:CA:475:G:H2'	31:CA:476:G:H8	1.63	0.63
31:DA:616:G:C2	31:DA:617:G:C8	2.86	0.63
1:AA:2875:C:C4'	15:AR:5:ALA:HB2	2.29	0.63
40:CM:32:ALA:N	40:CM:78:ASN:OD1	2.22	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CP:49:THR:HG22	43:CP:51:ALA:H	1.63	0.63
35:CH:148:VAL:HG21	38:CK:107:LEU:HD22	1.80	0.63
31:CA:724:G:O2'	31:CA:725:G:H5'	1.98	0.63
33:CF:130:VAL:O	33:CF:134:ILE:HG12	1.98	0.63
1:BA:2511:U:O4	1:BA:2575:C:N3	2.31	0.63
10:AN:64:ARG:O	10:AN:82:ASN:HA	1.98	0.63
32:DE:128:GLU:OE2	32:DE:128:GLU:HA	1.98	0.63
8:BK:117:GLU:H	8:BK:117:GLU:CD	2.00	0.63
1:BA:617:G:OP1	5:BF:40:GLN:HG2	1.96	0.63
1:AA:516:C:OP1	27:A5:13:LYS:NZ	2.31	0.63
17:B2:85:LYS:HG3	17:B2:86:GLY:N	2.13	0.63
1:BA:1314:C:C2	1:BA:1339:G:N2	2.67	0.63
34:DG:13:ARG:C	34:DG:15:GLU:N	2.46	0.63
31:CA:1002:G:H2'	31:CA:1003:G:H8	1.63	0.63
11:BO:79:ARG:HD2	11:BO:110:TYR:HE1	1.64	0.63
16:A1:92:ARG:CZ	17:A2:11:GLN:H	2.12	0.63
15:BR:118:ARG:NH1	31:DA:1446:A:N6	2.46	0.63
1:AA:1786:A:C2	1:AA:2606:C:H1'	2.32	0.63
31:CA:313:A:H2'	31:CA:314:C:H6	1.63	0.63
1:AA:908:C:O2'	1:AA:909:A:H5'	1.98	0.63
1:BA:2745:C:H4'	7:BH:142:GLY:O	1.97	0.63
7:BH:9:ILE:HD12	7:BH:49:VAL:HG21	1.79	0.63
1:AA:879:G:H1	1:AA:898:C:N4	1.96	0.63
43:DP:15:VAL:HG12	43:DP:45:VAL:HG22	1.81	0.63
1:BA:96:G:H4'	24:BW:48:HIS:CD2	2.33	0.63
33:DF:73:PRO:O	33:DF:76:VAL:HG22	1.98	0.63
18:AS:78:GLU:OE1	18:AS:99:ARG:HG2	1.98	0.63
52:CB:74:C:H5'	52:CB:75:G:OP2	1.99	0.63
38:CK:88:LYS:HB3	38:CK:89:PRO:HD2	1.80	0.63
1:AA:1056:G:N2	1:AA:1103:A:C6	2.66	0.63
12:AP:79:LEU:O	12:AP:81:VAL:N	2.32	0.63
1:AA:2371:G:C4'	28:A6:45:LYS:HG2	2.25	0.63
28:B6:44:ARG:O	28:B6:45:LYS:HD2	1.98	0.63
31:CA:1366:C:H2'	31:CA:1367:C:H6	1.63	0.63
12:BP:84:GLY:O	12:BP:85:LYS:HB2	1.98	0.63
1:BA:1607:C:H4'	1:BA:1608:A:O5'	1.97	0.63
31:DA:376:G:C5'	46:DS:5:ARG:HD3	2.22	0.63
31:DA:1292:U:H2'	31:DA:1293:G:H8	1.60	0.63
31:DA:1301:U:O2	31:DA:1301:U:H2'	1.98	0.63
31:DA:632:A:OP2	31:DA:632:A:H8	1.81	0.63
35:DH:77:PRO:HG2	35:DH:142:LEU:HD22	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BV:128:VAL:HG23	21:BV:160:GLY:HA3	1.79	0.63
21:BV:131:ARG:HD2	21:BV:131:ARG:H	1.64	0.63
9:AM:57:ALA:O	9:AM:58:ASP:CG	2.37	0.63
1:BA:2219:G:C2'	1:BA:2224:G:H5'	2.28	0.63
52:DB:44:G:C2'	52:DB:45:U:H5'	2.29	0.63
11:BO:85:LEU:HA	11:BO:88:LEU:HB3	1.80	0.63
1:AA:845:G:H8	1:AA:845:G:OP2	1.82	0.63
31:CA:960:U:O2	31:CA:960:U:H2'	1.98	0.63
31:CA:723:U:O2	31:CA:723:U:H2'	1.98	0.63
3:BD:35:LYS:CE	3:BD:104:TYR:HD1	2.11	0.63
31:DA:973:G:H1'	40:DM:55:LYS:HE2	1.81	0.63
53:DC:18:C:O2'	53:DC:19:G:H5''	1.99	0.63
49:CV:41:VAL:HG12	49:CV:45:VAL:N	2.14	0.63
53:DD:13:C:O2'	53:DD:14:A:OP2	2.16	0.63
1:BA:84:A:H61	1:BA:102:G:C2'	2.10	0.63
1:AA:1021:A:H61	1:AA:1142(A):A:H61	1.47	0.63
31:DA:1239:A:H4'	31:DA:1240:U:H5''	1.80	0.63
1:BA:1045:A:O2'	1:BA:1047:G:O4'	2.16	0.63
1:BA:2872:G:N9	1:BA:2873:A:C2	2.67	0.63
1:AA:1204:A:N1	1:AA:1241:A:H2	1.97	0.63
35:DH:90:VAL:O	35:DH:120:THR:HA	1.99	0.63
31:CA:255:G:H1'	47:CT:16:GLN:NE2	2.12	0.63
1:AA:1138:G:H21	9:AM:106:MET:CE	2.10	0.63
10:BN:68:GLU:HB3	10:BN:78:ARG:NH1	2.13	0.63
1:AA:822:U:O2'	1:AA:823:G:H5'	1.99	0.63
8:AK:120:ILE:HD11	8:AK:126:TYR:CZ	2.33	0.63
31:CA:89:U:O2'	31:CA:90:C:O4'	2.16	0.63
1:AA:2590:A:OP2	3:AD:237:GLU:HB3	1.99	0.63
26:A4:34:GLU:HG2	26:A4:35:VAL:H	1.64	0.63
1:BA:2261:C:C6	22:B3:16:SER:HB3	2.33	0.63
33:CF:67:THR:HG23	33:CF:102:ASN:HB2	1.81	0.63
7:BH:68:THR:O	7:BH:72:ILE:HG13	1.98	0.63
18:AS:70:TYR:H	18:AS:70:TYR:HD2	1.45	0.63
53:CC:68:C:C2'	53:CC:69:C:H5'	2.29	0.63
1:AA:2019:A:H2'	1:AA:2020:A:O5'	1.98	0.63
1:BA:2015:A:O4'	27:B5:2:ALA:CA	2.45	0.63
1:AA:1062:G:OP1	1:AA:1070:A:H4'	1.99	0.63
1:BA:1188:U:H4'	17:B2:79:VAL:HG21	1.81	0.63
1:AA:245:G:O3'	11:AO:70:GLN:O	2.16	0.63
4:AE:35:GLN:NE2	4:AE:37:ARG:HD2	2.13	0.63
12:BP:75:THR:CG2	12:BP:87:LYS:CE	2.60	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2572:A:OP1	1:BA:2574:G:O2'	2.17	0.63
31:CA:1132:C:O2'	31:CA:1133:G:H5'	1.99	0.63
1:BA:1005:C:H1'	1:BA:1143:A:N1	2.14	0.63
6:BG:109:VAL:HG13	26:B4:33:VAL:HG11	1.81	0.63
1:BA:529:A:H4'	1:BA:530:G:H5'	1.79	0.63
7:BH:152:ARG:CD	7:BH:153:LYS:H	2.12	0.63
37:DJ:23:VAL:HG13	37:DJ:43:PHE:HE2	1.62	0.63
17:B2:49:THR:HB	17:B2:50:PRO:HD3	1.79	0.63
33:CF:58:GLU:HB2	33:CF:65:ALA:CB	2.29	0.63
31:DA:1378:C:H5	31:DA:1379:G:C4	2.16	0.63
36:DI:35:ALA:HB2	36:DI:67:MET:HB3	1.80	0.63
31:DA:373:A:N3	31:DA:374:A:C8	2.66	0.63
1:AA:1299:G:H3'	1:AA:1639:U:O4	1.99	0.63
31:CA:958:A:C6	31:CA:959:A:C6	2.86	0.63
38:CK:95:VAL:HG12	38:CK:99:GLU:HB2	1.81	0.63
31:DA:342:C:H2'	31:DA:343:U:H5'	1.81	0.63
19:AT:53:LYS:HG2	19:AT:54:VAL:N	2.13	0.63
50:DW:69:GLY:O	50:DW:73:HIS:CD2	2.52	0.63
1:AA:2562:U:O2'	10:AN:23:ARG:NH1	2.30	0.63
12:AP:30:GLY:CA	12:AP:107:ALA:HB2	2.28	0.63
4:BE:79:ARG:HG3	4:BE:79:ARG:HH11	1.63	0.63
1:AA:2311:A:N3	6:AG:80:PHE:HE1	1.95	0.63
43:CP:67:GLU:HG2	43:CP:71:ARG:NH2	2.13	0.63
1:BA:2306:C:H3'	1:BA:2307:G:C5'	2.22	0.63
5:BF:4:VAL:CG1	5:BF:17:ARG:HE	2.12	0.63
53:DD:22:A:H2'	53:DD:47:G:C6	2.34	0.63
23:BZ:91:LYS:HZ3	23:BZ:91:LYS:HB2	1.62	0.63
9:BM:29:LYS:HE2	9:BM:29:LYS:HA	1.81	0.63
31:CA:558:G:C4	31:CA:559:A:C2	2.87	0.63
5:AF:64:ILE:O	5:AF:65:TRP:CD1	2.51	0.63
1:AA:2344:U:O2'	28:A6:37:ARG:HG2	1.98	0.63
12:AP:84:GLY:O	12:AP:85:LYS:HB2	1.98	0.63
1:AA:71:A:H2	19:AT:31:HIS:CE1	2.15	0.63
1:AA:1177:A:H4'	1:AA:1178:C:H5''	1.81	0.63
31:DA:1442:G:C2'	31:DA:1443:G:O5'	2.47	0.63
16:A1:108:GLU:OE1	16:A1:112:ARG:NH1	2.32	0.63
7:AH:9:ILE:N	7:AH:9:ILE:HD12	2.14	0.63
1:AA:900:A:H3'	1:AA:901:A:H8	1.62	0.63
1:BA:330:A:H2	1:BA:1210:A:O2'	1.82	0.63
31:CA:78:G:H1	31:CA:91:C:N4	1.97	0.63
1:BA:2475:C:H5'	1:BA:2476:A:OP2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BR:3:ARG:HG2	15:BR:6:LEU:H	1.64	0.63
4:BE:105:THR:HG21	4:BE:164:ARG:HE	1.62	0.63
13:B0:87:TYR:CE1	13:B0:117:VAL:HG12	2.34	0.63
8:AK:10:GLU:O	8:AK:11:ASN:HB2	1.98	0.63
25:AX:39:ASP:OD2	25:AX:44:ARG:NH2	2.32	0.63
1:BA:2251:G:C2	53:DC:77:A:N6	2.67	0.63
31:CA:1342:C:H4'	39:CL:125:TYR:HB3	1.81	0.63
39:CL:97:LYS:HB3	39:CL:98:PRO:HD3	1.80	0.63
1:AA:851:U:H5'	25:AX:46:ASN:ND2	2.14	0.63
46:CS:17:TYR:HE1	46:CS:41:PRO:HG3	1.63	0.63
11:AO:61:ARG:O	11:AO:62:LEU:CD2	2.45	0.63
4:AE:51:PHE:HD1	4:AE:52:LEU:HG	1.63	0.63
31:DA:1052:U:H5''	31:DA:1053:G:OP2	1.98	0.63
31:CA:1157:A:O2'	31:CA:1158:C:C2	2.49	0.63
28:A6:30:THR:HA	28:A6:32:ASN:N	2.14	0.63
1:AA:782:A:H5'	1:AA:783:A:C2	2.34	0.63
1:BA:1000:A:C6	1:BA:1001:A:N1	2.67	0.63
31:CA:192:U:C4'	50:CW:103:GLY:HA2	2.28	0.63
42:DO:26:ALA:O	42:DO:27:LEU:HD13	1.98	0.63
41:DN:29:ILE:HG22	41:DN:44:SER:CB	2.28	0.63
32:DE:231:GLU:HB3	32:DE:232:PRO:HD2	1.80	0.63
39:CL:52:ALA:C	39:CL:95:LYS:HZ1	2.01	0.63
42:DO:49:ASN:N	42:DO:49:ASN:ND2	2.46	0.63
37:DJ:79:ARG:HG2	37:DJ:84:ASN:ND2	2.12	0.63
1:BA:660:G:N2	11:BO:12:ALA:HA	2.13	0.63
49:DV:28:LYS:HZ2	49:DV:29:ARG:HG2	1.63	0.63
31:CA:1193:G:C2'	31:CA:1194:U:H5'	2.28	0.63
1:AA:270(L):U:H2'	1:AA:270(L):U:O2	1.99	0.63
1:AA:2035:G:H4'	1:AA:2036:C:OP2	1.97	0.63
15:BR:57:PHE:HD2	15:BR:79:HIS:HD1	1.46	0.63
43:DP:81:LEU:HD13	43:DP:88:ARG:HH11	1.63	0.63
16:A1:110:VAL:O	16:A1:113:ALA:HB3	1.99	0.63
1:AA:2351:G:HO2'	1:AA:2352:A:H8	1.47	0.63
10:AN:76:ALA:HB3	15:AR:75:ILE:HD13	1.81	0.63
39:DL:79:LEU:HD13	39:DL:83:ARG:HD2	1.80	0.62
4:AE:78:LEU:CG	4:AE:79:ARG:N	2.62	0.62
1:AA:2636:U:H4'	4:AE:80:GLU:OE1	1.97	0.62
31:DA:1200:C:O2	31:DA:1200:C:H2'	1.98	0.62
12:AP:63:LYS:HG2	12:AP:64:ILE:N	2.14	0.62
31:CA:1497:G:C2'	31:CA:1498:U:H5'	2.27	0.62
31:CA:923:A:OP1	35:CH:21:ALA:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:16:CYS:HB2	26:A4:36:CYS:N	2.02	0.62
4:BE:131:ALA:O	4:BE:132:HIS:HB3	2.00	0.62
1:BA:2068:U:N3	1:BA:2430:A:C2	2.46	0.62
1:AA:1729:A:C8	1:AA:1731:G:C8	2.87	0.62
7:AH:153:LYS:HB3	7:AH:154:PRO:HD2	1.80	0.62
20:BU:98:VAL:HG13	20:BU:99:CYS:H	1.64	0.62
4:AE:203:LYS:HD2	4:AE:203:LYS:O	1.99	0.62
1:AA:1019:U:H3	1:AA:1142(A):A:N6	1.90	0.62
6:BG:60:LEU:O	6:BG:64:THR:HG22	1.99	0.62
1:AA:1204:A:H2	1:AA:1241:A:N1	1.97	0.62
52:CB:85:C:H2'	52:CB:86:C:H5'	1.80	0.62
16:A1:90:VAL:HG12	16:A1:91:ASP:HA	1.80	0.62
31:CA:711:G:O2'	31:CA:712:A:H5'	1.99	0.62
8:BK:143:SER:O	8:BK:144:VAL:HB	1.99	0.62
2:BB:90:C:H5'	12:BP:18:LYS:HA	1.81	0.62
1:AA:676:A:N1	1:AA:802:A:N1	2.47	0.62
31:CA:1301:U:H2'	31:CA:1302:U:H5'	1.79	0.62
31:DA:250:A:H4'	31:DA:251:G:O5'	1.99	0.62
35:DH:55:VAL:O	35:DH:58:ALA:HB3	1.99	0.62
14:BQ:24:LEU:H	14:BQ:24:LEU:HD22	1.64	0.62
1:BA:912:C:C2	1:BA:913:U:C5	2.87	0.62
8:AK:5:LEU:HD23	8:AK:36:ALA:HB2	1.80	0.62
1:BA:148:C:C5'	1:BA:148:C:H6	2.11	0.62
34:DG:122:ARG:HH21	34:DG:134:ASP:HB3	1.62	0.62
32:DE:71:VAL:HG11	32:DE:97:TRP:CD1	2.34	0.62
10:AN:97:ARG:NH1	31:CA:339:C:OP2	2.32	0.62
3:BD:108:PRO:HG2	3:BD:111:LEU:HB2	1.81	0.62
46:CS:45:THR:HG22	46:CS:47:ASP:H	1.64	0.62
41:DN:105:VAL:O	41:DN:105:VAL:HG23	1.99	0.62
2:BB:89:G:H8	2:BB:89:G:OP2	1.82	0.62
1:BA:2167:U:P	1:BA:2167:U:H6	2.22	0.62
9:BM:71:ILE:HD12	9:BM:71:ILE:O	1.99	0.62
44:DQ:15:LYS:NZ	44:DQ:15:LYS:HB3	2.14	0.62
25:AX:31:LEU:O	25:AX:32:GLN:HB2	1.98	0.62
12:BP:87:LYS:O	12:BP:88:GLY:C	2.37	0.62
31:DA:1128:C:H1'	31:DA:1146:A:H61	1.64	0.62
39:DL:21:PRO:HA	39:DL:59:PHE:HA	1.79	0.62
4:AE:105:THR:HG21	4:AE:164:ARG:CZ	2.28	0.62
31:CA:1061:G:OP2	33:CF:2:GLY:O	2.18	0.62
31:DA:156:G:H1	31:DA:165:C:H42	1.47	0.62
7:AH:122:THR:HG22	7:AH:134:SER:HB2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:51:A:OP2	31:CA:52:G:H8	1.80	0.62
49:CV:40:ILE:HG22	49:CV:69:HIS:O	1.99	0.62
17:B2:37:VAL:HG21	17:B2:57:VAL:HG13	1.81	0.62
1:AA:2171:A:H2'	1:AA:2172:U:H6	1.63	0.62
1:BA:1298:C:H5'	1:BA:1299:G:OP2	2.00	0.62
1:BA:2720:U:N3	1:BA:2873:A:C2	2.67	0.62
31:CA:827:U:O2	31:CA:827:U:O5'	2.16	0.62
12:AP:19:GLY:HA3	12:AP:98:LYS:HZ2	1.63	0.62
31:DA:452:A:H2'	31:DA:453:A:C8	2.34	0.62
1:AA:1494:A:H2'	1:AA:1495:A:C8	2.34	0.62
41:CN:91:ARG:HH11	41:CN:91:ARG:CG	2.12	0.62
1:AA:2331:G:O4'	22:A3:42:GLY:HA3	1.99	0.62
1:AA:654(R):C:H2'	1:AA:654(S):G:H5'	1.79	0.62
31:DA:255:G:O6	31:DA:270:A:N6	2.32	0.62
3:AD:131:LEU:HB2	3:AD:136:ILE:CD1	2.28	0.62
1:AA:314:A:H2'	1:AA:315:G:H5'	1.80	0.62
2:BB:17:C:H2'	2:BB:18:G:O4'	1.98	0.62
53:DC:1:C:H2'	53:DC:2:G:OP2	1.99	0.62
23:BZ:4:VAL:HG11	23:BZ:11:ARG:NH1	2.14	0.62
1:BA:637:A:P	11:BO:116:GLY:HA2	2.39	0.62
1:AA:1060:U:H4'	1:AA:1061:U:O5'	1.98	0.62
21:BV:115:GLY:H	21:BV:177:PRO:HG2	1.64	0.62
11:AO:65:ARG:NH1	11:AO:65:ARG:CG	2.58	0.62
4:AE:36:ARG:NH1	4:AE:85:ASN:OD1	2.32	0.62
11:AO:15:ARG:NH1	11:AO:15:ARG:CG	2.39	0.62
14:AQ:110:LEU:HA	14:AQ:112:PHE:CE1	2.34	0.62
14:BQ:59:LYS:CD	14:BQ:60:GLY:H	2.04	0.62
1:AA:2119:A:N6	1:AA:2170:A:N6	2.47	0.62
1:AA:1408:C:C2	1:AA:1595:G:N2	2.68	0.62
1:BA:997:G:O2'	1:BA:998:C:H5'	1.98	0.62
5:BF:178:PRO:HG2	5:BF:179:GLU:OE1	1.98	0.62
15:AR:107:ASP:H	15:AR:110:ILE:CG2	2.11	0.62
2:AB:71:C:H2'	2:AB:72:G:C8	2.32	0.62
1:AA:2862:G:H2'	1:AA:2863:C:H6	1.63	0.62
50:DW:49:ALA:HB2	50:DW:92:LEU:HD22	1.81	0.62
1:AA:494:G:H21	18:AS:57:ASN:HD21	1.47	0.62
1:AA:1299:G:C5	1:AA:1639:U:C5	2.87	0.62
46:CS:19:ILE:HG22	46:CS:36:ILE:HG13	1.82	0.62
1:AA:2779:U:O2	1:AA:2779:U:O4'	2.14	0.62
1:AA:852:G:H2'	1:AA:853:G:C8	2.34	0.62
3:AD:53:PHE:HB3	3:AD:218:ARG:O	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:234:C:H2'	1:BA:235:U:H6	1.63	0.62
11:BO:75:ILE:H	11:BO:75:ILE:HD13	1.64	0.62
38:DK:51:VAL:HG11	38:DK:60:ARG:HB2	1.81	0.62
1:AA:2593:U:H2'	1:AA:2594:C:H6	1.63	0.62
27:A5:3:LYS:HA	27:A5:3:LYS:HE3	1.82	0.62
1:BA:993:G:C1'	17:B2:87:HIS:HE1	2.12	0.62
1:AA:1077:A:OP1	1:AA:1077:A:H4'	1.99	0.62
1:AA:1055:G:H1	1:AA:1104:C:H42	1.47	0.62
53:CC:18:C:O2'	53:CC:19:G:OP1	2.17	0.62
30:A8:22:VAL:HB	30:A8:53:PRO:HB3	1.79	0.62
3:BD:44:ASN:N	3:BD:44:ASN:OD1	2.32	0.62
1:BA:2274:A:N1	1:BA:2276:G:H1'	2.14	0.62
1:AA:574:C:N3	4:AE:145:LYS:NZ	2.40	0.62
34:DG:13:ARG:O	34:DG:15:GLU:HG2	1.99	0.62
26:A4:56:VAL:HG12	26:A4:60:GLN:HG3	1.82	0.62
1:AA:1728:G:H3'	1:AA:1729:A:H5''	1.81	0.62
9:AM:137:LYS:CG	9:AM:138:LEU:H	2.11	0.62
31:CA:688:G:H2'	31:CA:689:C:H6	1.65	0.62
3:AD:166:GLN:NE2	3:AD:166:GLN:HA	2.14	0.62
52:DB:15:A:C2	52:DB:21:A:N6	2.68	0.62
1:AA:2376:A:N1	14:AQ:87:PHE:CD2	2.68	0.62
4:AE:27:LEU:HD13	15:AR:1:MET:CE	2.30	0.62
1:AA:602:G:O2'	1:AA:655:A:N6	2.31	0.62
1:AA:851:U:H5'	25:AX:46:ASN:HD21	1.65	0.62
31:DA:939:G:H5''	37:DJ:102:ARG:NH2	2.14	0.62
1:AA:2321:G:H5''	1:AA:2322:A:OP2	2.00	0.62
1:AA:2345:G:H1'	1:AA:2382:G:H5'	1.80	0.62
1:AA:751:A:H5'	18:AS:90:ARG:HA	1.80	0.62
1:BA:993:G:H1'	17:B2:87:HIS:HE1	1.64	0.62
31:DA:1129:C:H4'	31:DA:1130:A:H5'	1.80	0.62
31:DA:1127:G:N2	31:DA:1144:G:H22	1.97	0.62
12:BP:32:TYR:HH	12:BP:111:GLU:CB	2.12	0.62
48:DU:22:VAL:HG22	48:DU:23:LYS:H	1.63	0.62
31:CA:791:G:N1	31:CA:792:A:N6	2.47	0.62
1:BA:1019:U:O2'	1:BA:1021:A:H2	1.83	0.62
1:AA:1290:C:H2'	1:AA:1291:C:C6	2.35	0.62
46:DS:72:ARG:HD2	46:DS:73:LEU:HD23	1.80	0.62
6:BG:102:PHE:HE2	6:BG:141:PHE:CE1	2.18	0.62
31:DA:422:C:O2'	31:DA:423:G:C2	2.49	0.62
18:BS:65:LEU:HD13	18:BS:68:ARG:CD	2.29	0.62
1:BA:1436:G:O2'	1:BA:1477:A:H4'	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1515:C:H2'	1:AA:1516:U:H6	1.63	0.62
2:BB:1:U:O4	2:BB:119:A:N1	2.33	0.62
31:DA:1227:A:OP1	49:DV:80:TYR:OH	2.10	0.62
12:AP:136:ALA:HB2	21:AV:52:SER:HB2	1.82	0.62
31:DA:842:C:H4'	31:DA:848:C:O2	2.00	0.62
1:AA:2094:G:C2'	1:AA:2095:C:H5'	2.30	0.62
52:CB:52:U:H2'	52:CB:53:A:O4'	1.98	0.62
48:DU:31:LEU:HD23	48:DU:31:LEU:H	1.62	0.62
1:BA:1075:C:H2'	1:BA:1076:C:C6	2.35	0.62
1:BA:2786:U:H4'	4:BE:64:LYS:C	2.19	0.62
11:BO:16:ARG:HG3	11:BO:16:ARG:NH1	2.15	0.62
1:AA:673:C:H4'	5:AF:82:ILE:HG12	1.82	0.62
1:BA:1005:C:N1	1:BA:1143:A:C2	2.67	0.62
11:BO:79:ARG:CD	11:BO:110:TYR:HE1	2.12	0.62
6:BG:109:VAL:HG11	6:BG:142:PRO:HD3	1.82	0.62
1:AA:1795:C:H2'	1:AA:1796:U:H6	1.64	0.62
33:DF:39:ILE:HG21	33:DF:57:ILE:HD11	1.81	0.62
9:AM:40:PRO:HB3	16:A1:68:ALA:HB2	1.82	0.62
20:BU:17:SER:HB2	20:BU:71:LYS:HE2	1.81	0.62
8:AK:77:LEU:O	8:AK:77:LEU:HD12	2.00	0.62
11:BO:96:THR:CB	11:BO:97:PRO:CD	2.78	0.62
7:AH:169:VAL:HG13	7:AH:170:ARG:N	2.13	0.62
49:CV:30:LEU:CD1	49:CV:30:LEU:H	2.13	0.62
34:CG:96:LEU:HD12	34:CG:139:ARG:NH1	2.14	0.62
52:CB:14:A:H61	52:CB:21:A:N6	1.97	0.62
1:AA:2012:G:OP1	18:AS:11:ARG:NH2	2.25	0.62
53:CD:22:A:C2	53:CD:47:G:H2'	2.34	0.62
1:BA:2564:A:OP1	1:BA:2648:C:H4'	1.99	0.62
11:AO:59:LEU:HD23	11:AO:59:LEU:O	1.99	0.62
31:CA:1450:U:O2'	31:CA:1451:A:C8	2.53	0.62
32:DE:102:LEU:HD23	32:DE:182:ILE:HD12	1.82	0.62
19:BT:21:PHE:CZ	19:BT:92:LEU:HD22	2.35	0.62
49:CV:24:ALA:C	49:CV:26:GLY:H	2.03	0.62
33:DF:90:GLU:O	33:DF:93:LYS:HB3	1.98	0.62
27:A5:49:CYS:SG	27:A5:60:VAL:HG23	2.39	0.62
1:AA:1464:C:HO2'	1:AA:1528:A:H8	1.45	0.62
1:AA:1566:A:O2'	1:AA:1567:A:H5'	1.99	0.62
1:AA:1568:G:H21	3:AD:58:HIS:CE1	2.16	0.62
3:BD:27:THR:HG23	3:BD:28:GLU:N	2.15	0.62
31:DA:973:G:C4	40:DM:55:LYS:HE2	2.34	0.62
1:BA:1062:G:N2	1:BA:1077:A:H1'	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DD:9:G:O3'	53:DD:46:G:O2'	2.17	0.62
1:BA:1005:C:H2'	1:BA:1006:C:H6	1.64	0.62
1:BA:85:G:OP1	20:BU:30:VAL:HG21	1.98	0.62
20:BU:81:LYS:HB3	20:BU:82:PRO:HD2	1.80	0.62
1:AA:1597:A:C5'	1:AA:1598:C:OP1	2.47	0.62
3:AD:44:ASN:ND2	3:AD:44:ASN:H	1.94	0.62
1:AA:1537:C:H2'	1:AA:1538:G:O4'	2.00	0.62
31:DA:323:U:O3'	50:DW:22:ARG:HD3	1.99	0.62
15:BR:13:ARG:H	15:BR:13:ARG:CD	2.10	0.62
31:CA:195:A:N7	31:CA:196:A:C6	2.68	0.62
31:CA:76:G:C6	31:CA:77:C:C2	2.88	0.62
31:CA:953:G:H2'	31:CA:954:G:O4'	2.00	0.62
14:BQ:84:GLN:HA	14:BQ:110:LEU:H	1.63	0.62
31:CA:575:G:H4'	31:CA:576:G:OP1	2.00	0.62
1:BA:1149:G:H2'	1:BA:1150:C:C6	2.35	0.62
20:BU:50:ARG:O	20:BU:53:PRO:HD3	1.99	0.62
43:DP:92:HIS:CE1	43:DP:98:VAL:HG21	2.35	0.62
37:DJ:72:ARG:HB2	37:DJ:142:GLU:OE2	2.00	0.62
2:BB:10:C:C4	2:BB:11:C:C5	2.87	0.62
31:CA:524:G:H2'	31:CA:525:C:C6	2.34	0.62
1:AA:754:C:H2'	1:AA:755:C:C6	2.34	0.62
21:AV:23:LYS:HD3	21:AV:40:ASP:HA	1.82	0.62
5:AF:24:LEU:HD23	5:AF:115:ALA:HA	1.82	0.62
1:BA:1964:G:H4'	1:BA:1965:C:OP2	1.99	0.62
9:AM:65:LYS:HB2	9:AM:69:GLN:HG3	1.80	0.62
4:AE:50:GLY:CA	4:AE:77:ILE:HA	2.25	0.62
1:AA:2467:C:H4'	12:AP:123:HIS:CD2	2.35	0.62
3:BD:35:LYS:CD	3:BD:64:ILE:N	2.62	0.62
28:B6:27:LYS:HZ3	28:B6:27:LYS:HB3	1.63	0.62
31:DA:1298:C:H4'	31:DA:1299:A:C8	2.35	0.62
7:BH:6:ARG:HB2	7:BH:66:GLY:HA2	1.82	0.62
32:CE:204:ASN:HD22	32:CE:205:ASP:N	1.97	0.62
39:CL:99:LEU:HB3	39:CL:101:PHE:CD1	2.35	0.62
17:A2:38:LEU:O	17:A2:51:VAL:HG13	2.00	0.62
31:CA:1190:G:H5'	33:CF:176:HIS:HE1	1.62	0.62
1:AA:2771:C:H2'	1:AA:2772:C:H6	1.65	0.62
15:AR:108:ARG:HG3	15:AR:109:GLU:N	2.13	0.62
53:CD:9:G:O2'	53:CD:10:G:C8	2.52	0.62
1:AA:302:C:H2'	1:AA:303:U:C6	2.34	0.62
10:BN:120:GLU:OE1	10:BN:122:LEU:HD21	2.00	0.62
31:DA:971:G:N2	31:DA:1363:A:OP2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:933:G:O6	37:CJ:3:ARG:NH2	2.32	0.62
32:CE:158:LEU:O	32:CE:158:LEU:HD12	1.99	0.62
1:BA:2185:C:H2'	1:BA:2186:G:C8	2.35	0.62
50:DW:25:ARG:HG3	50:DW:25:ARG:HH11	1.63	0.62
1:BA:2420:C:C5	30:B8:31:HIS:O	2.51	0.62
1:AA:2015:A:H1'	27:A5:2:ALA:N	2.11	0.62
12:BP:2:LEU:CD1	12:BP:69:PHE:HE1	2.13	0.62
3:BD:35:LYS:HG2	3:BD:64:ILE:HG23	1.80	0.62
39:DL:63:ILE:HD11	39:DL:81:ILE:HD11	1.82	0.62
23:AZ:85:LEU:O	23:AZ:86:SER:C	2.37	0.62
34:DG:8:VAL:O	34:DG:11:LEU:N	2.31	0.62
1:BA:1244:G:C2'	1:BA:1245:G:H5'	2.30	0.62
1:AA:2700:C:C2'	1:AA:2701:C:H5'	2.30	0.62
9:BM:47:ALA:C	9:BM:49:GLY:H	2.02	0.62
50:CW:30:LYS:NZ	50:CW:80:ARG:HH12	1.98	0.62
1:AA:478:A:C6	1:AA:480:A:C6	2.87	0.62
3:AD:28:GLU:HB3	3:AD:29:PRO:HD3	1.82	0.62
32:CE:201:ILE:HG21	32:CE:214:ILE:HG21	1.80	0.62
1:AA:340:A:H2'	1:AA:341:G:O4'	1.99	0.62
1:BA:486:C:H4'	18:BS:60:ASN:HD21	1.63	0.62
1:BA:2261:C:O2'	1:BA:2262:U:H5'	1.99	0.62
20:BU:60:PHE:N	20:BU:60:PHE:CD2	2.64	0.62
8:AK:6:LEU:HD13	8:AK:36:ALA:HA	1.79	0.62
1:AA:529:A:H8	1:AA:530:G:C6	2.18	0.62
41:CN:86:GLY:N	41:CN:112:THR:OG1	2.21	0.62
33:CF:108:ASN:ND2	33:CF:144:SER:OG	2.33	0.62
11:AO:122:PRO:HB3	11:AO:141:ALA:HB1	1.81	0.62
20:BU:29:GLU:HB2	20:BU:38:ILE:HD12	1.82	0.62
33:CF:81:GLY:O	33:CF:85:ARG:HB2	2.00	0.62
31:DA:909:A:H2'	31:DA:910:C:O4'	2.00	0.62
18:BS:75:TYR:CZ	18:BS:104:THR:HG21	2.35	0.62
37:CJ:113:GLU:OE2	37:CJ:122:HIS:ND1	2.24	0.62
1:BA:1568:G:H21	3:BD:58:HIS:CE1	2.17	0.62
31:DA:1128:C:O2'	31:DA:1129:C:P	2.58	0.62
39:DL:5:TYR:OH	39:DL:16:ARG:HG2	2.00	0.62
1:BA:626:U:O2	11:BO:105:LEU:HB2	1.99	0.62
33:CF:8:ILE:O	33:CF:11:ARG:N	2.33	0.62
1:AA:2468:G:H2'	1:AA:2476:A:C5	2.35	0.62
1:AA:2377:A:H2'	1:AA:2378:A:C8	2.35	0.62
34:DG:96:LEU:HD12	34:DG:139:ARG:CZ	2.29	0.62
12:BP:19:GLY:HA3	12:BP:98:LYS:NZ	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2169:A:N3	1:AA:2169:A:OP1	2.33	0.62
1:AA:1348:G:H2'	1:AA:1349:A:H5''	1.82	0.62
1:AA:1344:G:H4'	1:AA:1384:A:C5	2.34	0.62
51:DX:9:ARG:HG3	51:DX:10:ARG:H	1.65	0.62
1:AA:2133:G:N3	1:AA:2158:A:N6	2.47	0.62
31:DA:345:C:O2	31:DA:346:G:N2	2.33	0.62
1:AA:943:U:C2'	1:AA:944:G:H5'	2.30	0.62
25:BX:7:LYS:HG3	25:BX:34:GLU:HG3	1.81	0.62
1:AA:1771:C:HO2'	1:AA:1786:A:H8	1.48	0.62
1:AA:2771:C:H2'	1:AA:2772:C:C6	2.35	0.62
31:CA:965:A:C2	31:CA:969:A:N1	2.68	0.62
1:AA:580:C:H2'	1:AA:581:C:C6	2.34	0.62
8:BK:73:GLU:HG3	8:BK:136:VAL:HG23	1.82	0.62
31:CA:1169:A:C6	31:CA:1170:A:C2	2.88	0.62
31:DA:616:G:N3	31:DA:617:G:C8	2.68	0.62
11:AO:120:ALA:HB1	11:AO:138:LEU:HB3	1.82	0.62
2:AB:29:A:H2'	2:AB:30:C:O4'	2.00	0.62
31:CA:1524:C:OP1	41:CN:120:ARG:NH1	2.33	0.62
1:BA:2619:C:H2'	1:BA:2620:C:H6	1.65	0.62
13:B0:51:LEU:HD22	13:B0:66:VAL:HG13	1.82	0.62
1:BA:2427:C:H5''	1:BA:2428:G:OP1	2.00	0.62
43:CP:15:VAL:HG23	43:CP:43:THR:O	1.99	0.62
1:AA:626:U:O4	11:AO:107:LYS:HD2	1.99	0.62
31:CA:260:G:H2'	31:CA:261:U:C6	2.35	0.62
1:BA:993:G:C1'	17:B2:87:HIS:CE1	2.83	0.61
4:BE:44:TYR:CD1	4:BE:44:TYR:N	2.62	0.61
31:CA:1060:C:O2'	40:CM:56:HIS:CD2	2.53	0.61
1:BA:2287:A:C2	1:BA:2346:A:N1	2.68	0.61
27:B5:16:ARG:HH11	27:B5:16:ARG:CG	1.96	0.61
1:BA:1140:C:C1'	1:BA:1143:A:C8	2.83	0.61
20:BU:96:ILE:HD12	20:BU:98:VAL:CG1	2.29	0.61
30:A8:34:TRP:CG	30:A8:35:GLN:N	2.68	0.61
5:AF:197:ASP:O	5:AF:198:ALA:HB3	1.98	0.61
12:BP:77:LYS:HB3	12:BP:78:PRO:HD2	1.81	0.61
24:AW:47:ASN:O	24:AW:50:ILE:HG13	2.00	0.61
31:DA:182:U:H5	31:DA:183:G:C4	2.17	0.61
1:BA:1047:G:C2'	1:BA:1110:G:H22	2.12	0.61
6:BG:43:LEU:HD12	6:BG:45:GLU:HG3	1.82	0.61
16:A1:50:ARG:HG2	16:A1:53:ARG:NH2	2.15	0.61
1:BA:288:C:O2	1:BA:288:C:H2'	2.00	0.61
49:DV:9:VAL:O	49:DV:10:PHE:CG	2.53	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:329:G:O6	20:BU:19:LYS:HG2	1.99	0.61
31:DA:1497:G:C2'	31:DA:1498:U:H5'	2.29	0.61
31:CA:1226:C:O2	49:CV:83:HIS:HE1	1.81	0.61
31:CA:342:C:H2'	31:CA:343:U:O4'	2.00	0.61
31:CA:313:A:H2'	31:CA:314:C:C6	2.35	0.61
53:CC:69:C:H2'	53:CC:70:C:C6	2.34	0.61
42:CO:8:VAL:HG13	47:CT:29:HIS:CD2	2.35	0.61
1:BA:1531:C:H42	1:BA:1540:G:H1	1.47	0.61
25:AX:19:GLN:HE22	25:AX:52:HIS:HE1	1.47	0.61
31:DA:723:U:O2'	31:DA:724:G:OP1	2.13	0.61
8:AK:85:GLU:OE2	8:AK:85:GLU:HA	2.00	0.61
30:B8:35:GLN:O	30:B8:35:GLN:NE2	2.32	0.61
31:DA:114:U:H2'	31:DA:115:G:C8	2.35	0.61
1:BA:2552:U:H2'	1:BA:2554:U:H5''	1.82	0.61
41:DN:34:ASP:OD1	41:DN:38:ASN:HB2	2.00	0.61
1:BA:2684:U:H1'	10:BN:70:LYS:HD3	1.81	0.61
12:AP:87:LYS:O	12:AP:88:GLY:C	2.38	0.61
5:BF:29:ASN:N	5:BF:112:MET:CE	2.63	0.61
5:BF:124:LEU:O	5:BF:126:VAL:HG13	2.00	0.61
32:CE:6:THR:OG1	32:CE:7:VAL:N	2.32	0.61
1:AA:889:C:H3'	1:AA:890:A:C4'	2.28	0.61
20:BU:94:LYS:O	20:BU:101:LYS:HB2	1.99	0.61
1:AA:2168:G:N2	1:AA:2170:A:C8	2.68	0.61
16:B1:90:VAL:HG22	17:B2:39:LEU:HB3	1.81	0.61
1:AA:1187:G:H5''	17:A2:81:TYR:CE2	2.35	0.61
31:CA:192:U:H4'	50:CW:103:GLY:HA2	1.81	0.61
10:BN:49:ARG:HD3	10:BN:49:ARG:N	2.12	0.61
33:CF:126:ARG:HH11	33:CF:126:ARG:CG	2.13	0.61
25:BX:5:LYS:HD3	25:BX:34:GLU:OE1	2.00	0.61
8:AK:101:LEU:CD2	8:AK:107:VAL:HB	2.30	0.61
8:BK:78:THR:CB	8:BK:104:GLN:HE22	2.12	0.61
31:DA:652:U:O2'	31:DA:653:A:H5''	1.99	0.61
1:BA:2303:G:H2'	1:BA:2304:G:H5'	1.82	0.61
53:DC:73:A:N6	53:DC:74:A:N6	2.48	0.61
1:AA:2099:U:H2'	1:AA:2099:U:O2	2.00	0.61
31:DA:1226:C:C5	43:DP:104:ARG:HB2	2.35	0.61
1:AA:2150:U:H2'	1:AA:2151:G:C8	2.34	0.61
32:CE:233:SER:HB2	32:CE:234:PRO:HD2	1.82	0.61
1:AA:1827:C:C2'	1:AA:1828:G:H5'	2.30	0.61
1:AA:1641:A:H2'	1:AA:1642:G:O4'	2.01	0.61
1:AA:2077:A:H2'	1:AA:2078:C:H6	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2272:U:H5''	1:AA:2273:A:OP1	1.99	0.61
1:BA:1027:A:N6	1:BA:1126:A:C4	2.68	0.61
6:BG:145:THR:O	6:BG:146:TYR:HB3	1.99	0.61
11:BO:23:PRO:C	11:BO:25:SER:H	2.04	0.61
1:AA:1095:A:H2'	1:AA:1095:A:N3	2.13	0.61
31:CA:1318:A:H1'	49:CV:37:ARG:HH21	1.64	0.61
53:DD:39:A:H2'	53:DD:40:C:H5'	1.82	0.61
50:CW:49:ALA:HB1	50:CW:99:LEU:HB2	1.80	0.61
1:AA:270(F):U:H2'	1:AA:270(G):C:C6	2.34	0.61
1:BA:1225:C:C4'	17:B2:85:LYS:HB3	2.30	0.61
1:AA:2807:G:H3'	1:AA:2808:U:H5''	1.81	0.61
30:B8:25:MET:O	30:B8:48:PHE:HE1	1.83	0.61
12:BP:88:GLY:O	12:BP:89:ASN:HB2	2.00	0.61
31:DA:1149:C:O2'	31:DA:1280:A:N1	2.33	0.61
28:B6:48:VAL:O	28:B6:49:HIS:CB	2.36	0.61
14:AQ:88:ASP:CG	14:AQ:89:ARG:H	2.01	0.61
1:BA:1056:G:H4'	1:BA:1086:A:H1'	1.83	0.61
31:CA:1182:G:H4'	31:CA:1183:A:C5'	2.25	0.61
1:BA:1606:G:H5''	1:BA:1607:C:OP1	2.00	0.61
26:A4:66:SER:OG	49:CV:9:VAL:HG21	1.99	0.61
31:CA:919:A:O2'	31:CA:920:U:H5'	2.00	0.61
43:DP:39:ILE:HG22	43:DP:40:ASN:H	1.65	0.61
1:AA:2648:C:H2'	1:AA:2649:U:H6	1.65	0.61
1:BA:2213:U:H4'	23:BZ:52:ARG:NH2	2.15	0.61
1:AA:2870:C:H5''	13:A0:65:LEU:HD21	1.83	0.61
1:AA:2712:U:OP1	1:AA:2714:G:H4'	2.01	0.61
19:AT:49:VAL:HG12	19:AT:50:LYS:N	2.14	0.61
17:A2:76:LYS:HG3	17:A2:81:TYR:CD1	2.35	0.61
26:B4:33:VAL:O	26:B4:33:VAL:HG23	2.01	0.61
2:BB:45:A:N3	2:BB:45:A:H2'	2.13	0.61
15:BR:91:ARG:HD2	15:BR:124:ASP:OD1	2.00	0.61
44:DQ:13:THR:N	44:DQ:14:PRO:CD	2.63	0.61
49:DV:9:VAL:HG11	49:DV:11:VAL:CG1	2.30	0.61
33:CF:20:SER:HB2	33:CF:57:ILE:HB	1.81	0.61
1:BA:2531:A:C5'	7:BH:157:TYR:HE2	2.13	0.61
31:CA:530:G:C4'	31:CA:531:U:OP2	2.47	0.61
32:CE:74:LYS:HD2	32:CE:166:ASP:HB2	1.82	0.61
1:BA:1887:C:C2'	1:BA:1888:G:H5''	2.30	0.61
31:DA:527:G:H2'	31:DA:528:C:H5'	1.80	0.61
14:AQ:101:LEU:HD12	14:AQ:101:LEU:O	2.00	0.61
11:BO:100:LEU:HD23	11:BO:112:LEU:HD11	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:103:ARG:HG3	21:AV:136:PHE:CD1	2.35	0.61
12:AP:30:GLY:HA3	12:AP:107:ALA:HB2	1.80	0.61
32:CE:180:LEU:O	32:CE:181:PHE:HB2	2.00	0.61
1:AA:1826:G:H4'	3:AD:242:ARG:NH2	2.16	0.61
15:BR:64:ARG:HB2	15:BR:73:GLU:HG2	1.82	0.61
9:AM:126:PRO:HB2	9:AM:127:ASP:OD1	2.00	0.61
1:AA:1716:U:O2'	1:AA:1717:G:H5'	1.99	0.61
30:B8:30:ARG:O	30:B8:30:ARG:HG3	1.99	0.61
1:BA:2015:A:O4'	27:B5:2:ALA:HA	1.99	0.61
40:DM:54:PHE:CZ	40:DM:55:LYS:NZ	2.66	0.61
1:BA:588:U:H1'	5:BF:90:PHE:CB	2.31	0.61
31:CA:973:G:H3'	31:CA:974:A:H5''	1.82	0.61
23:AZ:83:GLU:OE2	23:AZ:85:LEU:HB2	1.99	0.61
31:CA:1157:A:O2'	31:CA:1158:C:O2	2.17	0.61
23:BZ:92:LYS:O	23:BZ:93:GLU:C	2.39	0.61
39:CL:50:LEU:HD22	39:CL:55:ALA:HB3	1.81	0.61
1:BA:1444(A):A:H4'	1:BA:1460:A:H2'	1.81	0.61
1:BA:1416:G:H2'	1:BA:1417:C:C6	2.36	0.61
31:CA:96:G:H2'	31:CA:97:U:H5'	1.82	0.61
52:DB:22:G:N2	52:DB:59:U:O4'	2.32	0.61
6:AG:173:LEU:HB3	6:AG:178:PHE:CD2	2.34	0.61
33:DF:14:ILE:HG12	33:DF:15:THR:N	2.15	0.61
7:BH:86:GLU:HA	7:BH:132:ARG:HB2	1.83	0.61
35:CH:76:ILE:HB	35:CH:77:PRO:HD2	1.82	0.61
11:BO:59:LEU:O	11:BO:59:LEU:HD23	1.99	0.61
32:CE:87:ARG:NH1	32:CE:220:ASP:OD1	2.30	0.61
38:DK:51:VAL:HG11	38:DK:60:ARG:HH11	1.63	0.61
31:CA:22:G:H2'	31:CA:23:C:C6	2.35	0.61
12:BP:133:ARG:HD3	12:BP:133:ARG:O	2.00	0.61
1:BA:729:G:H2'	1:BA:1775:U:H1'	1.82	0.61
12:AP:58:PHE:HD1	12:AP:58:PHE:O	1.83	0.61
3:AD:32:SER:O	3:AD:33:LEU:HB3	2.01	0.61
4:AE:55:ASN:HB2	4:AE:73:GLU:O	2.00	0.61
31:DA:1311:G:N2	31:DA:1327:C:C2	2.68	0.61
31:DA:1054:C:N4	52:DB:35:G:C8	2.68	0.61
11:BO:19:VAL:HG23	11:BO:27:HIS:CG	2.35	0.61
5:BF:5:ALA:HB1	5:BF:125:LEU:HD21	1.82	0.61
53:DD:19:G:H1'	53:DD:59:A:C2	2.35	0.61
31:CA:1025:U:O2'	31:CA:1026:G:H8	1.83	0.61
11:BO:80:TYR:CD1	11:BO:111:ARG:CB	2.83	0.61
16:B1:91:ASP:OD2	16:B1:96:ALA:HB2	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:83:G:N2	2:BB:93:C:N3	2.43	0.61
31:CA:1374:A:O2'	37:CJ:28:ASN:HB3	2.00	0.61
33:DF:58:GLU:HB2	33:DF:65:ALA:CB	2.30	0.61
8:BK:5:LEU:HD12	8:BK:5:LEU:H	1.65	0.61
1:AA:2292:C:P	14:AQ:17:ARG:HH22	2.22	0.61
1:BA:598:G:H1'	11:BO:12:ALA:HB2	1.83	0.61
52:CB:16:U:C2	52:CB:70:G:N2	2.69	0.61
1:AA:2296:U:OP2	14:AQ:9:ARG:NH1	2.32	0.61
32:CE:17:PHE:HD1	32:CE:17:PHE:O	1.83	0.61
45:CR:25:THR:HG21	45:CR:70:LEU:HB2	1.83	0.61
31:DA:1226:C:OP2	43:DP:103:THR:HG21	1.99	0.61
13:A0:9:LYS:HA	13:A0:17:ARG:NE	2.15	0.61
4:AE:68:ALA:HB3	4:AE:69:LYS:NZ	2.15	0.61
37:CJ:102:ARG:O	37:CJ:106:GLN:HG3	2.01	0.61
34:DG:146:ILE:HD12	34:DG:146:ILE:H	1.64	0.61
23:BZ:78:LYS:HE2	23:BZ:78:LYS:O	1.99	0.61
17:B2:87:HIS:O	17:B2:87:HIS:ND1	2.33	0.61
4:BE:47:VAL:CG1	4:BE:49:LEU:CD2	2.79	0.61
11:BO:81:GLN:OE1	11:BO:106:LEU:HA	2.01	0.61
31:DA:1320:C:O2	49:DV:72:GLY:HA3	2.00	0.61
1:BA:1057:A:C2	1:BA:1081:U:N3	2.68	0.61
26:A4:56:VAL:HG22	49:CV:65:ASN:HA	1.82	0.61
31:CA:1503:A:H5'	31:CA:1531:A:H1'	1.83	0.61
43:DP:49:THR:HB	43:DP:52:GLU:OE1	1.98	0.61
1:AA:2168:G:H2'	1:AA:2168:G:N3	2.16	0.61
24:AW:50:ILE:CD1	24:AW:51:ARG:N	2.61	0.61
1:AA:141:A:H8	1:AA:1595:G:H21	1.49	0.61
1:AA:1188:U:C2'	1:AA:1189:A:H5'	2.30	0.61
15:BR:27:THR:HG23	15:BR:90:GLN:HB3	1.82	0.61
1:AA:1386:C:H2'	1:AA:1387:C:H6	1.65	0.61
12:AP:36:ALA:O	12:AP:99:PRO:HA	2.01	0.61
13:B0:21:TYR:CZ	13:B0:43:GLU:HG2	2.36	0.61
1:BA:2292:C:C2'	1:BA:2293:C:H5'	2.30	0.61
20:BU:47:LYS:HG2	20:BU:60:PHE:CD1	2.36	0.61
33:DF:16:ARG:NH1	33:DF:16:ARG:HB2	2.16	0.61
31:DA:342:C:C2'	31:DA:343:U:H5'	2.30	0.61
31:CA:232:G:C5	31:CA:233:C:C5	2.89	0.61
32:DE:105:PHE:O	32:DE:109:SER:N	2.30	0.61
1:AA:919:G:N2	1:AA:2269:A:OP2	2.33	0.61
28:A6:11:LEU:HD21	28:A6:51:GLU:HG3	1.82	0.61
1:AA:1430:C:H2'	1:AA:1431:U:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BO:61:ARG:O	11:BO:62:LEU:CD2	2.45	0.61
3:AD:32:SER:HA	3:AD:36:PRO:HD2	1.82	0.61
37:DJ:16:LEU:CD1	39:DL:42:ARG:HA	2.29	0.61
28:B6:41:PRO:HD2	28:B6:46:HIS:H	1.66	0.61
31:CA:974:A:C2'	31:CA:975:A:OP2	2.48	0.61
1:BA:1088:A:H4'	1:BA:1089:G:C8	2.34	0.61
34:DG:24:GLU:HG2	34:DG:25:ARG:H	1.66	0.61
31:CA:1501:C:C5	31:CA:1504:G:C5	2.89	0.61
14:BQ:61:ASN:HB3	14:BQ:64:GLU:HB2	1.82	0.61
30:A8:26:LYS:HB3	30:A8:44:LYS:HG3	1.83	0.61
31:CA:466:C:H5''	31:CA:467:G:OP2	1.99	0.61
31:DA:279:A:H4'	31:DA:280:C:O5'	1.99	0.61
1:AA:1204:A:C2	1:AA:1241:A:N1	2.69	0.61
1:AA:507:A:H5''	1:AA:508:G:H5'	1.81	0.61
1:BA:2321:G:N3	1:BA:2321:G:H2'	2.14	0.61
17:B2:44:LYS:HG3	17:B2:45:THR:N	2.16	0.61
31:DA:1502:A:H4'	31:DA:1503:A:OP2	1.99	0.61
32:DE:17:PHE:CE2	32:DE:44:LEU:HA	2.32	0.61
52:DB:15:A:OP2	52:DB:16:U:H5	1.83	0.61
31:DA:740:U:O2'	31:DA:741:G:H5'	2.00	0.61
1:AA:581:C:H2'	1:AA:582:G:C8	2.36	0.61
3:BD:228:PRO:HD3	3:BD:235:GLY:HA3	1.82	0.61
31:DA:1337:G:H5''	31:DA:1338:G:OP1	2.01	0.61
42:DO:8:ASN:HD22	47:DT:34:LYS:HE2	1.66	0.61
33:CF:123:GLN:O	33:CF:128:PHE:HB2	2.00	0.61
1:BA:2593:U:H2'	1:BA:2594:C:C6	2.34	0.61
1:BA:476:G:H4'	1:BA:502:A:N1	2.16	0.61
2:BB:29:A:C2	2:BB:56:G:C2	2.88	0.61
49:CV:11:VAL:HG23	49:CV:38:SER:HB2	1.83	0.61
21:BV:30:ASN:OD1	21:BV:33:LEU:HB3	2.00	0.61
4:AE:23:VAL:CA	4:AE:184:VAL:O	2.49	0.61
31:CA:1053:G:N7	31:CA:1199:U:H3'	2.14	0.61
14:AQ:23:ARG:HD3	14:AQ:85:VAL:O	2.00	0.61
31:CA:1140:C:H2'	31:CA:1141:C:H6	1.66	0.61
30:A8:29:LYS:HZ3	30:A8:44:LYS:HB2	1.65	0.61
19:BT:40:LYS:HA	19:BT:51:VAL:HG11	1.82	0.61
1:AA:128:C:H4'	29:A7:49:ARG:HH21	1.65	0.61
1:AA:1169:G:H1	1:AA:1180:C:N4	1.98	0.61
32:DE:18:GLY:O	32:DE:19:HIS:ND1	2.30	0.61
1:BA:1728:G:C2	1:BA:1730:U:OP2	2.53	0.61
15:BR:24:PRO:HA	15:BR:49:VAL:HG13	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:662:G:H2'	31:CA:663:A:C8	2.36	0.61
56:DA:1805:PAR:H642	56:DA:1805:PAR:O33	2.01	0.61
31:DA:77:C:H3'	31:DA:78:G:H5''	1.82	0.61
32:DE:69:LEU:HG	32:DE:91:PRO:HB2	1.82	0.61
35:CH:32:VAL:HB	35:CH:58:ALA:HB1	1.83	0.61
35:DH:103:GLY:O	35:DH:106:PRO:HD2	2.00	0.61
1:AA:2335:A:N7	1:AA:2337:G:C5	2.69	0.61
11:AO:57:THR:O	11:AO:59:LEU:N	2.34	0.61
34:DG:149:ALA:O	34:DG:153:ARG:HG2	2.00	0.61
40:CM:38:ILE:HG13	40:CM:38:ILE:O	2.01	0.61
48:DU:29:PHE:HD2	48:DU:29:PHE:N	1.98	0.61
32:DE:100:GLY:N	32:DE:176:GLU:OE2	2.27	0.61
53:CC:69:C:H2'	53:CC:70:C:H6	1.66	0.61
1:BA:2496:C:OP1	12:BP:82:ARG:HB3	2.01	0.61
1:AA:1038:C:H2'	1:AA:1039:G:O4'	1.99	0.61
33:DF:131:ARG:NH1	35:DH:50:GLU:HG3	2.16	0.61
7:BH:87:LEU:N	7:BH:131:VAL:O	2.29	0.61
1:AA:2082:A:H2'	1:AA:2083:G:O4'	2.01	0.61
1:BA:1676:A:C2	1:BA:1993:U:H5'	2.35	0.61
1:BA:2016:U:C1'	27:B5:6:VAL:HG13	2.31	0.61
30:B8:14:VAL:HG22	30:B8:24:ALA:HB2	1.82	0.61
1:AA:1084:A:N6	1:AA:1085:A:H62	1.99	0.61
4:BE:79:ARG:N	4:BE:79:ARG:HD2	2.15	0.61
6:AG:77:ILE:O	6:AG:77:ILE:CG2	2.48	0.61
11:BO:105:LEU:O	11:BO:106:LEU:CB	2.49	0.61
31:CA:1054:C:O2'	31:CA:1055:A:O5'	2.19	0.61
31:DA:1022:G:H2'	31:DA:1023:G:O4'	2.00	0.61
1:AA:2469:A:H61	1:AA:2481:G:H1'	1.66	0.61
1:BA:2580:U:H4'	4:BE:130:GLY:CA	2.31	0.61
11:BO:79:ARG:NE	11:BO:110:TYR:HE1	1.96	0.61
12:BP:78:PRO:HG2	12:BP:81:VAL:HG11	1.82	0.61
31:CA:570:G:H1'	31:CA:820:U:C4	2.36	0.61
1:AA:1188:U:C4'	17:A2:79:VAL:HG22	2.29	0.61
3:BD:242:ARG:CD	3:BD:242:ARG:N	2.63	0.61
1:AA:1517:G:H2'	1:AA:1518:C:H6	1.66	0.61
17:B2:43:GLU:O	17:B2:44:LYS:HG2	2.01	0.61
1:BA:322:A:H5'	1:BA:340:A:H1'	1.83	0.61
1:AA:1385:G:O2'	1:AA:1396:U:H6	1.82	0.61
31:CA:965:A:C2	31:CA:969:A:C2	2.88	0.61
3:BD:146:GLU:HB2	3:BD:189:CYS:HB3	1.82	0.61
33:DF:18:TRP:HE1	44:DQ:55:GLY:H	1.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:58:U:O2	52:CB:58:U:H2'	2.01	0.61
31:DA:1014:A:H2'	31:DA:1015:A:C8	2.35	0.61
1:AA:405:U:O2	1:AA:405:U:H2'	2.00	0.61
45:CR:18:PHE:CZ	45:CR:21:ASP:HB2	2.36	0.61
21:BV:29:TYR:HA	21:BV:33:LEU:O	2.01	0.61
1:BA:2567:G:H2'	1:BA:2568:C:C6	2.36	0.61
21:AV:161:VAL:HG12	21:AV:162:GLU:HG2	1.83	0.61
42:DO:58:VAL:O	42:DO:65:GLU:HA	2.00	0.61
12:BP:36:ALA:HB1	12:BP:127:ILE:HD12	1.82	0.61
26:A4:52:THR:OG1	26:A4:53:GLU:N	2.33	0.61
33:CF:131:ARG:NH1	33:CF:166:GLU:OE2	2.34	0.61
31:CA:1186:G:H21	44:CQ:61:TRP:C	2.04	0.61
8:AK:73:GLU:HG3	8:AK:137:PRO:HD2	1.81	0.61
4:AE:61:ARG:H	4:AE:62:PRO:HD2	1.65	0.61
4:AE:59:VAL:O	4:AE:62:PRO:HD2	2.01	0.61
1:AA:1899:G:O2'	1:AA:1900:A:OP2	2.17	0.61
31:DA:1004:A:H5''	31:DA:1025:U:C4	2.35	0.61
31:DA:164:U:H2'	31:DA:165:C:C6	2.35	0.61
1:BA:1018:C:O2'	1:BA:1019:U:H5'	2.01	0.61
5:AF:177:ALA:HB1	5:AF:178:PRO:HD2	1.82	0.61
3:BD:186:HIS:CD2	3:BD:188:GLU:H	2.05	0.61
15:BR:93:ARG:CG	15:BR:117:ASP:HB3	2.30	0.61
42:CO:40:VAL:HG23	42:CO:90:LEU:HD22	1.83	0.61
15:BR:91:ARG:NH1	15:BR:124:ASP:OD1	2.33	0.61
8:AK:110:ASP:HB3	8:AK:111:PRO:C	2.21	0.61
11:AO:112:LEU:H	11:AO:128:HIS:CD2	2.18	0.61
31:CA:8:A:N6	34:CG:205:GLU:O	2.34	0.61
26:A4:37:SER:CB	26:A4:42:PHE:HB3	2.30	0.61
11:AO:88:LEU:HD12	11:AO:95:VAL:HG11	1.83	0.61
42:CO:21:VAL:HG11	42:CO:24:LEU:HD11	1.82	0.61
1:BA:172:C:H2'	1:BA:173:G:C8	2.36	0.61
21:BV:19:ARG:HH11	21:BV:84:GLU:HB2	1.64	0.61
41:DN:34:ASP:HB2	41:DN:35:PRO:CD	2.31	0.61
1:BA:988:A:H3'	25:BX:11:SER:OG	2.01	0.61
38:DK:82:HIS:CD2	38:DK:82:HIS:C	2.74	0.61
1:BA:608:A:H2'	1:BA:609:A:C8	2.36	0.61
1:BA:851:U:OP1	25:BX:49:LYS:HE2	2.01	0.60
28:A6:45:LYS:HA	28:A6:45:LYS:CE	2.26	0.60
28:B6:38:LYS:NZ	28:B6:46:HIS:CD2	2.67	0.60
22:B3:18:ALA:HB3	22:B3:20:ARG:NE	2.15	0.60
1:BA:1332:G:N2	1:BA:1610:A:H8	1.99	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:528:A:C2	1:BA:2043:C:H4'	2.36	0.60
1:AA:1494:A:C2'	1:AA:1495:A:H5'	2.30	0.60
1:BA:2838:G:C6	1:BA:2839:G:C5	2.89	0.60
1:BA:76:C:H2'	1:BA:77:C:H6	1.67	0.60
1:AA:2688:U:H1'	1:AA:2721:A:N6	2.16	0.60
7:AH:4:ILE:C	7:AH:6:ARG:H	2.02	0.60
1:BA:330:A:H2	1:BA:1210:A:H2'	1.65	0.60
31:CA:1190:G:C5'	33:CF:176:HIS:CE1	2.84	0.60
32:DE:8:LYS:O	32:DE:9:GLU:HB3	2.00	0.60
1:BA:1431:U:H2'	1:BA:1432:C:C6	2.35	0.60
31:DA:1216:G:OP1	44:DQ:2:ALA:N	2.34	0.60
1:AA:2729:G:H1'	4:AE:187:ALA:HB2	1.83	0.60
1:AA:2593:U:H2'	1:AA:2594:C:C6	2.35	0.60
50:DW:33:ILE:HD13	50:DW:62:LEU:HB3	1.83	0.60
31:DA:229:U:O2'	46:DS:23:ASP:OD2	2.19	0.60
1:BA:2345:G:N3	1:BA:2381:C:H2'	2.16	0.60
50:DW:10:LEU:HD13	50:DW:10:LEU:O	2.01	0.60
1:AA:841:A:H2'	1:AA:842:G:C8	2.36	0.60
15:AR:123:GLN:O	15:AR:124:ASP:HB2	2.01	0.60
31:DA:1354:C:O2'	31:DA:1355:G:H5'	2.01	0.60
31:CA:1378:C:H2'	31:CA:1378:C:O2	2.01	0.60
31:DA:438:G:O2'	31:DA:494:U:O4	2.08	0.60
37:CJ:50:ILE:HB	37:CJ:58:PRO:HG3	1.83	0.60
34:CG:99:SER:O	34:CG:140:VAL:HG22	2.01	0.60
16:A1:66:ASN:HD21	16:A1:70:ARG:HE	1.48	0.60
10:BN:34:THR:O	10:BN:37:ASP:HB2	2.00	0.60
11:BO:61:ARG:HB2	11:BO:61:ARG:CZ	2.25	0.60
4:BE:36:ARG:CG	4:BE:36:ARG:HH11	2.12	0.60
4:BE:36:ARG:O	4:BE:37:ARG:C	2.39	0.60
31:DA:1128:C:N3	31:DA:1139:G:N1	2.49	0.60
31:CA:976:G:N2	31:CA:1362(A):C:OP2	2.31	0.60
22:B3:18:ALA:CB	22:B3:20:ARG:HE	2.14	0.60
32:DE:47:THR:HA	32:DE:202:PRO:HG2	1.84	0.60
35:DH:101:ILE:HD11	35:DH:119:LEU:CD2	2.24	0.60
53:CD:13:C:HO2'	53:CD:14:A:P	2.24	0.60
34:CG:13:ARG:HD2	34:CG:38:TYR:O	2.01	0.60
9:BM:30:ILE:HG22	9:BM:34:LEU:HD22	1.83	0.60
1:BA:674:G:O2'	5:BF:74:ARG:HG3	2.01	0.60
2:AB:90:C:P	12:AP:16:ARG:HH21	2.24	0.60
2:BB:38:C:H42	2:BB:44:G:H1	1.49	0.60
6:BG:67:LYS:H	26:B4:6:HIS:CD2	2.18	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B4:61:ARG:HG3	26:B4:62:ARG:NH2	2.15	0.60
9:AM:46:VAL:HG13	9:AM:48:MET:HG3	1.83	0.60
1:BA:288:C:H2'	1:BA:289:A:C8	2.36	0.60
31:DA:198:G:OP2	31:DA:198:G:H8	1.84	0.60
47:DT:66:SER:O	47:DT:70:ARG:NH1	2.34	0.60
21:BV:126:VAL:HG12	21:BV:163:LEU:HA	1.83	0.60
1:BA:1864:U:H2'	1:BA:1869:G:H5''	1.83	0.60
17:B2:49:THR:O	17:B2:51:VAL:N	2.34	0.60
31:DA:960:U:O2	31:DA:1225:A:C5	2.54	0.60
1:AA:1742:C:H5'	1:AA:1743:G:OP2	2.02	0.60
19:BT:5:TYR:CZ	24:BW:30:ARG:HG3	2.36	0.60
21:AV:58:VAL:HG12	21:AV:66:SER:HB3	1.83	0.60
40:CM:96:ILE:HD13	40:CM:96:ILE:H	1.66	0.60
4:BE:48:GLN:HE22	4:BE:78:LEU:HD13	1.64	0.60
31:DA:1147:C:O2	39:DL:16:ARG:NE	2.34	0.60
30:A8:14:VAL:HG11	30:A8:60:LEU:CD1	2.25	0.60
12:BP:104:PHE:O	12:BP:105:GLU:HB3	1.99	0.60
31:CA:974:A:P	44:CQ:41:ARG:HH12	2.24	0.60
12:AP:75:THR:HB	12:AP:89:ASN:H	1.66	0.60
31:CA:49:U:O2'	31:CA:50:A:H2'	2.01	0.60
31:CA:1025:U:O2'	31:CA:1026:G:C5'	2.48	0.60
32:CE:21:ARG:CB	32:CE:39:ILE:HA	2.30	0.60
1:AA:1598:C:H2'	1:AA:1599:C:C6	2.35	0.60
31:DA:992:U:H3	31:DA:1044:A:N6	1.93	0.60
50:DW:22:ARG:O	50:DW:26:ASN:ND2	2.34	0.60
1:AA:2822:G:H2'	1:AA:2823:A:H5''	1.84	0.60
7:BH:152:ARG:CA	7:BH:154:PRO:HD3	2.31	0.60
37:DJ:23:VAL:CG1	37:DJ:43:PHE:HE2	2.14	0.60
31:CA:601:C:H2'	31:CA:602:A:C8	2.32	0.60
51:CX:15:ARG:HH11	51:CX:15:ARG:HG3	1.66	0.60
4:AE:66:HIS:ND1	4:AE:66:HIS:C	2.53	0.60
34:CG:133:VAL:HG11	34:CG:138:TYR:HD1	1.66	0.60
34:CG:98:GLU:OE1	34:CG:194:LEU:HD23	2.00	0.60
40:DM:48:THR:HA	40:DM:62:HIS:CB	2.30	0.60
31:CA:376:G:OP1	46:CS:5:ARG:HB2	2.01	0.60
34:DG:178:VAL:C	34:DG:180:GLY:H	2.03	0.60
31:DA:619:U:O2	34:DG:135:LEU:HD22	2.01	0.60
1:AA:1800:C:OP1	3:AD:266:SER:OG	2.17	0.60
53:DD:37:U:O4	53:DD:38:A:N6	2.33	0.60
42:DO:8:ASN:HD22	47:DT:34:LYS:CE	2.14	0.60
2:BB:29:A:H2'	2:BB:30:C:O4'	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DF:155:GLY:O	33:DF:196:LEU:HD22	2.01	0.60
21:AV:11:GLU:HA	21:AV:36:LYS:HE3	1.81	0.60
1:BA:919:G:N2	1:BA:2269:A:OP2	2.33	0.60
1:BA:1570:A:H2'	1:BA:1571:A:C8	2.37	0.60
1:BA:2335:A:HO2'	1:BA:2336:A:P	2.24	0.60
1:AA:325:G:O2'	1:AA:326:G:H5'	2.02	0.60
38:CK:118:VAL:C	38:CK:119:LEU:HD23	2.21	0.60
1:BA:602:G:O2'	1:BA:604:G:O2'	2.19	0.60
53:CD:53:G:H1	53:CD:63:C:N4	1.99	0.60
1:BA:1346:G:H2'	1:BA:1347:G:H8	1.66	0.60
1:BA:907:U:O2'	12:BP:101:ARG:NH2	2.34	0.60
34:CG:9:CYS:SG	34:CG:31:CYS:O	2.60	0.60
11:AO:46:LYS:O	11:AO:47:ASP:HB3	2.00	0.60
5:BF:50:SER:HA	5:BF:92:PRO:O	2.01	0.60
1:BA:2415:G:H4'	11:BO:66:GLY:HA3	1.81	0.60
1:AA:1728:G:N2	1:AA:1730:U:OP2	2.33	0.60
1:AA:2420:C:OP1	30:A8:34:TRP:HB3	2.00	0.60
5:AF:178:PRO:HB3	5:AF:198:ALA:CB	2.31	0.60
50:CW:63:ILE:HG22	50:CW:77:ALA:HB1	1.83	0.60
19:AT:44:GLU:HG3	19:AT:49:VAL:O	2.00	0.60
1:AA:1210:A:H8	1:AA:1210:A:C5'	2.11	0.60
1:BA:1342:A:C8	1:BA:1345:C:C4	2.89	0.60
1:BA:2439:A:C5'	1:BA:2439:A:C8	2.84	0.60
31:CA:1277:C:O2'	31:CA:1279:A:H1'	2.00	0.60
31:CA:355:C:C4	31:CA:356:A:N7	2.69	0.60
31:DA:77:C:C3'	31:DA:78:G:H5''	2.31	0.60
33:DF:18:TRP:HE1	44:DQ:55:GLY:N	1.99	0.60
1:BA:370:G:H4'	1:BA:371:A:OP2	2.01	0.60
1:AA:598:G:H1'	11:AO:12:ALA:HB2	1.82	0.60
1:AA:909:A:H2'	1:AA:912:C:H5	1.64	0.60
37:CJ:111:ARG:NH1	37:CJ:113:GLU:OE2	2.34	0.60
15:BR:64:ARG:CB	15:BR:73:GLU:HG2	2.32	0.60
1:AA:600:G:N2	1:AA:605:C:O3'	2.35	0.60
32:DE:73:THR:HG23	32:DE:170:GLU:OE2	2.01	0.60
31:DA:680:C:H42	31:DA:710:G:H1	1.48	0.60
31:CA:1376:U:H2'	31:CA:1377:A:C8	2.37	0.60
8:BK:97:ILE:O	8:BK:100:ALA:HB3	2.00	0.60
4:BE:79:ARG:O	4:BE:80:GLU:C	2.40	0.60
1:AA:873:G:N2	1:AA:904:C:N3	2.49	0.60
4:BE:60:ASN:O	4:BE:62:PRO:CD	2.49	0.60
15:AR:36:GLU:HG3	15:AR:41:ARG:CD	2.18	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:106:ARG:HB2	14:AQ:106:ARG:CZ	2.31	0.60
12:AP:75:THR:HG22	12:AP:90:VAL:H	1.66	0.60
34:DG:8:VAL:HG12	34:DG:21:LEU:HD13	1.84	0.60
49:CV:9:VAL:O	49:CV:9:VAL:HG12	2.00	0.60
31:CA:1003:G:H2'	31:CA:1004:A:C5'	2.31	0.60
23:BZ:91:LYS:O	23:BZ:93:GLU:HB2	2.02	0.60
52:CB:19:G:H1'	52:CB:20:U:OP1	2.01	0.60
47:CT:76:LEU:HD11	47:CT:78:GLU:H	1.65	0.60
3:AD:182:LEU:O	3:AD:271:ILE:CG1	2.48	0.60
31:CA:872:A:C4	31:CA:874:G:N7	2.69	0.60
9:BM:15:LEU:HB2	9:BM:134:ARG:HG2	1.84	0.60
6:BG:7:LEU:O	6:BG:7:LEU:HD23	2.00	0.60
1:BA:2555:U:O2	52:DB:85:C:C5	2.54	0.60
1:AA:654(M):C:H2'	1:AA:654(N):G:N7	2.16	0.60
16:A1:92:ARG:HD3	16:A1:94:ASN:HB3	1.83	0.60
1:AA:507:A:C5'	1:AA:508:G:H5'	2.32	0.60
31:DA:812:C:C1'	31:DA:813:U:OP2	2.47	0.60
49:DV:67:VAL:O	49:DV:69:HIS:N	2.34	0.60
1:AA:2688:U:H1'	1:AA:2721:A:H61	1.67	0.60
8:AK:102:SER:C	8:AK:106:GLY:HA2	2.21	0.60
1:AA:2756:U:H1'	1:AA:2757:A:H5''	1.82	0.60
33:DF:58:GLU:O	33:DF:59:ARG:HG3	2.01	0.60
1:AA:2422:A:N7	30:A8:31:HIS:HE1	2.00	0.60
49:DV:31:ILE:HG21	49:DV:49:ILE:HG23	1.84	0.60
1:AA:1992:G:H5'	1:AA:1994:C:H41	1.66	0.60
35:CH:33:VAL:HB	35:CH:112:LEU:HD12	1.81	0.60
1:AA:1296:G:O2'	1:AA:1297:C:H5'	2.02	0.60
1:AA:53:A:H2'	1:AA:54:G:O4'	2.01	0.60
40:CM:80:LYS:NZ	40:CM:80:LYS:HA	2.17	0.60
52:DB:37:G:H1	54:D1:19:U:H3	1.49	0.60
50:CW:75:ASN:N	50:CW:75:ASN:OD1	2.35	0.60
19:BT:63:LYS:HE3	19:BT:63:LYS:N	2.16	0.60
1:BA:2197:U:H1'	1:BA:2198:A:C8	2.37	0.60
4:AE:58:ARG:O	4:AE:60:ASN:ND2	2.35	0.60
4:BE:36:ARG:HH21	4:BE:88:GLY:CA	2.12	0.60
6:AG:73:ALA:HB2	6:AG:82:LEU:CD2	2.09	0.60
1:BA:626:U:O2	11:BO:105:LEU:CB	2.50	0.60
31:DA:973:G:N3	40:DM:55:LYS:HE2	2.16	0.60
12:BP:32:TYR:CZ	12:BP:111:GLU:CB	2.74	0.60
39:CL:114:TYR:CD2	39:CL:114:TYR:N	2.68	0.60
31:DA:1002:G:H1	31:DA:1038:C:N4	1.99	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BD:43:ARG:HD2	3:BD:44:ASN:CG	2.22	0.60
36:DI:100:ASN:HB2	48:DU:23:LYS:CD	2.31	0.60
1:BA:946:G:C2'	1:BA:947:G:O5'	2.50	0.60
19:BT:50:LYS:HG2	19:BT:84:ALA:HB2	1.84	0.60
1:AA:1174:A:H3'	1:AA:1175:U:H5''	1.84	0.60
1:BA:587:C:O2	11:BO:33:ARG:NH1	2.35	0.60
1:BA:2689:U:C4'	1:BA:2690:C:H5'	2.31	0.60
1:BA:2721:A:H1'	1:BA:2873:A:O2'	2.02	0.60
38:CK:87:SER:CB	38:CK:93:VAL:HB	2.28	0.60
1:AA:481:G:H1'	1:AA:507:A:N1	2.16	0.60
1:BA:1495:A:O2'	1:BA:1496:A:H5'	2.01	0.60
32:CE:212:GLN:CG	32:CE:235:SER:HB2	2.32	0.60
2:BB:15:A:H3'	2:BB:16:G:H5'	1.83	0.60
6:AG:110:ALA:HA	6:AG:140:ILE:O	2.01	0.60
49:DV:28:LYS:HE3	49:DV:29:ARG:H	1.65	0.60
14:AQ:26:LEU:HD23	14:AQ:87:PHE:CD1	2.36	0.60
31:CA:814:A:N7	31:CA:816:A:C4	2.69	0.60
8:AK:11:ASN:O	8:AK:12:LEU:HD22	2.01	0.60
11:BO:57:THR:O	11:BO:59:LEU:N	2.34	0.60
33:DF:134:ILE:HG22	33:DF:168:ALA:HB3	1.84	0.60
32:DE:98:LEU:O	32:DE:101:MET:HG2	2.02	0.60
49:DV:48:THR:HG22	49:DV:61:TYR:HD1	1.66	0.60
33:CF:131:ARG:HG3	33:CF:131:ARG:HH11	1.67	0.60
19:BT:63:LYS:HD2	19:BT:63:LYS:O	2.01	0.60
33:CF:60:ALA:N	33:CF:63:ASN:OD1	2.33	0.60
4:AE:182:LEU:HD12	4:AE:183:LEU:N	2.17	0.60
1:BA:1763:G:C4'	1:BA:1763:G:OP1	2.49	0.60
1:BA:550:G:O2'	1:BA:1220:A:N3	2.32	0.60
1:BA:389:G:C2	11:BO:71:VAL:HG12	2.35	0.60
1:AA:1061:U:H4'	1:AA:1070:A:C1'	2.32	0.60
31:DA:1128:C:N4	31:DA:1139:G:C2	2.69	0.60
53:CC:18:C:O2'	53:CC:19:G:H5''	2.02	0.60
12:BP:35:VAL:CG2	12:BP:130:LYS:HB3	2.31	0.60
1:AA:2298:A:N6	1:AA:2318:G:H1'	2.16	0.60
7:AH:3:ARG:HE	7:AH:3:ARG:HA	1.66	0.60
28:A6:25:LYS:NZ	28:A6:27:LYS:HE2	2.16	0.60
1:AA:2383:G:C2'	1:AA:2384:G:H5'	2.31	0.60
1:AA:442:G:O4'	5:AF:46:ARG:HD3	2.01	0.60
29:A7:48:LYS:O	29:A7:49:ARG:CB	2.49	0.60
1:AA:2869:G:H2'	1:AA:2870:C:H6	1.65	0.60
1:BA:2688:U:H1'	1:BA:2721:A:N6	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1533:C:N3	1:AA:1538:G:N2	2.41	0.60
1:AA:1204:A:N1	1:AA:1241:A:C2	2.70	0.60
16:A1:60:LEU:O	16:A1:60:LEU:HD22	2.01	0.60
1:BA:1257:C:H4'	5:BF:83:PHE:HD2	1.63	0.60
3:AD:25:THR:HG22	3:AD:26:LYS:N	2.16	0.60
24:AW:15:LYS:H	24:AW:67:LYS:HZ1	1.49	0.60
31:DA:652:U:C4	31:DA:752:G:N3	2.69	0.60
52:DB:14:A:N6	52:DB:21:A:N6	2.48	0.60
8:BK:5:LEU:HD11	8:BK:19:VAL:CG1	2.32	0.60
16:A1:49:HIS:HA	16:A1:52:ARG:HG2	1.83	0.60
3:BD:267:SER:C	3:BD:269:PHE:H	2.03	0.60
38:DK:103:VAL:HG21	38:DK:110:ALA:HB2	1.83	0.60
1:AA:1591:G:H2'	1:AA:1592:C:H6	1.65	0.60
31:DA:1138:G:N1	31:DA:1140:C:O2	2.35	0.60
1:BA:315:G:H2'	1:BA:316:C:C6	2.37	0.60
12:AP:12:GLN:HG2	12:AP:73:PRO:HD2	1.83	0.60
35:CH:57:LYS:O	35:CH:61:TYR:HD2	1.84	0.60
13:B0:84:ALA:HB3	13:B0:85:PRO:HD3	1.83	0.60
23:BZ:80:LEU:HD12	23:BZ:82:LEU:HD21	1.84	0.60
2:BB:111:U:H2'	2:BB:112:G:C8	2.37	0.60
40:CM:40:LEU:HB2	40:CM:69:ASN:CB	2.32	0.60
1:AA:643:A:N1	1:AA:2369:A:O2'	2.32	0.60
4:AE:137:HIS:HB3	4:AE:138:PRO:HD2	1.81	0.60
4:AE:54:GLN:O	4:AE:55:ASN:C	2.40	0.60
1:BA:887:A:H3'	1:BA:888:C:C5'	2.32	0.60
31:DA:1129:C:N4	31:DA:1141:C:H41	2.00	0.60
1:AA:2309:A:H2'	1:AA:2310:A:C1'	2.32	0.60
31:DA:1306:A:H61	31:DA:1331:G:H1'	1.66	0.60
40:CM:49:VAL:HG21	44:CQ:41:ARG:HB2	1.82	0.60
1:AA:2302:G:C6	1:AA:2315:G:C6	2.89	0.60
1:BA:1607:C:H5''	1:BA:1608:A:H5'	1.83	0.60
31:CA:1125:U:H3	40:CM:5:ARG:HH11	1.48	0.60
39:CL:29:ASN:OD1	39:CL:64:THR:HA	2.02	0.60
8:BK:82:ARG:HB3	8:BK:89:TYR:HD2	1.65	0.60
26:A4:6:HIS:HD1	26:A4:7:PRO:HD2	1.67	0.60
1:AA:2165:G:N3	1:AA:2165:G:H2'	2.17	0.60
31:CA:383:A:H8	31:CA:383:A:O5'	1.85	0.60
1:AA:329:G:H4'	1:AA:330:A:OP2	2.00	0.60
1:BA:2320:A:N6	1:BA:2333:A:H2'	2.16	0.60
1:AA:2818:G:O2'	1:AA:2837:G:H5'	2.02	0.60
31:DA:351:G:H4'	31:DA:352:C:OP1	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2331:G:C4'	22:A3:42:GLY:HA3	2.31	0.60
31:CA:736:C:OP1	48:CU:68:LYS:HD2	2.02	0.60
53:CC:48:U:H6	53:CC:48:U:OP2	1.85	0.60
5:BF:10:PRO:HA	5:BF:127:GLU:HB3	1.82	0.60
1:BA:634:C:H2'	1:BA:635:C:H6	1.65	0.60
1:BA:362:U:H6	1:BA:362:U:H3'	1.66	0.60
53:CD:22:A:H2'	53:CD:47:G:C6	2.36	0.60
31:CA:658:G:H2'	31:CA:659:U:H6	1.67	0.60
18:AS:24:ILE:CG2	18:AS:36:LEU:HD21	2.31	0.60
39:DL:75:ASP:O	39:DL:78:LYS:HB3	2.02	0.60
11:BO:85:LEU:HA	11:BO:88:LEU:CB	2.31	0.60
8:BK:120:ILE:HG22	8:BK:122:GLU:H	1.67	0.60
31:CA:1287:A:H2'	31:CA:1288:A:C8	2.37	0.60
46:DS:36:ILE:HG13	46:DS:36:ILE:O	2.01	0.60
31:DA:194:C:H2'	31:DA:195:A:H5''	1.84	0.60
31:CA:668:G:O2'	45:CR:46:HIS:HB3	2.02	0.60
19:BT:53:LYS:HB3	19:BT:82:GLN:HB3	1.84	0.60
17:B2:76:LYS:CG	17:B2:80:GLN:CG	2.76	0.60
17:B2:80:GLN:O	17:B2:81:TYR:CB	2.50	0.60
11:AO:66:GLY:O	11:AO:67:MET:C	2.40	0.60
31:DA:1161:C:O2'	31:DA:1162:C:H5'	2.01	0.60
1:BA:2032:G:O2'	4:BE:145:LYS:HE3	2.02	0.60
12:BP:35:VAL:HG21	12:BP:130:LYS:HE2	1.83	0.60
31:CA:1060:C:H5'	44:CQ:45:ARG:NH2	2.16	0.60
43:CP:10:PRO:HB2	43:CP:18:ALA:HB1	1.84	0.60
31:CA:1176:A:H2'	31:CA:1177:G:H5'	1.84	0.60
1:BA:1332:G:N2	1:BA:1610:A:C8	2.70	0.60
21:AV:7:ALA:HB2	21:AV:59:LEU:CD1	2.32	0.60
21:AV:6:LYS:CA	21:AV:60:GLU:HB2	2.27	0.60
28:A6:25:LYS:HZ3	28:A6:27:LYS:CD	2.14	0.60
2:BB:39:A:H61	26:B4:1:MET:HB3	1.67	0.60
1:AA:654(M):C:C2'	1:AA:654(N):G:C8	2.83	0.60
1:AA:1578:U:O2	1:AA:1578:U:H2'	2.01	0.60
17:A2:34:GLU:O	17:A2:36:PRO:HD3	2.02	0.60
9:AM:112:LEU:O	9:AM:114:ARG:O	2.20	0.60
31:DA:1499:A:H1'	31:DA:1520:G:H5'	1.84	0.60
46:CS:8:ARG:HB3	46:CS:28:ARG:NH1	2.16	0.60
3:BD:70:TRP:HZ3	3:BD:146:GLU:OE2	1.85	0.60
31:DA:662:G:O2'	31:DA:836:G:OP1	2.20	0.60
1:BA:2303:G:O2'	1:BA:2304:G:H5'	2.01	0.60
14:BQ:83:LYS:C	14:BQ:109:GLY:HA3	2.21	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DV:28:LYS:HE3	49:DV:29:ARG:N	2.17	0.60
1:AA:1963:U:C6	1:AA:1963:U:OP1	2.54	0.60
24:BW:17:SER:OG	24:BW:21:LEU:HD12	2.01	0.60
48:DU:29:PHE:CD2	48:DU:29:PHE:N	2.70	0.60
31:CA:1194:U:H2'	31:CA:1195:C:H6	1.67	0.60
31:DA:949:A:C2	31:DA:1233:G:N3	2.70	0.60
53:CD:64:G:H2'	53:CD:65:G:C8	2.36	0.60
32:CE:106:LYS:O	32:CE:110:GLN:HG3	2.01	0.60
31:DA:878:G:C5'	38:DK:89:PRO:HG2	2.31	0.60
1:AA:1294:U:O2'	13:A0:23:ASN:ND2	2.35	0.60
31:DA:1356:G:N2	31:DA:1367:C:O2	2.35	0.60
1:AA:2246:G:H2'	1:AA:2247:A:C8	2.36	0.60
1:BA:2050:C:H1'	4:BE:156:MET:CE	2.32	0.60
1:BA:78:A:H2'	1:BA:79:G:C8	2.37	0.60
31:CA:113:G:H2'	31:CA:114:U:H6	1.66	0.60
37:CJ:75:VAL:O	37:CJ:75:VAL:HG23	2.01	0.60
7:AH:23:ARG:NH1	7:AH:34:GLU:OE2	2.35	0.60
11:BO:71:VAL:HG13	11:BO:72:PRO:CG	2.30	0.60
17:B2:82:ARG:CG	17:B2:82:ARG:NH1	2.59	0.60
14:BQ:14:VAL:HG21	14:BQ:89:ARG:HD3	1.82	0.60
11:AO:49:ARG:HD2	30:A8:58:ILE:HG21	1.84	0.60
1:AA:252:G:O2'	1:AA:253:C:H5'	2.02	0.60
31:CA:976:G:OP1	44:CQ:32:SER:N	2.34	0.60
28:B6:31:PRO:HB2	28:B6:33:LYS:HB2	1.84	0.60
12:AP:66:ILE:O	12:AP:104:PHE:N	2.35	0.60
12:AP:33:GLY:HA2	12:AP:105:GLU:HA	1.84	0.60
32:DE:111:ARG:HH11	32:DE:111:ARG:CG	1.90	0.60
32:CE:96:ARG:N	32:CE:96:ARG:HD2	2.08	0.60
34:CG:13:ARG:HD3	34:CG:38:TYR:O	2.01	0.60
1:AA:1021:A:H62	1:AA:1141:U:H3	1.50	0.60
17:B2:38:LEU:HD23	17:B2:40:LEU:O	2.02	0.60
1:BA:996:A:H4'	16:B1:92:ARG:CZ	2.32	0.60
1:BA:2873:A:N3	1:BA:2873:A:H2'	2.17	0.60
31:CA:626:U:H2'	31:CA:627:G:C8	2.37	0.60
1:BA:607:U:N3	1:BA:621:A:C2	2.69	0.60
7:AH:4:ILE:HG13	7:AH:6:ARG:HB2	1.84	0.60
31:CA:713:G:H2'	31:CA:714:G:C8	2.37	0.60
8:BK:123:LEU:HD13	8:BK:143:SER:HB3	1.84	0.60
31:DA:266:G:O6	31:DA:270:A:N7	2.35	0.60
1:BA:2712:U:H1'	1:BA:2712(A):A:C8	2.36	0.60
1:AA:639:U:H2'	1:AA:640:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1027:C:O2'	31:DA:1028:C:O5'	2.18	0.60
26:B4:63:TYR:CE2	49:DV:41:VAL:HG13	2.37	0.60
1:BA:1429:G:H2'	1:BA:1430:C:C6	2.37	0.60
17:B2:48:GLY:C	17:B2:49:THR:O	2.38	0.60
46:CS:34:GLU:HG2	46:CS:35:LYS:N	2.17	0.60
1:BA:1412:A:H2'	1:BA:1413:G:H8	1.66	0.60
1:BA:534:U:O2'	16:B1:49:HIS:CD2	2.54	0.60
1:AA:270(M):U:H1'	1:AA:270(N):G:C6	2.36	0.60
15:AR:124:ASP:O	15:AR:128:GLU:N	2.34	0.60
31:CA:510:A:OP2	34:CG:49:ARG:NH2	2.31	0.60
1:BA:1268:A:H2'	1:BA:1269:A:O4'	2.02	0.60
6:BG:110:ALA:HA	6:BG:140:ILE:O	2.02	0.60
48:DU:74:ARG:HD3	48:DU:81:PHE:CD2	2.36	0.60
53:DD:71:G:C2'	53:DD:72:C:H5'	2.32	0.60
31:CA:728:A:C6	45:CR:54:ARG:HD2	2.36	0.60
31:DA:1451:A:OP2	31:DA:1452:C:N4	2.35	0.60
28:B6:14:THR:OG1	28:B6:19:ARG:HG2	2.02	0.60
4:BE:52:LEU:HD13	4:BE:53:PRO:N	2.16	0.59
11:AO:71:VAL:N	11:AO:72:PRO:CD	2.65	0.59
4:BE:81:ILE:HG21	4:BE:84:PHE:HB3	1.82	0.59
4:AE:81:ILE:HG21	4:AE:84:PHE:HB2	1.82	0.59
11:AO:16:ARG:HG3	11:AO:16:ARG:NH1	2.15	0.59
12:BP:31:ASP:O	12:BP:134:ARG:CB	2.49	0.59
53:DC:19:G:N2	53:DC:58:A:H2'	2.17	0.59
4:BE:55:ASN:HB2	4:BE:73:GLU:O	2.01	0.59
14:AQ:85:VAL:HG23	14:AQ:112:PHE:CE1	2.37	0.59
1:BA:1323:U:OP1	18:BS:98:LYS:NZ	2.35	0.59
26:A4:61:ARG:NE	26:A4:61:ARG:HA	2.15	0.59
53:DD:13:C:HO2'	53:DD:14:A:P	2.25	0.59
15:BR:8:LYS:HB3	15:BR:8:LYS:HZ2	1.66	0.59
1:AA:2131:G:H5'	1:AA:2132:U:OP1	2.01	0.59
15:BR:26:ASP:HB3	15:BR:92:GLY:H	1.66	0.59
7:AH:4:ILE:HG13	7:AH:6:ARG:CZ	2.31	0.59
43:CP:11:ARG:HG2	43:CP:12:ASN:N	2.17	0.59
31:CA:96:G:C6	31:CA:97:U:C2	2.89	0.59
31:DA:689:C:C2'	31:DA:690:G:H5'	2.31	0.59
38:CK:58:TYR:O	38:CK:59:LEU:HD23	2.02	0.59
1:BA:1288:U:C2	1:BA:1327:C:O2	2.55	0.59
1:BA:959:A:N6	1:BA:960:A:N1	2.50	0.59
32:CE:17:PHE:HD2	32:CE:44:LEU:HD11	1.65	0.59
1:BA:2847:U:C2'	1:BA:2848:G:H5'	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:236:TYR:HA	32:CE:239:VAL:CG2	2.32	0.59
1:BA:2074:U:H2'	1:BA:2075:U:C6	2.36	0.59
31:CA:1240:U:P	37:CJ:116:ALA:HB2	2.42	0.59
1:BA:535:C:O2'	1:BA:536:A:H5'	2.01	0.59
1:BA:1449(A):G:H2'	1:BA:1450:C:H6	1.67	0.59
1:BA:2766:G:N3	1:BA:2766:G:H2'	2.16	0.59
1:AA:2059:A:O2'	5:AF:69:HIS:HD2	1.85	0.59
20:BU:35:TYR:CD1	20:BU:69:ALA:HB3	2.37	0.59
11:BO:68:GLN:CG	30:B8:12:LYS:HG2	2.32	0.59
1:AA:2311:A:C2	6:AG:80:PHE:CD1	2.90	0.59
1:BA:2287:A:N1	1:BA:2346:A:C2	2.70	0.59
21:AV:7:ALA:HB3	21:AV:61:LEU:CB	2.32	0.59
19:AT:49:VAL:HG12	19:AT:50:LYS:O	2.02	0.59
26:B4:16:CYS:HB3	26:B4:19:GLY:HA2	1.84	0.59
26:B4:34:GLU:O	43:DP:57:ARG:NH1	2.33	0.59
13:A0:4:LEU:O	13:A0:4:LEU:HD12	2.03	0.59
1:BA:511:U:H5''	1:BA:512:G:OP2	2.00	0.59
1:BA:2134:A:O2'	1:BA:2159:G:N2	2.35	0.59
31:CA:502:G:OP1	42:CO:115:SER:HB3	2.02	0.59
15:AR:108:ARG:HA	15:AR:111:ARG:NE	2.16	0.59
15:AR:112:ARG:HA	15:AR:115:ARG:HD2	1.83	0.59
31:DA:433:C:O2'	31:DA:434:U:H5'	2.02	0.59
31:DA:57:G:C5	31:DA:58:C:C4	2.90	0.59
1:AA:2098:U:H2'	1:AA:2099:U:O4'	2.02	0.59
31:CA:397:A:H5'	31:CA:398:C:OP1	2.02	0.59
1:AA:879:G:OP2	1:AA:879:G:H8	1.84	0.59
1:AA:2319:G:N7	14:AQ:3:ARG:HB3	2.16	0.59
1:BA:1645:G:H5''	1:BA:1646:C:H5'	1.84	0.59
31:CA:727:G:N2	31:CA:730:G:OP2	2.35	0.59
39:CL:25:LYS:HG3	39:CL:25:LYS:O	2.02	0.59
31:CA:1126:U:C5	31:CA:1127:G:C4	2.90	0.59
4:BE:96:PHE:O	4:BE:175:VAL:HG11	2.02	0.59
10:BN:7:TYR:CE1	10:BN:20:MET:HB2	2.37	0.59
11:AO:79:ARG:HB2	11:AO:110:TYR:HD1	1.68	0.59
3:AD:71:ASP:OD2	3:AD:103:ARG:NH2	2.36	0.59
14:BQ:88:ASP:O	14:BQ:89:ARG:CB	2.49	0.59
31:DA:1305:G:O2'	31:DA:1306:A:H8	1.80	0.59
1:BA:1057:A:H2	1:BA:1081:U:N3	2.00	0.59
4:BE:60:ASN:O	4:BE:62:PRO:HD3	2.01	0.59
36:DI:100:ASN:HB2	48:DU:23:LYS:HD2	1.84	0.59
31:CA:1132:C:H42	31:CA:1143:G:N2	1.99	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BF:25:PRO:C	5:BF:27:GLU:H	2.03	0.59
31:CA:1004:A:C2	31:CA:1024:G:H2'	2.38	0.59
40:DM:4:ILE:HA	40:DM:100:THR:HG22	1.82	0.59
1:AA:2733:A:C3'	1:AA:2734:A:H5''	2.31	0.59
11:BO:109:GLY:O	11:BO:110:TYR:CG	2.56	0.59
11:AO:20:GLY:N	11:AO:27:HIS:O	2.35	0.59
1:AA:2118:U:H5''	1:AA:2119:A:OP1	2.01	0.59
3:BD:242:ARG:HD2	3:BD:242:ARG:H	1.65	0.59
32:DE:165:VAL:HG23	32:DE:166:ASP:H	1.66	0.59
1:BA:2309:A:C5	1:BA:2310:A:C2	2.90	0.59
1:AA:1203:G:H5'	11:AO:3:LEU:HD13	1.84	0.59
17:A2:34:GLU:HA	17:A2:57:VAL:O	2.02	0.59
21:BV:158:PRO:HB2	21:BV:159:PRO:HD2	1.83	0.59
8:AK:2:LYS:HB2	8:AK:39:ALA:CB	2.32	0.59
31:CA:149:A:C2	31:CA:150:C:N3	2.70	0.59
31:DA:652:U:H1'	31:DA:653:A:C2	2.35	0.59
31:CA:443:C:H2'	31:CA:444:C:C6	2.36	0.59
32:CE:187:LEU:HA	32:CE:201:ILE:HB	1.84	0.59
35:CH:110:LEU:CD1	35:CH:118:ILE:HD13	2.31	0.59
31:DA:1374:A:H2'	31:DA:1375:A:C5'	2.32	0.59
7:BH:169:VAL:HG13	7:BH:170:ARG:N	2.17	0.59
39:CL:77:ILE:O	39:CL:81:ILE:HG12	2.02	0.59
7:BH:48:GLY:O	7:BH:49:VAL:HG13	2.02	0.59
2:BB:89:G:C8	2:BB:89:G:OP2	2.55	0.59
1:BA:2185:C:H2'	1:BA:2186:G:H8	1.66	0.59
1:BA:453:C:H4'	1:BA:472:A:N6	2.18	0.59
31:CA:186(C):G:C6	31:CA:191(E):G:N1	2.71	0.59
31:DA:730:G:C5	31:DA:731:G:H1'	2.37	0.59
1:BA:128:C:H2'	1:BA:129:C:C6	2.37	0.59
1:BA:2674:G:H4'	10:BN:30:ALA:HB2	1.85	0.59
10:BN:4:PRO:O	10:BN:5:GLN:HB2	2.02	0.59
10:AN:120:GLU:OE2	10:AN:122:LEU:HD21	2.02	0.59
27:B5:3:LYS:HG3	27:B5:4:HIS:N	2.17	0.59
1:AA:1102:C:H2'	1:AA:1103:A:C8	2.38	0.59
31:DA:1277:C:O2'	31:DA:1279:A:C8	2.50	0.59
5:BF:18:ARG:HG2	5:BF:19:GLU:H	1.65	0.59
23:BZ:85:LEU:HD12	23:BZ:85:LEU:O	2.01	0.59
47:CT:76:LEU:HD11	47:CT:78:GLU:C	2.22	0.59
31:DA:1239:A:H4'	31:DA:1240:U:C5'	2.33	0.59
2:BB:83:G:H5''	25:BX:52:HIS:CE1	2.37	0.59
1:AA:1210:A:C8	1:AA:1210:A:H5'	2.27	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CP:11:ARG:HG2	43:CP:12:ASN:H	1.67	0.59
1:BA:330:A:H2	1:BA:1210:A:C2'	2.16	0.59
15:AR:107:ASP:O	15:AR:110:ILE:HG23	2.02	0.59
1:AA:2849:U:H4'	1:AA:2868:A:C2	2.37	0.59
30:B8:61:LEU:O	30:B8:62:LEU:O	2.21	0.59
1:AA:299:A:C2	1:AA:322:A:C4	2.89	0.59
14:BQ:110:LEU:HD23	14:BQ:112:PHE:CE2	2.37	0.59
31:CA:856:C:C2'	31:CA:857:C:H5'	2.33	0.59
1:AA:1262:A:N3	27:A5:10:LYS:NZ	2.34	0.59
31:CA:943:U:H1'	39:CL:124:GLN:HE22	1.67	0.59
10:AN:4:PRO:O	10:AN:5:GLN:CB	2.50	0.59
21:AV:27:VAL:CG1	21:AV:87:ASP:HB3	2.33	0.59
1:BA:2527:C:C5	1:BA:2528:U:C5	2.89	0.59
31:CA:760:G:H2'	31:CA:761:G:H5'	1.84	0.59
1:BA:1142:U:O2	1:BA:1142:U:H2'	2.03	0.59
38:CK:121:ASP:HB2	38:CK:125:ARG:NH2	2.17	0.59
17:B2:76:LYS:N	17:B2:80:GLN:CB	2.65	0.59
30:B8:25:MET:O	30:B8:48:PHE:CE1	2.55	0.59
28:A6:43:CYS:HB3	28:A6:44:ARG:HH11	1.68	0.59
31:DA:1132:C:H2'	31:DA:1133:G:H8	1.68	0.59
12:BP:66:ILE:CA	12:BP:104:PHE:HA	2.32	0.59
39:CL:114:TYR:N	39:CL:114:TYR:HD2	2.00	0.59
31:DA:1026:G:C6	31:DA:1036:G:C2	2.90	0.59
1:AA:2469:A:C8	1:AA:2470:G:H1'	2.37	0.59
4:BE:56:PRO:CB	4:BE:57:LYS:CD	2.80	0.59
31:CA:1305:G:N2	31:CA:1331:G:C2'	2.59	0.59
34:CG:209:ARG:HA	34:CG:209:ARG:NE	2.17	0.59
1:BA:1025:G:OP1	1:BA:1025:G:H8	1.85	0.59
5:AF:32:LEU:O	5:AF:32:LEU:HD12	2.02	0.59
31:CA:701:C:O2	31:CA:703:G:N1	2.35	0.59
1:AA:475:U:C5	1:AA:481:G:O6	2.56	0.59
1:AA:271(B):G:H4'	1:AA:271(C):U:C5'	2.33	0.59
1:BA:244:A:C2	1:BA:255:A:C4	2.90	0.59
40:DM:23:ILE:HA	40:DM:26:ALA:HB3	1.85	0.59
1:BA:2165:G:H2'	1:BA:2165:G:N3	2.17	0.59
37:DJ:94:ARG:O	37:DJ:97:GLN:HB3	2.02	0.59
31:CA:438:G:H2'	31:CA:494:U:O4	2.02	0.59
9:BM:137:LYS:HA	9:BM:137:LYS:HZ3	1.68	0.59
42:CO:21:VAL:HG11	42:CO:24:LEU:CD1	2.32	0.59
52:DB:27:G:H5'	52:DB:28:C:OP2	2.03	0.59
1:AA:2024:G:H2'	1:AA:2025:C:H6	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DG:196:LEU:HB3	34:DG:197:PRO:HD2	1.85	0.59
18:AS:111:HIS:CD2	18:AS:112:GLY:H	2.19	0.59
2:BB:13:A:N1	2:BB:69:G:O2'	2.24	0.59
3:AD:231:HIS:ND1	3:AD:232:PRO:HD2	2.17	0.59
1:BA:747:U:O2	1:BA:2014:A:H1'	2.02	0.59
1:BA:1226:G:OP1	17:B2:85:LYS:CB	2.48	0.59
31:DA:1128:C:C4	31:DA:1139:G:C2	2.91	0.59
30:A8:52:LYS:H	30:A8:53:PRO:HD2	1.66	0.59
28:B6:28:ARG:HB3	28:B6:30:THR:C	2.22	0.59
1:BA:2415:G:H4'	11:BO:66:GLY:CA	2.32	0.59
11:BO:15:ARG:O	11:BO:16:ARG:O	2.21	0.59
31:CA:1022:G:H2'	31:CA:1023:G:O4'	2.03	0.59
31:DA:186:C:H1'	50:DW:81:LYS:HZ3	1.66	0.59
5:AF:178:PRO:HB3	5:AF:198:ALA:HB1	1.83	0.59
12:AP:14:ARG:HG2	12:AP:41:TRP:CH2	2.37	0.59
31:CA:836:G:C6	31:CA:851:G:C6	2.90	0.59
1:AA:654(M):C:H5''	1:AA:654(N):G:N7	2.17	0.59
37:CJ:23:VAL:CG1	37:CJ:43:PHE:CE2	2.84	0.59
5:BF:101:LEU:HD12	5:BF:102:PRO:CD	2.32	0.59
8:AK:130:TYR:N	8:AK:136:VAL:O	2.35	0.59
1:BA:2191:G:O2'	1:BA:2192:G:P	2.60	0.59
1:BA:2162:G:O2'	1:BA:2173:A:OP2	2.21	0.59
3:AD:142:VAL:HG23	3:AD:193:VAL:HA	1.83	0.59
31:DA:413:G:H2'	31:DA:428:G:H22	1.67	0.59
1:BA:1864:U:C2'	1:BA:1869:G:H5''	2.33	0.59
26:B4:63:TYR:O	49:DV:42:PRO:HD2	2.03	0.59
31:DA:407:G:H2'	31:DA:408:A:C8	2.37	0.59
36:CI:4:TYR:CD1	36:CI:92:LYS:HA	2.38	0.59
8:BK:27:ARG:HG2	23:BZ:71:TYR:CZ	2.37	0.59
11:BO:95:VAL:O	11:BO:95:VAL:CG2	2.50	0.59
15:BR:16:ARG:HH21	15:BR:19:LEU:HD21	1.68	0.59
1:BA:729:G:OP2	3:BD:13:ARG:NH1	2.35	0.59
4:AE:97:LYS:N	4:AE:100:GLU:OE1	2.31	0.59
13:A0:38:VAL:HB	13:A0:39:PRO:HD3	1.84	0.59
1:BA:1190:G:H2'	1:BA:1191:G:H8	1.68	0.59
1:BA:1926:U:H2'	1:BA:1928:A:OP2	2.02	0.59
1:BA:2788:C:H5''	1:BA:2789:C:OP2	2.02	0.59
31:DA:1099:G:C6	31:DA:1100:C:N3	2.71	0.59
1:BA:2252:G:H2'	1:BA:2253:G:O4'	2.03	0.59
6:BG:21:ARG:HH11	6:BG:21:ARG:HG2	1.67	0.59
11:AO:63:PRO:CA	30:A8:13:ARG:HB3	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:35:LYS:CA	3:AD:64:ILE:HG22	2.32	0.59
31:DA:1206:G:C6	31:DA:1207:G:C5	2.91	0.59
11:AO:50:ARG:NH2	11:AO:50:ARG:CG	2.47	0.59
31:CA:1057:G:H2'	31:CA:1058:G:O4'	2.02	0.59
12:AP:29:PHE:HD2	12:AP:65:PHE:CE1	2.21	0.59
12:AP:66:ILE:CD1	12:AP:67:ARG:C	2.70	0.59
1:BA:1331:A:O2'	1:BA:1332:G:H8	1.84	0.59
53:DD:59:A:O5'	53:DD:59:A:H8	1.85	0.59
12:BP:21:THR:HB	12:BP:99:PRO:O	2.03	0.59
5:AF:67:GLN:O	5:AF:68:LYS:HG2	2.02	0.59
1:AA:164:U:O2	1:AA:164:U:H2'	2.01	0.59
1:AA:2126:A:C6	1:AA:2162:G:N2	2.71	0.59
16:B1:92:ARG:HG3	16:B1:94:ASN:H	1.67	0.59
49:DV:65:ASN:HB2	49:DV:66:MET:HE1	1.85	0.59
5:BF:101:LEU:HD12	5:BF:102:PRO:HD2	1.83	0.59
7:AH:4:ILE:CG1	7:AH:6:ARG:HB2	2.33	0.59
5:BF:83:PHE:O	5:BF:84:VAL:CB	2.50	0.59
1:BA:2531:A:C2'	1:BA:2532:G:H5'	2.33	0.59
1:AA:1469:A:H2'	1:AA:1470:G:C8	2.37	0.59
31:CA:223:U:H2'	31:CA:224:C:C6	2.35	0.59
1:AA:2016:U:H1'	27:A5:6:VAL:HG13	1.83	0.59
31:CA:1072:G:C5	31:CA:1073:U:C4	2.91	0.59
1:BA:1558:A:H4'	1:BA:1559:G:H5'	1.85	0.59
1:BA:2111:C:O2	1:BA:2118:U:O2'	2.21	0.59
6:BG:112:PRO:HB2	26:B4:37:SER:HA	1.85	0.59
1:AA:2334:G:C2	14:AQ:12:PHE:CE2	2.91	0.59
1:AA:1591:G:H2'	1:AA:1592:C:C6	2.38	0.59
41:DN:99:GLN:HG2	41:DN:105:VAL:HG21	1.85	0.59
31:CA:1315:U:H2'	31:CA:1316:G:O4'	2.01	0.59
1:AA:270(G):C:H2'	1:AA:270(H):C:O4'	2.02	0.59
12:AP:59:ARG:O	12:AP:60:ARG:C	2.41	0.59
1:AA:1429:G:H2'	1:AA:1430:C:C6	2.37	0.59
2:BB:31:C:C2'	2:BB:32:C:H5'	2.33	0.59
1:BA:128:C:H2'	1:BA:129:C:H6	1.66	0.59
1:AA:2104:G:C2	1:AA:2186:G:C2	2.91	0.59
40:DM:8:LEU:O	40:DM:16:LEU:HD11	2.03	0.59
12:BP:50:ALA:O	12:BP:53:ALA:HB3	2.03	0.59
45:CR:7:GLU:O	45:CR:11:VAL:HG23	2.02	0.59
48:DU:78:LEU:O	48:DU:79:LEU:HD23	2.02	0.59
1:BA:627:A:H62	11:BO:84:ASN:HD21	1.50	0.59
11:BO:98:GLU:O	11:BO:102:ARG:HG3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:531:C:OP1	1:BA:561:G:N1	2.36	0.59
18:AS:79:GLY:C	18:AS:100:THR:HG22	2.23	0.59
2:AB:89:G:OP2	2:AB:89:G:H8	1.84	0.59
34:CG:114:ARG:HH11	34:CG:114:ARG:CG	2.16	0.59
3:AD:85:ASP:OD1	3:AD:86:PRO:HD2	2.02	0.59
31:DA:1032:A:H3'	31:DA:1032(A):G:C5'	2.32	0.59
10:BN:92:GLU:HG2	10:BN:113:LYS:HE3	1.83	0.59
28:A6:15:GLU:HG2	28:A6:16:CYS:N	2.16	0.59
31:DA:1131:G:OP1	39:DL:3:GLN:NE2	2.36	0.59
2:AB:108:C:H5'	2:AB:109:G:O5'	2.02	0.59
24:AW:4:SER:CB	24:AW:5:GLU:OE2	2.38	0.59
28:B6:29:ASN:HD22	28:B6:29:ASN:H	1.51	0.59
4:AE:111:ARG:CD	4:AE:160:TYR:CE1	2.84	0.59
31:CA:1145:C:H4'	31:CA:1146:A:H5'	1.83	0.59
31:CA:1004:A:C8	31:CA:1036:G:N2	2.64	0.59
1:BA:1012:U:C4	9:BM:25:ARG:HD3	2.38	0.59
33:DF:111:LEU:HD11	33:DF:145:GLY:CA	2.28	0.59
20:BU:81:LYS:HB3	20:BU:82:PRO:CD	2.33	0.59
19:BT:49:VAL:HB	19:BT:83:VAL:HG21	1.84	0.59
50:CW:72:LEU:HD21	50:CW:77:ALA:N	2.18	0.59
9:BM:36:GLY:H	9:BM:42:TRP:HZ3	1.51	0.59
6:BG:67:LYS:HB3	26:B4:6:HIS:HD2	1.68	0.59
1:BA:2779:U:O4'	1:BA:2779:U:O2	2.21	0.59
50:CW:57:ARG:HH12	50:CW:102:GLY:HA2	1.67	0.59
1:AA:1796:U:H2'	1:AA:1797:C:C6	2.37	0.59
31:DA:51:A:C2	31:DA:353:A:N1	2.71	0.59
31:CA:105:G:H2'	31:CA:106:C:H6	1.65	0.59
1:BA:329:G:H4'	1:BA:330:A:OP2	2.02	0.59
34:CG:61:LYS:HD2	34:CG:206:PHE:CE2	2.36	0.59
3:BD:70:TRP:CZ3	3:BD:150:LYS:HA	2.38	0.59
35:CH:12:LEU:HB3	35:CH:31:LEU:HB2	1.85	0.59
53:DD:52:C:H42	53:DD:64:G:H1	1.51	0.59
1:AA:1991:U:H2'	1:AA:1992:G:H5''	1.85	0.59
21:AV:48:PHE:HE2	21:AV:71:VAL:HG11	1.67	0.59
43:DP:88:ARG:HG3	43:DP:98:VAL:HG11	1.85	0.59
1:BA:637:A:H5''	11:BO:117:GLU:HG3	1.83	0.59
43:CP:15:VAL:O	43:CP:19:LEU:HD23	2.03	0.59
1:BA:57:C:C2'	1:BA:58:G:O5'	2.50	0.59
35:DH:41:VAL:HG13	35:DH:113:ALA:HA	1.85	0.59
31:CA:763:G:H2'	31:CA:764:C:H6	1.68	0.59
15:AR:33:LYS:HE2	15:AR:84:GLN:HB2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B5:5:PRO:C	27:B5:6:VAL:HG23	2.22	0.59
1:AA:1056:G:O4'	1:AA:1086:A:C8	2.54	0.59
4:BE:48:GLN:O	4:BE:49:LEU:CD1	2.50	0.59
3:BD:58:HIS:HD2	3:BD:59:LYS:O	1.85	0.59
1:AA:1972:A:H2'	1:AA:1973:G:H8	1.68	0.59
31:DA:1200:C:H5'	31:DA:1201:A:C5'	2.33	0.59
1:BA:1063:G:C6	1:BA:1064:C:C2	2.91	0.59
31:CA:1152:A:C5	31:CA:1153:C:C5	2.90	0.59
7:AH:83:TYR:CB	7:AH:135:GLY:H	2.02	0.59
11:BO:50:ARG:HD3	30:B8:7:HIS:NE2	2.18	0.59
31:CA:1002:G:H2'	31:CA:1003:G:C8	2.37	0.59
24:AW:50:ILE:O	24:AW:54:LYS:HB2	2.03	0.59
1:AA:141:A:H1'	1:AA:1408:C:O4'	2.03	0.59
16:A1:92:ARG:HB2	17:A2:11:GLN:NE2	2.18	0.59
1:BA:1416:G:HO2'	1:BA:1417:C:H6	1.49	0.59
1:BA:2157:G:H2'	1:BA:2158:A:H8	1.68	0.59
1:BA:2331:G:H4'	22:B3:43:THR:H	1.66	0.59
1:BA:1991:U:H2'	1:BA:1992:G:H5''	1.84	0.59
1:BA:271:G:H2'	1:BA:272:G:C8	2.38	0.59
18:AS:51:LEU:HD23	18:AS:105:VAL:HG11	1.85	0.59
1:BA:4:C:H2'	1:BA:5:A:O4'	2.03	0.59
1:BA:2543:G:H2'	1:BA:2544:G:C8	2.37	0.59
29:A7:25:PRO:HB3	29:A7:28:ARG:NH2	2.18	0.59
33:CF:155:GLY:HA3	33:CF:196:LEU:HB3	1.84	0.59
17:B2:73:SER:HB2	17:B2:83:ARG:CA	2.20	0.59
31:CA:411:A:C6	31:CA:429:U:C4	2.91	0.59
1:BA:851:U:O2	1:BA:928:G:C2	2.56	0.59
39:DL:99:LEU:HB3	39:DL:101:PHE:CE1	2.37	0.59
12:BP:139:GLU:OE1	21:BV:76:LEU:HD21	2.03	0.59
31:CA:1160:G:O6	31:CA:1181:G:C6	2.55	0.59
30:A8:33:ASN:CA	30:A8:36:LYS:HE3	2.32	0.59
53:CD:20:G:H2'	53:CD:20:G:N3	2.16	0.59
1:AA:1534:G:O6	1:AA:1538:G:N2	2.33	0.59
1:AA:2508:G:H5'	52:CB:85:C:N4	2.17	0.59
31:DA:321:A:C2	31:DA:333:G:C2	2.91	0.59
31:DA:327:A:O2'	31:DA:328:C:O4'	2.18	0.59
31:DA:476:G:H2'	31:DA:477:G:H8	1.68	0.59
31:DA:259:G:H1	31:DA:267:C:H42	1.51	0.59
21:BV:156:LYS:O	21:BV:157:LEU:HB2	2.03	0.59
31:CA:96:G:C2'	31:CA:97:U:H5'	2.33	0.59
37:DJ:26:PHE:CE2	37:DJ:30:ILE:HD11	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:270(I):G:H1	1:BA:270(Q):C:N4	2.00	0.59
32:CE:215:LEU:O	32:CE:219:VAL:HG23	2.02	0.59
42:DO:70:ILE:CD1	42:DO:77:LEU:HD12	2.32	0.59
1:BA:2485:G:C5'	12:BP:46:GLN:HE21	2.15	0.59
53:CC:68:C:H2'	53:CC:69:C:H5'	1.85	0.59
16:A1:66:ASN:HB2	16:A1:76:TYR:HB2	1.85	0.59
33:DF:195:VAL:C	33:DF:196:LEU:HD23	2.24	0.59
38:DK:84:ARG:O	38:DK:135:CYS:HB2	2.02	0.59
1:AA:1432:C:H2'	1:AA:1433:U:O4'	2.02	0.59
8:AK:40:THR:HG22	8:AK:42:SER:H	1.67	0.59
1:BA:1224:G:N2	1:BA:1227:A:OP2	2.33	0.59
1:BA:2820:A:O5'	13:B0:4:LEU:HD23	2.02	0.59
1:BA:301:G:C4	1:BA:302:C:C5	2.91	0.59
1:BA:2822:G:O5'	1:BA:2822:G:H8	1.86	0.59
40:CM:33:GLN:HB2	40:CM:75:ILE:HD11	1.83	0.59
3:BD:121:PRO:HB3	3:BD:135:PHE:CE1	2.38	0.59
1:AA:2839:G:C6	1:AA:2840:C:C4	2.91	0.59
4:AE:51:PHE:O	4:AE:74:PRO:CB	2.51	0.58
1:AA:2310:A:N3	1:AA:2310:A:C3'	2.64	0.58
31:DA:1053:G:C4	31:DA:1199:U:C5	2.91	0.58
11:AO:50:ARG:O	11:AO:51:PHE:C	2.41	0.58
53:DC:63:C:O2	53:DC:63:C:H2'	2.03	0.58
31:CA:1349:A:P	39:CL:118:LYS:NZ	2.76	0.58
7:BH:125:VAL:HG22	7:BH:126:PRO:CD	2.17	0.58
1:AA:2212:A:H1'	1:AA:2215:G:C4	2.37	0.58
1:BA:1024:G:C3'	1:BA:1025:G:H5''	2.33	0.58
31:CA:299:G:H2'	31:CA:300:A:C8	2.38	0.58
20:AU:78:ALA:HB3	20:AU:81:LYS:HZ2	1.65	0.58
31:DA:1300:G:O2'	31:DA:1301:U:P	2.61	0.58
1:BA:1048:A:OP2	1:BA:1109:C:N4	2.36	0.58
6:BG:5:VAL:HG22	26:B4:25:TYR:CE2	2.38	0.58
1:BA:545:G:H21	1:BA:548:A:N6	1.98	0.58
1:BA:2320:A:H61	1:BA:2333:A:H2'	1.68	0.58
1:BA:1170:G:O6	1:BA:1179:C:N3	2.36	0.58
31:DA:1028:C:H42	31:DA:1033:G:H1	1.51	0.58
1:AA:1380:G:N2	1:AA:1570:A:C2	2.71	0.58
1:BA:1385:G:N3	1:BA:1386:C:C6	2.71	0.58
14:BQ:20:ARG:O	14:BQ:20:ARG:HG2	2.02	0.58
13:A0:75:LEU:HA	13:A0:78:LYS:HB3	1.85	0.58
11:AO:101:VAL:HG23	11:AO:106:LEU:HB3	1.84	0.58
1:BA:1763:G:H5'	1:BA:1764:G:OP2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:32:C:C2'	1:AA:33:U:H5'	2.33	0.58
21:AV:150:LEU:HD23	21:AV:154:ASP:HB2	1.84	0.58
8:AK:144:VAL:HG22	8:AK:145:VAL:N	2.16	0.58
16:B1:112:ARG:NH1	17:B2:47:VAL:HG13	2.18	0.58
22:B3:53:MET:HA	22:B3:58:THR:O	2.02	0.58
1:AA:2001:A:H2'	1:AA:2002:G:C8	2.38	0.58
7:BH:20:ALA:HB3	7:BH:23:ARG:HB2	1.84	0.58
1:BA:847:U:OP2	1:BA:929:G:O6	2.21	0.58
31:DA:1321:C:C5	31:DA:1322:C:C5	2.91	0.58
28:B6:43:CYS:SG	28:B6:43:CYS:O	2.61	0.58
1:AA:102:G:OP1	24:AW:7:ARG:NH1	2.35	0.58
11:BO:66:GLY:O	11:BO:67:MET:C	2.40	0.58
48:DU:56:THR:HB	48:DU:58:LEU:HD11	1.84	0.58
1:BA:2306:C:C3'	1:BA:2307:G:H5''	2.24	0.58
53:DD:15:G:N2	53:DD:49:C:C2	2.66	0.58
31:CA:1399:C:H4'	31:CA:1400:C:O5'	2.02	0.58
31:CA:466:C:C5'	31:CA:467:G:OP2	2.51	0.58
1:AA:164:U:H5''	1:AA:165:U:O2	2.03	0.58
1:AA:1688:U:O2	1:AA:1700:A:H5''	2.03	0.58
3:AD:75:ILE:HG21	3:AD:99:ASP:OD1	2.03	0.58
26:B4:2:LYS:HD2	26:B4:6:HIS:CE1	2.39	0.58
2:BB:44:G:H1'	2:BB:47:C:N4	2.18	0.58
6:BG:77:ILE:O	6:BG:81:LYS:O	2.21	0.58
31:DA:321:A:H62	31:DA:328:C:H1'	1.68	0.58
16:A1:60:LEU:CD1	16:A1:64:ARG:HD2	2.32	0.58
1:BA:320:A:H4'	1:BA:322:A:C8	2.38	0.58
31:DA:1503:A:H1'	31:DA:1504:G:OP1	2.03	0.58
21:BV:97:GLU:HB3	21:BV:125:LEU:HD11	1.85	0.58
49:CV:30:LEU:HD13	49:CV:30:LEU:H	1.67	0.58
11:BO:147:LEU:CD2	11:BO:148:LEU:H	2.16	0.58
49:DV:45:VAL:HA	49:DV:62:ILE:CG2	2.32	0.58
1:AA:494:G:N2	18:AS:57:ASN:HD21	2.01	0.58
6:BG:117:PHE:HD1	6:BG:118:ARG:O	1.83	0.58
37:CJ:26:PHE:CE2	37:CJ:30:ILE:HD11	2.39	0.58
31:CA:1466:C:H2'	31:CA:1467:G:O4'	2.03	0.58
47:CT:22:LEU:HD11	47:CT:39:SER:HB3	1.84	0.58
1:AA:2023:G:H5'	1:AA:2617:C:H4'	1.85	0.58
1:BA:2062:A:H62	1:BA:2503:A:H62	1.48	0.58
1:AA:1437:C:H2'	1:AA:1438:U:H6	1.67	0.58
1:BA:2015:A:C2'	27:B5:2:ALA:HA	2.27	0.58
30:B8:51:ALA:O	30:B8:53:PRO:CD	2.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:64:LYS:HD3	30:A8:25:MET:SD	2.43	0.58
11:AO:15:ARG:O	11:AO:16:ARG:O	2.21	0.58
1:AA:2468:G:N2	1:AA:2482:G:C8	2.70	0.58
31:CA:1152:A:H4'	40:CM:13:HIS:CD2	2.38	0.58
21:AV:63:ASP:CG	21:AV:65:GLN:HE21	2.06	0.58
1:BA:2213:U:H4'	23:BZ:52:ARG:HH22	1.67	0.58
31:DA:992:U:H1'	31:DA:993:G:OP2	2.02	0.58
1:BA:1043:C:H2'	1:BA:1044:G:H5'	1.85	0.58
6:AG:26:GLN:NE2	6:AG:27:ASN:HB2	2.19	0.58
11:AO:97:PRO:HD3	11:AO:126:VAL:O	2.03	0.58
1:BA:2522:U:C2'	1:BA:2523:G:H5''	2.32	0.58
31:CA:954:G:H21	31:CA:1227:A:H62	1.51	0.58
26:A4:37:SER:HB3	26:A4:42:PHE:CD1	2.38	0.58
14:BQ:106:ARG:HB3	14:BQ:110:LEU:HD11	1.85	0.58
14:AQ:26:LEU:HB3	14:AQ:87:PHE:HA	1.85	0.58
1:BA:2111:C:H41	1:BA:2147:G:N2	2.01	0.58
31:CA:377:G:OP1	46:CS:3:LYS:HD2	2.03	0.58
33:DF:14:ILE:CG1	33:DF:15:THR:N	2.67	0.58
1:AA:2335:A:C8	1:AA:2337:G:N7	2.72	0.58
31:CA:1084:G:C5	31:CA:1085:U:C4	2.91	0.58
7:BH:106:THR:HG23	7:BH:112:PRO:HB3	1.84	0.58
1:BA:1353:A:H4'	3:BD:38:LYS:NZ	2.18	0.58
25:AX:52:HIS:CD2	25:AX:52:HIS:H	2.20	0.58
39:CL:23:ASN:OD1	39:CL:25:LYS:HB3	2.02	0.58
37:DJ:136:LYS:NZ	37:DJ:140:ASP:OD1	2.26	0.58
8:AK:3:VAL:HG12	8:AK:38:LEU:HA	1.86	0.58
1:BA:270(F):U:H2'	1:BA:270(G):C:C6	2.38	0.58
14:BQ:3:ARG:HG3	14:BQ:4:LEU:N	2.19	0.58
38:DK:29:SER:HB3	38:DK:32:LYS:CG	2.34	0.58
1:AA:2619:C:H4'	4:AE:151:TYR:O	2.03	0.58
43:CP:99:ARG:O	43:CP:101:GLN:NE2	2.37	0.58
15:BR:136:GLN:O	15:BR:137:LYS:HD2	2.02	0.58
24:AW:29:LYS:HD3	24:AW:57:ILE:HD13	1.84	0.58
43:CP:108:ARG:HD2	43:CP:108:ARG:N	2.16	0.58
5:BF:148:LEU:HD23	5:BF:191:ARG:HH12	1.68	0.58
31:DA:1028(A):C:N4	31:DA:1028(B):C:H41	2.01	0.58
1:AA:1085:A:C4'	1:AA:1086:A:OP1	2.50	0.58
3:AD:35:LYS:HD3	3:AD:63:ARG:C	2.23	0.58
39:DL:99:LEU:HB3	39:DL:101:PHE:HE1	1.69	0.58
31:DA:1305:G:N2	31:DA:1331:G:H2'	2.15	0.58
15:AR:41:ARG:HG2	31:CA:346:G:H5'	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AZ:91:LYS:O	23:AZ:94:LEU:N	2.31	0.58
1:AA:2212:A:H1'	1:AA:2215:G:C5	2.38	0.58
31:CA:1391:U:H2'	31:CA:1392:G:C8	2.38	0.58
31:CA:1004:A:OP1	31:CA:1025:U:O4	2.21	0.58
1:AA:960:A:N6	12:AP:83:MET:HE2	2.08	0.58
1:AA:1111:A:O2'	1:AA:1112:G:H4'	2.03	0.58
1:BA:84:A:OP2	20:BU:8:LYS:HD3	2.02	0.58
31:DA:192:U:O4'	50:DW:103:GLY:HA3	2.04	0.58
1:AA:164:U:H5''	1:AA:165:U:C2	2.37	0.58
31:CA:1032(B):G:H2'	31:CA:1033:G:C8	2.38	0.58
1:AA:2712:U:C5'	1:AA:2712:U:O2	2.47	0.58
31:CA:687:A:H4'	31:CA:688:G:O5'	2.02	0.58
31:CA:1346:A:C4	37:CJ:10:ARG:NH1	2.71	0.58
1:BA:2130:U:H2'	1:BA:2131:G:H5''	1.86	0.58
31:CA:1301:U:C2'	31:CA:1302:U:H5'	2.32	0.58
7:BH:74:ASN:ND2	7:BH:138:LYS:HG2	2.18	0.58
33:CF:34:LEU:HD22	33:CF:38:ARG:HD2	1.84	0.58
13:B0:87:TYR:HD1	13:B0:90:ARG:HD2	1.68	0.58
11:AO:11:GLY:C	11:AO:13:ASN:N	2.57	0.58
34:CG:28:SER:HB3	34:CG:29:PRO:CD	2.33	0.58
1:BA:1485:G:C2'	1:BA:1486:A:H5'	2.33	0.58
5:BF:149:ASP:OD2	5:BF:151:SER:OG	2.19	0.58
46:CS:72:ARG:CD	46:CS:73:LEU:HD23	2.33	0.58
31:DA:1226:C:H4'	49:DV:80:TYR:OH	2.02	0.58
11:BO:85:LEU:HB3	11:BO:114:ILE:CD1	2.33	0.58
31:CA:939:G:H2'	31:CA:940:C:C6	2.38	0.58
31:DA:1028(B):C:H3'	31:DA:1029:G:H5''	1.84	0.58
1:AA:1914:C:H2'	1:AA:1915:U:O4'	2.04	0.58
17:B2:59:ALA:HA	17:B2:95:LEU:O	2.03	0.58
1:BA:2103:C:H2'	1:BA:2104:G:C8	2.39	0.58
5:BF:162:LEU:HD12	5:BF:162:LEU:N	2.19	0.58
5:AF:34:TRP:NE1	11:AO:8:PRO:HD3	2.18	0.58
1:AA:1067:A:H2'	1:AA:1067:A:N3	2.18	0.58
28:A6:36:LEU:HD23	28:A6:36:LEU:H	1.66	0.58
32:DE:64:ARG:O	32:DE:64:ARG:HG2	2.02	0.58
15:BR:82:LEU:HD12	15:BR:82:LEU:H	1.68	0.58
35:DH:31:LEU:HD11	35:DH:129:ILE:HA	1.85	0.58
53:DC:51:U:H2'	53:DC:52:C:C6	2.38	0.58
27:B5:5:PRO:O	27:B5:6:VAL:CG2	2.52	0.58
3:AD:35:LYS:CE	3:AD:64:ILE:C	2.70	0.58
4:BE:46:ALA:HB2	4:BE:82:ARG:HA	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:A6:46:HIS:O	28:A6:47:THR:CB	2.50	0.58
1:BA:882:G:H1	1:BA:894:C:H42	0.68	0.58
1:AA:1973:G:H2'	1:AA:1974:C:C6	2.39	0.58
28:B6:47:THR:O	28:B6:48:VAL:C	2.42	0.58
12:BP:35:VAL:CG2	12:BP:130:LYS:HE2	2.34	0.58
1:BA:1061:U:H4'	1:BA:1070:A:H1'	1.85	0.58
1:BA:946:G:HO2'	1:BA:947:G:H5'	1.66	0.58
1:AA:957:A:N1	1:AA:2458:G:H4'	2.18	0.58
28:A6:28:ARG:HB3	28:A6:28:ARG:HH11	1.68	0.58
3:BD:186:HIS:HD2	3:BD:188:GLU:N	1.94	0.58
9:BM:47:ALA:O	9:BM:49:GLY:N	2.30	0.58
1:AA:1025:G:C4	1:AA:1135:C:H1'	2.38	0.58
9:BM:128:HIS:NE2	9:BM:134:ARG:HD2	2.18	0.58
6:BG:43:LEU:O	6:BG:88:ILE:HG12	2.03	0.58
31:DA:1352:C:H2'	31:DA:1353:G:C8	2.38	0.58
17:B2:46:VAL:O	17:B2:46:VAL:HG22	2.03	0.58
7:BH:149:ARG:HD3	7:BH:164:TYR:CE1	2.38	0.58
1:BA:309:G:O3'	20:BU:18:GLY:HA2	2.04	0.58
8:AK:104:GLN:O	8:AK:105:HIS:CG	2.57	0.58
31:CA:148:G:C2	31:CA:149:A:N7	2.71	0.58
31:CA:1277:C:HO2'	31:CA:1279:A:H1'	1.68	0.58
1:BA:2135:A:C8	1:BA:2135:A:OP2	2.57	0.58
37:DJ:22:LEU:HD23	37:DJ:62:PHE:HE2	1.67	0.58
31:DA:77:C:N4	31:DA:92:G:H1	2.00	0.58
34:CG:3:ARG:HG2	34:CG:118:ARG:CZ	2.33	0.58
32:DE:67:THR:HG21	32:DE:155:LEU:HG	1.84	0.58
27:A5:16:ARG:O	27:A5:20:ARG:HD2	2.04	0.58
31:DA:527:G:C2'	31:DA:528:C:H5'	2.33	0.58
6:AG:125:PHE:HE1	6:AG:180:PHE:HE2	1.51	0.58
1:BA:1558:A:O2'	1:BA:1559:G:OP2	2.14	0.58
26:B4:37:SER:OG	26:B4:38:LYS:N	2.37	0.58
31:CA:342:C:N3	31:CA:348:G:C2	2.71	0.58
53:CD:39:A:H2'	53:CD:40:C:H5'	1.84	0.58
2:BB:88:C:H3'	2:BB:89:G:H8	1.69	0.58
31:CA:914:A:C4	31:CA:915:A:C8	2.92	0.58
40:CM:40:LEU:HB2	40:CM:69:ASN:HB2	1.86	0.58
16:A1:17:ILE:HG23	16:A1:39:LEU:HD12	1.86	0.58
31:DA:109:A:C6	31:DA:326:G:C6	2.91	0.58
35:CH:41:VAL:HG11	35:CH:113:ALA:HB2	1.84	0.58
49:DV:40:ILE:HD11	49:DV:71:LEU:HD23	1.86	0.58
34:DG:201:GLN:NE2	34:DG:204:ILE:HD12	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:88:ILE:O	8:AK:121:LYS:HE3	2.03	0.58
1:BA:212:G:O2'	1:BA:213:A:H5'	2.03	0.58
1:AA:1139:G:O2'	1:AA:1143:A:N1	2.33	0.58
27:B5:4:HIS:O	27:B5:5:PRO:C	2.40	0.58
1:AA:1085:A:H2	1:AA:1086:A:N7	2.01	0.58
4:AE:4:ILE:HG12	4:AE:5:LEU:N	2.19	0.58
12:BP:57:HIS:CG	12:BP:57:HIS:O	2.56	0.58
30:B8:33:ASN:OD1	30:B8:33:ASN:N	2.35	0.58
31:DA:1004:A:H8	31:DA:1036:G:N2	1.90	0.58
11:BO:109:GLY:O	11:BO:110:TYR:CD2	2.57	0.58
6:BG:97:ASP:H	6:BG:100:TRP:HD1	1.52	0.58
31:CA:1348:U:N3	31:CA:1374:A:C2	2.69	0.58
1:BA:1460:A:H4'	1:BA:1461:G:OP2	2.03	0.58
1:BA:2162:G:O2'	1:BA:2163:C:H5'	2.02	0.58
1:BA:1771:C:O2'	1:BA:1786:A:H8	1.86	0.58
1:AA:1925:C:H2'	1:AA:1926:U:H5'	1.86	0.58
15:AR:26:ASP:HB3	15:AR:92:GLY:H	1.67	0.58
31:CA:659:U:O2'	31:CA:660:G:H5'	2.04	0.58
31:DA:1219:U:OP1	44:DQ:19:ARG:NH2	2.36	0.58
31:DA:616:G:H2'	31:DA:617:G:H8	1.68	0.58
31:CA:960:U:O2	31:CA:1225:A:C5	2.56	0.58
10:AN:3:GLN:HG3	10:AN:4:PRO:HD2	1.83	0.58
40:CM:3:LYS:O	40:CM:100:THR:HG22	2.03	0.58
35:DH:36:ASP:CG	35:DH:38:GLN:HB2	2.24	0.58
8:BK:38:LEU:HD12	8:BK:38:LEU:H	1.68	0.58
31:CA:1191:A:H5''	31:CA:1192:C:OP2	2.03	0.58
1:AA:2419:U:O4	30:A8:30:ARG:NE	2.36	0.58
17:A2:65:GLY:HA3	17:A2:91:TYR:CE1	2.38	0.58
32:CE:200:ILE:H	32:CE:200:ILE:HD12	1.67	0.58
28:B6:13:CYS:O	28:B6:21:TYR:HA	2.04	0.58
14:AQ:38:GLN:HG3	14:AQ:47:THR:HG21	1.86	0.58
4:BE:47:VAL:HG13	4:BE:48:GLN:N	2.16	0.58
28:B6:15:GLU:HG2	28:B6:16:CYS:H	1.68	0.58
12:AP:104:PHE:HE1	12:AP:125:LEU:HD11	1.68	0.58
15:AR:58:ASN:O	15:AR:59:THR:C	2.40	0.58
7:AH:15:VAL:HG12	7:AH:28:GLY:HA3	1.86	0.58
31:CA:1128:C:H5'	39:CL:16:ARG:NH1	2.17	0.58
53:DD:68:C:H2'	53:DD:69:C:C6	2.39	0.58
1:AA:1050:A:H1'	1:AA:2751:G:C8	2.39	0.58
1:AA:2751:G:O5'	1:AA:2751:G:C8	2.56	0.58
1:AA:2344:U:OP1	28:A6:38:LYS:HE3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2112:G:H1	53:CD:57:C:H42	1.51	0.58
9:BM:30:ILE:HG22	9:BM:34:LEU:CD2	2.33	0.58
1:BA:2798:C:H5	1:BA:2799:A:H62	1.51	0.58
31:CA:1285:A:H4'	31:CA:1286:A:C5'	2.33	0.58
33:CF:126:ARG:NH1	33:CF:126:ARG:HG3	2.14	0.58
44:DQ:12:ARG:NH1	44:DQ:14:PRO:HG2	2.19	0.58
9:AM:120:LEU:HD22	9:AM:121:LYS:N	2.18	0.58
20:BU:17:SER:HB2	20:BU:71:LYS:HD2	1.86	0.58
1:AA:2199:A:OP2	1:AA:2205:C:H5	1.87	0.58
3:BD:270:ILE:CG2	3:BD:271:ILE:H	2.17	0.58
31:CA:1448:C:H42	31:CA:1455:G:H1	1.52	0.58
7:BH:169:VAL:O	7:BH:170:ARG:HG2	2.04	0.58
52:CB:15:A:C2	52:CB:21:A:N6	2.71	0.58
31:DA:735:C:H2'	31:DA:736:C:H6	1.69	0.58
53:DD:51:U:H3	53:DD:65:G:H1	1.52	0.58
31:CA:250:A:H4'	31:CA:251:G:H5''	1.86	0.58
1:AA:879:G:H1	1:AA:898:C:H42	1.50	0.58
31:DA:1356:G:H2'	31:DA:1357:A:C8	2.38	0.58
31:CA:728:A:C5	45:CR:54:ARG:HD2	2.39	0.58
1:BA:2740:A:C6	1:BA:2764:A:C8	2.91	0.58
8:AK:21:VAL:HG21	8:AK:25:TYR:HD1	1.68	0.58
1:AA:2108:C:H2'	1:AA:2109:U:O4'	2.03	0.58
22:A3:51:VAL:N	22:A3:62:LEU:HD12	2.18	0.58
1:BA:2584:U:H5''	1:BA:2585:U:OP2	2.03	0.58
23:BZ:7:ILE:HD11	23:BZ:70:VAL:HG22	1.84	0.58
1:AA:587:C:N3	11:AO:33:ARG:NH1	2.52	0.58
1:AA:988:A:N6	25:AX:13:ILE:HG21	2.19	0.58
8:BK:56:LYS:O	8:BK:60:GLU:HB2	2.03	0.58
31:CA:102:G:C5	31:CA:103:C:C5	2.92	0.58
23:BZ:18:ILE:HG12	23:BZ:37:ILE:HG12	1.84	0.58
50:DW:37:SER:O	50:DW:41:ILE:HG13	2.03	0.58
1:BA:880:G:H2'	1:BA:880:G:N3	2.18	0.58
39:DL:48:GLU:HB3	39:DL:101:PHE:HE2	1.69	0.58
1:AA:2310:A:H5''	1:AA:2311:A:OP2	2.02	0.58
31:DA:1053:G:C2'	31:DA:1054:C:OP2	2.52	0.58
31:DA:963:G:O2'	40:DM:54:PHE:HZ	1.87	0.58
1:BA:1084:A:H5''	1:BA:1085:A:OP2	2.04	0.58
32:CE:16:HIS:NE2	32:CE:213:LEU:HD13	2.03	0.58
43:DP:39:ILE:HD13	43:DP:52:GLU:HB3	1.85	0.58
1:AA:2734:A:H5'	1:AA:2734:A:C8	2.38	0.58
1:AA:784:A:C8	1:AA:792:G:C5	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:456:C:C4	19:AT:69:TYR:CE1	2.92	0.58
1:BA:1049:C:N3	7:BH:2:SER:N	2.52	0.58
1:AA:1534:G:H2'	1:AA:1535:U:O4'	2.03	0.58
31:DA:281:G:OP2	31:DA:281:G:H8	1.86	0.58
41:CN:41:THR:HG23	41:CN:42:TRP:N	2.18	0.58
1:AA:479:A:H4'	1:AA:480:A:OP1	2.04	0.58
1:BA:1444(A):A:H2'	1:BA:1444(A):A:N3	2.18	0.58
7:AH:10:PRO:C	7:AH:11:VAL:HG13	2.23	0.58
1:BA:1464:C:O2'	1:BA:1528:A:H8	1.71	0.58
22:A3:24:LYS:O	22:A3:25:ARG:NH1	2.35	0.58
1:BA:1278:A:H5''	13:B0:36:THR:HG22	1.86	0.58
31:DA:266:G:H5''	31:DA:268:C:H41	1.68	0.58
31:CA:191:G:C4	50:CW:105:SER:HB2	2.39	0.58
35:CH:100:VAL:HG22	35:CH:118:ILE:HG22	1.85	0.58
33:DF:18:TRP:HD1	44:DQ:54:PRO:HA	1.68	0.58
1:BA:1869:G:H5'	1:BA:1869:G:H8	1.67	0.58
1:AA:582:G:H2'	1:AA:583:G:C8	2.38	0.58
26:B4:63:TYR:CZ	49:DV:41:VAL:HG22	2.39	0.58
1:AA:2682:U:H6	1:AA:2682:U:H5'	1.69	0.58
1:BA:311:A:C8	1:BA:332:A:N7	2.71	0.58
1:BA:146:G:H2'	1:BA:147:U:O4'	2.04	0.58
5:BF:68:LYS:CE	5:BF:68:LYS:HA	2.34	0.58
3:AD:158:ALA:HB3	3:AD:161:THR:HG21	1.86	0.58
50:DW:67:ALA:HA	50:DW:73:HIS:H	1.68	0.58
33:CF:84:ILE:O	33:CF:88:ARG:HG3	2.04	0.58
31:CA:262:A:H5''	31:CA:263:A:OP2	2.03	0.58
25:AX:19:GLN:NE2	25:AX:52:HIS:HE1	2.02	0.58
1:BA:2593:U:H2'	1:BA:2594:C:H6	1.68	0.58
1:AA:2319:G:H4'	1:AA:2319:G:OP2	2.02	0.58
40:CM:4:ILE:HD13	40:CM:100:THR:HG23	1.86	0.58
5:BF:148:LEU:HD23	5:BF:191:ARG:NH1	2.18	0.58
1:BA:828:U:O2	1:BA:828:U:H3'	2.04	0.58
1:AA:963:U:H2'	1:AA:964:C:C6	2.39	0.58
1:BA:2833:G:H8	1:BA:2833:G:OP1	1.86	0.58
31:CA:1039:C:H2'	31:CA:1040:U:O4'	2.03	0.58
30:B8:22:VAL:HB	30:B8:50:LEU:CG	2.31	0.58
17:B2:76:LYS:N	17:B2:80:GLN:HB3	2.18	0.58
3:BD:34:VAL:C	3:BD:35:LYS:HG3	2.23	0.58
1:BA:1899:G:O2'	1:BA:1900:A:H5''	2.04	0.58
53:CC:18:C:O2	53:CC:18:C:C2'	2.51	0.58
12:BP:66:ILE:CD1	12:BP:67:ARG:H	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AZ:92:LYS:HA	23:AZ:95:LEU:HD12	1.86	0.58
31:CA:1263:C:N3	31:CA:1272:G:O6	2.37	0.58
32:CE:213:LEU:O	32:CE:217:ARG:NH1	2.36	0.58
32:CE:69:LEU:HD13	32:CE:91:PRO:HB2	1.86	0.58
32:CE:39:ILE:HG22	32:CE:40:HIS:O	2.04	0.58
1:AA:71:A:C2	19:AT:31:HIS:CE1	2.89	0.58
1:BA:2776:A:H4'	1:BA:2777:G:O5'	2.04	0.58
1:BA:322:A:OP2	5:BF:169:ASN:HB2	2.03	0.58
1:BA:1536:A:H5''	1:BA:1537:C:OP2	2.04	0.58
26:A4:15:ILE:HB	26:A4:32:TYR:CD1	2.38	0.58
6:AG:109:VAL:O	6:AG:113:ARG:HG3	2.04	0.58
8:BK:77:LEU:HA	8:BK:141:LYS:H	1.68	0.58
1:BA:2854:G:C2	1:BA:2864:G:C2	2.92	0.58
34:CG:78:LEU:HD22	34:CG:96:LEU:HB3	1.86	0.58
52:DB:79:U:H2'	52:DB:80:C:C6	2.38	0.58
1:AA:550:G:O2'	1:AA:1220:A:N3	2.29	0.58
1:BA:1472:A:H2'	1:BA:1473:G:H5'	1.85	0.58
2:AB:35:U:H2'	2:AB:36:C:C6	2.38	0.58
32:CE:100:GLY:O	32:CE:104:ASN:N	2.34	0.58
18:AS:37:ARG:HG2	18:AS:38:TYR:CE2	2.39	0.58
1:AA:576:U:H2'	1:AA:577:G:C8	2.39	0.58
31:DA:488:C:O2'	31:DA:489:C:H5'	2.04	0.58
30:B8:8:LYS:HD3	30:B8:8:LYS:N	2.19	0.58
48:CU:36:ASN:H	48:CU:36:ASN:HD22	1.52	0.58
21:BV:175:VAL:HG13	21:BV:176:PRO:HD2	1.86	0.58
1:AA:2476:A:N3	1:AA:2476:A:H2'	2.18	0.58
3:BD:44:ASN:HB3	3:BD:49:ILE:CA	2.17	0.58
5:BF:113:ALA:HB1	5:BF:186:ILE:HG21	1.85	0.58
1:AA:1006:C:O2	9:AM:106:MET:HG2	2.03	0.58
31:CA:187:C:O2	31:CA:191(A):G:C6	2.56	0.58
31:DA:142:G:H1	31:DA:221:C:N4	1.99	0.58
19:BT:60:ARG:CG	19:BT:60:ARG:NH1	2.62	0.58
21:AV:111:VAL:HG23	21:AV:111:VAL:O	2.04	0.58
1:BA:2472:G:C4	1:BA:2475:C:N4	2.72	0.58
15:AR:39:ARG:CG	15:AR:40:THR:H	2.17	0.58
31:CA:404:U:H2'	31:CA:405:U:H6	1.69	0.58
11:BO:147:LEU:O	11:BO:148:LEU:HD23	2.04	0.58
1:BA:1430:C:H2'	1:BA:1431:U:H6	1.67	0.58
31:CA:652:U:C4	31:CA:752:G:N3	2.72	0.58
28:A6:36:LEU:CD2	28:A6:36:LEU:H	2.16	0.58
7:AH:98:LEU:HD12	7:AH:102:ALA:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DV:79:THR:O	49:DV:79:THR:OG1	2.20	0.58
42:DO:6:THR:OG1	42:DO:9:GLN:HG3	2.04	0.58
19:BT:67:GLY:C	19:BT:69:TYR:H	2.07	0.58
1:AA:2602:A:N7	53:CC:77:A:O2'	2.37	0.58
1:BA:521:G:H2'	1:BA:522:G:H8	1.69	0.58
17:B2:76:LYS:H	17:B2:80:GLN:HB3	1.68	0.57
4:BE:42:ASP:HB3	4:BE:44:TYR:CE1	2.39	0.57
39:DL:5:TYR:CD2	39:DL:18:PHE:CE2	2.92	0.57
31:CA:1363:A:H1'	31:CA:1365:G:N7	2.19	0.57
48:DU:22:VAL:O	48:DU:23:LYS:HB3	2.04	0.57
31:CA:1002:G:C2'	31:CA:1003:G:H5'	2.34	0.57
1:AA:1728:G:H2'	1:AA:1731:G:O6	2.04	0.57
32:CE:21:ARG:HB2	32:CE:39:ILE:HA	1.86	0.57
1:AA:139:G:N3	1:AA:141:A:N1	2.52	0.57
42:DO:41:ARG:HB3	42:DO:41:ARG:NH1	2.13	0.57
50:CW:50:GLU:HA	50:CW:100:ILE:HG22	1.86	0.57
1:BA:1496:A:O2'	1:BA:1497:U:H2'	2.04	0.57
8:AK:130:TYR:HB3	8:AK:136:VAL:HG22	1.84	0.57
21:AV:142:SER:N	21:AV:143:GLY:HA2	2.19	0.57
32:CE:60:ASP:HB3	32:CE:64:ARG:HH12	1.67	0.57
3:BD:255:LYS:O	3:BD:255:LYS:HD2	2.04	0.57
42:DO:47:LYS:O	42:DO:49:ASN:N	2.37	0.57
1:AA:2865:U:C4	1:AA:2866:U:C4	2.91	0.57
1:AA:1093:G:OP1	7:AH:170:ARG:NH1	2.37	0.57
32:CE:84:GLU:HB3	32:CE:219:VAL:HG21	1.85	0.57
42:CO:3:THR:OG1	42:CO:6:GLN:HG3	2.03	0.57
16:A1:79:PHE:CD2	16:A1:79:PHE:C	2.72	0.57
1:BA:2261:C:C5	22:B3:16:SER:HB3	2.39	0.57
33:DF:8:ILE:HG23	33:DF:16:ARG:HG2	1.86	0.57
1:AA:1512:G:H2'	1:AA:1513:C:C6	2.39	0.57
32:CE:17:PHE:HA	32:CE:42:ILE:HG22	1.86	0.57
31:CA:38:G:C2	31:CA:397:A:C2	2.92	0.57
1:AA:2021:C:H4'	1:AA:2022:U:OP2	2.04	0.57
1:AA:1244:G:OP1	11:AO:7:ARG:HD3	2.04	0.57
34:CG:147:ALA:HB2	34:CG:182:LYS:HB3	1.86	0.57
1:BA:221:A:N1	1:BA:265:A:O2'	2.36	0.57
1:AA:338:G:N2	1:AA:339:U:H1'	2.18	0.57
3:BD:93:ALA:HB3	3:BD:105:ILE:HG22	1.86	0.57
46:CS:11:SER:HB2	46:CS:14:ASN:HB3	1.86	0.57
1:BA:830:G:H4'	1:BA:831:G:OP2	2.04	0.57
39:CL:22:GLY:HA3	39:CL:60:ASP:OD2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DO:82:VAL:HG23	42:DO:106:ASP:OD1	2.04	0.57
1:BA:1784:A:H4'	1:BA:1785:A:O5'	2.04	0.57
1:AA:1084:A:N6	1:AA:1085:A:N6	2.52	0.57
1:BA:226:G:H21	1:BA:228:A:H61	0.58	0.57
1:AA:2393:A:H5'	11:AO:62:LEU:CB	2.22	0.57
6:AG:82:LEU:CA	6:AG:86:MET:HE3	2.30	0.57
31:DA:1053:G:C5	31:DA:1199:U:C6	2.92	0.57
11:BO:19:VAL:HG22	11:BO:20:GLY:H	1.68	0.57
39:CL:16:ARG:CB	39:CL:64:THR:HG22	2.32	0.57
1:BA:363(B):G:H2'	1:BA:363(C):G:C8	2.39	0.57
1:AA:1856:G:H2'	1:AA:1857:G:H5'	1.84	0.57
5:BF:24:LEU:HB3	5:BF:25:PRO:CD	2.34	0.57
5:BF:25:PRO:HB2	5:BF:27:GLU:H	1.69	0.57
11:BO:79:ARG:CD	11:BO:110:TYR:CE1	2.87	0.57
25:BX:19:GLN:HE22	25:BX:52:HIS:CE1	2.21	0.57
1:BA:2557:G:H2'	1:BA:2558:C:H6	1.64	0.57
31:DA:345:C:HO2'	31:DA:346:G:P	2.25	0.57
12:AP:110:THR:OG1	12:AP:113:GLN:HB2	2.03	0.57
4:BE:171:GLU:O	4:BE:184:VAL:HA	2.04	0.57
32:DE:82:ARG:HD2	32:DE:92:TYR:OH	2.04	0.57
6:AG:64:THR:OG1	6:AG:94:LEU:HD13	2.05	0.57
1:AA:286:C:H2'	1:AA:287:C:H6	1.69	0.57
1:BA:2134:A:N3	1:BA:2134:A:H2'	2.18	0.57
1:BA:1869:G:N2	1:BA:1872:A:OP2	2.38	0.57
53:DC:73:A:N6	53:DC:74:A:C6	2.72	0.57
1:BA:959:A:C6	1:BA:960:A:N1	2.73	0.57
53:CC:1:C:H4'	53:CC:2:G:H5'	1.85	0.57
49:CV:50:ALA:HB1	49:CV:57:HIS:HB3	1.86	0.57
3:BD:267:SER:O	3:BD:268:ARG:CB	2.52	0.57
1:BA:200:U:O4	1:BA:250:G:N2	2.37	0.57
32:DE:144:ARG:HG3	32:DE:145:LEU:N	2.18	0.57
47:DT:59:ILE:CG2	47:DT:71:PHE:HB3	2.33	0.57
1:AA:511:U:C5	1:AA:512:G:C5	2.93	0.57
31:CA:933:G:OP2	37:CJ:3:ARG:HB2	2.04	0.57
31:CA:942:G:H21	39:CL:124:GLN:NE2	2.03	0.57
16:A1:66:ASN:OD1	16:A1:76:TYR:HB3	2.04	0.57
10:AN:90:GLN:O	10:AN:91:LEU:HB2	2.03	0.57
1:AA:455:C:N3	1:AA:472:A:H2'	2.18	0.57
31:DA:439:A:H2'	31:DA:440:A:O5'	2.03	0.57
1:AA:2886:G:C2	1:AA:2887:U:C6	2.92	0.57
1:BA:733:G:O6	1:BA:761:A:C8	2.57	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CQ:44:LEU:HD12	44:CQ:44:LEU:O	2.04	0.57
40:DM:78:ASN:OD1	40:DM:78:ASN:N	2.36	0.57
4:AE:21:VAL:CG2	4:AE:185:LYS:HD2	2.34	0.57
27:B5:3:LYS:HG3	27:B5:4:HIS:H	1.68	0.57
4:AE:54:GLN:CA	4:AE:54:GLN:HE21	2.12	0.57
3:BD:35:LYS:CG	3:BD:64:ILE:N	2.62	0.57
3:BD:35:LYS:HG2	3:BD:64:ILE:N	2.18	0.57
39:DL:48:GLU:N	39:DL:49:PRO:HD2	2.19	0.57
28:B6:28:ARG:HG3	28:B6:31:PRO:HD2	1.85	0.57
53:DD:21:U:H2'	53:DD:22:A:H5''	1.85	0.57
1:BA:2154:G:O2'	1:BA:2155:G:H5'	2.04	0.57
1:AA:819:A:C4	1:AA:1189:A:C2	2.92	0.57
33:DF:35:GLU:HA	33:DF:38:ARG:NE	2.18	0.57
7:AH:4:ILE:H	7:AH:4:ILE:CD1	2.15	0.57
3:AD:28:GLU:HB3	3:AD:29:PRO:CD	2.34	0.57
31:CA:61:G:H2'	31:CA:62:U:O4'	2.04	0.57
1:BA:1342:A:N1	1:BA:1397:U:C4	2.72	0.57
7:BH:89:ILE:O	7:BH:161:GLY:O	2.22	0.57
37:DJ:23:VAL:O	37:DJ:27:ILE:HG13	2.05	0.57
31:DA:1491:G:C5	56:DA:1805:PAR:H21	2.39	0.57
22:B3:36:ILE:H	22:B3:36:ILE:CD1	2.17	0.57
31:CA:438:G:H4'	34:CG:123:HIS:ND1	2.18	0.57
8:BK:116:LEU:HD13	8:BK:128:LEU:HD21	1.86	0.57
31:CA:658:G:C4	31:CA:659:U:C5	2.92	0.57
1:BA:1011:G:C6	1:BA:1013:C:N3	2.72	0.57
1:BA:1791:A:O2'	3:BD:207:GLY:HA2	2.05	0.57
17:A2:22:VAL:HG12	17:A2:23:GLU:N	2.19	0.57
1:AA:2149:G:N1	1:AA:2150:U:O2	2.36	0.57
1:AA:2019:A:C2'	1:AA:2020:A:O5'	2.51	0.57
1:AA:1465:G:C4	1:AA:1466:G:C8	2.92	0.57
1:AA:1465:G:H5'	1:AA:1528:A:H1'	1.86	0.57
3:BD:236:GLY:O	3:BD:237:GLU:O	2.22	0.57
1:BA:535:C:C2'	1:BA:536:A:H5'	2.34	0.57
42:CO:42:PRO:HD3	42:CO:48:ALA:O	2.04	0.57
1:BA:270(N):G:O2'	1:BA:270(O):U:H5'	2.05	0.57
7:AH:117:PRO:HB3	7:AH:123:PHE:CE1	2.38	0.57
1:BA:2232:U:P	23:BZ:40:ARG:HH12	2.27	0.57
37:DJ:115:ARG:HB2	37:DJ:118:VAL:HG12	1.85	0.57
40:CM:42:THR:HG23	40:CM:67:THR:O	2.03	0.57
30:B8:51:ALA:C	30:B8:53:PRO:N	2.57	0.57
17:B2:71:LEU:CA	17:B2:86:GLY:CA	2.80	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1127:G:C2	31:DA:1145:C:C2	2.93	0.57
30:A8:57:ARG:O	30:A8:61:LEU:HG	2.04	0.57
33:CF:6:HIS:CD2	33:CF:7:PRO:HD2	2.39	0.57
31:DA:510:A:H5'	31:DA:511:C:OP2	2.03	0.57
26:A4:57:GLU:O	26:A4:60:GLN:HB2	2.04	0.57
30:A8:34:TRP:CD1	30:A8:35:GLN:N	2.71	0.57
53:CD:13:C:O2'	53:CD:14:A:OP2	2.22	0.57
1:BA:1826:G:H2'	1:BA:1827:C:H6	1.68	0.57
6:BG:75:LYS:O	6:BG:76:SER:HB2	2.03	0.57
1:AA:654(M):C:H3'	1:AA:654(N):G:C8	2.39	0.57
5:BF:107:LYS:HE2	5:BF:205:ARG:CD	2.33	0.57
27:A5:40:LYS:HZ2	27:A5:46:CYS:HB3	1.69	0.57
1:AA:944:G:C3'	1:AA:944:G:N3	2.68	0.57
31:CA:129(A):G:N1	31:CA:188:U:O2'	2.32	0.57
1:AA:1015:G:C2'	1:AA:1016:G:H5'	2.35	0.57
33:DF:58:GLU:HB2	33:DF:65:ALA:HB3	1.86	0.57
6:AG:112:PRO:HB3	26:A4:37:SER:HB2	1.86	0.57
33:CF:78:GLY:HA3	33:CF:83:ARG:HB3	1.86	0.57
52:DB:48:C:O2'	52:DB:49:C:P	2.62	0.57
31:CA:1016:A:H2'	31:CA:1017:G:O4'	2.04	0.57
32:CE:17:PHE:HA	32:CE:42:ILE:CG2	2.35	0.57
1:AA:612:G:H2'	1:AA:613:U:O2	2.04	0.57
1:AA:1665:A:H1'	10:AN:1:MET:HG3	1.86	0.57
1:AA:26:G:C6	1:AA:27:G:N1	2.73	0.57
33:DF:73:PRO:HG3	33:DF:105:GLU:HB2	1.86	0.57
8:AK:37:VAL:HG22	8:AK:38:LEU:H	1.69	0.57
31:DA:7:G:H5'	31:DA:298:A:O4'	2.04	0.57
8:BK:14:ASP:N	8:BK:17:GLN:OE1	2.33	0.57
1:AA:2857:G:N2	1:AA:2860:A:OP2	2.37	0.57
1:AA:2774:C:H2'	1:AA:2775:A:O4'	2.04	0.57
1:BA:2209:C:O2	1:BA:2216:G:C2	2.58	0.57
52:CB:68:A:H2'	52:CB:69:A:H5'	1.86	0.57
31:CA:562:C:C4	31:CA:884:U:C5	2.92	0.57
7:BH:166:GLY:O	7:BH:167:GLU:HG2	2.04	0.57
14:AQ:30:ARG:O	14:AQ:30:ARG:HG3	2.02	0.57
1:BA:2419:U:O4	30:B8:31:HIS:CD2	2.57	0.57
4:AE:37:ARG:HB3	4:AE:42:ASP:CG	2.25	0.57
1:BA:2638:G:O2'	1:BA:2639:A:H8	1.87	0.57
3:BD:30:GLU:HG3	3:BD:63:ARG:CZ	2.34	0.57
33:CF:7:PRO:O	33:CF:11:ARG:HG2	2.04	0.57
5:BF:28:ILE:HA	5:BF:112:MET:HE3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1653:G:C6	13:B0:9:LYS:HB2	2.40	0.57
30:A8:26:LYS:HE2	30:A8:47:LYS:HG2	1.86	0.57
4:BE:8:LYS:C	4:BE:9:VAL:HG13	2.25	0.57
17:B2:35:LEU:C	17:B2:37:VAL:HG13	2.25	0.57
24:AW:47:ASN:ND2	24:AW:47:ASN:H	2.00	0.57
1:AA:1980:G:O2'	1:AA:1982:C:OP2	2.21	0.57
1:BA:2749:A:N6	1:BA:2750:A:H62	2.01	0.57
49:DV:67:VAL:HG12	49:DV:68:GLY:N	2.17	0.57
22:B3:24:LYS:O	22:B3:25:ARG:HD3	2.04	0.57
37:DJ:20:ASP:HB3	37:DJ:23:VAL:CG2	2.32	0.57
31:CA:195:A:C5	31:CA:196:A:N1	2.72	0.57
31:DA:1095:U:H5''	31:DA:1109:C:O2	2.04	0.57
31:DA:827:U:H5''	31:DA:828:A:OP2	2.04	0.57
1:AA:2292:C:C2'	1:AA:2293:C:H5'	2.35	0.57
38:CK:9:MET:HG3	38:CK:26:VAL:HG21	1.85	0.57
31:DA:954:G:H2'	31:DA:955:U:C6	2.39	0.57
43:CP:39:ILE:CD1	43:CP:52:GLU:HB3	2.35	0.57
11:BO:95:VAL:HG23	11:BO:95:VAL:O	2.04	0.57
21:AV:58:VAL:CG1	21:AV:66:SER:HB3	2.35	0.57
1:BA:57:C:H2'	1:BA:58:G:O5'	2.04	0.57
31:DA:1040:U:H2'	31:DA:1041:A:C8	2.40	0.57
21:AV:151:HIS:HD2	21:AV:168:GLU:HG3	1.69	0.57
6:AG:145:THR:OG1	6:AG:148:MET:HG2	2.04	0.57
31:CA:1329:A:N7	51:CX:7:ARG:NH2	2.52	0.57
1:AA:184:C:H2'	1:AA:185:U:C6	2.39	0.57
13:B0:2:ARG:HG3	13:B0:3:HIS:H	1.69	0.57
1:BA:579:G:H2'	1:BA:580:C:C6	2.38	0.57
41:DN:54:ARG:HG2	41:DN:54:ARG:HH11	1.70	0.57
2:AB:95:U:C2	2:AB:96:G:C8	2.92	0.57
1:AA:1077:A:H3'	1:AA:1078:U:H5'	1.83	0.57
1:AA:1568:G:H5''	3:AD:61:LEU:HD22	1.85	0.57
31:DA:1221:G:OP1	31:DA:1321:C:N4	2.36	0.57
14:AQ:106:ARG:CA	14:AQ:110:LEU:HD21	2.34	0.57
31:CA:1118:C:P	39:CL:104:ARG:HH11	2.27	0.57
5:BF:34:TRP:CE3	11:BO:8:PRO:HB3	2.39	0.57
23:BZ:92:LYS:O	23:BZ:95:LEU:N	2.26	0.57
31:CA:200:G:H1	31:CA:217:C:N4	2.01	0.57
4:BE:116:VAL:O	4:BE:117:MET:CB	2.42	0.57
17:A2:38:LEU:C	17:A2:38:LEU:HD23	2.24	0.57
1:BA:142:G:H2'	1:BA:143:C:H6	1.69	0.57
1:AA:1386:C:H2'	1:AA:1387:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DT:63:ARG:HG2	47:DT:64:PRO:CD	2.34	0.57
31:DA:859:A:OP2	31:DA:869:G:N1	2.30	0.57
31:DA:1286:A:H4'	51:DX:25:LYS:HZ2	1.68	0.57
31:CA:438:G:H8	31:CA:438:G:O5'	1.88	0.57
1:AA:2392:A:H2	1:AA:2424:C:H42	1.51	0.57
31:DA:741:G:H2'	31:DA:742:G:O4'	2.05	0.57
15:AR:26:ASP:O	15:AR:49:VAL:HG13	2.04	0.57
22:A3:17:GLN:HA	22:A3:17:GLN:HE21	1.69	0.57
31:CA:939:G:H5''	37:CJ:102:ARG:NH2	2.20	0.57
1:BA:602:G:O2'	1:BA:655:A:N6	2.36	0.57
31:DA:6:G:H4'	31:DA:298:A:H4'	1.87	0.57
31:DA:516:U:O2'	31:DA:519:C:N3	2.35	0.57
35:DH:18:ARG:HG2	35:DH:25:ARG:O	2.03	0.57
31:CA:636:U:H5'	47:CT:2:PRO:HG3	1.85	0.57
16:B1:58:ARG:HG2	16:B1:62:ILE:HD13	1.86	0.57
32:DE:215:LEU:O	32:DE:219:VAL:HG12	2.04	0.57
36:CI:86:ARG:O	36:CI:87:ARG:HG2	2.04	0.57
48:CU:58:LEU:HD22	48:CU:62:GLU:HB3	1.87	0.57
2:BB:91:C:H6	2:BB:91:C:O5'	1.88	0.57
16:A1:47:TYR:CD2	16:A1:47:TYR:C	2.77	0.57
1:BA:2233:U:H2'	1:BA:2234:G:C8	2.40	0.57
1:AA:1069:A:H4'	1:AA:1070:A:O5'	2.04	0.57
39:DL:18:PHE:HD1	39:DL:62:TYR:CD2	2.20	0.57
30:A8:14:VAL:HG12	30:A8:60:LEU:HD11	1.84	0.57
40:CM:48:THR:HG23	40:CM:62:HIS:HB3	1.86	0.57
39:CL:5:TYR:HE2	39:CL:16:ARG:HG2	1.69	0.57
53:DD:59:A:O2'	53:DD:61:U:H5	1.86	0.57
23:BZ:85:LEU:HD13	23:BZ:88:LYS:HG3	1.86	0.57
1:AA:1538:G:H2'	1:AA:1539:G:H8	1.70	0.57
26:B4:16:CYS:HB3	26:B4:19:GLY:CA	2.34	0.57
6:BG:101:ILE:HD12	6:BG:102:PHE:N	2.19	0.57
31:DA:606:G:N2	31:DA:631:G:C2'	2.68	0.57
5:BF:155:LEU:HD22	5:BF:185:ASP:O	2.05	0.57
1:BA:1187:G:O5'	1:BA:1187:G:H8	1.88	0.57
3:AD:25:THR:CG2	3:AD:26:LYS:N	2.68	0.57
1:AA:855:G:O2'	22:A3:27:GLU:OE2	2.17	0.57
21:AV:111:VAL:HG11	21:AV:146:ILE:CB	2.33	0.57
21:AV:108:PRO:HB2	21:AV:112:ARG:HB2	1.86	0.57
31:DA:1346:A:C1'	31:DA:1347:G:OP2	2.52	0.57
13:B0:21:TYR:HH	13:B0:43:GLU:HG2	1.69	0.57
31:DA:827:U:H3	31:DA:872:A:N6	2.01	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DQ:37:PHE:CE1	44:DQ:53:LEU:HD22	2.39	0.57
52:CB:58:U:H5'	52:CB:59:U:OP2	2.05	0.57
1:AA:1570:A:H2'	1:AA:1571:A:C8	2.39	0.57
1:AA:297:C:H5''	20:AU:85:VAL:CG2	2.33	0.57
1:BA:1432:C:H2'	1:BA:1433:U:O4'	2.05	0.57
1:BA:901:A:H2'	1:BA:901:A:N3	2.19	0.57
15:AR:24:PRO:HA	15:AR:49:VAL:HG22	1.85	0.57
34:CG:30:LYS:C	34:CG:32:ALA:H	2.03	0.57
31:DA:1267:C:O2	31:DA:1267:C:C2'	2.51	0.57
31:CA:1122:U:O4	31:CA:1123:A:N6	2.38	0.57
31:DA:757:U:H2'	31:DA:758:G:O4'	2.05	0.57
23:AZ:21:ARG:HD3	23:AZ:35:THR:HG21	1.86	0.57
39:DL:112:LYS:HD3	39:DL:113:LYS:O	2.05	0.57
1:BA:654(I):C:H42	1:BA:654(M):C:H42	1.53	0.57
1:AA:207:A:H2'	1:AA:208:C:O4'	2.04	0.57
9:AM:38:HIS:CE1	9:AM:50:ASP:OD2	2.58	0.57
4:BE:119:ARG:HG2	4:BE:160:TYR:CG	2.40	0.57
1:AA:88:G:O2'	1:AA:89:G:H5'	2.05	0.57
21:BV:24:LEU:HD12	21:BV:25:PRO:O	2.04	0.57
46:CS:20:VAL:HG21	46:CS:32:TYR:CD1	2.39	0.57
21:BV:81:ARG:HG3	21:BV:81:ARG:O	2.04	0.57
3:BD:31:LYS:HG3	3:BD:31:LYS:O	2.04	0.57
1:BA:1151:G:H5''	16:B1:81:HIS:CE1	2.40	0.57
37:DJ:85:TYR:CE1	37:DJ:154:TYR:CE1	2.93	0.57
1:BA:1264:G:H2'	1:BA:2014:A:N6	2.19	0.57
17:B2:83:ARG:O	17:B2:84:LYS:HB3	2.05	0.57
1:AA:1063:G:H2'	1:AA:1064:C:H6	1.70	0.57
3:AD:35:LYS:CE	3:AD:104:TYR:CD1	2.88	0.57
12:BP:59:ARG:HH21	12:BP:59:ARG:CG	2.12	0.57
12:BP:66:ILE:HD12	12:BP:68:ILE:O	2.04	0.57
1:BA:1088:A:H5'	1:BA:1089:G:H5'	1.87	0.57
31:CA:1156:G:H2'	31:CA:1157:A:H5''	1.87	0.57
31:CA:1157:A:N3	31:CA:1157:A:H2'	2.20	0.57
1:BA:2307:G:O2'	1:BA:2308:G:C8	2.58	0.57
49:CV:40:ILE:HG12	49:CV:41:VAL:HG22	1.87	0.57
1:AA:2212:A:N3	1:AA:2215:G:N1	2.53	0.57
7:AH:163:TYR:N	7:AH:163:TYR:CD1	2.73	0.57
24:BW:46:GLN:H	24:BW:49:LYS:HZ2	1.52	0.57
1:AA:1533:C:H2'	1:AA:1534:G:H8	1.67	0.57
1:AA:1535:U:C2	1:AA:1536:A:H3'	2.40	0.57
6:BG:7:LEU:HB2	6:BG:104:GLU:OE1	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:93:C:O2'	2:BB:94:C:H5'	2.04	0.57
2:BB:66:A:N6	2:BB:108:C:H5''	2.12	0.57
4:BE:23:VAL:O	4:BE:24:THR:OG1	2.14	0.57
41:CN:91:ARG:NH1	41:CN:91:ARG:HG3	2.14	0.57
26:B4:56:VAL:HA	26:B4:60:GLN:NE2	2.18	0.57
1:BA:1174:A:C6	1:BA:1175:U:O2'	2.58	0.57
21:BV:105:VAL:HG22	21:BV:106:GLY:N	2.18	0.57
49:DV:31:ILE:HG13	49:DV:32:LYS:N	2.19	0.57
1:BA:1204:A:C2	1:BA:1241:A:N1	2.73	0.57
6:BG:111:LEU:HB3	6:BG:117:PHE:CE2	2.40	0.57
31:CA:474:G:H2'	31:CA:475:G:H8	1.68	0.57
31:CA:375:U:O3'	46:CS:6:LEU:HB2	2.05	0.57
1:AA:527:C:OP2	1:AA:2779:U:H5	1.88	0.57
32:DE:114:ARG:O	32:DE:118:LEU:HG	2.04	0.57
6:BG:79:ASN:H	6:BG:79:ASN:ND2	2.02	0.57
37:DJ:72:ARG:NH2	37:DJ:96:GLN:HE22	2.01	0.57
31:CA:186(C):G:C6	31:CA:191(E):G:C2	2.93	0.57
35:DH:110:LEU:O	35:DH:115:VAL:HG22	2.05	0.57
1:BA:221:A:C8	1:BA:266:G:C6	2.92	0.57
50:CW:23:ARG:O	50:CW:27:LYS:N	2.38	0.57
1:BA:751:A:H5'	18:BS:90:ARG:HA	1.86	0.57
32:CE:120:ALA:O	32:CE:121:LEU:HB2	2.05	0.57
46:DS:15:PRO:O	46:DS:16:HIS:ND1	2.38	0.57
37:CJ:31:MET:SD	37:CJ:34:GLY:HA2	2.45	0.57
53:CD:31:G:H2'	53:CD:32:G:C8	2.40	0.57
53:CD:41:C:H2'	53:CD:42:C:H6	1.68	0.57
31:DA:1111:A:N1	33:DF:177:THR:OG1	2.32	0.57
35:DH:147:ASP:HA	35:DH:150:ARG:HB2	1.85	0.57
1:AA:2577:A:H5''	1:AA:2578:G:H5'	1.86	0.57
4:AE:52:LEU:O	4:AE:75:VAL:HG22	2.04	0.57
31:DA:1145:C:H5'	31:DA:1146:A:OP1	2.04	0.57
53:CC:20:G:C2	53:CC:58:A:C2	2.93	0.57
7:BH:127:GLU:CG	7:BH:128:PRO:HD2	2.20	0.57
12:AP:66:ILE:HD12	12:AP:68:ILE:N	2.19	0.57
1:BA:1058:U:O2	1:BA:1080:A:N1	2.38	0.57
23:AZ:86:SER:N	23:AZ:87:PRO:CD	2.67	0.57
4:BE:130:GLY:O	4:BE:131:ALA:C	2.43	0.57
1:BA:1019:U:O2'	1:BA:1021:A:C2	2.56	0.57
1:BA:1653:G:H4'	1:BA:1654:A:O5'	2.05	0.57
12:BP:79:LEU:CD1	12:BP:80:GLU:HB2	2.35	0.57
1:AA:780:G:H21	1:AA:783:A:N6	1.91	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AW:45:SER:O	24:AW:46:GLN:NE2	2.37	0.57
50:CW:26:ASN:HD22	50:CW:26:ASN:H	1.52	0.57
31:DA:629:G:H2'	31:DA:630:G:C8	2.40	0.57
3:BD:242:ARG:CD	3:BD:242:ARG:H	2.18	0.57
1:AA:2555:U:O2	52:CB:85:C:C5	2.58	0.57
31:DA:631:G:H5''	31:DA:632:A:C8	2.39	0.57
26:B4:56:VAL:HA	26:B4:60:GLN:HG2	1.85	0.57
1:BA:320:A:H4'	1:BA:322:A:N7	2.19	0.57
1:BA:1342:A:C2	1:BA:1602:U:N3	2.72	0.57
24:BW:41:ILE:CD1	24:BW:44:LEU:HG	2.33	0.57
1:BA:1278:A:H4'	13:B0:34:ILE:HD11	1.87	0.57
25:BX:5:LYS:HE3	25:BX:59:VAL:HG21	1.87	0.57
21:AV:110:GLY:O	21:AV:111:VAL:HG22	2.04	0.57
31:CA:170:U:O2'	31:CA:171:A:H5'	2.05	0.57
8:BK:78:THR:CG2	8:BK:104:GLN:HE22	2.18	0.57
3:AD:89:SER:HB2	3:AD:159:ALA:CB	2.32	0.57
33:DF:59:ARG:HG3	33:DF:64:VAL:HA	1.87	0.57
15:AR:108:ARG:O	15:AR:111:ARG:HB2	2.05	0.57
31:DA:436:C:H2'	31:DA:437:U:H6	1.68	0.57
45:CR:8:LYS:O	45:CR:12:ILE:HG13	2.05	0.57
52:CB:27:G:H5''	52:CB:28:C:H5	1.69	0.57
8:AK:8:PRO:O	8:AK:9:LEU:HD13	2.05	0.57
1:BA:902:C:H2'	1:BA:903:C:C6	2.40	0.57
36:DI:33:TYR:HE1	36:DI:78:GLU:HG3	1.69	0.57
44:DQ:26:ARG:HH12	44:DQ:47:LEU:HD21	1.68	0.57
15:BR:51:ARG:HG2	15:BR:98:LYS:HE3	1.87	0.57
43:CP:19:LEU:O	43:CP:22:ILE:HG12	2.05	0.57
6:BG:146:TYR:CD2	6:BG:146:TYR:C	2.78	0.57
46:DS:19:ILE:HB	46:DS:36:ILE:O	2.04	0.57
1:BA:127:A:H5''	1:BA:128:C:C6	2.40	0.57
10:AN:4:PRO:O	10:AN:5:GLN:HB2	2.03	0.57
1:BA:2820:A:C5	13:B0:4:LEU:HD11	2.39	0.57
32:DE:219:VAL:O	32:DE:222:ILE:HB	2.04	0.57
4:BE:32:PRO:HA	4:BE:90:THR:H	1.69	0.57
1:BA:1657:C:H2'	1:BA:1658:C:C6	2.40	0.57
2:AB:66:A:H61	2:AB:107:U:H2'	1.69	0.57
17:B2:21:ARG:HD3	17:B2:91:TYR:HB3	1.85	0.57
1:BA:1754:C:H5''	15:BR:113:LYS:HE2	1.85	0.57
1:BA:755:C:H2'	1:BA:756:C:C6	2.40	0.57
32:DE:63:MET:HG3	32:DE:225:ALA:HB1	1.87	0.57
48:CU:22:VAL:HA	48:CU:25:THR:OG1	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DF:137:ALA:O	33:DF:141:VAL:HG23	2.05	0.57
1:BA:2615:U:H2'	1:BA:2616:C:H6	1.69	0.57
31:CA:996:A:O5'	31:CA:996:A:H8	1.88	0.57
31:DA:87:A:N3	31:DA:87:A:H2'	2.20	0.57
22:B3:72:ARG:HB3	22:B3:75:LEU:HB2	1.85	0.57
4:AE:14:ILE:CG2	4:AE:15:PHE:N	2.43	0.57
1:AA:1063:G:H22	1:AA:1076:C:H1'	1.70	0.57
12:AP:77:LYS:O	12:AP:78:PRO:C	2.43	0.57
4:AE:60:ASN:HD22	4:AE:60:ASN:N	2.02	0.57
31:CA:411:A:C4	31:CA:413:G:H1'	2.40	0.57
39:DL:42:ARG:HD3	39:DL:71:SER:OG	2.05	0.57
4:AE:46:ALA:CB	4:AE:82:ARG:HA	2.35	0.57
1:AA:1973:G:H2'	1:AA:1974:C:H6	1.70	0.57
31:DA:1207:G:O2'	31:DA:1208:C:H5'	2.05	0.57
1:BA:1061:U:H4'	1:BA:1070:A:C1'	2.34	0.57
23:AZ:83:GLU:C	23:AZ:85:LEU:H	2.09	0.57
5:BF:29:ASN:H	5:BF:112:MET:CE	2.17	0.57
1:AA:1287:A:N7	13:A0:107:ASP:CB	2.61	0.57
32:CE:29:ALA:O	32:CE:32:ILE:HG22	2.04	0.57
1:BA:2069:G:H2'	1:BA:2070:G:H5'	1.87	0.57
1:AA:138:G:N2	19:AT:44:GLU:OE2	2.31	0.57
3:AD:72:LYS:HD3	3:AD:97:TYR:CD2	2.40	0.57
32:DE:75:LYS:O	32:DE:78:GLN:HG2	2.04	0.57
1:BA:2799:A:H2'	1:BA:2801:A:C4	2.39	0.57
2:BB:40:U:H3'	2:BB:41:U:H5'	1.87	0.57
6:BG:82:LEU:HD23	6:BG:86:MET:HG2	1.85	0.57
1:AA:654(N):G:H2'	1:AA:654(O):G:C8	2.40	0.57
22:B3:23:VAL:HG12	22:B3:25:ARG:O	2.04	0.57
5:AF:40:GLN:NE2	5:AF:183:VAL:HG13	2.19	0.57
32:CE:14:GLY:HA3	32:CE:209:ARG:NH2	2.18	0.57
7:AH:9:ILE:HG21	7:AH:49:VAL:HB	1.86	0.57
6:AG:39:ILE:HG13	6:AG:94:LEU:HD21	1.86	0.57
36:CI:3:ARG:HA	36:CI:65:VAL:O	2.04	0.57
1:AA:602:G:O2'	1:AA:604:G:O2'	2.19	0.57
38:CK:11:THR:HG23	38:CK:14:ARG:HH12	1.68	0.57
31:CA:475:G:H2'	31:CA:476:G:C8	2.39	0.57
1:AA:547:A:C3'	1:AA:548:A:C8	2.88	0.57
26:B4:48:ARG:NH1	26:B4:51:ASP:HB3	2.19	0.57
31:DA:945:G:H2'	31:DA:945:G:N3	2.19	0.57
1:AA:270(M):U:O2'	1:AA:270(N):G:O5'	2.18	0.57
50:DW:10:LEU:HD22	50:DW:10:LEU:C	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1137:C:H5''	31:DA:1138:G:OP1	2.05	0.57
6:BG:107:LEU:HD13	6:BG:177:GLY:O	2.04	0.57
34:CG:196:LEU:HB3	34:CG:197:PRO:HD2	1.86	0.57
34:CG:101:LEU:O	34:CG:105:VAL:HG23	2.04	0.57
38:CK:102:ARG:NH1	38:CK:102:ARG:HB3	2.20	0.57
4:BE:87:GLU:HG3	4:BE:87:GLU:O	2.05	0.57
1:BA:226:G:N2	1:BA:228:A:H62	1.81	0.56
4:AE:59:VAL:O	4:AE:59:VAL:CG1	2.53	0.56
31:DA:1119:C:OP2	39:DL:9:ARG:NH2	2.37	0.56
1:AA:120:U:C5	1:AA:149:A:N6	2.73	0.56
28:B6:35:GLU:HB2	28:B6:51:GLU:HB2	1.86	0.56
4:BE:56:PRO:CA	4:BE:57:LYS:CD	2.72	0.56
14:AQ:23:ARG:NH1	14:AQ:85:VAL:O	2.37	0.56
1:BA:196:A:OP2	11:BO:46:LYS:NZ	2.38	0.56
31:CA:10:A:OP2	35:CH:126:ARG:HD3	2.04	0.56
31:DA:186:C:H42	31:DA:191:G:H1	1.52	0.56
20:AU:78:ALA:HB3	20:AU:81:LYS:HE3	1.86	0.56
53:CD:59:A:O2'	53:CD:61:U:H5	1.88	0.56
31:DA:1297:C:C1'	31:DA:1298:C:OP2	2.52	0.56
6:BG:42:GLY:O	6:BG:43:LEU:HD13	2.05	0.56
6:BG:88:ILE:HD13	6:BG:88:ILE:O	2.05	0.56
5:BF:110:LEU:HD21	5:BF:181:LEU:HD22	1.86	0.56
47:CT:66:SER:O	47:CT:70:ARG:NH1	2.38	0.56
1:BA:1181:C:O2'	1:BA:1182:A:H5'	2.05	0.56
1:BA:1677:A:H2'	1:BA:1678:G:C8	2.40	0.56
1:BA:2129:C:N4	1:BA:2130:U:O4	2.38	0.56
31:CA:1227:A:OP2	43:CP:111:LYS:HE2	2.05	0.56
37:CJ:13:GLN:O	37:CJ:24:THR:HG21	2.05	0.56
36:DI:15:ASP:C	36:DI:15:ASP:OD1	2.42	0.56
8:AK:7:GLU:O	8:AK:9:LEU:HD22	2.04	0.56
18:BS:20:VAL:HG22	18:BS:47:VAL:HG21	1.86	0.56
1:BA:2473:U:C2'	1:BA:2473:U:O2	2.52	0.56
1:BA:1442:G:H2'	1:BA:1443:G:H5''	1.87	0.56
1:BA:1266:G:O5'	18:BS:15:ARG:NH2	2.38	0.56
33:DF:9:GLY:HA3	44:DQ:49:HIS:HA	1.86	0.56
32:DE:136:VAL:O	32:DE:139:LYS:HB3	2.05	0.56
1:BA:270(L):U:H3	8:BK:50:ARG:NH1	2.02	0.56
1:BA:1418:G:O5'	1:BA:1418:G:H8	1.88	0.56
52:CB:1:G:N3	52:CB:1:G:H2'	2.18	0.56
1:AA:1444:G:C2	1:AA:1548:C:N3	2.73	0.56
31:DA:1403:C:O2'	31:DA:1404:C:H5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2393:A:O3'	11:AO:62:LEU:HA	2.05	0.56
1:BA:2681:C:O2	1:BA:2681:C:H2'	2.04	0.56
1:BA:890:A:H2'	1:BA:892:G:N7	2.19	0.56
31:DA:1054:C:O2'	31:DA:1055:A:O5'	2.23	0.56
2:AB:13:A:H2'	2:AB:70:C:O2'	2.05	0.56
1:BA:1651:G:N2	1:BA:2007:C:C2	2.72	0.56
31:CA:1442:G:O6	31:CA:1446:A:N6	2.38	0.56
1:BA:547:A:N7	1:BA:548:A:N6	2.54	0.56
47:CT:67:LYS:O	47:CT:68:ARG:HB3	2.05	0.56
1:BA:1405:U:H2'	1:BA:1406:U:H6	1.63	0.56
25:BX:29:ARG:H	25:BX:33:GLN:NE2	1.99	0.56
25:BX:29:ARG:N	25:BX:33:GLN:HE22	2.01	0.56
11:AO:126:VAL:HG13	11:AO:145:PRO:HB2	1.87	0.56
31:CA:8:A:N7	34:CG:208:SER:OG	2.37	0.56
32:CE:165:VAL:HG23	32:CE:166:ASP:H	1.67	0.56
1:BA:2875:C:O2'	15:BR:3:ARG:HG3	2.05	0.56
31:DA:921:U:O2'	35:DH:19:MET:O	2.18	0.56
44:CQ:29:ARG:HG2	44:CQ:40:CYS:HB3	1.85	0.56
49:CV:51:VAL:O	49:CV:57:HIS:HA	2.05	0.56
11:BO:55:ARG:O	11:BO:57:THR:N	2.38	0.56
31:DA:1213:A:N1	31:DA:1215:G:H1'	2.20	0.56
1:AA:613:U:O5'	1:AA:613:U:O2	2.22	0.56
35:CH:99:GLY:O	35:CH:117:ASP:HA	2.05	0.56
1:BA:162:U:H4'	1:BA:171:G:C8	2.40	0.56
10:AN:64:ARG:NH1	10:AN:83:ALA:HB2	2.20	0.56
3:BD:9:TYR:CD2	3:BD:10:THR:HG23	2.40	0.56
4:AE:68:ALA:HB3	4:AE:69:LYS:HZ3	1.70	0.56
1:BA:2335:A:C8	1:BA:2337:G:C5	2.93	0.56
1:BA:1346:G:C5	1:BA:1347:G:N7	2.73	0.56
31:DA:1085:U:H3'	31:DA:1086:U:C6	2.41	0.56
1:BA:531:C:OP1	1:BA:561:G:N2	2.38	0.56
1:BA:1784:A:H4'	1:BA:1785:A:C5'	2.36	0.56
53:CD:42:C:H2'	53:CD:43:G:C8	2.40	0.56
22:B3:72:ARG:CB	22:B3:75:LEU:HB2	2.35	0.56
31:DA:540:G:H2'	31:DA:541:G:O4'	2.04	0.56
31:DA:512:U:H2'	31:DA:513:C:H6	1.69	0.56
13:A0:21:TYR:OH	13:A0:43:GLU:HG2	2.04	0.56
1:BA:1829:A:N3	3:BD:15:PHE:HE1	2.03	0.56
1:BA:2277:G:OP1	12:BP:86:GLY:HA2	2.06	0.56
6:BG:16:ARG:HH21	6:BG:31:VAL:HG13	1.70	0.56
39:CL:4:TYR:CD1	39:CL:88:TYR:HB2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:A0:92:GLY:N	13:A0:94:TYR:CE2	2.73	0.56
7:BH:25:LYS:O	7:BH:25:LYS:HG3	2.06	0.56
21:BV:110:GLY:HA2	21:BV:144:LEU:O	2.05	0.56
1:BA:2092:U:H4'	1:BA:2093:G:O5'	2.05	0.56
30:B8:51:ALA:O	30:B8:53:PRO:HD2	2.01	0.56
1:AA:2394:C:N3	53:CD:77:A:O2'	2.34	0.56
4:AE:60:ASN:CG	4:AE:62:PRO:HD2	2.26	0.56
3:BD:35:LYS:HE3	3:BD:65:ILE:HA	1.88	0.56
31:DA:1175:G:C2	31:DA:1176:A:C5	2.93	0.56
6:AG:82:LEU:HD23	6:AG:86:MET:HE3	1.87	0.56
31:CA:972:C:O2'	40:CM:55:LYS:HG3	2.04	0.56
39:CL:118:LYS:O	39:CL:119:ALA:HB3	2.04	0.56
40:CM:48:THR:HG23	40:CM:62:HIS:CG	2.40	0.56
12:AP:29:PHE:CD2	12:AP:65:PHE:CE1	2.94	0.56
1:BA:1057:A:H61	1:BA:1080:A:N6	2.03	0.56
53:DD:50:G:N2	53:DD:67:C:H1'	2.21	0.56
53:DD:53:G:H1	53:DD:63:C:N4	2.02	0.56
32:CE:61:LEU:HD23	32:CE:68:ILE:CD1	2.34	0.56
1:BA:1019:U:H2'	1:BA:1020:A:H8	1.71	0.56
1:BA:1140:C:H1'	1:BA:1143:A:C8	2.27	0.56
1:BA:1012:U:C5	9:BM:28:THR:HG21	2.39	0.56
5:AF:64:ILE:O	5:AF:65:TRP:HD1	1.88	0.56
20:BU:84:ARG:HH21	20:BU:97:ARG:HB2	1.71	0.56
1:BA:1248:G:C5	16:B1:3:ARG:HB2	2.40	0.56
31:CA:200:G:N2	31:CA:218:C:C2	2.73	0.56
3:AD:270:ILE:O	3:AD:271:ILE:HD13	2.06	0.56
1:AA:2164:C:H2'	1:AA:2165:G:C8	2.40	0.56
1:AA:2712:U:O2'	1:AA:2713:A:H5'	2.04	0.56
1:BA:90:U:H2'	1:BA:91:A:H5''	1.85	0.56
53:CD:5:G:H1	53:CD:69:C:N4	2.02	0.56
1:BA:1007:C:OP1	9:BM:35:ARG:NH1	2.38	0.56
1:AA:2135:A:N6	1:AA:2156:G:O2'	2.32	0.56
31:CA:162:A:H3'	31:CA:163:C:C5'	2.35	0.56
3:AD:75:ILE:HD13	3:AD:99:ASP:OD1	2.05	0.56
45:DR:70:LEU:HD11	45:DR:77:ARG:HG3	1.87	0.56
1:BA:528:A:H2	1:BA:2043:C:C5'	2.14	0.56
1:BA:530:G:O6	1:BA:2023:G:OP1	2.24	0.56
31:DA:559:A:H4'	31:DA:560:U:H5''	1.88	0.56
1:AA:1204:A:H61	1:AA:1240:U:H2'	1.71	0.56
31:DA:631:G:H3'	31:DA:632:A:H8	1.68	0.56
45:CR:43:LEU:CD1	45:CR:56:LEU:HD23	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:42:TRP:HA	9:AM:48:MET:HE1	1.87	0.56
1:AA:2821:A:C2	1:AA:2822:G:C4	2.93	0.56
1:BA:609(A):G:H22	1:BA:619:G:H1'	1.65	0.56
1:BA:340:A:H2'	1:BA:341:G:H5'	1.87	0.56
31:DA:353:A:H2'	31:DA:354:G:OP2	2.05	0.56
1:BA:1183:G:H4'	25:BX:29:ARG:NH2	2.20	0.56
21:AV:111:VAL:HG21	21:AV:146:ILE:HG13	1.87	0.56
1:AA:1469:A:H2'	1:AA:1470:G:O5'	2.06	0.56
8:AK:101:LEU:HD21	8:AK:107:VAL:HB	1.87	0.56
17:B2:27:ALA:O	17:B2:64:HIS:HE1	1.87	0.56
32:CE:74:LYS:HG2	32:CE:169:LYS:HD3	1.86	0.56
1:AA:540:G:H3'	1:AA:541:C:H6	1.70	0.56
33:DF:64:VAL:CG2	33:DF:66:VAL:HG23	2.35	0.56
1:BA:1967:C:H2'	1:BA:1968:G:C5'	2.34	0.56
1:AA:34:C:O2'	1:AA:35:G:P	2.62	0.56
1:AA:2615:U:H2'	1:AA:2616:C:C6	2.38	0.56
6:BG:138:GLN:NE2	6:BG:153:ARG:HB2	2.20	0.56
1:BA:636:G:N7	11:BO:113:LYS:HE2	2.19	0.56
31:DA:1014:A:H4'	49:DV:14:HIS:CE1	2.40	0.56
1:AA:1379:A:C1'	1:AA:1380:G:OP1	2.52	0.56
34:DG:3:ARG:HD2	34:DG:118:ARG:HD3	1.87	0.56
32:CE:47:THR:O	32:CE:51:LEU:HB2	2.05	0.56
1:BA:2139:C:H2'	1:BA:2140:C:H5'	1.86	0.56
31:DA:1216:G:H2'	31:DA:1217:C:C6	2.40	0.56
49:DV:80:TYR:CE1	49:DV:82:GLY:HA2	2.40	0.56
40:CM:24:VAL:HG21	40:CM:37:PRO:HD3	1.86	0.56
31:CA:719:C:OP2	31:CA:720:C:N4	2.34	0.56
32:CE:239:VAL:O	32:CE:240:GLN:HG2	2.05	0.56
40:CM:32:ALA:CB	40:CM:76:ASN:HB2	2.35	0.56
31:CA:232:G:H2'	31:CA:233:C:H6	1.70	0.56
6:BG:145:THR:HG23	26:B4:28:LYS:HE2	1.87	0.56
15:AR:121:ILE:O	15:AR:123:GLN:O	2.23	0.56
31:DA:878:G:H5'	38:DK:89:PRO:HG2	1.85	0.56
1:AA:1668:A:N3	1:AA:1670:C:C4	2.73	0.56
31:CA:542:G:H5'	34:CG:41:GLY:HA3	1.86	0.56
32:CE:112:VAL:O	32:CE:115:LEU:N	2.38	0.56
1:BA:2752:C:OP2	1:BA:2752:C:O4'	2.23	0.56
1:BA:1971:A:C4	3:BD:241:PRO:HD3	2.40	0.56
31:DA:1438:G:H2'	31:DA:1439:C:H6	1.70	0.56
2:AB:0:A:H2'	2:AB:1:U:C6	2.40	0.56
7:BH:144:VAL:O	7:BH:148:ILE:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:21:ARG:N	33:CF:21:ARG:HD3	2.20	0.56
1:BA:182:A:H2	1:BA:433:C:O2	1.88	0.56
11:AO:94:GLU:O	11:AO:124:LYS:O	2.24	0.56
1:AA:192:C:H2'	1:AA:193:U:H5'	1.88	0.56
1:AA:1001:A:H2'	1:AA:1002:G:O4'	2.06	0.56
1:AA:760:G:C2'	1:AA:761:A:H5'	2.35	0.56
1:BA:207:A:H2'	1:BA:208:C:O4'	2.05	0.56
1:AA:1228:G:OP1	16:A1:13:LYS:HD2	2.05	0.56
36:DI:76:ALA:HB1	36:DI:80:ARG:NH2	2.21	0.56
1:AA:1357:U:H2'	1:AA:1358:G:O4'	2.05	0.56
31:DA:1126:U:H1'	31:DA:1127:G:OP2	2.05	0.56
31:DA:1129:C:N4	31:DA:1139:G:C2	2.73	0.56
2:AB:15:A:C4'	2:AB:15:A:OP1	2.54	0.56
31:CA:1305:G:H5''	51:GX:4:GLY:C	2.26	0.56
4:AE:111:ARG:HD2	4:AE:160:TYR:HE1	1.63	0.56
34:DG:31:CYS:O	34:DG:32:ALA:HB3	2.06	0.56
34:DG:9:CYS:O	34:DG:12:CYS:HB2	2.05	0.56
6:BG:109:VAL:HG13	26:B4:33:VAL:CG1	2.35	0.56
1:AA:1798:U:H5''	3:AD:259:THR:CG2	2.36	0.56
17:A2:35:LEU:HD22	17:A2:35:LEU:N	2.18	0.56
9:AM:46:VAL:O	9:AM:47:ALA:HB3	2.04	0.56
1:AA:2409:G:H2'	1:AA:2410:G:O4'	2.05	0.56
1:AA:2884:U:H2'	1:AA:2885:C:H5'	1.86	0.56
18:AS:17:VAL:HG12	18:AS:76:VAL:HG11	1.87	0.56
16:A1:112:ARG:HG3	16:A1:112:ARG:NH1	2.18	0.56
7:AH:9:ILE:CG2	7:AH:49:VAL:HB	2.36	0.56
13:B0:104:ARG:HB2	13:B0:107:ASP:OD2	2.05	0.56
35:DH:51:VAL:O	35:DH:55:VAL:HG23	2.05	0.56
1:BA:1385:G:C4	1:BA:1386:C:C5	2.93	0.56
7:AH:115:VAL:HG11	7:AH:148:ILE:HG12	1.87	0.56
33:CF:68:VAL:HG12	33:CF:70:VAL:HG23	1.85	0.56
48:DU:29:PHE:HD1	48:DU:39:VAL:CG1	2.18	0.56
40:CM:78:ASN:HB2	40:CM:81:THR:HG23	1.88	0.56
2:BB:88:C:C6	2:BB:89:G:C8	2.94	0.56
1:BA:921:G:H2'	1:BA:922:U:H6	1.70	0.56
18:BS:12:ILE:HD13	18:BS:17:VAL:HG13	1.87	0.56
14:AQ:66:ALA:O	14:AQ:69:VAL:HG13	2.05	0.56
1:AA:2037:G:H2'	1:AA:2038:G:C8	2.40	0.56
1:AA:1833:U:H2'	1:AA:1834:U:H6	1.69	0.56
1:AA:2271:G:OP1	22:A3:18:ALA:HB1	2.05	0.56
1:BA:343:C:O2'	1:BA:344:G:H5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2681:C:C6	1:BA:2683:C:N4	2.71	0.56
31:DA:1178:G:H5'	39:DL:93:ARG:NH2	2.19	0.56
4:AE:84:PHE:CZ	4:AE:86:PRO:HB3	2.40	0.56
6:AG:80:PHE:O	6:AG:81:LYS:C	2.43	0.56
12:BP:68:ILE:HG23	12:BP:103:MET:HB3	1.87	0.56
31:DA:1026:G:O6	31:DA:1036:G:C2	2.59	0.56
34:DG:19:LEU:HD12	34:DG:19:LEU:O	2.04	0.56
34:DG:15:GLU:OE1	34:DG:66:ARG:NH1	2.37	0.56
5:BF:203:GLN:O	5:BF:206:ILE:O	2.24	0.56
31:CA:1004:A:C5'	31:CA:1025:U:C4	2.86	0.56
4:BE:25:VAL:CG1	4:BE:26:ILE:H	2.07	0.56
3:AD:270:ILE:CG2	3:AD:271:ILE:H	2.11	0.56
1:AA:2276:G:OP2	12:AP:84:GLY:HA2	2.06	0.56
1:AA:154:G:H2'	1:AA:155:C:O4'	2.06	0.56
31:DA:629:G:H2'	31:DA:630:G:H8	1.68	0.56
6:BG:47:LYS:HG3	6:BG:86:MET:HE2	1.88	0.56
17:A2:35:LEU:HB2	17:A2:37:VAL:CG2	2.35	0.56
15:BR:91:ARG:O	15:BR:116:ALA:HA	2.05	0.56
15:BR:118:ARG:CZ	31:DA:1446:A:C6	2.88	0.56
45:CR:38:ARG:NH1	45:CR:38:ARG:HG2	2.15	0.56
15:AR:93:ARG:CG	15:AR:93:ARG:HH11	2.16	0.56
21:BV:131:ARG:HD2	21:BV:131:ARG:N	2.19	0.56
24:BW:37:PHE:O	24:BW:41:ILE:HG23	2.05	0.56
1:AA:2219:G:H2'	1:AA:2224:G:C5'	2.35	0.56
52:DB:21:A:O2'	52:DB:22:G:OP1	2.24	0.56
50:CW:10:LEU:CD2	50:CW:12:ALA:HB3	2.34	0.56
50:CW:12:ALA:O	50:CW:15:ARG:HB2	2.05	0.56
31:CA:437:U:H5''	34:CG:155:LEU:HD22	1.87	0.56
1:BA:911:A:C5	12:BP:9:TYR:CD2	2.93	0.56
1:BA:1385:G:N3	1:BA:1386:C:C5	2.74	0.56
8:AK:29:TYR:C	8:AK:32:PRO:HD2	2.26	0.56
1:AA:10:G:C2	1:AA:2629:A:C2	2.94	0.56
1:BA:2144:U:O2'	1:BA:2145:C:H5	1.89	0.56
31:CA:474:G:H2'	31:CA:475:G:C8	2.41	0.56
1:BA:975:G:H1'	1:BA:990:A:C2	2.41	0.56
4:BE:13:ARG:HA	4:BE:21:VAL:O	2.05	0.56
1:AA:2840:C:H4'	13:A0:53:HIS:CE1	2.41	0.56
6:BG:16:ARG:NH2	6:BG:28:VAL:O	2.38	0.56
1:BA:1671:U:HO2'	1:BA:1673:U:H5	1.52	0.56
14:BQ:35:ILE:HG22	14:BQ:97:ARG:HH21	1.71	0.56
23:AZ:8:SER:OG	23:AZ:10:LYS:HG3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:B2:69:LYS:CD	17:B2:85:LYS:HD2	2.34	0.56
1:AA:2393:A:C5'	11:AO:62:LEU:HB3	2.22	0.56
1:BA:880:G:N2	1:BA:881:G:H1'	2.20	0.56
31:DA:1128:C:H2'	31:DA:1129:C:O5'	2.04	0.56
28:B6:43:CYS:O	28:B6:44:ARG:CB	2.54	0.56
15:AR:52:ILE:HD13	15:AR:61:PHE:HB3	1.86	0.56
1:BA:2250:G:OP1	1:BA:2275:C:H2'	2.05	0.56
1:BA:2275:C:O2	12:BP:85:LYS:HG2	2.04	0.56
21:AV:62:PRO:C	21:AV:64:GLY:N	2.59	0.56
1:AA:1111:A:H5'	7:AH:3:ARG:HH11	1.69	0.56
31:DA:1238:A:C8	31:DA:1303:C:H1'	2.40	0.56
1:BA:811:U:H3'	11:BO:22:GLY:CA	2.36	0.56
25:BX:52:HIS:H	25:BX:52:HIS:HD2	1.51	0.56
38:CK:87:SER:HB2	38:CK:93:VAL:CA	2.34	0.56
1:AA:1478:G:H2'	1:AA:1479:G:C8	2.33	0.56
31:CA:188:U:H2'	31:CA:189:U:H5''	1.88	0.56
31:DA:197:A:H8	31:DA:198:G:N9	2.03	0.56
31:DA:210:U:OP1	31:DA:210:U:O4'	2.24	0.56
52:DB:21:A:H2'	52:DB:22:G:H4'	1.87	0.56
32:DE:112:VAL:O	32:DE:115:LEU:HB3	2.05	0.56
1:BA:1287:A:C5	1:BA:1288:U:C4	2.94	0.56
31:CA:1048:G:OP1	44:CQ:3:ARG:HB3	2.05	0.56
24:BW:17:SER:CB	24:BW:18:PRO:CA	2.84	0.56
1:BA:2847:U:H2'	1:BA:2848:G:H5'	1.88	0.56
1:AA:2098:U:C4	1:AA:2099:U:C5	2.93	0.56
31:DA:160:A:H1'	31:DA:344:A:N7	2.20	0.56
1:BA:2314:C:C2'	1:BA:2315:G:H5'	2.35	0.56
36:DI:97:PHE:O	48:DU:31:LEU:HD23	2.05	0.56
38:DK:69:ARG:HD3	38:DK:75:ARG:O	2.05	0.56
1:AA:1829:A:H2'	1:AA:1830:C:H5'	1.85	0.56
1:AA:646:A:H2'	1:AA:647:G:O4'	2.06	0.56
31:CA:1435:G:H2'	31:CA:1436:U:C6	2.41	0.56
18:BS:36:LEU:HD13	18:BS:48:ALA:CA	2.35	0.56
31:DA:624:C:O3'	46:DS:10:GLY:HA2	2.05	0.56
1:BA:2225:A:H4'	1:BA:2226:C:O5'	2.06	0.56
1:BA:665:C:H2'	1:BA:666:G:H8	1.70	0.56
1:BA:2065:C:H1'	1:BA:2449:U:H3	1.71	0.56
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.41	0.56
1:AA:1705:G:C6	1:AA:1706:U:C4	2.93	0.56
44:DQ:27:CYS:SG	44:DQ:27:CYS:O	2.63	0.56
37:CJ:69:VAL:O	37:CJ:69:VAL:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2393:A:O3'	11:BO:62:LEU:HA	2.06	0.56
1:AA:2895:U:H6	1:AA:2895:U:O5'	1.89	0.56
4:BE:112:GLY:O	4:BE:159:HIS:HA	2.05	0.56
31:CA:1211:U:C5'	31:CA:1212:U:OP1	2.48	0.56
1:AA:783:A:H2'	1:AA:785:G:OP1	2.05	0.56
53:CD:8:U:H1'	53:CD:49:C:C1'	2.36	0.56
1:AA:1794:U:O2'	1:AA:1795:C:H5'	2.06	0.56
1:BA:1174:A:N6	1:BA:1176:G:O2'	2.38	0.56
16:B1:17:ILE:HD12	16:B1:32:PHE:CE2	2.34	0.56
15:AR:26:ASP:CB	15:AR:91:ARG:HA	2.36	0.56
15:AR:11:GLU:OE1	15:AR:11:GLU:CA	2.52	0.56
31:CA:1169:A:N6	31:CA:1170:A:N1	2.54	0.56
1:BA:975:G:N2	1:BA:990:A:O4'	2.39	0.56
38:DK:82:HIS:O	38:DK:82:HIS:CD2	2.59	0.56
14:BQ:35:ILE:O	14:BQ:35:ILE:HG13	2.05	0.56
37:CJ:152:ALA:O	37:CJ:155:ARG:HB3	2.06	0.56
1:AA:1893:C:C5	1:AA:1894:C:C4	2.93	0.56
32:DE:77:ALA:HB2	32:DE:211:ILE:HD13	1.87	0.56
11:BO:38:GLN:HG2	11:BO:45:LEU:CD1	2.35	0.56
21:AV:30:ASN:OD1	21:AV:33:LEU:N	2.35	0.56
31:CA:5:U:H2'	31:CA:5:U:O2	2.06	0.56
26:B4:42:PHE:O	26:B4:43:TYR:HB3	2.05	0.56
32:DE:28:PHE:CD1	32:DE:190:THR:HG22	2.41	0.56
4:BE:51:PHE:C	4:BE:74:PRO:HB3	2.26	0.56
34:CG:22:LYS:HB3	34:CG:26:CYS:H	1.71	0.56
1:BA:885:C:N3	1:BA:890:A:C5	2.74	0.56
3:BD:35:LYS:HD3	3:BD:63:ARG:C	2.25	0.56
31:CA:50:A:H1'	31:CA:52:G:C8	2.41	0.56
49:CV:41:VAL:CG1	49:CV:44:MET:HB2	2.36	0.56
7:AH:153:LYS:N	7:AH:153:LYS:HZ3	2.03	0.56
1:AA:2286:A:H4'	1:AA:2287:A:O5'	2.05	0.56
1:BA:1248:G:OP1	16:B1:2:PRO:HD2	2.05	0.56
16:B1:91:ASP:C	16:B1:93:LYS:N	2.60	0.56
1:BA:1826:G:O2'	3:BD:242:ARG:NH2	2.38	0.56
31:CA:827:U:C4	31:CA:870:U:C4	2.94	0.56
1:BA:1728:G:C6	1:BA:1730:U:OP2	2.59	0.56
42:DO:27:LEU:HD21	42:DO:60:LEU:HB3	1.88	0.56
31:CA:626:U:N3	31:CA:627:G:N7	2.53	0.56
1:AA:2688:U:O2	1:AA:2688:U:O5'	2.24	0.56
1:BA:863:A:O2'	1:BA:864:G:H5'	2.05	0.56
26:A4:15:ILE:O	26:A4:33:VAL:HG12	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:389:A:H2'	31:CA:390:C:H5'	1.88	0.56
38:DK:64:LYS:CD	38:DK:79:VAL:HG21	2.34	0.56
21:AV:99:TYR:HD1	21:AV:123:ASP:HB3	1.69	0.56
31:DA:742:G:P	45:DR:35:ARG:HH21	2.29	0.56
1:AA:299:A:C5'	1:AA:300:A:OP2	2.54	0.56
34:CG:79:PHE:CE1	34:CG:204:ILE:HG12	2.38	0.56
46:CS:34:GLU:HG2	46:CS:35:LYS:H	1.69	0.56
31:CA:280:C:O2	47:CT:38:ARG:HG3	2.06	0.56
32:CE:97:TRP:HH2	32:CE:176:GLU:OE2	1.87	0.56
49:DV:48:THR:HG22	49:DV:61:TYR:CD1	2.40	0.56
31:CA:958:A:C6	31:CA:959:A:N1	2.73	0.56
8:AK:85:GLU:OE1	8:AK:86:THR:OG1	2.21	0.56
4:AE:25:VAL:HG12	4:AE:183:LEU:HG	1.87	0.56
1:AA:1668:A:H4'	1:AA:1669:A:O5'	2.05	0.56
34:CG:114:ARG:HG2	34:CG:114:ARG:HH11	1.70	0.56
1:BA:1050:A:O2'	1:BA:2752:C:O2	2.22	0.56
46:DS:58:TYR:O	46:DS:62:VAL:HG22	2.05	0.56
1:AA:2766:G:N3	1:AA:2766:G:H2'	2.21	0.56
49:CV:53:ASN:O	49:CV:77:THR:HG22	2.05	0.56
1:AA:489:G:N7	18:AS:49:LYS:NZ	2.53	0.56
1:BA:1488:G:H5'	1:BA:1489:U:OP2	2.05	0.56
5:AF:7:TYR:CD1	5:AF:7:TYR:N	2.72	0.56
31:CA:1292:U:H2'	31:CA:1293:G:C8	2.40	0.56
2:BB:59:A:H2'	2:BB:60:C:O4'	2.05	0.56
1:AA:2788:C:O2'	1:AA:2809:A:N3	2.39	0.56
31:DA:1194:U:H2'	31:DA:1195:C:C6	2.41	0.56
31:DA:119:A:N7	31:DA:288:A:C2	2.74	0.56
1:AA:414:C:H2'	1:AA:415:A:C8	2.41	0.56
1:AA:2281:C:O2'	1:AA:2282:G:H5'	2.06	0.56
4:BE:97:LYS:N	4:BE:100:GLU:OE1	2.30	0.56
40:DM:64:GLU:HG3	40:DM:64:GLU:O	2.05	0.56
39:DL:85:LEU:HD13	39:DL:92:TYR:CD2	2.38	0.56
11:BO:81:GLN:HB3	11:BO:106:LEU:HD23	1.88	0.56
12:BP:111:GLU:O	12:BP:115:MET:HG2	2.06	0.56
1:BA:588:U:H1'	5:BF:90:PHE:CG	2.41	0.56
43:CP:23:TYR:HD1	43:CP:67:GLU:HA	1.70	0.56
1:AA:2210:G:C3'	1:AA:2211:G:N7	2.64	0.56
40:DM:28:ARG:NH2	40:DM:34:VAL:HB	2.20	0.56
1:AA:2751:G:C2	7:AH:3:ARG:HB3	2.40	0.56
31:CA:558:G:C5	31:CA:559:A:C2	2.94	0.56
31:DA:192:U:C4'	50:DW:103:GLY:HA3	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:444:C:H4'	5:BF:49:ALA:HB2	1.88	0.56
1:BA:483:A:H5''	20:BU:49:VAL:HG13	1.87	0.56
1:AA:70:G:H4'	1:AA:71:A:OP1	2.06	0.56
31:CA:872:A:C4	31:CA:874:G:C8	2.94	0.56
1:BA:8:A:N1	1:BA:2895:U:O4	2.39	0.56
6:BG:86:MET:O	6:BG:88:ILE:N	2.38	0.56
31:CA:689:C:C4	31:CA:690:G:C2	2.94	0.56
7:BH:116:GLU:HG2	7:BH:117:PRO:HD2	1.88	0.56
1:AA:856:C:O4'	22:A3:27:GLU:HB2	2.06	0.56
1:BA:329:G:N7	20:BU:19:LYS:HG2	2.21	0.56
1:BA:242:G:H5'	30:B8:62:LEU:HB3	1.87	0.56
3:AD:125:ILE:HD12	3:AD:137:PRO:HD3	1.88	0.56
3:BD:70:TRP:CZ3	3:BD:146:GLU:OE2	2.58	0.56
31:DA:1028:C:N4	31:DA:1033:G:H1	2.04	0.56
32:DE:178:ARG:CB	32:DE:178:ARG:HH11	2.17	0.56
1:BA:957:A:N6	1:BA:959:A:C2	2.74	0.56
1:AA:2334:G:C2	14:AQ:12:PHE:CD2	2.94	0.56
1:AA:910:A:N1	1:AA:2277:G:H1'	2.20	0.56
1:AA:2795:G:H3'	1:AA:2797:U:H5''	1.87	0.56
49:DV:80:TYR:CZ	49:DV:82:GLY:HA2	2.40	0.56
1:AA:2147:G:H2'	1:AA:2148:G:O4'	2.06	0.56
1:AA:643:A:C2'	1:AA:644:A:O5'	2.54	0.56
1:BA:128:C:H4'	1:BA:129:C:OP1	2.06	0.56
21:AV:27:VAL:HG22	21:AV:28:MET:N	2.21	0.56
31:CA:427:U:H5'	34:CG:41:GLY:HA2	1.87	0.56
31:DA:131:C:H2'	31:DA:132:C:C6	2.41	0.56
4:AE:2:LYS:HD3	4:AE:95:ILE:HG22	1.87	0.56
1:AA:107:C:H2'	1:AA:108:U:H6	1.71	0.56
1:BA:657:U:H2'	1:BA:658:C:C6	2.41	0.56
31:DA:814:A:H2'	31:DA:816:A:H5'	1.87	0.56
19:BT:15:GLU:CD	19:BT:15:GLU:H	2.06	0.56
1:BA:2418:A:OP2	30:B8:29:LYS:HE2	2.06	0.56
1:AA:246:C:H2'	1:AA:247:G:H5'	1.88	0.56
14:BQ:26:LEU:O	14:BQ:88:ASP:HB2	2.06	0.56
31:DA:1132:C:C2'	31:DA:1133:G:H5'	2.36	0.56
28:B6:52:VAL:HG22	28:B6:53:LYS:N	2.15	0.56
1:BA:2469:A:O2'	12:BP:56:ARG:HG2	2.06	0.56
26:A4:9:LEU:H	26:A4:27:THR:HG23	1.69	0.56
1:AA:882:G:C2'	1:AA:883:G:C8	2.84	0.56
1:AA:2472:G:H22	1:AA:2477:C:H5''	1.71	0.56
1:BA:1141:U:C2'	9:BM:63:THR:HG21	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:154:PRO:HB3	7:AH:163:TYR:CZ	2.40	0.56
20:AU:96:ILE:N	20:AU:99:CYS:O	2.39	0.56
39:CL:79:LEU:O	39:CL:82:ALA:HB3	2.06	0.56
43:CP:4:ILE:HG22	43:CP:5:ALA:N	2.20	0.56
15:BR:118:ARG:CZ	31:DA:1446:A:C5	2.89	0.56
31:CA:1374:A:H2'	31:CA:1375:A:H5'	1.88	0.56
5:BF:54:ARG:HB2	5:BF:79:GLY:O	2.07	0.56
44:DQ:12:ARG:C	44:DQ:14:PRO:HD3	2.25	0.56
1:BA:1340:U:H4'	1:BA:1341:U:OP2	2.05	0.56
1:BA:1538:G:O2'	1:BA:1539:G:H5'	2.06	0.56
31:CA:601:C:O2'	31:CA:602:A:H5'	2.06	0.56
1:AA:1582:C:O2'	1:AA:1586:A:C8	2.58	0.56
38:CK:53:VAL:HB	38:CK:58:TYR:CE1	2.41	0.56
14:BQ:106:ARG:CZ	14:BQ:106:ARG:O	2.54	0.56
1:BA:1862:G:O2'	1:BA:1863:G:H5'	2.06	0.56
1:AA:1813:G:H1'	3:AD:50:THR:OG1	2.06	0.56
24:BW:17:SER:HB3	24:BW:21:LEU:HG	1.88	0.56
31:CA:115:G:H4'	31:CA:116:A:O5'	2.06	0.56
22:A3:11:ARG:NH1	22:A3:11:ARG:HB2	2.21	0.56
36:DI:25:ILE:HD12	36:DI:82:ARG:HD2	1.87	0.56
21:AV:1:MET:HE2	21:AV:135:GLU:HB3	1.88	0.56
1:BA:2335:A:O2'	1:BA:2336:A:H2'	2.06	0.56
6:BG:106:LEU:HD12	6:BG:110:ALA:HB3	1.87	0.56
1:BA:1778:U:H2'	1:BA:1784:A:N6	2.21	0.56
44:DQ:29:ARG:O	44:DQ:30:ALA:HB3	2.06	0.56
14:AQ:58:LEU:N	14:AQ:58:LEU:HD23	2.21	0.56
42:CO:44:LYS:HG2	42:CO:44:LYS:O	2.05	0.56
31:DA:219:C:C4	31:DA:220:G:C8	2.94	0.56
1:BA:829:A:N7	1:BA:2248:C:H5'	2.21	0.56
36:CI:44:GLY:HA2	36:CI:59:TYR:CZ	2.41	0.56
1:AA:2257:U:O2'	1:AA:2258:C:H5'	2.05	0.56
1:BA:953:A:OP2	12:BP:16:ARG:HD3	2.06	0.56
38:DK:113:SER:O	38:DK:131:GLY:HA3	2.06	0.56
1:BA:1161:C:H1'	17:B2:8:GLY:O	2.06	0.56
4:AE:41:LYS:HB3	4:AE:41:LYS:HZ2	1.71	0.55
31:DA:1278:U:H5'	31:DA:1279:A:C8	2.41	0.55
1:BA:626:U:O4	11:BO:107:LYS:HE2	2.06	0.55
31:DA:1224:G:C6	31:DA:1322:C:H1'	2.41	0.55
28:B6:27:LYS:HZ1	28:B6:28:ARG:HH12	1.52	0.55
12:AP:64:ILE:O	12:AP:65:PHE:HB2	2.04	0.55
12:AP:65:PHE:C	12:AP:66:ILE:CG2	2.67	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:30:LYS:HG3	7:AH:79:VAL:O	2.06	0.55
53:DD:14:A:OP1	53:DD:14:A:C8	2.60	0.55
53:DD:8:U:H1'	53:DD:49:C:O4'	2.07	0.55
27:B5:49:CYS:O	27:B5:56:LYS:HB3	2.05	0.55
31:DA:1301:U:O2'	31:DA:1302:U:OP1	2.13	0.55
1:BA:1109:C:H5''	1:BA:1110:G:OP2	2.05	0.55
1:AA:958:U:OP2	12:AP:14:ARG:NH1	2.37	0.55
1:AA:917:A:H2'	1:AA:918:A:C5'	2.36	0.55
1:AA:1517:G:H4'	1:AA:1556:C:O2'	2.06	0.55
17:A2:35:LEU:CD2	17:A2:57:VAL:HG13	2.36	0.55
31:CA:1347:G:N2	31:CA:1373:G:H2'	2.21	0.55
37:CJ:22:LEU:HD23	37:CJ:62:PHE:CE2	2.36	0.55
43:DP:84:ILE:HD12	49:DV:65:ASN:HD21	1.71	0.55
1:BA:340:A:C2'	1:BA:341:G:H5'	2.35	0.55
27:A5:42:PRO:HB2	27:A5:43:HIS:HD2	1.69	0.55
52:CB:33:U:C5	52:CB:34:U:C5	2.94	0.55
15:AR:50:ILE:HD11	15:AR:102:ILE:CD1	2.35	0.55
21:AV:117:LEU:HD13	21:AV:118:GLN:N	2.19	0.55
3:AD:93:ALA:HB3	3:AD:105:ILE:HG22	1.88	0.55
7:BH:169:VAL:HG13	7:BH:170:ARG:H	1.72	0.55
31:CA:448:A:OP2	31:CA:485:G:N2	2.27	0.55
33:CF:58:GLU:N	33:CF:65:ALA:HB3	2.20	0.55
33:CF:70:VAL:CG1	33:CF:71:ALA:N	2.68	0.55
1:AA:2146:C:H4'	1:AA:2147:G:C8	2.41	0.55
12:AP:51:ARG:NH2	12:AP:52:VAL:HG23	2.22	0.55
1:AA:2033:A:O2'	1:AA:2035:G:OP2	2.20	0.55
1:AA:2419:U:H4'	28:A6:23:THR:HG21	1.87	0.55
44:CQ:21:TYR:HE2	44:CQ:23:ARG:NE	2.04	0.55
1:BA:1374:G:H2'	1:BA:1375:C:C6	2.41	0.55
31:CA:1009:G:O6	31:CA:1020:U:O2	2.25	0.55
34:DG:112:VAL:HG12	34:DG:116:GLN:OE1	2.06	0.55
31:CA:486:U:H2'	31:CA:487:A:C8	2.41	0.55
53:DC:48:U:O2'	53:DC:49:C:OP2	2.15	0.55
21:AV:69:THR:HA	21:AV:89:PHE:O	2.06	0.55
48:CU:66:LEU:O	48:CU:70:ILE:HG13	2.06	0.55
1:BA:847:U:O4	1:BA:933:A:N1	2.39	0.55
39:DL:3:GLN:NE2	39:DL:20:ARG:NH1	2.54	0.55
31:DA:1305:G:N2	31:DA:1331:G:O2'	2.39	0.55
31:DA:973:G:O4'	40:DM:55:LYS:HG3	2.06	0.55
43:CP:23:TYR:HB3	43:CP:67:GLU:HA	1.88	0.55
15:AR:54:ARG:HA	15:AR:59:THR:HB	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BF:25:PRO:HB2	5:BF:27:GLU:N	2.21	0.55
1:BA:1006:C:H1'	9:BM:106:MET:HE3	1.87	0.55
1:AA:1050:A:C8	1:AA:2751:G:C4	2.94	0.55
5:AF:28:ILE:HG22	5:AF:112:MET:HB3	1.88	0.55
1:BA:2622:C:H5'	4:BE:159:HIS:ND1	2.22	0.55
5:AF:197:ASP:N	5:AF:197:ASP:OD2	2.38	0.55
5:BF:46:ARG:NH1	5:BF:46:ARG:HG2	2.06	0.55
1:BA:140:A:H8	1:BA:1408:C:O2'	1.83	0.55
1:AA:2689:U:H4'	1:AA:2690:C:H5'	1.87	0.55
1:AA:61:G:OP1	24:AW:51:ARG:NH1	2.39	0.55
2:AB:90:C:OP2	12:AP:16:ARG:NH2	2.39	0.55
53:CD:69:C:H2'	53:CD:70:C:O4'	2.04	0.55
1:BA:986:C:H2'	1:BA:987:G:H5'	1.88	0.55
45:CR:56:LEU:O	45:CR:56:LEU:HD12	2.07	0.55
47:CT:17:LYS:HG3	47:CT:47:PRO:HA	1.88	0.55
7:AH:68:THR:O	7:AH:72:ILE:HG13	2.06	0.55
1:BA:1820:U:H4'	1:BA:1821:A:OP2	2.07	0.55
1:AA:1469:A:C2'	1:AA:1470:G:O5'	2.54	0.55
1:AA:1937:A:O2'	1:AA:1938:A:P	2.64	0.55
31:DA:1091:U:O2	31:DA:1093:A:H8	1.89	0.55
31:DA:828:A:H2'	31:DA:829:G:O4'	2.05	0.55
22:A3:64:ASP:HB2	22:A3:85:ALA:CB	2.35	0.55
31:CA:501:C:H2'	31:CA:502:G:H8	1.72	0.55
6:AG:178:PHE:HB3	6:AG:180:PHE:HE1	1.71	0.55
1:AA:299:A:N7	1:AA:300:A:N6	2.54	0.55
31:DA:1014:A:H2'	31:DA:1015:A:N9	2.21	0.55
5:BF:132:VAL:O	5:BF:133:ASN:HB2	2.06	0.55
31:DA:955:U:O2'	49:DV:83:HIS:HD2	1.88	0.55
15:AR:5:ALA:HA	15:AR:8:LYS:HE2	1.88	0.55
31:CA:186(C):G:C4	31:CA:191(E):G:N2	2.74	0.55
21:AV:150:LEU:CD2	21:AV:154:ASP:HB2	2.36	0.55
1:AA:338:G:H2'	1:AA:339:U:H6	1.72	0.55
13:A0:92:GLY:N	13:A0:94:TYR:HE2	2.04	0.55
43:CP:33:ALA:O	43:CP:37:THR:HG23	2.07	0.55
53:CD:71:G:C2'	53:CD:72:C:H5'	2.36	0.55
1:BA:2667:C:H1'	7:BH:109:PHE:CD2	2.41	0.55
3:AD:18:VAL:HG12	3:AD:19:ALA:N	2.21	0.55
19:AT:70:LEU:N	19:AT:70:LEU:HD23	2.20	0.55
53:DD:18:C:H2'	53:DD:18:C:O2	2.05	0.55
35:DH:43:LEU:HD22	35:DH:136:MET:HG3	1.88	0.55
1:BA:1788:C:H2'	1:BA:1789:A:O4'	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BE:51:PHE:C	4:BE:74:PRO:HB2	2.25	0.55
31:CA:411:A:C8	31:CA:413:G:H1'	2.41	0.55
31:DA:961:U:O2	31:DA:1201:A:N1	2.40	0.55
31:DA:1004:A:H1'	31:DA:1036:G:C6	2.38	0.55
1:BA:1075:C:H2'	1:BA:1076:C:H6	1.70	0.55
31:CA:1177:G:C8	31:CA:1178:G:C2	2.94	0.55
5:BF:20:LEU:HD13	5:BF:203:GLN:OE1	2.06	0.55
53:DD:5:G:H1	53:DD:69:C:H42	1.52	0.55
7:AH:166:GLY:C	7:AH:167:GLU:HG3	2.27	0.55
31:CA:558:G:C4	31:CA:559:A:H2	2.24	0.55
27:B5:46:CYS:HB3	27:B5:49:CYS:SG	2.46	0.55
3:AD:182:LEU:N	3:AD:272:ALA:HB3	2.18	0.55
19:BT:39:ILE:O	19:BT:43:VAL:HG13	2.06	0.55
1:AA:1406:U:H2'	1:AA:1407:C:C6	2.40	0.55
1:AA:2134:A:C5	1:AA:2158:A:C2	2.94	0.55
31:CA:266:G:H5''	31:CA:268:C:H41	1.70	0.55
15:BR:88:ILE:O	15:BR:88:ILE:HG13	2.07	0.55
1:BA:2317:C:C2'	1:BA:2318:G:H5'	2.35	0.55
1:AA:1322:A:C5	1:AA:1323:U:C5	2.94	0.55
1:BA:654(B):C:C2	1:BA:654(T):A:C2	2.95	0.55
31:CA:129(A):G:N2	31:CA:191(A):G:N7	2.54	0.55
8:BK:75:LEU:HD23	8:BK:76:THR:N	2.20	0.55
31:DA:505:G:C6	31:DA:535:A:C2	2.94	0.55
31:DA:779:C:H2'	31:DA:780:A:H5'	1.88	0.55
2:AB:25:A:C2'	2:AB:26:A:H5'	2.37	0.55
3:AD:70:TRP:CH2	3:AD:150:LYS:HA	2.41	0.55
1:AA:2728:U:H2'	1:AA:2729:G:H8	1.71	0.55
31:DA:956:U:C2	31:DA:1225:A:C2	2.94	0.55
31:DA:960:U:C2'	31:DA:960:U:O2	2.54	0.55
31:CA:262:A:C6	31:CA:263:A:C6	2.93	0.55
53:DD:71:G:O2'	53:DD:72:C:H5'	2.07	0.55
31:CA:186(E):C:N4	31:CA:191(B):G:H1	2.03	0.55
1:AA:2886:G:O2'	1:AA:2887:U:H5'	2.06	0.55
44:CQ:44:LEU:HD12	44:CQ:44:LEU:C	2.27	0.55
31:DA:1402:C:O2	31:DA:1500:A:N1	2.39	0.55
4:AE:92:THR:O	4:AE:95:ILE:HG12	2.06	0.55
1:AA:275:G:N2	1:AA:276:A:N1	2.54	0.55
31:CA:321:A:N7	31:CA:328:C:O2'	2.28	0.55
44:CQ:22:THR:HB	44:CQ:33:VAL:HG11	1.89	0.55
10:BN:66:LYS:H	10:BN:82:ASN:ND2	2.04	0.55
31:DA:1018:C:H2'	31:DA:1019:C:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DE:113:HIS:O	32:DE:116:GLU:HG2	2.06	0.55
1:BA:2716:U:O2'	1:BA:2717:G:H5'	2.06	0.55
31:CA:539:A:H2'	31:CA:540:G:C8	2.41	0.55
31:DA:668:G:O2'	45:DR:46:HIS:HB3	2.06	0.55
3:BD:244:ARG:HB2	3:BD:245:PRO:CD	2.37	0.55
49:CV:15:LEU:O	49:CV:19:VAL:HG23	2.06	0.55
31:DA:245:C:O2	31:DA:283:C:N3	2.40	0.55
1:AA:2505:G:O6	1:AA:2576:G:H2'	2.06	0.55
1:BA:1997:G:O2'	1:BA:1998:G:H5'	2.06	0.55
34:CG:31:CYS:O	34:CG:31:CYS:SG	2.64	0.55
3:BD:27:THR:CG2	3:BD:28:GLU:N	2.69	0.55
1:AA:2312:U:O2'	6:AG:40:ASN:ND2	2.32	0.55
6:AG:82:LEU:CD2	6:AG:86:MET:HE3	2.36	0.55
31:DA:1056:U:H5'	33:DF:163:ALA:CB	2.36	0.55
28:B6:36:LEU:HD23	28:B6:50:ARG:HB3	1.88	0.55
1:BA:1055:G:N3	1:BA:1085:A:C2	2.75	0.55
1:BA:2124:G:H2'	1:BA:2125:G:H5'	1.87	0.55
41:CN:17:GLY:CA	41:CN:77:MET:HE3	2.24	0.55
1:BA:1019:U:OP1	1:BA:1035:U:O2'	2.22	0.55
1:BA:1022:G:N2	1:BA:1142(A):A:C2	2.68	0.55
1:AA:2116:G:P	1:AA:2165:G:N2	2.79	0.55
1:BA:812:C:O5'	11:BO:22:GLY:HA3	2.07	0.55
40:DM:30:SER:CB	40:DM:80:LYS:HG2	2.37	0.55
31:CA:690:G:H2'	31:CA:691:G:O4'	2.07	0.55
31:CA:1346:A:OP1	39:CL:120:ARG:NH1	2.37	0.55
27:A5:40:LYS:CB	27:A5:46:CYS:SG	2.94	0.55
1:BA:918:A:H5''	2:BB:97:G:O2'	2.07	0.55
1:BA:1528:A:H2'	1:BA:1529:A:O4'	2.06	0.55
31:CA:130:A:C8	47:CT:63:ARG:HD3	2.41	0.55
9:AM:96:GLU:N	9:AM:98:VAL:HG12	2.22	0.55
8:AK:131:LYS:HB3	8:AK:132:PRO:CA	2.33	0.55
32:DE:55:PHE:CD1	32:DE:58:ILE:HD12	2.41	0.55
3:AD:147:LEU:HD13	3:AD:155:LEU:HD11	1.88	0.55
43:DP:110:ARG:HG2	43:DP:110:ARG:NH1	2.21	0.55
1:AA:613:U:H5'	1:AA:616:A:N6	2.21	0.55
1:AA:775:G:C5	1:AA:794:G:C8	2.94	0.55
1:AA:1276:A:O2'	13:A0:16:HIS:CE1	2.58	0.55
1:AA:754:C:H2'	1:AA:755:C:H6	1.71	0.55
50:DW:25:ARG:O	50:DW:29:LYS:HG3	2.06	0.55
31:CA:102:G:C6	31:CA:103:C:C4	2.95	0.55
39:CL:22:GLY:HA3	39:CL:60:ASP:CG	2.26	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DC:48:U:H1'	53:DC:49:C:O5'	2.06	0.55
50:DW:43:LEU:HD13	50:DW:51:GLU:HG3	1.88	0.55
18:AS:73:ALA:HB3	18:AS:106:ILE:HD11	1.87	0.55
18:AS:86:LEU:C	18:AS:86:LEU:HD12	2.26	0.55
1:AA:18:C:O3'	16:A1:23:GLY:HA2	2.06	0.55
41:CN:28:THR:HG21	41:CN:90:GLY:HA3	1.89	0.55
38:CK:94:TYR:HE1	38:CK:132:GLU:HB2	1.71	0.55
1:AA:2494:G:O2'	12:AP:80:GLU:HA	2.06	0.55
4:AE:59:VAL:C	4:AE:60:ASN:CG	2.64	0.55
31:DA:1141:C:O2'	31:DA:1142:G:H5'	2.06	0.55
31:CA:1366:C:H2'	31:CA:1367:C:C6	2.41	0.55
1:BA:1084:A:H3'	1:BA:1085:A:C8	2.41	0.55
31:CA:1149:C:P	39:CL:9:ARG:HH21	2.29	0.55
1:AA:2683:C:OP1	15:AR:53:ARG:NH2	2.39	0.55
31:CA:1500:A:OP2	31:CA:1505:G:OP1	2.25	0.55
1:AA:889:C:C3'	1:AA:890:A:H4'	2.34	0.55
4:BE:132:HIS:O	4:BE:132:HIS:CG	2.59	0.55
9:BM:28:THR:HA	9:BM:106:MET:HE2	1.88	0.55
1:AA:2173:A:H2'	1:AA:2174:C:O4'	2.06	0.55
53:CD:55:U:C4	53:CD:56:U:C5	2.95	0.55
20:AU:49:VAL:HG12	20:AU:50:ARG:H	1.72	0.55
26:A4:50:VAL:O	26:A4:50:VAL:HG12	2.06	0.55
1:BA:2320:A:C6	1:BA:2333:A:C8	2.94	0.55
1:BA:310:A:P	20:BU:18:GLY:HA2	2.46	0.55
1:BA:329:G:C6	20:BU:19:LYS:HG2	2.42	0.55
47:DT:67:LYS:CA	47:DT:70:ARG:HH12	2.17	0.55
39:CL:52:ALA:O	39:CL:95:LYS:NZ	2.39	0.55
1:AA:2199:A:H3'	1:AA:2205:C:C6	2.39	0.55
34:CG:162:LEU:HD13	34:CG:181:MET:HB3	1.88	0.55
1:BA:1761:C:N3	1:BA:1762:A:N6	2.53	0.55
52:CB:15:A:C2	52:CB:70:G:C6	2.94	0.55
33:DF:68:VAL:HG12	33:DF:70:VAL:HG23	1.86	0.55
31:CA:250:A:C4'	31:CA:251:G:H5''	2.37	0.55
31:DA:954:G:H21	31:DA:1227:A:H62	1.55	0.55
32:DE:132:LYS:HA	32:DE:135:GLN:HB2	1.88	0.55
38:DK:17:THR:O	38:DK:78:GLN:NE2	2.38	0.55
1:AA:2498:C:O2'	1:AA:2499:C:H5'	2.06	0.55
31:CA:615:C:C2	31:CA:616:G:C8	2.95	0.55
1:BA:273(E):U:O2'	1:BA:273(F):C:H5'	2.06	0.55
31:DA:242:C:H2'	31:DA:243:A:H5'	1.88	0.55
1:BA:1283:G:N2	1:BA:1286:A:OP2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:33:A:H2'	31:CA:34:C:C6	2.41	0.55
6:BG:27:ASN:HB3	6:BG:30:GLU:HG3	1.88	0.55
2:AB:73:A:C4	2:AB:104:A:C2	2.94	0.55
46:CS:58:TYR:CD1	46:CS:58:TYR:C	2.79	0.55
10:AN:7:TYR:OH	10:AN:44:LYS:HG3	2.07	0.55
31:DA:1386:G:C2	31:DA:1387:G:C8	2.94	0.55
25:BX:43:ILE:O	25:BX:47:VAL:HG23	2.07	0.55
1:BA:2453:A:O2'	1:BA:2454:G:H5'	2.07	0.55
17:B2:85:LYS:C	17:B2:87:HIS:H	2.10	0.55
1:BA:2681:C:C5	1:BA:2727:G:C2	2.94	0.55
3:BD:35:LYS:CB	3:BD:64:ILE:HG23	2.37	0.55
12:BP:97:VAL:HG11	12:BP:103:MET:CE	2.37	0.55
12:BP:105:GLU:O	12:BP:105:GLU:HG2	2.07	0.55
31:CA:1059:C:O3'	44:CQ:45:ARG:NH2	2.40	0.55
39:CL:5:TYR:CE2	39:CL:16:ARG:HG2	2.41	0.55
26:A4:4:GLY:O	26:A4:5:ILE:HG22	2.07	0.55
53:CD:15:G:N2	53:CD:49:C:C2	2.70	0.55
37:DJ:78:ARG:HB2	37:DJ:156:TRP:CZ3	2.40	0.55
32:DE:210:SER:O	32:DE:214:ILE:HG12	2.06	0.55
1:BA:2507:C:H2'	1:BA:2508:G:O4'	2.07	0.55
31:DA:345:C:H1'	31:DA:346:G:N1	2.22	0.55
7:BH:102:ALA:CB	7:BH:117:PRO:HD3	2.36	0.55
1:AA:1794:U:H2'	1:AA:1795:C:H6	1.70	0.55
31:CA:264:U:O2'	47:CT:64:PRO:HD2	2.07	0.55
7:BH:151:ILE:O	7:BH:152:ARG:HG3	2.07	0.55
22:A3:27:GLU:HG3	22:A3:69:PHE:H	1.71	0.55
11:AO:112:LEU:H	11:AO:128:HIS:HD2	1.53	0.55
9:AM:128:HIS:HD2	9:AM:129:PRO:C	2.10	0.55
1:AA:1328:G:H2'	1:AA:1330:C:C5	2.41	0.55
33:DF:8:ILE:O	33:DF:11:ARG:N	2.39	0.55
31:DA:1226:C:N4	43:DP:104:ARG:HD2	2.21	0.55
21:BV:53:ILE:HG22	21:BV:71:VAL:HG13	1.89	0.55
34:CG:187:ARG:HH22	34:CG:193:ASP:CG	2.09	0.55
1:AA:2077:A:H2'	1:AA:2078:C:C6	2.42	0.55
2:AB:79:C:H2'	2:AB:80:U:O4'	2.06	0.55
1:AA:2184:G:C6	1:AA:2185:C:N4	2.74	0.55
1:BA:2020:A:O2'	1:BA:2021:C:H5'	2.07	0.55
31:DA:1154:G:H2'	31:DA:1155:G:H8	1.71	0.55
39:DL:26:VAL:HG13	39:DL:61:ALA:HB3	1.89	0.55
31:CA:1112:C:C4	33:CF:178:LEU:HD23	2.41	0.55
36:DI:72:VAL:HG13	36:DI:73:ASN:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DE:29:ALA:HA	32:DE:32:ILE:HG23	1.89	0.55
16:B1:50:ARG:HG2	16:B1:53:ARG:NH2	2.21	0.55
21:BV:115:GLY:N	21:BV:177:PRO:HG2	2.22	0.55
6:AG:82:LEU:O	6:AG:82:LEU:CD1	2.53	0.55
1:BA:2273:A:O2'	1:BA:2274:A:H5'	2.07	0.55
8:BK:82:ARG:NH1	8:BK:146:ALA:HA	2.22	0.55
31:CA:57:G:H2'	31:CA:58:C:H6	1.70	0.55
1:BA:153:C:OP1	23:BZ:88:LYS:NZ	2.39	0.55
30:A8:33:ASN:O	30:A8:34:TRP:C	2.44	0.55
1:AA:2134:A:N7	1:AA:2158:A:H2	2.04	0.55
32:CE:204:ASN:HD22	32:CE:204:ASN:C	2.09	0.55
12:AP:18:LYS:O	12:AP:19:GLY:C	2.45	0.55
26:B4:21:VAL:HG22	26:B4:22:ILE:N	2.19	0.55
11:AO:1:MET:CE	11:AO:5:ASP:HB3	2.36	0.55
41:CN:40:ILE:CG2	41:CN:75:TYR:HD2	2.16	0.55
31:CA:1285:A:C4'	31:CA:1286:A:O5'	2.52	0.55
17:A2:15:GLU:CG	17:A2:16:PRO:HD2	2.34	0.55
1:BA:288:C:O3'	1:BA:289:A:O4'	2.25	0.55
25:BX:59:VAL:CG1	25:BX:60:GLU:H	2.19	0.55
8:BK:125:GLU:CB	8:BK:141:LYS:HD3	2.35	0.55
31:CA:197:A:N6	31:CA:221:C:C5'	2.70	0.55
1:BA:2129:C:C2'	1:BA:2130:U:H5'	2.36	0.55
42:CO:114:ARG:NH2	42:CO:121:LYS:HB2	2.21	0.55
21:AV:98:MET:O	21:AV:125:LEU:HD12	2.07	0.55
38:CK:42:GLU:HG3	38:CK:109:ILE:HD12	1.87	0.55
8:BK:79:ILE:O	8:BK:142:VAL:HG23	2.07	0.55
22:B3:68:GLU:HB3	22:B3:80:HIS:HB2	1.89	0.55
1:BA:2563:U:O2	1:BA:2565:A:C8	2.59	0.55
21:AV:52:SER:O	21:AV:53:ILE:HG12	2.07	0.55
43:DP:88:ARG:HG3	43:DP:98:VAL:CG1	2.37	0.55
1:AA:2352:A:C4	1:AA:2366:A:C2	2.94	0.55
31:CA:509:A:O2'	31:CA:510:A:OP1	2.24	0.55
16:B1:112:ARG:HD3	17:B2:47:VAL:HG11	1.88	0.55
32:DE:132:LYS:O	32:DE:136:VAL:HG23	2.07	0.55
31:DA:512:U:H2'	31:DA:513:C:C6	2.42	0.55
31:DA:22:G:H4'	31:DA:885:G:C8	2.42	0.55
26:B4:36:CYS:HB3	26:B4:41:PRO:CD	2.37	0.55
4:AE:96:PHE:O	4:AE:175:VAL:HG11	2.06	0.55
1:BA:576:U:H2'	1:BA:577:G:C8	2.42	0.55
7:BH:82:GLY:HA3	7:BH:135:GLY:O	2.06	0.55
10:AN:2:ILE:HB	10:AN:33:ALA:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2243:U:O2'	1:BA:2244:U:H5'	2.06	0.55
32:CE:22:LYS:HA	32:CE:22:LYS:NZ	2.22	0.55
1:BA:1509:C:H4'	1:BA:1509:C:OP2	2.07	0.55
8:BK:62:LYS:HD2	8:BK:62:LYS:O	2.05	0.55
9:BM:20:GLY:HA2	9:BM:61:ARG:HG2	1.87	0.55
31:CA:81:G:H2'	31:CA:82:U:O4'	2.07	0.55
31:DA:1114:C:H2'	31:DA:1115:C:H6	1.71	0.55
21:AV:68:PRO:HB2	21:AV:91:LEU:HB2	1.89	0.55
1:AA:1458:C:H5''	1:AA:1459:G:H5'	1.87	0.55
34:CG:33:MET:HE1	34:CG:37:PRO:CA	2.35	0.55
1:BA:1568:G:OP2	3:BD:63:ARG:NH2	2.37	0.55
1:AA:2470:G:H5'	12:AP:56:ARG:NH2	2.21	0.55
31:CA:1305:G:OP2	31:CA:1305:G:H8	1.89	0.55
31:CA:1162:C:O5'	31:CA:1162:C:H6	1.90	0.55
1:BA:672:C:H2'	1:BA:673:C:H5'	1.88	0.55
34:DG:96:LEU:HD12	34:DG:139:ARG:NH2	2.21	0.55
1:AA:890:A:H3'	1:AA:892:G:H8	1.71	0.55
14:BQ:60:GLY:O	14:BQ:61:ASN:HB2	2.07	0.55
7:AH:166:GLY:O	7:AH:167:GLU:HG3	2.07	0.55
1:BA:85:G:H5'	20:BU:32:PRO:HD3	1.88	0.55
1:AA:2169:A:N6	1:AA:2170:A:N1	2.55	0.55
31:DA:1302:U:C5	43:DP:17:VAL:HG21	2.42	0.55
1:AA:1359:A:N1	1:AA:1372:U:C4	2.74	0.55
50:DW:56:MET:HE3	50:DW:104:LEU:HD11	1.88	0.55
12:AP:21:THR:HB	12:AP:99:PRO:O	2.06	0.55
31:DA:1495:U:O4	56:DA:1805:PAR:N12	2.40	0.55
31:DA:1109:C:H2'	31:DA:1110:A:O4'	2.06	0.55
15:AR:122:ASP:O	15:AR:126:ALA:HB3	2.06	0.55
33:CF:70:VAL:HG12	33:CF:71:ALA:N	2.22	0.55
34:CG:108:LEU:HD23	34:CG:110:PHE:CE1	2.42	0.55
31:CA:1095:U:P	31:CA:1108:G:H1	2.30	0.55
13:A0:78:LYS:O	13:A0:83:ILE:HG13	2.06	0.55
11:AO:24:GLY:C	11:AO:26:GLY:N	2.60	0.55
1:AA:2094:G:O2'	1:AA:2095:C:H5'	2.06	0.55
1:AA:1826:G:H4'	3:AD:242:ARG:CZ	2.37	0.55
1:BA:2544:G:O5'	1:BA:2544:G:H8	1.90	0.55
1:BA:580:C:H2'	1:BA:581:C:C6	2.42	0.55
21:BV:37:VAL:HG23	21:BV:38:TYR:N	2.21	0.55
1:AA:469:G:O6	29:A7:37:LYS:HE2	2.06	0.55
1:AA:658:C:H2'	1:AA:659:C:C6	2.41	0.55
40:DM:15:THR:HG21	40:DM:92:THR:HG21	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:395:U:H2'	1:BA:396:G:N7	2.21	0.55
10:BN:10:VAL:HG13	10:BN:17:ARG:O	2.07	0.55
38:CK:103:VAL:HG21	38:CK:110:ALA:HB2	1.88	0.55
33:DF:123:GLN:O	33:DF:128:PHE:HB2	2.07	0.55
1:BA:2241:A:H2'	1:BA:2242:G:C8	2.42	0.55
27:A5:36:CYS:SG	27:A5:48:GLU:O	2.64	0.55
1:BA:558:G:OP1	9:BM:111:PRO:HD2	2.07	0.55
1:BA:1247:A:OP1	5:BF:95:ARG:NH2	2.37	0.55
1:AA:2232:U:P	23:AZ:40:ARG:HH12	2.30	0.55
3:AD:31:LYS:NZ	3:AD:33:LEU:HB3	2.21	0.55
1:BA:1666:G:C2'	1:BA:1667:G:H5'	2.37	0.55
1:AA:2402:C:H2'	1:AA:2403:C:H5'	1.88	0.55
31:DA:1328:C:C2'	31:DA:1329:A:H5'	2.36	0.55
30:A8:51:ALA:N	30:A8:53:PRO:HD2	2.22	0.55
14:AQ:88:ASP:CG	14:AQ:89:ARG:N	2.59	0.55
12:AP:29:PHE:HB3	12:AP:65:PHE:CE2	2.41	0.55
7:AH:83:TYR:HB2	7:AH:134:SER:HA	1.88	0.55
3:BD:166:GLN:CA	3:BD:166:GLN:NE2	2.69	0.55
43:CP:82:MET:O	43:CP:83:ASP:HB2	2.06	0.55
1:AA:2751:G:O2'	1:AA:2752:C:P	2.64	0.55
31:CA:559:A:OP1	35:CH:126:ARG:NH2	2.40	0.55
35:CH:126:ARG:CG	35:CH:126:ARG:NH1	2.69	0.55
5:AF:66:PRO:O	5:AF:67:GLN:HB3	2.07	0.55
20:BU:3:VAL:HG11	20:BU:32:PRO:O	2.07	0.55
6:AG:33:ARG:O	6:AG:162:THR:HG23	2.07	0.55
53:CD:67:C:N3	53:CD:68:C:N4	2.55	0.55
53:CD:6:G:H2'	53:CD:7:G:H8	1.71	0.55
19:AT:84:ALA:HB3	19:AT:87:GLN:HE22	1.72	0.55
31:CA:381:C:H2'	31:CA:382:A:O4'	2.06	0.55
1:BA:2555:U:O2	52:DB:85:C:C6	2.59	0.55
1:AA:1206:G:C6	1:AA:1207:C:C4	2.95	0.55
15:BR:56:GLY:H	15:BR:59:THR:HG22	1.71	0.55
17:A2:39:LEU:HD12	17:A2:50:PRO:O	2.06	0.55
31:CA:271:C:H2'	31:CA:272:C:H6	1.71	0.55
31:CA:271:C:H2'	31:CA:272:C:C6	2.42	0.55
44:DQ:12:ARG:CB	44:DQ:14:PRO:HD3	2.37	0.55
22:A3:43:THR:O	22:A3:43:THR:HG23	2.07	0.55
1:BA:2712:U:O2'	1:BA:2712(A):A:P	2.65	0.55
8:BK:101:LEU:CD2	8:BK:101:LEU:H	2.18	0.55
1:BA:2156:G:C6	1:BA:2157:G:C2	2.95	0.55
31:CA:968:A:H4'	31:CA:969:A:OP2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BO:41:ARG:HD2	11:BO:41:ARG:H	1.71	0.55
11:AO:95:VAL:O	11:AO:95:VAL:HG12	2.06	0.55
17:A2:22:VAL:HG12	17:A2:23:GLU:H	1.72	0.55
1:BA:1292:U:H2'	1:BA:1293:C:H6	1.71	0.55
3:AD:273:ARG:O	3:AD:273:ARG:HG3	2.05	0.55
31:DA:634:C:O2'	31:DA:635:G:H5'	2.06	0.55
1:BA:271(C):U:H5'	1:BA:271:G:OP2	2.07	0.55
11:AO:94:GLU:OE2	11:AO:124:LYS:HD3	2.07	0.55
19:AT:65:ARG:HB3	19:AT:70:LEU:HB3	1.87	0.55
31:DA:1019:C:O2'	31:DA:1020:U:H5'	2.07	0.55
31:DA:668:G:O2'	31:DA:669:U:H5'	2.07	0.55
1:AA:2052:G:C8	4:AE:141:ILE:HD11	2.41	0.55
34:DG:47:ARG:NH1	34:DG:49:ARG:HH22	2.05	0.55
1:AA:65:C:H2'	1:AA:66:C:H6	1.72	0.55
1:BA:1758:G:H4'	1:BA:1759:A:OP2	2.07	0.55
15:AR:136:GLN:HG3	15:AR:137:LYS:H	1.71	0.55
1:AA:2341:G:H2'	1:AA:2342:C:O4'	2.07	0.55
1:AA:1130:U:HO2'	1:AA:1131:G:P	2.30	0.55
24:AW:14:ARG:NH1	24:AW:66:GLU:OE2	2.39	0.55
31:CA:757:U:H2'	31:CA:758:G:O4'	2.07	0.55
31:CA:771:G:O2'	31:CA:772:U:H5'	2.07	0.55
31:DA:369:C:H2'	31:DA:369:C:O2	2.06	0.55
8:BK:93:THR:H	8:BK:96:ASP:HB2	1.72	0.55
1:AA:2667:C:H2'	1:AA:2668:G:O4'	2.06	0.55
1:AA:2393:A:H4'	11:AO:62:LEU:N	2.22	0.55
1:AA:1567:A:H5''	3:AD:58:HIS:CD2	2.41	0.55
4:AE:51:PHE:O	4:AE:74:PRO:HB2	2.07	0.55
1:BA:1665:A:H4'	10:BN:67:LYS:HB2	1.89	0.55
31:CA:412:A:H4'	31:CA:413:G:O5'	2.06	0.55
31:DA:983:A:H5''	31:DA:984:C:OP2	2.07	0.55
1:BA:588:U:H1'	5:BF:90:PHE:HB3	1.88	0.55
1:BA:2392:A:OP1	30:B8:32:LEU:CD1	2.55	0.55
31:DA:1004:A:OP1	31:DA:1025:U:O4	2.25	0.55
1:AA:1652:A:N7	1:AA:1653:G:C6	2.75	0.55
1:AA:2846:G:P	15:AR:54:ARG:HB2	2.46	0.55
30:B8:54:GLU:O	30:B8:56:GLU:N	2.40	0.55
1:AA:890:A:H2'	1:AA:892:G:O4'	2.06	0.55
1:BA:945:A:H3'	1:BA:946:G:H5''	1.89	0.55
1:BA:1025:G:C4	1:BA:1135:C:H1'	2.42	0.55
31:DA:1116:C:H42	31:DA:1184:G:H1	1.55	0.55
20:BU:98:VAL:HG13	20:BU:99:CYS:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:191:G:C2'	50:DW:103:GLY:HA2	2.36	0.55
1:BA:444:C:C4'	5:BF:49:ALA:HB2	2.36	0.55
1:AA:1384:A:N3	1:AA:1405:U:H1'	2.22	0.55
50:CW:72:LEU:HD23	50:CW:72:LEU:C	2.28	0.55
1:AA:958:U:O2	2:AB:89(A):A:H4'	2.06	0.55
1:BA:987:G:O2'	1:BA:1000:A:N3	2.36	0.55
1:BA:527:C:OP2	1:BA:2779:U:C5	2.60	0.55
33:CF:64:VAL:HG21	33:CF:99:VAL:HG12	1.88	0.55
1:AA:2884:U:C2'	1:AA:2885:C:H5'	2.37	0.55
33:CF:181:ASN:HD21	33:CF:204:LEU:HB2	1.71	0.55
31:CA:1277:C:HO2'	31:CA:1279:A:C1'	2.20	0.55
31:DA:554:C:H2'	31:DA:555:C:C6	2.37	0.55
38:CK:41:ARG:NH1	38:CK:41:ARG:HG3	2.20	0.55
20:BU:61:ILE:HG22	20:BU:62:GLU:N	2.19	0.55
41:CN:113:PRO:C	41:CN:114:VAL:HG12	2.27	0.55
31:CA:1008:C:N4	31:CA:1021:G:H1	2.05	0.55
1:AA:527:C:H4'	1:AA:528:A:O5'	2.07	0.55
1:BA:162:U:H4'	1:BA:171:G:C5	2.41	0.55
1:AA:844:C:H2'	1:AA:845:G:O4'	2.07	0.55
53:DD:38:A:H2'	53:DD:39:A:O4'	2.07	0.55
33:CF:131:ARG:CZ	33:CF:131:ARG:HB2	2.37	0.55
21:AV:10:ARG:HB2	21:AV:36:LYS:O	2.07	0.55
15:BR:136:GLN:C	15:BR:137:LYS:HD2	2.28	0.55
32:CE:120:ALA:O	32:CE:121:LEU:CB	2.55	0.55
14:AQ:65:VAL:O	14:AQ:69:VAL:HG12	2.07	0.55
10:AN:7:TYR:CZ	10:AN:44:LYS:HG3	2.42	0.55
31:DA:933:G:O6	37:DJ:3:ARG:NH2	2.40	0.55
32:CE:224:GLN:HB2	32:CE:229:VAL:HG23	1.89	0.55
20:AU:2:ARG:HG2	20:AU:3:VAL:HG23	1.89	0.55
1:AA:146:G:H2'	1:AA:147:U:O4'	2.07	0.55
37:CJ:6:ARG:O	37:CJ:6:ARG:HG2	2.07	0.55
31:DA:584:G:H5'	47:DT:91:ARG:NH1	2.22	0.55
1:BA:1164:G:C2	1:BA:1165:U:C2	2.95	0.55
11:BO:64:LYS:HB2	30:B8:25:MET:CG	2.24	0.54
31:DA:1305:G:O2'	31:DA:1306:A:P	2.64	0.54
11:AO:18:ARG:CZ	11:AO:21:ARG:HD3	2.37	0.54
1:BA:2447:G:H1'	1:BA:2448:A:OP2	2.07	0.54
1:BA:2154:G:C2	1:BA:2155:G:C5	2.95	0.54
1:BA:94:G:H2'	1:BA:95:G:O4'	2.07	0.54
9:BM:13:TRP:O	9:BM:135:PRO:HD2	2.07	0.54
15:BR:56:GLY:O	15:BR:59:THR:CG2	2.53	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1519:G:C2'	1:AA:1520:U:H5'	2.37	0.54
16:A1:92:ARG:HD2	16:A1:95:LEU:HD12	1.89	0.54
1:BA:654(D):G:N2	1:BA:654(R):C:C2	2.75	0.54
31:DA:197:A:C6	31:DA:221:C:H4'	2.42	0.54
1:BA:307:G:N2	1:BA:309:G:H3'	2.23	0.54
31:DA:1502:A:H2	31:DA:1505:G:N1	2.03	0.54
1:AA:1771:C:HO2'	1:AA:1786:A:C1'	2.19	0.54
1:BA:2131:G:O4'	1:BA:2158:A:N6	2.41	0.54
1:BA:2127:G:N2	1:BA:2173:A:C8	2.75	0.54
31:CA:1299:A:H2'	31:CA:1301:U:C1'	2.37	0.54
52:DB:16:U:OP1	52:DB:17:U:C4	2.60	0.54
32:DE:153:ARG:CG	32:DE:154:LEU:H	2.20	0.54
32:DE:178:ARG:HH11	32:DE:178:ARG:CG	2.19	0.54
17:B2:49:THR:HB	17:B2:50:PRO:CD	2.38	0.54
53:DD:52:C:N3	53:DD:64:G:N2	2.51	0.54
33:CF:50:ALA:HB1	33:CF:70:VAL:HG11	1.88	0.54
35:CH:77:PRO:HG2	35:CH:142:LEU:HD22	1.90	0.54
4:AE:118:LYS:HG2	4:AE:118:LYS:O	2.07	0.54
22:A3:11:ARG:HB2	22:A3:11:ARG:HH11	1.70	0.54
32:DE:144:ARG:HD2	32:DE:148:TYR:CE2	2.42	0.54
31:CA:957:U:H2'	31:CA:959:A:OP2	2.07	0.54
38:CK:95:VAL:HG12	38:CK:99:GLU:CB	2.37	0.54
31:CA:943:U:H2'	31:CA:944:G:H5'	1.88	0.54
1:BA:2196:C:O2'	1:BA:2197:U:H5'	2.06	0.54
1:AA:32:C:O2'	1:AA:33:U:H5'	2.06	0.54
39:CL:22:GLY:O	39:CL:57:GLY:O	2.25	0.54
1:AA:184:C:H2'	1:AA:185:U:H6	1.71	0.54
1:BA:1153:C:H2'	1:BA:1154:G:O4'	2.07	0.54
1:BA:1907:G:O2'	1:BA:1908:C:H5'	2.08	0.54
13:A0:49:ASP:OD1	13:A0:95:THR:HG22	2.07	0.54
35:CH:147:ASP:HA	35:CH:150:ARG:NH1	2.23	0.54
31:CA:184:G:H2'	31:CA:185:A:C8	2.42	0.54
1:BA:384:U:H2'	1:BA:385:C:H6	1.71	0.54
42:DO:111:LYS:HB3	42:DO:111:LYS:NZ	2.22	0.54
2:AB:112:G:H2'	2:AB:113:C:C6	2.42	0.54
2:AB:78:A:C2	2:AB:99:A:C4	2.95	0.54
52:DB:29:U:H2'	52:DB:30:A:C8	2.42	0.54
1:AA:1637:A:H4'	1:AA:2711:A:O2'	2.07	0.54
31:CA:1203:C:H2'	31:CA:1204:A:O4'	2.07	0.54
12:AP:43:THR:OG1	12:AP:46:GLN:HG3	2.07	0.54
1:BA:1796:U:H2'	1:BA:1797:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B8:29:LYS:C	30:B8:31:HIS:H	2.11	0.54
12:AP:23:GLY:HA2	12:AP:25:ASP:CB	2.35	0.54
1:BA:993:G:H1'	17:B2:87:HIS:CE1	2.41	0.54
1:AA:1060:U:H3	1:AA:1088:A:H8	1.55	0.54
31:DA:1128:C:C2	31:DA:1139:G:C6	2.96	0.54
53:CC:18:C:O2'	53:CC:18:C:O2	2.21	0.54
31:DA:981:U:H5'	44:DQ:21:TYR:CE1	2.43	0.54
43:DP:67:GLU:N	43:DP:70:LEU:HD12	2.22	0.54
1:AA:2572:A:N7	4:AE:144:ARG:NE	2.52	0.54
49:CV:40:ILE:CG1	49:CV:41:VAL:HG13	2.36	0.54
23:BZ:87:PRO:O	23:BZ:88:LYS:C	2.46	0.54
23:BZ:91:LYS:HG3	23:BZ:92:LYS:N	2.22	0.54
1:AA:2473:U:N3	1:AA:2474:C:C6	2.76	0.54
1:BA:1022:G:C6	1:BA:1140:C:C4	2.95	0.54
4:BE:9:VAL:HG13	4:BE:26:ILE:O	2.07	0.54
53:CD:6:G:C2	53:CD:7:G:N7	2.76	0.54
14:BQ:102:ALA:O	14:BQ:105:ALA:N	2.40	0.54
1:BA:2689:U:C4'	1:BA:2690:C:OP2	2.56	0.54
1:BA:2801:A:H5'	1:BA:2895:U:O2'	2.07	0.54
1:AA:1803:A:O2'	3:AD:259:THR:HG21	2.07	0.54
17:A2:39:LEU:O	17:A2:40:LEU:CD2	2.54	0.54
31:CA:611:A:N6	31:CA:629:G:N1	2.51	0.54
31:CA:148:G:C2	31:CA:149:A:C8	2.95	0.54
1:BA:2875:C:O2'	15:BR:5:ALA:HB3	2.07	0.54
33:DF:18:TRP:N	33:DF:18:TRP:CE3	2.73	0.54
44:DQ:36:PHE:CD1	44:DQ:37:PHE:CD2	2.95	0.54
32:DE:5:ILE:O	32:DE:5:ILE:HG23	2.07	0.54
32:DE:8:LYS:C	32:DE:10:LEU:H	2.10	0.54
7:BH:169:VAL:HG22	7:BH:170:ARG:N	2.23	0.54
33:CF:83:ARG:O	33:CF:86:VAL:HG22	2.07	0.54
36:CI:3:ARG:O	36:CI:93:SER:HB2	2.08	0.54
52:DB:5:A:H2'	52:DB:6:G:O4'	2.07	0.54
31:DA:570:G:H1'	31:DA:820:U:C4	2.42	0.54
1:BA:796:C:H2'	1:BA:797:C:C6	2.41	0.54
33:DF:134:ILE:CG2	33:DF:168:ALA:HB3	2.37	0.54
32:DE:121:LEU:HD23	32:DE:121:LEU:O	2.06	0.54
38:CK:88:LYS:CB	38:CK:89:PRO:HD2	2.37	0.54
18:AS:111:HIS:HD2	18:AS:112:GLY:H	1.55	0.54
1:AA:275:G:N2	1:AA:276:A:C2	2.74	0.54
31:DA:583:A:H2'	31:DA:584:G:O4'	2.07	0.54
13:A0:84:ALA:HB3	13:A0:85:PRO:HD3	1.87	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BX:17:LYS:O	25:BX:17:LYS:HD3	2.07	0.54
2:BB:103:U:O2'	21:BV:72:ARG:HG2	2.07	0.54
1:AA:265:A:C8	1:AA:266:G:H1'	2.42	0.54
1:BA:2015:A:C1'	27:B5:2:ALA:N	2.63	0.54
1:AA:1057:A:H2'	1:AA:1058:U:C6	2.41	0.54
1:AA:1090:U:C2	1:AA:1102:C:O2	2.60	0.54
1:AA:2789:C:C3'	1:AA:2790:A:H5''	2.36	0.54
1:BA:2727:G:O3'	10:BN:70:LYS:HE3	2.07	0.54
1:BA:848:G:C4	1:BA:933:A:C8	2.95	0.54
31:DA:1053:G:H2'	31:DA:1054:C:OP2	2.07	0.54
1:BA:1064:C:H2'	1:BA:1065:U:C6	2.43	0.54
1:BA:1608:A:H1'	1:BA:1610:A:OP2	2.07	0.54
31:CA:16:A:C6	31:CA:17:U:C5	2.96	0.54
31:CA:792:A:C4'	31:CA:793:U:O5'	2.45	0.54
23:BZ:86:SER:N	23:BZ:87:PRO:CD	2.69	0.54
31:CA:297:G:H4'	31:CA:557:G:H4'	1.90	0.54
1:BA:99:U:H4'	1:BA:102:G:H1'	1.89	0.54
5:AF:46:ARG:CG	5:AF:46:ARG:NH1	2.69	0.54
34:CG:10:ARG:HB2	34:CG:10:ARG:HH11	1.71	0.54
1:BA:89:G:H3'	1:BA:90:U:H5''	1.89	0.54
31:DA:182:U:C5	31:DA:183:G:C4	2.95	0.54
1:AA:1784:A:H4'	1:AA:1785:A:H5''	1.89	0.54
9:BM:42:TRP:O	16:B1:64:ARG:NH2	2.34	0.54
31:DA:632:A:C1'	31:DA:633:G:OP2	2.51	0.54
31:DA:339:C:H2'	31:DA:340:U:H5'	1.89	0.54
44:DQ:12:ARG:CZ	44:DQ:14:PRO:HG2	2.38	0.54
31:CA:87:A:H2'	31:CA:88:C:H6	1.73	0.54
21:BV:138:GLU:O	21:BV:156:LYS:HG3	2.07	0.54
31:CA:149:A:C2	31:CA:150:C:C2	2.96	0.54
1:BA:2173:A:C2	1:BA:2174:C:H4'	2.42	0.54
1:AA:2867:G:OP2	15:AR:119:LYS:NZ	2.24	0.54
1:BA:242:G:C8	30:B8:5:LYS:HG2	2.43	0.54
52:DB:17:U:H5''	52:DB:18:G:C8	2.42	0.54
37:DJ:79:ARG:HA	37:DJ:83:ALA:O	2.07	0.54
31:DA:411:A:H62	31:DA:413:G:N2	2.05	0.54
31:DA:411:A:N7	31:DA:413:G:N3	2.55	0.54
3:AD:172:TYR:CD1	3:AD:186:HIS:HA	2.42	0.54
12:AP:134:ARG:HA	12:AP:138:ASP:OD2	2.07	0.54
9:AM:128:HIS:CD2	9:AM:129:PRO:O	2.59	0.54
1:BA:1771:C:HO2'	1:BA:1786:A:H8	1.55	0.54
1:AA:2693:A:O2'	1:AA:2694:G:H5'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1014:A:C2	31:CA:1219:U:H1'	2.42	0.54
12:AP:136:ALA:CB	21:AV:52:SER:HB2	2.38	0.54
1:BA:234:C:H2'	1:BA:235:U:C6	2.43	0.54
49:CV:24:ALA:O	49:CV:25:LYS:HB3	2.06	0.54
36:CI:48:LEU:HB2	36:CI:56:PRO:O	2.07	0.54
5:AF:132:VAL:O	5:AF:138:GLU:OE1	2.25	0.54
47:DT:40:LYS:HD3	47:DT:42:TYR:CZ	2.43	0.54
13:A0:52:ILE:O	13:A0:55:ALA:N	2.40	0.54
1:BA:2037:G:H2'	1:BA:2038:G:C8	2.43	0.54
1:BA:52:A:O2'	1:BA:53:A:H5'	2.07	0.54
6:AG:16:ARG:HH11	6:AG:16:ARG:HG2	1.71	0.54
13:B0:78:LYS:O	13:B0:82:GLU:HB2	2.07	0.54
32:DE:172:ILE:HD12	32:DE:172:ILE:N	2.21	0.54
1:AA:2801:A:OP1	1:AA:2895:U:O2'	2.23	0.54
4:AE:59:VAL:O	4:AE:60:ASN:CG	2.45	0.54
30:A8:58:ILE:HG13	30:A8:61:LEU:HD11	1.89	0.54
28:B6:26:ASN:O	28:B6:28:ARG:HG2	2.06	0.54
23:AZ:85:LEU:O	23:AZ:88:LYS:N	2.37	0.54
39:CL:13:ALA:HB2	39:CL:68:GLY:HA3	1.88	0.54
5:BF:33:LEU:HD22	5:BF:112:MET:HE2	1.90	0.54
5:BF:31:HIS:ND1	11:BO:9:ASN:OD1	2.40	0.54
4:BE:131:ALA:O	4:BE:132:HIS:HB2	2.08	0.54
1:AA:1109:C:N4	1:AA:1110:G:C2	2.76	0.54
31:DA:1272:G:H2'	31:DA:1273:G:O4'	2.07	0.54
5:AF:46:ARG:HH11	5:AF:46:ARG:CG	2.06	0.54
20:AU:60:PHE:O	20:AU:61:ILE:HD12	2.07	0.54
23:AZ:41:ARG:NH1	23:AZ:41:ARG:HG3	2.11	0.54
1:AA:1510:A:OP1	1:AA:1510:A:H4'	2.06	0.54
9:AM:42:TRP:CD1	16:A1:63:VAL:HG11	2.41	0.54
31:DA:424:G:H2'	31:DA:425:G:H8	1.71	0.54
31:DA:468:A:H2'	31:DA:474:G:H5'	1.89	0.54
1:BA:2657:A:O2'	7:BH:160:LYS:HE3	2.07	0.54
35:CH:10:MET:HB3	35:CH:32:VAL:HG22	1.90	0.54
31:DA:692:U:O2	31:DA:694:A:C8	2.61	0.54
1:AA:2681:C:H1'	1:AA:2682:U:OP2	2.08	0.54
1:AA:602:G:HO2'	1:AA:604:G:HO2'	1.50	0.54
1:AA:86:C:H4'	1:AA:104:U:H1'	1.90	0.54
14:BQ:62:LYS:HB3	14:BQ:97:ARG:HD3	1.88	0.54
1:BA:1131:G:HO2'	1:BA:1132:A:H8	1.55	0.54
42:DO:36:VAL:O	42:DO:59:ARG:N	2.37	0.54
34:DG:60:GLU:OE2	34:DG:198:VAL:HA	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BU:12:THR:OG1	20:BU:26:LYS:HE2	2.07	0.54
36:CI:8:ILE:HG22	36:CI:10:LEU:HD12	1.90	0.54
3:AD:118:VAL:HG22	3:AD:119:ALA:N	2.22	0.54
11:AO:70:GLN:HB3	11:AO:72:PRO:HD2	1.90	0.54
3:AD:58:HIS:HD2	3:AD:59:LYS:O	1.90	0.54
4:AE:35:GLN:HG2	4:AE:37:ARG:HG2	1.90	0.54
3:BD:35:LYS:NZ	3:BD:104:TYR:HB2	2.21	0.54
6:AG:82:LEU:C	6:AG:82:LEU:CD2	2.75	0.54
12:BP:64:ILE:CG2	12:BP:106:VAL:HG12	2.36	0.54
1:BA:1062:G:N2	1:BA:1076:C:N3	2.54	0.54
2:AB:11:C:H5'	2:AB:12:C:OP2	2.07	0.54
31:CA:353:A:H2'	31:CA:354:G:OP2	2.08	0.54
5:BF:29:ASN:O	5:BF:112:MET:HE1	2.08	0.54
53:DD:8:U:H1'	53:DD:49:C:C1'	2.37	0.54
31:CA:17:U:O4'	31:CA:1080:A:H1'	2.08	0.54
1:BA:1019:U:H2'	1:BA:1020:A:C8	2.42	0.54
1:BA:1022:G:C2'	1:BA:1023:U:OP2	2.56	0.54
1:BA:141:A:H8	1:BA:1408:C:H1'	1.72	0.54
1:AA:57:C:H2'	1:AA:58:G:O4'	2.08	0.54
1:AA:1022:G:N2	1:AA:1142(A):A:C2	2.57	0.54
1:BA:2777:G:C5'	1:BA:2778:A:H5'	2.32	0.54
1:AA:2506:U:H2'	1:AA:2506:U:O2	2.07	0.54
7:BH:102:ALA:CA	7:BH:117:PRO:HD3	2.37	0.54
1:AA:1478:G:O2'	1:AA:1479:G:H5'	2.08	0.54
29:B7:11:LYS:HD3	29:B7:11:LYS:O	2.07	0.54
21:BV:128:VAL:HG22	21:BV:129:SER:N	2.20	0.54
1:BA:308:G:C8	1:BA:501:A:H1'	2.43	0.54
1:AA:942:G:OP2	11:AO:39:LYS:HE2	2.08	0.54
1:BA:1287:A:C8	13:B0:107:ASP:HB3	2.41	0.54
21:BV:39:VAL:HG21	21:BV:44:PHE:HB2	1.90	0.54
49:DV:15:LEU:O	49:DV:19:VAL:HG23	2.07	0.54
1:AA:336:C:C2'	1:AA:337:C:H5'	2.38	0.54
46:DS:3:LYS:O	46:DS:21:VAL:HA	2.07	0.54
1:BA:654:A:H2'	1:BA:654:A:N3	2.23	0.54
1:AA:612:G:C6	1:AA:613:U:C4	2.96	0.54
32:DE:144:ARG:HD2	32:DE:148:TYR:HE2	1.73	0.54
1:AA:2591:C:H2'	1:AA:2592:G:C8	2.42	0.54
12:AP:58:PHE:CD1	12:AP:58:PHE:O	2.61	0.54
33:DF:188:LEU:HD22	33:DF:188:LEU:N	2.23	0.54
31:CA:764:C:O2	31:CA:764:C:H2'	2.07	0.54
1:AA:234:C:H2'	1:AA:235:U:H6	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1444:G:N2	1:BA:1548:C:C2	2.75	0.54
1:AA:1833:U:O2'	1:AA:1834:U:H5'	2.08	0.54
20:AU:35:TYR:CE1	20:AU:69:ALA:HB3	2.42	0.54
31:DA:450:G:N7	31:DA:481:G:C6	2.76	0.54
38:DK:20:TYR:HD1	38:DK:65:TYR:CD2	2.25	0.54
33:DF:82:GLU:HA	33:DF:85:ARG:HB2	1.90	0.54
42:DO:79:GLU:HG3	42:DO:80:HIS:CD2	2.42	0.54
48:CU:53:ARG:HH21	48:CU:60:ALA:N	2.06	0.54
1:AA:2533:A:H2'	1:AA:2534:A:H5'	1.89	0.54
41:CN:12:ARG:HG2	41:CN:13:GLN:N	2.22	0.54
1:BA:374:A:C2	1:BA:401:A:C4	2.96	0.54
1:BA:2176:A:H2'	1:BA:2177:C:C6	2.43	0.54
1:AA:2543:G:H2'	1:AA:2544:G:C8	2.41	0.54
1:AA:634:C:H2'	1:AA:635:C:C6	2.42	0.54
28:A6:41:PRO:HD3	28:A6:46:HIS:O	2.08	0.54
31:DA:1177:G:N1	31:DA:1181:G:O6	2.40	0.54
30:B8:32:LEU:O	30:B8:36:LYS:NZ	2.39	0.54
31:CA:1158:C:C4	31:CA:1160:G:C5	2.96	0.54
31:CA:1004:A:H1'	31:CA:1036:G:O6	2.08	0.54
31:CA:1026:G:O6	31:CA:1036:G:C2	2.61	0.54
26:A4:12:ALA:HB1	26:A4:29:PRO:HA	1.90	0.54
1:AA:2113:U:C5'	1:AA:2114:A:C8	2.86	0.54
1:AA:1167:U:C2	1:AA:1183:G:N2	2.76	0.54
1:BA:1110:G:O2'	1:BA:1111:A:O5'	2.25	0.54
1:AA:1290:C:H2'	1:AA:1291:C:H6	1.72	0.54
1:AA:1538:G:O2'	1:AA:1539:G:H5'	2.07	0.54
31:DA:563:A:N7	31:DA:567:G:H1'	2.22	0.54
49:DV:22:LEU:HD12	49:DV:22:LEU:O	2.07	0.54
39:CL:83:ARG:O	39:CL:86:VAL:HG12	2.08	0.54
50:DW:26:ASN:ND2	50:DW:26:ASN:H	2.05	0.54
24:BW:67:LYS:O	24:BW:72:ALA:HB2	2.07	0.54
31:CA:606:G:H5''	31:CA:607:A:O5'	2.08	0.54
13:A0:3:HIS:O	13:A0:5:LYS:HB2	2.07	0.54
31:DA:687:A:H1'	31:DA:688:G:OP2	2.07	0.54
1:BA:1341:U:H2'	1:BA:1397:U:O2	2.08	0.54
31:DA:266:G:H1'	31:DA:267:C:OP2	2.08	0.54
1:AA:1783:A:H5'	1:AA:2608:G:H4'	1.90	0.54
35:DH:152:ARG:NH2	38:DK:107:LEU:O	2.37	0.54
31:DA:1091:U:O2	31:DA:1093:A:C8	2.61	0.54
6:AG:117:PHE:CE1	6:AG:119:GLY:HA2	2.43	0.54
14:BQ:24:LEU:CD1	14:BQ:41:ASP:HB2	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:138:TYR:CD2	34:CG:139:ARG:N	2.76	0.54
16:A1:79:PHE:CE1	16:A1:106:PHE:CZ	2.95	0.54
34:CG:27:TYR:OH	36:DI:15:ASP:OD2	2.26	0.54
24:BW:17:SER:HB2	24:BW:21:LEU:H	1.72	0.54
2:AB:32:C:C2	2:AB:51:G:N2	2.75	0.54
31:DA:838:G:H1	31:DA:848:C:H42	1.53	0.54
36:DI:60:PHE:C	36:DI:61:LEU:HD12	2.27	0.54
3:BD:158:ALA:O	3:BD:196:VAL:HG11	2.08	0.54
31:CA:1525:G:OP1	41:CN:120:ARG:NH2	2.41	0.54
10:BN:35:VAL:HG21	10:BN:69:ILE:HD13	1.90	0.54
31:CA:113:G:H2'	31:CA:114:U:C6	2.43	0.54
1:BA:1104:C:H2'	1:BA:1105:U:C6	2.43	0.54
1:BA:1016:G:C4	1:BA:1017:G:C8	2.95	0.54
8:AK:61:ARG:HE	8:AK:61:ARG:HA	1.73	0.54
34:CG:126:ILE:CG2	34:CG:127:THR:N	2.71	0.54
2:BB:61:G:C6	2:BB:62:C:C4	2.95	0.54
33:CF:104:GLN:HA	33:CF:104:GLN:HE21	1.73	0.54
1:BA:775:G:C4	1:BA:794:G:C8	2.96	0.54
3:AD:121:PRO:HB3	3:AD:135:PHE:CE1	2.43	0.54
4:AE:22:PRO:O	4:AE:23:VAL:HG22	2.07	0.54
1:AA:1079:C:H3'	1:AA:1080:A:C8	2.43	0.54
17:B2:75:PHE:HD1	17:B2:75:PHE:O	1.86	0.54
3:AD:65:ILE:HD11	3:AD:67:PHE:CD2	2.42	0.54
39:DL:20:ARG:O	39:DL:60:ASP:HB2	2.08	0.54
1:AA:2294:C:C4	1:AA:2295:C:C5	2.96	0.54
12:AP:64:ILE:CG2	12:AP:65:PHE:H	1.92	0.54
31:DA:510:A:H5'	31:DA:511:C:P	2.47	0.54
49:CV:41:VAL:HG21	49:CV:67:VAL:HG22	1.90	0.54
53:DD:9:G:O2'	53:DD:10:G:H8	1.86	0.54
31:CA:1036:G:H3'	31:CA:1037:C:C5	2.43	0.54
4:BE:132:HIS:O	4:BE:132:HIS:ND1	2.41	0.54
1:BA:1022:G:H8	9:BM:69:GLN:HE22	1.56	0.54
20:BU:97:ARG:HD3	20:BU:97:ARG:H	1.73	0.54
31:DA:1300:G:HO2'	31:DA:1301:U:P	2.30	0.54
31:DA:625:G:C4	31:DA:626:U:C5	2.96	0.54
1:AA:2134:A:C5	1:AA:2158:A:H2	2.25	0.54
31:CA:690:G:H22	41:CN:55:LYS:NZ	2.05	0.54
7:BH:102:ALA:CB	7:BH:116:GLU:HA	2.38	0.54
32:DE:92:TYR:C	32:DE:92:TYR:CD2	2.80	0.54
1:AA:774:A:C2	1:AA:787:U:O2'	2.51	0.54
1:AA:2747:G:O3'	7:AH:70:THR:HG21	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:654(S):G:C4'	1:BA:654(T):A:OP1	2.55	0.54
41:CN:105:VAL:O	41:CN:105:VAL:HG23	2.07	0.54
1:BA:309:G:H4'	20:BU:19:LYS:H	1.72	0.54
39:DL:125:TYR:CD2	39:DL:126:SER:N	2.69	0.54
5:BF:53:THR:HG22	5:BF:56:GLU:CG	2.37	0.54
31:CA:41:G:H2'	31:CA:42:G:H8	1.72	0.54
1:AA:299:A:H62	1:AA:300:A:H61	1.56	0.54
5:AF:136:THR:HG22	5:AF:166:ALA:O	2.08	0.54
14:BQ:85:VAL:HG23	14:BQ:112:PHE:CZ	2.42	0.54
10:BN:63:VAL:HG12	10:BN:106:LEU:HD11	1.90	0.54
20:AU:9:LYS:HA	20:AU:27:VAL:HG22	1.89	0.54
1:BA:806:C:OP2	11:BO:41:ARG:NH2	2.36	0.54
31:DA:622:A:C8	31:DA:623:C:C6	2.95	0.54
34:CG:110:PHE:CD2	34:CG:148:VAL:HG23	2.43	0.54
31:CA:244:U:H4'	31:CA:245:C:O5'	2.07	0.54
1:BA:55:G:C2	1:BA:116:C:C2	2.95	0.54
3:AD:54:ARG:O	3:AD:218:ARG:HD3	2.08	0.54
52:CB:50:A:C2	52:CB:52:U:H5''	2.42	0.54
2:AB:94:C:C4	2:AB:95:U:C5	2.96	0.54
1:AA:1931:U:H5	1:AA:1969:A:N7	2.06	0.54
42:CO:43:LYS:HG2	42:CO:44:LYS:H	1.73	0.54
31:CA:895:G:H2'	31:CA:896:C:C6	2.43	0.54
1:AA:1439:A:C2	1:AA:1553:A:C4	2.96	0.54
1:BA:35:G:C4	1:BA:454:A:C2	2.96	0.54
43:DP:27:LYS:HE3	43:DP:31:LYS:HE3	1.89	0.54
1:AA:2:G:H2'	1:AA:3:U:C6	2.43	0.54
13:A0:42:LYS:HA	13:A0:45:ARG:HD2	1.90	0.54
31:DA:257:G:H2'	31:DA:258:G:O4'	2.07	0.54
38:CK:33:GLU:O	38:CK:36:LEU:N	2.40	0.54
6:AG:181:ARG:O	6:AG:182:LYS:HB2	2.08	0.54
14:BQ:67:ARG:CZ	14:BQ:67:ARG:HB2	2.38	0.54
22:A3:72:ARG:HB3	22:A3:75:LEU:HB2	1.89	0.54
31:CA:136:C:H42	31:CA:227:G:H1	1.54	0.54
1:AA:1077:A:H3'	1:AA:1078:U:H5''	1.86	0.54
1:BA:228:A:C3'	1:BA:228:A:C8	2.91	0.54
1:BA:1664:A:H1'	1:BA:2726:U:C5	2.43	0.54
1:BA:2726:U:H6	10:BN:67:LYS:HZ3	1.56	0.54
3:BD:30:GLU:HG3	3:BD:63:ARG:NH2	2.22	0.54
53:CC:59:A:H4'	53:CC:60:A:OP1	2.08	0.54
11:BO:81:GLN:HB3	11:BO:106:LEU:HD22	1.87	0.54
31:DA:1054:C:O2'	31:DA:1055:A:C5'	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:49:ARG:HD2	30:A8:58:ILE:CG2	2.37	0.54
1:BA:2392:A:H2	1:BA:2424:C:N4	1.97	0.54
31:CA:1145:C:H4'	31:CA:1146:A:H8	1.72	0.54
31:DA:509:A:HO2'	31:DA:510:A:P	2.26	0.54
1:AA:2346:A:H5''	1:AA:2383:G:C1'	2.38	0.54
1:BA:2512:C:H4'	4:BE:122:PHE:CE2	2.43	0.54
1:BA:1300:U:H4'	1:BA:1301:A:H5'	1.86	0.54
1:BA:2688:U:H2'	1:BA:2719:G:N2	2.23	0.54
11:BO:37:GLY:N	11:BO:40:SER:OG	2.41	0.54
2:BB:40:U:C4	2:BB:43:C:OP2	2.61	0.54
18:AS:58:ALA:HB1	18:AS:64:MET:CB	2.38	0.54
16:A1:91:ASP:O	16:A1:92:ARG:C	2.44	0.54
17:A2:35:LEU:HB2	17:A2:37:VAL:HG23	1.90	0.54
24:BW:15:LYS:HA	24:BW:67:LYS:HZ1	1.71	0.54
1:AA:2873:A:C2	13:A0:5:LYS:HG2	2.43	0.54
7:BH:137:ASP:CB	7:BH:140:LYS:HB2	2.37	0.54
9:AM:90:MET:HA	9:AM:93:THR:HG22	1.88	0.54
1:BA:2658:C:OP1	7:BH:160:LYS:NZ	2.40	0.54
24:BW:38:GLN:O	24:BW:41:ILE:HG12	2.08	0.54
17:A2:44:LYS:CG	17:A2:45:THR:N	2.68	0.54
1:BA:2127:G:N2	1:BA:2173:A:H8	2.03	0.54
31:CA:1190:G:OP2	33:CF:5:ILE:HG23	2.08	0.54
22:A3:63:VAL:HG23	22:A3:64:ASP:O	2.07	0.54
35:CH:11:ILE:HD11	35:CH:31:LEU:HB3	1.90	0.54
35:CH:55:VAL:O	35:CH:58:ALA:HB3	2.08	0.54
1:BA:414:C:O2	1:BA:1864:U:O2'	2.23	0.54
34:CG:25:ARG:O	34:CG:27:TYR:N	2.40	0.54
1:BA:872:A:C5	1:BA:906:G:C2	2.95	0.54
31:CA:475:G:C4	31:CA:476:G:C8	2.96	0.54
32:DE:97:TRP:CZ3	32:DE:98:LEU:O	2.61	0.54
31:DA:946:A:C2	31:DA:1236:A:C2	2.96	0.54
41:DN:34:ASP:HB2	41:DN:35:PRO:HD2	1.88	0.54
49:CV:10:PHE:H	49:CV:10:PHE:HD1	1.53	0.54
31:DA:332:G:OP2	50:DW:10:LEU:HD12	2.08	0.54
1:BA:271:G:H2'	1:BA:272:G:H8	1.72	0.54
8:BK:10:GLU:OE2	8:BK:11:ASN:HB2	2.07	0.54
42:CO:59:SER:HB2	42:CO:61:TYR:CD1	2.43	0.54
1:BA:1810:A:H2'	1:BA:1811:G:O4'	2.07	0.54
4:BE:134:ILE:HD12	4:BE:134:ILE:C	2.27	0.54
1:AA:125:G:H4'	1:AA:126:A:OP2	2.08	0.54
2:AB:116:G:H2'	2:AB:117:G:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AW:64:LEU:HD22	24:AW:68:ARG:HD2	1.89	0.54
13:B0:72:ASP:HB3	13:B0:75:LEU:HB3	1.88	0.54
12:AP:112:GLU:H	12:AP:112:GLU:CD	2.11	0.54
1:AA:654(H):G:N3	1:AA:654(H):G:H2'	2.22	0.54
36:CI:43:LEU:N	36:CI:43:LEU:HD12	2.23	0.54
1:BA:2094:G:O2'	1:BA:2095:C:H5'	2.07	0.54
4:AE:14:ILE:O	4:AE:15:PHE:CG	2.60	0.54
17:B2:78:LYS:C	17:B2:79:VAL:CG2	2.67	0.54
1:BA:887:A:N3	1:BA:887:A:H2'	2.21	0.54
6:AG:82:LEU:C	6:AG:86:MET:HE1	2.26	0.54
23:AZ:92:LYS:HA	23:AZ:95:LEU:CB	2.34	0.54
2:AB:11:C:O5'	2:AB:12:C:H5	1.91	0.54
1:BA:1332:G:H21	1:BA:1610:A:H8	1.55	0.54
31:CA:1141:C:O2'	31:CA:1142:G:H5'	2.07	0.54
1:BA:947:G:H2'	1:BA:948:G:C8	2.42	0.54
1:AA:1727:U:H3'	1:AA:1728:G:H5''	1.90	0.54
1:AA:1021:A:H3'	1:AA:1022:G:H5''	1.90	0.54
16:B1:95:LEU:HD22	17:B2:4:ILE:HG23	1.90	0.54
2:BB:40:U:O4	26:B4:1:MET:O	2.25	0.54
31:CA:606:G:N2	31:CA:631:G:C8	2.73	0.54
31:CA:627:G:O2'	31:CA:628:G:H5'	2.08	0.54
27:A5:40:LYS:NZ	27:A5:46:CYS:CB	2.70	0.54
1:AA:2721:A:H2'	1:AA:2722:G:O4'	2.07	0.54
1:AA:822:U:H2'	1:AA:823:G:H5'	1.90	0.54
31:DA:1350:A:C5	31:DA:1351:U:C4	2.96	0.54
1:BA:205:G:C1'	1:BA:206:U:OP2	2.54	0.54
31:CA:68:G:C2	31:CA:69:G:C4	2.95	0.54
37:DJ:62:PHE:HA	37:DJ:124:LEU:HD22	1.89	0.54
31:CA:736:C:H2'	31:CA:737:A:C8	2.43	0.54
14:BQ:83:LYS:HD2	14:BQ:109:GLY:N	2.22	0.54
1:BA:460:A:C2	1:BA:470:A:C4	2.95	0.54
38:DK:111:ILE:HG22	38:DK:112:LEU:H	1.72	0.54
11:BO:57:THR:C	11:BO:59:LEU:N	2.61	0.54
31:CA:342:C:N3	31:CA:348:G:N2	2.56	0.54
31:DA:655:A:C2	31:DA:754:C:N4	2.76	0.54
4:BE:1:MET:HB2	4:BE:200:GLU:OE2	2.08	0.54
31:CA:1525:G:P	41:CN:120:ARG:HH22	2.31	0.54
1:AA:1642:G:C2'	1:AA:1643:G:H5'	2.38	0.54
1:AA:1433:U:H1'	1:AA:1561:G:N2	2.22	0.54
53:CD:42:C:H2'	53:CD:43:G:H8	1.72	0.54
1:BA:1671:U:H2'	1:BA:1673:U:OP2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DK:86:ILE:HG21	38:DK:133:LEU:HD22	1.89	0.54
1:BA:192:C:H2'	1:BA:193:U:H5'	1.90	0.54
33:DF:101:LEU:HD23	33:DF:102:ASN:H	1.73	0.54
18:AS:75:TYR:CE2	18:AS:104:THR:HB	2.43	0.54
8:BK:72:LEU:HD21	8:BK:107:VAL:HG11	1.89	0.54
36:DI:2:ARG:HH21	36:DI:69:GLU:HG3	1.73	0.54
1:AA:705:A:H2'	1:AA:706:A:O4'	2.08	0.54
7:BH:26:VAL:HG21	7:BH:75:ALA:O	2.08	0.54
4:BE:48:GLN:O	4:BE:49:LEU:HD12	2.08	0.54
1:BA:2728:U:O2'	1:BA:2729:G:H5'	2.07	0.54
3:BD:35:LYS:CD	3:BD:64:ILE:H	2.18	0.54
31:DA:1142:G:H3'	31:DA:1143:G:C8	2.43	0.54
4:AE:78:LEU:O	4:AE:79:ARG:CB	2.55	0.54
31:DA:1004:A:C1'	31:DA:1036:G:H1	2.17	0.54
49:CV:40:ILE:HD11	49:CV:62:ILE:HG23	1.89	0.54
53:DD:14:A:OP1	53:DD:14:A:H8	1.90	0.54
32:CE:16:HIS:ND1	32:CE:16:HIS:N	2.54	0.54
28:A6:25:LYS:HD2	30:A8:34:TRP:NE1	2.09	0.54
31:CA:991:U:H2'	31:CA:1212:U:O2	2.07	0.54
16:B1:97:ASP:OD1	16:B1:101:ARG:NH2	2.41	0.54
9:BM:4:TYR:O	16:B1:64:ARG:NH1	2.38	0.54
1:BA:2720:U:H2'	1:BA:2721:A:C8	2.43	0.54
6:BG:63:ILE:HG13	6:BG:64:THR:N	2.22	0.54
50:CW:100:ILE:CG1	50:CW:101:GLY:N	2.70	0.54
1:AA:1510:A:O3'	1:AA:1510:A:OP1	2.24	0.54
17:A2:39:LEU:O	17:A2:40:LEU:HD22	2.08	0.54
16:A1:60:LEU:HD21	16:A1:64:ARG:HH21	1.73	0.54
31:DA:54:C:C5	31:DA:352:C:C5	2.96	0.54
1:BA:654(B):C:C2	1:BA:654(T):A:H2	2.26	0.54
1:BA:1342:A:N1	1:BA:1397:U:C5	2.75	0.54
1:AA:1983:C:O2'	1:AA:1984:G:H5'	2.08	0.54
11:AO:125:VAL:O	11:AO:145:PRO:HD2	2.08	0.54
31:CA:439:A:H2'	31:CA:440:A:O5'	2.08	0.54
1:BA:2761:G:H1'	7:BH:143:GLN:OE1	2.07	0.54
1:BA:1864:U:H2'	1:BA:1869:G:C5'	2.38	0.54
1:AA:2188:C:H2'	1:AA:2189:U:O4'	2.08	0.54
40:CM:32:ALA:HB3	40:CM:76:ASN:HB2	1.90	0.54
10:BN:120:GLU:OE2	15:BR:67:SER:OG	2.24	0.54
2:AB:95:U:N3	2:AB:96:G:N7	2.55	0.54
1:BA:953:A:H2'	1:BA:954:G:H8	1.73	0.54
39:DL:26:VAL:HG22	39:DL:61:ALA:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DJ:100:ALA:O	37:DJ:104:LEU:HD22	2.08	0.54
31:DA:707:C:O2'	31:DA:708:C:H5'	2.08	0.54
1:AA:2065:C:H2'	1:AA:2066:C:C6	2.43	0.54
20:AU:5:MET:CE	20:AU:32:PRO:HA	2.38	0.54
32:CE:150:SER:OG	32:CE:151:GLY:N	2.41	0.54
31:CA:787:A:H5''	31:CA:787:A:H8	1.73	0.54
4:BE:27:LEU:O	4:BE:27:LEU:HG	2.08	0.54
1:AA:2791:C:O2	1:AA:2807:G:N2	2.41	0.53
4:BE:79:ARG:HH11	4:BE:79:ARG:HG2	1.73	0.53
1:BA:881:G:O6	1:BA:895:U:O2	2.25	0.53
4:AE:79:ARG:CG	4:AE:197:ILE:HG21	2.37	0.53
1:BA:2392:A:OP1	30:B8:32:LEU:HD11	2.08	0.53
31:DA:279:A:N3	31:DA:279:A:H2'	2.23	0.53
26:B4:34:GLU:HG3	43:DP:3:ARG:H	1.71	0.53
29:B7:8:ASN:C	29:B7:8:ASN:ND2	2.62	0.53
1:AA:821:A:O2'	1:AA:945:A:C3'	2.53	0.53
1:BA:310:A:OP1	20:BU:17:SER:O	2.26	0.53
31:DA:828:A:H61	31:DA:858:G:C2'	2.21	0.53
1:AA:314:A:O2'	1:AA:315:G:H5'	2.08	0.53
32:DE:67:THR:HA	32:DE:90:MET:HE1	1.89	0.53
1:AA:34:C:O4'	1:AA:34:C:OP2	2.26	0.53
36:CI:72:VAL:HG13	36:CI:73:ASN:N	2.23	0.53
1:AA:1889:A:N1	1:AA:2234:G:H1'	2.23	0.53
33:DF:14:ILE:CG1	33:DF:15:THR:H	2.21	0.53
1:AA:1298:C:H5''	1:AA:1299:G:OP2	2.08	0.53
19:BT:63:LYS:H	19:BT:63:LYS:HE3	1.73	0.53
1:BA:2208:U:O2'	1:BA:2209:C:H5'	2.09	0.53
32:DE:80:ILE:HD12	32:DE:84:GLU:HG3	1.88	0.53
31:DA:1438:G:H2'	31:DA:1439:C:C6	2.43	0.53
3:AD:134:ARG:HG3	3:AD:135:PHE:CE2	2.43	0.53
1:BA:1265:A:O4'	1:BA:1267:U:C6	2.61	0.53
1:AA:1227:A:OP1	17:A2:84:LYS:HE2	2.08	0.53
32:CE:78:GLN:HG2	32:CE:94:ASN:OD1	2.07	0.53
31:DA:17:U:H2'	31:DA:18:C:C6	2.42	0.53
1:BA:1599:C:H5''	19:BT:35:THR:HG22	1.90	0.53
1:AA:1340:U:H4'	1:AA:1341:U:OP2	2.08	0.53
1:AA:1062:G:N3	1:AA:1077:A:N6	2.56	0.53
3:BD:35:LYS:HD2	3:BD:104:TYR:CE1	2.35	0.53
1:AA:2312:U:H5'	6:AG:88:ILE:CG2	2.39	0.53
31:CA:1060:C:C6	33:CF:2:GLY:HA2	2.42	0.53
31:CA:1349:A:OP2	39:CL:118:LYS:NZ	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1085:A:C4'	1:BA:1086:A:OP1	2.55	0.53
34:DG:11:LEU:C	34:DG:13:ARG:N	2.59	0.53
53:DD:6:G:C2	53:DD:7:G:N7	2.77	0.53
31:CA:1402:C:H2'	31:CA:1403:C:O4'	2.09	0.53
23:BZ:85:LEU:CD1	23:BZ:88:LYS:HG3	2.39	0.53
1:AA:243:U:OP2	30:A8:8:LYS:NZ	2.40	0.53
9:AM:131:GLN:NE2	9:AM:132:ALA:N	2.52	0.53
1:AA:1042:G:H2'	1:AA:1043:C:O4'	2.08	0.53
28:A6:25:LYS:HZ3	28:A6:27:LYS:CE	2.21	0.53
4:BE:8:LYS:HB3	4:BE:192:ASN:HA	1.89	0.53
7:AH:59:ARG:NH1	7:AH:59:ARG:CG	2.61	0.53
1:BA:2892:A:N7	1:BA:2893:G:C5	2.77	0.53
1:AA:1019:U:O2'	1:AA:1021:A:C2	2.58	0.53
1:BA:676:A:N1	1:BA:802:A:N1	2.56	0.53
21:BV:61:LEU:HD11	21:BV:67:LEU:HD12	1.90	0.53
6:BG:91:ARG:HD2	6:BG:92:VAL:N	2.23	0.53
1:AA:309:G:O2'	1:AA:329:G:C8	2.61	0.53
26:B4:61:ARG:HH11	26:B4:61:ARG:HA	1.73	0.53
10:BN:68:GLU:CA	10:BN:78:ARG:HB3	2.38	0.53
1:AA:945:A:H3'	1:AA:946:G:H5''	1.89	0.53
17:A2:44:LYS:C	17:A2:46:VAL:N	2.58	0.53
31:CA:93:U:H2'	31:CA:95:G:C4'	2.37	0.53
19:AT:57:LEU:HD11	19:AT:78:LYS:HB2	1.90	0.53
31:DA:1089:G:C6	31:DA:1090:U:C4	2.96	0.53
53:CC:48:U:C6	53:CC:48:U:OP2	2.61	0.53
2:BB:15:A:H1'	2:BB:109:G:C8	2.42	0.53
14:BQ:110:LEU:HD22	14:BQ:112:PHE:H	1.73	0.53
12:BP:7:MET:CB	12:BP:10:ARG:NH2	2.70	0.53
34:CG:24:GLU:O	34:CG:27:TYR:HB2	2.06	0.53
31:CA:468:A:OP1	46:CS:75:ARG:NH2	2.41	0.53
26:B4:50:VAL:O	26:B4:51:ASP:CG	2.47	0.53
1:BA:479:A:H4'	1:BA:480:A:OP1	2.05	0.53
2:BB:56:G:H4'	2:BB:57:A:C8	2.43	0.53
1:BA:78:A:H2'	1:BA:79:G:H8	1.74	0.53
2:AB:79:C:O5'	2:AB:79:C:H6	1.91	0.53
1:AA:654(I):C:H3'	1:AA:654(I):C:O2	2.09	0.53
16:A1:75:ASN:HB2	16:A1:78:THR:OG1	2.08	0.53
1:AA:11:G:H2'	1:AA:12:U:O4'	2.08	0.53
1:AA:1541:U:O2'	1:AA:1542:G:H5'	2.08	0.53
1:AA:1070:A:C3'	1:AA:1071:G:H5''	2.39	0.53
31:CA:429:U:H4'	31:CA:430:A:OP1	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1142:G:H3'	31:DA:1143:G:H8	1.73	0.53
6:AG:83:ARG:H	6:AG:86:MET:HE1	1.70	0.53
31:DA:983:A:N3	31:DA:983:A:H3'	2.24	0.53
12:BP:27:VAL:HA	12:BP:105:GLU:OE2	2.07	0.53
12:BP:66:ILE:O	12:BP:67:ARG:HG3	2.07	0.53
31:CA:1368:G:OP2	39:CL:112:LYS:HD3	2.09	0.53
31:CA:1059:C:O2'	40:CM:53:PRO:HD3	2.09	0.53
1:BA:1071:G:OP2	1:BA:1097:U:H5'	2.07	0.53
34:DG:78:LEU:HD23	34:DG:96:LEU:HB3	1.91	0.53
8:BK:82:ARG:HG2	31:CA:55:A:H2	1.73	0.53
31:CA:1499:A:H1'	31:CA:1520:G:O5'	2.09	0.53
1:AA:141:A:C8	1:AA:1408:C:H1'	2.44	0.53
9:BM:42:TRP:HE3	9:BM:48:MET:HE1	1.72	0.53
32:DE:12:GLU:O	32:DE:15:VAL:N	2.32	0.53
1:AA:847:U:C5	1:AA:933:A:C2	2.97	0.53
1:BA:1358:G:N2	1:BA:1372:U:C5	2.75	0.53
5:AF:36:VAL:HG11	5:AF:183:VAL:HG11	1.90	0.53
7:BH:137:ASP:HB2	7:BH:140:LYS:CE	2.34	0.53
45:DR:21:ASP:OD1	45:DR:24:SER:HB2	2.09	0.53
9:AM:30:ILE:O	9:AM:34:LEU:HD22	2.09	0.53
1:BA:309:G:O3'	20:BU:18:GLY:CA	2.56	0.53
1:AA:1771:C:O2'	1:AA:1786:A:H8	1.91	0.53
1:BA:2437:U:H2'	1:BA:2438:U:C6	2.43	0.53
33:DF:117:ALA:HB2	33:DF:200:ALA:CB	2.36	0.53
33:DF:184:TYR:HA	33:DF:200:ALA:O	2.07	0.53
8:AK:76:THR:HG22	8:AK:77:LEU:N	2.24	0.53
31:CA:66:G:C6	31:CA:67:C:C5	2.96	0.53
1:AA:1581:G:C5	1:AA:1582:C:C5	2.97	0.53
31:CA:1226:C:N4	43:CP:104:ARG:HG3	2.22	0.53
1:BA:912:C:N3	1:BA:913:U:C5	2.77	0.53
52:CB:14:A:H61	52:CB:21:A:H61	1.50	0.53
13:A0:117:VAL:HG13	13:A0:118:GLU:N	2.22	0.53
31:CA:1218:C:H2'	31:CA:1219:U:C6	2.44	0.53
1:AA:807:U:C2'	1:AA:808:G:O5'	2.56	0.53
1:AA:879:G:C8	1:AA:879:G:OP2	2.62	0.53
2:BB:87:G:H3'	2:BB:88:C:C5'	2.39	0.53
1:BA:2259:G:H1'	1:BA:2427:C:C2	2.42	0.53
38:DK:29:SER:HB3	38:DK:32:LYS:HG3	1.89	0.53
42:CO:43:LYS:HG2	42:CO:44:LYS:N	2.23	0.53
36:CI:8:ILE:HD11	36:CI:79:LEU:HD13	1.91	0.53
1:BA:1106:G:H2'	1:BA:1107:G:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BQ:44:LYS:O	14:BQ:46:VAL:HG23	2.09	0.53
1:AA:1441:G:H2'	1:AA:1442:G:H8	1.74	0.53
31:DA:105:G:H2'	31:DA:106:C:C6	2.43	0.53
31:DA:1268:A:O2'	51:DX:19:GLY:HA2	2.08	0.53
1:AA:1690:A:H3'	1:AA:1691:C:H6	1.73	0.53
46:CS:49:LEU:HD12	46:CS:50:LYS:N	2.23	0.53
1:BA:1218:C:O2'	1:BA:1219:G:H5'	2.08	0.53
5:AF:192:LEU:CD2	5:AF:194:MET:HG3	2.39	0.53
33:CF:15:THR:HG23	33:CF:15:THR:O	2.08	0.53
22:B3:42:GLY:H	22:B3:57:PHE:HD2	1.55	0.53
31:DA:853:G:H2'	31:DA:854:G:H8	1.71	0.53
1:AA:2661:G:H2'	1:AA:2662:A:C8	2.42	0.53
1:BA:1226:G:P	17:B2:85:LYS:HD3	2.48	0.53
1:BA:888:C:H4'	1:BA:889:C:O5'	2.04	0.53
31:DA:1131:G:C8	31:DA:1132:C:H5	2.27	0.53
1:BA:1088:A:H4'	1:BA:1089:G:H8	1.73	0.53
1:AA:2317:C:C2'	1:AA:2318:G:C5'	2.73	0.53
11:BO:48:PRO:C	11:BO:50:ARG:H	2.12	0.53
1:BA:363(B):G:H2'	1:BA:363(C):G:H8	1.72	0.53
49:CV:28:LYS:HG2	49:CV:47:HIS:CE1	2.43	0.53
47:CT:76:LEU:CD1	47:CT:78:GLU:N	2.68	0.53
20:BU:75:ILE:HG13	20:BU:76:CYS:N	2.22	0.53
17:B2:35:LEU:O	17:B2:37:VAL:HG13	2.08	0.53
19:AT:82:GLN:HA	19:AT:82:GLN:NE2	2.22	0.53
32:DE:92:TYR:HD2	32:DE:92:TYR:O	1.91	0.53
1:BA:298:G:H5''	1:BA:299:A:OP1	2.07	0.53
1:BA:654(D):G:H1	1:BA:654(Q):C:N4	2.05	0.53
31:CA:1255:G:OP1	40:CM:45:ARG:NH2	2.37	0.53
31:CA:1096:C:H2'	31:CA:1097:C:C6	2.37	0.53
33:DF:75:VAL:HG12	33:DF:75:VAL:O	2.09	0.53
31:DA:742:G:OP1	45:DR:35:ARG:NH2	2.41	0.53
31:CA:1389:C:H2'	31:CA:1390:U:O4'	2.09	0.53
31:CA:522:C:H1'	31:CA:536:C:H5''	1.89	0.53
1:BA:854:G:H2'	1:BA:855:G:C8	2.43	0.53
13:A0:79:LEU:HA	13:A0:83:ILE:HG13	1.90	0.53
1:BA:2443:C:OP1	5:BF:68:LYS:CG	2.56	0.53
31:DA:634:C:H2'	31:DA:635:G:H8	1.73	0.53
1:BA:2314:C:O2'	1:BA:2315:G:H5'	2.08	0.53
1:BA:764:A:O4'	3:BD:213:ARG:HG3	2.07	0.53
1:BA:558:G:P	9:BM:111:PRO:HD2	2.48	0.53
1:BA:2694:G:C5	1:BA:2695:C:C5	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:67:ILE:HD13	42:CO:74:LEU:HD12	1.91	0.53
1:BA:1198:U:H2'	1:BA:1199:U:C6	2.43	0.53
18:AS:88:ARG:HB3	18:AS:92:ARG:HB3	1.90	0.53
6:AG:172:LEU:O	6:AG:176:LEU:HD12	2.08	0.53
6:BG:33:ARG:H	6:BG:162:THR:HG23	1.73	0.53
35:DH:40:ARG:HG2	35:DH:40:ARG:HH11	1.73	0.53
7:BH:130:ARG:NH1	7:BH:130:ARG:HB3	2.24	0.53
2:AB:75:G:H21	21:AV:85:HIS:CE1	2.27	0.53
1:AA:1710:C:O2'	1:AA:1711:C:H5'	2.09	0.53
1:AA:222:A:H3'	1:AA:421:U:O5'	2.09	0.53
1:AA:2563:U:H1'	1:AA:2566:A:N6	2.24	0.53
31:CA:1052:U:O4	31:CA:1200:C:C2	2.61	0.53
1:BA:1225:C:O2'	17:B2:85:LYS:N	2.37	0.53
34:CG:8:VAL:HG13	34:CG:21:LEU:HD13	1.90	0.53
31:DA:1145:C:O2	31:DA:1145:C:H2'	2.09	0.53
4:AE:4:ILE:HG12	4:AE:5:LEU:H	1.72	0.53
11:BO:81:GLN:OE1	11:BO:106:LEU:CA	2.57	0.53
31:DA:976:G:N2	31:DA:1362(A):C:OP2	2.33	0.53
5:BF:118:ALA:HB2	5:BF:123:LEU:CD2	2.39	0.53
6:AG:67:LYS:CG	26:A4:6:HIS:CE1	2.84	0.53
53:DD:61:U:O2'	53:DD:62:C:H5'	2.08	0.53
1:AA:1113:U:OP1	7:AH:2:SER:N	2.42	0.53
31:DA:1184:G:H2'	31:DA:1185:G:H5'	1.91	0.53
31:DA:1262:C:H2'	31:DA:1263:C:H6	1.73	0.53
31:CA:201:C:N3	31:CA:216:G:N2	2.49	0.53
1:BA:483:A:C5'	20:BU:49:VAL:HA	2.38	0.53
1:BA:1047:G:H2'	1:BA:1110:G:H1	1.72	0.53
1:AA:1496:A:C8	1:AA:1577:C:O2'	2.54	0.53
39:CL:8:GLY:HA3	39:CL:79:LEU:HB3	1.89	0.53
26:B4:57:GLU:O	26:B4:60:GLN:N	2.41	0.53
1:AA:1312:U:OP2	19:AT:63:LYS:HD3	2.09	0.53
7:BH:137:ASP:HB3	7:BH:140:LYS:HB2	1.89	0.53
3:AD:236:GLY:O	3:AD:237:GLU:O	2.25	0.53
8:AK:77:LEU:CD1	8:AK:140:LEU:HB2	2.39	0.53
31:DA:383:A:O5'	31:DA:383:A:H8	1.92	0.53
31:DA:652:U:O2'	31:DA:653:A:N3	2.38	0.53
40:CM:45:ARG:HE	44:CQ:36:PHE:HD2	1.56	0.53
1:BA:2875:C:HO2'	15:BR:3:ARG:HG3	1.73	0.53
5:AF:160:ASN:OD1	5:AF:163:VAL:HG23	2.09	0.53
31:CA:674:G:H2'	31:CA:675:A:C8	2.44	0.53
1:BA:2485:G:H5''	12:BP:46:GLN:NE2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:823:G:H21	38:CK:1:MET:HE1	1.73	0.53
52:CB:5:A:H2'	52:CB:6:G:O4'	2.09	0.53
1:BA:2808:U:H2'	1:BA:2809:A:H8	1.73	0.53
8:AK:114:LEU:O	8:AK:115:ALA:CB	2.56	0.53
1:AA:1257:C:H4'	5:AF:83:PHE:CE2	2.44	0.53
32:DE:118:LEU:HD11	32:DE:141:GLU:HG2	1.91	0.53
1:AA:966:G:H2'	1:AA:967:C:C6	2.44	0.53
21:AV:27:VAL:HG12	21:AV:87:ASP:HB3	1.90	0.53
46:CS:58:TYR:C	46:CS:58:TYR:HD1	2.12	0.53
8:AK:61:ARG:HA	8:AK:61:ARG:NE	2.23	0.53
31:CA:518:C:H5''	31:CA:519:C:C6	2.43	0.53
21:AV:152:ALA:HB3	21:AV:167:PRO:O	2.08	0.53
1:BA:2282:G:H4'	1:BA:2283:C:O5'	2.08	0.53
23:AZ:49:VAL:HG11	23:AZ:70:VAL:HG11	1.89	0.53
2:BB:21:G:H2'	2:BB:22:U:O4'	2.08	0.53
1:BA:2859:G:O2'	1:BA:2860:A:O5'	2.26	0.53
1:AA:2074:U:H2'	1:AA:2075:U:C6	2.44	0.53
17:A2:67:GLY:O	17:A2:88:ARG:HB3	2.09	0.53
33:DF:23:TYR:CD2	33:DF:24:ALA:N	2.76	0.53
27:B5:4:HIS:O	27:B5:6:VAL:CG2	2.40	0.53
11:BO:64:LYS:HB2	30:B8:25:MET:SD	2.49	0.53
1:BA:1568:G:H5'	3:BD:60:ARG:HA	1.89	0.53
1:AA:2311:A:C5	6:AG:80:PHE:CE1	2.95	0.53
40:DM:57:LYS:HE3	40:DM:60:ARG:HH22	1.73	0.53
1:BA:2032:G:H21	4:BE:146:THR:HG23	1.74	0.53
11:AO:18:ARG:NH1	11:AO:21:ARG:HH11	2.07	0.53
30:A8:14:VAL:CG1	30:A8:60:LEU:CD1	2.78	0.53
1:BA:2286:A:H5'	28:B6:28:ARG:HE	1.73	0.53
1:BA:2286:A:H4'	1:BA:2287:A:O4'	2.08	0.53
48:DU:58:LEU:H	48:DU:58:LEU:HD12	1.72	0.53
34:DG:13:ARG:HD3	34:DG:13:ARG:N	2.21	0.53
31:CA:923:A:O2'	31:CA:1399:C:OP2	2.24	0.53
6:AG:97:ASP:HA	6:AG:100:TRP:HD1	1.73	0.53
1:BA:442:G:O4'	5:BF:46:ARG:HD3	2.08	0.53
12:BP:78:PRO:O	12:BP:79:LEU:CG	2.57	0.53
1:AA:2119:A:N6	1:AA:2170:A:C6	2.76	0.53
31:DA:625:G:H2'	31:DA:626:U:C6	2.42	0.53
1:BA:2795:G:C3'	1:BA:2797:U:H5''	2.33	0.53
2:BB:66:A:C2	2:BB:108:C:C4	2.97	0.53
1:AA:1510:A:H2'	1:AA:1510:A:N3	2.23	0.53
31:CA:270:A:C5	31:CA:271:C:C4	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2319:G:H4'	1:BA:2320:A:O4'	2.08	0.53
3:AD:26:LYS:O	3:AD:27:THR:OG1	2.26	0.53
8:BK:81:VAL:HG23	8:BK:143:SER:OG	2.09	0.53
32:DE:167:PRO:HG2	32:DE:192:SER:OG	2.09	0.53
8:AK:140:LEU:CD2	8:AK:140:LEU:N	2.71	0.53
52:DB:15:A:OP2	52:DB:16:U:C5	2.62	0.53
31:CA:41:G:H2'	31:CA:42:G:C8	2.44	0.53
31:CA:1074:G:N3	31:CA:1102:A:C2	2.77	0.53
1:AA:1266:G:O2'	1:AA:2012:G:O6	2.18	0.53
1:BA:1434:A:O2'	1:BA:1435:G:H5'	2.08	0.53
16:B1:88:ILE:HG22	17:B2:48:GLY:O	2.09	0.53
26:B4:38:LYS:C	26:B4:40:HIS:H	2.11	0.53
1:BA:1585:C:O2	1:BA:1585:C:H3'	2.09	0.53
31:CA:1490:C:OP2	56:CA:1841:PAR:N64	2.41	0.53
32:CE:223:ILE:O	32:CE:227:GLY:N	2.40	0.53
19:BT:21:PHE:HZ	19:BT:92:LEU:HD22	1.73	0.53
40:CM:80:LYS:HE2	31:DA:1163:C:H4'	1.90	0.53
1:AA:1834:U:H4'	1:AA:1969:A:C6	2.43	0.53
31:DA:814:A:H2'	31:DA:816:A:C5'	2.39	0.53
31:CA:329:A:C5	31:CA:332:G:C6	2.97	0.53
31:DA:243:A:H4'	31:DA:244:U:O5'	2.08	0.53
1:AA:2663:G:C6	1:AA:2664:G:C4	2.97	0.53
1:AA:2567:G:H2'	1:AA:2568:C:C6	2.43	0.53
1:AA:465:G:C6	1:AA:466:A:N6	2.77	0.53
50:DW:53:LEU:HB3	50:DW:102:GLY:HA3	1.91	0.53
1:AA:654(D):G:H1	1:AA:654(Q):C:H42	1.57	0.53
41:DN:17:GLY:O	41:DN:80:VAL:HA	2.09	0.53
53:CC:26:C:H2'	53:CC:27:G:O4'	2.09	0.53
47:CT:7:THR:OG1	47:CT:58:GLU:HG2	2.09	0.53
6:AG:128:ARG:NH2	6:AG:128:ARG:HB2	2.24	0.53
20:AU:95:LYS:HA	20:AU:100:ALA:HA	1.91	0.53
31:DA:837:G:C2	31:DA:850:U:O2	2.62	0.53
1:AA:1424:G:H2'	1:AA:1425:G:O4'	2.09	0.53
31:DA:1112:C:C2	33:DF:178:LEU:HB2	2.44	0.53
1:AA:1060:U:C4'	1:AA:1061:U:O5'	2.56	0.53
15:BR:53:ARG:O	15:BR:53:ARG:HG3	2.09	0.53
6:AG:70:VAL:HG21	6:AG:87:PRO:HB3	1.89	0.53
28:B6:44:ARG:O	28:B6:45:LYS:CG	2.57	0.53
12:BP:68:ILE:HG21	12:BP:103:MET:HB3	1.90	0.53
31:CA:1175:G:C2	31:CA:1176:A:C6	2.96	0.53
53:DD:62:C:H2'	53:DD:63:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:946:G:HO2'	1:BA:947:G:C5'	2.16	0.53
1:BA:971:C:H2'	1:BA:972:G:C5'	2.39	0.53
1:AA:960:A:H5''	1:AA:961:C:OP1	2.09	0.53
1:AA:2346:A:H8	28:A6:24:GLU:OE1	1.92	0.53
1:AA:1141:U:OP2	9:AM:63:THR:CG2	2.56	0.53
1:BA:2212:A:H4'	1:BA:2213:U:C5	2.42	0.53
1:BA:998:C:H2'	1:BA:999:U:O5'	2.08	0.53
31:CA:872:A:C5	31:CA:874:G:C8	2.97	0.53
31:DA:1446:A:OP1	31:DA:1446:A:C4'	2.56	0.53
31:CA:1346:A:O4'	31:CA:1348:U:C6	2.62	0.53
31:CA:664:G:N2	31:CA:741:G:H1	2.00	0.53
1:BA:708:C:H5'	1:BA:709:U:OP2	2.08	0.53
32:DE:51:LEU:HG	32:DE:201:ILE:HG23	1.91	0.53
9:AM:58:ASP:H	9:AM:60:ILE:CD1	2.21	0.53
11:BO:96:THR:OG1	11:BO:97:PRO:N	2.42	0.53
31:DA:413:G:H22	31:DA:429:U:H5''	1.74	0.53
31:DA:1028:C:N3	31:DA:1034:G:N2	2.57	0.53
1:AA:2306:C:H3'	1:AA:2307:G:H5''	1.89	0.53
52:CB:77:C:N4	52:CB:78:C:N4	2.57	0.53
1:BA:2387:U:H1'	22:B3:41:ARG:HD2	1.91	0.53
31:CA:181:G:O2'	31:CA:182:U:O5'	2.25	0.53
38:CK:9:MET:SD	38:CK:32:LYS:HG2	2.49	0.53
1:BA:1011:G:H1	1:BA:1150:C:N4	2.07	0.53
32:CE:31:TYR:O	32:CE:42:ILE:HG13	2.08	0.53
31:DA:986:A:N3	49:DV:52:TYR:OH	2.37	0.53
21:AV:1:MET:HE3	21:AV:135:GLU:HB3	1.91	0.53
1:BA:1540:G:H2'	1:BA:1541:U:O4'	2.09	0.53
42:DO:8:ASN:ND2	47:DT:34:LYS:HE2	2.23	0.53
53:CD:53:G:C4	53:CD:64:G:N2	2.77	0.53
40:CM:80:LYS:CE	31:DA:1163:C:H4'	2.38	0.53
1:BA:79:G:H1	1:BA:107:C:H42	1.57	0.53
8:AK:88:ILE:HG13	8:AK:122:GLU:N	2.24	0.53
2:AB:1:U:H2'	2:AB:2:C:C6	2.44	0.53
1:AA:641:C:C2'	1:AA:642:G:H5'	2.38	0.53
31:CA:1252:A:H2'	31:CA:1253:G:O4'	2.09	0.53
36:CI:22:GLU:OE1	36:CI:82:ARG:NH2	2.32	0.53
8:AK:46:ALA:O	8:AK:50:ARG:HD3	2.08	0.53
31:DA:711:G:O2'	31:DA:712:A:H5'	2.08	0.53
9:AM:36:GLY:H	9:AM:49:GLY:HA2	1.74	0.53
1:BA:1856:G:H2'	1:BA:1857:G:H5'	1.91	0.53
3:BD:118:VAL:HG22	3:BD:119:ALA:N	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1263:U:C4	1:BA:1264:G:C6	2.97	0.53
17:B2:85:LYS:O	17:B2:87:HIS:N	2.41	0.53
1:AA:2810:A:O3'	4:AE:61:ARG:HG2	2.08	0.53
1:AA:2402:C:HO2'	1:AA:2403:C:P	2.27	0.53
26:B4:52:THR:OG1	43:DP:65:LYS:HE3	2.08	0.53
31:DA:980:C:H5'	31:DA:981:U:OP2	2.08	0.53
31:CA:922:G:N1	31:CA:923:A:C2	2.77	0.53
26:A4:12:ALA:CB	26:A4:29:PRO:HA	2.38	0.53
6:AG:99:MET:HG3	6:AG:100:TRP:N	2.24	0.53
1:BA:2138:C:H42	1:BA:2153:G:H1	1.56	0.53
31:CA:458:C:H2'	31:CA:464:G:H8	1.74	0.53
1:BA:1048:A:H5'	1:BA:1049:C:OP2	2.09	0.53
1:AA:973:A:O4'	1:AA:1188:U:C6	2.61	0.53
26:B4:23:GLU:HG3	26:B4:24:THR:H	1.73	0.53
4:BE:101:ARG:HB2	4:BE:203:LYS:HE3	1.90	0.53
18:AS:58:ALA:CA	18:AS:64:MET:HG3	2.39	0.53
31:CA:605:U:H2'	31:CA:606:G:O4'	2.09	0.53
1:BA:620:G:H4'	1:BA:621:A:O5'	2.08	0.53
1:AA:2747:G:O6	1:AA:2755:C:H5''	2.08	0.53
1:AA:2836:U:C4	1:AA:2883:A:N6	2.77	0.53
16:A1:112:ARG:HH11	16:A1:112:ARG:HG2	1.72	0.53
8:AK:92:VAL:HG22	8:AK:92:VAL:O	2.08	0.53
1:BA:1534:G:H5'	1:BA:1535:U:OP2	2.09	0.53
3:AD:137:PRO:HG2	3:AD:140:THR:CG2	2.39	0.53
31:DA:1381:U:H2'	31:DA:1382:C:H5'	1.91	0.53
1:BA:1337:G:H2'	1:BA:1338:G:H8	1.73	0.53
3:BD:183:ARG:HG2	3:BD:184:LYS:N	2.24	0.53
31:CA:618:C:H3'	31:CA:619:U:C5'	2.39	0.53
1:BA:323:G:HO2'	1:BA:1205:U:H3	1.57	0.53
12:BP:43:THR:OG1	12:BP:45:GLN:HG2	2.09	0.53
18:AS:13:SER:HB3	18:AS:16:LYS:CD	2.39	0.53
38:DK:111:ILE:HG22	38:DK:112:LEU:N	2.24	0.53
37:CJ:38:LEU:O	37:CJ:42:ILE:HG13	2.09	0.53
1:AA:558:G:P	9:AM:111:PRO:HG2	2.49	0.53
1:BA:2745:C:O2'	7:BH:142:GLY:HA3	2.08	0.53
38:DK:82:HIS:HD2	38:DK:82:HIS:O	1.92	0.53
32:CE:200:ILE:HD12	32:CE:200:ILE:N	2.23	0.53
31:DA:298:A:O5'	31:DA:298:A:H8	1.91	0.53
1:AA:1458:C:C4'	1:AA:1459:G:H5'	2.39	0.53
1:AA:641:C:H2'	1:AA:642:G:H5'	1.91	0.53
1:AA:1820:U:C2	3:AD:202:LYS:HB3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:18:LEU:HD22	17:A2:19:LYS:N	2.24	0.53
1:BA:30:G:H2'	1:BA:31:C:C6	2.44	0.53
1:AA:2877:G:O2'	1:AA:2878:U:H5'	2.07	0.53
33:DF:199:LYS:HB3	33:DF:201:TYR:HE1	1.73	0.53
35:DH:93:PRO:HG2	38:DK:105:ARG:NE	2.24	0.53
1:BA:1378:A:OP1	29:B7:10:ARG:NH2	2.42	0.53
1:AA:1336:A:H2'	1:AA:1337:G:C8	2.44	0.53
43:DP:70:LEU:HD13	43:DP:71:ARG:N	2.23	0.53
12:BP:110:THR:O	12:BP:113:GLN:HB2	2.09	0.53
31:CA:1053:G:C6	31:CA:1199:U:C2	2.97	0.53
28:B6:10:LEU:C	28:B6:11:LEU:HD22	2.29	0.53
1:BA:2346:A:H5'	1:BA:2383:G:H1'	1.90	0.53
1:AA:904:C:H6	1:AA:904:C:H5''	1.73	0.53
1:AA:2468:G:H2'	1:AA:2476:A:C6	2.44	0.53
1:BA:1070:A:H8	1:BA:1096:A:O2'	1.91	0.53
23:AZ:87:PRO:HA	23:AZ:90:ILE:HB	1.91	0.53
53:DD:15:G:H2'	53:DD:60:A:H2	1.69	0.53
1:AA:890:A:C8	1:AA:892:G:C8	2.97	0.53
1:AA:883:G:N2	1:AA:893:C:N3	2.51	0.53
20:AU:97:ARG:HH21	20:AU:98:VAL:HG23	1.74	0.53
1:AA:2275:C:O2	12:AP:85:LYS:HG2	2.09	0.53
34:CG:10:ARG:CZ	34:CG:10:ARG:CB	2.87	0.53
1:AA:1019:U:O2'	1:AA:1021:A:H2	1.90	0.53
43:CP:14:ARG:HB2	43:CP:17:VAL:CG2	2.28	0.53
1:AA:787:U:H5''	1:AA:788:A:H5'	1.91	0.53
9:AM:94:HIS:C	9:AM:95:PRO:O	2.44	0.53
8:AK:133:HIS:O	8:AK:134:PRO:C	2.47	0.53
31:CA:73:G:H2'	31:CA:74:C:C6	2.44	0.53
1:BA:1337:G:H2'	1:BA:1338:G:C8	2.44	0.53
5:AF:9:ILE:HD13	5:AF:20:LEU:HB3	1.91	0.53
34:DG:101:LEU:HD23	34:DG:121:VAL:HG13	1.89	0.53
1:BA:2410:G:H2'	1:BA:2411:A:O4'	2.09	0.53
31:CA:620:C:C6	34:CG:135:LEU:HD23	2.43	0.53
1:BA:872:A:C4	1:BA:906:G:C2	2.97	0.53
1:AA:528:A:C2	1:AA:2043:C:H4'	2.43	0.53
1:BA:637:A:H4'	1:BA:638:G:O5'	2.09	0.53
12:AP:59:ARG:O	12:AP:61:GLY:N	2.41	0.53
31:CA:1126:U:H5	31:CA:1127:G:C4	2.27	0.53
40:DM:7:LYS:C	40:DM:8:LEU:HD12	2.30	0.53
1:BA:270(T):G:C6	1:BA:270(U):C:C4	2.97	0.53
32:CE:22:LYS:HA	32:CE:22:LYS:HZ3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1261:C:C2'	1:BA:1262:A:O5'	2.57	0.53
5:AF:47:GLY:HA3	5:AF:95:ARG:O	2.09	0.53
1:AA:55:G:H2'	1:AA:56:A:H8	1.74	0.53
31:CA:179:A:H2'	31:CA:180:U:C6	2.44	0.53
1:BA:1834:U:H2'	1:BA:1834:U:O2	2.09	0.53
33:DF:54:ARG:HB2	33:DF:69:HIS:CG	2.44	0.53
50:CW:96:GLY:O	50:CW:97:ALA:HB3	2.09	0.53
18:AS:26:GLY:HA2	18:AS:71:VAL:O	2.08	0.53
31:CA:1005:A:C2	31:CA:1006:C:C2	2.96	0.53
1:BA:2236:C:H2'	1:BA:2237:G:O4'	2.09	0.53
31:DA:123:C:O5'	31:DA:123:C:H6	1.90	0.53
14:BQ:38:GLN:HG3	14:BQ:47:THR:HG21	1.89	0.53
31:DA:1124:G:O2'	31:DA:1125:U:OP2	2.27	0.53
31:DA:1327:C:H2'	31:DA:1328:C:C6	2.43	0.53
1:BA:2371:G:C4'	28:B6:45:LYS:HG3	2.38	0.53
12:BP:39:PRO:HA	12:BP:97:VAL:O	2.08	0.53
31:CA:1058:G:C6	31:CA:1059:C:N3	2.77	0.53
31:CA:1305:G:H5''	51:CX:4:GLY:HA3	1.90	0.53
53:DD:6:G:N2	53:DD:69:C:N3	2.56	0.53
32:DE:137:ARG:C	32:DE:137:ARG:HD3	2.29	0.53
31:DA:1262:C:H2'	31:DA:1263:C:C6	2.44	0.53
30:A8:44:LYS:N	30:A8:44:LYS:HD2	2.24	0.53
53:CD:49:C:H6	53:CD:49:C:OP2	1.92	0.53
32:DE:16:HIS:HE1	32:DE:213:LEU:HD13	1.69	0.53
1:BA:2798:C:H5	1:BA:2799:A:N6	2.06	0.53
39:CL:47:LEU:O	39:CL:50:LEU:HB2	2.09	0.53
1:BA:1357:U:H2'	1:BA:1358:G:O4'	2.09	0.53
16:A1:68:ALA:O	16:A1:71:GLN:HB2	2.08	0.53
17:B2:44:LYS:O	17:B2:46:VAL:HG12	2.09	0.53
1:BA:2422:A:C4'	1:BA:2423:U:OP1	2.54	0.53
1:AA:1388:G:C2'	1:AA:1389:G:H5'	2.39	0.53
31:DA:269:C:H2'	31:DA:270:A:O4'	2.09	0.53
11:AO:127:ALA:O	11:AO:147:LEU:HB2	2.09	0.53
31:CA:191:G:N3	50:CW:105:SER:HB2	2.24	0.53
1:AA:1678:G:N2	1:AA:1989:G:N2	2.55	0.53
32:DE:178:ARG:HH21	38:DK:74:PRO:HG3	1.72	0.53
14:BQ:106:ARG:CB	14:BQ:110:LEU:HD11	2.39	0.53
50:DW:49:ALA:HA	50:DW:52:ALA:CB	2.38	0.53
49:DV:31:ILE:HG22	49:DV:50:ALA:H	1.74	0.53
16:A1:79:PHE:HE2	16:A1:83:LEU:CD2	2.22	0.53
1:BA:2836:U:C4	1:BA:2883:A:N6	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CC:1:C:H3'	53:CC:1:C:C6	2.44	0.53
34:CG:29:PRO:HD2	34:CG:30:LYS:HE2	1.91	0.53
35:DH:103:GLY:C	35:DH:106:PRO:HD2	2.29	0.53
39:CL:18:PHE:CD1	39:CL:62:TYR:HD2	2.25	0.53
1:BA:1011:G:OP1	16:B1:75:ASN:HB3	2.09	0.53
41:DN:57:THR:HG22	41:DN:58:PRO:CD	2.38	0.53
3:AD:176:ARG:NH1	3:AD:176:ARG:HG2	2.24	0.53
1:BA:55:G:H2'	1:BA:56:A:C8	2.43	0.53
1:AA:2619:C:O2'	1:AA:2620:C:H5'	2.09	0.53
1:AA:2886:G:N3	1:AA:2887:U:C6	2.77	0.53
4:BE:90:THR:HG22	4:BE:90:THR:O	2.08	0.53
1:BA:601:C:O2	1:BA:605:C:H4'	2.09	0.53
31:CA:160:A:H2'	31:CA:161:A:O4'	2.09	0.53
1:AA:484:C:H2'	1:AA:485:C:C6	2.44	0.53
8:BK:40:THR:O	8:BK:44:LEU:HB2	2.09	0.53
1:AA:1835:G:N3	1:AA:1835:G:H2'	2.24	0.53
1:BA:1404:C:O2	1:BA:1404:C:H2'	2.08	0.53
31:DA:8:A:N6	34:DG:209:ARG:HB2	2.23	0.53
3:AD:101:GLU:HG3	3:AD:102:LYS:N	2.23	0.52
1:BA:2726:U:O2'	1:BA:2727:G:H8	1.92	0.52
14:BQ:28:VAL:H	14:BQ:88:ASP:HB3	1.74	0.52
3:BD:32:SER:HA	3:BD:36:PRO:HD2	1.90	0.52
6:AG:82:LEU:O	6:AG:82:LEU:CG	2.57	0.52
31:DA:1200:C:H1'	31:DA:1204:A:N6	2.24	0.52
31:DA:1305:G:N2	31:DA:1331:G:C2'	2.71	0.52
1:AA:593:G:C1'	30:A8:4:MET:HE1	2.38	0.52
31:DA:166:G:O2'	31:DA:167:G:H5'	2.09	0.52
11:BO:46:LYS:O	11:BO:51:PHE:HB2	2.09	0.52
12:BP:62:GLY:O	12:BP:63:LYS:CB	2.52	0.52
26:A4:63:TYR:CZ	49:CV:41:VAL:O	2.61	0.52
1:AA:607:U:OP1	5:AF:102:PRO:HA	2.09	0.52
1:BA:1142(A):A:C8	1:BA:1144:G:C5	2.97	0.52
1:AA:2702:U:H4'	1:AA:2703:C:OP1	2.08	0.52
1:BA:445:C:OP1	16:B1:2:PRO:HA	2.09	0.52
1:AA:2125:G:C2	1:AA:2172:U:OP1	2.61	0.52
1:AA:67:U:H2'	1:AA:68:G:H8	1.73	0.52
17:A2:47:VAL:O	17:A2:48:GLY:O	2.27	0.52
32:DE:12:GLU:HB2	32:DE:16:HIS:ND1	2.23	0.52
2:BB:93:C:C2'	2:BB:94:C:H5'	2.39	0.52
35:DH:126:ARG:HA	35:DH:131:ILE:HD11	1.91	0.52
31:CA:254:G:O2'	47:CT:16:GLN:O	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2406:U:O4	11:BO:70:GLN:CB	2.54	0.52
3:AD:27:THR:HG21	3:AD:83:GLU:HB3	1.91	0.52
1:AA:899:A:O2'	1:AA:900:A:H8	1.91	0.52
11:AO:38:GLN:HG2	11:AO:45:LEU:HD13	1.91	0.52
21:AV:76:LEU:HD23	21:AV:76:LEU:N	2.22	0.52
31:CA:439:A:C4	31:CA:496:A:C2	2.97	0.52
44:DQ:37:PHE:HE1	44:DQ:53:LEU:HD22	1.72	0.52
31:CA:766:A:C8	31:CA:814:A:C6	2.97	0.52
4:BE:169:ASN:OD1	4:BE:201:THR:HG21	2.08	0.52
8:AK:11:ASN:C	8:AK:12:LEU:HD13	2.30	0.52
31:DA:9:G:OP2	35:DH:121:LYS:HD2	2.08	0.52
1:AA:1299:G:H5''	1:AA:1300:U:OP1	2.09	0.52
1:AA:660:G:H21	11:AO:12:ALA:HA	1.73	0.52
35:CH:148:VAL:O	35:CH:151:LEU:HB2	2.10	0.52
1:BA:2553:G:H5''	1:BA:2554:U:OP2	2.09	0.52
31:CA:1317:C:H5''	31:CA:1318:A:OP2	2.09	0.52
16:B1:81:HIS:CE1	16:B1:85:LYS:HD2	2.45	0.52
1:AA:1833:U:C4	1:AA:1834:U:C5	2.97	0.52
31:DA:1009:G:H1	31:DA:1020:U:H3	1.57	0.52
18:AS:4:LYS:HB2	18:AS:106:ILE:HG22	1.89	0.52
1:BA:2694:G:C4	1:BA:2695:C:C5	2.97	0.52
32:CE:224:GLN:HB2	32:CE:229:VAL:CG2	2.40	0.52
6:AG:17:PRO:HA	6:AG:20:ILE:HG13	1.91	0.52
1:AA:2533:A:C2'	1:AA:2534:A:H5'	2.39	0.52
1:BA:1856:G:C2'	1:BA:1857:G:H5'	2.39	0.52
14:BQ:38:GLN:HG3	14:BQ:47:THR:CG2	2.39	0.52
1:AA:1382:G:C2'	1:AA:1383:C:H5'	2.39	0.52
3:AD:79:VAL:HG21	3:AD:111:LEU:HD21	1.91	0.52
1:BA:282:A:C4	1:BA:359:A:C2	2.98	0.52
1:AA:1759:A:H4'	1:AA:2715:C:O4'	2.09	0.52
32:DE:228:GLY:O	32:DE:230:VAL:HG22	2.09	0.52
7:AH:129:THR:O	7:AH:129:THR:OG1	2.22	0.52
1:AA:531:C:H4'	1:AA:532:A:H5''	1.90	0.52
31:CA:580:U:H2'	31:CA:581:G:O4'	2.09	0.52
1:AA:686:G:O6	29:A7:12:ARG:HG3	2.08	0.52
4:AE:14:ILE:HG22	4:AE:21:VAL:HG13	1.88	0.52
4:AE:23:VAL:HG11	4:AE:173:VAL:HG21	1.91	0.52
1:AA:1083:U:C3'	1:AA:1084:A:H5''	2.39	0.52
1:AA:2309:A:H8	1:AA:2309:A:O5'	1.92	0.52
30:B8:34:TRP:C	30:B8:36:LYS:N	2.62	0.52
31:DA:1025:U:HO2'	31:DA:1026:G:H8	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1860:G:H1	1:AA:1882:C:H42	1.57	0.52
43:DP:34:LEU:HA	43:DP:37:THR:OG1	2.10	0.52
9:AM:133:GLN:O	9:AM:134:ARG:HG2	2.09	0.52
28:A6:39:TYR:HB3	28:A6:49:HIS:CD2	2.44	0.52
11:BO:79:ARG:O	11:BO:111:ARG:HB2	2.10	0.52
1:BA:2807:G:C6	1:BA:2893:G:O6	2.61	0.52
35:DH:88:LYS:HE2	35:DH:123:LEU:HD12	1.91	0.52
1:AA:1784:A:H4'	1:AA:1785:A:C5'	2.38	0.52
31:DA:1254:C:OP1	40:DM:45:ARG:HA	2.09	0.52
1:AA:518:G:H2'	1:AA:519:U:C6	2.44	0.52
31:DA:923:A:OP1	35:DH:21:ALA:HB2	2.09	0.52
21:AV:142:SER:HB3	21:AV:143:GLY:C	2.29	0.52
1:AA:1983:C:H4'	1:AA:2606:C:H4'	1.90	0.52
46:DS:74:LEU:O	46:DS:79:VAL:HG23	2.09	0.52
31:CA:1255:G:C2	31:CA:1283:G:C2	2.98	0.52
31:CA:197:A:N6	31:CA:221:C:H5'	2.24	0.52
31:CA:437:U:O2'	34:CG:123:HIS:HD2	1.92	0.52
11:AO:75:ILE:N	11:AO:75:ILE:HD13	2.21	0.52
12:AP:27:VAL:HG23	12:AP:138:ASP:CG	2.30	0.52
4:BE:102:VAL:HB	4:BE:199:ARG:O	2.09	0.52
32:DE:8:LYS:HD2	32:DE:11:LEU:HB2	1.91	0.52
52:CB:15:A:C2	52:CB:70:G:C5	2.97	0.52
50:CW:73:HIS:O	50:CW:76:ALA:HB3	2.10	0.52
37:DJ:150:ALA:O	41:DN:57:THR:HG21	2.09	0.52
46:CS:74:LEU:HA	46:CS:77:ALA:HB3	1.92	0.52
17:A2:43:GLU:HA	17:A2:43:GLU:OE2	2.10	0.52
31:CA:960:U:N3	31:CA:1225:A:C4	2.77	0.52
31:CA:1352:C:H2'	31:CA:1353:G:C8	2.45	0.52
31:CA:186(C):G:C5	31:CA:191(E):G:C2	2.97	0.52
1:BA:1283:G:N2	1:BA:1285:G:H3'	2.23	0.52
1:AA:1192:G:O2'	1:AA:1193:G:H5'	2.09	0.52
44:CQ:25:VAL:HG22	44:CQ:38:GLY:O	2.10	0.52
1:BA:2494:G:C5	1:BA:2495:G:N7	2.77	0.52
34:CG:63:LYS:O	34:CG:67:ILE:HG13	2.09	0.52
2:BB:7:G:H3'	2:BB:8:U:H5''	1.90	0.52
5:BF:164:ARG:NH1	5:BF:177:ALA:HB2	2.25	0.52
11:BO:62:LEU:CD1	30:B8:30:ARG:CZ	2.79	0.52
3:BD:35:LYS:CE	3:BD:104:TYR:CD1	2.92	0.52
31:DA:1200:C:H5'	31:DA:1201:A:H5''	1.90	0.52
12:BP:97:VAL:HG11	12:BP:103:MET:HE2	1.91	0.52
12:BP:54:MET:HE3	12:BP:64:ILE:HD12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1176:A:N6	31:CA:1177:G:N1	2.53	0.52
1:AA:1858:G:O2'	1:AA:1859:A:C8	2.62	0.52
1:AA:259:G:H21	1:AA:621:A:H8	1.56	0.52
1:AA:2285:C:C5	28:A6:27:LYS:HD2	2.44	0.52
16:B1:76:TYR:OH	16:B1:93:LYS:HE2	2.10	0.52
1:BA:2689:U:H4'	1:BA:2690:C:H5'	1.90	0.52
52:DB:85:C:H2'	52:DB:86:C:H5'	1.92	0.52
34:CG:65:ARG:CG	34:CG:65:ARG:NH1	2.72	0.52
24:BW:10:LEU:O	24:BW:14:ARG:N	2.38	0.52
1:BA:1543:A:H1'	1:BA:1545:A:H1'	1.91	0.52
31:DA:51:A:C6	31:DA:353:A:C2	2.97	0.52
1:AA:900:A:H3'	1:AA:901:A:C8	2.44	0.52
21:AV:142:SER:H	21:AV:143:GLY:HA2	1.75	0.52
1:AA:1388:G:H2'	1:AA:1389:G:H8	1.74	0.52
31:CA:74:C:H2'	31:CA:75:C:O4'	2.08	0.52
32:CE:178:ARG:CG	32:CE:178:ARG:NH1	2.70	0.52
32:CE:77:ALA:HB1	32:CE:165:VAL:HG11	1.90	0.52
51:CX:15:ARG:HG2	51:CX:15:ARG:NH1	2.23	0.52
38:CK:63:LEU:HB3	38:CK:65:TYR:CE1	2.44	0.52
31:CA:167:G:O2'	31:CA:168:G:H5'	2.10	0.52
1:BA:1791:A:O2'	3:BD:207:GLY:CA	2.58	0.52
42:CO:21:VAL:HG13	42:CO:95:TYR:CE2	2.44	0.52
31:DA:1226:C:H4'	31:DA:1227:A:OP1	2.09	0.52
31:CA:563:A:N7	31:CA:567:G:H1'	2.25	0.52
11:AO:101:VAL:HG22	11:AO:106:LEU:HB3	1.90	0.52
47:DT:59:ILE:HG22	47:DT:71:PHE:CD1	2.43	0.52
11:BO:85:LEU:HB3	11:BO:114:ILE:HD13	1.91	0.52
12:AP:59:ARG:CD	12:AP:59:ARG:H	2.22	0.52
16:A1:66:ASN:ND2	16:A1:70:ARG:HE	2.06	0.52
1:BA:2335:A:O2'	1:BA:2336:A:O5'	2.28	0.52
31:DA:1032:A:H3'	31:DA:1032(A):G:H5''	1.92	0.52
49:DV:39:THR:HG22	49:DV:40:ILE:H	1.73	0.52
53:CD:41:C:H2'	53:CD:42:C:C6	2.44	0.52
1:BA:2277:G:OP2	22:B3:12:ASN:ND2	2.42	0.52
31:CA:1221:G:O3'	49:CV:77:THR:HG21	2.09	0.52
22:A3:70:GLN:CD	22:A3:72:ARG:HD3	2.29	0.52
13:B0:29:LEU:HB3	13:B0:75:LEU:HD21	1.91	0.52
1:AA:36:G:C5	1:AA:37:C:C5	2.97	0.52
3:AD:76:PRO:HG2	3:AD:98:VAL:HG21	1.91	0.52
1:AA:1392:A:C6	1:AA:1393:A:N1	2.78	0.52
35:DH:33:VAL:HG12	35:DH:34:VAL:H	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:17:G:H4'	16:B1:25:TRP:CH2	2.45	0.52
1:AA:696:G:O2'	1:AA:697:C:H5'	2.09	0.52
1:BA:123:G:H2'	1:BA:124:G:O4'	2.08	0.52
17:B2:60:GLU:OE2	17:B2:97:LYS:HE3	2.09	0.52
1:BA:2099:U:O2	1:BA:2099:U:H2'	2.09	0.52
1:AA:1449:A:H5'	1:AA:1449(A):G:OP2	2.08	0.52
1:AA:1070:A:H3'	1:AA:1071:G:H5''	1.91	0.52
31:DA:1134:G:H2'	31:DA:1135:U:H5'	1.90	0.52
53:CC:20:G:C4	53:CC:58:A:C2	2.97	0.52
53:DC:19:G:C4'	53:DC:20:G:OP1	2.57	0.52
12:AP:29:PHE:HB3	12:AP:65:PHE:CZ	2.44	0.52
1:BA:1085:A:H1'	1:BA:1086:A:O5'	2.10	0.52
10:AN:104:ARG:HH22	15:AR:43:GLN:HE22	1.57	0.52
31:CA:793:U:C3'	31:CA:794:A:H5''	2.35	0.52
21:AV:8:TYR:HB2	21:AV:38:TYR:CE2	2.45	0.52
20:BU:81:LYS:HD3	20:BU:97:ARG:NH1	2.23	0.52
20:AU:97:ARG:HH21	20:AU:98:VAL:CG2	2.22	0.52
31:CA:209:U:O4'	31:CA:209:U:P	2.68	0.52
19:BT:43:VAL:HG22	19:BT:51:VAL:HG21	1.92	0.52
50:CW:26:ASN:O	50:CW:30:LYS:HB2	2.09	0.52
20:AU:49:VAL:O	20:AU:51:VAL:N	2.42	0.52
20:AU:68:HIS:O	20:AU:71:LYS:HB2	2.09	0.52
1:AA:1869:G:H5'	1:AA:1869:G:C8	2.33	0.52
1:AA:271(C):U:H2'	1:AA:271:G:OP1	2.10	0.52
1:BA:1342:A:N6	1:BA:1397:U:C5	2.77	0.52
31:DA:273:A:N6	31:DA:274:A:C6	2.77	0.52
21:AV:130:PRO:CA	21:AV:133:ILE:HD11	2.36	0.52
1:AA:648:G:C2'	1:AA:649:G:H5'	2.40	0.52
3:BD:70:TRP:CD1	3:BD:70:TRP:C	2.82	0.52
43:DP:10:PRO:O	43:DP:11:ARG:HG3	2.09	0.52
18:BS:50:VAL:HG21	18:BS:105:VAL:HG23	1.90	0.52
15:BR:106:SER:HA	15:BR:110:ILE:HG13	1.90	0.52
1:BA:637:A:O5'	11:BO:116:GLY:HA2	2.09	0.52
1:AA:1668:A:OP1	10:AN:5:GLN:HG3	2.09	0.52
40:DM:7:LYS:HG3	40:DM:71:LEU:HD13	1.92	0.52
34:CG:147:ALA:CB	34:CG:182:LYS:HB3	2.39	0.52
31:DA:439:A:C2'	31:DA:440:A:O5'	2.57	0.52
1:BA:581:C:C2	1:BA:582:G:C8	2.98	0.52
44:DQ:29:ARG:O	44:DQ:30:ALA:CB	2.57	0.52
18:BS:36:LEU:HD13	18:BS:48:ALA:HA	1.90	0.52
1:AA:55:G:C2	1:AA:116:C:C2	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DL:65:VAL:HG21	39:DL:73:GLN:HB3	1.89	0.52
31:CA:344:A:H5'	31:CA:345:C:P	2.49	0.52
19:BT:23:GLU:HG2	19:BT:25:LYS:HE2	1.91	0.52
29:B7:5:TRP:NE1	29:B7:7:PRO:HG3	2.24	0.52
18:BS:78:GLU:OE1	18:BS:99:ARG:HD2	2.10	0.52
1:BA:2819:G:H2'	1:BA:2821:A:N7	2.24	0.52
31:CA:1234:C:O2'	31:CA:1235:U:H5'	2.10	0.52
29:B7:24:THR:O	29:B7:28:ARG:HG3	2.09	0.52
4:AE:23:VAL:HG11	4:AE:173:VAL:CG2	2.39	0.52
1:BA:2016:U:O4'	27:B5:6:VAL:CG1	2.57	0.52
3:AD:35:LYS:CD	3:AD:64:ILE:N	2.73	0.52
1:AA:1899:G:N2	1:AA:1902:C:C4	2.68	0.52
29:A7:8:ASN:ND2	29:A7:8:ASN:C	2.62	0.52
12:BP:32:TYR:CD1	12:BP:114:ALA:CB	2.93	0.52
31:CA:1053:G:O3'	31:CA:1054:C:H4'	2.09	0.52
1:BA:2275:C:O2'	12:BP:85:LYS:N	2.43	0.52
31:CA:920:U:H2'	31:CA:921:U:C6	2.45	0.52
1:BA:1022:G:C6	1:BA:1141:U:C5	2.97	0.52
21:AV:7:ALA:O	21:AV:8:TYR:CG	2.63	0.52
1:AA:1045:A:OP1	1:AA:1046:A:H3'	2.09	0.52
1:AA:2116:G:C6	1:AA:2117:A:N1	2.78	0.52
1:AA:129:C:H2'	1:AA:130:C:C6	2.44	0.52
1:BA:2311:A:HO2'	1:BA:2312:U:H5'	1.75	0.52
2:BB:44:G:H1'	2:BB:47:C:H42	1.75	0.52
49:DV:23:ASN:HA	49:DV:27:GLU:CD	2.30	0.52
36:CI:99:ALA:C	36:CI:101:ALA:H	2.13	0.52
15:BR:55:ASN:HB3	15:BR:58:ASN:HB2	1.92	0.52
42:CO:39:THR:HA	42:CO:50:ARG:O	2.10	0.52
33:DF:164:ARG:HG2	33:DF:165:THR:N	2.25	0.52
31:DA:1190:G:OP1	33:DF:4:LYS:HA	2.09	0.52
52:DB:31:C:H2'	52:DB:32:C:C6	2.43	0.52
22:A3:66:VAL:HG23	22:A3:67:VAL:N	2.24	0.52
6:AG:64:THR:HG23	6:AG:66:GLN:N	2.18	0.52
1:BA:1416:G:C2'	1:BA:1417:C:C6	2.92	0.52
21:AV:107:THR:C	21:AV:109:ALA:N	2.62	0.52
1:AA:1317:A:H2'	1:AA:1318:C:C6	2.45	0.52
31:CA:403:C:OP2	34:CG:74:GLN:NE2	2.42	0.52
37:DJ:143:ARG:NH1	53:DD:43:G:H5'	2.25	0.52
31:CA:39:G:N7	31:CA:547:A:H8	2.07	0.52
31:CA:812:C:H4'	31:CA:813:U:O5'	2.09	0.52
34:DG:117:ALA:O	34:DG:121:VAL:HG23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2011:U:C2'	1:AA:2012:G:H5'	2.39	0.52
31:DA:736:C:H2'	31:DA:737:A:H8	1.75	0.52
1:BA:1385:G:C6	1:BA:1403:C:N3	2.77	0.52
8:AK:12:LEU:HD13	8:AK:12:LEU:N	2.25	0.52
31:CA:707:C:O2'	31:CA:708:C:H5'	2.09	0.52
7:BH:86:GLU:HA	7:BH:132:ARG:CB	2.38	0.52
45:CR:24:SER:OG	45:CR:27:VAL:HG23	2.10	0.52
46:CS:73:LEU:O	46:CS:77:ALA:HB2	2.09	0.52
31:DA:1226:C:H2'	43:DP:103:THR:HB	1.92	0.52
34:DG:146:ILE:HD12	34:DG:146:ILE:N	2.24	0.52
31:DA:680:C:N4	31:DA:710:G:H1	2.08	0.52
1:BA:2527:C:C4	1:BA:2528:U:C5	2.97	0.52
1:BA:1889:A:N1	1:BA:2234:G:H1'	2.25	0.52
1:BA:2550:G:C2'	1:BA:2551:C:H5'	2.39	0.52
1:AA:1830:C:O2'	1:AA:1831:G:H5'	2.09	0.52
12:AP:43:THR:O	12:AP:46:GLN:N	2.43	0.52
1:BA:1198:U:H2'	1:BA:1199:U:H6	1.75	0.52
19:BT:23:GLU:HG3	19:BT:24:GLY:H	1.74	0.52
37:DJ:73:MET:HA	37:DJ:91:VAL:HG23	1.92	0.52
13:B0:10:LEU:O	13:B0:12:ARG:HG3	2.09	0.52
39:CL:11:LYS:O	39:CL:12:GLU:HB2	2.10	0.52
11:AO:90:ARG:O	11:AO:90:ARG:HG2	2.09	0.52
1:AA:438:G:H2'	1:AA:439:G:H8	1.73	0.52
1:AA:280:C:C2	1:AA:361:G:C2	2.97	0.52
1:AA:1062:G:H1'	1:AA:1088:A:C5	2.45	0.52
4:BE:33:VAL:HG11	4:BE:88:GLY:CA	2.40	0.52
31:DA:1158:C:C2	31:DA:1160:G:N7	2.77	0.52
39:DL:18:PHE:HB2	39:DL:62:TYR:O	2.08	0.52
31:DA:485:G:H1'	31:DA:486:U:H5	1.74	0.52
28:B6:38:LYS:HZ1	28:B6:46:HIS:CD2	2.27	0.52
28:B6:41:PRO:HG2	28:B6:45:LYS:H	1.74	0.52
5:BF:89:VAL:HG12	5:BF:90:PHE:CD2	2.44	0.52
4:BE:68:ALA:C	4:BE:70:ALA:H	2.13	0.52
31:CA:1117:G:O3'	39:CL:104:ARG:NH1	2.43	0.52
11:AO:9:ASN:O	11:AO:10:PRO:C	2.48	0.52
1:BA:2415:G:C3'	11:BO:66:GLY:HA3	2.40	0.52
49:CV:41:VAL:HG13	49:CV:44:MET:HB2	1.92	0.52
52:CB:18:G:C1'	52:CB:19:G:P	2.98	0.52
31:DA:501:C:OP1	42:DO:117:ARG:NH2	2.37	0.52
40:DM:3:LYS:HE2	40:DM:77:PRO:HG3	1.92	0.52
20:AU:78:ALA:HB3	20:AU:81:LYS:NZ	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:200:G:N2	31:CA:218:C:O2	2.43	0.52
53:CD:68:C:H2'	53:CD:69:C:C6	2.44	0.52
1:AA:2136:C:H2'	1:AA:2137:C:O4'	2.10	0.52
1:AA:363(A):A:N6	1:AA:363(B):G:O6	2.42	0.52
6:BG:48:GLU:OE2	6:BG:48:GLU:HA	2.09	0.52
1:BA:1421:G:C2	1:BA:1422:G:C8	2.97	0.52
42:DO:62:SER:HB2	42:DO:64:TYR:CD1	2.36	0.52
31:CA:272:C:H2'	31:CA:273:A:H8	1.75	0.52
7:AH:4:ILE:N	7:AH:4:ILE:HD13	2.21	0.52
1:AA:945:A:C2	1:AA:2448:A:N3	2.78	0.52
1:AA:1313:U:H4'	1:AA:1332:G:H4'	1.90	0.52
22:A3:38:VAL:HG13	22:A3:40:GLN:HG2	1.91	0.52
4:AE:13:ARG:HH11	4:AE:13:ARG:CG	2.23	0.52
12:BP:12:GLN:HE21	12:BP:73:PRO:HD3	1.74	0.52
1:AA:1403:C:H5''	1:AA:1471:A:H1'	1.92	0.52
8:AK:104:GLN:O	8:AK:105:HIS:CB	2.57	0.52
39:CL:52:ALA:C	39:CL:95:LYS:NZ	2.63	0.52
11:BO:96:THR:CB	11:BO:97:PRO:HD2	2.38	0.52
51:CX:15:ARG:CG	51:CX:15:ARG:NH1	2.62	0.52
33:DF:78:GLY:HA2	33:DF:79:ARG:HH21	1.74	0.52
1:AA:2680:C:O2'	1:AA:2681:C:H5'	2.10	0.52
1:AA:1162:G:O2'	17:A2:90:PRO:HG2	2.09	0.52
31:CA:1065:U:H1'	31:CA:1066:C:OP2	2.10	0.52
32:DE:97:TRP:HH2	32:DE:176:GLU:CD	2.13	0.52
1:AA:2594:C:H2'	1:AA:2595:G:C8	2.45	0.52
31:DA:723:U:C2'	31:DA:724:G:OP1	2.58	0.52
33:DF:154:SER:O	33:DF:196:LEU:HB3	2.09	0.52
33:DF:196:LEU:N	33:DF:196:LEU:HD23	2.25	0.52
40:CM:80:LYS:O	40:CM:80:LYS:HD3	2.10	0.52
18:AS:79:GLY:CA	18:AS:100:THR:HG22	2.39	0.52
16:A1:17:ILE:HG23	16:A1:39:LEU:CD1	2.40	0.52
21:BV:10:ARG:NH2	21:BV:25:PRO:HB3	2.24	0.52
31:CA:184:G:H2'	31:CA:185:A:H8	1.75	0.52
1:AA:1710:C:H2'	1:AA:1711:C:C6	2.43	0.52
1:BA:464:U:H4'	29:B7:5:TRP:CZ3	2.45	0.52
6:BG:53:LEU:HD21	6:BG:90:LEU:HD11	1.92	0.52
11:BO:122:PRO:HA	11:BO:141:ALA:HB1	1.92	0.52
34:DG:42:GLN:HG3	34:DG:43:HIS:CD2	2.45	0.52
9:BM:23:LEU:CD1	9:BM:99:LEU:HD23	2.39	0.52
1:BA:492:A:H2'	1:BA:493:G:O4'	2.09	0.52
31:DA:1394:A:H4'	31:DA:1395:C:OP2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2443:C:O2'	1:AA:2444:G:H5'	2.09	0.52
1:AA:978:G:C2	1:AA:986:C:C2	2.97	0.52
48:CU:88:LYS:NZ	48:CU:88:LYS:HB3	2.24	0.52
15:BR:132:LYS:NZ	15:BR:132:LYS:HB2	2.25	0.52
1:AA:1060:U:C5	1:AA:1062:G:H4'	2.45	0.52
31:CA:431:A:H2'	31:CA:432:A:O4'	2.10	0.52
1:BA:896:A:C2	21:BV:176:PRO:HB2	2.45	0.52
1:AA:2401:U:H2'	1:AA:2402:C:C6	2.45	0.52
39:DL:79:LEU:CD1	39:DL:83:ARG:HD2	2.39	0.52
31:DA:1207:G:C6	31:DA:1208:C:C4	2.97	0.52
53:DC:20:G:C2	53:DC:58:A:N3	2.78	0.52
53:DC:20:G:HO2'	53:DC:21:U:H5	1.57	0.52
31:CA:1331:G:OP2	43:CP:23:TYR:CD2	2.62	0.52
31:CA:1133:G:H2'	31:CA:1134:G:C8	2.44	0.52
5:BF:25:PRO:HG2	5:BF:26:ALA:N	2.25	0.52
26:A4:59:PHE:HA	26:A4:62:ARG:HG2	1.90	0.52
1:BA:945:A:C6	1:BA:2448:A:C5	2.97	0.52
32:CE:21:ARG:HE	32:CE:21:ARG:H	1.58	0.52
51:DX:9:ARG:HG3	51:DX:10:ARG:N	2.24	0.52
2:BB:42:C:O2	6:BG:92:VAL:HA	2.09	0.52
6:BG:43:LEU:HD12	6:BG:45:GLU:CG	2.40	0.52
1:BA:1384:A:N3	1:BA:1405:U:H1'	2.25	0.52
1:BA:1407:C:O2	1:BA:1407:C:H2'	2.09	0.52
8:BK:7:GLU:O	8:BK:9:LEU:HD23	2.10	0.52
17:B2:44:LYS:C	17:B2:46:VAL:N	2.55	0.52
1:BA:340:A:H2'	1:BA:341:G:O4'	2.10	0.52
31:CA:1277:C:O2'	31:CA:1279:A:H8	1.93	0.52
1:AA:1988:C:H2'	1:AA:1989:G:O4'	2.10	0.52
15:AR:111:ARG:O	15:AR:112:ARG:HG3	2.10	0.52
1:AA:1952:A:C5	10:AN:22:ILE:HD11	2.45	0.52
53:DC:1:C:H6	53:DC:1:C:H3'	1.74	0.52
1:BA:960:A:H61	12:BP:83:MET:HE2	1.75	0.52
1:AA:2682:U:C6	4:AE:11:MET:HE2	2.45	0.52
38:CK:11:THR:HG22	38:CK:15:ASN:ND2	2.25	0.52
33:DF:72:LYS:NZ	33:DF:74:GLY:HA3	2.25	0.52
53:DD:44:A:H2'	53:DD:45:A:C8	2.44	0.52
34:CG:108:LEU:HB3	34:CG:110:PHE:CE1	2.44	0.52
1:BA:883:G:H2'	1:BA:884:C:C5	2.44	0.52
11:BO:114:ILE:HD12	11:BO:115:LEU:N	2.25	0.52
37:CJ:113:GLU:CG	37:CJ:119:ARG:HG2	2.40	0.52
5:BF:162:LEU:HD12	5:BF:162:LEU:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:24:GLY:N	39:CL:60:ASP:OD1	2.42	0.52
1:BA:270(N):G:H1'	1:BA:270(P):C:O4'	2.10	0.52
31:CA:1406:U:H2'	31:CA:1407:C:H5'	1.92	0.52
1:BA:19:C:H2'	1:BA:20:C:H6	1.74	0.52
1:AA:2684:U:C4	1:AA:2685:G:N7	2.77	0.52
31:DA:604:G:C5	31:DA:605:U:C5	2.98	0.52
11:AO:149:GLU:HG2	11:AO:150:ALA:N	2.25	0.52
1:AA:1751:C:H2'	1:AA:1752:C:H6	1.75	0.52
31:DA:660:G:H2'	31:DA:661:G:O4'	2.09	0.52
46:DS:14:ASN:OD1	46:DS:42:ARG:NH2	2.43	0.52
15:AR:129:ARG:O	15:AR:133:GLU:HG3	2.10	0.52
32:CE:160:ASP:O	32:CE:183:PRO:HD2	2.10	0.52
27:B5:48:GLU:N	27:B5:48:GLU:OE1	2.42	0.52
53:DC:53:G:O2'	53:DC:54:G:H5'	2.10	0.52
31:DA:1105:A:C2	31:DA:1106:G:N7	2.77	0.52
36:CI:50:TYR:OH	48:CU:74:ARG:O	2.13	0.52
1:BA:893:C:H4'	1:BA:894:C:OP2	2.09	0.52
31:DA:1127:G:O2'	31:DA:1128:C:H5'	2.08	0.52
31:DA:1129:C:N4	31:DA:1139:G:N2	2.58	0.52
31:DA:1127:G:H22	31:DA:1144:G:N2	2.07	0.52
2:AB:15:A:O2'	2:AB:109:G:C8	2.47	0.52
14:AQ:15:ARG:HD3	14:AQ:88:ASP:OD2	2.09	0.52
1:BA:586:A:H5''	5:BF:89:VAL:HG21	1.84	0.52
31:CA:1054:C:O2	31:CA:1054:C:H2'	2.10	0.52
1:BA:196:A:H2'	1:BA:196:A:N3	2.25	0.52
31:CA:56:U:H2'	31:CA:57:G:C8	2.45	0.52
23:BZ:92:LYS:O	23:BZ:94:LEU:N	2.43	0.52
31:CA:1034:G:C2	31:CA:1035:A:C6	2.98	0.52
9:BM:35:ARG:HB3	9:BM:42:TRP:CH2	2.45	0.52
1:BA:2688:U:C5	1:BA:2720:U:OP2	2.60	0.52
6:BG:40:ASN:HB2	6:BG:91:ARG:HG2	1.92	0.52
26:B4:32:TYR:HH	43:DP:2:ALA:N	2.08	0.52
31:DA:559:A:OP1	35:DH:126:ARG:NH1	2.42	0.52
1:AA:1794:U:H2'	1:AA:1795:C:C6	2.44	0.52
31:DA:606:G:N2	31:DA:631:G:O2'	2.38	0.52
1:AA:1313:U:H2'	1:AA:1610:A:N1	2.24	0.52
31:DA:464:G:C5	31:DA:466:C:OP2	2.63	0.52
8:AK:120:ILE:HD11	8:AK:126:TYR:OH	2.10	0.52
7:BH:153:LYS:HB3	7:BH:160:LYS:O	2.10	0.52
37:DJ:23:VAL:HG13	37:DJ:43:PHE:CE2	2.44	0.52
33:DF:98:ASN:C	33:DF:98:ASN:HD22	2.12	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:666:G:H5'	31:DA:726:C:H1'	1.91	0.52
31:CA:1412:C:H2'	31:CA:1413:A:H8	1.74	0.52
24:BW:17:SER:CB	24:BW:18:PRO:HA	2.40	0.52
33:DF:70:VAL:O	33:DF:106:VAL:HG23	2.10	0.52
3:AD:145:VAL:HG12	3:AD:146:GLU:O	2.10	0.52
1:AA:1639:U:H4'	1:AA:2699:C:H4'	1.91	0.52
31:DA:1217:C:H2'	31:DA:1218:C:O4'	2.09	0.52
31:CA:1491:G:C6	56:CA:1841:PAR:H21	2.44	0.52
31:DA:187:C:O2	31:DA:191(A):G:N1	2.43	0.52
31:DA:1087:G:H22	31:DA:1099:G:H1'	1.75	0.52
28:A6:12:GLU:HA	28:A6:23:THR:HG22	1.92	0.52
31:CA:562:C:N4	31:CA:884:U:C6	2.78	0.52
31:CA:540:G:H2'	31:CA:541:G:O4'	2.10	0.52
44:CQ:7:ILE:HG13	44:CQ:8:GLU:N	2.23	0.52
31:DA:1417:G:C6	31:DA:1482:G:C6	2.98	0.52
2:AB:61:G:C6	2:AB:62:C:C4	2.98	0.52
21:BV:103:ARG:HB2	21:BV:137:ILE:O	2.09	0.52
40:CM:22:LYS:NZ	40:CM:88:LEU:HG	2.25	0.52
31:DA:728:A:C5	45:DR:54:ARG:HD2	2.45	0.52
31:DA:45:U:H2'	31:DA:46:G:C8	2.45	0.52
1:BA:688:U:H5'	1:BA:1780:A:C2	2.45	0.52
1:BA:1515:C:H2'	1:BA:1516:U:H6	1.75	0.52
21:BV:121:HIS:HB3	21:BV:123:ASP:O	2.10	0.52
1:AA:2015:A:H1'	27:A5:2:ALA:HA	0.63	0.52
1:AA:245:G:H4'	11:AO:70:GLN:O	2.10	0.52
3:AD:65:ILE:HD11	3:AD:67:PHE:CZ	2.43	0.52
39:DL:16:ARG:O	39:DL:63:ILE:HG23	2.10	0.52
1:BA:2371:G:O2'	28:B6:46:HIS:CE1	2.63	0.52
53:DC:18:C:C2'	53:DC:18:C:O2	2.57	0.52
12:AP:104:PHE:O	12:AP:105:GLU:HB3	2.10	0.52
23:BZ:91:LYS:O	23:BZ:92:LYS:C	2.47	0.52
1:AA:2733:A:C3'	1:AA:2734:A:C5'	2.88	0.52
5:AF:64:ILE:HG23	5:AF:65:TRP:NE1	2.25	0.52
1:AA:2173:A:OP1	1:AA:2173:A:H8	1.93	0.52
1:AA:2712:U:O2'	1:AA:2712(A):A:P	2.68	0.52
31:DA:181:G:O2'	31:DA:183:G:O6	2.28	0.52
1:BA:1827:C:C2'	1:BA:1828:G:H5'	2.40	0.52
1:BA:2312:U:OP1	6:BG:74:LYS:HB2	2.09	0.52
49:DV:27:GLU:HG2	49:DV:47:HIS:CD2	2.45	0.52
2:BB:80:U:O2'	2:BB:81:G:H5''	2.09	0.52
1:AA:271(B):G:C4'	1:AA:271(C):U:O5'	2.54	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2756:U:C4'	1:AA:2757:A:OP1	2.55	0.52
1:BA:1581:G:H5'	1:BA:1582:C:OP2	2.10	0.52
31:DA:941:G:C2'	31:DA:942:G:O5'	2.58	0.52
31:CA:146:G:C2	31:CA:177:C:N3	2.78	0.52
31:CA:501:C:OP1	42:CO:114:ARG:NH2	2.43	0.52
19:BT:57:LEU:HD23	19:BT:78:LYS:HB2	1.91	0.52
1:BA:903:C:O2'	21:BV:168:GLU:HG2	2.10	0.52
18:BS:50:VAL:HG22	18:BS:105:VAL:CG2	2.39	0.52
34:DG:162:LEU:HD12	34:DG:181:MET:HE2	1.91	0.52
31:CA:339:C:H2'	31:CA:340:U:H6	1.75	0.52
37:DJ:72:ARG:HH21	37:DJ:96:GLN:HE22	1.57	0.52
1:BA:1448:G:H2'	1:BA:1449:A:C8	2.45	0.52
2:BB:13:A:O2'	2:BB:14:U:H3'	2.10	0.52
1:BA:2103:C:O2	1:BA:2187:G:C2	2.62	0.52
26:B4:43:TYR:O	26:B4:43:TYR:CG	2.63	0.52
31:CA:33:A:C6	31:CA:34:C:N4	2.78	0.52
33:DF:101:LEU:HD23	33:DF:102:ASN:N	2.25	0.52
4:BE:120:TRP:CD1	4:BE:155:LYS:HB3	2.45	0.52
1:AA:656:G:H2'	1:AA:657:U:O4'	2.10	0.52
1:AA:500:G:N2	1:AA:502:A:H3'	2.25	0.52
31:DA:930:C:C4	31:DA:931:C:C5	2.97	0.52
31:DA:386:C:C2'	31:DA:387:U:H5'	2.39	0.52
35:CH:153:LYS:HD3	35:CH:154:GLY:O	2.10	0.52
6:BG:120:LEU:N	6:BG:179:PRO:O	2.32	0.52
14:BQ:18:ILE:O	14:BQ:21:THR:CG2	2.58	0.52
1:AA:815:C:H2'	1:AA:816:C:C6	2.45	0.52
4:AE:73:GLU:HG3	4:AE:74:PRO:HD2	1.92	0.52
3:BD:35:LYS:HA	3:BD:64:ILE:CG2	2.39	0.52
1:BA:573:G:O2'	1:BA:574:C:H3'	2.10	0.52
4:BE:62:PRO:C	4:BE:64:LYS:N	2.60	0.52
12:BP:63:LYS:HB3	12:BP:107:ALA:O	2.09	0.52
31:CA:1272:G:C6	31:CA:1273:G:C4	2.98	0.52
5:BF:4:VAL:HG11	5:BF:17:ARG:HE	1.74	0.52
6:AG:67:LYS:HE2	26:A4:6:HIS:NE2	2.21	0.52
1:AA:882:G:H1	1:AA:894:C:H42	1.58	0.52
15:AR:20:PRO:HG2	15:AR:86:ILE:O	2.10	0.52
31:DA:191:G:HO2'	50:DW:103:GLY:HA2	1.71	0.52
9:BM:46:VAL:HG12	9:BM:47:ALA:N	2.23	0.52
1:AA:456:C:C5	19:AT:69:TYR:CE1	2.97	0.52
31:DA:992:U:C2'	31:DA:993:G:OP2	2.58	0.52
1:AA:1177:A:H5''	1:AA:1178:C:O5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:932:G:H4'	1:AA:933:A:O5'	2.08	0.52
32:DE:92:TYR:HE2	32:DE:151:GLY:N	2.08	0.52
4:AE:179:GLU:HB3	4:AE:181:LEU:HD22	1.91	0.52
1:AA:1999:C:H4'	1:AA:2723:C:O2	2.10	0.52
1:BA:1858:G:H1'	1:BA:1884:A:H61	1.75	0.52
9:AM:96:GLU:O	9:AM:97:ARG:CB	2.56	0.52
31:DA:1399:C:H4'	31:DA:1400:C:O5'	2.10	0.52
42:DO:40:VAL:HG11	42:DO:77:LEU:O	2.09	0.52
42:DO:75:HIS:HD2	42:DO:77:LEU:N	2.08	0.52
42:CO:3:THR:HG23	42:CO:6:GLN:NE2	2.23	0.52
1:AA:1252:G:O4'	16:A1:33:ARG:HD2	2.10	0.52
52:CB:14:A:N6	52:CB:21:A:N6	2.56	0.52
44:CQ:24:CYS:HB3	44:CQ:28:GLY:H	1.75	0.52
31:CA:880:C:OP1	42:CO:5:ASN:ND2	2.42	0.52
14:AQ:5:THR:O	14:AQ:9:ARG:HB2	2.10	0.52
38:DK:111:ILE:C	38:DK:112:LEU:HD23	2.30	0.52
40:DM:56:HIS:O	40:DM:58:ASP:N	2.43	0.52
34:DG:162:LEU:HD12	34:DG:181:MET:CE	2.39	0.52
35:CH:33:VAL:HG11	35:CH:109:ILE:HA	1.92	0.52
31:CA:567:G:C2	31:CA:568:G:H1'	2.45	0.52
31:CA:959:A:C2	31:CA:1222:G:O4'	2.63	0.52
1:AA:2094:G:OP1	8:AK:22:LYS:HG3	2.10	0.52
1:BA:603:A:H8	1:BA:604:G:H1'	1.74	0.52
53:CD:62:C:H2'	53:CD:63:C:C6	2.45	0.52
31:CA:668:G:O4'	45:CR:49:ASP:HB2	2.10	0.52
1:BA:1449(A):G:O2'	1:BA:1450:C:H5'	2.10	0.52
31:DA:1087:G:N2	31:DA:1099:G:H1'	2.25	0.52
1:BA:2517:C:C2	1:BA:2542:A:N6	2.77	0.52
31:CA:1292:U:H2'	31:CA:1293:G:H8	1.74	0.52
11:BO:122:PRO:CA	11:BO:141:ALA:HB1	2.39	0.52
11:AO:149:GLU:HG2	11:AO:150:ALA:H	1.74	0.52
53:DC:36:A:H2'	53:DC:37:U:C6	2.44	0.52
1:AA:50:U:H3'	1:AA:51:G:H5'	1.92	0.52
11:BO:90:ARG:HG3	11:BO:91:PHE:CD1	2.45	0.52
32:DE:76:GLN:HB3	32:DE:208:ILE:HD11	1.92	0.52
1:AA:213:A:H2'	1:AA:214:G:O4'	2.10	0.52
25:AX:7:LYS:HB2	25:AX:34:GLU:HG2	1.92	0.52
52:DB:55:G:H2'	52:DB:56:G:C8	2.45	0.52
34:DG:88:VAL:HG13	35:DH:97:GLY:HA2	1.92	0.52
4:AE:21:VAL:O	4:AE:21:VAL:HG22	2.09	0.51
31:CA:411:A:C6	31:CA:429:U:C5	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:428:G:H4'	31:CA:429:U:OP1	2.09	0.51
12:BP:4:PRO:HD3	12:BP:70:PRO:O	2.09	0.51
1:AA:2416:C:OP1	11:AO:64:LYS:O	2.27	0.51
39:DL:95:LYS:HZ2	39:DL:96:LEU:HA	1.75	0.51
6:AG:78:SER:HB2	53:CC:58:A:H5'	1.92	0.51
31:DA:1054:C:HO2'	31:DA:1055:A:P	2.32	0.51
28:B6:26:ASN:OD1	28:B6:28:ARG:HB2	2.10	0.51
28:B6:10:LEU:HD23	30:B8:34:TRP:HE1	1.75	0.51
23:AZ:86:SER:O	23:AZ:89:GLU:HB2	2.11	0.51
31:CA:1498:U:H1'	31:CA:1499:A:OP2	2.09	0.51
1:AA:1049:C:C4	1:AA:1050:A:C2	2.98	0.51
1:AA:2168:G:C2'	1:AA:2168:G:N3	2.73	0.51
53:CD:59:A:H8	53:CD:59:A:O5'	1.93	0.51
1:BA:1042:G:H2'	1:BA:1043:C:O4'	2.11	0.51
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.09	0.51
34:DG:108:LEU:HD13	34:DG:174:LEU:HD13	1.92	0.51
16:B1:92:ARG:NE	17:B2:11:GLN:HB2	2.26	0.51
1:BA:2795:G:H1'	1:BA:2802:G:N2	2.25	0.51
1:BA:142:G:H2'	1:BA:143:C:C6	2.45	0.51
26:B4:56:VAL:CA	26:B4:60:GLN:HE21	2.16	0.51
1:BA:322:A:C5	1:BA:340:A:C2	2.98	0.51
1:AA:2062:A:N3	1:AA:2062:A:C2'	2.71	0.51
1:AA:654(R):C:C2'	1:AA:654(S):G:H5'	2.40	0.51
6:AG:114:ILE:HD11	6:AG:140:ILE:HD13	1.92	0.51
14:BQ:110:LEU:HD23	14:BQ:112:PHE:CZ	2.45	0.51
1:BA:873:G:C2	1:BA:905:U:O2	2.63	0.51
38:CK:9:MET:SD	38:CK:26:VAL:HG21	2.50	0.51
7:BH:12:PRO:HB3	7:BH:17:VAL:HG21	1.90	0.51
34:CG:142:PRO:HG3	34:CG:187:ARG:HA	1.92	0.51
1:AA:1825:A:O4'	3:AD:254:THR:HG21	2.10	0.51
33:DF:186:PHE:CE2	33:DF:188:LEU:HD21	2.45	0.51
33:CF:196:LEU:HD23	33:CF:196:LEU:N	2.25	0.51
31:DA:1187:G:OP1	39:DL:113:LYS:NZ	2.43	0.51
21:AV:30:ASN:HD22	21:AV:90:VAL:HB	1.75	0.51
1:AA:434:U:H4'	1:AA:435:C:OP1	2.10	0.51
4:BE:7:VAL:HG21	15:BR:1:MET:HE3	1.91	0.51
1:AA:1118:C:H2'	1:AA:1119:C:C6	2.45	0.51
20:BU:33:LYS:NZ	20:BU:34:LYS:HE2	2.25	0.51
45:CR:63:ARG:O	45:CR:67:LEU:HD12	2.10	0.51
5:BF:11:VAL:HG23	5:BF:12:LEU:H	1.75	0.51
21:AV:82:ARG:HG3	21:AV:82:ARG:O	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BQ:39:ILE:HG22	14:BQ:39:ILE:O	2.09	0.51
34:CG:86:LYS:HG2	34:CG:86:LYS:O	2.10	0.51
1:AA:1694:C:H5'	1:AA:1694:C:H6	1.75	0.51
35:DH:73:ASN:OD1	35:DH:73:ASN:N	2.43	0.51
31:DA:713:G:H2'	31:DA:714:G:C8	2.45	0.51
11:AO:82:GLY:HA2	11:AO:113:LYS:O	2.09	0.51
17:B2:85:LYS:HG3	17:B2:87:HIS:H	1.75	0.51
4:AE:53:PRO:O	4:AE:54:GLN:HB2	2.09	0.51
34:CG:12:CYS:SG	34:CG:19:LEU:HD21	2.41	0.51
43:CP:8:GLU:OE1	43:CP:67:GLU:HG3	2.10	0.51
1:AA:2303:G:C2'	1:AA:2304:G:H5'	2.39	0.51
5:BF:8:GLN:O	5:BF:8:GLN:NE2	2.43	0.51
1:AA:2210:G:H5'	1:AA:2211:G:C5	2.45	0.51
31:CA:1002:G:H2'	31:CA:1003:G:O4'	2.10	0.51
31:CA:1025:U:O2'	31:CA:1026:G:C8	2.63	0.51
26:A4:36:CYS:O	26:A4:41:PRO:HD2	2.10	0.51
1:BA:945:A:C4	1:BA:2448:A:N3	2.78	0.51
32:DE:42:ILE:HD13	32:DE:203:GLY:N	2.25	0.51
1:BA:99:U:C2	1:BA:102:G:N2	2.78	0.51
1:AA:2285:C:H5	28:A6:27:LYS:HD2	1.75	0.51
31:CA:1441:G:H5''	31:CA:1442:G:OP1	2.09	0.51
4:BE:4:ILE:CG2	4:BE:95:ILE:HD11	2.39	0.51
1:AA:1141:U:C5	9:AM:64:GLY:HA3	2.45	0.51
50:CW:33:ILE:CG2	50:CW:63:ILE:HG12	2.40	0.51
19:AT:49:VAL:CG1	19:AT:50:LYS:N	2.72	0.51
1:BA:2688:U:C3'	1:BA:2688:U:O2	2.59	0.51
31:DA:606:G:H21	31:DA:631:G:C2'	2.23	0.51
1:BA:1858:G:H1'	1:BA:1884:A:N6	2.26	0.51
1:BA:1858:G:H8	1:BA:1858:G:OP2	1.92	0.51
8:AK:107:VAL:HG12	8:AK:108:THR:N	2.21	0.51
32:CE:178:ARG:HG2	32:CE:178:ARG:NH1	2.25	0.51
52:DB:58:U:H5'	52:DB:59:U:OP2	2.10	0.51
1:AA:1674:G:N2	1:AA:1677:A:N1	2.55	0.51
1:BA:2875:C:C4'	15:BR:5:ALA:HB2	2.37	0.51
27:A5:16:ARG:HD2	27:A5:20:ARG:NH1	2.25	0.51
1:BA:1287:A:H5''	1:BA:1288:U:OP2	2.10	0.51
31:CA:675:A:H1'	41:CN:116:HIS:ND1	2.25	0.51
2:AB:28:C:OP1	14:AQ:36:TYR:OH	2.16	0.51
31:DA:407:G:C6	31:DA:408:A:N6	2.78	0.51
1:AA:1906:G:C2	1:AA:1907:G:C8	2.97	0.51
13:A0:74:LYS:C	13:A0:76:VAL:N	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1193:G:H2'	31:CA:1194:U:H5'	1.91	0.51
1:BA:217:G:H2'	1:BA:218:A:O4'	2.10	0.51
31:DA:114:U:O2'	31:DA:115:G:H5'	2.09	0.51
31:DA:731:G:OP1	31:DA:766:A:H1'	2.11	0.51
13:A0:37:THR:HB	13:A0:39:PRO:HD2	1.91	0.51
8:AK:37:VAL:HG22	8:AK:38:LEU:HD12	1.91	0.51
9:AM:38:HIS:HE1	9:AM:50:ASP:OD2	1.93	0.51
33:CF:104:GLN:CA	33:CF:104:GLN:HE21	2.24	0.51
1:AA:1690:A:H2'	1:AA:1691:C:O4'	2.10	0.51
1:BA:2857:G:N2	1:BA:2859:G:H3'	2.25	0.51
1:AA:1820:U:O2	3:AD:202:LYS:HB3	2.10	0.51
40:DM:6:ILE:HG22	40:DM:98:ILE:CG2	2.40	0.51
31:CA:421:U:H3	33:CF:127:ARG:HH21	1.57	0.51
5:AF:51:THR:HB	5:AF:88:VAL:HG21	1.91	0.51
31:CA:532:A:H2	31:CA:1206:G:H21	1.58	0.51
36:CI:97:PHE:HD2	48:CU:31:LEU:HD21	1.76	0.51
53:DC:40:C:H2'	53:DC:41:C:H6	1.75	0.51
1:BA:2107:C:H42	1:BA:2182:G:H1	1.57	0.51
4:AE:120:TRP:O	4:AE:121:ASN:HB2	2.10	0.51
3:BD:120:GLY:HA2	3:BD:190:TYR:OH	2.10	0.51
4:AE:74:PRO:HD2	4:AE:77:ILE:CG2	2.39	0.51
4:BE:47:VAL:HG12	4:BE:49:LEU:CD2	2.39	0.51
28:A6:15:GLU:OE2	28:A6:44:ARG:NH1	2.43	0.51
11:BO:81:GLN:CB	11:BO:106:LEU:CD2	2.85	0.51
43:DP:29:ARG:HB3	43:DP:64:TRP:CZ2	2.46	0.51
11:AO:47:ASP:OD2	11:AO:49:ARG:HG2	2.10	0.51
31:DA:167:G:O2'	31:DA:168:G:H5'	2.10	0.51
31:CA:1263:C:O2'	31:CA:1264:C:H5'	2.11	0.51
6:AG:67:LYS:HG2	26:A4:5:ILE:HG23	1.93	0.51
32:CE:15:VAL:C	32:CE:16:HIS:ND1	2.64	0.51
31:CA:793:U:C5	31:CA:1516:G:O2'	2.62	0.51
1:BA:1005:C:C1'	1:BA:1143:A:N1	2.74	0.51
1:BA:1109:C:H5	1:BA:1110:G:C6	2.28	0.51
16:B1:98:LEU:O	16:B1:99:ALA:CB	2.58	0.51
1:BA:2312:U:O2'	6:BG:40:ASN:ND2	2.44	0.51
38:CK:86:ILE:HG22	38:CK:87:SER:N	2.25	0.51
4:BE:11:MET:SD	4:BE:24:THR:HG22	2.51	0.51
4:BE:151:TYR:CD2	4:BE:154:LYS:NZ	2.61	0.51
17:A2:39:LEU:HD11	17:A2:51:VAL:HG22	1.89	0.51
31:CA:264:U:H4'	47:CT:63:ARG:HD2	1.93	0.51
7:AH:46:GLU:HB2	7:AH:49:VAL:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:20:SER:HB3	33:CF:40:ARG:NH2	2.21	0.51
33:CF:40:ARG:HG3	33:CF:40:ARG:NH1	2.25	0.51
32:DE:187:LEU:HA	32:DE:201:ILE:O	2.10	0.51
9:AM:60:ILE:N	9:AM:60:ILE:HD13	2.23	0.51
31:CA:195:A:C6	31:CA:196:A:N1	2.78	0.51
31:CA:1281:U:H5''	31:CA:1282:C:OP2	2.09	0.51
1:BA:1688:U:H1'	1:BA:1701:A:C6	2.44	0.51
51:CX:15:ARG:HG2	51:CX:15:ARG:HH11	1.75	0.51
31:CA:952:U:O4	43:CP:104:ARG:HD3	2.10	0.51
1:BA:2876:G:O5'	15:BR:3:ARG:HA	2.10	0.51
3:BD:270:ILE:C	3:BD:271:ILE:CG1	2.78	0.51
35:CH:31:LEU:HD11	35:CH:129:ILE:HA	1.92	0.51
1:BA:2219:G:OP1	3:BD:172:TYR:OH	2.21	0.51
31:DA:920:U:H2'	31:DA:921:U:H6	1.74	0.51
49:DV:28:LYS:NZ	49:DV:29:ARG:HG2	2.24	0.51
7:BH:118:PRO:CD	7:BH:121:ILE:HG13	2.40	0.51
20:BU:47:LYS:N	20:BU:60:PHE:HB3	2.25	0.51
6:BG:108:ASN:ND2	26:B4:38:LYS:HG2	2.25	0.51
31:CA:1169:A:N6	31:CA:1170:A:C2	2.79	0.51
40:CM:30:SER:CB	40:CM:84:GLN:HG3	2.40	0.51
31:CA:939:G:C6	31:CA:940:C:N4	2.79	0.51
31:DA:1011:G:C2	31:DA:1019:C:O2	2.63	0.51
45:DR:54:ARG:NH1	45:DR:58:MET:SD	2.84	0.51
31:CA:1510:U:H2'	31:CA:1511:G:C8	2.46	0.51
3:AD:244:ARG:HB2	3:AD:245:PRO:HD2	1.91	0.51
1:AA:7:G:H2'	1:AA:8:A:O4'	2.11	0.51
1:BA:817:C:C5	1:BA:818:G:N7	2.78	0.51
1:BA:667:U:O2	30:B8:2:PRO:HD2	2.10	0.51
5:AF:125:LEU:HD21	5:AF:199:TRP:CE3	2.45	0.51
1:BA:2654:A:OP1	1:BA:2654:A:H8	1.93	0.51
31:CA:1405:G:O4'	31:CA:1519:A:H4'	2.10	0.51
1:AA:715:G:O2'	1:AA:716:A:H5'	2.10	0.51
1:AA:2014:A:O2'	27:A5:2:ALA:HB2	2.10	0.51
2:BB:75:G:C8	2:BB:75:G:H5'	2.33	0.51
15:BR:45:PHE:CE1	15:BR:74:ARG:HB2	2.46	0.51
20:BU:9:LYS:O	20:BU:27:VAL:HG22	2.10	0.51
43:CP:84:ILE:HG13	49:CV:66:MET:HG2	1.90	0.51
5:BF:82:ILE:HD12	5:BF:82:ILE:C	2.29	0.51
1:AA:2474:C:H3'	1:AA:2475:C:H6	1.74	0.51
46:CS:43:LYS:HG2	46:CS:48:TRP:CD2	2.45	0.51
1:BA:197:A:N6	1:BA:2430:A:H2'	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:217:C:O2'	31:CA:466:C:N4	2.42	0.51
1:AA:2255:G:H22	12:AP:85:LYS:HE2	1.69	0.51
1:BA:67:U:N3	1:BA:74:A:C2	2.68	0.51
1:AA:2125:G:H1	1:AA:2172:U:P	2.34	0.51
1:BA:2312:U:H6	1:BA:2312:U:H3'	1.76	0.51
35:DH:91:LEU:HD12	35:DH:120:THR:CG2	2.34	0.51
42:CO:50:ARG:HB3	42:CO:66:TYR:HE1	1.75	0.51
1:AA:508:G:C6	18:AS:9:TYR:CD2	2.99	0.51
9:AM:35:ARG:O	9:AM:35:ARG:CG	2.57	0.51
27:A5:40:LYS:CD	27:A5:46:CYS:HB3	2.40	0.51
7:AH:10:PRO:C	7:AH:11:VAL:CG1	2.79	0.51
31:DA:353:A:C2'	31:DA:354:G:OP2	2.58	0.51
1:BA:1171:G:H1	1:BA:1178:C:N4	2.05	0.51
31:DA:142:G:H2'	31:DA:143:A:C8	2.45	0.51
7:BH:150:ALA:C	7:BH:152:ARG:N	2.63	0.51
21:AV:107:THR:HB	21:AV:108:PRO:CD	2.40	0.51
31:DA:255:G:O3'	47:DT:17:LYS:HD2	2.10	0.51
12:AP:20:ALA:O	12:AP:21:THR:HB	2.10	0.51
2:BB:16:G:H2'	2:BB:17:C:H6	1.75	0.51
35:CH:45:PHE:CE2	35:CH:47:LYS:HD2	2.45	0.51
35:DH:51:VAL:HB	35:DH:52:PRO:CD	2.40	0.51
31:DA:1348:U:N3	31:DA:1374:A:C2	2.76	0.51
1:BA:639:U:H2'	1:BA:640:C:C6	2.45	0.51
52:CB:41:G:C6	52:CB:42:U:C4	2.97	0.51
1:BA:459:U:H2'	1:BA:460:A:H8	1.75	0.51
1:AA:2881:C:N4	1:AA:2882:A:N6	2.58	0.51
18:BS:20:VAL:CG2	18:BS:47:VAL:HG21	2.39	0.51
32:CE:42:ILE:HD11	32:CE:202:PRO:HB2	1.92	0.51
8:BK:130:TYR:O	8:BK:136:VAL:HG12	2.10	0.51
1:AA:1300:U:H4'	1:AA:1301:A:H5'	1.91	0.51
31:DA:1227:A:O3'	43:DP:115:LYS:HD2	2.11	0.51
1:AA:897:C:H2'	1:AA:898:C:O4'	2.10	0.51
31:CA:960:U:O2	31:CA:1225:A:C6	2.63	0.51
1:BA:184:C:H2'	1:BA:185:U:C6	2.44	0.51
16:A1:66:ASN:ND2	16:A1:66:ASN:O	2.44	0.51
8:AK:144:VAL:HG22	8:AK:145:VAL:HG13	1.93	0.51
31:DA:1028(B):C:N4	31:DA:1032(B):G:N1	2.59	0.51
1:BA:1154:G:OP1	16:B1:58:ARG:HD2	2.10	0.51
21:BV:28:MET:HG3	21:BV:37:VAL:HG11	1.91	0.51
44:DQ:45:ARG:O	44:DQ:49:HIS:CD2	2.64	0.51
1:BA:1668:A:N3	1:BA:1670:C:C4	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1454:U:OP1	13:B0:77:ARG:HD3	2.09	0.51
31:DA:1333:A:H2'	31:DA:1334:G:O4'	2.11	0.51
31:CA:1303:C:H2'	31:CA:1304:G:H5'	1.93	0.51
34:DG:61:LYS:HA	34:DG:203:VAL:HG22	1.92	0.51
31:CA:1417:G:N2	31:CA:1482:G:H2'	2.25	0.51
5:BF:197:ASP:C	5:BF:197:ASP:OD1	2.49	0.51
1:AA:269:U:O2	1:AA:269:U:H2'	2.10	0.51
1:BA:613:U:O2	1:BA:613:U:O4'	2.29	0.51
18:AS:95:ILE:HG13	18:AS:95:ILE:O	2.09	0.51
17:B2:73:SER:HA	17:B2:83:ARG:O	2.10	0.51
1:AA:2394:C:OP1	11:AO:62:LEU:CB	2.58	0.51
31:DA:1162:C:H42	31:DA:1174:G:H1	1.58	0.51
11:BO:101:VAL:CG2	11:BO:106:LEU:HD13	2.39	0.51
31:DA:975:A:OP1	40:DM:57:LYS:NZ	2.44	0.51
31:DA:1023:G:C6	31:DA:1024:G:N7	2.78	0.51
1:BA:1080:A:H2'	1:BA:1081:U:C6	2.46	0.51
31:CA:1150:U:H5''	31:CA:1151:A:OP2	2.09	0.51
11:AO:9:ASN:CB	11:AO:10:PRO:HD2	2.22	0.51
15:AR:12:SER:OG	15:AR:57:PHE:CD1	2.62	0.51
7:AH:83:TYR:HB3	7:AH:135:GLY:N	1.99	0.51
34:DG:30:LYS:N	34:DG:30:LYS:HE2	2.25	0.51
1:BA:2170:A:H5''	1:BA:2171:A:OP2	2.10	0.51
11:AO:29:LYS:CD	11:AO:30:THR:HG22	2.39	0.51
1:AA:2474:C:H3'	1:AA:2475:C:C6	2.46	0.51
5:AF:64:ILE:HG23	5:AF:65:TRP:CD1	2.46	0.51
1:AA:2112:G:N2	53:CD:58:A:N1	2.59	0.51
1:AA:1142(A):A:C4	1:AA:1144:G:C8	2.98	0.51
24:AW:47:ASN:O	24:AW:49:LYS:N	2.42	0.51
6:BG:105:LYS:O	6:BG:109:VAL:HB	2.11	0.51
4:BE:12:THR:C	4:BE:23:VAL:HG22	2.30	0.51
31:CA:256:U:H2'	31:CA:257:G:C8	2.46	0.51
31:CA:778:G:O5'	31:CA:778:G:H8	1.92	0.51
1:AA:286:C:H2'	1:AA:287:C:C6	2.45	0.51
1:BA:958:U:O2	2:BB:89(A):A:H4'	2.11	0.51
31:DA:1494:G:N7	56:DA:1805:PAR:N32	2.59	0.51
1:BA:2126:A:H1'	1:BA:2127:G:H5''	1.93	0.51
38:CK:7:ALA:HB2	38:CK:85:ARG:HD2	1.91	0.51
1:AA:273(F):C:H3'	1:AA:274:G:C5'	2.35	0.51
8:BK:5:LEU:HD12	8:BK:5:LEU:N	2.26	0.51
19:AT:60:ARG:NH1	29:A7:47:ARG:HH22	2.08	0.51
1:AA:638:G:C5	1:AA:651:G:C2	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:694:A:OP1	41:DN:53:SER:HB2	2.11	0.51
11:BO:112:LEU:HD22	11:BO:112:LEU:C	2.31	0.51
50:CW:67:ALA:O	50:CW:73:HIS:CE1	2.64	0.51
1:BA:1434:A:H61	1:BA:1558:A:N6	2.05	0.51
8:AK:29:TYR:HD2	8:AK:30:LEU:HD23	1.76	0.51
34:DG:5:ILE:HG22	34:DG:5:ILE:O	2.11	0.51
1:AA:2373:G:H1	1:AA:2380:C:N4	2.07	0.51
31:DA:115:G:H4'	31:DA:116:A:O5'	2.10	0.51
25:BX:13:ILE:HD12	25:BX:13:ILE:H	1.76	0.51
1:BA:1657:C:H2'	1:BA:1658:C:H6	1.74	0.51
36:CI:61:LEU:HB3	36:CI:63:TYR:HE2	1.75	0.51
39:DL:14:VAL:O	39:DL:65:VAL:HA	2.10	0.51
44:CQ:53:LEU:HB3	44:CQ:56:VAL:HG21	1.90	0.51
36:DI:96:PRO:HB3	48:DU:30:ASP:CG	2.31	0.51
1:BA:1742:C:H5'	1:BA:1743:G:OP2	2.09	0.51
4:BE:141:ILE:HD12	4:BE:150:VAL:HG21	1.93	0.51
1:AA:488:G:H1'	1:AA:492:A:N6	2.26	0.51
10:BN:14:THR:HG22	10:BN:51:ALA:HB3	1.93	0.51
31:CA:1486:G:H2'	31:CA:1487:G:O4'	2.10	0.51
25:AX:43:ILE:O	25:AX:47:VAL:HG23	2.09	0.51
1:BA:1525:G:H2'	1:BA:1526:G:H8	1.75	0.51
1:AA:1077:A:N3	1:AA:1078:U:H5''	2.25	0.51
3:BD:35:LYS:CB	3:BD:64:ILE:H	2.22	0.51
1:AA:1971:A:C5	3:AD:241:PRO:HD3	2.46	0.51
6:AG:73:ALA:HB1	6:AG:82:LEU:CD1	2.40	0.51
31:DA:1305:G:H5''	51:DX:4:GLY:C	2.31	0.51
31:DA:1324:A:H4'	31:DA:1362:C:H4'	1.93	0.51
40:DM:54:PHE:CD1	40:DM:55:LYS:HE3	2.45	0.51
31:DA:485:G:C2'	31:DA:486:U:OP2	2.58	0.51
28:B6:15:GLU:HG3	28:B6:47:THR:HG21	1.89	0.51
53:DD:49:C:C4	53:DD:60:A:C8	2.98	0.51
31:CA:926:G:C6	31:CA:1505:G:C6	2.98	0.51
7:AH:152:ARG:HE	7:AH:153:LYS:NZ	2.09	0.51
21:AV:61:LEU:HD12	21:AV:62:PRO:O	2.11	0.51
32:DE:134:GLU:O	32:DE:138:LEU:HG	2.10	0.51
46:DS:17:TYR:CE1	46:DS:41:PRO:HG3	2.45	0.51
1:AA:2115:G:H3'	1:AA:2115:G:OP2	2.10	0.51
31:DA:1240:U:C4	37:DJ:32:ARG:HG3	2.46	0.51
1:BA:812:C:H5''	1:BA:1250:G:O2'	2.10	0.51
1:BA:1111:A:C4'	7:BH:3:ARG:HD3	2.34	0.51
1:BA:2794:C:H2'	1:BA:2795:G:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:A1:57:PHE:O	16:A1:60:LEU:N	2.44	0.51
37:CJ:21:VAL:HG23	37:CJ:22:LEU:H	1.76	0.51
1:BA:871:U:OP1	12:BP:5:ARG:HG3	2.10	0.51
31:CA:666:G:C2	31:CA:741:G:C4	2.98	0.51
1:AA:857:C:H4'	22:A3:23:VAL:HG21	1.91	0.51
1:BA:1278:A:H2'	1:BA:1279:G:H8	1.74	0.51
31:DA:1392:G:N2	31:DA:1502:A:H8	2.09	0.51
1:AA:76:C:HO2'	24:AW:62:THR:HG21	1.76	0.51
31:CA:74:C:N4	31:CA:96:G:H1	2.07	0.51
22:B3:36:ILE:N	22:B3:36:ILE:CD1	2.73	0.51
7:AH:168:PRO:O	7:AH:169:VAL:HG12	2.10	0.51
38:CK:114:THR:HG22	38:CK:130:GLY:C	2.31	0.51
1:BA:598:G:C1'	11:BO:12:ALA:HB2	2.41	0.51
1:BA:660:G:H21	11:BO:12:ALA:HA	1.75	0.51
12:AP:32:TYR:CE1	12:AP:133:ARG:HG3	2.45	0.51
24:AW:16:LEU:O	24:AW:16:LEU:CG	2.56	0.51
31:DA:657:G:N2	45:DR:22:THR:OG1	2.26	0.51
46:DS:21:VAL:O	46:DS:33:ILE:HG12	2.11	0.51
31:DA:952:U:C5	43:DP:104:ARG:NH2	2.78	0.51
1:BA:2575:C:H2'	1:BA:2578:G:O6	2.11	0.51
1:BA:1027:A:C2	1:BA:2488:A:H5'	2.46	0.51
32:CE:102:LEU:HB3	32:CE:180:LEU:HD12	1.93	0.51
31:CA:914:A:H2'	31:CA:915:A:H8	1.73	0.51
48:DU:37:VAL:CG1	48:DU:78:LEU:HB3	2.41	0.51
1:BA:2820:A:O2'	4:BE:191:PRO:HG3	2.11	0.51
1:BA:1509:C:O2	1:BA:1509:C:H2'	2.10	0.51
21:AV:152:ALA:O	21:AV:155:LEU:HB2	2.10	0.51
1:BA:2389:G:H5''	1:BA:2390:U:O4'	2.10	0.51
46:DS:11:SER:HB2	46:DS:14:ASN:HB3	1.91	0.51
1:BA:1454:U:C5	1:BA:2702:U:O4	2.64	0.51
28:B6:22:ALA:HB2	28:B6:42:TRP:CH2	2.46	0.51
40:CM:34:VAL:CG1	40:CM:74:ILE:HG23	2.41	0.51
23:AZ:53:VAL:HG21	23:AZ:74:VAL:HG22	1.93	0.51
31:DA:391:G:O5'	31:DA:391:G:H8	1.94	0.51
31:DA:28:G:O2'	31:DA:296:U:OP1	2.24	0.51
1:AA:28:A:C2	1:AA:513:A:C8	2.99	0.51
9:BM:120:LEU:HD21	9:BM:122:VAL:HG23	1.92	0.51
1:AA:1087:G:C5	1:AA:1089:G:H1'	2.45	0.51
1:AA:1101:U:H2'	1:AA:1102:C:C6	2.46	0.51
1:AA:2371:G:H4'	28:A6:45:LYS:CB	2.40	0.51
12:BP:58:PHE:CE1	12:BP:117:ALA:HB2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BP:57:HIS:ND1	12:BP:57:HIS:O	2.44	0.51
1:BA:1060:U:C2	1:BA:1088:A:H8	2.28	0.51
48:DU:22:VAL:HG22	48:DU:23:LYS:N	2.24	0.51
5:BF:123:LEU:O	5:BF:124:LEU:C	2.49	0.51
1:AA:882:G:H2'	1:AA:883:G:N7	2.24	0.51
13:A0:107:ASP:C	13:A0:107:ASP:OD2	2.49	0.51
1:AA:1111:A:O2'	1:AA:1112:G:C4'	2.59	0.51
28:A6:14:THR:O	28:A6:49:HIS:HA	2.11	0.51
46:DS:17:TYR:HE1	46:DS:41:PRO:HG3	1.76	0.51
1:AA:2168:G:O4'	1:AA:2168:G:P	2.68	0.51
53:CD:19:G:H4'	53:CD:61:U:O2	2.11	0.51
24:AW:35:LEU:HD11	24:AW:49:LYS:HB2	1.92	0.51
7:BH:4:ILE:HG13	7:BH:6:ARG:H	1.76	0.51
31:CA:164:U:H2'	31:CA:165:C:C6	2.45	0.51
38:CK:87:SER:HB2	38:CK:93:VAL:CG2	2.41	0.51
16:A1:65:ILE:HG12	16:A1:96:ALA:CB	2.41	0.51
47:CT:45:HIS:O	47:CT:73:VAL:HG23	2.10	0.51
1:BA:288:C:H3'	1:BA:289:A:H8	1.75	0.51
49:DV:66:MET:N	49:DV:66:MET:HE3	2.26	0.51
1:BA:322:A:H5'	1:BA:340:A:C1'	2.41	0.51
31:CA:147:G:C2	31:CA:176:C:O2	2.63	0.51
31:DA:75:C:H2'	31:DA:76:G:O4'	2.11	0.51
36:DI:86:ARG:O	36:DI:87:ARG:HG2	2.11	0.51
31:CA:438:G:O2'	31:CA:439:A:H5''	2.11	0.51
31:DA:528:C:H2'	31:DA:529:G:O5'	2.11	0.51
1:AA:448:U:C4	1:AA:583:G:H1'	2.46	0.51
49:DV:15:LEU:HD21	49:DV:31:ILE:HG12	1.93	0.51
4:AE:24:THR:HB	4:AE:188:VAL:HG13	1.92	0.51
31:CA:1098:C:C2	31:CA:1099:G:C8	2.98	0.51
37:CJ:79:ARG:NH2	37:CJ:82:GLY:HA2	2.26	0.51
1:BA:2315:G:H2'	1:BA:2316:C:C6	2.46	0.51
11:BO:88:LEU:HD11	11:BO:95:VAL:HG21	1.92	0.51
31:DA:1137:C:H4'	31:DA:1138:G:C2	2.46	0.51
31:CA:186(C):G:H2'	31:CA:186(D):C:C6	2.46	0.51
38:DK:29:SER:HB3	38:DK:32:LYS:HD2	1.91	0.51
1:AA:1156:A:H4'	1:AA:1157:G:OP2	2.11	0.51
4:BE:89:ASP:O	4:BE:90:THR:C	2.49	0.51
2:AB:1:U:H2'	2:AB:2:C:H6	1.74	0.51
31:CA:329:A:C4	31:CA:332:G:C5	2.99	0.51
50:DW:51:GLU:HA	50:DW:54:LYS:HE3	1.93	0.51
1:AA:1130:U:O2'	1:AA:1131:G:P	2.69	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:71:VAL:HA	18:AS:107:LEU:HD12	1.91	0.51
1:AA:1381:G:C2'	1:AA:1382:G:H5'	2.40	0.51
2:AB:60:C:C2	2:AB:61:G:C8	2.99	0.51
15:BR:1:MET:HE2	15:BR:1:MET:HA	1.91	0.51
47:DT:56:VAL:O	47:DT:77:VAL:HB	2.11	0.51
1:AA:833:U:H2'	1:AA:834:C:C6	2.46	0.51
1:AA:2320:A:H2'	1:AA:2320:A:N3	2.25	0.51
31:DA:50:A:N1	31:DA:360:A:O2'	2.39	0.51
1:BA:2046:G:H5'	27:B5:19:ARG:HG3	1.93	0.51
1:BA:1750:G:O2'	1:BA:1751:C:H5'	2.11	0.51
18:BS:73:ALA:O	18:BS:106:ILE:HG23	2.11	0.51
1:AA:2123:G:C4	1:AA:2176:A:C2	2.99	0.51
6:BG:124:SER:HB2	6:BG:131:TYR:CE1	2.44	0.51
34:DG:150:GLU:C	34:DG:152:SER:H	2.13	0.51
20:BU:83:THR:HG22	20:BU:85:VAL:HG23	1.93	0.51
12:AP:79:LEU:C	12:AP:81:VAL:N	2.64	0.51
3:AD:35:LYS:CE	3:AD:104:TYR:HD1	2.24	0.51
31:DA:1206:G:C5	31:DA:1207:G:N7	2.79	0.51
43:DP:70:LEU:O	43:DP:74:VAL:HG23	2.10	0.51
30:A8:10:ALA:O	30:A8:14:VAL:HB	2.10	0.51
30:A8:58:ILE:HA	30:A8:61:LEU:HG	1.92	0.51
11:BO:65:ARG:NH1	11:BO:65:ARG:CG	2.58	0.51
31:CA:1132:C:N4	31:CA:1143:G:N2	2.58	0.51
34:DG:107:ARG:CD	34:DG:173:TRP:HZ2	2.23	0.51
1:AA:2564:A:C2	1:AA:2647:U:H4'	2.46	0.51
53:CD:55:U:H3	53:CD:59:A:N6	2.07	0.51
31:CA:606:G:H2'	31:CA:606:G:N3	2.26	0.51
43:CP:12:ASN:OD1	43:CP:13:LYS:N	2.40	0.51
9:AM:90:MET:O	9:AM:94:HIS:N	2.42	0.51
1:AA:2330:G:H2'	1:AA:2331:G:O4'	2.11	0.51
19:BT:10:ALA:HB1	19:BT:11:PRO:HD2	1.92	0.51
31:CA:90:C:C5	31:CA:91:C:C5	2.98	0.51
41:CN:57:THR:HG23	41:CN:58:PRO:HD2	1.92	0.51
47:DT:18:THR:HG23	47:DT:69:LYS:HD2	1.92	0.51
31:DA:1350:A:C6	31:DA:1351:U:N3	2.78	0.51
35:DH:148:VAL:HG21	38:DK:107:LEU:HD23	1.93	0.51
1:BA:2129:C:C4	1:BA:2130:U:C4	2.99	0.51
53:DD:41:C:H2'	53:DD:42:C:C6	2.46	0.51
12:AP:27:VAL:CG2	12:AP:138:ASP:OD2	2.58	0.51
33:DF:20:SER:HB2	33:DF:40:ARG:HH22	1.74	0.51
35:DH:19:MET:HE1	35:DH:24:ARG:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:448:U:O4	1:AA:583:G:H1'	2.11	0.51
31:DA:409:G:H1	31:DA:433:C:N4	2.06	0.51
16:B1:88:ILE:HG22	17:B2:49:THR:HA	1.92	0.51
20:BU:60:PHE:N	20:BU:60:PHE:HD2	2.09	0.51
24:BW:53:LEU:O	24:BW:57:ILE:HG13	2.10	0.51
31:CA:706:A:O2'	41:CN:31:THR:HG22	2.11	0.51
31:CA:667:G:H4'	45:CR:51:HIS:ND1	2.24	0.51
1:AA:2099:U:H3	1:AA:2190:G:H1	1.59	0.51
31:DA:201:C:C4'	31:DA:208:U:OP1	2.58	0.51
23:BZ:4:VAL:HG12	23:BZ:11:ARG:CB	2.40	0.51
15:BR:19:LEU:HD22	15:BR:86:ILE:HG22	1.92	0.51
1:BA:185:U:H4'	1:BA:218:A:H4'	1.92	0.51
2:BB:56:G:H4'	2:BB:57:A:H8	1.76	0.51
40:CM:96:ILE:N	40:CM:96:ILE:HD13	2.26	0.51
53:CD:53:G:H1	53:CD:63:C:H42	1.58	0.51
1:BA:531:C:OP1	1:BA:561:G:C2	2.64	0.51
31:CA:1293:G:H2'	31:CA:1294:G:O4'	2.10	0.51
18:AS:75:TYR:HE2	18:AS:104:THR:HG1	1.59	0.51
1:AA:1193:G:H2'	1:AA:1194:A:C8	2.46	0.51
1:BA:2494:G:C4	1:BA:2495:G:C8	2.99	0.51
31:DA:604:G:H2'	31:DA:605:U:O4'	2.11	0.51
38:DK:93:VAL:O	38:DK:132:GLU:HA	2.11	0.51
1:BA:1636:C:H2'	1:BA:1637:A:C8	2.46	0.51
40:CM:92:THR:OG1	40:CM:93:GLY:N	2.42	0.51
35:DH:12:LEU:O	35:DH:30:ALA:HA	2.11	0.51
43:DP:54:VAL:O	43:DP:58:GLU:HG2	2.11	0.51
15:BR:18:ASP:OD1	15:BR:18:ASP:N	2.28	0.51
34:DG:156:GLU:O	34:DG:160:GLN:HG3	2.11	0.51
1:AA:1057:A:O2'	1:AA:1058:U:O4'	2.10	0.51
1:AA:389:G:H22	11:AO:72:PRO:CD	2.23	0.51
28:A6:15:GLU:HB2	28:A6:20:ASN:HB2	1.92	0.51
28:A6:15:GLU:CD	28:A6:44:ARG:HH22	2.14	0.51
4:AE:78:LEU:CD2	4:AE:79:ARG:HD2	2.40	0.51
31:DA:977:A:H2'	31:DA:978:A:H5'	1.92	0.51
12:BP:59:ARG:CG	12:BP:59:ARG:NH2	2.71	0.51
12:BP:58:PHE:C	12:BP:60:ARG:H	2.13	0.51
4:BE:66:HIS:HB3	4:BE:68:ALA:HB2	1.92	0.51
20:AU:79:CYS:HG	20:AU:80:GLY:N	2.09	0.51
5:BF:25:PRO:HG2	5:BF:26:ALA:H	1.75	0.51
53:DD:13:C:O2'	53:DD:14:A:P	2.69	0.51
53:DD:53:G:H1	53:DD:63:C:H42	1.56	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1036:G:C8	31:CA:1037:C:N3	2.79	0.51
5:AF:28:ILE:HD12	5:AF:28:ILE:O	2.11	0.51
1:AA:483:A:C5'	20:AU:49:VAL:HG22	2.40	0.51
43:DP:53:VAL:HG12	43:DP:57:ARG:HH21	1.76	0.51
49:DV:23:ASN:HA	49:DV:27:GLU:HG3	1.92	0.51
31:CA:628:G:O2'	31:CA:629:G:H5'	2.10	0.51
31:DA:353:A:C8	31:DA:353:A:H5'	2.32	0.51
31:DA:465:A:N6	31:DA:467:G:C2	2.79	0.51
31:DA:474:G:H2'	31:DA:475:G:H8	1.76	0.51
20:BU:19:LYS:HE3	20:BU:71:LYS:NZ	2.25	0.51
1:BA:2127:G:H1	1:BA:2161:C:H42	1.57	0.51
31:CA:437:U:O2'	34:CG:123:HIS:CD2	2.64	0.51
1:AA:1028:A:N6	1:AA:1125:G:H2'	2.25	0.51
6:AG:111:LEU:HB2	6:AG:112:PRO:HD3	1.93	0.51
1:BA:2304:G:C2'	1:BA:2305:A:O5'	2.59	0.51
44:CQ:26:ARG:HH11	44:CQ:43:CYS:HB3	1.76	0.51
31:CA:1102:A:C2'	31:CA:1103:C:H5'	2.40	0.51
12:BP:10:ARG:NE	12:BP:10:ARG:HA	2.25	0.51
38:CK:41:ARG:HD2	38:CK:41:ARG:O	2.11	0.51
46:DS:52:ASP:OD1	46:DS:55:ARG:HG3	2.10	0.51
1:AA:1301:A:C8	1:AA:1303:G:C8	2.99	0.51
43:DP:13:LYS:HA	43:DP:44:ARG:HH11	1.75	0.51
46:CS:72:ARG:HD2	46:CS:73:LEU:HD23	1.93	0.51
13:A0:72:ASP:O	13:A0:76:VAL:HG23	2.11	0.51
31:CA:941:G:C2	31:CA:942:G:H1'	2.46	0.51
1:AA:2839:G:C5	1:AA:2840:C:C5	2.99	0.51
1:BA:2187:G:H2'	1:BA:2188:C:O4'	2.11	0.51
1:BA:221:A:C8	1:BA:266:G:C5	2.99	0.51
31:DA:1402:C:H2'	31:DA:1403:C:O4'	2.11	0.51
1:BA:1165:U:H2'	1:BA:1166:C:C6	2.45	0.51
42:DO:111:LYS:O	42:DO:112:ASP:HB2	2.11	0.51
1:BA:1515:C:H2'	1:BA:1516:U:C6	2.46	0.51
1:AA:1939:U:OP1	1:AA:2604:U:O2'	2.29	0.51
52:CB:10:G:H2'	52:CB:11:U:C6	2.46	0.51
32:CE:134:GLU:O	32:CE:138:LEU:HG	2.10	0.51
2:AB:6:C:H2'	2:AB:7:G:H5''	1.93	0.51
1:AA:205:G:O2'	1:AA:206:U:P	2.69	0.51
5:AF:50:SER:HB2	5:AF:94:PRO:HD3	1.92	0.51
20:AU:63:LYS:HD2	20:AU:64:GLU:H	1.76	0.51
48:DU:84:LYS:HA	48:DU:84:LYS:HE2	1.93	0.51
21:AV:35:ARG:NH1	21:AV:35:ARG:HB3	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:146:ILE:N	34:CG:146:ILE:HD12	2.26	0.51
39:DL:23:ASN:HD22	39:DL:23:ASN:H	1.59	0.51
27:A5:52:TYR:HD1	27:A5:53:ALA:H	1.58	0.51
1:AA:263:C:H2'	1:AA:264:C:O4'	2.11	0.51
34:CG:18:LYS:HD2	34:CG:31:CYS:CB	2.41	0.51
34:CG:8:VAL:CG1	34:CG:21:LEU:HD13	2.40	0.51
1:AA:2415:G:H4'	11:AO:66:GLY:HA3	1.93	0.51
3:BD:71:ASP:CG	3:BD:103:ARG:HH22	2.14	0.51
31:DA:1118:C:OP1	39:DL:104:ARG:NH1	2.44	0.51
31:DA:977:A:O2'	31:DA:981:U:N3	2.42	0.51
1:BA:2276:G:P	12:BP:84:GLY:HA2	2.50	0.51
31:CA:351:G:H4'	31:CA:352:C:OP1	2.11	0.51
49:CV:41:VAL:HA	49:CV:44:MET:H	1.76	0.51
34:DG:107:ARG:CG	34:DG:107:ARG:NH1	2.62	0.51
1:BA:946:G:N2	1:BA:972:G:H1'	2.26	0.51
43:DP:39:ILE:HG22	43:DP:40:ASN:N	2.26	0.51
1:BA:1138:G:H21	9:BM:106:MET:CE	2.21	0.51
31:CA:1028(B):C:N4	31:CA:1032(A):G:N1	2.33	0.51
1:BA:2872:G:N7	1:BA:2873:A:H2	2.07	0.51
1:BA:2872:G:N7	1:BA:2873:A:C2	2.78	0.51
31:CA:163:C:H2'	31:CA:164:U:C6	2.45	0.51
42:CO:50:ARG:CB	42:CO:90:LEU:HD11	2.41	0.51
1:BA:1578:U:O2	1:BA:1578:U:H2'	2.09	0.51
1:AA:2746:U:O4	1:AA:2755:C:H4'	2.10	0.51
1:BA:717:G:H2'	1:BA:718:A:O4'	2.11	0.51
1:BA:910:A:C5	12:BP:13:GLN:HG3	2.46	0.51
20:AU:87:LYS:CD	20:AU:92:ASN:HB3	2.38	0.51
1:AA:2439:A:H4'	1:AA:2440:C:O5'	2.11	0.51
34:CG:3:ARG:HG2	34:CG:118:ARG:NH1	2.26	0.51
42:DO:75:HIS:CD2	42:DO:77:LEU:H	2.29	0.51
1:BA:660:G:H5'	5:BF:99:TYR:CE2	2.46	0.51
2:AB:52:A:N6	14:AQ:33:LYS:HG3	2.25	0.51
1:AA:1906:G:C8	1:AA:1929:G:H2'	2.46	0.51
1:AA:524:U:H2'	1:AA:525:U:C6	2.46	0.51
31:DA:617:G:C2	31:DA:618:C:C5	2.99	0.51
13:A0:10:LEU:O	13:A0:12:ARG:N	2.44	0.51
1:AA:1427:A:OP1	1:AA:1427:A:H8	1.94	0.51
31:DA:1338:G:C6	31:DA:1339:A:N1	2.79	0.51
40:CM:3:LYS:HD2	40:CM:75:ILE:O	2.10	0.51
1:BA:580:C:H2'	1:BA:581:C:H6	1.75	0.51
36:CI:9:VAL:HB	36:CI:87:ARG:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:12:ARG:HB3	9:AM:50:ASP:OD1	2.11	0.51
1:BA:1997:G:C2'	1:BA:1998:G:H5'	2.41	0.51
1:BA:1166:C:O2	1:BA:1184:G:C2	2.64	0.51
1:BA:775:G:C5	1:BA:794:G:C8	2.99	0.51
1:AA:280:C:C2	1:AA:361:G:N2	2.79	0.51
31:DA:1103:C:C4	31:DA:1104:G:N7	2.79	0.51
5:AF:125:LEU:HD11	5:AF:199:TRP:CD2	2.46	0.51
1:BA:2652:C:H2'	1:BA:2653:U:O4'	2.11	0.51
1:BA:2757:A:N1	7:BH:67:LEU:HD22	2.25	0.51
1:AA:1847:A:H8	1:AA:1847:A:OP1	1.94	0.51
34:DG:199:ASN:HB3	34:DG:202:LEU:HG	1.92	0.51
35:DH:48:ALA:HB1	35:DH:49:PRO:HD2	1.93	0.51
42:DO:110:VAL:HG23	42:DO:120:TYR:HB3	1.92	0.51
1:BA:1767:C:H2'	1:BA:1768:U:O4'	2.10	0.51
10:AN:47:ILE:HG13	10:AN:48:PRO:HD2	1.93	0.51
15:BR:131:ALA:O	15:BR:134:GLU:HB2	2.11	0.51
1:BA:1956:U:H2'	1:BA:1957:C:H5'	1.93	0.51
21:BV:112:ARG:N	21:BV:112:ARG:HE	2.09	0.51
32:DE:147:LYS:HA	32:DE:147:LYS:NZ	2.25	0.51
22:A3:55:ARG:CZ	22:A3:55:ARG:HB2	2.41	0.51
47:CT:81:ARG:HB3	47:CT:83:ASP:OD1	2.11	0.51
1:BA:2343:C:HO2'	1:BA:2373:G:HO2'	1.57	0.51
1:AA:1063:G:H2'	1:AA:1064:C:C6	2.45	0.50
4:BE:36:ARG:NH2	4:BE:88:GLY:HA3	2.18	0.50
12:BP:89:ASN:O	12:BP:90:VAL:HB	2.11	0.50
31:DA:1279:A:H5''	31:DA:1280:A:OP1	2.11	0.50
43:DP:23:TYR:CE1	43:DP:71:ARG:HB2	2.46	0.50
31:DA:448:A:P	31:DA:485:G:N2	2.75	0.50
28:B6:17:LYS:HB3	28:B6:44:ARG:HH12	1.75	0.50
1:BA:2840:C:C5'	13:B0:53:HIS:CD2	2.82	0.50
1:BA:1018:C:C2'	1:BA:1019:U:H5'	2.41	0.50
31:DA:1238:A:N7	31:DA:1301:U:O4	2.44	0.50
9:BM:128:HIS:CE1	9:BM:134:ARG:HH11	2.29	0.50
1:AA:1209:G:H21	1:AA:1210:A:H62	1.60	0.50
16:A1:90:VAL:HG12	16:A1:91:ASP:CA	2.41	0.50
4:AE:179:GLU:O	4:AE:180:ASN:HB2	2.11	0.50
8:AK:92:VAL:O	8:AK:120:ILE:HG22	2.11	0.50
1:BA:1342:A:N7	1:BA:1345:C:C4	2.79	0.50
31:DA:922:G:N3	31:DA:1398:A:H2	2.08	0.50
31:DA:382:A:C6	31:DA:383:A:C6	2.99	0.50
1:BA:2135:A:N6	1:BA:2156:G:H21	2.09	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2864:G:O2'	1:AA:2865:U:H5'	2.11	0.50
32:CE:178:ARG:HH22	32:CE:196:LEU:HA	1.76	0.50
1:AA:1506:C:O2	1:AA:1506:C:H2'	2.10	0.50
31:DA:413:G:H2'	31:DA:428:G:N2	2.25	0.50
3:BD:68:LYS:HD3	3:BD:70:TRP:CZ2	2.46	0.50
3:AD:17:THR:HG21	3:AD:204:ILE:HA	1.92	0.50
1:AA:229:A:HO2'	1:AA:230:U:P	2.34	0.50
31:CA:652:U:O4	31:CA:752:G:O2'	2.20	0.50
21:BV:114:GLY:C	21:BV:116:VAL:H	2.13	0.50
31:CA:567:G:N3	31:CA:568:G:H1'	2.26	0.50
1:BA:2251:G:OP1	12:BP:82:ARG:NH1	2.44	0.50
1:AA:751:A:C5'	18:AS:90:ARG:HA	2.40	0.50
1:AA:1528:A:C2	1:AA:1543:A:N1	2.79	0.50
1:AA:1642:G:O2'	1:AA:1643:G:H5'	2.10	0.50
49:CV:10:PHE:N	49:CV:10:PHE:CD1	2.72	0.50
31:CA:885:G:H1'	31:CA:914:A:N1	2.26	0.50
1:BA:2337:G:C2	1:BA:2338:G:C8	2.99	0.50
1:AA:2025:C:H2'	1:AA:2026:C:C6	2.46	0.50
31:DA:1084:G:OP1	31:DA:1086:U:C2	2.63	0.50
16:B1:25:TRP:C	16:B1:25:TRP:CD1	2.83	0.50
1:BA:491:G:O6	18:BS:49:LYS:HD3	2.11	0.50
31:DA:929:G:C6	31:DA:930:C:C4	2.99	0.50
1:AA:492:A:H2'	1:AA:493:G:O4'	2.11	0.50
52:CB:10:G:H2'	52:CB:11:U:H6	1.76	0.50
1:BA:2562:U:H1'	10:BN:23:ARG:HH11	1.76	0.50
31:CA:303:A:H2'	31:CA:304:U:O4'	2.10	0.50
21:BV:13:GLU:HA	21:BV:14:LYS:HZ3	1.76	0.50
18:BS:79:GLY:HA3	18:BS:100:THR:HG22	1.93	0.50
1:BA:1317:A:H2'	1:BA:1318:C:C6	2.46	0.50
13:B0:79:LEU:HA	13:B0:83:ILE:HD12	1.92	0.50
1:BA:155:C:O2	1:BA:155:C:H2'	2.11	0.50
31:DA:775:G:H2'	31:DA:776:G:O4'	2.11	0.50
1:AA:1056:G:O2'	1:AA:1057:A:OP2	2.28	0.50
1:BA:888:C:H4'	1:BA:889:C:H5'	1.90	0.50
4:AE:79:ARG:HG3	4:AE:197:ILE:CG2	2.40	0.50
31:DA:1306:A:N6	31:DA:1331:G:O2'	2.44	0.50
31:DA:980:C:H5''	31:DA:981:U:H5	1.74	0.50
1:AA:242:G:O5'	30:A8:3:LYS:HE3	2.10	0.50
30:B8:34:TRP:C	30:B8:36:LYS:H	2.14	0.50
43:CP:3:ARG:CD	43:CP:7:VAL:HG13	2.35	0.50
31:DA:169:C:H5'	31:DA:169:C:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2168:G:C2	1:BA:2170:A:OP2	2.64	0.50
53:DD:55:U:C4	53:DD:56:U:C5	2.98	0.50
32:CE:8:LYS:H	32:CE:8:LYS:CD	2.24	0.50
32:CE:170:GLU:O	32:CE:174:VAL:HG23	2.11	0.50
31:CA:1503:A:O2'	31:CA:1504:G:C5'	2.59	0.50
19:BT:31:HIS:ND1	19:BT:32:PRO:HD2	2.27	0.50
1:AA:1535:U:H3'	1:AA:1536:A:C5'	2.38	0.50
6:BG:77:ILE:HG22	6:BG:80:PHE:H	1.76	0.50
34:CG:65:ARG:NH1	34:CG:65:ARG:HG2	2.26	0.50
1:AA:1864:U:H5''	1:AA:2410:G:O2'	2.09	0.50
33:CF:95:THR:HG22	33:CF:96:GLY:N	2.26	0.50
5:AF:127:GLU:OE1	5:AF:128:ALA:HB2	2.11	0.50
20:BU:17:SER:HB2	20:BU:71:LYS:CD	2.40	0.50
31:DA:1496:C:H2'	31:DA:1497:G:O4'	2.12	0.50
7:AH:131:VAL:HG12	7:AH:132:ARG:H	1.76	0.50
31:CA:198:G:C6	31:CA:220:G:C2	2.99	0.50
1:BA:2130:U:O2'	1:BA:2133:G:O2'	2.29	0.50
31:CA:389:A:H2'	31:CA:390:C:C5'	2.40	0.50
1:BA:1887:C:C3'	1:BA:1888:G:H5''	2.41	0.50
35:CH:12:LEU:O	35:CH:13:ILE:HD12	2.10	0.50
33:DF:29:TYR:HD1	44:DQ:36:PHE:CZ	2.29	0.50
12:AP:31:ASP:O	12:AP:133:ARG:O	2.29	0.50
1:BA:1771:C:H1'	1:BA:1786:A:C8	2.46	0.50
1:BA:1431:U:H2'	1:BA:1432:C:H6	1.74	0.50
1:BA:959:A:C6	1:BA:960:A:C2	2.99	0.50
46:CS:3:LYS:O	46:CS:21:VAL:HA	2.11	0.50
1:AA:229:A:C1'	1:AA:230:U:OP2	2.57	0.50
24:BW:17:SER:CB	24:BW:21:LEU:HB2	2.42	0.50
33:DF:7:PRO:O	33:DF:11:ARG:HB2	2.11	0.50
11:AO:55:ARG:CG	11:AO:55:ARG:O	2.59	0.50
7:BH:94:TYR:CD1	7:BH:94:TYR:N	2.78	0.50
24:BW:22:GLU:O	24:BW:25:VAL:HG22	2.11	0.50
31:CA:857:C:H2'	31:CA:858:G:O4'	2.11	0.50
3:BD:158:ALA:HB3	3:BD:161:THR:HG21	1.93	0.50
8:AK:86:THR:HA	8:AK:123:LEU:HD12	1.93	0.50
31:DA:115:G:H1'	31:DA:116:A:N7	2.25	0.50
1:AA:2839:G:C5	1:AA:2840:C:C4	3.00	0.50
1:BA:2061:G:H5''	1:BA:2503:A:C2	2.46	0.50
43:CP:97:PRO:HB3	43:CP:101:GLN:NE2	2.26	0.50
31:CA:344:A:H5''	31:CA:345:C:OP2	2.12	0.50
31:CA:1251:A:H4'	39:CL:12:GLU:OE1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1106:G:H5''	33:DF:172:ARG:HG2	1.93	0.50
31:DA:144:G:O2'	31:DA:145:G:H5'	2.11	0.50
1:AA:2213:U:O4'	23:AZ:52:ARG:NH2	2.44	0.50
1:AA:1680:U:H2'	1:AA:1681:G:O4'	2.11	0.50
21:AV:81:ARG:HG3	21:AV:81:ARG:O	2.10	0.50
1:AA:2364:C:H2'	1:AA:2365:G:O4'	2.12	0.50
17:B2:73:SER:CA	17:B2:83:ARG:O	2.60	0.50
1:AA:1062:G:OP1	1:AA:1062:G:C8	2.64	0.50
11:AO:71:VAL:HG13	11:AO:72:PRO:N	2.25	0.50
31:DA:1127:G:N2	31:DA:1145:C:H1'	2.26	0.50
31:DA:1145:C:O2'	31:DA:1146:A:C8	2.60	0.50
6:AG:80:PHE:HA	6:AG:81:LYS:HE2	1.93	0.50
31:DA:1312:G:H1	31:DA:1325:C:N4	2.09	0.50
45:CR:82:ILE:HG22	45:CR:83:GLU:N	2.25	0.50
40:CM:49:VAL:HG12	40:CM:61:GLU:O	2.12	0.50
1:BA:946:G:H2'	1:BA:947:G:O5'	2.11	0.50
7:AH:149:ARG:HG3	7:AH:162:ILE:O	2.11	0.50
1:AA:442:G:C6	1:AA:444:C:N4	2.79	0.50
1:BA:2213:U:C4'	23:BZ:52:ARG:HH22	2.24	0.50
1:BA:803:U:H2'	1:BA:804:A:H5'	1.94	0.50
20:AU:50:ARG:O	20:AU:53:PRO:HD2	2.11	0.50
1:AA:1534:G:C6	1:AA:1538:G:N2	2.80	0.50
1:BA:528:A:H8	1:BA:528:A:H3'	1.75	0.50
1:AA:2506:U:H1'	52:CB:87:A:O3'	2.11	0.50
9:AM:35:ARG:HB2	9:AM:42:TRP:CZ3	2.46	0.50
3:AD:27:THR:CG2	3:AD:83:GLU:HB3	2.42	0.50
1:BA:27:G:N2	1:BA:512:G:O2'	2.43	0.50
31:CA:90:C:N4	31:CA:91:C:H41	2.09	0.50
15:AR:99:LEU:HB3	15:AR:101:PHE:CE1	2.46	0.50
1:BA:2713:A:H3'	1:BA:2714:G:H5'	1.94	0.50
31:CA:142:G:N1	31:CA:143:A:C5	2.80	0.50
31:CA:1277:C:H1'	31:CA:1282:C:O2	2.12	0.50
23:BZ:41:ARG:HG3	23:BZ:43:TYR:CZ	2.44	0.50
31:CA:66:G:N2	31:CA:172:A:C2	2.79	0.50
52:DB:19:G:H4'	52:DB:20:U:OP2	2.11	0.50
31:CA:811:C:C4'	31:CA:900:A:N6	2.74	0.50
1:BA:2377:A:H2'	1:BA:2378:A:C8	2.46	0.50
1:BA:1863:G:O2'	1:BA:2411:A:O2'	2.25	0.50
34:CG:25:ARG:C	34:CG:27:TYR:N	2.65	0.50
38:CK:49:GLU:O	38:CK:51:VAL:HG13	2.10	0.50
53:CD:39:A:H2'	53:CD:40:C:C5'	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DJ:65:ALA:O	37:DJ:69:VAL:HG23	2.10	0.50
1:BA:480:A:H2	1:BA:499:U:O2	1.95	0.50
21:AV:48:PHE:CE2	21:AV:71:VAL:HG11	2.46	0.50
31:CA:22:G:C5	31:CA:23:C:C4	2.99	0.50
7:BH:20:ALA:HB1	7:BH:21:PRO:CD	2.42	0.50
28:A6:12:GLU:HB3	28:A6:23:THR:HG22	1.93	0.50
1:BA:1668:A:H2	1:BA:1670:C:N3	2.08	0.50
1:BA:1709:U:O2'	1:BA:2859:G:H1'	2.11	0.50
6:BG:119:GLY:HA3	6:BG:180:PHE:C	2.31	0.50
2:AB:3:C:H2'	2:AB:4:C:H6	1.77	0.50
31:CA:739:C:C4	31:CA:740:U:C5	3.00	0.50
1:BA:773:U:H4'	3:BD:47:GLY:HA2	1.93	0.50
3:BD:7:LYS:NZ	3:BD:7:LYS:HB3	2.26	0.50
1:BA:223:A:O2'	1:BA:420:C:O2	2.29	0.50
25:BX:6:VAL:HG12	25:BX:56:VAL:HB	1.94	0.50
1:AA:1085:A:OP2	1:AA:1085:A:H3'	2.11	0.50
4:AE:37:ARG:H	4:AE:37:ARG:NE	2.08	0.50
4:AE:51:PHE:O	4:AE:74:PRO:HB3	2.11	0.50
1:BA:892:G:N7	1:BA:893:C:C4	2.80	0.50
21:BV:115:GLY:H	21:BV:177:PRO:CG	2.25	0.50
39:DL:9:ARG:HA	39:DL:13:ALA:O	2.11	0.50
31:DA:1053:G:O6	31:DA:1199:U:H2'	2.12	0.50
31:DA:1328:C:O2'	43:DP:29:ARG:NE	2.40	0.50
12:BP:33:GLY:HA2	12:BP:105:GLU:HA	1.92	0.50
1:BA:2404:C:O3'	11:BO:77:ARG:NH2	2.45	0.50
31:CA:1138:G:N1	31:CA:1140:C:C2	2.79	0.50
1:AA:1858:G:H1'	1:AA:1884:A:N6	2.26	0.50
5:BF:25:PRO:CG	5:BF:26:ALA:N	2.75	0.50
1:BA:2114:A:N1	1:BA:2170:A:N6	2.48	0.50
53:DD:50:G:N2	53:DD:67:C:O2	2.45	0.50
41:CN:15:ALA:CB	41:CN:78:GLN:HE21	2.24	0.50
32:CE:162:ILE:O	32:CE:185:ILE:HG23	2.11	0.50
31:CA:926:G:C6	31:CA:1505:G:C5	2.99	0.50
1:BA:945:A:N7	1:BA:2448:A:N1	2.59	0.50
1:BA:1142(A):A:N7	1:BA:1144:G:C5	2.79	0.50
9:AM:134:ARG:O	9:AM:136:GLU:N	2.45	0.50
1:AA:2115:G:H2'	1:AA:2116:G:C8	2.43	0.50
1:AA:2124:G:C6	1:AA:2125:G:C4	3.00	0.50
1:BA:2211:G:C4'	1:BA:2212:A:OP2	2.59	0.50
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.46	0.50
34:DG:127:THR:HB	34:DG:131:ARG:O	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:BM:35:ARG:HB3	9:BM:42:TRP:CZ3	2.47	0.50
41:CN:41:THR:HG21	41:CN:71:LYS:HB2	1.93	0.50
1:BA:2748:A:H62	1:BA:2754:U:H3	1.59	0.50
42:DO:28:LYS:O	42:DO:29:GLY:C	2.49	0.50
45:CR:56:LEU:HD12	45:CR:56:LEU:C	2.32	0.50
1:AA:508:G:O6	18:AS:9:TYR:CD2	2.64	0.50
26:B4:59:PHE:CE1	49:DV:68:GLY:HA3	2.44	0.50
4:AE:93:VAL:HG21	4:AE:180:ASN:HA	1.93	0.50
18:AS:22:ASP:HA	18:AS:25:ARG:HH12	1.76	0.50
31:DA:457:C:H2'	31:DA:458:C:H6	1.77	0.50
31:DA:1060:C:O2'	31:DA:1061:G:H5'	2.11	0.50
3:BD:96:HIS:ND1	3:BD:102:LYS:HD3	2.26	0.50
22:A3:25:ARG:HD3	22:A3:29:GLN:NE2	2.26	0.50
35:CH:63:ARG:HA	35:CH:66:MET:HE2	1.94	0.50
1:BA:1210:A:H5'	1:BA:1212:G:O4'	2.11	0.50
2:AB:71:C:C2	2:AB:72:G:C8	2.99	0.50
8:BK:101:LEU:HB2	8:BK:105:HIS:HB2	1.94	0.50
1:BA:1614:A:H61	18:BS:88:ARG:H	1.59	0.50
49:DV:28:LYS:CE	49:DV:29:ARG:H	2.24	0.50
1:AA:2011:U:H2'	1:AA:2012:G:H5'	1.93	0.50
33:DF:16:ARG:CZ	33:DF:16:ARG:HB2	2.40	0.50
32:CE:17:PHE:CD2	32:CE:44:LEU:HD11	2.47	0.50
1:AA:528:A:O2'	1:AA:529:A:H5''	2.11	0.50
11:BO:120:ALA:CB	11:BO:138:LEU:HB3	2.40	0.50
24:BW:22:GLU:O	24:BW:26:ARG:HG3	2.12	0.50
1:BA:1291:C:H2'	1:BA:1292:U:C6	2.47	0.50
31:DA:1435:G:H2'	31:DA:1436:U:H6	1.74	0.50
1:AA:998:C:H2'	1:AA:999:U:O5'	2.12	0.50
1:AA:2019:A:H62	27:A5:9:LYS:NZ	2.10	0.50
1:BA:2450:A:C2	1:BA:2451:A:C4	2.99	0.50
12:AP:58:PHE:O	12:AP:59:ARG:C	2.50	0.50
1:BA:2820:A:C6	13:B0:4:LEU:HD11	2.47	0.50
8:AK:144:VAL:HG13	8:AK:145:VAL:HG22	1.93	0.50
1:AA:962:G:O2'	1:AA:963:U:H5'	2.10	0.50
39:DL:111:ARG:HD2	44:DQ:61:TRP:OXT	2.11	0.50
31:CA:1009:G:C2	31:CA:1010:G:C8	2.99	0.50
53:CD:71:G:O2'	53:CD:72:C:H5'	2.10	0.50
1:BA:764:A:H5'	3:BD:210:GLY:CA	2.41	0.50
1:AA:2050:C:H2'	1:AA:2051:A:C8	2.46	0.50
8:BK:11:ASN:O	8:BK:12:LEU:HD12	2.11	0.50
1:AA:2850:A:C2	1:AA:2851:A:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:96:THR:C	11:AO:98:GLU:H	2.14	0.50
1:AA:1662:C:H1'	1:AA:2687:U:H5''	1.94	0.50
1:AA:663:G:H2'	1:AA:664:C:O4'	2.12	0.50
6:BG:72:ARG:HD2	6:BG:85:GLY:O	2.11	0.50
1:BA:2500:U:H5''	1:BA:2501:C:OP2	2.11	0.50
1:AA:1878:G:H2'	1:AA:1879:C:C6	2.46	0.50
52:CB:2:C:H2'	52:CB:3:C:C6	2.46	0.50
27:A5:45:VAL:HG12	27:A5:45:VAL:O	2.11	0.50
31:DA:1205:U:H6	31:DA:1205:U:H3'	1.76	0.50
4:AE:134:ILE:C	4:AE:134:ILE:HD12	2.31	0.50
31:DA:593:G:C2	31:DA:647:C:O2	2.65	0.50
1:AA:2105:C:O2'	1:AA:2106:G:H5'	2.12	0.50
1:BA:616:A:C8	5:BF:176:LEU:HD11	2.46	0.50
1:AA:1101:U:O2'	1:AA:1102:C:H5'	2.12	0.50
17:B2:75:PHE:CD1	17:B2:75:PHE:C	2.84	0.50
3:AD:31:LYS:HZ2	3:AD:33:LEU:HB3	1.76	0.50
31:CA:413:G:H2'	31:CA:428:G:N2	2.27	0.50
1:BA:886:C:C2	1:BA:890:A:N1	2.80	0.50
31:DA:1126:U:C4	31:DA:1281:U:C6	3.00	0.50
31:DA:1126:U:C1'	31:DA:1127:G:OP2	2.60	0.50
12:BP:54:MET:O	12:BP:56:ARG:N	2.45	0.50
12:AP:34:LEU:HD11	12:AP:129:THR:CB	2.39	0.50
15:AR:74:ARG:HD3	15:AR:76:PHE:HZ	1.77	0.50
43:CP:67:GLU:OE2	43:CP:68:GLY:N	2.31	0.50
11:BO:65:ARG:O	11:BO:66:GLY:O	2.30	0.50
34:DG:21:LEU:O	34:DG:113:SER:HB2	2.11	0.50
31:CA:50:A:H4'	31:CA:51:A:O5'	2.12	0.50
11:BO:79:ARG:HB3	11:BO:110:TYR:HD1	1.76	0.50
1:AA:2124:G:H1	1:AA:2174:C:H42	1.59	0.50
45:DR:70:LEU:HG	45:DR:78:TYR:HB2	1.92	0.50
31:CA:687:A:H1'	31:CA:688:G:OP2	2.11	0.50
27:A5:40:LYS:CG	27:A5:47:PRO:HD2	2.36	0.50
4:AE:181:LEU:HD21	15:AR:7:ILE:HG23	1.93	0.50
1:AA:729:G:O2'	1:AA:763:G:H4'	2.11	0.50
2:BB:79:C:H2'	2:BB:80:U:O4'	2.11	0.50
9:AM:96:GLU:H	9:AM:98:VAL:HG12	1.75	0.50
1:AA:1387:C:C2	1:AA:1388:G:C8	3.00	0.50
8:AK:140:LEU:HD23	8:AK:140:LEU:H	1.75	0.50
31:CA:8:A:H4'	31:CA:9:G:OP1	2.11	0.50
1:AA:1735:C:C2'	1:AA:1741:C:H5'	2.41	0.50
1:BA:12:U:C2'	1:BA:12:U:O2	2.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CK:27:PRO:HG3	38:CK:58:TYR:CE2	2.42	0.50
42:DO:40:VAL:HG21	42:DO:78:GLN:CA	2.41	0.50
1:AA:494:G:O2'	1:AA:495:G:H5'	2.11	0.50
53:DC:1:C:C6	53:DC:1:C:H3'	2.45	0.50
4:AE:27:LEU:O	4:AE:27:LEU:HD23	2.12	0.50
53:DD:52:C:O2	53:DD:65:G:N2	2.45	0.50
1:BA:2809:A:N6	1:BA:2891:G:H2'	2.26	0.50
31:DA:309:G:H1'	31:DA:608:A:C2	2.47	0.50
31:CA:1164:G:C5	31:CA:1165:C:C5	3.00	0.50
34:DG:161:ASN:O	34:DG:165:MET:HG2	2.11	0.50
32:DE:100:GLY:O	32:DE:104:ASN:N	2.41	0.50
43:DP:48:LEU:O	43:DP:48:LEU:HD23	2.11	0.50
33:CF:81:GLY:HA2	33:CF:84:ILE:HG22	1.92	0.50
4:BE:98:PRO:HD3	4:BE:175:VAL:HG13	1.93	0.50
1:BA:627:A:N7	11:BO:84:ASN:ND2	2.59	0.50
53:DD:18:C:O2	53:DD:18:C:C2'	2.59	0.50
53:DC:41:C:H2'	53:DC:42:C:H6	1.77	0.50
1:BA:1805:U:O2	3:BD:50:THR:HB	2.11	0.50
1:AA:734:A:O2'	1:AA:1635:G:H5'	2.11	0.50
1:AA:552:G:C6	1:AA:553:U:C4	3.00	0.50
1:BA:468:G:N7	29:B7:39:ARG:NH2	2.52	0.50
1:BA:1504:C:O2'	1:BA:1505:C:H5'	2.11	0.50
1:BA:1491:G:H5'	3:BD:99:ASP:OD2	2.12	0.50
35:CH:84:PHE:HB3	35:CH:134:ALA:HB2	1.93	0.50
1:AA:701:G:N2	1:AA:732:C:C2	2.79	0.50
34:CG:154:ASN:OD1	34:CG:154:ASN:N	2.45	0.50
1:BA:405:U:H2'	1:BA:405:U:O2	2.10	0.50
31:CA:109:A:H2'	31:CA:326:G:N2	2.26	0.50
39:DL:5:TYR:CG	39:DL:6:GLY:N	2.80	0.50
53:CC:19:G:H4'	53:CC:20:G:OP1	2.12	0.50
31:DA:976:G:H22	31:DA:1362:C:H2'	1.76	0.50
31:CA:976:G:H5'	31:CA:1358:U:O2'	2.12	0.50
1:BA:1057:A:N1	1:BA:1081:U:C4	2.79	0.50
3:BD:52:ARG:HB2	3:BD:53:PHE:CD2	2.46	0.50
43:CP:3:ARG:HH11	43:CP:7:VAL:HG22	1.75	0.50
1:AA:572:A:H5''	1:AA:573:G:OP2	2.11	0.50
7:BH:125:VAL:HG13	7:BH:126:PRO:HD2	1.94	0.50
40:CM:35:SER:OG	40:CM:73:ASP:HB2	2.12	0.50
1:AA:1026:U:C1'	1:AA:1027:A:O5'	2.46	0.50
31:CA:1399:C:C2	31:CA:1401:G:C5	3.00	0.50
1:AA:881:G:H3'	1:AA:882:G:H4'	1.90	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1138:G:H5'	1:BA:1139:G:OP2	2.12	0.50
27:B5:40:LYS:HE3	27:B5:46:CYS:HB2	1.91	0.50
1:AA:456:C:H5	19:AT:69:TYR:HH	1.57	0.50
31:DA:1238:A:H62	31:DA:1301:U:H3	1.59	0.50
53:CD:50:G:N2	53:CD:67:C:H1'	2.27	0.50
12:AP:18:LYS:O	12:AP:19:GLY:O	2.30	0.50
45:DR:79:ARG:O	45:DR:82:ILE:HD13	2.12	0.50
1:BA:2748:A:N7	1:BA:2754:U:C4	2.78	0.50
41:CN:91:ARG:CG	41:CN:91:ARG:NH1	2.71	0.50
17:A2:4:ILE:HB	17:A2:40:LEU:HB2	1.94	0.50
31:DA:424:G:H2'	31:DA:425:G:C8	2.47	0.50
3:AD:166:GLN:CA	3:AD:166:GLN:NE2	2.71	0.50
17:A2:44:LYS:HD2	17:A2:45:THR:N	2.25	0.50
1:AA:2199:A:H5'	23:AZ:50:ARG:NH2	2.22	0.50
2:AB:37:C:C3'	2:AB:38:C:H5'	2.40	0.50
33:CF:34:LEU:HD22	33:CF:38:ARG:HH11	1.77	0.50
31:DA:1015:A:N6	31:DA:1016:A:C6	2.80	0.50
1:BA:2262:U:O2'	1:BA:2263:C:H5'	2.11	0.50
24:BW:29:LYS:HG2	24:BW:57:ILE:HD13	1.94	0.50
46:DS:21:VAL:HG22	46:DS:33:ILE:CG1	2.41	0.50
33:CF:50:ALA:O	33:CF:70:VAL:HG13	2.12	0.50
31:DA:1216:G:O2'	31:DA:1217:C:H5'	2.11	0.50
5:AF:54:ARG:NH2	5:AF:80:ALA:HB2	2.27	0.50
1:AA:270(G):C:C2	1:AA:270(H):C:C6	3.00	0.50
31:CA:1126:U:H5	31:CA:1127:G:N3	2.10	0.50
1:BA:2740:A:N6	1:BA:2764:A:C8	2.80	0.50
1:BA:581:C:H2'	1:BA:582:G:H8	1.77	0.50
50:CW:92:LEU:O	50:CW:96:GLY:HA3	2.11	0.50
31:CA:1206:G:C6	31:CA:1207:G:C5	2.99	0.50
1:BA:2500:U:H2'	1:BA:2504:U:H5	1.77	0.50
3:BD:133:LEU:HD13	3:BD:173:VAL:CG2	2.42	0.50
1:BA:1716:U:H2'	1:BA:1717:G:H8	1.75	0.50
4:BE:76:ARG:HG2	4:BE:195:LEU:HD13	1.94	0.50
1:BA:33:U:H4'	1:BA:34:C:OP1	2.11	0.50
1:BA:2804:C:O2'	1:BA:2805:G:H5'	2.12	0.50
7:BH:35:VAL:HG11	7:BH:71:LEU:HG	1.94	0.50
1:BA:1945:G:H2'	1:BA:1946:U:H6	1.76	0.50
3:BD:127:VAL:HA	3:BD:193:VAL:HG23	1.94	0.50
12:BP:25:ASP:OD1	12:BP:25:ASP:O	2.30	0.50
1:AA:2404:C:O3'	11:AO:77:ARG:NH2	2.43	0.50
1:BA:1568:G:P	3:BD:63:ARG:HH22	2.34	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BP:33:GLY:O	12:BP:132:VAL:N	2.36	0.50
31:DA:1000:A:O2'	31:DA:1001:G:H5'	2.11	0.50
31:DA:543:C:C2'	31:DA:544:G:H5'	2.41	0.50
31:CA:14:U:H2'	31:CA:16:A:OP2	2.12	0.50
12:BP:78:PRO:O	12:BP:79:LEU:O	2.30	0.50
31:DA:991:U:O2	31:DA:993:G:H8	1.94	0.50
26:B4:26:SER:OG	26:B4:27:THR:N	2.44	0.50
6:BG:4:ASP:OD2	6:BG:9:ARG:NH1	2.39	0.50
31:CA:992:U:OP1	31:CA:992:U:H3'	2.12	0.50
32:DE:185:ILE:HG12	32:DE:185:ILE:O	2.10	0.50
24:BW:15:LYS:HA	24:BW:67:LYS:NZ	2.25	0.50
31:CA:235:C:C5'	47:CT:70:ARG:HG2	2.40	0.50
1:BA:864:G:O6	1:BA:865:C:N4	2.44	0.50
1:BA:867:C:C5	1:BA:868:U:C5	3.00	0.50
21:BV:93:ASP:HA	21:BV:130:PRO:HG2	1.92	0.50
1:AA:922:U:H2'	1:AA:923:C:C6	2.46	0.50
31:DA:264:U:O2'	47:DT:63:ARG:HD3	2.11	0.50
31:CA:1298:C:H4'	31:CA:1299:A:N9	2.27	0.50
31:CA:1333:A:H2'	31:CA:1334:G:O4'	2.12	0.50
31:DA:1034:G:H2'	31:DA:1035:A:C8	2.47	0.50
52:CB:23:A:HO2'	52:CB:24:C:P	2.30	0.50
1:AA:1593:G:H2'	1:AA:1594:G:H8	1.75	0.50
1:BA:1839:G:H2'	1:BA:1839:G:N3	2.26	0.50
1:BA:186:G:H2'	1:BA:187:G:H8	1.77	0.50
31:DA:1365:G:H2'	31:DA:1366:C:O4'	2.11	0.50
3:BD:12:SER:O	3:BD:16:MET:HB2	2.12	0.50
31:CA:940:C:H2'	31:CA:941:G:H8	1.76	0.50
1:AA:1012:U:O4	9:AM:25:ARG:HA	2.12	0.50
1:AA:988:A:C6	25:AX:13:ILE:HG21	2.46	0.50
4:BE:89:ASP:OD1	4:BE:89:ASP:N	2.45	0.50
1:AA:2228:G:OP1	3:AD:261:LYS:NZ	2.35	0.50
9:AM:24:GLY:HA2	9:AM:27:ALA:HB3	1.93	0.50
1:BA:1735:C:C2'	1:BA:1741:C:H5'	2.41	0.50
35:CH:71:LEU:HD11	35:CH:114:GLY:HA3	1.94	0.50
24:AW:32:LEU:HD22	24:AW:36:ARG:NH1	2.26	0.50
31:CA:1011:G:N2	31:CA:1019:C:O2	2.45	0.50
50:CW:16:HIS:O	50:CW:19:SER:HB2	2.10	0.50
10:AN:88:ASN:C	10:AN:88:ASN:OD1	2.49	0.50
52:DB:50:A:C2	52:DB:54:G:C6	3.00	0.50
1:BA:979:G:H3'	1:BA:980:A:C5'	2.41	0.50
1:AA:623:G:H2'	1:AA:624:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:55:LYS:O	6:AG:58:GLN:HB3	2.12	0.50
8:AK:93:THR:OG1	8:AK:96:ASP:OD2	2.29	0.50
1:AA:1079:C:H3'	1:AA:1080:A:H8	1.77	0.50
1:AA:389:G:H22	11:AO:72:PRO:HD3	1.76	0.50
31:DA:1279:A:H5''	31:DA:1280:A:P	2.52	0.50
31:DA:1178:G:C5'	39:DL:93:ARG:HH21	2.25	0.50
6:AG:82:LEU:O	6:AG:83:ARG:O	2.30	0.50
1:BA:1065:U:O2	1:BA:1073:A:N1	2.45	0.50
10:AN:104:ARG:HD3	15:AR:36:GLU:OE2	2.12	0.50
31:CA:1159:U:N3	31:CA:1182:G:C6	2.79	0.50
31:CA:1161:C:C2	31:CA:1177:G:N2	2.80	0.50
32:CE:174:VAL:HG13	32:CE:184:VAL:HG11	1.93	0.50
1:AA:2473:U:C3'	1:AA:2474:C:H5''	2.41	0.50
1:BA:1021:A:H62	1:BA:1141:U:H3	1.60	0.50
30:A8:42:ARG:HG2	30:A8:42:ARG:HH11	1.77	0.50
32:CE:21:ARG:C	32:CE:23:ARG:H	2.14	0.50
1:AA:2689:U:P	1:AA:2719:G:H22	2.35	0.50
1:BA:1044:G:O3'	1:BA:1045:A:H4'	2.12	0.50
1:AA:1535:U:C4	1:AA:1537:C:H1'	2.47	0.50
2:BB:43:C:H4'	6:BG:66:GLN:NE2	2.27	0.50
1:AA:2507:C:C2	1:AA:2508:G:C8	2.99	0.50
37:CJ:15:ASP:OD2	37:CJ:16:LEU:N	2.44	0.50
42:DO:27:LEU:HD23	42:DO:33:ARG:CG	2.39	0.50
16:A1:91:ASP:OD2	16:A1:96:ALA:HB2	2.11	0.50
47:CT:45:HIS:CE1	47:CT:47:PRO:HG3	2.46	0.50
15:BR:13:ARG:N	15:BR:13:ARG:HD3	2.21	0.50
1:BA:1342:A:C2	1:BA:1397:U:N1	2.80	0.50
1:BA:708:C:O2	1:BA:708:C:H2'	2.10	0.50
31:CA:75:C:H2'	31:CA:76:G:O4'	2.12	0.50
42:DO:47:LYS:CB	42:DO:48:PRO:CD	2.90	0.50
1:BA:2116:G:P	1:BA:2165:G:H22	2.33	0.50
1:AA:2080:G:H5'	23:AZ:19:GLN:HG2	1.93	0.50
31:CA:1239:A:H62	31:CA:1299:A:N6	2.05	0.50
1:AA:1416:G:HO2'	1:AA:1417:C:H6	1.60	0.50
32:CE:165:VAL:CG2	32:CE:166:ASP:N	2.73	0.50
31:DA:1382:C:H1'	37:DJ:79:ARG:HH11	1.75	0.50
32:CE:212:GLN:CD	32:CE:235:SER:HB2	2.32	0.50
1:BA:661:C:C1'	11:BO:12:ALA:O	2.58	0.50
14:BQ:107:GLU:H	14:BQ:110:LEU:HG	1.77	0.50
35:DH:19:MET:CE	35:DH:24:ARG:HB3	2.41	0.50
32:DE:8:LYS:HD2	32:DE:11:LEU:HD22	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2329:G:H2'	1:BA:2330:G:C8	2.47	0.50
52:CB:44:G:C6	52:CB:45:U:N3	2.80	0.50
8:AK:9:LEU:O	8:AK:10:GLU:HB3	2.11	0.50
8:AK:114:LEU:HB3	8:AK:116:LEU:HB3	1.93	0.50
11:AO:106:LEU:O	11:AO:106:LEU:HD22	2.12	0.50
8:BK:31:LEU:HD21	8:BK:38:LEU:HD11	1.92	0.50
3:AD:19:ALA:HB3	3:AD:21:PHE:CZ	2.46	0.50
1:BA:1491:G:O2'	3:BD:101:GLU:HB2	2.12	0.50
47:DT:45:HIS:CD2	47:DT:47:PRO:HD3	2.46	0.50
31:CA:804:U:H5''	31:CA:805:C:OP2	2.11	0.50
10:AN:80:ASP:OD2	15:AR:71:GLY:HA3	2.10	0.50
18:BS:57:ASN:O	18:BS:61:ASN:HB2	2.12	0.50
52:DB:9:G:H5'	52:DB:11:U:OP2	2.12	0.50
15:AR:94:ALA:O	15:AR:95:ARG:CB	2.59	0.50
25:BX:10:LYS:NZ	25:BX:15:TYR:OH	2.42	0.50
31:CA:1418:A:C2	31:CA:1483:A:C2	3.00	0.50
1:BA:1686:C:C2'	1:BA:1687:G:H5'	2.42	0.50
1:BA:1401:G:H2'	1:BA:1402:C:H6	1.76	0.50
37:DJ:122:HIS:O	37:DJ:125:MET:HB2	2.12	0.50
31:DA:590:C:O2'	31:DA:591:U:H5'	2.12	0.50
1:AA:1083:U:H6	1:AA:1083:U:H3'	1.76	0.50
17:B2:79:VAL:O	17:B2:80:GLN:O	2.30	0.50
12:AP:77:LYS:HD3	12:AP:81:VAL:HG21	1.94	0.50
1:AA:248:G:H5''	1:AA:386:G:N2	2.26	0.50
11:AO:71:VAL:H	11:AO:72:PRO:HD3	1.77	0.50
31:CA:411:A:H62	31:CA:413:G:N2	2.05	0.50
28:A6:46:HIS:O	28:A6:47:THR:OG1	2.30	0.50
1:BA:1899:G:C2'	1:BA:1900:A:OP2	2.59	0.50
6:AG:70:VAL:CG2	6:AG:87:PRO:HB3	2.41	0.50
1:BA:777:A:C2'	1:BA:778:G:H5'	2.42	0.50
15:AR:41:ARG:NH1	15:AR:43:GLN:HB2	2.27	0.50
31:CA:1157:A:H1'	31:CA:1158:C:N3	2.27	0.50
11:BO:50:ARG:HG3	30:B8:59:LYS:CD	2.35	0.50
53:DD:6:G:H1	53:DD:68:C:H42	1.60	0.50
1:AA:882:G:H1	1:AA:894:C:N4	2.10	0.50
7:AH:154:PRO:O	7:AH:155:SER:HB2	2.11	0.50
12:BP:19:GLY:CA	12:BP:98:LYS:NZ	2.75	0.50
12:BP:21:THR:HG23	12:BP:21:THR:O	2.09	0.50
31:CA:458:C:H2'	31:CA:464:G:C8	2.47	0.50
1:AA:1141:U:OP2	9:AM:63:THR:HG21	2.12	0.50
1:AA:2690:C:H5''	1:AA:2872:G:N2	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:90:U:O2	1:BA:90:U:C2'	2.59	0.50
1:AA:1179:C:C3'	1:AA:1180:C:H5''	2.42	0.50
1:BA:1300:U:H5''	1:BA:1301:A:H5''	1.93	0.50
16:B1:90:VAL:O	16:B1:92:ARG:HB3	2.12	0.50
1:BA:1419:A:N6	1:BA:1421:G:C2	2.80	0.50
1:BA:545:G:N2	1:BA:548:A:H62	2.01	0.50
1:AA:2723:C:OP1	13:A0:3:HIS:CD2	2.50	0.50
1:AA:943:U:OP2	11:AO:36:LYS:CG	2.60	0.50
1:AA:1332:G:H21	1:AA:1610:A:H8	1.59	0.50
31:DA:316:G:C2	31:DA:338:A:C2	3.00	0.50
1:AA:900:A:N3	1:AA:900:A:H2'	2.27	0.50
16:B1:14:HIS:CE1	16:B1:32:PHE:CD1	3.00	0.50
31:DA:265:G:H5'	47:DT:64:PRO:O	2.12	0.50
31:DA:1286:A:H2'	31:DA:1287:A:O5'	2.12	0.50
31:CA:1091:U:O2	31:CA:1093:A:H8	1.95	0.50
1:AA:1513:C:C4	1:AA:1514:U:C5	2.99	0.50
8:AK:7:GLU:HG3	8:AK:8:PRO:HD2	1.94	0.50
31:CA:652:U:H1'	31:CA:653:A:H2	1.74	0.50
36:DI:35:ALA:CB	36:DI:67:MET:HB3	2.42	0.50
11:AO:85:LEU:O	11:AO:88:LEU:HD23	2.12	0.50
7:BH:41:MET:O	7:BH:42:ARG:HB3	2.12	0.50
31:DA:947:G:H2'	31:DA:948:C:C6	2.47	0.50
7:BH:9:ILE:HG22	7:BH:51:ARG:HA	1.94	0.50
42:DO:8:ASN:HD22	47:DT:34:LYS:NZ	2.09	0.50
33:DF:188:LEU:HD12	33:DF:195:VAL:HG11	1.94	0.50
1:BA:2335:A:O2'	1:BA:2336:A:P	2.70	0.50
1:BA:756:C:C2'	1:BA:757:U:H5'	2.42	0.50
11:AO:94:GLU:OE2	11:AO:94:GLU:HA	2.11	0.50
37:CJ:69:VAL:O	37:CJ:69:VAL:CG1	2.60	0.50
31:CA:328:C:H4'	31:CA:329:A:H5'	1.94	0.50
18:AS:86:LEU:HD12	18:AS:87:PRO:HD2	1.93	0.50
8:AK:54:GLN:O	8:AK:58:LEU:N	2.44	0.50
7:BH:26:VAL:HG13	7:BH:27:LYS:N	2.26	0.50
1:AA:116:C:H2'	1:AA:117:G:C8	2.47	0.50
16:A1:44:ASN:HD21	17:A2:75:PHE:H	1.60	0.50
43:DP:32:GLU:O	43:DP:35:GLU:HB3	2.12	0.50
2:BB:28:C:OP1	14:BQ:36:TYR:OH	2.27	0.50
1:AA:394:A:O2'	1:AA:395:U:H5'	2.12	0.50
1:BA:563:G:C6	1:BA:564:C:C4	3.00	0.50
31:DA:186(E):C:C2	31:DA:191(C):G:N2	2.80	0.50
31:CA:679:C:H2'	31:CA:680:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2014:A:HO2'	27:A5:2:ALA:HB2	1.77	0.49
4:AE:51:PHE:O	4:AE:52:LEU:C	2.50	0.49
30:B8:48:PHE:N	30:B8:48:PHE:CD1	2.80	0.49
3:BD:25:THR:C	3:BD:27:THR:N	2.57	0.49
31:DA:1162:C:C2	31:DA:1175:G:C2	2.99	0.49
31:DA:978:A:O2'	31:DA:1322:C:C4	2.65	0.49
5:BF:24:LEU:HD12	5:BF:25:PRO:CD	2.34	0.49
43:CP:84:ILE:HG12	49:CV:66:MET:HG2	1.91	0.49
34:DG:185:PHE:CE2	34:DG:187:ARG:O	2.65	0.49
32:CE:8:LYS:HE3	32:CE:11:LEU:CB	2.27	0.49
31:CA:1401:G:C2	31:CA:1402:C:H1'	2.47	0.49
1:AA:783:A:C2'	1:AA:785:G:OP1	2.60	0.49
1:AA:2275:C:H5'	1:AA:2275:C:C6	2.46	0.49
1:AA:2166:G:C2'	1:AA:2167:U:OP1	2.60	0.49
1:BA:2689:U:H5''	1:BA:2690:C:H5'	1.94	0.49
1:AA:863:A:H2'	1:AA:864:G:H8	1.77	0.49
1:BA:1419:A:N6	1:BA:1421:G:N3	2.60	0.49
1:BA:1359:A:N7	1:BA:1372:U:O4	2.45	0.49
42:DO:27:LEU:O	42:DO:28:LYS:C	2.51	0.49
17:A2:34:GLU:O	17:A2:34:GLU:HG3	2.12	0.49
31:DA:328:C:O2	31:DA:328:C:C2'	2.48	0.49
31:DA:1442:G:N7	31:DA:1446:A:N1	2.59	0.49
1:BA:1458:C:H4'	1:BA:1459:G:O5'	2.12	0.49
22:B3:38:VAL:CG1	22:B3:40:GLN:HG2	2.36	0.49
7:BH:136:ILE:O	7:BH:137:ASP:HB2	2.11	0.49
1:BA:1171:G:O2'	1:BA:1173:G:O5'	2.28	0.49
1:BA:1341:U:O4	19:BT:16:LYS:NZ	2.45	0.49
1:BA:1416:G:H2'	1:BA:1417:C:C5	2.47	0.49
8:AK:110:ASP:HB3	8:AK:112:LYS:O	2.12	0.49
9:AM:18:ALA:HA	9:AM:21:LYS:HG3	1.94	0.49
31:DA:652:U:C5	31:DA:752:G:N3	2.80	0.49
20:AU:42:VAL:CB	20:AU:67:LEU:HD11	2.42	0.49
1:BA:2648:C:H2'	1:BA:2649:U:C6	2.47	0.49
1:AA:2537:U:H2'	1:AA:2538:C:H6	1.73	0.49
12:BP:34:LEU:CB	12:BP:118:LEU:HD22	2.41	0.49
1:AA:598:G:H1'	11:AO:12:ALA:CB	2.41	0.49
31:DA:581:G:OP1	45:DR:61:GLY:HA3	2.12	0.49
31:CA:1106:G:C5	31:CA:1107:C:C5	3.00	0.49
1:BA:1353:A:H4'	3:BD:38:LYS:HE3	1.94	0.49
5:AF:152:GLU:HB2	5:AF:190:GLU:HB2	1.93	0.49
31:DA:596:C:O2	31:DA:596:C:C2'	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1288:A:O2'	31:CA:1289:A:H5'	2.11	0.49
1:AA:2248:C:C2'	1:AA:2249:U:H5'	2.42	0.49
2:BB:70:C:H42	2:BB:106:G:H1	1.59	0.49
1:AA:1931:U:O4'	1:AA:1931:U:O2	2.27	0.49
1:AA:1218:C:H42	1:AA:1231:G:H1	1.59	0.49
42:CO:44:LYS:CG	42:CO:44:LYS:O	2.57	0.49
1:BA:1833:U:H2'	1:BA:1834:U:H6	1.77	0.49
1:BA:686:G:N2	1:BA:788:A:H61	2.09	0.49
31:CA:1406:U:C2'	31:CA:1407:C:H5'	2.42	0.49
31:DA:402:G:C6	31:DA:403:C:C4	3.00	0.49
34:DG:191:ARG:NH1	34:DG:200:GLU:OE1	2.45	0.49
26:A4:13:ARG:HB2	26:A4:30:GLU:HA	1.94	0.49
1:BA:1113:U:H2'	1:BA:1114:G:C8	2.47	0.49
48:CU:32:ARG:NH1	48:CU:65:ILE:HD12	2.27	0.49
1:AA:239:U:H2'	1:AA:240:G:O4'	2.12	0.49
32:DE:21:ARG:HB3	32:DE:39:ILE:HA	1.92	0.49
37:CJ:74:GLU:HG2	37:CJ:91:VAL:HG22	1.94	0.49
27:B5:4:HIS:O	27:B5:5:PRO:O	2.30	0.49
17:B2:76:LYS:CB	17:B2:80:GLN:CG	2.90	0.49
3:AD:31:LYS:HE3	3:AD:102:LYS:HD3	1.94	0.49
4:AE:81:ILE:HG22	4:AE:84:PHE:HB2	1.93	0.49
6:AG:76:SER:OG	6:AG:83:ARG:HA	2.12	0.49
6:AG:91:ARG:C	6:AG:91:ARG:HD2	2.32	0.49
31:DA:999:U:H2'	31:DA:1000:A:C8	2.47	0.49
12:AP:89:ASN:O	12:AP:90:VAL:O	2.30	0.49
23:AZ:87:PRO:O	23:AZ:91:LYS:N	2.43	0.49
31:CA:1530:G:H2'	31:CA:1531:A:C8	2.47	0.49
31:DA:501:C:H2'	31:DA:502:G:C8	2.47	0.49
1:BA:1651:G:OP1	13:B0:40:LYS:HE2	2.11	0.49
19:BT:51:VAL:HG12	19:BT:51:VAL:O	2.11	0.49
1:BA:2067:G:O2'	1:BA:2069:G:H5''	2.13	0.49
1:BA:2211:G:H3'	1:BA:2212:A:C2	2.47	0.49
1:AA:1173:G:H4'	1:AA:1174:A:N1	2.27	0.49
31:DA:1244:C:H2'	31:DA:1245:A:C8	2.47	0.49
2:BB:4:C:H2'	2:BB:5:C:O4'	2.12	0.49
16:B1:98:LEU:C	16:B1:100:VAL:N	2.63	0.49
1:AA:1535:U:OP2	1:AA:1537:C:N4	2.45	0.49
1:AA:861:A:C2	1:AA:917:A:C5	3.01	0.49
1:AA:1578:U:H2'	1:AA:1579:A:H5'	1.94	0.49
50:CW:100:ILE:HG13	50:CW:102:GLY:N	2.15	0.49
4:BE:203:LYS:O	4:BE:204:ALA:CB	2.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BU:87:LYS:O	20:BU:88:LYS:HD3	2.12	0.49
31:CA:269:C:H2'	31:CA:270:A:C8	2.47	0.49
8:BK:7:GLU:CA	8:BK:15:VAL:HG22	2.35	0.49
31:DA:1442:G:N7	31:DA:1446:A:C2	2.80	0.49
31:DA:1068:G:N3	31:DA:1191:A:C2	2.80	0.49
9:AM:120:LEU:HD22	9:AM:120:LEU:C	2.32	0.49
15:AR:107:ASP:OD1	15:AR:107:ASP:N	2.45	0.49
8:AK:140:LEU:HD23	8:AK:140:LEU:N	2.27	0.49
41:DN:103:LEU:HD22	41:DN:103:LEU:N	2.26	0.49
42:CO:15:VAL:HG23	42:CO:16:ARG:N	2.22	0.49
8:BK:76:THR:HA	8:BK:105:HIS:HE1	1.76	0.49
32:CE:187:LEU:HD23	32:CE:201:ILE:O	2.12	0.49
31:DA:1080:A:H5'	35:DH:14:ARG:NH2	2.26	0.49
1:AA:2488:A:O2'	1:AA:2489:G:H5'	2.12	0.49
1:AA:1735:C:O2'	1:AA:1741:C:H5'	2.13	0.49
1:AA:1889:A:H2'	1:AA:1890:A:O4'	2.13	0.49
31:DA:407:G:H1	31:DA:435:C:H42	1.60	0.49
53:CC:2:G:H2'	53:CC:3:C:C6	2.46	0.49
31:CA:376:G:O3'	46:CS:5:ARG:NH1	2.45	0.49
24:BW:25:VAL:HG12	24:BW:60:LEU:HD23	1.95	0.49
31:DA:189:U:C4	47:DT:72:ARG:CZ	2.95	0.49
34:CG:141:ARG:HB3	34:CG:142:PRO:HD2	1.94	0.49
31:DA:838:G:H2'	31:DA:841:U:H5'	1.93	0.49
4:BE:128:SER:O	4:BE:129:HIS:HB2	2.11	0.49
25:BX:13:ILE:N	25:BX:13:ILE:HD12	2.27	0.49
40:CM:80:LYS:HZ2	40:CM:80:LYS:HA	1.76	0.49
1:AA:988:A:H4'	1:AA:1155:A:N1	2.28	0.49
2:AB:94:C:H2'	2:AB:95:U:H6	1.76	0.49
1:BA:270(L):U:O2	8:BK:50:ARG:HD2	2.12	0.49
4:BE:120:TRP:O	4:BE:121:ASN:HB2	2.12	0.49
3:AD:244:ARG:HB2	3:AD:245:PRO:CD	2.42	0.49
1:BA:154:G:H3'	1:BA:155:C:H6	1.77	0.49
7:AH:105:LEU:N	7:AH:105:LEU:HD23	2.27	0.49
1:AA:2127:G:H5'	1:AA:2128:C:OP2	2.11	0.49
5:BF:140:LEU:HD22	5:BF:170:LEU:HD21	1.94	0.49
31:CA:445:G:H1	31:CA:489:C:H42	1.60	0.49
31:DA:1478:C:H2'	31:DA:1479:C:C6	2.47	0.49
15:AR:89:VAL:O	15:AR:89:VAL:HG23	2.12	0.49
1:BA:2090:G:N2	23:BZ:47:GLN:HE22	2.09	0.49
12:AP:4:PRO:HG3	12:AP:71:ASP:HA	1.95	0.49
1:BA:2393:A:H4'	11:BO:62:LEU:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:A5:3:LYS:C	27:A5:4:HIS:O	2.47	0.49
3:AD:65:ILE:HD12	3:AD:66:ASP:N	2.28	0.49
14:BQ:27:SER:CA	14:BQ:88:ASP:CB	2.61	0.49
3:BD:36:PRO:HA	3:BD:62:TYR:O	2.11	0.49
31:DA:1148:U:H2'	31:DA:1149:C:O4'	2.12	0.49
31:DA:1256:A:N6	31:DA:1277:C:H3'	2.26	0.49
39:DL:95:LYS:HZ2	39:DL:96:LEU:HD12	1.77	0.49
11:BO:106:LEU:O	11:BO:107:LYS:O	2.30	0.49
31:DA:1330:U:O4	31:DA:1331:G:C2	2.66	0.49
48:DU:22:VAL:C	48:DU:24:ALA:H	2.15	0.49
11:BO:46:LYS:O	11:BO:47:ASP:O	2.30	0.49
34:DG:14:ARG:NH1	34:DG:14:ARG:HG3	2.27	0.49
31:DA:376:G:O3'	46:DS:5:ARG:NE	2.46	0.49
43:CP:78:ILE:HG22	43:CP:82:MET:HE2	1.93	0.49
31:CA:1394:A:C5	31:CA:1501:C:H4'	2.47	0.49
31:CA:918:A:H2'	31:CA:919:A:C8	2.47	0.49
1:AA:2472:G:H22	1:AA:2477:C:C5'	2.25	0.49
7:AH:153:LYS:HZ2	7:AH:153:LYS:HA	1.76	0.49
21:AV:60:GLU:O	21:AV:61:LEU:HD23	2.12	0.49
1:AA:1042:G:N2	1:AA:1113:U:O2	2.35	0.49
20:BU:95:LYS:HB2	20:BU:100:ALA:HA	1.94	0.49
1:AA:2168:G:C2	1:AA:2170:A:OP2	2.65	0.49
1:AA:1141:U:P	9:AM:63:THR:HG21	2.52	0.49
34:DG:105:VAL:HG21	34:DG:126:ILE:HG13	1.94	0.49
33:DF:35:GLU:O	33:DF:39:ILE:HD13	2.13	0.49
34:CG:4:TYR:CZ	34:CG:5:ILE:O	2.65	0.49
43:DP:80:ARG:HB3	43:DP:80:ARG:NH1	2.27	0.49
5:AF:174:VAL:CG1	5:AF:189:THR:HG21	2.42	0.49
1:BA:1543:A:OP1	1:BA:1543:A:O4'	2.30	0.49
39:DL:125:TYR:CD2	39:DL:125:TYR:C	2.86	0.49
1:BA:2523:G:H5'	1:BA:2523:G:C8	2.38	0.49
31:DA:1285:A:C1'	31:DA:1286:A:OP2	2.58	0.49
52:DB:14:A:N1	52:DB:21:A:N1	2.60	0.49
31:CA:501:C:H1'	31:CA:549:C:H1'	1.94	0.49
32:CE:80:ILE:O	32:CE:80:ILE:HG22	2.13	0.49
1:BA:2341:G:H2'	1:BA:2342:C:C6	2.48	0.49
13:A0:41:ALA:O	13:A0:44:LEU:N	2.45	0.49
13:A0:103:ARG:HH11	18:AS:40:ASN:HD22	1.60	0.49
32:CE:44:LEU:HA	32:CE:47:THR:OG1	2.12	0.49
13:A0:74:LYS:O	13:A0:76:VAL:N	2.44	0.49
39:DL:46:ALA:HA	39:DL:78:LYS:NZ	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BD:108:PRO:HB3	3:BD:143:HIS:CE1	2.45	0.49
7:BH:10:PRO:HG2	7:BH:50:VAL:HG13	1.94	0.49
1:AA:2562:U:H1'	10:AN:23:ARG:HH11	1.76	0.49
1:BA:1763:G:OP1	1:BA:1763:G:O4'	2.30	0.49
1:AA:2246:G:H2'	1:AA:2247:A:H8	1.76	0.49
1:BA:760:G:H2'	1:BA:761:A:O4'	2.11	0.49
9:AM:9:VAL:HG21	9:AM:39:ARG:HH12	1.76	0.49
1:BA:1668:A:C8	1:BA:1674:G:C6	3.00	0.49
1:AA:1705:G:C2'	1:AA:1706:U:H5'	2.42	0.49
1:AA:1382:G:O2'	1:AA:1383:C:H5'	2.13	0.49
1:BA:2818:G:O2'	1:BA:2819:G:H5'	2.11	0.49
1:BA:1956:U:C2'	1:BA:1957:C:H5'	2.42	0.49
1:AA:2760:C:O2'	1:AA:2761:G:H5'	2.12	0.49
1:BA:2686:G:C2	1:BA:2724:C:O2	2.65	0.49
1:BA:2625:G:H2'	1:BA:2626:C:C6	2.47	0.49
22:A3:36:ILE:HD12	22:A3:37:LEU:N	2.27	0.49
24:AW:37:PHE:HA	24:AW:40:SER:HB3	1.93	0.49
31:CA:450:G:N7	31:CA:481:G:C6	2.81	0.49
47:CT:100:LYS:O	47:CT:101:ARG:HB2	2.12	0.49
39:CL:111:ARG:O	39:CL:113:LYS:HD2	2.11	0.49
1:AA:354:G:O2'	1:AA:355:G:H5'	2.12	0.49
30:B8:49:VAL:O	30:B8:50:LEU:O	2.30	0.49
4:AE:51:PHE:CE1	4:AE:52:LEU:HG	2.47	0.49
11:BO:81:GLN:HG3	11:BO:106:LEU:O	2.11	0.49
31:DA:1054:C:O2'	31:DA:1055:A:H5''	2.13	0.49
31:DA:1055:A:N7	31:DA:1206:G:C2	2.81	0.49
31:DA:1057:G:C4	31:DA:1204:A:C2	3.01	0.49
12:BP:35:VAL:HG12	12:BP:102:VAL:HG22	1.92	0.49
28:B6:10:LEU:HD23	30:B8:34:TRP:NE1	2.26	0.49
31:CA:1175:G:N1	31:CA:1176:A:N6	2.60	0.49
31:CA:1125:U:OP2	31:CA:1145:C:N4	2.45	0.49
31:CA:1125:U:O4	40:CM:5:ARG:HD2	2.11	0.49
21:AV:5:LEU:HB3	21:AV:59:LEU:HA	1.94	0.49
32:DE:137:ARG:HH12	32:DE:140:HIS:CB	2.12	0.49
4:BE:92:THR:O	4:BE:95:ILE:HG12	2.11	0.49
20:AU:78:ALA:HB3	20:AU:81:LYS:CE	2.42	0.49
1:BA:811:U:H3'	11:BO:22:GLY:HA2	1.94	0.49
21:BV:58:VAL:O	21:BV:59:LEU:HB2	2.12	0.49
32:DE:169:LYS:O	32:DE:169:LYS:HD3	2.12	0.49
31:DA:453:A:H4'	46:DS:72:ARG:HG3	1.93	0.49
2:BB:40:U:C5	2:BB:43:C:OP2	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1495:A:H1'	1:AA:1579:A:H5''	1.94	0.49
33:DF:164:ARG:HG2	33:DF:165:THR:H	1.77	0.49
16:A1:60:LEU:HD13	16:A1:64:ARG:HD2	1.92	0.49
31:CA:741:G:H2'	31:CA:742:G:O4'	2.12	0.49
22:A3:42:GLY:C	22:A3:57:PHE:HD1	2.15	0.49
1:AA:1396:U:H2'	1:AA:1396:U:O2	2.12	0.49
1:AA:2199:A:C5'	1:AA:2205:C:OP2	2.60	0.49
1:AA:1734:C:C3'	1:AA:1735:C:H5''	2.42	0.49
20:BU:89:PHE:HB2	20:BU:90:LEU:HD23	1.93	0.49
20:BU:20:TYR:HE2	20:BU:42:VAL:H	1.56	0.49
6:AG:178:PHE:HB3	6:AG:180:PHE:CE1	2.47	0.49
31:CA:575:G:C8	31:CA:881:G:N2	2.80	0.49
1:BA:2280:G:H4'	1:BA:2327:A:O4'	2.12	0.49
8:BK:110:ASP:OD2	8:BK:113:ARG:HB2	2.11	0.49
1:AA:1299:G:H5''	1:AA:1300:U:P	2.53	0.49
31:DA:57:G:C6	31:DA:58:C:C4	3.00	0.49
15:BR:98:LYS:HB3	15:BR:100:TYR:CE1	2.48	0.49
31:DA:1218:C:OP2	44:DQ:9:LYS:NZ	2.35	0.49
31:DA:957:U:H1'	31:DA:960:U:C5	2.47	0.49
31:DA:67:C:H2'	31:DA:68:G:H8	1.72	0.49
33:DF:127:ARG:HG2	33:DF:127:ARG:NH1	2.28	0.49
36:DI:97:PHE:CD2	48:DU:65:ILE:HD11	2.48	0.49
19:BT:67:GLY:O	19:BT:69:TYR:N	2.42	0.49
1:BA:521:G:H2'	1:BA:522:G:C8	2.46	0.49
4:BE:111:ARG:HB2	4:BE:160:TYR:O	2.13	0.49
32:DE:132:LYS:HA	32:DE:135:GLN:NE2	2.28	0.49
1:BA:532:A:C8	1:BA:2021:C:C5	3.00	0.49
31:DA:1154:G:H2'	31:DA:1155:G:C8	2.47	0.49
31:DA:1478:C:H2'	31:DA:1479:C:H6	1.76	0.49
15:BR:31:SER:OG	15:BR:85:LYS:HE2	2.12	0.49
1:AA:1657:C:H2'	1:AA:1658:C:C6	2.47	0.49
1:AA:2783:G:H2'	1:AA:2784:C:C6	2.47	0.49
1:BA:2815:C:O2'	27:B5:43:HIS:HD2	1.95	0.49
1:AA:2244:U:H2'	1:AA:2245:U:O4'	2.12	0.49
45:DR:4:THR:OG1	45:DR:7:GLU:HB2	2.13	0.49
16:B1:79:PHE:CE2	16:B1:83:LEU:HD13	2.47	0.49
27:A5:37:LYS:HG3	27:A5:37:LYS:O	2.11	0.49
1:BA:1517:G:H2'	1:BA:1518:C:C6	2.46	0.49
11:BO:61:ARG:HG3	30:B8:27:THR:HG23	1.93	0.49
11:BO:61:ARG:O	11:BO:62:LEU:O	2.30	0.49
17:B2:84:LYS:O	17:B2:85:LYS:O	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1057:A:C8	1:AA:1086:A:C4	3.00	0.49
4:AE:62:PRO:O	4:AE:63:LEU:C	2.51	0.49
1:BA:2638:G:OP1	4:BE:82:ARG:NH2	2.38	0.49
31:DA:1128:C:O2'	31:DA:1129:C:OP1	2.31	0.49
11:BO:81:GLN:CB	11:BO:106:LEU:HD22	2.42	0.49
31:DA:1321:C:C4	31:DA:1322:C:C5	3.00	0.49
40:CM:48:THR:CA	40:CM:62:HIS:HB3	2.29	0.49
31:CA:1331:G:OP2	43:CP:23:TYR:HD2	1.95	0.49
31:CA:1182:G:C4'	31:CA:1183:A:H5'	2.27	0.49
34:DG:32:ALA:HA	34:DG:35:ARG:HD3	1.94	0.49
34:DG:59:ARG:HA	34:DG:59:ARG:HE	1.77	0.49
20:AU:81:LYS:HD3	20:AU:96:ILE:CB	2.41	0.49
1:AA:781:A:C2'	1:AA:782:A:OP2	2.61	0.49
16:B1:90:VAL:HG22	17:B2:39:LEU:CB	2.42	0.49
1:AA:2131:G:C1'	1:AA:2158:A:H62	2.22	0.49
1:BA:2309:A:OP1	1:BA:2309:A:C8	2.66	0.49
6:BG:44:GLY:O	6:BG:47:LYS:HB3	2.13	0.49
1:AA:1332:G:N2	1:AA:1609:A:HO2'	2.07	0.49
33:CF:99:VAL:O	33:CF:99:VAL:HG23	2.12	0.49
31:CA:60:A:N6	31:CA:110:C:N3	2.59	0.49
7:BH:153:LYS:N	7:BH:154:PRO:HD3	2.28	0.49
21:AV:105:VAL:HG22	21:AV:106:GLY:N	2.21	0.49
4:AE:116:VAL:O	4:AE:117:MET:CB	2.53	0.49
21:BV:164:ALA:O	21:BV:165:VAL:HG13	2.12	0.49
1:AA:2439:A:H3'	1:AA:2439:A:P	2.51	0.49
1:BA:2303:G:O2'	6:BG:132:ASN:HB2	2.12	0.49
1:AA:580:C:H2'	1:AA:581:C:H6	1.78	0.49
1:BA:1786:A:H2	1:BA:2606:C:H1'	1.77	0.49
31:CA:575:G:C5	31:CA:881:G:C2	3.01	0.49
1:AA:1906:G:H8	1:AA:1929:G:H2'	1.77	0.49
20:BU:50:ARG:HB3	20:BU:53:PRO:HG3	1.94	0.49
1:BA:2565:A:H5''	1:BA:2566:A:OP2	2.12	0.49
1:BA:805:G:O5'	11:BO:41:ARG:HG2	2.13	0.49
1:AA:526:A:N3	1:AA:2044:C:H1'	2.28	0.49
31:DA:129(A):G:C6	31:DA:188:U:H4'	2.48	0.49
31:DA:949:A:C2	31:DA:1233:G:C4	3.00	0.49
25:AX:8:LEU:HB2	25:AX:28:LEU:HD22	1.94	0.49
1:AA:1466:G:N2	1:AA:1547:C:N3	2.60	0.49
11:AO:138:LEU:C	11:AO:140:ALA:N	2.64	0.49
1:BA:2335:A:C8	1:BA:2337:G:N7	2.81	0.49
1:AA:1850:G:C2	1:AA:1893:C:O2	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:287:U:H2'	31:DA:288:A:C8	2.48	0.49
1:AA:2341:G:H2'	1:AA:2342:C:C6	2.47	0.49
1:BA:794:G:H2'	1:BA:795:C:C6	2.48	0.49
3:AD:134:ARG:HG3	3:AD:135:PHE:CD2	2.47	0.49
1:AA:464:U:H4'	29:A7:5:TRP:CZ3	2.47	0.49
53:CC:24:C:H2'	53:CC:25:U:C6	2.47	0.49
1:AA:1337:G:H2'	1:AA:1338:G:H8	1.78	0.49
21:BV:112:ARG:H	21:BV:112:ARG:HE	1.59	0.49
1:BA:807:U:C2'	1:BA:808:G:O5'	2.60	0.49
1:BA:49:A:H5''	1:BA:50:U:H3'	1.94	0.49
1:BA:593:G:C1'	30:B8:4:MET:HE1	2.43	0.49
1:BA:110:G:C6	1:BA:111:A:N7	2.80	0.49
31:CA:1386:G:O2'	31:CA:1387:G:H5'	2.12	0.49
6:BG:8:LYS:O	6:BG:11:TYR:HB3	2.13	0.49
4:BE:5:LEU:N	4:BE:5:LEU:HD23	2.27	0.49
53:DD:34:U:H5''	53:DD:35:C:OP2	2.12	0.49
13:B0:45:ARG:HA	13:B0:95:THR:HG21	1.94	0.49
3:AD:94:LEU:HD22	3:AD:95:LEU:N	2.26	0.49
5:BF:57:VAL:HG13	5:BF:58:ALA:N	2.27	0.49
17:B2:71:LEU:O	17:B2:72:VAL:O	2.30	0.49
1:AA:1077:A:N3	1:AA:1077:A:H2'	2.27	0.49
1:AA:1085:A:O2'	1:AA:1086:A:N1	2.44	0.49
1:AA:2406:U:N3	11:AO:73:GLY:O	2.23	0.49
3:AD:32:SER:O	3:AD:33:LEU:CB	2.60	0.49
4:BE:36:ARG:CG	4:BE:36:ARG:NH1	2.71	0.49
1:BA:1665:A:H2'	1:BA:1666:G:O4'	2.11	0.49
11:AO:65:ARG:O	11:AO:66:GLY:O	2.30	0.49
39:DL:28:VAL:HA	39:DL:63:ILE:O	2.13	0.49
39:DL:45:ALA:O	39:DL:48:GLU:HB2	2.12	0.49
4:AE:80:GLU:C	4:AE:82:ARG:N	2.66	0.49
31:DA:980:C:H3'	31:DA:981:U:H6	1.78	0.49
31:DA:1326:C:OP1	51:DX:12:LYS:HE2	2.12	0.49
1:AA:2295:C:OP1	14:AQ:10:ARG:NH1	2.45	0.49
1:BA:588:U:H2'	1:BA:589:C:C6	2.48	0.49
33:CF:12:LEU:O	33:CF:14:ILE:N	2.45	0.49
1:BA:2275:C:O2	12:BP:85:LYS:CG	2.61	0.49
31:CA:1162:C:C2	31:CA:1175:G:N2	2.80	0.49
5:BF:123:LEU:HB2	5:BF:192:LEU:HB3	1.93	0.49
5:BF:4:VAL:HA	5:BF:19:GLU:HB3	1.93	0.49
32:CE:69:LEU:HD12	32:CE:70:PHE:N	2.27	0.49
1:AA:2115:G:H5''	1:AA:2166:G:H2'	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1291:G:H2'	31:DA:1292:U:C6	2.47	0.49
7:BH:4:ILE:CG1	7:BH:6:ARG:HG2	2.38	0.49
6:BG:67:LYS:HD2	26:B4:6:HIS:HE2	1.76	0.49
49:DV:23:ASN:HB2	49:DV:27:GLU:OE1	2.13	0.49
39:CL:47:LEU:C	39:CL:49:PRO:HD2	2.33	0.49
31:DA:363:A:OP1	42:DO:33:ARG:HG3	2.13	0.49
1:AA:2427:C:C5'	1:AA:2428:G:OP1	2.53	0.49
1:BA:2298:A:C2	1:BA:2299:G:H1'	2.47	0.49
31:CA:662:G:H2'	31:CA:663:A:H8	1.74	0.49
22:A3:27:GLU:CG	22:A3:68:GLU:HA	2.43	0.49
31:DA:1503:A:C1'	31:DA:1504:G:OP1	2.60	0.49
1:BA:2133:G:C2	1:BA:2157:G:C6	3.01	0.49
1:AA:1015:G:H2'	1:AA:1016:G:H5'	1.95	0.49
1:AA:1735:C:H6	1:AA:1735:C:H5'	1.78	0.49
20:BU:20:TYR:N	20:BU:20:TYR:CD1	2.77	0.49
1:BA:2410:G:C2	1:BA:2411:A:H1'	2.48	0.49
1:AA:583:G:OP2	16:A1:10:ARG:HD2	2.13	0.49
49:DV:28:LYS:CG	49:DV:29:ARG:H	2.25	0.49
1:BA:1786:A:C2	1:BA:2606:C:H1'	2.47	0.49
22:B3:45:PHE:CE2	22:B3:69:PHE:HE2	2.31	0.49
22:A3:83:PRO:O	22:A3:84:LEU:CB	2.61	0.49
35:DH:105:VAL:HB	35:DH:106:PRO:HD3	1.95	0.49
1:BA:1794:U:H2'	1:BA:1795:C:C6	2.48	0.49
1:AA:613:U:O2	1:AA:613:U:O4'	2.28	0.49
48:DU:29:PHE:H	48:DU:29:PHE:HD2	1.59	0.49
21:BV:15:PRO:HB2	21:BV:19:ARG:HH21	1.75	0.49
32:CE:173:ALA:O	32:CE:176:GLU:HB2	2.12	0.49
9:AM:65:LYS:CB	9:AM:69:GLN:HG3	2.42	0.49
48:DU:74:ARG:HD3	48:DU:81:PHE:CE2	2.48	0.49
1:AA:2109:U:H1'	1:AA:2181:G:N2	2.28	0.49
31:DA:418:C:H1'	31:DA:540:G:O2'	2.13	0.49
31:DA:512:U:C2	31:DA:513:C:C5	3.01	0.49
35:CH:144:THR:N	35:CH:147:ASP:OD2	2.41	0.49
1:AA:2521:C:H42	1:AA:2544:G:H1	1.60	0.49
1:BA:1805:U:C2	1:BA:1813:G:N2	2.80	0.49
1:BA:198:C:C2'	1:BA:199:A:H5'	2.43	0.49
1:BA:844:C:C5	1:BA:845:G:C6	3.00	0.49
31:CA:1031:G:C5	31:CA:1032:A:N7	2.80	0.49
1:BA:2884:U:H2'	1:BA:2885:C:H5'	1.94	0.49
37:CJ:18:TYR:CE2	37:CJ:59:LEU:HB2	2.48	0.49
14:AQ:67:ARG:NH1	14:AQ:67:ARG:HB2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:85:VAL:HG11	10:AN:114:ILE:HD12	1.94	0.49
4:BE:53:PRO:HG2	4:BE:75:VAL:HG23	1.94	0.49
3:BD:35:LYS:HD3	3:BD:63:ARG:CA	2.43	0.49
39:DL:96:LEU:HD23	39:DL:102:LEU:HG	1.93	0.49
31:CA:1054:C:HO2'	31:CA:1055:A:P	2.36	0.49
1:BA:2392:A:C8	11:BO:60:MET:CB	2.89	0.49
30:B8:54:GLU:O	30:B8:55:ALA:C	2.51	0.49
11:BO:50:ARG:NH2	11:BO:50:ARG:HG3	2.24	0.49
31:DA:543:C:OP1	34:DG:14:ARG:HD2	2.13	0.49
1:AA:1885:A:H5'	1:AA:1885:A:C8	2.37	0.49
32:CE:70:PHE:HE2	32:CE:163:PHE:HD1	1.61	0.49
4:BE:130:GLY:O	4:BE:131:ALA:O	2.30	0.49
1:AA:2751:G:O2'	1:AA:2752:C:O5'	2.30	0.49
1:BA:1651:G:H2'	1:BA:1652:A:O4'	2.13	0.49
30:A8:33:ASN:HA	30:A8:36:LYS:CE	2.39	0.49
17:B2:5:VAL:HB	17:B2:37:VAL:HG11	1.94	0.49
1:AA:1175:U:O3'	1:AA:1176:G:H4'	2.11	0.49
16:B1:91:ASP:CG	16:B1:96:ALA:HB2	2.32	0.49
1:BA:77:C:H5"	24:BW:10:LEU:HD21	1.94	0.49
35:CH:63:ARG:HA	35:CH:66:MET:CE	2.42	0.49
1:AA:2815:C:H2'	1:AA:2816:C:H6	1.77	0.49
1:BA:709:U:H2'	1:BA:710:G:H8	1.74	0.49
7:AH:86:GLU:CG	7:AH:165:ALA:H	2.26	0.49
31:CA:1298:C:O4'	31:CA:1299:A:C5	2.66	0.49
1:AA:1416:G:H1	1:AA:1582:C:H42	1.59	0.49
30:B8:60:LEU:O	30:B8:61:LEU:HD12	2.13	0.49
3:AD:120:GLY:O	3:AD:123:ALA:CB	2.60	0.49
31:DA:1381:U:C2'	31:DA:1382:C:H5'	2.43	0.49
31:CA:735:C:O2'	31:CA:736:C:H5'	2.13	0.49
22:A3:56:ASP:OD2	22:A3:58:THR:OG1	2.15	0.49
1:AA:299:A:H62	1:AA:300:A:N6	2.10	0.49
32:DE:5:ILE:HD11	32:DE:221:LEU:HD21	1.95	0.49
31:CA:618:C:H5"	31:CA:619:U:C5'	2.43	0.49
1:BA:1475:G:H5'	1:BA:1476:C:OP2	2.12	0.49
1:BA:905:U:H3'	1:BA:906:G:H5"	1.93	0.49
18:AS:36:LEU:HD23	18:AS:36:LEU:N	2.26	0.49
34:DG:119:GLN:HG2	34:DG:123:HIS:HE2	1.78	0.49
1:BA:58:G:N2	1:BA:70:G:C4	2.81	0.49
35:DH:100:VAL:HG12	35:DH:107:ARG:HE	1.76	0.49
1:BA:2833:G:OP1	1:BA:2833:G:C8	2.64	0.49
32:DE:84:GLU:O	32:DE:219:VAL:HG21	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BG:28:VAL:O	6:BG:31:VAL:HG12	2.13	0.49
1:AA:1458:C:C5'	1:AA:1459:G:H5'	2.43	0.49
33:DF:67:THR:HG23	33:DF:102:ASN:HB2	1.95	0.49
21:AV:26:GLY:HA3	21:AV:86:VAL:O	2.13	0.49
33:DF:54:ARG:HD2	33:DF:69:HIS:CD2	2.47	0.49
1:BA:491:G:H2'	1:BA:492:A:C8	2.47	0.49
22:A3:36:ILE:HD12	22:A3:36:ILE:C	2.32	0.49
16:A1:38:THR:O	16:A1:41:ALA:HB3	2.13	0.49
41:CN:87:THR:HG22	41:CN:88:GLY:H	1.77	0.49
1:AA:2600:A:H2'	1:AA:2601:C:C6	2.48	0.49
1:BA:1101:U:H2'	1:BA:1102:C:C6	2.47	0.49
31:CA:45:U:H2'	31:CA:46:G:C8	2.48	0.49
42:CO:4:ILE:CD1	47:CT:32:TYR:HB3	2.43	0.49
1:BA:496:G:C2'	1:BA:497:A:H5'	2.43	0.49
1:AA:1502:C:O2'	1:AA:1503:U:H5'	2.13	0.49
52:CB:56:G:H2'	52:CB:57:C:C6	2.48	0.49
1:AA:412:A:N3	1:AA:412:A:H2'	2.27	0.49
1:AA:425:G:H2'	1:AA:426:C:H6	1.76	0.49
1:BA:846:C:C4	1:BA:930:U:C4	3.01	0.49
6:AG:83:ARG:HG3	6:AG:86:MET:HE2	1.95	0.49
51:DX:6:ARG:O	51:DX:12:LYS:HG2	2.12	0.49
12:BP:64:ILE:CD1	12:BP:106:VAL:HG11	2.39	0.49
53:DC:18:C:O2'	53:DC:18:C:O2	2.31	0.49
33:CF:6:HIS:ND1	44:CQ:49:HIS:HB3	2.28	0.49
1:AA:2315:G:OP1	6:AG:36:LYS:NZ	2.46	0.49
4:AE:119:ARG:HH11	4:AE:119:ARG:CG	1.97	0.49
31:CA:1162:C:C2	31:CA:1175:G:C2	3.01	0.49
1:BA:2415:G:O3'	11:BO:66:GLY:CA	2.53	0.49
15:BR:45:PHE:CD2	15:BR:45:PHE:C	2.86	0.49
53:DD:56:U:O4	53:DD:58:A:H5''	2.13	0.49
32:CE:68:ILE:O	32:CE:91:PRO:HD2	2.12	0.49
31:CA:922:G:C6	31:CA:923:A:C6	3.01	0.49
31:CA:1004:A:P	31:CA:1025:U:O4	2.70	0.49
26:A4:12:ALA:HB3	26:A4:24:THR:HB	1.93	0.49
1:BA:1012:U:C2	9:BM:25:ARG:NH1	2.80	0.49
21:AV:5:LEU:HD13	21:AV:5:LEU:O	2.13	0.49
11:BO:110:TYR:O	11:BO:111:ARG:O	2.30	0.49
34:CG:13:ARG:CG	34:CG:14:ARG:N	2.73	0.49
14:BQ:86:ALA:O	14:BQ:87:PHE:CB	2.49	0.49
31:DA:279:A:H5'	31:DA:281:G:O4'	2.12	0.49
31:DA:632:A:C8	31:DA:632:A:OP2	2.63	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:40:VAL:CG2	42:CO:90:LEU:HD22	2.42	0.49
9:AM:28:THR:HA	9:AM:106:MET:HE2	1.95	0.49
1:BA:296:C:C2'	1:BA:297:C:H5'	2.43	0.49
1:AA:1312:U:O2'	1:AA:1313:U:OP2	2.23	0.49
1:BA:870:A:C2	1:BA:908:C:C2	3.00	0.49
16:A1:112:ARG:CG	16:A1:112:ARG:NH1	2.59	0.49
17:A2:46:VAL:HG13	17:A2:46:VAL:O	2.12	0.49
11:AO:39:LYS:HB2	11:AO:45:LEU:CD2	2.43	0.49
31:DA:1381:U:H2'	31:DA:1381:U:O2	2.11	0.49
45:DR:39:LEU:CD1	45:DR:56:LEU:HB2	2.43	0.49
31:CA:39:G:N7	31:CA:547:A:C8	2.81	0.49
31:CA:1454:G:H2'	31:CA:1455:G:C8	2.48	0.49
31:CA:674:G:H2'	31:CA:675:A:H8	1.78	0.49
6:BG:112:PRO:HG2	26:B4:37:SER:OG	2.13	0.49
52:DB:77:C:N4	52:DB:78:C:N4	2.60	0.49
46:DS:55:ARG:HA	46:DS:55:ARG:HE	1.78	0.49
31:CA:1084:G:OP1	31:CA:1086:U:C2	2.65	0.49
11:AO:57:THR:C	11:AO:59:LEU:N	2.61	0.49
43:DP:102:ARG:HD3	43:DP:105:THR:HG23	1.94	0.49
31:CA:568:G:H2'	31:CA:568:G:N3	2.27	0.49
39:DL:78:LYS:HB2	39:DL:78:LYS:HZ3	1.77	0.49
1:AA:1464:C:O2'	1:AA:1528:A:H8	1.95	0.49
31:CA:186(C):G:O6	31:CA:191(E):G:C6	2.66	0.49
39:DL:111:ARG:HG2	39:DL:112:LYS:N	2.27	0.49
1:BA:2093:G:O5'	8:BK:24:GLY:HA3	2.13	0.49
1:AA:181:A:C2	1:AA:435:C:C5	3.00	0.49
31:DA:1509:C:H2'	31:DA:1510:U:O4'	2.12	0.49
1:BA:2842:G:O2'	1:BA:2843:G:H5'	2.12	0.49
43:CP:45:VAL:O	43:CP:48:LEU:HD22	2.12	0.49
1:AA:769:G:O2'	1:AA:770:G:H5'	2.13	0.49
1:BA:1765:C:H2'	1:BA:1766:U:H6	1.78	0.49
1:AA:1888:G:H5''	1:AA:1888:G:N3	2.28	0.49
10:AN:71:ARG:HD3	10:AN:105:GLU:OE2	2.12	0.49
17:B2:85:LYS:C	17:B2:87:HIS:N	2.66	0.49
1:AA:2790:A:H2	1:AA:2894:G:C5'	2.26	0.49
3:BD:35:LYS:CG	3:BD:64:ILE:HG23	2.43	0.49
1:BA:574:C:N3	4:BE:145:LYS:NZ	2.57	0.49
30:A8:52:LYS:H	30:A8:53:PRO:CD	2.23	0.49
12:BP:60:ARG:HG3	12:BP:60:ARG:O	2.13	0.49
31:CA:1368:G:OP1	40:CM:62:HIS:HE1	1.96	0.49
31:CA:346:G:H2'	31:CA:346:G:N3	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:7:VAL:HG22	32:CE:8:LYS:O	2.13	0.49
1:BA:2138:C:C2	1:BA:2154:G:N2	2.81	0.49
31:CA:559:A:N3	31:CA:559:A:H2'	2.27	0.49
1:BA:90:U:H2'	1:BA:90:U:O2	2.12	0.49
1:AA:1405:U:H2'	1:AA:1406:U:C6	2.48	0.49
1:AA:1167:U:H2'	1:AA:1168:G:C8	2.47	0.49
1:AA:654(M):C:C3'	1:AA:654(N):G:C8	2.96	0.49
34:CG:70:ILE:HG23	34:CG:75:PHE:HB2	1.95	0.49
31:CA:1347:G:H22	31:CA:1374:A:P	2.35	0.49
1:BA:864:G:C6	1:BA:865:C:C4	3.00	0.49
31:DA:465:A:N6	31:DA:467:G:N1	2.61	0.49
1:BA:1601:G:C6	1:BA:1602:U:C4	3.00	0.49
7:BH:149:ARG:O	7:BH:152:ARG:HA	2.12	0.49
22:A3:40:GLN:NE2	22:A3:44:ARG:H	2.11	0.49
23:AZ:80:LEU:H	23:AZ:80:LEU:HD22	1.76	0.49
31:DA:1372:U:H2'	31:DA:1373:G:O4'	2.13	0.49
12:AP:20:ALA:O	12:AP:21:THR:CB	2.60	0.49
40:CM:45:ARG:HD3	44:CQ:36:PHE:CE2	2.48	0.49
31:CA:221:C:H2'	31:CA:222:U:H6	1.77	0.49
19:AT:57:LEU:HD12	19:AT:78:LYS:HB2	1.90	0.49
38:CK:4:ASP:CG	38:CK:85:ARG:HH11	2.15	0.49
31:DA:413:G:C2'	31:DA:428:G:H22	2.26	0.49
4:AE:64:LYS:C	4:AE:66:HIS:H	2.16	0.49
1:AA:299:A:C5	1:AA:300:A:C6	3.00	0.49
32:DE:6:THR:OG1	32:DE:7:VAL:N	2.44	0.49
15:AR:23:ARG:HG3	15:AR:120:ARG:NH1	2.27	0.49
31:DA:818:G:C2	31:DA:820:U:O2'	2.66	0.49
37:DJ:149:ARG:O	37:DJ:149:ARG:HG2	2.13	0.49
31:CA:1164:G:H2'	31:CA:1165:C:H6	1.78	0.49
24:AW:41:ILE:HD11	24:AW:44:LEU:HD12	1.95	0.49
24:AW:42:GLY:C	24:AW:44:LEU:N	2.66	0.49
1:BA:2610:C:C4'	1:BA:2611:U:OP2	2.60	0.49
34:DG:119:GLN:O	34:DG:123:HIS:HD2	1.96	0.49
1:BA:1380:G:N2	1:BA:1570:A:C2	2.80	0.49
2:BB:110:G:H2'	2:BB:111:U:O4'	2.12	0.49
31:DA:194:C:C2'	31:DA:195:A:H5''	2.43	0.49
21:AV:87:ASP:OD1	21:AV:87:ASP:N	2.45	0.49
1:AA:2121:G:H2'	1:AA:2122:U:O4'	2.12	0.49
47:DT:87:LYS:O	47:DT:91:ARG:HG3	2.12	0.49
31:CA:1429:C:H2'	31:CA:1430:C:C6	2.48	0.49
34:CG:53:ASP:OD2	34:CG:57:ARG:NH1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:777:A:H2	41:DN:119:CYS:HB3	1.77	0.49
31:DA:278:G:O4'	31:DA:282:A:H1'	2.13	0.49
31:CA:864:A:H3'	31:CA:865:A:C8	2.48	0.49
1:AA:2628:C:O2'	1:AA:2781:A:H2'	2.12	0.49
31:CA:1495:U:H2'	31:CA:1496:C:C6	2.48	0.49
37:CJ:141:VAL:HG12	37:CJ:142:GLU:N	2.28	0.49
1:AA:2015:A:O4'	27:A5:2:ALA:CB	2.61	0.49
17:B2:76:LYS:CG	17:B2:80:GLN:CB	2.81	0.49
12:BP:87:LYS:O	12:BP:88:GLY:O	2.30	0.49
31:DA:1126:U:O2'	31:DA:1127:G:OP1	2.30	0.49
53:CC:20:G:C4	53:CC:58:A:H2	2.31	0.49
53:CC:20:G:N3	53:CC:58:A:N3	2.61	0.49
31:DA:973:G:N3	40:DM:55:LYS:CE	2.76	0.49
40:DM:50:ILE:HG23	40:DM:57:LYS:HA	1.93	0.49
12:BP:66:ILE:O	12:BP:67:ARG:CG	2.61	0.49
14:AQ:107:GLU:O	14:AQ:107:GLU:HG3	2.13	0.49
34:DG:24:GLU:O	34:DG:27:TYR:N	2.44	0.49
45:DR:17:ARG:NH1	45:DR:17:ARG:CG	2.59	0.49
1:BA:2168:G:C6	1:BA:2171:A:N1	2.81	0.49
1:BA:1012:U:O2	1:BA:1143:A:C2	2.66	0.49
1:BA:85:G:P	20:BU:30:VAL:HB	2.53	0.49
13:A0:97:VAL:HA	13:A0:113:LEU:O	2.13	0.49
12:BP:76:LYS:O	12:BP:77:LYS:O	2.31	0.49
1:AA:784:A:H5'	1:AA:785:G:OP1	2.13	0.49
16:B1:102:GLU:O	16:B1:105:VAL:HG23	2.12	0.49
1:BA:2872:G:C2	1:BA:2873:A:N6	2.81	0.49
1:AA:1533:C:C5'	1:AA:1534:G:OP2	2.60	0.49
2:BB:43:C:C4'	6:BG:66:GLN:NE2	2.76	0.49
6:BG:67:LYS:H	26:B4:6:HIS:HE2	1.60	0.49
1:AA:1480:G:C5	1:AA:1482:U:N3	2.81	0.49
31:CA:186(F):C:H2'	31:CA:187:C:O4'	2.13	0.49
31:DA:468:A:C8	31:DA:474:G:C8	3.01	0.49
1:AA:856:C:HO2'	1:AA:857:C:P	2.36	0.49
1:BA:2467:C:H4'	12:BP:123:HIS:CG	2.48	0.49
3:AD:123:ALA:HB1	3:AD:131:LEU:CG	2.43	0.49
31:CA:501:C:H2'	31:CA:502:G:C8	2.48	0.49
27:A5:6:VAL:HG13	27:A5:7:PRO:HD2	1.95	0.49
33:CF:34:LEU:HD21	33:CF:38:ARG:NH1	2.25	0.49
32:DE:5:ILE:HD12	32:DE:59:GLU:CD	2.33	0.49
32:DE:7:VAL:HG22	32:DE:8:LYS:N	2.24	0.49
38:CK:109:ILE:HD11	38:CK:120:THR:CG2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CC:2:G:N3	53:CC:2:G:H2'	2.27	0.49
1:BA:311:A:C6	1:BA:328:U:C4	3.01	0.49
1:BA:1011:G:OP1	1:BA:1011:G:H4'	2.13	0.49
11:AO:56:SER:O	11:AO:57:THR:O	2.30	0.49
45:CR:18:PHE:O	45:CR:18:PHE:CD1	2.66	0.49
46:CS:19:ILE:HD11	46:CS:73:LEU:HD12	1.95	0.49
23:BZ:11:ARG:HB2	23:BZ:12:PRO:CD	2.41	0.49
1:BA:2258:C:H4'	1:BA:2259:G:OP2	2.12	0.49
1:BA:603:A:C2	1:BA:655:A:C2	3.01	0.49
1:BA:1346:G:C4	1:BA:1347:G:C8	3.01	0.49
1:BA:1228:G:OP1	16:B1:13:LYS:HG2	2.13	0.49
3:BD:135:PHE:CE2	34:CG:167:GLY:HA2	2.48	0.49
35:DH:129:ILE:O	35:DH:132:ALA:HB3	2.13	0.49
1:BA:1050:A:C4	1:BA:2751:G:N2	2.81	0.49
1:AA:980:A:C6	1:AA:981:A:N1	2.81	0.49
31:CA:1221:G:H4'	49:CV:77:THR:HG21	1.95	0.49
31:DA:287:U:O2'	31:DA:288:A:H5'	2.12	0.49
31:DA:219:C:C4	31:DA:220:G:N7	2.81	0.49
44:CQ:2:ALA:HB1	44:CQ:6:LEU:CD1	2.43	0.49
31:CA:328:C:O2	31:CA:328:C:H2'	2.11	0.49
1:BA:2693:A:H2'	1:BA:2694:G:H8	1.78	0.49
1:BA:2036:C:C2'	1:BA:2037:G:O5'	2.61	0.49
1:AA:1442:G:C2	1:AA:1550:C:O2	2.66	0.49
7:BH:130:ARG:HB3	7:BH:130:ARG:CZ	2.43	0.49
1:AA:466:A:N3	1:AA:683:C:H1'	2.28	0.49
40:DM:6:ILE:HG22	40:DM:98:ILE:HG23	1.93	0.49
1:BA:1945:G:H2'	1:BA:1946:U:C6	2.48	0.49
1:BA:198:C:O2'	1:BA:199:A:H5'	2.13	0.49
1:BA:360:G:O2'	1:BA:361:G:H5'	2.13	0.49
1:BA:1368:G:O2'	1:BA:1369:G:H5'	2.13	0.49
1:BA:1818:U:H2'	3:BD:157:ARG:HG3	1.95	0.49
1:BA:2445:G:C2'	1:BA:2446:G:H5'	2.43	0.49
31:DA:913:A:H1'	31:DA:914:A:OP2	2.13	0.49
1:BA:2704:C:H2'	1:BA:2705:A:O4'	2.13	0.49
1:BA:399:G:O6	1:BA:400:G:C2	2.66	0.49
10:BN:79:PHE:CD1	10:BN:79:PHE:N	2.81	0.49
1:BA:654(J):A:H2'	1:BA:654(J):A:N3	2.28	0.49
1:BA:1471:A:N3	1:BA:1471:A:H2'	2.27	0.49
33:CF:23:TYR:C	33:CF:23:TYR:CD2	2.86	0.49
1:BA:1999:C:H5''	1:BA:2723:C:O2'	2.12	0.49
31:DA:768:A:C5	31:DA:769:G:C8	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2547:U:O2'	1:BA:2548:G:H5'	2.13	0.49
15:AR:31:SER:OG	15:AR:85:LYS:HE2	2.13	0.49
44:CQ:15:LYS:HD2	44:CQ:16:PHE:CE2	2.48	0.49
35:DH:87:SER:HB3	35:DH:125:SER:O	2.12	0.49
17:B2:73:SER:CB	17:B2:83:ARG:O	2.61	0.48
11:AO:71:VAL:H	11:AO:72:PRO:CD	2.25	0.48
4:AE:52:LEU:O	4:AE:53:PRO:O	2.31	0.48
4:AE:4:ILE:CD1	4:AE:28:ALA:HB1	2.40	0.48
1:BA:1089:G:H5''	1:BA:1090:U:OP1	2.13	0.48
4:BE:70:ALA:C	4:BE:72:VAL:H	2.15	0.48
31:CA:1305:G:H5''	51:CX:4:GLY:CA	2.42	0.48
30:B8:59:LYS:HE3	30:B8:59:LYS:HB2	1.58	0.48
34:DG:8:VAL:O	34:DG:10:ARG:N	2.46	0.48
31:CA:51:A:C2	31:CA:353:A:N1	2.80	0.48
6:AG:101:ILE:HD13	6:AG:102:PHE:N	2.27	0.48
40:DM:34:VAL:HG22	40:DM:74:ILE:HG22	1.95	0.48
12:BP:79:LEU:HD13	12:BP:80:GLU:OE2	2.13	0.48
1:AA:1021:A:H8	1:AA:1022:G:H5''	1.77	0.48
31:DA:1298:C:C5	37:DJ:114:ARG:HD2	2.48	0.48
11:BO:21:ARG:O	11:BO:22:GLY:O	2.30	0.48
50:CW:26:ASN:HB2	50:CW:71:THR:CG2	2.41	0.48
2:BB:40:U:H1'	2:BB:46:A:N1	2.27	0.48
12:AP:109:VAL:HG13	12:AP:113:GLN:HB3	1.94	0.48
39:CL:79:LEU:HD23	39:CL:101:PHE:O	2.13	0.48
4:BE:204:ALA:O	4:BE:205:ALA:CB	2.60	0.48
4:BE:204:ALA:O	4:BE:205:ALA:HB3	2.13	0.48
17:A2:5:VAL:O	17:A2:11:GLN:HA	2.13	0.48
47:CT:52:LYS:CE	47:CT:79:SER:OG	2.56	0.48
1:AA:480:A:C2'	1:AA:481:G:OP1	2.61	0.48
17:B2:41:GLY:HA3	17:B2:46:VAL:HG11	1.94	0.48
31:DA:350:G:C6	31:DA:351:G:O6	2.66	0.48
3:AD:28:GLU:O	3:AD:29:PRO:C	2.50	0.48
52:CB:34:U:O2	52:CB:36:A:C8	2.66	0.48
37:DJ:86:GLN:NE2	53:DD:32:G:H21	2.10	0.48
42:DO:40:VAL:HG21	42:DO:78:GLN:C	2.34	0.48
20:BU:42:VAL:HG13	20:BU:65:ALA:O	2.13	0.48
1:AA:299:A:N7	1:AA:300:A:C6	2.81	0.48
12:AP:133:ARG:O	12:AP:134:ARG:HB2	2.13	0.48
33:DF:70:VAL:HG12	33:DF:72:LYS:H	1.77	0.48
8:AK:78:THR:HG23	8:AK:141:LYS:HZ3	1.74	0.48
41:CN:54:ARG:NH2	53:CD:40:C:O3'	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DQ:4:LYS:O	44:DQ:7:ILE:HG12	2.12	0.48
43:CP:39:ILE:HG23	43:CP:52:GLU:OE2	2.13	0.48
25:BX:11:SER:HB3	25:BX:13:ILE:HD13	1.95	0.48
6:BG:21:ARG:NH1	6:BG:21:ARG:HG2	2.27	0.48
1:BA:1223:C:C2'	1:BA:1224:G:H5'	2.43	0.48
1:AA:2109:U:H5''	1:AA:2110:G:OP2	2.12	0.48
44:DQ:45:ARG:HH11	44:DQ:45:ARG:HG3	1.78	0.48
1:AA:65:C:H2'	1:AA:66:C:C6	2.48	0.48
42:CO:59:SER:C	42:CO:61:TYR:H	2.16	0.48
42:CO:67:ILE:HG12	42:CO:97:ILE:HD12	1.94	0.48
1:BA:282:A:C6	1:BA:284:U:C2	3.01	0.48
1:AA:280:C:C2'	1:AA:281:G:H5'	2.43	0.48
1:AA:459:U:H2'	1:AA:460:A:H8	1.78	0.48
49:DV:51:VAL:O	49:DV:58:VAL:HG22	2.13	0.48
1:BA:1959:G:O4'	31:DA:1418:A:H1'	2.13	0.48
23:AZ:64:ALA:HA	23:AZ:67:ILE:HG13	1.95	0.48
31:CA:1521:G:H2'	31:CA:1522:U:C6	2.48	0.48
1:BA:1952:A:C2	10:BN:22:ILE:HG23	2.47	0.48
1:BA:1642:G:C2'	1:BA:1643:G:H5'	2.43	0.48
1:AA:1488:G:C6	1:AA:1489:U:C4	3.01	0.48
43:DP:96:LEU:HB3	43:DP:97:PRO:HD2	1.95	0.48
31:DA:1460:A:H2'	31:DA:1461:G:O4'	2.12	0.48
1:AA:270(D):C:O2	1:AA:270(W):G:C2	2.66	0.48
1:BA:389:G:H22	11:BO:72:PRO:CD	2.25	0.48
1:BA:389:G:N2	11:BO:71:VAL:HG12	2.29	0.48
1:AA:2406:U:O4	11:AO:70:GLN:CB	2.52	0.48
11:AO:61:ARG:O	11:AO:62:LEU:O	2.30	0.48
39:DL:55:ALA:HB1	39:DL:59:PHE:CE1	2.48	0.48
31:DA:1206:G:C4	31:DA:1207:G:C8	3.01	0.48
1:BA:2372:G:O4'	28:B6:46:HIS:HE1	1.95	0.48
31:DA:1004:A:C8	31:DA:1036:G:N2	2.71	0.48
2:BB:74:U:C3'	2:BB:75:G:H5''	2.42	0.48
31:DA:169:C:C5'	31:DA:169:C:H6	2.26	0.48
31:CA:1149:C:H2'	31:CA:1150:U:C6	2.48	0.48
11:AO:9:ASN:CB	11:AO:10:PRO:CD	2.76	0.48
1:BA:2112:G:C4	1:BA:2169:A:N6	2.81	0.48
31:CA:923:A:H2'	31:CA:924:C:C6	2.49	0.48
1:AA:608:A:C4	1:AA:621:A:C6	3.00	0.48
1:BA:1005:C:O2	1:BA:1143:A:C6	2.66	0.48
21:AV:63:ASP:O	21:AV:63:ASP:OD1	2.31	0.48
1:AA:2730:C:O2'	1:AA:2731:G:H5'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BP:19:GLY:N	12:BP:98:LYS:NZ	2.55	0.48
1:BA:674:G:O2'	5:BF:74:ARG:CG	2.61	0.48
37:DJ:78:ARG:NH1	37:DJ:80:VAL:HB	2.28	0.48
11:BO:36:LYS:HB3	11:BO:37:GLY:H	1.46	0.48
32:CE:204:ASN:ND2	32:CE:206:ASP:N	2.51	0.48
1:AA:197:A:N6	1:AA:2430:A:H2'	2.29	0.48
2:BB:42:C:O2'	6:BG:66:GLN:HG2	2.13	0.48
1:AA:1797:C:C2'	1:AA:1798:U:H5'	2.43	0.48
32:DE:92:TYR:HE2	32:DE:151:GLY:H	1.59	0.48
1:AA:1208:C:C2	1:AA:1209:G:C8	3.00	0.48
1:AA:822:U:O2	1:AA:822:U:H2'	2.13	0.48
1:BA:654(A):A:C2	1:BA:654(T):A:N1	2.81	0.48
5:AF:129:PHE:O	5:AF:130:ALA:HB3	2.13	0.48
6:AG:63:ILE:HD12	6:AG:141:PHE:CD2	2.48	0.48
1:AA:1403:C:C5'	1:AA:1471:A:H1'	2.44	0.48
31:CA:142:G:C6	31:CA:143:A:C6	3.00	0.48
31:CA:198:G:C5	31:CA:220:G:C2	3.02	0.48
8:BK:76:THR:HG23	8:BK:77:LEU:N	2.25	0.48
31:CA:1258:G:O2'	31:CA:1259:C:H5'	2.12	0.48
31:CA:622:A:C8	31:CA:623:C:C6	3.00	0.48
53:DD:41:C:O2'	53:DD:42:C:H5'	2.13	0.48
5:AF:136:THR:O	5:AF:140:LEU:HB2	2.11	0.48
1:AA:1279:G:N2	1:AA:1292:U:C2	2.81	0.48
1:AA:695:G:OP1	1:AA:1380:G:O2'	2.31	0.48
1:BA:878:A:C6	1:BA:900:A:N7	2.81	0.48
1:BA:1483:G:C2	1:BA:1484:G:C8	3.01	0.48
11:AO:52:GLU:OE1	11:AO:55:ARG:NE	2.45	0.48
1:AA:1152:C:O2'	1:AA:1153:C:H5'	2.14	0.48
32:DE:118:LEU:HD13	32:DE:142:LEU:HB2	1.95	0.48
1:AA:26:G:H1'	1:AA:515:A:H61	1.77	0.48
25:AX:8:LEU:HD22	25:AX:31:LEU:CD2	2.43	0.48
12:AP:61:GLY:O	12:AP:62:GLY:O	2.30	0.48
1:BA:2590:A:OP2	3:BD:237:GLU:HB3	2.13	0.48
8:AK:143:SER:HB3	8:AK:144:VAL:HG12	1.95	0.48
13:A0:94:TYR:N	13:A0:94:TYR:CD2	2.79	0.48
1:BA:1163:G:H2'	1:BA:1164:G:H8	1.78	0.48
14:BQ:25:ARG:CZ	14:BQ:40:ILE:HD12	2.43	0.48
1:AA:697:C:C2	1:AA:698:C:C5	3.01	0.48
4:BE:120:TRP:CE3	4:BE:155:LYS:HD3	2.48	0.48
31:DA:390:C:H2'	31:DA:391:G:C8	2.47	0.48
31:DA:370:C:H42	31:DA:391:G:H1	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1429:C:H2'	31:CA:1430:C:H6	1.76	0.48
20:AU:12:THR:OG1	20:AU:26:LYS:HE2	2.12	0.48
1:BA:2855:C:H2'	1:BA:2856:C:H6	1.78	0.48
53:CC:41:C:O2'	53:CC:42:C:H5'	2.12	0.48
33:CF:27:LYS:HA	33:CF:27:LYS:NZ	2.28	0.48
5:AF:179:GLU:CD	5:AF:179:GLU:H	2.16	0.48
25:AX:3:ARG:O	25:AX:59:VAL:HG12	2.12	0.48
31:CA:1410:G:H2'	31:CA:1411:C:C6	2.48	0.48
1:BA:1520:U:H2'	1:BA:1521:G:O4'	2.13	0.48
1:BA:430:G:H5''	1:BA:431:U:OP2	2.12	0.48
7:BH:37:VAL:HG22	7:BH:38:SER:H	1.78	0.48
1:AA:818:G:H4'	1:AA:838:C:O3'	2.12	0.48
1:AA:2015:A:C2'	27:A5:2:ALA:HA	2.37	0.48
1:AA:1061:U:H1'	1:AA:1070:A:C2	2.48	0.48
1:BA:850:C:O2'	1:BA:851:U:H5'	2.13	0.48
31:DA:1130:A:O5'	31:DA:1131:G:OP2	2.30	0.48
31:DA:1223:C:P	31:DA:1224:G:H2'	2.54	0.48
53:DC:60:A:H2'	53:DC:61:U:H5'	1.96	0.48
1:BA:1059:G:H5''	1:BA:1060:U:H2'	1.96	0.48
31:CA:1159:U:C2	31:CA:1182:G:C2	3.01	0.48
15:AR:58:ASN:O	15:AR:60:THR:HG23	2.14	0.48
1:AA:2575:C:H5'	4:AE:144:ARG:HG2	1.95	0.48
31:CA:1128:C:O2'	31:CA:1130:A:C8	2.41	0.48
32:CE:7:VAL:HB	32:CE:217:ARG:NH2	2.23	0.48
1:BA:2136:C:H2'	1:BA:2137:C:C6	2.49	0.48
13:A0:104:ARG:HB3	13:A0:107:ASP:OD2	2.13	0.48
7:AH:59:ARG:NH1	7:AH:59:ARG:HG3	2.06	0.48
1:BA:66:C:C2'	1:BA:67:U:H5'	2.43	0.48
1:BA:74:A:O5'	1:BA:74:A:C8	2.67	0.48
1:BA:90:U:O2'	1:BA:91:A:H5''	2.12	0.48
31:DA:992:U:C1'	31:DA:993:G:OP2	2.61	0.48
31:CA:872:A:C2	31:CA:874:G:C6	3.01	0.48
6:BG:73:ALA:HB2	6:BG:82:LEU:HD21	1.95	0.48
1:BA:528:A:C8	1:BA:528:A:H3'	2.47	0.48
1:AA:654(M):C:H3'	1:AA:654(N):G:H8	1.78	0.48
32:DE:53:ARG:NH1	32:DE:199:TYR:HD2	2.11	0.48
5:BF:198:ALA:O	5:BF:201:VAL:HG12	2.13	0.48
3:AD:25:THR:O	3:AD:26:LYS:C	2.48	0.48
33:CF:41:GLY:O	33:CF:44:GLU:HB2	2.13	0.48
1:BA:2531:A:C5'	7:BH:157:TYR:CE2	2.94	0.48
1:BA:2531:A:H2'	1:BA:2532:G:H5'	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:329:G:C5	20:BU:19:LYS:HE2	2.48	0.48
52:CB:33:U:C5	52:CB:34:U:H5	2.31	0.48
1:AA:638:G:H2'	1:AA:639:U:O4'	2.12	0.48
31:CA:119:A:C4'	31:CA:120:A:O5'	2.57	0.48
1:BA:957:A:N6	1:BA:2459:A:C8	2.82	0.48
24:BW:17:SER:CB	24:BW:21:LEU:H	2.26	0.48
3:AD:8:PRO:CB	3:AD:14:ARG:HB2	2.43	0.48
11:BO:56:SER:O	11:BO:57:THR:O	2.30	0.48
31:DA:57:G:C6	31:DA:58:C:N4	2.81	0.48
31:DA:990:C:C2	31:DA:1216:G:C2	3.00	0.48
24:AW:42:GLY:C	24:AW:44:LEU:H	2.15	0.48
31:CA:1106:G:H2'	31:CA:1107:C:C6	2.46	0.48
33:CF:114:PRO:O	33:CF:118:GLN:HG3	2.13	0.48
37:CJ:51:GLN:HA	37:CJ:51:GLN:OE1	2.12	0.48
1:BA:2316:C:O2'	6:BG:128:ARG:NH2	2.43	0.48
15:AR:128:GLU:HG2	15:AR:128:GLU:O	2.13	0.48
31:DA:877:C:O2'	31:DA:878:G:H5'	2.14	0.48
31:CA:186(B):C:O2'	31:CA:186(C):G:H5'	2.13	0.48
1:BA:1925:C:O2'	1:BA:1926:U:H5'	2.13	0.48
1:BA:301:G:HO2'	1:BA:302:C:H6	1.61	0.48
40:CM:100:THR:O	40:CM:101:VAL:HG23	2.13	0.48
31:CA:883:C:C2'	31:CA:884:U:H5'	2.43	0.48
36:DI:76:ALA:HB1	36:DI:80:ARG:HH21	1.77	0.48
6:AG:20:ILE:O	6:AG:24:GLY:N	2.40	0.48
42:DO:79:GLU:HG3	42:DO:80:HIS:CG	2.49	0.48
31:DA:854:G:C2	31:DA:855:G:C8	3.02	0.48
35:CH:154:GLY:O	35:CH:155:GLU:CB	2.60	0.48
1:BA:623:G:H2'	1:BA:624:C:C6	2.48	0.48
1:BA:2850:A:H2'	1:BA:2851:A:C8	2.47	0.48
18:AS:7:ALA:HB2	18:AS:50:VAL:HG22	1.94	0.48
31:CA:908:A:H2'	31:CA:909:A:C8	2.49	0.48
42:CO:83:ARG:HG3	42:CO:98:VAL:HG22	1.95	0.48
31:CA:999:U:O2'	31:CA:1000:A:H5'	2.13	0.48
1:AA:317:G:C2	1:AA:318:C:C2	3.01	0.48
2:AB:82:G:C4	2:AB:83:G:C8	3.01	0.48
22:B3:31:VAL:HG22	22:B3:65:GLY:O	2.13	0.48
3:AD:35:LYS:CB	3:AD:64:ILE:H	2.25	0.48
1:AA:2467:C:C5'	12:AP:123:HIS:CE1	2.96	0.48
31:CA:428:G:O3'	34:CG:36:ARG:NH2	2.46	0.48
3:BD:34:VAL:HG12	3:BD:34:VAL:O	2.13	0.48
6:AG:77:ILE:HG21	6:AG:80:PHE:CE1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BE:63:LEU:HD23	4:BE:66:HIS:CE1	2.48	0.48
14:AQ:85:VAL:HG23	14:AQ:112:PHE:CZ	2.47	0.48
31:CA:1116:C:O2'	39:CL:108:VAL:HG11	2.14	0.48
34:DG:81:GLU:OE2	34:DG:139:ARG:NH2	2.45	0.48
20:BU:13:VAL:HG23	20:BU:73:ARG:H	1.78	0.48
5:BF:123:LEU:O	5:BF:123:LEU:HD12	2.13	0.48
32:CE:70:PHE:O	32:CE:93:VAL:N	2.43	0.48
1:BA:1143:A:N3	1:BA:1143:A:O4'	2.45	0.48
15:AR:118:ARG:NH1	31:CA:1446:A:C6	2.81	0.48
4:BE:25:VAL:O	4:BE:26:ILE:HG12	2.14	0.48
1:BA:2893:G:OP2	1:BA:2893:G:H8	1.97	0.48
1:AA:1278:A:O2'	13:A0:34:ILE:HD11	2.13	0.48
17:A2:47:VAL:HG23	17:A2:48:GLY:N	2.27	0.48
1:AA:1344:G:H4'	1:AA:1384:A:N7	2.29	0.48
31:DA:1291:G:C6	31:DA:1292:U:C4	3.01	0.48
40:DM:30:SER:OG	40:DM:84:GLN:HG3	2.13	0.48
32:DE:239:VAL:O	32:DE:240:GLN:HB2	2.12	0.48
31:CA:874:G:C6	31:CA:875:C:C4	3.01	0.48
32:DE:204:ASN:HB2	32:DE:210:SER:HB3	1.96	0.48
32:DE:75:LYS:HD3	32:DE:78:GLN:HE21	1.78	0.48
1:AA:654(M):C:C2'	1:AA:654(N):G:H8	2.25	0.48
31:DA:558:G:H5''	31:DA:559:A:OP2	2.14	0.48
37:CJ:20:ASP:HB3	37:CJ:23:VAL:CG2	2.43	0.48
39:CL:83:ARG:HA	39:CL:86:VAL:HG12	1.95	0.48
5:BF:155:LEU:CD2	5:BF:186:ILE:HD13	2.35	0.48
31:CA:626:U:C2	31:CA:627:G:N7	2.80	0.48
1:BA:298:G:O2'	1:BA:322:A:N1	2.41	0.48
1:BA:1466:G:H2'	1:BA:1466:G:N3	2.29	0.48
1:BA:1416:G:C2'	1:BA:1417:C:H6	2.26	0.48
16:A1:102:GLU:HB3	16:A1:105:VAL:CG2	2.44	0.48
9:AM:22:THR:HG22	9:AM:23:LEU:N	2.28	0.48
21:BV:105:VAL:O	21:BV:140:ASP:HA	2.13	0.48
24:AW:58:ALA:O	24:AW:62:THR:HG22	2.12	0.48
31:CA:141:A:C2	31:CA:142:G:C4	3.01	0.48
31:CA:148:G:N3	31:CA:149:A:C8	2.81	0.48
1:AA:2705:A:H2'	1:AA:2706:G:O4'	2.12	0.48
1:AA:571:A:C5	1:AA:575:A:C8	3.01	0.48
31:CA:1101:A:H4'	31:CA:1102:A:O5'	2.14	0.48
8:AK:29:TYR:O	8:AK:33:ARG:HB2	2.13	0.48
15:AR:23:ARG:HB3	15:AR:24:PRO:HD2	1.93	0.48
7:AH:115:VAL:O	7:AH:115:VAL:CG1	2.58	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DP:110:ARG:HG2	43:DP:110:ARG:HH11	1.75	0.48
11:BO:55:ARG:O	11:BO:55:ARG:HG3	2.13	0.48
31:CA:475:G:H2'	31:CA:476:G:O4'	2.13	0.48
32:DE:102:LEU:N	32:DE:102:LEU:HD12	2.29	0.48
1:AA:27:G:C4	1:AA:512:G:N2	2.81	0.48
18:AS:70:TYR:HE2	18:AS:108:GLY:HA3	1.77	0.48
10:BN:4:PRO:O	10:BN:5:GLN:CB	2.61	0.48
31:DA:487:A:H2'	31:DA:488:C:O4'	2.12	0.48
7:AH:99:VAL:O	7:AH:102:ALA:HB3	2.14	0.48
1:BA:753:C:H2'	1:BA:754:C:H6	1.78	0.48
1:BA:2667:C:H1'	7:BH:109:PHE:HD2	1.76	0.48
31:CA:616:G:C2	31:CA:617:G:N7	2.81	0.48
1:BA:2860:A:N7	1:BA:2861:G:H1'	2.29	0.48
1:AA:1847:A:H4'	1:AA:1848:A:OP2	2.13	0.48
10:AN:49:ARG:NH2	31:CA:1423:G:OP1	2.44	0.48
31:CA:1031:G:H2'	31:CA:1032:A:H8	1.78	0.48
1:AA:1916:A:H3'	1:AA:1917:U:H6	1.78	0.48
7:AH:139:GLN:O	7:AH:143:GLN:HB2	2.14	0.48
1:BA:2790:A:C4'	1:BA:2791:C:OP2	2.60	0.48
1:AA:870:A:C2	1:AA:871:U:H1'	2.48	0.48
31:CA:491:G:H2'	31:CA:492:G:H8	1.78	0.48
41:DN:26:ASN:O	41:DN:27:ASN:HB2	2.13	0.48
1:AA:2785:C:OP1	4:AE:41:LYS:HE3	2.13	0.48
31:DA:1127:G:N2	31:DA:1145:C:C2	2.81	0.48
31:DA:1055:A:C8	31:DA:1206:G:C2	3.02	0.48
31:DA:961:U:OP2	31:DA:1223:C:H4'	2.12	0.48
31:DA:973:G:H3'	31:DA:974:A:C5'	2.41	0.48
31:DA:972:C:OP2	40:DM:57:LYS:HD3	2.14	0.48
1:BA:668:G:H2'	1:BA:669:G:OP1	2.13	0.48
31:DA:1037:C:H2'	31:DA:1038:C:C6	2.48	0.48
12:AP:87:LYS:O	12:AP:88:GLY:O	2.30	0.48
23:BZ:6:GLU:O	23:BZ:91:LYS:HE2	2.13	0.48
1:BA:947:G:N3	1:BA:984:A:H2	2.11	0.48
5:AF:65:TRP:CZ3	5:AF:72:ARG:HB3	2.48	0.48
20:BU:76:CYS:HB3	20:BU:77:PRO:HD2	1.95	0.48
1:BA:442:G:C6	1:BA:444:C:N4	2.81	0.48
1:AA:1278:A:OP1	13:A0:36:THR:HG22	2.12	0.48
1:AA:1169:G:N2	1:AA:1181:C:C2	2.81	0.48
34:DG:105:VAL:HG13	34:DG:110:PHE:HB2	1.95	0.48
16:B1:91:ASP:O	16:B1:92:ARG:HG2	2.13	0.48
32:DE:237:ALA:N	32:DE:239:VAL:H	2.10	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2156:G:C2	1:AA:2157:G:N2	2.82	0.48
1:AA:864:G:C6	1:AA:865:C:N4	2.81	0.48
31:DA:1253:G:O2'	31:DA:1254:C:H5'	2.13	0.48
35:DH:91:LEU:CD1	35:DH:120:THR:HG22	2.33	0.48
16:A1:50:ARG:HG2	16:A1:53:ARG:HH22	1.79	0.48
1:AA:1322:A:H2'	1:AA:1323:U:H6	1.78	0.48
1:AA:1265:A:H8	1:AA:1265:A:OP1	1.97	0.48
1:BA:2019:A:N7	27:B5:9:LYS:CE	2.74	0.48
31:DA:1346:A:C8	37:DJ:10:ARG:NH2	2.82	0.48
37:DJ:26:PHE:CG	37:DJ:62:PHE:HE1	2.32	0.48
3:BD:148:GLU:O	3:BD:151:LYS:HB2	2.13	0.48
31:CA:439:A:C2'	31:CA:440:A:O5'	2.62	0.48
2:BB:15:A:H1'	2:BB:109:G:N9	2.28	0.48
43:DP:10:PRO:CB	43:DP:18:ALA:HB1	2.40	0.48
31:CA:811:C:H4'	31:CA:900:A:H62	1.75	0.48
31:CA:1070:U:H2'	31:CA:1071:C:H6	1.78	0.48
18:AS:11:ARG:CZ	18:AS:98:LYS:HB3	2.44	0.48
53:DD:52:C:N4	53:DD:64:G:H1	2.11	0.48
6:BG:108:ASN:OD1	26:B4:38:LYS:HD3	2.13	0.48
37:DJ:149:ARG:HD3	41:DN:59:TYR:CZ	2.48	0.48
11:BO:55:ARG:O	11:BO:56:SER:C	2.51	0.48
15:BR:98:LYS:HD2	15:BR:98:LYS:N	2.29	0.48
1:AA:2098:U:C2	1:AA:2099:U:C6	3.01	0.48
1:BA:152:G:H1	1:BA:174:C:N4	2.09	0.48
11:BO:75:ILE:N	11:BO:75:ILE:HD13	2.27	0.48
11:AO:135:LEU:O	11:AO:139:LYS:HG3	2.13	0.48
1:AA:966:G:H2'	1:AA:967:C:H6	1.76	0.48
31:CA:943:U:C2'	31:CA:944:G:H5'	2.44	0.48
33:CF:131:ARG:CG	33:CF:131:ARG:HH11	2.26	0.48
1:BA:921:G:H2'	1:BA:922:U:C6	2.49	0.48
1:BA:265:A:H1'	1:BA:266:G:O4'	2.14	0.48
35:DH:150:ARG:O	35:DH:154:GLY:HA3	2.14	0.48
18:BS:19:LEU:O	18:BS:22:ASP:HB2	2.14	0.48
1:AA:1705:G:O2'	1:AA:1706:U:H5'	2.13	0.48
34:DG:111:ALA:HB1	34:DG:116:GLN:OE1	2.13	0.48
1:AA:1439:A:C2	1:AA:1553:A:C5	3.02	0.48
1:AA:2064:C:H2'	1:AA:2065:C:C6	2.47	0.48
1:AA:280:C:N3	1:AA:361:G:C2	2.82	0.48
1:BA:1746:G:C2	1:BA:1747:G:C8	3.01	0.48
1:AA:1502:C:C2'	1:AA:1503:U:H5'	2.43	0.48
8:AK:23:PRO:O	8:AK:26:ALA:HB3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:448:U:O4	1:BA:583:G:H1'	2.14	0.48
37:DJ:99:LEU:HD22	37:DJ:103:TRP:CZ2	2.47	0.48
40:DM:70:ARG:HH11	40:DM:70:ARG:HG2	1.79	0.48
1:BA:270(Y):G:C2	1:BA:270(Z):U:O4	2.67	0.48
17:B2:7:THR:HG23	17:B2:22:VAL:HG21	1.95	0.48
31:CA:552:U:O2'	31:CA:553:A:H5'	2.13	0.48
1:BA:1753:G:N1	1:BA:1756:G:C2	2.82	0.48
10:BN:25:LEU:HB2	10:BN:38:VAL:HG23	1.95	0.48
52:DB:51:A:OP1	52:DB:51:A:C8	2.66	0.48
31:DA:1209:C:O2'	31:DA:1210:C:H5'	2.13	0.48
17:B2:80:GLN:HG3	17:B2:81:TYR:H	1.79	0.48
4:AE:37:ARG:N	4:AE:37:ARG:NE	2.61	0.48
1:BA:881:G:H5'	1:BA:882:G:OP2	2.13	0.48
39:DL:42:ARG:NH1	39:DL:71:SER:O	2.46	0.48
33:CF:12:LEU:O	33:CF:16:ARG:O	2.31	0.48
28:B6:9:LEU:HD22	28:B6:11:LEU:HD22	1.95	0.48
1:BA:2274:A:C2	1:BA:2276:G:H1'	2.48	0.48
31:CA:1133:G:C4	31:CA:1134:G:C8	3.01	0.48
31:DA:542:G:N2	31:DA:543:C:C2	2.81	0.48
31:CA:349:A:O2'	31:CA:350:G:H5'	2.13	0.48
2:AB:42:C:H4'	6:AG:67:LYS:HD3	1.96	0.48
1:AA:674:G:O2'	5:AF:74:ARG:HD3	2.12	0.48
1:BA:1012:U:N3	1:BA:1143:A:C2	2.78	0.48
1:AA:2731:G:C6	1:AA:2732:G:O6	2.66	0.48
32:DE:42:ILE:HD11	32:DE:202:PRO:CB	2.28	0.48
31:DA:191:G:C6	31:DA:192:U:C4	3.02	0.48
1:BA:137(A):G:H2'	1:BA:139:G:N7	2.27	0.48
7:BH:3:ARG:HG3	7:BH:4:ILE:N	2.29	0.48
7:BH:7:LEU:N	7:BH:8:PRO:HD2	2.29	0.48
16:B1:65:ILE:HD11	16:B1:96:ALA:HB3	1.93	0.48
12:AP:18:LYS:HG3	12:AP:19:GLY:H	1.78	0.48
32:DE:19:HIS:CE1	32:DE:204:ASN:CB	2.88	0.48
6:BG:7:LEU:HB2	6:BG:104:GLU:CD	2.34	0.48
37:CJ:21:VAL:HG23	37:CJ:22:LEU:N	2.29	0.48
1:BA:868:U:C4	1:BA:869:G:N7	2.81	0.48
1:BA:1543:A:H2'	1:BA:1544:C:H3'	1.95	0.48
15:BR:13:ARG:N	15:BR:13:ARG:CD	2.75	0.48
1:BA:1169:G:N2	1:BA:1181:C:C2	2.82	0.48
31:CA:91:C:H2'	31:CA:92:G:O4'	2.13	0.48
14:AQ:83:LYS:C	14:AQ:109:GLY:HA2	2.33	0.48
1:AA:806:C:OP2	11:AO:41:ARG:HD3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1256:A:C2	31:CA:1277:C:C4	3.02	0.48
32:CE:165:VAL:CG2	32:CE:166:ASP:H	2.25	0.48
31:CA:1226:C:H4'	49:CV:80:TYR:OH	2.13	0.48
15:BR:3:ARG:O	15:BR:7:ILE:HB	2.13	0.48
14:BQ:110:LEU:HD22	14:BQ:111:GLU:N	2.29	0.48
5:AF:123:LEU:HD12	5:AF:124:LEU:N	2.28	0.48
31:DA:1015:A:C6	31:DA:1016:A:C6	3.01	0.48
1:BA:1771:C:C1'	1:BA:1786:A:C8	2.97	0.48
50:CW:69:GLY:O	50:CW:73:HIS:CE1	2.66	0.48
9:BM:67:LEU:O	9:BM:88:GLU:HG3	2.12	0.48
14:BQ:66:ALA:HA	14:BQ:69:VAL:CG1	2.44	0.48
31:CA:706:A:O2'	41:CN:31:THR:CG2	2.62	0.48
43:DP:110:ARG:CG	43:DP:110:ARG:NH1	2.68	0.48
31:DA:1378:C:C5	31:DA:1379:G:C1'	2.97	0.48
31:CA:1098:C:H2'	31:CA:1099:G:O4'	2.13	0.48
1:BA:1472:A:H2'	1:BA:1473:G:C5'	2.43	0.48
31:DA:1152:A:OP1	40:DM:68:HIS:CE1	2.66	0.48
31:DA:616:G:C2	31:DA:617:G:N7	2.82	0.48
1:AA:850:C:O2'	25:AX:46:ASN:ND2	2.45	0.48
31:CA:262:A:H3'	31:CA:263:A:H8	1.78	0.48
1:BA:988:A:C2'	1:BA:989:G:O5'	2.62	0.48
10:BN:37:ASP:O	10:BN:62:VAL:HG23	2.13	0.48
1:BA:1347:G:H1'	29:B7:49:ARG:NH2	2.28	0.48
35:DH:69:VAL:O	35:DH:71:LEU:HG	2.14	0.48
31:CA:562:C:H1'	42:CO:12:ARG:HD2	1.95	0.48
38:CK:103:VAL:CG2	38:CK:110:ALA:HB2	2.42	0.48
1:AA:2566:A:O2'	1:AA:2567:G:OP2	2.27	0.48
1:BA:492:A:C2'	1:BA:493:G:H5'	2.44	0.48
1:AA:716:A:H2'	1:AA:717:G:O5'	2.13	0.48
34:CG:146:ILE:HD12	34:CG:146:ILE:H	1.79	0.48
1:BA:458:G:O2'	29:B7:39:ARG:HD3	2.14	0.48
1:BA:49:A:C6	1:BA:118:A:C5	3.01	0.48
1:BA:714:U:O2	1:BA:716:A:C8	2.67	0.48
1:BA:276:A:H2'	1:BA:277:C:C6	2.48	0.48
1:BA:377:C:H2'	1:BA:378:C:H6	1.78	0.48
34:CG:64:LEU:HB2	34:CG:198:VAL:HG21	1.95	0.48
1:AA:2159:G:H2'	1:AA:2160:G:H8	1.78	0.48
47:DT:29:HIS:CG	47:DT:30:PRO:HD2	2.48	0.48
31:DA:19:C:H5''	35:DH:86:ALA:HB3	1.95	0.48
1:AA:979:G:N2	1:AA:985:C:C4	2.82	0.48
1:BA:1235:G:C6	1:BA:1236:G:N1	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:23:VAL:CG1	4:AE:185:LYS:N	2.50	0.48
17:B2:75:PHE:O	17:B2:76:LYS:O	2.32	0.48
30:A8:23:VAL:CG1	30:A8:46:ARG:HB3	2.43	0.48
4:AE:78:LEU:C	4:AE:78:LEU:HD23	2.33	0.48
31:DA:1053:G:C5	31:DA:1199:U:C5	3.01	0.48
11:AO:50:ARG:O	11:AO:51:PHE:O	2.30	0.48
2:AB:16:G:H2'	2:AB:17:C:H6	1.79	0.48
30:B8:32:LEU:C	30:B8:36:LYS:CE	2.82	0.48
1:AA:1026:U:H1'	1:AA:1027:A:H5''	1.94	0.48
53:DD:21:U:H3'	53:DD:22:A:C5'	2.43	0.48
32:CE:69:LEU:HD12	32:CE:70:PHE:H	1.78	0.48
31:CA:1023:G:N1	31:CA:1024:G:C8	2.81	0.48
1:AA:1045:A:C2	1:AA:1111:A:C6	3.02	0.48
32:CE:21:ARG:O	32:CE:21:ARG:HG2	2.13	0.48
32:CE:19:HIS:O	32:CE:39:ILE:HG12	2.13	0.48
1:AA:2164:C:OP2	1:AA:2166:G:N2	2.42	0.48
31:DA:993:G:H4'	31:DA:994:A:OP1	2.14	0.48
40:DM:80:LYS:O	40:DM:83:GLU:HB3	2.14	0.48
1:BA:1826:G:H2'	1:BA:1827:C:C6	2.49	0.48
31:CA:156:G:N2	31:CA:165:C:N3	2.48	0.48
6:BG:102:PHE:HE2	6:BG:141:PHE:HE1	1.61	0.48
1:BA:2555:U:C5	1:BA:2556:C:C2	3.02	0.48
1:BA:2507:C:O2'	52:DB:86:C:O2	2.31	0.48
1:AA:1477:A:C6	1:AA:1478:G:C5	3.02	0.48
1:AA:1208:C:C4	1:AA:1209:G:N7	2.81	0.48
1:BA:2838:G:C5	1:BA:2839:G:N7	2.81	0.48
1:AA:1159:U:H2'	1:AA:1160:G:C8	2.49	0.48
5:BF:107:LYS:HD2	5:BF:107:LYS:N	2.29	0.48
5:AF:40:GLN:OE1	5:AF:184:TYR:CB	2.62	0.48
3:AD:27:THR:O	3:AD:28:GLU:OE1	2.31	0.48
31:CA:104:G:C2	31:CA:105:G:C8	3.02	0.48
1:BA:1416:G:H1	1:BA:1582:C:H42	1.61	0.48
8:BK:101:LEU:HD23	8:BK:101:LEU:N	2.26	0.48
31:CA:66:G:C2	31:CA:67:C:C6	3.02	0.48
31:CA:1237:C:O2	31:CA:1334:G:O2'	2.26	0.48
52:DB:18:G:OP2	52:DB:18:G:H8	1.97	0.48
38:CK:129:VAL:HG23	38:CK:130:GLY:N	2.21	0.48
32:DE:115:LEU:HD21	32:DE:153:ARG:NH1	2.28	0.48
1:AA:1735:C:C5'	1:AA:1735:C:H6	2.26	0.48
5:AF:206:ILE:HD12	5:AF:207:GLY:N	2.27	0.48
1:AA:2307:G:H1'	1:AA:2308:G:N2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:59:U:O2'	52:CB:70:G:H4'	2.13	0.48
31:DA:1379:G:O2'	31:DA:1380:U:H5'	2.14	0.48
31:DA:1213:A:C5	31:DA:1215:G:C4	3.01	0.48
31:DA:1213:A:C6	31:DA:1215:G:H1'	2.48	0.48
34:DG:162:LEU:O	34:DG:165:MET:HB2	2.14	0.48
1:AA:2097:C:C2'	1:AA:2098:U:H5'	2.43	0.48
34:CG:108:LEU:HB3	34:CG:110:PHE:HD1	1.75	0.48
1:AA:600:G:H2'	1:AA:601:C:O4'	2.14	0.48
1:BA:1449:A:H5'	1:BA:1449(A):G:OP2	2.14	0.48
9:AM:39:ARG:HB3	9:AM:41:ASP:OD1	2.13	0.48
21:BV:110:GLY:HA2	21:BV:144:LEU:C	2.34	0.48
1:AA:1893:C:C5	1:AA:1894:C:C5	3.01	0.48
31:DA:668:G:C2'	31:DA:669:U:H5'	2.44	0.48
1:BA:1016:G:H2'	1:BA:1017:G:H8	1.79	0.48
14:BQ:67:ARG:HB2	14:BQ:67:ARG:NH1	2.28	0.48
2:BB:20:C:O2'	2:BB:21:G:H5'	2.12	0.48
52:DB:55:G:H2'	52:DB:56:G:H8	1.77	0.48
31:CA:864:A:H5''	31:CA:865:A:OP2	2.13	0.48
1:BA:276:A:H2'	1:BA:277:C:H6	1.78	0.48
1:AA:2492:U:H2'	1:AA:2493:U:C6	2.48	0.48
46:CS:23:ASP:OD1	46:CS:25:ARG:HD3	2.14	0.48
31:DA:564:C:O2'	38:DK:91:ARG:NH2	2.46	0.48
36:DI:77:ARG:NH1	36:DI:77:ARG:HB3	2.29	0.48
1:BA:722:A:H8	1:BA:722:A:OP2	1.97	0.48
32:CE:75:LYS:HE3	32:CE:75:LYS:O	2.13	0.48
15:BR:78:LEU:O	15:BR:78:LEU:HD23	2.14	0.48
31:DA:62:U:O2'	31:DA:379:C:H1'	2.14	0.48
30:A8:17:THR:OG1	30:A8:21:LYS:HB2	2.13	0.48
1:AA:2574:G:O2'	4:AE:143:ASN:HB3	2.14	0.48
1:AA:2015:A:C1'	27:A5:2:ALA:CB	2.91	0.48
1:AA:1063:G:H1	1:AA:1075:C:N4	2.10	0.48
11:AO:61:ARG:CZ	11:AO:61:ARG:HB2	2.26	0.48
1:AA:1565:C:C2	1:AA:1567:A:C8	3.01	0.48
3:AD:35:LYS:CE	3:AD:65:ILE:HG22	2.43	0.48
14:BQ:89:ARG:HG3	14:BQ:92:TYR:O	2.14	0.48
1:BA:881:G:C6	1:BA:895:U:O2	2.67	0.48
6:AG:70:VAL:HA	6:AG:90:LEU:HD12	1.96	0.48
31:DA:1200:C:H5'	31:DA:1201:A:H5'	1.95	0.48
28:B6:41:PRO:HD2	28:B6:46:HIS:N	2.28	0.48
12:BP:42:ILE:HD13	12:BP:97:VAL:CG2	2.43	0.48
12:BP:97:VAL:HG21	12:BP:103:MET:HE2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:63:TYR:CD1	49:CV:42:PRO:HD3	2.49	0.48
49:CV:41:VAL:CG2	49:CV:67:VAL:HG22	2.44	0.48
1:BA:1140:C:H4'	1:BA:1143:A:N7	2.28	0.48
1:AA:1045:A:C8	1:AA:1047:G:C2	3.02	0.48
1:BA:84:A:H2'	1:BA:99:U:O4	2.14	0.48
1:AA:2871:C:H5''	1:AA:2872:G:OP1	2.14	0.48
1:BA:90:U:HO2'	1:BA:91:A:H8	1.45	0.48
1:BA:986:C:O2'	1:BA:987:G:H5'	2.14	0.48
32:DE:166:ASP:CG	32:DE:169:LYS:HB2	2.34	0.48
1:BA:2558:C:H2'	1:BA:2559:C:O4'	2.14	0.48
39:CL:47:LEU:HD22	39:CL:47:LEU:H	1.79	0.48
31:DA:333:G:H4'	50:DW:16:HIS:CE1	2.49	0.48
31:DA:324:G:OP1	50:DW:22:ARG:HD3	2.13	0.48
5:BF:182:ASN:O	5:BF:186:ILE:HG12	2.14	0.48
1:AA:2820:A:C5	13:A0:4:LEU:HD21	2.49	0.48
1:BA:319:C:C2	1:BA:333:G:N2	2.82	0.48
31:DA:458:C:C2	31:DA:464:G:C8	3.02	0.48
1:BA:2655:G:N2	1:BA:2665:A:OP2	2.46	0.48
1:BA:2531:A:H5''	7:BH:157:TYR:HE2	1.77	0.48
31:CA:80:G:O6	31:CA:89:U:O2	2.30	0.48
8:AK:99:GLU:O	8:AK:100:ALA:C	2.51	0.48
21:AV:111:VAL:HG21	21:AV:174:VAL:HG11	1.95	0.48
11:AO:83:VAL:HG12	11:AO:112:LEU:HD21	1.94	0.48
42:CO:14:LYS:HB3	42:CO:15:VAL:HG22	1.96	0.48
14:BQ:106:ARG:HG3	14:BQ:106:ARG:H	1.41	0.48
6:BG:138:GLN:HE22	6:BG:153:ARG:H	1.62	0.48
1:BA:1869:G:C8	1:BA:1869:G:H5'	2.48	0.48
52:CB:15:A:N1	52:CB:70:G:C4	2.81	0.48
1:BA:2331:G:H4'	22:B3:43:THR:N	2.28	0.48
15:AR:22:PHE:CD2	15:AR:22:PHE:N	2.82	0.48
7:AH:115:VAL:HG11	7:AH:148:ILE:CG1	2.43	0.48
1:BA:311:A:C2	1:BA:331:A:H5''	2.42	0.48
8:AK:14:ASP:O	8:AK:15:VAL:HG22	2.13	0.48
14:BQ:66:ALA:HA	14:BQ:69:VAL:HG12	1.95	0.48
1:BA:1487:G:H1	1:BA:1502:C:H42	1.59	0.48
32:DE:142:LEU:HD23	32:DE:142:LEU:O	2.13	0.48
34:CG:172:PRO:HB2	34:CG:187:ARG:HH12	1.78	0.48
43:DP:78:ILE:HD13	43:DP:92:HIS:CD2	2.47	0.48
29:A7:23:ARG:O	29:A7:28:ARG:NH1	2.47	0.48
46:CS:14:ASN:N	46:CS:15:PRO:HD3	2.29	0.48
31:CA:329:A:C2	31:CA:332:G:C4	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1051:C:H2'	31:CA:1052:U:O4'	2.14	0.48
1:BA:154:G:H5'	1:BA:155:C:OP2	2.14	0.48
1:AA:1680:U:O2	1:AA:1763:G:H3'	2.13	0.48
7:AH:105:LEU:H	7:AH:105:LEU:HD23	1.78	0.48
37:CJ:72:ARG:HG3	37:CJ:142:GLU:OE1	2.14	0.48
1:AA:2093:G:C6	1:AA:2225:A:C8	3.02	0.48
1:BA:447:A:C8	1:BA:473:G:C6	3.02	0.48
1:BA:292:C:O2'	1:BA:293:U:H5'	2.13	0.48
25:BX:39:ASP:OD1	25:BX:44:ARG:NE	2.47	0.48
6:BG:150:ASP:CG	6:BG:151:ALA:H	2.17	0.48
17:B2:2:PHE:H	17:B2:42:GLY:HA3	1.78	0.48
1:AA:1545(A):A:H2'	1:AA:1546:C:H5'	1.96	0.48
34:CG:18:LYS:HD2	34:CG:31:CYS:HB2	1.95	0.48
12:BP:75:THR:CB	12:BP:88:GLY:HA3	2.36	0.48
31:DA:1322:C:O2	31:DA:1322:C:C2'	2.62	0.48
31:CA:1060:C:P	44:CQ:45:ARG:HH22	2.36	0.48
12:AP:63:LYS:HG2	12:AP:64:ILE:H	1.77	0.48
1:BA:2275:C:H5'	1:BA:2275:C:C6	2.46	0.48
31:CA:1156:G:C3'	31:CA:1157:A:H5''	2.43	0.48
1:BA:2415:G:C4'	11:BO:66:GLY:HA3	2.43	0.48
48:DU:22:VAL:HG12	48:DU:56:THR:HA	1.92	0.48
1:BA:516:C:H2'	1:BA:517:C:H6	1.78	0.48
31:CA:350:G:C6	31:CA:351:G:O6	2.67	0.48
33:DF:146:ALA:HB1	33:DF:203:PHE:O	2.14	0.48
1:AA:2168:G:H21	1:AA:2169:A:H3'	1.79	0.48
31:CA:1032(B):G:C6	31:CA:1033:G:C6	3.02	0.48
1:BA:803:U:C2'	1:BA:804:A:H5'	2.44	0.48
31:CA:162:A:H3'	31:CA:163:C:H5''	1.95	0.48
1:BA:2312:U:C2'	1:BA:2313:C:H5'	2.44	0.48
6:BG:61:ALA:HA	6:BG:64:THR:CG2	2.44	0.48
1:BA:1420:U:HO2'	1:BA:1421:G:P	2.31	0.48
31:DA:562:C:H4'	31:DA:563:A:O5'	2.13	0.48
11:AO:2:LYS:O	11:AO:5:ASP:HB2	2.14	0.48
50:CW:100:ILE:HG13	50:CW:101:GLY:H	1.79	0.48
26:A4:49:PHE:O	26:A4:50:VAL:HB	2.14	0.48
41:CN:33:THR:C	41:CN:40:ILE:HG13	2.34	0.48
1:BA:288:C:C3'	1:BA:289:A:H8	2.27	0.48
1:BA:867:C:C4	1:BA:868:U:C5	3.02	0.48
31:DA:339:C:O2'	31:DA:340:U:H5'	2.13	0.48
1:BA:1821:A:H2'	1:BA:1822:G:C8	2.49	0.48
1:AA:654(S):G:C4'	1:AA:654(T):A:OP1	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DT:18:THR:CG2	47:DT:69:LYS:HD2	2.44	0.48
31:CA:222:U:C2	31:CA:223:U:C5	3.01	0.48
1:AA:637:A:O5'	11:AO:116:GLY:HA3	2.14	0.48
6:AG:112:PRO:HB3	26:A4:37:SER:OG	2.14	0.48
20:AU:39:VAL:HG12	20:AU:40:GLU:N	2.29	0.48
4:BE:105:THR:HG21	4:BE:164:ARG:NE	2.28	0.48
1:BA:957:A:N1	1:BA:2459:A:C8	2.82	0.48
35:CH:15:ARG:NH1	35:CH:26:PHE:CE2	2.82	0.48
17:A2:25:LEU:H	17:A2:92:THR:HG23	1.77	0.48
1:BA:872:A:C2	1:BA:906:G:C4	3.02	0.48
1:BA:653:A:H5''	1:BA:654:A:P	2.54	0.48
45:CR:18:PHE:CE1	45:CR:21:ASP:HB2	2.49	0.48
31:DA:838:G:C2'	31:DA:841:U:H5'	2.44	0.48
31:DA:838:G:N2	31:DA:849:C:C2	2.82	0.48
31:CA:262:A:H2'	31:CA:263:A:C8	2.49	0.48
31:CA:939:G:H5''	37:CJ:102:ARG:CZ	2.44	0.48
1:BA:1993:U:H2'	1:BA:1994:C:O5'	2.13	0.48
23:BZ:82:LEU:H	23:BZ:82:LEU:HD23	1.79	0.48
1:BA:2062:A:H62	1:BA:2503:A:N6	2.11	0.48
14:BQ:3:ARG:CG	14:BQ:4:LEU:N	2.77	0.48
1:BA:654(M):C:H2'	1:BA:654(N):G:C8	2.49	0.48
1:AA:2040:C:H2'	1:AA:2041:U:C6	2.48	0.48
1:BA:1668:A:C2	1:BA:1670:C:N3	2.82	0.48
20:AU:5:MET:HE1	20:AU:32:PRO:HA	1.96	0.48
1:AA:2662:A:H2'	1:AA:2663:G:O4'	2.14	0.48
1:AA:1192:G:C2'	1:AA:1193:G:H5'	2.44	0.48
31:CA:109:A:C6	31:CA:326:G:C6	3.02	0.48
1:AA:270(O):U:H5''	1:AA:270(P):C:OP2	2.13	0.48
23:BZ:50:ARG:HG2	23:BZ:59:THR:OG1	2.13	0.48
8:BK:29:TYR:HD2	8:BK:30:LEU:HD23	1.77	0.48
1:AA:588:U:H2'	1:AA:589:C:C6	2.49	0.48
53:CC:54:G:H2'	53:CC:55:U:H6	1.78	0.48
1:AA:2735:G:O2'	1:AA:2736:G:H5'	2.14	0.48
1:BA:1588:C:O2	1:BA:1588:C:H2'	2.14	0.48
48:DU:19:LYS:HD3	48:DU:20:ALA:H	1.78	0.48
53:DC:44:A:O2'	53:DC:45:A:H5'	2.13	0.48
53:CC:50:G:N2	53:CC:67:C:C2	2.81	0.48
1:AA:1810:A:H2'	1:AA:1811:G:O4'	2.14	0.48
17:B2:84:LYS:O	17:B2:85:LYS:C	2.52	0.48
4:AE:35:GLN:NE2	4:AE:37:ARG:CD	2.76	0.48
3:BD:32:SER:HA	3:BD:35:LYS:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CC:19:G:C4'	53:CC:20:G:OP1	2.62	0.48
31:DA:1056:U:H5'	33:DF:163:ALA:HB2	1.96	0.48
31:DA:1221:G:H4'	49:DV:77:THR:HG21	1.96	0.48
14:AQ:89:ARG:O	14:AQ:90:GLY:C	2.51	0.48
1:BA:1065:U:C4	1:BA:1066:U:C4	3.02	0.48
4:BE:55:ASN:N	4:BE:56:PRO:CD	2.69	0.48
7:AH:15:VAL:HG12	7:AH:29:PRO:HD2	1.95	0.48
34:DG:23:GLY:O	34:DG:27:TYR:CD1	2.67	0.48
32:CE:163:PHE:CD2	32:CE:185:ILE:HG12	2.49	0.48
31:CA:1023:G:H3'	31:CA:1024:G:C5'	2.41	0.48
23:BZ:95:LEU:O	23:BZ:96:LYS:HG2	2.14	0.48
52:CB:18:G:H1	52:CB:71:U:H3	1.62	0.48
1:BA:945:A:H4'	1:BA:945:A:OP2	2.13	0.48
1:AA:1727:U:C4	1:AA:1728:G:C5	3.02	0.48
40:DM:24:VAL:HG13	40:DM:28:ARG:HH21	1.79	0.48
1:BA:1408:C:C2	1:BA:1595:G:N2	2.82	0.48
1:AA:2112:G:O2'	1:AA:2113:U:O2	2.32	0.48
26:B4:11:PRO:HA	26:B4:25:TYR:N	2.26	0.48
1:BA:76:C:H2'	1:BA:77:C:C6	2.47	0.48
31:CA:627:G:H2'	31:CA:628:G:H8	1.78	0.48
1:BA:1495:A:C2'	1:BA:1496:A:H5'	2.44	0.48
1:AA:821:A:O2'	1:AA:945:A:C5'	2.62	0.48
31:DA:465:A:N7	31:DA:467:G:C5	2.82	0.48
6:AG:127:GLY:HA2	6:AG:166:ASP:OD2	2.13	0.48
31:DA:922:G:O2'	31:DA:1398:A:N1	2.38	0.48
31:DA:1399:C:C2	31:DA:1401:G:C5	3.02	0.48
31:CA:88:C:H2'	31:CA:89:U:N1	2.29	0.48
1:AA:1386:C:OP2	1:AA:1396:U:H5	1.97	0.48
31:CA:143:A:H2	31:CA:220:G:N1	2.05	0.48
31:DA:32:A:C2	31:DA:33:A:C5	3.01	0.48
27:A5:16:ARG:NH1	27:A5:17:ASP:OD1	2.45	0.48
31:CA:928:G:C2	31:CA:1390:U:O2	2.67	0.48
1:BA:2387:U:H1'	22:B3:41:ARG:CD	2.44	0.48
39:CL:17:VAL:HG11	39:CL:81:ILE:HD13	1.96	0.48
31:DA:818:G:HO2'	31:DA:819:A:H5'	1.79	0.48
13:A0:86:ARG:HB3	13:A0:118:GLU:OE1	2.14	0.48
1:BA:2563:U:H1'	1:BA:2566:A:N6	2.29	0.48
31:CA:1164:G:N1	31:CA:1173:G:C6	2.82	0.48
32:DE:158:LEU:HD23	32:DE:182:ILE:HD11	1.95	0.48
32:CE:173:ALA:HA	32:CE:176:GLU:HB2	1.96	0.48
49:DV:46:GLY:HA2	49:DV:61:TYR:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CM:78:ASN:O	40:CM:81:THR:OG1	2.24	0.48
43:DP:81:LEU:HD13	43:DP:88:ARG:NH1	2.29	0.48
2:BB:88:C:OP1	2:BB:89:G:N7	2.47	0.48
2:AB:30:C:H2'	2:AB:31:C:C5'	2.44	0.48
8:BK:31:LEU:N	8:BK:32:PRO:HD2	2.28	0.48
1:AA:2258:C:H4'	1:AA:2259:G:OP2	2.14	0.48
38:CK:94:TYR:CE1	38:CK:132:GLU:HB2	2.47	0.48
2:AB:112:G:H2'	2:AB:113:C:H6	1.79	0.48
3:BD:132:PRO:HD3	3:BD:190:TYR:CZ	2.48	0.48
6:BG:125:PHE:CE2	6:BG:131:TYR:HB2	2.49	0.48
10:AN:71:ARG:NH2	10:AN:77:ILE:HG21	2.29	0.48
53:CC:54:G:O2'	53:CC:55:U:H5'	2.13	0.48
31:CA:980:C:H2'	31:CA:981:U:O4'	2.13	0.48
31:DA:1258:G:O2'	31:DA:1259:C:H5'	2.14	0.48
38:DK:11:THR:HG23	38:DK:14:ARG:NH1	2.29	0.48
45:CR:55:GLY:HA2	45:CR:58:MET:CE	2.44	0.48
54:C1:20:U:H2'	54:C1:21:U:C6	2.49	0.48
25:AX:23:LEU:HD23	25:AX:50:VAL:HG11	1.95	0.48
1:BA:1207:C:H2'	1:BA:1208:C:H6	1.78	0.48
8:AK:71:ILE:HG12	8:AK:71:ILE:O	2.13	0.48
18:BS:83:LYS:O	18:BS:84:ARG:HD3	2.14	0.48
45:CR:6:GLU:CD	45:CR:6:GLU:H	2.16	0.48
1:BA:1893:C:C5	1:BA:1894:C:C4	3.02	0.48
31:DA:89:U:C4'	31:DA:90:C:OP1	2.61	0.48
1:AA:747:U:OP2	27:A5:3:LYS:HD3	2.14	0.47
17:B2:73:SER:HB2	17:B2:82:ARG:O	2.14	0.47
12:AP:77:LYS:HD3	12:AP:81:VAL:CG2	2.44	0.47
1:BA:2638:G:P	4:BE:82:ARG:NH2	2.87	0.47
31:DA:1054:C:C5	31:DA:1196:U:C5	3.02	0.47
51:DX:6:ARG:HE	51:DX:15:ARG:NH2	2.12	0.47
1:AA:812:C:H5''	1:AA:1250:G:O2'	2.14	0.47
12:BP:42:ILE:HG21	12:BP:47:ILE:HG13	1.96	0.47
31:CA:1157:A:N6	31:CA:1180:A:C5	2.82	0.47
39:CL:104:ARG:HG2	39:CL:105:ASP:N	2.29	0.47
34:DG:19:LEU:O	34:DG:21:LEU:HG	2.14	0.47
34:DG:62:GLN:NE2	34:DG:62:GLN:HA	2.29	0.47
49:CV:40:ILE:C	49:CV:41:VAL:HG22	2.34	0.47
7:AH:152:ARG:C	7:AH:153:LYS:HD2	2.35	0.47
27:B5:46:CYS:SG	27:B5:47:PRO:HD2	2.54	0.47
1:AA:444:C:H4'	5:AF:49:ALA:HB2	1.96	0.47
1:AA:2173:A:OP1	1:AA:2173:A:C8	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:59:U:O2'	1:AA:73:A:H2'	2.13	0.47
1:AA:1144:G:C6	1:AA:1145:C:N4	2.82	0.47
1:BA:2212:A:H1'	1:BA:2215:G:C5	2.49	0.47
1:AA:2157:G:O2'	1:AA:2158:A:P	2.68	0.47
1:BA:2872:G:C6	1:BA:2873:A:N1	2.82	0.47
1:AA:847:U:C5	1:AA:933:A:N1	2.82	0.47
35:DH:57:LYS:O	35:DH:61:TYR:HD2	1.97	0.47
1:AA:1519:G:H2'	1:AA:1520:U:O4'	2.14	0.47
31:DA:328:C:C2'	31:DA:329:A:OP2	2.61	0.47
29:B7:11:LYS:C	29:B7:11:LYS:HD3	2.34	0.47
31:DA:860:A:H2'	31:DA:861:G:O4'	2.12	0.47
31:CA:1298:C:C4'	31:CA:1299:A:C4	2.97	0.47
1:AA:1013:C:O2'	1:AA:1014:U:H5'	2.14	0.47
31:DA:78:G:H2'	31:DA:79:G:O4'	2.14	0.47
37:DJ:86:GLN:HE22	53:DD:32:G:H21	1.62	0.47
32:CE:212:GLN:HG3	32:CE:235:SER:HB2	1.94	0.47
34:CG:138:TYR:CE2	34:CG:139:ARG:O	2.67	0.47
14:AQ:70:GLY:HA2	14:AQ:101:LEU:CD1	2.43	0.47
1:BA:414:C:H4'	1:BA:1879:C:O2	2.14	0.47
1:BA:414:C:O2'	1:BA:415:A:H5'	2.14	0.47
40:DM:13:HIS:HD2	40:DM:13:HIS:C	2.12	0.47
41:CN:21:ILE:HG12	41:CN:30:VAL:CG1	2.43	0.47
1:BA:362:U:C6	1:BA:362:U:H3'	2.47	0.47
31:CA:1164:G:H2'	31:CA:1165:C:C6	2.49	0.47
1:AA:528:A:N1	1:AA:2043:C:O5'	2.47	0.47
31:CA:1107:C:C4	31:CA:1108:G:C8	3.02	0.47
13:A0:70:LEU:O	13:A0:72:ASP:N	2.47	0.47
1:AA:2017:U:H5''	1:AA:2018:G:OP2	2.14	0.47
4:BE:21:VAL:HA	4:BE:22:PRO:HD2	1.81	0.47
16:A1:66:ASN:HD21	16:A1:70:ARG:NE	2.12	0.47
1:BA:2517:C:N3	1:BA:2542:A:N6	2.62	0.47
32:DE:28:PHE:CE2	32:DE:189:ASP:O	2.67	0.47
1:BA:2666:C:H2'	1:BA:2667:C:O4'	2.14	0.47
20:AU:43:ASN:HB3	20:AU:64:GLU:HA	1.96	0.47
16:B1:79:PHE:CZ	16:B1:83:LEU:HD13	2.49	0.47
31:CA:46:G:O2'	31:CA:365:U:H1'	2.14	0.47
1:AA:1503:U:H2'	1:AA:1504:C:H6	1.79	0.47
1:BA:360:G:C2'	1:BA:361:G:H5'	2.44	0.47
31:CA:491:G:C4	31:CA:492:G:C8	3.02	0.47
31:DA:134:A:H61	46:DS:25:ARG:NH1	2.12	0.47
31:CA:901:A:C5	31:CA:902:G:H1'	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2141:G:H2'	1:AA:2142:C:C6	2.49	0.47
13:B0:52:ILE:O	13:B0:55:ALA:N	2.47	0.47
1:AA:1161:C:H1'	17:A2:8:GLY:O	2.14	0.47
1:BA:1157:G:C2'	1:BA:1158:C:H5'	2.43	0.47
1:BA:2420:C:N4	30:B8:31:HIS:CB	2.67	0.47
1:AA:1076:C:HO2'	1:AA:1077:A:H8	1.62	0.47
1:AA:1567:A:C5'	3:AD:58:HIS:CD2	2.97	0.47
1:AA:2790:A:C2	1:AA:2894:G:H5''	2.49	0.47
1:AA:2467:C:O4'	12:AP:123:HIS:CG	2.67	0.47
31:DA:1127:G:H2'	31:DA:1128:C:C6	2.49	0.47
31:DA:1177:G:C4	31:DA:1178:G:N2	2.82	0.47
11:AO:15:ARG:O	11:AO:16:ARG:C	2.53	0.47
29:A7:8:ASN:HD22	29:A7:8:ASN:C	2.17	0.47
53:DC:15:G:H2'	53:DC:60:A:N1	2.29	0.47
40:CM:61:GLU:OE2	44:CQ:45:ARG:HD2	2.14	0.47
28:B6:31:PRO:HB2	28:B6:33:LYS:H	1.78	0.47
1:BA:1085:A:H4'	1:BA:1086:A:OP1	2.14	0.47
4:BE:56:PRO:CG	4:BE:57:LYS:HZ1	2.20	0.47
14:AQ:106:ARG:O	14:AQ:107:GLU:HB3	2.14	0.47
1:AA:2314:C:H2'	1:AA:2315:G:H8	1.79	0.47
39:CL:9:ARG:HB2	39:CL:13:ALA:O	2.14	0.47
11:BO:47:ASP:CG	11:BO:49:ARG:HG2	2.31	0.47
31:DA:509:A:N3	31:DA:543:C:O2'	2.39	0.47
1:AA:1856:G:C2'	1:AA:1857:G:H5'	2.43	0.47
53:DD:22:A:N1	53:DD:47:G:H2'	2.28	0.47
11:BO:3:LEU:HA	11:BO:6:LEU:HD22	1.95	0.47
41:CN:80:VAL:HG13	41:CN:103:LEU:HD12	1.95	0.47
7:AH:152:ARG:O	7:AH:153:LYS:HB2	2.13	0.47
1:AA:1050:A:O2'	1:AA:2752:C:H1'	2.14	0.47
31:DA:1298:C:C6	37:DJ:114:ARG:NH1	2.82	0.47
32:DE:74:LYS:HG3	32:DE:75:LYS:H	1.79	0.47
26:B4:12:ALA:N	26:B4:24:THR:HG21	2.26	0.47
6:BG:104:GLU:HG2	26:B4:23:GLU:CG	2.44	0.47
31:CA:1348:U:O3'	39:CL:120:ARG:HB2	2.14	0.47
1:BA:607:U:O2	1:BA:621:A:N1	2.46	0.47
9:AM:93:THR:HG23	9:AM:94:HIS:N	2.29	0.47
7:BH:89:ILE:HG21	7:BH:129:THR:HA	1.95	0.47
8:AK:132:PRO:O	8:AK:133:HIS:CG	2.67	0.47
21:AV:142:SER:HB3	21:AV:143:GLY:CA	2.44	0.47
1:BA:2600:A:C6	1:BA:2601:C:N4	2.82	0.47
31:CA:67:C:O2	31:CA:68:G:C8	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BV:148:ASP:O	21:BV:149:SER:HB3	2.14	0.47
14:AQ:35:ILE:HD11	14:AQ:101:LEU:CD2	2.44	0.47
12:BP:7:MET:HB3	12:BP:10:ARG:NH1	2.29	0.47
1:BA:1204:A:N1	1:BA:1241:A:C2	2.81	0.47
1:BA:2148:G:H2'	1:BA:2149:G:C8	2.43	0.47
4:AE:11:MET:HG2	4:AE:24:THR:OG1	2.14	0.47
3:BD:267:SER:C	3:BD:269:PHE:N	2.68	0.47
1:BA:247:G:H4'	1:BA:386:G:C6	2.48	0.47
1:AA:1638:C:H4'	1:AA:2710:C:O2	2.14	0.47
1:BA:2847:U:C3'	1:BA:2848:G:H5'	2.44	0.47
44:DQ:4:LYS:C	44:DQ:6:LEU:N	2.65	0.47
1:AA:1664:A:C6	1:AA:1665:A:C6	3.02	0.47
31:CA:338:A:C6	31:CA:339:C:C4	3.01	0.47
52:DB:44:G:C6	52:DB:45:U:N3	2.82	0.47
1:AA:2017:U:H5''	1:AA:2018:G:P	2.54	0.47
31:CA:943:U:C1'	39:CL:124:GLN:HE22	2.27	0.47
10:BN:3:GLN:HB2	10:BN:4:PRO:HD2	1.96	0.47
38:CK:121:ASP:O	38:CK:125:ARG:HB2	2.14	0.47
1:BA:627:A:H4'	1:BA:628:G:OP1	2.12	0.47
1:BA:605:C:O2	1:BA:657:U:O2'	2.27	0.47
1:BA:1284:A:H3'	1:BA:1285:G:C8	2.49	0.47
31:DA:1112:C:N3	33:DF:178:LEU:HB2	2.28	0.47
1:BA:686:G:O6	29:B7:12:ARG:HG3	2.14	0.47
1:BA:1945:G:C4	1:BA:1946:U:C5	3.02	0.47
31:DA:870:U:H4'	31:DA:871:U:H5''	1.96	0.47
4:BE:137:HIS:HB3	4:BE:138:PRO:HD2	1.97	0.47
48:CU:19:LYS:HB3	48:CU:20:ALA:H	1.49	0.47
1:BA:1133:U:H2'	1:BA:1137:G:OP1	2.14	0.47
31:CA:1242:C:O2'	31:CA:1243:C:H5'	2.14	0.47
1:BA:766:C:H2'	1:BA:767:U:H6	1.79	0.47
34:DG:70:ILE:HG12	34:DG:71:SER:N	2.30	0.47
43:DP:76:ALA:HA	43:DP:79:LYS:HB2	1.96	0.47
33:CF:69:HIS:N	33:CF:69:HIS:CD2	2.82	0.47
1:AA:2407:G:H2'	1:AA:2407:G:N3	2.29	0.47
31:CA:584:G:H2'	31:CA:585:G:C8	2.50	0.47
1:BA:2016:U:O4'	27:B5:6:VAL:HG11	2.14	0.47
12:AP:25:ASP:OD1	12:AP:25:ASP:O	2.32	0.47
1:BA:228:A:H2'	1:BA:230:U:O4'	2.14	0.47
4:AE:48:GLN:NE2	4:AE:77:ILE:HD12	2.15	0.47
4:BE:33:VAL:HA	4:BE:49:LEU:HA	1.96	0.47
34:CG:19:LEU:HD23	34:CG:21:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BD:71:ASP:N	3:BD:71:ASP:OD2	2.47	0.47
31:DA:1129:C:H4'	31:DA:1130:A:C5'	2.44	0.47
31:DA:1256:A:H62	31:DA:1277:C:H3'	1.79	0.47
31:DA:1281:U:H3'	31:DA:1282:C:C5	2.49	0.47
53:CC:22:A:H5''	53:CC:23:G:OP1	2.13	0.47
1:BA:2372:G:C4'	28:B6:46:HIS:HE1	2.23	0.47
1:BA:1060:U:O4'	1:BA:1062:G:H5'	2.14	0.47
1:BA:1061:U:H4'	1:BA:1070:A:O2'	2.15	0.47
15:BR:74:ARG:HH11	15:BR:74:ARG:CG	1.88	0.47
53:DD:7:G:H3'	53:DD:8:U:C5'	2.45	0.47
7:AH:109:PHE:CE2	7:AH:152:ARG:NH1	2.82	0.47
47:CT:76:LEU:HD12	47:CT:78:GLU:N	2.28	0.47
20:AU:76:CYS:CB	20:AU:96:ILE:CD1	2.90	0.47
35:DH:83:GLU:CB	35:DH:88:LYS:HG3	2.30	0.47
1:AA:444:C:C4'	5:AF:49:ALA:HB2	2.44	0.47
46:DS:8:ARG:HD2	46:DS:17:TYR:CE2	2.50	0.47
53:CD:14:A:OP1	53:CD:14:A:C8	2.67	0.47
16:B1:93:LYS:HA	16:B1:96:ALA:HB3	1.96	0.47
31:CA:870:U:H5''	31:CA:871:U:H3'	1.96	0.47
1:BA:7:G:H1	1:BA:2896:C:H42	1.59	0.47
1:BA:1036:G:P	7:BH:59:ARG:HB2	2.54	0.47
1:AA:1795:C:H2'	1:AA:1796:U:C6	2.45	0.47
50:DW:56:MET:CE	50:DW:104:LEU:HD11	2.43	0.47
47:CT:67:LYS:CA	47:CT:70:ARG:HH12	2.18	0.47
31:CA:1372:U:H2'	31:CA:1373:G:O5'	2.14	0.47
1:BA:1542:G:H5''	1:BA:1543:A:O5'	2.13	0.47
1:AA:1265:A:H3'	27:A5:19:ARG:NH1	2.29	0.47
3:AD:27:THR:O	3:AD:28:GLU:CB	2.56	0.47
1:BA:1884:A:C2	1:BA:1885:A:C8	3.02	0.47
22:A3:25:ARG:HA	22:A3:29:GLN:HE22	1.80	0.47
31:CA:677:U:H1'	41:CN:119:CYS:SG	2.54	0.47
21:AV:174:VAL:O	21:AV:175:VAL:HG13	2.14	0.47
8:BK:123:LEU:HD22	8:BK:143:SER:CB	2.44	0.47
23:AZ:80:LEU:N	23:AZ:80:LEU:HD22	2.29	0.47
31:CA:73:G:C2	31:CA:74:C:C5	3.02	0.47
1:BA:2126:A:H4'	1:BA:2127:G:OP1	2.12	0.47
31:DA:857:C:H2'	31:DA:858:G:O4'	2.14	0.47
1:AA:1678:G:H22	1:AA:1989:G:H22	1.56	0.47
31:DA:1449:C:O2'	31:DA:1450:U:P	2.71	0.47
11:BO:52:GLU:OE2	11:BO:58:THR:N	2.44	0.47
45:CR:21:ASP:OD2	45:CR:21:ASP:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:527:C:OP2	1:AA:2779:U:C5	2.67	0.47
32:DE:71:VAL:HG11	32:DE:97:TRP:HD1	1.76	0.47
1:BA:2197:U:O2'	1:BA:2198:A:H2'	2.14	0.47
31:DA:1100:C:HO2'	31:DA:1102:A:P	2.37	0.47
8:AK:144:VAL:CG2	8:AK:145:VAL:N	2.77	0.47
1:BA:270(N):G:C2'	1:BA:270(O):U:H5'	2.44	0.47
32:DE:80:ILE:HD13	32:DE:212:GLN:HA	1.96	0.47
32:CE:109:SER:O	32:CE:112:VAL:HB	2.13	0.47
6:AG:16:ARG:NH2	6:AG:31:VAL:HG13	2.28	0.47
9:BM:120:LEU:HD21	9:BM:122:VAL:CG2	2.44	0.47
1:BA:1462:C:H2'	1:BA:1463:C:H6	1.78	0.47
47:CT:13:ASP:HA	47:CT:19:VAL:HG12	1.95	0.47
10:AN:31:LYS:HB3	10:AN:32:TYR:CE1	2.49	0.47
49:CV:18:LYS:NZ	49:CV:29:ARG:NH1	2.63	0.47
54:D1:16:A:C2	54:D1:17:U:C2	3.02	0.47
48:DU:87:ARG:HD3	48:DU:87:ARG:HA	1.50	0.47
28:A6:9:LEU:HB3	28:A6:26:ASN:O	2.14	0.47
1:BA:389:G:H22	11:BO:72:PRO:HD3	1.79	0.47
1:AA:1079:C:N4	1:AA:1080:A:C6	2.81	0.47
3:AD:35:LYS:HE2	3:AD:65:ILE:HG22	1.96	0.47
1:BA:2402:C:H41	1:BA:2416:C:H1'	1.79	0.47
11:AO:65:ARG:HH11	11:AO:65:ARG:CG	1.94	0.47
31:DA:1158:C:C6	31:DA:1160:G:C8	3.01	0.47
39:DL:5:TYR:HD2	39:DL:18:PHE:CE2	2.30	0.47
1:BA:572:A:C2	1:BA:2033:A:C2	3.02	0.47
45:CR:82:ILE:HG12	45:CR:87:ILE:HB	1.97	0.47
2:AB:15:A:OP1	2:AB:15:A:H4'	2.13	0.47
53:DC:23:G:H2'	53:DC:24:C:H6	1.78	0.47
44:CQ:45:ARG:NH1	44:CQ:49:HIS:CE1	2.78	0.47
12:AP:75:THR:HB	12:AP:89:ASN:N	2.27	0.47
12:AP:90:VAL:O	12:AP:90:VAL:HG13	2.12	0.47
1:BA:2271:G:OP1	22:B3:18:ALA:HB1	2.14	0.47
31:CA:1175:G:C6	31:CA:1176:A:N6	2.83	0.47
53:DD:5:G:H1	53:DD:69:C:N4	2.12	0.47
31:CA:1004:A:H1'	31:CA:1036:G:H1	1.74	0.47
5:AF:67:GLN:CG	5:AF:67:GLN:O	2.47	0.47
4:BE:26:ILE:HB	4:BE:182:LEU:HB3	1.95	0.47
1:AA:971:C:H2'	1:AA:972:G:O4'	2.14	0.47
45:DR:78:TYR:O	45:DR:82:ILE:HG23	2.14	0.47
1:BA:2895:U:H2'	1:BA:2896:C:O4'	2.14	0.47
2:BB:40:U:C2'	2:BB:45:A:H61	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DP:53:VAL:HG12	43:DP:57:ARG:NH2	2.29	0.47
1:BA:548:A:O5'	1:BA:548:A:H8	1.97	0.47
43:CP:53:VAL:HG12	43:CP:57:ARG:HH12	1.78	0.47
31:CA:60:A:P	31:CA:60:A:H8	2.38	0.47
7:BH:107:VAL:CG1	7:BH:152:ARG:HH21	2.26	0.47
31:DA:923:A:N6	31:DA:1392:G:O6	2.48	0.47
17:A2:44:LYS:HE3	17:A2:44:LYS:HB3	1.56	0.47
47:DT:68:ARG:N	47:DT:70:ARG:NH1	2.63	0.47
8:AK:101:LEU:HA	8:AK:104:GLN:HB2	1.94	0.47
1:BA:2854:G:N2	1:BA:2864:G:N3	2.62	0.47
1:AA:1317:A:H2'	1:AA:1318:C:H6	1.80	0.47
1:AA:2291:U:H2'	1:AA:2292:C:C6	2.49	0.47
7:AH:43:VAL:CG1	7:AH:52:VAL:HG22	2.40	0.47
34:CG:134:ASP:O	34:CG:136:PRO:HD3	2.15	0.47
31:DA:408:A:H2'	31:DA:409:G:O4'	2.14	0.47
33:CF:58:GLU:O	33:CF:59:ARG:HG3	2.15	0.47
1:BA:1149:G:C6	1:BA:1150:C:N4	2.82	0.47
39:DL:70:LYS:O	39:DL:74:ILE:HG13	2.15	0.47
5:BF:131:GLY:C	5:BF:132:VAL:O	2.50	0.47
1:AA:616:A:C8	5:AF:176:LEU:HD11	2.49	0.47
31:CA:1095:U:OP1	31:CA:1108:G:N2	2.32	0.47
1:BA:2526:G:C2	1:BA:2538:C:O2	2.67	0.47
1:AA:2020:A:O2'	1:AA:2021:C:H5'	2.14	0.47
1:BA:2050:C:H1'	4:BE:156:MET:HE2	1.96	0.47
21:AV:151:HIS:HD2	21:AV:168:GLU:CG	2.27	0.47
21:BV:26:GLY:C	21:BV:37:VAL:HG22	2.34	0.47
31:DA:577:G:C8	31:DA:816:A:C6	3.02	0.47
1:BA:953:A:N3	1:BA:954:G:C8	2.82	0.47
1:AA:606:U:H4'	1:AA:658:C:H4'	1.95	0.47
1:AA:221:A:C4	1:AA:266:G:N7	2.82	0.47
1:AA:265:A:H1'	1:AA:266:G:O4'	2.13	0.47
36:CI:63:TYR:N	36:CI:63:TYR:CD2	2.82	0.47
36:CI:75:LEU:HD22	36:CI:79:LEU:HG	1.95	0.47
31:DA:707:C:H2'	31:DA:708:C:C6	2.49	0.47
1:AA:1614:A:N6	18:AS:88:ARG:H	2.13	0.47
21:AV:26:GLY:HA2	21:AV:85:HIS:CD2	2.50	0.47
53:DC:54:G:H2'	53:DC:55:U:H6	1.80	0.47
31:DA:386:C:O2'	31:DA:387:U:H5'	2.14	0.47
35:CH:69:VAL:O	35:CH:71:LEU:N	2.45	0.47
19:AT:21:PHE:O	19:AT:23:GLU:O	2.32	0.47
31:DA:147:G:N2	31:DA:148:G:C4	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CP:58:GLU:O	43:CP:62:ASN:HB2	2.13	0.47
1:AA:2888:C:O2'	1:AA:2889:C:H5'	2.14	0.47
24:AW:23:LYS:O	24:AW:27:GLU:HG3	2.14	0.47
1:BA:2322:A:H2'	1:BA:2323:G:O4'	2.14	0.47
31:CA:386:C:C2'	31:CA:387:U:H5'	2.45	0.47
31:CA:236:G:H5''	47:CT:42:TYR:OH	2.14	0.47
1:AA:90:U:H1'	1:AA:91:A:N7	2.30	0.47
42:DO:53:ARG:HH12	42:DO:92:ASP:HB3	1.80	0.47
34:DG:73:ARG:HD2	34:DG:73:ARG:HA	1.70	0.47
38:DK:58:TYR:O	38:DK:59:LEU:HD23	2.15	0.47
1:BA:2393:A:C2'	1:BA:2394:C:H5'	2.44	0.47
1:AA:1056:G:C4'	1:AA:1086:A:C8	2.98	0.47
39:DL:88:TYR:HB3	39:DL:89:ASN:ND2	2.29	0.47
12:AP:87:LYS:HG3	12:AP:88:GLY:N	2.27	0.47
11:BO:15:ARG:O	11:BO:16:ARG:C	2.53	0.47
20:BU:72:VAL:O	20:BU:73:ARG:HG3	2.14	0.47
5:BF:3:GLU:HG2	5:BF:3:GLU:O	2.14	0.47
49:CV:45:VAL:HA	49:CV:62:ILE:HG22	1.97	0.47
32:CE:69:LEU:HB3	32:CE:162:ILE:HG22	1.96	0.47
43:DP:37:THR:O	43:DP:55:ARG:NH2	2.47	0.47
1:AA:2124:G:H2'	1:AA:2125:G:H5'	1.96	0.47
41:CN:79:SER:CB	41:CN:106:LYS:HD2	2.32	0.47
1:AA:1170:G:N2	1:AA:1180:C:C2	2.82	0.47
1:BA:674:G:H2'	1:BA:804:A:H61	1.79	0.47
1:BA:1109:C:C5	1:BA:1110:G:C6	3.03	0.47
1:AA:482:A:H5''	1:AA:483:A:OP1	2.14	0.47
19:AT:82:GLN:HE21	19:AT:83:VAL:N	2.13	0.47
31:CA:691:G:H1'	31:CA:696:A:N6	2.30	0.47
31:CA:993:G:H4'	31:CA:994:A:OP2	2.14	0.47
16:A1:92:ARG:CZ	17:A2:11:GLN:O	2.62	0.47
31:CA:1347:G:N2	31:CA:1374:A:OP2	2.42	0.47
1:BA:288:C:H5'	1:BA:289:A:OP1	2.15	0.47
49:DV:66:MET:HA	49:DV:67:VAL:HB	1.96	0.47
31:DA:340:U:H2'	31:DA:341:C:H6	1.79	0.47
1:AA:2502:G:H5''	1:AA:2503:A:C5'	2.41	0.47
31:DA:464:G:N2	31:DA:467:G:C8	2.81	0.47
8:AK:135:GLU:N	8:AK:135:GLU:CD	2.67	0.47
23:AZ:78:LYS:O	23:AZ:80:LEU:HD13	2.13	0.47
24:AW:59:ARG:O	24:AW:62:THR:HG23	2.13	0.47
1:BA:2713:A:C3'	1:BA:2714:G:C5'	2.92	0.47
31:DA:1107:C:C4	31:DA:1108:G:C8	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:541:C:N3	1:AA:542:C:C5	2.83	0.47
6:AG:112:PRO:HB3	26:A4:37:SER:H	1.78	0.47
22:A3:52:GLY:O	22:A3:59:LEU:HA	2.15	0.47
31:DA:528:C:H4'	31:DA:535:A:C5	2.50	0.47
1:BA:2377:A:O2'	1:BA:2378:A:H5'	2.15	0.47
50:DW:92:LEU:O	50:DW:95:ALA:HB3	2.13	0.47
16:A1:69:CYS:SG	16:A1:79:PHE:CD1	2.98	0.47
1:AA:2681:C:O2'	1:AA:2682:U:OP2	2.30	0.47
1:AA:1298:C:C5'	1:AA:1299:G:OP2	2.63	0.47
31:DA:66:G:C2	31:DA:67:C:C6	3.02	0.47
31:CA:857:C:C5	31:CA:858:G:N7	2.83	0.47
31:DA:848:C:H6	31:DA:848:C:O5'	1.97	0.47
31:CA:724:G:C2	31:CA:725:G:C8	3.02	0.47
52:CB:73:C:H2'	52:CB:74:C:O4'	2.14	0.47
1:BA:2602:A:H4'	1:BA:2603:G:O5'	2.13	0.47
1:BA:218:A:C2	1:BA:235:U:H4'	2.49	0.47
1:AA:841:A:H2'	1:AA:842:G:H8	1.77	0.47
1:BA:2187:G:C6	1:BA:2188:C:C4	3.03	0.47
11:AO:6:LEU:O	11:AO:7:ARG:HG2	2.15	0.47
1:BA:581:C:H2'	1:BA:582:G:C8	2.50	0.47
36:CI:55:ASP:CB	36:CI:86:ARG:HH12	2.27	0.47
46:CS:4:ILE:HB	46:CS:66:PRO:HB3	1.96	0.47
18:AS:73:ALA:HB3	18:AS:106:ILE:CD1	2.44	0.47
50:DW:53:LEU:CD1	50:DW:102:GLY:HA3	2.45	0.47
3:AD:76:PRO:HG2	3:AD:98:VAL:CG2	2.43	0.47
42:DO:110:VAL:CG2	42:DO:120:TYR:HB3	2.45	0.47
52:DB:50:A:C2	52:DB:52:U:H5''	2.49	0.47
1:BA:439:G:N2	1:BA:440:G:C4	2.83	0.47
1:BA:54:G:O2'	29:B7:35:ARG:HD3	2.15	0.47
1:AA:1397:U:OP2	1:AA:1398:C:N4	2.41	0.47
31:DA:24:U:H2'	31:DA:25:C:C6	2.50	0.47
6:BG:62:LEU:O	6:BG:143:GLU:HG2	2.14	0.47
1:AA:2252:G:H2'	1:AA:2253:G:O4'	2.13	0.47
22:A3:50:ASN:HB2	22:A3:81:VAL:O	2.15	0.47
1:AA:2726:U:O2'	1:AA:2727:G:H8	1.98	0.47
1:BA:748:G:C8	18:BS:89:ALA:HB1	2.49	0.47
1:BA:363(F):A:H8	1:BA:363(F):A:OP2	1.98	0.47
13:A0:54:LEU:HD12	13:A0:54:LEU:HA	1.68	0.47
31:CA:191(F):U:H6	31:CA:191(F):U:H3'	1.80	0.47
1:AA:618:G:H2'	1:AA:618(A):C:O4'	2.14	0.47
31:CA:1223:C:H3'	31:CA:1224:G:H5''	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1513:A:H2'	31:CA:1514:C:C6	2.50	0.47
1:AA:1056:G:O6	1:AA:1104:C:N4	2.48	0.47
14:BQ:28:VAL:HG11	14:BQ:98:VAL:HG12	1.96	0.47
1:AA:2372:G:C1'	28:A6:46:HIS:HE2	2.27	0.47
30:A8:23:VAL:HG11	30:A8:46:ARG:HD3	1.97	0.47
3:BD:27:THR:O	3:BD:28:GLU:CB	2.61	0.47
31:CA:1362(A):C:H5'	31:CA:1363:A:O5'	2.14	0.47
31:CA:1305:G:C8	31:CA:1305:G:OP2	2.67	0.47
31:CA:1154:G:O2'	31:CA:1155:G:H5'	2.15	0.47
5:BF:4:VAL:HG22	5:BF:19:GLU:OE1	2.14	0.47
31:CA:1079:G:C6	31:CA:1080:A:N6	2.83	0.47
1:BA:1019:U:H3	1:BA:1142(A):A:H62	1.61	0.47
20:BU:81:LYS:HD3	20:BU:97:ARG:NH2	2.28	0.47
28:A6:25:LYS:NZ	28:A6:27:LYS:HD3	2.26	0.47
1:AA:442:G:C4	1:AA:444:C:C5	3.02	0.47
31:CA:1028:C:N4	31:CA:1028(A):C:C4	2.83	0.47
16:B1:92:ARG:HD2	16:B1:95:LEU:CD1	2.45	0.47
6:BG:45:GLU:H	6:BG:45:GLU:HG2	1.39	0.47
31:DA:324:G:P	50:DW:22:ARG:HD3	2.55	0.47
24:BW:71:ASN:O	24:BW:72:ALA:HB3	2.14	0.47
31:CA:254:G:H21	47:CT:16:GLN:NE2	2.13	0.47
6:AG:94:LEU:N	6:AG:94:LEU:HD23	2.25	0.47
8:AK:98:ALA:HB2	8:AK:111:PRO:HB3	1.96	0.47
7:AH:86:GLU:HG2	7:AH:87:LEU:H	1.80	0.47
1:BA:2713:A:H3'	1:BA:2714:G:C5'	2.45	0.47
31:CA:1255:G:O2'	31:CA:1258:G:H1'	2.15	0.47
1:BA:2131:G:H5'	1:BA:2132:U:OP1	2.14	0.47
31:DA:79:G:OP2	31:DA:79:G:H8	1.98	0.47
1:AA:1735:C:H2'	1:AA:1741:C:O4'	2.15	0.47
49:DV:29:ARG:O	49:DV:30:LEU:HG	2.15	0.47
49:DV:42:PRO:O	49:DV:43:GLU:CG	2.60	0.47
49:DV:49:ILE:HD12	49:DV:49:ILE:N	2.29	0.47
31:DA:1170:A:H2'	31:DA:1171:G:O4'	2.14	0.47
3:BD:131:LEU:N	3:BD:131:LEU:HD12	2.29	0.47
1:BA:1011:G:C6	1:BA:1013:C:C4	3.03	0.47
31:DA:1248:A:H2'	39:DL:70:LYS:NZ	2.29	0.47
31:DA:404:U:H5'	34:DG:122:ARG:HD2	1.96	0.47
31:DA:188:U:O2'	31:DA:189:U:H5'	2.15	0.47
3:BD:107:ALA:O	3:BD:196:VAL:O	2.31	0.47
2:AB:29:A:C2	2:AB:56:G:C2	3.03	0.47
1:BA:1125:G:C6	1:BA:1126:A:N6	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CW:49:ALA:HB3	50:CW:99:LEU:HD22	1.97	0.47
31:DA:1137:C:O2'	31:DA:1138:G:N2	2.48	0.47
35:DH:107:ARG:O	35:DH:110:LEU:N	2.47	0.47
1:BA:270(E):G:H1	1:BA:270(U):C:H42	1.61	0.47
1:AA:1155:A:O2'	1:AA:1156:A:H2'	2.14	0.47
31:CA:102:G:O2'	31:CA:151:A:N3	2.40	0.47
53:CC:76:C:H5''	53:CC:77:A:OP2	2.15	0.47
31:DA:1187:G:H4'	39:DL:111:ARG:HH11	1.78	0.47
4:BE:111:ARG:HD2	4:BE:160:TYR:CE1	2.50	0.47
53:DC:48:U:C1'	53:DC:49:C:O5'	2.63	0.47
21:AV:166:SER:HA	21:AV:167:PRO:HD3	1.72	0.47
1:BA:1525:G:C2	1:BA:1526:G:C4	3.02	0.47
1:BA:49:A:H5'	1:BA:51:G:O4'	2.14	0.47
22:B3:84:LEU:O	22:B3:85:ALA:O	2.32	0.47
50:DW:50:GLU:HA	50:DW:100:ILE:HB	1.96	0.47
25:AX:29:ARG:C	25:AX:30:ARG:HG3	2.34	0.47
32:CE:164:VAL:HG23	32:CE:186:ALA:HB2	1.96	0.47
15:BR:29:ARG:CB	15:BR:29:ARG:HH11	2.27	0.47
50:DW:75:ASN:OD1	50:DW:75:ASN:N	2.47	0.47
1:AA:1788:C:O5'	1:AA:1788:C:H6	1.97	0.47
1:AA:2459:A:C4	1:AA:2460:U:C6	3.03	0.47
11:BO:62:LEU:HD12	30:B8:30:ARG:HD3	1.95	0.47
1:AA:389:G:H22	11:AO:72:PRO:CG	2.28	0.47
1:AA:2785:C:OP1	4:AE:41:LYS:NZ	2.48	0.47
1:BA:2638:G:P	4:BE:82:ARG:HH22	2.38	0.47
21:BV:115:GLY:HA3	21:BV:174:VAL:HG13	1.95	0.47
3:BD:28:GLU:O	3:BD:29:PRO:C	2.53	0.47
39:DL:95:LYS:NZ	39:DL:96:LEU:HD12	2.30	0.47
31:DA:1204:A:OP1	44:DQ:3:ARG:NH1	2.47	0.47
31:DA:1054:C:N4	52:DB:35:G:C4	2.82	0.47
31:DA:973:G:C1'	40:DM:55:LYS:HG3	2.45	0.47
12:BP:65:PHE:O	12:BP:66:ILE:HG12	2.15	0.47
31:CA:1366:C:O2'	40:CM:60:ARG:NH2	2.41	0.47
28:B6:28:ARG:CB	28:B6:31:PRO:HD2	2.45	0.47
1:BA:1069:A:O2'	1:BA:1072:C:OP2	2.33	0.47
15:AR:61:PHE:CE2	15:AR:76:PHE:HB2	2.50	0.47
31:CA:1148:U:H2'	31:CA:1149:C:O4'	2.14	0.47
2:AB:11:C:O5'	2:AB:12:C:C5	2.68	0.47
31:CA:1129:C:H41	31:CA:1141:C:H41	1.63	0.47
26:A4:57:GLU:CA	26:A4:60:GLN:HB2	2.45	0.47
53:DD:55:U:N3	53:DD:56:U:C5	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:5:ILE:CG2	32:CE:221:LEU:HD23	2.44	0.47
32:CE:71:VAL:HG12	32:CE:93:VAL:HB	1.96	0.47
31:CA:17:U:C2'	31:CA:18:C:O5'	2.62	0.47
1:AA:893:C:C4	1:AA:894:C:N4	2.82	0.47
1:BA:945:A:C6	1:BA:2448:A:C6	3.02	0.47
1:BA:2153:G:O2'	1:BA:2154:G:H5'	2.15	0.47
43:DP:34:LEU:HD13	43:DP:41:PRO:HA	1.96	0.47
1:BA:1034:G:H2'	1:BA:1035:U:O4'	2.15	0.47
40:DM:24:VAL:HG21	40:DM:37:PRO:HG3	1.96	0.47
15:BR:8:LYS:CB	15:BR:8:LYS:NZ	2.68	0.47
1:BA:139:G:N2	1:BA:141:A:N1	2.63	0.47
19:BT:43:VAL:HG22	19:BT:51:VAL:CG2	2.45	0.47
53:CD:56:U:O4	53:CD:58:A:H5''	2.14	0.47
9:BM:47:ALA:C	9:BM:49:GLY:N	2.68	0.47
1:AA:69:C:H2'	1:AA:70:G:H8	1.79	0.47
31:DA:1239:A:H62	31:DA:1299:A:H62	1.62	0.47
53:CD:6:G:O2'	53:CD:7:G:H5'	2.15	0.47
31:DA:626:U:C2	31:DA:627:G:C8	3.03	0.47
16:B1:95:LEU:O	16:B1:98:LEU:HG	2.15	0.47
1:BA:2720:U:C4	1:BA:2873:A:N1	2.83	0.47
1:BA:2689:U:P	1:BA:2719:G:H22	2.37	0.47
31:CA:745:C:H2'	31:CA:746:A:C8	2.50	0.47
32:CE:189:ASP:OD1	32:CE:191:ASP:HB2	2.15	0.47
2:BB:46:A:H2'	2:BB:47:C:H6	1.79	0.47
26:B4:23:GLU:CG	26:B4:24:THR:N	2.78	0.47
6:BG:67:LYS:HE3	26:B4:6:HIS:CD2	2.50	0.47
52:DB:86:C:H2'	52:DB:87:A:C4	2.50	0.47
50:CW:53:LEU:HD12	50:CW:100:ILE:HG23	1.95	0.47
1:BA:774:A:H2	1:BA:787:U:O2'	1.76	0.47
10:BN:2:ILE:CD1	10:BN:6:THR:HG21	2.37	0.47
1:AA:1557:C:H5''	1:AA:1558:A:OP2	2.15	0.47
31:DA:322:C:H41	31:DA:328:C:H6	1.63	0.47
1:AA:508:G:C6	18:AS:9:TYR:CE2	3.03	0.47
1:BA:289:A:H3'	1:BA:290:G:H8	1.80	0.47
1:BA:289:A:C4	1:BA:353:G:N2	2.83	0.47
15:BR:50:ILE:HB	15:BR:62:THR:OG1	2.15	0.47
31:DA:702:A:H3'	31:DA:703:G:H5'	1.96	0.47
31:DA:964:A:N3	31:DA:969:A:O2'	2.38	0.47
31:DA:1190:G:C5'	33:DF:176:HIS:NE2	2.78	0.47
19:BT:36:LYS:HG2	19:BT:54:VAL:HB	1.96	0.47
1:AA:2331:G:H4'	22:A3:43:THR:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:308:G:H3'	1:BA:309:G:C8	2.50	0.47
9:AM:57:ALA:O	9:AM:58:ASP:CB	2.62	0.47
39:CL:53:VAL:HG21	39:CL:92:TYR:CG	2.49	0.47
44:CQ:36:PHE:CD1	44:CQ:36:PHE:C	2.88	0.47
31:CA:1299:A:O3'	31:CA:1300:G:H4'	2.13	0.47
31:CA:1228:C:OP1	43:CP:115:LYS:HE3	2.13	0.47
32:DE:154:LEU:HB3	32:DE:155:LEU:H	1.56	0.47
15:BR:3:ARG:HG2	15:BR:6:LEU:HB2	1.95	0.47
15:BR:3:ARG:NE	15:BR:6:LEU:HD13	2.29	0.47
33:DF:75:VAL:O	33:DF:83:ARG:NE	2.47	0.47
15:AR:111:ARG:O	15:AR:112:ARG:CG	2.62	0.47
35:CH:31:LEU:HA	35:CH:31:LEU:HD23	1.74	0.47
31:DA:689:C:H2'	31:DA:690:G:C5'	2.42	0.47
31:DA:693:G:H2'	31:DA:694:A:O4'	2.15	0.47
40:DM:65:LEU:CD2	44:DQ:36:PHE:CZ	2.97	0.47
14:BQ:84:GLN:HA	14:BQ:109:GLY:HA3	1.96	0.47
40:DM:75:ILE:HG13	40:DM:76:ASN:H	1.80	0.47
53:DC:1:C:C6	53:DC:1:C:C3'	2.98	0.47
1:BA:957:A:N1	1:BA:2459:A:H8	2.13	0.47
1:BA:1386:C:OP2	1:BA:1396:U:C5	2.62	0.47
53:CC:1:C:O2'	53:CC:2:G:P	2.72	0.47
12:BP:135:ASP:OD1	12:BP:137:TYR:CD2	2.61	0.47
46:DS:21:VAL:CG1	46:DS:34:GLU:HB3	2.44	0.47
44:DQ:47:LEU:O	44:DQ:50:LYS:N	2.48	0.47
3:AD:70:TRP:HZ3	3:AD:146:GLU:OE2	1.98	0.47
8:AK:78:THR:HA	8:AK:141:LYS:HG3	1.96	0.47
17:A2:89:GLN:NE2	17:A2:89:GLN:HA	2.29	0.47
31:DA:954:G:H2'	31:DA:955:U:H6	1.78	0.47
11:BO:11:GLY:C	11:BO:13:ASN:N	2.66	0.47
41:DN:48:ILE:HA	41:DN:48:ILE:HD12	1.74	0.47
1:BA:274:G:O4'	1:BA:274:G:OP1	2.33	0.47
32:CE:87:ARG:HE	32:CE:233:SER:CB	2.28	0.47
44:CQ:13:THR:N	44:CQ:14:PRO:CD	2.77	0.47
3:AD:264:LYS:HD3	3:AD:266:SER:HB3	1.96	0.47
31:DA:892:A:H2'	31:DA:893:C:C6	2.50	0.47
1:AA:878:A:N1	1:AA:879:G:C2	2.83	0.47
31:CA:958:A:N6	31:CA:959:A:N6	2.63	0.47
1:AA:2562:U:H1'	10:AN:23:ARG:NH1	2.30	0.47
49:CV:24:ALA:C	49:CV:26:GLY:N	2.68	0.47
2:BB:10:C:C4	2:BB:11:C:H5	2.32	0.47
31:CA:261:U:OP2	50:CW:79:ARG:NH2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:939:G:H2'	31:CA:940:C:H6	1.79	0.47
31:DA:1338:G:H2'	31:DA:1339:A:O4'	2.14	0.47
31:CA:730:G:C5	31:CA:731:G:H1'	2.49	0.47
31:CA:760:G:C2'	31:CA:761:G:H5'	2.45	0.47
31:CA:763:G:N3	31:CA:764:C:C6	2.82	0.47
39:CL:4:TYR:CG	39:CL:88:TYR:HB2	2.49	0.47
5:AF:7:TYR:HA	5:AF:22:ALA:H	1.80	0.47
4:AE:95:ILE:N	4:AE:95:ILE:HD13	2.30	0.47
10:BN:10:VAL:HG13	10:BN:17:ARG:C	2.35	0.47
31:DA:584:G:H5'	47:DT:91:ARG:HH12	1.79	0.47
12:AP:43:THR:HB	12:AP:45:GLN:HG2	1.95	0.47
31:CA:185:A:O2'	31:CA:186:C:H5'	2.15	0.47
36:CI:61:LEU:HD23	36:CI:63:TYR:OH	2.14	0.47
31:CA:895:G:H2'	31:CA:896:C:H6	1.78	0.47
1:AA:2063:C:C5	1:AA:2064:C:C5	3.02	0.47
8:AK:47:LEU:O	8:AK:50:ARG:HB2	2.13	0.47
9:BM:99:LEU:O	9:BM:103:VAL:HG23	2.14	0.47
1:AA:815:C:H2'	1:AA:816:C:H6	1.79	0.47
31:CA:946:A:C2	31:CA:1236:A:C2	3.02	0.47
52:DB:10:G:H2'	52:DB:11:U:H6	1.80	0.47
15:BR:29:ARG:HB3	15:BR:29:ARG:HH11	1.80	0.47
1:BA:2199:A:C8	1:BA:2205:C:C5	3.03	0.47
20:BU:16:ALA:O	20:BU:21:LYS:HG3	2.13	0.47
1:AA:2695:C:H2'	1:AA:2696:U:C6	2.50	0.47
31:CA:455:C:H42	31:CA:477:G:H1	1.62	0.47
13:B0:58:GLY:HA2	13:B0:80:PHE:CE1	2.49	0.47
1:BA:1499:C:H2'	1:BA:1500:G:C8	2.50	0.47
31:DA:174:C:H2'	31:DA:175:C:H6	1.80	0.47
38:CK:40:ALA:O	38:CK:43:GLY:N	2.47	0.47
1:AA:2324:C:H5''	1:AA:2325:G:H5''	1.97	0.47
31:CA:647:C:O2'	31:CA:648:A:H5'	2.14	0.47
1:BA:2607:G:H2'	1:BA:2608:G:O4'	2.15	0.47
31:DA:241:C:C2	31:DA:286:G:C2	3.03	0.47
6:BG:167:GLU:O	6:BG:170:ARG:HB3	2.15	0.47
38:DK:99:GLU:N	38:DK:99:GLU:OE1	2.48	0.47
31:DA:1468:A:H8	31:DA:1468:A:O5'	1.98	0.47
31:DA:823:G:H21	38:DK:1:MET:HE1	1.80	0.47
48:CU:73:ALA:HB3	48:CU:79:LEU:HD12	1.96	0.47
30:B8:19:SER:OG	30:B8:21:LYS:HD2	2.15	0.47
11:BO:61:ARG:HG3	30:B8:27:THR:CG2	2.44	0.47
3:AD:101:GLU:OE1	3:AD:103:ARG:NH1	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1149:C:OP2	39:DL:9:ARG:NH1	2.47	0.47
4:AE:80:GLU:O	4:AE:81:ILE:C	2.53	0.47
31:DA:1055:A:C2	31:DA:1056:U:H1'	2.49	0.47
31:DA:1056:U:O4	31:DA:1200:C:C6	2.68	0.47
31:DA:1305:G:C8	31:DA:1305:G:OP2	2.68	0.47
1:AA:594:U:OP1	30:A8:61:LEU:HD22	2.15	0.47
1:AA:2295:C:O2	1:AA:2295:C:H2'	2.15	0.47
5:BF:89:VAL:CG1	5:BF:90:PHE:N	2.50	0.47
23:AZ:92:LYS:CA	23:AZ:95:LEU:HD12	2.44	0.47
31:CA:1176:A:N6	31:CA:1177:G:C5	2.83	0.47
1:AA:2683:C:OP1	15:AR:55:ASN:ND2	2.48	0.47
7:AH:30:LYS:NZ	7:AH:83:TYR:HE2	2.12	0.47
34:DG:31:CYS:C	34:DG:33:MET:N	2.61	0.47
31:CA:49:U:O2'	31:CA:50:A:C3'	2.62	0.47
1:AA:1882:C:H5'	1:AA:1883:G:OP2	2.15	0.47
12:BP:63:LYS:HA	12:BP:63:LYS:HD3	1.62	0.47
53:DD:56:U:N3	53:DD:58:A:H8	2.07	0.47
20:BU:75:ILE:HA	20:BU:80:GLY:CA	2.45	0.47
28:A6:27:LYS:HB2	28:A6:27:LYS:HZ2	1.80	0.47
4:AE:103:ASP:OD1	4:AE:201:THR:HA	2.14	0.47
1:AA:2124:G:C2'	1:AA:2125:G:H5'	2.45	0.47
20:AU:48:ALA:O	20:AU:49:VAL:C	2.52	0.47
16:B1:92:ARG:HD2	16:B1:95:LEU:HD13	1.96	0.47
12:AP:19:GLY:C	12:AP:98:LYS:HD3	2.34	0.47
6:BG:94:LEU:HD23	6:BG:94:LEU:H	1.80	0.47
1:AA:917:A:H2'	1:AA:918:A:O5'	2.14	0.47
31:DA:811:C:H4'	31:DA:900:A:H61	1.78	0.47
15:BR:88:ILE:HD11	15:BR:91:ARG:HG2	1.97	0.47
1:AA:1609:A:O2'	1:AA:1610:A:H5'	2.15	0.47
1:BA:1464:C:O2'	1:BA:1528:A:C8	2.55	0.47
31:DA:686:U:O4	31:DA:703:G:H1'	2.15	0.47
31:DA:1315:U:H2'	31:DA:1316:G:O4'	2.15	0.47
1:BA:2532:G:N2	1:BA:2663:G:O2'	2.48	0.47
17:A2:44:LYS:HG2	17:A2:45:THR:H	1.77	0.47
1:BA:2129:C:N4	1:BA:2130:U:H3	2.12	0.47
32:CE:76:GLN:HB3	32:CE:211:ILE:HD11	1.96	0.47
31:CA:405:U:H3'	31:CA:406:G:H5'	1.97	0.47
20:BU:90:LEU:HD23	20:BU:90:LEU:N	2.25	0.47
4:BE:201:THR:C	4:BE:202:LYS:HD2	2.35	0.47
11:AO:58:THR:CG2	11:AO:58:THR:O	2.62	0.47
20:BU:46:LYS:O	20:BU:47:LYS:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DK:103:VAL:CG2	38:DK:110:ALA:HB2	2.44	0.47
8:AK:125:GLU:OE1	8:AK:141:LYS:HB3	2.14	0.47
46:CS:68:ASP:O	46:CS:71:ARG:HG2	2.15	0.47
1:BA:854:G:N2	1:BA:924:C:C2	2.83	0.47
1:AA:1664:A:N6	1:AA:1665:A:N6	2.62	0.47
43:CP:15:VAL:O	43:CP:19:LEU:CD2	2.63	0.47
1:AA:2839:G:C4	1:AA:2840:C:C5	3.03	0.47
21:BV:24:LEU:HD11	21:BV:86:VAL:HG12	1.97	0.47
1:BA:1759:A:C8	1:BA:2696:U:H1'	2.49	0.47
38:DK:85:ARG:O	38:DK:86:ILE:HD13	2.14	0.47
18:AS:75:TYR:CE2	18:AS:104:THR:CB	2.98	0.47
1:AA:1193:G:H2'	1:AA:1194:A:H8	1.79	0.47
36:CI:97:PHE:O	48:CU:31:LEU:HD23	2.15	0.47
10:AN:48:PRO:O	10:AN:49:ARG:HB2	2.15	0.47
31:CA:109:A:N7	31:CA:326:G:H2'	2.30	0.47
1:BA:807:U:H2'	1:BA:808:G:O5'	2.15	0.47
1:BA:1710:C:O2'	1:BA:1711:C:H5'	2.14	0.47
31:DA:895:G:H2'	31:DA:896:C:C6	2.49	0.47
7:AH:125:VAL:HG12	7:AH:127:GLU:O	2.14	0.47
3:BD:6:PHE:CE1	3:BD:18:VAL:HG12	2.50	0.47
1:BA:2:G:H1	1:BA:2901:C:H42	1.63	0.47
1:AA:1499:C:O2'	1:AA:1500:G:H5'	2.15	0.47
19:AT:51:VAL:HG13	19:AT:81:VAL:HG23	1.97	0.47
22:A3:60:PHE:CD2	22:A3:60:PHE:N	2.83	0.47
1:BA:2662:A:O5'	1:BA:2662:A:H8	1.97	0.47
1:BA:1029:A:O5'	1:BA:1029:A:H8	1.98	0.47
1:BA:1122:G:N3	1:BA:1122:G:H2'	2.30	0.47
1:BA:2634:G:O3'	4:BE:77:ILE:HD12	2.14	0.47
9:BM:72:TYR:CE1	9:BM:101:HIS:HD2	2.33	0.47
37:DJ:127:ALA:O	37:DJ:130:GLY:N	2.47	0.47
1:BA:846:C:C2	1:BA:847:U:H5	2.33	0.47
1:BA:10:G:C6	1:BA:2629:A:C2	3.03	0.47
3:BD:35:LYS:HD3	3:BD:63:ARG:HB3	1.97	0.47
3:BD:25:THR:HG21	3:BD:81:ALA:HA	1.97	0.47
3:BD:83:GLU:OE1	3:BD:104:TYR:OH	2.19	0.47
31:DA:1127:G:N2	31:DA:1144:G:N2	2.61	0.47
51:DX:6:ARG:HD3	51:DX:15:ARG:HH21	1.79	0.47
40:CM:55:LYS:HE2	40:CM:55:LYS:O	2.14	0.47
31:CA:1179:A:H2'	31:CA:1180:A:O4'	2.15	0.47
32:CE:221:LEU:O	32:CE:221:LEU:HD13	2.15	0.47
5:AF:63:LYS:CE	5:AF:67:GLN:HB3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:85:G:C5	1:BA:98:G:C2	3.02	0.47
11:BO:80:TYR:CE1	11:BO:111:ARG:CG	2.93	0.47
4:BE:182:LEU:C	4:BE:183:LEU:HD12	2.34	0.47
1:AA:2163:C:C5	1:AA:2164:C:C5	3.03	0.47
34:CG:10:ARG:O	34:CG:14:ARG:HB2	2.15	0.47
9:BM:47:ALA:HB2	9:BM:112:LEU:HD11	1.97	0.47
51:DX:8:THR:HG22	51:DX:10:ARG:N	2.30	0.47
20:AU:60:PHE:CD2	20:AU:60:PHE:N	2.83	0.47
40:DM:81:THR:O	40:DM:84:GLN:N	2.48	0.47
1:BA:2721:A:H2'	1:BA:2722:G:O4'	2.14	0.47
34:CG:70:ILE:CG2	34:CG:75:PHE:HB2	2.44	0.47
31:DA:561:U:O2'	31:DA:562:C:P	2.73	0.47
1:AA:1205:U:H4'	1:AA:1206:G:OP2	2.14	0.47
1:AA:1479:G:C5	1:AA:1510:A:N6	2.81	0.47
42:DO:83:VAL:CG1	42:DO:84:LEU:N	2.78	0.47
1:AA:1331:A:O2'	1:AA:1332:G:C8	2.64	0.47
6:AG:63:ILE:HG12	6:AG:64:THR:N	2.28	0.47
8:AK:69:LYS:HA	8:AK:136:VAL:HG11	1.97	0.47
1:AA:288:C:H2'	1:AA:289:A:H8	1.80	0.47
9:AM:17:ASP:O	9:AM:18:ALA:HB3	2.15	0.47
1:AA:1937:A:C2'	1:AA:1938:A:OP1	2.62	0.47
1:AA:1786:A:C1'	1:AA:1938:A:N6	2.78	0.47
31:DA:652:U:O4	31:DA:752:G:H1'	2.15	0.47
31:CA:1278:U:H6	31:CA:1278:U:H3'	1.80	0.47
1:BA:2133:G:H1'	1:BA:2158:A:N6	2.30	0.47
31:DA:1095:U:OP1	31:DA:1108:G:N1	2.48	0.47
31:DA:862:C:O2'	31:DA:863:U:H5'	2.14	0.47
1:AA:2205:C:H2'	1:AA:2205:C:O2	2.15	0.47
31:DA:47:C:H5''	31:DA:365:U:C6	2.49	0.47
31:DA:673:G:O3'	36:DI:87:ARG:NH2	2.48	0.47
1:AA:539:G:N3	1:AA:539:G:H2'	2.28	0.47
31:DA:740:U:OP2	45:DR:2:PRO:HA	2.15	0.47
1:AA:320:A:H2'	5:AF:136:THR:CG2	2.43	0.47
52:CB:16:U:N1	52:CB:70:G:N2	2.63	0.47
44:CQ:3:ARG:HD3	44:CQ:3:ARG:HA	1.59	0.47
36:CI:3:ARG:HD3	36:CI:38:GLU:OE1	2.14	0.47
1:BA:697:C:H2'	1:BA:697:C:O2	2.14	0.47
1:AA:529:A:H4'	1:AA:530:G:H5'	1.95	0.47
31:DA:426:G:P	34:DG:36:ARG:HH21	2.38	0.47
9:AM:7:LYS:CD	9:AM:7:LYS:H	2.26	0.47
37:CJ:56:GLN:HG2	37:CJ:56:GLN:H	1.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DT:58:GLU:O	47:DT:59:ILE:HD13	2.15	0.47
1:AA:1464:C:O2'	1:AA:1528:A:C8	2.68	0.47
31:CA:940:C:H2'	31:CA:941:G:C8	2.50	0.47
2:BB:55:U:O2'	2:BB:56:G:H5'	2.15	0.47
31:DA:879:C:C5	42:DO:6:THR:HG21	2.49	0.47
31:DA:1153:C:C4	31:DA:1154:G:N7	2.82	0.47
2:AB:82:G:O2'	2:AB:83:G:H5'	2.15	0.47
42:DO:50:SER:O	42:DO:51:ALA:HB2	2.15	0.47
1:AA:569:U:C4	1:AA:570:G:C6	3.02	0.47
41:DN:116:HIS:O	41:DN:117:ASN:HB2	2.15	0.47
3:BD:139:GLY:N	3:BD:165:ILE:O	2.48	0.47
31:DA:802:A:H5'	31:DA:803:G:OP2	2.15	0.47
1:BA:1217:C:OP2	16:B1:15:LYS:HE3	2.15	0.47
16:B1:68:ALA:O	16:B1:71:GLN:HB2	2.15	0.47
31:CA:967:C:H6	31:CA:967:C:O5'	1.98	0.47
34:DG:141:ARG:O	34:DG:144:ASP:HB2	2.15	0.47
1:AA:470:A:C5'	1:AA:470:A:H8	2.27	0.47
1:BA:1644:C:H2'	1:BA:1644:C:O2	2.13	0.47
28:A6:33:LYS:O	28:A6:35:GLU:HG3	2.15	0.47
40:DM:31:GLY:O	40:DM:32:ALA:HB2	2.15	0.47
1:BA:2364:C:O2'	1:BA:2365:G:H5'	2.15	0.47
1:AA:449:A:N6	1:AA:450:G:C6	2.83	0.47
4:AE:22:PRO:O	4:AE:23:VAL:CB	2.63	0.47
1:AA:1062:G:OP1	1:AA:1062:G:H8	1.98	0.47
1:AA:245:G:C4'	11:AO:70:GLN:O	2.63	0.47
31:DA:1133:G:H2'	31:DA:1134:G:C8	2.34	0.47
31:DA:1133:G:N2	31:DA:1141:C:C2	2.81	0.47
1:BA:1314:C:N3	1:BA:1339:G:C2	2.83	0.47
32:CE:5:ILE:HG13	32:CE:6:THR:N	2.30	0.47
1:AA:883:G:H2'	1:AA:884:C:C4'	2.45	0.47
1:BA:1012:U:N3	9:BM:25:ARG:HD3	2.30	0.47
28:A6:28:ARG:NH1	28:A6:28:ARG:HB3	2.29	0.47
9:BM:97:ARG:CG	9:BM:97:ARG:NH1	2.60	0.47
1:AA:2689:U:C4'	1:AA:2690:C:OP2	2.63	0.47
1:AA:2870:C:N3	1:AA:2871:C:C2	2.83	0.47
1:BA:587:C:C2	11:BO:33:ARG:NH1	2.83	0.47
7:BH:4:ILE:HD13	7:BH:7:LEU:HD23	1.97	0.47
1:BA:998:C:C2'	1:BA:999:U:O5'	2.63	0.47
1:BA:2873:A:H8	13:B0:5:LYS:HA	1.79	0.47
1:AA:1536:A:H2'	1:AA:1537:C:OP1	2.15	0.47
3:AD:72:LYS:HE3	3:AD:75:ILE:CD1	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:568:G:N2	31:DA:883:C:C2	2.83	0.47
7:BH:102:ALA:HB1	7:BH:115:VAL:C	2.35	0.47
1:BA:2749:A:H8	1:BA:2749:A:O5'	1.98	0.47
42:DO:27:LEU:CD2	42:DO:33:ARG:HG2	2.41	0.47
42:DO:32:PHE:HB3	42:DO:84:LEU:HD21	1.97	0.47
1:AA:1006:C:C2	1:AA:1138:G:N2	2.83	0.47
15:AR:7:ILE:O	15:AR:10:VAL:HB	2.14	0.47
1:AA:1331:A:HO2'	1:AA:1332:G:H8	1.62	0.47
1:BA:1464:C:C2	1:BA:1465:G:C8	3.03	0.47
31:DA:142:G:H2'	31:DA:143:A:H8	1.79	0.47
7:BH:153:LYS:O	7:BH:161:GLY:HA3	2.14	0.47
20:BU:17:SER:HB3	20:BU:71:LYS:HB3	1.97	0.47
32:DE:167:PRO:HD3	32:DE:187:LEU:O	2.15	0.47
1:BA:2439:A:C5'	1:BA:2439:A:H8	2.26	0.47
11:AO:83:VAL:O	11:AO:114:ILE:HA	2.14	0.47
1:AA:1416:G:O2'	1:AA:1417:C:H6	1.96	0.47
52:DB:23:A:HO2'	52:DB:24:C:P	2.35	0.47
41:DN:120:ARG:HA	41:DN:121:PRO:HD3	1.75	0.47
1:BA:900:A:H3'	1:BA:901:A:C8	2.45	0.47
1:BA:2280:G:O2'	1:BA:2388:A:N1	2.44	0.47
39:CL:63:ILE:HD11	39:CL:81:ILE:HD11	1.96	0.47
33:CF:141:VAL:CG1	33:CF:202:ILE:HG23	2.45	0.47
32:DE:102:LEU:H	32:DE:102:LEU:HD12	1.80	0.47
1:BA:1353:A:H4'	3:BD:38:LYS:CE	2.45	0.47
44:DQ:15:LYS:HZ3	44:DQ:15:LYS:HB3	1.79	0.47
52:CB:50:A:C2	52:CB:54:G:C6	3.03	0.47
37:CJ:111:ARG:HB3	37:CJ:112:PRO:HD2	1.97	0.47
4:AE:182:LEU:C	4:AE:183:LEU:HD12	2.36	0.47
1:BA:2050:C:H1'	4:BE:156:MET:HE1	1.95	0.47
1:BA:628:G:H5''	30:B8:18:ALA:HB2	1.96	0.47
6:AG:145:THR:O	6:AG:146:TYR:HB3	2.15	0.47
31:CA:5:U:O2'	31:CA:6:G:N3	2.42	0.47
1:BA:605:C:H1'	1:BA:657:U:O2'	2.15	0.47
14:AQ:56:LEU:HB2	14:AQ:58:LEU:CD2	2.45	0.47
1:BA:829:A:N7	1:BA:2247:A:O2'	2.45	0.47
1:BA:394:A:H2'	1:BA:395:U:O4'	2.15	0.47
9:AM:24:GLY:HA2	9:AM:27:ALA:CB	2.44	0.47
40:DM:69:ASN:O	40:DM:70:ARG:HG3	2.14	0.47
25:AX:23:LEU:CD2	25:AX:50:VAL:HG11	2.45	0.47
31:CA:1223:C:P	31:CA:1224:G:H2'	2.55	0.47
1:AA:449:A:C6	1:AA:450:G:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1368:G:C2	1:AA:1369:G:C8	3.03	0.47
5:BF:64:ILE:O	5:BF:65:TRP:HD1	1.98	0.47
31:DA:799:G:O6	31:DA:800:G:C2	2.68	0.47
41:DN:56:GLY:O	41:DN:89:ALA:HB3	2.15	0.47
31:DA:1428:A:H2'	31:DA:1429:C:C6	2.50	0.47
37:DJ:37:ASN:HD21	39:DL:41:VAL:H	1.62	0.47
31:CA:373:A:H2'	31:CA:374:A:O4'	2.15	0.47
31:DA:832:C:O2'	31:DA:833:U:H5'	2.15	0.47
23:AZ:25:LYS:HE3	23:AZ:25:LYS:HB2	1.70	0.47
1:BA:1985:G:O2'	1:BA:1986:A:H5'	2.15	0.47
1:AA:245:G:H2'	1:AA:246:C:H6	1.81	0.46
31:DA:1128:C:H5''	39:DL:16:ARG:NH2	2.24	0.46
1:AA:1902:C:C4	1:AA:1903:G:H1'	2.50	0.46
28:B6:51:GLU:HG2	28:B6:52:VAL:N	2.30	0.46
31:CA:1368:G:H5''	39:CL:112:LYS:HB3	1.98	0.46
4:BE:56:PRO:HA	4:BE:57:LYS:HA	1.47	0.46
31:CA:1157:A:H62	31:CA:1178:G:N2	2.11	0.46
1:BA:252:G:OP2	11:BO:50:ARG:NH1	2.33	0.46
31:CA:1502:A:H2	31:CA:1505:G:C2	2.32	0.46
31:CA:1502:A:C2	31:CA:1505:G:N2	2.65	0.46
31:CA:1004:A:C6	31:CA:1025:U:H1'	2.50	0.46
1:BA:1012:U:N3	1:BA:1143:A:C6	2.83	0.46
21:AV:6:LYS:NZ	21:AV:43:GLU:HG3	2.29	0.46
1:AA:1784:A:C4'	1:AA:1785:A:H5''	2.45	0.46
9:BM:134:ARG:N	9:BM:135:PRO:CD	2.78	0.46
14:BQ:95:HIS:N	14:BQ:99:LYS:HB2	2.30	0.46
42:DO:60:LEU:C	42:DO:62:SER:N	2.69	0.46
15:BR:93:ARG:CG	15:BR:117:ASP:CB	2.90	0.46
32:DE:92:TYR:CE2	32:DE:151:GLY:CA	2.98	0.46
18:AS:2:GLU:CA	18:AS:64:MET:HE1	2.45	0.46
26:B4:59:PHE:HD1	26:B4:60:GLN:NE2	2.13	0.46
1:AA:1999:C:H5''	1:AA:2723:C:O2'	2.15	0.46
15:BR:50:ILE:HD11	15:BR:102:ILE:CD1	2.40	0.46
31:DA:476:G:H2'	31:DA:477:G:C8	2.48	0.46
1:BA:1821:A:H2'	1:BA:1822:G:H8	1.80	0.46
8:BK:144:VAL:CG2	8:BK:145:VAL:HG23	2.39	0.46
31:CA:222:U:H2'	31:CA:223:U:C6	2.50	0.46
31:CA:66:G:C5	31:CA:67:C:C5	3.03	0.46
31:DA:1286:A:H2	51:DX:18:TYR:HH	1.61	0.46
22:A3:64:ASP:CB	22:A3:85:ALA:HB2	2.42	0.46
30:B8:61:LEU:HD12	30:B8:62:LEU:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:600:C:H5'	38:CK:129:VAL:O	2.15	0.46
15:BR:4:GLY:O	15:BR:7:ILE:HG22	2.15	0.46
15:AR:108:ARG:CG	15:AR:109:GLU:N	2.78	0.46
31:CA:1072:G:C6	31:CA:1073:U:C4	3.04	0.46
1:BA:486:C:H4'	18:BS:60:ASN:ND2	2.28	0.46
53:CD:22:A:N1	53:CD:47:G:H2'	2.30	0.46
31:CA:658:G:C4	31:CA:659:U:C6	3.03	0.46
1:BA:459:U:H2'	1:BA:460:A:C8	2.50	0.46
14:BQ:63:THR:O	14:BQ:66:ALA:HB3	2.14	0.46
31:DA:58:C:O5'	31:DA:58:C:H6	1.97	0.46
13:A0:10:LEU:O	13:A0:11:ASN:C	2.53	0.46
4:BE:111:ARG:HD2	4:BE:160:TYR:CD1	2.50	0.46
31:DA:1009:G:C2	31:DA:1010:G:C8	3.03	0.46
14:BQ:42:ASP:C	14:BQ:44:LYS:H	2.18	0.46
46:CS:49:LEU:HD12	46:CS:50:LYS:H	1.80	0.46
1:BA:1743:G:C2	1:BA:1746:G:C8	3.02	0.46
31:CA:489:C:O2'	31:CA:490:G:H5'	2.14	0.46
1:BA:2815:C:H5'	27:B5:29:THR:HG21	1.97	0.46
31:DA:1418:A:H5''	31:DA:1419:G:OP2	2.15	0.46
1:AA:2288:A:C2	1:AA:2325:G:C8	3.03	0.46
36:CI:18:GLN:O	36:CI:21:LEU:HB2	2.16	0.46
50:DW:58:LYS:O	50:DW:58:LYS:HD3	2.15	0.46
34:CG:59:ARG:NH2	34:CG:66:ARG:HH12	2.13	0.46
32:CE:82:ARG:HG2	32:CE:92:TYR:CE1	2.50	0.46
1:BA:2120:G:O2'	1:BA:2121:G:H5'	2.15	0.46
1:BA:1387:C:H5'	1:BA:1469:A:H4'	1.97	0.46
1:BA:2881:C:C4	1:BA:2882:A:N7	2.83	0.46
33:CF:94:LEU:O	33:CF:94:LEU:HD12	2.14	0.46
31:CA:587:G:N2	31:CA:755:G:C5	2.83	0.46
1:AA:719:C:H2'	1:AA:720:C:C6	2.50	0.46
17:B2:83:ARG:O	17:B2:84:LYS:CB	2.64	0.46
34:CG:8:VAL:HG21	34:CG:115:ARG:CZ	2.45	0.46
1:BA:847:U:C6	1:BA:933:A:N6	2.77	0.46
1:AA:2371:G:C1'	28:A6:45:LYS:HG3	2.46	0.46
3:BD:27:THR:HB	3:BD:81:ALA:HB1	1.97	0.46
39:DL:4:TYR:CE2	39:DL:88:TYR:CB	2.98	0.46
31:DA:1311:G:C2	31:DA:1327:C:N3	2.83	0.46
31:DA:984:C:H2'	31:DA:985:C:H6	1.80	0.46
31:DA:1006:C:H2'	31:DA:1007:C:C6	2.51	0.46
7:AH:84:SER:O	7:AH:133:VAL:O	2.34	0.46
15:BR:45:PHE:C	15:BR:45:PHE:HD2	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BZ:87:PRO:O	23:BZ:91:LYS:N	2.34	0.46
21:AV:37:VAL:HG23	21:AV:38:TYR:N	2.29	0.46
21:AV:62:PRO:O	21:AV:63:ASP:CB	2.55	0.46
1:BA:84:A:P	20:BU:8:LYS:HD3	2.55	0.46
1:AA:2255:G:C2	12:AP:85:LYS:HE2	2.50	0.46
1:AA:452:G:C2	1:AA:458:G:C5	3.04	0.46
32:DE:19:HIS:HD2	32:DE:205:ASP:OD1	1.98	0.46
4:BE:10:GLY:O	4:BE:24:THR:O	2.33	0.46
1:AA:1558:A:O2'	1:AA:1559:G:OP2	2.33	0.46
33:CF:126:ARG:NH1	33:CF:126:ARG:CG	2.74	0.46
31:DA:324:G:N2	31:DA:327:A:C8	2.83	0.46
1:BA:1407:C:C2	1:BA:1596:A:C2	3.03	0.46
15:BR:118:ARG:NH2	31:DA:1446:A:C6	2.83	0.46
1:AA:1190:G:H5'	11:AO:32:THR:HA	1.98	0.46
31:CA:265:G:H5'	47:CT:64:PRO:O	2.15	0.46
1:AA:1264:G:OP1	27:A5:19:ARG:NH2	2.36	0.46
1:AA:2329:G:H2'	1:AA:2330:G:C8	2.50	0.46
6:AG:63:ILE:HD12	6:AG:141:PHE:CG	2.50	0.46
1:BA:329:G:C5	20:BU:19:LYS:HG2	2.49	0.46
1:AA:77:C:OP1	24:AW:59:ARG:HD3	2.15	0.46
11:AO:83:VAL:CG1	11:AO:112:LEU:HD21	2.44	0.46
11:AO:114:ILE:O	11:AO:114:ILE:HG13	2.15	0.46
31:DA:76:G:C6	31:DA:77:C:C4	3.03	0.46
31:DA:428:G:C5	31:DA:430:A:C6	3.04	0.46
1:AA:637:A:C4	1:AA:652:C:H1'	2.50	0.46
40:DM:75:ILE:HD12	40:DM:76:ASN:CG	2.35	0.46
31:DA:176:C:O2'	31:DA:177:C:H5'	2.14	0.46
5:AF:9:ILE:CD1	5:AF:20:LEU:HB3	2.45	0.46
12:BP:7:MET:CB	12:BP:10:ARG:HH22	2.28	0.46
49:DV:31:ILE:CG2	49:DV:50:ALA:H	2.28	0.46
1:BA:1771:C:HO2'	1:BA:1786:A:C1'	2.28	0.46
1:BA:960:A:C5'	1:BA:961:C:OP1	2.63	0.46
33:DF:15:THR:HG21	33:DF:181:ASN:HA	1.97	0.46
1:BA:2150:U:H2'	1:BA:2151:G:C8	2.45	0.46
21:BV:48:PHE:CE1	21:BV:52:SER:HB2	2.50	0.46
31:DA:955:U:O2'	49:DV:83:HIS:CD2	2.68	0.46
32:CE:87:ARG:NH2	32:CE:233:SER:OG	2.34	0.46
38:CK:104:ARG:O	38:CK:107:LEU:HB2	2.15	0.46
35:CH:145:LYS:HA	38:CK:107:LEU:HD21	1.97	0.46
1:AA:1528:A:N1	1:AA:1543:A:C2	2.83	0.46
11:AO:140:ALA:O	11:AO:141:ALA:HB3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:967:C:C2	1:AA:968:G:C8	3.04	0.46
9:AM:127:ASP:N	9:AM:127:ASP:OD1	2.48	0.46
38:CK:118:VAL:O	38:CK:119:LEU:HD23	2.16	0.46
31:CA:5:U:H1'	31:CA:6:G:C6	2.50	0.46
6:AG:28:VAL:O	6:AG:31:VAL:HG13	2.15	0.46
1:BA:1017:G:N3	1:BA:1017:G:H2'	2.30	0.46
22:A3:55:ARG:HG3	22:A3:55:ARG:HH11	1.80	0.46
1:BA:198:C:O5'	1:BA:198:C:H6	1.98	0.46
1:BA:2850:A:H2'	1:BA:2851:A:H8	1.80	0.46
6:BG:150:ASP:CG	6:BG:151:ALA:N	2.69	0.46
1:BA:693:C:O2'	1:BA:694:U:H5'	2.15	0.46
1:BA:1629:U:H2'	1:BA:1630:G:C8	2.51	0.46
1:AA:2675:A:H5'	10:AN:29:ASN:O	2.14	0.46
1:BA:726:G:O2'	1:BA:727:A:OP2	2.31	0.46
44:DQ:43:CYS:O	44:DQ:46:GLU:N	2.48	0.46
45:DR:32:LEU:O	45:DR:36:ILE:HG13	2.15	0.46
1:AA:2824:C:H2'	1:AA:2825:C:O4'	2.16	0.46
1:BA:1120:G:C6	1:BA:1121:C:C4	3.03	0.46
48:CU:38:GLU:OE1	48:CU:41:LYS:HE2	2.15	0.46
31:CA:84:U:H6	31:CA:84:U:OP1	1.97	0.46
1:AA:1083:U:H3'	1:AA:1084:A:H5''	1.97	0.46
17:B2:80:GLN:CA	17:B2:80:GLN:NE2	2.63	0.46
4:AE:61:ARG:C	4:AE:63:LEU:H	2.19	0.46
12:BP:87:LYS:HG3	12:BP:88:GLY:N	2.27	0.46
31:DA:1177:G:H5''	31:DA:1178:G:P	2.55	0.46
31:DA:1222:G:H2'	31:DA:1223:C:O4'	2.15	0.46
31:DA:963:G:C2	40:DM:55:LYS:NZ	2.74	0.46
31:DA:1329:A:OP1	43:DP:25:ILE:O	2.32	0.46
43:DP:73:GLU:O	43:DP:77:ASN:HB2	2.16	0.46
1:AA:102:G:OP1	24:AW:7:ARG:NH2	2.48	0.46
1:BA:1093:G:H2'	1:BA:1094:U:H5'	1.97	0.46
1:BA:2633:G:H1'	4:BE:62:PRO:HG2	1.97	0.46
11:BO:50:ARG:NH2	11:BO:50:ARG:HB2	2.30	0.46
34:DG:14:ARG:HH11	34:DG:14:ARG:HG3	1.80	0.46
34:DG:9:CYS:SG	34:DG:31:CYS:O	2.74	0.46
1:BA:363(B):G:O2'	1:BA:363(C):G:H5'	2.16	0.46
31:CA:1502:A:H2	31:CA:1505:G:H1	1.63	0.46
31:CA:453:A:C6	31:CA:454:C:C4	3.03	0.46
31:CA:557:G:N1	31:CA:558:G:C2	2.84	0.46
20:AU:101:LYS:HE2	20:AU:101:LYS:HB3	1.59	0.46
1:AA:1022:G:N2	1:AA:1142(A):A:H2	2.06	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AT:47:PHE:O	19:AT:49:VAL:HG23	2.15	0.46
1:BA:1728:G:H5''	1:BA:1728:G:N3	2.29	0.46
1:BA:7:G:O2'	1:BA:8:A:H5'	2.14	0.46
1:AA:654(L):G:H2'	1:AA:654(M):C:O4'	2.15	0.46
11:AO:1:MET:HE2	11:AO:5:ASP:HB3	1.97	0.46
31:CA:192:U:H1'	50:CW:103:GLY:O	2.16	0.46
1:AA:1519:G:C6	1:AA:1520:U:C4	3.04	0.46
45:CR:56:LEU:HD12	45:CR:60:VAL:HG23	1.97	0.46
45:CR:56:LEU:O	45:CR:60:VAL:HG23	2.16	0.46
17:A2:4:ILE:HG22	17:A2:39:LEU:HD23	1.96	0.46
47:CT:68:ARG:O	47:CT:68:ARG:HG3	2.15	0.46
1:AA:518:G:C4'	18:AS:18:ARG:NH1	2.73	0.46
1:AA:271(C):U:C2'	1:AA:271:G:OP1	2.63	0.46
7:AH:46:GLU:OE2	7:AH:51:ARG:HD2	2.15	0.46
37:DJ:43:PHE:O	37:DJ:47:CYS:N	2.45	0.46
9:AM:21:LYS:O	9:AM:22:THR:O	2.34	0.46
15:AR:50:ILE:HD12	15:AR:99:LEU:O	2.15	0.46
31:CA:95:G:C6	31:CA:96:G:C6	3.04	0.46
31:DA:828:A:H5''	31:DA:859:A:C2	2.51	0.46
21:AV:98:MET:CE	21:AV:100:VAL:HG22	2.44	0.46
32:CE:84:GLU:OE1	32:CE:216:SER:HA	2.14	0.46
31:DA:555:C:H2'	31:DA:556:C:C6	2.50	0.46
34:CG:138:TYR:C	34:CG:138:TYR:CD2	2.88	0.46
32:DE:5:ILE:O	32:DE:5:ILE:CG2	2.63	0.46
1:AA:514:A:H1'	1:AA:581:C:O2'	2.15	0.46
46:DS:34:GLU:OE2	46:DS:55:ARG:NH1	2.48	0.46
5:BF:136:THR:HG23	5:BF:166:ALA:O	2.15	0.46
11:AO:54:GLY:O	11:AO:56:SER:N	2.48	0.46
45:CR:27:VAL:O	45:CR:31:LEU:HB2	2.15	0.46
31:CA:375:U:OP1	46:CS:69:THR:HG21	2.15	0.46
1:AA:1152:C:C2'	1:AA:1153:C:H5'	2.45	0.46
1:AA:597:U:H2'	1:AA:598:G:C8	2.51	0.46
1:AA:2875:C:O2'	15:AR:5:ALA:CB	2.62	0.46
15:BR:107:ASP:OD2	15:BR:109:GLU:HB2	2.15	0.46
3:AD:158:ALA:HB3	3:AD:161:THR:CG2	2.45	0.46
31:DA:754:C:O5'	45:DR:72:ARG:NH2	2.48	0.46
1:AA:511:U:H2'	1:AA:512:G:H5'	1.98	0.46
1:BA:2602:A:OP1	53:DC:76:C:OP1	2.33	0.46
2:BB:88:C:H3'	2:BB:89:G:C8	2.50	0.46
2:AB:30:C:H2'	2:AB:31:C:H5'	1.97	0.46
8:AK:129:THR:HA	8:AK:137:PRO:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1083:U:C5	31:DA:1084:G:C5	3.04	0.46
1:BA:2516:G:C6	1:BA:2517:C:N4	2.83	0.46
1:AA:1561:G:H2'	1:AA:1562:A:H8	1.80	0.46
1:AA:185:U:H4'	1:AA:218:A:H4'	1.97	0.46
1:BA:1003:G:N2	1:BA:1153:C:C2	2.83	0.46
17:B2:20:LEU:O	17:B2:94:LEU:N	2.44	0.46
31:DA:87:A:C2	31:DA:88:C:C5	3.02	0.46
38:CK:102:ARG:CZ	38:CK:102:ARG:HB3	2.44	0.46
32:DE:189:ASP:N	32:DE:189:ASP:OD1	2.47	0.46
6:AG:16:ARG:HH11	6:AG:16:ARG:CG	2.28	0.46
1:BA:2094:G:C2'	1:BA:2095:C:H5'	2.45	0.46
1:AA:2660:A:C2	1:AA:2661:G:H1'	2.50	0.46
1:BA:839:U:H2'	1:BA:840:C:C6	2.51	0.46
36:DI:96:PRO:HB3	48:DU:30:ASP:OD1	2.14	0.46
31:CA:585:G:O2'	31:CA:879:C:H5''	2.16	0.46
1:AA:449:A:OP1	5:AF:85:GLY:HA2	2.16	0.46
31:DA:151:A:C2	31:DA:152:A:H1'	2.50	0.46
31:CA:1275:A:C6	31:CA:1276:G:C5	3.03	0.46
1:AA:78:A:H2'	1:AA:79:G:C8	2.50	0.46
47:DT:10:VAL:HA	47:DT:20:THR:O	2.16	0.46
6:BG:165:THR:OG1	6:BG:168:GLU:HG3	2.15	0.46
31:CA:118:U:H3'	31:CA:288:A:H61	1.80	0.46
1:BA:1239:G:H2'	1:BA:1240:U:O4'	2.15	0.46
37:CJ:92:SER:O	37:CJ:96:GLN:HG3	2.15	0.46
1:BA:2784:C:H6	1:BA:2784:C:O5'	1.98	0.46
21:BV:115:GLY:H	21:BV:177:PRO:CD	2.29	0.46
3:BD:35:LYS:HG2	3:BD:64:ILE:HG12	1.97	0.46
12:BP:54:MET:HE1	12:BP:64:ILE:CG2	2.45	0.46
31:DA:509:A:H2'	31:DA:510:A:C8	2.50	0.46
5:BF:22:ALA:O	5:BF:24:LEU:O	2.33	0.46
53:DD:60:A:C2'	53:DD:61:U:H5'	2.46	0.46
53:DD:69:C:H2'	53:DD:70:C:O4'	2.16	0.46
11:BO:6:LEU:HB3	11:BO:7:ARG:H	1.61	0.46
1:AA:673:C:H5''	5:AF:81:PRO:HD2	1.97	0.46
31:CA:1002:G:C2'	31:CA:1003:G:H8	2.27	0.46
1:AA:2665:A:H2'	1:AA:2666:C:O5'	2.16	0.46
7:AH:153:LYS:N	7:AH:153:LYS:CD	2.75	0.46
5:AF:197:ASP:O	5:AF:198:ALA:CB	2.63	0.46
1:BA:2892:A:N6	1:BA:2893:G:C2	2.84	0.46
31:DA:1243:C:O2	31:DA:1295:G:N2	2.48	0.46
32:DE:237:ALA:H	32:DE:239:VAL:HB	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B4:13:ARG:O	26:B4:29:PRO:O	2.33	0.46
11:AO:2:LYS:HG2	11:AO:3:LEU:N	2.30	0.46
42:CO:50:ARG:HH12	42:CO:89:ASP:HB3	1.79	0.46
1:AA:1558:A:H1'	1:AA:1559:G:OP2	2.16	0.46
17:A2:35:LEU:C	17:A2:37:VAL:H	2.18	0.46
1:AA:943:U:OP2	11:AO:36:LYS:CE	2.64	0.46
1:BA:1527:G:O5'	1:BA:1528:A:OP1	2.34	0.46
1:BA:1538:G:C4	1:BA:1539:G:C8	3.03	0.46
7:BH:153:LYS:O	7:BH:161:GLY:CA	2.63	0.46
1:BA:307:G:H22	1:BA:310:A:P	2.38	0.46
21:BV:124:ILE:HD11	21:BV:165:VAL:HG11	1.97	0.46
21:BV:158:PRO:CB	21:BV:159:PRO:HD2	2.46	0.46
8:AK:140:LEU:HD23	8:AK:140:LEU:O	2.16	0.46
31:DA:830:G:N2	31:DA:857:C:C2	2.83	0.46
31:DA:84:U:O2	31:DA:84:U:C2'	2.59	0.46
33:DF:63:ASN:HD22	33:DF:64:VAL:H	1.64	0.46
33:DF:66:VAL:O	33:DF:66:VAL:HG12	2.15	0.46
31:CA:545:C:OP1	34:CG:61:LYS:NZ	2.48	0.46
1:AA:651:G:OP1	30:A8:19:SER:OG	2.26	0.46
1:AA:232:G:H4'	1:AA:233:A:OP1	2.16	0.46
52:CB:59:U:O2'	52:CB:70:G:C4'	2.63	0.46
1:AA:495:G:C6	1:AA:496:G:C5	3.03	0.46
41:CN:21:ILE:HD13	41:CN:94:ALA:CB	2.46	0.46
1:AA:2681:C:O2'	1:AA:2682:U:P	2.74	0.46
33:DF:181:ASN:HB3	33:DF:205:GLY:O	2.15	0.46
1:BA:470:A:OP1	5:BF:59:TYR:HE2	1.98	0.46
31:DA:818:G:HO2'	31:DA:820:U:H6	1.63	0.46
1:AA:548:A:H2'	1:AA:549:G:C5'	2.45	0.46
21:AV:53:ILE:HA	21:AV:71:VAL:HG13	1.97	0.46
40:DM:8:LEU:HG	40:DM:96:ILE:CG2	2.46	0.46
1:AA:2120:G:C2	1:AA:2121:G:C5	3.04	0.46
1:AA:988:A:O5'	1:AA:988:A:H8	1.98	0.46
2:AB:73:A:C3'	2:AB:74:U:H5'	2.45	0.46
1:AA:1336:A:H2'	1:AA:1337:G:H8	1.79	0.46
2:AB:7:G:H2'	2:AB:8:U:O4'	2.15	0.46
1:BA:844:C:N4	1:BA:845:G:N1	2.62	0.46
1:AA:2599:G:O2'	1:AA:2600:A:H5'	2.15	0.46
31:DA:777:A:C2	41:DN:119:CYS:HB3	2.51	0.46
1:BA:2199:A:H3'	1:BA:2205:C:C6	2.50	0.46
1:BA:1501:C:O4'	3:BD:100:GLY:HA2	2.16	0.46
40:DM:29:ARG:C	40:DM:31:GLY:N	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1620:G:O4'	29:B7:1:MET:N	2.48	0.46
1:BA:1638:C:O2	1:BA:2698:U:O2'	2.33	0.46
1:AA:2627:G:N2	1:AA:2777:G:OP2	2.47	0.46
39:DL:122:ALA:HB1	39:DL:123:PRO:HD2	1.98	0.46
10:BN:97:ARG:NH2	10:BN:99:PHE:HE1	2.13	0.46
43:CP:81:LEU:O	43:CP:89:GLY:HA3	2.15	0.46
6:AG:23:PHE:HB2	6:AG:25:TYR:CE2	2.51	0.46
1:BA:2431:U:O2'	1:BA:2433:A:N7	2.43	0.46
32:DE:22:LYS:HD3	32:DE:22:LYS:HA	1.78	0.46
31:DA:1489:G:H2'	31:DA:1490:C:O4'	2.16	0.46
1:AA:747:U:O2	1:AA:2014:A:H1'	2.16	0.46
34:CG:31:CYS:C	34:CG:33:MET:H	2.18	0.46
31:DA:1127:G:H1'	31:DA:1147:C:N4	2.30	0.46
53:CC:56:U:O2	53:CC:58:A:C8	2.68	0.46
28:B6:28:ARG:CG	28:B6:31:PRO:HD2	2.45	0.46
28:B6:9:LEU:N	28:B6:27:LYS:HA	2.30	0.46
2:BB:73:A:H3'	2:BB:74:U:H6	1.80	0.46
43:CP:8:GLU:O	43:CP:10:PRO:HD3	2.15	0.46
49:CV:40:ILE:HD11	49:CV:62:ILE:CG2	2.45	0.46
32:CE:59:GLU:HB2	32:CE:221:LEU:HD11	1.97	0.46
1:BA:945:A:C8	1:BA:2448:A:C2	3.03	0.46
31:CA:1321:C:H3'	31:CA:1322:C:C5'	2.30	0.46
7:AH:149:ARG:HA	7:AH:162:ILE:HG21	1.96	0.46
31:DA:1092:A:C2	31:DA:1183:A:C2	3.04	0.46
1:AA:74:A:H8	1:AA:74:A:C5'	2.28	0.46
1:BA:2556:C:H2'	1:BA:2557:G:O4'	2.15	0.46
2:BB:65:C:C4	2:BB:108:C:C6	3.03	0.46
31:CA:690:G:H22	41:CN:55:LYS:HZ2	1.63	0.46
39:CL:86:VAL:HG21	39:CL:102:LEU:HD11	1.98	0.46
1:BA:2748:A:C2	1:BA:2749:A:C4	3.04	0.46
18:AS:29:LEU:HD11	18:AS:55:ALA:HB2	1.98	0.46
42:CO:50:ARG:HB3	42:CO:90:LEU:HD11	1.96	0.46
16:A1:61:TRP:CD2	16:A1:94:ASN:HA	2.51	0.46
1:BA:1498:C:O4'	1:BA:1577:C:H4'	2.15	0.46
31:CA:1346:A:O3'	31:CA:1347:G:H4'	2.15	0.46
1:AA:1869:G:C5'	1:AA:1869:G:H8	2.19	0.46
31:CA:129:U:H5'	47:CT:3:LYS:NZ	2.31	0.46
31:DA:198:G:OP2	31:DA:198:G:C8	2.67	0.46
1:BA:1342:A:C6	1:BA:1602:U:N3	2.75	0.46
31:CA:778:G:H1'	41:CN:119:CYS:HB3	1.98	0.46
37:DJ:43:PHE:O	37:DJ:47:CYS:HB2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1392:G:H21	31:DA:1502:A:H8	1.63	0.46
21:AV:105:VAL:CG1	21:AV:140:ASP:HB3	2.44	0.46
1:AA:676:A:H8	1:AA:2069:G:N2	2.03	0.46
31:DA:1288:A:O2'	31:DA:1289:A:H5'	2.16	0.46
31:CA:1239:A:N6	31:CA:1299:A:H62	2.08	0.46
31:DA:91:C:H5'	31:DA:92:G:OP2	2.15	0.46
1:AA:1581:G:C5	1:AA:1582:C:C4	3.04	0.46
1:BA:1288:U:H4'	1:BA:1289:C:OP2	2.16	0.46
34:CG:133:VAL:HG11	34:CG:138:TYR:CD1	2.47	0.46
1:AA:2334:G:N3	14:AQ:12:PHE:CD2	2.84	0.46
1:BA:1487:G:H1	1:BA:1502:C:N4	2.14	0.46
1:AA:2693:A:H2'	1:AA:2694:G:C8	2.45	0.46
1:BA:2142:C:H2'	1:BA:2143:C:C6	2.50	0.46
34:DG:162:LEU:HA	34:DG:162:LEU:HD23	1.84	0.46
1:BA:1472:A:O2'	1:BA:1473:G:H5'	2.14	0.46
1:AA:2098:U:N3	1:AA:2099:U:C5	2.83	0.46
1:BA:876:C:N4	1:BA:877:U:O4	2.48	0.46
1:AA:1666:G:O2'	1:AA:1667:G:H5'	2.16	0.46
1:AA:950:G:C5	1:AA:951:C:C4	3.04	0.46
1:BA:729:G:C5	3:BD:208:LYS:HB2	2.50	0.46
1:BA:2074:U:H4'	1:BA:2598:A:O4'	2.16	0.46
16:A1:66:ASN:CB	16:A1:76:TYR:HB2	2.45	0.46
35:DH:39:GLY:HA2	35:DH:113:ALA:O	2.16	0.46
5:BF:161:GLU:HB3	5:BF:162:LEU:HD12	1.96	0.46
7:AH:102:ALA:CB	7:AH:116:GLU:HB2	2.45	0.46
31:DA:757:U:O2'	31:DA:879:C:H1'	2.16	0.46
1:AA:218:A:H2'	1:AA:219:G:O4'	2.16	0.46
1:BA:1668:A:N7	1:BA:1674:G:C6	2.83	0.46
35:CH:69:VAL:HG12	35:CH:71:LEU:CD2	2.46	0.46
1:BA:1686:C:H2'	1:BA:1687:G:H5'	1.97	0.46
1:BA:2724:C:OP1	4:BE:118:LYS:HE3	2.15	0.46
1:AA:1488:G:C6	1:AA:1489:U:N3	2.83	0.46
31:CA:1410:G:O2'	31:CA:1411:C:H5'	2.16	0.46
1:BA:1157:G:O2'	1:BA:1158:C:H5'	2.15	0.46
38:DK:120:THR:H	38:DK:123:GLU:HG3	1.79	0.46
1:AA:738:G:C6	1:AA:739:G:C2	3.03	0.46
1:BA:1364:G:C8	23:BZ:2:SER:HA	2.51	0.46
5:AF:149:ASP:OD2	5:AF:151:SER:HB3	2.15	0.46
31:DA:1434:A:H61	31:DA:1467:G:H1'	1.79	0.46
1:BA:1655:A:O2'	4:BE:115:GLY:HA2	2.16	0.46
14:BQ:51:ALA:CB	14:BQ:73:LEU:HD23	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:49:ILE:H	37:CJ:49:ILE:HG12	1.47	0.46
1:BA:1593:G:H2'	1:BA:1594:G:C8	2.51	0.46
1:AA:1400:G:H2'	1:AA:1401:G:C8	2.50	0.46
1:BA:681:G:H2'	1:BA:682:G:O4'	2.16	0.46
22:B3:60:PHE:N	22:B3:60:PHE:CD2	2.83	0.46
38:DK:33:GLU:OE1	38:DK:50:ARG:HD2	2.16	0.46
37:DJ:131:LYS:HB2	37:DJ:131:LYS:NZ	2.31	0.46
13:B0:28:LEU:HD23	13:B0:28:LEU:HA	1.79	0.46
1:BA:1973:G:O2'	1:BA:1974:C:H5'	2.15	0.46
1:AA:2390:U:O2'	1:AA:2391:G:H5'	2.16	0.46
1:BA:2056:G:N2	27:B5:5:PRO:O	2.48	0.46
17:B2:76:LYS:CG	17:B2:80:GLN:HG2	2.43	0.46
1:AA:2311:A:C4	6:AG:80:PHE:HE1	2.16	0.46
31:DA:1051:C:H2'	31:DA:1052:U:C6	2.51	0.46
31:DA:963:G:N2	40:DM:55:LYS:HZ3	2.13	0.46
28:B6:34:LEU:O	28:B6:35:GLU:HB2	2.14	0.46
11:BO:19:VAL:HG22	11:BO:27:HIS:HB3	1.88	0.46
31:CA:1054:C:O2'	31:CA:1055:A:C5'	2.64	0.46
1:BA:1071:G:C4	1:BA:1089:G:H2'	2.51	0.46
1:BA:2785:C:O2'	4:BE:64:LYS:NZ	2.48	0.46
31:CA:1156:G:C2'	31:CA:1157:A:H5''	2.45	0.46
31:CA:1130:A:O5'	31:CA:1131:G:P	2.74	0.46
1:AA:1885:A:H2'	1:AA:1886:C:O4'	2.15	0.46
31:CA:1004:A:C1'	31:CA:1036:G:O6	2.64	0.46
43:DP:34:LEU:O	43:DP:38:GLY:HA2	2.16	0.46
21:AV:19:ARG:NH1	21:AV:84:GLU:HB2	2.30	0.46
1:AA:1688:U:H2'	1:AA:1698:A:N6	2.31	0.46
19:AT:87:GLN:HE21	19:AT:87:GLN:HB2	1.48	0.46
31:CA:686:U:C2'	31:CA:687:A:O5'	2.63	0.46
50:CW:100:ILE:CG1	50:CW:101:GLY:H	2.29	0.46
39:CL:42:ARG:HB2	39:CL:42:ARG:HE	1.61	0.46
1:BA:1356:G:C5	1:BA:1357:U:C5	3.03	0.46
1:AA:1005:C:O2'	9:AM:28:THR:CG2	2.64	0.46
27:A5:40:LYS:HG2	27:A5:47:PRO:CD	2.38	0.46
19:AT:63:LYS:HB3	19:AT:63:LYS:HE2	1.75	0.46
1:BA:1182:A:H2'	1:BA:1183:G:C8	2.51	0.46
31:DA:1521:G:H2'	31:DA:1522:U:H6	1.81	0.46
1:BA:1278:A:O2'	13:B0:34:ILE:HD11	2.16	0.46
31:CA:90:C:C5	31:CA:91:C:H5	2.33	0.46
31:DA:941:G:H2'	31:DA:942:G:O5'	2.15	0.46
31:CA:1256:A:C2	31:CA:1277:C:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2156:G:N1	1:BA:2157:G:N2	2.64	0.46
31:DA:862:C:O4'	31:DA:874:G:H4'	2.16	0.46
38:CK:4:ASP:OD2	38:CK:7:ALA:N	2.37	0.46
8:BK:91:SER:OG	31:CA:368:U:P	2.74	0.46
31:DA:92:G:C2	31:DA:93:U:C2	3.03	0.46
32:CE:210:SER:O	32:CE:214:ILE:HG12	2.16	0.46
21:BV:141:VAL:HG21	21:BV:150:LEU:HG	1.97	0.46
34:CG:155:LEU:O	34:CG:157:LEU:N	2.48	0.46
6:AG:114:ILE:CD1	6:AG:140:ILE:HG21	2.41	0.46
13:A0:44:LEU:O	13:A0:44:LEU:HD22	2.15	0.46
1:AA:232:G:OP2	1:AA:232:G:C8	2.57	0.46
6:BG:117:PHE:C	6:BG:117:PHE:CD1	2.88	0.46
43:DP:102:ARG:HH11	43:DP:105:THR:HG23	1.79	0.46
1:BA:534:U:OP1	16:B1:24:TYR:OH	2.27	0.46
1:AA:2591:C:OP1	3:AD:239:ARG:NH2	2.49	0.46
10:BN:35:VAL:HG21	10:BN:69:ILE:CD1	2.46	0.46
52:DB:37:G:C4	52:DB:38:G:C8	3.04	0.46
39:CL:25:LYS:HE3	39:CL:25:LYS:HB2	1.71	0.46
1:BA:2542:A:H5'	1:BA:2543:G:OP1	2.15	0.46
7:BH:20:ALA:O	7:BH:22:GLY:N	2.48	0.46
7:BH:20:ALA:HB1	7:BH:21:PRO:HD2	1.98	0.46
21:BV:10:ARG:HH21	21:BV:26:GLY:H	1.63	0.46
44:DQ:29:ARG:HH21	44:DQ:42:ILE:HG12	1.80	0.46
6:BG:16:ARG:N	6:BG:17:PRO:HD2	2.30	0.46
1:BA:1050:A:H2'	1:BA:1051:G:O4'	2.16	0.46
18:BS:19:LEU:HB3	27:B5:25:LEU:HD12	1.97	0.46
1:BA:2063:C:H2'	1:BA:2064:C:H5'	1.97	0.46
37:CJ:155:ARG:HD3	37:CJ:155:ARG:O	2.16	0.46
31:CA:292:G:N7	31:CA:293:G:H1'	2.31	0.46
1:BA:1105:U:O2'	1:BA:1106:G:H5'	2.16	0.46
1:AA:654(I):C:H5'	1:AA:654(J):A:OP2	2.16	0.46
27:B5:52:TYR:O	27:B5:53:ALA:HB3	2.15	0.46
1:BA:372:G:O2'	1:BA:373:U:OP2	2.32	0.46
36:CI:47:ARG:HD2	36:CI:47:ARG:HA	1.85	0.46
9:BM:18:ALA:HA	9:BM:21:LYS:HD2	1.97	0.46
43:DP:106:ASN:O	43:DP:107:ALA:HB3	2.16	0.46
1:AA:2431:U:O2	1:AA:2433:A:C8	2.68	0.46
16:B1:8:VAL:HG12	16:B1:11:ARG:HH21	1.80	0.46
31:CA:451:A:N6	31:CA:480:U:H2'	2.30	0.46
1:AA:1063:G:N2	1:AA:1076:C:H1'	2.29	0.46
4:BE:45:THR:O	4:BE:45:THR:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1665:A:C2'	1:BA:1666:G:H5'	2.46	0.46
21:BV:175:VAL:HG22	21:BV:176:PRO:CD	2.16	0.46
31:DA:1173:G:H2'	31:DA:1174:G:O4'	2.16	0.46
31:DA:978:A:C5'	31:DA:979:C:OP2	2.64	0.46
40:DM:49:VAL:O	40:DM:60:ARG:HB2	2.15	0.46
31:DA:973:G:C1'	40:DM:55:LYS:HE2	2.46	0.46
11:AO:18:ARG:NH2	11:AO:21:ARG:HD3	2.31	0.46
11:AO:15:ARG:NH1	11:AO:15:ARG:CB	2.75	0.46
31:CA:1358:U:H2'	31:CA:1359:C:O4'	2.15	0.46
28:B6:10:LEU:N	28:B6:10:LEU:HD12	2.28	0.46
1:BA:2392:A:P	30:B8:32:LEU:HD11	2.55	0.46
14:AQ:85:VAL:HG23	14:AQ:112:PHE:HE1	1.80	0.46
23:AZ:87:PRO:O	23:AZ:88:LYS:C	2.53	0.46
31:CA:1177:G:O6	31:CA:1182:G:O6	2.33	0.46
2:AB:12:C:C2	22:A3:74:ARG:NH1	2.78	0.46
34:DG:65:ARG:HD2	34:DG:72:GLU:HA	1.98	0.46
1:BA:273(C):C:H5'	1:BA:273(D):C:OP2	2.15	0.46
1:AA:881:G:C5'	1:AA:882:G:O5'	2.64	0.46
31:CA:453:A:C5	31:CA:454:C:C5	3.03	0.46
4:BE:4:ILE:HG13	4:BE:28:ALA:HB1	1.97	0.46
1:AA:2117:A:H62	1:AA:2172:U:H3	1.58	0.46
53:CD:19:G:H5'	53:CD:20:G:P	2.55	0.46
1:AA:58:G:N2	1:AA:70:G:C4	2.84	0.46
1:BA:88:G:O2'	1:BA:89:G:H5'	2.15	0.46
1:AA:1408:C:O2'	1:AA:1409:C:H5'	2.15	0.46
1:BA:1047:G:N2	1:BA:1111:A:N6	2.64	0.46
1:BA:1110:G:H4'	7:BH:3:ARG:HH12	1.80	0.46
1:BA:1111:A:H4'	7:BH:3:ARG:CD	2.35	0.46
1:AA:483:A:O4'	20:AU:47:LYS:HB3	2.16	0.46
6:BG:7:LEU:HD22	6:BG:100:TRP:CE3	2.51	0.46
1:AA:1578:U:C2'	1:AA:1578:U:O2	2.64	0.46
31:DA:631:G:C3'	31:DA:632:A:H8	2.29	0.46
1:BA:2838:G:C4	1:BA:2839:G:C8	3.04	0.46
5:BF:110:LEU:HD13	5:BF:205:ARG:HG2	1.97	0.46
24:BW:15:LYS:HD3	24:BW:67:LYS:CE	2.45	0.46
16:A1:60:LEU:HD11	16:A1:64:ARG:HD2	1.97	0.46
7:AH:7:LEU:HD12	7:AH:7:LEU:H	1.81	0.46
17:B2:43:GLU:HA	17:B2:43:GLU:OE2	2.14	0.46
22:B3:23:VAL:HG13	22:B3:38:VAL:HG22	1.98	0.46
1:AA:2830:G:N3	1:AA:2883:A:H2	2.13	0.46
1:AA:1263:U:O3'	27:A5:11:THR:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:197:A:H1'	31:DA:198:G:O4'	2.15	0.46
45:CR:38:ARG:NH1	45:CR:38:ARG:CG	2.77	0.46
7:BH:107:VAL:HG12	7:BH:107:VAL:O	2.15	0.46
31:DA:1521:G:H2'	31:DA:1522:U:C6	2.51	0.46
9:AM:60:ILE:CD1	9:AM:60:ILE:H	2.16	0.46
31:DA:1347:G:C6	39:DL:107:ARG:NH2	2.84	0.46
31:CA:1279:A:H5''	31:CA:1280:A:OP2	2.16	0.46
11:BO:30:THR:O	11:BO:31:ALA:HB3	2.15	0.46
31:CA:402:G:C6	31:CA:403:C:C4	3.03	0.46
31:CA:403:C:O2'	31:CA:404:U:H5'	2.16	0.46
1:AA:638:G:H2'	1:AA:639:U:C6	2.51	0.46
1:AA:1677:A:H2'	1:AA:1678:G:C8	2.51	0.46
40:DM:47:PHE:CZ	44:DQ:37:PHE:CE2	3.04	0.46
14:BQ:106:ARG:O	14:BQ:107:GLU:HB2	2.15	0.46
5:AF:9:ILE:HD13	5:AF:9:ILE:O	2.16	0.46
1:AA:1329:U:H5''	1:AA:1330:C:C5	2.41	0.46
1:BA:1476:C:C2'	1:BA:1477:A:H5'	2.45	0.46
31:CA:766:A:C8	31:CA:814:A:N6	2.83	0.46
34:CG:20:TYR:CE1	36:DI:15:ASP:HB2	2.51	0.46
33:CF:58:GLU:HB2	33:CF:65:ALA:HB2	1.97	0.46
1:BA:1507:A:H2'	1:BA:1508:A:O4'	2.16	0.46
32:CE:31:TYR:HE1	32:CE:194:PRO:HB3	1.81	0.46
31:CA:1164:G:C6	31:CA:1165:C:C4	3.03	0.46
34:CG:108:LEU:HD23	34:CG:110:PHE:HE1	1.81	0.46
33:DF:92:ALA:HA	33:DF:95:THR:O	2.16	0.46
34:CG:173:TRP:NE1	34:CG:174:LEU:HG	2.30	0.46
3:BD:158:ALA:HB3	3:BD:161:THR:CG2	2.46	0.46
1:AA:515:A:H2'	1:AA:516:C:H5'	1.98	0.46
35:DH:107:ARG:HG2	35:DH:108:ALA:N	2.30	0.46
25:AX:11:SER:OG	25:AX:13:ILE:HG12	2.16	0.46
1:BA:1754:C:OP2	15:BR:113:LYS:HE3	2.16	0.46
18:AS:86:LEU:HD12	18:AS:87:PRO:CD	2.46	0.46
14:BQ:18:ILE:O	14:BQ:21:THR:HG22	2.15	0.46
31:DA:390:C:O2'	46:DS:28:ARG:NH1	2.48	0.46
34:DG:91:SER:OG	34:DG:191:ARG:HG3	2.16	0.46
1:BA:110:G:C2	1:BA:111:A:C8	3.03	0.46
31:CA:442:C:H42	31:CA:492:G:H1	1.63	0.46
1:BA:1589:C:H2'	1:BA:1590:U:C6	2.51	0.46
17:A2:8:GLY:O	17:A2:10:LYS:HE3	2.15	0.46
36:CI:11:ASN:OD1	36:CI:12:PRO:HD2	2.15	0.46
35:CH:29:GLY:HA2	35:CH:46:GLY:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:93:LYS:HG2	14:AQ:94:TYR:N	2.30	0.46
32:DE:223:ILE:O	32:DE:226:ARG:N	2.46	0.46
13:B0:57:ARG:HB3	13:B0:59:ASP:OD2	2.16	0.46
1:AA:699:A:H2'	1:AA:700:G:O4'	2.16	0.46
1:BA:2898:U:H2'	1:BA:2899:G:C8	2.50	0.46
32:CE:111:ARG:HH11	32:CE:111:ARG:HA	1.80	0.46
14:BQ:93:LYS:HB2	14:BQ:93:LYS:HE3	1.68	0.46
4:AE:108:SER:O	4:AE:162:ALA:HA	2.15	0.46
31:DA:1139:G:N2	31:DA:1143:G:N1	2.51	0.46
39:DL:3:GLN:O	39:DL:88:TYR:HE1	1.98	0.46
1:AA:2311:A:C2	6:AG:80:PHE:CE1	3.04	0.46
1:BA:1062:G:H2'	1:BA:1063:G:H8	1.81	0.46
1:BA:273(C):C:C4	1:BA:273(D):C:C5	3.04	0.46
12:BP:30:GLY:CA	12:BP:107:ALA:CB	2.71	0.46
53:DD:15:G:N2	53:DD:60:A:C4	2.84	0.46
6:AG:5:VAL:HG11	6:AG:100:TRP:HB3	1.97	0.46
23:BZ:86:SER:N	23:BZ:87:PRO:HD3	2.29	0.46
5:AF:29:ASN:N	5:AF:112:MET:CE	2.59	0.46
1:AA:2168:G:N2	1:AA:2170:A:P	2.88	0.46
31:CA:1028(A):C:N4	31:CA:1028(B):C:H41	2.13	0.46
1:BA:2211:G:H4'	1:BA:2212:A:OP2	2.16	0.46
20:AU:49:VAL:CG1	20:AU:50:ARG:H	2.26	0.46
1:BA:2687:U:C4	1:BA:2688:U:C5	3.04	0.46
1:BA:2798:C:C5	1:BA:2799:A:N6	2.84	0.46
26:B4:16:CYS:C	26:B4:18:CYS:H	2.19	0.46
1:BA:2310:A:H5'	1:BA:2311:A:OP2	2.16	0.46
49:DV:18:LYS:HA	49:DV:21:GLU:HG2	1.97	0.46
18:AS:1:MET:HG3	18:AS:64:MET:CE	2.46	0.46
1:AA:996:A:H4'	16:A1:92:ARG:NE	2.31	0.46
47:CT:79:SER:O	47:CT:79:SER:OG	2.33	0.46
37:CJ:22:LEU:CD2	37:CJ:62:PHE:HE2	2.24	0.46
1:BA:2406:U:H2'	1:BA:2406:U:OP2	2.15	0.46
5:AF:142:TRP:CE3	5:AF:143:ALA:HA	2.51	0.46
1:BA:1278:A:OP1	13:B0:36:THR:HG22	2.16	0.46
31:DA:266:G:H2'	31:DA:266:G:N3	2.30	0.46
21:BV:139:VAL:HA	21:BV:156:LYS:HE3	1.98	0.46
21:BV:163:LEU:HD13	21:BV:165:VAL:HG23	1.98	0.46
17:A2:29:PRO:O	17:A2:61:VAL:O	2.34	0.46
9:BM:19:GLU:HG3	9:BM:59:LYS:CB	2.40	0.46
3:AD:137:PRO:HG2	3:AD:140:THR:HG21	1.98	0.46
31:CA:544:G:C6	31:CA:545:C:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DE:178:ARG:HH22	32:DE:196:LEU:HA	1.81	0.46
1:BA:2378:A:C5	1:BA:2379:G:H1'	2.51	0.46
1:BA:956:G:H2'	1:BA:957:A:H2'	1.97	0.46
1:AA:2209:C:C2	1:AA:2216:G:C2	3.03	0.46
1:BA:797:C:H2'	1:BA:798:G:O4'	2.16	0.46
31:CA:651:C:H2'	31:CA:652:U:C6	2.51	0.46
1:AA:2139:C:C2'	1:AA:2140:C:H5'	2.45	0.46
42:CO:84:GLY:HA2	42:CO:95:TYR:HA	1.98	0.46
31:CA:1122:U:N3	31:CA:1123:A:C5	2.84	0.46
31:DA:187:C:O2	31:DA:191(A):G:C6	2.68	0.46
3:BD:141:VAL:HG23	3:BD:162:SER:HB2	1.96	0.46
7:BH:10:PRO:HD2	7:BH:50:VAL:O	2.15	0.46
12:AP:30:GLY:HA2	12:AP:107:ALA:HB2	1.98	0.46
13:A0:17:ARG:O	13:A0:20:LEU:HB3	2.16	0.46
31:CA:763:G:C4	31:CA:764:C:C6	3.04	0.46
1:AA:989:G:N7	25:AX:13:ILE:CD1	2.79	0.46
1:AA:234:C:C2	1:AA:235:U:C6	3.03	0.46
31:DA:87:A:C2	31:DA:88:C:C6	3.03	0.46
1:BA:2550:G:H2'	1:BA:2551:C:H5'	1.98	0.46
11:BO:38:GLN:HG2	11:BO:45:LEU:HD12	1.96	0.46
1:AA:414:C:H2'	1:AA:415:A:H8	1.80	0.46
31:CA:1112:C:N3	33:CF:178:LEU:HD23	2.31	0.46
31:CA:756:C:H2'	31:CA:757:U:O4'	2.15	0.46
1:BA:686:G:N7	29:B7:5:TRP:CH2	2.84	0.46
5:AF:52:LYS:HA	5:AF:56:GLU:OE1	2.15	0.46
36:CI:97:PHE:N	48:CU:30:ASP:OD1	2.48	0.46
52:CB:47:C:H42	52:CB:56:G:H1	1.64	0.46
25:BX:39:ASP:O	25:BX:39:ASP:OD1	2.34	0.46
1:BA:2759:G:C2'	1:BA:2760:C:H5'	2.46	0.46
1:AA:1756:G:H4'	1:AA:1758:G:O4'	2.16	0.46
1:BA:2591:C:H2'	1:BA:2592:G:C8	2.51	0.46
33:CF:29:TYR:O	33:CF:29:TYR:HD2	1.98	0.46
31:CA:393:A:C6	31:CA:394:G:N7	2.83	0.46
10:BN:104:ARG:HB3	10:BN:104:ARG:NH1	2.31	0.46
46:DS:47:ASP:O	46:DS:47:ASP:CG	2.53	0.46
32:CE:24:TRP:CE3	32:CE:26:PRO:HA	2.51	0.46
1:BA:2635:C:H2'	1:BA:2636:U:O5'	2.15	0.46
30:B8:14:VAL:CG1	30:B8:22:VAL:HG13	2.46	0.46
1:BA:1666:G:H2'	1:BA:1667:G:H5'	1.97	0.46
1:BA:9:U:H3	1:BA:2629:A:H62	1.51	0.46
31:DA:1159:U:O2'	31:DA:1160:G:C8	2.67	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1175:G:N1	31:DA:1176:A:C6	2.83	0.46
31:DA:1321:C:H4'	43:DP:87:TYR:CE2	2.51	0.46
12:BP:54:MET:O	12:BP:57:HIS:N	2.48	0.46
53:DC:22:A:H5''	53:DC:23:G:OP1	2.16	0.46
1:AA:2481:G:H2'	1:AA:2482:G:OP2	2.15	0.46
43:CP:23:TYR:CD1	43:CP:67:GLU:HA	2.48	0.46
31:CA:1157:A:O2'	31:CA:1158:C:H5''	2.16	0.46
1:AA:2572:A:C8	4:AE:144:ARG:HG3	2.51	0.46
1:BA:1313:U:H2'	1:BA:1610:A:C2	2.50	0.46
11:BO:50:ARG:HH21	11:BO:50:ARG:HB2	1.79	0.46
5:BF:3:GLU:HG3	5:BF:20:LEU:C	2.35	0.46
26:A4:61:ARG:O	26:A4:65:ASP:OD1	2.33	0.46
1:BA:971:C:H2'	1:BA:972:G:H5'	1.98	0.46
1:BA:1023:U:OP2	1:BA:1024:G:N7	2.49	0.46
9:BM:28:THR:HA	9:BM:106:MET:CE	2.45	0.46
31:CA:201:C:N4	31:CA:209:U:C2	2.84	0.46
53:CD:15:G:H2'	53:CD:60:A:H2	1.77	0.46
1:AA:1173:G:H4'	1:AA:1174:A:C2	2.50	0.46
31:DA:181:G:H4'	31:DA:182:U:H5'	1.98	0.46
2:BB:3:C:N3	2:BB:117:G:N2	2.47	0.46
31:DA:452:A:O2'	31:DA:453:A:P	2.74	0.46
3:AD:259:THR:HG22	3:AD:260:ARG:N	2.30	0.46
47:CT:68:ARG:H	47:CT:70:ARG:NH1	2.14	0.46
31:CA:1375:A:H4'	37:CJ:29:LYS:HE3	1.98	0.46
5:BF:84:VAL:O	5:BF:85:GLY:C	2.52	0.46
1:AA:1263:U:O2'	27:A5:11:THR:HG23	2.16	0.46
3:AD:26:LYS:H	3:AD:26:LYS:HD2	1.81	0.46
31:DA:702:A:H3'	31:DA:703:G:C5'	2.45	0.46
6:AG:166:ASP:OD1	6:AG:166:ASP:N	2.47	0.46
31:CA:530:G:H1'	52:CB:36:A:H1'	1.98	0.46
39:CL:95:LYS:HE2	39:CL:95:LYS:HB2	1.68	0.46
34:CG:119:GLN:HE21	34:CG:123:HIS:CD2	2.33	0.46
1:BA:566:U:OP1	11:BO:29:LYS:CE	2.62	0.46
1:AA:322:A:C5	1:AA:340:A:C2	3.04	0.46
50:CW:13:LEU:CD1	50:CW:13:LEU:C	2.81	0.46
1:AA:2680:C:H5'	4:AE:189:PRO:HA	1.98	0.46
31:CA:659:U:OP1	45:CR:8:LYS:HD3	2.15	0.46
1:AA:1162:G:O4'	17:A2:23:GLU:HG3	2.16	0.46
40:CM:81:THR:O	40:CM:84:GLN:HB2	2.15	0.46
1:AA:26:G:H1'	1:AA:515:A:N6	2.31	0.46
28:A6:52:VAL:HG22	28:A6:53:LYS:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:643:A:H2'	1:AA:644:A:O5'	2.15	0.46
31:DA:878:G:H5''	38:DK:89:PRO:HG2	1.96	0.46
21:AV:27:VAL:HG22	21:AV:28:MET:H	1.80	0.46
35:DH:100:VAL:HG22	35:DH:118:ILE:HG22	1.98	0.46
1:BA:2517:C:C6	1:BA:2542:A:N1	2.84	0.46
1:BA:2059:A:H2	1:BA:2062:A:H61	1.62	0.46
49:DV:78:ARG:HD3	49:DV:79:THR:H	1.81	0.46
1:AA:192:C:C2'	1:AA:193:U:H5'	2.45	0.46
1:BA:1907:G:C2'	1:BA:1908:C:H5'	2.45	0.46
1:BA:35:G:H1'	1:BA:454:A:C4	2.50	0.46
1:BA:2859:G:C8	1:BA:2859:G:H3'	2.51	0.46
45:CR:63:ARG:HG2	45:CR:67:LEU:CD1	2.46	0.46
1:BA:2855:C:H2'	1:BA:2856:C:C6	2.51	0.46
22:B3:37:LEU:HG	22:B3:60:PHE:HA	1.98	0.46
1:AA:1474:C:H2'	1:AA:1475:G:C8	2.50	0.46
11:BO:136:GLU:O	11:BO:139:LYS:N	2.45	0.46
1:AA:1941:C:C5	1:AA:1965:C:C6	3.03	0.46
8:BK:115:ALA:HB3	8:BK:129:THR:O	2.16	0.46
1:AA:2552:U:C2	1:AA:2554:U:H5'	2.50	0.46
31:DA:117:G:H2'	31:DA:118:U:O4'	2.16	0.46
1:BA:2180:U:H2'	1:BA:2181:G:O4'	2.15	0.46
1:BA:13:A:C2	1:BA:14:A:N6	2.83	0.46
1:AA:1085:A:N3	1:AA:1086:A:C5	2.84	0.46
1:BA:2416:C:OP1	11:BO:64:LYS:O	2.33	0.46
1:AA:2415:G:C4	1:AA:2416:C:C6	3.04	0.46
11:AO:64:LYS:HD2	30:A8:25:MET:HE1	1.96	0.46
31:DA:1128:C:O2'	31:DA:1129:C:O5'	2.34	0.46
31:DA:1176:A:C6	31:DA:1177:G:C5	3.04	0.46
31:DA:1119:C:OP1	39:DL:83:ARG:NH1	2.49	0.46
39:DL:82:ALA:O	39:DL:86:VAL:HG12	2.16	0.46
4:AE:36:ARG:O	4:AE:46:ALA:O	2.33	0.46
6:AG:78:SER:OG	53:CC:58:A:O4'	2.25	0.46
1:AA:593:G:O3'	30:A8:61:LEU:HD13	2.16	0.46
14:AQ:14:VAL:HG21	14:AQ:89:ARG:NE	2.30	0.46
53:DC:25:U:H2'	53:DC:26:C:O4'	2.15	0.46
1:AA:2297:C:C2'	1:AA:2298:A:H5'	2.45	0.46
23:AZ:85:LEU:O	23:AZ:87:PRO:CG	2.64	0.46
1:BA:1314:C:OP1	1:BA:1332:G:H5''	2.16	0.46
11:BO:50:ARG:HH21	11:BO:50:ARG:CB	2.28	0.46
34:DG:138:TYR:CD2	34:DG:139:ARG:N	2.84	0.46
1:AA:889:C:H5''	1:AA:890:A:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:880:G:C6	1:AA:881:G:N7	2.84	0.46
1:AA:2457:U:C2'	1:AA:2458:G:H5'	2.46	0.46
32:DE:42:ILE:HD13	32:DE:203:GLY:HA2	1.97	0.46
1:AA:2702:U:OP1	1:AA:2702:U:C6	2.63	0.46
20:BU:98:VAL:CG1	20:BU:99:CYS:H	2.29	0.46
28:A6:17:LYS:C	28:A6:19:ARG:N	2.69	0.46
1:BA:444:C:O2'	1:BA:445:C:H5'	2.16	0.46
17:B2:35:LEU:O	17:B2:37:VAL:CG2	2.59	0.46
50:CW:71:THR:O	50:CW:72:LEU:C	2.53	0.46
9:BM:128:HIS:HE2	9:BM:134:ARG:CD	2.28	0.46
2:BB:44:G:C2	2:BB:48:A:C2	3.03	0.46
6:BG:39:ILE:HD11	6:BG:102:PHE:CE1	2.51	0.46
50:CW:54:LYS:HA	50:CW:57:ARG:NH2	2.31	0.46
37:CJ:20:ASP:HB3	37:CJ:23:VAL:HG23	1.98	0.46
1:AA:1795:C:C2	1:AA:1796:U:C6	3.04	0.46
24:BW:14:ARG:NH1	24:BW:66:GLU:OE1	2.47	0.46
31:DA:765:G:N2	31:DA:813:U:OP2	2.45	0.46
1:AA:2721:A:H1'	1:AA:2873:A:O2'	2.15	0.46
1:BA:918:A:H1'	2:BB:80:U:O2'	2.15	0.46
37:DJ:44:TYR:O	37:DJ:48:LYS:HG2	2.16	0.46
11:AO:111:ARG:HB3	11:AO:128:HIS:CG	2.51	0.46
1:AA:1507:A:N6	1:AA:1508:A:C6	2.84	0.46
1:AA:1673:U:O2'	1:AA:1674:G:H5'	2.16	0.46
2:BB:15:A:H2'	2:BB:16:G:OP1	2.16	0.46
15:BR:3:ARG:CZ	15:BR:6:LEU:HD13	2.46	0.46
31:CA:1091:U:O2	31:CA:1093:A:C8	2.69	0.46
6:BG:173:LEU:HD13	6:BG:178:PHE:CE1	2.50	0.46
31:CA:533:A:C2	31:CA:536:C:C5	3.04	0.46
31:DA:407:G:H2'	31:DA:408:A:H8	1.80	0.46
34:CG:107:ARG:HH22	34:CG:194:LEU:HD11	1.80	0.46
6:BG:115:ARG:NH2	43:DP:7:VAL:HG23	2.30	0.46
31:CA:706:A:H2'	31:CA:707:C:H5'	1.98	0.46
31:DA:1121:U:C2	31:DA:1122:U:C6	3.04	0.46
31:CA:312:C:H2'	31:CA:313:A:C8	2.51	0.46
31:CA:722:A:H2'	31:CA:724:G:C8	2.51	0.46
43:DP:4:ILE:HD11	43:DP:19:LEU:HD13	1.97	0.46
31:CA:263:A:OP2	50:CW:79:ARG:NH1	2.49	0.46
11:BO:23:PRO:C	11:BO:25:SER:N	2.69	0.46
31:CA:941:G:N2	31:CA:942:G:H1'	2.30	0.46
31:DA:1086:U:C6	31:DA:1086:U:OP2	2.69	0.46
34:CG:114:ARG:CG	34:CG:114:ARG:NH1	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BV:23:LYS:HD3	21:BV:40:ASP:HA	1.97	0.46
53:CD:32:G:N2	53:CD:41:C:C2	2.83	0.46
17:B2:20:LEU:O	17:B2:93:GLU:HA	2.16	0.46
6:BG:14:GLU:O	6:BG:17:PRO:HG2	2.16	0.46
1:AA:1831:G:H2'	1:AA:1832:C:C6	2.51	0.46
2:AB:99:A:C4	2:AB:100:G:C8	3.04	0.46
38:DK:20:TYR:HA	38:DK:65:TYR:CZ	2.51	0.46
1:AA:1381:G:H2'	1:AA:1382:G:H5'	1.97	0.46
36:CI:97:PHE:CD2	48:CU:31:LEU:HD21	2.51	0.46
6:BG:125:PHE:CD2	6:BG:131:TYR:HB2	2.50	0.46
1:BA:1944:U:O2	1:BA:1955:U:H5''	2.15	0.46
31:DA:778:G:O2'	41:DN:119:CYS:HB2	2.16	0.46
1:AA:1401:G:H2'	1:AA:1402:C:C6	2.51	0.46
30:A8:48:PHE:HE2	30:A8:50:LEU:HD13	1.81	0.46
42:CO:116:LYS:O	42:CO:117:TYR:HB2	2.16	0.46
34:DG:39:PRO:O	34:DG:44:GLY:HA3	2.16	0.46
18:BS:54:ALA:HB1	18:BS:107:LEU:HD22	1.98	0.46
31:DA:357:G:O2'	31:DA:358:U:H5'	2.15	0.46
8:BK:102:SER:O	8:BK:106:GLY:N	2.48	0.46
1:AA:1531:C:O2'	1:AA:1532:C:H5'	2.16	0.46
37:DJ:66:VAL:O	37:DJ:70:LYS:HG3	2.16	0.46
1:AA:1056:G:C2	1:AA:1103:A:N6	2.63	0.45
1:AA:389:G:N1	11:AO:71:VAL:CG1	2.70	0.45
1:AA:1903:G:P	3:AD:241:PRO:HB2	2.56	0.45
53:CC:63:C:H2'	53:CC:63:C:O2	2.15	0.45
31:DA:1056:U:C5'	33:DF:163:ALA:HB2	2.46	0.45
31:DA:1203:C:H2'	31:DA:1204:A:O4'	2.15	0.45
31:DA:1326:C:H2'	31:DA:1327:C:C6	2.51	0.45
28:B6:44:ARG:O	28:B6:45:LYS:CD	2.63	0.45
1:BA:588:U:O4	1:BA:670:A:H1'	2.16	0.45
1:BA:669:G:C2'	1:BA:670:A:OP1	2.64	0.45
1:BA:2287:A:N1	1:BA:2346:A:N1	2.64	0.45
1:BA:1083:U:H1'	1:BA:1086:A:H62	1.80	0.45
4:BE:70:ALA:O	4:BE:72:VAL:N	2.49	0.45
22:B3:18:ALA:HB3	22:B3:20:ARG:HH21	1.81	0.45
31:CA:1176:A:H2'	31:CA:1177:G:C5'	2.47	0.45
1:AA:1858:G:H2'	1:AA:1883:G:N2	2.28	0.45
1:BA:1012:U:C4	1:BA:1143:A:N1	2.83	0.45
1:AA:1728:G:C3'	1:AA:1729:A:C5'	2.79	0.45
3:AD:182:LEU:CB	3:AD:271:ILE:HG13	2.45	0.45
53:CD:14:A:N7	53:CD:15:G:N7	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1028(A):C:C2	31:CA:1028(B):C:C5	3.04	0.45
1:AA:1021:A:H3'	1:AA:1021:A:C8	2.51	0.45
1:AA:1142(A):A:C5	1:AA:1144:G:C5	3.04	0.45
1:AA:2869:G:H2'	1:AA:2870:C:C6	2.50	0.45
1:BA:1111:A:O2'	1:BA:1112:G:H4'	2.16	0.45
53:CD:6:G:C2	53:CD:7:G:C5	3.05	0.45
31:DA:625:G:C5	31:DA:626:U:C5	3.04	0.45
19:AT:24:GLY:C	19:AT:82:GLN:HE22	2.19	0.45
9:BM:42:TRP:CD1	16:B1:63:VAL:HG11	2.50	0.45
1:BA:2801:A:H5''	1:BA:2895:U:H4'	1.98	0.45
1:AA:1479:G:C2	1:AA:1480:G:C4	3.03	0.45
17:A2:35:LEU:HD22	17:A2:57:VAL:O	2.15	0.45
31:CA:606:G:H1	31:CA:631:G:C5'	2.26	0.45
1:BA:2317:C:H2'	1:BA:2318:G:H5'	1.97	0.45
29:B7:19:ARG:HH11	29:B7:19:ARG:CG	2.16	0.45
5:BF:78:ILE:HA	5:BF:83:PHE:HD1	1.78	0.45
5:AF:40:GLN:OE1	5:AF:184:TYR:HB2	2.16	0.45
31:DA:340:U:H2'	31:DA:341:C:C6	2.51	0.45
31:DA:1190:G:H3'	33:DF:3:ASN:ND2	2.30	0.45
31:DA:750:G:H1'	45:DR:23:GLY:H	1.81	0.45
33:CF:57:ILE:HG12	33:CF:66:VAL:HG22	1.98	0.45
9:AM:59:LYS:NZ	9:AM:61:ARG:HH22	2.14	0.45
8:AK:77:LEU:HD23	8:AK:101:LEU:HD12	1.97	0.45
8:BK:77:LEU:CG	8:BK:78:THR:N	2.80	0.45
31:DA:1287:A:H2'	31:DA:1288:A:C8	2.51	0.45
31:CA:1336:C:H2'	31:CA:1336:C:O2	2.15	0.45
30:B8:61:LEU:O	30:B8:62:LEU:C	2.53	0.45
21:AV:113:ALA:N	21:AV:114:GLY:CA	2.75	0.45
34:CG:156:GLU:HG2	34:CG:157:LEU:N	2.31	0.45
31:CA:406:G:H4'	34:CG:3:ARG:HH22	1.80	0.45
1:AA:559:G:N2	16:A1:49:HIS:CD2	2.78	0.45
31:CA:718:G:C4	41:CN:116:HIS:CD2	3.04	0.45
20:AU:6:HIS:ND1	20:AU:7:VAL:HG13	2.30	0.45
8:BK:79:ILE:HG13	8:BK:140:LEU:HD11	1.98	0.45
15:AR:23:ARG:NH2	15:AR:120:ARG:HD3	2.31	0.45
4:AE:188:VAL:HA	4:AE:189:PRO:HD3	1.61	0.45
52:CB:27:G:H3'	52:CB:28:C:C6	2.44	0.45
8:BK:110:ASP:O	8:BK:111:PRO:C	2.53	0.45
33:CF:138:VAL:O	33:CF:141:VAL:N	2.49	0.45
1:AA:1152:C:C1'	16:A1:77:SER:HB2	2.45	0.45
26:B4:48:ARG:HH12	26:B4:51:ASP:CB	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2251:G:N1	53:DC:77:A:N6	2.64	0.45
1:AA:270(J):G:H2'	1:AA:270(K):C:O4'	2.15	0.45
6:BG:146:TYR:CD2	6:BG:146:TYR:O	2.69	0.45
2:BB:24:G:C2	2:BB:56:G:C2	3.05	0.45
31:CA:186(E):C:H42	31:CA:191(B):G:H1	1.64	0.45
31:DA:1086:U:H6	31:DA:1086:U:OP2	1.98	0.45
1:BA:2517:C:C6	1:BA:2542:A:C2	3.04	0.45
22:B3:53:MET:HG3	22:B3:59:LEU:HD23	1.97	0.45
35:CH:41:VAL:CG1	35:CH:113:ALA:HB2	2.46	0.45
31:DA:756:C:H2'	31:DA:757:U:O4'	2.16	0.45
44:CQ:6:LEU:HB3	44:CQ:23:ARG:NH2	2.31	0.45
31:CA:1112:C:O5'	31:CA:1112:C:H6	1.99	0.45
34:DG:49:ARG:HA	34:DG:49:ARG:NE	2.31	0.45
31:DA:105:G:H2'	31:DA:106:C:H6	1.80	0.45
1:BA:1261:C:H2'	1:BA:1262:A:O5'	2.15	0.45
1:BA:1262:A:N3	27:B5:10:LYS:HE3	2.31	0.45
1:AA:459:U:H2'	1:AA:460:A:C8	2.51	0.45
1:BA:1952:A:C6	10:BN:22:ILE:HD12	2.51	0.45
1:AA:1545(A):A:C2'	1:AA:1546:C:H5'	2.46	0.45
9:BM:21:LYS:O	9:BM:60:ILE:HG23	2.17	0.45
32:CE:24:TRP:CZ3	32:CE:26:PRO:HA	2.51	0.45
3:BD:239:ARG:O	3:BD:240:ALA:HB2	2.16	0.45
3:AD:10:THR:OG1	3:AD:13:ARG:HB2	2.15	0.45
31:DA:1062:U:H2'	31:DA:1063:C:C6	2.51	0.45
1:BA:1914:C:O4'	1:BA:1914:C:O2	2.35	0.45
1:AA:1575:C:H2'	1:AA:1576:U:C6	2.50	0.45
1:AA:1951:U:H2'	1:AA:1953:A:OP2	2.16	0.45
21:BV:104:PHE:CE1	21:BV:119:GLU:HB3	2.51	0.45
36:CI:98:LEU:HB3	48:CU:29:PHE:O	2.16	0.45
31:DA:1465:C:H2'	31:DA:1466:C:O4'	2.16	0.45
31:DA:1371:G:OP1	39:DL:11:LYS:HG2	2.16	0.45
1:AA:236:C:H2'	1:AA:237:C:C6	2.51	0.45
32:DE:24:TRP:CD1	32:DE:24:TRP:C	2.88	0.45
31:CA:282:A:N3	31:CA:282:A:H2'	2.31	0.45
35:DH:135:THR:O	35:DH:138:ALA:HB3	2.15	0.45
1:AA:1061:U:O2'	1:AA:1070:A:N3	2.45	0.45
34:CG:12:CYS:SG	34:CG:31:CYS:SG	3.14	0.45
31:DA:1118:C:H1'	31:DA:1179:A:C4	2.51	0.45
40:DM:54:PHE:CZ	40:DM:55:LYS:CE	3.00	0.45
28:B6:45:LYS:N	28:B6:45:LYS:NZ	2.65	0.45
12:BP:102:VAL:O	12:BP:102:VAL:CG1	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BF:51:THR:OG1	5:BF:91:GLY:HA3	2.16	0.45
1:BA:1923:U:O2'	53:DC:12:G:H1'	2.16	0.45
1:BA:1923:U:OP1	53:DC:25:U:O2'	2.32	0.45
31:CA:972:C:OP2	40:CM:57:LYS:HE2	2.16	0.45
31:DA:1004:A:C5'	31:DA:1025:U:C4	2.98	0.45
4:AE:111:ARG:CD	4:AE:160:TYR:HE1	2.27	0.45
5:BF:25:PRO:C	5:BF:27:GLU:N	2.70	0.45
31:CA:1024:G:C4'	31:CA:1024:G:OP1	2.62	0.45
11:BO:9:ASN:CB	11:BO:10:PRO:CD	2.83	0.45
42:DO:117:ARG:NH2	42:DO:124:LYS:HB2	2.32	0.45
31:CA:298:A:H2'	31:CA:299:G:O4'	2.16	0.45
20:BU:84:ARG:HG3	20:BU:84:ARG:O	2.16	0.45
1:BA:93:C:C5'	1:BA:94:G:OP2	2.51	0.45
1:AA:142:G:H2'	1:AA:143:C:C6	2.51	0.45
1:BA:1041:C:O2'	1:BA:1042:G:H5'	2.16	0.45
1:AA:953:A:OP2	12:AP:16:ARG:CD	2.51	0.45
34:DG:104:VAL:O	34:DG:108:LEU:HB2	2.16	0.45
1:BA:996:A:N6	1:BA:1160:G:C6	2.83	0.45
3:AD:43:ARG:HD2	3:AD:44:ASN:CG	2.35	0.45
32:DE:75:LYS:HA	32:DE:78:GLN:HE21	1.82	0.45
31:DA:567:G:H2'	31:DA:568:G:O4'	2.15	0.45
1:BA:1359:A:N6	1:BA:1372:U:H3	1.96	0.45
15:BR:56:GLY:N	15:BR:59:THR:HG22	2.30	0.45
16:A1:91:ASP:O	16:A1:95:LEU:HB2	2.16	0.45
26:B4:61:ARG:HA	26:B4:61:ARG:NH1	2.31	0.45
1:AA:2745:C:C4	1:AA:2746:U:C4	3.04	0.45
11:AO:36:LYS:HB2	11:AO:40:SER:HB3	1.98	0.45
1:BA:26:G:C6	1:BA:27:G:N1	2.83	0.45
31:DA:1503:A:H5'	31:DA:1531:A:H1'	1.98	0.45
21:BV:124:ILE:HD12	21:BV:125:LEU:H	1.80	0.45
1:AA:2607:G:H2'	1:AA:2608:G:O4'	2.16	0.45
11:AO:126:VAL:HG12	11:AO:147:LEU:HD13	1.97	0.45
1:BA:2134:A:C2	1:BA:2159:G:H1'	2.51	0.45
31:DA:828:A:N6	31:DA:858:G:O2'	2.36	0.45
46:CS:28:ARG:NH1	46:CS:29:ASP:OD2	2.50	0.45
1:AA:1416:G:O2'	1:AA:1417:C:C6	2.69	0.45
31:CA:406:G:H2'	31:CA:407:G:H8	1.81	0.45
38:CK:27:PRO:HA	38:CK:58:TYR:CD2	2.51	0.45
1:BA:2292:C:H4'	1:BA:2375:G:H4'	1.99	0.45
20:AU:42:VAL:O	20:AU:42:VAL:CG1	2.62	0.45
6:BG:114:ILE:CG2	6:BG:117:PHE:HB2	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:9:LEU:CB	8:AK:11:ASN:O	2.65	0.45
41:CN:29:ILE:HB	41:CN:44:SER:CB	2.46	0.45
24:BW:47:ASN:N	24:BW:47:ASN:ND2	2.63	0.45
31:DA:791:G:C6	31:DA:792:A:N7	2.83	0.45
31:DA:960:U:O2	31:DA:960:U:H2'	2.16	0.45
36:CI:41:GLU:HG3	36:CI:62:TRP:CE3	2.51	0.45
37:DJ:69:VAL:O	37:DJ:69:VAL:HG12	2.16	0.45
41:DN:48:ILE:CG1	41:DN:63:LEU:HB3	2.46	0.45
31:CA:397:A:H3'	31:CA:397:A:N3	2.32	0.45
31:CA:1194:U:H5''	35:CH:22:GLY:O	2.16	0.45
1:BA:56:A:C2	1:BA:115:C:O2	2.70	0.45
50:DW:73:HIS:HB3	50:DW:74:LYS:H	1.49	0.45
1:BA:1676:A:N3	1:BA:1993:U:H5'	2.30	0.45
48:DU:74:ARG:HB3	48:DU:81:PHE:CZ	2.51	0.45
1:AA:1433:U:O2	1:AA:1561:G:C2	2.69	0.45
1:AA:455:C:N3	1:AA:473:G:H5'	2.31	0.45
36:CI:55:ASP:HB2	36:CI:86:ARG:HH12	1.81	0.45
5:AF:7:TYR:O	5:AF:21:ALA:HA	2.15	0.45
1:AA:1097:U:H2'	1:AA:1098:A:H5'	1.98	0.45
30:A8:39:LYS:O	30:A8:43:GLN:HG3	2.16	0.45
2:AB:19:G:O2'	2:AB:20:C:H5'	2.17	0.45
31:DA:815:A:C2	31:DA:1529:G:C4	3.04	0.45
31:DA:1072:G:H2'	31:DA:1073:U:O4'	2.16	0.45
34:DG:50:ARG:HA	34:DG:51:PRO:HD3	1.76	0.45
31:DA:355:C:C4	31:DA:356:A:N7	2.85	0.45
1:AA:1319:G:C6	1:AA:1320:C:N4	2.84	0.45
31:DA:384:G:H2'	31:DA:385:C:C6	2.51	0.45
13:A0:28:LEU:HD23	13:A0:28:LEU:HA	1.82	0.45
1:AA:1268:A:C2'	1:AA:1269:A:O5'	2.64	0.45
1:BA:524:U:H2'	1:BA:525:U:C6	2.51	0.45
1:BA:691:C:H2'	1:BA:692:C:C6	2.51	0.45
27:A5:3:LYS:HA	27:A5:3:LYS:CE	2.45	0.45
1:AA:2790:A:H2	1:AA:2894:G:H5''	1.80	0.45
15:BR:53:ARG:HG3	15:BR:53:ARG:HH11	1.82	0.45
1:BA:886:C:H1'	1:BA:890:A:C2	2.52	0.45
31:DA:1158:C:C4	31:DA:1160:G:N7	2.84	0.45
12:BP:33:GLY:HA2	12:BP:105:GLU:HB2	1.98	0.45
12:BP:58:PHE:CE1	12:BP:113:GLN:HB3	2.51	0.45
53:DC:62:C:C2	53:DC:63:C:C5	3.04	0.45
31:CA:975:A:N6	40:CM:60:ARG:HH12	2.11	0.45
31:CA:1158:C:N3	31:CA:1160:G:N7	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2572:A:C8	4:AE:144:ARG:NE	2.85	0.45
1:AA:2032:G:N2	4:AE:146:THR:HG23	2.04	0.45
7:BH:125:VAL:CG2	7:BH:126:PRO:HD3	2.19	0.45
11:BO:48:PRO:C	11:BO:50:ARG:N	2.70	0.45
34:DG:78:LEU:CD2	34:DG:96:LEU:HB3	2.46	0.45
6:AG:67:LYS:CE	26:A4:6:HIS:NE2	2.79	0.45
31:CA:1004:A:C5	31:CA:1025:U:H1'	2.52	0.45
1:BA:67:U:O2'	1:BA:68:G:H5'	2.17	0.45
53:CD:14:A:H8	53:CD:14:A:OP1	1.99	0.45
1:AA:74:A:H8	1:AA:74:A:H5''	1.81	0.45
1:BA:92:G:C6	1:BA:93:C:C4	3.04	0.45
34:DG:126:ILE:HG22	34:DG:127:THR:N	2.30	0.45
1:AA:2135:A:H2'	1:AA:2136:C:O5'	2.15	0.45
26:B4:23:GLU:CG	26:B4:24:THR:H	2.29	0.45
11:AO:1:MET:HE3	11:AO:5:ASP:HB3	1.98	0.45
31:CA:689:C:C2'	31:CA:690:G:H5'	2.46	0.45
39:CL:49:PRO:HD3	39:CL:101:PHE:CE2	2.51	0.45
17:A2:35:LEU:C	17:A2:37:VAL:N	2.69	0.45
31:CA:258:G:H2'	31:CA:259:G:H8	1.81	0.45
31:CA:267:C:OP1	47:CT:67:LYS:HE3	2.17	0.45
7:AH:4:ILE:C	7:AH:6:ARG:N	2.69	0.45
1:AA:944:G:C2'	1:AA:944:G:N3	2.79	0.45
31:DA:350:G:H5'	31:DA:351:G:P	2.56	0.45
7:AH:67:LEU:O	7:AH:71:LEU:HB2	2.16	0.45
31:DA:1286:A:H4'	51:DX:25:LYS:NZ	2.31	0.45
31:CA:953:G:C5'	31:CA:965:A:H61	2.22	0.45
13:B0:107:ASP:C	13:B0:107:ASP:OD2	2.55	0.45
1:BA:2291:U:H2'	1:BA:2292:C:C6	2.52	0.45
12:BP:7:MET:HB3	12:BP:10:ARG:HH22	1.80	0.45
32:DE:5:ILE:HD11	32:DE:55:PHE:HB3	1.97	0.45
15:AR:45:PHE:CE2	15:AR:63:VAL:HB	2.43	0.45
35:DH:60:TYR:HB3	35:DH:64:ARG:HH21	1.82	0.45
36:DI:15:ASP:OD1	36:DI:16:GLN:N	2.50	0.45
15:BR:47:GLY:CA	15:BR:63:VAL:HG12	2.43	0.45
31:DA:570:G:H1'	31:DA:820:U:N3	2.32	0.45
33:DF:70:VAL:HG12	33:DF:72:LYS:N	2.32	0.45
31:CA:1015:A:H2'	31:CA:1016:A:C8	2.51	0.45
11:AO:85:LEU:HA	11:AO:88:LEU:CD2	2.42	0.45
1:AA:2097:C:O2'	1:AA:2098:U:H5'	2.16	0.45
1:AA:176:G:C2'	1:AA:177:G:H5'	2.47	0.45
38:CK:107:LEU:HA	38:CK:107:LEU:HD23	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:64:ARG:HD3	10:AN:79:PHE:CD2	2.51	0.45
1:BA:2602:A:H4'	1:BA:2603:G:C5'	2.46	0.45
37:DJ:102:ARG:O	37:DJ:106:GLN:HG3	2.16	0.45
1:AA:2095:C:H2'	1:AA:2096:U:O4'	2.17	0.45
31:DA:438:G:N3	31:DA:494:U:C5	2.85	0.45
1:BA:316:C:H2'	1:BA:317:G:O5'	2.17	0.45
1:BA:628:G:C6	1:BA:629:G:C6	3.04	0.45
33:CF:195:VAL:C	33:CF:196:LEU:HD23	2.37	0.45
2:AB:66:A:N6	2:AB:107:U:H2'	2.31	0.45
1:AA:1833:U:O2'	1:AA:1969:A:N1	2.46	0.45
1:AA:17:G:H2'	1:AA:18:C:C6	2.52	0.45
7:BH:26:VAL:HG13	7:BH:27:LYS:H	1.81	0.45
39:CL:11:LYS:HG2	39:CL:11:LYS:O	2.17	0.45
1:AA:280:C:H2'	1:AA:281:G:H5'	1.96	0.45
31:CA:1406:U:C5	31:CA:1407:C:C5	3.05	0.45
53:DC:54:G:H2'	53:DC:55:U:C6	2.51	0.45
20:BU:33:LYS:HG3	20:BU:34:LYS:HG2	1.97	0.45
47:CT:81:ARG:NH2	47:CT:83:ASP:OD2	2.49	0.45
2:AB:3:C:H2'	2:AB:4:C:C6	2.51	0.45
31:DA:767:A:H2'	31:DA:768:A:O4'	2.17	0.45
8:AK:67:ARG:O	8:AK:71:ILE:HG23	2.16	0.45
31:DA:1072:G:C5	31:DA:1073:U:C4	3.05	0.45
1:BA:1627:G:H2'	1:BA:1628:G:H8	1.82	0.45
31:CA:1088:G:N1	31:CA:1089:G:C5	2.84	0.45
15:AR:98:LYS:HB3	15:AR:100:TYR:CE1	2.52	0.45
4:AE:101:ARG:CZ	4:AE:171:GLU:HB2	2.46	0.45
4:BE:58:ARG:HE	4:BE:58:ARG:HA	1.81	0.45
32:DE:25:ASN:OD1	32:DE:25:ASN:C	2.54	0.45
1:AA:1955:U:H2'	1:AA:1955:U:O2	2.16	0.45
1:AA:1870:C:O2	1:AA:1870:C:H2'	2.17	0.45
48:DU:50:ILE:HG22	48:DU:51:LEU:N	2.31	0.45
1:AA:2798:C:C5	1:AA:2799:A:N6	2.84	0.45
43:DP:29:ARG:HD3	43:DP:64:TRP:CD2	2.51	0.45
28:B6:31:PRO:O	28:B6:32:ASN:CB	2.59	0.45
43:CP:67:GLU:HG2	43:CP:71:ARG:HH22	1.81	0.45
23:AZ:83:GLU:C	23:AZ:85:LEU:N	2.70	0.45
39:CL:10:ARG:NE	39:CL:105:ASP:OD1	2.49	0.45
6:AG:67:LYS:HA	6:AG:68:PRO:HD3	1.89	0.45
31:CA:789:U:O4'	31:CA:789:U:O2	2.35	0.45
1:AA:882:G:HO2'	1:AA:883:G:C1'	2.29	0.45
43:DP:40:ASN:HD22	43:DP:43:THR:HG23	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:96:ILE:HG12	20:AU:99:CYS:H	1.82	0.45
1:AA:2171:A:H2'	1:AA:2172:U:C6	2.46	0.45
9:BM:45:ASN:O	9:BM:46:VAL:HG23	2.17	0.45
1:AA:2869:G:C5	1:AA:2870:C:C5	3.05	0.45
1:AA:96:G:H4'	24:AW:48:HIS:CD2	2.52	0.45
1:BA:71:A:H5''	1:BA:73:A:C8	2.51	0.45
16:B1:66:ASN:HB2	16:B1:76:TYR:HB2	1.96	0.45
1:AA:2155:G:H2'	1:AA:2156:G:H5'	1.99	0.45
6:BG:105:LYS:CE	26:B4:26:SER:HB3	2.47	0.45
2:BB:43:C:H1'	6:BG:93:THR:O	2.17	0.45
50:DW:104:LEU:O	50:DW:105:SER:HB3	2.16	0.45
18:AS:3:ALA:CB	18:AS:64:MET:HE3	2.45	0.45
3:BD:24:ILE:HD11	3:BD:91:ARG:HD3	1.99	0.45
1:AA:1210:A:C8	1:AA:1210:A:C5'	2.94	0.45
1:AA:2748:A:P	7:AH:70:THR:HG21	2.56	0.45
31:DA:465:A:N7	31:DA:467:G:C6	2.84	0.45
31:CA:530:G:H3'	31:CA:530:G:OP1	2.16	0.45
1:AA:1937:A:HO2'	1:AA:1938:A:P	2.34	0.45
1:AA:800:A:N1	1:AA:802:A:C8	2.85	0.45
1:BA:1901:A:O2'	3:BD:255:LYS:HD3	2.16	0.45
1:AA:2861:G:N1	1:AA:2862:G:C5	2.85	0.45
31:DA:528:C:C2'	31:DA:529:G:O5'	2.64	0.45
1:BA:598:G:C6	1:BA:599:G:C5	3.04	0.45
1:BA:565:C:H2'	1:BA:566:U:O4'	2.16	0.45
27:A5:56:LYS:O	27:A5:57:VAL:HG12	2.17	0.45
31:DA:177:C:H2'	31:DA:178:C:H6	1.80	0.45
6:BG:56:ALA:HB2	6:BG:153:ARG:NE	2.31	0.45
7:BH:120:GLY:O	7:BH:121:ILE:HD13	2.17	0.45
1:BA:955:C:C2'	1:BA:956:G:H5'	2.47	0.45
16:B1:86:ALA:O	17:B2:49:THR:HG22	2.16	0.45
53:CC:1:C:C6	53:CC:1:C:C3'	3.00	0.45
31:DA:1226:C:N4	43:DP:104:ARG:HB2	2.31	0.45
31:CA:245:C:O2	31:CA:283:C:N3	2.50	0.45
32:CE:237:ALA:H	32:CE:239:VAL:HG23	1.81	0.45
10:AN:9:GLU:O	10:AN:83:ALA:HA	2.16	0.45
52:DB:44:G:H2'	52:DB:45:U:O4'	2.16	0.45
3:BD:121:PRO:HB3	3:BD:135:PHE:CD1	2.50	0.45
1:AA:1438:U:O2	1:AA:1438:U:H2'	2.16	0.45
31:DA:516:U:O4	31:DA:533:A:OP1	2.34	0.45
18:BS:12:ILE:HD13	18:BS:17:VAL:CG1	2.46	0.45
36:DI:72:VAL:HG13	36:DI:73:ASN:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1199:U:H1'	16:B1:4:ALA:HB2	1.98	0.45
1:AA:38:A:H2'	1:AA:39:C:C6	2.51	0.45
1:AA:438:G:H2'	1:AA:439:G:C8	2.50	0.45
6:BG:120:LEU:HB2	6:BG:180:PHE:CD2	2.52	0.45
5:AF:199:TRP:HE1	5:AF:203:GLN:HE22	1.65	0.45
35:CH:69:VAL:HG12	35:CH:71:LEU:HD23	1.98	0.45
31:DA:19:C:H5''	35:DH:86:ALA:CB	2.45	0.45
14:BQ:73:LEU:O	14:BQ:73:LEU:HD13	2.15	0.45
1:BA:1814:G:H2'	1:BA:1815:A:C8	2.52	0.45
21:AV:18:LEU:O	21:AV:21:ALA:HB3	2.17	0.45
1:BA:702:G:C2	1:BA:731:C:C2	3.04	0.45
1:BA:1921:G:O2'	1:BA:1922:G:H5'	2.15	0.45
5:AF:11:VAL:HG12	5:AF:12:LEU:N	2.31	0.45
38:DK:19:VAL:HG23	38:DK:21:LYS:HB2	1.99	0.45
3:BD:181:GLU:HA	3:BD:273:ARG:HA	1.98	0.45
31:DA:552:U:C2'	31:DA:553:A:H5'	2.46	0.45
21:BV:6:LYS:HE3	21:BV:43:GLU:CD	2.37	0.45
11:AO:100:LEU:HA	11:AO:100:LEU:HD12	1.81	0.45
34:CG:58:LEU:O	34:CG:58:LEU:HD22	2.15	0.45
1:AA:445:C:H2'	1:AA:446:G:O4'	2.17	0.45
11:BO:61:ARG:HA	30:B8:27:THR:CG2	2.47	0.45
27:A5:4:HIS:O	27:A5:5:PRO:C	2.54	0.45
1:AA:1079:C:N4	1:AA:1080:A:N6	2.65	0.45
3:AD:36:PRO:HA	3:AD:62:TYR:O	2.17	0.45
4:AE:75:VAL:HG23	4:AE:76:ARG:H	1.80	0.45
28:A6:15:GLU:OE2	28:A6:44:ARG:CZ	2.65	0.45
4:AE:78:LEU:HD11	4:AE:79:ARG:NH2	2.32	0.45
31:DA:1330:U:H5'	31:DA:1331:G:O5'	2.16	0.45
12:BP:33:GLY:HA2	12:BP:105:GLU:CB	2.46	0.45
31:CA:1130:A:C2	31:CA:1146:A:C4	3.05	0.45
31:CA:1133:G:H1	31:CA:1141:C:H42	1.64	0.45
20:BU:13:VAL:HG12	20:BU:27:VAL:HG12	1.97	0.45
1:BA:2169:A:N3	1:BA:2169:A:H2'	2.31	0.45
1:BA:2168:G:N2	1:BA:2170:A:O5'	2.47	0.45
9:AM:15:LEU:O	9:AM:136:GLU:HA	2.16	0.45
7:BH:4:ILE:HD12	7:BH:6:ARG:CZ	2.47	0.45
3:AD:44:ASN:HB3	3:AD:48:ARG:O	2.17	0.45
14:BQ:87:PHE:HE1	14:BQ:102:ALA:HB2	1.76	0.45
6:BG:6:ALA:O	6:BG:9:ARG:N	2.50	0.45
20:AU:17:SER:OG	20:AU:71:LYS:HD3	2.16	0.45
1:BA:547:A:C5	1:BA:548:A:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1344:G:H4'	1:BA:1384:A:C5	2.51	0.45
31:DA:901:A:C5	31:DA:902:G:H1'	2.52	0.45
1:BA:860:U:C2	1:BA:2268:A:C8	3.04	0.45
31:DA:474:G:H2'	31:DA:475:G:C8	2.50	0.45
31:DA:475:G:H2'	31:DA:476:G:C8	2.51	0.45
1:AA:2331:G:H4'	22:A3:42:GLY:HA3	1.98	0.45
21:AV:110:GLY:HA3	21:AV:144:LEU:O	2.17	0.45
7:AH:86:GLU:O	7:AH:87:LEU:HB2	2.16	0.45
31:CA:176:C:O2'	31:CA:177:C:H5'	2.17	0.45
31:CA:177:C:O2'	31:CA:178:C:H5'	2.16	0.45
1:AA:2863:C:O2'	1:AA:2864:G:H5'	2.17	0.45
31:CA:35:G:O2'	42:CO:115:SER:O	2.25	0.45
32:DE:178:ARG:NH1	32:DE:178:ARG:CG	2.77	0.45
3:BD:270:ILE:O	3:BD:271:ILE:HG12	2.17	0.45
44:CQ:46:GLU:O	44:CQ:50:LYS:HG3	2.16	0.45
49:DV:49:ILE:H	49:DV:62:ILE:HD13	1.80	0.45
23:AZ:3:LYS:O	23:AZ:12:PRO:HD3	2.16	0.45
53:DD:52:C:O2	53:DD:65:G:C2	2.69	0.45
1:BA:1487:G:N2	1:BA:1503:U:C2	2.85	0.45
33:DF:50:ALA:O	33:DF:70:VAL:HG13	2.16	0.45
34:DG:178:VAL:C	34:DG:180:GLY:N	2.70	0.45
44:CQ:12:ARG:C	44:CQ:14:PRO:CD	2.83	0.45
52:DB:26:C:C5	52:DB:27:G:N2	2.84	0.45
1:BA:2537:U:N3	1:BA:2538:C:C4	2.84	0.45
33:DF:124:ILE:O	33:DF:127:ARG:N	2.37	0.45
7:BH:10:PRO:CG	7:BH:50:VAL:HG13	2.46	0.45
31:CA:960:U:C2	31:CA:1225:A:C5	3.05	0.45
49:CV:13:ASP:O	49:CV:16:LEU:N	2.50	0.45
31:CA:1379:G:C6	31:CA:1380:U:O4	2.69	0.45
4:AE:152:LYS:HG2	9:AM:78:TYR:CE1	2.51	0.45
1:AA:1143:A:OP1	9:AM:25:ARG:NH2	2.46	0.45
17:A2:91:TYR:C	17:A2:91:TYR:CD1	2.90	0.45
6:AG:139:LEU:HD23	6:AG:144:ILE:CG2	2.47	0.45
2:AB:93:C:O2'	2:AB:94:C:H5'	2.17	0.45
1:BA:1903:G:P	3:BD:241:PRO:HB2	2.56	0.45
21:AV:33:LEU:HG	21:AV:34:ASN:N	2.30	0.45
31:DA:707:C:H2'	31:DA:708:C:H6	1.81	0.45
1:AA:2660:A:H2'	1:AA:2661:G:O4'	2.17	0.45
36:CI:25:ILE:HD12	36:CI:82:ARG:HD3	1.97	0.45
35:CH:153:LYS:HD3	35:CH:154:GLY:N	2.32	0.45
1:BA:405:U:C2'	1:BA:405:U:O2	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1207:C:C2	1:BA:1208:C:C5	3.05	0.45
1:BA:2882:A:H5'	13:B0:96:ARG:HG3	1.98	0.45
31:CA:950:U:C5	43:CP:102:ARG:NH1	2.84	0.45
52:CB:38:G:H2'	52:CB:39:U:O4'	2.17	0.45
50:DW:97:ALA:O	50:DW:99:LEU:HG	2.17	0.45
46:CS:51:VAL:HG12	46:CS:52:ASP:N	2.31	0.45
31:CA:278:G:OP2	47:CT:41:LYS:HE2	2.17	0.45
31:DA:745:C:H2'	31:DA:746:A:C8	2.52	0.45
1:AA:256:A:C2	1:AA:257:A:C4	3.05	0.45
1:BA:1425:G:N1	1:BA:1426:G:C2	2.84	0.45
32:CE:168:THR:OG1	32:CE:192:SER:HB2	2.16	0.45
5:AF:114:VAL:HG21	5:AF:202:PHE:CZ	2.51	0.45
32:DE:164:VAL:O	32:DE:186:ALA:HB1	2.16	0.45
1:BA:993:G:C5	1:BA:994:C:C5	3.04	0.45
1:AA:1060:U:N3	1:AA:1088:A:C8	2.81	0.45
1:AA:2894:G:H2'	1:AA:2895:U:OP2	2.17	0.45
31:DA:1117:G:H4'	39:DL:104:ARG:NH1	2.32	0.45
6:AG:73:ALA:CB	6:AG:82:LEU:HD11	2.44	0.45
6:AG:83:ARG:CB	6:AG:83:ARG:HH11	2.25	0.45
31:DA:1057:G:C5	31:DA:1204:A:C2	3.05	0.45
31:DA:1052:U:C2	31:DA:1200:C:N4	2.85	0.45
31:DA:1321:C:C3'	31:DA:1322:C:H5''	2.41	0.45
1:BA:1061:U:C4'	1:BA:1070:A:H1'	2.47	0.45
1:BA:1085:A:HO2'	1:BA:1086:A:H8	1.60	0.45
1:BA:1060:U:N3	1:BA:1088:A:H8	2.14	0.45
15:AR:35:LYS:O	15:AR:36:GLU:HB2	2.17	0.45
5:BF:118:ALA:O	5:BF:121:GLY:N	2.41	0.45
49:CV:63:THR:OG1	49:CV:65:ASN:ND2	2.49	0.45
1:BA:2169:A:C8	53:DD:57:C:C2	3.04	0.45
53:DD:19:G:H4'	53:DD:61:U:O2	2.16	0.45
1:BA:1021:A:OP2	9:BM:65:LYS:NZ	2.48	0.45
31:CA:556:C:H2'	31:CA:557:G:H8	1.82	0.45
1:AA:2287:A:N6	1:AA:2344:U:C2	2.85	0.45
20:AU:97:ARG:NE	20:AU:98:VAL:HG23	2.27	0.45
1:AA:1145:C:H2'	1:AA:1146:C:H6	1.81	0.45
31:DA:997:U:H2'	31:DA:998:G:H8	1.76	0.45
21:BV:60:GLU:O	21:BV:65:GLN:O	2.34	0.45
31:CA:192:U:O4'	50:CW:103:GLY:HA2	2.17	0.45
37:CJ:16:LEU:HD11	39:CL:45:ALA:HB2	1.99	0.45
39:CL:48:GLU:N	39:CL:49:PRO:CD	2.80	0.45
31:DA:686:U:H2'	31:DA:687:A:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:93:ARG:NH1	15:AR:93:ARG:HG3	2.21	0.45
27:A5:41:PRO:O	27:A5:44:THR:OG1	2.33	0.45
1:AA:2815:C:O2'	27:A5:43:HIS:CD2	2.69	0.45
32:DE:233:SER:HB3	32:DE:234:PRO:CD	2.42	0.45
1:BA:1416:G:O2'	1:BA:1417:C:H6	1.98	0.45
14:AQ:83:LYS:O	14:AQ:109:GLY:HA3	2.17	0.45
1:AA:1385:G:H1'	1:AA:1386:C:C6	2.52	0.45
12:AP:21:THR:O	12:AP:21:THR:HG23	2.12	0.45
17:B2:27:ALA:HB3	17:B2:61:VAL:HG21	1.99	0.45
31:DA:826:C:H2'	31:DA:827:U:C6	2.52	0.45
22:B3:36:ILE:HD13	22:B3:36:ILE:N	2.31	0.45
52:DB:21:A:H2'	52:DB:22:G:C5'	2.47	0.45
1:AA:539:G:H5'	1:AA:540:G:P	2.56	0.45
6:AG:114:ILE:HD11	6:AG:140:ILE:CD1	2.47	0.45
1:AA:2422:A:C5	1:AA:2424:C:N4	2.84	0.45
34:CG:72:GLU:O	34:CG:73:ARG:C	2.54	0.45
31:CA:1102:A:H2'	31:CA:1103:C:H5'	1.98	0.45
1:AA:1394:U:C4	1:AA:1395:A:C5	3.05	0.45
33:CF:107:GLN:H	33:CF:107:GLN:CD	2.06	0.45
31:DA:1015:A:N6	31:DA:1016:A:N1	2.64	0.45
10:BN:119:PRO:HB2	15:BR:68:TYR:CD2	2.52	0.45
1:AA:1992:G:H5'	1:AA:1994:C:N4	2.30	0.45
38:CK:9:MET:CG	38:CK:26:VAL:HG21	2.47	0.45
8:BK:69:LYS:HA	8:BK:136:VAL:HG21	1.98	0.45
31:CA:1164:G:C6	31:CA:1173:G:C6	3.04	0.45
1:BA:2144:U:O2'	1:BA:2145:C:C5	2.68	0.45
31:CA:1065:U:C2'	31:CA:1066:C:OP2	2.64	0.45
36:DI:81:ILE:HG22	36:DI:82:ARG:N	2.32	0.45
32:DE:141:GLU:O	32:DE:145:LEU:HB2	2.17	0.45
31:DA:189:U:C4	47:DT:72:ARG:NH2	2.85	0.45
22:B3:50:ASN:C	22:B3:62:LEU:HD12	2.36	0.45
3:BD:10:THR:OG1	3:BD:13:ARG:HB2	2.16	0.45
4:AE:137:HIS:CB	4:AE:138:PRO:HD2	2.46	0.45
1:BA:2645:G:N2	1:BA:2767:C:OP2	2.50	0.45
1:AA:2839:G:H2'	1:AA:2840:C:C6	2.51	0.45
53:DC:50:G:N1	53:DC:51:U:C2	2.84	0.45
21:BV:23:LYS:HB3	21:BV:38:TYR:CD1	2.52	0.45
53:DC:48:U:H4'	53:DC:49:C:H5'	1.98	0.45
26:B4:36:CYS:HB3	26:B4:41:PRO:HD3	1.98	0.45
1:AA:705:A:H1'	3:AD:9:TYR:CE1	2.52	0.45
1:AA:1441:G:H2'	1:AA:1442:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:116:C:O2'	1:AA:117:G:H5'	2.15	0.45
19:BT:23:GLU:HG3	19:BT:24:GLY:N	2.31	0.45
1:AA:1919:A:O3'	31:CA:1517:G:H1'	2.16	0.45
31:DA:1333:A:C8	31:DA:1334:G:C8	3.05	0.45
1:BA:466:A:O4'	1:BA:683:C:H4'	2.16	0.45
1:BA:845:G:H8	1:BA:845:G:OP2	1.99	0.45
31:DA:914:A:C2'	31:DA:915:A:H5'	2.47	0.45
31:DA:148:G:O2'	31:DA:149:A:H5'	2.16	0.45
33:CF:94:LEU:HD12	33:CF:94:LEU:C	2.37	0.45
5:AF:114:VAL:HG21	5:AF:202:PHE:CE1	2.52	0.45
7:AH:78:GLY:HA2	7:AH:82:GLY:HA3	1.99	0.45
6:BG:137:GLU:HB3	6:BG:152:LEU:HD22	1.99	0.45
1:BA:841:A:H2'	1:BA:842:G:C8	2.51	0.45
32:DE:87:ARG:NH1	32:DE:220:ASP:OD1	2.26	0.45
1:BA:82:G:N2	1:BA:104:U:C5	2.84	0.45
46:CS:82:GLN:HG2	46:CS:82:GLN:H	1.54	0.45
33:CF:45:LYS:HB2	33:CF:45:LYS:NZ	2.32	0.45
53:DC:72:C:O5'	53:DC:72:C:H6	1.99	0.45
6:AG:44:GLY:C	6:AG:46:ALA:N	2.67	0.45
42:CO:82:ILE:HA	42:CO:82:ILE:HD13	1.71	0.45
1:AA:2455:G:H2'	1:AA:2456:C:C6	2.52	0.45
1:AA:2014:A:H2'	1:AA:2015:A:C8	2.52	0.45
1:AA:2467:C:C4'	12:AP:123:HIS:CG	2.99	0.45
1:BA:2784:C:H1'	4:BE:37:ARG:HH21	1.82	0.45
14:BQ:89:ARG:O	14:BQ:90:GLY:C	2.55	0.45
1:BA:9:U:C4	1:BA:2629:A:N1	2.84	0.45
1:BA:895:U:H4'	1:BA:896:A:C5	2.52	0.45
21:BV:115:GLY:HA2	21:BV:177:PRO:HD3	1.98	0.45
24:AW:4:SER:N	24:AW:7:ARG:HG3	2.31	0.45
31:CA:1115:C:H2'	31:CA:1116:C:H6	1.82	0.45
34:DG:31:CYS:O	34:DG:31:CYS:SG	2.75	0.45
31:CA:353:A:C2'	31:CA:354:G:OP2	2.64	0.45
6:AG:5:VAL:H	26:A4:25:TYR:HE2	1.65	0.45
1:BA:1012:U:O4	9:BM:25:ARG:HD3	2.15	0.45
21:AV:6:LYS:O	21:AV:7:ALA:HB2	2.17	0.45
13:B0:37:THR:CG2	13:B0:40:LYS:HB2	2.40	0.45
31:CA:1442:G:C5	31:CA:1446:A:C6	3.05	0.45
1:AA:2275:C:O2	12:AP:85:LYS:CG	2.64	0.45
1:BA:483:A:H4'	20:BU:49:VAL:CA	2.32	0.45
1:AA:67:U:H2'	1:AA:68:G:C8	2.51	0.45
1:AA:68:G:H2'	1:AA:69:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2689:U:H4'	1:AA:2690:C:OP2	2.17	0.45
1:AA:1168:G:O2'	1:AA:1169:G:H5'	2.17	0.45
53:CD:5:G:N2	53:CD:70:C:C2	2.84	0.45
1:BA:996:A:C2	1:BA:997:G:C8	3.05	0.45
32:CE:189:ASP:OD1	32:CE:205:ASP:OD2	2.34	0.45
6:BG:67:LYS:HD2	26:B4:6:HIS:NE2	2.32	0.45
16:A1:92:ARG:NH1	16:A1:94:ASN:ND2	2.63	0.45
5:BF:102:PRO:O	5:BF:105:VAL:N	2.48	0.45
31:CA:130:A:O4'	47:CT:63:ARG:HD3	2.16	0.45
49:DV:8:GLY:O	49:DV:9:VAL:CB	2.62	0.45
1:BA:1533:C:H3'	1:BA:1534:G:O4'	2.17	0.45
40:DM:22:LYS:HE2	40:DM:90:LEU:HD11	1.98	0.45
31:DA:1347:G:O2'	31:DA:1373:G:O6	2.28	0.45
21:AV:76:LEU:N	21:AV:76:LEU:CD2	2.80	0.45
26:A4:14:ILE:HG23	26:A4:15:ILE:N	2.31	0.45
8:BK:77:LEU:HG	8:BK:78:THR:N	2.32	0.45
1:BA:2135:A:H62	1:BA:2156:G:N2	2.15	0.45
4:BE:105:THR:OG1	4:BE:199:ARG:NH2	2.45	0.45
6:BG:138:GLN:HE22	6:BG:153:ARG:N	2.15	0.45
52:CB:77:C:C4	52:CB:78:C:C4	3.04	0.45
38:DK:109:ILE:HD11	38:DK:111:ILE:HG12	1.98	0.45
32:CE:124:SER:HB2	32:CE:125:PRO:CD	2.46	0.45
1:BA:2140:C:O2	1:BA:2151:G:N1	2.42	0.45
31:DA:986:A:H2'	31:DA:987:G:O4'	2.16	0.45
31:CA:250:A:H4'	31:CA:251:G:O5'	2.17	0.45
52:DB:45:U:C2'	52:DB:46:G:H5''	2.46	0.45
50:DW:67:ALA:HA	50:DW:73:HIS:HA	1.98	0.45
52:CB:50:A:N1	52:CB:52:U:H5''	2.32	0.45
1:AA:1095:A:C2'	1:AA:1095:A:N3	2.79	0.45
31:CA:1318:A:H5''	49:CV:10:PHE:CD2	2.51	0.45
35:CH:57:LYS:HB2	35:CH:61:TYR:HE2	1.82	0.45
5:AF:34:TRP:HA	11:AO:6:LEU:HG	1.99	0.45
1:BA:221:A:N6	1:BA:265:A:C8	2.85	0.45
1:BA:753:C:O5'	1:BA:753:C:H6	1.98	0.45
1:BA:342:G:C5	1:BA:343:C:C5	3.05	0.45
37:CJ:87:VAL:HG11	37:CJ:155:ARG:HA	1.99	0.45
34:DG:49:ARG:HA	34:DG:49:ARG:HE	1.82	0.45
42:DO:111:LYS:HB3	42:DO:111:LYS:HZ3	1.80	0.45
1:AA:2543:G:N3	1:AA:2765:A:H2'	2.31	0.45
2:AB:59:A:C5	2:AB:60:C:C5	3.05	0.45
6:BG:125:PHE:HB3	6:BG:166:ASP:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2213:U:C1'	23:AZ:52:ARG:NH2	2.80	0.45
1:BA:224:G:N7	1:BA:420:C:H4'	2.32	0.45
38:DK:11:THR:HG22	38:DK:15:ASN:ND2	2.32	0.45
1:BA:2699:C:H2'	1:BA:2700:C:O4'	2.17	0.45
1:AA:2776:A:H4'	1:AA:2777:G:H5''	1.98	0.45
14:BQ:51:ALA:HB3	14:BQ:73:LEU:HD23	1.98	0.45
32:CE:192:SER:OG	32:CE:193:ASP:N	2.49	0.45
10:BN:43:VAL:HG23	10:BN:56:ASP:O	2.17	0.45
31:DA:161:A:C6	31:DA:162:A:C6	3.04	0.45
1:AA:306:U:H2'	1:AA:307:G:O4'	2.16	0.45
1:AA:2716:U:O2'	1:AA:2717:G:H5'	2.16	0.45
1:AA:321:G:C4	5:AF:165:ARG:NH1	2.85	0.45
6:AG:48:GLU:HA	6:AG:48:GLU:OE2	2.17	0.45
33:CF:47:LEU:HA	33:CF:47:LEU:HD12	1.76	0.45
37:DJ:146:GLU:OE2	37:DJ:146:GLU:HA	2.16	0.45
26:A4:48:ARG:HD2	26:A4:48:ARG:HA	1.76	0.45
1:AA:2283:C:C2'	1:AA:2284:C:H5'	2.47	0.45
31:CA:134:A:H1'	31:CA:325:A:C5	2.52	0.45
17:B2:89:GLN:HE21	17:B2:90:PRO:HD2	1.81	0.45
1:BA:2419:U:O4	30:B8:31:HIS:CE1	2.69	0.45
1:BA:2419:U:O5'	1:BA:2419:U:H6	2.00	0.45
1:AA:1060:U:N3	1:AA:1088:A:H8	2.15	0.45
1:AA:2404:C:C1'	11:AO:67:MET:HE3	2.21	0.45
31:DA:1127:G:H1	31:DA:1144:G:H1	1.64	0.45
39:DL:97:LYS:HG3	39:DL:98:PRO:N	2.31	0.45
31:DA:449:C:O4'	31:DA:449:C:O2	2.34	0.45
12:BP:54:MET:HE1	12:BP:64:ILE:HG23	1.98	0.45
28:B6:26:ASN:O	28:B6:28:ARG:NH1	2.49	0.45
1:AA:905:U:C3'	1:AA:906:G:H5''	2.47	0.45
12:AP:105:GLU:HG2	12:AP:105:GLU:O	2.17	0.45
1:BA:779:U:OP1	3:BD:49:ILE:CG2	2.64	0.45
1:BA:1324:G:N2	1:BA:1331:A:C4	2.85	0.45
15:BR:74:ARG:NH1	15:BR:74:ARG:CG	2.58	0.45
34:DG:138:TYR:CD2	34:DG:138:TYR:C	2.90	0.45
31:CA:1125:U:O4	40:CM:5:ARG:CD	2.65	0.45
31:CA:58:C:N3	31:CA:354:G:O6	2.49	0.45
26:A4:62:ARG:O	26:A4:62:ARG:HG3	2.14	0.45
32:CE:7:VAL:HG21	32:CE:217:ARG:NH2	2.32	0.45
9:AM:133:GLN:C	9:AM:134:ARG:HG2	2.37	0.45
1:BA:68:G:C2'	1:BA:69:C:O5'	2.65	0.45
53:CD:8:U:H1'	53:CD:49:C:H1'	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:71:A:OP2	1:AA:112:U:O2'	2.29	0.45
1:BA:2213:U:H6	1:BA:2213:U:H3'	1.81	0.45
53:CD:6:G:H2'	53:CD:7:G:C8	2.51	0.45
1:AA:1535:U:N3	1:AA:1537:C:C1'	2.80	0.45
1:BA:1421:G:C2	1:BA:1422:G:N7	2.84	0.45
1:BA:2749:A:O2'	7:BH:59:ARG:HD3	2.16	0.45
33:DF:39:ILE:O	33:DF:43:LEU:HB2	2.16	0.45
31:CA:266:G:O5'	31:CA:267:C:H5	1.99	0.45
47:CT:45:HIS:CD2	47:CT:65:ILE:HG12	2.52	0.45
31:CA:629:G:N1	31:CA:630:G:C6	2.85	0.45
1:AA:1138:G:N2	9:AM:106:MET:HE3	2.20	0.45
31:CA:1347:G:OP2	39:CL:107:ARG:HG2	2.17	0.45
1:BA:1174:A:H5'	1:BA:1175:U:H5''	1.99	0.45
31:DA:1316:G:N2	31:DA:1319:A:OP2	2.50	0.45
1:BA:27:G:N1	1:BA:512:G:O2'	2.47	0.45
22:B3:36:ILE:H	22:B3:36:ILE:HD12	1.81	0.45
5:BF:53:THR:HG23	5:BF:55:GLY:N	2.25	0.45
31:DA:250:A:C1'	31:DA:251:G:OP2	2.60	0.45
1:AA:537:C:H3'	1:AA:539:G:H8	1.82	0.45
1:BA:1392:A:N6	1:BA:1393:A:N6	2.65	0.45
32:DE:69:LEU:HD23	32:DE:69:LEU:C	2.37	0.45
6:AG:117:PHE:CZ	6:AG:119:GLY:HA2	2.52	0.45
31:CA:812:C:H1'	31:CA:813:U:OP2	2.16	0.45
50:CW:38:LYS:O	50:CW:39:LYS:C	2.56	0.45
10:AN:22:ILE:HD12	10:AN:22:ILE:HA	1.46	0.45
11:BO:146:VAL:HG22	11:BO:147:LEU:HD12	1.98	0.45
1:BA:781:A:C2	1:BA:1776:G:N3	2.78	0.45
15:AR:1:MET:O	15:AR:2:ASN:C	2.53	0.45
1:AA:525:U:H5'	1:AA:556:G:OP1	2.17	0.45
7:BH:86:GLU:N	7:BH:86:GLU:CD	2.69	0.45
15:BR:100:TYR:HB3	15:BR:103:ARG:NH1	2.32	0.45
31:DA:960:U:N3	31:DA:1225:A:C4	2.75	0.45
31:DA:615:C:C2	31:DA:616:G:C8	3.05	0.45
47:DT:44:ALA:HA	47:DT:71:PHE:O	2.16	0.45
16:B1:49:HIS:HA	16:B1:52:ARG:HB2	1.99	0.45
1:AA:840:C:H2'	1:AA:841:A:C8	2.52	0.45
31:DA:438:G:H4'	34:DG:123:HIS:ND1	2.31	0.45
1:BA:2335:A:N7	1:BA:2337:G:C5	2.85	0.45
35:CH:57:LYS:H	35:CH:57:LYS:HG2	1.62	0.45
1:BA:1190:G:OP1	11:BO:32:THR:HA	2.17	0.45
1:BA:2103:C:H2'	1:BA:2104:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2088:G:C2	1:BA:2232:U:O2	2.70	0.45
21:BV:62:PRO:O	21:BV:63:ASP:HB3	2.17	0.45
1:BA:751:A:C6	1:BA:789:A:C5	3.04	0.45
1:BA:295:G:C4	1:BA:344:G:N2	2.85	0.45
1:BA:1669:A:H5'	1:BA:2550:G:OP1	2.17	0.45
21:AV:34:ASN:OD1	21:AV:34:ASN:C	2.55	0.45
14:AQ:56:LEU:O	14:AQ:58:LEU:HD22	2.16	0.45
1:BA:1104:C:O5'	1:BA:1104:C:H6	2.00	0.45
6:AG:182:LYS:HD3	6:AG:182:LYS:HA	1.73	0.45
1:AA:360:G:C2'	1:AA:361:G:H5'	2.47	0.45
1:AA:2320:A:C8	1:AA:2333:A:N6	2.85	0.45
32:DE:147:LYS:HZ3	32:DE:147:LYS:HA	1.82	0.45
53:CC:66:C:O2'	53:CC:67:C:H5'	2.16	0.45
2:AB:21:G:N2	2:AB:63:G:C4	2.84	0.45
29:B7:36:GLN:HB2	29:B7:36:GLN:HE21	1.63	0.45
1:AA:2639:A:H1'	1:AA:2778:A:C2	2.52	0.45
1:AA:848:G:O6	1:AA:929:G:H2'	2.17	0.45
31:CA:903:G:H2'	31:CA:904:C:H6	1.82	0.45
31:CA:1250:A:N3	31:CA:1370:G:O2'	2.44	0.45
1:BA:64:A:O3'	19:BT:71:GLY:HA3	2.17	0.45
1:BA:1849:G:H2'	1:BA:1850:G:H8	1.81	0.45
26:B4:53:GLU:HG3	26:B4:53:GLU:O	2.16	0.45
53:CD:18:C:O2	53:CD:18:C:H3'	2.16	0.45
8:BK:131:LYS:HA	8:BK:132:PRO:O	2.17	0.45
31:CA:797:C:O2'	31:CA:798:G:H5'	2.16	0.45
1:AA:1056:G:H2'	1:AA:1056:G:OP2	2.17	0.45
4:BE:47:VAL:HG11	4:BE:49:LEU:CD2	2.41	0.45
4:BE:36:ARG:NH2	4:BE:88:GLY:CA	2.80	0.45
1:BA:886:C:O2'	1:BA:887:A:O5'	2.32	0.45
3:BD:94:LEU:HG	3:BD:104:TYR:CE2	2.51	0.45
3:BD:94:LEU:HA	3:BD:94:LEU:HD23	1.69	0.45
31:DA:1118:C:H2'	31:DA:1119:C:O4'	2.17	0.45
31:DA:1281:U:H3'	31:DA:1282:C:H5	1.82	0.45
1:AA:2312:U:O2	6:AG:42:GLY:HA3	2.16	0.45
1:AA:242:G:H5'	30:A8:62:LEU:HD21	1.96	0.45
1:BA:1058:U:H2'	1:BA:1059:G:C8	2.51	0.45
31:CA:1154:G:C2'	31:CA:1155:G:H5'	2.47	0.45
11:BO:15:ARG:CB	11:BO:15:ARG:NH1	2.75	0.45
7:AH:26:VAL:HG12	7:AH:79:VAL:HG21	1.99	0.45
1:AA:2032:G:O2'	4:AE:145:LYS:HE3	2.17	0.45
34:DG:8:VAL:CG1	34:DG:21:LEU:HD22	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DD:22:A:H2	53:DD:47:G:H2'	1.80	0.45
32:CE:61:LEU:CD1	32:CE:66:GLY:HA3	2.43	0.45
7:AH:152:ARG:HB3	7:AH:153:LYS:HZ3	1.82	0.45
9:AM:132:ALA:HB1	9:AM:133:GLN:NE2	2.32	0.45
1:BA:101:G:H2'	1:BA:102:G:OP1	2.17	0.45
34:CG:10:ARG:CB	34:CG:10:ARG:NH1	2.77	0.45
31:DA:1240:U:H3'	31:DA:1241:G:C5'	2.47	0.45
1:BA:997:G:C2	1:BA:998:C:C6	3.05	0.45
32:DE:12:GLU:HB2	32:DE:16:HIS:HD1	1.82	0.45
1:AA:1538:G:O5'	1:AA:1538:G:H8	2.00	0.45
6:BG:76:SER:OG	6:BG:82:LEU:O	2.31	0.45
1:AA:1241:A:H2'	1:AA:1242:A:O5'	2.16	0.45
49:DV:27:GLU:O	49:DV:47:HIS:CE1	2.69	0.45
41:CN:41:THR:HG21	41:CN:71:LYS:CB	2.47	0.45
1:AA:1795:C:C4	1:AA:1796:U:C5	3.05	0.45
10:BN:2:ILE:HB	10:BN:33:ALA:HB3	1.99	0.45
8:BK:8:PRO:HD3	8:BK:15:VAL:CG2	2.47	0.45
1:BA:319:C:O2'	1:BA:320:A:H5'	2.17	0.45
1:BA:856:C:C2'	1:BA:857:C:O5'	2.65	0.45
3:AD:25:THR:CG2	3:AD:26:LYS:HD2	2.47	0.45
31:CA:712:A:C6	31:CA:713:G:C6	3.04	0.45
41:CN:59:TYR:CE2	41:CN:63:LEU:HD11	2.52	0.45
47:DT:67:LYS:O	47:DT:68:ARG:HB3	2.17	0.45
31:CA:148:G:N2	31:CA:175:C:O2	2.50	0.45
31:CA:197:A:N7	31:CA:221:C:H4'	2.31	0.45
31:CA:64:G:H4'	31:CA:65:U:H5'	1.98	0.45
21:AV:98:MET:HE3	21:AV:100:VAL:HG22	1.99	0.45
45:DR:3:ILE:HG22	45:DR:38:ARG:NH2	2.32	0.45
1:BA:2292:C:OP1	14:BQ:17:ARG:NH2	2.50	0.45
40:DM:75:ILE:HG13	40:DM:76:ASN:N	2.32	0.45
18:BS:59:VAL:CG1	18:BS:60:ASN:N	2.80	0.45
32:DE:55:PHE:HD1	32:DE:58:ILE:HD12	1.82	0.45
38:CK:21:LYS:O	38:CK:65:TYR:OH	2.31	0.45
31:DA:407:G:C6	31:DA:408:A:C6	3.05	0.45
4:AE:38:THR:C	4:AE:40:GLU:H	2.19	0.45
1:AA:627:A:H62	11:AO:84:ASN:HD21	1.64	0.45
34:CG:110:PHE:CE2	34:CG:148:VAL:HG23	2.52	0.45
41:DN:48:ILE:HG12	41:DN:64:ALA:N	2.32	0.45
13:A0:74:LYS:HG2	13:A0:74:LYS:H	1.42	0.45
32:DE:96:ARG:O	32:DE:98:LEU:HD23	2.16	0.45
31:CA:1342:C:H2'	31:CA:1343:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:108:ASN:OD1	33:CF:109:PRO:HD2	2.17	0.45
1:BA:1531:C:N4	1:BA:1540:G:H1	2.13	0.45
31:DA:438:G:H1'	31:DA:494:U:O4	2.16	0.45
13:B0:84:ALA:N	13:B0:85:PRO:CD	2.79	0.45
45:CR:54:ARG:O	45:CR:57:LEU:HB2	2.16	0.45
10:BN:7:TYR:HE1	10:BN:20:MET:HB2	1.79	0.45
40:DM:8:LEU:HG	40:DM:96:ILE:HG23	1.99	0.45
1:AA:218:A:C2	1:AA:235:U:H4'	2.52	0.45
21:BV:8:TYR:HA	21:BV:62:PRO:CD	2.47	0.45
17:B2:21:ARG:HG3	17:B2:21:ARG:HH11	1.82	0.45
1:AA:2038:G:H2'	1:AA:2039:C:O4'	2.17	0.45
1:AA:2740:A:C6	1:AA:2764:A:C8	3.05	0.45
1:BA:1759:A:H4'	1:BA:2715:C:O4'	2.17	0.45
6:AG:11:TYR:CE2	6:AG:16:ARG:HD2	2.52	0.45
1:AA:2544:G:O5'	1:AA:2544:G:H8	1.99	0.45
4:BE:125:GLY:HA3	4:BE:134:ILE:HD13	1.99	0.45
31:CA:160:A:N1	31:CA:161:A:C2	2.84	0.45
1:AA:1694:C:C6	1:AA:1694:C:H5'	2.50	0.45
9:AM:51:PHE:CE2	9:AM:119:ARG:HG2	2.52	0.45
31:CA:1031:G:C4	31:CA:1032:A:C8	3.05	0.45
1:AA:2726:U:HO2'	1:AA:2727:G:H8	1.65	0.45
1:BA:1217:C:OP1	16:B1:15:LYS:NZ	2.32	0.45
1:AA:2639:A:H2'	1:AA:2640:G:O4'	2.17	0.45
31:CA:903:G:H2'	31:CA:904:C:C6	2.51	0.45
43:CP:40:ASN:HD21	43:CP:42:ALA:HB3	1.81	0.45
31:DA:530:G:O6	54:D1:21:U:H1'	2.16	0.45
33:CF:149:ALA:HA	33:CF:201:TYR:O	2.17	0.45
22:B3:26:TYR:O	22:B3:29:GLN:HB2	2.16	0.45
31:DA:665:A:H1'	31:DA:733:A:O4'	2.16	0.45
1:AA:2517:C:C6	1:AA:2542:A:N7	2.85	0.45
18:BS:95:ILE:O	18:BS:95:ILE:HG13	2.17	0.45
37:DJ:60:LYS:HA	37:DJ:60:LYS:HD2	1.78	0.45
31:DA:719:C:O2'	48:DU:49:LYS:HB3	2.16	0.45
1:BA:2360:A:H2'	1:BA:2361:A:O4'	2.17	0.45
1:AA:1649:G:C6	1:AA:2009:G:O6	2.70	0.45
33:CF:152:ILE:HG12	33:CF:167:TRP:HB2	1.99	0.45
38:CK:80:ILE:HG22	38:CK:137:VAL:CG1	2.46	0.45
1:AA:248:G:H5'	1:AA:250:G:N7	2.32	0.45
1:BA:2726:U:HO2'	1:BA:2727:G:H8	1.65	0.45
1:AA:2415:G:C4'	11:AO:67:MET:H	2.12	0.45
12:BP:26:TYR:CE1	12:BP:139:GLU:HG3	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B6:15:GLU:HG2	28:B6:16:CYS:N	2.30	0.45
30:A8:59:LYS:HB2	30:A8:59:LYS:HZ3	1.77	0.45
12:BP:102:VAL:O	12:BP:103:MET:C	2.55	0.45
1:BA:586:A:HO2'	1:BA:671:C:HO2'	1.62	0.45
52:CB:35:G:H8	52:CB:35:G:O5'	1.99	0.45
1:AA:2480:C:H5'	1:AA:2481:G:OP2	2.17	0.45
1:BA:1062:G:H8	1:BA:1062:G:OP1	1.99	0.45
1:BA:1097:U:H2'	1:BA:1098:A:O4'	2.17	0.45
26:A4:56:VAL:HG11	49:CV:64:GLU:OE1	2.17	0.45
53:DD:55:U:C4	53:DD:56:U:H5	2.35	0.45
53:DD:7:G:H3'	53:DD:8:U:H5'	1.99	0.45
31:CA:1403:C:O2'	31:CA:1404:C:H5'	2.16	0.45
31:CA:1501:C:N4	31:CA:1504:G:C2	2.85	0.45
4:AE:201:THR:CG2	4:AE:202:LYS:N	2.80	0.45
1:AA:2119:A:C5	1:AA:2171:A:H2	2.34	0.45
24:BW:46:GLN:HB2	24:BW:49:LYS:NZ	2.32	0.45
31:DA:1241:G:H2'	31:DA:1242:C:C6	2.52	0.45
20:AU:45:VAL:HG12	20:AU:60:PHE:CD1	2.51	0.45
42:DO:24:VAL:CG1	42:DO:26:ALA:HB2	2.43	0.45
16:A1:90:VAL:HG12	16:A1:91:ASP:N	2.30	0.45
16:A1:92:ARG:HD2	17:A2:11:GLN:HB2	1.99	0.45
16:A1:60:LEU:HD22	16:A1:60:LEU:C	2.37	0.45
9:AM:46:VAL:HG11	9:AM:48:MET:CG	2.47	0.45
1:BA:860:U:N3	1:BA:2268:A:C8	2.85	0.45
1:BA:1257:C:O2'	5:BF:84:VAL:HG23	2.17	0.45
1:AA:519:U:H5''	18:AS:25:ARG:NH2	2.32	0.45
34:CG:170:VAL:CG2	34:CG:171:GLY:H	2.21	0.45
31:DA:1319:A:OP1	49:DV:10:PHE:CG	2.70	0.45
1:BA:718:A:H2'	1:BA:719:C:O4'	2.17	0.45
22:A3:27:GLU:HA	22:A3:67:VAL:O	2.17	0.45
3:AD:237:GLU:HA	3:AD:237:GLU:OE2	2.17	0.45
2:BB:89(A):A:C8	2:BB:90:C:H1'	2.52	0.45
31:CA:97:U:H2'	31:CA:99:C:C6	2.52	0.45
37:DJ:22:LEU:HD23	37:DJ:62:PHE:CE2	2.50	0.45
38:CK:7:ALA:HB2	38:CK:85:ARG:CD	2.46	0.45
11:BO:147:LEU:CD2	11:BO:148:LEU:N	2.80	0.45
53:CD:21:U:C2'	53:CD:22:A:H5''	2.47	0.45
24:BW:9:GLN:O	24:BW:13:ALA:CB	2.65	0.45
6:BG:114:ILE:HG22	6:BG:115:ARG:O	2.16	0.45
1:BA:780:G:N2	1:BA:783:A:H62	2.10	0.45
31:DA:374:A:C6	31:DA:375:U:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:610:C:H2'	1:AA:611:C:H6	1.81	0.45
15:BR:106:SER:C	15:BR:107:ASP:OD1	2.55	0.45
31:DA:160:A:O2'	31:DA:344:A:N6	2.50	0.45
1:BA:534:U:H5'	16:B1:42:ALA:HB1	1.99	0.45
1:AA:1094:U:O2'	1:AA:1096:A:P	2.75	0.45
1:AA:515:A:C2'	1:AA:516:C:H5'	2.47	0.45
13:B0:51:LEU:HD13	13:B0:70:LEU:HD21	1.99	0.45
2:BB:30:C:H2'	2:BB:31:C:H5'	1.98	0.45
7:BH:87:LEU:HA	7:BH:163:TYR:O	2.17	0.45
31:CA:1378:C:N3	31:CA:1379:G:H1'	2.31	0.45
1:BA:828:U:C3'	1:BA:828:U:O2	2.65	0.45
1:BA:2209:C:C2	1:BA:2216:G:N1	2.84	0.45
1:AA:2578:G:H4'	1:AA:2578:G:OP2	2.17	0.45
44:CQ:23:ARG:NH1	44:CQ:30:ALA:HB2	2.32	0.45
35:DH:43:LEU:HD21	35:DH:133:TYR:CD1	2.52	0.45
31:DA:245:C:C2	31:DA:284:G:C2	3.05	0.45
31:DA:1477:C:O2'	31:DA:1478:C:H5'	2.16	0.45
1:AA:1649:G:C6	1:AA:2009:G:C6	3.05	0.45
1:BA:270:A:H5''	23:BZ:98:LEU:HD22	1.99	0.45
31:DA:153:C:H2'	31:DA:154:C:C6	2.52	0.45
8:AK:124:GLY:H	8:AK:142:VAL:HG23	1.83	0.45
37:DJ:15:ASP:O	37:DJ:19:GLY:HA2	2.16	0.45
1:BA:1841:U:H2'	1:BA:1842:G:C8	2.52	0.45
4:BE:167:VAL:HG12	4:BE:170:LEU:HD11	1.98	0.45
31:CA:859:A:H2'	31:CA:860:A:O4'	2.17	0.45
1:AA:1544:C:O2	1:AA:1544:C:H2'	2.15	0.45
17:A2:52:VAL:O	17:A2:52:VAL:HG22	2.17	0.45
1:AA:1057:A:C8	1:AA:1086:A:H2'	2.52	0.44
1:AA:250:G:H2'	1:AA:251:A:C8	2.52	0.44
1:AA:1564:C:O2'	1:AA:1565:C:H5'	2.17	0.44
1:BA:2684:U:C1'	10:BN:70:LYS:HD3	2.47	0.44
1:BA:9:U:O4	1:BA:2629:A:C6	2.69	0.44
21:BV:175:VAL:O	21:BV:177:PRO:CD	2.55	0.44
31:DA:1133:G:C4	31:DA:1134:G:C8	3.05	0.44
31:DA:1118:C:P	39:DL:104:ARG:HD2	2.57	0.44
31:DA:1054:C:N4	52:DB:35:G:C1'	2.80	0.44
3:BD:218:ARG:HB3	3:BD:219:PRO:HD2	1.98	0.44
1:AA:2314:C:O2'	1:AA:2315:G:H5'	2.17	0.44
1:AA:2511:U:O4	1:AA:2575:C:N3	2.50	0.44
34:DG:22:LYS:HG3	34:DG:26:CYS:SG	2.57	0.44
23:BZ:95:LEU:O	23:BZ:97:LEU:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:883:G:H2'	1:AA:884:C:O4'	2.17	0.44
9:BM:102:ALA:O	9:BM:106:MET:HG3	2.16	0.44
1:AA:2732:G:H3'	1:AA:2733:A:O4'	2.17	0.44
28:A6:28:ARG:NH1	28:A6:29:ASN:OD1	2.50	0.44
1:AA:2348:U:C2'	1:AA:2349:G:H5'	2.47	0.44
4:BE:26:ILE:HG22	4:BE:28:ALA:N	2.31	0.44
1:AA:58:G:H5'	19:AT:74:PRO:HB3	1.98	0.44
1:AA:1142(A):A:N7	1:AA:1144:G:C6	2.85	0.44
1:AA:128:C:H2'	1:AA:129:C:H6	1.82	0.44
2:AB:89(A):A:C5	2:AB:90:C:H1'	2.51	0.44
2:BB:3:C:H2'	2:BB:3:C:O2	2.16	0.44
26:B4:31:ILE:HG22	26:B4:32:TYR:CD1	2.52	0.44
6:BG:67:LYS:HB3	26:B4:6:HIS:CD2	2.49	0.44
42:DO:60:LEU:HD21	42:DO:66:VAL:HG22	1.98	0.44
1:BA:76:C:O3'	24:BW:59:ARG:HG3	2.17	0.44
1:AA:2820:A:H1'	13:A0:3:HIS:CD2	2.52	0.44
5:BF:178:PRO:HB2	5:BF:201:VAL:CG1	2.38	0.44
21:BV:129:SER:HB2	21:BV:131:ARG:HD3	1.98	0.44
40:DM:22:LYS:CD	40:DM:26:ALA:HB2	2.41	0.44
1:AA:2605:U:H2'	1:AA:2606:C:C6	2.52	0.44
1:AA:2864:G:C6	1:AA:2865:U:N3	2.86	0.44
31:CA:1237:C:C5	31:CA:1336:C:C5	3.05	0.44
31:CA:405:U:O4	34:CG:2:GLY:N	2.49	0.44
31:CA:41:G:C2	31:CA:402:G:C2	3.05	0.44
5:BF:38:ARG:HH11	5:BF:38:ARG:HG3	1.82	0.44
1:AA:1394:U:C4	1:AA:1395:A:C6	3.05	0.44
18:BS:62:HIS:HB2	18:BS:64:MET:HG3	1.99	0.44
52:CB:42:U:H3'	52:CB:43:A:H8	1.82	0.44
26:B4:38:LYS:C	26:B4:40:HIS:N	2.70	0.44
1:AA:2898:U:H2'	1:AA:2899:G:H8	1.80	0.44
31:CA:1016:A:H8	31:CA:1016:A:O5'	2.00	0.44
1:BA:696:G:C4	1:BA:697:C:C5	3.05	0.44
11:BO:58:THR:CG2	11:BO:58:THR:O	2.62	0.44
31:CA:1083:U:H5	31:CA:1084:G:C6	2.34	0.44
11:AO:52:GLU:OE1	11:AO:55:ARG:NH1	2.50	0.44
3:BD:5:LYS:HZ3	3:BD:5:LYS:HB2	1.77	0.44
24:BW:16:LEU:N	24:BW:16:LEU:HD12	2.31	0.44
31:DA:1337:G:H4'	31:DA:1338:G:OP1	2.18	0.44
2:BB:29:A:C2	2:BB:56:G:N1	2.86	0.44
1:BA:920:G:H2'	1:BA:921:G:H8	1.82	0.44
1:BA:1450:C:N3	1:BA:1451:C:N4	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DH:100:VAL:CG2	35:DH:118:ILE:HG22	2.48	0.44
1:BA:1196:C:O4'	1:BA:1227:A:C2	2.70	0.44
14:BQ:3:ARG:HD2	14:BQ:4:LEU:H	1.82	0.44
31:DA:1028(B):C:H3'	31:DA:1029:G:C5'	2.47	0.44
1:BA:754:C:H2'	1:BA:755:C:C6	2.51	0.44
31:DA:219:C:H2'	31:DA:220:G:O4'	2.17	0.44
18:AS:86:LEU:HD12	18:AS:87:PRO:N	2.31	0.44
18:AS:88:ARG:NH1	18:AS:94:ASP:OD1	2.49	0.44
42:DO:120:TYR:CD2	42:DO:120:TYR:N	2.86	0.44
1:AA:2243:U:H2'	1:AA:2244:U:C6	2.52	0.44
1:AA:1161:C:O2'	17:A2:8:GLY:CA	2.66	0.44
11:BO:135:LEU:O	11:BO:139:LYS:HB2	2.17	0.44
1:BA:1914:C:H2'	1:BA:1915:U:O4'	2.17	0.44
1:AA:46:C:OP2	1:AA:215:G:H2'	2.17	0.44
1:BA:646:A:H2'	1:BA:647:G:O4'	2.17	0.44
1:AA:60:G:C8	1:AA:63:U:C5	3.05	0.44
31:CA:360:A:H2'	31:CA:361:G:O4'	2.18	0.44
13:B0:103:ARG:HD2	13:B0:108:GLY:O	2.17	0.44
1:AA:690:G:H2'	1:AA:691:C:C6	2.52	0.44
25:AX:9:VAL:HG11	25:AX:55:ARG:NH1	2.32	0.44
1:AA:930:U:O4'	1:AA:930:U:O2	2.32	0.44
18:BS:70:TYR:H	18:BS:70:TYR:HD2	1.64	0.44
24:AW:8:LYS:HE3	24:AW:8:LYS:HB2	1.54	0.44
31:CA:1310:G:O2'	31:CA:1311:G:H5'	2.17	0.44
32:CE:198:ASP:HA	38:CK:68:ARG:NH2	2.31	0.44
33:CF:189:ALA:O	33:CF:190:ARG:C	2.55	0.44
1:BA:706:A:H2'	1:BA:707:G:O4'	2.16	0.44
1:BA:389:G:H22	11:BO:71:VAL:HG12	1.83	0.44
1:AA:1085:A:N3	1:AA:1086:A:N7	2.65	0.44
10:BN:70:LYS:HB3	10:BN:70:LYS:NZ	2.33	0.44
31:CA:411:A:N7	31:CA:413:G:H1'	2.32	0.44
1:AA:2310:A:C5'	1:AA:2311:A:OP2	2.65	0.44
31:CA:1054:C:N4	52:CB:35:G:N9	2.66	0.44
23:AZ:91:LYS:HA	23:AZ:91:LYS:NZ	2.32	0.44
53:DD:50:G:C2	53:DD:67:C:O2	2.71	0.44
31:CA:1498:U:C1'	31:CA:1499:A:OP2	2.65	0.44
31:CA:1504:G:H1'	31:CA:1505:G:OP2	2.16	0.44
31:CA:16:A:C2'	31:CA:17:U:H5'	2.47	0.44
31:CA:1025:U:O2'	31:CA:1026:G:P	2.74	0.44
1:AA:620:G:N3	1:AA:620:G:H2'	2.33	0.44
7:AH:149:ARG:HH12	7:AH:167:GLU:CD	2.19	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2646:C:H2'	1:AA:2647:U:O4'	2.17	0.44
27:B5:56:LYS:HA	27:B5:56:LYS:HD3	1.70	0.44
1:BA:99:U:C4'	1:BA:102:G:H1'	2.46	0.44
20:BU:76:CYS:CB	20:BU:96:ILE:HD11	2.47	0.44
50:CW:71:THR:CG2	50:CW:72:LEU:H	2.14	0.44
1:AA:817:C:H4'	1:AA:932:G:C5	2.52	0.44
6:BG:102:PHE:CE2	6:BG:141:PHE:HE1	2.35	0.44
1:AA:916:G:C2'	1:AA:917:A:H5''	2.47	0.44
39:CL:46:ALA:O	39:CL:78:LYS:HA	2.17	0.44
18:AS:2:GLU:OE1	18:AS:72:LYS:NZ	2.40	0.44
1:AA:1210:A:H5''	1:AA:1212:G:O4'	2.18	0.44
5:AF:205:ARG:CG	5:AF:205:ARG:HH11	2.17	0.44
1:BA:862:G:H5'	2:BB:79:C:H4'	1.97	0.44
22:A3:69:PHE:CE2	22:A3:79:VAL:CG2	3.00	0.44
31:DA:925:G:N2	31:DA:1503:A:OP1	2.48	0.44
21:BV:159:PRO:O	21:BV:161:VAL:HG22	2.18	0.44
31:CA:142:G:C2	31:CA:143:A:C5	3.06	0.44
37:DJ:26:PHE:CD2	37:DJ:30:ILE:HD11	2.51	0.44
32:CE:77:ALA:HB2	32:CE:211:ILE:HD13	1.98	0.44
31:CA:599:C:H2'	31:CA:600:C:H6	1.82	0.44
34:CG:3:ARG:HG3	34:CG:3:ARG:H	1.54	0.44
1:AA:639:U:O2'	1:AA:640:C:H5'	2.17	0.44
1:AA:1125:G:C6	1:AA:1126:A:N6	2.85	0.44
26:A4:37:SER:CB	26:A4:42:PHE:CD1	3.01	0.44
35:CH:47:LYS:HB2	35:CH:47:LYS:HE2	1.90	0.44
31:CA:1092:A:C6	31:CA:1093:A:C6	3.05	0.44
1:AA:2308:G:N3	1:AA:2308:G:H2'	2.31	0.44
20:AU:20:TYR:CD1	20:AU:42:VAL:HG23	2.52	0.44
7:AH:77:LYS:HE2	7:AH:138:LYS:HE3	1.98	0.44
31:DA:1449:C:C2'	31:DA:1450:U:OP1	2.64	0.44
46:DS:52:ASP:HB3	46:DS:55:ARG:HB2	2.00	0.44
31:CA:651:C:H2'	31:CA:651:C:O2	2.16	0.44
3:AD:145:VAL:O	3:AD:153:ALA:HA	2.17	0.44
17:A2:89:GLN:HE21	17:A2:89:GLN:CA	2.24	0.44
1:BA:1473:G:H2'	1:BA:1474:C:O4'	2.17	0.44
1:AA:81:G:H2'	1:AA:82:G:O4'	2.17	0.44
26:B4:49:PHE:CZ	43:DP:63:THR:O	2.70	0.44
11:AO:106:LEU:HD23	11:AO:106:LEU:HA	1.65	0.44
1:BA:974:G:O2'	1:BA:975:G:N7	2.43	0.44
7:BH:61:HIS:HA	7:BH:64:LEU:HD12	1.99	0.44
15:BR:16:ARG:NH2	15:BR:19:LEU:HD21	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BF:164:ARG:HG2	5:BF:175:THR:OG1	2.17	0.44
1:BA:817:C:O2	1:BA:839:U:H4'	2.18	0.44
31:CA:491:G:H2'	31:CA:492:G:O4'	2.17	0.44
9:BM:17:ASP:O	9:BM:18:ALA:HB3	2.17	0.44
1:AA:849:A:N1	25:AX:25:ALA:HB2	2.32	0.44
23:AZ:6:GLU:HG3	23:AZ:61:ARG:O	2.16	0.44
1:AA:2102:U:H3	1:AA:2187:G:H1	1.65	0.44
45:CR:30:ALA:HA	45:CR:85:LEU:HD11	1.98	0.44
1:BA:540:G:C6	1:BA:541:C:C4	3.06	0.44
39:DL:12:GLU:O	39:DL:68:GLY:N	2.50	0.44
47:CT:26:GLN:HG2	47:CT:37:LYS:HG2	1.99	0.44
31:DA:1486:G:H2'	31:DA:1487:G:O4'	2.17	0.44
17:A2:62:LEU:HB2	17:A2:93:GLU:O	2.16	0.44
39:DL:27:THR:HG23	39:DL:31:GLN:O	2.17	0.44
47:CT:9:VAL:O	47:CT:21:VAL:HA	2.17	0.44
31:DA:111:G:H8	31:DA:111:G:O5'	2.00	0.44
13:B0:65:LEU:HA	13:B0:65:LEU:HD12	1.77	0.44
2:AB:91:C:H5''	21:AV:79:ARG:NH1	2.33	0.44
10:BN:71:ARG:HE	10:BN:105:GLU:CD	2.20	0.44
1:AA:1632:A:C6	1:AA:1633:G:C6	3.06	0.44
1:BA:2017:U:H5''	1:BA:2018:G:P	2.57	0.44
16:B1:50:ARG:NH2	16:B1:50:ARG:HB2	2.32	0.44
1:BA:1225:C:C3'	17:B2:85:LYS:CB	2.78	0.44
1:AA:1063:G:C6	1:AA:1064:C:C4	3.04	0.44
4:AE:59:VAL:CG2	4:AE:73:GLU:HG2	2.47	0.44
28:A6:15:GLU:CB	28:A6:20:ASN:HB2	2.47	0.44
1:AA:2309:A:N9	1:AA:2310:A:C8	2.80	0.44
6:AG:83:ARG:O	6:AG:85:GLY:N	2.50	0.44
31:DA:1199:U:H4'	40:DM:54:PHE:CE1	2.53	0.44
53:DC:14:A:C4	53:DC:23:G:C2	3.06	0.44
53:DC:17:C:OP1	53:DC:62:C:H5'	2.17	0.44
1:BA:1069:A:H4'	1:BA:1070:A:H5''	2.00	0.44
4:AE:111:ARG:HG2	13:A0:1:MET:SD	2.57	0.44
23:AZ:94:LEU:HD23	23:AZ:94:LEU:HA	1.78	0.44
31:CA:1149:C:P	39:CL:9:ARG:NH2	2.90	0.44
31:CA:1153:C:N3	31:CA:1154:G:C8	2.85	0.44
43:CP:80:ARG:NH1	49:CV:65:ASN:O	2.50	0.44
53:DD:22:A:H2'	53:DD:47:G:O6	2.18	0.44
31:CA:1002:G:O2'	31:CA:1003:G:H5'	2.18	0.44
43:DP:40:ASN:HB3	43:DP:43:THR:HG23	1.99	0.44
1:BA:1006:C:C2	1:BA:1138:G:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:B0:38:VAL:HB	13:B0:39:PRO:HD3	1.99	0.44
1:BA:1651:G:C2	1:BA:2007:C:N3	2.85	0.44
28:A6:28:ARG:HB2	28:A6:30:THR:O	2.17	0.44
1:AA:2286:A:C8	28:A6:37:ARG:NH1	2.85	0.44
4:BE:9:VAL:HG23	15:BR:8:LYS:NZ	2.32	0.44
1:AA:2119:A:N1	1:AA:2170:A:C5	2.86	0.44
31:DA:628:G:O2'	31:DA:629:G:H5'	2.16	0.44
26:B4:24:THR:O	26:B4:25:TYR:HB2	2.17	0.44
6:BG:64:THR:HG23	6:BG:65:GLY:N	2.32	0.44
31:DA:346:G:N2	31:DA:347:G:C8	2.85	0.44
33:DF:47:LEU:HA	33:DF:47:LEU:HD22	1.72	0.44
25:AX:10:LYS:O	25:AX:53:LEU:HD22	2.17	0.44
1:BA:324:A:N6	1:BA:338:G:O2'	2.45	0.44
1:BA:1257:C:H4'	5:BF:83:PHE:CE2	2.52	0.44
31:DA:113:G:O4'	31:DA:354:G:H4'	2.17	0.44
6:AG:121:ASN:HA	6:AG:122:PRO:HD2	1.82	0.44
15:AR:93:ARG:NH1	15:AR:93:ARG:CG	2.78	0.44
21:AV:76:LEU:H	21:AV:76:LEU:CD2	2.23	0.44
31:CA:1255:G:O6	40:CM:43:ARG:NH2	2.51	0.44
1:AA:1589:C:H2'	1:AA:1589:C:O2	2.17	0.44
32:CE:80:ILE:CD1	32:CE:208:ILE:HG23	2.45	0.44
2:BB:15:A:C2'	2:BB:16:G:OP1	2.65	0.44
31:CA:31:G:C2'	31:CA:48:C:N4	2.80	0.44
42:DO:74:GLY:O	42:DO:75:HIS:HB3	2.18	0.44
42:DO:75:HIS:HD2	42:DO:77:LEU:H	1.62	0.44
34:CG:138:TYR:HD2	34:CG:139:ARG:N	2.15	0.44
3:AD:69:ARG:HH12	3:AD:117:VAL:CG1	2.31	0.44
11:BO:112:LEU:H	11:BO:128:HIS:HD2	1.65	0.44
11:BO:147:LEU:HD23	11:BO:148:LEU:H	1.81	0.44
1:AA:582:G:H2'	1:AA:583:G:H8	1.80	0.44
21:BV:5:LEU:HD11	21:BV:44:PHE:HA	1.99	0.44
1:BA:1786:A:H1'	1:BA:1938:A:H61	1.79	0.44
10:BN:47:ILE:HD12	10:BN:47:ILE:HA	1.92	0.44
1:AA:1514:U:N3	1:AA:1515:C:C4	2.85	0.44
31:DA:1121:U:C4	31:DA:1122:U:C5	3.05	0.44
33:CF:70:VAL:CG1	33:CF:72:LYS:H	2.29	0.44
1:BA:1792:G:H2'	1:BA:1793:C:C6	2.52	0.44
31:DA:1225:A:OP2	31:DA:1225:A:C8	2.69	0.44
15:AR:124:ASP:O	15:AR:127:ALA:N	2.50	0.44
1:AA:2024:G:C5	1:AA:2025:C:C5	3.05	0.44
33:CF:188:LEU:HD13	33:CF:195:VAL:CG1	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:B2:67:GLY:O	17:B2:88:ARG:HD3	2.16	0.44
1:BA:826:U:H2'	1:BA:828:U:O4'	2.17	0.44
32:DE:84:GLU:OE1	32:DE:216:SER:HA	2.17	0.44
1:BA:1889:A:O2'	1:BA:2087:G:H5'	2.18	0.44
38:DK:73:ASP:OD2	38:DK:75:ARG:NE	2.50	0.44
31:DA:929:G:N2	31:DA:1389:C:C2	2.85	0.44
5:AF:53:THR:HG23	5:AF:56:GLU:CD	2.38	0.44
1:BA:2182:G:H2'	1:BA:2183:C:C6	2.52	0.44
31:CA:947:G:H2'	31:CA:948:C:O4'	2.17	0.44
1:BA:2881:C:H2'	1:BA:2882:A:O4'	2.18	0.44
1:BA:82:G:N2	1:BA:104:U:H5	2.15	0.44
1:AA:305:U:H2'	1:AA:306:U:C6	2.53	0.44
43:CP:34:LEU:HD22	43:CP:34:LEU:HA	1.78	0.44
1:BA:270(V):G:H2'	1:BA:270(W):G:H8	1.82	0.44
1:BA:1439:A:C2	1:BA:1553:A:C4	3.06	0.44
14:AQ:48:LEU:CD2	14:AQ:82:ILE:HD11	2.48	0.44
40:DM:82:ILE:O	40:DM:86:MET:HB2	2.16	0.44
1:AA:2240:C:O2'	1:AA:2241:A:H5'	2.18	0.44
39:CL:21:PRO:HA	39:CL:58:HIS:O	2.16	0.44
31:DA:1069:C:C5	31:DA:1094:G:O6	2.71	0.44
20:AU:21:LYS:HB3	20:AU:21:LYS:HE2	1.50	0.44
31:DA:762:C:H2'	31:DA:763:G:C8	2.53	0.44
7:AH:56:SER:OG	7:AH:58:GLU:HG3	2.17	0.44
3:AD:32:SER:HA	3:AD:35:LYS:O	2.18	0.44
4:BE:35:GLN:HB2	4:BE:48:GLN:HB2	1.99	0.44
1:BA:1665:A:O2'	1:BA:1666:G:H5'	2.18	0.44
31:CA:412:A:C1'	31:CA:413:G:OP2	2.65	0.44
28:A6:44:ARG:HD3	28:A6:44:ARG:N	2.32	0.44
1:AA:2415:G:H2'	1:AA:2416:C:H6	1.83	0.44
3:BD:67:PHE:HB3	3:BD:153:ALA:H	1.83	0.44
53:CC:17:C:O2'	53:CC:18:C:OP1	2.33	0.44
53:DC:19:G:H4'	53:DC:20:G:OP1	2.18	0.44
31:CA:1367:C:O2'	40:CM:48:THR:HG21	2.18	0.44
23:AZ:83:GLU:O	23:AZ:85:LEU:N	2.50	0.44
1:BA:1607:C:H4'	1:BA:1608:A:C5'	2.47	0.44
31:CA:1262:C:H42	31:CA:1273:G:H1	1.64	0.44
5:BF:124:LEU:O	5:BF:124:LEU:HG	2.17	0.44
31:CA:18:C:H5'	31:CA:1079:G:H1'	1.99	0.44
31:CA:793:U:H4'	31:CA:793:U:OP2	2.18	0.44
1:AA:883:G:N1	1:AA:884:C:O2	2.51	0.44
31:CA:1321:C:C3'	31:CA:1322:C:H5''	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2733:A:H3'	1:AA:2734:A:C5'	2.48	0.44
11:BO:79:ARG:O	11:BO:111:ARG:N	2.35	0.44
20:AU:96:ILE:CG1	20:AU:99:CYS:H	2.30	0.44
19:BT:44:GLU:HG3	19:BT:50:LYS:O	2.18	0.44
11:BO:21:ARG:O	11:BO:22:GLY:C	2.56	0.44
7:BH:54:ARG:HB2	7:BH:55:PRO:HD2	1.99	0.44
32:DE:237:ALA:O	32:DE:238:LEU:CB	2.64	0.44
1:AA:2134:A:OP2	1:AA:2157:G:N2	2.50	0.44
17:A2:76:LYS:HG3	17:A2:81:TYR:HD1	1.82	0.44
31:CA:852:G:H2'	31:CA:853:G:O5'	2.18	0.44
26:B4:15:ILE:O	26:B4:32:TYR:O	2.35	0.44
1:AA:1580:A:OP2	1:AA:1580:A:H8	2.00	0.44
1:AA:822:U:OP2	1:AA:946:G:OP2	2.35	0.44
9:AM:95:PRO:O	9:AM:96:GLU:O	2.35	0.44
9:AM:58:ASP:OD1	9:AM:59:LYS:N	2.50	0.44
31:DA:1372:U:H2'	31:DA:1373:G:C5'	2.47	0.44
31:CA:148:G:C2	31:CA:175:C:O2	2.71	0.44
31:CA:1278:U:H5'	31:CA:1279:A:O4'	2.18	0.44
1:BA:2117:A:N1	1:BA:2162:G:OP1	2.51	0.44
34:CG:120:LEU:HA	34:CG:120:LEU:HD23	1.66	0.44
31:DA:77:C:H2'	31:DA:78:G:H5''	1.99	0.44
31:CA:600:C:H2'	31:CA:600:C:O2	2.17	0.44
1:AA:652:C:O2	1:AA:652:C:H2'	2.16	0.44
3:BD:223:GLY:CA	3:BD:226:MET:HG3	2.41	0.44
53:CD:16:C:H2'	53:CD:16:C:O2	2.16	0.44
31:DA:691:G:H2'	31:DA:692:U:C6	2.52	0.44
31:DA:692:U:O2'	31:DA:694:A:N7	2.44	0.44
1:BA:912:C:H2'	1:BA:912:C:O2	2.16	0.44
52:CB:12:G:H1	52:CB:24:C:H42	1.65	0.44
32:DE:5:ILE:CD1	32:DE:55:PHE:HB3	2.47	0.44
52:CB:21:A:H2'	52:CB:22:G:H4'	1.99	0.44
44:CQ:24:CYS:HB2	44:CQ:40:CYS:HB3	1.91	0.44
53:CD:21:U:H3'	53:CD:22:A:C5'	2.48	0.44
2:AB:51:G:H2'	2:AB:52:A:C1'	2.48	0.44
41:CN:124:LYS:HE3	41:CN:125:PHE:HE1	1.78	0.44
24:BW:60:LEU:HA	24:BW:60:LEU:HD12	1.72	0.44
21:AV:53:ILE:HG22	21:AV:71:VAL:HG13	2.00	0.44
31:CA:878:G:C5'	38:CK:89:PRO:HG2	2.48	0.44
33:DF:90:GLU:HA	33:DF:90:GLU:OE2	2.18	0.44
1:AA:2104:G:N2	1:AA:2186:G:C4	2.85	0.44
1:AA:2839:G:H2'	1:AA:2840:C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2619:C:H2'	1:AA:2620:C:C6	2.52	0.44
8:BK:2:LYS:H	8:BK:2:LYS:HG2	1.48	0.44
31:DA:519:C:H2'	31:DA:520:A:O4'	2.18	0.44
1:BA:654(I):C:N4	1:BA:654(M):C:H42	2.13	0.44
1:BA:2751:G:H5'	1:BA:2752:C:OP2	2.18	0.44
1:BA:1903:G:OP1	3:BD:241:PRO:HB2	2.16	0.44
31:CA:185:A:H2'	31:CA:186:C:H6	1.81	0.44
1:AA:1392:A:N6	1:AA:1393:A:N6	2.65	0.44
1:BA:19:C:H2'	1:BA:20:C:C6	2.52	0.44
1:AA:269:U:O2	1:AA:269:U:C2'	2.65	0.44
39:DL:23:ASN:N	39:DL:23:ASN:HD22	2.16	0.44
10:AN:17:ARG:NH2	10:AN:47:ILE:HD13	2.33	0.44
1:AA:588:U:H1'	5:AF:90:PHE:CG	2.53	0.44
31:DA:1046:A:H2'	31:DA:1047:G:H5'	2.00	0.44
30:B8:41:ILE:O	30:B8:44:LYS:N	2.50	0.44
31:DA:1413:A:H2'	31:DA:1414:U:O4'	2.17	0.44
1:BA:1733:G:O2'	1:BA:1734:C:H5'	2.16	0.44
1:BA:835:A:N6	1:BA:836:G:C6	2.85	0.44
21:AV:39:VAL:HG21	21:AV:44:PHE:HB2	1.98	0.44
31:CA:1480:G:H2'	31:CA:1481:U:O4'	2.18	0.44
36:DI:13:ASN:ND2	36:DI:55:ASP:OD2	2.49	0.44
1:BA:952:G:C4	1:BA:966:G:C2	3.06	0.44
8:BK:98:ALA:HA	8:BK:109:ILE:HD11	1.99	0.44
31:DA:1455:G:H5'	50:DW:32:ALA:HB2	1.99	0.44
1:AA:250:G:C6	1:AA:251:A:C6	3.05	0.44
4:AE:58:ARG:HG3	4:AE:58:ARG:O	2.16	0.44
31:DA:1129:C:N3	31:DA:1139:G:N1	2.66	0.44
31:DA:1157:A:H8	31:DA:1158:C:N4	2.16	0.44
1:AA:1972:A:H2'	1:AA:1973:G:C8	2.51	0.44
31:DA:1057:G:H2'	31:DA:1058:G:O4'	2.16	0.44
31:DA:1055:A:C8	31:DA:1206:G:N2	2.86	0.44
30:A8:7:HIS:CE1	30:A8:9:GLY:HA3	2.53	0.44
11:AO:46:LYS:O	11:AO:47:ASP:CB	2.65	0.44
28:B6:29:ASN:O	28:B6:32:ASN:ND2	2.49	0.44
4:BE:60:ASN:C	4:BE:62:PRO:CD	2.86	0.44
31:DA:166:G:C2'	31:DA:167:G:H5'	2.48	0.44
1:AA:2302:G:N1	1:AA:2315:G:C6	2.85	0.44
15:AR:58:ASN:O	15:AR:59:THR:O	2.36	0.44
11:BO:49:ARG:HA	30:B8:55:ALA:HB1	2.00	0.44
31:CA:1137:C:O2'	31:CA:1138:G:C4	2.71	0.44
31:DA:542:G:H2'	31:DA:543:C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DJ:111:ARG:HB3	37:DJ:113:GLU:HG2	1.98	0.44
32:CE:70:PHE:CE2	32:CE:163:PHE:HD1	2.36	0.44
31:CA:1504:G:OP2	31:CA:1504:G:H3'	2.16	0.44
26:A4:24:THR:O	26:A4:25:TYR:HB2	2.18	0.44
21:AV:59:LEU:O	21:AV:60:GLU:C	2.56	0.44
28:A6:27:LYS:NZ	28:A6:27:LYS:HB2	2.30	0.44
19:BT:50:LYS:O	19:BT:51:VAL:HB	2.18	0.44
1:BA:1043:C:H42	1:BA:1112:G:H1	1.66	0.44
31:CA:380:G:N2	31:CA:384:G:C5	2.86	0.44
1:AA:847:U:O4	1:AA:933:A:C6	2.69	0.44
9:BM:127:ASP:HB2	9:BM:128:HIS:H	1.58	0.44
9:BM:15:LEU:HD13	9:BM:16:ILE:N	2.32	0.44
1:AA:1577:C:H2'	1:AA:1578:U:C1'	2.47	0.44
22:B3:25:ARG:HA	22:B3:25:ARG:HD2	1.86	0.44
1:BA:2134:A:N6	1:BA:2157:G:H1'	2.32	0.44
1:AA:2862:G:C5	1:AA:2863:C:C5	3.06	0.44
31:CA:1064:G:O2'	31:CA:1190:G:N2	2.50	0.44
31:DA:1286:A:H8	31:DA:1287:A:H4'	1.75	0.44
1:AA:1586:A:H3'	1:AA:1587:A:H8	1.83	0.44
5:BF:53:THR:HG22	5:BF:56:GLU:HG3	2.00	0.44
31:CA:953:G:C6	31:CA:1229:A:C6	3.05	0.44
1:BA:1932:A:N6	1:BA:1968:G:H1'	2.32	0.44
45:DR:39:LEU:HD12	45:DR:56:LEU:HB2	2.00	0.44
22:A3:53:MET:CB	22:A3:59:LEU:HD23	2.44	0.44
6:AG:173:LEU:HB3	6:AG:178:PHE:HD2	1.82	0.44
6:BG:56:ALA:HA	6:BG:59:GLU:HB3	1.99	0.44
13:B0:90:ARG:CZ	13:B0:117:VAL:HG11	2.48	0.44
1:AA:910:A:N7	12:AP:13:GLN:HG3	2.32	0.44
13:A0:103:ARG:NH1	18:AS:40:ASN:HD22	2.16	0.44
1:AA:301:G:HO2'	1:AA:302:C:H6	1.64	0.44
20:AU:90:LEU:HD13	20:AU:90:LEU:N	2.32	0.44
42:CO:21:VAL:CG1	42:CO:24:LEU:HG	2.45	0.44
15:BR:51:ARG:O	15:BR:61:PHE:HA	2.18	0.44
1:BA:2009:G:C2'	1:BA:2010:G:H5'	2.47	0.44
1:AA:991:C:H2'	1:AA:992:C:H6	1.83	0.44
1:AA:1819:A:H5''	3:AD:158:ALA:CB	2.47	0.44
1:BA:303:U:H2'	1:BA:304:G:O4'	2.17	0.44
1:BA:304:G:H2'	1:BA:305:U:C6	2.53	0.44
15:BR:19:LEU:HA	15:BR:20:PRO:HD3	1.70	0.44
31:CA:262:A:H3'	31:CA:263:A:C8	2.53	0.44
31:CA:914:A:H2'	31:CA:915:A:C8	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2599:G:OP2	3:BD:236:GLY:N	2.50	0.44
19:BT:53:LYS:NZ	19:BT:55:ASN:HD21	2.15	0.44
31:DA:1099:G:C6	31:DA:1100:C:C2	3.05	0.44
31:DA:1032:A:N7	31:DA:1032(A):G:H1'	2.33	0.44
38:DK:29:SER:HB3	38:DK:32:LYS:CD	2.47	0.44
12:AP:43:THR:HG22	12:AP:94:VAL:HG12	2.00	0.44
8:AK:58:LEU:O	8:AK:61:ARG:N	2.49	0.44
33:DF:100:ALA:O	33:DF:101:LEU:HB2	2.18	0.44
3:BD:118:VAL:HG22	3:BD:119:ALA:H	1.81	0.44
40:CM:47:PHE:CZ	44:CQ:37:PHE:HE2	2.35	0.44
1:BA:1525:G:H2'	1:BA:1526:G:C8	2.52	0.44
23:AZ:53:VAL:CG2	23:AZ:74:VAL:HG22	2.47	0.44
1:BA:773:U:C5'	3:BD:47:GLY:HA2	2.48	0.44
1:BA:419:C:H2'	1:BA:420:C:H6	1.82	0.44
1:BA:1725:G:C2	1:BA:1741:C:C2	3.05	0.44
1:AA:459:U:H4'	29:A7:40:TRP:CH2	2.53	0.44
1:AA:818:G:H5'	1:AA:839:U:OP1	2.18	0.44
38:DK:14:ARG:O	38:DK:18:ARG:HD3	2.18	0.44
1:AA:2323:G:H2'	1:AA:2324:C:O4'	2.17	0.44
5:BF:64:ILE:HG13	5:BF:65:TRP:CD1	2.52	0.44
1:AA:1530:G:C5	1:AA:1531:C:C4	3.05	0.44
1:AA:1268:A:H2'	1:AA:1269:A:O4'	2.16	0.44
1:AA:1215:G:C4	1:AA:1216:G:C8	3.05	0.44
31:DA:35:G:C2	31:DA:550:G:N3	2.85	0.44
1:AA:506:G:H5''	1:AA:509:C:H1'	1.99	0.44
46:DS:43:LYS:HA	46:DS:48:TRP:HB3	1.99	0.44
1:AA:2086:U:H2'	1:AA:2087:G:C8	2.52	0.44
48:CU:21:LYS:HB3	48:CU:57:GLY:HA3	1.99	0.44
1:AA:1707:G:O5'	1:AA:1707:G:H8	2.01	0.44
1:AA:810:U:O5'	1:AA:810:U:H6	2.01	0.44
11:AO:81:GLN:HE21	11:AO:81:GLN:HB2	1.63	0.44
1:AA:228:A:C2'	1:AA:228:A:N3	2.80	0.44
1:AA:432:A:H2'	1:AA:433:C:C6	2.52	0.44
1:AA:1905:C:H2'	1:AA:1905:C:O2	2.17	0.44
1:AA:1103:A:H2'	1:AA:1104:C:H5'	1.99	0.44
1:AA:2393:A:H4'	11:AO:62:LEU:H	1.81	0.44
1:AA:2807:G:H5'	1:AA:2808:U:OP2	2.18	0.44
1:BA:2727:G:C2	1:BA:2728:U:C6	3.05	0.44
39:DL:4:TYR:HD2	39:DL:85:LEU:HA	1.82	0.44
53:CC:19:G:C6	53:CC:59:A:C6	3.05	0.44
12:BP:26:TYR:C	12:BP:26:TYR:HD2	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1310:G:OP1	43:DP:77:ASN:OD1	2.36	0.44
31:CA:1349:A:H2'	31:CA:1350:A:H8	1.82	0.44
1:BA:2287:A:C4	1:BA:2289:G:C8	3.06	0.44
1:BA:1071:G:C8	1:BA:1089:G:C5	3.06	0.44
31:CA:1116:C:C2'	31:CA:1117:G:H5'	2.47	0.44
31:CA:1116:C:O2'	31:CA:1117:G:H5'	2.18	0.44
31:CA:1145:C:H4'	31:CA:1146:A:C8	2.51	0.44
2:AB:43:C:P	6:AG:67:LYS:HZ1	2.40	0.44
49:CV:64:GLU:O	49:CV:67:VAL:HG23	2.18	0.44
53:DD:55:U:H3	53:DD:59:A:N6	2.11	0.44
32:CE:8:LYS:N	32:CE:8:LYS:HE2	2.22	0.44
11:AO:68:GLN:HG2	30:A8:12:LYS:HD3	2.00	0.44
1:BA:1005:C:C2	1:BA:1143:A:C2	3.05	0.44
1:BA:1652:A:H62	13:B0:11:ASN:ND2	2.07	0.44
1:BA:1654:A:C1'	1:BA:2823:A:H5'	2.48	0.44
31:DA:186:C:C1'	50:DW:81:LYS:NZ	2.73	0.44
11:BO:79:ARG:HB3	11:BO:110:TYR:CD1	2.51	0.44
34:CG:10:ARG:CZ	34:CG:10:ARG:HB2	2.47	0.44
31:DA:452:A:H2'	31:DA:453:A:H8	1.79	0.44
1:BA:6:A:C2'	1:BA:7:G:H5'	2.48	0.44
1:BA:7:G:N2	1:BA:8:A:N3	2.66	0.44
39:CL:83:ARG:HA	39:CL:86:VAL:CG1	2.48	0.44
1:BA:1359:A:H2'	1:BA:1360:A:H5'	2.00	0.44
1:BA:2839:G:H21	13:B0:92:GLY:HA2	1.82	0.44
16:A1:61:TRP:CE2	16:A1:94:ASN:HA	2.52	0.44
31:CA:256:U:OP1	47:CT:17:LYS:NZ	2.51	0.44
47:CT:65:ILE:HG21	47:CT:69:LYS:HE2	1.98	0.44
31:CA:560:U:HO2'	31:CA:561:U:P	2.27	0.44
1:AA:2820:A:O2'	1:AA:2821:A:OP1	2.31	0.44
1:BA:340:A:H2'	1:BA:341:G:C5'	2.47	0.44
1:AA:1609:A:C5	1:AA:1616:A:C8	3.05	0.44
18:AS:22:ASP:HA	18:AS:25:ARG:NH1	2.33	0.44
1:AA:356:G:H2'	1:AA:357:A:H8	1.83	0.44
15:AR:106:SER:HA	15:AR:110:ILE:HG21	1.99	0.44
1:BA:2697:G:C2	1:BA:2711:A:C2	3.06	0.44
31:CA:1256:A:OP2	33:CF:26:LYS:NZ	2.50	0.44
33:DF:58:GLU:CB	33:DF:65:ALA:HB3	2.47	0.44
1:AA:2392:A:H2	1:AA:2424:C:N4	2.15	0.44
14:AQ:35:ILE:C	14:AQ:36:TYR:CD1	2.88	0.44
1:BA:957:A:C6	1:BA:2459:A:C8	3.05	0.44
1:BA:903:C:H2'	1:BA:904:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BQ:19:LYS:O	14:BQ:20:ARG:HB3	2.17	0.44
1:AA:660:G:C6	1:AA:661:C:C4	3.06	0.44
31:CA:1489:G:H2'	31:CA:1490:C:O4'	2.18	0.44
1:AA:2148:G:H2'	1:AA:2149:G:H8	1.83	0.44
1:BA:2575:C:H5''	1:BA:2576:G:OP2	2.18	0.44
1:AA:2035:G:C4'	1:AA:2036:C:OP2	2.63	0.44
31:DA:939:G:H5''	37:DJ:102:ARG:CZ	2.48	0.44
1:AA:1448:G:O2'	1:AA:1528:A:N6	2.50	0.44
1:BA:214:G:H1'	1:BA:216:A:O2'	2.17	0.44
30:B8:8:LYS:HD3	30:B8:8:LYS:H	1.82	0.44
1:BA:1670:C:C5	1:BA:1671:U:C4	3.06	0.44
41:CN:23:ALA:HA	41:CN:28:THR:HG23	2.00	0.44
10:AN:24:VAL:HG23	10:AN:33:ALA:HB2	2.00	0.44
31:DA:1114:C:H2'	31:DA:1115:C:C6	2.51	0.44
1:BA:383:U:C2	1:BA:385:C:C4	3.05	0.44
1:AA:1337:G:C4	1:AA:1338:G:C8	3.06	0.44
37:DJ:73:MET:O	37:DJ:141:VAL:HG12	2.17	0.44
1:AA:51:G:H1'	1:AA:119:A:N1	2.33	0.44
43:DP:58:GLU:H	43:DP:58:GLU:HG2	1.48	0.44
1:BA:979:G:H3'	1:BA:980:A:H5''	2.00	0.44
1:AA:1757:U:C2'	1:AA:1758:G:OP1	2.65	0.44
2:AB:20:C:C2'	2:AB:21:G:H5'	2.47	0.44
2:AB:20:C:O2'	2:AB:21:G:H5'	2.18	0.44
31:DA:222:U:H2'	31:DA:223:U:C6	2.53	0.44
31:DA:788:U:C5	31:DA:789:U:C5	3.05	0.44
10:AN:58:VAL:HG12	10:AN:94:ARG:HH21	1.83	0.44
31:CA:1320:C:O2	49:CV:72:GLY:HA3	2.18	0.44
8:AK:27:ARG:CD	23:AZ:71:TYR:CE1	3.01	0.44
46:CS:33:ILE:H	46:CS:33:ILE:HG13	1.61	0.44
42:DO:69:TYR:CG	42:DO:90:VAL:HG21	2.52	0.44
31:DA:824:C:H2'	31:DA:825:G:C8	2.52	0.44
2:BB:114:G:H2'	2:BB:115:G:O4'	2.18	0.44
33:DF:21:ARG:HB3	33:DF:21:ARG:NH1	2.33	0.44
15:AR:37:GLY:O	15:AR:38:ASN:HB3	2.16	0.44
1:BA:690:G:H1	1:BA:772:C:H42	1.65	0.44
1:AA:1453:A:O2'	1:AA:1454:U:H2'	2.17	0.44
30:B8:15:LYS:HG2	30:B8:16:ILE:N	2.33	0.44
50:CW:48:LYS:HD3	50:CW:51:GLU:OE2	2.18	0.44
3:AD:61:LEU:HB3	3:AD:63:ARG:NH1	2.33	0.44
30:A8:23:VAL:HG13	30:A8:46:ARG:HB3	1.99	0.44
31:DA:1158:C:N3	31:DA:1160:G:N7	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CC:19:G:C2	53:CC:59:A:C4	3.05	0.44
30:A8:59:LYS:HZ3	30:A8:59:LYS:CB	2.28	0.44
53:DC:20:G:H4'	53:DC:21:U:OP2	2.14	0.44
1:AA:2481:G:C2'	1:AA:2482:G:OP2	2.66	0.44
15:AR:36:GLU:CG	15:AR:41:ARG:HD2	2.20	0.44
1:BA:2271:G:C5	1:BA:2272:U:C4	3.06	0.44
31:CA:1162:C:N3	31:CA:1175:G:C2	2.86	0.44
1:BA:1324:G:C2	1:BA:1331:A:C2	3.06	0.44
34:DG:20:TYR:CD2	34:DG:27:TYR:CE1	3.05	0.44
1:BA:945:A:C6	1:BA:2448:A:C4	3.05	0.44
1:AA:1110:G:H2'	1:AA:1111:A:C8	2.52	0.44
5:AF:32:LEU:HD13	5:AF:105:VAL:CG1	2.48	0.44
1:AA:2166:G:O2'	1:AA:2167:U:OP1	2.31	0.44
12:AP:19:GLY:C	12:AP:98:LYS:CD	2.86	0.44
35:DH:57:LYS:O	35:DH:61:TYR:CD2	2.71	0.44
1:BA:142:G:H5''	1:BA:1598:C:O2'	2.17	0.44
1:BA:1496:A:H1'	1:BA:1577:C:O2'	2.17	0.44
15:BR:90:GLN:NE2	15:BR:121:ILE:HD11	2.28	0.44
49:DV:65:ASN:HB2	49:DV:66:MET:CE	2.48	0.44
2:BB:97:G:C2'	2:BB:98:G:H5'	2.48	0.44
21:BV:93:ASP:HB2	21:BV:131:ARG:NH2	2.32	0.44
1:AA:2199:A:H5''	1:AA:2205:C:OP2	2.18	0.44
31:CA:1336:C:C4'	31:CA:1336:C:OP1	2.63	0.44
1:AA:1581:G:O6	1:AA:1582:C:N4	2.51	0.44
6:AG:125:PHE:CZ	6:AG:170:ARG:HA	2.53	0.44
36:CI:3:ARG:NH1	36:CI:38:GLU:OE2	2.51	0.44
1:AA:2335:A:O2'	1:AA:2336:A:P	2.76	0.44
1:AA:2334:G:H4'	1:AA:2335:A:OP2	2.18	0.44
1:AA:910:A:C5	12:AP:13:GLN:HG3	2.52	0.44
31:CA:652:U:O2'	31:CA:653:A:H5''	2.17	0.44
3:AD:70:TRP:CZ3	3:AD:150:LYS:HA	2.52	0.44
1:AA:2189:U:C3'	1:AA:2190:G:H5''	2.47	0.44
1:AA:557:U:H2'	1:AA:558:G:C8	2.53	0.44
31:CA:960:U:O2	31:CA:960:U:C2'	2.64	0.44
31:DA:262:A:H5'	50:DW:74:LYS:HG3	2.00	0.44
37:CJ:113:GLU:HG3	37:CJ:119:ARG:HG2	1.98	0.44
31:CA:22:G:H2'	31:CA:23:C:H6	1.81	0.44
23:BZ:78:LYS:CE	23:BZ:78:LYS:O	2.66	0.44
31:DA:1492:A:N3	54:D1:20:U:O2'	2.45	0.44
40:CM:40:LEU:HB2	40:CM:69:ASN:HB3	1.98	0.44
1:BA:536:A:H2'	1:BA:537:C:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:186(D):C:O2'	31:CA:186(E):C:H5'	2.17	0.44
35:DH:100:VAL:HG22	35:DH:118:ILE:CG2	2.48	0.44
21:BV:8:TYR:HB2	21:BV:38:TYR:CZ	2.53	0.44
50:CW:23:ARG:O	50:CW:27:LYS:HB3	2.18	0.44
1:BA:1668:A:H4'	1:BA:1669:A:O5'	2.17	0.44
1:BA:1374:G:H2'	1:BA:1375:C:H6	1.80	0.44
33:DF:69:HIS:ND1	33:DF:69:HIS:N	2.65	0.44
25:AX:7:LYS:HG3	25:AX:34:GLU:HG2	2.00	0.44
1:AA:2364:C:O2'	1:AA:2365:G:H5'	2.18	0.44
1:AA:2517:C:C5	1:AA:2542:A:C5	3.06	0.44
31:CA:998:G:O2'	31:CA:998(A):C:H5'	2.18	0.44
1:BA:648:G:O2'	1:BA:649:G:H5'	2.18	0.44
20:AU:30:VAL:HG22	20:AU:37:VAL:HG12	1.99	0.44
54:C1:16:A:H2'	54:C1:17:U:O4'	2.17	0.44
3:BD:177:LEU:HB3	3:BD:178:PRO:HD2	2.00	0.44
34:CG:88:VAL:HG13	35:CH:97:GLY:HA2	2.00	0.44
1:BA:1123:C:H2'	1:BA:1124:C:C6	2.53	0.44
33:DF:119:ARG:HH22	33:DF:140:ARG:HG2	1.81	0.44
49:CV:79:THR:O	49:CV:79:THR:HG22	2.18	0.44
10:BN:64:ARG:HB2	10:BN:83:ALA:HB3	2.00	0.44
31:CA:1238:A:N3	31:CA:1241:G:O2'	2.40	0.44
1:AA:272:G:H2'	1:AA:273:G:O4'	2.18	0.44
30:B8:14:VAL:HG11	30:B8:22:VAL:HG13	1.98	0.44
1:AA:1064:C:O2	1:AA:1075:C:C2	2.70	0.44
1:AA:2394:C:O2	53:CD:77:A:O2'	2.36	0.44
3:AD:35:LYS:HE3	3:AD:65:ILE:N	2.32	0.44
1:AA:2811:G:C2'	1:AA:2812:G:H5'	2.48	0.44
1:AA:2467:C:H4'	12:AP:123:HIS:CG	2.53	0.44
1:BA:934:G:H2'	1:BA:935:C:H6	1.83	0.44
6:AG:86:MET:O	6:AG:87:PRO:C	2.52	0.44
31:DA:1057:G:O2'	31:DA:1058:G:H5'	2.17	0.44
31:DA:1004:A:P	31:DA:1025:U:O4	2.75	0.44
4:BE:56:PRO:HD3	4:BE:72:VAL:HG12	2.00	0.44
48:DU:53:ARG:HA	48:DU:56:THR:OG1	2.18	0.44
1:AA:2647:U:H2'	1:AA:2648:C:C6	2.52	0.44
5:AF:28:ILE:HA	5:AF:112:MET:HE3	1.98	0.44
32:DE:134:GLU:HA	32:DE:137:ARG:HB2	1.99	0.44
1:AA:2347:C:H2'	1:AA:2348:U:C6	2.53	0.44
31:DA:192:U:H2'	31:DA:193:C:C6	2.40	0.44
20:AU:94:LYS:HB3	20:AU:101:LYS:HD3	1.99	0.44
31:CA:464:G:O6	31:CA:466:C:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2112:G:N2	53:CD:58:A:C2	2.86	0.44
1:AA:2164:C:C6	1:AA:2165:G:N7	2.85	0.44
53:CD:19:G:H2'	53:CD:58:A:H62	1.81	0.44
24:BW:46:GLN:O	24:BW:49:LYS:HE3	2.18	0.44
31:DA:1243:C:O2	31:DA:1295:G:C2	2.71	0.44
1:BA:587:C:OP2	11:BO:21:ARG:NH2	2.49	0.44
1:BA:1041:C:H2'	1:BA:1042:G:C8	2.53	0.44
9:BM:36:GLY:N	9:BM:42:TRP:CZ3	2.86	0.44
31:CA:833:U:H2'	31:CA:834:C:C6	2.52	0.44
1:BA:2801:A:O5'	1:BA:2801:A:H8	2.01	0.44
1:BA:7:G:C2	1:BA:8:A:C4	3.06	0.44
9:BM:127:ASP:O	9:BM:128:HIS:HB3	2.18	0.44
9:BM:15:LEU:HB2	9:BM:134:ARG:CG	2.47	0.44
2:BB:41:U:O4	6:BG:70:VAL:HG23	2.18	0.44
1:AA:863:A:H2'	1:AA:864:G:C8	2.53	0.44
39:CL:86:VAL:O	39:CL:90:PRO:HA	2.17	0.44
15:BR:118:ARG:O	15:BR:121:ILE:N	2.50	0.44
31:CA:1347:G:O2'	31:CA:1348:U:P	2.76	0.44
1:AA:2821:A:OP2	1:AA:2822:G:OP2	2.35	0.44
35:DH:143:ARG:NH1	38:DK:77:GLU:OE1	2.51	0.44
7:AH:11:VAL:HB	7:AH:12:PRO:CD	2.41	0.44
1:BA:870:A:C2	1:BA:871:U:H1'	2.53	0.44
1:BA:914:C:H2'	1:BA:915:C:O5'	2.18	0.44
1:BA:654(B):C:N3	1:BA:654(T):A:C2	2.86	0.44
1:BA:654(A):A:C2	1:BA:654(U):A:N3	2.86	0.44
1:AA:1265:A:C8	1:AA:1267:U:C2	3.06	0.44
1:BA:712:G:N2	1:BA:719:C:N3	2.56	0.44
31:CA:67:C:O2	31:CA:67:C:H2'	2.17	0.44
21:BV:141:VAL:CG2	21:BV:150:LEU:HG	2.48	0.44
34:CG:201:GLN:HA	34:CG:201:GLN:NE2	2.27	0.44
1:AA:299:A:N1	1:AA:322:A:O2'	2.39	0.44
35:DH:7:GLU:N	35:DH:35:GLY:O	2.46	0.44
49:DV:30:LEU:HD12	49:DV:31:ILE:N	2.33	0.44
53:DC:1:C:HO2'	53:DC:2:G:P	2.41	0.44
1:BA:2148:G:N3	1:BA:2149:G:C8	2.86	0.44
22:B3:19:LYS:HG3	22:B3:41:ARG:HH12	1.82	0.44
33:CF:58:GLU:HB2	33:CF:65:ALA:HB3	1.99	0.44
8:AK:9:LEU:HB3	8:AK:11:ASN:O	2.17	0.44
1:AA:2881:C:H5''	13:A0:117:VAL:HG21	1.99	0.44
1:BA:1484:G:C6	1:BA:1485:G:C5	3.06	0.44
38:CK:82:HIS:HB3	38:CK:138:TRP:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2564:A:C2	1:BA:2647:U:H4'	2.52	0.44
31:DA:955:U:H2'	31:DA:956:U:H6	1.83	0.44
34:DG:178:VAL:O	34:DG:180:GLY:N	2.50	0.44
33:DF:95:THR:HG22	33:DF:97:LYS:HG2	2.00	0.44
32:DE:118:LEU:O	32:DE:121:LEU:N	2.48	0.44
21:BV:19:ARG:HB2	21:BV:19:ARG:HE	1.68	0.44
25:AX:28:LEU:HA	25:AX:33:GLN:OE1	2.18	0.44
1:BA:1027:A:N6	1:BA:1126:A:N9	2.66	0.44
49:CV:11:VAL:HG11	49:CV:16:LEU:HD22	1.99	0.44
1:BA:2520:C:C6	1:BA:2567:G:H1'	2.52	0.44
1:BA:2337:G:N3	1:BA:2337:G:H2'	2.33	0.44
31:CA:102:G:C6	31:CA:103:C:N4	2.86	0.44
6:AG:139:LEU:HD23	6:AG:144:ILE:HG22	1.99	0.44
21:BV:24:LEU:C	21:BV:24:LEU:HD12	2.38	0.44
1:AA:760:G:H2'	1:AA:761:A:H5'	1.99	0.44
9:BM:111:PRO:HA	9:BM:114:ARG:NH1	2.32	0.44
31:CA:1202:G:H2'	31:CA:1203:C:C5'	2.47	0.44
31:DA:677:U:H3	31:DA:713:G:H22	1.65	0.44
40:DM:6:ILE:HG13	40:DM:72:VAL:HG23	1.99	0.44
31:CA:303:A:C5	31:CA:304:U:C5	3.05	0.44
19:AT:5:TYR:O	24:AW:36:ARG:NH2	2.50	0.44
31:DA:803:G:C6	31:DA:804:U:N3	2.86	0.44
31:CA:586:C:H2'	31:CA:587:G:O4'	2.17	0.44
48:DU:43:PHE:O	48:DU:51:LEU:HD12	2.18	0.44
31:DA:762:C:H2'	31:DA:763:G:H8	1.83	0.44
34:CG:129:ASN:HD21	34:CG:144:ASP:CG	2.21	0.44
31:DA:1269:A:H5''	31:DA:1270:C:OP2	2.17	0.44
31:DA:29:G:O2'	31:DA:30:U:H5'	2.18	0.44
1:AA:1238:G:O2'	1:AA:1239:G:H5'	2.17	0.44
32:CE:119:GLU:HA	32:CE:119:GLU:OE2	2.18	0.44
19:BT:66:LEU:HA	19:BT:66:LEU:HD23	1.65	0.44
1:BA:1319:G:C6	1:BA:1320:C:N4	2.86	0.44
1:BA:2016:U:O5'	1:BA:2016:U:H6	2.01	0.44
1:BA:815:C:OP2	17:B2:82:ARG:NH1	2.51	0.44
1:AA:1056:G:HO2'	1:AA:1057:A:P	2.41	0.44
1:AA:1058:U:H2'	1:AA:1059:G:C8	2.52	0.44
4:BE:34:VAL:HB	4:BE:48:GLN:HE21	1.83	0.44
1:BA:879:G:C2	1:BA:880:G:H1'	2.53	0.44
31:DA:1156:G:H5''	31:DA:1157:A:OP2	2.17	0.44
39:DL:8:GLY:HA2	39:DL:79:LEU:HD12	1.99	0.44
4:AE:79:ARG:CG	4:AE:197:ILE:CG2	2.95	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CC:20:G:C5	53:CC:58:A:C2	3.05	0.44
12:BP:26:TYR:CD2	12:BP:26:TYR:C	2.91	0.44
31:DA:448:A:C2	31:DA:449:C:C4	3.05	0.44
30:B8:32:LEU:HA	30:B8:33:ASN:HA	1.52	0.44
1:AA:2316:C:H2'	1:AA:2317:C:H6	1.82	0.44
31:CA:49:U:O2'	31:CA:50:A:C2'	2.65	0.44
5:BF:25:PRO:CG	5:BF:26:ALA:H	2.31	0.44
2:AB:42:C:O3'	6:AG:67:LYS:CE	2.66	0.44
31:CA:16:A:O2'	31:CA:17:U:H5'	2.17	0.44
1:BA:971:C:C2'	1:BA:972:G:H5'	2.48	0.44
1:AA:1046:A:O2'	1:AA:1047:G:OP1	2.29	0.44
1:AA:2751:G:C5	7:AH:2:SER:O	2.71	0.44
20:BU:30:VAL:O	20:BU:36:ALA:O	2.36	0.44
13:B0:37:THR:CG2	13:B0:39:PRO:HD2	2.31	0.44
20:AU:76:CYS:CB	20:AU:77:PRO:CD	2.96	0.44
1:AA:96:G:C2	1:AA:97:C:C6	3.06	0.44
2:AB:40:U:C2'	2:AB:41:U:OP1	2.65	0.44
1:AA:1491:G:O4'	3:AD:99:ASP:HB3	2.18	0.44
1:BA:2801:A:H2'	1:BA:2802:G:O4'	2.18	0.44
26:B4:34:GLU:HG3	43:DP:3:ARG:N	2.32	0.44
1:AA:2508:G:H5'	52:CB:85:C:H42	1.83	0.44
15:BR:90:GLN:HA	15:BR:90:GLN:HE21	1.82	0.44
1:BA:2320:A:H1'	1:BA:2321:G:C6	2.53	0.44
7:AH:8:PRO:HG2	7:AH:69:ARG:HH21	1.83	0.44
5:AF:36:VAL:HG11	5:AF:183:VAL:CG1	2.47	0.44
1:BA:1533:C:N4	1:BA:1539:G:C6	2.86	0.44
22:A3:27:GLU:HG2	22:A3:68:GLU:HA	1.98	0.44
31:DA:1343:G:H2'	31:DA:1344:C:C6	2.53	0.44
9:BM:56:ASN:H	9:BM:125:GLY:N	2.15	0.44
31:DA:1027:C:O2'	31:DA:1028:C:C6	2.70	0.44
6:AG:117:PHE:CE1	6:AG:119:GLY:CA	3.01	0.44
1:BA:635:C:H2'	1:BA:636:G:O4'	2.18	0.44
31:DA:735:C:H2'	31:DA:736:C:C6	2.51	0.44
4:AE:8:LYS:CE	4:AE:24:THR:HG21	2.45	0.44
33:DF:16:ARG:HA	33:DF:16:ARG:HH11	1.82	0.44
1:BA:1483:G:C6	1:BA:1507:A:C2	3.05	0.44
22:B3:48:GLY:HA3	22:B3:80:HIS:ND1	2.33	0.44
32:CE:17:PHE:CD1	32:CE:17:PHE:O	2.67	0.44
25:AX:4:LEU:HG	25:AX:39:ASP:HB2	2.00	0.44
1:AA:2146:C:H4'	1:AA:2147:G:C4	2.53	0.44
31:DA:1436:U:H2'	31:DA:1437:C:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:948:C:O2'	31:DA:949:A:H5'	2.17	0.44
1:AA:1261:C:C2'	1:AA:1262:A:O5'	2.66	0.44
31:DA:115:G:C2	31:DA:289:G:N7	2.86	0.44
1:BA:2187:G:C5	1:BA:2188:C:C4	3.06	0.44
1:BA:2751:G:H5'	1:BA:2752:C:P	2.57	0.44
14:AQ:66:ALA:HA	14:AQ:69:VAL:CG1	2.48	0.44
31:CA:1221:G:H4'	49:CV:77:THR:CG2	2.48	0.44
1:BA:1374:G:C2	1:BA:1375:C:C2	3.06	0.44
13:A0:55:ALA:HA	13:A0:80:PHE:CZ	2.53	0.44
2:AB:59:A:N7	2:AB:60:C:C5	2.86	0.44
31:CA:1485:U:O2'	31:CA:1486:G:H5'	2.18	0.44
1:BA:154:G:H3'	1:BA:155:C:C6	2.53	0.44
11:AO:96:THR:O	11:AO:98:GLU:N	2.46	0.44
1:AA:90:U:OP1	1:AA:90:U:H6	2.00	0.44
31:CA:84:U:O2	31:CA:84:U:H2'	2.18	0.44
35:DH:80:ILE:HD11	35:DH:138:ALA:HB1	1.99	0.44
31:CA:625:G:H4'	46:CS:16:HIS:CD2	2.52	0.44
23:BZ:65:SER:OG	23:BZ:66:HIS:HD2	2.01	0.44
1:AA:764:A:O4'	3:AD:213:ARG:HG3	2.17	0.44
3:AD:210:GLY:O	3:AD:213:ARG:N	2.51	0.44
14:AQ:62:LYS:HB2	14:AQ:97:ARG:HD2	2.00	0.44
1:AA:1235:G:C6	1:AA:1236:G:N1	2.86	0.44
31:CA:683:G:H2'	31:CA:684:A:C8	2.52	0.44
50:DW:9:ASN:HD22	50:DW:9:ASN:HA	1.62	0.44
23:AZ:81:LYS:HA	23:AZ:81:LYS:HD2	1.79	0.44
1:BA:1693:U:O2'	3:BD:14:ARG:NH2	2.51	0.44
4:AE:14:ILE:O	4:AE:15:PHE:CD2	2.71	0.43
1:AA:1091:G:N2	1:AA:1101:U:H1'	2.33	0.43
14:BQ:27:SER:HB2	14:BQ:88:ASP:OD1	2.17	0.43
21:BV:115:GLY:HA2	21:BV:175:VAL:O	2.18	0.43
12:BP:89:ASN:O	12:BP:90:VAL:CB	2.65	0.43
3:BD:62:TYR:CE1	3:BD:64:ILE:HA	2.53	0.43
31:DA:1156:G:H3'	31:DA:1157:A:C5'	2.48	0.43
31:DA:1178:G:C8	31:DA:1180:A:OP2	2.71	0.43
31:DA:1276:G:H2'	31:DA:1277:C:H6	1.82	0.43
43:DP:25:ILE:HG22	43:DP:26:GLY:N	2.32	0.43
28:B6:25:LYS:O	28:B6:25:LYS:HG2	2.17	0.43
1:BA:1087:G:H2'	1:BA:1089:G:O4'	2.17	0.43
1:BA:2786:U:H5'	4:BE:65:GLY:HA3	2.00	0.43
53:DD:15:G:N7	53:DD:16:C:H5	2.14	0.43
53:DD:49:C:H5"	53:DD:50:G:H5"	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1404:C:O4'	31:CA:1499:A:N1	2.51	0.43
31:CA:789:U:O5'	31:CA:789:U:O2	2.36	0.43
1:BA:945:A:C3'	1:BA:946:G:H5''	2.48	0.43
32:DE:137:ARG:HD3	32:DE:137:ARG:O	2.17	0.43
12:BP:78:PRO:O	12:BP:79:LEU:HG	2.18	0.43
1:AA:2164:C:C5	1:AA:2165:G:N7	2.86	0.43
31:CA:1028(B):C:N4	31:CA:1032(B):G:O6	2.51	0.43
19:AT:67:GLY:C	19:AT:69:TYR:H	2.06	0.43
31:CA:834:C:C2	31:CA:853:G:C2	3.06	0.43
31:DA:279:A:C5'	31:DA:281:G:H5'	2.47	0.43
1:AA:1491:G:H5'	3:AD:99:ASP:OD2	2.17	0.43
43:DP:3:ARG:HA	43:DP:8:GLU:O	2.18	0.43
31:CA:686:U:H2'	31:CA:687:A:C8	2.53	0.43
52:CB:86:C:H2'	52:CB:87:A:C4	2.53	0.43
3:BD:91:ARG:HH11	3:BD:91:ARG:CG	2.17	0.43
17:B2:41:GLY:CA	17:B2:46:VAL:HG11	2.47	0.43
1:AA:2818:G:C2'	1:AA:2819:G:H5'	2.47	0.43
31:DA:352:C:O2'	31:DA:354:G:OP1	2.29	0.43
31:DA:54:C:C4	31:DA:352:C:C5	3.05	0.43
31:CA:189:U:O4	47:CT:62:SER:HB2	2.18	0.43
31:DA:468:A:O2'	46:DS:81:ARG:HA	2.18	0.43
31:CA:104:G:C6	31:CA:105:G:N7	2.86	0.43
21:BV:157:LEU:HD12	21:BV:161:VAL:HA	2.00	0.43
1:AA:2069:G:N2	1:AA:2070:G:H1'	2.33	0.43
31:DA:942:G:C2	31:DA:1342:C:C2	3.06	0.43
35:CH:101:ILE:O	35:CH:120:THR:OG1	2.25	0.43
1:AA:1316:U:O2'	1:AA:1317:A:H5'	2.18	0.43
33:DF:58:GLU:HB2	33:DF:65:ALA:HB2	1.99	0.43
31:CA:41:G:C2	31:CA:402:G:N3	2.86	0.43
35:CH:102:ALA:HB1	35:CH:106:PRO:CG	2.40	0.43
6:AG:111:LEU:HA	6:AG:114:ILE:HG12	1.99	0.43
31:DA:505:G:C5	31:DA:535:A:C2	3.06	0.43
1:AA:1394:U:H5	1:AA:1395:A:C8	2.35	0.43
5:AF:10:PRO:O	5:AF:124:LEU:HD12	2.18	0.43
1:BA:1204:A:N1	1:BA:1241:A:N1	2.66	0.43
50:CW:13:LEU:HD12	50:CW:14:LYS:N	2.32	0.43
1:BA:362:U:C3'	1:BA:362:U:C6	3.01	0.43
1:BA:1484:G:C4	1:BA:1485:G:C8	3.06	0.43
3:AD:149:PRO:O	3:AD:150:LYS:HB2	2.18	0.43
37:DJ:149:ARG:HD3	41:DN:59:TYR:CE1	2.53	0.43
1:AA:611:C:C2	1:AA:612:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:526:A:H5''	1:AA:527:C:OP1	2.18	0.43
1:AA:529:A:C8	1:AA:530:G:C6	3.02	0.43
1:AA:2143:C:H2'	1:AA:2144:U:O4'	2.18	0.43
43:DP:81:LEU:CD1	43:DP:88:ARG:HH11	2.30	0.43
27:A5:58:LEU:HD13	27:A5:60:VAL:OXT	2.18	0.43
52:DB:37:G:N2	54:D1:20:U:C6	2.86	0.43
31:CA:1287:A:H2	31:CA:1353:G:N3	2.15	0.43
53:DD:71:G:H2'	53:DD:72:C:H5'	2.00	0.43
48:CU:36:ASN:HD22	48:CU:36:ASN:N	2.14	0.43
53:DC:48:U:H1'	53:DC:49:C:P	2.58	0.43
1:BA:1131:G:O6	1:BA:2040:C:H1'	2.18	0.43
36:CI:23:LYS:HB2	36:CI:23:LYS:NZ	2.32	0.43
1:AA:2655:G:N2	1:AA:2664:G:C4	2.86	0.43
1:AA:1710:C:H2'	1:AA:1711:C:H6	1.83	0.43
31:CA:1233:G:H2'	31:CA:1234:C:C6	2.52	0.43
6:BG:120:LEU:HB2	6:BG:180:PHE:HD2	1.83	0.43
11:AO:113:LYS:HA	11:AO:129:ALA:O	2.17	0.43
1:BA:466:A:H2'	1:BA:467:G:H5'	2.00	0.43
3:AD:94:LEU:C	3:AD:94:LEU:HD22	2.37	0.43
31:DA:247:G:C6	31:DA:278:G:C2	3.06	0.43
1:BA:1589:C:H2'	1:BA:1590:U:H6	1.83	0.43
1:BA:2199:A:H3'	1:BA:2205:C:H6	1.83	0.43
50:DW:55:ILE:O	50:DW:58:LYS:N	2.46	0.43
32:DE:24:TRP:CD1	32:DE:24:TRP:O	2.71	0.43
4:AE:101:ARG:HA	4:AE:101:ARG:HD2	1.71	0.43
46:CS:22:THR:HA	46:CS:33:ILE:HG13	2.00	0.43
31:CA:1068:G:C6	31:CA:1069:C:C4	3.06	0.43
15:AR:80:SER:HA	15:AR:81:PRO:HD3	1.85	0.43
32:CE:231:GLU:HB2	32:CE:232:PRO:HD2	2.00	0.43
38:CK:39:LEU:HD11	38:CK:111:ILE:HD11	1.99	0.43
1:AA:2436:G:C5	1:AA:2437:U:C5	3.06	0.43
6:BG:15:VAL:HG12	6:BG:19:LEU:HD12	2.00	0.43
37:DJ:137:LYS:HB3	37:DJ:137:LYS:HE2	1.83	0.43
41:DN:70:LYS:HE3	41:DN:70:LYS:HB2	1.66	0.43
1:BA:1675:C:O5'	1:BA:1675:C:H6	2.00	0.43
38:CK:73:ASP:OD2	38:CK:75:ARG:NE	2.51	0.43
1:BA:2824:C:H2'	1:BA:2825:C:O4'	2.18	0.43
4:BE:114:ALA:O	4:BE:157:ALA:HB1	2.18	0.43
27:B5:3:LYS:CG	27:B5:4:HIS:N	2.80	0.43
17:B2:71:LEU:C	17:B2:72:VAL:HG23	2.38	0.43
1:AA:2811:G:OP1	4:AE:61:ARG:NE	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:41:LYS:HB2	4:AE:42:ASP:OD2	2.19	0.43
31:DA:1179:A:H2'	31:DA:1180:A:O4'	2.18	0.43
31:DA:1277:C:O2'	31:DA:1279:A:H1'	2.18	0.43
31:DA:980:C:H3'	31:DA:981:U:C6	2.54	0.43
31:DA:983:A:H2	31:DA:984:C:C6	2.36	0.43
53:DD:8:U:H1'	53:DD:49:C:H1'	1.98	0.43
11:BO:5:ASP:O	11:BO:6:LEU:C	2.51	0.43
31:CA:1402:C:O2	31:CA:1500:A:N1	2.52	0.43
31:CA:1498:U:C2'	31:CA:1499:A:OP2	2.66	0.43
9:AM:131:GLN:CG	9:AM:132:ALA:N	2.81	0.43
1:AA:2286:A:C2'	28:A6:31:PRO:HG3	2.48	0.43
1:BA:140:A:C6	1:BA:141:A:N6	2.85	0.43
1:AA:152:G:H2'	1:AA:153:C:C6	2.53	0.43
1:AA:2115:G:N2	1:AA:2172:U:N3	2.65	0.43
21:AV:15:PRO:O	21:AV:19:ARG:HB2	2.18	0.43
1:AA:1178:C:O2	1:AA:1178:C:C2'	2.55	0.43
43:DP:3:ARG:HG2	43:DP:9:ILE:HG13	2.00	0.43
31:DA:362:G:C4'	42:DO:33:ARG:HH21	2.23	0.43
42:DO:60:LEU:CD2	42:DO:66:VAL:HG22	2.49	0.43
17:A2:35:LEU:HD23	17:A2:57:VAL:HG13	2.00	0.43
5:BF:181:LEU:CD2	5:BF:186:ILE:HD11	2.45	0.43
7:AH:4:ILE:HG12	7:AH:6:ARG:HB2	2.00	0.43
5:AF:185:ASP:HA	5:AF:188:ARG:CD	2.43	0.43
1:BA:2422:A:O2'	1:BA:2423:U:O5'	2.34	0.43
31:CA:1296:C:OP1	43:CP:44:ARG:NH2	2.51	0.43
1:BA:2531:A:H5'	7:BH:157:TYR:CE2	2.53	0.43
1:AA:654(B):C:C2	1:AA:654(T):A:C2	3.06	0.43
8:AK:112:LYS:HG2	8:AK:112:LYS:H	1.52	0.43
32:DE:17:PHE:HA	32:DE:17:PHE:HD1	1.65	0.43
31:DA:266:G:C1'	31:DA:267:C:OP2	2.66	0.43
1:AA:2590:A:C2	1:AA:2605:U:C2	3.06	0.43
8:BK:77:LEU:HD12	8:BK:78:THR:H	1.83	0.43
31:CA:1256:A:N3	31:CA:1277:C:C4	2.86	0.43
31:CA:173:U:C6	31:CA:197:A:C2	3.06	0.43
31:CA:96:G:H2'	31:CA:97:U:C5'	2.45	0.43
1:BA:2164:C:C5	1:BA:2165:G:N7	2.86	0.43
1:AA:1014:U:H3	1:AA:1148:A:H61	1.66	0.43
52:DB:59:U:O2'	52:DB:70:G:C4'	2.63	0.43
2:BB:16:G:H2'	2:BB:17:C:C6	2.53	0.43
19:AT:80:ILE:O	19:AT:80:ILE:HG13	2.18	0.43
1:BA:660:G:H21	11:BO:12:ALA:CA	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DW:87:LYS:HA	50:DW:87:LYS:HD2	1.66	0.43
31:DA:1375:A:H4'	37:DJ:29:LYS:NZ	2.33	0.43
41:DN:93:GLN:NE2	41:DN:96:ARG:NH2	2.66	0.43
1:AA:2579:C:O5'	1:AA:2579:C:H6	2.01	0.43
4:AE:130:GLY:O	4:AE:132:HIS:N	2.51	0.43
31:CA:1106:G:C6	31:CA:1107:C:N4	2.86	0.43
34:CG:188:LEU:HA	34:CG:189:PRO:HD2	1.82	0.43
1:BA:2575:C:H5'	4:BE:143:ASN:O	2.17	0.43
13:B0:48:VAL:O	13:B0:51:LEU:HB2	2.18	0.43
1:BA:603:A:H1'	1:BA:604:G:O4'	2.18	0.43
4:AE:182:LEU:HD12	4:AE:183:LEU:H	1.82	0.43
35:DH:110:LEU:HD21	35:DH:139:LEU:HD21	2.00	0.43
7:AH:102:ALA:HB2	7:AH:116:GLU:HB2	2.00	0.43
9:AM:38:HIS:CD2	9:AM:39:ARG:N	2.86	0.43
1:BA:2239:G:H5'	3:BD:251:GLY:HA3	1.99	0.43
1:BA:1708:C:H2'	1:BA:1709:U:H6	1.83	0.43
9:AM:36:GLY:H	9:AM:49:GLY:CA	2.31	0.43
31:CA:999:U:H2'	31:CA:1000:A:H8	1.83	0.43
1:BA:2347:C:H2'	1:BA:2348:U:C6	2.53	0.43
45:CR:55:GLY:HA2	45:CR:58:MET:HE2	2.00	0.43
33:CF:29:TYR:OH	44:CQ:54:PRO:HD2	2.17	0.43
11:AO:121:LYS:O	11:AO:123:LEU:N	2.50	0.43
30:A8:37:SER:O	30:A8:40:GLU:HB3	2.18	0.43
34:DG:176:LEU:HD12	34:DG:177:ASP:N	2.32	0.43
7:AH:54:ARG:NH1	7:AH:65:HIS:ND1	2.61	0.43
1:BA:1275:A:C4	13:B0:16:HIS:CE1	3.05	0.43
21:BV:56:VAL:HG12	21:BV:57:ILE:N	2.32	0.43
31:DA:539:A:OP2	42:DO:115:LYS:NZ	2.48	0.43
31:CA:644:G:H2'	31:CA:645:C:O4'	2.18	0.43
1:BA:2048:G:C6	1:BA:2049:G:C5	3.06	0.43
1:BA:1015:G:O6	1:BA:1147:C:N3	2.51	0.43
31:DA:575:G:H4'	31:DA:576:G:OP1	2.18	0.43
4:BE:14:ILE:HD11	4:BE:173:VAL:CG1	2.48	0.43
1:BA:1156:A:OP1	16:B1:55:ARG:NH1	2.52	0.43
1:AA:2623:G:N2	27:A5:22:HIS:CE1	2.86	0.43
31:DA:1527:C:H6	31:DA:1527:C:O5'	2.01	0.43
32:CE:52:GLU:HG2	32:CE:56:ARG:HH21	1.82	0.43
1:BA:1996:C:OP1	10:BN:31:LYS:HE3	2.17	0.43
23:BZ:30:VAL:HG11	53:DD:77:A:H5''	1.99	0.43
4:AE:20:ALA:C	4:AE:21:VAL:CG1	2.87	0.43
1:BA:2056:G:H2'	1:BA:2056:G:N3	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:B2:69:LYS:NZ	17:B2:85:LYS:HD2	2.32	0.43
1:AA:1081:U:H2'	1:AA:1082:U:O4'	2.18	0.43
17:B2:76:LYS:HG2	17:B2:80:GLN:CB	2.46	0.43
1:AA:2415:G:C5	1:AA:2416:C:C5	3.06	0.43
3:BD:64:ILE:O	3:BD:64:ILE:HG13	2.16	0.43
39:DL:3:GLN:HG2	39:DL:20:ARG:HG3	1.99	0.43
6:AG:77:ILE:O	6:AG:78:SER:O	2.36	0.43
6:AG:82:LEU:O	6:AG:83:ARG:C	2.56	0.43
31:DA:1305:G:H5''	51:DX:4:GLY:CA	2.49	0.43
53:DC:20:G:C4	53:DC:58:A:C2	3.06	0.43
1:BA:2383:G:OP2	30:B8:37:SER:HB2	2.17	0.43
1:BA:1056:G:H1'	1:BA:1103:A:N6	2.33	0.43
1:BA:2275:C:O2'	12:BP:84:GLY:C	2.56	0.43
31:CA:1160:G:H22	31:CA:1177:G:H21	1.66	0.43
32:CE:91:PRO:HG3	32:CE:155:LEU:HB2	2.00	0.43
31:CA:1036:G:H2'	31:CA:1037:C:C2	2.53	0.43
31:CA:452:A:H2'	31:CA:453:A:C8	2.53	0.43
1:BA:1012:U:C2	1:BA:1143:A:N1	2.84	0.43
31:DA:502:G:H2'	31:DA:503:C:O4'	2.18	0.43
32:DE:137:ARG:NH1	32:DE:140:HIS:HB2	2.10	0.43
12:BP:79:LEU:O	12:BP:81:VAL:HG13	2.18	0.43
31:CA:1028(A):C:N3	31:CA:1028(B):C:N4	2.67	0.43
31:DA:627:G:H2'	31:DA:628:G:H8	1.83	0.43
1:BA:943:U:P	11:BO:36:LYS:HG3	2.57	0.43
1:BA:528:A:C2	1:BA:2043:C:C5'	2.95	0.43
1:AA:2508:G:H2'	1:AA:2509:G:O4'	2.19	0.43
50:CW:100:ILE:CD1	50:CW:101:GLY:H	2.32	0.43
32:DE:92:TYR:CD2	32:DE:92:TYR:O	2.70	0.43
43:CP:5:ALA:HA	43:CP:61:GLU:HG3	2.01	0.43
1:AA:943:U:OP2	11:AO:36:LYS:HG2	2.19	0.43
1:AA:943:U:C4	1:AA:944:G:N7	2.86	0.43
1:BA:1171:G:C8	1:BA:1173:G:N3	2.86	0.43
1:BA:1173:G:O2'	1:BA:1174:A:H2	2.01	0.43
31:DA:197:A:OP2	31:DA:197:A:H3'	2.18	0.43
1:AA:2262:U:OP2	22:A3:19:LYS:HE3	2.18	0.43
31:CA:148:G:N2	31:CA:175:C:C2	2.86	0.43
31:CA:177:C:OP2	50:CW:65:LYS:HD3	2.18	0.43
1:BA:2160:G:H8	1:BA:2160:G:O5'	2.02	0.43
31:DA:673:G:H5''	36:DI:87:ARG:NH1	2.33	0.43
8:BK:19:VAL:HG22	8:BK:20:ASP:N	2.34	0.43
6:AG:114:ILE:HB	6:AG:117:PHE:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:571:A:C8	1:AA:2030:A:N6	2.87	0.43
52:CB:59:U:H4'	52:CB:60:A:H5''	1.98	0.43
1:BA:1396:U:H2'	1:BA:1396:U:O2	2.19	0.43
1:BA:783:A:H8	1:BA:784:A:H4'	1.83	0.43
3:AD:155:LEU:N	3:AD:155:LEU:CD1	2.81	0.43
1:BA:2140:C:N3	1:BA:2151:G:O6	2.51	0.43
46:CS:72:ARG:HD3	46:CS:72:ARG:C	2.38	0.43
31:CA:1122:U:C4	31:CA:1123:A:N7	2.87	0.43
52:DB:26:C:C4	52:DB:27:G:C2	3.06	0.43
10:BN:87:ILE:HG23	10:BN:91:LEU:HA	2.01	0.43
31:CA:958:A:C5	31:CA:959:A:C6	3.06	0.43
6:BG:146:TYR:O	6:BG:149:VAL:HG22	2.18	0.43
1:AA:54:G:O2'	29:A7:35:ARG:HD3	2.18	0.43
1:AA:2110:G:C6	1:AA:2120:G:N7	2.86	0.43
46:CS:65:GLN:HA	46:CS:66:PRO:HD2	1.84	0.43
32:DE:130:ARG:O	32:DE:135:GLN:HG3	2.18	0.43
1:BA:1488:G:C6	1:BA:1489:U:N3	2.87	0.43
21:AV:139:VAL:HG13	21:AV:155:LEU:HD21	2.00	0.43
1:BA:2859:G:O2'	1:BA:2860:A:P	2.76	0.43
1:BA:2494:G:H2'	1:BA:2495:G:H8	1.83	0.43
1:AA:50:U:H3'	1:AA:51:G:C5'	2.49	0.43
52:DB:56:G:H2'	52:DB:57:C:C6	2.53	0.43
53:DC:40:C:H2'	53:DC:41:C:C6	2.54	0.43
31:DA:775:G:C2'	31:DA:776:G:H5'	2.48	0.43
3:BD:72:LYS:HE2	3:BD:101:GLU:OE2	2.17	0.43
3:AD:94:LEU:CD2	3:AD:94:LEU:C	2.86	0.43
1:BA:496:G:H2'	1:BA:497:A:H5'	2.00	0.43
6:BG:150:ASP:OD2	6:BG:151:ALA:N	2.52	0.43
31:DA:530:G:H1'	52:DB:36:A:H1'	2.00	0.43
18:BS:18:ARG:HG3	18:BS:76:VAL:HG13	2.00	0.43
18:AS:44:ALA:O	18:AS:45:TYR:C	2.55	0.43
23:BZ:67:ILE:N	23:BZ:68:PRO:CD	2.80	0.43
1:AA:765:G:C6	1:AA:766:C:C4	3.06	0.43
2:AB:102:G:N3	21:AV:73:GLN:NE2	2.60	0.43
31:DA:451:A:C2	31:DA:480:U:C4	3.06	0.43
1:BA:2054:A:H5''	1:BA:2055:C:O5'	2.18	0.43
53:CD:11:A:N6	53:CD:25:U:H3	2.16	0.43
21:AV:102:LEU:N	21:AV:122:ARG:O	2.44	0.43
50:DW:27:LYS:HA	50:DW:27:LYS:HE2	2.00	0.43
12:BP:138:ASP:OD2	12:BP:138:ASP:O	2.36	0.43
31:DA:1453:G:O4'	31:DA:1453:G:N3	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AZ:45:ASN:O	23:AZ:47:GLN:HG2	2.18	0.43
13:B0:101:ALA:HB1	27:B5:41:PRO:HG3	2.00	0.43
4:AE:20:ALA:O	4:AE:21:VAL:HG12	2.18	0.43
4:BE:52:LEU:CD1	4:BE:52:LEU:O	2.61	0.43
1:AA:1065:U:C5	1:AA:1066:U:C6	2.97	0.43
1:AA:2394:C:C2	53:CD:77:A:O2'	2.67	0.43
1:BA:850:C:O2'	25:BX:46:ASN:ND2	2.47	0.43
1:BA:934:G:H2'	1:BA:935:C:C6	2.53	0.43
28:A6:15:GLU:CD	28:A6:44:ARG:NH2	2.72	0.43
1:AA:2400:G:H2'	1:AA:2401:U:C6	2.53	0.43
31:DA:1277:C:H1'	31:DA:1282:C:O2	2.18	0.43
39:DL:4:TYR:CZ	39:DL:88:TYR:CG	3.06	0.43
4:AE:4:ILE:HD13	4:AE:28:ALA:CB	2.43	0.43
4:AE:85:ASN:HA	4:AE:86:PRO:HD2	1.88	0.43
31:DA:1328:C:O2'	31:DA:1329:A:H5'	2.17	0.43
5:BF:88:VAL:O	5:BF:89:VAL:O	2.37	0.43
53:DC:24:C:C2	53:DC:25:U:C5	3.06	0.43
31:CA:1349:A:H2'	31:CA:1350:A:C8	2.53	0.43
40:CM:48:THR:HG23	40:CM:62:HIS:CB	2.48	0.43
15:AR:12:SER:HG	15:AR:57:PHE:HD1	1.61	0.43
26:A4:60:GLN:O	26:A4:63:TYR:HB3	2.18	0.43
26:A4:16:CYS:SG	26:A4:17:GLY:N	2.91	0.43
1:BA:2152:G:H5''	1:BA:2153:G:OP2	2.19	0.43
31:DA:503:C:O2'	31:DA:504:C:H5'	2.19	0.43
32:DE:42:ILE:HD13	32:DE:203:GLY:CA	2.48	0.43
20:BU:101:LYS:HB3	20:BU:101:LYS:HE2	1.56	0.43
11:AO:17:LYS:HE2	11:AO:27:HIS:NE2	2.34	0.43
1:AA:1407:C:O2'	1:AA:1408:C:H5'	2.18	0.43
1:BA:1300:U:H4'	1:BA:1301:A:OP2	2.17	0.43
1:BA:1000:A:N1	1:BA:1001:A:C2	2.87	0.43
32:DE:213:LEU:O	32:DE:213:LEU:HD23	2.18	0.43
6:BG:101:ILE:HB	6:BG:105:LYS:NZ	2.34	0.43
7:BH:103:LEU:HD11	7:BH:105:LEU:HD12	2.00	0.43
10:BN:49:ARG:HH12	31:DA:1423:G:P	2.41	0.43
1:AA:480:A:H2'	1:AA:481:G:OP1	2.18	0.43
7:AH:4:ILE:HD11	7:AH:7:LEU:CD1	2.39	0.43
31:DA:197:A:C8	31:DA:198:G:C1'	3.01	0.43
1:AA:856:C:C6	1:AA:856:C:H3'	2.53	0.43
1:BA:2472:G:H1	1:BA:2477:C:P	2.41	0.43
1:BA:2438:U:H5''	1:BA:2600:A:OP1	2.18	0.43
46:DS:57:ARG:HA	46:DS:60:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:BK:77:LEU:HG	8:BK:78:THR:OG1	2.18	0.43
31:DA:1491:G:O3'	42:DO:46:LYS:HB2	2.18	0.43
31:DA:1288:A:C2	31:DA:1289:A:C4	3.06	0.43
51:DX:25:LYS:CE	51:DX:26:LYS:HG3	2.48	0.43
49:CV:30:LEU:HD13	49:CV:30:LEU:N	2.33	0.43
1:AA:34:C:HO2'	1:AA:35:G:P	2.36	0.43
31:CA:1455:G:C5'	50:CW:32:ALA:HB2	2.49	0.43
11:BO:128:HIS:O	11:BO:147:LEU:HB3	2.18	0.43
41:CN:21:ILE:HD13	41:CN:94:ALA:HB1	1.99	0.43
52:DB:76:U:C4	52:DB:77:C:C4	3.07	0.43
21:AV:45:ASP:CG	21:AV:49:ARG:HE	2.21	0.43
1:BA:1484:G:O2'	1:BA:1485:G:H5'	2.17	0.43
21:AV:57:ILE:N	21:AV:57:ILE:HD12	2.34	0.43
1:BA:2731:G:C6	1:BA:2732:G:O6	2.71	0.43
31:DA:609:A:H5''	46:DS:18:ARG:NH2	2.32	0.43
1:AA:2698:U:H2'	1:AA:2699:C:H6	1.80	0.43
1:BA:2847:U:OP1	15:BR:98:LYS:CD	2.65	0.43
1:AA:270(R):G:H2'	1:AA:270(S):G:H8	1.80	0.43
1:BA:854:G:C4	1:BA:855:G:C8	3.05	0.43
21:BV:116:VAL:O	21:BV:117:LEU:HD22	2.18	0.43
31:DA:1230:C:H2'	31:DA:1231:G:H8	1.83	0.43
1:AA:991:C:C5	1:AA:1185:C:N4	2.87	0.43
26:B4:48:ARG:HH12	26:B4:51:ASP:HB3	1.80	0.43
37:CJ:51:GLN:O	37:CJ:54:THR:O	2.36	0.43
43:DP:15:VAL:O	43:DP:19:LEU:HD23	2.17	0.43
1:AA:1448:G:H1'	1:AA:1528:A:H62	1.82	0.43
1:AA:1464:C:H2'	1:AA:1464:C:O2	2.17	0.43
2:BB:10:C:C2'	2:BB:11:C:H5'	2.49	0.43
3:BD:9:TYR:HD2	3:BD:10:THR:HG23	1.81	0.43
1:BA:1993:U:H4'	4:BE:128:SER:HB3	1.99	0.43
45:CR:49:ASP:OD1	45:CR:49:ASP:C	2.56	0.43
1:BA:2528:U:H5''	1:BA:2529:G:N2	2.34	0.43
2:AB:80:U:O2'	2:AB:81:G:H5''	2.18	0.43
46:CS:4:ILE:HA	46:CS:20:VAL:O	2.18	0.43
53:CD:41:C:O2'	53:CD:42:C:H5'	2.18	0.43
35:DH:147:ASP:HA	35:DH:150:ARG:CB	2.49	0.43
44:DQ:42:ILE:O	44:DQ:45:ARG:HB3	2.18	0.43
1:AA:1231:G:H2'	1:AA:1232:G:C8	2.53	0.43
36:CI:44:GLY:O	36:CI:59:TYR:HA	2.19	0.43
1:BA:764:A:H5'	3:BD:210:GLY:HA2	2.00	0.43
1:AA:1196:C:O4'	1:AA:1227:A:C2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2390:U:C2'	1:BA:2391:G:H5'	2.48	0.43
31:DA:123:C:OP1	31:DA:312:C:H5'	2.19	0.43
1:BA:488:G:H1'	1:BA:492:A:N6	2.33	0.43
38:DK:94:TYR:CE1	38:DK:132:GLU:HB2	2.53	0.43
43:DP:54:VAL:HG12	43:DP:58:GLU:OE1	2.18	0.43
1:BA:844:C:C2'	1:BA:845:G:O5'	2.66	0.43
1:BA:2698:U:H2'	1:BA:2699:C:C6	2.54	0.43
1:AA:2283:C:H2'	1:AA:2284:C:O4'	2.19	0.43
16:A1:28:ARG:O	16:A1:35:ALA:HA	2.18	0.43
1:AA:1659:U:C4	1:AA:1660:C:C5	3.07	0.43
31:DA:444:C:H2'	31:DA:445:G:O4'	2.18	0.43
24:AW:65:ASN:HD22	24:AW:69:ARG:HE	1.67	0.43
16:B1:69:CYS:O	16:B1:74:LEU:HD12	2.17	0.43
1:AA:92:G:H2'	1:AA:93:C:C6	2.53	0.43
1:BA:125:G:H4'	1:BA:126:A:OP2	2.19	0.43
1:BA:962:G:O2'	1:BA:963:U:H5'	2.18	0.43
8:BK:84:GLY:O	8:BK:85:GLU:HB3	2.17	0.43
36:DI:70:ASP:OD1	36:DI:71:ARG:N	2.51	0.43
25:BX:23:LEU:HG	25:BX:50:VAL:HG11	1.99	0.43
50:CW:25:ARG:HG3	50:CW:25:ARG:HH11	1.82	0.43
36:DI:22:GLU:HA	36:DI:22:GLU:OE2	2.18	0.43
1:BA:2072:G:H2'	1:BA:2073:C:O4'	2.18	0.43
36:CI:95:GLU:HA	36:CI:96:PRO:HD3	1.85	0.43
31:CA:323:U:H2'	31:CA:324:G:O4'	2.19	0.43
4:BE:52:LEU:CG	4:BE:52:LEU:O	2.67	0.43
1:BA:850:C:C2'	1:BA:851:U:H5'	2.48	0.43
14:BQ:27:SER:OG	14:BQ:88:ASP:CG	2.52	0.43
1:BA:626:U:O2	11:BO:105:LEU:HB3	2.18	0.43
31:DA:963:G:O2'	40:DM:54:PHE:CZ	2.64	0.43
1:BA:573:G:O6	1:BA:2029:G:H2'	2.19	0.43
1:AA:592:G:N3	30:A8:4:MET:CE	2.81	0.43
30:A8:14:VAL:HG21	30:A8:56:GLU:HG2	1.99	0.43
30:A8:58:ILE:HA	30:A8:61:LEU:CD1	2.49	0.43
1:AA:2294:C:C5	1:AA:2295:C:H5	2.37	0.43
14:AQ:85:VAL:CG2	14:AQ:112:PHE:HZ	2.32	0.43
43:CP:67:GLU:CD	43:CP:68:GLY:H	2.19	0.43
31:DA:157:G:C2	31:DA:165:C:C2	3.07	0.43
11:BO:46:LYS:HE2	11:BO:46:LYS:HB3	1.44	0.43
31:CA:1273:G:C6	31:CA:1274:G:C4	3.06	0.43
37:DJ:113:GLU:O	37:DJ:119:ARG:HD3	2.18	0.43
6:AG:67:LYS:NZ	26:A4:6:HIS:NE2	2.62	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1501:C:C4	31:CA:1504:G:C6	3.07	0.43
1:AA:885:C:H2'	1:AA:890:A:N6	2.32	0.43
30:A8:8:LYS:HA	30:A8:8:LYS:HD2	1.79	0.43
46:CS:43:LYS:HG2	46:CS:48:TRP:CE3	2.53	0.43
1:BA:300:A:H2'	1:BA:334:C:H1'	2.01	0.43
31:CA:464:G:C6	31:CA:466:C:H5'	2.53	0.43
1:AA:783:A:O2'	1:AA:785:G:OP1	2.29	0.43
1:AA:2112:G:H5'	53:CD:20:G:H22	1.82	0.43
24:AW:46:GLN:O	24:AW:49:LYS:HG3	2.19	0.43
31:CA:843:U:H5'	31:CA:848:C:C6	2.53	0.43
31:CA:383:A:C8	31:CA:383:A:O5'	2.69	0.43
16:B1:92:ARG:HH22	17:B2:10:LYS:HA	1.83	0.43
31:CA:851:G:O2'	31:CA:852:G:H5'	2.18	0.43
31:CA:872:A:C2	31:CA:874:G:C5	3.06	0.43
6:BG:47:LYS:HG3	6:BG:86:MET:CE	2.47	0.43
35:DH:79:GLU:HA	35:DH:91:LEU:O	2.18	0.43
42:CO:39:THR:HB	42:CO:49:LEU:HB3	2.01	0.43
1:AA:1478:G:H1'	1:AA:1557:C:O2'	2.19	0.43
17:A2:35:LEU:HD23	17:A2:35:LEU:O	2.18	0.43
16:A1:90:VAL:HG22	17:A2:39:LEU:HB3	2.00	0.43
47:CT:69:LYS:C	47:CT:70:ARG:HD2	2.39	0.43
9:AM:28:THR:HG22	9:AM:29:LYS:N	2.32	0.43
1:BA:1180:C:H2'	1:BA:1181:C:C6	2.53	0.43
1:BA:2173:A:C2'	1:BA:2173:A:N3	2.80	0.43
37:DJ:22:LEU:HD12	37:DJ:97:GLN:HE22	1.84	0.43
5:BF:53:THR:HG22	5:BF:56:GLU:CD	2.38	0.43
21:BV:146:ILE:C	21:BV:148:ASP:H	2.22	0.43
1:BA:2339:G:H2'	1:BA:2340:G:C8	2.53	0.43
5:AF:124:LEU:CD2	5:AF:126:VAL:HG12	2.49	0.43
4:BE:202:LYS:CD	4:BE:202:LYS:N	2.80	0.43
1:AA:1271:G:O3'	1:AA:1272:A:H4'	2.16	0.43
20:BU:47:LYS:HG2	20:BU:60:PHE:HD1	1.80	0.43
1:AA:1992:G:C2'	1:AA:1993:U:OP2	2.66	0.43
33:CF:32:LEU:HD13	33:CF:59:ARG:NH1	2.34	0.43
38:CK:11:THR:HG23	38:CK:14:ARG:NH1	2.30	0.43
18:BS:47:VAL:O	18:BS:50:VAL:HG13	2.19	0.43
1:BA:1790:C:O2'	3:BD:209:ALA:HB2	2.19	0.43
1:AA:2147:G:H3'	1:AA:2147:G:H8	1.82	0.43
52:DB:46:G:H2'	52:DB:47:C:C6	2.53	0.43
31:CA:232:G:H1'	31:CA:262:A:N1	2.32	0.43
31:CA:1316:G:N2	31:CA:1318:A:H3'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1126:U:H2'	31:CA:1126:U:H6	1.62	0.43
1:BA:270(S):G:O2'	1:BA:270(T):G:H5'	2.19	0.43
1:AA:2619:C:H2'	1:AA:2620:C:H6	1.83	0.43
34:DG:90:GLY:N	34:DG:204:ILE:HD11	2.34	0.43
1:AA:2419:U:O4	30:A8:30:ARG:CZ	2.67	0.43
31:CA:102:G:C4	31:CA:103:C:C5	3.07	0.43
31:CA:1309:G:C6	31:CA:1329:A:C2	3.06	0.43
21:BV:24:LEU:HA	21:BV:25:PRO:HD3	1.92	0.43
10:BN:17:ARG:HA	10:BN:17:ARG:HD3	1.73	0.43
1:BA:2036:C:H2'	1:BA:2037:G:O5'	2.18	0.43
36:CI:23:LYS:HD3	36:CI:61:LEU:HD21	1.99	0.43
7:BH:26:VAL:HG11	7:BH:33:LEU:HB2	2.01	0.43
21:AV:26:GLY:CA	21:AV:86:VAL:O	2.67	0.43
1:AA:1392:A:C6	1:AA:1393:A:C6	3.06	0.43
1:AA:6:A:O2'	1:AA:7:G:H5'	2.18	0.43
15:BR:127:ALA:O	15:BR:131:ALA:HB3	2.18	0.43
1:BA:1955:U:O3'	1:BA:1956:U:H6	2.01	0.43
1:AA:1680:U:O2'	1:AA:1763:G:N7	2.40	0.43
14:AQ:67:ARG:NH1	14:AQ:67:ARG:CB	2.81	0.43
1:BA:2850:A:C2	1:BA:2851:A:C4	3.06	0.43
43:DP:79:LYS:O	43:DP:82:MET:SD	2.77	0.43
1:AA:699:A:H4'	1:AA:1634:A:N7	2.32	0.43
31:CA:515:G:N2	31:CA:537:G:C4	2.86	0.43
1:BA:1726:G:C6	1:BA:1727:U:C4	3.06	0.43
42:CO:101:VAL:HG12	42:CO:102:TYR:CD1	2.53	0.43
1:BA:1366:A:H2'	1:BA:1367:A:O4'	2.17	0.43
12:AP:137:TYR:C	12:AP:139:GLU:H	2.22	0.43
43:DP:5:ALA:O	43:DP:6:GLY:C	2.57	0.43
33:DF:53:ALA:HB2	33:DF:115:LEU:HG	2.01	0.43
1:BA:2089:U:O2	1:BA:2089:U:H2'	2.17	0.43
31:CA:779:C:H2'	31:CA:780:A:O4'	2.18	0.43
1:BA:2396:G:H4'	23:BZ:30:VAL:H	1.83	0.43
17:B2:69:LYS:CE	17:B2:85:LYS:HD2	2.49	0.43
17:B2:70:ILE:HB	17:B2:86:GLY:O	2.18	0.43
1:AA:1063:G:C5	1:AA:1064:C:C5	3.07	0.43
1:AA:2810:A:O3'	4:AE:61:ARG:CG	2.65	0.43
1:BA:848:G:C4	1:BA:933:A:H8	2.36	0.43
11:AO:65:ARG:NH2	30:A8:46:ARG:NH1	2.66	0.43
3:BD:34:VAL:O	3:BD:34:VAL:HG13	2.19	0.43
3:BD:65:ILE:HD11	3:BD:67:PHE:CD2	2.52	0.43
31:DA:1141:C:H2'	31:DA:1142:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:485:G:H2'	31:DA:486:U:OP2	2.18	0.43
12:BP:47:ILE:HG12	12:BP:68:ILE:HD11	2.01	0.43
14:AQ:90:GLY:HA3	14:AQ:91:PRO:HD2	1.86	0.43
33:CF:8:ILE:HG22	33:CF:9:GLY:N	2.33	0.43
6:AG:115:ARG:NH1	6:AG:115:ARG:HB3	2.33	0.43
34:DG:20:TYR:CD2	34:DG:27:TYR:CD1	3.06	0.43
34:DG:22:LYS:O	34:DG:24:GLU:OE2	2.36	0.43
1:AA:1049:C:C2'	1:AA:1050:A:C5'	2.94	0.43
31:DA:1261:A:C6	31:DA:1262:C:C2	3.07	0.43
28:A6:25:LYS:HZ3	28:A6:27:LYS:HE2	1.78	0.43
1:AA:1348:G:C2'	1:AA:1349:A:H5''	2.47	0.43
1:BA:1047:G:H21	1:BA:1111:A:N6	2.17	0.43
1:BA:1298:C:H1'	1:BA:1302:A:N3	2.34	0.43
6:BG:104:GLU:HG2	26:B4:23:GLU:OE2	2.18	0.43
31:DA:561:U:HO2'	31:DA:562:C:P	2.42	0.43
1:AA:1510:A:H2'	1:AA:1511:A:OP2	2.19	0.43
1:BA:857:C:H2'	1:BA:858:U:C6	2.53	0.43
1:AA:2883:A:H5'	1:AA:2884:U:H5'	2.00	0.43
32:DE:231:GLU:CB	32:DE:232:PRO:CD	2.87	0.43
31:DA:1191:A:P	33:DF:3:ASN:ND2	2.82	0.43
8:AK:120:ILE:HD11	8:AK:126:TYR:CE1	2.53	0.43
1:BA:1210:A:H5''	1:BA:1211:U:H3'	2.01	0.43
31:DA:1498:U:O2'	31:DA:1499:A:OP2	2.28	0.43
1:AA:2067:G:O2'	1:AA:2069:G:H5''	2.19	0.43
31:CA:1279:A:H5''	31:CA:1280:A:P	2.58	0.43
31:CA:73:G:O2'	31:CA:74:C:H5'	2.18	0.43
1:BA:1681:G:O3'	1:BA:1762:A:O2'	2.37	0.43
1:BA:1688:U:C2	1:BA:1700:A:H5'	2.53	0.43
3:AD:172:TYR:HD1	3:AD:185:VAL:C	2.22	0.43
15:AR:90:GLN:NE2	15:AR:116:ALA:HA	2.34	0.43
1:BA:11:G:C2'	1:BA:12:U:H5'	2.49	0.43
31:CA:693:G:C5	54:C1:13:U:H1'	2.53	0.43
31:CA:1092:A:N6	31:CA:1093:A:N6	2.67	0.43
33:DF:29:TYR:CD1	44:DQ:36:PHE:CE1	3.07	0.43
36:CI:73:ASN:O	36:CI:76:ALA:HB3	2.18	0.43
27:A5:56:LYS:HE3	27:A5:56:LYS:HB3	1.83	0.43
31:DA:1348:U:C4	31:DA:1374:A:H2	2.36	0.43
16:A1:79:PHE:CD2	16:A1:79:PHE:O	2.67	0.43
8:BK:142:VAL:HG22	8:BK:142:VAL:O	2.19	0.43
11:AO:84:ASN:HD21	11:AO:115:LEU:HB2	1.81	0.43
7:BH:86:GLU:OE2	7:BH:165:ALA:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:405:U:H4'	1:AA:406:G:OP2	2.18	0.43
31:DA:1215:G:C2	31:DA:1216:G:C8	3.06	0.43
31:DA:953:G:H2'	31:DA:954:G:O4'	2.19	0.43
31:DA:619:U:O2	34:DG:135:LEU:CD2	2.64	0.43
1:BA:2443:C:O2'	1:BA:2444:G:H5'	2.18	0.43
31:DA:187:C:H2'	31:DA:188:U:O4'	2.19	0.43
1:AA:1799:G:O6	3:AD:179:SER:HB3	2.19	0.43
43:DP:81:LEU:HD13	43:DP:88:ARG:HG2	2.00	0.43
1:AA:270(H):C:H2'	1:AA:270(H):C:O2	2.17	0.43
31:CA:101:A:C4	31:CA:102:G:C8	3.07	0.43
31:DA:516:U:C4	31:DA:517:G:C6	3.06	0.43
31:CA:1292:U:C2	31:CA:1293:G:C8	3.07	0.43
1:BA:953:A:C2	1:BA:954:G:C8	3.07	0.43
1:AA:2534:A:H2'	1:AA:2535:G:O5'	2.19	0.43
1:BA:1599:C:C5'	19:BT:35:THR:HG22	2.48	0.43
1:BA:1218:C:H42	1:BA:1231:G:H1	1.66	0.43
31:CA:160:A:C6	31:CA:161:A:C2	3.06	0.43
1:AA:1680:U:O2'	1:AA:1681:G:H5'	2.19	0.43
22:A3:36:ILE:CD1	22:A3:39:ARG:HG2	2.48	0.43
1:BA:2814:C:C5	1:BA:2815:C:C5	3.07	0.43
1:BA:1588:C:N4	1:BA:1589:C:N4	2.66	0.43
54:C1:20:U:H2'	54:C1:21:U:H6	1.83	0.43
1:AA:2695:C:H2'	1:AA:2696:U:H6	1.82	0.43
1:BA:1123:C:H2'	1:BA:1124:C:H6	1.84	0.43
4:BE:14:ILE:HD11	4:BE:173:VAL:HG11	1.99	0.43
1:AA:826:U:H2'	1:AA:828:U:O4'	2.18	0.43
34:DG:171:GLY:HA2	34:DG:172:PRO:HD3	1.80	0.43
1:BA:2844:G:N2	1:BA:2874:C:C2	2.87	0.43
1:AA:388:G:C6	1:AA:390:A:C2	3.07	0.43
6:BG:172:LEU:O	6:BG:176:LEU:HG	2.18	0.43
8:BK:51:ILE:HG22	8:BK:52:ARG:N	2.32	0.43
1:AA:693:C:O2'	1:AA:694:U:H5'	2.18	0.43
8:AK:128:LEU:O	8:AK:138:ILE:HG22	2.19	0.43
31:DA:649:G:O2'	31:DA:650:G:H5'	2.17	0.43
15:BR:94:ALA:C	15:BR:96:ARG:H	2.22	0.43
1:BA:103:A:O5'	1:BA:103:A:H8	2.01	0.43
42:DO:126:LYS:HE3	42:DO:126:LYS:HB2	1.82	0.43
51:DX:13:ILE:HG12	51:DX:22:ARG:CZ	2.48	0.43
11:BO:2:LYS:HE3	11:BO:4:SER:HB2	2.00	0.43
1:AA:273(A):G:C2	1:AA:364:C:N3	2.87	0.43
4:AE:74:PRO:HD2	4:AE:77:ILE:HG21	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:890:A:H2'	1:BA:892:G:C8	2.54	0.43
31:DA:1275:A:C2	31:DA:1276:G:H1'	2.54	0.43
31:DA:1179:A:O3'	39:DL:103:THR:HG23	2.19	0.43
1:AA:2311:A:C6	6:AG:80:PHE:CD1	3.06	0.43
31:DA:1305:G:H1'	31:DA:1332:A:N6	2.34	0.43
2:AB:16:G:C2	2:AB:17:C:C5	3.07	0.43
33:CF:9:GLY:HA2	33:CF:12:LEU:HG	2.00	0.43
1:BA:2786:U:H4'	4:BE:64:LYS:HA	2.00	0.43
31:CA:1159:U:C2	31:CA:1182:G:N1	2.87	0.43
31:CA:1128:C:C5	31:CA:1139:G:C5	3.07	0.43
1:AA:889:C:H5''	1:AA:890:A:P	2.57	0.43
5:AF:198:ALA:HA	5:AF:201:VAL:CG1	2.42	0.43
1:AA:165:U:O2'	1:AA:171:G:O5'	2.29	0.43
53:CD:19:G:O2'	53:CD:59:A:N3	2.46	0.43
1:AA:1141:U:H5	9:AM:64:GLY:HA3	1.82	0.43
4:BE:116:VAL:HG13	4:BE:122:PHE:HB2	2.01	0.43
1:BA:2211:G:H2'	1:BA:2211:G:N3	2.34	0.43
1:BA:95:G:H4'	24:BW:46:GLN:HB3	2.01	0.43
1:AA:1595:G:C2'	1:AA:1596:A:H5'	2.49	0.43
53:CD:68:C:N3	53:CD:69:C:C4	2.87	0.43
34:DG:128:VAL:N	34:DG:131:ARG:O	2.51	0.43
16:B1:97:ASP:OD2	16:B1:97:ASP:C	2.57	0.43
1:BA:999:U:O2'	1:BA:1000:A:H5'	2.19	0.43
9:BM:4:TYR:CD2	16:B1:100:VAL:HG11	2.54	0.43
2:BB:44:G:OP1	6:BG:98:ARG:NH2	2.51	0.43
6:BG:47:LYS:HE2	6:BG:80:PHE:O	2.18	0.43
1:AA:654(G):C:N3	1:AA:654(N):G:C6	2.84	0.43
41:CN:33:THR:HG22	41:CN:39:PRO:HA	2.01	0.43
41:CN:34:ASP:HA	41:CN:40:ILE:HD11	2.01	0.43
31:CA:256:U:H2'	31:CA:257:G:H8	1.83	0.43
1:AA:822:U:O4	1:AA:944:G:H1'	2.19	0.43
1:BA:862:G:H2'	1:BA:863:A:O4'	2.19	0.43
1:BA:1466:G:H5'	1:BA:1467:C:OP1	2.18	0.43
1:AA:1264:G:C5'	27:A5:11:THR:HG21	2.39	0.43
3:AD:27:THR:HG22	3:AD:28:GLU:H	1.83	0.43
1:BA:26:G:H1'	1:BA:514:A:N6	2.34	0.43
11:BO:30:THR:HG21	11:BO:35:HIS:N	2.24	0.43
31:CA:1189:C:H5''	33:CF:5:ILE:HG21	2.00	0.43
32:CE:165:VAL:O	32:CE:187:LEU:O	2.37	0.43
33:DF:98:ASN:C	33:DF:98:ASN:ND2	2.72	0.43
45:DR:3:ILE:HG22	45:DR:38:ARG:HH21	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BP:43:THR:HA	12:BP:94:VAL:HG12	1.99	0.43
1:AA:602:G:C2'	1:AA:655:A:N6	2.82	0.43
52:CB:45:U:C2'	52:CB:46:G:H5''	2.49	0.43
1:BA:1791:A:OP2	1:BA:1791:A:H8	2.01	0.43
1:AA:1638:C:H2'	1:AA:1639:U:O4'	2.18	0.43
1:BA:2141:G:C6	1:BA:2151:G:C6	3.07	0.43
45:CR:21:ASP:CG	45:CR:24:SER:HB3	2.38	0.43
31:DA:619:U:C2	34:DG:135:LEU:HD21	2.53	0.43
15:AR:6:LEU:HA	15:AR:9:LEU:HB2	2.00	0.43
31:DA:1231:G:C2'	31:DA:1232:U:H5'	2.48	0.43
33:DF:94:LEU:HD12	33:DF:95:THR:N	2.31	0.43
34:CG:188:LEU:HA	34:CG:188:LEU:HD23	1.79	0.43
1:AA:2094:G:H2'	1:AA:2095:C:H5'	2.01	0.43
28:A6:11:LEU:HD12	28:A6:11:LEU:HA	1.82	0.43
31:CA:636:U:C5'	47:CT:2:PRO:HG3	2.47	0.43
1:AA:2039:C:H2'	1:AA:2040:C:H6	1.84	0.43
1:BA:2063:C:C2'	1:BA:2064:C:H5'	2.48	0.43
10:AN:7:TYR:C	10:AN:8:LEU:HD22	2.38	0.43
1:BA:2695:C:H2'	1:BA:2696:U:C6	2.53	0.43
22:A3:75:LEU:HD23	22:A3:75:LEU:HA	1.68	0.43
36:DI:2:ARG:NH2	36:DI:69:GLU:HG3	2.33	0.43
1:BA:2282:G:C4	1:BA:2425:A:N6	2.86	0.43
1:BA:2283:C:C5	1:BA:2389:G:C4	3.07	0.43
8:AK:47:LEU:HA	8:AK:50:ARG:HB2	2.00	0.43
16:B1:25:TRP:CD1	16:B1:26:GLY:N	2.87	0.43
18:BS:13:SER:HA	18:BS:99:ARG:HB2	2.00	0.43
4:AE:134:ILE:C	4:AE:134:ILE:CD1	2.87	0.43
16:A1:44:ASN:HD21	17:A2:75:PHE:N	2.16	0.43
38:DK:40:ALA:HA	38:DK:45:ILE:HG13	1.99	0.43
38:CK:97:VAL:HG21	38:CK:128:GLY:HA2	2.01	0.43
1:AA:1374:G:H2'	1:AA:1375:C:H6	1.84	0.43
53:DC:30:G:O2'	53:DC:31:G:H5'	2.19	0.43
3:BD:155:LEU:HA	3:BD:155:LEU:HD12	1.79	0.43
20:BU:24:VAL:HG12	20:BU:25:GLY:N	2.33	0.43
1:BA:1389:G:H2'	1:BA:1390:U:O4'	2.18	0.43
41:DN:20:TYR:CZ	41:DN:83:ILE:HD12	2.54	0.43
1:AA:1769:G:O2'	1:AA:1958:C:OP1	2.29	0.43
46:CS:40:ASP:OD2	46:CS:40:ASP:C	2.56	0.43
1:AA:776:G:H4'	1:AA:777:A:O5'	2.19	0.43
31:CA:122:G:C2'	31:CA:123:C:H5'	2.49	0.43
43:DP:116:THR:O	43:DP:117:VAL:C	2.55	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1951:U:O2'	1:BA:1953:A:N7	2.39	0.43
31:CA:767:A:H2'	31:CA:768:A:O4'	2.18	0.43
10:BN:73:ASP:OD1	10:BN:73:ASP:C	2.56	0.43
11:AO:144:GLU:OE1	11:AO:144:GLU:O	2.36	0.43
47:CT:36:ILE:O	47:CT:36:ILE:HG13	2.19	0.43
24:BW:32:LEU:O	24:BW:32:LEU:HD12	2.18	0.43
26:A4:47:GLN:HE21	26:A4:47:GLN:HB3	1.55	0.43
31:DA:582:U:C2	31:DA:760:G:C6	3.06	0.43
25:BX:54:VAL:HG12	25:BX:55:ARG:N	2.34	0.43
1:AA:1062:G:C2'	1:AA:1063:G:C8	2.99	0.43
4:BE:47:VAL:HG12	4:BE:48:GLN:N	2.34	0.43
4:BE:82:ARG:HD3	4:BE:82:ARG:HA	1.72	0.43
31:DA:1127:G:H1'	31:DA:1147:C:H42	1.83	0.43
11:BO:101:VAL:HA	11:BO:106:LEU:HB3	2.00	0.43
30:A8:51:ALA:CA	30:A8:53:PRO:HD2	2.49	0.43
30:A8:7:HIS:HE1	30:A8:9:GLY:HA3	1.84	0.43
12:BP:58:PHE:HE2	12:BP:106:VAL:HG21	1.84	0.43
44:CQ:45:ARG:HH11	44:CQ:49:HIS:CE1	2.36	0.43
8:BK:82:ARG:HH11	8:BK:146:ALA:CA	2.30	0.43
26:A4:55:ARG:NH1	26:A4:56:VAL:HG23	2.34	0.43
1:AA:880:G:C6	1:AA:881:G:C5	3.06	0.43
46:CS:43:LYS:HA	46:CS:48:TRP:CB	2.49	0.43
1:AA:1047:G:HO2'	1:AA:1048:A:H8	1.62	0.43
1:AA:2286:A:H4'	1:AA:2287:A:O4'	2.19	0.43
4:BE:28:ALA:O	4:BE:93:VAL:HG22	2.18	0.43
1:BA:1248:G:C4	16:B1:3:ARG:HB2	2.54	0.43
19:BT:84:ALA:O	19:BT:87:GLN:HG3	2.19	0.43
46:DS:40:ASP:HA	46:DS:41:PRO:HD2	1.83	0.43
32:CE:96:ARG:H	32:CE:96:ARG:CD	2.11	0.43
1:AA:1141:U:OP2	9:AM:63:THR:HG23	2.19	0.43
1:BA:675:A:C4	1:BA:804:A:C2	3.06	0.43
37:DJ:78:ARG:HB3	37:DJ:87:VAL:HG21	1.99	0.43
32:DE:12:GLU:O	32:DE:13:ALA:C	2.56	0.43
1:AA:1025:G:C5	1:AA:1135:C:H1'	2.53	0.43
6:BG:66:GLN:HG3	26:B4:6:HIS:CE1	2.53	0.43
2:BB:40:U:H1'	2:BB:46:A:C2	2.53	0.43
1:AA:1240:U:HO2'	1:AA:1241:A:H5'	1.74	0.43
15:BR:54:ARG:HA	15:BR:59:THR:CB	2.37	0.43
9:AM:43:THR:N	9:AM:48:MET:HE3	2.34	0.43
9:AM:46:VAL:HG11	9:AM:48:MET:HG3	1.93	0.43
1:AA:729:G:N3	1:AA:1775:U:H1'	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:821:A:H5''	1:AA:822:U:H6	1.84	0.43
1:BA:244:A:H2'	1:BA:245:G:O4'	2.19	0.43
31:DA:1060:C:C2	31:DA:1198:G:C2	3.07	0.43
7:BH:149:ARG:HG2	7:BH:162:ILE:O	2.18	0.43
33:CF:181:ASN:HD22	33:CF:204:LEU:HB2	1.81	0.43
9:AM:22:THR:O	9:AM:61:ARG:O	2.36	0.43
1:BA:2600:A:H2'	1:BA:2601:C:C6	2.54	0.43
31:DA:1347:G:C5	39:DL:107:ARG:NH2	2.86	0.43
31:DA:940:C:H2'	31:DA:941:G:H8	1.84	0.43
31:CA:355:C:C5'	31:CA:389:A:OP2	2.67	0.43
31:CA:955:U:C1'	31:CA:1227:A:H61	2.30	0.43
33:DF:64:VAL:HG22	33:DF:66:VAL:HG23	2.00	0.43
31:CA:599:C:O2'	31:CA:600:C:H5'	2.18	0.43
31:DA:663:A:H5'	31:DA:836:G:OP1	2.18	0.43
1:AA:322:A:OP2	5:AF:169:ASN:HB2	2.18	0.43
34:CG:96:LEU:HD12	34:CG:139:ARG:HH11	1.82	0.43
52:CB:14:A:N1	52:CB:21:A:N1	2.67	0.43
15:AR:117:ASP:OD1	15:AR:120:ARG:NE	2.39	0.43
31:CA:658:G:O2'	31:CA:659:U:H5'	2.19	0.43
8:AK:5:LEU:HD23	8:AK:5:LEU:HA	1.76	0.43
8:BK:110:ASP:OD2	8:BK:113:ARG:CB	2.66	0.43
31:DA:1378:C:C5	31:DA:1379:G:N9	2.80	0.43
44:DQ:4:LYS:C	44:DQ:6:LEU:H	2.22	0.43
21:BV:117:LEU:HD13	21:BV:117:LEU:HA	1.80	0.43
31:DA:616:G:N3	31:DA:616:G:H2'	2.33	0.43
1:BA:1991:U:C2'	1:BA:1992:G:H5''	2.47	0.43
34:CG:173:TRP:CD2	34:CG:189:PRO:HB3	2.53	0.43
10:BN:61:VAL:HG12	10:BN:87:ILE:HD13	2.00	0.43
1:AA:1259:G:H2'	1:AA:1260:G:C8	2.54	0.43
11:BO:85:LEU:HA	11:BO:88:LEU:HB2	2.01	0.43
28:A6:52:VAL:HG22	28:A6:53:LYS:HG3	2.01	0.43
31:DA:489:C:O2'	31:DA:490:G:H5'	2.18	0.43
37:DJ:115:ARG:O	37:DJ:118:VAL:HG12	2.18	0.43
36:CI:55:ASP:HA	36:CI:56:PRO:HD2	1.79	0.43
2:AB:73:A:C2'	2:AB:74:U:H5'	2.49	0.43
11:BO:90:ARG:CG	11:BO:91:PHE:H	2.31	0.43
1:BA:838:C:C2'	1:BA:839:U:H5'	2.49	0.43
1:AA:488:G:N2	1:AA:491:G:H5''	2.33	0.43
1:BA:1114:G:C6	1:BA:1115:G:C5	3.06	0.43
1:AA:1503:U:H2'	1:AA:1504:C:C6	2.54	0.43
1:BA:2842:G:C2'	1:BA:2843:G:H5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DV:51:VAL:HG23	49:DV:60:VAL:CG1	2.48	0.43
1:AA:270(P):C:H2'	1:AA:270(Q):C:C6	2.54	0.43
45:CR:55:GLY:O	45:CR:58:MET:N	2.52	0.43
1:BA:2758:A:C2	1:BA:2759:G:H1'	2.54	0.43
1:AA:270(B):A:N1	1:AA:273:G:O2'	2.45	0.43
8:AK:128:LEU:O	8:AK:138:ILE:N	2.52	0.43
1:AA:1150:C:H2'	1:AA:1151:G:O4'	2.19	0.43
11:BO:125:VAL:HG13	11:BO:144:GLU:HB3	2.00	0.43
31:DA:897:C:C4	31:DA:898:G:N7	2.87	0.43
34:DG:132:ARG:HG3	34:DG:133:VAL:N	2.33	0.43
40:CM:21:GLN:O	40:CM:25:GLU:HG2	2.19	0.43
32:DE:41:ILE:HG22	32:DE:41:ILE:O	2.18	0.43
4:AE:154:LYS:HA	4:AE:154:LYS:HD3	1.78	0.43
39:DL:47:LEU:HD23	39:DL:50:LEU:HD12	2.01	0.43
1:BA:1779:U:C6	1:BA:1783:A:N7	2.87	0.43
36:CI:89:MET:CE	48:CU:76:LEU:CD2	2.97	0.43
1:BA:650:C:O3'	30:B8:17:THR:HB	2.19	0.43
1:AA:1060:U:C4	1:AA:1062:G:H4'	2.54	0.43
6:AG:42:GLY:C	6:AG:43:LEU:HD13	2.40	0.43
31:DA:1305:G:C5'	51:DX:4:GLY:CA	2.93	0.43
12:BP:32:TYR:CD1	12:BP:114:ALA:HB3	2.54	0.43
5:BF:7:TYR:HA	5:BF:125:LEU:O	2.19	0.43
5:BF:23:ASP:OD2	5:BF:203:GLN:NE2	2.52	0.43
1:AA:889:C:O5'	1:AA:889:C:O2	2.36	0.43
1:BA:946:G:HO2'	1:BA:947:G:C4'	2.32	0.43
1:AA:2472:G:C4	1:AA:2475:C:N4	2.87	0.43
1:BA:1005:C:C2	1:BA:1143:A:C6	3.07	0.43
1:AA:2666:C:N4	7:AH:109:PHE:HA	2.34	0.43
1:BA:139:G:N3	1:BA:141:A:N1	2.65	0.43
1:AA:69:C:H2'	1:AA:70:G:C8	2.54	0.43
1:AA:139:G:N2	1:AA:141:A:N1	2.66	0.43
1:BA:1043:C:H2'	1:BA:1044:G:C5'	2.49	0.43
16:B1:114:LYS:H	16:B1:114:LYS:HG2	1.67	0.43
16:B1:65:ILE:CD1	16:B1:96:ALA:HB1	2.46	0.43
31:CA:833:U:H2'	31:CA:834:C:H6	1.84	0.43
12:AP:19:GLY:HA3	12:AP:98:LYS:HZ3	1.84	0.43
9:BM:134:ARG:N	9:BM:135:PRO:HD3	2.34	0.43
2:BB:45:A:H1'	6:BG:95:ARG:NH2	2.33	0.43
4:BE:203:LYS:O	4:BE:204:ALA:HB3	2.18	0.43
18:AS:29:LEU:CD2	18:AS:33:ARG:CZ	2.91	0.43
1:AA:1519:G:O2'	1:AA:1520:U:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:729:G:C2	1:AA:1775:U:H1'	2.54	0.43
1:AA:2749:A:H5''	7:AH:6:ARG:HD3	2.01	0.43
31:DA:468:A:C2'	31:DA:474:G:H5'	2.47	0.43
31:DA:1190:G:H5'	33:DF:176:HIS:NE2	2.33	0.43
33:DF:3:ASN:N	33:DF:3:ASN:OD1	2.52	0.43
21:AV:141:VAL:HG12	21:AV:142:SER:N	2.31	0.43
21:BV:157:LEU:HA	21:BV:158:PRO:HD3	1.88	0.43
21:BV:161:VAL:HB	21:BV:162:GLU:H	1.56	0.43
8:AK:76:THR:CG2	8:AK:77:LEU:N	2.82	0.43
31:CA:8:A:H5''	35:CH:120:THR:O	2.19	0.43
1:BA:2523:G:H2'	1:BA:2524:G:H5'	2.00	0.43
1:BA:2135:A:H62	1:BA:2156:G:H21	1.66	0.43
19:AT:12:VAL:CG1	19:AT:27:THR:O	2.62	0.43
31:CA:356:A:C2'	31:CA:368:U:O2'	2.67	0.43
52:DB:59:U:H4'	52:DB:60:A:H5''	2.01	0.43
1:AA:1791:A:OP2	1:AA:1791:A:H8	2.01	0.43
32:DE:178:ARG:NH1	32:DE:196:LEU:O	2.45	0.43
1:AA:2615:U:C2	27:A5:7:PRO:HA	2.54	0.43
31:CA:1455:G:OP1	50:CW:35:THR:OG1	2.29	0.43
52:CB:23:A:H3'	52:CB:24:C:C6	2.53	0.43
53:DC:1:C:O2'	53:DC:2:G:P	2.76	0.43
4:AE:8:LYS:NZ	4:AE:188:VAL:O	2.47	0.43
3:AD:149:PRO:HD3	3:AD:189:CYS:SG	2.59	0.43
46:CS:71:ARG:O	46:CS:74:LEU:N	2.51	0.43
31:CA:1494:G:N7	56:CA:1841:PAR:N32	2.67	0.43
6:BG:79:ASN:N	6:BG:79:ASN:ND2	2.67	0.43
44:CQ:12:ARG:O	44:CQ:12:ARG:HG3	2.18	0.43
7:BH:10:PRO:O	7:BH:49:VAL:HG12	2.18	0.43
31:CA:957:U:H3	31:CA:960:U:H5''	1.82	0.43
1:AA:1466:G:N3	1:AA:1466:G:H2'	2.33	0.43
1:AA:1827:C:H2'	1:AA:1828:G:H5'	1.98	0.43
3:BD:12:SER:HB2	3:BD:208:LYS:HB3	2.00	0.43
45:CR:57:LEU:HA	45:CR:57:LEU:HD23	1.65	0.43
8:AK:37:VAL:HG22	8:AK:38:LEU:N	2.34	0.43
1:BA:213:A:H2'	1:BA:214:G:O4'	2.19	0.43
8:BK:38:LEU:HD12	8:BK:38:LEU:N	2.31	0.43
1:AA:989:G:N7	25:AX:13:ILE:HD11	2.33	0.43
1:AA:1833:U:C2'	1:AA:1834:U:H5'	2.48	0.43
1:AA:1829:A:C2'	1:AA:1830:C:H5'	2.48	0.43
1:AA:107:C:H2'	1:AA:108:U:C6	2.51	0.43
14:AQ:58:LEU:H	14:AQ:58:LEU:HD23	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2667:C:N3	7:BH:110:SER:OG	2.36	0.43
48:CU:53:ARG:HH21	48:CU:60:ALA:H	1.67	0.43
1:BA:282:A:N6	1:BA:284:U:C2	2.87	0.43
1:BA:2364:C:H4'	22:B3:56:ASP:OD2	2.18	0.43
1:BA:2881:C:O2'	13:B0:96:ARG:HA	2.18	0.43
1:BA:2431:U:O2	1:BA:2433:A:C8	2.71	0.43
1:AA:1268:A:H2'	1:AA:1269:A:O5'	2.19	0.43
1:BA:1553:A:C8	1:BA:1555:G:C6	3.07	0.43
1:BA:966:G:H2'	1:BA:967:C:C6	2.53	0.43
31:CA:1067:A:N3	31:CA:1068:G:H1'	2.33	0.43
1:AA:1373:A:H2'	1:AA:1374:G:O4'	2.19	0.43
31:CA:279:A:C8	47:CT:98:LEU:HD13	2.53	0.43
1:BA:36:G:H4'	1:BA:451:C:C2	2.54	0.43
7:BH:99:VAL:HG21	7:BH:104:GLU:OE2	2.18	0.43
1:AA:752:A:C5	1:AA:1781:C:O4'	2.72	0.43
10:AN:12:ASP:CG	10:AN:14:THR:HG23	2.39	0.43
1:AA:1776:G:C2	1:AA:1777:U:C6	3.07	0.43
33:DF:27:LYS:NZ	33:DF:27:LYS:HB3	2.34	0.43
50:DW:42:GLN:NE2	50:DW:42:GLN:HA	2.34	0.43
5:AF:27:GLU:OE2	5:AF:27:GLU:HA	2.19	0.43
31:CA:1290:G:N3	31:CA:1290:G:H2'	2.34	0.43
14:AQ:42:ASP:O	14:AQ:43:GLU:HG2	2.18	0.43
1:AA:389:G:C2	11:AO:71:VAL:HG12	2.51	0.43
4:BE:48:GLN:HA	4:BE:80:GLU:CA	2.31	0.43
31:DA:1135:U:H4'	31:DA:1136:U:C5	2.47	0.43
31:DA:1177:G:H2'	31:DA:1178:G:C2	2.54	0.43
39:DL:18:PHE:O	39:DL:19:LEU:HD23	2.18	0.43
39:DL:53:VAL:HG11	39:DL:92:TYR:CD2	2.53	0.43
1:AA:1971:A:H2'	1:AA:1972:A:OP1	2.18	0.43
31:DA:1207:G:C2	31:DA:1208:C:C2	3.07	0.43
31:DA:1329:A:H4'	43:DP:24:GLY:HA2	2.01	0.43
12:BP:113:GLN:HA	12:BP:113:GLN:NE2	2.34	0.43
12:BP:42:ILE:CG2	12:BP:47:ILE:HG13	2.49	0.43
31:CA:974:A:OP2	44:CQ:41:ARG:NH1	2.51	0.43
3:BD:48:ARG:HH11	3:BD:48:ARG:CG	2.21	0.43
22:B3:18:ALA:HB3	22:B3:20:ARG:NH2	2.34	0.43
1:BA:2356:C:C5	1:BA:2357:U:C4	3.07	0.43
7:AH:29:PRO:HG2	7:AH:79:VAL:O	2.19	0.43
40:CM:5:ARG:CB	40:CM:73:ASP:OD2	2.63	0.43
26:A4:7:PRO:HB2	26:A4:27:THR:HG21	2.01	0.43
49:CV:40:ILE:O	49:CV:41:VAL:CG2	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2169:A:C2	1:BA:2170:A:C6	3.06	0.43
31:CA:1401:G:N2	31:CA:1402:C:H1'	2.34	0.43
1:AA:1047:G:H2'	1:AA:1110:G:C2	2.54	0.43
5:BF:46:ARG:NH1	5:BF:46:ARG:CG	2.64	0.43
13:A0:97:VAL:HG22	13:A0:114:VAL:HG22	2.01	0.43
4:AE:201:THR:HG22	4:AE:202:LYS:N	2.33	0.43
1:AA:1404:C:H2'	1:AA:1405:U:H6	1.84	0.43
31:DA:1244:C:OP2	51:DX:9:ARG:HG2	2.18	0.43
40:DM:30:SER:HB2	40:DM:80:LYS:HG2	1.99	0.43
31:CA:872:A:H4'	31:CA:873:A:OP1	2.19	0.43
6:BG:98:ARG:O	6:BG:101:ILE:HG13	2.18	0.43
1:BA:2508:G:H5'	52:DB:85:C:N4	2.34	0.43
31:CA:688:G:O2'	31:CA:689:C:H5'	2.19	0.43
50:CW:100:ILE:HD12	50:CW:101:GLY:H	1.84	0.43
39:CL:79:LEU:O	39:CL:79:LEU:HD22	2.18	0.43
1:AA:1436:G:H1'	1:AA:1477:A:O2'	2.18	0.43
1:AA:1479:G:H5'	1:AA:1558:A:H2	1.83	0.43
17:A2:38:LEU:HD12	17:A2:57:VAL:CG1	2.46	0.43
16:A1:59:ARG:O	16:A1:63:VAL:HG23	2.18	0.43
31:DA:421:U:C2'	31:DA:421:U:O2	2.56	0.43
1:AA:2884:U:H2'	1:AA:2885:C:C5'	2.49	0.43
7:BH:136:ILE:HD12	7:BH:136:ILE:H	1.84	0.43
21:BV:130:PRO:HA	21:BV:133:ILE:HD11	2.01	0.43
1:AA:2815:C:H2'	1:AA:2816:C:O4'	2.19	0.43
31:DA:922:G:C2	31:DA:923:A:C4	3.06	0.43
1:AA:288:C:H2'	1:AA:289:A:C8	2.53	0.43
1:BA:2468:G:H2'	1:BA:2481:G:N2	2.33	0.43
31:DA:267:C:OP1	47:DT:67:LYS:HB2	2.19	0.43
35:CH:91:LEU:HD12	35:CH:120:THR:CG2	2.41	0.43
31:DA:1089:G:C5	31:DA:1090:U:C5	3.07	0.43
31:CA:390:C:H4'	46:CS:28:ARG:NH2	2.34	0.43
31:DA:413:G:C2'	31:DA:428:G:N2	2.82	0.43
46:DS:1:MET:HG3	46:DS:1:MET:O	2.19	0.43
31:DA:178:C:C2	31:DA:179:A:C8	3.07	0.43
1:AA:1251:C:OP1	16:A1:10:ARG:HG3	2.19	0.43
49:DV:28:LYS:HG2	49:DV:29:ARG:N	2.30	0.43
26:B4:63:TYR:CD2	49:DV:41:VAL:HG13	2.54	0.43
8:AK:29:TYR:CD2	8:AK:30:LEU:HD23	2.54	0.43
1:BA:2328:A:H2'	1:BA:2329:G:O4'	2.18	0.43
31:CA:449:C:O4'	31:CA:449:C:O2	2.36	0.43
33:DF:7:PRO:CB	33:DF:11:ARG:HH12	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:167:G:H2'	31:CA:168:G:H5'	1.97	0.43
1:BA:2732:G:H3'	1:BA:2733:A:O4'	2.19	0.43
1:AA:2580:U:H2'	1:AA:2580:U:O2	2.18	0.43
31:CA:1166:G:H1'	31:CA:1170:A:N6	2.34	0.43
31:CA:312:C:H2'	31:CA:313:A:H8	1.83	0.43
32:DE:71:VAL:CG1	32:DE:97:TRP:HD1	2.31	0.43
1:AA:1819:A:OP1	3:AD:156:ALA:HA	2.19	0.43
1:BA:990:A:OP2	1:BA:991:C:OP2	2.37	0.43
1:BA:883:G:C6	1:BA:884:C:N4	2.87	0.43
31:DA:841:U:H4'	31:DA:842:C:C5	2.54	0.43
31:DA:945:G:C2	31:DA:946:A:C8	3.07	0.43
40:CM:30:SER:OG	40:CM:84:GLN:NE2	2.52	0.43
1:AA:966:G:O4'	1:AA:2267:A:N6	2.52	0.43
31:CA:1240:U:OP2	37:CJ:116:ALA:N	2.50	0.43
1:BA:1645:G:H5''	1:BA:1646:C:O4'	2.19	0.43
1:AA:338:G:H2'	1:AA:339:U:C6	2.51	0.43
1:AA:1232:G:C5	1:AA:1233:C:C5	3.07	0.43
1:AA:1232:G:C6	1:AA:1233:C:C4	3.07	0.43
31:CA:616:G:C2	31:CA:617:G:C8	3.06	0.43
1:AA:1458:C:H4'	1:AA:1459:G:H5'	1.99	0.43
33:DF:23:TYR:CG	33:DF:24:ALA:N	2.87	0.43
31:DA:837:G:N2	31:DA:850:U:O2	2.51	0.43
1:BA:489:G:H2'	1:BA:491:G:O4'	2.19	0.43
1:AA:6:A:H2'	1:AA:7:G:O4'	2.18	0.43
31:DA:1192:C:N4	31:DA:1193:G:C5	2.87	0.43
10:BN:31:LYS:HB3	10:BN:32:TYR:CE1	2.54	0.43
18:AS:45:TYR:CD2	18:AS:45:TYR:C	2.91	0.43
12:AP:69:PHE:HA	12:AP:70:PRO:HD3	1.74	0.43
1:AA:1326:U:O4	1:AA:1647:G:H1'	2.18	0.43
18:AS:5:ALA:HB3	18:AS:54:ALA:HB2	2.00	0.43
1:BA:644:A:H5''	1:BA:645:C:OP2	2.18	0.43
1:BA:843:G:N2	1:BA:936:C:C2	2.87	0.43
1:BA:1575:C:H2'	1:BA:1576:U:C6	2.53	0.43
32:DE:162:ILE:O	32:DE:162:ILE:HG13	2.19	0.43
16:B1:27:LEU:N	16:B1:27:LEU:HD23	2.33	0.43
19:BT:41:ASN:N	19:BT:41:ASN:HD22	2.17	0.43
1:AA:1355:G:H2'	1:AA:1356:G:O4'	2.18	0.43
43:CP:25:ILE:HD11	43:CP:60:VAL:HG11	1.99	0.43
1:BA:2016:U:C5	1:BA:2017:U:C5	3.07	0.42
1:AA:1086:A:O3'	1:AA:1087:G:C8	2.71	0.42
1:BA:2401:U:O2	1:BA:2402:C:H5	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2629:A:O4'	1:BA:2629:A:N3	2.52	0.42
43:DP:23:TYR:HE1	43:DP:71:ARG:HB2	1.83	0.42
1:BA:2572:A:OP1	4:BE:144:ARG:HB2	2.18	0.42
31:CA:973:G:C3'	31:CA:974:A:H5''	2.48	0.42
30:B8:36:LYS:HG2	30:B8:36:LYS:H	1.41	0.42
31:DA:1002:G:C2'	31:DA:1003:G:H8	2.26	0.42
43:CP:84:ILE:HA	43:CP:84:ILE:HD12	1.89	0.42
49:CV:41:VAL:HG12	49:CV:44:MET:HB2	2.01	0.42
9:BM:28:THR:HG22	9:BM:29:LYS:N	2.34	0.42
20:BU:75:ILE:HA	20:BU:80:GLY:HA3	2.01	0.42
13:A0:24:GLN:NE2	13:A0:36:THR:HG21	2.28	0.42
1:AA:2275:C:HO2'	12:AP:84:GLY:HA3	1.82	0.42
1:AA:2113:U:O2	1:AA:2113:U:O4'	2.36	0.42
1:AA:130:C:O3'	1:AA:1349:A:H1'	2.18	0.42
1:AA:141(A):C:H2'	1:AA:142:G:O4'	2.19	0.42
19:BT:31:HIS:HA	19:BT:32:PRO:HD3	1.84	0.42
16:B1:92:ARG:HD2	17:B2:11:GLN:HB2	2.01	0.42
21:BV:69:THR:CG2	21:BV:90:VAL:HG22	2.49	0.42
31:CA:690:G:N2	41:CN:55:LYS:NZ	2.67	0.42
17:A2:34:GLU:HB3	17:A2:58:VAL:HG22	2.01	0.42
31:DA:423:G:N2	31:DA:424:G:C5	2.87	0.42
1:BA:1528:A:C6	1:BA:1545:A:C2	3.07	0.42
1:BA:654(S):G:H4'	1:BA:654(T):A:OP1	2.18	0.42
5:AF:128:ALA:O	5:AF:129:PHE:HB2	2.19	0.42
16:A1:105:VAL:HG22	17:A2:44:LYS:HG3	2.01	0.42
1:AA:2606:C:C2'	1:AA:2607:G:H5'	2.49	0.42
31:DA:1347:G:H22	31:DA:1373:G:H2'	1.82	0.42
33:DF:6:HIS:NE2	33:DF:184:TYR:HE2	2.17	0.42
8:AK:104:GLN:O	8:AK:105:HIS:HB2	2.19	0.42
31:CA:142:G:O2'	31:CA:195:A:N6	2.52	0.42
1:BA:2864:G:OP1	15:BR:119:LYS:HD2	2.18	0.42
21:BV:150:LEU:HD13	21:BV:150:LEU:O	2.18	0.42
1:AA:539:G:H5'	1:AA:540:G:OP2	2.18	0.42
1:AA:1678:G:C8	1:AA:1678:G:H5''	2.53	0.42
33:DF:77:ILE:HG22	33:DF:78:GLY:O	2.19	0.42
3:AD:17:THR:HG22	3:AD:204:ILE:CA	2.45	0.42
1:BA:2375:G:N2	1:BA:2378:A:OP2	2.45	0.42
35:DH:19:MET:HA	35:DH:19:MET:HE2	2.00	0.42
14:AQ:86:ALA:O	14:AQ:87:PHE:CB	2.66	0.42
31:CA:1049:U:OP1	44:CQ:3:ARG:HB2	2.18	0.42
39:CL:28:VAL:HA	39:CL:63:ILE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BG:116:ASP:O	6:BG:117:PHE:HB3	2.19	0.42
1:BA:247:G:H4'	1:BA:386:G:C4	2.54	0.42
31:CA:751:U:H2'	31:CA:751:U:O2	2.19	0.42
31:CA:1312:G:O2'	31:CA:1313:U:H5'	2.18	0.42
1:AA:1165:U:O5'	1:AA:1165:U:H6	2.02	0.42
35:CH:64:ARG:CG	35:CH:64:ARG:HH11	2.28	0.42
1:AA:1665:A:H2'	1:AA:1666:G:O4'	2.19	0.42
3:BD:107:ALA:HA	3:BD:108:PRO:HD2	1.88	0.42
50:DW:67:ALA:O	50:DW:73:HIS:ND1	2.52	0.42
1:BA:1028:A:N6	1:BA:1125:G:H2'	2.34	0.42
1:AA:270(G):C:C4	1:AA:270(H):C:C5	3.07	0.42
31:DA:1086:U:H3	31:DA:1099:G:H22	1.67	0.42
1:AA:2104:G:N1	1:AA:2186:G:C6	2.87	0.42
1:AA:2110:G:C6	1:AA:2120:G:C8	3.07	0.42
37:DJ:115:ARG:O	37:DJ:118:VAL:CG1	2.67	0.42
1:AA:234:C:H2'	1:AA:235:U:C6	2.54	0.42
31:DA:87:A:N1	31:DA:88:C:H5	2.16	0.42
1:BA:1548:C:O2'	1:BA:1549:C:H5'	2.18	0.42
1:AA:1218:C:N4	1:AA:1231:G:H1	2.16	0.42
31:CA:5:U:O2'	31:CA:6:G:O5'	2.37	0.42
31:DA:119:A:C8	31:DA:288:A:C2	3.07	0.42
34:DG:111:ALA:HB2	34:DG:120:LEU:CD1	2.49	0.42
31:DA:584:G:OP1	47:DT:87:LYS:HE2	2.19	0.42
21:BV:72:ARG:HA	21:BV:72:ARG:HD2	1.89	0.42
5:AF:133:ASN:HB3	5:AF:138:GLU:OE1	2.19	0.42
1:AA:748:G:OP2	18:AS:88:ARG:HG3	2.18	0.42
1:BA:2390:U:O2'	1:BA:2391:G:H5'	2.19	0.42
29:B7:12:ARG:HD3	29:B7:46:VAL:HG13	2.01	0.42
44:CQ:8:GLU:OE2	44:CQ:11:LYS:HD2	2.19	0.42
1:AA:5:A:N6	1:AA:6:A:N6	2.67	0.42
1:BA:838:C:O2'	1:BA:839:U:H5'	2.19	0.42
18:BS:79:GLY:CA	18:BS:100:THR:HG22	2.48	0.42
1:AA:354:G:C2'	1:AA:355:G:H5'	2.48	0.42
1:BA:2705:A:H2'	1:BA:2706:G:O4'	2.19	0.42
33:CF:23:TYR:CD2	33:CF:24:ALA:N	2.86	0.42
28:A6:33:LYS:HD3	28:A6:33:LYS:HA	1.68	0.42
1:BA:1410:G:C2	1:BA:1593:G:C2	3.06	0.42
1:AA:848:G:H2'	1:AA:849:A:C8	2.54	0.42
36:CI:89:MET:HE3	48:CU:76:LEU:HD22	2.01	0.42
10:AN:14:THR:HG22	10:AN:95:GLY:N	2.34	0.42
43:CP:25:ILE:HD11	43:CP:60:VAL:CG1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:224:C:H2'	31:DA:225:C:C6	2.53	0.42
31:CA:513:C:H2'	31:CA:514:C:O4'	2.19	0.42
47:DT:81:ARG:NH2	47:DT:84:LEU:HD11	2.33	0.42
51:CX:3:LYS:HB3	51:CX:14:TRP:CD1	2.54	0.42
1:BA:1545(A):A:N7	1:BA:1546:C:O2	2.52	0.42
31:DA:695:A:OP1	41:DN:52:GLY:HA3	2.19	0.42
31:DA:715:A:H2'	31:DA:716:A:C8	2.54	0.42
6:AG:56:ALA:HB2	6:AG:153:ARG:HE	1.84	0.42
1:BA:937:U:H2'	1:BA:938:G:C8	2.53	0.42
1:AA:1774:C:H6	1:AA:1774:C:O5'	2.01	0.42
1:AA:1684:C:H2'	1:AA:1685:C:C6	2.54	0.42
31:DA:1360:A:H2'	31:DA:1361:G:O4'	2.19	0.42
46:CS:67:THR:O	46:CS:70:ALA:HB3	2.19	0.42
50:DW:14:LYS:HB2	50:DW:17:ARG:NH2	2.34	0.42
38:DK:54:ASP:OD1	38:DK:54:ASP:N	2.52	0.42
21:AV:80:ARG:H	21:AV:80:ARG:HG2	1.58	0.42
1:BA:982:C:H6	1:BA:982:C:O5'	2.02	0.42
19:AT:11:PRO:HB2	19:AT:13:LEU:HD21	2.00	0.42
1:BA:2394:C:N3	53:DD:77:A:O2'	2.45	0.42
3:AD:71:ASP:CB	3:AD:103:ARG:NH2	2.78	0.42
1:BA:849:A:H61	1:BA:929:G:C2'	2.32	0.42
53:CC:20:G:C6	53:CC:58:A:C2	3.07	0.42
31:CA:976:G:C8	31:CA:1358:U:C2	3.07	0.42
1:BA:1056:G:H5''	1:BA:1057:A:C5'	2.44	0.42
23:AZ:92:LYS:O	23:AZ:93:GLU:C	2.55	0.42
34:DG:11:LEU:O	34:DG:12:CYS:C	2.57	0.42
31:CA:51:A:OP2	31:CA:52:G:C8	2.67	0.42
5:BF:3:GLU:O	5:BF:19:GLU:HB3	2.20	0.42
31:CA:927:G:N1	31:CA:1391:U:C2	2.88	0.42
1:BA:947:G:H2'	1:BA:948:G:H8	1.83	0.42
1:BA:1022:G:O2'	1:BA:1023:U:P	2.74	0.42
47:CT:76:LEU:HD11	47:CT:78:GLU:N	2.31	0.42
1:AA:456:C:O2'	1:AA:457:A:H5'	2.19	0.42
1:BA:2211:G:O3'	1:BA:2212:A:O4'	2.37	0.42
1:BA:1047:G:N2	1:BA:1111:A:H62	2.17	0.42
1:BA:2720:U:C2	1:BA:2721:A:C8	3.07	0.42
21:BV:58:VAL:O	21:BV:67:LEU:O	2.38	0.42
1:BA:1729:A:C2	1:BA:1730:U:H5	2.37	0.42
26:B4:13:ARG:H	26:B4:24:THR:HG21	1.84	0.42
1:AA:654(M):C:H2'	1:AA:654(N):G:H8	1.72	0.42
4:AE:1:MET:HB3	4:AE:200:GLU:CD	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DW:30:LYS:HE3	50:DW:30:LYS:HB2	1.64	0.42
24:BW:11:GLU:O	24:BW:14:ARG:HB3	2.19	0.42
24:BW:59:ARG:O	24:BW:62:THR:HB	2.19	0.42
1:BA:548:A:H2'	1:BA:549:G:H5'	2.01	0.42
9:AM:114:ARG:O	9:AM:116:LEU:N	2.52	0.42
43:CP:57:ARG:O	43:CP:61:GLU:HB2	2.19	0.42
1:AA:1871:A:H2'	1:AA:1872:A:C8	2.54	0.42
4:AE:181:LEU:HA	4:AE:181:LEU:HD12	1.61	0.42
7:AH:8:PRO:HG2	7:AH:69:ARG:NH2	2.34	0.42
1:BA:1416:G:H2'	1:BA:1417:C:H6	1.80	0.42
1:BA:2439:A:O2'	1:BA:2440:C:OP2	2.23	0.42
31:DA:77:C:C2'	31:DA:78:G:H5''	2.50	0.42
50:CW:104:LEU:HD12	50:CW:105:SER:N	2.34	0.42
31:CA:438:G:H5'	34:CG:123:HIS:HB3	2.01	0.42
31:CA:502:G:H2'	31:CA:503:C:O4'	2.19	0.42
8:AK:13:GLY:CA	8:AK:17:GLN:OE1	2.64	0.42
35:DH:7:GLU:OE2	35:DH:37:ARG:NH2	2.51	0.42
52:CB:59:U:HO2'	52:CB:70:G:C1'	2.31	0.42
1:AA:2011:U:OP2	18:AS:16:LYS:HE3	2.19	0.42
18:AS:84:ARG:HB2	18:AS:96:ILE:HD13	2.00	0.42
1:AA:229:A:O2'	1:AA:230:U:OP1	2.34	0.42
41:CN:29:ILE:HB	41:CN:44:SER:HB3	2.02	0.42
31:CA:706:A:C1'	41:CN:29:ILE:HD11	2.48	0.42
31:DA:1378:C:C6	31:DA:1379:G:O4'	2.72	0.42
31:DA:790:A:C6	31:DA:791:G:C6	3.07	0.42
1:AA:557:U:H2'	1:AA:558:G:H8	1.84	0.42
13:A0:26:LYS:HE2	13:A0:70:LEU:O	2.19	0.42
1:AA:1666:G:C2'	1:AA:1667:G:H5'	2.48	0.42
1:AA:2592:G:C6	1:AA:2593:U:C4	3.08	0.42
4:AE:9:VAL:HB	4:AE:25:VAL:HG23	2.01	0.42
31:CA:1288:A:H2'	31:CA:1289:A:C8	2.54	0.42
31:CA:729:A:O2'	31:CA:730:G:H5'	2.19	0.42
1:BA:2528:U:H5''	1:BA:2529:G:H21	1.84	0.42
17:A2:65:GLY:HA3	17:A2:91:TYR:CZ	2.54	0.42
1:AA:577:G:C6	1:AA:578:A:N6	2.87	0.42
1:BA:733:G:H8	1:BA:733:G:O5'	2.02	0.42
1:BA:654(M):C:H3'	1:BA:654(N):G:H8	1.84	0.42
31:CA:1436:U:H2'	31:CA:1437:C:O4'	2.18	0.42
1:AA:2051:A:O4'	4:AE:141:ILE:HD13	2.18	0.42
20:AU:86:ARG:NH1	20:AU:95:LYS:HD3	2.34	0.42
31:DA:1105:A:H2'	31:DA:1106:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:419:C:H2'	1:BA:420:C:C6	2.54	0.42
7:AH:105:LEU:HD23	7:AH:113:VAL:O	2.19	0.42
5:BF:170:LEU:HD22	5:BF:172:TRP:HE1	1.83	0.42
1:BA:593:G:H1'	30:B8:4:MET:HE1	2.01	0.42
37:CJ:45:ASP:O	37:CJ:48:LYS:HB3	2.20	0.42
31:DA:1047:G:C2'	31:DA:1048:G:H5'	2.49	0.42
30:B8:28:GLY:HA3	30:B8:44:LYS:HZ3	1.84	0.42
3:BD:147:LEU:HD23	3:BD:155:LEU:HD13	2.00	0.42
51:CX:3:LYS:HD2	51:CX:14:TRP:HD1	1.85	0.42
9:BM:90:MET:O	9:BM:95:PRO:HA	2.18	0.42
3:AD:12:SER:O	3:AD:16:MET:HB2	2.19	0.42
41:DN:85:ARG:HG2	41:DN:111:ASP:O	2.19	0.42
35:CH:78:HIS:HE1	35:CH:143:ARG:H	1.67	0.42
47:CT:48:GLU:HB2	47:CT:50:LYS:HG2	2.01	0.42
1:BA:1321:A:H2'	1:BA:1322:A:O4'	2.20	0.42
1:BA:1870:C:N4	1:BA:1871:A:C6	2.87	0.42
41:DN:11:LYS:O	41:DN:11:LYS:HG2	2.20	0.42
6:AG:62:LEU:HA	6:AG:62:LEU:HD12	1.76	0.42
1:BA:2012:G:H8	1:BA:2012:G:O5'	2.02	0.42
41:DN:122:LYS:HB3	41:DN:122:LYS:HE2	1.77	0.42
1:AA:162:U:O2'	1:AA:163:U:C5	2.73	0.42
21:BV:118:GLN:HB2	21:BV:173:ALA:O	2.19	0.42
1:BA:2097:C:H2'	1:BA:2098:U:O4'	2.20	0.42
31:CA:1508:G:H2'	31:CA:1509:C:O4'	2.19	0.42
1:BA:2734:A:C8	1:BA:2735:G:C8	3.07	0.42
39:DL:108:VAL:HG22	39:DL:109:VAL:N	2.34	0.42
4:AE:23:VAL:HA	4:AE:185:LYS:CA	2.31	0.42
1:AA:2056:G:H1	27:A5:4:HIS:HD2	1.66	0.42
1:AA:1062:G:H3'	1:AA:1063:G:C8	2.54	0.42
1:AA:1062:G:P	1:AA:1070:A:H4'	2.59	0.42
1:AA:1083:U:H3'	1:AA:1083:U:C6	2.54	0.42
1:AA:1088:A:N3	1:AA:1088:A:H3'	2.34	0.42
3:AD:35:LYS:HE2	3:AD:104:TYR:HB2	1.98	0.42
1:AA:2812:G:H2'	1:AA:2813:A:O4'	2.20	0.42
1:BA:2727:G:C2	1:BA:2728:U:C5	3.08	0.42
31:DA:1178:G:N7	31:DA:1180:A:OP2	2.52	0.42
31:DA:976:G:C8	31:DA:1358:U:C2	3.07	0.42
43:DP:23:TYR:O	43:DP:66:LEU:HB2	2.19	0.42
28:B6:15:GLU:OE2	28:B6:41:PRO:CB	2.67	0.42
31:CA:1350:A:C6	31:CA:1351:U:N3	2.87	0.42
1:BA:2289:G:H1'	1:BA:2346:A:H2	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BE:64:LYS:HB3	4:BE:66:HIS:CD2	2.54	0.42
1:AA:2378:A:H4'	14:AQ:23:ARG:NH1	2.34	0.42
4:AE:114:ALA:HB3	4:AE:160:TYR:HB3	2.00	0.42
1:AA:2846:G:H2'	1:AA:2847:U:O4'	2.19	0.42
6:AG:101:ILE:HG12	6:AG:105:LYS:NZ	2.34	0.42
1:AA:1461:G:O2'	1:AA:1462:C:H5'	2.19	0.42
1:AA:2287:A:C4	1:AA:2289:G:C8	3.07	0.42
13:A0:34:ILE:HD12	13:A0:34:ILE:HA	1.61	0.42
1:AA:2114:A:H2'	1:AA:2168:G:C8	2.54	0.42
1:AA:1021:A:H3'	1:AA:1021:A:H8	1.84	0.42
1:AA:1144:G:C6	1:AA:1145:C:C4	3.08	0.42
17:A2:81:TYR:C	17:A2:82:ARG:HD2	2.40	0.42
1:BA:2720:U:C2	1:BA:2873:A:C2	3.07	0.42
31:CA:872:A:N3	31:CA:872:A:H2'	2.34	0.42
21:BV:3:TYR:O	21:BV:58:VAL:HB	2.19	0.42
1:BA:2896:C:C4	1:BA:2897:U:C5	3.07	0.42
6:BG:61:ALA:HA	6:BG:64:THR:HG22	2.01	0.42
31:CA:703:G:H4'	31:CA:704:A:O5'	2.19	0.42
1:BA:2749:A:H5'	7:BH:62:LYS:O	2.20	0.42
47:CT:55:ASP:OD1	47:CT:79:SER:CB	2.67	0.42
31:DA:457:C:H2'	31:DA:458:C:C6	2.54	0.42
9:AM:96:GLU:HB2	9:AM:122:VAL:HG12	2.00	0.42
6:AG:64:THR:CG2	6:AG:66:GLN:H	2.22	0.42
1:AA:1786:A:H4'	1:AA:1787:A:OP2	2.19	0.42
31:DA:748:C:C6	31:DA:748:C:O5'	2.73	0.42
1:AA:196:A:C4	1:AA:805:G:C6	3.07	0.42
1:BA:2157:G:O2'	1:BA:2158:A:O4'	2.27	0.42
1:BA:270(I):G:H2'	1:BA:270(J):G:H8	1.85	0.42
1:AA:1416:G:HO2'	1:AA:1417:C:P	2.36	0.42
1:AA:2772:C:H2'	1:AA:2773:C:H6	1.84	0.42
3:AD:126:GLN:HG3	3:AD:126:GLN:H	1.68	0.42
31:DA:429:U:H4'	31:DA:430:A:O5'	2.19	0.42
1:AA:2704:C:H2'	1:AA:2705:A:C8	2.54	0.42
1:AA:304:G:C2	1:AA:314:A:N3	2.87	0.42
32:CE:80:ILE:CG2	32:CE:212:GLN:HA	2.44	0.42
1:AA:299:A:H2'	1:AA:319:C:O2'	2.19	0.42
31:CA:1071:C:O2'	31:CA:1072:G:H5'	2.20	0.42
3:AD:69:ARG:HD3	3:AD:105:ILE:HD11	2.01	0.42
22:A3:82:ARG:HA	22:A3:83:PRO:HD3	1.69	0.42
1:AA:1512:G:C5	1:AA:1513:C:C4	3.07	0.42
52:DB:5:A:N6	52:DB:79:U:H3	2.12	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1014:A:H3'	31:CA:1015:A:C8	2.54	0.42
1:BA:250:G:O6	1:BA:386:G:N1	2.36	0.42
31:CA:1312:G:C2'	31:CA:1313:U:H5'	2.50	0.42
31:DA:1151:A:O2'	31:DA:1152:A:O4'	2.36	0.42
36:CI:41:GLU:CD	48:CU:35:ARG:HH22	2.23	0.42
31:CA:857:C:C4	31:CA:858:G:C5	3.07	0.42
1:BA:883:G:C5	1:BA:884:C:N4	2.87	0.42
1:AA:511:U:O4	1:AA:512:G:C6	2.72	0.42
1:AA:1464:C:N3	1:AA:1465:G:N7	2.68	0.42
9:AM:69:GLN:O	9:AM:71:ILE:HG13	2.20	0.42
42:CO:8:VAL:HG13	47:CT:29:HIS:HD2	1.82	0.42
31:DA:116:A:H61	31:DA:313:A:H1'	1.84	0.42
21:AV:161:VAL:HG12	21:AV:162:GLU:CG	2.49	0.42
53:CD:65:G:H2'	53:CD:66:C:H5'	2.02	0.42
35:DH:110:LEU:HB3	35:DH:115:VAL:CG2	2.50	0.42
1:BA:1223:C:OP2	17:B2:88:ARG:NH2	2.41	0.42
3:BD:31:LYS:HB2	3:BD:31:LYS:HE3	1.69	0.42
31:DA:418:C:H2'	31:DA:419:C:O4'	2.19	0.42
18:BS:17:VAL:HG12	18:BS:43:GLY:HA3	2.01	0.42
8:AK:60:GLU:HG3	8:AK:61:ARG:NH2	2.35	0.42
7:BH:27:LYS:HA	7:BH:27:LYS:HD2	1.80	0.42
1:BA:2861:G:O2'	1:BA:2862:G:H5'	2.20	0.42
1:BA:1833:U:C4	1:BA:1834:U:C5	3.07	0.42
1:BA:2818:G:C2'	1:BA:2819:G:H5'	2.50	0.42
44:CQ:8:GLU:O	44:CQ:10:ALA:N	2.53	0.42
4:BE:120:TRP:CG	4:BE:155:LYS:HB3	2.55	0.42
5:AF:52:LYS:O	5:AF:88:VAL:HG23	2.19	0.42
6:BG:8:LYS:O	6:BG:12:TYR:HD2	2.02	0.42
31:CA:386:C:O2'	31:CA:387:U:H5'	2.19	0.42
1:BA:1638:C:H2'	1:BA:1639:U:O5'	2.20	0.42
48:CU:26:LEU:HD12	48:CU:29:PHE:CD2	2.55	0.42
31:DA:782:A:H4'	31:DA:1514:C:O2'	2.19	0.42
1:AA:2855:C:H2'	1:AA:2856:C:H6	1.84	0.42
41:CN:62:GLN:O	41:CN:66:LEU:HG	2.18	0.42
1:AA:30:G:H2'	1:AA:31:C:O4'	2.19	0.42
49:DV:75:ALA:HA	49:DV:76:PRO:HD2	1.92	0.42
5:BF:36:VAL:HG11	5:BF:183:VAL:HG11	2.00	0.42
16:B1:19:LYS:O	16:B1:22:LYS:HG3	2.19	0.42
23:AZ:18:ILE:HG22	23:AZ:20:ARG:HG3	2.00	0.42
21:BV:151:HIS:CD2	21:BV:151:HIS:N	2.85	0.42
1:BA:2772:C:O5'	1:BA:2772:C:H6	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:104:LEU:HA	37:CJ:104:LEU:HD13	1.73	0.42
3:BD:45:ASN:C	3:BD:45:ASN:OD1	2.55	0.42
16:A1:85:LYS:C	16:A1:87:GLY:N	2.72	0.42
12:BP:23:GLY:HA2	12:BP:24:GLY:HA3	1.75	0.42
11:AO:63:PRO:HA	30:A8:13:ARG:CB	2.47	0.42
1:AA:2785:C:OP1	4:AE:41:LYS:CE	2.68	0.42
1:AA:2810:A:H61	1:AA:2891:G:C2'	2.32	0.42
31:CA:430:A:C2'	31:CA:431:A:H5'	2.49	0.42
28:A6:20:ASN:OD1	28:A6:22:ALA:N	2.53	0.42
28:B6:12:GLU:O	28:B6:52:VAL:HG12	2.20	0.42
14:AQ:88:ASP:OD1	14:AQ:89:ARG:N	2.43	0.42
53:DC:19:G:C6	53:DC:58:A:C6	3.07	0.42
1:BA:2287:A:H2	1:BA:2346:A:N1	2.16	0.42
20:AU:74:PRO:O	20:AU:80:GLY:HA2	2.18	0.42
15:AR:61:PHE:CZ	15:AR:76:PHE:HB2	2.54	0.42
1:AA:2378:A:C5	1:AA:2379:G:H1'	2.54	0.42
14:AQ:85:VAL:CG2	14:AQ:112:PHE:CZ	3.02	0.42
11:BO:46:LYS:O	11:BO:51:PHE:CB	2.68	0.42
31:CA:1124:G:H3'	31:CA:1145:C:N4	2.21	0.42
31:CA:791:G:N2	31:CA:1497:G:O3'	2.49	0.42
43:DP:56:LEU:HA	43:DP:56:LEU:HD23	1.81	0.42
1:AA:2250:G:C6	12:AP:83:MET:CB	3.02	0.42
40:DM:4:ILE:HB	40:DM:74:ILE:CD1	2.49	0.42
1:AA:153:C:O2'	1:AA:154:G:H5'	2.18	0.42
53:CD:19:G:H4'	53:CD:61:U:C2	2.55	0.42
1:AA:1142(A):A:C8	1:AA:1144:G:C5	3.08	0.42
7:BH:4:ILE:HB	7:BH:6:ARG:CZ	2.50	0.42
16:B1:99:ALA:HB2	16:B1:106:PHE:CD1	2.54	0.42
9:AM:55:VAL:O	9:AM:56:ASN:C	2.57	0.42
31:CA:691:G:H1'	31:CA:696:A:H61	1.85	0.42
38:CK:86:ILE:O	38:CK:87:SER:C	2.58	0.42
42:DO:32:PHE:HB3	42:DO:84:LEU:HD22	2.00	0.42
29:B7:8:ASN:HD22	29:B7:11:LYS:H	1.61	0.42
1:BA:914:C:N4	1:BA:915:C:C2	2.88	0.42
1:AA:2836:U:H2'	1:AA:2837:G:C8	2.55	0.42
1:BA:654(T):A:H2'	1:BA:654(U):A:O4'	2.19	0.42
7:AH:9:ILE:CD1	7:AH:9:ILE:N	2.78	0.42
31:DA:751:U:H1'	45:DR:23:GLY:O	2.18	0.42
1:BA:1342:A:N1	1:BA:1397:U:C6	2.87	0.42
1:BA:2663:G:C6	1:BA:2664:G:C4	3.07	0.42
4:AE:13:ARG:CG	4:AE:13:ARG:NH1	2.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1520:G:H2'	31:DA:1521:G:C8	2.55	0.42
1:AA:287:C:C2	1:AA:288:C:C6	3.07	0.42
8:BK:101:LEU:HG	8:BK:101:LEU:O	2.18	0.42
37:DJ:124:LEU:HD23	37:DJ:124:LEU:HA	1.80	0.42
34:CG:155:LEU:O	34:CG:156:GLU:C	2.57	0.42
5:BF:9:ILE:HA	5:BF:13:SER:O	2.20	0.42
5:BF:38:ARG:HD3	5:BF:99:TYR:OH	2.19	0.42
14:BQ:110:LEU:HD22	14:BQ:112:PHE:N	2.34	0.42
31:DA:407:G:C2	31:DA:436:C:N3	2.87	0.42
40:DM:13:HIS:HD2	40:DM:13:HIS:O	2.02	0.42
41:CN:82:VAL:HB	41:CN:108:ILE:HD13	2.00	0.42
8:AK:33:ARG:HB3	8:AK:35:LEU:HG	2.01	0.42
31:CA:659:U:C2'	31:CA:660:G:H5'	2.49	0.42
1:BA:311:A:O4'	1:BA:332:A:C8	2.73	0.42
1:BA:783:A:C4	1:BA:785:G:H1'	2.54	0.42
31:CA:706:A:C2'	31:CA:707:C:H5'	2.50	0.42
31:DA:1219:U:OP1	44:DQ:19:ARG:CZ	2.67	0.42
31:DA:616:G:H2'	31:DA:617:G:C8	2.53	0.42
31:DA:619:U:C2	34:DG:135:LEU:CD2	3.02	0.42
1:AA:2144:U:O2	1:AA:2148:G:C2	2.72	0.42
31:DA:635:G:C6	31:DA:636:U:C4	3.07	0.42
1:AA:997:G:O2'	1:AA:998:C:H5'	2.19	0.42
1:AA:1665:A:H2'	1:AA:1666:G:H5'	1.99	0.42
31:DA:1236:A:O2'	31:DA:1304:G:H4'	2.19	0.42
43:DP:45:VAL:O	43:DP:48:LEU:HD22	2.19	0.42
27:A5:58:LEU:HD12	27:A5:58:LEU:O	2.20	0.42
54:D1:19:U:H6	54:D1:19:U:OP2	2.02	0.42
52:DB:37:G:C5	52:DB:38:G:N7	2.88	0.42
34:DG:201:GLN:HE21	34:DG:204:ILE:HD12	1.84	0.42
1:AA:2859:G:C6	1:AA:2860:A:N6	2.87	0.42
6:AG:145:THR:HG23	6:AG:148:MET:SD	2.59	0.42
35:DH:18:ARG:HH11	35:DH:25:ARG:HB3	1.83	0.42
23:AZ:21:ARG:HD3	23:AZ:35:THR:CG2	2.49	0.42
1:AA:2740:A:H2'	1:AA:2741:A:C8	2.53	0.42
31:DA:1386:G:N3	31:DA:1387:G:C8	2.88	0.42
1:BA:2693:A:H2'	1:BA:2694:G:C8	2.54	0.42
17:A2:19:LYS:HA	17:A2:94:LEU:O	2.19	0.42
1:BA:1259:G:O2'	1:BA:1260:G:H5'	2.20	0.42
3:AD:79:VAL:HG12	3:AD:113:VAL:HA	2.00	0.42
1:AA:39:C:O2'	1:AA:40:C:H5'	2.20	0.42
1:BA:2884:U:H2'	1:BA:2885:C:C5'	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:769:G:C2'	1:AA:770:G:H5'	2.49	0.42
1:BA:715:G:O2'	1:BA:716:A:H5'	2.19	0.42
31:CA:781:A:C3'	31:CA:782:A:H5'	2.49	0.42
5:BF:64:ILE:C	5:BF:65:TRP:CD1	2.93	0.42
1:BA:2636:U:H2'	1:BA:2637:U:C6	2.54	0.42
1:AA:1474:C:H2'	1:AA:1475:G:H8	1.84	0.42
21:AV:13:GLU:HB3	21:AV:18:LEU:HD11	2.00	0.42
1:BA:1733:G:C2'	1:BA:1734:C:H5'	2.50	0.42
12:AP:137:TYR:CE2	21:AV:83:PRO:HG3	2.55	0.42
31:CA:309:G:H1'	31:CA:608:A:C2	2.55	0.42
29:B7:43:THR:HG23	29:B7:44:PRO:HD2	2.01	0.42
41:DN:81:ASP:OD2	41:DN:107:SER:OG	2.23	0.42
8:AK:83:ALA:O	8:AK:87:LYS:O	2.37	0.42
42:CO:99:ARG:HB3	42:CO:99:ARG:HE	1.65	0.42
37:DJ:49:ILE:HG22	37:DJ:49:ILE:O	2.18	0.42
1:AA:520:G:H2'	1:AA:521:G:C8	2.55	0.42
32:CE:28:PHE:CD1	32:CE:190:THR:HA	2.54	0.42
29:A7:34:ARG:HD3	29:A7:42:LEU:HA	2.00	0.42
40:DM:42:THR:HG23	40:DM:67:THR:O	2.19	0.42
9:BM:73:THR:HA	9:BM:83:LYS:O	2.19	0.42
1:BA:2420:C:O5'	1:BA:2420:C:H6	2.02	0.42
17:B2:82:ARG:HG2	17:B2:82:ARG:HH11	1.81	0.42
17:B2:85:LYS:CG	17:B2:87:HIS:H	2.32	0.42
1:AA:250:G:OP2	30:A8:13:ARG:NH2	2.52	0.42
1:BA:1664:A:O5'	1:BA:1664:A:H8	2.02	0.42
3:BD:35:LYS:CE	3:BD:65:ILE:HA	2.49	0.42
31:DA:1129:C:C4	31:DA:1139:G:N1	2.87	0.42
31:DA:1131:G:C8	31:DA:1132:C:C5	3.06	0.42
4:AE:4:ILE:C	4:AE:5:LEU:HD23	2.40	0.42
53:CC:62:C:H2'	53:CC:63:C:C6	2.42	0.42
31:DA:1330:U:H2'	31:DA:1330:U:O2	2.18	0.42
40:DM:50:ILE:HD12	44:DQ:41:ARG:NH1	2.35	0.42
1:BA:2469:A:C2	1:BA:2470:G:C5	3.07	0.42
1:BA:586:A:N1	1:BA:809:G:O2'	2.37	0.42
53:DC:14:A:C2	53:DC:15:G:H1'	2.53	0.42
31:DA:1037:C:H6	31:DA:1037:C:H3'	1.83	0.42
12:AP:34:LEU:HD23	12:AP:104:PHE:HD1	1.84	0.42
1:AA:906:G:HO2'	12:AP:67:ARG:NH2	2.09	0.42
1:BA:2840:C:O3'	13:B0:53:HIS:NE2	2.52	0.42
1:BA:2786:U:O2'	4:BE:64:LYS:HA	2.20	0.42
31:CA:1152:A:C4	31:CA:1153:C:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1152:A:O3'	40:CM:13:HIS:NE2	2.52	0.42
31:CA:1125:U:H3	40:CM:5:ARG:NH1	2.17	0.42
12:BP:61:GLY:HA2	12:BP:62:GLY:HA3	1.71	0.42
5:BF:5:ALA:O	5:BF:18:ARG:O	2.37	0.42
34:DG:173:TRP:CD2	34:DG:189:PRO:HB3	2.54	0.42
31:CA:1023:G:C6	31:CA:1024:G:C5	3.07	0.42
31:CA:1004:A:O5'	31:CA:1025:U:O4	2.35	0.42
31:CA:452:A:O2'	31:CA:453:A:O5'	2.32	0.42
31:DA:501:C:H2'	31:DA:502:G:H8	1.84	0.42
1:AA:957:A:N6	1:AA:959:A:C2	2.88	0.42
28:A6:25:LYS:HZ2	28:A6:27:LYS:HE2	1.82	0.42
1:AA:2287:A:N3	1:AA:2289:G:C8	2.87	0.42
1:AA:2346:A:O3'	28:A6:39:TYR:OH	2.38	0.42
1:AA:165:U:H2'	1:AA:171:G:O4'	2.19	0.42
29:A7:9:ARG:HH21	29:A7:48:LYS:HB2	1.84	0.42
1:AA:1344:G:C4'	1:AA:1384:A:C5	3.03	0.42
12:AP:16:ARG:HE	12:AP:16:ARG:HB3	1.72	0.42
1:AA:483:A:H5''	20:AU:49:VAL:HG22	2.00	0.42
1:AA:1785:A:H4'	1:AA:1982:C:O2'	2.19	0.42
16:B1:93:LYS:HA	16:B1:96:ALA:CB	2.49	0.42
6:BG:7:LEU:HD22	6:BG:100:TRP:HE3	1.85	0.42
12:AP:109:VAL:CG1	12:AP:113:GLN:HB3	2.49	0.42
1:AA:329:G:OP1	1:AA:329:G:H8	2.02	0.42
42:DO:60:LEU:C	42:DO:62:SER:H	2.22	0.42
1:AA:1509:C:N4	1:AA:1511:A:N6	2.68	0.42
33:CF:92:ALA:HB2	33:CF:99:VAL:CG2	2.46	0.42
31:DA:750:G:O3'	45:DR:18:PHE:HZ	2.03	0.42
31:DA:926:G:C6	31:DA:1505:G:C5	3.07	0.42
1:BA:2467:C:N4	1:BA:2468:G:C2	2.87	0.42
32:CE:178:ARG:NH2	38:CK:74:PRO:HG3	2.34	0.42
52:DB:13:G:N2	52:DB:14:A:C5	2.88	0.42
43:CP:105:THR:O	43:CP:107:ALA:N	2.51	0.42
1:AA:1028:A:N3	1:AA:2486:G:O2'	2.44	0.42
35:CH:100:VAL:HG23	35:CH:116:THR:O	2.19	0.42
31:DA:663:A:O2'	31:DA:664:G:H5'	2.20	0.42
36:CI:72:VAL:HG13	36:CI:73:ASN:H	1.84	0.42
1:AA:319:C:N4	1:AA:320:A:C6	2.87	0.42
14:BQ:85:VAL:HG23	14:BQ:112:PHE:HZ	1.83	0.42
31:DA:179:A:C4	31:DA:180:U:C5	3.08	0.42
29:A7:10:ARG:NH1	29:A7:14:LYS:HE2	2.35	0.42
11:BO:128:HIS:HA	11:BO:147:LEU:CA	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1241:A:O2'	1:BA:1242:A:H5'	2.19	0.42
31:DA:408:A:H2'	31:DA:409:G:C8	2.55	0.42
1:BA:1435:G:H2'	1:BA:1436:G:O4'	2.20	0.42
1:AA:336:C:N3	1:AA:337:C:C5	2.87	0.42
33:CF:58:GLU:CB	33:CF:65:ALA:HB3	2.50	0.42
8:BK:110:ASP:OD2	8:BK:130:TYR:CE1	2.65	0.42
3:BD:209:ALA:O	3:BD:212:SER:HB2	2.19	0.42
44:DQ:2:ALA:O	44:DQ:6:LEU:HD12	2.19	0.42
21:BV:114:GLY:C	21:BV:116:VAL:N	2.72	0.42
1:BA:147:U:C2'	1:BA:148:C:H5'	2.49	0.42
1:AA:2146:C:H4'	1:AA:2147:G:C5	2.53	0.42
48:DU:29:PHE:CD1	48:DU:39:VAL:CG1	3.00	0.42
31:CA:243:A:H4'	31:CA:244:U:C5'	2.47	0.42
19:AT:41:ASN:HD22	19:AT:41:ASN:H	1.66	0.42
1:AA:879:G:N2	1:AA:898:C:N3	2.62	0.42
44:DQ:15:LYS:CB	44:DQ:15:LYS:NZ	2.82	0.42
1:BA:218:A:H2	1:BA:235:U:H4'	1.83	0.42
1:BA:234:C:C2	1:BA:235:U:C5	3.07	0.42
53:DD:39:A:H2'	53:DD:40:C:C5'	2.48	0.42
1:AA:325:G:C2'	1:AA:326:G:H5'	2.49	0.42
1:BA:1448:G:N2	1:BA:1449:A:N6	2.67	0.42
31:CA:763:G:C4	31:CA:764:C:C5	3.07	0.42
24:AW:53:LEU:O	24:AW:57:ILE:HG13	2.19	0.42
1:BA:2103:C:O2'	1:BA:2104:G:H5'	2.19	0.42
1:BA:2189:U:H2'	1:BA:2190:G:H5'	2.01	0.42
2:AB:94:C:C2'	2:AB:95:U:H5'	2.50	0.42
31:DA:1187:G:H2'	31:DA:1188:A:C8	2.55	0.42
17:B2:91:TYR:HD1	17:B2:91:TYR:HA	1.72	0.42
1:BA:1788:C:C2	1:BA:1789:A:C8	3.08	0.42
13:B0:29:LEU:HD12	13:B0:29:LEU:HA	1.69	0.42
1:AA:2063:C:O2	1:AA:2450:A:N1	2.53	0.42
1:AA:2443:C:H2'	1:AA:2444:G:H8	1.84	0.42
2:AB:59:A:C8	2:AB:60:C:C5	3.07	0.42
1:BA:1746:G:O2'	1:BA:1747:G:H5'	2.19	0.42
34:DG:150:GLU:O	34:DG:152:SER:N	2.49	0.42
2:AB:7:G:C2'	2:AB:8:U:H5'	2.50	0.42
1:BA:2723:C:OP2	4:BE:109:LYS:NZ	2.51	0.42
1:BA:1952:A:P	10:BN:44:LYS:HZ3	2.37	0.42
1:BA:2881:C:C2	1:BA:2882:A:C8	3.06	0.42
38:DK:123:GLU:O	38:DK:127:LEU:HD23	2.20	0.42
50:DW:96:GLY:O	50:DW:97:ALA:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BS:14:PRO:O	18:BS:18:ARG:HB2	2.19	0.42
1:AA:633:A:C8	1:AA:633:A:C3'	3.03	0.42
29:B7:43:THR:HG22	29:B7:44:PRO:O	2.20	0.42
27:B5:26:THR:HA	27:B5:27:PRO:HD3	1.91	0.42
1:AA:858:U:O2	1:AA:2268:A:H2'	2.19	0.42
31:CA:721:G:C6	31:CA:733:A:C2	3.08	0.42
31:DA:38:G:H4'	31:DA:547:A:N6	2.35	0.42
26:B4:5:ILE:O	26:B4:5:ILE:HG22	2.19	0.42
26:B4:8:LYS:HD2	26:B4:8:LYS:HA	1.79	0.42
37:CJ:36:LYS:HZ2	37:CJ:36:LYS:HB2	1.84	0.42
1:AA:1418:G:O5'	1:AA:1418:G:H8	2.02	0.42
32:CE:25:ASN:O	32:CE:27:LYS:N	2.52	0.42
1:BA:2395:C:H2'	1:BA:2396:G:O4'	2.19	0.42
1:BA:389:G:C2	11:BO:71:VAL:CG1	3.00	0.42
17:B2:70:ILE:HG13	17:B2:86:GLY:O	2.20	0.42
1:AA:1063:G:C4	1:AA:1064:C:C6	3.08	0.42
1:BA:2402:C:H4'	1:BA:2402:C:OP1	2.20	0.42
3:BD:28:GLU:CB	3:BD:29:PRO:CD	2.94	0.42
53:CC:59:A:C6	53:CC:62:C:C2	3.07	0.42
40:DM:54:PHE:CE2	40:DM:55:LYS:HD2	2.54	0.42
28:B6:35:GLU:O	28:B6:36:LEU:CB	2.65	0.42
30:A8:53:PRO:O	30:A8:57:ARG:N	2.37	0.42
1:BA:668:G:C2'	1:BA:669:G:OP1	2.68	0.42
31:DA:156:G:N2	31:DA:166:G:C4	2.88	0.42
1:BA:1312:U:H4'	1:BA:1313:U:O5'	2.20	0.42
1:BA:2115:G:N2	1:BA:2172:U:N3	2.67	0.42
1:BA:2124:G:C2'	1:BA:2125:G:H5'	2.49	0.42
32:CE:162:ILE:HD11	32:CE:184:VAL:HG13	2.00	0.42
31:CA:1531:A:H5'	31:CA:1532:U:OP2	2.19	0.42
31:CA:16:A:C5	31:CA:17:U:C5	3.08	0.42
23:BZ:95:LEU:C	23:BZ:97:LEU:H	2.23	0.42
33:DF:146:ALA:HB2	33:DF:204:LEU:HD23	2.02	0.42
1:AA:2112:G:N2	53:CD:57:C:N3	2.68	0.42
1:AA:2114:A:OP2	1:AA:2117:A:OP1	2.37	0.42
1:AA:2114:A:N6	1:AA:2115:G:N1	2.68	0.42
1:AA:456:C:C5	19:AT:69:TYR:CZ	3.08	0.42
53:CD:7:G:N7	53:CD:50:G:C8	2.88	0.42
31:CA:380:G:N1	31:CA:384:G:C6	2.88	0.42
1:BA:2688:U:H1'	1:BA:2721:A:H61	1.85	0.42
1:AA:1535:U:H2'	1:AA:1536:A:H8	1.85	0.42
6:BG:4:ASP:O	6:BG:5:VAL:HB	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1579:A:H2'	1:AA:1580:A:O4'	2.19	0.42
49:DV:27:GLU:HG2	49:DV:47:HIS:NE2	2.34	0.42
49:DV:10:PHE:HA	49:DV:10:PHE:HD1	1.78	0.42
1:BA:1677:A:H2'	1:BA:1678:G:H8	1.83	0.42
3:AD:166:GLN:HE21	3:AD:166:GLN:N	2.17	0.42
8:AK:110:ASP:HB3	8:AK:112:LYS:N	2.34	0.42
8:AK:98:ALA:O	8:AK:99:GLU:C	2.57	0.42
31:DA:861:G:C5	31:DA:862:C:C5	3.08	0.42
31:CA:1334:G:H5''	31:CA:1335:C:OP2	2.20	0.42
31:DA:673:G:H5''	36:DI:87:ARG:CZ	2.49	0.42
31:DA:1015:A:C5	31:DA:1016:A:C5	3.07	0.42
1:BA:1786:A:H4'	1:BA:1787:A:OP2	2.19	0.42
52:DB:77:C:C4	52:DB:78:C:C5	3.08	0.42
33:CF:22:TRP:CH2	33:CF:32:LEU:HB3	2.55	0.42
21:BV:168:GLU:HG3	21:BV:169:GLU:N	2.34	0.42
36:DI:25:ILE:CD1	36:DI:82:ARG:HD2	2.50	0.42
31:DA:956:U:H5'	49:DV:83:HIS:HB3	2.01	0.42
31:DA:951:G:C6	31:DA:1231:G:C6	3.08	0.42
1:BA:1353:A:H4'	3:BD:38:LYS:HZ2	1.83	0.42
36:DI:61:LEU:N	36:DI:61:LEU:HD12	2.35	0.42
40:CM:78:ASN:O	40:CM:81:THR:N	2.40	0.42
1:BA:96:G:C2	1:BA:97:C:C6	3.07	0.42
50:DW:67:ALA:O	50:DW:73:HIS:CE1	2.72	0.42
28:A6:11:LEU:HD11	28:A6:51:GLU:CG	2.50	0.42
2:BB:111:U:H2'	2:BB:112:G:H8	1.81	0.42
14:BQ:3:ARG:O	14:BQ:4:LEU:C	2.58	0.42
1:BA:2584:U:C5'	1:BA:2585:U:OP2	2.67	0.42
1:BA:1784:A:H4'	1:BA:1785:A:H5''	2.02	0.42
1:BA:1009:A:OP2	1:BA:1010:A:OP2	2.38	0.42
39:DL:113:LYS:HD2	39:DL:113:LYS:N	2.35	0.42
12:AP:43:THR:OG1	12:AP:46:GLN:CG	2.68	0.42
31:DA:1112:C:C4	33:DF:178:LEU:HD23	2.55	0.42
1:BA:817:C:H2'	1:BA:818:G:O4'	2.19	0.42
32:CE:134:GLU:O	32:CE:137:ARG:HB3	2.20	0.42
37:CJ:18:TYR:CD2	37:CJ:59:LEU:HB2	2.53	0.42
2:AB:82:G:C2'	2:AB:83:G:H5'	2.50	0.42
1:BA:1499:C:H2'	1:BA:1500:G:H8	1.83	0.42
1:AA:1400:G:C6	1:AA:1401:G:C6	3.08	0.42
31:DA:1071:C:O2'	31:DA:1072:G:H5'	2.19	0.42
1:AA:828:U:H3'	1:AA:828:U:O2	2.20	0.42
1:AA:31:C:H42	1:AA:474:G:H1	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DT:75:ARG:NH1	47:DT:76:LEU:O	2.52	0.42
13:A0:30:THR:HG22	13:A0:31:HIS:N	2.33	0.42
31:CA:716:A:N3	41:CN:117:ASN:O	2.53	0.42
11:BO:123:LEU:HD23	11:BO:123:LEU:H	1.84	0.42
5:BF:129:PHE:HA	5:BF:142:TRP:CD1	2.55	0.42
1:BA:2869:G:H2'	1:BA:2870:C:O4'	2.19	0.42
35:CH:82:VAL:CG1	35:CH:83:GLU:N	2.82	0.42
20:BU:54:LYS:O	20:BU:55:TYR:CG	2.72	0.42
48:CU:43:PHE:O	48:CU:51:LEU:HG	2.20	0.42
1:BA:407:G:H2'	1:BA:408:G:C8	2.55	0.42
1:BA:2483:C:H2'	1:BA:2483:C:O2	2.20	0.42
31:CA:692:U:O2	31:CA:695:A:C8	2.72	0.42
1:AA:2842:G:O2'	1:AA:2843:G:H5'	2.20	0.42
1:BA:1348:G:C6	1:BA:1349:A:N1	2.88	0.42
12:AP:79:LEU:C	12:AP:81:VAL:H	2.23	0.42
12:BP:2:LEU:HG	12:BP:69:PHE:CE1	2.54	0.42
1:AA:2404:C:C2'	1:AA:2405:G:H5'	2.50	0.42
31:DA:1126:U:H1'	31:DA:1127:G:P	2.59	0.42
31:DA:1128:C:C5'	39:DL:16:ARG:HH22	2.22	0.42
39:DL:48:GLU:N	39:DL:49:PRO:CD	2.82	0.42
39:DL:5:TYR:HD2	39:DL:18:PHE:CD2	2.36	0.42
6:AG:80:PHE:O	6:AG:80:PHE:HD1	1.98	0.42
31:DA:978:A:H5'	31:DA:979:C:OP2	2.19	0.42
28:B6:47:THR:O	28:B6:49:HIS:ND1	2.39	0.42
1:BA:2469:A:H5'	1:BA:2470:G:H8	1.85	0.42
2:AB:13:A:O2'	2:AB:15:A:O5'	2.37	0.42
53:DC:56:U:O2	53:DC:58:A:C8	2.73	0.42
31:CA:975:A:C5'	31:CA:976:G:H5''	2.49	0.42
1:BA:1069:A:C5	1:BA:1073:A:C8	3.08	0.42
1:BA:778:G:H2'	1:BA:779:U:C6	2.55	0.42
1:AA:1654:A:OP2	13:A0:2:ARG:HD3	2.19	0.42
1:BA:673:C:H6	1:BA:673:C:C5'	2.26	0.42
31:CA:1142:G:H2'	31:CA:1143:G:O4'	2.19	0.42
31:CA:51:A:C6	31:CA:353:A:C2	3.08	0.42
5:BF:123:LEU:HD11	5:BF:125:LEU:HD22	2.02	0.42
43:CP:82:MET:O	43:CP:84:ILE:N	2.53	0.42
31:CA:1037:C:H2'	31:CA:1038:C:C5	2.55	0.42
28:A6:14:THR:HG21	28:A6:19:ARG:HH21	1.84	0.42
1:AA:2163:C:C5	1:AA:2164:C:C4	3.08	0.42
24:AW:47:ASN:O	24:AW:48:HIS:C	2.58	0.42
53:CD:68:C:N3	53:CD:69:C:N4	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2795:G:H1'	1:BA:2802:G:C2	2.55	0.42
26:B4:16:CYS:HB3	26:B4:20:ASN:N	2.35	0.42
18:AS:29:LEU:HD21	18:AS:33:ARG:NH2	2.32	0.42
42:DO:101:VAL:HG12	42:DO:104:VAL:HG23	2.01	0.42
16:A1:92:ARG:NH2	17:A2:11:GLN:H	2.17	0.42
31:CA:1345:U:H4'	31:CA:1346:A:H5'	2.01	0.42
33:CF:92:ALA:O	33:CF:95:THR:O	2.38	0.42
1:BA:869:G:C2'	1:BA:870:A:H5'	2.50	0.42
31:CA:129:U:O2'	31:CA:130:A:H2'	2.19	0.42
20:BU:17:SER:OG	20:BU:18:GLY:N	2.53	0.42
8:AK:135:GLU:H	8:AK:135:GLU:CD	2.23	0.42
9:AM:58:ASP:OD1	9:AM:58:ASP:C	2.57	0.42
31:DA:872:A:C4	31:DA:874:G:N7	2.87	0.42
1:AA:2199:A:OP2	1:AA:2205:C:C5	2.71	0.42
1:AA:2848:G:N2	1:AA:2867:G:C4	2.88	0.42
52:DB:23:A:H3'	52:DB:24:C:C5	2.55	0.42
3:AD:136:ILE:CG2	3:AD:137:PRO:HD2	2.47	0.42
31:CA:406:G:N2	31:CA:437:U:O2	2.53	0.42
43:CP:104:ARG:O	43:CP:105:THR:HG22	2.18	0.42
31:DA:664:G:H2'	31:DA:666:G:OP1	2.19	0.42
35:CH:31:LEU:HD23	35:CH:45:PHE:HD1	1.84	0.42
31:DA:505:G:OP2	31:DA:534:U:H2'	2.20	0.42
3:BD:183:ARG:CG	3:BD:184:LYS:N	2.82	0.42
32:DE:8:LYS:HD2	32:DE:11:LEU:CB	2.50	0.42
1:BA:1879:C:H2'	1:BA:1880:C:O4'	2.19	0.42
12:BP:43:THR:O	12:BP:46:GLN:HB2	2.19	0.42
23:AZ:3:LYS:C	23:AZ:4:VAL:HG12	2.39	0.42
35:DH:60:TYR:CB	35:DH:64:ARG:HH21	2.32	0.42
34:CG:25:ARG:CZ	34:CG:30:LYS:HG3	2.49	0.42
17:A2:64:HIS:CG	17:A2:92:THR:HG22	2.54	0.42
1:BA:331:A:C4	1:BA:1209:G:C6	3.07	0.42
22:B3:49:LYS:HE3	22:B3:49:LYS:HB2	1.87	0.42
25:AX:39:ASP:C	25:AX:39:ASP:OD1	2.57	0.42
9:AM:67:LEU:HD23	9:AM:88:GLU:HG2	2.02	0.42
31:DA:946:A:H2'	31:DA:947:G:H8	1.82	0.42
1:BA:2251:G:C8	1:BA:2450:A:H4'	2.55	0.42
15:BR:64:ARG:HB3	15:BR:73:GLU:HG2	2.00	0.42
31:CA:914:A:C5	31:CA:915:A:N7	2.88	0.42
2:BB:23:G:N1	2:BB:24:G:O6	2.52	0.42
31:CA:509:A:O2'	31:CA:510:A:P	2.78	0.42
1:BA:1196:C:O2'	1:BA:1228:G:O2'	2.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2059:A:H2	1:BA:2062:A:N6	2.18	0.42
5:AF:34:TRP:CZ3	5:AF:35:GLU:HG2	2.54	0.42
31:CA:332:G:H2'	31:CA:333:G:H8	1.84	0.42
1:BA:384:U:H2'	1:BA:385:C:C6	2.53	0.42
35:CH:153:LYS:HD3	35:CH:154:GLY:H	1.85	0.42
1:BA:1453:A:O2'	1:BA:1454:U:H2'	2.19	0.42
44:CQ:37:PHE:CE1	44:CQ:53:LEU:HD13	2.54	0.42
1:BA:467:G:H2'	1:BA:468:G:O4'	2.19	0.42
18:BS:61:ASN:HA	18:BS:61:ASN:HD22	1.60	0.42
22:A3:36:ILE:HD11	22:A3:39:ARG:HG2	2.02	0.42
31:CA:1387:G:C6	31:CA:1388:C:N4	2.87	0.42
1:BA:1641:A:H2'	1:BA:1642:G:O4'	2.20	0.42
1:BA:439:G:C2	1:BA:440:G:C4	3.07	0.42
1:BA:1499:C:O2'	1:BA:1500:G:H5'	2.19	0.42
31:DA:1251:A:H2'	31:DA:1252:A:O4'	2.20	0.42
31:DA:824:C:H2'	31:DA:825:G:H8	1.84	0.42
14:AQ:62:LYS:HB2	14:AQ:97:ARG:CD	2.50	0.42
6:AG:56:ALA:HB2	6:AG:153:ARG:NE	2.34	0.42
23:AZ:65:SER:OG	23:AZ:66:HIS:HD2	2.02	0.42
1:AA:1918:A:O2'	1:AA:1920:C:N4	2.52	0.42
1:BA:2841:C:C2	1:BA:2877:G:N2	2.87	0.42
1:AA:1949:G:C6	1:AA:1950:G:C6	3.08	0.42
1:AA:2531:A:H5'	7:AH:157:TYR:CZ	2.55	0.42
49:CV:43:GLU:HG2	49:CV:43:GLU:H	1.46	0.42
1:AA:1612:C:H2'	1:AA:1613:G:O5'	2.20	0.42
52:DB:1:G:H2'	52:DB:2:C:C6	2.54	0.42
1:BA:28:A:C2	1:BA:513:A:C8	3.08	0.42
27:B5:3:LYS:CG	27:B5:4:HIS:H	2.29	0.42
12:AP:77:LYS:O	12:AP:79:LEU:N	2.53	0.42
11:AO:70:GLN:HB3	11:AO:71:VAL:H	1.74	0.42
1:BA:848:G:H1'	1:BA:933:A:C8	2.54	0.42
14:BQ:10:ARG:O	14:BQ:14:VAL:CG1	2.66	0.42
1:BA:888:C:C4'	1:BA:889:C:OP2	2.68	0.42
1:BA:892:G:O5'	1:BA:892:G:H8	2.02	0.42
1:AA:2401:U:O3'	1:AA:2402:C:O4'	2.38	0.42
3:BD:35:LYS:HE3	3:BD:65:ILE:CA	2.49	0.42
3:BD:34:VAL:C	3:BD:35:LYS:O	2.57	0.42
31:DA:1145:C:O2	31:DA:1145:C:C2'	2.68	0.42
53:CC:20:G:C5	53:CC:58:A:H2	2.38	0.42
31:DA:1306:A:H2'	31:DA:1307:U:C6	2.55	0.42
30:A8:53:PRO:HA	30:A8:56:GLU:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BP:54:MET:C	12:BP:56:ARG:N	2.73	0.42
14:AQ:11:LYS:O	14:AQ:15:ARG:HB2	2.19	0.42
12:AP:63:LYS:CD	12:AP:65:PHE:CE1	3.02	0.42
48:DU:23:LYS:HA	48:DU:26:LEU:HD11	2.02	0.42
48:DU:53:ARG:HH21	48:DU:59:SER:C	2.18	0.42
18:BS:11:ARG:CZ	18:BS:98:LYS:HB3	2.50	0.42
34:DG:24:GLU:O	34:DG:25:ARG:C	2.57	0.42
49:CV:44:MET:O	49:CV:47:HIS:HB2	2.19	0.42
31:CA:793:U:H3'	31:CA:794:A:C5'	2.41	0.42
31:CA:918:A:C2	31:CA:919:A:C4	3.06	0.42
1:AA:960:A:H61	12:AP:83:MET:CE	2.12	0.42
7:AH:153:LYS:H	7:AH:153:LYS:NZ	2.09	0.42
7:AH:153:LYS:HB3	7:AH:154:PRO:HD3	2.01	0.42
9:AM:134:ARG:N	9:AM:135:PRO:HD3	2.35	0.42
1:AA:1021:A:C8	1:AA:1022:G:H5''	2.55	0.42
1:AA:482:A:H4'	20:AU:47:LYS:HD3	2.02	0.42
1:AA:1535:U:N3	1:AA:1537:C:O4'	2.52	0.42
9:BM:133:GLN:CG	9:BM:135:PRO:HD3	2.50	0.42
26:B4:23:GLU:HG3	26:B4:24:THR:N	2.34	0.42
6:BG:86:MET:O	6:BG:88:ILE:HG22	2.19	0.42
1:BA:527:C:H4'	1:BA:528:A:O5'	2.20	0.42
31:CA:687:A:C2	31:CA:704:A:C6	3.08	0.42
37:CJ:15:ASP:HB3	37:CJ:20:ASP:H	1.84	0.42
1:BA:607:U:OP1	5:BF:103:LYS:N	2.33	0.42
7:AH:4:ILE:HG12	7:AH:4:ILE:O	2.19	0.42
1:BA:856:C:O2'	1:BA:857:C:O5'	2.35	0.42
1:AA:821:A:H2'	1:AA:946:G:H5''	2.02	0.42
1:BA:1543:A:C4'	1:BA:1543:A:OP1	2.68	0.42
1:BA:245:G:O3'	11:BO:70:GLN:O	2.37	0.42
1:AA:857:C:OP2	22:A3:77:ARG:NH2	2.53	0.42
20:BU:19:LYS:HE3	20:BU:71:LYS:HZ2	1.84	0.42
1:AA:1389:G:C2	1:AA:1399:C:O2	2.73	0.42
21:BV:157:LEU:HD21	21:BV:163:LEU:HD23	2.02	0.42
5:BF:116:ASP:O	5:BF:120:GLU:HG2	2.20	0.42
8:BK:78:THR:HB	8:BK:104:GLN:NE2	2.26	0.42
1:AA:1484:G:C2	1:AA:1506:C:C2	3.08	0.42
1:BA:2746:U:H3'	1:BA:2746:U:C6	2.54	0.42
31:CA:545:C:O2'	31:CA:549:C:H5''	2.20	0.42
53:DD:31:G:H1	53:DD:41:C:H42	1.68	0.42
48:CU:67:ALA:O	48:CU:68:LYS:C	2.58	0.42
1:BA:11:G:H2'	1:BA:12:U:H5'	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CK:53:VAL:HB	38:CK:58:TYR:CD1	2.53	0.42
27:A5:6:VAL:HG13	27:A5:7:PRO:CD	2.50	0.42
11:BO:147:LEU:HD22	11:BO:148:LEU:N	2.34	0.42
4:BE:181:LEU:HA	4:BE:181:LEU:HD12	1.87	0.42
31:DA:737:A:H2'	31:DA:738:C:C6	2.55	0.42
31:CA:880:C:O2'	31:CA:881:G:H5'	2.19	0.42
1:BA:2261:C:H1'	1:BA:2388:A:N3	2.35	0.42
8:AK:5:LEU:HD13	8:AK:9:LEU:HD23	2.02	0.42
31:DA:818:G:N1	31:DA:820:U:O2'	2.52	0.42
31:DA:373:A:C4	31:DA:374:A:C8	3.07	0.42
31:DA:987:G:H1	31:DA:1218:C:H42	1.67	0.42
32:DE:97:TRP:HZ2	32:DE:102:LEU:CD1	2.33	0.42
32:DE:98:LEU:O	32:DE:101:MET:CG	2.67	0.42
31:DA:66:G:H2'	31:DA:67:C:H5'	2.01	0.42
11:AO:135:LEU:O	11:AO:138:LEU:HD12	2.20	0.42
12:BP:133:ARG:C	12:BP:133:ARG:HD3	2.40	0.42
1:AA:1669:A:H2'	1:AA:1670:C:H5'	2.00	0.42
8:BK:3:VAL:HG12	8:BK:38:LEU:HA	2.01	0.42
31:CA:102:G:C6	31:CA:103:C:C5	3.08	0.42
1:AA:2260:C:O2'	1:AA:2261:C:H5'	2.20	0.42
1:AA:2261:C:C2	1:AA:2280:G:C2	3.08	0.42
44:CQ:2:ALA:HB1	44:CQ:6:LEU:HD11	2.02	0.42
46:CS:57:ARG:O	46:CS:58:TYR:C	2.58	0.42
2:AB:99:A:C5	2:AB:100:G:N7	2.88	0.42
1:AA:2123:G:N3	1:AA:2176:A:C2	2.88	0.42
26:A4:13:ARG:H	26:A4:30:GLU:H	1.67	0.42
32:DE:37:ASN:O	32:DE:39:ILE:HG13	2.20	0.42
1:BA:110:G:C4	1:BA:111:A:C8	3.08	0.42
31:CA:1522:U:H2'	31:CA:1523:G:H8	1.85	0.42
1:AA:728:G:H4'	3:AD:13:ARG:HD3	2.02	0.42
45:CR:81:LEU:O	45:CR:85:LEU:HB2	2.20	0.42
38:CK:39:LEU:HB3	38:CK:45:ILE:HG12	2.02	0.42
38:CK:75:ARG:HA	38:CK:76:PRO:HD3	1.78	0.42
31:CA:716:A:C6	31:CA:717:C:C4	3.08	0.42
1:AA:2768:C:C4	1:AA:2769:C:C5	3.08	0.42
19:AT:35:THR:HG23	19:AT:38:GLU:H	1.85	0.42
1:BA:2768:C:O2'	9:BM:89:LYS:HE2	2.19	0.42
25:BX:4:LEU:O	25:BX:36:VAL:HA	2.20	0.42
9:BM:33:LEU:CD1	9:BM:38:HIS:CD2	3.03	0.42
36:DI:45:LEU:CD2	36:DI:57:GLN:NE2	2.83	0.42
28:A6:34:LEU:HD22	28:A6:34:LEU:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:25:LYS:HD3	42:CO:25:LYS:O	2.20	0.42
31:DA:493:G:O5'	31:DA:493:G:H8	2.03	0.42
42:DO:85:ILE:HA	42:DO:85:ILE:HD12	1.76	0.42
7:AH:38:SER:HA	7:AH:39:PRO:HD3	1.93	0.42
1:AA:813:U:H2'	1:AA:814:C:C6	2.55	0.42
1:AA:1061:U:O3'	1:AA:1070:A:H4'	2.20	0.42
1:BA:2729:G:H2'	1:BA:2730:C:H6	1.84	0.42
1:BA:928:G:H2'	1:BA:929:G:O4'	2.19	0.42
31:DA:1141:C:H2'	31:DA:1142:G:H8	1.84	0.42
31:DA:1160:G:C2	31:DA:1161:C:C6	3.08	0.42
6:AG:42:GLY:O	6:AG:43:LEU:HD13	2.20	0.42
1:AA:49:A:N7	1:AA:120:U:C4	2.82	0.42
31:DA:984:C:O2'	31:DA:985:C:H5'	2.20	0.42
40:DM:54:PHE:CE1	40:DM:55:LYS:CE	3.03	0.42
11:AO:16:ARG:NH1	11:AO:16:ARG:CG	2.80	0.42
14:AQ:14:VAL:HG21	14:AQ:89:ARG:HE	1.85	0.42
27:B5:16:ARG:NH1	27:B5:16:ARG:CG	2.65	0.42
34:DG:14:ARG:HH11	34:DG:14:ARG:CG	2.33	0.42
1:AA:1882:C:H2'	1:AA:1882:C:O2	2.20	0.42
5:AF:66:PRO:O	5:AF:67:GLN:CB	2.66	0.42
20:AU:76:CYS:CB	20:AU:77:PRO:HD3	2.50	0.42
1:AA:2115:G:C2	1:AA:2117:A:N7	2.88	0.42
53:CD:60:A:C5	53:CD:61:U:C5	3.08	0.42
1:AA:1348:G:N1	1:AA:1599:C:C4	2.88	0.42
1:AA:1348:G:C6	1:AA:1349:A:N1	2.88	0.42
1:BA:2210:G:C4'	1:BA:2211:G:OP2	2.61	0.42
11:BO:21:ARG:O	11:BO:28:GLY:HA2	2.20	0.42
1:BA:1047:G:O2'	1:BA:1110:G:N2	2.43	0.42
1:BA:1299:G:H5'	1:BA:1300:U:OP1	2.19	0.42
20:AU:52:SER:CB	20:AU:53:PRO:HD3	2.49	0.42
6:BG:99:MET:HG3	6:BG:100:TRP:N	2.35	0.42
1:BA:1419:A:C6	1:BA:1421:G:C4	3.08	0.42
16:A1:96:ALA:O	16:A1:99:ALA:HB3	2.20	0.42
5:AF:185:ASP:O	5:AF:189:THR:OG1	2.34	0.42
1:BA:654(D):G:N2	1:BA:654(Q):C:N3	2.58	0.42
31:DA:464:G:C6	31:DA:466:C:H5'	2.54	0.42
1:BA:1178:C:C5	1:BA:1179:C:C5	3.08	0.42
31:CA:538:G:OP2	42:CO:112:LYS:HB2	2.20	0.42
8:AK:65:ALA:O	8:AK:69:LYS:N	2.53	0.42
21:BV:158:PRO:HB2	21:BV:159:PRO:CD	2.48	0.42
31:DA:1350:A:C6	31:DA:1351:U:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:39:LYS:CB	11:AO:45:LEU:CD2	2.97	0.42
24:AW:17:SER:CB	24:AW:18:PRO:CD	2.97	0.42
1:BA:2134:A:C2	1:BA:2135:A:C5	3.08	0.42
32:CE:178:ARG:HG3	38:CK:72:PRO:HA	2.01	0.42
1:AA:2012:G:OP2	18:AS:16:LYS:HE2	2.20	0.42
31:CA:766:A:N7	31:CA:814:A:C6	2.88	0.42
20:AU:42:VAL:HB	20:AU:67:LEU:CD1	2.44	0.42
1:BA:2835:A:H4'	1:BA:2836:U:OP1	2.20	0.42
4:AE:38:THR:HB	4:AE:39:PRO:HD2	2.02	0.42
8:AK:7:GLU:HG3	8:AK:8:PRO:CD	2.50	0.42
1:BA:1507:A:H2'	1:BA:1508:A:C1'	2.49	0.42
1:AA:1220:A:OP2	16:A1:19:LYS:NZ	2.27	0.42
1:AA:2264:C:H5''	1:AA:2265:U:OP2	2.19	0.42
38:DK:44:PHE:HE2	38:DK:109:ILE:HG21	1.84	0.42
1:BA:1791:A:H3'	1:BA:1792:G:H8	1.85	0.42
21:BV:116:VAL:CG1	21:BV:117:LEU:H	2.29	0.42
1:BA:278:A:O2'	1:BA:279:C:OP1	2.33	0.42
33:DF:91:LEU:O	33:DF:94:LEU:HD12	2.20	0.42
32:DE:95:GLN:O	32:DE:96:ARG:C	2.57	0.42
10:AN:66:LYS:H	10:AN:82:ASN:ND2	2.18	0.42
7:BH:10:PRO:HG2	7:BH:50:VAL:CG1	2.49	0.42
53:DC:76:C:H5''	53:DC:77:A:OP2	2.19	0.42
1:AA:270(K):C:H2'	1:AA:270(L):U:H5''	2.00	0.42
1:AA:2321:G:N3	1:AA:2321:G:H2'	2.35	0.42
5:AF:23:ASP:CG	5:AF:24:LEU:H	2.23	0.42
31:CA:232:G:C4	31:CA:233:C:C6	3.08	0.42
49:CV:37:ARG:HG3	49:CV:37:ARG:H	1.45	0.42
31:CA:22:G:H4'	31:CA:885:G:C8	2.55	0.42
3:BD:235:GLY:O	3:BD:237:GLU:OE1	2.37	0.42
10:BN:35:VAL:HG12	10:BN:62:VAL:O	2.19	0.42
1:BA:1449(A):G:H2'	1:BA:1450:C:C6	2.51	0.42
1:AA:1444:G:N2	1:AA:1548:C:C2	2.88	0.42
1:AA:733:G:C8	1:AA:761:A:N6	2.88	0.42
1:BA:656:G:H2'	1:BA:657:U:O4'	2.19	0.42
1:BA:953:A:C4	1:BA:954:G:C8	3.08	0.42
32:DE:172:ILE:N	32:DE:172:ILE:CD1	2.82	0.42
1:AA:464:U:H2'	1:AA:465:G:O4'	2.20	0.42
31:DA:8:A:C6	34:DG:209:ARG:HB2	2.55	0.42
5:BF:164:ARG:HH11	5:BF:177:ALA:HB2	1.85	0.42
31:CA:946:A:H2'	31:CA:947:G:C8	2.55	0.42
1:BA:1401:G:H2'	1:BA:1402:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:980:C:H3'	31:CA:981:U:C6	2.55	0.42
31:CA:950:U:H2'	31:CA:951:G:C8	2.55	0.42
43:CP:34:LEU:HD12	43:CP:41:PRO:HG3	2.02	0.42
31:DA:1069:C:O2'	31:DA:1192:C:H1'	2.20	0.42
1:BA:962:G:OP1	1:BA:963:U:OP2	2.37	0.42
9:BM:82:LEU:HD12	9:BM:83:LYS:H	1.83	0.42
31:CA:692:U:H1'	31:CA:695:A:N7	2.35	0.42
1:AA:270(T):G:C6	1:AA:270(U):C:C4	3.08	0.42
10:AN:10:VAL:HB	10:AN:16:ALA:O	2.20	0.42
1:BA:1949:G:C6	1:BA:1950:G:C6	3.08	0.42
29:A7:18:PHE:CD2	29:A7:18:PHE:C	2.92	0.42
31:CA:85:U:O2	31:CA:85:U:C2'	2.67	0.42
49:DV:74:PHE:N	49:DV:74:PHE:CD2	2.88	0.42
23:AZ:82:LEU:N	23:AZ:82:LEU:HD22	2.35	0.42
31:DA:771:G:O2'	31:DA:772:U:H5'	2.20	0.42
1:AA:1074:G:O2'	1:AA:1075:C:H5'	2.20	0.42
1:AA:2785:C:H2'	1:AA:2786:U:O4'	2.20	0.42
4:BE:37:ARG:HA	4:BE:42:ASP:OD2	2.20	0.42
30:B8:26:LYS:HG2	30:B8:48:PHE:CD1	2.54	0.42
31:DA:1133:G:N3	31:DA:1134:G:C8	2.88	0.42
39:DL:5:TYR:CD2	39:DL:18:PHE:HE2	2.37	0.42
31:CA:1365:G:C6	31:CA:1366:C:C4	3.08	0.42
2:BB:74:U:C2'	2:BB:75:G:C5'	2.76	0.42
7:AH:83:TYR:HB2	7:AH:84:SER:H	1.61	0.42
34:DG:18:LYS:HD3	34:DG:26:CYS:O	2.19	0.42
2:AB:43:C:P	6:AG:67:LYS:NZ	2.93	0.42
49:CV:40:ILE:O	49:CV:41:VAL:HG22	2.19	0.42
52:CB:18:G:C1'	52:CB:19:G:OP1	2.61	0.42
1:AA:881:G:O3'	1:AA:882:G:H4'	2.19	0.42
1:AA:2666:C:H42	7:AH:109:PHE:HA	1.85	0.42
7:AH:152:ARG:HE	7:AH:153:LYS:HZ1	1.66	0.42
20:BU:8:LYS:HG3	20:BU:94:LYS:HZ1	1.84	0.42
1:AA:2114:A:C6	1:AA:2115:G:C6	3.08	0.42
1:AA:1179:C:H2'	1:AA:1180:C:C5'	2.34	0.42
31:DA:1242:C:H2'	31:DA:1243:C:O4'	2.20	0.42
53:CD:50:G:H2'	53:CD:50:G:N3	2.35	0.42
16:B1:106:PHE:O	16:B1:110:VAL:HG23	2.20	0.42
1:AA:363(A):A:C6	1:AA:363(B):G:C6	3.07	0.42
31:CA:690:G:N2	41:CN:55:LYS:HZ1	2.18	0.42
39:CL:79:LEU:HA	39:CL:79:LEU:HD23	1.87	0.42
38:CK:87:SER:HB2	38:CK:93:VAL:HG23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:35:ARG:O	9:AM:35:ARG:HG3	2.20	0.42
1:BA:618(A):C:OP2	5:BF:103:LYS:HE2	2.20	0.42
7:AH:7:LEU:N	7:AH:8:PRO:CD	2.83	0.42
1:BA:297:C:H2'	1:BA:298:G:O5'	2.20	0.42
1:BA:299:A:O2'	1:BA:319:C:H4'	2.20	0.42
15:BR:50:ILE:HD13	15:BR:50:ILE:HA	1.80	0.42
1:BA:865:C:H4'	1:BA:866:A:OP1	2.20	0.42
31:DA:965:A:OP1	31:DA:1198:G:H5''	2.20	0.42
22:A3:69:PHE:CE2	22:A3:79:VAL:HG22	2.55	0.42
8:AK:130:TYR:O	8:AK:135:GLU:HB2	2.20	0.42
47:DT:68:ARG:H	47:DT:70:ARG:NH1	2.18	0.42
31:DA:1372:U:C2'	31:DA:1373:G:H5'	2.49	0.42
31:CA:194:C:H2'	31:CA:195:A:H5''	2.02	0.42
42:DO:47:LYS:CG	42:DO:48:PRO:HD2	2.50	0.42
1:BA:2127:G:N3	1:BA:2173:A:C8	2.88	0.42
1:BA:2159:G:H2'	1:BA:2160:G:O4'	2.20	0.42
31:DA:872:A:C5	31:DA:874:G:C5	3.07	0.42
1:AA:2772:C:H2'	1:AA:2773:C:C6	2.55	0.42
33:DF:64:VAL:HG21	33:DF:66:VAL:HG23	2.02	0.42
1:AA:639:U:H3	1:AA:649:G:H1	1.68	0.42
3:BD:68:LYS:HG3	3:BD:68:LYS:O	2.19	0.42
1:AA:654:A:N3	1:AA:654:A:C2'	2.75	0.42
33:DF:79:ARG:C	33:DF:81:GLY:H	2.22	0.42
1:BA:1287:A:C6	1:BA:1288:U:C4	3.08	0.42
4:BE:105:THR:OG1	4:BE:166:THR:HG23	2.20	0.42
31:DA:1374:A:C5	31:DA:1375:A:C8	3.08	0.42
6:BG:58:GLN:HG3	6:BG:59:GLU:N	2.35	0.42
1:BA:911:A:H2'	12:BP:9:TYR:CE2	2.54	0.42
34:CG:134:ASP:OD2	34:CG:135:LEU:HD13	2.19	0.42
53:DC:2:G:C6	53:DC:73:A:C2	3.08	0.42
1:BA:1385:G:H1'	1:BA:1386:C:C6	2.54	0.42
20:BU:47:LYS:CA	20:BU:60:PHE:HB3	2.50	0.42
1:BA:1484:G:C5	1:BA:1485:G:N7	2.88	0.42
22:B3:82:ARG:HA	22:B3:83:PRO:HD2	1.92	0.42
36:DI:33:TYR:CZ	36:DI:78:GLU:HG3	2.55	0.42
8:BK:136:VAL:HG13	8:BK:136:VAL:O	2.20	0.42
1:AA:528:A:OP2	9:AM:111:PRO:HB3	2.20	0.42
1:BA:148:C:H5''	1:BA:148:C:H6	1.82	0.42
7:BH:94:TYR:HA	7:BH:106:THR:O	2.20	0.42
9:AM:7:LYS:HB3	9:AM:7:LYS:HE3	1.86	0.42
1:BA:175:G:C2'	1:BA:176:G:H5'	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:720:C:O5'	31:CA:720:C:H6	2.03	0.42
1:AA:2562:U:C2'	10:AN:23:ARG:HH11	2.32	0.42
2:BB:87:G:C6	2:BB:89:G:OP1	2.72	0.42
1:BA:186:G:C2	1:BA:211:A:C2	3.08	0.42
35:DH:70:PRO:O	35:DH:71:LEU:HD23	2.20	0.42
1:BA:270(N):G:O2'	1:BA:270(P):C:H5'	2.19	0.42
1:BA:1659:U:C4	1:BA:1660:C:C5	3.08	0.42
1:AA:2280:G:O2'	1:AA:2281:C:H5'	2.20	0.42
1:BA:2694:G:H2'	1:BA:2695:C:H6	1.85	0.42
16:B1:79:PHE:O	16:B1:83:LEU:HB2	2.20	0.42
1:AA:1487:G:H2'	1:AA:1488:G:H8	1.85	0.42
43:DP:79:LYS:HD3	43:DP:82:MET:SD	2.60	0.42
36:CI:46:ARG:HG3	36:CI:47:ARG:N	2.35	0.42
1:BA:2759:G:N2	1:BA:2760:C:H1'	2.35	0.42
8:BK:102:SER:O	8:BK:106:GLY:HA2	2.19	0.42
1:BA:836:G:C5	1:BA:837:C:C4	3.08	0.42
34:CG:175:SER:HB3	34:CG:186:LEU:HD11	2.02	0.42
1:BA:2672:G:H2'	1:BA:2673:G:H5''	2.02	0.42
1:AA:2230:G:C6	1:AA:2231:C:C4	3.08	0.42
1:BA:388:G:OP1	23:BZ:32:LYS:N	2.51	0.42
6:BG:20:ILE:O	6:BG:24:GLY:HA2	2.20	0.42
31:CA:284:G:H2'	31:CA:285:G:H8	1.85	0.42
4:BE:107:THR:HA	4:BE:163:GLU:O	2.19	0.42
1:AA:308:G:C8	1:AA:501:A:O4'	2.73	0.42
39:CL:109:VAL:O	39:CL:109:VAL:HG12	2.20	0.42
38:DK:102:ARG:HG3	38:DK:102:ARG:H	1.66	0.42
24:BW:64:LEU:O	24:BW:64:LEU:CD2	2.68	0.42
12:BP:112:GLU:H	12:BP:112:GLU:HG2	1.59	0.42
1:BA:2366:A:H2'	1:BA:2367:G:O4'	2.19	0.42
31:CA:139:G:N2	31:CA:225:C:C2	2.88	0.42
6:AG:8:LYS:O	6:AG:12:TYR:HD2	2.03	0.42
1:BA:2016:U:C4'	27:B5:6:VAL:HG11	2.50	0.41
3:AD:35:LYS:N	3:AD:64:ILE:CG2	2.83	0.41
31:DA:1134:G:C2'	31:DA:1135:U:H5'	2.50	0.41
39:DL:53:VAL:C	39:DL:55:ALA:H	2.23	0.41
1:AA:2637:U:C4	1:AA:2638:G:C6	3.08	0.41
53:CC:16:C:OP2	53:CC:17:C:N4	2.53	0.41
30:A8:4:MET:HE2	30:A8:4:MET:HB2	1.82	0.41
30:A8:53:PRO:O	30:A8:54:GLU:C	2.56	0.41
1:AA:592:G:N3	30:A8:4:MET:HE2	2.35	0.41
12:BP:54:MET:O	12:BP:55:VAL:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B8:32:LEU:O	30:B8:36:LYS:CE	2.68	0.41
31:DA:1022:G:C6	31:DA:1023:G:C5	3.08	0.41
3:BD:53:PHE:CD1	3:BD:219:PRO:O	2.73	0.41
31:CA:1305:G:OP1	51:CX:2:GLY:HA3	2.20	0.41
31:CA:1152:A:H4'	40:CM:13:HIS:HD2	1.82	0.41
1:AA:1105:U:C2	1:AA:1106:G:C8	3.08	0.41
1:BA:196:A:O5'	11:BO:46:LYS:NZ	2.53	0.41
20:BU:11:ASP:O	20:BU:27:VAL:HG13	2.20	0.41
5:BF:82:ILE:HD12	5:BF:82:ILE:H	1.84	0.41
31:CA:921:U:H2'	31:CA:922:G:O4'	2.20	0.41
1:BA:153:C:OP1	23:BZ:88:LYS:CE	2.68	0.41
1:AA:2457:U:H2'	1:AA:2458:G:H5'	2.02	0.41
32:DE:188:ALA:O	32:DE:203:GLY:O	2.37	0.41
1:BA:2823:A:OP1	4:BE:159:HIS:NE2	2.53	0.41
31:CA:216:G:C6	31:CA:217:C:N4	2.88	0.41
1:BA:74:A:O5'	1:BA:74:A:H8	2.01	0.41
1:AA:443:A:H5''	1:AA:444:C:OP1	2.20	0.41
31:DA:1301:U:C2'	31:DA:1302:U:OP1	2.67	0.41
7:BH:6:ARG:HE	7:BH:54:ARG:HH12	1.68	0.41
2:AB:40:U:H3'	2:AB:41:U:H5'	2.02	0.41
1:BA:1000:A:N6	1:BA:1001:A:N1	2.68	0.41
32:DE:166:ASP:OD1	32:DE:205:ASP:OD2	2.38	0.41
2:BB:38:C:O4'	14:BQ:95:HIS:CE1	2.73	0.41
2:BB:43:C:O4'	6:BG:66:GLN:NE2	2.53	0.41
2:BB:46:A:C5	2:BB:47:C:C5	3.08	0.41
2:BB:41:U:O4	6:BG:70:VAL:O	2.38	0.41
9:AM:137:LYS:CG	9:AM:138:LEU:N	2.77	0.41
11:AO:3:LEU:HA	11:AO:3:LEU:HD23	1.75	0.41
31:CA:689:C:OP1	41:CN:27:ASN:ND2	2.52	0.41
1:AA:2555:U:C3'	1:AA:2556:C:H5'	2.50	0.41
50:DW:26:ASN:O	50:DW:30:LYS:HB2	2.20	0.41
29:B7:8:ASN:HD22	29:B7:9:ARG:N	2.16	0.41
47:CT:70:ARG:C	47:CT:71:PHE:HD2	2.24	0.41
16:A1:60:LEU:HD21	16:A1:64:ARG:NH2	2.34	0.41
5:AF:36:VAL:O	5:AF:40:GLN:HG3	2.19	0.41
31:DA:259:G:H1	31:DA:267:C:N4	2.15	0.41
1:AA:1937:A:H1'	1:AA:1938:A:OP1	2.20	0.41
39:DL:10:ARG:NH1	39:DL:105:ASP:OD1	2.53	0.41
31:CA:146:G:C2	31:CA:147:G:C8	3.08	0.41
1:BA:2864:G:O2'	1:BA:2865:U:H5'	2.19	0.41
31:CA:183:G:O2'	31:CA:224:C:H4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1587:A:C6	1:AA:1588:C:C4	3.08	0.41
32:CE:214:ILE:O	32:CE:218:ALA:HB2	2.19	0.41
21:BV:170:THR:C	21:BV:171:ILE:HG13	2.40	0.41
7:AH:13:LYS:HE2	7:AH:13:LYS:CA	2.44	0.41
38:CK:100:ILE:HA	38:CK:101:PRO:HD3	1.91	0.41
6:AG:107:LEU:HD11	6:AG:178:PHE:CD1	2.55	0.41
27:A5:57:VAL:O	27:A5:57:VAL:CG1	2.67	0.41
14:BQ:106:ARG:HA	14:BQ:110:LEU:HG	2.03	0.41
1:BA:911:A:O5'	1:BA:912:C:H5''	2.20	0.41
53:DC:2:G:C6	53:DC:3:C:N4	2.88	0.41
1:AA:1515:C:H2'	1:AA:1516:U:C6	2.50	0.41
12:BP:137:TYR:HE1	21:BV:83:PRO:HG3	1.80	0.41
2:BB:1:U:H2'	2:BB:2:C:O4'	2.20	0.41
31:DA:1120:G:H2'	31:DA:1121:U:H6	1.84	0.41
31:CA:1449:C:H2'	31:CA:1450:U:O4'	2.20	0.41
1:BA:854:G:O2'	1:BA:855:G:H5'	2.20	0.41
15:AR:5:ALA:O	15:AR:9:LEU:HB2	2.20	0.41
15:BR:107:ASP:C	15:BR:109:GLU:N	2.72	0.41
32:DE:101:MET:HB2	32:DE:102:LEU:HD12	2.02	0.41
51:CX:12:LYS:O	51:CX:16:GLY:N	2.51	0.41
1:AA:2266:A:H4'	1:AA:2267:A:N3	2.35	0.41
1:AA:2266:A:C2	1:AA:2272:U:C5	3.08	0.41
3:BD:228:PRO:HD3	3:BD:235:GLY:CA	2.47	0.41
1:AA:234:C:H2'	1:AA:235:U:O4'	2.20	0.41
53:CD:31:G:H2'	53:CD:32:G:H8	1.84	0.41
17:B2:20:LEU:HG	17:B2:21:ARG:N	2.35	0.41
1:AA:2740:A:N6	1:AA:2764:A:C8	2.88	0.41
31:CA:982:U:H5''	44:CQ:6:LEU:HD13	2.01	0.41
31:CA:345:C:H3'	31:CA:345:C:H6	1.85	0.41
6:BG:181:ARG:O	6:BG:182:LYS:HB2	2.20	0.41
14:AQ:67:ARG:HH11	14:AQ:67:ARG:CB	2.33	0.41
1:AA:2391:G:O6	1:AA:2425:A:H8	2.03	0.41
1:AA:1575:C:H2'	1:AA:1576:U:H6	1.85	0.41
1:BA:1553:A:C5	1:BA:1555:G:C5	3.08	0.41
10:AN:87:ILE:HG22	10:AN:93:PRO:HA	2.02	0.41
1:AA:1655:A:H3'	1:AA:1656:C:C6	2.55	0.41
8:BK:6:LEU:HD13	8:BK:36:ALA:HA	2.02	0.41
31:CA:370:C:H2'	31:CA:371:G:O4'	2.20	0.41
1:AA:1686:C:H2'	1:AA:1687:G:O4'	2.20	0.41
16:B1:77:SER:OG	16:B1:78:THR:N	2.54	0.41
1:BA:590:A:H2'	1:BA:591:C:C6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1208:C:H2'	31:CA:1209:C:O4'	2.18	0.41
43:DP:91:ARG:HD2	43:DP:91:ARG:HA	1.91	0.41
52:CB:72:C:H2'	52:CB:72:C:O2	2.20	0.41
22:A3:46:LYS:HB3	22:A3:46:LYS:HE2	1.85	0.41
4:BE:108:SER:O	4:BE:162:ALA:HA	2.20	0.41
1:BA:2738:A:C2	1:BA:2739:U:H1'	2.54	0.41
12:AP:79:LEU:O	12:AP:80:GLU:C	2.58	0.41
1:AA:2812:G:C2	1:AA:2813:A:C4	3.08	0.41
4:AE:61:ARG:C	4:AE:63:LEU:N	2.73	0.41
4:AE:60:ASN:HB2	4:AE:61:ARG:H	1.58	0.41
1:BA:846:C:N1	1:BA:847:U:C5	2.88	0.41
39:DL:48:GLU:HB3	39:DL:101:PHE:CE2	2.52	0.41
39:DL:63:ILE:HD13	39:DL:77:ILE:HG23	2.02	0.41
39:DL:4:TYR:CD1	39:DL:88:TYR:CE1	3.08	0.41
4:AE:3:GLY:O	4:AE:4:ILE:HB	2.21	0.41
31:DA:1323:G:H4'	31:DA:1362(A):C:N3	2.35	0.41
40:CM:48:THR:HA	40:CM:62:HIS:CB	2.30	0.41
31:DA:1003:G:C3'	31:DA:1004:A:H5'	2.50	0.41
1:AA:746:A:C5	1:AA:2611:U:H5''	2.55	0.41
53:DD:19:G:H2'	53:DD:58:A:H62	1.83	0.41
53:DD:19:G:H4'	53:DD:61:U:H3	1.84	0.41
1:AA:2212:A:C2	1:AA:2215:G:N2	2.88	0.41
11:BO:9:ASN:O	11:BO:10:PRO:C	2.59	0.41
1:AA:959:A:C6	1:AA:960:A:N1	2.88	0.41
7:AH:149:ARG:NH1	7:AH:167:GLU:OE2	2.44	0.41
31:DA:192:U:C5	31:DA:193:C:H5	2.38	0.41
1:BA:138:G:C2'	1:BA:139:G:H5'	2.50	0.41
19:BT:50:LYS:HB3	19:BT:84:ALA:H	1.85	0.41
1:AA:164:U:OP2	1:AA:165:U:O4	2.38	0.41
1:AA:141:A:OP2	1:AA:141(A):C:N4	2.47	0.41
31:DA:1298:C:H5	37:DJ:114:ARG:NE	2.18	0.41
20:AU:46:LYS:O	20:AU:47:LYS:C	2.57	0.41
1:BA:2873:A:N3	1:BA:2873:A:C2'	2.83	0.41
21:BV:60:GLU:CA	21:BV:66:SER:HA	2.36	0.41
21:BV:69:THR:HG22	21:BV:90:VAL:CA	2.37	0.41
32:CE:206:ASP:O	32:CE:207:ALA:HB3	2.20	0.41
1:AA:654(M):C:C3'	1:AA:654(N):G:H8	2.32	0.41
1:AA:654(G):C:C2	1:AA:654(N):G:N1	2.77	0.41
50:DW:56:MET:HG3	50:DW:57:ARG:N	2.33	0.41
1:BA:774:A:C2	1:BA:787:U:O2'	2.58	0.41
8:BK:7:GLU:HG3	8:BK:7:GLU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:819:A:H2'	1:BA:820:A:H5'	2.02	0.41
1:BA:2298:A:N6	1:BA:2318:G:C8	2.87	0.41
26:B4:56:VAL:HA	26:B4:60:GLN:CG	2.49	0.41
1:AA:823:G:C2'	1:AA:824:A:O5'	2.68	0.41
31:CA:130:A:OP2	31:CA:189:U:C6	2.73	0.41
13:B0:97:VAL:HA	13:B0:113:LEU:O	2.20	0.41
11:AO:112:LEU:HD13	11:AO:127:ALA:HB2	2.03	0.41
11:AO:114:ILE:CD1	11:AO:130:PHE:CD1	3.01	0.41
31:DA:1342:C:O2'	31:DA:1343:G:H5'	2.19	0.41
31:CA:145:G:H1	31:CA:177:C:H42	1.69	0.41
31:CA:69:G:N2	31:CA:73:G:C8	2.88	0.41
1:BA:2173:A:C2	1:BA:2174:C:C4'	3.04	0.41
1:BA:2341:G:H2'	1:BA:2342:C:O4'	2.19	0.41
31:DA:1374:A:C2'	31:DA:1375:A:H5'	2.46	0.41
2:AB:23:G:C2	2:AB:24:G:O6	2.73	0.41
12:BP:7:MET:HG3	12:BP:9:TYR:O	2.21	0.41
12:BP:43:THR:O	12:BP:46:GLN:N	2.45	0.41
16:A1:69:CYS:CB	16:A1:79:PHE:HD1	2.33	0.41
20:BU:53:PRO:CD	20:BU:57:GLN:O	2.64	0.41
1:AA:1593:G:C2	1:AA:1594:G:C4	3.08	0.41
1:AA:1593:G:C2	1:AA:1594:G:C5	3.08	0.41
35:CH:76:ILE:CB	35:CH:77:PRO:HD2	2.48	0.41
25:AX:4:LEU:O	25:AX:36:VAL:HA	2.20	0.41
1:AA:975:G:H1'	1:AA:990:A:C2	2.55	0.41
32:DE:103:THR:HA	32:DE:180:LEU:HD11	2.02	0.41
18:AS:97:LYS:HE2	18:AS:99:ARG:NH2	2.35	0.41
1:AA:850:C:O3'	25:AX:49:LYS:HE2	2.19	0.41
15:BR:16:ARG:HG3	15:BR:79:HIS:HA	2.02	0.41
32:CE:102:LEU:HB3	32:CE:180:LEU:CD1	2.50	0.41
31:DA:1338:G:C6	31:DA:1339:A:C6	3.08	0.41
25:BX:13:ILE:H	25:BX:13:ILE:CD1	2.32	0.41
1:AA:1743:G:C2	1:AA:1746:G:C8	3.08	0.41
12:AP:72:LYS:HA	12:AP:73:PRO:HD3	1.93	0.41
31:DA:1356:G:N2	31:DA:1367:C:C2	2.88	0.41
31:CA:510:A:N3	31:CA:543:C:H1'	2.35	0.41
11:BO:68:GLN:HG2	30:B8:12:LYS:HG2	2.01	0.41
4:AE:97:LYS:O	4:AE:100:GLU:HG3	2.20	0.41
8:BK:56:LYS:HG3	8:BK:57:ARG:N	2.35	0.41
32:DE:84:GLU:HB3	32:DE:219:VAL:HG11	2.01	0.41
31:CA:327:A:C4	31:CA:329:A:C8	3.09	0.41
35:CH:147:ASP:OD2	35:CH:147:ASP:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:16:ARG:NH1	6:AG:16:ARG:CG	2.82	0.41
1:AA:8:A:H5''	9:AM:51:PHE:CE2	2.55	0.41
31:CA:1236:A:O2'	31:CA:1304:G:H4'	2.20	0.41
1:AA:2552:U:O2	1:AA:2554:U:H5'	2.20	0.41
1:BA:1915:U:H2'	1:BA:1916:A:O4'	2.20	0.41
31:CA:950:U:H2'	31:CA:951:G:H8	1.86	0.41
31:CA:1311:G:C2	31:CA:1327:C:C2	3.08	0.41
33:DF:119:ARG:HH22	33:DF:140:ARG:CG	2.33	0.41
1:AA:1773:A:H2'	1:AA:1774:C:H5'	2.02	0.41
11:BO:123:LEU:HD23	11:BO:123:LEU:N	2.35	0.41
20:BU:54:LYS:HD2	20:BU:55:TYR:CZ	2.54	0.41
1:BA:1844:C:C2	1:BA:1897:G:N2	2.88	0.41
1:AA:1975:G:C2	1:AA:1976:U:C2	3.07	0.41
50:DW:11:SER:HA	50:DW:13:LEU:H	1.86	0.41
31:CA:832:C:C2	31:CA:855:G:C2	3.08	0.41
33:CF:62:ASP:N	33:CF:62:ASP:OD1	2.53	0.41
15:AR:88:ILE:HG13	15:AR:88:ILE:O	2.21	0.41
34:CG:80:GLU:HA	34:CG:80:GLU:OE2	2.20	0.41
7:AH:35:VAL:HA	7:AH:36:PRO:HD2	1.94	0.41
1:AA:2395:C:H2'	1:AA:2396:G:O4'	2.20	0.41
1:BA:2419:U:O4	30:B8:31:HIS:ND1	2.53	0.41
1:AA:1063:G:C2	1:AA:1064:C:C2	3.08	0.41
1:AA:1090:U:N3	1:AA:1102:C:O2	2.54	0.41
4:AE:59:VAL:CG2	4:AE:73:GLU:HB3	2.41	0.41
31:CA:428:G:C5	31:CA:430:A:C6	3.08	0.41
1:BA:846:C:C2	1:BA:847:U:C5	3.09	0.41
21:BV:175:VAL:CB	21:BV:176:PRO:HD3	2.49	0.41
3:BD:64:ILE:HG21	3:BD:64:ILE:HD13	1.86	0.41
31:DA:1133:G:N1	31:DA:1142:G:C6	2.88	0.41
31:DA:1176:A:N6	31:DA:1177:G:C5	2.88	0.41
31:DA:1305:G:H8	31:DA:1305:G:OP2	2.03	0.41
31:CA:1351:U:O4'	37:CJ:33:ASP:HB3	2.20	0.41
31:CA:976:G:P	44:CQ:32:SER:H	2.42	0.41
1:BA:1056:G:H1'	1:BA:1103:A:H61	1.83	0.41
4:BE:56:PRO:CG	4:BE:57:LYS:HZ3	2.18	0.41
43:CP:7:VAL:HG12	43:CP:8:GLU:N	2.34	0.41
1:AA:2318:G:N2	14:AQ:2:ALA:N	2.67	0.41
31:CA:1151:A:N6	31:CA:1152:A:N6	2.69	0.41
1:AA:2032:G:C4	4:AE:145:LYS:HD2	2.55	0.41
1:BA:1312:U:C2	1:BA:1603:A:C2	3.08	0.41
49:CV:39:THR:HG22	49:CV:40:ILE:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DD:16:C:H5''	53:DD:17:C:OP2	2.20	0.41
53:DD:19:G:H4'	53:DD:61:U:C2	2.55	0.41
34:DG:173:TRP:HB3	34:DG:187:ARG:HH11	1.85	0.41
1:AA:887:A:OP2	1:AA:887:A:O4'	2.38	0.41
23:BZ:88:LYS:HB3	23:BZ:88:LYS:HE2	1.58	0.41
1:AA:894:C:OP1	1:AA:894:C:O4'	2.38	0.41
1:AA:2250:G:C6	12:AP:83:MET:HB2	2.55	0.41
1:AA:1049:C:C4	1:AA:1050:A:N1	2.88	0.41
20:BU:76:CYS:HB3	20:BU:96:ILE:HD11	2.00	0.41
31:DA:1263:C:C2	31:DA:1273:G:N2	2.88	0.41
15:BR:8:LYS:HB2	15:BR:8:LYS:HE3	1.70	0.41
20:AU:97:ARG:HD3	20:AU:97:ARG:N	2.34	0.41
17:B2:5:VAL:HB	17:B2:37:VAL:CG1	2.50	0.41
19:AT:66:LEU:O	19:AT:67:GLY:O	2.38	0.41
31:DA:1298:C:H5	37:DJ:114:ARG:HD2	1.85	0.41
7:BH:3:ARG:CG	7:BH:4:ILE:H	2.33	0.41
17:B2:39:LEU:H	17:B2:39:LEU:HD12	1.85	0.41
1:BA:2755:C:O2'	1:BA:2756:U:H2'	2.19	0.41
10:BN:2:ILE:HG23	10:BN:6:THR:HB	2.02	0.41
26:B4:59:PHE:CE1	49:DV:66:MET:HG3	2.56	0.41
47:CT:63:ARG:HA	47:CT:64:PRO:HD3	1.94	0.41
3:AD:26:LYS:H	3:AD:26:LYS:CD	2.31	0.41
31:CA:110:C:H2'	31:CA:111:G:O4'	2.19	0.41
1:BA:1536:A:N7	1:BA:1537:C:O2	2.54	0.41
1:BA:2656:U:C4	1:BA:2664:G:N2	2.88	0.41
22:A3:23:VAL:HG12	22:A3:25:ARG:O	2.21	0.41
1:BA:1278:A:C5'	13:B0:36:THR:HG22	2.48	0.41
1:BA:2466:C:N4	1:BA:2467:C:N4	2.69	0.41
1:AA:196:A:H2'	1:AA:196:A:N3	2.35	0.41
11:AO:78:PRO:HB3	11:AO:111:ARG:NH2	2.35	0.41
1:BA:2711:A:OP1	1:BA:2712(A):A:OP2	2.37	0.41
1:BA:2865:U:C4	1:BA:2866:U:C4	3.08	0.41
1:BA:2523:G:H8	1:BA:2523:G:C5'	2.27	0.41
1:BA:2131:G:N2	1:BA:2158:A:H2'	2.34	0.41
34:CG:153:ARG:NH1	34:CG:181:MET:HG2	2.35	0.41
31:DA:1027:C:O2	31:DA:1035:A:C6	2.73	0.41
1:BA:2379:G:O2'	14:BQ:17:ARG:NH1	2.53	0.41
3:BD:137:PRO:HB2	3:BD:140:THR:CG2	2.51	0.41
13:A0:44:LEU:CD2	13:A0:48:VAL:HG23	2.43	0.41
37:CJ:24:THR:O	37:CJ:27:ILE:N	2.54	0.41
22:B3:43:THR:O	22:B3:44:ARG:C	2.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:10:GLU:HA	8:AK:10:GLU:OE2	2.21	0.41
31:CA:1085:U:H3'	31:CA:1086:U:H5	1.85	0.41
5:AF:168:ARG:HG3	5:AF:175:THR:HG21	2.01	0.41
1:BA:1992:G:H8	1:BA:1992:G:O5'	2.00	0.41
1:AA:1260:G:O2'	1:AA:1261:C:H5'	2.21	0.41
1:AA:26:G:C6	1:AA:27:G:C6	3.09	0.41
41:DN:34:ASP:OD2	41:DN:37:GLY:N	2.53	0.41
1:BA:2598:A:N7	1:BA:2599:G:H1'	2.34	0.41
35:CH:53:LEU:O	35:CH:57:LYS:HG2	2.20	0.41
31:CA:186(C):G:C5	31:CA:191(E):G:N2	2.88	0.41
1:AA:1433:U:H1'	1:AA:1561:G:H22	1.85	0.41
40:DM:46:ARG:HG3	40:DM:64:GLU:HB3	2.02	0.41
31:CA:1203:C:O2'	31:CA:1204:A:H5'	2.21	0.41
1:AA:654(D):G:H1	1:AA:654(Q):C:N4	2.17	0.41
34:DG:209:ARG:OXT	34:DG:209:ARG:HG2	2.19	0.41
15:BR:127:ALA:O	15:BR:131:ALA:CB	2.69	0.41
1:BA:1114:G:N1	1:BA:1115:G:C5	2.88	0.41
5:BF:150:GLY:HA2	5:BF:172:TRP:CE3	2.56	0.41
1:AA:2783:G:H2'	1:AA:2784:C:H6	1.84	0.41
1:BA:109:G:H2'	1:BA:110:G:O4'	2.21	0.41
1:BA:377:C:H2'	1:BA:378:C:C6	2.54	0.41
4:AE:101:ARG:HH11	4:AE:101:ARG:HD3	1.74	0.41
6:BG:137:GLU:HG2	6:BG:137:GLU:H	1.75	0.41
1:AA:691:C:O5'	1:AA:691:C:H6	2.03	0.41
31:CA:1327:C:OP1	51:CX:21:TYR:HD1	2.03	0.41
31:CA:1320:C:O2	49:CV:36:ARG:NH2	2.53	0.41
7:BH:99:VAL:HG12	7:BH:100:GLY:N	2.35	0.41
33:DF:41:GLY:O	33:DF:45:LYS:HB2	2.21	0.41
1:BA:43:G:H2'	1:BA:44:A:O4'	2.20	0.41
1:AA:2500:U:H2'	1:AA:2504:U:H5	1.85	0.41
31:DA:545:C:C2'	31:DA:546:G:H5'	2.50	0.41
37:DJ:64:GLN:OE1	37:DJ:64:GLN:HA	2.20	0.41
31:CA:419:C:H2'	31:CA:419:C:O2	2.19	0.41
8:AK:44:LEU:HD12	8:AK:44:LEU:HA	1.81	0.41
1:BA:471:A:O5'	1:BA:471:A:H8	2.03	0.41
38:DK:116:LYS:HG3	38:DK:129:VAL:HG21	2.03	0.41
1:AA:1055:G:H1	1:AA:1104:C:N4	2.15	0.41
1:AA:1056:G:N2	1:AA:1103:A:C5	2.87	0.41
1:AA:1069:A:O2'	1:AA:1072:C:P	2.79	0.41
1:AA:1567:A:O2'	3:AD:63:ARG:NH2	2.54	0.41
3:AD:31:LYS:HG3	3:AD:32:SER:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:34:VAL:C	3:AD:35:LYS:O	2.58	0.41
31:DA:1157:A:N6	31:DA:1178:G:N2	2.68	0.41
53:CC:59:A:C5	53:CC:62:C:N3	2.89	0.41
43:DP:60:VAL:HG12	43:DP:66:LEU:HD21	2.01	0.41
1:BA:572:A:H5''	1:BA:573:G:OP2	2.19	0.41
33:CF:10:PHE:HD2	33:CF:11:ARG:NH1	2.18	0.41
30:B8:39:LYS:CG	30:B8:40:GLU:N	2.82	0.41
31:CA:1149:C:OP2	39:CL:9:ARG:NH2	2.53	0.41
31:CA:1177:G:C8	31:CA:1178:G:N1	2.88	0.41
1:AA:2845:G:H2'	1:AA:2846:G:C8	2.54	0.41
31:DA:410:G:OP2	34:DG:25:ARG:HB2	2.21	0.41
1:AA:881:G:N7	1:AA:882:G:C8	2.88	0.41
1:AA:1050:A:C8	1:AA:2751:G:C5	3.09	0.41
1:AA:2751:G:O5'	1:AA:2751:G:H8	2.01	0.41
1:AA:2565:A:H62	10:AN:28:SER:HB2	1.85	0.41
31:CA:297:G:N2	31:CA:299:G:H3'	2.35	0.41
31:CA:557:G:C6	31:CA:558:G:N1	2.88	0.41
30:A8:29:LYS:O	30:A8:33:ASN:ND2	2.54	0.41
30:A8:29:LYS:HZ2	30:A8:44:LYS:HB2	1.84	0.41
50:CW:26:ASN:HA	50:CW:29:LYS:CG	2.46	0.41
1:BA:977:G:C6	1:BA:987:G:C6	3.08	0.41
21:BV:59:LEU:O	21:BV:60:GLU:CB	2.68	0.41
6:BG:6:ALA:O	6:BG:10:LYS:N	2.35	0.41
1:BA:528:A:O2'	1:BA:529:A:H5'	2.20	0.41
1:AA:654(L):G:H3'	1:AA:654(M):C:H6	1.85	0.41
10:BN:8:LEU:N	10:BN:8:LEU:HD22	2.34	0.41
17:A2:32:THR:HG23	17:A2:58:VAL:HG13	2.02	0.41
5:BF:205:ARG:NH1	5:BF:205:ARG:HB2	2.35	0.41
24:BW:15:LYS:H	24:BW:67:LYS:HE2	1.85	0.41
47:CT:65:ILE:HD12	47:CT:65:ILE:N	2.36	0.41
31:DA:811:C:C5	31:DA:812:C:N4	2.88	0.41
27:A5:40:LYS:HZ3	27:A5:46:CYS:CB	2.32	0.41
1:AA:1869:G:C5'	1:AA:1869:G:C8	3.01	0.41
22:A3:19:LYS:O	22:A3:20:ARG:C	2.58	0.41
25:BX:8:LEU:O	25:BX:32:GLN:N	2.44	0.41
7:AH:86:GLU:OE1	7:AH:86:GLU:N	2.50	0.41
31:DA:1350:A:N6	31:DA:1373:G:N2	2.69	0.41
32:CE:196:LEU:HG	32:CE:196:LEU:H	1.51	0.41
44:CQ:26:ARG:NH1	44:CQ:43:CYS:HB3	2.35	0.41
5:AF:163:VAL:O	5:AF:166:ALA:HB3	2.20	0.41
14:BQ:24:LEU:N	14:BQ:24:LEU:HD22	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:672:U:O2'	31:CA:673:G:H5'	2.20	0.41
34:DG:101:LEU:HA	34:DG:101:LEU:HD12	1.83	0.41
49:DV:14:HIS:HD2	49:DV:15:LEU:N	2.18	0.41
49:DV:31:ILE:HG13	49:DV:32:LYS:H	1.84	0.41
31:DA:408:A:C4	31:DA:409:G:C8	3.09	0.41
31:CA:448:A:O2'	31:CA:449:C:H5'	2.20	0.41
20:AU:27:VAL:O	20:AU:27:VAL:HG22	2.20	0.41
52:DB:77:C:C4	52:DB:78:C:C4	3.08	0.41
1:BA:2564:A:C6	1:BA:2565:A:C6	3.08	0.41
31:DA:954:G:H21	31:DA:1227:A:N6	2.18	0.41
31:DA:957:U:H2'	31:DA:959:A:OP2	2.20	0.41
1:BA:185:U:H2'	1:BA:186:G:C8	2.55	0.41
11:AO:135:LEU:HD23	11:AO:135:LEU:HA	1.79	0.41
2:BB:57:A:OP2	2:BB:58:A:OP2	2.39	0.41
1:BA:1993:U:C2'	1:BA:1994:C:O5'	2.67	0.41
35:DH:110:LEU:HA	35:DH:110:LEU:HD23	1.76	0.41
5:BF:154:VAL:HA	5:BF:191:ARG:O	2.20	0.41
35:CH:34:VAL:O	35:CH:41:VAL:HA	2.20	0.41
1:BA:1658:C:H2'	1:BA:1659:U:C6	2.55	0.41
14:AQ:56:LEU:HB2	14:AQ:58:LEU:HD21	2.01	0.41
3:AD:18:VAL:CG1	3:AD:19:ALA:N	2.84	0.41
2:AB:99:A:C6	2:AB:100:G:C5	3.09	0.41
31:DA:854:G:N1	31:DA:855:G:N7	2.68	0.41
17:A2:66:ARG:CZ	17:A2:88:ARG:HD3	2.51	0.41
9:BM:98:VAL:HG23	9:BM:99:LEU:N	2.34	0.41
31:DA:1105:A:C2	31:DA:1106:G:C5	3.08	0.41
1:BA:1317:A:O2'	1:BA:1318:C:H5'	2.21	0.41
31:DA:402:G:C2'	31:DA:403:C:H5'	2.50	0.41
31:CA:1243:C:C2	31:CA:1295:G:N2	2.88	0.41
1:AA:2361:A:OP1	30:A8:27:THR:HG23	2.20	0.41
1:BA:1425:G:H2'	1:BA:1426:G:O4'	2.20	0.41
38:CK:80:ILE:H	38:CK:80:ILE:HG12	1.60	0.41
31:CA:1310:G:C2'	31:CA:1311:G:H5'	2.51	0.41
1:AA:1853:A:N1	1:AA:2087:G:H1'	2.35	0.41
46:CS:40:ASP:O	46:CS:42:ARG:N	2.53	0.41
5:BF:128:ALA:O	5:BF:129:PHE:C	2.59	0.41
21:AV:128:VAL:HG23	21:AV:160:GLY:HA3	2.02	0.41
43:CP:92:HIS:HA	43:CP:110:ARG:NH2	2.36	0.41
25:AX:35:ARG:HB3	25:AX:37:LEU:HD21	2.01	0.41
1:BA:402:A:O5'	1:BA:402:A:H8	2.04	0.41
43:CP:16:ASP:OD1	43:CP:31:LYS:NZ	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DF:19:GLU:O	33:DF:56:ASP:HA	2.19	0.41
34:CG:176:LEU:HD12	34:CG:177:ASP:N	2.34	0.41
1:BA:1162:G:O4'	17:B2:23:GLU:HG3	2.20	0.41
1:BA:2394:C:OP1	11:BO:62:LEU:CB	2.63	0.41
17:B2:71:LEU:O	17:B2:84:LYS:O	2.39	0.41
4:AE:54:GLN:HB2	4:AE:75:VAL:HG13	2.01	0.41
4:BE:37:ARG:HD2	4:BE:44:TYR:OH	2.06	0.41
12:BP:4:PRO:HG3	12:BP:71:ASP:HA	2.02	0.41
1:AA:2371:G:O4'	28:A6:45:LYS:CG	2.58	0.41
39:DL:4:TYR:CG	39:DL:88:TYR:CD1	3.09	0.41
31:DA:532:A:N6	31:DA:1206:G:O2'	2.53	0.41
31:DA:973:G:H5''	40:DM:50:ILE:HD13	2.03	0.41
43:DP:22:ILE:HD12	43:DP:25:ILE:HG13	2.02	0.41
1:BA:2371:G:C6	1:BA:2372:G:N7	2.88	0.41
53:DC:60:A:C2'	53:DC:61:U:H5'	2.51	0.41
31:CA:1199:U:H4'	40:CM:54:PHE:CD2	2.55	0.41
28:B6:24:GLU:HG3	28:B6:25:LYS:H	1.84	0.41
11:BO:60:MET:HG3	11:BO:60:MET:O	2.21	0.41
31:DA:1001:G:C6	31:DA:1002:G:C5	3.09	0.41
39:CL:10:ARG:HE	39:CL:105:ASP:CG	2.23	0.41
39:CL:10:ARG:HG2	39:CL:105:ASP:HB2	2.03	0.41
34:DG:59:ARG:O	34:DG:63:LYS:N	2.48	0.41
34:DG:15:GLU:HB3	34:DG:63:LYS:HE2	2.01	0.41
26:A4:61:ARG:C	26:A4:63:TYR:H	2.22	0.41
49:CV:8:GLY:O	49:CV:9:VAL:C	2.59	0.41
1:BA:2169:A:H2	1:BA:2170:A:C5	2.38	0.41
31:CA:1498:U:O2'	31:CA:1499:A:OP2	2.32	0.41
1:AA:881:G:C3'	1:AA:882:G:H4'	2.51	0.41
1:AA:71:A:C5	1:AA:73:A:N1	2.89	0.41
19:AT:31:HIS:NE2	19:AT:33:LYS:HG3	2.36	0.41
1:BA:2689:U:C3'	1:BA:2690:C:H5'	2.50	0.41
26:B4:16:CYS:HA	26:B4:33:VAL:CG2	2.47	0.41
26:B4:34:GLU:HB2	43:DP:57:ARG:CZ	2.50	0.41
1:BA:528:A:C8	1:BA:528:A:C3'	3.03	0.41
1:AA:1241:A:C2'	1:AA:1242:A:O5'	2.68	0.41
12:AP:109:VAL:CG1	12:AP:110:THR:N	2.83	0.41
31:CA:192:U:O2'	31:CA:193:C:H5'	2.21	0.41
39:CL:47:LEU:N	39:CL:47:LEU:HD13	2.35	0.41
42:DO:60:LEU:HA	42:DO:60:LEU:HD13	1.70	0.41
16:A1:92:ARG:C	16:A1:94:ASN:N	2.66	0.41
33:DF:47:LEU:HD13	33:DF:47:LEU:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:4:TYR:C	34:CG:5:ILE:HG12	2.40	0.41
1:AA:1864:U:H2'	1:AA:1869:G:C5'	2.40	0.41
1:BA:858:U:C2	1:BA:2268:A:C2	3.07	0.41
8:AK:102:SER:O	8:AK:106:GLY:CA	2.60	0.41
3:AD:25:THR:HG23	3:AD:26:LYS:HD2	2.03	0.41
5:BF:153:SER:HG	5:BF:190:GLU:HG3	1.83	0.41
34:CG:170:VAL:CG2	34:CG:171:GLY:N	2.81	0.41
19:BT:60:ARG:NH1	19:BT:60:ARG:HG3	2.23	0.41
1:BA:330:A:C2	1:BA:1210:A:H2'	2.49	0.41
21:AV:143:GLY:HA3	21:AV:144:LEU:CB	2.50	0.41
7:AH:131:VAL:CG1	7:AH:132:ARG:N	2.83	0.41
7:AH:86:GLU:HG2	7:AH:165:ALA:H	1.85	0.41
8:BK:4:ILE:HG12	8:BK:18:VAL:CG2	2.42	0.41
31:DA:1491:G:C6	56:DA:1805:PAR:H21	2.55	0.41
31:CA:1237:C:HO2'	31:CA:1300:G:H1	1.66	0.41
31:CA:1336:C:C2'	31:CA:1336:C:O2	2.69	0.41
2:BB:15:A:H1'	2:BB:109:G:C4	2.55	0.41
6:AG:111:LEU:HB3	6:AG:117:PHE:CE2	2.55	0.41
45:DR:39:LEU:HD12	45:DR:56:LEU:CD1	2.47	0.41
14:BQ:106:ARG:HA	14:BQ:110:LEU:CG	2.51	0.41
1:BA:2773:C:P	4:BE:166:THR:HG1	2.44	0.41
11:BO:146:VAL:HG22	11:BO:147:LEU:CD1	2.51	0.41
41:CN:121:PRO:CG	41:CN:126:ARG:HG3	2.46	0.41
7:AH:115:VAL:HG11	7:AH:148:ILE:HD11	2.02	0.41
31:CA:750:G:C2	31:CA:751:U:C6	3.09	0.41
1:AA:2697:G:H2'	1:AA:2698:U:O4'	2.20	0.41
15:BR:61:PHE:N	15:BR:61:PHE:CD2	2.88	0.41
31:DA:1151:A:C6	31:DA:1152:A:C6	3.08	0.41
21:AV:135:GLU:O	21:AV:136:PHE:HB3	2.20	0.41
13:A0:74:LYS:O	13:A0:75:LEU:HB3	2.21	0.41
1:BA:533:G:O5'	16:B1:24:TYR:CD2	2.73	0.41
7:BH:44:VAL:O	7:BH:50:VAL:HG23	2.21	0.41
31:CA:956:U:C2'	31:CA:957:U:H5'	2.51	0.41
50:DW:67:ALA:HA	50:DW:73:HIS:N	2.35	0.41
31:CA:1288:A:O4'	31:CA:1353:G:H4'	2.21	0.41
21:AV:29:TYR:CE2	21:AV:87:ASP:HB2	2.54	0.41
35:DH:39:GLY:HA2	35:DH:71:LEU:HD11	2.01	0.41
1:BA:2517:C:C4	1:BA:2542:A:C6	3.09	0.41
33:CF:188:LEU:HA	33:CF:188:LEU:HD23	1.78	0.41
17:B2:47:VAL:O	17:B2:47:VAL:HG22	2.20	0.41
28:A6:36:LEU:CD2	28:A6:36:LEU:N	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:100:G:H2'	2:BB:101:A:O4'	2.21	0.41
30:B8:8:LYS:CD	30:B8:8:LYS:N	2.84	0.41
18:BS:17:VAL:C	18:BS:19:LEU:N	2.74	0.41
1:BA:665:C:H2'	1:BA:666:G:C8	2.52	0.41
32:DE:28:PHE:CE1	32:DE:31:TYR:HB2	2.56	0.41
36:CI:19:LEU:HD21	36:CI:59:TYR:CE2	2.55	0.41
33:CF:178:LEU:HD22	33:CF:178:LEU:N	2.35	0.41
36:CI:10:LEU:HD13	36:CI:61:LEU:HD13	2.03	0.41
53:CC:25:U:H2'	53:CC:26:C:O4'	2.20	0.41
31:CA:1417:G:C6	31:CA:1482:G:C6	3.09	0.41
48:DU:84:LYS:CA	48:DU:84:LYS:HE2	2.49	0.41
31:CA:303:A:C6	31:CA:304:U:C4	3.09	0.41
53:DD:35:C:C6	53:DD:35:C:OP1	2.74	0.41
1:BA:2445:G:H2'	1:BA:2446:G:H5'	2.01	0.41
1:BA:455:C:N3	1:BA:473:G:H5'	2.35	0.41
50:DW:50:GLU:CD	50:DW:100:ILE:HG12	2.40	0.41
1:AA:1530:G:C6	1:AA:1531:C:C4	3.08	0.41
31:DA:29:G:C5	31:DA:30:U:C5	3.09	0.41
1:BA:962:G:H2'	1:BA:963:U:O4'	2.21	0.41
31:DA:415:A:H2'	31:DA:416:G:O4'	2.20	0.41
38:DK:97:VAL:HA	38:DK:100:ILE:CD1	2.50	0.41
31:CA:1270:C:O2'	31:CA:1271:G:H5'	2.21	0.41
31:CA:358:U:H2'	31:CA:359:U:O4'	2.20	0.41
1:AA:1861:G:C2	1:AA:1862:G:C8	3.08	0.41
47:CT:28:PRO:HA	47:CT:34:LYS:O	2.21	0.41
1:AA:402:A:C2'	1:AA:403:U:H5'	2.50	0.41
1:AA:1792:G:H5'	3:AD:205:VAL:HG13	2.02	0.41
49:DV:64:GLU:CD	49:DV:64:GLU:H	2.24	0.41
50:CW:87:LYS:HD2	50:CW:87:LYS:HA	1.64	0.41
3:BD:202:LYS:HZ1	31:DA:774:G:P	2.43	0.41
3:AD:228:PRO:HD3	3:AD:235:GLY:CA	2.51	0.41
1:BA:1690:A:H3'	1:BA:1691:C:H6	1.86	0.41
26:B4:52:THR:HG21	43:DP:73:GLU:CD	2.39	0.41
12:AP:66:ILE:C	12:AP:66:ILE:HD12	2.35	0.41
1:BA:1084:A:C3'	1:BA:1085:A:C8	3.04	0.41
31:DA:167:G:C4	31:DA:168:G:C8	3.09	0.41
31:CA:1159:U:C4	31:CA:1182:G:C5	3.09	0.41
11:BO:48:PRO:O	11:BO:50:ARG:N	2.53	0.41
34:DG:31:CYS:O	34:DG:32:ALA:CB	2.68	0.41
6:AG:96:ARG:O	6:AG:97:ASP:HB3	2.20	0.41
1:BA:1654:A:H1'	1:BA:2823:A:H5'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:445:C:O2	1:BA:449:A:H2	2.04	0.41
53:CD:14:A:O4'	53:CD:14:A:OP1	2.39	0.41
31:CA:1032(A):G:H2'	31:CA:1032(B):G:C8	2.55	0.41
1:AA:452:G:O2'	1:AA:457:A:N1	2.48	0.41
31:DA:1298:C:O2'	31:DA:1299:A:C2	2.74	0.41
1:BA:587:C:N3	11:BO:33:ARG:HD2	2.36	0.41
16:B1:100:VAL:C	16:B1:102:GLU:H	2.24	0.41
16:B1:92:ARG:CD	17:B2:11:GLN:HB2	2.51	0.41
1:AA:972:G:H3'	1:AA:973:A:H2'	2.03	0.41
18:BS:9:TYR:N	18:BS:102:HIS:HD2	2.01	0.41
26:B4:18:CYS:CB	26:B4:19:GLY:HA2	2.50	0.41
31:DA:563:A:C8	31:DA:567:G:C1'	3.04	0.41
31:DA:363:A:N3	42:DO:31:PRO:HG2	2.36	0.41
1:AA:1556:C:H2'	1:AA:1557:C:H6	1.85	0.41
33:DF:34:LEU:O	33:DF:38:ARG:HG2	2.20	0.41
33:CF:92:ALA:HA	33:CF:95:THR:HB	2.02	0.41
21:BV:138:GLU:O	21:BV:156:LYS:HE3	2.20	0.41
11:AO:127:ALA:O	11:AO:147:LEU:N	2.53	0.41
31:DA:1090:U:H2'	31:DA:1091:U:H6	1.85	0.41
31:CA:191:G:H1'	50:CW:105:SER:HA	2.01	0.41
33:DF:63:ASN:ND2	33:DF:64:VAL:H	2.18	0.41
31:DA:413:G:C2'	31:DA:414:A:OP2	2.69	0.41
1:AA:1725:G:C2	1:AA:1741:C:O2	2.73	0.41
31:CA:811:C:C4'	31:CA:900:A:H61	2.34	0.41
33:DF:29:TYR:HD1	44:DQ:36:PHE:HZ	1.69	0.41
1:AA:2306:C:H3'	1:AA:2307:G:H5'	2.01	0.41
1:AA:1252:G:O4'	16:A1:33:ARG:CD	2.68	0.41
15:AR:45:PHE:CD1	15:AR:65:LYS:HE2	2.56	0.41
1:AA:336:C:C4	1:AA:337:C:H5	2.39	0.41
53:DC:2:G:N3	53:DC:2:G:H2'	2.36	0.41
22:B3:43:THR:O	22:B3:45:PHE:N	2.53	0.41
34:CG:28:SER:HB3	34:CG:30:LYS:HE3	2.02	0.41
24:BW:9:GLN:O	24:BW:13:ALA:HB3	2.20	0.41
52:CB:27:G:O6	52:CB:45:U:O2	2.38	0.41
1:BA:872:A:C4	1:BA:906:G:N2	2.89	0.41
1:BA:904:C:H2'	1:BA:905:U:O4'	2.20	0.41
38:CK:26:VAL:O	38:CK:26:VAL:HG22	2.20	0.41
3:BD:130:ALA:HB2	3:BD:192:THR:HG22	2.02	0.41
1:BA:1486:A:H2'	1:BA:1487:G:C8	2.56	0.41
1:BA:1486:A:H2'	1:BA:1487:G:H8	1.85	0.41
39:DL:40:LEU:CD1	39:DL:70:LYS:HG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DJ:149:ARG:O	37:DJ:150:ALA:C	2.57	0.41
31:CA:1172:C:O2'	31:CA:1173:G:H5'	2.21	0.41
1:AA:1639:U:O2'	1:AA:1640:C:H5''	2.21	0.41
31:DA:791:G:C5	31:DA:792:A:N7	2.89	0.41
41:DN:48:ILE:CD1	41:DN:64:ALA:HA	2.51	0.41
21:AV:52:SER:O	21:AV:53:ILE:CG1	2.69	0.41
1:AA:27:G:N2	1:AA:512:G:H1'	2.35	0.41
38:CK:88:LYS:CB	38:CK:89:PRO:CD	2.99	0.41
19:AT:36:LYS:HG2	19:AT:54:VAL:CG1	2.51	0.41
15:BR:57:PHE:CG	15:BR:57:PHE:O	2.73	0.41
31:DA:1337:G:C4'	31:DA:1338:G:OP1	2.69	0.41
1:BA:988:A:H2'	1:BA:989:G:O5'	2.20	0.41
31:DA:1028(B):C:N4	31:DA:1032(B):G:C2	2.88	0.41
2:BB:76:G:H2'	2:BB:77:U:O4'	2.21	0.41
19:BT:67:GLY:C	19:BT:69:TYR:N	2.72	0.41
1:BA:1010:A:H5'	16:B1:62:ILE:HG21	2.03	0.41
1:BA:1443:G:H2'	1:BA:1444:G:H5'	2.02	0.41
31:CA:616:G:C2	31:CA:617:G:C5	3.09	0.41
2:AB:73:A:N7	2:AB:74:U:C5	2.89	0.41
31:CA:1112:C:O2	33:CF:179:ARG:HG2	2.21	0.41
34:CG:126:ILE:HG22	34:CG:127:THR:N	2.34	0.41
1:BA:1810:A:C2'	1:BA:1811:G:H5'	2.51	0.41
46:CS:50:LYS:HD3	46:CS:50:LYS:C	2.41	0.41
33:DF:23:TYR:HA	40:DM:11:PHE:CD1	2.55	0.41
1:AA:484:C:O2'	1:AA:485:C:H5'	2.20	0.41
1:AA:2123:G:C2	1:AA:2176:A:N3	2.88	0.41
2:AB:7:G:H8	2:AB:7:G:H5''	1.85	0.41
1:BA:2090:G:N2	23:BZ:47:GLN:NE2	2.68	0.41
31:CA:1495:U:H2'	31:CA:1496:C:H6	1.85	0.41
31:DA:914:A:C6	31:DA:915:A:C5	3.08	0.41
1:AA:459:U:H5''	29:A7:40:TRP:CD2	2.55	0.41
31:DA:1202:G:N2	44:DQ:43:CYS:SG	2.87	0.41
4:BE:167:VAL:HG12	4:BE:170:LEU:CD1	2.50	0.41
47:CT:26:GLN:O	47:CT:27:PHE:HB3	2.21	0.41
15:BR:96:ARG:CZ	15:BR:96:ARG:HB3	2.51	0.41
1:AA:363(F):A:H4'	1:AA:364:C:H5'	2.02	0.41
11:BO:93:GLY:O	11:BO:123:LEU:HD12	2.21	0.41
31:DA:405:U:O4	34:DG:2:GLY:N	2.54	0.41
1:BA:262:A:H2'	1:BA:263:C:O4'	2.20	0.41
1:AA:375:C:H2'	1:AA:376:C:C6	2.55	0.41
9:BM:96:GLU:CD	9:BM:96:GLU:H	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:709:G:C4	31:CA:710:G:C8	3.09	0.41
7:AH:111:HIS:HB2	7:AH:112:PRO:HD2	2.03	0.41
1:BA:2027:G:C5	1:BA:2028:U:C5	3.08	0.41
31:CA:604:G:C2	31:CA:635:G:C4	3.08	0.41
36:DI:8:ILE:CD1	36:DI:26:ILE:HD13	2.50	0.41
35:CH:59:GLY:O	35:CH:62:ALA:HB3	2.21	0.41
31:DA:20:U:H4'	31:DA:572:A:C6	2.55	0.41
5:AF:170:LEU:HB2	5:AF:173:VAL:CG2	2.51	0.41
31:CA:937:A:C5	31:CA:938:A:C8	3.09	0.41
33:CF:150:LYS:HG3	33:CF:169:ALA:HB2	2.02	0.41
53:CC:28:U:O2	53:CC:45:A:C2	2.74	0.41
13:A0:18:LEU:HA	13:A0:18:LEU:HD23	1.70	0.41
31:CA:153:C:H6	31:CA:153:C:O5'	2.03	0.41
50:CW:93:GLU:HG2	50:CW:93:GLU:O	2.20	0.41
47:DT:35:VAL:O	47:DT:35:VAL:HG12	2.19	0.41
1:BA:2013:A:N6	1:BA:2014:A:C6	2.89	0.41
3:AD:35:LYS:H	3:AD:64:ILE:CG2	2.34	0.41
4:AE:75:VAL:HG23	4:AE:76:ARG:N	2.36	0.41
1:BA:933:A:C4	1:BA:934:G:C8	3.09	0.41
1:AA:2636:U:H2'	1:AA:2637:U:C6	2.55	0.41
12:BP:47:ILE:HG22	12:BP:48:GLU:N	2.36	0.41
2:AB:15:A:H2'	2:AB:16:G:OP1	2.20	0.41
53:DC:58:A:H2'	53:DC:59:A:H5'	2.02	0.41
1:BA:1060:U:N3	1:BA:1088:A:C8	2.89	0.41
1:BA:2786:U:H4'	4:BE:64:LYS:CA	2.50	0.41
1:AA:1653:G:H4'	1:AA:1654:A:O5'	2.20	0.41
31:CA:1158:C:C2	31:CA:1160:G:C8	3.09	0.41
48:DU:53:ARG:HH21	48:DU:60:ALA:H	1.60	0.41
30:B8:54:GLU:C	30:B8:56:GLU:N	2.74	0.41
31:DA:509:A:C8	31:DA:509:A:H3'	2.56	0.41
34:DG:63:LYS:HB2	34:DG:63:LYS:HE3	1.80	0.41
31:CA:56:U:H2'	31:CA:57:G:H8	1.83	0.41
1:AA:1860:G:H1	1:AA:1882:C:N4	2.19	0.41
53:DD:49:C:OP2	53:DD:49:C:H6	2.04	0.41
53:DD:59:A:O2'	53:DD:60:A:N7	2.54	0.41
41:CN:17:GLY:O	41:CN:80:VAL:HA	2.20	0.41
31:CA:926:G:H5''	31:CA:927:G:O5'	2.21	0.41
1:AA:882:G:C3'	1:AA:883:G:H5''	2.46	0.41
1:AA:2564:A:C5	1:AA:2565:A:C6	3.08	0.41
31:CA:557:G:C6	31:CA:558:G:C6	3.08	0.41
15:AR:19:LEU:HA	15:AR:20:PRO:HD3	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1033:G:H2'	31:CA:1034:G:H5'	2.02	0.41
1:AA:1409:C:O2'	1:AA:1410:G:H5'	2.20	0.41
31:DA:1298:C:C5	37:DJ:114:ARG:CZ	3.04	0.41
19:BT:32:PRO:HA	19:BT:77:LYS:HB2	2.03	0.41
16:B1:92:ARG:CD	16:B1:95:LEU:HD12	2.51	0.41
1:AA:2496:C:OP1	12:AP:82:ARG:HB3	2.20	0.41
1:AA:931:G:C4	1:AA:933:A:C8	3.09	0.41
21:BV:59:LEU:O	21:BV:60:GLU:HG2	2.21	0.41
1:BA:2798:C:H5''	1:BA:2799:A:OP2	2.20	0.41
1:BA:1356:G:C6	1:BA:1357:U:C4	3.09	0.41
18:AS:29:LEU:O	18:AS:33:ARG:HG3	2.21	0.41
18:AS:1:MET:HG3	18:AS:64:MET:HE1	2.02	0.41
16:A1:92:ARG:NE	17:A2:11:GLN:H	2.18	0.41
5:BF:155:LEU:HD22	5:BF:185:ASP:C	2.41	0.41
31:CA:258:G:H2'	31:CA:259:G:C8	2.56	0.41
9:AM:46:VAL:HG13	9:AM:47:ALA:N	2.35	0.41
8:BK:9:LEU:HD23	8:BK:9:LEU:H	1.86	0.41
7:AH:69:ARG:HG3	7:AH:70:THR:N	2.35	0.41
1:AA:1322:A:N6	1:AA:1331:A:H61	2.17	0.41
1:AA:1332:G:N2	1:AA:1609:A:C2'	2.84	0.41
31:CA:663:A:O2'	31:CA:664:G:H5'	2.21	0.41
1:AA:2262:U:H4'	1:AA:2328:A:C2	2.56	0.41
27:A5:42:PRO:O	27:A5:44:THR:N	2.53	0.41
20:BU:17:SER:OG	20:BU:18:GLY:O	2.39	0.41
7:AH:86:GLU:HG3	7:AH:165:ALA:H	1.86	0.41
47:DT:69:LYS:C	47:DT:70:ARG:HD2	2.40	0.41
31:CA:174:C:N4	31:CA:175:C:N4	2.68	0.41
31:CA:76:G:H1'	31:CA:95:G:N2	2.35	0.41
17:B2:28:GLU:CB	17:B2:29:PRO:CD	2.93	0.41
31:CA:1237:C:H4'	31:CA:1334:G:N2	2.35	0.41
21:AV:98:MET:HG3	21:AV:99:TYR:N	2.35	0.41
32:CE:219:VAL:HA	32:CE:222:ILE:CD1	2.51	0.41
32:DE:153:ARG:O	32:DE:154:LEU:C	2.59	0.41
15:AR:115:ARG:O	15:AR:116:ALA:C	2.58	0.41
31:CA:811:C:C5	31:CA:812:C:N4	2.89	0.41
32:DE:5:ILE:O	32:DE:6:THR:C	2.59	0.41
31:CA:618:C:H3'	31:CA:619:U:H5''	2.02	0.41
38:CK:120:THR:H	38:CK:123:GLU:HB3	1.86	0.41
53:CD:10:G:N1	53:CD:27:G:C2	2.89	0.41
2:AB:52:A:OP2	14:AQ:59:LYS:NZ	2.53	0.41
31:DA:820:U:H4'	31:DA:821:G:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CK:26:VAL:O	38:CK:26:VAL:CG2	2.69	0.41
20:BU:57:GLN:HB3	20:BU:58:GLY:H	1.61	0.41
5:BF:132:VAL:O	5:BF:134:GLY:N	2.54	0.41
42:CO:46:ASN:HD22	42:CO:46:ASN:HA	1.70	0.41
1:AA:404:C:C1'	1:AA:405:U:OP2	2.64	0.41
1:BA:833:U:H1'	11:BO:55:ARG:NH1	2.35	0.41
31:CA:468:A:C5	31:CA:474:G:C8	3.09	0.41
46:CS:6:LEU:HD12	46:CS:19:ILE:HD13	2.03	0.41
46:CS:71:ARG:O	46:CS:75:ARG:N	2.53	0.41
31:CA:1123:A:O2'	40:CM:38:ILE:HG22	2.19	0.41
7:BH:83:TYR:O	7:BH:84:SER:OG	2.37	0.41
9:AM:67:LEU:HA	9:AM:87:LEU:HB3	2.01	0.41
1:BA:21:A:C2'	1:BA:22:C:H5'	2.50	0.41
31:DA:848:C:O2'	31:DA:849:C:H5'	2.20	0.41
31:DA:944:G:H5''	31:DA:945:G:OP2	2.21	0.41
18:AS:70:TYR:CD2	18:AS:70:TYR:N	2.86	0.41
1:BA:186:G:O2'	1:BA:187:G:H5'	2.21	0.41
11:BO:102:ARG:C	11:BO:104:GLY:N	2.74	0.41
1:AA:2620:C:OP1	4:AE:152:LYS:O	2.39	0.41
1:BA:2188:C:H2'	1:BA:2189:U:O4'	2.20	0.41
8:AK:21:VAL:HG21	8:AK:25:TYR:CD1	2.53	0.41
23:BZ:37:ILE:O	23:BZ:37:ILE:HG22	2.20	0.41
2:AB:81:G:O6	2:AB:95:U:O2	2.39	0.41
14:BQ:62:LYS:HB3	14:BQ:97:ARG:CD	2.50	0.41
1:BA:764:A:N1	1:BA:1789:A:O2'	2.48	0.41
1:AA:37:C:H2'	1:AA:38:A:C8	2.56	0.41
46:DS:11:SER:H	46:DS:14:ASN:HB3	1.86	0.41
31:DA:1104:G:C4	31:DA:1105:A:C8	3.08	0.41
1:AA:2244:U:O2'	1:AA:2245:U:H5'	2.21	0.41
1:AA:2600:A:C6	1:AA:2601:C:N4	2.88	0.41
1:AA:2159:G:O2'	1:AA:2160:G:H5'	2.21	0.41
47:CT:18:THR:HG22	47:CT:19:VAL:N	2.35	0.41
31:CA:769:G:H4'	31:CA:1513:A:H4'	2.02	0.41
31:DA:151:A:H2'	31:DA:152:A:O4'	2.19	0.41
42:CO:116:LYS:HB2	42:CO:117:TYR:CD1	2.56	0.41
1:BA:646:A:H2'	1:BA:647:G:O5'	2.21	0.41
1:AA:2769:C:O2	1:AA:2769:C:H2'	2.19	0.41
31:CA:1266:G:N2	31:CA:1270:C:C2	2.88	0.41
47:CT:34:LYS:HG2	47:CT:35:VAL:N	2.35	0.41
31:CA:937:A:C5	31:CA:938:A:N7	2.88	0.41
1:AA:278:A:H2'	1:AA:279:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:467:G:H2'	1:AA:468:G:O4'	2.21	0.41
31:CA:1076:C:C2	31:CA:1082:G:C2	3.08	0.41
31:CA:1460:A:H2'	31:CA:1461:G:O4'	2.21	0.41
53:CC:34:U:O2	53:CC:36:A:C8	2.73	0.41
16:A1:73:GLY:O	16:A1:74:LEU:HG	2.21	0.41
12:BP:116:GLU:OE1	12:BP:116:GLU:HA	2.21	0.41
20:AU:33:LYS:HG3	20:AU:33:LYS:H	1.68	0.41
30:B8:58:ILE:H	30:B8:58:ILE:HG12	1.51	0.41
21:AV:46:LYS:HB2	21:AV:46:LYS:HE3	1.53	0.41
31:CA:315:A:H5''	31:CA:317:G:OP2	2.21	0.41
1:AA:1087:G:OP2	1:AA:1087:G:H3'	2.21	0.41
17:B2:80:GLN:HG3	17:B2:81:TYR:N	2.36	0.41
14:BQ:15:ARG:NH1	14:BQ:88:ASP:OD2	2.54	0.41
39:DL:86:VAL:HB	39:DL:96:LEU:HD22	2.03	0.41
31:DA:1310:G:O2'	31:DA:1311:G:H5'	2.21	0.41
31:DA:1324:A:C6	31:DA:1325:C:C4	3.09	0.41
31:DA:485:G:O2'	31:DA:486:U:P	2.78	0.41
28:B6:45:LYS:N	28:B6:45:LYS:CD	2.84	0.41
5:BF:89:VAL:C	5:BF:91:GLY:H	2.24	0.41
53:DC:19:G:C6	53:DC:59:A:C6	3.08	0.41
31:CA:1365:G:C5	31:CA:1366:C:C5	3.09	0.41
40:CM:50:ILE:CD1	40:CM:57:LYS:HD2	2.39	0.41
31:CA:1153:C:H2'	31:CA:1154:G:O5'	2.20	0.41
31:CA:1158:C:C4	31:CA:1160:G:C4	3.09	0.41
31:CA:1143:G:O5'	31:CA:1143:G:H8	2.03	0.41
1:AA:1729:A:C5	1:AA:1731:G:C4	3.09	0.41
1:AA:2656:U:O2	1:AA:2656:U:H2'	2.21	0.41
40:DM:3:LYS:N	40:DM:74:ILE:O	2.54	0.41
13:B0:37:THR:HG22	13:B0:40:LYS:CB	2.43	0.41
11:AO:19:VAL:O	11:AO:20:GLY:C	2.59	0.41
1:AA:2168:G:H2'	1:AA:2169:A:OP1	2.21	0.41
53:CD:8:U:H1'	53:CD:49:C:O4'	2.21	0.41
53:CD:20:G:H5''	53:CD:60:A:H61	1.85	0.41
34:CG:7:PRO:HB2	34:CG:10:ARG:CG	2.51	0.41
1:BA:2776:A:C6	1:BA:2778:A:C6	3.09	0.41
7:BH:3:ARG:HG3	7:BH:4:ILE:H	1.85	0.41
1:BA:71:A:C2	19:BT:31:HIS:CE1	3.09	0.41
1:AA:1537:C:H2'	1:AA:1538:G:H8	1.79	0.41
18:BS:7:ALA:O	18:BS:102:HIS:HA	2.21	0.41
6:BG:105:LYS:NZ	26:B4:24:THR:O	2.54	0.41
2:BB:38:C:N4	2:BB:44:G:H1	2.16	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2023:G:OP2	1:BA:2617:C:H4'	2.20	0.41
31:DA:606:G:H22	31:DA:631:G:H2'	1.79	0.41
1:AA:1479:G:C2'	1:AA:1480:G:H5'	2.51	0.41
1:BA:1308:A:N6	1:BA:1309:G:C2	2.89	0.41
31:CA:560:U:H4'	31:CA:561:U:O5'	2.20	0.41
5:AF:40:GLN:HE22	5:AF:183:VAL:HG13	1.84	0.41
1:BA:866:A:C6	1:BA:914:C:C5	3.08	0.41
31:DA:474:G:C4	31:DA:475:G:C8	3.09	0.41
49:DV:9:VAL:HG12	49:DV:10:PHE:N	2.35	0.41
24:BW:33:MET:O	24:BW:37:PHE:HD1	2.03	0.41
17:B2:27:ALA:O	17:B2:64:HIS:CE1	2.70	0.41
31:DA:92:G:H2'	31:DA:93:U:O4'	2.21	0.41
52:DB:14:A:H2'	52:DB:14:A:N3	2.36	0.41
38:CK:114:THR:HG22	38:CK:130:GLY:O	2.21	0.41
31:DA:412:A:C2'	31:DA:413:G:OP2	2.68	0.41
34:CG:119:GLN:HG2	34:CG:123:HIS:CD2	2.56	0.41
1:AA:1718:G:C2	1:AA:1725:G:C8	3.09	0.41
33:DF:29:TYR:CD1	44:DQ:36:PHE:CZ	3.08	0.41
1:BA:597:U:H2'	1:BA:598:G:H8	1.86	0.41
1:BA:2290:G:H2'	1:BA:2291:U:O4'	2.21	0.41
14:BQ:24:LEU:H	14:BQ:24:LEU:CD2	2.32	0.41
34:CG:89:THR:H	34:CG:92:VAL:HG23	1.85	0.41
1:AA:1292:U:H2'	1:AA:1293:C:H6	1.77	0.41
1:BA:909:A:H2'	1:BA:912:C:H5	1.86	0.41
35:DH:37:ARG:HA	35:DH:112:LEU:O	2.21	0.41
31:DA:779:C:O2'	41:DN:120:ARG:HD3	2.21	0.41
35:CH:67:VAL:HG21	35:CH:140:ARG:CA	2.48	0.41
2:BB:0:A:H2'	2:BB:1:U:H6	1.84	0.41
39:DL:40:LEU:HD23	39:DL:40:LEU:N	2.36	0.41
1:AA:2709:G:O2'	1:AA:2710:C:H5'	2.21	0.41
26:B4:49:PHE:CE2	43:DP:62:ASN:HA	2.55	0.41
1:BA:274:G:P	1:BA:274:G:O4'	2.79	0.41
31:DA:634:C:H3'	31:DA:634:C:H6	1.85	0.41
1:AA:1665:A:O2'	1:AA:1666:G:H5'	2.20	0.41
21:BV:1:MET:HG2	21:BV:2:GLU:N	2.34	0.41
53:CC:6:G:C2	53:CC:69:C:C2	3.08	0.41
3:AD:239:ARG:O	3:AD:240:ALA:HB2	2.20	0.41
1:AA:1825:A:H2'	1:AA:1826:G:C8	2.55	0.41
21:AV:27:VAL:HG13	21:AV:87:ASP:HB3	2.02	0.41
16:B1:112:ARG:HG2	16:B1:112:ARG:H	1.53	0.41
1:AA:1437:C:H2'	1:AA:1438:U:C6	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BQ:4:LEU:HD23	14:BQ:8:GLU:HB2	2.02	0.41
1:AA:989:G:C8	25:AX:13:ILE:HD11	2.56	0.41
1:BA:1002:G:H2'	1:BA:1003:G:O4'	2.21	0.41
31:DA:419:C:H5'	31:DA:420:U:OP2	2.21	0.41
36:CI:44:GLY:HA2	36:CI:59:TYR:CE1	2.55	0.41
1:BA:1165:U:O2'	1:BA:1166:C:H5'	2.21	0.41
38:DK:20:TYR:HA	38:DK:65:TYR:CE2	2.56	0.41
48:CU:53:ARG:NH2	48:CU:60:ALA:N	2.67	0.41
1:BA:1231:G:H2'	1:BA:1232:G:C8	2.56	0.41
1:BA:2282:G:H5'	1:BA:2283:C:O4'	2.21	0.41
2:BB:8:U:O2'	14:BQ:40:ILE:HD13	2.21	0.41
40:CM:47:PHE:CE1	44:CQ:37:PHE:HE2	2.38	0.41
1:BA:616:A:C4	5:BF:180:GLY:HA2	2.55	0.41
1:BA:1113:U:H2'	1:BA:1114:G:H8	1.85	0.41
31:DA:803:G:C5	31:DA:804:U:C4	3.09	0.41
36:CI:21:LEU:HA	36:CI:21:LEU:HD13	1.90	0.41
16:B1:8:VAL:HG12	16:B1:11:ARG:NH2	2.36	0.41
22:B3:29:GLN:HE21	22:B3:29:GLN:HB3	1.60	0.41
1:AA:273(A):G:C2	1:AA:364:C:C2	3.08	0.41
1:BA:2735:G:H2'	1:BA:2736:G:H8	1.85	0.41
31:DA:545:C:H2'	31:DA:546:G:H5'	2.02	0.41
53:CC:33:C:C2'	53:CC:34:U:H5'	2.51	0.41
31:CA:986:A:C6	31:CA:987:G:C6	3.08	0.41
1:BA:2386:C:H4'	22:B3:55:ARG:O	2.21	0.41
5:BF:184:TYR:O	5:BF:188:ARG:HB2	2.20	0.41
21:AV:171:ILE:O	21:AV:172:ALA:HB2	2.21	0.41
1:BA:1478:G:C2'	1:BA:1479:G:H5'	2.51	0.41
32:CE:95:GLN:HG3	32:CE:147:LYS:HG2	2.03	0.41
1:AA:503:A:C6	1:AA:505:A:C6	3.09	0.41
21:AV:124:ILE:HD12	21:AV:124:ILE:HA	1.78	0.41
1:AA:14:A:O5'	1:AA:14:A:H8	2.03	0.41
47:DT:65:ILE:N	47:DT:65:ILE:HD12	2.36	0.41
38:CK:48:TYR:N	38:CK:48:TYR:CD2	2.89	0.41
19:BT:64:LYS:HE2	19:BT:64:LYS:HB3	1.88	0.41
1:BA:2540:C:C2'	1:BA:2541:A:H5'	2.51	0.41
31:DA:69:G:C2	31:DA:73:G:N7	2.89	0.41
22:B3:66:VAL:HG12	22:B3:67:VAL:N	2.36	0.41
1:BA:2284:C:H2'	1:BA:2285:C:H6	1.85	0.41
4:AE:14:ILE:CD1	15:AR:14:TYR:OH	2.67	0.41
1:AA:907:U:O2'	12:AP:101:ARG:NH2	2.42	0.41
1:AA:1069:A:C4'	1:AA:1070:A:O5'	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:62:LEU:O	11:AO:62:LEU:HD23	2.21	0.41
1:AA:2805:G:C6	1:AA:2807:G:C6	3.09	0.41
4:BE:36:ARG:HG2	4:BE:36:ARG:NH1	2.24	0.41
4:BE:2:LYS:HA	4:BE:84:PHE:CD2	2.56	0.41
34:CG:8:VAL:HG21	34:CG:115:ARG:NH2	2.36	0.41
14:BQ:27:SER:HA	14:BQ:88:ASP:CG	2.36	0.41
12:BP:11:LYS:HD3	12:BP:87:LYS:CG	2.42	0.41
3:BD:34:VAL:HG21	3:BD:103:ARG:HA	2.03	0.41
39:DL:49:PRO:O	39:DL:53:VAL:HG22	2.21	0.41
39:DL:95:LYS:C	39:DL:98:PRO:HD2	2.41	0.41
6:AG:40:ASN:HD22	6:AG:91:ARG:HB2	1.85	0.41
31:DA:1328:C:H2'	31:DA:1329:A:H5'	2.02	0.41
31:DA:1330:U:H5'	31:DA:1331:G:P	2.61	0.41
31:DA:1058:G:C6	31:DA:1059:C:N3	2.89	0.41
1:BA:2572:A:N7	4:BE:145:LYS:HB2	2.36	0.41
28:B6:44:ARG:C	28:B6:45:LYS:CD	2.79	0.41
28:B6:36:LEU:HA	28:B6:49:HIS:O	2.21	0.41
12:BP:27:VAL:HG11	12:BP:134:ARG:HB2	2.02	0.41
12:BP:64:ILE:HG12	12:BP:64:ILE:H	1.62	0.41
2:AB:13:A:O2'	2:AB:14:U:H3'	2.19	0.41
1:AA:2295:C:H1'	1:AA:2338:G:N2	2.36	0.41
14:AQ:10:ARG:HA	14:AQ:13:ARG:HB3	2.03	0.41
53:DC:20:G:C2	53:DC:58:A:C2	3.09	0.41
31:DA:1022:G:C2	31:DA:1023:G:H1'	2.56	0.41
31:DA:1036:G:H5'	31:DA:1037:C:OP2	2.21	0.41
1:AA:2468:G:O2'	1:AA:2481:G:N2	2.54	0.41
1:AA:2469:A:O2'	12:AP:56:ARG:CZ	2.69	0.41
4:BE:55:ASN:HB3	4:BE:72:VAL:O	2.21	0.41
6:AG:115:ARG:O	6:AG:116:ASP:HB2	2.21	0.41
1:BA:2273:A:H2'	1:BA:2274:A:C8	2.56	0.41
1:BA:2275:C:HO2'	12:BP:84:GLY:C	2.24	0.41
23:AZ:83:GLU:CD	23:AZ:85:LEU:HB2	2.40	0.41
31:CA:1154:G:H2'	31:CA:1155:G:O4'	2.21	0.41
31:CA:1131:G:OP2	31:CA:1131:G:H8	2.04	0.41
20:BU:13:VAL:HG21	20:BU:72:VAL:CB	2.24	0.41
49:CV:41:VAL:CG2	49:CV:67:VAL:HA	2.51	0.41
5:BF:82:ILE:HD12	5:BF:82:ILE:N	2.35	0.41
53:DD:8:U:C5	53:DD:13:C:N4	2.89	0.41
1:BA:1245:G:H5''	5:BF:34:TRP:HZ2	1.86	0.41
1:BA:1244:G:H4'	11:BO:7:ARG:HA	2.03	0.41
41:CN:80:VAL:HG13	41:CN:103:LEU:CD1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:259:G:C2'	1:AA:621:A:O2'	2.68	0.41
1:AA:2472:G:N2	1:AA:2477:C:C5'	2.84	0.41
1:BA:1140:C:C4'	1:BA:1143:A:N7	2.84	0.41
1:AA:2250:G:C2	12:AP:83:MET:HB2	2.56	0.41
5:AF:108:LYS:O	5:AF:112:MET:HG3	2.20	0.41
1:BA:84:A:N1	1:BA:98:G:O2'	2.48	0.41
1:AA:2287:A:N1	1:AA:2346:A:C2	2.89	0.41
30:A8:26:LYS:CB	30:A8:44:LYS:HG3	2.49	0.41
32:CE:19:HIS:HD2	32:CE:20:GLU:CD	2.24	0.41
20:AU:81:LYS:CE	20:AU:96:ILE:HD12	2.51	0.41
1:AA:155:C:N3	1:AA:171:G:N2	2.57	0.41
53:CD:8:U:C5	53:CD:13:C:C4	3.08	0.41
1:BA:2212:A:H1'	1:BA:2215:G:C4	2.56	0.41
31:DA:1238:A:N6	31:DA:1299:A:N6	2.69	0.41
31:DA:1245:A:C6	31:DA:1293:G:N1	2.88	0.41
31:DA:1237:C:O2'	31:DA:1300:G:N2	2.49	0.41
1:BA:978:G:C2	1:BA:986:C:C2	3.08	0.41
1:BA:997:G:C2'	1:BA:998:C:H5'	2.51	0.41
1:AA:2154:G:C2	1:AA:2155:G:C5	3.08	0.41
1:AA:1188:U:H2'	1:AA:1189:A:H5'	1.99	0.41
1:BA:2689:U:C5'	1:BA:2690:C:H5'	2.50	0.41
1:BA:1827:C:O2'	1:BA:1970:A:N3	2.37	0.41
1:BA:1827:C:H2'	1:BA:1828:G:H5'	2.02	0.41
31:CA:745:C:OP1	31:CA:851:G:O2'	2.39	0.41
1:AA:1538:G:N3	1:AA:1539:G:C8	2.89	0.41
2:BB:38:C:C4	2:BB:39:A:N7	2.89	0.41
2:BB:47:C:H2'	2:BB:48:A:H5'	2.03	0.41
6:BG:113:ARG:HH21	43:DP:3:ARG:HH11	1.68	0.41
6:BG:7:LEU:HD12	6:BG:104:GLU:HA	2.02	0.41
1:AA:329:G:OP1	20:AU:71:LYS:HE3	2.20	0.41
1:BA:2747:G:C6	1:BA:2754:U:C5	3.09	0.41
41:CN:34:ASP:HB2	41:CN:35:PRO:HD2	2.02	0.41
33:DF:164:ARG:CG	33:DF:165:THR:N	2.84	0.41
31:CA:255:G:O6	31:CA:266:G:O6	2.39	0.41
9:AM:42:TRP:HA	9:AM:48:MET:HE3	1.99	0.41
1:BA:1406:U:N3	1:BA:1597:A:C2	2.89	0.41
31:DA:1442:G:O6	31:DA:1446:A:N1	2.54	0.41
27:A5:38:ALA:HB3	27:A5:40:LYS:HE3	2.02	0.41
1:AA:945:A:O2'	1:AA:946:G:C4'	2.68	0.41
1:BA:908:C:OP1	12:BP:22:LYS:HB3	2.20	0.41
1:AA:2831:G:O4'	1:AA:2883:A:C2	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:338:A:C5	31:DA:339:C:C5	3.08	0.41
7:BH:137:ASP:OD2	7:BH:140:LYS:HG3	2.21	0.41
31:CA:711:G:C2'	31:CA:712:A:H5'	2.51	0.41
12:BP:12:GLN:HE21	12:BP:73:PRO:CD	2.33	0.41
8:AK:110:ASP:N	8:AK:130:TYR:OH	2.54	0.41
7:AH:87:LEU:HA	7:AH:87:LEU:HD23	1.81	0.41
1:BA:2477:C:H1'	1:BA:2481:G:O6	2.21	0.41
1:AA:1388:G:HO2'	1:AA:1389:G:H5'	1.79	0.41
1:AA:1385:G:O6	1:AA:1403:C:C4	2.74	0.41
1:AA:2439:A:C5'	1:AA:2439:A:C8	3.01	0.41
1:BA:2157:G:H2'	1:BA:2158:A:C8	2.51	0.41
31:DA:1093:A:C5	31:DA:1095:U:O4'	2.74	0.41
51:DX:25:LYS:C	51:DX:25:LYS:HD3	2.41	0.41
2:AB:37:C:C5	2:AB:38:C:C4	3.09	0.41
1:BA:1887:C:H3'	1:BA:1888:G:H5''	2.02	0.41
1:AA:540:G:H3'	1:AA:541:C:C6	2.52	0.41
1:BA:1338:G:N3	1:BA:1393:A:H2	2.19	0.41
1:BA:1392:A:C6	1:BA:1393:A:C6	3.08	0.41
31:DA:428:G:O4'	31:DA:430:A:C8	2.74	0.41
1:AA:1606:G:H8	1:AA:1606:G:O5'	2.04	0.41
1:AA:649:G:C5	1:AA:650:C:C4	3.09	0.41
21:AV:121:HIS:C	21:AV:123:ASP:N	2.71	0.41
1:AA:315:G:C6	1:AA:316:C:N3	2.88	0.41
5:BF:9:ILE:O	5:BF:10:PRO:C	2.59	0.41
1:BA:1932:A:H61	1:BA:1968:G:H1'	1.86	0.41
21:BV:148:ASP:O	21:BV:149:SER:CB	2.69	0.41
32:DE:178:ARG:HH22	32:DE:196:LEU:C	2.24	0.41
15:AR:108:ARG:HA	15:AR:111:ARG:HH21	1.86	0.41
31:DA:740:U:O3'	45:DR:39:LEU:HD23	2.21	0.41
3:AD:108:PRO:HG3	3:AD:143:HIS:HE1	1.78	0.41
1:AA:2616:C:O2	1:AA:2616:C:H2'	2.21	0.41
50:CW:35:THR:O	50:CW:38:LYS:HB2	2.21	0.41
35:DH:51:VAL:CB	35:DH:52:PRO:HD3	2.44	0.41
1:AA:340:A:C2'	1:AA:341:G:H5'	2.50	0.41
1:BA:2378:A:H5''	14:BQ:23:ARG:NH1	2.36	0.41
1:BA:566:U:H2'	1:BA:567:A:O4'	2.20	0.41
35:DH:32:VAL:HB	35:DH:58:ALA:HB1	2.02	0.41
1:AA:299:A:N6	1:AA:300:A:N1	2.69	0.41
27:A5:51:TYR:O	27:A5:56:LYS:HE3	2.21	0.41
12:AP:26:TYR:O	12:AP:26:TYR:CG	2.74	0.41
5:AF:9:ILE:HA	5:AF:10:PRO:HD3	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BS:59:VAL:HG13	18:BS:60:ASN:N	2.35	0.41
1:BA:1983:C:H4'	1:BA:2606:C:H4'	2.03	0.41
31:CA:822:C:O2'	31:CA:823:G:H5'	2.20	0.41
31:CA:498:A:C4'	31:CA:500:G:OP1	2.64	0.41
10:BN:111:PHE:CD2	10:BN:111:PHE:N	2.89	0.41
22:B3:45:PHE:HE2	22:B3:69:PHE:HE2	1.69	0.41
52:CB:41:G:C5	52:CB:42:U:C5	3.08	0.41
8:AK:33:ARG:O	8:AK:35:LEU:HD23	2.21	0.41
1:AA:230:U:H6	1:AA:230:U:OP2	2.04	0.41
20:AU:9:LYS:HA	20:AU:27:VAL:CG2	2.51	0.41
31:DA:1449:C:H2'	31:DA:1450:U:OP1	2.21	0.41
52:CB:25:A:C6	52:CB:26:C:C4	3.09	0.41
2:BB:49:C:H2'	2:BB:50:G:C8	2.56	0.41
1:BA:2811:G:N2	1:BA:2891:G:H1'	2.36	0.41
1:BA:249:C:H4'	1:BA:250:G:O5'	2.21	0.41
37:CJ:5:ARG:CG	37:CJ:7:ALA:H	2.30	0.41
31:DA:937:A:H1'	31:DA:1379:G:H22	1.85	0.41
1:BA:321:G:H5'	5:BF:134:GLY:O	2.20	0.41
31:CA:1098:C:N3	31:CA:1099:G:C8	2.89	0.41
31:DA:1215:G:C6	31:DA:1216:G:N7	2.89	0.41
31:DA:1226:C:H4'	49:DV:80:TYR:CZ	2.55	0.41
1:AA:2147:G:C8	1:AA:2147:G:H3'	2.56	0.41
32:DE:114:ARG:NH2	32:DE:117:GLU:OE1	2.54	0.41
12:AP:52:VAL:HA	12:AP:55:VAL:HG22	2.02	0.41
2:AB:35:U:H2'	2:AB:36:C:H6	1.85	0.41
5:AF:153:SER:H	5:AF:190:GLU:HG3	1.86	0.41
1:AA:2584:U:O2	1:AA:2584:U:O4'	2.39	0.41
1:AA:1275:A:N3	1:AA:1276:A:H1'	2.36	0.41
36:DI:10:LEU:CD1	36:DI:61:LEU:HD13	2.51	0.41
36:DI:63:TYR:CD2	36:DI:63:TYR:N	2.88	0.41
31:DA:1235:U:H2'	31:DA:1236:A:O4'	2.21	0.41
10:AN:64:ARG:HG2	10:AN:79:PHE:CG	2.56	0.41
33:DF:73:PRO:HA	33:DF:76:VAL:HG13	2.03	0.41
1:AA:2594:C:H2'	1:AA:2595:G:H8	1.85	0.41
1:AA:2591:C:OP2	3:AD:238:GLY:O	2.39	0.41
5:AF:24:LEU:CD2	5:AF:115:ALA:HA	2.50	0.41
31:DA:1363:A:H1'	31:DA:1365:G:N7	2.35	0.41
50:DW:29:LYS:O	50:DW:33:ILE:HG12	2.21	0.41
11:AO:120:ALA:HB1	11:AO:138:LEU:CB	2.49	0.41
31:DA:116:A:OP2	31:DA:116:A:C8	2.74	0.41
1:AA:2077:A:O2'	1:AA:2078:C:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:921:G:H4'	1:BA:2269:A:C5	2.56	0.41
19:BT:55:ASN:O	19:BT:79:ALA:HA	2.20	0.41
6:BG:106:LEU:O	6:BG:110:ALA:HB3	2.20	0.41
31:CA:1240:U:OP2	37:CJ:116:ALA:HB2	2.21	0.41
1:BA:2766:G:H5''	1:BA:2767:C:OP2	2.21	0.41
1:AA:2058:A:C6	1:AA:2059:A:N6	2.89	0.41
31:DA:731:G:H5'	31:DA:766:A:H4'	2.01	0.41
2:BB:70:C:C2	2:BB:71:C:C6	3.09	0.41
3:AD:85:ASP:OD2	3:AD:88:ARG:NH1	2.46	0.41
1:BA:1223:C:O2'	1:BA:1224:G:H5'	2.20	0.41
1:AA:2000:G:C2	1:AA:2001:A:C8	3.08	0.41
1:BA:2187:G:C6	1:BA:2188:C:N3	2.89	0.41
8:AK:88:ILE:HD11	8:AK:122:GLU:O	2.21	0.41
1:AA:989:G:OP2	25:AX:11:SER:OG	2.31	0.41
1:BA:1442:G:C2	1:BA:1550:C:O2	2.74	0.41
1:AA:981:A:H1'	1:AA:2037:G:O4'	2.20	0.41
1:AA:1833:U:C2	1:AA:1834:U:C6	3.08	0.41
1:BA:2064:C:H2'	1:BA:2065:C:C6	2.56	0.41
3:BD:210:GLY:O	3:BD:213:ARG:HB2	2.21	0.41
1:BA:532:A:C8	1:BA:2021:C:C6	3.08	0.41
33:DF:82:GLU:H	33:DF:85:ARG:HB2	1.86	0.41
42:DO:79:GLU:HG3	42:DO:80:HIS:N	2.36	0.41
1:BA:1105:U:C2'	1:BA:1106:G:H5'	2.51	0.41
20:AU:5:MET:HE3	20:AU:32:PRO:HA	2.03	0.41
21:AV:155:LEU:HA	21:AV:155:LEU:HD23	1.83	0.41
1:AA:2442:C:H2'	1:AA:2443:C:C6	2.56	0.41
1:AA:1751:C:H2'	1:AA:1752:C:C6	2.52	0.41
1:BA:1955:U:H2'	1:BA:1955:U:O2	2.20	0.41
52:DB:9:G:N3	52:DB:9:G:H5''	2.36	0.41
5:BF:167:ALA:HA	5:BF:170:LEU:HD12	2.02	0.41
16:B1:79:PHE:C	16:B1:79:PHE:CD2	2.94	0.41
1:BA:2884:U:C2'	1:BA:2885:C:H5'	2.50	0.41
31:CA:491:G:H2'	31:CA:492:G:C8	2.55	0.41
1:BA:448:U:C4	1:BA:583:G:H1'	2.56	0.41
53:DC:44:A:H2'	53:DC:45:A:C8	2.56	0.41
31:CA:782:A:H4'	31:CA:1514:C:O2'	2.20	0.41
1:AA:719:C:H2'	1:AA:720:C:H6	1.84	0.41
1:BA:2110:G:HO2'	1:BA:2120:G:P	2.44	0.41
1:BA:2121:G:H2'	1:BA:2122:U:C6	2.55	0.41
31:CA:1369:C:H2'	31:CA:1370:G:O4'	2.21	0.41
31:DA:1251:A:H5''	39:DL:12:GLU:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CK:75:ARG:HB2	38:CK:75:ARG:HE	1.60	0.41
27:B5:41:PRO:HA	27:B5:42:PRO:HD3	1.97	0.41
1:AA:633:A:C8	1:AA:633:A:H3'	2.56	0.41
25:BX:23:LEU:HD23	25:BX:28:LEU:HD12	2.03	0.41
1:AA:364:C:H5'	1:AA:364:C:H6	1.85	0.41
38:DK:39:LEU:HB3	38:DK:45:ILE:HD11	2.03	0.41
9:BM:96:GLU:O	9:BM:100:GLU:HG3	2.21	0.41
31:CA:892:A:H2'	31:CA:893:C:C6	2.55	0.41
23:BZ:72:GLU:O	23:BZ:76:ARG:HG2	2.21	0.41
1:BA:2691:C:H2'	1:BA:2692:C:H6	1.84	0.41
1:BA:2400:G:N2	1:BA:2417:C:C2	2.89	0.41
1:BA:852:G:C6	1:BA:926:A:C6	3.08	0.41
29:B7:48:LYS:H	29:B7:48:LYS:HG3	1.77	0.41
8:AK:118:LYS:HA	8:AK:118:LYS:HD2	1.65	0.41
1:BA:2078:C:O2'	1:BA:2079:U:H5'	2.21	0.41
1:AA:994:C:H5''	1:AA:995:C:OP1	2.21	0.41
1:BA:1895:C:H2'	1:BA:1896:G:O4'	2.21	0.41
32:CE:55:PHE:O	32:CE:58:ILE:N	2.53	0.41
19:AT:26:TYR:HB3	19:AT:92:LEU:HD12	2.02	0.41
1:BA:571:A:H5'	1:BA:2030:A:N7	2.36	0.41
36:DI:9:VAL:HA	36:DI:59:TYR:O	2.21	0.41
3:AD:211:ARG:HD2	3:AD:214:TRP:CZ3	2.56	0.41
3:AD:5:LYS:C	3:AD:6:PHE:CD1	2.94	0.41
1:AA:2540:C:H2'	1:AA:2541:A:O4'	2.20	0.41
18:AS:19:LEU:HA	18:AS:19:LEU:HD12	1.80	0.41
31:CA:595:G:H1'	31:CA:596:C:H5	1.86	0.41
45:CR:66:LEU:HA	45:CR:66:LEU:HD12	1.66	0.41
48:DU:45:SER:OG	48:DU:46:GLU:N	2.54	0.41
42:CO:31:ARG:HG3	42:CO:32:GLY:N	2.36	0.41
31:DA:301:G:H2'	31:DA:302:G:H8	1.85	0.41
31:CA:506:G:H2'	31:CA:507:C:O4'	2.20	0.41
38:DK:119:LEU:HD12	38:DK:124:ALA:HA	2.02	0.41
3:BD:85:ASP:HB2	3:BD:92:ILE:HD13	2.02	0.41
11:BO:71:VAL:N	11:BO:72:PRO:CD	2.84	0.41
4:AE:35:GLN:HB3	4:AE:48:GLN:HB2	2.02	0.41
31:CA:411:A:C5	31:CA:429:U:C5	3.09	0.41
1:BA:847:U:O4	1:BA:933:A:C6	2.73	0.41
31:DA:1126:U:C1'	31:DA:1127:G:P	3.09	0.41
39:DL:8:GLY:HA3	39:DL:79:LEU:HB3	2.02	0.41
1:AA:2309:A:N7	1:AA:2310:A:N7	2.64	0.41
53:CC:17:C:O2	53:CC:18:C:C4	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1325:C:OP1	51:DX:15:ARG:HD2	2.21	0.41
28:B6:31:PRO:HB2	28:B6:33:LYS:CB	2.50	0.41
31:DA:1023:G:N1	31:DA:1024:G:C8	2.89	0.41
1:BA:1084:A:H5''	1:BA:1085:A:P	2.61	0.41
1:BA:1098:A:H8	1:BA:1098:A:O5'	2.04	0.41
31:CA:1306:A:N1	31:CA:1307:U:C2	2.88	0.41
1:BA:2270:G:O6	1:BA:2271:G:C2	2.74	0.41
5:BF:3:GLU:HA	5:BF:24:LEU:CD2	2.48	0.41
5:BF:8:GLN:HA	5:BF:15:SER:HA	2.02	0.41
1:BA:2115:G:H1'	1:BA:2171:A:C6	2.56	0.41
31:CA:1004:A:N9	31:CA:1025:U:C2	2.89	0.41
31:CA:1004:A:N9	31:CA:1025:U:O2	2.54	0.41
1:AA:893:C:N4	1:AA:894:C:N4	2.69	0.41
31:CA:300:A:H2'	31:CA:301:G:O4'	2.21	0.41
32:CE:32:ILE:HD11	32:CE:40:HIS:CB	2.32	0.41
1:AA:1277:G:H2'	1:AA:1278:A:O4'	2.20	0.41
6:AG:161:THR:HG22	6:AG:162:THR:N	2.35	0.41
1:BA:89:G:H3'	1:BA:90:U:C5'	2.50	0.41
1:BA:1041:C:H2'	1:BA:1042:G:H8	1.86	0.41
1:BA:1301:A:C8	1:BA:1303:G:C8	3.08	0.41
1:AA:953:A:C2	1:AA:954:G:C8	3.09	0.41
31:DA:629:G:C4	31:DA:630:G:C8	3.08	0.41
3:AD:44:ASN:HB3	3:AD:49:ILE:HA	2.02	0.41
1:AA:1536:A:C2'	1:AA:1537:C:OP1	2.69	0.41
21:BV:67:LEU:HA	21:BV:68:PRO:HD2	1.99	0.41
1:AA:917:A:H2'	1:AA:918:A:H5'	2.03	0.41
33:DF:164:ARG:CG	33:DF:165:THR:H	2.33	0.41
16:A1:90:VAL:O	16:A1:91:ASP:C	2.59	0.41
9:AM:115:ARG:O	9:AM:116:LEU:C	2.60	0.41
15:BR:118:ARG:NH1	31:DA:1446:A:C6	2.89	0.41
1:AA:1869:G:N2	1:AA:1872:A:OP2	2.50	0.41
1:AA:2820:A:O3'	13:A0:3:HIS:CE1	2.74	0.41
1:AA:2829:C:C3'	1:AA:2830:G:H5''	2.50	0.41
31:CA:130:A:O2'	31:CA:131:C:O5'	2.27	0.41
31:DA:467:G:C6	31:DA:468:A:C5	3.09	0.41
31:DA:1190:G:H3'	33:DF:3:ASN:HD22	1.86	0.41
31:DA:1315:U:O4	31:DA:1316:G:C2	2.74	0.41
1:BA:2657:A:C2	1:BA:2665:A:C8	3.09	0.41
7:BH:152:ARG:C	7:BH:154:PRO:HD3	2.42	0.41
1:BA:329:G:C4'	1:BA:330:A:OP2	2.69	0.41
1:BA:2472:G:N1	1:BA:2477:C:OP1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1782:C:H2'	1:AA:2608:G:O2'	2.21	0.41
31:CA:66:G:H22	31:CA:172:A:H2	1.68	0.41
42:DO:47:LYS:HB3	42:DO:48:PRO:CD	2.43	0.41
31:CA:390:C:H4'	46:CS:28:ARG:HH21	1.86	0.41
1:AA:2772:C:C2	1:AA:2773:C:C5	3.09	0.41
31:CA:401:C:H2'	31:CA:402:G:O4'	2.21	0.41
3:BD:70:TRP:O	3:BD:73:VAL:HG23	2.21	0.41
1:BA:2304:G:O2'	1:BA:2305:A:O5'	2.38	0.41
31:CA:1070:U:H2'	31:CA:1071:C:C6	2.56	0.41
6:BG:59:GLU:OE1	6:BG:153:ARG:NH2	2.44	0.41
1:BA:1385:G:HO2'	1:BA:1396:U:H6	1.65	0.41
1:BA:900:A:C4	1:BA:901:A:C8	3.09	0.41
6:AG:6:ALA:HB3	26:A4:23:GLU:HG3	2.03	0.41
15:AR:22:PHE:HD1	15:AR:49:VAL:HG11	1.85	0.41
33:DF:16:ARG:CA	33:DF:16:ARG:HH11	2.33	0.41
33:DF:16:ARG:HG3	33:DF:17:ASP:O	2.21	0.41
1:BA:875:G:N2	1:BA:903:C:C2	2.89	0.41
22:B3:68:GLU:OE1	22:B3:82:ARG:HG3	2.21	0.41
46:DS:18:ARG:HD3	46:DS:35:LYS:HE3	2.02	0.41
33:CF:141:VAL:HG11	33:CF:202:ILE:HD13	2.03	0.41
31:DA:1151:A:N6	31:DA:1152:A:N6	2.69	0.41
50:DW:67:ALA:O	50:DW:73:HIS:CG	2.74	0.41
8:AK:73:GLU:HG3	8:AK:137:PRO:HG2	2.03	0.41
31:CA:509:A:H4'	31:CA:510:A:OP1	2.21	0.41
20:BU:35:TYR:CE1	20:BU:69:ALA:HB3	2.56	0.41
36:CI:52:ILE:HD13	36:CI:87:ARG:HG3	2.02	0.41
1:AA:1357:U:C4	1:AA:1358:G:C5	3.08	0.41
4:AE:92:THR:O	4:AE:95:ILE:CG1	2.68	0.41
31:CA:185:A:H2'	31:CA:186:C:C6	2.56	0.41
1:BA:30:G:C5	1:BA:31:C:C4	3.08	0.41
31:CA:1006:C:O2'	31:CA:1007:C:H5'	2.21	0.41
6:BG:119:GLY:HA3	6:BG:181:ARG:N	2.35	0.41
1:BA:2702:U:H4'	1:BA:2703:C:OP1	2.20	0.41
32:DE:21:ARG:HB3	32:DE:39:ILE:H	1.86	0.41
1:AA:270(D):C:C2	1:AA:270(W):G:C2	3.09	0.41
1:AA:1161:C:H4'	17:A2:8:GLY:HA2	2.02	0.41
34:CG:15:GLU:OE1	34:CG:66:ARG:NH1	2.53	0.41
31:CA:1275:A:N6	31:CA:1276:G:C6	2.89	0.41
32:DE:223:ILE:HG23	32:DE:227:GLY:O	2.21	0.41
1:BA:1841:U:H2'	1:BA:1842:G:H8	1.84	0.41
1:AA:690:G:H2'	1:AA:691:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:48:LEU:HD23	14:AQ:82:ILE:HD11	2.01	0.41
1:AA:1904:G:C2'	1:AA:1905:C:O5'	2.69	0.41
14:AQ:62:LYS:HG2	14:AQ:62:LYS:H	1.61	0.41
53:DC:30:G:C4	53:DC:31:G:C8	3.09	0.41
31:DA:1360:A:O2'	31:DA:1361:G:H5'	2.20	0.41
21:AV:132:ASN:OD1	21:AV:160:GLY:HA2	2.21	0.41
36:DI:44:GLY:HA2	36:DI:59:TYR:CE1	2.56	0.41
1:BA:48:G:C6	1:BA:178:G:O6	2.74	0.41
40:CM:90:LEU:N	40:CM:91:PRO:CD	2.84	0.41
31:CA:825:G:C5	31:CA:826:C:C5	3.09	0.41
31:DA:721:G:H4'	31:DA:722:A:O5'	2.21	0.41
31:CA:565:U:H3'	31:CA:566:G:H2'	2.02	0.41
31:DA:41:G:H2'	31:DA:42:G:H8	1.84	0.41
31:DA:300:A:O5'	31:DA:300:A:H8	2.04	0.41
1:BA:1619:G:H2'	1:BA:1619:G:N3	2.35	0.41
15:AR:113:LYS:HD2	15:AR:113:LYS:HA	1.87	0.41
31:CA:1249:C:O2'	39:CL:73:GLN:OE1	2.35	0.41
39:CL:116:LYS:HA	39:CL:123:PRO:HD3	2.03	0.41
11:BO:62:LEU:O	11:BO:62:LEU:HD23	2.21	0.40
1:AA:1087:G:C2	1:AA:1089:G:O2'	2.73	0.40
3:AD:35:LYS:CA	3:AD:64:ILE:CG2	2.99	0.40
3:AD:65:ILE:CG1	3:AD:67:PHE:CZ	3.03	0.40
4:BE:44:TYR:CG	4:BE:45:THR:N	2.89	0.40
31:CA:973:G:OP1	40:CM:57:LYS:HD3	2.21	0.40
40:CM:54:PHE:CD2	40:CM:55:LYS:NZ	2.89	0.40
30:B8:37:SER:O	30:B8:38:GLY:C	2.59	0.40
1:BA:2286:A:H5'	28:B6:28:ARG:NE	2.35	0.40
1:AA:2469:A:C5	1:AA:2470:G:H1'	2.56	0.40
4:BE:70:ALA:O	4:BE:72:VAL:HG23	2.21	0.40
34:DG:62:GLN:O	34:DG:66:ARG:HD2	2.21	0.40
2:AB:42:C:O2'	6:AG:67:LYS:HE3	2.21	0.40
49:CV:63:THR:O	49:CV:66:MET:HG3	2.21	0.40
53:DD:12:G:C5	53:DD:13:C:C2	3.09	0.40
53:DD:8:U:C5	53:DD:13:C:C4	3.09	0.40
31:CA:1003:G:N2	31:CA:1004:A:O2'	2.53	0.40
1:BA:945:A:N1	1:BA:2448:A:C4	2.89	0.40
32:CE:19:HIS:HD2	32:CE:20:GLU:OE2	2.04	0.40
20:AU:96:ILE:CG2	20:AU:101:LYS:HG2	2.40	0.40
20:AU:81:LYS:NZ	20:AU:96:ILE:CD1	2.74	0.40
1:AA:128:C:H2'	1:AA:129:C:C6	2.56	0.40
1:AA:1175:U:H4'	1:AA:1176:G:OP1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1181:C:O2'	1:AA:1182:A:H5'	2.20	0.40
11:BO:21:ARG:HE	11:BO:21:ARG:CA	2.34	0.40
1:BA:1300:U:C4'	1:BA:1301:A:OP2	2.68	0.40
16:B1:90:VAL:HG11	17:B2:40:LEU:HD13	2.01	0.40
26:B4:29:PRO:C	26:B4:30:GLU:HG3	2.40	0.40
1:AA:862:G:H2'	1:AA:863:A:O4'	2.20	0.40
1:AA:861:A:H2'	1:AA:862:G:H5'	2.02	0.40
1:AA:2555:U:C5	1:AA:2556:C:C6	3.09	0.40
1:BA:2754:U:H6	1:BA:2754:U:H5''	1.86	0.40
32:DE:53:ARG:NH1	32:DE:199:TYR:CD2	2.89	0.40
1:AA:1518:C:O2'	1:AA:1519:G:H5'	2.21	0.40
9:AM:103:VAL:O	9:AM:106:MET:N	2.50	0.40
9:AM:46:VAL:O	9:AM:47:ALA:CB	2.69	0.40
1:BA:142:G:H1'	19:BT:37:THR:HG22	2.02	0.40
15:BR:90:GLN:HG3	15:BR:91:ARG:N	2.36	0.40
1:AA:1863:G:H2'	1:AA:1864:U:O4'	2.22	0.40
1:BA:856:C:O2'	1:BA:857:C:P	2.79	0.40
1:BA:866:A:N6	1:BA:914:C:C5	2.89	0.40
31:DA:458:C:N4	31:DA:475:G:N1	2.70	0.40
33:CF:44:GLU:OE1	33:CF:44:GLU:HA	2.20	0.40
39:DL:10:ARG:HD2	39:DL:105:ASP:CB	2.45	0.40
11:AO:39:LYS:CA	11:AO:45:LEU:HD22	2.51	0.40
31:CA:194:C:O3'	50:CW:68:LYS:HD3	2.21	0.40
52:DB:15:A:N1	52:DB:70:G:C4	2.88	0.40
32:CE:76:GLN:HB3	32:CE:211:ILE:CD1	2.50	0.40
26:A4:37:SER:HB3	26:A4:42:PHE:HD1	1.85	0.40
11:AO:60:MET:O	11:AO:60:MET:HG3	2.21	0.40
31:DA:836:G:C6	31:DA:851:G:C6	3.09	0.40
1:BA:2377:A:H4'	14:BQ:111:GLU:O	2.21	0.40
10:AN:22:ILE:N	10:AN:40:VAL:O	2.49	0.40
52:CB:7:G:O6	52:CB:60:A:N6	2.54	0.40
31:DA:1014:A:C2	49:DV:34:TRP:CD2	3.09	0.40
49:DV:28:LYS:HE3	49:DV:29:ARG:O	2.21	0.40
31:DA:406:G:C2	31:DA:407:G:C8	3.09	0.40
52:CB:29:U:H2'	52:CB:30:A:C8	2.57	0.40
31:CA:880:C:P	42:CO:5:ASN:HD22	2.44	0.40
26:A4:10:VAL:CG2	26:A4:11:PRO:HD2	2.44	0.40
20:BU:61:ILE:CG2	20:BU:62:GLU:H	2.31	0.40
24:BW:53:LEU:O	24:BW:56:GLN:HB2	2.20	0.40
33:DF:15:THR:HG22	33:DF:16:ARG:N	2.36	0.40
49:CV:51:VAL:O	49:CV:58:VAL:N	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2564:A:C6	1:BA:2565:A:N1	2.89	0.40
31:CA:1164:G:N3	31:CA:1173:G:C2	2.90	0.40
31:DA:373:A:H2'	31:DA:374:A:H8	1.84	0.40
10:BN:98:VAL:HG22	10:BN:118:ALA:HA	2.03	0.40
1:AA:558:G:OP1	9:AM:111:PRO:HD2	2.21	0.40
16:A1:30:LYS:HD3	16:A1:30:LYS:HA	1.81	0.40
32:DE:97:TRP:CE3	32:DE:98:LEU:O	2.74	0.40
1:AA:1799:G:H5'	1:AA:1819:A:H61	1.86	0.40
49:DV:48:THR:OG1	49:DV:48:THR:O	2.38	0.40
1:AA:950:G:C6	1:AA:951:C:C4	3.09	0.40
1:AA:515:A:H2	1:AA:1260:G:N3	2.19	0.40
1:AA:878:A:C2	1:AA:879:G:C4	3.09	0.40
31:CA:956:U:O2'	31:CA:957:U:H5'	2.21	0.40
4:BE:13:ARG:O	15:BR:57:PHE:HE1	2.04	0.40
41:DN:105:VAL:O	41:DN:105:VAL:CG2	2.69	0.40
1:AA:270(G):C:H2'	1:AA:270(H):C:H6	1.86	0.40
28:A6:51:GLU:HG2	28:A6:52:VAL:N	2.36	0.40
15:AR:124:ASP:O	15:AR:125:ARG:C	2.58	0.40
1:BA:78:A:C6	1:BA:79:G:C6	3.09	0.40
2:AB:88:C:H2'	2:AB:89:G:C1'	2.51	0.40
1:AA:2839:G:C5'	13:A0:46:GLY:HA2	2.52	0.40
8:BK:2:LYS:O	8:BK:3:VAL:HG13	2.21	0.40
4:BE:134:ILE:C	4:BE:134:ILE:CD1	2.89	0.40
31:DA:853:G:C4	31:DA:854:G:C8	3.09	0.40
1:AA:1337:G:H2'	1:AA:1338:G:C8	2.54	0.40
34:DG:88:VAL:HG13	35:DH:97:GLY:CA	2.51	0.40
1:BA:1750:G:H2'	1:BA:1751:C:H6	1.86	0.40
1:BA:292:C:C2'	1:BA:293:U:H5'	2.51	0.40
1:BA:1207:C:H2'	1:BA:1208:C:C6	2.56	0.40
16:B1:71:GLN:HA	16:B1:71:GLN:NE2	2.36	0.40
1:AA:236:C:H2'	1:AA:237:C:H6	1.84	0.40
6:AG:44:GLY:C	6:AG:46:ALA:H	2.25	0.40
31:DA:719:C:C5	31:DA:720:C:C4	3.08	0.40
41:CN:115:PRO:C	41:CN:117:ASN:H	2.25	0.40
24:BW:64:LEU:O	24:BW:64:LEU:HD23	2.21	0.40
14:BQ:48:LEU:O	14:BQ:49:VAL:HG23	2.21	0.40
53:DC:38:A:H2'	53:DC:39:A:O4'	2.20	0.40
1:BA:2228:G:OP1	3:BD:261:LYS:NZ	2.52	0.40
1:AA:2512:C:H2'	1:AA:2513:G:O4'	2.20	0.40
20:BU:48:ALA:HB3	20:BU:59:GLY:HA2	2.03	0.40
8:AK:103:ARG:H	8:AK:103:ARG:HD2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:350:U:H2'	1:AA:351:G:O4'	2.21	0.40
1:BA:2014:A:H2'	1:BA:2015:A:C8	2.56	0.40
16:B1:50:ARG:HH21	16:B1:50:ARG:CB	2.34	0.40
1:AA:1057:A:OP1	1:AA:1057:A:H4'	2.21	0.40
1:AA:1060:U:N1	1:AA:1062:G:H5'	2.36	0.40
1:BA:225:A:N6	1:BA:226:G:N1	2.69	0.40
1:AA:2393:A:H2'	1:AA:2394:C:O4'	2.21	0.40
3:AD:35:LYS:HZ3	3:AD:104:TYR:CB	2.25	0.40
1:BA:2401:U:H2'	1:BA:2402:C:H5''	2.03	0.40
31:DA:1162:C:C2	31:DA:1175:G:N2	2.90	0.40
1:AA:2309:A:C2	1:AA:2310:A:C8	3.08	0.40
31:DA:1052:U:H2'	31:DA:1055:A:OP1	2.21	0.40
39:DL:114:TYR:O	39:DL:116:LYS:HG2	2.21	0.40
12:BP:32:TYR:HA	12:BP:132:VAL:O	2.21	0.40
39:CL:114:TYR:HE1	40:CM:60:ARG:O	2.03	0.40
40:CM:62:HIS:CD2	40:CM:62:HIS:H	2.40	0.40
44:CQ:58:LYS:HB3	44:CQ:58:LYS:NZ	2.36	0.40
1:AA:2482:G:C4	1:AA:2483:C:C6	3.09	0.40
43:CP:3:ARG:HH11	43:CP:7:VAL:CG2	2.33	0.40
1:BA:2271:G:H5''	22:B3:20:ARG:NE	2.37	0.40
1:AA:2053:G:H5'	4:AE:144:ARG:O	2.21	0.40
31:CA:354:G:N3	31:CA:354:G:H2'	2.37	0.40
26:A4:63:TYR:O	26:A4:66:SER:N	2.55	0.40
34:CG:209:ARG:HA	34:CG:209:ARG:HE	1.86	0.40
1:AA:2061:G:OP1	5:AF:68:LYS:NZ	2.50	0.40
1:AA:1462:C:H4'	1:AA:2703:C:O4'	2.21	0.40
1:AA:2115:G:N2	1:AA:2172:U:H3	2.19	0.40
19:AT:31:HIS:HA	19:AT:32:PRO:HD3	1.85	0.40
1:AA:2712:U:O2'	1:AA:2712(A):A:OP2	2.34	0.40
1:AA:1980:G:C2	1:AA:1982:C:C4	3.10	0.40
2:BB:4:C:N3	2:BB:117:G:N2	2.69	0.40
16:B1:111:GLU:C	16:B1:113:ALA:N	2.74	0.40
2:BB:46:A:H2'	2:BB:47:C:C6	2.55	0.40
1:BA:529:A:C2'	1:BA:529:A:N3	2.85	0.40
31:CA:277:C:H5''	47:CT:68:ARG:NH2	2.36	0.40
31:CA:1374:A:C2'	31:CA:1375:A:H5'	2.51	0.40
26:B4:56:VAL:HG22	26:B4:57:GLU:N	2.32	0.40
1:BA:619:G:H5''	1:BA:620:G:OP2	2.21	0.40
1:BA:1465:G:C4	1:BA:1466:G:C8	3.09	0.40
13:A0:101:ALA:HA	27:A5:44:THR:HG21	2.02	0.40
31:CA:104:G:N1	31:CA:105:G:C5	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:330:A:C2	1:BA:1210:A:O2'	2.58	0.40
21:AV:105:VAL:HG11	21:AV:138:GLU:OE1	2.22	0.40
1:AA:1786:A:C4	1:AA:1938:A:C6	3.09	0.40
31:CA:142:G:O6	31:CA:143:A:N6	2.55	0.40
31:DA:828:A:N6	31:DA:858:G:C2'	2.82	0.40
31:CA:1237:C:C4'	31:CA:1334:G:N2	2.84	0.40
50:CW:89:ARG:HD2	50:CW:104:LEU:HD21	2.03	0.40
18:BS:88:ARG:HB2	18:BS:93:ALA:H	1.86	0.40
31:CA:401:C:O2'	31:CA:621:A:N3	2.49	0.40
31:CA:621:A:C2'	31:CA:622:A:H5'	2.51	0.40
34:CG:157:LEU:O	34:CG:161:ASN:OD1	2.40	0.40
31:DA:692:U:O4	41:DN:53:SER:HA	2.22	0.40
42:DO:75:HIS:CD2	42:DO:77:LEU:HB2	2.56	0.40
31:CA:500:G:N2	31:CA:546:G:H1'	2.35	0.40
1:BA:2816:C:O2	1:BA:2883:A:O2'	2.38	0.40
20:BU:46:LYS:HB2	20:BU:61:ILE:O	2.22	0.40
38:CK:49:GLU:HG2	38:CK:62:TYR:HE2	1.85	0.40
18:BS:20:VAL:O	18:BS:23:LEU:N	2.43	0.40
1:BA:1270:C:O2'	1:BA:1648:C:OP2	2.33	0.40
33:CF:70:VAL:O	33:CF:106:VAL:N	2.51	0.40
31:DA:792:A:H1'	31:DA:794:A:N7	2.37	0.40
9:AM:62:VAL:HG22	9:AM:66:LYS:HD2	2.00	0.40
1:AA:2149:G:C6	1:AA:2150:U:C2	3.09	0.40
31:DA:754:C:P	45:DR:72:ARG:HH22	2.44	0.40
31:DA:838:G:C2	31:DA:849:C:N3	2.89	0.40
35:CH:146:ALA:C	35:CH:148:VAL:N	2.75	0.40
1:AA:2018:G:H2'	1:AA:2019:A:C8	2.55	0.40
31:DA:262:A:N6	31:DA:263:A:N6	2.69	0.40
1:BA:2450:A:O2'	53:DC:77:A:N1	2.51	0.40
1:AA:270(L):U:O2	1:AA:270(L):U:C2'	2.69	0.40
31:CA:913:A:O2'	31:CA:914:A:OP2	2.30	0.40
2:BB:23:G:C2	2:BB:24:G:O6	2.74	0.40
1:BA:271(A):C:H1'	1:BA:272:G:H1'	2.02	0.40
1:BA:2517:C:C2	1:BA:2542:A:C6	3.09	0.40
1:BA:270(G):C:O2	1:BA:270(T):G:N2	2.54	0.40
1:AA:2109:U:O2	1:AA:2181:G:C2	2.75	0.40
6:AG:139:LEU:HD21	6:AG:146:TYR:HA	2.02	0.40
1:BA:1755:A:OP2	15:BR:113:LYS:NZ	2.48	0.40
1:AA:1829:A:N3	3:AD:15:PHE:CE1	2.90	0.40
31:CA:1009:G:C4	31:CA:1010:G:C8	3.09	0.40
31:CA:329:A:C6	31:CA:332:G:C2	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:273(E):U:C2'	1:BA:273(F):C:H5'	2.51	0.40
36:CI:63:TYR:N	36:CI:63:TYR:HD2	2.18	0.40
4:BE:134:ILE:O	4:BE:135:HIS:C	2.60	0.40
8:BK:107:VAL:HG13	8:BK:108:THR:N	2.36	0.40
6:BG:33:ARG:HB2	6:BG:162:THR:HG21	2.03	0.40
1:AA:465:G:H2'	1:AA:466:A:C8	2.55	0.40
1:AA:1912:A:N1	31:CA:1407:C:O2'	2.39	0.40
1:AA:1751:C:C2	1:AA:1752:C:C5	3.09	0.40
11:BO:90:ARG:HG3	11:BO:91:PHE:H	1.86	0.40
31:CA:421:U:O2'	31:CA:423:G:O6	2.28	0.40
1:AA:8:A:H2'	1:AA:9:U:O4'	2.21	0.40
1:AA:552:G:C5	1:AA:553:U:C5	3.09	0.40
31:DA:768:A:C4	31:DA:769:G:C8	3.10	0.40
1:AA:618:G:H2'	1:AA:618(A):C:H6	1.85	0.40
1:BA:2364:C:C2'	1:BA:2365:G:H5'	2.51	0.40
37:CJ:45:ASP:O	37:CJ:49:ILE:HG12	2.22	0.40
8:BK:129:THR:HA	8:BK:137:PRO:HA	2.04	0.40
10:BN:31:LYS:HB3	10:BN:32:TYR:CD1	2.56	0.40
9:BM:91:LEU:O	9:BM:95:PRO:HB3	2.22	0.40
23:AZ:20:ARG:HB3	23:AZ:32:LYS:HD2	2.03	0.40
5:AF:170:LEU:CB	5:AF:173:VAL:HG23	2.51	0.40
1:AA:182:A:H2'	1:AA:183:C:O4'	2.21	0.40
53:DC:64:G:H2'	53:DC:65:G:H8	1.86	0.40
1:AA:1891:G:H2'	1:AA:1892:C:O4'	2.21	0.40
1:AA:292:C:O2'	1:AA:293:U:H5'	2.21	0.40
1:BA:2762:G:H5'	1:BA:2763:G:OP2	2.20	0.40
1:BA:1782:C:H1'	1:BA:2609:U:H5''	2.03	0.40
31:CA:654:G:C2	31:CA:753:A:C4	3.09	0.40
17:B2:62:LEU:HD12	17:B2:62:LEU:HA	1.80	0.40
6:AG:45:GLU:HG2	6:AG:45:GLU:H	1.36	0.40
21:BV:155:LEU:HD23	21:BV:155:LEU:HA	1.72	0.40
31:DA:613:C:C6	31:DA:613:C:H3'	2.56	0.40
3:BD:168:ARG:NH2	36:DI:83:ASP:OD1	2.54	0.40
31:CA:698:G:C6	31:CA:699:C:C4	3.09	0.40
22:A3:49:LYS:HB2	22:A3:80:HIS:HB3	2.03	0.40
47:CT:11:VAL:HG12	47:CT:85:VAL:HG22	2.03	0.40
33:DF:173:VAL:N	33:DF:174:PRO:HD3	2.35	0.40
29:B7:29:LYS:HD2	29:B7:32:LYS:HE3	2.02	0.40
1:BA:907:U:H5'	12:BP:23:GLY:O	2.20	0.40
4:AE:61:ARG:CG	4:AE:61:ARG:HH11	2.35	0.40
3:BD:34:VAL:HG22	3:BD:35:LYS:HZ2	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1177:G:H5''	31:DA:1178:G:OP1	2.21	0.40
4:AE:81:ILE:CG2	4:AE:84:PHE:CB	2.97	0.40
6:AG:78:SER:CB	53:CC:57:C:O2'	2.64	0.40
31:DA:448:A:H2'	31:DA:449:C:O2	2.21	0.40
12:BP:54:MET:CE	12:BP:64:ILE:HG23	2.51	0.40
12:BP:64:ILE:HD13	12:BP:106:VAL:CG1	2.42	0.40
24:AW:4:SER:N	24:AW:7:ARG:H	2.18	0.40
31:CA:1054:C:H6	31:CA:1196:U:O2'	2.05	0.40
1:BA:1084:A:H3'	1:BA:1085:A:H8	1.85	0.40
1:AA:2303:G:C2	1:AA:2314:C:N3	2.90	0.40
1:AA:1654:A:OP1	13:A0:1:MET:O	2.39	0.40
5:BF:125:LEU:HD12	5:BF:196:LEU:CD2	2.51	0.40
53:DD:9:G:H4'	53:DD:47:G:H5'	2.03	0.40
53:DD:9:G:O2'	53:DD:10:G:N7	2.55	0.40
1:BA:1244:G:H2'	1:BA:1245:G:H5'	2.01	0.40
1:AA:673:C:C2'	1:AA:674:G:H5'	2.52	0.40
1:AA:888:C:H2'	1:AA:889:C:O2	2.22	0.40
12:BP:20:ALA:O	12:BP:21:THR:HG22	2.21	0.40
1:BA:300:A:P	20:BU:84:ARG:HH12	2.45	0.40
19:BT:49:VAL:HA	19:BT:87:GLN:HE22	1.86	0.40
1:AA:151:C:H2'	1:AA:152:G:C8	2.56	0.40
1:AA:2169:A:C6	1:AA:2170:A:C6	3.09	0.40
1:BA:2070:G:H2'	1:BA:2071:A:O4'	2.21	0.40
1:BA:2776:A:H3'	1:BA:2776:A:P	2.61	0.40
1:BA:2555:U:H5	1:BA:2556:C:C4	2.39	0.40
12:AP:109:VAL:HG13	12:AP:113:GLN:OE1	2.22	0.40
18:AS:55:ALA:O	18:AS:58:ALA:HB3	2.21	0.40
1:BA:1309:G:OP1	29:B7:9:ARG:HB2	2.21	0.40
24:BW:14:ARG:HA	24:BW:63:VAL:HG11	2.03	0.40
31:CA:257:G:C2	31:CA:258:G:C4	3.09	0.40
12:BP:3:MET:HB2	12:BP:93:TYR:CE1	2.54	0.40
1:BA:1577:C:H2'	1:BA:1578:U:O4'	2.21	0.40
15:BR:24:PRO:HD3	15:BR:52:ILE:HG13	2.03	0.40
1:AA:1313:U:C2'	1:AA:1610:A:C2	3.03	0.40
3:AD:28:GLU:O	3:AD:29:PRO:O	2.39	0.40
3:AD:25:THR:HG21	3:AD:81:ALA:HA	2.03	0.40
1:BA:1167:U:C2	1:BA:1183:G:N2	2.89	0.40
35:CH:6:PHE:HD1	35:CH:63:ARG:HH11	1.69	0.40
31:DA:1520:G:H2'	31:DA:1521:G:H8	1.87	0.40
8:AK:109:ILE:HB	8:AK:130:TYR:OH	2.21	0.40
32:DE:44:LEU:HD23	32:DE:44:LEU:H	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:800:A:C2	1:AA:802:A:C8	3.10	0.40
31:CA:602:A:C2	31:CA:603:U:C2	3.10	0.40
1:AA:2861:G:C2	1:AA:2862:G:C4	3.10	0.40
37:DJ:62:PHE:HD1	37:DJ:124:LEU:HD11	1.86	0.40
32:CE:178:ARG:HD2	38:CK:71:GLY:C	2.41	0.40
31:CA:1227:A:O3'	43:CP:115:LYS:HE3	2.20	0.40
4:AE:64:LYS:C	4:AE:66:HIS:N	2.70	0.40
1:BA:565:C:H4'	1:BA:1253:A:C6	2.56	0.40
31:DA:177:C:C4	31:DA:178:C:C5	3.09	0.40
1:AA:336:C:H2'	1:AA:337:C:H5'	2.03	0.40
10:BN:111:PHE:O	10:BN:115:VAL:HG23	2.21	0.40
6:AG:7:LEU:HB2	6:AG:104:GLU:OE1	2.21	0.40
1:AA:2681:C:C2'	1:AA:2682:U:OP2	2.69	0.40
53:CD:44:A:H2'	53:CD:45:A:C8	2.56	0.40
1:BA:872:A:C2	1:BA:906:G:N3	2.90	0.40
3:AD:177:LEU:HB3	3:AD:178:PRO:CD	2.52	0.40
25:AX:36:VAL:HG23	25:AX:36:VAL:O	2.20	0.40
1:BA:162:U:O3'	1:BA:171:G:C8	2.75	0.40
34:DG:134:ASP:CB	34:DG:135:LEU:HD13	2.51	0.40
1:BA:480:A:C2	1:BA:499:U:O2	2.74	0.40
12:AP:140:ALA:CB	21:AV:53:ILE:HD11	2.52	0.40
31:CA:857:C:N4	31:CA:858:G:C6	2.89	0.40
31:DA:843:U:H6	31:DA:843:U:OP1	2.04	0.40
1:BA:116:C:H2'	1:BA:117:G:O4'	2.21	0.40
43:DP:15:VAL:O	43:DP:19:LEU:HB2	2.22	0.40
1:BA:96:G:H4'	24:BW:48:HIS:CG	2.56	0.40
1:AA:2095:C:C4	1:AA:2096:U:C5	3.09	0.40
31:CA:22:G:C6	31:CA:23:C:C4	3.09	0.40
16:A1:66:ASN:HB2	16:A1:76:TYR:CB	2.49	0.40
21:AV:58:VAL:O	21:AV:67:LEU:O	2.39	0.40
1:BA:107:C:O2'	1:BA:108:U:H5'	2.21	0.40
2:BB:13:A:H2'	2:BB:70:C:O2'	2.22	0.40
1:BA:1190:G:H2'	1:BA:1191:G:C8	2.52	0.40
16:A1:39:LEU:HA	16:A1:39:LEU:HD23	1.86	0.40
31:CA:1039:C:C4	31:CA:1040:U:C5	3.09	0.40
31:DA:520:A:N1	31:DA:536:C:H1'	2.36	0.40
38:DK:75:ARG:HA	38:DK:76:PRO:HD3	1.84	0.40
1:AA:2261:C:H1'	1:AA:2388:A:N3	2.36	0.40
1:AA:275:G:N2	1:AA:276:A:C6	2.89	0.40
1:BA:2239:G:OP2	3:BD:244:ARG:NH2	2.47	0.40
1:BA:35:G:C1'	1:BA:454:A:N3	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1260:G:C6	1:BA:1261:C:C4	3.09	0.40
31:DA:1106:G:C5'	33:DF:172:ARG:HG2	2.52	0.40
38:DK:87:SER:HA	38:DK:93:VAL:HG23	2.02	0.40
1:BA:1725:G:C2	1:BA:1741:C:O2	2.74	0.40
1:BA:563:G:C5	1:BA:564:C:C5	3.09	0.40
1:BA:2814:C:C6	1:BA:2815:C:C5	3.09	0.40
3:AD:94:LEU:CD2	3:AD:95:LEU:N	2.84	0.40
31:DA:778:G:H1'	41:DN:119:CYS:HB3	2.02	0.40
10:BN:22:ILE:HA	10:BN:22:ILE:HD13	1.71	0.40
31:CA:782:A:H2'	31:CA:783:C:O4'	2.22	0.40
31:DA:152:A:N6	31:DA:170:U:C2	2.90	0.40
1:AA:1374:G:H2'	1:AA:1375:C:C6	2.57	0.40
1:BA:1575:C:H2'	1:BA:1576:U:H6	1.85	0.40
1:BA:407:G:H2'	1:BA:408:G:H8	1.86	0.40
31:CA:695:A:OP1	41:CN:52:GLY:HA3	2.22	0.40
42:CO:25:LYS:CD	42:CO:25:LYS:O	2.69	0.40
1:BA:2001:A:H2'	1:BA:2002:G:C8	2.56	0.40
13:B0:18:LEU:HD13	13:B0:22:ARG:NE	2.36	0.40
3:AD:257:LEU:HD22	3:AD:258:LYS:N	2.37	0.40
1:AA:2545:G:H2'	1:AA:2546:U:O4'	2.21	0.40
1:AA:498:G:C6	1:AA:499:U:C4	3.09	0.40
4:AE:30:PRO:O	4:AE:32:PRO:HD3	2.21	0.40
1:BA:2057:A:H2'	1:BA:2058:A:O4'	2.21	0.40
1:BA:633:A:C3'	1:BA:633:A:C8	3.05	0.40
1:BA:2394:C:O2	53:DD:77:A:O2'	2.38	0.40
27:B5:3:LYS:C	27:B5:3:LYS:HE3	2.36	0.40
1:AA:1567:A:O4'	1:AA:1568:G:C2	2.75	0.40
1:BA:2729:G:H2'	1:BA:2730:C:C6	2.57	0.40
1:BA:892:G:C5	1:BA:893:C:N4	2.90	0.40
31:DA:1329:A:N3	31:DA:1330:U:H1'	2.36	0.40
31:DA:973:G:H1'	40:DM:55:LYS:CE	2.50	0.40
30:A8:58:ILE:HG13	30:A8:61:LEU:CD1	2.52	0.40
1:BA:1093:G:H2'	1:BA:1098:A:H61	1.87	0.40
14:AQ:110:LEU:O	14:AQ:112:PHE:CE1	2.74	0.40
1:AA:2303:G:O2'	1:AA:2304:G:H5'	2.21	0.40
13:A0:1:MET:HB3	13:A0:2:ARG:H	1.70	0.40
31:CA:1176:A:N6	31:CA:1177:G:C2	2.90	0.40
31:CA:1131:G:C2'	31:CA:1132:C:H5'	2.52	0.40
34:DG:24:GLU:HG2	34:DG:25:ARG:N	2.34	0.40
34:DG:24:GLU:N	34:DG:24:GLU:CD	2.70	0.40
26:A4:61:ARG:C	26:A4:63:TYR:N	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:65:TRP:HB3	5:AF:66:PRO:HD2	2.03	0.40
20:BU:95:LYS:HD3	20:BU:96:ILE:O	2.21	0.40
17:B2:5:VAL:CA	17:B2:37:VAL:HB	2.46	0.40
53:CD:19:G:N2	53:CD:56:U:C2	2.89	0.40
31:CA:1028(B):C:N4	31:CA:1032(B):G:C6	2.90	0.40
1:AA:1142(A):A:C8	1:AA:1144:G:N7	2.89	0.40
1:AA:1171:G:N2	1:AA:1179:C:C2	2.89	0.40
3:AD:72:LYS:HB3	3:AD:72:LYS:HE3	1.93	0.40
1:BA:2312:U:C3'	1:BA:2312:U:C6	3.04	0.40
2:BB:45:A:C3'	2:BB:46:A:H5'	2.51	0.40
6:BG:109:VAL:CG1	6:BG:142:PRO:HD3	2.49	0.40
1:BA:2582:G:C2'	1:BA:2583:G:H5'	2.51	0.40
31:CA:687:A:C2	31:CA:704:A:C5	3.10	0.40
31:DA:1423:G:H2'	31:DA:1424:C:C6	2.56	0.40
9:AM:43:THR:HG23	16:A1:64:ARG:HH22	1.85	0.40
1:BA:1406:U:H3'	1:BA:1407:C:H6	1.86	0.40
1:BA:620:G:H4'	1:BA:621:A:C5'	2.50	0.40
1:AA:2757:A:N1	7:AH:67:LEU:HD22	2.36	0.40
22:A3:38:VAL:HG13	22:A3:40:GLN:CG	2.50	0.40
4:AE:13:ARG:HB3	4:AE:13:ARG:NH1	2.26	0.40
21:BV:163:LEU:HD12	21:BV:163:LEU:O	2.21	0.40
31:DA:1346:A:H3'	31:DA:1346:A:OP2	2.21	0.40
46:DS:53:VAL:O	46:DS:57:ARG:HG3	2.21	0.40
31:CA:147:G:C2	31:CA:148:G:C4	3.10	0.40
31:CA:150:C:N4	31:CA:170:U:N3	2.70	0.40
1:BA:2131:G:O5'	1:BA:2132:U:H5''	2.21	0.40
1:BA:2163:C:C4	1:BA:2164:C:N3	2.89	0.40
1:AA:2864:G:H2'	1:AA:2865:U:O4'	2.21	0.40
30:B8:6:THR:HG22	30:B8:60:LEU:O	2.22	0.40
32:CE:201:ILE:CG2	32:CE:214:ILE:HG21	2.50	0.40
31:CA:1228:C:H4'	43:CP:116:THR:HA	2.03	0.40
38:CK:112:LEU:HD12	38:CK:114:THR:HG23	2.01	0.40
31:CA:406:G:H2'	31:CA:407:G:C8	2.56	0.40
53:CC:48:U:H1'	53:CC:49:C:P	2.62	0.40
38:CK:64:LYS:O	38:CK:65:TYR:HD1	2.05	0.40
1:AA:1516:U:H2'	1:AA:1516:U:O2	2.22	0.40
1:BA:2632:A:O2'	1:BA:2811:G:O2'	2.09	0.40
31:CA:750:G:N3	31:CA:751:U:C6	2.90	0.40
45:CR:18:PHE:O	45:CR:19:PRO:C	2.58	0.40
31:CA:457:C:N3	31:CA:476:G:C2	2.89	0.40
46:CS:19:ILE:HB	46:CS:36:ILE:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BR:107:ASP:CG	15:BR:109:GLU:HB2	2.42	0.40
5:BF:68:LYS:NZ	5:BF:68:LYS:HA	2.36	0.40
1:AA:1799:G:O2'	1:AA:1800:C:OP2	2.25	0.40
1:AA:902:C:C2'	1:AA:903:C:H5'	2.51	0.40
1:BA:303:U:H2'	1:BA:304:G:C8	2.57	0.40
31:CA:1342:C:H2'	31:CA:1343:G:C8	2.57	0.40
1:AA:2345:G:N3	1:AA:2381:C:H2'	2.36	0.40
1:AA:1543:A:O4'	1:AA:1545:A:O4'	2.39	0.40
13:B0:51:LEU:HD23	13:B0:51:LEU:HA	1.84	0.40
31:CA:260:G:C6	31:CA:261:U:O4	2.74	0.40
12:AP:59:ARG:HD2	12:AP:59:ARG:H	1.86	0.40
2:BB:31:C:O2'	2:BB:32:C:H5'	2.22	0.40
19:BT:5:TYR:CE2	24:BW:30:ARG:HG3	2.56	0.40
31:CA:191(B):G:O2'	31:CA:191(C):G:H5'	2.22	0.40
21:AV:27:VAL:CG2	21:AV:28:MET:N	2.85	0.40
35:DH:71:LEU:HD22	35:DH:115:VAL:HG12	2.04	0.40
8:AK:81:VAL:HG11	8:AK:88:ILE:HD13	2.03	0.40
1:AA:587:C:C2	11:AO:33:ARG:NH1	2.90	0.40
1:BA:1657:C:H2'	1:BA:1658:C:O4'	2.22	0.40
1:BA:2053:G:H1	1:BA:2616:C:H42	1.69	0.40
1:AA:1829:A:N3	3:AD:15:PHE:HE1	2.19	0.40
1:AA:2764:A:N7	1:AA:2766:G:C6	2.90	0.40
6:AG:16:ARG:N	6:AG:17:PRO:HD2	2.36	0.40
5:BF:164:ARG:O	5:BF:168:ARG:HB2	2.21	0.40
1:BA:464:U:C2	1:BA:788:A:C6	3.10	0.40
6:BG:122:PRO:O	6:BG:125:PHE:HD1	2.05	0.40
52:DB:10:G:H2'	52:DB:11:U:C6	2.57	0.40
31:DA:402:G:C6	31:DA:403:C:C5	3.10	0.40
1:BA:51:G:N3	1:BA:119:A:C2	2.89	0.40
1:AA:270(O):U:H5''	1:AA:270(P):C:P	2.62	0.40
1:AA:2283:C:H2'	1:AA:2284:C:H5'	2.03	0.40
1:BA:181:A:H5''	29:B7:36:GLN:HE22	1.86	0.40
36:DI:55:ASP:HA	36:DI:56:PRO:HD3	1.91	0.40
21:AV:101:PRO:C	21:AV:102:LEU:HD23	2.42	0.40
50:DW:42:GLN:HA	50:DW:42:GLN:HE21	1.87	0.40
1:AA:520:G:H2'	1:AA:521:G:H8	1.86	0.40
52:DB:2:C:C6	52:DB:2:C:OP2	2.74	0.40
31:CA:1208:C:C5	31:CA:1209:C:C5	3.10	0.40
53:CC:33:C:H2'	53:CC:34:U:H5'	2.03	0.40
31:DA:301:G:C4	31:DA:302:G:C8	3.09	0.40
1:AA:384:U:H2'	1:AA:385:C:H6	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:194:G:C2	1:BA:202:U:H1'	2.57	0.40
31:CA:638:G:C2	31:CA:639:G:C4	3.08	0.40
40:CM:15:THR:O	40:CM:19:SER:N	2.52	0.40
53:CD:34:U:H5''	53:CD:35:C:OP2	2.22	0.40
1:BA:2083:G:C6	1:BA:2084:C:C4	3.10	0.40
43:DP:36:LYS:HB3	43:DP:36:LYS:HE2	1.74	0.40
1:BA:1830:C:H6	1:BA:1830:C:O5'	2.05	0.40
7:BH:85:LYS:HD2	7:BH:85:LYS:HA	1.76	0.40
1:AA:2359:C:H6	1:AA:2359:C:O5'	2.04	0.40
1:AA:709:U:H2'	1:AA:710:G:O4'	2.22	0.40
12:AP:47:ILE:HG22	12:AP:48:GLU:N	2.35	0.40
1:BA:220:G:H2'	1:BA:427:U:O4	2.21	0.40
1:BA:2685:G:O2'	1:BA:2726:U:H5	2.04	0.40
31:DA:1130:A:P	31:DA:1131:G:OP2	2.79	0.40
31:DA:1281:U:H4'	31:DA:1282:C:OP2	2.21	0.40
39:DL:4:TYR:CE2	39:DL:88:TYR:CG	3.09	0.40
31:DA:1207:G:H2'	31:DA:1208:C:C6	2.57	0.40
45:CR:78:TYR:CZ	45:CR:82:ILE:HD12	2.57	0.40
45:CR:78:TYR:CZ	45:CR:82:ILE:CD1	3.04	0.40
53:DC:18:C:HO2'	53:DC:19:G:P	2.45	0.40
31:CA:974:A:O2'	31:CA:975:A:P	2.78	0.40
31:DA:1026:G:O6	31:DA:1036:G:N3	2.54	0.40
1:BA:1066:U:N3	1:BA:1069:A:OP2	2.55	0.40
31:CA:1117:G:H5''	39:CL:104:ARG:NH1	2.37	0.40
31:CA:352:C:O2'	31:CA:354:G:OP1	2.23	0.40
1:AA:1857:G:C6	1:AA:1858:G:N1	2.90	0.40
1:BA:2123:G:H2'	1:BA:2124:G:H8	1.86	0.40
53:DD:8:U:O2'	53:DD:47:G:H1'	2.21	0.40
41:CN:32:ILE:CG2	41:CN:77:MET:HE2	2.51	0.40
31:CA:1502:A:H2	31:CA:1505:G:N1	2.18	0.40
1:BA:945:A:C2	1:BA:2448:A:C4	3.09	0.40
1:BA:1006:C:O2'	9:BM:106:MET:O	2.36	0.40
1:BA:444:C:H2'	1:BA:445:C:H6	1.87	0.40
1:AA:792:G:H5''	1:AA:793:A:H5'	2.03	0.40
31:CA:1034:G:C2	31:CA:1035:A:C5	3.09	0.40
31:DA:1240:U:OP2	37:DJ:116:ALA:N	2.38	0.40
31:CA:838:G:H2'	31:CA:841:U:H5''	2.04	0.40
31:CA:818:G:C2	31:CA:820:U:O2'	2.70	0.40
16:B1:110:VAL:O	16:B1:113:ALA:HB3	2.22	0.40
21:BV:59:LEU:HG	21:BV:69:THR:OG1	2.22	0.40
31:DA:279:A:H5''	31:DA:281:G:H5'	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:2799:A:H2'	1:BA:2801:A:N9	2.36	0.40
1:BA:2555:U:C5	1:BA:2556:C:C6	3.09	0.40
31:CA:686:U:H1'	41:CN:42:TRP:NE1	2.20	0.40
38:CK:87:SER:HA	38:CK:93:VAL:HG23	2.02	0.40
31:CA:270:A:C6	31:CA:271:C:C4	3.10	0.40
1:BA:1597:A:C5'	1:BA:1598:C:OP1	2.69	0.40
31:DA:900:A:H2'	31:DA:901:A:C8	2.56	0.40
15:BR:26:ASP:HB3	15:BR:92:GLY:N	2.34	0.40
18:AS:17:VAL:O	18:AS:20:VAL:HG22	2.22	0.40
9:AM:34:LEU:HA	9:AM:34:LEU:HD13	1.80	0.40
11:AO:45:LEU:HD13	11:AO:45:LEU:HA	1.85	0.40
41:DN:103:LEU:HD22	41:DN:103:LEU:H	1.86	0.40
31:DA:1343:G:C5	31:DA:1344:C:C4	3.08	0.40
8:BK:77:LEU:CG	8:BK:78:THR:H	2.35	0.40
2:BB:16:G:O2'	2:BB:17:C:H5'	2.22	0.40
31:DA:742:G:P	45:DR:35:ARG:NH2	2.94	0.40
20:BU:89:PHE:HD1	20:BU:90:LEU:CD2	2.34	0.40
32:DE:8:LYS:CD	32:DE:11:LEU:HB2	2.51	0.40
1:BA:1776:G:C2	1:BA:1777:U:C6	3.10	0.40
33:CF:78:GLY:HA3	33:CF:83:ARG:CB	2.50	0.40
53:CD:27:G:H1	53:CD:46:G:N2	2.19	0.40
20:BU:47:LYS:HA	20:BU:60:PHE:CB	2.52	0.40
35:DH:11:ILE:HG21	35:DH:105:VAL:HG22	2.03	0.40
33:DF:16:ARG:NH1	33:DF:16:ARG:CB	2.83	0.40
52:CB:27:G:H5''	52:CB:28:C:C5	2.52	0.40
1:AA:910:A:H2'	1:AA:2264:C:O2'	2.21	0.40
1:AA:910:A:C6	1:AA:911:A:C6	3.08	0.40
39:DL:37:PHE:HB3	39:DL:43:ALA:CB	2.51	0.40
31:CA:1171:G:H2'	31:CA:1172:C:C6	2.56	0.40
31:DA:56:U:H2'	31:DA:57:G:C8	2.57	0.40
1:AA:2148:G:C2	1:AA:2149:G:C8	3.10	0.40
13:A0:70:LEU:C	13:A0:72:ASP:H	2.25	0.40
32:DE:97:TRP:CE2	32:DE:101:MET:HG3	2.57	0.40
32:DE:96:ARG:HH11	32:DE:148:TYR:HE1	1.69	0.40
3:BD:161:THR:O	3:BD:162:SER:HB3	2.21	0.40
35:CH:148:VAL:HG12	35:CH:149:GLU:N	2.34	0.40
11:BO:85:LEU:CA	11:BO:88:LEU:HB3	2.49	0.40
1:AA:2562:U:C1'	10:AN:23:ARG:HH11	2.35	0.40
1:AA:2351:G:H1'	1:AA:2366:A:H61	1.86	0.40
5:AF:24:LEU:HA	5:AF:25:PRO:HD2	1.90	0.40
31:CA:232:G:C4	31:CA:233:C:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:939:G:C4	31:CA:940:C:C5	3.10	0.40
1:AA:2247:A:O2'	1:AA:2248:C:H5'	2.22	0.40
1:AA:1562:A:C2	1:AA:1563:G:C4	3.09	0.40
2:AB:94:C:C5	2:AB:95:U:H5	2.40	0.40
21:BV:28:MET:CG	21:BV:37:VAL:HG11	2.51	0.40
32:DE:224:GLN:HG3	32:DE:225:ALA:N	2.37	0.40
13:A0:8:ARG:HG3	13:A0:43:GLU:CD	2.41	0.40
39:CL:4:TYR:CE1	39:CL:88:TYR:HB2	2.56	0.40
1:AA:1893:C:C6	1:AA:1894:C:C5	3.10	0.40
14:AQ:58:LEU:N	14:AQ:58:LEU:CD2	2.83	0.40
1:BA:2037:G:H2'	1:BA:2038:G:H8	1.86	0.40
34:CG:86:LYS:HD2	34:CG:86:LYS:H	1.87	0.40
1:BA:49:A:H4'	1:BA:50:U:H5''	2.04	0.40
31:DA:278:G:OP2	47:DT:41:LYS:NZ	2.48	0.40
8:BK:29:TYR:CD2	8:BK:30:LEU:HD23	2.56	0.40
13:B0:63:ARG:NH1	13:B0:80:PHE:CD1	2.90	0.40
1:BA:1500:G:O2'	1:BA:1501:C:H5'	2.22	0.40
5:BF:64:ILE:HG13	5:BF:65:TRP:CG	2.57	0.40
31:CA:373:A:C2	31:CA:482:A:C6	3.10	0.40
31:CA:587:G:C2	31:CA:755:G:C5	3.09	0.40
1:BA:1638:C:H1'	1:BA:2698:U:O2'	2.22	0.40
37:DJ:131:LYS:O	37:DJ:131:LYS:HG2	2.21	0.40
6:AG:44:GLY:O	6:AG:47:LYS:HE2	2.22	0.40
1:BA:646:A:C2'	1:BA:647:G:O5'	2.70	0.40
39:CL:21:PRO:HA	39:CL:59:PHE:HA	2.03	0.40
38:CK:39:LEU:CD1	38:CK:111:ILE:HD11	2.50	0.40
1:BA:1545(A):A:N7	1:BA:1546:C:C2	2.90	0.40
19:AT:10:ALA:HA	19:AT:11:PRO:HD3	1.91	0.40
1:BA:2734:A:H2'	1:BA:2735:G:O4'	2.22	0.40
1:AA:270(Y):G:C2	1:AA:270(Z):U:O4	2.75	0.40
8:AK:1:MET:O	8:AK:20:ASP:HA	2.21	0.40
17:B2:58:VAL:HB	17:B2:98:GLU:HB2	2.03	0.40
1:BA:813:U:H2'	1:BA:814:C:C6	2.56	0.40
11:AO:91:PHE:HZ	11:AO:103:ALA:CB	2.34	0.40
20:AU:102:CYS:SG	20:AU:103:GLY:N	2.93	0.40
1:AA:2523:G:C2'	1:AA:2524:G:H5'	2.52	0.40
38:CK:54:ASP:O	38:CK:56:LYS:HD2	2.22	0.40
22:B3:64:ASP:OD1	22:B3:64:ASP:N	2.54	0.40
39:CL:89:ASN:N	39:CL:89:ASN:OD1	2.54	0.40

All (5) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:276:A:OP2	31:DA:86:U:O2'[3_555]	1.96	0.24
7:BH:100:GLY:O	31:CA:85:U:O2'[3_545]	2.02	0.18
36:CI:15:ASP:OD2	34:DG:27:TYR:OH[4_555]	2.06	0.14
7:BH:132:ARG:O	31:CA:84:U:N3[3_545]	2.18	0.02
17:A2:51:VAL:N	27:A5:60:VAL:O[4_465]	2.19	0.01

## 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	
3	AD	270/276 (98%)	244 (90%)	20 (7%)	6 (2%)	8	41
3	BD	270/276 (98%)	246 (91%)	15 (6%)	9 (3%)	5	30
4	AE	203/206 (98%)	149 (73%)	37 (18%)	17 (8%)	1	7
4	BE	203/206 (98%)	149 (73%)	34 (17%)	20 (10%)	1	5
5	AF	200/210 (95%)	181 (90%)	19 (10%)	0	100	100
5	BF	206/210 (98%)	172 (84%)	29 (14%)	5 (2%)	7	38
6	AG	179/182 (98%)	155 (87%)	17 (10%)	7 (4%)	4	25
6	BG	179/182 (98%)	150 (84%)	28 (16%)	1 (1%)	30	68
7	AH	168/180 (93%)	135 (80%)	25 (15%)	8 (5%)	3	20
7	BH	168/180 (93%)	129 (77%)	37 (22%)	2 (1%)	16	54
8	AK	144/148 (97%)	108 (75%)	28 (19%)	8 (6%)	2	16
8	BK	144/148 (97%)	114 (79%)	27 (19%)	3 (2%)	9	42
9	AM	136/140 (97%)	113 (83%)	17 (12%)	6 (4%)	3	22
9	BM	136/140 (97%)	120 (88%)	12 (9%)	4 (3%)	6	34
10	AN	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
10	BN	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	24	62
11	AO	148/150 (99%)	101 (68%)	31 (21%)	16 (11%)	0	4
11	BO	148/150 (99%)	95 (64%)	32 (22%)	21 (14%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	AP	139/141 (99%)	101 (73%)	19 (14%)	19 (14%)	0	2
12	BP	139/141 (99%)	88 (63%)	34 (24%)	17 (12%)	0	2
13	A0	116/118 (98%)	99 (85%)	16 (14%)	1 (1%)	21	60
13	B0	115/118 (98%)	108 (94%)	7 (6%)	0	100	100
14	AQ	109/112 (97%)	87 (80%)	20 (18%)	2 (2%)	11	46
14	BQ	109/112 (97%)	87 (80%)	18 (16%)	4 (4%)	4	27
15	AR	135/146 (92%)	111 (82%)	22 (16%)	2 (2%)	13	49
15	BR	135/146 (92%)	124 (92%)	11 (8%)	0	100	100
16	A1	115/118 (98%)	105 (91%)	9 (8%)	1 (1%)	21	60
16	B1	115/118 (98%)	102 (89%)	12 (10%)	1 (1%)	21	60
17	A2	99/101 (98%)	91 (92%)	5 (5%)	3 (3%)	5	33
17	B2	99/101 (98%)	73 (74%)	13 (13%)	13 (13%)	0	2
18	AS	111/113 (98%)	102 (92%)	8 (7%)	1 (1%)	21	60
18	BS	111/113 (98%)	104 (94%)	7 (6%)	0	100	100
19	AT	90/96 (94%)	84 (93%)	4 (4%)	2 (2%)	8	41
19	BT	90/96 (94%)	81 (90%)	8 (9%)	1 (1%)	17	57
20	AU	100/110 (91%)	84 (84%)	10 (10%)	6 (6%)	2	15
20	BU	100/110 (91%)	67 (67%)	27 (27%)	6 (6%)	2	15
21	AV	173/206 (84%)	131 (76%)	35 (20%)	7 (4%)	4	24
21	BV	177/206 (86%)	139 (78%)	30 (17%)	8 (4%)	3	21
22	A3	74/85 (87%)	68 (92%)	4 (5%)	2 (3%)	6	35
22	B3	75/85 (88%)	70 (93%)	5 (7%)	0	100	100
23	AZ	95/98 (97%)	86 (90%)	6 (6%)	3 (3%)	5	31
23	BZ	95/98 (97%)	84 (88%)	10 (10%)	1 (1%)	17	57
24	AW	64/72 (89%)	60 (94%)	1 (2%)	3 (5%)	3	20
24	BW	67/72 (93%)	60 (90%)	6 (9%)	1 (2%)	13	49
25	AX	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
25	BX	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
26	A4	64/71 (90%)	42 (66%)	20 (31%)	2 (3%)	5	32
26	B4	61/71 (86%)	32 (52%)	27 (44%)	2 (3%)	5	30
27	A5	57/60 (95%)	48 (84%)	8 (14%)	1 (2%)	11	46

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
27	B5	57/60 (95%)	48 (84%)	6 (10%)	3 (5%)	2	17
28	A6	43/54 (80%)	28 (65%)	13 (30%)	2 (5%)	3	20
28	B6	43/54 (80%)	26 (60%)	11 (26%)	6 (14%)	0	2
29	A7	47/49 (96%)	43 (92%)	4 (8%)	0	100	100
29	B7	47/49 (96%)	45 (96%)	2 (4%)	0	100	100
30	A8	59/65 (91%)	54 (92%)	4 (7%)	1 (2%)	11	47
30	B8	59/65 (91%)	42 (71%)	10 (17%)	7 (12%)	0	3
32	CE	235/256 (92%)	190 (81%)	44 (19%)	1 (0%)	39	76
32	DE	235/256 (92%)	186 (79%)	45 (19%)	4 (2%)	11	47
33	CF	203/239 (85%)	180 (89%)	23 (11%)	0	100	100
33	DF	204/239 (85%)	179 (88%)	23 (11%)	2 (1%)	19	58
34	CG	206/208 (99%)	180 (87%)	25 (12%)	1 (0%)	34	71
34	DG	206/208 (99%)	177 (86%)	28 (14%)	1 (0%)	34	71
35	CH	149/162 (92%)	137 (92%)	11 (7%)	1 (1%)	26	66
35	DH	149/162 (92%)	139 (93%)	10 (7%)	0	100	100
36	CI	99/101 (98%)	92 (93%)	7 (7%)	0	100	100
36	DI	99/101 (98%)	94 (95%)	5 (5%)	0	100	100
37	CJ	153/156 (98%)	144 (94%)	9 (6%)	0	100	100
37	DJ	153/156 (98%)	143 (94%)	10 (6%)	0	100	100
38	CK	136/138 (99%)	122 (90%)	13 (10%)	1 (1%)	26	66
38	DK	136/138 (99%)	123 (90%)	13 (10%)	0	100	100
39	CL	125/128 (98%)	111 (89%)	14 (11%)	0	100	100
39	DL	125/128 (98%)	114 (91%)	11 (9%)	0	100	100
40	CM	97/105 (92%)	87 (90%)	10 (10%)	0	100	100
40	DM	97/105 (92%)	88 (91%)	7 (7%)	2 (2%)	9	42
41	CN	117/129 (91%)	106 (91%)	11 (9%)	0	100	100
41	DN	117/129 (91%)	105 (90%)	12 (10%)	0	100	100
42	CO	123/132 (93%)	108 (88%)	13 (11%)	2 (2%)	12	48
42	DO	123/132 (93%)	105 (85%)	16 (13%)	2 (2%)	12	48
43	CP	114/126 (90%)	90 (79%)	24 (21%)	0	100	100
43	DP	115/126 (91%)	97 (84%)	17 (15%)	1 (1%)	21	60

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
44	CQ	58/61 (95%)	50 (86%)	6 (10%)	2 (3%)	5	29
44	DQ	58/61 (95%)	49 (84%)	8 (14%)	1 (2%)	11	47
45	CR	86/89 (97%)	79 (92%)	7 (8%)	0	100	100
45	DR	86/89 (97%)	78 (91%)	8 (9%)	0	100	100
46	CS	82/88 (93%)	76 (93%)	6 (7%)	0	100	100
46	DS	82/88 (93%)	76 (93%)	6 (7%)	0	100	100
47	CT	98/105 (93%)	89 (91%)	7 (7%)	2 (2%)	9	43
47	DT	98/105 (93%)	93 (95%)	5 (5%)	0	100	100
48	CU	70/88 (80%)	63 (90%)	6 (9%)	1 (1%)	14	50
48	DU	70/88 (80%)	63 (90%)	7 (10%)	0	100	100
49	CV	76/93 (82%)	68 (90%)	6 (8%)	2 (3%)	7	36
49	DV	76/93 (82%)	58 (76%)	13 (17%)	5 (7%)	1	12
50	CW	97/106 (92%)	82 (84%)	14 (14%)	1 (1%)	19	58
50	DW	97/106 (92%)	81 (84%)	15 (16%)	1 (1%)	19	58
51	CX	23/27 (85%)	22 (96%)	1 (4%)	0	100	100
51	DX	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
All	All	11336/12052 (94%)	9645 (85%)	1396 (12%)	295 (3%)	7	36

All (295) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AD	237	GLU
3	AD	271	ILE
4	AE	15	PHE
4	AE	19	ARG
4	AE	23	VAL
4	AE	53	PRO
4	AE	57	LYS
6	AG	78	SER
6	AG	79	ASN
6	AG	81	LYS
6	AG	82	LEU
6	AG	83	ARG
8	AK	15	VAL
9	AM	22	THR
11	AO	12	ALA

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Mol	Chain	Res	Type
11	AO	16	ARG
11	AO	55	ARG
11	AO	57	THR
11	AO	58	THR
12	AP	27	VAL
12	AP	65	PHE
12	AP	66	ILE
12	AP	67	ARG
12	AP	79	LEU
12	AP	80	GLU
12	AP	89	ASN
14	AQ	89	ARG
15	AR	55	ASN
15	AR	58	ASN
19	AT	68	ARG
21	AV	171	ILE
26	A4	5	ILE
26	A4	50	VAL
27	A5	4	HIS
28	A6	47	THR
3	BD	237	GLU
3	BD	271	ILE
3	BD	272	ALA
4	BE	9	VAL
4	BE	25	VAL
4	BE	45	THR
4	BE	52	LEU
4	BE	53	PRO
4	BE	81	ILE
4	BE	82	ARG
4	BE	131	ALA
4	BE	132	HIS
4	BE	133	LYS
5	BF	84	VAL
5	BF	89	VAL
9	BM	46	VAL
9	BM	47	ALA
11	BO	6	LEU
11	BO	16	ARG
11	BO	56	SER
11	BO	57	THR
11	BO	58	THR

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Mol	Chain	Res	Type
11	BO	106	LEU
11	BO	107	LYS
11	BO	111	ARG
12	BP	25	ASP
12	BP	60	ARG
12	BP	63	LYS
12	BP	67	ARG
12	BP	79	LEU
12	BP	89	ASN
14	BQ	87	PHE
14	BQ	88	ASP
17	B2	71	LEU
17	B2	72	VAL
17	B2	73	SER
17	B2	76	LYS
17	B2	78	LYS
17	B2	79	VAL
17	B2	80	GLN
17	B2	81	TYR
17	B2	85	LYS
21	BV	53	ILE
21	BV	171	ILE
26	B4	5	ILE
27	B5	4	HIS
27	B5	5	PRO
28	B6	44	ARG
28	B6	45	LYS
28	B6	47	THR
28	B6	48	VAL
28	B6	49	HIS
30	B8	31	HIS
30	B8	50	LEU
30	B8	51	ALA
30	B8	52	LYS
47	CT	78	GLU
48	CU	22	VAL
33	DF	64	VAL
34	DG	14	ARG
49	DV	10	PHE
49	DV	31	ILE
4	AE	81	ILE
6	AG	84	LYS

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Mol	Chain	Res	Type
7	AH	169	VAL
9	AM	9	VAL
9	AM	97	ARG
11	AO	6	LEU
11	AO	51	PHE
11	AO	56	SER
11	AO	65	ARG
11	AO	66	GLY
11	AO	67	MET
12	AP	14	ARG
12	AP	19	GLY
12	AP	25	ASP
12	AP	60	ARG
12	AP	62	GLY
12	AP	88	GLY
12	AP	90	VAL
16	A1	93	LYS
19	AT	67	GLY
21	AV	53	ILE
23	AZ	86	SER
24	AW	16	LEU
4	BE	55	ASN
4	BE	80	GLU
5	BF	128	ALA
7	BH	169	VAL
8	BK	143	SER
8	BK	144	VAL
9	BM	48	MET
11	BO	22	GLY
11	BO	47	ASP
11	BO	65	ARG
11	BO	66	GLY
11	BO	67	MET
11	BO	105	LEU
12	BP	27	VAL
12	BP	66	ILE
12	BP	88	GLY
17	B2	45	THR
21	BV	165	VAL
27	B5	6	VAL
30	B8	35	GLN
30	B8	55	ALA

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Mol	Chain	Res	Type
38	CK	86	ILE
42	CO	45	PRO
32	DE	7	VAL
32	DE	74	LYS
42	DO	26	ALA
49	DV	9	VAL
49	DV	67	VAL
49	DV	68	GLY
4	AE	79	ARG
4	AE	82	ARG
7	AH	84	SER
7	AH	154	PRO
8	AK	11	ASN
8	AK	105	HIS
11	AO	10	PRO
12	AP	64	ILE
13	A0	11	ASN
20	AU	77	PRO
21	AV	7	ALA
21	AV	141	VAL
23	AZ	92	LYS
3	BD	26	LYS
4	BE	37	ARG
4	BE	61	ARG
12	BP	7	MET
14	BQ	89	ARG
17	B2	77	ALA
20	BU	77	PRO
21	BV	116	VAL
21	BV	161	VAL
30	B8	30	ARG
47	CT	80	GLY
3	AD	28	GLU
4	AE	22	PRO
4	AE	54	GLN
4	AE	63	LEU
7	AH	83	TYR
8	AK	144	VAL
8	AK	145	VAL
9	AM	127	ASP
9	AM	128	HIS
11	AO	19	VAL

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Mol	Chain	Res	Type
12	AP	78	PRO
14	AQ	88	ASP
17	A2	45	THR
20	AU	49	VAL
21	AV	165	VAL
22	A3	83	PRO
23	AZ	84	GLY
28	A6	45	LYS
3	BD	28	GLU
4	BE	44	TYR
4	BE	62	PRO
5	BF	132	VAL
11	BO	7	ARG
11	BO	14	LYS
11	BO	49	ARG
12	BP	51	ARG
12	BP	55	VAL
12	BP	77	LYS
17	B2	49	THR
17	B2	86	GLY
20	BU	49	VAL
28	B6	46	HIS
34	CG	14	ARG
42	CO	15	VAL
32	DE	153	ARG
40	DM	32	ALA
40	DM	86	MET
50	DW	95	ALA
4	AE	4	ILE
4	AE	14	ILE
4	AE	55	ASN
7	AH	167	GLU
8	AK	10	GLU
8	AK	39	ALA
11	AO	62	LEU
12	AP	59	ARG
17	A2	48	GLY
20	AU	78	ALA
22	A3	84	LEU
24	AW	15	LYS
4	BE	26	ILE
4	BE	59	VAL

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Mol	Chain	Res	Type
4	BE	204	ALA
5	BF	90	PHE
9	BM	128	HIS
11	BO	10	PRO
11	BO	12	ALA
11	BO	62	LEU
12	BP	90	VAL
21	BV	146	ILE
44	CQ	17	LYS
49	CV	41	VAL
44	DQ	14	PRO
3	AD	240	ALA
7	AH	155	SER
8	AK	133	HIS
9	AM	115	ARG
11	AO	7	ARG
12	AP	21	THR
18	AS	59	VAL
24	AW	43	GLN
3	BD	29	PRO
4	BE	130	GLY
6	BG	5	VAL
10	BN	48	PRO
16	B1	92	ARG
24	BW	17	SER
44	CQ	14	PRO
33	DF	66	VAL
4	AE	21	VAL
6	AG	5	VAL
3	BD	240	ALA
8	BK	145	VAL
11	BO	23	PRO
12	BP	19	GLY
20	BU	85	VAL
49	CV	9	VAL
32	DE	39	ILE
42	DO	47	LYS
43	DP	117	VAL
4	AE	61	ARG
4	AE	72	VAL
7	AH	12	PRO
12	AP	61	GLY

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Mol	Chain	Res	Type
17	A2	49	THR
20	AU	3	VAL
20	AU	39	VAL
30	A8	14	VAL
19	BT	51	VAL
23	BZ	30	VAL
32	CE	194	PRO
3	AD	3	VAL
11	AO	95	VAL
21	AV	62	PRO
3	BD	3	VAL
7	BH	167	GLU
12	BP	61	GLY
20	BU	42	VAL
21	BV	141	VAL
35	CH	115	VAL
3	AD	35	LYS
7	AH	10	PRO
20	AU	42	VAL
21	AV	161	VAL
3	BD	35	LYS
12	BP	64	ILE
14	BQ	90	GLY
20	BU	3	VAL
20	BU	39	VAL
21	BV	61	LEU
26	B4	33	VAL
50	CW	100	ILE

### 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
3	AD	214/218 (98%)	176 (82%)	38 (18%)	2 10
3	BD	214/218 (98%)	163 (76%)	51 (24%)	1 3
4	AE	165/166 (99%)	119 (72%)	46 (28%)	0 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	BE	165/166 (99%)	127 (77%)	38 (23%)	1	4
5	AF	161/166 (97%)	125 (78%)	36 (22%)	1	4
5	BF	165/166 (99%)	124 (75%)	41 (25%)	1	3
6	AG	155/156 (99%)	121 (78%)	34 (22%)	1	5
6	BG	155/156 (99%)	116 (75%)	39 (25%)	1	2
7	AH	142/148 (96%)	110 (78%)	32 (22%)	1	4
7	BH	142/148 (96%)	118 (83%)	24 (17%)	2	12
8	AK	122/124 (98%)	99 (81%)	23 (19%)	2	8
8	BK	122/124 (98%)	89 (73%)	33 (27%)	0	2
9	AM	117/119 (98%)	88 (75%)	29 (25%)	1	3
9	BM	117/119 (98%)	95 (81%)	22 (19%)	2	8
10	AN	100/100 (100%)	86 (86%)	14 (14%)	4	20
10	BN	100/100 (100%)	80 (80%)	20 (20%)	1	6
11	AO	116/116 (100%)	81 (70%)	35 (30%)	0	1
11	BO	116/116 (100%)	76 (66%)	40 (34%)	0	1
12	AP	111/111 (100%)	86 (78%)	25 (22%)	1	4
12	BP	111/111 (100%)	86 (78%)	25 (22%)	1	4
13	A0	101/101 (100%)	80 (79%)	21 (21%)	1	6
13	B0	100/101 (99%)	81 (81%)	19 (19%)	2	8
14	AQ	87/88 (99%)	69 (79%)	18 (21%)	1	6
14	BQ	87/88 (99%)	66 (76%)	21 (24%)	1	3
15	AR	120/127 (94%)	91 (76%)	29 (24%)	1	3
15	BR	120/127 (94%)	84 (70%)	36 (30%)	0	1
16	A1	93/94 (99%)	77 (83%)	16 (17%)	2	12
16	B1	93/94 (99%)	80 (86%)	13 (14%)	4	20
17	A2	82/82 (100%)	59 (72%)	23 (28%)	0	2
17	B2	82/82 (100%)	54 (66%)	28 (34%)	0	1
18	AS	92/92 (100%)	72 (78%)	20 (22%)	1	5
18	BS	92/92 (100%)	66 (72%)	26 (28%)	0	2
19	AT	74/78 (95%)	58 (78%)	16 (22%)	1	5
19	BT	74/78 (95%)	60 (81%)	14 (19%)	2	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
20	AU	85/91 (93%)	68 (80%)	17 (20%)	1	6
20	BU	85/91 (93%)	61 (72%)	24 (28%)	0	2
21	AV	154/179 (86%)	123 (80%)	31 (20%)	1	6
21	BV	158/179 (88%)	130 (82%)	28 (18%)	2	10
22	A3	61/67 (91%)	52 (85%)	9 (15%)	4	17
22	B3	62/67 (92%)	50 (81%)	12 (19%)	2	7
23	AZ	82/83 (99%)	70 (85%)	12 (15%)	4	18
23	BZ	82/83 (99%)	66 (80%)	16 (20%)	2	7
24	AW	62/67 (92%)	46 (74%)	16 (26%)	0	2
24	BW	64/67 (96%)	51 (80%)	13 (20%)	1	6
25	AX	51/52 (98%)	47 (92%)	4 (8%)	16	50
25	BX	51/52 (98%)	38 (74%)	13 (26%)	1	2
26	A4	59/63 (94%)	42 (71%)	17 (29%)	0	1
26	B4	57/63 (90%)	41 (72%)	16 (28%)	0	2
27	A5	51/52 (98%)	37 (72%)	14 (28%)	0	2
27	B5	51/52 (98%)	38 (74%)	13 (26%)	1	2
28	A6	44/52 (85%)	28 (64%)	16 (36%)	0	1
28	B6	44/52 (85%)	29 (66%)	15 (34%)	0	1
29	A7	42/42 (100%)	35 (83%)	7 (17%)	3	13
29	B7	42/42 (100%)	30 (71%)	12 (29%)	0	1
30	A8	51/55 (93%)	41 (80%)	10 (20%)	1	7
30	B8	51/55 (93%)	37 (72%)	14 (28%)	0	2
32	CE	205/220 (93%)	164 (80%)	41 (20%)	1	6
32	DE	205/220 (93%)	168 (82%)	37 (18%)	2	10
33	CF	159/188 (85%)	132 (83%)	27 (17%)	2	12
33	DF	160/188 (85%)	129 (81%)	31 (19%)	2	7
34	CG	180/180 (100%)	150 (83%)	30 (17%)	3	13
34	DG	180/180 (100%)	141 (78%)	39 (22%)	1	5
35	CH	116/123 (94%)	94 (81%)	22 (19%)	2	8
35	DH	116/123 (94%)	97 (84%)	19 (16%)	3	14
36	CI	90/90 (100%)	78 (87%)	12 (13%)	5	21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
36	DI	90/90 (100%)	78 (87%)	12 (13%)	5	21
37	CJ	126/127 (99%)	105 (83%)	21 (17%)	3	13
37	DJ	126/127 (99%)	100 (79%)	26 (21%)	1	6
38	CK	119/119 (100%)	106 (89%)	13 (11%)	8	32
38	DK	119/119 (100%)	102 (86%)	17 (14%)	4	19
39	CL	98/99 (99%)	69 (70%)	29 (30%)	0	1
39	DL	98/99 (99%)	72 (74%)	26 (26%)	0	2
40	CM	89/92 (97%)	69 (78%)	20 (22%)	1	4
40	DM	89/92 (97%)	65 (73%)	24 (27%)	0	2
41	CN	90/99 (91%)	77 (86%)	13 (14%)	4	19
41	DN	90/99 (91%)	79 (88%)	11 (12%)	6	26
42	CO	104/109 (95%)	88 (85%)	16 (15%)	3	16
42	DO	104/109 (95%)	85 (82%)	19 (18%)	2	9
43	CP	94/101 (93%)	76 (81%)	18 (19%)	2	8
43	DP	94/101 (93%)	77 (82%)	17 (18%)	2	9
44	CQ	49/50 (98%)	34 (69%)	15 (31%)	0	1
44	DQ	49/50 (98%)	37 (76%)	12 (24%)	1	3
45	CR	79/80 (99%)	69 (87%)	10 (13%)	5	24
45	DR	79/80 (99%)	68 (86%)	11 (14%)	4	20
46	CS	72/74 (97%)	58 (81%)	14 (19%)	2	7
46	DS	72/74 (97%)	58 (81%)	14 (19%)	2	7
47	CT	95/97 (98%)	83 (87%)	12 (13%)	5	24
47	DT	95/97 (98%)	88 (93%)	7 (7%)	17	52
48	CU	63/77 (82%)	51 (81%)	12 (19%)	2	8
48	DU	63/77 (82%)	50 (79%)	13 (21%)	1	6
49	CV	67/80 (84%)	50 (75%)	17 (25%)	1	2
49	DV	67/80 (84%)	53 (79%)	14 (21%)	1	6
50	CW	76/82 (93%)	64 (84%)	12 (16%)	3	15
50	DW	76/82 (93%)	62 (82%)	14 (18%)	2	9
51	CX	20/22 (91%)	15 (75%)	5 (25%)	1	3
51	DX	20/22 (91%)	18 (90%)	2 (10%)	9	36

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	9579/9996 (96%)	7581 (79%)	1998 (21%)	<b>1</b> <b>6</b>

All (1998) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AD	3	VAL
3	AD	17	THR
3	AD	26	LYS
3	AD	32	SER
3	AD	43	ARG
3	AD	44	ASN
3	AD	61	LEU
3	AD	64	ILE
3	AD	65	ILE
3	AD	91	ARG
3	AD	94	LEU
3	AD	95	LEU
3	AD	98	VAL
3	AD	103	ARG
3	AD	105	ILE
3	AD	112	GLN
3	AD	113	VAL
3	AD	122	ASP
3	AD	126	GLN
3	AD	131	LEU
3	AD	136	ILE
3	AD	141	VAL
3	AD	155	LEU
3	AD	162	SER
3	AD	164	GLN
3	AD	166	GLN
3	AD	171	ASP
3	AD	173	VAL
3	AD	212	SER
3	AD	217	ARG
3	AD	218	ARG
3	AD	242	ARG
3	AD	257	LEU
3	AD	259	THR
3	AD	267	SER
3	AD	270	ILE
3	AD	271	ILE

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Mol	Chain	Res	Type
3	AD	273	ARG
4	AE	13	ARG
4	AE	15	PHE
4	AE	16	ARG
4	AE	19	ARG
4	AE	21	VAL
4	AE	23	VAL
4	AE	26	ILE
4	AE	33	VAL
4	AE	34	VAL
4	AE	40	GLU
4	AE	47	VAL
4	AE	48	GLN
4	AE	49	LEU
4	AE	52	LEU
4	AE	57	LYS
4	AE	59	VAL
4	AE	60	ASN
4	AE	61	ARG
4	AE	63	LEU
4	AE	66	HIS
4	AE	67	PHE
4	AE	78	LEU
4	AE	79	ARG
4	AE	81	ILE
4	AE	82	ARG
4	AE	87	GLU
4	AE	89	ASP
4	AE	93	VAL
4	AE	95	ILE
4	AE	101	ARG
4	AE	111	ARG
4	AE	113	PHE
4	AE	116	VAL
4	AE	119	ARG
4	AE	141	ILE
4	AE	144	ARG
4	AE	145	LYS
4	AE	146	THR
4	AE	154	LYS
4	AE	163	GLU
4	AE	175	VAL

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Mol	Chain	Res	Type
4	AE	179	GLU
4	AE	181	LEU
4	AE	196	VAL
4	AE	197	ILE
4	AE	203	LYS
5	AF	7	TYR
5	AF	8	GLN
5	AF	9	ILE
5	AF	15	SER
5	AF	17	ARG
5	AF	18	ARG
5	AF	24	LEU
5	AF	27	GLU
5	AF	32	LEU
5	AF	33	LEU
5	AF	38	ARG
5	AF	43	LYS
5	AF	45	ARG
5	AF	46	ARG
5	AF	50	SER
5	AF	53	THR
5	AF	64	ILE
5	AF	67	GLN
5	AF	70	THR
5	AF	82	ILE
5	AF	88	VAL
5	AF	106	ARG
5	AF	117	ARG
5	AF	127	GLU
5	AF	161	GLU
5	AF	162	LEU
5	AF	168	ARG
5	AF	170	LEU
5	AF	174	VAL
5	AF	181	LEU
5	AF	183	VAL
5	AF	189	THR
5	AF	197	ASP
5	AF	203	GLN
5	AF	205	ARG
5	AF	206	ILE
6	AG	4	ASP

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Mol	Chain	Res	Type
6	AG	9	ARG
6	AG	10	LYS
6	AG	13	GLU
6	AG	16	ARG
6	AG	20	ILE
6	AG	31	VAL
6	AG	43	LEU
6	AG	45	GLU
6	AG	48	GLU
6	AG	63	ILE
6	AG	67	LYS
6	AG	70	VAL
6	AG	71	THR
6	AG	81	LYS
6	AG	82	LEU
6	AG	83	ARG
6	AG	90	LEU
6	AG	94	LEU
6	AG	96	ARG
6	AG	101	ILE
6	AG	104	GLU
6	AG	116	ASP
6	AG	118	ARG
6	AG	121	ASN
6	AG	128	ARG
6	AG	130	ASN
6	AG	149	VAL
6	AG	155	MET
6	AG	159	VAL
6	AG	162	THR
6	AG	165	THR
6	AG	167	GLU
6	AG	176	LEU
7	AH	3	ARG
7	AH	4	ILE
7	AH	7	LEU
7	AH	9	ILE
7	AH	23	ARG
7	AH	24	VAL
7	AH	41	MET
7	AH	44	VAL
7	AH	45	VAL

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Mol	Chain	Res	Type
7	AH	50	VAL
7	AH	56	SER
7	AH	59	ARG
7	AH	69	ARG
7	AH	81	GLU
7	AH	89	ILE
7	AH	97	ARG
7	AH	101	ARG
7	AH	104	GLU
7	AH	107	VAL
7	AH	113	VAL
7	AH	116	GLU
7	AH	122	THR
7	AH	127	GLU
7	AH	129	THR
7	AH	132	ARG
7	AH	138	LYS
7	AH	139	GLN
7	AH	143	GLN
7	AH	153	LYS
7	AH	158	HIS
7	AH	163	TYR
7	AH	170	ARG
8	AK	2	LYS
8	AK	3	VAL
8	AK	11	ASN
8	AK	12	LEU
8	AK	20	ASP
8	AK	25	TYR
8	AK	38	LEU
8	AK	41	GLU
8	AK	44	LEU
8	AK	57	ARG
8	AK	64	GLU
8	AK	68	LEU
8	AK	71	ILE
8	AK	77	LEU
8	AK	78	THR
8	AK	85	GLU
8	AK	92	VAL
8	AK	93	THR
8	AK	101	LEU

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Mol	Chain	Res	Type
8	AK	103	ARG
8	AK	108	THR
8	AK	135	GLU
8	AK	140	LEU
9	AM	2	LYS
9	AM	5	VAL
9	AM	7	LYS
9	AM	10	GLU
9	AM	32	THR
9	AM	34	LEU
9	AM	35	ARG
9	AM	43	THR
9	AM	45	ASN
9	AM	46	VAL
9	AM	48	MET
9	AM	55	VAL
9	AM	60	ILE
9	AM	61	ARG
9	AM	63	THR
9	AM	67	LEU
9	AM	87	LEU
9	AM	89	LYS
9	AM	90	MET
9	AM	96	GLU
9	AM	97	ARG
9	AM	114	ARG
9	AM	120	LEU
9	AM	127	ASP
9	AM	130	HIS
9	AM	131	GLN
9	AM	133	GLN
9	AM	134	ARG
9	AM	138	LEU
10	AN	8	LEU
10	AN	20	MET
10	AN	22	ILE
10	AN	23	ARG
10	AN	47	ILE
10	AN	52	VAL
10	AN	53	LYS
10	AN	66	LYS
10	AN	68	GLU

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Mol	Chain	Res	Type
10	AN	82	ASN
10	AN	85	VAL
10	AN	94	ARG
10	AN	98	VAL
10	AN	116	SER
11	AO	5	ASP
11	AO	6	LEU
11	AO	14	LYS
11	AO	15	ARG
11	AO	16	ARG
11	AO	19	VAL
11	AO	21	ARG
11	AO	30	THR
11	AO	41	ARG
11	AO	45	LEU
11	AO	46	LYS
11	AO	49	ARG
11	AO	50	ARG
11	AO	55	ARG
11	AO	61	ARG
11	AO	62	LEU
11	AO	64	LYS
11	AO	65	ARG
11	AO	68	GLN
11	AO	75	ILE
11	AO	81	GLN
11	AO	88	LEU
11	AO	90	ARG
11	AO	92	GLU
11	AO	96	THR
11	AO	99	LEU
11	AO	105	LEU
11	AO	106	LEU
11	AO	112	LEU
11	AO	126	VAL
11	AO	135	LEU
11	AO	138	LEU
11	AO	144	GLU
11	AO	147	LEU
11	AO	148	LEU
12	AP	2	LEU
12	AP	3	MET

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Mol	Chain	Res	Type
12	AP	5	ARG
12	AP	7	MET
12	AP	8	LYS
12	AP	10	ARG
12	AP	21	THR
12	AP	22	LYS
12	AP	27	VAL
12	AP	35	VAL
12	AP	45	GLN
12	AP	59	ARG
12	AP	63	LYS
12	AP	66	ILE
12	AP	72	LYS
12	AP	82	ARG
12	AP	83	MET
12	AP	87	LYS
12	AP	90	VAL
12	AP	103	MET
12	AP	109	VAL
12	AP	110	THR
12	AP	112	GLU
12	AP	115	MET
12	AP	139	GLU
13	A0	6	SER
13	A0	18	LEU
13	A0	28	LEU
13	A0	29	LEU
13	A0	34	ILE
13	A0	35	THR
13	A0	36	THR
13	A0	37	THR
13	A0	40	LYS
13	A0	44	LEU
13	A0	54	LEU
13	A0	60	LEU
13	A0	65	LEU
13	A0	74	LYS
13	A0	75	LEU
13	A0	79	LEU
13	A0	83	ILE
13	A0	91	GLN
13	A0	104	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
13	A0	105	ARG
13	A0	107	ASP
14	AQ	20	ARG
14	AQ	24	LEU
14	AQ	26	LEU
14	AQ	31	SER
14	AQ	35	ILE
14	AQ	36	TYR
14	AQ	42	ASP
14	AQ	43	GLU
14	AQ	50	SER
14	AQ	54	LEU
14	AQ	58	LEU
14	AQ	69	VAL
14	AQ	73	LEU
14	AQ	83	LYS
14	AQ	89	ARG
14	AQ	101	LEU
14	AQ	106	ARG
14	AQ	111	GLU
15	AR	9	LEU
15	AR	11	GLU
15	AR	12	SER
15	AR	17	THR
15	AR	19	LEU
15	AR	27	THR
15	AR	30	VAL
15	AR	33	LYS
15	AR	35	LYS
15	AR	41	ARG
15	AR	42	ILE
15	AR	50	ILE
15	AR	53	ARG
15	AR	57	PHE
15	AR	58	ASN
15	AR	59	THR
15	AR	74	ARG
15	AR	85	LYS
15	AR	86	ILE
15	AR	87	ASP
15	AR	88	ILE
15	AR	89	VAL

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Mol	Chain	Res	Type
15	AR	96	ARG
15	AR	99	LEU
15	AR	105	LEU
15	AR	106	SER
15	AR	110	ILE
15	AR	112	ARG
15	AR	128	GLU
16	A1	5	LYS
16	A1	16	LYS
16	A1	27	LEU
16	A1	34	LYS
16	A1	47	TYR
16	A1	52	ARG
16	A1	66	ASN
16	A1	70	ARG
16	A1	74	LEU
16	A1	76	TYR
16	A1	79	PHE
16	A1	97	ASP
16	A1	98	LEU
16	A1	108	GLU
16	A1	111	GLU
16	A1	112	ARG
17	A2	5	VAL
17	A2	6	LYS
17	A2	7	THR
17	A2	12	TYR
17	A2	15	GLU
17	A2	18	LEU
17	A2	21	ARG
17	A2	32	THR
17	A2	33	VAL
17	A2	35	LEU
17	A2	39	LEU
17	A2	40	LEU
17	A2	45	THR
17	A2	52	VAL
17	A2	57	VAL
17	A2	61	VAL
17	A2	64	HIS
17	A2	70	ILE
17	A2	73	SER

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Mol	Chain	Res	Type
17	A2	79	VAL
17	A2	88	ARG
17	A2	89	GLN
17	A2	99	ILE
18	AS	1	MET
18	AS	11	ARG
18	AS	16	LYS
18	AS	17	VAL
18	AS	19	LEU
18	AS	39	THR
18	AS	41	LYS
18	AS	51	LEU
18	AS	67	ASP
18	AS	69	LEU
18	AS	70	TYR
18	AS	76	VAL
18	AS	78	GLU
18	AS	86	LEU
18	AS	88	ARG
18	AS	92	ARG
18	AS	96	ILE
18	AS	100	THR
18	AS	107	LEU
18	AS	111	HIS
19	AT	12	VAL
19	AT	15	GLU
19	AT	23	GLU
19	AT	27	THR
19	AT	38	GLU
19	AT	41	ASN
19	AT	44	GLU
19	AT	53	LYS
19	AT	57	LEU
19	AT	63	LYS
19	AT	65	ARG
19	AT	70	LEU
19	AT	80	ILE
19	AT	81	VAL
19	AT	87	GLN
19	AT	88	LYS
20	AU	3	VAL
20	AU	6	HIS

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Mol	Chain	Res	Type
20	AU	26	LYS
20	AU	38	ILE
20	AU	40	GLU
20	AU	52	SER
20	AU	57	GLN
20	AU	62	GLU
20	AU	64	GLU
20	AU	75	ILE
20	AU	76	CYS
20	AU	79	CYS
20	AU	84	ARG
20	AU	86	ARG
20	AU	87	LYS
20	AU	90	LEU
20	AU	97	ARG
21	AV	2	GLU
21	AV	5	LEU
21	AV	24	LEU
21	AV	33	LEU
21	AV	41	LEU
21	AV	59	LEU
21	AV	61	LEU
21	AV	71	VAL
21	AV	73	GLN
21	AV	76	LEU
21	AV	77	ASP
21	AV	80	ARG
21	AV	86	VAL
21	AV	87	ASP
21	AV	93	ASP
21	AV	95	PRO
21	AV	96	VAL
21	AV	97	GLU
21	AV	98	MET
21	AV	112	ARG
21	AV	117	LEU
21	AV	119	GLU
21	AV	121	HIS
21	AV	122	ARG
21	AV	132	ASN
21	AV	135	GLU
21	AV	144	LEU

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Mol	Chain	Res	Type
21	AV	146	ILE
21	AV	151	HIS
21	AV	162	GLU
21	AV	175	VAL
22	A3	20	ARG
22	A3	36	ILE
22	A3	38	VAL
22	A3	40	GLN
22	A3	46	LYS
22	A3	53	MET
22	A3	55	ARG
22	A3	66	VAL
22	A3	84	LEU
23	AZ	21	ARG
23	AZ	26	ARG
23	AZ	30	VAL
23	AZ	40	ARG
23	AZ	41	ARG
23	AZ	50	ARG
23	AZ	75	GLU
23	AZ	78	LYS
23	AZ	80	LEU
23	AZ	82	LEU
23	AZ	83	GLU
23	AZ	91	LYS
24	AW	5	GLU
24	AW	9	GLN
24	AW	14	ARG
24	AW	17	SER
24	AW	23	LYS
24	AW	24	LEU
24	AW	34	GLU
24	AW	35	LEU
24	AW	44	LEU
24	AW	47	ASN
24	AW	53	LEU
24	AW	54	LYS
24	AW	62	THR
24	AW	64	LEU
24	AW	65	ASN
24	AW	68	ARG
25	AX	8	LEU

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Mol	Chain	Res	Type
25	AX	31	LEU
25	AX	32	GLN
25	AX	40	THR
26	A4	10	VAL
26	A4	14	ILE
26	A4	15	ILE
26	A4	16	CYS
26	A4	27	THR
26	A4	33	VAL
26	A4	34	GLU
26	A4	39	CYS
26	A4	43	TYR
26	A4	47	GLN
26	A4	49	PHE
26	A4	53	GLU
26	A4	57	GLU
26	A4	59	PHE
26	A4	61	ARG
26	A4	62	ARG
26	A4	66	SER
27	A5	3	LYS
27	A5	4	HIS
27	A5	11	THR
27	A5	16	ARG
27	A5	23	HIS
27	A5	29	THR
27	A5	36	CYS
27	A5	37	LYS
27	A5	40	LYS
27	A5	44	THR
27	A5	51	TYR
27	A5	52	TYR
27	A5	56	LYS
27	A5	58	LEU
28	A6	12	GLU
28	A6	13	CYS
28	A6	17	LYS
28	A6	18	ARG
28	A6	25	LYS
28	A6	26	ASN
28	A6	27	LYS
28	A6	28	ARG

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Mol	Chain	Res	Type
28	A6	32	ASN
28	A6	34	LEU
28	A6	36	LEU
28	A6	37	ARG
28	A6	39	TYR
28	A6	44	ARG
28	A6	45	LYS
28	A6	51	GLU
29	A7	1	MET
29	A7	2	LYS
29	A7	4	THR
29	A7	8	ASN
29	A7	34	ARG
29	A7	43	THR
29	A7	46	VAL
30	A8	29	LYS
30	A8	33	ASN
30	A8	41	ILE
30	A8	44	LYS
30	A8	47	LYS
30	A8	49	VAL
30	A8	52	LYS
30	A8	56	GLU
30	A8	58	ILE
30	A8	62	LEU
3	BD	3	VAL
3	BD	5	LYS
3	BD	13	ARG
3	BD	18	VAL
3	BD	20	ASP
3	BD	25	THR
3	BD	26	LYS
3	BD	27	THR
3	BD	28	GLU
3	BD	30	GLU
3	BD	31	LYS
3	BD	34	VAL
3	BD	43	ARG
3	BD	44	ASN
3	BD	46	GLN
3	BD	48	ARG
3	BD	49	ILE

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Mol	Chain	Res	Type
3	BD	61	LEU
3	BD	64	ILE
3	BD	65	ILE
3	BD	69	ARG
3	BD	72	LYS
3	BD	94	LEU
3	BD	98	VAL
3	BD	99	ASP
3	BD	103	ARG
3	BD	105	ILE
3	BD	106	ILE
3	BD	112	GLN
3	BD	117	VAL
3	BD	126	GLN
3	BD	140	THR
3	BD	141	VAL
3	BD	147	LEU
3	BD	155	LEU
3	BD	157	ARG
3	BD	166	GLN
3	BD	176	ARG
3	BD	182	LEU
3	BD	192	THR
3	BD	198	ASN
3	BD	200	ASP
3	BD	212	SER
3	BD	218	ARG
3	BD	244	ARG
3	BD	255	LYS
3	BD	257	LEU
3	BD	260	ARG
3	BD	267	SER
3	BD	271	ILE
3	BD	273	ARG
4	BE	7	VAL
4	BE	9	VAL
4	BE	26	ILE
4	BE	33	VAL
4	BE	35	GLN
4	BE	36	ARG
4	BE	37	ARG
4	BE	44	TYR

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Mol	Chain	Res	Type
4	BE	47	VAL
4	BE	48	GLN
4	BE	49	LEU
4	BE	52	LEU
4	BE	54	GLN
4	BE	58	ARG
4	BE	59	VAL
4	BE	63	LEU
4	BE	69	LYS
4	BE	76	ARG
4	BE	77	ILE
4	BE	78	LEU
4	BE	79	ARG
4	BE	82	ARG
4	BE	91	VAL
4	BE	93	VAL
4	BE	95	ILE
4	BE	116	VAL
4	BE	119	ARG
4	BE	133	LYS
4	BE	135	HIS
4	BE	144	ARG
4	BE	154	LYS
4	BE	181	LEU
4	BE	182	LEU
4	BE	188	VAL
4	BE	197	ILE
4	BE	200	GLU
4	BE	201	THR
4	BE	203	LYS
5	BF	2	LYS
5	BF	7	TYR
5	BF	8	GLN
5	BF	11	VAL
5	BF	17	ARG
5	BF	19	GLU
5	BF	20	LEU
5	BF	24	LEU
5	BF	33	LEU
5	BF	38	ARG
5	BF	46	ARG
5	BF	52	LYS

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Mol	Chain	Res	Type
5	BF	57	VAL
5	BF	62	ARG
5	BF	67	GLN
5	BF	68	LYS
5	BF	70	THR
5	BF	74	ARG
5	BF	82	ILE
5	BF	83	PHE
5	BF	88	VAL
5	BF	100	THR
5	BF	106	ARG
5	BF	107	LYS
5	BF	110	LEU
5	BF	123	LEU
5	BF	125	LEU
5	BF	127	GLU
5	BF	140	LEU
5	BF	149	ASP
5	BF	153	SER
5	BF	154	VAL
5	BF	158	THR
5	BF	165	ARG
5	BF	181	LEU
5	BF	192	LEU
5	BF	194	MET
5	BF	196	LEU
5	BF	197	ASP
5	BF	199	TRP
5	BF	205	ARG
6	BG	4	ASP
6	BG	13	GLU
6	BG	16	ARG
6	BG	22	ARG
6	BG	28	VAL
6	BG	34	LEU
6	BG	35	GLU
6	BG	40	ASN
6	BG	45	GLU
6	BG	47	LYS
6	BG	52	ILE
6	BG	63	ILE
6	BG	67	LYS

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Mol	Chain	Res	Type
6	BG	71	THR
6	BG	79	ASN
6	BG	81	LYS
6	BG	82	LEU
6	BG	83	ARG
6	BG	86	MET
6	BG	88	ILE
6	BG	94	LEU
6	BG	96	ARG
6	BG	97	ASP
6	BG	108	ASN
6	BG	115	ARG
6	BG	116	ASP
6	BG	118	ARG
6	BG	130	ASN
6	BG	133	LEU
6	BG	137	GLU
6	BG	138	GLN
6	BG	139	LEU
6	BG	146	TYR
6	BG	147	ASP
6	BG	148	MET
6	BG	159	VAL
6	BG	162	THR
6	BG	165	THR
6	BG	173	LEU
7	BH	4	ILE
7	BH	24	VAL
7	BH	30	LYS
7	BH	34	GLU
7	BH	41	MET
7	BH	43	VAL
7	BH	50	VAL
7	BH	59	ARG
7	BH	72	ILE
7	BH	83	TYR
7	BH	86	GLU
7	BH	87	LEU
7	BH	89	ILE
7	BH	101	ARG
7	BH	103	LEU
7	BH	105	LEU

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Mol	Chain	Res	Type
7	BH	106	THR
7	BH	125	VAL
7	BH	132	ARG
7	BH	136	ILE
7	BH	139	GLN
7	BH	143	GLN
7	BH	147	ASN
7	BH	152	ARG
8	BK	7	GLU
8	BK	9	LEU
8	BK	11	ASN
8	BK	14	ASP
8	BK	37	VAL
8	BK	44	LEU
8	BK	52	ARG
8	BK	54	GLN
8	BK	56	LYS
8	BK	62	LYS
8	BK	74	ASN
8	BK	75	LEU
8	BK	76	THR
8	BK	77	LEU
8	BK	78	THR
8	BK	81	VAL
8	BK	82	ARG
8	BK	87	LYS
8	BK	101	LEU
8	BK	102	SER
8	BK	104	GLN
8	BK	107	VAL
8	BK	109	ILE
8	BK	110	ASP
8	BK	113	ARG
8	BK	114	LEU
8	BK	117	GLU
8	BK	122	GLU
8	BK	123	LEU
8	BK	125	GLU
8	BK	128	LEU
8	BK	133	HIS
8	BK	142	VAL
9	BM	7	LYS

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Mol	Chain	Res	Type
9	BM	28	THR
9	BM	32	THR
9	BM	33	LEU
9	BM	34	LEU
9	BM	38	HIS
9	BM	43	THR
9	BM	45	ASN
9	BM	48	MET
9	BM	58	ASP
9	BM	63	THR
9	BM	67	LEU
9	BM	83	LYS
9	BM	87	LEU
9	BM	93	THR
9	BM	94	HIS
9	BM	97	ARG
9	BM	99	LEU
9	BM	115	ARG
9	BM	120	LEU
9	BM	127	ASP
9	BM	137	LYS
10	BN	5	GLN
10	BN	8	LEU
10	BN	9	GLU
10	BN	10	VAL
10	BN	14	THR
10	BN	22	ILE
10	BN	23	ARG
10	BN	24	VAL
10	BN	28	SER
10	BN	35	VAL
10	BN	49	ARG
10	BN	70	LYS
10	BN	85	VAL
10	BN	94	ARG
10	BN	98	VAL
10	BN	104	ARG
10	BN	106	LEU
10	BN	108	GLU
10	BN	114	ILE
10	BN	117	LEU
11	BO	6	LEU

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Mol	Chain	Res	Type
11	BO	7	ARG
11	BO	14	LYS
11	BO	15	ARG
11	BO	16	ARG
11	BO	21	ARG
11	BO	30	THR
11	BO	36	LYS
11	BO	41	ARG
11	BO	45	LEU
11	BO	46	LYS
11	BO	49	ARG
11	BO	50	ARG
11	BO	61	ARG
11	BO	62	LEU
11	BO	64	LYS
11	BO	65	ARG
11	BO	68	GLN
11	BO	75	ILE
11	BO	81	GLN
11	BO	85	LEU
11	BO	87	ASP
11	BO	95	VAL
11	BO	96	THR
11	BO	98	GLU
11	BO	99	LEU
11	BO	100	LEU
11	BO	101	VAL
11	BO	105	LEU
11	BO	106	LEU
11	BO	111	ARG
11	BO	112	LEU
11	BO	114	ILE
11	BO	117	GLU
11	BO	124	LYS
11	BO	135	LEU
11	BO	138	LEU
11	BO	144	GLU
11	BO	147	LEU
11	BO	148	LEU
12	BP	3	MET
12	BP	5	ARG
12	BP	18	LYS

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Mol	Chain	Res	Type
12	BP	21	THR
12	BP	25	ASP
12	BP	26	TYR
12	BP	45	GLN
12	BP	59	ARG
12	BP	63	LYS
12	BP	64	ILE
12	BP	76	LYS
12	BP	79	LEU
12	BP	80	GLU
12	BP	82	ARG
12	BP	83	MET
12	BP	87	LYS
12	BP	90	VAL
12	BP	103	MET
12	BP	109	VAL
12	BP	110	THR
12	BP	112	GLU
12	BP	120	ILE
12	BP	133	ARG
12	BP	135	ASP
12	BP	141	GLN
13	B0	6	SER
13	B0	15	SER
13	B0	16	HIS
13	B0	18	LEU
13	B0	28	LEU
13	B0	29	LEU
13	B0	37	THR
13	B0	44	LEU
13	B0	57	ARG
13	B0	63	ARG
13	B0	65	LEU
13	B0	75	LEU
13	B0	76	VAL
13	B0	79	LEU
13	B0	81	ASP
13	B0	105	ARG
13	B0	107	ASP
13	B0	117	VAL
13	B0	118	GLU
14	BQ	3	ARG

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Mol	Chain	Res	Type
14	BQ	12	PHE
14	BQ	14	VAL
14	BQ	15	ARG
14	BQ	17	ARG
14	BQ	20	ARG
14	BQ	21	THR
14	BQ	35	ILE
14	BQ	39	ILE
14	BQ	41	ASP
14	BQ	42	ASP
14	BQ	50	SER
14	BQ	58	LEU
14	BQ	65	VAL
14	BQ	71	ARG
14	BQ	83	LYS
14	BQ	84	GLN
14	BQ	89	ARG
14	BQ	106	ARG
14	BQ	110	LEU
14	BQ	112	PHE
15	BR	7	ILE
15	BR	8	LYS
15	BR	9	LEU
15	BR	11	GLU
15	BR	12	SER
15	BR	13	ARG
15	BR	16	ARG
15	BR	23	ARG
15	BR	27	THR
15	BR	29	ARG
15	BR	30	VAL
15	BR	31	SER
15	BR	33	LYS
15	BR	45	PHE
15	BR	59	THR
15	BR	64	ARG
15	BR	74	ARG
15	BR	80	SER
15	BR	85	LYS
15	BR	86	ILE
15	BR	87	ASP
15	BR	88	ILE

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Mol	Chain	Res	Type
15	BR	89	VAL
15	BR	90	GLN
15	BR	91	ARG
15	BR	93	ARG
15	BR	96	ARG
15	BR	98	LYS
15	BR	105	LEU
15	BR	107	ASP
15	BR	112	ARG
15	BR	117	ASP
15	BR	121	ILE
15	BR	134	GLU
15	BR	136	GLN
15	BR	137	LYS
16	B1	3	ARG
16	B1	27	LEU
16	B1	55	ARG
16	B1	71	GLN
16	B1	74	LEU
16	B1	78	THR
16	B1	83	LEU
16	B1	92	ARG
16	B1	95	LEU
16	B1	97	ASP
16	B1	105	VAL
16	B1	112	ARG
16	B1	117	GLN
17	B2	1	MET
17	B2	18	LEU
17	B2	19	LYS
17	B2	21	ARG
17	B2	35	LEU
17	B2	38	LEU
17	B2	40	LEU
17	B2	47	VAL
17	B2	57	VAL
17	B2	61	VAL
17	B2	62	LEU
17	B2	66	ARG
17	B2	70	ILE
17	B2	71	LEU
17	B2	72	VAL

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Mol	Chain	Res	Type
17	B2	75	PHE
17	B2	78	LYS
17	B2	79	VAL
17	B2	80	GLN
17	B2	82	ARG
17	B2	84	LYS
17	B2	85	LYS
17	B2	87	HIS
17	B2	88	ARG
17	B2	89	GLN
17	B2	91	TYR
17	B2	93	GLU
17	B2	95	LEU
18	BS	2	GLU
18	BS	11	ARG
18	BS	15	ARG
18	BS	19	LEU
18	BS	23	LEU
18	BS	37	ARG
18	BS	39	THR
18	BS	40	ASN
18	BS	41	LYS
18	BS	50	VAL
18	BS	51	LEU
18	BS	59	VAL
18	BS	63	ASP
18	BS	65	LEU
18	BS	67	ASP
18	BS	70	TYR
18	BS	76	VAL
18	BS	83	LYS
18	BS	88	ARG
18	BS	92	ARG
18	BS	94	ASP
18	BS	96	ILE
18	BS	98	LYS
18	BS	100	THR
18	BS	106	ILE
18	BS	107	LEU
19	BT	12	VAL
19	BT	15	GLU
19	BT	30	VAL

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Mol	Chain	Res	Type
19	BT	36	LYS
19	BT	38	GLU
19	BT	41	ASN
19	BT	48	LYS
19	BT	54	VAL
19	BT	55	ASN
19	BT	60	ARG
19	BT	63	LYS
19	BT	69	TYR
19	BT	80	ILE
19	BT	82	GLN
20	BU	3	VAL
20	BU	13	VAL
20	BU	23	ARG
20	BU	26	LYS
20	BU	28	LYS
20	BU	29	GLU
20	BU	44	ILE
20	BU	50	ARG
20	BU	55	TYR
20	BU	57	GLN
20	BU	60	PHE
20	BU	62	GLU
20	BU	75	ILE
20	BU	76	CYS
20	BU	79	CYS
20	BU	86	ARG
20	BU	89	PHE
20	BU	90	LEU
20	BU	91	GLU
20	BU	95	LYS
20	BU	96	ILE
20	BU	97	ARG
20	BU	99	CYS
20	BU	102	CYS
21	BV	4	ARG
21	BV	14	LYS
21	BV	24	LEU
21	BV	29	TYR
21	BV	32	HIS
21	BV	35	ARG
21	BV	37	VAL

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Mol	Chain	Res	Type
21	BV	50	GLN
21	BV	52	SER
21	BV	60	GLU
21	BV	73	GLN
21	BV	74	VAL
21	BV	76	LEU
21	BV	81	ARG
21	BV	87	ASP
21	BV	89	PHE
21	BV	94	GLU
21	BV	103	ARG
21	BV	112	ARG
21	BV	117	LEU
21	BV	118	GLN
21	BV	119	GLU
21	BV	121	HIS
21	BV	150	LEU
21	BV	165	VAL
21	BV	170	THR
21	BV	175	VAL
21	BV	179	ASP
22	B3	9	SER
22	B3	11	ARG
22	B3	12	ASN
22	B3	16	SER
22	B3	25	ARG
22	B3	36	ILE
22	B3	40	GLN
22	B3	43	THR
22	B3	44	ARG
22	B3	50	ASN
22	B3	55	ARG
22	B3	82	ARG
23	BZ	3	LYS
23	BZ	25	LYS
23	BZ	37	ILE
23	BZ	38	SER
23	BZ	41	ARG
23	BZ	56	GLN
23	BZ	62	VAL
23	BZ	74	VAL
23	BZ	76	ARG

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Mol	Chain	Res	Type
23	BZ	78	LYS
23	BZ	82	LEU
23	BZ	83	GLU
23	BZ	90	ILE
23	BZ	91	LYS
23	BZ	92	LYS
23	BZ	95	LEU
24	BW	5	GLU
24	BW	10	LEU
24	BW	15	LYS
24	BW	16	LEU
24	BW	22	GLU
24	BW	32	LEU
24	BW	35	LEU
24	BW	44	LEU
24	BW	47	ASN
24	BW	51	ARG
24	BW	53	LEU
24	BW	60	LEU
24	BW	64	LEU
25	BX	6	VAL
25	BX	8	LEU
25	BX	17	LYS
25	BX	18	ASP
25	BX	24	LYS
25	BX	29	ARG
25	BX	32	GLN
25	BX	35	ARG
25	BX	38	GLU
25	BX	40	THR
25	BX	52	HIS
25	BX	53	LEU
25	BX	58	VAL
26	B4	1	MET
26	B4	6	HIS
26	B4	18	CYS
26	B4	20	ASN
26	B4	22	ILE
26	B4	24	THR
26	B4	30	GLU
26	B4	32	TYR
26	B4	44	THR

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Mol	Chain	Res	Type
26	B4	46	GLN
26	B4	48	ARG
26	B4	49	PHE
26	B4	52	THR
26	B4	53	GLU
26	B4	61	ARG
26	B4	62	ARG
27	B5	3	LYS
27	B5	4	HIS
27	B5	12	SER
27	B5	15	ARG
27	B5	16	ARG
27	B5	23	HIS
27	B5	25	LEU
27	B5	29	THR
27	B5	35	GLU
27	B5	40	LYS
27	B5	48	GLU
27	B5	52	TYR
27	B5	56	LYS
28	B6	9	LEU
28	B6	10	LEU
28	B6	18	ARG
28	B6	19	ARG
28	B6	25	LYS
28	B6	29	ASN
28	B6	30	THR
28	B6	32	ASN
28	B6	34	LEU
28	B6	37	ARG
28	B6	43	CYS
28	B6	44	ARG
28	B6	45	LYS
28	B6	47	THR
28	B6	53	LYS
29	B7	1	MET
29	B7	4	THR
29	B7	8	ASN
29	B7	9	ARG
29	B7	14	LYS
29	B7	24	THR
29	B7	32	LYS

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Mol	Chain	Res	Type
29	B7	36	GLN
29	B7	41	ARG
29	B7	46	VAL
29	B7	48	LYS
29	B7	49	ARG
30	B8	8	LYS
30	B8	21	LYS
30	B8	23	VAL
30	B8	29	LYS
30	B8	33	ASN
30	B8	36	LYS
30	B8	37	SER
30	B8	40	GLU
30	B8	48	PHE
30	B8	49	VAL
30	B8	50	LEU
30	B8	52	LYS
30	B8	58	ILE
30	B8	61	LEU
32	CE	8	LYS
32	CE	9	GLU
32	CE	12	GLU
32	CE	15	VAL
32	CE	16	HIS
32	CE	17	PHE
32	CE	21	ARG
32	CE	22	LYS
32	CE	24	TRP
32	CE	45	GLN
32	CE	48	MET
32	CE	68	ILE
32	CE	71	VAL
32	CE	75	LYS
32	CE	82	ARG
32	CE	96	ARG
32	CE	107	THR
32	CE	111	ARG
32	CE	113	HIS
32	CE	119	GLU
32	CE	121	LEU
32	CE	144	ARG
32	CE	145	LEU

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Mol	Chain	Res	Type
32	CE	156	LYS
32	CE	163	PHE
32	CE	164	VAL
32	CE	168	THR
32	CE	169	LYS
32	CE	172	ILE
32	CE	178	ARG
32	CE	179	LYS
32	CE	185	ILE
32	CE	187	LEU
32	CE	191	ASP
32	CE	196	LEU
32	CE	200	ILE
32	CE	204	ASN
32	CE	208	ILE
32	CE	217	ARG
32	CE	223	ILE
32	CE	240	GLN
33	CF	5	ILE
33	CF	15	THR
33	CF	20	SER
33	CF	21	ARG
33	CF	26	LYS
33	CF	27	LYS
33	CF	29	TYR
33	CF	32	LEU
33	CF	36	ASP
33	CF	47	LEU
33	CF	52	LEU
33	CF	62	ASP
33	CF	64	VAL
33	CF	79	ARG
33	CF	85	ARG
33	CF	104	GLN
33	CF	122	GLU
33	CF	128	PHE
33	CF	132	ARG
33	CF	161	GLU
33	CF	165	THR
33	CF	167	TRP
33	CF	188	LEU
33	CF	192	THR

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Mol	Chain	Res	Type
33	CF	196	LEU
33	CF	202	ILE
33	CF	206	GLU
34	CG	3	ARG
34	CG	10	ARG
34	CG	11	LEU
34	CG	12	CYS
34	CG	13	ARG
34	CG	19	LEU
34	CG	26	CYS
34	CG	30	LYS
34	CG	33	MET
34	CG	58	LEU
34	CG	59	ARG
34	CG	65	ARG
34	CG	84	LYS
34	CG	86	LYS
34	CG	91	SER
34	CG	96	LEU
34	CG	114	ARG
34	CG	122	ARG
34	CG	127	THR
34	CG	135	LEU
34	CG	150	GLU
34	CG	154	ASN
34	CG	156	GLU
34	CG	159	ARG
34	CG	190	ASP
34	CG	192	GLU
34	CG	193	ASP
34	CG	200	GLU
34	CG	201	GLN
34	CG	208	SER
35	CH	6	PHE
35	CH	10	MET
35	CH	11	ILE
35	CH	12	LEU
35	CH	16	THR
35	CH	20	GLN
35	CH	32	VAL
35	CH	33	VAL
35	CH	41	VAL

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Mol	Chain	Res	Type
35	CH	43	LEU
35	CH	51	VAL
35	CH	53	LEU
35	CH	64	ARG
35	CH	73	ASN
35	CH	79	GLU
35	CH	80	ILE
35	CH	91	LEU
35	CH	116	THR
35	CH	121	LYS
35	CH	144	THR
35	CH	147	ASP
35	CH	153	LYS
36	CI	19	LEU
36	CI	21	LEU
36	CI	25	ILE
36	CI	40	VAL
36	CI	46	ARG
36	CI	55	ASP
36	CI	63	TYR
36	CI	64	GLN
36	CI	73	ASN
36	CI	75	LEU
36	CI	93	SER
36	CI	98	LEU
37	CJ	8	GLU
37	CJ	33	ASP
37	CJ	35	LYS
37	CJ	38	LEU
37	CJ	49	ILE
37	CJ	56	GLN
37	CJ	63	LYS
37	CJ	78	ARG
37	CJ	80	VAL
37	CJ	89	MET
37	CJ	90	GLU
37	CJ	91	VAL
37	CJ	94	ARG
37	CJ	104	LEU
37	CJ	111	ARG
37	CJ	113	GLU
37	CJ	120	ILE

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Mol	Chain	Res	Type
37	CJ	124	LEU
37	CJ	131	LYS
37	CJ	141	VAL
37	CJ	155	ARG
38	CK	19	VAL
38	CK	29	SER
38	CK	41	ARG
38	CK	63	LEU
38	CK	68	ARG
38	CK	75	ARG
38	CK	77	GLU
38	CK	80	ILE
38	CK	85	ARG
38	CK	95	VAL
38	CK	98	LYS
38	CK	102	ARG
38	CK	105	ARG
39	CL	2	GLU
39	CL	7	THR
39	CL	9	ARG
39	CL	10	ARG
39	CL	14	VAL
39	CL	16	ARG
39	CL	25	LYS
39	CL	35	GLU
39	CL	38	GLN
39	CL	40	LEU
39	CL	42	ARG
39	CL	47	LEU
39	CL	50	LEU
39	CL	58	HIS
39	CL	64	THR
39	CL	65	VAL
39	CL	79	LEU
39	CL	83	ARG
39	CL	89	ASN
39	CL	91	ASP
39	CL	93	ARG
39	CL	95	LYS
39	CL	105	ASP
39	CL	109	VAL
39	CL	112	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	CL	114	TYR
39	CL	124	GLN
39	CL	125	TYR
39	CL	126	SER
40	CM	16	LEU
40	CM	17	ASP
40	CM	24	VAL
40	CM	29	ARG
40	CM	33	GLN
40	CM	34	VAL
40	CM	35	SER
40	CM	43	ARG
40	CM	46	ARG
40	CM	48	THR
40	CM	55	LYS
40	CM	62	HIS
40	CM	70	ARG
40	CM	74	ILE
40	CM	80	LYS
40	CM	84	GLN
40	CM	85	LEU
40	CM	86	MET
40	CM	92	THR
40	CM	96	ILE
41	CN	28	THR
41	CN	29	ILE
41	CN	30	VAL
41	CN	31	THR
41	CN	41	THR
41	CN	84	VAL
41	CN	87	THR
41	CN	91	ARG
41	CN	104	GLN
41	CN	109	VAL
41	CN	114	VAL
41	CN	119	CYS
41	CN	127	LYS
42	CO	4	ILE
42	CO	17	LYS
42	CO	30	ARG
42	CO	46	ASN
42	CO	57	LEU

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Mol	Chain	Res	Type
42	CO	59	SER
42	CO	75	GLN
42	CO	80	VAL
42	CO	86	ARG
42	CO	88	LYS
42	CO	89	ASP
42	CO	93	VAL
42	CO	99	ARG
42	CO	111	LYS
42	CO	115	SER
42	CO	124	GLU
43	CP	17	VAL
43	CP	20	THR
43	CP	34	LEU
43	CP	39	ILE
43	CP	47	ASP
43	CP	56	LEU
43	CP	57	ARG
43	CP	64	TRP
43	CP	67	GLU
43	CP	69	GLU
43	CP	70	LEU
43	CP	78	ILE
43	CP	88	ARG
43	CP	102	ARG
43	CP	105	THR
43	CP	108	ARG
43	CP	110	ARG
43	CP	114	ARG
44	CQ	3	ARG
44	CQ	7	ILE
44	CQ	15	LYS
44	CQ	16	PHE
44	CQ	17	LYS
44	CQ	18	VAL
44	CQ	23	ARG
44	CQ	27	CYS
44	CQ	31	ARG
44	CQ	41	ARG
44	CQ	43	CYS
44	CQ	44	LEU
44	CQ	45	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
44	CQ	57	ARG
44	CQ	60	SER
45	CR	21	ASP
45	CR	31	LEU
45	CR	38	ARG
45	CR	39	LEU
45	CR	47	LYS
45	CR	56	LEU
45	CR	66	LEU
45	CR	67	LEU
45	CR	71	GLN
45	CR	88	ARG
46	CS	2	VAL
46	CS	4	ILE
46	CS	8	ARG
46	CS	21	VAL
46	CS	22	THR
46	CS	25	ARG
46	CS	53	VAL
46	CS	55	ARG
46	CS	58	TYR
46	CS	67	THR
46	CS	69	THR
46	CS	72	ARG
46	CS	75	ARG
46	CS	82	GLN
47	CT	9	VAL
47	CT	12	SER
47	CT	17	LYS
47	CT	35	VAL
47	CT	38	ARG
47	CT	45	HIS
47	CT	52	LYS
47	CT	68	ARG
47	CT	74	LEU
47	CT	79	SER
47	CT	89	LEU
47	CT	101	ARG
48	CU	18	ARG
48	CU	22	VAL
48	CU	26	LEU
48	CU	31	LEU

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Mol	Chain	Res	Type
48	CU	32	ARG
48	CU	35	ARG
48	CU	36	ASN
48	CU	42	ARG
48	CU	46	GLU
48	CU	76	LEU
48	CU	82	THR
48	CU	83	GLU
49	CV	7	LYS
49	CV	10	PHE
49	CV	27	GLU
49	CV	29	ARG
49	CV	30	LEU
49	CV	31	ILE
49	CV	37	ARG
49	CV	40	ILE
49	CV	43	GLU
49	CV	48	THR
49	CV	60	VAL
49	CV	61	TYR
49	CV	65	ASN
49	CV	71	LEU
49	CV	77	THR
49	CV	81	ARG
49	CV	83	HIS
50	CW	9	ASN
50	CW	13	LEU
50	CW	24	LEU
50	CW	26	ASN
50	CW	34	LYS
50	CW	41	ILE
50	CW	50	GLU
50	CW	62	LEU
50	CW	73	HIS
50	CW	75	ASN
50	CW	84	LEU
50	CW	93	GLU
51	CX	10	ARG
51	CX	15	ARG
51	CX	24	ARG
51	CX	25	LYS
51	CX	26	LYS

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Mol	Chain	Res	Type
32	DE	5	ILE
32	DE	10	LEU
32	DE	16	HIS
32	DE	17	PHE
32	DE	19	HIS
32	DE	24	TRP
32	DE	32	ILE
32	DE	44	LEU
32	DE	45	GLN
32	DE	51	LEU
32	DE	56	ARG
32	DE	67	THR
32	DE	73	THR
32	DE	80	ILE
32	DE	84	GLU
32	DE	92	TYR
32	DE	101	MET
32	DE	105	PHE
32	DE	111	ARG
32	DE	114	ARG
32	DE	130	ARG
32	DE	137	ARG
32	DE	140	HIS
32	DE	144	ARG
32	DE	147	LYS
32	DE	155	LEU
32	DE	164	VAL
32	DE	168	THR
32	DE	178	ARG
32	DE	185	ILE
32	DE	189	ASP
32	DE	195	ASP
32	DE	196	LEU
32	DE	206	ASP
32	DE	215	LEU
32	DE	230	VAL
32	DE	238	LEU
33	DF	5	ILE
33	DF	6	HIS
33	DF	16	ARG
33	DF	18	TRP
33	DF	21	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	DF	26	LYS
33	DF	27	LYS
33	DF	28	GLN
33	DF	29	TYR
33	DF	36	ASP
33	DF	42	LEU
33	DF	62	ASP
33	DF	69	HIS
33	DF	76	VAL
33	DF	79	ARG
33	DF	84	ILE
33	DF	85	ARG
33	DF	89	GLU
33	DF	94	LEU
33	DF	98	ASN
33	DF	99	VAL
33	DF	101	LEU
33	DF	122	GLU
33	DF	127	ARG
33	DF	128	PHE
33	DF	131	ARG
33	DF	140	ARG
33	DF	166	GLU
33	DF	184	TYR
33	DF	192	THR
33	DF	196	LEU
34	DG	9	CYS
34	DG	10	ARG
34	DG	11	LEU
34	DG	13	ARG
34	DG	14	ARG
34	DG	17	VAL
34	DG	19	LEU
34	DG	21	LEU
34	DG	24	GLU
34	DG	25	ARG
34	DG	26	CYS
34	DG	27	TYR
34	DG	30	LYS
34	DG	36	ARG
34	DG	49	ARG
34	DG	50	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
34	DG	59	ARG
34	DG	61	LYS
34	DG	70	ILE
34	DG	78	LEU
34	DG	84	LYS
34	DG	85	LYS
34	DG	107	ARG
34	DG	112	VAL
34	DG	115	ARG
34	DG	118	ARG
34	DG	122	ARG
34	DG	127	THR
34	DG	132	ARG
34	DG	135	LEU
34	DG	137	SER
34	DG	138	TYR
34	DG	139	ARG
34	DG	155	LEU
34	DG	170	VAL
34	DG	187	ARG
34	DG	191	ARG
34	DG	196	LEU
34	DG	200	GLU
35	DH	5	ASP
35	DH	12	LEU
35	DH	13	ILE
35	DH	19	MET
35	DH	20	GLN
35	DH	34	VAL
35	DH	41	VAL
35	DH	43	LEU
35	DH	68	GLU
35	DH	73	ASN
35	DH	78	HIS
35	DH	79	GLU
35	DH	87	SER
35	DH	100	VAL
35	DH	101	ILE
35	DH	111	GLU
35	DH	141	GLN
35	DH	144	THR
35	DH	153	LYS

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Mol	Chain	Res	Type
36	DI	14	LEU
36	DI	15	ASP
36	DI	21	LEU
36	DI	27	GLN
36	DI	28	ARG
36	DI	45	LEU
36	DI	47	ARG
36	DI	54	LYS
36	DI	63	TYR
36	DI	65	VAL
36	DI	81	ILE
36	DI	93	SER
37	DJ	4	ARG
37	DJ	5	ARG
37	DJ	8	GLU
37	DJ	9	VAL
37	DJ	13	GLN
37	DJ	16	LEU
37	DJ	24	THR
37	DJ	29	LYS
37	DJ	38	LEU
37	DJ	45	ASP
37	DJ	47	CYS
37	DJ	60	LYS
37	DJ	63	LYS
37	DJ	72	ARG
37	DJ	75	VAL
37	DJ	78	ARG
37	DJ	85	TYR
37	DJ	87	VAL
37	DJ	89	MET
37	DJ	104	LEU
37	DJ	113	GLU
37	DJ	114	ARG
37	DJ	137	LYS
37	DJ	146	GLU
37	DJ	151	TYR
37	DJ	155	ARG
38	DK	1	MET
38	DK	26	VAL
38	DK	30	ARG
38	DK	50	ARG

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Mol	Chain	Res	Type
38	DK	60	ARG
38	DK	79	VAL
38	DK	82	HIS
38	DK	84	ARG
38	DK	88	LYS
38	DK	91	ARG
38	DK	92	ARG
38	DK	102	ARG
38	DK	109	ILE
38	DK	111	ILE
38	DK	112	LEU
38	DK	116	LYS
38	DK	126	LYS
39	DL	7	THR
39	DL	10	ARG
39	DL	16	ARG
39	DL	20	ARG
39	DL	23	ASN
39	DL	38	GLN
39	DL	54	ASP
39	DL	56	LEU
39	DL	58	HIS
39	DL	64	THR
39	DL	78	LYS
39	DL	79	LEU
39	DL	88	TYR
39	DL	89	ASN
39	DL	91	ASP
39	DL	95	LYS
39	DL	97	LYS
39	DL	102	LEU
39	DL	104	ARG
39	DL	110	GLU
39	DL	113	LYS
39	DL	114	TYR
39	DL	117	HIS
39	DL	118	LYS
39	DL	120	ARG
39	DL	125	TYR
40	DM	9	ARG
40	DM	13	HIS
40	DM	16	LEU

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Mol	Chain	Res	Type
40	DM	19	SER
40	DM	21	GLN
40	DM	22	LYS
40	DM	30	SER
40	DM	38	ILE
40	DM	40	LEU
40	DM	47	PHE
40	DM	55	LYS
40	DM	59	SER
40	DM	62	HIS
40	DM	66	ARG
40	DM	72	VAL
40	DM	78	ASN
40	DM	79	ARG
40	DM	84	GLN
40	DM	87	THR
40	DM	90	LEU
40	DM	95	GLU
40	DM	96	ILE
40	DM	98	ILE
40	DM	101	VAL
41	DN	12	ARG
41	DN	14	VAL
41	DN	18	ARG
41	DN	48	ILE
41	DN	57	THR
41	DN	63	LEU
41	DN	87	THR
41	DN	114	VAL
41	DN	117	ASN
41	DN	119	CYS
41	DN	126	ARG
42	DO	20	LYS
42	DO	23	LYS
42	DO	27	LEU
42	DO	33	ARG
42	DO	41	ARG
42	DO	42	THR
42	DO	46	LYS
42	DO	49	ASN
42	DO	55	VAL
42	DO	60	LEU

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Mol	Chain	Res	Type
42	DO	62	SER
42	DO	64	TYR
42	DO	81	SER
42	DO	82	VAL
42	DO	84	LEU
42	DO	85	ILE
42	DO	92	ASP
42	DO	102	ARG
42	DO	117	ARG
43	DP	4	ILE
43	DP	14	ARG
43	DP	32	GLU
43	DP	48	LEU
43	DP	54	VAL
43	DP	55	ARG
43	DP	58	GLU
43	DP	64	TRP
43	DP	66	LEU
43	DP	70	LEU
43	DP	82	MET
43	DP	83	ASP
43	DP	101	GLN
43	DP	103	THR
43	DP	105	THR
43	DP	108	ARG
43	DP	110	ARG
44	DQ	6	LEU
44	DQ	8	GLU
44	DQ	15	LYS
44	DQ	16	PHE
44	DQ	18	VAL
44	DQ	22	THR
44	DQ	25	VAL
44	DQ	33	VAL
44	DQ	40	CYS
44	DQ	44	LEU
44	DQ	46	GLU
44	DQ	60	SER
45	DR	3	ILE
45	DR	4	THR
45	DR	17	ARG
45	DR	26	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
45	DR	35	ARG
45	DR	38	ARG
45	DR	41	GLU
45	DR	58	MET
45	DR	82	ILE
45	DR	83	GLU
45	DR	88	ARG
46	DS	1	MET
46	DS	2	VAL
46	DS	5	ARG
46	DS	6	LEU
46	DS	8	ARG
46	DS	16	HIS
46	DS	21	VAL
46	DS	33	ILE
46	DS	45	THR
46	DS	53	VAL
46	DS	55	ARG
46	DS	67	THR
46	DS	74	LEU
46	DS	82	GLN
47	DT	9	VAL
47	DT	12	SER
47	DT	35	VAL
47	DT	52	LYS
47	DT	68	ARG
47	DT	73	VAL
47	DT	74	LEU
48	DU	21	LYS
48	DU	23	LYS
48	DU	26	LEU
48	DU	28	GLU
48	DU	29	PHE
48	DU	32	ARG
48	DU	44	LEU
48	DU	47	THR
48	DU	53	ARG
48	DU	54	ARG
48	DU	58	LEU
48	DU	82	THR
48	DU	86	VAL
49	DV	15	LEU

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Mol	Chain	Res	Type
49	DV	22	LEU
49	DV	23	ASN
49	DV	25	LYS
49	DV	28	LYS
49	DV	33	THR
49	DV	36	ARG
49	DV	41	VAL
49	DV	60	VAL
49	DV	63	THR
49	DV	66	MET
49	DV	78	ARG
49	DV	79	THR
49	DV	83	HIS
50	DW	10	LEU
50	DW	11	SER
50	DW	26	ASN
50	DW	27	LYS
50	DW	50	GLU
50	DW	56	MET
50	DW	58	LYS
50	DW	68	LYS
50	DW	72	LEU
50	DW	73	HIS
50	DW	75	ASN
50	DW	83	ARG
50	DW	84	LEU
50	DW	90	GLN
51	DX	15	ARG
51	DX	25	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (265) such sidechains are listed below:

Mol	Chain	Res	Type
3	AD	58	HIS
3	AD	96	HIS
3	AD	143	HIS
3	AD	166	GLN
3	AD	186	HIS
3	AD	198	ASN
4	AE	35	GLN
4	AE	48	GLN
4	AE	54	GLN

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Mol	Chain	Res	Type
4	AE	143	ASN
5	AF	67	GLN
5	AF	69	HIS
5	AF	169	ASN
5	AF	203	GLN
6	AG	40	ASN
6	AG	41	GLN
6	AG	108	ASN
6	AG	121	ASN
7	AH	143	GLN
7	AH	147	ASN
8	AK	28	ASN
8	AK	139	GLN
9	AM	38	HIS
9	AM	45	ASN
9	AM	128	HIS
9	AM	131	GLN
9	AM	133	GLN
10	AN	5	GLN
10	AN	29	ASN
10	AN	82	ASN
11	AO	9	ASN
11	AO	81	GLN
11	AO	84	ASN
11	AO	128	HIS
13	A0	3	HIS
13	A0	16	HIS
13	A0	23	ASN
13	A0	24	GLN
13	A0	71	GLN
14	AQ	34	HIS
15	AR	43	GLN
15	AR	55	ASN
15	AR	58	ASN
15	AR	79	HIS
16	A1	44	ASN
16	A1	49	HIS
16	A1	71	GLN
16	A1	94	ASN
17	A2	11	GLN
17	A2	89	GLN
18	AS	40	ASN

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Mol	Chain	Res	Type
18	AS	57	ASN
18	AS	62	HIS
18	AS	102	HIS
18	AS	111	HIS
19	AT	31	HIS
19	AT	41	ASN
19	AT	55	ASN
19	AT	82	GLN
21	AV	65	GLN
21	AV	75	ASN
21	AV	121	HIS
21	AV	151	HIS
22	A3	17	GLN
22	A3	35	ASN
22	A3	40	GLN
23	AZ	19	GLN
23	AZ	56	GLN
23	AZ	66	HIS
24	AW	9	GLN
24	AW	43	GLN
24	AW	65	ASN
25	AX	19	GLN
25	AX	46	ASN
25	AX	52	HIS
26	A4	47	GLN
27	A5	4	HIS
27	A5	22	HIS
27	A5	43	HIS
28	A6	46	HIS
28	A6	49	HIS
29	A7	8	ASN
29	A7	36	GLN
3	BD	44	ASN
3	BD	58	HIS
3	BD	96	HIS
3	BD	126	GLN
3	BD	143	HIS
3	BD	166	GLN
3	BD	186	HIS
3	BD	198	ASN
4	BE	35	GLN
4	BE	48	GLN

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Mol	Chain	Res	Type
4	BE	192	ASN
6	BG	40	ASN
6	BG	79	ASN
6	BG	138	GLN
7	BH	74	ASN
7	BH	147	ASN
8	BK	54	GLN
8	BK	104	GLN
8	BK	105	HIS
9	BM	69	GLN
9	BM	101	HIS
9	BM	133	GLN
10	BN	82	ASN
11	BO	13	ASN
11	BO	128	HIS
12	BP	12	GLN
12	BP	123	HIS
13	B0	11	ASN
13	B0	13	HIS
13	B0	16	HIS
13	B0	23	ASN
13	B0	24	GLN
15	BR	43	GLN
15	BR	58	ASN
15	BR	90	GLN
15	BR	136	GLN
16	B1	49	HIS
16	B1	71	GLN
16	B1	81	HIS
16	B1	117	GLN
17	B2	64	HIS
17	B2	80	GLN
17	B2	87	HIS
17	B2	89	GLN
18	BS	57	ASN
18	BS	60	ASN
18	BS	61	ASN
18	BS	62	HIS
18	BS	102	HIS
19	BT	41	ASN
19	BT	55	ASN
19	BT	82	GLN

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Mol	Chain	Res	Type
19	BT	87	GLN
20	BU	6	HIS
20	BU	57	GLN
21	BV	32	HIS
21	BV	34	ASN
21	BV	50	GLN
21	BV	65	GLN
21	BV	132	ASN
22	B3	12	ASN
22	B3	17	GLN
22	B3	50	ASN
22	B3	70	GLN
23	BZ	56	GLN
23	BZ	66	HIS
24	BW	9	GLN
24	BW	47	ASN
25	BX	19	GLN
25	BX	33	GLN
25	BX	46	ASN
25	BX	52	HIS
26	B4	47	GLN
26	B4	60	GLN
27	B5	4	HIS
27	B5	23	HIS
27	B5	43	HIS
28	B6	29	ASN
28	B6	46	HIS
29	B7	8	ASN
29	B7	36	GLN
32	CE	19	HIS
32	CE	40	HIS
32	CE	45	GLN
32	CE	78	GLN
32	CE	204	ASN
32	CE	212	GLN
33	CF	37	GLN
33	CF	104	GLN
33	CF	136	GLN
33	CF	162	GLN
33	CF	170	GLN
33	CF	176	HIS
33	CF	181	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
34	CG	42	GLN
34	CG	45	GLN
34	CG	119	GLN
34	CG	123	HIS
34	CG	160	GLN
34	CG	201	GLN
35	CH	78	HIS
36	CI	18	GLN
36	CI	32	ASN
36	CI	57	GLN
36	CI	64	GLN
36	CI	100	ASN
37	CJ	37	ASN
37	CJ	148	ASN
38	CK	70	GLN
39	CL	124	GLN
40	CM	33	GLN
40	CM	56	HIS
40	CM	62	HIS
40	CM	84	GLN
41	CN	78	GLN
41	CN	99	GLN
42	CO	6	GLN
42	CO	46	ASN
42	CO	72	HIS
43	CP	62	ASN
43	CP	101	GLN
43	CP	106	ASN
44	CQ	49	HIS
45	CR	37	ASN
46	CS	82	GLN
47	CT	16	GLN
47	CT	94	ASN
48	CU	36	ASN
49	CV	47	HIS
49	CV	65	ASN
49	CV	83	HIS
50	CW	9	ASN
50	CW	26	ASN
32	DE	16	HIS
32	DE	78	GLN
32	DE	135	GLN

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Mol	Chain	Res	Type
32	DE	240	GLN
33	DF	3	ASN
33	DF	63	ASN
33	DF	98	ASN
33	DF	123	GLN
34	DG	43	HIS
34	DG	45	GLN
34	DG	62	GLN
34	DG	77	ASN
34	DG	154	ASN
34	DG	160	GLN
34	DG	201	GLN
35	DH	141	GLN
36	DI	13	ASN
36	DI	32	ASN
36	DI	57	GLN
37	DJ	37	ASN
37	DJ	51	GLN
37	DJ	86	GLN
37	DJ	97	GLN
37	DJ	106	GLN
38	DK	82	HIS
39	DL	3	GLN
39	DL	89	ASN
39	DL	124	GLN
40	DM	13	HIS
40	DM	56	HIS
41	DN	38	ASN
41	DN	93	GLN
41	DN	104	GLN
41	DN	117	ASN
42	DO	8	ASN
42	DO	49	ASN
42	DO	75	HIS
43	DP	101	GLN
44	DQ	49	HIS
45	DR	37	ASN
47	DT	26	GLN
48	DU	63	GLN
49	DV	56	GLN
49	DV	69	HIS
49	DV	83	HIS

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Mol	Chain	Res	Type
50	DW	9	ASN
50	DW	16	HIS
50	DW	26	ASN
50	DW	42	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	2911/2912 (99%)	700 (24%)	52 (1%)
1	BA	2908/2912 (99%)	711 (24%)	53 (1%)
2	AB	121/122 (99%)	29 (23%)	0
2	BB	121/122 (99%)	29 (23%)	0
31	CA	1506/1506 (100%)	346 (22%)	35 (2%)
31	DA	1505/1506 (99%)	353 (23%)	49 (3%)
52	CB	86/87 (98%)	37 (43%)	4 (4%)
52	DB	86/87 (98%)	33 (38%)	3 (3%)
53	CC	77/77 (100%)	17 (22%)	4 (5%)
53	CD	76/77 (98%)	27 (35%)	1 (1%)
53	DC	77/77 (100%)	17 (22%)	4 (5%)
53	DD	76/77 (98%)	26 (34%)	1 (1%)
54	C1	9/10 (90%)	2 (22%)	0
54	D1	9/10 (90%)	2 (22%)	0
All	All	9568/9582 (99%)	2329 (24%)	206 (2%)

All (2329) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	2	G
1	AA	5	A
1	AA	10	G
1	AA	34	C
1	AA	35	G
1	AA	46	C
1	AA	51	G
1	AA	61	G
1	AA	63	U
1	AA	71	A
1	AA	74	A
1	AA	75	G
1	AA	85	G
1	AA	95	G

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Mol	Chain	Res	Type
1	AA	99	U
1	AA	101	G
1	AA	118	A
1	AA	119	A
1	AA	120	U
1	AA	123	G
1	AA	131	G
1	AA	155	C
1	AA	164	U
1	AA	165	U
1	AA	181	A
1	AA	196	A
1	AA	199	A
1	AA	206	U
1	AA	214	G
1	AA	215	G
1	AA	216	A
1	AA	221	A
1	AA	222	A
1	AA	223	A
1	AA	227	A
1	AA	228	A
1	AA	229	A
1	AA	230	U
1	AA	233	A
1	AA	248	G
1	AA	250	G
1	AA	252	G
1	AA	269	U
1	AA	270(I)	G
1	AA	270(K)	C
1	AA	270(L)	U
1	AA	270(M)	U
1	AA	270(N)	G
1	AA	270(O)	U
1	AA	270(P)	C
1	AA	271(C)	U
1	AA	271	G
1	AA	274	G
1	AA	275	G
1	AA	278	A
1	AA	279	C

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Mol	Chain	Res	Type
1	AA	299	A
1	AA	303	U
1	AA	311	A
1	AA	315	G
1	AA	323	G
1	AA	324	A
1	AA	326	G
1	AA	329	G
1	AA	330	A
1	AA	332	A
1	AA	334	C
1	AA	337	C
1	AA	352	G
1	AA	357	A
1	AA	360	G
1	AA	363	G
1	AA	363(E)	U
1	AA	364	C
1	AA	372	G
1	AA	386	G
1	AA	388	G
1	AA	396	G
1	AA	405	U
1	AA	407	G
1	AA	411	G
1	AA	412	A
1	AA	418	G
1	AA	428	A
1	AA	444	C
1	AA	448	U
1	AA	455	C
1	AA	457	A
1	AA	470	A
1	AA	471	A
1	AA	472	A
1	AA	479	A
1	AA	481	G
1	AA	482	A
1	AA	484	C
1	AA	491	G
1	AA	505	A
1	AA	508	G

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Mol	Chain	Res	Type
1	AA	509	C
1	AA	528	A
1	AA	529	A
1	AA	530	G
1	AA	531	C
1	AA	532	A
1	AA	533	G
1	AA	537	C
1	AA	539	G
1	AA	540	G
1	AA	546	C
1	AA	549	G
1	AA	550	G
1	AA	556	G
1	AA	563	G
1	AA	564	C
1	AA	573	G
1	AA	575	A
1	AA	586	A
1	AA	587	C
1	AA	588	U
1	AA	593	G
1	AA	603	A
1	AA	607	U
1	AA	609(A)	G
1	AA	614	U
1	AA	617	G
1	AA	622	G
1	AA	627	A
1	AA	637	A
1	AA	640	C
1	AA	644	A
1	AA	645	C
1	AA	646	A
1	AA	647	G
1	AA	648	G
1	AA	649	G
1	AA	652	C
1	AA	654(A)	A
1	AA	654(G)	C
1	AA	654(I)	C
1	AA	654(J)	A

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Mol	Chain	Res	Type
1	AA	654(K)	C
1	AA	654(L)	G
1	AA	654(M)	C
1	AA	654(N)	G
1	AA	654(P)	G
1	AA	654(T)	A
1	AA	676	A
1	AA	686	G
1	AA	702	G
1	AA	708	C
1	AA	709	U
1	AA	717	G
1	AA	730	C
1	AA	739	G
1	AA	740	U
1	AA	745	G
1	AA	752	A
1	AA	753	C
1	AA	764	A
1	AA	765	G
1	AA	776	G
1	AA	782	A
1	AA	784	A
1	AA	785	G
1	AA	789	A
1	AA	790	C
1	AA	791	C
1	AA	792	G
1	AA	805	G
1	AA	808	G
1	AA	812	C
1	AA	819	A
1	AA	823	G
1	AA	824	A
1	AA	827	U
1	AA	828	U
1	AA	831	G
1	AA	845	G
1	AA	857	C
1	AA	859	G
1	AA	866	A
1	AA	878	A

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Mol	Chain	Res	Type
1	AA	879	G
1	AA	880	G
1	AA	881	G
1	AA	882	G
1	AA	883	G
1	AA	884	C
1	AA	885	C
1	AA	886	C
1	AA	887	A
1	AA	888	C
1	AA	890	A
1	AA	893	C
1	AA	894	C
1	AA	895	U
1	AA	896	A
1	AA	897	C
1	AA	898	C
1	AA	899	A
1	AA	900	A
1	AA	901	A
1	AA	902	C
1	AA	906	G
1	AA	910	A
1	AA	914	C
1	AA	917	A
1	AA	918	A
1	AA	925	C
1	AA	926	A
1	AA	932	G
1	AA	938	G
1	AA	941	A
1	AA	946	G
1	AA	953	A
1	AA	961	C
1	AA	968	G
1	AA	974	G
1	AA	974(A)	C
1	AA	975	G
1	AA	983	A
1	AA	990	A
1	AA	996	A
1	AA	999	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	1005	C
1	AA	1010	A
1	AA	1011	G
1	AA	1012	U
1	AA	1013	C
1	AA	1015	G
1	AA	1016	G
1	AA	1022	G
1	AA	1023	U
1	AA	1025	G
1	AA	1026	U
1	AA	1027	A
1	AA	1033	U
1	AA	1037	G
1	AA	1045	A
1	AA	1046	A
1	AA	1047	G
1	AA	1050	A
1	AA	1054	A
1	AA	1056	G
1	AA	1057	A
1	AA	1060	U
1	AA	1061	U
1	AA	1062	G
1	AA	1066	U
1	AA	1067	A
1	AA	1068	G
1	AA	1070	A
1	AA	1071	G
1	AA	1073	A
1	AA	1075	C
1	AA	1076	C
1	AA	1077	A
1	AA	1078	U
1	AA	1079	C
1	AA	1080	A
1	AA	1083	U
1	AA	1084	A
1	AA	1085	A
1	AA	1086	A
1	AA	1087	G
1	AA	1088	A

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Mol	Chain	Res	Type
1	AA	1089	G
1	AA	1090	U
1	AA	1092	C
1	AA	1095	A
1	AA	1096	A
1	AA	1097	U
1	AA	1104	C
1	AA	1105	U
1	AA	1107	G
1	AA	1110	G
1	AA	1111	A
1	AA	1112	G
1	AA	1117	G
1	AA	1122	G
1	AA	1129	A
1	AA	1131	G
1	AA	1132	A
1	AA	1135	C
1	AA	1136	G
1	AA	1139	G
1	AA	1142	U
1	AA	1142(A)	A
1	AA	1143	A
1	AA	1148	A
1	AA	1149	G
1	AA	1151	G
1	AA	1154	G
1	AA	1155	A
1	AA	1171	G
1	AA	1176	G
1	AA	1178	C
1	AA	1179	C
1	AA	1180	C
1	AA	1192	G
1	AA	1195	G
1	AA	1197	G
1	AA	1204	A
1	AA	1205	U
1	AA	1210	A
1	AA	1211	U
1	AA	1218	C
1	AA	1220	A

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Mol	Chain	Res	Type
1	AA	1227	A
1	AA	1241	A
1	AA	1242	A
1	AA	1244	G
1	AA	1253	A
1	AA	1256	G
1	AA	1265	A
1	AA	1269	A
1	AA	1271	G
1	AA	1272	A
1	AA	1273	U
1	AA	1287	A
1	AA	1298	C
1	AA	1300	U
1	AA	1301	A
1	AA	1303	G
1	AA	1310	G
1	AA	1313	U
1	AA	1314	C
1	AA	1329	U
1	AA	1332	G
1	AA	1338	G
1	AA	1344	G
1	AA	1345	C
1	AA	1349	A
1	AA	1352	U
1	AA	1359	A
1	AA	1360	A
1	AA	1365	A
1	AA	1368	G
1	AA	1380	G
1	AA	1384	A
1	AA	1385	G
1	AA	1386	C
1	AA	1389	G
1	AA	1390	U
1	AA	1391	U
1	AA	1404	C
1	AA	1412	A
1	AA	1416	G
1	AA	1417	C
1	AA	1420	U

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Mol	Chain	Res	Type
1	AA	1421	G
1	AA	1425	G
1	AA	1427	A
1	AA	1428	C
1	AA	1437	C
1	AA	1444(A)	A
1	AA	1449	A
1	AA	1449(A)	G
1	AA	1453	A
1	AA	1454	U
1	AA	1455	G
1	AA	1458	C
1	AA	1459	G
1	AA	1460	A
1	AA	1461	G
1	AA	1467	C
1	AA	1470	G
1	AA	1471	A
1	AA	1482	U
1	AA	1483	G
1	AA	1493	C
1	AA	1495	A
1	AA	1497	U
1	AA	1506	C
1	AA	1507	A
1	AA	1508	A
1	AA	1509	C
1	AA	1510	A
1	AA	1511	A
1	AA	1514	U
1	AA	1515	C
1	AA	1520	U
1	AA	1522	G
1	AA	1526	G
1	AA	1533	C
1	AA	1534	G
1	AA	1535	U
1	AA	1536	A
1	AA	1537	C
1	AA	1540	G
1	AA	1543	A
1	AA	1544	C

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Mol	Chain	Res	Type
1	AA	1545	A
1	AA	1547	C
1	AA	1554	A
1	AA	1558	A
1	AA	1559	G
1	AA	1566	A
1	AA	1569	A
1	AA	1578	U
1	AA	1579	A
1	AA	1582	C
1	AA	1585	C
1	AA	1586	A
1	AA	1597	A
1	AA	1598	C
1	AA	1606	G
1	AA	1608	A
1	AA	1609	A
1	AA	1610	A
1	AA	1617	C
1	AA	1618	A
1	AA	1635	G
1	AA	1639	U
1	AA	1640	C
1	AA	1641	A
1	AA	1648	C
1	AA	1651	G
1	AA	1654	A
1	AA	1666	G
1	AA	1674	G
1	AA	1694	C
1	AA	1695	G
1	AA	1700	A
1	AA	1701	A
1	AA	1717	G
1	AA	1727	U
1	AA	1728	G
1	AA	1729	A
1	AA	1730	U
1	AA	1731	G
1	AA	1732	A
1	AA	1734	C
1	AA	1735	C

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Mol	Chain	Res	Type
1	AA	1743	G
1	AA	1750	G
1	AA	1756	G
1	AA	1762	A
1	AA	1763	G
1	AA	1764	G
1	AA	1773	A
1	AA	1780	A
1	AA	1781	C
1	AA	1785	A
1	AA	1787	A
1	AA	1791	A
1	AA	1799	G
1	AA	1800	C
1	AA	1816	G
1	AA	1819	A
1	AA	1820	U
1	AA	1828	G
1	AA	1829	A
1	AA	1835	G
1	AA	1839	G
1	AA	1847	A
1	AA	1858	G
1	AA	1869	G
1	AA	1878	G
1	AA	1882	C
1	AA	1885	A
1	AA	1889	A
1	AA	1900	A
1	AA	1902	C
1	AA	1906	G
1	AA	1914	C
1	AA	1915	U
1	AA	1926	U
1	AA	1929	G
1	AA	1930	G
1	AA	1934	C
1	AA	1937	A
1	AA	1938	A
1	AA	1955	U
1	AA	1956	U
1	AA	1963	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	1967	C
1	AA	1969	A
1	AA	1970	A
1	AA	1971	A
1	AA	1972	A
1	AA	1982	C
1	AA	1990	C
1	AA	1993	U
1	AA	2018	G
1	AA	2020	A
1	AA	2023	G
1	AA	2030	A
1	AA	2031	A
1	AA	2032	G
1	AA	2033	A
1	AA	2034	U
1	AA	2036	C
1	AA	2043	C
1	AA	2051	A
1	AA	2055	C
1	AA	2056	G
1	AA	2060	A
1	AA	2061	G
1	AA	2062	A
1	AA	2069	G
1	AA	2099	U
1	AA	2100	G
1	AA	2110	G
1	AA	2111	C
1	AA	2112	G
1	AA	2113	U
1	AA	2114	A
1	AA	2115	G
1	AA	2116	G
1	AA	2118	U
1	AA	2121	G
1	AA	2126	A
1	AA	2128	C
1	AA	2129	C
1	AA	2131	G
1	AA	2132	U
1	AA	2133	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	2135	A
1	AA	2136	C
1	AA	2139	C
1	AA	2144	U
1	AA	2146	C
1	AA	2148	G
1	AA	2151	G
1	AA	2157	G
1	AA	2158	A
1	AA	2159	G
1	AA	2165	G
1	AA	2166	G
1	AA	2168	G
1	AA	2169	A
1	AA	2173	A
1	AA	2176	A
1	AA	2181	G
1	AA	2189	U
1	AA	2190	G
1	AA	2191	G
1	AA	2192	G
1	AA	2198	A
1	AA	2205	C
1	AA	2206	C
1	AA	2210	G
1	AA	2211	G
1	AA	2212	A
1	AA	2213	U
1	AA	2215	G
1	AA	2225	A
1	AA	2235	G
1	AA	2238	G
1	AA	2239	G
1	AA	2243	U
1	AA	2264	C
1	AA	2265	U
1	AA	2269	A
1	AA	2273	A
1	AA	2275	C
1	AA	2283	C
1	AA	2286	A
1	AA	2287	A

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Mol	Chain	Res	Type
1	AA	2304	G
1	AA	2307	G
1	AA	2308	G
1	AA	2310	A
1	AA	2319	G
1	AA	2320	A
1	AA	2321	G
1	AA	2325	G
1	AA	2327	A
1	AA	2334	G
1	AA	2336	A
1	AA	2342	C
1	AA	2343	C
1	AA	2346	A
1	AA	2347	C
1	AA	2350	C
1	AA	2364	C
1	AA	2377	A
1	AA	2379	G
1	AA	2383	G
1	AA	2385	C
1	AA	2392	A
1	AA	2393	A
1	AA	2394	C
1	AA	2400	G
1	AA	2402	C
1	AA	2403	C
1	AA	2405	G
1	AA	2406	U
1	AA	2408	U
1	AA	2410	G
1	AA	2422	A
1	AA	2424	C
1	AA	2425	A
1	AA	2428	G
1	AA	2429	G
1	AA	2430	A
1	AA	2434	A
1	AA	2435	A
1	AA	2439	A
1	AA	2440	C
1	AA	2441	C

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Mol	Chain	Res	Type
1	AA	2448	A
1	AA	2468	G
1	AA	2469	A
1	AA	2474	C
1	AA	2475	C
1	AA	2476	A
1	AA	2478	A
1	AA	2480	C
1	AA	2487	G
1	AA	2494	G
1	AA	2495	G
1	AA	2502	G
1	AA	2504	U
1	AA	2505	G
1	AA	2506	U
1	AA	2518	A
1	AA	2520	C
1	AA	2525	G
1	AA	2529	G
1	AA	2531	A
1	AA	2554	U
1	AA	2557	G
1	AA	2566	A
1	AA	2567	G
1	AA	2573	C
1	AA	2574	G
1	AA	2585	U
1	AA	2602	A
1	AA	2609	U
1	AA	2610	C
1	AA	2611	U
1	AA	2612	C
1	AA	2613	U
1	AA	2614	A
1	AA	2615	U
1	AA	2620	C
1	AA	2629	A
1	AA	2630	G
1	AA	2632	A
1	AA	2636	U
1	AA	2641	G
1	AA	2654	A

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Mol	Chain	Res	Type
1	AA	2665	A
1	AA	2666	C
1	AA	2673	G
1	AA	2679	A
1	AA	2681	C
1	AA	2682	U
1	AA	2683	C
1	AA	2689	U
1	AA	2690	C
1	AA	2701	C
1	AA	2702	U
1	AA	2703	C
1	AA	2707	G
1	AA	2712	U
1	AA	2712(A)	A
1	AA	2713	A
1	AA	2714	G
1	AA	2718	G
1	AA	2726	U
1	AA	2733	A
1	AA	2734	A
1	AA	2735	G
1	AA	2752	C
1	AA	2757	A
1	AA	2758	A
1	AA	2764	A
1	AA	2765	A
1	AA	2766	G
1	AA	2769	C
1	AA	2778	A
1	AA	2779	U
1	AA	2789	C
1	AA	2790	A
1	AA	2791	C
1	AA	2794	C
1	AA	2795	G
1	AA	2797	U
1	AA	2799	A
1	AA	2805	G
1	AA	2807	G
1	AA	2808	U
1	AA	2818	G

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Mol	Chain	Res	Type
1	AA	2820	A
1	AA	2821	A
1	AA	2823	A
1	AA	2830	G
1	AA	2833	G
1	AA	2834	G
1	AA	2835	A
1	AA	2849	U
1	AA	2850	A
1	AA	2851	A
1	AA	2872	G
1	AA	2891	G
1	AA	2892	A
1	AA	2894	G
2	AB	1	U
2	AB	7	G
2	AB	8	U
2	AB	10	C
2	AB	11	C
2	AB	12	C
2	AB	13	A
2	AB	15	A
2	AB	32	C
2	AB	35	U
2	AB	38	C
2	AB	41	U
2	AB	42	C
2	AB	45	A
2	AB	52	A
2	AB	53	A
2	AB	56	G
2	AB	65	C
2	AB	73	A
2	AB	74	U
2	AB	81	G
2	AB	82	G
2	AB	85	G
2	AB	89	G
2	AB	95	U
2	AB	96	G
2	AB	105	G
2	AB	107	U

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Mol	Chain	Res	Type
2	AB	109	G
1	BA	5	A
1	BA	34	C
1	BA	36	G
1	BA	41	C
1	BA	46	C
1	BA	49	A
1	BA	50	U
1	BA	55	G
1	BA	69	C
1	BA	70	G
1	BA	71	A
1	BA	72	U
1	BA	74	A
1	BA	75	G
1	BA	83	G
1	BA	90	U
1	BA	91	A
1	BA	93	C
1	BA	95	G
1	BA	102	G
1	BA	118	A
1	BA	120	U
1	BA	129	C
1	BA	131	G
1	BA	138	G
1	BA	148	C
1	BA	154	G
1	BA	155	C
1	BA	161	U
1	BA	162	U
1	BA	171	G
1	BA	172	C
1	BA	173	G
1	BA	174	C
1	BA	175	G
1	BA	196	A
1	BA	199	A
1	BA	205	G
1	BA	206	U
1	BA	214	G
1	BA	215	G

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Mol	Chain	Res	Type
1	BA	216	A
1	BA	221	A
1	BA	222	A
1	BA	225	A
1	BA	228	A
1	BA	229	A
1	BA	233	A
1	BA	240	G
1	BA	244	A
1	BA	248	G
1	BA	249	C
1	BA	250	G
1	BA	252	G
1	BA	270(K)	C
1	BA	270(L)	U
1	BA	270(M)	U
1	BA	270(N)	G
1	BA	270(O)	U
1	BA	271(C)	U
1	BA	271	G
1	BA	273(C)	C
1	BA	273(D)	C
1	BA	274	G
1	BA	275	G
1	BA	276	A
1	BA	277	C
1	BA	278	A
1	BA	279	C
1	BA	287	C
1	BA	289	A
1	BA	298	G
1	BA	308	G
1	BA	311	A
1	BA	329	G
1	BA	330	A
1	BA	331	A
1	BA	342	G
1	BA	352	G
1	BA	354	G
1	BA	356	G
1	BA	363	G
1	BA	363(E)	U

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Mol	Chain	Res	Type
1	BA	363(F)	A
1	BA	364	C
1	BA	372	G
1	BA	376	C
1	BA	386	G
1	BA	395	U
1	BA	399	G
1	BA	405	U
1	BA	406	G
1	BA	411	G
1	BA	412	A
1	BA	414	C
1	BA	428	A
1	BA	443	A
1	BA	444	C
1	BA	448	U
1	BA	454	A
1	BA	455	C
1	BA	457	A
1	BA	459	U
1	BA	460	A
1	BA	470	A
1	BA	481	G
1	BA	497	A
1	BA	498	G
1	BA	501	A
1	BA	504	U
1	BA	505	A
1	BA	508	G
1	BA	509	C
1	BA	512	G
1	BA	529	A
1	BA	530	G
1	BA	531	C
1	BA	532	A
1	BA	533	G
1	BA	543	C
1	BA	547	A
1	BA	550	G
1	BA	556	G
1	BA	563	G
1	BA	567	A

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Mol	Chain	Res	Type
1	BA	568	U
1	BA	573	G
1	BA	575	A
1	BA	588	U
1	BA	593	G
1	BA	598	G
1	BA	603	A
1	BA	604	G
1	BA	607	U
1	BA	609(A)	G
1	BA	614	U
1	BA	617	G
1	BA	618	G
1	BA	621	A
1	BA	622	G
1	BA	627	A
1	BA	637	A
1	BA	644	A
1	BA	645	C
1	BA	646	A
1	BA	647	G
1	BA	650	C
1	BA	651	G
1	BA	654	A
1	BA	654(A)	A
1	BA	654(G)	C
1	BA	654(I)	C
1	BA	654(J)	A
1	BA	654(K)	C
1	BA	654(L)	G
1	BA	654(N)	G
1	BA	654(R)	C
1	BA	654(T)	A
1	BA	668	G
1	BA	669	G
1	BA	670	A
1	BA	673	C
1	BA	676	A
1	BA	686	G
1	BA	706	A
1	BA	707	G
1	BA	708	C

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Mol	Chain	Res	Type
1	BA	709	U
1	BA	717	G
1	BA	722	A
1	BA	730	C
1	BA	753	C
1	BA	765	G
1	BA	776	G
1	BA	777	A
1	BA	779	U
1	BA	782	A
1	BA	784	A
1	BA	785	G
1	BA	789	A
1	BA	792	G
1	BA	793	A
1	BA	805	G
1	BA	806	C
1	BA	808	G
1	BA	812	C
1	BA	819	A
1	BA	827	U
1	BA	828	U
1	BA	831	G
1	BA	832	G
1	BA	845	G
1	BA	846	C
1	BA	848	G
1	BA	856	C
1	BA	857	C
1	BA	859	G
1	BA	869	G
1	BA	870	A
1	BA	878	A
1	BA	881	G
1	BA	882	G
1	BA	884	C
1	BA	887	A
1	BA	888	C
1	BA	889	C
1	BA	890	A
1	BA	894	C
1	BA	896	A

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Mol	Chain	Res	Type
1	BA	897	C
1	BA	899	A
1	BA	900	A
1	BA	901	A
1	BA	903	C
1	BA	906	G
1	BA	907	U
1	BA	910	A
1	BA	911	A
1	BA	914	C
1	BA	915	C
1	BA	917	A
1	BA	926	A
1	BA	932	G
1	BA	933	A
1	BA	934	G
1	BA	938	G
1	BA	941	A
1	BA	946	G
1	BA	959	A
1	BA	960	A
1	BA	961	C
1	BA	974	G
1	BA	980	A
1	BA	983	A
1	BA	990	A
1	BA	991	C
1	BA	996	A
1	BA	1011	G
1	BA	1012	U
1	BA	1013	C
1	BA	1016	G
1	BA	1020	A
1	BA	1022	G
1	BA	1023	U
1	BA	1024	G
1	BA	1025	G
1	BA	1026	U
1	BA	1037	G
1	BA	1039	G
1	BA	1044	G
1	BA	1045	A

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Mol	Chain	Res	Type
1	BA	1048	A
1	BA	1054	A
1	BA	1059	G
1	BA	1061	U
1	BA	1062	G
1	BA	1066	U
1	BA	1067	A
1	BA	1070	A
1	BA	1071	G
1	BA	1072	C
1	BA	1073	A
1	BA	1076	C
1	BA	1085	A
1	BA	1086	A
1	BA	1087	G
1	BA	1088	A
1	BA	1090	U
1	BA	1093	G
1	BA	1095	A
1	BA	1096	A
1	BA	1098	A
1	BA	1099	G
1	BA	1100	C
1	BA	1105	U
1	BA	1108	U
1	BA	1111	A
1	BA	1112	G
1	BA	1115	G
1	BA	1122	G
1	BA	1128	A
1	BA	1129	A
1	BA	1130	U
1	BA	1135	C
1	BA	1136	G
1	BA	1139	G
1	BA	1142(A)	A
1	BA	1143	A
1	BA	1155	A
1	BA	1160	G
1	BA	1170	G
1	BA	1171	G
1	BA	1173	G

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Mol	Chain	Res	Type
1	BA	1174	A
1	BA	1175	U
1	BA	1176	G
1	BA	1177	A
1	BA	1178	C
1	BA	1183	G
1	BA	1204	A
1	BA	1205	U
1	BA	1210	A
1	BA	1211	U
1	BA	1212	G
1	BA	1220	A
1	BA	1237	A
1	BA	1245	G
1	BA	1247	A
1	BA	1248	G
1	BA	1250	G
1	BA	1253	A
1	BA	1255	U
1	BA	1256	G
1	BA	1271	G
1	BA	1272	A
1	BA	1273	U
1	BA	1280	G
1	BA	1284	A
1	BA	1286	A
1	BA	1287	A
1	BA	1298	C
1	BA	1300	U
1	BA	1301	A
1	BA	1307	A
1	BA	1313	U
1	BA	1314	C
1	BA	1317	A
1	BA	1320	C
1	BA	1325	G
1	BA	1329	U
1	BA	1332	G
1	BA	1345	C
1	BA	1349	A
1	BA	1352	U
1	BA	1359	A

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Mol	Chain	Res	Type
1	BA	1360	A
1	BA	1365	A
1	BA	1368	G
1	BA	1379	A
1	BA	1384	A
1	BA	1385	G
1	BA	1386	C
1	BA	1389	G
1	BA	1391	U
1	BA	1405	U
1	BA	1406	U
1	BA	1407	C
1	BA	1415	U
1	BA	1416	G
1	BA	1417	C
1	BA	1419	A
1	BA	1420	U
1	BA	1421	G
1	BA	1427	A
1	BA	1428	C
1	BA	1437	C
1	BA	1443	G
1	BA	1444(A)	A
1	BA	1445	C
1	BA	1449	A
1	BA	1449(A)	G
1	BA	1451	C
1	BA	1458	C
1	BA	1460	A
1	BA	1461	G
1	BA	1467	C
1	BA	1471	A
1	BA	1475	G
1	BA	1482	U
1	BA	1483	G
1	BA	1488	G
1	BA	1490	A
1	BA	1493	C
1	BA	1506	C
1	BA	1507	A
1	BA	1508	A
1	BA	1509	C

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Mol	Chain	Res	Type
1	BA	1510	A
1	BA	1513	C
1	BA	1515	C
1	BA	1522	G
1	BA	1526	G
1	BA	1527	G
1	BA	1534	G
1	BA	1535	U
1	BA	1536	A
1	BA	1537	C
1	BA	1538	G
1	BA	1543	A
1	BA	1544	C
1	BA	1547	C
1	BA	1554	A
1	BA	1558	A
1	BA	1559	G
1	BA	1560	G
1	BA	1566	A
1	BA	1569	A
1	BA	1578	U
1	BA	1580	A
1	BA	1582	C
1	BA	1586	A
1	BA	1588	C
1	BA	1589	C
1	BA	1596	A
1	BA	1598	C
1	BA	1608	A
1	BA	1609	A
1	BA	1610	A
1	BA	1616	A
1	BA	1619	G
1	BA	1625	C
1	BA	1635	G
1	BA	1639	U
1	BA	1648	C
1	BA	1654	A
1	BA	1674	G
1	BA	1678	G
1	BA	1688	U
1	BA	1696	G

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Mol	Chain	Res	Type
1	BA	1700	A
1	BA	1701	A
1	BA	1718	G
1	BA	1725	G
1	BA	1726	G
1	BA	1728	G
1	BA	1729	A
1	BA	1741	C
1	BA	1743	G
1	BA	1756	G
1	BA	1758	G
1	BA	1761	C
1	BA	1762	A
1	BA	1763	G
1	BA	1764	G
1	BA	1773	A
1	BA	1780	A
1	BA	1782	C
1	BA	1787	A
1	BA	1791	A
1	BA	1800	C
1	BA	1801	G
1	BA	1802	A
1	BA	1812	A
1	BA	1816	G
1	BA	1820	U
1	BA	1827	C
1	BA	1828	G
1	BA	1829	A
1	BA	1835	G
1	BA	1839	G
1	BA	1847	A
1	BA	1858	G
1	BA	1863	G
1	BA	1864	U
1	BA	1869	G
1	BA	1878	G
1	BA	1883	G
1	BA	1888	G
1	BA	1889	A
1	BA	1896	G
1	BA	1900	A

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Mol	Chain	Res	Type
1	BA	1906	G
1	BA	1909	C
1	BA	1913	A
1	BA	1917	U
1	BA	1929	G
1	BA	1930	G
1	BA	1936	A
1	BA	1938	A
1	BA	1955	U
1	BA	1956	U
1	BA	1963	U
1	BA	1964	G
1	BA	1967	C
1	BA	1970	A
1	BA	1971	A
1	BA	1972	A
1	BA	1981	A
1	BA	1993	U
1	BA	1994	C
1	BA	2019	A
1	BA	2023	G
1	BA	2031	A
1	BA	2032	G
1	BA	2033	A
1	BA	2036	C
1	BA	2037	G
1	BA	2039	C
1	BA	2043	C
1	BA	2055	C
1	BA	2056	G
1	BA	2060	A
1	BA	2061	G
1	BA	2062	A
1	BA	2063	C
1	BA	2067	G
1	BA	2069	G
1	BA	2070	G
1	BA	2082	A
1	BA	2089	U
1	BA	2099	U
1	BA	2100	G
1	BA	2107	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	BA	2108	C
1	BA	2111	C
1	BA	2113	U
1	BA	2114	A
1	BA	2115	G
1	BA	2116	G
1	BA	2118	U
1	BA	2119	A
1	BA	2120	G
1	BA	2123	G
1	BA	2126	A
1	BA	2127	G
1	BA	2128	C
1	BA	2129	C
1	BA	2130	U
1	BA	2131	G
1	BA	2132	U
1	BA	2133	G
1	BA	2135	A
1	BA	2136	C
1	BA	2137	C
1	BA	2139	C
1	BA	2141	G
1	BA	2146	C
1	BA	2147	G
1	BA	2148	G
1	BA	2152	G
1	BA	2158	A
1	BA	2164	C
1	BA	2166	G
1	BA	2168	G
1	BA	2169	A
1	BA	2170	A
1	BA	2171	A
1	BA	2172	U
1	BA	2173	A
1	BA	2174	C
1	BA	2182	G
1	BA	2189	U
1	BA	2190	G
1	BA	2192	G
1	BA	2193	G

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Mol	Chain	Res	Type
1	BA	2198	A
1	BA	2210	G
1	BA	2211	G
1	BA	2212	A
1	BA	2213	U
1	BA	2215	G
1	BA	2225	A
1	BA	2226	C
1	BA	2232	U
1	BA	2235	G
1	BA	2238	G
1	BA	2239	G
1	BA	2244	U
1	BA	2245	U
1	BA	2246	G
1	BA	2272	U
1	BA	2273	A
1	BA	2275	C
1	BA	2276	G
1	BA	2278	A
1	BA	2282	G
1	BA	2283	C
1	BA	2287	A
1	BA	2288	A
1	BA	2291	U
1	BA	2297	C
1	BA	2298	A
1	BA	2305	A
1	BA	2307	G
1	BA	2308	G
1	BA	2309	A
1	BA	2311	A
1	BA	2312	U
1	BA	2315	G
1	BA	2316	C
1	BA	2319	G
1	BA	2325	G
1	BA	2327	A
1	BA	2333	A
1	BA	2334	G
1	BA	2335	A
1	BA	2343	C

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Mol	Chain	Res	Type
1	BA	2346	A
1	BA	2347	C
1	BA	2350	C
1	BA	2383	G
1	BA	2385	C
1	BA	2387	U
1	BA	2391	G
1	BA	2392	A
1	BA	2394	C
1	BA	2400	G
1	BA	2402	C
1	BA	2406	U
1	BA	2410	G
1	BA	2414	G
1	BA	2422	A
1	BA	2423	U
1	BA	2425	A
1	BA	2428	G
1	BA	2429	G
1	BA	2430	A
1	BA	2431	U
1	BA	2435	A
1	BA	2439	A
1	BA	2440	C
1	BA	2441	C
1	BA	2446	G
1	BA	2447	G
1	BA	2448	A
1	BA	2469	A
1	BA	2470	G
1	BA	2476	A
1	BA	2482	G
1	BA	2484	G
1	BA	2497	A
1	BA	2501	C
1	BA	2502	G
1	BA	2505	G
1	BA	2506	U
1	BA	2513	G
1	BA	2518	A
1	BA	2523	G
1	BA	2525	G

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Mol	Chain	Res	Type
1	BA	2527	C
1	BA	2529	G
1	BA	2532	G
1	BA	2543	G
1	BA	2552	U
1	BA	2553	G
1	BA	2554	U
1	BA	2566	A
1	BA	2567	G
1	BA	2569	G
1	BA	2572	A
1	BA	2573	C
1	BA	2575	C
1	BA	2584	U
1	BA	2585	U
1	BA	2602	A
1	BA	2603	G
1	BA	2608	G
1	BA	2609	U
1	BA	2611	U
1	BA	2612	C
1	BA	2615	U
1	BA	2621	A
1	BA	2629	A
1	BA	2630	G
1	BA	2655	G
1	BA	2665	A
1	BA	2667	C
1	BA	2673	G
1	BA	2689	U
1	BA	2690	C
1	BA	2707	G
1	BA	2712(A)	A
1	BA	2713	A
1	BA	2726	U
1	BA	2732	G
1	BA	2733	A
1	BA	2739	U
1	BA	2744	G
1	BA	2748	A
1	BA	2750	A
1	BA	2751	G

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Mol	Chain	Res	Type
1	BA	2752	C
1	BA	2754	U
1	BA	2758	A
1	BA	2760	C
1	BA	2761	G
1	BA	2762	G
1	BA	2764	A
1	BA	2765	A
1	BA	2766	G
1	BA	2769	C
1	BA	2777	G
1	BA	2778	A
1	BA	2779	U
1	BA	2789	C
1	BA	2790	A
1	BA	2791	C
1	BA	2794	C
1	BA	2797	U
1	BA	2798	C
1	BA	2799	A
1	BA	2803	C
1	BA	2808	U
1	BA	2811	G
1	BA	2813	A
1	BA	2818	G
1	BA	2820	A
1	BA	2821	A
1	BA	2833	G
1	BA	2834	G
1	BA	2835	A
1	BA	2839	G
1	BA	2845	G
1	BA	2849	U
1	BA	2860	A
1	BA	2872	G
1	BA	2873	A
1	BA	2880	C
1	BA	2894	G
1	BA	2896	C
1	BA	2897	U
2	BB	0	A
2	BB	3	C

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Mol	Chain	Res	Type
2	BB	8	U
2	BB	9	G
2	BB	13	A
2	BB	15	A
2	BB	16	G
2	BB	25	A
2	BB	26	A
2	BB	28	C
2	BB	30	C
2	BB	32	C
2	BB	40	U
2	BB	41	U
2	BB	42	C
2	BB	44	G
2	BB	45	A
2	BB	46	A
2	BB	73	A
2	BB	75	G
2	BB	81	G
2	BB	82	G
2	BB	88	C
2	BB	89	G
2	BB	89(A)	A
2	BB	90	C
2	BB	109	G
2	BB	112	G
2	BB	113	C
31	CA	6	G
31	CA	7	G
31	CA	8	A
31	CA	9	G
31	CA	18	C
31	CA	32	A
31	CA	33	A
31	CA	39	G
31	CA	48	C
31	CA	49	U
31	CA	50	A
31	CA	51	A
31	CA	54	C
31	CA	61	G
31	CA	65	U

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Mol	Chain	Res	Type
31	CA	66	G
31	CA	67	C
31	CA	76	G
31	CA	79	G
31	CA	80	G
31	CA	81	G
31	CA	84	U
31	CA	85	U
31	CA	86	U
31	CA	87	A
31	CA	88	C
31	CA	89	U
31	CA	90	C
31	CA	91	C
31	CA	92	G
31	CA	95	G
31	CA	101	A
31	CA	116	A
31	CA	120	A
31	CA	121	C
31	CA	123	C
31	CA	131	C
31	CA	144	G
31	CA	147	G
31	CA	154	C
31	CA	163	C
31	CA	168	G
31	CA	172	A
31	CA	173	U
31	CA	174	C
31	CA	182	U
31	CA	185	A
31	CA	189	U
31	CA	190	G
31	CA	191(A)	G
31	CA	195	A
31	CA	197	A
31	CA	199	G
31	CA	201	C
31	CA	208	U
31	CA	209	U
31	CA	210	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	CA	216	G
31	CA	226	G
31	CA	243	A
31	CA	244	U
31	CA	245	C
31	CA	247	G
31	CA	251	G
31	CA	262	A
31	CA	266	G
31	CA	267	C
31	CA	270	A
31	CA	281	G
31	CA	289	G
31	CA	321	A
31	CA	328	C
31	CA	330	C
31	CA	332	G
31	CA	342	C
31	CA	344	A
31	CA	345	C
31	CA	346	G
31	CA	352	C
31	CA	353	A
31	CA	354	G
31	CA	356	A
31	CA	367	U
31	CA	372	C
31	CA	390	C
31	CA	397	A
31	CA	398	C
31	CA	412	A
31	CA	413	G
31	CA	419	C
31	CA	421	U
31	CA	422	C
31	CA	424	G
31	CA	429	U
31	CA	430	A
31	CA	439	A
31	CA	440	A
31	CA	442	C
31	CA	452	A

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Mol	Chain	Res	Type
31	CA	465	A
31	CA	466	C
31	CA	467	G
31	CA	485	G
31	CA	496	A
31	CA	497	U
31	CA	505	G
31	CA	509	A
31	CA	510	A
31	CA	511	C
31	CA	518	C
31	CA	521	G
31	CA	524	G
31	CA	527	G
31	CA	531	U
31	CA	532	A
31	CA	533	A
31	CA	536	C
31	CA	547	A
31	CA	559	A
31	CA	561	U
31	CA	568	G
31	CA	572	A
31	CA	573	A
31	CA	576	G
31	CA	577	G
31	CA	579	G
31	CA	592	G
31	CA	596	C
31	CA	606	G
31	CA	607	A
31	CA	608	A
31	CA	616	G
31	CA	619	U
31	CA	622	A
31	CA	623	C
31	CA	630	G
31	CA	631	G
31	CA	632	A
31	CA	633	G
31	CA	639	G
31	CA	650	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	CA	653	A
31	CA	665	A
31	CA	666	G
31	CA	687	A
31	CA	688	G
31	CA	701	C
31	CA	704	A
31	CA	723	U
31	CA	724	G
31	CA	748	C
31	CA	749	C
31	CA	751	U
31	CA	752	G
31	CA	755	G
31	CA	760	G
31	CA	766	A
31	CA	773	G
31	CA	774	G
31	CA	777	A
31	CA	793	U
31	CA	794	A
31	CA	813	U
31	CA	815	A
31	CA	817	C
31	CA	820	U
31	CA	821	G
31	CA	827	U
31	CA	828	A
31	CA	841	U
31	CA	842	C
31	CA	843	U
31	CA	848	C
31	CA	857	C
31	CA	859	A
31	CA	864	A
31	CA	870	U
31	CA	871	U
31	CA	872	A
31	CA	876	G
31	CA	884	U
31	CA	891	U
31	CA	902	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	CA	914	A
31	CA	926	G
31	CA	927	G
31	CA	934	C
31	CA	935	A
31	CA	936	C
31	CA	940	C
31	CA	942	G
31	CA	960	U
31	CA	968	A
31	CA	969	A
31	CA	971	G
31	CA	972	C
31	CA	974	A
31	CA	975	A
31	CA	976	G
31	CA	977	A
31	CA	982	U
31	CA	983	A
31	CA	991	U
31	CA	992	U
31	CA	993	G
31	CA	995	C
31	CA	1002	G
31	CA	1003	G
31	CA	1004	A
31	CA	1009	G
31	CA	1020	U
31	CA	1021	G
31	CA	1024	G
31	CA	1025	U
31	CA	1026	G
31	CA	1028	C
31	CA	1029	G
31	CA	1032(A)	G
31	CA	1036	G
31	CA	1038	C
31	CA	1039	C
31	CA	1040	U
31	CA	1042	G
31	CA	1053	G
31	CA	1054	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	CA	1055	A
31	CA	1065	U
31	CA	1066	C
31	CA	1081	G
31	CA	1094	G
31	CA	1095	U
31	CA	1101	A
31	CA	1103	C
31	CA	1123	A
31	CA	1124	G
31	CA	1125	U
31	CA	1126	U
31	CA	1127	G
31	CA	1129	C
31	CA	1131	G
31	CA	1132	C
31	CA	1133	G
31	CA	1136	U
31	CA	1137	C
31	CA	1138	G
31	CA	1139	G
31	CA	1140	C
31	CA	1145	C
31	CA	1146	A
31	CA	1147	C
31	CA	1151	A
31	CA	1152	A
31	CA	1157	A
31	CA	1158	C
31	CA	1159	U
31	CA	1160	G
31	CA	1170	A
31	CA	1177	G
31	CA	1178	G
31	CA	1179	A
31	CA	1181	G
31	CA	1182	G
31	CA	1183	A
31	CA	1186	G
31	CA	1187	G
31	CA	1193	G
31	CA	1194	U

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Mol	Chain	Res	Type
31	CA	1195	C
31	CA	1196	U
31	CA	1197	G
31	CA	1201	A
31	CA	1202	G
31	CA	1212	U
31	CA	1213	A
31	CA	1225	A
31	CA	1226	C
31	CA	1227	A
31	CA	1238	A
31	CA	1240	U
31	CA	1241	G
31	CA	1256	A
31	CA	1257	U
31	CA	1258	G
31	CA	1273	G
31	CA	1275	A
31	CA	1278	U
31	CA	1279	A
31	CA	1280	A
31	CA	1281	U
31	CA	1282	C
31	CA	1286	A
31	CA	1287	A
31	CA	1288	A
31	CA	1290	G
31	CA	1291	G
31	CA	1300	G
31	CA	1301	U
31	CA	1302	U
31	CA	1303	C
31	CA	1305	G
31	CA	1313	U
31	CA	1317	C
31	CA	1319	A
31	CA	1320	C
31	CA	1322	C
31	CA	1323	G
31	CA	1331	G
31	CA	1336	C
31	CA	1337	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	CA	1338	G
31	CA	1346	A
31	CA	1347	G
31	CA	1350	A
31	CA	1353	G
31	CA	1362(A)	C
31	CA	1363	A
31	CA	1370	G
31	CA	1373	G
31	CA	1378	C
31	CA	1397	C
31	CA	1398	A
31	CA	1401	G
31	CA	1404	C
31	CA	1419	G
31	CA	1442	G
31	CA	1443	G
31	CA	1446	A
31	CA	1447	G
31	CA	1450	U
31	CA	1452	C
31	CA	1453	G
31	CA	1454	G
31	CA	1469	G
31	CA	1486	G
31	CA	1487	G
31	CA	1492	A
31	CA	1497	G
31	CA	1499	A
31	CA	1502	A
31	CA	1504	G
31	CA	1505	G
31	CA	1506	U
31	CA	1517	G
31	CA	1529	G
31	CA	1530	G
31	CA	1531	A
52	CB	2	C
52	CB	7	G
52	CB	8	U
52	CB	9	G
52	CB	13	G

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Mol	Chain	Res	Type
52	CB	14	A
52	CB	16	U
52	CB	17	U
52	CB	18	G
52	CB	19	G
52	CB	20	U
52	CB	21	A
52	CB	22	G
52	CB	23	A
52	CB	24	C
52	CB	26	C
52	CB	27	G
52	CB	37	G
52	CB	42	U
52	CB	46	G
52	CB	47	C
52	CB	48	C
52	CB	49	C
52	CB	50	A
52	CB	51	A
52	CB	52	U
52	CB	55	G
52	CB	56	G
52	CB	58	U
52	CB	59	U
52	CB	70	G
52	CB	71	U
52	CB	74	C
52	CB	76	U
52	CB	85	C
52	CB	86	C
52	CB	87	A
53	CC	2	G
53	CC	9	G
53	CC	13	C
53	CC	14	A
53	CC	16	C
53	CC	18	C
53	CC	19	G
53	CC	20	G
53	CC	21	U
53	CC	22	A

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Mol	Chain	Res	Type
53	CC	23	G
53	CC	32	G
53	CC	48	U
53	CC	49	C
53	CC	50	G
53	CC	69	C
53	CC	77	A
53	CD	6	G
53	CD	8	U
53	CD	9	G
53	CD	13	C
53	CD	14	A
53	CD	16	C
53	CD	17	C
53	CD	19	G
53	CD	20	G
53	CD	21	U
53	CD	22	A
53	CD	23	G
53	CD	24	C
53	CD	35	C
53	CD	40	C
53	CD	46	G
53	CD	48	U
53	CD	49	C
53	CD	52	C
53	CD	54	G
53	CD	58	A
53	CD	60	A
53	CD	62	C
53	CD	68	C
53	CD	70	C
53	CD	74	A
53	CD	77	A
54	C1	14	U
54	C1	19	U
31	DA	7	G
31	DA	9	G
31	DA	32	A
31	DA	39	G
31	DA	47	C
31	DA	48	C

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Mol	Chain	Res	Type
31	DA	51	A
31	DA	54	C
31	DA	64	G
31	DA	65	U
31	DA	66	G
31	DA	73	G
31	DA	78	G
31	DA	79	G
31	DA	81	G
31	DA	84	U
31	DA	85	U
31	DA	86	U
31	DA	87	A
31	DA	90	C
31	DA	91	C
31	DA	92	G
31	DA	95	G
31	DA	101	A
31	DA	116	A
31	DA	121	C
31	DA	131	C
31	DA	144	G
31	DA	163	C
31	DA	169	C
31	DA	174	C
31	DA	182	U
31	DA	188	U
31	DA	189	U
31	DA	190	G
31	DA	191(A)	G
31	DA	191(D)	U
31	DA	195	A
31	DA	197	A
31	DA	198	G
31	DA	208	U
31	DA	209	U
31	DA	210	U
31	DA	216	G
31	DA	217	C
31	DA	231	G
31	DA	243	A
31	DA	244	U

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Mol	Chain	Res	Type
31	DA	247	G
31	DA	250	A
31	DA	251	G
31	DA	266	G
31	DA	267	C
31	DA	269	C
31	DA	271	C
31	DA	274	A
31	DA	279	A
31	DA	280	C
31	DA	281	G
31	DA	289	G
31	DA	298	A
31	DA	321	A
31	DA	328	C
31	DA	329	A
31	DA	332	G
31	DA	340	U
31	DA	345	C
31	DA	346	G
31	DA	347	G
31	DA	350	G
31	DA	351	G
31	DA	352	C
31	DA	353	A
31	DA	354	G
31	DA	356	A
31	DA	365	U
31	DA	367	U
31	DA	372	C
31	DA	373	A
31	DA	397	A
31	DA	398	C
31	DA	406	G
31	DA	411	A
31	DA	412	A
31	DA	413	G
31	DA	419	C
31	DA	421	U
31	DA	422	C
31	DA	423	G
31	DA	424	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	DA	429	U
31	DA	430	A
31	DA	439	A
31	DA	442	C
31	DA	445	G
31	DA	451	A
31	DA	452	A
31	DA	453	A
31	DA	466	C
31	DA	467	G
31	DA	475	G
31	DA	476	G
31	DA	478	A
31	DA	482	A
31	DA	484	G
31	DA	485	G
31	DA	486	U
31	DA	496	A
31	DA	497	U
31	DA	505	G
31	DA	509	A
31	DA	510	A
31	DA	511	C
31	DA	518	C
31	DA	519	C
31	DA	521	G
31	DA	527	G
31	DA	530	G
31	DA	531	U
31	DA	532	A
31	DA	533	A
31	DA	535	A
31	DA	536	C
31	DA	544	G
31	DA	547	A
31	DA	553	A
31	DA	559	A
31	DA	561	U
31	DA	562	C
31	DA	564	C
31	DA	568	G
31	DA	572	A

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Mol	Chain	Res	Type
31	DA	573	A
31	DA	576	G
31	DA	577	G
31	DA	607	A
31	DA	615	C
31	DA	618	C
31	DA	630	G
31	DA	632	A
31	DA	633	G
31	DA	651	C
31	DA	653	A
31	DA	661	G
31	DA	665	A
31	DA	687	A
31	DA	688	G
31	DA	702	A
31	DA	703	G
31	DA	704	A
31	DA	723	U
31	DA	724	G
31	DA	731	G
31	DA	749	C
31	DA	755	G
31	DA	773	G
31	DA	774	G
31	DA	776	G
31	DA	777	A
31	DA	778	G
31	DA	780	A
31	DA	787	A
31	DA	792	A
31	DA	793	U
31	DA	794	A
31	DA	799	G
31	DA	800	G
31	DA	801	U
31	DA	802	A
31	DA	813	U
31	DA	816	A
31	DA	817	C
31	DA	819	A
31	DA	821	G

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Mol	Chain	Res	Type
31	DA	827	U
31	DA	828	A
31	DA	841	U
31	DA	842	C
31	DA	843	U
31	DA	848	C
31	DA	859	A
31	DA	870	U
31	DA	871	U
31	DA	885	G
31	DA	913	A
31	DA	914	A
31	DA	922	G
31	DA	926	G
31	DA	927	G
31	DA	934	C
31	DA	935	A
31	DA	958	A
31	DA	960	U
31	DA	961	U
31	DA	966	G
31	DA	968	A
31	DA	969	A
31	DA	972	C
31	DA	974	A
31	DA	976	G
31	DA	977	A
31	DA	978	A
31	DA	983	A
31	DA	989	C
31	DA	991	U
31	DA	992	U
31	DA	993	G
31	DA	994	A
31	DA	995	C
31	DA	1004	A
31	DA	1005	A
31	DA	1006	C
31	DA	1009	G
31	DA	1013	G
31	DA	1016	A
31	DA	1022	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	DA	1024	G
31	DA	1025	U
31	DA	1028	C
31	DA	1028(B)	C
31	DA	1029	G
31	DA	1030	C
31	DA	1032(A)	G
31	DA	1032(B)	G
31	DA	1036	G
31	DA	1039	C
31	DA	1040	U
31	DA	1042	G
31	DA	1046	A
31	DA	1053	G
31	DA	1054	C
31	DA	1055	A
31	DA	1066	C
31	DA	1067	A
31	DA	1073	U
31	DA	1081	G
31	DA	1084	G
31	DA	1086	U
31	DA	1087	G
31	DA	1091	U
31	DA	1092	A
31	DA	1094	G
31	DA	1095	U
31	DA	1101	A
31	DA	1118	C
31	DA	1124	G
31	DA	1125	U
31	DA	1126	U
31	DA	1127	G
31	DA	1128	C
31	DA	1129	C
31	DA	1130	A
31	DA	1131	G
31	DA	1133	G
31	DA	1136	U
31	DA	1137	C
31	DA	1139	G
31	DA	1146	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	DA	1147	C
31	DA	1154	G
31	DA	1157	A
31	DA	1158	C
31	DA	1159	U
31	DA	1160	G
31	DA	1178	G
31	DA	1179	A
31	DA	1181	G
31	DA	1182	G
31	DA	1183	A
31	DA	1184	G
31	DA	1185	G
31	DA	1190	G
31	DA	1196	U
31	DA	1197	G
31	DA	1201	A
31	DA	1204	A
31	DA	1212	U
31	DA	1213	A
31	DA	1220	G
31	DA	1225	A
31	DA	1226	C
31	DA	1227	A
31	DA	1228	C
31	DA	1232	U
31	DA	1238	A
31	DA	1240	U
31	DA	1241	G
31	DA	1256	A
31	DA	1257	U
31	DA	1258	G
31	DA	1260	C
31	DA	1269	A
31	DA	1278	U
31	DA	1280	A
31	DA	1286	A
31	DA	1287	A
31	DA	1288	A
31	DA	1290	G
31	DA	1297	C
31	DA	1298	C

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Mol	Chain	Res	Type
31	DA	1299	A
31	DA	1300	G
31	DA	1301	U
31	DA	1302	U
31	DA	1303	C
31	DA	1305	G
31	DA	1306	A
31	DA	1317	C
31	DA	1320	C
31	DA	1322	C
31	DA	1323	G
31	DA	1326	C
31	DA	1331	G
31	DA	1335	C
31	DA	1338	G
31	DA	1346	A
31	DA	1347	G
31	DA	1349	A
31	DA	1353	G
31	DA	1362(A)	C
31	DA	1363	A
31	DA	1368	G
31	DA	1370	G
31	DA	1375	A
31	DA	1379	G
31	DA	1382	C
31	DA	1397	C
31	DA	1398	A
31	DA	1404	C
31	DA	1417	G
31	DA	1419	G
31	DA	1442	G
31	DA	1443	G
31	DA	1446	A
31	DA	1450	U
31	DA	1451	A
31	DA	1453	G
31	DA	1454	G
31	DA	1487	G
31	DA	1492	A
31	DA	1497	G
31	DA	1499	A

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Mol	Chain	Res	Type
31	DA	1502	A
31	DA	1503	A
31	DA	1504	G
31	DA	1506	U
31	DA	1507	A
31	DA	1517	G
31	DA	1519	A
31	DA	1520	G
31	DA	1529	G
31	DA	1530	G
31	DA	1531	A
52	DB	2	C
52	DB	7	G
52	DB	8	U
52	DB	9	G
52	DB	14	A
52	DB	17	U
52	DB	18	G
52	DB	19	G
52	DB	20	U
52	DB	21	A
52	DB	22	G
52	DB	23	A
52	DB	24	C
52	DB	26	C
52	DB	27	G
52	DB	42	U
52	DB	45	U
52	DB	46	G
52	DB	47	C
52	DB	48	C
52	DB	49	C
52	DB	50	A
52	DB	51	A
52	DB	52	U
52	DB	55	G
52	DB	56	G
52	DB	58	U
52	DB	70	G
52	DB	74	C
52	DB	79	U
52	DB	85	C

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Mol	Chain	Res	Type
52	DB	86	C
52	DB	87	A
53	DC	2	G
53	DC	8	U
53	DC	9	G
53	DC	16	C
53	DC	17	C
53	DC	18	C
53	DC	19	G
53	DC	20	G
53	DC	21	U
53	DC	22	A
53	DC	32	G
53	DC	43	G
53	DC	48	U
53	DC	49	C
53	DC	50	G
53	DC	69	C
53	DC	77	A
53	DD	6	G
53	DD	8	U
53	DD	9	G
53	DD	13	C
53	DD	14	A
53	DD	16	C
53	DD	17	C
53	DD	19	G
53	DD	20	G
53	DD	21	U
53	DD	23	G
53	DD	24	C
53	DD	35	C
53	DD	40	C
53	DD	46	G
53	DD	48	U
53	DD	49	C
53	DD	52	C
53	DD	54	G
53	DD	58	A
53	DD	60	A
53	DD	62	C
53	DD	68	C

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Mol	Chain	Res	Type
53	DD	70	C
53	DD	74	A
53	DD	77	A
54	D1	14	U
54	D1	19	U

All (206) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	74	A
1	AA	196	A
1	AA	222	A
1	AA	229	A
1	AA	270(L)	U
1	AA	271(B)	G
1	AA	271(C)	U
1	AA	404	C
1	AA	587	C
1	AA	654(S)	G
1	AA	752	A
1	AA	856	C
1	AA	881	G
1	AA	974	G
1	AA	974(A)	C
1	AA	1022	G
1	AA	1026	U
1	AA	1060	U
1	AA	1069	A
1	AA	1085	A
1	AA	1130	U
1	AA	1178	C
1	AA	1210	A
1	AA	1312	U
1	AA	1379	A
1	AA	1427	A
1	AA	1510	A
1	AA	1536	A
1	AA	1558	A
1	AA	1608	A
1	AA	1653	G
1	AA	1694	C
1	AA	1799	G

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Mol	Chain	Res	Type
1	AA	1819	A
1	AA	1899	G
1	AA	1937	A
1	AA	1955	U
1	AA	1992	G
1	AA	2157	G
1	AA	2211	G
1	AA	2346	A
1	AA	2402	C
1	AA	2428	G
1	AA	2439	A
1	AA	2468	G
1	AA	2566	A
1	AA	2610	C
1	AA	2613	U
1	AA	2681	C
1	AA	2689	U
1	AA	2751	G
1	AA	2756	U
1	BA	49	A
1	BA	71	A
1	BA	74	A
1	BA	128	C
1	BA	196	A
1	BA	204	A
1	BA	205	G
1	BA	278	A
1	BA	310	A
1	BA	653	A
1	BA	654(S)	G
1	BA	669	G
1	BA	752	A
1	BA	856	C
1	BA	877	U
1	BA	886	C
1	BA	888	C
1	BA	893	C
1	BA	1022	G
1	BA	1085	A
1	BA	1089	G
1	BA	1171	G
1	BA	1210	A

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Mol	Chain	Res	Type
1	BA	1300	U
1	BA	1416	G
1	BA	1420	U
1	BA	1427	A
1	BA	1460	A
1	BA	1558	A
1	BA	1653	G
1	BA	1819	A
1	BA	1955	U
1	BA	1963	U
1	BA	1992	G
1	BA	2126	A
1	BA	2135	A
1	BA	2191	G
1	BA	2210	G
1	BA	2211	G
1	BA	2225	A
1	BA	2275	C
1	BA	2282	G
1	BA	2406	U
1	BA	2422	A
1	BA	2439	A
1	BA	2447	G
1	BA	2602	A
1	BA	2610	C
1	BA	2689	U
1	BA	2776	A
1	BA	2790	A
1	BA	2859	G
1	BA	2893	G
31	CA	5	U
31	CA	31	G
31	CA	49	U
31	CA	50	A
31	CA	115	G
31	CA	119	A
31	CA	181	G
31	CA	244	U
31	CA	266	G
31	CA	412	A
31	CA	428	G
31	CA	429	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	CA	484	G
31	CA	509	A
31	CA	530	G
31	CA	560	U
31	CA	575	G
31	CA	687	A
31	CA	703	G
31	CA	748	C
31	CA	812	C
31	CA	820	U
31	CA	871	U
31	CA	913	A
31	CA	974	A
31	CA	992	U
31	CA	1025	U
31	CA	1027	C
31	CA	1065	U
31	CA	1178	G
31	CA	1279	A
31	CA	1285	A
31	CA	1498	U
31	CA	1503	A
31	CA	1504	G
52	CB	18	G
52	CB	19	G
52	CB	21	A
52	CB	23	A
53	CC	1	C
53	CC	19	G
53	CC	20	G
53	CC	48	U
53	CD	13	C
31	DA	31	G
31	DA	64	G
31	DA	89	U
31	DA	115	G
31	DA	197	A
31	DA	201	C
31	DA	209	U
31	DA	243	A
31	DA	250	A
31	DA	266	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	DA	279	A
31	DA	328	C
31	DA	345	C
31	DA	353	A
31	DA	412	A
31	DA	429	U
31	DA	452	A
31	DA	485	G
31	DA	509	A
31	DA	560	U
31	DA	575	G
31	DA	631	G
31	DA	632	A
31	DA	687	A
31	DA	748	C
31	DA	793	U
31	DA	812	C
31	DA	913	A
31	DA	992	U
31	DA	993	G
31	DA	1053	G
31	DA	1054	C
31	DA	1085	U
31	DA	1126	U
31	DA	1128	C
31	DA	1183	A
31	DA	1279	A
31	DA	1285	A
31	DA	1297	C
31	DA	1300	G
31	DA	1301	U
31	DA	1305	G
31	DA	1337	G
31	DA	1346	A
31	DA	1442	G
31	DA	1449	C
31	DA	1498	U
31	DA	1503	A
31	DA	1529	G
52	DB	21	A
52	DB	23	A
52	DB	48	C

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Mol	Chain	Res	Type
53	DC	1	C
53	DC	19	G
53	DC	20	G
53	DC	48	U
53	DD	13	C

## 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 carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 1703 ligands modelled in this entry, 1701 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	$\# Z  > 2$
56	PAR	CA	1841	-	45,45,45	0.54	0	59,67,67	1.34	9 (15%)
56	PAR	DA	1805	-	45,45,45	0.57	0	59,67,67	1.64	16 (27%)

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
56	PAR	CA	1841	-	-	0/18/94/94	0/4/4/4
56	PAR	DA	1805	-	-	0/18/94/94	0/4/4/4

There are no bond length outliers.

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	DA	1805	PAR	C13-O52-C52	-4.10	107.28	118.01
56	DA	1805	PAR	C11-O11-C42	-3.23	109.58	118.01
56	DA	1805	PAR	C14-O33-C33	-2.95	110.29	118.01
56	DA	1805	PAR	O34-C34-C44	-2.77	104.09	110.34
56	CA	1841	PAR	C11-O11-C42	-2.64	111.10	118.01
56	CA	1841	PAR	C14-C24-N24	-2.52	106.09	111.10
56	CA	1841	PAR	C14-O33-C33	-2.50	111.47	118.01
56	DA	1805	PAR	O54-C54-C44	-2.20	105.56	109.68
56	CA	1841	PAR	C13-O52-C52	-2.17	112.34	118.01
56	CA	1841	PAR	O54-C54-C44	-2.15	105.64	109.68
56	CA	1841	PAR	O33-C33-C43	-2.14	103.15	111.83
56	DA	1805	PAR	C34-C24-N24	-2.13	106.91	110.86
56	DA	1805	PAR	C11-C21-N21	-2.10	106.93	111.10
56	DA	1805	PAR	C14-C24-N24	-2.08	106.97	111.10
56	DA	1805	PAR	O44-C44-C34	-2.08	105.66	110.34
56	DA	1805	PAR	C14-O54-C54	2.07	117.76	113.75
56	DA	1805	PAR	O52-C13-C23	2.14	112.20	107.75
56	DA	1805	PAR	O51-C11-C21	2.23	115.48	110.47
56	CA	1841	PAR	C14-O54-C54	2.24	118.09	113.75
56	DA	1805	PAR	C14-C24-C34	2.30	116.49	109.95
56	DA	1805	PAR	O51-C51-C41	2.63	114.63	109.68
56	CA	1841	PAR	O52-C13-C23	2.79	113.55	107.75
56	CA	1841	PAR	O54-C54-C64	3.67	113.28	106.10
56	DA	1805	PAR	O54-C54-C64	3.86	113.64	106.10
56	DA	1805	PAR	C11-O51-C51	4.00	121.51	113.75

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 9 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	CA	1841	PAR	4	0
56	DA	1805	PAR	5	0

## 5.7 Other polymers ⓘ

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.



## 6 Fit of model and data [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	AA	2912/2912 (100%)	-0.03	43 (1%) 76 71	50, 81, 215, 247	0
1	BA	2909/2912 (99%)	-0.14	42 (1%) 78 73	60, 95, 235, 249	0
2	AB	122/122 (100%)	-0.26	1 (0%) 87 84	81, 105, 124, 182	0
2	BB	122/122 (100%)	-0.34	2 (1%) 74 69	98, 133, 156, 203	0
3	AD	272/276 (98%)	0.78	14 (5%) 32 25	47, 72, 94, 112	0
3	BD	272/276 (98%)	0.57	15 (5%) 29 23	56, 82, 103, 138	0
4	AE	205/206 (99%)	0.91	40 (19%) 1 1	55, 91, 137, 149	0
4	BE	205/206 (99%)	1.06	37 (18%) 2 1	66, 104, 153, 172	0
5	AF	202/210 (96%)	0.08	2 (0%) 84 80	52, 84, 123, 137	0
5	BF	208/210 (99%)	0.82	28 (13%) 4 3	64, 108, 166, 191	0
6	AG	181/182 (99%)	1.20	34 (18%) 2 1	95, 115, 143, 157	0
6	BG	181/182 (99%)	1.23	42 (23%) 1 1	125, 148, 169, 176	0
7	AH	170/180 (94%)	0.28	6 (3%) 48 40	89, 119, 138, 160	0
7	BH	170/180 (94%)	3.56	121 (71%) 0 0	161, 203, 224, 232	0
8	AK	146/148 (98%)	0.72	20 (13%) 4 3	85, 134, 151, 157	0
8	BK	146/148 (98%)	0.38	7 (4%) 34 28	91, 134, 158, 167	0
9	AM	138/140 (98%)	0.33	7 (5%) 32 25	70, 95, 131, 144	0
9	BM	138/140 (98%)	1.95	66 (47%) 0 0	86, 118, 148, 158	0
10	AN	122/122 (100%)	0.65	4 (3%) 50 43	63, 82, 98, 111	0
10	BN	122/122 (100%)	0.93	14 (11%) 6 5	76, 98, 117, 133	0
11	AO	150/150 (100%)	0.28	5 (3%) 50 43	45, 90, 122, 167	0
11	BO	150/150 (100%)	0.62	13 (8%) 13 10	44, 101, 149, 186	0
12	AP	141/141 (100%)	0.75	13 (9%) 11 9	58, 91, 116, 142	0
12	BP	141/141 (100%)	1.63	45 (31%) 1 1	58, 107, 142, 164	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å <sup>2</sup> )	Q<0.9
13	A0	118/118 (100%)	0.10	0	100 100	64, 90, 109, 123	0
13	B0	117/118 (99%)	0.15	1 (0%)	85 82	68, 90, 113, 128	0
14	AQ	111/112 (99%)	0.80	13 (11%)	6 5	83, 103, 126, 142	0
14	BQ	111/112 (99%)	0.41	7 (6%)	23 19	95, 132, 156, 175	0
15	AR	137/146 (93%)	0.68	9 (6%)	22 17	75, 97, 147, 178	0
15	BR	137/146 (93%)	0.40	5 (3%)	46 39	86, 107, 167, 187	0
16	A1	117/118 (99%)	-0.13	3 (2%)	59 53	61, 84, 116, 145	0
16	B1	117/118 (99%)	1.49	35 (29%)	1 1	71, 106, 146, 165	0
17	A2	101/101 (100%)	0.20	3 (2%)	54 47	61, 105, 126, 145	0
17	B2	101/101 (100%)	2.09	44 (43%)	0 0	73, 131, 148, 158	0
18	AS	113/113 (100%)	-0.07	2 (1%)	71 65	55, 80, 111, 163	0
18	BS	113/113 (100%)	0.58	6 (5%)	30 24	69, 84, 121, 162	0
19	AT	92/96 (95%)	0.62	6 (6%)	22 18	63, 78, 102, 118	0
19	BT	92/96 (95%)	0.78	8 (8%)	13 10	78, 96, 119, 134	0
20	AU	102/110 (92%)	0.23	4 (3%)	43 36	82, 107, 157, 172	0
20	BU	102/110 (92%)	1.56	29 (28%)	1 1	97, 123, 176, 191	0
21	AV	175/206 (84%)	1.58	65 (37%)	0 1	93, 133, 193, 198	0
21	BV	179/206 (86%)	3.04	109 (60%)	0 0	128, 166, 212, 218	0
22	A3	76/85 (89%)	0.25	1 (1%)	79 74	65, 84, 98, 137	0
22	B3	77/85 (90%)	0.39	2 (2%)	59 53	79, 101, 122, 155	0
23	AZ	97/98 (98%)	0.83	12 (12%)	5 4	61, 81, 137, 165	0
23	BZ	97/98 (98%)	0.34	2 (2%)	67 60	69, 91, 141, 162	0
24	AW	66/72 (91%)	0.12	2 (3%)	54 47	69, 87, 106, 137	0
24	BW	69/72 (95%)	0.70	5 (7%)	18 15	90, 114, 148, 183	0
25	AX	59/60 (98%)	-0.02	2 (3%)	49 42	73, 90, 120, 135	0
25	BX	59/60 (98%)	1.42	13 (22%)	1 1	86, 114, 146, 166	0
26	A4	66/71 (92%)	3.46	46 (69%)	0 0	127, 161, 179, 187	0
26	B4	63/71 (88%)	3.70	46 (73%)	0 0	154, 190, 200, 207	0
27	A5	59/60 (98%)	0.52	7 (11%)	6 5	55, 95, 180, 185	0
27	B5	59/60 (98%)	1.14	12 (20%)	1 1	65, 94, 181, 192	0
28	A6	45/54 (83%)	3.36	30 (66%)	0 0	122, 152, 173, 181	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	B6	45/54 (83%)	1.91	18 (40%) 0 0	141, 173, 188, 192	0
29	A7	49/49 (100%)	0.08	2 (4%) 41 34	50, 60, 106, 137	0
29	B7	49/49 (100%)	0.46	4 (8%) 14 11	60, 69, 129, 148	0
30	A8	61/65 (93%)	0.41	1 (1%) 74 69	64, 78, 95, 120	0
30	B8	61/65 (93%)	0.96	5 (8%) 14 11	78, 95, 110, 142	0
31	CA	1506/1506 (100%)	-0.34	7 (0%) 91 90	64, 112, 193, 248	0
31	DA	1506/1506 (100%)	-0.38	7 (0%) 91 90	76, 122, 195, 248	0
32	CE	237/256 (92%)	0.56	22 (9%) 11 9	115, 149, 188, 198	0
32	DE	237/256 (92%)	0.27	19 (8%) 15 12	127, 165, 200, 215	0
33	CF	205/239 (85%)	0.67	18 (8%) 12 10	98, 124, 158, 166	0
33	DF	206/239 (86%)	1.16	51 (24%) 1 1	128, 151, 180, 188	0
34	CG	208/208 (100%)	-0.08	1 (0%) 91 90	95, 119, 143, 154	0
34	DG	208/208 (100%)	0.75	20 (9%) 10 9	91, 116, 137, 151	0
35	CH	151/162 (93%)	0.42	5 (3%) 50 43	87, 109, 132, 166	0
35	DH	151/162 (93%)	-0.02	1 (0%) 89 86	104, 125, 148, 169	0
36	CI	101/101 (100%)	0.91	13 (12%) 5 3	89, 112, 130, 153	0
36	DI	101/101 (100%)	0.69	11 (10%) 7 6	87, 109, 130, 156	0
37	CJ	155/156 (99%)	0.69	16 (10%) 9 7	111, 128, 158, 167	0
37	DJ	155/156 (99%)	-0.12	2 (1%) 79 74	116, 136, 164, 170	0
38	CK	138/138 (100%)	0.14	3 (2%) 65 59	95, 116, 130, 137	0
38	DK	138/138 (100%)	-0.23	0 100 100	109, 129, 143, 151	0
39	CL	127/128 (99%)	-0.25	0 100 100	99, 147, 167, 173	0
39	DL	127/128 (99%)	-0.49	1 (0%) 87 84	120, 158, 174, 178	0
40	CM	99/105 (94%)	-0.10	2 (2%) 68 62	93, 146, 176, 179	0
40	DM	99/105 (94%)	0.40	9 (9%) 11 9	127, 164, 180, 185	0
41	CN	119/129 (92%)	1.85	41 (34%) 0 1	79, 110, 142, 169	0
41	DN	119/129 (92%)	0.60	9 (7%) 17 14	90, 116, 148, 172	0
42	CO	125/132 (94%)	1.10	26 (20%) 1 1	76, 87, 119, 164	0
42	DO	125/132 (94%)	1.32	32 (25%) 1 1	88, 112, 137, 175	0
43	CP	116/126 (92%)	0.63	11 (9%) 10 9	98, 132, 151, 160	0
43	DP	117/126 (92%)	0.85	14 (11%) 6 5	117, 160, 174, 178	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	CQ	60/61 (98%)	0.06	1 (1%) 73 67	95, 115, 129, 139	0
44	DQ	60/61 (98%)	0.38	4 (6%) 21 17	129, 146, 159, 166	0
45	CR	88/89 (98%)	0.22	3 (3%) 49 42	86, 108, 129, 133	0
45	DR	88/89 (98%)	0.21	2 (2%) 64 57	85, 118, 142, 148	0
46	CS	84/88 (95%)	0.19	3 (3%) 46 39	104, 121, 148, 179	0
46	DS	84/88 (95%)	0.15	0 100 100	94, 111, 134, 166	0
47	CT	100/105 (95%)	0.18	5 (5%) 32 26	94, 115, 132, 146	0
47	DT	100/105 (95%)	0.23	4 (4%) 42 34	95, 117, 141, 155	0
48	CU	72/88 (81%)	0.97	11 (15%) 3 2	91, 112, 146, 173	0
48	DU	72/88 (81%)	0.65	7 (9%) 10 9	97, 120, 156, 173	0
49	CV	78/93 (83%)	0.65	6 (7%) 16 13	112, 136, 151, 158	0
49	DV	78/93 (83%)	0.83	8 (10%) 9 7	150, 167, 187, 191	0
50	CW	99/106 (93%)	-0.15	0 100 100	106, 130, 158, 169	0
50	DW	99/106 (93%)	-0.16	1 (1%) 84 80	97, 124, 158, 172	0
51	CX	25/27 (92%)	-0.21	0 100 100	101, 124, 142, 160	0
51	DX	25/27 (92%)	-0.08	1 (4%) 42 34	126, 149, 163, 175	0
52	CB	87/87 (100%)	1.63	30 (34%) 0 1	91, 155, 201, 213	2 (2%)
52	DB	87/87 (100%)	1.52	27 (31%) 1 1	97, 156, 203, 216	2 (2%)
53	CC	77/77 (100%)	0.35	3 (3%) 43 36	82, 118, 149, 164	0
53	CD	77/77 (100%)	0.77	15 (19%) 1 1	86, 232, 246, 248	0
53	DC	77/77 (100%)	-0.29	0 100 100	87, 120, 153, 167	0
53	DD	77/77 (100%)	-0.46	1 (1%) 79 74	91, 234, 245, 249	0
54	C1	10/10 (100%)	1.33	2 (20%) 1 1	85, 102, 117, 131	0
54	D1	10/10 (100%)	-0.12	1 (10%) 9 8	88, 109, 119, 137	0
All	All	21107/21634 (97%)	0.33	1656 (7%) 16 13	44, 110, 191, 249	4 (0%)

All (1656) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	AA	654(J)	A	14.2
21	BV	179	ASP	13.9
1	AA	654(K)	C	12.0
41	CN	11	LYS	12.0
7	BH	29	PRO	11.7

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Mol	Chain	Res	Type	RSRZ
1	BA	654(J)	A	11.7
7	BH	32	GLU	11.5
7	BH	48	GLY	11.1
26	B4	12	ALA	11.1
7	BH	99	VAL	11.0
42	DO	129	ALA	10.6
1	BA	654(K)	C	10.5
27	B5	59	GLU	10.5
11	BO	150	ALA	10.4
27	B5	60	VAL	10.0
21	BV	112	ARG	10.0
4	BE	69	LYS	9.9
7	BH	24	VAL	9.8
7	BH	95	ARG	9.5
27	A5	54	GLY	9.5
1	AA	654(L)	G	9.3
5	BF	208	GLY	9.2
26	A4	31	ILE	9.2
37	CJ	85	TYR	9.1
23	AZ	98	LEU	9.1
1	BA	654(I)	C	9.0
17	B2	45	THR	9.0
1	BA	654(L)	G	9.0
31	CA	86	U	8.9
21	BV	141	VAL	8.8
26	B4	63	TYR	8.7
7	BH	98	LEU	8.6
52	CB	51	A	8.6
27	B5	2	ALA	8.6
21	BV	121	HIS	8.5
52	DB	54	G	8.4
21	BV	178	GLU	8.4
28	A6	42	TRP	8.3
27	B5	53	ALA	8.3
32	DE	4	GLU	8.2
7	BH	52	VAL	8.2
7	BH	18	GLU	8.2
26	A4	30	GLU	8.2
33	DF	60	ALA	8.2
7	BH	49	VAL	8.1
7	BH	96	ALA	8.0
7	BH	55	PRO	7.9

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Mol	Chain	Res	Type	RSRZ
28	A6	20	ASN	7.9
22	A3	85	ALA	7.9
1	BA	2901	C	7.8
26	B4	40	HIS	7.7
26	A4	39	CYS	7.7
52	DB	53	A	7.7
26	B4	30	GLU	7.7
7	BH	43	VAL	7.6
48	CU	88	LYS	7.5
7	BH	30	LYS	7.5
11	AO	149	GLU	7.5
7	BH	105	LEU	7.4
17	B2	91	TYR	7.4
52	DB	51	A	7.4
42	CO	126	ALA	7.3
7	BH	33	LEU	7.3
1	AA	2798	C	7.3
26	B4	55	ARG	7.3
43	DP	7	VAL	7.3
7	BH	97	ARG	7.2
7	BH	45	VAL	7.2
21	BV	146	ILE	7.2
21	BV	176	PRO	7.2
1	BA	2900	A	7.1
52	CB	17	U	7.1
4	BE	54	GLN	7.1
42	DO	128	ALA	7.1
7	BH	41	MET	7.1
52	DB	55	G	7.1
28	A6	26	ASN	7.1
20	BU	50	ARG	7.1
21	BV	152	ALA	7.1
28	A6	13	CYS	7.0
5	BF	1	MET	7.0
26	A4	32	TYR	7.0
53	CD	18	C	7.0
8	BK	146	ALA	7.0
28	B6	13	CYS	7.0
21	BV	55	HIS	7.0
7	BH	125	VAL	6.9
26	A4	13	ARG	6.9
7	AH	155	SER	6.9

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Mol	Chain	Res	Type	RSRZ
21	BV	113	ALA	6.9
21	BV	147	GLY	6.9
42	DO	64	TYR	6.9
7	BH	46	GLU	6.9
1	BA	2798	C	6.9
28	A6	53	LYS	6.8
28	A6	18	ARG	6.8
52	DB	17	U	6.8
28	A6	19	ARG	6.7
7	BH	7	LEU	6.7
7	BH	126	PRO	6.7
26	B4	13	ARG	6.7
15	BR	1	MET	6.7
4	AE	205	ALA	6.6
1	AA	2901	C	6.6
28	B6	50	ARG	6.5
6	AG	2	PRO	6.5
21	BV	155	LEU	6.5
52	DB	16	U	6.5
6	AG	182	LYS	6.5
23	AZ	97	LEU	6.5
26	B4	10	VAL	6.5
17	B2	12	TYR	6.5
7	BH	39	PRO	6.4
7	BH	106	THR	6.4
7	BH	17	VAL	6.4
16	B1	73	GLY	6.4
4	AE	204	ALA	6.4
26	B4	47	GLN	6.4
41	CN	12	ARG	6.3
26	B4	42	PHE	6.3
26	B4	11	PRO	6.3
7	BH	94	TYR	6.3
21	BV	145	GLU	6.3
4	BE	59	VAL	6.3
23	AZ	96	LYS	6.3
24	AW	43	GLN	6.3
43	DP	6	GLY	6.3
26	B4	29	PRO	6.3
26	B4	18	CYS	6.3
1	BA	2797	U	6.2
21	BV	142	SER	6.2

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Mol	Chain	Res	Type	RSRZ
6	BG	182	LYS	6.2
21	BV	111	VAL	6.2
1	BA	1509	C	6.2
21	BV	56	VAL	6.2
27	A5	2	ALA	6.2
7	BH	76	VAL	6.1
7	BH	8	PRO	6.1
16	B1	69	CYS	6.1
40	DM	87	THR	6.1
41	DN	13	GLN	6.1
1	AA	163	U	6.1
41	CN	129	SER	6.1
7	BH	25	LYS	6.1
43	DP	4	ILE	6.0
24	BW	43	GLN	6.0
33	DF	46	GLU	6.0
20	BU	49	VAL	6.0
26	A4	28	LYS	6.0
20	BU	86	ARG	6.0
26	B4	28	LYS	6.0
54	C1	14	U	6.0
4	BE	55	ASN	6.0
41	CN	81	ASP	6.0
21	AV	1	MET	5.9
7	BH	103	LEU	5.9
52	CB	52	U	5.9
9	BM	1	MET	5.9
7	BH	40	GLU	5.9
4	BE	205	ALA	5.9
21	AV	107	THR	5.9
21	BV	143	GLY	5.8
21	BV	9	TYR	5.8
1	BA	654(M)	C	5.8
26	A4	55	ARG	5.8
7	BH	53	GLU	5.8
6	BG	108	ASN	5.8
33	DF	80	GLY	5.8
7	BH	51	ARG	5.8
37	CJ	78	ARG	5.8
21	AV	108	PRO	5.8
21	AV	172	ALA	5.8
12	BP	66	ILE	5.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	DE	5	ILE	5.7
7	BH	13	LYS	5.7
15	AR	1	MET	5.7
29	A7	49	ARG	5.7
7	BH	11	VAL	5.6
52	DB	82	G	5.6
20	BU	59	GLY	5.6
31	CA	85	U	5.6
12	BP	104	PHE	5.6
21	BV	144	LEU	5.6
42	DO	65	GLU	5.6
47	CT	101	ARG	5.6
31	DA	1032	A	5.6
7	BH	42	ARG	5.6
21	BV	68	PRO	5.6
1	BA	2899	G	5.5
26	A4	5	ILE	5.5
26	A4	25	TYR	5.5
27	A5	55	ARG	5.5
52	CB	48	C	5.5
52	CB	18	G	5.5
21	BV	83	PRO	5.5
26	A4	12	ALA	5.5
26	A4	40	HIS	5.5
18	AS	113	LYS	5.5
21	BV	162	GLU	5.5
33	DF	64	VAL	5.5
22	B3	85	ALA	5.5
28	A6	12	GLU	5.4
37	CJ	153	HIS	5.4
21	BV	53	ILE	5.4
52	CB	53	A	5.4
1	AA	2	G	5.4
52	CB	84	A	5.4
17	A2	36	PRO	5.4
21	BV	149	SER	5.4
6	AG	80	PHE	5.4
31	DA	1029	G	5.4
21	BV	137	ILE	5.4
14	BQ	60	GLY	5.4
1	AA	1	G	5.4
43	DP	8	GLU	5.4

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Mol	Chain	Res	Type	RSRZ
26	B4	44	THR	5.4
6	AG	137	GLU	5.4
26	A4	20	ASN	5.4
28	A6	29	ASN	5.4
1	AA	654(I)	C	5.4
37	CJ	84	ASN	5.3
21	BV	96	VAL	5.3
52	CB	16	U	5.3
26	B4	21	VAL	5.3
12	AP	33	GLY	5.3
1	AA	654(P)	G	5.3
5	BF	12	LEU	5.3
21	BV	172	ALA	5.3
9	BM	8	GLN	5.3
8	AK	146	ALA	5.3
21	BV	168	GLU	5.2
1	AA	4	C	5.2
6	BG	139	LEU	5.2
7	BH	83	TYR	5.2
1	AA	2902	C	5.2
16	B1	72	HIS	5.2
26	A4	29	PRO	5.2
21	BV	107	THR	5.2
7	BH	47	GLU	5.2
7	BH	115	VAL	5.2
6	BG	142	PRO	5.2
4	BE	70	ALA	5.1
20	BU	46	LYS	5.1
21	AV	148	ASP	5.1
21	AV	142	SER	5.1
21	BV	106	GLY	5.1
21	AV	171	ILE	5.1
17	B2	36	PRO	5.1
26	A4	52	THR	5.1
52	DB	18	G	5.1
17	B2	5	VAL	5.1
28	B6	14	THR	5.1
26	B4	20	ASN	5.1
26	B4	22	ILE	5.1
15	AR	2	ASN	5.1
7	BH	31	GLY	5.1
26	A4	26	SER	5.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
7	BH	50	VAL	5.1
21	BV	153	SER	5.0
7	BH	80	SER	5.0
11	AO	150	ALA	5.0
1	AA	888	C	5.0
11	BO	149	GLU	5.0
6	BG	34	LEU	5.0
37	CJ	154	TYR	5.0
27	B5	54	GLY	5.0
32	DE	6	THR	5.0
28	A6	50	ARG	5.0
16	B1	90	VAL	5.0
28	A6	14	THR	5.0
33	DF	66	VAL	4.9
20	BU	79	CYS	4.9
21	BV	92	SER	4.9
7	BH	21	PRO	4.9
7	BH	34	GLU	4.9
1	BA	1067	A	4.9
33	DF	103	VAL	4.9
26	A4	22	ILE	4.9
7	BH	101	ARG	4.9
21	AV	146	ILE	4.9
26	A4	11	PRO	4.9
26	A4	24	THR	4.8
21	BV	159	PRO	4.8
7	BH	81	GLU	4.8
12	BP	103	MET	4.8
9	BM	41	ASP	4.8
43	DP	5	ALA	4.8
9	AM	130	HIS	4.8
20	BU	45	VAL	4.8
26	B4	31	ILE	4.8
52	DB	87	A	4.7
21	BV	177	PRO	4.7
20	AU	52	SER	4.7
26	B4	58	ARG	4.7
18	BS	113	LYS	4.7
26	B4	54	GLY	4.7
33	DF	79	ARG	4.7
16	B1	89	GLU	4.7
7	BH	19	VAL	4.7

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Mol	Chain	Res	Type	RSRZ
40	DM	100	THR	4.7
21	BV	169	GLU	4.7
21	BV	150	LEU	4.7
4	AE	79	ARG	4.7
28	A6	47	THR	4.7
33	DF	45	LYS	4.7
16	B1	88	ILE	4.7
19	BT	89	ILE	4.7
4	BE	76	ARG	4.7
9	BM	48	MET	4.7
20	BU	58	GLY	4.7
26	B4	45	GLY	4.7
26	B4	48	ARG	4.7
23	AZ	93	GLU	4.6
37	CJ	86	GLN	4.6
6	BG	146	TYR	4.6
26	A4	3	GLU	4.6
28	A6	23	THR	4.6
1	BA	2799	A	4.6
28	A6	49	HIS	4.6
12	BP	6	ARG	4.6
33	CF	79	ARG	4.6
26	A4	10	VAL	4.6
42	DO	68	ALA	4.6
21	BV	28	MET	4.6
20	BU	52	SER	4.6
41	CN	21	ILE	4.6
27	A5	60	VAL	4.6
17	B2	27	ALA	4.6
52	DB	52	U	4.6
7	BH	23	ARG	4.5
7	BH	38	SER	4.5
6	AG	82	LEU	4.5
16	B1	91	ASP	4.5
27	B5	55	ARG	4.5
43	CP	6	GLY	4.5
5	BF	2	LYS	4.5
1	BA	1535	U	4.5
20	BU	48	ALA	4.5
1	AA	887	A	4.5
6	AG	88	ILE	4.5
1	BA	3	U	4.5

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Mol	Chain	Res	Type	RSRZ
52	CB	81	G	4.5
17	B2	40	LEU	4.5
4	BE	52	LEU	4.5
42	DO	39	VAL	4.5
21	BV	88	PHE	4.5
48	DU	88	LYS	4.5
52	CB	83	U	4.4
14	BQ	108	GLY	4.4
1	BA	1093	G	4.4
28	A6	21	TYR	4.4
7	BH	131	VAL	4.4
26	A4	21	VAL	4.4
25	AX	60	GLU	4.4
7	BH	26	VAL	4.4
24	BW	72	ALA	4.4
33	DF	42	LEU	4.4
26	A4	64	GLY	4.4
21	BV	69	THR	4.4
33	DF	109	PRO	4.4
41	CN	83	ILE	4.4
1	BA	2	G	4.4
9	BM	133	GLN	4.4
4	BE	78	LEU	4.4
17	B2	47	VAL	4.4
5	BF	20	LEU	4.3
26	B4	50	VAL	4.3
41	CN	62	GLN	4.3
26	A4	23	GLU	4.3
1	AA	277	C	4.3
7	BH	54	ARG	4.3
41	CN	96	ARG	4.3
9	BM	51	PHE	4.3
28	B6	42	TRP	4.3
21	BV	2	GLU	4.3
7	BH	128	PRO	4.3
17	B2	38	LEU	4.3
20	BU	47	LYS	4.3
6	AG	146	TYR	4.3
21	BV	27	VAL	4.3
26	A4	14	ILE	4.2
21	BV	170	THR	4.2
7	BH	86	GLU	4.2

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Mol	Chain	Res	Type	RSRZ
12	BP	35	VAL	4.2
4	AE	54	GLN	4.2
12	BP	130	LYS	4.2
16	A1	118	GLY	4.2
26	A4	65	ASP	4.2
20	BU	88	LYS	4.2
21	AV	113	ALA	4.2
17	B2	16	PRO	4.2
6	AG	135	LEU	4.2
21	AV	104	PHE	4.2
52	DB	56	G	4.2
12	BP	64	ILE	4.2
47	DT	101	ARG	4.2
17	B2	17	GLY	4.2
52	CB	56	G	4.2
33	DF	146	ALA	4.2
12	BP	105	GLU	4.2
26	A4	51	ASP	4.2
7	BH	85	LYS	4.1
25	BX	2	PRO	4.1
17	B2	94	LEU	4.1
6	AG	143	GLU	4.1
26	B4	8	LYS	4.1
9	BM	72	TYR	4.1
9	BM	13	TRP	4.1
33	DF	86	VAL	4.1
15	AR	21	GLU	4.1
7	BH	82	GLY	4.1
21	BV	93	ASP	4.1
21	BV	171	ILE	4.1
24	BW	44	LEU	4.1
28	B6	49	HIS	4.1
9	AM	134	ARG	4.1
43	DP	3	ARG	4.1
17	B2	4	ILE	4.1
12	BP	33	GLY	4.1
33	DF	102	ASN	4.1
19	AT	92	LEU	4.1
21	BV	154	ASP	4.1
21	BV	51	ALA	4.1
21	BV	156	LYS	4.1
7	BH	35	VAL	4.1

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Mol	Chain	Res	Type	RSRZ
1	AA	654(F)	C	4.1
3	BD	40	THR	4.0
28	A6	34	LEU	4.0
41	CN	42	TRP	4.0
7	BH	15	VAL	4.0
12	BP	37	LEU	4.0
7	BH	44	VAL	4.0
9	BM	40	PRO	4.0
26	A4	6	HIS	4.0
33	DF	104	GLN	4.0
21	BV	173	ALA	4.0
42	CO	90	LEU	4.0
7	BH	124	GLU	4.0
41	CN	82	VAL	4.0
26	B4	56	VAL	4.0
16	B1	108	GLU	4.0
1	AA	654(G)	C	4.0
9	BM	12	ARG	4.0
1	AA	2797	U	4.0
21	BV	151	HIS	4.0
29	B7	49	ARG	4.0
21	AV	155	LEU	4.0
5	BF	172	TRP	4.0
9	BM	136	GLU	4.0
42	DO	127	GLU	4.0
29	A7	48	LYS	4.0
6	AG	63	ILE	4.0
21	BV	163	LEU	4.0
33	DF	82	GLU	4.0
42	CO	91	PRO	3.9
8	AK	74	ASN	3.9
21	BV	110	GLY	3.9
7	BH	12	PRO	3.9
6	BG	82	LEU	3.9
5	BF	21	ALA	3.9
26	B4	32	TYR	3.9
31	CA	84	U	3.9
53	CD	21	U	3.9
12	BP	65	PHE	3.9
19	BT	92	LEU	3.9
23	AZ	82	LEU	3.9
9	BM	131	GLN	3.9

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Mol	Chain	Res	Type	RSRZ
12	AP	140	ALA	3.9
21	BV	138	GLU	3.9
52	CB	79	U	3.9
17	B2	1	MET	3.9
5	BF	175	THR	3.9
17	B2	20	LEU	3.9
4	BE	77	ILE	3.9
28	A6	30	THR	3.9
41	CN	65	ALA	3.9
32	CE	68	ILE	3.9
1	AA	2799	A	3.9
42	DO	32	PHE	3.8
52	CB	54	G	3.8
34	DG	153	ARG	3.8
43	CP	8	GLU	3.8
7	BH	56	SER	3.8
7	BH	123	PHE	3.8
12	BP	1	MET	3.8
21	AV	99	TYR	3.8
21	BV	5	LEU	3.8
26	B4	34	GLU	3.8
28	A6	35	GLU	3.8
21	BV	50	GLN	3.8
40	DM	93	GLY	3.8
52	CB	20	U	3.8
25	BX	26	LEU	3.8
15	BR	2	ASN	3.8
1	AA	1536	A	3.8
16	B1	99	ALA	3.8
6	AG	89	GLY	3.8
52	CB	55	G	3.8
9	BM	122	VAL	3.8
42	DO	40	VAL	3.8
43	DP	88	ARG	3.8
7	BH	89	ILE	3.8
21	BV	118	GLN	3.8
34	DG	64	LEU	3.8
6	BG	157	ILE	3.8
16	B1	112	ARG	3.8
5	BF	207	GLY	3.8
4	AE	77	ILE	3.8
26	B4	25	TYR	3.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
33	CF	193	TYR	3.8
21	BV	70	LEU	3.8
1	AA	654(H)	G	3.8
16	A1	117	GLN	3.8
4	AE	58	ARG	3.8
1	AA	654(E)	C	3.7
1	BA	4	C	3.7
21	BV	4	ARG	3.7
21	BV	57	ILE	3.7
33	DF	52	LEU	3.7
42	DO	27	LEU	3.7
28	B6	26	ASN	3.7
17	B2	11	GLN	3.7
1	BA	887	A	3.7
2	AB	1(M)	A	3.7
37	CJ	156	TRP	3.7
7	BH	37	VAL	3.7
9	BM	15	LEU	3.7
21	BV	95	PRO	3.7
26	B4	7	PRO	3.7
16	B1	86	ALA	3.7
43	CP	2	ALA	3.7
21	BV	8	TYR	3.7
21	AV	170	THR	3.7
33	CF	72	LYS	3.7
1	BA	654(H)	G	3.7
21	AV	153	SER	3.7
21	BV	52	SER	3.7
4	AE	60	ASN	3.7
7	BH	132	ARG	3.7
4	AE	90	THR	3.7
6	BG	152	LEU	3.7
28	B6	30	THR	3.7
52	CB	21	A	3.7
26	A4	15	ILE	3.7
4	BE	90	THR	3.7
3	BD	26	LYS	3.7
26	A4	9	LEU	3.7
42	CO	125	ALA	3.7
42	DO	57	LYS	3.7
28	A6	46	HIS	3.7
5	BF	11	VAL	3.6

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Mol	Chain	Res	Type	RSRZ
6	BG	137	GLU	3.6
6	AG	181	ARG	3.6
31	DA	1031	G	3.6
26	B4	41	PRO	3.6
7	BH	107	VAL	3.6
41	CN	30	VAL	3.6
7	BH	4	ILE	3.6
7	BH	100	GLY	3.6
21	AV	54	HIS	3.6
1	AA	5	A	3.6
7	BH	57	ASP	3.6
52	DB	80	C	3.6
21	AV	70	LEU	3.6
21	BV	114	GLY	3.6
25	BX	60	GLU	3.6
26	A4	53	GLU	3.6
21	AV	141	VAL	3.6
7	BH	155	SER	3.6
26	A4	4	GLY	3.6
10	BN	65	THR	3.6
49	CV	61	TYR	3.6
8	AK	113	ARG	3.5
24	BW	71	ASN	3.5
10	BN	42	SER	3.5
21	BV	102	LEU	3.5
21	BV	148	ASP	3.5
26	B4	19	GLY	3.5
21	AV	149	SER	3.5
33	DF	85	ARG	3.5
17	B2	34	GLU	3.5
21	BV	119	GLU	3.5
12	BP	63	LYS	3.5
21	AV	147	GLY	3.5
33	DF	62	ASP	3.5
26	A4	1	MET	3.5
1	AA	2900	A	3.5
5	BF	177	ALA	3.5
1	AA	3	U	3.5
4	BE	53	PRO	3.5
53	CD	37	U	3.5
28	B6	24	GLU	3.5
6	BG	39	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
21	AV	106	GLY	3.5
26	A4	27	THR	3.5
9	BM	84	LYS	3.5
26	A4	34	GLU	3.5
7	BH	9	ILE	3.5
12	AP	85	LYS	3.5
21	BV	109	ALA	3.5
11	BO	64	LYS	3.5
52	DB	19	G	3.5
6	AG	141	PHE	3.5
26	A4	49	PHE	3.5
48	DU	87	ARG	3.5
17	B2	73	SER	3.4
26	B4	49	PHE	3.4
1	AA	896	A	3.4
6	AG	144	ILE	3.4
12	BP	7	MET	3.4
33	DF	105	GLU	3.4
21	BV	25	PRO	3.4
41	CN	98	LEU	3.4
26	B4	39	CYS	3.4
41	CN	58	PRO	3.4
8	AK	71	ILE	3.4
12	AP	137	TYR	3.4
12	BP	102	VAL	3.4
32	CE	229	VAL	3.4
41	DN	109	VAL	3.4
1	BA	1094	U	3.4
12	BP	99	PRO	3.4
21	AV	88	PHE	3.4
42	CO	35	THR	3.4
16	B1	71	GLN	3.4
17	B2	13	ARG	3.4
21	BV	72	ARG	3.4
32	CE	214	ILE	3.4
16	B1	62	ILE	3.4
7	BH	28	GLY	3.4
32	CE	152	PHE	3.4
6	BG	133	LEU	3.4
21	BV	82	ARG	3.4
9	BM	16	ILE	3.4
41	CN	20	TYR	3.4

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Mol	Chain	Res	Type	RSRZ
49	CV	71	LEU	3.4
21	AV	156	LYS	3.4
52	DB	57	C	3.4
53	CD	17	C	3.4
8	AK	13	GLY	3.4
26	B4	14	ILE	3.4
4	AE	55	ASN	3.4
41	CN	31	THR	3.4
1	AA	654(Q)	C	3.3
52	DB	48	C	3.3
21	BV	3	TYR	3.3
48	DU	43	PHE	3.3
9	BM	46	VAL	3.3
20	BU	60	PHE	3.3
35	CH	155	GLU	3.3
33	CF	78	GLY	3.3
6	AG	90	LEU	3.3
42	DO	69	TYR	3.3
53	CD	36	A	3.3
21	AV	145	GLU	3.3
2	BB	1(M)	A	3.3
25	BX	47	VAL	3.3
43	CP	4	ILE	3.3
21	AV	98	MET	3.3
1	BA	1066	U	3.3
4	AE	7	VAL	3.3
20	BU	29	GLU	3.3
1	BA	1177	A	3.3
3	AD	34	VAL	3.3
21	BV	175	VAL	3.3
31	DA	1030	C	3.3
41	CN	95	ILE	3.3
1	AA	164	U	3.3
7	BH	16	SER	3.3
20	BU	63	LYS	3.3
9	BM	87	LEU	3.3
9	BM	91	LEU	3.3
48	DU	42	ARG	3.3
4	AE	193	GLY	3.3
14	AQ	112	PHE	3.3
54	C1	13	U	3.3
21	AV	173	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
32	CE	188	ALA	3.3
4	AE	24	THR	3.3
7	BH	168	PRO	3.3
10	BN	58	VAL	3.3
21	BV	128	VAL	3.3
1	AA	654(N)	G	3.2
21	AV	3	TYR	3.2
27	B5	3	LYS	3.2
12	AP	19	GLY	3.2
11	BO	106	LEU	3.2
20	BU	102	CYS	3.2
12	AP	32	TYR	3.2
41	CN	108	ILE	3.2
9	BM	43	THR	3.2
26	B4	24	THR	3.2
41	DN	31	THR	3.2
36	DI	39	LYS	3.2
42	DO	55	VAL	3.2
4	AE	8	LYS	3.2
16	B1	117	GLN	3.2
26	B4	9	LEU	3.2
33	DF	57	ILE	3.2
34	DG	133	VAL	3.2
23	AZ	80	LEU	3.2
17	B2	15	GLU	3.2
26	A4	63	TYR	3.2
49	DV	25	LYS	3.2
28	B6	12	GLU	3.2
6	BG	12	TYR	3.2
16	B1	106	PHE	3.2
21	BV	174	VAL	3.2
9	BM	50	ASP	3.2
26	A4	48	ARG	3.2
7	BH	141	VAL	3.2
33	DF	98	ASN	3.2
36	CI	57	GLN	3.2
18	BS	112	GLY	3.2
21	AV	133	ILE	3.2
40	DM	10	GLY	3.2
17	B2	26	ASP	3.2
9	BM	26	LEU	3.2
20	BU	44	ILE	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
21	BV	44	PHE	3.2
33	DF	100	ALA	3.2
9	BM	32	THR	3.2
21	BV	66	SER	3.2
7	BH	164	TYR	3.2
20	BU	62	GLU	3.1
36	DI	66	GLU	3.1
4	BE	2	LYS	3.1
23	AZ	94	LEU	3.1
1	BA	1068	G	3.1
5	BF	23	ASP	3.1
7	BH	169	VAL	3.1
9	BM	70	LYS	3.1
16	B1	110	VAL	3.1
28	B6	25	LYS	3.1
9	BM	14	VAL	3.1
1	BA	654(O)	G	3.1
21	BV	140	ASP	3.1
31	DA	1032(A)	G	3.1
7	AH	83	TYR	3.1
42	CO	61	TYR	3.1
21	AV	166	SER	3.1
17	B2	30	GLY	3.1
4	AE	52	LEU	3.1
8	AK	12	LEU	3.1
17	B2	39	LEU	3.1
9	BM	7	LYS	3.1
17	B2	93	GLU	3.1
14	BQ	56	LEU	3.1
36	CI	58	GLY	3.1
52	DB	81	G	3.1
20	BU	53	PRO	3.1
6	AG	60	LEU	3.1
32	CE	228	GLY	3.1
9	BM	90	MET	3.1
7	BH	150	ALA	3.1
32	CE	96	ARG	3.1
9	BM	45	ASN	3.1
33	DF	202	ILE	3.1
26	B4	23	GLU	3.1
53	CD	35	C	3.1
12	AP	132	VAL	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
42	DO	37	CYS	3.1
12	BP	10	ARG	3.1
33	CF	89	GLU	3.1
47	CT	79	SER	3.1
3	AD	2	ALA	3.1
7	BH	109	PHE	3.1
6	BG	109	VAL	3.1
20	BU	103	GLY	3.1
19	BT	28	PHE	3.1
21	BV	165	VAL	3.1
26	B4	46	GLN	3.1
26	B4	51	ASP	3.1
7	BH	102	ALA	3.0
19	BT	91	ALA	3.0
7	BH	84	SER	3.0
42	DO	61	THR	3.0
26	A4	37	SER	3.0
7	BH	116	GLU	3.0
9	BM	10	GLU	3.0
33	CF	87	LEU	3.0
9	BM	66	LYS	3.0
34	DG	149	ALA	3.0
36	DI	35	ALA	3.0
44	CQ	2	ALA	3.0
52	DB	50	A	3.0
6	AG	160	VAL	3.0
19	AT	89	ILE	3.0
5	BF	10	PRO	3.0
40	DM	91	PRO	3.0
17	B2	44	LYS	3.0
42	DO	56	ALA	3.0
17	B2	46	VAL	3.0
12	BP	93	TYR	3.0
41	CN	50	TYR	3.0
1	BA	888	C	3.0
17	B2	74	LYS	3.0
17	B2	90	PRO	3.0
41	CN	15	ALA	3.0
6	BG	97	ASP	3.0
12	BP	32	TYR	3.0
34	DG	68	TYR	3.0
42	CO	64	THR	3.0

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Mol	Chain	Res	Type	RSRZ
52	CB	14	A	3.0
7	BH	170	ARG	3.0
47	CT	98	LEU	3.0
1	AA	890	A	3.0
40	DM	101	VAL	3.0
42	CO	25	LYS	3.0
10	BN	43	VAL	3.0
6	AG	140	ILE	3.0
4	BE	51	PHE	3.0
41	CN	93	GLN	3.0
10	BN	84	ALA	3.0
21	BV	120	ILE	3.0
7	BH	87	LEU	3.0
21	AV	51	ALA	3.0
41	CN	13	GLN	2.9
7	BH	144	VAL	2.9
28	B6	23	THR	2.9
31	CA	345	C	2.9
15	AR	137	LYS	2.9
36	CI	48	LEU	2.9
9	BM	55	VAL	2.9
26	B4	52	THR	2.9
42	DO	59	ARG	2.9
6	BG	36	LYS	2.9
5	BF	133	ASN	2.9
42	DO	35	GLY	2.9
28	A6	45	LYS	2.9
6	AG	139	LEU	2.9
7	BH	36	PRO	2.9
4	AE	73	GLU	2.9
52	DB	4	G	2.9
21	AV	123	ASP	2.9
21	BV	98	MET	2.9
1	AA	2146	C	2.9
45	CR	46	HIS	2.9
6	BG	75	LYS	2.9
33	DF	78	GLY	2.9
40	DM	23	ILE	2.9
21	BV	104	PHE	2.9
7	BH	10	PRO	2.9
41	CN	57	THR	2.9
20	BU	101	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
32	CE	233	SER	2.9
34	DG	158	ILE	2.9
9	BM	34	LEU	2.9
12	BP	2	LEU	2.9
17	B2	18	LEU	2.9
26	A4	38	LYS	2.9
38	CK	46	LYS	2.9
41	CN	14	VAL	2.9
6	AG	161	THR	2.9
9	BM	86	PRO	2.9
6	BG	94	LEU	2.9
42	DO	60	LEU	2.9
36	DI	38	GLU	2.9
42	DO	58	VAL	2.9
9	BM	69	GLN	2.9
12	BP	92	GLY	2.9
26	A4	47	GLN	2.9
3	BD	5	LYS	2.9
9	BM	116	LEU	2.9
9	BM	98	VAL	2.9
21	AV	175	VAL	2.9
1	BA	5	A	2.9
11	BO	100	LEU	2.9
14	BQ	54	LEU	2.9
52	CB	50	A	2.9
14	AQ	49	VAL	2.9
12	BP	27	VAL	2.9
21	AV	2	GLU	2.9
1	AA	889	C	2.9
6	BG	177	GLY	2.9
12	BP	19	GLY	2.9
26	B4	6	HIS	2.9
1	AA	654(O)	G	2.8
1	AA	654(S)	G	2.8
9	BM	23	LEU	2.8
32	CE	149	LEU	2.8
33	DF	204	LEU	2.8
7	BH	114	VAL	2.8
27	B5	52	TYR	2.8
4	AE	26	ILE	2.8
9	BM	130	HIS	2.8
28	A6	22	ALA	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
27	A5	59	GLU	2.8
32	DE	165	VAL	2.8
12	BP	34	LEU	2.8
21	BV	7	ALA	2.8
1	BA	1092	C	2.8
32	DE	86	GLU	2.8
20	BU	2	ARG	2.8
26	A4	33	VAL	2.8
8	AK	75	LEU	2.8
4	AE	59	VAL	2.8
21	AV	174	VAL	2.8
52	DB	47	C	2.8
4	AE	5	LEU	2.8
11	BO	15	ARG	2.8
21	BV	32	HIS	2.8
48	CU	87	ARG	2.8
3	BD	34	VAL	2.8
21	BV	71	VAL	2.8
1	BA	1	G	2.8
37	CJ	155	ARG	2.8
17	B2	14	VAL	2.8
36	CI	6	VAL	2.8
11	BO	61	ARG	2.8
14	AQ	48	LEU	2.8
21	AV	102	LEU	2.8
41	DN	12	ARG	2.8
43	DP	50	GLU	2.8
17	B2	37	VAL	2.8
6	BG	100	TRP	2.8
16	B1	61	TRP	2.8
41	CN	49	GLY	2.8
32	DE	102	LEU	2.8
42	CO	24	LEU	2.8
6	BG	145	THR	2.8
3	BD	36	PRO	2.8
7	BH	72	ILE	2.8
52	CB	49	C	2.8
52	CB	57	C	2.8
52	CB	80	C	2.8
21	BV	117	LEU	2.8
33	DF	101	LEU	2.8
33	DF	200	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
6	BG	155	MET	2.8
17	A2	37	VAL	2.8
21	AV	4	ARG	2.8
12	BP	68	ILE	2.8
12	BP	39	PRO	2.8
36	CI	66	GLU	2.8
9	BM	53	VAL	2.8
18	BS	48	ALA	2.8
21	AV	165	VAL	2.8
41	CN	19	ALA	2.8
21	AV	121	HIS	2.8
30	B8	40	GLU	2.8
17	B2	97	LYS	2.8
36	CI	46	ARG	2.8
37	CJ	149	ARG	2.8
53	CD	16	C	2.8
6	BG	140	ILE	2.7
17	B2	64	HIS	2.7
21	AV	53	ILE	2.7
26	B4	57	GLU	2.7
43	DP	2	ALA	2.7
12	BP	69	PHE	2.7
52	DB	85	C	2.7
6	AG	59	GLU	2.7
12	BP	38	GLU	2.7
53	CD	39	A	2.7
7	BH	69	ARG	2.7
52	CB	82	G	2.7
4	BE	3	GLY	2.7
4	BE	67	PHE	2.7
17	B2	35	LEU	2.7
17	B2	89	GLN	2.7
25	BX	19	GLN	2.7
49	CV	62	ILE	2.7
16	A1	68	ALA	2.7
53	CD	27	G	2.7
3	AD	26	LYS	2.7
42	DO	21	LYS	2.7
6	BG	25	TYR	2.7
16	B1	113	ALA	2.7
45	DR	2	PRO	2.7
9	BM	85	ILE	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
28	A6	11	LEU	2.7
32	CE	110	GLN	2.7
37	CJ	52	GLU	2.7
48	DU	46	GLU	2.7
48	DU	86	VAL	2.7
43	DP	65	LYS	2.7
7	BH	6	ARG	2.7
21	AV	117	LEU	2.7
49	CV	74	PHE	2.7
7	BH	90	LYS	2.7
41	CN	84	VAL	2.7
6	AG	64	THR	2.7
27	A5	58	LEU	2.7
9	BM	54	VAL	2.7
12	BP	106	VAL	2.7
28	B6	46	HIS	2.7
42	CO	52	VAL	2.7
33	DF	53	ALA	2.7
41	CN	63	LEU	2.7
42	DO	93	LEU	2.7
9	BM	37	LYS	2.7
52	CB	46	G	2.7
9	BM	61	ARG	2.7
18	AS	111	HIS	2.7
16	B1	68	ALA	2.7
8	BK	125	GLU	2.7
21	BV	33	LEU	2.7
1	BA	1095	A	2.7
21	BV	23	LYS	2.7
1	BA	654(F)	C	2.7
44	DQ	25	VAL	2.7
17	B2	71	LEU	2.7
28	B6	22	ALA	2.7
33	DF	89	GLU	2.7
4	AE	4	ILE	2.7
1	BA	2898	U	2.7
33	DF	56	ASP	2.7
7	BH	113	VAL	2.7
9	AM	13	TRP	2.7
6	BG	35	GLU	2.6
12	BP	17	LEU	2.6
7	AH	148	ILE	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
36	DI	36	ARG	2.6
6	AG	142	PRO	2.6
10	AN	43	VAL	2.6
9	BM	42	TRP	2.6
4	BE	116	VAL	2.6
6	BG	135	LEU	2.6
7	BH	93	GLY	2.6
34	DG	23	GLY	2.6
49	DV	52	TYR	2.6
52	CB	47	C	2.6
37	CJ	79	ARG	2.6
48	CU	85	LEU	2.6
1	BA	2902	C	2.6
6	AG	116	ASP	2.6
52	CB	13	G	2.6
20	BU	65	ALA	2.6
28	A6	25	LYS	2.6
53	CD	38	A	2.6
9	BM	62	VAL	2.6
28	B6	41	PRO	2.6
36	DI	62	TRP	2.6
4	BE	1	MET	2.6
10	AN	112	MET	2.6
52	CB	19	G	2.6
6	AG	107	LEU	2.6
48	CU	44	LEU	2.6
12	AP	86	GLY	2.6
25	BX	12	PRO	2.6
37	CJ	151	TYR	2.6
40	DM	20	ALA	2.6
4	AE	61	ARG	2.6
43	CP	111	LYS	2.6
25	BX	27	GLY	2.6
4	BE	44	TYR	2.6
49	CV	40	ILE	2.6
4	AE	72	VAL	2.6
42	CO	93	VAL	2.6
43	DP	64	TRP	2.6
7	BH	27	LYS	2.6
14	AQ	110	LEU	2.6
21	BV	48	PHE	2.6
32	DE	163	PHE	2.6

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Mol	Chain	Res	Type	RSRZ
49	DV	71	LEU	2.6
7	BH	108	GLY	2.6
12	BP	5	ARG	2.6
32	CE	107	THR	2.6
32	CE	217	ARG	2.6
9	BM	47	ALA	2.6
20	BU	51	VAL	2.6
26	B4	33	VAL	2.6
11	BO	1	MET	2.6
32	DE	215	LEU	2.6
6	BG	181	ARG	2.6
9	BM	119	ARG	2.6
33	CF	164	ARG	2.6
33	DF	205	GLY	2.6
36	CI	47	ARG	2.6
33	DF	201	TYR	2.6
43	DP	63	THR	2.6
28	B6	27	LYS	2.6
21	AV	100	VAL	2.6
6	AG	108	ASN	2.6
6	AG	152	LEU	2.6
6	BG	178	PHE	2.6
9	BM	33	LEU	2.6
34	DG	120	LEU	2.6
33	DF	83	ARG	2.6
36	DI	64	GLN	2.6
44	DQ	50	LYS	2.6
42	CO	87	VAL	2.6
33	DF	88	ARG	2.5
42	DO	20	LYS	2.5
17	B2	31	ALA	2.5
5	AF	6	VAL	2.5
5	BF	163	VAL	2.5
7	BH	104	GLU	2.5
10	BN	49	ARG	2.5
41	CN	107	SER	2.5
21	BV	1	MET	2.5
4	BE	50	GLY	2.5
41	CN	64	ALA	2.5
21	BV	91	LEU	2.5
7	BH	118	PRO	2.5
30	B8	59	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1534	G	2.5
1	BA	654(N)	G	2.5
3	BD	273	ARG	2.5
9	BM	134	ARG	2.5
22	B3	61	ALA	2.5
42	CO	40	VAL	2.5
14	AQ	27	SER	2.5
34	DG	35	ARG	2.5
36	DI	37	VAL	2.5
9	BM	99	LEU	2.5
11	AO	91	PHE	2.5
26	A4	8	LYS	2.5
26	B4	59	PHE	2.5
42	DO	100	ILE	2.5
1	AA	654(U)	A	2.5
52	CB	15	A	2.5
9	BM	9	VAL	2.5
14	AQ	2	ALA	2.5
17	B2	58	VAL	2.5
53	DD	18	C	2.5
33	CF	83	ARG	2.5
43	CP	84	ILE	2.5
15	AR	106	SER	2.5
36	CI	9	VAL	2.5
42	CO	65	ALA	2.5
48	CU	43	PHE	2.5
13	B0	33	ARG	2.5
9	BM	44	PRO	2.5
21	AV	167	PRO	2.5
4	BE	24	THR	2.5
32	DE	9	GLU	2.5
49	DV	69	HIS	2.5
32	CE	114	ARG	2.5
7	BH	153	LYS	2.5
4	BE	75	VAL	2.5
6	BG	23	PHE	2.5
33	CF	153	VAL	2.5
44	DQ	39	LEU	2.5
21	BV	54	HIS	2.5
34	DG	132	ARG	2.5
7	BH	137	ASP	2.5
38	CK	126	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
53	CD	32	G	2.5
3	BD	145	VAL	2.5
33	CF	82	GLU	2.5
16	B1	57	PHE	2.5
4	AE	187	ALA	2.5
4	BE	204	ALA	2.5
4	AE	69	LYS	2.5
5	BF	199	TRP	2.5
12	BP	12	GLN	2.5
20	AU	50	ARG	2.5
21	AV	5	LEU	2.5
21	BV	62	PRO	2.5
42	DO	41	ARG	2.5
19	BT	26	TYR	2.5
27	B5	56	LYS	2.5
49	DV	13	ASP	2.5
4	AE	27	LEU	2.5
4	BE	195	LEU	2.5
6	BG	37	VAL	2.5
16	B1	60	LEU	2.5
33	DF	55	VAL	2.5
33	DF	178	LEU	2.5
45	DR	15	PHE	2.5
26	A4	7	PRO	2.5
28	A6	31	PRO	2.5
52	DB	46	G	2.5
3	BD	39	LYS	2.5
37	CJ	152	ALA	2.5
53	CD	28	U	2.5
37	CJ	56	GLN	2.5
26	A4	19	GLY	2.5
12	AP	1	MET	2.5
42	DO	70	ILE	2.5
12	BP	22	LYS	2.5
15	AR	22	PHE	2.5
10	BN	33	ALA	2.4
25	BX	21	ALA	2.4
32	DE	232	PRO	2.4
19	BT	69	TYR	2.4
4	BE	71	GLY	2.4
23	BZ	28	GLY	2.4
21	AV	52	SER	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
21	AV	144	LEU	2.4
43	DP	36	LYS	2.4
4	BE	32	PRO	2.4
6	BG	58	GLN	2.4
9	BM	135	PRO	2.4
17	B2	3	ALA	2.4
33	CF	189	ALA	2.4
33	CF	200	ALA	2.4
43	CP	3	ARG	2.4
4	AE	102	VAL	2.4
52	DB	1	G	2.4
3	BD	153	ALA	2.4
33	DF	93	LYS	2.4
1	AA	270(L)	U	2.4
6	AG	94	LEU	2.4
16	B1	83	LEU	2.4
41	CN	36	ASP	2.4
43	CP	43	THR	2.4
48	DU	85	LEU	2.4
12	BP	86	GLY	2.4
16	B1	118	GLY	2.4
23	AZ	92	LYS	2.4
21	AV	169	GLU	2.4
45	CR	87	ILE	2.4
4	AE	91	VAL	2.4
5	BF	192	LEU	2.4
19	AT	52	VAL	2.4
6	BG	166	ASP	2.4
33	DF	65	ALA	2.4
42	CO	53	ALA	2.4
49	DV	32	LYS	2.4
14	AQ	7	TYR	2.4
14	AQ	109	GLY	2.4
40	CM	6	ILE	2.4
42	DO	85	ILE	2.4
16	B1	74	LEU	2.4
25	BX	6	VAL	2.4
26	A4	56	VAL	2.4
49	DV	78	ARG	2.4
8	AK	143	SER	2.4
12	AP	136	ALA	2.4
35	CH	132	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
8	AK	122	GLU	2.4
33	DF	108	ASN	2.4
34	DG	179	GLU	2.4
37	CJ	74	GLU	2.4
5	BF	14	PRO	2.4
4	AE	182	LEU	2.4
21	AV	39	VAL	2.4
28	B6	52	VAL	2.4
32	DE	156	LYS	2.4
1	BA	896	A	2.4
4	AE	6	GLY	2.4
48	CU	48	GLY	2.4
52	CB	1	G	2.4
8	AK	139	GLN	2.4
4	BE	72	VAL	2.4
8	BK	12	LEU	2.4
21	AV	101	PRO	2.4
25	BX	28	LEU	2.4
28	A6	9	LEU	2.4
38	CK	112	LEU	2.4
12	BP	49	ALA	2.4
4	BE	84	PHE	2.4
8	BK	139	GLN	2.4
35	CH	6	PHE	2.4
53	CD	11	A	2.4
16	B1	85	LYS	2.4
19	AT	11	PRO	2.4
20	AU	99	CYS	2.4
42	CO	76	GLU	2.4
3	BD	155	LEU	2.4
7	BH	62	LYS	2.4
8	BK	35	LEU	2.4
12	BP	25	ASP	2.4
14	AQ	58	LEU	2.4
6	BG	179	PRO	2.4
53	CC	68	C	2.4
53	CC	69	C	2.4
7	BH	167	GLU	2.4
30	B8	56	GLU	2.4
37	DJ	156	TRP	2.4
8	AK	126	TYR	2.4
9	BM	123	TYR	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	AN	122	LEU	2.4
11	BO	148	LEU	2.4
33	DF	87	LEU	2.4
33	DF	198	VAL	2.4
52	DB	83	U	2.4
4	AE	68	ALA	2.4
20	BU	73	ARG	2.4
42	CO	30	ARG	2.4
43	CP	5	ALA	2.4
4	BE	104	VAL	2.4
5	AF	156	LEU	2.4
21	AV	44	PHE	2.4
9	BM	4	TYR	2.4
48	CU	78	LEU	2.4
42	DO	28	LYS	2.3
21	AV	168	GLU	2.3
1	AA	2167	U	2.3
1	BA	654(G)	C	2.3
3	AD	92	ILE	2.3
34	DG	70	ILE	2.3
52	DB	86	C	2.3
31	CA	87	A	2.3
34	DG	145	GLU	2.3
48	CU	80	PRO	2.3
3	BD	67	PHE	2.3
29	B7	47	ARG	2.3
53	CD	33	C	2.3
5	BF	178	PRO	2.3
14	AQ	52	SER	2.3
3	AD	165	ILE	2.3
4	BE	181	LEU	2.3
25	BX	4	LEU	2.3
27	B5	58	LEU	2.3
7	BH	65	HIS	2.3
9	BM	38	HIS	2.3
16	B1	76	TYR	2.3
20	BU	95	LYS	2.3
26	B4	38	LYS	2.3
42	CO	54	LYS	2.3
21	AV	79	ARG	2.3
9	BM	19	GLU	2.3
7	BH	22	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
21	AV	154	ASP	2.3
21	BV	87	ASP	2.3
40	DM	89	ASP	2.3
6	BG	80	PHE	2.3
10	BN	96	THR	2.3
17	B2	32	THR	2.3
18	BS	106	ILE	2.3
32	DE	70	PHE	2.3
34	DG	155	LEU	2.3
37	CJ	88	PRO	2.3
21	AV	38	TYR	2.3
32	CE	148	TYR	2.3
1	AA	2899	G	2.3
2	BB	88	C	2.3
4	BE	49	LEU	2.3
7	BH	20	ALA	2.3
21	BV	46	LYS	2.3
36	CI	88	VAL	2.3
11	BO	110	TYR	2.3
36	CI	7	ASN	2.3
17	B2	86	GLY	2.3
3	BD	37	LEU	2.3
7	AH	152	ARG	2.3
11	BO	147	LEU	2.3
21	BV	59	LEU	2.3
23	AZ	90	ILE	2.3
19	BT	11	PRO	2.3
21	BV	11	GLU	2.3
1	AA	654	A	2.3
3	AD	111	LEU	2.3
3	AD	270	ILE	2.3
7	BH	71	LEU	2.3
34	DG	135	LEU	2.3
10	BN	61	VAL	2.3
27	A5	53	ALA	2.3
7	BH	111	HIS	2.3
21	BV	97	GLU	2.3
32	CE	67	THR	2.3
32	DE	231	GLU	2.3
41	DN	25	TYR	2.3
16	B1	70	ARG	2.3
1	AA	2795	G	2.3

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Mol	Chain	Res	Type	RSRZ
3	AD	184	LYS	2.3
20	AU	102	CYS	2.3
21	BV	108	PRO	2.3
36	CI	63	TYR	2.3
32	CE	95	GLN	2.3
8	AK	114	LEU	2.3
33	CF	196	LEU	2.3
34	DG	67	ILE	2.3
21	BV	164	ALA	2.3
42	CO	23	ALA	2.3
50	DW	106	ALA	2.3
9	BM	59	LYS	2.3
21	AV	9	TYR	2.3
27	B5	51	TYR	2.3
9	BM	36	GLY	2.3
12	BP	3	MET	2.3
14	BQ	58	LEU	2.3
15	AR	6	LEU	2.3
32	DE	233	SER	2.3
36	DI	89	MET	2.3
45	CR	89	GLY	2.3
34	DG	17	VAL	2.3
48	CU	75	ILE	2.3
28	A6	27	LYS	2.3
5	BF	152	GLU	2.3
6	AG	34	LEU	2.3
21	BV	115	GLY	2.3
21	AV	86	VAL	2.3
32	DE	229	VAL	2.3
33	DF	97	LYS	2.3
33	DF	173	VAL	2.3
7	BH	130	ARG	2.2
8	AK	70	GLU	2.2
8	BK	11	ASN	2.2
42	CO	16	ARG	2.2
21	AV	97	GLU	2.2
4	BE	10	GLY	2.2
39	DL	21	PRO	2.2
12	AP	141	GLN	2.2
9	BM	52	VAL	2.2
17	B2	96	ILE	2.2
21	BV	116	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
33	DF	68	VAL	2.2
7	AH	103	LEU	2.2
10	BN	25	LEU	2.2
21	BV	38	TYR	2.2
33	DF	111	LEU	2.2
41	CN	46	GLY	2.2
9	BM	5	VAL	2.2
28	B6	48	VAL	2.2
29	B7	1	MET	2.2
46	CS	4	ILE	2.2
4	AE	183	LEU	2.2
5	BF	170	LEU	2.2
15	AR	45	PHE	2.2
33	CF	201	TYR	2.2
12	BP	141	GLN	2.2
21	BV	126	VAL	2.2
33	DF	134	ILE	2.2
41	CN	48	ILE	2.2
44	DQ	2	ALA	2.2
1	BA	877	U	2.2
8	AK	131	LYS	2.2
14	BQ	33	LYS	2.2
11	BO	57	THR	2.2
24	BW	45	SER	2.2
41	CN	16	SER	2.2
9	AM	15	LEU	2.2
9	BM	49	GLY	2.2
12	BP	59	ARG	2.2
21	BV	49	ARG	2.2
28	A6	43	CYS	2.2
6	AG	41	GLN	2.2
6	BG	52	ILE	2.2
5	BF	166	ALA	2.2
6	BG	74	LYS	2.2
7	BH	145	ALA	2.2
6	AG	178	PHE	2.2
7	BH	122	THR	2.2
21	AV	150	LEU	2.2
41	CN	59	TYR	2.2
35	CH	89	ILE	2.2
28	A6	40	CYS	2.2
20	BU	6	HIS	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	AD	176	ARG	2.2
21	AV	59	LEU	2.2
32	DE	57	PHE	2.2
16	B1	114	LYS	2.2
19	AT	49	VAL	2.2
14	AQ	111	GLU	2.2
3	BD	272	ALA	2.2
21	AV	67	LEU	2.2
21	AV	66	SER	2.2
26	B4	43	TYR	2.2
16	B1	111	GLU	2.2
7	BH	117	PRO	2.2
25	BX	30	ARG	2.2
33	CF	179	ARG	2.2
33	DF	63	ASN	2.2
1	BA	1064	C	2.2
4	AE	89	ASP	2.2
12	BP	31	ASP	2.2
41	CN	103	LEU	2.2
14	AQ	36	TYR	2.2
40	CM	98	ILE	2.2
1	AA	1067	A	2.2
17	A2	1	MET	2.2
19	AT	28	PHE	2.2
21	AV	151	HIS	2.2
48	CU	84	LYS	2.2
3	BD	62	TYR	2.2
4	AE	76	ARG	2.2
9	AM	72	TYR	2.2
34	DG	146	ILE	2.2
15	AR	3	ARG	2.2
32	DE	123	ALA	2.2
1	BA	1536	A	2.2
7	BH	88	LEU	2.2
20	BU	92	ASN	2.2
4	AE	34	VAL	2.2
21	BV	79	ARG	2.2
41	DN	83	ILE	2.2
43	CP	110	ARG	2.2
3	AD	4	LYS	2.2
7	BH	156	ALA	2.2
14	BQ	37	ALA	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	AE	3	GLY	2.2
4	BE	29	GLY	2.2
7	BH	14	GLY	2.2
10	BN	40	VAL	2.2
16	B1	92	ARG	2.2
27	B5	45	VAL	2.2
41	CN	18	ARG	2.2
41	DN	95	ILE	2.2
52	DB	84	A	2.1
5	BF	139	PHE	2.1
8	AK	6	LEU	2.1
52	DB	67	C	2.1
6	BG	161	THR	2.1
16	B1	58	ARG	2.1
32	CE	66	GLY	2.1
1	AA	654(D)	G	2.1
6	BG	159	VAL	2.1
18	BS	105	VAL	2.1
23	AZ	89	GLU	2.1
31	CA	1031	G	2.1
33	DF	77	ILE	2.1
41	CN	92	GLU	2.1
33	CF	167	TRP	2.1
4	AE	181	LEU	2.1
21	AV	124	ILE	2.1
41	DN	82	VAL	2.1
42	CO	36	VAL	2.1
53	CD	40	C	2.1
41	CN	22	HIS	2.1
3	AD	112	GLN	2.1
16	B1	116	ALA	2.1
28	A6	37	ARG	2.1
32	CE	76	GLN	2.1
48	CU	42	ARG	2.1
4	BE	176	ILE	2.1
5	BF	114	VAL	2.1
15	BR	50	ILE	2.1
21	BV	133	ILE	2.1
35	CH	128	PRO	2.1
47	CT	36	ILE	2.1
30	B8	7	HIS	2.1
32	CE	113	HIS	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
7	BH	157	TYR	2.1
52	DB	49	C	2.1
4	AE	195	LEU	2.1
6	BG	90	LEU	2.1
9	AM	116	LEU	2.1
24	AW	37	PHE	2.1
42	CO	17	LYS	2.1
1	BA	2795	G	2.1
8	AK	107	VAL	2.1
21	BV	47	VAL	2.1
47	CT	11	VAL	2.1
7	BH	112	PRO	2.1
7	BH	154	PRO	2.1
3	AD	262	ARG	2.1
21	AV	136	PHE	2.1
33	DF	23	TYR	2.1
15	BR	35	LYS	2.1
21	BV	6	LYS	2.1
29	B7	14	LYS	2.1
47	DT	8	GLY	2.1
21	AV	60	GLU	2.1
33	CF	39	ILE	2.1
16	B1	64	ARG	2.1
4	BE	96	PHE	2.1
23	BZ	94	LEU	2.1
46	CS	39	TYR	2.1
34	CG	181	MET	2.1
41	CN	56	GLY	2.1
6	AG	37	VAL	2.1
28	A6	24	GLU	2.1
26	A4	18	CYS	2.1
32	CE	165	VAL	2.1
33	DF	99	VAL	2.1
33	DF	206	GLU	2.1
8	AK	109	ILE	2.1
20	BU	75	ILE	2.1
43	CP	98	VAL	2.1
36	DI	2	ARG	2.1
4	AE	51	PHE	2.1
8	AK	141	LYS	2.1
32	CE	125	PRO	2.1
4	AE	25	VAL	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	BE	141	ILE	2.1
19	BT	8	ILE	2.1
21	AV	72	ARG	2.1
42	DO	82	VAL	2.1
33	CF	52	LEU	2.1
30	A8	23	VAL	2.1
41	CN	87	THR	2.1
42	CO	62	GLU	2.1
6	BG	41	GLN	2.1
11	AO	64	LYS	2.1
17	B2	6	LYS	2.1
31	CA	1032	A	2.1
21	BV	101	PRO	2.1
42	DO	98	TYR	2.1
12	BP	62	GLY	2.1
21	BV	94	GLU	2.1
51	DX	2	GLY	2.1
42	DO	38	THR	2.1
43	DP	13	LYS	2.1
11	AO	61	ARG	2.1
5	BF	27	GLU	2.1
9	BM	18	ALA	2.1
10	BN	38	VAL	2.1
12	AP	36	ALA	2.1
16	B1	63	VAL	2.1
1	BA	897	C	2.1
28	B6	43	CYS	2.1
31	DA	1026	G	2.1
49	DV	40	ILE	2.1
53	CC	48	U	2.1
8	AK	140	LEU	2.1
9	BM	39	ARG	2.1
12	BP	91	GLU	2.1
4	BE	28	ALA	2.1
7	BH	158	HIS	2.0
25	AX	59	VAL	2.1
10	BN	39	ILE	2.0
3	AD	177	LEU	2.0
23	AZ	95	LEU	2.0
52	CB	22	G	2.0
8	AK	73	GLU	2.0
32	CE	227	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
14	AQ	91	PRO	2.0
37	DJ	88	PRO	2.0
42	DO	31	PRO	2.0
49	CV	76	PRO	2.0
8	BK	138	ILE	2.0
41	DN	91	ARG	2.0
46	CS	76	GLN	2.0
9	AM	51	PHE	2.0
10	BN	59	LYS	2.0
21	AV	69	THR	2.0
34	DG	150	GLU	2.0
42	CO	39	THR	2.0
31	DA	1027	C	2.0
5	BF	22	ALA	2.0
6	BG	63	ILE	2.0
36	CI	56	PRO	2.0
52	CB	4	G	2.0
17	B2	21	ARG	2.0
4	AE	67	PHE	2.0
5	BF	8	GLN	2.0
12	BP	76	LYS	2.0
32	DE	155	LEU	2.0
4	AE	198	VAL	2.0
10	AN	98	VAL	2.0
16	B1	94	ASN	2.0
54	D1	14	U	2.0
32	DE	164	VAL	2.0
47	DT	11	VAL	2.0
15	BR	75	ILE	2.0
47	DT	75	ARG	2.0
18	BS	4	LYS	2.0
6	BG	176	LEU	2.0
11	BO	3	LEU	2.0
6	AG	35	GLU	2.0
7	AH	96	ALA	2.0
9	BM	73	THR	2.0
12	AP	21	THR	2.0
12	BP	74	TYR	2.0
36	DI	88	VAL	2.0
9	BM	92	ALA	2.0
35	DH	80	ILE	2.0
1	BA	6	A	2.0

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Mol	Chain	Res	Type	RSRZ
3	AD	155	LEU	2.0
3	BD	147	LEU	2.0
5	BF	176	LEU	2.0
7	BH	77	LYS	2.0
12	BP	18	LYS	2.0
25	BX	59	VAL	2.0
34	DG	152	SER	2.0
36	CI	55	ASP	2.0
42	CO	95	TYR	2.0
6	AG	79	ASN	2.0
30	B8	24	ALA	2.0
23	AZ	60	PHE	2.0
42	CO	49	LEU	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 carbohydrates in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3489	1/1	0.81	0.66	45.39	86,86,86,86	0
55	MG	AA	3550	1/1	0.95	0.53	37.01	39,39,39,39	0
55	MG	AA	3307	1/1	0.70	0.45	33.71	76,76,76,76	0
55	MG	AA	3058	1/1	0.94	0.28	30.68	64,64,64,64	0
55	MG	AA	3228	1/1	0.93	0.46	30.27	79,79,79,79	0
55	MG	AA	3086	1/1	0.93	0.57	29.33	62,62,62,62	0
55	MG	DA	1690	1/1	0.95	0.41	28.53	92,92,92,92	0
55	MG	AA	3074	1/1	0.96	0.51	27.90	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	1748	1/1	0.73	0.50	27.53	91,91,91,91	0
55	MG	AA	3356	1/1	0.78	0.55	27.47	86,86,86,86	0
55	MG	DA	1753	1/1	0.86	0.51	27.41	87,87,87,87	0
55	MG	BA	3156	1/1	0.98	0.40	26.77	87,87,87,87	0
55	MG	AA	3530	1/1	0.93	0.39	26.43	79,79,79,79	0
55	MG	DA	1752	1/1	0.91	0.37	26.12	89,89,89,89	0
55	MG	AA	3010	1/1	0.96	0.39	26.07	47,47,47,47	0
55	MG	AA	3123	1/1	0.95	0.42	25.41	52,52,52,52	0
55	MG	BA	3350	1/1	0.73	0.51	25.33	77,77,77,77	0
55	MG	AA	3267	1/1	0.96	0.36	24.68	62,62,62,62	0
55	MG	AA	3497	1/1	0.70	0.61	24.45	95,95,95,95	0
55	MG	AA	3214	1/1	0.91	0.44	24.38	47,47,47,47	0
55	MG	A1	201	1/1	0.95	0.37	24.28	64,64,64,64	0
55	MG	BA	3412	1/1	0.98	0.41	24.19	50,50,50,50	0
55	MG	AA	3549	1/1	0.98	0.54	24.09	50,50,50,50	0
55	MG	AA	3540	1/1	0.91	0.41	23.63	63,63,63,63	0
55	MG	AA	3112	1/1	0.98	0.59	23.49	45,45,45,45	0
55	MG	AA	3150	1/1	0.93	0.54	23.25	59,59,59,59	0
55	MG	AA	3154	1/1	0.98	0.44	23.05	52,52,52,52	0
55	MG	AA	3053	1/1	0.70	0.58	23.04	67,67,67,67	0
55	MG	CA	1722	1/1	0.69	0.41	23.02	74,74,74,74	0
55	MG	DA	1710	1/1	0.60	0.49	22.80	100,100,100,100	0
55	MG	AA	3177	1/1	0.96	0.46	22.46	46,46,46,46	0
55	MG	AA	3588	1/1	0.84	0.47	22.42	68,68,68,68	0
55	MG	AB	215	1/1	0.93	0.39	22.10	93,93,93,93	0
55	MG	AA	3521	1/1	0.88	0.45	21.50	75,75,75,75	0
55	MG	DA	1616	1/1	0.92	0.35	21.13	100,100,100,100	0
55	MG	AA	3057	1/1	0.96	0.41	21.03	66,66,66,66	0
55	MG	AA	3094	1/1	0.77	0.35	20.87	62,62,62,62	0
55	MG	AA	3125	1/1	0.98	0.42	20.35	55,55,55,55	0
55	MG	AA	3093	1/1	0.74	0.52	20.05	65,65,65,65	0
55	MG	DA	1728	1/1	0.88	0.32	20.03	112,112,112,112	0
55	MG	BA	3174	1/1	0.58	0.32	19.80	82,82,82,82	0
55	MG	AA	3315	1/1	0.89	0.48	19.49	70,70,70,70	0
55	MG	BA	3396	1/1	0.86	0.35	19.39	91,91,91,91	0
55	MG	AA	3119	1/1	0.93	0.38	19.26	75,75,75,75	0
55	MG	AA	3322	1/1	0.87	0.53	18.89	68,68,68,68	0
55	MG	DA	1689	1/1	0.98	0.33	18.86	72,72,72,72	0
55	MG	DA	1675	1/1	0.94	0.39	18.28	60,60,60,60	0
55	MG	AA	3004	1/1	0.98	0.39	18.24	40,40,40,40	0
55	MG	BA	3157	1/1	0.95	0.42	18.21	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3027	1/1	0.99	0.36	18.01	45,45,45,45	0
55	MG	BA	3496	1/1	0.92	0.35	17.99	96,96,96,96	0
55	MG	BA	3187	1/1	0.91	0.37	17.84	65,65,65,65	0
55	MG	AA	3245	1/1	0.87	0.41	17.73	75,75,75,75	0
55	MG	CA	1639	1/1	0.79	0.42	17.64	86,86,86,86	0
55	MG	DA	1795	1/1	0.49	0.32	17.57	101,101,101,101	0
55	MG	AA	3006	1/1	0.96	0.54	17.40	46,46,46,46	0
55	MG	AA	3002	1/1	0.95	0.43	16.92	41,41,41,41	0
55	MG	AA	3138	1/1	0.92	0.42	16.50	45,45,45,45	0
55	MG	AA	3144	1/1	0.95	0.47	16.39	45,45,45,45	0
55	MG	AA	3106	1/1	0.95	0.35	16.31	69,69,69,69	0
55	MG	AA	3031	1/1	0.90	0.43	16.29	52,52,52,52	0
55	MG	AA	3113	1/1	0.97	0.50	16.05	49,49,49,49	0
55	MG	BA	3278	1/1	0.74	0.32	15.93	92,92,92,92	0
55	MG	CA	1715	1/1	0.70	0.26	15.68	115,115,115,115	0
55	MG	AA	3343	1/1	0.95	0.35	15.67	74,74,74,74	0
55	MG	AA	3448	1/1	0.84	0.38	15.59	106,106,106,106	0
55	MG	AA	3400	1/1	0.97	0.47	15.56	39,39,39,39	0
55	MG	DA	1670	1/1	0.95	0.36	15.34	49,49,49,49	0
55	MG	BA	3254	1/1	0.91	0.46	15.30	69,69,69,69	0
55	MG	AA	3081	1/1	0.92	0.56	15.22	51,51,51,51	0
55	MG	BA	3236	1/1	0.96	0.43	15.05	41,41,41,41	0
55	MG	AA	3085	1/1	0.95	0.41	14.92	34,34,34,34	0
55	MG	DA	1737	1/1	0.92	0.35	14.84	74,74,74,74	0
55	MG	DA	1756	1/1	0.86	0.46	14.79	106,106,106,106	0
55	MG	AA	3408	1/1	0.83	0.38	14.67	83,83,83,83	0
55	MG	CA	1792	1/1	0.94	0.31	14.43	81,81,81,81	0
55	MG	BA	3145	1/1	0.98	0.36	14.28	53,53,53,53	0
55	MG	AA	3045	1/1	0.93	0.49	14.08	54,54,54,54	0
55	MG	AA	3212	1/1	0.92	0.34	13.96	52,52,52,52	0
55	MG	AA	3128	1/1	0.92	0.38	13.94	56,56,56,56	0
55	MG	AA	3141	1/1	0.98	0.35	13.88	50,50,50,50	0
55	MG	AA	3574	1/1	0.96	0.34	13.48	54,54,54,54	0
55	MG	CA	1679	1/1	0.45	0.35	13.42	101,101,101,101	0
55	MG	AA	3165	1/1	0.91	0.45	13.33	82,82,82,82	0
55	MG	AA	3570	1/1	0.94	0.39	13.32	41,41,41,41	0
55	MG	BA	3489	1/1	0.97	0.40	13.23	68,68,68,68	0
55	MG	AA	3044	1/1	0.95	0.42	13.04	52,52,52,52	0
55	MG	DA	1782	1/1	0.90	0.36	12.99	94,94,94,94	0
55	MG	AA	3578	1/1	0.95	0.39	12.98	50,50,50,50	0
55	MG	AA	3098	1/1	0.97	0.39	12.95	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3609	1/1	0.89	0.28	12.94	62,62,62,62	0
55	MG	AA	3001	1/1	0.96	0.45	12.67	44,44,44,44	0
55	MG	AA	3174	1/1	0.97	0.41	12.66	40,40,40,40	0
55	MG	AA	3037	1/1	0.95	0.35	12.65	69,69,69,69	0
55	MG	AA	3034	1/1	0.96	0.40	12.29	52,52,52,52	0
55	MG	AA	3538	1/1	0.98	0.32	12.22	36,36,36,36	0
55	MG	DA	1685	1/1	0.86	0.43	12.17	72,72,72,72	0
55	MG	BA	3446	1/1	0.81	0.32	12.16	98,98,98,98	0
55	MG	AA	3047	1/1	0.94	0.26	12.14	60,60,60,60	0
55	MG	AA	3351	1/1	0.89	0.37	12.10	82,82,82,82	0
55	MG	DA	1801	1/1	0.48	0.32	12.06	90,90,90,90	0
55	MG	AA	3565	1/1	0.98	0.37	12.03	53,53,53,53	0
55	MG	AA	3021	1/1	0.97	0.30	11.98	42,42,42,42	0
55	MG	BA	3180	1/1	0.92	0.29	11.90	57,57,57,57	0
55	MG	BA	3155	1/1	0.92	0.30	11.76	87,87,87,87	0
55	MG	AA	3328	1/1	0.81	0.39	11.73	82,82,82,82	0
55	MG	AA	3124	1/1	0.96	0.51	11.69	47,47,47,47	0
55	MG	BA	3203	1/1	0.87	0.39	11.60	53,53,53,53	0
55	MG	DA	1646	1/1	0.95	0.27	11.52	65,65,65,65	0
55	MG	AA	3551	1/1	0.95	0.31	11.37	69,69,69,69	0
55	MG	AA	3083	1/1	0.97	0.39	11.25	34,34,34,34	0
55	MG	BA	3135	1/1	0.97	0.33	11.21	52,52,52,52	0
55	MG	BA	3144	1/1	0.93	0.49	11.05	95,95,95,95	0
55	MG	CA	1645	1/1	0.96	0.42	11.05	60,60,60,60	0
55	MG	AA	3116	1/1	0.97	0.47	10.99	37,37,37,37	0
55	MG	AA	3379	1/1	0.91	0.31	10.99	66,66,66,66	0
55	MG	DA	1621	1/1	0.84	0.46	10.97	99,99,99,99	0
55	MG	BA	3324	1/1	0.96	0.38	10.96	75,75,75,75	0
55	MG	AA	3247	1/1	0.96	0.42	10.83	74,74,74,74	0
55	MG	AO	201	1/1	0.91	0.43	10.68	65,65,65,65	0
55	MG	AA	3269	1/1	0.92	0.50	10.66	55,55,55,55	0
55	MG	DA	1721	1/1	0.96	0.36	10.64	71,71,71,71	0
55	MG	BA	3367	1/1	0.48	0.39	10.56	91,91,91,91	0
55	MG	DA	1645	1/1	0.91	0.34	10.48	51,51,51,51	0
55	MG	DA	1667	1/1	0.92	0.27	10.41	82,82,82,82	0
55	MG	AA	3513	1/1	0.72	0.36	10.08	83,83,83,83	0
55	MG	BA	3224	1/1	0.94	0.26	10.05	51,51,51,51	0
55	MG	BA	3355	1/1	0.74	0.43	10.00	87,87,87,87	0
55	MG	AA	3262	1/1	0.90	0.29	9.98	33,33,33,33	0
55	MG	BA	3125	1/1	0.79	1.05	9.96	104,104,104,104	0
55	MG	BA	3279	1/1	0.93	0.34	9.87	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	CA	1658	1/1	0.97	0.43	9.78	50,50,50,50	0
55	MG	AA	3625	1/1	0.84	0.29	9.76	89,89,89,89	0
55	MG	AA	3603	1/1	0.92	0.43	9.70	41,41,41,41	0
55	MG	AA	3623	1/1	0.91	0.29	9.70	74,74,74,74	0
55	MG	CA	1678	1/1	0.94	0.29	9.66	69,69,69,69	0
55	MG	BA	3238	1/1	0.93	0.26	9.58	66,66,66,66	0
55	MG	AA	3016	1/1	0.98	0.32	9.55	48,48,48,48	0
55	MG	AA	3249	1/1	0.69	0.41	9.54	76,76,76,76	0
55	MG	BA	3233	1/1	0.89	0.36	9.53	74,74,74,74	0
55	MG	DA	1644	1/1	0.95	0.31	9.48	82,82,82,82	0
55	MG	AA	3139	1/1	0.98	0.29	9.38	54,54,54,54	0
55	MG	DA	1722	1/1	0.73	0.28	9.35	106,106,106,106	0
55	MG	AA	3012	1/1	0.99	0.38	9.21	40,40,40,40	0
55	MG	BA	3384	1/1	0.65	0.35	8.99	92,92,92,92	0
55	MG	BA	3229	1/1	0.96	0.33	8.91	50,50,50,50	0
55	MG	AA	3272	1/1	0.84	0.37	8.75	65,65,65,65	0
55	MG	AA	3253	1/1	0.63	0.30	8.66	81,81,81,81	0
55	MG	DA	1604	1/1	0.89	0.27	8.42	92,92,92,92	0
55	MG	BA	3512	1/1	0.89	0.27	8.36	75,75,75,75	0
55	MG	AA	3153	1/1	0.97	0.26	8.28	48,48,48,48	0
55	MG	AA	3040	1/1	0.95	0.31	8.25	68,68,68,68	0
55	MG	AA	3266	1/1	0.96	0.47	8.21	49,49,49,49	0
55	MG	DA	1763	1/1	0.63	0.28	8.18	89,89,89,89	0
55	MG	BA	3129	1/1	0.95	0.24	8.16	41,41,41,41	0
55	MG	BA	3266	1/1	0.76	0.48	8.16	91,91,91,91	0
55	MG	AA	3548	1/1	0.90	0.30	8.13	54,54,54,54	0
55	MG	CA	1819	1/1	0.63	0.21	8.12	109,109,109,109	0
55	MG	DA	1656	1/1	0.95	0.37	8.10	99,99,99,99	0
55	MG	BA	3242	1/1	0.95	0.35	8.06	62,62,62,62	0
55	MG	BB	207	1/1	0.57	0.34	8.06	116,116,116,116	0
55	MG	AA	3068	1/1	0.96	0.36	7.83	72,72,72,72	0
55	MG	AA	3233	1/1	0.97	0.30	7.78	55,55,55,55	0
55	MG	BA	3058	1/1	0.81	0.35	7.74	89,89,89,89	0
55	MG	BA	3481	1/1	0.96	0.26	7.67	49,49,49,49	0
55	MG	CA	1628	1/1	0.64	0.40	7.67	85,85,85,85	0
55	MG	AA	3263	1/1	0.85	0.28	7.65	51,51,51,51	0
55	MG	BA	3227	1/1	0.97	0.37	7.64	50,50,50,50	0
55	MG	DA	1799	1/1	0.88	0.37	7.64	68,68,68,68	0
55	MG	BA	3376	1/1	0.81	0.33	7.50	65,65,65,65	0
55	MG	DA	1606	1/1	0.73	0.30	7.49	95,95,95,95	0
55	MG	DA	1715	1/1	0.94	0.31	7.39	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3355	1/1	0.91	0.37	7.31	94,94,94,94	0
55	MG	CA	1651	1/1	0.94	0.38	7.27	75,75,75,75	0
55	MG	BA	3118	1/1	0.83	0.26	7.25	110,110,110,110	0
55	MG	CA	1760	1/1	0.61	0.20	7.21	91,91,91,91	0
55	MG	AA	3459	1/1	0.93	0.28	7.18	81,81,81,81	0
55	MG	AA	3223	1/1	0.85	0.30	7.17	71,71,71,71	0
55	MG	AA	3024	1/1	0.98	0.39	7.10	45,45,45,45	0
55	MG	AB	217	1/1	0.88	0.40	7.07	110,110,110,110	0
55	MG	BA	3211	1/1	0.98	0.25	7.02	57,57,57,57	0
55	MG	BA	3218	1/1	0.97	0.35	7.00	51,51,51,51	0
55	MG	AA	3055	1/1	0.81	0.35	6.98	67,67,67,67	0
55	MG	AA	3082	1/1	0.97	0.38	6.97	50,50,50,50	0
55	MG	AA	3222	1/1	0.89	0.46	6.95	54,54,54,54	0
55	MG	BR	202	1/1	0.63	0.82	6.91	105,105,105,105	0
55	MG	AO	203	1/1	0.84	0.34	6.88	43,43,43,43	0
55	MG	CA	1636	1/1	0.92	0.29	6.85	91,91,91,91	0
55	MG	AA	3092	1/1	0.91	0.31	6.85	71,71,71,71	0
55	MG	BA	3492	1/1	0.96	0.28	6.81	47,47,47,47	0
55	MG	BA	3167	1/1	0.97	0.29	6.78	59,59,59,59	0
55	MG	BA	3514	1/1	0.94	0.34	6.67	51,51,51,51	0
55	MG	DA	1649	1/1	0.99	0.29	6.63	93,93,93,93	0
55	MG	AA	3462	1/1	0.97	0.33	6.58	85,85,85,85	0
55	MG	CA	1711	1/1	0.64	0.30	6.58	98,98,98,98	0
55	MG	DA	1755	1/1	0.92	0.47	6.44	79,79,79,79	0
55	MG	CA	1836	1/1	0.96	0.26	6.40	71,71,71,71	0
55	MG	CA	1691	1/1	0.90	0.34	6.35	56,56,56,56	0
55	MG	AA	3277	1/1	0.59	0.32	6.31	82,82,82,82	0
55	MG	BA	3317	1/1	0.93	0.32	6.30	91,91,91,91	0
55	MG	DA	1638	1/1	0.97	0.25	6.18	74,74,74,74	0
55	MG	BA	3023	1/1	0.88	0.39	6.17	70,70,70,70	0
55	MG	CA	1610	1/1	0.95	0.32	6.15	54,54,54,54	0
55	MG	BA	3447	1/1	0.59	0.30	6.12	100,100,100,100	0
55	MG	BA	3179	1/1	0.97	0.34	6.06	61,61,61,61	0
55	MG	CA	1667	1/1	0.97	0.27	6.03	77,77,77,77	0
55	MG	DA	1617	1/1	0.97	0.28	5.89	102,102,102,102	0
55	MG	AA	3592	1/1	0.89	0.35	5.80	76,76,76,76	0
55	MG	BA	3325	1/1	0.95	0.42	5.66	50,50,50,50	0
55	MG	BA	3100	1/1	0.96	0.24	5.66	66,66,66,66	0
55	MG	AA	3052	1/1	0.95	0.29	5.64	73,73,73,73	0
55	MG	DA	1747	1/1	0.68	0.30	5.60	105,105,105,105	0
55	MG	AA	3428	1/1	0.82	0.23	5.57	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3541	1/1	0.97	0.24	5.34	48,48,48,48	0
55	MG	BA	3189	1/1	0.87	0.32	5.32	61,61,61,61	0
55	MG	BA	3404	1/1	0.63	0.21	5.32	101,101,101,101	0
55	MG	BA	3094	1/1	0.78	0.23	5.25	79,79,79,79	0
55	MG	BA	3012	1/1	0.97	0.32	5.08	63,63,63,63	0
55	MG	DA	1610	1/1	0.94	0.24	5.06	97,97,97,97	0
55	MG	AE	303	1/1	0.64	0.37	5.04	91,91,91,91	0
55	MG	CA	1712	1/1	0.87	0.28	4.94	92,92,92,92	0
55	MG	BA	3369	1/1	0.85	0.35	4.92	69,69,69,69	0
55	MG	DA	1677	1/1	0.85	0.24	4.92	82,82,82,82	0
55	MG	BA	3363	1/1	0.62	0.23	4.91	88,88,88,88	0
55	MG	DA	1664	1/1	0.50	0.20	4.84	97,97,97,97	0
55	MG	BA	3107	1/1	0.77	0.23	4.82	89,89,89,89	0
55	MG	AA	3599	1/1	0.85	0.32	4.79	87,87,87,87	0
55	MG	BA	3239	1/1	0.97	0.24	4.77	80,80,80,80	0
55	MG	BA	3208	1/1	0.96	0.24	4.76	57,57,57,57	0
55	MG	BA	3127	1/1	0.98	0.38	4.74	55,55,55,55	0
55	MG	AA	3054	1/1	0.94	0.29	4.69	62,62,62,62	0
55	MG	BA	3220	1/1	0.93	0.32	4.65	40,40,40,40	0
56	PAR	CA	1841	42/42	0.95	0.30	4.59	40,56,74,83	0
55	MG	BA	3067	1/1	0.62	0.42	4.57	74,74,74,74	0
55	MG	BA	3237	1/1	0.98	0.21	4.55	47,47,47,47	0
55	MG	AA	3464	1/1	0.72	0.32	4.49	83,83,83,83	0
55	MG	BA	3010	1/1	0.98	0.24	4.36	68,68,68,68	0
55	MG	BA	3331	1/1	0.68	0.21	4.34	101,101,101,101	0
55	MG	BA	3163	1/1	0.76	0.21	4.24	84,84,84,84	0
55	MG	BA	3152	1/1	0.94	0.19	4.16	73,73,73,73	0
55	MG	CA	1780	1/1	0.93	0.34	4.07	55,55,55,55	0
55	MG	AA	3135	1/1	0.88	0.30	3.92	66,66,66,66	0
55	MG	BA	3086	1/1	0.86	0.38	3.88	82,82,82,82	0
55	MG	DA	1653	1/1	0.97	0.24	3.84	96,96,96,96	0
55	MG	AA	3590	1/1	0.95	0.31	3.78	81,81,81,81	0
55	MG	BA	3009	1/1	0.98	0.25	3.75	48,48,48,48	0
55	MG	AA	3310	1/1	0.79	0.26	3.74	65,65,65,65	0
55	MG	CA	1717	1/1	0.85	0.22	3.71	69,69,69,69	0
55	MG	AA	3336	1/1	0.83	0.25	3.70	82,82,82,82	0
55	MG	BA	3366	1/1	0.83	0.25	3.65	76,76,76,76	0
55	MG	BA	3169	1/1	0.98	0.25	3.65	56,56,56,56	0
55	MG	AA	3323	1/1	0.82	0.26	3.61	71,71,71,71	0
55	MG	AA	3051	1/1	0.94	0.33	3.56	71,71,71,71	0
55	MG	AA	3160	1/1	0.98	0.30	3.50	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3037	1/1	0.63	0.26	3.42	75,75,75,75	0
55	MG	BA	3217	1/1	0.96	0.30	3.33	39,39,39,39	0
55	MG	DA	1684	1/1	0.79	0.25	3.21	92,92,92,92	0
55	MG	BA	3231	1/1	0.96	0.25	3.15	47,47,47,47	0
55	MG	BA	3140	1/1	0.97	0.26	3.10	42,42,42,42	0
55	MG	BA	3228	1/1	0.92	0.35	3.09	74,74,74,74	0
55	MG	AA	3162	1/1	0.93	0.30	3.06	45,45,45,45	0
55	MG	BA	3136	1/1	0.95	0.23	3.01	43,43,43,43	0
55	MG	AA	3568	1/1	0.97	0.24	2.84	49,49,49,49	0
55	MG	BA	3219	1/1	0.96	0.25	2.84	48,48,48,48	0
55	MG	AB	202	1/1	0.70	0.23	2.82	92,92,92,92	0
55	MG	BA	3484	1/1	0.96	0.25	2.80	65,65,65,65	0
55	MG	BA	3158	1/1	0.96	0.21	2.79	70,70,70,70	0
55	MG	CA	1663	1/1	0.89	0.24	2.78	52,52,52,52	0
55	MG	CA	1620	1/1	0.96	0.19	2.76	74,74,74,74	0
55	MG	CA	1632	1/1	0.94	0.21	2.75	76,76,76,76	0
55	MG	BA	3288	1/1	0.96	0.22	2.74	98,98,98,98	0
55	MG	BA	3494	1/1	0.88	0.33	2.70	88,88,88,88	0
55	MG	AF	303	1/1	0.90	0.33	2.67	69,69,69,69	0
55	MG	AA	3195	1/1	0.92	0.21	2.67	62,62,62,62	0
55	MG	BA	3329	1/1	0.29	0.18	2.67	66,66,66,66	0
55	MG	AA	3168	1/1	0.94	0.31	2.63	68,68,68,68	0
55	MG	BA	3178	1/1	0.93	0.27	2.38	62,62,62,62	0
55	MG	BA	3081	1/1	0.63	0.21	2.36	91,91,91,91	0
55	MG	BA	3283	1/1	0.96	0.23	2.35	43,43,43,43	0
55	MG	AA	3186	1/1	0.90	0.21	2.34	58,58,58,58	0
55	MG	BA	3490	1/1	0.97	0.25	2.30	52,52,52,52	0
55	MG	CA	1767	1/1	0.53	0.27	2.20	120,120,120,120	0
55	MG	BA	3309	1/1	0.88	0.30	2.19	80,80,80,80	0
55	MG	AA	3567	1/1	0.96	0.25	2.08	39,39,39,39	0
56	PAR	DA	1805	42/42	0.94	0.21	2.07	46,59,73,84	0
55	MG	AA	3042	1/1	0.81	0.18	1.89	77,77,77,77	0
55	MG	AA	3088	1/1	0.90	0.22	1.88	42,42,42,42	0
55	MG	AA	3547	1/1	0.86	0.20	1.87	45,45,45,45	0
55	MG	CA	1752	1/1	0.70	0.15	1.85	96,96,96,96	0
57	ZN	CG	303	1/1	0.98	0.34	1.82	95,95,95,95	0
55	MG	BA	3385	1/1	0.93	0.18	1.82	97,97,97,97	0
55	MG	AA	3014	1/1	0.92	0.29	1.77	38,38,38,38	0
55	MG	BA	3097	1/1	0.96	0.25	1.74	60,60,60,60	0
55	MG	DA	1609	1/1	0.98	0.23	1.71	116,116,116,116	0
55	MG	BA	3133	1/1	0.97	0.22	1.69	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	1624	1/1	0.55	0.25	1.69	95,95,95,95	0
55	MG	BA	3517	1/1	0.97	0.21	1.68	61,61,61,61	0
55	MG	BA	3168	1/1	0.98	0.21	1.67	60,60,60,60	0
55	MG	DA	1629	1/1	0.61	0.20	1.63	92,92,92,92	0
55	MG	AA	3018	1/1	0.97	0.36	1.63	43,43,43,43	0
55	MG	BA	3482	1/1	0.98	0.19	1.61	65,65,65,65	0
55	MG	BA	3186	1/1	0.94	0.28	1.59	52,52,52,52	0
55	MG	BA	3142	1/1	0.92	0.23	1.49	70,70,70,70	0
55	MG	AA	3386	1/1	0.85	0.17	1.40	74,74,74,74	0
55	MG	AA	3084	1/1	0.97	0.26	1.38	43,43,43,43	0
55	MG	CA	1608	1/1	0.91	0.22	1.29	68,68,68,68	0
55	MG	CA	1635	1/1	0.58	0.28	1.29	100,100,100,100	0
55	MG	BA	3248	1/1	0.97	0.22	1.27	54,54,54,54	0
55	MG	BA	3267	1/1	0.90	0.23	1.14	62,62,62,62	0
55	MG	CA	1619	1/1	0.98	0.26	1.09	59,59,59,59	0
55	MG	BA	3315	1/1	0.92	0.18	1.08	91,91,91,91	0
55	MG	CA	1823	1/1	0.47	0.14	1.07	110,110,110,110	0
55	MG	CA	1661	1/1	0.73	0.17	1.04	52,52,52,52	0
55	MG	DA	1632	1/1	0.93	0.17	1.02	84,84,84,84	0
55	MG	BA	3080	1/1	0.95	0.20	1.01	72,72,72,72	0
55	MG	CA	1812	1/1	0.84	0.20	0.99	84,84,84,84	0
55	MG	AZ	101	1/1	0.80	0.30	0.98	77,77,77,77	0
55	MG	BA	3486	1/1	0.95	0.24	0.96	30,30,30,30	0
55	MG	CC	105	1/1	0.97	0.23	0.96	105,105,105,105	0
55	MG	BA	3509	1/1	0.90	0.34	0.95	73,73,73,73	0
55	MG	AA	3020	1/1	0.96	0.25	0.85	39,39,39,39	0
55	MG	CA	1743	1/1	0.79	0.16	0.82	112,112,112,112	0
55	MG	B1	201	1/1	0.93	0.24	0.74	82,82,82,82	0
55	MG	DA	1668	1/1	0.92	0.16	0.65	73,73,73,73	0
55	MG	AA	3026	1/1	0.98	0.24	0.59	40,40,40,40	0
55	MG	CA	1682	1/1	0.95	0.16	0.48	106,106,106,106	0
55	MG	BA	3322	1/1	0.86	0.22	0.44	79,79,79,79	0
55	MG	AA	3305	1/1	0.86	0.36	0.40	80,80,80,80	0
55	MG	BE	303	1/1	0.95	0.23	0.36	57,57,57,57	0
55	MG	DA	1740	1/1	0.64	0.17	0.33	113,113,113,113	0
55	MG	BA	3190	1/1	0.91	0.23	0.32	73,73,73,73	0
55	MG	AA	3423	1/1	0.76	0.20	0.31	74,74,74,74	0
55	MG	BA	3109	1/1	0.81	0.16	0.29	75,75,75,75	0
55	MG	AA	3175	1/1	0.96	0.20	0.23	45,45,45,45	0
55	MG	AA	3308	1/1	0.58	0.23	0.18	96,96,96,96	0
55	MG	A6	101	1/1	0.66	0.50	0.17	111,111,111,111	0
55	MG	BA	3054	1/1	0.91	0.17	0.11	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	1652	1/1	0.97	0.17	0.08	85,85,85,85	0
55	MG	AA	3610	1/1	0.99	0.19	0.06	46,46,46,46	0
55	MG	BA	3230	1/1	0.95	0.19	0.06	68,68,68,68	0
55	MG	A0	201	1/1	0.95	0.21	0.06	62,62,62,62	0
55	MG	CA	1601	1/1	0.96	0.19	0.06	56,56,56,56	0
55	MG	CG	302	1/1	0.72	0.17	0.04	122,122,122,122	0
55	MG	DA	1622	1/1	0.95	0.13	-0.01	98,98,98,98	0
55	MG	CA	1822	1/1	0.83	0.14	-0.06	105,105,105,105	0
55	MG	BA	3042	1/1	0.90	0.16	-0.09	86,86,86,86	0
55	MG	DA	1697	1/1	0.89	0.17	-0.13	111,111,111,111	0
57	ZN	DG	303	1/1	0.99	0.29	-0.16	134,134,134,134	0
55	MG	AA	3577	1/1	0.96	0.19	-0.18	52,52,52,52	0
55	MG	AA	3164	1/1	0.92	0.25	-0.25	95,95,95,95	0
55	MG	AA	3332	1/1	0.73	0.15	-0.30	62,62,62,62	0
55	MG	AA	3484	1/1	0.96	0.21	-0.31	44,44,44,44	0
55	MG	BA	3466	1/1	0.77	0.14	-0.32	73,73,73,73	0
55	MG	BD	301	1/1	0.97	0.21	-0.33	39,39,39,39	0
55	MG	BA	3295	1/1	0.97	0.17	-0.34	58,58,58,58	0
55	MG	AA	3517	1/1	0.94	0.20	-0.36	66,66,66,66	0
55	MG	BA	3069	1/1	0.88	0.14	-0.40	70,70,70,70	0
55	MG	DA	1627	1/1	0.77	0.13	-0.48	105,105,105,105	0
55	MG	BA	3429	1/1	0.66	0.16	-0.49	95,95,95,95	0
55	MG	CA	1602	1/1	0.94	0.17	-0.50	74,74,74,74	0
55	MG	AA	3433	1/1	0.28	0.12	-0.52	152,152,152,152	0
55	MG	AF	301	1/1	0.79	0.20	-0.53	80,80,80,80	0
55	MG	AA	3525	1/1	0.69	0.17	-0.53	73,73,73,73	0
55	MG	BA	3461	1/1	0.63	0.19	-0.57	83,83,83,83	0
57	ZN	DQ	101	1/1	0.97	0.17	-0.58	118,118,118,118	0
55	MG	BE	302	1/1	0.82	0.15	-0.63	76,76,76,76	0
55	MG	BA	3434	1/1	0.83	0.16	-0.78	90,90,90,90	0
55	MG	BA	3501	1/1	0.94	0.16	-0.79	88,88,88,88	0
55	MG	CA	1835	1/1	0.94	0.16	-0.80	87,87,87,87	0
55	MG	BA	3342	1/1	0.87	0.17	-0.81	80,80,80,80	0
55	MG	AA	3217	1/1	0.78	0.17	-0.82	64,64,64,64	0
55	MG	BA	3407	1/1	0.49	0.14	-1.00	96,96,96,96	0
55	MG	AA	3571	1/1	0.96	0.19	-1.01	52,52,52,52	0
55	MG	AA	3178	1/1	0.97	0.17	-1.03	54,54,54,54	0
55	MG	BA	3181	1/1	0.95	0.15	-1.12	49,49,49,49	0
57	ZN	CQ	103	1/1	0.99	0.13	-1.12	144,144,144,144	0
55	MG	AA	3591	1/1	0.95	0.18	-1.14	74,74,74,74	0
55	MG	AE	304	1/1	0.67	0.13	-1.16	87,87,87,87	0
55	MG	BB	202	1/1	0.92	0.14	-1.17	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	1781	1/1	0.85	0.13	-1.22	87,87,87,87	0
55	MG	CA	1762	1/1	0.82	0.14	-1.32	89,89,89,89	0
55	MG	BA	3361	1/1	0.79	0.15	-1.34	88,88,88,88	0
55	MG	AA	3072	1/1	0.89	0.12	-1.40	101,101,101,101	0
55	MG	DA	1648	1/1	0.96	0.10	-1.44	69,69,69,69	0
55	MG	BA	3182	1/1	0.96	0.17	-1.56	47,47,47,47	0
55	MG	AE	301	1/1	0.88	0.15	-1.60	65,65,65,65	0
55	MG	BA	3499	1/1	0.82	0.15	-1.61	78,78,78,78	0
55	MG	BA	3246	1/1	0.89	0.14	-1.70	99,99,99,99	0
55	MG	AA	3512	1/1	0.83	0.14	-1.71	97,97,97,97	0
55	MG	DC	102	1/1	0.97	0.16	-1.73	74,74,74,74	0
55	MG	CA	1824	1/1	0.86	0.14	-1.73	94,94,94,94	0
55	MG	BA	3184	1/1	0.94	0.14	-1.81	76,76,76,76	0
55	MG	DA	1768	1/1	0.58	0.13	-1.89	82,82,82,82	0
55	MG	CN	201	1/1	0.87	0.09	-1.94	78,78,78,78	0
55	MG	AA	3206	1/1	0.81	0.16	-1.97	51,51,51,51	0
55	MG	AA	3064	1/1	0.79	0.12	-2.28	79,79,79,79	0
55	MG	CA	1794	1/1	0.83	0.13	-2.29	106,106,106,106	0
55	MG	AA	3046	1/1	0.98	0.14	-2.30	57,57,57,57	0
55	MG	CA	1703	1/1	0.84	0.15	-2.30	103,103,103,103	0
55	MG	BA	3131	1/1	0.98	0.17	-2.32	49,49,49,49	0
55	MG	CA	1701	1/1	0.65	0.15	-2.33	105,105,105,105	0
55	MG	DG	302	1/1	0.76	0.08	-2.35	112,112,112,112	0
55	MG	AA	3170	1/1	0.89	0.17	-2.37	41,41,41,41	0
55	MG	BA	3112	1/1	0.74	0.12	-2.46	69,69,69,69	0
55	MG	BA	3488	1/1	0.98	0.15	-2.47	59,59,59,59	0
55	MG	BA	3491	1/1	0.94	0.10	-2.99	49,49,49,49	0
55	MG	CA	1789	1/1	0.93	0.07	-3.07	71,71,71,71	0
55	MG	AA	3584	1/1	0.94	0.15	-3.21	63,63,63,63	0
55	MG	CA	1700	1/1	0.93	0.09	-3.43	72,72,72,72	0
55	MG	BA	3006	1/1	0.95	0.09	-3.49	47,47,47,47	0
55	MG	BA	3016	1/1	0.97	0.07	-3.65	56,56,56,56	0
55	MG	BA	3516	1/1	0.90	0.14	-3.85	73,73,73,73	0
55	MG	CA	1786	1/1	0.95	0.08	-3.89	74,74,74,74	0
55	MG	BA	3284	1/1	0.93	0.12	-3.98	61,61,61,61	0
55	MG	BA	3297	1/1	0.72	0.12	-4.30	63,63,63,63	0
55	MG	BA	3321	1/1	0.87	0.11	-5.04	59,59,59,59	0
55	MG	CA	1702	1/1	0.96	0.09	-5.15	71,71,71,71	0
55	MG	CA	1606	1/1	0.94	0.07	-5.26	94,94,94,94	0
55	MG	AA	3137	1/1	0.95	0.12	-5.52	51,51,51,51	0
55	MG	DA	1673	1/1	0.97	0.13	-6.69	88,88,88,88	0
55	MG	BA	3106	1/1	0.85	0.06	-6.75	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3430	1/1	0.96	0.08	-6.79	89,89,89,89	0
55	MG	AA	3487	1/1	0.90	0.08	-7.41	77,77,77,77	0
55	MG	BA	3113	1/1	0.82	0.12	-7.71	84,84,84,84	0
55	MG	AA	3159	1/1	0.93	0.07	-7.75	28,28,28,28	0
55	MG	BA	3007	1/1	0.89	0.07	-8.11	83,83,83,83	0
55	MG	AA	3581	1/1	0.95	0.12	-10.77	36,36,36,36	0
55	MG	AA	3242	1/1	0.76	0.23	-	93,93,93,93	0
55	MG	BA	3345	1/1	0.69	0.19	-	87,87,87,87	0
55	MG	AA	3455	1/1	0.98	0.46	-	49,49,49,49	0
55	MG	CA	1611	1/1	0.58	0.21	-	97,97,97,97	0
55	MG	CD	101	1/1	0.78	0.19	-	105,105,105,105	0
55	MG	AA	3406	1/1	0.91	0.41	-	83,83,83,83	0
55	MG	BA	3046	1/1	0.76	0.34	-	83,83,83,83	0
55	MG	DA	1718	1/1	0.70	0.21	-	132,132,132,132	0
55	MG	DA	1636	1/1	0.76	0.24	-	103,103,103,103	0
55	MG	BB	201	1/1	0.85	0.24	-	90,90,90,90	0
55	MG	AA	3172	1/1	0.74	0.30	-	94,94,94,94	0
55	MG	BA	3298	1/1	0.80	0.15	-	61,61,61,61	0
55	MG	CA	1833	1/1	0.79	0.13	-	95,95,95,95	0
55	MG	BA	3518	1/1	0.92	0.42	-	74,74,74,74	0
55	MG	BA	3282	1/1	0.66	0.30	-	93,93,93,93	0
55	MG	BA	3452	1/1	0.92	0.14	-	96,96,96,96	0
55	MG	CA	1649	1/1	0.82	0.29	-	86,86,86,86	0
55	MG	CA	1654	1/1	0.93	0.38	-	75,75,75,75	0
55	MG	BA	3346	1/1	0.81	0.41	-	99,99,99,99	0
55	MG	DA	1723	1/1	0.97	0.32	-	83,83,83,83	0
55	MG	DA	1708	1/1	0.72	0.59	-	102,102,102,102	0
55	MG	DA	1658	1/1	0.95	0.21	-	113,113,113,113	0
55	MG	DA	1628	1/1	0.86	0.42	-	97,97,97,97	0
55	MG	BA	3310	1/1	0.87	0.24	-	74,74,74,74	0
55	MG	AA	3107	1/1	0.56	0.31	-	69,69,69,69	0
55	MG	BA	3422	1/1	0.38	0.36	-	102,102,102,102	0
55	MG	AA	3056	1/1	0.87	0.65	-	98,98,98,98	0
55	MG	BA	3269	1/1	0.86	0.30	-	58,58,58,58	0
55	MG	CA	1714	1/1	0.25	0.47	-	118,118,118,118	0
55	MG	BA	3449	1/1	0.61	0.29	-	109,109,109,109	0
55	MG	AA	3564	1/1	0.40	0.34	-	76,76,76,76	0
55	MG	AA	3259	1/1	0.67	0.30	-	81,81,81,81	0
55	MG	DA	1655	1/1	0.76	0.33	-	96,96,96,96	0
55	MG	DG	301	1/1	0.84	0.35	-	94,94,94,94	0
55	MG	AA	3558	1/1	0.89	0.33	-	89,89,89,89	0
55	MG	DC	105	1/1	0.96	0.39	-	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3099	1/1	0.80	0.46	-	64,64,64,64	0
55	MG	DA	1640	1/1	0.85	0.17	-	101,101,101,101	0
55	MG	AA	3190	1/1	0.87	0.24	-	58,58,58,58	0
55	MG	BA	3250	1/1	0.93	0.24	-	58,58,58,58	0
55	MG	CA	1623	1/1	0.77	0.30	-	73,73,73,73	0
55	MG	DA	1686	1/1	0.78	0.34	-	97,97,97,97	0
55	MG	AA	3167	1/1	0.94	0.38	-	50,50,50,50	0
55	MG	AA	3352	1/1	0.97	0.35	-	52,52,52,52	0
55	MG	AA	3192	1/1	0.97	0.35	-	63,63,63,63	0
55	MG	DA	1635	1/1	0.80	0.29	-	79,79,79,79	0
55	MG	CA	1626	1/1	0.84	0.33	-	88,88,88,88	0
55	MG	CA	1817	1/1	0.78	0.27	-	85,85,85,85	0
55	MG	AA	3450	1/1	0.96	0.46	-	72,72,72,72	0
55	MG	BA	3241	1/1	0.98	0.36	-	52,52,52,52	0
55	MG	AA	3229	1/1	0.93	0.20	-	89,89,89,89	0
55	MG	BB	214	1/1	0.57	0.34	-	99,99,99,99	0
55	MG	AA	3466	1/1	0.37	0.48	-	100,100,100,100	0
55	MG	CA	1731	1/1	0.84	0.35	-	98,98,98,98	0
55	MG	DA	1788	1/1	0.79	0.39	-	90,90,90,90	0
55	MG	AA	3482	1/1	0.36	0.32	-	96,96,96,96	0
55	MG	AA	3071	1/1	0.91	0.48	-	56,56,56,56	0
55	MG	BA	3318	1/1	0.62	0.33	-	89,89,89,89	0
55	MG	AA	3585	1/1	0.89	0.61	-	91,91,91,91	0
55	MG	CA	1708	1/1	0.95	0.43	-	45,45,45,45	0
55	MG	CA	1839	1/1	0.90	0.21	-	68,68,68,68	0
55	MG	DA	1726	1/1	0.90	0.50	-	79,79,79,79	0
55	MG	BA	3445	1/1	0.80	0.23	-	95,95,95,95	0
55	MG	AA	3268	1/1	0.78	0.49	-	85,85,85,85	0
55	MG	CB	102	1/1	0.32	0.33	-	106,106,106,106	0
55	MG	DC	107	1/1	0.55	0.42	-	105,105,105,105	0
55	MG	CA	1759	1/1	0.65	0.36	-	117,117,117,117	0
55	MG	AA	3393	1/1	0.35	0.58	-	98,98,98,98	0
55	MG	DA	1626	1/1	0.80	0.34	-	104,104,104,104	0
55	MG	AA	3473	1/1	0.80	0.46	-	77,77,77,77	0
55	MG	AA	3598	1/1	0.90	0.29	-	87,87,87,87	0
55	MG	AA	3449	1/1	0.87	0.26	-	63,63,63,63	0
55	MG	AA	3375	1/1	0.76	0.43	-	88,88,88,88	0
55	MG	AA	3197	1/1	0.87	0.40	-	74,74,74,74	0
55	MG	BA	3207	1/1	0.88	0.29	-	46,46,46,46	0
55	MG	CA	1725	1/1	0.62	0.31	-	98,98,98,98	0
55	MG	DA	1776	1/1	0.83	0.27	-	70,70,70,70	0
55	MG	AA	3243	1/1	0.95	0.39	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3316	1/1	0.88	0.26	-	67,67,67,67	0
55	MG	AA	3595	1/1	0.75	0.36	-	79,79,79,79	0
55	MG	AA	3420	1/1	0.64	0.31	-	88,88,88,88	0
55	MG	AA	3600	1/1	0.96	0.45	-	74,74,74,74	0
55	MG	AA	3009	1/1	0.89	0.33	-	63,63,63,63	0
55	MG	AA	3426	1/1	0.71	0.44	-	80,80,80,80	0
55	MG	AA	3285	1/1	0.95	0.52	-	80,80,80,80	0
55	MG	BA	3510	1/1	0.85	0.26	-	67,67,67,67	0
55	MG	A7	102	1/1	0.93	0.46	-	68,68,68,68	0
55	MG	CA	1659	1/1	0.83	0.30	-	71,71,71,71	0
55	MG	AA	3508	1/1	0.90	0.37	-	101,101,101,101	0
55	MG	BA	3381	1/1	0.87	0.36	-	80,80,80,80	0
55	MG	AA	3209	1/1	0.96	0.37	-	81,81,81,81	0
55	MG	AA	3514	1/1	0.94	0.37	-	67,67,67,67	0
55	MG	BA	3264	1/1	0.98	0.25	-	59,59,59,59	0
55	MG	AA	3145	1/1	0.91	0.63	-	91,91,91,91	0
55	MG	AA	3019	1/1	0.97	0.29	-	55,55,55,55	0
55	MG	DA	1749	1/1	0.65	0.25	-	101,101,101,101	0
55	MG	AA	3412	1/1	0.84	0.37	-	110,110,110,110	0
55	MG	BA	3427	1/1	0.78	0.33	-	100,100,100,100	0
55	MG	DA	1731	1/1	0.90	0.43	-	70,70,70,70	0
55	MG	AA	3100	1/1	0.91	0.52	-	67,67,67,67	0
55	MG	BB	211	1/1	0.95	0.31	-	71,71,71,71	0
55	MG	BA	3515	1/1	0.97	0.21	-	59,59,59,59	0
55	MG	DA	1741	1/1	0.90	0.37	-	93,93,93,93	0
55	MG	BA	3249	1/1	0.88	0.21	-	40,40,40,40	0
55	MG	AA	3583	1/1	0.72	0.56	-	103,103,103,103	0
55	MG	CA	1669	1/1	0.93	0.23	-	70,70,70,70	0
55	MG	BA	3457	1/1	0.67	0.24	-	99,99,99,99	0
55	MG	DA	1732	1/1	0.92	0.39	-	94,94,94,94	0
55	MG	BA	3386	1/1	0.84	0.23	-	81,81,81,81	0
55	MG	AA	3280	1/1	0.73	0.34	-	94,94,94,94	0
55	MG	AA	3536	1/1	0.79	0.47	-	92,92,92,92	0
55	MG	BA	3338	1/1	0.85	0.38	-	71,71,71,71	0
55	MG	AA	3121	1/1	0.75	0.71	-	90,90,90,90	0
55	MG	DA	1794	1/1	0.48	0.43	-	91,91,91,91	0
55	MG	AA	3102	1/1	0.88	0.33	-	90,90,90,90	0
55	MG	DA	1725	1/1	0.77	0.39	-	96,96,96,96	0
55	MG	AA	3552	1/1	0.87	0.34	-	83,83,83,83	0
55	MG	BA	3495	1/1	0.82	0.29	-	81,81,81,81	0
55	MG	DA	1660	1/1	0.77	0.24	-	102,102,102,102	0
55	MG	CA	1733	1/1	0.88	0.18	-	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	CA	1644	1/1	0.80	0.21	-	84,84,84,84	0
55	MG	BA	3075	1/1	0.85	0.17	-	99,99,99,99	0
55	MG	AA	3325	1/1	0.49	0.37	-	100,100,100,100	0
55	MG	CA	1642	1/1	0.98	0.32	-	69,69,69,69	0
55	MG	BA	3030	1/1	0.83	0.20	-	99,99,99,99	0
55	MG	AA	3069	1/1	0.91	0.28	-	64,64,64,64	0
55	MG	BA	3195	1/1	0.81	0.40	-	94,94,94,94	0
55	MG	AA	3445	1/1	0.66	0.30	-	95,95,95,95	0
55	MG	AA	3008	1/1	0.97	0.37	-	44,44,44,44	0
55	MG	AA	3292	1/1	0.82	0.39	-	76,76,76,76	0
55	MG	CB	103	1/1	0.85	0.21	-	110,110,110,110	0
55	MG	BA	3021	1/1	0.82	0.35	-	105,105,105,105	0
55	MG	BA	3149	1/1	0.95	0.23	-	72,72,72,72	0
55	MG	DA	1733	1/1	0.92	0.35	-	98,98,98,98	0
55	MG	AA	3033	1/1	0.94	0.33	-	49,49,49,49	0
55	MG	AA	3156	1/1	0.53	0.46	-	94,94,94,94	0
55	MG	BA	3421	1/1	0.71	0.14	-	102,102,102,102	0
55	MG	CC	104	1/1	0.90	0.18	-	97,97,97,97	0
55	MG	BA	3399	1/1	0.44	0.27	-	104,104,104,104	0
55	MG	AA	3199	1/1	0.92	0.48	-	46,46,46,46	0
55	MG	BA	3359	1/1	0.85	0.46	-	98,98,98,98	0
55	MG	AA	3110	1/1	0.99	0.16	-	40,40,40,40	0
55	MG	AA	3362	1/1	0.65	0.36	-	89,89,89,89	0
55	MG	BA	3204	1/1	0.75	0.30	-	74,74,74,74	0
55	MG	DA	1712	1/1	0.73	0.43	-	100,100,100,100	0
55	MG	AD	301	1/1	0.83	0.29	-	99,99,99,99	0
55	MG	DA	1688	1/1	0.67	0.27	-	99,99,99,99	0
55	MG	BA	3004	1/1	0.63	0.27	-	105,105,105,105	0
55	MG	BA	3326	1/1	0.81	0.23	-	84,84,84,84	0
55	MG	AA	3500	1/1	0.81	0.40	-	103,103,103,103	0
55	MG	CA	1769	1/1	0.90	0.09	-	79,79,79,79	0
55	MG	CA	1716	1/1	0.57	0.30	-	117,117,117,117	0
55	MG	AA	3200	1/1	0.89	0.35	-	71,71,71,71	0
55	MG	AA	3240	1/1	0.91	0.32	-	80,80,80,80	0
55	MG	BA	3162	1/1	0.83	0.15	-	92,92,92,92	0
55	MG	CA	1813	1/1	0.69	0.59	-	94,94,94,94	0
55	MG	CA	1830	1/1	0.90	0.33	-	94,94,94,94	0
55	MG	DA	1651	1/1	0.89	0.27	-	72,72,72,72	0
55	MG	DA	1716	1/1	0.88	0.42	-	105,105,105,105	0
55	MG	DA	1691	1/1	0.93	0.49	-	82,82,82,82	0
55	MG	BA	3188	1/1	0.81	0.30	-	85,85,85,85	0
55	MG	AA	3105	1/1	0.90	0.43	-	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3374	1/1	0.75	0.52	-	86,86,86,86	0
55	MG	AA	3029	1/1	0.96	0.20	-	46,46,46,46	0
55	MG	AA	3309	1/1	0.71	0.70	-	90,90,90,90	0
55	MG	AA	3563	1/1	0.93	0.40	-	52,52,52,52	0
55	MG	BA	3471	1/1	0.21	0.38	-	96,96,96,96	0
55	MG	BA	3119	1/1	0.78	0.20	-	79,79,79,79	0
55	MG	BA	3336	1/1	0.50	0.34	-	97,97,97,97	0
55	MG	BA	3171	1/1	0.94	0.24	-	63,63,63,63	0
55	MG	BA	3071	1/1	0.94	0.29	-	78,78,78,78	0
55	MG	BB	210	1/1	0.59	0.38	-	96,96,96,96	0
55	MG	AA	3579	1/1	0.98	0.29	-	39,39,39,39	0
55	MG	AA	3077	1/1	0.70	0.49	-	103,103,103,103	0
55	MG	CQ	102	1/1	0.72	0.25	-	97,97,97,97	0
55	MG	AA	3526	1/1	0.90	0.42	-	90,90,90,90	0
55	MG	DA	1772	1/1	0.83	0.32	-	68,68,68,68	0
55	MG	AA	3516	1/1	0.97	0.32	-	76,76,76,76	0
55	MG	AA	3278	1/1	0.60	0.71	-	100,100,100,100	0
55	MG	AA	3533	1/1	0.91	0.20	-	67,67,67,67	0
55	MG	BA	3159	1/1	0.96	0.23	-	83,83,83,83	0
55	MG	DA	1631	1/1	0.79	0.20	-	102,102,102,102	0
55	MG	BA	3031	1/1	0.83	0.32	-	60,60,60,60	0
55	MG	DB	102	1/1	0.88	0.11	-	107,107,107,107	0
55	MG	BA	3507	1/1	0.45	0.34	-	102,102,102,102	0
55	MG	BA	3258	1/1	0.79	0.34	-	64,64,64,64	0
55	MG	AA	3048	1/1	0.83	0.31	-	86,86,86,86	0
55	MG	AA	3221	1/1	0.87	0.41	-	47,47,47,47	0
55	MG	BA	3493	1/1	0.94	0.27	-	39,39,39,39	0
55	MG	BA	3013	1/1	0.92	0.26	-	74,74,74,74	0
55	MG	AA	3612	1/1	0.47	0.69	-	92,92,92,92	0
55	MG	AA	3049	1/1	0.96	0.36	-	80,80,80,80	0
55	MG	CA	1805	1/1	0.78	0.37	-	75,75,75,75	0
55	MG	AA	3003	1/1	0.98	0.48	-	64,64,64,64	0
55	MG	BA	3008	1/1	0.64	0.32	-	89,89,89,89	0
55	MG	CA	1638	1/1	0.93	0.42	-	108,108,108,108	0
55	MG	CA	1749	1/1	0.95	0.32	-	62,62,62,62	0
55	MG	AA	3605	1/1	0.84	0.58	-	72,72,72,72	0
55	MG	AA	3346	1/1	0.82	0.43	-	88,88,88,88	0
55	MG	BA	3270	1/1	0.78	0.28	-	81,81,81,81	0
55	MG	BA	3373	1/1	0.86	0.40	-	88,88,88,88	0
55	MG	AA	3374	1/1	0.69	0.41	-	74,74,74,74	0
55	MG	CA	1739	1/1	0.81	0.56	-	86,86,86,86	0
55	MG	CA	1828	1/1	0.61	0.23	-	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3213	1/1	0.90	0.26	-	75,75,75,75	0
55	MG	BA	3470	1/1	0.88	0.28	-	81,81,81,81	0
55	MG	BA	3199	1/1	0.91	0.37	-	76,76,76,76	0
55	MG	AA	3198	1/1	0.83	0.65	-	74,74,74,74	0
55	MG	BA	3173	1/1	0.94	0.39	-	50,50,50,50	0
55	MG	BA	3048	1/1	0.89	0.17	-	74,74,74,74	0
55	MG	BA	3243	1/1	0.90	0.26	-	65,65,65,65	0
55	MG	DA	1641	1/1	0.30	0.31	-	95,95,95,95	0
55	MG	BA	3214	1/1	0.93	0.27	-	77,77,77,77	0
55	MG	CA	1811	1/1	0.93	0.33	-	95,95,95,95	0
55	MG	AA	3114	1/1	0.94	0.50	-	56,56,56,56	0
55	MG	BA	3409	1/1	0.96	0.30	-	71,71,71,71	0
55	MG	AA	3546	1/1	0.94	0.25	-	74,74,74,74	0
55	MG	DA	1681	1/1	0.91	0.22	-	106,106,106,106	0
55	MG	AA	3483	1/1	0.88	0.17	-	87,87,87,87	0
55	MG	BA	3521	1/1	0.52	0.33	-	79,79,79,79	0
55	MG	CA	1802	1/1	0.89	0.23	-	77,77,77,77	0
55	MG	BA	3528	1/1	0.85	0.20	-	98,98,98,98	0
55	MG	AA	3443	1/1	0.66	0.34	-	90,90,90,90	0
55	MG	AB	211	1/1	0.81	0.53	-	100,100,100,100	0
55	MG	DC	108	1/1	0.81	0.17	-	102,102,102,102	0
55	MG	DA	1774	1/1	0.51	0.33	-	103,103,103,103	0
55	MG	CA	1793	1/1	0.86	0.15	-	96,96,96,96	0
55	MG	AA	3566	1/1	0.97	0.29	-	27,27,27,27	0
55	MG	BA	3467	1/1	0.67	0.40	-	93,93,93,93	0
55	MG	BA	3104	1/1	0.52	0.35	-	115,115,115,115	0
55	MG	AA	3452	1/1	0.79	0.43	-	76,76,76,76	0
55	MG	AA	3189	1/1	0.85	0.38	-	90,90,90,90	0
55	MG	BA	3064	1/1	0.72	0.24	-	103,103,103,103	0
55	MG	AA	3401	1/1	0.94	0.49	-	93,93,93,93	0
55	MG	AA	3505	1/1	0.89	0.57	-	85,85,85,85	0
55	MG	BA	3307	1/1	0.92	0.35	-	106,106,106,106	0
55	MG	BA	3206	1/1	0.93	0.26	-	98,98,98,98	0
55	MG	CA	1668	1/1	0.82	0.53	-	79,79,79,79	0
55	MG	BA	3424	1/1	0.60	0.63	-	86,86,86,86	0
55	MG	AA	3252	1/1	0.86	0.49	-	94,94,94,94	0
55	MG	AA	3498	1/1	0.52	0.50	-	95,95,95,95	0
55	MG	BA	3273	1/1	0.81	0.34	-	102,102,102,102	0
55	MG	AA	3364	1/1	0.78	0.34	-	69,69,69,69	0
55	MG	CA	1721	1/1	0.89	0.28	-	89,89,89,89	0
55	MG	AA	3520	1/1	0.94	0.27	-	68,68,68,68	0
55	MG	CA	1837	1/1	0.90	0.25	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	1647	1/1	0.99	0.18	-	71,71,71,71	0
55	MG	CA	1829	1/1	0.84	0.22	-	102,102,102,102	0
55	MG	BA	3268	1/1	0.99	0.15	-	59,59,59,59	0
55	MG	BA	3352	1/1	0.96	0.42	-	102,102,102,102	0
55	MG	CA	1647	1/1	0.69	0.21	-	92,92,92,92	0
55	MG	CA	1698	1/1	0.84	0.26	-	89,89,89,89	0
55	MG	CA	1614	1/1	0.92	0.32	-	101,101,101,101	0
55	MG	AA	3250	1/1	0.81	0.33	-	99,99,99,99	0
55	MG	AA	3115	1/1	0.96	0.55	-	70,70,70,70	0
55	MG	AA	3224	1/1	-0.03	0.45	-	93,93,93,93	0
55	MG	CC	103	1/1	0.91	0.39	-	104,104,104,104	0
55	MG	AA	3279	1/1	0.32	0.32	-	89,89,89,89	0
55	MG	CA	1624	1/1	0.91	0.19	-	97,97,97,97	0
55	MG	C1	101	1/1	0.62	0.49	-	98,98,98,98	0
55	MG	CA	1808	1/1	0.78	0.26	-	67,67,67,67	0
55	MG	BA	3339	1/1	0.66	0.20	-	90,90,90,90	0
55	MG	BA	3172	1/1	0.82	0.31	-	85,85,85,85	0
55	MG	AA	3486	1/1	0.66	0.35	-	90,90,90,90	0
55	MG	BA	3443	1/1	0.85	0.23	-	92,92,92,92	0
55	MG	DA	1698	1/1	0.77	0.48	-	103,103,103,103	0
55	MG	AA	3465	1/1	0.84	0.32	-	71,71,71,71	0
55	MG	B3	101	1/1	0.86	0.21	-	76,76,76,76	0
55	MG	AA	3357	1/1	0.63	0.58	-	99,99,99,99	0
55	MG	AA	3065	1/1	0.89	0.42	-	88,88,88,88	0
55	MG	AA	3447	1/1	0.91	0.59	-	75,75,75,75	0
55	MG	AA	3103	1/1	0.91	0.39	-	97,97,97,97	0
55	MG	AA	3299	1/1	0.90	0.34	-	79,79,79,79	0
55	MG	AA	3490	1/1	0.71	0.58	-	97,97,97,97	0
55	MG	CA	1800	1/1	0.62	0.17	-	104,104,104,104	0
55	MG	CA	1818	1/1	0.89	0.25	-	89,89,89,89	0
55	MG	AA	3411	1/1	0.83	0.50	-	85,85,85,85	0
55	MG	DA	1778	1/1	0.72	0.25	-	118,118,118,118	0
55	MG	BA	3027	1/1	0.36	0.24	-	107,107,107,107	0
55	MG	DA	1634	1/1	0.91	0.24	-	77,77,77,77	0
55	MG	CA	1630	1/1	0.81	0.28	-	112,112,112,112	0
55	MG	DA	1630	1/1	0.87	0.26	-	102,102,102,102	0
55	MG	AA	3290	1/1	0.87	0.42	-	72,72,72,72	0
55	MG	CA	1755	1/1	0.84	0.26	-	81,81,81,81	0
55	MG	AA	3237	1/1	0.81	0.45	-	83,83,83,83	0
55	MG	BA	3425	1/1	0.94	0.49	-	85,85,85,85	0
55	MG	DA	1706	1/1	0.96	0.61	-	90,90,90,90	0
55	MG	CA	1771	1/1	0.82	0.22	-	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3615	1/1	0.83	0.32	-	102,102,102,102	0
55	MG	AA	3365	1/1	0.77	0.38	-	74,74,74,74	0
55	MG	DA	1665	1/1	0.92	0.37	-	82,82,82,82	0
55	MG	BA	3117	1/1	0.76	0.39	-	91,91,91,91	0
55	MG	AA	3311	1/1	0.91	0.57	-	68,68,68,68	0
55	MG	AA	3256	1/1	0.75	0.39	-	66,66,66,66	0
55	MG	BA	3511	1/1	0.95	0.21	-	68,68,68,68	0
55	MG	AA	3479	1/1	0.72	0.21	-	94,94,94,94	0
55	MG	AA	3453	1/1	0.86	0.30	-	95,95,95,95	0
55	MG	AA	3618	1/1	0.84	0.54	-	97,97,97,97	0
55	MG	AA	3560	1/1	0.67	0.35	-	87,87,87,87	0
55	MG	DA	1783	1/1	0.88	0.33	-	86,86,86,86	0
55	MG	BA	3479	1/1	0.82	0.35	-	95,95,95,95	0
55	MG	AA	3297	1/1	0.88	0.39	-	69,69,69,69	0
55	MG	AA	3502	1/1	0.79	0.66	-	96,96,96,96	0
55	MG	AA	3522	1/1	0.50	0.55	-	97,97,97,97	0
55	MG	CA	1660	1/1	0.98	0.38	-	64,64,64,64	0
55	MG	BA	3293	1/1	0.69	0.22	-	96,96,96,96	0
55	MG	AA	3013	1/1	0.94	0.34	-	44,44,44,44	0
55	MG	BA	3205	1/1	0.86	0.24	-	70,70,70,70	0
55	MG	BA	3402	1/1	0.75	0.32	-	95,95,95,95	0
55	MG	DA	1659	1/1	0.89	0.12	-	80,80,80,80	0
55	MG	BA	3455	1/1	0.83	0.18	-	92,92,92,92	0
55	MG	AA	3097	1/1	0.66	0.59	-	106,106,106,106	0
55	MG	DS	101	1/1	0.76	0.48	-	87,87,87,87	0
55	MG	BA	3111	1/1	0.77	0.20	-	82,82,82,82	0
55	MG	AA	3418	1/1	0.76	0.30	-	91,91,91,91	0
55	MG	BA	3418	1/1	0.94	0.17	-	73,73,73,73	0
55	MG	DA	1614	1/1	0.81	0.54	-	93,93,93,93	0
55	MG	CB	104	1/1	0.54	0.36	-	101,101,101,101	0
55	MG	DA	1669	1/1	0.87	0.46	-	68,68,68,68	0
55	MG	AA	3385	1/1	0.23	0.54	-	88,88,88,88	0
55	MG	AA	3143	1/1	0.95	0.38	-	35,35,35,35	0
55	MG	BA	3240	1/1	0.90	0.33	-	72,72,72,72	0
55	MG	A5	101	1/1	0.92	0.22	-	51,51,51,51	0
55	MG	BA	3049	1/1	0.89	0.23	-	86,86,86,86	0
55	MG	AE	302	1/1	0.97	0.41	-	45,45,45,45	0
55	MG	DA	1707	1/1	0.86	0.25	-	95,95,95,95	0
55	MG	AA	3604	1/1	0.56	0.46	-	93,93,93,93	0
55	MG	AA	3127	1/1	0.97	0.38	-	53,53,53,53	0
55	MG	BA	3485	1/1	0.97	0.28	-	46,46,46,46	0
55	MG	CC	101	1/1	0.72	0.30	-	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	CA	1689	1/1	0.66	0.22	-	115,115,115,115	0
55	MG	AA	3495	1/1	0.85	0.60	-	90,90,90,90	0
55	MG	BA	3057	1/1	0.73	0.20	-	97,97,97,97	0
55	MG	AA	3493	1/1	0.77	0.33	-	92,92,92,92	0
55	MG	AA	3067	1/1	0.71	0.52	-	108,108,108,108	0
55	MG	AA	3238	1/1	0.83	0.52	-	82,82,82,82	0
55	MG	AA	3507	1/1	0.83	0.49	-	99,99,99,99	0
55	MG	AA	3166	1/1	0.95	0.38	-	53,53,53,53	0
55	MG	DA	1742	1/1	0.96	0.26	-	82,82,82,82	0
55	MG	AA	3230	1/1	0.97	0.10	-	34,34,34,34	0
55	MG	BA	3126	1/1	0.95	0.21	-	51,51,51,51	0
55	MG	CA	1816	1/1	0.71	0.20	-	95,95,95,95	0
55	MG	AA	3383	1/1	0.92	0.30	-	85,85,85,85	0
55	MG	CA	1748	1/1	0.78	0.38	-	87,87,87,87	0
55	MG	AA	3210	1/1	0.91	0.43	-	72,72,72,72	0
55	MG	BA	3442	1/1	0.75	0.37	-	91,91,91,91	0
55	MG	AA	3244	1/1	0.94	0.44	-	45,45,45,45	0
55	MG	AA	3184	1/1	0.81	0.39	-	94,94,94,94	0
55	MG	BA	3011	1/1	0.97	0.29	-	65,65,65,65	0
55	MG	AA	3339	1/1	0.95	0.35	-	85,85,85,85	0
55	MG	BA	3405	1/1	0.81	0.23	-	87,87,87,87	0
55	MG	BA	3289	1/1	0.77	0.44	-	70,70,70,70	0
55	MG	CA	1693	1/1	0.17	0.37	-	102,102,102,102	0
55	MG	CA	1807	1/1	0.93	0.38	-	64,64,64,64	0
55	MG	CG	301	1/1	0.50	0.49	-	94,94,94,94	0
55	MG	AA	3515	1/1	0.81	0.37	-	77,77,77,77	0
55	MG	AA	3005	1/1	0.96	0.30	-	25,25,25,25	0
55	MG	BA	3462	1/1	0.89	0.11	-	123,123,123,123	0
55	MG	CA	1652	1/1	0.75	0.30	-	93,93,93,93	0
55	MG	CA	1758	1/1	0.50	0.40	-	97,97,97,97	0
55	MG	AA	3441	1/1	0.53	0.60	-	101,101,101,101	0
55	MG	AA	3422	1/1	0.90	0.47	-	106,106,106,106	0
55	MG	AA	3028	1/1	0.96	0.38	-	54,54,54,54	0
55	MG	DA	1797	1/1	0.86	0.34	-	85,85,85,85	0
55	MG	CA	1745	1/1	0.51	0.37	-	95,95,95,95	0
55	MG	AA	3023	1/1	0.98	0.55	-	56,56,56,56	0
55	MG	BA	3193	1/1	0.53	0.34	-	102,102,102,102	0
55	MG	AA	3621	1/1	0.94	0.46	-	91,91,91,91	0
55	MG	BA	3395	1/1	0.41	0.21	-	89,89,89,89	0
55	MG	BA	3340	1/1	0.89	0.16	-	84,84,84,84	0
55	MG	CA	1685	1/1	0.74	0.27	-	103,103,103,103	0
55	MG	CA	1643	1/1	0.93	0.39	-	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3414	1/1	0.88	0.48	-	94,94,94,94	0
55	MG	AA	3063	1/1	0.87	0.30	-	85,85,85,85	0
55	MG	BA	3039	1/1	0.72	0.32	-	85,85,85,85	0
55	MG	BA	3084	1/1	0.85	0.15	-	99,99,99,99	0
55	MG	AA	3317	1/1	0.84	0.41	-	85,85,85,85	0
55	MG	AB	208	1/1	0.69	0.33	-	92,92,92,92	0
55	MG	CA	1694	1/1	0.12	0.60	-	104,104,104,104	0
55	MG	AA	3573	1/1	0.96	0.34	-	31,31,31,31	0
55	MG	DA	1602	1/1	0.76	0.33	-	85,85,85,85	0
55	MG	BA	3025	1/1	0.87	0.13	-	80,80,80,80	0
55	MG	AA	3542	1/1	0.80	0.37	-	93,93,93,93	0
55	MG	AA	3050	1/1	0.90	0.76	-	108,108,108,108	0
55	MG	CA	1740	1/1	0.93	0.38	-	72,72,72,72	0
55	MG	BA	3392	1/1	0.66	0.21	-	85,85,85,85	0
55	MG	CA	1757	1/1	0.55	0.43	-	92,92,92,92	0
55	MG	BA	3441	1/1	0.68	0.34	-	93,93,93,93	0
55	MG	CA	1688	1/1	0.85	0.23	-	77,77,77,77	0
55	MG	BA	3043	1/1	0.78	0.22	-	108,108,108,108	0
55	MG	BA	3305	1/1	0.76	0.33	-	76,76,76,76	0
55	MG	BA	3343	1/1	0.84	0.24	-	75,75,75,75	0
55	MG	DA	1757	1/1	0.59	0.32	-	104,104,104,104	0
55	MG	AA	3371	1/1	0.79	0.43	-	89,89,89,89	0
55	MG	CA	1776	1/1	0.52	0.49	-	79,79,79,79	0
55	MG	AA	3035	1/1	0.99	0.30	-	45,45,45,45	0
55	MG	BA	3437	1/1	0.94	0.35	-	73,73,73,73	0
55	MG	BA	3065	1/1	0.73	0.44	-	101,101,101,101	0
55	MG	AA	3161	1/1	0.96	0.33	-	42,42,42,42	0
55	MG	BA	3478	1/1	0.57	0.39	-	92,92,92,92	0
55	MG	AA	3122	1/1	0.89	0.20	-	84,84,84,84	0
55	MG	DA	1694	1/1	0.90	0.60	-	84,84,84,84	0
55	MG	AB	209	1/1	0.79	0.50	-	108,108,108,108	0
55	MG	AA	3327	1/1	0.98	0.52	-	84,84,84,84	0
55	MG	BA	3450	1/1	0.87	0.31	-	99,99,99,99	0
55	MG	DA	1692	1/1	0.93	0.40	-	81,81,81,81	0
55	MG	AA	3416	1/1	0.41	0.45	-	95,95,95,95	0
55	MG	DA	1612	1/1	0.95	0.14	-	73,73,73,73	0
55	MG	BB	204	1/1	0.86	0.33	-	90,90,90,90	0
55	MG	BA	3060	1/1	0.95	0.17	-	51,51,51,51	0
55	MG	AA	3334	1/1	0.76	0.70	-	76,76,76,76	0
55	MG	AA	3597	1/1	0.96	0.17	-	91,91,91,91	0
55	MG	AA	3434	1/1	0.96	0.50	-	44,44,44,44	0
55	MG	BA	3096	1/1	0.88	0.19	-	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3503	1/1	0.81	0.47	-	81,81,81,81	0
55	MG	BA	3319	1/1	0.95	0.43	-	68,68,68,68	0
55	MG	BA	3165	1/1	0.77	0.34	-	42,42,42,42	0
55	MG	AA	3446	1/1	0.55	0.40	-	93,93,93,93	0
55	MG	CA	1705	1/1	0.91	0.16	-	95,95,95,95	0
55	MG	BA	3382	1/1	0.73	0.24	-	89,89,89,89	0
55	MG	AA	3555	1/1	0.89	0.19	-	67,67,67,67	0
55	MG	AA	3091	1/1	0.88	0.43	-	78,78,78,78	0
55	MG	CA	1781	1/1	0.94	0.38	-	62,62,62,62	0
55	MG	AA	3348	1/1	0.86	0.25	-	94,94,94,94	0
55	MG	BA	3299	1/1	0.64	0.21	-	82,82,82,82	0
55	MG	CA	1699	1/1	0.94	0.11	-	63,63,63,63	0
55	MG	BA	3314	1/1	0.95	0.29	-	71,71,71,71	0
55	MG	AA	3373	1/1	0.72	0.44	-	106,106,106,106	0
55	MG	BA	3348	1/1	0.80	0.32	-	98,98,98,98	0
55	MG	AA	3436	1/1	0.98	0.46	-	66,66,66,66	0
55	MG	BA	3463	1/1	0.37	0.29	-	114,114,114,114	0
55	MG	DA	1605	1/1	0.91	0.43	-	82,82,82,82	0
55	MG	CQ	101	1/1	0.89	0.18	-	102,102,102,102	0
55	MG	CA	1787	1/1	0.71	0.29	-	100,100,100,100	0
55	MG	DA	1730	1/1	0.83	0.42	-	102,102,102,102	0
55	MG	AA	3358	1/1	0.77	0.68	-	89,89,89,89	0
55	MG	AA	3270	1/1	0.68	0.30	-	69,69,69,69	0
55	MG	BA	3397	1/1	0.62	0.32	-	96,96,96,96	0
55	MG	DA	1711	1/1	0.68	0.41	-	89,89,89,89	0
55	MG	AA	3458	1/1	0.88	0.26	-	70,70,70,70	0
55	MG	BA	3391	1/1	0.76	0.29	-	95,95,95,95	0
55	MG	CA	1713	1/1	0.92	0.29	-	83,83,83,83	0
55	MG	DA	1717	1/1	0.71	0.19	-	103,103,103,103	0
55	MG	BA	3201	1/1	0.86	0.22	-	94,94,94,94	0
55	MG	AA	3011	1/1	0.95	0.37	-	37,37,37,37	0
55	MG	BA	3302	1/1	0.86	0.36	-	75,75,75,75	0
55	MG	CA	1683	1/1	0.76	0.32	-	104,104,104,104	0
55	MG	DA	1745	1/1	0.72	0.24	-	106,106,106,106	0
55	MG	BA	3093	1/1	0.79	0.17	-	78,78,78,78	0
55	MG	BA	3210	1/1	0.98	0.37	-	55,55,55,55	0
55	MG	AA	3129	1/1	0.92	0.45	-	73,73,73,73	0
55	MG	CA	1687	1/1	0.80	0.29	-	78,78,78,78	0
55	MG	A2	201	1/1	0.82	0.50	-	101,101,101,101	0
55	MG	AA	3456	1/1	0.48	0.42	-	91,91,91,91	0
55	MG	AA	3366	1/1	0.50	0.55	-	92,92,92,92	0
55	MG	AA	3251	1/1	0.82	0.34	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3118	1/1	0.64	0.41	-	87,87,87,87	0
55	MG	AA	3131	1/1	0.83	0.20	-	90,90,90,90	0
55	MG	DA	1687	1/1	0.91	0.39	-	72,72,72,72	0
55	MG	AA	3543	1/1	0.90	0.45	-	46,46,46,46	0
55	MG	AA	3090	1/1	0.95	0.30	-	45,45,45,45	0
55	MG	AB	205	1/1	0.91	0.38	-	83,83,83,83	0
55	MG	CA	1770	1/1	0.54	0.32	-	90,90,90,90	0
55	MG	AA	3496	1/1	0.85	0.49	-	87,87,87,87	0
55	MG	A7	101	1/1	0.87	0.38	-	60,60,60,60	0
55	MG	BA	3101	1/1	0.65	0.25	-	94,94,94,94	0
55	MG	CA	1664	1/1	0.97	0.13	-	47,47,47,47	0
55	MG	AA	3227	1/1	0.80	0.63	-	90,90,90,90	0
55	MG	AA	3073	1/1	0.52	0.57	-	97,97,97,97	0
55	MG	BA	3257	1/1	0.89	0.56	-	86,86,86,86	0
55	MG	BA	3459	1/1	0.60	0.22	-	115,115,115,115	0
55	MG	AA	3504	1/1	0.92	0.41	-	80,80,80,80	0
55	MG	BA	3073	1/1	0.67	0.41	-	99,99,99,99	0
55	MG	CA	1625	1/1	0.87	0.18	-	71,71,71,71	0
55	MG	CA	1695	1/1	0.87	0.36	-	90,90,90,90	0
55	MG	DA	1695	1/1	0.86	0.43	-	88,88,88,88	0
55	MG	BB	213	1/1	0.77	0.45	-	97,97,97,97	0
55	MG	AA	3501	1/1	0.54	0.44	-	99,99,99,99	0
55	MG	AA	3470	1/1	0.84	0.52	-	96,96,96,96	0
55	MG	AA	3424	1/1	0.85	0.48	-	54,54,54,54	0
55	MG	CA	1613	1/1	0.53	0.17	-	94,94,94,94	0
55	MG	A3	101	1/1	0.71	0.42	-	74,74,74,74	0
55	MG	DA	1775	1/1	0.85	0.41	-	102,102,102,102	0
55	MG	BA	3005	1/1	0.87	0.29	-	70,70,70,70	0
55	MG	DA	1671	1/1	0.84	0.41	-	77,77,77,77	0
55	MG	AA	3171	1/1	0.76	0.33	-	84,84,84,84	0
55	MG	BA	3371	1/1	0.23	0.16	-	129,129,129,129	0
55	MG	BA	3088	1/1	0.78	0.20	-	94,94,94,94	0
55	MG	BA	3079	1/1	0.84	0.18	-	82,82,82,82	0
55	MG	BA	3351	1/1	0.87	0.47	-	81,81,81,81	0
55	MG	CA	1838	1/1	0.89	0.14	-	103,103,103,103	0
55	MG	CA	1727	1/1	0.54	0.27	-	103,103,103,103	0
55	MG	BA	3130	1/1	0.93	0.25	-	44,44,44,44	0
55	MG	AA	3376	1/1	0.75	0.62	-	85,85,85,85	0
55	MG	BA	3341	1/1	0.81	0.43	-	82,82,82,82	0
55	MG	BA	3308	1/1	0.86	0.22	-	108,108,108,108	0
55	MG	DA	1618	1/1	0.68	0.31	-	104,104,104,104	0
55	MG	AA	3607	1/1	0.97	0.36	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3028	1/1	0.95	0.50	-	85,85,85,85	0
55	MG	BA	3502	1/1	0.83	0.19	-	91,91,91,91	0
55	MG	DA	1800	1/1	0.65	0.33	-	99,99,99,99	0
55	MG	AA	3380	1/1	0.91	0.20	-	96,96,96,96	0
55	MG	AA	3300	1/1	0.91	0.44	-	81,81,81,81	0
55	MG	AA	3289	1/1	0.83	0.55	-	84,84,84,84	0
55	MG	AA	3152	1/1	0.94	0.54	-	58,58,58,58	0
55	MG	AA	3208	1/1	0.90	0.23	-	44,44,44,44	0
55	MG	DA	1666	1/1	0.92	0.35	-	115,115,115,115	0
55	MG	AA	3596	1/1	0.90	0.49	-	93,93,93,93	0
55	MG	AA	3587	1/1	0.85	0.55	-	77,77,77,77	0
55	MG	CA	1726	1/1	0.79	0.26	-	103,103,103,103	0
55	MG	BA	3074	1/1	0.80	0.20	-	83,83,83,83	0
55	MG	DA	1603	1/1	0.84	0.44	-	89,89,89,89	0
55	MG	DA	1714	1/1	0.65	0.29	-	105,105,105,105	0
55	MG	AB	216	1/1	0.82	0.35	-	106,106,106,106	0
55	MG	BB	208	1/1	0.31	0.42	-	107,107,107,107	0
55	MG	AA	3326	1/1	0.92	0.31	-	64,64,64,64	0
55	MG	AA	3582	1/1	0.88	0.31	-	44,44,44,44	0
55	MG	BA	3022	1/1	0.94	0.23	-	75,75,75,75	0
55	MG	CA	1788	1/1	0.61	0.15	-	105,105,105,105	0
55	MG	CA	1707	1/1	0.85	0.38	-	78,78,78,78	0
55	MG	CA	1681	1/1	0.68	0.35	-	80,80,80,80	0
55	MG	BA	3330	1/1	0.84	0.39	-	91,91,91,91	0
55	MG	BA	3251	1/1	0.93	0.24	-	81,81,81,81	0
55	MG	AA	3539	1/1	0.98	0.30	-	49,49,49,49	0
55	MG	DA	1633	1/1	0.80	0.32	-	88,88,88,88	0
55	MG	AA	3372	1/1	0.65	0.28	-	87,87,87,87	0
55	MG	AA	3060	1/1	0.67	0.43	-	84,84,84,84	0
55	MG	DA	1623	1/1	0.73	0.38	-	96,96,96,96	0
55	MG	AA	3474	1/1	0.91	0.34	-	65,65,65,65	0
55	MG	BA	3047	1/1	0.79	0.18	-	80,80,80,80	0
55	MG	CC	102	1/1	0.83	0.29	-	69,69,69,69	0
55	MG	AA	3340	1/1	0.68	0.38	-	83,83,83,83	0
55	MG	AA	3147	1/1	0.93	0.54	-	89,89,89,89	0
55	MG	AA	3075	1/1	0.59	0.61	-	85,85,85,85	0
55	MG	BA	3477	1/1	0.72	0.25	-	94,94,94,94	0
55	MG	AA	3477	1/1	0.95	0.60	-	86,86,86,86	0
55	MG	AA	3157	1/1	0.94	0.45	-	39,39,39,39	0
55	MG	DA	1601	1/1	0.83	0.16	-	107,107,107,107	0
55	MG	BA	3089	1/1	0.74	0.27	-	83,83,83,83	0
55	MG	AA	3562	1/1	0.86	0.30	-	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3175	1/1	0.63	0.22	-	100,100,100,100	0
55	MG	AA	3148	1/1	0.54	0.59	-	83,83,83,83	0
55	MG	BA	3072	1/1	0.87	0.26	-	104,104,104,104	0
55	MG	AA	3389	1/1	0.94	0.56	-	72,72,72,72	0
55	MG	AA	3601	1/1	0.72	0.23	-	86,86,86,86	0
55	MG	CA	1814	1/1	0.84	0.28	-	86,86,86,86	0
55	MG	DA	1764	1/1	0.65	0.41	-	85,85,85,85	0
55	MG	CB	105	1/1	0.78	0.12	-	113,113,113,113	0
55	MG	AA	3312	1/1	0.95	0.46	-	76,76,76,76	0
55	MG	AA	3294	1/1	0.78	0.77	-	93,93,93,93	0
55	MG	CB	101	1/1	0.71	0.32	-	108,108,108,108	0
55	MG	BA	3456	1/1	0.94	0.23	-	88,88,88,88	0
55	MG	DA	1729	1/1	0.94	0.46	-	84,84,84,84	0
55	MG	BA	3292	1/1	0.94	0.36	-	51,51,51,51	0
55	MG	CA	1603	1/1	0.98	0.20	-	73,73,73,73	0
55	MG	BA	3300	1/1	0.95	0.38	-	56,56,56,56	0
55	MG	AA	3142	1/1	0.96	0.22	-	71,71,71,71	0
55	MG	AA	3354	1/1	0.57	0.38	-	84,84,84,84	0
55	MG	CA	1799	1/1	0.77	0.38	-	95,95,95,95	0
55	MG	CA	1673	1/1	0.94	0.40	-	76,76,76,76	0
55	MG	CA	1686	1/1	0.89	0.37	-	86,86,86,86	0
55	MG	AA	3337	1/1	0.88	0.45	-	99,99,99,99	0
55	MG	CA	1615	1/1	0.65	0.32	-	104,104,104,104	0
55	MG	AA	3286	1/1	0.57	0.46	-	86,86,86,86	0
55	MG	AA	3025	1/1	0.97	0.39	-	40,40,40,40	0
55	MG	BA	3394	1/1	0.68	0.43	-	88,88,88,88	0
55	MG	BA	3475	1/1	0.60	0.32	-	90,90,90,90	0
55	MG	BA	3099	1/1	0.74	0.20	-	98,98,98,98	0
55	MG	AA	3130	1/1	0.98	0.22	-	67,67,67,67	0
55	MG	AA	3066	1/1	0.95	0.53	-	48,48,48,48	0
55	MG	BA	3003	1/1	0.54	0.50	-	99,99,99,99	0
55	MG	CA	1796	1/1	0.97	0.44	-	82,82,82,82	0
55	MG	DA	1613	1/1	0.67	0.42	-	88,88,88,88	0
55	MG	AA	3478	1/1	0.90	0.31	-	75,75,75,75	0
55	MG	AA	3080	1/1	0.50	0.57	-	104,104,104,104	0
55	MG	BB	215	1/1	0.69	0.17	-	101,101,101,101	0
55	MG	BA	3108	1/1	0.78	0.40	-	99,99,99,99	0
55	MG	AA	3454	1/1	0.89	0.56	-	94,94,94,94	0
55	MG	AA	3158	1/1	0.83	0.35	-	68,68,68,68	0
55	MG	AA	3611	1/1	0.87	0.26	-	100,100,100,100	0
55	MG	BA	3414	1/1	0.87	0.18	-	92,92,92,92	0
55	MG	BA	3194	1/1	0.94	0.38	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3492	1/1	0.66	0.32	-	94,94,94,94	0
55	MG	AA	3163	1/1	0.80	0.31	-	55,55,55,55	0
55	MG	AA	3353	1/1	0.77	0.52	-	86,86,86,86	0
55	MG	BA	3472	1/1	0.36	0.44	-	83,83,83,83	0
55	MG	AA	3231	1/1	0.76	0.54	-	106,106,106,106	0
55	MG	BA	3244	1/1	0.95	0.34	-	54,54,54,54	0
55	MG	BA	3438	1/1	0.84	0.23	-	88,88,88,88	0
55	MG	AA	3225	1/1	0.79	0.44	-	95,95,95,95	0
55	MG	AA	3553	1/1	0.89	0.35	-	87,87,87,87	0
55	MG	BA	3078	1/1	0.28	0.23	-	95,95,95,95	0
55	MG	AA	3140	1/1	0.89	0.39	-	67,67,67,67	0
55	MG	CA	1825	1/1	0.96	0.07	-	114,114,114,114	0
55	MG	AA	3180	1/1	0.93	0.52	-	64,64,64,64	0
55	MG	BA	3132	1/1	0.99	0.25	-	54,54,54,54	0
55	MG	DA	1785	1/1	0.60	0.30	-	93,93,93,93	0
55	MG	AA	3321	1/1	0.94	0.33	-	65,65,65,65	0
55	MG	AA	3437	1/1	0.63	0.47	-	122,122,122,122	0
55	MG	CA	1765	1/1	0.73	0.25	-	109,109,109,109	0
55	MG	BA	3513	1/1	0.67	0.23	-	104,104,104,104	0
55	MG	CA	1612	1/1	0.75	0.23	-	102,102,102,102	0
55	MG	AA	3149	1/1	0.93	0.37	-	57,57,57,57	0
55	MG	BA	3401	1/1	0.66	0.21	-	100,100,100,100	0
55	MG	BA	3261	1/1	0.95	0.38	-	65,65,65,65	0
55	MG	DA	1661	1/1	0.75	0.50	-	98,98,98,98	0
55	MG	AA	3476	1/1	0.97	0.63	-	79,79,79,79	0
55	MG	BA	3313	1/1	0.71	0.20	-	106,106,106,106	0
55	MG	AA	3318	1/1	0.96	0.30	-	92,92,92,92	0
55	MG	AA	3442	1/1	0.74	0.37	-	78,78,78,78	0
55	MG	BA	3085	1/1	0.85	0.34	-	74,74,74,74	0
55	MG	CA	1662	1/1	0.68	0.43	-	81,81,81,81	0
55	MG	CA	1751	1/1	0.92	0.23	-	78,78,78,78	0
55	MG	AA	3207	1/1	0.81	0.21	-	50,50,50,50	0
55	MG	CA	1696	1/1	0.93	0.39	-	90,90,90,90	0
55	MG	BA	3423	1/1	0.56	0.42	-	91,91,91,91	0
55	MG	DA	1704	1/1	0.95	0.48	-	87,87,87,87	0
55	MG	AA	3319	1/1	0.57	0.33	-	94,94,94,94	0
55	MG	BA	3040	1/1	0.78	0.20	-	94,94,94,94	0
55	MG	AA	3457	1/1	0.93	0.56	-	64,64,64,64	0
55	MG	CA	1734	1/1	0.80	0.51	-	86,86,86,86	0
55	MG	BB	205	1/1	0.90	0.21	-	86,86,86,86	0
55	MG	AA	3215	1/1	0.81	0.32	-	79,79,79,79	0
55	MG	AA	3202	1/1	0.96	0.29	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
55	MG	BA	3439	1/1	0.86	0.23	-	103,103,103,103	0
55	MG	BA	3105	1/1	0.69	0.24	-	81,81,81,81	0
55	MG	DA	1724	1/1	0.97	0.45	-	72,72,72,72	0
55	MG	AA	3463	1/1	0.77	0.42	-	90,90,90,90	0
55	MG	BA	3253	1/1	0.93	0.42	-	66,66,66,66	0
55	MG	AA	3043	1/1	0.91	0.37	-	108,108,108,108	0
55	MG	DA	1771	1/1	0.82	0.29	-	114,114,114,114	0
55	MG	CA	1671	1/1	0.89	0.27	-	72,72,72,72	0
55	MG	AA	3589	1/1	0.82	0.38	-	60,60,60,60	0
55	MG	BA	3411	1/1	0.82	0.35	-	83,83,83,83	0
55	MG	AA	3472	1/1	0.93	0.67	-	80,80,80,80	0
55	MG	AA	3108	1/1	0.72	0.49	-	66,66,66,66	0
55	MG	BA	3212	1/1	0.84	0.49	-	70,70,70,70	0
55	MG	AA	3468	1/1	0.82	0.29	-	95,95,95,95	0
55	MG	CA	1795	1/1	0.88	0.30	-	68,68,68,68	0
55	MG	AA	3260	1/1	0.77	0.54	-	91,91,91,91	0
55	MG	AA	3451	1/1	0.82	0.38	-	76,76,76,76	0
55	MG	BA	3520	1/1	0.58	0.32	-	101,101,101,101	0
55	MG	DA	1619	1/1	0.89	0.33	-	77,77,77,77	0
55	MG	AA	3185	1/1	0.68	0.60	-	88,88,88,88	0
55	MG	CT	201	1/1	0.84	0.32	-	102,102,102,102	0
55	MG	AA	3397	1/1	0.57	0.46	-	95,95,95,95	0
55	MG	BP	201	1/1	0.92	0.18	-	65,65,65,65	0
55	MG	AA	3387	1/1	0.93	0.64	-	80,80,80,80	0
55	MG	CA	1834	1/1	0.77	0.33	-	90,90,90,90	0
55	MG	AA	3036	1/1	0.95	0.21	-	39,39,39,39	0
55	MG	BA	3226	1/1	0.64	0.45	-	82,82,82,82	0
55	MG	AO	202	1/1	0.89	0.60	-	80,80,80,80	0
55	MG	BA	3051	1/1	0.47	0.33	-	90,90,90,90	0
55	MG	BA	3235	1/1	0.68	0.44	-	74,74,74,74	0
55	MG	AA	3491	1/1	0.88	0.45	-	85,85,85,85	0
55	MG	BA	3192	1/1	0.90	0.35	-	72,72,72,72	0
55	MG	BA	3306	1/1	0.89	0.25	-	86,86,86,86	0
55	MG	AA	3173	1/1	0.78	0.34	-	67,67,67,67	0
55	MG	DA	1639	1/1	0.79	0.34	-	78,78,78,78	0
55	MG	DA	1615	1/1	0.70	0.32	-	96,96,96,96	0
55	MG	AA	3511	1/1	0.82	0.70	-	98,98,98,98	0
55	MG	DA	1746	1/1	0.71	0.25	-	104,104,104,104	0
55	MG	AA	3427	1/1	0.97	0.38	-	82,82,82,82	0
55	MG	BA	3083	1/1	0.88	0.21	-	92,92,92,92	0
55	MG	BA	3161	1/1	0.89	0.30	-	89,89,89,89	0
55	MG	BA	3098	1/1	0.53	0.25	-	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3101	1/1	0.97	0.32	-	79,79,79,79	0
55	MG	BA	3379	1/1	0.61	0.32	-	84,84,84,84	0
55	MG	BA	3063	1/1	0.68	0.30	-	89,89,89,89	0
55	MG	BA	3216	1/1	0.99	0.28	-	56,56,56,56	0
55	MG	BA	3087	1/1	0.92	0.41	-	80,80,80,80	0
55	MG	CA	1791	1/1	0.86	0.17	-	97,97,97,97	0
55	MG	CA	1737	1/1	0.79	0.26	-	92,92,92,92	0
55	MG	AA	3425	1/1	0.55	0.33	-	94,94,94,94	0
55	MG	BA	3056	1/1	0.67	0.25	-	96,96,96,96	0
55	MG	AA	3390	1/1	0.70	0.40	-	109,109,109,109	0
55	MG	BA	3413	1/1	0.56	0.53	-	94,94,94,94	0
55	MG	DA	1679	1/1	0.92	0.33	-	64,64,64,64	0
55	MG	BA	3335	1/1	0.84	0.12	-	100,100,100,100	0
55	MG	DA	1637	1/1	0.82	0.30	-	97,97,97,97	0
55	MG	AB	206	1/1	0.86	0.48	-	93,93,93,93	0
55	MG	AA	3271	1/1	0.87	0.36	-	92,92,92,92	0
55	MG	DH	201	1/1	0.80	0.18	-	105,105,105,105	0
55	MG	DA	1672	1/1	0.96	0.32	-	63,63,63,63	0
55	MG	AA	3287	1/1	0.91	0.28	-	69,69,69,69	0
55	MG	AA	3439	1/1	0.75	0.40	-	97,97,97,97	0
55	MG	AA	3089	1/1	0.89	0.54	-	64,64,64,64	0
55	MG	AA	3528	1/1	0.95	0.49	-	76,76,76,76	0
55	MG	BA	3337	1/1	0.77	0.34	-	100,100,100,100	0
55	MG	AA	3188	1/1	0.91	0.51	-	57,57,57,57	0
55	MG	AA	3444	1/1	0.83	0.33	-	58,58,58,58	0
55	MG	DA	1802	1/1	0.29	0.47	-	102,102,102,102	0
55	MG	AA	3419	1/1	0.71	0.57	-	89,89,89,89	0
55	MG	DA	1754	1/1	0.64	0.25	-	98,98,98,98	0
55	MG	AA	3485	1/1	0.88	0.52	-	71,71,71,71	0
55	MG	AA	3126	1/1	0.77	0.24	-	83,83,83,83	0
55	MG	BA	3364	1/1	0.87	0.22	-	76,76,76,76	0
55	MG	BA	3114	1/1	0.71	0.29	-	103,103,103,103	0
55	MG	AA	3438	1/1	0.78	0.45	-	90,90,90,90	0
55	MG	CA	1674	1/1	0.92	0.33	-	102,102,102,102	0
55	MG	BA	3153	1/1	0.81	0.39	-	77,77,77,77	0
55	MG	CA	1797	1/1	0.64	0.20	-	93,93,93,93	0
55	MG	BA	3383	1/1	0.32	0.49	-	95,95,95,95	0
55	MG	AA	3007	1/1	0.99	0.29	-	42,42,42,42	0
55	MG	CA	1738	1/1	0.78	0.31	-	103,103,103,103	0
55	MG	AA	3518	1/1	0.79	0.36	-	90,90,90,90	0
55	MG	BA	3256	1/1	0.78	0.35	-	102,102,102,102	0
55	MG	AA	3396	1/1	0.75	0.55	-	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3440	1/1	0.82	0.42	-	87,87,87,87	0
55	MG	BA	3323	1/1	0.87	0.55	-	74,74,74,74	0
55	MG	DA	1798	1/1	0.73	0.22	-	92,92,92,92	0
55	MG	CA	1718	1/1	0.46	0.39	-	93,93,93,93	0
55	MG	BA	3415	1/1	0.77	0.30	-	109,109,109,109	0
55	MG	AA	3391	1/1	0.59	0.43	-	106,106,106,106	0
55	MG	BA	3055	1/1	0.82	0.30	-	99,99,99,99	0
55	MG	AA	3576	1/1	0.98	0.47	-	46,46,46,46	0
55	MG	CA	1720	1/1	0.25	0.27	-	102,102,102,102	0
55	MG	BA	3191	1/1	0.71	0.43	-	77,77,77,77	0
55	MG	AA	3281	1/1	0.93	0.45	-	74,74,74,74	0
55	MG	CA	1801	1/1	0.94	0.24	-	84,84,84,84	0
55	MG	BA	3497	1/1	0.96	0.23	-	63,63,63,63	0
55	MG	AA	3363	1/1	0.71	0.43	-	95,95,95,95	0
55	MG	AB	213	1/1	0.87	0.54	-	73,73,73,73	0
55	MG	AA	3324	1/1	0.94	0.24	-	92,92,92,92	0
55	MG	DA	1759	1/1	0.64	0.42	-	108,108,108,108	0
55	MG	AA	3191	1/1	0.91	0.17	-	95,95,95,95	0
55	MG	BA	3272	1/1	0.94	0.39	-	81,81,81,81	0
55	MG	BA	3092	1/1	0.79	0.25	-	95,95,95,95	0
55	MG	BA	3426	1/1	0.77	0.39	-	87,87,87,87	0
55	MG	AA	3608	1/1	0.97	0.27	-	41,41,41,41	0
55	MG	DA	1743	1/1	0.81	0.24	-	94,94,94,94	0
55	MG	BE	301	1/1	0.90	0.26	-	54,54,54,54	0
55	MG	AA	3155	1/1	0.87	0.46	-	71,71,71,71	0
55	MG	BA	3234	1/1	0.88	0.30	-	67,67,67,67	0
55	MG	AA	3432	1/1	0.89	0.42	-	87,87,87,87	0
55	MG	AA	3523	1/1	0.80	0.22	-	91,91,91,91	0
55	MG	AA	3265	1/1	0.60	0.23	-	95,95,95,95	0
55	MG	AA	3176	1/1	0.87	0.22	-	74,74,74,74	0
55	MG	BA	3474	1/1	0.67	0.41	-	88,88,88,88	0
55	MG	DA	1739	1/1	0.86	0.15	-	113,113,113,113	0
55	MG	DA	1678	1/1	0.79	0.46	-	86,86,86,86	0
55	MG	CA	1646	1/1	0.82	0.37	-	75,75,75,75	0
55	MG	DA	1709	1/1	0.83	0.29	-	109,109,109,109	0
55	MG	BA	3505	1/1	0.81	0.29	-	94,94,94,94	0
55	MG	AA	3213	1/1	0.95	0.46	-	59,59,59,59	0
55	MG	DA	1683	1/1	0.72	0.56	-	80,80,80,80	0
55	MG	BA	3393	1/1	0.60	0.10	-	84,84,84,84	0
55	MG	BA	3147	1/1	0.92	0.23	-	63,63,63,63	0
55	MG	CA	1706	1/1	0.59	0.34	-	91,91,91,91	0
55	MG	AA	3274	1/1	0.84	0.42	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3407	1/1	0.38	0.48	-	110,110,110,110	0
55	MG	BA	3277	1/1	0.45	0.30	-	109,109,109,109	0
55	MG	AA	3430	1/1	0.54	0.28	-	105,105,105,105	0
55	MG	AA	3405	1/1	0.88	0.72	-	90,90,90,90	0
55	MG	BA	3500	1/1	0.58	0.20	-	104,104,104,104	0
55	MG	BA	3312	1/1	0.60	0.33	-	98,98,98,98	0
55	MG	BA	3128	1/1	0.92	0.23	-	56,56,56,56	0
55	MG	DA	1701	1/1	0.93	0.52	-	80,80,80,80	0
55	MG	BA	3469	1/1	0.67	0.35	-	92,92,92,92	0
55	MG	BA	3139	1/1	0.95	0.19	-	58,58,58,58	0
55	MG	DA	1789	1/1	0.72	0.22	-	77,77,77,77	0
55	MG	BA	3050	1/1	0.68	0.24	-	103,103,103,103	0
55	MG	CA	1680	1/1	0.93	0.31	-	79,79,79,79	0
55	MG	BA	3435	1/1	0.74	0.16	-	108,108,108,108	0
55	MG	AA	3534	1/1	0.96	0.43	-	49,49,49,49	0
55	MG	CA	1704	1/1	-0.20	0.42	-	113,113,113,113	0
55	MG	CA	1735	1/1	0.71	0.46	-	101,101,101,101	0
55	MG	AA	3078	1/1	0.78	0.64	-	88,88,88,88	0
55	MG	CA	1746	1/1	0.94	0.25	-	98,98,98,98	0
55	MG	BA	3290	1/1	0.59	0.21	-	82,82,82,82	0
55	MG	BA	3294	1/1	0.63	0.28	-	98,98,98,98	0
55	MG	BA	3408	1/1	0.87	0.42	-	88,88,88,88	0
55	MG	BA	3002	1/1	0.97	0.22	-	66,66,66,66	0
55	MG	CA	1804	1/1	0.63	0.39	-	107,107,107,107	0
55	MG	AA	3194	1/1	0.86	0.49	-	102,102,102,102	0
55	MG	AA	3291	1/1	0.76	0.45	-	68,68,68,68	0
55	MG	BA	3380	1/1	0.70	0.23	-	78,78,78,78	0
55	MG	BA	3170	1/1	0.65	0.24	-	96,96,96,96	0
55	MG	BA	3304	1/1	0.76	0.33	-	91,91,91,91	0
55	MG	CA	1810	1/1	0.83	0.35	-	108,108,108,108	0
55	MG	DB	101	1/1	0.91	0.21	-	103,103,103,103	0
55	MG	BA	3358	1/1	0.87	0.51	-	85,85,85,85	0
55	MG	AA	3342	1/1	0.88	0.49	-	70,70,70,70	0
55	MG	AA	3399	1/1	0.91	0.30	-	60,60,60,60	0
55	MG	AA	3572	1/1	0.88	0.49	-	54,54,54,54	0
55	MG	BA	3523	1/1	0.89	0.43	-	84,84,84,84	0
55	MG	AA	3276	1/1	0.81	0.53	-	78,78,78,78	0
55	MG	DA	1735	1/1	0.90	0.39	-	106,106,106,106	0
55	MG	BA	3453	1/1	0.68	0.24	-	93,93,93,93	0
55	MG	AB	207	1/1	0.94	0.20	-	103,103,103,103	0
55	MG	AA	3417	1/1	0.93	0.28	-	67,67,67,67	0
55	MG	CA	1621	1/1	0.27	0.38	-	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3527	1/1	0.57	0.31	-	97,97,97,97	0
55	MG	BA	3020	1/1	0.84	0.26	-	76,76,76,76	0
55	MG	BA	3103	1/1	0.89	0.19	-	82,82,82,82	0
55	MG	BA	3146	1/1	0.93	0.24	-	86,86,86,86	0
55	MG	AA	3304	1/1	0.51	0.32	-	90,90,90,90	0
55	MG	AA	3258	1/1	0.76	0.42	-	92,92,92,92	0
55	MG	BA	3333	1/1	0.85	0.27	-	73,73,73,73	0
55	MG	DA	1682	1/1	0.65	0.47	-	96,96,96,96	0
55	MG	DA	1650	1/1	0.90	0.47	-	95,95,95,95	0
55	MG	BA	3196	1/1	0.91	0.32	-	84,84,84,84	0
55	MG	CA	1723	1/1	0.79	0.39	-	106,106,106,106	0
55	MG	AA	3070	1/1	0.97	0.31	-	68,68,68,68	0
55	MG	BA	3124	1/1	0.80	0.39	-	102,102,102,102	0
55	MG	BA	3247	1/1	0.84	0.33	-	74,74,74,74	0
55	MG	AA	3303	1/1	0.85	0.39	-	95,95,95,95	0
55	MG	AA	3480	1/1	0.68	0.55	-	86,86,86,86	0
55	MG	AB	212	1/1	0.60	0.45	-	94,94,94,94	0
55	MG	BA	3420	1/1	-0.35	0.18	-	136,136,136,136	0
55	MG	BA	3183	1/1	0.93	0.19	-	80,80,80,80	0
55	MG	AA	3377	1/1	0.78	0.55	-	94,94,94,94	0
55	MG	DA	1657	1/1	0.93	0.46	-	95,95,95,95	0
55	MG	BA	3038	1/1	0.90	0.27	-	78,78,78,78	0
55	MG	DA	1699	1/1	0.89	0.40	-	68,68,68,68	0
55	MG	CA	1692	1/1	0.89	0.11	-	127,127,127,127	0
55	MG	DA	1791	1/1	0.71	0.45	-	80,80,80,80	0
55	MG	AA	3524	1/1	0.50	0.41	-	94,94,94,94	0
55	MG	BA	3262	1/1	0.76	0.22	-	94,94,94,94	0
55	MG	CA	1627	1/1	0.96	0.25	-	65,65,65,65	0
55	MG	BA	3121	1/1	0.68	0.45	-	99,99,99,99	0
55	MG	CA	1666	1/1	0.90	0.20	-	70,70,70,70	0
55	MG	DA	1700	1/1	0.85	0.41	-	94,94,94,94	0
55	MG	DC	106	1/1	0.86	0.15	-	111,111,111,111	0
55	MG	BA	3045	1/1	0.71	0.26	-	88,88,88,88	0
55	MG	BA	3328	1/1	0.95	0.14	-	61,61,61,61	0
55	MG	AA	3469	1/1	0.65	0.49	-	103,103,103,103	0
55	MG	AA	3360	1/1	0.86	0.36	-	63,63,63,63	0
55	MG	CA	1684	1/1	0.88	0.31	-	101,101,101,101	0
55	MG	AA	3545	1/1	0.91	0.36	-	75,75,75,75	0
55	MG	CA	1618	1/1	0.94	0.28	-	94,94,94,94	0
55	MG	BA	3198	1/1	0.88	0.26	-	44,44,44,44	0
55	MG	BA	3285	1/1	0.98	0.19	-	45,45,45,45	0
55	MG	DA	1643	1/1	0.96	0.39	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3498	1/1	0.80	0.15	-	99,99,99,99	0
55	MG	BA	3417	1/1	0.94	0.14	-	88,88,88,88	0
55	MG	BA	3120	1/1	0.82	0.17	-	81,81,81,81	0
55	MG	CA	1631	1/1	0.94	0.21	-	74,74,74,74	0
55	MG	BA	3076	1/1	0.78	0.37	-	91,91,91,91	0
55	MG	CA	1653	1/1	0.25	0.41	-	91,91,91,91	0
55	MG	CA	1741	1/1	0.87	0.24	-	80,80,80,80	0
55	MG	BA	3444	1/1	0.69	0.50	-	96,96,96,96	0
55	MG	BA	3378	1/1	0.71	0.20	-	78,78,78,78	0
55	MG	DA	1786	1/1	0.92	0.38	-	86,86,86,86	0
55	MG	AA	3531	1/1	0.82	0.45	-	96,96,96,96	0
55	MG	AA	3475	1/1	0.71	0.27	-	102,102,102,102	0
55	MG	CA	1773	1/1	0.42	0.36	-	101,101,101,101	0
55	MG	BA	3265	1/1	0.95	0.46	-	86,86,86,86	0
55	MG	AA	3038	1/1	0.82	0.55	-	80,80,80,80	0
55	MG	BA	3018	1/1	0.93	0.29	-	83,83,83,83	0
55	MG	CA	1803	1/1	0.51	0.66	-	94,94,94,94	0
55	MG	AA	3561	1/1	0.83	0.24	-	82,82,82,82	0
55	MG	BA	3400	1/1	0.95	0.28	-	74,74,74,74	0
55	MG	BA	3024	1/1	0.18	1.00	-	110,110,110,110	0
55	MG	AA	3293	1/1	0.90	0.20	-	77,77,77,77	0
55	MG	AA	3606	1/1	0.96	0.53	-	61,61,61,61	0
55	MG	AA	3218	1/1	0.90	0.40	-	73,73,73,73	0
55	MG	CA	1604	1/1	0.97	0.34	-	77,77,77,77	0
55	MG	AA	3333	1/1	0.90	0.47	-	95,95,95,95	0
55	MG	AA	3017	1/1	0.98	0.47	-	64,64,64,64	0
55	MG	CN	202	1/1	0.60	0.32	-	99,99,99,99	0
55	MG	CA	1656	1/1	0.81	0.52	-	88,88,88,88	0
55	MG	BA	3451	1/1	0.89	0.24	-	89,89,89,89	0
55	MG	AA	3554	1/1	0.82	0.46	-	74,74,74,74	0
55	MG	DA	1693	1/1	0.86	0.40	-	93,93,93,93	0
55	MG	BA	3368	1/1	0.75	0.30	-	106,106,106,106	0
55	MG	BA	3200	1/1	0.96	0.38	-	65,65,65,65	0
55	MG	AU	201	1/1	0.91	0.23	-	85,85,85,85	0
55	MG	CA	1809	1/1	0.61	0.39	-	79,79,79,79	0
55	MG	AA	3556	1/1	0.64	0.49	-	96,96,96,96	0
55	MG	AA	3039	1/1	0.77	0.67	-	82,82,82,82	0
55	MG	DA	1654	1/1	0.98	0.41	-	92,92,92,92	0
55	MG	AA	3331	1/1	0.83	0.46	-	76,76,76,76	0
55	MG	BA	3296	1/1	0.74	0.25	-	76,76,76,76	0
55	MG	DA	1702	1/1	0.70	0.36	-	99,99,99,99	0
55	MG	AA	3410	1/1	0.73	0.40	-	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3481	1/1	0.90	0.15	-	112,112,112,112	0
55	MG	AA	3257	1/1	0.95	0.42	-	79,79,79,79	0
55	MG	BA	3110	1/1	0.85	0.38	-	92,92,92,92	0
55	MG	AA	3532	1/1	0.73	0.31	-	88,88,88,88	0
55	MG	BA	3115	1/1	0.87	0.28	-	79,79,79,79	0
55	MG	AA	3059	1/1	0.93	0.42	-	80,80,80,80	0
55	MG	AA	3196	1/1	0.89	0.21	-	61,61,61,61	0
55	MG	CA	1730	1/1	0.83	0.28	-	107,107,107,107	0
55	MG	AA	3519	1/1	0.87	0.16	-	53,53,53,53	0
55	MG	CA	1637	1/1	0.34	0.32	-	106,106,106,106	0
55	MG	AA	3255	1/1	0.89	0.44	-	88,88,88,88	0
55	MG	AA	3509	1/1	0.65	0.31	-	95,95,95,95	0
55	MG	AA	3316	1/1	0.72	0.18	-	83,83,83,83	0
55	MG	BA	3160	1/1	0.94	0.30	-	82,82,82,82	0
55	MG	CC	107	1/1	0.51	0.43	-	93,93,93,93	0
55	MG	CA	1607	1/1	0.96	0.40	-	93,93,93,93	0
55	MG	BA	3197	1/1	0.95	0.11	-	76,76,76,76	0
55	MG	BA	3311	1/1	0.75	0.22	-	82,82,82,82	0
55	MG	BA	3506	1/1	0.85	0.20	-	74,74,74,74	0
55	MG	AA	3431	1/1	0.92	0.31	-	89,89,89,89	0
55	MG	AA	3378	1/1	0.87	0.53	-	84,84,84,84	0
55	MG	BA	3232	1/1	0.99	0.27	-	55,55,55,55	0
55	MG	AA	3575	1/1	0.93	0.39	-	42,42,42,42	0
55	MG	AA	3359	1/1	0.62	0.41	-	84,84,84,84	0
55	MG	CA	1690	1/1	0.80	0.40	-	102,102,102,102	0
55	MG	BA	3448	1/1	0.72	0.22	-	85,85,85,85	0
55	MG	AA	3219	1/1	0.92	0.41	-	81,81,81,81	0
55	MG	BA	3406	1/1	0.24	0.31	-	97,97,97,97	0
55	MG	BA	3082	1/1	0.93	0.37	-	76,76,76,76	0
55	MG	CA	1778	1/1	0.71	0.43	-	95,95,95,95	0
55	MG	AA	3314	1/1	0.93	0.52	-	80,80,80,80	0
55	MG	CA	1806	1/1	0.70	0.17	-	62,62,62,62	0
55	MG	CA	1641	1/1	0.99	0.23	-	65,65,65,65	0
55	MG	DA	1680	1/1	0.88	0.35	-	81,81,81,81	0
55	MG	AA	3347	1/1	0.40	0.33	-	92,92,92,92	0
55	MG	AA	3254	1/1	0.86	0.63	-	85,85,85,85	0
55	MG	BA	3387	1/1	0.71	0.48	-	107,107,107,107	0
55	MG	CA	1617	1/1	0.78	0.51	-	72,72,72,72	0
55	MG	CA	1622	1/1	0.94	0.15	-	86,86,86,86	0
55	MG	AA	3109	1/1	0.81	0.37	-	53,53,53,53	0
55	MG	BA	3303	1/1	0.45	0.37	-	89,89,89,89	0
55	MG	CA	1744	1/1	0.94	0.46	-	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	1608	1/1	0.80	0.24	-	92,92,92,92	0
55	MG	CA	1677	1/1	0.76	0.25	-	90,90,90,90	0
55	MG	BA	3410	1/1	0.73	0.43	-	94,94,94,94	0
55	MG	AA	3460	1/1	0.94	0.26	-	106,106,106,106	0
55	MG	CA	1772	1/1	0.93	0.21	-	83,83,83,83	0
55	MG	AA	3616	1/1	0.77	0.30	-	95,95,95,95	0
55	MG	CA	1675	1/1	0.88	0.24	-	97,97,97,97	0
55	MG	BA	3225	1/1	0.98	0.20	-	78,78,78,78	0
55	MG	AA	3467	1/1	0.79	0.39	-	87,87,87,87	0
55	MG	AA	3296	1/1	0.85	0.54	-	72,72,72,72	0
55	MG	BA	3223	1/1	0.88	0.27	-	64,64,64,64	0
55	MG	AA	3022	1/1	0.98	0.27	-	49,49,49,49	0
55	MG	AB	204	1/1	0.42	0.56	-	96,96,96,96	0
55	MG	AA	3062	1/1	0.90	0.37	-	86,86,86,86	0
55	MG	AA	3537	1/1	0.47	0.30	-	105,105,105,105	0
55	MG	DA	1777	1/1	0.63	0.40	-	87,87,87,87	0
55	MG	AA	3392	1/1	0.69	0.50	-	93,93,93,93	0
55	MG	CA	1779	1/1	0.88	0.13	-	113,113,113,113	0
55	MG	BA	3095	1/1	0.40	0.38	-	112,112,112,112	0
55	MG	CA	1832	1/1	0.50	0.25	-	106,106,106,106	0
55	MG	AA	3329	1/1	0.85	0.16	-	94,94,94,94	0
55	MG	CA	1710	1/1	0.57	0.35	-	81,81,81,81	0
55	MG	AA	3586	1/1	0.90	0.14	-	53,53,53,53	0
55	MG	AA	3111	1/1	0.96	0.51	-	36,36,36,36	0
55	MG	BA	3362	1/1	0.82	0.14	-	71,71,71,71	0
55	MG	AB	210	1/1	0.97	0.38	-	65,65,65,65	0
55	MG	AA	3216	1/1	0.92	0.33	-	64,64,64,64	0
55	MG	CA	1672	1/1	0.50	0.26	-	106,106,106,106	0
55	MG	AA	3529	1/1	0.88	0.28	-	68,68,68,68	0
55	MG	AA	3330	1/1	0.93	0.34	-	60,60,60,60	0
55	MG	BA	3416	1/1	0.54	0.31	-	103,103,103,103	0
55	MG	AA	3193	1/1	0.37	0.69	-	96,96,96,96	0
55	MG	CA	1709	1/1	0.74	0.46	-	96,96,96,96	0
55	MG	AA	3187	1/1	0.92	0.46	-	87,87,87,87	0
55	MG	BA	3259	1/1	0.86	0.35	-	54,54,54,54	0
55	MG	CA	1616	1/1	0.76	0.24	-	103,103,103,103	0
55	MG	BA	3134	1/1	0.98	0.28	-	63,63,63,63	0
55	MG	CA	1729	1/1	0.76	0.34	-	94,94,94,94	0
55	MG	DA	1734	1/1	0.90	0.31	-	88,88,88,88	0
55	MG	BA	3150	1/1	0.88	0.40	-	96,96,96,96	0
55	MG	BA	3029	1/1	0.89	0.39	-	75,75,75,75	0
55	MG	CA	1657	1/1	0.96	0.32	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	1767	1/1	0.80	0.40	-	113,113,113,113	0
55	MG	BA	3388	1/1	0.91	0.32	-	87,87,87,87	0
55	MG	BA	3480	1/1	0.92	0.23	-	56,56,56,56	0
55	MG	DA	1765	1/1	0.79	0.20	-	93,93,93,93	0
55	MG	BA	3141	1/1	0.96	0.23	-	72,72,72,72	0
55	MG	BA	3503	1/1	0.90	0.13	-	69,69,69,69	0
55	MG	CA	1754	1/1	0.89	0.39	-	114,114,114,114	0
55	MG	DA	1607	1/1	0.71	0.32	-	92,92,92,92	0
55	MG	AA	3341	1/1	0.69	0.26	-	95,95,95,95	0
55	MG	AA	3614	1/1	0.97	0.55	-	78,78,78,78	0
55	MG	BA	3052	1/1	0.96	0.29	-	58,58,58,58	0
55	MG	BA	3014	1/1	0.96	0.27	-	72,72,72,72	0
55	MG	AA	3435	1/1	0.63	0.46	-	78,78,78,78	0
55	MG	BA	3347	1/1	0.86	0.23	-	85,85,85,85	0
55	MG	AA	3421	1/1	0.74	0.56	-	94,94,94,94	0
55	MG	BA	3033	1/1	0.63	0.25	-	94,94,94,94	0
55	MG	CA	1764	1/1	0.74	0.20	-	92,92,92,92	0
55	MG	BA	3053	1/1	0.95	0.36	-	65,65,65,65	0
55	MG	AA	3301	1/1	0.55	0.30	-	85,85,85,85	0
55	MG	AB	214	1/1	0.57	0.39	-	102,102,102,102	0
55	MG	AA	3569	1/1	0.94	0.31	-	60,60,60,60	0
55	MG	BA	3365	1/1	0.94	0.38	-	90,90,90,90	0
55	MG	CA	1756	1/1	0.87	0.13	-	113,113,113,113	0
55	MG	CA	1775	1/1	0.64	0.27	-	113,113,113,113	0
55	MG	BA	3166	1/1	0.96	0.32	-	40,40,40,40	0
55	MG	CA	1820	1/1	0.93	0.43	-	88,88,88,88	0
55	MG	AB	201	1/1	0.91	0.67	-	96,96,96,96	0
55	MG	AA	3182	1/1	0.68	0.47	-	88,88,88,88	0
55	MG	DA	1793	1/1	0.39	0.38	-	108,108,108,108	0
55	MG	AA	3283	1/1	0.97	0.38	-	91,91,91,91	0
55	MG	DA	1758	1/1	0.58	0.46	-	109,109,109,109	0
55	MG	CA	1665	1/1	0.90	0.53	-	74,74,74,74	0
55	MG	AA	3404	1/1	0.85	0.29	-	95,95,95,95	0
55	MG	BA	3349	1/1	0.90	0.28	-	93,93,93,93	0
55	MG	AA	3349	1/1	0.89	0.44	-	84,84,84,84	0
55	MG	DA	1803	1/1	0.79	0.49	-	100,100,100,100	0
55	MG	AA	3030	1/1	0.98	0.31	-	45,45,45,45	0
55	MG	BA	3301	1/1	0.46	0.32	-	106,106,106,106	0
55	MG	AA	3367	1/1	0.63	0.52	-	87,87,87,87	0
55	MG	AA	3388	1/1	0.88	0.51	-	85,85,85,85	0
55	MG	BA	3209	1/1	0.82	0.31	-	46,46,46,46	0
55	MG	AA	3535	1/1	0.93	0.16	-	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3619	1/1	0.87	0.50	-	87,87,87,87	0
55	MG	BA	3403	1/1	0.96	0.19	-	77,77,77,77	0
55	MG	BA	3255	1/1	0.97	0.37	-	52,52,52,52	0
55	MG	DC	103	1/1	0.95	0.33	-	78,78,78,78	0
55	MG	AA	3580	1/1	0.87	0.30	-	78,78,78,78	0
55	MG	BA	3464	1/1	0.69	0.33	-	104,104,104,104	0
55	MG	AA	3132	1/1	0.46	0.57	-	106,106,106,106	0
55	MG	CA	1798	1/1	0.78	0.40	-	82,82,82,82	0
55	MG	BA	3215	1/1	0.99	0.32	-	66,66,66,66	0
55	MG	BA	3431	1/1	0.90	0.25	-	84,84,84,84	0
55	MG	BA	3436	1/1	0.77	0.28	-	94,94,94,94	0
55	MG	CA	1831	1/1	0.55	0.33	-	105,105,105,105	0
55	MG	AA	3499	1/1	0.76	0.67	-	93,93,93,93	0
55	MG	BA	3070	1/1	0.74	0.28	-	81,81,81,81	0
55	MG	CA	1753	1/1	0.57	0.23	-	107,107,107,107	0
55	MG	BA	3062	1/1	0.97	0.26	-	110,110,110,110	0
55	MG	BA	3468	1/1	0.46	0.28	-	105,105,105,105	0
55	MG	BA	3026	1/1	0.82	0.31	-	72,72,72,72	0
55	MG	BA	3398	1/1	0.57	0.55	-	96,96,96,96	0
55	MG	AA	3204	1/1	0.97	0.31	-	44,44,44,44	0
55	MG	DA	1744	1/1	0.93	0.40	-	57,57,57,57	0
55	MG	BA	3389	1/1	0.78	0.17	-	96,96,96,96	0
55	MG	AA	3320	1/1	0.43	0.32	-	103,103,103,103	0
55	MG	BA	3151	1/1	0.56	0.27	-	96,96,96,96	0
55	MG	BA	3356	1/1	0.78	0.19	-	84,84,84,84	0
55	MG	BA	3465	1/1	0.36	0.34	-	97,97,97,97	0
55	MG	CA	1719	1/1	0.68	0.35	-	85,85,85,85	0
55	MG	AA	3557	1/1	0.78	0.49	-	100,100,100,100	0
55	MG	CA	1747	1/1	0.85	0.43	-	83,83,83,83	0
55	MG	BA	3116	1/1	0.30	0.22	-	107,107,107,107	0
55	MG	AA	3226	1/1	0.94	0.30	-	77,77,77,77	0
55	MG	BA	3176	1/1	0.87	0.20	-	79,79,79,79	0
55	MG	AA	3232	1/1	0.93	0.66	-	104,104,104,104	0
55	MG	DA	1769	1/1	0.77	0.34	-	79,79,79,79	0
55	MG	DA	1674	1/1	0.94	0.27	-	76,76,76,76	0
55	MG	AA	3041	1/1	0.95	0.33	-	66,66,66,66	0
55	MG	AA	3261	1/1	0.66	0.52	-	85,85,85,85	0
55	MG	DA	1796	1/1	0.94	0.25	-	97,97,97,97	0
55	MG	DA	1784	1/1	0.40	0.34	-	103,103,103,103	0
55	MG	DA	1766	1/1	0.79	0.53	-	116,116,116,116	0
55	MG	AA	3134	1/1	0.89	0.36	-	79,79,79,79	0
55	MG	CA	1648	1/1	0.93	0.40	-	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3179	1/1	0.94	0.29	-	53,53,53,53	0
55	MG	BA	3360	1/1	0.86	0.32	-	83,83,83,83	0
55	MG	BA	3275	1/1	0.96	0.38	-	52,52,52,52	0
55	MG	AA	3344	1/1	0.86	0.46	-	68,68,68,68	0
55	MG	BA	3245	1/1	0.90	0.19	-	72,72,72,72	0
55	MG	CA	1784	1/1	0.85	0.46	-	101,101,101,101	0
55	MG	BA	3274	1/1	0.94	0.19	-	90,90,90,90	0
55	MG	BA	3281	1/1	0.86	0.32	-	92,92,92,92	0
55	MG	AA	3151	1/1	0.96	0.45	-	58,58,58,58	0
55	MG	AA	3061	1/1	0.96	0.26	-	79,79,79,79	0
55	MG	AA	3146	1/1	0.92	0.41	-	65,65,65,65	0
55	MG	BA	3332	1/1	0.59	0.23	-	100,100,100,100	0
55	MG	BA	3508	1/1	0.88	0.35	-	73,73,73,73	0
55	MG	AA	3617	1/1	0.94	0.47	-	92,92,92,92	0
55	MG	AA	3234	1/1	0.89	0.38	-	82,82,82,82	0
55	MG	AA	3284	1/1	0.96	0.44	-	81,81,81,81	0
55	MG	BA	3061	1/1	0.86	0.13	-	69,69,69,69	0
55	MG	BA	3001	1/1	0.96	0.30	-	64,64,64,64	0
55	MG	CA	1629	1/1	0.69	0.15	-	95,95,95,95	0
55	MG	CA	1774	1/1	0.28	0.43	-	97,97,97,97	0
55	MG	AA	3368	1/1	0.96	0.48	-	90,90,90,90	0
55	MG	DC	101	1/1	0.87	0.12	-	95,95,95,95	0
55	MG	AA	3544	1/1	0.93	0.37	-	63,63,63,63	0
55	MG	AA	3239	1/1	0.94	0.45	-	60,60,60,60	0
55	MG	CA	1609	1/1	0.93	0.43	-	78,78,78,78	0
55	MG	BA	3059	1/1	0.96	0.26	-	50,50,50,50	0
55	MG	BA	3357	1/1	0.77	0.39	-	71,71,71,71	0
55	MG	DA	1727	1/1	0.88	0.36	-	86,86,86,86	0
55	MG	AA	3403	1/1	0.94	0.28	-	91,91,91,91	0
55	MG	BA	3164	1/1	0.52	0.22	-	99,99,99,99	0
55	MG	CA	1827	1/1	0.61	0.29	-	89,89,89,89	0
55	MG	AA	3282	1/1	0.94	0.39	-	78,78,78,78	0
55	MG	DA	1773	1/1	0.83	0.47	-	69,69,69,69	0
55	MG	BA	3454	1/1	0.64	0.42	-	105,105,105,105	0
55	MG	BA	3260	1/1	0.81	0.14	-	82,82,82,82	0
55	MG	AA	3298	1/1	0.89	0.59	-	73,73,73,73	0
55	MG	BA	3504	1/1	0.88	0.15	-	117,117,117,117	0
55	MG	BA	3122	1/1	0.82	0.33	-	95,95,95,95	0
55	MG	BA	3525	1/1	0.86	0.36	-	98,98,98,98	0
55	MG	AA	3295	1/1	0.79	0.66	-	102,102,102,102	0
55	MG	AF	302	1/1	0.69	0.33	-	93,93,93,93	0
55	MG	BA	3036	1/1	0.91	0.44	-	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	3246	1/1	0.93	0.52	-	73,73,73,73	0
55	MG	AA	3350	1/1	0.79	0.24	-	90,90,90,90	0
55	MG	CA	1783	1/1	0.41	0.86	-	106,106,106,106	0
55	MG	BA	3138	1/1	0.98	0.30	-	52,52,52,52	0
55	MG	DA	1804	1/1	0.51	0.34	-	123,123,123,123	0
55	MG	BA	3390	1/1	0.77	0.46	-	77,77,77,77	0
55	MG	AA	3382	1/1	0.34	0.50	-	102,102,102,102	0
55	MG	AA	3527	1/1	0.71	0.43	-	86,86,86,86	0
55	MG	AA	3622	1/1	0.85	0.53	-	65,65,65,65	0
55	MG	CA	1655	1/1	0.84	0.52	-	95,95,95,95	0
55	MG	BA	3377	1/1	0.90	0.31	-	81,81,81,81	0
55	MG	AB	203	1/1	0.95	0.42	-	69,69,69,69	0
55	MG	BA	3148	1/1	0.93	0.23	-	91,91,91,91	0
55	MG	AA	3594	1/1	0.80	0.57	-	105,105,105,105	0
55	MG	AA	3181	1/1	0.94	0.39	-	66,66,66,66	0
55	MG	BA	3185	1/1	0.79	0.41	-	68,68,68,68	0
55	MG	DA	1751	1/1	0.90	0.34	-	124,124,124,124	0
55	MG	BA	3286	1/1	0.98	0.24	-	85,85,85,85	0
55	MG	BA	3334	1/1	0.59	0.14	-	103,103,103,103	0
55	MG	BA	3137	1/1	0.96	0.30	-	48,48,48,48	0
55	MG	DA	1738	1/1	0.89	0.37	-	85,85,85,85	0
55	MG	BA	3433	1/1	0.81	0.24	-	88,88,88,88	0
55	MG	DA	1642	1/1	0.72	0.25	-	110,110,110,110	0
55	MG	CC	106	1/1	0.95	0.21	-	92,92,92,92	0
55	MG	BB	206	1/1	0.75	0.12	-	102,102,102,102	0
55	MG	CA	1605	1/1	0.97	0.27	-	86,86,86,86	0
55	MG	BA	3473	1/1	0.85	0.26	-	78,78,78,78	0
55	MG	BA	3102	1/1	0.92	0.11	-	86,86,86,86	0
55	MG	AA	3338	1/1	0.86	0.47	-	51,51,51,51	0
55	MG	AA	3488	1/1	0.85	0.25	-	93,93,93,93	0
55	MG	DA	1787	1/1	0.55	0.37	-	114,114,114,114	0
55	MG	AA	3076	1/1	0.94	0.38	-	82,82,82,82	0
55	MG	CA	1785	1/1	0.90	0.57	-	89,89,89,89	0
55	MG	BA	3271	1/1	0.92	0.32	-	84,84,84,84	0
55	MG	DA	1792	1/1	0.91	0.22	-	81,81,81,81	0
55	MG	DA	1720	1/1	0.75	0.32	-	96,96,96,96	0
55	MG	BB	212	1/1	0.27	0.31	-	104,104,104,104	0
55	MG	DA	1713	1/1	0.26	0.36	-	111,111,111,111	0
55	MG	CA	1782	1/1	0.78	0.56	-	94,94,94,94	0
55	MG	BA	3460	1/1	0.82	0.17	-	101,101,101,101	0
55	MG	AA	3559	1/1	0.83	0.33	-	83,83,83,83	0
55	MG	AA	3613	1/1	0.85	0.31	-	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3458	1/1	0.90	0.24	-	71,71,71,71	0
55	MG	AA	3201	1/1	0.81	0.34	-	85,85,85,85	0
55	MG	BA	3154	1/1	0.96	0.14	-	46,46,46,46	0
55	MG	CA	1766	1/1	0.74	0.53	-	108,108,108,108	0
55	MG	AA	3273	1/1	0.54	0.29	-	101,101,101,101	0
55	MG	BA	3354	1/1	0.86	0.30	-	90,90,90,90	0
55	MG	AA	3398	1/1	0.83	0.36	-	73,73,73,73	0
55	MG	AA	3235	1/1	0.59	0.46	-	84,84,84,84	0
55	MG	DA	1676	1/1	0.96	0.43	-	82,82,82,82	0
55	MG	AA	3117	1/1	0.92	0.31	-	54,54,54,54	0
55	MG	BA	3263	1/1	0.90	0.24	-	84,84,84,84	0
55	MG	DA	1736	1/1	0.90	0.48	-	65,65,65,65	0
55	MG	BA	3375	1/1	0.58	0.30	-	75,75,75,75	0
55	MG	DA	1750	1/1	0.89	0.19	-	84,84,84,84	0
55	MG	AA	3095	1/1	0.96	0.29	-	89,89,89,89	0
55	MG	AA	3369	1/1	0.70	0.53	-	93,93,93,93	0
55	MG	AA	3183	1/1	0.86	0.32	-	93,93,93,93	0
55	MG	DA	1719	1/1	0.29	0.56	-	112,112,112,112	0
55	MG	CA	1670	1/1	0.88	0.29	-	70,70,70,70	0
55	MG	DA	1703	1/1	0.23	0.37	-	115,115,115,115	0
55	MG	CA	1732	1/1	0.93	0.33	-	69,69,69,69	0
55	MG	AA	3402	1/1	0.58	0.46	-	92,92,92,92	0
55	MG	BA	3320	1/1	0.83	0.28	-	77,77,77,77	0
55	MG	AA	3409	1/1	0.43	0.54	-	104,104,104,104	0
55	MG	AA	3471	1/1	0.95	0.45	-	85,85,85,85	0
55	MG	AA	3429	1/1	0.81	0.44	-	90,90,90,90	0
55	MG	AA	3620	1/1	0.66	0.35	-	115,115,115,115	0
55	MG	DA	1779	1/1	0.82	0.34	-	91,91,91,91	0
55	MG	BA	3524	1/1	0.83	0.46	-	105,105,105,105	0
55	MG	A5	102	1/1	0.79	0.41	-	83,83,83,83	0
55	MG	CA	1736	1/1	0.80	0.26	-	88,88,88,88	0
55	MG	AA	3413	1/1	0.33	0.39	-	109,109,109,109	0
55	MG	BR	201	1/1	0.79	0.24	-	77,77,77,77	0
55	MG	AA	3415	1/1	0.82	0.47	-	87,87,87,87	0
55	MG	BA	3526	1/1	0.75	0.26	-	92,92,92,92	0
55	MG	BA	3068	1/1	0.69	0.28	-	93,93,93,93	0
55	MG	AA	3275	1/1	0.70	0.40	-	87,87,87,87	0
55	MG	DA	1611	1/1	0.66	0.38	-	100,100,100,100	0
55	MG	AA	3032	1/1	0.94	0.33	-	65,65,65,65	0
55	MG	DA	1696	1/1	0.94	0.32	-	66,66,66,66	0
55	MG	CA	1650	1/1	0.96	0.40	-	73,73,73,73	0
55	MG	CA	1697	1/1	0.89	0.76	-	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3440	1/1	0.92	0.23	-	80,80,80,80	0
55	MG	CA	1633	1/1	0.76	0.30	-	83,83,83,83	0
55	MG	DA	1625	1/1	0.45	0.22	-	105,105,105,105	0
55	MG	AA	3264	1/1	0.73	0.55	-	80,80,80,80	0
55	MG	CA	1634	1/1	0.99	0.32	-	60,60,60,60	0
55	MG	AA	3079	1/1	0.87	0.23	-	92,92,92,92	0
55	MG	BA	3419	1/1	0.89	0.13	-	99,99,99,99	0
55	MG	AA	3169	1/1	0.65	0.35	-	89,89,89,89	0
55	MG	BA	3280	1/1	0.95	0.35	-	74,74,74,74	0
55	MG	DC	104	1/1	0.73	0.21	-	102,102,102,102	0
55	MG	AA	3205	1/1	0.97	0.35	-	55,55,55,55	0
55	MG	BB	203	1/1	0.88	0.29	-	76,76,76,76	0
55	MG	AA	3624	1/1	0.82	0.32	-	111,111,111,111	0
55	MG	BA	3041	1/1	0.61	0.48	-	104,104,104,104	0
55	MG	AA	3506	1/1	0.91	0.20	-	80,80,80,80	0
55	MG	AA	3381	1/1	0.73	0.72	-	90,90,90,90	0
55	MG	CA	1840	1/1	0.95	0.32	-	69,69,69,69	0
55	MG	DA	1662	1/1	0.86	0.45	-	78,78,78,78	0
55	MG	AA	3306	1/1	0.97	0.40	-	65,65,65,65	0
55	MG	CA	1777	1/1	0.97	0.35	-	92,92,92,92	0
55	MG	CA	1728	1/1	0.01	0.37	-	117,117,117,117	0
55	MG	AA	3593	1/1	0.75	0.50	-	95,95,95,95	0
55	MG	AA	3302	1/1	0.74	0.41	-	104,104,104,104	0
55	MG	AA	3096	1/1	0.73	0.32	-	89,89,89,89	0
55	MG	DA	1760	1/1	0.67	0.45	-	100,100,100,100	0
55	MG	DA	1620	1/1	0.93	0.30	-	85,85,85,85	0
55	MG	BA	3327	1/1	0.76	0.28	-	91,91,91,91	0
55	MG	AA	3211	1/1	0.89	0.32	-	58,58,58,58	0
55	MG	CA	1724	1/1	0.58	0.23	-	97,97,97,97	0
55	MG	AA	3510	1/1	0.82	0.53	-	84,84,84,84	0
55	MG	BA	3035	1/1	0.77	0.25	-	103,103,103,103	0
55	MG	BA	3476	1/1	0.79	0.18	-	68,68,68,68	0
55	MG	BA	3287	1/1	0.69	0.35	-	87,87,87,87	0
55	MG	AA	3361	1/1	0.68	0.54	-	93,93,93,93	0
55	MG	AA	3236	1/1	0.67	0.57	-	96,96,96,96	0
55	MG	BA	3202	1/1	0.83	0.23	-	69,69,69,69	0
55	MG	DA	1780	1/1	0.92	0.46	-	107,107,107,107	0
55	MG	AA	3203	1/1	0.98	0.47	-	65,65,65,65	0
55	MG	AA	3345	1/1	0.90	0.58	-	93,93,93,93	0
55	MG	BA	3019	1/1	0.79	0.24	-	100,100,100,100	0
55	MG	BA	3123	1/1	0.96	0.13	-	77,77,77,77	0
55	MG	DA	1770	1/1	0.71	0.35	-	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3291	1/1	0.89	0.26	-	67,67,67,67	0
55	MG	BA	3090	1/1	0.62	0.33	-	109,109,109,109	0
55	MG	CA	1763	1/1	0.95	0.44	-	81,81,81,81	0
55	MG	AA	3288	1/1	0.95	0.61	-	90,90,90,90	0
55	MG	BA	3344	1/1	0.39	0.36	-	101,101,101,101	0
55	MG	AA	3384	1/1	0.67	0.56	-	87,87,87,87	0
55	MG	AA	3220	1/1	0.96	0.41	-	70,70,70,70	0
55	MG	BA	3487	1/1	0.87	0.19	-	66,66,66,66	0
55	MG	BA	3483	1/1	0.95	0.33	-	34,34,34,34	0
55	MG	AA	3120	1/1	0.69	0.32	-	86,86,86,86	0
55	MG	AA	3370	1/1	0.45	0.22	-	106,106,106,106	0
55	MG	BA	3015	1/1	0.92	0.20	-	71,71,71,71	0
55	MG	AA	3494	1/1	0.80	0.37	-	88,88,88,88	0
55	MG	BA	3519	1/1	0.75	0.24	-	107,107,107,107	0
55	MG	BA	3370	1/1	0.71	0.23	-	98,98,98,98	0
55	MG	CA	1821	1/1	0.57	0.38	-	94,94,94,94	0
55	MG	DA	1761	1/1	0.90	0.40	-	84,84,84,84	0
55	MG	AA	3395	1/1	0.67	0.52	-	80,80,80,80	0
55	MG	BA	3372	1/1	0.90	0.38	-	105,105,105,105	0
55	MG	BA	3221	1/1	0.98	0.25	-	37,37,37,37	0
55	MG	CA	1676	1/1	0.87	0.29	-	76,76,76,76	0
55	MG	BA	3017	1/1	0.97	0.34	-	50,50,50,50	0
55	MG	BA	3091	1/1	0.74	0.37	-	86,86,86,86	0
55	MG	AA	3313	1/1	0.84	0.44	-	70,70,70,70	0
55	MG	CA	1815	1/1	0.72	0.27	-	91,91,91,91	0
55	MG	AA	3015	1/1	0.96	0.40	-	44,44,44,44	0
55	MG	CA	1750	1/1	0.83	0.51	-	104,104,104,104	0
55	MG	DA	1790	1/1	0.89	0.49	-	100,100,100,100	0
55	MG	AA	3104	1/1	0.73	0.34	-	80,80,80,80	0
55	MG	BA	3034	1/1	0.75	0.28	-	81,81,81,81	0
55	MG	BA	3143	1/1	0.94	0.21	-	63,63,63,63	0
55	MG	AA	3136	1/1	0.92	0.14	-	61,61,61,61	0
55	MG	BA	3032	1/1	0.82	0.37	-	110,110,110,110	0
55	MG	B5	101	1/1	0.96	0.20	-	61,61,61,61	0
55	MG	BA	3432	1/1	0.73	0.35	-	88,88,88,88	0
55	MG	BA	3077	1/1	0.72	0.24	-	101,101,101,101	0
55	MG	BA	3177	1/1	0.91	0.27	-	75,75,75,75	0
55	MG	AA	3335	1/1	0.63	0.65	-	91,91,91,91	0
55	MG	DA	1762	1/1	0.85	0.21	-	109,109,109,109	0
55	MG	BA	3222	1/1	0.96	0.18	-	54,54,54,54	0
55	MG	AA	3626	1/1	0.49	0.62	-	96,96,96,96	0
55	MG	BA	3044	1/1	0.75	0.48	-	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	CA	1742	1/1	0.90	0.13	-	115,115,115,115	0
55	MG	CA	1826	1/1	0.83	0.28	-	81,81,81,81	0
55	MG	BB	209	1/1	0.78	0.31	-	95,95,95,95	0
55	MG	AA	3461	1/1	0.70	0.39	-	105,105,105,105	0
55	MG	CA	1640	1/1	0.66	0.35	-	85,85,85,85	0
55	MG	CA	1768	1/1	0.46	0.33	-	105,105,105,105	0
55	MG	BA	3353	1/1	0.79	0.22	-	84,84,84,84	0
55	MG	CA	1790	1/1	0.75	0.27	-	89,89,89,89	0
55	MG	AA	3133	1/1	0.97	0.51	-	46,46,46,46	0
55	MG	DA	1663	1/1	0.45	0.26	-	103,103,103,103	0
55	MG	BA	3066	1/1	0.91	0.21	-	86,86,86,86	0
55	MG	AA	3394	1/1	0.62	0.36	-	99,99,99,99	0
55	MG	BA	3276	1/1	0.94	0.14	-	88,88,88,88	0
55	MG	BA	3252	1/1	0.87	0.31	-	86,86,86,86	0
55	MG	DA	1705	1/1	0.97	0.35	-	97,97,97,97	0
55	MG	AA	3602	1/1	0.86	0.19	-	59,59,59,59	0
55	MG	AA	3087	1/1	0.94	0.45	-	76,76,76,76	0
55	MG	CA	1761	1/1	0.82	0.42	-	66,66,66,66	0
55	MG	BA	3522	1/1	0.87	0.43	-	84,84,84,84	0
55	MG	AA	3241	1/1	0.82	0.68	-	80,80,80,80	0
55	MG	BA	3428	1/1	0.95	0.11	-	89,89,89,89	0
55	MG	AA	3248	1/1	0.93	0.51	-	74,74,74,74	0

## 6.5 Other polymers

There are no such residues in this entry.