



# Full wwPDB X-ray Structure Validation Report ⓘ

Nov 14, 2017 – 10:21 AM EST

PDB ID : 4V8B  
Title : Crystal structure analysis of ribosomal decoding (near-cognate tRNA-leu complex).  
Authors : Jenner, L.; Demeshkina, N.; Yusupov, M.; Yusupova, G.  
Deposited on : unknown  
Resolution : 3.00 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
Xtriage (Phenix)	:	1.9-1692
EDS	:	rb-20030345
Percentile statistics	:	20161228.v01 (using entries in the PDB archive December 28th 2016)
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)	:	rb-20030345



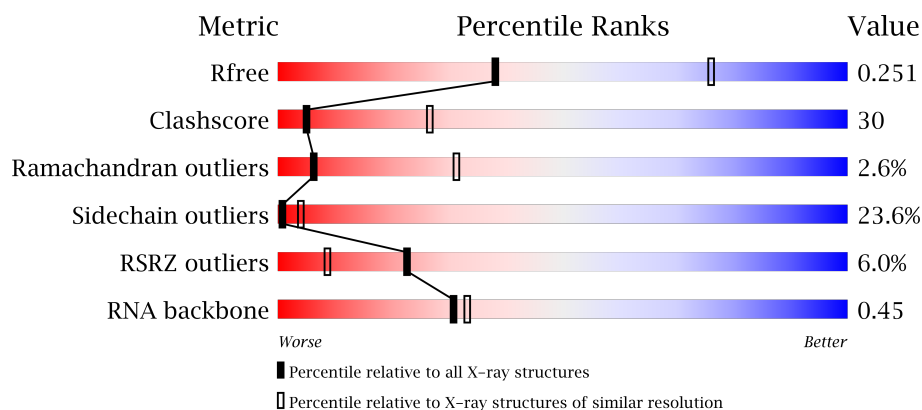
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.00 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))
$R_{free}$	100719	1692 (3.00-3.00)
Clashscore	112137	2037 (3.00-3.00)
Ramachandran outliers	110173	1973 (3.00-3.00)
Sidechain outliers	110143	1976 (3.00-3.00)
RSRZ outliers	101464	1716 (3.00-3.00)
RNA backbone	2435	1007 (3.34-2.66)

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	1506	<div> <div>32%</div> <div>48%</div> <div>19%</div> <div>.</div> </div>
1	CA	1506	<div> <div>30%</div> <div>47%</div> <div>22%</div> <div>.</div> </div>
2	AE	256	<div> <div>4%</div> <div>32%</div> <div>46%</div> <div>14%</div> <div>7%</div> </div>
2	CE	256	<div> <div>10%</div> <div>34%</div> <div>41%</div> <div>16%</div> <div>7%</div> </div>

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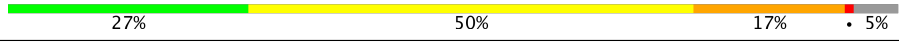

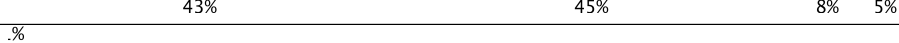
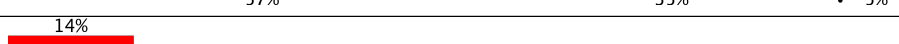
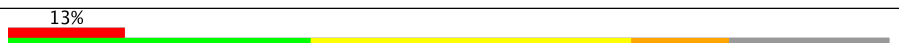

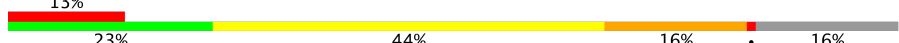


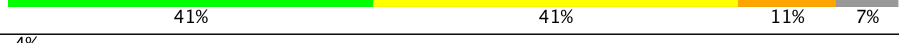
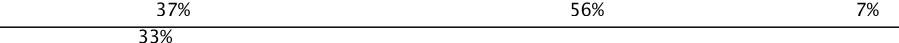


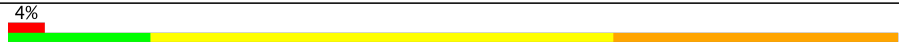
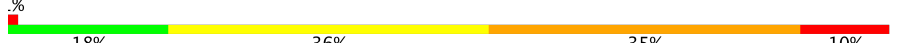

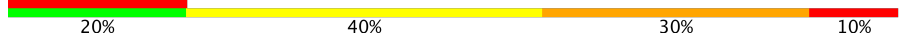


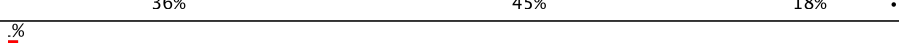
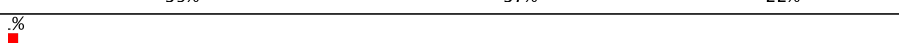



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Mol	Chain	Length	Quality of chain
3	AF	239	
3	CF	239	
4	AG	208	
4	CG	208	
5	AH	162	
5	CH	162	
6	AI	101	
6	CI	101	
7	AJ	156	
7	CJ	156	
8	AK	138	
8	CK	138	
9	AL	128	
9	CL	128	
10	AM	105	
10	CM	105	
11	AN	129	
11	CN	129	
12	AO	132	
12	CO	132	
13	AP	126	
13	CP	126	
14	AQ	61	
14	CQ	61	
15	AR	89	

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Mol	Chain	Length	Quality of chain
15	CR	89	
16	AS	88	
16	CS	88	
17	AT	105	
17	CT	105	
18	AU	88	
18	CU	88	
19	AV	93	
19	CV	93	
20	AW	106	
20	CW	106	
21	AX	27	
21	CX	27	
22	AB	87	
22	CB	87	
23	AC	77	
23	AD	77	
23	CC	77	
23	CD	77	
24	A1	10	
24	C1	10	
25	BA	2912	
25	DA	2912	
26	BB	122	
26	DB	122	

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Mol	Chain	Length	Quality of chain
27	BD	276	
27	DD	276	
28	BE	206	
28	DE	206	
29	BF	210	
29	DF	210	
30	BG	182	
30	DG	182	
31	BH	180	
31	DH	180	
32	BK	148	
32	DK	148	
33	BM	140	
33	DM	140	
34	BN	122	
34	DN	122	
35	BO	150	
35	DO	150	
36	BP	141	
36	DP	141	
37	B0	118	
37	D0	118	
38	BQ	112	
38	DQ	112	
39	BR	146	

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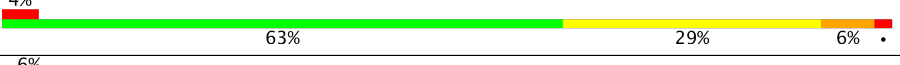
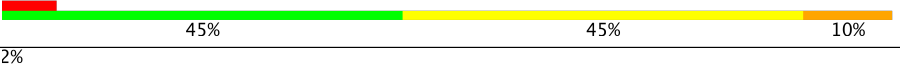
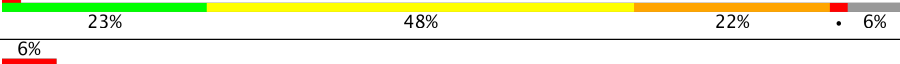
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Mol	Chain	Length	Quality of chain
39	DR	146	
40	B1	118	
40	D1	118	
41	B2	101	
41	D2	101	
42	BS	113	
42	DS	113	
43	BT	96	
43	DT	96	
44	BU	110	
44	DU	110	
45	BV	206	
45	DV	206	
46	B3	85	
46	D3	85	
47	BZ	98	
47	DZ	98	
48	BW	72	
48	DW	72	
49	BX	60	
49	DX	60	
50	B4	71	
50	D4	71	
51	B5	60	
51	D5	60	

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Mol	Chain	Length	Quality of chain
52	B6	54	
52	D6	54	
53	B7	49	
53	D7	49	
54	B8	65	
54	D8	65	

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	AA	1601	-	-	-	X
55	MG	AA	1602	-	-	-	X
55	MG	AA	1605	-	-	-	X
55	MG	AA	1608	-	-	-	X
55	MG	AA	1610	-	-	-	X
55	MG	AA	1619	-	-	-	X
55	MG	AA	1628	-	-	-	X
55	MG	AA	1632	-	-	-	X
55	MG	AA	1635	-	-	-	X
55	MG	AA	1636	-	-	-	X
55	MG	AA	1639	-	-	-	X
55	MG	AA	1645	-	-	-	X
55	MG	AA	1651	-	-	-	X
55	MG	AA	1658	-	-	-	X
55	MG	AA	1661	-	-	-	X
55	MG	AA	1663	-	-	-	X
55	MG	AA	1667	-	-	-	X
55	MG	AA	1678	-	-	-	X
55	MG	AA	1679	-	-	-	X
55	MG	AA	1682	-	-	-	X
55	MG	AA	1686	-	-	-	X
55	MG	AA	1691	-	-	-	X
55	MG	AA	1699	-	-	-	X
55	MG	AA	1711	-	-	-	X
55	MG	AA	1712	-	-	-	X
55	MG	AA	1717	-	-	-	X
55	MG	AA	1722	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	AA	1762	-	-	-	X
55	MG	AA	1783	-	-	-	X
55	MG	AA	1789	-	-	-	X
55	MG	AA	1795	-	-	-	X
55	MG	AA	1822	-	-	-	X
55	MG	AA	1825	-	-	-	X
55	MG	AA	1836	-	-	-	X
55	MG	AA	1837	-	-	-	X
55	MG	AC	101	-	-	-	X
55	MG	AC	107	-	-	-	X
55	MG	B0	201	-	-	-	X
55	MG	B1	201	-	-	-	X
55	MG	BA	3001	-	-	-	X
55	MG	BA	3002	-	-	-	X
55	MG	BA	3004	-	-	-	X
55	MG	BA	3005	-	-	-	X
55	MG	BA	3007	-	-	-	X
55	MG	BA	3008	-	-	-	X
55	MG	BA	3012	-	-	-	X
55	MG	BA	3014	-	-	-	X
55	MG	BA	3016	-	-	-	X
55	MG	BA	3018	-	-	-	X
55	MG	BA	3020	-	-	-	X
55	MG	BA	3021	-	-	-	X
55	MG	BA	3024	-	-	-	X
55	MG	BA	3025	-	-	-	X
55	MG	BA	3027	-	-	-	X
55	MG	BA	3029	-	-	-	X
55	MG	BA	3031	-	-	-	X
55	MG	BA	3032	-	-	-	X
55	MG	BA	3033	-	-	-	X
55	MG	BA	3037	-	-	-	X
55	MG	BA	3040	-	-	-	X
55	MG	BA	3044	-	-	-	X
55	MG	BA	3046	-	-	-	X
55	MG	BA	3049	-	-	-	X
55	MG	BA	3052	-	-	-	X
55	MG	BA	3055	-	-	-	X
55	MG	BA	3056	-	-	-	X
55	MG	BA	3061	-	-	-	X
55	MG	BA	3062	-	-	-	X
55	MG	BA	3064	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	BA	3066	-	-	-	X
55	MG	BA	3067	-	-	-	X
55	MG	BA	3076	-	-	-	X
55	MG	BA	3080	-	-	-	X
55	MG	BA	3082	-	-	-	X
55	MG	BA	3090	-	-	-	X
55	MG	BA	3091	-	-	-	X
55	MG	BA	3092	-	-	-	X
55	MG	BA	3093	-	-	-	X
55	MG	BA	3095	-	-	-	X
55	MG	BA	3096	-	-	-	X
55	MG	BA	3098	-	-	-	X
55	MG	BA	3100	-	-	-	X
55	MG	BA	3102	-	-	-	X
55	MG	BA	3104	-	-	-	X
55	MG	BA	3108	-	-	-	X
55	MG	BA	3109	-	-	-	X
55	MG	BA	3119	-	-	-	X
55	MG	BA	3124	-	-	-	X
55	MG	BA	3125	-	-	-	X
55	MG	BA	3126	-	-	-	X
55	MG	BA	3130	-	-	-	X
55	MG	BA	3133	-	-	-	X
55	MG	BA	3137	-	-	-	X
55	MG	BA	3138	-	-	-	X
55	MG	BA	3144	-	-	-	X
55	MG	BA	3146	-	-	-	X
55	MG	BA	3153	-	-	-	X
55	MG	BA	3154	-	-	-	X
55	MG	BA	3156	-	-	-	X
55	MG	BA	3157	-	-	-	X
55	MG	BA	3158	-	-	-	X
55	MG	BA	3160	-	-	-	X
55	MG	BA	3162	-	-	-	X
55	MG	BA	3163	-	-	-	X
55	MG	BA	3169	-	-	-	X
55	MG	BA	3172	-	-	-	X
55	MG	BA	3173	-	-	-	X
55	MG	BA	3178	-	-	-	X
55	MG	BA	3181	-	-	-	X
55	MG	BA	3183	-	-	-	X
55	MG	BA	3184	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	BA	3186	-	-	-	X
55	MG	BA	3187	-	-	-	X
55	MG	BA	3190	-	-	-	X
55	MG	BA	3195	-	-	-	X
55	MG	BA	3196	-	-	-	X
55	MG	BA	3197	-	-	-	X
55	MG	BA	3199	-	-	-	X
55	MG	BA	3206	-	-	-	X
55	MG	BA	3207	-	-	-	X
55	MG	BA	3211	-	-	-	X
55	MG	BA	3216	-	-	-	X
55	MG	BA	3226	-	-	-	X
55	MG	BA	3245	-	-	-	X
55	MG	BA	3249	-	-	-	X
55	MG	BA	3256	-	-	-	X
55	MG	BA	3258	-	-	-	X
55	MG	BA	3259	-	-	-	X
55	MG	BA	3262	-	-	-	X
55	MG	BA	3269	-	-	-	X
55	MG	BA	3270	-	-	-	X
55	MG	BA	3274	-	-	-	X
55	MG	BA	3275	-	-	-	X
55	MG	BA	3287	-	-	-	X
55	MG	BA	3289	-	-	-	X
55	MG	BA	3293	-	-	-	X
55	MG	BA	3297	-	-	-	X
55	MG	BA	3302	-	-	-	X
55	MG	BA	3304	-	-	-	X
55	MG	BA	3307	-	-	-	X
55	MG	BA	3308	-	-	-	X
55	MG	BA	3314	-	-	-	X
55	MG	BA	3319	-	-	-	X
55	MG	BA	3344	-	-	-	X
55	MG	BA	3345	-	-	-	X
55	MG	BA	3346	-	-	-	X
55	MG	BA	3353	-	-	-	X
55	MG	BA	3361	-	-	-	X
55	MG	BA	3365	-	-	-	X
55	MG	BA	3367	-	-	-	X
55	MG	BA	3375	-	-	-	X
55	MG	BA	3378	-	-	-	X
55	MG	BA	3389	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	BA	3393	-	-	-	X
55	MG	BA	3399	-	-	-	X
55	MG	BA	3401	-	-	-	X
55	MG	BA	3411	-	-	-	X
55	MG	BA	3428	-	-	-	X
55	MG	BA	3436	-	-	-	X
55	MG	BA	3442	-	-	-	X
55	MG	BA	3452	-	-	-	X
55	MG	BA	3478	-	-	-	X
55	MG	BA	3484	-	-	-	X
55	MG	BA	3504	-	-	-	X
55	MG	BA	3514	-	-	-	X
55	MG	BA	3516	-	-	-	X
55	MG	BA	3521	-	-	-	X
55	MG	BA	3524	-	-	-	X
55	MG	BA	3528	-	-	-	X
55	MG	BA	3532	-	-	-	X
55	MG	BA	3583	-	-	-	X
55	MG	BA	3584	-	-	-	X
55	MG	BA	3591	-	-	-	X
55	MG	BA	3600	-	-	-	X
55	MG	BA	3610	-	-	-	X
55	MG	BA	3616	-	-	-	X
55	MG	BA	3619	-	-	-	X
55	MG	BB	215	-	-	-	X
55	MG	BB	217	-	-	-	X
55	MG	BE	301	-	-	-	X
55	MG	BO	201	-	-	-	X
55	MG	CA	1604	-	-	-	X
55	MG	CA	1606	-	-	-	X
55	MG	CA	1610	-	-	-	X
55	MG	CA	1622	-	-	-	X
55	MG	CA	1634	-	-	-	X
55	MG	CA	1640	-	-	-	X
55	MG	CA	1646	-	-	-	X
55	MG	CA	1647	-	-	-	X
55	MG	CA	1648	-	-	-	X
55	MG	CA	1650	-	-	-	X
55	MG	CA	1654	-	-	-	X
55	MG	CA	1657	-	-	-	X
55	MG	CA	1668	-	-	-	X
55	MG	CA	1676	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	CA	1678	-	-	-	X
55	MG	CA	1685	-	-	-	X
55	MG	CA	1686	-	-	-	X
55	MG	CA	1690	-	-	-	X
55	MG	CA	1691	-	-	-	X
55	MG	CA	1716	-	-	-	X
55	MG	CA	1719	-	-	-	X
55	MG	CA	1722	-	-	-	X
55	MG	CA	1739	-	-	-	X
55	MG	CA	1749	-	-	-	X
55	MG	CA	1750	-	-	-	X
55	MG	CA	1754	-	-	-	X
55	MG	CA	1755	-	-	-	X
55	MG	CA	1758	-	-	-	X
55	MG	CA	1766	-	-	-	X
55	MG	CA	1771	-	-	-	X
55	MG	CA	1777	-	-	-	X
55	MG	CA	1784	-	-	-	X
55	MG	CA	1785	-	-	-	X
55	MG	CA	1798	-	-	-	X
55	MG	CA	1802	-	-	-	X
55	MG	CA	1803	-	-	-	X
55	MG	CA	1804	-	-	-	X
55	MG	CC	102	-	-	-	X
55	MG	CS	101	-	-	-	X
55	MG	D1	201	-	-	-	X
55	MG	D1	202	-	-	-	X
55	MG	DA	3019	-	-	-	X
55	MG	DA	3033	-	-	-	X
55	MG	DA	3046	-	-	-	X
55	MG	DA	3047	-	-	-	X
55	MG	DA	3052	-	-	-	X
55	MG	DA	3055	-	-	-	X
55	MG	DA	3063	-	-	-	X
55	MG	DA	3069	-	-	-	X
55	MG	DA	3080	-	-	-	X
55	MG	DA	3081	-	-	-	X
55	MG	DA	3085	-	-	-	X
55	MG	DA	3086	-	-	-	X
55	MG	DA	3087	-	-	-	X
55	MG	DA	3094	-	-	-	X
55	MG	DA	3096	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	DA	3101	-	-	-	X
55	MG	DA	3103	-	-	-	X
55	MG	DA	3104	-	-	-	X
55	MG	DA	3105	-	-	-	X
55	MG	DA	3110	-	-	-	X
55	MG	DA	3112	-	-	-	X
55	MG	DA	3113	-	-	-	X
55	MG	DA	3114	-	-	-	X
55	MG	DA	3121	-	-	-	X
55	MG	DA	3122	-	-	-	X
55	MG	DA	3125	-	-	-	X
55	MG	DA	3127	-	-	-	X
55	MG	DA	3128	-	-	-	X
55	MG	DA	3129	-	-	-	X
55	MG	DA	3130	-	-	-	X
55	MG	DA	3131	-	-	-	X
55	MG	DA	3132	-	-	-	X
55	MG	DA	3134	-	-	-	X
55	MG	DA	3135	-	-	-	X
55	MG	DA	3143	-	-	-	X
55	MG	DA	3144	-	-	-	X
55	MG	DA	3145	-	-	-	X
55	MG	DA	3150	-	-	-	X
55	MG	DA	3155	-	-	-	X
55	MG	DA	3156	-	-	-	X
55	MG	DA	3157	-	-	-	X
55	MG	DA	3158	-	-	-	X
55	MG	DA	3159	-	-	-	X
55	MG	DA	3161	-	-	-	X
55	MG	DA	3162	-	-	-	X
55	MG	DA	3164	-	-	-	X
55	MG	DA	3165	-	-	-	X
55	MG	DA	3169	-	-	-	X
55	MG	DA	3174	-	-	-	X
55	MG	DA	3176	-	-	-	X
55	MG	DA	3180	-	-	-	X
55	MG	DA	3187	-	-	-	X
55	MG	DA	3188	-	-	-	X
55	MG	DA	3190	-	-	-	X
55	MG	DA	3191	-	-	-	X
55	MG	DA	3196	-	-	-	X
55	MG	DA	3198	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	DA	3201	-	-	-	X
55	MG	DA	3204	-	-	-	X
55	MG	DA	3210	-	-	-	X
55	MG	DA	3212	-	-	-	X
55	MG	DA	3213	-	-	-	X
55	MG	DA	3214	-	-	-	X
55	MG	DA	3215	-	-	-	X
55	MG	DA	3218	-	-	-	X
55	MG	DA	3221	-	-	-	X
55	MG	DA	3222	-	-	-	X
55	MG	DA	3224	-	-	-	X
55	MG	DA	3227	-	-	-	X
55	MG	DA	3228	-	-	-	X
55	MG	DA	3230	-	-	-	X
55	MG	DA	3233	-	-	-	X
55	MG	DA	3237	-	-	-	X
55	MG	DA	3239	-	-	-	X
55	MG	DA	3245	-	-	-	X
55	MG	DA	3254	-	-	-	X
55	MG	DA	3260	-	-	-	X
55	MG	DA	3261	-	-	-	X
55	MG	DA	3262	-	-	-	X
55	MG	DA	3263	-	-	-	X
55	MG	DA	3264	-	-	-	X
55	MG	DA	3266	-	-	-	X
55	MG	DA	3274	-	-	-	X
55	MG	DA	3275	-	-	-	X
55	MG	DA	3278	-	-	-	X
55	MG	DA	3281	-	-	-	X
55	MG	DA	3283	-	-	-	X
55	MG	DA	3284	-	-	-	X
55	MG	DA	3285	-	-	-	X
55	MG	DA	3295	-	-	-	X
55	MG	DA	3299	-	-	-	X
55	MG	DA	3303	-	-	-	X
55	MG	DA	3310	-	-	-	X
55	MG	DA	3317	-	-	-	X
55	MG	DA	3319	-	-	-	X
55	MG	DA	3326	-	-	-	X
55	MG	DA	3328	-	-	-	X
55	MG	DA	3331	-	-	-	X
55	MG	DA	3332	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	DA	3335	-	-	-	X
55	MG	DA	3337	-	-	-	X
55	MG	DA	3355	-	-	-	X
55	MG	DA	3364	-	-	-	X
55	MG	DA	3369	-	-	-	X
55	MG	DA	3371	-	-	-	X
55	MG	DA	3374	-	-	-	X
55	MG	DA	3376	-	-	-	X
55	MG	DA	3385	-	-	-	X
55	MG	DA	3397	-	-	-	X
55	MG	DA	3399	-	-	-	X
55	MG	DA	3400	-	-	-	X
55	MG	DA	3412	-	-	-	X
55	MG	DA	3420	-	-	-	X
55	MG	DA	3426	-	-	-	X
55	MG	DA	3427	-	-	-	X
55	MG	DA	3433	-	-	-	X
55	MG	DA	3438	-	-	-	X
55	MG	DA	3450	-	-	-	X
55	MG	DA	3452	-	-	-	X
55	MG	DA	3456	-	-	-	X
55	MG	DA	3495	-	-	-	X
55	MG	DA	3513	-	-	-	X
55	MG	DA	3522	-	-	-	X
55	MG	DB	207	-	-	-	X
55	MG	DB	211	-	-	-	X
55	MG	DE	303	-	-	-	X



## 2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 299552 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

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

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

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

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

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

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S4.

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

- Molecule 5 is a protein called 30S RIBOSOMAL PROTEIN S5.



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

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S6.

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

- Molecule 7 is a protein called 30S RIBOSOMAL PROTEIN S7.

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

- Molecule 8 is a protein called 30S RIBOSOMAL PROTEIN S8.

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

- Molecule 9 is a protein called 30S RIBOSOMAL PROTEIN S9.

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

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S10.

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

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S11.

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

- Molecule 12 is a protein called 30S RIBOSOMAL PROTEIN S12.

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

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

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

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

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

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S15.

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



- Molecule 16 is a protein called 30S RIBOSOMAL PROTEIN S16.

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

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

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

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S18.

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

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S19.

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

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S20.

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

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



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

- Molecule 22 is a RNA chain called TRNA-LEU.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AB	87	Total	C	N	O	P	0	0	0
			1861	829	333	612	87			
22	CB	87	Total	C	N	O	P	0	0	0
			1861	829	333	612	87			

- Molecule 23 is a RNA chain called TRNA-FMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
23	AD	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
23	CC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
23	CD	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
AC	18	C	U	CONFLICT	GB AP012306.1
AD	18	C	U	CONFLICT	GB AP012306.1
CC	18	C	U	CONFLICT	GB AP012306.1
CD	18	C	U	CONFLICT	GB AP012306.1

- Molecule 24 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	A1	10	Total	C	N	O	P	0	0	0
			205	92	26	77	10			
24	C1	10	Total	C	N	O	P	0	0	0
			205	92	26	77	10			

- Molecule 25 is a RNA chain called RNA (2912-MER).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
25	DA	2907	Total	C	N	O	P	0	0	0
			62607	27866	11712	20123	2906			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	161	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
DA	168	U	-	INSERTION	GB AP008226.1
DA	654A	A	G	CONFLICT	GB AP008226.1
DA	654E	C	G	CONFLICT	GB AP008226.1
DA	654P	G	C	CONFLICT	GB AP008226.1
DA	654T	A	C	CONFLICT	GB AP008226.1
DA	1058	U	G	CONFLICT	GB AP008226.1
DA	1080	A	C	CONFLICT	GB AP008226.1

- Molecule 26 is a RNA chain called 5S RIBOSOMAL RNA.

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

- Molecule 27 is a protein called 50S ribosomal protein L2.

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

- Molecule 28 is a protein called 50S ribosomal protein L3.



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

- Molecule 29 is a protein called 50S ribosomal protein L4.

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

- Molecule 30 is a protein called 50S ribosomal protein L5.

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

- Molecule 31 is a protein called 50S ribosomal protein L6.

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

- Molecule 32 is a protein called 50S ribosomal protein L9.

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

- Molecule 33 is a protein called 50S ribosomal protein L13.

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	DM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 34 is a protein called 50S ribosomal protein L14.

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

- Molecule 35 is a protein called 50S ribosomal protein L15.

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

- Molecule 36 is a protein called 50S ribosomal protein L16.

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

- Molecule 37 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	B0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
37	D0	117	Total	C	N	O	S	0	0	0
			960	599	202	159				

- Molecule 38 is a protein called 50S ribosomal protein L18.

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



- Molecule 39 is a protein called 50S ribosomal protein L19.

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

- Molecule 40 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
40	D1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 41 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
41	D2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 42 is a protein called 50S ribosomal protein L22.

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

- Molecule 43 is a protein called 50S ribosomal protein L23.

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

- Molecule 44 is a protein called 50S ribosomal protein L24.



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

- Molecule 45 is a protein called 50S ribosomal protein L25.

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

- Molecule 46 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B3	76	Total	C	N	O	S	0	0	0
			607	376	128	102	1			
46	D3	77	Total	C	N	O	S	0	0	0
			613	379	129	104	1			

- Molecule 47 is a protein called 50S ribosomal protein L28.

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

- Molecule 48 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BW	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			
48	DW	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			

- Molecule 49 is a protein called 50S ribosomal protein L30.

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

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	DX	59	Total	C	N	O	0	0	0
			469	298	90	81			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B4	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
50	D4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 51 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
51	D5	58	Total	C	N	O	S	0	0	0
			454	285	89	75	5			

- Molecule 52 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
52	D6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			
53	D7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			

- Molecule 54 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			
54	D8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			



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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	BA	623	Total 623	Mg 623	0	0
55	CA	207	Total 207	Mg 207	0	0
55	AB	5	Total 5	Mg 5	0	0
55	B8	1	Total 1	Mg 1	0	0
55	BE	5	Total 5	Mg 5	0	0
55	DU	1	Total 1	Mg 1	0	0
55	B1	1	Total 1	Mg 1	0	0
55	AN	2	Total 2	Mg 2	0	0
55	CN	1	Total 1	Mg 1	0	0
55	B5	1	Total 1	Mg 1	0	0
55	BB	17	Total 17	Mg 17	0	0
55	D3	1	Total 1	Mg 1	0	0
55	BF	3	Total 3	Mg 3	0	0
55	DR	1	Total 1	Mg 1	0	0
55	B2	1	Total 1	Mg 1	0	0
55	AA	242	Total 242	Mg 242	0	0
55	CG	2	Total 2	Mg 2	0	0
55	BU	2	Total 2	Mg 2	0	0
55	A1	2	Total 2	Mg 2	0	0
55	AD	1	Total 1	Mg 1	0	0
55	CC	8	Total 8	Mg 8	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	DE	3	Total 3	Mg 3	0	0
55	B3	1	Total 1	Mg 1	0	0
55	DA	526	Total 526	Mg 526	0	0
55	B7	1	Total 1	Mg 1	0	0
55	AG	1	Total 1	Mg 1	0	0
55	BO	2	Total 2	Mg 2	0	0
55	AQ	1	Total 1	Mg 1	0	0
55	D1	2	Total 2	Mg 2	0	0
55	AH	1	Total 1	Mg 1	0	0
55	DP	1	Total 1	Mg 1	0	0
55	AC	9	Total 9	Mg 9	0	0
55	CB	3	Total 3	Mg 3	0	0
55	D5	1	Total 1	Mg 1	0	0
55	BD	1	Total 1	Mg 1	0	0
55	B0	1	Total 1	Mg 1	0	0
55	CS	1	Total 1	Mg 1	0	0
55	DB	14	Total 14	Mg 14	0	0

- Molecule 56 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AG	1	Total 1	Zn 1	0	0
56	AQ	1	Total 1	Zn 1	0	0

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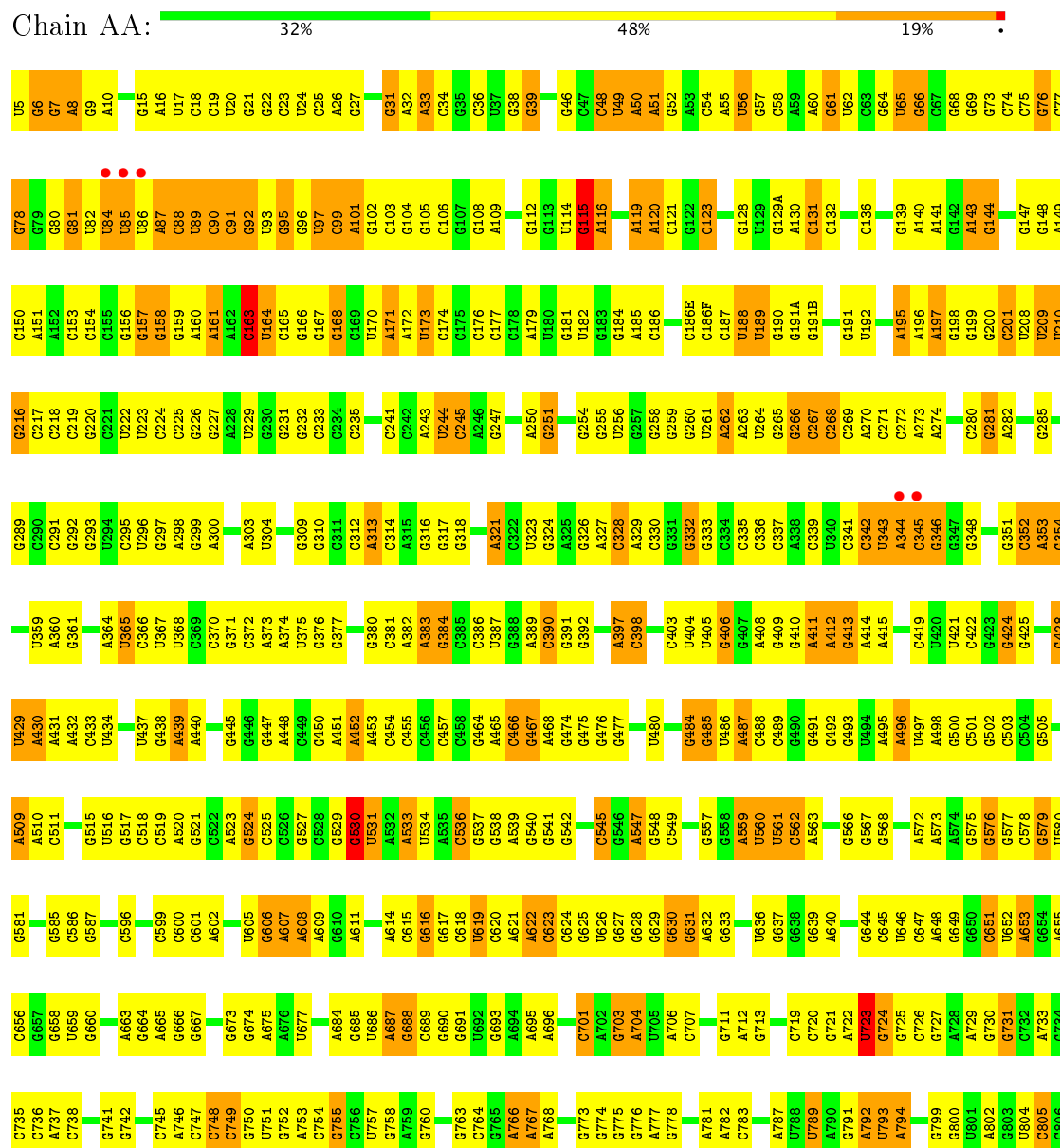
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	CQ	1	Total 1	Zn 1	0	0
56	CG	1	Total 1	Zn 1	0	0



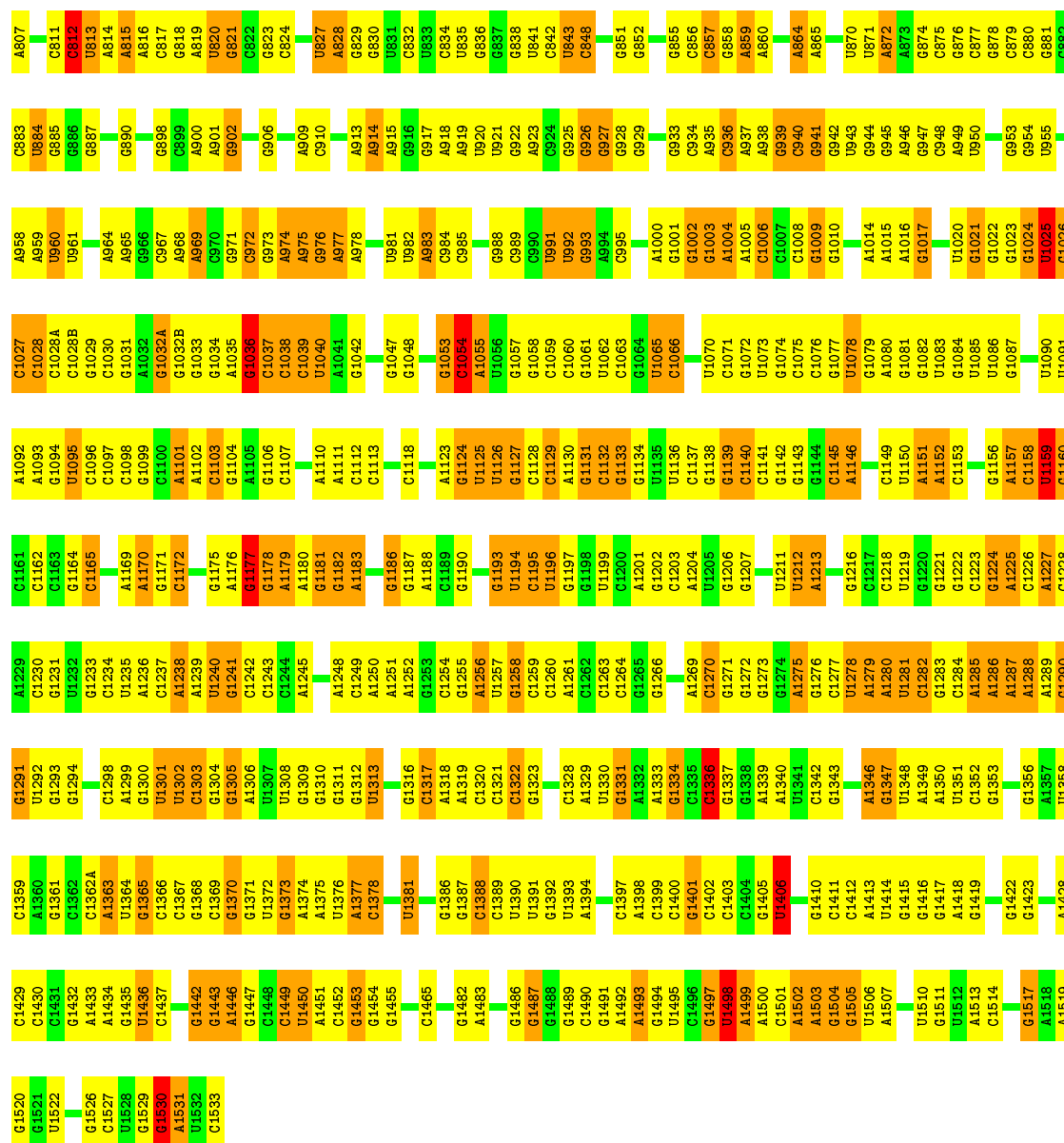
### 3 Residue-property plots

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

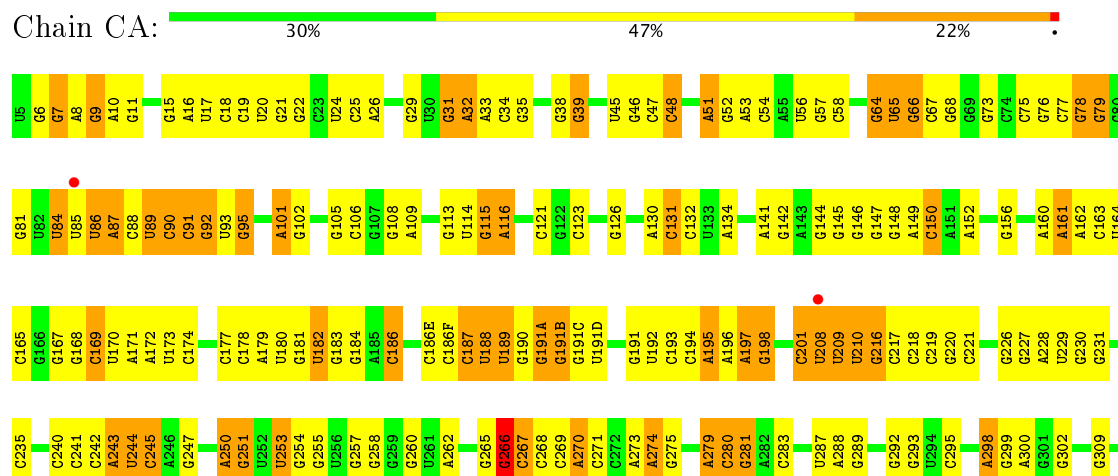
- Molecule 1: 16S ribosomal RNA







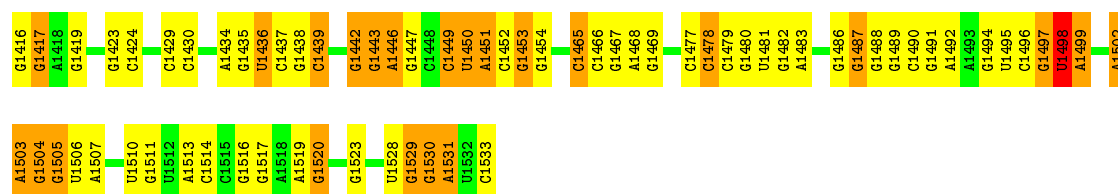
- Molecule 1: 16S ribosomal RNA



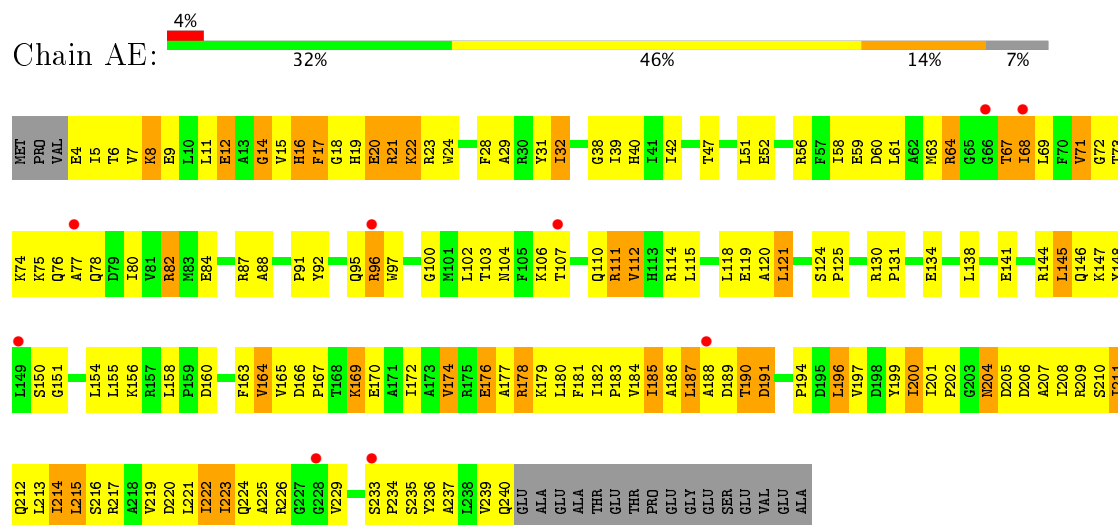


A1350	A1287	C1223	G1160	C1100	G1034	A978	G917	U833	G755	G682	G541	G467	C390	A313
A1351	A1288	G1224	A1161	C1101	A1035	C979	A918	U834	G756	G683	G542	A468	C391	A314
A1352	A1289	A1225	C1162	A1101	G1036	C980	A919	C834	U757	A684	C543	G474	G392	A315
G1353	G1226	G1163	A1102	C1102	C1037	U981	U920	U835	G758	G685	G544	G475	A393	G316
G1354	G1227	G1164	C1103	C1103	C1038	U982	U921	G836	G759	G686	G545	G476	C394	G317
G1355	U1292	C1228	C1165	G1104	C1039	A983	G922	G837	G763	A687	G546	G477	C395	A321
G1356	G1293	G1231	A1105	A1105	U1040	C984	A923	G838	G764	G688	G547	A478	G396	A322
A1357	G1294	C1357	G1170	G1106	A1041	C985	G926	U841	G765	G689	G548	G479	G397	G326
U1358	G1295	U1232	A1171	C1107	G1042	A986	G927	U842	A766	G690	C549	G481	C398	A327
G1359	G1233	G1234	G1172	C1108	C1043	G987	G928	U843	G769	G692	U551	A482	A329	G328
G1361	G1297	C1234	G1173	C1109	A1044	G988	G929	C848	U550	G693	U552	C483	U404	A329
G1362	U1235	G1173	G1174	A1110	C1045	C989	C930	G849	G773	G694	U553	A484	U405	G332
C1362A	A1299	A1236	G1174	A1111	A1046	C990	C931	U850	G774	A694	U554	G485	G406	G333
A1363	G1237	G1363	G1300	C1112	G1047	U991	C932	G851	G775	A695	C554	U486	G407	G334
U1364	A1238	A1176	C1175	C1113	G1048	U992	C933	G852	G776	A696	C555	A487	A408	G335
G1365	G1177	G1365	G1177	G1177	G993	G993	G933	G853	G776	G696	G556	C488	C409	G339
C1366	C1303	U1240	G1178	C1116	U1052	A994	G934	G854	A777	G700	G630	C489	C410	U340
C1367	G1241	G1241	A1179	G1117	G1053	C995	A935	G854	G778	C701	G631	C489	C411	C341
G1368	G1305	C1242	A1180	C1118	C1054	C996	C1054	G858	G779	A702	A632	A495	A412	C342
C1369	G1243	G1181	A1181	C1119	A1055	U997	A937	A859	A780	G703	G633	A496	G413	U343
G1370	C1244	G1370	A1182	G1120	U1056	G998	G938	A860	G785	A704	C634	U497	A414	A344
G1371	G1309	U1247	A1183	U1121	G1057	C998A	G939	G861	C783	U705	G635	A498	G345	G345
G1372	G1310	C1370	G1184	U1122	G1058	U999	C940	C862	G784	A706	C564	G500	G346	G346
G1373	G1311	A1248	G1185	A1123	C1059	A1001	G941	U863	G785	C707	U565	C501	G347	G347
A1374	C1249	G1374	G1186	G1124	C1060	G1001	G942	A864	G786	G710	U641	G502	G348	G348
A1375	A1250	A1375	G1187	G1125	G1061	G1002	U943	G871	U788	G711	C643	C503	G349	A349
U1376	C1314	A1251	A1188	U1126	U1062	G1003	U944	G869	U788	G710	C643	C504	G350	G350
A1377	G1315	A1252	A1189	U1127	C1063	A1004	G945	U870	G791	A712	C645	G505	G351	G351
G1378	G1316	G1253	G1190	C1128	G1064	A1005	C946	U871	G792	U646	U571	G506	C352	C352
A1379	G1317	G1254	A1191	C1129	U1065	C1006	G947	A872	G793	U646	U571	C501	A353	A353
U1380	A1318	G1255	A1192	A1130	C1066	C1007	C948	A873	U793	C647	A572	A509	G354	G354
A1381	C1319	U1381	G1193	C1131	A1067	C1008	A949	U874	A794	G719	A573	A510	G355	G355
C1382	C1320	U1257	U1194	G1132	G1068	C1009	U950	C877	G795	G720	A574	C511	A430	A356
G1386	C1321	G1258	C1195	G1133	C1069	G1010	G951	C878	C796	G721	G575	U512	A431	G358
G1387	C1322	C1259	U1196	G1134	U1070	G1011	U952	C879	G797	A722	C651	C513	A432	U358
C1388	G1323	C1260	G1197	U1135	C1071	G1013	G953	C879	G798	G723	U652	C514	C433	U359
U1391	A1324	A1261	G1198	U1136	G1072	A1014	C954	C883	G799	U724	A653	G515	U434	A360
C1392	C1325	C1262	U1199	C1137	U884	A1015	U955	U884	G800	G724	A654	C516	C435	G361
C1393	C1326	C1263	C1200	G1138	G1074	A1016	U956	G885	U801	A728	A655	G517	C436	G362
C1394	G1327	U1139	A1201	G1139	G1075	C1017	U957	G886	A802	G729	C656	C518	U437	A363
C1398	G1328	G1266	G1202	C1140	C1076	G1018	A958	G887	G803	G730	U582	C519	C438	A364
A1399	C1267	C1203	C1203	C1141	G1077	C1019	A959	G888	U804	G731	G660	A520	A439	U365
C1399	A1269	A1204	U1205	G1142	A1080	U1020	U960	A899	C905	G661	G584	G521	A440	C366
C1400	C1330	C1268	A1206	G1143	G1081	C1021	U961	G899	G810	C736	G662	C522	A441	C367
C1401	A1331	U1205	C1206	G1144	G1082	G1022	C962	G901	C811	A737	A663	C586	C444	U368
C1402	G1332	G1207	C1207	C1145	G1083	G1023	G963	C893	C812	C910	G664	C587	G445	G369
C1403	A1333	G1271	C1208	A1146	U1083	G1024	A964	C897	C813	U740	A665	G588	C446	
C1404	G1334	G1272	C1208	C1147	G1084	U1025	A965	C897	C814	G741	G668	C589	C447	
C1405	G1273	G1274	U1085	U1148	G1085	G1026	G966	G898	U813	G742	G668	C590	G448	C372
C1406	G1274	U1212	C1212	C1149	U1086	C1027	C967	G899	A814	C745	U669	G593	G449	A373
C1407	A1275	A1213	A1213	U1150	U1086	C1028	A968	A900	A816	C745	G670	G593	C450	A374
C1408	C1277	G1214	A1151	C1214	G1089	C1028A	A969	A901	C917	A746	G671	C600	A451	U375
C1409	U1278	G1215	G1215	A1152	U1090	C1028B	C970	A901	G818	C747	U672	C601	A452	G376
C1410	A1279	G1216	G1216	C1153	U1091	G1029	G971	A909	A819	C748	G673	A533	A453	G380
C1411	C1344	C1218	G1218	G1154	A1092	C1031	C972	C910	U820	G749	G674	A535	A454	G381
C1412	U1345	U1219	G1155	G1154	A1093	G1031	G973	A913	G921	G750	A675	C536	C457	A382
C1413	A1346	C1282	U1219	G1156	G1094	A1032	A974	A914	U827	U751	A677	G537	C458	A383
C1414	G1347	G1220	A1157	U1095	G1032A	A914	A975	A914	C747	G752	G677	G538	G464	G384
C1415	U1348	A1285	C1221	C1158	C1096	G1032B	G976	A915	A828	A753	A539	A465	C465	
C1416	A1286	C1222	U1159	U1159	C1097	C1032	A977	C916	C920	C754	G681	A469	C466	A389

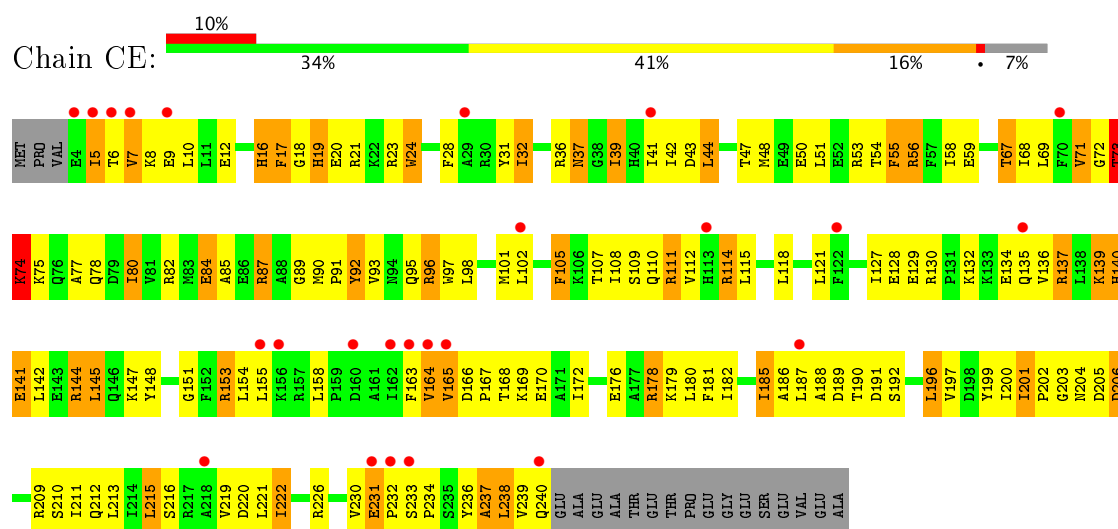




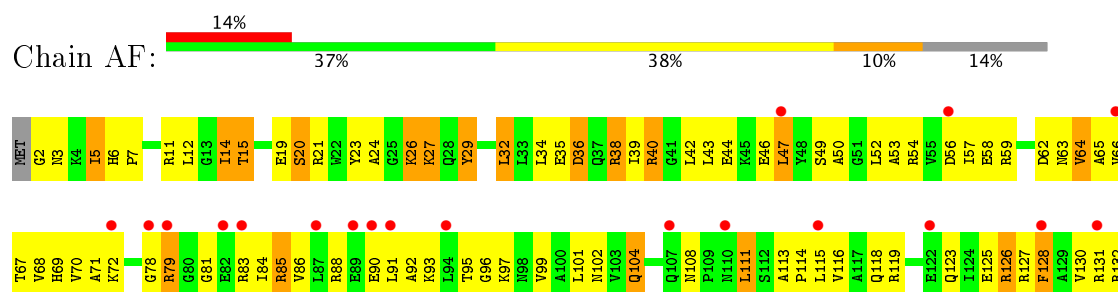
- Molecule 2: 30S RIBOSOMAL PROTEIN S2



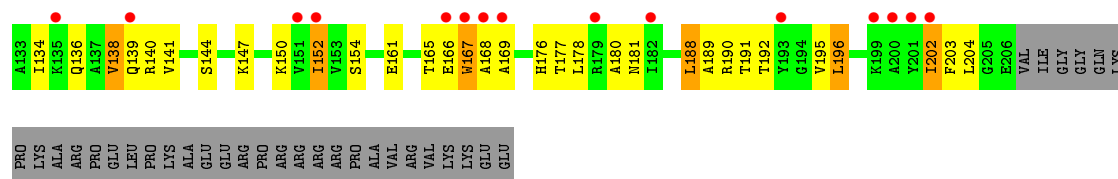
● Molecule 2: 30S RIBOSOMAL PROTEIN S2



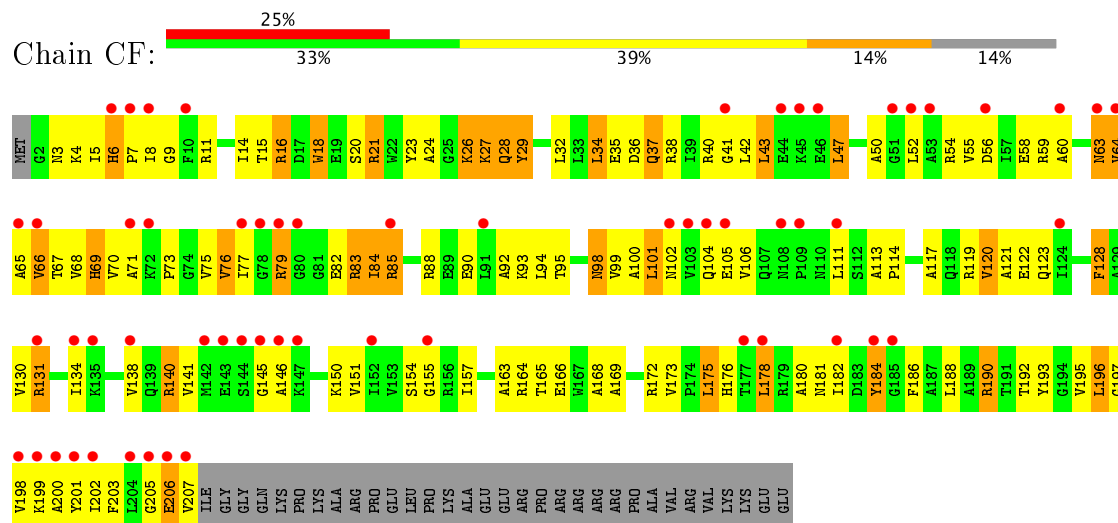
- Molecule 3: 30S RIBOSOMAL PROTEIN S3



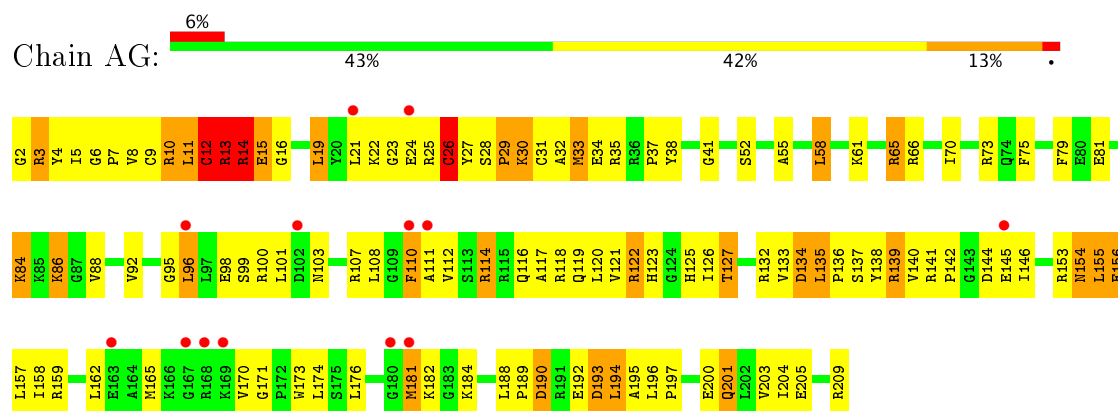




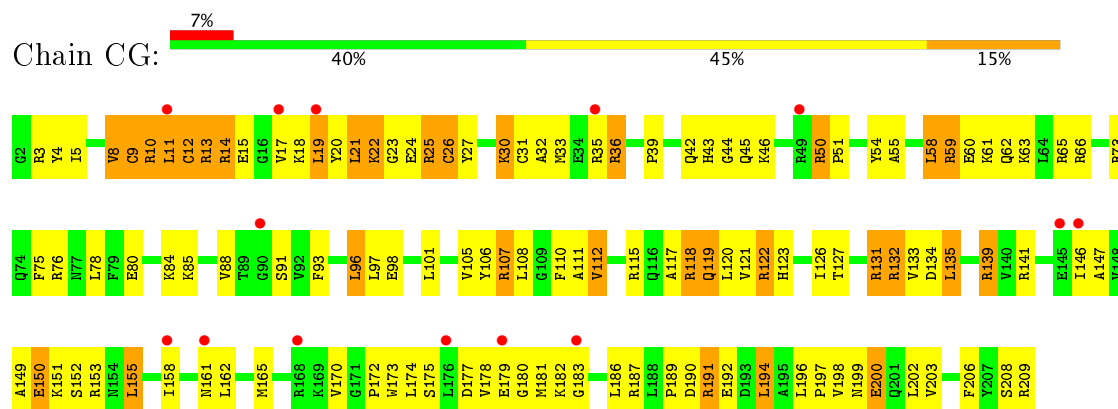
• Molecule 3: 30S RIBOSOMAL PROTEIN S3



• Molecule 4: 30S RIBOSOMAL PROTEIN S4

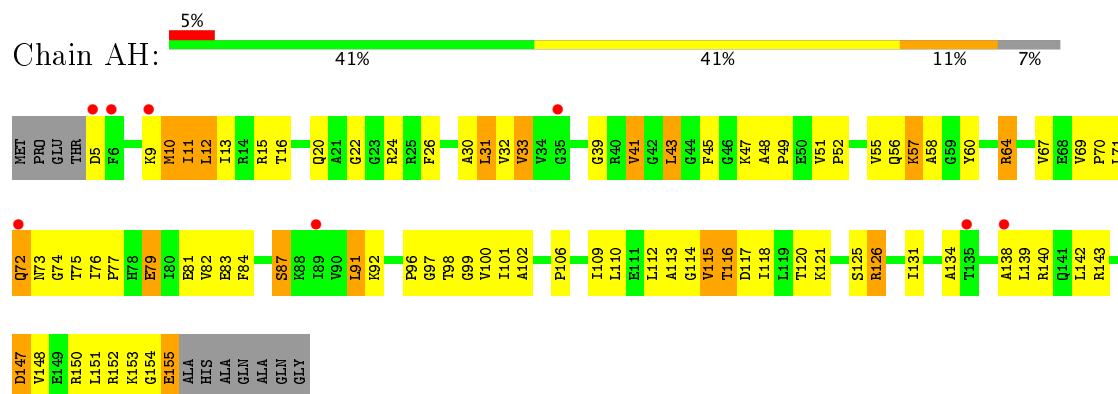


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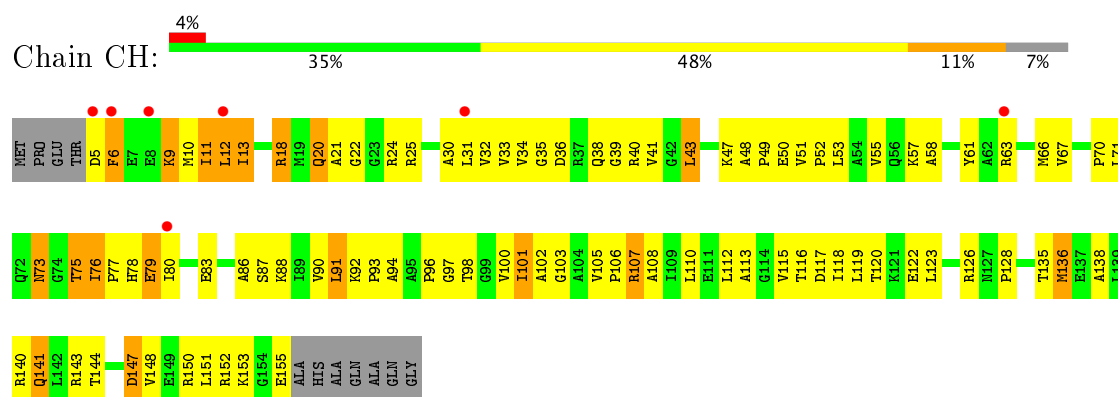




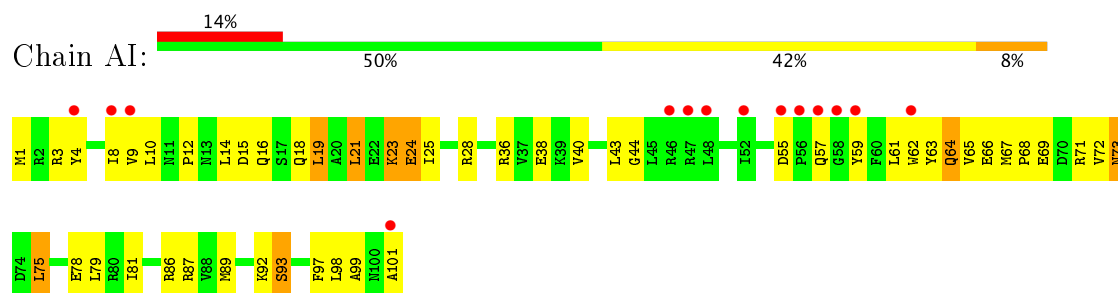
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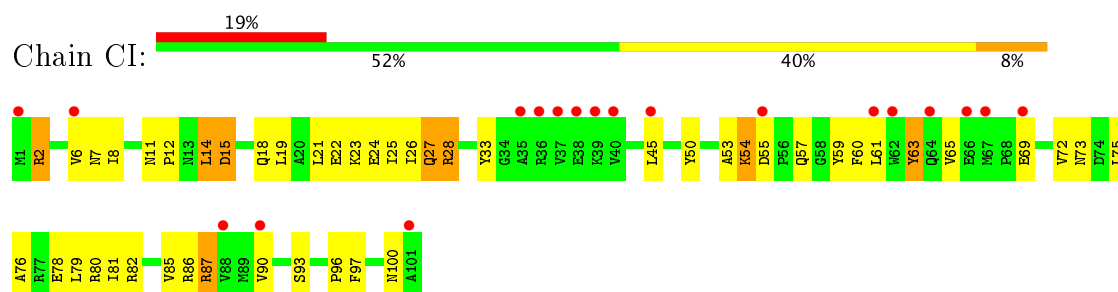
- Molecule 5: 30S RIBOSOMAL PROTEIN S5



- Molecule 6: 30S RIBOSOMAL PROTEIN S6



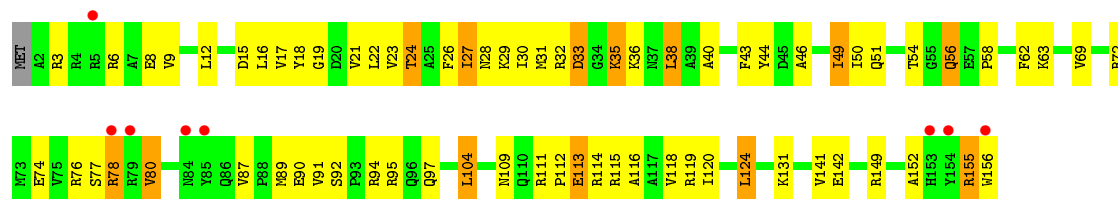
- Molecule 6: 30S RIBOSOMAL PROTEIN S6



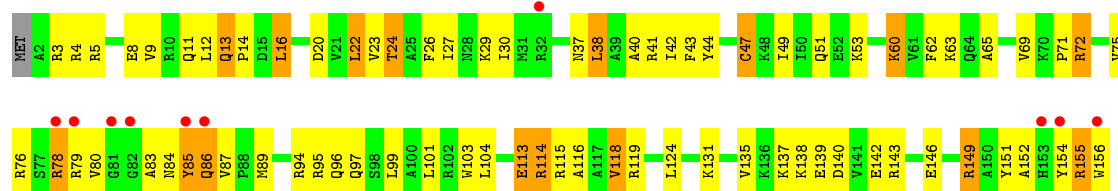
- Molecule 7: 30S RIBOSOMAL PROTEIN S7



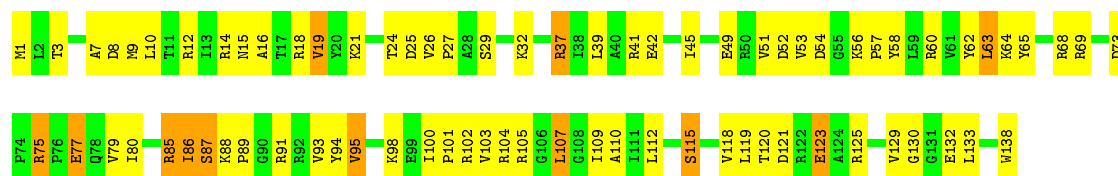




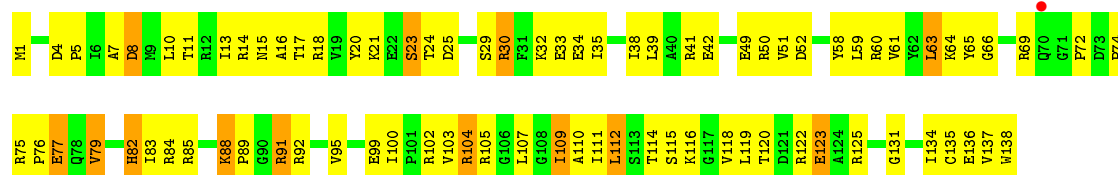
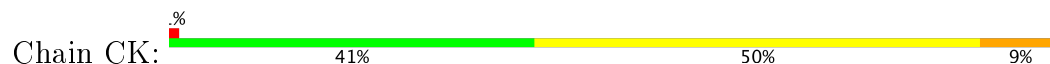
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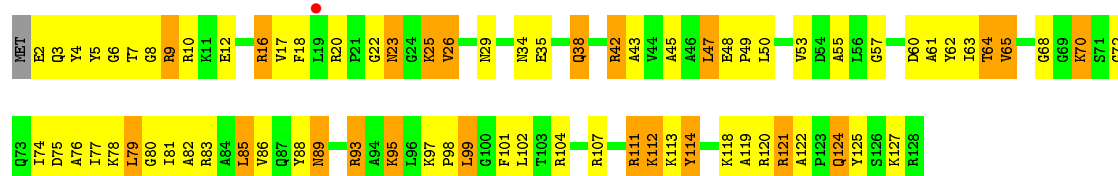
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



• Molecule 8: 30S RIBOSOMAL PROTEIN S8



• Molecule 9: 30S RIBOSOMAL PROTEIN S9



• Molecule 9: 30S RIBOSOMAL PROTEIN S9

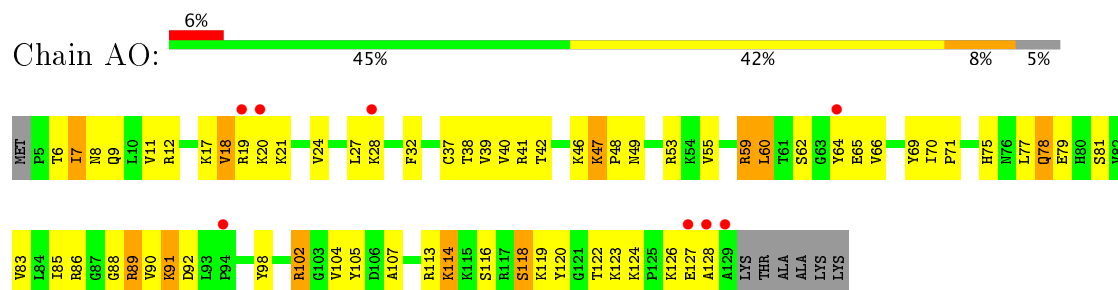




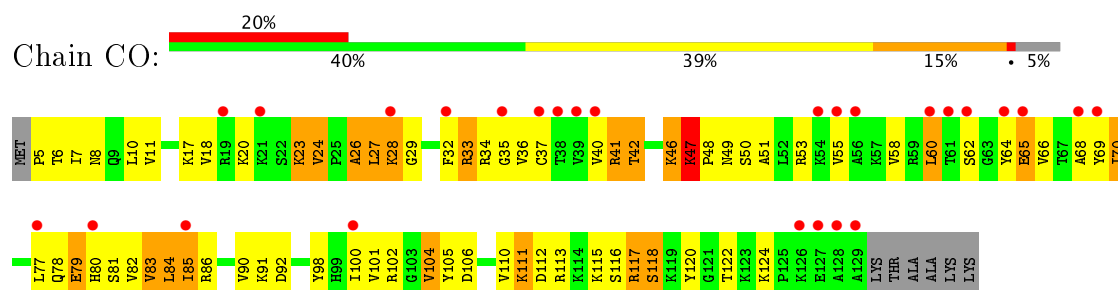




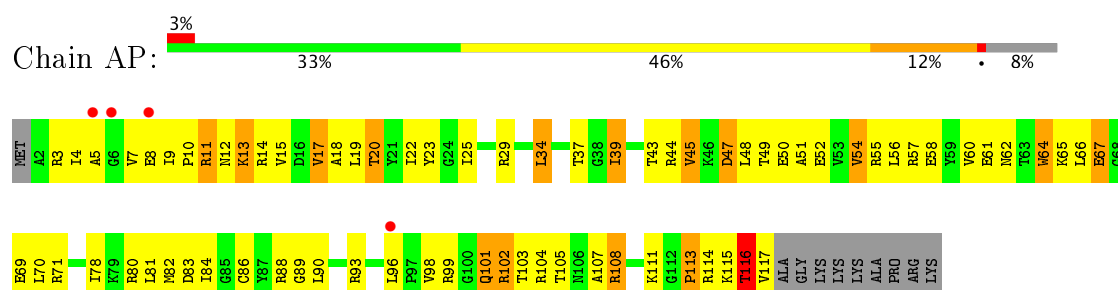
- Molecule 12: 30S RIBOSOMAL PROTEIN S12



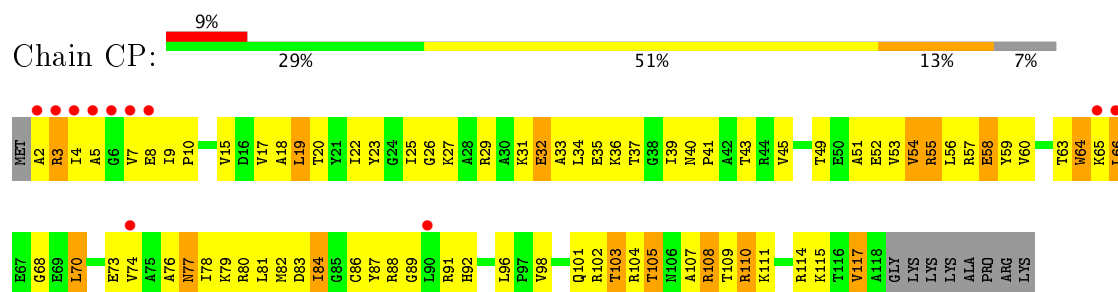
- Molecule 12: 30S RIBOSOMAL PROTEIN S12



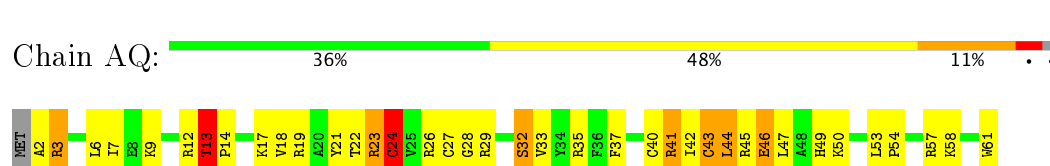
- Molecule 13: 30S RIBOSOMAL PROTEIN S13



- Molecule 13: 30S RIBOSOMAL PROTEIN S13

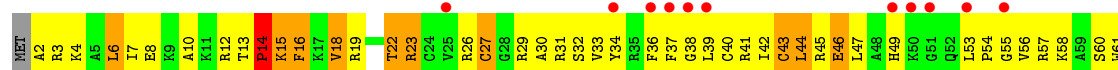


- Molecule 14: 30S RIBOSOMAL PROTEIN S14

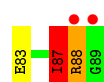
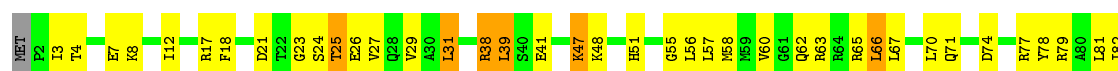


- Molecule 14: 30S RIBOSOMAL PROTEIN S14





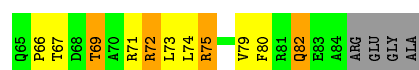
- Molecule 15: 30S RIBOSOMAL PROTEIN S15



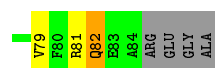
- Molecule 15: 30S RIBOSOMAL PROTEIN S15



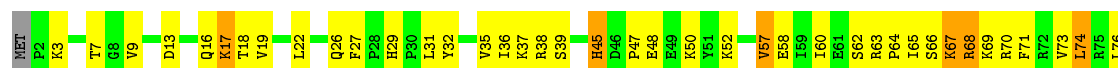
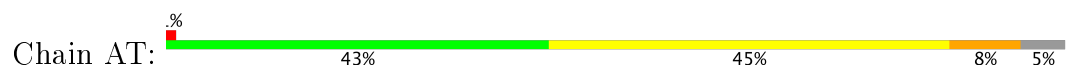
- Molecule 16: 30S RIBOSOMAL PROTEIN S16



- Molecule 16: 30S RIBOSOMAL PROTEIN S16



- Molecule 17: 30S RIBOSOMAL PROTEIN S17



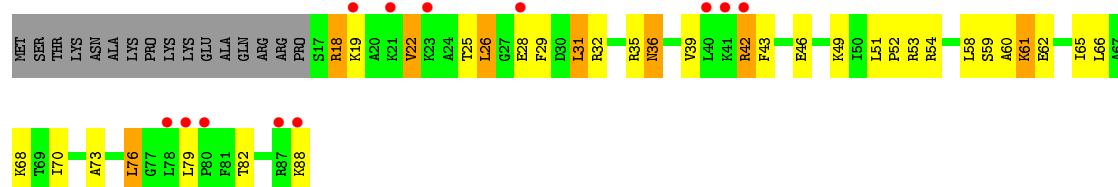
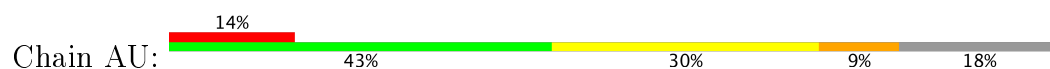




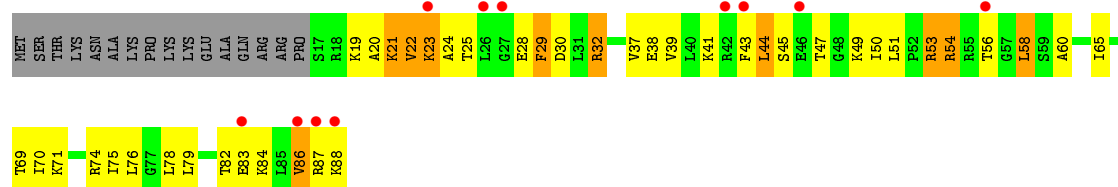
• Molecule 17: 30S RIBOSOMAL PROTEIN S17



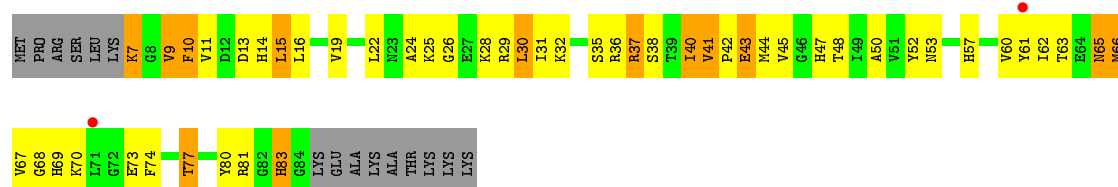
● Molecule 18: 30S RIBOSOMAL PROTEIN S18



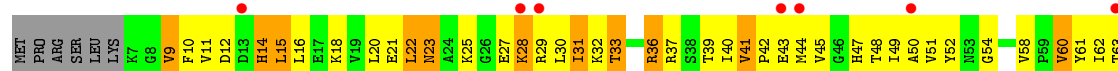
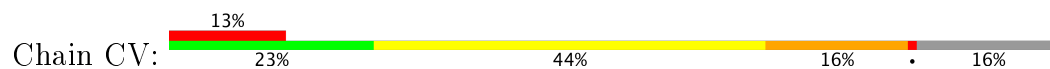
- Molecule 18: 30S RIBOSOMAL PROTEIN S18



● Molecule 19: 30S RIBOSOMAL PROTEIN S19



● Molecule 19: 30S RIBOSOMAL PROTEIN S19







- Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain AW: 33% 52% 8% 7%



- Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CW: 33% 47% 12% 7%



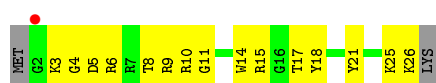
- Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain AX: 41% 41% 11% 7%



- Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain CX: 4% 37% 56% 7%



- Molecule 22: TRNA-LEU

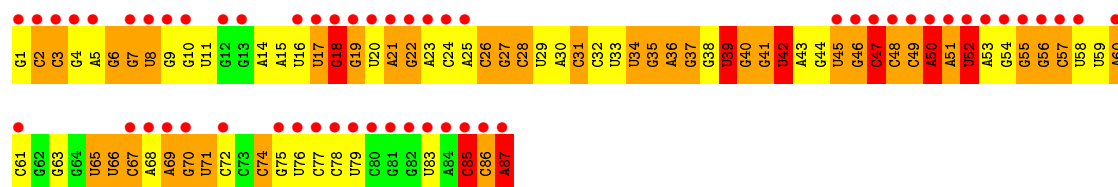
Chain AB: 33% 26% 33% 36% 5%



- Molecule 22: TRNA-LEU

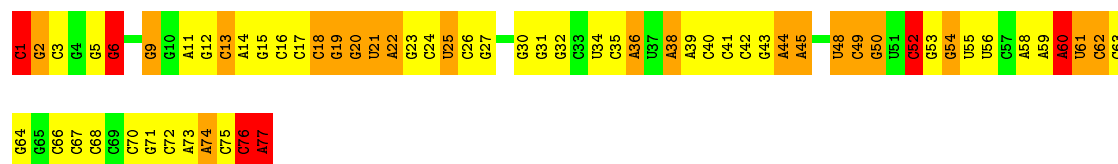
Chain CB: 10% 63% 39% 41% 9%





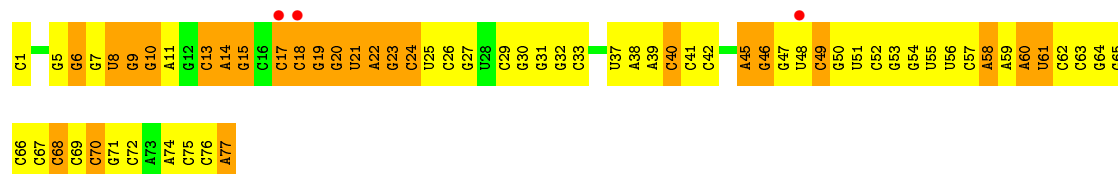
● Molecule 23: TRNA-FMET

Chain AC: 18% 48% 26% 8%



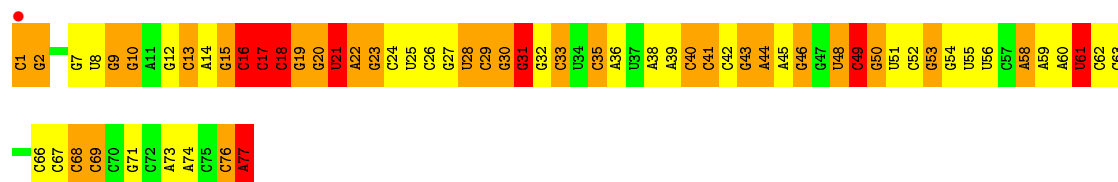
● Molecule 23: TRNA-FMET

Chain AD: 4% 16% 52% 32%



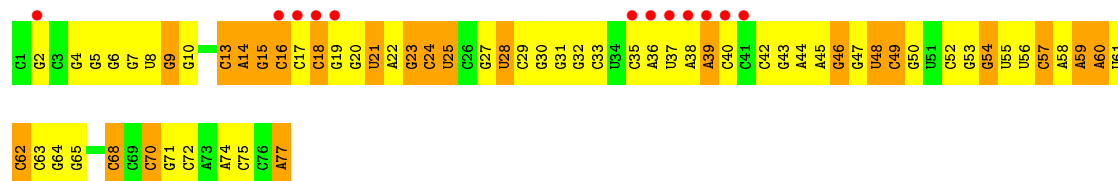
● Molecule 23: TRNA-FMET

Chain CC: 18% 36% 35% 10%



● Molecule 23: TRNA-FMET

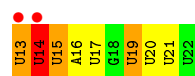
Chain CD: 16% 17% 53% 30%



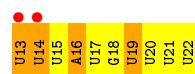
● Molecule 24: MRNA

Chain A1: 20% 20% 40% 30% 10%

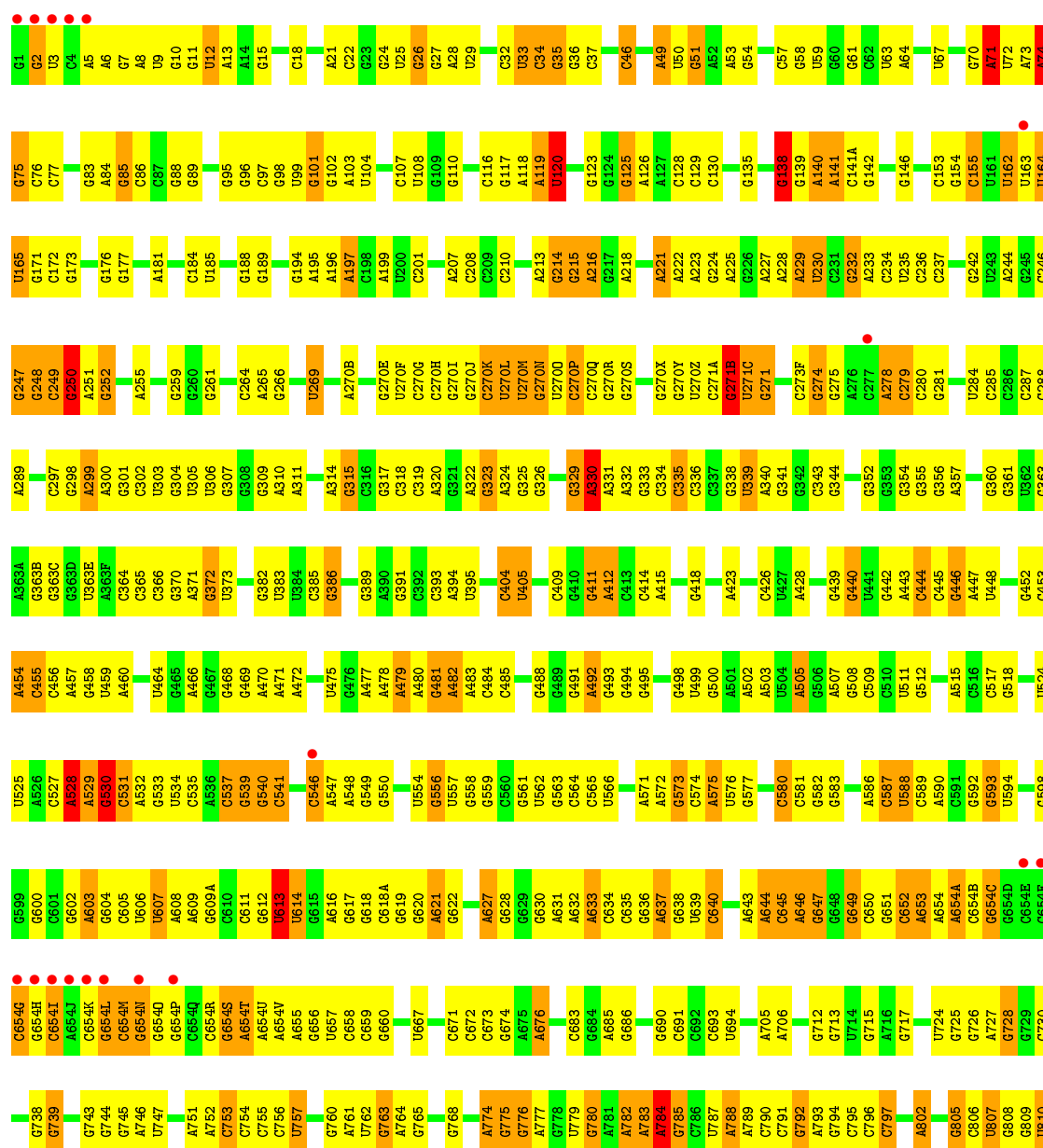




• Molecule 24: MRNA



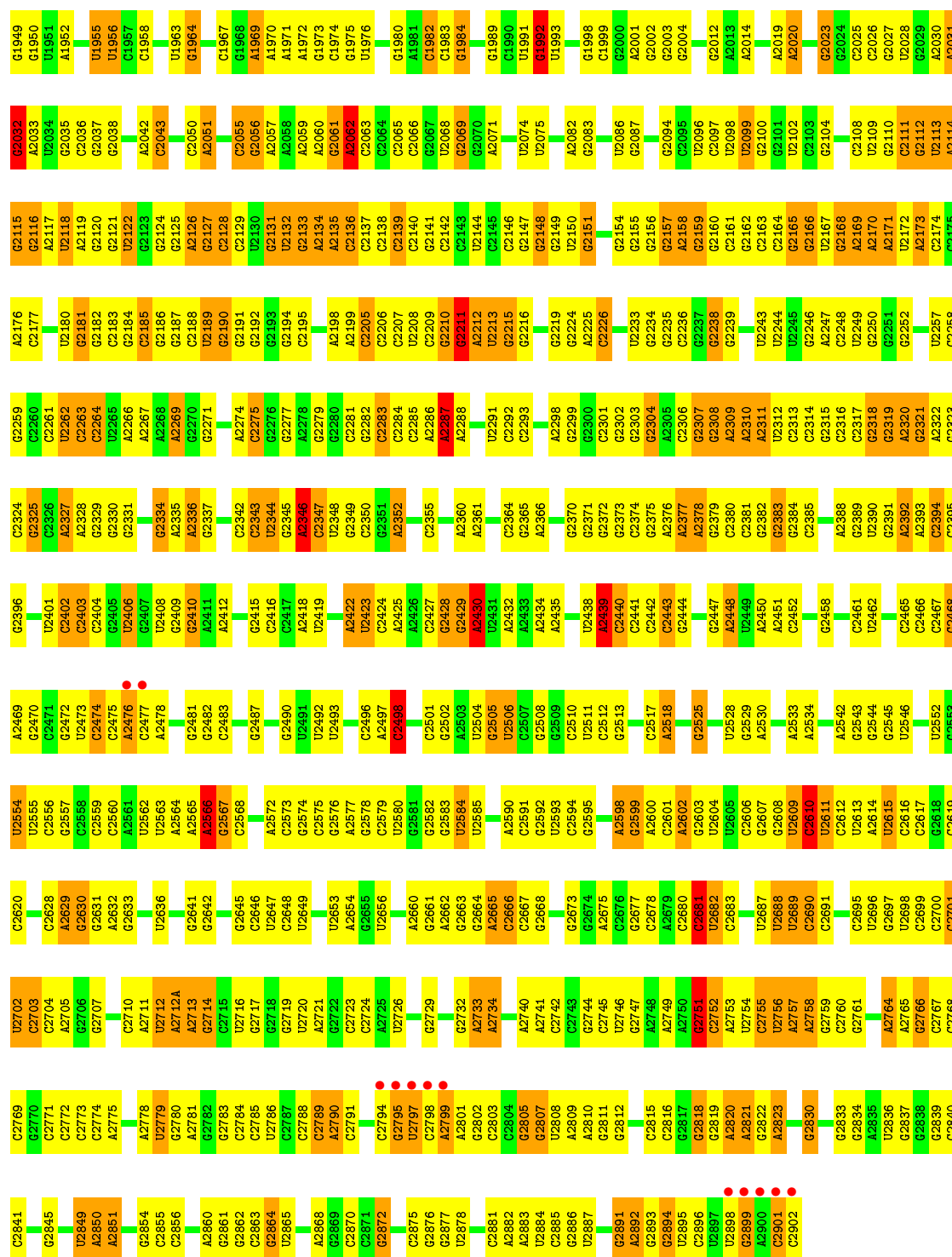
• Molecule 25: RNA (2912-MER)





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G1858	G1859	U1776	G1695	C1598	G1533	G1466	U1396	A1317	A1240	G1163	U1094	A1027	A960	C885	U813
G1861	G1862	U1777	G1696	C1599	G1534	C1467	U1396	C1318	A1241	G1164	A1095	A1028	C961	C886	C814
G1863	G1864	U1778	G1697	C1600	U1535	C1468	G1400	A1321	A1242	U1165	A1096	U1033	U1097	C887	C815
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G1875	G1876	A1786	G1699	A1609	G1542	C1474	U1406	U1330	A1253	G1171	A1103	G1042	G974	U895	A821
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G1941	G1942	G1747	G1747	U1671	G1581	U1513	G1448	U1346	A1268	G1209	G1141	G1083	G975	A929	G859
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G2017	G2018	G1785	G1785	G1674	A1586	U1516	C1486	U1346	A1268	G1247	G1179	G1121	G975	A967	G897
G2019	G2020														





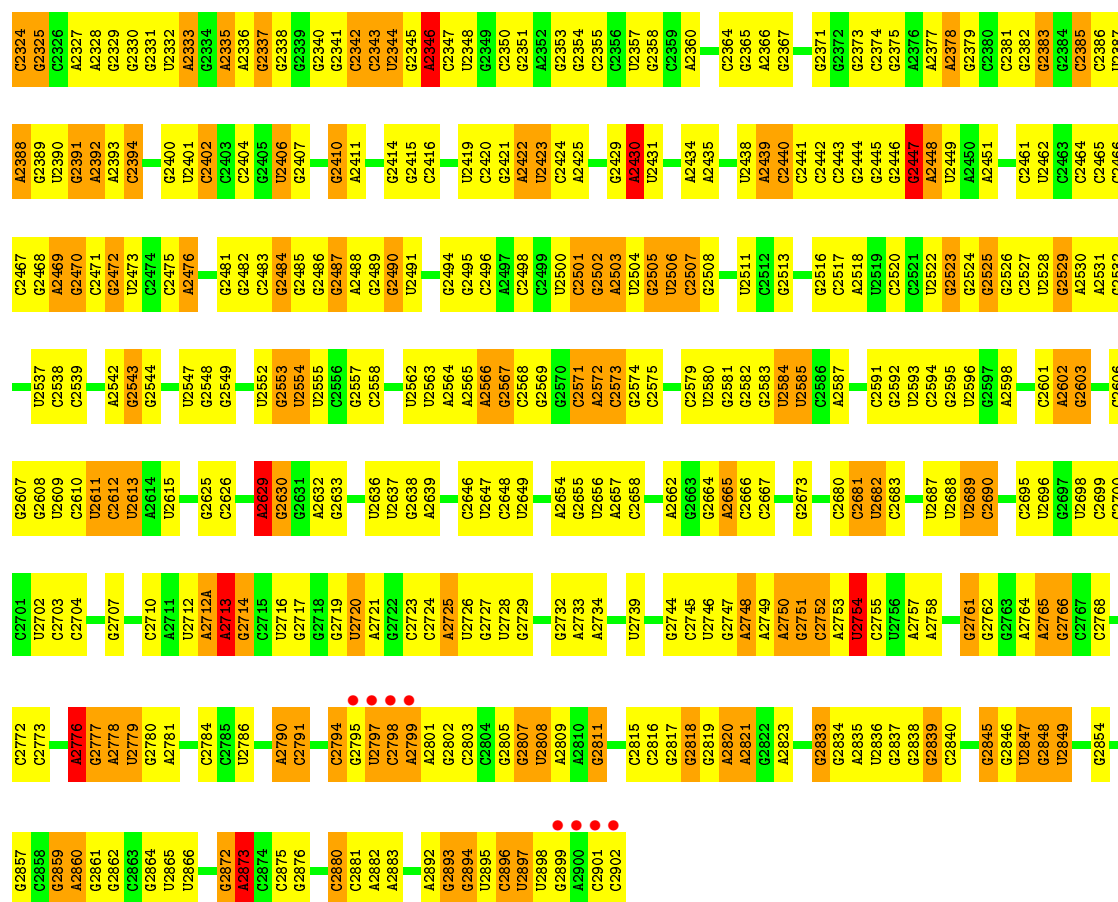


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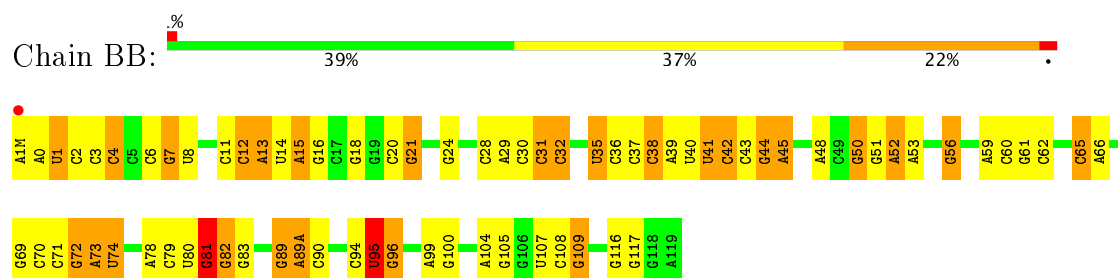


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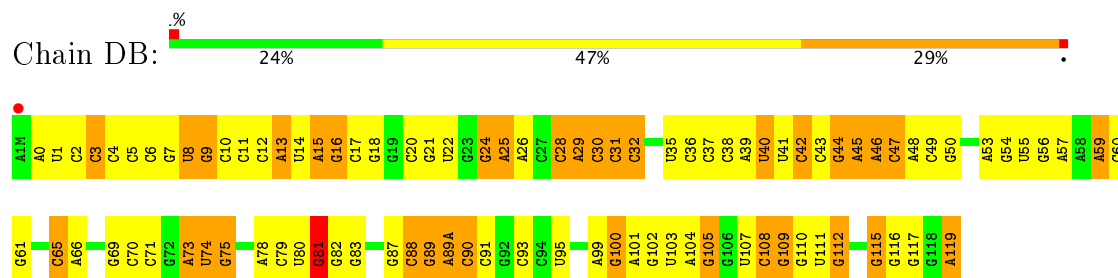




• Molecule 26: 5S RIBOSOMAL RNA



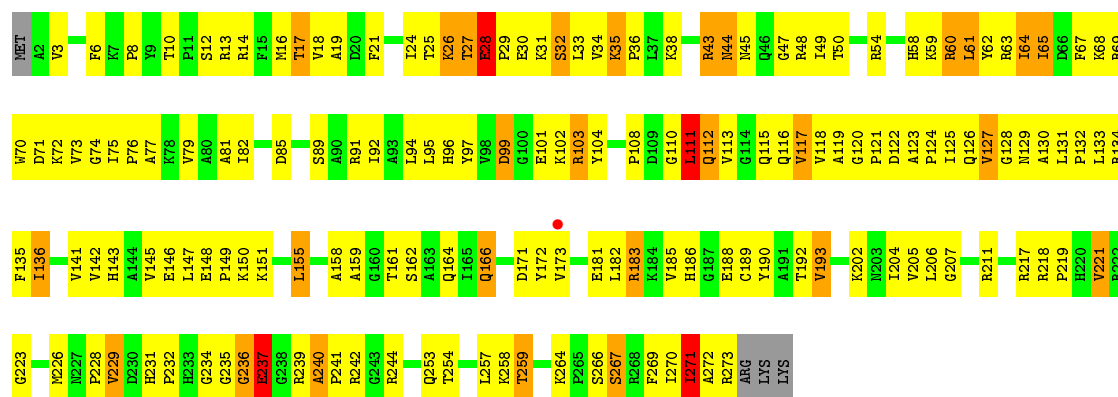
• Molecule 26: 5S RIBOSOMAL RNA



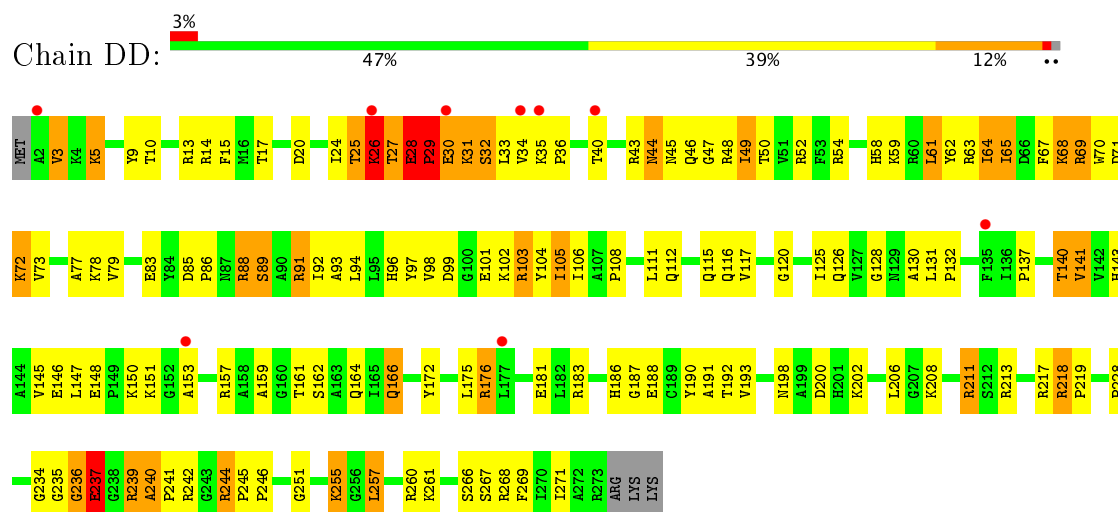
• Molecule 27: 50S ribosomal protein L2



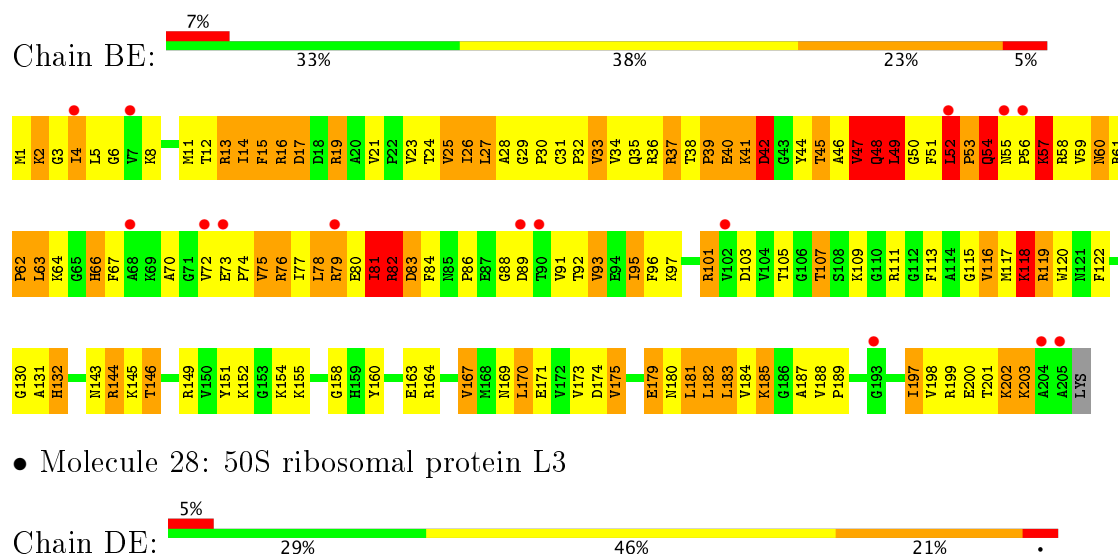




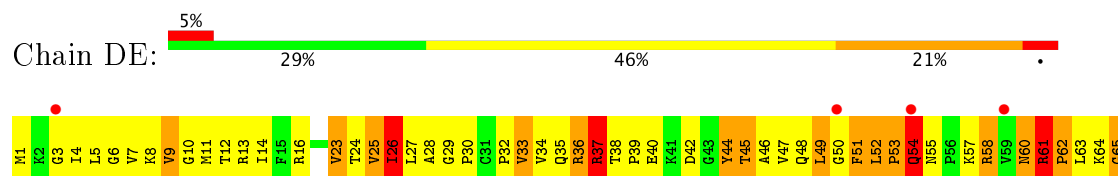
• Molecule 27: 50S ribosomal protein L2



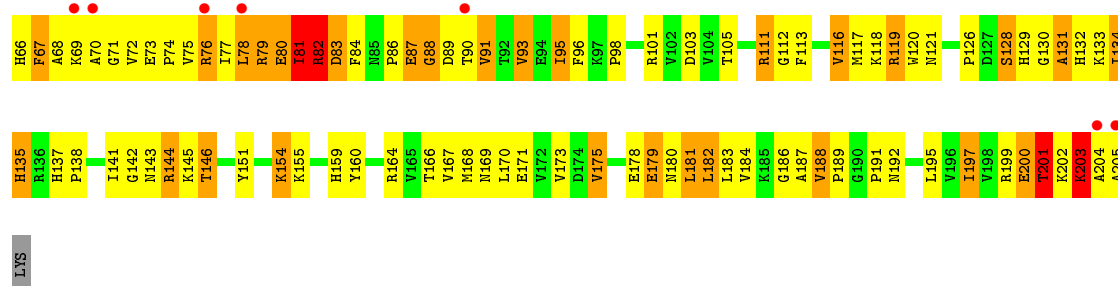
• Molecule 28: 50S ribosomal protein L3



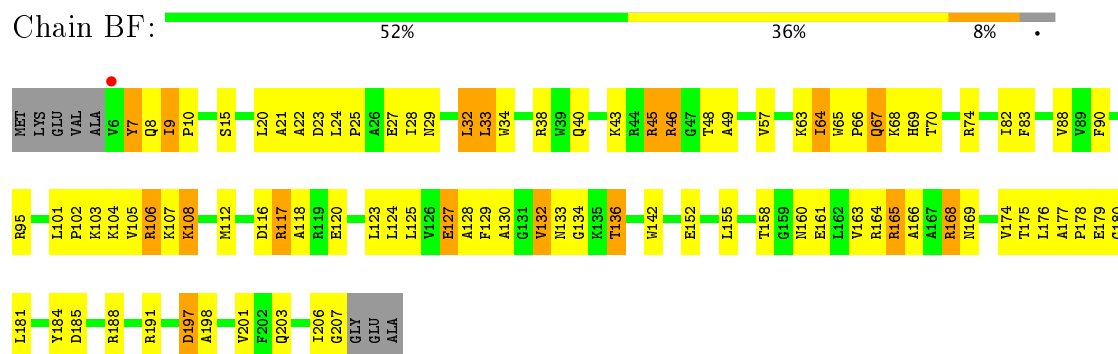
• Molecule 28: 50S ribosomal protein L3



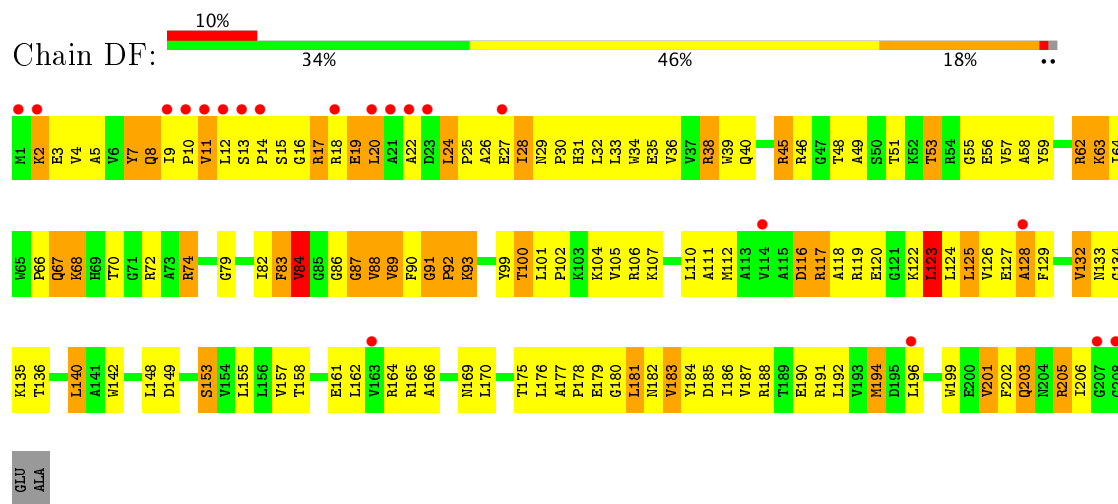




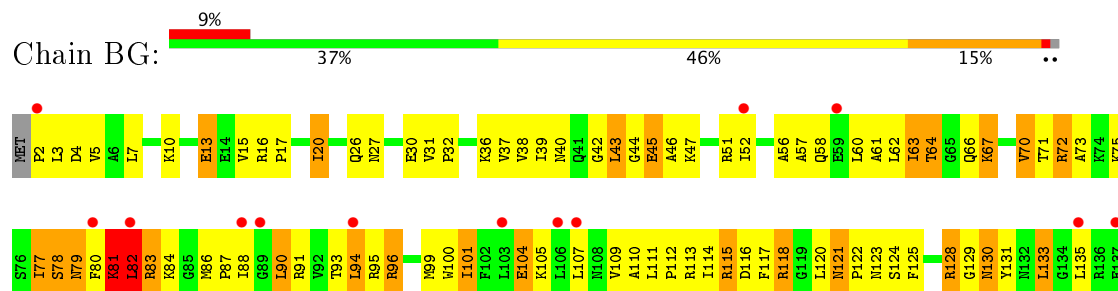
- Molecule 29: 50S ribosomal protein L4



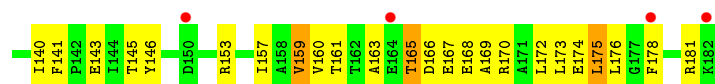
- Molecule 29: 50S ribosomal protein L4



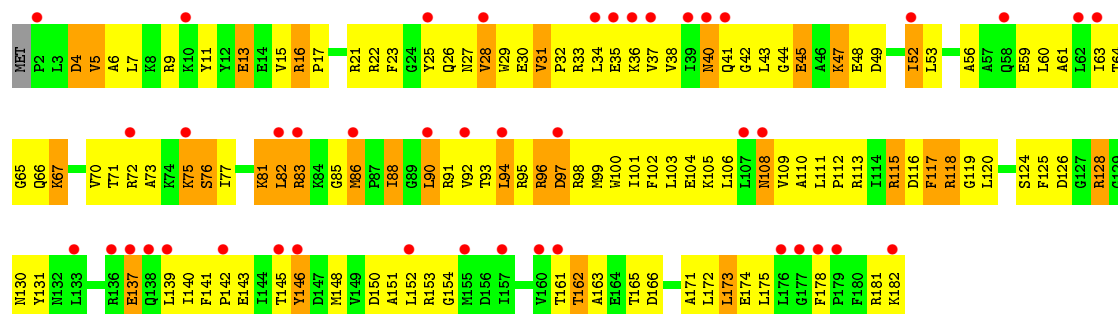
- Molecule 30: 50S ribosomal protein L5



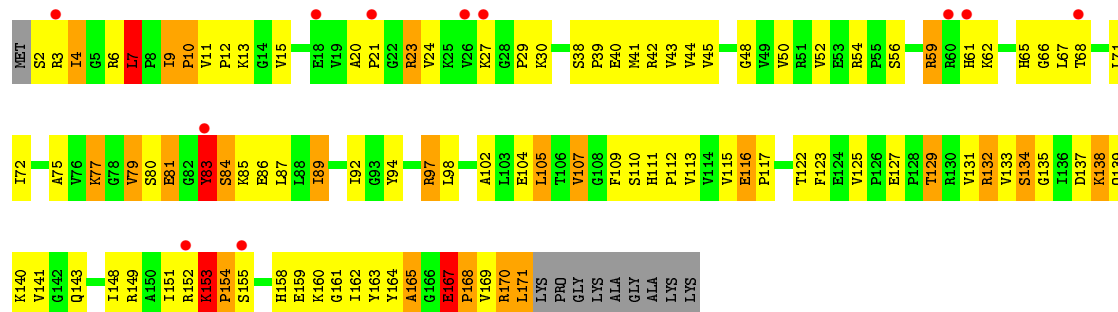




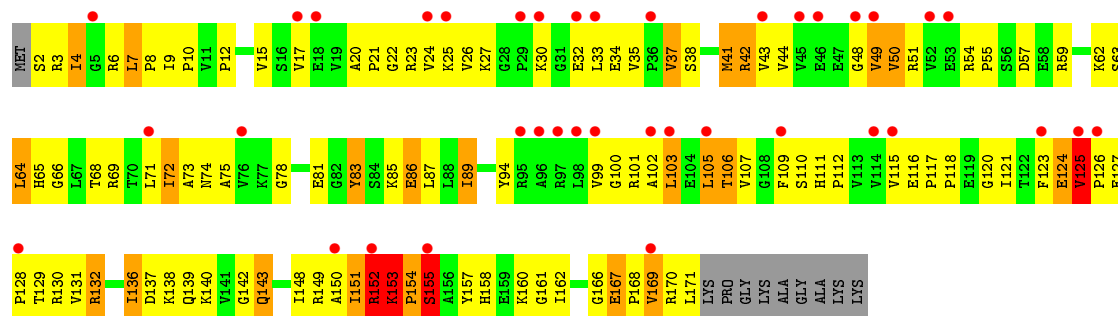
• Molecule 30: 50S ribosomal protein L5



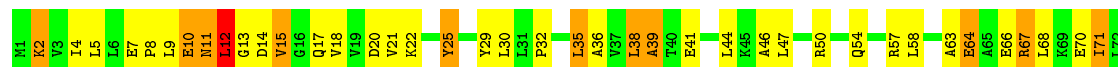
• Molecule 31: 50S ribosomal protein L6



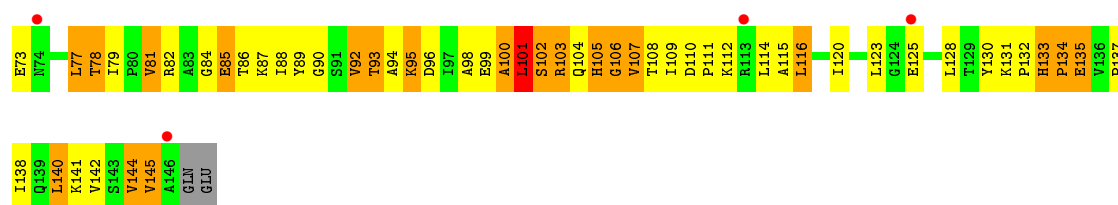
• Molecule 31: 50S ribosomal protein L6



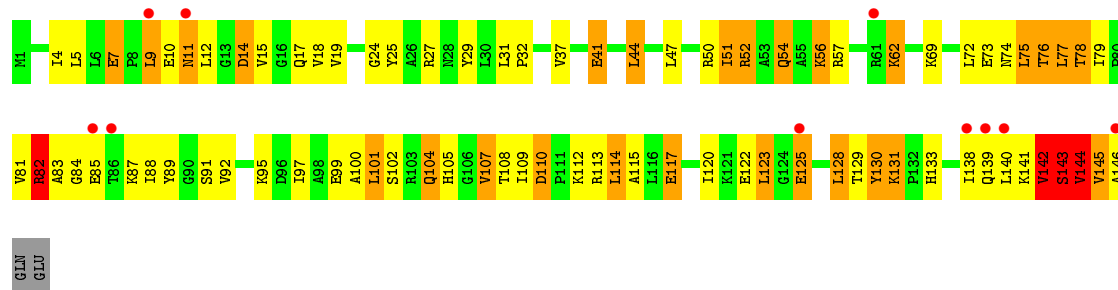
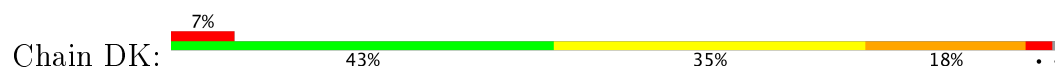
• Molecule 32: 50S ribosomal protein L9



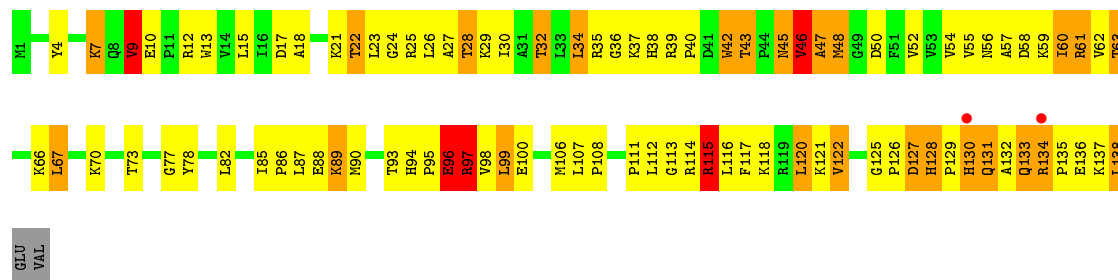




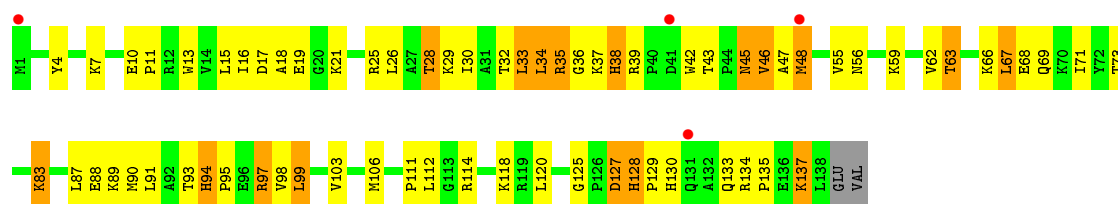
• Molecule 32: 50S ribosomal protein L9



• Molecule 33: 50S ribosomal protein L13



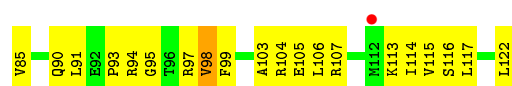
• Molecule 33: 50S ribosomal protein L13



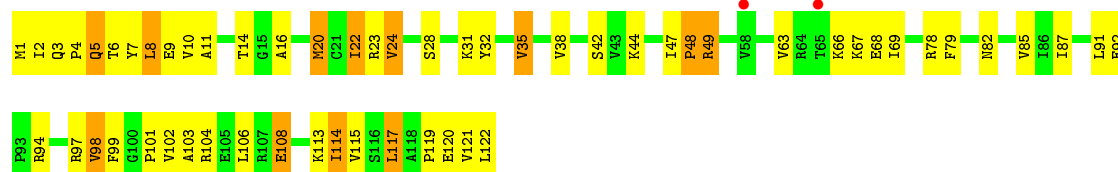
• Molecule 34: 50S ribosomal protein L14



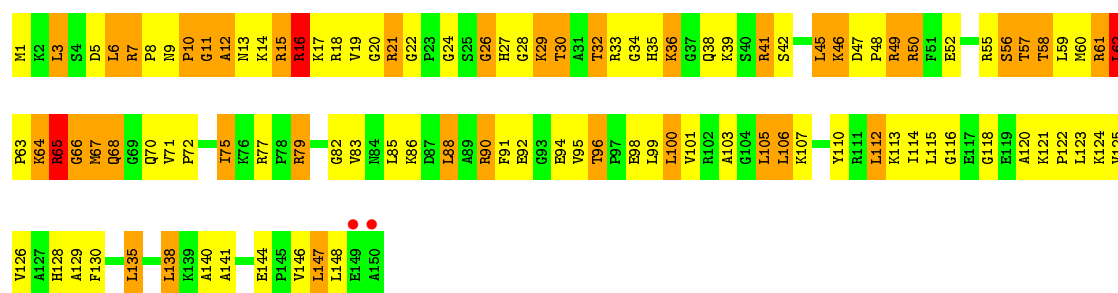




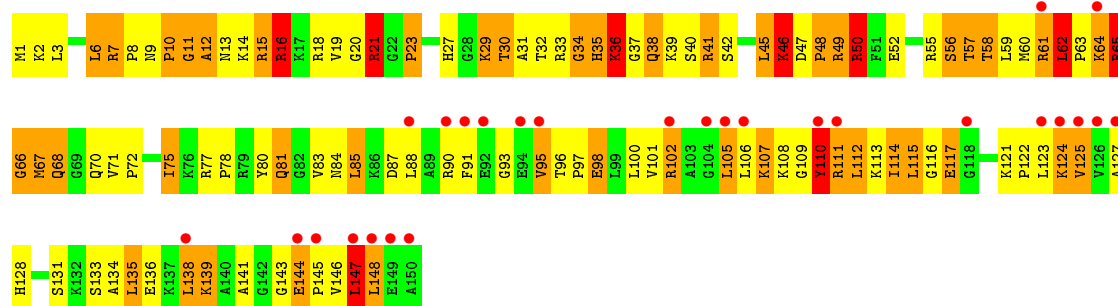
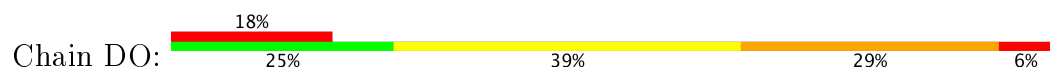
- Molecule 34: 50S ribosomal protein L14



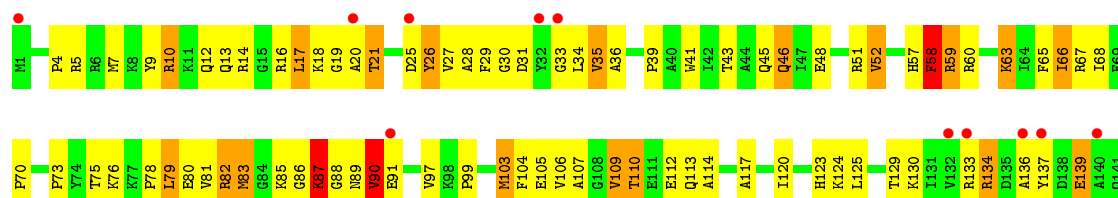
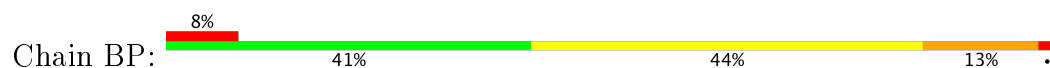
- Molecule 35: 50S ribosomal protein L15



- Molecule 35: 50S ribosomal protein L15

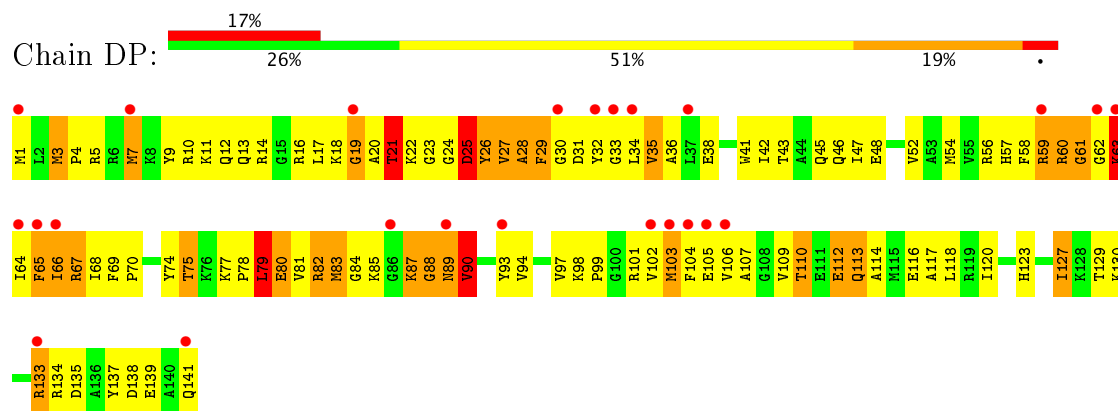


- Molecule 36: 50S ribosomal protein L16

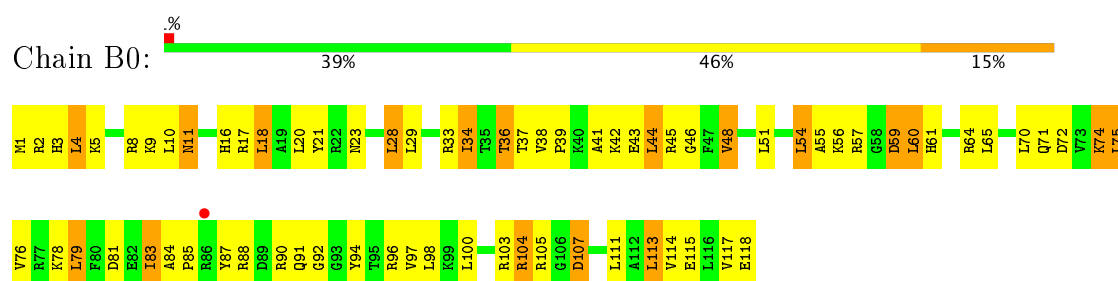




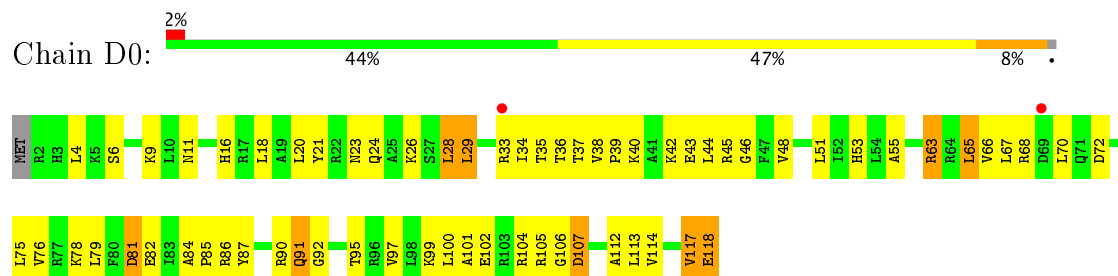
- Molecule 36: 50S ribosomal protein L16



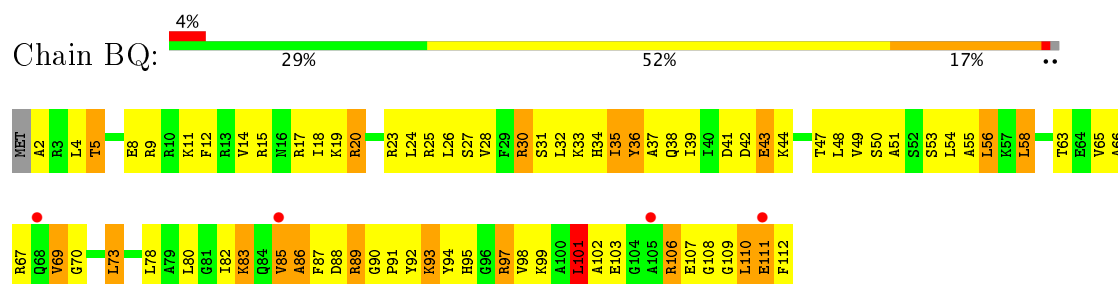
- Molecule 37: 50S ribosomal protein L17



- Molecule 37: 50S ribosomal protein L17



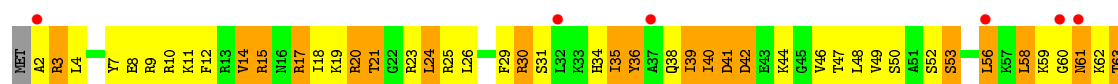
- Molecule 38: 50S ribosomal protein L18



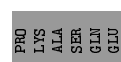
- Molecule 38: 50S ribosomal protein L18



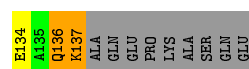
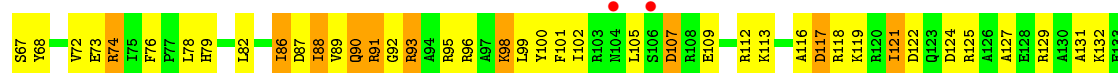




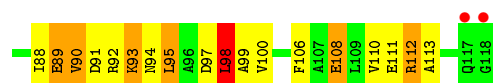
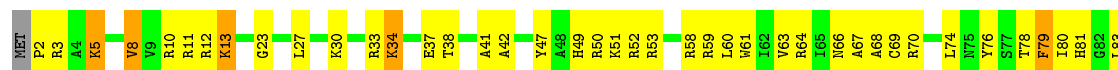
• Molecule 39: 50S ribosomal protein L19



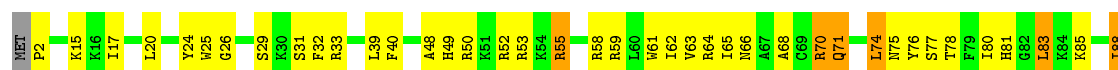
• Molecule 39: 50S ribosomal protein L19



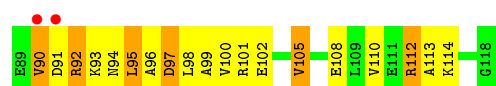
• Molecule 40: 50S ribosomal protein L20



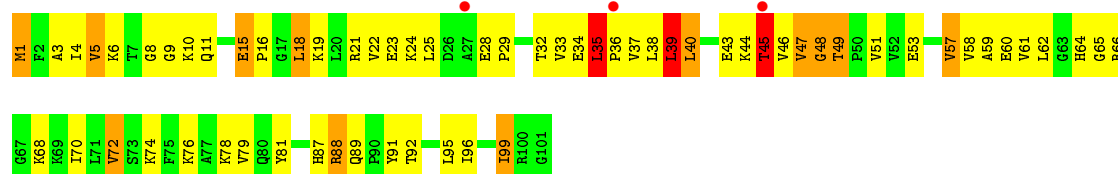
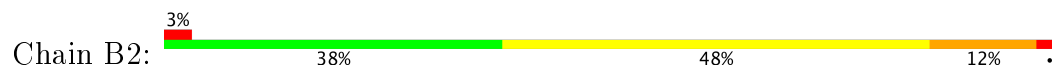
• Molecule 40: 50S ribosomal protein L20



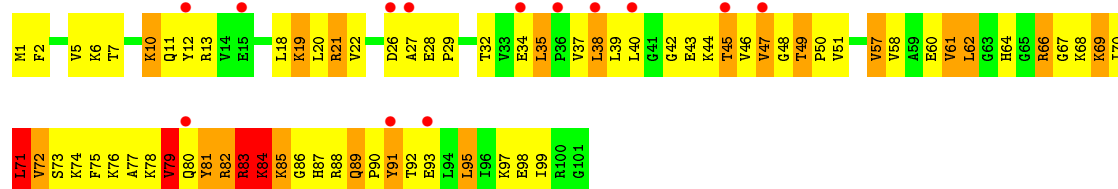




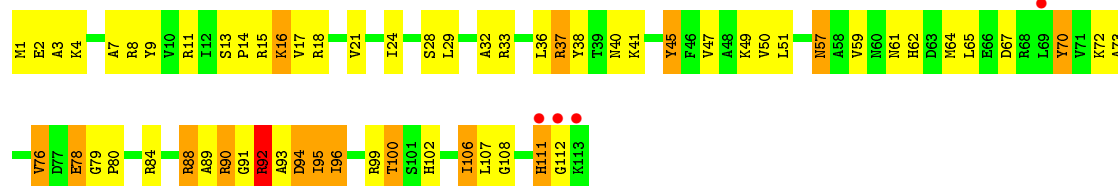
- Molecule 41: 50S ribosomal protein L21



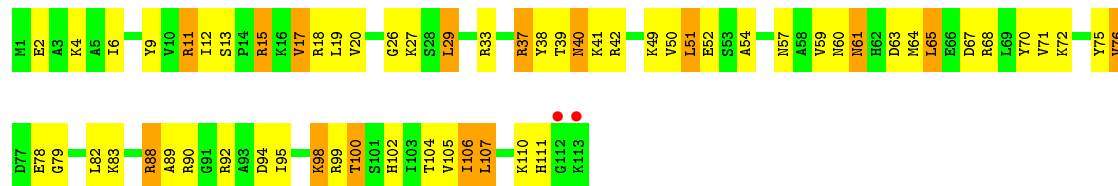
- Molecule 41: 50S ribosomal protein L21



- Molecule 42: 50S ribosomal protein L22



- Molecule 42: 50S ribosomal protein L22



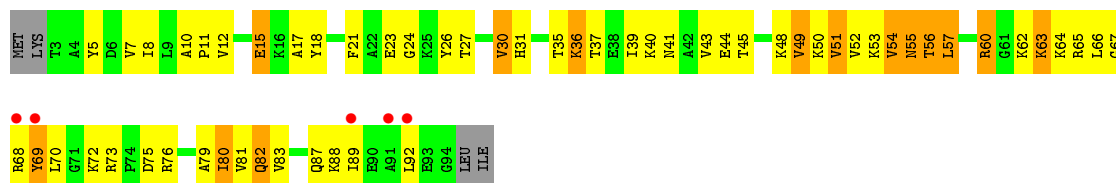
- Molecule 43: 50S ribosomal protein L23



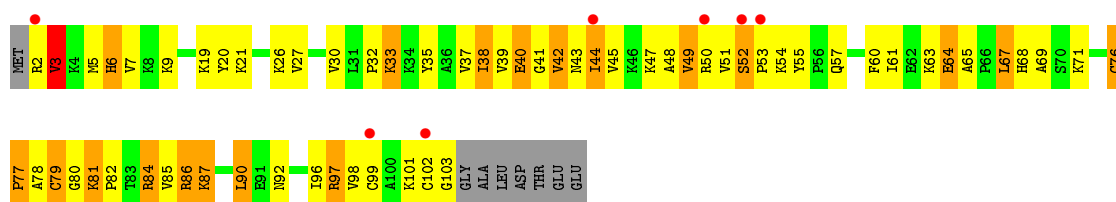




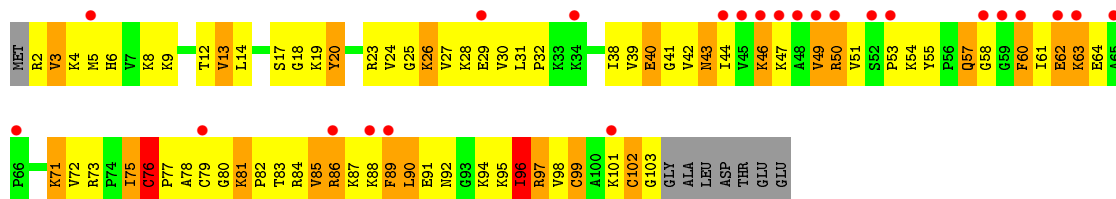
• Molecule 43: 50S ribosomal protein L23



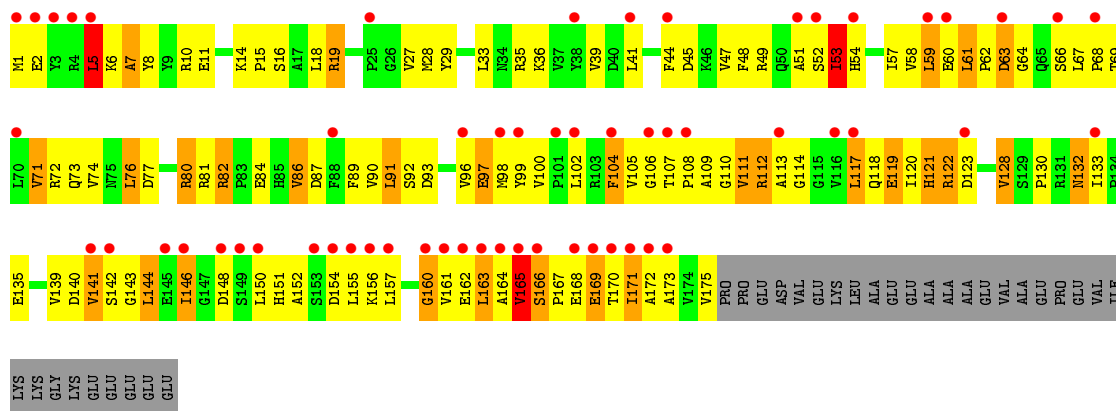
• Molecule 44: 50S ribosomal protein L24



• Molecule 44: 50S ribosomal protein L24

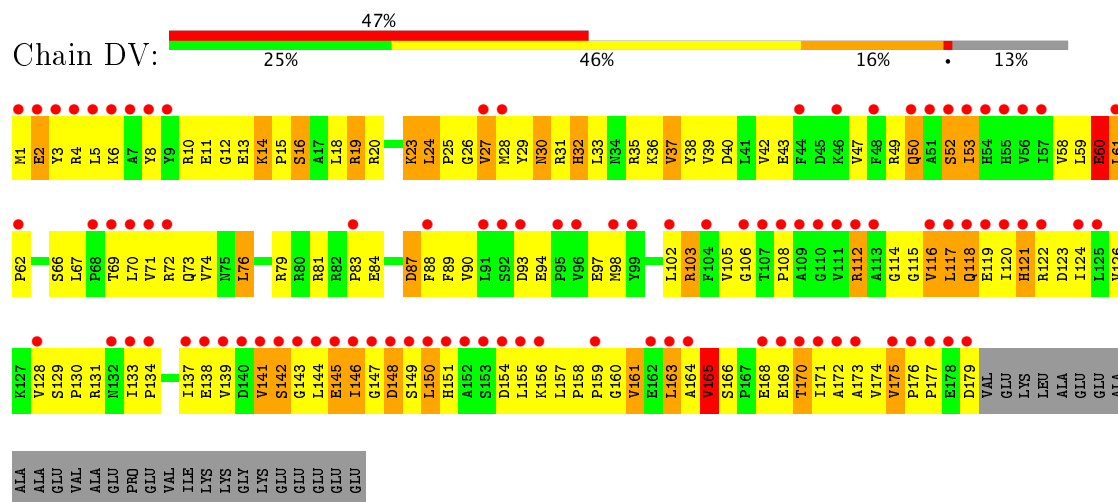


• Molecule 45: 50S ribosomal protein L25

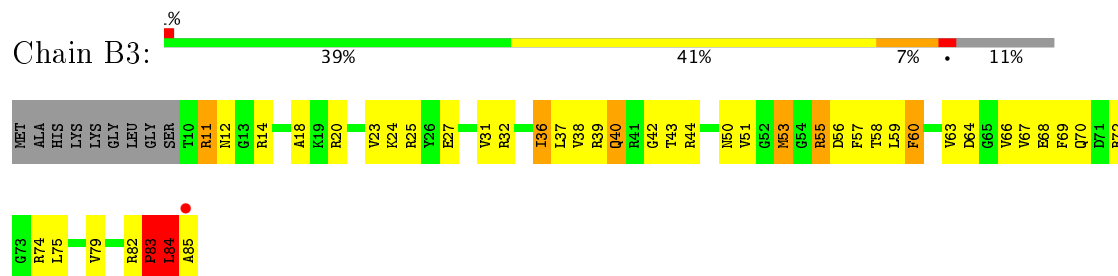




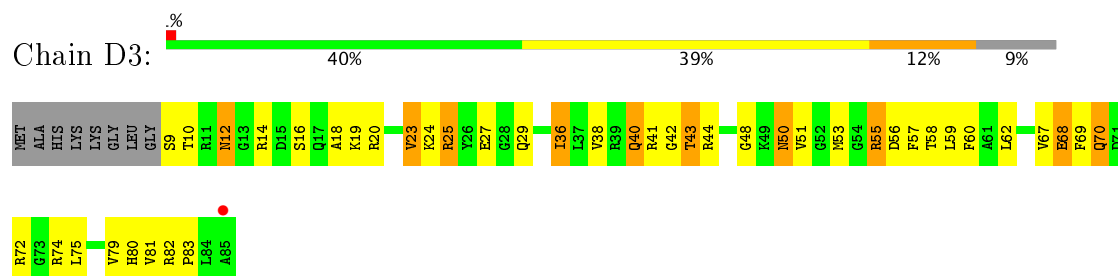
- Molecule 45: 50S ribosomal protein L25



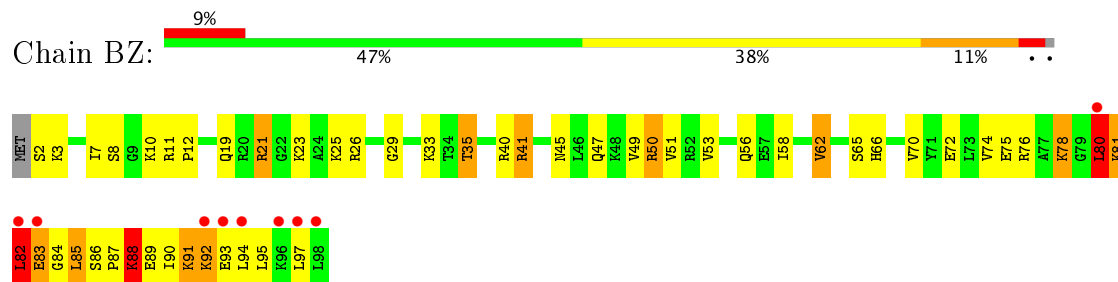
- Molecule 46: 50S ribosomal protein L27



- Molecule 46: 50S ribosomal protein L27



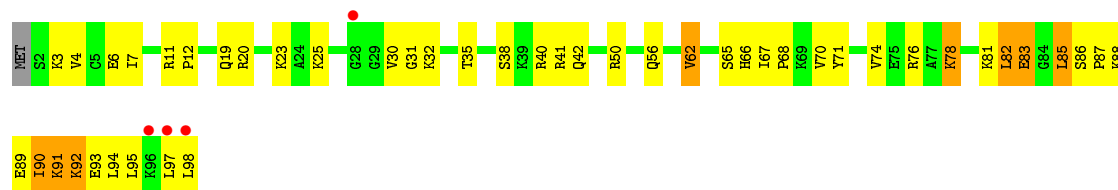
- Molecule 47: 50S ribosomal protein L28



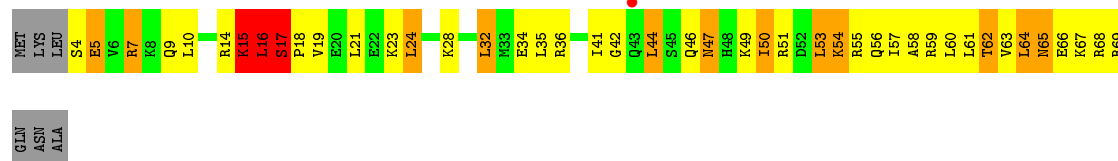
- Molecule 47: 50S ribosomal protein L28



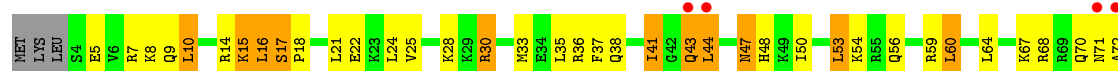
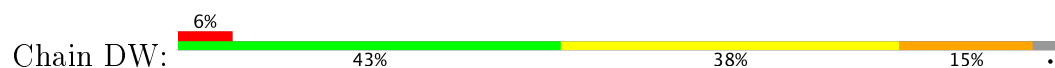




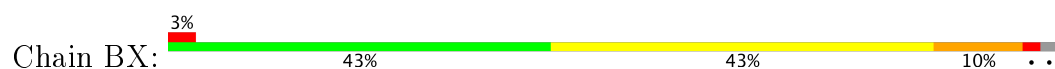
- Molecule 48: 50S ribosomal protein L29



- Molecule 48: 50S ribosomal protein L29



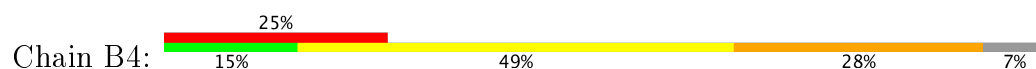
- Molecule 49: 50S ribosomal protein L30



- Molecule 49: 50S ribosomal protein L30

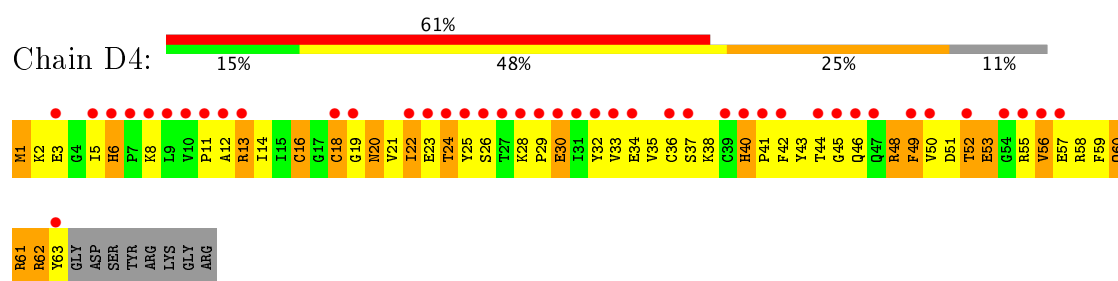


- Molecule 50: 50S ribosomal protein L31

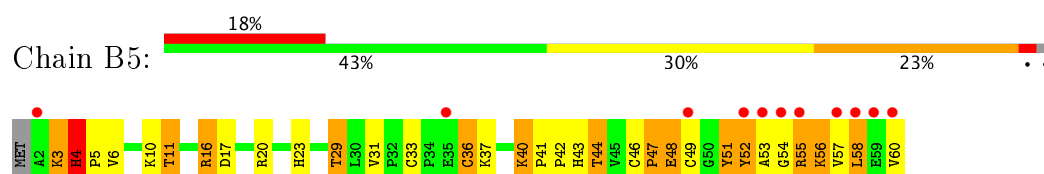


- Molecule 50: 50S ribosomal protein L31

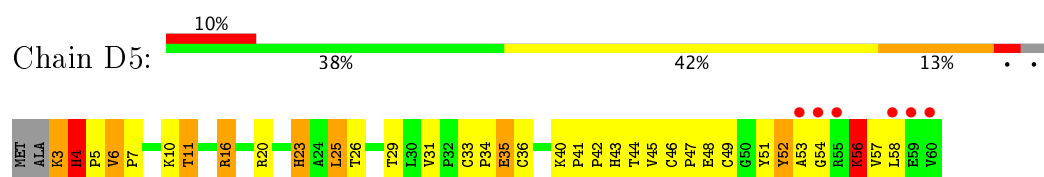




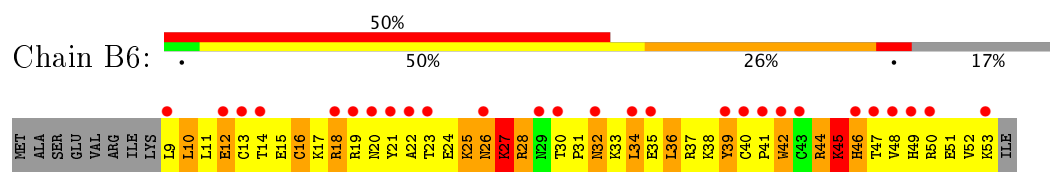
- Molecule 51: 50S ribosomal protein L32



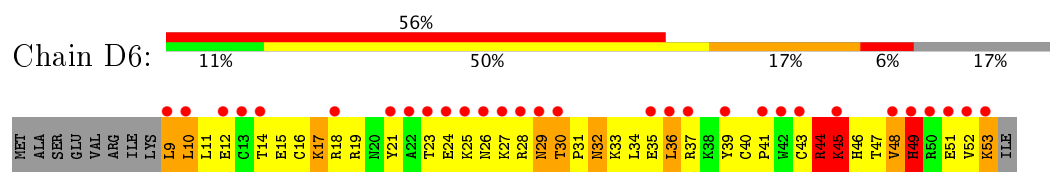
- Molecule 51: 50S ribosomal protein L32



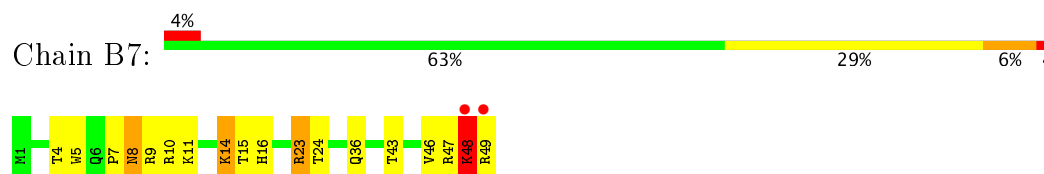
- Molecule 52: 50S ribosomal protein L33



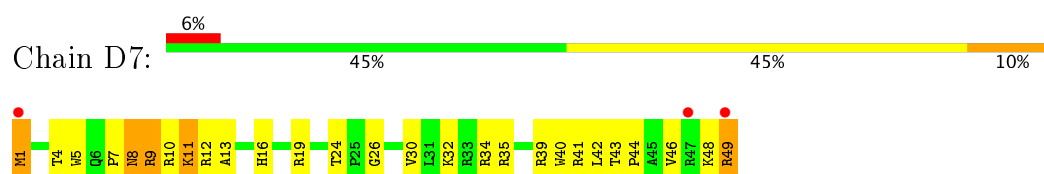
- Molecule 52: 50S ribosomal protein L33



- Molecule 53: 50S ribosomal protein L34



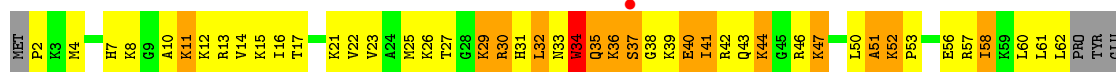
- Molecule 53: 50S ribosomal protein L34





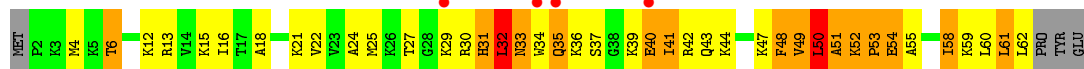
- Molecule 54: 50S ribosomal protein L35

Chain B8:  2% 23% 48% 22% 6%



- Molecule 54: 50S ribosomal protein L35

Chain D8:  6% 31% 38% 22% 6%





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	210.00Å 450.05Å 621.46Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	153.53 – 3.00 153.53 – 3.00	Depositor EDS
% Data completeness (in resolution range)	94.1 (153.53-3.00) 93.7 (153.53-3.00)	Depositor EDS
$R_{merge}$	0.25	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.44 (at 3.01Å)	Xtriage
Refinement program	PHENIX 1.7.1 _743	Depositor
R, $R_{free}$	0.211 , 0.272 0.208 , 0.251	Depositor DCC
$R_{free}$ test set	1857 reflections (0.17%)	DCC
Wilson B-factor (Å <sup>2</sup> )	77.4	Xtriage
Anisotropy	0.190	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.27 , 67.8	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.47$ , $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.94	EDS
Total number of atoms	299552	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	100.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.45% 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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.



## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z  > 5$	RMSZ	# $ Z  > 5$
1	AA	0.44	5/36234 (0.0%)	0.91	68/56554 (0.1%)
1	CA	0.42	1/36237 (0.0%)	0.90	79/56558 (0.1%)
2	AE	0.29	0/1959	0.56	0/2642
2	CE	0.28	0/1959	0.53	0/2642
3	AF	0.33	0/1629	0.53	0/2195
3	CF	0.31	0/1636	0.54	0/2205
4	AG	0.49	2/1733 (0.1%)	0.62	1/2318 (0.0%)
4	CG	0.38	0/1733	0.61	0/2318
5	AH	0.35	0/1171	0.58	0/1576
5	CH	0.34	0/1171	0.56	0/1576
6	AI	0.33	0/856	0.55	0/1154
6	CI	0.32	0/856	0.54	0/1154
7	AJ	0.29	0/1276	0.50	0/1709
7	CJ	0.28	0/1276	0.45	0/1709
8	AK	0.33	0/1136	0.60	0/1527
8	CK	0.27	0/1136	0.51	0/1527
9	AL	0.29	0/1029	0.52	0/1379
9	CL	0.29	0/1029	0.53	0/1379
10	AM	0.31	0/814	0.59	1/1095 (0.1%)
10	CM	0.28	0/814	0.54	0/1095
11	AN	0.33	0/900	0.57	0/1213
11	CN	0.31	0/900	0.56	0/1213
12	AO	0.40	0/991	0.68	1/1327 (0.1%)
12	CO	0.35	0/991	0.60	0/1327
13	AP	0.30	0/938	0.57	0/1258
13	CP	0.28	0/943	0.52	0/1265
14	AQ	0.42	0/501	0.66	1/664 (0.2%)
14	CQ	0.29	0/501	0.58	0/664
15	AR	0.35	0/745	0.58	0/992
15	CR	0.30	0/745	0.51	0/992
16	AS	0.29	0/721	0.53	0/970
16	CS	0.31	0/721	0.58	0/970



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	AT	0.35	0/847	0.54	0/1131
17	CT	0.31	0/847	0.51	0/1131
18	AU	0.34	0/596	0.64	0/790
18	CU	0.35	0/596	0.59	0/790
19	AV	0.33	0/638	0.59	0/860
19	CV	0.31	0/638	0.65	0/860
20	AW	0.29	0/765	0.52	0/1007
20	CW	0.32	0/765	0.63	0/1007
21	AX	0.28	0/221	0.55	0/288
21	CX	0.28	0/221	0.49	0/288
22	AB	1.15	2/2080 (0.1%)	1.41	25/3242 (0.8%)
22	CB	1.34	6/2080 (0.3%)	1.41	36/3242 (1.1%)
23	AC	1.12	3/1835 (0.2%)	1.69	56/2859 (2.0%)
23	AD	0.57	0/1835	0.97	7/2859 (0.2%)
23	CC	1.08	1/1835 (0.1%)	1.52	44/2859 (1.5%)
23	CD	0.61	0/1835	0.98	5/2859 (0.2%)
24	A1	1.43	2/226 (0.9%)	1.60	7/348 (2.0%)
24	C1	1.57	1/226 (0.4%)	1.73	5/348 (1.4%)
25	BA	0.59	15/70233 (0.0%)	1.07	285/109643 (0.3%)
25	DA	0.52	13/70122 (0.0%)	1.00	265/109469 (0.2%)
26	BB	0.49	0/2928	0.97	9/4568 (0.2%)
26	DB	0.44	0/2928	0.96	7/4568 (0.2%)
27	BD	0.50	0/2165	0.80	2/2919 (0.1%)
27	DD	0.46	0/2165	0.72	0/2919
28	BE	0.38	0/1601	0.67	2/2160 (0.1%)
28	DE	0.38	0/1601	0.69	0/2160
29	BF	0.43	0/1620	0.67	0/2194
29	DF	0.36	0/1662	0.65	0/2249
30	BG	0.36	0/1499	0.60	0/2016
30	DG	0.29	0/1499	0.54	0/2016
31	BH	0.36	0/1332	0.67	1/1802 (0.1%)
31	DH	0.28	0/1332	0.55	0/1802
32	BK	0.34	0/1151	0.68	1/1558 (0.1%)
32	DK	0.33	0/1151	0.66	1/1558 (0.1%)
33	BM	0.42	0/1131	0.69	0/1525
33	DM	0.29	0/1131	0.59	0/1525
34	BN	0.40	0/943	0.64	0/1269
34	DN	0.36	0/943	0.60	0/1269
35	BO	0.39	0/1162	0.76	0/1544
35	DO	0.32	0/1162	0.65	1/1544 (0.1%)
36	BP	0.52	0/1143	0.80	0/1527
36	DP	0.32	0/1143	0.54	0/1527
37	B0	0.39	0/982	0.69	0/1312



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
37	D0	0.37	0/974	0.64	0/1302
38	BQ	0.42	0/892	0.70	1/1187 (0.1%)
38	DQ	0.30	0/892	0.62	1/1187 (0.1%)
39	BR	0.40	0/1155	0.66	0/1542
39	DR	0.37	0/1155	0.59	0/1542
40	B1	0.42	0/982	0.67	1/1306 (0.1%)
40	D1	0.34	0/982	0.57	0/1306
41	B2	0.42	0/790	0.74	2/1057 (0.2%)
41	D2	0.32	0/790	0.59	0/1057
42	BS	0.37	0/911	0.62	0/1220
42	DS	0.38	0/911	0.64	0/1220
43	BT	0.50	0/739	0.68	0/993
43	DT	0.47	0/739	0.62	0/993
44	BU	0.45	0/798	0.68	0/1064
44	DU	0.41	0/798	0.72	0/1064
45	BV	0.32	0/1427	0.63	0/1935
45	DV	0.28	0/1460	0.56	0/1982
46	B3	0.44	0/615	0.67	0/819
46	D3	0.39	0/621	0.61	0/827
47	BZ	0.42	0/770	0.73	1/1022 (0.1%)
47	DZ	0.39	0/770	0.70	0/1022
48	BW	0.53	0/560	0.72	0/741
48	DW	0.37	0/583	0.63	0/771
49	BX	0.36	0/474	0.64	1/635 (0.2%)
49	DX	0.32	0/474	0.53	0/635
50	B4	0.34	0/545	0.72	1/733 (0.1%)
50	D4	0.32	0/527	0.67	0/709
51	B5	0.43	0/473	0.69	0/639
51	D5	0.34	0/468	0.70	0/632
52	B6	0.43	0/396	0.70	0/529
52	D6	0.33	0/396	0.63	0/529
53	B7	0.46	0/438	0.68	0/575
53	D7	0.40	0/438	0.59	0/575
54	B8	0.52	0/494	0.71	0/649
54	D8	0.38	0/494	0.71	1/649 (0.2%)
All	All	0.51	51/324027 (0.0%)	0.93	919/485226 (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
2	AE	0	3
2	CE	0	5
3	CF	0	1
4	AG	0	1
8	AK	0	1
10	AM	0	1
12	AO	0	2
14	AQ	0	1
14	CQ	0	2
15	AR	0	1
19	CV	0	1
20	CW	0	1
27	BD	0	6
27	DD	0	3
28	BE	0	1
28	DE	0	6
29	DF	0	2
30	BG	0	1
30	DG	0	1
31	BH	0	2
31	DH	0	2
32	BK	0	3
32	DK	0	4
33	BM	0	1
35	BO	0	4
35	DO	0	3
36	BP	0	3
37	D0	0	2
38	BQ	0	1
38	DQ	0	2
39	BR	0	2
40	B1	0	1
40	D1	0	1
41	B2	0	1
43	BT	0	1
44	DU	0	2
45	BV	0	3
45	DV	0	2
46	B3	0	2
48	BW	0	2
48	DW	0	1
50	B4	0	4
50	D4	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
51	B5	0	1
51	D5	0	1
52	B6	0	1
52	D6	0	1
53	B7	0	1
54	B8	0	2
54	D8	0	1
All	All	0	99

All (51) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	DA	1143	A	N7-C5	-11.10	1.32	1.39
4	AG	12	CYS	CB-SG	10.86	2.00	1.82
25	DA	2873	A	N7-C5	-10.30	1.33	1.39
25	DA	1342	A	N7-C5	-9.87	1.33	1.39
25	BA	2430	A	N9-C4	-9.40	1.32	1.37
22	CB	50	A	N9-C4	8.39	1.42	1.37
4	AG	26	CYS	CB-SG	8.33	1.96	1.82
23	CC	77	A	N9-C4	-8.02	1.33	1.37
25	BA	774	A	N9-C4	-7.18	1.33	1.37
22	CB	36	A	N9-C4	6.90	1.42	1.37
25	DA	783	A	N9-C4	-6.86	1.33	1.37
1	AA	1159	U	N1-C2	6.80	1.44	1.38
1	AA	1177	G	C5-C6	6.66	1.49	1.42
25	BA	783	A	C5-C6	-6.64	1.35	1.41
22	AB	69	A	N9-C4	6.47	1.41	1.37
25	BA	2287	A	N9-C4	-6.46	1.33	1.37
25	BA	528	A	N9-C4	-6.43	1.33	1.37
25	BA	676	A	N9-C4	-6.41	1.34	1.37
24	C1	13	U	N1-C2	6.33	1.44	1.38
25	DA	2287	A	N9-C4	-6.29	1.34	1.37
25	BA	807	U	C2-N3	6.26	1.42	1.37
25	BA	783	A	N9-C4	-6.26	1.34	1.37
23	AC	77	A	N9-C4	-6.08	1.34	1.37
25	DA	2681	C	N3-C4	-6.08	1.29	1.33
25	BA	1021	A	N9-C4	-6.07	1.34	1.37
24	A1	14	U	N1-C2	6.05	1.44	1.38
25	DA	2430	A	N9-C4	-6.01	1.34	1.37
23	AC	1	C	N1-C6	5.98	1.40	1.37
25	DA	9	U	C2-N3	5.93	1.42	1.37
1	CA	1177	G	C5-C6	5.92	1.48	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AB	87	A	C5-C4	5.88	1.42	1.38
1	AA	1036	G	C5-C6	5.82	1.48	1.42
1	AA	1025	U	N3-C4	5.77	1.43	1.38
25	DA	807	U	C2-N3	5.62	1.41	1.37
25	BA	1899	G	N9-C4	-5.61	1.33	1.38
1	AA	1036	G	C6-O6	5.52	1.29	1.24
25	DA	2629	A	N7-C5	-5.52	1.35	1.39
25	BA	676	A	N3-C4	-5.46	1.31	1.34
25	BA	1899	G	C8-N7	5.39	1.34	1.30
23	AC	70	C	N1-C6	5.37	1.40	1.37
25	BA	783	A	N3-C4	-5.37	1.31	1.34
22	CB	69	A	N9-C4	5.34	1.41	1.37
22	CB	52	U	N1-C2	5.31	1.43	1.38
25	DA	2720	U	C2-N3	5.29	1.41	1.37
25	BA	1142(A)	A	N9-C4	-5.23	1.34	1.37
24	A1	13	U	N1-C2	5.21	1.43	1.38
22	CB	54	G	N7-C5	5.15	1.42	1.39
22	CB	40	G	C6-N1	5.08	1.43	1.39
25	BA	120	U	N3-C4	-5.08	1.33	1.38
25	DA	783	A	C5-C6	-5.04	1.36	1.41
25	DA	2503	A	C8-N7	5.00	1.35	1.31

All (919) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1899	G	N3-C4-N9	-15.77	116.54	126.00
1	AA	1025	U	C5-C4-O4	-15.29	116.72	125.90
1	AA	1177	G	N9-C4-C5	14.63	111.25	105.40
1	AA	1177	G	C4-C5-N7	-14.21	105.12	110.80
25	DA	1899	G	N3-C4-N9	-13.25	118.05	126.00
25	BA	783	A	C5-N7-C8	-13.12	97.34	103.90
25	DA	933	A	C6-C5-N7	-13.01	123.19	132.30
22	AB	87	A	N7-C8-N9	13.00	120.30	113.80
25	BA	1899	G	C8-N9-C1'	12.84	143.69	127.00
25	DA	2873	A	N1-C6-N6	12.47	126.08	118.60
1	CA	1036	G	N9-C4-C5	12.37	110.35	105.40
1	CA	1036	G	C5-C6-O6	12.37	136.02	128.60
25	DA	783	A	C5-N7-C8	-12.27	97.76	103.90
1	AA	1177	G	N1-C6-O6	-12.25	112.55	119.90
1	CA	1177	G	N9-C4-C5	12.23	110.29	105.40
25	DA	1602	U	C2-N3-C4	-12.13	119.72	127.00
1	CA	1025	U	C5-C4-O4	-12.12	118.63	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1036	G	C5-C6-O6	12.06	135.84	128.60
25	DA	933	A	C4-N9-C1'	11.91	147.74	126.30
23	AC	6	G	C8-N9-C4	11.81	111.13	106.40
1	CA	1177	G	C4-C5-N7	-11.64	106.14	110.80
1	AA	1036	G	C8-N9-C4	-11.63	101.75	106.40
1	CA	1036	G	C4-C5-N7	-11.60	106.16	110.80
25	DA	1899	G	C8-N9-C1'	11.53	141.99	127.00
1	AA	97	U	N1-C2-O2	11.42	130.79	122.80
25	BA	1899	G	N3-C4-C5	11.41	134.30	128.60
25	DA	2873	A	C6-C5-N7	-11.40	124.32	132.30
25	BA	633	A	N1-C6-N6	11.38	125.43	118.60
1	CA	993	G	N3-C4-N9	11.37	132.82	126.00
1	AA	1036	G	N9-C4-C5	11.32	109.93	105.40
25	DA	933	A	C8-N9-C1'	-11.29	107.38	127.70
22	AB	87	A	C8-N9-C4	-11.24	101.31	105.80
1	CA	1177	G	N1-C6-O6	-11.20	113.18	119.90
1	CA	1036	G	N1-C6-O6	-11.19	113.19	119.90
1	AA	1177	G	C5-C6-O6	11.18	135.31	128.60
25	BA	2447	G	C6-N1-C2	-11.17	118.40	125.10
1	AA	1036	G	C4-C5-N7	-11.13	106.35	110.80
25	DA	1143	A	C4-C5-C6	11.09	122.54	117.00
25	DA	2873	A	C4-C5-C6	10.97	122.48	117.00
25	BA	1899	G	C4-N9-C1'	-10.85	112.40	126.50
25	DA	1012	U	C2-N3-C4	-10.79	120.53	127.00
22	AB	87	A	C5-N7-C8	-10.79	98.51	103.90
25	BA	676	A	C2-N3-C4	-10.69	105.26	110.60
25	DA	1899	G	C4-N9-C1'	-10.68	112.61	126.50
25	BA	2430	A	C2-N3-C4	-10.67	105.27	110.60
1	CA	1177	G	C5-C6-O6	10.56	134.94	128.60
25	DA	1342	A	N1-C6-N6	10.51	124.91	118.60
26	BB	95	U	C5-C4-O4	10.49	132.20	125.90
25	BA	783	A	C4-C5-N7	10.45	115.92	110.70
25	DA	2720	U	C2-N3-C4	-10.34	120.79	127.00
25	BA	673	C	C2-N3-C4	-10.31	114.75	119.90
25	BA	120	U	C5-C4-O4	10.28	132.07	125.90
25	DA	933	A	C4-C5-C6	10.24	122.12	117.00
25	DA	933	A	N3-C4-N9	10.17	135.53	127.40
1	AA	1159	U	N3-C2-O2	-10.12	115.12	122.20
25	BA	673	C	C5-C4-N4	-10.05	113.16	120.20
25	DA	2598	A	N1-C6-N6	10.02	124.61	118.60
1	AA	1036	G	N1-C6-O6	-10.01	113.89	119.90
25	BA	2430	A	N3-C4-C5	9.83	133.68	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1786	A	C2-N3-C4	-9.76	105.72	110.60
1	CA	993	G	C4-N9-C1'	9.73	139.15	126.50
1	CA	1177	G	C8-N9-C4	-9.69	102.52	106.40
25	BA	906	G	C5-C6-O6	9.64	134.38	128.60
25	DA	933	A	C6-N1-C2	-9.63	112.82	118.60
25	DA	1143	A	N1-C2-N3	9.52	134.06	129.30
25	BA	774	A	C2-N3-C4	-9.51	105.84	110.60
26	DB	95	U	C5-C4-O4	9.51	131.61	125.90
1	CA	993	G	C8-N9-C1'	-9.48	114.67	127.00
25	DA	1342	A	C4-C5-C6	9.47	121.74	117.00
25	BA	783	A	N1-C6-N6	9.46	124.27	118.60
1	AA	1495	U	N1-C2-O2	9.45	129.42	122.80
25	DA	1342	A	C6-C5-N7	-9.44	125.69	132.30
25	DA	1781	C	C2-N1-C1'	9.42	129.16	118.80
25	BA	2447	G	N3-C4-C5	-9.41	123.89	128.60
25	BA	1899	G	N9-C4-C5	9.37	109.15	105.40
25	DA	1899	G	N3-C4-C5	9.23	133.22	128.60
25	BA	774	A	N3-C4-N9	-9.21	120.03	127.40
22	CB	35	G	N1-C6-O6	9.17	125.40	119.90
22	CB	35	G	C5-C6-O6	-9.12	123.12	128.60
23	AC	6	G	N3-C4-C5	9.10	133.15	128.60
25	BA	676	A	C5-N7-C8	-9.10	99.35	103.90
25	BA	2681	C	C6-N1-C2	-9.10	116.66	120.30
1	AA	1159	U	N1-C2-O2	9.10	129.17	122.80
25	DA	783	A	C4-C5-N7	9.05	115.23	110.70
1	AA	1054	C	C2-N1-C1'	9.05	128.75	118.80
25	DA	1786	A	N7-C8-N9	9.03	118.31	113.80
1	AA	97	U	N3-C2-O2	-9.02	115.89	122.20
25	DA	1786	A	C5-N7-C8	-8.95	99.43	103.90
1	CA	1495	U	N1-C2-O2	8.93	129.05	122.80
25	BA	1786	A	N7-C8-N9	8.90	118.25	113.80
1	CA	1045	C	N1-C2-O2	8.88	124.22	118.90
25	DA	2873	A	C5-C6-N1	-8.85	113.27	117.70
23	AC	76	C	N1-C2-O2	-8.83	113.60	118.90
25	BA	446	G	N1-C6-O6	8.82	125.19	119.90
25	BA	1312	U	C5-C4-O4	8.82	131.19	125.90
25	DA	933	A	N9-C4-C5	-8.82	102.27	105.80
1	AA	1177	G	C8-N9-C4	-8.81	102.88	106.40
22	AB	87	A	C6-C5-N7	-8.81	126.14	132.30
25	BA	2430	A	N3-C4-N9	-8.78	120.38	127.40
1	AA	1025	U	N1-C2-O2	8.73	128.91	122.80
25	BA	783	A	N7-C8-N9	8.72	118.16	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2681	C	C5-C4-N4	8.71	126.30	120.20
25	BA	807	U	C2-N3-C4	-8.70	121.78	127.00
25	DA	807	U	C2-N3-C4	-8.69	121.79	127.00
1	AA	1025	U	C6-N1-C1'	-8.68	109.05	121.20
25	DA	1143	A	C6-C5-N7	-8.66	126.24	132.30
25	DA	2447	G	N3-C4-C5	-8.65	124.28	128.60
1	AA	1177	G	C6-C5-N7	8.64	135.59	130.40
25	BA	1899	G	C2-N3-C4	-8.64	107.58	111.90
25	DA	9	U	C2-N3-C4	-8.58	121.85	127.00
1	AA	1025	U	N3-C4-C5	8.53	119.72	114.60
1	CA	1036	G	C8-N9-C4	-8.53	102.99	106.40
25	BA	2287	A	C2-N3-C4	-8.53	106.34	110.60
1	CA	266	G	N1-C6-O6	-8.47	114.82	119.90
23	CC	21	U	N3-C2-O2	-8.47	116.27	122.20
25	BA	1786	A	C5-N7-C8	-8.46	99.67	103.90
25	DA	2503	A	C8-N9-C4	-8.46	102.42	105.80
25	BA	906	G	N3-C4-N9	-8.45	120.93	126.00
25	BA	1314	C	C2-N1-C1'	8.46	128.10	118.80
25	DA	1143	A	N1-C6-N6	8.45	123.67	118.60
25	BA	783	A	C6-C5-N7	-8.44	126.39	132.30
25	BA	676	A	N7-C8-N9	8.43	118.02	113.80
25	DA	103	A	N1-C6-N6	8.43	123.66	118.60
25	BA	1332	G	C2-N3-C4	-8.43	107.69	111.90
1	AA	1436	U	C2-N3-C4	-8.38	121.97	127.00
25	DA	783	A	N7-C8-N9	8.37	117.98	113.80
1	AA	1465	C	C2-N3-C4	-8.36	115.72	119.90
1	CA	1025	U	C2-N1-C1'	8.35	127.72	117.70
1	CA	993	G	C6-C5-N7	-8.35	125.39	130.40
25	DA	1899	G	N9-C4-C5	8.33	108.73	105.40
22	AB	87	A	C4-C5-N7	8.33	114.86	110.70
25	BA	673	C	N1-C2-O2	-8.31	113.92	118.90
1	CA	1045	C	C2-N1-C1'	8.30	127.93	118.80
25	DA	250	G	N3-C2-N2	8.30	125.71	119.90
25	DA	933	A	N1-C2-N3	8.27	133.44	129.30
25	BA	140	A	N7-C8-N9	8.26	117.93	113.80
23	CC	77	A	C8-N9-C4	8.23	109.09	105.80
25	DA	847	U	C5-C4-O4	8.23	130.84	125.90
22	AB	18	G	C4-N9-C1'	-8.19	115.85	126.50
25	DA	1332	G	C2-N3-C4	-8.16	107.82	111.90
1	CA	1025	U	C6-N1-C1'	-8.15	109.79	121.20
23	AC	6	G	N7-C8-N9	-8.14	109.03	113.10
25	BA	774	A	N3-C4-C5	8.13	132.49	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1143	A	C8-N9-C4	-8.13	102.55	105.80
25	BA	633	A	C4-C5-C6	8.11	121.06	117.00
23	CC	77	A	N3-C4-C5	8.09	132.46	126.80
22	AB	87	A	N1-C6-N6	8.07	123.44	118.60
25	DA	2447	G	C5-C6-O6	-8.04	123.78	128.60
25	BA	847	U	C5-C4-O4	8.03	130.72	125.90
25	DA	673	C	C2-N3-C4	-8.01	115.89	119.90
24	C1	16	A	N1-C6-N6	8.00	123.40	118.60
25	DA	2681	C	N3-C4-N4	-7.99	112.41	118.00
25	DA	933	A	C4-C5-N7	7.97	114.68	110.70
25	DA	383	U	N1-C2-O2	7.94	128.36	122.80
25	BA	140	A	C5-N7-C8	-7.93	99.93	103.90
25	DA	933	A	C5-C6-N6	-7.93	117.36	123.70
25	BA	1332	G	C5-N7-C8	-7.92	100.34	104.30
22	CB	85	C	N1-C2-O2	7.91	123.64	118.90
23	AC	6	G	C4-N9-C1'	-7.90	116.23	126.50
25	BA	676	A	C8-N9-C4	-7.87	102.65	105.80
25	BA	2447	G	C5-C6-N1	7.84	115.42	111.50
23	AC	40	C	C6-N1-C2	-7.84	117.17	120.30
25	DA	2629	A	N1-C6-N6	7.82	123.29	118.60
25	DA	1143	A	C2-N3-C4	-7.80	106.70	110.60
25	BA	633	A	C6-C5-N7	-7.79	126.84	132.30
25	DA	2430	A	C2-N3-C4	-7.77	106.71	110.60
1	CA	270	A	C5-N7-C8	-7.76	100.02	103.90
25	BA	780	G	C5-C6-O6	-7.75	123.95	128.60
25	BA	1142(A)	A	C5-N7-C8	-7.75	100.03	103.90
25	BA	2375	G	C8-N9-C4	7.70	109.48	106.40
1	CA	993	G	N3-C4-C5	-7.68	124.76	128.60
25	DA	9	U	C5-C4-O4	-7.67	121.30	125.90
25	BA	906	G	N9-C4-C5	7.66	108.47	105.40
25	BA	676	A	N3-C4-N9	-7.64	121.29	127.40
25	DA	783	A	N1-C6-N6	7.63	123.18	118.60
25	BA	138	G	C8-N9-C4	-7.62	103.35	106.40
25	BA	1786	A	C8-N9-C4	-7.62	102.75	105.80
25	DA	774	A	C2-N3-C4	-7.62	106.79	110.60
25	DA	2275	C	C6-N1-C2	-7.62	117.25	120.30
25	BA	893	C	C2-N1-C1'	7.60	127.16	118.80
25	DA	2873	A	C2-N3-C4	-7.58	106.81	110.60
25	DA	530	G	C6-C5-N7	-7.57	125.86	130.40
35	DO	147	LEU	CA-CB-CG	7.57	132.70	115.30
25	BA	210	C	C6-N1-C2	7.56	123.33	120.30
4	AG	12	CYS	CA-CB-SG	7.54	127.56	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	906	G	C5-C6-O6	7.53	133.12	128.60
1	AA	1053	G	C4-N9-C1'	-7.49	116.76	126.50
1	AA	1036	G	N3-C4-C5	-7.48	124.86	128.60
25	BA	783	A	C2-N3-C4	-7.48	106.86	110.60
25	BA	1678	G	C2-N3-C4	-7.47	108.16	111.90
25	BA	528	A	N3-C4-C5	7.47	132.03	126.80
25	BA	1496	A	C8-N9-C4	-7.47	102.81	105.80
1	CA	993	G	N9-C4-C5	-7.47	102.41	105.40
25	DA	530	G	N1-C6-O6	7.46	124.38	119.90
24	A1	16	A	C8-N9-C4	7.43	108.77	105.80
25	DA	673	C	C5-C4-N4	-7.42	115.01	120.20
25	DA	1781	C	C6-N1-C1'	-7.42	111.90	120.80
25	DA	933	A	N7-C8-N9	7.42	117.51	113.80
25	BA	613	U	C5-C4-O4	7.41	130.35	125.90
25	DA	530	G	C4-C5-N7	7.41	113.77	110.80
25	BA	250	G	N3-C2-N2	7.35	125.05	119.90
25	BA	933	A	C6-N1-C2	-7.34	114.20	118.60
38	DQ	110	LEU	CA-CB-CG	7.34	132.18	115.30
25	BA	1698	A	C2-N3-C4	-7.33	106.94	110.60
1	CA	1036	G	C6-C5-N7	7.33	134.80	130.40
25	DA	9	U	N1-C2-O2	-7.33	117.67	122.80
25	BA	1678	G	C5-N7-C8	-7.32	100.64	104.30
1	CA	993	G	N3-C2-N2	7.31	125.02	119.90
25	BA	528	A	N3-C4-N9	-7.30	121.56	127.40
23	AC	23	G	C8-N9-C4	-7.30	103.48	106.40
23	CC	15	G	C5-C6-O6	7.29	132.98	128.60
25	BA	2375	G	N9-C4-C5	-7.29	102.49	105.40
25	DA	2447	G	C6-N1-C2	-7.28	120.73	125.10
25	BA	1314	C	C6-N1-C1'	-7.26	112.09	120.80
26	DB	81	G	C5-C6-O6	-7.26	124.25	128.60
26	BB	81	G	C5-C6-O6	-7.25	124.25	128.60
25	BA	138	G	N7-C8-N9	7.25	116.72	113.10
25	DA	2159	G	N3-C4-N9	7.24	130.35	126.00
25	BA	2451	A	C5-N7-C8	-7.22	100.29	103.90
22	CB	85	C	C2-N1-C1'	7.21	126.73	118.80
25	DA	2451	A	C5-N7-C8	-7.19	100.30	103.90
25	DA	633	A	C4-C5-C6	7.15	120.57	117.00
25	BA	446	G	N9-C4-C5	-7.14	102.54	105.40
25	DA	2447	G	N1-C6-O6	7.14	124.19	119.90
25	DA	630	G	C2-N3-C4	-7.14	108.33	111.90
23	AC	25	U	N3-C2-O2	-7.12	117.22	122.20
25	BA	1506	C	C2-N1-C1'	7.11	126.63	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1332	G	N3-C4-N9	-7.11	121.73	126.00
25	DA	2447	G	N3-C4-N9	7.11	130.26	126.00
25	BA	1340	U	C2-N3-C4	-7.10	122.74	127.00
25	DA	1602	U	C5-C6-N1	-7.10	119.15	122.70
25	BA	1332	G	C4-C5-N7	7.10	113.64	110.80
23	AC	72	C	C6-N1-C2	-7.09	117.46	120.30
25	BA	1332	G	C6-C5-N7	-7.08	126.15	130.40
23	CC	17	C	N1-C2-O2	7.08	123.15	118.90
23	AD	18	C	C2-N1-C1'	7.06	126.57	118.80
25	DA	1012	U	N1-C2-N3	7.06	119.14	114.90
25	DA	2451	A	C8-N9-C4	-7.05	102.98	105.80
25	DA	1992	G	C8-N9-C4	-7.04	103.58	106.40
25	DA	1786	A	N1-C6-N6	7.04	122.83	118.60
22	AB	69	A	C2-N3-C4	7.03	114.12	110.60
25	DA	933	A	N1-C6-N6	7.03	122.82	118.60
25	DA	1143	A	C5-C6-N1	-7.03	114.19	117.70
25	BA	2447	G	N3-C4-N9	7.03	130.22	126.00
23	CC	40	C	C6-N1-C2	-7.02	117.49	120.30
25	BA	621	A	C2-N3-C4	-7.02	107.09	110.60
25	DA	1786	A	C6-C5-N7	-7.02	127.39	132.30
22	AB	18	G	C8-N9-C1'	7.01	136.12	127.00
1	CA	1159	U	N3-C2-O2	-7.01	117.29	122.20
25	DA	783	A	C2-N3-C4	-7.01	107.09	110.60
25	BA	71	A	C2-N3-C4	-7.01	107.10	110.60
25	BA	783	A	C8-N9-C4	-7.00	103.00	105.80
1	AA	1406	U	C2-N3-C4	-7.00	122.80	127.00
22	AB	18	G	N1-C2-N3	-7.00	119.70	123.90
25	DA	633	A	N1-C6-N6	6.99	122.80	118.60
25	DA	1602	U	C5-C4-O4	-6.99	121.71	125.90
22	CB	58	U	C2-N1-C1'	6.99	126.08	117.70
25	BA	103	A	N1-C6-N6	6.99	122.79	118.60
25	BA	140	A	C8-N9-C4	-6.98	103.01	105.80
1	AA	1025	U	C6-N1-C2	6.97	125.18	121.00
25	DA	530	G	N9-C4-C5	-6.96	102.61	105.40
25	BA	1079	C	C2-N1-C1'	6.95	126.44	118.80
1	AA	1495	U	N3-C2-O2	-6.94	117.34	122.20
25	BA	1786	A	C6-C5-N7	-6.93	127.45	132.30
23	CC	26	C	C6-N1-C2	6.93	123.07	120.30
25	BA	630	G	C2-N3-C4	-6.92	108.44	111.90
25	DA	1064	C	C6-N1-C1'	6.91	129.10	120.80
1	CA	1036	G	C8-N9-C1'	6.91	135.98	127.00
25	BA	1332	G	N1-C6-O6	6.90	124.04	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2287	A	C5-N7-C8	-6.89	100.45	103.90
23	CC	26	C	C2-N1-C1'	-6.88	111.23	118.80
25	DA	1064	C	C2-N1-C1'	-6.88	111.23	118.80
25	DA	250	G	N3-C4-N9	6.88	130.13	126.00
25	DA	2447	G	C4-C5-C6	6.87	122.92	118.80
25	BA	2501	C	C2-N1-C1'	-6.86	111.25	118.80
25	DA	2378	A	N1-C6-N6	6.86	122.72	118.60
25	BA	906	G	C6-C5-N7	6.86	134.51	130.40
25	BA	83	G	C2-N3-C4	-6.84	108.48	111.90
25	DA	2598	A	C6-C5-N7	-6.84	127.51	132.30
25	DA	140	A	N7-C8-N9	6.84	117.22	113.80
1	CA	266	G	C5-C6-O6	6.82	132.69	128.60
25	BA	2447	G	C5-C6-O6	-6.81	124.52	128.60
1	AA	1177	G	C8-N9-C1'	6.80	135.84	127.00
25	BA	1496	A	N7-C8-N9	6.80	117.20	113.80
25	BA	2287	A	C5-N7-C8	-6.80	100.50	103.90
25	DA	2287	A	C2-N3-C4	-6.79	107.21	110.60
25	BA	1021	A	C5-N7-C8	-6.79	100.51	103.90
25	BA	788	A	N1-C6-N6	6.75	122.65	118.60
25	BA	1658	C	C6-N1-C2	-6.75	117.60	120.30
25	DA	2282	G	C8-N9-C4	-6.74	103.70	106.40
25	BA	673	C	N3-C4-N4	6.73	122.71	118.00
25	DA	1963	U	C2-N1-C1'	6.73	125.78	117.70
1	AA	1025	U	C2-N1-C1'	6.72	125.77	117.70
22	CB	35	G	C6-C5-N7	-6.72	126.37	130.40
25	DA	2287	A	N3-C4-C5	6.71	131.50	126.80
1	CA	1045	C	C6-N1-C1'	-6.71	112.74	120.80
25	DA	1950	G	C4-C5-N7	6.71	113.48	110.80
23	AC	13	C	C5-C6-N1	6.70	124.35	121.00
22	CB	87	A	N7-C8-N9	6.70	117.15	113.80
1	CA	1530	G	C4-N9-C1'	-6.70	117.79	126.50
1	AA	1054	C	C5-C6-N1	6.70	124.35	121.00
23	CC	21	U	N1-C2-O2	6.69	127.48	122.80
25	DA	1332	G	N3-C4-C5	6.69	131.95	128.60
25	DA	2061	G	N1-C6-O6	6.67	123.90	119.90
25	BA	1204	A	C2-N3-C4	-6.66	107.27	110.60
25	DA	933	A	N3-C4-C5	-6.66	122.14	126.80
25	BA	847	U	N3-C4-O4	-6.65	114.75	119.40
50	B4	45	GLY	N-CA-C	-6.65	96.47	113.10
25	DA	2139	C	C2-N1-C1'	6.65	126.12	118.80
22	AB	87	A	C5-C6-N6	-6.64	118.38	123.70
25	BA	1678	G	C4-C5-N7	6.64	113.45	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1614	A	C5-N7-C8	-6.62	100.59	103.90
25	BA	49	A	C5-N7-C8	-6.61	100.59	103.90
25	BA	446	G	C5-C6-O6	-6.61	124.63	128.60
25	DA	1899	G	C6-C5-N7	6.61	134.37	130.40
25	BA	728	G	C8-N9-C4	6.61	109.04	106.40
25	BA	446	G	C6-C5-N7	-6.61	126.44	130.40
25	DA	1678	G	C5-N7-C8	-6.60	101.00	104.30
25	BA	783	A	C5-C6-N6	-6.59	118.43	123.70
25	BA	676	A	N3-C4-C5	6.58	131.40	126.80
23	CC	41	C	C6-N1-C2	-6.57	117.67	120.30
25	BA	780	G	N1-C6-O6	6.55	123.83	119.90
25	BA	2490	G	C4-C5-N7	6.54	113.42	110.80
25	DA	2287	A	N3-C4-N9	-6.54	122.17	127.40
23	AC	11	A	C8-N9-C4	-6.54	103.19	105.80
25	BA	409	C	C6-N1-C2	6.53	122.91	120.30
25	DA	676	A	C2-N3-C4	-6.53	107.33	110.60
25	BA	807	U	N1-C2-O2	-6.53	118.23	122.80
22	AB	77	C	C5-C6-N1	6.52	124.26	121.00
25	BA	906	G	C4-C5-N7	-6.51	108.20	110.80
26	BB	81	G	C6-C5-N7	-6.50	126.50	130.40
1	CA	1495	U	N3-C2-O2	-6.50	117.65	122.20
1	AA	1336	C	C2-N1-C1'	6.49	125.94	118.80
23	AC	25	U	N1-C2-O2	6.49	127.34	122.80
25	DA	1678	G	N3-C4-C5	6.49	131.84	128.60
1	CA	108	G	C4-N9-C1'	6.48	134.92	126.50
1	AA	1054	C	C6-N1-C1'	-6.48	113.03	120.80
1	CA	1465	C	C2-N3-C4	-6.47	116.66	119.90
23	AC	72	C	C5-C6-N1	6.46	124.23	121.00
25	BA	2430	A	C4-N9-C1'	-6.46	114.66	126.30
1	CA	1025	U	N1-C2-O2	6.46	127.32	122.80
25	BA	807	U	N1-C2-N3	6.45	118.77	114.90
25	BA	1950	G	C5-N7-C8	-6.45	101.07	104.30
25	BA	2430	A	C8-N9-C1'	6.45	139.31	127.70
25	BA	1332	G	N7-C8-N9	6.45	116.32	113.10
25	BA	528	A	C2-N3-C4	-6.45	107.38	110.60
25	BA	906	G	N1-C6-O6	-6.45	116.03	119.90
23	AC	74	A	N1-C6-N6	6.44	122.46	118.60
25	DA	2629	A	C6-C5-N7	-6.43	127.80	132.30
25	DA	226	G	N3-C4-N9	-6.42	122.14	126.00
25	DA	774	A	N3-C4-N9	-6.42	122.26	127.40
25	DA	1786	A	C8-N9-C4	-6.42	103.23	105.80
1	AA	1025	U	C2-N3-C4	-6.42	123.15	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1301	U	C2-N1-C1'	6.41	125.39	117.70
25	DA	528	A	C2-N3-C4	-6.41	107.39	110.60
25	DA	676	A	C8-N9-C4	-6.41	103.24	105.80
22	CB	18	G	N3-C4-N9	6.41	129.84	126.00
23	CC	15	G	C5-C6-N1	-6.41	108.30	111.50
22	CB	85	C	C6-N1-C1'	-6.40	113.12	120.80
1	CA	993	G	C4-C5-N7	6.40	113.36	110.80
26	DB	59	A	C6-N1-C2	-6.39	114.77	118.60
23	CC	18	C	N3-C2-O2	-6.39	117.43	121.90
23	CC	35	C	C2-N1-C1'	6.39	125.83	118.80
25	BA	2598	A	N1-C6-N6	6.38	122.43	118.60
22	AB	27	G	C2-N3-C4	6.37	115.08	111.90
25	BA	2442	C	N1-C2-O2	-6.36	115.08	118.90
1	AA	1436	U	C5-C4-O4	-6.36	122.09	125.90
22	CB	36	A	C8-N9-C4	-6.35	103.26	105.80
1	AA	1177	G	N3-C2-N2	-6.35	115.46	119.90
25	BA	1079	C	C6-N1-C1'	-6.35	113.19	120.80
22	CB	35	G	C4-C5-N7	6.34	113.33	110.80
25	DA	1678	G	N3-C4-N9	-6.34	122.20	126.00
1	AA	1177	G	C5-N7-C8	6.34	107.47	104.30
25	DA	138	G	C4-N9-C1'	6.34	134.74	126.50
23	CC	44	A	C2-N3-C4	6.33	113.77	110.60
22	CB	18	G	N9-C4-C5	-6.33	102.87	105.40
25	DA	1786	A	C4-C5-N7	6.32	113.86	110.70
25	BA	74	A	C2-N3-C4	-6.31	107.44	110.60
23	CC	77	A	C4-C5-C6	-6.31	113.85	117.00
22	AB	27	G	C5-C6-N1	6.29	114.65	111.50
22	CB	50	A	C8-N9-C4	-6.29	103.28	105.80
25	DA	1496	A	N7-C8-N9	6.29	116.94	113.80
23	AD	77	A	C5-C6-N6	-6.28	118.68	123.70
1	CA	993	G	N1-C2-N2	-6.28	110.55	116.20
25	BA	1022	G	C8-N9-C4	-6.27	103.89	106.40
25	BA	812	C	N1-C2-O2	-6.27	115.14	118.90
25	BA	621	A	C5-N7-C8	-6.26	100.77	103.90
25	BA	1616	A	C5-N7-C8	-6.26	100.77	103.90
25	BA	1899	G	C8-N9-C4	-6.25	103.90	106.40
1	CA	108	G	C8-N9-C1'	-6.25	118.87	127.00
25	BA	140	A	C6-C5-N7	-6.25	127.93	132.30
25	BA	141	A	C5-N7-C8	-6.25	100.78	103.90
25	DA	329	G	N1-C6-O6	-6.24	116.15	119.90
1	CA	897	C	N1-C2-O2	-6.24	115.16	118.90
1	CA	91	C	C2-N1-C1'	6.23	125.66	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2629	A	C5-C6-N6	-6.22	118.72	123.70
1	AA	530	G	C4-N9-C1'	6.22	134.59	126.50
25	BA	893	C	C6-N1-C1'	-6.22	113.34	120.80
23	AC	45	A	N1-C6-N6	6.21	122.33	118.60
1	CA	1177	G	N3-C4-C5	-6.21	125.49	128.60
25	BA	1617	C	N3-C2-O2	6.21	126.25	121.90
1	CA	270	A	N1-C6-N6	6.21	122.33	118.60
25	DA	210	C	N1-C2-O2	-6.19	115.19	118.90
25	DA	2902	C	N1-C2-O2	6.19	122.62	118.90
25	DA	2720	U	C5-C4-O4	-6.19	122.19	125.90
22	AB	27	G	N3-C4-C5	-6.19	125.51	128.60
25	BA	530	G	N3-C4-N9	-6.19	122.29	126.00
25	BA	528	A	C6-N1-C2	6.18	122.31	118.60
25	DA	1340	U	C2-N3-C4	-6.18	123.29	127.00
25	DA	330	A	C2-N3-C4	-6.18	107.51	110.60
25	DA	2501	C	C2-N1-C1'	-6.18	112.00	118.80
24	A1	17	U	C5-C4-O4	-6.18	122.19	125.90
25	DA	1602	U	N1-C2-N3	6.17	118.60	114.90
25	DA	2451	A	N7-C8-N9	6.16	116.88	113.80
23	CD	18	C	C2-N1-C1'	6.16	125.58	118.80
25	DA	807	U	N1-C2-N3	6.16	118.59	114.90
23	CC	61	U	C2-N1-C1'	6.15	125.08	117.70
25	DA	2503	A	C5-N7-C8	-6.14	100.83	103.90
25	BA	1021	A	C2-N3-C4	-6.14	107.53	110.60
25	BA	271(B)	G	C4-N9-C1'	6.14	134.48	126.50
25	BA	2392	A	N7-C8-N9	6.14	116.87	113.80
1	AA	383	A	N1-C6-N6	6.12	122.27	118.60
1	CA	1025	U	N3-C4-O4	6.12	123.68	119.40
25	DA	2598	A	N9-C4-C5	-6.12	103.35	105.80
22	AB	44	G	N3-C4-C5	6.11	131.66	128.60
25	DA	783	A	C8-N9-C4	-6.11	103.36	105.80
25	DA	1616	A	N7-C8-N9	6.10	116.85	113.80
22	AB	40	G	N1-C6-O6	6.10	123.56	119.90
23	AC	23	G	N9-C4-C5	6.10	107.84	105.40
25	DA	2062	A	N1-C6-N6	6.09	122.26	118.60
23	AC	40	C	C5-C6-N1	6.09	124.05	121.00
25	DA	1	G	N3-C4-N9	6.08	129.65	126.00
23	AC	76	C	N3-C4-N4	6.07	122.25	118.00
25	DA	780	G	C2-N3-C4	6.07	114.94	111.90
25	DA	676	A	N7-C8-N9	6.07	116.83	113.80
25	BA	120	U	N3-C4-O4	-6.06	115.16	119.40
25	DA	383	U	N3-C2-O2	-6.06	117.96	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2392	A	C8-N9-C4	-6.06	103.38	105.80
23	CC	30	G	N3-C4-N9	6.06	129.64	126.00
25	DA	2490	G	C4-N9-C1'	6.06	134.37	126.50
25	BA	2443	C	N1-C2-O2	-6.05	115.27	118.90
24	A1	13	U	N1-C2-O2	6.05	127.04	122.80
23	AC	31	G	C5-C6-N1	-6.05	108.48	111.50
1	CA	270	A	C4-C5-N7	6.04	113.72	110.70
25	BA	2287	A	N3-C4-C5	6.04	131.03	126.80
1	CA	898	G	C2-N3-C4	-6.04	108.88	111.90
25	BA	140	A	C2-N3-C4	-6.04	107.58	110.60
25	BA	2346	A	C2-N3-C4	-6.03	107.58	110.60
25	DA	774	A	N3-C4-C5	6.03	131.02	126.80
25	BA	103	A	N9-C4-C5	-6.02	103.39	105.80
26	BB	81	G	C6-N1-C2	-6.02	121.49	125.10
25	DA	933	A	C5-N7-C8	-6.02	100.89	103.90
25	BA	2490	G	C5-N7-C8	-6.01	101.30	104.30
25	BA	1210	A	N7-C8-N9	6.01	116.80	113.80
25	DA	530	G	C5-C6-O6	-6.01	125.00	128.60
25	DA	676	A	C5-N7-C8	-6.01	100.90	103.90
25	DA	807	U	C5-C4-O4	-6.00	122.30	125.90
23	AC	5	G	N3-C4-C5	6.00	131.60	128.60
25	BA	1141	U	N1-C2-O2	-6.00	118.60	122.80
22	CB	31	C	N1-C2-O2	6.00	122.50	118.90
25	DA	2598	A	C4-C5-C6	6.00	120.00	117.00
1	CA	1159	U	N1-C2-O2	5.99	126.99	122.80
1	CA	1177	G	C6-C5-N7	5.99	133.99	130.40
23	CC	77	A	C2-N3-C4	-5.98	107.61	110.60
25	BA	917	A	C2-N3-C4	-5.98	107.61	110.60
25	DA	74	A	C2-N3-C4	-5.97	107.61	110.60
25	DA	2598	A	C5-C6-N6	-5.97	118.92	123.70
25	DA	906	G	N1-C6-O6	-5.97	116.32	119.90
25	DA	1312	U	C5-C4-O4	5.97	129.48	125.90
25	DA	1678	G	C2-N3-C4	-5.97	108.92	111.90
25	BA	1617	C	C6-N1-C2	5.96	122.69	120.30
25	DA	530	G	C8-N9-C1'	-5.96	119.25	127.00
25	DA	2873	A	N1-C2-N3	5.96	132.28	129.30
25	DA	2503	A	N7-C8-N9	5.96	116.78	113.80
1	AA	1177	G	N3-C4-N9	-5.95	122.43	126.00
25	BA	2430	A	N1-C6-N6	5.95	122.17	118.60
1	CA	108	G	C4-C5-N7	5.94	113.18	110.80
23	AC	25	U	N3-C4-O4	-5.94	115.24	119.40
23	CC	10	G	C8-N9-C1'	-5.94	119.27	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2344	U	C2-N3-C4	-5.94	123.43	127.00
25	DA	2139	C	N1-C2-O2	5.94	122.46	118.90
22	CB	48	C	C5-C6-N1	5.94	123.97	121.00
1	AA	1025	U	N3-C4-O4	5.93	123.56	119.40
24	A1	13	U	N3-C2-O2	-5.93	118.05	122.20
25	BA	1810	A	N1-C6-N6	5.93	122.16	118.60
25	DA	1616	A	C5-N7-C8	-5.93	100.93	103.90
25	BA	2392	A	C5-N7-C8	-5.93	100.93	103.90
24	C1	13	U	N3-C2-O2	-5.93	118.05	122.20
25	DA	140	A	C8-N9-C4	-5.93	103.43	105.80
25	BA	774	A	C8-N9-C1'	5.93	138.37	127.70
25	BA	1514	U	C2-N1-C1'	5.92	124.81	117.70
23	AC	39	A	N1-C6-N6	5.92	122.15	118.60
25	DA	194	G	N1-C6-O6	5.92	123.45	119.90
1	CA	1495	U	C2-N1-C1'	5.92	124.80	117.70
1	AA	1177	G	C6-N1-C2	-5.92	121.55	125.10
25	BA	1617	C	N1-C2-O2	-5.91	115.35	118.90
22	AB	24	C	C5-C6-N1	5.91	123.96	121.00
1	CA	1529	G	C4-N9-C1'	5.91	134.18	126.50
24	A1	14	U	N3-C2-O2	-5.90	118.07	122.20
25	BA	2318	G	C8-N9-C4	-5.89	104.04	106.40
25	DA	2713	A	C5-N7-C8	-5.89	100.95	103.90
25	DA	2490	G	N7-C8-N9	5.89	116.04	113.10
23	AD	77	A	N1-C6-N6	5.88	122.13	118.60
1	AA	1495	U	C2-N3-C4	5.88	130.53	127.00
10	AM	86	MET	N-CA-C	-5.87	95.14	111.00
23	AC	35	C	C5-C6-N1	5.87	123.94	121.00
23	AC	68	C	C2-N1-C1'	5.87	125.26	118.80
25	BA	83	G	N9-C4-C5	-5.87	103.05	105.40
25	BA	1189	A	N1-C6-N6	5.87	122.12	118.60
26	DB	81	G	C6-N1-C2	-5.87	121.58	125.10
28	BE	132	HIS	N-CA-C	5.87	126.85	111.00
22	CB	3	C	C6-N1-C2	-5.87	117.95	120.30
1	CA	1406	U	C2-N3-C4	-5.87	123.48	127.00
1	CA	1498	U	C2-N1-C1'	5.87	124.74	117.70
25	BA	2032	G	C2-N3-C4	-5.86	108.97	111.90
25	BA	140	A	N1-C6-N6	5.86	122.11	118.60
25	BA	1992	G	N3-C4-C5	-5.86	125.67	128.60
23	AC	12	G	C5-C6-O6	-5.85	125.09	128.60
1	AA	1053	G	C6-C5-N7	5.85	133.91	130.40
22	CB	39	U	C5-C6-N1	5.85	125.62	122.70
25	DA	138	G	C8-N9-C4	-5.85	104.06	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2430	A	N1-C6-N6	5.84	122.10	118.60
25	BA	1786	A	C5-C6-N1	-5.84	114.78	117.70
25	BA	1506	C	C6-N1-C1'	-5.84	113.80	120.80
23	CC	77	A	N1-C6-N6	5.83	122.10	118.60
1	AA	97	U	C2-N1-C1'	5.83	124.69	117.70
25	DA	1496	A	C8-N9-C4	-5.83	103.47	105.80
23	AC	31	G	C5-C6-O6	5.83	132.09	128.60
23	AC	35	C	C2-N3-C4	5.82	122.81	119.90
25	DA	1533	C	C2-N1-C1'	5.82	125.20	118.80
26	BB	95	U	N3-C4-O4	-5.82	115.33	119.40
25	DA	2725	A	C4-C5-C6	5.81	119.91	117.00
25	BA	1931	U	N1-C2-N3	5.81	118.39	114.90
23	AD	18	C	C6-N1-C2	-5.81	117.98	120.30
25	BA	1506	C	N1-C2-O2	5.81	122.39	118.90
25	DA	783	A	C6-C5-N7	-5.81	128.24	132.30
25	BA	1142(A)	A	C2-N3-C4	-5.81	107.70	110.60
25	BA	492	A	N1-C6-N6	5.80	122.08	118.60
25	DA	103	A	N9-C4-C5	-5.80	103.48	105.80
25	BA	2318	G	N7-C8-N9	5.80	116.00	113.10
24	A1	16	A	N1-C6-N6	5.79	122.08	118.60
25	BA	247	G	C8-N9-C4	5.79	108.72	106.40
25	DA	1614	A	N7-C8-N9	5.79	116.69	113.80
24	A1	16	A	N9-C4-C5	-5.79	103.49	105.80
25	DA	1950	G	C5-N7-C8	-5.78	101.41	104.30
25	BA	2439	A	N1-C6-N6	5.78	122.07	118.60
22	CB	47	C	C5-C6-N1	5.78	123.89	121.00
25	DA	1332	G	C5-N7-C8	-5.78	101.41	104.30
25	BA	201	C	C2-N3-C4	-5.77	117.01	119.90
25	BA	391	G	C6-N1-C2	-5.77	121.64	125.10
25	BA	2501	C	C6-N1-C1'	5.77	127.72	120.80
25	BA	2378	A	N1-C6-N6	5.77	122.06	118.60
25	BA	2346	A	N1-C2-N3	5.77	132.18	129.30
25	DA	856	C	C6-N1-C2	-5.76	117.99	120.30
1	AA	1465	C	N3-C4-C5	5.76	124.20	121.90
1	AA	1053	G	C8-N9-C1'	5.76	134.48	127.00
54	D8	32	LEU	CA-CB-CG	5.75	128.52	115.30
25	BA	2498	C	N1-C2-O2	-5.74	115.45	118.90
25	BA	774	A	C5-N7-C8	-5.74	101.03	103.90
25	DA	250	G	N3-C4-C5	-5.73	125.73	128.60
25	BA	1786	A	N1-C2-N3	5.72	132.16	129.30
25	DA	103	A	C6-C5-N7	-5.72	128.29	132.30
25	DA	2344	U	N1-C2-O2	-5.72	118.80	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CC	29	C	C6-N1-C2	-5.72	118.01	120.30
23	CD	18	C	N1-C2-O2	5.72	122.33	118.90
25	BA	1678	G	N7-C8-N9	5.71	115.96	113.10
25	BA	1950	G	N7-C8-N9	5.71	115.96	113.10
22	CB	58	U	C6-N1-C1'	-5.71	113.20	121.20
1	AA	1159	U	C2-N1-C1'	5.71	124.55	117.70
22	AB	87	A	C4-N9-C1'	5.71	136.57	126.30
25	BA	1433	U	C2-N1-C1'	5.71	124.55	117.70
25	BA	2344	U	N1-C2-O2	-5.70	118.81	122.80
25	BA	103	A	C4-C5-C6	5.70	119.85	117.00
25	DA	2139	C	C6-N1-C1'	-5.70	113.97	120.80
25	DA	2152	G	N3-C4-N9	5.70	129.42	126.00
23	CC	30	G	N3-C4-C5	-5.69	125.75	128.60
25	BA	391	G	N3-C4-N9	5.69	129.41	126.00
14	AQ	24	CYS	CA-CB-SG	5.68	124.23	114.00
25	BA	1380	G	C8-N9-C1'	-5.68	119.61	127.00
23	CD	75	C	C2-N1-C1'	5.68	125.05	118.80
25	DA	801	G	N1-C6-O6	-5.68	116.49	119.90
25	BA	1210	A	C6-C5-N7	-5.68	128.32	132.30
25	BA	2451	A	C4-C5-C6	-5.68	114.16	117.00
23	AC	11	A	N9-C4-C5	5.67	108.07	105.80
25	BA	189	G	C8-N9-C4	5.67	108.67	106.40
25	BA	859	G	N3-C4-C5	5.67	131.43	128.60
25	DA	530	G	C2-N3-C4	-5.66	109.07	111.90
22	AB	27	G	N3-C4-N9	5.66	129.40	126.00
1	CA	1436	U	C2-N3-C4	-5.66	123.60	127.00
25	DA	2595	G	C2-N3-C4	-5.66	109.07	111.90
25	BA	71	A	C5-N7-C8	-5.66	101.07	103.90
23	CC	77	A	C4-C5-N7	5.66	113.53	110.70
25	BA	1213	A	N1-C6-N6	5.65	121.99	118.60
25	BA	2134	A	N1-C6-N6	5.65	121.99	118.60
25	DA	630	G	C8-N9-C4	5.65	108.66	106.40
12	AO	88	GLY	N-CA-C	-5.64	98.99	113.10
25	BA	541	C	C6-N1-C2	-5.64	118.04	120.30
25	BA	633	A	C5-C6-N1	-5.64	114.88	117.70
25	DA	2725	A	N1-C6-N6	5.64	121.98	118.60
1	CA	383	A	N1-C6-N6	5.63	121.98	118.60
1	CA	1045	C	N3-C2-O2	-5.63	117.95	121.90
1	AA	723	U	C2-N1-C1'	5.63	124.46	117.70
1	CA	1036	G	N3-C4-N9	-5.63	122.62	126.00
1	AA	115	G	C8-N9-C4	-5.62	104.15	106.40
25	DA	737	C	N1-C2-O2	-5.62	115.53	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AB	40	G	C5-C6-N1	-5.61	108.69	111.50
1	AA	530	G	C8-N9-C1'	-5.60	119.72	127.00
25	BA	676	A	C5-C6-N1	-5.60	114.90	117.70
23	CC	77	A	C4-N9-C1'	-5.60	116.22	126.30
25	DA	83	G	N9-C4-C5	-5.60	103.16	105.40
25	BA	858	U	N1-C2-O2	5.60	126.72	122.80
25	BA	784	A	N1-C6-N6	-5.59	115.24	118.60
23	CC	18	C	N1-C2-O2	5.59	122.25	118.90
25	DA	138	G	N7-C8-N9	5.58	115.89	113.10
25	BA	1210	A	C8-N9-C4	-5.58	103.57	105.80
25	DA	1698	A	C5-N7-C8	-5.58	101.11	103.90
25	DA	140	A	C5-N7-C8	-5.58	101.11	103.90
32	DK	131	LYS	C-N-CD	-5.58	108.33	120.60
25	BA	2071	A	C2-N3-C4	-5.58	107.81	110.60
25	BA	333	G	C4-N9-C1'	5.57	133.75	126.50
25	DA	788	A	N1-C6-N6	5.57	121.94	118.60
1	CA	266	G	C8-N9-C4	-5.57	104.17	106.40
22	CB	87	A	C5-N7-C8	-5.57	101.12	103.90
23	CC	35	C	N3-C4-C5	-5.57	119.67	121.90
25	BA	2430	A	C5-N7-C8	-5.57	101.12	103.90
25	DA	83	G	C6-C5-N7	-5.57	127.06	130.40
1	AA	97	U	C2-N3-C4	5.56	130.34	127.00
25	BA	1786	A	N1-C6-N6	5.56	121.94	118.60
25	BA	2451	A	N1-C6-N6	-5.56	115.26	118.60
1	CA	266	G	N3-C4-C5	-5.56	125.82	128.60
23	AC	68	C	N1-C2-O2	5.56	122.24	118.90
25	BA	49	A	N7-C8-N9	5.56	116.58	113.80
25	DA	1950	G	C6-C5-N7	-5.56	127.06	130.40
22	CB	63	G	C4-N9-C1'	-5.56	119.27	126.50
22	AB	18	G	C4-C5-C6	-5.56	115.47	118.80
25	BA	330	A	C2-N3-C4	-5.56	107.82	110.60
25	DA	2720	U	N1-C2-N3	5.56	118.23	114.90
25	DA	74	A	C5-C6-N1	-5.56	114.92	117.70
1	AA	1498	U	C2-N1-C1'	5.55	124.36	117.70
23	AC	77	A	N3-C4-C5	5.55	130.69	126.80
25	BA	673	C	N3-C4-C5	5.55	124.12	121.90
27	BD	28	GLU	N-CA-C	-5.55	96.03	111.00
25	DA	226	G	N3-C2-N2	-5.55	116.02	119.90
25	BA	201	C	C5-C4-N4	-5.54	116.32	120.20
25	DA	2062	A	N9-C4-C5	-5.54	103.58	105.80
26	BB	95	U	C6-N1-C1'	5.54	128.95	121.20
25	DA	1930	G	C4-N9-C1'	-5.54	119.30	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	783	A	C5-C6-N6	-5.53	119.27	123.70
25	BA	797	C	N1-C2-O2	-5.53	115.58	118.90
26	BB	89(A)	A	N1-C6-N6	5.53	121.92	118.60
25	BA	391	G	C4-N9-C1'	5.53	133.69	126.50
23	AC	39	A	C6-C5-N7	-5.53	128.43	132.30
41	B2	39	LEU	CA-CB-CG	5.53	128.01	115.30
22	CB	57	C	C6-N1-C2	-5.52	118.09	120.30
25	BA	1528	A	N7-C8-N9	5.52	116.56	113.80
25	BA	2287	A	N3-C4-N9	-5.52	122.98	127.40
25	BA	2318	G	C4-N9-C1'	5.52	133.68	126.50
23	AC	38	A	C8-N9-C4	-5.52	103.59	105.80
22	AB	47	C	C5-C6-N1	5.52	123.76	121.00
25	BA	1616	A	C4-C5-N7	5.52	113.46	110.70
25	BA	621	A	N1-C6-N6	5.51	121.91	118.60
1	CA	1530	G	C8-N9-C1'	5.51	134.16	127.00
23	CC	33	C	C2-N1-C1'	5.51	124.86	118.80
23	CC	46	G	C5-C6-N1	-5.50	108.75	111.50
23	CC	31	G	C8-N9-C4	-5.50	104.20	106.40
25	DA	633	A	C5-C6-N1	-5.50	114.95	117.70
25	DA	1786	A	C2-N3-C4	-5.50	107.85	110.60
23	AC	9	G	C4-N9-C1'	5.49	133.64	126.50
25	BA	1156	A	N1-C6-N6	5.49	121.89	118.60
25	DA	686	G	N3-C4-N9	5.49	129.29	126.00
22	CB	58	U	N1-C2-O2	5.49	126.64	122.80
25	DA	812	C	N1-C2-O2	-5.48	115.61	118.90
1	AA	1053	G	C8-N9-C4	5.48	108.59	106.40
1	AA	1053	G	N7-C8-N9	-5.47	110.36	113.10
25	DA	1614	A	C5-N7-C8	-5.47	101.16	103.90
25	BA	2451	A	C5-C6-N1	5.47	120.44	117.70
23	CC	76	C	N3-C4-N4	5.47	121.83	118.00
25	BA	528	A	C5-C6-N1	-5.46	114.97	117.70
25	BA	140	A	C4-C5-N7	5.46	113.43	110.70
1	CA	91	C	N1-C2-O2	5.46	122.18	118.90
25	DA	1992	G	N3-C4-C5	-5.46	125.87	128.60
25	BA	807	U	C5-C4-O4	-5.46	122.62	125.90
23	CC	10	G	C4-N9-C1'	5.45	133.58	126.50
25	DA	226	G	C8-N9-C1'	5.44	134.07	127.00
25	BA	1220	A	C8-N9-C4	-5.44	103.62	105.80
25	DA	633	A	C6-C5-N7	-5.44	128.49	132.30
25	BA	2557	G	C4-N9-C1'	5.44	133.57	126.50
24	C1	13	U	N1-C2-O2	5.43	126.60	122.80
25	DA	226	G	C4-N9-C1'	-5.43	119.44	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	860	U	C2-N1-C1'	5.42	124.21	117.70
25	BA	2443	C	N3-C4-N4	5.42	121.80	118.00
23	AC	68	C	C6-N1-C2	-5.42	118.13	120.30
25	BA	1427	A	C8-N9-C4	-5.41	103.64	105.80
25	DA	453	C	C6-N1-C2	5.41	122.46	120.30
23	AC	12	G	N1-C6-O6	5.41	123.14	119.90
25	BA	2211	G	C4-N9-C1'	5.41	133.53	126.50
23	AC	30	G	C2-N3-C4	-5.41	109.20	111.90
23	AC	43	G	C8-N9-C4	-5.40	104.24	106.40
25	BA	138	G	C5-N7-C8	-5.40	101.60	104.30
23	CD	2	G	N1-C6-O6	5.40	123.14	119.90
25	DA	1602	U	N3-C4-C5	5.39	117.84	114.60
25	DA	1142(A)	A	C5-N7-C8	-5.39	101.20	103.90
26	DB	81	G	N3-C4-N9	5.39	129.23	126.00
23	CD	18	C	C5-C6-N1	5.39	123.69	121.00
25	DA	172	C	C2-N1-C1'	5.38	124.72	118.80
25	BA	383	U	N1-C2-O2	5.38	126.57	122.80
25	BA	859	G	C4-N9-C1'	-5.38	119.50	126.50
25	DA	1407	C	N1-C2-O2	5.38	122.13	118.90
25	BA	2595	G	C2-N3-C4	-5.38	109.21	111.90
25	DA	1762	A	C1'-O4'-C4'	-5.38	105.60	109.90
25	DA	2595	G	N9-C4-C5	-5.38	103.25	105.40
23	AC	23	G	N7-C8-N9	5.37	115.79	113.10
1	AA	163	C	C6-N1-C1'	5.37	127.24	120.80
25	DA	1021	A	C5-N7-C8	-5.37	101.22	103.90
25	BA	2681	C	C5-C6-N1	5.37	123.68	121.00
25	DA	2720	U	N3-C4-C5	5.37	117.82	114.60
25	DA	2776	A	C8-N9-C4	-5.37	103.65	105.80
25	BA	2344	U	C2-N3-C4	-5.36	123.78	127.00
25	BA	1691	C	C6-N1-C2	-5.36	118.16	120.30
23	AC	44	A	C5-C6-N6	-5.36	119.42	123.70
26	BB	95	U	C2-N1-C1'	-5.36	111.27	117.70
22	CB	18	G	C8-N9-C4	5.36	108.54	106.40
25	DA	912	C	C6-N1-C2	-5.36	118.16	120.30
25	BA	1380	G	C4-N9-C1'	5.35	133.46	126.50
1	CA	898	G	N3-C4-C5	5.35	131.28	128.60
25	DA	1610	A	N9-C4-C5	-5.35	103.66	105.80
32	BK	12	LEU	CA-CB-CG	5.35	127.61	115.30
25	DA	1612	C	C6-N1-C2	5.35	122.44	120.30
25	BA	1614	A	C2-N3-C4	-5.34	107.93	110.60
26	BB	81	G	C4-C5-N7	5.34	112.94	110.80
25	DA	2048	G	C8-N9-C4	-5.34	104.26	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	DB	95	U	N3-C4-O4	-5.34	115.66	119.40
25	BA	1312	U	N3-C4-C5	-5.34	111.40	114.60
23	CC	17	C	N3-C2-O2	-5.33	118.17	121.90
22	CB	65	U	C6-N1-C2	-5.33	117.80	121.00
23	AC	62	C	C6-N1-C2	-5.33	118.17	120.30
25	BA	1678	G	N1-C6-O6	5.33	123.10	119.90
22	CB	28	C	N3-C4-C5	-5.33	119.77	121.90
25	DA	2159	G	C4-N9-C1'	5.33	133.43	126.50
23	AC	60	A	C4-C5-C6	5.33	119.66	117.00
25	BA	1698	A	N3-C4-N9	-5.33	123.14	127.40
25	DA	2573	C	C2-N1-C1'	5.32	124.65	118.80
1	AA	1495	U	C2-N1-C1'	5.32	124.08	117.70
25	DA	2502	G	C8-N9-C4	-5.31	104.28	106.40
25	BA	1141	U	C2-N3-C4	-5.31	123.82	127.00
23	CC	61	U	C6-N1-C1'	-5.31	113.77	121.20
25	BA	633	A	N9-C4-C5	-5.30	103.68	105.80
25	BA	2510	C	N1-C2-O2	-5.30	115.72	118.90
23	CC	77	A	C5-N7-C8	-5.30	101.25	103.90
22	CB	42	U	C5-C6-N1	5.29	125.35	122.70
25	DA	1623	G	N9-C4-C5	5.29	107.52	105.40
23	CC	16	C	N1-C2-O2	5.29	122.08	118.90
22	CB	40	G	C8-N9-C4	-5.29	104.28	106.40
25	BA	103	A	C8-N9-C1'	-5.29	118.18	127.70
25	BA	933	A	N1-C2-N3	5.28	131.94	129.30
1	CA	1319	A	N1-C6-N6	-5.28	115.44	118.60
25	BA	391	G	C8-N9-C1'	-5.27	120.15	127.00
25	BA	271(B)	G	N3-C4-C5	-5.27	125.97	128.60
25	BA	1678	G	C6-C5-N7	-5.27	127.24	130.40
23	CC	33	C	C6-N1-C1'	-5.26	114.48	120.80
23	AC	13	C	C2-N3-C4	5.26	122.53	119.90
41	B2	35	LEU	CA-CB-CG	5.26	127.39	115.30
23	CC	58	A	C8-N9-C4	-5.25	103.70	105.80
25	DA	1342	A	C8-N9-C4	-5.25	103.70	105.80
23	AD	1	C	N1-C2-O2	5.25	122.05	118.90
1	CA	270	A	C5-C6-N6	-5.25	119.50	123.70
25	DA	1204	A	C2-N3-C4	-5.25	107.98	110.60
25	BA	1937	A	N9-C4-C5	5.24	107.89	105.80
25	BA	541	C	N3-C2-O2	-5.24	118.23	121.90
25	BA	828	U	C5-C4-O4	5.24	129.04	125.90
25	DA	2378	A	C4-C5-C6	5.23	119.62	117.00
25	BA	1614	A	N7-C8-N9	5.23	116.42	113.80
23	AC	71	G	N3-C4-C5	5.23	131.22	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	885	C	C2-N1-C1'	-5.23	113.05	118.80
25	BA	2452	C	C2-N1-C1'	5.23	124.55	118.80
25	DA	2346	A	C2-N3-C4	-5.23	107.98	110.60
1	AA	807	A	C8-N9-C4	-5.23	103.71	105.80
25	BA	2497	A	C4-C5-C6	5.23	119.61	117.00
25	DA	1930	G	C8-N9-C1'	5.23	133.80	127.00
25	BA	2610	C	N3-C2-O2	-5.22	118.25	121.90
25	DA	885	C	C2-N1-C1'	-5.22	113.06	118.80
23	AC	15	G	C5-C6-N1	-5.22	108.89	111.50
25	DA	530	G	C4-N9-C1'	5.22	133.28	126.50
1	CA	1177	G	C5-N7-C8	5.22	106.91	104.30
23	AC	36	A	N1-C6-N6	5.21	121.73	118.60
25	DA	2159	G	C8-N9-C1'	-5.21	120.22	127.00
25	BA	2681	C	C2-N1-C1'	5.21	124.53	118.80
22	CB	48	C	C6-N1-C2	-5.21	118.22	120.30
25	DA	103	A	C8-N9-C1'	-5.21	118.32	127.70
1	AA	1054	C	C6-N1-C2	-5.21	118.22	120.30
25	BA	146	G	N3-C4-C5	5.21	131.21	128.60
1	AA	789	U	C5-C4-O4	5.21	129.03	125.90
25	DA	1342	A	C5-C6-N6	-5.21	119.53	123.70
1	CA	1267	C	C2-N1-C1'	5.21	124.53	118.80
23	CC	35	C	C6-N1-C2	-5.21	118.22	120.30
28	BE	132	HIS	N-CA-CB	-5.20	101.23	110.60
25	BA	1332	G	N3-C4-C5	5.20	131.20	128.60
23	AC	30	G	N1-C6-O6	5.20	123.02	119.90
25	BA	1616	A	N7-C8-N9	5.20	116.40	113.80
1	CA	898	G	C8-N9-C4	5.20	108.48	106.40
22	CB	74	C	N1-C2-O2	5.20	122.02	118.90
25	DA	1475	G	C4-N9-C1'	5.20	133.25	126.50
23	AC	13	C	C4-C5-C6	-5.19	114.80	117.40
25	BA	74	A	C5-C6-N1	-5.19	115.10	117.70
25	DA	621	A	C5-C6-N1	-5.19	115.10	117.70
25	DA	1533	C	N1-C2-O2	5.19	122.02	118.90
25	BA	2062	A	C8-N9-C4	5.19	107.88	105.80
23	AC	6	G	C6-C5-N7	5.19	133.51	130.40
22	CB	35	G	C4-N9-C1'	5.19	133.24	126.50
22	CB	40	G	N7-C8-N9	5.19	115.69	113.10
23	CC	41	C	N3-C4-C5	-5.19	119.83	121.90
25	BA	2375	G	C2-N3-C4	-5.18	109.31	111.90
25	BA	1950	G	C8-N9-C4	-5.18	104.33	106.40
38	BQ	101	LEU	CA-CB-CG	5.18	127.22	115.30
25	DA	1210	A	C3'-C2'-C1'	5.18	105.65	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	780	G	C2-N3-C4	5.18	114.49	111.90
25	DA	2501	C	C6-N1-C1'	5.18	127.02	120.80
25	BA	446	G	C4-C5-N7	5.18	112.87	110.80
25	DA	2490	G	C8-N9-C4	-5.18	104.33	106.40
1	CA	150	C	C2-N3-C4	5.18	122.49	119.90
25	DA	1427	A	C8-N9-C4	-5.17	103.73	105.80
25	DA	676	A	N3-C4-N9	-5.17	123.26	127.40
25	DA	1786	A	C4-N9-C1'	5.17	135.61	126.30
23	CC	22	A	N1-C6-N6	-5.17	115.50	118.60
25	DA	630	G	N9-C4-C5	-5.17	103.33	105.40
25	DA	1616	A	C8-N9-C4	-5.17	103.73	105.80
25	DA	1899	G	C2-N3-C4	-5.17	109.32	111.90
1	AA	1465	C	C5-C4-N4	-5.16	116.59	120.20
23	AC	62	C	C5-C6-N1	5.16	123.58	121.00
40	B1	98	LEU	CA-CB-CG	5.16	127.16	115.30
25	DA	1585	C	C2-N1-C1'	5.16	124.47	118.80
25	BA	1914	C	C6-N1-C2	-5.16	118.24	120.30
1	AA	163	C	C2-N1-C1'	-5.16	113.13	118.80
25	BA	1698	A	N3-C4-C5	5.16	130.41	126.80
1	CA	1025	U	N3-C4-C5	5.15	117.69	114.60
25	BA	1964	G	N9-C4-C5	-5.15	103.34	105.40
25	DA	885	C	C6-N1-C1'	5.15	126.98	120.80
25	BA	1022	G	N9-C4-C5	5.14	107.46	105.40
25	DA	1141	U	N1-C2-N3	5.14	117.99	114.90
1	CA	1278	U	C2-N1-C1'	5.14	123.87	117.70
25	DA	1309	G	N1-C6-O6	5.14	122.98	119.90
25	BA	1950	G	N3-C4-N9	-5.14	122.92	126.00
24	C1	16	A	C4-C5-C6	5.14	119.57	117.00
23	AC	45	A	C5-C6-N6	-5.14	119.59	123.70
25	BA	2609	U	C2-N1-C1'	-5.14	111.53	117.70
1	CA	91	C	C6-N1-C1'	-5.13	114.64	120.80
25	DA	2129	C	N1-C2-O2	5.13	121.98	118.90
1	CA	631	G	C3'-C2'-C1'	5.13	105.60	101.50
1	AA	1530	G	C4-N9-C1'	-5.13	119.84	126.50
25	BA	1658	C	N3-C4-C5	-5.13	119.85	121.90
22	CB	48	C	C2-N3-C4	5.13	122.46	119.90
25	BA	1653	G	N3-C4-C5	-5.12	126.04	128.60
25	BA	271(B)	G	C8-N9-C1'	-5.12	120.34	127.00
1	CA	897	C	C2-N1-C1'	-5.12	113.17	118.80
23	AC	68	C	C5-C6-N1	5.12	123.56	121.00
25	BA	216	A	C8-N9-C4	5.12	107.85	105.80
22	CB	87	A	C8-N9-C4	-5.12	103.75	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1725	G	C4-N9-C1'	5.12	133.15	126.50
25	BA	2751	G	C4-N9-C1'	5.12	133.15	126.50
1	CA	1036	G	C5-N7-C8	5.12	106.86	104.30
22	CB	36	A	C2-N3-C4	5.12	113.16	110.60
25	DA	783	A	N3-C4-C5	5.11	130.38	126.80
25	BA	1992	G	C8-N9-C4	-5.10	104.36	106.40
25	BA	2713	A	C2-N3-C4	-5.10	108.05	110.60
24	C1	16	A	N9-C4-C5	-5.10	103.76	105.80
25	DA	2502	G	N3-C4-C5	-5.09	126.05	128.60
26	DB	95	U	C6-N1-C1'	5.09	128.33	121.20
25	BA	856	C	C6-N1-C2	-5.09	118.27	120.30
27	BD	111	LEU	CA-CB-CG	5.09	127.00	115.30
49	BX	8	LEU	CA-CB-CG	5.08	127.00	115.30
1	CA	700	G	C8-N9-C1'	5.08	133.61	127.00
25	DA	801	G	N9-C4-C5	5.08	107.43	105.40
25	DA	1502	C	C2-N1-C1'	5.08	124.39	118.80
25	BA	2566	A	C8-N9-C4	-5.08	103.77	105.80
25	DA	1899	G	N3-C2-N2	-5.08	116.35	119.90
22	AB	18	G	C6-C5-N7	5.07	133.44	130.40
25	BA	210	C	C5-C6-N1	-5.07	118.46	121.00
1	CA	328	C	C6-N1-C2	-5.07	118.27	120.30
25	BA	1142(A)	A	N3-C4-N9	-5.07	123.35	127.40
23	CC	49	C	C6-N1-C2	-5.07	118.27	120.30
25	DA	2287	A	C8-N9-C1'	5.07	136.82	127.70
25	DA	2754	U	C2-N1-C1'	5.07	123.78	117.70
31	BH	167	GLU	C-N-CD	-5.07	109.46	120.60
23	CC	71	G	C4-C5-N7	5.07	112.83	110.80
23	AC	76	C	C4-C5-C6	5.06	119.93	117.40
25	DA	1602	U	N1-C2-O2	-5.06	119.25	122.80
23	AC	61	U	N3-C4-O4	5.06	122.94	119.40
23	AC	52	C	C2-N1-C1'	5.06	124.36	118.80
25	DA	2049	G	N3-C4-C5	5.06	131.13	128.60
23	AD	77	A	N3-C4-C5	-5.06	123.26	126.80
25	DA	673	C	C6-N1-C2	-5.06	118.28	120.30
1	AA	1177	G	N1-C2-N3	5.05	126.93	123.90
25	BA	2688	U	C5-C4-O4	5.05	128.93	125.90
25	BA	1678	G	N3-C4-C5	5.05	131.12	128.60
25	DA	2490	G	C6-C5-N7	-5.04	127.38	130.40
47	BZ	80	LEU	CA-CB-CG	5.04	126.89	115.30
25	DA	856	C	C2-N1-C1'	5.04	124.34	118.80
1	AA	898	G	C2-N3-C4	-5.04	109.38	111.90
1	CA	901	A	N1-C6-N6	5.04	121.62	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1079	C	N1-C2-O2	5.04	121.92	118.90
23	CC	28	U	N3-C2-O2	5.04	125.73	122.20
25	BA	530	G	C8-N9-C1'	5.03	133.54	127.00
22	AB	9	G	N1-C6-O6	-5.03	116.88	119.90
1	AA	812	C	C2-N1-C1'	5.03	124.33	118.80
1	AA	1495	U	C5-C6-N1	5.02	125.21	122.70
25	BA	906	G	C8-N9-C1'	5.02	133.53	127.00
1	CA	108	G	C6-C5-N7	-5.02	127.39	130.40
1	CA	754	C	C2-N1-C1'	5.02	124.32	118.80
25	DA	1963	U	C6-N1-C1'	-5.02	114.17	121.20
1	AA	898	G	N3-C4-C5	5.02	131.11	128.60
23	AC	43	G	N7-C8-N9	5.02	115.61	113.10
22	CB	85	C	C4-C5-C6	-5.02	114.89	117.40
23	AC	30	G	N1-C2-N3	5.01	126.91	123.90
25	BA	633	A	C5-C6-N6	-5.01	119.69	123.70
23	AD	77	A	N3-C4-N9	5.01	131.41	127.40
23	CC	13	C	C5-C6-N1	5.01	123.51	121.00
25	DA	1616	A	C6-C5-N7	-5.01	128.80	132.30
25	BA	580	C	C6-N1-C2	-5.00	118.30	120.30
25	DA	2713	A	N7-C8-N9	5.00	116.30	113.80

There are no chirality outliers.

All (99) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AE	14	GLY	Peptide
2	AE	194	PRO	Peptide
2	AE	71	VAL	Peptide
4	AG	29	PRO	Peptide
8	AK	102	ARG	Peptide
10	AM	55	LYS	Peptide
12	AO	17	LYS	Peptide
12	AO	47	LYS	Peptide
14	AQ	13	THR	Peptide
15	AR	87	ILE	Peptide
40	B1	90	VAL	Peptide
41	B2	48	GLY	Peptide
46	B3	83	PRO	Peptide
46	B3	84	LEU	Peptide
50	B4	38	LYS	Peptide
50	B4	40	HIS	Peptide
50	B4	44	THR	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
50	B4	51	ASP	Peptide
51	B5	47	PRO	Peptide
52	B6	27	LYS	Peptide
53	B7	48	LYS	Peptide
54	B8	51	ALA	Peptide
54	B8	52	LYS	Peptide
27	BD	122	ASP	Peptide
27	BD	236	GLY	Peptide
27	BD	237	GLU	Peptide
27	BD	27	THR	Peptide
27	BD	28	GLU	Peptide
27	BD	47	GLY	Peptide
28	BE	131	ALA	Peptide
30	BG	13	GLU	Peptide
31	BH	153	LYS	Peptide
31	BH	7	LEU	Peptide
32	BK	10	GLU	Peptide
32	BK	116	LEU	Peptide
32	BK	134	PRO	Peptide
33	BM	96	GLU	Peptide
35	BO	115	LEU	Peptide
35	BO	26	GLY	Peptide
35	BO	36	LYS	Peptide
35	BO	5	ASP	Peptide
36	BP	21	THR	Peptide
36	BP	58	PHE	Peptide
36	BP	87	LYS	Peptide
38	BQ	110	LEU	Peptide
39	BR	115	ARG	Peptide
39	BR	3	ARG	Peptide
43	BT	67	GLY	Peptide
45	BV	160	GLY	Peptide
45	BV	5	LEU	Peptide
45	BV	63	ASP	Peptide
48	BW	15	LYS	Peptide
48	BW	17	SER	Peptide
2	CE	231	GLU	Peptide
2	CE	237	ALA	Peptide
2	CE	71	VAL	Peptide
2	CE	73	THR	Peptide
2	CE	74	LYS	Peptide
3	CF	47	LEU	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
14	CQ	14	PRO	Peptide
14	CQ	27	CYS	Peptide
19	CV	66	MET	Peptide
20	CW	11	SER	Peptide
37	D0	106	GLY	Peptide
37	D0	81	ASP	Peptide
40	D1	90	VAL	Peptide
50	D4	40	HIS	Peptide
50	D4	56	VAL	Peptide
51	D5	56	LYS	Peptide
52	D6	18	ARG	Peptide
54	D8	31	HIS	Peptide
27	DD	236	GLY	Peptide
27	DD	237	GLU	Peptide
27	DD	29	PRO	Peptide
28	DE	186	GLY	Peptide
28	DE	201	THR	Peptide
28	DE	203	LYS	Peptide
28	DE	61	ARG	Peptide
28	DE	65	GLY	Peptide
28	DE	88	GLY	Peptide
29	DF	123	LEU	Peptide
29	DF	2	LYS	Peptide
30	DG	13	GLU	Peptide
31	DH	124	GLU	Peptide
31	DH	125	VAL	Peptide
32	DK	112	LYS	Peptide
32	DK	142	VAL	Peptide
32	DK	143	SER	Peptide
32	DK	82	ARG	Peptide
35	DO	110	TYR	Peptide
35	DO	115	LEU	Peptide
35	DO	139	LYS	Peptide
38	DQ	108	GLY	Peptide
38	DQ	56	LEU	Peptide
44	DU	46	LYS	Peptide
44	DU	76	CYS	Peptide
45	DV	175	VAL	Peptide
45	DV	60	GLU	Peptide
48	DW	43	GLN	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	32369	0	16339	1207	1
1	CA	32372	0	16338	1298	1
2	AE	1924	0	1975	158	0
2	CE	1924	0	1975	180	0
3	AF	1605	0	1668	111	0
3	CF	1612	0	1677	144	0
4	AG	1703	0	1764	146	0
4	CG	1703	0	1763	140	1
5	AH	1155	0	1213	74	0
5	CH	1155	0	1213	91	0
6	AI	843	0	857	39	1
6	CI	843	0	857	45	0
7	AJ	1257	0	1296	68	0
7	CJ	1257	0	1296	74	0
8	AK	1116	0	1177	75	0
8	CK	1116	0	1177	66	0
9	AL	1010	0	1037	99	0
9	CL	1010	0	1037	121	0
10	AM	801	0	849	78	0
10	CM	801	0	849	114	0
11	AN	885	0	904	65	0
11	CN	885	0	904	45	0
12	AO	975	0	1062	62	0
12	CO	975	0	1062	75	0
13	AP	928	0	987	66	0
13	CP	933	0	992	107	0
14	AQ	492	0	529	47	0
14	CQ	492	0	531	68	0
15	AR	734	0	771	38	0
15	CR	734	0	771	35	0
16	AS	705	0	725	79	0
16	CS	705	0	725	45	0
17	AT	834	0	904	55	0
17	CT	834	0	904	41	0
18	AU	591	0	662	30	0
18	CU	591	0	662	47	0
19	AV	624	0	636	71	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	CV	624	0	636	91	0
20	AW	763	0	859	73	0
20	CW	763	0	861	56	0
21	AX	217	0	234	17	0
21	CX	217	0	234	23	0
22	AB	1861	0	938	85	0
22	CB	1861	0	938	99	0
23	AC	1643	0	837	75	0
23	AD	1643	0	837	97	0
23	CC	1643	0	837	91	0
23	CD	1643	0	837	108	0
24	A1	205	0	103	12	0
24	C1	205	0	103	10	0
25	BA	62707	0	31613	2105	0
25	DA	62607	0	31565	2108	1
26	BB	2617	0	1328	94	0
26	DB	2617	0	1328	135	0
27	BD	2115	0	2195	238	0
27	DD	2115	0	2195	211	0
28	BE	1568	0	1634	334	0
28	DE	1568	0	1634	256	0
29	BF	1585	0	1632	119	0
29	DF	1627	0	1680	184	0
30	BG	1474	0	1535	171	0
30	DG	1474	0	1535	148	0
31	BH	1307	0	1382	135	0
31	DH	1307	0	1382	156	1
32	BK	1136	0	1223	99	0
32	DK	1136	0	1223	84	0
33	BM	1104	0	1180	142	0
33	DM	1104	0	1180	87	0
34	BN	933	0	996	63	0
34	DN	933	0	996	51	0
35	BO	1145	0	1228	200	0
35	DO	1145	0	1227	240	0
36	BP	1122	0	1179	95	0
36	DP	1122	0	1179	208	0
37	B0	968	0	1033	78	0
37	D0	960	0	1021	60	0
38	BQ	882	0	943	106	0
38	DQ	882	0	943	120	0
39	BR	1141	0	1202	116	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	DR	1141	0	1202	125	0
40	B1	964	0	1022	98	0
40	D1	964	0	1022	94	0
41	B2	779	0	852	80	0
41	D2	779	0	852	129	0
42	BS	900	0	964	71	0
42	DS	900	0	964	42	0
43	BT	725	0	778	53	0
43	DT	725	0	778	75	0
44	BU	785	0	878	75	0
44	DU	785	0	878	98	0
45	BV	1397	0	1430	120	0
45	DV	1428	0	1454	162	0
46	B3	607	0	628	50	0
46	D3	613	0	633	52	0
47	BZ	763	0	848	50	0
47	DZ	763	0	848	46	0
48	BW	558	0	610	44	0
48	DW	581	0	629	49	0
49	BX	469	0	518	35	0
49	DX	469	0	518	24	0
50	B4	533	0	522	84	0
50	D4	515	0	510	84	0
51	B5	459	0	480	54	0
51	D5	454	0	475	44	0
52	B6	389	0	404	80	0
52	D6	389	0	404	84	0
53	B7	430	0	480	30	0
53	D7	430	0	480	36	0
54	B8	488	0	558	110	0
54	D8	488	0	558	113	0
55	A1	2	0	0	0	0
55	AA	242	0	0	0	0
55	AB	5	0	0	0	0
55	AC	9	0	0	0	0
55	AD	1	0	0	0	0
55	AG	1	0	0	0	0
55	AH	1	0	0	0	0
55	AN	2	0	0	0	0
55	AQ	1	0	0	0	0
55	B0	1	0	0	0	0
55	B1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	B2	1	0	0	0	0
55	B3	1	0	0	0	0
55	B5	1	0	0	0	0
55	B7	1	0	0	0	0
55	B8	1	0	0	0	0
55	BA	623	0	0	0	0
55	BB	17	0	0	0	0
55	BD	1	0	0	0	0
55	BE	5	0	0	0	0
55	BF	3	0	0	0	0
55	BO	2	0	0	0	0
55	BU	2	0	0	0	0
55	CA	207	0	0	0	0
55	CB	3	0	0	0	0
55	CC	8	0	0	0	0
55	CG	2	0	0	0	0
55	CN	1	0	0	0	0
55	CS	1	0	0	0	0
55	D1	2	0	0	0	0
55	D3	1	0	0	0	0
55	D5	1	0	0	0	0
55	DA	526	0	0	0	0
55	DB	14	0	0	0	0
55	DE	3	0	0	0	0
55	DP	1	0	0	0	0
55	DR	1	0	0	0	0
55	DU	1	0	0	0	0
56	AG	1	0	0	0	0
56	AQ	1	0	0	0	0
56	CG	1	0	0	0	0
56	CQ	1	0	0	0	0
All	All	299552	0	200910	14872	3

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 30.

All (14872) 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)
1:AA:625:G:H4'	16:AS:16:HIS:CD2	1.33	1.61
28:DE:46:ALA:CB	28:DE:82:ARG:HA	1.37	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:83:ARG:H	30:BG:86:MET:CE	1.24	1.47
36:DP:26:TYR:CE1	36:DP:139:GLU:HB2	1.48	1.45
25:BA:1056:G:N2	25:BA:1103:A:H62	1.13	1.44
28:DE:46:ALA:HB2	28:DE:82:ARG:CA	1.50	1.41
47:BZ:85:LEU:C	47:BZ:87:PRO:HD2	1.38	1.40
1:AA:625:G:C4'	16:AS:16:HIS:HD2	1.32	1.40
25:BA:2467:C:C2'	25:BA:2468:G:H5'	1.53	1.39
25:DA:226:G:N2	25:DA:228:A:H61	1.21	1.39
25:BA:49:A:N7	25:BA:120:U:H5	1.20	1.38
36:DP:24:GLY:HA3	36:DP:25:ASP:CB	1.42	1.35
35:BO:61:ARG:HB2	35:BO:61:ARG:NH2	1.39	1.35
51:D5:4:HIS:HB3	51:D5:5:PRO:CD	1.39	1.35
25:DA:226:G:H21	25:DA:228:A:N6	0.88	1.35
35:DO:61:ARG:HB2	35:DO:61:ARG:NH2	1.39	1.35
25:DA:226:G:N2	25:DA:228:A:N6	1.73	1.34
25:DA:847:U:C5	25:DA:933:A:N6	1.95	1.34
25:BA:631:A:OP2	54:B8:46:ARG:NH2	1.60	1.33
28:BE:79:ARG:CD	28:BE:197:ILE:HG21	1.59	1.31
27:BD:272:ALA:HB1	27:BD:273:ARG:CA	1.62	1.30
1:AA:1160:G:H1	1:AA:1177:G:N2	1.29	1.30
28:DE:46:ALA:CB	28:DE:82:ARG:CA	2.08	1.29
38:BQ:23:ARG:HD3	38:BQ:85:VAL:O	1.28	1.28
20:AW:10:LEU:CD2	20:AW:12:ALA:HB3	1.62	1.28
54:D8:49:VAL:C	54:D8:50:LEU:HD12	1.53	1.27
35:DO:19:VAL:CG2	35:DO:27:HIS:HB3	1.62	1.27
27:BD:272:ALA:CB	27:BD:273:ARG:HA	1.53	1.27
38:BQ:83:LYS:O	38:BQ:109:GLY:HA2	1.24	1.27
25:DA:9:U:H3	25:DA:2629:A:N6	1.31	1.27
27:DD:35:LYS:HD2	27:DD:104:TYR:CD1	1.70	1.27
36:DP:29:PHE:CD2	36:DP:65:PHE:CE1	2.22	1.26
38:DQ:87:PHE:CE1	38:DQ:102:ALA:HB2	1.71	1.25
28:BE:23:VAL:HG12	28:BE:185:LYS:CB	1.66	1.25
25:BA:49:A:N7	25:BA:120:U:C5	2.03	1.25
25:BA:2310:A:N3	30:BG:77:ILE:HD11	1.50	1.24
25:DA:847:U:C4	25:DA:933:A:N6	2.03	1.24
30:BG:83:ARG:HG3	30:BG:86:MET:CE	1.65	1.24
27:DD:43:ARG:HH11	27:DD:44:ASN:ND2	1.33	1.24
41:D2:81:TYR:O	41:D2:82:ARG:HG3	1.37	1.23
28:BE:23:VAL:HB	28:BE:184:VAL:O	1.10	1.23
27:BD:43:ARG:NH1	27:BD:44:ASN:OD1	1.70	1.22
27:BD:35:LYS:HD2	27:BD:104:TYR:CD1	1.74	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AS:20:VAL:HG21	16:AS:32:TYR:CD1	1.74	1.22
25:DA:2681:C:C5	25:DA:2725:A:N6	2.06	1.21
36:DP:26:TYR:CD1	36:DP:139:GLU:CG	2.24	1.21
28:BE:19:ARG:NH1	34:BN:72:PRO:HB3	1.55	1.21
35:DO:19:VAL:HG23	35:DO:27:HIS:CB	1.69	1.20
54:D8:34:TRP:O	54:D8:36:LYS:HG3	1.37	1.20
36:DP:26:TYR:HD1	36:DP:139:GLU:CG	1.55	1.20
36:DP:66:ILE:HD12	36:DP:67:ARG:N	1.55	1.19
25:DA:2371:G:O4'	52:D6:45:LYS:HE2	1.39	1.19
36:DP:29:PHE:CD2	36:DP:65:PHE:HE1	1.56	1.19
16:AS:20:VAL:HG21	16:AS:32:TYR:CG	1.77	1.18
16:AS:19:ILE:CG2	16:AS:36:ILE:CG1	2.21	1.18
33:DM:47:ALA:HB2	33:DM:112:LEU:HD11	1.23	1.18
36:DP:66:ILE:CD1	36:DP:67:ARG:H	1.55	1.18
28:BE:35:GLN:CB	28:BE:48:GLN:HG3	1.74	1.18
38:BQ:83:LYS:O	38:BQ:109:GLY:CA	1.92	1.18
28:BE:81:ILE:HG21	28:BE:84:PHE:CD1	1.78	1.17
23:AC:17:C:H3'	23:AC:18:C:H5''	1.25	1.17
25:BA:2309:A:H2'	25:BA:2310:A:C5'	1.74	1.17
1:CA:1004:A:H1'	1:CA:1036:G:N1	1.59	1.17
25:BA:1899:G:H22	25:BA:1902:C:N4	1.41	1.17
1:AA:625:G:C4'	16:AS:16:HIS:CD2	2.14	1.17
39:DR:74:ARG:HG2	39:DR:74:ARG:HH11	1.10	1.17
30:BG:83:ARG:N	30:BG:86:MET:CE	2.08	1.16
28:BE:14:ILE:HG22	28:BE:15:PHE:N	1.54	1.16
25:DA:1257:C:O2'	29:DF:84:VAL:CG1	1.93	1.16
35:BO:15:ARG:HH11	35:BO:15:ARG:HG2	1.10	1.16
25:BA:2317:C:H2'	25:BA:2318:G:H5'	1.28	1.16
35:BO:65:ARG:HG3	35:BO:65:ARG:HH11	1.07	1.16
25:BA:2309:A:C2'	25:BA:2310:A:H5'	1.76	1.15
52:D6:48:VAL:HG13	52:D6:49:HIS:N	1.57	1.15
25:DA:672:C:H2'	25:DA:673:C:H5''	1.22	1.15
25:BA:1056:G:N2	25:BA:1103:A:N6	1.93	1.15
1:AA:1053:G:H5'	1:AA:1054:C:H5'	1.24	1.14
33:BM:47:ALA:HB2	33:BM:112:LEU:HD11	1.27	1.14
23:CC:30:G:C2'	23:CC:31:G:H5'	1.77	1.14
27:BD:35:LYS:HD3	27:BD:63:ARG:HB3	1.30	1.14
16:AS:19:ILE:HG23	16:AS:36:ILE:CG1	1.76	1.14
28:BE:52:LEU:HB2	28:BE:75:VAL:CG2	1.77	1.14
16:AS:19:ILE:HG23	16:AS:36:ILE:HG12	1.15	1.14
38:DQ:14:VAL:HG21	38:DQ:89:ARG:CD	1.77	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:9:CYS:O	4:AG:13:ARG:HG2	1.46	1.13
51:D5:4:HIS:CB	51:D5:5:PRO:HD3	1.78	1.13
28:BE:52:LEU:H	28:BE:52:LEU:HD23	1.13	1.13
38:DQ:87:PHE:HE1	38:DQ:102:ALA:HB2	0.97	1.13
25:DA:2306:C:H3'	25:DA:2307:G:H5''	1.29	1.13
28:BE:23:VAL:HG12	28:BE:185:LYS:CA	1.79	1.12
29:DF:89:VAL:HG12	29:DF:90:PHE:N	1.54	1.12
16:AS:19:ILE:HG21	16:AS:36:ILE:HG13	1.30	1.12
1:CA:975:A:H4'	1:CA:976:G:H5''	1.25	1.12
1:AA:1139:G:N2	1:AA:1143:G:O6	1.81	1.11
28:BE:19:ARG:NH1	34:BN:72:PRO:CB	2.12	1.11
28:DE:46:ALA:HB1	28:DE:82:ARG:N	1.65	1.11
25:DA:2393:A:H5'	35:DO:62:LEU:HB3	1.16	1.11
41:D2:85:LYS:HG3	41:D2:87:HIS:H	1.10	1.11
25:DA:2060:A:OP1	29:DF:68:LYS:O	1.67	1.11
25:DA:2636:U:OP1	28:DE:79:ARG:O	1.69	1.11
23:CC:60:A:H2'	23:CC:61:U:H5'	1.17	1.11
30:BG:83:ARG:H	30:BG:86:MET:HE1	1.07	1.11
31:DH:125:VAL:HG22	31:DH:126:PRO:HD3	1.12	1.11
26:BB:15:A:H5'	26:BB:16:G:C8	1.86	1.10
27:BD:181:GLU:HA	27:BD:272:ALA:CB	1.80	1.10
39:DR:54:ARG:HH11	39:DR:54:ARG:HG2	1.07	1.10
28:BE:51:PHE:CD1	28:BE:52:LEU:HD23	1.87	1.10
41:D2:76:LYS:O	41:D2:79:VAL:HG23	1.51	1.10
28:BE:78:LEU:HD12	28:BE:79:ARG:N	1.67	1.10
30:BG:67:LYS:HE2	50:B4:6:HIS:CE1	1.86	1.10
31:DH:151:ILE:O	31:DH:152:ARG:HG3	1.49	1.10
33:DM:45:ASN:O	33:DM:46:VAL:HG23	1.52	1.10
23:CC:17:C:H3'	23:CC:18:C:H5''	1.32	1.10
53:D7:8:ASN:ND2	53:D7:11:LYS:H	1.50	1.09
23:AD:5:G:N2	23:AD:70:C:N3	2.00	1.09
28:BE:4:ILE:HD13	28:BE:28:ALA:HB1	1.14	1.09
44:BU:79:CYS:SG	44:BU:80:GLY:N	2.25	1.09
38:DQ:14:VAL:CG2	38:DQ:89:ARG:HD3	1.81	1.09
33:BM:42:TRP:HA	33:BM:48:MET:HE1	1.17	1.09
27:DD:27:THR:HG21	27:DD:83:GLU:HG2	1.30	1.09
1:CA:1223:C:H5''	1:CA:1224:G:H5''	1.11	1.09
45:DV:146:ILE:HG13	45:DV:147:GLY:H	1.11	1.09
36:DP:26:TYR:CE1	36:DP:139:GLU:CB	2.33	1.09
36:DP:24:GLY:CA	36:DP:25:ASP:CB	2.30	1.09
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.15	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AH:126:ARG:HG3	5:AH:126:ARG:HH11	1.14	1.09
25:BA:2310:A:C2	30:BG:77:ILE:CG1	2.36	1.09
26:DB:74:U:H2'	26:DB:75:G:H5''	1.19	1.09
3:CF:111:LEU:HD11	3:CF:145:GLY:HA3	1.34	1.08
20:AW:10:LEU:HD21	20:AW:12:ALA:CB	1.83	1.08
25:BA:2310:A:N3	30:BG:77:ILE:CD1	2.17	1.08
35:DO:64:LYS:CB	54:D8:25:MET:HG3	1.82	1.08
20:AW:10:LEU:HD21	20:AW:12:ALA:HB3	1.22	1.08
25:BA:1026:U:H1'	25:BA:1027:A:O5'	1.50	1.08
28:BE:35:GLN:HB3	28:BE:48:GLN:HG3	1.30	1.08
28:BE:79:ARG:HD2	28:BE:197:ILE:CG2	1.84	1.08
36:DP:27:VAL:HG13	36:DP:105:GLU:OE2	1.53	1.08
16:AS:19:ILE:CG2	16:AS:36:ILE:HG12	1.82	1.08
30:BG:83:ARG:HG3	30:BG:86:MET:HE2	1.26	1.08
25:DA:2415:G:H4'	35:DO:67:MET:H	1.10	1.08
52:B6:47:THR:HG22	52:B6:48:VAL:H	0.93	1.08
28:BE:81:ILE:CG2	28:BE:84:PHE:HB2	1.83	1.08
52:D6:48:VAL:CG1	52:D6:49:HIS:H	1.62	1.08
28:BE:81:ILE:HG22	28:BE:84:PHE:HB2	1.27	1.08
1:CA:963:G:H21	10:CM:55:LYS:HD3	1.13	1.08
27:DD:35:LYS:HE2	27:DD:104:TYR:HB2	1.13	1.08
35:DO:15:ARG:HH11	35:DO:15:ARG:CG	1.67	1.08
25:BA:1899:G:N2	25:BA:1902:C:H41	1.52	1.08
25:DA:2371:G:C4'	52:D6:45:LYS:HE2	1.83	1.08
52:D6:48:VAL:O	52:D6:49:HIS:HB2	1.51	1.07
35:DO:65:ARG:HG3	35:DO:65:ARG:HH11	1.07	1.07
28:BE:23:VAL:CB	28:BE:184:VAL:O	2.01	1.07
23:CC:30:G:H2'	23:CC:31:G:H5'	1.29	1.07
25:BA:2310:A:C2	30:BG:77:ILE:HG12	1.88	1.07
29:DF:83:PHE:O	29:DF:84:VAL:HG13	1.53	1.07
1:CA:448:A:OP2	1:CA:485:G:N2	1.86	1.07
25:DA:9:U:N3	25:DA:2629:A:N6	2.01	1.07
28:BE:19:ARG:HH11	34:BN:72:PRO:HB3	0.92	1.07
28:BE:36:ARG:HH22	28:BE:88:GLY:HA2	1.19	1.07
48:BW:4:SER:HB2	48:BW:5:GLU:OE2	1.54	1.07
28:BE:23:VAL:CG1	28:BE:185:LYS:HB3	1.84	1.07
4:CG:13:ARG:HG2	4:CG:14:ARG:H	1.18	1.07
15:CR:17:ARG:HG3	15:CR:17:ARG:HH11	1.17	1.07
38:DQ:14:VAL:HG21	38:DQ:89:ARG:HD3	1.07	1.07
28:BE:38:THR:HB	28:BE:39:PRO:HD2	1.36	1.07
28:BE:23:VAL:HG12	28:BE:185:LYS:HB3	1.14	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:29:PHE:HD2	36:DP:65:PHE:CE1	1.63	1.07
41:D2:83:ARG:N	41:D2:83:ARG:HD2	1.67	1.06
31:DH:127:GLU:HG2	31:DH:128:PRO:HD2	1.32	1.06
25:BA:2394:C:OP1	35:BO:63:PRO:HD2	1.55	1.06
36:BP:76:LYS:H	36:BP:88:GLY:HA3	1.00	1.06
52:D6:25:LYS:HB3	54:D8:34:TRP:HZ3	1.14	1.06
36:DP:63:LYS:HD3	36:DP:63:LYS:C	1.75	1.06
25:BA:1884:A:H2'	25:BA:1885:A:H5''	1.32	1.06
22:CB:59:U:O2'	22:CB:70:G:H4'	1.55	1.06
25:DA:2420:C:OP1	54:D8:34:TRP:HB3	1.55	1.06
28:DE:47:VAL:O	28:DE:80:GLU:HA	1.53	1.06
35:DO:64:LYS:HB3	54:D8:25:MET:CG	1.83	1.06
27:BD:35:LYS:HB3	27:BD:63:ARG:HA	1.38	1.06
28:BE:14:ILE:CG2	28:BE:15:PHE:H	1.60	1.06
29:BF:178:PRO:HB2	29:BF:201:VAL:HG11	1.38	1.05
38:DQ:87:PHE:HE1	38:DQ:102:ALA:CB	1.69	1.05
35:BO:15:ARG:CG	35:BO:15:ARG:HH11	1.67	1.05
31:DH:152:ARG:O	31:DH:153:LYS:HB2	1.46	1.05
47:DZ:91:LYS:NZ	47:DZ:91:LYS:HB2	1.66	1.05
25:BA:2371:G:O4'	52:B6:45:LYS:HG3	1.55	1.05
39:BR:74:ARG:HH11	39:BR:74:ARG:HG2	1.16	1.05
27:BD:35:LYS:NZ	27:BD:104:TYR:HB2	1.72	1.05
28:BE:56:PRO:O	28:BE:57:LYS:HB2	1.48	1.05
25:BA:2393:A:H5'	35:BO:62:LEU:HB3	1.37	1.05
41:D2:82:ARG:HG2	41:D2:82:ARG:HH11	0.91	1.04
25:BA:2469:A:N6	25:BA:2481:G:N3	2.03	1.04
30:BG:83:ARG:N	30:BG:86:MET:HE1	1.66	1.04
31:BH:171:LEU:O	31:BH:171:LEU:HD12	1.55	1.04
1:AA:1004:A:H1'	1:AA:1036:G:C6	1.91	1.04
25:BA:620:G:H4'	25:BA:621:A:H5''	1.35	1.04
25:DA:2748:A:N7	25:DA:2754:U:O4	1.88	1.04
28:BE:81:ILE:CG2	28:BE:84:PHE:CB	2.34	1.04
25:DA:9:U:N3	25:DA:2629:A:C6	2.25	1.04
35:DO:15:ARG:HG2	35:DO:15:ARG:HH11	1.10	1.04
39:DR:52:ILE:HG22	39:DR:52:ILE:O	1.58	1.04
25:BA:860:U:H5	25:BA:917:A:C2	1.74	1.04
35:BO:9:ASN:HB3	35:BO:10:PRO:HD2	1.36	1.03
28:DE:52:LEU:O	28:DE:74:PRO:HA	1.58	1.03
23:AC:17:C:H3'	23:AC:18:C:C5'	1.87	1.03
21:AX:15:ARG:HH11	21:AX:15:ARG:HG2	1.18	1.03
50:B4:62:ARG:O	50:B4:66:SER:HA	1.58	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:37:G:N2	24:C1:19:U:O2	1.89	1.03
25:DA:74:A:H4'	25:DA:75:G:O5'	1.55	1.03
28:BE:19:ARG:HH11	34:BN:72:PRO:CB	1.71	1.03
28:BE:52:LEU:HB2	28:BE:75:VAL:HG22	1.38	1.03
25:DA:1342:A:N1	25:DA:1602:U:N3	2.06	1.03
36:DP:24:GLY:HA3	36:DP:25:ASP:HB2	1.04	1.03
16:AS:19:ILE:CG2	16:AS:36:ILE:HG13	1.82	1.03
28:BE:27:LEU:C	28:BE:27:LEU:HD23	1.78	1.03
11:AN:79:SER:O	11:AN:80:VAL:HG13	1.59	1.03
29:BF:198:ALA:HA	29:BF:201:VAL:HG12	1.40	1.03
25:BA:71:A:C2	43:BT:31:HIS:HE1	1.77	1.03
36:BP:66:ILE:HG13	36:BP:67:ARG:H	1.19	1.03
27:DD:44:ASN:HB3	27:DD:49:ILE:HA	1.40	1.03
51:D5:16:ARG:HG2	51:D5:16:ARG:HH11	1.19	1.03
25:DA:1070:A:H5'	25:DA:1071:G:H5''	1.39	1.02
28:BE:48:GLN:O	28:BE:49:LEU:HB2	1.57	1.02
28:BE:81:ILE:HG21	28:BE:84:PHE:CG	1.93	1.02
29:DF:89:VAL:CG1	29:DF:90:PHE:H	1.65	1.02
25:BA:2309:A:H2'	25:BA:2310:A:H5'	1.03	1.02
28:BE:51:PHE:CD1	28:BE:52:LEU:CD2	2.43	1.02
35:BO:61:ARG:HH21	35:BO:61:ARG:CB	1.73	1.02
2:CE:16:HIS:HD2	2:CE:209:ARG:HB3	1.21	1.02
25:DA:2580:U:H4'	28:DE:130:GLY:HA3	1.38	1.02
35:DO:61:ARG:CB	35:DO:61:ARG:HH21	1.73	1.02
1:AA:1004:A:H1'	1:AA:1036:G:N1	1.75	1.02
25:BA:2309:A:C2'	25:BA:2310:A:C5'	2.35	1.02
41:D2:76:LYS:HB3	41:D2:79:VAL:HG21	1.38	1.02
52:D6:41:PRO:HD2	52:D6:45:LYS:O	1.59	1.02
28:DE:48:GLN:C	28:DE:49:LEU:HG	1.76	1.02
23:AC:76:C:H5''	23:AC:77:A:OP2	1.60	1.02
2:AE:32:ILE:HD11	2:AE:40:HIS:HB3	1.39	1.02
39:BR:36:GLU:HG3	39:BR:41:ARG:HD2	1.42	1.02
25:DA:882:G:H1	25:DA:894:C:N4	1.57	1.02
51:D5:4:HIS:CB	51:D5:5:PRO:CD	2.30	1.01
1:AA:1182:G:H4'	1:AA:1183:A:H5'	1.39	1.01
28:BE:27:LEU:HD13	39:BR:1:MET:CE	1.90	1.01
2:CE:74:LYS:NZ	2:CE:205:ASP:O	1.92	1.01
52:D6:25:LYS:HB3	54:D8:34:TRP:CZ3	1.95	1.01
25:DA:672:C:C2'	25:DA:673:C:H5''	1.89	1.01
28:DE:46:ALA:HB1	28:DE:82:ARG:H	1.18	1.01
36:DP:24:GLY:HA3	36:DP:25:ASP:HB3	1.37	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1446:A:H4'	1:AA:1446:A:OP1	1.58	1.01
31:BH:171:LEU:C	31:BH:171:LEU:HD12	1.77	1.01
40:D1:91:ASP:OD2	40:D1:96:ALA:HB2	1.58	1.01
39:DR:55:ASN:H	39:DR:59:THR:HG22	1.23	1.01
25:BA:993:G:OP1	40:B1:50:ARG:NH2	1.94	1.01
28:DE:134:ILE:HD12	28:DE:134:ILE:O	1.58	1.01
43:DT:8:ILE:HD11	43:DT:43:VAL:HG12	1.42	1.01
4:AG:65:ARG:NH1	4:AG:70:ILE:O	1.94	1.01
28:BE:4:ILE:CD1	28:BE:28:ALA:HB1	1.90	1.01
36:DP:26:TYR:CD1	36:DP:139:GLU:HG2	1.90	1.01
25:BA:2467:C:H2'	25:BA:2468:G:H5'	1.07	1.01
47:BZ:86:SER:N	47:BZ:87:PRO:HD2	1.69	1.01
25:BA:607:U:H3	25:BA:621:A:H2	1.07	1.00
1:AA:56:U:H4'	32:DK:82:ARG:HH21	1.23	1.00
29:BF:46:ARG:HH11	29:BF:46:ARG:HG2	1.26	1.00
36:DP:75:THR:HB	36:DP:88:GLY:HA3	1.41	1.00
35:BO:64:LYS:CB	54:B8:25:MET:HG3	1.90	1.00
25:BA:2404:C:H1'	35:BO:67:MET:CE	1.92	1.00
25:BA:2415:G:H4'	35:BO:67:MET:H	1.19	1.00
25:DA:1012:U:N3	25:DA:1143:A:N1	2.09	1.00
28:BE:50:GLY:HA2	28:BE:77:ILE:HA	1.42	1.00
1:CA:328:C:H2'	1:CA:328:C:O2	1.61	1.00
48:BW:50:ILE:HD12	48:BW:51:ARG:H	1.23	1.00
27:DD:35:LYS:CE	27:DD:104:TYR:HB2	1.90	1.00
39:DR:26:ASP:HB2	39:DR:91:ARG:HA	1.43	1.00
41:D2:85:LYS:HG3	41:D2:87:HIS:N	1.75	1.00
25:BA:882:G:H2'	25:BA:883:G:C8	1.97	1.00
51:D5:36:CYS:SG	51:D5:49:CYS:HB3	2.00	1.00
25:BA:1105:U:H2'	25:BA:1106:G:H8	1.25	1.00
25:BA:1728:G:H3'	25:BA:1729:A:C5'	1.91	1.00
28:BE:81:ILE:HG22	28:BE:84:PHE:CB	1.92	1.00
1:CA:1160:G:H1	1:CA:1177:G:N2	1.60	1.00
35:DO:64:LYS:CD	54:D8:25:MET:SD	2.50	1.00
1:AA:820:U:H4'	1:AA:821:G:OP2	1.60	1.00
25:BA:2317:C:C2'	25:BA:2318:G:H5'	1.92	1.00
25:BA:1689:A:H62	25:BA:1698:A:H2	1.05	0.99
31:DH:151:ILE:C	31:DH:152:ARG:HG3	1.77	0.99
1:AA:1124:G:H3'	1:AA:1145:C:H41	1.25	0.99
25:DA:1332:G:N2	25:DA:1609:A:O2'	1.95	0.99
22:AB:7:G:H3'	22:AB:8:U:H5'	1.43	0.99
41:D2:83:ARG:H	41:D2:83:ARG:CD	1.74	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2394:C:OP1	35:DO:62:LEU:HB2	1.62	0.99
13:AP:65:LYS:HB3	50:B4:50:VAL:HG11	1.41	0.99
51:B5:4:HIS:HB3	51:B5:5:PRO:HD3	1.44	0.99
25:BA:885:C:C2	25:BA:890:A:N6	2.30	0.99
1:AA:1160:G:N1	1:AA:1177:G:N2	2.08	0.99
16:AS:20:VAL:CG2	16:AS:32:TYR:CG	2.44	0.99
29:DF:24:LEU:HD12	29:DF:25:PRO:HD3	1.43	0.99
33:DM:97:ARG:HH11	33:DM:97:ARG:HG2	1.24	0.99
36:DP:66:ILE:HD12	36:DP:67:ARG:H	0.86	0.99
36:DP:64:ILE:HA	36:DP:106:VAL:HG12	1.42	0.99
38:DQ:78:LEU:HD11	38:DQ:107:GLU:HB3	1.44	0.99
27:BD:35:LYS:HD3	27:BD:63:ARG:CB	1.92	0.99
28:BE:201:THR:HG22	28:BE:203:LYS:H	1.25	0.99
27:DD:35:LYS:HB3	27:DD:63:ARG:HA	1.41	0.99
41:B2:47:VAL:CG2	41:B2:48:GLY:H	1.75	0.98
25:BA:2577:A:H5''	25:BA:2578:G:H5'	1.45	0.98
28:BE:79:ARG:CD	28:BE:197:ILE:CG2	2.41	0.98
25:DA:1826:G:H4'	27:DD:242:ARG:HH21	1.26	0.98
25:DA:273(C):C:H42	25:DA:363(C):G:H1	1.10	0.98
45:BV:6:LYS:HA	45:BV:60:GLU:HB2	1.43	0.98
22:CB:87:A:H8	25:DA:2583:G:H21	1.00	0.98
25:BA:2404:C:H1'	35:BO:67:MET:HE1	0.98	0.98
4:CG:108:LEU:HD21	4:CG:183:GLY:HA3	1.44	0.98
25:DA:2422:A:H4'	25:DA:2423:U:OP1	1.62	0.98
48:DW:14:ARG:HG3	48:DW:15:LYS:HE3	1.42	0.98
12:AO:18:VAL:HG23	12:AO:19:ARG:H	1.28	0.98
46:B3:40:GLN:NE2	46:B3:44:ARG:H	1.60	0.98
52:B6:47:THR:HG22	52:B6:48:VAL:N	1.75	0.98
25:BA:1379:A:H1'	25:BA:1380:G:OP1	1.64	0.98
1:AA:791:G:H2'	1:AA:792:A:H5'	1.43	0.98
11:AN:40:ILE:HG22	11:AN:75:TYR:HD2	1.27	0.98
25:DA:2275:C:O2'	36:DP:84:GLY:HA3	1.61	0.98
35:BO:65:ARG:HH21	54:B8:15:LYS:HB2	1.29	0.98
25:DA:2470:G:OP1	36:DP:56:ARG:NH2	1.96	0.98
45:DV:144:LEU:HD12	45:DV:144:LEU:O	1.64	0.98
2:AE:96:ARG:HD2	2:AE:96:ARG:H	1.29	0.98
29:BF:29:ASN:H	29:BF:112:MET:CE	1.77	0.98
1:AA:975:A:H4'	1:AA:976:G:H5''	1.43	0.98
20:AW:26:ASN:ND2	20:AW:26:ASN:H	1.52	0.98
1:CA:992:U:H3	1:CA:1044:A:H62	1.08	0.98
1:AA:838:G:H1	1:AA:848:C:H42	1.09	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:883:G:H1	25:BA:893:C:N4	1.61	0.97
1:CA:1497:G:H2'	1:CA:1498:U:H5'	1.46	0.97
35:DO:64:LYS:HB2	54:D8:25:MET:HG3	1.44	0.97
23:AC:17:C:C3'	23:AC:18:C:H5''	1.94	0.97
20:AW:10:LEU:CD2	20:AW:12:ALA:CB	2.41	0.97
31:BH:30:LYS:HD2	31:BH:81:GLU:H	1.27	0.97
25:DA:1012:U:C2	25:DA:1143:A:C2	2.52	0.97
44:DU:96:ILE:HG12	44:DU:101:LYS:HG3	1.41	0.97
41:D2:35:LEU:HG	41:D2:37:VAL:HG11	1.46	0.97
52:D6:43:CYS:O	52:D6:44:ARG:HB2	1.63	0.97
47:DZ:87:PRO:HA	47:DZ:90:ILE:HG23	1.47	0.97
35:DO:19:VAL:HG23	35:DO:27:HIS:HB3	0.97	0.97
33:BM:42:TRP:HA	33:BM:48:MET:CE	1.94	0.97
30:BG:73:ALA:HB2	30:BG:82:LEU:HD21	1.44	0.97
36:DP:66:ILE:O	36:DP:67:ARG:HG3	1.65	0.97
25:BA:654(M):C:H2'	25:BA:654(N):G:C8	2.00	0.97
25:BA:67:U:H3	25:BA:74:A:H2	0.99	0.97
29:DF:67:GLN:O	29:DF:67:GLN:HG3	1.62	0.97
36:BP:76:LYS:N	36:BP:88:GLY:HA3	1.79	0.96
25:DA:2638:G:P	28:DE:82:ARG:HH22	1.86	0.96
27:DD:35:LYS:HE3	27:DD:64:ILE:C	1.85	0.96
3:CF:119:ARG:HH22	3:CF:140:ARG:HG2	1.28	0.96
1:AA:748:C:H4'	1:AA:749:C:O5'	1.62	0.96
1:CA:1330:U:H4'	13:CP:23:TYR:CE2	2.00	0.96
52:D6:41:PRO:CG	52:D6:45:LYS:O	2.14	0.96
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.30	0.96
27:DD:35:LYS:HD2	27:DD:104:TYR:HD1	1.27	0.96
41:B2:47:VAL:HG22	41:B2:48:GLY:H	1.29	0.96
26:DB:74:U:C2'	26:DB:75:G:H5''	1.95	0.96
34:DN:63:VAL:HG12	34:DN:106:LEU:HD11	1.47	0.96
52:B6:47:THR:CG2	52:B6:48:VAL:H	1.78	0.96
4:AG:22:LYS:HB2	4:AG:26:CYS:HB2	1.48	0.96
36:BP:68:ILE:HD13	36:BP:103:MET:HG2	1.46	0.96
52:D6:45:LYS:HE3	52:D6:45:LYS:HA	1.48	0.96
47:BZ:85:LEU:C	47:BZ:87:PRO:CD	2.33	0.96
25:DA:747:U:C5	51:D5:3:LYS:HB2	2.00	0.96
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.48	0.96
39:BR:52:ILE:HD13	39:BR:61:PHE:HB3	1.44	0.96
28:DE:48:GLN:O	28:DE:49:LEU:HG	1.65	0.95
44:DU:13:VAL:HG21	44:DU:72:VAL:HB	1.48	0.95
25:DA:2712(A):A:H5''	25:DA:2713:A:OP2	1.64	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:64:LYS:CB	54:D8:25:MET:CG	2.40	0.95
54:B8:36:LYS:HB2	54:B8:40:GLU:HG2	1.48	0.95
25:BA:2404:C:C1'	35:BO:67:MET:HE1	1.95	0.95
23:CD:59:A:H1'	23:CD:61:U:C5	2.02	0.95
25:DA:2681:C:H5	25:DA:2725:A:N6	1.61	0.95
25:DA:1012:U:O4	33:DM:25:ARG:HA	1.67	0.95
35:BO:64:LYS:HD2	54:B8:25:MET:CE	1.95	0.95
30:BG:121:ASN:HD22	30:BG:123:ASN:H	1.07	0.95
35:BO:64:LYS:HB3	54:B8:25:MET:HG3	1.43	0.95
30:DG:104:GLU:HG2	50:D4:23:GLU:HG2	1.49	0.95
25:DA:1729:A:O2'	25:DA:1731:G:N2	2.00	0.95
25:DA:2777:G:H5''	25:DA:2778:A:H5'	1.46	0.95
26:DB:3:C:H42	26:DB:117:G:H1	1.09	0.95
31:DH:7:LEU:HD12	31:DH:8:PRO:HD3	1.45	0.95
52:B6:41:PRO:HD2	52:B6:46:HIS:N	1.81	0.95
1:CA:141:A:H1'	1:CA:182:U:O2	1.66	0.95
52:D6:41:PRO:CD	52:D6:45:LYS:O	2.15	0.95
27:DD:43:ARG:NH1	27:DD:44:ASN:ND2	2.15	0.95
1:AA:1160:G:H1	1:AA:1177:G:H22	1.05	0.95
25:BA:71:A:H2	43:BT:31:HIS:HE1	0.99	0.95
41:D2:69:LYS:HG3	41:D2:86:GLY:HA3	1.44	0.95
25:DA:226:G:H21	25:DA:228:A:H62	1.15	0.95
27:BD:35:LYS:HD2	27:BD:104:TYR:CE1	2.01	0.95
25:BA:1138:G:H21	33:BM:106:MET:HE3	1.32	0.94
1:CA:804:U:H5''	1:CA:805:C:OP2	1.67	0.94
25:DA:1022:G:O2'	25:DA:1023:U:OP2	1.85	0.94
25:DA:1537:C:H2'	25:DA:1538:G:C8	2.02	0.94
27:DD:242:ARG:H	27:DD:242:ARG:HD2	1.32	0.94
25:BA:1798:U:H5''	27:BD:259:THR:HG22	1.46	0.94
22:CB:49:C:H2'	22:CB:50:A:O4'	1.66	0.94
25:DA:586:A:H5'	29:DF:89:VAL:HG21	1.46	0.94
28:BE:3:GLY:HA3	28:BE:81:ILE:HG13	1.47	0.94
31:BH:159:GLU:CG	31:BH:170:ARG:NH1	2.30	0.94
32:BK:92:VAL:HG13	32:BK:120:ILE:HG23	1.47	0.94
25:DA:1062:G:H1	25:DA:1076:C:H42	1.05	0.94
25:DA:2392:A:H8	35:DO:60:MET:HB2	1.32	0.94
38:DQ:24:LEU:HD22	38:DQ:24:LEU:H	1.31	0.94
25:BA:2287:A:H62	25:BA:2344:U:H3	0.95	0.94
35:BO:64:LYS:HB3	54:B8:25:MET:CG	1.97	0.94
47:BZ:82:LEU:CD2	47:BZ:82:LEU:H	1.79	0.94
1:CA:632:A:H1'	1:CA:633:G:OP2	1.65	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:35:LYS:HG2	27:BD:64:ILE:H	1.31	0.94
31:BH:59:ARG:HG3	31:BH:59:ARG:HH11	1.29	0.94
1:CA:1176:A:N6	1:CA:1177:G:C6	2.35	0.94
31:DH:153:LYS:N	31:DH:154:PRO:CD	2.30	0.94
35:DO:61:ARG:CB	35:DO:61:ARG:NH2	2.30	0.94
25:BA:1021:A:H3'	25:BA:1022:G:H5''	1.48	0.94
25:BA:676:A:H8	25:BA:2069:G:H21	1.16	0.94
25:BA:2210:G:H3'	25:BA:2211:G:C8	2.02	0.94
28:BE:4:ILE:HD13	28:BE:28:ALA:CB	1.97	0.94
25:DA:528:A:C2	25:DA:2043:C:H5'	2.03	0.94
23:AD:6:G:N2	23:AD:69:C:N3	2.15	0.94
16:AS:16:HIS:O	16:AS:39:TYR:O	1.85	0.94
47:BZ:86:SER:N	47:BZ:87:PRO:CD	2.30	0.94
1:CA:1139:G:H22	1:CA:1143:G:H1	1.03	0.94
41:D2:82:ARG:HH11	41:D2:82:ARG:CG	1.79	0.94
25:DA:1689:A:H62	25:DA:1698:A:H2	1.09	0.94
29:DF:89:VAL:HG12	29:DF:90:PHE:H	0.79	0.94
46:B3:40:GLN:HE22	46:B3:44:ARG:H	1.00	0.94
35:DO:64:LYS:HD2	54:D8:25:MET:SD	2.08	0.94
25:DA:528:A:H2	25:DA:2043:C:H5'	1.33	0.94
41:D2:83:ARG:N	41:D2:83:ARG:CD	2.30	0.94
13:AP:15:VAL:O	13:AP:19:LEU:HD23	1.66	0.94
1:AA:235:C:H5'	17:AT:70:ARG:HG2	1.48	0.94
25:DA:2420:C:H41	54:D8:31:HIS:HB3	1.31	0.94
25:DA:545:G:H21	25:DA:548:A:H62	1.11	0.94
22:AB:37:G:H1	24:A1:19:U:H3	1.01	0.93
25:DA:1257:C:O2'	29:DF:84:VAL:HG13	1.64	0.93
38:DQ:88:ASP:O	38:DQ:89:ARG:HB3	1.64	0.93
31:BH:83:TYR:HB3	31:BH:135:GLY:H	1.31	0.93
25:DA:1434:A:H61	25:DA:1558:A:H62	1.14	0.93
27:BD:182:LEU:H	27:BD:272:ALA:HB2	1.32	0.93
34:DN:47:ILE:HG13	34:DN:48:PRO:HD2	1.50	0.93
3:AF:40:ARG:O	3:AF:44:GLU:HG2	1.68	0.93
1:AA:823:G:H21	8:AK:1:MET:HE1	1.34	0.93
35:BO:61:ARG:O	35:BO:62:LEU:HD23	1.68	0.93
11:CN:29:ILE:HG22	11:CN:44:SER:HB2	1.50	0.93
36:DP:79:LEU:O	36:DP:79:LEU:HD12	1.69	0.93
42:BS:95:ILE:O	42:BS:95:ILE:HG13	1.68	0.93
43:BT:49:VAL:HG11	43:BT:83:VAL:HG22	1.50	0.93
25:DA:2303:G:C2'	25:DA:2304:G:H5'	1.98	0.93
25:DA:2415:G:H4'	35:DO:67:MET:N	1.84	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:166:GLN:HE21	27:DD:166:GLN:HA	1.30	0.93
22:AB:7:G:H3'	22:AB:8:U:C5'	1.99	0.93
25:BA:2439:A:H5'	25:BA:2439:A:C8	2.04	0.93
28:BE:27:LEU:HD23	28:BE:27:LEU:O	1.68	0.93
10:CM:79:ARG:O	10:CM:83:GLU:HB2	1.67	0.93
25:DA:2275:C:O2'	36:DP:84:GLY:CA	2.16	0.93
20:AW:71:THR:HG22	20:AW:72:LEU:H	1.28	0.93
25:BA:2373:G:H1	25:BA:2380:C:H42	1.16	0.93
30:BG:96:ARG:HH11	30:BG:96:ARG:HG2	1.30	0.93
33:BM:46:VAL:HG11	33:BM:48:MET:HG3	1.50	0.93
25:DA:90:U:HO2'	25:DA:91:A:H8	1.16	0.93
28:BE:78:LEU:HD12	28:BE:79:ARG:H	1.32	0.92
41:D2:81:TYR:C	41:D2:82:ARG:HG3	1.88	0.92
54:D8:35:GLN:O	54:D8:36:LYS:HG2	1.69	0.92
27:DD:43:ARG:HH11	27:DD:44:ASN:HD21	1.13	0.92
38:BQ:88:ASP:O	38:BQ:89:ARG:HB2	1.68	0.92
45:DV:146:ILE:HG13	45:DV:147:GLY:N	1.84	0.92
25:BA:71:A:H2	43:BT:31:HIS:CE1	1.87	0.92
27:DD:49:ILE:HD11	27:DD:52:ARG:HA	1.48	0.92
32:DK:144:VAL:HG13	32:DK:145:VAL:HG23	1.50	0.92
36:DP:26:TYR:HD1	36:DP:139:GLU:HG3	1.30	0.92
1:AA:201:C:H42	1:AA:216:G:H1	1.10	0.92
1:CA:1004:A:H8	1:CA:1036:G:H22	1.15	0.92
1:CA:235:C:H5'	17:CT:70:ARG:HG2	1.49	0.92
54:D8:49:VAL:C	54:D8:50:LEU:CD1	2.38	0.92
25:DA:1300:U:H4'	25:DA:1301:A:C5'	2.00	0.92
28:DE:47:VAL:HG12	28:DE:48:GLN:N	1.85	0.92
25:DA:2392:A:H2	25:DA:2424:C:H42	1.08	0.92
28:BE:23:VAL:HG11	28:BE:173:VAL:HG21	1.50	0.92
33:BM:46:VAL:CG1	33:BM:47:ALA:N	2.33	0.92
35:BO:15:ARG:NH1	35:BO:15:ARG:HG2	1.76	0.92
22:AB:87:A:H8	25:BA:2583:G:H21	0.99	0.92
31:DH:153:LYS:N	31:DH:154:PRO:HD2	1.85	0.92
35:DO:19:VAL:HG23	35:DO:27:HIS:CG	2.04	0.92
25:BA:2467:C:H2'	25:BA:2468:G:C5'	1.98	0.92
1:CA:1160:G:O6	1:CA:1181:G:O6	1.87	0.92
41:D2:71:LEU:N	41:D2:86:GLY:HA2	1.85	0.92
25:DA:1678:G:H22	25:DA:1989:G:H22	1.16	0.92
28:DE:46:ALA:HB2	28:DE:82:ARG:CB	1.99	0.92
38:DQ:24:LEU:O	38:DQ:85:VAL:HG13	1.68	0.92
28:BE:23:VAL:HG12	28:BE:185:LYS:HA	1.50	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:61:ARG:O	35:DO:62:LEU:HD23	1.68	0.91
25:BA:1434:A:H61	25:BA:1558:A:N6	1.66	0.91
41:D2:82:ARG:NH1	41:D2:82:ARG:HG2	1.63	0.91
26:DB:39:A:N6	50:D4:1:MET:HB3	1.85	0.91
35:DO:15:ARG:NH1	35:DO:15:ARG:HG2	1.76	0.91
19:AV:41:VAL:HB	19:AV:42:PRO:HA	1.53	0.91
1:CA:1443:G:H3'	1:CA:1446:A:H5''	1.50	0.91
25:DA:330:A:H2	25:DA:1210:A:HO2'	1.09	0.91
4:AG:122:ARG:HG2	4:AG:122:ARG:HH11	1.35	0.91
30:BG:161:THR:HG22	30:BG:163:ALA:H	1.35	0.91
1:CA:345:C:H1'	1:CA:346:G:C2	2.05	0.91
27:DD:35:LYS:CD	27:DD:104:TYR:CD1	2.54	0.91
25:BA:1077:A:H3'	25:BA:1078:U:C5'	1.98	0.91
28:BE:81:ILE:HG21	28:BE:84:PHE:CB	1.99	0.91
25:DA:259:G:H21	25:DA:621:A:H8	1.19	0.91
49:DX:7:LYS:HG3	49:DX:34:GLU:HG3	1.53	0.91
1:AA:827:U:H5''	1:AA:828:A:OP2	1.70	0.91
35:BO:50:ARG:HD3	54:B8:7:HIS:HE2	1.35	0.91
5:CH:83:GLU:HB3	5:CH:88:LYS:HG3	1.52	0.91
28:DE:45:THR:HG22	28:DE:45:THR:O	1.70	0.91
33:BM:67:LEU:O	33:BM:88:GLU:HG2	1.71	0.91
44:BU:96:ILE:HG23	44:BU:101:LYS:HG2	1.52	0.91
25:DA:1005:C:C1'	25:DA:1143:A:C2	2.54	0.91
25:BA:483:A:H4'	44:BU:49:VAL:HA	1.51	0.90
25:BA:905:U:H2'	25:BA:906:G:H5''	1.53	0.90
28:BE:79:ARG:HD2	28:BE:197:ILE:HG21	0.92	0.90
32:BK:106:GLY:O	32:BK:107:VAL:HG22	1.69	0.90
42:BS:94:ASP:O	42:BS:95:ILE:HG22	1.71	0.90
23:CD:15:G:H2'	23:CD:60:A:H2	1.35	0.90
2:CE:42:ILE:HD11	2:CE:202:PRO:HB2	1.52	0.90
25:DA:2393:A:H5'	35:DO:62:LEU:CB	1.99	0.90
36:DP:26:TYR:HE1	36:DP:139:GLU:HB2	1.24	0.90
1:AA:992:U:H4'	1:AA:993:G:O5'	1.69	0.90
40:B1:92:ARG:O	40:B1:94:ASN:N	2.03	0.90
25:BA:2467:C:C2'	25:BA:2468:G:C5'	2.46	0.90
35:BO:61:ARG:CB	35:BO:61:ARG:NH2	2.30	0.90
2:CE:111:ARG:HG2	2:CE:111:ARG:HH11	1.36	0.90
45:DV:175:VAL:HG22	45:DV:176:PRO:HD3	1.51	0.90
29:BF:9:ILE:HD11	29:BF:125:LEU:HG	1.53	0.90
2:CE:137:ARG:HH12	2:CE:140:HIS:HB2	1.37	0.90
25:BA:1496:A:H8	25:BA:1577:C:HO2'	0.92	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:35:GLN:HG3	28:BE:36:ARG:H	1.33	0.90
1:CA:1321:C:H41	1:CA:1322:C:H41	1.09	0.90
2:CE:153:ARG:HG3	2:CE:154:LEU:H	1.35	0.90
9:CL:4:TYR:HB2	9:CL:19:LEU:HB2	1.50	0.90
30:DG:47:LYS:HG2	30:DG:48:GLU:N	1.86	0.90
25:DA:1024:G:H3'	25:DA:1025:G:H5''	1.51	0.90
25:DA:885:C:C4	25:DA:890:A:N6	2.40	0.90
39:DR:54:ARG:CG	39:DR:54:ARG:HH11	1.83	0.90
25:BA:1525:G:H2'	25:BA:1526:G:H8	1.37	0.90
4:CG:30:LYS:HB2	4:CG:35:ARG:HD2	1.53	0.90
37:D0:87:TYR:HE1	37:D0:117:VAL:HG12	1.37	0.90
25:DA:1652:A:H62	37:D0:11:ASN:HD21	1.11	0.90
30:DG:64:THR:HG23	30:DG:66:GLN:H	1.35	0.90
36:DP:11:LYS:HD3	36:DP:87:LYS:HG2	1.51	0.90
1:AA:1239:A:H62	1:AA:1299:A:H62	1.18	0.90
25:BA:2402:C:O2'	25:BA:2403:C:OP1	1.88	0.90
42:BS:13:SER:HB3	42:BS:16:LYS:HD3	1.53	0.90
23:CC:17:C:H3'	23:CC:18:C:C5'	2.02	0.90
4:AG:108:LEU:HB3	4:AG:110:PHE:HE1	1.37	0.90
1:CA:1004:A:H5''	1:CA:1025:U:O4	1.72	0.90
23:CC:21:U:O2	23:CC:21:U:H2'	1.70	0.90
52:D6:11:LEU:HD23	52:D6:26:ASN:HB3	1.54	0.90
25:DA:1141:U:OP2	33:DM:63:THR:OG1	1.89	0.90
25:DA:1496:A:H8	25:DA:1577:C:HO2'	0.91	0.90
42:DS:9:TYR:H	42:DS:102:HIS:HD2	1.20	0.90
2:AE:8:LYS:HE3	2:AE:11:LEU:HB2	1.52	0.90
4:AG:19:LEU:H	4:AG:19:LEU:HD22	1.37	0.90
25:BA:2394:C:P	35:BO:62:LEU:HB2	2.11	0.90
1:AA:686:U:H1'	11:AN:42:TRP:HE1	1.34	0.90
28:BE:75:VAL:HG23	28:BE:76:ARG:H	1.36	0.90
31:BH:4:ILE:HG21	31:BH:6:ARG:NH1	1.85	0.90
1:CA:560:U:O2'	1:CA:561:U:OP2	1.89	0.90
25:DA:2795:G:H3'	25:DA:2797:U:H5''	1.54	0.90
20:AW:24:LEU:HD12	20:AW:24:LEU:O	1.70	0.89
1:CA:1129:C:H4'	1:CA:1130:A:H5'	1.54	0.89
9:CL:63:ILE:HD11	9:CL:81:ILE:HD11	1.50	0.89
26:DB:15:A:H5'	26:DB:16:G:C8	2.07	0.89
28:BE:79:ARG:NE	28:BE:197:ILE:CG2	2.35	0.89
30:BG:83:ARG:CG	30:BG:86:MET:CE	2.48	0.89
23:CD:57:C:H42	25:DA:2112:G:H22	1.19	0.89
25:DA:2394:C:P	35:DO:62:LEU:HB2	2.12	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:71:A:H2	43:DT:31:HIS:CE1	1.89	0.89
45:DV:175:VAL:O	45:DV:177:PRO:HD3	1.70	0.89
1:CA:1305:G:HO2'	1:CA:1306:A:H8	0.90	0.89
44:BU:97:ARG:HE	44:BU:98:VAL:HG23	1.38	0.89
1:CA:64:G:H4'	1:CA:65:U:O5'	1.72	0.89
38:DQ:24:LEU:O	38:DQ:85:VAL:CG1	2.20	0.89
1:AA:1004:A:H8	1:AA:1036:G:H1	1.20	0.89
13:AP:108:ARG:HG3	13:AP:108:ARG:HH11	1.37	0.89
38:BQ:34:HIS:HB2	38:BQ:36:TYR:HE1	1.37	0.89
25:DA:1689:A:N6	25:DA:1698:A:H2	1.71	0.89
25:DA:1899:G:N2	25:DA:1902:C:H5	1.70	0.89
35:DO:65:ARG:HG3	35:DO:65:ARG:NH1	1.79	0.89
50:B4:16:CYS:SG	50:B4:18:CYS:N	2.45	0.89
30:BG:67:LYS:HE2	50:B4:6:HIS:HE1	1.34	0.89
33:BM:46:VAL:HG12	33:BM:47:ALA:H	1.35	0.89
1:CA:1004:A:H1'	1:CA:1036:G:H1	1.32	0.89
23:CD:27:G:O6	23:CD:45:A:N6	2.06	0.89
35:DO:64:LYS:HB3	54:D8:25:MET:HG2	1.55	0.89
45:BV:29:TYR:HE2	45:BV:87:ASP:HB2	1.38	0.89
13:CP:49:THR:HG22	13:CP:51:ALA:H	1.36	0.89
39:DR:50:ILE:HD11	39:DR:102:ILE:HD11	1.53	0.89
1:AA:1004:A:H1'	1:AA:1036:G:O6	1.71	0.89
27:BD:270:ILE:O	27:BD:271:ILE:HG12	1.71	0.89
44:BU:76:CYS:SG	44:BU:77:PRO:HD3	2.12	0.89
27:BD:35:LYS:HG2	27:BD:64:ILE:N	1.88	0.89
52:D6:44:ARG:HG3	52:D6:44:ARG:HH11	1.35	0.89
1:AA:1145:C:H5''	1:AA:1146:A:OP1	1.72	0.88
2:AE:204:ASN:ND2	2:AE:206:ASP:H	1.70	0.88
28:BE:35:GLN:HB3	28:BE:48:GLN:CG	2.02	0.88
7:CJ:16:LEU:HD12	9:CL:42:ARG:HA	1.54	0.88
25:DA:1899:G:N2	25:DA:1902:C:C5	2.40	0.88
28:DE:47:VAL:CG1	28:DE:48:GLN:N	2.35	0.88
36:DP:29:PHE:HB3	36:DP:65:PHE:CE1	2.08	0.88
25:BA:1250:G:N7	35:BO:18:ARG:NH2	2.21	0.88
25:BA:780:G:H21	25:BA:783:A:H62	0.97	0.88
31:BH:4:ILE:HD13	31:BH:4:ILE:H	1.37	0.88
43:BT:84:ALA:HB1	43:BT:85:PRO:HD2	1.55	0.88
25:DA:1140:C:H1'	25:DA:1143:A:H8	1.37	0.88
27:DD:35:LYS:CD	27:DD:104:TYR:HD1	1.86	0.88
28:DE:197:ILE:HD11	28:DE:199:ARG:HH21	1.38	0.88
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:19:G:H1'	23:AD:59:A:C2	2.08	0.88
54:B8:22:VAL:HB	54:B8:53:PRO:HB3	1.55	0.88
33:BM:96:GLU:O	33:BM:97:ARG:HB2	1.71	0.88
1:CA:1298:C:H41	7:CJ:114:ARG:HB3	1.34	0.88
1:CA:963:G:H21	10:CM:55:LYS:CD	1.85	0.88
25:DA:1464:C:O2'	25:DA:1528:A:H8	1.55	0.88
25:DA:2255:G:N2	36:DP:85:LYS:HE2	1.87	0.88
28:DE:82:ARG:O	28:DE:83:ASP:HB2	1.73	0.88
25:BA:1884:A:C2'	25:BA:1885:A:H5''	2.01	0.88
25:BA:860:U:C5	25:BA:917:A:C2	2.60	0.88
47:BZ:82:LEU:CD2	47:BZ:82:LEU:N	2.34	0.88
1:CA:1330:U:H4'	13:CP:23:TYR:HE2	1.38	0.88
25:DA:2191:G:O2'	25:DA:2192:G:OP1	1.92	0.88
53:B7:8:ASN:HD21	53:B7:11:LYS:H	0.95	0.88
42:BS:9:TYR:H	42:BS:102:HIS:HD2	1.21	0.88
25:DA:67:U:H3	25:DA:74:A:H2	1.21	0.88
26:DB:15:A:H5'	26:DB:16:G:H8	1.38	0.88
16:AS:22:THR:OG1	16:AS:32:TYR:HA	1.74	0.88
25:BA:1056:G:H21	25:BA:1103:A:H62	1.16	0.88
5:CH:91:LEU:HD12	5:CH:120:THR:HG22	1.52	0.88
41:D2:85:LYS:HG3	41:D2:86:GLY:H	1.36	0.88
25:DA:780:G:H21	25:DA:783:A:H62	1.16	0.88
36:DP:26:TYR:CD1	36:DP:139:GLU:HB2	2.09	0.88
16:AS:19:ILE:O	16:AS:19:ILE:HG22	1.73	0.88
20:AW:100:ILE:HG13	20:AW:102:GLY:H	1.39	0.88
41:B2:59:ALA:HB2	41:B2:96:ILE:HD13	1.53	0.88
27:BD:181:GLU:HA	27:BD:272:ALA:HB1	1.54	0.88
47:BZ:82:LEU:HD22	47:BZ:82:LEU:N	1.87	0.88
1:CA:1139:G:N2	1:CA:1143:G:H1	1.72	0.88
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.09	0.88
1:CA:973:G:H1'	10:CM:55:LYS:HE2	1.56	0.88
23:CC:60:A:H2'	23:CC:61:U:C5'	2.04	0.88
7:CJ:113:GLU:HB2	7:CJ:119:ARG:HG2	1.56	0.88
54:D8:34:TRP:CG	54:D8:35:GLN:N	2.40	0.88
38:DQ:88:ASP:OD2	38:DQ:90:GLY:N	2.07	0.88
27:BD:186:HIS:HD2	27:BD:188:GLU:H	1.20	0.88
22:CB:39:U:H2'	22:CB:40:G:H8	1.39	0.88
25:DA:882:G:H1	25:DA:894:C:H42	0.93	0.88
31:DH:102:ALA:HB1	31:DH:115:VAL:O	1.74	0.88
25:DA:2470:G:P	36:DP:56:ARG:NH2	2.47	0.88
25:BA:443:A:N7	29:BF:45:ARG:HD2	1.89	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1321:C:N4	1:CA:1322:C:H41	1.71	0.88
23:CD:15:G:N2	23:CD:49:C:O2	2.07	0.88
5:CH:80:ILE:HD11	5:CH:138:ALA:HB1	1.54	0.88
15:AR:39:LEU:HD13	15:AR:56:LEU:HB2	1.57	0.87
27:BD:35:LYS:CD	27:BD:104:TYR:CD1	2.57	0.87
38:BQ:23:ARG:CD	38:BQ:85:VAL:O	2.20	0.87
49:BX:7:LYS:HG3	49:BX:34:GLU:HG2	1.55	0.87
25:DA:1952:A:C5	34:DN:22:ILE:HD11	2.09	0.87
25:DA:1952:A:C6	34:DN:22:ILE:HD11	2.08	0.87
53:B7:8:ASN:HD22	53:B7:8:ASN:C	1.78	0.87
25:BA:2394:C:OP1	35:BO:62:LEU:HB2	1.74	0.87
28:BE:14:ILE:HG22	28:BE:15:PHE:H	0.73	0.87
31:BH:4:ILE:HG13	31:BH:6:ARG:NE	1.90	0.87
35:BO:65:ARG:HG3	35:BO:65:ARG:NH1	1.79	0.87
25:DA:2571:C:H5'	25:DA:2572:A:H5''	1.56	0.87
45:DV:108:PRO:CB	45:DV:143:GLY:HA2	2.05	0.87
1:AA:1128:C:HO2'	1:AA:1130:A:H8	1.17	0.87
10:AM:61:GLU:OE1	14:AQ:58:LYS:HE2	1.74	0.87
41:D2:28:GLU:O	41:D2:61:VAL:HG11	1.74	0.87
41:D2:70:ILE:HB	41:D2:86:GLY:O	1.74	0.87
25:DA:676:A:H8	25:DA:2069:G:H21	1.18	0.87
27:DD:35:LYS:HE2	27:DD:104:TYR:CB	2.04	0.87
16:AS:21:VAL:CG2	16:AS:34:GLU:O	2.22	0.87
25:BA:1024:G:H3'	25:BA:1025:G:H5''	1.56	0.87
25:BA:1689:A:N6	25:BA:1698:A:H2	1.71	0.87
25:BA:2309:A:O2'	25:BA:2310:A:H5''	1.73	0.87
25:BA:2845:G:H5''	39:BR:54:ARG:O	1.75	0.87
25:DA:1359:A:H62	25:DA:1372:U:H3	1.22	0.87
26:DB:3:C:N4	26:DB:117:G:H1	1.71	0.87
27:DD:69:ARG:NH2	27:DD:128:GLY:O	2.07	0.87
2:CE:236:TYR:HA	2:CE:239:VAL:HB	1.57	0.87
46:D3:23:VAL:HG13	46:D3:38:VAL:HG22	1.55	0.87
27:DD:35:LYS:NZ	27:DD:104:TYR:H	1.72	0.87
28:BE:41:LYS:NZ	28:BE:41:LYS:CB	2.37	0.87
25:BA:2444:G:OP2	29:BF:68:LYS:HE3	1.75	0.87
30:BG:83:ARG:H	30:BG:86:MET:HE2	1.40	0.87
12:CO:46:LYS:HZ3	12:CO:47:LYS:HD3	1.40	0.87
42:DS:65:LEU:HD13	42:DS:68:ARG:HD2	1.54	0.87
28:BE:51:PHE:O	28:BE:74:PRO:HB2	1.75	0.87
25:BA:620:G:H4'	25:BA:621:A:C5'	2.03	0.87
48:BW:18:PRO:HA	48:BW:21:LEU:HB2	1.57	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D6:48:VAL:HG13	52:D6:49:HIS:H	0.75	0.87
28:DE:38:THR:HG23	28:DE:40:GLU:H	1.36	0.87
53:B7:8:ASN:ND2	53:B7:11:LYS:H	1.72	0.87
25:BA:1803:A:O2'	27:BD:259:THR:HG21	1.74	0.87
35:BO:75:ILE:H	35:BO:75:ILE:HD13	1.38	0.87
4:CG:22:LYS:HB2	4:CG:26:CYS:HB2	1.57	0.87
16:CS:8:ARG:CG	16:CS:8:ARG:HH11	1.88	0.87
26:DB:40:U:O2	26:DB:45:A:N6	2.07	0.87
45:BV:19:ARG:NH1	45:BV:84:GLU:O	2.08	0.86
23:CC:18:C:O2	23:CC:18:C:H2'	1.73	0.86
3:CF:84:ILE:HD11	3:CF:88:ARG:HH21	1.40	0.86
5:CH:18:ARG:HD3	5:CH:25:ARG:HB3	1.57	0.86
25:DA:2032:G:H21	28:DE:146:THR:HG23	1.37	0.86
28:DE:47:VAL:CG1	28:DE:48:GLN:H	1.87	0.86
1:AA:1028(B):C:H42	1:AA:1032(A):G:H1	1.24	0.86
28:BE:52:LEU:HB2	28:BE:75:VAL:HG21	1.55	0.86
43:BT:67:GLY:O	43:BT:69:TYR:N	2.07	0.86
52:D6:44:ARG:O	52:D6:45:LYS:HD2	1.74	0.86
28:DE:38:THR:OG1	28:DE:39:PRO:HD2	1.74	0.86
28:DE:47:VAL:O	28:DE:80:GLU:CA	2.22	0.86
25:DA:958:U:OP2	36:DP:14:ARG:NH1	2.08	0.86
25:DA:1057:A:H2	25:DA:1081:U:H3	1.23	0.86
25:DA:574:C:N3	28:DE:145:LYS:NZ	2.22	0.86
36:DP:59:ARG:O	36:DP:60:ARG:HB2	1.75	0.86
45:DV:108:PRO:HB2	45:DV:143:GLY:HA2	1.54	0.86
28:BE:38:THR:HG22	28:BE:45:THR:HG23	1.57	0.86
25:BA:1022:G:N2	25:BA:1023:U:O4	2.08	0.86
25:BA:855:G:O2'	46:B3:27:GLU:OE2	1.93	0.86
27:BD:30:GLU:HG3	27:BD:63:ARG:NH2	1.90	0.86
23:CC:60:A:C2'	23:CC:61:U:H5'	2.02	0.86
25:BA:2392:A:H8	35:BO:60:MET:HB2	1.38	0.86
7:CJ:16:LEU:HD11	9:CL:45:ALA:HB2	1.55	0.86
1:AA:547:A:OP1	4:AG:73:ARG:NH2	2.08	0.86
47:BZ:82:LEU:H	47:BZ:82:LEU:HD23	1.40	0.86
2:CE:54:THR:HG23	2:CE:199:TYR:HB3	1.58	0.86
54:D8:49:VAL:O	54:D8:50:LEU:HG	1.74	0.86
25:DA:2467:C:H4'	36:DP:123:HIS:CD2	2.10	0.86
35:DO:85:LEU:HA	35:DO:88:LEU:HB3	1.56	0.86
31:BH:92:ILE:HD12	31:BH:92:ILE:H	1.40	0.86
19:CV:67:VAL:HG12	19:CV:68:GLY:H	1.38	0.86
41:D2:85:LYS:CG	41:D2:87:HIS:H	1.88	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1459:G:H2'	25:DA:1460:A:H5'	1.56	0.86
25:DA:152:G:H1	25:DA:174:C:H42	1.15	0.86
44:DU:97:ARG:HH21	44:DU:98:VAL:HB	1.39	0.86
25:BA:2790:A:H1'	25:BA:2893:G:O2'	1.76	0.86
43:DT:60:ARG:HG2	43:DT:60:ARG:HH11	1.40	0.86
16:AS:21:VAL:HG23	16:AS:34:GLU:O	1.75	0.86
52:D6:45:LYS:CE	52:D6:45:LYS:HA	2.00	0.86
25:DA:141:A:H8	25:DA:1595:G:H21	1.23	0.86
31:BH:59:ARG:CG	31:BH:59:ARG:HH11	1.88	0.85
33:BM:137:LYS:HG3	33:BM:138:LEU:H	1.40	0.85
25:DA:2720:U:N3	25:DA:2873:A:C2	2.44	0.85
22:AB:22:G:N2	22:AB:59:U:O4'	2.09	0.85
24:C1:13:U:O2	24:C1:13:U:H2'	1.74	0.85
19:CV:22:LEU:O	19:CV:27:GLU:HA	1.77	0.85
25:DA:1005:C:H1'	25:DA:1143:A:C2	2.11	0.85
25:BA:2137:C:H42	25:BA:2154:G:H1	1.22	0.85
45:BV:72:ARG:NH2	45:BV:97:GLU:O	2.10	0.85
4:CG:3:ARG:HH21	4:CG:5:ILE:HG12	1.41	0.85
36:DP:24:GLY:CA	36:DP:25:ASP:HB2	1.97	0.85
25:DA:2875:C:H4'	39:DR:5:ALA:HB2	1.58	0.85
1:AA:1453:G:O2'	20:AW:39:LYS:HD2	1.76	0.85
25:DA:1899:G:H22	25:DA:1902:C:N4	1.74	0.85
36:DP:26:TYR:HD1	36:DP:139:GLU:HG2	1.28	0.85
16:AS:18:ARG:HD3	16:AS:35:LYS:HE3	1.55	0.85
25:BA:49:A:C8	25:BA:120:U:H5	1.94	0.85
25:BA:2438:U:O3'	25:BA:2439:A:H3'	1.76	0.85
28:BE:181:LEU:HD21	39:BR:7:ILE:HG23	1.58	0.85
1:CA:1223:C:H5''	1:CA:1224:G:C5'	2.04	0.85
25:DA:2303:G:H2'	25:DA:2304:G:H5'	1.58	0.85
28:DE:76:ARG:HG2	28:DE:195:LEU:HD22	1.58	0.85
36:DP:79:LEU:HD12	36:DP:79:LEU:C	1.97	0.85
1:AA:1305:G:N2	1:AA:1331:G:H2'	1.91	0.85
25:BA:2032:G:H21	28:BE:146:THR:HG23	1.40	0.85
2:CE:233:SER:HB3	2:CE:234:PRO:HD2	1.58	0.85
25:DA:1420:U:O2'	25:DA:1421:G:OP1	1.94	0.85
54:B8:34:TRP:CE2	54:B8:35:GLN:OE1	2.30	0.85
54:D8:33:ASN:O	54:D8:34:TRP:CD1	2.30	0.85
25:DA:90:U:O2'	25:DA:91:A:H8	1.57	0.85
27:BD:35:LYS:HZ1	27:BD:104:TYR:HB2	1.40	0.85
25:DA:1048:A:H2	25:DA:1112:G:H21	1.23	0.85
25:DA:2689:U:H4'	25:DA:2690:C:OP2	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:35:LYS:HA	27:DD:64:ILE:HG23	1.58	0.85
28:DE:25:VAL:HG12	28:DE:26:ILE:H	1.41	0.85
28:DE:44:TYR:CD1	28:DE:44:TYR:N	2.39	0.85
35:DO:9:ASN:HB3	35:DO:10:PRO:HD2	1.57	0.85
25:BA:2062:A:N3	25:BA:2062:A:H2'	1.89	0.85
28:BE:27:LEU:HD13	39:BR:1:MET:HE1	1.56	0.85
39:BR:56:GLY:O	39:BR:59:THR:HG22	1.77	0.85
1:CA:812:C:H1'	1:CA:813:U:OP2	1.76	0.85
45:DV:128:VAL:HG22	45:DV:129:SER:H	1.41	0.85
1:AA:1004:A:N1	1:AA:1024:G:H2'	1.91	0.85
1:AA:128:G:O2'	17:AT:3:LYS:NZ	2.09	0.85
4:AG:9:CYS:O	4:AG:13:ARG:CG	2.24	0.85
17:AT:76:LEU:HD11	17:AT:79:SER:HB3	1.57	0.85
27:BD:27:THR:O	27:BD:28:GLU:HB2	1.75	0.85
34:BN:68:GLU:OE2	34:BN:78:ARG:NH1	2.09	0.85
35:DO:36:LYS:CB	35:DO:36:LYS:NZ	2.39	0.85
35:DO:49:ARG:O	35:DO:49:ARG:HG2	1.75	0.85
36:DP:28:ALA:O	36:DP:29:PHE:CD1	2.30	0.85
25:DA:138:G:N2	43:DT:44:GLU:OE2	2.10	0.85
2:AE:212:GLN:O	2:AE:216:SER:HB2	1.75	0.84
41:B2:47:VAL:CG2	41:B2:48:GLY:N	2.39	0.84
25:BA:1332:G:N2	25:BA:1609:A:O2'	2.10	0.84
25:BA:780:G:H21	25:BA:783:A:N6	1.73	0.84
3:CF:111:LEU:HD21	3:CF:146:ALA:H	1.42	0.84
41:D2:85:LYS:HG3	41:D2:86:GLY:N	1.91	0.84
25:DA:2298:A:H1'	25:DA:2321:G:N2	1.92	0.84
31:DH:125:VAL:CG2	31:DH:126:PRO:HD3	2.03	0.84
36:DP:75:THR:HG21	36:DP:87:LYS:HE2	1.59	0.84
11:AN:121:PRO:HG2	11:AN:126:ARG:HG3	1.58	0.84
15:AR:87:ILE:HG22	15:AR:88:ARG:H	1.41	0.84
23:CD:59:A:H1'	23:CD:61:U:H5	1.37	0.84
27:DD:35:LYS:HZ1	27:DD:104:TYR:H	1.22	0.84
28:DE:48:GLN:NE2	28:DE:78:LEU:HD13	1.91	0.84
25:BA:1535:U:H3'	25:BA:1536:A:H5''	1.60	0.84
25:BA:229:A:H1'	25:BA:230:U:OP2	1.77	0.84
25:BA:2310:A:O2'	25:BA:2311:A:H5''	1.76	0.84
25:DA:2394:C:OP1	35:DO:63:PRO:HD2	1.76	0.84
52:B6:40:CYS:HA	52:B6:46:HIS:HA	1.56	0.84
25:BA:2712:U:O2	25:BA:2712:U:H5'	1.78	0.84
25:BA:780:G:N2	25:BA:783:A:H62	1.74	0.84
4:CG:15:GLU:HB3	4:CG:63:LYS:HE2	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:21:VAL:HG22	50:D4:22:ILE:HG12	1.57	0.84
25:DA:2318:G:H1	38:DQ:2:ALA:HA	1.40	0.84
28:BE:16:ARG:HG3	28:BE:16:ARG:O	1.75	0.84
1:CA:209:U:H4'	1:CA:210:U:OP2	1.76	0.84
1:CA:376:G:H5''	16:CS:5:ARG:HD3	1.57	0.84
1:CA:686:U:H1'	11:CN:42:TRP:HE1	1.42	0.84
2:CE:164:VAL:HG23	2:CE:186:ALA:HB2	1.58	0.84
25:DA:805:G:O4'	35:DO:38:GLN:NE2	2.10	0.84
48:DW:41:ILE:HD11	48:DW:44:LEU:HG	1.59	0.84
1:AA:1160:G:O6	1:AA:1181:G:O6	1.95	0.84
54:B8:34:TRP:O	54:B8:34:TRP:CG	2.30	0.84
25:BA:2415:G:H4'	35:BO:67:MET:N	1.91	0.84
28:BE:41:LYS:HB2	28:BE:41:LYS:HZ2	1.42	0.84
32:BK:104:GLN:O	32:BK:105:HIS:CG	2.31	0.84
4:CG:122:ARG:HH21	4:CG:134:ASP:HB3	1.42	0.84
46:D3:36:ILE:O	46:D3:36:ILE:HD13	1.77	0.84
29:DF:25:PRO:HB3	29:DF:28:ILE:HG13	1.59	0.84
25:DA:2287:A:H62	25:DA:2344:U:H3	1.22	0.84
29:DF:134:GLY:HA2	29:DF:166:ALA:HB2	1.60	0.84
1:AA:560:U:O2'	1:AA:561:U:OP2	1.95	0.84
5:AH:15:ARG:HD2	5:AH:26:PHE:CD2	2.13	0.84
31:BH:153:LYS:HG3	31:BH:162:ILE:H	1.43	0.84
2:CE:16:HIS:CD2	2:CE:209:ARG:HB3	2.12	0.84
28:BE:78:LEU:CD1	28:BE:79:ARG:HG2	2.08	0.84
45:BV:7:ALA:HB2	45:BV:59:LEU:HD13	1.59	0.84
23:CC:20:G:C2	23:CC:58:A:N3	2.46	0.84
27:DD:242:ARG:N	27:DD:242:ARG:HD2	1.90	0.84
33:DM:128:HIS:CE1	33:DM:134:ARG:HD2	2.13	0.84
35:DO:21:ARG:HA	35:DO:21:ARG:HE	1.40	0.84
10:AM:50:ILE:HD11	10:AM:57:LYS:HD2	1.60	0.84
1:CA:1002:G:H2'	1:CA:1003:G:C8	2.13	0.84
28:DE:37:ARG:HD3	28:DE:44:TYR:CE2	2.13	0.84
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.78	0.83
25:BA:34:C:O2'	25:BA:35:G:OP2	1.96	0.83
25:BA:654(G):C:N3	25:BA:654(N):G:O6	2.11	0.83
28:BE:111:ARG:HD2	28:BE:160:TYR:CE1	2.13	0.83
30:BG:121:ASN:ND2	30:BG:123:ASN:H	1.76	0.83
46:D3:18:ALA:HB3	46:D3:20:ARG:HE	1.42	0.83
7:AJ:62:PHE:HD1	7:AJ:124:LEU:HD21	1.41	0.83
10:AM:49:VAL:CG2	14:AQ:41:ARG:HB2	2.09	0.83
28:BE:79:ARG:NE	28:BE:197:ILE:HG21	1.93	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:35:GLN:HB2	28:BE:48:GLN:HG3	1.57	0.83
28:BE:36:ARG:NH2	28:BE:88:GLY:HA2	1.93	0.83
25:DA:660:G:N2	35:DO:12:ALA:HA	1.93	0.83
54:B8:36:LYS:CB	54:B8:40:GLU:HG2	2.08	0.83
25:BA:652:C:H5'	25:BA:653:A:OP2	1.77	0.83
25:BA:774:A:H2	25:BA:787:U:HO2'	1.26	0.83
25:DA:2404:C:H1'	35:DO:67:MET:CE	2.07	0.83
13:AP:13:LYS:O	13:AP:44:ARG:HD2	1.77	0.83
30:BG:83:ARG:CG	30:BG:86:MET:HE2	2.08	0.83
35:BO:64:LYS:CD	54:B8:25:MET:SD	2.66	0.83
39:BR:50:ILE:HD11	39:BR:102:ILE:CD1	2.08	0.83
53:D7:8:ASN:HD22	53:D7:11:LYS:H	1.20	0.83
38:DQ:35:ILE:HD11	38:DQ:101:LEU:HD23	1.61	0.83
33:BM:130:HIS:HB3	33:BM:134:ARG:HH11	1.39	0.83
36:DP:29:PHE:HB3	36:DP:65:PHE:CD1	2.12	0.83
22:AB:87:A:H8	25:BA:2583:G:N2	1.77	0.83
51:B5:49:CYS:SG	51:B5:60:VAL:HG23	2.18	0.83
25:BA:2287:A:N6	25:BA:2344:U:H3	1.77	0.83
28:BE:3:GLY:CA	28:BE:81:ILE:HG13	2.07	0.83
1:CA:502:G:OP1	12:CO:118:SER:HB2	1.79	0.83
25:DA:2522:U:H2'	25:DA:2523:G:H5''	1.60	0.83
30:DG:117:PHE:HD1	30:DG:118:ARG:O	1.61	0.83
1:AA:1176:A:N6	1:AA:1177:G:C6	2.47	0.83
22:AB:87:A:C8	25:BA:2583:G:N2	2.44	0.83
8:AK:87:SER:HB2	8:AK:93:VAL:H	1.41	0.83
25:BA:1141:U:H6	33:BM:63:THR:HG1	1.24	0.83
25:BA:1728:G:H3'	25:BA:1729:A:H5'	1.60	0.83
28:BE:93:VAL:HG21	28:BE:180:ASN:HA	1.61	0.83
25:BA:2392:A:H8	35:BO:60:MET:CB	1.91	0.83
13:CP:33:ALA:O	13:CP:37:THR:OG1	1.97	0.83
27:DD:24:ILE:HD11	27:DD:91:ARG:HD3	1.59	0.83
39:DR:26:ASP:CB	39:DR:91:ARG:HA	2.08	0.83
38:BQ:89:ARG:HG2	38:BQ:92:TYR:O	1.79	0.83
2:CE:47:THR:HA	2:CE:202:PRO:HG2	1.61	0.83
17:CT:59:ILE:HG22	17:CT:71:PHE:HD1	1.42	0.83
52:B6:15:GLU:HB2	52:B6:49:HIS:CE1	2.14	0.83
54:B8:34:TRP:CZ2	54:B8:35:GLN:OE1	2.32	0.83
25:BA:889:C:H3'	25:BA:890:A:H4'	1.61	0.83
9:CL:95:LYS:HD3	9:CL:96:LEU:N	1.94	0.83
25:DA:2404:C:H1'	35:DO:67:MET:HE3	1.61	0.83
13:AP:14:ARG:HB2	13:AP:17:VAL:HG23	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:B0:100:LEU:HD11	37:B0:113:LEU:HD13	1.60	0.83
25:BA:1105:U:H2'	25:BA:1106:G:C8	2.12	0.83
25:BA:2113:U:H5'	25:BA:2114:A:H8	1.43	0.83
27:BD:35:LYS:NZ	27:BD:64:ILE:O	2.12	0.83
36:BP:65:PHE:O	36:BP:66:ILE:HG12	1.79	0.83
38:BQ:85:VAL:HG23	38:BQ:112:PHE:HE1	1.44	0.83
39:BR:74:ARG:HG2	39:BR:74:ARG:NH1	1.94	0.83
25:DA:1689:A:N6	25:DA:1698:A:C2	2.46	0.83
25:DA:2068:U:H3	25:DA:2430:A:H2	1.20	0.83
35:DO:38:GLN:HG2	35:DO:45:LEU:HD13	1.61	0.83
25:DA:2275:C:HO2'	36:DP:84:GLY:HA3	1.42	0.83
40:B1:112:ARG:CG	40:B1:112:ARG:HH11	1.91	0.82
25:BA:442:G:N3	29:BF:48:THR:HG21	1.93	0.82
31:BH:171:LEU:CD1	31:BH:171:LEU:C	2.46	0.82
33:BM:46:VAL:CG1	33:BM:48:MET:HG3	2.08	0.82
47:BZ:58:ILE:HD11	47:BZ:86:SER:HB2	1.59	0.82
41:D2:44:LYS:O	41:D2:46:VAL:N	2.12	0.82
25:DA:1864:U:H2'	25:DA:1869:G:H5''	1.60	0.82
25:DA:660:G:H21	35:DO:12:ALA:HA	1.43	0.82
25:DA:2415:G:C4'	35:DO:67:MET:H	1.92	0.82
36:DP:26:TYR:CD1	36:DP:139:GLU:CB	2.58	0.82
11:AN:17:GLY:HA3	11:AN:77:MET:HE3	1.61	0.82
25:BA:2656:U:H3	25:BA:2665:A:H2	1.24	0.82
29:BF:29:ASN:H	29:BF:112:MET:HE3	1.41	0.82
29:DF:31:HIS:CG	35:DO:9:ASN:OD1	2.32	0.82
6:AI:4:TYR:HD1	6:AI:92:LYS:HA	1.44	0.82
25:BA:1778:U:H2'	25:BA:1784:A:N6	1.93	0.82
16:CS:11:SER:HB2	16:CS:14:ASN:HB3	1.61	0.82
46:D3:38:VAL:HG12	46:D3:40:GLN:HG2	1.62	0.82
31:DH:152:ARG:NH2	31:DH:153:LYS:HG2	1.93	0.82
35:DO:112:LEU:H	35:DO:128:HIS:HD2	1.24	0.82
52:B6:44:ARG:O	52:B6:45:LYS:HB2	1.78	0.82
25:BA:1287:A:N7	37:B0:107:ASP:HB3	1.93	0.82
23:CC:16:C:O2'	23:CC:62:C:OP1	1.97	0.82
6:CI:61:LEU:HD23	6:CI:63:TYR:OH	1.80	0.82
20:CW:82:SER:O	20:CW:86:ARG:HB2	1.77	0.82
52:D6:41:PRO:HG2	52:D6:45:LYS:O	1.77	0.82
25:DA:2392:A:C8	35:DO:60:MET:HB2	2.14	0.82
28:DE:116:VAL:O	28:DE:117:MET:HB3	1.78	0.82
25:BA:1864:U:H2'	25:BA:1869:G:H5''	1.60	0.82
28:BE:47:VAL:CG2	28:BE:84:PHE:O	2.28	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:71:VAL:HG11	2:CE:97:TRP:CD1	2.13	0.82
25:DA:1062:G:H1	25:DA:1076:C:N4	1.77	0.82
25:DA:1057:A:N1	25:DA:1081:U:O4	2.11	0.82
25:DA:654(C):G:H2'	25:DA:654(D):G:O4'	1.80	0.82
26:DB:15:A:H1'	26:DB:109:G:C8	2.14	0.82
25:BA:919:G:N2	25:BA:2269:A:OP2	2.12	0.82
27:BD:35:LYS:CG	27:BD:64:ILE:H	1.92	0.82
23:CC:48:U:O2'	23:CC:49:C:OP2	1.97	0.82
25:DA:2185:C:H2'	25:DA:2186:G:H8	1.42	0.82
2:AE:164:VAL:HG23	2:AE:186:ALA:HB2	1.60	0.82
28:BE:111:ARG:HD2	28:BE:160:TYR:HE1	1.45	0.82
25:BA:674:G:H1'	29:BF:74:ARG:HD3	1.59	0.82
4:CG:13:ARG:C	4:CG:15:GLU:H	1.82	0.82
25:DA:2795:G:H3'	25:DA:2797:U:C5'	2.08	0.82
25:DA:1111:A:H4'	31:DH:3:ARG:HD3	1.60	0.82
49:DX:59:VAL:HG12	49:DX:60:GLU:H	1.44	0.82
16:AS:22:THR:HG23	16:AS:23:ASP:N	1.95	0.82
51:B5:4:HIS:HB3	51:B5:5:PRO:CD	2.09	0.82
44:BU:78:ALA:HB3	44:BU:81:LYS:HZ1	1.44	0.82
23:CD:5:G:N2	23:CD:70:C:N3	2.27	0.82
25:DA:885:C:N4	25:DA:890:A:N6	2.26	0.82
25:DA:990:A:H5'	25:DA:990:A:H8	1.44	0.82
51:B5:40:LYS:HG2	51:B5:47:PRO:HD2	1.59	0.82
52:B6:20:ASN:OD1	52:B6:22:ALA:N	2.13	0.82
25:BA:885:C:O2	25:BA:890:A:N6	2.13	0.82
3:CF:117:ALA:HB2	3:CF:200:ALA:HB2	1.60	0.82
15:CR:17:ARG:HH11	15:CR:17:ARG:CG	1.93	0.82
54:D8:32:LEU:HB2	54:D8:36:LYS:HE3	1.62	0.82
25:DA:71:A:H2	43:DT:31:HIS:HE1	1.24	0.82
28:DE:80:GLU:O	28:DE:81:ILE:HG13	1.79	0.82
1:AA:1080:A:H5''	1:AA:1081:G:OP2	1.80	0.82
25:BA:336:C:H5''	44:BU:6:HIS:CD2	2.15	0.82
19:CV:20:LEU:O	19:CV:23:ASN:HB3	1.79	0.82
25:DA:2137:C:H42	25:DA:2154:G:H1	1.27	0.82
28:DE:46:ALA:HB2	28:DE:82:ARG:HA	0.82	0.82
31:DH:137:ASP:HB2	31:DH:140:LYS:HE2	1.62	0.82
25:BA:2610:C:H4'	25:BA:2611:U:OP2	1.80	0.81
1:CA:957:U:O2'	1:CA:959:A:N7	2.13	0.81
51:D5:4:HIS:HB3	51:D5:5:PRO:HD3	0.83	0.81
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.15	0.81
29:DF:46:ARG:HG2	29:DF:46:ARG:HH11	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1028(B):C:N4	1:AA:1032(A):G:H1	1.78	0.81
5:AH:74:GLY:O	5:AH:115:VAL:HA	1.79	0.81
27:BD:181:GLU:HG3	27:BD:272:ALA:HB3	1.61	0.81
31:BH:151:ILE:O	31:BH:153:LYS:CD	2.28	0.81
33:BM:132:ALA:HB1	33:BM:133:GLN:HE21	1.44	0.81
28:DE:46:ALA:CA	28:DE:82:ARG:HA	2.10	0.81
22:AB:87:A:O3'	25:BA:2506:U:H1'	1.80	0.81
2:AE:12:GLU:HA	2:AE:16:HIS:CD2	2.16	0.81
35:BO:50:ARG:HD3	54:B8:7:HIS:NE2	1.95	0.81
28:BE:26:ILE:CD1	28:BE:198:VAL:HG21	2.09	0.81
41:D2:85:LYS:CG	41:D2:86:GLY:H	1.92	0.81
50:D4:21:VAL:HG22	50:D4:22:ILE:H	1.44	0.81
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.15	0.81
49:DX:29:ARG:H	49:DX:33:GLN:HE22	1.25	0.81
45:BV:164:ALA:O	45:BV:165:VAL:HG22	1.80	0.81
1:CA:1004:A:H2	1:CA:1024:G:C8	1.98	0.81
25:DA:2276:G:OP1	36:DP:84:GLY:HA2	1.80	0.81
4:AG:13:ARG:O	4:AG:16:GLY:N	2.13	0.81
25:BA:297:C:H5''	44:BU:85:VAL:HG21	1.61	0.81
28:BE:14:ILE:HB	28:BE:21:VAL:CG2	2.10	0.81
39:BR:26:ASP:HB2	39:BR:91:ARG:HA	1.62	0.81
25:DA:9:U:C4	25:DA:2629:A:N1	2.49	0.81
29:DF:9:ILE:HG12	29:DF:14:PRO:HA	1.61	0.81
34:DN:49:ARG:HD3	34:DN:49:ARG:H	1.42	0.81
11:AN:57:THR:HG22	11:AN:59:TYR:H	1.44	0.81
26:BB:52:A:H62	38:BQ:33:LYS:HG3	1.44	0.81
7:CJ:20:ASP:HB3	7:CJ:23:VAL:HG23	1.62	0.81
10:CM:49:VAL:HG23	10:CM:61:GLU:O	1.80	0.81
25:DA:1434:A:H61	25:DA:1558:A:N6	1.77	0.81
36:DP:24:GLY:CA	36:DP:25:ASP:HB3	2.05	0.81
20:AW:10:LEU:HD23	20:AW:12:ALA:H	1.46	0.81
25:BA:1803:A:H4'	27:BD:259:THR:CG2	2.10	0.81
48:BW:50:ILE:HD12	48:BW:51:ARG:N	1.95	0.81
23:CD:15:G:H2'	23:CD:60:A:C2	2.16	0.81
1:CA:1191:A:P	3:CF:3:ASN:HD21	2.03	0.81
4:CG:13:ARG:O	4:CG:15:GLU:HG2	1.79	0.81
3:AF:130:VAL:O	3:AF:134:ILE:HG12	1.79	0.81
41:B2:44:LYS:CG	41:B2:45:THR:H	1.91	0.81
28:BE:59:VAL:HG11	28:BE:63:LEU:HD13	1.63	0.81
25:BA:2310:A:N3	30:BG:77:ILE:CG1	2.43	0.81
32:BK:9:LEU:HB2	32:BK:11:ASN:O	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:113:ALA:N	45:BV:114:GLY:HA2	1.95	0.81
13:CP:57:ARG:NH1	50:D4:34:GLU:O	2.14	0.81
2:AE:18:GLY:H	2:AE:42:ILE:HG22	1.45	0.81
46:B3:53:MET:HB2	46:B3:59:LEU:HD23	1.61	0.81
27:BD:6:PHE:HE1	27:BD:18:VAL:HG23	1.44	0.81
39:BR:16:ARG:HD3	39:BR:19:LEU:HD11	1.62	0.81
23:CD:14:A:H8	23:CD:14:A:OP1	1.64	0.81
1:CA:537:G:H5''	12:CO:113:ARG:NH1	1.95	0.81
25:DA:882:G:N2	25:DA:894:C:N3	2.26	0.81
5:AH:67:VAL:HG21	5:AH:140:ARG:HA	1.62	0.81
25:BA:1937:A:O2'	25:BA:1938:A:OP1	1.99	0.81
34:BN:85:VAL:HG11	34:BN:114:ILE:HD13	1.63	0.81
1:CA:452:A:O2'	1:CA:453:A:O4'	1.99	0.81
25:DA:1252:G:N3	40:D1:33:ARG:HD2	1.96	0.81
1:AA:538:G:H5''	12:AO:114:LYS:HB2	1.63	0.81
25:BA:2723:C:OP1	37:B0:3:HIS:HD2	1.63	0.81
29:BF:184:TYR:O	29:BF:188:ARG:HG3	1.79	0.81
38:BQ:106:ARG:NH2	38:BQ:107:GLU:HB2	1.96	0.81
37:D0:118:GLU:HA	37:D0:118:GLU:OE1	1.81	0.81
1:AA:1306:A:N6	1:AA:1331:G:H1'	1.96	0.80
4:AG:108:LEU:HB3	4:AG:110:PHE:CE1	2.15	0.80
25:BA:2310:A:H2'	25:BA:2311:A:C5'	2.11	0.80
25:BA:762:U:H4'	25:BA:763:G:O5'	1.80	0.80
33:BM:22:THR:HG22	33:BM:23:LEU:N	1.96	0.80
54:D8:29:LYS:HA	54:D8:32:LEU:HD23	1.62	0.80
27:DD:43:ARG:HH11	27:DD:44:ASN:HD22	1.24	0.80
5:AH:126:ARG:CG	5:AH:126:ARG:HH11	1.94	0.80
25:BA:883:G:H1	25:BA:893:C:H42	0.85	0.80
36:BP:35:VAL:HG13	36:BP:130:LYS:HB3	1.62	0.80
1:CA:1003:G:H2'	1:CA:1004:A:H5'	1.62	0.80
28:DE:36:ARG:HH21	28:DE:88:GLY:HA3	1.42	0.80
25:DA:2392:A:H8	35:DO:60:MET:CB	1.94	0.80
36:DP:30:GLY:CA	36:DP:107:ALA:HB2	2.11	0.80
2:AE:213:LEU:O	2:AE:217:ARG:NH1	2.15	0.80
6:AI:101:ALA:HB2	18:AU:28:GLU:HG2	1.63	0.80
25:BA:1597:A:H5''	25:BA:1598:C:OP1	1.82	0.80
25:BA:2392:A:C8	35:BO:60:MET:HB2	2.16	0.80
25:BA:2473:U:H2'	25:BA:2474:C:H5''	1.61	0.80
26:BB:15:A:H5'	26:BB:16:G:H8	1.40	0.80
29:BF:32:LEU:HD13	29:BF:105:VAL:HG13	1.63	0.80
27:DD:186:HIS:HD2	27:DD:188:GLU:H	1.28	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:8:LYS:O	28:DE:9:VAL:HG22	1.80	0.80
31:BH:159:GLU:HG3	31:BH:170:ARG:NH1	1.95	0.80
1:CA:1256:A:OP2	3:CF:26:LYS:NZ	2.15	0.80
12:CO:62:SER:HB2	12:CO:64:TYR:HD1	1.45	0.80
25:BA:1019:U:HO2'	25:BA:1021:A:H2	1.28	0.80
25:BA:2371:G:C4'	52:B6:45:LYS:HG3	2.11	0.80
43:BT:49:VAL:HG12	43:BT:50:LYS:N	1.97	0.80
49:BX:4:LEU:HG	49:BX:39:ASP:HB2	1.64	0.80
25:DA:2371:G:H4'	52:D6:45:LYS:HG3	1.62	0.80
28:DE:44:TYR:O	28:DE:45:THR:HB	1.81	0.80
36:DP:59:ARG:HG2	36:DP:59:ARG:HH21	1.46	0.80
8:AK:87:SER:HB2	8:AK:93:VAL:N	1.96	0.80
33:BM:56:ASN:N	33:BM:125:GLY:O	2.14	0.80
1:CA:1095:U:H5''	1:CA:1109:C:O2	1.79	0.80
25:DA:2557:G:H2'	25:DA:2558:C:H6	1.45	0.80
27:DD:206:LEU:HD22	27:DD:211:ARG:HG2	1.64	0.80
38:DQ:87:PHE:CE1	38:DQ:102:ALA:CB	2.53	0.80
44:DU:40:GLU:OE2	44:DU:40:GLU:HA	1.82	0.80
19:AV:65:ASN:H	19:AV:65:ASN:HD22	1.28	0.80
25:BA:1470:G:H5''	25:BA:1471:A:OP1	1.82	0.80
25:BA:879:G:H1	25:BA:898:C:H42	1.26	0.80
1:CA:975:A:C4'	1:CA:976:G:H5''	2.09	0.80
5:CH:148:VAL:HG21	8:CK:107:LEU:HD23	1.64	0.80
21:CX:8:THR:HG22	21:CX:11:GLY:H	1.43	0.80
25:DA:1899:G:H22	25:DA:1902:C:H41	1.27	0.80
25:DA:2872:G:C5	25:DA:2873:A:N1	2.49	0.80
2:AE:18:GLY:N	2:AE:42:ILE:HG22	1.96	0.80
4:AG:5:ILE:HG22	4:AG:6:GLY:H	1.45	0.80
54:B8:34:TRP:CH2	54:B8:35:GLN:OE1	2.35	0.80
54:B8:34:TRP:O	54:B8:35:GLN:CG	2.30	0.80
25:BA:1179:C:H2'	25:BA:1180:C:H5''	1.61	0.80
25:DA:468:G:N7	53:D7:39:ARG:NH2	2.29	0.80
43:DT:80:ILE:HG13	43:DT:80:ILE:O	1.79	0.80
44:DU:17:SER:HB2	44:DU:71:LYS:HD2	1.61	0.80
2:AE:7:VAL:HB	2:AE:217:ARG:HH21	1.46	0.80
41:B2:38:LEU:HD12	41:B2:57:VAL:HG12	1.62	0.80
29:DF:83:PHE:O	29:DF:84:VAL:CG1	2.30	0.80
36:DP:63:LYS:O	36:DP:63:LYS:CD	2.30	0.80
23:AD:19:G:H1'	23:AD:59:A:H2	1.46	0.80
20:AW:26:ASN:ND2	20:AW:26:ASN:N	2.30	0.80
28:BE:52:LEU:N	28:BE:52:LEU:HD23	1.93	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:171:LEU:O	31:BH:171:LEU:CD1	2.30	0.80
2:CE:231:GLU:HB3	2:CE:232:PRO:CD	2.11	0.80
3:CF:134:ILE:HG22	3:CF:168:ALA:HB3	1.63	0.80
15:CR:26:GLU:OE2	15:CR:77:ARG:NH1	2.15	0.80
54:D8:49:VAL:O	54:D8:50:LEU:CG	2.30	0.80
25:DA:486:C:H4'	42:DS:60:ASN:HD21	1.47	0.80
1:AA:977:A:H8	1:AA:1223:C:C4	1.98	0.79
25:BA:74:A:H4'	25:BA:75:G:O5'	1.82	0.79
28:BE:52:LEU:CD2	28:BE:52:LEU:H	1.93	0.79
34:BN:71:ARG:HH11	34:BN:71:ARG:HG3	1.48	0.79
42:BS:95:ILE:O	42:BS:95:ILE:CG1	2.30	0.79
42:BS:9:TYR:H	42:BS:102:HIS:CD2	1.99	0.79
1:CA:1160:G:H1	1:CA:1177:G:H22	0.82	0.79
1:CA:1183:A:O2'	1:CA:1184:G:OP1	1.98	0.79
25:DA:2154:G:H2'	25:DA:2155:G:H8	1.47	0.79
25:DA:864:G:N7	36:DP:22:LYS:NZ	2.26	0.79
27:DD:30:GLU:HG3	27:DD:63:ARG:NH2	1.97	0.79
28:DE:134:ILE:CD1	28:DE:134:ILE:O	2.30	0.79
28:DE:55:ASN:O	28:DE:57:LYS:N	2.15	0.79
33:DM:97:ARG:HH11	33:DM:97:ARG:CG	1.93	0.79
45:DV:76:LEU:HD23	45:DV:76:LEU:H	1.45	0.79
1:AA:1386:G:O2'	1:AA:1387:G:H5'	1.82	0.79
9:AL:53:VAL:HG23	9:AL:95:LYS:HD2	1.64	0.79
20:AW:89:ARG:HH21	20:AW:104:LEU:HD11	1.47	0.79
54:B8:52:LYS:N	54:B8:53:PRO:HD2	1.97	0.79
25:BA:1533:C:H2'	25:BA:1534:G:C8	2.18	0.79
25:BA:2261:C:C2'	25:BA:2262:U:H5'	2.12	0.79
47:BZ:78:LYS:HD2	47:BZ:78:LYS:O	1.82	0.79
6:CI:87:ARG:CG	6:CI:87:ARG:HH11	1.96	0.79
12:CO:41:ARG:HB3	12:CO:41:ARG:HH11	1.47	0.79
25:DA:2307:G:O2'	25:DA:2308:G:N7	2.15	0.79
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.16	0.79
35:DO:36:LYS:HB3	35:DO:36:LYS:HZ3	1.45	0.79
36:DP:90:VAL:CG1	36:DP:90:VAL:O	2.30	0.79
16:AS:19:ILE:CG2	16:AS:19:ILE:O	2.30	0.79
40:B1:92:ARG:NH1	41:B2:11:GLN:O	2.15	0.79
41:B2:1:MET:HG3	41:B2:43:GLU:HG2	1.63	0.79
25:BA:2257:U:O2'	25:BA:2258:C:H5'	1.83	0.79
1:CA:976:G:P	14:CQ:32:SER:H	2.04	0.79
13:CP:3:ARG:HG3	13:CP:9:ILE:HG12	1.62	0.79
19:CV:31:ILE:HG21	19:CV:49:ILE:HG23	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:D1:100:VAL:O	40:D1:101:ARG:HG2	1.82	0.79
25:DA:1678:G:N2	25:DA:1989:G:H22	1.79	0.79
27:DD:27:THR:HG21	27:DD:83:GLU:CG	2.10	0.79
35:DO:61:ARG:HB2	35:DO:61:ARG:HH21	0.77	0.79
1:AA:1182:G:H4'	1:AA:1183:A:C5'	2.12	0.79
2:AE:204:ASN:HD22	2:AE:206:ASP:H	1.31	0.79
1:AA:542:G:OP1	4:AG:10:ARG:NH2	2.16	0.79
4:AG:114:ARG:CG	4:AG:114:ARG:HH11	1.95	0.79
11:AN:40:ILE:HG22	11:AN:75:TYR:CD2	2.16	0.79
14:AQ:43:CYS:HA	14:AQ:46:GLU:HG3	1.65	0.79
22:AB:74:C:H5'	22:AB:75:G:OP2	1.83	0.79
41:B2:15:GLU:HG3	41:B2:16:PRO:HD2	1.62	0.79
25:BA:594:U:H5'	54:B8:61:LEU:HD13	1.65	0.79
25:BA:524:U:H4'	25:BA:554:U:H4'	1.64	0.79
27:BD:30:GLU:HG3	27:BD:63:ARG:CZ	2.12	0.79
33:BM:115:ARG:O	33:BM:118:LYS:N	2.15	0.79
50:D4:56:VAL:HA	50:D4:60:GLN:HE21	1.47	0.79
52:D6:52:VAL:HG22	52:D6:53:LYS:H	1.46	0.79
25:DA:90:U:C2'	25:DA:91:A:H5''	2.12	0.79
27:DD:43:ARG:NH1	27:DD:44:ASN:HD21	1.77	0.79
36:DP:78:PRO:O	36:DP:79:LEU:HD12	1.82	0.79
1:AA:1004:A:H1'	1:AA:1036:G:H1	1.44	0.79
3:AF:126:ARG:HH11	3:AF:126:ARG:CG	1.96	0.79
15:AR:87:ILE:HG22	15:AR:88:ARG:N	1.97	0.79
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.16	0.79
30:BG:77:ILE:CG2	30:BG:77:ILE:O	2.31	0.79
39:BR:136:GLN:HG3	39:BR:137:LYS:H	1.45	0.79
7:CJ:26:PHE:O	7:CJ:30:ILE:HG13	1.82	0.79
54:D8:49:VAL:O	54:D8:50:LEU:CD1	2.30	0.79
25:DA:2331:G:O3'	46:D3:43:THR:HG22	1.82	0.79
3:CF:150:LYS:HG3	3:CF:169:ALA:HB2	1.62	0.79
35:DO:19:VAL:HG22	35:DO:20:GLY:H	1.47	0.79
3:AF:50:ALA:HB1	3:AF:70:VAL:HG11	1.64	0.79
17:AT:81:ARG:NH2	17:AT:83:ASP:OD2	2.16	0.79
25:BA:140:A:C8	25:BA:1408:C:O2'	2.35	0.79
25:BA:2210:G:H3'	25:BA:2211:G:N7	1.98	0.79
25:BA:330:A:O2'	25:BA:331:A:H8	1.65	0.79
35:BO:9:ASN:HB3	35:BO:10:PRO:CD	2.11	0.79
12:CO:47:LYS:HB3	12:CO:48:PRO:HD2	1.63	0.79
28:DE:48:GLN:O	28:DE:49:LEU:CG	2.30	0.79
48:DW:70:GLN:HG2	48:DW:71:ASN:H	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:13:ARG:NH1	4:AG:38:TYR:O	2.15	0.79
11:AN:79:SER:O	11:AN:80:VAL:CG1	2.30	0.79
25:BA:1864:U:C2'	25:BA:1869:G:H5''	2.13	0.79
27:BD:166:GLN:HA	27:BD:166:GLN:HE21	1.45	0.79
28:BE:27:LEU:CD2	28:BE:27:LEU:O	2.30	0.79
38:BQ:34:HIS:HB2	38:BQ:36:TYR:CE1	2.18	0.79
47:BZ:92:LYS:HA	47:BZ:95:LEU:HB2	1.64	0.79
39:DR:47:GLY:HA3	39:DR:63:VAL:HG12	1.64	0.79
25:BA:654(G):C:O2	25:BA:654(N):G:N1	2.15	0.79
29:BF:29:ASN:H	29:BF:112:MET:HE1	1.48	0.79
42:BS:94:ASP:O	42:BS:95:ILE:CG2	2.30	0.79
40:D1:90:VAL:HG22	41:D2:39:LEU:HB3	1.64	0.79
25:DA:2747:G:H2'	25:DA:2748:A:H8	1.46	0.79
26:DB:15:A:H3'	26:DB:16:G:H5'	1.65	0.79
28:DE:80:GLU:O	28:DE:81:ILE:CG1	2.30	0.79
1:AA:1128:C:O2'	1:AA:1130:A:H8	1.65	0.78
54:B8:34:TRP:O	54:B8:34:TRP:CD2	2.36	0.78
28:BE:51:PHE:HD1	28:BE:52:LEU:CD2	1.92	0.78
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.48	0.78
25:DA:1270:C:H5''	25:DA:1271:G:O5'	1.83	0.78
25:DA:1342:A:C2	25:DA:1397:U:C2	2.71	0.78
25:DA:848:G:H2'	25:DA:849:A:C8	2.17	0.78
36:DP:66:ILE:O	36:DP:67:ARG:CB	2.31	0.78
1:AA:201:C:N4	1:AA:216:G:H1	1.81	0.78
11:AN:17:GLY:HA3	11:AN:77:MET:CE	2.12	0.78
51:B5:56:LYS:H	51:B5:56:LYS:HD2	1.47	0.78
31:BH:11:VAL:HB	31:BH:12:PRO:HD2	1.64	0.78
36:BP:86:GLY:C	36:BP:88:GLY:H	1.83	0.78
38:BQ:88:ASP:O	38:BQ:89:ARG:CB	2.31	0.78
1:CA:503:C:OP2	12:CO:116:SER:HB3	1.83	0.78
4:CG:13:ARG:HG2	4:CG:14:ARG:N	1.98	0.78
36:DP:26:TYR:CD1	36:DP:139:GLU:HG3	2.08	0.78
47:DZ:91:LYS:HZ3	47:DZ:91:LYS:HB2	1.45	0.78
1:AA:119:A:H4'	1:AA:120:A:O5'	1.83	0.78
1:AA:630:G:H2'	1:AA:631:G:O4'	1.84	0.78
1:AA:827:U:H5	1:AA:872:A:N1	1.81	0.78
25:BA:1404:C:O2'	25:BA:1405:U:H5'	1.84	0.78
27:BD:71:ASP:OD2	27:BD:103:ARG:NH2	2.16	0.78
36:BP:14:ARG:HG2	36:BP:41:TRP:HH2	1.46	0.78
41:D2:71:LEU:H	41:D2:86:GLY:HA2	1.43	0.78
54:D8:35:GLN:O	54:D8:36:LYS:CG	2.30	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:84:A:N6	25:DA:102:G:O2'	2.10	0.78
25:DA:1012:U:N3	25:DA:1143:A:C2	2.51	0.78
25:DA:1496:A:H8	25:DA:1577:C:O2'	1.67	0.78
25:DA:531:C:OP1	25:DA:561:G:N2	2.17	0.78
25:DA:654(D):G:H1	25:DA:654(Q):C:H42	1.32	0.78
7:AJ:78:ARG:HD2	7:AJ:80:VAL:HG22	1.65	0.78
52:B6:25:LYS:HZ1	52:B6:27:LYS:HD3	1.48	0.78
25:BA:1021:A:H61	25:BA:1142(A):A:H61	1.32	0.78
27:BD:273:ARG:CG	27:BD:273:ARG:O	2.32	0.78
27:BD:35:LYS:CD	27:BD:63:ARG:HB3	2.12	0.78
30:BG:83:ARG:H	30:BG:86:MET:HE3	1.41	0.78
30:BG:96:ARG:CG	30:BG:96:ARG:HH11	1.96	0.78
1:CA:1131:G:H2'	1:CA:1132:C:H6	1.49	0.78
1:CA:168:G:H2'	1:CA:169:C:H5''	1.64	0.78
27:DD:35:LYS:HE3	27:DD:64:ILE:O	1.82	0.78
36:DP:66:ILE:O	36:DP:67:ARG:CG	2.30	0.78
39:DR:52:ILE:CG2	39:DR:52:ILE:O	2.30	0.78
25:DA:329:G:O6	44:DU:19:LYS:HG2	1.83	0.78
1:AA:804:U:H5''	1:AA:805:C:OP2	1.84	0.78
25:BA:2292:C:P	38:BQ:17:ARG:HH22	2.05	0.78
28:BE:47:VAL:O	28:BE:48:GLN:O	2.01	0.78
35:BO:50:ARG:HG3	35:BO:50:ARG:HH21	1.47	0.78
2:CE:50:GLU:O	2:CE:54:THR:OG1	2.01	0.78
51:D5:16:ARG:CG	51:D5:16:ARG:HH11	1.95	0.78
35:DO:101:VAL:HA	35:DO:105:LEU:O	1.84	0.78
35:DO:37:GLY:O	35:DO:40:SER:N	2.16	0.78
39:DR:26:ASP:O	39:DR:49:VAL:HG12	1.83	0.78
1:AA:501:C:H2'	1:AA:502:G:H8	1.48	0.78
1:AA:838:G:H1	1:AA:848:C:N4	1.81	0.78
25:BA:2113:U:H5'	25:BA:2114:A:C8	2.17	0.78
25:BA:671:C:OP1	35:BO:42:SER:O	2.02	0.78
25:BA:67:U:N3	25:BA:74:A:H2	1.79	0.78
51:D5:16:ARG:NH1	51:D5:16:ARG:HG2	1.94	0.78
28:DE:1:MET:HB2	28:DE:200:GLU:OE2	1.84	0.78
1:AA:791:G:C2'	1:AA:792:A:H5'	2.13	0.78
8:AK:87:SER:HB2	8:AK:93:VAL:HB	1.66	0.78
28:BE:3:GLY:HA3	28:BE:81:ILE:CG1	2.12	0.78
41:D2:76:LYS:O	41:D2:79:VAL:CG2	2.30	0.78
52:D6:48:VAL:O	52:D6:49:HIS:CB	2.31	0.78
25:DA:2854:G:N2	25:DA:2864:G:C4	2.52	0.78
45:DV:27:VAL:HG12	45:DV:87:ASP:HB3	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:76:GLN:HB3	2:AE:211:ILE:HD11	1.65	0.78
25:BA:2701:C:H3'	25:BA:2702:U:H5''	1.66	0.78
26:DB:75:G:H5'	26:DB:75:G:H8	1.47	0.78
23:AD:6:G:C2	23:AD:7:G:N7	2.52	0.78
2:AE:77:ALA:HB1	2:AE:165:VAL:HG11	1.65	0.78
3:AF:126:ARG:HH11	3:AF:126:ARG:HG3	1.49	0.78
5:AH:100:VAL:HG22	5:AH:118:ILE:HG22	1.66	0.78
6:AI:89:MET:CE	18:AU:76:LEU:HD23	2.14	0.78
25:BA:1496:A:H5'	25:BA:1497:U:OP1	1.84	0.78
25:DA:459:U:H5''	53:D7:40:TRP:CD2	2.18	0.78
30:DG:36:LYS:HE3	30:DG:38:VAL:HG21	1.66	0.78
1:CA:1003:G:C2'	1:CA:1004:A:H5'	2.13	0.78
41:D2:35:LEU:O	41:D2:37:VAL:HG22	1.84	0.78
25:DA:1257:C:O2'	29:DF:84:VAL:HG12	1.83	0.78
2:CE:82:ARG:HD2	2:CE:92:TYR:OH	1.84	0.77
52:D6:43:CYS:O	52:D6:44:ARG:CB	2.32	0.77
25:DA:2438:U:O3'	25:DA:2439:A:H3'	1.85	0.77
25:DA:2638:G:OP1	28:DE:82:ARG:NH2	2.13	0.77
25:DA:2689:U:H5''	25:DA:2690:C:H5'	1.66	0.77
27:DD:166:GLN:HE21	27:DD:166:GLN:CA	1.96	0.77
47:DZ:91:LYS:HZ2	47:DZ:91:LYS:HB2	1.49	0.77
5:AH:110:LEU:HD13	5:AH:118:ILE:HD13	1.64	0.77
6:AI:36:ARG:NH2	6:AI:38:GLU:HG2	1.97	0.77
40:B1:79:PHE:O	40:B1:79:PHE:HD2	1.68	0.77
41:B2:44:LYS:O	41:B2:46:VAL:HG12	1.83	0.77
25:BA:1525:G:H2'	25:BA:1526:G:C8	2.18	0.77
25:BA:2346:A:H4'	25:BA:2347:C:OP2	1.81	0.77
25:BA:882:G:H3'	25:BA:883:G:H5''	1.66	0.77
31:BH:10:PRO:HD2	31:BH:50:VAL:O	1.83	0.77
44:BU:76:CYS:O	44:BU:78:ALA:N	2.16	0.77
15:CR:87:ILE:HG22	15:CR:88:ARG:N	1.99	0.77
50:D4:58:ARG:O	50:D4:61:ARG:HB3	1.84	0.77
27:DD:35:LYS:HE3	27:DD:65:ILE:HA	1.66	0.77
28:BE:41:LYS:HB3	28:BE:41:LYS:HZ3	1.49	0.77
10:CM:15:THR:HG21	10:CM:92:THR:HG21	1.65	0.77
28:DE:48:GLN:HA	28:DE:80:GLU:HA	1.65	0.77
29:DF:67:GLN:O	29:DF:67:GLN:CG	2.30	0.77
25:DA:2415:G:O3'	35:DO:66:GLY:HA3	1.85	0.77
36:DP:59:ARG:O	36:DP:60:ARG:CB	2.33	0.77
22:AB:18:G:H1'	22:AB:19:G:OP1	1.85	0.77
25:BA:1614:A:N6	42:BS:92:ARG:O	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:673:G:H2'	1:CA:674:G:C8	2.19	0.77
54:D8:52:LYS:HB2	54:D8:53:PRO:HD3	1.67	0.77
25:DA:2439:A:H5'	25:DA:2439:A:C8	2.18	0.77
1:AA:819:A:H4'	1:AA:820:U:OP2	1.84	0.77
36:BP:66:ILE:HG13	36:BP:67:ARG:N	1.98	0.77
1:CA:1004:A:C2	1:CA:1024:G:C8	2.73	0.77
20:CW:25:ARG:HG3	20:CW:25:ARG:HH11	1.50	0.77
25:DA:885:C:N4	25:DA:890:A:H62	1.83	0.77
27:DD:35:LYS:CA	27:DD:64:ILE:HG23	2.14	0.77
28:DE:182:LEU:HD12	28:DE:183:LEU:H	1.49	0.77
42:DS:9:TYR:H	42:DS:102:HIS:CD2	2.03	0.77
1:AA:1034:G:H2'	1:AA:1035:A:C8	2.19	0.77
12:AO:6:THR:H	12:AO:9:GLN:HE21	1.30	0.77
41:B2:4:ILE:HG22	41:B2:39:LEU:HD23	1.66	0.77
25:BA:1434:A:H61	25:BA:1558:A:H62	1.29	0.77
25:BA:2162:G:H2'	25:BA:2163:C:C6	2.19	0.77
25:BA:534:U:H5'	40:B1:42:ALA:HB1	1.66	0.77
25:BA:847:U:C4	25:BA:933:A:N1	2.53	0.77
44:BU:40:GLU:OE1	44:BU:40:GLU:HA	1.83	0.77
1:CA:1002:G:H2'	1:CA:1003:G:H8	1.47	0.77
1:CA:1061:G:H2'	1:CA:1062:U:H5'	1.66	0.77
1:CA:1443:G:H3'	1:CA:1446:A:C5'	2.14	0.77
6:CI:87:ARG:HG2	6:CI:87:ARG:HH11	1.49	0.77
31:DH:117:PRO:HB3	31:DH:123:PHE:CE1	2.20	0.77
2:AE:67:THR:HG21	2:AE:155:LEU:HG	1.65	0.77
20:AW:10:LEU:HD23	20:AW:12:ALA:N	1.98	0.77
25:BA:860:U:C5	25:BA:917:A:H2	2.01	0.77
35:BO:61:ARG:HH21	35:BO:61:ARG:HB2	0.77	0.77
22:CB:21:A:H1'	22:CB:22:G:O5'	1.85	0.77
40:D1:65:ILE:HD11	40:D1:96:ALA:HB3	1.67	0.77
29:DF:118:ALA:HB2	29:DF:123:LEU:HD23	1.65	0.77
35:DO:16:ARG:HH11	35:DO:16:ARG:HG3	1.49	0.77
48:DW:9:GLN:HE22	48:DW:56:GLN:HG2	1.49	0.77
2:AE:80:ILE:HG21	2:AE:212:GLN:HA	1.67	0.77
8:AK:87:SER:CB	8:AK:93:VAL:H	1.98	0.77
25:BA:2334:G:H5'	38:BQ:9:ARG:HG2	1.67	0.77
25:BA:900:A:H5'	25:BA:901:A:OP2	1.85	0.77
1:CA:1497:G:C2'	1:CA:1498:U:H5'	2.14	0.77
33:DM:103:VAL:HG11	33:DM:120:LEU:HD13	1.67	0.77
35:DO:112:LEU:H	35:DO:128:HIS:CD2	2.02	0.77
1:AA:5:U:O2	1:AA:5:U:H2'	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:110:PHE:H	4:AG:110:PHE:HD1	1.33	0.77
5:AH:31:LEU:HD23	5:AH:45:PHE:HD1	1.50	0.77
46:B3:38:VAL:CG1	46:B3:40:GLN:HG2	2.13	0.77
51:B5:33:CYS:HB2	51:B5:40:LYS:HD3	1.66	0.77
26:BB:30:C:H2'	26:BB:31:C:O5'	1.85	0.77
28:BE:27:LEU:CD2	28:BE:27:LEU:C	2.53	0.77
23:CC:20:G:C2	23:CC:58:A:C2	2.72	0.77
9:CL:78:LYS:NZ	9:CL:78:LYS:HB2	2.00	0.77
12:CO:27:LEU:HD23	12:CO:33:ARG:HG2	1.67	0.77
16:CS:36:ILE:HG13	16:CS:36:ILE:O	1.84	0.77
25:DA:2355:C:H5'	46:D3:36:ILE:HD11	1.67	0.77
27:DD:65:ILE:HD11	27:DD:67:PHE:CE2	2.20	0.77
36:DP:63:LYS:CD	36:DP:63:LYS:C	2.52	0.77
2:AE:97:TRP:CH2	2:AE:176:GLU:HG3	2.19	0.77
33:BM:22:THR:HG22	33:BM:23:LEU:H	1.49	0.77
25:BA:2415:G:O3'	35:BO:66:GLY:HA3	1.84	0.77
38:BQ:37:ALA:HB2	38:BQ:101:LEU:HD21	1.67	0.77
54:D8:29:LYS:HG2	54:D8:29:LYS:O	1.85	0.77
25:DA:2306:C:H3'	25:DA:2307:G:C5'	2.13	0.77
25:DA:2872:G:C4	25:DA:2873:A:N1	2.54	0.77
25:DA:259:G:O2'	25:DA:621:A:O2'	2.03	0.77
25:DA:654(B):C:H2'	25:DA:654(C):G:C8	2.20	0.77
25:DA:2394:C:OP1	35:DO:62:LEU:CB	2.33	0.77
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.19	0.76
1:AA:953:G:H5'	1:AA:965:A:H61	1.50	0.76
41:B2:44:LYS:HD2	41:B2:45:THR:H	1.48	0.76
46:B3:40:GLN:HE22	46:B3:44:ARG:N	1.80	0.76
28:BE:14:ILE:O	28:BE:15:PHE:CG	2.39	0.76
1:CA:382:A:H2'	1:CA:383:A:C8	2.20	0.76
27:DD:35:LYS:CG	27:DD:64:ILE:H	1.96	0.76
54:B8:38:GLY:H	54:B8:41:ILE:HG23	1.51	0.76
25:BA:1359:A:C2	25:BA:1372:U:O4	2.38	0.76
25:BA:2346:A:H5''	25:BA:2383:G:O4'	1.85	0.76
26:BB:40:U:H1'	26:BB:45:A:H61	1.47	0.76
29:BF:66:PRO:O	29:BF:67:GLN:HB3	1.83	0.76
30:BG:77:ILE:HG23	30:BG:77:ILE:O	1.85	0.76
32:BK:78:THR:HG23	32:BK:141:LYS:NZ	2.00	0.76
1:CA:345:C:O2'	1:CA:346:G:O5'	2.03	0.76
12:CO:79:GLU:HG3	12:CO:80:HIS:CD2	2.19	0.76
37:D0:37:THR:CG2	37:D0:39:PRO:HD2	2.15	0.76
41:D2:44:LYS:C	41:D2:46:VAL:H	1.89	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:140:A:C8	25:DA:1408:C:O2'	2.37	0.76
25:DA:2392:A:H2	25:DA:2424:C:N4	1.82	0.76
36:DP:79:LEU:CD1	36:DP:79:LEU:C	2.54	0.76
1:AA:1502:A:H2	1:AA:1505:G:H22	1.27	0.76
22:AB:18:G:H4'	22:AB:19:G:OP2	1.84	0.76
2:AE:120:ALA:O	2:AE:121:LEU:HB2	1.84	0.76
19:AV:40:ILE:HG12	19:AV:41:VAL:HG13	1.68	0.76
37:B0:79:LEU:HA	37:B0:83:ILE:HG13	1.66	0.76
25:BA:1188:U:H4'	41:B2:79:VAL:HG22	1.67	0.76
50:B4:37:SER:HB3	50:B4:42:PHE:HB3	1.67	0.76
54:B8:34:TRP:CD2	54:B8:35:GLN:OE1	2.38	0.76
25:BA:2310:A:C2'	25:BA:2311:A:H5''	2.15	0.76
28:DE:50:GLY:O	28:DE:51:PHE:CB	2.33	0.76
25:DA:1138:G:H21	33:DM:106:MET:HE3	1.49	0.76
39:DR:54:ARG:NH1	39:DR:54:ARG:HG2	1.89	0.76
23:AC:1:C:C2'	23:AC:2:G:OP2	2.34	0.76
2:AE:22:LYS:NZ	2:AE:22:LYS:HA	2.01	0.76
6:AI:67:MET:HB2	6:AI:68:PRO:HD2	1.66	0.76
25:BA:1899:G:N2	25:BA:1902:C:C5	2.54	0.76
25:BA:2317:C:H2'	25:BA:2318:G:C5'	2.13	0.76
25:BA:607:U:OP1	29:BF:102:PRO:HA	1.85	0.76
35:BO:83:VAL:HG12	35:BO:112:LEU:HD21	1.67	0.76
39:BR:3:ARG:HB3	39:BR:7:ILE:HG13	1.68	0.76
39:BR:64:ARG:HB2	39:BR:73:GLU:HG2	1.65	0.76
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.34	0.76
1:CA:1322:C:O2'	1:CA:1323:G:H5'	1.85	0.76
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.30	0.76
26:DB:103:U:O2'	45:DV:72:ARG:HG2	1.86	0.76
36:DP:7:MET:HB3	36:DP:10:ARG:NH2	2.00	0.76
39:DR:55:ASN:N	39:DR:59:THR:HG22	1.98	0.76
13:AP:39:ILE:HD13	13:AP:52:GLU:HB3	1.68	0.76
37:D0:37:THR:HG23	37:D0:39:PRO:HD2	1.67	0.76
25:DA:1864:U:OP1	25:DA:2410:G:O2'	2.04	0.76
22:AB:16:U:OP1	22:AB:17:U:N3	2.19	0.76
23:AC:62:C:H2'	23:AC:63:C:H6	1.51	0.76
1:CA:1320:C:H2'	1:CA:1321:C:C6	2.21	0.76
23:CC:24:C:H2'	23:CC:25:U:C6	2.19	0.76
23:CC:24:C:H2'	23:CC:25:U:H6	1.50	0.76
6:CI:33:TYR:CE1	6:CI:78:GLU:HG3	2.20	0.76
37:D0:24:GLN:NE2	37:D0:36:THR:HG21	2.01	0.76
25:DA:2872:G:C5	25:DA:2873:A:C2	2.74	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2880:C:H1'	37:D0:92:GLY:HA3	1.65	0.76
25:DA:2893:G:H4'	25:DA:2894:G:O5'	1.85	0.76
25:DA:861:A:C2	25:DA:917:A:C4	2.74	0.76
3:AF:150:LYS:HG3	3:AF:169:ALA:HB2	1.66	0.76
1:AA:1329:A:H5'	13:AP:29:ARG:HD2	1.68	0.76
35:BO:63:PRO:HB3	54:B8:12:LYS:O	1.86	0.76
25:BA:2432:A:C4	47:BZ:33:LYS:HG2	2.20	0.76
25:BA:2467:C:C3'	25:BA:2468:G:H5'	2.14	0.76
25:BA:528:A:O2'	25:BA:529:A:H5''	1.85	0.76
27:BD:181:GLU:CA	27:BD:272:ALA:CB	2.62	0.76
28:BE:26:ILE:HD11	28:BE:198:VAL:HG21	1.67	0.76
28:BE:34:VAL:CG1	28:BE:49:LEU:O	2.34	0.76
45:BV:164:ALA:C	45:BV:165:VAL:HG13	2.05	0.76
1:CA:1319:A:H5'	1:CA:1320:C:OP1	1.85	0.76
1:CA:802:A:H5'	1:CA:803:G:OP2	1.85	0.76
25:DA:1005:C:H1'	25:DA:1143:A:N1	1.99	0.76
25:DA:2420:C:N4	54:D8:31:HIS:HB3	2.00	0.76
25:DA:2553:G:H5''	25:DA:2554:U:OP2	1.85	0.76
25:DA:330:A:H2	25:DA:1210:A:O2'	1.68	0.76
25:DA:2638:G:P	28:DE:82:ARG:NH2	2.58	0.76
29:DF:178:PRO:HB2	29:DF:201:VAL:HG11	1.66	0.76
1:AA:1053:G:C5'	1:AA:1054:C:H5'	2.12	0.76
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.21	0.76
2:AE:178:ARG:HH22	2:AE:196:LEU:HA	1.51	0.76
40:B1:66:ASN:HB2	40:B1:76:TYR:HB2	1.68	0.76
25:BA:2466:C:C2'	25:BA:2467:C:H5'	2.16	0.76
28:BE:46:ALA:O	28:BE:47:VAL:HG22	1.85	0.76
29:BF:178:PRO:HB2	29:BF:201:VAL:CG1	2.16	0.76
36:BP:68:ILE:HD13	36:BP:103:MET:CG	2.15	0.76
4:CG:175:SER:HB3	4:CG:186:LEU:HD11	1.68	0.76
25:DA:1140:C:H1'	25:DA:1143:A:C8	2.20	0.76
27:DD:148:GLU:HB2	27:DD:151:LYS:HD2	1.68	0.76
35:DO:47:ASP:OD2	35:DO:49:ARG:HD3	1.86	0.76
1:AA:1023:G:H3'	1:AA:1024:G:H5''	1.68	0.76
1:AA:1286:A:H5''	21:AX:26:LYS:HD2	1.68	0.76
1:AA:365:U:H5''	1:AA:366:C:OP1	1.86	0.76
20:AW:53:LEU:HB3	20:AW:102:GLY:HA3	1.67	0.76
25:BA:2134:A:N6	25:BA:2157:G:H1'	2.01	0.76
1:CA:1025:U:O2'	1:CA:1026:G:O4'	2.04	0.76
2:CE:16:HIS:CE1	2:CE:213:LEU:HD13	2.20	0.76
25:DA:2688:U:H5	25:DA:2720:U:OP2	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:38:C:H42	26:DB:44:G:H1	1.34	0.76
31:DH:151:ILE:O	31:DH:152:ARG:CG	2.30	0.76
39:DR:90:GLN:HE21	39:DR:90:GLN:HA	1.49	0.76
1:AA:474:G:H2'	1:AA:475:G:H8	1.51	0.76
37:B0:33:ARG:HG3	37:B0:115:GLU:HB3	1.67	0.76
35:BO:64:LYS:HB2	54:B8:25:MET:HG3	1.66	0.76
25:BA:1728:G:H8	25:BA:1732:A:H62	1.32	0.76
25:BA:2309:A:C2'	25:BA:2310:A:H5''	2.14	0.76
25:BA:138:G:N2	43:BT:44:GLU:OE2	2.16	0.76
2:CE:178:ARG:HB2	2:CE:178:ARG:HH11	1.50	0.76
1:CA:1187:G:OP1	9:CL:113:LYS:NZ	2.18	0.76
25:DA:1427:A:H4'	25:DA:1428:C:O5'	1.85	0.76
25:DA:774:A:H2	25:DA:787:U:HO2'	1.33	0.76
32:DK:72:LEU:HD21	32:DK:107:VAL:HG11	1.67	0.76
45:DV:115:GLY:HA3	45:DV:174:VAL:HG12	1.68	0.76
1:AA:1126:U:H5	1:AA:1127:G:C4	2.04	0.75
3:AF:70:VAL:HG12	3:AF:72:LYS:H	1.52	0.75
8:AK:86:ILE:HG22	8:AK:87:SER:H	1.50	0.75
28:BE:16:ARG:O	28:BE:17:ASP:HB2	1.85	0.75
48:BW:17:SER:HB3	48:BW:67:LYS:HD3	1.67	0.75
24:C1:14:U:H4'	24:C1:14:U:OP1	1.78	0.75
52:D6:29:ASN:H	52:D6:29:ASN:ND2	1.85	0.75
25:DA:273(C):C:N4	25:DA:363(C):G:H1	1.82	0.75
28:DE:48:GLN:HG2	28:DE:78:LEU:CB	2.15	0.75
35:DO:36:LYS:HB2	35:DO:36:LYS:HZ2	1.50	0.75
45:DV:146:ILE:CG1	45:DV:147:GLY:H	1.89	0.75
1:AA:1422:G:H5'	34:BN:48:PRO:HB3	1.68	0.75
2:AE:14:GLY:HA3	2:AE:209:ARG:HH21	1.51	0.75
25:BA:1509:C:H3'	25:BA:1510:A:H5''	1.67	0.75
25:BA:1885:A:H8	25:BA:1885:A:H5'	1.51	0.75
25:BA:2780:G:OP2	33:BM:118:LYS:HD3	1.86	0.75
25:BA:881:G:H3'	25:BA:882:G:O4'	1.86	0.75
31:BH:86:GLU:H	31:BH:86:GLU:CD	1.88	0.75
44:BU:81:LYS:NZ	44:BU:96:ILE:HD12	2.01	0.75
1:CA:365:U:H5''	1:CA:366:C:OP1	1.86	0.75
10:CM:49:VAL:HG12	14:CQ:41:ARG:HB2	1.66	0.75
15:CR:39:LEU:HD12	15:CR:56:LEU:HB2	1.68	0.75
54:D8:39:LYS:HG2	54:D8:40:GLU:N	1.99	0.75
25:DA:1188:U:C2'	25:DA:1189:A:H5'	2.16	0.75
25:DA:1460:A:H4'	25:DA:1461:G:OP2	1.86	0.75
28:DE:80:GLU:O	28:DE:81:ILE:CB	2.34	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:89:VAL:CG1	29:DF:90:PHE:N	2.30	0.75
23:AD:64:G:H2'	23:AD:65:G:C8	2.21	0.75
5:AH:45:PHE:CE2	5:AH:47:LYS:HD2	2.21	0.75
9:AL:63:ILE:HD11	9:AL:81:ILE:HD11	1.67	0.75
17:AT:22:LEU:HD11	17:AT:39:SER:HB3	1.68	0.75
30:BG:67:LYS:O	30:BG:67:LYS:HD2	1.85	0.75
31:BH:153:LYS:CG	31:BH:162:ILE:H	1.99	0.75
8:CK:20:TYR:HE2	8:CK:75:ARG:HD2	1.49	0.75
25:DA:1485:G:O2'	25:DA:1486:A:H5'	1.86	0.75
25:DA:2128:C:H2'	25:DA:2129:C:C6	2.21	0.75
36:DP:90:VAL:HG12	36:DP:90:VAL:O	1.84	0.75
38:DQ:86:ALA:O	38:DQ:87:PHE:CB	2.34	0.75
25:BA:1053:C:H42	25:BA:1106:G:H1	1.31	0.75
28:BE:59:VAL:HG21	28:BE:73:GLU:HB3	1.69	0.75
28:BE:59:VAL:HG11	28:BE:63:LEU:CD1	2.15	0.75
35:BO:112:LEU:H	35:BO:128:HIS:CD2	2.05	0.75
35:BO:16:ARG:HH11	35:BO:16:ARG:HG3	1.49	0.75
9:CL:47:LEU:HD23	9:CL:50:LEU:HD12	1.69	0.75
50:D4:32:TYR:O	50:D4:33:VAL:HG22	1.86	0.75
1:AA:1025:U:O2'	1:AA:1026:G:O5'	2.04	0.75
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.50	0.75
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.22	0.75
1:AA:1450:U:O2'	1:AA:1451:A:H8	1.69	0.75
1:AA:686:U:O2'	1:AA:687:A:O5'	2.04	0.75
25:BA:2373:G:H1	25:BA:2380:C:N4	1.84	0.75
28:BE:23:VAL:CG1	28:BE:185:LYS:HA	2.17	0.75
28:BE:35:GLN:O	28:BE:36:ARG:HG2	1.85	0.75
31:BH:4:ILE:HG13	31:BH:6:ARG:CZ	2.16	0.75
1:CA:164:U:H2'	1:CA:165:C:H6	1.50	0.75
3:CF:43:LEU:O	3:CF:47:LEU:HB2	1.87	0.75
25:DA:587:C:O2	35:DO:33:ARG:NH1	2.20	0.75
25:DA:851:U:OP1	49:DX:49:LYS:HE2	1.87	0.75
10:AM:8:LEU:HD12	10:AM:20:ALA:HB2	1.68	0.75
25:BA:1728:G:H3'	25:BA:1729:A:H5''	1.67	0.75
25:BA:2306:C:H3'	25:BA:2307:G:C5'	2.17	0.75
26:BB:37:C:H2'	26:BB:38:C:H5'	1.69	0.75
29:BF:127:GLU:OE2	29:BF:127:GLU:HA	1.84	0.75
38:BQ:85:VAL:HG23	38:BQ:112:PHE:CE1	2.22	0.75
22:CB:17:U:H5''	22:CB:18:G:C8	2.21	0.75
40:D1:92:ARG:HD2	40:D1:95:LEU:HD12	1.68	0.75
25:DA:2015:A:C2	51:D5:6:VAL:HG23	2.22	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2602:A:H4'	25:DA:2603:G:O5'	1.87	0.75
43:DT:23:GLU:HG3	43:DT:24:GLY:H	1.52	0.75
1:AA:1318:A:H1'	19:AV:37:ARG:HH21	1.49	0.75
25:BA:2116:G:P	25:BA:2165:G:H22	2.09	0.75
25:BA:2422:A:H4'	25:BA:2423:U:OP1	1.87	0.75
25:BA:273(F):C:H3'	25:BA:274:G:H5''	1.68	0.75
25:BA:654(M):C:H2'	25:BA:654(N):G:N7	2.01	0.75
36:BP:20:ALA:HB2	36:BP:99:PRO:HD2	1.67	0.75
1:CA:1036:G:H2'	1:CA:1037:C:C2	2.21	0.75
1:CA:1274:G:O2'	1:CA:1275:A:H5'	1.86	0.75
52:D6:15:GLU:HG2	52:D6:16:CYS:H	1.52	0.75
36:DP:29:PHE:CG	36:DP:65:PHE:CE1	2.75	0.75
1:AA:977:A:H8	1:AA:1223:C:N3	1.85	0.75
1:AA:437:U:H5''	4:AG:155:LEU:HD22	1.68	0.75
1:AA:624:C:O3'	16:AS:10:GLY:HA2	1.87	0.75
25:BA:1427:A:H4'	25:BA:1428:C:O5'	1.84	0.75
25:BA:330:A:HO2'	25:BA:331:A:H8	1.30	0.75
35:BO:39:LYS:HG3	35:BO:45:LEU:HD22	1.69	0.75
36:BP:66:ILE:O	36:BP:67:ARG:HB2	1.86	0.75
38:BQ:106:ARG:HA	38:BQ:110:LEU:HD11	1.68	0.75
42:BS:29:LEU:HD21	42:BS:33:ARG:CZ	2.17	0.75
41:D2:76:LYS:CB	41:D2:79:VAL:HG21	2.17	0.75
25:DA:2340:G:O2'	25:DA:2341:G:H5'	1.86	0.75
25:DA:90:U:O2'	25:DA:91:A:C8	2.37	0.75
25:BA:1060:U:H1'	25:BA:1061:U:OP2	1.87	0.75
25:BA:879:G:H1	25:BA:898:C:N4	1.85	0.75
33:BM:46:VAL:CG1	33:BM:47:ALA:H	1.98	0.75
1:CA:1129:C:C4	1:CA:1139:G:C2	2.75	0.75
1:CA:983:A:N1	1:CA:1222:G:N2	2.33	0.75
1:CA:1286:A:C8	1:CA:1287:A:H4'	2.21	0.75
1:CA:1298:C:OP2	7:CJ:114:ARG:NH2	2.18	0.75
7:CJ:78:ARG:CZ	7:CJ:80:VAL:HB	2.17	0.75
14:CQ:45:ARG:HG3	14:CQ:45:ARG:HH11	1.52	0.75
50:D4:20:ASN:CG	50:D4:21:VAL:H	1.89	0.75
25:DA:1070:A:H8	25:DA:1096:A:HO2'	1.34	0.75
29:DF:132:VAL:HG22	29:DF:133:ASN:H	1.50	0.75
30:DG:111:LEU:HB2	30:DG:112:PRO:HD3	1.69	0.75
35:DO:135:LEU:O	35:DO:139:LYS:HB2	1.86	0.75
25:BA:1403:C:H5''	25:BA:1471:A:H1'	1.66	0.74
25:BA:1607:C:H4'	25:BA:1608:A:O5'	1.86	0.74
25:BA:330:A:O2'	25:BA:331:A:C8	2.40	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:85:VAL:HG21	38:BQ:112:PHE:HZ	1.52	0.74
1:CA:179:A:H2'	1:CA:180:U:H6	1.51	0.74
41:D2:83:ARG:HD3	41:D2:83:ARG:H	1.49	0.74
33:DM:29:LYS:HA	33:DM:29:LYS:HE2	1.68	0.74
34:DN:115:VAL:HG13	34:DN:121:VAL:HG21	1.68	0.74
36:DP:66:ILE:CG1	36:DP:67:ARG:N	2.49	0.74
45:DV:28:MET:HG3	45:DV:37:VAL:HG11	1.69	0.74
1:AA:1348:U:H4'	9:AL:120:ARG:HD2	1.68	0.74
13:AP:3:ARG:HG2	13:AP:9:ILE:CG1	2.17	0.74
25:BA:1026:U:H4'	25:BA:1027:A:OP1	1.85	0.74
25:BA:654(A):A:C2	25:BA:654(T):A:N1	2.54	0.74
28:BE:51:PHE:CD1	28:BE:52:LEU:HD21	2.22	0.74
1:CA:1305:G:O2'	1:CA:1306:A:H8	1.68	0.74
54:D8:49:VAL:O	54:D8:50:LEU:HD12	1.86	0.74
25:DA:1142:U:H2'	25:DA:1142:U:O2	1.87	0.74
25:DA:1012:U:C4	25:DA:1143:A:N1	2.55	0.74
33:DM:128:HIS:NE2	33:DM:134:ARG:HD2	2.02	0.74
1:AA:975:A:C4'	1:AA:976:G:H5''	2.17	0.74
3:AF:166:GLU:HG3	3:AF:167:TRP:H	1.51	0.74
25:BA:2298:A:H62	25:BA:2318:G:H8	1.31	0.74
35:BO:64:LYS:CB	54:B8:25:MET:CG	2.60	0.74
1:CA:1325:C:H4'	21:CX:17:THR:HG21	1.68	0.74
27:DD:246:PRO:HD2	27:DD:255:LYS:HE2	1.68	0.74
54:B8:34:TRP:CZ3	54:B8:35:GLN:OE1	2.41	0.74
54:B8:34:TRP:O	54:B8:35:GLN:HG3	1.88	0.74
28:BE:116:VAL:O	28:BE:117:MET:HB3	1.88	0.74
28:BE:23:VAL:HA	28:BE:185:LYS:HA	1.70	0.74
47:BZ:8:SER:OG	47:BZ:10:LYS:HG3	1.88	0.74
25:DA:2580:U:H4'	28:DE:130:GLY:CA	2.17	0.74
29:DF:181:LEU:HD21	29:DF:186:ILE:HD11	1.69	0.74
38:DQ:19:LYS:O	38:DQ:20:ARG:HD3	1.86	0.74
45:DV:175:VAL:HG22	45:DV:176:PRO:CD	2.17	0.74
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.03	0.74
25:BA:2690:C:H5''	25:BA:2872:G:H21	1.51	0.74
25:BA:314:A:C2'	25:BA:315:G:H5'	2.18	0.74
25:BA:2467:C:H4'	36:BP:123:HIS:ND1	2.02	0.74
1:CA:913:A:H4'	1:CA:914:A:O5'	1.87	0.74
4:CG:15:GLU:OE1	4:CG:66:ARG:NH1	2.21	0.74
35:DO:64:LYS:HB3	54:D8:25:MET:HG3	1.49	0.74
5:AH:10:MET:HB3	5:AH:32:VAL:HG22	1.69	0.74
10:AM:55:LYS:HZ3	10:AM:55:LYS:HB3	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AM:48:THR:HG23	10:AM:62:HIS:HB3	1.69	0.74
25:BA:1264:G:H5'	51:B5:11:THR:CG2	2.18	0.74
4:CG:24:GLU:N	4:CG:24:GLU:OE2	2.21	0.74
25:DA:2531:A:H4'	31:DH:157:TYR:CD2	2.22	0.74
1:AA:27:G:H4'	4:AG:209:ARG:HG3	1.69	0.74
25:BA:1049:C:H2'	25:BA:1050:A:H5'	1.68	0.74
27:BD:182:LEU:N	27:BD:272:ALA:HB2	2.02	0.74
45:BV:54:HIS:NE2	45:BV:123:ASP:OD2	2.20	0.74
54:D8:50:LEU:O	54:D8:51:ALA:HB3	1.87	0.74
25:DA:674:G:H1'	29:DF:74:ARG:HD3	1.68	0.74
35:DO:15:ARG:CB	35:DO:15:ARG:HH11	2.01	0.74
35:DO:38:GLN:HG2	35:DO:45:LEU:CD1	2.18	0.74
49:DX:19:GLN:HE22	49:DX:52:HIS:HE1	1.35	0.74
1:AA:1004:A:H8	1:AA:1036:G:N1	1.85	0.74
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.53	0.74
10:AM:48:THR:HA	10:AM:62:HIS:HB3	1.70	0.74
28:BE:66:HIS:HD1	28:BE:66:HIS:C	1.91	0.74
39:BR:39:ARG:HG2	39:BR:40:THR:H	1.53	0.74
1:CA:1435:G:H2'	1:CA:1436:U:H6	1.52	0.74
1:CA:407:G:H1	1:CA:435:C:H42	1.34	0.74
2:CE:91:PRO:HG3	2:CE:154:LEU:HB3	1.69	0.74
35:DO:122:PRO:HB3	35:DO:141:ALA:HB1	1.68	0.74
45:DV:60:GLU:HA	45:DV:66:SER:HA	1.69	0.74
2:AE:60:ASP:HB3	2:AE:64:ARG:HH12	1.52	0.74
41:B2:35:LEU:H	41:B2:35:LEU:HD22	1.53	0.74
1:CA:972:C:O3'	10:CM:57:LYS:HG3	1.87	0.74
22:CB:44:G:C2'	22:CB:45:U:H5'	2.18	0.74
2:CE:19:HIS:NE2	2:CE:206:ASP:HB2	2.03	0.74
2:CE:7:VAL:HG22	2:CE:8:LYS:H	1.52	0.74
4:CG:3:ARG:NH2	4:CG:5:ILE:HG12	2.01	0.74
25:DA:2057:A:O2'	25:DA:2058:A:H5'	1.88	0.74
25:DA:2210:G:H3'	25:DA:2211:G:C5	2.21	0.74
27:DD:68:LYS:HD3	27:DD:70:TRP:CZ2	2.23	0.74
28:DE:44:TYR:O	28:DE:45:THR:CB	2.36	0.74
26:DB:42:C:O2	30:DG:93:THR:N	2.18	0.74
36:DP:66:ILE:CG1	36:DP:67:ARG:H	1.99	0.74
43:DT:63:LYS:O	43:DT:63:LYS:HD2	1.88	0.74
1:AA:438:G:H4'	4:AG:123:HIS:CG	2.23	0.74
1:AA:687:A:H4'	1:AA:688:G:O5'	1.86	0.74
3:AF:19:GLU:HA	3:AF:54:ARG:HH12	1.52	0.74
7:AJ:26:PHE:CE2	7:AJ:30:ILE:HD11	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AX:15:ARG:HH11	21:AX:15:ARG:CG	1.98	0.74
53:B7:8:ASN:C	53:B7:8:ASN:ND2	2.38	0.74
25:BA:102:G:OP1	48:BW:7:ARG:NH2	2.20	0.74
25:BA:1139:G:O2'	25:BA:1143:A:N1	2.20	0.74
30:BG:112:PRO:HB3	50:B4:37:SER:CB	2.17	0.74
30:BG:70:VAL:HG21	30:BG:87:PRO:HB3	1.69	0.74
25:BA:336:C:H5''	44:BU:6:HIS:HD2	1.53	0.74
47:BZ:58:ILE:CD1	47:BZ:86:SER:HB2	2.18	0.74
5:CH:101:ILE:HD11	5:CH:119:LEU:HD23	1.70	0.74
12:CO:70:ILE:HD13	12:CO:77:LEU:HD12	1.67	0.74
52:D6:23:THR:O	52:D6:24:GLU:HB2	1.88	0.74
25:DA:2656:U:H3	25:DA:2665:A:H2	1.35	0.74
33:DM:47:ALA:HB2	33:DM:112:LEU:CD1	2.13	0.74
24:A1:13:U:H2'	24:A1:13:U:O2	1.87	0.73
1:AA:244:U:H4'	1:AA:245:C:O5'	1.86	0.73
1:AA:382:A:H2'	1:AA:383:A:C8	2.22	0.73
2:AE:141:GLU:O	2:AE:145:LEU:HB2	1.88	0.73
14:AQ:23:ARG:HH11	14:AQ:23:ARG:HG3	1.53	0.73
15:AR:56:LEU:O	15:AR:60:VAL:HG23	1.88	0.73
15:AR:70:LEU:HD11	15:AR:77:ARG:HG3	1.70	0.73
1:AA:254:G:OP1	17:AT:67:LYS:O	2.06	0.73
25:BA:2733:A:H2'	25:BA:2734:A:H5''	1.70	0.73
25:BA:566:U:OP1	35:BO:29:LYS:HE3	1.88	0.73
30:BG:110:ALA:HA	30:BG:140:ILE:O	1.87	0.73
30:BG:96:ARG:NH1	30:BG:96:ARG:HG2	1.97	0.73
38:BQ:36:TYR:HD1	38:BQ:36:TYR:N	1.85	0.73
23:CC:32:G:C5	23:CC:33:C:C5	2.76	0.73
4:CG:3:ARG:HH11	4:CG:115:ARG:HB3	1.53	0.73
30:DG:111:LEU:HB3	30:DG:117:PHE:HE2	1.51	0.73
44:DU:76:CYS:O	44:DU:78:ALA:N	2.21	0.73
17:AT:45:HIS:O	17:AT:73:VAL:HG23	1.87	0.73
25:BA:1165:U:H2'	25:BA:1166:C:H6	1.53	0.73
28:BE:38:THR:CB	28:BE:39:PRO:HD2	2.18	0.73
28:BE:78:LEU:CD1	28:BE:79:ARG:H	2.00	0.73
29:BF:67:GLN:HG3	29:BF:67:GLN:O	1.86	0.73
25:BA:2310:A:C2	30:BG:77:ILE:HG13	2.21	0.73
35:BO:50:ARG:HH21	35:BO:50:ARG:CG	2.01	0.73
38:BQ:85:VAL:HG21	38:BQ:112:PHE:CZ	2.23	0.73
41:D2:71:LEU:CA	41:D2:86:GLY:HA2	2.17	0.73
52:D6:35:GLU:O	52:D6:36:LEU:HB2	1.89	0.73
25:DA:2420:C:H41	54:D8:31:HIS:CB	2.01	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1300:U:H4'	25:DA:1301:A:H5''	1.70	0.73
25:DA:1597:A:H5''	25:DA:1598:C:OP1	1.88	0.73
25:DA:1952:A:C6	34:DN:22:ILE:CD1	2.71	0.73
25:DA:287:C:H2'	25:DA:288:C:H6	1.51	0.73
31:DH:125:VAL:HG22	31:DH:126:PRO:CD	2.06	0.73
32:DK:101:LEU:H	32:DK:101:LEU:HD23	1.53	0.73
36:DP:66:ILE:HD12	36:DP:67:ARG:CA	2.17	0.73
1:AA:250:A:H4'	1:AA:251:G:C5'	2.18	0.73
25:BA:2690:C:H5''	25:BA:2872:G:N2	2.03	0.73
26:BB:37:C:C2'	26:BB:38:C:H5'	2.18	0.73
28:BE:41:LYS:NZ	28:BE:41:LYS:HB2	2.03	0.73
45:BV:152:ALA:HB3	45:BV:167:PRO:O	1.88	0.73
9:CL:79:LEU:HD13	9:CL:83:ARG:HD2	1.68	0.73
25:DA:1126:A:H4'	25:DA:1127:A:O5'	1.88	0.73
29:DF:82:ILE:C	29:DF:82:ILE:HD12	2.09	0.73
36:DP:75:THR:CB	36:DP:88:GLY:HA3	2.16	0.73
20:AW:100:ILE:HG13	20:AW:101:GLY:N	2.03	0.73
41:B2:44:LYS:CD	41:B2:45:THR:H	1.99	0.73
25:BA:1298:C:H5''	25:BA:1299:G:OP2	1.88	0.73
25:BA:2310:A:H2'	25:BA:2311:A:H5''	1.70	0.73
25:BA:654(A):A:H2	25:BA:654(T):A:N1	1.87	0.73
29:BF:32:LEU:O	29:BF:32:LEU:HD12	1.88	0.73
35:BO:15:ARG:CB	35:BO:15:ARG:HH11	2.01	0.73
1:CA:1028:C:H42	1:CA:1033:G:H1	1.35	0.73
2:CE:132:LYS:HA	2:CE:135:GLN:HB2	1.69	0.73
16:CS:5:ARG:NH1	16:CS:22:THR:HG21	2.03	0.73
26:DB:39:A:C6	50:D4:1:MET:HB3	2.22	0.73
52:D6:31:PRO:HB2	52:D6:33:LYS:HB2	1.70	0.73
54:D8:60:LEU:C	54:D8:61:LEU:HG	2.08	0.73
1:AA:1251:A:H4'	9:AL:12:GLU:OE1	1.88	0.73
1:AA:280:C:H3'	1:AA:281:G:H5'	1.70	0.73
10:AM:55:LYS:HB3	10:AM:55:LYS:NZ	2.03	0.73
50:B4:52:THR:OG1	50:B4:53:GLU:N	2.21	0.73
25:BA:1210:A:H8	25:BA:1210:A:H5'	1.52	0.73
33:BM:58:ASP:H	33:BM:60:ILE:HD11	1.54	0.73
1:CA:1346:A:H1'	1:CA:1347:G:OP2	1.88	0.73
25:DA:205:G:H1'	25:DA:206:U:OP2	1.88	0.73
25:DA:598:G:H1'	35:DO:12:ALA:HB2	1.70	0.73
30:DG:112:PRO:HB2	50:D4:37:SER:HA	1.71	0.73
42:DS:65:LEU:HD13	42:DS:68:ARG:CD	2.17	0.73
15:AR:55:GLY:HA2	15:AR:58:MET:HE2	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:15:A:OP1	26:BB:15:A:H4'	1.88	0.73
40:D1:65:ILE:HD11	40:D1:96:ALA:CB	2.18	0.73
25:DA:1070:A:H5'	25:DA:1071:G:C5'	2.18	0.73
28:DE:47:VAL:HG11	28:DE:49:LEU:HD23	1.71	0.73
29:DF:68:LYS:HZ3	29:DF:68:LYS:HA	1.53	0.73
33:DM:97:ARG:NH1	33:DM:97:ARG:HG2	1.95	0.73
36:DP:3:MET:HB2	36:DP:93:TYR:CD1	2.24	0.73
47:DZ:78:LYS:HD2	47:DZ:78:LYS:O	1.89	0.73
1:AA:530:G:H4'	1:AA:531:U:OP2	1.87	0.73
1:AA:606:G:H22	1:AA:631:G:H8	1.36	0.73
9:AL:5:TYR:HE2	9:AL:16:ARG:HG2	1.54	0.73
25:BA:1063:G:H1	25:BA:1075:C:H42	1.36	0.73
25:BA:2562:U:H1'	34:BN:23:ARG:HH11	1.51	0.73
1:CA:972:C:H4'	10:CM:57:LYS:HG3	1.71	0.73
52:D6:52:VAL:HG22	52:D6:53:LYS:HG3	1.71	0.73
25:DA:2343:C:O2'	25:DA:2373:G:O2'	2.05	0.73
29:DF:83:PHE:C	29:DF:84:VAL:CG1	2.57	0.73
33:DM:47:ALA:CB	33:DM:112:LEU:HD11	2.12	0.73
4:AG:5:ILE:HG22	4:AG:6:GLY:N	2.01	0.73
41:B2:66:ARG:NH1	41:B2:88:ARG:HD3	2.04	0.73
25:BA:2393:A:H5'	35:BO:62:LEU:CB	2.19	0.73
36:BP:30:GLY:CA	36:BP:107:ALA:HB2	2.18	0.73
1:CA:353:A:H5'	1:CA:353:A:H8	1.52	0.73
25:DA:1826:G:H4'	27:DD:242:ARG:NH2	2.01	0.73
25:DA:2127:G:H21	25:DA:2173:A:H8	1.37	0.73
25:DA:2531:A:H5'	31:DH:157:TYR:HE2	1.52	0.73
35:DO:88:LEU:HD11	35:DO:95:VAL:HG21	1.71	0.73
43:DT:60:ARG:HH11	43:DT:60:ARG:CG	2.01	0.73
1:AA:200:G:N2	1:AA:218:C:O2	2.22	0.73
5:AH:10:MET:SD	5:AH:13:ILE:HD13	2.29	0.73
27:BD:35:LYS:HA	27:BD:64:ILE:HG22	1.71	0.73
33:BM:133:GLN:NE2	33:BM:133:GLN:H	1.87	0.73
1:CA:1199:U:H4'	10:CM:54:PHE:CE1	2.23	0.73
1:CA:1392:G:H21	1:CA:1502:A:H8	1.36	0.73
3:CF:35:GLU:HG3	3:CF:38:ARG:HH21	1.54	0.73
10:CM:54:PHE:CD2	10:CM:55:LYS:HD2	2.24	0.73
25:DA:228:A:H3'	25:DA:228:A:H8	1.53	0.73
28:DE:47:VAL:HG13	28:DE:48:GLN:H	1.53	0.73
1:AA:156:G:H1	1:AA:165:C:H42	1.37	0.73
23:AD:21:U:H3'	23:AD:22:A:C5'	2.19	0.73
2:AE:60:ASP:HB3	2:AE:64:ARG:NH1	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B3:83:PRO:O	46:B3:84:LEU:HB2	1.87	0.73
25:BA:49:A:C8	25:BA:120:U:C5	2.74	0.73
27:BD:69:ARG:NH2	27:BD:128:GLY:O	2.22	0.73
32:BK:125:GLU:OE1	32:BK:141:LYS:HB3	1.89	0.73
39:BR:74:ARG:HD3	39:BR:76:PHE:CZ	2.24	0.73
1:CA:498:A:H4'	1:CA:500:G:OP1	1.87	0.73
22:CB:55:G:H2'	22:CB:56:G:H8	1.53	0.73
5:CH:143:ARG:NH1	8:CK:77:GLU:OE1	2.22	0.73
16:CS:8:ARG:HG2	16:CS:8:ARG:HH11	1.53	0.73
41:D2:70:ILE:O	41:D2:71:LEU:HB2	1.88	0.73
25:DA:527:C:OP2	25:DA:2779:U:H5	1.71	0.73
25:DA:864:G:C6	25:DA:865:C:N4	2.56	0.73
28:DE:5:LEU:HD21	28:DE:79:ARG:HB2	1.70	0.73
36:DP:33:GLY:HA2	36:DP:105:GLU:HB2	1.70	0.73
25:BA:559:G:H22	40:B1:49:HIS:CD2	2.06	0.72
25:BA:1204:A:C2	25:BA:1241:A:N1	2.57	0.72
25:BA:2068:U:N3	25:BA:2430:A:C2	2.53	0.72
28:BE:27:LEU:HD13	39:BR:1:MET:HE2	1.69	0.72
1:CA:250:A:H4'	1:CA:251:G:O5'	1.88	0.72
23:CD:7:G:H3'	23:CD:8:U:H5'	1.71	0.72
12:CO:8:ASN:HD22	17:CT:34:LYS:HE2	1.54	0.72
36:DP:64:ILE:HD13	36:DP:64:ILE:N	2.01	0.72
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.24	0.72
1:AA:523:A:H61	12:AO:92:ASP:HB2	1.54	0.72
25:BA:1062:G:H2'	25:BA:1063:G:C8	2.23	0.72
25:BA:1903:G:OP1	27:BD:241:PRO:HB2	1.89	0.72
27:BD:64:ILE:O	27:BD:64:ILE:HG12	1.87	0.72
25:DA:1839:G:C8	25:DA:1927:A:H1'	2.24	0.72
25:DA:2128:C:H4'	25:DA:2173:A:N6	2.04	0.72
25:DA:2681:C:H2'	25:DA:2681:C:O2	1.88	0.72
27:DD:35:LYS:CE	27:DD:64:ILE:O	2.37	0.72
28:DE:52:LEU:O	28:DE:74:PRO:CA	2.36	0.72
25:DA:1012:U:C5	33:DM:28:THR:HG21	2.23	0.72
27:BD:34:VAL:O	27:BD:34:VAL:HG13	1.89	0.72
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.71	0.72
25:DA:1278:A:O2'	37:D0:34:ILE:HD11	1.89	0.72
41:D2:70:ILE:O	41:D2:71:LEU:CB	2.36	0.72
25:DA:1188:U:O2'	25:DA:1189:A:H5'	1.88	0.72
25:DA:2219:G:H2'	25:DA:2224:G:H5'	1.71	0.72
29:DF:31:HIS:CB	35:DO:9:ASN:OD1	2.37	0.72
38:DQ:58:LEU:HD12	38:DQ:65:VAL:HG22	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DT:50:LYS:H	43:DT:87:GLN:HE22	1.35	0.72
1:AA:57:G:H2'	1:AA:58:C:C6	2.23	0.72
31:BH:86:GLU:HG3	31:BH:165:ALA:HB2	1.72	0.72
33:BM:133:GLN:HE21	33:BM:133:GLN:H	1.37	0.72
45:BV:76:LEU:HD23	45:BV:76:LEU:H	1.54	0.72
1:CA:1005:A:C2	1:CA:1006:C:H1'	2.24	0.72
22:CB:87:A:H8	25:DA:2583:G:N2	1.83	0.72
1:CA:235:C:C5'	17:CT:70:ARG:HG2	2.18	0.72
25:DA:1156:A:OP1	40:D1:55:ARG:NH1	2.22	0.72
25:DA:1864:U:C2'	25:DA:1869:G:H5''	2.20	0.72
25:DA:545:G:H21	25:DA:548:A:N6	1.86	0.72
31:DH:154:PRO:O	31:DH:155:SER:HB3	1.89	0.72
35:DO:36:LYS:NZ	35:DO:36:LYS:HB2	2.02	0.72
25:DA:832:G:H5'	35:DO:45:LEU:HD11	1.71	0.72
25:DA:195:A:OP1	35:DO:46:LYS:CE	2.36	0.72
36:DP:75:THR:HG21	36:DP:87:LYS:CE	2.18	0.72
45:DV:105:VAL:HG22	45:DV:106:GLY:H	1.52	0.72
23:AD:57:C:N3	25:BA:2112:G:N2	2.36	0.72
19:AV:50:ALA:HB1	19:AV:57:HIS:HB3	1.70	0.72
40:B1:92:ARG:HD3	40:B1:94:ASN:HB3	1.72	0.72
27:BD:34:VAL:HG22	27:BD:35:LYS:HG3	1.72	0.72
30:BG:72:ARG:HH21	30:BG:87:PRO:HD3	1.54	0.72
25:BA:518:G:H4'	42:BS:18:ARG:HH11	1.53	0.72
1:CA:1502:A:H2	1:CA:1505:G:H1	1.38	0.72
1:CA:748:C:H4'	1:CA:749:C:O5'	1.87	0.72
25:DA:1342:A:C2	25:DA:1602:U:N3	2.57	0.72
25:DA:2131:G:OP1	25:DA:2132:U:H3'	1.89	0.72
25:DA:511:U:H3'	25:DA:512:G:H5''	1.72	0.72
25:DA:71:A:OP2	25:DA:71:A:H3'	1.89	0.72
1:AA:731:G:OP1	1:AA:766:A:H1'	1.90	0.72
1:AA:625:G:C5'	16:AS:16:HIS:HD2	2.03	0.72
52:B6:15:GLU:HG2	52:B6:16:CYS:N	2.05	0.72
33:BM:46:VAL:O	33:BM:47:ALA:HB3	1.89	0.72
34:BN:67:LYS:HE3	34:BN:68:GLU:OE1	1.88	0.72
47:BZ:85:LEU:CA	47:BZ:87:PRO:HD2	2.19	0.72
4:CG:13:ARG:CG	4:CG:14:ARG:H	1.93	0.72
25:DA:2287:A:N1	25:DA:2346:A:C2	2.58	0.72
25:DA:888:C:H4'	25:DA:889:C:C5'	2.20	0.72
1:AA:143:A:H2	1:AA:220:G:H1	1.37	0.72
4:AG:81:GLU:OE1	4:AG:139:ARG:NH2	2.22	0.72
25:BA:2402:C:HO2'	25:BA:2403:C:P	2.12	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BM:46:VAL:HG13	33:BM:47:ALA:N	2.05	0.72
36:BP:30:GLY:HA2	36:BP:107:ALA:HB2	1.72	0.72
44:BU:78:ALA:HB3	44:BU:81:LYS:NZ	2.03	0.72
25:DA:1416:G:O2'	25:DA:1417:C:O5'	2.06	0.72
25:DA:2185:C:H2'	25:DA:2186:G:C8	2.24	0.72
49:DX:19:GLN:HE22	49:DX:52:HIS:CE1	2.07	0.72
1:AA:977:A:C8	1:AA:1223:C:C4	2.78	0.72
25:BA:1991:U:H2'	25:BA:1992:G:H5''	1.71	0.72
25:BA:847:U:C5	25:BA:933:A:N1	2.57	0.72
30:BG:104:GLU:CD	50:B4:23:GLU:HG3	2.10	0.72
1:AA:1423:G:OP1	34:BN:49:ARG:NH2	2.21	0.72
19:CV:78:ARG:HD3	19:CV:79:THR:H	1.53	0.72
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.20	0.72
1:AA:503:C:OP1	12:AO:119:LYS:HE2	1.90	0.72
30:BG:109:VAL:HG13	50:B4:33:VAL:HG21	1.71	0.72
30:BG:112:PRO:HB3	50:B4:37:SER:HB2	1.72	0.72
52:B6:30:THR:HA	52:B6:31:PRO:C	2.10	0.72
54:B8:37:SER:HA	54:B8:41:ILE:HG21	1.72	0.72
25:BA:1141:U:H6	33:BM:63:THR:OG1	1.71	0.72
25:BA:2157:G:O2'	25:BA:2158:A:O5'	2.07	0.72
31:BH:159:GLU:HG2	31:BH:170:ARG:NH1	2.05	0.72
1:CA:421:U:H5''	1:CA:422:C:OP2	1.89	0.72
3:CF:130:VAL:O	3:CF:134:ILE:HG12	1.89	0.72
1:CA:973:G:OP1	10:CM:57:LYS:NZ	2.23	0.72
40:D1:92:ARG:HD3	40:D1:94:ASN:HB3	1.71	0.72
25:DA:239:U:H5''	25:DA:239:U:H6	1.55	0.72
1:AA:501:C:H2'	1:AA:502:G:C8	2.25	0.72
6:AI:14:LEU:HD22	6:AI:18:GLN:NE2	2.05	0.72
1:AA:376:G:H5''	16:AS:5:ARG:HD2	1.69	0.72
25:BA:1473:G:C2'	25:BA:1474:C:H5'	2.20	0.72
30:BG:73:ALA:CB	30:BG:82:LEU:HD21	2.18	0.72
35:BO:64:LYS:HD2	54:B8:25:MET:SD	2.27	0.72
23:CD:54:G:H2'	23:CD:55:U:C6	2.24	0.72
7:CJ:97:GLN:HE21	7:CJ:101:LEU:HD11	1.55	0.72
1:CA:191:G:O2'	20:CW:103:GLY:HA2	1.90	0.72
25:DA:1342:A:N1	25:DA:1602:U:C2	2.57	0.72
25:DA:148:C:C5'	25:DA:148:C:H6	2.02	0.72
28:DE:79:ARG:O	28:DE:80:GLU:CB	2.37	0.72
30:DG:37:VAL:O	30:DG:94:LEU:HD23	1.90	0.72
45:DV:138:GLU:O	45:DV:156:LYS:HG3	1.89	0.72
25:BA:2119:A:H61	25:BA:2170:A:N6	1.88	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2439:A:C5'	25:BA:2439:A:C8	2.73	0.71
33:BM:131:GLN:NE2	33:BM:132:ALA:H	1.88	0.71
28:BE:19:ARG:NH1	34:BN:72:PRO:CG	2.53	0.71
1:CA:560:U:HO2'	1:CA:561:U:P	2.11	0.71
23:CD:64:G:H2'	23:CD:65:G:C8	2.25	0.71
8:CK:20:TYR:CE2	8:CK:75:ARG:HD2	2.24	0.71
9:CL:125:TYR:HD2	9:CL:126:SER:N	1.87	0.71
12:CO:32:PHE:HB3	12:CO:84:LEU:CD2	2.20	0.71
18:CU:22:VAL:HG13	18:CU:56:THR:HA	1.71	0.71
25:DA:323:G:HO2'	25:DA:1205:U:H3	1.35	0.71
25:BA:2467:C:O2'	25:BA:2468:G:H5'	1.90	0.71
25:BA:314:A:H2'	25:BA:315:G:H5'	1.72	0.71
25:BA:654:A:H2'	25:BA:654:A:N3	2.04	0.71
27:BD:35:LYS:HZ1	27:BD:65:ILE:HA	1.55	0.71
1:CA:973:G:N3	10:CM:55:LYS:HE2	2.05	0.71
36:DP:83:MET:SD	36:DP:83:MET:N	2.63	0.71
39:DR:93:ARG:HG2	39:DR:117:ASP:CB	2.19	0.71
44:DU:61:ILE:HG22	44:DU:62:GLU:H	1.55	0.71
23:AC:1:C:H2'	23:AC:2:G:OP2	1.90	0.71
4:AG:122:ARG:HG2	4:AG:122:ARG:NH1	1.98	0.71
8:AK:25:ASP:OD2	8:AK:60:ARG:HG2	1.91	0.71
50:B4:37:SER:HB3	50:B4:42:PHE:CD1	2.25	0.71
25:BA:2689:U:H4'	25:BA:2690:C:H5'	1.71	0.71
49:BX:31:LEU:O	49:BX:32:GLN:HB2	1.88	0.71
23:CC:43:G:H2'	23:CC:44:A:H8	1.56	0.71
2:CE:71:VAL:HG11	2:CE:97:TRP:HD1	1.54	0.71
25:DA:2611:U:H5'	25:DA:2611:U:H6	1.55	0.71
25:DA:2748:A:C8	25:DA:2754:U:O4	2.42	0.71
25:DA:2839:G:H5'	37:D0:46:GLY:HA2	1.72	0.71
25:DA:598:G:C1'	35:DO:12:ALA:HB2	2.21	0.71
45:DV:87:ASP:OD2	45:DV:87:ASP:N	2.22	0.71
1:AA:353:A:H5'	1:AA:353:A:H8	1.55	0.71
22:AB:56:G:H2'	22:AB:57:C:H6	1.55	0.71
3:AF:58:GLU:HB2	3:AF:65:ALA:CB	2.20	0.71
51:B5:33:CYS:SG	51:B5:40:LYS:NZ	2.61	0.71
25:BA:905:U:C2'	25:BA:906:G:H5''	2.21	0.71
26:BB:43:C:OP1	30:BG:67:LYS:NZ	2.24	0.71
31:BH:115:VAL:O	31:BH:115:VAL:HG12	1.90	0.71
25:BA:2682:U:O2'	39:BR:58:ASN:OD1	2.07	0.71
1:CA:1300:G:O2'	1:CA:1301:U:O5'	2.07	0.71
13:CP:110:ARG:CG	13:CP:110:ARG:HH11	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CR:87:ILE:CG2	15:CR:88:ARG:H	2.03	0.71
25:DA:12:U:O2	25:DA:12:U:H2'	1.90	0.71
29:DF:34:TRP:CZ3	35:DO:8:PRO:HB3	2.24	0.71
47:DZ:4:VAL:HG12	47:DZ:11:ARG:HB3	1.72	0.71
1:AA:1450:U:HO2'	1:AA:1451:A:H8	1.37	0.71
2:AE:84:GLU:HB3	2:AE:219:VAL:HG21	1.72	0.71
9:AL:112:LYS:HA	9:AL:119:ALA:HB2	1.71	0.71
1:AA:1346:A:H5''	9:AL:120:ARG:NH1	2.04	0.71
13:AP:15:VAL:HG23	13:AP:43:THR:O	1.90	0.71
23:AD:57:C:N4	25:BA:2112:G:H1	1.88	0.71
25:BA:873:G:H1	25:BA:904:C:H42	1.38	0.71
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.91	0.71
3:CF:180:ALA:HB1	3:CF:203:PHE:HE1	1.55	0.71
17:CT:67:LYS:HA	17:CT:70:ARG:HH12	1.55	0.71
25:DA:2321:G:H2'	25:DA:2321:G:N3	2.04	0.71
25:DA:531:C:H4'	25:DA:532:A:H5''	1.71	0.71
25:DA:654(R):C:N4	25:DA:654(S):G:O6	2.24	0.71
28:DE:79:ARG:O	28:DE:80:GLU:HB2	1.89	0.71
45:DV:108:PRO:HA	45:DV:143:GLY:N	2.04	0.71
47:DZ:92:LYS:HE2	47:DZ:93:GLU:H	1.54	0.71
13:AP:108:ARG:HG3	13:AP:108:ARG:NH1	2.01	0.71
26:BB:28:C:OP1	38:BQ:36:TYR:OH	2.06	0.71
27:BD:35:LYS:HE3	27:BD:64:ILE:C	2.11	0.71
1:CA:509:A:O2'	1:CA:510:A:OP1	2.09	0.71
3:CF:63:ASN:HB3	3:CF:98:ASN:HB3	1.73	0.71
10:CM:54:PHE:CE2	10:CM:55:LYS:HD2	2.26	0.71
41:D2:76:LYS:HB3	41:D2:79:VAL:CG2	2.16	0.71
26:DB:111:U:H2'	26:DB:112:G:C8	2.26	0.71
26:DB:83:G:H1	26:DB:93:C:H42	1.36	0.71
27:DD:25:THR:O	27:DD:27:THR:N	2.23	0.71
30:DG:117:PHE:CD1	30:DG:118:ARG:O	2.43	0.71
30:DG:60:LEU:O	30:DG:64:THR:HG22	1.91	0.71
38:DQ:14:VAL:HG21	38:DQ:89:ARG:CG	2.21	0.71
38:DQ:11:LYS:O	38:DQ:15:ARG:HB2	1.90	0.71
1:AA:1004:A:H5''	1:AA:1025:U:C4	2.26	0.71
25:BA:2211:G:H4'	25:BA:2212:A:OP2	1.90	0.71
26:BB:3:C:H2'	26:BB:4:C:H6	1.54	0.71
28:BE:119:ARG:HD3	28:BE:160:TYR:HB2	1.73	0.71
25:BA:2032:G:H21	28:BE:146:THR:CG2	2.04	0.71
28:BE:51:PHE:O	28:BE:74:PRO:CB	2.39	0.71
47:BZ:65:SER:OG	47:BZ:66:HIS:HD2	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1451:A:OP2	1:CA:1452:C:N4	2.23	0.71
1:CA:828:A:H5''	1:CA:859:A:C2	2.26	0.71
1:CA:827:U:H3	1:CA:872:A:H62	1.36	0.71
1:CA:1372:U:OP1	9:CL:72:GLY:N	2.24	0.71
25:DA:152:G:H1	25:DA:174:C:N4	1.88	0.71
25:DA:2446:G:H2'	25:DA:2447:G:H5''	1.72	0.71
10:AM:24:VAL:HG21	10:AM:37:PRO:HD3	1.73	0.71
16:AS:23:ASP:OD1	16:AS:25:ARG:HG2	1.91	0.71
28:BE:35:GLN:CG	28:BE:36:ARG:H	2.02	0.71
28:BE:2:LYS:HD3	28:BE:95:ILE:HG22	1.72	0.71
31:BH:151:ILE:O	31:BH:153:LYS:HD2	1.88	0.71
45:BV:6:LYS:CA	45:BV:60:GLU:HB2	2.20	0.71
23:CD:42:C:H2'	23:CD:43:G:H8	1.55	0.71
19:CV:28:LYS:HE3	19:CV:29:ARG:H	1.55	0.71
25:DA:2068:U:N3	25:DA:2430:A:H2	1.87	0.71
25:DA:528:A:H8	25:DA:528:A:H3'	1.56	0.71
27:DD:43:ARG:HD2	27:DD:44:ASN:ND2	2.06	0.71
31:DH:4:ILE:HB	31:DH:6:ARG:NH1	2.06	0.71
1:AA:686:U:O4	1:AA:703:G:H1'	1.91	0.71
23:AD:15:G:N2	23:AD:49:C:O2	2.21	0.71
4:AG:170:VAL:HG22	4:AG:171:GLY:H	1.56	0.71
25:BA:270(L):U:H2'	25:BA:270(L):U:O2	1.90	0.71
28:BE:35:GLN:NE2	28:BE:37:ARG:NH1	2.38	0.71
31:BH:83:TYR:HB3	31:BH:135:GLY:N	2.03	0.71
31:BH:138:LYS:HA	31:BH:141:VAL:HB	1.73	0.71
2:CE:92:TYR:CE2	2:CE:151:GLY:HA3	2.26	0.71
10:CM:22:LYS:HD2	10:CM:26:ALA:HB2	1.73	0.71
30:DG:67:LYS:HD2	50:D4:6:HIS:HE2	1.55	0.71
25:DA:887:A:H3'	25:DA:888:C:H5'	1.73	0.71
33:DM:45:ASN:O	33:DM:46:VAL:CG2	2.36	0.71
36:DP:21:THR:CG2	36:DP:21:THR:O	2.38	0.71
36:DP:23:GLY:HA2	36:DP:25:ASP:HB2	1.73	0.71
1:AA:484:G:O2'	1:AA:485:G:OP2	2.05	0.71
23:AD:8:U:H3	23:AD:14:A:H62	1.38	0.71
8:AK:87:SER:HB2	8:AK:93:VAL:CB	2.20	0.71
25:BA:1359:A:H2	25:BA:1372:U:O4	1.73	0.71
44:BU:87:LYS:HD2	44:BU:92:ASN:HB3	1.73	0.71
45:BV:45:ASP:O	45:BV:49:ARG:HG2	1.89	0.71
23:CC:1:C:C2'	23:CC:2:G:OP2	2.39	0.71
23:CD:21:U:H2'	23:CD:22:A:H5''	1.73	0.71
13:CP:39:ILE:HD13	13:CP:52:GLU:HB3	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:55:ARG:HG3	13:CP:55:ARG:HH11	1.56	0.71
25:DA:1899:G:N2	25:DA:1902:C:H41	1.88	0.71
25:DA:2119:A:N6	25:DA:2170:A:N7	2.38	0.71
25:DA:2337:G:H5''	25:DA:2338:G:OP2	1.89	0.71
25:DA:517:C:OP1	51:D5:16:ARG:NH2	2.22	0.71
25:DA:885:C:C4	25:DA:890:A:C6	2.79	0.71
36:DP:27:VAL:CG1	36:DP:105:GLU:OE2	2.35	0.71
25:DA:71:A:C2	43:DT:31:HIS:HE1	2.09	0.71
43:DT:63:LYS:HE3	43:DT:63:LYS:H	1.55	0.71
1:AA:1239:A:H62	1:AA:1299:A:N6	1.89	0.70
1:AA:217:C:O2'	1:AA:466:C:N4	2.23	0.70
3:AF:19:GLU:HA	3:AF:54:ARG:NH1	2.06	0.70
25:BA:2402:C:H2'	25:BA:2403:C:H5'	1.73	0.70
25:BA:76:C:O2'	48:BW:62:THR:HG21	1.91	0.70
28:BE:14:ILE:HB	28:BE:21:VAL:HG23	1.71	0.70
28:BE:48:GLN:O	28:BE:49:LEU:CB	2.34	0.70
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	1.71	0.70
36:BP:104:PHE:HE1	36:BP:125:LEU:HD11	1.54	0.70
9:CL:20:ARG:O	9:CL:60:ASP:HB2	1.91	0.70
1:CA:963:G:HO2'	10:CM:54:PHE:HZ	1.39	0.70
25:DA:2371:G:O4'	52:D6:45:LYS:CE	2.31	0.70
26:DB:5:C:H42	26:DB:115:G:H1	1.37	0.70
27:DD:255:LYS:HD2	27:DD:255:LYS:O	1.90	0.70
29:DF:123:LEU:HA	29:DF:192:LEU:O	1.91	0.70
32:DK:7:GLU:HA	32:DK:15:VAL:HG22	1.73	0.70
32:DK:82:ARG:HB3	32:DK:89:TYR:HD2	1.55	0.70
33:DM:15:LEU:HB2	33:DM:134:ARG:HG2	1.71	0.70
35:DO:19:VAL:HG22	35:DO:27:HIS:HB3	1.68	0.70
44:DU:39:VAL:HG23	44:DU:40:GLU:H	1.55	0.70
45:DV:175:VAL:CG2	45:DV:176:PRO:HD3	2.21	0.70
48:DW:17:SER:HB2	48:DW:18:PRO:C	2.11	0.70
1:AA:1175:G:H2'	1:AA:1176:A:C8	2.26	0.70
14:AQ:44:LEU:O	14:AQ:44:LEU:HD12	1.91	0.70
15:AR:74:ASP:CG	15:AR:77:ARG:HG2	2.10	0.70
54:B8:34:TRP:CE3	54:B8:35:GLN:OE1	2.44	0.70
25:BA:1329:U:H5''	25:BA:1330:C:H5	1.56	0.70
25:BA:1799:G:H5'	25:BA:1819:A:H61	1.56	0.70
25:BA:32:C:C2'	25:BA:33:U:H5'	2.21	0.70
27:BD:25:THR:HB	27:BD:82:ILE:H	1.55	0.70
45:BV:121:HIS:HB3	45:BV:123:ASP:O	1.91	0.70
1:CA:328:C:C2'	1:CA:328:C:O2	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CC:62:C:H2'	23:CC:63:C:H6	1.56	0.70
25:DA:2154:G:H2'	25:DA:2155:G:C8	2.26	0.70
43:DT:5:TYR:CZ	48:DW:30:ARG:HG3	2.25	0.70
25:BA:1678:G:N2	25:BA:1989:G:H22	1.88	0.70
25:BA:2392:A:H2	25:BA:2424:C:H42	1.37	0.70
1:CA:1004:A:C5'	1:CA:1025:U:O4	2.39	0.70
1:CA:1004:A:H1'	1:CA:1036:G:C2	2.26	0.70
23:CC:18:C:O2	23:CC:18:C:C2'	2.39	0.70
7:CJ:113:GLU:O	7:CJ:119:ARG:HD3	1.91	0.70
25:DA:1430:C:H2'	25:DA:1431:U:H6	1.56	0.70
25:DA:2531:A:H4'	31:DH:157:TYR:HD2	1.54	0.70
1:AA:1004:A:C4	1:AA:1025:U:C2	2.79	0.70
2:AE:111:ARG:HH11	2:AE:111:ARG:HG2	1.55	0.70
25:BA:2419:U:H4'	52:B6:23:THR:HG21	1.73	0.70
25:BA:1047:G:H2'	25:BA:1110:G:N1	2.07	0.70
29:BF:34:TRP:NE1	35:BO:8:PRO:HD3	2.06	0.70
36:BP:88:GLY:C	36:BP:90:VAL:N	2.43	0.70
38:BQ:110:LEU:HA	38:BQ:112:PHE:CE1	2.26	0.70
44:BU:81:LYS:HZ3	44:BU:96:ILE:HD12	1.56	0.70
3:CF:131:ARG:NH1	5:CH:50:GLU:HG3	2.06	0.70
7:CJ:79:ARG:HG2	7:CJ:84:ASN:HD21	1.56	0.70
28:DE:44:TYR:N	28:DE:44:TYR:HD1	1.84	0.70
35:DO:15:ARG:NH1	35:DO:15:ARG:CG	2.39	0.70
1:AA:1306:A:H61	1:AA:1331:G:H1'	1.53	0.70
4:AG:111:ALA:HB2	4:AG:120:LEU:HD12	1.73	0.70
5:AH:126:ARG:HG3	5:AH:126:ARG:NH1	1.96	0.70
41:B2:29:PRO:HA	41:B2:61:VAL:CG2	2.22	0.70
35:BO:63:PRO:CB	54:B8:12:LYS:O	2.39	0.70
31:BH:159:GLU:CG	31:BH:170:ARG:HH12	2.02	0.70
32:BK:2:LYS:HB2	32:BK:39:ALA:HB2	1.72	0.70
1:CA:1298:C:C5	7:CJ:114:ARG:HD2	2.25	0.70
13:CP:81:LEU:HD13	13:CP:88:ARG:HH11	1.56	0.70
25:DA:270(I):G:H1	25:DA:270(Q):C:H42	1.37	0.70
29:DF:53:THR:HG23	29:DF:55:GLY:H	1.55	0.70
31:DH:148:ILE:O	31:DH:151:ILE:HG12	1.91	0.70
1:AA:1004:A:C2	1:AA:1024:G:C8	2.79	0.70
1:AA:1053:G:O3'	1:AA:1054:C:H4'	1.91	0.70
23:AC:20:G:C2	23:AC:58:A:N3	2.60	0.70
18:AU:66:LEU:O	18:AU:70:ILE:HG13	1.91	0.70
28:BE:120:TRP:CE3	28:BE:155:LYS:HD3	2.26	0.70
38:BQ:28:VAL:HG11	38:BQ:98:VAL:HG13	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:124:ASP:O	39:BR:128:GLU:N	2.25	0.70
45:BV:150:LEU:HD23	45:BV:154:ASP:HB2	1.74	0.70
1:CA:1392:G:N2	1:CA:1502:A:H8	1.89	0.70
2:CE:111:ARG:HG2	2:CE:111:ARG:NH1	2.00	0.70
13:CP:86:CYS:O	13:CP:89:GLY:N	2.22	0.70
25:DA:1771:C:H1'	25:DA:1786:A:C8	2.27	0.70
25:DA:71:A:C2	43:DT:31:HIS:CE1	2.75	0.70
35:DO:111:ARG:HG3	35:DO:128:HIS:CG	2.26	0.70
36:DP:68:ILE:HD13	36:DP:103:MET:HB3	1.72	0.70
3:AF:64:VAL:HG23	3:AF:99:VAL:HA	1.72	0.70
26:BB:3:C:H2'	26:BB:4:C:C6	2.26	0.70
35:BO:112:LEU:H	35:BO:128:HIS:HD2	1.37	0.70
35:BO:58:THR:O	35:BO:58:THR:HG22	1.92	0.70
36:BP:63:LYS:HD3	36:BP:65:PHE:CZ	2.27	0.70
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.26	0.70
1:AA:1008:C:H42	1:AA:1021:G:H1	1.38	0.70
1:AA:105:G:H2'	1:AA:106:C:C6	2.25	0.70
1:AA:1125:U:OP2	1:AA:1145:C:N4	2.25	0.70
5:AH:148:VAL:HG21	8:AK:107:LEU:HD22	1.73	0.70
25:BA:10:G:N2	25:BA:2802:G:OP1	2.25	0.70
25:BA:1771:C:H1'	25:BA:1786:A:C8	2.26	0.70
25:BA:1925:C:C2'	25:BA:1926:U:H5'	2.22	0.70
25:BA:2164:C:H2'	25:BA:2165:G:H8	1.57	0.70
28:BE:23:VAL:HG11	28:BE:173:VAL:CG2	2.22	0.70
1:CA:1502:A:H4'	1:CA:1503:A:OP2	1.90	0.70
16:CS:1:MET:HE1	16:CS:65:GLN:HG2	1.74	0.70
31:DH:150:ALA:C	31:DH:152:ARG:H	1.95	0.70
31:DH:81:GLU:HG2	31:DH:83:TYR:HB2	1.74	0.70
39:DR:8:LYS:NZ	39:DR:8:LYS:HB3	2.07	0.70
25:DA:310:A:OP1	44:DU:18:GLY:HA2	1.91	0.70
37:B0:74:LYS:C	37:B0:76:VAL:H	1.95	0.70
25:BA:442:G:N3	29:BF:48:THR:CG2	2.54	0.70
25:BA:524:U:H2'	25:BA:525:U:C6	2.27	0.70
36:BP:78:PRO:O	36:BP:79:LEU:HD12	1.90	0.70
10:CM:27:ALA:HB2	10:CM:85:LEU:HD11	1.73	0.70
41:D2:81:TYR:O	41:D2:82:ARG:CG	2.30	0.70
25:DA:528:A:H2	25:DA:2043:C:C5'	2.05	0.70
25:DA:997:G:C2'	25:DA:998:C:H5'	2.22	0.70
27:DD:164:GLN:HG2	27:DD:166:GLN:HE22	1.55	0.70
25:BA:259:G:O2'	25:BA:621:A:O2'	2.06	0.70
28:BE:51:PHE:HD1	28:BE:52:LEU:HD23	1.46	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:52:LEU:O	28:BE:75:VAL:HG22	1.92	0.70
35:BO:17:LYS:HE2	35:BO:27:HIS:CE1	2.27	0.70
25:BA:2415:G:C4'	35:BO:67:MET:H	2.01	0.70
38:BQ:36:TYR:N	38:BQ:36:TYR:CD1	2.57	0.70
1:CA:250:A:H1'	1:CA:251:G:OP2	1.91	0.70
13:CP:54:VAL:O	13:CP:58:GLU:HG2	1.91	0.70
25:DA:2371:G:H4'	52:D6:45:LYS:HE2	1.72	0.70
54:D8:34:TRP:O	54:D8:36:LYS:CG	2.30	0.70
25:DA:2378:A:H4'	38:DQ:23:ARG:HH11	1.57	0.70
27:DD:35:LYS:HD3	27:DD:63:ARG:C	2.13	0.70
25:DA:2849:U:O4	39:DR:23:ARG:NH2	2.25	0.70
44:DU:97:ARG:H	44:DU:97:ARG:HD3	1.57	0.70
1:AA:792:A:H1'	1:AA:794:A:N7	2.07	0.69
1:AA:933:G:OP2	7:AJ:3:ARG:HB2	1.92	0.69
26:BB:12:C:O2	46:B3:74:ARG:NH1	2.24	0.69
25:BA:593:G:H1'	54:B8:4:MET:HE1	1.74	0.69
25:BA:1113:U:OP1	31:BH:2:SER:N	2.24	0.69
25:BA:607:U:N3	25:BA:621:A:C2	2.59	0.69
27:BD:35:LYS:HD3	27:BD:63:ARG:CA	2.21	0.69
35:BO:38:GLN:HG2	35:BO:45:LEU:HD13	1.74	0.69
39:BR:105:LEU:O	39:BR:107:ASP:OD1	2.10	0.69
44:BU:42:VAL:O	44:BU:42:VAL:HG12	1.92	0.69
23:CC:17:C:C3'	23:CC:18:C:H5''	2.18	0.69
9:CL:28:VAL:HG22	9:CL:63:ILE:HB	1.73	0.69
41:D2:83:ARG:O	41:D2:84:LYS:HB2	1.92	0.69
41:D2:83:ARG:O	41:D2:84:LYS:CB	2.40	0.69
50:D4:18:CYS:SG	50:D4:19:GLY:HA2	2.32	0.69
27:DD:5:LYS:HB2	27:DD:5:LYS:NZ	2.06	0.69
36:DP:43:THR:OG1	36:DP:46:GLN:HG3	1.92	0.69
39:DR:74:ARG:HG2	39:DR:74:ARG:NH1	1.89	0.69
42:DS:75:TYR:CZ	42:DS:104:THR:HG21	2.27	0.69
1:AA:39:G:N7	1:AA:547:A:H8	1.90	0.69
8:AK:64:LYS:HB3	8:AK:79:VAL:HG21	1.74	0.69
14:AQ:41:ARG:HG2	14:AQ:41:ARG:HH11	1.58	0.69
50:B4:61:ARG:NE	50:B4:61:ARG:HA	2.07	0.69
51:B5:42:PRO:HB2	51:B5:43:HIS:HD2	1.57	0.69
52:B6:15:GLU:CG	52:B6:16:CYS:H	2.05	0.69
52:D6:27:LYS:HZ1	52:D6:28:ARG:HH12	1.40	0.69
35:DO:64:LYS:HD3	54:D8:25:MET:SD	2.32	0.69
54:D8:40:GLU:H	54:D8:43:GLN:HG3	1.56	0.69
25:DA:171:G:H2'	25:DA:172:C:C6	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1964:G:H4'	25:DA:1965:C:OP2	1.91	0.69
27:DD:166:GLN:HA	27:DD:166:GLN:NE2	2.06	0.69
27:DD:30:GLU:CD	27:DD:63:ARG:HH21	1.95	0.69
36:DP:66:ILE:CD1	36:DP:67:ARG:N	2.30	0.69
4:AG:173:TRP:CD1	4:AG:174:LEU:HG	2.27	0.69
1:AA:625:G:C5'	16:AS:16:HIS:CD2	2.75	0.69
25:BA:1900:A:H5'	25:BA:1900:A:H8	1.57	0.69
25:BA:847:U:O4	25:BA:933:A:N1	2.24	0.69
28:BE:78:LEU:CD1	28:BE:79:ARG:N	2.50	0.69
37:B0:103:ARG:HH11	42:BS:40:ASN:HD22	1.37	0.69
4:CG:122:ARG:NH2	4:CG:134:ASP:HB3	2.06	0.69
51:D5:4:HIS:HB3	51:D5:5:PRO:HD2	1.65	0.69
54:D8:39:LYS:HG2	54:D8:40:GLU:H	1.57	0.69
25:DA:674:G:O2'	29:DF:74:ARG:HG3	1.93	0.69
1:AA:658:G:C5	1:AA:659:U:C5	2.79	0.69
23:AC:20:G:HO2'	23:AC:21:U:H5	1.41	0.69
4:AG:122:ARG:CG	4:AG:122:ARG:HH11	2.03	0.69
40:B1:92:ARG:CZ	41:B2:11:GLN:H	2.05	0.69
25:BA:1021:A:C3'	25:BA:1022:G:H5''	2.23	0.69
25:BA:1240:U:O2'	25:BA:1241:A:H5'	1.92	0.69
26:BB:78:A:C2	26:BB:99:A:C4	2.80	0.69
27:BD:6:PHE:CE1	27:BD:18:VAL:HG23	2.24	0.69
31:BH:12:PRO:HD3	31:BH:48:GLY:O	1.92	0.69
38:BQ:11:LYS:HD2	38:BQ:15:ARG:HH21	1.56	0.69
45:BV:111:VAL:HG11	45:BV:146:ILE:HB	1.72	0.69
47:BZ:23:LYS:HB3	47:BZ:29:GLY:HA3	1.74	0.69
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.08	0.69
1:CA:197:A:H3'	1:CA:197:A:OP2	1.93	0.69
9:CL:85:LEU:HD13	9:CL:92:TYR:HD2	1.57	0.69
1:CA:537:G:H5''	12:CO:113:ARG:HH12	1.55	0.69
25:DA:2849:U:O2'	25:DA:2866:U:O2	2.09	0.69
25:DA:273(D):C:H42	25:DA:363(B):G:H1	1.40	0.69
29:DF:82:ILE:O	29:DF:82:ILE:CD1	2.41	0.69
32:DK:78:THR:HB	32:DK:104:GLN:HE22	1.58	0.69
39:DR:56:GLY:O	39:DR:58:ASN:N	2.25	0.69
44:DU:81:LYS:HD3	44:DU:97:ARG:CZ	2.23	0.69
47:DZ:87:PRO:O	47:DZ:91:LYS:N	2.21	0.69
1:AA:1193:G:C2'	1:AA:1194:U:H5'	2.23	0.69
1:AA:1254:C:H41	10:AM:43:ARG:HH12	1.41	0.69
4:AG:201:GLN:HE21	4:AG:201:GLN:HA	1.57	0.69
25:BA:1014:U:H2'	25:BA:1015:G:H5''	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:159:GLU:CG	31:BH:170:ARG:HH11	2.03	0.69
31:BH:83:TYR:HB2	31:BH:134:SER:HA	1.73	0.69
45:BV:62:PRO:O	45:BV:63:ASP:HB3	1.90	0.69
48:BW:46:GLN:OE1	48:BW:46:GLN:HA	1.93	0.69
1:CA:994:A:C5	1:CA:1216:G:H4'	2.27	0.69
1:CA:1297:C:H1'	1:CA:1298:C:OP2	1.92	0.69
1:CA:1442:G:H2'	1:CA:1443:G:O5'	1.93	0.69
5:CH:51:VAL:HB	5:CH:52:PRO:HD3	1.74	0.69
10:CM:49:VAL:O	10:CM:60:ARG:HB2	1.93	0.69
25:DA:148:C:H5'	25:DA:148:C:H6	1.57	0.69
25:DA:2211:G:H3'	25:DA:2212:A:N3	2.07	0.69
25:DA:885:C:N3	25:DA:890:A:C6	2.60	0.69
27:DD:85:ASP:OD2	27:DD:88:ARG:HD2	1.91	0.69
29:DF:181:LEU:CD2	29:DF:186:ILE:HD11	2.22	0.69
31:DH:168:PRO:O	31:DH:169:VAL:HG12	1.92	0.69
43:DT:12:VAL:HG13	43:DT:27:THR:O	1.92	0.69
1:AA:1004:A:H2	1:AA:1024:G:C8	2.11	0.69
1:AA:1106:G:C4	1:AA:1107:C:C5	2.81	0.69
25:BA:1178:C:H4'	25:BA:1179:C:OP1	1.91	0.69
25:BA:2263:C:H5''	25:BA:2264:C:OP2	1.92	0.69
25:BA:2310:A:H2	30:BG:77:ILE:HG13	1.54	0.69
25:BA:881:G:H3'	25:BA:882:G:C4'	2.22	0.69
28:BE:19:ARG:HH12	34:BN:72:PRO:CG	2.06	0.69
29:BF:176:LEU:HD21	29:BF:180:GLY:O	1.93	0.69
33:BM:132:ALA:HB1	33:BM:133:GLN:NE2	2.06	0.69
42:BS:79:GLY:CA	42:BS:100:THR:HG22	2.22	0.69
5:CH:51:VAL:O	5:CH:55:VAL:HG23	1.93	0.69
25:DA:2872:G:C8	25:DA:2873:A:C2	2.80	0.69
27:DD:70:TRP:O	27:DD:73:VAL:HG23	1.92	0.69
3:AF:81:GLY:O	3:AF:85:ARG:HB2	1.92	0.69
3:AF:95:THR:HG22	3:AF:97:LYS:H	1.58	0.69
19:AV:36:ARG:NH1	19:AV:52:TYR:O	2.25	0.69
25:BA:270(F):U:H2'	25:BA:270(G):C:C6	2.27	0.69
25:BA:71:A:C2	43:BT:31:HIS:CE1	2.70	0.69
25:BA:1113:U:H5'	31:BH:2:SER:HB2	1.75	0.69
33:BM:40:PRO:HB3	40:B1:68:ALA:HB2	1.74	0.69
45:BV:61:LEU:O	45:BV:64:GLY:HA2	1.92	0.69
22:CB:18:G:O6	22:CB:71:U:O2	2.11	0.69
23:CC:28:U:O2	23:CC:45:A:C2	2.45	0.69
25:DA:2872:G:C4	25:DA:2873:A:C2	2.80	0.69
25:DA:1826:G:C4'	27:DD:242:ARG:HH21	2.03	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:48:GLN:HG2	28:DE:78:LEU:HB3	1.74	0.69
28:DE:82:ARG:HG3	28:DE:82:ARG:O	1.90	0.69
35:DO:36:LYS:CB	35:DO:36:LYS:HZ3	2.03	0.69
22:AB:37:G:N2	24:A1:19:U:O2	2.19	0.69
25:BA:2344:U:O2'	52:B6:37:ARG:HG2	1.92	0.69
25:BA:1084:A:N6	25:BA:1085:A:H62	1.90	0.69
25:BA:2688:U:H5	25:BA:2720:U:OP2	1.76	0.69
30:BG:135:LEU:HD23	30:BG:140:ILE:HD11	1.74	0.69
3:CF:35:GLU:HA	3:CF:38:ARG:HE	1.57	0.69
25:DA:125:G:H5''	53:D7:19:ARG:HD3	1.74	0.69
25:DA:2150:U:H2'	25:DA:2151:G:H8	1.56	0.69
28:DE:39:PRO:HD3	28:DE:45:THR:OG1	1.91	0.69
1:AA:524:G:H2'	1:AA:525:C:C6	2.27	0.69
1:AA:1346:A:H5''	9:AL:120:ARG:HH12	1.58	0.69
40:B1:110:VAL:O	40:B1:113:ALA:HB3	1.93	0.69
51:B5:3:LYS:HA	51:B5:3:LYS:HE3	1.75	0.69
25:BA:1899:G:N2	25:BA:1902:C:H5	1.90	0.69
25:BA:2115:G:H2'	25:BA:2116:G:H8	1.56	0.69
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.27	0.69
25:BA:2261:C:H2'	25:BA:2262:U:H5'	1.75	0.69
25:BA:2799:A:H5''	25:BA:2801:A:OP2	1.92	0.69
27:BD:166:GLN:CA	27:BD:166:GLN:HE21	2.05	0.69
28:BE:53:PRO:HA	28:BE:74:PRO:HA	1.75	0.69
30:BG:107:LEU:HD21	30:BG:178:PHE:CD1	2.27	0.69
1:CA:554:C:H2'	1:CA:555:C:H6	1.57	0.69
7:CJ:115:ARG:HB2	7:CJ:118:VAL:HG12	1.75	0.69
9:CL:24:GLY:HA2	9:CL:59:PHE:O	1.93	0.69
1:CA:976:G:OP1	14:CQ:32:SER:N	2.24	0.69
40:D1:92:ARG:HG3	40:D1:94:ASN:H	1.56	0.69
25:DA:2378:A:O5'	25:DA:2378:A:H8	1.75	0.69
25:DA:753:C:H2'	25:DA:754:C:H6	1.58	0.69
36:DP:137:TYR:CE1	45:DV:83:PRO:HG3	2.27	0.69
44:DU:13:VAL:CG2	44:DU:72:VAL:HB	2.22	0.69
1:AA:1003:G:C2'	1:AA:1004:A:H5'	2.22	0.69
1:AA:1170:A:H2'	1:AA:1171:G:O4'	1.93	0.69
1:AA:1159:U:C2	1:AA:1182:G:C2	2.81	0.69
6:AI:44:GLY:HA2	6:AI:59:TYR:CZ	2.28	0.69
15:AR:17:ARG:HG3	15:AR:17:ARG:HH11	1.57	0.69
19:AV:10:PHE:N	19:AV:10:PHE:CD1	2.60	0.69
50:B4:10:VAL:HG22	50:B4:11:PRO:HD2	1.75	0.69
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1869:G:H5'	25:BA:1869:G:H8	1.55	0.69
25:BA:1899:G:H22	25:BA:1902:C:H41	0.73	0.69
25:BA:747:U:O2	25:BA:2014:A:H1'	1.92	0.69
25:BA:2162:G:H2'	25:BA:2163:C:H6	1.57	0.69
25:BA:2310:A:C2'	25:BA:2311:A:C5'	2.70	0.69
28:BE:59:VAL:O	28:BE:60:ASN:CG	2.30	0.69
25:BA:2315:G:OP1	30:BG:36:LYS:NZ	2.26	0.69
2:CE:12:GLU:HB2	2:CE:16:HIS:CE1	2.28	0.69
5:CH:57:LYS:HG2	5:CH:61:TYR:HE2	1.57	0.69
19:CV:18:LYS:O	19:CV:22:LEU:HB2	1.93	0.69
52:D6:15:GLU:HG3	52:D6:47:THR:HG21	1.75	0.69
26:DB:50:G:OP1	38:DQ:63:THR:HG23	1.93	0.69
34:DN:4:PRO:O	34:DN:5:GLN:HB2	1.93	0.69
25:DA:943:U:OP2	35:DO:36:LYS:HG3	1.92	0.69
1:AA:1211:U:H5'	1:AA:1212:U:OP1	1.93	0.69
1:AA:310:G:P	16:AS:27:LYS:HZ1	2.16	0.69
7:AJ:22:LEU:HD23	7:AJ:62:PHE:HE2	1.58	0.69
10:AM:49:VAL:HG22	14:AQ:41:ARG:HB2	1.74	0.69
25:BA:2577:A:H5''	25:BA:2578:G:C5'	2.22	0.69
25:BA:2680:C:O2'	25:BA:2681:C:H5'	1.93	0.69
25:BA:479:A:C2	25:BA:481:G:H5'	2.28	0.69
25:BA:61:G:H5'	48:BW:50:ILE:HG12	1.74	0.69
25:BA:259:G:H21	25:BA:621:A:H8	1.37	0.69
26:BB:13:A:N1	26:BB:69:G:O2'	2.19	0.69
31:BH:4:ILE:HD11	31:BH:7:LEU:HD11	1.75	0.69
1:CA:243:A:H4'	1:CA:244:U:O5'	1.93	0.69
1:CA:279:A:H4'	1:CA:280:C:O5'	1.92	0.69
4:CG:108:LEU:CD2	4:CG:183:GLY:HA3	2.21	0.69
1:CA:1226:C:C4	13:CP:104:ARG:HB2	2.28	0.69
3:CF:18:TRP:CD1	14:CQ:54:PRO:HA	2.28	0.69
25:DA:1310:G:OP2	53:D7:9:ARG:NH1	2.26	0.69
27:DD:64:ILE:O	27:DD:64:ILE:CG1	2.41	0.69
30:DG:15:VAL:HG13	30:DG:175:LEU:HB2	1.73	0.69
31:DH:20:ALA:HB3	31:DH:23:ARG:HB2	1.74	0.69
45:DV:93:ASP:HA	45:DV:130:PRO:HG2	1.74	0.69
5:AH:98:THR:HG22	5:AH:99:GLY:N	2.06	0.68
6:AI:69:GLU:O	6:AI:72:VAL:HG12	1.93	0.68
50:B4:42:PHE:CD1	50:B4:42:PHE:O	2.46	0.68
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.28	0.68
29:BF:28:ILE:HG22	29:BF:112:MET:HB3	1.74	0.68
32:BK:114:LEU:O	32:BK:115:ALA:HB3	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:70:TYR:H	42:BS:70:TYR:HD2	1.40	0.68
1:CA:426:G:P	4:CG:36:ARG:HH21	2.16	0.68
13:CP:15:VAL:HG12	13:CP:45:VAL:HG22	1.75	0.68
1:CA:1286:A:H5'	21:CX:25:LYS:HD2	1.75	0.68
41:D2:2:PHE:H	41:D2:42:GLY:HA3	1.58	0.68
50:D4:16:CYS:HA	50:D4:33:VAL:HG23	1.75	0.68
25:DA:1606:G:H5''	25:DA:1607:C:OP1	1.93	0.68
27:DD:186:HIS:CD2	27:DD:188:GLU:H	2.10	0.68
28:DE:11:MET:HA	28:DE:24:THR:HA	1.75	0.68
39:DR:22:PHE:CE1	39:DR:52:ILE:HD11	2.29	0.68
1:AA:883:C:C2'	1:AA:884:U:H5'	2.22	0.68
2:AE:29:ALA:O	2:AE:32:ILE:HG22	1.93	0.68
40:B1:108:GLU:OE1	40:B1:112:ARG:NH1	2.27	0.68
25:BA:2336:A:H61	46:B3:43:THR:HG22	1.58	0.68
25:BA:588:U:H2'	25:BA:589:C:C6	2.29	0.68
25:BA:85:G:OP2	44:BU:9:LYS:HB2	1.93	0.68
31:BH:153:LYS:HB3	31:BH:154:PRO:CD	2.23	0.68
34:BN:104:ARG:HH22	39:BR:43:GLN:HE22	1.40	0.68
17:CT:59:ILE:HG22	17:CT:71:PHE:CD1	2.27	0.68
20:CW:89:ARG:NH1	20:CW:105:SER:OG	2.27	0.68
25:DA:1187:G:H4'	41:D2:76:LYS:HZ2	1.58	0.68
50:D4:20:ASN:CG	50:D4:21:VAL:N	2.47	0.68
25:DA:1332:G:H21	25:DA:1610:A:H8	1.41	0.68
25:DA:204:A:O2'	25:DA:205:G:OP2	2.09	0.68
26:DB:44:G:H1'	26:DB:47:C:H42	1.57	0.68
28:DE:151:TYR:HD2	28:DE:154:LYS:HZ2	1.40	0.68
45:DV:118:GLN:HB2	45:DV:173:ALA:O	1.93	0.68
1:AA:1336:C:H4'	1:AA:1336:C:OP1	1.93	0.68
46:B3:70:GLN:OE1	46:B3:72:ARG:HD3	1.93	0.68
25:BA:1077:A:H3'	25:BA:1078:U:H5'	1.76	0.68
25:BA:1053:C:N4	25:BA:1106:G:H1	1.90	0.68
25:BA:1729:A:H2'	25:BA:1731:G:N7	2.09	0.68
28:BE:80:GLU:O	28:BE:82:ARG:N	2.26	0.68
28:BE:82:ARG:O	28:BE:84:PHE:N	2.26	0.68
45:BV:27:VAL:HG12	45:BV:87:ASP:HB3	1.73	0.68
1:CA:413:G:O2'	1:CA:414:A:OP2	2.08	0.68
1:CA:685:G:H5''	1:CA:686:U:OP2	1.92	0.68
41:D2:71:LEU:HA	41:D2:86:GLY:HA2	1.74	0.68
25:DA:2148:G:H2'	25:DA:2149:G:H8	1.58	0.68
25:DA:259:G:N2	25:DA:621:A:H8	1.90	0.68
36:DP:98:LYS:HB3	36:DP:99:PRO:HD2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:96:ILE:HD12	44:DU:98:VAL:HG12	1.75	0.68
45:DV:15:PRO:HB2	45:DV:19:ARG:NH2	2.08	0.68
47:DZ:65:SER:OG	47:DZ:66:HIS:HD2	1.77	0.68
1:AA:186(E):C:N4	1:AA:191(B):G:H1	1.92	0.68
22:AB:52:U:H2'	22:AB:53:A:H5'	1.74	0.68
4:AG:79:PHE:HE1	4:AG:204:ILE:HG12	1.58	0.68
25:BA:1056:G:H21	25:BA:1103:A:N6	1.76	0.68
25:BA:405:U:H2'	25:BA:405:U:O2	1.92	0.68
25:BA:1130:U:O2	28:BE:149:ARG:NH2	2.26	0.68
43:BT:15:GLU:CD	43:BT:15:GLU:H	1.96	0.68
45:BV:7:ALA:HB3	45:BV:61:LEU:CB	2.24	0.68
1:CA:1004:A:C1'	1:CA:1036:G:N1	2.49	0.68
1:CA:1285:A:H1'	1:CA:1286:A:OP2	1.93	0.68
1:CA:273:A:H2'	1:CA:274:A:H5'	1.76	0.68
22:CB:41:G:H2'	22:CB:42:U:C6	2.28	0.68
3:CF:94:LEU:HD12	3:CF:95:THR:H	1.56	0.68
4:CG:8:VAL:HG12	4:CG:21:LEU:HD22	1.73	0.68
4:CG:62:GLN:NE2	4:CG:65:ARG:HE	1.91	0.68
5:CH:9:LYS:HB2	5:CH:112:LEU:HD11	1.74	0.68
7:CJ:76:ARG:HG2	7:CJ:76:ARG:HH11	1.57	0.68
13:CP:57:ARG:NH2	50:D4:34:GLU:HB2	2.07	0.68
1:AA:412:A:H1'	1:AA:413:G:OP2	1.93	0.68
1:AA:498:A:H4'	1:AA:500:G:OP1	1.93	0.68
25:BA:1085:A:C2	25:BA:1086:A:N7	2.61	0.68
25:BA:1533:C:H2'	25:BA:1534:G:H8	1.55	0.68
25:BA:2563:U:H1'	25:BA:2566:A:N6	2.09	0.68
25:BA:2864:G:O2'	25:BA:2865:U:H5'	1.94	0.68
28:BE:35:GLN:CB	28:BE:48:GLN:CG	2.61	0.68
38:BQ:106:ARG:CA	38:BQ:110:LEU:HD21	2.24	0.68
44:BU:76:CYS:HB3	44:BU:96:ILE:HD13	1.75	0.68
1:CA:1127:G:H2'	1:CA:1128:C:C6	2.29	0.68
1:CA:942:G:H21	9:CL:124:GLN:NE2	1.91	0.68
2:CE:95:GLN:HB3	2:CE:148:TYR:HD1	1.59	0.68
3:CF:63:ASN:O	3:CF:64:VAL:HB	1.94	0.68
25:DA:1651:G:OP1	37:D0:37:THR:HG21	1.94	0.68
40:D1:59:ARG:O	40:D1:63:VAL:HG23	1.93	0.68
41:D2:99:ILE:HG22	41:D2:99:ILE:O	1.93	0.68
54:D8:52:LYS:CB	54:D8:53:PRO:HD3	2.23	0.68
25:DA:1728:G:N1	25:DA:1730:U:OP2	2.26	0.68
25:DA:776:G:H4'	25:DA:777:A:O5'	1.92	0.68
36:DP:79:LEU:HD13	36:DP:80:GLU:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:64:ARG:HB2	39:DR:73:GLU:HG3	1.76	0.68
1:AA:872:A:C4	1:AA:874:G:N7	2.61	0.68
22:AB:52:U:C5	22:AB:53:A:C8	2.82	0.68
2:AE:187:LEU:HD23	2:AE:201:ILE:O	1.94	0.68
2:AE:22:LYS:HZ3	2:AE:22:LYS:HA	1.58	0.68
5:AH:76:ILE:HB	5:AH:77:PRO:HD2	1.76	0.68
13:AP:3:ARG:HD3	13:AP:7:VAL:HG13	1.73	0.68
52:B6:28:ARG:HB3	52:B6:28:ARG:HH11	1.58	0.68
25:BA:1519:G:C2'	25:BA:1520:U:H5'	2.23	0.68
10:CM:33:GLN:HB2	10:CM:75:ILE:HG12	1.74	0.68
14:CQ:26:ARG:NH1	14:CQ:47:LEU:HD21	2.09	0.68
25:DA:2162:G:H2'	25:DA:2163:C:H6	1.57	0.68
28:DE:64:LYS:HB3	28:DE:66:HIS:CD2	2.28	0.68
38:DQ:15:ARG:HD2	38:DQ:88:ASP:OD1	1.93	0.68
1:AA:1025:U:O2'	1:AA:1026:G:C5'	2.42	0.68
1:AA:1124:G:H3'	1:AA:1145:C:N4	2.05	0.68
1:AA:1399:C:C2	1:AA:1502:A:N6	2.61	0.68
5:AH:82:VAL:HB	5:AH:138:ALA:HB2	1.76	0.68
28:BE:41:LYS:NZ	28:BE:41:LYS:HB3	2.04	0.68
28:BE:81:ILE:CG2	28:BE:84:PHE:CD1	2.70	0.68
38:BQ:83:LYS:O	38:BQ:109:GLY:HA3	1.91	0.68
45:BV:7:ALA:HB3	45:BV:61:LEU:HB3	1.75	0.68
1:CA:164:U:H2'	1:CA:165:C:C6	2.27	0.68
22:CB:87:A:C8	25:DA:2583:G:N2	2.52	0.68
4:CG:149:ALA:O	4:CG:153:ARG:HG2	1.93	0.68
12:CO:32:PHE:HB3	12:CO:84:LEU:HD21	1.76	0.68
25:DA:1011:G:H2'	25:DA:1013:C:O4'	1.92	0.68
25:DA:1678:G:H22	25:DA:1989:G:N2	1.92	0.68
25:DA:2500:U:H5''	25:DA:2501:C:OP2	1.94	0.68
25:DA:607:U:H3	25:DA:621:A:H2	1.41	0.68
27:DD:35:LYS:HE3	27:DD:65:ILE:CA	2.23	0.68
28:DE:82:ARG:O	28:DE:83:ASP:CB	2.42	0.68
29:DF:24:LEU:CD1	29:DF:25:PRO:HD3	2.20	0.68
39:DR:8:LYS:NZ	39:DR:8:LYS:CB	2.57	0.68
36:DP:134:ARG:HH22	45:DV:122:ARG:HD2	1.58	0.68
1:AA:129(A):G:C2	1:AA:188:U:O2'	2.47	0.68
1:AA:464:G:O6	1:AA:466:C:H5'	1.94	0.68
23:AC:18:C:O2'	23:AC:18:C:O2	2.09	0.68
23:AC:18:C:O2'	23:AC:19:G:OP1	2.11	0.68
2:AE:97:TRP:HH2	2:AE:176:GLU:HG3	1.58	0.68
11:AN:66:LEU:HD21	11:AN:97:ALA:HB1	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:21:VAL:HG23	28:BE:21:VAL:O	1.93	0.68
28:BE:79:ARG:HH22	28:BE:164:ARG:NH1	1.91	0.68
45:BV:164:ALA:O	45:BV:165:VAL:HG13	1.94	0.68
45:BV:29:TYR:CE2	45:BV:87:ASP:HB2	2.26	0.68
48:BW:47:ASN:O	48:BW:50:ILE:HG13	1.94	0.68
1:CA:1162:C:H42	1:CA:1174:G:H1	1.42	0.68
1:CA:1255:G:OP1	10:CM:45:ARG:NH1	2.20	0.68
1:CA:266:G:H5''	1:CA:268:C:H41	1.59	0.68
1:CA:534:U:H5'	1:CA:535:A:OP2	1.94	0.68
25:DA:1022:G:H22	25:DA:1142(A):A:H2	1.40	0.68
27:DD:35:LYS:HD3	27:DD:64:ILE:N	2.08	0.68
28:DE:46:ALA:HB2	28:DE:82:ARG:HB2	1.75	0.68
29:DF:110:LEU:HD22	29:DF:202:PHE:HE1	1.58	0.68
39:DR:91:ARG:HD2	39:DR:124:ASP:OD1	1.93	0.68
44:DU:17:SER:HB2	44:DU:71:LYS:CD	2.23	0.68
1:AA:1367:C:O2'	10:AM:48:THR:HG21	1.94	0.68
7:AJ:74:GLU:HG2	7:AJ:91:VAL:HG22	1.75	0.68
10:AM:40:LEU:HB2	10:AM:69:ASN:CB	2.24	0.68
25:BA:2470:G:O6	25:BA:2476:A:H1'	1.93	0.68
26:BB:50:G:OP1	38:BQ:63:THR:HG23	1.92	0.68
27:BD:235:GLY:O	27:BD:237:GLU:OE1	2.12	0.68
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.74	0.68
33:BM:13:TRP:O	33:BM:135:PRO:HD2	1.93	0.68
38:BQ:35:ILE:C	38:BQ:36:TYR:HD1	1.97	0.68
25:BA:297:C:H5''	44:BU:85:VAL:CG2	2.24	0.68
1:CA:1004:A:C1'	1:CA:1036:G:H1	2.05	0.68
1:CA:179:A:H2'	1:CA:180:U:C6	2.29	0.68
1:CA:991:U:O2	1:CA:993:G:H8	1.77	0.68
4:CG:30:LYS:O	4:CG:30:LYS:HG2	1.93	0.68
50:D4:1:MET:C	50:D4:2:LYS:HD3	2.14	0.68
28:DE:80:GLU:O	28:DE:81:ILE:HB	1.94	0.68
35:DO:58:THR:O	35:DO:58:THR:HG22	1.92	0.68
38:DQ:86:ALA:O	38:DQ:87:PHE:HB3	1.94	0.68
1:AA:1004:A:C5'	1:AA:1025:U:H3	2.07	0.68
1:AA:1374:A:H2'	1:AA:1375:A:H5'	1.74	0.68
6:AI:78:GLU:O	6:AI:81:ILE:HG13	1.93	0.68
16:AS:14:ASN:O	16:AS:14:ASN:CG	2.32	0.68
25:BA:1379:A:C1'	25:BA:1380:G:OP1	2.39	0.68
25:BA:2443:C:O2'	25:BA:2444:G:H5'	1.94	0.68
25:BA:2785:C:H2'	25:BA:2786:U:O4'	1.94	0.68
28:BE:79:ARG:HH22	28:BE:164:ARG:HH11	1.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1072:G:C5	1:CA:1073:U:C4	2.82	0.68
1:CA:1298:C:H4'	1:CA:1299:A:C8	2.28	0.68
3:CF:84:ILE:HD11	3:CF:88:ARG:NH2	2.08	0.68
52:D6:44:ARG:HG3	52:D6:44:ARG:NH1	1.99	0.68
25:DA:1060:U:H5''	25:DA:1061:U:C5	2.29	0.68
25:DA:602:G:HO2'	25:DA:604:G:HO2'	1.40	0.68
2:AE:185:ILE:HB	2:AE:199:TYR:HB2	1.76	0.67
20:AW:71:THR:HG22	20:AW:72:LEU:N	2.07	0.67
25:BA:1983:C:C2'	25:BA:1984:G:H5'	2.24	0.67
25:BA:2376:A:N1	38:BQ:87:PHE:CD2	2.61	0.67
49:BX:19:GLN:HE22	49:BX:52:HIS:HE1	1.42	0.67
1:CA:182:U:H5	1:CA:183:G:C4	2.11	0.67
15:CR:21:ASP:OD1	15:CR:24:SER:HB2	1.93	0.67
50:D4:61:ARG:HG3	50:D4:62:ARG:HH21	1.60	0.67
51:D5:40:LYS:HE3	51:D5:46:CYS:HB2	1.75	0.67
54:D8:49:VAL:CA	54:D8:50:LEU:HD12	2.23	0.67
26:DB:55:U:O2'	26:DB:56:G:H5'	1.94	0.67
30:DG:111:LEU:HB3	30:DG:117:PHE:CE2	2.29	0.67
32:DK:4:ILE:HG12	32:DK:18:VAL:HG22	1.76	0.67
35:DO:11:GLY:C	35:DO:13:ASN:H	1.97	0.67
45:DV:128:VAL:HG23	45:DV:160:GLY:HA3	1.76	0.67
2:AE:7:VAL:HB	2:AE:217:ARG:NH2	2.10	0.67
7:AJ:62:PHE:CD1	7:AJ:124:LEU:HD21	2.26	0.67
40:B1:92:ARG:HD2	40:B1:95:LEU:HD12	1.77	0.67
25:BA:1294:U:O2'	37:B0:23:ASN:ND2	2.27	0.67
25:BA:1827:C:C2'	25:BA:1828:G:H5'	2.25	0.67
27:BD:270:ILE:HG22	27:BD:271:ILE:N	2.09	0.67
38:BQ:85:VAL:CG2	38:BQ:112:PHE:CE1	2.77	0.67
1:CA:1023:G:H3'	1:CA:1024:G:H5''	1.76	0.67
2:CE:77:ALA:HB2	2:CE:211:ILE:HD13	1.75	0.67
2:CE:84:GLU:O	2:CE:219:VAL:HG21	1.94	0.67
3:CF:58:GLU:O	3:CF:59:ARG:HG3	1.95	0.67
1:CA:8:A:N6	4:CG:209:ARG:HB2	2.09	0.67
25:DA:1287:A:N7	37:D0:107:ASP:HB3	2.10	0.67
54:D8:50:LEU:N	54:D8:50:LEU:HD12	2.08	0.67
25:DA:1266:G:O5'	42:DS:15:ARG:NH2	2.27	0.67
25:DA:2776:A:H3'	25:DA:2776:A:OP1	1.94	0.67
32:DK:82:ARG:HH11	32:DK:146:ALA:HA	1.59	0.67
39:DR:88:ILE:HG13	39:DR:88:ILE:O	1.94	0.67
22:AB:56:G:H2'	22:AB:57:C:C6	2.28	0.67
4:AG:119:GLN:HE21	4:AG:123:HIS:CD2	2.11	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1266:G:O4'	42:BS:15:ARG:NH2	2.28	0.67
25:BA:2035:G:H4'	25:BA:2036:C:OP2	1.94	0.67
27:BD:35:LYS:CG	27:BD:64:ILE:N	2.53	0.67
31:BH:131:VAL:HG12	31:BH:132:ARG:N	2.10	0.67
1:CA:1443:G:O2'	39:DR:122:ASP:OD2	2.12	0.67
25:DA:1056:G:H5''	25:DA:1057:A:H5'	1.76	0.67
39:DR:22:PHE:CE2	39:DR:86:ILE:HD11	2.29	0.67
43:DT:53:LYS:HB3	43:DT:82:GLN:HB3	1.74	0.67
1:AA:1004:A:C1'	1:AA:1036:G:O6	2.43	0.67
1:AA:618:C:H5''	1:AA:619:U:H5''	1.77	0.67
12:AO:24:VAL:HG13	12:AO:98:TYR:CE2	2.30	0.67
1:AA:1221:G:O3'	19:AV:77:THR:HG21	1.94	0.67
20:AW:75:ASN:N	20:AW:75:ASN:OD1	2.27	0.67
25:BA:1056:G:O6	25:BA:1104:C:N4	2.28	0.67
30:BG:40:ASN:HD22	30:BG:91:ARG:HB2	1.59	0.67
10:CM:48:THR:HA	10:CM:62:HIS:HB3	1.77	0.67
40:D1:91:ASP:C	40:D1:93:LYS:H	1.98	0.67
25:DA:1204:A:O2'	25:DA:1205:U:OP2	2.10	0.67
25:DA:1332:G:N2	25:DA:1609:A:HO2'	1.91	0.67
25:DA:1991:U:H2'	25:DA:1992:G:H5''	1.75	0.67
25:DA:2286:A:H4'	25:DA:2287:A:O4'	1.95	0.67
28:DE:37:ARG:HA	28:DE:42:ASP:OD2	1.94	0.67
35:DO:57:THR:C	35:DO:59:LEU:H	1.97	0.67
45:DV:69:THR:HG22	45:DV:90:VAL:HA	1.76	0.67
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.40	0.67
11:AN:79:SER:HB2	11:AN:106:LYS:HD2	1.75	0.67
20:AW:73:HIS:HB3	20:AW:74:LYS:HG2	1.77	0.67
40:B1:69:CYS:SG	40:B1:79:PHE:HD1	2.17	0.67
46:B3:27:GLU:HG3	46:B3:68:GLU:HA	1.75	0.67
25:BA:1178:C:H2'	25:BA:1179:C:C6	2.30	0.67
25:BA:860:U:H5	25:BA:917:A:N1	1.91	0.67
32:BK:8:PRO:O	32:BK:9:LEU:HD13	1.95	0.67
47:BZ:85:LEU:O	47:BZ:87:PRO:HD2	1.92	0.67
1:CA:1378:C:H5	1:CA:1379:G:N9	1.92	0.67
23:CD:59:A:O2'	23:CD:60:A:C8	2.47	0.67
2:CE:132:LYS:HA	2:CE:135:GLN:HE21	1.59	0.67
13:CP:3:ARG:HG3	13:CP:9:ILE:CG1	2.24	0.67
37:D0:38:VAL:HB	37:D0:39:PRO:HD3	1.74	0.67
36:DP:34:LEU:HB2	36:DP:118:LEU:HD22	1.77	0.67
38:DQ:24:LEU:CD2	38:DQ:24:LEU:H	2.07	0.67
12:AO:18:VAL:HG23	12:AO:19:ARG:N	2.07	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B7:8:ASN:O	53:B7:8:ASN:ND2	2.22	0.67
29:BF:46:ARG:HH11	29:BF:46:ARG:CG	2.03	0.67
44:BU:47:LYS:HG3	44:BU:60:PHE:CE1	2.29	0.67
1:CA:1004:A:H5''	1:CA:1025:U:C4	2.29	0.67
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.29	0.67
1:CA:1129:C:N4	1:CA:1141:C:H41	1.93	0.67
25:DA:1298:C:H5''	25:DA:1299:G:OP2	1.95	0.67
25:DA:974:G:O2'	25:DA:975:G:N7	2.27	0.67
36:DP:78:PRO:O	36:DP:79:LEU:CD1	2.43	0.67
1:AA:1266:G:N2	1:AA:1270:C:C2	2.63	0.67
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.30	0.67
4:AG:29:PRO:C	4:AG:30:LYS:HD3	2.14	0.67
6:AI:24:GLU:HG2	6:AI:28:ARG:NH2	2.09	0.67
8:AK:39:LEU:HB3	8:AK:45:ILE:HG12	1.75	0.67
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.78	0.67
25:BA:1568:G:H5'	27:BD:60:ARG:HA	1.75	0.67
35:BO:11:GLY:C	35:BO:13:ASN:H	1.94	0.67
1:CA:1321:C:H41	1:CA:1322:C:N4	1.90	0.67
9:CL:95:LYS:HD3	9:CL:96:LEU:H	1.58	0.67
15:CR:17:ARG:NH1	15:CR:17:ARG:HG3	1.97	0.67
15:CR:87:ILE:HG22	15:CR:88:ARG:H	1.60	0.67
25:DA:2748:A:N6	25:DA:2754:U:H3	1.92	0.67
25:DA:2531:A:C5'	31:DH:157:TYR:HE2	2.08	0.67
31:DH:10:PRO:O	31:DH:49:VAL:HG12	1.95	0.67
23:AC:21:U:O2'	23:AC:22:A:H5'	1.95	0.67
16:AS:22:THR:CG2	16:AS:23:ASP:N	2.57	0.67
41:B2:44:LYS:C	41:B2:46:VAL:H	1.98	0.67
27:BD:181:GLU:HA	27:BD:272:ALA:HB2	1.70	0.67
28:BE:14:ILE:CG2	28:BE:15:PHE:N	2.30	0.67
32:BK:29:TYR:O	32:BK:32:PRO:HD2	1.94	0.67
33:BM:21:LYS:HE2	33:BM:138:LEU:HD12	1.76	0.67
35:BO:57:THR:C	35:BO:59:LEU:H	1.97	0.67
1:CA:254:G:OP1	17:CT:67:LYS:O	2.11	0.67
54:D8:34:TRP:O	54:D8:35:GLN:C	2.33	0.67
31:DH:118:PRO:HD2	31:DH:121:ILE:HG13	1.75	0.67
39:DR:3:ARG:HG2	39:DR:6:LEU:H	1.60	0.67
45:DV:164:ALA:O	45:DV:165:VAL:HG13	1.95	0.67
1:AA:250:A:H4'	1:AA:251:G:H5''	1.77	0.67
2:AE:233:SER:HB2	2:AE:234:PRO:HD2	1.76	0.67
25:BA:1899:G:H21	25:BA:1902:C:H5	1.43	0.67
25:BA:1932:A:H2'	25:BA:1933:G:O4'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2308:G:H4'	25:BA:2309:A:OP2	1.94	0.67
25:BA:2466:C:O2'	25:BA:2467:C:H5'	1.95	0.67
30:BG:166:ASP:HA	30:BG:169:ALA:HB3	1.76	0.67
1:CA:1126:U:O4	1:CA:1281:U:C6	2.47	0.67
1:CA:345:C:HO2'	1:CA:346:G:P	2.17	0.67
2:CE:185:ILE:CG2	2:CE:199:TYR:HB2	2.24	0.67
41:D2:49:THR:O	41:D2:51:VAL:N	2.28	0.67
41:D2:71:LEU:H	41:D2:86:GLY:CA	2.08	0.67
52:D6:26:ASN:O	52:D6:28:ARG:HG2	1.95	0.67
25:DA:195:A:OP1	35:DO:46:LYS:HE2	1.95	0.67
25:DA:2854:G:C2	25:DA:2864:G:C2	2.83	0.67
2:AE:32:ILE:HD11	2:AE:40:HIS:CB	2.21	0.67
1:AA:502:G:OP1	12:AO:118:SER:HB3	1.95	0.67
25:BA:242:G:H5'	54:B8:62:LEU:HD22	1.77	0.67
25:BA:1348:G:H2'	25:BA:1349:A:H5''	1.77	0.67
25:BA:2125:G:N1	25:BA:2172:U:OP1	2.28	0.67
25:BA:2335:A:N7	25:BA:2337:G:C5	2.63	0.67
25:BA:234:C:H2'	25:BA:235:U:H6	1.60	0.67
25:BA:792:G:H5''	25:BA:793:A:H5'	1.76	0.67
28:BE:48:GLN:HE22	28:BE:77:ILE:HD12	1.60	0.67
28:BE:78:LEU:HD12	28:BE:79:ARG:HG2	1.75	0.67
35:BO:126:VAL:HG12	35:BO:147:LEU:HD22	1.76	0.67
1:CA:946:A:H2'	1:CA:947:G:C8	2.30	0.67
3:CF:14:ILE:HG12	3:CF:15:THR:N	2.10	0.67
12:CO:82:VAL:HG23	12:CO:106:ASP:OD1	1.95	0.67
25:DA:1021:A:H61	25:DA:1142(A):A:H61	1.41	0.67
25:DA:1283:G:H22	25:DA:1286:A:H5'	1.60	0.67
25:DA:796:C:H2'	25:DA:797:C:C6	2.30	0.67
26:DB:42:C:H4'	30:DG:67:LYS:HD3	1.76	0.67
35:DO:128:HIS:HA	35:DO:147:LEU:HA	1.76	0.67
36:DP:29:PHE:CB	36:DP:65:PHE:CE1	2.78	0.67
24:A1:14:U:OP1	24:A1:14:U:H4'	1.93	0.66
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.30	0.66
1:AA:1277:C:O2'	1:AA:1279:A:C8	2.47	0.66
1:AA:112:G:OP1	16:AS:27:LYS:HD2	1.94	0.66
25:BA:1537:C:H2'	25:BA:1538:G:C8	2.30	0.66
25:BA:2154:G:H2'	25:BA:2155:G:H8	1.60	0.66
25:BA:32:C:O2'	25:BA:33:U:H5'	1.95	0.66
28:BE:13:ARG:HG3	39:BR:58:ASN:OD1	1.95	0.66
45:BV:76:LEU:CD2	45:BV:76:LEU:H	2.08	0.66
22:CB:55:G:H2'	22:CB:56:G:C8	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CD:18:C:O2	23:CD:18:C:H2'	1.93	0.66
41:D2:49:THR:O	41:D2:50:PRO:C	2.34	0.66
25:DA:2275:C:H5'	25:DA:2275:C:H6	1.59	0.66
25:DA:2393:A:OP1	54:D8:30:ARG:HB2	1.95	0.66
31:DH:102:ALA:O	31:DH:103:LEU:HB3	1.94	0.66
31:DH:68:THR:O	31:DH:72:ILE:HG13	1.96	0.66
43:DT:11:PRO:HD3	48:DW:37:PHE:CD2	2.30	0.66
48:DW:70:GLN:HG2	48:DW:71:ASN:N	2.10	0.66
1:AA:1181:G:C2	1:AA:1182:G:N2	2.63	0.66
1:AA:890:G:O2'	1:AA:906:G:O6	2.11	0.66
23:AD:19:G:H2'	23:AD:58:A:N6	2.10	0.66
6:AI:86:ARG:O	6:AI:87:ARG:HG2	1.94	0.66
10:AM:30:SER:OG	10:AM:84:GLN:NE2	2.25	0.66
11:AN:48:ILE:HG13	11:AN:63:LEU:HB3	1.75	0.66
40:B1:8:VAL:HG23	40:B1:11:ARG:HH21	1.60	0.66
25:BA:631:A:P	54:B8:46:ARG:NH2	2.68	0.66
25:BA:1568:G:H5''	27:BD:61:LEU:HD22	1.76	0.66
25:BA:1689:A:N6	25:BA:1698:A:C2	2.51	0.66
25:BA:885:C:H2'	25:BA:890:A:H61	1.59	0.66
39:BR:50:ILE:HD11	39:BR:102:ILE:HD11	1.75	0.66
45:BV:51:ALA:HB1	45:BV:57:ILE:HD11	1.77	0.66
1:CA:581:G:OP1	15:CR:61:GLY:HA3	1.95	0.66
23:CC:59:A:H4'	23:CC:60:A:OP1	1.93	0.66
4:CG:13:ARG:HD3	4:CG:13:ARG:H	1.60	0.66
7:CJ:16:LEU:CD1	9:CL:42:ARG:HA	2.24	0.66
52:D6:27:LYS:HB3	52:D6:27:LYS:HZ3	1.60	0.66
25:DA:1819:A:H4'	25:DA:1820:U:O5'	1.95	0.66
25:DA:2473:U:O2	25:DA:2473:U:H2'	1.95	0.66
25:DA:2523:G:H8	25:DA:2523:G:H5'	1.60	0.66
28:DE:119:ARG:HG2	28:DE:160:TYR:HB2	1.77	0.66
47:DZ:92:LYS:HE3	47:DZ:97:LEU:HG	1.77	0.66
6:AI:3:ARG:O	6:AI:93:SER:HB2	1.95	0.66
11:AN:40:ILE:CG2	11:AN:75:TYR:HD2	2.06	0.66
19:AV:9:VAL:O	19:AV:9:VAL:HG12	1.95	0.66
37:B0:117:VAL:HG22	37:B0:118:GLU:H	1.60	0.66
25:BA:1464:C:HO2'	25:BA:1528:A:H8	1.43	0.66
27:BD:65:ILE:HD11	27:BD:67:PHE:CE2	2.30	0.66
48:BW:65:ASN:HD22	48:BW:69:ARG:HE	1.40	0.66
1:CA:1202:G:N2	14:CQ:43:CYS:SG	2.68	0.66
23:CD:14:A:OP1	23:CD:14:A:C8	2.49	0.66
23:CD:8:U:H1'	23:CD:49:C:O4'	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D8:47:LYS:O	54:D8:48:PHE:HB3	1.96	0.66
25:DA:242:G:H5''	54:D8:62:LEU:HD13	1.76	0.66
2:AE:76:GLN:HB3	2:AE:211:ILE:CD1	2.25	0.66
14:AQ:46:GLU:O	14:AQ:50:LYS:HG3	1.96	0.66
40:B1:92:ARG:NH1	40:B1:94:ASN:HD22	1.94	0.66
46:B3:42:GLY:O	46:B3:57:PHE:HD1	1.79	0.66
52:B6:25:LYS:NZ	52:B6:27:LYS:HD3	2.11	0.66
25:BA:1065:U:C5	25:BA:1066:U:H6	2.12	0.66
25:BA:1359:A:H2'	25:BA:1360:A:H5'	1.77	0.66
25:BA:34:C:O2'	25:BA:35:G:P	2.53	0.66
31:BH:4:ILE:HB	31:BH:6:ARG:HG3	1.78	0.66
39:BR:112:ARG:HA	39:BR:115:ARG:HD2	1.77	0.66
45:BV:19:ARG:NH1	45:BV:84:GLU:HB2	2.10	0.66
23:CC:1:C:H2'	23:CC:2:G:OP2	1.95	0.66
8:CK:82:HIS:CD2	8:CK:82:HIS:C	2.68	0.66
40:D1:90:VAL:HG22	41:D2:39:LEU:CB	2.26	0.66
44:DU:97:ARG:NH2	44:DU:98:VAL:HB	2.08	0.66
44:DU:98:VAL:HG13	44:DU:99:CYS:H	1.59	0.66
45:DV:148:ASP:CG	45:DV:149:SER:N	2.48	0.66
1:AA:1027:C:C4'	1:AA:1028:C:OP1	2.43	0.66
3:AF:40:ARG:HG3	3:AF:40:ARG:HH11	1.59	0.66
4:AG:138:TYR:CD2	4:AG:139:ARG:N	2.64	0.66
13:AP:107:ALA:HB3	13:AP:111:LYS:HD2	1.77	0.66
17:AT:88:TYR:HD2	17:AT:89:LEU:HD23	1.61	0.66
25:BA:1652:A:OP1	37:B0:8:ARG:NH1	2.28	0.66
25:BA:2439:A:C5'	25:BA:2439:A:H8	2.09	0.66
25:BA:784:A:H5'	25:BA:785:G:OP1	1.95	0.66
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.30	0.66
27:DD:218:ARG:HB3	27:DD:219:PRO:HD2	1.78	0.66
27:DD:43:ARG:HB3	27:DD:54:ARG:HB2	1.78	0.66
28:DE:112:GLY:O	28:DE:159:HIS:HA	1.95	0.66
29:DF:124:LEU:O	29:DF:126:VAL:HG13	1.94	0.66
29:DF:82:ILE:HD12	29:DF:82:ILE:O	1.94	0.66
13:AP:49:THR:HG22	13:AP:51:ALA:H	1.61	0.66
50:B4:15:ILE:HD12	50:B4:32:TYR:HD1	1.60	0.66
25:BA:602:G:HO2'	25:BA:604:G:HO2'	1.42	0.66
31:BH:159:GLU:HG3	31:BH:170:ARG:HH11	1.58	0.66
45:BV:11:GLU:O	45:BV:36:LYS:NZ	2.22	0.66
1:CA:973:G:N3	10:CM:55:LYS:NZ	2.44	0.66
7:CJ:22:LEU:HD23	7:CJ:62:PHE:CE2	2.30	0.66
52:D6:45:LYS:HE3	52:D6:45:LYS:CA	2.23	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2:G:H1	25:DA:2901:C:H42	1.41	0.66
28:DE:11:MET:SD	28:DE:24:THR:HG22	2.34	0.66
42:DS:12:ILE:HD13	42:DS:17:VAL:HG13	1.78	0.66
6:AI:4:TYR:CD1	6:AI:92:LYS:HA	2.28	0.66
10:AM:57:LYS:HE3	10:AM:60:ARG:NH2	2.10	0.66
46:B3:60:PHE:N	46:B3:60:PHE:CD2	2.64	0.66
54:B8:8:LYS:O	54:B8:12:LYS:HG3	1.96	0.66
25:BA:1297:C:OP1	25:BA:2710:C:H4'	1.94	0.66
25:BA:1388:G:O2'	25:BA:1389:G:H5'	1.96	0.66
25:BA:2061:G:OP1	29:BF:68:LYS:NZ	2.29	0.66
25:BA:309:G:N3	25:BA:329:G:O2'	2.28	0.66
28:BE:53:PRO:HA	28:BE:74:PRO:HB3	1.77	0.66
32:BK:106:GLY:C	32:BK:107:VAL:CG2	2.63	0.66
36:BP:68:ILE:CD1	36:BP:103:MET:HG2	2.22	0.66
38:BQ:26:LEU:HD12	38:BQ:39:ILE:HD11	1.76	0.66
43:BT:60:ARG:HH22	53:B7:47:ARG:HH12	1.43	0.66
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.95	0.66
22:CB:47:C:N3	22:CB:56:G:N2	2.40	0.66
2:CE:42:ILE:HD11	2:CE:202:PRO:CB	2.26	0.66
5:CH:70:PRO:HB3	5:CH:144:THR:HG22	1.77	0.66
37:D0:100:LEU:HD21	37:D0:113:LEU:HD13	1.77	0.66
25:DA:2531:A:H5'	31:DH:157:TYR:CE2	2.31	0.66
36:DP:7:MET:HB3	36:DP:10:ARG:HH22	1.60	0.66
1:AA:1003:G:H2'	1:AA:1004:A:H5'	1.77	0.66
1:AA:1171:G:O2'	1:AA:1172:C:H5'	1.95	0.66
12:AO:91:LYS:HG3	12:AO:91:LYS:O	1.96	0.66
25:BA:1786:A:H2	25:BA:2606:C:H1'	1.60	0.66
25:BA:654(V):A:H2	25:BA:655:A:C2	2.14	0.66
47:BZ:49:VAL:HG11	47:BZ:70:VAL:HG11	1.75	0.66
2:CE:158:LEU:HD23	2:CE:182:ILE:HD11	1.78	0.66
1:CA:1226:C:N4	13:CP:104:ARG:HB2	2.11	0.66
14:CQ:22:THR:OG1	14:CQ:33:VAL:HG11	1.95	0.66
25:DA:1058:U:H3	25:DA:1080:A:H61	1.43	0.66
25:DA:1671:U:HO2'	25:DA:1673:U:H5	1.41	0.66
25:DA:528:A:C8	25:DA:528:A:H3'	2.31	0.66
29:DF:101:LEU:O	29:DF:106:ARG:NH1	2.29	0.66
36:DP:66:ILE:O	36:DP:67:ARG:HB2	1.95	0.66
1:AA:192:U:H4'	20:AW:102:GLY:O	1.96	0.66
1:AA:814:A:N7	1:AA:816:A:C4	2.64	0.66
23:AD:45:A:H5''	23:AD:46:G:OP2	1.96	0.66
9:AL:8:GLY:HA3	9:AL:79:LEU:HB3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AT:86:GLU:O	17:AT:90:ILE:HG13	1.96	0.66
28:BE:111:ARG:HG2	37:B0:1:MET:HE1	1.77	0.66
50:B4:12:ALA:CB	50:B4:29:PRO:HA	2.26	0.66
25:BA:1478:G:H2'	25:BA:1479:G:H8	1.60	0.66
25:BA:1929:G:H4'	25:BA:1930:G:OP1	1.95	0.66
25:BA:414:C:H2'	25:BA:415:A:C8	2.31	0.66
27:BD:270:ILE:C	27:BD:271:ILE:CG1	2.64	0.66
29:BF:177:ALA:HB1	29:BF:178:PRO:HD2	1.78	0.66
1:CA:973:G:N2	10:CM:55:LYS:HZ1	1.94	0.66
19:CV:42:PRO:HA	19:CV:45:VAL:HG13	1.77	0.66
50:D4:11:PRO:HA	50:D4:25:TYR:H	1.58	0.66
25:DA:289:A:H5'	25:DA:290:G:OP2	1.96	0.66
26:DB:39:A:H61	50:D4:1:MET:HB3	1.58	0.66
34:DN:35:VAL:HG21	34:DN:69:ILE:HD13	1.78	0.66
39:DR:92:GLY:HA2	39:DR:116:ALA:HA	1.78	0.66
1:AA:843:U:H5'	1:AA:848:C:C5	2.31	0.66
23:AD:20:G:C5'	23:AD:60:A:H61	2.09	0.66
5:AH:84:PHE:HB3	5:AH:134:ALA:HB2	1.78	0.66
13:AP:17:VAL:O	13:AP:20:THR:OG1	2.08	0.66
30:BG:67:LYS:CE	50:B4:6:HIS:CE1	2.74	0.66
53:B7:8:ASN:HD21	53:B7:11:LYS:N	1.81	0.66
25:BA:1931:U:H5	25:BA:1969:A:N7	1.94	0.66
25:BA:2756:U:H4'	25:BA:2757:A:OP1	1.96	0.66
25:BA:67:U:N3	25:BA:74:A:C2	2.54	0.66
29:BF:197:ASP:O	29:BF:198:ALA:HB3	1.96	0.66
30:BG:130:ASN:HB3	30:BG:160:VAL:HA	1.76	0.66
31:BH:94:TYR:CE1	31:BH:107:VAL:O	2.48	0.66
33:BM:96:GLU:O	33:BM:96:GLU:HG2	1.93	0.66
38:BQ:11:LYS:HD3	38:BQ:91:PRO:HD3	1.78	0.66
1:CA:1378:C:H5	1:CA:1379:G:C4	2.14	0.66
2:CE:96:ARG:O	2:CE:98:LEU:HD23	1.96	0.66
9:CL:28:VAL:CG2	9:CL:63:ILE:HB	2.25	0.66
41:D2:85:LYS:CG	41:D2:86:GLY:N	2.54	0.66
25:DA:1024:G:C3'	25:DA:1025:G:H5''	2.25	0.66
25:DA:147:U:H2'	25:DA:148:C:H5''	1.77	0.66
25:DA:1599:C:H5''	43:DT:35:THR:HG22	1.78	0.66
25:DA:287:C:H2'	25:DA:288:C:C6	2.31	0.66
25:DA:959:A:N6	25:DA:960:A:N1	2.44	0.66
35:DO:9:ASN:HB3	35:DO:10:PRO:CD	2.26	0.66
1:AA:188:U:H2'	1:AA:189:U:H5''	1.77	0.65
4:AG:19:LEU:H	4:AG:19:LEU:CD2	2.08	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AV:32:LYS:HD2	19:AV:57:HIS:CD2	2.31	0.65
25:BA:443:A:H1'	25:BA:1201:C:O4'	1.96	0.65
25:BA:654(M):C:C2'	25:BA:654(N):G:C8	2.79	0.65
27:BD:35:LYS:NZ	27:BD:65:ILE:HA	2.11	0.65
32:BK:130:TYR:C	32:BK:131:LYS:HD2	2.16	0.65
33:BM:58:ASP:H	33:BM:60:ILE:CD1	2.09	0.65
1:CA:1206:G:O2'	3:CF:193:TYR:HA	1.96	0.65
1:CA:1352:C:OP1	21:CX:3:LYS:NZ	2.27	0.65
1:CA:1347:G:O2'	1:CA:1373:G:O6	2.12	0.65
23:CD:13:C:O2'	23:CD:14:A:P	2.53	0.65
15:CR:87:ILE:CG2	15:CR:88:ARG:N	2.57	0.65
40:D1:91:ASP:O	40:D1:93:LYS:N	2.28	0.65
25:DA:2129:C:H2'	25:DA:2130:U:H5'	1.78	0.65
25:DA:2357:U:OP1	46:D3:20:ARG:NH1	2.28	0.65
28:DE:42:ASP:HB3	28:DE:44:TYR:CE1	2.31	0.65
29:DF:25:PRO:CB	29:DF:28:ILE:HG13	2.26	0.65
35:DO:47:ASP:OD1	35:DO:50:ARG:NH1	2.29	0.65
36:DP:135:ASP:OD1	36:DP:137:TYR:HD2	1.80	0.65
44:DU:20:TYR:CD1	44:DU:20:TYR:N	2.63	0.65
45:DV:108:PRO:CB	45:DV:143:GLY:CA	2.74	0.65
1:AA:160:A:H2'	1:AA:161:A:O4'	1.95	0.65
1:AA:652:U:O4	1:AA:752:G:O2'	2.10	0.65
6:AI:44:GLY:HA2	6:AI:59:TYR:CE1	2.32	0.65
11:AN:22:HIS:HB3	11:AN:29:ILE:HG23	1.77	0.65
25:BA:1264:G:H5'	51:B5:11:THR:HG21	1.77	0.65
25:BA:2467:C:O2'	25:BA:2468:G:C5'	2.44	0.65
27:BD:272:ALA:CB	27:BD:273:ARG:CA	2.37	0.65
30:BG:120:LEU:HD22	30:BG:133:LEU:HD12	1.78	0.65
36:BP:14:ARG:HG2	36:BP:41:TRP:CH2	2.31	0.65
42:BS:94:ASP:C	42:BS:95:ILE:CG2	2.64	0.65
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.60	0.65
1:CA:736:C:H2'	1:CA:737:A:C8	2.31	0.65
3:CF:58:GLU:HB2	3:CF:65:ALA:HB3	1.78	0.65
7:CJ:20:ASP:HB3	7:CJ:23:VAL:CG2	2.26	0.65
31:DH:57:ASP:O	31:DH:62:LYS:HE2	1.97	0.65
36:DP:29:PHE:HD2	36:DP:65:PHE:CZ	2.12	0.65
25:DA:2470:G:P	36:DP:56:ARG:CZ	2.84	0.65
25:DA:2012:G:OP1	42:DS:11:ARG:NH2	2.29	0.65
43:DT:57:LEU:N	43:DT:57:LEU:HD23	2.11	0.65
48:DW:15:LYS:HE2	48:DW:67:LYS:HE2	1.79	0.65
49:DX:59:VAL:HG12	49:DX:60:GLU:N	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.59	0.65
13:AP:115:LYS:O	13:AP:117:VAL:HG13	1.95	0.65
16:AS:21:VAL:HG22	16:AS:34:GLU:O	1.95	0.65
16:AS:54:GLU:O	16:AS:57:ARG:HB2	1.96	0.65
50:B4:14:ILE:HA	50:B4:31:ILE:O	1.97	0.65
28:BE:183:LEU:HD12	28:BE:183:LEU:N	2.11	0.65
32:BK:104:GLN:O	32:BK:105:HIS:CB	2.45	0.65
25:BA:811:U:O5'	35:BO:21:ARG:O	2.14	0.65
1:CA:1226:C:C5	13:CP:104:ARG:HB2	2.31	0.65
1:CA:1226:C:H4'	19:CV:80:TYR:OH	1.96	0.65
1:CA:652:U:O2'	1:CA:653:A:N3	2.29	0.65
23:CC:30:G:O2'	23:CC:31:G:H5'	1.96	0.65
2:CE:132:LYS:O	2:CE:136:VAL:HG23	1.95	0.65
25:DA:142:G:H2'	25:DA:143:C:H6	1.61	0.65
25:DA:2311:A:H5''	25:DA:2312:U:OP2	1.96	0.65
25:DA:2633:G:H1'	28:DE:62:PRO:HG2	1.78	0.65
5:AH:11:ILE:HD11	5:AH:31:LEU:HB3	1.78	0.65
10:AM:37:PRO:HA	10:AM:72:VAL:HG22	1.79	0.65
19:AV:41:VAL:HB	19:AV:42:PRO:CA	2.25	0.65
25:BA:1080:A:H2'	25:BA:1081:U:C6	2.31	0.65
25:BA:1557:C:OP2	25:BA:1558:A:O2'	2.13	0.65
25:BA:1799:G:O2'	25:BA:1800:C:OP2	2.09	0.65
26:BB:48:A:H4'	38:BQ:95:HIS:HD2	1.61	0.65
25:BA:2394:C:OP1	35:BO:62:LEU:CB	2.43	0.65
25:BA:2467:C:H4'	36:BP:123:HIS:CE1	2.31	0.65
25:BA:953:A:OP2	36:BP:16:ARG:HD3	1.95	0.65
1:CA:922:G:H4'	5:CH:20:GLN:HA	1.78	0.65
3:CF:119:ARG:HH22	3:CF:140:ARG:CG	2.07	0.65
9:CL:26:VAL:HG22	9:CL:61:ALA:HB3	1.77	0.65
13:CP:102:ARG:HD3	13:CP:105:THR:HG23	1.79	0.65
25:DA:228:A:H3'	25:DA:228:A:C8	2.32	0.65
25:DA:2331:G:H4'	46:D3:43:THR:H	1.60	0.65
25:DA:2402:C:N4	25:DA:2416:C:H1'	2.12	0.65
31:DH:102:ALA:CB	31:DH:117:PRO:HD3	2.27	0.65
32:DK:114:LEU:HD23	32:DK:114:LEU:O	1.96	0.65
32:DK:125:GLU:HB2	32:DK:141:LYS:HD3	1.78	0.65
25:DA:2292:C:OP1	38:DQ:17:ARG:NH2	2.30	0.65
45:DV:158:PRO:HB2	45:DV:159:PRO:HD2	1.78	0.65
3:AF:78:GLY:HA3	3:AF:83:ARG:HB3	1.78	0.65
4:AG:8:VAL:HG13	4:AG:21:LEU:HD13	1.79	0.65
25:BA:1734:C:H2'	25:BA:1735:C:H5''	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:73:A:H2'	26:BB:74:U:H5'	1.78	0.65
29:BF:29:ASN:HB3	29:BF:112:MET:HE1	1.79	0.65
25:BA:2310:A:N3	30:BG:77:ILE:HG12	2.10	0.65
1:CA:728:A:H2'	1:CA:729:A:C8	2.31	0.65
9:CL:32:ASP:HB3	9:CL:35:GLU:HB2	1.78	0.65
50:D4:1:MET:O	50:D4:2:LYS:HD3	1.97	0.65
25:DA:1862:G:C2'	25:DA:1863:G:H5'	2.26	0.65
25:DA:2128:C:H4'	25:DA:2173:A:C6	2.31	0.65
29:DF:36:VAL:HG11	29:DF:183:VAL:HG11	1.79	0.65
35:DO:11:GLY:O	35:DO:13:ASN:N	2.30	0.65
39:DR:51:ARG:HG3	39:DR:98:LYS:HG3	1.79	0.65
1:AA:737:A:H2'	1:AA:738:C:C6	2.31	0.65
1:AA:789:U:H5	1:AA:792:A:OP2	1.79	0.65
23:AC:56:U:O2	23:AC:58:A:C8	2.49	0.65
4:AG:110:PHE:HD1	4:AG:110:PHE:N	1.94	0.65
25:BA:2371:G:H1'	52:B6:45:LYS:HD2	1.79	0.65
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.32	0.65
25:BA:1177:A:H4'	25:BA:1178:C:H5''	1.78	0.65
25:BA:654(N):G:H2'	25:BA:654(O):G:C8	2.32	0.65
30:BG:64:THR:HG23	30:BG:66:GLN:H	1.61	0.65
1:CA:1128:C:N4	1:CA:1139:G:C2	2.64	0.65
2:CE:144:ARG:HD2	2:CE:148:TYR:HE2	1.61	0.65
4:CG:24:GLU:O	4:CG:27:TYR:HB2	1.97	0.65
10:CM:78:ASN:HB2	10:CM:81:THR:H	1.60	0.65
25:DA:1262:A:N3	51:D5:10:LYS:HE3	2.12	0.65
25:DA:2572:A:C8	28:DE:144:ARG:HD2	2.31	0.65
25:DA:6:A:H4'	33:DM:129:PRO:HB2	1.78	0.65
29:DF:68:LYS:NZ	29:DF:68:LYS:HA	2.11	0.65
30:DG:102:PHE:HE2	30:DG:141:PHE:CE1	2.15	0.65
31:DH:26:VAL:HG21	31:DH:75:ALA:O	1.97	0.65
1:AA:1004:A:H8	1:AA:1036:G:H22	1.43	0.65
4:AG:13:ARG:O	4:AG:15:GLU:N	2.30	0.65
37:B0:44:LEU:HD22	37:B0:48:VAL:CG2	2.26	0.65
40:B1:69:CYS:HG	40:B1:79:PHE:HD1	1.40	0.65
50:B4:9:LEU:H	50:B4:27:THR:HG23	1.61	0.65
42:BS:88:ARG:HB3	42:BS:92:ARG:HB3	1.79	0.65
45:BV:105:VAL:HG22	45:BV:106:GLY:H	1.60	0.65
1:CA:422:C:O2'	1:CA:423:G:C2	2.50	0.65
4:CG:43:HIS:HA	4:CG:46:LYS:HG3	1.79	0.65
9:CL:18:PHE:HD1	9:CL:62:TYR:HD2	1.45	0.65
19:CV:31:ILE:HG22	19:CV:50:ALA:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2364:C:C2'	25:DA:2365:G:H5'	2.27	0.65
25:DA:90:U:H2'	25:DA:91:A:H5''	1.77	0.65
28:DE:36:ARG:HG2	28:DE:36:ARG:HH11	1.60	0.65
28:DE:53:PRO:O	28:DE:54:GLN:C	2.35	0.65
25:DA:617:G:OP1	29:DF:40:GLN:HG2	1.95	0.65
31:DH:48:GLY:O	31:DH:49:VAL:HG13	1.97	0.65
44:DU:17:SER:OG	44:DU:18:GLY:O	2.13	0.65
1:AA:1305:G:H22	1:AA:1331:G:C2'	2.01	0.65
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.31	0.65
25:BA:581:C:H2'	25:BA:582:G:H8	1.62	0.65
30:BG:133:LEU:CD2	30:BG:157:ILE:HB	2.27	0.65
36:BP:39:PRO:HA	36:BP:97:VAL:O	1.97	0.65
38:BQ:9:ARG:O	38:BQ:12:PHE:N	2.30	0.65
42:BS:79:GLY:HA3	42:BS:100:THR:HG22	1.77	0.65
1:CA:1320:C:H2'	1:CA:1321:C:H6	1.59	0.65
1:CA:660:G:H2'	1:CA:661:G:O4'	1.95	0.65
3:CF:138:VAL:HG23	3:CF:151:VAL:HG23	1.79	0.65
4:CG:178:VAL:HG12	4:CG:179:GLU:H	1.62	0.65
12:CO:110:VAL:CG2	12:CO:120:TYR:HB3	2.26	0.65
3:CF:29:TYR:OH	14:CQ:54:PRO:HD2	1.96	0.65
25:DA:2137:C:N4	25:DA:2154:G:H1	1.94	0.65
25:DA:443:A:H1'	25:DA:1201:C:O4'	1.96	0.65
25:DA:627:A:N7	35:DO:84:ASN:ND2	2.45	0.65
36:DP:54:MET:CE	36:DP:118:LEU:HD23	2.26	0.65
36:DP:88:GLY:O	36:DP:89:ASN:HB2	1.95	0.65
44:DU:87:LYS:HB3	44:DU:92:ASN:HB3	1.79	0.65
45:DV:115:GLY:HA3	45:DV:174:VAL:CG1	2.27	0.65
1:AA:827:U:C5	1:AA:872:A:N1	2.64	0.65
3:AF:123:GLN:O	3:AF:128:PHE:HB2	1.97	0.65
12:AO:40:VAL:HG21	12:AO:78:GLN:O	1.96	0.65
37:B0:9:LYS:HA	37:B0:17:ARG:NE	2.12	0.65
40:B1:79:PHE:HE1	40:B1:106:PHE:CZ	2.15	0.65
41:B2:38:LEU:O	41:B2:51:VAL:HG13	1.97	0.65
25:BA:1188:U:C4'	41:B2:79:VAL:HG22	2.27	0.65
35:BO:47:ASP:OD1	35:BO:50:ARG:NH2	2.29	0.65
38:BQ:88:ASP:OD1	38:BQ:90:GLY:N	2.29	0.65
39:BR:60:THR:HG22	39:BR:77:PRO:HA	1.77	0.65
48:BW:50:ILE:O	48:BW:54:LYS:HB2	1.96	0.65
1:CA:719:C:C5	1:CA:720:C:C4	2.85	0.65
1:CA:920:U:H2'	1:CA:921:U:C6	2.31	0.65
13:CP:3:ARG:HH11	30:DG:113:ARG:HH21	1.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:39:THR:HG22	19:CV:40:ILE:H	1.61	0.65
25:DA:1332:G:N2	25:DA:1610:A:H8	1.95	0.65
25:DA:2820:A:O2'	25:DA:2821:A:OP1	2.14	0.65
25:DA:38:A:H2'	25:DA:39:C:C6	2.32	0.65
27:DD:35:LYS:HG2	27:DD:64:ILE:H	1.59	0.65
39:DR:65:LYS:HE2	39:DR:67:SER:HB2	1.79	0.65
44:DU:87:LYS:O	44:DU:88:LYS:HD3	1.97	0.65
1:AA:1432:G:OP1	39:BR:107:ASP:HB2	1.96	0.65
1:AA:723:U:H2'	1:AA:723:U:O2	1.97	0.65
2:AE:215:LEU:O	2:AE:219:VAL:HG23	1.97	0.65
51:B5:20:ARG:HG3	51:B5:23:HIS:CD2	2.32	0.65
25:BA:594:U:H5'	54:B8:61:LEU:CD1	2.27	0.65
25:BA:1021:A:H61	25:BA:1142(A):A:N6	1.94	0.65
27:BD:130:ALA:C	27:BD:131:LEU:HD12	2.17	0.65
25:BA:323:G:H5'	29:BF:169:ASN:HD21	1.62	0.65
26:BB:42:C:O2'	30:BG:67:LYS:HE3	1.96	0.65
31:BH:9:ILE:H	31:BH:9:ILE:HD12	1.62	0.65
36:BP:19:GLY:O	36:BP:21:THR:OG1	2.10	0.65
38:BQ:35:ILE:HD11	38:BQ:101:LEU:HD23	1.79	0.65
44:BU:81:LYS:HG2	44:BU:96:ILE:HB	1.79	0.65
13:CP:40:ASN:HB3	13:CP:43:THR:HG23	1.77	0.65
16:CS:48:TRP:HH2	16:CS:76:GLN:HE22	1.43	0.65
33:DM:42:TRP:O	40:D1:64:ARG:NH2	2.30	0.65
25:DA:1485:G:C2'	25:DA:1486:A:H5'	2.27	0.65
25:DA:195:A:OP1	35:DO:46:LYS:HE3	1.96	0.65
25:DA:1678:G:N2	25:DA:1989:G:N2	2.44	0.65
25:DA:2854:G:N2	25:DA:2864:G:N3	2.45	0.65
25:DA:797:C:OP2	29:DF:62:ARG:HG3	1.98	0.65
25:DA:932:G:H4'	25:DA:933:A:O5'	1.96	0.65
25:DA:986:C:C2'	25:DA:987:G:H5'	2.27	0.65
28:DE:103:ASP:OD1	28:DE:201:THR:HG23	1.97	0.65
36:DP:26:TYR:HE1	36:DP:139:GLU:CB	1.93	0.65
36:DP:79:LEU:CD1	36:DP:80:GLU:HB2	2.26	0.65
47:DZ:4:VAL:HG11	47:DZ:11:ARG:NH1	2.12	0.65
4:AG:107:ARG:HH22	4:AG:194:LEU:HD11	1.60	0.64
20:AW:9:ASN:ND2	20:AW:9:ASN:O	2.30	0.64
54:B8:26:LYS:HB3	54:B8:44:LYS:HG3	1.79	0.64
23:AD:57:C:H42	25:BA:2112:G:H1	1.43	0.64
26:BB:15:A:O2'	26:BB:109:G:C8	2.48	0.64
28:BE:35:GLN:HG3	28:BE:36:ARG:N	2.09	0.64
1:CA:1119:C:OP2	9:CL:9:ARG:NH2	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:231:GLU:HB3	2:CE:232:PRO:HD2	1.77	0.64
2:CE:92:TYR:CD2	2:CE:151:GLY:HA3	2.31	0.64
1:CA:1190:G:H3'	3:CF:3:ASN:ND2	2.12	0.64
20:CW:26:ASN:HB2	20:CW:71:THR:HG23	1.78	0.64
27:DD:28:GLU:HB3	27:DD:29:PRO:HD2	1.77	0.64
28:DE:128:SER:O	28:DE:129:HIS:HB2	1.96	0.64
29:DF:123:LEU:O	29:DF:123:LEU:HD12	1.96	0.64
29:DF:34:TRP:CE3	35:DO:8:PRO:HB3	2.32	0.64
30:DG:109:VAL:HG11	30:DG:142:PRO:HD3	1.79	0.64
31:DH:4:ILE:HG13	31:DH:6:ARG:HG2	1.79	0.64
32:DK:25:TYR:CE2	32:DK:29:TYR:CD2	2.85	0.64
45:DV:108:PRO:HA	45:DV:143:GLY:H	1.62	0.64
45:DV:76:LEU:HD23	45:DV:76:LEU:N	2.11	0.64
3:AF:152:ILE:HG13	3:AF:167:TRP:HB2	1.79	0.64
7:AJ:22:LEU:HD23	7:AJ:62:PHE:CE2	2.32	0.64
9:AL:83:ARG:HA	9:AL:86:VAL:HG12	1.79	0.64
19:AV:40:ILE:HD11	19:AV:62:ILE:CG2	2.26	0.64
40:B1:79:PHE:C	40:B1:79:PHE:HD2	2.00	0.64
25:BA:2590:A:OP2	27:BD:237:GLU:HB3	1.97	0.64
25:BA:370:G:H4'	25:BA:371:A:OP2	1.96	0.64
25:BA:598:G:H1'	35:BO:12:ALA:HB2	1.79	0.64
25:BA:2312:U:O2	30:BG:42:GLY:HA3	1.97	0.64
30:BG:83:ARG:CG	30:BG:86:MET:HE1	2.20	0.64
32:BK:106:GLY:C	32:BK:107:VAL:HG22	2.17	0.64
33:BM:96:GLU:O	33:BM:96:GLU:CG	2.45	0.64
36:BP:17:LEU:HD13	36:BP:39:PRO:HB2	1.79	0.64
39:BR:93:ARG:HG3	39:BR:93:ARG:HH11	1.63	0.64
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.32	0.64
25:DA:1204:A:C2	25:DA:1241:A:N1	2.66	0.64
25:DA:2689:U:C4'	25:DA:2690:C:H5'	2.28	0.64
25:DA:780:G:N2	25:DA:783:A:H62	1.91	0.64
29:DF:153:SER:OG	29:DF:190:GLU:HG3	1.97	0.64
31:DH:150:ALA:O	31:DH:152:ARG:N	2.30	0.64
31:DH:169:VAL:HG13	31:DH:170:ARG:H	1.62	0.64
1:AA:1226:C:OP2	13:AP:103:THR:OG1	2.13	0.64
1:AA:195:A:C5	1:AA:196:A:N1	2.65	0.64
23:AD:15:G:H2'	23:AD:60:A:H2	1.61	0.64
16:AS:17:TYR:CE1	16:AS:41:PRO:HG3	2.33	0.64
40:B1:90:VAL:HG12	40:B1:91:ASP:HA	1.78	0.64
54:B8:36:LYS:CD	54:B8:40:GLU:HG2	2.27	0.64
25:BA:1019:U:O2'	25:BA:1021:A:C2	2.49	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:77:C:H42	1:CA:92:G:H1	1.42	0.64
2:CE:121:LEU:HD23	2:CE:127:ILE:HG12	1.80	0.64
12:CO:26:ALA:HA	12:CO:98:TYR:HE2	1.61	0.64
13:CP:91:ARG:NH2	13:CP:96:LEU:HD13	2.12	0.64
41:D2:75:PHE:CD2	41:D2:81:TYR:CD1	2.85	0.64
25:DA:2314:C:O2'	25:DA:2315:G:H5'	1.97	0.64
25:DA:2689:U:C5'	25:DA:2690:C:H5'	2.28	0.64
27:DD:35:LYS:HD3	27:DD:63:ARG:HB3	1.79	0.64
38:DQ:85:VAL:HG12	38:DQ:86:ALA:H	1.61	0.64
44:DU:81:LYS:HB3	44:DU:82:PRO:HD2	1.80	0.64
1:AA:105:G:H2'	1:AA:106:C:H6	1.63	0.64
1:AA:114:U:O2'	1:AA:115:G:H5'	1.97	0.64
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.62	0.64
1:AA:452:A:OP2	16:AS:43:LYS:NZ	2.30	0.64
1:AA:724:G:O2'	1:AA:725:G:H5'	1.97	0.64
3:AF:7:PRO:O	3:AF:11:ARG:HG2	1.97	0.64
41:B2:47:VAL:HG23	41:B2:48:GLY:N	2.10	0.64
25:BA:550:G:O2'	25:BA:1220:A:N3	2.25	0.64
25:BA:34:C:O4'	25:BA:34:C:OP2	2.15	0.64
28:BE:81:ILE:HG21	28:BE:84:PHE:HD1	1.55	0.64
32:BK:131:LYS:HB3	32:BK:132:PRO:HA	1.79	0.64
1:CA:1160:G:O6	1:CA:1181:G:C6	2.51	0.64
5:CH:73:ASN:OD1	5:CH:73:ASN:N	2.31	0.64
9:CL:16:ARG:O	9:CL:63:ILE:HG23	1.98	0.64
1:CA:973:G:N3	10:CM:55:LYS:CE	2.60	0.64
28:DE:62:PRO:C	28:DE:64:LYS:H	2.00	0.64
31:DH:9:ILE:HD12	31:DH:49:VAL:HG21	1.79	0.64
1:AA:1032(B):G:H2'	1:AA:1033:G:C8	2.32	0.64
1:AA:719:C:O2'	18:AU:49:LYS:HB3	1.96	0.64
6:AI:89:MET:HE1	18:AU:76:LEU:HD23	1.78	0.64
25:BA:1062:G:N3	25:BA:1077:A:N6	2.46	0.64
25:BA:592:G:H21	54:B8:4:MET:HE1	1.60	0.64
28:BE:35:GLN:NE2	28:BE:37:ARG:HH12	1.95	0.64
30:BG:78:SER:O	30:BG:79:ASN:C	2.36	0.64
45:BV:151:HIS:HD2	45:BV:168:GLU:HG3	1.62	0.64
1:CA:963:G:N2	10:CM:55:LYS:HD3	1.99	0.64
25:DA:2125:G:N2	25:DA:2172:U:O5'	2.28	0.64
25:DA:2772:C:H5'	28:DE:168:MET:HE3	1.78	0.64
36:DP:65:PHE:O	36:DP:66:ILE:C	2.35	0.64
1:AA:474:G:H2'	1:AA:475:G:C8	2.33	0.64
16:AS:49:LEU:HD12	16:AS:50:LYS:N	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AU:36:ASN:H	18:AU:36:ASN:HD22	1.44	0.64
46:B3:23:VAL:HA	46:B3:38:VAL:HG22	1.79	0.64
50:B4:16:CYS:SG	50:B4:17:GLY:N	2.71	0.64
52:B6:24:GLU:HG3	52:B6:25:LYS:H	1.63	0.64
54:B8:36:LYS:HB2	54:B8:40:GLU:CG	2.23	0.64
25:BA:1486:A:H2'	25:BA:1487:G:H8	1.61	0.64
25:BA:2580:U:H4'	28:BE:130:GLY:HA3	1.79	0.64
28:BE:26:ILE:CD1	28:BE:198:VAL:CG2	2.74	0.64
28:BE:92:THR:O	28:BE:95:ILE:HG12	1.97	0.64
32:BK:46:ALA:O	32:BK:50:ARG:HD3	1.97	0.64
38:BQ:111:GLU:HA	38:BQ:111:GLU:OE1	1.97	0.64
1:CA:1374:A:H2'	1:CA:1375:A:H5'	1.80	0.64
3:CF:70:VAL:HG11	3:CF:76:VAL:HG11	1.79	0.64
3:CF:73:PRO:O	3:CF:76:VAL:HG22	1.98	0.64
10:CM:4:ILE:HD13	10:CM:100:THR:CG2	2.27	0.64
20:CW:49:ALA:HA	20:CW:52:ALA:HB3	1.80	0.64
37:D0:87:TYR:CE1	37:D0:117:VAL:HG12	2.26	0.64
41:D2:72:VAL:O	41:D2:84:LYS:HB3	1.96	0.64
25:DA:1012:U:C4	33:DM:25:ARG:HD3	2.32	0.64
25:DA:2191:G:HO2'	25:DA:2192:G:P	2.19	0.64
25:DA:2765:A:H2	25:DA:2766:G:O4'	1.80	0.64
29:DF:28:ILE:HA	29:DF:112:MET:HE3	1.79	0.64
33:DM:62:VAL:HG22	33:DM:66:LYS:HD2	1.80	0.64
36:DP:35:VAL:HG22	36:DP:130:LYS:HB3	1.79	0.64
38:DQ:88:ASP:OD2	38:DQ:89:ARG:N	2.30	0.64
39:DR:50:ILE:HD11	39:DR:102:ILE:CD1	2.25	0.64
39:DR:56:GLY:O	39:DR:59:THR:HG23	1.97	0.64
45:DV:116:VAL:HG12	45:DV:117:LEU:H	1.61	0.64
45:DV:144:LEU:C	45:DV:146:ILE:H	1.99	0.64
25:DA:988:A:H3'	49:DX:11:SER:OG	1.98	0.64
1:AA:1027:C:H4'	1:AA:1028:C:OP1	1.97	0.64
1:AA:411:A:N7	1:AA:413:G:N3	2.45	0.64
1:AA:659:U:C2	1:AA:660:G:C8	2.86	0.64
1:AA:976:G:OP1	14:AQ:32:SER:N	2.29	0.64
2:AE:88:ALA:HB2	2:AE:219:VAL:HG13	1.80	0.64
6:AI:62:TRP:CH2	6:AI:64:GLN:HG3	2.33	0.64
8:AK:88:LYS:HB3	8:AK:89:PRO:HD2	1.77	0.64
25:BA:1061:U:H1'	25:BA:1070:A:C2	2.33	0.64
25:BA:1118:C:H2'	25:BA:1119:C:C6	2.33	0.64
25:BA:140:A:H8	25:BA:1408:C:O2'	1.81	0.64
25:BA:1416:G:O2'	25:BA:1417:C:O5'	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:73:A:C2'	26:BB:74:U:H5'	2.28	0.64
28:BE:57:LYS:O	28:BE:59:VAL:N	2.30	0.64
25:BA:2444:G:OP2	29:BF:68:LYS:CE	2.46	0.64
31:BH:153:LYS:HD2	31:BH:153:LYS:N	2.11	0.64
39:BR:31:SER:OG	39:BR:85:LYS:HE2	1.98	0.64
1:CA:1142:G:H2'	1:CA:1143:G:O4'	1.98	0.64
1:CA:1216:G:H2'	1:CA:1217:C:C6	2.32	0.64
1:CA:273:A:C2'	1:CA:274:A:H5'	2.27	0.64
1:CA:560:U:H5'	1:CA:566:G:N2	2.12	0.64
22:CB:3:C:H6	22:CB:3:C:O5'	1.80	0.64
22:CB:44:G:H2'	22:CB:45:U:O4'	1.97	0.64
23:CD:15:G:N2	23:CD:49:C:C2	2.64	0.64
3:CF:27:LYS:HB3	3:CF:27:LYS:NZ	2.13	0.64
46:D3:72:ARG:HB2	46:D3:75:LEU:HB2	1.80	0.64
30:DG:109:VAL:HG13	50:D4:33:VAL:CG1	2.27	0.64
25:DA:105:C:O2'	44:DU:2:ARG:HD2	1.98	0.64
25:DA:70:G:H21	25:DA:71:A:H62	1.46	0.64
25:DA:857:C:H4'	46:D3:23:VAL:HG21	1.79	0.64
25:DA:872:A:C5	25:DA:906:G:C2	2.86	0.64
27:DD:72:LYS:HE2	27:DD:101:GLU:OE2	1.98	0.64
28:DE:151:TYR:HD2	28:DE:154:LYS:NZ	1.96	0.64
28:DE:79:ARG:O	28:DE:80:GLU:HG3	1.98	0.64
29:DF:25:PRO:HB3	29:DF:28:ILE:CG1	2.28	0.64
1:AA:1502:A:H2	1:AA:1505:G:N2	1.95	0.64
1:AA:438:G:O2'	1:AA:439:A:H5''	1.98	0.64
1:AA:695:A:OP1	11:AN:52:GLY:HA3	1.97	0.64
14:AQ:21:TYR:HE2	14:AQ:23:ARG:NE	1.96	0.64
25:BA:1021:A:H8	25:BA:1022:G:H5''	1.62	0.64
25:BA:2199:A:H3'	25:BA:2205:C:H6	1.63	0.64
25:BA:2849:U:H4'	25:BA:2868:A:C2	2.33	0.64
25:BA:70:G:H21	25:BA:71:A:H62	1.43	0.64
38:BQ:83:LYS:C	38:BQ:109:GLY:HA2	2.12	0.64
1:CA:1128:C:C4	1:CA:1139:G:C2	2.85	0.64
22:CB:27:G:H5'	22:CB:28:C:OP2	1.97	0.64
22:CB:85:C:C6	25:DA:2555:U:O2	2.50	0.64
9:CL:53:VAL:HG13	9:CL:95:LYS:HE3	1.78	0.64
25:DA:2147:G:H2'	25:DA:2148:G:O4'	1.96	0.64
32:DK:77:LEU:HD12	32:DK:78:THR:H	1.62	0.64
16:AS:15:PRO:O	16:AS:16:HIS:ND1	2.30	0.64
37:B0:104:ARG:HH11	37:B0:104:ARG:CG	2.11	0.64
40:B1:112:ARG:HG3	40:B1:112:ARG:HH11	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1216:G:P	40:B1:12:ARG:HH21	2.20	0.64
51:B5:40:LYS:CD	51:B5:46:CYS:HB3	2.27	0.64
25:BA:2171:A:H2'	25:BA:2172:U:H6	1.62	0.64
28:BE:51:PHE:O	28:BE:52:LEU:C	2.34	0.64
28:BE:59:VAL:C	28:BE:60:ASN:ND2	2.51	0.64
44:BU:96:ILE:HG12	44:BU:99:CYS:O	1.98	0.64
1:CA:1121:U:C2'	1:CA:1122:U:H5'	2.28	0.64
1:CA:421:U:O2	1:CA:421:U:H2'	1.98	0.64
1:CA:652:U:H1'	1:CA:653:A:H2	1.62	0.64
23:CD:55:U:N3	23:CD:56:U:C5	2.66	0.64
10:CM:17:ASP:HB2	10:CM:70:ARG:NH2	2.12	0.64
25:DA:140:A:H8	25:DA:1408:C:O2'	1.81	0.64
32:DK:25:TYR:HE2	32:DK:29:TYR:CD2	2.16	0.64
33:DM:19:GLU:HG3	33:DM:59:LYS:HB3	1.80	0.64
35:DO:39:LYS:HD2	35:DO:45:LEU:CD2	2.28	0.64
35:DO:85:LEU:HA	35:DO:88:LEU:CB	2.28	0.64
36:DP:33:GLY:HA2	36:DP:105:GLU:CB	2.27	0.64
38:DQ:110:LEU:HD23	38:DQ:112:PHE:CE2	2.33	0.64
1:AA:667:G:H4'	15:AR:51:HIS:CE1	2.33	0.64
19:AV:63:THR:O	19:AV:66:MET:HG3	1.98	0.64
20:AW:10:LEU:HD23	20:AW:12:ALA:HB3	1.75	0.64
25:BA:1171:G:C5	25:BA:1174:A:N6	2.66	0.64
25:BA:1192:G:C2'	25:BA:1193:G:H5'	2.28	0.64
28:BE:23:VAL:CB	28:BE:185:LYS:HA	2.26	0.64
29:BF:134:GLY:HA2	29:BF:166:ALA:HB2	1.79	0.64
25:BA:2562:U:H1'	34:BN:23:ARG:NH1	2.13	0.64
35:BO:11:GLY:O	35:BO:13:ASN:N	2.30	0.64
45:BV:157:LEU:HD11	45:BV:163:LEU:HD21	1.79	0.64
16:CS:8:ARG:HD2	16:CS:17:TYR:CE2	2.33	0.64
19:CV:41:VAL:HG22	50:D4:63:TYR:OH	1.98	0.64
54:D8:49:VAL:HG23	54:D8:50:LEU:N	2.13	0.64
25:DA:2446:G:C2'	25:DA:2447:G:H5''	2.28	0.64
28:DE:199:ARG:HG2	28:DE:200:GLU:H	1.61	0.64
1:AA:173:U:H5''	1:AA:197:A:O4'	1.98	0.63
1:AA:51:A:OP2	1:AA:52:G:H8	1.80	0.63
1:AA:8:A:N6	4:AG:205:GLU:O	2.31	0.63
23:AC:48:U:H4'	23:AC:49:C:H5'	1.80	0.63
3:AF:78:GLY:O	3:AF:79:ARG:HG2	1.98	0.63
21:AX:5:ASP:O	21:AX:11:GLY:HA3	1.97	0.63
52:B6:12:GLU:HB3	52:B6:23:THR:HG22	1.81	0.63
25:BA:2137:C:N4	25:BA:2154:G:H1	1.95	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BZ:83:GLU:HG2	47:BZ:84:GLY:N	2.13	0.63
1:CA:1178:G:H5'	9:CL:93:ARG:HH21	1.63	0.63
1:CA:689:C:C2'	1:CA:690:G:H5'	2.28	0.63
23:CC:32:G:C4	23:CC:33:C:C5	2.86	0.63
23:CC:7:G:H1	23:CC:67:C:H42	1.46	0.63
3:CF:18:TRP:HE1	14:CQ:55:GLY:H	1.45	0.63
25:DA:1310:G:OP2	53:D7:9:ARG:HD2	1.97	0.63
25:DA:1332:G:N2	25:DA:1610:A:C8	2.66	0.63
25:DA:2187:G:H2'	25:DA:2188:C:O4'	1.98	0.63
31:DH:86:GLU:HA	31:DH:132:ARG:HB2	1.78	0.63
43:DT:50:LYS:N	43:DT:87:GLN:HE22	1.95	0.63
1:AA:1065:U:H1'	1:AA:1066:C:OP2	1.98	0.63
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.63	0.63
1:AA:7:G:H5'	1:AA:298:A:O4'	1.97	0.63
7:AJ:16:LEU:HD12	9:AL:42:ARG:HA	1.80	0.63
8:AK:41:ARG:HG3	8:AK:41:ARG:HH11	1.63	0.63
10:AM:96:ILE:H	10:AM:96:ILE:HD13	1.62	0.63
12:AO:126:LYS:HG3	12:AO:128:ALA:H	1.63	0.63
13:AP:60:VAL:HG12	13:AP:66:LEU:HD11	1.80	0.63
19:AV:24:ALA:O	19:AV:25:LYS:HB3	1.97	0.63
52:B6:15:GLU:CG	52:B6:16:CYS:N	2.61	0.63
25:BA:1188:U:C2'	25:BA:1189:A:H5'	2.28	0.63
27:BD:35:LYS:HZ3	27:BD:104:TYR:HB2	1.63	0.63
28:BE:35:GLN:HB3	28:BE:48:GLN:CB	2.28	0.63
39:BR:16:ARG:HE	39:BR:19:LEU:HD21	1.62	0.63
23:CD:7:G:H3'	23:CD:8:U:C5'	2.27	0.63
4:CG:178:VAL:HG12	4:CG:179:GLU:N	2.13	0.63
9:CL:77:ILE:O	9:CL:81:ILE:HG12	1.97	0.63
25:DA:1065:U:H3	25:DA:1073:A:H61	1.45	0.63
25:DA:1342:A:C6	25:DA:1397:U:C5	2.86	0.63
25:DA:2401:U:H2'	25:DA:2402:C:H5''	1.81	0.63
25:DA:907:U:O2'	36:DP:101:ARG:NH2	2.30	0.63
28:DE:12:THR:HG22	39:DR:58:ASN:HD21	1.63	0.63
28:DE:48:GLN:HE22	28:DE:78:LEU:HD13	1.60	0.63
1:AA:1004:A:H5''	1:AA:1025:U:O4	1.98	0.63
1:AA:677:U:H3	1:AA:713:G:H22	1.47	0.63
2:AE:111:ARG:NH1	2:AE:111:ARG:HG2	2.12	0.63
4:AG:153:ARG:NH1	4:AG:181:MET:HG3	2.13	0.63
1:AA:310:G:P	16:AS:27:LYS:NZ	2.71	0.63
25:BA:957:A:N1	25:BA:2458:G:H4'	2.13	0.63
1:CA:1252:A:H61	1:CA:1285:A:H61	1.45	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CD:15:G:N7	23:CD:16:C:H5	1.96	0.63
2:CE:237:ALA:O	2:CE:238:LEU:HB3	1.98	0.63
25:DA:1225:C:O3'	41:D2:85:LYS:HA	1.97	0.63
25:DA:1062:G:O6	25:DA:1075:C:N4	2.31	0.63
25:DA:1856:G:C2'	25:DA:1857:G:H5'	2.27	0.63
25:DA:673:C:H5'	25:DA:673:C:H6	1.63	0.63
27:DD:137:PRO:O	27:DD:140:THR:HG23	1.98	0.63
27:DD:49:ILE:CD1	27:DD:52:ARG:HA	2.25	0.63
34:DN:68:GLU:HB3	34:DN:78:ARG:HH11	1.62	0.63
12:AO:126:LYS:HE3	12:AO:128:ALA:HB3	1.81	0.63
12:AO:6:THR:H	12:AO:9:GLN:NE2	1.97	0.63
25:BA:1761:C:H42	25:BA:1762:A:H62	1.47	0.63
25:BA:1771:C:HO2'	25:BA:1786:A:H8	1.44	0.63
25:BA:2131:G:H1'	25:BA:2158:A:H62	1.62	0.63
25:BA:404:C:H1'	25:BA:405:U:OP2	1.98	0.63
26:BB:108:C:H5'	26:BB:109:G:O5'	1.98	0.63
28:BE:59:VAL:HG13	28:BE:63:LEU:HB3	1.81	0.63
30:BG:83:ARG:HG3	30:BG:86:MET:HE1	1.67	0.63
2:CE:185:ILE:HG22	2:CE:199:TYR:HB2	1.80	0.63
9:CL:88:TYR:HB3	9:CL:89:ASN:ND2	2.13	0.63
41:D2:29:PRO:O	41:D2:61:VAL:HG12	1.99	0.63
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.34	0.63
25:DA:1856:G:H2'	25:DA:1857:G:H5'	1.81	0.63
25:DA:303:U:H2'	25:DA:304:G:O4'	1.98	0.63
25:DA:67:U:N3	25:DA:74:A:H2	1.94	0.63
28:DE:137:HIS:HB3	28:DE:138:PRO:HD2	1.80	0.63
25:DA:2745:C:H4'	31:DH:142:GLY:O	1.98	0.63
38:DQ:87:PHE:CZ	38:DQ:102:ALA:HB2	2.32	0.63
38:DQ:26:LEU:HB3	38:DQ:87:PHE:HA	1.81	0.63
1:AA:1004:A:C8	1:AA:1036:G:N1	2.59	0.63
1:AA:1490:C:O2'	1:AA:1491:G:H5'	1.98	0.63
1:AA:262:A:H2'	1:AA:263:A:C8	2.32	0.63
1:AA:428:G:C8	1:AA:430:A:C4	2.86	0.63
2:AE:61:LEU:HD23	2:AE:68:ILE:HD12	1.80	0.63
10:AM:32:ALA:HB3	10:AM:76:ASN:HB2	1.79	0.63
16:AS:17:TYR:HE1	16:AS:41:PRO:HG3	1.64	0.63
25:BA:1021:A:H62	25:BA:1141:U:H3	1.47	0.63
25:BA:2552:U:H2'	25:BA:2554:U:OP2	1.99	0.63
26:BB:66:A:H61	26:BB:107:U:H2'	1.63	0.63
28:BE:81:ILE:CG2	28:BE:84:PHE:HB3	2.26	0.63
31:BH:9:ILE:N	31:BH:9:ILE:HD12	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BU:97:ARG:NE	44:BU:98:VAL:HG23	2.12	0.63
1:CA:1306:A:N6	1:CA:1331:G:O2'	2.32	0.63
1:CA:1386:G:C2	1:CA:1387:G:C8	2.85	0.63
14:CQ:27:CYS:SG	14:CQ:27:CYS:O	2.56	0.63
15:CR:2:PRO:HB2	15:CR:3:ILE:HD13	1.81	0.63
19:CV:45:VAL:HA	19:CV:62:ILE:HG22	1.80	0.63
54:D8:50:LEU:O	54:D8:51:ALA:CB	2.46	0.63
25:DA:671:C:OP1	35:DO:42:SER:O	2.15	0.63
27:DD:267:SER:O	27:DD:268:ARG:HB3	1.98	0.63
28:DE:202:LYS:HD2	28:DE:202:LYS:N	2.14	0.63
28:DE:38:THR:CG2	28:DE:40:GLU:HB2	2.29	0.63
36:DP:34:LEU:HD11	36:DP:129:THR:HB	1.81	0.63
25:DA:2470:G:OP2	36:DP:56:ARG:NH2	2.31	0.63
45:DV:53:ILE:HG22	45:DV:71:VAL:O	1.99	0.63
47:DZ:91:LYS:HG3	47:DZ:92:LYS:N	2.13	0.63
2:AE:174:VAL:HG13	2:AE:184:VAL:HG11	1.81	0.63
2:AE:80:ILE:HD13	2:AE:212:GLN:HB2	1.81	0.63
9:AL:45:ALA:O	9:AL:78:LYS:NZ	2.26	0.63
10:AM:35:SER:OG	10:AM:73:ASP:HB2	1.99	0.63
25:BA:1049:C:H2'	25:BA:1050:A:C5'	2.28	0.63
25:BA:1777:U:O2'	25:BA:1778:U:H5'	1.98	0.63
25:BA:2065:C:H2'	25:BA:2066:C:C6	2.34	0.63
25:BA:2789:C:H1'	25:BA:2892:A:H2	1.63	0.63
25:BA:889:C:H3'	25:BA:890:A:C4'	2.29	0.63
31:BH:109:PHE:CE2	31:BH:152:ARG:NH1	2.67	0.63
25:BA:142:G:H1'	43:BT:37:THR:CG2	2.28	0.63
1:CA:1084:G:H2'	1:CA:1085:U:C6	2.33	0.63
22:CB:21:A:H1'	22:CB:22:G:C5'	2.27	0.63
23:CD:15:G:H2'	23:CD:15:G:N3	2.11	0.63
40:D1:98:LEU:O	40:D1:99:ALA:HB3	1.98	0.63
41:D2:49:THR:HB	41:D2:50:PRO:HD3	1.80	0.63
41:D2:71:LEU:N	41:D2:86:GLY:CA	2.62	0.63
35:DO:64:LYS:HD2	54:D8:25:MET:CE	2.28	0.63
25:DA:846:C:C2	25:DA:847:U:C5	2.87	0.63
26:DB:104:A:H2'	26:DB:105:G:O4'	1.99	0.63
26:DB:56:G:H4'	26:DB:57:A:C8	2.33	0.63
28:DE:51:PHE:O	28:DE:74:PRO:CB	2.46	0.63
35:DO:47:ASP:OD2	35:DO:49:ARG:NE	2.32	0.63
38:DQ:11:LYS:HD2	38:DQ:15:ARG:NH2	2.13	0.63
25:DA:486:C:H4'	42:DS:60:ASN:ND2	2.14	0.63
1:AA:486:U:H2'	1:AA:487:A:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:41:C:H2'	23:AD:42:C:H6	1.63	0.63
3:AF:181:ASN:ND2	3:AF:204:LEU:HB2	2.12	0.63
3:AF:70:VAL:HG12	3:AF:72:LYS:N	2.13	0.63
25:BA:142:G:H1'	43:BT:37:THR:HG21	1.81	0.63
25:BA:1916:A:H5'	25:BA:1917:U:OP2	1.99	0.63
47:BZ:91:LYS:O	47:BZ:93:GLU:N	2.32	0.63
1:CA:1028(A):C:H42	1:CA:1032(B):G:H1	1.47	0.63
23:CD:6:G:H1	23:CD:68:C:H42	1.44	0.63
9:CL:18:PHE:HD1	9:CL:62:TYR:CD2	2.16	0.63
11:CN:99:GLN:HG2	11:CN:105:VAL:HG21	1.81	0.63
25:DA:2162:G:H2'	25:DA:2163:C:C6	2.33	0.63
25:DA:2173:A:N3	25:DA:2173:A:H2'	2.14	0.63
25:DA:635:C:O2'	25:DA:639:U:OP1	2.15	0.63
26:DB:89:G:OP2	26:DB:89:G:H8	1.81	0.63
25:DA:2724:C:OP1	28:DE:118:LYS:HE3	1.98	0.63
35:DO:85:LEU:HB3	35:DO:114:ILE:CD1	2.28	0.63
36:DP:57:HIS:O	36:DP:57:HIS:ND1	2.32	0.63
36:DP:84:GLY:O	36:DP:85:LYS:HB2	1.98	0.63
39:DR:53:ARG:HG3	39:DR:53:ARG:O	1.97	0.63
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.64	0.63
1:AA:229:U:O2'	16:AS:23:ASP:OD2	2.17	0.63
1:AA:397:A:N6	1:AA:548:G:C5	2.66	0.63
2:AE:47:THR:O	2:AE:51:LEU:HB2	1.97	0.63
25:BA:2473:U:C2'	25:BA:2474:C:H5''	2.28	0.63
26:BB:30:C:OP2	38:BQ:32:LEU:HD11	1.99	0.63
1:CA:994:A:N7	1:CA:1216:G:H4'	2.13	0.63
23:CD:22:A:H2'	23:CD:47:G:O6	1.99	0.63
3:CF:94:LEU:HD12	3:CF:95:THR:N	2.14	0.63
3:CF:18:TRP:HE1	14:CQ:55:GLY:N	1.96	0.63
41:D2:37:VAL:HG21	41:D2:57:VAL:HG13	1.81	0.63
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.34	0.63
25:DA:138:G:H22	43:DT:44:GLU:CD	2.02	0.63
25:DA:2371:G:C4'	52:D6:45:LYS:CE	2.71	0.63
25:DA:479:A:H4'	25:DA:480:A:OP1	1.98	0.63
25:DA:566:U:OP1	35:DO:29:LYS:HE3	1.98	0.63
25:DA:67:U:N3	25:DA:74:A:C2	2.57	0.63
35:DO:47:ASP:OD2	35:DO:49:ARG:CD	2.45	0.63
36:DP:54:MET:HE1	36:DP:118:LEU:HD23	1.80	0.63
45:DV:146:ILE:HD13	45:DV:175:VAL:HG23	1.79	0.63
1:AA:1112:C:C4	3:AF:178:LEU:HD23	2.33	0.63
1:AA:749:C:O2	1:AA:749:C:H2'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:58:GLU:O	13:AP:62:ASN:HB2	1.98	0.63
52:B6:15:GLU:HG2	52:B6:16:CYS:H	1.62	0.63
35:BO:64:LYS:HD3	54:B8:25:MET:SD	2.38	0.63
25:BA:1056:G:O4'	25:BA:1086:A:H8	1.81	0.63
25:BA:1870:C:H2'	25:BA:1870:C:O2	1.98	0.63
25:BA:2734:A:H5'	25:BA:2734:A:H8	1.63	0.63
25:BA:587:C:N3	35:BO:33:ARG:NH1	2.46	0.63
25:BA:674:G:O2'	29:BF:74:ARG:HD3	1.99	0.63
28:BE:78:LEU:HD12	28:BE:79:ARG:CA	2.28	0.63
1:CA:255:G:O6	1:CA:270:A:N6	2.32	0.63
1:CA:328:C:H4'	1:CA:329:A:H5'	1.80	0.63
3:CF:113:ALA:HB2	3:CF:202:ILE:HG13	1.80	0.63
8:CK:84:ARG:O	8:CK:135:CYS:HB2	1.98	0.63
13:CP:40:ASN:OD1	13:CP:41:PRO:HD2	1.99	0.63
25:DA:1600:C:O2'	53:D7:49:ARG:HD3	1.99	0.63
29:DF:132:VAL:O	29:DF:133:ASN:HB2	1.99	0.63
31:DH:124:GLU:OE1	31:DH:124:GLU:N	2.30	0.63
36:DP:75:THR:CG2	36:DP:87:LYS:HE2	2.29	0.63
44:DU:81:LYS:HB3	44:DU:82:PRO:CD	2.29	0.63
45:DV:61:LEU:HD11	45:DV:67:LEU:HD12	1.79	0.63
48:DW:17:SER:OG	48:DW:21:LEU:HD12	1.99	0.63
1:AA:149:A:C2	1:AA:150:C:N3	2.67	0.62
4:AG:5:ILE:CG2	4:AG:6:GLY:H	2.12	0.62
1:AA:1367:C:H5'	10:AM:60:ARG:NH1	2.14	0.62
1:AA:1305:G:H5'	21:AX:4:GLY:HA3	1.80	0.62
25:BA:1126:A:H4'	25:BA:1127:A:O5'	1.98	0.62
25:BA:443:A:C8	29:BF:45:ARG:HD2	2.33	0.62
28:BE:53:PRO:HA	28:BE:74:PRO:CA	2.29	0.62
31:BH:4:ILE:C	31:BH:6:ARG:H	2.01	0.62
25:BA:1138:G:N2	33:BM:106:MET:HE3	2.10	0.62
48:BW:50:ILE:CD1	48:BW:51:ARG:N	2.61	0.62
1:CA:1028(A):C:N4	1:CA:1028(B):C:H41	1.97	0.62
23:CC:24:C:C2	23:CC:25:U:C5	2.87	0.62
23:CC:41:C:H2'	23:CC:42:C:H6	1.64	0.62
23:CD:20:G:H2'	23:CD:20:G:N3	2.14	0.62
3:CF:119:ARG:NH2	3:CF:140:ARG:HG2	2.09	0.62
13:CP:7:VAL:HG22	30:DG:115:ARG:HB3	1.81	0.62
46:D3:42:GLY:H	46:D3:57:PHE:HD2	1.47	0.62
30:DG:113:ARG:HD2	50:D4:33:VAL:HG12	1.80	0.62
51:D5:6:VAL:HG13	51:D5:7:PRO:N	2.13	0.62
25:DA:1047:G:H2'	25:DA:1110:G:H1	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:900:A:H3'	25:DA:901:A:H8	1.64	0.62
28:DE:130:GLY:O	28:DE:131:ALA:C	2.38	0.62
28:DE:179:GLU:O	28:DE:180:ASN:HB2	1.97	0.62
29:DF:31:HIS:HB2	35:DO:9:ASN:OD1	1.98	0.62
43:DT:72:LYS:NZ	43:DT:75:ASP:OD1	2.32	0.62
45:DV:175:VAL:HG13	45:DV:176:PRO:CD	2.29	0.62
45:DV:4:ARG:HD3	45:DV:58:VAL:HG11	1.81	0.62
1:AA:517:G:N1	1:AA:533:A:OP2	2.31	0.62
1:AA:688:G:H2'	1:AA:689:C:H6	1.64	0.62
1:AA:960:U:O2	1:AA:960:U:H2'	1.97	0.62
4:AG:110:PHE:N	4:AG:110:PHE:CD1	2.66	0.62
40:B1:112:ARG:HG2	40:B1:112:ARG:HH11	1.64	0.62
25:BA:1469:A:H2'	25:BA:1470:G:O5'	1.99	0.62
25:BA:1858:G:O2'	25:BA:1883:G:N2	2.31	0.62
25:BA:2335:A:C8	25:BA:2337:G:C5	2.86	0.62
26:BB:40:U:H1'	26:BB:45:A:N6	2.14	0.62
35:BO:61:ARG:O	35:BO:62:LEU:CD2	2.45	0.62
1:CA:1446:A:OP1	1:CA:1446:A:H4'	1.97	0.62
2:CE:137:ARG:NH1	2:CE:140:HIS:HB2	2.11	0.62
3:CF:23:TYR:CD2	3:CF:24:ALA:N	2.67	0.62
5:CH:110:LEU:O	5:CH:115:VAL:HG22	1.99	0.62
25:DA:1203:G:H3'	25:DA:1204:A:H5''	1.80	0.62
25:DA:2747:G:O6	25:DA:2755:C:H5''	2.00	0.62
27:DD:35:LYS:CE	27:DD:65:ILE:HA	2.29	0.62
31:DH:10:PRO:HG2	31:DH:50:VAL:HG13	1.81	0.62
32:DK:77:LEU:HB2	32:DK:141:LYS:HB3	1.81	0.62
33:DM:45:ASN:ND2	33:DM:45:ASN:O	2.32	0.62
36:DP:102:VAL:HG12	36:DP:102:VAL:O	1.98	0.62
36:DP:87:LYS:O	36:DP:88:GLY:C	2.37	0.62
25:DA:329:G:C6	44:DU:19:LYS:HG2	2.34	0.62
45:DV:149:SER:HB3	45:DV:172:ALA:O	1.99	0.62
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.14	0.62
1:AA:606:G:H5''	1:AA:607:A:H5'	1.81	0.62
1:AA:1455:G:H5'	20:AW:32:ALA:HB2	1.81	0.62
25:BA:2372:G:H1'	52:B6:46:HIS:CE1	2.35	0.62
54:B8:44:LYS:N	54:B8:44:LYS:HD2	2.14	0.62
25:BA:2168:G:N3	25:BA:2168:G:H2'	2.15	0.62
25:BA:2895:U:H2'	25:BA:2896:C:O4'	1.98	0.62
26:BB:71:C:C2	26:BB:72:G:C8	2.88	0.62
36:BP:86:GLY:C	36:BP:88:GLY:N	2.52	0.62
39:BR:123:GLN:O	39:BR:124:ASP:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BZ:51:VAL:HG21	47:BZ:74:VAL:HG21	1.81	0.62
7:CJ:22:LEU:HD23	7:CJ:62:PHE:HE2	1.64	0.62
25:DA:1899:G:H21	25:DA:1902:C:H5	1.45	0.62
32:DK:128:LEU:O	32:DK:138:ILE:HG22	1.99	0.62
44:DU:17:SER:HB2	44:DU:71:LYS:CE	2.29	0.62
1:AA:1126:U:C5	1:AA:1127:G:C4	2.87	0.62
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.63	0.62
23:AC:20:G:C4	23:AC:58:A:H2	2.18	0.62
13:AP:108:ARG:NH1	13:AP:113:PRO:O	2.32	0.62
19:AV:40:ILE:HG12	19:AV:41:VAL:HG22	1.80	0.62
27:BD:121:PRO:HB3	27:BD:135:PHE:CE1	2.34	0.62
30:BG:7:LEU:HD23	30:BG:100:TRP:CZ3	2.34	0.62
35:BO:59:LEU:HD23	35:BO:59:LEU:O	1.99	0.62
35:BO:65:ARG:NH1	35:BO:65:ARG:CG	2.58	0.62
39:BR:128:GLU:O	39:BR:128:GLU:HG2	1.99	0.62
1:CA:612:C:O2	1:CA:629:G:N2	2.32	0.62
1:CA:689:C:H2'	1:CA:690:G:H5'	1.81	0.62
4:CG:61:LYS:HA	4:CG:203:VAL:HG22	1.80	0.62
1:CA:1523:G:OP1	11:CN:123:LYS:HD2	1.99	0.62
20:CW:64:ASP:OD1	20:CW:81:LYS:HD2	1.99	0.62
51:D5:20:ARG:HG2	51:D5:23:HIS:CD2	2.33	0.62
51:D5:3:LYS:HE3	51:D5:3:LYS:HA	1.80	0.62
54:D8:25:MET:O	54:D8:48:PHE:HE1	1.81	0.62
25:DA:2127:G:N2	25:DA:2173:A:H8	1.95	0.62
25:DA:887:A:H3'	25:DA:888:C:C5'	2.30	0.62
27:DD:35:LYS:CG	27:DD:64:ILE:N	2.62	0.62
1:AA:375:U:OP1	16:AS:69:THR:HG21	1.97	0.62
1:AA:953:G:H2'	1:AA:954:G:O4'	1.99	0.62
22:AB:68:A:H2'	22:AB:69:A:H5'	1.81	0.62
23:AD:17:C:N4	23:AD:20:G:OP1	2.33	0.62
2:AE:124:SER:HB2	2:AE:125:PRO:HD2	1.81	0.62
14:AQ:22:THR:O	14:AQ:23:ARG:HD2	1.98	0.62
19:AV:66:MET:HB3	19:AV:74:PHE:CZ	2.34	0.62
40:B1:60:LEU:O	40:B1:60:LEU:HD22	1.98	0.62
25:BA:2303:G:C2'	25:BA:2304:G:H5'	2.30	0.62
25:BA:270(O):U:H5''	25:BA:270(P):C:OP2	1.99	0.62
25:BA:2712:U:OP1	25:BA:2714:G:H4'	2.00	0.62
25:BA:271(B):G:H4'	25:BA:271(C):U:O5'	1.98	0.62
25:BA:259:G:N2	25:BA:621:A:H8	1.97	0.62
28:BE:105:THR:OG1	28:BE:199:ARG:NH2	2.31	0.62
36:BP:81:VAL:C	36:BP:82:ARG:HG2	2.19	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:29:LEU:HD21	42:BS:33:ARG:NE	2.15	0.62
45:BV:81:ARG:HG3	45:BV:81:ARG:O	1.99	0.62
15:CR:39:LEU:CD1	15:CR:56:LEU:HB2	2.29	0.62
40:D1:61:TRP:HB3	40:D1:93:LYS:HB3	1.82	0.62
52:D6:25:LYS:HE3	54:D8:34:TRP:HH2	1.64	0.62
25:DA:1582:C:HO2'	25:DA:1586:A:H8	1.45	0.62
25:DA:1784:A:H4'	25:DA:1785:A:C5'	2.30	0.62
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.30	0.62
25:DA:296:C:O2'	25:DA:297:C:H5'	1.98	0.62
25:DA:769:G:H5'	25:DA:1379:A:N6	2.15	0.62
25:DA:7:G:H1	25:DA:2896:C:H42	1.47	0.62
25:DA:986:C:H2'	25:DA:987:G:H5'	1.81	0.62
29:DF:164:ARG:NH1	29:DF:177:ALA:HB2	2.14	0.62
36:DP:30:GLY:HA3	36:DP:107:ALA:HB2	1.81	0.62
39:DR:93:ARG:HG2	39:DR:117:ASP:HB2	1.80	0.62
48:DW:33:MET:O	48:DW:37:PHE:HD1	1.83	0.62
47:DZ:85:LEU:HB2	47:DZ:87:PRO:HD2	1.80	0.62
1:AA:973:G:H3'	1:AA:974:A:H5''	1.81	0.62
22:AB:50:A:C2	22:AB:52:U:H5''	2.34	0.62
3:AF:188:LEU:HD13	3:AF:195:VAL:HG13	1.82	0.62
41:B2:39:LEU:CD1	41:B2:51:VAL:HG22	2.29	0.62
25:BA:1067:A:N3	25:BA:1067:A:H2'	2.14	0.62
25:BA:1899:G:N2	25:BA:1902:C:N4	2.27	0.62
25:BA:2470:G:O6	25:BA:2476:A:O2'	2.08	0.62
27:BD:35:LYS:CE	27:BD:104:TYR:HB2	2.28	0.62
28:BE:38:THR:HG22	28:BE:45:THR:CG2	2.28	0.62
35:BO:15:ARG:NH1	35:BO:15:ARG:CG	2.39	0.62
39:BR:53:ARG:CZ	39:BR:53:ARG:HB3	2.28	0.62
1:CA:1028:C:N4	1:CA:1033:G:H1	1.98	0.62
1:CA:812:C:C1'	1:CA:813:U:OP2	2.46	0.62
25:DA:1140:C:C1'	25:DA:1143:A:C8	2.82	0.62
25:DA:2629:A:O2'	25:DA:2630:G:H5'	2.00	0.62
26:DB:59:A:H2'	26:DB:60:C:O4'	1.98	0.62
30:DG:67:LYS:HD2	50:D4:6:HIS:NE2	2.14	0.62
35:DO:16:ARG:NH1	35:DO:16:ARG:HG3	2.15	0.62
36:DP:104:PHE:O	36:DP:105:GLU:HB3	1.99	0.62
44:DU:96:ILE:HD12	44:DU:98:VAL:CG1	2.29	0.62
23:AD:29:C:H2'	23:AD:30:G:H8	1.64	0.62
2:AE:166:ASP:HB3	2:AE:169:LYS:HB2	1.80	0.62
9:AL:114:TYR:HE1	10:AM:60:ARG:O	1.82	0.62
1:AA:377:G:OP1	16:AS:3:LYS:HD2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AV:40:ILE:CG1	19:AV:41:VAL:HG13	2.29	0.62
37:B0:104:ARG:HH11	37:B0:104:ARG:HG2	1.65	0.62
50:B4:37:SER:CB	50:B4:42:PHE:HB3	2.29	0.62
19:AV:9:VAL:HG21	50:B4:66:SER:OG	1.99	0.62
52:B6:26:ASN:ND2	52:B6:35:GLU:OE1	2.32	0.62
25:BA:2343:C:O2'	25:BA:2373:G:O2'	2.16	0.62
25:BA:592:G:H21	54:B8:4:MET:CE	2.13	0.62
25:BA:998:C:H2'	25:BA:999:U:O5'	2.00	0.62
27:BD:8:PRO:HB3	27:BD:14:ARG:HB2	1.81	0.62
35:BO:46:LYS:O	35:BO:47:ASP:HB3	2.00	0.62
1:CA:468:A:H2'	1:CA:474:G:H5'	1.82	0.62
1:CA:540:G:H2'	1:CA:541:G:O4'	2.00	0.62
8:CK:16:ALA:HB1	8:CK:21:LYS:HB3	1.81	0.62
25:DA:1862:G:O2'	25:DA:1863:G:H5'	2.00	0.62
25:DA:89:G:H3'	25:DA:90:U:H5''	1.80	0.62
45:DV:108:PRO:CA	45:DV:143:GLY:CA	2.78	0.62
45:DV:49:ARG:HB2	45:DV:50:GLN:HE21	1.64	0.62
1:AA:1228:C:OP1	13:AP:115:LYS:HE3	1.99	0.62
1:AA:1240:U:O2'	7:AJ:38:LEU:HG	1.99	0.62
1:AA:1236:A:O2'	1:AA:1304:G:H4'	1.99	0.62
1:AA:942:G:H21	9:AL:124:GLN:NE2	1.97	0.62
4:AG:95:GLY:O	4:AG:99:SER:OG	2.18	0.62
10:AM:38:ILE:O	10:AM:38:ILE:HG13	1.98	0.62
37:B0:84:ALA:HB3	37:B0:85:PRO:HD3	1.82	0.62
25:BA:2349:G:OP2	54:B8:42:ARG:HD3	2.00	0.62
25:BA:1061:U:H4'	25:BA:1070:A:C1'	2.30	0.62
25:BA:1174:A:H3'	25:BA:1175:U:H5''	1.80	0.62
25:BA:155:C:H42	25:BA:171:G:H1	1.46	0.62
25:BA:2733:A:C2'	25:BA:2734:A:H5''	2.29	0.62
28:BE:66:HIS:ND1	28:BE:66:HIS:C	2.48	0.62
29:BF:46:ARG:NH1	29:BF:46:ARG:HG2	2.06	0.62
30:BG:78:SER:O	30:BG:81:LYS:N	2.33	0.62
36:BP:63:LYS:HD3	36:BP:65:PHE:CE2	2.35	0.62
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.00	0.62
1:CA:1217:C:H2'	1:CA:1218:C:O4'	1.99	0.62
1:CA:1316:G:N2	1:CA:1319:A:OP2	2.32	0.62
22:CB:39:U:H2'	22:CB:40:G:C8	2.29	0.62
23:CC:30:G:H2'	23:CC:31:G:C5'	2.19	0.62
5:CH:11:ILE:HG21	5:CH:105:VAL:HG22	1.81	0.62
15:CR:54:ARG:NH1	15:CR:58:MET:SD	2.73	0.62
40:D1:40:PHE:CZ	41:D2:81:TYR:CE2	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:56:VAL:HG22	50:D4:57:GLU:H	1.65	0.62
25:DA:883:G:H2'	25:DA:884:C:C6	2.35	0.62
29:DF:32:LEU:HD11	29:DF:105:VAL:HG13	1.80	0.62
29:DF:164:ARG:HG2	29:DF:175:THR:OG1	2.00	0.62
30:DG:16:ARG:NH2	30:DG:28:VAL:O	2.33	0.62
44:DU:63:LYS:HA	44:DU:63:LYS:NZ	2.14	0.62
45:DV:19:ARG:NH1	45:DV:84:GLU:HB2	2.15	0.62
2:AE:180:LEU:O	2:AE:181:PHE:HB2	2.00	0.62
16:AS:4:ILE:HB	16:AS:66:PRO:HB3	1.81	0.62
1:AA:255:G:H1'	17:AT:16:GLN:NE2	2.14	0.62
25:BA:2154:G:H2'	25:BA:2155:G:C8	2.35	0.62
25:BA:2335:A:C8	25:BA:2337:G:N7	2.68	0.62
25:BA:573:G:O2'	25:BA:574:C:H3'	2.00	0.62
39:BR:136:GLN:HG3	39:BR:137:LYS:N	2.14	0.62
28:BE:27:LEU:CD1	39:BR:1:MET:HE2	2.30	0.62
42:BS:88:ARG:NH1	42:BS:94:ASP:OD1	2.30	0.62
1:CA:1032:A:H3'	1:CA:1032(A):G:C5'	2.30	0.62
1:CA:32:A:C2	1:CA:33:A:C4	2.88	0.62
2:CE:28:PHE:CD1	2:CE:190:THR:HG22	2.34	0.62
2:CE:28:PHE:CE1	2:CE:31:TYR:HB2	2.35	0.62
4:CG:107:ARG:HH11	4:CG:107:ARG:HG2	1.65	0.62
4:CG:146:ILE:N	4:CG:146:ILE:HD12	2.15	0.62
41:D2:35:LEU:C	41:D2:37:VAL:HG13	2.21	0.62
25:DA:1188:U:H2'	25:DA:1189:A:H5'	1.80	0.62
25:DA:813:U:OP2	35:DO:23:PRO:O	2.18	0.62
30:DG:117:PHE:C	30:DG:117:PHE:CD1	2.72	0.62
32:DK:82:ARG:HB3	32:DK:89:TYR:CD2	2.35	0.62
25:DA:911:A:C5	36:DP:9:TYR:CD2	2.88	0.62
38:DQ:78:LEU:HD11	38:DQ:107:GLU:CB	2.23	0.62
45:DV:158:PRO:O	45:DV:161:VAL:HG13	2.00	0.62
1:AA:1004:A:C5'	1:AA:1025:U:N3	2.63	0.62
1:AA:1139:G:C2	1:AA:1143:G:O6	2.53	0.62
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.34	0.62
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.35	0.62
1:AA:353:A:H2'	1:AA:354:G:OP2	2.00	0.62
2:AE:16:HIS:HE2	2:AE:213:LEU:HD13	1.65	0.62
4:AG:114:ARG:HG2	4:AG:114:ARG:HH11	1.63	0.62
14:AQ:29:ARG:HD3	14:AQ:40:CYS:HB2	1.82	0.62
41:B2:48:GLY:O	41:B2:49:THR:O	2.18	0.62
25:BA:1056:G:N2	25:BA:1103:A:C6	2.68	0.62
25:BA:2168:G:N2	25:BA:2170:A:OP2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:232:G:OP2	25:BA:232:G:H8	1.81	0.62
25:BA:2662:A:H2'	25:BA:2663:G:O4'	2.00	0.62
25:BA:572:A:H5''	25:BA:573:G:OP2	2.00	0.62
27:BD:35:LYS:HG2	27:BD:64:ILE:HG23	1.81	0.62
25:BA:2376:A:N1	38:BQ:87:PHE:HD2	1.97	0.62
2:CE:17:PHE:CE2	2:CE:44:LEU:HA	2.35	0.62
8:CK:20:TYR:HD1	8:CK:65:TYR:CD2	2.18	0.62
12:CO:11:VAL:HG11	17:CT:36:ILE:HG21	1.80	0.62
25:DA:1420:U:O2'	25:DA:1421:G:P	2.58	0.62
25:DA:2439:A:O2'	25:DA:2440:C:OP2	2.18	0.62
25:DA:654(D):G:N2	25:DA:654(R):C:N3	2.48	0.62
26:DB:89:G:OP2	26:DB:89:G:C8	2.53	0.62
30:DG:47:LYS:HG2	30:DG:48:GLU:H	1.63	0.62
31:DH:12:PRO:O	31:DH:15:VAL:HG22	2.00	0.62
33:DM:45:ASN:O	33:DM:45:ASN:CG	2.38	0.62
33:DM:67:LEU:HD23	33:DM:88:GLU:HG2	1.81	0.62
33:DM:95:PRO:O	33:DM:98:VAL:HG22	1.99	0.62
35:DO:37:GLY:O	35:DO:38:GLN:C	2.38	0.62
1:AA:466:C:H5''	1:AA:467:G:OP2	2.00	0.61
1:AA:69:G:N2	1:AA:73:G:C8	2.68	0.61
4:AG:28:SER:HB3	4:AG:29:PRO:HD2	1.82	0.61
7:AJ:113:GLU:HB2	7:AJ:119:ARG:HG2	1.82	0.61
16:AS:72:ARG:HD3	16:AS:73:LEU:HD23	1.82	0.61
25:BA:1077:A:H2'	25:BA:1077:A:N3	2.15	0.61
29:BF:9:ILE:HD11	29:BF:125:LEU:CG	2.28	0.61
42:BS:18:ARG:HG2	42:BS:76:VAL:HG13	1.83	0.61
1:CA:1368:G:H5'	9:CL:112:LYS:HB3	1.81	0.61
23:CC:9:G:O2'	23:CC:10:G:N7	2.29	0.61
23:CC:56:U:O2	23:CC:58:A:C8	2.53	0.61
2:CE:180:LEU:O	2:CE:181:PHE:HB2	2.00	0.61
40:D1:66:ASN:HB2	40:D1:76:TYR:HB2	1.81	0.61
25:DA:1005:C:N1	25:DA:1143:A:C2	2.68	0.61
25:DA:142:G:H2'	25:DA:143:C:C6	2.35	0.61
25:DA:2128:C:O2'	25:DA:2173:A:C2	2.51	0.61
36:DP:69:PHE:CD1	36:DP:70:PRO:HD2	2.35	0.61
38:DQ:24:LEU:O	38:DQ:85:VAL:HG12	2.00	0.61
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.65	0.61
1:AA:49:U:O2'	1:AA:50:A:H3'	2.00	0.61
1:AA:438:G:OP1	4:AG:125:HIS:HE1	1.83	0.61
12:AO:37:CYS:O	12:AO:79:GLU:O	2.18	0.61
12:AO:11:VAL:HG13	17:AT:29:HIS:CD2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AT:29:HIS:CE1	17:AT:32:TYR:HD1	2.18	0.61
50:B4:12:ALA:HB1	50:B4:29:PRO:HA	1.82	0.61
52:B6:10:LEU:HD23	54:B8:34:TRP:CD2	2.34	0.61
25:BA:1063:G:H2'	25:BA:1064:C:H6	1.65	0.61
25:BA:2109:U:H1'	25:BA:2181:G:N2	2.15	0.61
25:BA:2415:G:H4'	35:BO:66:GLY:HA3	1.81	0.61
25:BA:252:G:OP2	35:BO:50:ARG:NH1	2.25	0.61
45:BV:60:GLU:O	45:BV:61:LEU:HD23	2.00	0.61
1:CA:564:C:O2'	8:CK:91:ARG:NH2	2.33	0.61
22:CB:3:C:H2'	22:CB:4:G:H8	1.64	0.61
3:CF:164:ARG:HG2	3:CF:165:THR:H	1.64	0.61
13:CP:91:ARG:HH22	13:CP:96:LEU:HD13	1.65	0.61
21:CX:9:ARG:HG3	21:CX:10:ARG:H	1.65	0.61
46:D3:24:LYS:O	46:D3:25:ARG:HD3	1.98	0.61
52:D6:31:PRO:O	52:D6:32:ASN:HB2	2.00	0.61
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.35	0.61
25:DA:1169:G:H2'	25:DA:1170:G:O4'	2.01	0.61
25:DA:1404:C:O2	25:DA:1404:C:H2'	2.00	0.61
25:DA:1869:G:H5'	25:DA:1869:G:H8	1.65	0.61
25:DA:774:A:C2	25:DA:787:U:O2'	2.51	0.61
27:DD:65:ILE:HD11	27:DD:67:PHE:CZ	2.35	0.61
35:DO:146:VAL:HG13	35:DO:147:LEU:HD13	1.81	0.61
35:DO:59:LEU:HD23	35:DO:59:LEU:O	1.99	0.61
39:DR:16:ARG:NH2	39:DR:19:LEU:HD21	2.15	0.61
42:DS:59:VAL:HA	42:DS:64:MET:H	1.65	0.61
43:DT:39:ILE:O	43:DT:43:VAL:HG13	1.99	0.61
22:AB:50:A:H3'	22:AB:51:A:C5'	2.28	0.61
23:AC:62:C:C5	23:AC:63:C:H5	2.18	0.61
2:AE:80:ILE:HD11	2:AE:208:ILE:HG23	1.82	0.61
9:AL:127:LYS:HG2	9:AL:127:LYS:O	1.99	0.61
14:AQ:23:ARG:CG	14:AQ:23:ARG:HH11	2.12	0.61
6:AI:101:ALA:HB2	18:AU:28:GLU:CG	2.29	0.61
6:AI:89:MET:HE3	18:AU:76:LEU:HD23	1.82	0.61
25:BA:1209:G:H21	25:BA:1210:A:H62	1.48	0.61
25:BA:2157:G:HO2'	25:BA:2158:A:P	2.22	0.61
25:BA:1803:A:H4'	27:BD:259:THR:HG23	1.82	0.61
28:BE:60:ASN:HB2	28:BE:62:PRO:HD2	1.81	0.61
32:BK:135:GLU:OE2	32:BK:135:GLU:N	2.32	0.61
34:BN:60:ALA:HB1	34:BN:84:ALA:HB1	1.81	0.61
1:CA:1095:U:P	1:CA:1108:G:H1	2.23	0.61
1:CA:1278:U:H2'	1:CA:1278:U:O2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1442:G:C2'	1:CA:1443:G:O5'	2.47	0.61
1:CA:575:G:O2'	1:CA:821:G:H5'	2.00	0.61
1:CA:991:U:H6	1:CA:991:U:OP2	1.82	0.61
4:CG:9:CYS:HA	4:CG:12:CYS:HB2	1.83	0.61
7:CJ:62:PHE:HD1	7:CJ:124:LEU:HD11	1.65	0.61
1:CA:1148:U:OP1	9:CL:7:THR:HG21	2.01	0.61
25:DA:1225:C:H4'	41:D2:85:LYS:HB2	1.83	0.61
25:DA:127:A:H5''	25:DA:128:C:C6	2.36	0.61
25:DA:1665:A:H4'	34:DN:67:LYS:HB2	1.81	0.61
25:DA:243:U:OP1	54:D8:6:THR:OG1	2.15	0.61
25:DA:2543:G:H5'	25:DA:2543:G:H8	1.65	0.61
25:DA:2845:G:O2'	25:DA:2846:G:H5'	2.00	0.61
26:DB:13:A:N1	26:DB:69:G:O2'	2.28	0.61
27:DD:70:TRP:CZ3	27:DD:150:LYS:HA	2.36	0.61
38:DQ:110:LEU:HD23	38:DQ:112:PHE:CZ	2.36	0.61
1:AA:8:A:H5'	5:AH:101:ILE:HG22	1.83	0.61
9:AL:43:ALA:HA	9:AL:74:ILE:HD13	1.82	0.61
25:BA:1657:C:H2'	25:BA:1658:C:C6	2.35	0.61
25:BA:2111:C:H41	25:BA:2147:G:N2	1.99	0.61
25:BA:2131:G:H5'	25:BA:2132:U:OP1	2.00	0.61
25:BA:2383:G:O2'	25:BA:2384:G:H5'	2.00	0.61
27:BD:273:ARG:HG3	27:BD:273:ARG:O	2.00	0.61
25:BA:2312:U:O2	30:BG:42:GLY:CA	2.48	0.61
35:BO:9:ASN:CB	35:BO:10:PRO:HD2	2.22	0.61
43:BT:49:VAL:CG1	43:BT:50:LYS:N	2.63	0.61
1:CA:652:U:O4	1:CA:752:G:H1'	2.00	0.61
23:CC:28:U:O2	23:CC:45:A:H2	1.79	0.61
23:CC:49:C:O2	23:CC:60:A:H1'	2.00	0.61
23:CD:13:C:HO2'	23:CD:14:A:P	2.23	0.61
4:CG:161:ASN:O	4:CG:165:MET:HG2	2.00	0.61
13:CP:76:ALA:HA	13:CP:79:LYS:HB2	1.82	0.61
25:DA:483:A:C5'	44:DU:49:VAL:HA	2.30	0.61
26:DB:30:C:H2'	26:DB:31:C:H5'	1.81	0.61
26:DB:44:G:O2'	26:DB:47:C:N4	2.33	0.61
27:DD:35:LYS:HZ1	27:DD:104:TYR:N	1.95	0.61
28:DE:46:ALA:HB1	28:DE:82:ARG:CA	1.96	0.61
31:DH:109:PHE:CZ	31:DH:152:ARG:NE	2.68	0.61
38:DQ:62:LYS:HB3	38:DQ:97:ARG:HD3	1.82	0.61
39:DR:51:ARG:HG2	39:DR:98:LYS:HE3	1.80	0.61
1:AA:1004:A:C5'	1:AA:1025:U:O4	2.48	0.61
3:AF:20:SER:HB2	3:AF:40:ARG:HH22	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:41:ARG:NH2	8:AK:123:GLU:OE1	2.34	0.61
25:BA:330:A:H2	25:BA:1210:A:HO2'	1.45	0.61
25:BA:1316:U:H2'	25:BA:1317:A:H8	1.63	0.61
26:BB:30:C:C2'	26:BB:31:C:O5'	2.47	0.61
31:BH:169:VAL:C	31:BH:170:ARG:HG3	2.19	0.61
32:BK:98:ALA:HB2	32:BK:111:PRO:HB3	1.81	0.61
1:CA:1127:G:H1'	1:CA:1147:C:H42	1.66	0.61
1:CA:1127:G:H1'	1:CA:1147:C:N4	2.15	0.61
1:CA:1226:C:H2'	13:CP:103:THR:HB	1.80	0.61
3:CF:40:ARG:HG2	3:CF:55:VAL:HG11	1.82	0.61
3:CF:73:PRO:HG3	3:CF:105:GLU:HB2	1.83	0.61
4:CG:191:ARG:NH1	4:CG:200:GLU:OE1	2.34	0.61
22:CB:85:C:C5	25:DA:2555:U:O2	2.54	0.61
25:DA:2786:U:H4'	28:DE:64:LYS:C	2.20	0.61
25:DA:545:G:N2	25:DA:548:A:H62	1.93	0.61
25:DA:581:C:H2'	25:DA:582:G:H8	1.65	0.61
25:DA:77:C:OP1	48:DW:59:ARG:HD3	2.00	0.61
29:DF:18:ARG:HG2	29:DF:19:GLU:N	2.15	0.61
1:AA:136:C:H42	1:AA:227:G:H1	1.48	0.61
22:AB:49:C:N3	22:AB:54:G:N2	2.48	0.61
23:AC:18:C:C2'	23:AC:18:C:O2	2.48	0.61
23:AD:41:C:O2'	23:AD:42:C:H5'	2.00	0.61
1:AA:192:U:H4'	20:AW:103:GLY:HA2	1.82	0.61
50:B4:13:ARG:HB2	50:B4:30:GLU:HA	1.81	0.61
52:B6:25:LYS:HZ3	52:B6:27:LYS:HE2	1.66	0.61
54:B8:34:TRP:O	54:B8:35:GLN:CB	2.48	0.61
28:BE:47:VAL:HG22	28:BE:84:PHE:O	2.00	0.61
1:CA:1026:G:O6	1:CA:1036:G:C2	2.53	0.61
1:CA:1001:G:H1	1:CA:1039:C:H42	1.49	0.61
1:CA:1123:A:H4'	10:CM:36:GLY:HA3	1.83	0.61
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.35	0.61
1:CA:316:G:OP2	1:CA:351:G:O2'	2.18	0.61
2:CE:197:VAL:HG12	2:CE:200:ILE:HG12	1.81	0.61
1:CA:1330:U:H4'	13:CP:23:TYR:CD2	2.35	0.61
14:CQ:29:ARG:HD2	14:CQ:31:ARG:O	1.99	0.61
19:CV:41:VAL:HG12	19:CV:42:PRO:HD2	1.83	0.61
25:DA:2262:U:OP2	46:D3:19:LYS:NZ	2.34	0.61
25:DA:1171:G:H1	25:DA:1178:C:H42	1.46	0.61
25:DA:2168:G:H2'	25:DA:2168:G:N3	2.16	0.61
30:DG:96:ARG:HH11	30:DG:96:ARG:HG2	1.66	0.61
31:DH:116:GLU:HG2	31:DH:117:PRO:HD2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:153:LYS:O	31:DH:161:GLY:CA	2.48	0.61
25:DA:1049:C:H42	31:DH:2:SER:HB3	1.66	0.61
25:DA:2393:A:C5'	35:DO:62:LEU:HB3	2.11	0.61
1:AA:186(E):C:H42	1:AA:191(B):G:H1	1.48	0.61
9:AL:79:LEU:O	9:AL:83:ARG:HG3	2.01	0.61
1:AA:390:C:O3'	16:AS:28:ARG:NH2	2.31	0.61
19:AV:10:PHE:H	19:AV:10:PHE:HD1	1.43	0.61
30:BG:67:LYS:HG3	50:B4:6:HIS:CE1	2.36	0.61
25:BA:1026:U:C4'	25:BA:1027:A:OP1	2.48	0.61
25:BA:1099:G:H2'	25:BA:1100:C:O4'	2.01	0.61
25:BA:594:U:OP1	54:B8:61:LEU:HD22	2.00	0.61
30:BG:73:ALA:HB1	30:BG:82:LEU:HD11	1.82	0.61
49:BX:8:LEU:HD13	49:BX:31:LEU:HD23	1.82	0.61
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.84	0.61
22:CB:86:C:H2'	22:CB:87:A:C4	2.35	0.61
2:CE:28:PHE:HD1	2:CE:32:ILE:HG22	1.63	0.61
12:CO:58:VAL:O	12:CO:65:GLU:HA	2.00	0.61
14:CQ:37:PHE:HZ	14:CQ:56:VAL:HG21	1.64	0.61
17:CT:44:ALA:HB1	17:CT:73:VAL:HG12	1.83	0.61
6:CI:97:PHE:CD2	18:CU:65:ILE:HD11	2.36	0.61
26:DB:40:U:H2'	26:DB:45:A:H61	1.66	0.61
27:DD:64:ILE:O	27:DD:64:ILE:HG12	2.01	0.61
28:DE:4:ILE:HD12	28:DE:28:ALA:HB1	1.82	0.61
35:DO:61:ARG:O	35:DO:62:LEU:CD2	2.45	0.61
48:DW:67:LYS:O	48:DW:72:ALA:HB2	2.00	0.61
1:AA:411:A:C8	1:AA:413:G:H1'	2.36	0.61
1:AA:606:G:H1	1:AA:631:G:H5''	1.65	0.61
23:AC:20:G:C5	23:AC:58:A:C2	2.89	0.61
23:AD:20:G:H5''	23:AD:60:A:H61	1.65	0.61
23:AD:25:U:H2'	23:AD:26:C:C6	2.35	0.61
5:AH:102:ALA:HB1	5:AH:106:PRO:HG2	1.83	0.61
41:B2:25:LEU:H	41:B2:92:THR:CG2	2.13	0.61
25:BA:1060:U:H5'	25:BA:1061:U:C5	2.36	0.61
25:BA:1520:U:H2'	25:BA:1521:G:O4'	2.01	0.61
25:BA:1728:G:N1	25:BA:1730:U:OP2	2.33	0.61
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.36	0.61
25:BA:2689:U:OP2	25:BA:2719:G:N2	2.32	0.61
25:BA:479:A:N3	25:BA:481:G:H5'	2.16	0.61
25:BA:518:G:H4'	42:BS:18:ARG:NH1	2.15	0.61
25:BA:613:U:O2	25:BA:613:U:O5'	2.18	0.61
25:BA:856:C:H2'	25:BA:857:C:H6	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:75:THR:HA	36:BP:88:GLY:O	2.01	0.61
44:BU:81:LYS:HZ3	44:BU:96:ILE:CD1	2.14	0.61
1:CA:619:U:O2	4:CG:135:LEU:HD22	2.01	0.61
5:CH:144:THR:O	5:CH:148:VAL:HG23	1.99	0.61
19:CV:27:GLU:HG2	19:CV:47:HIS:CD2	2.35	0.61
25:DA:1323:U:H2'	25:DA:1324:G:H5'	1.81	0.61
25:DA:2522:U:C2'	25:DA:2523:G:H5''	2.30	0.61
28:DE:50:GLY:O	28:DE:51:PHE:HB3	1.99	0.61
31:DH:169:VAL:HG13	31:DH:170:ARG:N	2.16	0.61
32:DK:95:LYS:NZ	32:DK:99:GLU:OE2	2.33	0.61
45:DV:37:VAL:HG23	45:DV:38:TYR:N	2.14	0.61
48:DW:25:VAL:HG12	48:DW:60:LEU:HD23	1.80	0.61
1:AA:1004:A:C5'	1:AA:1025:U:C4	2.84	0.61
1:AA:316:G:OP2	1:AA:351:G:O2'	2.19	0.61
1:AA:736:C:H2'	1:AA:737:A:C8	2.35	0.61
3:AF:166:GLU:HG3	3:AF:167:TRP:N	2.15	0.61
4:AG:196:LEU:HB3	4:AG:197:PRO:HD2	1.83	0.61
8:AK:86:ILE:HG22	8:AK:87:SER:N	2.14	0.61
9:AL:118:LYS:O	9:AL:119:ALA:HB3	2.00	0.61
40:B1:79:PHE:HE2	40:B1:83:LEU:CD2	2.14	0.61
25:BA:330:A:H2	25:BA:1210:A:H2'	1.65	0.61
25:BA:1586:A:H3'	25:BA:1587:A:H8	1.65	0.61
25:BA:2032:G:N2	28:BE:146:THR:HG23	2.12	0.61
25:BA:2164:C:H2'	25:BA:2165:G:C8	2.35	0.61
25:BA:2389:G:H5''	25:BA:2390:U:H5'	1.82	0.61
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.36	0.61
25:BA:882:G:C2'	25:BA:883:G:C8	2.80	0.61
35:BO:57:THR:O	35:BO:59:LEU:N	2.34	0.61
1:CA:84:U:O2	1:CA:84:U:H2'	2.00	0.61
4:CG:13:ARG:C	4:CG:15:GLU:N	2.51	0.61
17:CT:9:VAL:HG23	17:CT:56:VAL:HG22	1.83	0.61
25:DA:1062:G:OP1	25:DA:1062:G:H8	1.83	0.61
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.01	0.61
25:DA:2310:A:C5'	25:DA:2311:A:OP2	2.49	0.61
25:DA:322:A:H5'	25:DA:340:A:H1'	1.82	0.61
32:DK:117:GLU:CD	32:DK:117:GLU:H	2.04	0.61
44:DU:47:LYS:N	44:DU:60:PHE:HB3	2.15	0.61
45:DV:11:GLU:HG2	45:DV:12:GLY:N	2.14	0.61
48:DW:16:LEU:H	48:DW:16:LEU:HD12	1.66	0.61
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.01	0.61
1:AA:87:A:H2'	1:AA:88:C:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:941:G:C2	1:AA:942:G:H1'	2.36	0.61
2:AE:60:ASP:O	2:AE:64:ARG:HG2	2.01	0.61
2:AE:63:MET:HB3	2:AE:225:ALA:HB1	1.82	0.61
4:AG:13:ARG:O	4:AG:14:ARG:C	2.38	0.61
5:AH:9:LYS:O	5:AH:33:VAL:HG23	2.01	0.61
12:AO:90:VAL:O	12:AO:91:LYS:HB3	2.01	0.61
15:AR:26:GLU:OE2	15:AR:77:ARG:NH1	2.33	0.61
16:AS:20:VAL:CG2	16:AS:32:TYR:CD2	2.84	0.61
25:BA:1084:A:N6	25:BA:1085:A:N6	2.48	0.61
25:BA:1535:U:C2	25:BA:1536:A:H3'	2.35	0.61
25:BA:2074:U:H2'	25:BA:2075:U:C6	2.36	0.61
25:BA:2127:G:H5'	25:BA:2128:C:OP2	2.00	0.61
25:BA:270(G):C:H2'	25:BA:270(H):C:O4'	2.00	0.61
25:BA:774:A:H2	25:BA:787:U:O2'	1.84	0.61
28:BE:119:ARG:CG	28:BE:119:ARG:HH11	2.14	0.61
28:BE:38:THR:C	28:BE:40:GLU:H	2.04	0.61
31:BH:117:PRO:HB3	31:BH:123:PHE:CE1	2.36	0.61
31:BH:159:GLU:CD	31:BH:170:ARG:HH12	2.04	0.61
32:BK:73:GLU:HG3	32:BK:137:PRO:HG2	1.82	0.61
33:BM:42:TRP:CA	33:BM:48:MET:HE1	2.12	0.61
33:BM:59:LYS:HE3	33:BM:61:ARG:HH22	1.64	0.61
36:BP:66:ILE:CG1	36:BP:67:ARG:H	2.06	0.61
39:BR:5:ALA:HA	39:BR:8:LYS:HE2	1.83	0.61
1:CA:1322:C:H2'	1:CA:1322:C:O2	2.00	0.61
2:CE:105:PHE:O	2:CE:109:SER:N	2.30	0.61
3:CF:34:LEU:O	3:CF:34:LEU:HD12	2.01	0.61
8:CK:64:LYS:HD2	8:CK:79:VAL:HG21	1.82	0.61
21:CX:25:LYS:HE2	21:CX:26:LYS:HE2	1.83	0.61
25:DA:9:U:C2	25:DA:2629:A:N6	2.52	0.61
44:DU:53:PRO:HD2	44:DU:57:GLN:O	2.01	0.61
44:DU:47:LYS:HG2	44:DU:60:PHE:CD1	2.36	0.61
1:AA:652:U:C4	1:AA:752:G:N3	2.69	0.60
22:AB:23:A:H3'	22:AB:24:C:C5	2.36	0.60
3:AF:119:ARG:HE	3:AF:140:ARG:CZ	2.14	0.60
4:AG:79:PHE:CE1	4:AG:204:ILE:HG12	2.35	0.60
5:AH:91:LEU:HD12	5:AH:120:THR:HG22	1.81	0.60
8:AK:9:MET:SD	8:AK:32:LYS:HG2	2.41	0.60
10:AM:48:THR:CG2	10:AM:62:HIS:HB3	2.30	0.60
18:AU:26:LEU:HD22	18:AU:42:ARG:NH1	2.15	0.60
25:BA:1348:G:C2'	25:BA:1349:A:H5''	2.31	0.60
25:BA:2733:A:C3'	25:BA:2734:A:H5''	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:41:LYS:C	28:BE:42:ASP:OD2	2.39	0.60
30:BG:15:VAL:HG22	30:BG:175:LEU:HB2	1.83	0.60
43:BT:27:THR:HB	43:BT:80:ILE:HG22	1.83	0.60
1:CA:1091:U:O2	1:CA:1093:A:H8	1.84	0.60
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.36	0.60
1:CA:407:G:H2'	1:CA:408:A:C8	2.36	0.60
2:CE:82:ARG:HA	2:CE:92:TYR:CE1	2.35	0.60
1:CA:973:G:C4	10:CM:55:LYS:HE2	2.36	0.60
19:CV:80:TYR:CZ	19:CV:82:GLY:HA2	2.36	0.60
26:DB:75:G:C5'	26:DB:75:G:H8	2.11	0.60
25:DA:2052:G:O4'	28:DE:142:GLY:HA3	2.01	0.60
28:DE:182:LEU:HD12	28:DE:183:LEU:N	2.15	0.60
29:DF:10:PRO:HA	29:DF:127:GLU:HB3	1.82	0.60
39:DR:93:ARG:HG2	39:DR:117:ASP:HB3	1.82	0.60
1:AA:1028(B):C:N3	1:AA:1032(A):G:N2	2.49	0.60
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.35	0.60
1:AA:177:C:OP2	20:AW:65:LYS:HD3	2.01	0.60
1:AA:605:U:H2'	1:AA:606:G:O4'	2.00	0.60
11:AN:78:GLN:O	11:AN:103:LEU:HA	2.00	0.60
18:AU:58:LEU:HD22	18:AU:62:GLU:HB3	1.82	0.60
40:B1:92:ARG:NH1	40:B1:94:ASN:ND2	2.49	0.60
25:BA:1332:G:H5'	25:BA:1332:G:C8	2.36	0.60
25:BA:2169:A:C6	25:BA:2170:A:N1	2.69	0.60
25:BA:1786:A:C2	25:BA:2606:C:H1'	2.35	0.60
25:BA:2629:A:O2'	25:BA:2630:G:H5''	2.01	0.60
25:BA:2820:A:C8	28:BE:109:LYS:HE2	2.36	0.60
25:BA:481:G:H1'	25:BA:507:A:N1	2.15	0.60
25:BA:755:C:O2'	25:BA:756:C:H5'	2.00	0.60
28:BE:14:ILE:HB	28:BE:21:VAL:HG22	1.82	0.60
28:BE:78:LEU:HD11	28:BE:79:ARG:HG2	1.82	0.60
29:BF:123:LEU:HD12	29:BF:124:LEU:N	2.17	0.60
1:CA:1184:G:H2'	1:CA:1185:G:H5'	1.83	0.60
1:CA:1227:A:O3'	13:CP:115:LYS:HD2	2.01	0.60
1:CA:1239:A:O2'	1:CA:1298:C:N4	2.34	0.60
7:CJ:86:GLN:NE2	23:CD:32:G:H21	2.00	0.60
53:D7:19:ARG:HG2	53:D7:19:ARG:HH11	1.66	0.60
25:DA:1459:G:C2'	25:DA:1460:A:H5'	2.29	0.60
25:DA:242:G:H5'	54:D8:62:LEU:HB3	1.82	0.60
25:DA:7:G:O2'	25:DA:8:A:H5'	2.02	0.60
25:DA:857:C:H2'	25:DA:858:U:C6	2.36	0.60
25:DA:873:G:C2	25:DA:905:U:O2	2.54	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:34:VAL:O	27:DD:34:VAL:HG13	2.01	0.60
31:DH:152:ARG:C	31:DH:154:PRO:CD	2.69	0.60
32:DK:75:LEU:HD23	32:DK:76:THR:H	1.65	0.60
45:DV:139:VAL:HA	45:DV:156:LYS:HE3	1.82	0.60
45:DV:108:PRO:HB3	45:DV:141:VAL:O	2.00	0.60
45:DV:126:VAL:HG12	45:DV:163:LEU:HA	1.81	0.60
49:DX:40:THR:HG23	49:DX:43:ILE:HG12	1.82	0.60
1:AA:38:G:C2	1:AA:397:A:C2	2.90	0.60
1:AA:50:A:H4'	1:AA:51:A:O5'	2.01	0.60
1:AA:667:G:H4'	15:AR:51:HIS:ND1	2.17	0.60
1:AA:97:U:H2'	1:AA:99:C:C6	2.36	0.60
22:AB:27:G:O6	22:AB:45:U:O2	2.19	0.60
23:AC:59:A:H4'	23:AC:60:A:OP1	2.02	0.60
3:AF:53:ALA:HB2	3:AF:115:LEU:HD11	1.83	0.60
4:AG:30:LYS:N	4:AG:30:LYS:HD3	2.16	0.60
5:AH:12:LEU:O	5:AH:30:ALA:HA	2.01	0.60
8:AK:101:PRO:HG2	8:AK:133:LEU:HD11	1.84	0.60
20:AW:9:ASN:C	20:AW:9:ASN:HD22	2.05	0.60
25:BA:2308:G:N3	25:BA:2308:G:H2'	2.15	0.60
27:BD:186:HIS:CD2	27:BD:188:GLU:H	2.11	0.60
30:BG:94:LEU:HD23	30:BG:94:LEU:H	1.66	0.60
1:CA:928:G:O2'	1:CA:1533:C:OP1	2.19	0.60
23:CD:37:U:O4	23:CD:38:A:N6	2.34	0.60
23:CD:15:G:C2'	23:CD:60:A:H2	2.11	0.60
3:CF:77:ILE:O	3:CF:83:ARG:HB3	2.01	0.60
14:CQ:45:ARG:O	14:CQ:49:HIS:CD2	2.55	0.60
25:DA:2210:G:H4'	25:DA:2211:G:OP2	2.01	0.60
25:DA:2467:C:H2'	25:DA:2468:G:O4'	2.02	0.60
26:DB:44:G:C2	26:DB:48:A:C2	2.89	0.60
27:DD:48:ARG:NH1	27:DD:48:ARG:HG3	2.15	0.60
25:DA:322:A:H3'	29:DF:169:ASN:ND2	2.15	0.60
31:DH:137:ASP:CB	31:DH:140:LYS:HB2	2.31	0.60
35:DO:61:ARG:CZ	35:DO:61:ARG:HB2	2.26	0.60
1:AA:73:G:H2'	1:AA:74:C:C6	2.36	0.60
1:AA:872:A:C4	1:AA:874:G:C8	2.89	0.60
5:AH:55:VAL:O	5:AH:58:ALA:HB3	2.02	0.60
25:BA:2418:A:OP2	54:B8:29:LYS:HE2	2.02	0.60
25:BA:1688:U:O2	25:BA:1700:A:H5''	2.01	0.60
25:BA:2212:A:H1'	25:BA:2215:G:C5	2.37	0.60
25:BA:2466:C:H2'	25:BA:2467:C:H5'	1.83	0.60
39:BR:121:ILE:O	39:BR:123:GLN:O	2.20	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:31:HIS:CD2	43:BT:33:LYS:H	2.20	0.60
1:CA:126:G:HO2'	1:CA:634:C:HO2'	1.49	0.60
1:CA:87:A:N3	1:CA:87:A:H2'	2.16	0.60
3:CF:37:GLN:O	3:CF:41:GLY:N	2.35	0.60
5:CH:96:PRO:HA	5:CH:117:ASP:OD2	2.01	0.60
2:CE:178:ARG:NH2	8:CK:74:PRO:HG3	2.17	0.60
12:CO:27:LEU:CD2	12:CO:33:ARG:HG2	2.31	0.60
16:CS:8:ARG:HG2	16:CS:8:ARG:NH1	2.16	0.60
41:D2:5:VAL:HA	41:D2:37:VAL:HB	1.83	0.60
25:DA:2415:G:H4'	35:DO:66:GLY:HA3	1.83	0.60
25:DA:867:C:C5	25:DA:868:U:C5	2.90	0.60
38:DQ:83:LYS:O	38:DQ:109:GLY:HA3	2.01	0.60
45:DV:144:LEU:O	45:DV:146:ILE:N	2.35	0.60
1:AA:1193:G:H2'	1:AA:1194:U:H5'	1.83	0.60
1:AA:309:G:H1'	1:AA:608:A:C2	2.35	0.60
22:AB:42:U:H5'	22:AB:43:A:OP2	2.01	0.60
1:AA:1298:C:C6	7:AJ:114:ARG:NH1	2.69	0.60
15:AR:82:ILE:HG22	15:AR:83:GLU:N	2.16	0.60
25:BA:2285:C:OP1	52:B6:28:ARG:HD3	2.01	0.60
52:B6:44:ARG:O	52:B6:45:LYS:CB	2.46	0.60
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.47	0.60
25:BA:1469:A:C2'	25:BA:1470:G:O5'	2.49	0.60
25:BA:2318:G:H22	38:BQ:2:ALA:HB2	1.66	0.60
25:BA:612:G:H2'	25:BA:613:U:O2	2.01	0.60
27:BD:146:GLU:HB2	27:BD:189:CYS:HB3	1.83	0.60
28:BE:61:ARG:N	28:BE:62:PRO:CD	2.64	0.60
33:BM:57:ALA:O	33:BM:58:ASP:CG	2.39	0.60
35:BO:9:ASN:O	35:BO:10:PRO:C	2.40	0.60
45:BV:6:LYS:HA	45:BV:60:GLU:CB	2.26	0.60
1:CA:342:C:C2'	1:CA:343:U:H5'	2.31	0.60
1:CA:828:A:H2'	1:CA:829:G:O4'	2.02	0.60
11:CN:57:THR:HG22	11:CN:58:PRO:HD2	1.83	0.60
12:CO:110:VAL:HG23	12:CO:120:TYR:HB3	1.84	0.60
12:CO:32:PHE:HE1	12:CO:86:ARG:HG3	1.65	0.60
1:CA:1320:C:O2	19:CV:72:GLY:HA3	2.01	0.60
25:DA:155:C:H2'	25:DA:155:C:O2	2.00	0.60
25:DA:524:U:H2'	25:DA:525:U:C6	2.37	0.60
25:DA:2251:G:OP1	36:DP:82:ARG:NH1	2.34	0.60
1:AA:1004:A:C6	1:AA:1025:U:H1'	2.37	0.60
1:AA:880:C:OP1	12:AO:8:ASN:ND2	2.34	0.60
23:AC:20:G:C5	23:AC:58:A:H2	2.18	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AN:12:ARG:HG2	11:AN:13:GLN:N	2.17	0.60
25:BA:442:G:C4'	29:BF:46:ARG:HD3	2.32	0.60
28:BE:23:VAL:CA	28:BE:185:LYS:HA	2.31	0.60
29:BF:20:LEU:HD12	29:BF:21:ALA:N	2.17	0.60
31:BH:115:VAL:HG11	31:BH:148:ILE:HG12	1.84	0.60
42:BS:94:ASP:C	42:BS:95:ILE:HG23	2.21	0.60
48:BW:58:ALA:O	48:BW:62:THR:HG22	2.02	0.60
1:CA:652:U:O2'	1:CA:653:A:H5''	2.01	0.60
22:CB:7:G:H3'	22:CB:8:U:C5'	2.31	0.60
41:D2:35:LEU:HG	41:D2:37:VAL:CG1	2.27	0.60
52:D6:48:VAL:CG1	52:D6:49:HIS:N	2.33	0.60
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.15	0.60
25:DA:2354:G:O2'	46:D3:36:ILE:HD12	2.02	0.60
25:DA:2404:C:H1'	35:DO:67:MET:HE1	1.81	0.60
25:DA:2632:A:O2'	25:DA:2811:G:O2'	1.98	0.60
25:DA:476:G:H4'	25:DA:502:A:N1	2.16	0.60
25:DA:1820:U:O2'	27:DD:159:ALA:O	2.14	0.60
27:DD:25:THR:C	27:DD:27:THR:H	2.03	0.60
27:DD:35:LYS:HE3	27:DD:65:ILE:N	2.17	0.60
28:DE:126:PRO:O	28:DE:131:ALA:HB2	2.01	0.60
32:DK:101:LEU:CD2	32:DK:101:LEU:H	2.14	0.60
35:DO:57:THR:O	35:DO:59:LEU:N	2.34	0.60
44:DU:61:ILE:HG22	44:DU:62:GLU:N	2.17	0.60
1:AA:1022:G:H2'	1:AA:1023:G:O4'	2.02	0.60
1:AA:1028(A):C:C2	1:AA:1028(B):C:C5	2.89	0.60
23:AD:22:A:C2	23:AD:47:G:C8	2.90	0.60
54:B8:32:LEU:O	54:B8:36:LYS:NZ	2.34	0.60
25:BA:1761:C:N4	25:BA:1762:A:H62	1.99	0.60
28:BE:197:ILE:O	28:BE:197:ILE:HG12	2.01	0.60
28:BE:34:VAL:HG13	28:BE:49:LEU:O	2.00	0.60
28:BE:59:VAL:C	28:BE:60:ASN:CG	2.61	0.60
33:BM:38:HIS:CE1	33:BM:50:ASP:OD2	2.55	0.60
35:BO:83:VAL:CG1	35:BO:112:LEU:HD21	2.32	0.60
43:BT:57:LEU:CD1	43:BT:78:LYS:HB2	2.32	0.60
1:CA:1399:C:C2	1:CA:1502:A:N6	2.70	0.60
1:CA:328:C:O2'	1:CA:329:A:OP2	2.13	0.60
4:CG:31:CYS:C	4:CG:33:MET:H	2.04	0.60
7:CJ:113:GLU:CB	7:CJ:119:ARG:HG2	2.30	0.60
5:CH:152:ARG:NH2	8:CK:107:LEU:O	2.33	0.60
1:CA:972:C:OP2	10:CM:57:LYS:HD2	2.00	0.60
10:CM:8:LEU:HD22	10:CM:20:ALA:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:D1:98:LEU:C	40:D1:100:VAL:H	2.03	0.60
25:DA:2262:U:P	46:D3:19:LYS:NZ	2.74	0.60
25:DA:1044:G:O3'	25:DA:1045:A:H4'	2.01	0.60
25:DA:1771:C:C1'	25:DA:1786:A:H8	2.13	0.60
25:DA:669:G:O2'	25:DA:670:A:P	2.60	0.60
31:DH:137:ASP:HB3	31:DH:140:LYS:HB2	1.83	0.60
25:DA:385:C:O2	35:DO:71:VAL:HG21	2.02	0.60
1:AA:271:C:H2'	1:AA:272:C:H6	1.66	0.60
1:AA:437:U:H2'	1:AA:438:G:O4'	2.02	0.60
2:AE:187:LEU:HA	2:AE:201:ILE:HB	1.83	0.60
14:AQ:45:ARG:NH1	14:AQ:49:HIS:HE1	2.00	0.60
54:B8:52:LYS:N	54:B8:53:PRO:CD	2.63	0.60
25:BA:2310:A:H2'	25:BA:2311:A:H5'	1.84	0.60
25:BA:2898:U:H2'	25:BA:2899:G:C8	2.37	0.60
27:BD:31:LYS:HE3	27:BD:102:LYS:HD3	1.84	0.60
28:BE:167:VAL:CG1	28:BE:189:PRO:HD3	2.31	0.60
33:BM:28:THR:HA	33:BM:106:MET:HE2	1.83	0.60
33:BM:46:VAL:HG12	33:BM:47:ALA:N	2.01	0.60
1:CA:1045:C:H2'	1:CA:1046:A:O4'	2.02	0.60
1:CA:1133:G:H1	1:CA:1141:C:H42	1.48	0.60
1:CA:965:A:C2	1:CA:969:A:C2	2.90	0.60
22:CB:31:C:H2'	22:CB:32:C:H6	1.65	0.60
2:CE:82:ARG:HA	2:CE:92:TYR:HE1	1.67	0.60
3:CF:75:VAL:O	3:CF:83:ARG:NE	2.35	0.60
4:CG:62:GLN:HE22	4:CG:65:ARG:HE	1.49	0.60
12:CO:47:LYS:CB	12:CO:48:PRO:HD2	2.31	0.60
25:DA:1101:U:H2'	25:DA:1102:C:H6	1.67	0.60
25:DA:1190:G:H2'	25:DA:1191:G:H8	1.67	0.60
31:DH:153:LYS:O	31:DH:161:GLY:HA2	2.02	0.60
25:DA:943:U:OP2	35:DO:36:LYS:HE3	2.02	0.60
35:DO:78:PRO:HA	35:DO:110:TYR:HD2	1.67	0.60
38:DQ:59:LYS:CD	38:DQ:60:GLY:H	2.15	0.60
38:DQ:61:ASN:O	38:DQ:65:VAL:HB	2.02	0.60
1:AA:1159:U:C2	1:AA:1182:G:N1	2.70	0.60
1:AA:737:A:H2'	1:AA:738:C:H6	1.64	0.60
2:AE:8:LYS:H	2:AE:8:LYS:CD	2.14	0.60
4:AG:3:ARG:HG2	4:AG:118:ARG:CZ	2.32	0.60
5:AH:79:GLU:HB3	5:AH:92:LYS:HG3	1.82	0.60
8:AK:129:VAL:HG23	8:AK:130:GLY:H	1.66	0.60
8:AK:7:ALA:HB2	8:AK:85:ARG:HD2	1.82	0.60
10:AM:40:LEU:HB2	10:AM:69:ASN:HB3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:60:VAL:HG13	13:AP:64:TRP:HE1	1.67	0.60
25:BA:1156:A:C8	40:B1:51:LYS:HD2	2.37	0.60
25:BA:1204:A:H2	25:BA:1241:A:N1	2.00	0.60
25:BA:1480:G:C2	25:BA:1482:U:O2	2.54	0.60
25:BA:2416:C:OP1	35:BO:64:LYS:O	2.18	0.60
25:BA:270(M):U:H1'	25:BA:270(N):G:C6	2.36	0.60
28:BE:52:LEU:CD2	28:BE:52:LEU:N	2.58	0.60
32:BK:79:ILE:HB	32:BK:142:VAL:HG12	1.84	0.60
34:BN:7:TYR:CZ	34:BN:44:LYS:HG3	2.37	0.60
35:BO:66:GLY:O	35:BO:67:MET:C	2.40	0.60
39:BR:36:GLU:HG3	39:BR:41:ARG:CD	2.25	0.60
47:BZ:84:GLY:O	47:BZ:87:PRO:HD3	2.01	0.60
1:CA:1127:G:N2	1:CA:1145:C:C2	2.70	0.60
1:CA:690:G:H2'	1:CA:691:G:O4'	2.01	0.60
3:CF:157:ILE:HD11	3:CF:166:GLU:HB2	1.84	0.60
5:CH:48:ALA:HB1	5:CH:49:PRO:HD2	1.84	0.60
37:D0:51:LEU:HD22	37:D0:66:VAL:HG13	1.82	0.60
25:DA:993:G:OP1	40:D1:50:ARG:NH2	2.34	0.60
50:D4:40:HIS:HB3	50:D4:45:GLY:HA3	1.82	0.60
25:DA:1012:U:O4	33:DM:25:ARG:HD3	2.02	0.60
25:DA:1689:A:N7	25:DA:1698:A:N1	2.49	0.60
25:DA:1858:G:H1'	25:DA:1884:A:N6	2.16	0.60
25:DA:2159:G:H2'	25:DA:2160:G:O4'	2.02	0.60
25:DA:1786:A:C2	25:DA:2606:C:H1'	2.37	0.60
25:DA:2753:A:H2'	25:DA:2754:U:H5''	1.84	0.60
25:DA:733:G:O6	25:DA:761:A:C8	2.55	0.60
29:DF:46:ARG:HG2	29:DF:46:ARG:NH1	2.11	0.60
36:DP:38:GLU:HB2	36:DP:127:ILE:HG22	1.84	0.60
45:DV:150:LEU:HD22	45:DV:154:ASP:HB2	1.82	0.60
48:DW:64:LEU:HD23	48:DW:64:LEU:O	2.02	0.60
1:AA:1157:A:N3	1:AA:1157:A:H2'	2.17	0.60
1:AA:1176:A:H2'	1:AA:1177:G:H5'	1.84	0.60
1:AA:1442:G:C6	1:AA:1446:A:N6	2.70	0.60
22:AB:23:A:O2'	22:AB:24:C:OP1	2.18	0.60
3:AF:32:LEU:HD13	3:AF:59:ARG:HD3	1.84	0.60
3:AF:58:GLU:H	3:AF:65:ALA:HB3	1.65	0.60
1:AA:235:C:C5'	17:AT:70:ARG:HG2	2.28	0.60
40:B1:79:PHE:C	40:B1:79:PHE:CD2	2.73	0.60
40:B1:79:PHE:HE2	40:B1:83:LEU:HD21	1.66	0.60
41:B2:65:GLY:HA3	41:B2:91:TYR:CE1	2.37	0.60
52:B6:41:PRO:HD2	52:B6:46:HIS:H	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1095:A:N3	25:BA:1095:A:H2'	2.15	0.60
25:BA:141:A:C8	25:BA:1408:C:H1'	2.37	0.60
25:BA:329:G:H4'	25:BA:330:A:OP2	2.00	0.60
27:BD:110:GLY:O	27:BD:112:GLN:HG3	2.00	0.60
30:BG:63:ILE:HG12	30:BG:64:THR:N	2.15	0.60
32:BK:78:THR:HG23	32:BK:141:LYS:HZ3	1.65	0.60
35:BO:16:ARG:HG3	35:BO:16:ARG:NH1	2.15	0.60
35:BO:39:LYS:HG3	35:BO:45:LEU:CD2	2.32	0.60
38:BQ:101:LEU:O	38:BQ:101:LEU:HD12	2.02	0.60
48:BW:47:ASN:O	48:BW:49:LYS:N	2.34	0.60
1:CA:1028(B):C:H3'	1:CA:1029:G:H5''	1.84	0.60
1:CA:1128:C:N3	1:CA:1139:G:N1	2.50	0.60
1:CA:632:A:C1'	1:CA:633:G:OP2	2.45	0.60
4:CG:11:LEU:HD22	4:CG:66:ARG:NE	2.17	0.60
19:CV:67:VAL:HG12	19:CV:68:GLY:N	2.15	0.60
25:DA:1252:G:O4'	40:D1:33:ARG:HD3	2.02	0.60
25:DA:204:A:HO2'	25:DA:205:G:P	2.25	0.60
25:DA:340:A:H2'	25:DA:341:G:H5'	1.84	0.60
25:DA:530:G:O2'	25:DA:531:C:OP2	2.17	0.60
25:DA:639:U:H2'	25:DA:640:C:C6	2.36	0.60
1:AA:1036:G:H5'	1:AA:1037:C:OP2	2.01	0.59
1:AA:167:G:C2'	1:AA:168:G:H5'	2.32	0.59
1:AA:872:A:C5	1:AA:874:G:C8	2.90	0.59
1:AA:933:G:O6	7:AJ:3:ARG:NH2	2.35	0.59
2:AE:236:TYR:HA	2:AE:239:VAL:HG21	1.83	0.59
10:AM:48:THR:HG23	10:AM:62:HIS:ND1	2.16	0.59
13:AP:108:ARG:HH11	13:AP:108:ARG:CG	2.12	0.59
54:B8:13:ARG:O	54:B8:14:VAL:HG23	2.01	0.59
25:BA:2467:C:C4'	36:BP:123:HIS:ND1	2.65	0.59
26:BB:89:G:OP2	26:BB:89:G:H8	1.85	0.59
27:BD:132:PRO:HD3	27:BD:190:TYR:CZ	2.37	0.59
31:BH:97:ARG:NH2	31:BH:104:GLU:OE2	2.35	0.59
34:BN:17:ARG:HE	34:BN:47:ILE:HD13	1.65	0.59
36:BP:20:ALA:CB	36:BP:99:PRO:HD2	2.32	0.59
38:BQ:48:LEU:CD2	38:BQ:82:ILE:HD11	2.32	0.59
1:CA:1321:C:C4	1:CA:1322:C:H5	2.19	0.59
1:CA:842:C:H4'	1:CA:848:C:O2	2.01	0.59
3:CF:21:ARG:NH1	3:CF:21:ARG:HB3	2.17	0.59
4:CG:58:LEU:HD22	4:CG:62:GLN:HG3	1.84	0.59
1:CA:1325:C:OP1	21:CX:15:ARG:HD2	2.01	0.59
25:DA:125:G:H4'	25:DA:126:A:OP2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2419:U:O4	54:D8:31:HIS:CG	2.55	0.59
25:DA:96:G:H4'	48:DW:48:HIS:CD2	2.37	0.59
31:DH:149:ARG:HG3	31:DH:162:ILE:O	2.01	0.59
1:AA:964:A:N3	1:AA:969:A:O2'	2.33	0.59
1:AA:96:G:H2'	1:AA:97:U:H5'	1.83	0.59
3:AF:189:ALA:O	3:AF:191:THR:HG23	2.00	0.59
11:AN:81:ASP:OD1	11:AN:81:ASP:N	2.35	0.59
14:AQ:37:PHE:CE1	14:AQ:53:LEU:HD13	2.37	0.59
25:BA:1790:C:H5''	25:BA:1791:A:OP1	2.02	0.59
25:BA:2309:A:N6	25:BA:2310:A:C6	2.70	0.59
25:BA:2336:A:H61	46:B3:43:THR:CG2	2.15	0.59
25:BA:246:C:C2'	25:BA:247:G:H5'	2.32	0.59
28:BE:46:ALA:C	28:BE:47:VAL:CG2	2.70	0.59
33:BM:128:HIS:HD2	33:BM:129:PRO:O	1.85	0.59
35:BO:105:LEU:HD12	35:BO:105:LEU:H	1.67	0.59
38:BQ:38:GLN:HG3	38:BQ:47:THR:HG21	1.84	0.59
38:BQ:49:VAL:HG22	38:BQ:80:LEU:HD12	1.84	0.59
1:CA:188:U:O2'	1:CA:189:U:H5'	2.02	0.59
23:CC:20:G:H4'	23:CC:21:U:OP2	2.01	0.59
12:CO:7:ILE:HA	12:CO:10:LEU:HD12	1.84	0.59
37:D0:38:VAL:HG12	37:D0:42:LYS:HD2	1.84	0.59
41:D2:49:THR:HB	41:D2:50:PRO:CD	2.31	0.59
41:D2:76:LYS:CB	41:D2:79:VAL:CG2	2.79	0.59
25:DA:2898:U:H2'	25:DA:2899:G:C8	2.38	0.59
25:DA:298:G:O2'	25:DA:322:A:N1	2.29	0.59
25:DA:774:A:H2	25:DA:787:U:O2'	1.82	0.59
26:DB:45:A:H2'	26:DB:45:A:N3	2.16	0.59
28:DE:111:ARG:HB2	28:DE:160:TYR:O	2.01	0.59
28:DE:199:ARG:HG2	28:DE:200:GLU:N	2.16	0.59
31:DH:152:ARG:O	31:DH:153:LYS:CB	2.33	0.59
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.02	0.59
1:AA:336:C:O2'	1:AA:337:C:H5'	2.02	0.59
23:AC:62:C:H2'	23:AC:63:C:C6	2.34	0.59
23:AC:66:C:O2'	23:AC:67:C:H5'	2.03	0.59
1:AA:1240:U:C4	7:AJ:32:ARG:HD3	2.37	0.59
25:BA:1057:A:O2'	25:BA:1058:U:O4'	2.20	0.59
25:BA:1204:A:N1	25:BA:1241:A:N1	2.51	0.59
25:BA:1678:G:H22	25:BA:1989:G:H22	1.49	0.59
25:BA:2306:C:H3'	25:BA:2307:G:H5'	1.84	0.59
25:BA:783:A:H2'	25:BA:785:G:OP1	2.03	0.59
25:BA:847:U:C5	25:BA:933:A:C2	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:148:GLU:HB3	27:BD:151:LYS:HD2	1.83	0.59
29:BF:132:VAL:HG23	29:BF:133:ASN:N	2.16	0.59
39:BR:39:ARG:HG2	39:BR:40:THR:N	2.15	0.59
48:BW:50:ILE:CD1	48:BW:51:ARG:H	2.08	0.59
1:CA:1279:A:H5''	1:CA:1280:A:OP1	2.02	0.59
1:CA:56:U:H2'	1:CA:57:G:C8	2.36	0.59
23:CD:15:G:H5''	23:CD:16:C:OP2	2.02	0.59
10:CM:4:ILE:HD13	10:CM:100:THR:HG21	1.84	0.59
40:D1:81:HIS:CE1	40:D1:85:LYS:HD2	2.36	0.59
41:D2:69:LYS:CG	41:D2:86:GLY:HA3	2.24	0.59
25:DA:1062:G:N2	25:DA:1076:C:N3	2.50	0.59
25:DA:1786:A:H2	25:DA:2606:C:H1'	1.66	0.59
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.02	0.59
27:DD:28:GLU:HB3	27:DD:29:PRO:CD	2.33	0.59
28:DE:3:GLY:HA3	28:DE:81:ILE:CD1	2.31	0.59
30:DG:96:ARG:NH1	30:DG:96:ARG:HG2	2.16	0.59
33:DM:71:ILE:O	33:DM:71:ILE:HD12	2.03	0.59
36:DP:75:THR:HG22	36:DP:89:ASN:H	1.67	0.59
38:DQ:20:ARG:O	38:DQ:20:ARG:HG2	2.02	0.59
45:DV:175:VAL:HG13	45:DV:176:PRO:HD3	1.82	0.59
1:AA:1502:A:H2	1:AA:1505:G:H1	1.51	0.59
1:AA:673:G:H2'	1:AA:674:G:C8	2.37	0.59
1:AA:943:U:H1'	9:AL:124:GLN:HE22	1.67	0.59
23:AC:20:G:C4	23:AC:58:A:C2	2.90	0.59
9:AL:18:PHE:HD1	9:AL:62:TYR:HD2	1.48	0.59
53:B7:48:LYS:O	53:B7:49:ARG:CB	2.50	0.59
25:BA:2309:A:C3'	25:BA:2310:A:H5'	2.32	0.59
25:BA:2469:A:H61	25:BA:2481:G:H1'	1.66	0.59
25:BA:873:G:H1	25:BA:904:C:N4	1.99	0.59
36:BP:33:GLY:HA2	36:BP:105:GLU:HA	1.84	0.59
25:BA:1336:A:OP2	43:BT:64:LYS:HE3	2.01	0.59
44:BU:49:VAL:HG12	44:BU:50:ARG:H	1.66	0.59
1:CA:396:G:O2'	1:CA:398:C:OP1	2.17	0.59
1:CA:45:U:H2'	1:CA:46:G:C8	2.37	0.59
1:CA:972:C:C4'	10:CM:57:LYS:HG3	2.31	0.59
11:CN:63:LEU:H	11:CN:63:LEU:HD23	1.68	0.59
46:D3:38:VAL:CG1	46:D3:40:GLN:HG2	2.33	0.59
25:DA:2790:A:C4'	25:DA:2791:C:OP2	2.50	0.59
25:DA:654(D):G:H1	25:DA:654(Q):C:N4	2.00	0.59
25:DA:975:G:H1'	25:DA:990:A:C2	2.38	0.59
31:DH:117:PRO:HB3	31:DH:123:PHE:HE1	1.64	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2761:G:H1'	31:DH:143:GLN:OE1	2.02	0.59
1:AA:923:A:O2'	1:AA:1399:C:OP2	2.16	0.59
1:AA:626:U:C2	1:AA:627:G:C8	2.91	0.59
23:AD:15:G:H2'	23:AD:60:A:C2	2.37	0.59
20:AW:23:ARG:O	20:AW:27:LYS:HB3	2.01	0.59
25:BA:2159:G:H2'	25:BA:2160:G:H8	1.66	0.59
25:BA:2208:U:O2'	25:BA:2209:C:H5'	2.02	0.59
25:BA:2439:A:H4'	25:BA:2440:C:O5'	2.02	0.59
25:BA:774:A:C2	25:BA:787:U:O2'	2.49	0.59
28:BE:59:VAL:CG1	28:BE:63:LEU:HD13	2.32	0.59
25:BA:2483:C:N3	36:BP:124:LYS:HE3	2.16	0.59
36:BP:80:GLU:OE2	36:BP:80:GLU:HA	2.02	0.59
49:BX:52:HIS:CD2	49:BX:52:HIS:H	2.21	0.59
1:CA:1135:U:H4'	1:CA:1136:U:H5	1.67	0.59
1:CA:973:G:H1'	10:CM:55:LYS:CE	2.30	0.59
2:CE:43:ASP:O	2:CE:47:THR:OG1	2.17	0.59
25:DA:1012:U:H5	33:DM:28:THR:HG21	1.66	0.59
28:DE:45:THR:CG2	28:DE:45:THR:O	2.44	0.59
28:DE:36:ARG:NH2	28:DE:88:GLY:HA3	2.16	0.59
25:DA:2311:A:O2'	30:DG:88:ILE:CD1	2.50	0.59
36:DP:57:HIS:O	36:DP:57:HIS:CG	2.56	0.59
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.02	0.59
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.38	0.59
1:AA:824:C:H4'	8:AK:1:MET:HB2	1.83	0.59
54:B8:16:ILE:HD13	54:B8:57:ARG:HG2	1.84	0.59
25:BA:1188:U:O2'	25:BA:1189:A:H5'	2.02	0.59
28:BE:119:ARG:HH11	28:BE:119:ARG:HG3	1.68	0.59
28:BE:50:GLY:CA	28:BE:77:ILE:HA	2.25	0.59
28:BE:79:ARG:NH2	28:BE:164:ARG:NH1	2.49	0.59
44:BU:35:TYR:CE1	44:BU:69:ALA:HB3	2.37	0.59
1:CA:404:U:H2'	1:CA:405:U:C6	2.37	0.59
22:CB:44:G:O2'	22:CB:45:U:H5'	2.03	0.59
4:CG:30:LYS:N	4:CG:30:LYS:HE2	2.17	0.59
5:CH:55:VAL:O	5:CH:58:ALA:HB3	2.01	0.59
7:CJ:143:ARG:NH1	23:CD:42:C:O2'	2.36	0.59
8:CK:35:ILE:O	8:CK:39:LEU:HB2	2.03	0.59
52:D6:9:LEU:N	52:D6:27:LYS:HG3	2.18	0.59
25:DA:1558:A:H4'	25:DA:1559:G:O5'	2.02	0.59
25:DA:2131:G:H5'	25:DA:2132:U:OP1	2.02	0.59
25:DA:2584:U:H5''	25:DA:2585:U:OP2	2.03	0.59
25:DA:572:A:H5''	25:DA:573:G:OP2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:975:G:N2	25:DA:990:A:O4'	2.36	0.59
35:DO:15:ARG:O	35:DO:16:ARG:O	2.21	0.59
38:DQ:7:TYR:CZ	38:DQ:91:PRO:HG3	2.38	0.59
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.20	0.59
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.68	0.59
1:AA:763:G:H2'	1:AA:764:C:H6	1.68	0.59
22:AB:50:A:N1	22:AB:52:U:H5''	2.18	0.59
20:AW:10:LEU:HD21	20:AW:12:ALA:HB2	1.80	0.59
51:B5:40:LYS:CG	51:B5:47:PRO:HD2	2.33	0.59
25:BA:1102:C:H2'	25:BA:1103:A:H8	1.67	0.59
25:BA:1980:G:O2'	25:BA:1982:C:OP2	2.17	0.59
25:BA:2724:C:OP1	28:BE:118:LYS:HE3	2.02	0.59
27:BD:264:LYS:O	27:BD:267:SER:HB2	2.03	0.59
35:BO:64:LYS:HB3	54:B8:25:MET:HG2	1.82	0.59
39:BR:16:ARG:NH2	39:BR:83:ILE:O	2.36	0.59
39:BR:26:ASP:O	39:BR:49:VAL:HG13	2.02	0.59
25:BA:989:G:C8	49:BX:13:ILE:HD11	2.37	0.59
1:CA:1112:C:N3	3:CF:178:LEU:HB2	2.18	0.59
1:CA:1127:G:N2	1:CA:1144:G:H22	2.01	0.59
1:CA:513:C:H42	1:CA:538:G:H1	1.51	0.59
1:CA:984:C:H2'	1:CA:985:C:C6	2.38	0.59
6:CI:72:VAL:HG13	6:CI:73:ASN:H	1.67	0.59
19:CV:31:ILE:CG2	19:CV:50:ALA:H	2.15	0.59
25:DA:2271:G:H5''	46:D3:20:ARG:CD	2.32	0.59
25:DA:2287:A:C2	25:DA:2346:A:N1	2.70	0.59
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.38	0.59
25:DA:2720:U:C4	25:DA:2873:A:N1	2.70	0.59
25:DA:535:C:O2'	25:DA:536:A:H5'	2.02	0.59
25:DA:912:C:H2'	25:DA:912:C:O2	2.03	0.59
27:DD:35:LYS:CB	27:DD:64:ILE:H	2.16	0.59
25:DA:2823:A:OP1	28:DE:113:PHE:HB2	2.03	0.59
29:DF:29:ASN:N	29:DF:112:MET:HE1	2.17	0.59
29:DF:11:VAL:HG23	29:DF:12:LEU:H	1.66	0.59
30:DG:67:LYS:HB3	50:D4:6:HIS:CD2	2.37	0.59
32:DK:77:LEU:HA	32:DK:141:LYS:H	1.68	0.59
33:DM:4:TYR:CE2	40:D1:100:VAL:HG11	2.37	0.59
39:DR:56:GLY:O	39:DR:59:THR:N	2.35	0.59
43:DT:15:GLU:H	43:DT:15:GLU:CD	2.04	0.59
45:DV:120:ILE:HB	45:DV:169:GLU:OE2	2.03	0.59
1:AA:664:G:H22	1:AA:741:G:H1	1.50	0.59
23:AD:22:A:H2	23:AD:47:G:H2'	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:162:LEU:O	4:AG:165:MET:HB2	2.03	0.59
1:AA:1368:G:OP1	9:AL:111:ARG:NH2	2.36	0.59
19:AV:42:PRO:HD3	50:B4:63:TYR:CD1	2.37	0.59
41:B2:44:LYS:CG	41:B2:45:THR:N	2.65	0.59
46:B3:38:VAL:HG12	46:B3:40:GLN:HG2	1.85	0.59
25:BA:1494:A:O2'	25:BA:1495:A:H5'	2.03	0.59
25:BA:1827:C:H2'	25:BA:1828:G:H5'	1.85	0.59
25:BA:528:A:C2	25:BA:2043:C:H4'	2.37	0.59
28:BE:38:THR:O	28:BE:40:GLU:N	2.36	0.59
28:BE:61:ARG:O	28:BE:63:LEU:N	2.30	0.59
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.01	0.59
1:CA:1128:C:HO2'	1:CA:1129:C:P	2.25	0.59
1:CA:485:G:O2'	1:CA:486:U:H6	1.86	0.59
1:CA:77:C:H3'	1:CA:78:G:H5''	1.84	0.59
2:CE:19:HIS:CE1	2:CE:204:ASN:HB3	2.38	0.59
37:D0:24:GLN:HE22	37:D0:36:THR:HG21	1.68	0.59
25:DA:1064:C:H2'	25:DA:1065:U:C6	2.38	0.59
25:DA:2192:G:C2'	25:DA:2193:G:H5'	2.33	0.59
25:DA:2210:G:H3'	25:DA:2211:G:C4	2.38	0.59
25:DA:2284:C:OP2	52:D6:27:LYS:HD2	2.03	0.59
25:DA:2298:A:H1'	25:DA:2321:G:H22	1.68	0.59
25:DA:330:A:H2	25:DA:1210:A:C2'	2.16	0.59
25:DA:877:U:O4	25:DA:899:A:N6	2.34	0.59
28:DE:38:THR:HG23	28:DE:40:GLU:HB2	1.84	0.59
1:AA:1004:A:C1'	1:AA:1036:G:H1	2.13	0.59
31:BH:27:LYS:HG3	31:BH:27:LYS:O	2.03	0.59
26:BB:90:C:H5'	36:BP:18:LYS:HA	1.84	0.59
1:CA:1151:A:O2'	1:CA:1152:A:O5'	2.18	0.59
1:CA:413:G:O2'	1:CA:428:G:N2	2.36	0.59
4:CG:105:VAL:HG21	4:CG:126:ILE:HG13	1.83	0.59
12:CO:69:TYR:CG	12:CO:90:VAL:HG21	2.37	0.59
13:CP:102:ARG:O	13:CP:107:ALA:HB2	2.03	0.59
25:DA:1486:A:H2'	25:DA:1487:G:H8	1.67	0.59
25:DA:2056:G:C2	25:DA:2057:A:C8	2.90	0.59
25:DA:1863:G:O2'	25:DA:2411:A:O2'	2.21	0.59
25:DA:2565:A:H5''	25:DA:2566:A:OP2	2.02	0.59
25:DA:2681:C:H6	25:DA:2683:C:H41	1.50	0.59
25:DA:278:A:O2'	25:DA:279:C:OP1	2.15	0.59
25:DA:886:C:H1'	25:DA:890:A:C2	2.37	0.59
25:DA:779:U:OP1	27:DD:49:ILE:HG23	2.03	0.59
30:DG:83:ARG:O	30:DG:86:MET:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:438:G:H4'	4:AG:123:HIS:ND1	2.17	0.59
1:AA:719:C:H5	1:AA:720:C:C4	2.21	0.59
1:AA:1149:C:P	9:AL:9:ARG:HH21	2.26	0.59
14:AQ:2:ALA:HB1	14:AQ:6:LEU:CD1	2.33	0.59
20:AW:13:LEU:HD12	20:AW:13:LEU:C	2.23	0.59
37:B0:104:ARG:HH12	37:B0:107:ASP:CG	2.06	0.59
50:B4:34:GLU:HG2	50:B4:35:VAL:N	2.17	0.59
54:B8:17:THR:OG1	54:B8:21:LYS:HB2	2.02	0.59
25:BA:592:G:N2	54:B8:4:MET:HE1	2.17	0.59
25:BA:1147:C:H2'	25:BA:1148:A:H5''	1.85	0.59
25:BA:2121:G:H1	25:BA:2177:C:H42	1.51	0.59
25:BA:2173:A:H8	25:BA:2173:A:OP1	1.86	0.59
25:BA:529:A:H8	25:BA:530:G:C6	2.21	0.59
27:BD:32:SER:O	27:BD:33:LEU:HB3	2.01	0.59
31:BH:89:ILE:O	31:BH:89:ILE:HG12	2.02	0.59
31:BH:92:ILE:HD12	31:BH:92:ILE:N	2.16	0.59
33:BM:46:VAL:O	33:BM:47:ALA:CB	2.51	0.59
34:BN:4:PRO:O	34:BN:5:GLN:CB	2.50	0.59
1:CA:1072:G:C6	1:CA:1073:U:C4	2.90	0.59
1:CA:1305:G:C5'	21:CX:4:GLY:HA3	2.32	0.59
1:CA:1317:C:OP1	14:CQ:16:PHE:HB3	2.03	0.59
1:CA:1386:G:C2	1:CA:1387:G:N7	2.71	0.59
2:CE:137:ARG:HH12	2:CE:140:HIS:CB	2.11	0.59
11:CN:69:ALA:HB1	11:CN:103:LEU:HD21	1.84	0.59
12:CO:23:LYS:HE2	12:CO:23:LYS:H	1.68	0.59
17:CT:87:LYS:O	17:CT:91:ARG:HG3	2.03	0.59
25:DA:2371:G:H4'	52:D6:45:LYS:CG	2.33	0.59
25:DA:1109:C:H5''	25:DA:1110:G:OP2	2.02	0.59
25:DA:1499:C:O2'	25:DA:1500:G:H5'	2.03	0.59
25:DA:1676:A:C2	25:DA:1993:U:H5'	2.38	0.59
25:DA:277:C:H5''	25:DA:278:A:N7	2.17	0.59
25:DA:330:A:HO2'	25:DA:331:A:H8	1.50	0.59
27:DD:48:ARG:HG3	27:DD:48:ARG:HH11	1.66	0.59
33:DM:128:HIS:HE2	33:DM:134:ARG:HD2	1.68	0.59
35:DO:37:GLY:O	35:DO:40:SER:OG	2.21	0.59
36:DP:7:MET:CB	36:DP:10:ARG:HH22	2.15	0.59
45:DV:52:SER:O	45:DV:52:SER:OG	2.14	0.59
1:AA:1299:A:H2'	1:AA:1301:U:H1'	1.84	0.58
1:AA:157:G:H2'	1:AA:158:G:H5'	1.85	0.58
1:AA:78:G:H1	1:AA:91:C:H42	1.50	0.58
1:AA:93:U:H2'	1:AA:95:G:C4'	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:30:LYS:HA	4:AG:34:GLU:HB2	1.85	0.58
51:B5:40:LYS:NZ	51:B5:46:CYS:HB3	2.18	0.58
25:BA:1668:A:N3	25:BA:1670:C:C4	2.71	0.58
25:BA:2795:G:H3'	25:BA:2797:U:C5'	2.33	0.58
25:BA:890:A:H3'	25:BA:892:G:H8	1.68	0.58
29:BF:178:PRO:HB3	29:BF:198:ALA:HB1	1.85	0.58
31:BH:152:ARG:HE	31:BH:153:LYS:NZ	2.00	0.58
35:BO:19:VAL:HG22	35:BO:20:GLY:H	1.68	0.58
45:BV:107:THR:HB	45:BV:108:PRO:HD2	1.85	0.58
47:BZ:41:ARG:HG3	47:BZ:41:ARG:HH11	1.67	0.58
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.68	0.58
1:CA:1326:C:OP1	21:CX:17:THR:OG1	2.20	0.58
1:CA:978:A:H5'	1:CA:979:C:OP2	2.02	0.58
1:CA:980:C:H5'	1:CA:981:U:OP2	2.03	0.58
22:CB:22:G:N2	22:CB:59:U:H5'	2.18	0.58
3:CF:113:ALA:HB3	3:CF:114:PRO:HD3	1.85	0.58
4:CG:31:CYS:O	4:CG:32:ALA:HB3	2.03	0.58
5:CH:91:LEU:HD12	5:CH:120:THR:CG2	2.28	0.58
1:CA:1151:A:H5'	10:CM:41:PRO:HA	1.85	0.58
12:CO:62:SER:HB2	12:CO:64:TYR:CD1	2.33	0.58
40:D1:62:ILE:HG13	40:D1:76:TYR:CE1	2.37	0.58
40:D1:66:ASN:O	40:D1:70:ARG:HD2	2.03	0.58
52:D6:15:GLU:HG2	52:D6:16:CYS:N	2.17	0.58
25:DA:1283:G:N2	25:DA:1286:A:H5'	2.18	0.58
25:DA:1688:U:O2	25:DA:1700:A:H5'	2.03	0.58
25:DA:1991:U:C2'	25:DA:1992:G:H5''	2.33	0.58
25:DA:234:C:H2'	25:DA:235:U:H6	1.67	0.58
25:DA:2470:G:OP1	36:DP:56:ARG:CZ	2.50	0.58
25:DA:2638:G:HO2'	25:DA:2639:A:H8	1.48	0.58
27:DD:35:LYS:HD2	27:DD:104:TYR:CE1	2.33	0.58
35:DO:66:GLY:O	35:DO:67:MET:C	2.40	0.58
42:DS:29:LEU:HD21	42:DS:33:ARG:CZ	2.33	0.58
32:DK:27:ARG:HG2	47:DZ:71:TYR:CE1	2.38	0.58
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.03	0.58
4:AG:19:LEU:N	4:AG:19:LEU:HD22	2.15	0.58
1:AA:310:G:OP1	16:AS:27:LYS:NZ	2.36	0.58
37:B0:38:VAL:HB	37:B0:39:PRO:HD3	1.85	0.58
25:BA:1242:A:H5''	25:BA:1243:G:OP2	2.03	0.58
25:BA:1544:C:H2'	25:BA:1544:C:O2	2.02	0.58
25:BA:1678:G:H8	25:BA:1678:G:O5'	1.86	0.58
27:BD:35:LYS:N	27:BD:64:ILE:HG23	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:674:G:C1'	29:BF:74:ARG:HD3	2.29	0.58
33:BM:24:GLY:HA2	33:BM:27:ALA:HB3	1.85	0.58
35:BO:85:LEU:HA	35:BO:88:LEU:HD22	1.86	0.58
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.68	0.58
1:CA:1302:U:C5	13:CP:17:VAL:HG21	2.37	0.58
23:CD:35:C:H2'	23:CD:35:C:O2	2.02	0.58
5:CH:107:ARG:HG2	5:CH:108:ALA:N	2.18	0.58
6:CI:33:TYR:HE1	6:CI:78:GLU:HG3	1.68	0.58
9:CL:8:GLY:HA3	9:CL:79:LEU:HB3	1.86	0.58
10:CM:23:ILE:HA	10:CM:26:ALA:HB3	1.85	0.58
10:CM:69:ASN:O	10:CM:70:ARG:HG3	2.03	0.58
1:CA:262:A:H5'	20:CW:74:LYS:HG3	1.84	0.58
40:D1:61:TRP:O	40:D1:65:ILE:HD13	2.04	0.58
25:DA:1070:A:H8	25:DA:1096:A:O2'	1.85	0.58
25:DA:1250:G:N7	35:DO:18:ARG:NH2	2.51	0.58
25:DA:1392:A:N6	25:DA:1393:A:N6	2.51	0.58
27:DD:31:LYS:O	27:DD:31:LYS:HG3	2.03	0.58
32:DK:75:LEU:HD23	32:DK:76:THR:N	2.18	0.58
1:AA:1156:G:H2'	1:AA:1157:A:H5''	1.85	0.58
1:AA:116:A:H61	1:AA:313:A:H1'	1.68	0.58
1:AA:93:U:H2'	1:AA:95:G:O4'	2.03	0.58
4:AG:146:ILE:N	4:AG:146:ILE:HD12	2.18	0.58
15:AR:25:THR:HG21	15:AR:70:LEU:HB2	1.84	0.58
33:BM:42:TRP:CD1	40:B1:63:VAL:HG11	2.38	0.58
40:B1:90:VAL:O	40:B1:92:ARG:N	2.36	0.58
46:B3:42:GLY:C	46:B3:57:PHE:HD1	2.07	0.58
54:B8:36:LYS:HD3	54:B8:40:GLU:CD	2.23	0.58
25:BA:1142(A):A:C4	25:BA:1144:G:C8	2.91	0.58
25:BA:1329:U:H5''	25:BA:1330:C:C5	2.38	0.58
25:BA:1442:G:C2	25:BA:1550:C:O2	2.56	0.58
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.68	0.58
27:BD:123:ALA:CB	27:BD:131:LEU:HG	2.33	0.58
27:BD:70:TRP:CD1	27:BD:70:TRP:C	2.76	0.58
28:BE:79:ARG:NE	28:BE:197:ILE:HG22	2.19	0.58
28:BE:35:GLN:CD	28:BE:37:ARG:NH1	2.57	0.58
33:BM:45:ASN:CG	33:BM:45:ASN:O	2.41	0.58
42:BS:3:ALA:HB2	42:BS:64:MET:HE3	1.85	0.58
1:CA:1503:A:C8	1:CA:1531:A:N3	2.71	0.58
8:CK:103:VAL:HG21	8:CK:110:ALA:HB2	1.84	0.58
19:CV:41:VAL:O	19:CV:44:MET:HB2	2.03	0.58
37:D0:86:ARG:HG2	37:D0:118:GLU:OE2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:D2:43:GLU:O	41:D2:44:LYS:HG2	2.03	0.58
25:DA:1388:G:C2'	25:DA:1389:G:H5'	2.33	0.58
25:DA:172:C:H2'	25:DA:173:G:H8	1.67	0.58
25:DA:1926:U:H2'	25:DA:1928:A:OP2	2.03	0.58
25:DA:2062:A:H62	25:DA:2503:A:N6	2.01	0.58
25:DA:846:C:C2	25:DA:847:U:H5	2.20	0.58
31:DH:111:HIS:ND1	31:DH:112:PRO:HD2	2.17	0.58
31:DH:6:ARG:HB2	31:DH:66:GLY:HA2	1.85	0.58
35:DO:80:TYR:CD1	35:DO:111:ARG:HB3	2.38	0.58
1:AA:1004:A:H8	1:AA:1036:G:N2	2.01	0.58
1:AA:1086:U:H3	1:AA:1099:G:H22	1.51	0.58
1:AA:200:G:N2	1:AA:218:C:C2	2.71	0.58
1:AA:244:U:H4'	1:AA:245:C:C5'	2.33	0.58
2:AE:204:ASN:HD22	2:AE:205:ASP:N	2.00	0.58
9:AL:93:ARG:HB2	9:AL:93:ARG:HH11	1.67	0.58
10:AM:48:THR:HG23	10:AM:62:HIS:CB	2.33	0.58
40:B1:92:ARG:HD2	41:B2:11:GLN:HB2	1.86	0.58
25:BA:1771:C:C1'	25:BA:1786:A:H8	2.16	0.58
25:BA:2473:U:N3	25:BA:2474:C:C6	2.71	0.58
25:BA:2811:G:C2'	25:BA:2812:G:H5'	2.33	0.58
25:BA:363(B):G:H2'	25:BA:363(C):G:H8	1.68	0.58
25:BA:442:G:H21	29:BF:48:THR:HG23	1.67	0.58
25:BA:780:G:N2	25:BA:783:A:N6	2.43	0.58
27:BD:145:VAL:HG12	27:BD:146:GLU:O	2.03	0.58
32:BK:73:GLU:HG3	32:BK:137:PRO:HD2	1.84	0.58
32:BK:13:GLY:HA3	32:BK:17:GLN:OE1	2.02	0.58
1:CA:1084:G:H2'	1:CA:1085:U:H6	1.67	0.58
1:CA:1186:G:N2	1:CA:1187:G:H1'	2.18	0.58
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.04	0.58
1:CA:1503:A:H1'	1:CA:1504:G:OP1	2.02	0.58
1:CA:640:A:C2'	1:CA:641:U:H5'	2.33	0.58
1:CA:827:U:H3	1:CA:872:A:N6	2.00	0.58
22:CB:70:G:H3'	22:CB:71:U:C6	2.38	0.58
23:CD:21:U:C2'	23:CD:22:A:H5''	2.33	0.58
2:CE:144:ARG:HD2	2:CE:148:TYR:CE2	2.38	0.58
25:DA:1142(A):A:C8	25:DA:1144:G:N7	2.71	0.58
25:DA:1677:A:H2'	25:DA:1678:G:C8	2.38	0.58
25:DA:1826:G:C2'	25:DA:1827:C:O5'	2.51	0.58
25:DA:2015:A:C2	51:D5:6:VAL:CG2	2.86	0.58
25:DA:2142:C:H2'	25:DA:2143:C:C6	2.38	0.58
25:DA:2818:G:O2'	25:DA:2819:G:H5'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:579:G:H2'	25:DA:580:C:C6	2.38	0.58
26:DB:40:U:H1'	26:DB:46:A:C2	2.37	0.58
28:DE:128:SER:OG	28:DE:129:HIS:N	2.35	0.58
34:DN:47:ILE:CG1	34:DN:48:PRO:HD2	2.29	0.58
35:DO:47:ASP:O	35:DO:49:ARG:N	2.36	0.58
35:DO:71:VAL:HG13	35:DO:72:PRO:HD3	1.85	0.58
38:DQ:24:LEU:HD23	38:DQ:84:GLN:O	2.03	0.58
45:DV:145:GLU:O	45:DV:145:GLU:HG3	2.03	0.58
47:DZ:92:LYS:O	47:DZ:95:LEU:N	2.27	0.58
1:AA:1312:G:C2'	1:AA:1313:U:H5'	2.34	0.58
1:AA:200:G:H1	1:AA:217:C:H42	1.50	0.58
10:AM:16:LEU:HD11	10:AM:70:ARG:HB2	1.84	0.58
12:AO:62:SER:HB2	12:AO:64:TYR:HD1	1.68	0.58
19:AV:15:LEU:O	19:AV:19:VAL:HG23	2.03	0.58
25:BA:1278:A:O2'	37:B0:34:ILE:HD11	2.03	0.58
25:BA:1038:C:H2'	25:BA:1039:G:O4'	2.03	0.58
25:BA:1179:C:C2'	25:BA:1180:C:H5''	2.31	0.58
25:BA:1316:U:H2'	25:BA:1317:A:C8	2.38	0.58
25:BA:606:U:H4'	25:BA:658:C:H4'	1.85	0.58
28:BE:119:ARG:HH12	28:BE:158:GLY:CA	2.16	0.58
28:BE:52:LEU:CB	28:BE:75:VAL:HG22	2.25	0.58
29:BF:20:LEU:HD12	29:BF:21:ALA:H	1.69	0.58
30:BG:114:ILE:HB	30:BG:117:PHE:HB2	1.86	0.58
32:BK:10:GLU:O	32:BK:11:ASN:HB2	2.03	0.58
33:BM:73:THR:HB	33:BM:82:LEU:HD11	1.86	0.58
35:BO:15:ARG:O	35:BO:16:ARG:O	2.21	0.58
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.03	0.58
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.38	0.58
1:CA:390:C:H2'	1:CA:391:G:C8	2.37	0.58
1:CA:552:U:C2'	1:CA:553:A:H5'	2.33	0.58
1:CA:1190:G:H5'	3:CF:176:HIS:NE2	2.18	0.58
4:CG:22:LYS:HG3	4:CG:26:CYS:SG	2.44	0.58
25:DA:747:U:O2	25:DA:2014:A:H1'	2.04	0.58
25:DA:2150:U:H2'	25:DA:2151:G:C8	2.38	0.58
25:DA:2314:C:C2'	25:DA:2315:G:H5'	2.33	0.58
25:DA:2364:C:O2'	25:DA:2365:G:H5'	2.03	0.58
25:DA:2389:G:H5''	25:DA:2390:U:H5'	1.85	0.58
25:DA:601:C:O2	25:DA:605:C:H4'	2.04	0.58
26:DB:56:G:H4'	26:DB:57:A:H8	1.69	0.58
30:DG:42:GLY:O	30:DG:43:LEU:HD13	2.03	0.58
33:DM:18:ALA:HA	33:DM:21:LYS:HD2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:79:LEU:HD13	36:DP:80:GLU:OE2	2.04	0.58
39:DR:98:LYS:HB3	39:DR:100:TYR:CE1	2.38	0.58
44:DU:17:SER:OG	44:DU:18:GLY:N	2.34	0.58
1:AA:1301:U:O4	1:AA:1303:C:H1'	2.04	0.58
1:AA:559:A:OP1	5:AH:126:ARG:NH2	2.37	0.58
1:AA:753:A:H4'	1:AA:754:C:H5''	1.86	0.58
1:AA:859:A:H2'	1:AA:860:A:H8	1.68	0.58
8:AK:14:ARG:O	8:AK:18:ARG:HD3	2.04	0.58
35:BO:68:GLN:HG2	54:B8:12:LYS:HD3	1.84	0.58
25:BA:1069:A:H4'	25:BA:1070:A:O5'	2.02	0.58
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.38	0.58
25:BA:2098:U:H2'	25:BA:2099:U:O4'	2.04	0.58
25:BA:2248:C:C2'	25:BA:2249:U:H5'	2.34	0.58
25:BA:2572:A:N7	28:BE:145:LYS:HB2	2.19	0.58
25:BA:270(L):U:O2	32:BK:50:ARG:HD2	2.03	0.58
33:BM:115:ARG:H	33:BM:118:LYS:HE3	1.69	0.58
1:CA:1159:U:O2	1:CA:1181:G:O6	2.22	0.58
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.85	0.58
1:CA:711:G:O2'	1:CA:712:A:H5'	2.03	0.58
1:CA:811:C:H4'	1:CA:900:A:N6	2.19	0.58
23:CD:9:G:O2'	23:CD:10:G:C8	2.53	0.58
2:CE:141:GLU:O	2:CE:145:LEU:HB2	2.04	0.58
4:CG:24:GLU:HG2	4:CG:25:ARG:H	1.67	0.58
8:CK:82:HIS:HD2	8:CK:82:HIS:O	1.87	0.58
10:CM:4:ILE:HA	10:CM:100:THR:HG22	1.86	0.58
1:CA:973:G:C1'	10:CM:55:LYS:HE2	2.31	0.58
11:CN:59:TYR:CE1	11:CN:63:LEU:HD21	2.38	0.58
12:CO:41:ARG:HD2	12:CO:42:THR:H	1.68	0.58
30:DG:145:THR:HG23	50:D4:28:LYS:HE2	1.85	0.58
51:D5:31:VAL:HG13	51:D5:42:PRO:HG3	1.85	0.58
25:DA:1378:A:OP1	53:D7:10:ARG:NH2	2.36	0.58
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.18	0.58
25:DA:854:G:H2'	25:DA:855:G:H8	1.68	0.58
25:DA:905:U:H3'	25:DA:906:G:H5''	1.85	0.58
27:DD:267:SER:C	27:DD:269:PHE:H	2.06	0.58
27:DD:25:THR:HG23	27:DD:26:LYS:N	2.18	0.58
28:DE:38:THR:HG23	28:DE:40:GLU:N	2.15	0.58
31:DH:143:GLN:HE21	31:DH:143:GLN:HA	1.68	0.58
25:DA:637:A:P	35:DO:116:GLY:HA2	2.44	0.58
38:DQ:69:VAL:HG13	38:DQ:101:LEU:HD22	1.86	0.58
45:DV:157:LEU:HB3	45:DV:161:VAL:HG12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.37	0.58
1:AA:87:A:OP1	1:AA:87:A:H4'	2.03	0.58
50:B4:57:GLU:HA	50:B4:60:GLN:HB2	1.86	0.58
25:BA:1482:U:O4	25:BA:1510:A:C8	2.56	0.58
25:BA:1477:A:C2	25:BA:1517:G:C2	2.91	0.58
25:BA:1593:G:H2'	25:BA:1594:G:C8	2.39	0.58
25:BA:2126:A:N6	25:BA:2163:C:H1'	2.19	0.58
25:BA:414:C:H2'	25:BA:415:A:H8	1.67	0.58
25:BA:64:A:O3'	43:BT:71:GLY:HA3	2.04	0.58
25:BA:1792:G:H5'	27:BD:205:VAL:HG13	1.86	0.58
29:BF:64:ILE:O	29:BF:65:TRP:CD1	2.57	0.58
38:BQ:85:VAL:CG2	38:BQ:112:PHE:CZ	2.85	0.58
39:BR:61:PHE:HD2	39:BR:61:PHE:H	1.52	0.58
43:BT:70:LEU:HD23	43:BT:70:LEU:N	2.19	0.58
45:BV:111:VAL:O	45:BV:111:VAL:HG23	2.03	0.58
45:BV:150:LEU:CD2	45:BV:154:ASP:HB2	2.32	0.58
1:CA:731:G:H5'	1:CA:766:A:H4'	1.85	0.58
52:D6:28:ARG:HB3	52:D6:30:THR:O	2.03	0.58
25:DA:11:G:H2'	25:DA:12:U:H5'	1.86	0.58
25:DA:2303:G:O2'	25:DA:2304:G:H5'	2.04	0.58
25:DA:2439:A:C5'	25:DA:2439:A:C8	2.86	0.58
25:DA:91:A:H2'	25:DA:92:G:O4'	2.03	0.58
35:DO:131:SER:HB3	35:DO:134:ALA:H	1.67	0.58
38:DQ:87:PHE:C	38:DQ:87:PHE:CD2	2.77	0.58
42:DS:54:ALA:HB1	42:DS:107:LEU:HD22	1.86	0.58
49:DX:46:ASN:O	49:DX:50:VAL:HG22	2.04	0.58
1:AA:1234:C:H1'	1:AA:1364:U:O2	2.04	0.58
1:AA:66:G:O4'	1:AA:173:U:C4	2.56	0.58
22:AB:58:U:O2	22:AB:58:U:H2'	2.02	0.58
2:AE:165:VAL:HG23	2:AE:166:ASP:N	2.18	0.58
2:AE:7:VAL:HG23	2:AE:8:LYS:HE2	1.84	0.58
50:B4:4:GLY:O	50:B4:5:ILE:HG22	2.03	0.58
25:BA:1310:G:OP2	53:B7:9:ARG:NH1	2.23	0.58
25:BA:2790:A:H2	25:BA:2894:G:H5''	1.67	0.58
30:BG:83:ARG:HG3	30:BG:86:MET:SD	2.44	0.58
31:BH:154:PRO:HB3	31:BH:163:TYR:CZ	2.39	0.58
33:BM:130:HIS:HD2	33:BM:134:ARG:HH12	1.50	0.58
45:BV:44:PHE:CZ	45:BV:86:VAL:HG11	2.39	0.58
48:BW:64:LEU:HD21	48:BW:68:ARG:NH1	2.19	0.58
1:CA:210:U:OP1	1:CA:210:U:O4'	2.22	0.58
1:CA:413:G:HO2'	1:CA:414:A:P	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:425:G:O3'	4:CG:45:GLN:NE2	2.36	0.58
1:CA:542:G:OP1	4:CG:10:ARG:NH2	2.37	0.58
13:CP:33:ALA:HA	13:CP:59:TYR:HE2	1.68	0.58
46:D3:27:GLU:HG3	46:D3:68:GLU:HA	1.84	0.58
51:D5:40:LYS:HE2	51:D5:44:THR:O	2.02	0.58
25:DA:1568:G:OP2	27:DD:63:ARG:NH2	2.36	0.58
25:DA:2292:C:O2'	25:DA:2293:C:H5'	2.03	0.58
25:DA:2542:A:H5'	25:DA:2543:G:OP1	2.03	0.58
25:DA:531:C:OP1	25:DA:561:G:C2	2.56	0.58
25:DA:535:C:C2'	25:DA:536:A:H5'	2.34	0.58
29:DF:118:ALA:HB2	29:DF:123:LEU:CD2	2.34	0.58
29:DF:63:LYS:HE2	29:DF:67:GLN:HB3	1.84	0.58
31:DH:107:VAL:HG12	31:DH:107:VAL:O	2.03	0.58
36:DP:137:TYR:HE1	45:DV:83:PRO:HG3	1.69	0.58
2:AE:6:THR:OG1	2:AE:7:VAL:N	2.36	0.58
17:AT:17:LYS:HG3	17:AT:47:PRO:HA	1.86	0.58
20:AW:10:LEU:CD2	20:AW:12:ALA:H	2.16	0.58
51:B5:31:VAL:HG13	51:B5:42:PRO:HG3	1.84	0.58
25:BA:1955:U:O3'	25:BA:1956:U:H6	1.87	0.58
25:BA:2104:G:C2	25:BA:2186:G:C2	2.92	0.58
25:BA:442:G:H4'	29:BF:46:ARG:HD3	1.86	0.58
25:BA:945:A:C4	25:BA:2448:A:C2	2.92	0.58
25:BA:990:A:OP2	25:BA:991:C:OP2	2.21	0.58
27:BD:28:GLU:HB3	27:BD:29:PRO:CD	2.33	0.58
31:BH:153:LYS:HG3	31:BH:162:ILE:N	2.18	0.58
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.39	0.58
23:CD:31:G:H2'	23:CD:32:G:H8	1.68	0.58
5:CH:33:VAL:HG12	5:CH:34:VAL:H	1.68	0.58
5:CH:80:ILE:HD11	5:CH:138:ALA:CB	2.31	0.58
11:CN:34:ASP:HB2	11:CN:35:PRO:CD	2.33	0.58
12:CO:27:LEU:HB3	12:CO:33:ARG:HD3	1.86	0.58
14:CQ:4:LYS:O	14:CQ:7:ILE:HG12	2.04	0.58
19:CV:28:LYS:HG2	19:CV:29:ARG:H	1.69	0.58
53:D7:8:ASN:HD22	53:D7:11:LYS:N	1.97	0.58
54:D8:25:MET:C	54:D8:48:PHE:HE1	2.06	0.58
25:DA:1558:A:H1'	25:DA:1559:G:OP2	2.04	0.58
25:DA:247:G:H4'	25:DA:386:G:C5	2.39	0.58
27:DD:27:THR:CG2	27:DD:83:GLU:HG2	2.22	0.58
30:DG:77:ILE:O	30:DG:81:LYS:O	2.21	0.58
25:DA:2404:C:O3'	35:DO:77:ARG:NH2	2.36	0.58
36:DP:36:ALA:HB1	36:DP:127:ILE:HD12	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:106:ARG:HB3	38:DQ:110:LEU:HD11	1.84	0.58
1:AA:1072:G:C5	1:AA:1073:U:C4	2.92	0.58
1:AA:1237:C:O2	1:AA:1334:G:O2'	2.20	0.58
1:AA:5:U:O2'	1:AA:6:G:C4	2.57	0.58
1:AA:967:C:H6	1:AA:967:C:O5'	1.86	0.58
23:AC:62:C:C6	23:AC:63:C:H5	2.22	0.58
3:AF:58:GLU:HB2	3:AF:65:ALA:HB2	1.84	0.58
20:AW:12:ALA:O	20:AW:15:ARG:HB2	2.03	0.58
20:AW:71:THR:CG2	20:AW:72:LEU:H	2.12	0.58
52:B6:44:ARG:HH11	52:B6:44:ARG:HG2	1.68	0.58
25:BA:2779:U:O4'	25:BA:2779:U:O2	2.19	0.58
25:BA:643:A:C2'	25:BA:644:A:O5'	2.52	0.58
27:BD:134:ARG:HG3	27:BD:135:PHE:CD2	2.38	0.58
1:CA:279:A:H2'	1:CA:279:A:N3	2.19	0.58
5:CH:36:ASP:CG	5:CH:38:GLN:HB2	2.24	0.58
25:DA:2059:A:H5''	25:DA:2060:A:OP2	2.04	0.58
25:DA:329:G:H4'	25:DA:330:A:OP2	2.03	0.58
39:DR:8:LYS:HZ3	39:DR:8:LYS:HB3	1.67	0.58
1:AA:17:U:O4'	1:AA:1080:A:H1'	2.04	0.57
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.69	0.57
1:AA:1186:G:H21	14:AQ:61:TRP:C	2.07	0.57
1:AA:16:A:H2'	1:AA:17:U:H5'	1.84	0.57
1:AA:881:G:P	12:AO:12:ARG:HH22	2.27	0.57
23:AC:63:C:O2	23:AC:64:G:C8	2.56	0.57
51:B5:57:VAL:O	51:B5:57:VAL:HG13	2.03	0.57
25:BA:1060:U:H4'	25:BA:1061:U:O5'	2.03	0.57
25:BA:1230:C:H2'	25:BA:1231:G:C8	2.39	0.57
25:BA:1359:A:N1	25:BA:1372:U:C4	2.72	0.57
25:BA:2037:G:H2'	25:BA:2038:G:C8	2.38	0.57
25:BA:527:C:OP2	25:BA:2779:U:C5	2.57	0.57
25:BA:815:C:H2'	25:BA:816:C:H6	1.69	0.57
27:BD:17:THR:HG22	27:BD:204:ILE:HA	1.86	0.57
28:BE:53:PRO:HA	28:BE:74:PRO:CB	2.34	0.57
30:BG:109:VAL:CG1	50:B4:33:VAL:HG21	2.34	0.57
32:BK:78:THR:HG23	32:BK:141:LYS:HZ2	1.68	0.57
35:BO:122:PRO:HB3	35:BO:141:ALA:HB1	1.85	0.57
1:CA:1490:C:H2'	1:CA:1491:G:O4'	2.03	0.57
1:CA:253:U:H2'	1:CA:254:G:H8	1.69	0.57
12:CO:27:LEU:HD21	12:CO:60:LEU:HB3	1.84	0.57
13:CP:5:ALA:HB2	13:CP:22:ILE:HD13	1.84	0.57
14:CQ:12:ARG:C	14:CQ:14:PRO:HD3	2.24	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:12:ARG:HB3	14:CQ:14:PRO:HD3	1.85	0.57
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.87	0.57
25:DA:1771:C:C1'	25:DA:1786:A:C8	2.87	0.57
25:DA:2335:A:O2'	25:DA:2336:A:H2'	2.04	0.57
25:DA:2571:C:H5'	25:DA:2572:A:C5'	2.29	0.57
25:DA:39:C:H2'	25:DA:40:C:C6	2.39	0.57
25:DA:78:A:H2'	25:DA:79:G:C8	2.39	0.57
27:DD:35:LYS:CD	27:DD:64:ILE:N	2.67	0.57
28:DE:47:VAL:CG1	28:DE:49:LEU:HD23	2.33	0.57
1:AA:1053:G:C6	1:AA:1199:U:C2	2.92	0.57
1:AA:606:G:N2	1:AA:631:G:H8	2.01	0.57
2:AE:21:ARG:HB2	2:AE:39:ILE:HA	1.85	0.57
7:AJ:36:LYS:HB2	7:AJ:36:LYS:HZ2	1.69	0.57
25:BA:2283:C:H2'	25:BA:2284:C:O4'	2.04	0.57
25:BA:287:C:H2'	25:BA:288:C:H6	1.69	0.57
28:BE:14:ILE:O	28:BE:15:PHE:CD2	2.56	0.57
35:BO:21:ARG:HA	35:BO:21:ARG:HE	1.69	0.57
35:BO:29:LYS:HD2	35:BO:30:THR:HG22	1.85	0.57
1:CA:1128:C:O2'	1:CA:1129:C:OP1	2.22	0.57
1:CA:765:G:N2	1:CA:813:U:OP2	2.35	0.57
3:CF:11:ARG:O	3:CF:14:ILE:O	2.22	0.57
11:CN:82:VAL:HB	11:CN:108:ILE:HG12	1.86	0.57
19:CV:65:ASN:HB2	19:CV:66:MET:HE1	1.85	0.57
20:CW:53:LEU:HD13	20:CW:104:LEU:HD13	1.85	0.57
41:D2:44:LYS:HG3	41:D2:45:THR:N	2.19	0.57
25:DA:1053:C:H3'	25:DA:1054:A:H5''	1.85	0.57
25:DA:1210:A:H5'	25:DA:1212:G:O4'	2.04	0.57
25:DA:1342:A:C6	25:DA:1397:U:C6	2.92	0.57
25:DA:1472:A:H2'	25:DA:1473:G:H5'	1.86	0.57
25:DA:2170:A:H5''	25:DA:2171:A:OP2	2.03	0.57
25:DA:2366:A:H2'	25:DA:2367:G:O4'	2.04	0.57
25:DA:239:U:H6	25:DA:239:U:C5'	2.17	0.57
25:DA:2872:G:O2'	25:DA:2873:A:H5'	2.04	0.57
27:DD:108:PRO:HB3	27:DD:143:HIS:HE1	1.68	0.57
27:DD:186:HIS:CD2	27:DD:187:GLY:N	2.72	0.57
28:DE:84:PHE:CZ	28:DE:86:PRO:HB3	2.39	0.57
34:DN:68:GLU:HA	34:DN:78:ARG:HB3	1.85	0.57
25:DA:2875:C:C4'	39:DR:5:ALA:HB2	2.31	0.57
44:DU:20:TYR:HD1	44:DU:20:TYR:N	2.01	0.57
44:DU:90:LEU:HD23	44:DU:90:LEU:H	1.69	0.57
49:DX:19:GLN:NE2	49:DX:52:HIS:CE1	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:49:U:C2	1:AA:361:G:N2	2.72	0.57
2:AE:217:ARG:HB2	2:AE:217:ARG:CZ	2.34	0.57
5:AH:33:VAL:HG11	5:AH:109:ILE:HA	1.86	0.57
13:AP:81:LEU:O	13:AP:89:GLY:HA3	2.04	0.57
25:BA:1317:A:O2'	25:BA:1318:C:H5'	2.03	0.57
25:BA:1799:G:H5'	25:BA:1819:A:N6	2.19	0.57
25:BA:229:A:C1'	25:BA:230:U:OP2	2.51	0.57
25:BA:2401:U:H2'	25:BA:2402:C:C6	2.39	0.57
25:BA:280:C:H2'	25:BA:281:G:H5'	1.86	0.57
25:BA:527:C:OP2	25:BA:2779:U:H5	1.86	0.57
25:BA:614:U:O4	29:BF:168:ARG:HG2	2.05	0.57
27:BD:270:ILE:O	27:BD:271:ILE:CG1	2.49	0.57
27:BD:30:GLU:CG	27:BD:63:ARG:NH2	2.64	0.57
27:BD:65:ILE:HD11	27:BD:67:PHE:CZ	2.40	0.57
28:BE:52:LEU:O	28:BE:75:VAL:N	2.29	0.57
29:BF:152:GLU:HG3	29:BF:191:ARG:HD2	1.86	0.57
31:BH:151:ILE:O	31:BH:153:LYS:HD3	2.03	0.57
31:BH:153:LYS:HB3	31:BH:154:PRO:HD3	1.85	0.57
43:BT:41:ASN:O	43:BT:45:THR:HG23	2.04	0.57
45:BV:117:LEU:HD13	45:BV:118:GLN:N	2.18	0.57
1:CA:652:U:O2'	1:CA:653:A:C2	2.56	0.57
2:CE:128:GLU:HA	2:CE:128:GLU:OE2	2.04	0.57
3:CF:56:ASP:HB2	3:CF:69:HIS:HE1	1.69	0.57
9:CL:95:LYS:HZ2	9:CL:96:LEU:HD12	1.68	0.57
25:DA:1146:C:C2'	25:DA:1147:C:H5'	2.34	0.57
25:DA:1653:G:H4'	25:DA:1654:A:O5'	2.04	0.57
25:DA:2197:U:H1'	25:DA:2198:A:C8	2.39	0.57
26:DB:17:C:H2'	26:DB:18:G:O4'	2.04	0.57
28:DE:25:VAL:HG12	28:DE:26:ILE:N	2.15	0.57
31:DH:89:ILE:O	31:DH:161:GLY:O	2.22	0.57
32:DK:62:LYS:O	32:DK:62:LYS:HD2	2.03	0.57
32:DK:69:LYS:O	32:DK:73:GLU:HB2	2.04	0.57
36:DP:62:GLY:O	36:DP:63:LYS:HB2	2.04	0.57
1:AA:1004:A:N9	1:AA:1025:U:O2	2.37	0.57
1:AA:1053:G:N7	1:AA:1199:U:C6	2.72	0.57
1:AA:78:G:H1	1:AA:91:C:N4	2.03	0.57
22:AB:12:G:H1	22:AB:24:C:N4	2.03	0.57
3:AF:34:LEU:HD21	3:AF:38:ARG:HH11	1.69	0.57
4:AG:134:ASP:O	4:AG:136:PRO:HD3	2.05	0.57
25:BA:1412:A:H2'	25:BA:1413:G:C8	2.40	0.57
25:BA:528:A:N1	25:BA:2043:C:C5'	2.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2286:A:H4'	25:BA:2287:A:O5'	2.04	0.57
25:BA:795:C:H2'	25:BA:796:C:H6	1.68	0.57
25:BA:856:C:C2'	25:BA:857:C:O5'	2.53	0.57
26:BB:15:A:OP1	26:BB:15:A:C4'	2.52	0.57
29:BF:32:LEU:HD13	29:BF:105:VAL:CG1	2.31	0.57
25:BA:443:A:C5	29:BF:45:ARG:HD2	2.39	0.57
36:BP:110:THR:HG23	36:BP:113:GLN:OE1	2.03	0.57
1:CA:1178:G:H5'	9:CL:93:ARG:NH2	2.19	0.57
1:CA:1256:A:N6	1:CA:1278:U:OP2	2.37	0.57
1:CA:452:A:H2'	1:CA:453:A:C8	2.38	0.57
1:CA:554:C:H2'	1:CA:555:C:C6	2.38	0.57
1:CA:909:A:H2'	1:CA:910:C:O4'	2.03	0.57
2:CE:71:VAL:CG1	2:CE:97:TRP:HD1	2.17	0.57
4:CG:13:ARG:CG	4:CG:14:ARG:N	2.63	0.57
10:CM:35:SER:OG	10:CM:73:ASP:HB2	2.03	0.57
19:CV:40:ILE:HD11	19:CV:71:LEU:HD23	1.86	0.57
20:CW:50:GLU:HA	20:CW:100:ILE:HB	1.87	0.57
25:DA:2517:C:C2	25:DA:2542:A:N6	2.72	0.57
25:DA:587:C:C2	35:DO:33:ARG:NH1	2.73	0.57
25:DA:708:C:H42	25:DA:723:G:H1	1.51	0.57
28:DE:132:HIS:O	28:DE:133:LYS:HB2	2.05	0.57
36:DP:26:TYR:CE1	36:DP:139:GLU:CG	2.73	0.57
36:DP:57:HIS:CE1	36:DP:116:GLU:HB3	2.40	0.57
39:DR:88:ILE:HD11	39:DR:91:ARG:HG2	1.86	0.57
45:DV:3:TYR:O	45:DV:58:VAL:HB	2.04	0.57
1:AA:1301:U:C2'	1:AA:1302:U:H5'	2.34	0.57
1:AA:89:U:O2'	1:AA:90:C:O4'	2.23	0.57
23:AC:66:C:C2'	23:AC:67:C:H5'	2.35	0.57
14:AQ:2:ALA:HB1	14:AQ:6:LEU:HD11	1.86	0.57
25:BA:1204:A:N1	25:BA:1241:A:C2	2.73	0.57
25:BA:139:G:N3	25:BA:141:A:N1	2.52	0.57
25:BA:394:A:O2'	25:BA:395:U:H5'	2.03	0.57
26:BB:59:A:H2'	26:BB:60:C:H6	1.68	0.57
28:BE:47:VAL:HG21	28:BE:84:PHE:O	2.05	0.57
30:BG:78:SER:O	30:BG:80:PHE:N	2.37	0.57
31:BH:86:GLU:O	31:BH:131:VAL:O	2.22	0.57
36:BP:133:ARG:O	36:BP:134:ARG:HB2	2.04	0.57
49:BX:10:LYS:NZ	49:BX:15:TYR:OH	2.27	0.57
1:CA:7:G:H5'	1:CA:298:A:O4'	2.05	0.57
1:CA:570:G:C6	1:CA:873:A:C2	2.92	0.57
3:CF:15:THR:HG22	3:CF:16:ARG:N	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:58:GLU:HB2	3:CF:65:ALA:CB	2.34	0.57
1:CA:706:A:O4'	11:CN:29:ILE:HD11	2.05	0.57
12:CO:24:VAL:HG12	12:CO:26:ALA:HB2	1.87	0.57
3:CF:9:GLY:HA3	14:CQ:49:HIS:HA	1.85	0.57
25:DA:1057:A:C2	25:DA:1081:U:N3	2.68	0.57
25:DA:2057:A:C2'	25:DA:2058:A:H5'	2.33	0.57
25:DA:395:U:H2'	25:DA:396:G:N7	2.19	0.57
32:DK:104:GLN:HG2	32:DK:105:HIS:CD2	2.40	0.57
35:DO:64:LYS:CG	54:D8:25:MET:SD	2.92	0.57
35:DO:71:VAL:CG1	35:DO:72:PRO:HD3	2.34	0.57
25:DA:389:G:N1	35:DO:71:VAL:HG12	2.20	0.57
36:DP:31:ASP:H	36:DP:107:ALA:HB2	1.70	0.57
42:DS:29:LEU:HG	42:DS:29:LEU:O	2.03	0.57
42:DS:59:VAL:HG23	42:DS:65:LEU:H	1.70	0.57
43:DT:26:TYR:CD1	43:DT:89:ILE:HD12	2.39	0.57
45:DV:112:ARG:H	45:DV:112:ARG:HE	1.53	0.57
45:DV:8:TYR:HA	45:DV:62:PRO:CD	2.35	0.57
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.04	0.57
1:AA:73:G:C2	1:AA:74:C:C5	2.92	0.57
1:AA:920:U:H2'	1:AA:921:U:C6	2.39	0.57
4:AG:190:ASP:O	4:AG:193:ASP:HB2	2.03	0.57
10:AM:40:LEU:HB2	10:AM:69:ASN:HB2	1.86	0.57
1:AA:1060:C:O2'	10:AM:56:HIS:CD2	2.57	0.57
19:AV:40:ILE:HD11	19:AV:62:ILE:HG23	1.87	0.57
20:AW:10:LEU:HD23	20:AW:12:ALA:CB	2.34	0.57
40:B1:8:VAL:HG23	40:B1:11:ARG:NH2	2.19	0.57
25:BA:1230:C:H2'	25:BA:1231:G:H8	1.70	0.57
25:BA:1845:G:C2'	25:BA:1846:G:H5'	2.34	0.57
25:BA:2712:U:H1'	25:BA:2712(A):A:C8	2.39	0.57
25:BA:540:G:H5'	25:BA:541:C:OP2	2.04	0.57
27:BD:70:TRP:CH2	27:BD:150:LYS:HA	2.39	0.57
28:BE:35:GLN:HB3	28:BE:48:GLN:HB2	1.86	0.57
25:BA:483:A:H4'	44:BU:49:VAL:CA	2.28	0.57
47:BZ:53:VAL:CG2	47:BZ:74:VAL:HG22	2.35	0.57
1:CA:628:G:O2'	1:CA:629:G:H5'	2.04	0.57
23:CC:20:G:N1	23:CC:58:A:C2	2.73	0.57
2:CE:142:LEU:HD23	2:CE:142:LEU:O	2.05	0.57
3:CF:14:ILE:CG1	3:CF:15:THR:N	2.68	0.57
3:CF:28:GLN:HB3	3:CF:32:LEU:HD12	1.86	0.57
10:CM:84:GLN:O	10:CM:88:LEU:HB3	2.05	0.57
13:CP:37:THR:HG21	13:CP:56:LEU:HD23	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1320:C:O2	19:CV:36:ARG:NH2	2.37	0.57
25:DA:2275:C:H5'	25:DA:2275:C:C6	2.39	0.57
25:DA:2637:U:H2'	25:DA:2638:G:O4'	2.05	0.57
25:DA:2720:U:C2	25:DA:2873:A:C2	2.92	0.57
25:DA:343:C:O2'	25:DA:344:G:H5'	2.04	0.57
28:DE:111:ARG:HD2	28:DE:160:TYR:CD1	2.39	0.57
38:DQ:3:ARG:HG3	38:DQ:4:LEU:N	2.19	0.57
39:DR:54:ARG:CG	39:DR:54:ARG:NH1	2.50	0.57
1:AA:1450:U:O2'	1:AA:1451:A:C8	2.54	0.57
1:AA:791:G:O5'	1:AA:791:G:H8	1.86	0.57
9:AL:70:LYS:O	9:AL:74:ILE:HG13	2.05	0.57
11:AN:62:GLN:O	11:AN:66:LEU:HG	2.05	0.57
15:AR:55:GLY:HA2	15:AR:58:MET:CE	2.32	0.57
17:AT:88:TYR:CD2	17:AT:89:LEU:HD23	2.38	0.57
25:BA:1310:G:OP2	53:B7:9:ARG:HD2	2.05	0.57
25:BA:1494:A:H2'	25:BA:1495:A:C8	2.39	0.57
25:BA:153:C:O2'	25:BA:154:G:H5'	2.04	0.57
25:BA:246:C:H2'	25:BA:247:G:H5'	1.87	0.57
25:BA:528:A:N1	25:BA:2042:A:H2'	2.20	0.57
25:BA:581:C:H2'	25:BA:582:G:C8	2.40	0.57
25:BA:795:C:H2'	25:BA:796:C:C6	2.40	0.57
27:BD:72:LYS:HB3	27:BD:75:ILE:HD12	1.85	0.57
28:BE:119:ARG:HB3	28:BE:120:TRP:CD1	2.39	0.57
28:BE:61:ARG:H	28:BE:62:PRO:CD	2.17	0.57
25:BA:2393:A:O3'	35:BO:62:LEU:HA	2.03	0.57
1:CA:1321:C:C4	1:CA:1322:C:C5	2.93	0.57
1:CA:1337:G:H5'	1:CA:1338:G:OP1	2.05	0.57
1:CA:791:G:C6	1:CA:792:A:N7	2.73	0.57
22:CB:16:U:O4'	22:CB:70:G:N2	2.37	0.57
23:CC:38:A:H2'	23:CC:39:A:O4'	2.05	0.57
23:CD:22:A:H2'	23:CD:47:G:C6	2.38	0.57
7:CJ:26:PHE:CD2	7:CJ:30:ILE:HD11	2.39	0.57
11:CN:105:VAL:O	11:CN:105:VAL:HG23	2.04	0.57
10:CM:61:GLU:OE1	14:CQ:58:LYS:HE2	2.05	0.57
54:D8:24:ALA:O	54:D8:48:PHE:CE1	2.57	0.57
25:DA:1534:G:H5'	25:DA:1535:U:OP2	2.04	0.57
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.05	0.57
25:DA:375:C:H2'	25:DA:376:C:C6	2.40	0.57
25:DA:27:G:N2	25:DA:512:G:H1'	2.19	0.57
30:DG:36:LYS:HE3	30:DG:38:VAL:CG2	2.34	0.57
39:DR:74:ARG:HH11	39:DR:74:ARG:CG	1.97	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:17:SER:HB2	44:DU:71:LYS:HE2	1.87	0.57
1:AA:1084:G:C5	1:AA:1085:U:C4	2.93	0.57
1:AA:599:C:H2'	1:AA:600:C:H6	1.68	0.57
4:AG:114:ARG:HG3	4:AG:114:ARG:HH11	1.69	0.57
14:AQ:22:THR:HB	14:AQ:33:VAL:HG11	1.87	0.57
25:BA:1162:G:H21	41:B2:89:GLN:HE22	1.52	0.57
25:BA:2001:A:H2'	25:BA:2002:G:C8	2.39	0.57
25:BA:389:G:H22	35:BO:72:PRO:CD	2.17	0.57
25:BA:654(M):C:H2'	25:BA:654(N):G:H8	1.62	0.57
27:BD:236:GLY:O	27:BD:237:GLU:O	2.23	0.57
25:BA:1843:C:H5'	27:BD:253:GLN:OE1	2.04	0.57
29:BF:29:ASN:N	29:BF:112:MET:HE1	2.19	0.57
1:CA:1122:U:O4	1:CA:1123:A:N6	2.36	0.57
1:CA:745:C:H2'	1:CA:746:A:H8	1.70	0.57
9:CL:63:ILE:HD13	9:CL:77:ILE:HG23	1.86	0.57
40:D1:97:ASP:OD2	40:D1:98:LEU:N	2.38	0.57
41:D2:6:LYS:H	41:D2:37:VAL:HG12	1.69	0.57
35:DO:61:ARG:HA	54:D8:27:THR:HG21	1.86	0.57
25:DA:636:G:N7	35:DO:113:LYS:HE2	2.18	0.57
1:AA:1002:G:H2'	1:AA:1003:G:H8	1.69	0.57
1:AA:1269:A:H2	1:AA:1312:G:N3	2.02	0.57
1:AA:1309:G:C6	1:AA:1329:A:C2	2.93	0.57
1:AA:560:U:H4'	1:AA:561:U:O5'	2.03	0.57
23:AC:63:C:O2	23:AC:63:C:H2'	2.05	0.57
10:AM:4:ILE:HD13	10:AM:100:THR:HG23	1.86	0.57
25:BA:1085:A:H4'	25:BA:1086:A:OP1	2.03	0.57
25:BA:2701:C:C2'	25:BA:2702:U:OP1	2.53	0.57
25:BA:660:G:H21	35:BO:12:ALA:HA	1.69	0.57
28:BE:6:GLY:HA2	28:BE:51:PHE:CZ	2.40	0.57
32:BK:64:GLU:HG3	32:BK:67:ARG:NH2	2.20	0.57
38:BQ:5:THR:OG1	38:BQ:8:GLU:HG3	2.05	0.57
48:BW:28:LYS:HD2	48:BW:56:GLN:NE2	2.20	0.57
1:CA:485:G:O2'	1:CA:486:U:C6	2.58	0.57
22:CB:40:G:H2'	22:CB:41:G:C8	2.40	0.57
22:CB:45:U:C2'	22:CB:46:G:H5''	2.35	0.57
2:CE:8:LYS:O	2:CE:9:GLU:HB3	2.04	0.57
13:CP:39:ILE:HG22	13:CP:40:ASN:H	1.70	0.57
25:DA:2270:G:C2'	25:DA:2271:G:H5'	2.34	0.57
29:DF:148:LEU:HD23	29:DF:191:ARG:NH1	2.19	0.57
44:DU:60:PHE:N	44:DU:60:PHE:CD2	2.72	0.57
1:AA:1091:U:H1'	1:AA:1095:U:O2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:157:G:C2'	1:AA:158:G:H5'	2.34	0.57
1:AA:163:C:H2'	1:AA:164:U:C6	2.40	0.57
1:AA:619:U:O2	4:AG:135:LEU:HD22	2.05	0.57
22:AB:59:U:H4'	22:AB:60:A:H5'	1.86	0.57
1:AA:1190:G:H5'	3:AF:176:HIS:CE1	2.40	0.57
5:AH:45:PHE:CD2	5:AH:47:LYS:HD2	2.39	0.57
40:B1:34:LYS:HZ1	40:B1:37:GLU:CD	2.08	0.57
25:BA:1042:G:H2'	25:BA:1043:C:O4'	2.05	0.57
25:BA:768:G:O2'	25:BA:1379:A:N6	2.37	0.57
25:BA:1760:A:C2'	25:BA:1761:C:H5'	2.35	0.57
25:BA:302:C:H2'	25:BA:303:U:C6	2.40	0.57
25:BA:747:U:OP2	51:B5:3:LYS:HD3	2.05	0.57
27:BD:12:SER:O	27:BD:16:MET:HB2	2.05	0.57
30:BG:105:LYS:HE3	30:BG:143:GLU:OE1	2.04	0.57
31:BH:40:GLU:OE1	31:BH:61:HIS:NE2	2.38	0.57
33:BM:28:THR:HG22	33:BM:29:LYS:N	2.19	0.57
34:BN:122:LEU:HD13	39:BR:72:VAL:HG11	1.87	0.57
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.40	0.57
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.40	0.57
1:CA:777:A:H2	11:CN:119:CYS:HB3	1.70	0.57
1:CA:957:U:H1'	1:CA:960:U:C5	2.39	0.57
22:CB:34:U:H2'	22:CB:36:A:OP2	2.04	0.57
23:CC:35:C:H2'	23:CC:35:C:O2	2.04	0.57
23:CC:62:C:C2	23:CC:63:C:C5	2.92	0.57
23:CD:52:C:N3	23:CD:64:G:N2	2.46	0.57
9:CL:5:TYR:OH	9:CL:16:ARG:HG2	2.05	0.57
9:CL:26:VAL:HG13	9:CL:61:ALA:HB3	1.87	0.57
19:CV:9:VAL:HG12	19:CV:10:PHE:H	1.70	0.57
25:DA:2420:C:P	54:D8:34:TRP:HB3	2.45	0.57
25:DA:672:C:H2'	25:DA:673:C:C5'	2.15	0.57
25:DA:959:A:C6	25:DA:960:A:N1	2.72	0.57
25:DA:2657:A:O2'	31:DH:160:LYS:HE3	2.05	0.57
35:DO:101:VAL:HG23	35:DO:106:LEU:HB3	1.87	0.57
35:DO:146:VAL:HG22	35:DO:147:LEU:HD12	1.86	0.57
39:DR:18:ASP:N	39:DR:18:ASP:OD1	2.32	0.57
43:DT:50:LYS:H	43:DT:87:GLN:NE2	2.03	0.57
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.35	0.56
1:AA:1060:C:C5	3:AF:2:GLY:HA2	2.40	0.56
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.39	0.56
1:AA:1074:G:N3	1:AA:1102:A:C2	2.73	0.56
1:AA:1160:G:H22	1:AA:1177:G:H21	1.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1321:C:C5	1:AA:1322:C:C2	2.92	0.56
1:AA:1490:C:C2'	1:AA:1491:G:H5'	2.34	0.56
22:AB:12:G:H1	22:AB:24:C:H42	1.53	0.56
7:AJ:15:ASP:O	7:AJ:19:GLY:HA2	2.05	0.56
11:AN:79:SER:C	11:AN:80:VAL:HG13	2.24	0.56
13:AP:23:TYR:HB3	13:AP:67:GLU:HA	1.87	0.56
17:AT:29:HIS:CE1	17:AT:32:TYR:CD1	2.93	0.56
41:B2:76:LYS:HG3	41:B2:81:TYR:CD1	2.39	0.56
25:BA:2287:A:N1	25:BA:2346:A:C2	2.73	0.56
25:BA:2427:C:H5''	25:BA:2428:G:OP1	2.06	0.56
25:BA:638:G:C5	25:BA:651:G:C2	2.92	0.56
25:BA:897:C:H2'	25:BA:898:C:O4'	2.05	0.56
28:BE:118:LYS:HG2	28:BE:118:LYS:O	2.06	0.56
32:BK:81:VAL:HG11	32:BK:88:ILE:HD13	1.87	0.56
25:BA:495:G:H1'	42:BS:57:ASN:ND2	2.20	0.56
1:CA:156:G:H1	1:CA:165:C:H42	1.53	0.56
1:CA:818:G:O2'	1:CA:819:A:H5'	2.05	0.56
1:CA:984:C:H2'	1:CA:985:C:H6	1.69	0.56
22:CB:18:G:H1	22:CB:71:U:H3	1.52	0.56
1:CA:619:U:H3	4:CG:134:ASP:HB2	1.69	0.56
14:CQ:13:THR:N	14:CQ:14:PRO:HD3	2.20	0.56
13:CP:84:ILE:HG21	19:CV:63:THR:HG21	1.86	0.56
25:DA:1278:A:H5''	37:D0:36:THR:HG22	1.86	0.56
25:DA:99:U:H4'	25:DA:102:G:H1'	1.87	0.56
25:DA:140:A:H8	25:DA:1408:C:HO2'	1.43	0.56
25:DA:185:U:H4'	25:DA:218:A:H4'	1.86	0.56
25:DA:571:A:H5'	25:DA:2030:A:N7	2.20	0.56
25:DA:2192:G:H2'	25:DA:2193:G:H5'	1.86	0.56
25:DA:2310:A:H5'	25:DA:2311:A:OP2	2.05	0.56
25:DA:2638:G:O2'	25:DA:2639:A:C8	2.58	0.56
28:DE:111:ARG:HD2	28:DE:160:TYR:CE1	2.40	0.56
29:DF:28:ILE:HD11	29:DF:119:ARG:HD3	1.86	0.56
30:DG:109:VAL:O	30:DG:113:ARG:HG3	2.05	0.56
30:DG:125:PHE:CE2	30:DG:131:TYR:HB2	2.40	0.56
31:DH:153:LYS:HB3	31:DH:161:GLY:HA2	1.87	0.56
36:DP:30:GLY:HA2	36:DP:107:ALA:HB2	1.88	0.56
36:DP:59:ARG:HH21	36:DP:59:ARG:CG	2.12	0.56
36:DP:21:THR:HB	36:DP:99:PRO:O	2.05	0.56
44:DU:84:ARG:NH2	44:DU:97:ARG:HB2	2.20	0.56
1:AA:403:C:OP1	4:AG:137:SER:OG	2.11	0.56
1:AA:686:U:H1'	11:AN:42:TRP:NE1	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AO:116:SER:O	12:AO:120:TYR:HD1	1.87	0.56
52:B6:38:LYS:HG3	52:B6:47:THR:O	2.05	0.56
32:BK:38:LEU:HD12	32:BK:38:LEU:H	1.70	0.56
32:BK:71:ILE:O	32:BK:71:ILE:HG12	2.06	0.56
33:BM:137:LYS:HG3	33:BM:138:LEU:N	2.15	0.56
42:BS:61:ASN:HB3	42:BS:62:HIS:ND1	2.19	0.56
1:CA:1032:A:N7	1:CA:1032(A):G:H1'	2.20	0.56
1:CA:1071:C:O2'	1:CA:1072:G:H5'	2.06	0.56
1:CA:1085:U:H3'	1:CA:1086:U:C6	2.40	0.56
1:CA:1129:C:H4'	1:CA:1130:A:C5'	2.32	0.56
23:CD:71:G:C2	23:CD:72:C:C6	2.94	0.56
2:CE:17:PHE:HE2	2:CE:44:LEU:HA	1.69	0.56
2:CE:97:TRP:CZ3	2:CE:98:LEU:O	2.57	0.56
4:CG:139:ARG:HG3	4:CG:139:ARG:HH11	1.70	0.56
12:CO:17:LYS:HD3	12:CO:18:VAL:H	1.70	0.56
1:CA:1321:C:H4'	13:CP:87:TYR:CE2	2.39	0.56
18:CU:29:PHE:HD1	18:CU:39:VAL:HG11	1.70	0.56
25:DA:1018:C:O2'	25:DA:1019:U:H5'	2.04	0.56
25:DA:1300:U:H4'	25:DA:1301:A:H5'	1.85	0.56
25:DA:226:G:H21	25:DA:228:A:H61	0.57	0.56
25:DA:2420:C:OP1	54:D8:34:TRP:CB	2.43	0.56
25:DA:2799:A:H2'	25:DA:2801:A:C4	2.39	0.56
25:DA:362:U:H6	25:DA:362:U:H3'	1.70	0.56
28:DE:33:VAL:HA	28:DE:49:LEU:HA	1.86	0.56
30:DG:36:LYS:HB2	30:DG:95:ARG:NH1	2.19	0.56
35:DO:83:VAL:CG1	35:DO:112:LEU:HD21	2.35	0.56
35:DO:55:ARG:O	35:DO:57:THR:N	2.38	0.56
36:DP:66:ILE:HA	36:DP:104:PHE:HA	1.87	0.56
36:DP:79:LEU:O	36:DP:81:VAL:HG13	2.05	0.56
38:DQ:14:VAL:HG21	38:DQ:89:ARG:HG2	1.86	0.56
44:DU:98:VAL:HG13	44:DU:99:CYS:N	2.20	0.56
45:DV:105:VAL:HG22	45:DV:106:GLY:N	2.17	0.56
25:DA:2232:U:P	47:DZ:40:ARG:HH12	2.28	0.56
1:AA:1004:A:O5'	1:AA:1025:U:N3	2.39	0.56
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.36	0.56
1:AA:1374:A:O2'	7:AJ:28:ASN:HB3	2.05	0.56
4:AG:26:CYS:HA	4:AG:31:CYS:HA	1.88	0.56
6:AI:97:PHE:HD2	18:AU:31:LEU:HD21	1.69	0.56
16:AS:22:THR:HG23	16:AS:23:ASP:H	1.70	0.56
25:BA:1085:A:H2	25:BA:1086:A:N7	2.02	0.56
25:BA:1354:A:OP1	27:BD:38:LYS:NZ	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1537:C:H2'	25:BA:1538:G:O4'	2.05	0.56
25:BA:644:A:C2	25:BA:646:A:C4	2.93	0.56
28:BE:53:PRO:O	28:BE:54:GLN:C	2.42	0.56
28:BE:75:VAL:HG23	28:BE:76:ARG:N	2.16	0.56
30:BG:118:ARG:O	30:BG:181:ARG:HG3	2.05	0.56
33:BM:40:PRO:O	40:B1:64:ARG:HG2	2.06	0.56
1:CA:1127:G:O2'	1:CA:1128:C:H5'	2.06	0.56
1:CA:1244:C:OP2	21:CX:9:ARG:HG2	2.05	0.56
2:CE:5:ILE:HD11	2:CE:221:LEU:HD21	1.87	0.56
3:CF:181:ASN:HB3	3:CF:205:GLY:O	2.05	0.56
5:CH:39:GLY:HA2	5:CH:113:ALA:O	2.06	0.56
9:CL:78:LYS:HZ3	9:CL:78:LYS:HB2	1.70	0.56
13:CP:80:ARG:NH1	19:CV:66:MET:SD	2.78	0.56
21:CX:5:ASP:O	21:CX:11:GLY:HA3	2.05	0.56
37:D0:37:THR:HG22	37:D0:40:LYS:H	1.68	0.56
25:DA:2646:C:H2'	25:DA:2647:U:O4'	2.06	0.56
25:DA:445:C:O2'	25:DA:446:G:H5'	2.05	0.56
25:DA:848:G:H2'	25:DA:849:A:H8	1.67	0.56
25:DA:1257:C:C2'	29:DF:84:VAL:CG1	2.81	0.56
30:DG:15:VAL:HG13	30:DG:175:LEU:CB	2.35	0.56
45:DV:129:SER:HB2	45:DV:131:ARG:HD3	1.86	0.56
1:AA:1261:A:H1'	1:AA:1283:G:H5''	1.87	0.56
1:AA:292:G:N7	1:AA:293:G:H1'	2.21	0.56
1:AA:342:C:H2'	1:AA:343:U:O4'	2.04	0.56
1:AA:652:U:O2'	1:AA:653:A:H5''	2.06	0.56
1:AA:928:G:O2'	1:AA:1533:C:OP1	2.23	0.56
23:AD:21:U:H3'	23:AD:22:A:H5''	1.88	0.56
2:AE:146:GLN:O	2:AE:150:SER:HB3	2.05	0.56
2:AE:21:ARG:C	2:AE:23:ARG:H	2.09	0.56
12:AO:32:PHE:HE1	12:AO:86:ARG:HG3	1.70	0.56
19:AV:53:ASN:O	19:AV:77:THR:HG22	2.06	0.56
37:B0:104:ARG:NH1	37:B0:104:ARG:HG2	2.21	0.56
37:B0:44:LEU:O	37:B0:48:VAL:HG23	2.05	0.56
41:B2:66:ARG:CZ	41:B2:88:ARG:HD3	2.34	0.56
52:B6:34:LEU:HD22	52:B6:34:LEU:H	1.70	0.56
25:BA:1408:C:C2	25:BA:1595:G:N2	2.74	0.56
25:BA:1761:C:C4	25:BA:1762:A:N7	2.74	0.56
25:BA:1771:C:C1'	25:BA:1786:A:C8	2.88	0.56
25:BA:1830:C:O2'	25:BA:1831:G:H5'	2.05	0.56
25:BA:2112:G:O2'	25:BA:2113:U:O2	2.23	0.56
25:BA:2173:A:C8	25:BA:2173:A:OP1	2.59	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2319:G:H4'	25:BA:2319:G:OP2	2.04	0.56
25:BA:813:U:H2'	25:BA:814:C:C6	2.40	0.56
25:BA:974(A):C:H4'	25:BA:975:G:C5'	2.35	0.56
28:BE:13:ARG:HH11	28:BE:13:ARG:CB	2.17	0.56
28:BE:38:THR:HB	28:BE:39:PRO:CD	2.22	0.56
29:BF:116:ASP:OD2	35:BO:1:MET:HB2	2.05	0.56
35:BO:39:LYS:CG	35:BO:45:LEU:HD22	2.35	0.56
35:BO:55:ARG:O	35:BO:57:THR:N	2.38	0.56
45:BV:132:ASN:H	45:BV:132:ASN:ND2	2.02	0.56
45:BV:7:ALA:HB2	45:BV:59:LEU:CD1	2.32	0.56
49:BX:19:GLN:NE2	49:BX:52:HIS:HE1	2.02	0.56
1:CA:182:U:C5	1:CA:183:G:C4	2.92	0.56
2:CE:8:LYS:C	2:CE:10:LEU:H	2.08	0.56
3:CF:184:TYR:HA	3:CF:200:ALA:O	2.05	0.56
1:CA:963:G:N2	10:CM:55:LYS:CD	2.65	0.56
10:CM:63:PHE:HD1	14:CQ:57:ARG:O	1.88	0.56
13:CP:7:VAL:O	13:CP:8:GLU:HG2	2.05	0.56
14:CQ:29:ARG:O	14:CQ:30:ALA:HB3	2.05	0.56
3:CF:8:ILE:HB	14:CQ:49:HIS:O	2.06	0.56
25:DA:1045:A:O2'	25:DA:1047:G:O4'	2.23	0.56
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.41	0.56
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.40	0.56
25:DA:2319:G:O6	38:DQ:4:LEU:HB3	2.05	0.56
25:DA:2335:A:HO2'	25:DA:2336:A:P	2.29	0.56
25:DA:300:A:H2'	25:DA:334:C:H1'	1.88	0.56
25:DA:910:A:H62	36:DP:12:GLN:HA	1.69	0.56
25:DA:979:G:H3'	25:DA:980:A:C5'	2.35	0.56
28:DE:120:TRP:CE3	28:DE:155:LYS:HD3	2.41	0.56
32:DK:77:LEU:HG	32:DK:78:THR:N	2.20	0.56
25:DA:1006:C:H1'	33:DM:106:MET:HE3	1.88	0.56
38:DQ:84:GLN:HA	38:DQ:110:LEU:H	1.70	0.56
39:DR:127:ALA:O	39:DR:131:ALA:HB3	2.05	0.56
22:AB:60:A:H5''	22:AB:61:C:OP2	2.05	0.56
18:AU:52:PRO:HB2	18:AU:54:ARG:HG2	1.87	0.56
25:BA:1061:U:H4'	25:BA:1070:A:H1'	1.88	0.56
25:BA:1210:A:H8	25:BA:1210:A:C5'	2.19	0.56
25:BA:1668:A:H4'	25:BA:1669:A:O5'	2.05	0.56
25:BA:1771:C:O2'	25:BA:1786:A:H8	1.88	0.56
25:BA:2139:C:H2'	25:BA:2140:C:H5'	1.86	0.56
25:BA:2165:G:H2'	25:BA:2165:G:N3	2.19	0.56
25:BA:2610:C:C4'	25:BA:2611:U:OP2	2.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2751:G:O2'	25:BA:2752:C:O5'	2.23	0.56
25:BA:2:G:H2'	25:BA:3:U:C6	2.41	0.56
25:BA:883:G:C6	25:BA:884:C:O2	2.58	0.56
25:BA:444:C:H4'	29:BF:49:ALA:HB2	1.87	0.56
38:BQ:110:LEU:HA	38:BQ:112:PHE:CZ	2.41	0.56
38:BQ:14:VAL:HG11	38:BQ:90:GLY:O	2.04	0.56
42:BS:89:ALA:O	42:BS:90:ARG:HB2	2.05	0.56
45:BV:110:GLY:O	45:BV:111:VAL:HG22	2.06	0.56
1:CA:986:A:H1'	19:CV:54:GLY:O	2.04	0.56
2:CE:85:ALA:HB3	2:CE:92:TYR:HD1	1.70	0.56
6:CI:24:GLU:HG2	6:CI:28:ARG:NH1	2.19	0.56
11:CN:66:LEU:HD22	11:CN:101:SER:HB3	1.87	0.56
13:CP:108:ARG:HD3	13:CP:114:ARG:HG2	1.86	0.56
14:CQ:36:PHE:HD1	14:CQ:37:PHE:CD2	2.22	0.56
18:CU:37:VAL:CG1	18:CU:78:LEU:HB3	2.35	0.56
30:DG:67:LYS:HB3	50:D4:6:HIS:HD2	1.69	0.56
25:DA:1666:G:C2'	25:DA:1667:G:H5'	2.34	0.56
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.39	0.56
25:DA:273(C):C:H5'	25:DA:273(D):C:OP2	2.06	0.56
27:DD:30:GLU:CG	27:DD:63:ARG:HH21	2.18	0.56
29:DF:3:GLU:HA	29:DF:24:LEU:HD23	1.87	0.56
30:DG:173:LEU:O	30:DG:178:PHE:HB2	2.05	0.56
39:DR:57:PHE:HA	39:DR:79:HIS:ND1	2.21	0.56
43:DT:55:ASN:O	43:DT:79:ALA:HA	2.06	0.56
1:AA:1141:C:O2'	1:AA:1142:G:H5'	2.04	0.56
1:AA:811:C:H4'	1:AA:900:A:N6	2.21	0.56
4:AG:155:LEU:O	4:AG:157:LEU:N	2.39	0.56
5:AH:11:ILE:H	5:AH:11:ILE:HD13	1.71	0.56
1:AA:1351:U:O4'	7:AJ:33:ASP:HB3	2.05	0.56
13:AP:3:ARG:HG2	13:AP:9:ILE:HG13	1.87	0.56
15:AR:18:PHE:CE1	15:AR:21:ASP:HB2	2.40	0.56
16:AS:45:THR:HG22	16:AS:47:ASP:H	1.71	0.56
19:AV:41:VAL:HG12	19:AV:45:VAL:N	2.21	0.56
52:B6:14:THR:O	52:B6:49:HIS:HA	2.05	0.56
25:BA:1385:G:O6	25:BA:1403:C:N4	2.38	0.56
25:BA:1761:C:N3	25:BA:1762:A:N6	2.52	0.56
25:BA:2751:G:O2'	25:BA:2752:C:P	2.64	0.56
25:BA:34:C:HO2'	25:BA:35:G:P	2.23	0.56
25:BA:627:A:H4'	25:BA:628:G:OP1	2.06	0.56
28:BE:56:PRO:O	28:BE:57:LYS:CB	2.35	0.56
28:BE:78:LEU:HD12	28:BE:79:ARG:CG	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:62:PRO:O	45:BV:63:ASP:CB	2.54	0.56
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.71	0.56
1:CA:1092:A:C2	1:CA:1183:A:C2	2.94	0.56
1:CA:186:C:H1'	20:CW:81:LYS:NZ	2.21	0.56
1:CA:192:U:C4'	20:CW:103:GLY:HA3	2.35	0.56
1:CA:382:A:H2'	1:CA:383:A:H8	1.67	0.56
1:CA:673:G:O3'	6:CI:87:ARG:NH2	2.39	0.56
19:CV:78:ARG:HD3	19:CV:79:THR:N	2.19	0.56
20:CW:37:SER:O	20:CW:41:ILE:HG13	2.04	0.56
53:D7:35:ARG:HG2	53:D7:42:LEU:HD11	1.87	0.56
25:DA:2688:U:C5	25:DA:2720:U:OP2	2.57	0.56
26:DB:13:A:H2'	26:DB:70:C:O2'	2.05	0.56
31:DH:153:LYS:H	31:DH:154:PRO:HD2	1.68	0.56
43:DT:11:PRO:HB3	43:DT:92:LEU:HD21	1.87	0.56
23:AC:19:G:C4	23:AC:59:A:C2	2.94	0.56
2:AE:8:LYS:H	2:AE:8:LYS:HE2	1.71	0.56
11:AN:79:SER:CB	11:AN:106:LYS:HD2	2.35	0.56
52:B6:27:LYS:HB2	52:B6:27:LYS:NZ	2.20	0.56
25:BA:1143:A:OP1	33:BM:25:ARG:NH2	2.37	0.56
25:BA:1869:G:C5'	25:BA:1869:G:H8	2.19	0.56
25:BA:2118:U:H5''	25:BA:2119:A:OP1	2.05	0.56
27:BD:25:THR:OG1	27:BD:113:VAL:HG21	2.05	0.56
27:BD:70:TRP:HZ3	27:BD:146:GLU:OE2	1.89	0.56
27:BD:28:GLU:HB3	27:BD:29:PRO:HD3	1.88	0.56
28:BE:38:THR:HA	28:BE:44:TYR:O	2.06	0.56
25:BA:320:A:H2'	29:BF:136:THR:HG21	1.88	0.56
29:BF:160:ASN:OD1	29:BF:163:VAL:HG23	2.06	0.56
42:BS:92:ARG:HD3	42:BS:93:ALA:H	1.69	0.56
45:BV:128:VAL:CG2	45:BV:160:GLY:HA3	2.36	0.56
45:BV:157:LEU:HD11	45:BV:163:LEU:CD2	2.36	0.56
45:BV:53:ILE:HA	45:BV:71:VAL:HG13	1.87	0.56
1:CA:1160:G:N2	1:CA:1161:C:C6	2.74	0.56
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.05	0.56
1:CA:577:G:C8	1:CA:816:A:C6	2.93	0.56
1:CA:973:G:O3'	14:CQ:41:ARG:NH2	2.32	0.56
1:CA:981:U:H5''	1:CA:982:U:O5'	2.06	0.56
23:CC:20:G:N2	23:CC:58:A:N3	2.53	0.56
7:CJ:95:ARG:HH21	7:CJ:99:LEU:HD11	1.71	0.56
8:CK:42:GLU:OE2	8:CK:122:ARG:NH2	2.39	0.56
25:DA:1181:C:O2'	25:DA:1182:A:H5'	2.06	0.56
25:DA:1544:C:H2'	25:DA:1544:C:O2	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2523:G:H5'	25:DA:2523:G:C8	2.40	0.56
25:DA:598:G:H1'	35:DO:12:ALA:CB	2.35	0.56
32:DK:14:ASP:N	32:DK:17:GLN:OE1	2.34	0.56
35:DO:11:GLY:C	35:DO:13:ASN:N	2.59	0.56
35:DO:85:LEU:CA	35:DO:88:LEU:HB3	2.33	0.56
45:DV:108:PRO:CA	45:DV:143:GLY:N	2.68	0.56
45:DV:144:LEU:O	45:DV:144:LEU:CD1	2.47	0.56
47:DZ:92:LYS:O	47:DZ:93:GLU:C	2.44	0.56
1:AA:192:U:C4'	20:AW:103:GLY:HA2	2.35	0.56
1:AA:33:A:H2'	1:AA:34:C:C6	2.41	0.56
1:AA:983:A:H5''	1:AA:984:C:OP2	2.05	0.56
23:AD:49:C:H6	23:AD:49:C:OP2	1.88	0.56
2:AE:8:LYS:HE3	2:AE:11:LEU:CB	2.32	0.56
5:AH:139:LEU:HA	5:AH:142:LEU:HD12	1.87	0.56
9:AL:48:GLU:N	9:AL:49:PRO:HD2	2.21	0.56
37:B0:55:ALA:HB2	37:B0:79:LEU:HD13	1.86	0.56
46:B3:11:ARG:O	46:B3:14:ARG:NH2	2.38	0.56
25:BA:1813:G:H1'	27:BD:50:THR:OG1	2.05	0.56
25:BA:259:G:N2	25:BA:621:A:C8	2.73	0.56
25:BA:482:A:H8	25:BA:482:A:OP2	1.89	0.56
30:BG:166:ASP:HA	30:BG:169:ALA:CB	2.36	0.56
30:BG:17:PRO:HA	30:BG:20:ILE:HG13	1.88	0.56
1:CA:1015:A:C5	1:CA:1016:A:C5	2.94	0.56
1:CA:1004:A:OP1	1:CA:1025:U:O4	2.23	0.56
4:CG:9:CYS:HA	4:CG:12:CYS:CB	2.36	0.56
4:CG:78:LEU:HD22	4:CG:96:LEU:HB3	1.86	0.56
10:CM:24:VAL:O	10:CM:28:ARG:HB2	2.06	0.56
16:CS:8:ARG:HG3	16:CS:8:ARG:HH11	1.67	0.56
41:D2:28:GLU:HB3	41:D2:29:PRO:CD	2.35	0.56
51:D5:51:TYR:HB2	51:D5:54:GLY:HA3	1.88	0.56
25:DA:1000:A:C6	25:DA:1001:A:N1	2.73	0.56
27:DD:30:GLU:CG	27:DD:63:ARG:NH2	2.69	0.56
27:DD:70:TRP:CH2	27:DD:150:LYS:HA	2.40	0.56
28:DE:154:LYS:HA	28:DE:154:LYS:HE3	1.86	0.56
28:DE:3:GLY:O	28:DE:4:ILE:HG23	2.05	0.56
30:DG:101:ILE:HB	30:DG:105:LYS:NZ	2.19	0.56
34:DN:102:VAL:HB	34:DN:106:LEU:HD12	1.88	0.56
34:DN:1:MET:HE3	34:DN:67:LYS:HG2	1.87	0.56
39:DR:107:ASP:N	39:DR:107:ASP:OD1	2.39	0.56
45:DV:149:SER:CB	45:DV:172:ALA:O	2.54	0.56
1:AA:1004:A:O4'	1:AA:1025:U:N3	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.41	0.56
1:AA:1312:G:O2'	1:AA:1313:U:H5'	2.05	0.56
23:AD:67:C:N3	23:AD:68:C:N4	2.53	0.56
6:AI:67:MET:SD	6:AI:75:LEU:HD12	2.46	0.56
7:AJ:87:VAL:HG11	7:AJ:155:ARG:HA	1.88	0.56
7:AJ:23:VAL:CG1	7:AJ:43:PHE:HE2	2.18	0.56
9:AL:8:GLY:HA2	9:AL:79:LEU:HD13	1.87	0.56
11:AN:87:THR:HG22	11:AN:88:GLY:H	1.70	0.56
14:AQ:45:ARG:HH11	14:AQ:49:HIS:HE1	1.54	0.56
41:B2:34:GLU:O	41:B2:36:PRO:HD3	2.05	0.56
41:B2:44:LYS:O	41:B2:46:VAL:N	2.39	0.56
25:BA:1769:G:O2'	25:BA:1958:C:OP1	2.16	0.56
25:BA:637:A:O5'	35:BO:116:GLY:HA3	2.06	0.56
28:BE:41:LYS:O	28:BE:42:ASP:CG	2.43	0.56
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.86	0.56
31:BH:59:ARG:NH1	31:BH:59:ARG:CG	2.57	0.56
32:BK:9:LEU:O	32:BK:10:GLU:HB3	2.06	0.56
33:BM:97:ARG:HA	33:BM:100:GLU:HB2	1.88	0.56
33:BM:35:ARG:O	33:BM:35:ARG:HG3	2.05	0.56
34:BN:35:VAL:HG22	34:BN:69:ILE:HG12	1.87	0.56
25:BA:805:G:OP2	35:BO:41:ARG:HG2	2.05	0.56
38:BQ:106:ARG:HB2	38:BQ:106:ARG:NH1	2.20	0.56
1:CA:1127:G:H8	1:CA:1127:G:OP2	1.88	0.56
1:CA:1133:G:H1	1:CA:1141:C:N4	2.02	0.56
1:CA:1189:C:OP1	10:CM:51:ARG:NH2	2.33	0.56
1:CA:1320:C:OP1	19:CV:70:LYS:HE3	2.06	0.56
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.71	0.56
1:CA:838:G:H2'	1:CA:841:U:H5'	1.87	0.56
25:DA:2387:U:H1'	46:D3:41:ARG:CD	2.36	0.56
25:DA:1019:U:H2'	25:DA:1020:A:H8	1.71	0.56
25:DA:2808:U:H2'	25:DA:2809:A:H8	1.71	0.56
25:DA:877:U:H4'	25:DA:878:A:OP1	2.04	0.56
27:DD:235:GLY:O	27:DD:237:GLU:OE1	2.24	0.56
30:DG:145:THR:O	30:DG:146:TYR:HB3	2.06	0.56
30:DG:60:LEU:O	30:DG:60:LEU:HD23	2.06	0.56
33:DM:36:GLY:H	33:DM:42:TRP:HZ3	1.54	0.56
39:DR:107:ASP:OD2	39:DR:109:GLU:HB2	2.06	0.56
1:AA:1004:A:P	1:AA:1025:U:O4	2.63	0.56
1:AA:1277:C:O2'	1:AA:1279:A:H8	1.84	0.56
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.06	0.56
1:AA:201:C:N4	1:AA:209:U:O2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:943:U:C1'	9:AL:124:GLN:HE22	2.18	0.56
22:AB:27:G:O6	22:AB:45:U:C2	2.59	0.56
23:AD:13:C:HO2'	23:AD:14:A:P	2.29	0.56
15:AR:56:LEU:HD21	25:BA:715:G:C2	2.41	0.56
19:AV:41:VAL:CG1	19:AV:44:MET:HB2	2.36	0.56
19:AV:68:GLY:HA2	50:B4:59:PHE:CD1	2.41	0.56
1:AA:1329:A:N7	21:AX:7:ARG:NH2	2.54	0.56
25:BA:1216:G:OP2	40:B1:12:ARG:NH2	2.37	0.56
41:B2:76:LYS:O	41:B2:79:VAL:HG12	2.06	0.56
30:BG:113:ARG:HH21	50:B4:34:GLU:HB3	1.71	0.56
25:BA:1060:U:H5'	25:BA:1061:U:H5	1.71	0.56
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.69	0.56
25:BA:2131:G:OP1	25:BA:2132:U:H3'	2.06	0.56
25:BA:2119:A:N6	25:BA:2170:A:N6	2.52	0.56
25:BA:242:G:H5''	54:B8:62:LEU:HD13	1.88	0.56
25:BA:305:U:H2'	25:BA:306:U:C6	2.40	0.56
25:BA:581:C:OP1	40:B1:33:ARG:HG3	2.06	0.56
28:BE:27:LEU:CD2	28:BE:51:PHE:HZ	2.19	0.56
28:BE:55:ASN:HD22	28:BE:59:VAL:HG23	1.71	0.56
33:BM:120:LEU:HD22	33:BM:121:LYS:N	2.20	0.56
34:BN:12:ASP:CG	34:BN:14:THR:HG23	2.26	0.56
25:BA:956:G:OP2	36:BP:14:ARG:NH2	2.39	0.56
39:BR:107:ASP:H	39:BR:110:ILE:CG2	2.19	0.56
39:BR:78:LEU:O	39:BR:78:LEU:HD13	2.05	0.56
1:CA:570:G:H1'	1:CA:820:U:C4	2.40	0.56
1:CA:920:U:H2'	1:CA:921:U:H6	1.70	0.56
22:CB:61:C:H42	22:CB:75:G:H1	1.53	0.56
22:CB:70:G:H3'	22:CB:71:U:C5	2.40	0.56
11:CN:109:VAL:HG22	18:CU:86:VAL:HG13	1.87	0.56
19:CV:68:GLY:HA3	50:D4:59:PHE:HE1	1.70	0.56
53:D7:5:TRP:NE1	53:D7:7:PRO:HG3	2.20	0.56
25:DA:176:G:O2'	25:DA:177:G:H5'	2.06	0.56
25:DA:1794:U:O2'	25:DA:1795:C:H5'	2.06	0.56
25:DA:2037:G:H2'	25:DA:2038:G:C8	2.41	0.56
25:DA:2111:C:C2	25:DA:2118:U:O2'	2.57	0.56
25:DA:529:A:H2'	25:DA:529:A:N3	2.21	0.56
44:DU:39:VAL:HG23	44:DU:40:GLU:N	2.19	0.56
45:DV:8:TYR:HA	45:DV:62:PRO:HD3	1.87	0.56
1:AA:1238:A:N3	1:AA:1241:G:O2'	2.39	0.56
1:AA:1392:G:O2'	1:AA:1502:A:H5''	2.06	0.56
1:AA:636:U:H2'	1:AA:637:G:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:96:G:C2'	1:AA:97:U:H5'	2.36	0.56
3:AF:40:ARG:HG3	3:AF:40:ARG:NH1	2.21	0.56
3:AF:95:THR:HG22	3:AF:96:GLY:N	2.21	0.56
6:AI:44:GLY:O	6:AI:59:TYR:HA	2.04	0.56
6:AI:61:LEU:HB3	6:AI:63:TYR:HE2	1.69	0.56
12:AO:53:ARG:HH11	12:AO:53:ARG:HG3	1.71	0.56
15:AR:27:VAL:O	15:AR:31:LEU:HB2	2.06	0.56
50:B4:13:ARG:H	50:B4:30:GLU:H	1.54	0.56
25:BA:517:C:OP1	51:B5:16:ARG:NH2	2.39	0.56
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.41	0.56
25:BA:2790:A:C2	25:BA:2894:G:H5''	2.41	0.56
25:BA:475:U:C4	25:BA:481:G:O6	2.59	0.56
25:BA:753:C:O5'	25:BA:753:C:H6	1.88	0.56
30:BG:133:LEU:O	30:BG:133:LEU:HD23	2.06	0.56
30:BG:61:ALA:HA	30:BG:66:GLN:O	2.06	0.56
31:BH:15:VAL:HG12	31:BH:29:PRO:HD2	1.88	0.56
35:BO:91:PHE:O	35:BO:121:LYS:NZ	2.32	0.56
1:CA:411:A:H62	1:CA:413:G:H21	1.54	0.56
1:CA:656:C:H42	1:CA:750:G:H1	1.53	0.56
22:CB:26:C:C5	22:CB:27:G:N2	2.73	0.56
23:CD:7:G:C3'	23:CD:8:U:H5'	2.35	0.56
2:CE:5:ILE:O	2:CE:5:ILE:HG23	2.05	0.56
2:CE:98:LEU:O	2:CE:101:MET:HG2	2.06	0.56
3:CF:68:VAL:HG12	3:CF:70:VAL:HG23	1.87	0.56
12:CO:26:ALA:O	12:CO:27:LEU:CD1	2.53	0.56
25:DA:1085:A:HO2'	25:DA:1086:A:H8	1.50	0.56
25:DA:2191:G:O2'	25:DA:2192:G:P	2.63	0.56
25:DA:2307:G:O2'	25:DA:2308:G:C8	2.58	0.56
25:DA:2355:C:H5'	46:D3:36:ILE:CD1	2.36	0.56
25:DA:2068:U:N3	25:DA:2430:A:C2	2.60	0.56
25:DA:2527:C:C4	25:DA:2528:U:C5	2.94	0.56
25:DA:288:C:O2	25:DA:288:C:H2'	2.06	0.56
25:DA:528:A:C2	25:DA:2043:C:C5'	2.85	0.56
26:DB:7:G:H3'	26:DB:8:U:H5''	1.88	0.56
32:DK:82:ARG:NH1	32:DK:146:ALA:HA	2.21	0.56
36:DP:63:LYS:HB3	36:DP:107:ALA:O	2.05	0.56
38:DQ:60:GLY:O	38:DQ:61:ASN:HB2	2.05	0.56
44:DU:47:LYS:HG2	44:DU:60:PHE:HD1	1.71	0.56
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.06	0.55
1:AA:832:C:O2	1:AA:855:G:C2	2.58	0.55
1:AA:1149:C:OP2	9:AL:9:ARG:NH2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AN:66:LEU:CD2	11:AN:97:ALA:HB1	2.35	0.55
41:B2:43:GLU:HA	41:B2:43:GLU:OE2	2.05	0.55
52:B6:10:LEU:HD23	54:B8:34:TRP:CE2	2.40	0.55
25:BA:1396:U:H2'	25:BA:1396:U:O2	2.05	0.55
25:BA:270(M):U:H1'	25:BA:270(N):G:C5	2.41	0.55
25:BA:546:C:H6	25:BA:546:C:OP1	1.89	0.55
25:BA:852:G:H2'	25:BA:853:G:H8	1.70	0.55
26:BB:42:C:O2	30:BG:93:THR:N	2.34	0.55
27:BD:124:PRO:HG2	27:BD:129:ASN:ND2	2.21	0.55
27:BD:17:THR:CG2	27:BD:204:ILE:HA	2.37	0.55
27:BD:44:ASN:ND2	27:BD:44:ASN:H	2.04	0.55
31:BH:43:VAL:HG12	31:BH:52:VAL:HG22	1.89	0.55
34:BN:4:PRO:O	34:BN:5:GLN:HB2	2.05	0.55
39:BR:52:ILE:CD1	39:BR:61:PHE:HB3	2.26	0.55
45:BV:152:ALA:O	45:BV:155:LEU:HB2	2.06	0.55
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.06	0.55
1:CA:16:A:N1	1:CA:919:A:H2	2.04	0.55
1:CA:35:G:C2	1:CA:550:G:N3	2.75	0.55
5:CH:75:THR:HG23	5:CH:76:ILE:N	2.21	0.55
37:D0:87:TYR:HD1	37:D0:90:ARG:HD2	1.70	0.55
52:D6:14:THR:OG1	52:D6:19:ARG:HG2	2.06	0.55
25:DA:1358:G:N2	25:DA:1372:U:C5	2.74	0.55
25:DA:2547:U:O2'	25:DA:2548:G:H5'	2.06	0.55
25:DA:673:C:H6	25:DA:673:C:C5'	2.18	0.55
25:DA:994:C:OP1	40:D1:53:ARG:NH2	2.39	0.55
27:DD:268:ARG:HG2	27:DD:268:ARG:HH11	1.72	0.55
28:DE:51:PHE:O	28:DE:74:PRO:HB3	2.06	0.55
29:DF:148:LEU:HD23	29:DF:191:ARG:HH12	1.70	0.55
29:DF:25:PRO:C	29:DF:27:GLU:H	2.08	0.55
31:DH:150:ALA:C	31:DH:152:ARG:N	2.60	0.55
25:DA:2470:G:OP2	36:DP:56:ARG:CZ	2.54	0.55
38:DQ:110:LEU:HD22	38:DQ:111:GLU:N	2.21	0.55
1:AA:1077:G:N1	1:AA:1081:G:C6	2.75	0.55
1:AA:1106:G:C5	1:AA:1107:C:C5	2.94	0.55
1:AA:989:C:H42	1:AA:1216:G:H1	1.53	0.55
1:AA:1293:G:H2'	1:AA:1294:G:O4'	2.05	0.55
1:AA:74:C:H2'	1:AA:75:C:O4'	2.05	0.55
1:AA:793:U:H3'	1:AA:794:A:H5''	1.89	0.55
22:AB:52:U:C6	22:AB:53:A:C8	2.95	0.55
22:AB:55:G:H2'	22:AB:56:G:C8	2.41	0.55
23:AD:55:U:C4	23:AD:56:U:C5	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:71:G:O2'	23:AD:72:C:H5'	2.06	0.55
37:B0:33:ARG:NH2	51:B5:55:ARG:HG2	2.21	0.55
25:BA:1069:A:H4'	25:BA:1070:A:C5'	2.36	0.55
25:BA:1409:C:O2'	25:BA:1410:G:H5'	2.05	0.55
25:BA:1496:A:H2'	25:BA:1577:C:O2'	2.06	0.55
25:BA:270(Y):G:C2	25:BA:270(Z):U:O4	2.60	0.55
25:BA:2795:G:H3'	25:BA:2797:U:H5''	1.88	0.55
27:BD:148:GLU:CB	27:BD:151:LYS:HD2	2.37	0.55
28:BE:203:LYS:O	28:BE:203:LYS:HD2	2.07	0.55
35:BO:101:VAL:HG22	35:BO:106:LEU:HB3	1.86	0.55
39:BR:112:ARG:O	39:BR:112:ARG:HG3	2.06	0.55
25:BA:2875:C:O2'	39:BR:5:ALA:HB3	2.06	0.55
44:BU:76:CYS:CB	44:BU:96:ILE:HD13	2.36	0.55
1:CA:1206:G:C6	1:CA:1207:G:C5	2.94	0.55
1:CA:1346:A:C1'	1:CA:1347:G:OP2	2.54	0.55
1:CA:517:G:N2	1:CA:530:G:OP1	2.29	0.55
1:CA:954:G:H2'	1:CA:955:U:C6	2.42	0.55
5:CH:57:LYS:O	5:CH:61:TYR:HD2	1.88	0.55
6:CI:33:TYR:CZ	6:CI:78:GLU:HG3	2.40	0.55
7:CJ:26:PHE:CE2	7:CJ:30:ILE:HD11	2.42	0.55
25:DA:101:G:C2'	25:DA:102:G:OP1	2.55	0.55
25:DA:1476:C:C2'	25:DA:1477:A:H5'	2.36	0.55
25:DA:1728:G:C2	25:DA:1730:U:OP2	2.59	0.55
25:DA:2148:G:H2'	25:DA:2149:G:C8	2.41	0.55
25:DA:2494:G:H2'	25:DA:2495:G:H8	1.71	0.55
29:DF:125:LEU:HD23	29:DF:125:LEU:H	1.71	0.55
32:DK:77:LEU:CG	32:DK:78:THR:H	2.19	0.55
1:AA:368:U:P	32:DK:91:SER:HG	2.29	0.55
34:DN:101:PRO:HG3	39:DR:67:SER:OG	2.06	0.55
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.41	0.55
1:AA:250:A:C4'	1:AA:251:G:H5''	2.37	0.55
1:AA:258:G:H2'	1:AA:259:G:H8	1.72	0.55
1:AA:542:G:H5'	4:AG:41:GLY:HA3	1.88	0.55
22:AB:52:U:C2'	22:AB:53:A:H5'	2.36	0.55
23:AC:20:G:C6	23:AC:58:A:C2	2.95	0.55
23:AD:5:G:H22	23:AD:69:C:N4	2.04	0.55
3:AF:195:VAL:C	3:AF:196:LEU:HD23	2.27	0.55
9:AL:4:TYR:CD1	9:AL:88:TYR:HB2	2.42	0.55
9:AL:99:LEU:HB3	9:AL:101:PHE:CE1	2.41	0.55
11:AN:41:THR:HG21	11:AN:71:LYS:HB2	1.88	0.55
16:AS:20:VAL:HG22	16:AS:32:TYR:CG	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AT:7:THR:OG1	17:AT:58:GLU:HG2	2.07	0.55
40:B1:60:LEU:HD21	40:B1:64:ARG:HH21	1.70	0.55
25:BA:1239:G:H2'	25:BA:1240:U:O4'	2.06	0.55
25:BA:1694:C:H6	25:BA:1694:C:H5'	1.71	0.55
25:BA:2734:A:C5'	25:BA:2734:A:H8	2.19	0.55
25:BA:756:C:H2'	25:BA:757:U:O5'	2.06	0.55
27:BD:125:ILE:O	27:BD:125:ILE:HG22	2.06	0.55
25:BA:1805:U:O2	27:BD:50:THR:HB	2.06	0.55
25:BA:2574:G:O2'	28:BE:143:ASN:HB3	2.06	0.55
30:BG:27:ASN:HB3	30:BG:30:GLU:HG3	1.89	0.55
2:CE:19:HIS:HD2	2:CE:20:GLU:OE1	1.90	0.55
8:CK:111:ILE:HG22	8:CK:112:LEU:H	1.71	0.55
12:CO:26:ALA:O	12:CO:27:LEU:HD13	2.06	0.55
13:CP:25:ILE:HG22	13:CP:26:GLY:N	2.20	0.55
14:CQ:45:ARG:O	14:CQ:49:HIS:HD2	1.89	0.55
19:CV:28:LYS:HE3	19:CV:29:ARG:N	2.19	0.55
25:DA:2817:G:P	37:D0:99:LYS:HZ3	2.30	0.55
25:DA:1048:A:H5'	25:DA:1049:C:OP2	2.07	0.55
25:DA:1499:C:H2'	25:DA:1500:G:H8	1.71	0.55
25:DA:1543:A:H1'	25:DA:1545:A:H1'	1.89	0.55
25:DA:2157:G:H2'	25:DA:2158:A:H8	1.72	0.55
25:DA:228:A:C8	25:DA:228:A:C3'	2.89	0.55
25:DA:2483:C:H5'	25:DA:2484:G:OP2	2.06	0.55
25:DA:270(Y):G:C2	25:DA:270(Z):U:O4	2.59	0.55
25:DA:39:C:H2'	25:DA:40:C:H6	1.71	0.55
28:DE:87:GLU:HG3	28:DE:87:GLU:O	2.06	0.55
30:DG:53:LEU:HD21	30:DG:90:LEU:HD11	1.87	0.55
34:DN:10:VAL:HG21	34:DN:16:ALA:O	2.06	0.55
44:DU:50:ARG:O	44:DU:53:PRO:HD3	2.05	0.55
45:DV:157:LEU:HD11	45:DV:163:LEU:HD23	1.89	0.55
1:AA:1054:C:H2'	1:AA:1054:C:O2	2.07	0.55
22:AB:16:U:OP2	22:AB:16:U:H2'	2.06	0.55
2:AE:120:ALA:O	2:AE:121:LEU:CB	2.52	0.55
7:AJ:23:VAL:CG1	7:AJ:43:PHE:CE2	2.89	0.55
12:AO:40:VAL:CG2	12:AO:78:GLN:O	2.54	0.55
15:AR:38:ARG:HH11	15:AR:38:ARG:HG2	1.72	0.55
15:AR:87:ILE:HG22	15:AR:88:ARG:HG2	1.87	0.55
20:AW:100:ILE:CG1	20:AW:101:GLY:N	2.69	0.55
51:B5:4:HIS:O	51:B5:5:PRO:C	2.43	0.55
25:BA:1024:G:C3'	25:BA:1025:G:H5''	2.31	0.55
25:BA:176:G:O2'	25:BA:177:G:H5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:229:A:HO2'	25:BA:230:U:P	2.29	0.55
25:BA:2373:G:N2	25:BA:2380:C:N3	2.49	0.55
25:BA:2723:C:OP1	37:B0:3:HIS:CD2	2.54	0.55
25:BA:603:A:H4'	25:BA:604:G:O5'	2.06	0.55
25:BA:645:C:H2'	25:BA:646:A:OP1	2.06	0.55
25:BA:787:U:H5''	25:BA:788:A:H5'	1.88	0.55
28:BE:41:LYS:C	28:BE:42:ASP:CG	2.65	0.55
25:BA:1257:C:H4'	29:BF:83:PHE:CD2	2.41	0.55
30:BG:107:LEU:HD11	30:BG:178:PHE:CD1	2.41	0.55
39:BR:45:PHE:CE1	39:BR:65:LYS:HE3	2.41	0.55
42:BS:64:MET:O	42:BS:65:LEU:HB2	2.07	0.55
1:CA:1004:A:O4'	1:CA:1025:U:N3	2.38	0.55
1:CA:1077:G:N1	1:CA:1081:G:C6	2.75	0.55
23:CC:48:U:H1'	23:CC:49:C:O5'	2.06	0.55
23:CD:44:A:C2	23:CD:45:A:C6	2.93	0.55
2:CE:137:ARG:O	2:CE:137:ARG:HD3	2.06	0.55
1:CA:1298:C:N4	7:CJ:114:ARG:HB3	2.15	0.55
20:CW:33:ILE:HD13	20:CW:62:LEU:HB3	1.88	0.55
25:DA:1314:C:C2	25:DA:1339:G:N2	2.74	0.55
25:DA:2860:A:N7	25:DA:2861:G:H1'	2.21	0.55
25:DA:847:U:C4	25:DA:933:A:C6	2.90	0.55
25:DA:996:A:C2	25:DA:997:G:C8	2.95	0.55
26:DB:116:G:H2'	26:DB:117:G:O4'	2.07	0.55
27:DD:35:LYS:HA	27:DD:64:ILE:CG2	2.33	0.55
39:DR:56:GLY:C	39:DR:58:ASN:N	2.58	0.55
1:AA:1362(A):C:H5'	1:AA:1363:A:O5'	2.06	0.55
10:AM:15:THR:O	10:AM:19:SER:N	2.38	0.55
11:AN:77:MET:HE3	11:AN:80:VAL:HG12	1.87	0.55
1:AA:1320:C:OP1	19:AV:70:LYS:HE3	2.05	0.55
25:BA:1291:C:H5'	25:BA:1536:A:H5'	1.87	0.55
25:BA:1473:G:H2'	25:BA:1474:C:H5'	1.89	0.55
25:BA:213:A:H2'	25:BA:214:G:O4'	2.05	0.55
25:BA:2310:A:O2'	25:BA:2311:A:C5'	2.51	0.55
25:BA:234:C:H2'	25:BA:235:U:C6	2.41	0.55
25:BA:2712:U:O2	25:BA:2712:U:C5'	2.51	0.55
28:BE:101:ARG:C	28:BE:201:THR:HG1	2.10	0.55
30:BG:129:GLY:HA2	30:BG:166:ASP:HB3	1.87	0.55
39:BR:85:LYS:HE3	39:BR:87:ASP:OD2	2.07	0.55
1:CA:1311:G:N2	1:CA:1327:C:C2	2.74	0.55
1:CA:1367:C:H5''	9:CL:114:TYR:HB3	1.87	0.55
1:CA:192:U:H2'	1:CA:193:C:H6	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:20:U:C2'	1:CA:21:G:H5'	2.35	0.55
23:CC:15:G:H2'	23:CC:60:A:N1	2.22	0.55
9:CL:48:GLU:N	9:CL:49:PRO:HD2	2.21	0.55
20:CW:25:ARG:NH1	20:CW:25:ARG:HG3	2.19	0.55
52:D6:28:ARG:HB3	52:D6:30:THR:C	2.27	0.55
54:D8:47:LYS:C	54:D8:48:PHE:HD1	2.09	0.55
25:DA:824:A:H1'	25:DA:2358:G:N7	2.22	0.55
25:DA:2473:U:O2	25:DA:2473:U:C2'	2.54	0.55
25:DA:2475:C:H5'	25:DA:2476:A:OP2	2.05	0.55
25:DA:479:A:HO2'	25:DA:481:G:H8	1.55	0.55
25:DA:755:C:H2'	25:DA:756:C:C6	2.41	0.55
25:DA:888:C:H4'	25:DA:889:C:O5'	2.03	0.55
27:DD:34:VAL:CG1	27:DD:34:VAL:O	2.55	0.55
31:DH:89:ILE:HG21	31:DH:129:THR:HA	1.88	0.55
39:DR:74:ARG:HD3	39:DR:76:PHE:CZ	2.42	0.55
49:DX:17:LYS:HD3	49:DX:17:LYS:O	2.07	0.55
1:AA:1156:G:C3'	1:AA:1157:A:H5''	2.37	0.55
3:AF:141:VAL:O	3:AF:141:VAL:HG12	2.05	0.55
8:AK:27:PRO:HG3	8:AK:58:TYR:CE2	2.42	0.55
14:AQ:58:LYS:HB3	14:AQ:58:LYS:NZ	2.21	0.55
37:B0:21:TYR:OH	37:B0:43:GLU:HG2	2.06	0.55
37:B0:74:LYS:C	37:B0:76:VAL:N	2.59	0.55
41:B2:64:HIS:ND1	41:B2:92:THR:HG22	2.21	0.55
46:B3:53:MET:HA	46:B3:58:THR:O	2.06	0.55
50:B4:61:ARG:HE	50:B4:61:ARG:HA	1.70	0.55
52:B6:15:GLU:OE2	52:B6:44:ARG:NH1	2.39	0.55
25:BA:2511:U:O4	25:BA:2575:C:N3	2.39	0.55
25:BA:1952:A:C5	34:BN:22:ILE:HD11	2.41	0.55
25:BA:2275:C:O2	36:BP:83:MET:HG2	2.07	0.55
25:BA:2292:C:OP2	38:BQ:17:ARG:NH2	2.38	0.55
43:BT:49:VAL:HG12	43:BT:50:LYS:H	1.68	0.55
43:BT:36:LYS:HE2	43:BT:54:VAL:O	2.05	0.55
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.71	0.55
1:CA:668:G:O2'	1:CA:669:U:H5'	2.07	0.55
1:CA:963:G:N3	10:CM:55:LYS:NZ	2.50	0.55
23:CD:15:G:N2	23:CD:60:A:H1'	2.21	0.55
2:CE:84:GLU:HB3	2:CE:219:VAL:HG11	1.89	0.55
4:CG:13:ARG:N	4:CG:13:ARG:HD3	2.21	0.55
1:CA:8:A:C6	4:CG:209:ARG:HB2	2.41	0.55
7:CJ:23:VAL:O	7:CJ:27:ILE:HG13	2.06	0.55
7:CJ:69:VAL:HG12	7:CJ:69:VAL:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1250:A:H4'	9:CL:68:GLY:N	2.21	0.55
9:CL:85:LEU:HD13	9:CL:92:TYR:CD2	2.40	0.55
37:D0:23:ASN:HD22	37:D0:23:ASN:N	2.03	0.55
25:DA:1774:C:H4'	25:DA:1979:C:O2	2.07	0.55
25:DA:2127:G:N2	25:DA:2173:A:C8	2.74	0.55
25:DA:2371:G:H4'	52:D6:45:LYS:CE	2.35	0.55
25:DA:288:C:H2'	25:DA:289:A:C8	2.42	0.55
25:DA:756:C:C2'	25:DA:757:U:H5'	2.37	0.55
32:DK:143:SER:O	32:DK:144:VAL:HB	2.06	0.55
45:DV:168:GLU:HG3	45:DV:169:GLU:N	2.21	0.55
49:DX:52:HIS:CD2	49:DX:52:HIS:H	2.24	0.55
1:AA:985:C:C2	1:AA:1221:G:N2	2.75	0.55
1:AA:1278:U:H5'	1:AA:1279:A:O4'	2.06	0.55
22:AB:45:U:H3'	22:AB:45:U:H6	1.71	0.55
2:AE:82:ARG:HG2	2:AE:92:TYR:CZ	2.42	0.55
3:AF:84:ILE:O	3:AF:88:ARG:HG3	2.07	0.55
21:AX:15:ARG:NH1	21:AX:15:ARG:HG2	1.99	0.55
50:B4:50:VAL:HG12	50:B4:50:VAL:O	2.06	0.55
52:B6:39:TYR:O	52:B6:47:THR:N	2.39	0.55
52:B6:40:CYS:SG	52:B6:45:LYS:HE2	2.47	0.55
25:BA:1111:A:O2'	25:BA:1112:G:H4'	2.06	0.55
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.42	0.55
26:BB:32:C:C2	26:BB:51:G:N2	2.75	0.55
27:BD:108:PRO:HD2	27:BD:111:LEU:HG	1.88	0.55
25:BA:1798:U:C5'	27:BD:259:THR:HG22	2.27	0.55
35:BO:11:GLY:C	35:BO:13:ASN:N	2.60	0.55
1:CA:792:A:H4'	1:CA:793:U:O5'	2.07	0.55
1:CA:979:C:C5	1:CA:980:C:C6	2.95	0.55
7:CJ:72:ARG:NH2	7:CJ:96:GLN:HE22	2.05	0.55
19:CV:23:ASN:HA	19:CV:27:GLU:CG	2.36	0.55
19:CV:31:ILE:CG2	19:CV:33:THR:HG22	2.37	0.55
25:DA:107:C:H2'	25:DA:108:U:H6	1.72	0.55
25:DA:1520:U:H2'	25:DA:1521:G:O4'	2.06	0.55
25:DA:244:A:C2	25:DA:255:A:C4	2.95	0.55
28:DE:29:GLY:H	28:DE:51:PHE:HE1	1.53	0.55
28:DE:38:THR:O	28:DE:42:ASP:HB2	2.06	0.55
28:DE:50:GLY:O	28:DE:51:PHE:HB2	2.07	0.55
38:DQ:108:GLY:O	38:DQ:110:LEU:HB3	2.07	0.55
38:DQ:34:HIS:ND1	38:DQ:53:SER:HB3	2.22	0.55
1:AA:171:A:N6	1:AA:172:A:N6	2.54	0.55
1:AA:475:G:H2'	1:AA:476:G:O4'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AO:6:THR:N	12:AO:9:GLN:HE21	2.02	0.55
21:AX:12:LYS:HB3	21:AX:22:ARG:HD2	1.89	0.55
46:B3:51:VAL:HG21	46:B3:79:VAL:HG12	1.87	0.55
25:BA:1169:G:N2	25:BA:1181:C:C2	2.74	0.55
25:BA:1533:C:H42	25:BA:1538:G:H1	1.55	0.55
25:BA:2404:C:O3'	35:BO:77:ARG:NH2	2.39	0.55
25:BA:2593:U:H2'	25:BA:2594:C:H6	1.70	0.55
25:BA:2648:C:H2'	25:BA:2649:U:C6	2.41	0.55
27:BD:71:ASP:HB3	27:BD:103:ARG:NH2	2.21	0.55
27:BD:26:LYS:O	27:BD:27:THR:OG1	2.25	0.55
31:BH:152:ARG:NH2	31:BH:153:LYS:HE2	2.22	0.55
32:BK:5:LEU:HD22	32:BK:9:LEU:HD21	1.89	0.55
34:BN:90:GLN:O	34:BN:91:LEU:HB2	2.07	0.55
1:CA:1301:U:H2'	1:CA:1301:U:O2	2.05	0.55
1:CA:93:U:H2'	1:CA:95:G:H5''	1.89	0.55
22:CB:46:G:H2'	22:CB:47:C:C6	2.42	0.55
23:CD:21:U:C3'	23:CD:22:A:H5''	2.36	0.55
3:CF:16:ARG:HH11	3:CF:16:ARG:HA	1.72	0.55
5:CH:135:THR:O	5:CH:138:ALA:HB3	2.07	0.55
6:CI:69:GLU:O	6:CI:72:VAL:HG12	2.07	0.55
54:D8:35:GLN:C	54:D8:36:LYS:CG	2.76	0.55
54:D8:52:LYS:O	54:D8:54:GLU:N	2.32	0.55
25:DA:1226:G:H5'	41:D2:85:LYS:H	1.72	0.55
25:DA:872:A:C4	25:DA:906:G:N2	2.74	0.55
26:DB:3:C:H5'	26:DB:4:C:OP2	2.05	0.55
28:DE:48:GLN:O	28:DE:49:LEU:CD1	2.55	0.55
28:DE:79:ARG:O	28:DE:80:GLU:CG	2.54	0.55
32:DK:97:ILE:O	32:DK:100:ALA:HB3	2.06	0.55
35:DO:136:GLU:O	35:DO:139:LYS:N	2.34	0.55
38:DQ:87:PHE:HD2	38:DQ:87:PHE:C	2.10	0.55
39:DR:91:ARG:O	39:DR:116:ALA:HA	2.07	0.55
39:DR:53:ARG:CG	39:DR:53:ARG:O	2.54	0.55
48:DW:9:GLN:NE2	48:DW:56:GLN:HG2	2.18	0.55
24:A1:14:U:O2'	24:A1:15:U:O4'	2.24	0.55
22:AB:45:U:H2'	22:AB:46:G:H5''	1.88	0.55
23:AC:17:C:C2'	23:AC:18:C:H5''	2.37	0.55
23:AC:62:C:O2'	23:AC:63:C:H5'	2.06	0.55
4:AG:31:CYS:HB3	4:AG:33:MET:HB2	1.88	0.55
8:AK:95:VAL:HG21	8:AK:133:LEU:HD12	1.88	0.55
25:BA:1600:C:O2'	53:B7:49:ARG:HG2	2.07	0.55
54:B8:10:ALA:C	54:B8:12:LYS:H	2.11	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1899:G:HO2'	25:BA:1900:A:P	2.30	0.55
25:BA:482:A:H4'	44:BU:47:LYS:HD3	1.89	0.55
25:BA:507:A:C5'	25:BA:508:G:H5'	2.37	0.55
30:BG:64:THR:CG2	30:BG:66:GLN:H	2.19	0.55
35:BO:19:VAL:HG23	35:BO:27:HIS:HB3	1.87	0.55
38:BQ:67:ARG:HB2	38:BQ:67:ARG:NH1	2.22	0.55
48:BW:16:LEU:HG	48:BW:16:LEU:O	2.07	0.55
1:CA:1022:G:H2'	1:CA:1023:G:O4'	2.07	0.55
1:CA:1075:C:OP1	2:CE:179:LYS:HE2	2.06	0.55
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.42	0.55
1:CA:168:G:C2'	1:CA:169:C:H5''	2.37	0.55
1:CA:518:C:H4'	1:CA:519:C:O5'	2.07	0.55
3:CF:70:VAL:O	3:CF:106:VAL:N	2.38	0.55
15:CR:44:LYS:O	15:CR:47:LYS:HE2	2.06	0.55
17:CT:66:SER:O	17:CT:70:ARG:NH1	2.40	0.55
19:CV:80:TYR:CE1	19:CV:82:GLY:HA2	2.42	0.55
46:D3:18:ALA:CB	46:D3:20:ARG:HE	2.17	0.55
25:DA:128:C:H2'	25:DA:129:C:C6	2.41	0.55
25:DA:2131:G:N2	25:DA:2158:A:H2'	2.22	0.55
25:DA:2591:C:H2'	25:DA:2592:G:C8	2.42	0.55
25:DA:654(D):G:N2	25:DA:654(Q):C:N3	2.52	0.55
25:DA:845:G:OP2	25:DA:845:G:H8	1.90	0.55
28:DE:36:ARG:HH11	28:DE:36:ARG:CG	2.19	0.55
25:DA:1246:A:O2'	29:DF:45:ARG:NH2	2.39	0.55
30:DG:7:LEU:HB2	30:DG:104:GLU:OE1	2.06	0.55
34:DN:49:ARG:HD3	34:DN:49:ARG:N	2.19	0.55
45:DV:112:ARG:HE	45:DV:112:ARG:N	2.04	0.55
1:AA:1178:G:N2	1:AA:1181:G:N7	2.42	0.55
1:AA:1237:C:C5	1:AA:1336:C:C5	2.95	0.55
22:AB:52:U:H2'	22:AB:53:A:C5'	2.37	0.55
6:AI:3:ARG:HA	6:AI:65:VAL:O	2.07	0.55
8:AK:9:MET:HG3	8:AK:26:VAL:HG21	1.89	0.55
18:AU:73:ALA:HB3	18:AU:79:LEU:HD12	1.89	0.55
54:B8:11:LYS:HG2	54:B8:11:LYS:O	2.07	0.55
25:BA:1028:A:N6	25:BA:1125:G:H2'	2.21	0.55
25:BA:1783:A:H5'	25:BA:2608:G:H4'	1.89	0.55
25:BA:2894:G:H2'	25:BA:2895:U:OP2	2.07	0.55
25:BA:547:A:H2'	25:BA:548:A:C8	2.42	0.55
30:BG:36:LYS:HG2	30:BG:38:VAL:HG23	1.89	0.55
39:BR:20:PRO:HG2	39:BR:86:ILE:O	2.06	0.55
1:CA:1350:A:C6	1:CA:1351:U:N3	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:997:U:H2'	1:CA:998:G:C8	2.41	0.55
3:CF:146:ALA:HB1	3:CF:203:PHE:O	2.07	0.55
3:CF:82:GLU:HA	3:CF:85:ARG:HB2	1.87	0.55
4:CG:162:LEU:HD12	4:CG:181:MET:CE	2.37	0.55
5:CH:103:GLY:H	5:CH:106:PRO:HG2	1.70	0.55
8:CK:66:GLY:O	8:CK:76:PRO:HB3	2.07	0.55
52:D6:27:LYS:CB	52:D6:27:LYS:HZ3	2.19	0.55
25:DA:1342:A:C2	25:DA:1602:U:C4	2.94	0.55
25:DA:1443:G:H2'	25:DA:1444:G:H5'	1.89	0.55
25:DA:1956:U:H2'	25:DA:1957:C:H5'	1.89	0.55
25:DA:340:A:C2'	25:DA:341:G:H5'	2.36	0.55
25:DA:620:G:H5'	25:DA:620:G:N3	2.22	0.55
26:DB:111:U:H2'	26:DB:112:G:H8	1.70	0.55
26:DB:38:C:N3	26:DB:44:G:N2	2.48	0.55
26:DB:53:A:H2'	26:DB:54:G:O4'	2.07	0.55
27:DD:164:GLN:HG2	27:DD:166:GLN:NE2	2.22	0.55
28:DE:37:ARG:HD2	28:DE:80:GLU:OE2	2.07	0.55
30:DG:11:TYR:CZ	30:DG:16:ARG:HD2	2.43	0.55
32:DK:92:VAL:HB	32:DK:120:ILE:HB	1.88	0.55
36:DP:7:MET:HB3	36:DP:10:ARG:CZ	2.37	0.55
1:AA:1073:U:OP2	5:AH:57:LYS:NZ	2.38	0.54
1:AA:827:U:O2	1:AA:827:U:O5'	2.25	0.54
23:AC:17:C:C3'	23:AC:18:C:C5'	2.68	0.54
23:AC:48:U:H4'	23:AC:49:C:C5'	2.37	0.54
4:AG:31:CYS:C	4:AG:33:MET:H	2.10	0.54
8:AK:21:LYS:O	8:AK:65:TYR:OH	2.20	0.54
19:AV:40:ILE:HD11	19:AV:62:ILE:HG21	1.89	0.54
50:B4:59:PHE:O	50:B4:63:TYR:HB2	2.06	0.54
35:BO:65:ARG:NH2	54:B8:15:LYS:HB2	2.11	0.54
25:BA:1557:C:H5''	25:BA:1558:A:OP2	2.07	0.54
25:BA:1639:U:H2'	25:BA:1640:C:H5'	1.89	0.54
25:BA:1900:A:C8	25:BA:1900:A:H5'	2.38	0.54
25:BA:21:A:O2'	25:BA:22:C:H5'	2.07	0.54
25:BA:2312:U:O5'	25:BA:2312:U:H6	1.89	0.54
25:BA:445:C:O2'	25:BA:446:G:H5'	2.07	0.54
29:BF:129:PHE:O	29:BF:130:ALA:HB3	2.07	0.54
29:BF:198:ALA:HA	29:BF:201:VAL:CG1	2.28	0.54
30:BG:107:LEU:HD21	30:BG:178:PHE:CE1	2.42	0.54
35:BO:39:LYS:CB	35:BO:45:LEU:HD22	2.37	0.54
38:BQ:14:VAL:O	38:BQ:18:ILE:HD13	2.08	0.54
24:C1:17:U:O2'	24:C1:18:G:H5'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:342:C:H2'	1:CA:343:U:H5'	1.89	0.54
23:CD:27:G:C2'	23:CD:28:U:H5'	2.37	0.54
2:CE:92:TYR:HD2	2:CE:92:TYR:C	2.10	0.54
13:CP:54:VAL:HG12	13:CP:58:GLU:OE1	2.07	0.54
20:CW:10:LEU:O	20:CW:10:LEU:HD22	2.07	0.54
20:CW:29:LYS:O	20:CW:33:ILE:HG12	2.07	0.54
41:D2:75:PHE:HD2	41:D2:81:TYR:CD1	2.25	0.54
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.41	0.54
25:DA:607:U:O2	25:DA:621:A:N1	2.40	0.54
25:DA:882:G:N1	25:DA:894:C:N4	2.40	0.54
25:DA:997:G:H2'	25:DA:998:C:H5'	1.89	0.54
26:DB:38:C:N4	26:DB:44:G:H1	2.02	0.54
29:DF:184:TYR:O	29:DF:188:ARG:HB2	2.08	0.54
30:DG:97:ASP:HA	30:DG:100:TRP:HB2	1.89	0.54
35:DO:34:GLY:O	35:DO:35:HIS:C	2.45	0.54
25:DA:389:G:H1	35:DO:71:VAL:HG12	1.72	0.54
1:AA:1004:A:O5'	1:AA:1025:U:O4	2.25	0.54
1:AA:1059:C:O3'	14:AQ:45:ARG:NH2	2.40	0.54
1:AA:1177:G:C8	1:AA:1178:G:C2	2.96	0.54
1:AA:16:A:C2'	1:AA:17:U:H5'	2.38	0.54
1:AA:503:C:OP2	12:AO:116:SER:OG	2.16	0.54
1:AA:580:U:H2'	1:AA:581:G:O4'	2.08	0.54
3:AF:131:ARG:NH1	3:AF:166:GLU:OE2	2.40	0.54
13:AP:8:GLU:O	13:AP:10:PRO:HD3	2.07	0.54
1:AA:625:G:H4'	16:AS:16:HIS:HD2	0.46	0.54
19:AV:65:ASN:HB3	50:B4:55:ARG:HH12	1.72	0.54
51:B5:52:TYR:HD1	51:B5:53:ALA:H	1.54	0.54
25:BA:2415:G:H4'	35:BO:66:GLY:CA	2.37	0.54
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.42	0.54
25:BA:265:A:H1'	25:BA:266:G:O4'	2.07	0.54
25:BA:373:U:H1'	25:BA:423:A:N3	2.21	0.54
27:BD:181:GLU:CG	27:BD:272:ALA:HB3	2.34	0.54
29:BF:63:LYS:CE	29:BF:67:GLN:HB2	2.37	0.54
31:BH:153:LYS:HZ2	31:BH:153:LYS:HA	1.72	0.54
36:BP:12:GLN:HG2	36:BP:73:PRO:HD2	1.88	0.54
47:BZ:83:GLU:HG2	47:BZ:85:LEU:H	1.72	0.54
1:CA:1386:G:N3	1:CA:1387:G:C8	2.76	0.54
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.07	0.54
1:CA:197:A:C6	1:CA:221:C:H4'	2.42	0.54
22:CB:17:U:H5''	22:CB:18:G:H8	1.68	0.54
23:CD:52:C:H2'	23:CD:53:G:H8	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CW:30:LYS:HG2	20:CW:80:ARG:HH22	1.71	0.54
41:D2:81:TYR:C	41:D2:82:ARG:CG	2.70	0.54
25:DA:1942:C:OP2	25:DA:1943:U:O2'	2.21	0.54
25:DA:2402:C:H41	25:DA:2416:C:H1'	1.71	0.54
28:DE:14:ILE:HD11	28:DE:173:VAL:HG11	1.89	0.54
38:DQ:25:ARG:CZ	38:DQ:40:ILE:HD12	2.36	0.54
45:DV:103:ARG:HB2	45:DV:137:ILE:O	2.07	0.54
45:DV:134:PRO:HG3	45:DV:158:PRO:HG3	1.89	0.54
1:AA:1002:G:H2'	1:AA:1003:G:C8	2.41	0.54
1:AA:1004:A:O5'	1:AA:1025:U:C4	2.61	0.54
1:AA:693:G:C4	24:A1:13:U:H1'	2.43	0.54
12:AO:24:VAL:HG13	12:AO:98:TYR:HE2	1.71	0.54
13:AP:57:ARG:HB2	13:AP:57:ARG:HH11	1.72	0.54
1:AA:375:U:O3'	16:AS:6:LEU:HB2	2.07	0.54
17:AT:82:MET:O	17:AT:86:GLU:HB2	2.07	0.54
18:AU:88:LYS:HB3	18:AU:88:LYS:NZ	2.23	0.54
40:B1:79:PHE:O	40:B1:79:PHE:CD2	2.56	0.54
25:BA:1164:G:H2'	25:BA:1165:U:C6	2.43	0.54
25:BA:1203:G:H3'	25:BA:1204:A:H5''	1.90	0.54
28:BE:3:GLY:HA3	28:BE:81:ILE:CD1	2.37	0.54
33:BM:26:LEU:O	33:BM:30:ILE:HG13	2.07	0.54
33:BM:96:GLU:H	33:BM:98:VAL:HG12	1.73	0.54
36:BP:48:GLU:HG3	36:BP:48:GLU:O	2.06	0.54
44:BU:81:LYS:CG	44:BU:96:ILE:HB	2.37	0.54
1:CA:1021:G:H2'	1:CA:1022:G:O4'	2.07	0.54
1:CA:516:U:C4	1:CA:517:G:C6	2.95	0.54
1:CA:631:G:H4'	1:CA:632:A:OP1	2.05	0.54
1:CA:930:C:C4	1:CA:931:C:C5	2.95	0.54
2:CE:92:TYR:C	2:CE:92:TYR:CD2	2.80	0.54
4:CG:60:GLU:OE2	4:CG:198:VAL:HA	2.06	0.54
6:CI:11:ASN:O	6:CI:14:LEU:HD22	2.07	0.54
3:CF:29:TYR:HD1	14:CQ:36:PHE:CZ	2.26	0.54
40:D1:98:LEU:O	40:D1:99:ALA:CB	2.55	0.54
50:D4:12:ALA:H	50:D4:24:THR:HG21	1.72	0.54
51:D5:52:TYR:O	51:D5:53:ALA:HB3	2.07	0.54
25:DA:2415:G:H4'	35:DO:66:GLY:CA	2.37	0.54
25:DA:270(I):G:H1	25:DA:270(Q):C:N4	2.03	0.54
25:DA:2840:C:H5''	37:D0:53:HIS:CD2	2.42	0.54
26:DB:104:A:OP1	45:DV:72:ARG:NH2	2.40	0.54
32:DK:77:LEU:CG	32:DK:78:THR:N	2.70	0.54
35:DO:127:ALA:O	35:DO:147:LEU:N	2.35	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:310:A:OP1	44:DU:17:SER:O	2.24	0.54
44:DU:19:LYS:HE3	44:DU:71:LYS:NZ	2.22	0.54
45:DV:148:ASP:CG	45:DV:149:SER:H	2.10	0.54
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.07	0.54
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.42	0.54
1:AA:166:G:O2'	1:AA:167:G:H5'	2.06	0.54
1:AA:324:G:N1	1:AA:327:A:OP2	2.40	0.54
1:AA:721:G:C6	1:AA:733:A:C2	2.95	0.54
22:AB:16:U:C2	22:AB:70:G:N2	2.76	0.54
23:AD:13:C:O2'	23:AD:14:A:P	2.65	0.54
23:AD:49:C:C6	23:AD:49:C:OP2	2.59	0.54
19:AV:41:VAL:CG2	19:AV:67:VAL:HA	2.37	0.54
20:AW:50:GLU:HA	20:AW:100:ILE:HG22	1.89	0.54
50:B4:37:SER:CB	50:B4:42:PHE:CD1	2.90	0.54
25:BA:1434:A:N6	25:BA:1558:A:N6	2.47	0.54
1:CA:1128:C:H5''	9:CL:16:ARG:HH22	1.72	0.54
1:CA:1129:C:OP2	9:CL:62:TYR:OH	2.22	0.54
1:CA:688:G:H2'	1:CA:689:C:H6	1.72	0.54
4:CG:153:ARG:HD3	4:CG:181:MET:SD	2.48	0.54
5:CH:100:VAL:HG12	5:CH:100:VAL:O	2.06	0.54
12:CO:68:ALA:CB	12:CO:85:ILE:HD11	2.37	0.54
13:CP:22:ILE:HD12	13:CP:25:ILE:HG13	1.87	0.54
14:CQ:12:ARG:CZ	14:CQ:14:PRO:HG2	2.37	0.54
25:DA:2262:U:P	46:D3:19:LYS:HZ3	2.29	0.54
25:DA:1011:G:H1	25:DA:1150:C:H42	1.55	0.54
25:DA:1278:A:C5'	37:D0:36:THR:HG22	2.37	0.54
25:DA:1668:A:N3	25:DA:1670:C:C4	2.76	0.54
25:DA:2135:A:O2'	25:DA:2160:G:H4'	2.08	0.54
25:DA:2219:G:C2'	25:DA:2224:G:H5'	2.38	0.54
25:DA:2271:G:H5''	46:D3:20:ARG:NE	2.21	0.54
25:DA:2689:U:H4'	25:DA:2690:C:H5'	1.90	0.54
25:DA:2748:A:H62	25:DA:2754:U:H3	1.52	0.54
25:DA:2893:G:H5'	25:DA:2894:G:OP1	2.06	0.54
25:DA:900:A:H2'	25:DA:900:A:N3	2.22	0.54
25:DA:94:G:H2'	25:DA:95:G:O4'	2.07	0.54
27:DD:35:LYS:CE	27:DD:64:ILE:C	2.70	0.54
31:DH:94:TYR:N	31:DH:94:TYR:CD1	2.76	0.54
34:DN:68:GLU:CA	34:DN:78:ARG:HB3	2.38	0.54
47:DZ:86:SER:N	47:DZ:87:PRO:CD	2.70	0.54
1:AA:1004:A:OP1	1:AA:1025:U:O4	2.24	0.54
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1129:C:N3	1:AA:1139:G:O6	2.40	0.54
2:AE:197:VAL:HG12	2:AE:200:ILE:HG13	1.89	0.54
3:AF:113:ALA:HB3	3:AF:114:PRO:HD3	1.89	0.54
4:AG:101:LEU:HD23	4:AG:121:VAL:HG11	1.90	0.54
7:AJ:6:ARG:HG2	7:AJ:6:ARG:O	2.08	0.54
20:AW:39:LYS:HB2	20:AW:55:ILE:HG21	1.89	0.54
25:BA:1937:A:C2'	25:BA:1938:A:OP1	2.55	0.54
25:BA:856:C:C6	25:BA:856:C:H3'	2.43	0.54
30:BG:133:LEU:HD23	30:BG:157:ILE:HB	1.89	0.54
1:CA:1129:C:N4	1:CA:1139:G:C2	2.76	0.54
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.42	0.54
1:CA:999:U:H2'	1:CA:1000:A:C8	2.42	0.54
4:CG:42:GLN:HG3	4:CG:43:HIS:CD2	2.42	0.54
13:CP:10:PRO:HG3	13:CP:18:ALA:O	2.07	0.54
1:CA:130:A:C8	17:CT:63:ARG:HG3	2.43	0.54
1:CA:1014:A:H4'	19:CV:14:HIS:CE1	2.43	0.54
41:D2:28:GLU:HB3	41:D2:29:PRO:HD2	1.89	0.54
25:DA:1101:U:H2'	25:DA:1102:C:C6	2.41	0.54
25:DA:1138:G:H21	33:DM:106:MET:CE	2.19	0.54
29:DF:39:TRP:CH2	29:DF:106:ARG:HD3	2.42	0.54
32:DK:78:THR:CB	32:DK:104:GLN:HE22	2.20	0.54
32:DK:27:ARG:HG2	47:DZ:71:TYR:CZ	2.43	0.54
33:DM:56:ASN:H	33:DM:125:GLY:HA3	1.72	0.54
33:DM:30:ILE:HG22	33:DM:34:LEU:HD22	1.89	0.54
47:DZ:62:VAL:HG21	47:DZ:70:VAL:HG21	1.90	0.54
25:DA:270(S):G:H5''	47:DZ:94:LEU:HD21	1.90	0.54
1:AA:1126:U:H5	1:AA:1127:G:N3	2.06	0.54
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.22	0.54
1:AA:166:G:H2'	1:AA:167:G:H8	1.71	0.54
1:AA:201:C:N3	1:AA:216:G:N2	2.54	0.54
1:AA:57:G:H2'	1:AA:58:C:H6	1.70	0.54
12:AO:89:ARG:HH11	12:AO:89:ARG:CG	2.20	0.54
19:AV:41:VAL:HG13	19:AV:44:MET:HB2	1.89	0.54
54:B8:36:LYS:O	54:B8:37:SER:C	2.45	0.54
35:BO:49:ARG:HD2	54:B8:58:ILE:HG21	1.88	0.54
25:BA:1022:G:H22	25:BA:1142(A):A:H2	1.47	0.54
25:BA:1436:G:H1'	25:BA:1477:A:O2'	2.07	0.54
25:BA:1942:C:OP2	25:BA:1943:U:O2'	2.20	0.54
25:BA:2189:U:C3'	25:BA:2190:G:H5''	2.37	0.54
25:BA:270(F):U:H2'	25:BA:270(G):C:H6	1.71	0.54
28:BE:63:LEU:O	28:BE:63:LEU:HD23	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:114:LEU:O	32:BK:115:ALA:CB	2.55	0.54
49:BX:40:THR:O	49:BX:44:ARG:HB2	2.07	0.54
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.43	0.54
1:CA:149:A:O2'	1:CA:150:C:H5'	2.08	0.54
1:CA:457:C:H2'	1:CA:458:C:H6	1.73	0.54
1:CA:664:G:H22	1:CA:741:G:H1	1.55	0.54
23:CD:55:U:C4	23:CD:56:U:H5	2.25	0.54
12:CO:60:LEU:HB2	12:CO:64:TYR:HB2	1.89	0.54
13:CP:108:ARG:HH11	13:CP:108:ARG:HG3	1.72	0.54
1:CA:1014:A:H4'	19:CV:14:HIS:ND1	2.22	0.54
25:DA:1022:G:C6	25:DA:1140:C:C4	2.95	0.54
25:DA:2511:U:O4	25:DA:2575:C:N3	2.41	0.54
25:DA:686:G:N7	53:D7:5:TRP:CH2	2.76	0.54
25:DA:903:C:O2'	45:DV:168:GLU:HG2	2.08	0.54
27:DD:228:PRO:HG3	27:DD:234:GLY:O	2.06	0.54
28:DE:60:ASN:O	28:DE:62:PRO:HD3	2.08	0.54
29:DF:20:LEU:HD13	29:DF:203:GLN:OE1	2.07	0.54
26:DB:55:U:HO2'	30:DG:29:TRP:HD1	1.53	0.54
31:DH:166:GLY:O	31:DH:167:GLU:HG2	2.06	0.54
35:DO:75:ILE:H	35:DO:75:ILE:HD13	1.71	0.54
43:DT:30:VAL:HG11	43:DT:39:ILE:HG12	1.90	0.54
45:DV:141:VAL:CG2	45:DV:150:LEU:HG	2.37	0.54
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.72	0.54
1:AA:153:C:H42	1:AA:168:G:H1	1.56	0.54
1:AA:346:G:H5'	39:BR:41:ARG:HG2	1.90	0.54
1:AA:397:A:N7	1:AA:548:G:C8	2.76	0.54
1:AA:859:A:H2'	1:AA:860:A:C8	2.42	0.54
22:AB:45:U:C2'	22:AB:46:G:H5''	2.37	0.54
3:AF:131:ARG:HB2	3:AF:131:ARG:CZ	2.38	0.54
4:AG:10:ARG:NH1	4:AG:10:ARG:HB2	2.23	0.54
4:AG:29:PRO:O	4:AG:30:LYS:HD3	2.08	0.54
4:AG:65:ARG:HH11	4:AG:65:ARG:CG	2.20	0.54
6:AI:8:ILE:HD11	6:AI:79:LEU:HD13	1.88	0.54
9:AL:4:TYR:CG	9:AL:88:TYR:HB2	2.43	0.54
11:AN:81:ASP:HB3	11:AN:107:SER:OG	2.07	0.54
19:AV:30:LEU:O	19:AV:30:LEU:HD22	2.08	0.54
20:AW:89:ARG:HD2	20:AW:104:LEU:HD21	1.90	0.54
1:AA:1305:G:C5'	21:AX:4:GLY:HA3	2.38	0.54
25:BA:1054:A:H2'	25:BA:1055:G:C8	2.43	0.54
25:BA:1734:C:C2'	25:BA:1735:C:H5''	2.38	0.54
25:BA:2121:G:H2'	25:BA:2122:U:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2099:U:H3	25:BA:2190:G:H1	1.56	0.54
22:AB:85:C:N4	25:BA:2508:G:H5'	2.23	0.54
25:BA:889:C:C3'	25:BA:890:A:H4'	2.37	0.54
28:BE:103:ASP:OD1	28:BE:201:THR:HA	2.07	0.54
31:BH:83:TYR:CB	31:BH:134:SER:HA	2.37	0.54
32:BK:100:ALA:O	32:BK:101:LEU:C	2.46	0.54
32:BK:144:VAL:HG22	32:BK:145:VAL:N	2.23	0.54
43:BT:12:VAL:HG13	43:BT:27:THR:O	2.08	0.54
48:BW:64:LEU:HD22	48:BW:64:LEU:O	2.08	0.54
1:CA:1106:G:C2	1:CA:1107:C:C6	2.95	0.54
1:CA:1365:G:H2'	1:CA:1366:C:O4'	2.08	0.54
1:CA:977:A:H2	1:CA:1224:G:C6	2.26	0.54
22:CB:70:G:H2'	22:CB:71:U:C6	2.43	0.54
4:CG:178:VAL:C	4:CG:180:GLY:H	2.11	0.54
7:CJ:79:ARG:HG2	7:CJ:84:ASN:ND2	2.23	0.54
37:D0:75:LEU:HD13	37:D0:75:LEU:O	2.08	0.54
25:DA:1472:A:C2'	25:DA:1473:G:H5'	2.37	0.54
25:DA:2059:A:H2	25:DA:2062:A:H61	1.54	0.54
26:DB:1:U:H3	26:DB:119:A:H2	1.55	0.54
34:DN:92:GLU:OE1	34:DN:113:LYS:NZ	2.38	0.54
36:DP:105:GLU:HG2	36:DP:105:GLU:O	2.06	0.54
36:DP:21:THR:HG22	36:DP:21:THR:O	2.07	0.54
45:DV:128:VAL:HG22	45:DV:129:SER:N	2.18	0.54
49:DX:43:ILE:O	49:DX:47:VAL:HG23	2.07	0.54
1:AA:1004:A:H8	1:AA:1036:G:C2	2.26	0.54
1:AA:1036:G:C8	1:AA:1037:C:N3	2.76	0.54
22:AB:5:A:H61	22:AB:79:U:H3	1.56	0.54
2:AE:201:ILE:HG21	2:AE:214:ILE:HG21	1.89	0.54
5:AH:84:PHE:CB	5:AH:134:ALA:HB2	2.37	0.54
1:AA:878:G:H5'	8:AK:89:PRO:HG2	1.90	0.54
11:AN:86:GLY:N	11:AN:112:THR:OG1	2.21	0.54
13:AP:3:ARG:HG2	13:AP:9:ILE:HG12	1.90	0.54
46:B3:23:VAL:HG13	46:B3:38:VAL:HG23	1.89	0.54
25:BA:1062:G:OP1	25:BA:1070:A:H4'	2.08	0.54
25:BA:1083:U:C3'	25:BA:1084:A:H5''	2.38	0.54
25:BA:2019:A:H2'	25:BA:2020:A:O5'	2.06	0.54
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.23	0.54
25:BA:389:G:H22	35:BO:72:PRO:HD3	1.72	0.54
25:BA:495:G:O2'	42:BS:62:HIS:HE1	1.91	0.54
27:BD:206:LEU:HA	27:BD:211:ARG:NH1	2.23	0.54
28:BE:46:ALA:C	28:BE:47:VAL:HG22	2.27	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BM:90:MET:HA	33:BM:93:THR:HG22	1.89	0.54
36:BP:26:TYR:HE2	36:BP:28:ALA:HB2	1.72	0.54
26:BB:116:G:H5''	38:BQ:55:ALA:HB2	1.90	0.54
48:BW:16:LEU:C	48:BW:16:LEU:HD12	2.28	0.54
1:CA:1007:C:C2	1:CA:1023:G:N2	2.75	0.54
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.40	0.54
1:CA:1207:G:C6	1:CA:1208:C:C4	2.96	0.54
1:CA:1372:U:H2'	1:CA:1373:G:C5'	2.38	0.54
6:CI:24:GLU:O	6:CI:28:ARG:HD2	2.08	0.54
6:CI:60:PHE:O	6:CI:61:LEU:HD12	2.07	0.54
6:CI:87:ARG:NH1	6:CI:87:ARG:CG	2.63	0.54
1:CA:363:A:OP1	12:CO:33:ARG:HG3	2.07	0.54
13:CP:110:ARG:HG3	13:CP:110:ARG:HH11	1.72	0.54
14:CQ:13:THR:N	14:CQ:14:PRO:CD	2.71	0.54
14:CQ:37:PHE:CE1	14:CQ:53:LEU:HD13	2.43	0.54
37:D0:97:VAL:HG22	37:D0:114:VAL:HG22	1.89	0.54
25:DA:2401:U:C2'	25:DA:2402:C:H5''	2.37	0.54
25:DA:274:G:OP1	25:DA:274:G:C8	2.60	0.54
29:DF:8:GLN:NE2	29:DF:8:GLN:O	2.40	0.54
30:DG:110:ALA:HA	30:DG:140:ILE:O	2.08	0.54
31:DH:4:ILE:HD12	31:DH:6:ARG:CZ	2.38	0.54
36:DP:78:PRO:O	36:DP:79:LEU:CG	2.56	0.54
25:DA:2377:A:H4'	38:DQ:111:GLU:O	2.08	0.54
38:DQ:85:VAL:HG12	38:DQ:86:ALA:N	2.22	0.54
45:DV:16:SER:O	45:DV:20:ARG:HG3	2.07	0.54
1:AA:321:A:C2	1:AA:333:G:C2	2.96	0.54
1:AA:690:G:H2'	1:AA:691:G:O4'	2.08	0.54
1:AA:76:G:C6	1:AA:77:C:C2	2.96	0.54
23:AD:22:A:C2	23:AD:47:G:H2'	2.43	0.54
2:AE:200:ILE:H	2:AE:200:ILE:HD12	1.72	0.54
4:AG:33:MET:HE2	4:AG:37:PRO:HA	1.90	0.54
13:AP:23:TYR:CE1	13:AP:71:ARG:HG3	2.43	0.54
15:AR:87:ILE:CG2	15:AR:88:ARG:N	2.67	0.54
19:AV:41:VAL:O	50:B4:63:TYR:CZ	2.61	0.54
51:B5:41:PRO:O	51:B5:44:THR:OG1	2.26	0.54
25:BA:1728:G:C2	25:BA:1730:U:OP2	2.61	0.54
25:BA:2783:G:H2'	25:BA:2784:C:C6	2.42	0.54
25:BA:574:C:H4'	25:BA:575:A:O5'	2.08	0.54
25:BA:588:U:C2	29:BF:90:PHE:CE1	2.96	0.54
33:BM:120:LEU:HD22	33:BM:120:LEU:C	2.27	0.54
34:BN:48:PRO:O	34:BN:49:ARG:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:84:ALA:HB3	43:BT:87:GLN:NE2	2.22	0.54
47:BZ:53:VAL:HG21	47:BZ:74:VAL:HG22	1.90	0.54
1:CA:1018:C:H2'	1:CA:1019:C:O4'	2.08	0.54
1:CA:1330:U:O4	1:CA:1331:G:C2	2.61	0.54
22:CB:1:G:N3	22:CB:1:G:H2'	2.22	0.54
23:CC:15:G:C2	23:CC:60:A:C2	2.96	0.54
16:CS:48:TRP:CE3	16:CS:49:LEU:HB2	2.42	0.54
16:CS:49:LEU:HD12	16:CS:50:LYS:H	1.73	0.54
40:D1:40:PHE:HZ	41:D2:81:TYR:CE2	2.26	0.54
25:DA:1019:U:H2'	25:DA:1020:A:C8	2.43	0.54
25:DA:1003:G:N2	25:DA:1153:C:C2	2.76	0.54
25:DA:1204:A:N1	25:DA:1241:A:C2	2.76	0.54
25:DA:1444:G:N2	25:DA:1548:C:C2	2.76	0.54
25:DA:2689:U:C4'	25:DA:2690:C:OP2	2.50	0.54
27:DD:5:LYS:HB2	27:DD:5:LYS:HZ2	1.70	0.54
28:DE:116:VAL:O	28:DE:117:MET:CB	2.51	0.54
29:DF:72:ARG:NH1	29:DF:72:ARG:HB3	2.23	0.54
38:DQ:87:PHE:HD1	38:DQ:112:PHE:CD2	2.26	0.54
45:DV:144:LEU:C	45:DV:146:ILE:N	2.61	0.54
1:AA:1285:A:H4'	1:AA:1286:A:C5'	2.38	0.54
1:AA:1301:U:H2'	1:AA:1302:U:H5'	1.90	0.54
2:AE:178:ARG:NH2	2:AE:196:LEU:HA	2.22	0.54
2:AE:212:GLN:CD	2:AE:235:SER:HB2	2.28	0.54
7:AJ:78:ARG:HD2	7:AJ:80:VAL:CG2	2.38	0.54
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.43	0.54
25:BA:2282:G:H4'	25:BA:2389:G:O2'	2.08	0.54
25:BA:280:C:C2	25:BA:361:G:N2	2.76	0.54
25:BA:500:G:N2	25:BA:502:A:H3'	2.23	0.54
25:BA:654(M):C:C2'	25:BA:654(N):G:H8	2.20	0.54
27:BD:32:SER:O	27:BD:33:LEU:CB	2.56	0.54
28:BE:111:ARG:CD	28:BE:160:TYR:HE1	2.20	0.54
28:BE:61:ARG:C	28:BE:63:LEU:H	2.10	0.54
33:BM:63:THR:O	33:BM:66:LYS:HG3	2.08	0.54
35:BO:19:VAL:HG23	35:BO:27:HIS:CB	2.38	0.54
44:BU:76:CYS:HB3	44:BU:96:ILE:CD1	2.37	0.54
47:BZ:3:LYS:O	47:BZ:12:PRO:HD3	2.08	0.54
1:CA:1216:G:C6	1:CA:1217:C:N4	2.75	0.54
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.43	0.54
1:CA:170:U:O2'	1:CA:171:A:H5'	2.07	0.54
1:CA:719:C:H5	1:CA:720:C:C4	2.26	0.54
22:CB:17:U:OP2	22:CB:18:G:N7	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:150:GLU:C	4:CG:152:SER:H	2.10	0.54
50:D4:59:PHE:HD1	50:D4:60:GLN:NE2	2.06	0.54
25:DA:102:G:OP1	48:DW:7:ARG:NH2	2.39	0.54
25:DA:2211:G:C4'	25:DA:2212:A:OP2	2.56	0.54
25:DA:2329:G:N2	46:D3:41:ARG:HB3	2.23	0.54
27:DD:120:GLY:HA2	27:DD:190:TYR:OH	2.07	0.54
27:DD:239:ARG:O	27:DD:240:ALA:HB2	2.08	0.54
25:DA:1805:U:O2	27:DD:50:THR:HB	2.08	0.54
30:DG:44:GLY:O	30:DG:47:LYS:HB3	2.08	0.54
32:DK:123:LEU:HD13	32:DK:143:SER:HB3	1.89	0.54
33:DM:128:HIS:HB2	33:DM:129:PRO:HD2	1.90	0.54
35:DO:57:THR:C	35:DO:59:LEU:N	2.61	0.54
48:DW:10:LEU:O	48:DW:14:ARG:HB2	2.08	0.54
48:DW:15:LYS:HA	48:DW:67:LYS:HZ1	1.72	0.54
49:DX:39:ASP:OD1	49:DX:39:ASP:O	2.26	0.54
1:AA:1177:G:N7	1:AA:1178:G:N1	2.55	0.53
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.69	0.53
1:AA:851:G:O2'	1:AA:852:G:H5'	2.08	0.53
1:AA:974:A:P	14:AQ:41:ARG:HH12	2.31	0.53
20:AW:100:ILE:HG13	20:AW:101:GLY:H	1.71	0.53
53:B7:5:TRP:NE1	53:B7:7:PRO:HG3	2.23	0.53
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.43	0.53
25:BA:1925:C:H2'	25:BA:1926:U:H5'	1.90	0.53
25:BA:2134:A:C5	25:BA:2158:A:C2	2.96	0.53
25:BA:2292:C:O2'	25:BA:2293:C:H5'	2.08	0.53
25:BA:598:G:C1'	35:BO:12:ALA:HB2	2.38	0.53
25:BA:654(R):C:H2'	25:BA:654(S):G:H5'	1.89	0.53
28:BE:81:ILE:HG22	28:BE:84:PHE:HB3	1.86	0.53
29:BF:29:ASN:N	29:BF:112:MET:CE	2.61	0.53
31:BH:92:ILE:CD1	31:BH:92:ILE:H	2.14	0.53
32:BK:133:HIS:O	32:BK:134:PRO:C	2.45	0.53
33:BM:133:GLN:O	33:BM:134:ARG:HG2	2.07	0.53
42:BS:96:ILE:HD13	42:BS:96:ILE:O	2.09	0.53
45:BV:140:ASP:CG	45:BV:156:LYS:HZ3	2.12	0.53
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.27	0.53
1:CA:1434:A:H61	1:CA:1467:G:H1'	1.73	0.53
1:CA:992:U:O2'	1:CA:993:G:OP2	2.24	0.53
22:CB:85:C:H2'	22:CB:86:C:H5'	1.90	0.53
23:CC:73:A:N6	23:CC:74:A:N6	2.56	0.53
7:CJ:99:LEU:HD22	7:CJ:103:TRP:CZ2	2.42	0.53
8:CK:29:SER:HB3	8:CK:32:LYS:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CN:48:ILE:HG13	11:CN:63:LEU:HB2	1.89	0.53
18:CU:22:VAL:HG22	18:CU:23:LYS:N	2.23	0.53
18:CU:37:VAL:HG11	18:CU:78:LEU:HB3	1.89	0.53
41:D2:75:PHE:HE2	41:D2:81:TYR:CE1	2.26	0.53
25:DA:593:G:C1'	54:D8:4:MET:HE1	2.39	0.53
25:DA:1204:A:H2	25:DA:1241:A:N1	2.05	0.53
25:DA:1445:C:H2'	25:DA:1446:C:H6	1.72	0.53
25:DA:2303:G:O4'	30:DG:126:ASP:HB3	2.08	0.53
25:DA:2780:G:OP1	33:DM:118:LYS:HE2	2.07	0.53
25:DA:2836:U:C4	25:DA:2883:A:N6	2.76	0.53
25:DA:963:U:H2'	25:DA:964:C:H6	1.73	0.53
29:DF:53:THR:HG22	29:DF:56:GLU:HG3	1.89	0.53
33:DM:130:HIS:CD2	33:DM:130:HIS:O	2.60	0.53
33:DM:16:ILE:HG21	33:DM:26:LEU:HD11	1.89	0.53
39:DR:45:PHE:CD1	39:DR:74:ARG:HD2	2.43	0.53
1:AA:1075:C:O2'	1:AA:1076:C:H5'	2.09	0.53
1:AA:1349:A:OP2	9:AL:118:LYS:NZ	2.39	0.53
1:AA:381:C:H2'	1:AA:382:A:O4'	2.08	0.53
1:AA:475:G:O2'	1:AA:476:G:H5'	2.08	0.53
2:AE:42:ILE:HD11	2:AE:202:PRO:HB2	1.90	0.53
13:AP:50:GLU:O	13:AP:54:VAL:HG23	2.08	0.53
19:AV:41:VAL:CG2	19:AV:67:VAL:HG22	2.37	0.53
52:B6:30:THR:HA	52:B6:32:ASN:N	2.22	0.53
25:BA:667:U:O2	54:B8:2:PRO:HD2	2.08	0.53
25:BA:1651:G:N7	37:B0:11:ASN:ND2	2.55	0.53
25:BA:2702:U:OP1	25:BA:2702:U:C6	2.61	0.53
25:BA:2766:G:N3	25:BA:2766:G:H2'	2.23	0.53
29:BF:107:LYS:HE3	29:BF:207:GLY:H	1.73	0.53
30:BG:37:VAL:HG23	30:BG:99:MET:CE	2.38	0.53
34:BN:85:VAL:HG11	34:BN:114:ILE:CD1	2.35	0.53
39:BR:36:GLU:CG	39:BR:41:ARG:HD2	2.28	0.53
45:BV:166:SER:N	45:BV:167:PRO:HD3	2.23	0.53
1:CA:1004:A:C5'	1:CA:1025:U:H3	2.22	0.53
1:CA:1032:A:H3'	1:CA:1032(A):G:H5''	1.90	0.53
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.43	0.53
6:CI:23:LYS:O	6:CI:27:GLN:HB2	2.08	0.53
7:CJ:115:ARG:HB2	7:CJ:118:VAL:CG1	2.38	0.53
8:CK:138:TRP:OXT	8:CK:138:TRP:HE3	1.90	0.53
9:CL:122:ALA:HB1	9:CL:123:PRO:HD2	1.90	0.53
12:CO:86:ARG:HB2	12:CO:101:VAL:HG23	1.90	0.53
15:CR:55:GLY:O	15:CR:59:MET:HE2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:31:ILE:HG13	19:CV:32:LYS:N	2.22	0.53
41:D2:81:TYR:CD1	41:D2:81:TYR:N	2.76	0.53
54:D8:16:ILE:HD11	54:D8:60:LEU:HD12	1.91	0.53
54:D8:33:ASN:C	54:D8:34:TRP:CD1	2.81	0.53
25:DA:1464:C:O2'	25:DA:1528:A:C8	2.42	0.53
25:DA:2208:U:O2'	25:DA:2209:C:H5'	2.08	0.53
25:DA:2320:A:H4'	25:DA:2321:G:C8	2.43	0.53
25:DA:496:G:H2'	25:DA:497:A:H5'	1.90	0.53
25:DA:779:U:OP1	27:DD:49:ILE:CG2	2.57	0.53
25:DA:881:G:O6	25:DA:895:U:O2	2.25	0.53
25:DA:963:U:H2'	25:DA:964:C:C6	2.43	0.53
25:DA:9:U:O4	25:DA:2629:A:N1	2.41	0.53
27:DD:236:GLY:O	27:DD:237:GLU:O	2.26	0.53
27:DD:35:LYS:HB3	27:DD:63:ARG:CA	2.27	0.53
36:DP:30:GLY:HA2	36:DP:107:ALA:CB	2.38	0.53
45:DV:141:VAL:HG21	45:DV:150:LEU:HG	1.90	0.53
1:AA:1025:U:HO2'	1:AA:1026:G:C5'	2.19	0.53
1:AA:607:A:C2'	1:AA:608:A:H5'	2.38	0.53
1:AA:736:C:H2'	1:AA:737:A:H8	1.72	0.53
2:AE:103:THR:HG22	2:AE:180:LEU:HD21	1.90	0.53
2:AE:211:ILE:O	2:AE:215:LEU:HB2	2.08	0.53
2:AE:28:PHE:CD1	2:AE:190:THR:HA	2.43	0.53
4:AG:133:VAL:HG11	4:AG:138:TYR:HD1	1.73	0.53
12:AO:47:LYS:HA	12:AO:49:ASN:H	1.72	0.53
19:AV:42:PRO:O	19:AV:45:VAL:HG22	2.08	0.53
41:B2:60:GLU:O	41:B2:62:LEU:HD13	2.08	0.53
25:BA:1026:U:H1'	25:BA:1027:A:P	2.48	0.53
25:BA:1465:G:H5'	25:BA:1528:A:H1'	1.90	0.53
25:BA:1494:A:C2'	25:BA:1495:A:H5'	2.38	0.53
25:BA:674:G:H1'	29:BF:74:ARG:CD	2.34	0.53
26:BB:1(M):A:H2'	26:BB:0:A:H5'	1.89	0.53
35:BO:75:ILE:N	35:BO:75:ILE:HD13	2.14	0.53
36:BP:51:ARG:NH2	36:BP:52:VAL:HG23	2.23	0.53
1:CA:1276:G:H2'	1:CA:1277:C:H6	1.73	0.53
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.42	0.53
22:CB:38:G:C2'	22:CB:39:U:H5'	2.39	0.53
3:CF:173:VAL:HG12	3:CF:175:LEU:HD23	1.90	0.53
6:CI:82:ARG:HB2	6:CI:85:VAL:HG23	1.89	0.53
12:CO:84:LEU:HD12	12:CO:104:VAL:HG11	1.91	0.53
18:CU:22:VAL:C	18:CU:24:ALA:H	2.11	0.53
40:D1:108:GLU:OE1	41:D2:45:THR:HA	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D3:51:VAL:N	46:D3:62:LEU:HD12	2.22	0.53
25:DA:2371:G:C1'	52:D6:45:LYS:HE2	2.35	0.53
25:DA:1309:G:H4'	53:D7:7:PRO:HB2	1.90	0.53
25:DA:1488:G:H5'	25:DA:1489:U:OP2	2.08	0.53
25:DA:2712(A):A:C5'	25:DA:2713:A:OP2	2.48	0.53
25:DA:2872:G:N7	25:DA:2873:A:H2	2.07	0.53
27:DD:108:PRO:HB3	27:DD:143:HIS:CE1	2.43	0.53
29:DF:79:GLY:HA2	29:DF:86:GLY:HA2	1.88	0.53
30:DG:146:TYR:CD2	30:DG:146:TYR:C	2.81	0.53
36:DP:10:ARG:HA	36:DP:10:ARG:NE	2.23	0.53
25:DA:2470:G:OP2	36:DP:56:ARG:NH1	2.41	0.53
39:DR:29:ARG:CB	39:DR:29:ARG:HH11	2.21	0.53
42:DS:78:GLU:OE1	42:DS:99:ARG:HD3	2.08	0.53
43:DT:36:LYS:HG2	43:DT:54:VAL:HB	1.90	0.53
43:DT:63:LYS:HE3	43:DT:63:LYS:N	2.21	0.53
1:AA:615:C:C2	1:AA:616:G:C8	2.96	0.53
1:AA:972:C:O2'	10:AM:55:LYS:HG3	2.08	0.53
22:AB:18:G:C4'	22:AB:19:G:OP2	2.54	0.53
2:AE:80:ILE:O	2:AE:80:ILE:HG22	2.09	0.53
3:AF:42:LEU:O	3:AF:46:GLU:HG2	2.08	0.53
5:AH:51:VAL:HB	5:AH:52:PRO:HD3	1.89	0.53
5:AH:69:VAL:O	5:AH:71:LEU:N	2.41	0.53
46:B3:66:VAL:HG22	46:B3:82:ARG:HG2	1.91	0.53
25:BA:1062:G:H1'	25:BA:1088:A:C5	2.44	0.53
25:BA:1816:G:H8	27:BD:62:TYR:HH	1.54	0.53
25:BA:2025:C:H2'	25:BA:2026:C:C6	2.44	0.53
25:BA:2062:A:C2'	25:BA:2062:A:N3	2.69	0.53
25:BA:2134:A:C5	25:BA:2158:A:H2	2.26	0.53
25:BA:2749:A:H4'	31:BH:62:LYS:HB3	1.90	0.53
25:BA:495:G:H21	42:BS:61:ASN:HD21	1.57	0.53
30:BG:121:ASN:HD22	30:BG:123:ASN:N	1.91	0.53
31:BH:116:GLU:HG3	31:BH:117:PRO:HD2	1.90	0.53
33:BM:59:LYS:CE	33:BM:61:ARG:HH22	2.22	0.53
1:CA:1239:A:H62	1:CA:1299:A:N6	2.07	0.53
1:CA:197:A:H1'	1:CA:198:G:OP2	2.08	0.53
1:CA:244:U:H6	1:CA:244:U:H5'	1.73	0.53
1:CA:373:A:N3	1:CA:374:A:C8	2.77	0.53
3:CF:155:GLY:O	3:CF:196:LEU:HD22	2.07	0.53
1:CA:923:A:OP1	5:CH:21:ALA:HB2	2.08	0.53
10:CM:22:LYS:HE2	10:CM:90:LEU:HD11	1.90	0.53
12:CO:82:VAL:HB	12:CO:105:TYR:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:68:GLY:HA3	30:DG:116:ASP:OD1	2.08	0.53
1:CA:192:U:O4'	20:CW:103:GLY:HA3	2.08	0.53
54:D8:24:ALA:O	54:D8:48:PHE:CD1	2.62	0.53
25:DA:1088:A:H5'	25:DA:1089:G:H5'	1.89	0.53
25:DA:51:G:N3	25:DA:119:A:C2	2.76	0.53
25:DA:2062:A:H62	25:DA:2503:A:H62	1.54	0.53
25:DA:2103:C:H2'	25:DA:2104:G:C8	2.43	0.53
25:DA:2461:C:H2'	25:DA:2462:U:C6	2.42	0.53
25:DA:654:A:N3	25:DA:654:A:H2'	2.23	0.53
43:DT:54:VAL:C	43:DT:55:ASN:HD22	2.11	0.53
44:DU:9:LYS:O	44:DU:27:VAL:HG22	2.07	0.53
45:DV:69:THR:HB	45:DV:88:PHE:HB3	1.91	0.53
47:DZ:11:ARG:HB2	47:DZ:12:PRO:HD2	1.90	0.53
1:AA:353:A:C2'	1:AA:354:G:OP2	2.56	0.53
1:AA:411:A:C2	1:AA:431:A:N6	2.77	0.53
1:AA:881:G:OP2	12:AO:12:ARG:NH2	2.41	0.53
22:AB:85:C:H2'	22:AB:86:C:H5'	1.91	0.53
2:AE:111:ARG:HH11	2:AE:111:ARG:CG	2.22	0.53
5:AH:64:ARG:HH11	5:AH:64:ARG:HG3	1.73	0.53
9:AL:16:ARG:HB2	9:AL:64:THR:HG22	1.90	0.53
13:AP:60:VAL:CG1	13:AP:66:LEU:HD11	2.38	0.53
25:BA:534:U:H5'	40:B1:42:ALA:CB	2.36	0.53
41:B2:44:LYS:HG2	41:B2:45:THR:H	1.72	0.53
25:BA:1247:A:OP1	29:BF:95:ARG:NH2	2.41	0.53
25:BA:1710:C:O2'	25:BA:1711:C:H5'	2.09	0.53
25:BA:2789:C:H3'	25:BA:2790:A:H5''	1.89	0.53
25:BA:614:U:C4	29:BF:168:ARG:HG2	2.44	0.53
26:BB:94:C:C4	26:BB:95:U:C5	2.97	0.53
28:BE:119:ARG:NH1	28:BE:119:ARG:HG3	2.22	0.53
30:BG:128:ARG:NH2	30:BG:128:ARG:HB2	2.23	0.53
35:BO:64:LYS:HD2	54:B8:25:MET:HE1	1.84	0.53
35:BO:94:GLU:O	35:BO:124:LYS:O	2.26	0.53
36:BP:20:ALA:O	36:BP:21:THR:HG23	2.07	0.53
39:BR:108:ARG:HA	39:BR:111:ARG:NE	2.23	0.53
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.08	0.53
1:CA:1400:C:H42	23:CC:35:C:H1'	1.74	0.53
23:CC:56:U:O2	23:CC:58:A:N7	2.41	0.53
2:CE:204:ASN:HB2	2:CE:210:SER:HB3	1.89	0.53
12:CO:46:LYS:NZ	12:CO:47:LYS:HD3	2.20	0.53
14:CQ:45:ARG:NH1	14:CQ:45:ARG:HG3	2.21	0.53
46:D3:70:GLN:HE21	46:D3:80:HIS:HE2	1.54	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:41:VAL:HG22	50:D4:63:TYR:CZ	2.44	0.53
25:DA:1006:C:C2	25:DA:1138:G:N2	2.77	0.53
25:DA:128:C:H4'	25:DA:129:C:OP1	2.09	0.53
25:DA:1686:C:C2'	25:DA:1687:G:H5'	2.39	0.53
25:DA:2748:A:N7	25:DA:2754:U:C4	2.73	0.53
25:DA:531:C:OP1	25:DA:561:G:N1	2.41	0.53
25:DA:880:G:H2'	25:DA:880:G:N3	2.22	0.53
26:DB:29:A:C2	26:DB:56:G:C2	2.97	0.53
31:DH:136:ILE:H	31:DH:136:ILE:HD12	1.72	0.53
35:DO:101:VAL:CG2	35:DO:108:LYS:H	2.22	0.53
38:DQ:39:ILE:HG22	38:DQ:39:ILE:O	2.08	0.53
1:AA:397:A:H5'	1:AA:398:C:OP1	2.09	0.53
1:AA:640:A:O2'	8:AK:115:SER:HB2	2.08	0.53
1:AA:66:G:N2	1:AA:172:A:C2	2.77	0.53
22:AB:45:U:H3'	22:AB:45:U:C6	2.44	0.53
13:AP:3:ARG:CD	13:AP:7:VAL:HG13	2.39	0.53
19:AV:40:ILE:HG22	19:AV:69:HIS:O	2.08	0.53
41:B2:34:GLU:O	41:B2:34:GLU:HG3	2.07	0.53
25:BA:1309:G:P	53:B7:9:ARG:HD3	2.47	0.53
25:BA:1311:G:O6	53:B7:9:ARG:NH2	2.41	0.53
54:B8:23:VAL:CG1	54:B8:46:ARG:HD3	2.39	0.53
25:BA:1657:C:H2'	25:BA:1658:C:H6	1.72	0.53
25:BA:1735:C:C5'	25:BA:1735:C:H6	2.21	0.53
25:BA:1820:U:H4'	25:BA:1821:A:OP2	2.08	0.53
25:BA:2056:G:C2	25:BA:2057:A:C8	2.96	0.53
25:BA:705:A:C2	25:BA:727:A:H1'	2.44	0.53
25:BA:821:A:H5''	25:BA:822:U:H6	1.73	0.53
28:BE:78:LEU:CD1	28:BE:79:ARG:CG	2.86	0.53
30:BG:70:VAL:CG2	30:BG:87:PRO:HB3	2.39	0.53
33:BM:133:GLN:HB2	33:BM:135:PRO:HD3	1.90	0.53
25:BA:1141:U:OP2	33:BM:63:THR:CG2	2.56	0.53
35:BO:64:LYS:HD2	54:B8:25:MET:HE2	1.83	0.53
36:BP:88:GLY:C	36:BP:90:VAL:H	2.12	0.53
39:BR:108:ARG:HA	39:BR:111:ARG:HE	1.74	0.53
1:CA:1263:C:H42	1:CA:1272:G:H1	1.56	0.53
1:CA:1286:A:H8	1:CA:1287:A:H4'	1.69	0.53
1:CA:194:C:C3'	1:CA:195:A:H5''	2.38	0.53
1:CA:449:C:O4'	1:CA:449:C:O2	2.26	0.53
1:CA:465:A:N6	1:CA:467:G:C2	2.77	0.53
22:CB:1:G:H5''	22:CB:2:C:OP1	2.09	0.53
22:CB:40:G:C2	22:CB:41:G:C5	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:45:U:O2'	22:CB:46:G:H5''	2.08	0.53
4:CG:117:ALA:O	4:CG:121:VAL:HG23	2.09	0.53
41:D2:44:LYS:C	41:D2:46:VAL:N	2.57	0.53
41:D2:89:GLN:HE21	41:D2:90:PRO:HD2	1.72	0.53
46:D3:29:GLN:O	46:D3:67:VAL:HG23	2.08	0.53
25:DA:101:G:H2'	25:DA:102:G:OP1	2.09	0.53
25:DA:2287:A:N1	25:DA:2346:A:N1	2.56	0.53
25:DA:887:A:N3	25:DA:887:A:H2'	2.22	0.53
29:DF:129:PHE:HA	29:DF:142:TRP:CD1	2.44	0.53
30:DG:91:ARG:HD2	30:DG:92:VAL:N	2.23	0.53
35:DO:78:PRO:HA	35:DO:110:TYR:CD2	2.43	0.53
35:DO:21:ARG:NE	35:DO:21:ARG:HA	2.17	0.53
1:AA:250:A:H4'	1:AA:251:G:O5'	2.07	0.53
1:AA:818:G:O2'	1:AA:819:A:H5'	2.09	0.53
22:AB:85:C:H42	25:BA:2508:G:H5'	1.74	0.53
2:AE:68:ILE:O	2:AE:91:PRO:HD2	2.09	0.53
3:AF:36:ASP:OD2	3:AF:57:ILE:HG21	2.08	0.53
8:AK:87:SER:HB2	8:AK:93:VAL:CA	2.38	0.53
12:AO:75:HIS:HD2	12:AO:77:LEU:H	1.55	0.53
37:B0:104:ARG:NH1	37:B0:107:ASP:CG	2.62	0.53
25:BA:1771:C:HO2'	25:BA:1786:A:C1'	2.22	0.53
25:BA:2712:U:O2'	25:BA:2712(A):A:P	2.67	0.53
25:BA:372:G:O2'	25:BA:373:U:OP2	2.27	0.53
27:BD:25:THR:CG2	27:BD:26:LYS:N	2.71	0.53
31:BH:54:ARG:NH1	31:BH:65:HIS:ND1	2.56	0.53
31:BH:84:SER:O	31:BH:133:VAL:O	2.26	0.53
39:BR:39:ARG:CG	39:BR:40:THR:H	2.21	0.53
44:BU:90:LEU:N	44:BU:90:LEU:HD13	2.23	0.53
1:CA:1056:U:H5'	3:CF:163:ALA:CB	2.38	0.53
1:CA:1122:U:C4	1:CA:1123:A:N7	2.75	0.53
1:CA:1128:C:C2	1:CA:1139:G:C6	2.97	0.53
22:CB:40:G:H2'	22:CB:41:G:H8	1.74	0.53
7:CJ:23:VAL:CG1	7:CJ:43:PHE:HE2	2.21	0.53
8:CK:111:ILE:HG22	8:CK:112:LEU:N	2.24	0.53
6:CI:50:TYR:HE1	18:CU:74:ARG:O	1.91	0.53
37:D0:91:GLN:HG2	37:D0:91:GLN:O	2.08	0.53
13:CP:3:ARG:HB2	50:D4:34:GLU:OE2	2.09	0.53
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.42	0.53
25:DA:2031:A:C6	25:DA:2498:C:H1'	2.43	0.53
25:DA:2129:C:C4	25:DA:2130:U:N3	2.77	0.53
25:DA:2765:A:C2	25:DA:2766:G:O4'	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:527:C:N4	25:DA:2779:U:OP2	2.42	0.53
25:DA:654(Q):C:H2'	25:DA:654(R):C:C6	2.44	0.53
25:DA:690:G:O2'	27:DD:43:ARG:NH2	2.36	0.53
25:DA:854:G:O2'	25:DA:855:G:H5'	2.09	0.53
26:DB:3:C:H2'	26:DB:3:C:O2	2.07	0.53
27:DD:35:LYS:NZ	27:DD:104:TYR:HB2	2.24	0.53
1:CA:1443:G:N2	39:DR:119:LYS:HB2	2.22	0.53
39:DR:47:GLY:CA	39:DR:63:VAL:HG12	2.37	0.53
45:DV:108:PRO:CB	45:DV:143:GLY:N	2.72	0.53
1:AA:148:G:C2	1:AA:149:A:N7	2.76	0.53
1:AA:295:C:H2'	1:AA:296:U:O4'	2.08	0.53
1:AA:339:C:OP2	34:BN:97:ARG:NH1	2.42	0.53
1:AA:433:C:O2'	1:AA:434:U:H5'	2.09	0.53
2:AE:236:TYR:HA	2:AE:239:VAL:CG2	2.38	0.53
1:AA:614:A:OP1	4:AG:86:LYS:NZ	2.42	0.53
10:AM:55:LYS:O	10:AM:56:HIS:CG	2.62	0.53
1:AA:1226:C:N4	13:AP:104:ARG:HG3	2.24	0.53
20:AW:13:LEU:HD12	20:AW:13:LEU:O	2.09	0.53
52:B6:36:LEU:H	52:B6:36:LEU:CD2	2.20	0.53
54:B8:33:ASN:HA	54:B8:36:LYS:HE3	1.91	0.53
25:BA:1069:A:H4'	25:BA:1070:A:H5''	1.91	0.53
25:BA:1079:C:H3'	25:BA:1080:A:C8	2.43	0.53
25:BA:2115:G:O6	25:BA:2117:A:H3'	2.08	0.53
25:BA:2646:C:H6	25:BA:2646:C:O5'	1.92	0.53
25:BA:535:C:O3'	40:B1:53:ARG:NH1	2.42	0.53
30:BG:114:ILE:CD1	30:BG:140:ILE:HG21	2.39	0.53
26:BB:90:C:P	36:BP:16:ARG:HH21	2.31	0.53
36:BP:43:THR:OG1	36:BP:46:GLN:HB2	2.08	0.53
39:BR:107:ASP:O	39:BR:110:ILE:HG23	2.08	0.53
28:BE:27:LEU:CD1	39:BR:1:MET:CE	2.76	0.53
39:BR:90:GLN:HG3	39:BR:91:ARG:N	2.24	0.53
25:BA:988:A:P	49:BX:11:SER:HB3	2.49	0.53
23:CC:19:G:O2'	23:CC:20:G:O5'	2.26	0.53
2:CE:172:ILE:O	2:CE:176:GLU:HG3	2.09	0.53
5:CH:147:ASP:HA	5:CH:150:ARG:HB2	1.91	0.53
6:CI:33:TYR:OH	6:CI:78:GLU:HG3	2.09	0.53
8:CK:10:LEU:HD22	8:CK:83:ILE:HD11	1.90	0.53
14:CQ:38:GLY:O	14:CQ:39:LEU:HD23	2.09	0.53
25:DA:1416:G:O2'	25:DA:1417:C:H6	1.91	0.53
25:DA:2320:A:C6	25:DA:2333:A:C8	2.97	0.53
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:322:A:OP2	29:DF:169:ASN:HB2	2.09	0.53
27:DD:35:LYS:HG2	27:DD:64:ILE:N	2.21	0.53
27:DD:79:VAL:HG21	27:DD:111:LEU:HD11	1.91	0.53
29:DF:5:ALA:HB1	29:DF:125:LEU:HD21	1.91	0.53
33:DM:4:TYR:CD2	40:D1:100:VAL:HG11	2.44	0.53
36:DP:68:ILE:HG21	36:DP:103:MET:HB3	1.91	0.53
45:DV:108:PRO:CA	45:DV:143:GLY:HA2	2.37	0.53
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.09	0.53
1:AA:445:G:H1	1:AA:489:C:H42	1.56	0.53
2:AE:21:ARG:CB	2:AE:39:ILE:HA	2.39	0.53
4:AG:88:VAL:HG13	5:AH:97:GLY:HA2	1.91	0.53
10:AM:32:ALA:CB	10:AM:76:ASN:HB2	2.38	0.53
21:AX:3:LYS:HB3	21:AX:14:TRP:CD1	2.43	0.53
25:BA:1079:C:H3'	25:BA:1080:A:H8	1.73	0.53
38:BQ:42:ASP:O	38:BQ:43:GLU:HG2	2.09	0.53
45:BV:107:THR:C	45:BV:109:ALA:N	2.62	0.53
1:CA:1238:A:N7	1:CA:1301:U:O4	2.41	0.53
1:CA:568:G:O6	12:CO:5:PRO:HD3	2.09	0.53
1:CA:57:G:H2'	1:CA:58:C:C6	2.44	0.53
1:CA:587:G:N1	1:CA:754:C:OP2	2.42	0.53
2:CE:153:ARG:CG	2:CE:154:LEU:H	2.13	0.53
12:CO:37:CYS:SG	12:CO:81:SER:OG	2.66	0.53
14:CQ:15:LYS:NZ	14:CQ:15:LYS:HB3	2.23	0.53
18:CU:29:PHE:N	18:CU:29:PHE:CD2	2.77	0.53
19:CV:42:PRO:O	19:CV:43:GLU:HG2	2.08	0.53
20:CW:12:ALA:O	20:CW:15:ARG:HB2	2.08	0.53
25:DA:1061:U:H4'	25:DA:1070:A:H1'	1.91	0.53
25:DA:1412:A:H2'	25:DA:1413:G:H8	1.74	0.53
25:DA:1769:G:O2'	25:DA:1958:C:OP1	2.22	0.53
25:DA:2143:C:H2'	25:DA:2144:U:O4'	2.09	0.53
25:DA:2112:G:N3	25:DA:2169:A:N6	2.56	0.53
25:DA:2335:A:C8	25:DA:2337:G:C5	2.97	0.53
25:DA:2410:G:C2	25:DA:2411:A:H1'	2.44	0.53
25:DA:2872:G:N7	25:DA:2873:A:C2	2.77	0.53
25:DA:321:G:H5'	29:DF:134:GLY:O	2.08	0.53
25:DA:273:G:H1	25:DA:364:C:H42	1.56	0.53
25:DA:528:A:C3'	25:DA:528:A:C8	2.91	0.53
25:DA:90:U:H2'	25:DA:90:U:O2	2.08	0.53
25:DA:994:C:H1'	41:D2:10:LYS:HE2	1.90	0.53
26:DB:31:C:C2'	26:DB:32:C:H5'	2.39	0.53
25:DA:607:U:OP1	29:DF:102:PRO:HA	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:110:LEU:HD22	29:DF:202:PHE:CE1	2.41	0.53
42:DS:88:ARG:NH1	42:DS:94:ASP:OD1	2.30	0.53
1:AA:170:U:O2'	1:AA:171:A:H5'	2.07	0.53
1:AA:312:C:C2'	1:AA:313:A:H5'	2.39	0.53
1:AA:382:A:H2'	1:AA:383:A:H8	1.68	0.53
22:AB:27:G:H3'	22:AB:28:C:H6	1.72	0.53
3:AF:166:GLU:CG	3:AF:167:TRP:N	2.72	0.53
3:AF:78:GLY:HA3	3:AF:83:ARG:CB	2.38	0.53
8:AK:41:ARG:O	8:AK:41:ARG:HD2	2.09	0.53
10:AM:23:ILE:HD12	10:AM:85:LEU:HD22	1.90	0.53
25:BA:2839:G:H5''	37:B0:46:GLY:HA2	1.91	0.53
41:B2:38:LEU:C	41:B2:38:LEU:HD23	2.29	0.53
25:BA:1063:G:H1	25:BA:1075:C:N4	2.06	0.53
25:BA:1694:C:H5'	25:BA:1694:C:C6	2.44	0.53
25:BA:2681:C:H1'	25:BA:2682:U:OP2	2.09	0.53
26:BB:61:G:C6	26:BB:62:C:C4	2.97	0.53
28:BE:16:ARG:O	28:BE:16:ARG:CG	2.51	0.53
44:BU:41:GLY:O	44:BU:42:VAL:C	2.48	0.53
1:CA:1061:G:H2'	1:CA:1062:U:C5'	2.38	0.53
1:CA:1137:C:H5''	1:CA:1138:G:OP1	2.09	0.53
1:CA:114:U:O2'	1:CA:115:G:H5'	2.09	0.53
1:CA:1267:C:H2'	1:CA:1267:C:O2	2.09	0.53
1:CA:411:A:N7	1:CA:413:G:N3	2.57	0.53
22:CB:3:C:H2'	22:CB:4:G:C8	2.44	0.53
2:CE:115:LEU:O	2:CE:118:LEU:HB2	2.08	0.53
9:CL:5:TYR:CD2	9:CL:18:PHE:CE2	2.97	0.53
9:CL:49:PRO:HD3	9:CL:78:LYS:HE3	1.90	0.53
12:CO:111:LYS:O	12:CO:112:ASP:HB2	2.09	0.53
41:D2:48:GLY:C	41:D2:49:THR:O	2.45	0.53
25:DA:1496:A:C8	25:DA:1577:C:O2'	2.51	0.53
25:DA:274:G:C5	25:DA:275:G:C6	2.97	0.53
25:DA:284:U:C2'	25:DA:285:C:H5'	2.39	0.53
25:DA:528:A:C2'	25:DA:529:A:H5'	2.39	0.53
25:DA:2638:G:OP2	28:DE:82:ARG:NH2	2.42	0.53
29:DF:9:ILE:HA	29:DF:13:SER:O	2.08	0.53
29:DF:25:PRO:HB2	29:DF:27:GLU:H	1.74	0.53
32:DK:77:LEU:CD1	32:DK:78:THR:H	2.22	0.53
33:DM:30:ILE:O	33:DM:34:LEU:HD22	2.08	0.53
38:DQ:106:ARG:HA	38:DQ:110:LEU:HG	1.90	0.53
39:DR:56:GLY:C	39:DR:58:ASN:H	2.12	0.53
45:DV:141:VAL:O	45:DV:142:SER:C	2.47	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1004:A:C4	1:AA:1025:U:O2	2.63	0.52
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.09	0.52
1:AA:17:U:H2'	1:AA:18:C:C6	2.44	0.52
1:AA:412:A:H4'	1:AA:413:G:O5'	2.09	0.52
1:AA:922:G:C6	1:AA:923:A:C6	2.97	0.52
3:AF:58:GLU:N	3:AF:65:ALA:HB3	2.24	0.52
8:AK:104:ARG:O	8:AK:107:LEU:HB2	2.09	0.52
8:AK:29:SER:OG	8:AK:32:LYS:HB2	2.09	0.52
25:BA:1021:A:C8	25:BA:1022:G:H5''	2.42	0.52
25:BA:1575:C:H2'	25:BA:1576:U:C6	2.44	0.52
25:BA:2682:U:H6	25:BA:2682:U:H5'	1.74	0.52
25:BA:2702:U:H6	25:BA:2702:U:OP1	1.92	0.52
25:BA:2820:A:O2'	25:BA:2821:A:OP1	2.25	0.52
27:BD:228:PRO:HD3	27:BD:234:GLY:C	2.29	0.52
29:BF:178:PRO:HB3	29:BF:198:ALA:CB	2.38	0.52
32:BK:104:GLN:O	32:BK:105:HIS:CD2	2.62	0.52
36:BP:58:PHE:O	36:BP:58:PHE:HD1	1.90	0.52
25:BA:989:G:N7	49:BX:13:ILE:CD1	2.72	0.52
1:CA:1160:G:N3	1:CA:1160:G:H2'	2.24	0.52
1:CA:1256:A:N6	1:CA:1277:C:H3'	2.24	0.52
1:CA:280:C:H3'	1:CA:281:G:H5'	1.90	0.52
1:CA:126:G:H4'	1:CA:634:C:H1'	1.90	0.52
4:CG:9:CYS:O	4:CG:12:CYS:HB2	2.09	0.52
6:CI:2:ARG:HH21	6:CI:69:GLU:HG3	1.74	0.52
8:CK:51:VAL:HG11	8:CK:60:ARG:HH11	1.73	0.52
15:CR:8:LYS:O	15:CR:12:ILE:HG13	2.08	0.52
40:D1:110:VAL:O	40:D1:114:LYS:HG2	2.09	0.52
41:D2:5:VAL:HB	41:D2:37:VAL:HG11	1.90	0.52
41:D2:87:HIS:CE1	41:D2:89:GLN:HB2	2.44	0.52
50:D4:33:VAL:HG23	50:D4:33:VAL:O	2.09	0.52
25:DA:2859:G:C8	25:DA:2859:G:H3'	2.45	0.52
26:DB:28:C:H2'	26:DB:29:A:O4'	2.09	0.52
27:DD:93:ALA:HB3	27:DD:105:ILE:HG22	1.92	0.52
31:DH:152:ARG:C	31:DH:154:PRO:HD3	2.29	0.52
31:DH:86:GLU:H	31:DH:86:GLU:CD	2.13	0.52
35:DO:47:ASP:O	35:DO:50:ARG:N	2.42	0.52
35:DO:90:ARG:HG3	35:DO:91:PHE:CD1	2.44	0.52
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.74	0.52
1:AA:1164:G:H2'	1:AA:1165:C:C6	2.45	0.52
1:AA:1255:G:O2'	1:AA:1258:G:H1'	2.09	0.52
1:AA:1333:A:H2'	1:AA:1334:G:O5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:51:A:OP2	1:AA:52:G:C8	2.62	0.52
22:AB:15:A:C2	22:AB:70:G:C6	2.96	0.52
22:AB:71:U:OP2	22:AB:71:U:H6	1.92	0.52
9:AL:29:ASN:OD1	9:AL:64:THR:HA	2.09	0.52
12:AO:24:VAL:HG12	12:AO:27:LEU:HG	1.90	0.52
40:B1:79:PHE:CE1	40:B1:106:PHE:CZ	2.94	0.52
40:B1:76:TYR:C	40:B1:76:TYR:CD2	2.82	0.52
40:B1:90:VAL:HG12	40:B1:91:ASP:CA	2.39	0.52
25:BA:1057:A:H2'	25:BA:1058:U:C6	2.45	0.52
25:BA:1057:A:O2'	25:BA:1058:U:H5'	2.09	0.52
25:BA:1385:G:H4'	25:BA:1386:C:OP1	2.09	0.52
25:BA:1590:U:H2'	25:BA:1591:G:C8	2.43	0.52
25:BA:1797:C:C2'	25:BA:1798:U:H5'	2.39	0.52
25:BA:2210:G:H5'	25:BA:2211:G:C5	2.44	0.52
27:BD:270:ILE:CG2	27:BD:271:ILE:N	2.72	0.52
30:BG:114:ILE:HD13	30:BG:140:ILE:HG21	1.90	0.52
36:BP:75:THR:HA	36:BP:88:GLY:C	2.30	0.52
42:BS:21:VAL:HG23	42:BS:47:VAL:HG21	1.91	0.52
1:CA:1014:A:H2'	1:CA:1015:A:N9	2.24	0.52
1:CA:1449:C:O3'	1:CA:1450:U:H4'	2.08	0.52
1:CA:20:U:H2'	1:CA:21:G:H5'	1.92	0.52
1:CA:977:A:C2	1:CA:1224:G:C5	2.97	0.52
22:CB:76:U:C4	22:CB:77:C:C4	2.98	0.52
4:CG:101:LEU:HD23	4:CG:121:VAL:CG1	2.40	0.52
4:CG:127:THR:HB	4:CG:131:ARG:O	2.10	0.52
5:CH:47:LYS:O	5:CH:57:LYS:HD3	2.10	0.52
8:CK:95:VAL:HB	8:CK:99:GLU:HB2	1.91	0.52
1:CA:973:G:H1'	10:CM:55:LYS:HG3	1.92	0.52
1:CA:362:G:H4'	12:CO:33:ARG:HH21	1.74	0.52
13:CP:110:ARG:NH1	13:CP:110:ARG:CG	2.68	0.52
19:CV:67:VAL:O	19:CV:69:HIS:N	2.42	0.52
40:D1:50:ARG:HB2	40:D1:50:ARG:NH2	2.25	0.52
41:D2:6:LYS:HG3	41:D2:11:GLN:HG2	1.91	0.52
25:DA:1025:G:C5	25:DA:1135:C:H1'	2.45	0.52
25:DA:886:C:C2	25:DA:890:A:N1	2.77	0.52
26:DB:1:U:O4	26:DB:119:A:N1	2.42	0.52
26:DB:29:A:OP2	38:DQ:31:SER:HB2	2.09	0.52
30:DG:75:LYS:O	30:DG:76:SER:HB2	2.09	0.52
31:DH:4:ILE:HG13	31:DH:6:ARG:H	1.75	0.52
43:DT:40:LYS:HA	43:DT:51:VAL:HG11	1.91	0.52
43:DT:55:ASN:HB2	43:DT:80:ILE:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:40:ASP:OD1	45:DV:42:VAL:HB	2.09	0.52
1:AA:530:G:C4'	1:AA:531:U:OP2	2.56	0.52
2:AE:106:LYS:O	2:AE:110:GLN:HG3	2.10	0.52
7:AJ:111:ARG:HB3	7:AJ:112:PRO:HD2	1.92	0.52
8:AK:103:VAL:CG2	8:AK:110:ALA:HB2	2.39	0.52
15:AR:21:ASP:OD1	15:AR:24:SER:HB3	2.09	0.52
19:AV:7:LYS:O	19:AV:7:LYS:HD2	2.09	0.52
52:B6:15:GLU:HG3	52:B6:47:THR:HG21	1.91	0.52
25:BA:1069:A:O2'	25:BA:1072:C:OP1	2.27	0.52
25:BA:1678:G:N2	25:BA:1989:G:N2	2.58	0.52
25:BA:2065:C:H2'	25:BA:2066:C:H6	1.73	0.52
25:BA:2068:U:N3	25:BA:2430:A:H2	2.04	0.52
25:BA:2210:G:H5'	25:BA:2211:G:N7	2.24	0.52
25:BA:2700:C:O2'	25:BA:2701:C:H5'	2.09	0.52
25:BA:2733:A:H3'	25:BA:2734:A:H5''	1.91	0.52
25:BA:2815:C:H2'	25:BA:2816:C:H6	1.75	0.52
25:BA:880:G:N2	25:BA:898:C:C2	2.77	0.52
25:BA:443:A:H3'	29:BF:45:ARG:NH1	2.24	0.52
32:BK:9:LEU:CB	32:BK:11:ASN:O	2.55	0.52
1:CA:1004:A:C5'	1:CA:1025:U:C4	2.92	0.52
1:CA:1175:G:N1	1:CA:1176:A:C6	2.77	0.52
1:CA:999:U:H3	1:CA:1041:A:H61	1.57	0.52
22:CB:21:A:H1'	22:CB:22:G:P	2.49	0.52
23:CD:59:A:H8	23:CD:59:A:OP2	1.92	0.52
4:CG:110:PHE:HZ	4:CG:182:LYS:HA	1.73	0.52
7:CJ:71:PRO:HD3	7:CJ:103:TRP:HZ3	1.75	0.52
19:CV:30:LEU:HD12	19:CV:31:ILE:H	1.74	0.52
37:D0:84:ALA:HB3	37:D0:85:PRO:HD3	1.92	0.52
40:D1:90:VAL:O	40:D1:92:ARG:HB3	2.10	0.52
51:D5:45:VAL:CG1	51:D5:56:LYS:HG2	2.40	0.52
25:DA:1012:U:O2	25:DA:1143:A:C2	2.61	0.52
25:DA:1277:G:H4'	37:D0:20:LEU:HD11	1.91	0.52
25:DA:1385:G:HO2'	25:DA:1396:U:H6	1.56	0.52
25:DA:2638:G:O2'	25:DA:2639:A:H8	1.91	0.52
25:DA:307:G:N2	25:DA:309:G:H3'	2.24	0.52
25:DA:443:A:H5''	25:DA:444:C:OP1	2.09	0.52
25:DA:634:C:H2'	25:DA:635:C:C6	2.45	0.52
25:DA:863:A:O2'	25:DA:864:G:H5'	2.10	0.52
25:DA:908:C:O2'	25:DA:909:A:H5'	2.09	0.52
36:DP:110:THR:O	36:DP:113:GLN:HB2	2.09	0.52
1:AA:1157:A:H62	1:AA:1178:G:N2	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:5:U:O2'	1:AA:6:G:N3	2.42	0.52
7:AJ:109:ASN:OD1	7:AJ:119:ARG:NH2	2.37	0.52
17:AT:66:SER:OG	17:AT:69:LYS:HB2	2.09	0.52
41:B2:25:LEU:H	41:B2:92:THR:HG21	1.75	0.52
52:B6:46:HIS:O	52:B6:47:THR:OG1	2.26	0.52
25:BA:1177:A:H5'	25:BA:1178:C:H6	1.74	0.52
25:BA:1264:G:H3'	25:BA:1265:A:H5''	1.91	0.52
25:BA:1364:G:OP2	47:BZ:2:SER:OG	2.26	0.52
25:BA:1538:G:O5'	25:BA:1538:G:H8	1.92	0.52
25:BA:1478:G:O2'	25:BA:1558:A:H2	1.93	0.52
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.43	0.52
25:BA:1937:A:O2'	25:BA:1938:A:P	2.67	0.52
25:BA:2688:U:H3'	25:BA:2688:U:O2	2.10	0.52
25:BA:796:C:H2'	25:BA:797:C:C6	2.43	0.52
28:BE:79:ARG:CZ	28:BE:197:ILE:CG2	2.87	0.52
30:BG:101:ILE:HG13	50:B4:25:TYR:O	2.09	0.52
31:BH:152:ARG:HE	31:BH:153:LYS:HZ3	1.57	0.52
33:BM:60:ILE:H	33:BM:60:ILE:HD13	1.74	0.52
34:BN:25:LEU:O	34:BN:26:LYS:HG2	2.09	0.52
36:BP:104:PHE:CE1	36:BP:125:LEU:HD11	2.41	0.52
36:BP:36:ALA:O	36:BP:99:PRO:HA	2.09	0.52
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.36	0.52
1:CA:142:G:H1	1:CA:221:C:H42	1.58	0.52
1:CA:972:C:O3'	10:CM:57:LYS:CG	2.57	0.52
1:CA:986:A:N3	19:CV:52:TYR:OH	2.29	0.52
23:CC:58:A:H2'	23:CC:59:A:H5'	1.91	0.52
23:CD:56:U:C4	23:CD:59:A:N6	2.78	0.52
2:CE:153:ARG:HG3	2:CE:154:LEU:N	2.15	0.52
2:CE:24:TRP:C	2:CE:24:TRP:CD1	2.80	0.52
2:CE:5:ILE:HD12	2:CE:59:GLU:CD	2.30	0.52
6:CI:53:ALA:O	6:CI:54:LYS:HB2	2.10	0.52
19:CV:49:ILE:H	19:CV:49:ILE:HD12	1.74	0.52
20:CW:50:GLU:CD	20:CW:100:ILE:HG12	2.29	0.52
25:DA:534:U:O2'	40:D1:49:HIS:HD2	1.93	0.52
40:D1:50:ARG:HG2	40:D1:53:ARG:NH2	2.24	0.52
50:D4:16:CYS:HB3	50:D4:20:ASN:H	1.74	0.52
52:D6:25:LYS:HE2	52:D6:27:LYS:HZ2	1.75	0.52
25:DA:1839:G:N3	25:DA:1839:G:H2'	2.24	0.52
25:DA:2327:A:H2'	25:DA:2328:A:H8	1.73	0.52
25:DA:2469:A:O2'	36:DP:56:ARG:HG2	2.10	0.52
25:DA:2713:A:H3'	25:DA:2714:G:C5'	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:979:G:H3'	25:DA:980:A:H5''	1.89	0.52
25:DA:9:U:O4	25:DA:2629:A:C2	2.63	0.52
28:DE:5:LEU:HD12	28:DE:50:GLY:O	2.10	0.52
29:DF:82:ILE:C	29:DF:82:ILE:CD1	2.75	0.52
47:DZ:91:LYS:HE3	47:DZ:92:LYS:H	1.73	0.52
1:AA:1131:G:OP2	1:AA:1131:G:H8	1.92	0.52
1:AA:757:U:H2'	1:AA:758:G:O4'	2.09	0.52
1:AA:96:G:C6	1:AA:97:U:C2	2.98	0.52
23:AC:76:C:OP2	23:AC:77:A:O3'	2.26	0.52
1:AA:1226:C:O2	19:AV:83:HIS:HE1	1.92	0.52
20:AW:24:LEU:HD12	20:AW:24:LEU:C	2.26	0.52
37:B0:42:LYS:O	37:B0:45:ARG:HD2	2.10	0.52
40:B1:98:LEU:C	40:B1:98:LEU:HD23	2.30	0.52
51:B5:51:TYR:H	51:B5:56:LYS:CB	2.23	0.52
52:B6:33:LYS:O	52:B6:35:GLU:HG3	2.09	0.52
25:BA:1045:A:N3	25:BA:1111:A:N6	2.57	0.52
25:BA:141:A:H8	25:BA:1595:G:H21	1.56	0.52
25:BA:2019:A:C2'	25:BA:2020:A:O5'	2.57	0.52
25:BA:2119:A:H61	25:BA:2170:A:H62	1.55	0.52
25:BA:2168:G:C2'	25:BA:2168:G:N3	2.73	0.52
25:BA:2352:A:C4	25:BA:2366:A:C2	2.97	0.52
25:BA:2505:G:O6	25:BA:2576:G:H2'	2.09	0.52
25:BA:6:A:H2'	25:BA:7:G:O4'	2.09	0.52
27:BD:166:GLN:NE2	27:BD:166:GLN:HA	2.21	0.52
27:BD:44:ASN:N	27:BD:44:ASN:ND2	2.57	0.52
28:BE:170:LEU:HD11	28:BE:187:ALA:HB3	1.90	0.52
35:BO:96:THR:C	35:BO:98:GLU:H	2.11	0.52
25:BA:2250:G:C6	36:BP:82:ARG:HD3	2.44	0.52
38:BQ:48:LEU:HD23	38:BQ:82:ILE:HD11	1.90	0.52
25:BA:2875:C:C4'	39:BR:5:ALA:HB2	2.40	0.52
47:BZ:92:LYS:HA	47:BZ:95:LEU:CB	2.39	0.52
1:CA:1160:G:N1	1:CA:1177:G:N2	2.33	0.52
1:CA:1235:U:O2'	1:CA:1305:G:O5'	2.26	0.52
1:CA:1330:U:H5'	1:CA:1331:G:O5'	2.09	0.52
2:CE:55:PHE:CD1	2:CE:58:ILE:HD12	2.44	0.52
4:CG:13:ARG:HB3	4:CG:33:MET:SD	2.49	0.52
5:CH:57:LYS:O	5:CH:61:TYR:CD2	2.63	0.52
10:CM:8:LEU:HD22	10:CM:20:ALA:CB	2.40	0.52
12:CO:40:VAL:HG11	12:CO:77:LEU:O	2.09	0.52
52:D6:12:GLU:HG3	52:D6:21:TYR:HB3	1.92	0.52
25:DA:1300:U:H5''	25:DA:1301:A:H5''	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:154:G:H3'	25:DA:155:C:H6	1.73	0.52
25:DA:1568:G:H21	27:DD:58:HIS:CE1	2.27	0.52
25:DA:1677:A:H2'	25:DA:1678:G:O4'	2.09	0.52
25:DA:2010:G:H5''	42:DS:42:ARG:HB2	1.91	0.52
25:DA:2329:G:H2'	25:DA:2330:G:C8	2.45	0.52
25:DA:2752:C:O4'	25:DA:2752:C:OP2	2.27	0.52
25:DA:2776:A:H4'	25:DA:2777:G:O5'	2.09	0.52
25:DA:910:A:C5	36:DP:13:GLN:HG3	2.44	0.52
28:DE:37:ARG:HD3	28:DE:44:TYR:CZ	2.44	0.52
28:DE:8:LYS:HG2	28:DE:192:ASN:HD22	1.73	0.52
31:DH:152:ARG:C	31:DH:154:PRO:HD2	2.28	0.52
35:DO:113:LYS:HG2	35:DO:115:LEU:HD21	1.91	0.52
35:DO:64:LYS:HB2	54:D8:25:MET:CG	2.21	0.52
36:DP:78:PRO:O	36:DP:79:LEU:HG	2.09	0.52
25:DA:84:A:O5'	44:DU:8:LYS:HD3	2.09	0.52
36:DP:134:ARG:NH2	45:DV:122:ARG:HD2	2.24	0.52
1:AA:1258:G:C6	1:AA:1259:C:N4	2.77	0.52
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.45	0.52
1:AA:149:A:C2	1:AA:150:C:C2	2.98	0.52
1:AA:368:U:P	32:DK:91:SER:OG	2.68	0.52
1:AA:73:G:N3	1:AA:74:C:C5	2.78	0.52
1:AA:973:G:OP1	10:AM:57:LYS:HD3	2.09	0.52
23:AD:51:U:H2'	23:AD:52:C:C6	2.45	0.52
23:AD:60:A:C2'	23:AD:61:U:H5'	2.39	0.52
23:AD:9:G:N2	23:AD:46:G:C8	2.77	0.52
2:AE:21:ARG:HG2	2:AE:21:ARG:O	2.05	0.52
3:AF:83:ARG:O	3:AF:86:VAL:HG22	2.10	0.52
41:B2:44:LYS:C	41:B2:46:VAL:N	2.63	0.52
46:B3:50:ASN:HB3	46:B3:63:VAL:HG22	1.91	0.52
25:BA:1085:A:C4'	25:BA:1086:A:OP1	2.57	0.52
25:BA:1153:C:OP1	40:B1:76:TYR:OH	2.26	0.52
25:BA:1358:G:N2	25:BA:1372:U:C5	2.78	0.52
25:BA:1931:U:O4'	25:BA:1931:U:O2	2.24	0.52
25:BA:84:A:N1	25:BA:98:G:O2'	2.33	0.52
29:BF:117:ARG:NH2	35:BO:1:MET:O	2.43	0.52
29:BF:46:ARG:NH1	29:BF:46:ARG:CG	2.67	0.52
33:BM:35:ARG:HG3	33:BM:37:LYS:HG3	1.89	0.52
34:BN:8:LEU:HD13	34:BN:82:ASN:HB2	1.91	0.52
25:BA:811:U:C4	35:BO:21:ARG:NH2	2.78	0.52
38:BQ:15:ARG:HD3	38:BQ:88:ASP:OD2	2.10	0.52
39:BR:107:ASP:H	39:BR:110:ILE:HG23	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1309:G:C6	1:CA:1329:A:C2	2.98	0.52
1:CA:1356:G:N2	1:CA:1367:C:O2	2.43	0.52
1:CA:927:G:N2	1:CA:1391:U:H1'	2.25	0.52
1:CA:35:G:N2	1:CA:550:G:H1'	2.24	0.52
1:CA:567:G:H2'	1:CA:568:G:O4'	2.09	0.52
1:CA:634:C:H2'	1:CA:635:G:H8	1.75	0.52
1:CA:920:U:O4'	1:CA:1080:A:C2	2.62	0.52
23:CC:2:G:N3	23:CC:2:G:H2'	2.24	0.52
9:CL:125:TYR:CD2	9:CL:125:TYR:C	2.83	0.52
1:CA:1149:C:OP2	9:CL:9:ARG:NH1	2.43	0.52
13:CP:37:THR:HG23	13:CP:59:TYR:CD2	2.45	0.52
17:CT:63:ARG:HG2	17:CT:64:PRO:HD2	1.90	0.52
17:CT:59:ILE:CG2	17:CT:71:PHE:HB3	2.39	0.52
20:CW:104:LEU:O	20:CW:105:SER:HB3	2.10	0.52
37:D0:45:ARG:HA	37:D0:95:THR:HG21	1.91	0.52
46:D3:72:ARG:CB	46:D3:75:LEU:HB2	2.39	0.52
53:D7:43:THR:HG22	53:D7:44:PRO:O	2.09	0.52
25:DA:1022:G:C2'	25:DA:1023:U:OP2	2.58	0.52
25:DA:1495:A:O2'	25:DA:1496:A:H5'	2.09	0.52
25:DA:1638:C:H4'	25:DA:2710:C:O2	2.09	0.52
25:DA:372:G:O2'	25:DA:373:U:OP2	2.28	0.52
26:DB:40:U:O2	26:DB:46:A:C6	2.62	0.52
27:DD:27:THR:CG2	27:DD:28:GLU:N	2.72	0.52
28:DE:66:HIS:HE1	28:DE:73:GLU:HG3	1.74	0.52
28:DE:7:VAL:HG21	39:DR:1:MET:HE3	1.91	0.52
30:DG:143:GLU:N	30:DG:143:GLU:OE2	2.41	0.52
32:DK:51:ILE:HG22	32:DK:52:ARG:N	2.24	0.52
38:DQ:106:ARG:O	38:DQ:107:GLU:HB2	2.10	0.52
42:DS:88:ARG:HD3	42:DS:94:ASP:OD1	2.09	0.52
23:AD:9:G:C6	23:AD:47:G:N1	2.77	0.52
2:AE:69:LEU:HD13	2:AE:91:PRO:HB2	1.92	0.52
9:AL:9:ARG:HA	9:AL:76:ALA:HB1	1.91	0.52
1:AA:256:U:OP1	17:AT:17:LYS:NZ	2.43	0.52
37:B0:74:LYS:O	37:B0:75:LEU:HB3	2.09	0.52
50:B4:12:ALA:HB3	50:B4:24:THR:HB	1.90	0.52
53:B7:11:LYS:HE3	53:B7:15:THR:OG1	2.10	0.52
25:BA:1188:U:H2'	25:BA:1189:A:H5'	1.92	0.52
25:BA:1339:G:N2	25:BA:1603:A:H1'	2.24	0.52
25:BA:1793:C:O2	25:BA:1900:A:H2	1.93	0.52
25:BA:2818:G:O2'	25:BA:2819:G:H5'	2.09	0.52
27:BD:239:ARG:O	27:BD:240:ALA:HB2	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:25:VAL:CG1	28:BE:183:LEU:HG	2.39	0.52
28:BE:59:VAL:CG1	28:BE:63:LEU:HB3	2.39	0.52
35:BO:50:ARG:HD3	54:B8:7:HIS:CD2	2.45	0.52
39:BR:129:ARG:O	39:BR:133:GLU:HG3	2.09	0.52
45:BV:141:VAL:HG12	45:BV:142:SER:H	1.75	0.52
1:CA:10:A:H2'	1:CA:11:G:H8	1.75	0.52
1:CA:1105:A:C2	1:CA:1106:G:N7	2.78	0.52
1:CA:1106:G:N3	1:CA:1107:C:C6	2.78	0.52
1:CA:1319:A:C5'	1:CA:1320:C:OP1	2.57	0.52
1:CA:353:A:H2'	1:CA:354:G:OP2	2.10	0.52
22:CB:55:G:C4	22:CB:56:G:N7	2.78	0.52
23:CC:73:A:N6	23:CC:74:A:C6	2.78	0.52
2:CE:115:LEU:HD21	2:CE:153:ARG:NH1	2.25	0.52
4:CG:139:ARG:NH1	4:CG:139:ARG:HG3	2.25	0.52
4:CG:3:ARG:NH1	4:CG:115:ARG:HB3	2.23	0.52
6:CI:63:TYR:CD2	6:CI:63:TYR:N	2.78	0.52
16:CS:48:TRP:CH2	16:CS:76:GLN:NE2	2.78	0.52
20:CW:10:LEU:C	20:CW:10:LEU:HD22	2.30	0.52
30:DG:109:VAL:HG22	50:D4:33:VAL:HG11	1.92	0.52
52:D6:31:PRO:HB2	52:D6:33:LYS:H	1.74	0.52
25:DA:1449(A):G:H2'	25:DA:1450:C:H6	1.73	0.52
25:DA:1858:G:H1'	25:DA:1884:A:H61	1.73	0.52
25:DA:239:U:H2'	25:DA:240:G:O4'	2.10	0.52
25:DA:2646:C:OP2	25:DA:2732:G:O2'	2.23	0.52
25:DA:2801:A:H5'	25:DA:2895:U:O2'	2.10	0.52
25:DA:78:A:H2'	25:DA:79:G:H8	1.74	0.52
29:DF:123:LEU:HD11	29:DF:125:LEU:HD22	1.91	0.52
31:DH:54:ARG:HB3	31:DH:65:HIS:CD2	2.45	0.52
32:DK:142:VAL:HG22	32:DK:142:VAL:O	2.09	0.52
25:DA:2393:A:O3'	35:DO:62:LEU:HA	2.10	0.52
36:DP:7:MET:CB	36:DP:10:ARG:NH2	2.71	0.52
38:DQ:24:LEU:HD12	38:DQ:41:ASP:HB2	1.91	0.52
43:DT:67:GLY:C	43:DT:69:TYR:H	2.13	0.52
45:DV:145:GLU:O	45:DV:145:GLU:CG	2.57	0.52
1:AA:129(A):G:N2	1:AA:191(A):G:N7	2.57	0.52
1:AA:1250:A:H4'	9:AL:68:GLY:N	2.25	0.52
11:AN:54:ARG:NH2	23:AD:40:C:O3'	2.42	0.52
54:B8:36:LYS:O	54:B8:38:GLY:N	2.43	0.52
25:BA:1103:A:H2'	25:BA:1104:C:H5'	1.92	0.52
25:BA:1593:G:H2'	25:BA:1594:G:H8	1.72	0.52
25:BA:2211:G:C4'	25:BA:2212:A:OP2	2.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2751:G:HO2'	25:BA:2752:C:P	2.32	0.52
25:BA:2901:C:C4	25:BA:2902:C:N4	2.74	0.52
25:BA:26:G:H1'	25:BA:515:A:H61	1.75	0.52
25:BA:527:C:H4'	25:BA:528:A:O5'	2.10	0.52
27:BD:273:ARG:HG2	27:BD:273:ARG:O	2.08	0.52
28:BE:1:MET:HB3	28:BE:200:GLU:OE1	2.09	0.52
30:BG:67:LYS:NZ	50:B4:6:HIS:NE2	2.57	0.52
39:BR:90:GLN:NE2	39:BR:116:ALA:HA	2.25	0.52
1:CA:1219:U:OP1	14:CQ:19:ARG:NH1	2.35	0.52
1:CA:245:C:O2	1:CA:283:C:N3	2.43	0.52
1:CA:369:C:O2	1:CA:369:C:H2'	2.09	0.52
3:CF:186:PHE:CE2	3:CF:188:LEU:HD21	2.45	0.52
4:CG:139:ARG:CG	4:CG:139:ARG:HH11	2.22	0.52
4:CG:162:LEU:HD12	4:CG:181:MET:HE3	1.91	0.52
40:D1:52:ARG:HB3	40:D1:52:ARG:NH1	2.25	0.52
54:D8:25:MET:O	54:D8:48:PHE:CE1	2.62	0.52
25:DA:309:G:N3	25:DA:329:G:O2'	2.40	0.52
25:DA:56:A:C2	25:DA:115:C:O2	2.63	0.52
29:DF:7:TYR:HA	29:DF:125:LEU:O	2.10	0.52
25:DA:443:A:N7	29:DF:45:ARG:HD2	2.25	0.52
30:DG:124:SER:HB2	30:DG:131:TYR:CE1	2.44	0.52
30:DG:41:GLN:NE2	30:DG:60:LEU:HD12	2.25	0.52
26:DB:42:C:O2	30:DG:92:VAL:HA	2.10	0.52
31:DH:41:MET:CE	31:DH:64:LEU:HB2	2.39	0.52
25:DA:751:A:H5'	42:DS:90:ARG:HA	1.92	0.52
43:DT:24:GLY:O	43:DT:83:VAL:HG12	2.10	0.52
1:AA:1399:C:C2	1:AA:1401:G:C5	2.98	0.52
1:AA:151:A:H2'	1:AA:151:A:N3	2.23	0.52
1:AA:321:A:N7	1:AA:328:C:O2'	2.36	0.52
1:AA:606:G:N2	1:AA:631:G:C8	2.78	0.52
1:AA:945:G:C2	1:AA:946:A:C8	2.98	0.52
22:AB:42:U:H3'	22:AB:43:A:H8	1.75	0.52
23:AD:21:U:C3'	23:AD:22:A:C5'	2.88	0.52
2:AE:73:THR:OG1	2:AE:170:GLU:OE2	2.22	0.52
5:AH:31:LEU:HD23	5:AH:45:PHE:CD1	2.38	0.52
5:AH:41:VAL:CG1	5:AH:113:ALA:HB2	2.39	0.52
25:BA:1192:G:O2'	25:BA:1193:G:H5'	2.10	0.52
25:BA:1939:U:OP1	25:BA:2604:U:O2'	2.23	0.52
25:BA:197:A:N6	25:BA:2430:A:H2'	2.24	0.52
25:BA:270(J):G:H2'	25:BA:270(K):C:O4'	2.10	0.52
26:BB:13:A:H2'	26:BB:70:C:O2'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:784:A:C5	27:BD:229:VAL:HG21	2.45	0.52
31:BH:6:ARG:HA	31:BH:66:GLY:HA2	1.91	0.52
25:BA:943:U:OP2	35:BO:36:LYS:CE	2.58	0.52
38:BQ:11:LYS:HD2	38:BQ:15:ARG:NH2	2.23	0.52
38:BQ:4:LEU:O	38:BQ:5:THR:HG23	2.10	0.52
45:BV:48:PHE:HE2	45:BV:71:VAL:HG21	1.74	0.52
1:CA:1061:G:C2'	1:CA:1062:U:H5'	2.38	0.52
1:CA:838:G:H1	1:CA:848:C:H42	1.58	0.52
2:CE:67:THR:HG21	2:CE:155:LEU:HG	1.92	0.52
6:CI:15:ASP:C	6:CI:15:ASP:OD1	2.49	0.52
13:CP:87:TYR:O	13:CP:91:ARG:HG2	2.09	0.52
15:CR:24:SER:O	15:CR:28:GLN:HG3	2.09	0.52
16:CS:43:LYS:HB3	16:CS:48:TRP:CD1	2.45	0.52
19:CV:12:ASP:O	19:CV:16:LEU:HD13	2.09	0.52
54:D8:51:ALA:O	54:D8:52:LYS:C	2.49	0.52
25:DA:1217:C:P	40:D1:15:LYS:HE3	2.50	0.52
25:DA:2249:U:N3	25:DA:2253:G:OP2	2.35	0.52
25:DA:2469:A:C2	25:DA:2470:G:C5	2.98	0.52
25:DA:838:C:O2'	25:DA:839:U:H5'	2.10	0.52
25:DA:855:G:O2'	46:D3:27:GLU:OE2	2.27	0.52
26:DB:8:U:H3	26:DB:112:G:H1	1.58	0.52
27:DD:32:SER:HA	27:DD:35:LYS:O	2.09	0.52
31:DH:78:GLY:O	31:DH:136:ILE:HG22	2.09	0.52
39:DR:55:ASN:CG	39:DR:55:ASN:O	2.47	0.52
39:DR:6:LEU:O	39:DR:10:VAL:HG23	2.10	0.52
1:AA:1005:A:C2	1:AA:1006:C:C2	2.98	0.52
1:AA:351:G:H4'	1:AA:352:C:OP1	2.09	0.52
1:AA:627:G:O2'	1:AA:628:G:H5'	2.10	0.52
1:AA:883:C:H2'	1:AA:884:U:H5'	1.90	0.52
23:AD:31:G:H2'	23:AD:32:G:C8	2.45	0.52
3:AF:104:GLN:HA	3:AF:104:GLN:HE21	1.75	0.52
6:AI:8:ILE:HG22	6:AI:10:LEU:HD12	1.90	0.52
1:AA:835:U:OP2	18:AU:60:ALA:HB3	2.10	0.52
40:B1:98:LEU:HD23	40:B1:99:ALA:N	2.25	0.52
52:B6:41:PRO:HD2	52:B6:46:HIS:CA	2.39	0.52
25:BA:1210:A:H5''	25:BA:1212:G:O4'	2.10	0.52
25:BA:1332:G:H21	25:BA:1610:A:H8	1.57	0.52
25:BA:1798:U:H5''	27:BD:259:THR:CG2	2.31	0.52
25:BA:2281:C:O2'	25:BA:2282:G:H5'	2.09	0.52
25:BA:602:G:N2	25:BA:655:A:C8	2.74	0.52
25:BA:744:G:OP1	28:BE:132:HIS:ND1	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:73:A:C4	26:BB:104:A:C2	2.98	0.52
31:BH:153:LYS:HZ3	31:BH:153:LYS:H	1.56	0.52
33:BM:35:ARG:O	33:BM:37:LYS:HG3	2.10	0.52
1:CA:1281:U:H3'	1:CA:1282:C:C5	2.45	0.52
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.75	0.52
1:CA:407:G:H1	1:CA:435:C:N4	2.04	0.52
1:CA:976:G:C8	1:CA:1358:U:C2	2.98	0.52
3:CF:190:ARG:HD2	3:CF:190:ARG:H	1.75	0.52
5:CH:67:VAL:HG21	5:CH:140:ARG:HG3	1.91	0.52
1:CA:1187:G:P	9:CL:113:LYS:HZ1	2.33	0.52
41:D2:27:ALA:HB3	41:D2:61:VAL:HG21	1.92	0.52
25:DA:747:U:H5	51:D5:3:LYS:HB2	1.67	0.52
25:DA:1287:A:H5''	25:DA:1288:U:OP2	2.09	0.52
23:CD:57:C:N4	25:DA:2112:G:H22	1.98	0.52
25:DA:2173:A:C2	25:DA:2174:C:H4'	2.45	0.52
25:DA:2271:G:OP1	46:D3:18:ALA:HB1	2.10	0.52
25:DA:2483:C:O2	25:DA:2483:C:H2'	2.10	0.52
25:DA:200:U:O4	25:DA:250:G:N2	2.43	0.52
25:DA:2713:A:H3'	25:DA:2714:G:H5'	1.91	0.52
25:DA:734:A:O2'	25:DA:1635:G:H5'	2.10	0.52
26:DB:15:A:C3'	26:DB:16:G:H5'	2.36	0.52
27:DD:25:THR:C	27:DD:27:THR:N	2.63	0.52
27:DD:35:LYS:CE	27:DD:104:TYR:HD1	2.23	0.52
28:DE:52:LEU:O	28:DE:75:VAL:N	2.43	0.52
32:DK:76:THR:HG23	32:DK:77:LEU:H	1.75	0.52
36:DP:20:ALA:O	36:DP:21:THR:HG22	2.10	0.52
1:AA:1054:C:O2'	1:AA:1055:A:H5''	2.10	0.51
1:AA:129(A):G:C2	1:AA:191(A):G:C8	2.98	0.51
1:AA:130:A:O2'	1:AA:131:C:O5'	2.25	0.51
1:AA:389:A:H2'	1:AA:390:C:C5'	2.40	0.51
1:AA:39:G:N7	1:AA:547:A:C8	2.75	0.51
1:AA:812:C:H4'	1:AA:813:U:O5'	2.09	0.51
23:AD:8:U:H5''	23:AD:9:G:OP2	2.10	0.51
1:AA:620:C:C6	4:AG:135:LEU:HD23	2.45	0.51
8:AK:63:LEU:HB3	8:AK:65:TYR:CE1	2.45	0.51
13:AP:82:MET:O	13:AP:83:ASP:HB2	2.11	0.51
20:AW:96:GLY:O	20:AW:97:ALA:HB3	2.09	0.51
37:B0:57:ARG:HB3	37:B0:59:ASP:OD1	2.10	0.51
25:BA:1047:G:HO2'	25:BA:1048:A:H8	1.55	0.51
25:BA:1380:G:N2	25:BA:1570:A:C2	2.77	0.51
25:BA:2209:C:O2	25:BA:2216:G:C2	2.62	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:229:A:O2'	25:BA:230:U:OP1	2.26	0.51
25:BA:2689:U:H4'	25:BA:2690:C:OP2	2.10	0.51
25:BA:2884:U:H2'	25:BA:2885:C:H5'	1.91	0.51
25:BA:654(I):C:H3'	25:BA:654(I):C:O2	2.10	0.51
27:BD:35:LYS:CE	27:BD:64:ILE:C	2.78	0.51
28:BE:59:VAL:HG13	28:BE:63:LEU:CB	2.40	0.51
28:BE:34:VAL:HG21	28:BE:64:LYS:HZ1	1.76	0.51
30:BG:26:GLN:NE2	30:BG:27:ASN:HB2	2.25	0.51
31:BH:86:GLU:HG2	31:BH:87:LEU:H	1.76	0.51
33:BM:130:HIS:CD2	33:BM:134:ARG:HH12	2.29	0.51
38:BQ:106:ARG:HA	38:BQ:110:LEU:HD21	1.91	0.51
45:BV:128:VAL:HG23	45:BV:160:GLY:HA3	1.92	0.51
45:BV:142:SER:N	45:BV:143:GLY:HA2	2.24	0.51
1:CA:1142:G:H2'	1:CA:1143:G:C8	2.45	0.51
1:CA:1291:G:C6	1:CA:1292:U:C4	2.97	0.51
1:CA:375:U:OP1	16:CS:69:THR:OG1	2.16	0.51
1:CA:652:U:C4	1:CA:752:G:N3	2.77	0.51
1:CA:952:U:H4'	1:CA:964:A:N1	2.26	0.51
22:CB:76:U:O4	22:CB:77:C:N4	2.43	0.51
2:CE:178:ARG:HH22	2:CE:196:LEU:C	2.14	0.51
7:CJ:24:THR:HA	7:CJ:27:ILE:HD12	1.91	0.51
40:D1:74:LEU:HD12	40:D1:74:LEU:N	2.25	0.51
51:D5:49:CYS:O	51:D5:56:LYS:HB3	2.10	0.51
25:DA:1085:A:C4'	25:DA:1086:A:OP1	2.58	0.51
25:DA:1504:C:O2'	25:DA:1505:C:H5'	2.09	0.51
25:DA:2061:G:H5''	25:DA:2503:A:C2	2.44	0.51
25:DA:657:U:H2'	25:DA:658:C:C6	2.45	0.51
26:DB:43:C:H1'	30:DG:93:THR:O	2.10	0.51
26:DB:44:G:H1'	26:DB:47:C:N4	2.25	0.51
29:DF:63:LYS:CE	29:DF:67:GLN:HB3	2.40	0.51
30:DG:171:ALA:O	30:DG:174:GLU:N	2.43	0.51
32:DK:25:TYR:CE2	32:DK:29:TYR:HD2	2.27	0.51
36:DP:63:LYS:O	36:DP:63:LYS:HD3	1.93	0.51
45:DV:114:GLY:C	45:DV:116:VAL:H	2.13	0.51
1:AA:1008:C:N4	1:AA:1021:G:H1	2.06	0.51
1:AA:1363:A:H1'	1:AA:1365:G:N7	2.25	0.51
1:AA:789:U:C5	1:AA:792:A:OP2	2.60	0.51
22:AB:7:G:C3'	22:AB:8:U:C5'	2.82	0.51
23:AD:11:A:N1	23:AD:26:C:O2	2.43	0.51
41:B2:39:LEU:HD13	41:B2:51:VAL:HG22	1.91	0.51
50:B4:15:ILE:O	50:B4:33:VAL:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B8:36:LYS:HB2	54:B8:40:GLU:HB3	1.91	0.51
25:BA:1063:G:H2'	25:BA:1064:C:C6	2.44	0.51
25:BA:1168:G:C2	25:BA:1182:A:C2	2.98	0.51
25:BA:125:G:H4'	25:BA:126:A:OP2	2.10	0.51
25:BA:2628:C:O2'	25:BA:2781:A:H2'	2.10	0.51
25:BA:479:A:O2'	25:BA:481:G:H2'	2.10	0.51
25:BA:963:U:H2'	25:BA:964:C:C6	2.46	0.51
27:BD:35:LYS:H	27:BD:64:ILE:CG2	2.23	0.51
27:BD:72:LYS:HE3	27:BD:75:ILE:HD12	1.91	0.51
28:BE:47:VAL:O	28:BE:48:GLN:C	2.49	0.51
28:BE:50:GLY:HA2	28:BE:76:ARG:O	2.10	0.51
32:BK:95:LYS:O	32:BK:98:ALA:HB3	2.11	0.51
34:BN:3:GLN:HG3	34:BN:4:PRO:HD2	1.91	0.51
44:BU:5:MET:CE	44:BU:32:PRO:HA	2.40	0.51
44:BU:50:ARG:O	44:BU:53:PRO:HD2	2.10	0.51
49:BX:43:ILE:O	49:BX:47:VAL:HG23	2.11	0.51
47:BZ:49:VAL:CG1	47:BZ:70:VAL:HG11	2.39	0.51
1:CA:1355:G:O2'	1:CA:1356:G:H5'	2.10	0.51
1:CA:464:G:C5	1:CA:466:C:OP2	2.63	0.51
1:CA:57:G:C6	1:CA:58:C:C4	2.98	0.51
23:CC:14:A:C2	23:CC:15:G:H1'	2.45	0.51
12:CO:41:ARG:HH11	12:CO:41:ARG:CB	2.21	0.51
19:CV:66:MET:HA	19:CV:67:VAL:HB	1.92	0.51
40:D1:76:TYR:OH	40:D1:93:LYS:HE2	2.10	0.51
41:D2:35:LEU:O	41:D2:37:VAL:HG13	2.09	0.51
25:DA:1570:A:H2'	25:DA:1571:A:C8	2.45	0.51
25:DA:528:A:C2	25:DA:2043:C:H4'	2.45	0.51
25:DA:2353:G:H2'	25:DA:2354:G:O4'	2.09	0.51
25:DA:2531:A:C5'	31:DH:157:TYR:CE2	2.91	0.51
25:DA:654(S):G:C4'	25:DA:654(T):A:OP1	2.57	0.51
33:DM:39:ARG:HH11	33:DM:48:MET:HE2	1.75	0.51
36:DP:3:MET:HG3	36:DP:4:PRO:O	2.10	0.51
44:DU:63:LYS:HA	44:DU:63:LYS:HZ3	1.72	0.51
44:DU:19:LYS:HE3	44:DU:71:LYS:HZ2	1.75	0.51
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.10	0.51
1:AA:147:G:C2	1:AA:176:C:O2	2.64	0.51
1:AA:374:A:C6	1:AA:375:U:C4	2.98	0.51
1:AA:942:G:C2	1:AA:943:U:C6	2.99	0.51
1:AA:965:A:C2	1:AA:969:A:C2	2.98	0.51
23:AD:19:G:C1'	23:AD:59:A:H2	2.21	0.51
2:AE:17:PHE:HD1	2:AE:17:PHE:O	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:22:LYS:HA	2:AE:22:LYS:HZ2	1.75	0.51
13:AP:115:LYS:O	13:AP:117:VAL:CG1	2.58	0.51
37:B0:2:ARG:HG3	37:B0:5:LYS:NZ	2.25	0.51
33:BM:42:TRP:O	40:B1:64:ARG:NH2	2.43	0.51
35:BO:62:LEU:CD2	54:B8:30:ARG:HH22	2.08	0.51
25:BA:1359:A:N3	25:BA:1359:A:O4'	2.43	0.51
25:BA:1983:C:H2'	25:BA:1984:G:H5'	1.93	0.51
25:BA:447:A:N1	25:BA:454:A:O2'	2.39	0.51
25:BA:827:U:H5'	25:BA:828:U:O5'	2.11	0.51
27:BD:25:THR:O	27:BD:26:LYS:C	2.47	0.51
27:BD:34:VAL:O	27:BD:34:VAL:CG1	2.57	0.51
32:BK:101:LEU:HD22	32:BK:109:ILE:HG23	1.92	0.51
25:BA:2565:A:H62	34:BN:28:SER:HB2	1.76	0.51
47:BZ:56:GLN:HG3	47:BZ:83:GLU:C	2.29	0.51
1:CA:1061:G:H1'	10:CM:56:HIS:CE1	2.45	0.51
1:CA:1157:A:C2	1:CA:1181:G:H1'	2.46	0.51
1:CA:1065:U:C5	1:CA:1190:G:H1'	2.46	0.51
1:CA:332:G:OP2	20:CW:10:LEU:HD13	2.10	0.51
1:CA:560:U:H4'	1:CA:561:U:O5'	2.09	0.51
1:CA:827:U:H5''	1:CA:828:A:OP2	2.11	0.51
1:CA:978:A:C5'	1:CA:979:C:OP2	2.58	0.51
23:CC:21:U:O2	23:CC:21:U:C2'	2.50	0.51
23:CD:61:U:O2'	23:CD:62:C:H5'	2.10	0.51
2:CE:233:SER:HB3	2:CE:234:PRO:CD	2.36	0.51
9:CL:99:LEU:HB3	9:CL:101:PHE:CE1	2.45	0.51
13:CP:29:ARG:HD3	13:CP:64:TRP:CD2	2.44	0.51
25:DA:1226:G:P	41:D2:85:LYS:HA	2.50	0.51
25:DA:1609:A:O2'	25:DA:1610:A:H5'	2.11	0.51
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.45	0.51
25:DA:19:C:H2'	25:DA:20:C:C6	2.45	0.51
25:DA:2056:G:H2'	25:DA:2056:G:N3	2.25	0.51
25:DA:2065:C:H2'	25:DA:2066:C:H6	1.74	0.51
27:DD:73:VAL:HG13	27:DD:120:GLY:HA3	1.92	0.51
28:DE:27:LEU:HG	28:DE:27:LEU:O	2.11	0.51
29:DF:125:LEU:HD12	29:DF:196:LEU:HD21	1.92	0.51
29:DF:155:LEU:HD23	29:DF:186:ILE:HD13	1.92	0.51
29:DF:84:VAL:HG22	29:DF:84:VAL:O	2.11	0.51
31:DH:151:ILE:O	31:DH:152:ARG:NE	2.42	0.51
36:DP:31:ASP:H	36:DP:107:ALA:CB	2.23	0.51
48:DW:17:SER:HB2	48:DW:18:PRO:CA	2.40	0.51
48:DW:17:SER:CB	48:DW:18:PRO:CA	2.88	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AC:2:G:H2'	23:AC:3:C:C6	2.45	0.51
2:AE:189:ASP:OD1	2:AE:191:ASP:HB2	2.11	0.51
2:AE:8:LYS:CE	2:AE:8:LYS:H	2.23	0.51
9:AL:81:ILE:O	9:AL:85:LEU:HG	2.10	0.51
25:BA:18:C:O3'	40:B1:23:GLY:HA2	2.10	0.51
50:B4:36:CYS:O	50:B4:39:CYS:SG	2.69	0.51
25:BA:1085:A:N3	25:BA:1086:A:N7	2.58	0.51
25:BA:1786:A:H1'	25:BA:1938:A:N6	2.25	0.51
25:BA:325:G:O2'	25:BA:326:G:H5'	2.09	0.51
28:BE:31:CYS:N	28:BE:91:VAL:O	2.39	0.51
29:BF:64:ILE:HG23	29:BF:65:TRP:CD1	2.46	0.51
33:BM:34:LEU:HD21	33:BM:120:LEU:HB2	1.91	0.51
44:BU:42:VAL:HG12	44:BU:65:ALA:HB3	1.91	0.51
1:CA:180:U:H2'	1:CA:181:G:H5'	1.92	0.51
1:CA:668:G:C2'	1:CA:669:U:H5'	2.41	0.51
23:CC:76:C:H2'	23:CC:77:A:C8	2.46	0.51
23:CD:6:G:C2	23:CD:7:G:N7	2.78	0.51
2:CE:231:GLU:HB3	2:CE:232:PRO:HD3	1.92	0.51
5:CH:90:VAL:O	5:CH:120:THR:HA	2.10	0.51
10:CM:48:THR:HA	10:CM:62:HIS:CB	2.40	0.51
1:CA:1305:G:H5'	21:CX:4:GLY:HA3	1.91	0.51
25:DA:17:G:H4'	40:D1:25:TRP:CH2	2.45	0.51
52:D6:9:LEU:HD13	52:D6:11:LEU:HD21	1.92	0.51
25:DA:1063:G:C6	25:DA:1064:C:C2	2.99	0.51
25:DA:1027:A:N6	25:DA:1126:A:C4	2.79	0.51
25:DA:1421:G:C2	25:DA:1422:G:C8	2.99	0.51
25:DA:2117:A:N1	25:DA:2162:G:OP1	2.43	0.51
25:DA:2121:G:H1	25:DA:2177:C:H42	1.58	0.51
25:DA:2389:G:H5''	25:DA:2390:U:O4'	2.11	0.51
25:DA:588:U:H2'	25:DA:589:C:C6	2.45	0.51
25:DA:646:A:H2'	25:DA:647:G:O4'	2.10	0.51
27:DD:43:ARG:CB	27:DD:54:ARG:HB2	2.40	0.51
28:DE:60:ASN:O	28:DE:62:PRO:CD	2.59	0.51
28:DE:64:LYS:HB3	28:DE:66:HIS:HD2	1.73	0.51
30:DG:41:GLN:HE21	30:DG:60:LEU:HD12	1.76	0.51
25:DA:64:A:C4	43:DT:66:LEU:HD12	2.45	0.51
1:AA:1053:G:O6	1:AA:1199:U:H2'	2.10	0.51
1:AA:724:G:C2	1:AA:725:G:C8	2.98	0.51
23:AC:19:G:H4'	23:AC:20:G:OP1	2.10	0.51
2:AE:16:HIS:N	2:AE:16:HIS:ND1	2.56	0.51
3:AF:58:GLU:HB2	3:AF:65:ALA:HB3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:34:ASN:O	9:AL:38:GLN:HB2	2.10	0.51
25:BA:1388:G:C2'	25:BA:1389:G:H5'	2.39	0.51
25:BA:2119:A:N1	25:BA:2170:A:C5	2.78	0.51
25:BA:2261:C:O2'	25:BA:2262:U:H5'	2.10	0.51
25:BA:613:U:O2	25:BA:613:U:O4'	2.23	0.51
29:BF:32:LEU:C	29:BF:32:LEU:HD12	2.30	0.51
30:BG:131:TYR:O	30:BG:159:VAL:HG13	2.10	0.51
30:BG:2:PRO:HB3	50:B4:25:TYR:CE1	2.45	0.51
45:BV:48:PHE:CE2	45:BV:71:VAL:HG21	2.46	0.51
1:CA:1128:C:H2'	1:CA:1129:C:O5'	2.09	0.51
1:CA:116:A:C8	1:CA:116:A:OP2	2.64	0.51
1:CA:1213:A:N1	1:CA:1215:G:H1'	2.26	0.51
1:CA:1269:A:C2	1:CA:1313:U:H1'	2.45	0.51
22:CB:27:G:O6	22:CB:45:U:O2	2.28	0.51
23:CC:40:C:O5'	23:CC:40:C:H6	1.93	0.51
23:CD:71:G:C2'	23:CD:72:C:H5'	2.40	0.51
2:CE:239:VAL:O	2:CE:240:GLN:HB2	2.09	0.51
19:CV:18:LYS:HA	19:CV:21:GLU:HG2	1.93	0.51
41:D2:5:VAL:HB	41:D2:37:VAL:CG1	2.41	0.51
54:D8:32:LEU:HB2	54:D8:36:LYS:CE	2.39	0.51
25:DA:1011:G:OP1	40:D1:75:ASN:HB3	2.09	0.51
25:DA:1060:U:C2	25:DA:1088:A:H8	2.29	0.51
25:DA:1060:U:N3	25:DA:1088:A:H8	2.08	0.51
25:DA:1763:G:OP1	25:DA:1763:G:C4'	2.59	0.51
25:DA:2274:A:N1	25:DA:2276:G:H1'	2.26	0.51
25:DA:767:U:O2'	25:DA:768:G:H5'	2.11	0.51
25:DA:973:A:O4'	25:DA:1188:U:C6	2.64	0.51
26:DB:87:G:N2	26:DB:89(A):A:OP2	2.44	0.51
27:DD:96:HIS:CE1	27:DD:102:LYS:HD3	2.45	0.51
27:DD:27:THR:O	27:DD:28:GLU:HB2	2.11	0.51
27:DD:44:ASN:OD1	27:DD:44:ASN:N	2.43	0.51
39:DR:74:ARG:NH1	39:DR:74:ARG:CG	2.65	0.51
45:DV:59:LEU:HG	45:DV:69:THR:OG1	2.10	0.51
47:DZ:91:LYS:O	47:DZ:92:LYS:C	2.48	0.51
1:AA:644:G:H2'	1:AA:645:C:O4'	2.11	0.51
1:AA:81:G:H2'	1:AA:82:U:O4'	2.10	0.51
1:AA:926:G:C5'	1:AA:927:G:O5'	2.58	0.51
1:AA:941:G:N2	1:AA:942:G:H1'	2.25	0.51
23:AC:77:A:H5'	23:AC:77:A:C8	2.46	0.51
3:AF:20:SER:CB	3:AF:40:ARG:HH22	2.23	0.51
4:AG:126:ILE:CG2	4:AG:127:THR:N	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:141:ARG:HB3	4:AG:142:PRO:HD2	1.91	0.51
5:AH:142:LEU:O	5:AH:143:ARG:NH1	2.43	0.51
8:AK:64:LYS:O	8:AK:65:TYR:HD1	1.93	0.51
25:BA:1177:A:H5''	25:BA:1178:C:O5'	2.09	0.51
25:BA:125:G:C6	53:B7:10:ARG:HG3	2.45	0.51
25:BA:1760:A:O2'	25:BA:1761:C:H5'	2.10	0.51
25:BA:2148:G:H2'	25:BA:2149:G:H8	1.75	0.51
25:BA:2199:A:H5'	47:BZ:50:ARG:HH21	1.74	0.51
25:BA:910:A:N1	25:BA:2277:G:H1'	2.25	0.51
25:BA:2392:A:H2	25:BA:2424:C:N4	2.07	0.51
25:BA:930:U:O4'	25:BA:930:U:O2	2.26	0.51
28:BE:59:VAL:CG2	28:BE:73:GLU:HB3	2.38	0.51
44:BU:43:ASN:HA	44:BU:64:GLU:HA	1.93	0.51
48:BW:65:ASN:ND2	48:BW:69:ARG:HE	2.08	0.51
1:CA:1268:A:O2'	1:CA:1269:A:O5'	2.26	0.51
1:CA:67:C:H2'	1:CA:68:G:C8	2.45	0.51
22:CB:66:U:O2	22:CB:68:A:N7	2.44	0.51
2:CE:48:MET:HA	2:CE:51:LEU:HB2	1.92	0.51
2:CE:56:ARG:HH11	2:CE:56:ARG:HA	1.75	0.51
3:CF:6:HIS:NE2	3:CF:184:TYR:CE2	2.79	0.51
15:CR:76:GLU:HA	15:CR:79:ARG:HD2	1.91	0.51
37:D0:117:VAL:O	37:D0:118:GLU:HB2	2.11	0.51
40:D1:95:LEU:HD21	41:D2:13:ARG:HB2	1.91	0.51
41:D2:61:VAL:O	41:D2:61:VAL:HG13	2.10	0.51
54:D8:52:LYS:HD3	54:D8:52:LYS:H	1.75	0.51
25:DA:83:G:N2	25:DA:103:A:OP2	2.43	0.51
25:DA:2057:A:HO2'	25:DA:2058:A:H5'	1.76	0.51
25:DA:954:G:O2'	25:DA:2274:A:N1	2.41	0.51
25:DA:2446:G:C3'	25:DA:2447:G:H5''	2.40	0.51
25:DA:305:U:H2'	25:DA:306:U:C6	2.46	0.51
25:DA:4:C:H2'	25:DA:5:A:O4'	2.11	0.51
25:DA:743:G:C2'	25:DA:744:G:H5'	2.41	0.51
31:DH:169:VAL:HG22	31:DH:170:ARG:H	1.76	0.51
34:DN:8:LEU:HD13	34:DN:82:ASN:HB3	1.92	0.51
35:DO:122:PRO:CB	35:DO:141:ALA:HB1	2.39	0.51
36:DP:20:ALA:O	36:DP:21:THR:CB	2.58	0.51
44:DU:84:ARG:O	44:DU:84:ARG:HG3	2.11	0.51
45:DV:23:LYS:HD3	45:DV:39:VAL:O	2.11	0.51
1:AA:1256:A:H4'	1:AA:1258:G:C4	2.45	0.51
2:AE:130:ARG:HH21	2:AE:138:LEU:HD11	1.75	0.51
2:AE:91:PRO:HG3	2:AE:155:LEU:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:31:TYR:O	2:AE:42:ILE:HG13	2.10	0.51
3:AF:11:ARG:HH21	3:AF:180:ALA:HB3	1.74	0.51
3:AF:50:ALA:O	3:AF:70:VAL:HG13	2.10	0.51
4:AG:117:ALA:O	4:AG:121:VAL:HG23	2.10	0.51
11:AN:121:PRO:HG2	11:AN:126:ARG:CG	2.34	0.51
30:BG:67:LYS:HG2	50:B4:5:ILE:HG23	1.93	0.51
52:B6:40:CYS:HA	52:B6:46:HIS:CA	2.34	0.51
25:BA:1526:G:H2'	25:BA:1527:G:O4'	2.11	0.51
25:BA:1800:C:H5''	27:BD:147:LEU:HD21	1.91	0.51
25:BA:1266:G:O2'	25:BA:2012:G:O6	2.20	0.51
25:BA:330:A:C2	25:BA:1210:A:H2'	2.44	0.51
25:BA:883:G:N2	25:BA:893:C:N3	2.52	0.51
26:BB:0:A:H2'	26:BB:1:U:C6	2.46	0.51
27:BD:272:ALA:HB1	27:BD:273:ARG:HA	0.68	0.51
28:BE:119:ARG:HD3	28:BE:160:TYR:CD2	2.46	0.51
30:BG:7:LEU:HD23	30:BG:100:TRP:HZ3	1.74	0.51
32:BK:99:GLU:O	32:BK:102:SER:HB2	2.10	0.51
38:BQ:93:LYS:HG2	38:BQ:95:HIS:HB2	1.92	0.51
43:BT:55:ASN:HB2	43:BT:80:ILE:HG13	1.93	0.51
1:CA:1162:C:N4	1:CA:1174:G:H1	2.06	0.51
1:CA:1267:C:O2	1:CA:1267:C:C2'	2.59	0.51
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.11	0.51
1:CA:374:A:C6	1:CA:375:U:C4	2.99	0.51
1:CA:1112:C:C2	3:CF:178:LEU:HB2	2.46	0.51
5:CH:102:ALA:HB2	5:CH:120:THR:OG1	2.11	0.51
7:CJ:65:ALA:O	7:CJ:69:VAL:HG23	2.10	0.51
53:D7:12:ARG:NH2	53:D7:44:PRO:HB3	2.26	0.51
25:DA:330:A:H2	25:DA:1210:A:H2'	1.76	0.51
25:DA:2209:C:O2	25:DA:2216:G:C2	2.63	0.51
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.46	0.51
25:DA:2447:G:H1'	25:DA:2448:A:OP2	2.10	0.51
25:DA:2571:C:C5'	25:DA:2572:A:H5''	2.35	0.51
25:DA:2750:A:C8	25:DA:2752:C:N4	2.76	0.51
25:DA:2779:U:O4'	25:DA:2779:U:O2	2.29	0.51
25:DA:607:U:N3	25:DA:621:A:C2	2.71	0.51
25:DA:260:G:O4'	25:DA:621:A:H1'	2.11	0.51
25:DA:971:C:H2'	25:DA:972:G:C5'	2.41	0.51
26:DB:1:U:H2'	26:DB:2:C:O4'	2.10	0.51
25:DA:705:A:H1'	27:DD:9:TYR:CE1	2.46	0.51
29:DF:51:THR:HG21	29:DF:92:PRO:HD2	1.93	0.51
31:DH:136:ILE:O	31:DH:137:ASP:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:58:PHE:C	36:DP:60:ARG:H	2.13	0.51
38:DQ:38:GLN:OE1	38:DQ:47:THR:OG1	2.22	0.51
45:DV:156:LYS:O	45:DV:157:LEU:HB2	2.09	0.51
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.50	0.51
1:AA:191:G:C4	20:AW:105:SER:HB2	2.45	0.51
22:AB:64:G:O2'	22:AB:65:U:H5'	2.11	0.51
23:AD:10:G:C6	23:AD:27:G:N2	2.79	0.51
16:AS:51:VAL:HG12	16:AS:52:ASP:N	2.26	0.51
20:AW:89:ARG:NH2	20:AW:104:LEU:HD11	2.23	0.51
1:AA:1305:G:H5''	21:AX:4:GLY:C	2.31	0.51
52:B6:28:ARG:NH1	52:B6:28:ARG:HB3	2.26	0.51
52:B6:48:VAL:O	52:B6:49:HIS:HB2	2.11	0.51
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.93	0.51
25:BA:1449(A):G:H2'	25:BA:1450:C:H6	1.76	0.51
25:BA:1403:C:C5'	25:BA:1471:A:H1'	2.38	0.51
25:BA:1937:A:H1'	25:BA:1938:A:OP1	2.11	0.51
25:BA:511:U:C5	25:BA:512:G:C5	2.99	0.51
25:BA:57:C:H2'	25:BA:58:G:O4'	2.11	0.51
27:BD:134:ARG:HG3	27:BD:135:PHE:CE2	2.46	0.51
25:BA:1952:A:C4	34:BN:22:ILE:HG13	2.46	0.51
36:BP:88:GLY:O	36:BP:90:VAL:O	2.29	0.51
49:BX:8:LEU:HD13	49:BX:31:LEU:CD2	2.41	0.51
1:CA:977:A:C2	1:CA:1224:G:C6	2.98	0.51
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.24	0.51
1:CA:243:A:C2	1:CA:245:C:C2	2.99	0.51
1:CA:575:G:H4'	1:CA:576:G:OP1	2.10	0.51
1:CA:757:U:H2'	1:CA:758:G:O4'	2.11	0.51
1:CA:952:U:C5	13:CP:104:ARG:NH2	2.74	0.51
1:CA:960:U:O2	1:CA:960:U:C2'	2.59	0.51
23:CC:35:C:O2	23:CC:36:A:C8	2.64	0.51
2:CE:136:VAL:O	2:CE:139:LYS:HB3	2.11	0.51
5:CH:43:LEU:HD22	5:CH:136:MET:HG3	1.93	0.51
5:CH:63:ARG:HA	5:CH:66:MET:CE	2.41	0.51
6:CI:69:GLU:N	6:CI:69:GLU:OE1	2.26	0.51
19:CV:65:ASN:HB2	19:CV:66:MET:CE	2.39	0.51
25:DA:1170:G:O6	25:DA:1179:C:N3	2.44	0.51
25:DA:1341:U:H2'	25:DA:1397:U:O2	2.11	0.51
25:DA:2346:A:H5'	25:DA:2383:G:H1'	1.93	0.51
25:DA:729:G:C6	27:DD:208:LYS:HB2	2.46	0.51
25:DA:833:U:O2	35:DO:55:ARG:NH1	2.40	0.51
27:DD:35:LYS:CE	27:DD:104:TYR:CD1	2.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:36:PRO:HA	27:DD:62:TYR:O	2.11	0.51
28:DE:134:ILE:HA	28:DE:137:HIS:CD2	2.46	0.51
31:DH:102:ALA:HA	31:DH:117:PRO:HD3	1.92	0.51
33:DM:137:LYS:HA	33:DM:137:LYS:NZ	2.25	0.51
25:DA:748:G:C8	42:DS:89:ALA:HB1	2.46	0.51
43:DT:36:LYS:HD2	43:DT:56:THR:OG1	2.11	0.51
48:DW:41:ILE:CD1	48:DW:44:LEU:HG	2.37	0.51
1:AA:1436:U:H2'	1:AA:1437:C:O4'	2.10	0.51
1:AA:533:A:C2	1:AA:536:C:C5	2.98	0.51
1:AA:673:G:H5''	6:AI:87:ARG:NH1	2.26	0.51
2:AE:19:HIS:HD2	2:AE:20:GLU:OE1	1.93	0.51
11:AN:18:ARG:HB3	11:AN:33:THR:OG1	2.11	0.51
40:B1:50:ARG:HG2	40:B1:53:ARG:NH2	2.25	0.51
52:B6:11:LEU:HD11	52:B6:51:GLU:OE2	2.11	0.51
25:BA:1535:U:H3'	25:BA:1536:A:C5'	2.38	0.51
25:BA:2031:A:C6	25:BA:2498:C:H1'	2.45	0.51
25:BA:2135:A:N6	25:BA:2156:G:O2'	2.43	0.51
25:BA:2264:C:H2'	25:BA:2264:C:O2	2.11	0.51
25:BA:2287:A:N1	25:BA:2346:A:H2	2.09	0.51
25:BA:2291:U:O2'	25:BA:2374:C:O2	2.28	0.51
30:BG:115:ARG:O	30:BG:116:ASP:HB2	2.10	0.51
30:BG:133:LEU:HD21	30:BG:157:ILE:HB	1.93	0.51
30:BG:172:LEU:O	30:BG:176:LEU:HD12	2.11	0.51
30:BG:107:LEU:HD11	30:BG:178:PHE:CE1	2.46	0.51
32:BK:110:ASP:HB3	32:BK:111:PRO:C	2.30	0.51
35:BO:94:GLU:HA	35:BO:94:GLU:OE2	2.11	0.51
36:BP:105:GLU:HG2	36:BP:105:GLU:O	2.11	0.51
39:BR:61:PHE:CD2	39:BR:61:PHE:N	2.79	0.51
44:BU:19:LYS:HG2	44:BU:20:TYR:CD1	2.46	0.51
1:CA:485:G:H1'	1:CA:486:U:H5	1.75	0.51
1:CA:555:C:H2'	1:CA:556:C:C6	2.46	0.51
1:CA:677:U:H3	1:CA:713:G:H22	1.59	0.51
23:CD:15:G:H22	23:CD:60:A:H1'	1.76	0.51
7:CJ:86:GLN:HE22	23:CD:32:G:H21	1.58	0.51
23:CD:52:C:C2	23:CD:53:G:C8	2.99	0.51
2:CE:32:ILE:HG13	2:CE:32:ILE:O	2.06	0.51
3:CF:199:LYS:HG2	3:CF:201:TYR:HE1	1.76	0.51
5:CH:36:ASP:OD2	5:CH:38:GLN:HB2	2.10	0.51
9:CL:8:GLY:HA2	9:CL:79:LEU:HD12	1.93	0.51
10:CM:6:ILE:HG22	10:CM:98:ILE:HG23	1.91	0.51
13:CP:66:LEU:HA	13:CP:70:LEU:HD12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:29:ARG:O	14:CQ:30:ALA:CB	2.59	0.51
20:CW:75:ASN:N	20:CW:75:ASN:OD1	2.44	0.51
25:DA:1444(A):A:H4'	25:DA:1460:A:H2'	1.93	0.51
25:DA:21:A:O2'	25:DA:22:C:H5'	2.11	0.51
25:DA:2439:A:C5'	25:DA:2439:A:H8	2.22	0.51
25:DA:912:C:C2	25:DA:913:U:C5	2.98	0.51
27:DD:58:HIS:HD2	27:DD:59:LYS:O	1.93	0.51
28:DE:13:ARG:O	39:DR:57:PHE:HE1	1.93	0.51
25:DA:2784:C:O2	28:DE:37:ARG:NH2	2.43	0.51
35:DO:98:GLU:O	35:DO:102:ARG:HB2	2.11	0.51
36:DP:59:ARG:NH2	36:DP:59:ARG:CG	2.71	0.51
49:DX:23:LEU:HD11	49:DX:53:LEU:CD1	2.41	0.51
49:DX:23:LEU:HD11	49:DX:53:LEU:HD11	1.92	0.51
1:AA:989:C:N4	1:AA:1216:G:H1	2.09	0.51
2:AE:39:ILE:HG22	2:AE:40:HIS:O	2.11	0.51
12:AO:39:VAL:HG12	12:AO:41:ARG:HG2	1.92	0.51
13:AP:25:ILE:HD11	13:AP:60:VAL:CG1	2.41	0.51
16:AS:58:TYR:C	16:AS:58:TYR:HD1	2.15	0.51
40:B1:58:ARG:HA	40:B1:61:TRP:CE3	2.46	0.51
13:AP:61:GLU:O	50:B4:49:PHE:HE2	1.93	0.51
50:B4:59:PHE:HA	50:B4:62:ARG:HG2	1.93	0.51
51:B5:51:TYR:H	51:B5:56:LYS:HB3	1.76	0.51
25:BA:2862:G:C5	25:BA:2863:C:C5	2.99	0.51
25:BA:444:C:C4'	29:BF:49:ALA:HB2	2.41	0.51
28:BE:23:VAL:CG1	28:BE:185:LYS:CB	2.57	0.51
33:BM:7:LYS:HD2	33:BM:7:LYS:H	1.75	0.51
36:BP:57:HIS:ND1	36:BP:117:ALA:HB2	2.26	0.51
38:BQ:51:ALA:HB3	38:BQ:73:LEU:HG	1.92	0.51
39:BR:74:ARG:HD3	39:BR:76:PHE:HZ	1.75	0.51
37:B0:103:ARG:NH1	42:BS:40:ASN:HD22	2.06	0.51
25:BA:751:A:H5'	42:BS:90:ARG:HA	1.93	0.51
1:CA:1027:C:O2'	1:CA:1028:C:O5'	2.28	0.51
1:CA:1002:G:H1	1:CA:1038:C:H42	1.58	0.51
1:CA:57:G:C5	1:CA:58:C:C4	2.99	0.51
23:CD:54:G:H2'	23:CD:55:U:H6	1.76	0.51
2:CE:215:LEU:O	2:CE:219:VAL:HG12	2.11	0.51
2:CE:6:THR:HG23	2:CE:7:VAL:N	2.25	0.51
4:CG:91:SER:OG	4:CG:191:ARG:HG3	2.11	0.51
1:CA:877:C:H5''	8:CK:88:LYS:HE3	1.93	0.51
9:CL:97:LYS:HG3	9:CL:98:PRO:N	2.26	0.51
17:CT:45:HIS:CD2	17:CT:47:PRO:HD3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:66:MET:CE	50:D4:55:ARG:HB2	2.41	0.51
25:DA:2816:C:O3'	37:D0:99:LYS:NZ	2.44	0.51
54:D8:52:LYS:C	54:D8:54:GLU:H	2.15	0.51
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.46	0.51
25:DA:2138:C:H42	25:DA:2153:G:H1	1.59	0.51
25:DA:43:G:H2'	25:DA:44:A:O4'	2.11	0.51
33:DM:90:MET:SD	33:DM:97:ARG:HB3	2.50	0.51
35:DO:134:ALA:O	35:DO:138:LEU:HD12	2.11	0.51
35:DO:65:ARG:CG	35:DO:65:ARG:NH1	2.58	0.51
25:DA:1599:C:C5'	43:DT:35:THR:HG22	2.39	0.51
45:DV:108:PRO:O	45:DV:143:GLY:HA3	2.11	0.51
47:DZ:87:PRO:CA	47:DZ:90:ILE:HG23	2.30	0.51
1:AA:185:A:H2'	1:AA:186:C:H6	1.75	0.50
1:AA:428:G:O4'	1:AA:430:A:C8	2.64	0.50
1:AA:953:G:C5'	1:AA:965:A:H61	2.23	0.50
23:AC:24:C:H2'	23:AC:25:U:C6	2.46	0.50
23:AC:59:A:C5	23:AC:62:C:N3	2.79	0.50
23:AD:67:C:N4	23:AD:68:C:H41	2.07	0.50
23:AD:71:G:C2'	23:AD:72:C:H5'	2.40	0.50
4:AG:86:LYS:HD2	4:AG:86:LYS:H	1.75	0.50
9:AL:97:LYS:HB3	9:AL:98:PRO:HD3	1.93	0.50
41:B2:34:GLU:HA	41:B2:57:VAL:O	2.10	0.50
54:B8:36:LYS:CG	54:B8:40:GLU:HG2	2.40	0.50
25:BA:242:G:C5'	54:B8:62:LEU:HD13	2.40	0.50
25:BA:1386:C:OP2	25:BA:1396:U:H5	1.94	0.50
25:BA:2564:A:C2	25:BA:2647:U:H4'	2.46	0.50
25:BA:2689:U:C4'	25:BA:2690:C:OP2	2.58	0.50
25:BA:26:G:C6	25:BA:27:G:N1	2.79	0.50
25:BA:2774:C:H2'	25:BA:2775:A:O4'	2.11	0.50
25:BA:2811:G:H2'	25:BA:2812:G:H5'	1.92	0.50
25:BA:287:C:H2'	25:BA:288:C:C6	2.46	0.50
27:BD:25:THR:HG22	27:BD:26:LYS:N	2.25	0.50
29:BF:7:TYR:CD1	29:BF:7:TYR:N	2.78	0.50
33:BM:32:THR:HG22	33:BM:37:LYS:HB2	1.93	0.50
25:BA:2496:C:P	36:BP:81:VAL:HG13	2.51	0.50
1:CA:1009:G:C2	1:CA:1010:G:C8	2.99	0.50
1:CA:1122:U:N3	1:CA:1123:A:N7	2.59	0.50
1:CA:1128:C:C2'	1:CA:1129:C:O5'	2.59	0.50
1:CA:439:A:H2'	1:CA:440:A:O5'	2.11	0.50
8:CK:136:GLU:HG3	8:CK:136:GLU:O	2.10	0.50
11:CN:63:LEU:N	11:CN:63:LEU:HD23	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CU:29:PHE:HD2	18:CU:29:PHE:N	2.09	0.50
46:D3:53:MET:HA	46:D3:58:THR:O	2.12	0.50
54:D8:33:ASN:O	54:D8:34:TRP:HD1	1.87	0.50
54:D8:52:LYS:CB	54:D8:53:PRO:CD	2.90	0.50
25:DA:1144:G:C2	25:DA:1145:C:C2	2.99	0.50
25:DA:1531:C:H42	25:DA:1540:G:H1	1.59	0.50
25:DA:2129:C:C2'	25:DA:2130:U:H5'	2.41	0.50
25:DA:226:G:N2	25:DA:228:A:H62	1.82	0.50
25:DA:2682:U:C5	28:DE:11:MET:HE1	2.46	0.50
25:DA:2777:G:C5'	25:DA:2778:A:H5'	2.30	0.50
25:DA:2513:G:N2	28:DE:143:ASN:HD21	2.09	0.50
25:DA:270(L):U:H3	32:DK:50:ARG:NH1	2.09	0.50
35:DO:124:LYS:HA	35:DO:143:GLY:O	2.11	0.50
39:DR:93:ARG:CG	39:DR:117:ASP:HB2	2.40	0.50
39:DR:26:ASP:HB2	39:DR:90:GLN:O	2.11	0.50
47:DZ:19:GLN:HB2	47:DZ:35:THR:O	2.11	0.50
1:AA:1002:G:C4	1:AA:1003:G:C8	2.99	0.50
1:AA:1298:C:H4'	1:AA:1299:A:N9	2.24	0.50
1:AA:389:A:H2'	1:AA:390:C:H5'	1.94	0.50
23:AC:2:G:H2'	23:AC:3:C:H6	1.77	0.50
23:AD:6:G:H2'	23:AD:7:G:H8	1.77	0.50
2:AE:237:ALA:H	2:AE:239:VAL:HG23	1.76	0.50
4:AG:7:PRO:HB2	4:AG:10:ARG:HD2	1.92	0.50
8:AK:51:VAL:HG11	8:AK:60:ARG:HG3	1.93	0.50
9:AL:22:GLY:HA3	9:AL:60:ASP:CG	2.32	0.50
18:AU:22:VAL:HA	18:AU:25:THR:OG1	2.11	0.50
25:BA:1065:U:H1'	25:BA:1074:G:N2	2.26	0.50
25:BA:1510:A:H4'	25:BA:1510:A:OP1	2.10	0.50
25:BA:1528:A:C2	25:BA:1543:A:N1	2.79	0.50
25:BA:2133:G:N3	25:BA:2158:A:N6	2.58	0.50
25:BA:236:C:H2'	25:BA:237:C:C6	2.47	0.50
25:BA:2701:C:C3'	25:BA:2702:U:H5''	2.39	0.50
25:BA:660:G:N2	35:BO:12:ALA:HA	2.26	0.50
25:BA:88:G:O2'	25:BA:89:G:H5'	2.11	0.50
27:BD:35:LYS:CB	27:BD:64:ILE:H	2.24	0.50
30:BG:124:SER:HB2	30:BG:131:TYR:CE1	2.46	0.50
31:BH:11:VAL:CB	31:BH:12:PRO:HD2	2.37	0.50
35:BO:38:GLN:HG2	35:BO:45:LEU:CD1	2.41	0.50
38:BQ:85:VAL:CG2	38:BQ:112:PHE:HE1	2.15	0.50
44:BU:84:ARG:HH12	44:BU:97:ARG:HB2	1.76	0.50
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1392:G:N2	1:CA:1502:A:C8	2.76	0.50
1:CA:358:U:H2'	1:CA:359:U:H6	1.76	0.50
1:CA:961:U:OP2	1:CA:1223:C:O2'	2.17	0.50
23:CD:55:U:N3	23:CD:56:U:H5	2.07	0.50
1:CA:1128:C:C5'	9:CL:16:ARG:HH22	2.24	0.50
1:CA:972:C:OP2	10:CM:57:LYS:CD	2.59	0.50
11:CN:34:ASP:HB2	11:CN:35:PRO:HD2	1.93	0.50
18:CU:22:VAL:CG2	18:CU:23:LYS:N	2.75	0.50
25:DA:1653:G:C6	37:D0:9:LYS:HB2	2.46	0.50
50:D4:50:VAL:O	50:D4:51:ASP:CG	2.50	0.50
52:D6:11:LEU:HD23	52:D6:26:ASN:CB	2.35	0.50
52:D6:17:LYS:NZ	52:D6:17:LYS:HA	2.27	0.50
25:DA:1061:U:H4'	25:DA:1070:A:O2'	2.12	0.50
25:DA:1089:G:H5''	25:DA:1090:U:OP1	2.10	0.50
25:DA:1169:G:N2	25:DA:1181:C:C2	2.79	0.50
25:DA:1283:G:N2	25:DA:1285:G:H3'	2.26	0.50
25:DA:1313:U:H2'	25:DA:1610:A:C2	2.46	0.50
25:DA:1784:A:H4'	25:DA:1785:A:H5''	1.91	0.50
25:DA:1791:A:OP2	25:DA:1791:A:H8	1.94	0.50
25:DA:2468:G:C4	25:DA:2481:G:N2	2.79	0.50
25:DA:2795:G:C3'	25:DA:2797:U:H5''	2.36	0.50
25:DA:2847:U:C2'	25:DA:2848:G:H5'	2.42	0.50
25:DA:528:A:O2'	25:DA:529:A:H5'	2.11	0.50
25:DA:627:A:H4'	25:DA:628:G:OP1	2.10	0.50
27:DD:33:LEU:HD23	27:DD:34:VAL:N	2.26	0.50
25:DA:2575:C:H5'	28:DE:143:ASN:O	2.10	0.50
28:DE:173:VAL:N	28:DE:183:LEU:O	2.37	0.50
29:DF:116:ASP:O	29:DF:120:GLU:HG2	2.11	0.50
30:DG:111:LEU:O	30:DG:117:PHE:HD2	1.93	0.50
30:DG:43:LEU:HD12	30:DG:45:GLU:HG3	1.92	0.50
31:DH:26:VAL:HG13	31:DH:27:LYS:H	1.75	0.50
25:DA:2751:G:N2	31:DH:2:SER:N	2.58	0.50
28:DE:12:THR:HG22	39:DR:58:ASN:ND2	2.27	0.50
47:DZ:91:LYS:O	47:DZ:93:GLU:HB2	2.10	0.50
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.46	0.50
1:AA:1392:G:C2'	1:AA:1393:U:H5'	2.42	0.50
1:AA:972:C:OP2	10:AM:57:LYS:HE2	2.11	0.50
1:AA:991:U:H2'	1:AA:1212:U:O2	2.11	0.50
2:AE:178:ARG:HH22	2:AE:196:LEU:CA	2.23	0.50
2:AE:220:ASP:O	2:AE:223:ILE:HG13	2.10	0.50
13:AP:7:VAL:HB	30:BG:115:ARG:HH22	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1060:U:C4'	25:BA:1061:U:O5'	2.59	0.50
25:BA:1502:C:C2'	25:BA:1503:U:H5'	2.41	0.50
25:BA:2168:G:N2	25:BA:2170:A:P	2.84	0.50
25:BA:2329:G:H2'	25:BA:2330:G:C8	2.47	0.50
25:BA:2790:A:H2	25:BA:2894:G:C5'	2.25	0.50
26:BB:1(M):A:C2'	26:BB:0:A:H5'	2.41	0.50
26:BB:7:G:H2'	26:BB:8:U:O4'	2.11	0.50
27:BD:28:GLU:O	27:BD:29:PRO:C	2.49	0.50
28:BE:38:THR:C	28:BE:40:GLU:N	2.64	0.50
32:BK:35:LEU:O	32:BK:36:ALA:HB2	2.10	0.50
35:BO:86:LYS:HB3	35:BO:118:GLY:HA3	1.94	0.50
25:BA:2875:C:H4'	39:BR:5:ALA:HB2	1.93	0.50
45:BV:142:SER:HB3	45:BV:143:GLY:HA2	1.94	0.50
1:CA:1015:A:N6	1:CA:1016:A:C6	2.79	0.50
1:CA:1040:U:H2'	1:CA:1041:A:C8	2.46	0.50
1:CA:1139:G:N2	1:CA:1143:G:N1	2.50	0.50
1:CA:624:C:H2'	1:CA:625:G:H8	1.76	0.50
2:CE:69:LEU:HD21	2:CE:93:VAL:HG23	1.92	0.50
4:CG:150:GLU:O	4:CG:152:SER:N	2.43	0.50
4:CG:190:ASP:OD1	4:CG:191:ARG:N	2.45	0.50
6:CI:96:PRO:HB3	18:CU:30:ASP:CG	2.32	0.50
8:CK:11:THR:HG22	8:CK:15:ASN:ND2	2.27	0.50
1:CA:878:G:H5'	8:CK:89:PRO:HG2	1.93	0.50
13:CP:15:VAL:HG13	13:CP:43:THR:O	2.11	0.50
18:CU:22:VAL:O	18:CU:23:LYS:HB3	2.10	0.50
25:DA:2013:A:N6	25:DA:2014:A:C6	2.79	0.50
25:DA:2128:C:H42	25:DA:2160:G:H1	1.57	0.50
25:DA:2139:C:H2'	25:DA:2140:C:H5'	1.93	0.50
25:DA:2393:A:H5"	54:D8:30:ARG:HG2	1.93	0.50
25:DA:2712:U:O2'	25:DA:2712(A):A:P	2.69	0.50
25:DA:394:A:H5"	25:DA:395:U:OP2	2.11	0.50
25:DA:460:A:C2	25:DA:470:A:C4	2.99	0.50
25:DA:631:A:H2'	25:DA:632:A:O4'	2.10	0.50
25:DA:90:U:O2	25:DA:90:U:C2'	2.59	0.50
25:DA:93:C:H5'	25:DA:94:G:OP2	2.11	0.50
26:DB:10:C:C4	26:DB:11:C:C5	2.98	0.50
26:DB:46:A:H2'	26:DB:47:C:C6	2.46	0.50
28:DE:62:PRO:C	28:DE:64:LYS:N	2.63	0.50
49:DX:31:LEU:O	49:DX:32:GLN:HB2	2.12	0.50
1:AA:156:G:H1	1:AA:165:C:N4	2.07	0.50
2:AE:87:ARG:NH1	2:AE:220:ASP:OD1	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:5:ILE:HG13	2:AE:6:THR:N	2.25	0.50
3:AF:27:LYS:HZ3	3:AF:27:LYS:HA	1.76	0.50
1:AA:437:U:C5'	4:AG:155:LEU:HD22	2.40	0.50
5:AH:147:ASP:N	5:AH:147:ASP:OD2	2.45	0.50
1:AA:975:A:H62	10:AM:60:ARG:HH12	1.58	0.50
1:AA:750:G:N3	15:AR:23:GLY:HA3	2.26	0.50
16:AS:58:TYR:C	16:AS:58:TYR:CD1	2.84	0.50
16:AS:56:ALA:O	16:AS:60:LEU:HD12	2.11	0.50
25:BA:1983:C:O2'	25:BA:1984:G:H5'	2.10	0.50
25:BA:2116:G:P	25:BA:2165:G:N2	2.82	0.50
25:BA:2135:A:H2'	25:BA:2136:C:O5'	2.11	0.50
25:BA:2886:G:H2'	25:BA:2887:U:H6	1.75	0.50
25:BA:2893:G:H4'	25:BA:2894:G:O4'	2.11	0.50
25:BA:304:G:C2	25:BA:314:A:C2	3.00	0.50
25:BA:654(T):A:H2'	25:BA:654(U):A:O4'	2.12	0.50
27:BD:6:PHE:CE1	27:BD:18:VAL:CG2	2.94	0.50
28:BE:23:VAL:CG1	28:BE:185:LYS:CA	2.69	0.50
31:BH:30:LYS:CD	31:BH:81:GLU:H	2.11	0.50
33:BM:47:ALA:CB	33:BM:112:LEU:HD11	2.19	0.50
36:BP:65:PHE:O	36:BP:66:ILE:CG1	2.57	0.50
42:BS:70:TYR:HE2	42:BS:108:GLY:HA3	1.76	0.50
44:BU:42:VAL:O	44:BU:42:VAL:CG1	2.60	0.50
1:CA:1266:G:N2	1:CA:1269:A:OP2	2.44	0.50
1:CA:1403:C:O2'	1:CA:1404:C:H5'	2.11	0.50
1:CA:339:C:C2'	1:CA:340:U:H5'	2.41	0.50
22:CB:21:A:C4'	22:CB:22:G:OP1	2.60	0.50
22:CB:26:C:H5'	22:CB:27:G:OP2	2.11	0.50
4:CG:9:CYS:CA	4:CG:12:CYS:HB2	2.41	0.50
10:CM:30:SER:HB2	10:CM:81:THR:HG22	1.94	0.50
14:CQ:37:PHE:HE1	14:CQ:53:LEU:HD13	1.75	0.50
16:CS:74:LEU:HD13	16:CS:79:VAL:HG21	1.92	0.50
20:CW:51:GLU:HA	20:CW:54:LYS:HE3	1.93	0.50
46:D3:12:ASN:HA	46:D3:14:ARG:HH21	1.76	0.50
25:DA:2393:A:P	54:D8:30:ARG:HB2	2.52	0.50
54:D8:33:ASN:C	54:D8:34:TRP:HD1	2.15	0.50
25:DA:1557:C:H5''	25:DA:1558:A:OP2	2.11	0.50
25:DA:2861:G:O2'	25:DA:2862:G:H5'	2.11	0.50
27:DD:35:LYS:NZ	27:DD:64:ILE:O	2.45	0.50
28:DE:167:VAL:HG12	28:DE:170:LEU:HD11	1.93	0.50
29:DF:110:LEU:HD21	29:DF:181:LEU:HD22	1.94	0.50
33:DM:38:HIS:CE1	33:DM:39:ARG:HG3	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:10:ARG:HE	36:DP:10:ARG:HA	1.75	0.50
39:DR:22:PHE:HE2	39:DR:86:ILE:HD11	1.74	0.50
44:DU:76:CYS:HB3	44:DU:96:ILE:HD11	1.94	0.50
45:DV:108:PRO:HB3	45:DV:143:GLY:N	2.26	0.50
47:DZ:89:GLU:HA	47:DZ:93:GLU:HG3	1.93	0.50
1:AA:1028(A):C:N4	1:AA:1028(B):C:H41	2.09	0.50
1:AA:1032(B):G:C6	1:AA:1033:G:C6	2.99	0.50
1:AA:1160:G:O6	1:AA:1181:G:C6	2.64	0.50
1:AA:352:C:O2'	1:AA:354:G:OP1	2.25	0.50
1:AA:464:G:C6	1:AA:466:C:H5'	2.47	0.50
22:AB:24:C:H3'	22:AB:24:C:H6	1.76	0.50
23:AD:60:A:H2'	23:AD:61:U:H5'	1.93	0.50
23:AD:67:C:N3	23:AD:68:C:C4	2.79	0.50
2:AE:100:GLY:O	2:AE:104:ASN:N	2.42	0.50
4:AG:12:CYS:HA	4:AG:19:LEU:CD2	2.41	0.50
8:AK:16:ALA:HB2	8:AK:24:THR:HG21	1.92	0.50
54:B8:29:LYS:CD	54:B8:29:LYS:O	2.59	0.50
54:B8:39:LYS:O	54:B8:43:GLN:HG3	2.12	0.50
54:B8:52:LYS:H	54:B8:53:PRO:HD2	1.74	0.50
25:BA:1300:U:H4'	25:BA:1301:A:H5'	1.92	0.50
25:BA:1472:A:H2'	25:BA:1473:G:O4'	2.12	0.50
25:BA:1509:C:N4	25:BA:1511:A:N6	2.58	0.50
25:BA:155:C:N4	25:BA:171:G:H1	2.09	0.50
25:BA:2188:C:H2'	25:BA:2189:U:O4'	2.12	0.50
25:BA:2206:C:H2'	25:BA:2207:C:H6	1.76	0.50
25:BA:236:C:H2'	25:BA:237:C:H6	1.76	0.50
25:BA:302:C:H2'	25:BA:303:U:H6	1.75	0.50
25:BA:826:U:H2'	25:BA:828:U:O4'	2.12	0.50
25:BA:974(A):C:H4'	25:BA:975:G:O5'	2.12	0.50
27:BD:77:ALA:HB2	27:BD:97:TYR:HA	1.94	0.50
31:BH:4:ILE:HG21	31:BH:6:ARG:CZ	2.40	0.50
36:BP:78:PRO:C	36:BP:79:LEU:HD12	2.31	0.50
39:BR:56:GLY:O	39:BR:59:THR:CG2	2.56	0.50
1:CA:1166:G:C2	1:CA:1171:G:C6	2.99	0.50
1:CA:1227:A:OP1	19:CV:80:TYR:OH	2.23	0.50
1:CA:1238:A:N7	1:CA:1303:C:H1'	2.27	0.50
1:CA:1413:A:H2'	1:CA:1414:U:O4'	2.11	0.50
1:CA:340:U:H3	1:CA:349:A:H61	1.59	0.50
1:CA:57:G:C6	1:CA:58:C:N4	2.80	0.50
1:CA:309:G:O2'	1:CA:607:A:N1	2.44	0.50
1:CA:672:U:H2'	1:CA:672:U:O2	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:953:G:H5'	1:CA:965:A:H61	1.77	0.50
2:CE:121:LEU:O	2:CE:121:LEU:HD23	2.12	0.50
2:CE:5:ILE:CD1	2:CE:55:PHE:HB3	2.42	0.50
3:CF:64:VAL:CG2	3:CF:66:VAL:HG23	2.41	0.50
4:CG:120:LEU:HD22	4:CG:158:ILE:HD11	1.93	0.50
6:CI:76:ALA:HB1	6:CI:80:ARG:HH21	1.76	0.50
7:CJ:97:GLN:NE2	7:CJ:101:LEU:HD11	2.25	0.50
9:CL:4:TYR:HA	9:CL:88:TYR:CE1	2.47	0.50
10:CM:99:LYS:HD3	10:CM:100:THR:H	1.77	0.50
13:CP:10:PRO:HB2	13:CP:18:ALA:HB1	1.94	0.50
25:DA:997:G:OP1	40:D1:93:LYS:HD2	2.12	0.50
41:D2:47:VAL:O	41:D2:47:VAL:HG22	2.11	0.50
25:DA:2211:G:H4'	25:DA:2212:A:OP2	2.11	0.50
25:DA:2748:A:C2	25:DA:2749:A:C4	2.99	0.50
25:DA:2833:G:H8	25:DA:2833:G:OP1	1.95	0.50
25:DA:483:A:H4'	44:DU:49:VAL:HA	1.92	0.50
25:DA:57:C:H2'	25:DA:58:G:O4'	2.11	0.50
25:DA:654(B):C:C2	25:DA:654(T):A:H2	2.29	0.50
25:DA:864:G:O6	25:DA:865:C:N4	2.43	0.50
25:DA:947:G:H2'	25:DA:948:G:C8	2.47	0.50
26:DB:109:G:C6	26:DB:110:G:C5	2.99	0.50
28:DE:8:LYS:HE3	28:DE:188:VAL:O	2.12	0.50
28:DE:8:LYS:HB3	28:DE:192:ASN:HA	1.92	0.50
28:DE:51:PHE:O	28:DE:74:PRO:HB2	2.10	0.50
29:DF:3:GLU:O	29:DF:19:GLU:HB3	2.11	0.50
29:DF:83:PHE:O	29:DF:84:VAL:O	2.30	0.50
30:DG:32:PRO:HB2	30:DG:172:LEU:HD22	1.94	0.50
30:DG:25:TYR:HB3	30:DG:30:GLU:HB2	1.94	0.50
31:DH:74:ASN:ND2	31:DH:138:LYS:HG2	2.26	0.50
35:DO:65:ARG:O	35:DO:66:GLY:O	2.30	0.50
36:DP:138:ASP:O	36:DP:138:ASP:OD2	2.29	0.50
45:DV:10:ARG:HH21	45:DV:26:GLY:H	1.60	0.50
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.73	0.50
1:AA:219:C:H2'	1:AA:220:G:O4'	2.10	0.50
1:AA:439:A:H2'	1:AA:440:A:O5'	2.12	0.50
2:AE:221:LEU:HD13	2:AE:221:LEU:O	2.11	0.50
4:AG:5:ILE:CG2	4:AG:6:GLY:N	2.69	0.50
7:AJ:38:LEU:HD12	7:AJ:38:LEU:O	2.12	0.50
11:AN:41:THR:HG21	11:AN:71:LYS:CB	2.41	0.50
15:AR:8:LYS:O	15:AR:12:ILE:HG13	2.11	0.50
19:AV:68:GLY:HA2	50:B4:59:PHE:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B1:92:ARG:C	40:B1:94:ASN:N	2.64	0.50
25:BA:2371:G:C1'	52:B6:45:LYS:HG3	2.39	0.50
25:BA:1205:U:H4'	25:BA:1206:G:OP2	2.12	0.50
25:BA:1691:C:H2'	25:BA:1692:U:H5'	1.93	0.50
25:BA:207:A:H2'	25:BA:208:C:O4'	2.10	0.50
25:BA:2173:A:H2'	25:BA:2174:C:O4'	2.12	0.50
25:BA:2301:C:H3'	25:BA:2301:C:H6	1.76	0.50
25:BA:259:G:HO2'	25:BA:621:A:HO2'	1.38	0.50
25:BA:572:A:H3'	25:BA:573:G:O4'	2.12	0.50
25:BA:754:C:H2'	25:BA:755:C:C6	2.47	0.50
25:BA:998:C:C2'	25:BA:999:U:O5'	2.60	0.50
28:BE:51:PHE:O	28:BE:52:LEU:O	2.30	0.50
28:BE:80:GLU:C	28:BE:82:ARG:N	2.63	0.50
30:BG:63:ILE:HD12	30:BG:141:PHE:CD2	2.47	0.50
34:BN:98:VAL:HG13	34:BN:117:LEU:HB3	1.92	0.50
34:BN:75:SER:HB2	39:BR:75:ILE:O	2.12	0.50
38:BQ:30:ARG:HG3	38:BQ:30:ARG:O	2.11	0.50
39:BR:50:ILE:HD11	39:BR:102:ILE:HD13	1.92	0.50
42:BS:79:GLY:HA3	42:BS:100:THR:CG2	2.42	0.50
45:BV:111:VAL:HG11	45:BV:146:ILE:CB	2.40	0.50
1:CA:145:G:H2'	1:CA:146:G:O5'	2.11	0.50
1:CA:457:C:H2'	1:CA:458:C:C6	2.46	0.50
1:CA:6:G:H4'	1:CA:298:A:H4'	1.93	0.50
1:CA:763:G:H2'	1:CA:764:C:H6	1.75	0.50
1:CA:945:G:H2'	1:CA:945:G:N3	2.26	0.50
22:CB:41:G:H2'	22:CB:42:U:H6	1.77	0.50
2:CE:24:TRP:O	2:CE:24:TRP:HD1	1.95	0.50
3:CF:14:ILE:CG1	3:CF:15:THR:H	2.25	0.50
3:CF:188:LEU:N	3:CF:188:LEU:HD22	2.27	0.50
3:CF:21:ARG:HH11	3:CF:21:ARG:HB3	1.76	0.50
1:CA:19:C:H5''	5:CH:86:ALA:CB	2.42	0.50
6:CI:25:ILE:HG21	6:CI:82:ARG:HD2	1.93	0.50
6:CI:61:LEU:HB3	6:CI:63:TYR:HE2	1.76	0.50
7:CJ:69:VAL:HG22	7:CJ:135:VAL:HG23	1.93	0.50
8:CK:82:HIS:CD2	8:CK:82:HIS:O	2.63	0.50
37:D0:28:LEU:HD11	37:D0:114:VAL:HG12	1.94	0.50
25:DA:1464:C:HO2'	25:DA:1528:A:H8	0.72	0.50
25:DA:1879:C:H2'	25:DA:1880:C:O4'	2.12	0.50
25:DA:2156:G:C6	25:DA:2157:G:C2	3.00	0.50
25:DA:2401:U:C3'	25:DA:2402:C:H5''	2.42	0.50
25:DA:2462:U:H1'	25:DA:2491:U:O4	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:265:A:H1'	25:DA:266:G:O4'	2.12	0.50
27:DD:10:THR:OG1	27:DD:13:ARG:HB2	2.11	0.50
27:DD:186:HIS:HD2	27:DD:188:GLU:N	2.05	0.50
28:DE:171:GLU:O	28:DE:184:VAL:HA	2.12	0.50
28:DE:204:ALA:O	28:DE:205:ALA:HB3	2.11	0.50
30:DG:61:ALA:HA	30:DG:64:THR:CG2	2.41	0.50
32:DK:84:GLY:O	32:DK:85:GLU:HB3	2.11	0.50
33:DM:38:HIS:ND1	33:DM:39:ARG:HG3	2.27	0.50
36:DP:25:ASP:O	36:DP:25:ASP:OD1	2.30	0.50
48:DW:47:ASN:ND2	48:DW:47:ASN:H	2.09	0.50
1:AA:1014:A:H4'	19:AV:14:HIS:CE1	2.47	0.50
1:AA:1059:C:O2'	10:AM:53:PRO:HD3	2.11	0.50
22:AB:54:G:N1	22:AB:55:G:O6	2.45	0.50
22:AB:86:C:H2'	22:AB:87:A:C4	2.47	0.50
23:AD:56:U:O4	23:AD:58:A:H5''	2.11	0.50
2:AE:96:ARG:CD	2:AE:96:ARG:H	2.07	0.50
5:AH:126:ARG:NH1	5:AH:126:ARG:CG	2.62	0.50
9:AL:114:TYR:HD2	9:AL:114:TYR:N	2.10	0.50
12:AO:77:LEU:HD21	12:AO:107:ALA:HA	1.93	0.50
10:AM:53:PRO:HA	14:AQ:42:ILE:HD11	1.94	0.50
17:AT:18:THR:HG21	17:AT:69:LYS:HD2	1.93	0.50
51:B5:40:LYS:HG2	51:B5:47:PRO:CD	2.36	0.50
51:B5:42:PRO:CB	51:B5:43:HIS:HD2	2.24	0.50
54:B8:31:HIS:O	54:B8:32:LEU:O	2.30	0.50
25:BA:1278:A:OP1	37:B0:36:THR:HG23	2.12	0.50
25:BA:1464:C:O2'	25:BA:1528:A:H8	1.94	0.50
25:BA:2310:A:H61	30:BG:79:ASN:ND2	2.08	0.50
25:BA:270(R):G:H2'	25:BA:270(S):G:C8	2.47	0.50
25:BA:309:G:O2'	25:BA:329:G:C8	2.63	0.50
25:BA:354:G:O2'	25:BA:355:G:H5'	2.12	0.50
28:BE:23:VAL:CG1	28:BE:173:VAL:HG21	2.32	0.50
28:BE:53:PRO:O	28:BE:54:GLN:O	2.30	0.50
29:BF:197:ASP:O	29:BF:198:ALA:CB	2.60	0.50
30:BG:82:LEU:HA	30:BG:86:MET:CE	2.42	0.50
30:BG:57:ALA:HB2	30:BG:90:LEU:HD21	1.94	0.50
42:BS:91:GLY:O	42:BS:92:ARG:O	2.30	0.50
48:BW:24:LEU:HD13	48:BW:60:LEU:HD11	1.92	0.50
1:CA:1026:G:C6	1:CA:1036:G:C2	2.99	0.50
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.76	0.50
1:CA:1226:C:P	13:CP:91:ARG:HH22	2.35	0.50
1:CA:145:G:C2'	1:CA:146:G:O5'	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:452:A:H2'	1:CA:453:A:H8	1.76	0.50
1:CA:668:G:O2'	15:CR:46:HIS:HB3	2.12	0.50
1:CA:860:A:H2'	1:CA:861:G:O4'	2.12	0.50
1:CA:879:C:C5	12:CO:6:THR:HG21	2.46	0.50
1:CA:980:C:H5''	1:CA:981:U:C5	2.47	0.50
23:CC:44:A:O2'	23:CC:45:A:H5'	2.12	0.50
23:CD:59:A:C1'	23:CD:61:U:H5	2.19	0.50
7:CJ:71:PRO:HD3	7:CJ:103:TRP:CZ3	2.47	0.50
9:CL:73:GLN:O	9:CL:76:ALA:HB3	2.12	0.50
10:CM:57:LYS:O	10:CM:58:ASP:O	2.30	0.50
14:CQ:36:PHE:CD1	14:CQ:37:PHE:CD2	2.99	0.50
19:CV:49:ILE:HD12	19:CV:49:ILE:N	2.27	0.50
20:CW:49:ALA:HB2	20:CW:92:LEU:HD22	1.94	0.50
54:D8:22:VAL:O	54:D8:49:VAL:HA	2.12	0.50
25:DA:1039:G:H1	25:DA:1116:C:H42	1.60	0.50
25:DA:1509:C:O2	25:DA:1509:C:H2'	2.12	0.50
25:DA:2273:A:H2'	25:DA:2274:A:C8	2.47	0.50
25:DA:2392:A:N1	25:DA:2424:C:N3	2.60	0.50
25:DA:2250:G:O2'	25:DA:2496:C:OP1	2.18	0.50
25:DA:656:G:H2'	25:DA:657:U:O4'	2.12	0.50
26:DB:15:A:H2'	26:DB:16:G:OP1	2.11	0.50
26:DB:3:C:N3	26:DB:117:G:N2	2.45	0.50
28:DE:96:PHE:O	28:DE:175:VAL:HG11	2.12	0.50
29:DF:123:LEU:O	29:DF:125:LEU:N	2.45	0.50
29:DF:133:ASN:HB3	29:DF:135:LYS:H	1.77	0.50
29:DF:164:ARG:HH11	29:DF:177:ALA:HB2	1.77	0.50
29:DF:88:VAL:O	29:DF:89:VAL:O	2.30	0.50
13:CP:7:VAL:CG2	30:DG:115:ARG:HB3	2.42	0.50
31:DH:41:MET:HE2	31:DH:65:HIS:N	2.26	0.50
32:DK:79:ILE:HD12	32:DK:140:LEU:HD21	1.94	0.50
1:AA:1036:G:H3'	1:AA:1037:C:C5	2.46	0.50
1:AA:1206:G:C6	1:AA:1207:G:C5	3.00	0.50
1:AA:323:U:H2'	1:AA:324:G:O4'	2.12	0.50
1:AA:568:G:H2'	1:AA:568:G:N3	2.27	0.50
1:AA:567:G:H2'	1:AA:568:G:O4'	2.11	0.50
4:AG:162:LEU:HD11	4:AG:181:MET:HB3	1.94	0.50
11:AN:61:ALA:HB1	11:AN:94:ALA:HB2	1.93	0.50
1:AA:1318:A:C1'	19:AV:37:ARG:HH21	2.23	0.50
37:B0:60:LEU:HD23	37:B0:61:HIS:N	2.27	0.50
50:B4:37:SER:HB3	50:B4:42:PHE:HD1	1.73	0.50
25:BA:1264:G:C5'	51:B5:11:THR:HG21	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2261:C:H1'	25:BA:2388:A:N3	2.27	0.50
25:BA:373:U:H1'	25:BA:423:A:C2	2.47	0.50
26:BB:94:C:H2'	26:BB:95:U:H6	1.76	0.50
27:BD:75:ILE:HD13	27:BD:99:ASP:OD1	2.10	0.50
28:BE:167:VAL:HG21	28:BE:187:ALA:HB1	1.93	0.50
29:BF:104:LYS:O	29:BF:108:LYS:HB2	2.12	0.50
30:BG:15:VAL:HG22	30:BG:175:LEU:CB	2.41	0.50
30:BG:73:ALA:HB3	30:BG:83:ARG:O	2.12	0.50
32:BK:100:ALA:O	32:BK:102:SER:N	2.44	0.50
33:BM:57:ALA:O	33:BM:58:ASP:CB	2.60	0.50
35:BO:90:ARG:O	35:BO:90:ARG:HG2	2.12	0.50
36:BP:20:ALA:HB1	36:BP:99:PRO:HB2	1.94	0.50
38:BQ:26:LEU:HD22	38:BQ:87:PHE:HD1	1.77	0.50
38:BQ:25:ARG:NH1	38:BQ:42:ASP:OD2	2.35	0.50
49:BX:28:LEU:HD23	49:BX:33:GLN:HG2	1.92	0.50
1:CA:1107:C:O2	1:CA:1107:C:H2'	2.11	0.50
1:CA:1128:C:H4'	9:CL:16:ARG:HH22	1.77	0.50
1:CA:1238:A:H62	1:CA:1301:U:H3	1.59	0.50
1:CA:1323:G:H4'	1:CA:1362(A):C:N3	2.26	0.50
1:CA:77:C:C3'	1:CA:78:G:H5''	2.42	0.50
1:CA:937:A:C5	1:CA:938:A:N7	2.80	0.50
22:CB:85:C:N4	25:DA:2508:G:H5'	2.27	0.50
7:CJ:23:VAL:HG13	7:CJ:43:PHE:HE2	1.76	0.50
8:CK:20:TYR:HA	8:CK:65:TYR:CE2	2.46	0.50
8:CK:20:TYR:HD1	8:CK:65:TYR:CE2	2.30	0.50
9:CL:125:TYR:C	9:CL:125:TYR:HD2	2.15	0.50
13:CP:25:ILE:O	13:CP:29:ARG:HB2	2.12	0.50
18:CU:22:VAL:CG2	18:CU:23:LYS:H	2.25	0.50
37:D0:51:LEU:HD13	37:D0:70:LEU:HD21	1.94	0.50
40:D1:48:ALA:O	40:D1:52:ARG:HG3	2.11	0.50
25:DA:1408:C:C2	25:DA:1595:G:N2	2.80	0.50
25:DA:1915:U:H2'	25:DA:1916:A:O5'	2.12	0.50
25:DA:2298:A:N6	25:DA:2318:G:C8	2.80	0.50
25:DA:276:A:H2'	25:DA:277:C:H6	1.77	0.50
26:DB:15:A:C2'	26:DB:16:G:OP1	2.60	0.50
26:DB:55:U:C2'	26:DB:56:G:H5'	2.41	0.50
25:DA:2572:A:OP1	28:DE:144:ARG:HB2	2.11	0.50
28:DE:5:LEU:HD22	28:DE:79:ARG:HG2	1.93	0.50
45:DV:158:PRO:CB	45:DV:159:PRO:HD2	2.42	0.50
1:AA:1133:G:C4	1:AA:1134:G:C8	3.00	0.50
1:AA:115:G:H4'	1:AA:116:A:O5'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1182:G:C4'	1:AA:1183:A:H5'	2.26	0.50
1:AA:652:U:H1'	1:AA:653:A:C2	2.47	0.50
1:AA:946:A:H2'	1:AA:947:G:C8	2.47	0.50
5:AH:11:ILE:CD1	5:AH:31:LEU:HB3	2.41	0.50
25:BA:1312:U:H4'	25:BA:1313:U:O5'	2.12	0.50
25:BA:1486:A:H2'	25:BA:1487:G:C8	2.44	0.50
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.12	0.50
25:BA:2476:A:N3	25:BA:2476:A:H2'	2.26	0.50
25:BA:2469:A:H62	25:BA:2481:G:N2	2.10	0.50
25:BA:2646:C:OP2	25:BA:2732:G:O2'	2.24	0.50
25:BA:835:A:H2'	25:BA:836:G:O5'	2.12	0.50
25:BA:852:G:H2'	25:BA:853:G:C8	2.46	0.50
25:BA:879:G:OP2	25:BA:879:G:H8	1.95	0.50
27:BD:35:LYS:N	27:BD:64:ILE:CG2	2.75	0.50
28:BE:61:ARG:H	28:BE:62:PRO:HD2	1.77	0.50
29:BF:101:LEU:O	29:BF:106:ARG:NH1	2.38	0.50
31:BH:170:ARG:O	31:BH:171:LEU:HB2	2.12	0.50
32:BK:25:TYR:CE2	32:BK:29:TYR:CD2	3.00	0.50
1:CA:745:C:H2'	1:CA:746:A:C8	2.46	0.50
1:CA:951:G:OP2	13:CP:102:ARG:NH2	2.44	0.50
23:CC:43:G:H2'	23:CC:44:A:C8	2.42	0.50
23:CD:38:A:H2'	23:CD:39:A:O4'	2.11	0.50
3:CF:59:ARG:HG3	3:CF:64:VAL:HA	1.93	0.50
7:CJ:152:ALA:O	7:CJ:155:ARG:HB3	2.11	0.50
13:CP:27:LYS:HE3	13:CP:31:LYS:HE3	1.94	0.50
53:D7:8:ASN:ND2	53:D7:11:LYS:HB2	2.26	0.50
25:DA:1071:G:OP2	25:DA:1097:U:H5'	2.11	0.50
25:DA:1240:U:O2'	25:DA:1241:A:H5'	2.12	0.50
25:DA:1915:U:C2'	25:DA:1916:A:O5'	2.60	0.50
25:DA:1955:U:O3'	25:DA:1956:U:H6	1.95	0.50
25:DA:1889:A:O2'	25:DA:2087:G:H5'	2.12	0.50
25:DA:2133:G:H1'	25:DA:2158:A:N6	2.27	0.50
25:DA:2168:G:N2	25:DA:2169:A:H3'	2.26	0.50
27:DD:61:LEU:O	27:DD:63:ARG:NH1	2.43	0.50
25:DA:39:C:O2	29:DF:46:ARG:NH2	2.44	0.50
25:DA:1257:C:O2'	29:DF:83:PHE:O	2.29	0.50
31:DH:26:VAL:HB	31:DH:75:ALA:HB1	1.93	0.50
34:DN:68:GLU:OE2	34:DN:78:ARG:NH1	2.45	0.50
25:DA:811:U:C4	35:DO:21:ARG:NH2	2.80	0.50
38:DQ:87:PHE:O	38:DQ:88:ASP:O	2.30	0.50
39:DR:54:ARG:HA	39:DR:59:THR:HB	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1028(A):C:H2'	1:AA:1028(B):C:C6	2.47	0.49
1:AA:1177:G:C8	1:AA:1178:G:N1	2.80	0.49
1:AA:1053:G:C5	1:AA:1199:U:C6	3.00	0.49
1:AA:1301:U:C4	1:AA:1303:C:H1'	2.47	0.49
1:AA:404:U:H2'	1:AA:405:U:C6	2.47	0.49
1:AA:84:U:O2	1:AA:84:U:H2'	2.12	0.49
1:AA:939:G:H2'	1:AA:940:C:C6	2.47	0.49
4:AG:30:LYS:C	4:AG:32:ALA:H	2.12	0.49
9:AL:99:LEU:HB3	9:AL:101:PHE:CD1	2.46	0.49
9:AL:114:TYR:N	9:AL:114:TYR:CD2	2.78	0.49
10:AM:61:GLU:OE2	14:AQ:45:ARG:HD2	2.12	0.49
10:AM:96:ILE:HD13	10:AM:96:ILE:N	2.27	0.49
15:AR:17:ARG:HG3	15:AR:17:ARG:NH1	2.26	0.49
20:AW:65:LYS:HG3	20:AW:68:LYS:HE2	1.92	0.49
25:BA:1011:G:H3'	25:BA:1012:U:H5''	1.92	0.49
25:BA:1170:G:N2	25:BA:1180:C:C2	2.80	0.49
25:BA:1412:A:H2'	25:BA:1413:G:H8	1.77	0.49
25:BA:2602:A:H4'	25:BA:2603:G:O5'	2.12	0.49
25:BA:2855:C:H2'	25:BA:2856:C:H6	1.77	0.49
27:BD:270:ILE:HG22	27:BD:271:ILE:H	1.76	0.49
27:BD:270:ILE:C	27:BD:271:ILE:HG12	2.25	0.49
30:BG:77:ILE:O	30:BG:78:SER:O	2.30	0.49
31:BH:83:TYR:CB	31:BH:135:GLY:H	2.13	0.49
42:BS:14:PRO:HB2	42:BS:18:ARG:HH21	1.77	0.49
1:CA:411:A:C5	1:CA:413:G:H1'	2.47	0.49
1:CA:468:A:H2'	1:CA:474:G:C5'	2.42	0.49
1:CA:606:G:N2	1:CA:631:G:H2'	2.26	0.49
3:CF:8:ILE:HG23	3:CF:16:ARG:HG2	1.93	0.49
5:CH:107:ARG:CG	5:CH:108:ALA:N	2.74	0.49
5:CH:93:PRO:HG2	8:CK:105:ARG:CZ	2.42	0.49
7:CJ:62:PHE:HA	7:CJ:124:LEU:HD22	1.94	0.49
8:CK:109:ILE:HG12	8:CK:110:ALA:N	2.27	0.49
12:CO:50:SER:O	12:CO:51:ALA:HB2	2.10	0.49
19:CV:22:LEU:O	19:CV:22:LEU:HD12	2.12	0.49
41:D2:82:ARG:O	41:D2:83:ARG:O	2.30	0.49
50:D4:48:ARG:HH12	50:D4:51:ASP:HA	1.77	0.49
52:D6:47:THR:O	52:D6:48:VAL:O	2.30	0.49
25:DA:1342:A:N6	25:DA:1397:U:C5	2.80	0.49
25:DA:1499:C:H2'	25:DA:1500:G:C8	2.46	0.49
25:DA:1657:C:H2'	25:DA:1658:C:C6	2.47	0.49
25:DA:2054:A:H5''	25:DA:2055:C:O5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2189:U:H2'	25:DA:2190:G:H5'	1.93	0.49
25:DA:2872:G:C6	25:DA:2873:A:N1	2.79	0.49
25:DA:2:G:O2'	25:DA:3:U:H5'	2.11	0.49
25:DA:654(I):C:H42	25:DA:654(M):C:H42	1.60	0.49
25:DA:943:U:OP2	35:DO:36:LYS:CG	2.59	0.49
26:DB:44:G:C5'	26:DB:45:A:OP1	2.60	0.49
28:DE:30:PRO:HD3	28:DE:180:ASN:ND2	2.27	0.49
28:DE:64:LYS:HG2	28:DE:65:GLY:H	1.77	0.49
29:DF:83:PHE:C	29:DF:84:VAL:HG12	2.33	0.49
35:DO:38:GLN:O	35:DO:41:ARG:HB2	2.12	0.49
25:DA:2318:G:N1	38:DQ:2:ALA:HA	2.18	0.49
39:DR:16:ARG:H	39:DR:79:HIS:CD2	2.30	0.49
43:DT:43:VAL:HG22	43:DT:51:VAL:CG2	2.42	0.49
45:DV:121:HIS:HB3	45:DV:123:ASP:O	2.12	0.49
45:DV:5:LEU:HG	45:DV:47:VAL:HG21	1.94	0.49
1:AA:1194:U:H2'	1:AA:1195:C:H6	1.76	0.49
1:AA:182:U:O2	1:AA:182:U:H2'	2.12	0.49
2:AE:61:LEU:HD23	2:AE:68:ILE:CD1	2.41	0.49
8:AK:49:GLU:HG2	8:AK:62:TYR:HE2	1.77	0.49
8:AK:88:LYS:CB	8:AK:89:PRO:HD2	2.42	0.49
12:AO:28:LYS:O	12:AO:28:LYS:CD	2.60	0.49
13:AP:57:ARG:HB2	13:AP:57:ARG:NH1	2.27	0.49
51:B5:40:LYS:HZ3	51:B5:46:CYS:C	2.15	0.49
25:BA:1118:C:H2'	25:BA:1119:C:H6	1.76	0.49
25:BA:1141:U:OP2	33:BM:63:THR:HG23	2.12	0.49
25:BA:1270:C:H5''	25:BA:1271:G:O5'	2.12	0.49
25:BA:1405:U:H2'	25:BA:1406:U:H6	1.76	0.49
25:BA:1434:A:N6	25:BA:1558:A:H62	2.06	0.49
25:BA:863:A:H2'	25:BA:864:G:H8	1.77	0.49
32:BK:85:GLU:OE2	32:BK:85:GLU:HA	2.10	0.49
34:BN:7:TYR:CE1	34:BN:20:MET:HG3	2.46	0.49
39:BR:50:ILE:CD1	39:BR:102:ILE:HD11	2.42	0.49
45:BV:151:HIS:HD2	45:BV:168:GLU:CG	2.25	0.49
45:BV:35:ARG:HB3	45:BV:35:ARG:NH1	2.27	0.49
1:CA:1248:A:H2'	9:CL:70:LYS:NZ	2.27	0.49
1:CA:509:A:N3	1:CA:543:C:O2'	2.41	0.49
1:CA:947:G:H2'	1:CA:948:C:C6	2.47	0.49
23:CD:42:C:H2'	23:CD:43:G:C8	2.42	0.49
2:CE:118:LEU:HD13	2:CE:142:LEU:HB2	1.93	0.49
3:CF:141:VAL:HG12	3:CF:141:VAL:O	2.12	0.49
8:CK:14:ARG:O	8:CK:18:ARG:HD3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:30:ARG:O	8:CK:34:GLU:HG2	2.10	0.49
1:CA:474:G:OP1	16:CS:81:ARG:HB3	2.12	0.49
19:CV:23:ASN:HA	19:CV:27:GLU:CD	2.32	0.49
40:D1:70:ARG:HH11	40:D1:70:ARG:HG2	1.78	0.49
40:D1:71:GLN:HA	40:D1:71:GLN:NE2	2.26	0.49
52:D6:10:LEU:O	52:D6:11:LEU:HD13	2.12	0.49
53:D7:19:ARG:HG2	53:D7:19:ARG:NH1	2.26	0.49
25:DA:1056:G:H4'	25:DA:1086:A:H1'	1.94	0.49
25:DA:1093:G:H5'	31:DH:170:ARG:HH12	1.77	0.49
25:DA:1265:A:O4'	25:DA:1267:U:C6	2.65	0.49
25:DA:1763:G:OP1	25:DA:1763:G:H4'	2.11	0.49
25:DA:2134:A:C2	25:DA:2159:G:H1'	2.47	0.49
25:DA:2748:A:N3	25:DA:2748:A:H2'	2.27	0.49
25:DA:764:A:O4'	27:DD:213:ARG:HG3	2.12	0.49
25:DA:960:A:C8	25:DA:962:G:C8	3.00	0.49
25:DA:729:G:O5'	27:DD:208:LYS:NZ	2.45	0.49
27:DD:77:ALA:HB2	27:DD:97:TYR:CD2	2.47	0.49
29:DF:86:GLY:O	29:DF:87:GLY:O	2.30	0.49
29:DF:90:PHE:O	29:DF:91:GLY:O	2.30	0.49
30:DG:98:ARG:O	30:DG:101:ILE:HG13	2.13	0.49
1:AA:1226:C:H4'	19:AV:80:TYR:OH	2.13	0.49
22:AB:15:A:N1	22:AB:21:A:N6	2.60	0.49
6:AI:19:LEU:HD21	6:AI:59:TYR:CE2	2.47	0.49
8:AK:87:SER:CB	8:AK:93:VAL:HB	2.41	0.49
11:AN:29:ILE:HD12	11:AN:44:SER:HB3	1.94	0.49
19:AV:11:VAL:HG23	19:AV:38:SER:HB2	1.94	0.49
25:BA:1278:A:O3'	37:B0:34:ILE:HD12	2.13	0.49
54:B8:58:ILE:HA	54:B8:61:LEU:CD1	2.42	0.49
25:BA:1077:A:N1	25:BA:1088:A:N6	2.59	0.49
25:BA:1169:G:N2	25:BA:1181:C:O2	2.45	0.49
25:BA:1177:A:H5'	25:BA:1178:C:C6	2.47	0.49
25:BA:2666:C:H5''	25:BA:2667:C:OP2	2.12	0.49
25:BA:493:G:H2'	25:BA:494:G:O4'	2.12	0.49
25:BA:639:U:O2'	25:BA:640:C:H5'	2.11	0.49
25:BA:783:A:H3'	25:BA:783:A:C8	2.46	0.49
27:BD:27:THR:HG22	27:BD:28:GLU:H	1.78	0.49
28:BE:167:VAL:HG21	28:BE:187:ALA:CB	2.42	0.49
31:BH:105:LEU:HD23	31:BH:105:LEU:H	1.76	0.49
32:BK:131:LYS:HB3	32:BK:132:PRO:CA	2.42	0.49
33:BM:131:GLN:HE21	33:BM:132:ALA:H	1.58	0.49
34:BN:113:LYS:HE2	34:BN:117:LEU:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BU:52:SER:HB2	44:BU:53:PRO:HD3	1.94	0.49
1:CA:1004:A:P	1:CA:1025:U:O4	2.70	0.49
1:CA:1239:A:H62	1:CA:1299:A:H62	1.60	0.49
1:CA:779:C:C2'	1:CA:780:A:H5'	2.43	0.49
23:CC:66:C:H2'	23:CC:67:C:O4'	2.12	0.49
23:CD:64:G:C2	23:CD:65:G:C6	3.00	0.49
23:CD:71:G:H2'	23:CD:72:C:H5'	1.94	0.49
3:CF:180:ALA:HA	3:CF:206:GLU:HB3	1.92	0.49
9:CL:46:ALA:HA	9:CL:78:LYS:NZ	2.27	0.49
10:CM:75:ILE:HG13	10:CM:76:ASN:H	1.76	0.49
12:CO:26:ALA:HA	12:CO:98:TYR:CE2	2.44	0.49
12:CO:98:TYR:N	12:CO:98:TYR:CD1	2.80	0.49
13:CP:81:LEU:HD13	13:CP:88:ARG:HG2	1.92	0.49
16:CS:8:ARG:O	16:CS:9:PHE:CD2	2.65	0.49
19:CV:30:LEU:HD12	19:CV:31:ILE:N	2.27	0.49
20:CW:10:LEU:CD2	20:CW:10:LEU:C	2.81	0.49
37:D0:38:VAL:HG22	37:D0:112:ALA:HB2	1.95	0.49
41:D2:38:LEU:HD12	41:D2:57:VAL:HG12	1.94	0.49
41:D2:75:PHE:CE2	41:D2:81:TYR:CD1	3.00	0.49
41:D2:58:VAL:HB	41:D2:98:GLU:HB2	1.94	0.49
25:DA:2331:G:H4'	46:D3:43:THR:N	2.27	0.49
46:D3:50:ASN:ND2	46:D3:81:VAL:O	2.46	0.49
25:DA:1405:U:H2'	25:DA:1406:U:H6	1.70	0.49
25:DA:1472:A:H2'	25:DA:1473:G:C5'	2.42	0.49
25:DA:1827:C:H2'	25:DA:1828:G:H5'	1.94	0.49
25:DA:2319:G:H4'	25:DA:2320:A:O4'	2.13	0.49
25:DA:2648:C:H2'	25:DA:2649:U:C6	2.46	0.49
25:DA:2746:U:H4'	31:DH:138:LYS:HG3	1.94	0.49
25:DA:278:A:H4'	25:DA:279:C:OP1	2.12	0.49
25:DA:298:G:H5''	25:DA:299:A:OP1	2.11	0.49
25:DA:593:G:H1'	54:D8:4:MET:HE1	1.94	0.49
25:DA:602:G:O2'	25:DA:655:A:N6	2.45	0.49
29:DF:25:PRO:HG2	29:DF:26:ALA:N	2.27	0.49
29:DF:3:GLU:HG2	29:DF:3:GLU:O	2.12	0.49
25:DA:444:C:H4'	29:DF:49:ALA:HB2	1.93	0.49
30:DG:101:ILE:HB	30:DG:105:LYS:HZ3	1.76	0.49
30:DG:117:PHE:C	30:DG:117:PHE:HD1	2.14	0.49
30:DG:64:THR:HG23	30:DG:65:GLY:N	2.26	0.49
36:DP:63:LYS:O	36:DP:63:LYS:CG	2.58	0.49
38:DQ:24:LEU:N	38:DQ:24:LEU:HD22	2.13	0.49
38:DQ:48:LEU:O	38:DQ:49:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1023:G:C6	1:AA:1024:G:C5	3.00	0.49
1:AA:1103:C:H2'	1:AA:1104:G:O4'	2.13	0.49
1:AA:1418:A:C2	1:AA:1483:A:C2	3.00	0.49
1:AA:1446:A:C4'	1:AA:1446:A:OP1	2.47	0.49
1:AA:1455:G:OP1	20:AW:35:THR:OG1	2.24	0.49
1:AA:958:A:C6	1:AA:959:A:C6	3.01	0.49
23:AD:29:C:H2'	23:AD:30:G:C8	2.47	0.49
3:AF:14:ILE:HG13	3:AF:15:THR:N	2.26	0.49
3:AF:90:GLU:HA	3:AF:93:LYS:HB2	1.94	0.49
8:AK:138:TRP:HE3	8:AK:138:TRP:OXT	1.94	0.49
9:AL:26:VAL:HG13	9:AL:61:ALA:HB3	1.93	0.49
12:AO:46:LYS:CG	12:AO:47:LYS:N	2.75	0.49
12:AO:42:THR:HA	12:AO:53:ARG:O	2.12	0.49
1:AA:1330:U:H4'	13:AP:23:TYR:HE2	1.77	0.49
20:AW:10:LEU:HD23	20:AW:12:ALA:CA	2.42	0.49
30:BG:104:GLU:CG	50:B4:23:GLU:HG3	2.42	0.49
52:B6:45:LYS:O	52:B6:46:HIS:O	2.30	0.49
25:BA:1558:A:OP2	25:BA:1558:A:H3'	2.12	0.49
25:BA:2170:A:H5''	25:BA:2171:A:OP2	2.12	0.49
25:BA:2465:C:O2'	25:BA:2466:C:H5'	2.12	0.49
25:BA:2506:U:O2	25:BA:2506:U:H2'	2.11	0.49
25:BA:2864:G:C2'	25:BA:2865:U:H5'	2.43	0.49
28:BE:35:GLN:CG	28:BE:36:ARG:N	2.69	0.49
33:BM:62:VAL:HG22	33:BM:63:THR:N	2.26	0.49
35:BO:39:LYS:HB2	35:BO:45:LEU:CD2	2.42	0.49
38:BQ:63:THR:HA	38:BQ:97:ARG:HB3	1.93	0.49
39:BR:42:ILE:H	39:BR:42:ILE:HD12	1.77	0.49
43:BT:83:VAL:HG13	43:BT:87:GLN:HB3	1.95	0.49
48:BW:58:ALA:O	48:BW:62:THR:CG2	2.60	0.49
23:CC:51:U:H2'	23:CC:52:C:C6	2.48	0.49
23:CD:32:G:C6	23:CD:33:C:C2	3.01	0.49
8:CK:99:GLU:C	8:CK:100:ILE:HG13	2.33	0.49
10:CM:54:PHE:CE1	10:CM:55:LYS:HE3	2.47	0.49
13:CP:70:LEU:O	13:CP:74:VAL:HG23	2.13	0.49
1:CA:1226:C:H4'	19:CV:80:TYR:CZ	2.46	0.49
50:D4:43:TYR:CG	50:D4:43:TYR:O	2.66	0.49
13:CP:65:LYS:HE3	50:D4:52:THR:OG1	2.13	0.49
25:DA:1085:A:H1'	25:DA:1086:A:O5'	2.12	0.49
25:DA:1057:A:OP2	25:DA:1089:G:N2	2.45	0.49
25:DA:1177:A:H5'	25:DA:1178:C:OP1	2.12	0.49
25:DA:1392:A:C6	25:DA:1393:A:C6	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:171:G:H2'	25:DA:172:C:H6	1.75	0.49
25:DA:1956:U:C2'	25:DA:1957:C:H5'	2.43	0.49
25:DA:276:A:H2'	25:DA:277:C:C6	2.48	0.49
25:DA:901:A:H2'	25:DA:901:A:N3	2.26	0.49
26:DB:83:G:H1	26:DB:93:C:N4	2.04	0.49
28:DE:36:ARG:HH21	28:DE:88:GLY:CA	2.21	0.49
25:DA:1006:C:O2'	33:DM:106:MET:O	2.29	0.49
34:DN:85:VAL:HG11	34:DN:114:ILE:HD13	1.95	0.49
38:DQ:3:ARG:CG	38:DQ:4:LEU:N	2.76	0.49
38:DQ:67:ARG:CZ	38:DQ:67:ARG:HB2	2.42	0.49
45:DV:28:MET:CG	45:DV:37:VAL:HG11	2.40	0.49
1:AA:1028(A):C:C4	1:AA:1028(B):C:N4	2.79	0.49
1:AA:1223:C:P	1:AA:1224:G:H2'	2.53	0.49
1:AA:1278:U:H3'	1:AA:1278:U:H6	1.77	0.49
1:AA:266:G:H5''	1:AA:268:C:H41	1.75	0.49
1:AA:914:A:C4	1:AA:915:A:C8	3.00	0.49
2:AE:52:GLU:HG2	2:AE:56:ARG:HH21	1.77	0.49
8:AK:26:VAL:CG2	8:AK:26:VAL:O	2.60	0.49
12:AO:24:VAL:HG11	12:AO:27:LEU:HD11	1.95	0.49
13:AP:47:ASP:O	13:AP:48:LEU:HB3	2.13	0.49
14:AQ:29:ARG:HG2	14:AQ:40:CYS:HB3	1.93	0.49
37:B0:87:TYR:HE1	37:B0:117:VAL:HG12	1.77	0.49
25:BA:1299:G:H5''	25:BA:1300:U:OP1	2.11	0.49
25:BA:1575:C:H2'	25:BA:1576:U:H6	1.78	0.49
25:BA:2119:A:C5	25:BA:2171:A:H2	2.30	0.49
25:BA:2512:C:H2'	25:BA:2513:G:O4'	2.12	0.49
25:BA:2584:U:H2'	25:BA:2585:U:H2'	1.95	0.49
25:BA:273(F):C:H3'	25:BA:274:G:C5'	2.38	0.49
25:BA:2629:A:N6	25:BA:2895:U:C2	2.81	0.49
25:BA:363(B):G:H2'	25:BA:363(C):G:C8	2.47	0.49
25:BA:754:C:O2'	25:BA:755:C:H5'	2.12	0.49
31:BH:59:ARG:NH1	31:BH:59:ARG:HG3	2.10	0.49
32:BK:18:VAL:HG21	32:BK:44:LEU:HD11	1.95	0.49
34:BN:104:ARG:HH11	39:BR:36:GLU:CD	2.15	0.49
36:BP:59:ARG:H	36:BP:59:ARG:HD3	1.78	0.49
44:BU:49:VAL:CG1	44:BU:50:ARG:H	2.25	0.49
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.48	0.49
1:CA:273:A:N6	1:CA:274:A:C6	2.80	0.49
1:CA:972:C:C3'	10:CM:57:LYS:HG3	2.42	0.49
2:CE:185:ILE:HG12	2:CE:185:ILE:O	2.13	0.49
2:CE:92:TYR:HD2	2:CE:92:TYR:O	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:19:LEU:O	4:CG:21:LEU:HG	2.12	0.49
6:CI:22:GLU:O	6:CI:26:ILE:HG13	2.11	0.49
16:CS:48:TRP:HH2	16:CS:76:GLN:NE2	2.09	0.49
40:D1:25:TRP:C	40:D1:25:TRP:CD1	2.85	0.49
25:DA:1826:G:H2'	25:DA:1827:C:O5'	2.12	0.49
25:DA:1268:A:C2	25:DA:2013:A:C4	3.00	0.49
25:DA:2273:A:O2'	25:DA:2274:A:H5'	2.13	0.49
25:DA:2335:A:O2'	25:DA:2336:A:P	2.70	0.49
25:DA:613:U:O2	25:DA:613:U:O4'	2.30	0.49
28:DE:101:ARG:CZ	28:DE:171:GLU:HB2	2.41	0.49
32:DK:5:LEU:HD11	32:DK:19:VAL:CG1	2.42	0.49
35:DO:61:ARG:O	35:DO:62:LEU:O	2.30	0.49
25:DA:952:G:P	36:DP:16:ARG:HH12	2.35	0.49
38:DQ:38:GLN:HG3	38:DQ:47:THR:HG21	1.94	0.49
45:DV:18:LEU:HB3	45:DV:23:LYS:O	2.13	0.49
45:DV:8:TYR:HD1	45:DV:38:TYR:CE1	2.31	0.49
1:AA:1000:A:O2'	1:AA:1001:G:H5'	2.12	0.49
1:AA:1110:A:H8	1:AA:1110:A:O5'	1.96	0.49
1:AA:171:A:C6	1:AA:172:A:C6	3.00	0.49
1:AA:195:A:C6	1:AA:196:A:N1	2.81	0.49
1:AA:585:G:O2'	1:AA:879:C:H5''	2.13	0.49
23:AD:67:C:C4	23:AD:68:C:N4	2.81	0.49
2:AE:178:ARG:NH1	2:AE:196:LEU:O	2.42	0.49
3:AF:27:LYS:HA	3:AF:27:LYS:NZ	2.28	0.49
9:AL:5:TYR:CE2	9:AL:16:ARG:HG2	2.40	0.49
12:AO:28:LYS:O	12:AO:28:LYS:HD2	2.12	0.49
12:AO:59:ARG:HB2	12:AO:65:GLU:HG3	1.95	0.49
25:BA:2870:C:H5''	37:B0:65:LEU:HD21	1.94	0.49
40:B1:95:LEU:O	40:B1:98:LEU:HB3	2.11	0.49
51:B5:16:ARG:HG3	51:B5:17:ASP:N	2.28	0.49
51:B5:16:ARG:O	51:B5:20:ARG:HD2	2.12	0.49
51:B5:40:LYS:HE2	51:B5:47:PRO:HD2	1.95	0.49
25:BA:1026:U:C1'	25:BA:1027:A:O5'	2.41	0.49
25:BA:154:G:H2'	25:BA:155:C:O4'	2.12	0.49
25:BA:2055:C:H5'	25:BA:2056:G:O5'	2.13	0.49
25:BA:2262:U:H4'	25:BA:2328:A:C2	2.47	0.49
25:BA:2287:A:N6	25:BA:2344:U:N3	2.46	0.49
25:BA:24:G:C2'	25:BA:25:U:H5'	2.43	0.49
25:BA:2688:U:C5	25:BA:2720:U:OP2	2.60	0.49
25:BA:531:C:OP1	25:BA:561:G:N1	2.45	0.49
28:BE:38:THR:O	28:BE:42:ASP:OD2	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:73:GLU:HG3	28:BE:74:PRO:HD2	1.94	0.49
29:BF:164:ARG:HG2	29:BF:175:THR:OG1	2.12	0.49
31:BH:169:VAL:C	31:BH:170:ARG:CG	2.81	0.49
33:BM:4:TYR:CD2	40:B1:100:VAL:HG11	2.48	0.49
34:BN:98:VAL:HG13	34:BN:117:LEU:CB	2.43	0.49
35:BO:140:ALA:O	35:BO:141:ALA:HB3	2.12	0.49
25:BA:811:U:P	35:BO:21:ARG:O	2.70	0.49
35:BO:57:THR:C	35:BO:59:LEU:N	2.61	0.49
35:BO:65:ARG:O	35:BO:66:GLY:O	2.30	0.49
45:BV:1:MET:CE	45:BV:135:GLU:HB3	2.43	0.49
45:BV:164:ALA:O	45:BV:165:VAL:CG2	2.56	0.49
1:CA:350:G:H5'	1:CA:351:G:OP2	2.12	0.49
1:CA:775:G:C2'	1:CA:776:G:H5'	2.43	0.49
2:CE:16:HIS:ND1	2:CE:16:HIS:N	2.60	0.49
4:CG:13:ARG:NH1	4:CG:36:ARG:O	2.46	0.49
8:CK:29:SER:HB2	8:CK:32:LYS:HD2	1.94	0.49
12:CO:83:VAL:HG13	12:CO:84:LEU:N	2.27	0.49
10:CM:47:PHE:CZ	14:CQ:37:PHE:CE2	3.01	0.49
14:CQ:43:CYS:O	14:CQ:46:GLU:N	2.45	0.49
15:CR:50:HIS:O	15:CR:53:HIS:HB3	2.13	0.49
42:DS:41:LYS:HD2	51:D5:25:LEU:HD11	1.94	0.49
25:DA:1142(A):A:C8	25:DA:1144:G:C5	3.01	0.49
25:DA:1418:G:H8	25:DA:1418:G:O5'	1.94	0.49
25:DA:1536:A:H3'	25:DA:1537:C:O4'	2.12	0.49
25:DA:2067:G:O2'	25:DA:2069:G:H5''	2.13	0.49
25:DA:2169:A:H2'	25:DA:2169:A:N3	2.28	0.49
25:DA:21:A:C2'	25:DA:22:C:H5'	2.42	0.49
25:DA:777:A:O2'	25:DA:778:G:H5'	2.12	0.49
25:DA:885:C:N3	25:DA:890:A:C5	2.81	0.49
28:DE:48:GLN:NE2	28:DE:78:LEU:CD1	2.72	0.49
29:DF:155:LEU:HD22	29:DF:185:ASP:O	2.13	0.49
30:DG:21:ARG:HH11	30:DG:21:ARG:HG2	1.76	0.49
25:DA:2746:U:O3'	31:DH:138:LYS:HG3	2.12	0.49
35:DO:35:HIS:O	35:DO:36:LYS:O	2.30	0.49
36:DP:18:LYS:O	36:DP:19:GLY:O	2.30	0.49
45:DV:145:GLU:O	45:DV:146:ILE:HB	2.12	0.49
45:DV:10:ARG:NH2	45:DV:25:PRO:HB3	2.27	0.49
48:DW:71:ASN:O	48:DW:72:ALA:HB3	2.12	0.49
1:AA:412:A:C1'	1:AA:413:G:OP2	2.59	0.49
1:AA:674:G:H2'	1:AA:675:A:C8	2.47	0.49
1:AA:721:G:H4'	1:AA:722:A:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AF:188:LEU:HD13	3:AF:195:VAL:CG1	2.43	0.49
4:AG:10:ARG:HA	4:AG:13:ARG:HG3	1.94	0.49
1:AA:1194:U:H5''	5:AH:22:GLY:O	2.13	0.49
5:AH:72:GLN:O	5:AH:75:THR:HG22	2.13	0.49
5:AH:96:PRO:HA	5:AH:117:ASP:CG	2.32	0.49
12:AO:55:VAL:HG12	12:AO:69:TYR:HA	1.92	0.49
20:AW:63:ILE:HG22	20:AW:77:ALA:HB1	1.95	0.49
21:AX:3:LYS:HB3	21:AX:14:TRP:CG	2.47	0.49
41:B2:44:LYS:HD2	41:B2:45:THR:N	2.21	0.49
46:B3:11:ARG:HB2	46:B3:11:ARG:NH1	2.28	0.49
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.48	0.49
25:BA:442:G:C4	25:BA:444:C:C5	3.00	0.49
26:BB:20:C:C2'	26:BB:21:G:H5'	2.43	0.49
28:BE:51:PHE:CE1	28:BE:52:LEU:HD21	2.47	0.49
28:BE:53:PRO:O	28:BE:74:PRO:HA	2.13	0.49
31:BH:75:ALA:O	31:BH:79:VAL:HG22	2.12	0.49
39:BR:41:ARG:NH1	39:BR:43:GLN:HB2	2.27	0.49
1:CA:10:A:H2'	1:CA:11:G:C8	2.47	0.49
1:CA:1178:G:C8	1:CA:1180:A:OP2	2.65	0.49
1:CA:1199:U:H4'	10:CM:54:PHE:CZ	2.47	0.49
1:CA:1237:C:H5''	1:CA:1238:A:O4'	2.13	0.49
1:CA:1266:G:N2	1:CA:1270:C:C4	2.81	0.49
1:CA:1329:A:H2'	1:CA:1330:U:O4'	2.13	0.49
1:CA:209:U:H1'	1:CA:210:U:OP1	2.13	0.49
1:CA:266:G:H1'	1:CA:267:C:OP2	2.12	0.49
1:CA:113:G:O4'	1:CA:354:G:H4'	2.12	0.49
1:CA:373:A:C2	1:CA:374:A:C8	3.00	0.49
1:CA:51:A:H4'	1:CA:52:G:C5'	2.42	0.49
1:CA:604:G:H2'	1:CA:605:U:O4'	2.12	0.49
1:CA:775:G:O2'	1:CA:776:G:H5'	2.13	0.49
23:CC:29:C:O2	23:CC:44:A:C2	2.65	0.49
3:CF:18:TRP:N	3:CF:18:TRP:HE3	2.11	0.49
8:CK:29:SER:CB	8:CK:32:LYS:HD2	2.42	0.49
10:CM:13:HIS:HB3	10:CM:68:HIS:CD2	2.48	0.49
10:CM:82:ILE:O	10:CM:86:MET:HB2	2.12	0.49
13:CP:110:ARG:NH1	13:CP:110:ARG:HG2	2.28	0.49
20:CW:44:ALA:HB1	20:CW:91:LEU:HB2	1.95	0.49
50:D4:49:PHE:CD1	50:D4:50:VAL:HG13	2.47	0.49
25:DA:1057:A:N1	25:DA:1081:U:C4	2.80	0.49
25:DA:1109:C:H5	25:DA:1110:G:C6	2.30	0.49
25:DA:1167:U:C2	25:DA:1183:G:N2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1665:A:C4'	34:DN:67:LYS:HB2	2.43	0.49
25:DA:2097:C:H2'	25:DA:2098:U:O4'	2.12	0.49
25:DA:2111:C:H41	25:DA:2147:G:N2	2.10	0.49
25:DA:55:G:C2	25:DA:116:C:C2	3.01	0.49
25:DA:810:U:O5'	25:DA:810:U:H6	1.94	0.49
26:DB:15:A:C5'	26:DB:16:G:H8	2.20	0.49
26:DB:70:C:H2'	26:DB:71:C:H6	1.78	0.49
29:DF:51:THR:HB	29:DF:88:VAL:HG11	1.95	0.49
36:DP:102:VAL:O	36:DP:103:MET:C	2.50	0.49
38:DQ:10:ARG:O	38:DQ:14:VAL:HG12	2.13	0.49
45:DV:24:LEU:HD12	45:DV:25:PRO:O	2.13	0.49
1:AA:1156:G:C2'	1:AA:1157:A:H5''	2.41	0.49
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.11	0.49
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.13	0.49
1:AA:223:U:H2'	1:AA:224:C:H6	1.76	0.49
2:AE:165:VAL:HG23	2:AE:166:ASP:H	1.78	0.49
2:AE:200:ILE:N	2:AE:200:ILE:HD12	2.28	0.49
4:AG:112:VAL:HG12	4:AG:116:GLN:OE1	2.13	0.49
4:AG:194:LEU:HD12	4:AG:195:ALA:N	2.27	0.49
5:AH:148:VAL:HG21	8:AK:107:LEU:CD2	2.41	0.49
1:AA:967:C:H4'	9:AL:125:TYR:HE2	1.77	0.49
9:AL:79:LEU:O	9:AL:82:ALA:HB3	2.12	0.49
25:BA:1914:C:H2'	25:BA:1915:U:O4'	2.13	0.49
25:BA:2402:C:H2'	25:BA:2403:C:C5'	2.41	0.49
25:BA:619:G:H5''	25:BA:620:G:OP2	2.12	0.49
25:BA:646:A:H2'	25:BA:647:G:O5'	2.12	0.49
25:BA:693:C:O2'	25:BA:694:U:H5'	2.13	0.49
25:BA:814:C:O2'	25:BA:815:C:H5'	2.13	0.49
25:BA:2682:U:H5''	28:BE:11:MET:HB2	1.95	0.49
28:BE:182:LEU:HD12	28:BE:183:LEU:N	2.26	0.49
29:BF:123:LEU:HD12	29:BF:124:LEU:H	1.76	0.49
29:BF:178:PRO:HG2	29:BF:179:GLU:OE2	2.13	0.49
31:BH:4:ILE:H	31:BH:4:ILE:CD1	2.15	0.49
35:BO:79:ARG:HB2	35:BO:110:TYR:CD1	2.47	0.49
38:BQ:27:SER:HA	38:BQ:88:ASP:HB3	1.95	0.49
39:BR:122:ASP:O	39:BR:126:ALA:HB3	2.13	0.49
42:BS:111:HIS:HD2	42:BS:112:GLY:H	1.59	0.49
1:CA:1221:G:H4'	19:CV:77:THR:HG21	1.94	0.49
1:CA:186(F):C:H2'	1:CA:187:C:O4'	2.12	0.49
1:CA:926:G:H5''	1:CA:927:G:O5'	2.13	0.49
2:CE:80:ILE:HD12	2:CE:84:GLU:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:543:C:OP1	4:CG:14:ARG:HD2	2.13	0.49
5:CH:105:VAL:HG21	5:CH:128:PRO:HB3	1.94	0.49
5:CH:88:LYS:HB3	5:CH:123:LEU:HB2	1.94	0.49
13:CP:49:THR:HB	13:CP:52:GLU:OE1	2.12	0.49
13:CP:78:ILE:HD13	13:CP:92:HIS:CD2	2.48	0.49
18:CU:29:PHE:CD1	18:CU:39:VAL:HG11	2.47	0.49
37:D0:20:LEU:HD21	37:D0:40:LYS:HD3	1.93	0.49
41:D2:64:HIS:CD2	41:D2:92:THR:OG1	2.66	0.49
25:DA:141:A:C8	25:DA:1408:C:H1'	2.48	0.49
25:DA:1773:A:H2	25:DA:1977:A:N1	2.11	0.49
25:DA:2129:C:N4	25:DA:2130:U:H3	2.10	0.49
25:DA:2749:A:N6	25:DA:2750:A:H62	2.11	0.49
25:DA:2805:G:H2'	25:DA:2807:G:C8	2.48	0.49
25:DA:337:C:H2'	25:DA:338:G:O4'	2.12	0.49
28:DE:66:HIS:CE1	28:DE:73:GLU:OE1	2.65	0.49
30:DG:61:ALA:HA	30:DG:64:THR:HG22	1.95	0.49
31:DH:41:MET:O	31:DH:42:ARG:HB3	2.13	0.49
34:DN:122:LEU:HD13	39:DR:72:VAL:HG11	1.93	0.49
43:DT:23:GLU:HG3	43:DT:24:GLY:N	2.23	0.49
44:DU:89:PHE:HB2	44:DU:90:LEU:HD23	1.95	0.49
48:DW:17:SER:CB	48:DW:18:PRO:HA	2.42	0.49
1:AA:1047:G:H2'	1:AA:1048:G:H5'	1.94	0.49
1:AA:132:C:C2	1:AA:231:G:N2	2.81	0.49
1:AA:1352:C:H42	1:AA:1370:G:H1	1.61	0.49
1:AA:575:G:C5	1:AA:881:G:C2	3.01	0.49
17:AT:45:HIS:CD2	17:AT:65:ILE:HG12	2.48	0.49
20:AW:100:ILE:CG1	20:AW:101:GLY:H	2.25	0.49
1:AA:1455:G:C5'	20:AW:32:ALA:HB2	2.43	0.49
37:B0:9:LYS:HA	37:B0:17:ARG:HE	1.76	0.49
40:B1:78:THR:O	40:B1:81:HIS:N	2.46	0.49
40:B1:8:VAL:CG2	40:B1:11:ARG:HH21	2.25	0.49
25:BA:2271:G:OP1	46:B3:18:ALA:HB1	2.13	0.49
54:B8:51:ALA:N	54:B8:53:PRO:HD2	2.28	0.49
25:BA:1026:U:H1'	25:BA:1027:A:C5'	2.42	0.49
25:BA:1761:C:N3	25:BA:1762:A:C6	2.81	0.49
25:BA:2117:A:O2'	25:BA:2118:U:C5	2.65	0.49
25:BA:2702:U:H4'	25:BA:2703:C:OP1	2.12	0.49
25:BA:2741:A:H2'	25:BA:2742:C:O4'	2.13	0.49
25:BA:2849:U:O4	39:BR:23:ARG:NH2	2.43	0.49
25:BA:317:G:C2	25:BA:318:C:C2	3.01	0.49
25:BA:576:U:H2'	25:BA:577:G:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:607:U:O2	25:BA:621:A:N1	2.46	0.49
26:BB:73:A:C3'	26:BB:74:U:H5'	2.43	0.49
27:BD:186:HIS:CD2	27:BD:188:GLU:HB2	2.48	0.49
28:BE:35:GLN:HB2	28:BE:48:GLN:CG	2.36	0.49
28:BE:81:ILE:N	28:BE:81:ILE:HD13	2.27	0.49
30:BG:37:VAL:HG22	30:BG:159:VAL:HB	1.95	0.49
43:BT:82:GLN:HE21	43:BT:83:VAL:N	2.11	0.49
45:BV:69:THR:HG22	45:BV:90:VAL:HG22	1.92	0.49
1:CA:1069:C:H5	1:CA:1094:G:O6	1.95	0.49
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.77	0.49
1:CA:1400:C:N4	23:CC:35:C:H1'	2.28	0.49
1:CA:191(A):G:C2'	1:CA:191(B):G:H5'	2.43	0.49
23:CC:66:C:O2'	23:CC:67:C:H5'	2.13	0.49
23:CD:22:A:C2	23:CD:47:G:C8	3.00	0.49
2:CE:19:HIS:CD2	2:CE:20:GLU:OE1	2.66	0.49
2:CE:51:LEU:HG	2:CE:201:ILE:HG23	1.94	0.49
9:CL:17:VAL:HA	9:CL:63:ILE:HG12	1.94	0.49
9:CL:10:ARG:HD3	9:CL:75:ASP:HB3	1.94	0.49
10:CM:54:PHE:CD1	10:CM:55:LYS:HE3	2.48	0.49
13:CP:55:ARG:NH1	13:CP:55:ARG:HG3	2.26	0.49
17:CT:67:LYS:CA	17:CT:70:ARG:HH12	2.23	0.49
20:CW:33:ILE:HD12	20:CW:63:ILE:HA	1.94	0.49
40:D1:95:LEU:CD2	41:D2:13:ARG:HB2	2.43	0.49
25:DA:2332:U:H5'	46:D3:43:THR:HG21	1.94	0.49
52:D6:39:TYR:O	52:D6:47:THR:O	2.30	0.49
25:DA:1058:U:O2	25:DA:1080:A:N1	2.45	0.49
25:DA:1075:C:H2'	25:DA:1076:C:C6	2.48	0.49
25:DA:1800:C:OP2	27:DD:183:ARG:NH2	2.45	0.49
25:DA:945:A:C4	25:DA:2448:A:C2	3.01	0.49
26:DB:5:C:N4	26:DB:115:G:H1	2.09	0.49
26:DB:87:G:H3'	26:DB:88:C:C5'	2.43	0.49
28:DE:23:VAL:HA	28:DE:184:VAL:O	2.13	0.49
28:DE:48:GLN:CG	28:DE:78:LEU:HB3	2.42	0.49
30:DG:7:LEU:O	30:DG:7:LEU:HD23	2.13	0.49
36:DP:60:ARG:O	36:DP:60:ARG:HG3	2.13	0.49
43:DT:18:TYR:HD1	43:DT:21:PHE:CE2	2.30	0.49
45:DV:29:TYR:HA	45:DV:33:LEU:O	2.13	0.49
24:A1:14:U:H2'	24:A1:15:U:O4'	2.13	0.49
1:AA:123:C:OP2	1:AA:123:C:H6	1.95	0.49
1:AA:1240:U:P	7:AJ:116:ALA:HB2	2.52	0.49
1:AA:20:U:C2'	1:AA:21:G:H5'	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:411:A:C6	1:AA:429:U:C4	3.01	0.49
1:AA:686:U:C2'	1:AA:687:A:O5'	2.60	0.49
22:AB:24:C:H3'	22:AB:24:C:C6	2.48	0.49
2:AE:21:ARG:O	2:AE:23:ARG:N	2.46	0.49
3:AF:56:ASP:HB2	3:AF:67:THR:HB	1.93	0.49
4:AG:119:GLN:CG	4:AG:123:HIS:CD2	2.96	0.49
4:AG:138:TYR:HD2	4:AG:139:ARG:N	2.09	0.49
4:AG:33:MET:CE	4:AG:37:PRO:HA	2.42	0.49
14:AQ:23:ARG:CG	14:AQ:23:ARG:NH1	2.75	0.49
17:AT:65:ILE:HD12	17:AT:65:ILE:N	2.27	0.49
50:B4:24:THR:O	50:B4:25:TYR:HB2	2.13	0.49
50:B4:56:VAL:HG13	50:B4:60:GLN:HG3	1.95	0.49
25:BA:1088:A:N3	25:BA:1088:A:H3'	2.27	0.49
25:BA:1534:G:C6	25:BA:1538:G:N2	2.80	0.49
25:BA:1899:G:O2'	25:BA:1900:A:P	2.70	0.49
25:BA:194:G:H2'	25:BA:195:A:O4'	2.12	0.49
25:BA:2288:A:C2	25:BA:2325:G:C8	3.01	0.49
25:BA:2365:G:O6	54:B8:39:LYS:HE3	2.12	0.49
25:BA:443:A:N7	29:BF:45:ARG:CD	2.71	0.49
28:BE:120:TRP:CD2	28:BE:155:LYS:HD3	2.47	0.49
28:BE:54:GLN:O	28:BE:55:ASN:HB2	2.12	0.49
26:BB:42:C:O3'	30:BG:67:LYS:NZ	2.46	0.49
33:BM:35:ARG:O	33:BM:35:ARG:CG	2.61	0.49
42:BS:40:ASN:O	42:BS:41:LYS:HG2	2.13	0.49
44:BU:44:ILE:HG13	44:BU:45:VAL:H	1.78	0.49
1:CA:1035:A:H3'	1:CA:1036:G:H5''	1.95	0.49
1:CA:1297:C:C1'	1:CA:1298:C:OP2	2.59	0.49
1:CA:1342:C:O2'	1:CA:1343:G:H5'	2.13	0.49
1:CA:184:G:N2	1:CA:194:C:C2	2.81	0.49
1:CA:279:A:H5''	1:CA:281:G:H5'	1.94	0.49
1:CA:380:G:C2	1:CA:384:G:C6	3.01	0.49
1:CA:411:A:N7	1:CA:429:U:C5	2.80	0.49
1:CA:580:U:H2'	1:CA:581:G:O4'	2.13	0.49
2:CE:111:ARG:CG	2:CE:111:ARG:HH11	2.13	0.49
2:CE:68:ILE:HD12	2:CE:222:ILE:HD11	1.95	0.49
6:CI:53:ALA:HB3	6:CI:86:ARG:HD3	1.95	0.49
1:CA:973:G:C1'	10:CM:55:LYS:HG3	2.42	0.49
10:CM:33:GLN:CB	10:CM:75:ILE:HG12	2.42	0.49
18:CU:44:LEU:HD11	18:CU:70:ILE:HG21	1.95	0.49
1:CA:1305:G:H5''	21:CX:4:GLY:HA3	1.94	0.49
41:D2:76:LYS:C	41:D2:79:VAL:HG23	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1062:G:N2	25:DA:1077:A:H1'	2.28	0.49
25:DA:1012:U:C2	25:DA:1143:A:H2	2.21	0.49
25:DA:2224:G:H4'	25:DA:2226:C:C2	2.47	0.49
25:DA:2364:C:H2'	25:DA:2365:G:H5'	1.94	0.49
25:DA:2485:G:C2	25:DA:2486:G:C8	3.00	0.49
25:DA:620:G:C5'	25:DA:620:G:N3	2.76	0.49
25:DA:648:G:O2'	25:DA:649:G:H5'	2.12	0.49
25:DA:6:A:H4'	33:DM:129:PRO:CB	2.42	0.49
25:DA:843:G:N2	25:DA:936:C:C2	2.81	0.49
26:DB:75:G:H5'	26:DB:75:G:C8	2.37	0.49
28:DE:4:ILE:HD12	28:DE:28:ALA:CB	2.42	0.49
28:DE:36:ARG:O	28:DE:37:ARG:O	2.30	0.49
29:DF:25:PRO:HG2	29:DF:26:ALA:H	1.77	0.49
31:DH:10:PRO:HD2	31:DH:50:VAL:O	2.13	0.49
36:DP:29:PHE:CB	36:DP:65:PHE:CD1	2.92	0.49
38:DQ:84:GLN:HA	38:DQ:109:GLY:HA3	1.95	0.49
43:DT:10:ALA:HB1	43:DT:11:PRO:HD2	1.94	0.49
45:DV:148:ASP:OD2	45:DV:149:SER:O	2.30	0.49
47:DZ:23:LYS:O	47:DZ:31:GLY:HA2	2.13	0.49
1:AA:1140:C:H2'	1:AA:1141:C:H6	1.78	0.48
1:AA:49:U:O2'	1:AA:50:A:H2'	2.12	0.48
1:AA:753:A:H4'	1:AA:754:C:C5'	2.43	0.48
4:AG:65:ARG:HG2	4:AG:65:ARG:NH1	2.26	0.48
16:AS:8:ARG:O	16:AS:9:PHE:CD2	2.66	0.48
37:B0:70:LEU:O	37:B0:72:ASP:N	2.46	0.48
33:BM:38:HIS:O	40:B1:67:ALA:HB1	2.12	0.48
46:B3:27:GLU:HG3	46:B3:69:PHE:H	1.78	0.48
52:B6:47:THR:CG2	52:B6:48:VAL:N	2.49	0.48
25:BA:1070:A:C3'	25:BA:1071:G:H5''	2.43	0.48
25:BA:107:C:H2'	25:BA:108:U:H6	1.77	0.48
25:BA:1517:G:H4'	25:BA:1556:C:O2'	2.13	0.48
25:BA:1519:G:O2'	25:BA:1520:U:H5'	2.13	0.48
25:BA:2003:G:H2'	25:BA:2004:G:O5'	2.13	0.48
25:BA:2248:C:H2'	25:BA:2249:U:H5'	1.95	0.48
25:BA:2346:A:O3'	52:B6:39:TYR:OH	2.31	0.48
25:BA:26:G:H1'	25:BA:515:A:N6	2.27	0.48
26:BB:94:C:C2'	26:BB:95:U:H5'	2.44	0.48
27:BD:181:GLU:HG3	27:BD:272:ALA:CB	2.40	0.48
27:BD:27:THR:O	27:BD:28:GLU:OE1	2.30	0.48
31:BH:98:LEU:HD12	31:BH:102:ALA:O	2.13	0.48
35:BO:56:SER:O	35:BO:57:THR:O	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:61:ARG:O	35:BO:62:LEU:O	2.30	0.48
42:BS:73:ALA:HB3	42:BS:106:ILE:CD1	2.43	0.48
25:BA:298:G:OP1	44:BU:84:ARG:HG2	2.12	0.48
45:BV:130:PRO:HA	45:BV:133:ILE:HD11	1.93	0.48
1:CA:1069:C:C5	1:CA:1094:G:O6	2.66	0.48
1:CA:114:U:H2'	1:CA:115:G:C8	2.48	0.48
1:CA:1069:C:O2'	1:CA:1192:C:H1'	2.12	0.48
1:CA:1069:C:H4'	1:CA:1192:C:O2	2.13	0.48
1:CA:257:G:H2'	1:CA:258:G:O4'	2.13	0.48
1:CA:510:A:H5''	1:CA:511:C:P	2.53	0.48
1:CA:620:C:H2'	1:CA:621:A:O4'	2.13	0.48
1:CA:949:A:C1'	1:CA:1364:U:H3	2.26	0.48
4:CG:8:VAL:HG11	4:CG:21:LEU:HB2	1.94	0.48
9:CL:18:PHE:HB2	9:CL:62:TYR:O	2.12	0.48
10:CM:6:ILE:HG12	10:CM:72:VAL:O	2.13	0.48
15:CR:15:PHE:CE2	15:CR:84:LYS:HD2	2.47	0.48
16:CS:3:LYS:O	16:CS:21:VAL:HA	2.13	0.48
40:D1:91:ASP:C	40:D1:93:LYS:N	2.65	0.48
52:D6:9:LEU:HD22	52:D6:11:LEU:CD2	2.43	0.48
52:D6:25:LYS:HE2	52:D6:27:LYS:NZ	2.28	0.48
25:DA:2681:C:C2'	25:DA:2681:C:O2	2.54	0.48
25:DA:2766:G:N3	25:DA:2766:G:H2'	2.28	0.48
25:DA:320:A:H4'	25:DA:322:A:C8	2.48	0.48
25:DA:756:C:H2'	25:DA:757:U:H5'	1.95	0.48
25:DA:877:U:C4'	25:DA:878:A:OP1	2.61	0.48
25:DA:888:C:H4'	25:DA:889:C:H5'	1.95	0.48
28:DE:203:LYS:O	28:DE:204:ALA:CB	2.59	0.48
30:DG:16:ARG:N	30:DG:17:PRO:HD2	2.27	0.48
35:DO:83:VAL:HG12	35:DO:112:LEU:HD21	1.94	0.48
36:DP:65:PHE:O	36:DP:66:ILE:O	2.30	0.48
38:DQ:10:ARG:HH21	38:DQ:91:PRO:HB2	1.78	0.48
39:DR:125:ARG:HB3	39:DR:129:ARG:NH2	2.27	0.48
39:DR:136:GLN:O	39:DR:137:LYS:HD2	2.12	0.48
1:AA:1004:A:C8	1:AA:1036:G:N2	2.75	0.48
1:AA:1098:C:H2'	1:AA:1099:G:O4'	2.13	0.48
1:AA:1130:A:O5'	1:AA:1131:G:P	2.71	0.48
1:AA:539:A:H2'	1:AA:540:G:C8	2.48	0.48
1:AA:628:G:H2'	1:AA:629:G:C8	2.48	0.48
1:AA:659:U:O2	1:AA:660:G:C8	2.67	0.48
8:AK:41:ARG:NH1	8:AK:41:ARG:HG3	2.27	0.48
37:B0:104:ARG:NH1	37:B0:107:ASP:OD1	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B6:34:LEU:O	52:B6:51:GLU:HB3	2.13	0.48
25:BA:1063:G:O2'	25:BA:1064:C:H5'	2.14	0.48
25:BA:1077:A:H3'	25:BA:1078:U:H5''	1.90	0.48
25:BA:1586:A:H3'	25:BA:1587:A:C8	2.47	0.48
25:BA:172:C:H2'	25:BA:173:G:C8	2.48	0.48
25:BA:1735:C:C2'	25:BA:1741:C:H5'	2.43	0.48
25:BA:2492:U:H2'	25:BA:2493:U:C6	2.48	0.48
28:BE:25:VAL:HG13	28:BE:183:LEU:HG	1.95	0.48
30:BG:96:ARG:HA	30:BG:99:MET:HG2	1.95	0.48
38:BQ:106:ARG:N	38:BQ:110:LEU:HD21	2.28	0.48
38:BQ:86:ALA:O	38:BQ:87:PHE:HB3	2.14	0.48
39:BR:110:ILE:HD12	39:BR:110:ILE:O	2.13	0.48
25:BA:1341:U:O4	43:BT:16:LYS:HE2	2.13	0.48
45:BV:113:ALA:N	45:BV:114:GLY:CA	2.74	0.48
48:BW:15:LYS:H	48:BW:67:LYS:NZ	2.11	0.48
1:CA:662:G:H2'	1:CA:663:A:C8	2.47	0.48
23:CC:62:C:H2'	23:CC:63:C:C6	2.43	0.48
4:CG:111:ALA:HB2	4:CG:120:LEU:CD1	2.43	0.48
5:CH:70:PRO:O	5:CH:71:LEU:HD23	2.13	0.48
7:CJ:95:ARG:NH2	7:CJ:99:LEU:HD11	2.28	0.48
10:CM:6:ILE:HG22	10:CM:98:ILE:CG2	2.42	0.48
18:CU:38:GLU:HA	18:CU:38:GLU:OE2	2.12	0.48
20:CW:40:ALA:HB2	20:CW:55:ILE:HG22	1.94	0.48
40:D1:91:ASP:O	40:D1:92:ARG:HG2	2.13	0.48
40:D1:92:ARG:CD	40:D1:95:LEU:HD12	2.42	0.48
30:DG:105:LYS:CE	50:D4:26:SER:HB3	2.44	0.48
54:D8:47:LYS:O	54:D8:48:PHE:CB	2.61	0.48
25:DA:1085:A:H4'	25:DA:1086:A:OP1	2.13	0.48
25:DA:1106:G:H2'	25:DA:1107:G:O4'	2.13	0.48
25:DA:1218:C:O2'	25:DA:1219:G:H5'	2.13	0.48
25:DA:1494:A:H2'	25:DA:1495:A:C8	2.48	0.48
25:DA:1638:C:O2	25:DA:2698:U:O2'	2.27	0.48
25:DA:172:C:H2'	25:DA:173:G:C8	2.47	0.48
25:DA:2065:C:H2'	25:DA:2066:C:C6	2.47	0.48
27:DD:70:TRP:CD1	27:DD:70:TRP:C	2.86	0.48
32:DK:56:LYS:HG3	32:DK:57:ARG:N	2.28	0.48
35:DO:64:LYS:CB	54:D8:25:MET:SD	3.01	0.48
36:DP:87:LYS:O	36:DP:88:GLY:O	2.30	0.48
38:DQ:95:HIS:N	38:DQ:99:LYS:HB2	2.28	0.48
43:DT:40:LYS:HG3	43:DT:51:VAL:CG1	2.44	0.48
44:DU:29:GLU:HB2	44:DU:38:ILE:HD12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:19:ARG:HH11	45:DV:84:GLU:HB2	1.77	0.48
1:AA:451:A:N6	1:AA:480:U:H2'	2.29	0.48
1:AA:651:C:O2	1:AA:651:C:H2'	2.12	0.48
1:AA:87:A:H2'	1:AA:88:C:H6	1.76	0.48
22:AB:2:C:H2'	22:AB:3:C:H6	1.78	0.48
4:AG:14:ARG:C	4:AG:14:ARG:HD3	2.33	0.48
5:AH:87:SER:HB3	5:AH:125:SER:O	2.13	0.48
16:AS:16:HIS:O	16:AS:17:TYR:O	2.30	0.48
25:BA:1296:G:O2'	25:BA:1297:C:H5'	2.13	0.48
25:BA:1716:U:O2'	25:BA:1717:G:H5'	2.13	0.48
25:BA:1856:G:H2'	25:BA:1857:G:H5'	1.94	0.48
25:BA:2023:G:H5'	25:BA:2617:C:H4'	1.95	0.48
25:BA:2884:U:C2'	25:BA:2885:C:H5'	2.43	0.48
25:BA:654(S):G:C4'	25:BA:654(T):A:OP1	2.60	0.48
25:BA:753:C:O2'	25:BA:754:C:H5'	2.13	0.48
25:BA:978:G:C2	25:BA:986:C:C2	3.02	0.48
26:BB:1:U:H2'	26:BB:2:C:C6	2.48	0.48
45:BV:105:VAL:HG13	45:BV:140:ASP:HB3	1.95	0.48
45:BV:7:ALA:HB3	45:BV:61:LEU:HB2	1.95	0.48
1:CA:115:G:H4'	1:CA:116:A:O5'	2.12	0.48
1:CA:1281:U:H4'	1:CA:1282:C:OP2	2.13	0.48
1:CA:1338:G:C6	1:CA:1339:A:N1	2.81	0.48
1:CA:1378:C:C5	1:CA:1379:G:N9	2.78	0.48
22:CB:52:U:H3'	22:CB:53:A:C8	2.48	0.48
2:CE:213:LEU:O	2:CE:213:LEU:HD23	2.13	0.48
7:CJ:131:LYS:NZ	7:CJ:131:LYS:HB2	2.28	0.48
9:CL:26:VAL:HG21	9:CL:47:LEU:HD21	1.96	0.48
41:D2:78:LYS:O	41:D2:79:VAL:HG13	2.13	0.48
25:DA:1012:U:C2	33:DM:25:ARG:NH1	2.81	0.48
25:DA:2272:U:C5'	25:DA:2273:A:OP1	2.61	0.48
25:DA:581:C:H2'	25:DA:582:G:C8	2.45	0.48
25:DA:872:A:C5	25:DA:906:G:N2	2.82	0.48
26:DB:74:U:C3'	26:DB:75:G:H5''	2.44	0.48
30:DG:36:LYS:HG3	30:DG:93:THR:HG23	1.95	0.48
32:DK:78:THR:CG2	32:DK:104:GLN:HE22	2.26	0.48
35:DO:146:VAL:HG22	35:DO:147:LEU:CD1	2.44	0.48
36:DP:62:GLY:O	36:DP:63:LYS:CB	2.61	0.48
39:DR:99:LEU:O	39:DR:101:PHE:N	2.46	0.48
25:DA:2875:C:O2'	39:DR:3:ARG:HG3	2.13	0.48
39:DR:78:LEU:HD23	39:DR:78:LEU:O	2.13	0.48
43:DT:49:VAL:HB	43:DT:83:VAL:CG2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:101:LYS:HB3	44:DU:101:LYS:HE2	1.63	0.48
44:DU:43:ASN:N	44:DU:43:ASN:HD22	2.12	0.48
45:DV:6:LYS:HE3	45:DV:43:GLU:HG3	1.95	0.48
1:AA:1151:A:N6	1:AA:1152:A:N6	2.61	0.48
1:AA:1157:A:O2'	1:AA:1158:C:H5''	2.13	0.48
1:AA:1164:G:O2'	1:AA:1165:C:H5'	2.13	0.48
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.13	0.48
1:AA:390:C:H2'	1:AA:391:G:C8	2.48	0.48
1:AA:392:G:P	16:AS:12:LYS:HG3	2.53	0.48
1:AA:519:C:H2'	1:AA:520:A:C8	2.48	0.48
1:AA:601:C:H2'	1:AA:602:A:C8	2.48	0.48
1:AA:974:A:C2'	1:AA:975:A:OP2	2.61	0.48
22:AB:60:A:H61	22:AB:76:U:H3	1.60	0.48
23:AD:8:U:C5	23:AD:13:C:C4	3.01	0.48
2:AE:96:ARG:HD2	2:AE:96:ARG:N	2.12	0.48
1:AA:404:U:H5'	4:AG:122:ARG:HD2	1.94	0.48
8:AK:7:ALA:HB2	8:AK:85:ARG:CD	2.43	0.48
11:AN:57:THR:HG22	11:AN:59:TYR:N	2.21	0.48
11:AN:81:ASP:O	11:AN:82:VAL:O	2.31	0.48
13:AP:11:ARG:HG2	13:AP:12:ASN:H	1.77	0.48
1:AA:974:A:OP2	14:AQ:41:ARG:NH1	2.46	0.48
15:AR:4:THR:OG1	15:AR:7:GLU:HB2	2.12	0.48
40:B1:90:VAL:HG12	40:B1:91:ASP:N	2.26	0.48
41:B2:19:LYS:HG3	41:B2:95:LEU:HD23	1.94	0.48
46:B3:55:ARG:HG3	46:B3:55:ARG:HH11	1.78	0.48
25:BA:247:G:H4'	25:BA:386:G:C5	2.48	0.48
25:BA:2580:U:H4'	28:BE:130:GLY:CA	2.42	0.48
25:BA:2895:U:H6	25:BA:2895:U:O5'	1.96	0.48
25:BA:72:U:H1'	48:BW:58:ALA:CB	2.44	0.48
25:BA:818:G:H4'	25:BA:838:C:O3'	2.13	0.48
25:BA:863:A:H2'	25:BA:864:G:C8	2.48	0.48
27:BD:158:ALA:O	27:BD:159:ALA:C	2.51	0.48
27:BD:35:LYS:CA	27:BD:64:ILE:CG2	2.91	0.48
28:BE:183:LEU:N	28:BE:183:LEU:CD1	2.77	0.48
31:BH:105:LEU:CD2	31:BH:105:LEU:H	2.27	0.48
33:BM:120:LEU:HD21	33:BM:122:VAL:HG23	1.95	0.48
33:BM:130:HIS:HD2	33:BM:134:ARG:NH1	2.12	0.48
25:BA:1007:C:OP1	33:BM:35:ARG:NH1	2.46	0.48
25:BA:2562:U:C1'	34:BN:23:ARG:HH11	2.22	0.48
36:BP:30:GLY:HA3	36:BP:107:ALA:HB2	1.92	0.48
48:BW:42:GLY:O	48:BW:44:LEU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1176:A:C6	1:CA:1177:G:C5	3.01	0.48
1:CA:1213:A:C5	1:CA:1215:G:C4	3.01	0.48
1:CA:428:G:O4'	1:CA:430:A:C8	2.66	0.48
1:CA:495:A:H4'	1:CA:496:A:OP1	2.14	0.48
1:CA:946:A:H2'	1:CA:947:G:H8	1.74	0.48
2:CE:5:ILE:HG12	2:CE:55:PHE:HB3	1.94	0.48
7:CJ:43:PHE:O	7:CJ:47:CYS:HB2	2.13	0.48
19:CV:64:GLU:H	19:CV:64:GLU:CD	2.17	0.48
41:D2:73:SER:HB2	41:D2:83:ARG:HA	1.95	0.48
25:DA:1005:C:O4'	25:DA:1143:A:H2	1.97	0.48
25:DA:1061:U:H4'	25:DA:1070:A:C1'	2.43	0.48
25:DA:1407:C:C2	25:DA:1596:A:C2	3.00	0.48
25:DA:141:A:H8	25:DA:1595:G:N2	2.03	0.48
25:DA:1693:U:H4'	25:DA:1694:C:OP2	2.13	0.48
25:DA:2165:G:N3	25:DA:2165:G:H2'	2.29	0.48
25:DA:2345:G:N3	25:DA:2381:C:H2'	2.28	0.48
25:DA:227:A:C2	25:DA:2407:G:H1'	2.49	0.48
25:DA:2680:C:O2'	25:DA:2681:C:H5'	2.14	0.48
25:DA:322:A:H4'	25:DA:323:G:OP2	2.13	0.48
25:DA:496:G:C2'	25:DA:497:A:H5'	2.44	0.48
25:DA:598:G:C6	25:DA:599:G:C5	3.01	0.48
28:DE:60:ASN:H	28:DE:60:ASN:ND2	2.11	0.48
30:DG:101:ILE:HD12	30:DG:102:PHE:N	2.27	0.48
31:DH:26:VAL:HG11	31:DH:33:LEU:HB2	1.95	0.48
31:DH:10:PRO:CG	31:DH:50:VAL:HG13	2.43	0.48
32:DK:5:LEU:HD11	32:DK:19:VAL:HG12	1.94	0.48
33:DM:134:ARG:N	33:DM:135:PRO:CD	2.77	0.48
35:DO:10:PRO:O	35:DO:11:GLY:O	2.30	0.48
35:DO:55:ARG:O	35:DO:56:SER:C	2.51	0.48
35:DO:56:SER:O	35:DO:57:THR:O	2.30	0.48
36:DP:133:ARG:HD3	36:DP:133:ARG:O	2.13	0.48
39:DR:82:LEU:H	39:DR:82:LEU:HD12	1.77	0.48
1:AA:164:U:H2'	1:AA:165:C:C5	2.49	0.48
1:AA:271:C:H2'	1:AA:272:C:C6	2.47	0.48
22:AB:25:A:N3	22:AB:25:A:H2'	2.27	0.48
5:AH:13:ILE:HD11	5:AH:55:VAL:HG22	1.96	0.48
9:AL:17:VAL:HG21	9:AL:80:GLY:HA3	1.94	0.48
10:AM:16:LEU:CD1	10:AM:70:ARG:HB2	2.43	0.48
46:B3:56:ASP:OD2	46:B3:58:THR:HB	2.14	0.48
25:BA:1049:C:C2'	25:BA:1050:A:C5'	2.91	0.48
25:BA:1079:C:N4	25:BA:1080:A:C6	2.80	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1444:G:N2	25:BA:1548:C:C2	2.81	0.48
25:BA:2309:A:HO2'	25:BA:2310:A:H5''	1.75	0.48
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.47	0.48
25:BA:589:C:H2'	25:BA:590:A:C8	2.49	0.48
26:BB:29:A:H2'	26:BB:30:C:C6	2.48	0.48
27:BD:127:VAL:HA	27:BD:193:VAL:HG22	1.95	0.48
28:BE:101:ARG:C	28:BE:201:THR:OG1	2.52	0.48
28:BE:82:ARG:C	28:BE:84:PHE:H	2.17	0.48
28:BE:82:ARG:C	28:BE:84:PHE:N	2.66	0.48
29:BF:118:ALA:HB2	29:BF:123:LEU:HD23	1.95	0.48
30:BG:26:GLN:HG3	30:BG:27:ASN:N	2.28	0.48
30:BG:42:GLY:O	30:BG:43:LEU:HD13	2.13	0.48
31:BH:131:VAL:CG1	31:BH:132:ARG:N	2.76	0.48
31:BH:77:LYS:HE2	31:BH:138:LYS:HE2	1.95	0.48
33:BM:127:ASP:OD1	33:BM:127:ASP:N	2.46	0.48
35:BO:71:VAL:HG12	35:BO:72:PRO:HD3	1.94	0.48
43:BT:11:PRO:HB3	43:BT:92:LEU:HD21	1.94	0.48
1:CA:216:G:O2'	1:CA:217:C:O5'	2.31	0.48
1:CA:527:G:C2'	1:CA:528:C:H5'	2.44	0.48
1:CA:693:G:H2'	1:CA:694:A:O4'	2.13	0.48
1:CA:756:C:H2'	1:CA:757:U:O4'	2.14	0.48
1:CA:953:G:C5'	1:CA:965:A:H61	2.26	0.48
2:CE:189:ASP:N	2:CE:189:ASP:OD1	2.46	0.48
5:CH:40:ARG:HH11	5:CH:40:ARG:HG2	1.78	0.48
5:CH:76:ILE:HG23	5:CH:77:PRO:HD2	1.95	0.48
1:CA:1375:A:H4'	7:CJ:29:LYS:NZ	2.28	0.48
10:CM:4:ILE:HB	10:CM:74:ILE:CG1	2.43	0.48
20:CW:36:LEU:HD12	20:CW:55:ILE:HG23	1.95	0.48
50:D4:34:GLU:OE2	50:D4:35:VAL:HG23	2.14	0.48
52:D6:27:LYS:NZ	52:D6:28:ARG:HH12	2.10	0.48
25:DA:1065:U:C4	25:DA:1066:U:C4	3.02	0.48
25:DA:1087:G:C8	25:DA:1089:G:H1'	2.49	0.48
25:DA:1312:U:H4'	25:DA:1313:U:O5'	2.14	0.48
25:DA:1338:G:N3	25:DA:1393:A:H2	2.12	0.48
25:DA:142:G:H5''	25:DA:1598:C:O2'	2.14	0.48
25:DA:2291:U:H2'	25:DA:2292:C:C6	2.49	0.48
25:DA:270(R):G:H2'	25:DA:270(S):G:C8	2.49	0.48
25:DA:2790:A:H4'	25:DA:2791:C:OP2	2.13	0.48
25:DA:7:G:H1	25:DA:2896:C:N4	2.11	0.48
26:DB:20:C:O2'	26:DB:21:G:H5'	2.13	0.48
31:DH:94:TYR:HA	31:DH:106:THR:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:85:LEU:HB3	35:DO:114:ILE:HD11	1.94	0.48
35:DO:55:ARG:HG3	35:DO:55:ARG:O	2.13	0.48
39:DR:23:ARG:HB2	39:DR:24:PRO:HD2	1.95	0.48
25:DA:491:G:O6	42:DS:49:LYS:HD3	2.13	0.48
45:DV:175:VAL:CG1	45:DV:176:PRO:HD3	2.43	0.48
45:DV:27:VAL:CG1	45:DV:87:ASP:HB3	2.39	0.48
1:AA:1023:G:H3'	1:AA:1024:G:C5'	2.42	0.48
1:AA:920:U:O4'	1:AA:1080:A:C2	2.67	0.48
1:AA:1086:U:C2'	1:AA:1087:G:H5'	2.43	0.48
1:AA:1270:C:H2'	1:AA:1271:G:C8	2.48	0.48
1:AA:298:A:H2'	1:AA:299:G:O4'	2.13	0.48
1:AA:359:U:H2'	1:AA:360:A:C8	2.49	0.48
1:AA:719:C:C5	1:AA:720:C:C4	3.00	0.48
1:AA:829:G:C2'	1:AA:830:G:H5'	2.43	0.48
4:AG:108:LEU:HD11	4:AG:174:LEU:HD22	1.94	0.48
10:AM:53:PRO:HA	14:AQ:42:ILE:CD1	2.44	0.48
11:AN:124:LYS:HG2	11:AN:125:PHE:CD1	2.49	0.48
12:AO:7:ILE:CD1	17:AT:32:TYR:HB3	2.44	0.48
16:AS:34:GLU:HG2	16:AS:35:LYS:H	1.79	0.48
17:AT:76:LEU:HD12	17:AT:77:VAL:H	1.78	0.48
19:AV:40:ILE:C	19:AV:41:VAL:HG22	2.34	0.48
30:BG:104:GLU:HG2	50:B4:23:GLU:HG3	1.95	0.48
50:B4:49:PHE:O	50:B4:50:VAL:HB	2.13	0.48
25:BA:1728:G:C3'	25:BA:1729:A:C5'	2.79	0.48
25:BA:2579:C:H2'	25:BA:2580:U:O4'	2.14	0.48
25:BA:2615:U:H2'	25:BA:2616:C:H6	1.79	0.48
25:BA:2648:C:H2'	25:BA:2649:U:H6	1.79	0.48
25:BA:2734:A:C8	25:BA:2734:A:H5'	2.47	0.48
25:BA:439:G:C2'	25:BA:440:G:H5'	2.43	0.48
27:BD:120:GLY:O	27:BD:123:ALA:CB	2.62	0.48
28:BE:61:ARG:HB2	28:BE:62:PRO:HD3	1.94	0.48
31:BH:6:ARG:HE	31:BH:54:ARG:HH12	1.60	0.48
33:BM:7:LYS:O	33:BM:9:VAL:HG22	2.13	0.48
34:BN:23:ARG:HG3	34:BN:24:VAL:N	2.28	0.48
38:BQ:108:GLY:O	38:BQ:110:LEU:HG	2.13	0.48
39:BR:89:VAL:O	39:BR:89:VAL:HG23	2.12	0.48
44:BU:48:ALA:O	44:BU:49:VAL:C	2.52	0.48
1:CA:1446:A:OP1	1:CA:1446:A:C4'	2.61	0.48
1:CA:408:A:C4	1:CA:409:G:C8	3.02	0.48
1:CA:476:G:H2'	1:CA:477:G:H8	1.77	0.48
1:CA:860:A:N6	1:CA:861:G:C2	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:178:ARG:HH21	8:CK:74:PRO:HG3	1.79	0.48
13:CP:73:GLU:O	13:CP:77:ASN:HB2	2.14	0.48
14:CQ:37:PHE:CE1	14:CQ:53:LEU:HD22	2.47	0.48
9:CL:111:ARG:HD2	14:CQ:61:TRP:OXT	2.13	0.48
1:CA:186:C:H1'	20:CW:81:LYS:HZ3	1.78	0.48
25:DA:1217:C:OP1	40:D1:15:LYS:HE3	2.13	0.48
50:D4:12:ALA:H	50:D4:24:THR:CG2	2.27	0.48
50:D4:2:LYS:HD2	50:D4:6:HIS:CE1	2.48	0.48
52:D6:9:LEU:HD22	52:D6:11:LEU:HD22	1.95	0.48
25:DA:1050:A:C4	25:DA:2751:G:N2	2.81	0.48
25:DA:2059:A:C2	25:DA:2062:A:N6	2.82	0.48
25:DA:2199:A:C8	25:DA:2205:C:C5	3.02	0.48
25:DA:2401:U:H2'	25:DA:2402:C:H6	1.79	0.48
25:DA:2406:U:H2'	25:DA:2406:U:OP2	2.13	0.48
25:DA:2720:U:C2	25:DA:2721:A:C8	3.02	0.48
25:DA:298:G:N2	25:DA:339:U:C5	2.82	0.48
25:DA:668:G:H2'	25:DA:669:G:OP1	2.13	0.48
25:DA:994:C:O2'	25:DA:996:A:OP1	2.22	0.48
27:DD:31:LYS:NZ	27:DD:31:LYS:HB2	2.28	0.48
28:DE:135:HIS:N	28:DE:135:HIS:ND1	2.60	0.48
28:DE:47:VAL:C	28:DE:80:GLU:HA	2.29	0.48
25:DA:2312:U:O2'	30:DG:40:ASN:ND2	2.47	0.48
33:DM:134:ARG:N	33:DM:135:PRO:HD3	2.28	0.48
34:DN:10:VAL:CG2	34:DN:16:ALA:O	2.62	0.48
35:DO:35:HIS:O	35:DO:36:LYS:C	2.51	0.48
39:DR:92:GLY:HA2	39:DR:117:ASP:H	1.79	0.48
45:DV:108:PRO:HB3	45:DV:142:SER:C	2.34	0.48
45:DV:70:LEU:O	45:DV:89:PHE:N	2.41	0.48
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.14	0.48
1:AA:509:A:H3'	1:AA:509:A:C8	2.48	0.48
3:AF:67:THR:HG23	3:AF:102:ASN:HB2	1.94	0.48
3:AF:68:VAL:HG12	3:AF:70:VAL:HG23	1.96	0.48
11:AN:41:THR:CG2	11:AN:42:TRP:N	2.77	0.48
54:B8:36:LYS:HD2	54:B8:40:GLU:HG2	1.95	0.48
25:BA:1568:G:OP2	27:BD:63:ARG:NH2	2.46	0.48
25:BA:1606:G:H5''	25:BA:1607:C:OP1	2.13	0.48
25:BA:2184:G:C6	25:BA:2185:C:N4	2.82	0.48
25:BA:2687:U:C4	25:BA:2688:U:C5	3.02	0.48
25:BA:2758:A:C2	25:BA:2759:G:H1'	2.49	0.48
25:BA:547:A:H3'	25:BA:548:A:C8	2.48	0.48
25:BA:1257:C:H4'	29:BF:83:PHE:CE2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BM:130:HIS:CD2	33:BM:134:ARG:NH1	2.82	0.48
45:BV:69:THR:HA	45:BV:89:PHE:O	2.14	0.48
48:BW:16:LEU:CG	48:BW:16:LEU:O	2.62	0.48
49:BX:10:LYS:HZ3	49:BX:15:TYR:HH	1.57	0.48
1:CA:1179:A:O3'	9:CL:103:THR:HG23	2.13	0.48
1:CA:1305:G:H22	1:CA:1331:G:C2'	2.26	0.48
14:CQ:41:ARG:HG3	14:CQ:42:ILE:N	2.29	0.48
20:CW:69:GLY:O	20:CW:73:HIS:CD2	2.67	0.48
41:D2:82:ARG:NH1	41:D2:82:ARG:CG	2.47	0.48
53:D7:35:ARG:CG	53:D7:42:LEU:HD11	2.43	0.48
54:D8:49:VAL:HG23	54:D8:50:LEU:H	1.77	0.48
25:DA:1071:G:C4	25:DA:1089:G:H2'	2.49	0.48
25:DA:1146:C:H2'	25:DA:1147:C:H5'	1.95	0.48
25:DA:1288:U:C2	25:DA:1327:C:O2	2.66	0.48
25:DA:1388:G:O2'	25:DA:1389:G:H5'	2.13	0.48
25:DA:2168:G:C2	25:DA:2170:A:OP2	2.66	0.48
25:DA:2472:G:C4	25:DA:2475:C:N4	2.82	0.48
25:DA:273(E):U:O2'	25:DA:273(F):C:H5'	2.13	0.48
25:DA:547:A:N7	25:DA:548:A:N6	2.60	0.48
25:DA:587:C:N3	35:DO:33:ARG:HD2	2.29	0.48
25:DA:659:C:H4'	29:DF:100:THR:O	2.12	0.48
25:DA:76:C:H2'	25:DA:77:C:H6	1.78	0.48
25:DA:883:G:H2'	25:DA:884:C:C5	2.48	0.48
25:DA:91:A:C2'	25:DA:92:G:H5'	2.44	0.48
28:DE:66:HIS:NE2	28:DE:73:GLU:OE1	2.46	0.48
25:DA:558:G:OP1	33:DM:111:PRO:HD2	2.13	0.48
35:DO:81:GLN:HB3	35:DO:106:LEU:HD12	1.95	0.48
36:DP:29:PHE:HB3	36:DP:65:PHE:CZ	2.46	0.48
45:DV:115:GLY:HA2	45:DV:177:PRO:HD3	1.95	0.48
45:DV:1:MET:HG2	45:DV:2:GLU:H	1.79	0.48
48:DW:17:SER:OG	48:DW:18:PRO:HA	2.13	0.48
1:AA:163:C:H2'	1:AA:164:U:H6	1.78	0.48
1:AA:829:G:O2'	1:AA:830:G:H5'	2.13	0.48
22:AB:19:G:H1'	22:AB:20:U:OP1	2.14	0.48
23:AC:1:C:O2'	23:AC:2:G:OP2	2.32	0.48
23:AC:41:C:O2'	23:AC:42:C:H5'	2.14	0.48
5:AH:51:VAL:O	5:AH:55:VAL:HG23	2.13	0.48
8:AK:138:TRP:OXT	8:AK:138:TRP:CE3	2.66	0.48
15:AR:3:ILE:HG13	15:AR:3:ILE:O	2.13	0.48
25:BA:2820:A:C5	37:B0:4:LEU:HD21	2.49	0.48
50:B4:56:VAL:CG1	50:B4:60:GLN:HG3	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B4:61:ARG:O	50:B4:65:ASP:OD1	2.31	0.48
52:B6:11:LEU:HD21	52:B6:51:GLU:HG3	1.96	0.48
25:BA:1578:U:H2'	25:BA:1579:A:H5'	1.95	0.48
25:BA:2099:U:O2	25:BA:2099:U:H2'	2.14	0.48
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.14	0.48
25:BA:2406:U:OP2	25:BA:2406:U:H2'	2.14	0.48
25:BA:2863:C:O2'	25:BA:2864:G:H5'	2.13	0.48
25:BA:530:G:O4'	25:BA:530:G:N3	2.45	0.48
25:BA:849:A:N1	49:BX:25:ALA:HB2	2.27	0.48
27:BD:36:PRO:HA	27:BD:62:TYR:O	2.13	0.48
28:BE:48:GLN:HE22	28:BE:77:ILE:CD1	2.25	0.48
32:BK:92:VAL:O	32:BK:120:ILE:HG22	2.13	0.48
25:BA:1141:U:P	33:BM:63:THR:HG21	2.54	0.48
35:BO:38:GLN:O	35:BO:41:ARG:HB2	2.13	0.48
36:BP:137:TYR:C	36:BP:139:GLU:H	2.15	0.48
39:BR:11:GLU:N	39:BR:11:GLU:OE1	2.47	0.48
44:BU:68:HIS:O	44:BU:71:LYS:HB2	2.14	0.48
1:CA:1133:G:N2	1:CA:1141:C:N3	2.60	0.48
1:CA:1240:U:OP2	7:CJ:115:ARG:HA	2.14	0.48
1:CA:327:A:O2'	1:CA:328:C:O4'	2.22	0.48
1:CA:353:A:C2'	1:CA:354:G:OP2	2.62	0.48
1:CA:420:U:H2'	1:CA:422:C:O2	2.14	0.48
1:CA:503:C:C2'	1:CA:504:C:H5'	2.43	0.48
1:CA:955:U:H2'	1:CA:956:U:H6	1.78	0.48
1:CA:9:G:C8	5:CH:126:ARG:NH2	2.81	0.48
3:CF:52:LEU:CD2	3:CF:52:LEU:H	2.27	0.48
4:CG:24:GLU:O	4:CG:27:TYR:N	2.42	0.48
5:CH:12:LEU:O	5:CH:30:ALA:HA	2.14	0.48
1:CA:1298:C:C6	7:CJ:114:ARG:NH1	2.82	0.48
8:CK:29:SER:HB3	8:CK:32:LYS:CB	2.43	0.48
9:CL:112:LYS:HD3	9:CL:113:LYS:O	2.14	0.48
1:CA:1226:C:N4	13:CP:104:ARG:HD2	2.29	0.48
15:CR:43:LEU:HD11	15:CR:53:HIS:HA	1.96	0.48
20:CW:58:LYS:O	20:CW:58:LYS:HD3	2.13	0.48
54:D8:30:ARG:O	54:D8:31:HIS:HB2	2.14	0.48
54:D8:61:LEU:O	54:D8:62:LEU:C	2.51	0.48
25:DA:1057:A:H2	25:DA:1081:U:N3	2.01	0.48
25:DA:1826:G:H2'	25:DA:1827:C:H6	1.78	0.48
25:DA:2276:G:P	36:DP:84:GLY:HA2	2.54	0.48
25:DA:2297:C:O2	25:DA:2298:A:C8	2.67	0.48
25:DA:2689:U:P	25:DA:2719:G:H22	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:307:G:N1	25:DA:310:A:OP2	2.45	0.48
25:DA:839:U:H2'	25:DA:840:C:C6	2.49	0.48
27:DD:62:TYR:CE1	27:DD:64:ILE:HA	2.48	0.48
28:DE:53:PRO:HG2	28:DE:54:GLN:H	1.79	0.48
28:DE:9:VAL:HG13	28:DE:26:ILE:O	2.13	0.48
29:DF:117:ARG:HH12	35:DO:1:MET:N	2.12	0.48
29:DF:8:GLN:HG2	29:DF:124:LEU:HD11	1.95	0.48
45:DV:141:VAL:O	45:DV:142:SER:O	2.30	0.48
45:DV:175:VAL:O	45:DV:177:PRO:CD	2.52	0.48
1:AA:1072:G:C6	1:AA:1073:U:C4	3.02	0.48
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.47	0.48
1:AA:131:C:H2'	1:AA:131:C:O2	2.14	0.48
1:AA:1358:U:H5''	14:AQ:33:VAL:O	2.14	0.48
1:AA:926:G:C6	1:AA:1505:G:C5	3.02	0.48
1:AA:255:G:H1'	17:AT:16:GLN:HE21	1.78	0.48
1:AA:659:U:N3	1:AA:660:G:N7	2.62	0.48
23:AC:20:G:O2'	23:AC:21:U:H5	1.95	0.48
23:AC:26:C:H2'	23:AC:27:G:O4'	2.14	0.48
2:AE:18:GLY:H	2:AE:42:ILE:CG2	2.22	0.48
5:AH:32:VAL:HB	5:AH:58:ALA:HB1	1.95	0.48
7:AJ:152:ALA:O	7:AJ:155:ARG:HB3	2.13	0.48
9:AL:83:ARG:HA	9:AL:86:VAL:CG1	2.44	0.48
10:AM:17:ASP:O	10:AM:21:GLN:HB2	2.12	0.48
10:AM:4:ILE:HD13	10:AM:100:THR:CG2	2.44	0.48
1:AA:1125:U:O4	10:AM:5:ARG:HD2	2.13	0.48
10:AM:34:VAL:CG1	10:AM:74:ILE:HG23	2.44	0.48
12:AO:122:THR:HG22	12:AO:123:LYS:O	2.12	0.48
17:AT:67:LYS:HA	17:AT:70:ARG:HH12	1.79	0.48
20:AW:50:GLU:HG3	20:AW:51:GLU:N	2.29	0.48
1:AA:261:U:OP2	20:AW:79:ARG:NH2	2.47	0.48
41:B2:87:HIS:NE2	41:B2:89:GLN:NE2	2.61	0.48
46:B3:72:ARG:CB	46:B3:75:LEU:HB2	2.43	0.48
25:BA:2401:U:H5'	52:B6:18:ARG:HD3	1.94	0.48
25:BA:1021:A:H3'	25:BA:1022:G:C5'	2.32	0.48
25:BA:1385:G:O2'	25:BA:1396:U:C6	2.66	0.48
25:BA:1991:U:C2'	25:BA:1992:G:H5''	2.41	0.48
25:BA:2302:G:C6	25:BA:2315:G:C6	3.02	0.48
25:BA:2850:A:H5'	25:BA:2868:A:C2	2.49	0.48
25:BA:340:A:C2'	25:BA:341:G:H5'	2.44	0.48
25:BA:724:U:H2'	25:BA:725:G:O4'	2.14	0.48
25:BA:997:G:O2'	25:BA:998:C:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:109:VAL:O	30:BG:113:ARG:HG3	2.14	0.48
32:BK:12:LEU:HD13	32:BK:12:LEU:N	2.29	0.48
33:BM:134:ARG:N	33:BM:135:PRO:HD3	2.29	0.48
36:BP:31:ASP:O	36:BP:133:ARG:O	2.32	0.48
39:BR:55:ASN:HB3	39:BR:58:ASN:O	2.14	0.48
45:BV:120:ILE:HG21	45:BV:170:THR:HB	1.96	0.48
45:BV:105:VAL:HG12	45:BV:139:VAL:O	2.13	0.48
1:CA:947:G:O3'	13:CP:109:THR:OG1	2.25	0.48
22:CB:31:C:C2	22:CB:32:C:C5	3.01	0.48
2:CE:28:PHE:CD1	2:CE:32:ILE:HG22	2.46	0.48
2:CE:55:PHE:HD1	2:CE:58:ILE:HD12	1.79	0.48
3:CF:58:GLU:CB	3:CF:65:ALA:HB3	2.44	0.48
4:CG:208:SER:OG	5:CH:101:ILE:HG22	2.14	0.48
9:CL:21:PRO:HA	9:CL:59:PHE:HA	1.94	0.48
9:CL:95:LYS:HZ2	9:CL:96:LEU:CD1	2.27	0.48
1:CA:1226:C:OP2	13:CP:103:THR:HG21	2.14	0.48
13:CP:88:ARG:O	13:CP:88:ARG:HG3	2.13	0.48
19:CV:51:VAL:O	19:CV:58:VAL:HG22	2.13	0.48
37:D0:72:ASP:HB3	37:D0:75:LEU:HB3	1.96	0.48
25:DA:1187:G:C4'	41:D2:76:LYS:HZ2	2.23	0.48
19:CV:41:VAL:HG13	50:D4:63:TYR:CE2	2.49	0.48
52:D6:28:ARG:HG3	52:D6:31:PRO:HD2	1.95	0.48
54:D8:52:LYS:HD3	54:D8:52:LYS:N	2.27	0.48
25:DA:1097:U:H2'	25:DA:1098:A:O4'	2.14	0.48
25:DA:1180:C:H2'	25:DA:1181:C:C6	2.49	0.48
25:DA:1181:C:H2'	25:DA:1182:A:C8	2.49	0.48
25:DA:2011:U:H2'	25:DA:2012:G:H5'	1.96	0.48
25:DA:2124:G:H2'	25:DA:2125:G:H5'	1.96	0.48
25:DA:2298:A:C2	25:DA:2299:G:H1'	2.49	0.48
25:DA:2872:G:C8	25:DA:2873:A:H2	2.28	0.48
25:DA:363(B):G:H2'	25:DA:363(C):G:C8	2.49	0.48
25:DA:90:U:O2'	25:DA:91:A:H5''	2.13	0.48
25:DA:997:G:O2'	25:DA:998:C:H5'	2.13	0.48
26:DB:73:A:H5'	26:DB:74:U:OP2	2.14	0.48
26:DB:78:A:C2	26:DB:99:A:C4	3.02	0.48
28:DE:197:ILE:CD1	28:DE:199:ARG:HH21	2.18	0.48
30:DG:67:LYS:H	50:D4:6:HIS:HE2	1.61	0.48
30:DG:96:ARG:HG3	30:DG:96:ARG:H	1.26	0.48
25:DA:2768:C:O2'	33:DM:89:LYS:HE2	2.14	0.48
34:DN:7:TYR:CE1	34:DN:20:MET:HG3	2.48	0.48
45:DV:102:LEU:HD11	45:DV:124:ILE:HB	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1054:C:O2'	1:AA:1055:A:C5'	2.62	0.48
1:AA:658:G:H2'	1:AA:659:U:H6	1.78	0.48
1:AA:85:U:O2	1:AA:85:U:C2'	2.62	0.48
23:AD:27:G:O6	23:AD:45:A:N6	2.46	0.48
2:AE:150:SER:OG	2:AE:151:GLY:N	2.46	0.48
13:AP:99:ARG:O	13:AP:101:GLN:NE2	2.47	0.48
13:AP:108:ARG:N	13:AP:108:ARG:HD2	2.29	0.48
13:AP:4:ILE:HG22	13:AP:5:ALA:N	2.28	0.48
54:B8:37:SER:HA	54:B8:41:ILE:CG2	2.41	0.48
25:BA:141:A:H8	25:BA:1408:C:H1'	1.77	0.48
28:BE:92:THR:O	28:BE:95:ILE:CG1	2.61	0.48
34:BN:93:PRO:HG2	34:BN:113:LYS:HD3	1.95	0.48
45:BV:76:LEU:N	45:BV:76:LEU:CD2	2.74	0.48
1:CA:1177:G:OP2	9:CL:97:LYS:NZ	2.43	0.48
1:CA:1328:C:OP1	21:CX:21:TYR:OH	2.22	0.48
1:CA:194:C:H2'	1:CA:195:A:H5''	1.95	0.48
1:CA:260:G:N2	1:CA:265:G:N7	2.61	0.48
1:CA:380:G:N2	1:CA:384:G:C5	2.82	0.48
22:CB:35:G:C2'	22:CB:36:A:H5'	2.44	0.48
4:CG:8:VAL:O	4:CG:11:LEU:N	2.47	0.48
4:CG:75:PHE:HE1	4:CG:97:LEU:HD11	1.78	0.48
5:CH:100:VAL:HG22	5:CH:118:ILE:CG2	2.44	0.48
10:CM:44:VAL:HG22	10:CM:66:ARG:HG3	1.95	0.48
10:CM:8:LEU:CD2	10:CM:20:ALA:HB2	2.43	0.48
16:CS:56:ALA:O	16:CS:60:LEU:HG	2.14	0.48
18:CU:41:LYS:HD3	18:CU:41:LYS:O	2.14	0.48
19:CV:28:LYS:CE	19:CV:29:ARG:H	2.26	0.48
19:CV:30:LEU:CD1	19:CV:31:ILE:H	2.27	0.48
37:D0:63:ARG:O	37:D0:67:LEU:HB2	2.14	0.48
52:D6:25:LYS:CE	54:D8:34:TRP:HH2	2.25	0.48
25:DA:1171:G:O2'	25:DA:1173:G:O5'	2.30	0.48
25:DA:1443:G:C2'	25:DA:1444:G:H5'	2.43	0.48
25:DA:2378:A:C5	25:DA:2379:G:H1'	2.48	0.48
25:DA:2401:U:O2'	25:DA:2402:C:C6	2.64	0.48
25:DA:513:A:C2	25:DA:514:A:C5	3.02	0.48
25:DA:529:A:H4'	25:DA:530:G:H5'	1.95	0.48
25:DA:548:A:H8	25:DA:548:A:O5'	1.97	0.48
25:DA:654(T):A:H2'	25:DA:654(U):A:O4'	2.13	0.48
25:DA:676:A:N1	25:DA:802:A:N1	2.62	0.48
25:DA:861:A:C2	25:DA:917:A:C5	3.02	0.48
27:DD:24:ILE:CD1	27:DD:91:ARG:HD3	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:48:GLN:CG	28:DE:78:LEU:CB	2.89	0.48
28:DE:79:ARG:N	28:DE:79:ARG:HD2	2.29	0.48
29:DF:187:VAL:HG12	35:DO:3:LEU:HG	1.96	0.48
30:DG:161:THR:HG22	30:DG:162:THR:N	2.29	0.48
34:DN:108:GLU:HG2	34:DN:108:GLU:H	1.46	0.48
38:DQ:59:LYS:HD3	38:DQ:60:GLY:H	1.79	0.48
1:AA:1176:A:H2'	1:AA:1177:G:C5'	2.43	0.47
1:AA:1178:G:H5'	9:AL:93:ARG:HH21	1.79	0.47
1:AA:232:G:C5	1:AA:233:C:C5	3.01	0.47
1:AA:9:G:C2	1:AA:26:A:C2	3.01	0.47
1:AA:303:A:H2'	1:AA:304:U:O4'	2.14	0.47
1:AA:438:G:HO2'	1:AA:439:A:H5''	1.79	0.47
1:AA:706:A:H2'	1:AA:707:C:H5'	1.96	0.47
1:AA:93:U:H2'	1:AA:95:G:C5'	2.44	0.47
4:AG:84:LYS:N	4:AG:84:LYS:HD2	2.29	0.47
5:AH:110:LEU:CD1	5:AH:118:ILE:HD13	2.40	0.47
8:AK:86:ILE:O	8:AK:87:SER:C	2.52	0.47
10:AM:3:LYS:O	10:AM:100:THR:HG22	2.14	0.47
14:AQ:41:ARG:HG2	14:AQ:41:ARG:NH1	2.26	0.47
14:AQ:44:LEU:HD12	14:AQ:44:LEU:C	2.35	0.47
17:AT:31:LEU:HD23	17:AT:32:TYR:CZ	2.49	0.47
25:BA:184:C:H2'	25:BA:185:U:C6	2.50	0.47
25:BA:2677:G:H2'	25:BA:2678:C:C6	2.49	0.47
25:BA:271(C):U:H2'	25:BA:271:G:OP1	2.14	0.47
25:BA:404:C:O2'	25:BA:405:U:OP2	2.27	0.47
25:BA:725:G:C6	25:BA:726:G:N1	2.82	0.47
25:BA:883:G:H2'	25:BA:884:C:O4'	2.14	0.47
26:BB:1:U:H2'	26:BB:2:C:H6	1.78	0.47
27:BD:102:LYS:C	27:BD:103:ARG:HG2	2.34	0.47
25:BA:2784:C:H4'	28:BE:41:LYS:O	2.13	0.47
30:BG:173:LEU:O	30:BG:178:PHE:HB2	2.14	0.47
25:BA:2653:U:O2'	31:BH:110:SER:HB2	2.14	0.47
31:BH:167:GLU:H	31:BH:167:GLU:HG2	1.36	0.47
33:BM:126:PRO:HB2	33:BM:127:ASP:OD1	2.14	0.47
35:BO:112:LEU:HD22	35:BO:113:LYS:N	2.29	0.47
36:BP:109:VAL:HG13	36:BP:113:GLN:HB2	1.95	0.47
1:CA:1195:C:C4	1:CA:1197:G:C8	3.01	0.47
1:CA:607:A:C2	16:CS:31:LYS:HB2	2.49	0.47
1:CA:861:G:C5	1:CA:862:C:C5	3.01	0.47
1:CA:939:G:H2'	1:CA:940:C:C6	2.49	0.47
3:CF:117:ALA:HB2	3:CF:200:ALA:CB	2.37	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CM:80:LYS:O	10:CM:83:GLU:HB3	2.14	0.47
51:D5:46:CYS:SG	51:D5:47:PRO:HD2	2.54	0.47
25:DA:1225:C:O3'	41:D2:85:LYS:CA	2.61	0.47
25:DA:1278:A:H2'	25:DA:1279:G:C8	2.49	0.47
25:DA:1629:U:H2'	25:DA:1630:G:C8	2.48	0.47
25:DA:1791:A:OP2	25:DA:1791:A:C8	2.67	0.47
25:DA:2212:A:H1'	25:DA:2215:G:C5	2.49	0.47
25:DA:277:C:H3'	25:DA:278:A:H8	1.79	0.47
25:DA:470:A:OP1	29:DF:59:TYR:HE2	1.97	0.47
25:DA:654(B):C:N3	25:DA:654(T):A:C2	2.82	0.47
25:DA:959:A:C6	25:DA:960:A:C2	3.03	0.47
29:DF:157:VAL:HB	29:DF:194:MET:HB3	1.96	0.47
30:DG:96:ARG:HH11	30:DG:96:ARG:CG	2.25	0.47
31:DH:7:LEU:N	31:DH:8:PRO:HD2	2.29	0.47
32:DK:83:ALA:O	32:DK:89:TYR:CE2	2.67	0.47
35:DO:97:PRO:HG3	35:DO:112:LEU:CB	2.44	0.47
36:DP:21:THR:HG23	36:DP:21:THR:O	2.10	0.47
42:DS:92:ARG:NH1	42:DS:94:ASP:OD2	2.47	0.47
43:DT:60:ARG:NH1	43:DT:60:ARG:CG	2.67	0.47
25:DA:94:G:N3	48:DW:47:ASN:OD1	2.46	0.47
24:A1:14:U:C2'	24:A1:15:U:O4'	2.62	0.47
1:AA:1159:U:N3	1:AA:1182:G:C6	2.82	0.47
1:AA:1372:U:H2'	1:AA:1373:G:O5'	2.14	0.47
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.49	0.47
1:AA:109:A:N7	1:AA:326:G:H2'	2.29	0.47
1:AA:495:A:C2	1:AA:496:A:C5	3.02	0.47
1:AA:658:G:C4	1:AA:659:U:C5	3.02	0.47
1:AA:955:U:O2'	19:AV:83:HIS:CD2	2.67	0.47
4:AG:158:ILE:HG22	4:AG:159:ARG:N	2.30	0.47
7:AJ:91:VAL:HG12	7:AJ:95:ARG:HB3	1.96	0.47
1:AA:1351:U:O4	9:AL:118:LYS:HE3	2.14	0.47
14:AQ:21:TYR:HE2	14:AQ:23:ARG:HE	1.61	0.47
13:AP:84:ILE:HD11	19:AV:66:MET:HG2	1.95	0.47
20:AW:37:SER:O	20:AW:41:ILE:HG12	2.14	0.47
40:B1:91:ASP:O	40:B1:92:ARG:C	2.52	0.47
41:B2:59:ALA:CB	41:B2:96:ILE:HD13	2.36	0.47
25:BA:593:G:O3'	54:B8:61:LEU:HD13	2.14	0.47
25:BA:1531:C:O2'	25:BA:1532:C:H5'	2.13	0.47
25:BA:1609:A:O2'	25:BA:1610:A:H5'	2.14	0.47
25:BA:2136:C:H2'	25:BA:2137:C:O4'	2.14	0.47
25:BA:2168:G:N2	25:BA:2170:A:O5'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:248:G:H5'	25:BA:250:G:N7	2.28	0.47
25:BA:280:C:C2'	25:BA:281:G:H5'	2.44	0.47
26:BB:15:A:H3'	26:BB:16:G:H5'	1.96	0.47
26:BB:79:C:O5'	26:BB:79:C:H6	1.96	0.47
27:BD:35:LYS:CE	27:BD:104:TYR:CD1	2.98	0.47
27:BD:158:ALA:HB3	27:BD:161:THR:CG2	2.44	0.47
27:BD:35:LYS:H	27:BD:64:ILE:HG23	1.79	0.47
27:BD:65:ILE:CG1	27:BD:67:PHE:CE1	2.96	0.47
28:BE:111:ARG:HG2	37:B0:1:MET:CE	2.44	0.47
35:BO:55:ARG:O	35:BO:56:SER:C	2.51	0.47
39:BR:16:ARG:HD3	39:BR:19:LEU:CD1	2.38	0.47
43:BT:29:TRP:CZ3	43:BT:78:LYS:HG2	2.49	0.47
45:BV:58:VAL:O	45:BV:67:LEU:O	2.32	0.47
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.78	0.47
1:CA:1151:A:N6	1:CA:1152:A:N6	2.62	0.47
1:CA:1247:U:H1'	1:CA:1291:G:N2	2.29	0.47
1:CA:1480:G:C5	1:CA:1481:U:C5	3.02	0.47
1:CA:161:A:C6	1:CA:162:A:C6	3.02	0.47
1:CA:31:G:O2'	1:CA:48:C:N4	2.47	0.47
22:CB:6:G:N2	22:CB:78:C:O2	2.47	0.47
23:CC:53:G:O2'	23:CC:54:G:H5'	2.15	0.47
2:CE:18:GLY:O	2:CE:19:HIS:ND1	2.40	0.47
3:CF:16:ARG:HH11	3:CF:16:ARG:CA	2.27	0.47
5:CH:103:GLY:N	5:CH:106:PRO:HG2	2.29	0.47
11:CN:78:GLN:O	11:CN:103:LEU:HA	2.14	0.47
19:CV:28:LYS:CG	19:CV:29:ARG:H	2.26	0.47
25:DA:17:G:H4'	40:D1:25:TRP:CZ3	2.49	0.47
40:D1:58:ARG:O	40:D1:62:ILE:HD13	2.12	0.47
41:D2:67:GLY:O	41:D2:88:ARG:HD3	2.14	0.47
41:D2:60:GLU:OE2	41:D2:97:LYS:HE3	2.14	0.47
30:DG:105:LYS:HE3	50:D4:26:SER:HB3	1.95	0.47
50:D4:38:LYS:C	50:D4:40:HIS:H	2.16	0.47
25:DA:2093:G:N7	25:DA:2225:A:H2'	2.29	0.47
25:DA:2564:A:OP1	25:DA:2648:C:H4'	2.13	0.47
25:DA:753:C:C2	25:DA:754:C:C5	3.03	0.47
25:DA:973:A:H5'	25:DA:1188:U:H1'	1.96	0.47
26:DB:73:A:C4	26:DB:104:A:C2	3.02	0.47
26:DB:44:G:H5''	26:DB:45:A:OP1	2.14	0.47
27:DD:108:PRO:HG2	27:DD:111:LEU:HB2	1.95	0.47
25:DA:2032:G:N2	28:DE:146:THR:HG23	2.17	0.47
29:DF:22:ALA:O	29:DF:24:LEU:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:52:GLU:OE2	35:DO:58:THR:N	2.44	0.47
25:DA:825:C:O2	35:DO:55:ARG:NH2	2.46	0.47
38:DQ:61:ASN:HB3	38:DQ:64:GLU:CB	2.44	0.47
39:DR:19:LEU:HD22	39:DR:86:ILE:HG23	1.96	0.47
44:DU:85:VAL:HG12	44:DU:85:VAL:O	2.14	0.47
1:AA:1152:A:C5	1:AA:1153:C:C5	3.02	0.47
1:AA:767:A:H2'	1:AA:768:A:O4'	2.14	0.47
1:AA:778:G:O5'	1:AA:778:G:H8	1.98	0.47
4:AG:98:GLU:OE1	4:AG:194:LEU:CD2	2.62	0.47
25:BA:2056:G:H1	51:B5:4:HIS:CD2	2.33	0.47
25:BA:1142(A):A:C4	25:BA:1144:G:N7	2.83	0.47
25:BA:1155:A:O2'	25:BA:1156:A:H2'	2.14	0.47
25:BA:141(A):C:H2'	25:BA:142:G:O4'	2.15	0.47
25:BA:1432:C:H2'	25:BA:1433:U:O4'	2.14	0.47
25:BA:1449(A):G:H2'	25:BA:1450:C:C6	2.49	0.47
25:BA:2287:A:N6	25:BA:2344:U:C2	2.82	0.47
25:BA:2348:U:H4'	52:B6:42:TRP:CD1	2.49	0.47
25:BA:301:G:H1'	25:BA:302:C:C6	2.50	0.47
25:BA:394:A:C2'	25:BA:395:U:H5'	2.44	0.47
25:BA:822:U:O2'	25:BA:823:G:H5'	2.14	0.47
25:BA:897:C:H2'	25:BA:898:C:O5'	2.14	0.47
25:BA:905:U:C3'	25:BA:906:G:H5''	2.45	0.47
33:BM:17:ASP:O	33:BM:55:VAL:O	2.32	0.47
35:BO:15:ARG:O	35:BO:16:ARG:C	2.53	0.47
35:BO:52:GLU:OE2	35:BO:58:THR:N	2.44	0.47
35:BO:61:ARG:HB2	35:BO:61:ARG:CZ	2.26	0.47
35:BO:65:ARG:CG	35:BO:65:ARG:HH11	1.94	0.47
29:BF:34:TRP:CE2	35:BO:8:PRO:HD3	2.49	0.47
48:BW:10:LEU:O	48:BW:14:ARG:HG3	2.14	0.47
1:CA:530:G:O6	24:C1:21:U:H1'	2.14	0.47
1:CA:1068:G:N3	1:CA:1191:A:C2	2.82	0.47
1:CA:197:A:H1'	1:CA:198:G:O4'	2.13	0.47
1:CA:552:U:H2'	1:CA:553:A:H5'	1.95	0.47
1:CA:787:A:C2	1:CA:796:C:N3	2.82	0.47
1:CA:885:G:O2'	1:CA:914:A:N1	2.36	0.47
22:CB:51:A:OP1	22:CB:52:U:C5	2.67	0.47
5:CH:6:PHE:HB3	5:CH:35:GLY:C	2.34	0.47
6:CI:72:VAL:HG13	6:CI:73:ASN:N	2.29	0.47
19:CV:63:THR:HG23	19:CV:65:ASN:O	2.14	0.47
41:D2:2:PHE:O	41:D2:42:GLY:N	2.47	0.47
50:D4:13:ARG:O	50:D4:29:PRO:O	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D7:8:ASN:ND2	53:D7:11:LYS:N	2.36	0.47
25:DA:1131:G:N2	25:DA:1132:A:C4	2.83	0.47
25:DA:1839:G:C8	25:DA:1927:A:C1'	2.96	0.47
25:DA:1853:A:H2'	25:DA:1854:A:C8	2.48	0.47
25:DA:2712:U:O2'	25:DA:2712(A):A:OP2	2.24	0.47
25:DA:524:U:H2'	25:DA:525:U:H6	1.79	0.47
25:DA:78:A:C6	25:DA:79:G:C6	3.02	0.47
25:DA:864:G:C6	25:DA:865:C:C4	3.02	0.47
25:DA:2239:G:H5'	27:DD:251:GLY:HA3	1.97	0.47
27:DD:35:LYS:HD3	27:DD:63:ARG:CA	2.43	0.47
28:DE:130:GLY:O	28:DE:131:ALA:O	2.32	0.47
25:DA:2820:A:O2'	28:DE:191:PRO:HG3	2.14	0.47
34:DN:20:MET:HB2	34:DN:44:LYS:HG3	1.96	0.47
1:AA:1004:A:C2	1:AA:1024:G:H2'	2.50	0.47
1:AA:1039:C:H2'	1:AA:1040:U:O4'	2.13	0.47
1:AA:1083:U:H5	1:AA:1084:G:C6	2.32	0.47
1:AA:185:A:H2'	1:AA:186:C:C6	2.49	0.47
1:AA:222:U:H2'	1:AA:223:U:C6	2.49	0.47
1:AA:222:U:C2	1:AA:223:U:C5	3.02	0.47
1:AA:529:G:O6	12:AO:49:ASN:ND2	2.48	0.47
1:AA:663:A:H2'	1:AA:664:G:O4'	2.14	0.47
1:AA:947:G:H2'	1:AA:948:C:O4'	2.14	0.47
1:AA:965:A:C2	1:AA:969:A:N1	2.83	0.47
2:AE:7:VAL:HG22	2:AE:8:LYS:O	2.14	0.47
1:AA:1112:C:N4	3:AF:178:LEU:HD23	2.29	0.47
9:AL:112:LYS:C	9:AL:112:LYS:HD3	2.34	0.47
11:AN:17:GLY:HA3	11:AN:77:MET:HE1	1.91	0.47
13:AP:115:LYS:O	13:AP:116:THR:C	2.51	0.47
3:AF:29:TYR:OH	14:AQ:54:PRO:HD2	2.14	0.47
17:AT:57:VAL:HG23	17:AT:58:GLU:N	2.29	0.47
20:AW:72:LEU:C	20:AW:72:LEU:HD23	2.34	0.47
50:B4:62:ARG:HG3	50:B4:62:ARG:O	2.12	0.47
25:BA:2347:C:H4'	52:B6:39:TYR:HE2	1.78	0.47
25:BA:1588:C:H2'	25:BA:1589:C:H6	1.79	0.47
23:AD:57:C:H5'	25:BA:2169:A:C1'	2.45	0.47
25:BA:2467:C:O2'	25:BA:2468:G:H5''	2.15	0.47
25:BA:2836:U:H2'	25:BA:2837:G:C8	2.50	0.47
25:BA:2860:A:C8	25:BA:2861:G:H1'	2.49	0.47
25:BA:529:A:C2'	25:BA:529:A:N3	2.77	0.47
25:BA:529:A:H4'	25:BA:530:G:H5'	1.96	0.47
25:BA:587:C:H4'	25:BA:588:U:O5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:51:PHE:HD1	28:BE:52:LEU:HD21	1.71	0.47
25:BA:606:U:OP1	29:BF:104:LYS:HD2	2.14	0.47
32:BK:128:LEU:O	32:BK:138:ILE:HG22	2.14	0.47
34:BN:17:ARG:NE	34:BN:47:ILE:HD13	2.30	0.47
34:BN:14:THR:HG22	34:BN:95:GLY:N	2.29	0.47
35:BO:120:ALA:HB1	35:BO:138:LEU:HB3	1.96	0.47
35:BO:47:ASP:HA	35:BO:48:PRO:HD3	1.55	0.47
36:BP:106:VAL:HG21	36:BP:114:ALA:HB1	1.97	0.47
36:BP:66:ILE:O	36:BP:67:ARG:CB	2.61	0.47
1:CA:1037:C:H6	1:CA:1037:C:H3'	1.79	0.47
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.50	0.47
1:CA:209:U:H2'	1:CA:209:U:O2	2.14	0.47
1:CA:464:G:O6	1:CA:466:C:H5'	2.13	0.47
1:CA:573:A:N3	1:CA:883:C:O2'	2.37	0.47
22:CB:28:C:H2'	22:CB:29:U:O4'	2.14	0.47
4:CG:101:LEU:HD23	4:CG:121:VAL:HG11	1.96	0.47
6:CI:100:ASN:ND2	18:CU:23:LYS:HD2	2.29	0.47
6:CI:50:TYR:CE1	18:CU:74:ARG:O	2.68	0.47
9:CL:78:LYS:HB2	9:CL:78:LYS:HZ2	1.76	0.47
11:CN:56:GLY:O	11:CN:89:ALA:HB3	2.14	0.47
14:CQ:16:PHE:HB2	14:CQ:18:VAL:HG23	1.95	0.47
16:CS:1:MET:HB2	16:CS:1:MET:HE3	1.48	0.47
16:CS:22:THR:HA	16:CS:33:ILE:HG12	1.95	0.47
17:CT:59:ILE:HG23	17:CT:71:PHE:HB3	1.96	0.47
17:CT:68:ARG:N	17:CT:70:ARG:NH1	2.63	0.47
20:CW:55:ILE:HA	20:CW:55:ILE:HD13	1.77	0.47
40:D1:110:VAL:O	40:D1:113:ALA:HB3	2.15	0.47
25:DA:1225:C:O2'	41:D2:85:LYS:N	2.46	0.47
25:DA:1188:U:H4'	41:D2:79:VAL:HG12	1.96	0.47
25:DA:1215:G:O2'	25:DA:1216:G:H5'	2.14	0.47
25:DA:1829:A:N3	27:DD:15:PHE:HE1	2.12	0.47
25:DA:1952:A:C5	34:DN:22:ILE:CD1	2.92	0.47
23:CD:57:C:C2	25:DA:2169:A:C8	3.02	0.47
25:DA:2270:G:H2'	25:DA:2271:G:H5'	1.96	0.47
25:DA:2296:U:OP2	38:DQ:9:ARG:NH1	2.47	0.47
25:DA:953:A:O2'	25:DA:954:G:H5'	2.14	0.47
25:DA:958:U:O2	26:DB:89(A):A:H4'	2.15	0.47
27:DD:67:PHE:HB3	27:DD:153:ALA:H	1.78	0.47
27:DD:34:VAL:C	27:DD:35:LYS:HG3	2.35	0.47
28:DE:79:ARG:HA	28:DE:79:ARG:NE	2.28	0.47
29:DF:24:LEU:HB3	29:DF:25:PRO:CD	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:117:PHE:O	30:DG:117:PHE:CD1	2.67	0.47
31:DH:54:ARG:HB2	31:DH:55:PRO:HD2	1.96	0.47
25:DA:2875:C:O2'	39:DR:5:ALA:HB3	2.14	0.47
43:DT:64:LYS:HD3	43:DT:73:ARG:NE	2.30	0.47
45:DV:150:LEU:HD13	45:DV:150:LEU:O	2.15	0.47
45:DV:93:ASP:O	45:DV:94:GLU:HG3	2.15	0.47
1:AA:1005:A:N1	1:AA:1024:G:H8	2.11	0.47
1:AA:1281:U:H5'	1:AA:1282:C:OP2	2.15	0.47
1:AA:955:U:H1'	1:AA:1227:A:N6	2.29	0.47
2:AE:102:LEU:HB3	2:AE:180:LEU:HD12	1.96	0.47
4:AG:11:LEU:O	4:AG:12:CYS:C	2.52	0.47
4:AG:92:VAL:O	4:AG:96:LEU:HD22	2.14	0.47
7:AJ:120:ILE:O	7:AJ:124:LEU:HD12	2.15	0.47
40:B1:60:LEU:CD1	40:B1:64:ARG:HD2	2.44	0.47
51:B5:40:LYS:HD3	51:B5:46:CYS:HB3	1.94	0.47
53:B7:48:LYS:O	53:B7:49:ARG:HB2	2.14	0.47
54:B8:25:MET:O	54:B8:47:LYS:NZ	2.48	0.47
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.15	0.47
25:BA:1505:C:H2'	25:BA:1506:C:C6	2.49	0.47
25:BA:1534:G:H2'	25:BA:1535:U:O4'	2.15	0.47
25:BA:1784:A:H4'	25:BA:1785:A:C5'	2.44	0.47
25:BA:562:U:O4	25:BA:2036:C:H1'	2.13	0.47
25:BA:2210:G:C3'	25:BA:2211:G:N7	2.75	0.47
25:BA:2751:G:N2	31:BH:3:ARG:HG2	2.30	0.47
25:BA:780:G:C2	25:BA:783:A:N6	2.83	0.47
26:BB:39:A:C2	26:BB:44:G:C4	3.02	0.47
28:BE:167:VAL:HG11	28:BE:187:ALA:O	2.15	0.47
33:BM:23:LEU:CD1	33:BM:99:LEU:HD23	2.44	0.47
35:BO:39:LYS:HB2	35:BO:45:LEU:HD22	1.97	0.47
28:BE:13:ARG:CG	39:BR:58:ASN:OD1	2.60	0.47
43:BT:49:VAL:CG1	43:BT:50:LYS:H	2.24	0.47
43:BT:29:TRP:CE3	43:BT:78:LYS:HG2	2.49	0.47
49:BX:24:LYS:O	49:BX:27:GLY:N	2.46	0.47
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.50	0.47
1:CA:1200:C:H5'	1:CA:1201:A:C5'	2.45	0.47
1:CA:1222:G:OP1	1:CA:1321:C:O2	2.33	0.47
1:CA:1224:G:N2	1:CA:1322:C:H4'	2.30	0.47
1:CA:1442:G:N7	1:CA:1446:A:C2	2.82	0.47
1:CA:1480:G:H2'	1:CA:1481:U:H6	1.78	0.47
1:CA:522:C:OP2	12:CO:69:TYR:OH	2.28	0.47
1:CA:527:G:H2'	1:CA:528:C:H5'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:631:G:O3'	1:CA:632:A:H8	1.96	0.47
22:CB:61:C:N4	22:CB:75:G:H1	2.12	0.47
23:CC:73:A:C6	23:CC:74:A:C6	3.02	0.47
2:CE:137:ARG:C	2:CE:137:ARG:HD3	2.34	0.47
4:CG:31:CYS:C	4:CG:33:MET:N	2.68	0.47
7:CJ:13:GLN:O	7:CJ:24:THR:HG21	2.15	0.47
8:CK:38:ILE:HD11	8:CK:118:VAL:O	2.15	0.47
9:CL:85:LEU:HD12	9:CL:86:VAL:N	2.28	0.47
10:CM:54:PHE:CE1	10:CM:55:LYS:CE	2.97	0.47
11:CN:66:LEU:CD2	11:CN:101:SER:HB3	2.44	0.47
14:CQ:4:LYS:C	14:CQ:6:LEU:N	2.68	0.47
17:CT:10:VAL:HG13	17:CT:19:VAL:HB	1.95	0.47
25:DA:996:A:O2'	40:D1:92:ARG:NH2	2.48	0.47
50:D4:61:ARG:CG	50:D4:62:ARG:HH21	2.27	0.47
25:DA:1088:A:H4'	25:DA:1089:G:C8	2.49	0.47
25:DA:2154:G:O2'	25:DA:2155:G:H5'	2.14	0.47
25:DA:2385:C:H4'	25:DA:2385:C:OP2	2.15	0.47
25:DA:2654:A:H8	25:DA:2654:A:OP1	1.98	0.47
25:DA:2728:U:O2'	25:DA:2729:G:H5'	2.14	0.47
25:DA:2747:G:H21	25:DA:2757:A:H62	1.61	0.47
25:DA:453:C:H4'	25:DA:472:A:N6	2.28	0.47
25:DA:602:G:N2	25:DA:655:A:C8	2.79	0.47
25:DA:856:C:HO2'	25:DA:857:C:P	2.37	0.47
28:DE:10:GLY:O	28:DE:24:THR:O	2.33	0.47
35:DO:113:LYS:HG2	35:DO:115:LEU:CD2	2.45	0.47
35:DO:15:ARG:O	35:DO:16:ARG:C	2.53	0.47
25:DA:2255:G:C2	36:DP:85:LYS:HE2	2.46	0.47
38:DQ:110:LEU:HD13	38:DQ:111:GLU:H	1.78	0.47
38:DQ:56:LEU:O	38:DQ:58:LEU:HD23	2.14	0.47
28:DE:14:ILE:HB	39:DR:14:TYR:CZ	2.49	0.47
43:DT:43:VAL:HG22	43:DT:51:VAL:HG21	1.97	0.47
1:AA:1091:U:O2	1:AA:1093:A:C8	2.68	0.47
1:AA:1178:G:H5'	9:AL:93:ARG:NH2	2.28	0.47
1:AA:198:G:C6	1:AA:220:G:C2	3.02	0.47
1:AA:265:G:H5'	17:AT:64:PRO:O	2.14	0.47
1:AA:465:A:N6	1:AA:467:G:C2	2.82	0.47
1:AA:754:C:H3'	1:AA:754:C:O2	2.14	0.47
1:AA:96:G:H2'	1:AA:97:U:C5'	2.44	0.47
22:AB:24:C:C5	22:AB:25:A:C8	3.02	0.47
22:AB:28:C:H2'	22:AB:29:U:C6	2.50	0.47
23:AC:52:C:H2'	23:AC:53:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:37:U:H2'	23:AD:38:A:O4'	2.14	0.47
1:AA:27:G:C4'	4:AG:209:ARG:HG3	2.43	0.47
5:AH:33:VAL:HB	5:AH:112:LEU:HD12	1.97	0.47
8:AK:73:ASP:OD2	8:AK:75:ARG:NE	2.48	0.47
1:AA:950:U:C5	13:AP:102:ARG:NH1	2.83	0.47
25:BA:1063:G:C6	25:BA:1064:C:C4	3.02	0.47
25:BA:1372:U:H2'	25:BA:1373:A:O4'	2.14	0.47
25:BA:1797:C:O2'	27:BD:259:THR:HB	2.15	0.47
25:BA:2317:C:C2'	25:BA:2318:G:C5'	2.81	0.47
25:BA:2327:A:H2'	25:BA:2328:A:H8	1.75	0.47
25:BA:456:C:C4	43:BT:69:TYR:CE1	3.03	0.47
25:BA:644:A:H4'	25:BA:645:C:C5	2.49	0.47
25:BA:889:C:H5''	25:BA:890:A:OP2	2.15	0.47
27:BD:35:LYS:HZ3	27:BD:104:TYR:HD1	1.60	0.47
28:BE:11:MET:O	28:BE:12:THR:HB	2.13	0.47
29:BF:132:VAL:HG12	29:BF:163:VAL:HG22	1.95	0.47
30:BG:7:LEU:HD23	30:BG:100:TRP:CE3	2.49	0.47
32:BK:99:GLU:O	32:BK:102:SER:CB	2.62	0.47
25:BA:636:G:N7	35:BO:113:LYS:HE2	2.30	0.47
25:BA:1266:G:C6	42:BS:16:LYS:HD2	2.50	0.47
42:BS:29:LEU:HD21	42:BS:33:ARG:NH2	2.28	0.47
45:BV:39:VAL:HG21	45:BV:44:PHE:HB2	1.96	0.47
45:BV:7:ALA:O	45:BV:8:TYR:CD2	2.68	0.47
1:CA:1156:G:C3'	1:CA:1157:A:H5''	2.44	0.47
1:CA:1162:C:O2'	1:CA:1163:C:H5'	2.15	0.47
1:CA:1446:A:C6	39:DR:118:ARG:CZ	2.98	0.47
1:CA:983:A:H2	1:CA:984:C:C6	2.32	0.47
2:CE:114:ARG:HG3	2:CE:114:ARG:O	2.14	0.47
4:CG:107:ARG:HG2	4:CG:107:ARG:NH1	2.30	0.47
11:CN:48:ILE:CG1	11:CN:63:LEU:HB2	2.44	0.47
6:CI:100:ASN:HB2	18:CU:23:LYS:HD3	1.95	0.47
19:CV:66:MET:HE2	50:D4:56:VAL:N	2.30	0.47
20:CW:67:ALA:HA	20:CW:73:HIS:H	1.79	0.47
40:D1:65:ILE:HD11	40:D1:96:ALA:HB1	1.94	0.47
40:D1:66:ASN:CB	40:D1:76:TYR:HB2	2.44	0.47
50:D4:56:VAL:HA	50:D4:60:GLN:NE2	2.23	0.47
52:D6:27:LYS:HB3	52:D6:27:LYS:NZ	2.25	0.47
25:DA:1000:A:C6	25:DA:1155:A:C8	3.03	0.47
25:DA:1050:A:H2'	25:DA:1051:G:O4'	2.14	0.47
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.79	0.47
25:DA:1671:U:O2'	25:DA:1673:U:H5	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2401:U:O2	25:DA:2402:C:H5	1.96	0.47
25:DA:2646:C:H6	25:DA:2646:C:O5'	1.96	0.47
25:DA:2872:G:N9	25:DA:2873:A:C2	2.82	0.47
26:DB:66:A:C2	26:DB:108:C:C4	3.03	0.47
27:DD:68:LYS:HB2	27:DD:70:TRP:CE3	2.50	0.47
31:DH:20:ALA:HB1	31:DH:21:PRO:CD	2.45	0.47
31:DH:4:ILE:CD1	31:DH:6:ARG:HG2	2.45	0.47
32:DK:10:GLU:OE2	32:DK:11:ASN:HB2	2.14	0.47
35:DO:38:GLN:O	35:DO:41:ARG:N	2.48	0.47
36:DP:33:GLY:O	36:DP:118:LEU:HD13	2.15	0.47
38:DQ:35:ILE:O	38:DQ:35:ILE:HG13	2.12	0.47
38:DQ:36:TYR:N	38:DQ:36:TYR:CD1	2.83	0.47
39:DR:90:GLN:HE22	39:DR:121:ILE:HD11	1.78	0.47
39:DR:90:GLN:HE21	39:DR:90:GLN:CA	2.22	0.47
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.79	0.47
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.43	0.47
1:AA:256:U:P	17:AT:17:LYS:HZ1	2.38	0.47
1:AA:410:G:H5''	1:AA:411:A:OP1	2.14	0.47
1:AA:501:C:H1'	1:AA:549:C:H1'	1.96	0.47
1:AA:586:C:O2'	1:AA:878:G:H4'	2.14	0.47
1:AA:939:G:C6	1:AA:940:C:N4	2.83	0.47
1:AA:960:U:N3	1:AA:1225:A:C4	2.82	0.47
22:AB:19:G:H4'	22:AB:20:U:OP2	2.15	0.47
23:AD:50:G:N2	23:AD:67:C:O2	2.48	0.47
23:AD:57:C:H5'	25:BA:2169:A:O4'	2.14	0.47
2:AE:72:GLY:HA3	2:AE:165:VAL:CG2	2.44	0.47
2:AE:223:ILE:HG13	2:AE:229:VAL:HG22	1.96	0.47
6:AI:9:VAL:HB	6:AI:87:ARG:HB2	1.97	0.47
17:AT:58:GLU:O	17:AT:74:LEU:N	2.33	0.47
21:AX:9:ARG:O	21:AX:13:ILE:HG13	2.14	0.47
41:B2:22:VAL:HG12	41:B2:23:GLU:N	2.30	0.47
25:BA:1047:G:O2'	25:BA:1048:A:C8	2.66	0.47
25:BA:1142(A):A:H4'	25:BA:1143:A:OP1	2.14	0.47
25:BA:1150:C:H2'	25:BA:1151:G:O4'	2.14	0.47
25:BA:172:C:H2'	25:BA:173:G:H8	1.80	0.47
25:BA:2303:G:O2'	25:BA:2304:G:H5'	2.15	0.47
26:BB:37:C:C3'	26:BB:38:C:H5'	2.43	0.47
27:BD:12:SER:HB2	27:BD:207:GLY:O	2.15	0.47
27:BD:35:LYS:CA	27:BD:64:ILE:HG22	2.43	0.47
25:BA:2032:G:H1'	28:BE:145:LYS:HD3	1.97	0.47
28:BE:30:PRO:O	28:BE:32:PRO:HD3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:80:GLU:O	28:BE:81:ILE:C	2.53	0.47
26:BB:42:C:H4'	30:BG:67:LYS:HD3	1.95	0.47
33:BM:96:GLU:N	33:BM:98:VAL:HG12	2.29	0.47
35:BO:50:ARG:HH21	35:BO:50:ARG:CB	2.28	0.47
44:BU:21:LYS:HB3	44:BU:21:LYS:HE2	1.56	0.47
45:BV:99:TYR:HD1	45:BV:123:ASP:HB3	1.79	0.47
47:BZ:87:PRO:O	47:BZ:88:LYS:C	2.52	0.47
1:CA:1056:U:H5'	3:CF:163:ALA:HB2	1.97	0.47
1:CA:1159:U:O2	1:CA:1181:G:C6	2.67	0.47
1:CA:1223:C:OP2	1:CA:1224:G:H2'	2.15	0.47
1:CA:583:A:H2'	1:CA:584:G:O4'	2.14	0.47
1:CA:792:A:H1'	1:CA:794:A:N7	2.30	0.47
22:CB:44:G:H2'	22:CB:45:U:H5'	1.96	0.47
23:CD:44:A:N1	23:CD:45:A:N6	2.63	0.47
23:CD:57:C:H42	25:DA:2112:G:N2	1.99	0.47
2:CE:154:LEU:HB3	2:CE:155:LEU:H	1.53	0.47
2:CE:73:THR:HG23	2:CE:170:GLU:OE2	2.14	0.47
4:CG:24:GLU:C	4:CG:27:TYR:H	2.18	0.47
5:CH:107:ARG:O	5:CH:110:LEU:N	2.48	0.47
9:CL:95:LYS:HZ2	9:CL:96:LEU:HA	1.80	0.47
16:CS:1:MET:CE	16:CS:65:GLN:HG2	2.44	0.47
18:CU:19:LYS:HD3	18:CU:20:ALA:H	1.78	0.47
19:CV:23:ASN:HA	19:CV:27:GLU:HG3	1.97	0.47
37:D0:37:THR:HG22	37:D0:39:PRO:HD2	1.95	0.47
40:D1:17:ILE:HD12	40:D1:32:PHE:HE2	1.79	0.47
25:DA:1047:G:C2'	25:DA:1110:G:H22	2.26	0.47
25:DA:1055:G:N3	25:DA:1085:A:C2	2.82	0.47
25:DA:147:U:C2'	25:DA:148:C:H5''	2.42	0.47
25:DA:696:G:H2'	25:DA:697:C:H6	1.79	0.47
26:DB:110:G:H2'	26:DB:111:U:O4'	2.14	0.47
27:DD:71:ASP:CG	27:DD:103:ARG:HH22	2.17	0.47
28:DE:12:THR:O	28:DE:23:VAL:HG22	2.14	0.47
28:DE:66:HIS:CE1	28:DE:73:GLU:HG3	2.49	0.47
29:DF:25:PRO:CG	29:DF:26:ALA:N	2.78	0.47
31:DH:153:LYS:O	31:DH:161:GLY:HA3	2.14	0.47
31:DH:9:ILE:HG22	31:DH:51:ARG:HA	1.96	0.47
33:DM:13:TRP:O	33:DM:135:PRO:HD2	2.15	0.47
35:DO:19:VAL:HG13	35:DO:20:GLY:N	2.30	0.47
36:DP:34:LEU:HD12	36:DP:130:LYS:O	2.14	0.47
36:DP:77:LYS:C	36:DP:79:LEU:H	2.17	0.47
1:AA:1175:G:C6	1:AA:1176:A:N6	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1499:A:O2'	1:AA:1520:G:H5'	2.15	0.47
1:AA:33:A:H5''	1:AA:364:A:H1'	1.96	0.47
1:AA:936:C:H2'	1:AA:937:A:O4'	2.15	0.47
3:AF:134:ILE:HG22	3:AF:168:ALA:HB3	1.97	0.47
5:AH:41:VAL:HG11	5:AH:113:ALA:HB2	1.97	0.47
1:AA:10:A:OP2	5:AH:126:ARG:HD3	2.15	0.47
1:AA:1346:A:C5'	9:AL:120:ARG:HH12	2.27	0.47
40:B1:30:LYS:N	40:B1:30:LYS:HD3	2.29	0.47
40:B1:38:THR:O	40:B1:41:ALA:HB3	2.15	0.47
53:B7:10:ARG:NH1	53:B7:14:LYS:HE2	2.29	0.47
25:BA:1192:G:H2'	25:BA:1193:G:H5'	1.96	0.47
25:BA:1376:C:H2'	25:BA:1377:G:O5'	2.14	0.47
25:BA:1435:G:H21	25:BA:1478:G:H5'	1.80	0.47
25:BA:1519:G:H2'	25:BA:1520:U:H5'	1.96	0.47
25:BA:1691:C:C2'	25:BA:1692:U:H5'	2.45	0.47
25:BA:2098:U:C4	25:BA:2099:U:C5	3.03	0.47
25:BA:2182:G:H2'	25:BA:2183:C:C6	2.50	0.47
25:BA:2473:U:C3'	25:BA:2474:C:H5''	2.44	0.47
25:BA:2599:G:O2'	25:BA:2600:A:H5'	2.15	0.47
25:BA:2894:G:C2'	25:BA:2895:U:OP2	2.63	0.47
25:BA:488:G:H1'	25:BA:492:A:N6	2.30	0.47
25:BA:53:A:H2'	25:BA:54:G:O4'	2.14	0.47
25:BA:600:G:N2	25:BA:605:C:O3'	2.48	0.47
27:BD:30:GLU:CD	27:BD:63:ARG:HH21	2.18	0.47
27:BD:74:GLY:O	27:BD:76:PRO:HD3	2.15	0.47
27:BD:96:HIS:NE2	27:BD:102:LYS:HE2	2.30	0.47
30:BG:56:ALA:HB2	30:BG:153:ARG:HE	1.79	0.47
32:BK:73:GLU:HG3	32:BK:137:PRO:CG	2.44	0.47
33:BM:95:PRO:O	33:BM:96:GLU:CD	2.53	0.47
35:BO:50:ARG:NH2	35:BO:50:ARG:HB2	2.30	0.47
35:BO:9:ASN:CB	35:BO:10:PRO:CD	2.82	0.47
1:CA:1072:G:C5	1:CA:1073:U:C5	3.03	0.47
1:CA:109:A:C6	1:CA:326:G:C6	3.03	0.47
1:CA:1116:C:H42	1:CA:1184:G:H1	1.62	0.47
1:CA:353:A:H5'	1:CA:353:A:C8	2.42	0.47
1:CA:652:U:C5	1:CA:752:G:C4	3.03	0.47
1:CA:859:A:N7	1:CA:860:A:C5	2.83	0.47
2:CE:237:ALA:N	2:CE:239:VAL:H	2.12	0.47
52:D6:28:ARG:CB	52:D6:31:PRO:HD2	2.44	0.47
25:DA:107:C:H2'	25:DA:108:U:C6	2.49	0.47
25:DA:1104:C:H2'	25:DA:1105:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1454:U:C5	25:DA:2702:U:O4	2.68	0.47
25:DA:2365:G:H4'	46:D3:60:PHE:CZ	2.50	0.47
25:DA:2389:G:H5''	25:DA:2390:U:C5'	2.44	0.47
25:DA:2523:G:H8	25:DA:2523:G:C5'	2.27	0.47
25:DA:2517:C:C6	25:DA:2542:A:N1	2.82	0.47
27:DD:70:TRP:HZ3	27:DD:146:GLU:OE2	1.97	0.47
29:DF:111:ALA:HB2	29:DF:206:ILE:HG21	1.97	0.47
25:DA:674:G:C1'	29:DF:74:ARG:HD3	2.43	0.47
34:DN:98:VAL:HG11	34:DN:114:ILE:HG23	1.97	0.47
35:DO:9:ASN:O	35:DO:10:PRO:O	2.33	0.47
35:DO:39:LYS:HD2	35:DO:45:LEU:HD21	1.94	0.47
35:DO:97:PRO:O	35:DO:98:GLU:HB3	2.15	0.47
39:DR:11:GLU:OE1	39:DR:11:GLU:N	2.48	0.47
45:DV:28:MET:HE1	45:DV:67:LEU:HD13	1.97	0.47
47:DZ:86:SER:N	47:DZ:87:PRO:HD3	2.29	0.47
1:AA:1004:A:N3	1:AA:1025:U:C2	2.83	0.47
1:AA:1500:A:OP2	1:AA:1505:G:OP1	2.33	0.47
1:AA:266:G:N2	1:AA:269:C:C5	2.83	0.47
1:AA:447:G:H2'	1:AA:485:G:N2	2.30	0.47
1:AA:84:U:H6	1:AA:84:U:OP1	1.98	0.47
3:AF:12:LEU:O	3:AF:14:ILE:N	2.47	0.47
7:AJ:17:VAL:HB	7:AJ:44:TYR:OH	2.14	0.47
10:AM:34:VAL:HG13	10:AM:74:ILE:HG23	1.96	0.47
11:AN:105:VAL:O	11:AN:105:VAL:HG23	2.15	0.47
30:BG:112:PRO:CB	50:B4:37:SER:HB2	2.44	0.47
54:B8:34:TRP:O	54:B8:35:GLN:OE1	2.32	0.47
25:BA:1056:G:N2	25:BA:1103:A:C5	2.82	0.47
25:BA:1057:A:C8	25:BA:1086:A:C4	3.03	0.47
25:BA:1496:A:C8	25:BA:1577:C:O2'	2.51	0.47
25:BA:1799:G:C5'	25:BA:1819:A:N6	2.78	0.47
25:BA:197:A:H62	25:BA:2430:A:H2'	1.80	0.47
25:BA:528:A:N1	25:BA:2043:C:H5'	2.30	0.47
25:BA:2238:G:N3	25:BA:2238:G:H2'	2.29	0.47
25:BA:2348:U:O4	25:BA:2382:G:C2	2.67	0.47
25:BA:1758:G:C2	25:BA:2696:U:H5'	2.50	0.47
25:BA:354:G:C2'	25:BA:355:G:H5'	2.45	0.47
25:BA:754:C:H2'	25:BA:755:C:H6	1.79	0.47
25:BA:822:U:C2'	25:BA:823:G:H5'	2.45	0.47
25:BA:973:A:H8	25:BA:973:A:OP1	1.98	0.47
31:BH:20:ALA:HB3	31:BH:23:ARG:HD2	1.95	0.47
31:BH:4:ILE:C	31:BH:6:ARG:N	2.69	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:67:LEU:O	31:BH:71:LEU:HB2	2.15	0.47
25:BA:1141:U:C6	33:BM:63:THR:OG1	2.55	0.47
35:BO:106:LEU:O	35:BO:107:LYS:HB2	2.13	0.47
35:BO:58:THR:O	35:BO:58:THR:CG2	2.62	0.47
38:BQ:88:ASP:OD1	38:BQ:89:ARG:N	2.48	0.47
25:BA:2876:G:H5'	39:BR:2:ASN:HB3	1.96	0.47
44:BU:2:ARG:HG2	44:BU:3:VAL:HG23	1.97	0.47
45:BV:1:MET:HE2	45:BV:135:GLU:HB3	1.96	0.47
1:CA:1127:G:C8	1:CA:1127:G:OP2	2.67	0.47
1:CA:1297:C:H4'	1:CA:1298:C:O5'	2.15	0.47
1:CA:1497:G:C2'	1:CA:1498:U:C5'	2.91	0.47
1:CA:545:C:H2'	1:CA:546:G:H5'	1.96	0.47
1:CA:853:G:O2'	1:CA:854:G:H5'	2.15	0.47
22:CB:18:G:O2'	22:CB:19:G:O5'	2.26	0.47
22:CB:21:A:H4'	22:CB:22:G:OP1	2.15	0.47
2:CE:37:ASN:O	2:CE:39:ILE:HG13	2.15	0.47
4:CG:75:PHE:CE1	4:CG:93:PHE:HZ	2.33	0.47
5:CH:80:ILE:HG13	5:CH:80:ILE:O	2.15	0.47
7:CJ:85:TYR:CE1	7:CJ:154:TYR:CE1	3.03	0.47
1:CA:1371:G:OP1	9:CL:11:LYS:HG2	2.14	0.47
11:CN:26:ASN:O	11:CN:27:ASN:HB2	2.15	0.47
16:CS:25:ARG:HG3	16:CS:25:ARG:HH11	1.80	0.47
41:D2:68:LYS:HA	41:D2:68:LYS:HD3	1.69	0.47
41:D2:76:LYS:C	41:D2:79:VAL:CG2	2.83	0.47
25:DA:1342:A:N1	25:DA:1397:U:C2	2.83	0.47
25:DA:2059:A:H2	25:DA:2062:A:N6	2.13	0.47
25:DA:244:A:H2'	25:DA:245:G:O4'	2.15	0.47
25:DA:2794:C:H2'	25:DA:2795:G:O4'	2.15	0.47
25:DA:2836:U:H2'	25:DA:2837:G:C8	2.50	0.47
25:DA:872:A:C4	25:DA:906:G:C2	3.02	0.47
25:DA:996:A:N3	25:DA:997:G:C8	2.83	0.47
27:DD:70:TRP:O	27:DD:73:VAL:CG2	2.63	0.47
25:DA:323:G:H5'	29:DF:169:ASN:HD21	1.79	0.47
34:DN:31:LYS:HB3	34:DN:32:TYR:CD1	2.50	0.47
39:DR:24:PRO:HA	39:DR:49:VAL:HG13	1.97	0.47
42:DS:18:ARG:HG3	42:DS:76:VAL:HG13	1.97	0.47
1:AA:1028(A):C:H2'	1:AA:1028(B):C:H6	1.79	0.47
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.15	0.47
1:AA:939:G:H2'	1:AA:940:C:H6	1.79	0.47
23:AC:1:C:O4'	23:AC:1:C:P	2.73	0.47
23:AD:37:U:O4	23:AD:38:A:N6	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AH:39:GLY:HA2	5:AH:113:ALA:O	2.15	0.47
8:AK:94:TYR:HE1	8:AK:132:GLU:HB2	1.79	0.47
9:AL:79:LEU:HD22	9:AL:83:ARG:CG	2.45	0.47
12:AO:89:ARG:HG3	12:AO:89:ARG:HH11	1.80	0.47
14:AQ:12:ARG:C	14:AQ:14:PRO:HD2	2.35	0.47
53:B7:9:ARG:HH21	53:B7:48:LYS:HG3	1.79	0.47
25:BA:1056:G:O4'	25:BA:1086:A:C8	2.65	0.47
25:BA:1079:C:N4	25:BA:1080:A:N6	2.63	0.47
25:BA:10:G:C2	25:BA:2629:A:C2	3.03	0.47
25:BA:2243:U:H2'	25:BA:2244:U:C6	2.50	0.47
25:BA:2415:G:O3'	35:BO:66:GLY:CA	2.59	0.47
25:BA:994:C:H5''	25:BA:995:C:P	2.55	0.47
27:BD:35:LYS:CE	27:BD:65:ILE:HG22	2.45	0.47
27:BD:35:LYS:HA	27:BD:64:ILE:CG2	2.41	0.47
28:BE:115:GLY:O	28:BE:119:ARG:HB2	2.15	0.47
28:BE:111:ARG:CD	28:BE:160:TYR:CE1	2.93	0.47
32:BK:21:VAL:HG22	32:BK:22:LYS:N	2.30	0.47
35:BO:100:LEU:HD23	35:BO:112:LEU:HD11	1.96	0.47
35:BO:50:ARG:HH21	35:BO:50:ARG:HB2	1.79	0.47
38:BQ:106:ARG:CB	38:BQ:110:LEU:HD21	2.44	0.47
38:BQ:48:LEU:HD22	38:BQ:82:ILE:HD11	1.96	0.47
39:BR:23:ARG:HG3	39:BR:120:ARG:NH1	2.30	0.47
45:BV:142:SER:HB3	45:BV:143:GLY:CA	2.45	0.47
45:BV:152:ALA:CB	45:BV:167:PRO:O	2.60	0.47
45:BV:10:ARG:HD3	45:BV:18:LEU:CD2	2.44	0.47
1:CA:1176:A:N6	1:CA:1177:G:N1	2.63	0.47
1:CA:1157:A:N6	1:CA:1178:G:N2	2.63	0.47
1:CA:1243:C:OP1	21:CX:8:THR:HG21	2.15	0.47
1:CA:1286:A:H2	21:CX:18:TYR:HH	1.56	0.47
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.49	0.47
1:CA:545:C:C2'	1:CA:546:G:H5'	2.45	0.47
1:CA:589:C:H42	1:CA:650:G:H1	1.62	0.47
1:CA:634:C:H3'	1:CA:634:C:H6	1.79	0.47
1:CA:784:C:H4'	25:DA:1837:C:OP1	2.15	0.47
22:CB:67:C:O2	22:CB:67:C:H2'	2.13	0.47
23:CC:51:U:H2'	23:CC:52:C:H6	1.80	0.47
23:CD:48:U:H2'	23:CD:49:C:OP1	2.15	0.47
2:CE:166:ASP:CG	2:CE:169:LYS:HB2	2.35	0.47
1:CA:1194:U:H4'	5:CH:22:GLY:O	2.15	0.47
8:CK:69:ARG:HD3	8:CK:75:ARG:O	2.15	0.47
1:CA:1187:G:P	9:CL:113:LYS:NZ	2.87	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CL:114:TYR:C	9:CL:116:LYS:H	2.18	0.47
13:CP:110:ARG:HG2	13:CP:110:ARG:HH11	1.80	0.47
13:CP:15:VAL:O	13:CP:19:LEU:HD23	2.15	0.47
20:CW:49:ALA:HA	20:CW:52:ALA:CB	2.43	0.47
1:CA:1325:C:C4'	21:CX:17:THR:HG21	2.43	0.47
25:DA:996:A:H4'	40:D1:92:ARG:CZ	2.45	0.47
46:D3:48:GLY:HA3	46:D3:80:HIS:ND1	2.30	0.47
52:D6:51:GLU:HG2	52:D6:52:VAL:N	2.29	0.47
54:D8:49:VAL:C	54:D8:50:LEU:CG	2.78	0.47
25:DA:1174:A:C6	25:DA:1175:U:O2'	2.68	0.47
25:DA:1535:U:H5'	25:DA:1536:A:OP2	2.15	0.47
25:DA:581:C:C2	25:DA:582:G:C8	3.02	0.47
25:DA:857:C:H2'	25:DA:858:U:H6	1.80	0.47
25:DA:881:G:C6	25:DA:895:U:O2	2.68	0.47
25:DA:990:A:H5'	25:DA:990:A:C8	2.34	0.47
26:DB:11:C:OP2	26:DB:12:C:H5	1.98	0.47
28:DE:89:ASP:O	28:DE:90:THR:C	2.53	0.47
30:DG:36:LYS:HG2	30:DG:38:VAL:HG23	1.96	0.47
32:DK:5:LEU:HD12	32:DK:5:LEU:H	1.79	0.47
33:DM:10:GLU:HG3	33:DM:11:PRO:HD2	1.97	0.47
36:DP:87:LYS:HG3	36:DP:88:GLY:N	2.27	0.47
38:DQ:88:ASP:O	38:DQ:89:ARG:CB	2.48	0.47
25:DA:310:A:P	44:DU:18:GLY:HA2	2.54	0.47
25:DA:85:G:P	44:DU:30:VAL:HB	2.55	0.47
45:DV:146:ILE:HG23	45:DV:147:GLY:N	2.29	0.47
1:AA:959:A:C2	1:AA:1222:G:O4'	2.68	0.47
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.50	0.47
1:AA:129(A):G:H5'	1:AA:191(A):G:H5'	1.97	0.47
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.37	0.47
1:AA:448:A:C4	1:AA:487:A:C2	3.03	0.47
1:AA:727:G:N1	1:AA:731:G:C6	2.83	0.47
1:AA:813:U:OP2	1:AA:813:U:H6	1.98	0.47
1:AA:918:A:H2'	1:AA:919:A:C8	2.50	0.47
23:AD:50:G:N2	23:AD:66:C:O2	2.47	0.47
23:AD:53:G:C4	23:AD:64:G:N2	2.83	0.47
2:AE:21:ARG:HB2	2:AE:39:ILE:N	2.30	0.47
4:AG:154:ASN:OD1	4:AG:154:ASN:N	2.48	0.47
8:AK:91:ARG:HB2	12:AO:7:ILE:HG21	1.97	0.47
1:AA:1331:G:OP2	13:AP:23:TYR:CD2	2.68	0.47
40:B1:69:CYS:SG	40:B1:79:PHE:CD1	3.02	0.47
41:B2:32:THR:CG2	41:B2:58:VAL:HG13	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2355:C:O2	46:B3:39:ARG:NH2	2.47	0.47
25:BA:1206:G:C6	25:BA:1207:C:C4	3.03	0.47
25:BA:2027:G:C5	25:BA:2028:U:C5	3.02	0.47
25:BA:2308:G:H3'	25:BA:2310:A:OP2	2.15	0.47
25:BA:330:A:H2	25:BA:1210:A:C2'	2.28	0.47
25:BA:484:C:H2'	25:BA:485:C:C6	2.50	0.47
25:BA:557:U:H2'	25:BA:558:G:H8	1.80	0.47
25:BA:646:A:C2'	25:BA:647:G:O5'	2.63	0.47
26:BB:7:G:H5''	26:BB:7:G:H8	1.79	0.47
27:BD:65:ILE:HG13	27:BD:67:PHE:CE1	2.50	0.47
27:BD:70:TRP:O	27:BD:73:VAL:HG23	2.15	0.47
25:BA:2620:C:OP1	28:BE:152:LYS:O	2.33	0.47
32:BK:29:TYR:C	32:BK:32:PRO:HD2	2.35	0.47
38:BQ:41:ASP:OD2	38:BQ:44:LYS:HD2	2.15	0.47
43:BT:24:GLY:HA3	43:BT:82:GLN:HE22	1.80	0.47
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.50	0.47
1:CA:689:C:H2'	1:CA:690:G:C5'	2.45	0.47
1:CA:692:U:O2	1:CA:695:A:C8	2.67	0.47
22:CB:44:G:C6	22:CB:45:U:C2	3.02	0.47
2:CE:166:ASP:OD2	2:CE:169:LYS:HB2	2.15	0.47
2:CE:97:TRP:CE3	2:CE:98:LEU:O	2.68	0.47
3:CF:119:ARG:HA	3:CF:122:GLU:OE2	2.15	0.47
3:CF:50:ALA:O	3:CF:70:VAL:HG13	2.15	0.47
5:CH:79:GLU:OE1	8:CK:104:ARG:HA	2.15	0.47
10:CM:4:ILE:HD13	10:CM:100:THR:HG22	1.97	0.47
13:CP:53:VAL:HG12	13:CP:57:ARG:HH21	1.80	0.47
16:CS:8:ARG:CG	16:CS:8:ARG:NH1	2.58	0.47
18:CU:44:LEU:HD21	18:CU:79:LEU:HD13	1.97	0.47
25:DA:1034:G:H2'	25:DA:1035:U:O4'	2.15	0.47
25:DA:1042:G:H2'	25:DA:1043:C:O4'	2.15	0.47
25:DA:2076:U:O5'	25:DA:2076:U:H6	1.97	0.47
25:DA:2131:G:H22	25:DA:2158:A:H2'	1.80	0.47
25:DA:2289:G:H1'	25:DA:2346:A:H2	1.80	0.47
25:DA:2895:U:H2'	25:DA:2896:C:O4'	2.15	0.47
25:DA:528:A:C2	25:DA:2042:A:H2'	2.50	0.47
25:DA:993:G:H1'	41:D2:87:HIS:CE1	2.49	0.47
28:DE:48:GLN:O	28:DE:49:LEU:HD12	2.15	0.47
29:DF:125:LEU:HD12	29:DF:196:LEU:CD2	2.45	0.47
25:DA:2314:C:H5'	30:DG:38:VAL:HG11	1.96	0.47
30:DG:72:ARG:HD2	30:DG:85:GLY:O	2.15	0.47
31:DH:25:LYS:HG3	31:DH:25:LYS:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DM:111:PRO:HA	33:DM:114:ARG:NH1	2.30	0.47
35:DO:101:VAL:HG21	35:DO:108:LYS:H	1.80	0.47
35:DO:68:GLN:HG2	54:D8:12:LYS:HD3	1.97	0.47
44:DU:94:LYS:O	44:DU:101:LYS:HB2	2.14	0.47
44:DU:57:GLN:HB3	44:DU:58:GLY:H	1.58	0.47
49:DX:5:LYS:HE3	49:DX:59:VAL:HG21	1.97	0.47
1:AA:1058:G:C6	1:AA:1059:C:N3	2.83	0.46
1:AA:928:G:C2	1:AA:1390:U:O2	2.68	0.46
1:AA:160:A:C6	1:AA:161:A:C2	3.03	0.46
1:AA:618:C:H3'	1:AA:619:U:C5'	2.45	0.46
1:AA:720:C:N4	1:AA:721:G:C2	2.82	0.46
1:AA:875:C:C4	1:AA:876:G:N7	2.83	0.46
1:AA:954:G:C2	1:AA:955:U:C2	3.03	0.46
22:AB:2:C:H2'	22:AB:3:C:C6	2.50	0.46
4:AG:23:GLY:HA2	4:AG:112:VAL:HG22	1.97	0.46
4:AG:65:ARG:HG2	4:AG:65:ARG:HH11	1.80	0.46
8:AK:8:ASP:O	8:AK:12:ARG:HG3	2.15	0.46
9:AL:89:ASN:N	9:AL:89:ASN:OD1	2.47	0.46
18:AU:26:LEU:HD13	18:AU:39:VAL:HG13	1.96	0.46
40:B1:60:LEU:HD13	40:B1:64:ARG:HD2	1.97	0.46
41:B2:35:LEU:C	41:B2:37:VAL:H	2.16	0.46
46:B3:27:GLU:CG	46:B3:68:GLU:HA	2.41	0.46
54:B8:52:LYS:H	54:B8:53:PRO:CD	2.28	0.46
25:BA:1299:G:C5	25:BA:1639:U:C5	3.03	0.46
25:BA:2383:G:C2'	25:BA:2384:G:H5'	2.45	0.46
25:BA:498:G:C6	25:BA:499:U:C4	3.03	0.46
25:BA:671:C:O2'	25:BA:672:C:H5'	2.15	0.46
25:BA:705:A:H2'	25:BA:706:A:O4'	2.15	0.46
25:BA:991:C:H2'	25:BA:992:C:H6	1.81	0.46
27:BD:35:LYS:HG2	27:BD:64:ILE:CG2	2.43	0.46
28:BE:179:GLU:O	28:BE:180:ASN:HB2	2.14	0.46
29:BF:33:LEU:HA	29:BF:33:LEU:HD12	1.76	0.46
30:BG:82:LEU:HA	30:BG:86:MET:HE3	1.96	0.46
30:BG:94:LEU:N	30:BG:94:LEU:HD23	2.29	0.46
31:BH:115:VAL:O	31:BH:115:VAL:CG1	2.59	0.46
32:BK:110:ASP:HB3	32:BK:112:LYS:N	2.30	0.46
33:BM:18:ALA:HA	33:BM:21:LYS:HG3	1.97	0.46
35:BO:55:ARG:O	35:BO:55:ARG:HG3	2.14	0.46
44:BU:63:LYS:HD2	44:BU:64:GLU:H	1.80	0.46
45:BV:27:VAL:HG22	45:BV:28:MET:N	2.30	0.46
48:BW:24:LEU:HD13	48:BW:60:LEU:CD1	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1158:C:C4	1:CA:1160:G:N7	2.82	0.46
1:CA:1207:G:C5	1:CA:1208:C:C5	3.03	0.46
1:CA:253:U:H2'	1:CA:254:G:C8	2.49	0.46
1:CA:358:U:C4	1:CA:359:U:C5	3.03	0.46
1:CA:468:A:C2'	1:CA:474:G:H5'	2.44	0.46
1:CA:547:A:H4'	1:CA:548:G:O5'	2.15	0.46
1:CA:686:U:O4	1:CA:703:G:H1'	2.15	0.46
3:CF:63:ASN:CB	3:CF:98:ASN:HB3	2.42	0.46
5:CH:110:LEU:HA	5:CH:110:LEU:HD23	1.74	0.46
7:CJ:76:ARG:NH1	7:CJ:76:ARG:HG2	2.27	0.46
8:CK:4:ASP:OD2	8:CK:7:ALA:HB2	2.15	0.46
18:CU:43:PHE:O	18:CU:51:LEU:HD12	2.15	0.46
19:CV:74:PHE:CD2	19:CV:74:PHE:N	2.83	0.46
50:D4:56:VAL:CA	50:D4:60:GLN:HE21	2.24	0.46
51:D5:57:VAL:HG12	51:D5:58:LEU:O	2.14	0.46
54:D8:30:ARG:HD2	54:D8:30:ARG:HA	1.57	0.46
25:DA:1473:G:H2'	25:DA:1474:C:O4'	2.16	0.46
25:DA:2187:G:C6	25:DA:2188:C:N3	2.83	0.46
25:DA:2335:A:C8	25:DA:2337:G:N7	2.83	0.46
25:DA:2552:U:H2'	25:DA:2554:U:H5''	1.97	0.46
25:DA:296:C:C2'	25:DA:297:C:H5'	2.45	0.46
25:DA:889:C:H2'	25:DA:890:A:H4'	1.96	0.46
27:DD:130:ALA:C	27:DD:131:LEU:HD12	2.35	0.46
27:DD:176:ARG:HA	27:DD:181:GLU:O	2.15	0.46
25:DA:2773:C:H5''	28:DE:164:ARG:HG2	1.97	0.46
30:DG:109:VAL:HG13	50:D4:33:VAL:HG11	1.96	0.46
31:DH:71:LEU:HD12	31:DH:71:LEU:HA	1.81	0.46
33:DM:67:LEU:O	33:DM:88:GLU:HG3	2.14	0.46
35:DO:107:LYS:O	35:DO:109:GLY:N	2.46	0.46
38:DQ:29:PHE:CD2	38:DQ:30:ARG:N	2.83	0.46
38:DQ:67:ARG:NH1	38:DQ:67:ARG:HB2	2.30	0.46
43:DT:54:VAL:O	43:DT:55:ASN:ND2	2.36	0.46
48:DW:10:LEU:O	48:DW:14:ARG:N	2.36	0.46
1:AA:299:G:H2'	1:AA:300:A:C8	2.50	0.46
1:AA:342:C:N3	1:AA:348:G:C2	2.83	0.46
4:AG:138:TYR:HD2	4:AG:139:ARG:H	1.61	0.46
4:AG:25:ARG:O	4:AG:28:SER:N	2.43	0.46
8:AK:42:GLU:HG3	8:AK:109:ILE:HD12	1.97	0.46
9:AL:17:VAL:CG1	9:AL:81:ILE:HD13	2.44	0.46
12:AO:89:ARG:HG3	12:AO:89:ARG:NH1	2.30	0.46
13:AP:10:PRO:HB2	13:AP:18:ALA:HB1	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AS:22:THR:OG1	16:AS:31:LYS:O	2.33	0.46
17:AT:100:LYS:O	17:AT:101:ARG:HB2	2.14	0.46
19:AV:40:ILE:HG12	19:AV:41:VAL:CG1	2.42	0.46
20:AW:21:LYS:O	20:AW:25:ARG:HB2	2.16	0.46
40:B1:76:TYR:CZ	40:B1:80:ILE:HG13	2.51	0.46
54:B8:36:LYS:HB2	54:B8:40:GLU:CB	2.45	0.46
25:BA:1065:U:C5	25:BA:1066:U:C6	3.00	0.46
25:BA:1162:G:O4'	41:B2:23:GLU:HG3	2.15	0.46
25:BA:1188:U:C5'	41:B2:79:VAL:HG22	2.45	0.46
25:BA:1324:G:C4	25:BA:1328:G:O6	2.69	0.46
25:BA:1344:G:H4'	25:BA:1384:A:C5	2.49	0.46
25:BA:2171:A:H2'	25:BA:2172:U:C6	2.45	0.46
25:BA:2330:G:H2'	25:BA:2331:G:O4'	2.15	0.46
25:BA:2439:A:H3'	25:BA:2439:A:P	2.55	0.46
25:BA:2850:A:C2	25:BA:2851:A:C4	3.04	0.46
25:BA:574:C:N3	28:BE:145:LYS:NZ	2.45	0.46
25:BA:612:G:N2	25:BA:616:A:O2'	2.48	0.46
25:BA:654(R):C:C2'	25:BA:654(S):G:H5'	2.46	0.46
25:BA:819:A:C4	25:BA:1189:A:C2	3.03	0.46
26:BB:28:C:O2'	26:BB:29:A:H5'	2.14	0.46
29:BF:29:ASN:CB	29:BF:112:MET:HE1	2.45	0.46
25:BA:1140:C:OP1	33:BM:23:LEU:HB3	2.15	0.46
39:BR:94:ALA:O	39:BR:95:ARG:CB	2.63	0.46
42:BS:14:PRO:CB	42:BS:18:ARG:HH21	2.27	0.46
44:BU:78:ALA:CB	44:BU:81:LYS:HZ1	2.22	0.46
45:BV:10:ARG:HD3	45:BV:18:LEU:HD22	1.97	0.46
45:BV:117:LEU:HD13	45:BV:118:GLN:H	1.80	0.46
24:C1:15:U:H2'	24:C1:16:A:C8	2.51	0.46
1:CA:1239:A:H4'	1:CA:1240:U:C5'	2.45	0.46
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.35	0.46
1:CA:152:A:N6	1:CA:170:U:C2	2.84	0.46
1:CA:544:G:C6	1:CA:545:C:C4	3.03	0.46
1:CA:77:C:N4	1:CA:92:G:H1	2.12	0.46
2:CE:144:ARG:CD	2:CE:148:TYR:HE2	2.27	0.46
4:CG:31:CYS:HB3	4:CG:33:MET:HB2	1.97	0.46
7:CJ:16:LEU:CD1	9:CL:45:ALA:HB2	2.37	0.46
10:CM:99:LYS:CE	10:CM:100:THR:H	2.27	0.46
11:CN:59:TYR:CZ	11:CN:63:LEU:HD21	2.50	0.46
14:CQ:29:ARG:HE	14:CQ:40:CYS:HB2	1.80	0.46
14:CQ:7:ILE:HG22	14:CQ:23:ARG:CD	2.46	0.46
20:CW:26:ASN:HB3	20:CW:71:THR:OG1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CX:6:ARG:CD	21:CX:15:ARG:HH21	2.29	0.46
1:CA:1289:A:P	21:CX:9:ARG:HH22	2.38	0.46
37:D0:84:ALA:N	37:D0:85:PRO:CD	2.78	0.46
25:DA:1007:C:OP1	33:DM:37:LYS:NZ	2.45	0.46
25:DA:1056:G:H5''	25:DA:1057:A:C5'	2.43	0.46
25:DA:1163:G:H2'	25:DA:1164:G:H8	1.81	0.46
25:DA:1578:U:O2	25:DA:1578:U:H2'	2.15	0.46
25:DA:1688:U:H1'	25:DA:1701:A:C6	2.49	0.46
25:DA:1638:C:H5''	25:DA:2710:C:O2'	2.16	0.46
25:DA:2846:G:H2'	25:DA:2847:U:C6	2.50	0.46
25:DA:675:A:N6	25:DA:676:A:N6	2.64	0.46
25:DA:830:G:H4'	25:DA:831:G:OP2	2.15	0.46
25:DA:883:G:C6	25:DA:884:C:N4	2.83	0.46
26:DB:24:G:H4'	26:DB:25:A:C8	2.50	0.46
26:DB:45:A:H1'	30:DG:95:ARG:CZ	2.44	0.46
27:DD:145:VAL:HG11	27:DD:175:LEU:HD11	1.98	0.46
28:DE:120:TRP:CD2	28:DE:155:LYS:HD3	2.50	0.46
29:DF:136:THR:HG23	29:DF:166:ALA:O	2.15	0.46
32:DK:100:ALA:O	32:DK:104:GLN:HB3	2.14	0.46
35:DO:106:LEU:HD13	35:DO:112:LEU:HD23	1.97	0.46
43:DT:26:TYR:OH	43:DT:88:LYS:HB2	2.15	0.46
45:DV:114:GLY:C	45:DV:116:VAL:N	2.68	0.46
1:AA:1003:G:N2	1:AA:1004:A:O2'	2.48	0.46
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.14	0.46
1:AA:1291:G:O2'	1:AA:1292:U:H5'	2.15	0.46
1:AA:1317:C:H5''	1:AA:1318:A:OP2	2.16	0.46
1:AA:475:G:H2'	1:AA:476:G:H8	1.80	0.46
1:AA:872:A:N3	1:AA:872:A:H2'	2.30	0.46
3:AF:150:LYS:HE3	3:AF:152:ILE:HD11	1.98	0.46
4:AG:114:ARG:HG3	4:AG:114:ARG:NH1	2.31	0.46
4:AG:58:LEU:O	4:AG:58:LEU:HD22	2.15	0.46
8:AK:53:VAL:HB	8:AK:58:TYR:CE1	2.50	0.46
9:AL:22:GLY:HA3	9:AL:60:ASP:OD2	2.15	0.46
12:AO:47:LYS:CA	12:AO:49:ASN:H	2.28	0.46
15:AR:78:TYR:O	15:AR:79:ARG:C	2.54	0.46
16:AS:20:VAL:CG2	16:AS:32:TYR:CB	2.93	0.46
50:B4:12:ALA:HB2	50:B4:29:PRO:HA	1.97	0.46
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.50	0.46
25:BA:1478:G:O2'	25:BA:1558:A:C2	2.68	0.46
25:BA:1480:G:C6	25:BA:1482:U:N3	2.83	0.46
25:BA:1847:A:H4'	25:BA:1848:A:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:27:G:N2	25:BA:512:G:H1'	2.29	0.46
25:BA:851:U:H5'	49:BX:46:ASN:ND2	2.31	0.46
27:BD:77:ALA:HB1	27:BD:96:HIS:O	2.15	0.46
28:BE:59:VAL:CG1	28:BE:63:LEU:CB	2.94	0.46
30:BG:39:ILE:HG13	30:BG:94:LEU:HD21	1.96	0.46
32:BK:29:TYR:CD2	32:BK:30:LEU:HD23	2.50	0.46
42:BS:18:ARG:CG	42:BS:76:VAL:HG13	2.45	0.46
44:BU:42:VAL:HB	44:BU:67:LEU:HD11	1.96	0.46
44:BU:76:CYS:CB	44:BU:77:PRO:HD3	2.45	0.46
45:BV:122:ARG:HE	45:BV:122:ARG:HB2	1.60	0.46
49:BX:59:VAL:HG22	49:BX:60:GLU:H	1.80	0.46
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.15	0.46
1:CA:1072:G:H2'	1:CA:1073:U:O4'	2.15	0.46
1:CA:410:G:OP2	4:CG:25:ARG:HB2	2.16	0.46
1:CA:641:U:O3'	1:CA:642:A:H8	1.98	0.46
1:CA:683:G:H2'	1:CA:684:A:O4'	2.15	0.46
1:CA:763:G:H2'	1:CA:764:C:C6	2.51	0.46
1:CA:833:U:H2'	1:CA:834:C:H6	1.80	0.46
22:CB:37:G:C4	22:CB:38:G:C8	3.03	0.46
23:CC:20:G:HO2'	23:CC:21:U:H6	1.63	0.46
23:CC:68:C:H2'	23:CC:69:C:C6	2.50	0.46
2:CE:24:TRP:O	2:CE:24:TRP:CD1	2.69	0.46
13:CP:29:ARG:HB3	13:CP:64:TRP:CZ2	2.50	0.46
14:CQ:37:PHE:CZ	14:CQ:56:VAL:HG21	2.48	0.46
1:CA:275:G:H5'	17:CT:14:LYS:HB3	1.97	0.46
37:D0:107:ASP:OD2	37:D0:107:ASP:C	2.53	0.46
41:D2:21:ARG:HG3	41:D2:21:ARG:HH11	1.80	0.46
25:DA:592:G:O2'	54:D8:4:MET:HB2	2.16	0.46
25:DA:1146:C:O2'	25:DA:1147:C:H5'	2.15	0.46
25:DA:1479:G:N2	25:DA:1480:G:H1'	2.30	0.46
25:DA:148:C:C5'	25:DA:148:C:C6	2.91	0.46
25:DA:1668:A:C8	25:DA:1674:G:C6	3.03	0.46
25:DA:2167:U:H6	25:DA:2167:U:P	2.38	0.46
25:DA:2212:A:H1'	25:DA:2215:G:C4	2.50	0.46
25:DA:2312:U:O2'	25:DA:2313:C:H5'	2.16	0.46
25:DA:2507:C:H2'	25:DA:2508:G:O4'	2.15	0.46
25:DA:2611:U:H5'	25:DA:2611:U:C6	2.44	0.46
25:DA:529:A:C2'	25:DA:529:A:N3	2.79	0.46
27:DD:30:GLU:HG3	27:DD:63:ARG:CZ	2.45	0.46
29:DF:122:LYS:HG3	29:DF:191:ARG:HG2	1.97	0.46
26:DB:43:C:H4'	30:DG:66:GLN:NE2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:86:MET:O	30:DG:88:ILE:HG22	2.14	0.46
31:DH:109:PHE:CZ	31:DH:152:ARG:HD3	2.50	0.46
31:DH:169:VAL:O	31:DH:170:ARG:HG2	2.16	0.46
45:DV:130:PRO:HA	45:DV:133:ILE:HD11	1.96	0.46
45:DV:13:GLU:HA	45:DV:14:LYS:HZ3	1.79	0.46
1:AA:1169:A:N6	1:AA:1170:A:N1	2.63	0.46
1:AA:1305:G:OP2	1:AA:1305:G:H8	1.98	0.46
1:AA:929:G:N2	1:AA:1389:C:C2	2.84	0.46
1:AA:328:C:O2	1:AA:328:C:H2'	2.15	0.46
1:AA:397:A:C6	1:AA:548:G:N7	2.83	0.46
22:AB:42:U:H3'	22:AB:43:A:C8	2.50	0.46
3:AF:69:HIS:CD2	3:AF:69:HIS:N	2.83	0.46
11:AN:17:GLY:O	11:AN:80:VAL:HA	2.15	0.46
11:AN:81:ASP:O	11:AN:82:VAL:C	2.53	0.46
12:AO:24:VAL:HG11	12:AO:27:LEU:CD1	2.45	0.46
13:AP:44:ARG:N	13:AP:44:ARG:HD3	2.31	0.46
17:AT:70:ARG:C	17:AT:71:PHE:HD2	2.18	0.46
40:B1:13:LYS:H	40:B1:13:LYS:HG2	1.61	0.46
40:B1:13:LYS:HE3	40:B1:13:LYS:HB3	1.72	0.46
50:B4:6:HIS:HD1	50:B4:7:PRO:HD2	1.81	0.46
25:BA:1071:G:O6	25:BA:1091:G:O6	2.34	0.46
25:BA:1332:G:N2	25:BA:1609:A:HO2'	2.10	0.46
25:BA:1406:U:H2'	25:BA:1407:C:C6	2.50	0.46
25:BA:1655:A:H3'	25:BA:1656:C:C6	2.50	0.46
25:BA:224:G:C6	25:BA:225:A:C5	3.02	0.46
25:BA:953:A:O2'	25:BA:2266:A:OP2	2.26	0.46
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.51	0.46
25:BA:2860:A:N7	25:BA:2861:G:H1'	2.30	0.46
25:BA:507:A:H5'	25:BA:508:G:H5'	1.98	0.46
25:BA:633:A:H2'	25:BA:634:C:H5'	1.98	0.46
25:BA:654(L):G:H2'	25:BA:654(M):C:O4'	2.15	0.46
25:BA:676:A:N1	25:BA:802:A:N1	2.63	0.46
25:BA:900:A:N3	25:BA:900:A:H2'	2.30	0.46
26:BB:31:C:C2'	26:BB:32:C:H5'	2.45	0.46
27:BD:183:ARG:HG2	27:BD:269:PHE:O	2.16	0.46
28:BE:181:LEU:HD11	39:BR:7:ILE:HD13	1.97	0.46
30:BG:80:PHE:O	30:BG:81:LYS:C	2.54	0.46
32:BK:77:LEU:HD12	32:BK:140:LEU:HB2	1.97	0.46
34:BN:35:VAL:CG2	34:BN:69:ILE:HG12	2.45	0.46
35:BO:34:GLY:O	35:BO:35:HIS:HB2	2.14	0.46
42:BS:24:ILE:HG21	42:BS:36:LEU:HD21	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:132:ASN:ND2	45:BV:132:ASN:N	2.62	0.46
45:BV:109:ALA:HB1	45:BV:144:LEU:HB2	1.96	0.46
25:BA:850:C:H5''	49:BX:18:ASP:HB2	1.96	0.46
1:CA:1124:G:O2'	1:CA:1145:C:C4	2.62	0.46
1:CA:1053:G:C5	1:CA:1199:U:C6	3.02	0.46
1:CA:1363:A:H1'	1:CA:1365:G:N7	2.31	0.46
1:CA:437:U:C5'	4:CG:155:LEU:HD21	2.46	0.46
22:CB:17:U:C5'	22:CB:18:G:C8	2.96	0.46
2:CE:165:VAL:HG23	2:CE:166:ASP:H	1.80	0.46
4:CG:30:LYS:H	4:CG:30:LYS:HE2	1.80	0.46
5:CH:63:ARG:HA	5:CH:66:MET:HE2	1.96	0.46
8:CK:29:SER:HB3	8:CK:32:LYS:CG	2.45	0.46
1:CA:1147:C:O2	9:CL:16:ARG:NE	2.49	0.46
10:CM:13:HIS:CD2	10:CM:13:HIS:C	2.88	0.46
1:CA:963:G:O2'	10:CM:54:PHE:HZ	1.95	0.46
20:CW:54:LYS:HA	20:CW:57:ARG:NH2	2.31	0.46
21:CX:3:LYS:O	21:CX:14:TRP:CE3	2.69	0.46
50:D4:36:CYS:HB3	50:D4:41:PRO:CD	2.45	0.46
25:DA:1486:A:C4	25:DA:1487:G:C8	3.04	0.46
25:DA:2116:G:P	25:DA:2165:G:H22	2.38	0.46
25:DA:2180:U:H2'	25:DA:2181:G:O4'	2.15	0.46
25:DA:218:A:C2	25:DA:235:U:H4'	2.50	0.46
25:DA:829:A:N7	25:DA:2248:C:H5'	2.31	0.46
25:DA:2287:A:N1	25:DA:2346:A:H2	2.10	0.46
25:DA:2303:G:C2	25:DA:2314:C:N3	2.84	0.46
25:DA:2567:G:H2'	25:DA:2568:C:C6	2.49	0.46
25:DA:492:A:C2'	25:DA:493:G:H5'	2.45	0.46
25:DA:547:A:C5	25:DA:548:A:N6	2.83	0.46
25:DA:553:U:C4	25:DA:554:U:C4	3.04	0.46
25:DA:847:U:O4	25:DA:933:A:N1	2.49	0.46
27:DD:17:THR:O	27:DD:211:ARG:NH2	2.49	0.46
27:DD:32:SER:HA	27:DD:36:PRO:HD2	1.98	0.46
25:DA:2729:G:H1'	28:DE:187:ALA:HB3	1.98	0.46
29:DF:67:GLN:O	29:DF:68:LYS:HB2	2.14	0.46
30:DG:102:PHE:CE2	30:DG:141:PHE:CE1	3.00	0.46
45:DV:131:ARG:N	45:DV:131:ARG:HD2	2.30	0.46
45:DV:24:LEU:C	45:DV:24:LEU:HD12	2.35	0.46
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.15	0.46
1:AA:408:A:H2'	1:AA:409:G:O4'	2.16	0.46
1:AA:486:U:H2'	1:AA:487:A:H8	1.78	0.46
1:AA:942:G:N3	1:AA:943:U:C6	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:949:A:C4	1:AA:1233:G:N2	2.84	0.46
2:AE:204:ASN:HD22	2:AE:204:ASN:C	2.18	0.46
3:AF:114:PRO:O	3:AF:118:GLN:HG3	2.16	0.46
4:AG:209:ARG:NE	4:AG:209:ARG:HA	2.31	0.46
4:AG:28:SER:HB3	4:AG:29:PRO:CD	2.45	0.46
6:AI:21:LEU:HA	6:AI:21:LEU:HD13	1.78	0.46
10:AM:55:LYS:O	10:AM:56:HIS:CD2	2.68	0.46
9:AL:111:ARG:HH22	10:AM:62:HIS:CE1	2.32	0.46
10:AM:89:ASP:HB3	10:AM:91:PRO:HD3	1.97	0.46
13:AP:23:TYR:HD1	13:AP:67:GLU:HA	1.80	0.46
14:AQ:21:TYR:CE2	14:AQ:23:ARG:NE	2.80	0.46
15:AR:63:ARG:O	15:AR:67:LEU:HD12	2.16	0.46
17:AT:18:THR:CG2	17:AT:69:LYS:HD2	2.44	0.46
1:AA:267:C:OP1	17:AT:67:LYS:HB2	2.15	0.46
20:AW:30:LYS:NZ	20:AW:80:ARG:NH1	2.64	0.46
25:BA:2820:A:C4	37:B0:4:LEU:HD21	2.50	0.46
46:B3:36:ILE:CD1	46:B3:39:ARG:HG2	2.46	0.46
53:B7:36:GLN:HG2	53:B7:36:GLN:O	2.15	0.46
25:BA:1376:C:C2'	25:BA:1377:G:O5'	2.64	0.46
25:BA:1547:C:H2'	25:BA:1548:C:C6	2.51	0.46
25:BA:1313:U:H2'	25:BA:1610:A:C2	2.50	0.46
25:BA:1797:C:H2'	25:BA:1798:U:H5'	1.96	0.46
25:BA:1803:A:O3'	27:BD:259:THR:HG23	2.15	0.46
25:BA:1935:G:H1'	25:BA:1964:G:N2	2.30	0.46
25:BA:2208:U:H4'	27:BD:151:LYS:HG2	1.96	0.46
25:BA:2321:G:H5''	25:BA:2322:A:OP2	2.15	0.46
25:BA:2461:C:H2'	25:BA:2462:U:C6	2.50	0.46
25:BA:332:A:C2	25:BA:335:C:C5	3.04	0.46
25:BA:880:G:C6	25:BA:881:G:N7	2.84	0.46
27:BD:226:MET:O	27:BD:234:GLY:HA2	2.15	0.46
29:BF:23:ASP:CG	29:BF:24:LEU:H	2.18	0.46
39:BR:90:GLN:HE21	39:BR:116:ALA:HA	1.81	0.46
43:BT:57:LEU:N	43:BT:57:LEU:HD12	2.31	0.46
47:BZ:87:PRO:O	47:BZ:90:ILE:N	2.48	0.46
1:CA:1047:G:C2'	1:CA:1048:G:H5'	2.45	0.46
1:CA:192:U:H4'	20:CW:103:GLY:HA3	1.98	0.46
1:CA:692:U:O2'	1:CA:694:A:N7	2.39	0.46
3:CF:70:VAL:O	3:CF:106:VAL:HG23	2.14	0.46
4:CG:196:LEU:HB3	4:CG:197:PRO:HD2	1.97	0.46
5:CH:147:ASP:O	5:CH:151:LEU:HG	2.15	0.46
8:CK:4:ASP:HB2	8:CK:89:PRO:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:36:LYS:HB3	13:CP:36:LYS:HE2	1.72	0.46
14:CQ:4:LYS:HA	14:CQ:7:ILE:HG12	1.97	0.46
1:CA:265:G:O3'	17:CT:66:SER:HA	2.16	0.46
19:CV:14:HIS:HD2	19:CV:15:LEU:N	2.12	0.46
33:DM:4:TYR:O	40:D1:64:ARG:NH1	2.46	0.46
46:D3:56:ASP:CG	46:D3:58:THR:HG1	2.17	0.46
46:D3:53:MET:HG3	46:D3:59:LEU:HD23	1.98	0.46
52:D6:10:LEU:C	52:D6:11:LEU:HD22	2.36	0.46
25:DA:128:C:H2'	25:DA:129:C:H6	1.79	0.46
25:DA:2337:G:N3	25:DA:2337:G:H2'	2.31	0.46
25:DA:234:C:H2'	25:DA:235:U:C6	2.47	0.46
25:DA:2360:A:OP1	54:D8:50:LEU:HA	2.15	0.46
25:DA:239:U:C2'	25:DA:240:G:H5'	2.45	0.46
25:DA:910:A:N7	36:DP:12:GLN:HB2	2.30	0.46
25:DA:921:G:H4'	25:DA:2269:A:C5	2.51	0.46
25:DA:957:A:N6	25:DA:959:A:C2	2.84	0.46
26:DB:65:C:N4	26:DB:108:C:C2	2.84	0.46
28:DE:11:MET:HG3	28:DE:24:THR:HA	1.96	0.46
29:DF:31:HIS:ND1	35:DO:9:ASN:OD1	2.47	0.46
30:DG:108:ASN:HA	50:D4:38:LYS:HG2	1.97	0.46
33:DM:17:ASP:O	33:DM:18:ALA:HB3	2.15	0.46
33:DM:17:ASP:O	33:DM:55:VAL:O	2.34	0.46
36:DP:31:ASP:O	36:DP:133:ARG:O	2.33	0.46
43:DT:57:LEU:H	43:DT:57:LEU:HD23	1.77	0.46
49:DX:59:VAL:CG1	49:DX:60:GLU:H	2.21	0.46
1:AA:1256:A:C2	1:AA:1277:C:C5	3.03	0.46
1:AA:925:G:N2	1:AA:1503:A:OP1	2.47	0.46
23:AD:49:C:P	23:AD:49:C:H6	2.39	0.46
7:AJ:77:SER:OG	23:AD:33:C:H4'	2.15	0.46
8:AK:121:ASP:HB2	8:AK:125:ARG:NH2	2.31	0.46
9:AL:114:TYR:HD2	9:AL:114:TYR:H	1.62	0.46
9:AL:4:TYR:CZ	9:AL:88:TYR:HD2	2.33	0.46
13:AP:80:ARG:NH1	19:AV:65:ASN:O	2.49	0.46
25:BA:1077:A:H4'	25:BA:1077:A:OP1	2.14	0.46
25:BA:1169:G:H1	25:BA:1180:C:H42	1.63	0.46
25:BA:1718:G:C2	25:BA:1725:G:C8	3.03	0.46
25:BA:2117:A:H62	25:BA:2172:U:H3	1.60	0.46
25:BA:46:C:OP2	25:BA:215:G:H2'	2.16	0.46
25:BA:2675:A:H5'	34:BN:29:ASN:O	2.15	0.46
25:BA:1639:U:H4'	25:BA:2699:C:H4'	1.97	0.46
25:BA:645:C:C2'	25:BA:646:A:OP1	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:79:C:H2'	26:BB:80:U:O4'	2.16	0.46
28:BE:167:VAL:HG22	28:BE:170:LEU:HD12	1.98	0.46
28:BE:6:GLY:CA	28:BE:27:LEU:O	2.64	0.46
28:BE:81:ILE:H	28:BE:81:ILE:HD13	1.81	0.46
29:BF:127:GLU:OE1	29:BF:128:ALA:N	2.49	0.46
31:BH:152:ARG:HB3	31:BH:153:LYS:HD2	1.98	0.46
32:BK:63:ALA:HA	32:BK:66:GLU:CD	2.35	0.46
33:BM:36:GLY:O	33:BM:42:TRP:HB2	2.15	0.46
25:BA:958:U:OP2	36:BP:14:ARG:NH1	2.48	0.46
42:BS:1:MET:C	42:BS:64:MET:HE1	2.36	0.46
43:BT:87:GLN:HE21	43:BT:87:GLN:HB2	1.62	0.46
25:BA:851:U:H5'	49:BX:46:ASN:HD21	1.81	0.46
47:BZ:45:ASN:O	47:BZ:47:GLN:HG2	2.16	0.46
47:BZ:72:GLU:O	47:BZ:76:ARG:HD2	2.15	0.46
1:CA:1086:U:H6	1:CA:1086:U:OP2	1.99	0.46
1:CA:1305:G:O2'	1:CA:1306:A:O5'	2.33	0.46
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.15	0.46
1:CA:177:C:H2'	1:CA:178:C:H6	1.80	0.46
1:CA:218:C:O2'	1:CA:219:C:H5'	2.15	0.46
1:CA:624:C:O3'	16:CS:10:GLY:HA2	2.16	0.46
1:CA:625:G:H2'	1:CA:626:U:H6	1.81	0.46
23:CC:19:G:N2	23:CC:58:A:H2'	2.31	0.46
23:CD:15:G:C2'	23:CD:60:A:C2	2.91	0.46
2:CE:89:GLY:O	2:CE:154:LEU:HD11	2.15	0.46
2:CE:163:PHE:HA	2:CE:185:ILE:O	2.15	0.46
3:CF:157:ILE:CD1	3:CF:166:GLU:HB2	2.45	0.46
4:CG:105:VAL:HG13	4:CG:110:PHE:HB2	1.98	0.46
9:CL:99:LEU:HB3	9:CL:101:PHE:HE1	1.80	0.46
17:CT:59:ILE:CG2	17:CT:71:PHE:CD1	2.99	0.46
52:D6:26:ASN:OD1	52:D6:28:ARG:HB2	2.15	0.46
25:DA:1084:A:H3'	25:DA:1085:A:C8	2.50	0.46
25:DA:1084:A:H5''	25:DA:1085:A:OP2	2.16	0.46
25:DA:1022:G:N2	25:DA:1142(A):A:C2	2.74	0.46
25:DA:1235:G:C6	25:DA:1236:G:N1	2.83	0.46
25:DA:1509:C:OP2	25:DA:1509:C:H4'	2.15	0.46
25:DA:274:G:OP1	25:DA:274:G:O4'	2.34	0.46
25:DA:2798:C:H5	25:DA:2799:A:H62	1.63	0.46
25:DA:565:C:H2'	25:DA:566:U:O4'	2.16	0.46
25:DA:977:G:C6	25:DA:987:G:C6	3.04	0.46
26:DB:73:A:H2'	26:DB:73:A:N3	2.30	0.46
26:DB:73:A:H3'	26:DB:74:U:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:91:C:H6	26:DB:91:C:O5'	1.99	0.46
27:DD:35:LYS:CD	27:DD:63:ARG:HB3	2.45	0.46
28:DE:16:ARG:O	28:DE:16:ARG:HD2	2.16	0.46
28:DE:36:ARG:CG	28:DE:36:ARG:NH1	2.77	0.46
33:DM:33:LEU:CD1	33:DM:38:HIS:CD2	2.98	0.46
34:DN:7:TYR:HE1	34:DN:20:MET:HG3	1.80	0.46
35:DO:19:VAL:HG22	35:DO:20:GLY:N	2.23	0.46
39:DR:29:ARG:HH11	39:DR:29:ARG:CG	2.28	0.46
45:DV:108:PRO:HA	45:DV:143:GLY:CA	2.45	0.46
45:DV:150:LEU:CD2	45:DV:154:ASP:HB2	2.46	0.46
1:AA:1014:A:H2	1:AA:1219:U:O2	1.98	0.46
1:AA:1033:G:H2'	1:AA:1034:G:H5'	1.97	0.46
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.51	0.46
1:AA:1190:G:C5'	3:AF:176:HIS:CE1	2.99	0.46
1:AA:218:C:C2'	1:AA:219:C:H5'	2.46	0.46
1:AA:329:A:C2	1:AA:332:G:C4	3.04	0.46
2:AE:130:ARG:HE	2:AE:138:LEU:HD11	1.80	0.46
4:AG:81:GLU:CD	4:AG:139:ARG:HH22	2.19	0.46
7:AJ:51:GLN:OE1	7:AJ:51:GLN:HA	2.16	0.46
9:AL:121:ARG:NH1	9:AL:122:ALA:O	2.39	0.46
1:AA:1368:G:OP1	10:AM:62:HIS:HE1	1.98	0.46
15:AR:18:PHE:CZ	15:AR:21:ASP:HB2	2.51	0.46
41:B2:35:LEU:HB2	41:B2:37:VAL:HG23	1.97	0.46
25:BA:86:C:H4'	25:BA:104:U:H1'	1.97	0.46
25:BA:1060:U:C5	25:BA:1062:G:H4'	2.51	0.46
25:BA:1083:U:H3'	25:BA:1084:A:H5''	1.98	0.46
25:BA:1655:A:H3'	25:BA:1656:C:H6	1.80	0.46
25:BA:1948:G:O2'	25:BA:1949:G:H5'	2.16	0.46
25:BA:2141:G:H2'	25:BA:2142:C:C6	2.50	0.46
25:BA:954:G:N3	25:BA:2274:A:C2	2.84	0.46
25:BA:2315:G:H2'	25:BA:2316:C:C6	2.51	0.46
25:BA:2393:A:H4'	35:BO:62:LEU:N	2.30	0.46
25:BA:2394:C:OP1	35:BO:63:PRO:CD	2.45	0.46
25:BA:2555:U:H2'	25:BA:2556:C:H5'	1.97	0.46
25:BA:2563:U:O2	25:BA:2565:A:H8	1.97	0.46
25:BA:2566:A:H4'	25:BA:2567:G:O5'	2.15	0.46
25:BA:2766:G:H5''	25:BA:2767:C:OP2	2.16	0.46
25:BA:565:C:H2'	25:BA:566:U:O4'	2.16	0.46
27:BD:218:ARG:HB3	27:BD:219:PRO:HD2	1.95	0.46
30:BG:64:THR:HG23	30:BG:66:GLN:N	2.29	0.46
31:BH:159:GLU:HG2	31:BH:170:ARG:HH11	1.74	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:94:TYR:CE2	31:BH:160:LYS:HD3	2.51	0.46
31:BH:169:VAL:HG12	31:BH:170:ARG:N	2.31	0.46
33:BM:38:HIS:HE1	33:BM:50:ASP:OD2	1.98	0.46
34:BN:71:ARG:NH1	34:BN:71:ARG:HG3	2.20	0.46
34:BN:107:ARG:NH1	39:BR:36:GLU:OE2	2.48	0.46
39:BR:99:LEU:HB3	39:BR:101:PHE:CE1	2.51	0.46
42:BS:37:ARG:HG2	42:BS:38:TYR:CE2	2.51	0.46
36:BP:136:ALA:HB2	45:BV:52:SER:HB2	1.98	0.46
1:CA:1095:U:OP1	1:CA:1108:G:N1	2.48	0.46
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.51	0.46
1:CA:1504:G:H4'	1:CA:1505:G:O5'	2.16	0.46
1:CA:194:C:C2'	1:CA:195:A:H5''	2.46	0.46
1:CA:683:G:C6	1:CA:684:A:C6	3.04	0.46
1:CA:686:U:H2'	1:CA:687:A:C8	2.51	0.46
1:CA:870:U:H6	1:CA:870:U:H5'	1.81	0.46
2:CE:237:ALA:H	2:CE:239:VAL:HB	1.80	0.46
3:CF:188:LEU:HD12	3:CF:195:VAL:CG1	2.45	0.46
3:CF:70:VAL:HG11	3:CF:76:VAL:CG1	2.46	0.46
5:CH:93:PRO:HG2	8:CK:105:ARG:NE	2.31	0.46
7:CJ:13:GLN:HG2	7:CJ:14:PRO:HD2	1.97	0.46
17:CT:44:ALA:HA	17:CT:71:PHE:O	2.16	0.46
41:D2:44:LYS:HG3	41:D2:45:THR:OG1	2.15	0.46
25:DA:1062:G:H2'	25:DA:1063:G:H8	1.80	0.46
25:DA:1111:A:O2'	25:DA:1112:G:H4'	2.16	0.46
25:DA:1215:G:C2'	25:DA:1216:G:H5'	2.46	0.46
25:DA:1347:G:C2'	25:DA:1348:G:H5'	2.46	0.46
25:DA:1686:C:H2'	25:DA:1687:G:H5'	1.98	0.46
25:DA:85:G:H5'	44:DU:32:PRO:HD3	1.97	0.46
28:DE:120:TRP:CD1	28:DE:155:LYS:HB3	2.51	0.46
28:DE:37:ARG:CD	28:DE:44:TYR:CE2	2.93	0.46
29:DF:117:ARG:HH12	35:DO:1:MET:H2	1.62	0.46
30:DG:97:ASP:H	30:DG:100:TRP:HD1	1.64	0.46
31:DH:102:ALA:CA	31:DH:117:PRO:HD3	2.45	0.46
31:DH:26:VAL:HG13	31:DH:27:LYS:N	2.31	0.46
33:DM:68:GLU:HG2	33:DM:88:GLU:OE1	2.15	0.46
25:DA:2562:U:O2'	34:DN:23:ARG:HD3	2.16	0.46
36:DP:20:ALA:O	36:DP:21:THR:HB	2.15	0.46
36:DP:78:PRO:O	36:DP:79:LEU:O	2.34	0.46
38:DQ:44:LYS:O	38:DQ:46:VAL:HG23	2.14	0.46
44:DU:72:VAL:O	44:DU:73:ARG:HG3	2.15	0.46
45:DV:30:ASN:OD1	45:DV:90:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DX:29:ARG:N	49:DX:33:GLN:HE22	2.04	0.46
47:DZ:20:ARG:HB3	47:DZ:32:LYS:HE2	1.98	0.46
47:DZ:7:ILE:CD1	47:DZ:70:VAL:HG22	2.45	0.46
47:DZ:87:PRO:O	47:DZ:88:LYS:C	2.53	0.46
1:AA:22:G:C5	1:AA:23:C:C4	3.03	0.46
1:AA:353:A:H5'	1:AA:353:A:C8	2.44	0.46
1:AA:429:U:H1'	1:AA:430:A:H5''	1.97	0.46
1:AA:763:G:H2'	1:AA:764:C:C6	2.50	0.46
3:AF:26:LYS:H	3:AF:26:LYS:HD3	1.80	0.46
1:AA:406:G:C5'	4:AG:5:ILE:HD13	2.46	0.46
16:AS:14:ASN:OD1	16:AS:14:ASN:O	2.34	0.46
16:AS:19:ILE:HD12	16:AS:19:ILE:HA	1.68	0.46
1:AA:264:U:O2'	17:AT:64:PRO:HD2	2.16	0.46
37:B0:56:LYS:NZ	37:B0:90:ARG:O	2.47	0.46
37:B0:97:VAL:HG22	37:B0:114:VAL:HG22	1.98	0.46
40:B1:92:ARG:O	40:B1:93:LYS:C	2.54	0.46
41:B2:99:ILE:HD13	41:B2:99:ILE:N	2.30	0.46
51:B5:51:TYR:O	51:B5:56:LYS:HE3	2.15	0.46
25:BA:1069:A:H5''	25:BA:1070:A:OP1	2.16	0.46
25:BA:1101:U:O2'	25:BA:1102:C:H5'	2.15	0.46
25:BA:1473:G:O2'	25:BA:1474:C:H5'	2.15	0.46
25:BA:2156:G:H5''	25:BA:2157:G:P	2.56	0.46
25:BA:2301:C:H3'	25:BA:2301:C:C6	2.51	0.46
25:BA:232:G:OP2	25:BA:232:G:C8	2.67	0.46
25:BA:539:G:N3	25:BA:539:G:H2'	2.30	0.46
25:BA:650:C:H2'	25:BA:651:G:O5'	2.16	0.46
25:BA:885:C:H2'	25:BA:890:A:N6	2.27	0.46
25:BA:887:A:H5'	25:BA:888:C:OP1	2.15	0.46
26:BB:70:C:N3	26:BB:71:C:C5	2.83	0.46
27:BD:33:LEU:HD13	27:BD:34:VAL:N	2.31	0.46
28:BE:49:LEU:HD12	28:BE:49:LEU:HA	1.82	0.46
25:BA:588:U:H1'	29:BF:90:PHE:CD1	2.51	0.46
30:BG:131:TYR:HE2	30:BG:133:LEU:HD13	1.81	0.46
25:BA:2666:C:H42	31:BH:109:PHE:HA	1.81	0.46
38:BQ:106:ARG:HB3	38:BQ:110:LEU:HD21	1.98	0.46
38:BQ:67:ARG:HH11	38:BQ:67:ARG:CB	2.28	0.46
39:BR:58:ASN:H	39:BR:58:ASN:HD22	1.62	0.46
39:BR:54:ARG:HA	39:BR:59:THR:HB	1.98	0.46
25:BA:1754:C:OP1	39:BR:96:ARG:NH1	2.48	0.46
45:BV:48:PHE:CZ	45:BV:74:VAL:HG21	2.51	0.46
1:CA:1175:G:C2	1:CA:1176:A:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:938:A:C2	1:CA:1376:U:H1'	2.51	0.46
1:CA:195:A:C6	1:CA:196:A:N1	2.84	0.46
1:CA:300:A:H8	1:CA:300:A:O5'	1.99	0.46
1:CA:313:A:H2'	1:CA:314:C:C6	2.51	0.46
1:CA:31:G:H2'	1:CA:48:C:N4	2.31	0.46
1:CA:511:C:C2	1:CA:512:U:C5	3.04	0.46
1:CA:979:C:C5	1:CA:980:C:C5	3.04	0.46
23:CD:13:C:C2'	23:CD:14:A:OP1	2.64	0.46
3:CF:196:LEU:HD23	3:CF:196:LEU:N	2.31	0.46
4:CG:172:PRO:HD2	4:CG:173:TRP:CZ3	2.51	0.46
5:CH:101:ILE:HD11	5:CH:119:LEU:CD2	2.43	0.46
6:CI:61:LEU:HB3	6:CI:63:TYR:CE2	2.50	0.46
7:CJ:78:ARG:NH1	7:CJ:80:VAL:HB	2.30	0.46
10:CM:31:GLY:O	10:CM:32:ALA:HB2	2.16	0.46
13:CP:60:VAL:HG13	13:CP:64:TRP:HE1	1.80	0.46
19:CV:43:GLU:H	19:CV:45:VAL:HG22	1.80	0.46
52:D6:52:VAL:HG22	52:D6:53:LYS:N	2.25	0.46
25:DA:1809:A:N6	25:DA:1810:A:N1	2.63	0.46
25:DA:205:G:C1'	25:DA:206:U:OP2	2.60	0.46
25:DA:2584:U:C5'	25:DA:2585:U:OP2	2.64	0.46
25:DA:633:A:H8	25:DA:633:A:O5'	1.98	0.46
25:DA:709:U:H2'	25:DA:710:G:C8	2.50	0.46
25:DA:717:G:H2'	25:DA:718:A:O4'	2.15	0.46
25:DA:912:C:N3	25:DA:913:U:C5	2.83	0.46
28:DE:70:ALA:C	28:DE:72:VAL:H	2.16	0.46
28:DE:91:VAL:HG23	28:DE:95:ILE:HD11	1.98	0.46
31:DH:85:LYS:HD2	31:DH:85:LYS:HA	1.73	0.46
35:DO:39:LYS:HB2	35:DO:45:LEU:HD21	1.96	0.46
25:DA:953:A:OP2	36:DP:16:ARG:HD3	2.16	0.46
38:DQ:3:ARG:HD2	38:DQ:4:LEU:H	1.81	0.46
48:DW:53:LEU:O	48:DW:56:GLN:HB2	2.16	0.46
49:DX:6:VAL:HG22	49:DX:35:ARG:O	2.16	0.46
47:DZ:67:ILE:N	47:DZ:68:PRO:HD2	2.31	0.46
47:DZ:78:LYS:CD	47:DZ:78:LYS:O	2.61	0.46
1:AA:686:U:H2'	1:AA:687:A:C8	2.51	0.46
1:AA:827:U:H5	1:AA:872:A:C6	2.33	0.46
22:AB:18:G:OP2	22:AB:18:G:C8	2.69	0.46
23:AC:21:U:C3'	23:AC:22:A:H5'	2.46	0.46
23:AD:18:C:OP1	25:BA:2180:U:O3'	2.34	0.46
23:AD:69:C:H2'	23:AD:70:C:O4'	2.16	0.46
3:AF:23:TYR:CD2	3:AF:24:ALA:N	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:61:LYS:HA	4:AG:203:VAL:HG22	1.98	0.46
7:AJ:26:PHE:HE2	7:AJ:30:ILE:HD11	1.78	0.46
8:AK:109:ILE:HD11	8:AK:120:THR:CG2	2.46	0.46
9:AL:114:TYR:HD1	10:AM:60:ARG:HB2	1.80	0.46
10:AM:42:THR:HG23	10:AM:68:HIS:HA	1.98	0.46
11:AN:121:PRO:CG	11:AN:126:ARG:HG3	2.38	0.46
18:AU:29:PHE:CE1	18:AU:31:LEU:HB3	2.51	0.46
40:B1:112:ARG:NH1	40:B1:112:ARG:HG3	2.27	0.46
51:B5:40:LYS:CE	51:B5:46:CYS:HB3	2.45	0.46
35:BO:61:ARG:HG3	54:B8:27:THR:HG22	1.97	0.46
25:BA:1069:A:H5''	25:BA:1070:A:P	2.55	0.46
25:BA:128:C:H4'	53:B7:49:ARG:HH21	1.81	0.46
25:BA:1750:G:C2	25:BA:1751:C:C6	3.04	0.46
25:BA:2134:A:N7	25:BA:2158:A:H2	2.13	0.46
25:BA:2161:C:H2'	25:BA:2162:G:H5'	1.98	0.46
25:BA:2287:A:C2	25:BA:2346:A:C2	3.04	0.46
25:BA:2481:G:C2'	25:BA:2482:G:OP2	2.64	0.46
25:BA:2592:G:C6	25:BA:2593:U:C4	3.04	0.46
25:BA:2701:C:H2'	25:BA:2702:U:OP1	2.15	0.46
25:BA:2785:C:O2'	28:BE:64:LYS:HD3	2.16	0.46
25:BA:478:A:C6	25:BA:480:A:C6	3.04	0.46
25:BA:654(H):G:N3	25:BA:654(H):G:H2'	2.31	0.46
25:BA:774:A:H2	25:BA:787:U:C2'	2.29	0.46
30:BG:91:ARG:HD2	30:BG:91:ARG:C	2.36	0.46
35:BO:15:ARG:CB	35:BO:15:ARG:NH1	2.75	0.46
25:BA:806:C:OP2	35:BO:41:ARG:HD3	2.16	0.46
35:BO:50:ARG:NH2	35:BO:50:ARG:HG3	2.24	0.46
36:BP:10:ARG:HG2	36:BP:10:ARG:H	1.45	0.46
36:BP:85:LYS:HG2	36:BP:86:GLY:N	2.31	0.46
25:BA:911:A:H2'	36:BP:9:TYR:OH	2.15	0.46
1:CA:16:A:H2	1:CA:1080:A:N3	2.13	0.46
1:CA:1348:U:H3	1:CA:1374:A:H2	1.64	0.46
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.16	0.46
1:CA:242:C:H2'	1:CA:243:A:H5'	1.98	0.46
1:CA:577:G:H2'	1:CA:578:C:H6	1.81	0.46
1:CA:608:A:H2'	1:CA:609:A:O4'	2.16	0.46
1:CA:644:G:C2'	1:CA:645:C:H5'	2.46	0.46
6:CI:8:ILE:HD11	6:CI:79:LEU:HD13	1.97	0.46
8:CK:120:THR:H	8:CK:123:GLU:HG3	1.81	0.46
1:CA:943:U:H1'	9:CL:124:GLN:HE22	1.81	0.46
20:CW:96:GLY:O	20:CW:97:ALA:HB3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1264:G:H5'	51:D5:11:THR:OG1	2.16	0.46
54:D8:47:LYS:C	54:D8:48:PHE:CD1	2.89	0.46
25:DA:1097:U:OP2	25:DA:1097:U:H6	1.98	0.46
25:DA:1396:U:H2'	25:DA:1396:U:O2	2.14	0.46
25:DA:1536:A:C8	25:DA:1537:C:H1'	2.51	0.46
25:DA:1434:A:N6	25:DA:1558:A:N6	2.57	0.46
25:DA:2271:G:C5	25:DA:2272:U:C5	3.04	0.46
25:DA:2410:G:H2'	25:DA:2411:A:O4'	2.16	0.46
25:DA:2815:C:O2'	51:D5:43:HIS:HD2	1.99	0.46
25:DA:2896:C:H5'	25:DA:2897:U:OP2	2.16	0.46
25:DA:362:U:H3'	25:DA:362:U:C6	2.50	0.46
25:DA:492:A:H2'	25:DA:493:G:H5'	1.97	0.46
25:DA:547:A:H2'	25:DA:548:A:C8	2.51	0.46
25:DA:68:G:H2'	25:DA:69:C:O4'	2.15	0.46
25:DA:922:U:H2'	25:DA:923:C:C6	2.50	0.46
27:DD:68:LYS:HB2	27:DD:70:TRP:CZ3	2.51	0.46
28:DE:25:VAL:O	28:DE:26:ILE:HG13	2.16	0.46
29:DF:93:LYS:HE2	29:DF:93:LYS:HB3	1.57	0.46
13:CP:3:ARG:NH1	30:DG:113:ARG:HH21	2.09	0.46
30:DG:6:ALA:O	30:DG:9:ARG:N	2.49	0.46
31:DH:169:VAL:HG22	31:DH:170:ARG:N	2.30	0.46
25:DA:2876:G:O5'	39:DR:3:ARG:HA	2.16	0.46
43:DT:50:LYS:O	43:DT:51:VAL:HB	2.15	0.46
24:A1:20:U:H2'	24:A1:21:U:C6	2.51	0.46
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.15	0.46
1:AA:166:G:H2'	1:AA:167:G:C8	2.50	0.46
1:AA:380:G:N2	1:AA:384:G:C4	2.84	0.46
1:AA:491:G:H2'	1:AA:492:G:O4'	2.16	0.46
1:AA:578:C:H2'	1:AA:579:G:O5'	2.16	0.46
1:AA:663:A:H5''	18:AU:61:LYS:HE3	1.97	0.46
1:AA:729:A:O2'	1:AA:730:G:H5'	2.16	0.46
1:AA:864:A:C2	1:AA:917:G:N3	2.84	0.46
2:AE:80:ILE:CG2	2:AE:212:GLN:HA	2.40	0.46
41:B2:5:VAL:O	41:B2:11:GLN:HA	2.15	0.46
52:B6:52:VAL:HG22	52:B6:53:LYS:N	2.31	0.46
25:BA:1701:A:C3'	25:BA:1702:G:H5'	2.46	0.46
25:BA:1845:G:O2'	25:BA:1846:G:H5'	2.15	0.46
25:BA:2283:C:C2	25:BA:2389:G:C2	3.04	0.46
23:AC:77:A:O2'	25:BA:2602:A:N7	2.46	0.46
25:BA:2760:C:O2'	25:BA:2761:G:H5'	2.16	0.46
25:BA:2788:C:O2'	25:BA:2809:A:N3	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2881:C:C4	25:BA:2882:A:N7	2.84	0.46
25:BA:2789:C:O2'	25:BA:2892:A:C2	2.68	0.46
25:BA:442:G:O4'	29:BF:46:ARG:HD3	2.15	0.46
25:BA:481:G:H4'	25:BA:482:A:O5'	2.16	0.46
28:BE:107:THR:O	28:BE:107:THR:HG22	2.15	0.46
30:BG:93:THR:O	30:BG:93:THR:HG22	2.15	0.46
25:BA:1203:G:H5'	35:BO:3:LEU:CD1	2.46	0.46
26:BB:116:G:C5'	38:BQ:55:ALA:HB2	2.46	0.46
39:BR:16:ARG:HG2	39:BR:18:ASP:OD1	2.16	0.46
42:BS:7:ALA:HB2	42:BS:50:VAL:HG22	1.97	0.46
1:CA:1055:A:C8	1:CA:1206:G:C2	3.04	0.46
1:CA:1091:U:O2	1:CA:1093:A:C8	2.67	0.46
1:CA:1151:A:C6	1:CA:1152:A:C6	3.04	0.46
1:CA:1153:C:C4	1:CA:1154:G:N7	2.84	0.46
1:CA:1392:G:C2'	1:CA:1393:U:H5'	2.46	0.46
1:CA:922:G:N3	1:CA:1398:A:H2	2.14	0.46
4:CG:119:GLN:O	4:CG:123:HIS:CD2	2.69	0.46
1:CA:409:G:OP1	4:CG:24:GLU:HG2	2.16	0.46
7:CJ:40:ALA:O	7:CJ:44:TYR:CD1	2.69	0.46
10:CM:56:HIS:O	10:CM:57:LYS:C	2.53	0.46
11:CN:54:ARG:HB3	11:CN:54:ARG:CZ	2.46	0.46
14:CQ:53:LEU:HA	14:CQ:54:PRO:HD3	1.84	0.46
18:CU:32:ARG:HA	18:CU:69:THR:HG21	1.98	0.46
19:CV:9:VAL:HB	19:CV:11:VAL:HG12	1.98	0.46
21:CX:9:ARG:HG3	21:CX:10:ARG:N	2.31	0.46
41:D2:46:VAL:O	41:D2:46:VAL:HG22	2.16	0.46
52:D6:15:GLU:OE2	52:D6:41:PRO:CB	2.63	0.46
25:DA:1012:U:N3	25:DA:1143:A:C6	2.82	0.46
25:DA:1058:U:H3	25:DA:1080:A:N6	2.11	0.46
25:DA:154:G:H3'	25:DA:155:C:C6	2.51	0.46
25:DA:1439:A:C2	25:DA:1553:A:C4	3.04	0.46
25:DA:1416:G:H1	25:DA:1582:C:H42	1.62	0.46
25:DA:1922:G:H2'	25:DA:1923:U:O4'	2.16	0.46
25:DA:2115:G:H2'	25:DA:2116:G:N7	2.30	0.46
25:DA:2129:C:N4	25:DA:2130:U:O4	2.49	0.46
25:DA:2261:C:C2'	25:DA:2262:U:H5'	2.46	0.46
25:DA:2411:A:N3	25:DA:2411:A:H2'	2.30	0.46
25:DA:270(H):C:H2'	25:DA:270(I):G:C8	2.51	0.46
27:DD:268:ARG:HG2	27:DD:268:ARG:NH1	2.31	0.46
30:DG:45:GLU:H	30:DG:45:GLU:HG2	1.35	0.46
34:DN:22:ILE:HD13	34:DN:22:ILE:HA	1.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:38:GLN:HG3	38:DQ:47:THR:CG2	2.46	0.46
39:DR:136:GLN:HB3	39:DR:136:GLN:HE21	1.53	0.46
44:DU:97:ARG:N	44:DU:97:ARG:HD3	2.29	0.46
1:AA:1002:G:C2'	1:AA:1003:G:H5'	2.46	0.45
1:AA:102:G:C5	1:AA:103:C:C5	3.04	0.45
1:AA:1308:U:H5''	13:AP:98:VAL:CG2	2.46	0.45
1:AA:942:G:C2	1:AA:1342:C:C2	3.04	0.45
1:AA:428:G:C8	1:AA:430:A:C5	3.04	0.45
1:AA:297:G:H4'	1:AA:557:G:H4'	1.98	0.45
23:AC:6:G:C2'	23:AC:6:G:N3	2.78	0.45
3:AF:35:GLU:O	3:AF:39:ILE:N	2.43	0.45
3:AF:92:ALA:HB2	3:AF:99:VAL:HG22	1.97	0.45
10:AM:16:LEU:HD12	10:AM:70:ARG:HE	1.80	0.45
21:AX:2:GLY:O	21:AX:4:GLY:N	2.49	0.45
25:BA:1022:G:H4'	25:BA:1023:U:O5'	2.16	0.45
25:BA:139:G:N2	25:BA:141:A:N1	2.63	0.45
25:BA:1829:A:H2'	25:BA:1830:C:H5'	1.99	0.45
25:BA:2224:G:H4'	25:BA:2226:C:C2	2.51	0.45
25:BA:2235:G:H2'	25:BA:2236:C:C6	2.51	0.45
25:BA:250:G:H2'	25:BA:251:A:C8	2.51	0.45
25:BA:547:A:C3'	25:BA:548:A:C8	2.99	0.45
25:BA:654(V):A:C2	25:BA:655:A:C2	2.99	0.45
31:BH:137:ASP:HB3	31:BH:140:LYS:HB3	1.98	0.45
32:BK:102:SER:HB3	32:BK:103:ARG:HE	1.81	0.45
33:BM:112:LEU:O	33:BM:116:LEU:HG	2.17	0.45
38:BQ:78:LEU:HD12	38:BQ:107:GLU:O	2.16	0.45
45:BV:5:LEU:HD22	45:BV:47:VAL:HG21	1.98	0.45
1:CA:1107:C:OP1	3:CF:172:ARG:HB3	2.16	0.45
1:CA:1132:C:C2'	1:CA:1133:G:H5'	2.46	0.45
1:CA:393:A:C6	1:CA:394:G:N7	2.84	0.45
1:CA:488:C:O2'	1:CA:489:C:H5'	2.16	0.45
1:CA:600:C:O2'	1:CA:601:C:H5'	2.16	0.45
1:CA:974:A:P	14:CQ:41:ARG:HH12	2.39	0.45
23:CC:41:C:C2	23:CC:42:C:C5	3.04	0.45
3:CF:7:PRO:O	3:CF:11:ARG:NH1	2.50	0.45
3:CF:120:VAL:HA	3:CF:123:GLN:HE21	1.81	0.45
3:CF:75:VAL:O	3:CF:75:VAL:HG12	2.16	0.45
11:CN:38:ASN:H	11:CN:38:ASN:HD22	1.63	0.45
13:CP:102:ARG:HG2	13:CP:103:THR:N	2.31	0.45
16:CS:52:ASP:OD1	16:CS:55:ARG:HG3	2.16	0.45
19:CV:31:ILE:HG23	19:CV:33:THR:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2364:C:H4'	46:D3:56:ASP:OD2	2.16	0.45
52:D6:39:TYR:CD1	52:D6:40:CYS:N	2.84	0.45
25:DA:1005:C:O4'	25:DA:1143:A:C2	2.68	0.45
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.50	0.45
25:DA:1540:G:H2'	25:DA:1541:U:O4'	2.15	0.45
25:DA:1820:U:H4'	25:DA:1821:A:OP2	2.16	0.45
25:DA:2017:U:H5''	25:DA:2018:G:P	2.56	0.45
25:DA:2032:G:H21	28:DE:146:THR:CG2	2.20	0.45
25:DA:2168:G:C6	25:DA:2171:A:N1	2.84	0.45
25:DA:2304:G:C2'	25:DA:2305:A:O5'	2.64	0.45
25:DA:2315:G:H2'	25:DA:2316:C:C6	2.51	0.45
25:DA:1999:C:H5''	25:DA:2723:C:O2'	2.16	0.45
25:DA:322:A:H3'	29:DF:169:ASN:HD21	1.78	0.45
25:DA:349:G:H2'	25:DA:350:U:O4'	2.16	0.45
25:DA:606:U:H4'	25:DA:658:C:H4'	1.97	0.45
25:DA:753:C:H2'	25:DA:754:C:C6	2.46	0.45
26:DB:60:C:H2'	26:DB:61:G:C8	2.51	0.45
28:DE:55:ASN:C	28:DE:57:LYS:H	2.12	0.45
29:DF:18:ARG:HG2	29:DF:19:GLU:H	1.80	0.45
31:DH:102:ALA:HB1	31:DH:116:GLU:HA	1.98	0.45
36:DP:64:ILE:H	36:DP:64:ILE:HD13	1.77	0.45
36:DP:64:ILE:HG22	36:DP:65:PHE:H	1.81	0.45
39:DR:29:ARG:HB3	39:DR:29:ARG:HH11	1.80	0.45
43:DT:11:PRO:CB	43:DT:92:LEU:HD21	2.46	0.45
44:DU:50:ARG:CG	44:DU:53:PRO:HG3	2.46	0.45
45:DV:53:ILE:HG22	45:DV:71:VAL:HG13	1.97	0.45
48:DW:17:SER:HB3	48:DW:21:LEU:HG	1.98	0.45
1:AA:1078:U:C5	1:AA:1079:G:C5	3.04	0.45
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.52	0.45
1:AA:1159:U:N3	1:AA:1182:G:N1	2.64	0.45
1:AA:1248:A:C5	1:AA:1249:C:C5	3.04	0.45
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.97	0.45
1:AA:1489:G:H2'	1:AA:1490:C:O4'	2.15	0.45
1:AA:22:G:H4'	1:AA:885:G:C8	2.51	0.45
1:AA:660:G:C2	1:AA:746:A:C2	3.05	0.45
1:AA:687:A:C4'	1:AA:688:G:O5'	2.59	0.45
1:AA:90:C:C5	1:AA:91:C:H5	2.33	0.45
22:AB:19:G:C4'	22:AB:20:U:OP2	2.65	0.45
23:AD:49:C:C2	23:AD:60:A:O4'	2.70	0.45
2:AE:72:GLY:HA3	2:AE:165:VAL:HG22	1.98	0.45
3:AF:138:VAL:HG12	3:AF:139:GLN:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1118:C:P	9:AL:104:ARG:HH11	2.39	0.45
11:AN:41:THR:HG23	11:AN:42:TRP:N	2.31	0.45
16:AS:51:VAL:HG11	16:AS:74:LEU:CD2	2.45	0.45
20:AW:73:HIS:O	20:AW:76:ALA:HB3	2.16	0.45
25:BA:1278:A:OP1	37:B0:36:THR:CG2	2.64	0.45
40:B1:61:TRP:CE2	40:B1:94:ASN:HA	2.51	0.45
41:B2:64:HIS:CG	41:B2:92:THR:HG22	2.52	0.45
50:B4:37:SER:HB3	50:B4:42:PHE:CB	2.42	0.45
25:BA:2344:U:OP1	52:B6:38:LYS:HE3	2.16	0.45
52:B6:9:LEU:O	52:B6:9:LEU:HD13	2.16	0.45
53:B7:5:TRP:CD1	53:B7:7:PRO:HG3	2.50	0.45
54:B8:26:LYS:HE2	54:B8:47:LYS:HG2	1.98	0.45
25:BA:1014:U:C2'	25:BA:1015:G:H5''	2.42	0.45
25:BA:988:A:H4'	25:BA:1155:A:N1	2.31	0.45
25:BA:1181:C:O2'	25:BA:1182:A:H5'	2.16	0.45
25:BA:1728:G:H2'	25:BA:1731:G:O6	2.16	0.45
25:BA:2102:U:H3	25:BA:2187:G:H1	1.64	0.45
25:BA:2113:U:C5'	25:BA:2114:A:C8	2.94	0.45
25:BA:2131:G:C1'	25:BA:2158:A:H62	2.29	0.45
25:BA:2472:G:H2'	25:BA:2475:C:H42	1.81	0.45
25:BA:2753:A:O2'	25:BA:2754:U:H5'	2.17	0.45
28:BE:167:VAL:HG22	28:BE:170:LEU:CD1	2.45	0.45
28:BE:174:ASP:OD2	28:BE:175:VAL:N	2.49	0.45
29:BF:32:LEU:HD21	29:BF:108:LYS:HB3	1.97	0.45
33:BM:30:ILE:HG23	33:BM:52:VAL:HG11	1.97	0.45
33:BM:55:VAL:HG12	33:BM:127:ASP:O	2.16	0.45
35:BO:113:LYS:HA	35:BO:129:ALA:O	2.16	0.45
35:BO:114:ILE:HG12	35:BO:130:PHE:CD1	2.52	0.45
25:BA:1244:G:OP1	35:BO:7:ARG:HD3	2.16	0.45
38:BQ:25:ARG:HD2	38:BQ:88:ASP:OD2	2.16	0.45
39:BR:108:ARG:O	39:BR:111:ARG:HB2	2.16	0.45
45:BV:14:LYS:HA	45:BV:15:PRO:HD3	1.83	0.45
1:CA:1321:C:C5	1:CA:1322:C:C5	3.04	0.45
1:CA:201:C:H4'	1:CA:208:U:OP1	2.14	0.45
1:CA:485:G:C2'	1:CA:486:U:OP2	2.64	0.45
23:CD:24:C:H2'	23:CD:25:U:C6	2.52	0.45
23:CD:31:G:H2'	23:CD:32:G:C8	2.50	0.45
5:CH:100:VAL:O	5:CH:100:VAL:CG1	2.65	0.45
7:CJ:115:ARG:O	7:CJ:118:VAL:HG13	2.16	0.45
11:CN:95:ILE:HG21	11:CN:108:ILE:HD13	1.97	0.45
16:CS:9:PHE:HB2	16:CS:16:HIS:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CW:14:LYS:HB2	20:CW:17:ARG:NH2	2.32	0.45
40:D1:68:ALA:O	40:D1:71:GLN:HB2	2.16	0.45
41:D2:85:LYS:CD	41:D2:86:GLY:H	2.28	0.45
25:DA:1069:A:H4'	25:DA:1070:A:H5''	1.98	0.45
25:DA:2304:G:C2	25:DA:2313:C:N3	2.84	0.45
25:DA:2520:C:C6	25:DA:2567:G:H1'	2.51	0.45
25:DA:2657:A:C2	25:DA:2665:A:C8	3.04	0.45
25:DA:2713:A:C3'	25:DA:2714:G:C5'	2.94	0.45
25:DA:2801:A:H2'	25:DA:2802:G:O4'	2.16	0.45
25:DA:273(D):C:N4	25:DA:363(B):G:H1	2.09	0.45
25:DA:529:A:H8	25:DA:530:G:N1	2.13	0.45
25:DA:534:U:O2'	40:D1:49:HIS:CD2	2.69	0.45
25:DA:634:C:H2'	25:DA:635:C:H6	1.82	0.45
25:DA:708:C:H5'	25:DA:709:U:OP2	2.16	0.45
25:DA:847:U:C5	25:DA:933:A:H61	1.65	0.45
27:DD:24:ILE:HD11	27:DD:91:ARG:CD	2.37	0.45
28:DE:134:ILE:HD12	28:DE:134:ILE:C	2.31	0.45
28:DE:26:ILE:HG22	28:DE:28:ALA:N	2.32	0.45
29:DF:178:PRO:HB2	29:DF:201:VAL:CG1	2.40	0.45
30:DG:102:PHE:HE2	30:DG:141:PHE:CZ	2.34	0.45
1:AA:1009:G:C2	1:AA:1010:G:C8	3.04	0.45
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.51	0.45
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.46	0.45
1:AA:195:A:C5	1:AA:196:A:C2	3.04	0.45
1:AA:689:C:C4	1:AA:690:G:C2	3.04	0.45
1:AA:725:G:O2'	1:AA:726:C:H5'	2.16	0.45
1:AA:73:G:C2	1:AA:74:C:H5	2.33	0.45
1:AA:948:C:O2'	1:AA:949:A:H5'	2.16	0.45
22:AB:50:A:H3'	22:AB:51:A:H5''	1.98	0.45
22:AB:60:A:N3	22:AB:60:A:H2'	2.30	0.45
3:AF:70:VAL:CG1	3:AF:72:LYS:H	2.27	0.45
4:AG:138:TYR:CE2	4:AG:139:ARG:O	2.70	0.45
1:AA:130:A:C8	17:AT:63:ARG:HD3	2.51	0.45
18:AU:53:ARG:HE	18:AU:59:SER:C	2.20	0.45
37:B0:60:LEU:O	37:B0:64:ARG:HG3	2.16	0.45
46:B3:72:ARG:HB3	46:B3:75:LEU:HB2	1.97	0.45
51:B5:16:ARG:HD2	51:B5:20:ARG:NH1	2.31	0.45
54:B8:36:LYS:CD	54:B8:40:GLU:CG	2.93	0.45
25:BA:973:A:O4'	25:BA:1188:U:C6	2.69	0.45
25:BA:2035:G:C4'	25:BA:2036:C:OP2	2.64	0.45
25:BA:2159:G:O2'	25:BA:2160:G:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2168:G:P	25:BA:2168:G:O4'	2.74	0.45
25:BA:2259:G:C2	25:BA:2282:G:C6	3.05	0.45
25:BA:2704:C:H2'	25:BA:2705:A:C8	2.51	0.45
25:BA:760:G:H2'	25:BA:761:A:O4'	2.17	0.45
28:BE:169:ASN:O	28:BE:169:ASN:ND2	2.49	0.45
28:BE:33:VAL:HG23	28:BE:35:GLN:O	2.16	0.45
29:BF:7:TYR:HA	29:BF:22:ALA:H	1.81	0.45
30:BG:82:LEU:C	30:BG:82:LEU:HD22	2.37	0.45
32:BK:106:GLY:O	32:BK:107:VAL:CG2	2.50	0.45
32:BK:81:VAL:HG21	32:BK:88:ILE:HD13	1.98	0.45
44:BU:78:ALA:HB3	44:BU:81:LYS:CE	2.46	0.45
45:BV:80:ARG:HG2	45:BV:80:ARG:H	1.60	0.45
1:CA:1057:G:O2'	1:CA:1058:G:H5'	2.16	0.45
1:CA:1124:G:O2'	1:CA:1125:U:OP2	2.34	0.45
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.81	0.45
1:CA:1235:U:H2'	1:CA:1236:A:O4'	2.17	0.45
1:CA:843:U:OP1	1:CA:843:U:H6	1.98	0.45
1:CA:941:G:H2'	1:CA:942:G:O5'	2.16	0.45
23:CD:9:G:O6	23:CD:23:G:N7	2.50	0.45
2:CE:28:PHE:CE2	2:CE:31:TYR:HD1	2.35	0.45
3:CF:18:TRP:HB3	3:CF:20:SER:H	1.82	0.45
4:CG:119:GLN:O	4:CG:123:HIS:HD2	1.99	0.45
9:CL:4:TYR:HA	9:CL:88:TYR:HE1	1.80	0.45
11:CN:38:ASN:HA	11:CN:39:PRO:HD3	1.86	0.45
46:D3:82:ARG:HA	46:D3:83:PRO:HD2	1.82	0.45
54:D8:30:ARG:O	54:D8:30:ARG:HG3	2.16	0.45
35:DO:50:ARG:HB2	54:D8:59:LYS:HD3	1.98	0.45
25:DA:1009:A:C4'	40:D1:59:ARG:HG3	2.46	0.45
25:DA:11:G:C2'	25:DA:12:U:H5'	2.45	0.45
25:DA:2258:C:H4'	25:DA:2259:G:OP2	2.15	0.45
25:DA:2286:A:H5'	52:D6:28:ARG:HE	1.80	0.45
25:DA:2298:A:H61	25:DA:2318:G:H1'	1.82	0.45
25:DA:2443:C:O2'	25:DA:2444:G:H5'	2.16	0.45
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.17	0.45
25:DA:271(B):G:N7	25:DA:421:U:H2'	2.31	0.45
25:DA:330:A:O2'	25:DA:331:A:H8	1.99	0.45
26:DB:60:C:H2'	26:DB:61:G:H8	1.82	0.45
27:DD:244:ARG:HB2	27:DD:245:PRO:CD	2.45	0.45
27:DD:244:ARG:HB2	27:DD:245:PRO:HD2	1.98	0.45
31:DH:32:GLU:O	31:DH:33:LEU:HD23	2.17	0.45
35:DO:47:ASP:C	35:DO:49:ARG:N	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:83:LYS:HB3	38:DQ:83:LYS:HE3	1.74	0.45
25:DA:2875:C:HO2'	39:DR:3:ARG:HG3	1.81	0.45
44:DU:47:LYS:CA	44:DU:60:PHE:HB3	2.46	0.45
48:DW:17:SER:HB2	48:DW:18:PRO:O	2.15	0.45
1:AA:1035:A:N6	1:AA:1036:G:C8	2.84	0.45
1:AA:165:C:O2'	1:AA:166:G:H5'	2.15	0.45
1:AA:291:C:O2	1:AA:310:G:C2	2.70	0.45
1:AA:451:A:H4'	1:AA:452:A:O4'	2.17	0.45
1:AA:723:U:C2'	1:AA:723:U:O2	2.64	0.45
7:AJ:78:ARG:NH2	7:AJ:156:TRP:HB3	2.30	0.45
11:AN:113:PRO:C	11:AN:114:VAL:HG12	2.37	0.45
17:AT:27:PHE:CZ	17:AT:36:ILE:HD11	2.52	0.45
50:B4:47:GLN:O	50:B4:48:ARG:CB	2.64	0.45
25:BA:1385:G:O2'	25:BA:1396:U:H6	1.99	0.45
25:BA:1465:G:C4	25:BA:1466:G:C8	3.04	0.45
25:BA:1677:A:H2'	25:BA:1678:G:C8	2.50	0.45
25:BA:1794:U:H1'	25:BA:1900:A:N3	2.31	0.45
25:BA:2115:G:O6	25:BA:2118:U:OP2	2.34	0.45
25:BA:2168:G:H2'	25:BA:2169:A:OP1	2.16	0.45
25:BA:340:A:H2'	25:BA:341:G:H5'	1.97	0.45
25:BA:637:A:H4'	25:BA:638:G:O5'	2.16	0.45
25:BA:756:C:C2'	25:BA:757:U:O5'	2.63	0.45
25:BA:850:C:O2'	49:BX:46:ASN:ND2	2.49	0.45
29:BF:34:TRP:HB2	35:BO:6:LEU:HG	1.98	0.45
30:BG:86:MET:O	30:BG:87:PRO:C	2.54	0.45
35:BO:24:GLY:C	35:BO:26:GLY:H	2.20	0.45
38:BQ:93:LYS:CG	38:BQ:94:TYR:N	2.80	0.45
48:BW:32:LEU:HG	48:BW:53:LEU:HD13	1.96	0.45
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.52	0.45
1:CA:1239:A:H4'	1:CA:1240:U:H5'	1.97	0.45
1:CA:626:U:C2	1:CA:627:G:C8	3.05	0.45
1:CA:799:G:O6	1:CA:800:G:C2	2.70	0.45
1:CA:940:C:O2'	1:CA:941:G:H5'	2.17	0.45
1:CA:994:A:C2	1:CA:995:C:C5	3.04	0.45
22:CB:21:A:C4	22:CB:22:G:H4'	2.51	0.45
22:CB:33:U:C4	22:CB:34:U:C4	3.04	0.45
3:CF:100:ALA:O	3:CF:101:LEU:HB2	2.16	0.45
3:CF:150:LYS:CG	3:CF:169:ALA:HB2	2.40	0.45
1:CA:1298:C:P	7:CJ:114:ARG:HH22	2.39	0.45
1:CA:777:A:C2	11:CN:119:CYS:HB3	2.50	0.45
17:CT:18:THR:OG1	17:CT:69:LYS:NZ	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CU:21:LYS:HE2	18:CU:54:ARG:O	2.17	0.45
53:D7:16:HIS:HB2	53:D7:44:PRO:HG2	1.98	0.45
25:DA:1585:C:O2	25:DA:1585:C:H2'	2.15	0.45
25:DA:225:A:N6	25:DA:226:G:N1	2.64	0.45
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.51	0.45
25:DA:30:G:H2'	25:DA:31:C:C6	2.51	0.45
25:DA:329:G:O6	44:DU:19:LYS:CG	2.61	0.45
25:DA:654(B):C:C2	25:DA:654(T):A:C2	3.05	0.45
26:DB:9:G:N2	26:DB:112:G:C4	2.85	0.45
29:DF:177:ALA:HB1	29:DF:178:PRO:HD2	1.99	0.45
29:DF:24:LEU:HB3	29:DF:25:PRO:HD2	1.97	0.45
29:DF:57:VAL:HG13	29:DF:58:ALA:N	2.32	0.45
30:DG:59:GLU:CD	30:DG:153:ARG:HH21	2.19	0.45
32:DK:44:LEU:HD23	32:DK:44:LEU:HA	1.75	0.45
33:DM:127:ASP:O	33:DM:128:HIS:HB3	2.16	0.45
38:DQ:66:ALA:HA	38:DQ:69:VAL:HG12	1.98	0.45
43:DT:18:TYR:CD1	43:DT:21:PHE:CE2	3.05	0.45
44:DU:43:ASN:HD22	44:DU:43:ASN:H	1.64	0.45
44:DU:43:ASN:N	44:DU:43:ASN:ND2	2.64	0.45
48:DW:38:GLN:O	48:DW:41:ILE:HG12	2.17	0.45
1:AA:1211:U:C5'	1:AA:1212:U:OP1	2.64	0.45
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.15	0.45
1:AA:1299:A:H2'	1:AA:1301:U:C1'	2.47	0.45
1:AA:1333:A:C2'	1:AA:1334:G:O5'	2.64	0.45
1:AA:342:C:C2	1:AA:348:G:N2	2.84	0.45
1:AA:684:A:N6	1:AA:685:G:C6	2.85	0.45
22:AB:1:G:N3	22:AB:1:G:H2'	2.31	0.45
23:AC:20:G:C2	23:AC:58:A:C2	3.04	0.45
23:AC:6:G:H2'	23:AC:6:G:N3	2.31	0.45
23:AD:8:U:OP2	23:AD:13:C:H5	1.99	0.45
3:AF:141:VAL:CG1	3:AF:202:ILE:HG23	2.46	0.45
5:AH:48:ALA:HB1	5:AH:49:PRO:CD	2.47	0.45
11:AN:85:ARG:HD3	11:AN:113:PRO:HD3	1.99	0.45
14:AQ:13:THR:N	14:AQ:14:PRO:CD	2.80	0.45
52:B6:15:GLU:OE2	52:B6:44:ARG:CZ	2.64	0.45
54:B8:26:LYS:CB	54:B8:44:LYS:HG3	2.44	0.45
54:B8:29:LYS:HB2	54:B8:44:LYS:HG2	1.98	0.45
25:BA:1063:G:C2	25:BA:1064:C:C2	3.04	0.45
25:BA:1332:G:N2	25:BA:1609:A:C2'	2.80	0.45
25:BA:1336:A:H2'	25:BA:1337:G:H8	1.81	0.45
25:BA:1536:A:H2'	25:BA:1537:C:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1885:A:H2'	25:BA:1886:C:O4'	2.17	0.45
25:BA:2169:A:N3	25:BA:2169:A:OP1	2.49	0.45
25:BA:2183:C:H2'	25:BA:2184:G:O4'	2.17	0.45
25:BA:2544:G:O5'	25:BA:2544:G:H8	1.99	0.45
25:BA:2615:U:H2'	25:BA:2616:C:C6	2.51	0.45
25:BA:2660:A:C2	25:BA:2661:G:H1'	2.52	0.45
25:BA:288:C:H2'	25:BA:289:A:H8	1.81	0.45
25:BA:320:A:H2'	29:BF:136:THR:CG2	2.46	0.45
25:BA:338:G:N2	25:BA:339:U:H1'	2.32	0.45
25:BA:613:U:H5'	25:BA:616:A:N6	2.31	0.45
25:BA:627:A:N1	25:BA:636:G:O2'	2.48	0.45
25:BA:848:G:H2'	25:BA:849:A:C8	2.51	0.45
26:BB:116:G:H2'	26:BB:117:G:O4'	2.16	0.45
26:BB:13:A:O2'	26:BB:14:U:H3'	2.16	0.45
26:BB:80:U:H2'	26:BB:81:G:H21	1.81	0.45
28:BE:49:LEU:HB3	28:BE:50:GLY:H	1.47	0.45
29:BF:129:PHE:HA	29:BF:142:TRP:NE1	2.31	0.45
32:BK:101:LEU:HD23	32:BK:107:VAL:HB	1.98	0.45
32:BK:112:LYS:HB3	32:BK:112:LYS:HE2	1.85	0.45
32:BK:21:VAL:HG21	32:BK:25:TYR:HD1	1.82	0.45
45:BV:68:PRO:HB2	45:BV:91:LEU:HD23	1.98	0.45
49:BX:21:ALA:O	49:BX:24:LYS:HB3	2.17	0.45
47:BZ:78:LYS:O	47:BZ:80:LEU:HD13	2.16	0.45
1:CA:1028(B):C:H3'	1:CA:1029:G:C5'	2.47	0.45
1:CA:1105:A:C2	1:CA:1106:G:C5	3.05	0.45
1:CA:987:G:N2	1:CA:1219:U:N3	2.65	0.45
1:CA:1270:C:H2'	1:CA:1271:G:H8	1.81	0.45
1:CA:131:C:H2'	1:CA:132:C:C6	2.52	0.45
1:CA:1323:G:H4'	1:CA:1362(A):C:C2	2.52	0.45
22:CB:26:C:N4	22:CB:27:G:C2	2.85	0.45
22:CB:30:A:C6	22:CB:31:C:N3	2.85	0.45
23:CC:17:C:OP1	23:CC:62:C:H5'	2.16	0.45
23:CD:20:G:H1'	23:CD:58:A:N1	2.31	0.45
23:CD:62:C:C5	23:CD:63:C:N4	2.85	0.45
2:CE:5:ILE:CG2	2:CE:5:ILE:O	2.64	0.45
2:CE:7:VAL:HG13	2:CE:8:LYS:HG3	1.99	0.45
5:CH:50:GLU:OE2	5:CH:50:GLU:HA	2.15	0.45
9:CL:27:THR:HG23	9:CL:31:GLN:O	2.16	0.45
9:CL:79:LEU:CD1	9:CL:83:ARG:HD2	2.44	0.45
13:CP:117:VAL:O	13:CP:117:VAL:HG12	2.17	0.45
1:CA:719:C:O2'	18:CU:49:LYS:HB3	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:74:PHE:HD2	19:CV:74:PHE:N	2.15	0.45
1:CA:333:G:H4'	20:CW:16:HIS:CE1	2.51	0.45
51:D5:6:VAL:CG1	51:D5:7:PRO:N	2.75	0.45
25:DA:1214:A:O5'	25:DA:1214:A:H8	1.99	0.45
25:DA:1542:G:O6	25:DA:1543:A:N6	2.49	0.45
25:DA:1705:G:C2'	25:DA:1706:U:H5'	2.47	0.45
25:DA:2168:G:N2	25:DA:2170:A:O5'	2.48	0.45
25:DA:2188:C:H2'	25:DA:2189:U:O4'	2.17	0.45
25:DA:2320:A:H1'	25:DA:2321:G:C6	2.51	0.45
25:DA:269:U:C5	25:DA:270(Z):U:C5	3.04	0.45
25:DA:2777:G:OP2	25:DA:2781:A:O2'	2.28	0.45
25:DA:2838:G:C6	25:DA:2839:G:C5	3.05	0.45
25:DA:414:C:O2'	25:DA:415:A:H5'	2.16	0.45
25:DA:547:A:C5	25:DA:548:A:C6	3.04	0.45
25:DA:654(J):A:H2'	25:DA:654(J):A:N3	2.31	0.45
25:DA:856:C:C2'	25:DA:857:C:O5'	2.65	0.45
25:DA:882:G:H2'	25:DA:883:G:O4'	2.17	0.45
27:DD:14:ARG:HD3	27:DD:15:PHE:CZ	2.52	0.45
25:DA:660:G:H5'	29:DF:99:TYR:CE2	2.51	0.45
31:DH:102:ALA:HB2	31:DH:117:PRO:HD3	1.97	0.45
25:DA:2749:A:H5'	31:DH:62:LYS:O	2.16	0.45
32:DK:7:GLU:O	32:DK:9:LEU:HD23	2.16	0.45
33:DM:94:HIS:O	33:DM:97:ARG:HB2	2.16	0.45
35:DO:124:LYS:HE3	35:DO:145:PRO:HD3	1.97	0.45
36:DP:31:ASP:N	36:DP:107:ALA:HB2	2.30	0.45
36:DP:3:MET:H	36:DP:70:PRO:HG2	1.81	0.45
38:DQ:59:LYS:HD2	38:DQ:60:GLY:H	1.82	0.45
42:DS:76:VAL:HG22	42:DS:76:VAL:O	2.17	0.45
1:AA:1083:U:C5	1:AA:1084:G:C6	3.04	0.45
1:AA:173:U:C6	1:AA:197:A:C2	3.05	0.45
1:AA:268:C:C4	1:AA:269:C:C5	3.05	0.45
1:AA:464:G:H21	1:AA:468:A:H62	1.65	0.45
1:AA:621:A:O2'	1:AA:622:A:H5'	2.16	0.45
1:AA:814:A:C8	1:AA:816:A:C8	3.05	0.45
1:AA:857:C:C5	1:AA:858:G:N7	2.84	0.45
1:AA:90:C:N4	1:AA:91:C:H41	2.14	0.45
22:AB:15:A:N1	22:AB:70:G:C5	2.85	0.45
22:AB:27:G:H3'	22:AB:28:C:C6	2.51	0.45
4:AG:176:LEU:HD12	4:AG:182:LYS:O	2.16	0.45
5:AH:31:LEU:HA	5:AH:31:LEU:HD23	1.82	0.45
15:AR:29:VAL:HB	15:AR:81:LEU:HD21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AW:16:HIS:O	20:AW:19:SER:HB2	2.17	0.45
20:AW:87:LYS:HD2	20:AW:87:LYS:HA	1.73	0.45
37:B0:18:LEU:HD23	37:B0:18:LEU:HA	1.74	0.45
37:B0:41:ALA:HB1	37:B0:114:VAL:CG2	2.47	0.45
41:B2:76:LYS:HG3	41:B2:81:TYR:HD1	1.81	0.45
41:B2:9:GLY:O	41:B2:10:LYS:HG3	2.17	0.45
46:B3:36:ILE:HD13	46:B3:39:ARG:HG2	1.98	0.45
25:BA:1545:A:C6	25:BA:1545(A):A:C2	3.05	0.45
25:BA:1705:G:C2'	25:BA:1706:U:H5'	2.46	0.45
25:BA:1975:G:C2	25:BA:1976:U:C2	3.05	0.45
25:BA:2259:G:C2	25:BA:2282:G:N1	2.85	0.45
25:BA:2395:C:H2'	25:BA:2396:G:O4'	2.17	0.45
25:BA:2468:G:H5''	36:BP:120:ILE:HD12	1.98	0.45
25:BA:2667:C:H2'	25:BA:2668:G:O4'	2.15	0.45
25:BA:28:A:C5	25:BA:29:U:C5	3.04	0.45
25:BA:712:G:H2'	25:BA:713:G:O5'	2.16	0.45
25:BA:835:A:C2'	25:BA:836:G:O5'	2.65	0.45
26:BB:45:A:O4'	30:BG:95:ARG:NH1	2.50	0.45
27:BD:35:LYS:HE2	27:BD:65:ILE:HG22	1.99	0.45
31:BH:137:ASP:O	31:BH:138:LYS:HB3	2.16	0.45
32:BK:112:LYS:H	32:BK:112:LYS:HG2	1.57	0.45
34:BN:7:TYR:OH	34:BN:44:LYS:HG3	2.17	0.45
25:BA:483:A:O4'	44:BU:47:LYS:HB3	2.17	0.45
45:BV:61:LEU:HD21	45:BV:67:LEU:HD12	1.99	0.45
25:BA:77:C:OP1	48:BW:59:ARG:HD3	2.17	0.45
25:BA:989:G:N7	49:BX:13:ILE:HD12	2.31	0.45
1:CA:1100:C:HO2'	1:CA:1102:A:P	2.40	0.45
1:CA:1170:A:H2'	1:CA:1171:G:O4'	2.17	0.45
1:CA:1187:G:H2'	1:CA:1187:G:N3	2.32	0.45
1:CA:1320:C:C2	1:CA:1321:C:C5	3.04	0.45
1:CA:1361:G:C2'	1:CA:1362:C:H5'	2.47	0.45
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.16	0.45
1:CA:171:A:C6	1:CA:172:A:C6	3.05	0.45
1:CA:146:G:N2	1:CA:177:C:C2	2.85	0.45
1:CA:45:U:H2'	1:CA:46:G:H8	1.80	0.45
1:CA:498:A:C4'	1:CA:500:G:OP1	2.63	0.45
1:CA:671:G:C5	1:CA:672:U:C5	3.05	0.45
1:CA:691:G:H1'	1:CA:696:A:N6	2.31	0.45
2:CE:112:VAL:O	2:CE:115:LEU:HB3	2.15	0.45
2:CE:28:PHE:CE2	2:CE:189:ASP:O	2.70	0.45
2:CE:36:ARG:HB3	2:CE:41:ILE:HD11	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:619:U:C2	4:CG:135:LEU:HD22	2.51	0.45
10:CM:81:THR:C	10:CM:83:GLU:N	2.69	0.45
1:CA:677:U:H1'	11:CN:119:CYS:SG	2.57	0.45
3:CF:29:TYR:CD1	14:CQ:36:PHE:CE1	3.05	0.45
1:CA:1047:G:H5''	14:CQ:4:LYS:HE3	1.98	0.45
15:CR:48:LYS:HA	15:CR:48:LYS:HD3	1.50	0.45
16:CS:70:ALA:O	16:CS:74:LEU:HB2	2.16	0.45
18:CU:87:ARG:O	18:CU:88:LYS:HG3	2.16	0.45
40:D1:50:ARG:CB	40:D1:50:ARG:HH21	2.30	0.45
40:D1:76:TYR:CZ	40:D1:80:ILE:HG13	2.52	0.45
54:D8:39:LYS:C	54:D8:41:ILE:H	2.19	0.45
54:D8:22:VAL:HB	54:D8:50:LEU:HD13	1.97	0.45
25:DA:1467:C:C5	25:DA:1546:C:H2'	2.52	0.45
25:DA:1784:A:H4'	25:DA:1785:A:O5'	2.16	0.45
25:DA:2564:A:C2	25:DA:2647:U:H4'	2.52	0.45
25:DA:2849:U:OP2	39:DR:95:ARG:NH1	2.47	0.45
25:DA:333:G:H5''	25:DA:334:C:OP2	2.17	0.45
25:DA:259:G:N2	25:DA:621:A:C8	2.73	0.45
25:DA:999:U:C5	25:DA:1154:G:C5	3.05	0.45
28:DE:27:LEU:CD2	39:DR:1:MET:HE2	2.46	0.45
30:DG:181:ARG:O	30:DG:182:LYS:HB2	2.16	0.45
30:DG:31:VAL:HA	30:DG:32:PRO:HD3	1.83	0.45
31:DH:154:PRO:O	31:DH:155:SER:CB	2.61	0.45
36:DP:27:VAL:HG11	36:DP:134:ARG:HB2	1.99	0.45
45:DV:120:ILE:HG21	45:DV:170:THR:HG23	1.98	0.45
1:AA:1076:C:C2	1:AA:1082:G:C2	3.04	0.45
1:AA:1091:U:O2	1:AA:1093:A:H8	2.00	0.45
1:AA:1102:A:C2'	1:AA:1103:C:H5'	2.47	0.45
1:AA:1128:C:H5'	9:AL:16:ARG:HH12	1.80	0.45
1:AA:1171:G:C2'	1:AA:1172:C:H5'	2.47	0.45
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.16	0.45
1:AA:1393:U:O4'	1:AA:1502:A:H5'	2.17	0.45
1:AA:370:C:H2'	1:AA:371:G:O4'	2.16	0.45
1:AA:373:A:H2'	1:AA:374:A:O4'	2.17	0.45
1:AA:601:C:H2'	1:AA:602:A:H8	1.82	0.45
1:AA:621:A:C2'	1:AA:622:A:H5'	2.47	0.45
1:AA:975:A:C5'	1:AA:976:G:H5''	2.47	0.45
2:AE:87:ARG:NH2	2:AE:233:SER:OG	2.45	0.45
9:AL:47:LEU:O	9:AL:50:LEU:HB2	2.16	0.45
20:AW:10:LEU:HD22	20:AW:12:ALA:HB3	1.78	0.45
37:B0:2:ARG:CG	37:B0:5:LYS:HZ3	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:B0:9:LYS:H	37:B0:9:LYS:HG2	1.61	0.45
40:B1:92:ARG:NH2	41:B2:11:GLN:H	2.13	0.45
25:BA:1385:G:H1'	25:BA:1386:C:C6	2.52	0.45
25:BA:1794:U:O2'	25:BA:1795:C:H5'	2.17	0.45
25:BA:1796:U:H2'	25:BA:1797:C:H6	1.77	0.45
25:BA:1998:G:O2'	25:BA:1999:C:H5'	2.17	0.45
25:BA:571:A:C8	25:BA:2030:A:N6	2.85	0.45
25:BA:2109:U:O2	25:BA:2181:G:C2	2.70	0.45
25:BA:2285:C:P	52:B6:28:ARG:HD3	2.56	0.45
25:BA:654(B):C:C2	25:BA:654(T):A:C2	3.04	0.45
25:BA:856:C:C3'	25:BA:856:C:C6	3.00	0.45
25:BA:960:A:C8	25:BA:962:G:C8	3.04	0.45
25:BA:1903:G:P	27:BD:241:PRO:HB2	2.57	0.45
42:BS:84:ARG:HB2	42:BS:96:ILE:HD13	1.99	0.45
45:BV:142:SER:H	45:BV:143:GLY:HA2	1.80	0.45
45:BV:155:LEU:HD23	45:BV:155:LEU:HA	1.75	0.45
1:CA:1231:G:C2'	1:CA:1232:U:H5'	2.47	0.45
1:CA:393:A:C2	1:CA:394:G:C8	3.05	0.45
1:CA:922:G:C6	1:CA:923:A:C6	3.05	0.45
22:CB:55:G:C6	22:CB:56:G:C6	3.05	0.45
23:CD:63:C:H3'	23:CD:63:C:H6	1.82	0.45
4:CG:11:LEU:C	4:CG:13:ARG:N	2.67	0.45
4:CG:60:GLU:HG2	4:CG:202:LEU:HB2	1.99	0.45
10:CM:24:VAL:HG21	10:CM:37:PRO:HG3	1.98	0.45
40:D1:50:ARG:HH12	41:D2:72:VAL:HG22	1.81	0.45
41:D2:75:PHE:CE2	41:D2:81:TYR:CE1	3.04	0.45
25:DA:2336:A:H61	46:D3:43:THR:HB	1.82	0.45
50:D4:25:TYR:O	50:D4:26:SER:OG	2.31	0.45
25:DA:1043:C:H2'	25:DA:1044:G:H5'	1.99	0.45
25:DA:2593:U:H2'	25:DA:2594:C:H6	1.81	0.45
25:DA:2607:G:H2'	25:DA:2608:G:O4'	2.17	0.45
25:DA:2861:G:C2'	25:DA:2862:G:H5'	2.46	0.45
25:DA:858:U:O2	25:DA:2268:A:N3	2.50	0.45
25:DA:951:C:C2'	25:DA:952:G:H5'	2.47	0.45
27:DD:141:VAL:HG23	27:DD:162:SER:HB2	1.99	0.45
27:DD:186:HIS:HD2	27:DD:187:GLY:N	2.13	0.45
27:DD:28:GLU:O	27:DD:29:PRO:C	2.55	0.45
27:DD:33:LEU:CD2	27:DD:34:VAL:H	2.30	0.45
28:DE:5:LEU:N	28:DE:5:LEU:HD23	2.31	0.45
30:DG:99:MET:HG3	30:DG:100:TRP:N	2.31	0.45
34:DN:2:ILE:HD12	34:DN:6:THR:HG21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:38:GLU:HB2	36:DP:127:ILE:CG2	2.46	0.45
25:DA:2378:A:H5''	38:DQ:23:ARG:NH1	2.31	0.45
42:DS:59:VAL:O	42:DS:63:ASP:HA	2.16	0.45
44:DU:17:SER:HB3	44:DU:71:LYS:HB3	1.97	0.45
45:DV:30:ASN:HA	45:DV:89:PHE:HE2	1.82	0.45
1:AA:1065:U:C2'	1:AA:1066:C:OP2	2.64	0.45
1:AA:1090:U:O2'	1:AA:1091:U:H5'	2.16	0.45
1:AA:1305:G:N2	1:AA:1331:G:C2'	2.73	0.45
1:AA:1358:U:H2'	1:AA:1359:C:O4'	2.17	0.45
1:AA:139:G:N2	1:AA:225:C:C2	2.85	0.45
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.82	0.45
1:AA:149:A:C2	1:AA:150:C:C4	3.05	0.45
1:AA:181:G:N2	1:AA:195:A:C4	2.85	0.45
1:AA:775:G:O2'	1:AA:776:G:H5'	2.17	0.45
23:AC:19:G:N3	23:AC:59:A:C2	2.85	0.45
23:AC:59:A:C8	23:AC:62:C:N4	2.85	0.45
23:AC:73:A:C6	23:AC:74:A:C6	3.05	0.45
2:AE:58:ILE:HD11	2:AE:185:ILE:CD1	2.46	0.45
7:AJ:27:ILE:HD12	7:AJ:40:ALA:HB2	1.99	0.45
9:AL:114:TYR:HD1	10:AM:60:ARG:CB	2.29	0.45
11:AN:124:LYS:HD2	11:AN:125:PHE:CZ	2.52	0.45
12:AO:75:HIS:HD2	12:AO:77:LEU:N	2.14	0.45
17:AT:68:ARG:H	17:AT:70:ARG:NH1	2.14	0.45
20:AW:82:SER:O	20:AW:86:ARG:HB2	2.17	0.45
37:B0:10:LEU:O	37:B0:11:ASN:C	2.55	0.45
40:B1:5:LYS:H	40:B1:5:LYS:HG3	1.55	0.45
40:B1:60:LEU:HD21	40:B1:64:ARG:NH2	2.32	0.45
25:BA:1006:C:C2	25:BA:1138:G:N2	2.85	0.45
25:BA:1026:U:C1'	25:BA:1027:A:P	3.05	0.45
25:BA:1478:G:N2	25:BA:1516:U:C2	2.84	0.45
25:BA:1568:G:H5''	27:BD:61:LEU:CD2	2.46	0.45
25:BA:1885:A:C8	25:BA:1885:A:H5'	2.42	0.45
25:BA:250:G:C6	25:BA:251:A:C6	3.05	0.45
25:BA:2619:C:H4'	28:BE:151:TYR:O	2.17	0.45
26:BB:89:G:C6	26:BB:89(A):A:C6	3.04	0.45
27:BD:108:PRO:HG3	27:BD:143:HIS:CE1	2.51	0.45
27:BD:270:ILE:CG2	27:BD:271:ILE:H	2.30	0.45
28:BE:2:LYS:HB3	28:BE:95:ILE:HG21	1.99	0.45
28:BE:61:ARG:N	28:BE:62:PRO:HD2	2.30	0.45
28:BE:81:ILE:O	28:BE:82:ARG:O	2.35	0.45
32:BK:77:LEU:HD23	32:BK:101:LEU:HA	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BM:115:ARG:N	33:BM:118:LYS:HE3	2.31	0.45
33:BM:22:THR:CG2	33:BM:23:LEU:N	2.69	0.45
33:BM:59:LYS:NZ	33:BM:61:ARG:HH22	2.15	0.45
35:BO:82:GLY:HA2	35:BO:113:LYS:O	2.16	0.45
25:BA:2415:G:C3'	35:BO:66:GLY:HA3	2.47	0.45
38:BQ:34:HIS:CB	38:BQ:36:TYR:CE1	2.96	0.45
45:BV:7:ALA:O	45:BV:8:TYR:CG	2.70	0.45
1:CA:1156:G:H5'	1:CA:1157:A:OP2	2.17	0.45
1:CA:1200:C:H5'	1:CA:1201:A:H5'	1.99	0.45
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.52	0.45
1:CA:273:A:H1'	17:CT:16:GLN:OE1	2.17	0.45
1:CA:439:A:C2'	1:CA:440:A:O5'	2.65	0.45
1:CA:561:U:O2'	1:CA:562:C:P	2.75	0.45
23:CC:43:G:O2'	23:CC:44:A:H5'	2.17	0.45
23:CD:54:G:H2'	23:CD:55:U:C5	2.51	0.45
2:CE:42:ILE:HD13	2:CE:203:GLY:N	2.32	0.45
3:CF:66:VAL:HG12	3:CF:66:VAL:O	2.17	0.45
5:CH:10:MET:HA	5:CH:32:VAL:HG22	1.98	0.45
1:CA:963:G:N2	10:CM:55:LYS:HG2	2.32	0.45
13:CP:108:ARG:NH1	13:CP:108:ARG:HG3	2.31	0.45
14:CQ:40:CYS:SG	14:CQ:43:CYS:HB2	2.57	0.45
19:CV:68:GLY:HA3	50:D4:59:PHE:CE1	2.49	0.45
41:D2:21:ARG:NH1	41:D2:21:ARG:HG3	2.32	0.45
50:D4:11:PRO:HA	50:D4:25:TYR:N	2.30	0.45
50:D4:16:CYS:HB3	50:D4:20:ASN:N	2.31	0.45
51:D5:6:VAL:HG22	51:D5:7:PRO:HD2	1.98	0.45
52:D6:15:GLU:OE2	52:D6:41:PRO:HB3	2.17	0.45
25:DA:137(A):G:H2'	25:DA:139:G:N7	2.31	0.45
25:DA:1666:G:H2'	25:DA:1667:G:H5'	1.98	0.45
25:DA:2494:G:C4	25:DA:2495:G:C8	3.05	0.45
25:DA:315:G:H2'	25:DA:316:C:C6	2.52	0.45
25:DA:259:G:C2'	25:DA:621:A:O2'	2.64	0.45
25:DA:998:C:H2'	25:DA:999:U:O5'	2.17	0.45
29:DF:102:PRO:HB2	29:DF:105:VAL:HG23	1.98	0.45
29:DF:134:GLY:CA	29:DF:166:ALA:HB2	2.38	0.45
31:DH:41:MET:HE2	31:DH:64:LEU:HB2	1.99	0.45
33:DM:30:ILE:HG21	33:DM:120:LEU:HD12	1.99	0.45
33:DM:99:LEU:O	33:DM:99:LEU:HD22	2.17	0.45
35:DO:19:VAL:HG21	35:DO:32:THR:HG23	1.99	0.45
44:DU:75:ILE:HA	44:DU:80:GLY:HA2	1.98	0.45
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1079:G:C6	1:AA:1080:A:N6	2.85	0.45
1:AA:164:U:H2'	1:AA:165:C:C6	2.51	0.45
1:AA:187:C:O2	1:AA:191(A):G:C2	2.70	0.45
1:AA:281:G:H8	1:AA:281:G:OP2	2.00	0.45
1:AA:658:G:C4	1:AA:659:U:C6	3.05	0.45
4:AG:103:ASN:OD1	4:AG:114:ARG:NH2	2.39	0.45
17:AT:48:GLU:HB2	17:AT:50:LYS:HG2	1.99	0.45
20:AW:104:LEU:HD12	20:AW:105:SER:N	2.32	0.45
20:AW:69:GLY:O	20:AW:73:HIS:CE1	2.70	0.45
40:B1:89:GLU:O	40:B1:89:GLU:HG3	2.15	0.45
25:BA:1113:U:H2'	25:BA:1114:G:C8	2.51	0.45
25:BA:162:U:HO2'	25:BA:163:U:H5	1.65	0.45
25:BA:164:U:H5''	25:BA:165:U:O2	2.16	0.45
25:BA:2312:U:O2'	25:BA:2313:C:H5'	2.16	0.45
25:BA:2591:C:H2'	25:BA:2592:G:C8	2.52	0.45
25:BA:2631:G:C6	25:BA:2632:A:N7	2.85	0.45
25:BA:2716:U:O2'	25:BA:2717:G:H5'	2.16	0.45
25:BA:997:G:C2'	25:BA:998:C:H5'	2.47	0.45
26:BB:66:A:C6	26:BB:108:C:C6	3.04	0.45
27:BD:228:PRO:HD3	27:BD:235:GLY:CA	2.47	0.45
27:BD:70:TRP:CZ3	27:BD:150:LYS:HA	2.52	0.45
30:BG:112:PRO:HB3	50:B4:37:SER:H	1.80	0.45
33:BM:12:ARG:HG2	33:BM:13:TRP:N	2.31	0.45
38:BQ:58:LEU:N	38:BQ:58:LEU:HD23	2.31	0.45
38:BQ:86:ALA:O	38:BQ:87:PHE:CB	2.64	0.45
45:BV:169:GLU:CD	45:BV:170:THR:H	2.19	0.45
48:BW:24:LEU:HD22	48:BW:24:LEU:O	2.17	0.45
1:CA:1058:G:H2'	1:CA:1059:C:O4'	2.17	0.45
1:CA:1055:A:C8	1:CA:1206:G:N2	2.85	0.45
1:CA:1321:C:H4'	13:CP:87:TYR:CZ	2.52	0.45
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.46	0.45
1:CA:411:A:H62	1:CA:413:G:N2	2.13	0.45
1:CA:433:C:O2'	1:CA:434:U:H5'	2.17	0.45
1:CA:485:G:O2'	1:CA:486:U:O5'	2.34	0.45
1:CA:502:G:H2'	1:CA:503:C:O4'	2.17	0.45
1:CA:536:C:H2'	1:CA:536:C:O2	2.16	0.45
1:CA:791:G:C5	1:CA:792:A:N7	2.84	0.45
1:CA:803:G:C6	1:CA:804:U:N3	2.85	0.45
1:CA:957:U:H2'	1:CA:959:A:OP2	2.16	0.45
23:CC:12:G:C6	23:CC:13:C:C4	3.05	0.45
2:CE:102:LEU:N	2:CE:102:LEU:HD12	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:64:VAL:HG22	3:CF:66:VAL:HG23	1.99	0.45
4:CG:23:GLY:O	4:CG:27:TYR:CD1	2.70	0.45
6:CI:11:ASN:OD1	6:CI:12:PRO:HD2	2.17	0.45
8:CK:38:ILE:HD12	8:CK:118:VAL:HG12	1.98	0.45
9:CL:48:GLU:HB3	9:CL:101:PHE:HE2	1.81	0.45
9:CL:95:LYS:HE2	9:CL:95:LYS:HB2	1.56	0.45
16:CS:15:PRO:O	16:CS:16:HIS:ND1	2.50	0.45
19:CV:80:TYR:C	19:CV:82:GLY:H	2.20	0.45
20:CW:11:SER:HA	20:CW:13:LEU:H	1.82	0.45
40:D1:25:TRP:CD1	40:D1:26:GLY:N	2.85	0.45
41:D2:70:ILE:CB	41:D2:86:GLY:O	2.56	0.45
50:D4:21:VAL:HG22	50:D4:22:ILE:N	2.21	0.45
25:DA:2371:G:H4'	52:D6:45:LYS:CD	2.47	0.45
25:DA:987:G:O2'	25:DA:1000:A:N3	2.46	0.45
25:DA:1011:G:H1	25:DA:1150:C:N4	2.15	0.45
25:DA:1726:G:C6	25:DA:1727:U:C4	3.05	0.45
25:DA:1869:G:N2	25:DA:1872:A:C8	2.85	0.45
25:DA:2057:A:H2'	25:DA:2058:A:O4'	2.17	0.45
25:DA:2296:U:H4'	25:DA:2297:C:OP1	2.17	0.45
25:DA:2582:G:C2	25:DA:2583:G:C8	3.05	0.45
25:DA:372:G:O2'	25:DA:373:U:P	2.74	0.45
25:DA:444:C:C4'	29:DF:49:ALA:HB2	2.47	0.45
25:DA:817:C:HO2'	25:DA:818:G:H5'	1.82	0.45
25:DA:848:G:C4	25:DA:933:A:C8	3.04	0.45
29:DF:34:TRP:CH2	35:DO:8:PRO:HB3	2.51	0.45
30:DG:73:ALA:HB2	30:DG:82:LEU:HD21	1.99	0.45
31:DH:69:ARG:NH1	31:DH:73:ALA:HB2	2.31	0.45
35:DO:111:ARG:HG3	35:DO:128:HIS:CD2	2.51	0.45
35:DO:15:ARG:NH1	35:DO:15:ARG:CB	2.75	0.45
35:DO:47:ASP:CG	35:DO:49:ARG:HE	2.19	0.45
39:DR:56:GLY:O	39:DR:57:PHE:C	2.56	0.45
45:DV:158:PRO:HB2	45:DV:159:PRO:CD	2.46	0.45
1:AA:1164:G:H2'	1:AA:1165:C:H6	1.81	0.45
1:AA:1195:C:H5''	1:AA:1196:U:O5'	2.17	0.45
1:AA:1364:U:O5'	1:AA:1364:U:H6	2.00	0.45
1:AA:1392:G:H21	1:AA:1502:A:H8	1.65	0.45
1:AA:791:G:C2'	1:AA:792:A:C5'	2.92	0.45
2:AE:160:ASP:O	2:AE:183:PRO:HD2	2.17	0.45
2:AE:59:GLU:HB2	2:AE:221:LEU:HD11	1.98	0.45
7:AJ:50:ILE:HB	7:AJ:58:PRO:HG3	1.99	0.45
13:AP:90:LEU:HA	13:AP:93:ARG:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1320:C:H42	19:AV:36:ARG:HG3	1.82	0.45
54:B8:57:ARG:O	54:B8:61:LEU:HG	2.17	0.45
25:BA:1095:A:N3	25:BA:1095:A:C2'	2.79	0.45
25:BA:1578:U:C2'	25:BA:1579:A:H5'	2.47	0.45
25:BA:1638:C:H4'	25:BA:2710:C:O2	2.17	0.45
25:BA:2125:G:H1	25:BA:2172:U:P	2.40	0.45
25:BA:2168:G:H21	25:BA:2169:A:H3'	1.82	0.45
25:BA:2266:A:H4'	25:BA:2267:A:N3	2.32	0.45
25:BA:2309:A:C3'	25:BA:2310:A:C5'	2.95	0.45
25:BA:2392:A:H8	35:BO:60:MET:HB3	1.77	0.45
25:BA:2481:G:H2'	25:BA:2482:G:OP2	2.17	0.45
25:BA:850:C:O3'	49:BX:49:LYS:HE2	2.17	0.45
28:BE:96:PHE:O	28:BE:175:VAL:HG11	2.17	0.45
30:BG:114:ILE:HG22	30:BG:115:ARG:O	2.17	0.45
32:BK:11:ASN:O	32:BK:12:LEU:HD22	2.17	0.45
38:BQ:56:LEU:HB2	38:BQ:58:LEU:HD21	1.99	0.45
42:BS:80:PRO:O	42:BS:100:THR:HB	2.17	0.45
47:BZ:11:ARG:HB2	47:BZ:12:PRO:HD2	1.99	0.45
1:CA:1149:C:O2'	1:CA:1280:A:C2	2.67	0.45
22:CB:47:C:C2	22:CB:56:G:N2	2.85	0.45
23:CD:49:C:H5''	23:CD:50:G:H5''	1.99	0.45
2:CE:237:ALA:O	2:CE:238:LEU:HD23	2.17	0.45
4:CG:162:LEU:HD23	4:CG:162:LEU:HA	1.65	0.45
5:CH:147:ASP:HA	5:CH:150:ARG:CB	2.47	0.45
6:CI:100:ASN:HB2	18:CU:23:LYS:CD	2.47	0.45
10:CM:78:ASN:HB2	10:CM:81:THR:HG23	1.98	0.45
17:CT:9:VAL:HG21	17:CT:84:LEU:HD13	1.98	0.45
19:CV:51:VAL:HG23	19:CV:60:VAL:CG1	2.47	0.45
37:D0:37:THR:HB	37:D0:40:LYS:HE3	1.98	0.45
50:D4:53:GLU:OE2	50:D4:58:ARG:HB2	2.16	0.45
35:DO:65:ARG:HE	54:D8:15:LYS:HB2	1.82	0.45
25:DA:1080:A:H2'	25:DA:1081:U:C6	2.52	0.45
25:DA:1392:A:N6	25:DA:1393:A:H61	2.14	0.45
25:DA:1416:G:H2'	25:DA:1417:C:C6	2.52	0.45
25:DA:1925:C:O2'	25:DA:1926:U:H5'	2.17	0.45
25:DA:2211:G:H2'	25:DA:2211:G:N3	2.32	0.45
25:DA:858:U:O2	25:DA:2268:A:H2'	2.17	0.45
25:DA:2420:C:O5'	25:DA:2420:C:H6	2.00	0.45
25:DA:389:G:H22	35:DO:72:PRO:HD3	1.82	0.45
25:DA:571:A:C5	25:DA:575:A:C8	3.04	0.45
27:DD:145:VAL:HG13	27:DD:191:ALA:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:86:MET:O	30:DG:88:ILE:N	2.50	0.45
31:DH:9:ILE:HB	31:DH:49:VAL:HB	1.99	0.45
32:DK:31:LEU:N	32:DK:32:PRO:HD2	2.30	0.45
33:DM:15:LEU:HD13	33:DM:16:ILE:N	2.32	0.45
33:DM:35:ARG:HB2	33:DM:42:TRP:CZ3	2.52	0.45
35:DO:110:TYR:HB3	35:DO:111:ARG:H	1.66	0.45
36:DP:35:VAL:CG2	36:DP:130:LYS:HE2	2.47	0.45
43:DT:53:LYS:NZ	43:DT:55:ASN:HD21	2.15	0.45
48:DW:28:LYS:HE3	48:DW:56:GLN:OE1	2.17	0.45
1:AA:1371:G:C6	1:AA:1372:U:C4	3.05	0.44
1:AA:386:C:C2'	1:AA:387:U:H5'	2.47	0.44
1:AA:626:U:N3	1:AA:627:G:N7	2.65	0.44
1:AA:648:A:C6	1:AA:649:G:C5	3.05	0.44
1:AA:901:A:C5	1:AA:902:G:H1'	2.52	0.44
1:AA:909:A:H2'	1:AA:910:C:O4'	2.18	0.44
1:AA:968:A:H4'	1:AA:969:A:OP2	2.17	0.44
23:AC:1:C:H3'	23:AC:1:C:H6	1.83	0.44
23:AD:53:G:N3	23:AD:64:G:N2	2.65	0.44
3:AF:70:VAL:CG1	3:AF:71:ALA:N	2.79	0.44
1:AA:1280:A:C8	10:AM:41:PRO:HD3	2.51	0.44
16:AS:75:ARG:NH2	16:AS:80:PHE:CD2	2.85	0.44
17:AT:65:ILE:HD12	17:AT:65:ILE:H	1.82	0.44
37:B0:2:ARG:HG3	37:B0:5:LYS:HZ3	1.81	0.44
25:BA:1161:C:H4'	41:B2:8:GLY:HA2	1.99	0.44
25:BA:2355:C:H1'	46:B3:39:ARG:HH21	1.82	0.44
50:B4:14:ILE:C	50:B4:15:ILE:HG12	2.38	0.44
25:BA:2371:G:H4'	52:B6:45:LYS:HG3	1.98	0.44
25:BA:1064:C:O2	25:BA:1075:C:C2	2.70	0.44
25:BA:1299:G:H5''	25:BA:1300:U:P	2.57	0.44
25:BA:1489:U:HO2'	25:BA:1490:A:H8	1.65	0.44
25:BA:558:G:P	33:BM:111:PRO:HG2	2.58	0.44
25:BA:649:G:C6	25:BA:650:C:N3	2.85	0.44
26:BB:29:A:C2	26:BB:30:C:C2	3.05	0.44
28:BE:57:LYS:O	28:BE:57:LYS:HD3	2.17	0.44
33:BM:54:VAL:HB	33:BM:122:VAL:HG22	1.99	0.44
33:BM:95:PRO:O	33:BM:96:GLU:O	2.34	0.44
34:BN:35:VAL:HG11	34:BN:103:ALA:HB2	1.98	0.44
34:BN:71:ARG:HD3	34:BN:105:GLU:OE2	2.17	0.44
35:BO:50:ARG:NH2	35:BO:50:ARG:CG	2.71	0.44
38:BQ:67:ARG:CB	38:BQ:67:ARG:NH1	2.79	0.44
39:BR:107:ASP:N	39:BR:107:ASP:OD1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:4:LYS:HB2	42:BS:106:ILE:HG22	1.99	0.44
44:BU:96:ILE:N	44:BU:99:CYS:O	2.50	0.44
45:BV:62:PRO:C	45:BV:64:GLY:N	2.69	0.44
48:BW:41:ILE:HD11	48:BW:44:LEU:HD12	1.99	0.44
48:BW:53:LEU:O	48:BW:57:ILE:HG13	2.18	0.44
1:CA:1158:C:C2	1:CA:1160:G:N7	2.85	0.44
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.16	0.44
1:CA:412:A:O2'	1:CA:413:G:OP2	2.23	0.44
1:CA:723:U:C2'	1:CA:724:G:OP1	2.64	0.44
2:CE:166:ASP:OD1	2:CE:205:ASP:OD2	2.35	0.44
2:CE:87:ARG:NH1	2:CE:220:ASP:OD1	2.40	0.44
2:CE:237:ALA:O	2:CE:238:LEU:CB	2.65	0.44
5:CH:141:GLN:HB2	5:CH:141:GLN:HE21	1.66	0.44
10:CM:56:HIS:O	10:CM:58:ASP:N	2.50	0.44
3:CF:60:ALA:HA	10:CM:93:GLY:HA2	2.00	0.44
18:CU:50:ILE:HG22	18:CU:51:LEU:N	2.32	0.44
37:D0:78:LYS:O	37:D0:82:GLU:HB2	2.17	0.44
40:D1:17:ILE:HD12	40:D1:32:PHE:CE2	2.52	0.44
25:DA:445:C:OP1	40:D1:2:PRO:HA	2.17	0.44
40:D1:92:ARG:NH1	41:D2:11:GLN:H	2.15	0.44
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.53	0.44
25:DA:1483:G:C2	25:DA:1484:G:C8	3.05	0.44
25:DA:250:G:C6	25:DA:251:A:C6	3.05	0.44
25:DA:2523:G:C2'	25:DA:2524:G:H5'	2.47	0.44
25:DA:660:G:H21	35:DO:12:ALA:CA	2.22	0.44
25:DA:676:A:H2	25:DA:802:A:H61	1.63	0.44
25:DA:962:G:O2'	25:DA:963:U:H5'	2.16	0.44
26:DB:80:U:O2'	26:DB:81:G:H5''	2.18	0.44
27:DD:43:ARG:NH1	27:DD:44:ASN:HD22	2.00	0.44
28:DE:50:GLY:CA	28:DE:74:PRO:HG3	2.47	0.44
29:DF:31:HIS:NE2	29:DF:35:GLU:OE1	2.48	0.44
31:DH:12:PRO:HB3	31:DH:17:VAL:HG21	1.99	0.44
35:DO:58:THR:CG2	35:DO:58:THR:O	2.62	0.44
45:DV:10:ARG:NH2	45:DV:26:GLY:H	2.14	0.44
45:DV:4:ARG:HA	45:DV:58:VAL:HB	1.99	0.44
47:DZ:88:LYS:HE2	47:DZ:88:LYS:HB3	1.68	0.44
1:AA:1037:C:H2'	1:AA:1038:C:C5	2.52	0.44
1:AA:1179:A:C6	1:AA:1180:A:C2	3.05	0.44
1:AA:1055:A:C8	1:AA:1206:G:N2	2.85	0.44
1:AA:1502:A:H2	1:AA:1505:G:N1	2.13	0.44
1:AA:210:U:O2'	1:AA:216:G:C8	2.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:428:G:H4'	1:AA:429:U:O5'	2.17	0.44
1:AA:68:G:C2	1:AA:69:G:C4	3.05	0.44
23:AD:8:U:C2	23:AD:15:G:O6	2.70	0.44
2:AE:165:VAL:O	2:AE:187:LEU:O	2.35	0.44
2:AE:87:ARG:HE	2:AE:233:SER:CB	2.30	0.44
4:AG:173:TRP:CD2	4:AG:189:PRO:HB3	2.52	0.44
5:AH:71:LEU:HD11	5:AH:114:GLY:HA3	1.98	0.44
8:AK:49:GLU:O	8:AK:51:VAL:HG13	2.17	0.44
16:AS:53:VAL:HG12	16:AS:79:VAL:HG22	1.99	0.44
40:B1:34:LYS:HA	40:B1:34:LYS:HE3	1.99	0.44
40:B1:66:ASN:CB	40:B1:76:TYR:HB2	2.42	0.44
41:B2:22:VAL:CG1	41:B2:23:GLU:N	2.80	0.44
52:B6:14:THR:HG21	52:B6:19:ARG:HH21	1.83	0.44
25:BA:1043:C:H2'	25:BA:1044:G:H5'	1.98	0.44
25:BA:1049:C:C2'	25:BA:1050:A:H5'	2.40	0.44
25:BA:1528:A:N1	25:BA:1543:A:C2	2.85	0.44
25:BA:1784:A:H4'	25:BA:1785:A:O5'	2.17	0.44
25:BA:2732:G:H3'	25:BA:2733:A:O4'	2.17	0.44
25:BA:635:C:O2'	25:BA:639:U:OP1	2.30	0.44
25:BA:782:A:H5'	25:BA:783:A:C2	2.52	0.44
25:BA:890:A:H2'	25:BA:892:G:O4'	2.17	0.44
27:BD:10:THR:OG1	27:BD:13:ARG:HB2	2.17	0.44
27:BD:221:VAL:HG22	27:BD:226:MET:CE	2.47	0.44
27:BD:33:LEU:CD1	27:BD:34:VAL:H	2.30	0.44
28:BE:84:PHE:CZ	28:BE:86:PRO:HB3	2.52	0.44
32:BK:4:ILE:HD11	32:BK:44:LEU:HD12	1.99	0.44
33:BM:107:LEU:HD12	33:BM:117:PHE:HB2	1.99	0.44
33:BM:94:HIS:C	33:BM:95:PRO:O	2.52	0.44
35:BO:3:LEU:HA	35:BO:3:LEU:HD23	1.74	0.44
43:BT:84:ALA:HB1	43:BT:85:PRO:CD	2.38	0.44
45:BV:140:ASP:OD1	45:BV:156:LYS:NZ	2.50	0.44
47:BZ:7:ILE:HD12	47:BZ:62:VAL:HG11	1.98	0.44
1:CA:1204:A:P	14:CQ:3:ARG:HH12	2.40	0.44
1:CA:134:A:H61	16:CS:25:ARG:NH1	2.15	0.44
1:CA:793:U:C6	1:CA:1516:G:O2'	2.71	0.44
1:CA:585:G:C6	1:CA:586:C:C4	3.06	0.44
1:CA:616:G:C2	1:CA:617:G:C8	3.04	0.44
1:CA:649:G:O2'	1:CA:650:G:H5'	2.16	0.44
1:CA:718:G:O6	18:CU:74:ARG:NH1	2.50	0.44
1:CA:978:A:H8	1:CA:978:A:OP1	2.00	0.44
23:CD:6:G:O2'	23:CD:7:G:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:85:ALA:HB3	2:CE:92:TYR:CD1	2.51	0.44
3:CF:15:THR:HG21	3:CF:181:ASN:HA	1.99	0.44
3:CF:164:ARG:HG2	3:CF:165:THR:N	2.30	0.44
3:CF:52:LEU:H	3:CF:52:LEU:HD23	1.82	0.44
4:CG:162:LEU:HD22	4:CG:178:VAL:HG13	1.99	0.44
11:CN:17:GLY:O	11:CN:80:VAL:HA	2.17	0.44
13:CP:92:HIS:CE1	13:CP:98:VAL:HG21	2.52	0.44
14:CQ:43:CYS:HA	14:CQ:46:GLU:HB2	1.98	0.44
40:D1:102:GLU:O	40:D1:105:VAL:HG23	2.16	0.44
46:D3:36:ILE:CD1	46:D3:36:ILE:H	2.30	0.44
51:D5:4:HIS:CB	51:D5:5:PRO:HD2	2.35	0.44
25:DA:1021:A:C2	25:DA:1023:U:C2	3.06	0.44
25:DA:1110:G:O2'	25:DA:1111:A:O4'	2.35	0.44
25:DA:1771:C:H1'	25:DA:1786:A:H8	1.72	0.44
25:DA:2271:G:C6	25:DA:2272:U:C4	3.05	0.44
25:DA:2505:G:O2'	25:DA:2506:U:C6	2.65	0.44
25:DA:566:U:H5''	35:DO:29:LYS:HE2	1.99	0.44
25:DA:637:A:H5''	35:DO:117:GLU:HG3	1.98	0.44
26:DB:44:G:OP1	30:DG:98:ARG:NH2	2.42	0.44
28:DE:55:ASN:C	28:DE:57:LYS:N	2.69	0.44
29:DF:123:LEU:O	29:DF:124:LEU:C	2.56	0.44
30:DG:111:LEU:HD13	30:DG:120:LEU:HD21	1.99	0.44
31:DH:149:ARG:CG	31:DH:162:ILE:O	2.64	0.44
31:DH:4:ILE:CG1	31:DH:6:ARG:HG2	2.45	0.44
33:DM:46:VAL:O	33:DM:47:ALA:HB3	2.17	0.44
35:DO:41:ARG:N	35:DO:41:ARG:HD2	2.32	0.44
36:DP:135:ASP:OD1	36:DP:137:TYR:CD2	2.66	0.44
26:DB:8:U:O2'	38:DQ:40:ILE:HD13	2.18	0.44
39:DR:90:GLN:NE2	39:DR:121:ILE:HD11	2.33	0.44
44:DU:24:VAL:HG12	44:DU:25:GLY:N	2.32	0.44
44:DU:83:THR:HG23	44:DU:94:LYS:HG2	1.99	0.44
48:DW:15:LYS:HE2	48:DW:67:LYS:CE	2.47	0.44
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.53	0.44
1:AA:1260:C:O5'	1:AA:1284:C:H4'	2.17	0.44
1:AA:167:G:H2'	1:AA:168:G:H5'	1.99	0.44
1:AA:310:G:OP2	16:AS:27:LYS:NZ	2.42	0.44
1:AA:686:U:O2'	1:AA:687:A:C5'	2.65	0.44
1:AA:864:A:H5''	1:AA:865:A:OP2	2.17	0.44
1:AA:926:G:H5''	1:AA:927:G:O5'	2.18	0.44
8:AK:15:ASN:O	8:AK:19:VAL:HG22	2.17	0.44
11:AN:99:GLN:HG2	11:AN:105:VAL:CG2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:12:ARG:C	14:AQ:14:PRO:CD	2.86	0.44
16:AS:26:ARG:HD2	16:AS:31:LYS:O	2.17	0.44
1:AA:760:G:O2'	17:AT:98:LEU:HD23	2.16	0.44
20:AW:42:GLN:O	20:AW:46:GLU:HG2	2.18	0.44
20:AW:33:ILE:CG2	20:AW:63:ILE:HG12	2.47	0.44
46:B3:11:ARG:HH11	46:B3:11:ARG:HB2	1.83	0.44
51:B5:56:LYS:HD2	51:B5:56:LYS:N	2.25	0.44
52:B6:24:GLU:HG3	52:B6:25:LYS:N	2.31	0.44
25:BA:1264:G:H5'	51:B5:11:THR:HG23	1.96	0.44
25:BA:142:G:C1'	43:BT:37:THR:HG21	2.47	0.44
25:BA:1510:A:H2'	25:BA:1510:A:N3	2.33	0.44
25:BA:1558:A:H1'	25:BA:1559:G:OP2	2.17	0.44
25:BA:1299:G:H3'	25:BA:1639:U:O4	2.18	0.44
25:BA:1699:G:H4'	25:BA:1700:A:OP2	2.17	0.44
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.52	0.44
25:BA:2156:G:C2	25:BA:2157:G:N2	2.86	0.44
25:BA:2168:G:C2	25:BA:2170:A:OP2	2.70	0.44
25:BA:2250:G:C5	36:BP:82:ARG:CD	3.00	0.44
25:BA:2746:U:H2'	25:BA:2747:G:H5'	1.98	0.44
25:BA:445:C:C2'	25:BA:446:G:H5'	2.48	0.44
25:BA:580:C:O2'	25:BA:581:C:H5'	2.18	0.44
25:BA:639:U:C2'	25:BA:640:C:H5'	2.47	0.44
25:BA:991:C:C5	25:BA:1185:C:N4	2.85	0.44
27:BD:147:LEU:HD13	27:BD:155:LEU:HD21	1.99	0.44
27:BD:28:GLU:O	27:BD:29:PRO:O	2.35	0.44
27:BD:85:ASP:HB2	27:BD:92:ILE:HD13	2.00	0.44
28:BE:26:ILE:HD11	28:BE:198:VAL:CG2	2.38	0.44
26:BB:43:C:P	30:BG:67:LYS:NZ	2.90	0.44
42:BS:1:MET:HG3	42:BS:64:MET:CE	2.48	0.44
45:BV:107:THR:HB	45:BV:108:PRO:CD	2.46	0.44
1:CA:1153:C:N3	1:CA:1154:G:C8	2.85	0.44
1:CA:373:A:C4	1:CA:374:A:C8	3.06	0.44
1:CA:411:A:C2	1:CA:431:A:N6	2.85	0.44
2:CE:167:PRO:HG2	2:CE:192:SER:OG	2.17	0.44
12:CO:53:ARG:HH12	12:CO:92:ASP:HB3	1.81	0.44
18:CU:22:VAL:CG1	18:CU:56:THR:HA	2.44	0.44
20:CW:80:ARG:O	20:CW:84:LEU:HB2	2.18	0.44
41:D2:20:LEU:O	41:D2:93:GLU:HA	2.17	0.44
41:D2:72:VAL:HG12	41:D2:72:VAL:O	2.16	0.44
52:D6:41:PRO:HD3	52:D6:47:THR:HG22	1.99	0.44
25:DA:1075:C:H2'	25:DA:1076:C:H6	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1229:G:N2	25:DA:1229(A):G:H1'	2.33	0.44
25:DA:1404:C:C2'	25:DA:1404:C:O2	2.65	0.44
25:DA:1416:G:C2'	25:DA:1417:C:C6	3.01	0.44
25:DA:1443:G:H8	25:DA:1443:G:H5''	1.81	0.44
25:DA:1652:A:H2'	25:DA:1653:G:H5'	1.98	0.44
25:DA:1797:C:H4'	27:DD:257:LEU:O	2.18	0.44
25:DA:1864:U:C3'	25:DA:1869:G:H5''	2.46	0.44
25:DA:2107:C:H42	25:DA:2182:G:H1	1.65	0.44
25:DA:2198:A:C2	32:DK:29:TYR:HB2	2.53	0.44
27:DD:27:THR:HG23	27:DD:28:GLU:N	2.32	0.44
28:DE:68:ALA:C	28:DE:70:ALA:H	2.19	0.44
32:DK:85:GLU:O	32:DK:85:GLU:HG2	2.18	0.44
36:DP:41:TRP:HZ3	36:DP:74:TYR:HE1	1.66	0.44
39:DR:51:ARG:CG	39:DR:98:LYS:HG3	2.47	0.44
45:DV:150:LEU:O	45:DV:170:THR:O	2.35	0.44
48:DW:68:ARG:HG3	48:DW:68:ARG:HH11	1.83	0.44
1:AA:1098:C:C2	1:AA:1099:G:C8	3.05	0.44
1:AA:1160:G:C6	1:AA:1181:G:O6	2.69	0.44
1:AA:1202:G:C2	14:AQ:42:ILE:HG21	2.52	0.44
1:AA:218:C:O2'	1:AA:219:C:H5'	2.17	0.44
3:AF:34:LEU:CD2	3:AF:38:ARG:HH11	2.29	0.44
6:AI:99:ALA:C	6:AI:101:ALA:H	2.21	0.44
10:AM:25:GLU:H	10:AM:25:GLU:HG2	1.64	0.44
10:AM:8:LEU:CD2	10:AM:96:ILE:HG22	2.47	0.44
16:AS:34:GLU:HG2	16:AS:35:LYS:N	2.32	0.44
19:AV:24:ALA:C	19:AV:26:GLY:H	2.21	0.44
46:B3:23:VAL:HG13	46:B3:38:VAL:CG2	2.47	0.44
25:BA:1021:A:C8	25:BA:1021:A:H3'	2.53	0.44
25:BA:1464:C:O2'	25:BA:1528:A:C8	2.66	0.44
25:BA:1564:C:O2'	25:BA:1565:C:H5'	2.17	0.44
25:BA:229:A:O2'	25:BA:230:U:P	2.75	0.44
25:BA:2468:G:O2'	25:BA:2469:A:OP2	2.30	0.44
25:BA:2470:G:O5'	25:BA:2470:G:H8	2.00	0.44
25:BA:631:A:H2'	25:BA:632:A:O4'	2.17	0.44
26:BB:94:C:O2'	26:BB:95:U:H5'	2.17	0.44
25:BA:1844:C:H5''	27:BD:258:LYS:HG3	1.98	0.44
28:BE:3:GLY:O	28:BE:4:ILE:HB	2.17	0.44
28:BE:59:VAL:O	28:BE:59:VAL:HG13	2.16	0.44
30:BG:45:GLU:H	30:BG:45:GLU:HG2	1.50	0.44
34:BN:106:LEU:HD23	34:BN:106:LEU:HA	1.63	0.44
42:BS:2:GLU:OE1	42:BS:72:LYS:NZ	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:45:TYR:CE2	42:BS:49:LYS:HD2	2.51	0.44
44:BU:81:LYS:HG2	44:BU:97:ARG:HD3	1.99	0.44
1:CA:1028(B):C:N4	1:CA:1032(B):G:N1	2.65	0.44
1:CA:1130:A:O5'	1:CA:1131:G:OP2	2.35	0.44
1:CA:1129:C:N4	1:CA:1139:G:N2	2.66	0.44
1:CA:181:G:O2'	1:CA:183:G:O6	2.29	0.44
1:CA:197:A:H8	1:CA:198:G:C1'	2.30	0.44
1:CA:448:A:C4	1:CA:487:A:C2	3.05	0.44
1:CA:775:G:H2'	1:CA:776:G:O4'	2.17	0.44
1:CA:812:C:HO2'	1:CA:813:U:P	2.40	0.44
22:CB:22:G:H3'	22:CB:22:G:C8	2.53	0.44
2:CE:164:VAL:O	2:CE:186:ALA:HB1	2.17	0.44
3:CF:73:PRO:HA	3:CF:76:VAL:HG22	1.99	0.44
5:CH:94:ALA:HB1	5:CH:98:THR:OG1	2.17	0.44
8:CK:49:GLU:O	8:CK:51:VAL:HG13	2.18	0.44
10:CM:4:ILE:HB	10:CM:74:ILE:HG13	1.99	0.44
13:CP:81:LEU:HD22	13:CP:88:ARG:NH1	2.33	0.44
18:CU:58:LEU:H	18:CU:58:LEU:HD12	1.82	0.44
1:CA:719:C:N4	18:CU:71:LYS:HE2	2.32	0.44
40:D1:62:ILE:HG13	40:D1:76:TYR:CZ	2.52	0.44
40:D1:50:ARG:NH1	41:D2:72:VAL:HG22	2.32	0.44
53:D7:8:ASN:HD21	53:D7:11:LYS:H	1.51	0.44
25:DA:1060:U:N3	25:DA:1088:A:C8	2.85	0.44
25:DA:1109:C:C5	25:DA:1110:G:C6	3.06	0.44
25:DA:1301:A:N3	25:DA:1301:A:H2'	2.33	0.44
25:DA:1359:A:H2'	25:DA:1360:A:H5'	2.00	0.44
25:DA:1542:G:H5''	25:DA:1543:A:O5'	2.17	0.44
25:DA:2548:G:H2'	25:DA:2549:G:O5'	2.18	0.44
25:DA:2881:C:C4	25:DA:2882:A:N7	2.86	0.44
25:DA:57:C:H2'	25:DA:58:G:O5'	2.17	0.44
25:DA:686:G:O6	53:D7:12:ARG:HG3	2.17	0.44
25:DA:84:A:P	44:DU:8:LYS:HD3	2.58	0.44
27:DD:96:HIS:CE1	27:DD:102:LYS:HE2	2.53	0.44
29:DF:132:VAL:HG22	29:DF:133:ASN:N	2.24	0.44
29:DF:162:LEU:N	29:DF:162:LEU:HD12	2.33	0.44
29:DF:64:ILE:HD11	29:DF:83:PHE:HZ	1.82	0.44
30:DG:137:GLU:HB3	30:DG:152:LEU:HD22	1.99	0.44
32:DK:54:GLN:HB2	32:DK:54:GLN:HE21	1.52	0.44
34:DN:23:ARG:HG3	34:DN:24:VAL:N	2.32	0.44
35:DO:125:VAL:HG22	35:DO:125:VAL:O	2.17	0.44
38:DQ:19:LYS:O	38:DQ:20:ARG:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:81:LYS:HD3	44:DU:97:ARG:NH2	2.31	0.44
1:AA:1160:G:C2	1:AA:1177:G:N2	2.82	0.44
1:AA:1301:U:C3'	1:AA:1302:U:H5'	2.46	0.44
1:AA:575:G:H4'	1:AA:576:G:OP1	2.17	0.44
1:AA:659:U:O2'	1:AA:660:G:H5'	2.17	0.44
1:AA:723:U:H5'	1:AA:724:G:OP2	2.17	0.44
23:AC:17:C:O2	23:AC:17:C:C2'	2.64	0.44
1:AA:1111:A:N1	3:AF:177:THR:HG23	2.32	0.44
4:AG:111:ALA:HB2	4:AG:120:LEU:CD1	2.45	0.44
7:AJ:15:ASP:OD2	7:AJ:16:LEU:N	2.51	0.44
7:AJ:17:VAL:HG12	7:AJ:18:TYR:CD1	2.52	0.44
9:AL:16:ARG:NH2	9:AL:64:THR:HG21	2.33	0.44
9:AL:17:VAL:HG11	9:AL:81:ILE:HD13	2.00	0.44
1:AA:1331:G:OP2	13:AP:23:TYR:HD2	2.01	0.44
13:AP:8:GLU:OE1	13:AP:67:GLU:HG3	2.18	0.44
33:BM:4:TYR:O	40:B1:64:ARG:NH1	2.51	0.44
46:B3:31:VAL:CG1	46:B3:67:VAL:HG23	2.47	0.44
54:B8:36:LYS:CB	54:B8:40:GLU:CG	2.88	0.44
25:BA:1047:G:H2'	25:BA:1110:G:H1	1.82	0.44
25:BA:1060:U:H3	25:BA:1088:A:H8	1.66	0.44
25:BA:130:C:O3'	25:BA:1349:A:H1'	2.18	0.44
25:BA:1847:A:H8	25:BA:1847:A:OP1	2.00	0.44
25:BA:2108:C:H2'	25:BA:2109:U:O4'	2.18	0.44
25:BA:2194:G:H2'	25:BA:2195:C:C6	2.53	0.44
25:BA:2850:A:H5'	25:BA:2868:A:H2	1.80	0.44
25:BA:529:A:H8	25:BA:530:G:O6	2.00	0.44
25:BA:643:A:H2'	25:BA:644:A:O5'	2.16	0.44
25:BA:657:U:H2'	25:BA:658:C:C6	2.52	0.44
27:BD:228:PRO:HD3	27:BD:235:GLY:N	2.31	0.44
27:BD:30:GLU:CG	27:BD:63:ARG:HH21	2.30	0.44
28:BE:197:ILE:HD11	28:BE:199:ARG:HE	1.83	0.44
25:BA:2751:G:C6	31:BH:3:ARG:HB3	2.53	0.44
33:BM:35:ARG:HB3	33:BM:116:LEU:CD1	2.47	0.44
39:BR:53:ARG:O	39:BR:59:THR:CB	2.66	0.44
42:BS:78:GLU:OE1	42:BS:99:ARG:HG2	2.17	0.44
43:BT:84:ALA:HB3	43:BT:87:GLN:HE22	1.80	0.44
47:BZ:94:LEU:HA	47:BZ:94:LEU:HD23	1.78	0.44
1:CA:1023:G:C6	1:CA:1024:G:N7	2.86	0.44
1:CA:1129:C:N3	1:CA:1139:G:N1	2.66	0.44
1:CA:1165:C:H42	1:CA:1171:G:H1	1.64	0.44
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1480:G:C4	1:CA:1481:U:C6	3.06	0.44
1:CA:1502:A:H2	1:CA:1505:G:N1	2.09	0.44
1:CA:408:A:C2	1:CA:409:G:C4	3.05	0.44
1:CA:505:G:C6	1:CA:535:A:C2	3.04	0.44
1:CA:526:C:OP2	12:CO:91:LYS:HE2	2.17	0.44
1:CA:785:G:N2	1:CA:798:G:C4	2.86	0.44
23:CD:77:A:C2	25:DA:2421:G:C6	3.06	0.44
3:CF:71:ALA:HA	3:CF:106:VAL:HB	1.99	0.44
10:CM:99:LYS:CD	10:CM:100:THR:H	2.31	0.44
12:CO:60:LEU:HD12	12:CO:60:LEU:HA	1.86	0.44
13:CP:39:ILE:CD1	13:CP:56:LEU:HG	2.47	0.44
16:CS:40:ASP:O	16:CS:48:TRP:HB2	2.18	0.44
1:CA:584:G:OP1	17:CT:91:ARG:NH1	2.50	0.44
25:DA:1057:A:H61	25:DA:1080:A:N6	2.16	0.44
25:DA:1171:G:C8	25:DA:1173:G:N3	2.86	0.44
25:DA:1432:C:H2'	25:DA:1433:U:O4'	2.18	0.44
25:DA:1658:C:H2'	25:DA:1659:U:C6	2.52	0.44
25:DA:1771:C:O2'	25:DA:1786:A:H8	2.01	0.44
25:DA:1810:A:C2'	25:DA:1811:G:H5'	2.46	0.44
25:DA:2286:A:C8	25:DA:2287:A:N6	2.86	0.44
25:DA:2893:G:H8	25:DA:2893:G:OP2	2.00	0.44
25:DA:872:A:C6	25:DA:906:G:C2	3.05	0.44
25:DA:997:G:C2	25:DA:998:C:C6	3.05	0.44
27:DD:33:LEU:HD23	27:DD:34:VAL:H	1.83	0.44
29:DF:18:ARG:C	29:DF:19:GLU:HG2	2.38	0.44
29:DF:205:ARG:HB2	29:DF:205:ARG:NH1	2.33	0.44
30:DG:117:PHE:HE1	30:DG:119:GLY:HA2	1.83	0.44
34:DN:66:LYS:HA	34:DN:79:PHE:O	2.17	0.44
36:DP:47:ILE:HG22	36:DP:48:GLU:N	2.33	0.44
42:DS:4:LYS:HE3	42:DS:6:ILE:HD11	2.00	0.44
45:DV:72:ARG:HA	45:DV:72:ARG:HD2	1.83	0.44
48:DW:43:GLN:O	48:DW:44:LEU:HD23	2.17	0.44
1:AA:104:G:C2	1:AA:105:G:C8	3.05	0.44
1:AA:1206:G:C5	1:AA:1207:G:N7	2.85	0.44
1:AA:658:G:O2'	1:AA:659:U:H5'	2.18	0.44
1:AA:703:G:H4'	1:AA:704:A:O5'	2.16	0.44
1:AA:819:A:C4'	1:AA:820:U:OP2	2.60	0.44
2:AE:178:ARG:CG	2:AE:178:ARG:HH11	2.31	0.44
3:AF:84:ILE:HG13	3:AF:101:LEU:HD22	1.99	0.44
6:AI:12:PRO:HG3	6:AI:57:GLN:O	2.18	0.44
7:AJ:16:LEU:HD11	9:AL:45:ALA:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:118:LYS:O	9:AL:119:ALA:CB	2.64	0.44
16:AS:59:TRP:O	16:AS:64:ALA:CB	2.66	0.44
20:AW:55:ILE:HA	20:AW:55:ILE:HD13	1.89	0.44
40:B1:61:TRP:CD2	40:B1:94:ASN:HA	2.53	0.44
41:B2:72:VAL:O	41:B2:72:VAL:HG22	2.17	0.44
46:B3:43:THR:O	46:B3:43:THR:HG23	2.18	0.44
25:BA:1078:U:H6	25:BA:1078:U:H3'	1.83	0.44
25:BA:1124:C:H2'	25:BA:1125:G:O4'	2.18	0.44
25:BA:1337:G:H2'	25:BA:1338:G:H8	1.81	0.44
25:BA:1443:G:C2	25:BA:1549:C:C2	3.06	0.44
25:BA:1639:U:O2'	25:BA:1640:C:H5''	2.18	0.44
25:BA:2602:A:H4'	25:BA:2603:G:C5'	2.47	0.44
25:BA:453:C:H4'	25:BA:472:A:N6	2.33	0.44
25:BA:775:G:C4	25:BA:794:G:C8	3.06	0.44
25:BA:892:G:H2'	25:BA:893:C:C6	2.52	0.44
26:BB:35:U:H2'	26:BB:36:C:C6	2.53	0.44
26:BB:71:C:C4	26:BB:72:G:N7	2.86	0.44
27:BD:166:GLN:NE2	27:BD:166:GLN:CA	2.77	0.44
27:BD:77:ALA:CB	27:BD:97:TYR:HA	2.48	0.44
28:BE:11:MET:HG2	28:BE:24:THR:HA	1.99	0.44
30:BG:99:MET:HG3	30:BG:100:TRP:N	2.31	0.44
32:BK:130:TYR:CG	32:BK:131:LYS:N	2.86	0.44
32:BK:63:ALA:HA	32:BK:66:GLU:HG2	1.98	0.44
33:BM:42:TRP:CD1	40:B1:63:VAL:CG1	3.00	0.44
38:BQ:106:ARG:CZ	38:BQ:106:ARG:HB2	2.48	0.44
39:BR:88:ILE:HG13	39:BR:88:ILE:O	2.18	0.44
43:BT:57:LEU:O	43:BT:57:LEU:HD13	2.18	0.44
49:BX:39:ASP:C	49:BX:39:ASP:OD1	2.54	0.44
1:CA:1203:C:O5'	1:CA:1203:C:H6	2.01	0.44
1:CA:1305:G:C8	1:CA:1305:G:OP2	2.71	0.44
1:CA:1378:C:H5	1:CA:1379:G:C8	2.36	0.44
1:CA:197:A:C8	1:CA:198:G:H1'	2.53	0.44
1:CA:287:U:O2'	1:CA:288:A:H5'	2.17	0.44
1:CA:292:G:N7	1:CA:293:G:H1'	2.33	0.44
1:CA:29:G:O2'	1:CA:295:C:H4'	2.18	0.44
1:CA:448:A:H2'	1:CA:449:C:O2	2.17	0.44
1:CA:501:C:H2'	1:CA:502:G:C8	2.51	0.44
1:CA:736:C:H2'	1:CA:737:A:H8	1.81	0.44
1:CA:892:A:H2'	1:CA:893:C:C6	2.53	0.44
2:CE:108:ILE:HG22	2:CE:108:ILE:O	2.18	0.44
4:CG:18:LYS:HD2	4:CG:20:TYR:CZ	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:39:PRO:O	4:CG:44:GLY:HA3	2.17	0.44
46:D3:69:PHE:CE2	46:D3:79:VAL:HG22	2.52	0.44
13:CP:65:LYS:HB3	50:D4:49:PHE:HD1	1.82	0.44
51:D5:46:CYS:HB3	51:D5:49:CYS:SG	2.58	0.44
52:D6:31:PRO:O	52:D6:32:ASN:CB	2.65	0.44
25:DA:1070:A:C8	25:DA:1096:A:O2'	2.61	0.44
25:DA:1323:U:C2'	25:DA:1324:G:H5'	2.47	0.44
25:DA:1466:G:H5'	25:DA:1467:C:OP1	2.17	0.44
25:DA:1475:G:C2	25:DA:1519:G:C2	3.06	0.44
25:DA:1582:C:O2'	25:DA:1586:A:H8	2.00	0.44
25:DA:2287:A:C2	25:DA:2289:G:C8	3.05	0.44
25:DA:2300:G:N2	25:DA:2317:C:O2	2.51	0.44
25:DA:2847:U:C3'	25:DA:2848:G:H5'	2.47	0.44
25:DA:2859:G:H8	25:DA:2859:G:H3'	1.83	0.44
25:DA:405:U:O2	25:DA:405:U:H2'	2.17	0.44
27:DD:28:GLU:OE2	27:DD:29:PRO:HD2	2.17	0.44
30:DG:128:ARG:HA	30:DG:128:ARG:HD3	1.84	0.44
30:DG:150:ASP:CG	30:DG:151:ALA:H	2.20	0.44
30:DG:43:LEU:HD12	30:DG:45:GLU:CG	2.48	0.44
31:DH:102:ALA:CB	31:DH:116:GLU:HA	2.47	0.44
36:DP:26:TYR:C	36:DP:26:TYR:HD2	2.21	0.44
26:DB:38:C:O4'	38:DQ:95:HIS:CE1	2.71	0.44
25:DA:65:C:O2'	43:DT:69:TYR:CD2	2.69	0.44
44:DU:49:VAL:HG12	44:DU:50:ARG:H	1.82	0.44
1:AA:1092:A:C6	1:AA:1093:A:C6	3.05	0.44
1:AA:1176:A:N1	1:AA:1177:G:C2	2.86	0.44
1:AA:1378:C:H1'	7:AJ:76:ARG:HH12	1.83	0.44
1:AA:587:G:N2	1:AA:755:G:C5	2.86	0.44
1:AA:64:G:H4'	1:AA:65:U:H5'	2.00	0.44
1:AA:724:G:C2'	1:AA:725:G:H5'	2.47	0.44
1:AA:827:U:C4	1:AA:870:U:C4	3.06	0.44
1:AA:856:C:C2'	1:AA:857:C:H5'	2.47	0.44
1:AA:914:A:C6	1:AA:915:A:C5	3.06	0.44
23:AC:50:G:N2	23:AC:67:C:C2	2.86	0.44
23:AD:8:U:O5'	23:AD:8:U:H6	2.01	0.44
6:AI:72:VAL:HG13	6:AI:73:ASN:N	2.32	0.44
9:AL:83:ARG:CA	9:AL:86:VAL:HG12	2.47	0.44
12:AO:46:LYS:HG3	12:AO:47:LYS:H	1.83	0.44
15:AR:47:LYS:HE2	15:AR:47:LYS:HB3	1.79	0.44
16:AS:21:VAL:O	16:AS:33:ILE:N	2.44	0.44
46:B3:12:ASN:HA	46:B3:14:ARG:HH21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B5:40:LYS:HB2	51:B5:46:CYS:SG	2.57	0.44
52:B6:33:LYS:HA	52:B6:33:LYS:HD3	1.69	0.44
25:BA:1355:G:H8	25:BA:1355:G:O5'	2.01	0.44
25:BA:2115:G:N1	25:BA:2117:A:C8	2.86	0.44
25:BA:2138:C:N3	25:BA:2154:G:N2	2.65	0.44
25:BA:2219:G:H2'	25:BA:2224:G:H5'	1.99	0.44
25:BA:2323:G:H2'	25:BA:2324:C:O4'	2.18	0.44
25:BA:2348:U:O4	25:BA:2382:G:N1	2.51	0.44
25:BA:2468:G:H22	25:BA:2481:G:H2'	1.83	0.44
25:BA:2656:U:O2	25:BA:2656:U:H2'	2.18	0.44
25:BA:2633:G:H5'	25:BA:2811:G:O2'	2.17	0.44
27:BD:149:PRO:O	27:BD:150:LYS:HB2	2.18	0.44
29:BF:9:ILE:HD11	29:BF:125:LEU:CD1	2.48	0.44
33:BM:78:TYR:CD1	33:BM:78:TYR:N	2.86	0.44
44:BU:49:VAL:O	44:BU:51:VAL:N	2.51	0.44
45:BV:143:GLY:HA3	45:BV:144:LEU:CG	2.48	0.44
1:CA:1061:G:C1'	10:CM:56:HIS:CE1	3.00	0.44
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.18	0.44
1:CA:1489:G:H2'	1:CA:1490:C:O4'	2.17	0.44
1:CA:167:G:O2'	1:CA:168:G:H5'	2.18	0.44
1:CA:587:G:N2	1:CA:754:C:OP2	2.50	0.44
1:CA:864:A:H2	1:CA:917:G:N3	2.16	0.44
1:CA:977:A:N3	1:CA:977:A:H2'	2.31	0.44
1:CA:980:C:H3'	1:CA:981:U:O4'	2.18	0.44
2:CE:128:GLU:O	2:CE:129:GLU:HB2	2.18	0.44
2:CE:16:HIS:HB2	2:CE:210:SER:HB2	2.00	0.44
6:CI:14:LEU:HD23	6:CI:14:LEU:O	2.16	0.44
7:CJ:23:VAL:HG13	7:CJ:43:PHE:CE2	2.52	0.44
7:CJ:38:LEU:O	7:CJ:42:ILE:HG13	2.18	0.44
8:CK:61:VAL:HG12	8:CK:63:LEU:CD1	2.47	0.44
9:CL:89:ASN:ND2	9:CL:89:ASN:N	2.66	0.44
9:CL:92:TYR:HA	9:CL:95:LYS:HG3	1.99	0.44
25:DA:2386:C:H4'	46:D3:55:ARG:O	2.18	0.44
25:DA:1021:A:C6	25:DA:1023:U:C5	3.05	0.44
25:DA:1152:C:O2'	25:DA:1153:C:H5'	2.16	0.44
25:DA:1638:C:H2'	25:DA:1639:U:O5'	2.18	0.44
25:DA:1832:C:N4	25:DA:1833:U:C4	2.86	0.44
25:DA:2149:G:C6	25:DA:2150:U:C4	3.06	0.44
25:DA:2196:C:O2'	25:DA:2197:U:H5'	2.17	0.44
25:DA:2219:G:H2'	25:DA:2224:G:C5'	2.46	0.44
25:DA:2309:A:O5'	25:DA:2310:A:OP2	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2530:A:C8	31:DH:157:TYR:OH	2.71	0.44
25:DA:2864:G:C6	25:DA:2865:U:N3	2.86	0.44
26:DB:6:C:HO2'	38:DQ:29:PHE:HE1	1.64	0.44
27:DD:34:VAL:HG22	27:DD:35:LYS:HG3	1.99	0.44
28:DE:25:VAL:CG1	28:DE:26:ILE:H	2.23	0.44
28:DE:36:ARG:O	28:DE:37:ARG:C	2.56	0.44
35:DO:128:HIS:O	35:DO:147:LEU:HB3	2.16	0.44
38:DQ:110:LEU:HD22	38:DQ:112:PHE:H	1.82	0.44
1:AA:1026:G:O6	1:AA:1036:G:C2	2.71	0.44
1:AA:1245:A:C2	1:AA:1293:G:C2	3.06	0.44
1:AA:1493:A:H5''	1:AA:1494:G:OP2	2.18	0.44
1:AA:380:G:N2	1:AA:384:G:C5	2.86	0.44
1:AA:383:A:H8	1:AA:383:A:O5'	2.00	0.44
1:AA:600:C:H2'	1:AA:600:C:O2	2.17	0.44
1:AA:725:G:C2	1:AA:726:C:C6	3.05	0.44
1:AA:741:G:H2'	1:AA:742:G:O4'	2.18	0.44
1:AA:90:C:C5	1:AA:91:C:C5	3.06	0.44
1:AA:960:U:O2	1:AA:960:U:C2'	2.66	0.44
2:AE:14:GLY:CA	2:AE:209:ARG:HH21	2.27	0.44
5:AH:147:ASP:HA	5:AH:150:ARG:NH1	2.32	0.44
7:AJ:104:LEU:HD13	7:AJ:104:LEU:HA	1.71	0.44
7:AJ:46:ALA:HA	7:AJ:49:ILE:HG13	1.98	0.44
8:AK:37:ARG:HB3	8:AK:37:ARG:HE	1.39	0.44
12:AO:71:PRO:O	12:AO:102:ARG:HD3	2.17	0.44
12:AO:104:VAL:HG12	12:AO:105:TYR:CD1	2.53	0.44
25:BA:1063:G:C5	25:BA:1064:C:C5	3.06	0.44
25:BA:1069:A:C4'	25:BA:1070:A:O5'	2.66	0.44
25:BA:1111:A:O2'	25:BA:1112:G:C4'	2.66	0.44
25:BA:1385:G:HO2'	25:BA:1396:U:H6	1.58	0.44
25:BA:1773:A:H2'	25:BA:1774:C:H5'	1.99	0.44
25:BA:2210:G:H2'	25:BA:2210:G:N3	2.33	0.44
25:BA:2767:C:H2'	25:BA:2768:C:H6	1.82	0.44
25:BA:317:G:N2	25:BA:318:C:O2	2.51	0.44
25:BA:580:C:H2'	25:BA:581:C:C6	2.52	0.44
25:BA:646:A:H2'	25:BA:647:G:O4'	2.18	0.44
25:BA:654(M):C:H3'	25:BA:654(N):G:C8	2.53	0.44
27:BD:270:ILE:C	27:BD:271:ILE:HG13	2.37	0.44
28:BE:21:VAL:CG2	28:BE:21:VAL:O	2.64	0.44
1:CA:1190:G:H3'	3:CF:3:ASN:HD21	1.78	0.44
1:CA:197:A:H8	1:CA:198:G:N9	2.16	0.44
1:CA:201:C:C4'	1:CA:208:U:OP1	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:421:U:C2'	1:CA:421:U:O2	2.65	0.44
1:CA:509:A:H5''	4:CG:55:ALA:HB2	1.99	0.44
1:CA:513:C:N4	1:CA:538:G:H1	2.16	0.44
1:CA:843:U:H3'	1:CA:848:C:O4'	2.17	0.44
23:CD:23:G:N2	23:CD:24:C:O2	2.51	0.44
4:CG:146:ILE:HD12	4:CG:146:ILE:H	1.83	0.44
6:CI:6:VAL:HG22	6:CI:90:VAL:HG22	1.99	0.44
7:CJ:113:GLU:HB2	7:CJ:119:ARG:CG	2.39	0.44
13:CP:84:ILE:HG22	13:CP:84:ILE:O	2.18	0.44
16:CS:74:LEU:HA	16:CS:74:LEU:HD22	1.82	0.44
17:CT:31:LEU:HD12	17:CT:31:LEU:HA	1.78	0.44
19:CV:27:GLU:O	19:CV:47:HIS:CE1	2.70	0.44
25:DA:1436:G:O2'	25:DA:1477:A:H4'	2.17	0.44
25:DA:1921:G:O2'	25:DA:1922:G:H5'	2.17	0.44
25:DA:2328:A:H2'	25:DA:2329:G:O4'	2.18	0.44
25:DA:740:U:H2'	25:DA:741:G:C8	2.53	0.44
26:DB:35:U:O2'	26:DB:36:C:H5'	2.18	0.44
28:DE:6:GLY:HA2	28:DE:51:PHE:CZ	2.53	0.44
31:DH:69:ARG:HH12	31:DH:73:ALA:HB2	1.83	0.44
33:DM:29:LYS:CA	33:DM:29:LYS:HE2	2.45	0.44
34:DN:120:GLU:HG2	34:DN:122:LEU:HG	1.99	0.44
36:DP:26:TYR:C	36:DP:26:TYR:CD2	2.91	0.44
38:DQ:66:ALA:HA	38:DQ:69:VAL:CG1	2.47	0.44
39:DR:26:ASP:HB3	39:DR:91:ARG:HA	1.97	0.44
42:DS:26:GLY:HA2	42:DS:71:VAL:O	2.17	0.44
44:DU:90:LEU:CD2	44:DU:90:LEU:H	2.30	0.44
45:DV:30:ASN:ND2	45:DV:32:HIS:H	2.16	0.44
1:AA:1387:G:C6	1:AA:1388:C:N4	2.86	0.44
1:AA:200:G:H1	1:AA:217:C:N4	2.13	0.44
1:AA:344:A:H5''	1:AA:345:C:P	2.58	0.44
1:AA:474:G:C2	1:AA:475:G:C5	3.06	0.44
1:AA:929:G:C2	1:AA:1389:C:C2	3.05	0.44
2:AE:21:ARG:C	2:AE:23:ARG:N	2.72	0.44
3:AF:64:VAL:HG21	3:AF:99:VAL:HG12	1.98	0.44
7:AJ:69:VAL:O	7:AJ:69:VAL:CG1	2.66	0.44
9:AL:111:ARG:NH2	10:AM:62:HIS:HE1	2.16	0.44
9:AL:23:ASN:OD1	9:AL:25:LYS:HB3	2.18	0.44
9:AL:50:LEU:HD22	9:AL:55:ALA:HB3	1.99	0.44
40:B1:90:VAL:O	40:B1:91:ASP:C	2.55	0.44
50:B4:48:ARG:HA	50:B4:48:ARG:HD2	1.73	0.44
25:BA:1000:A:C6	25:BA:1001:A:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:101:G:H3'	25:BA:102:G:H5'	2.00	0.44
25:BA:1800:C:OP1	27:BD:266:SER:OG	2.33	0.44
25:BA:1799:G:C5'	25:BA:1819:A:H61	2.29	0.44
25:BA:2361:A:O5'	54:B8:27:THR:OG1	2.35	0.44
25:BA:2590:A:H2'	25:BA:2591:C:H6	1.83	0.44
25:BA:2688:U:H1'	25:BA:2721:A:N6	2.33	0.44
25:BA:602:G:H3'	25:BA:654(V):A:H61	1.83	0.44
25:BA:70:G:H4'	25:BA:71:A:OP1	2.16	0.44
27:BD:123:ALA:HB1	27:BD:131:LEU:HG	2.00	0.44
28:BE:101:ARG:HA	28:BE:101:ARG:HD2	1.55	0.44
28:BE:51:PHE:N	28:BE:76:ARG:O	2.47	0.44
30:BG:115:ARG:HB3	30:BG:115:ARG:HH11	1.82	0.44
30:BG:63:ILE:HD12	30:BG:141:PHE:CE2	2.53	0.44
30:BG:82:LEU:HD22	30:BG:83:ARG:N	2.33	0.44
25:BA:270(L):U:C2	32:BK:50:ARG:HD2	2.53	0.44
33:BM:108:PRO:O	33:BM:113:GLY:HA3	2.18	0.44
33:BM:15:LEU:O	33:BM:136:GLU:HA	2.18	0.44
25:BA:1668:A:OP1	34:BN:5:GLN:HG3	2.18	0.44
38:BQ:34:HIS:CB	38:BQ:36:TYR:HE1	2.19	0.44
38:BQ:70:GLY:CA	38:BQ:101:LEU:HD13	2.47	0.44
42:BS:70:TYR:N	42:BS:70:TYR:CD2	2.83	0.44
1:CA:1127:G:C2	1:CA:1145:C:C2	3.06	0.44
1:CA:1191:A:OP1	3:CF:3:ASN:ND2	2.50	0.44
1:CA:1288:A:H2'	1:CA:1289:A:H8	1.82	0.44
1:CA:888:G:O2'	1:CA:1488:G:O2'	2.34	0.44
1:CA:358:U:C5	1:CA:359:U:C5	3.05	0.44
1:CA:706:A:C4'	11:CN:29:ILE:HD11	2.48	0.44
2:CE:72:GLY:HA3	2:CE:165:VAL:CG2	2.48	0.44
2:CE:71:VAL:HG13	2:CE:93:VAL:HB	1.99	0.44
7:CJ:69:VAL:HG22	7:CJ:135:VAL:CG2	2.48	0.44
7:CJ:72:ARG:HB2	7:CJ:142:GLU:OE2	2.18	0.44
10:CM:81:THR:O	10:CM:84:GLN:N	2.51	0.44
1:CA:538:G:OP2	12:CO:115:LYS:HB2	2.18	0.44
1:CA:742:G:OP1	15:CR:35:ARG:NH2	2.51	0.44
20:CW:53:LEU:CB	20:CW:102:GLY:HA3	2.48	0.44
20:CW:20:LEU:HA	20:CW:20:LEU:HD23	1.81	0.44
25:DA:2419:U:O4	54:D8:31:HIS:CD2	2.70	0.44
25:DA:1009:A:OP2	25:DA:1010:A:OP2	2.36	0.44
25:DA:1027:A:C2	25:DA:2488:A:H5'	2.53	0.44
25:DA:1341:U:OP2	25:DA:1394:U:O2'	2.21	0.44
25:DA:1349:A:H5'	25:DA:1350:C:C5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1585:C:O2	25:DA:1585:C:C2'	2.66	0.44
25:DA:1716:U:H2'	25:DA:1717:G:H8	1.83	0.44
25:DA:2064:C:H2'	25:DA:2065:C:C6	2.53	0.44
25:DA:2351:G:H1'	25:DA:2366:A:H61	1.83	0.44
25:DA:2351:G:H8	25:DA:2351:G:O5'	2.01	0.44
25:DA:2516:G:C6	25:DA:2517:C:N4	2.86	0.44
25:DA:2612:C:C5	25:DA:2613:U:H5	2.35	0.44
25:DA:653:A:H5''	25:DA:654:A:P	2.57	0.44
25:DA:981:A:N1	25:DA:2027:G:O2'	2.48	0.44
26:DB:14:U:O3'	26:DB:107:U:O2'	2.32	0.44
26:DB:4:C:N3	26:DB:117:G:N2	2.66	0.44
25:DA:729:G:C5	27:DD:208:LYS:HB2	2.53	0.44
27:DD:35:LYS:HD3	27:DD:63:ARG:CB	2.46	0.44
31:DH:151:ILE:C	31:DH:152:ARG:CG	2.64	0.44
32:DK:47:LEU:HA	32:DK:50:ARG:HG2	1.99	0.44
35:DO:147:LEU:CD2	35:DO:148:LEU:H	2.31	0.44
43:DT:49:VAL:HB	43:DT:83:VAL:HG21	1.99	0.44
44:DU:71:LYS:HG3	44:DU:71:LYS:HZ3	1.59	0.44
44:DU:75:ILE:HG13	44:DU:76:CYS:N	2.32	0.44
45:DV:131:ARG:HD2	45:DV:131:ARG:H	1.82	0.44
47:DZ:95:LEU:C	47:DZ:97:LEU:H	2.22	0.44
1:AA:101:A:C4	1:AA:102:G:C8	3.06	0.43
1:AA:1162:C:O5'	1:AA:1162:C:H6	2.00	0.43
1:AA:132:C:N3	1:AA:231:G:C2	2.86	0.43
1:AA:406:G:N2	1:AA:437:U:O2	2.51	0.43
1:AA:487:A:H5''	1:AA:488:C:OP2	2.18	0.43
22:AB:27:G:H5'	22:AB:28:C:OP2	2.18	0.43
23:AC:24:C:H2'	23:AC:25:U:H6	1.82	0.43
5:AH:47:LYS:HE2	5:AH:47:LYS:HB2	1.90	0.43
5:AH:57:LYS:H	5:AH:57:LYS:HG2	1.52	0.43
7:AJ:36:LYS:HB2	7:AJ:36:LYS:NZ	2.34	0.43
9:AL:25:LYS:HE3	9:AL:25:LYS:HB2	1.79	0.43
13:AP:55:ARG:HG3	13:AP:55:ARG:HH11	1.83	0.43
1:AA:191:G:N3	20:AW:105:SER:HB2	2.33	0.43
25:BA:1063:G:C4	25:BA:1064:C:C6	3.06	0.43
25:BA:999:U:H5''	25:BA:1154:G:O6	2.18	0.43
25:BA:1479:G:C2	25:BA:1480:G:C4	3.05	0.43
25:BA:155:C:H5''	25:BA:155:C:H6	1.83	0.43
25:BA:1582:C:O2'	25:BA:1586:A:C8	2.67	0.43
25:BA:2212:A:H1'	25:BA:2215:G:C4	2.53	0.43
25:BA:2331:G:C4'	46:B3:42:GLY:HA3	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2533:A:H2'	25:BA:2534:A:H5'	1.99	0.43
25:BA:2505:G:H2'	25:BA:2576:G:O6	2.17	0.43
25:BA:270(P):C:O2'	25:BA:270(Q):C:H5'	2.18	0.43
25:BA:654(S):G:H4'	25:BA:654(T):A:OP1	2.17	0.43
25:BA:815:C:H2'	25:BA:816:C:C6	2.50	0.43
25:BA:881:G:H3'	25:BA:882:G:H4'	1.98	0.43
26:BB:11:C:O5'	26:BB:12:C:H5	2.01	0.43
26:BB:43:C:H5'	30:BG:66:GLN:NE2	2.32	0.43
27:BD:181:GLU:CA	27:BD:272:ALA:HB2	2.39	0.43
31:BH:111:HIS:HB2	31:BH:112:PRO:HD2	2.00	0.43
31:BH:129:THR:OG1	31:BH:129:THR:O	2.33	0.43
32:BK:77:LEU:O	32:BK:77:LEU:HD12	2.18	0.43
33:BM:43:THR:HG23	40:B1:64:ARG:HH22	1.82	0.43
36:BP:88:GLY:O	36:BP:90:VAL:N	2.51	0.43
38:BQ:93:LYS:HG3	38:BQ:94:TYR:N	2.33	0.43
43:BT:70:LEU:HD23	43:BT:70:LEU:H	1.82	0.43
49:BX:4:LEU:O	49:BX:36:VAL:HA	2.17	0.43
1:CA:1067:A:H4'	1:CA:1068:G:O5'	2.18	0.43
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.99	0.43
1:CA:408:A:H2'	1:CA:409:G:O4'	2.18	0.43
1:CA:510:A:H5''	1:CA:511:C:OP2	2.18	0.43
1:CA:926:G:C6	1:CA:1505:G:C5	3.06	0.43
2:CE:95:GLN:HB2	2:CE:148:TYR:HA	2.00	0.43
3:CF:18:TRP:N	3:CF:18:TRP:CE3	2.85	0.43
4:CG:61:LYS:CA	4:CG:203:VAL:HG22	2.47	0.43
6:CI:19:LEU:HD11	6:CI:59:TYR:CE1	2.53	0.43
9:CL:53:VAL:HG11	9:CL:92:TYR:CD2	2.53	0.43
10:CM:8:LEU:HG	10:CM:96:ILE:HG23	1.99	0.43
25:DA:1152:C:H4'	40:D1:77:SER:HA	1.99	0.43
41:D2:77:ALA:O	41:D2:79:VAL:HG22	2.18	0.43
46:D3:25:ARG:HD2	46:D3:29:GLN:HE22	1.82	0.43
25:DA:1069:A:H5'	25:DA:1070:A:C8	2.53	0.43
25:DA:1181:C:H2'	25:DA:1182:A:H8	1.83	0.43
25:DA:2544:G:H8	25:DA:2544:G:O5'	2.01	0.43
25:DA:1759:A:C8	25:DA:2696:U:O2	2.71	0.43
25:DA:280:C:C2	25:DA:361:G:N2	2.86	0.43
25:DA:639:U:H2'	25:DA:640:C:H6	1.78	0.43
25:DA:723:G:H2'	25:DA:724:U:O4'	2.18	0.43
25:DA:869:G:C2	25:DA:870:A:C8	3.06	0.43
25:DA:873:G:N2	25:DA:905:U:O2	2.50	0.43
25:DA:84:A:H2'	25:DA:99:U:O4	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:43:ARG:HG2	27:DD:54:ARG:O	2.18	0.43
27:DD:48:ARG:CG	27:DD:48:ARG:HH11	2.30	0.43
28:DE:188:VAL:HG23	28:DE:189:PRO:HD2	1.99	0.43
28:DE:48:GLN:HG2	28:DE:78:LEU:HB2	1.93	0.43
29:DF:178:PRO:HG2	29:DF:179:GLU:OE1	2.18	0.43
30:DG:125:PHE:HB3	30:DG:166:ASP:HB2	1.99	0.43
31:DH:99:VAL:HG12	31:DH:100:GLY:N	2.33	0.43
31:DH:131:VAL:HG12	31:DH:132:ARG:N	2.33	0.43
35:DO:83:VAL:HG11	35:DO:112:LEU:HD21	1.99	0.43
44:DU:41:GLY:O	44:DU:64:GLU:HB3	2.17	0.43
1:AA:1032(B):G:H2'	1:AA:1033:G:H8	1.83	0.43
1:AA:317:G:C6	1:AA:318:G:C5	3.06	0.43
1:AA:453:A:C6	1:AA:454:C:C4	3.06	0.43
1:AA:515:G:N2	1:AA:537:G:C4	2.86	0.43
23:AC:77:A:C8	23:AC:77:A:C5'	3.02	0.43
23:AD:10:G:N1	23:AD:27:G:C2	2.87	0.43
3:AF:65:ALA:O	3:AF:66:VAL:C	2.56	0.43
8:AK:27:PRO:HG3	8:AK:58:TYR:HE2	1.82	0.43
9:AL:4:TYR:CD2	9:AL:88:TYR:HB2	2.54	0.43
11:AN:82:VAL:CG2	11:AN:98:LEU:HD13	2.48	0.43
15:AR:56:LEU:HD12	15:AR:60:VAL:HG23	1.99	0.43
25:BA:101:G:H3'	25:BA:102:G:C5'	2.48	0.43
25:BA:1281:G:O2'	25:BA:1282:U:H5'	2.18	0.43
25:BA:1279:G:N2	25:BA:1292:U:C2	2.86	0.43
25:BA:2205:C:O2	25:BA:2205:C:H2'	2.18	0.43
25:BA:2312:U:O5'	25:BA:2312:U:C6	2.70	0.43
25:BA:2345:G:N3	25:BA:2381:C:H2'	2.32	0.43
25:BA:304:G:N2	25:BA:314:A:C4	2.86	0.43
25:BA:658:C:H2'	25:BA:659:C:C6	2.53	0.43
25:BA:900:A:H3'	25:BA:901:A:H8	1.83	0.43
29:BF:155:LEU:HD13	29:BF:174:VAL:CG2	2.48	0.43
30:BG:121:ASN:HA	30:BG:122:PRO:HD2	1.83	0.43
25:BA:2749:A:O3'	31:BH:62:LYS:HE3	2.18	0.43
33:BM:55:VAL:O	33:BM:56:ASN:C	2.56	0.43
34:BN:115:VAL:HG23	34:BN:116:SER:N	2.33	0.43
38:BQ:4:LEU:HB3	38:BQ:5:THR:H	1.71	0.43
48:BW:15:LYS:H	48:BW:67:LYS:CE	2.31	0.43
49:BX:19:GLN:NE2	49:BX:52:HIS:CE1	2.84	0.43
47:BZ:92:LYS:HA	47:BZ:95:LEU:HD12	2.00	0.43
1:CA:1071:C:O2	1:CA:1072:G:C8	2.71	0.43
1:CA:1305:G:H5''	21:CX:4:GLY:CA	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:529:G:O2'	1:CA:533:A:C6	2.67	0.43
1:CA:39:G:N7	1:CA:547:A:C8	2.86	0.43
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.99	0.43
1:CA:838:G:C2'	1:CA:841:U:H5'	2.47	0.43
23:CC:15:G:N3	23:CC:60:A:C2	2.87	0.43
4:CG:73:ARG:HA	4:CG:73:ARG:HD2	1.84	0.43
5:CH:140:ARG:O	5:CH:143:ARG:NH2	2.51	0.43
9:CL:43:ALA:HA	9:CL:74:ILE:HD13	2.00	0.43
9:CL:95:LYS:CD	9:CL:96:LEU:N	2.73	0.43
11:CN:45:GLY:O	11:CN:50:TYR:HB2	2.18	0.43
1:CA:983:A:H5'	14:CQ:2:ALA:CB	2.48	0.43
19:CV:78:ARG:NH1	19:CV:79:THR:HA	2.33	0.43
20:CW:67:ALA:O	20:CW:73:HIS:CE1	2.71	0.43
13:CP:3:ARG:N	50:D4:34:GLU:HG3	2.33	0.43
25:DA:1464:C:C2	25:DA:1465:G:C8	3.06	0.43
25:DA:2517:C:C6	25:DA:2542:A:C2	3.05	0.43
25:DA:1639:U:H4'	25:DA:2699:C:H4'	1.99	0.43
25:DA:277:C:OP2	25:DA:278:A:N6	2.40	0.43
25:DA:26:G:C6	25:DA:27:G:N1	2.85	0.43
31:DH:105:LEU:HD22	31:DH:105:LEU:H	1.82	0.43
31:DH:143:GLN:HE21	31:DH:143:GLN:CA	2.31	0.43
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.99	0.43
34:DN:79:PHE:CD2	39:DR:72:VAL:HG22	2.53	0.43
44:DU:54:LYS:HD2	44:DU:55:TYR:CZ	2.54	0.43
45:DV:26:GLY:C	45:DV:37:VAL:HG22	2.39	0.43
43:DT:5:TYR:HB3	48:DW:33:MET:SD	2.58	0.43
1:AA:1030:C:H2'	1:AA:1031:G:O4'	2.18	0.43
1:AA:1159:U:O2	1:AA:1160:G:O6	2.36	0.43
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.51	0.43
1:AA:254:G:H21	17:AT:16:GLN:HE21	1.66	0.43
1:AA:313:A:H2'	1:AA:314:C:C6	2.53	0.43
3:AF:131:ARG:HH11	3:AF:131:ARG:HG3	1.83	0.43
4:AG:8:VAL:HG11	4:AG:21:LEU:HB2	2.01	0.43
5:AH:43:LEU:HD13	5:AH:109:ILE:HD11	2.00	0.43
7:AJ:155:ARG:O	7:AJ:155:ARG:HD3	2.18	0.43
10:AM:42:THR:HG22	10:AM:67:THR:O	2.18	0.43
1:AA:690:G:N2	11:AN:55:LYS:NZ	2.67	0.43
12:AO:60:LEU:HD21	12:AO:66:VAL:HG22	2.01	0.43
37:B0:44:LEU:HD22	37:B0:48:VAL:HG22	2.00	0.43
25:BA:1138:G:H21	33:BM:106:MET:CE	2.17	0.43
25:BA:120:U:O2	25:BA:120:U:O4'	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1359:A:N1	25:BA:1372:U:O4	2.51	0.43
25:BA:185:U:H4'	25:BA:218:A:H4'	2.00	0.43
25:BA:2275:C:H5'	25:BA:2275:C:H6	1.83	0.43
25:BA:2314:C:O2'	25:BA:2315:G:H5'	2.19	0.43
25:BA:2389:G:H5''	25:BA:2390:U:C5'	2.47	0.43
25:BA:299:A:H62	25:BA:300:A:N6	2.16	0.43
25:BA:299:A:H5'	25:BA:300:A:OP2	2.19	0.43
25:BA:307:G:N2	25:BA:310:A:C8	2.86	0.43
25:BA:371:A:O3'	25:BA:372:G:H4'	2.18	0.43
25:BA:503:A:C6	25:BA:505:A:C6	3.06	0.43
25:BA:612:G:C6	25:BA:613:U:C4	3.06	0.43
25:BA:59:U:O2'	25:BA:73:A:H2'	2.18	0.43
27:BD:68:LYS:HB3	27:BD:70:TRP:CH2	2.53	0.43
28:BE:116:VAL:HG13	28:BE:122:PHE:CD2	2.54	0.43
28:BE:82:ARG:O	28:BE:83:ASP:C	2.55	0.43
32:BK:7:GLU:HA	32:BK:15:VAL:HG12	1.98	0.43
33:BM:85:ILE:HA	33:BM:86:PRO:HD3	1.84	0.43
35:BO:106:LEU:HD23	35:BO:106:LEU:HA	1.48	0.43
36:BP:81:VAL:O	36:BP:82:ARG:NE	2.50	0.43
42:BS:70:TYR:CE2	42:BS:108:GLY:HA3	2.54	0.43
43:BT:80:ILE:HG13	43:BT:80:ILE:O	2.18	0.43
44:BU:97:ARG:HH21	44:BU:98:VAL:CG2	2.31	0.43
45:BV:121:HIS:C	45:BV:123:ASP:N	2.71	0.43
45:BV:61:LEU:HD12	45:BV:62:PRO:O	2.19	0.43
1:CA:1004:A:C5'	1:CA:1025:U:N3	2.81	0.43
1:CA:1028(A):C:C2	1:CA:1028(B):C:C5	3.06	0.43
1:CA:1054:C:O2'	1:CA:1055:A:C5'	2.66	0.43
1:CA:105:G:H2'	1:CA:106:C:C6	2.53	0.43
1:CA:1213:A:C6	1:CA:1215:G:H1'	2.52	0.43
1:CA:1227:A:OP2	13:CP:111:LYS:HD3	2.17	0.43
1:CA:1299:A:C6	1:CA:1301:U:C2	3.06	0.43
1:CA:1372:U:H2'	1:CA:1373:G:H5'	1.99	0.43
1:CA:1486:G:H2'	1:CA:1487:G:C1'	2.48	0.43
1:CA:171:A:N6	1:CA:172:A:N6	2.67	0.43
1:CA:837:G:C2	1:CA:850:U:O2	2.71	0.43
1:CA:926:G:C5'	1:CA:927:G:O5'	2.66	0.43
1:CA:973:G:H3'	1:CA:974:A:H5''	2.00	0.43
22:CB:69:A:H4'	22:CB:70:G:OP1	2.18	0.43
23:CD:20:G:C2'	23:CD:20:G:N3	2.79	0.43
2:CE:178:ARG:HH11	2:CE:178:ARG:CB	2.24	0.43
3:CF:121:ALA:HB2	3:CF:198:VAL:HG21	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:69:HIS:HA	3:CF:104:GLN:HB2	1.99	0.43
5:CH:13:ILE:HG12	5:CH:13:ILE:O	2.18	0.43
9:CL:14:VAL:O	9:CL:14:VAL:HG12	2.18	0.43
9:CL:18:PHE:CD1	9:CL:62:TYR:HD2	2.30	0.43
9:CL:17:VAL:HG22	9:CL:63:ILE:HG12	1.99	0.43
10:CM:24:VAL:HG21	10:CM:37:PRO:HD3	1.99	0.43
11:CN:99:GLN:HG2	11:CN:105:VAL:CG2	2.46	0.43
15:CR:25:THR:HG21	15:CR:70:LEU:HB2	2.00	0.43
25:DA:2820:A:C6	37:D0:4:LEU:HD11	2.53	0.43
40:D1:98:LEU:C	40:D1:100:VAL:N	2.69	0.43
25:DA:2250:G:OP1	25:DA:2275:C:H2'	2.18	0.43
25:DA:2275:C:O2'	36:DP:84:GLY:HA2	2.14	0.43
25:DA:2320:A:H4'	25:DA:2321:G:N7	2.33	0.43
25:DA:2324:C:H5''	25:DA:2325:G:O5'	2.17	0.43
25:DA:2342:C:O2'	25:DA:2374:C:H5''	2.18	0.43
25:DA:2375:G:O2'	25:DA:2377:A:N7	2.47	0.43
25:DA:2629:A:O2'	25:DA:2630:G:C5'	2.65	0.43
25:DA:460:A:OP1	53:D7:41:ARG:NH2	2.47	0.43
25:DA:608:A:H2'	25:DA:609:A:C8	2.54	0.43
25:DA:654(S):G:C1'	25:DA:654(T):A:OP1	2.66	0.43
25:DA:747:U:C5	51:D5:3:LYS:CB	2.88	0.43
25:DA:971:C:H2'	25:DA:972:G:H5'	2.00	0.43
28:DE:169:ASN:OD1	28:DE:201:THR:HG21	2.18	0.43
29:DF:161:GLU:HB3	29:DF:162:LEU:HD12	2.00	0.43
38:DQ:83:LYS:HZ3	38:DQ:109:GLY:H	1.65	0.43
45:DV:175:VAL:C	45:DV:177:PRO:HD3	2.36	0.43
1:AA:1055:A:C5	1:AA:1206:G:C2	3.06	0.43
1:AA:1175:G:C2	1:AA:1176:A:C6	3.07	0.43
1:AA:1277:C:HO2'	1:AA:1279:A:C1'	2.32	0.43
1:AA:1406:U:O2	1:AA:1517:G:N2	2.52	0.43
1:AA:1504:G:H1'	1:AA:1505:G:OP2	2.18	0.43
1:AA:1530:G:H2'	1:AA:1531:A:C8	2.52	0.43
1:AA:158:G:H2'	1:AA:159:G:C8	2.54	0.43
1:AA:18:C:H2'	1:AA:19:C:O4'	2.18	0.43
1:AA:455:C:H42	1:AA:477:G:H1	1.66	0.43
1:AA:516:U:C4	1:AA:517:G:C6	3.06	0.43
1:AA:622:A:C8	1:AA:623:C:C6	3.07	0.43
22:AB:28:C:H2'	22:AB:29:U:H6	1.83	0.43
23:AC:34:U:O2	23:AC:36:A:C8	2.72	0.43
23:AC:75:C:O2	25:BA:2252:G:N2	2.45	0.43
3:AF:147:LYS:HB3	3:AF:203:PHE:CD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AF:92:ALA:O	3:AF:95:THR:O	2.36	0.43
4:AG:99:SER:O	4:AG:140:VAL:HG22	2.18	0.43
9:AL:42:ARG:HE	9:AL:42:ARG:HB2	1.44	0.43
20:AW:49:ALA:O	20:AW:52:ALA:HB3	2.18	0.43
25:BA:528:A:N1	25:BA:2043:C:H4'	2.33	0.43
25:BA:2172:U:H5'	25:BA:2173:A:OP2	2.18	0.43
25:BA:2189:U:H3'	25:BA:2190:G:H5''	2.00	0.43
25:BA:2206:C:H2'	25:BA:2207:C:C6	2.51	0.43
25:BA:2590:A:H2'	25:BA:2591:C:C6	2.53	0.43
25:BA:2688:U:O5'	25:BA:2688:U:O2	2.35	0.43
25:BA:2830:G:N3	25:BA:2883:A:H2	2.17	0.43
25:BA:299:A:C5'	25:BA:300:A:OP2	2.66	0.43
25:BA:318:C:O2'	25:BA:319:C:H5'	2.18	0.43
25:BA:459:U:H2'	25:BA:460:A:H8	1.84	0.43
25:BA:727:A:C6	25:BA:728:G:C6	3.06	0.43
25:BA:893:C:N4	25:BA:894:C:N4	2.66	0.43
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.33	0.43
28:BE:182:LEU:C	28:BE:183:LEU:HD12	2.38	0.43
32:BK:93:THR:O	32:BK:96:ASP:HB2	2.18	0.43
36:BP:104:PHE:O	36:BP:105:GLU:HB3	2.19	0.43
1:CA:1095:U:H2'	1:CA:1096:C:O4'	2.18	0.43
1:CA:1483:A:H1'	25:DA:1948:G:H1'	2.01	0.43
1:CA:689:C:O2'	1:CA:690:G:H5'	2.17	0.43
1:CA:783:C:H2'	1:CA:784:C:H6	1.83	0.43
1:CA:812:C:C2'	1:CA:813:U:OP2	2.66	0.43
1:CA:853:G:H2'	1:CA:854:G:H8	1.83	0.43
3:CF:21:ARG:HH11	3:CF:21:ARG:CB	2.31	0.43
3:CF:27:LYS:HB3	3:CF:27:LYS:HZ2	1.83	0.43
10:CM:13:HIS:HB3	10:CM:68:HIS:NE2	2.34	0.43
14:CQ:4:LYS:HG3	14:CQ:7:ILE:HD11	1.99	0.43
17:CT:29:HIS:CG	17:CT:30:PRO:HD2	2.53	0.43
19:CV:78:ARG:CD	19:CV:79:THR:N	2.81	0.43
53:D7:34:ARG:NH1	53:D7:41:ARG:O	2.51	0.43
25:DA:1122:G:H2'	25:DA:1122:G:N3	2.34	0.43
25:DA:2126:A:H4'	25:DA:2127:G:OP1	2.18	0.43
25:DA:2135:A:N6	25:DA:2156:G:H21	2.15	0.43
25:DA:2239:G:H5'	27:DD:251:GLY:CA	2.48	0.43
25:DA:375:C:H2'	25:DA:376:C:H6	1.80	0.43
25:DA:669:G:O2'	25:DA:670:A:OP1	2.35	0.43
25:DA:867:C:C5	25:DA:868:U:H5	2.35	0.43
26:DB:40:U:C4	26:DB:43:C:OP2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:88:C:C6	26:DB:89:G:C8	3.07	0.43
28:DE:137:HIS:CB	28:DE:138:PRO:HD2	2.48	0.43
29:DF:29:ASN:N	29:DF:112:MET:CE	2.81	0.43
29:DF:36:VAL:HG11	29:DF:183:VAL:CG1	2.48	0.43
13:CP:7:VAL:HG23	30:DG:115:ARG:NH2	2.33	0.43
30:DG:64:THR:OG1	30:DG:94:LEU:HD13	2.18	0.43
38:DQ:83:LYS:HB3	38:DQ:84:GLN:HG2	1.99	0.43
39:DR:21:GLU:O	39:DR:91:ARG:NH2	2.52	0.43
39:DR:3:ARG:NE	39:DR:6:LEU:HD13	2.34	0.43
39:DR:61:PHE:CE2	39:DR:76:PHE:HB2	2.53	0.43
45:DV:70:LEU:HD11	45:DV:98:MET:CE	2.48	0.43
1:AA:1176:A:N6	1:AA:1177:G:C5	2.87	0.43
1:AA:439:A:C4	1:AA:496:A:C2	3.06	0.43
1:AA:655:A:C2	1:AA:754:C:N4	2.87	0.43
1:AA:835:U:P	18:AU:60:ALA:HB3	2.58	0.43
1:AA:562:C:C4	1:AA:884:U:C5	3.06	0.43
1:AA:985:C:C2	1:AA:1221:G:C2	3.06	0.43
23:AC:19:G:C2	23:AC:59:A:C4	3.06	0.43
2:AE:147:LYS:HE2	2:AE:148:TYR:CE1	2.53	0.43
1:AA:619:U:C2	4:AG:135:LEU:HD22	2.53	0.43
7:AJ:72:ARG:HG3	7:AJ:142:GLU:OE1	2.19	0.43
7:AJ:24:THR:HA	7:AJ:27:ILE:HG13	2.01	0.43
7:AJ:35:LYS:O	7:AJ:38:LEU:N	2.51	0.43
13:AP:25:ILE:HD11	13:AP:60:VAL:HG11	2.00	0.43
19:AV:41:VAL:HG23	19:AV:67:VAL:HG22	2.01	0.43
19:AV:9:VAL:O	19:AV:9:VAL:CG1	2.66	0.43
20:AW:9:ASN:C	20:AW:9:ASN:ND2	2.71	0.43
37:B0:74:LYS:H	37:B0:74:LYS:HG2	1.49	0.43
51:B5:40:LYS:CB	51:B5:46:CYS:SG	3.06	0.43
54:B8:60:LEU:O	54:B8:61:LEU:C	2.56	0.43
25:BA:1049:C:C4	25:BA:1050:A:N1	2.87	0.43
25:BA:1680:U:C4	25:BA:1681:G:C6	3.07	0.43
25:BA:1899:G:O2'	25:BA:1900:A:O5'	2.31	0.43
25:BA:2025:C:H2'	25:BA:2026:C:H6	1.83	0.43
25:BA:2097:C:H2'	25:BA:2098:U:O4'	2.18	0.43
25:BA:2124:G:H2'	25:BA:2125:G:H5'	1.99	0.43
25:BA:2194:G:H2'	25:BA:2195:C:H6	1.83	0.43
25:BA:2364:C:O2'	25:BA:2365:G:H5'	2.18	0.43
25:BA:270(P):C:H2'	25:BA:270(Q):C:C6	2.53	0.43
25:BA:2771:C:H2'	25:BA:2772:C:C6	2.53	0.43
25:BA:2850:A:C2'	25:BA:2851:A:O5'	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:50:U:H3'	25:BA:51:G:H5'	2.00	0.43
25:BA:525:U:H5'	25:BA:556:G:OP1	2.19	0.43
26:BB:89:G:C6	26:BB:89(A):A:N1	2.87	0.43
27:BD:25:THR:HG21	27:BD:81:ALA:HA	2.01	0.43
28:BE:116:VAL:HG13	28:BE:122:PHE:HB2	1.99	0.43
28:BE:64:LYS:O	28:BE:70:ALA:HB2	2.18	0.43
30:BG:83:ARG:CB	30:BG:86:MET:HE2	2.48	0.43
25:BA:2312:U:H5'	30:BG:88:ILE:CG2	2.48	0.43
35:BO:18:ARG:NH1	35:BO:21:ARG:HH11	2.16	0.43
36:BP:34:LEU:HD23	36:BP:104:PHE:HD1	1.83	0.43
39:BR:50:ILE:HA	39:BR:50:ILE:HD12	1.66	0.43
39:BR:53:ARG:NH1	39:BR:60:THR:OG1	2.51	0.43
42:BS:32:ALA:O	42:BS:36:LEU:HG	2.17	0.43
25:BA:142:G:H1'	43:BT:37:THR:HG22	1.99	0.43
47:BZ:87:PRO:HG2	47:BZ:88:LYS:H	1.82	0.43
1:CA:1060:C:H4'	10:CM:51:ARG:HB3	1.99	0.43
1:CA:1531:A:H5''	1:CA:1531:A:H8	1.84	0.43
1:CA:652:U:C5	1:CA:752:G:N3	2.86	0.43
1:CA:87:A:C2	1:CA:88:C:C5	3.06	0.43
1:CA:983:A:H2	1:CA:984:C:C5	2.37	0.43
4:CG:178:VAL:CG1	4:CG:179:GLU:H	2.31	0.43
5:CH:83:GLU:HB3	5:CH:88:LYS:CG	2.34	0.43
1:CA:1380:U:C2	7:CJ:3:ARG:NH1	2.87	0.43
9:CL:3:GLN:NE2	9:CL:20:ARG:NH1	2.66	0.43
13:CP:17:VAL:O	13:CP:20:THR:N	2.46	0.43
17:CT:68:ARG:H	17:CT:70:ARG:NH1	2.17	0.43
19:CV:29:ARG:O	19:CV:30:LEU:HG	2.17	0.43
37:D0:102:GLU:HG2	37:D0:102:GLU:O	2.17	0.43
37:D0:23:ASN:N	37:D0:23:ASN:ND2	2.66	0.43
40:D1:94:ASN:O	40:D1:97:ASP:HB3	2.18	0.43
25:DA:1342:A:N1	25:DA:1397:U:C4	2.86	0.43
25:DA:138:G:C2'	25:DA:139:G:H5'	2.49	0.43
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.18	0.43
25:DA:2154:G:C2	25:DA:2155:G:C5	3.06	0.43
25:DA:2272:U:H5''	25:DA:2273:A:OP1	2.19	0.43
25:DA:2303:G:C2	25:DA:2314:C:C2	3.06	0.43
25:DA:2554:U:C5'	25:DA:2554:U:H6	2.30	0.43
25:DA:374:A:C2	25:DA:401:A:C4	3.06	0.43
25:DA:609:A:H2'	25:DA:609(A):G:O4'	2.18	0.43
25:DA:856:C:O2'	25:DA:857:C:P	2.76	0.43
26:DB:88:C:H3'	26:DB:88:C:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:8:U:C5'	26:DB:8:U:H6	2.31	0.43
27:DD:71:ASP:N	27:DD:71:ASP:OD2	2.52	0.43
29:DF:25:PRO:HB2	29:DF:27:GLU:N	2.32	0.43
29:DF:83:PHE:C	29:DF:84:VAL:HG13	2.21	0.43
31:DH:4:ILE:HG12	31:DH:7:LEU:HG	2.01	0.43
34:DN:68:GLU:CB	34:DN:78:ARG:HB3	2.48	0.43
25:DA:833:U:H1'	35:DO:55:ARG:NH1	2.34	0.43
38:DQ:25:ARG:NH2	38:DQ:40:ILE:HD12	2.33	0.43
39:DR:19:LEU:HA	39:DR:20:PRO:HD3	1.81	0.43
45:DV:19:ARG:NH1	45:DV:84:GLU:O	2.51	0.43
1:AA:1036:G:C8	1:AA:1037:C:C4	3.07	0.43
1:AA:1275:A:C6	1:AA:1276:G:C5	3.07	0.43
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.83	0.43
1:AA:273:A:N6	1:AA:274:A:C6	2.87	0.43
1:AA:345:C:O2'	1:AA:346:G:N2	2.51	0.43
1:AA:611:A:H61	1:AA:629:G:H1	1.67	0.43
1:AA:66:G:H22	1:AA:172:A:H2	1.65	0.43
1:AA:834:C:O2'	1:AA:835:U:H5'	2.19	0.43
1:AA:958:A:C6	1:AA:959:A:N1	2.87	0.43
8:AK:103:VAL:HG21	8:AK:110:ALA:HB2	2.01	0.43
15:AR:66:LEU:HD12	15:AR:66:LEU:HA	1.82	0.43
18:AU:43:PHE:O	18:AU:51:LEU:HG	2.19	0.43
21:AX:15:ARG:CG	21:AX:15:ARG:NH1	2.66	0.43
37:B0:104:ARG:HD3	37:B0:111:LEU:HD21	2.01	0.43
37:B0:72:ASP:O	37:B0:76:VAL:HG23	2.19	0.43
41:B2:3:ALA:HB1	41:B2:38:LEU:HD11	2.01	0.43
30:BG:67:LYS:CE	50:B4:6:HIS:NE2	2.82	0.43
51:B5:40:LYS:HZ3	51:B5:46:CYS:CB	2.32	0.43
25:BA:1087:G:C5	25:BA:1089:G:H1'	2.53	0.43
25:BA:1271:G:O3'	25:BA:1272:A:H4'	2.18	0.43
25:BA:2283:C:N3	25:BA:2389:G:C2	2.86	0.43
25:BA:2309:A:N6	25:BA:2310:A:N6	2.67	0.43
25:BA:2517:C:C2	25:BA:2542:A:N6	2.87	0.43
22:AB:85:C:C5	25:BA:2555:U:C2	3.07	0.43
25:BA:2645:G:N2	25:BA:2767:C:OP2	2.51	0.43
25:BA:411:G:H4'	25:BA:412:A:OP1	2.19	0.43
25:BA:611:C:C2'	25:BA:612:G:H5'	2.49	0.43
25:BA:996:A:H4'	40:B1:92:ARG:NE	2.34	0.43
27:BD:92:ILE:HD12	27:BD:104:TYR:CD2	2.54	0.43
27:BD:172:TYR:CD1	27:BD:186:HIS:HA	2.53	0.43
27:BD:34:VAL:C	27:BD:35:LYS:HG3	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:40:GLN:OE1	29:BF:184:TYR:CB	2.67	0.43
33:BM:114:ARG:O	33:BM:115:ARG:HB2	2.18	0.43
33:BM:89:LYS:O	33:BM:93:THR:HG22	2.17	0.43
36:BP:66:ILE:O	36:BP:104:PHE:N	2.51	0.43
25:BA:2318:G:N2	38:BQ:2:ALA:CA	2.82	0.43
39:BR:22:PHE:CE1	39:BR:52:ILE:HD11	2.53	0.43
43:BT:9:LEU:O	48:BW:36:ARG:NE	2.51	0.43
44:BU:33:LYS:HG3	44:BU:33:LYS:H	1.58	0.43
45:BV:6:LYS:O	45:BV:7:ALA:HB2	2.17	0.43
45:BV:82:ARG:HG3	45:BV:82:ARG:O	2.17	0.43
25:BA:989:G:N7	49:BX:13:ILE:HD11	2.34	0.43
1:CA:1057:G:C5	1:CA:1204:A:C2	3.06	0.43
1:CA:115:G:H1'	1:CA:116:A:N7	2.34	0.43
1:CA:1162:C:C2	1:CA:1175:G:N2	2.86	0.43
1:CA:961:U:O2	1:CA:1201:A:N1	2.51	0.43
1:CA:1324:A:C6	1:CA:1325:C:C4	3.07	0.43
1:CA:38:G:H4'	1:CA:547:A:N6	2.33	0.43
1:CA:853:G:C2	1:CA:854:G:C8	3.07	0.43
1:CA:949:A:H1'	1:CA:1364:U:H3	1.83	0.43
23:CD:22:A:N1	23:CD:47:G:H2'	2.33	0.43
23:CD:59:A:O2'	23:CD:61:U:H5	2.02	0.43
2:CE:21:ARG:HB3	2:CE:39:ILE:HA	1.98	0.43
7:CJ:138:LYS:HE2	7:CJ:142:GLU:CD	2.39	0.43
7:CJ:78:ARG:HB2	7:CJ:156:TRP:HZ3	1.82	0.43
9:CL:14:VAL:O	9:CL:65:VAL:HA	2.18	0.43
10:CM:16:LEU:O	10:CM:20:ALA:HB3	2.19	0.43
10:CM:75:ILE:HG13	10:CM:76:ASN:N	2.33	0.43
10:CM:3:LYS:HE2	10:CM:77:PRO:CD	2.48	0.43
16:CS:34:GLU:OE2	16:CS:55:ARG:HD3	2.19	0.43
20:CW:36:LEU:HA	20:CW:36:LEU:HD13	1.92	0.43
25:DA:460:A:P	53:D7:41:ARG:HH22	2.41	0.43
35:DO:68:GLN:CG	54:D8:12:LYS:HG2	2.48	0.43
25:DA:1006:C:C2	25:DA:1138:G:C2	3.07	0.43
25:DA:1168:G:C2	25:DA:1182:A:C2	3.05	0.43
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.17	0.43
25:DA:1593:G:C2	25:DA:1594:G:C4	3.06	0.43
25:DA:2130:U:O2'	25:DA:2133:G:O2'	2.34	0.43
25:DA:2571:C:H6	25:DA:2571:C:H5''	1.84	0.43
25:DA:527:C:H4'	25:DA:528:A:O5'	2.19	0.43
25:DA:66:C:C4	25:DA:67:U:C5	3.07	0.43
25:DA:807:U:C2	25:DA:808:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:986:C:O2'	25:DA:987:G:H5'	2.19	0.43
27:DD:61:LEU:HA	27:DD:61:LEU:HD12	1.82	0.43
28:DE:3:GLY:HA3	28:DE:81:ILE:HD13	2.01	0.43
28:DE:33:VAL:HG11	28:DE:88:GLY:CA	2.48	0.43
30:DG:23:PHE:HB2	30:DG:25:TYR:CZ	2.54	0.43
35:DO:97:PRO:HB3	35:DO:106:LEU:HD21	2.00	0.43
36:DP:112:GLU:H	36:DP:112:GLU:HG2	1.51	0.43
43:DT:67:GLY:O	43:DT:69:TYR:N	2.47	0.43
44:DU:12:THR:OG1	44:DU:26:LYS:HE2	2.17	0.43
1:AA:1047:G:O2'	1:AA:1048:G:H5'	2.18	0.43
1:AA:1320:C:N4	19:AV:36:ARG:HG3	2.33	0.43
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.53	0.43
1:AA:1449:C:H2'	1:AA:1450:U:O4'	2.18	0.43
1:AA:241:C:H42	1:AA:285:G:H1	1.66	0.43
1:AA:406:G:C6	1:AA:495:A:C8	3.06	0.43
1:AA:606:G:N3	1:AA:606:G:H2'	2.34	0.43
1:AA:691:G:H1'	1:AA:696:A:N6	2.34	0.43
23:AC:59:A:N6	23:AC:62:C:O2	2.52	0.43
2:AE:82:ARG:HG2	2:AE:92:TYR:CE1	2.54	0.43
2:AE:82:ARG:HG2	2:AE:92:TYR:OH	2.18	0.43
3:AF:15:THR:HG23	3:AF:15:THR:O	2.19	0.43
8:AK:100:ILE:HA	8:AK:101:PRO:HD3	1.89	0.43
9:AL:111:ARG:O	9:AL:113:LYS:HD2	2.18	0.43
19:AV:37:ARG:HG3	19:AV:37:ARG:H	1.48	0.43
25:BA:1818:U:H4'	25:BA:1821:A:H1'	2.00	0.43
25:BA:2115:G:H2'	25:BA:2116:G:C8	2.43	0.43
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.18	0.43
25:BA:2389:G:H5''	25:BA:2390:U:O4'	2.18	0.43
25:BA:404:C:C1'	25:BA:405:U:OP2	2.66	0.43
25:BA:898:C:C3'	25:BA:899:A:H5'	2.49	0.43
25:BA:2591:C:P	27:BD:239:ARG:HG3	2.58	0.43
27:BD:33:LEU:CD1	27:BD:34:VAL:N	2.82	0.43
27:BD:45:ASN:C	27:BD:45:ASN:OD1	2.56	0.43
27:BD:48:ARG:O	27:BD:50:THR:HG23	2.18	0.43
30:BG:145:THR:O	30:BG:146:TYR:HB3	2.18	0.43
30:BG:32:PRO:HG3	30:BG:163:ALA:HB2	2.01	0.43
30:BG:77:ILE:O	30:BG:78:SER:C	2.57	0.43
31:BH:30:LYS:NZ	31:BH:83:TYR:HE2	2.16	0.43
35:BO:29:LYS:HB3	35:BO:30:THR:H	1.47	0.43
25:BA:943:U:OP2	35:BO:36:LYS:HE3	2.19	0.43
39:BR:91:ARG:O	39:BR:116:ALA:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:16:ARG:NH1	39:BR:16:ARG:HG3	2.33	0.43
1:CA:1002:G:H1	1:CA:1038:C:N4	2.17	0.43
1:CA:123:C:O5'	1:CA:123:C:H6	2.00	0.43
1:CA:1252:A:H2'	1:CA:1253:G:O5'	2.19	0.43
1:CA:15:G:H4'	5:CH:24:ARG:HH12	1.83	0.43
1:CA:24:U:H2'	1:CA:25:C:C6	2.54	0.43
1:CA:39:G:N7	1:CA:547:A:H8	2.16	0.43
1:CA:586:C:O2'	1:CA:878:G:H4'	2.19	0.43
23:CC:18:C:O2'	23:CC:19:G:C5'	2.66	0.43
3:CF:54:ARG:HB2	3:CF:69:HIS:CG	2.54	0.43
6:CI:2:ARG:NH2	6:CI:69:GLU:HG3	2.33	0.43
12:CO:47:LYS:CB	12:CO:48:PRO:CD	2.95	0.43
18:CU:87:ARG:HA	18:CU:87:ARG:HD3	1.70	0.43
19:CV:45:VAL:HA	19:CV:62:ILE:CG2	2.47	0.43
19:CV:48:THR:HG22	19:CV:61:TYR:CD1	2.54	0.43
20:CW:41:ILE:HG13	20:CW:41:ILE:H	1.59	0.43
25:DA:1262:A:C2	51:D5:10:LYS:HE3	2.54	0.43
51:D5:34:PRO:HG2	51:D5:35:GLU:OE2	2.19	0.43
25:DA:2015:A:N3	51:D5:6:VAL:HG23	2.33	0.43
54:D8:30:ARG:CG	54:D8:30:ARG:O	2.67	0.43
25:DA:1041:C:H2'	25:DA:1042:G:H8	1.83	0.43
25:DA:1225:C:H5''	41:D2:85:LYS:HD3	1.99	0.43
25:DA:1247:A:C2	25:DA:1249:U:C6	3.07	0.43
25:DA:577:G:O2'	25:DA:1254:A:OP1	2.37	0.43
25:DA:1356:G:C6	25:DA:1357:U:C4	3.06	0.43
25:DA:1545:A:N7	25:DA:1545(A):A:C6	2.87	0.43
25:DA:1559:G:O2'	25:DA:1560:G:H5'	2.18	0.43
25:DA:184:C:H2'	25:DA:185:U:C6	2.54	0.43
25:DA:2211:G:H3'	25:DA:2212:A:C2	2.52	0.43
25:DA:2656:U:C4	25:DA:2664:G:N2	2.86	0.43
25:DA:2658:C:H5''	31:DH:158:HIS:HE1	1.82	0.43
25:DA:2682:U:H5'	28:DE:11:MET:HB3	2.00	0.43
25:DA:2721:A:H1'	25:DA:2873:A:O2'	2.19	0.43
25:DA:26:G:O2'	25:DA:27:G:H5'	2.19	0.43
25:DA:479:A:N3	25:DA:481:G:H5''	2.33	0.43
25:DA:590:A:H2'	25:DA:591:C:O4'	2.19	0.43
25:DA:778:G:H2'	25:DA:779:U:H6	1.83	0.43
25:DA:797:C:H2'	25:DA:798:G:O4'	2.19	0.43
27:DD:31:LYS:HZ2	27:DD:31:LYS:HB2	1.82	0.43
27:DD:85:ASP:HA	27:DD:86:PRO:HD2	1.85	0.43
28:DE:201:THR:C	28:DE:202:LYS:HD2	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:47:VAL:O	28:DE:80:GLU:CB	2.67	0.43
29:DF:102:PRO:O	29:DF:105:VAL:N	2.52	0.43
25:DA:616:A:C4	29:DF:180:GLY:HA2	2.54	0.43
29:DF:182:ASN:O	29:DF:186:ILE:HG12	2.19	0.43
30:DG:161:THR:HG22	30:DG:163:ALA:N	2.13	0.43
32:DK:128:LEU:HD13	32:DK:128:LEU:HA	1.85	0.43
32:DK:76:THR:CG2	32:DK:139:GLN:O	2.66	0.43
34:DN:68:GLU:HB3	34:DN:78:ARG:HB3	2.00	0.43
43:DT:65:ARG:HB3	43:DT:70:LEU:HA	2.01	0.43
36:DP:139:GLU:OE1	45:DV:76:LEU:HD21	2.18	0.43
47:DZ:67:ILE:N	47:DZ:68:PRO:CD	2.80	0.43
1:AA:31:G:O2'	1:AA:48:C:N4	2.51	0.43
1:AA:475:G:H2'	1:AA:476:G:C8	2.54	0.43
1:AA:560:U:H5'	1:AA:566:G:N2	2.34	0.43
1:AA:874:G:C6	1:AA:875:C:C4	3.07	0.43
22:AB:13:G:N2	22:AB:23:A:C8	2.87	0.43
23:AD:10:G:N1	23:AD:27:G:N2	2.67	0.43
23:AD:39:A:H2'	23:AD:40:C:O5'	2.19	0.43
2:AE:80:ILE:CD1	2:AE:208:ILE:HG23	2.46	0.43
5:AH:100:VAL:HG23	5:AH:116:THR:O	2.18	0.43
9:AL:95:LYS:HB2	9:AL:95:LYS:HE2	1.67	0.43
10:AM:48:THR:HG23	10:AM:62:HIS:CG	2.54	0.43
1:AA:1279:A:H5'	10:AM:7:LYS:NZ	2.34	0.43
1:AA:376:G:C5'	16:AS:5:ARG:HD2	2.45	0.43
20:AW:45:GLN:HB2	20:AW:91:LEU:HD13	2.00	0.43
51:B5:3:LYS:O	51:B5:4:HIS:O	2.37	0.43
52:B6:15:GLU:OE1	52:B6:41:PRO:HB3	2.18	0.43
25:BA:1136:G:N3	25:BA:1136:G:H2'	2.34	0.43
25:BA:1474:C:H2'	25:BA:1475:G:H8	1.82	0.43
25:BA:1510:A:H2'	25:BA:1511:A:OP2	2.19	0.43
25:BA:1701:A:H2'	25:BA:1702:G:H5'	2.01	0.43
25:BA:1728:G:H5'	25:BA:1729:A:OP2	2.19	0.43
25:BA:1742:C:H5'	25:BA:1743:G:OP2	2.19	0.43
25:BA:2134:A:N6	25:BA:2157:G:C1'	2.79	0.43
25:BA:2401:U:H2'	25:BA:2402:C:H5''	2.01	0.43
25:BA:2699:C:H2'	25:BA:2700:C:O4'	2.19	0.43
25:BA:271(C):U:C2'	25:BA:271:G:OP1	2.66	0.43
25:BA:2749:A:O2'	31:BH:59:ARG:NE	2.52	0.43
25:BA:2755:C:HO2'	25:BA:2756:U:H6	1.67	0.43
25:BA:2810:A:H61	25:BA:2891:G:C2'	2.32	0.43
25:BA:583:G:OP2	40:B1:10:ARG:HD2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:609:A:H2'	25:BA:609(A):G:O4'	2.18	0.43
25:BA:755:C:C2'	25:BA:756:C:H5'	2.49	0.43
25:BA:817:C:O2'	25:BA:839:U:H5''	2.19	0.43
25:BA:950:G:H2'	25:BA:951:C:C6	2.54	0.43
26:BB:24:G:N7	26:BB:56:G:H2'	2.33	0.43
27:BD:120:GLY:O	27:BD:123:ALA:HB2	2.18	0.43
27:BD:172:TYR:HD1	27:BD:185:VAL:C	2.21	0.43
28:BE:13:ARG:HG3	28:BE:13:ARG:H	1.65	0.43
28:BE:34:VAL:HG23	28:BE:34:VAL:O	2.19	0.43
29:BF:29:ASN:N	29:BF:112:MET:HE3	2.21	0.43
30:BG:112:PRO:CB	50:B4:37:SER:H	2.32	0.43
30:BG:112:PRO:HB3	50:B4:37:SER:OG	2.18	0.43
30:BG:67:LYS:HE2	50:B4:6:HIS:NE2	2.27	0.43
36:BP:4:PRO:HD3	36:BP:70:PRO:O	2.19	0.43
24:C1:20:U:H2'	24:C1:21:U:C6	2.53	0.43
1:CA:1157:A:N6	1:CA:1178:G:C2	2.87	0.43
1:CA:160:A:H1'	1:CA:344:A:C5	2.54	0.43
1:CA:413:G:N2	1:CA:429:U:C6	2.86	0.43
1:CA:633:G:C6	1:CA:634:C:N3	2.86	0.43
23:CC:18:C:O2'	23:CC:19:G:H5''	2.19	0.43
2:CE:144:ARG:HG3	2:CE:145:LEU:N	2.33	0.43
2:CE:212:GLN:O	2:CE:216:SER:HB3	2.19	0.43
3:CF:180:ALA:HB1	3:CF:203:PHE:CE1	2.43	0.43
9:CL:70:LYS:O	9:CL:74:ILE:HG13	2.18	0.43
17:CT:65:ILE:O	17:CT:65:ILE:HG22	2.18	0.43
17:CT:11:VAL:HG11	17:CT:88:TYR:CD2	2.53	0.43
18:CU:53:ARG:HH21	18:CU:60:ALA:N	2.17	0.43
20:CW:64:ASP:OD1	20:CW:81:LYS:CD	2.67	0.43
52:D6:28:ARG:HD2	52:D6:30:THR:O	2.19	0.43
54:D8:55:ALA:O	54:D8:58:ILE:HG12	2.18	0.43
25:DA:1244:G:C2'	25:DA:1245:G:H5'	2.48	0.43
25:DA:1345:C:C2'	25:DA:1346:G:H5'	2.49	0.43
25:DA:1356:G:C5	25:DA:1357:U:C5	3.07	0.43
25:DA:1528:A:H2'	25:DA:1529:A:O4'	2.19	0.43
25:DA:2322:A:H2'	25:DA:2323:G:O4'	2.19	0.43
25:DA:2563:U:O2	25:DA:2565:A:H8	2.02	0.43
25:DA:2629:A:C8	25:DA:2895:U:C5	3.07	0.43
25:DA:818:G:H4'	25:DA:838:C:O3'	2.18	0.43
25:DA:846:C:N1	25:DA:847:U:C5	2.87	0.43
26:DB:89(A):A:C8	26:DB:90:C:H1'	2.53	0.43
27:DD:125:ILE:O	27:DD:126:GLN:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:89:SER:HB2	27:DD:159:ALA:CB	2.49	0.43
29:DF:157:VAL:HA	29:DF:176:LEU:O	2.18	0.43
31:DH:109:PHE:CZ	31:DH:152:ARG:CD	3.01	0.43
32:DK:97:ILE:HD13	32:DK:140:LEU:HD22	2.01	0.43
33:DM:56:ASN:HA	33:DM:125:GLY:H	1.83	0.43
36:DP:23:GLY:HA2	36:DP:24:GLY:HA3	1.74	0.43
48:DW:50:ILE:O	48:DW:54:LYS:HB2	2.18	0.43
1:AA:1023:G:C3'	1:AA:1024:G:H5''	2.45	0.43
1:AA:1263:C:O2'	1:AA:1264:C:H5'	2.19	0.43
1:AA:36:C:OP1	12:AO:123:LYS:NZ	2.35	0.43
1:AA:431:A:H2'	1:AA:432:A:O4'	2.19	0.43
1:AA:509:A:H5''	4:AG:55:ALA:HB2	2.01	0.43
1:AA:38:G:H4'	1:AA:547:A:N6	2.34	0.43
1:AA:856:C:H2'	1:AA:857:C:H5'	2.01	0.43
22:AB:53:A:H5''	22:AB:54:G:OP2	2.18	0.43
23:AD:53:G:H1	23:AD:63:C:H42	1.67	0.43
3:AF:189:ALA:O	3:AF:190:ARG:C	2.57	0.43
3:AF:95:THR:HG22	3:AF:96:GLY:H	1.84	0.43
4:AG:79:PHE:HE1	4:AG:204:ILE:CG1	2.29	0.43
5:AH:91:LEU:HD12	5:AH:120:THR:CG2	2.48	0.43
1:AA:1118:C:OP1	9:AL:9:ARG:HD3	2.19	0.43
12:AO:24:VAL:CG1	12:AO:98:TYR:HE2	2.32	0.43
13:AP:64:TRP:N	13:AP:64:TRP:CD1	2.87	0.43
14:AQ:3:ARG:HD3	14:AQ:3:ARG:HA	1.49	0.43
16:AS:12:LYS:O	16:AS:13:HIS:HB2	2.18	0.43
25:BA:2881:C:O2'	37:B0:96:ARG:HA	2.18	0.43
25:BA:2279:G:OP2	46:B3:11:ARG:NH2	2.51	0.43
46:B3:24:LYS:O	46:B3:25:ARG:HD3	2.18	0.43
50:B4:48:ARG:O	50:B4:51:ASP:HB3	2.18	0.43
35:BO:64:LYS:CD	54:B8:25:MET:CE	2.81	0.43
25:BA:1021:A:H8	25:BA:1021:A:H3'	1.83	0.43
25:BA:1263:U:H1'	51:B5:10:LYS:HG3	2.00	0.43
25:BA:2037:G:H2'	25:BA:2038:G:H8	1.83	0.43
25:BA:2147:G:H2'	25:BA:2148:G:O4'	2.19	0.43
25:BA:2212:A:N3	25:BA:2215:G:C2	2.87	0.43
25:BA:2262:U:H4'	25:BA:2328:A:H2	1.83	0.43
25:BA:382:G:N2	25:BA:393:C:C2	2.86	0.43
25:BA:67:U:O4	25:BA:74:A:N1	2.52	0.43
25:BA:986:C:C2'	25:BA:987:G:H5'	2.48	0.43
25:BA:8:A:H2'	25:BA:9:U:O4'	2.18	0.43
26:BB:6:C:H2'	26:BB:7:G:H5''	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:158:ALA:HB3	27:BD:161:THR:HG21	2.01	0.43
27:BD:69:ARG:HH12	27:BD:117:VAL:HG13	1.84	0.43
28:BE:75:VAL:CG2	28:BE:76:ARG:H	2.16	0.43
32:BK:88:ILE:HG22	32:BK:90:GLY:N	2.34	0.43
33:BM:130:HIS:HB3	33:BM:134:ARG:NH1	2.20	0.43
25:BA:1952:A:C6	34:BN:22:ILE:CD1	3.02	0.43
35:BO:26:GLY:O	35:BO:28:GLY:N	2.52	0.43
29:BF:34:TRP:CH2	35:BO:8:PRO:HB3	2.54	0.43
36:BP:58:PHE:CD1	36:BP:58:PHE:O	2.72	0.43
44:BU:38:ILE:HG12	44:BU:38:ILE:O	2.19	0.43
44:BU:76:CYS:CB	44:BU:77:PRO:CD	2.97	0.43
1:CA:1205:U:C6	1:CA:1205:U:H3'	2.54	0.43
1:CA:1220:G:O3'	19:CV:36:ARG:HD3	2.18	0.43
1:CA:1327:C:H2'	1:CA:1328:C:H6	1.82	0.43
1:CA:17:U:H2'	1:CA:18:C:C6	2.53	0.43
1:CA:197:A:N1	1:CA:221:C:H4'	2.33	0.43
1:CA:406:G:H5'	4:CG:5:ILE:CG2	2.49	0.43
1:CA:915:A:H2'	1:CA:916:G:O5'	2.19	0.43
12:CO:117:ARG:NH2	12:CO:124:LYS:HA	2.33	0.43
40:D1:58:ARG:HA	40:D1:61:TRP:CE3	2.54	0.43
54:D8:58:ILE:H	54:D8:58:ILE:HG12	1.66	0.43
25:DA:1000:A:N6	25:DA:1155:A:C8	2.87	0.43
25:DA:1225:C:O3'	41:D2:85:LYS:HD3	2.18	0.43
25:DA:1386:C:OP2	25:DA:1396:U:H5	2.02	0.43
25:DA:1418:G:OP1	25:DA:1588:C:O2'	2.36	0.43
25:DA:2115:G:H1'	25:DA:2171:A:C6	2.54	0.43
25:DA:2688:U:H1'	25:DA:2721:A:N6	2.33	0.43
25:DA:270(Q):C:H5'	25:DA:270(R):G:OP2	2.19	0.43
25:DA:2773:C:OP1	28:DE:166:THR:OG1	2.36	0.43
25:DA:464:U:H4'	53:D7:5:TRP:CZ3	2.54	0.43
25:DA:675:A:C4	25:DA:804:A:C2	3.07	0.43
26:DB:75:G:N1	26:DB:102:G:N2	2.67	0.43
27:DD:267:SER:C	27:DD:269:PHE:N	2.71	0.43
27:DD:35:LYS:CE	27:DD:65:ILE:HG22	2.49	0.43
28:DE:8:LYS:CE	28:DE:188:VAL:HG13	2.48	0.43
28:DE:36:ARG:NH2	28:DE:88:GLY:CA	2.81	0.43
29:DF:4:VAL:CG1	29:DF:17:ARG:HE	2.31	0.43
30:DG:111:LEU:O	30:DG:117:PHE:CD2	2.71	0.43
32:DK:41:GLU:H	32:DK:41:GLU:HG3	1.53	0.43
33:DM:128:HIS:HE2	33:DM:134:ARG:CD	2.30	0.43
39:DR:16:ARG:HH21	39:DR:19:LEU:HD11	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:79:PHE:HD2	39:DR:72:VAL:HG22	1.84	0.43
42:DS:59:VAL:HG13	42:DS:60:ASN:N	2.33	0.43
47:DZ:4:VAL:HG12	47:DZ:11:ARG:CB	2.46	0.43
1:AA:1028(A):C:N3	1:AA:1028(B):C:N4	2.66	0.43
1:AA:102:G:C6	1:AA:103:C:C4	3.07	0.43
1:AA:232:G:H1'	1:AA:262:A:N1	2.33	0.43
1:AA:24:U:O2'	1:AA:25:C:H5'	2.19	0.43
1:AA:823:G:H21	8:AK:1:MET:CE	2.19	0.43
1:AA:974:A:O2'	1:AA:975:A:OP2	2.34	0.43
23:AC:17:C:O2'	23:AC:18:C:OP1	2.32	0.43
23:AD:8:U:C5	23:AD:13:C:N4	2.86	0.43
3:AF:108:ASN:ND2	3:AF:144:SER:OG	2.51	0.43
1:AA:1111:A:N6	3:AF:177:THR:HA	2.33	0.43
1:AA:547:A:OP2	4:AG:2:GLY:HA2	2.18	0.43
4:AG:4:TYR:CZ	4:AG:5:ILE:O	2.72	0.43
6:AI:23:LYS:HB2	6:AI:23:LYS:NZ	2.34	0.43
6:AI:75:LEU:HD22	6:AI:79:LEU:HG	2.00	0.43
9:AL:22:GLY:O	9:AL:57:GLY:O	2.37	0.43
11:AN:99:GLN:HG2	11:AN:105:VAL:HG21	2.01	0.43
12:AO:38:THR:O	12:AO:79:GLU:HG3	2.18	0.43
14:AQ:26:ARG:HD2	14:AQ:47:LEU:HD11	2.00	0.43
16:AS:20:VAL:HG22	16:AS:32:TYR:HB2	2.01	0.43
17:AT:26:GLN:HG2	17:AT:37:LYS:HG2	2.00	0.43
19:AV:30:LEU:H	19:AV:30:LEU:CD1	2.31	0.43
19:AV:42:PRO:HD3	50:B4:63:TYR:CE1	2.54	0.43
19:AV:44:MET:O	19:AV:47:HIS:HB2	2.19	0.43
51:B5:36:CYS:SG	51:B5:48:GLU:O	2.77	0.43
53:B7:23:ARG:HG2	53:B7:23:ARG:HH11	1.83	0.43
54:B8:61:LEU:O	54:B8:62:LEU:HB2	2.18	0.43
25:BA:1026:U:O2	25:BA:1027:A:H3'	2.18	0.43
25:BA:1448:G:N2	25:BA:1449:A:N6	2.67	0.43
25:BA:1541:U:O2'	25:BA:1542:G:H5'	2.19	0.43
25:BA:1582:C:H2'	25:BA:1583:A:O4'	2.18	0.43
25:BA:1590:U:H2'	25:BA:1591:G:H8	1.81	0.43
25:BA:1925:C:O2'	25:BA:1926:U:H5'	2.18	0.43
25:BA:2701:C:H2'	25:BA:2702:U:H2'	2.01	0.43
25:BA:2822:G:H2'	25:BA:2823:A:H5''	2.01	0.43
25:BA:2881:C:N4	25:BA:2882:A:N6	2.66	0.43
25:BA:455:C:N3	25:BA:472:A:H2'	2.34	0.43
25:BA:495:G:H1'	42:BS:57:ASN:HD21	1.83	0.43
25:BA:618:G:H2'	25:BA:618(A):C:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:834:C:C2'	25:BA:835:A:H5'	2.49	0.43
25:BA:856:C:H2'	25:BA:857:C:O5'	2.18	0.43
26:BB:89(A):A:H8	26:BB:89(A):A:O5'	2.00	0.43
31:BH:161:GLY:O	31:BH:163:TYR:CD1	2.72	0.43
32:BK:73:GLU:HG3	32:BK:137:PRO:CD	2.46	0.43
34:BN:22:ILE:HA	34:BN:22:ILE:HD12	1.63	0.43
34:BN:23:ARG:HG3	34:BN:24:VAL:H	1.83	0.43
35:BO:21:ARG:HB3	35:BO:22:GLY:H	1.57	0.43
39:BR:124:ASP:O	39:BR:127:ALA:N	2.52	0.43
42:BS:29:LEU:O	42:BS:33:ARG:HG3	2.19	0.43
43:BT:26:TYR:HB3	43:BT:92:LEU:HD12	2.00	0.43
25:BA:76:C:HO2'	48:BW:62:THR:HG21	1.83	0.43
25:BA:989:G:C5	49:BX:13:ILE:HD12	2.54	0.43
1:CA:397:A:H3'	1:CA:397:A:N3	2.34	0.43
1:CA:578:C:C2	1:CA:579:G:C8	3.07	0.43
1:CA:720:C:O2	18:CU:71:LYS:NZ	2.43	0.43
22:CB:70:G:C3'	22:CB:71:U:C6	3.01	0.43
23:CD:8:U:C5	23:CD:13:C:C4	3.06	0.43
23:CD:23:G:C2	23:CD:24:C:C2	3.07	0.43
3:CF:164:ARG:HH12	3:CF:166:GLU:CD	2.22	0.43
3:CF:182:ILE:HG23	3:CF:202:ILE:O	2.19	0.43
4:CG:118:ARG:HB2	4:CG:118:ARG:HH21	1.83	0.43
4:CG:126:ILE:HG22	4:CG:127:THR:N	2.34	0.43
6:CI:14:LEU:HB2	6:CI:18:GLN:OE1	2.19	0.43
1:CA:1342:C:H4'	9:CL:125:TYR:HB3	2.01	0.43
9:CL:45:ALA:O	9:CL:48:GLU:HB2	2.19	0.43
9:CL:97:LYS:HG3	9:CL:98:PRO:CD	2.49	0.43
12:CO:110:VAL:HG21	12:CO:120:TYR:HB3	2.01	0.43
13:CP:19:LEU:O	13:CP:22:ILE:HG13	2.19	0.43
18:CU:70:ILE:O	18:CU:74:ARG:HG3	2.19	0.43
41:D2:19:LYS:H	41:D2:19:LYS:HG3	1.49	0.43
50:D4:32:TYR:HB3	50:D4:33:VAL:H	1.59	0.43
50:D4:42:PHE:O	50:D4:43:TYR:HB3	2.18	0.43
52:D6:34:LEU:O	52:D6:35:GLU:HB2	2.18	0.43
25:DA:1048:A:OP2	25:DA:1109:C:N4	2.52	0.43
25:DA:1005:C:O2	25:DA:1143:A:C6	2.71	0.43
25:DA:1300:U:C4'	25:DA:1301:A:H5''	2.44	0.43
25:DA:1319:G:C6	25:DA:1320:C:N4	2.87	0.43
25:DA:1416:G:C2'	25:DA:1417:C:H6	2.32	0.43
25:DA:1416:G:HO2'	25:DA:1417:C:H6	1.67	0.43
25:DA:1445:C:H2'	25:DA:1446:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1557:C:OP2	25:DA:1558:A:O2'	2.36	0.43
25:DA:15:G:C2	25:DA:16:G:C8	3.06	0.43
25:DA:1779:U:C6	25:DA:1783:A:N7	2.87	0.43
25:DA:2092:U:H4'	25:DA:2093:G:O5'	2.19	0.43
25:DA:2136:C:H2'	25:DA:2137:C:C6	2.54	0.43
25:DA:2134:A:O2'	25:DA:2159:G:N2	2.52	0.43
25:DA:2574:G:O2'	28:DE:143:ASN:HB3	2.19	0.43
25:DA:30:G:C5	25:DA:31:C:C4	3.07	0.43
25:DA:392:C:H5''	25:DA:409:C:H5''	2.00	0.43
25:DA:454:A:H4'	25:DA:455:C:OP2	2.18	0.43
25:DA:5:A:H61	25:DA:2898:U:H3	1.66	0.43
25:DA:654(A):A:C2	25:DA:654(U):A:N3	2.87	0.43
25:DA:755:C:H2'	25:DA:756:C:H6	1.83	0.43
28:DE:48:GLN:CG	28:DE:78:LEU:HB2	2.49	0.43
29:DF:51:THR:CG2	29:DF:92:PRO:HD2	2.48	0.43
25:DA:2658:C:H5''	31:DH:158:HIS:CE1	2.54	0.43
31:DH:37:VAL:HG22	31:DH:38:SER:H	1.84	0.43
32:DK:145:VAL:O	32:DK:146:ALA:HB3	2.19	0.43
25:DA:558:G:P	33:DM:111:PRO:HD2	2.59	0.43
34:DN:119:PRO:HB2	39:DR:68:TYR:CE2	2.54	0.43
34:DN:2:ILE:HD11	34:DN:82:ASN:ND2	2.34	0.43
35:DO:97:PRO:HG3	35:DO:112:LEU:HB2	2.01	0.43
36:DP:61:GLY:HA2	36:DP:62:GLY:HA3	1.71	0.43
38:DQ:93:LYS:HB2	38:DQ:93:LYS:HE3	1.72	0.43
39:DR:33:LYS:HE2	39:DR:42:ILE:HD11	2.01	0.43
25:DA:329:G:C5	44:DU:19:LYS:HG2	2.54	0.43
48:DW:17:SER:CB	48:DW:21:LEU:H	2.32	0.43
47:DZ:82:LEU:HB2	47:DZ:83:GLU:H	1.69	0.43
47:DZ:6:GLU:O	47:DZ:91:LYS:HE2	2.18	0.43
1:AA:1202:G:H2'	1:AA:1203:C:O5'	2.18	0.42
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.18	0.42
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.34	0.42
1:AA:687:A:H2'	1:AA:701:C:H41	1.84	0.42
4:AG:108:LEU:HD12	4:AG:174:LEU:HD13	2.01	0.42
4:AG:145:GLU:HB2	4:AG:184:LYS:HZ2	1.84	0.42
9:AL:77:ILE:O	9:AL:81:ILE:HG12	2.19	0.42
17:AT:27:PHE:CE1	17:AT:36:ILE:HD11	2.54	0.42
19:AV:43:GLU:H	19:AV:43:GLU:HG2	1.42	0.42
40:B1:47:TYR:CD2	40:B1:47:TYR:C	2.92	0.42
41:B2:35:LEU:C	41:B2:37:VAL:N	2.72	0.42
41:B2:8:GLY:O	41:B2:10:LYS:HE3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1062:G:C2'	25:BA:1063:G:C8	2.98	0.42
25:BA:1209:G:N2	25:BA:1210:A:H62	2.14	0.42
25:BA:1263:U:O2'	51:B5:11:THR:HG23	2.18	0.42
25:BA:1468:C:O2'	25:BA:1469:A:H5'	2.19	0.42
25:BA:1825:A:O4'	27:BD:254:THR:HG21	2.19	0.42
25:BA:2116:G:OP1	25:BA:2165:G:N2	2.50	0.42
25:BA:2156:G:H2'	25:BA:2157:G:N3	2.34	0.42
25:BA:2428:G:H5''	25:BA:2429:G:OP1	2.19	0.42
25:BA:221:A:C4	25:BA:266:G:N7	2.87	0.42
25:BA:343:C:O2'	25:BA:344:G:H5'	2.18	0.42
25:BA:882:G:H1	25:BA:894:C:H42	1.67	0.42
25:BA:96:G:C2	25:BA:97:C:C6	3.06	0.42
25:BA:984:A:H5''	25:BA:985:C:H5	1.84	0.42
31:BH:10:PRO:C	31:BH:11:VAL:HG13	2.39	0.42
32:BK:14:ASP:C	32:BK:15:VAL:HG22	2.39	0.42
32:BK:92:VAL:O	32:BK:92:VAL:HG22	2.19	0.42
33:BM:134:ARG:O	33:BM:136:GLU:N	2.52	0.42
35:BO:106:LEU:HD22	35:BO:106:LEU:O	2.19	0.42
36:BP:26:TYR:CE2	36:BP:28:ALA:HB2	2.52	0.42
38:BQ:106:ARG:HH22	38:BQ:107:GLU:HB2	1.77	0.42
42:BS:45:TYR:CD2	42:BS:45:TYR:C	2.91	0.42
43:BT:11:PRO:HB3	43:BT:92:LEU:CD2	2.49	0.42
1:CA:1084:G:C5	1:CA:1085:U:C4	3.07	0.42
1:CA:1128:C:O2'	1:CA:1129:C:P	2.73	0.42
1:CA:1294:G:C2'	1:CA:1295:G:H5'	2.49	0.42
1:CA:422:C:O2'	1:CA:423:G:N3	2.51	0.42
1:CA:959:A:H5''	1:CA:960:U:OP2	2.19	0.42
23:CC:14:A:C6	23:CC:23:G:C5	3.07	0.42
3:CF:95:THR:HG22	3:CF:95:THR:O	2.19	0.42
9:CL:114:TYR:CE1	10:CM:60:ARG:O	2.71	0.42
1:CA:974:A:P	14:CQ:41:ARG:HH22	2.42	0.42
1:CA:255:G:O3'	17:CT:17:LYS:HD2	2.20	0.42
18:CU:44:LEU:CD2	18:CU:79:LEU:HD13	2.49	0.42
19:CV:11:VAL:HG21	19:CV:16:LEU:HD11	2.01	0.42
40:D1:17:ILE:HG23	40:D1:39:LEU:HD12	2.01	0.42
40:D1:112:ARG:HD3	41:D2:47:VAL:HG11	2.01	0.42
13:CP:2:ALA:N	50:D4:32:TYR:HH	2.17	0.42
53:D7:43:THR:HG23	53:D7:44:PRO:HD2	2.01	0.42
54:D8:32:LEU:HB2	54:D8:33:ASN:H	1.64	0.42
54:D8:37:SER:O	54:D8:39:LYS:O	2.37	0.42
25:DA:1043:C:H42	25:DA:1112:G:H1	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1639:U:C2'	25:DA:1640:C:H5'	2.49	0.42
25:DA:1919:A:H5''	25:DA:1920:C:OP2	2.19	0.42
25:DA:207:A:H2'	25:DA:208:C:O4'	2.19	0.42
25:DA:2464:C:C2	25:DA:2487:G:C2	3.07	0.42
25:DA:2548:G:C2'	25:DA:2549:G:O5'	2.67	0.42
25:DA:2667:C:N3	31:DH:110:SER:OG	2.43	0.42
25:DA:2690:C:H6	25:DA:2690:C:OP2	2.02	0.42
25:DA:270(H):C:H2'	25:DA:270(I):G:H8	1.84	0.42
25:DA:270(R):G:H2'	25:DA:270(S):G:H8	1.84	0.42
25:DA:311:A:C6	25:DA:328:U:C4	3.07	0.42
25:DA:607:U:C2	25:DA:621:A:N1	2.86	0.42
25:DA:777:A:C2	25:DA:778:G:C8	3.07	0.42
25:DA:833:U:O2	35:DO:55:ARG:NH2	2.51	0.42
25:DA:909:A:C4	25:DA:912:C:C5	3.07	0.42
25:DA:943:U:OP2	35:DO:36:LYS:CE	2.66	0.42
26:DB:80:U:H2'	26:DB:81:G:H21	1.83	0.42
31:DH:89:ILE:HG21	31:DH:129:THR:HG22	2.01	0.42
38:DQ:49:VAL:HG23	38:DQ:80:LEU:HD12	2.01	0.42
43:DT:64:LYS:HD3	43:DT:73:ARG:CZ	2.49	0.42
25:DA:483:A:H5''	44:DU:49:VAL:HA	2.01	0.42
44:DU:61:ILE:HG22	44:DU:62:GLU:OE2	2.18	0.42
48:DW:15:LYS:HA	48:DW:67:LYS:NZ	2.34	0.42
1:AA:1219:U:OP1	14:AQ:19:ARG:NH2	2.39	0.42
1:AA:1434:A:H2'	1:AA:1435:G:O4'	2.20	0.42
1:AA:533:A:C2	1:AA:536:C:C6	3.07	0.42
1:AA:782:A:C8	1:AA:783:C:C5	3.07	0.42
22:AB:24:C:C6	22:AB:24:C:C3'	3.02	0.42
2:AE:178:ARG:HB2	2:AE:178:ARG:HH11	1.84	0.42
7:AJ:21:VAL:HG23	7:AJ:22:LEU:N	2.34	0.42
15:AR:74:ASP:CB	15:AR:77:ARG:HG2	2.48	0.42
40:B1:92:ARG:HH21	41:B2:10:LYS:HG2	1.85	0.42
41:B2:39:LEU:O	41:B2:40:LEU:CD2	2.67	0.42
50:B4:15:ILE:HG13	50:B4:32:TYR:HA	2.00	0.42
30:BG:61:ALA:O	50:B4:7:PRO:HG3	2.18	0.42
51:B5:42:PRO:O	51:B5:44:THR:N	2.52	0.42
51:B5:40:LYS:CG	51:B5:46:CYS:HB3	2.48	0.42
53:B7:15:THR:HG22	53:B7:16:HIS:CE1	2.54	0.42
25:BA:1005:C:O2'	33:BM:28:THR:HG21	2.19	0.42
25:BA:116:C:C2'	25:BA:117:G:O5'	2.67	0.42
25:BA:1458:C:H4'	25:BA:1459:G:O5'	2.18	0.42
25:BA:1525:G:O2'	25:BA:1526:G:O5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1931:U:C5	25:BA:1969:A:N7	2.81	0.42
25:BA:1976:U:O5'	25:BA:1976:U:H6	2.02	0.42
25:BA:2050:C:H2'	25:BA:2051:A:C8	2.55	0.42
25:BA:2168:G:N2	25:BA:2170:A:C8	2.87	0.42
25:BA:2199:A:H3'	25:BA:2205:C:C6	2.49	0.42
25:BA:2250:G:C5	36:BP:82:ARG:HD3	2.54	0.42
25:BA:2286:A:H8	52:B6:37:ARG:HH11	1.66	0.42
25:BA:2401:U:O2	25:BA:2402:C:C5	2.72	0.42
25:BA:2528:U:H2'	25:BA:2530:A:O5'	2.19	0.42
25:BA:2875:C:O2'	39:BR:5:ALA:CB	2.67	0.42
25:BA:908:C:O2'	25:BA:909:A:H5'	2.19	0.42
25:BA:947:G:N3	25:BA:984:A:H2	2.17	0.42
31:BH:6:ARG:NE	31:BH:54:ARG:HH12	2.17	0.42
39:BR:74:ARG:CG	39:BR:74:ARG:NH1	2.73	0.42
44:BU:96:ILE:HG23	44:BU:101:LYS:CG	2.36	0.42
45:BV:171:ILE:O	45:BV:171:ILE:HG22	2.19	0.42
1:CA:1097:C:OP1	2:CE:137:ARG:NH2	2.53	0.42
1:CA:1127:G:H22	1:CA:1144:G:N2	2.18	0.42
1:CA:1152:A:OP1	10:CM:68:HIS:CE1	2.72	0.42
1:CA:1199:U:H4'	10:CM:54:PHE:CD1	2.54	0.42
1:CA:1250:A:H4'	9:CL:68:GLY:H	1.83	0.42
1:CA:1300:G:C6	1:CA:1334:G:C5	3.06	0.42
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.84	0.42
1:CA:502:G:C2	1:CA:503:C:C2	3.07	0.42
1:CA:543:C:C2'	1:CA:544:G:H5'	2.48	0.42
1:CA:593:G:C2	1:CA:647:C:O2	2.72	0.42
1:CA:76:G:C6	1:CA:77:C:C4	3.07	0.42
23:CC:14:A:C4	23:CC:23:G:C2	3.07	0.42
23:CC:50:G:N1	23:CC:51:U:O2	2.51	0.42
2:CE:168:THR:HG23	2:CE:192:SER:CB	2.49	0.42
4:CG:59:ARG:NH2	4:CG:66:ARG:HH12	2.17	0.42
8:CK:13:ILE:O	8:CK:17:THR:HG23	2.19	0.42
8:CK:58:TYR:O	8:CK:59:LEU:HD23	2.18	0.42
10:CM:46:ARG:HA	10:CM:64:GLU:HA	2.01	0.42
16:CS:43:LYS:HA	16:CS:48:TRP:HB3	2.01	0.42
51:D5:31:VAL:CG1	51:D5:42:PRO:HG3	2.48	0.42
25:DA:2015:A:N3	51:D5:6:VAL:CG2	2.83	0.42
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.59	0.42
25:DA:1043:C:H2'	25:DA:1044:G:C5'	2.49	0.42
25:DA:1131:G:N2	25:DA:1132:A:N3	2.67	0.42
25:DA:1140:C:H4'	25:DA:1143:A:N7	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1360:A:N6	25:DA:1371:G:H1'	2.35	0.42
25:DA:1416:G:O2'	25:DA:1417:C:C6	2.72	0.42
25:DA:1935:G:H1'	25:DA:1964:G:N2	2.34	0.42
25:DA:2209:C:C2	25:DA:2216:G:C2	3.07	0.42
25:DA:2393:A:H4'	35:DO:62:LEU:N	2.33	0.42
25:DA:2439:A:H5'	25:DA:2439:A:H8	1.75	0.42
25:DA:362:U:C6	25:DA:362:U:C3'	3.03	0.42
25:DA:702:G:C2	25:DA:731:C:C2	3.07	0.42
26:DB:41:U:C4	30:DG:70:VAL:HG23	2.54	0.42
28:DE:131:ALA:HB1	28:DE:135:HIS:CE1	2.53	0.42
28:DE:54:GLN:NE2	28:DE:54:GLN:HA	2.34	0.42
29:DF:79:GLY:HA2	29:DF:86:GLY:CA	2.48	0.42
32:DK:104:GLN:HB2	32:DK:104:GLN:HE21	1.68	0.42
36:DP:28:ALA:O	36:DP:29:PHE:CG	2.71	0.42
38:DQ:97:ARG:O	38:DQ:100:ALA:HB3	2.19	0.42
43:DT:66:LEU:HD23	43:DT:66:LEU:HA	1.81	0.42
1:AA:1125:U:O4	10:AM:5:ARG:CD	2.68	0.42
1:AA:1372:U:OP1	9:AL:72:GLY:N	2.50	0.42
1:AA:540:G:H2'	1:AA:541:G:O4'	2.19	0.42
1:AA:60:A:H4'	1:AA:61:G:OP1	2.18	0.42
23:AC:77:A:H8	23:AC:77:A:C5'	2.32	0.42
23:AD:23:G:H2'	23:AD:24:C:H6	1.84	0.42
2:AE:95:GLN:HE21	2:AE:147:LYS:HE3	1.84	0.42
3:AF:126:ARG:NH1	3:AF:126:ARG:CG	2.65	0.42
4:AG:100:ARG:NH1	4:AG:137:SER:HA	2.35	0.42
8:AK:10:LEU:N	8:AK:10:LEU:HD23	2.34	0.42
8:AK:51:VAL:HG23	8:AK:52:ASP:N	2.34	0.42
8:AK:64:LYS:O	8:AK:65:TYR:CD1	2.72	0.42
1:AA:1149:C:P	9:AL:9:ARG:NH2	2.91	0.42
11:AN:91:ARG:HG3	11:AN:91:ARG:HH11	1.83	0.42
17:AT:67:LYS:O	17:AT:68:ARG:HB3	2.19	0.42
19:AV:66:MET:HB3	19:AV:74:PHE:HZ	1.83	0.42
51:B5:3:LYS:CE	51:B5:3:LYS:HA	2.40	0.42
37:B0:98:LEU:HD11	51:B5:54:GLY:HA3	2.01	0.42
53:B7:8:ASN:ND2	53:B7:11:LYS:N	2.52	0.42
25:BA:1070:A:H2'	25:BA:1097:U:OP1	2.20	0.42
25:BA:1665:A:C2'	25:BA:1666:G:H5'	2.49	0.42
25:BA:1705:G:C6	25:BA:1706:U:C4	3.07	0.42
25:BA:2169:A:C5	25:BA:2170:A:C2	3.07	0.42
25:BA:2401:U:H2'	25:BA:2402:C:H6	1.85	0.42
25:BA:2584:U:O4'	25:BA:2584:U:O2	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:24:G:O2'	25:BA:25:U:H5'	2.19	0.42
25:BA:783:A:C3'	25:BA:783:A:C8	3.02	0.42
27:BD:181:GLU:CB	27:BD:272:ALA:HB3	2.49	0.42
32:BK:14:ASP:O	32:BK:15:VAL:HG22	2.18	0.42
33:BM:39:ARG:HA	33:BM:40:PRO:HD3	1.85	0.42
36:BP:66:ILE:H	36:BP:104:PHE:HA	1.83	0.42
38:BQ:66:ALA:O	38:BQ:69:VAL:HG13	2.19	0.42
44:BU:42:VAL:CG2	44:BU:67:LEU:HD11	2.49	0.42
45:BV:105:VAL:CG1	45:BV:140:ASP:HB3	2.50	0.42
45:BV:164:ALA:O	45:BV:165:VAL:CG1	2.66	0.42
48:BW:42:GLY:C	48:BW:44:LEU:H	2.21	0.42
1:CA:1084:G:C4	1:CA:1085:U:C5	3.08	0.42
1:CA:1148:U:C4	1:CA:1149:C:C2	3.07	0.42
1:CA:1286:A:C2	21:CX:18:TYR:OH	2.72	0.42
1:CA:1368:G:C2'	1:CA:1369:C:H5'	2.50	0.42
1:CA:937:A:C2	1:CA:1379:G:O6	2.72	0.42
1:CA:188:U:O2'	1:CA:189:U:C5'	2.65	0.42
1:CA:302:G:H4'	12:CO:17:LYS:HE3	2.01	0.42
1:CA:342:C:H42	1:CA:347:G:H1	1.68	0.42
1:CA:450:G:H2'	1:CA:451:A:OP1	2.19	0.42
1:CA:484:G:C8	1:CA:486:U:C2	3.07	0.42
1:CA:900:A:H2'	1:CA:901:A:C8	2.54	0.42
1:CA:16:A:N1	1:CA:919:A:C2	2.85	0.42
22:CB:26:C:C4	22:CB:27:G:C2	3.08	0.42
23:CD:15:G:C5	23:CD:16:C:H5	2.36	0.42
23:CD:31:G:N2	23:CD:42:C:N3	2.66	0.42
3:CF:90:GLU:O	3:CF:93:LYS:HB3	2.19	0.42
4:CG:4:TYR:O	4:CG:4:TYR:CG	2.72	0.42
8:CK:112:LEU:HD12	8:CK:114:THR:CG2	2.50	0.42
12:CO:28:LYS:O	12:CO:29:GLY:C	2.57	0.42
53:D7:1:MET:HA	53:D7:1:MET:CE	2.49	0.42
25:DA:1204:A:N1	25:DA:1241:A:N1	2.67	0.42
25:DA:1575:C:H2'	25:DA:1576:U:C6	2.55	0.42
25:DA:2121:G:H2'	25:DA:2122:U:C6	2.54	0.42
25:DA:2335:A:N7	25:DA:2337:G:C5	2.87	0.42
25:DA:363(B):G:C2	25:DA:363(C):G:C4	3.08	0.42
25:DA:977:G:O6	25:DA:987:G:C6	2.72	0.42
26:DB:40:U:H1'	26:DB:46:A:N1	2.34	0.42
28:DE:66:HIS:CE1	28:DE:71:GLY:HA2	2.54	0.42
32:DK:76:THR:HG23	32:DK:77:LEU:N	2.34	0.42
35:DO:97:PRO:HG3	35:DO:112:LEU:HD12	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:21:ARG:CA	35:DO:21:ARG:HE	2.20	0.42
36:DP:102:VAL:O	36:DP:102:VAL:CG1	2.66	0.42
36:DP:43:THR:HG22	36:DP:94:VAL:HG12	2.00	0.42
38:DQ:42:ASP:C	38:DQ:44:LYS:H	2.22	0.42
25:DA:2012:G:P	42:DS:11:ARG:HH22	2.42	0.42
43:DT:63:LYS:CE	43:DT:63:LYS:H	2.27	0.42
47:DZ:92:LYS:O	47:DZ:94:LEU:N	2.52	0.42
1:AA:1254:C:H41	10:AM:43:ARG:NH1	2.12	0.42
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.55	0.42
1:AA:647:C:C4	1:AA:648:A:N7	2.88	0.42
1:AA:690:G:H22	11:AN:55:LYS:NZ	2.17	0.42
1:AA:799:G:C6	1:AA:800:G:C4	3.07	0.42
1:AA:858:G:N1	1:AA:870:U:OP2	2.48	0.42
1:AA:967:C:H4'	9:AL:125:TYR:CE2	2.53	0.42
23:AC:19:G:C6	23:AC:59:A:C6	3.07	0.42
4:AG:162:LEU:CD1	4:AG:181:MET:HB3	2.49	0.42
4:AG:19:LEU:HD21	4:AG:21:LEU:HD12	2.01	0.42
4:AG:86:LYS:HD2	4:AG:86:LYS:N	2.34	0.42
7:AJ:23:VAL:HG13	7:AJ:43:PHE:CE2	2.55	0.42
5:AH:152:ARG:HA	8:AK:64:LYS:HZ2	1.84	0.42
1:AA:1368:G:H5''	9:AL:112:LYS:HB3	2.00	0.42
11:AN:30:VAL:HG21	11:AN:65:ALA:HA	2.00	0.42
1:AA:685:G:H5'	11:AN:39:PRO:O	2.19	0.42
1:AA:1060:C:P	14:AQ:45:ARG:HH22	2.42	0.42
37:B0:117:VAL:HG13	37:B0:118:GLU:N	2.35	0.42
46:B3:64:ASP:HB2	46:B3:85:ALA:HB2	2.02	0.42
52:B6:28:ARG:HH12	52:B6:30:THR:HG22	1.84	0.42
25:BA:1063:G:C4	25:BA:1064:C:C5	3.07	0.42
25:BA:1449:A:H8	25:BA:1449:A:OP2	2.00	0.42
25:BA:1471:A:N3	25:BA:1471:A:H2'	2.35	0.42
25:BA:1498:C:O4'	25:BA:1577:C:H4'	2.19	0.42
25:BA:2205:C:H42	25:BA:2219:G:H1	1.68	0.42
25:BA:2219:G:H2'	25:BA:2224:G:C5'	2.50	0.42
25:BA:2394:C:OP1	35:BO:62:LEU:CA	2.67	0.42
25:BA:2525:G:N3	25:BA:2525:G:H2'	2.34	0.42
25:BA:2697:G:H2'	25:BA:2698:U:O4'	2.19	0.42
25:BA:2746:U:C2'	25:BA:2747:G:H5'	2.50	0.42
25:BA:540:G:H3'	25:BA:541:C:H6	1.84	0.42
26:BB:59:A:H2'	26:BB:60:C:C6	2.51	0.42
26:BB:82:G:C2'	26:BB:83:G:H5'	2.49	0.42
28:BE:152:LYS:HD3	33:BM:77:GLY:HA3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:8:LYS:HD2	28:BE:188:VAL:HG22	2.00	0.42
30:BG:7:LEU:HB2	30:BG:104:GLU:CD	2.39	0.42
31:BH:154:PRO:O	31:BH:155:SER:CB	2.67	0.42
34:BN:26:LYS:O	34:BN:27:GLY:O	2.38	0.42
35:BO:75:ILE:CG1	35:BO:77:ARG:NH1	2.82	0.42
38:BQ:70:GLY:HA2	38:BQ:101:LEU:HD13	2.01	0.42
39:BR:11:GLU:CA	39:BR:11:GLU:OE1	2.67	0.42
43:BT:29:TRP:CZ3	43:BT:78:LYS:CG	3.02	0.42
44:BU:45:VAL:HG12	44:BU:60:PHE:CD1	2.54	0.42
1:CA:1252:A:C2'	1:CA:1253:G:O5'	2.67	0.42
1:CA:1281:U:H3'	1:CA:1282:C:H5	1.83	0.42
1:CA:189:U:C4	17:CT:72:ARG:CZ	3.03	0.42
1:CA:720:C:H6	1:CA:720:C:O5'	2.03	0.42
23:CC:15:G:C4	23:CC:60:A:C2	3.08	0.42
23:CC:61:U:H2'	23:CC:61:U:H6	1.65	0.42
2:CE:163:PHE:HE1	2:CE:215:LEU:HD22	1.85	0.42
3:CF:173:VAL:HG12	3:CF:175:LEU:CD2	2.49	0.42
4:CG:24:GLU:OE1	4:CG:112:VAL:HG21	2.19	0.42
4:CG:110:PHE:CZ	4:CG:182:LYS:HA	2.54	0.42
5:CH:147:ASP:OD2	5:CH:147:ASP:N	2.49	0.42
8:CK:5:PRO:O	8:CK:8:ASP:HB3	2.19	0.42
12:CO:100:ILE:HG22	12:CO:101:VAL:N	2.33	0.42
12:CO:47:LYS:HB3	12:CO:48:PRO:CD	2.42	0.42
13:CP:34:LEU:HD13	13:CP:41:PRO:HA	2.02	0.42
13:CP:29:ARG:HD3	13:CP:64:TRP:CE2	2.54	0.42
1:CA:754:C:H1'	15:CR:69:TYR:CG	2.54	0.42
40:D1:92:ARG:NE	41:D2:11:GLN:HB2	2.34	0.42
25:DA:1484:G:C6	25:DA:1485:G:C5	3.07	0.42
25:DA:1614:A:H61	42:DS:88:ARG:H	1.67	0.42
25:DA:1915:U:H2'	25:DA:1916:A:O4'	2.20	0.42
25:DA:1952:A:C6	34:DN:22:ILE:HD12	2.54	0.42
25:DA:2211:G:C2'	25:DA:2211:G:N3	2.82	0.42
25:DA:2324:C:H5''	25:DA:2325:G:H5'	2.02	0.42
25:DA:319:C:C2	25:DA:333:G:N2	2.87	0.42
26:DB:75:G:C5'	26:DB:75:G:C8	2.98	0.42
28:DE:7:VAL:CG2	39:DR:1:MET:HE3	2.49	0.42
28:DE:47:VAL:HG23	28:DE:84:PHE:O	2.20	0.42
29:DF:66:PRO:O	29:DF:67:GLN:CG	2.67	0.42
30:DG:116:ASP:O	30:DG:117:PHE:HB3	2.19	0.42
30:DG:4:ASP:O	30:DG:5:VAL:HB	2.19	0.42
32:DK:101:LEU:CD2	32:DK:101:LEU:N	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DM:73:THR:HA	33:DM:83:LYS:O	2.20	0.42
35:DO:147:LEU:O	35:DO:148:LEU:HD23	2.19	0.42
29:DF:116:ASP:OD2	35:DO:1:MET:N	2.53	0.42
25:DA:2415:G:C3'	35:DO:66:GLY:HA3	2.50	0.42
35:DO:9:ASN:O	35:DO:10:PRO:C	2.56	0.42
36:DP:75:THR:CG2	36:DP:88:GLY:HA3	2.49	0.42
38:DQ:88:ASP:CG	38:DQ:89:ARG:N	2.72	0.42
39:DR:3:ARG:HG2	39:DR:6:LEU:HB2	2.01	0.42
44:DU:61:ILE:CG2	44:DU:62:GLU:H	2.29	0.42
45:DV:115:GLY:N	45:DV:177:PRO:HG2	2.34	0.42
45:DV:76:LEU:CD2	45:DV:76:LEU:N	2.81	0.42
1:AA:1038:C:C2'	1:AA:1039:C:H5'	2.50	0.42
1:AA:1128:C:C5	1:AA:1139:G:C5	3.07	0.42
1:AA:1346:A:O3'	1:AA:1347:G:H4'	2.19	0.42
1:AA:789:U:O2	1:AA:789:U:O4'	2.34	0.42
1:AA:981:U:H5	1:AA:982:U:HO2'	1.67	0.42
23:AD:15:G:C2	23:AD:49:C:O2	2.72	0.42
2:AE:112:VAL:O	2:AE:115:LEU:N	2.52	0.42
2:AE:21:ARG:HB2	2:AE:39:ILE:CA	2.50	0.42
6:AI:43:LEU:N	6:AI:43:LEU:CD1	2.82	0.42
7:AJ:9:VAL:HG13	7:AJ:94:ARG:NE	2.34	0.42
8:AK:94:TYR:CE1	8:AK:132:GLU:HB2	2.53	0.42
11:AN:77:MET:CE	11:AN:80:VAL:HG12	2.49	0.42
17:AT:17:LYS:CG	17:AT:47:PRO:HA	2.48	0.42
18:AU:53:ARG:HH21	18:AU:60:ALA:N	2.17	0.42
41:B2:47:VAL:O	41:B2:48:GLY:O	2.37	0.42
41:B2:24:LYS:HA	41:B2:92:THR:HG23	2.00	0.42
54:B8:58:ILE:HA	54:B8:61:LEU:HD11	2.01	0.42
25:BA:1056:G:HO2'	25:BA:1057:A:P	2.42	0.42
25:BA:1188:U:C4'	41:B2:79:VAL:CG2	2.97	0.42
25:BA:1533:C:H3'	25:BA:1534:G:H5''	2.01	0.42
25:BA:1789:A:H2'	25:BA:1790:C:O4'	2.19	0.42
25:BA:2212:A:H2'	25:BA:2213:U:OP2	2.19	0.42
25:BA:2335:A:O2'	25:BA:2336:A:OP2	2.29	0.42
25:BA:270(B):A:N7	25:BA:270(X):G:N2	2.63	0.42
25:BA:2751:G:N1	31:BH:3:ARG:HB3	2.34	0.42
25:BA:280:C:N3	25:BA:361:G:C2	2.87	0.42
25:BA:879:G:OP2	25:BA:879:G:C8	2.73	0.42
26:BB:42:C:O3'	30:BG:67:LYS:CE	2.68	0.42
26:BB:90:C:OP2	36:BP:16:ARG:NH2	2.51	0.42
27:BD:147:LEU:HD13	27:BD:155:LEU:HD11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:79:VAL:HG12	27:BD:113:VAL:HA	2.01	0.42
30:BG:62:LEU:HD12	30:BG:62:LEU:HA	1.80	0.42
32:BK:86:THR:HA	32:BK:123:LEU:HD12	2.01	0.42
33:BM:22:THR:O	33:BM:61:ARG:O	2.37	0.42
38:BQ:65:VAL:O	38:BQ:69:VAL:HG12	2.20	0.42
39:BR:16:ARG:HH11	39:BR:16:ARG:HG3	1.85	0.42
45:BV:172:ALA:O	45:BV:173:ALA:HB2	2.20	0.42
1:CA:1127:G:C1'	1:CA:1147:C:H42	2.31	0.42
1:CA:1225:A:C8	1:CA:1225:A:OP2	2.71	0.42
1:CA:219:C:H2'	1:CA:220:G:O4'	2.20	0.42
1:CA:298:A:H5''	1:CA:299:G:OP2	2.20	0.42
23:CD:23:G:N2	23:CD:24:C:C2	2.87	0.42
2:CE:114:ARG:O	2:CE:118:LEU:HG	2.20	0.42
4:CG:32:ALA:HA	4:CG:35:ARG:HB2	2.01	0.42
9:CL:3:GLN:O	9:CL:88:TYR:HE1	2.03	0.42
10:CM:69:ASN:O	10:CM:70:ARG:CG	2.66	0.42
12:CO:23:LYS:CE	12:CO:23:LYS:H	2.32	0.42
13:CP:88:ARG:O	13:CP:92:HIS:ND1	2.46	0.42
14:CQ:34:TYR:CE2	14:CQ:44:LEU:HD21	2.55	0.42
17:CT:89:LEU:HD23	17:CT:89:LEU:HA	1.91	0.42
25:DA:1005:C:C2	25:DA:1143:A:C2	3.07	0.42
25:DA:1088:A:H3'	25:DA:1088:A:N3	2.34	0.42
25:DA:1204:A:HO2'	25:DA:1205:U:P	2.42	0.42
25:DA:125:G:H1'	53:D7:13:ALA:HB1	2.01	0.42
25:DA:146:G:H2'	25:DA:147:U:O4'	2.19	0.42
25:DA:1835:G:H5''	25:DA:1836:C:OP2	2.19	0.42
25:DA:2141:G:C2'	25:DA:2142:C:H5'	2.50	0.42
25:DA:311:A:H2	25:DA:331:A:H5''	1.85	0.42
25:DA:360:G:O2'	25:DA:361:G:H5'	2.20	0.42
25:DA:669:G:O2'	25:DA:670:A:O5'	2.36	0.42
25:DA:729:G:H2'	25:DA:1775:U:H1'	2.00	0.42
25:DA:867:C:C4	25:DA:868:U:C5	3.08	0.42
25:DA:892:G:N7	25:DA:893:C:N4	2.67	0.42
26:DB:109:G:C4	26:DB:110:G:C8	3.08	0.42
26:DB:10:C:C2'	26:DB:11:C:H5'	2.49	0.42
27:DD:132:PRO:HG3	27:DD:190:TYR:CE1	2.55	0.42
25:DA:2572:A:N7	28:DE:144:ARG:HD2	2.35	0.42
28:DE:3:GLY:HA3	28:DE:81:ILE:HD11	2.01	0.42
30:DG:67:LYS:HE3	50:D4:6:HIS:CD2	2.54	0.42
31:DH:136:ILE:H	31:DH:136:ILE:CD1	2.31	0.42
36:DP:42:ILE:HD13	36:DP:97:VAL:CG2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:3:MET:HA	36:DP:4:PRO:HD3	1.89	0.42
38:DQ:35:ILE:CD1	38:DQ:101:LEU:HD23	2.41	0.42
38:DQ:18:ILE:O	38:DQ:21:THR:CG2	2.68	0.42
42:DS:72:LYS:HB3	42:DS:106:ILE:O	2.20	0.42
42:DS:27:LYS:O	42:DS:71:VAL:HG23	2.20	0.42
43:DT:81:VAL:HG23	43:DT:81:VAL:O	2.19	0.42
1:AA:1256:A:N6	1:AA:1278:U:OP2	2.52	0.42
1:AA:49:U:O2'	1:AA:50:A:OP1	2.36	0.42
1:AA:652:U:O2'	1:AA:653:A:C5'	2.68	0.42
1:AA:745:C:OP1	1:AA:851:G:O2'	2.37	0.42
23:AD:15:G:C2'	23:AD:60:A:C2	3.03	0.42
2:AE:21:ARG:HB2	2:AE:38:GLY:C	2.39	0.42
3:AF:70:VAL:HG12	3:AF:71:ALA:N	2.34	0.42
3:AF:91:LEU:HD23	3:AF:91:LEU:HA	1.88	0.42
7:AJ:26:PHE:CB	7:AJ:62:PHE:HZ	2.32	0.42
9:AL:29:ASN:OD1	9:AL:65:VAL:N	2.48	0.42
9:AL:114:TYR:HD1	10:AM:60:ARG:H	1.61	0.42
10:AM:33:GLN:HB2	10:AM:75:ILE:HD11	2.01	0.42
11:AN:104:GLN:O	11:AN:104:GLN:HG3	2.18	0.42
19:AV:40:ILE:HG12	19:AV:41:VAL:N	2.35	0.42
37:B0:74:LYS:O	37:B0:76:VAL:N	2.50	0.42
40:B1:78:THR:O	40:B1:79:PHE:C	2.57	0.42
52:B6:21:TYR:N	52:B6:21:TYR:CD2	2.88	0.42
25:BA:1162:G:H1'	41:B2:23:GLU:OE2	2.19	0.42
25:BA:1171:G:C6	25:BA:1174:A:N6	2.87	0.42
25:BA:1475:G:C2	25:BA:1519:G:C2	3.08	0.42
25:BA:21:A:C2'	25:BA:22:C:H5'	2.49	0.42
25:BA:2312:U:O2'	30:BG:40:ASN:ND2	2.45	0.42
25:BA:2681:C:C1'	25:BA:2682:U:OP2	2.67	0.42
25:BA:2877:G:O2'	25:BA:2878:U:H5'	2.18	0.42
25:BA:288:C:H2'	25:BA:289:A:C8	2.55	0.42
25:BA:322:A:C5	25:BA:340:A:C2	3.08	0.42
25:BA:760:G:H4'	25:BA:1776:G:OP1	2.20	0.42
25:BA:879:G:N2	25:BA:898:C:N3	2.59	0.42
25:BA:962:G:H2'	25:BA:963:U:C6	2.54	0.42
26:BB:13:A:N6	26:BB:70:C:H5'	2.35	0.42
28:BE:111:ARG:HG2	37:B0:1:MET:SD	2.60	0.42
25:BA:674:G:H1'	29:BF:74:ARG:HH11	1.85	0.42
31:BH:68:THR:O	31:BH:72:ILE:HG13	2.19	0.42
34:BN:98:VAL:HG23	34:BN:99:PHE:N	2.34	0.42
35:BO:19:VAL:HG21	35:BO:32:THR:HB	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:8:ARG:O	42:BS:9:TYR:HB2	2.19	0.42
44:BU:42:VAL:CG1	44:BU:65:ALA:HB3	2.49	0.42
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.19	0.42
1:CA:1177:G:H2'	1:CA:1178:G:N3	2.34	0.42
1:CA:52:G:O2'	1:CA:53:A:H5'	2.20	0.42
1:CA:914:A:C2'	1:CA:915:A:H5'	2.49	0.42
22:CB:37:G:C5	22:CB:38:G:N7	2.88	0.42
22:CB:5:A:H61	22:CB:79:U:H3	1.66	0.42
23:CD:4:G:N2	23:CD:71:G:C4	2.88	0.42
2:CE:197:VAL:HG12	2:CE:200:ILE:CG1	2.49	0.42
2:CE:7:VAL:HG22	2:CE:8:LYS:N	2.27	0.42
5:CH:79:GLU:HA	5:CH:91:LEU:O	2.20	0.42
12:CO:26:ALA:O	12:CO:27:LEU:HD12	2.20	0.42
10:CM:63:PHE:CD1	14:CQ:57:ARG:O	2.70	0.42
40:D1:75:ASN:HD22	40:D1:78:THR:HG23	1.83	0.42
25:DA:2332:U:H5'	46:D3:43:THR:CG2	2.50	0.42
46:D3:56:ASP:OD1	46:D3:58:THR:OG1	2.38	0.42
25:DA:1005:C:C1'	25:DA:1143:A:H2	2.21	0.42
25:DA:1060:U:O4'	25:DA:1062:G:H5'	2.20	0.42
25:DA:1067:A:H5''	25:DA:1068:G:OP2	2.18	0.42
25:DA:1914:C:O4'	25:DA:1914:C:O2	2.37	0.42
25:DA:1944:U:O2	25:DA:1955:U:H5''	2.19	0.42
25:DA:2300:G:C2	25:DA:2317:C:O2	2.73	0.42
25:DA:2348:U:O4	25:DA:2382:G:N1	2.52	0.42
25:DA:2625:G:H2'	25:DA:2626:C:C6	2.55	0.42
25:DA:329:G:N7	44:DU:19:LYS:HG2	2.35	0.42
25:DA:383:U:O2	25:DA:385:C:N4	2.53	0.42
25:DA:817:C:O2'	25:DA:839:U:OP1	2.36	0.42
26:DB:15:A:H1'	26:DB:109:G:N9	2.34	0.42
26:DB:79:C:H2'	26:DB:80:U:O4'	2.20	0.42
31:DH:109:PHE:HZ	31:DH:152:ARG:CD	2.32	0.42
31:DH:41:MET:HB3	31:DH:42:ARG:H	1.68	0.42
34:DN:2:ILE:HG13	34:DN:8:LEU:HD11	2.01	0.42
35:DO:138:LEU:C	35:DO:138:LEU:HD13	2.39	0.42
36:DP:4:PRO:HD3	36:DP:70:PRO:O	2.19	0.42
43:DT:7:VAL:HG12	43:DT:30:VAL:HG12	2.00	0.42
43:DT:64:LYS:HB3	43:DT:64:LYS:HE2	1.68	0.42
1:AA:1256:A:N3	1:AA:1277:C:C4	2.88	0.42
1:AA:1498:U:H1'	1:AA:1499:A:OP2	2.19	0.42
1:AA:255:G:O6	1:AA:266:G:O6	2.37	0.42
1:AA:31:G:H2'	1:AA:48:C:N4	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:5:U:H1'	1:AA:6:G:C6	2.54	0.42
23:AD:19:G:N2	23:AD:56:U:O2	2.53	0.42
23:AD:57:C:H2'	23:AD:58:A:O4'	2.20	0.42
2:AE:134:GLU:O	2:AE:138:LEU:HG	2.18	0.42
2:AE:88:ALA:O	2:AE:226:ARG:NH1	2.51	0.42
3:AF:188:LEU:HD22	3:AF:188:LEU:HA	1.77	0.42
3:AF:23:TYR:CD2	3:AF:23:TYR:C	2.93	0.42
6:AI:1:MET:HB3	6:AI:66:GLU:HG3	2.01	0.42
8:AK:104:ARG:HD2	8:AK:138:TRP:CG	2.54	0.42
5:AH:152:ARG:HA	8:AK:64:LYS:NZ	2.35	0.42
19:AV:65:ASN:N	19:AV:65:ASN:HD22	2.04	0.42
41:B2:91:TYR:CD1	41:B2:91:TYR:C	2.93	0.42
52:B6:28:ARG:HB3	52:B6:30:THR:H	1.83	0.42
54:B8:8:LYS:HA	54:B8:8:LYS:HD2	1.67	0.42
25:BA:1056:G:O2'	25:BA:1057:A:OP2	2.31	0.42
25:BA:1060:U:C4	25:BA:1062:G:H4'	2.54	0.42
25:BA:116:C:H2'	25:BA:117:G:O5'	2.20	0.42
25:BA:1265:A:C8	25:BA:1267:U:C2	3.08	0.42
25:BA:1591:G:H2'	25:BA:1592:C:C6	2.55	0.42
25:BA:1701:A:C2'	25:BA:1702:G:H5'	2.50	0.42
25:BA:1773:A:C2'	25:BA:1774:C:H5'	2.50	0.42
25:BA:1870:C:O2	25:BA:1870:C:C2'	2.63	0.42
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.53	0.42
25:BA:2061:G:N2	25:BA:2062:A:C2	2.85	0.42
25:BA:2147:G:H3'	25:BA:2147:G:H8	1.83	0.42
25:BA:2334:G:H4'	25:BA:2335:A:OP2	2.20	0.42
25:BA:2063:C:O2	25:BA:2450:A:N1	2.53	0.42
25:BA:249:C:H4'	25:BA:250:G:O5'	2.20	0.42
25:BA:901:A:H5'	25:BA:902:C:OP2	2.20	0.42
25:BA:986:C:O2'	25:BA:987:G:H5'	2.20	0.42
26:BB:13:A:C6	26:BB:70:C:H5'	2.54	0.42
28:BE:181:LEU:HA	28:BE:181:LEU:HD12	1.70	0.42
32:BK:101:LEU:HA	32:BK:104:GLN:HB2	2.02	0.42
35:BO:10:PRO:HB2	35:BO:11:GLY:H	1.64	0.42
45:BV:139:VAL:HG13	45:BV:155:LEU:HD21	2.01	0.42
48:BW:17:SER:CB	48:BW:18:PRO:CD	2.98	0.42
1:CA:1103:C:O2'	2:CE:108:ILE:HD13	2.20	0.42
1:CA:1104:G:C4	1:CA:1105:A:C8	3.07	0.42
1:CA:1145:C:H5'	1:CA:1146:A:OP1	2.18	0.42
1:CA:1414:U:H2'	1:CA:1415:G:C8	2.55	0.42
1:CA:485:G:H2'	1:CA:486:U:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:787:A:C2'	1:CA:788:U:H5'	2.49	0.42
1:CA:812:C:H4'	1:CA:813:U:H5'	2.01	0.42
22:CB:76:U:O4	22:CB:77:C:C4	2.73	0.42
23:CC:27:G:H1	23:CC:46:G:N2	2.17	0.42
2:CE:17:PHE:HD1	2:CE:17:PHE:HA	1.71	0.42
2:CE:168:THR:HG23	2:CE:192:SER:HB3	2.00	0.42
3:CF:28:GLN:CB	3:CF:32:LEU:HD12	2.49	0.42
5:CH:9:LYS:HD2	5:CH:9:LYS:HA	1.81	0.42
10:CM:28:ARG:CZ	10:CM:34:VAL:HB	2.49	0.42
11:CN:115:PRO:C	11:CN:117:ASN:H	2.22	0.42
11:CN:31:THR:HG23	11:CN:31:THR:O	2.20	0.42
7:CJ:149:ARG:HD3	11:CN:59:TYR:CZ	2.55	0.42
15:CR:56:LEU:HD21	25:DA:715:G:C2	2.55	0.42
19:CV:79:THR:OG1	19:CV:79:THR:O	2.29	0.42
37:D0:21:TYR:OH	37:D0:43:GLU:HG2	2.19	0.42
50:D4:58:ARG:C	50:D4:61:ARG:H	2.23	0.42
52:D6:16:CYS:O	52:D6:44:ARG:NH2	2.52	0.42
53:D7:26:GLY:O	53:D7:30:VAL:HG23	2.20	0.42
25:DA:1093:G:H2'	25:DA:1094:U:H5'	2.02	0.42
25:DA:1639:U:O2'	25:DA:1640:C:H5'	2.19	0.42
25:DA:1729:A:C2	25:DA:1730:U:H5	2.38	0.42
25:DA:1758:G:C2	25:DA:2696:U:H5'	2.54	0.42
25:DA:1777:U:C2	25:DA:1778:U:C5	3.08	0.42
25:DA:2228:G:OP1	27:DD:261:LYS:NZ	2.43	0.42
25:DA:2681:C:C5	25:DA:2727:G:C2	3.07	0.42
25:DA:273(E):U:C2'	25:DA:273(F):C:H5'	2.50	0.42
25:DA:384:U:H2'	25:DA:385:C:H6	1.84	0.42
25:DA:459:U:H5''	53:D7:40:TRP:CG	2.55	0.42
25:DA:953:A:H2'	25:DA:954:G:H8	1.85	0.42
25:DA:977:G:C2	25:DA:978:G:C8	3.07	0.42
29:DF:38:ARG:HH11	29:DF:38:ARG:HG3	1.84	0.42
30:DG:146:TYR:CD2	30:DG:146:TYR:O	2.73	0.42
30:DG:81:LYS:HB3	30:DG:82:LEU:H	1.68	0.42
25:DA:2311:A:O2'	30:DG:88:ILE:HD12	2.18	0.42
32:DK:107:VAL:HG13	32:DK:108:THR:N	2.35	0.42
33:DM:30:ILE:HG21	33:DM:120:LEU:CD1	2.49	0.42
25:DA:2292:C:P	38:DQ:17:ARG:NH2	2.93	0.42
44:DU:102:CYS:HB3	44:DU:103:GLY:H	1.41	0.42
45:DV:11:GLU:O	45:DV:36:LYS:NZ	2.47	0.42
24:A1:13:U:O2	24:A1:13:U:C2'	2.63	0.42
1:AA:1054:C:O2'	1:AA:1055:A:O5'	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1240:U:OP2	7:AJ:116:ALA:N	2.41	0.42
1:AA:201:C:N4	1:AA:209:U:C2	2.87	0.42
1:AA:49:U:O2'	1:AA:50:A:P	2.78	0.42
1:AA:5:U:O2	1:AA:5:U:C2'	2.61	0.42
2:AE:158:LEU:HD12	2:AE:158:LEU:O	2.20	0.42
4:AG:13:ARG:H	4:AG:13:ARG:HG2	1.35	0.42
4:AG:107:ARG:NH2	4:AG:194:LEU:HD11	2.33	0.42
4:AG:70:ILE:HG23	4:AG:75:PHE:HB2	2.02	0.42
7:AJ:113:GLU:HG2	7:AJ:113:GLU:H	1.62	0.42
7:AJ:115:ARG:O	7:AJ:118:VAL:HG12	2.20	0.42
7:AJ:51:GLN:O	7:AJ:54:THR:O	2.38	0.42
9:AL:18:PHE:HB2	9:AL:62:TYR:HB3	2.02	0.42
10:AM:45:ARG:O	10:AM:64:GLU:HA	2.18	0.42
9:AL:111:ARG:NH2	10:AM:62:HIS:CE1	2.88	0.42
11:AN:34:ASP:HA	11:AN:40:ILE:HD11	2.01	0.42
13:AP:45:VAL:O	13:AP:48:LEU:HD22	2.20	0.42
16:AS:14:ASN:O	16:AS:15:PRO:O	2.38	0.42
20:AW:71:THR:O	20:AW:72:LEU:C	2.58	0.42
37:B0:17:ARG:O	37:B0:20:LEU:HB3	2.20	0.42
41:B2:35:LEU:HB2	41:B2:37:VAL:CG2	2.49	0.42
50:B4:53:GLU:O	50:B4:54:GLY:C	2.57	0.42
25:BA:2361:A:OP1	54:B8:27:THR:HG23	2.19	0.42
25:BA:107:C:H2'	25:BA:108:U:C6	2.55	0.42
25:BA:1083:U:H3'	25:BA:1083:U:H6	1.85	0.42
25:BA:1241:A:O4'	25:BA:1241:A:N3	2.53	0.42
25:BA:1266:G:C8	42:BS:15:ARG:NH2	2.88	0.42
25:BA:1337:G:C4	25:BA:1338:G:C8	3.08	0.42
25:BA:1502:C:O2'	25:BA:1503:U:H5'	2.19	0.42
25:BA:1734:C:C3'	25:BA:1735:C:H5''	2.50	0.42
25:BA:1735:C:O2'	25:BA:1741:C:H5'	2.20	0.42
25:BA:2346:A:H5''	25:BA:2383:G:C1'	2.49	0.42
25:BA:278:A:H2'	25:BA:279:C:C6	2.54	0.42
25:BA:654(B):C:H2'	25:BA:654(C):G:O4'	2.19	0.42
25:BA:878:A:N1	25:BA:879:G:C2	2.88	0.42
25:BA:883:G:H2'	25:BA:884:C:C4'	2.49	0.42
25:BA:931:G:C4	25:BA:933:A:C8	3.07	0.42
27:BD:133:LEU:HD13	27:BD:173:VAL:HG22	2.01	0.42
29:BF:64:ILE:HG23	29:BF:65:TRP:NE1	2.35	0.42
30:BG:165:THR:OG1	30:BG:168:GLU:HG3	2.20	0.42
32:BK:92:VAL:HG13	32:BK:120:ILE:CG2	2.34	0.42
35:BO:16:ARG:CG	35:BO:16:ARG:NH1	2.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:80:GLU:OE2	36:BP:80:GLU:CA	2.67	0.42
43:BT:57:LEU:HD11	43:BT:78:LYS:HB2	2.02	0.42
45:BV:27:VAL:HG12	45:BV:87:ASP:CB	2.46	0.42
47:BZ:25:LYS:HE3	47:BZ:25:LYS:HB2	1.59	0.42
1:CA:1128:C:H4'	9:CL:16:ARG:NH2	2.35	0.42
1:CA:1158:C:N3	1:CA:1160:G:N7	2.67	0.42
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.19	0.42
1:CA:450:G:N7	1:CA:481:G:C6	2.88	0.42
1:CA:485:G:O2'	1:CA:486:U:P	2.77	0.42
1:CA:978:A:H1'	1:CA:1322:C:C2	2.55	0.42
23:CC:31:G:H2'	23:CC:32:G:O5'	2.19	0.42
3:CF:186:PHE:HD1	3:CF:198:VAL:O	2.01	0.42
3:CF:186:PHE:HE1	3:CF:197:GLY:HA2	1.84	0.42
4:CG:192:GLU:H	4:CG:192:GLU:HG3	1.65	0.42
5:CH:102:ALA:HB1	5:CH:106:PRO:HG2	2.02	0.42
1:CA:1349:A:P	9:CL:118:LYS:NZ	2.92	0.42
13:CP:3:ARG:H	50:D4:34:GLU:HG3	1.85	0.42
14:CQ:7:ILE:HG22	14:CQ:23:ARG:HD2	2.01	0.42
15:CR:74:ASP:HB3	15:CR:77:ARG:HG2	2.02	0.42
40:D1:76:TYR:C	40:D1:76:TYR:CD2	2.93	0.42
46:D3:68:GLU:OE1	46:D3:82:ARG:HG3	2.19	0.42
52:D6:25:LYS:CB	54:D8:34:TRP:CZ3	2.85	0.42
25:DA:1010:A:H5'	40:D1:62:ILE:HG21	2.01	0.42
25:DA:1041:C:H2'	25:DA:1042:G:C8	2.55	0.42
25:DA:1153:C:H2'	25:DA:1154:G:O4'	2.19	0.42
25:DA:1165:U:O2'	25:DA:1166:C:H5'	2.20	0.42
25:DA:1277:G:O2'	37:D0:24:GLN:HG2	2.20	0.42
25:DA:1750:G:C2'	25:DA:1751:C:H5'	2.50	0.42
25:DA:1844:C:C2	25:DA:1897:G:C2	3.08	0.42
25:DA:2126:A:H1'	25:DA:2127:G:H5''	2.02	0.42
25:DA:2282:G:OP1	25:DA:2283:C:H1'	2.19	0.42
25:DA:249:C:H4'	25:DA:250:G:O5'	2.20	0.42
25:DA:2699:C:H2'	25:DA:2700:C:O4'	2.20	0.42
25:DA:26:G:C6	25:DA:27:G:C6	3.08	0.42
25:DA:52:A:O2'	25:DA:53:A:H5'	2.19	0.42
26:DB:13:A:H5''	26:DB:15:A:N6	2.34	0.42
28:DE:5:LEU:CD2	28:DE:79:ARG:HG2	2.49	0.42
28:DE:3:GLY:CA	28:DE:81:ILE:CD1	2.97	0.42
31:DH:153:LYS:HA	31:DH:153:LYS:HD2	1.38	0.42
32:DK:123:LEU:HD22	32:DK:143:SER:CB	2.49	0.42
33:DM:133:GLN:NE2	33:DM:135:PRO:HG3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DM:36:GLY:N	33:DM:42:TRP:CZ3	2.88	0.42
42:DS:51:LEU:O	42:DS:54:ALA:HB3	2.20	0.42
24:A1:20:U:H2'	24:A1:21:U:H6	1.85	0.42
1:AA:91:C:H2'	1:AA:92:G:O4'	2.20	0.42
1:AA:960:U:C2	1:AA:1225:A:C5	3.08	0.42
23:AC:41:C:C2'	23:AC:42:C:H5'	2.50	0.42
23:AD:8:U:C1'	23:AD:49:C:H4'	2.49	0.42
2:AE:74:LYS:NZ	2:AE:206:ASP:OD2	2.43	0.42
8:AK:64:LYS:C	8:AK:65:TYR:CD1	2.94	0.42
9:AL:4:TYR:CE1	9:AL:88:TYR:HB2	2.54	0.42
13:AP:37:THR:OG1	13:AP:39:ILE:HG13	2.20	0.42
15:AR:88:ARG:H	15:AR:88:ARG:HG2	1.57	0.42
37:B0:1:MET:HB3	37:B0:2:ARG:H	1.60	0.42
37:B0:42:LYS:HA	37:B0:45:ARG:HD2	2.00	0.42
33:BM:40:PRO:HA	40:B1:67:ALA:HB3	2.01	0.42
46:B3:25:ARG:HG3	46:B3:37:LEU:HD23	2.02	0.42
51:B5:58:LEU:HB2	51:B5:60:VAL:HB	2.01	0.42
52:B6:50:ARG:HB3	52:B6:51:GLU:H	1.48	0.42
25:BA:1187:G:H5''	41:B2:81:TYR:CE2	2.55	0.42
25:BA:1595:G:C2'	25:BA:1596:A:H5'	2.50	0.42
25:BA:2094:G:OP1	32:BK:22:LYS:HG3	2.19	0.42
25:BA:2180:U:H2'	25:BA:2181:G:O4'	2.19	0.42
25:BA:265:A:C8	25:BA:266:G:H1'	2.54	0.42
26:BB:95:U:C2	26:BB:96:G:C8	3.08	0.42
27:BD:35:LYS:HE2	27:BD:104:TYR:HB2	2.01	0.42
28:BE:35:GLN:C	28:BE:36:ARG:HG2	2.41	0.42
28:BE:45:THR:O	28:BE:83:ASP:N	2.51	0.42
28:BE:4:ILE:C	28:BE:5:LEU:HD23	2.40	0.42
28:BE:5:LEU:O	28:BE:28:ALA:HA	2.20	0.42
29:BF:165:ARG:HG3	29:BF:165:ARG:HH11	1.84	0.42
29:BF:67:GLN:HB2	29:BF:67:GLN:HE21	1.72	0.42
30:BG:44:GLY:C	30:BG:46:ALA:N	2.72	0.42
39:BR:17:THR:OG1	39:BR:17:THR:O	2.38	0.42
39:BR:45:PHE:CZ	39:BR:65:LYS:HG2	2.55	0.42
44:BU:97:ARG:HD3	44:BU:97:ARG:N	2.35	0.42
1:CA:1162:C:C2	1:CA:1175:G:C2	3.07	0.42
1:CA:1057:G:C4	1:CA:1204:A:C2	3.08	0.42
1:CA:437:U:H5'	4:CG:155:LEU:HD21	2.00	0.42
1:CA:586:C:H1'	1:CA:878:G:O2'	2.20	0.42
1:CA:625:G:H2'	1:CA:626:U:C6	2.55	0.42
1:CA:784:C:H2'	1:CA:785:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:833:U:H2'	1:CA:834:C:C6	2.55	0.42
2:CE:185:ILE:CG2	2:CE:199:TYR:HD1	2.31	0.42
3:CF:47:LEU:HD22	3:CF:47:LEU:HA	1.93	0.42
7:CJ:139:GLU:O	7:CJ:143:ARG:HB2	2.20	0.42
9:CL:17:VAL:CG1	9:CL:81:ILE:HD13	2.49	0.42
9:CL:17:VAL:HG11	9:CL:81:ILE:HD13	2.01	0.42
15:CR:17:ARG:NH1	15:CR:17:ARG:CG	2.62	0.42
40:D1:83:LEU:HG	40:D1:88:ILE:HD11	2.00	0.42
41:D2:21:ARG:HD3	41:D2:91:TYR:HB3	2.01	0.42
52:D6:53:LYS:HG3	52:D6:53:LYS:H	1.49	0.42
25:DA:1133:U:H2'	25:DA:1137:G:OP1	2.20	0.42
25:DA:2065:C:H1'	25:DA:2449:U:H3	1.85	0.42
25:DA:2665:A:H2'	25:DA:2666:C:O4'	2.20	0.42
25:DA:497:A:H2'	25:DA:498:G:O4'	2.20	0.42
25:DA:560:C:H2'	25:DA:561:G:O4'	2.20	0.42
25:DA:654(A):A:C2	25:DA:654(T):A:N1	2.88	0.42
26:DB:109:G:C5	26:DB:110:G:N7	2.88	0.42
28:DE:120:TRP:O	28:DE:121:ASN:HB2	2.18	0.42
28:DE:98:PRO:HD3	28:DE:175:VAL:CG1	2.50	0.42
28:DE:203:LYS:O	28:DE:204:ALA:HB3	2.19	0.42
28:DE:32:PRO:O	28:DE:49:LEU:HA	2.20	0.42
28:DE:33:VAL:O	28:DE:67:PHE:CZ	2.73	0.42
29:DF:122:LYS:O	29:DF:123:LEU:HB3	2.19	0.42
30:DG:38:VAL:O	30:DG:38:VAL:HG12	2.18	0.42
31:DH:3:ARG:HG3	31:DH:4:ILE:N	2.35	0.42
32:DK:131:LYS:H	32:DK:131:LYS:HD2	1.84	0.42
42:DS:110:LYS:HD2	42:DS:110:LYS:HA	1.79	0.42
42:DS:82:LEU:HB2	42:DS:98:LYS:HB2	2.01	0.42
43:DT:41:ASN:O	43:DT:45:THR:HG23	2.19	0.42
45:DV:146:ILE:CG1	45:DV:147:GLY:N	2.59	0.42
43:DT:8:ILE:O	48:DW:36:ARG:NH2	2.53	0.42
1:AA:1129:C:C4	1:AA:1139:G:C6	3.08	0.42
1:AA:1489:G:C2'	1:AA:1490:C:H5'	2.49	0.42
1:AA:303:A:C5	1:AA:304:U:C5	3.08	0.42
1:AA:421:U:H3	3:AF:127:ARG:HH21	1.67	0.42
1:AA:439:A:C2'	1:AA:440:A:O5'	2.68	0.42
1:AA:57:G:C5	1:AA:58:C:C4	3.08	0.42
1:AA:711:G:O2'	1:AA:712:A:H5'	2.20	0.42
1:AA:95:G:C6	1:AA:96:G:C6	3.07	0.42
4:AG:121:VAL:O	4:AG:134:ASP:HA	2.20	0.42
6:AI:63:TYR:N	6:AI:63:TYR:CD2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AJ:40:ALA:O	7:AJ:44:TYR:CD1	2.73	0.42
1:AA:1349:A:P	9:AL:118:LYS:NZ	2.93	0.42
1:AA:686:U:C1'	11:AN:42:TRP:HE1	2.19	0.42
12:AO:70:ILE:HD13	12:AO:77:LEU:HD12	2.01	0.42
13:AP:115:LYS:O	13:AP:116:THR:O	2.38	0.42
17:AT:92:ARG:HA	17:AT:92:ARG:HD3	1.88	0.42
19:AV:41:VAL:HG12	19:AV:44:MET:CA	2.50	0.42
37:B0:54:LEU:HA	37:B0:54:LEU:HD12	1.78	0.42
37:B0:81:ASP:O	37:B0:85:PRO:HG2	2.20	0.42
40:B1:59:ARG:O	40:B1:63:VAL:HG23	2.20	0.42
53:B7:15:THR:HG22	53:B7:16:HIS:ND1	2.35	0.42
25:BA:1077:A:C2'	25:BA:1077:A:N3	2.82	0.42
25:BA:1261:C:C2'	25:BA:1262:A:O5'	2.67	0.42
25:BA:1382:G:C2'	25:BA:1383:C:H5'	2.50	0.42
25:BA:1400:G:H2'	25:BA:1401:G:C8	2.55	0.42
25:BA:1537:C:C2'	25:BA:1538:G:O4'	2.68	0.42
25:BA:1433:U:O2	25:BA:1561:G:C2	2.73	0.42
25:BA:1612:C:H5''	53:B7:7:PRO:HG2	2.02	0.42
25:BA:1671:U:O2'	25:BA:1673:U:H5	2.02	0.42
25:BA:1686:C:H2'	25:BA:1687:G:O4'	2.20	0.42
25:BA:1777:U:C2'	25:BA:1778:U:H5'	2.50	0.42
25:BA:2745:C:C4	25:BA:2746:U:C4	3.08	0.42
25:BA:917:A:H2'	25:BA:918:A:H5'	2.01	0.42
25:BA:847:U:H5	25:BA:933:A:C2	2.38	0.42
26:BB:60:C:C2	26:BB:61:G:C8	3.07	0.42
28:BE:31:CYS:HA	28:BE:32:PRO:HD3	1.75	0.42
28:BE:52:LEU:O	28:BE:74:PRO:CB	2.68	0.42
30:BG:52:ILE:HD13	30:BG:52:ILE:HA	1.84	0.42
32:BK:144:VAL:HG22	32:BK:145:VAL:H	1.85	0.42
33:BM:7:LYS:HE3	33:BM:7:LYS:HB3	1.92	0.42
34:BN:35:VAL:HG11	34:BN:103:ALA:CB	2.50	0.42
25:BA:2318:G:N2	38:BQ:2:ALA:N	2.68	0.42
1:CA:1027:C:O2'	1:CA:1028:C:C6	2.72	0.42
1:CA:1053:G:C4	1:CA:1199:U:C5	3.07	0.42
1:CA:1127:G:HO2'	1:CA:1128:C:H5'	1.85	0.42
1:CA:1223:C:P	1:CA:1224:G:H2'	2.60	0.42
1:CA:1372:U:C2'	1:CA:1373:G:H5'	2.49	0.42
1:CA:1503:A:C1'	1:CA:1504:G:OP1	2.66	0.42
1:CA:229:U:H2'	1:CA:230:G:O4'	2.20	0.42
1:CA:606:G:H21	1:CA:631:G:H2'	1.84	0.42
1:CA:78:G:H2'	1:CA:79:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:56:G:H2'	22:CB:57:C:C6	2.55	0.42
22:CB:75:G:H2'	22:CB:76:U:C6	2.54	0.42
23:CC:23:G:C6	23:CC:24:C:N4	2.88	0.42
23:CD:22:A:C2	23:CD:47:G:H2'	2.54	0.42
23:CD:49:C:C6	23:CD:60:A:O4'	2.73	0.42
23:CD:9:G:O3'	23:CD:46:G:O2'	2.38	0.42
2:CE:74:LYS:HG3	2:CE:75:LYS:H	1.85	0.42
3:CF:92:ALA:HA	3:CF:95:THR:O	2.20	0.42
7:CJ:113:GLU:CG	7:CJ:119:ARG:HG2	2.50	0.42
7:CJ:30:ILE:O	7:CJ:30:ILE:HG22	2.20	0.42
7:CJ:42:ILE:HD13	7:CJ:116:ALA:HB3	2.02	0.42
8:CK:11:THR:HA	8:CK:14:ARG:NH1	2.35	0.42
9:CL:106:ALA:O	9:CL:108:VAL:HG12	2.20	0.42
9:CL:3:GLN:O	9:CL:88:TYR:CE1	2.73	0.42
11:CN:91:ARG:O	11:CN:95:ILE:HG13	2.19	0.42
15:CR:26:GLU:HG2	15:CR:26:GLU:H	1.54	0.42
17:CT:63:ARG:HG2	17:CT:64:PRO:CD	2.49	0.42
52:D6:10:LEU:H	52:D6:10:LEU:HD12	1.84	0.42
54:D8:41:ILE:HG22	54:D8:42:ARG:N	2.35	0.42
25:DA:1806:C:C4	25:DA:1807:G:N7	2.88	0.42
25:DA:2012:G:H8	25:DA:2012:G:O5'	2.01	0.42
25:DA:2065:C:H5''	25:DA:2252:G:H1'	2.01	0.42
25:DA:2163:C:C5	25:DA:2164:C:N4	2.88	0.42
25:DA:2271:G:C5	25:DA:2272:U:C4	3.08	0.42
25:DA:2324:C:H5''	25:DA:2325:G:C5'	2.50	0.42
25:DA:2390:U:O2'	25:DA:2391:G:H5'	2.20	0.42
25:DA:2662:A:H8	25:DA:2662:A:O5'	2.03	0.42
25:DA:363(F):A:OP2	25:DA:363(F):A:H8	2.03	0.42
25:DA:478:A:N1	25:DA:500:G:H4'	2.35	0.42
25:DA:84:A:H61	25:DA:102:G:C2'	2.24	0.42
25:DA:886:C:H1'	25:DA:890:A:H2	1.81	0.42
27:DD:32:SER:O	27:DD:33:LEU:HB3	2.20	0.42
28:DE:204:ALA:O	28:DE:205:ALA:CB	2.67	0.42
25:DA:1049:C:N4	31:DH:2:SER:HB3	2.34	0.42
32:DK:115:ALA:HB3	32:DK:129:THR:O	2.20	0.42
33:DM:91:LEU:O	33:DM:95:PRO:HB3	2.19	0.42
35:DO:85:LEU:HB3	35:DO:114:ILE:HD13	2.00	0.42
35:DO:2:LYS:HB2	35:DO:2:LYS:HE3	1.85	0.42
42:DS:79:GLY:CA	42:DS:100:THR:HG22	2.50	0.42
45:DV:30:ASN:HD22	45:DV:32:HIS:H	1.66	0.42
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:153:C:N4	1:AA:168:G:H1	2.17	0.41
1:AA:495:A:H4'	1:AA:496:A:OP1	2.20	0.41
1:AA:626:U:H2'	1:AA:627:G:H8	1.84	0.41
1:AA:748:C:C4'	1:AA:749:C:O5'	2.49	0.41
23:AD:55:U:O4	23:AD:56:U:C4	2.73	0.41
4:AG:133:VAL:HG11	4:AG:138:TYR:CD1	2.53	0.41
7:AJ:22:LEU:HD12	7:AJ:97:GLN:OE1	2.20	0.41
7:AJ:27:ILE:HD11	7:AJ:43:PHE:HD2	1.84	0.41
11:AN:34:ASP:HB2	11:AN:35:PRO:HD2	2.02	0.41
11:AN:57:THR:HG22	11:AN:58:PRO:N	2.35	0.41
19:AV:65:ASN:HA	50:B4:56:VAL:HG22	2.03	0.41
50:B4:2:LYS:HA	50:B4:2:LYS:HD3	1.88	0.41
25:BA:2815:C:H5'	51:B5:29:THR:HG21	2.02	0.41
51:B5:3:LYS:HB3	51:B5:4:HIS:H	1.64	0.41
54:B8:42:ARG:HG2	54:B8:42:ARG:HH11	1.85	0.41
25:BA:1001:A:H2'	25:BA:1002:G:O4'	2.20	0.41
25:BA:1074:G:O2'	25:BA:1075:C:H5'	2.19	0.41
25:BA:2401:U:O2	25:BA:2402:C:H5	2.02	0.41
25:BA:2467:C:C3'	25:BA:2468:G:C5'	2.92	0.41
25:BA:2545:G:H2'	25:BA:2546:U:O4'	2.20	0.41
25:BA:2695:C:H2'	25:BA:2696:U:H6	1.84	0.41
25:BA:2810:A:H2'	25:BA:2811:G:O4'	2.19	0.41
25:BA:2811:G:OP1	28:BE:61:ARG:HG2	2.20	0.41
27:BD:232:PRO:HB3	27:BD:244:ARG:CZ	2.50	0.41
27:BD:27:THR:O	27:BD:28:GLU:CB	2.55	0.41
28:BE:60:ASN:HB2	28:BE:61:ARG:H	1.62	0.41
30:BG:104:GLU:HG2	50:B4:23:GLU:CG	2.50	0.41
32:BK:135:GLU:CD	32:BK:135:GLU:H	2.22	0.41
32:BK:7:GLU:HG3	32:BK:8:PRO:HD2	2.02	0.41
39:BR:53:ARG:HB2	39:BR:60:THR:O	2.20	0.41
42:BS:57:ASN:O	42:BS:61:ASN:HB2	2.19	0.41
48:BW:14:ARG:NH1	48:BW:66:GLU:OE2	2.53	0.41
47:BZ:21:ARG:HD3	47:BZ:35:THR:HG21	2.02	0.41
1:CA:1263:C:N4	1:CA:1272:G:H1	2.18	0.41
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.20	0.41
1:CA:413:G:C2'	1:CA:414:A:OP2	2.67	0.41
1:CA:51:A:H4'	1:CA:52:G:H5''	2.02	0.41
1:CA:607:A:H2'	1:CA:608:A:O4'	2.19	0.41
1:CA:748:C:H1'	1:CA:749:C:OP2	2.19	0.41
22:CB:21:A:C1'	22:CB:22:G:P	3.08	0.41
23:CD:20:G:C8	23:CD:58:A:N6	2.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:132:LYS:HA	2:CE:135:GLN:NE2	2.31	0.41
2:CE:189:ASP:OD2	2:CE:191:ASP:HB3	2.19	0.41
3:CF:67:THR:HG23	3:CF:102:ASN:HB2	2.02	0.41
8:CK:64:LYS:CD	8:CK:79:VAL:HG21	2.50	0.41
9:CL:75:ASP:O	9:CL:78:LYS:HB3	2.20	0.41
12:CO:40:VAL:HG21	12:CO:78:GLN:CA	2.50	0.41
12:CO:53:ARG:HH12	12:CO:92:ASP:CB	2.32	0.41
14:CQ:8:GLU:O	14:CQ:12:ARG:HG3	2.20	0.41
15:CR:78:TYR:O	15:CR:82:ILE:HG23	2.19	0.41
17:CT:45:HIS:O	17:CT:73:VAL:HG13	2.20	0.41
19:CV:33:THR:HG23	19:CV:50:ALA:O	2.20	0.41
37:D0:55:ALA:CB	37:D0:79:LEU:HD22	2.50	0.41
40:D1:112:ARG:H	40:D1:112:ARG:HG2	1.47	0.41
46:D3:36:ILE:CD1	46:D3:36:ILE:N	2.83	0.41
25:DA:1783:A:C2	25:DA:2587:A:C5	3.08	0.41
25:DA:1946:U:H2'	25:DA:1947:C:C6	2.55	0.41
25:DA:2076:U:H5	25:DA:2596:U:O2	2.03	0.41
25:DA:2489:G:C2'	25:DA:2490:G:H5'	2.50	0.41
25:DA:66:C:H2'	25:DA:67:U:O4'	2.19	0.41
25:DA:699:A:C2	25:DA:1633:G:N3	2.88	0.41
26:DB:49:C:H2'	26:DB:50:G:C8	2.55	0.41
27:DD:34:VAL:C	27:DD:35:LYS:O	2.56	0.41
25:DA:1568:G:P	27:DD:63:ARG:HH22	2.42	0.41
29:DF:3:GLU:HG3	29:DF:20:LEU:C	2.40	0.41
30:DG:139:LEU:C	30:DG:139:LEU:HD12	2.41	0.41
31:DH:170:ARG:HD3	31:DH:170:ARG:HA	1.89	0.41
33:DM:33:LEU:HD12	33:DM:38:HIS:CD2	2.55	0.41
33:DM:42:TRP:HA	33:DM:48:MET:CE	2.50	0.41
34:DN:11:ALA:O	34:DN:99:PHE:N	2.46	0.41
35:DO:144:GLU:O	35:DO:144:GLU:CD	2.59	0.41
38:DQ:41:ASP:OD1	38:DQ:44:LYS:HE3	2.19	0.41
44:DU:17:SER:CB	44:DU:71:LYS:HD2	2.43	0.41
25:DA:372:G:H5'	47:DZ:66:HIS:CE1	2.55	0.41
47:DZ:95:LEU:O	47:DZ:97:LEU:N	2.53	0.41
1:AA:148:G:N3	1:AA:149:A:C8	2.88	0.41
1:AA:282:A:H2'	1:AA:282:A:N3	2.34	0.41
1:AA:725:G:N3	1:AA:726:C:C6	2.88	0.41
1:AA:73:G:C8	1:AA:99:C:O2	2.73	0.41
23:AD:17:C:H2'	23:AD:18:C:O2	2.19	0.41
23:AD:60:A:C5	23:AD:61:U:C5	3.07	0.41
3:AF:50:ALA:HB1	3:AF:70:VAL:CG1	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:15:GLU:OE1	4:AG:66:ARG:NH1	2.50	0.41
4:AG:12:CYS:HA	4:AG:19:LEU:HD21	2.00	0.41
4:AG:24:GLU:O	4:AG:27:TYR:HB2	2.19	0.41
11:AN:57:THR:HG23	11:AN:58:PRO:HD2	2.02	0.41
14:AQ:24:CYS:HB3	14:AQ:28:GLY:H	1.85	0.41
15:AR:57:LEU:HD23	15:AR:57:LEU:HA	1.80	0.41
17:AT:13:ASP:HA	17:AT:19:VAL:HG12	2.02	0.41
37:B0:34:ILE:HG22	37:B0:114:VAL:HB	2.02	0.41
25:BA:996:A:OP2	40:B1:94:ASN:ND2	2.53	0.41
54:B8:36:LYS:CD	54:B8:40:GLU:CD	2.87	0.41
25:BA:1069:A:H5''	25:BA:1070:A:O5'	2.20	0.41
25:BA:1448:G:H1'	25:BA:1528:A:H62	1.85	0.41
25:BA:1478:G:H2'	25:BA:1479:G:C8	2.48	0.41
25:BA:1510:A:OP1	25:BA:1510:A:O3'	2.37	0.41
25:BA:1726:G:C6	25:BA:1727:U:C4	3.08	0.41
25:BA:1816:G:H8	27:BD:62:TYR:OH	2.03	0.41
25:BA:2390:U:O2'	25:BA:2391:G:H5'	2.21	0.41
25:BA:2703:C:O2	25:BA:2703:C:H2'	2.19	0.41
25:BA:2740:A:C6	25:BA:2764:A:C8	3.07	0.41
25:BA:2854:G:O2'	25:BA:2855:C:H5'	2.19	0.41
25:BA:298:G:H5''	25:BA:299:A:OP1	2.20	0.41
25:BA:653:A:H3'	25:BA:654:A:H5'	2.01	0.41
25:BA:812:C:H5''	25:BA:1250:G:O2'	2.20	0.41
25:BA:821:A:O2'	25:BA:945:A:H3'	2.20	0.41
25:BA:994:C:OP1	40:B1:53:ARG:NH2	2.53	0.41
27:BD:19:ALA:HB3	27:BD:21:PHE:CZ	2.55	0.41
28:BE:116:VAL:HG13	28:BE:122:PHE:CG	2.55	0.41
28:BE:6:GLY:HA3	28:BE:27:LEU:O	2.20	0.41
25:BA:616:A:C4	29:BF:180:GLY:HA3	2.55	0.41
30:BG:129:GLY:O	30:BG:161:THR:HB	2.19	0.41
30:BG:7:LEU:HD21	30:BG:176:LEU:HD22	2.02	0.41
35:BO:135:LEU:HD23	35:BO:135:LEU:HA	1.81	0.41
25:BA:811:U:H2'	35:BO:21:ARG:O	2.19	0.41
38:BQ:23:ARG:HB2	38:BQ:86:ALA:HB2	2.02	0.41
42:BS:111:HIS:CD2	42:BS:112:GLY:H	2.38	0.41
42:BS:79:GLY:C	42:BS:100:THR:HG22	2.40	0.41
43:BT:24:GLY:CA	43:BT:82:GLN:HE22	2.32	0.41
47:BZ:87:PRO:O	47:BZ:89:GLU:N	2.53	0.41
1:CA:1318:A:O2'	19:CV:37:ARG:HG2	2.20	0.41
1:CA:186(E):C:C2	1:CA:191(C):G:N2	2.88	0.41
1:CA:382:A:C6	1:CA:383:A:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:429:U:H1'	1:CA:430:A:H5''	2.02	0.41
1:CA:585:G:H4'	12:CO:8:ASN:ND2	2.35	0.41
1:CA:309:G:H1'	1:CA:608:A:C2	2.55	0.41
1:CA:75:C:H2'	1:CA:76:G:O4'	2.20	0.41
1:CA:799:G:C6	1:CA:800:G:C4	3.08	0.41
1:CA:977:A:HO2'	1:CA:978:A:H5'	1.84	0.41
1:CA:9:G:H2'	1:CA:10:A:H8	1.86	0.41
22:CB:69:A:OP1	22:CB:69:A:H3'	2.20	0.41
2:CE:90:MET:HA	2:CE:91:PRO:HD3	1.87	0.41
2:CE:95:GLN:O	2:CE:96:ARG:C	2.59	0.41
3:CF:82:GLU:H	3:CF:85:ARG:HB2	1.85	0.41
4:CG:54:TYR:CE1	4:CG:206:PHE:HE1	2.38	0.41
8:CK:20:TYR:HA	8:CK:65:TYR:CZ	2.55	0.41
11:CN:48:ILE:HA	11:CN:48:ILE:HD12	1.81	0.41
13:CP:55:ARG:CG	13:CP:55:ARG:HH11	2.30	0.41
13:CP:56:LEU:HA	13:CP:56:LEU:HD23	1.93	0.41
15:CR:11:VAL:HG21	15:CR:34:LEU:HD22	2.02	0.41
16:CS:19:ILE:HB	16:CS:36:ILE:O	2.19	0.41
20:CW:22:ARG:O	20:CW:26:ASN:ND2	2.53	0.41
50:D4:24:THR:O	50:D4:25:TYR:HB2	2.19	0.41
25:DA:1062:G:C8	25:DA:1062:G:OP1	2.68	0.41
25:DA:1204:A:N1	25:DA:1241:A:H2	2.18	0.41
25:DA:1767:C:H2'	25:DA:1768:U:O4'	2.20	0.41
25:DA:528:A:N1	25:DA:2043:C:H5'	2.31	0.41
25:DA:2099:U:H2'	25:DA:2099:U:O2	2.20	0.41
25:DA:2305:A:C6	30:DG:154:GLY:CA	3.03	0.41
25:DA:2517:C:C2	25:DA:2542:A:C6	3.08	0.41
25:DA:363(E):U:H5'	25:DA:363(F):A:OP2	2.20	0.41
25:DA:568:U:O5'	25:DA:945:A:N6	2.52	0.41
25:DA:603:A:C2	25:DA:655:A:C2	3.07	0.41
26:DB:20:C:C2'	26:DB:21:G:H5'	2.50	0.41
26:DB:88:C:H6	26:DB:89:G:C8	2.38	0.41
27:DD:161:THR:O	27:DD:162:SER:HB3	2.20	0.41
27:DD:85:ASP:HB2	27:DD:92:ILE:HD13	2.02	0.41
28:DE:182:LEU:C	28:DE:183:LEU:HD12	2.40	0.41
28:DE:57:LYS:HD3	28:DE:57:LYS:HA	1.85	0.41
29:DF:188:ARG:HG3	35:DO:3:LEU:HD11	2.01	0.41
30:DG:142:PRO:HG2	30:DG:143:GLU:OE2	2.20	0.41
36:DP:35:VAL:HG23	36:DP:36:ALA:N	2.36	0.41
1:CA:1446:A:C5	39:DR:118:ARG:CZ	3.03	0.41
25:DA:142:G:H1'	43:DT:37:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:2:ARG:HA	44:DU:2:ARG:HD3	1.77	0.41
45:DV:138:GLU:O	45:DV:156:LYS:HE3	2.19	0.41
45:DV:151:HIS:CD2	45:DV:151:HIS:N	2.86	0.41
49:DX:52:HIS:CE1	49:DX:53:LEU:HD23	2.56	0.41
1:AA:1342:C:O2'	9:AL:124:GLN:HA	2.21	0.41
1:AA:140:A:C6	1:AA:141:A:C5	3.08	0.41
1:AA:148:G:C2	1:AA:149:A:C8	3.08	0.41
1:AA:280:C:O2	17:AT:38:ARG:HG3	2.20	0.41
1:AA:411:A:C4	1:AA:413:G:H1'	2.55	0.41
1:AA:450:G:H2'	1:AA:451:A:OP1	2.21	0.41
1:AA:836:G:C6	1:AA:851:G:C6	3.08	0.41
1:AA:926:G:C6	1:AA:1505:G:C6	3.08	0.41
2:AE:208:ILE:HA	2:AE:211:ILE:HG13	2.03	0.41
5:AH:69:VAL:HG12	5:AH:71:LEU:HD23	2.03	0.41
7:AJ:62:PHE:HA	7:AJ:124:LEU:HD23	2.02	0.41
12:AO:46:LYS:CG	12:AO:47:LYS:H	2.33	0.41
17:AT:83:ASP:OD2	17:AT:84:LEU:HD23	2.20	0.41
18:AU:25:THR:HG22	18:AU:25:THR:O	2.20	0.41
37:B0:28:LEU:HD23	37:B0:28:LEU:HA	1.83	0.41
37:B0:51:LEU:HA	37:B0:51:LEU:HD23	1.86	0.41
52:B6:21:TYR:N	52:B6:21:TYR:HD2	2.19	0.41
25:BA:1071:G:C8	25:BA:1089:G:C5	3.08	0.41
25:BA:1321:A:H2'	25:BA:1322:A:O4'	2.20	0.41
25:BA:1446:C:C2'	25:BA:1447:G:O5'	2.68	0.41
25:BA:1528:A:N6	25:BA:1545:A:C2	2.88	0.41
25:BA:1594:G:H2'	25:BA:1595:G:O4'	2.20	0.41
25:BA:1665:A:H2'	25:BA:1666:G:O4'	2.21	0.41
25:BA:165:U:H2'	25:BA:171:G:O4'	2.20	0.41
25:BA:2422:A:C4'	25:BA:2423:U:OP1	2.61	0.41
25:BA:2469:A:H62	25:BA:2481:G:H21	1.67	0.41
25:BA:244:A:C2	25:BA:255:A:C4	3.08	0.41
25:BA:2646:C:O5'	25:BA:2646:C:C6	2.74	0.41
25:BA:2688:U:C3'	25:BA:2688:U:O2	2.68	0.41
25:BA:270(E):G:C6	25:BA:270(F):U:C4	3.08	0.41
25:BA:537:C:H3'	25:BA:539:G:H8	1.85	0.41
25:BA:807:U:O2'	25:BA:808:G:H5'	2.20	0.41
25:BA:811:U:OP2	35:BO:21:ARG:O	2.39	0.41
26:BB:81:G:O6	26:BB:95:U:O2	2.38	0.41
27:BD:77:ALA:HB2	27:BD:97:TYR:CD2	2.55	0.41
28:BE:119:ARG:HH12	28:BE:158:GLY:HA3	1.82	0.41
28:BE:29:GLY:N	28:BE:51:PHE:CE2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:77:ILE:HG22	30:BG:77:ILE:O	2.18	0.41
31:BH:38:SER:HA	31:BH:39:PRO:HD3	1.89	0.41
31:BH:3:ARG:NE	31:BH:3:ARG:HA	2.35	0.41
45:BV:102:LEU:HD13	45:BV:139:VAL:HG21	2.01	0.41
45:BV:58:VAL:HG12	45:BV:66:SER:HB3	2.01	0.41
1:CA:1161:C:O2'	1:CA:1162:C:H5'	2.19	0.41
1:CA:1186:G:C2	1:CA:1187:G:H1'	2.55	0.41
1:CA:1207:G:C5	1:CA:1208:C:C4	3.08	0.41
1:CA:1453:G:O4'	1:CA:1453:G:N3	2.54	0.41
1:CA:1477:C:C2'	1:CA:1478:C:H5'	2.50	0.41
1:CA:287:U:H2'	1:CA:288:A:C8	2.56	0.41
1:CA:438:G:H4'	4:CG:123:HIS:ND1	2.35	0.41
1:CA:628:G:C2'	1:CA:629:G:H5'	2.50	0.41
1:CA:640:A:O2'	1:CA:641:U:H5'	2.19	0.41
1:CA:681:C:C2	1:CA:710:G:N2	2.87	0.41
1:CA:814:A:H5'	1:CA:1511:G:H4'	2.02	0.41
1:CA:957:U:C3'	1:CA:958:A:H5''	2.51	0.41
23:CD:37:U:H2'	23:CD:38:A:C8	2.55	0.41
2:CE:132:LYS:NZ	2:CE:136:VAL:HG22	2.34	0.41
8:CK:61:VAL:HG12	8:CK:63:LEU:HD13	2.01	0.41
9:CL:111:ARG:O	9:CL:113:LYS:HD2	2.20	0.41
9:CL:52:ALA:HB3	9:CL:95:LYS:NZ	2.36	0.41
10:CM:54:PHE:CE1	10:CM:55:LYS:NZ	2.88	0.41
11:CN:69:ALA:HB1	11:CN:103:LEU:CD2	2.50	0.41
1:CA:1329:A:OP1	13:CP:25:ILE:O	2.38	0.41
14:CQ:7:ILE:O	14:CQ:10:ALA:HB3	2.19	0.41
18:CU:37:VAL:O	18:CU:41:LYS:HB2	2.20	0.41
41:D2:66:ARG:HG2	41:D2:66:ARG:H	1.63	0.41
50:D4:13:ARG:HG3	50:D4:22:ILE:HG22	2.02	0.41
25:DA:1021:A:C6	25:DA:1023:U:C4	3.08	0.41
25:DA:110:G:C2	25:DA:111:A:C8	3.08	0.41
25:DA:1111:A:H4'	31:DH:3:ARG:CD	2.40	0.41
25:DA:1330:C:O2'	25:DA:1331:A:H5'	2.21	0.41
25:DA:1475:G:H5'	25:DA:1476:C:OP2	2.20	0.41
25:DA:1599:C:N3	25:DA:1600:C:C5	2.89	0.41
25:DA:2312:U:C2'	25:DA:2313:C:H5'	2.50	0.41
25:DA:2748:A:C2	25:DA:2749:A:C8	3.08	0.41
25:DA:277:C:H3'	25:DA:278:A:C8	2.54	0.41
25:DA:49:A:H5''	25:DA:50:U:H3'	2.01	0.41
25:DA:704:G:H1'	25:DA:726:G:N2	2.36	0.41
25:DA:836:G:C5	25:DA:837:C:C4	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:105:THR:OG1	28:DE:166:THR:HG23	2.20	0.41
28:DE:37:ARG:O	28:DE:45:THR:HA	2.20	0.41
30:DG:75:LYS:H	30:DG:75:LYS:HG3	1.72	0.41
32:DK:77:LEU:HG	32:DK:78:THR:OG1	2.20	0.41
22:CB:65:U:H5''	36:DP:52:VAL:HG23	2.02	0.41
38:DQ:110:LEU:HD22	38:DQ:112:PHE:N	2.35	0.41
39:DR:16:ARG:HH21	39:DR:19:LEU:HD21	1.83	0.41
42:DS:51:LEU:HD23	42:DS:105:VAL:HG11	2.02	0.41
48:DW:15:LYS:H	48:DW:67:LYS:HE2	1.84	0.41
1:AA:1310:G:N2	1:AA:1328:C:C2	2.88	0.41
1:AA:187:C:O2	1:AA:191(A):G:C6	2.73	0.41
1:AA:562:C:N4	1:AA:884:U:C6	2.88	0.41
1:AA:656:C:C6	1:AA:656:C:H3'	2.56	0.41
1:AA:690:G:O2'	1:AA:691:G:H5'	2.21	0.41
23:AD:20:G:C5'	23:AD:60:A:N6	2.81	0.41
23:AD:31:G:H1	23:AD:41:C:H42	1.67	0.41
23:AD:20:G:H4'	23:AD:60:A:N6	2.35	0.41
2:AE:212:GLN:NE2	2:AE:212:GLN:O	2.54	0.41
3:AF:116:VAL:HG21	3:AF:202:ILE:HD11	2.02	0.41
3:AF:29:TYR:HD2	3:AF:29:TYR:O	2.03	0.41
4:AG:25:ARG:C	4:AG:27:TYR:N	2.74	0.41
12:AO:62:SER:HB2	12:AO:64:TYR:CD1	2.51	0.41
18:AU:18:ARG:HB3	18:AU:19:LYS:H	1.76	0.41
19:AV:40:ILE:O	19:AV:41:VAL:HG22	2.21	0.41
41:B2:29:PRO:HA	41:B2:61:VAL:HG22	2.00	0.41
41:B2:4:ILE:HB	41:B2:40:LEU:HB2	2.02	0.41
25:BA:2286:A:H2'	52:B6:31:PRO:HG2	2.01	0.41
54:B8:36:LYS:HD2	54:B8:40:GLU:CG	2.51	0.41
25:BA:1070:A:H3'	25:BA:1071:G:H5''	2.01	0.41
25:BA:129:C:H2'	25:BA:130:C:C6	2.56	0.41
25:BA:1444:G:C2	25:BA:1548:C:N3	2.89	0.41
25:BA:1652:A:C2'	25:BA:1653:G:H5'	2.51	0.41
25:BA:2347:C:P	52:B6:39:TYR:OH	2.78	0.41
25:BA:2518:A:C8	25:BA:2518:A:H5'	2.56	0.41
25:BA:2751:G:C8	25:BA:2751:G:O5'	2.73	0.41
25:BA:299:A:H62	25:BA:300:A:H61	1.67	0.41
25:BA:305:U:H6	25:BA:305:U:O5'	2.03	0.41
25:BA:49:A:C8	25:BA:51:G:C2	3.09	0.41
25:BA:607:U:C2	25:BA:621:A:N1	2.89	0.41
25:BA:755:C:H2'	25:BA:756:C:C6	2.56	0.41
25:BA:839:U:H2'	25:BA:840:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:21:PHE:O	27:BD:24:ILE:HB	2.20	0.41
28:BE:16:ARG:O	28:BE:17:ASP:CB	2.60	0.41
28:BE:201:THR:HG22	28:BE:202:LYS:N	2.34	0.41
31:BH:125:VAL:HG12	31:BH:127:GLU:O	2.20	0.41
33:BM:21:LYS:O	33:BM:22:THR:O	2.38	0.41
38:BQ:41:ASP:C	38:BQ:41:ASP:OD1	2.58	0.41
42:BS:1:MET:HG3	42:BS:64:MET:HE2	2.02	0.41
45:BV:98:MET:HE2	45:BV:100:VAL:HG22	2.02	0.41
1:CA:1001:G:H1	1:CA:1039:C:N4	2.16	0.41
1:CA:1028(A):C:C4	1:CA:1028(B):C:N4	2.86	0.41
1:CA:1216:G:C2	1:CA:1217:C:C2	3.09	0.41
1:CA:956:U:C2	1:CA:1225:A:C2	3.08	0.41
1:CA:1301:U:C4	1:CA:1303:C:C6	3.08	0.41
1:CA:1434:A:N6	1:CA:1467:G:H1'	2.33	0.41
1:CA:181:G:H4'	1:CA:182:U:H5'	2.03	0.41
1:CA:173:U:H5''	1:CA:197:A:O4'	2.21	0.41
1:CA:197:A:C8	1:CA:198:G:C1'	3.04	0.41
1:CA:447:G:H3'	1:CA:485:G:N2	2.35	0.41
1:CA:79:G:OP2	1:CA:79:G:H8	2.03	0.41
1:CA:828:A:H5''	1:CA:859:A:H2	1.78	0.41
1:CA:859:A:OP2	1:CA:869:G:N1	2.41	0.41
1:CA:941:G:C2'	1:CA:942:G:O5'	2.68	0.41
1:CA:973:G:C6	1:CA:974:A:N1	2.89	0.41
22:CB:34:U:C2	22:CB:36:A:OP2	2.73	0.41
22:CB:8:U:H5''	22:CB:60:A:H5'	2.02	0.41
23:CC:76:C:OP1	25:DA:2602:A:OP1	2.39	0.41
23:CD:27:G:H2'	23:CD:28:U:O4'	2.20	0.41
2:CE:134:GLU:HA	2:CE:137:ARG:HB2	2.02	0.41
3:CF:73:PRO:HA	3:CF:76:VAL:HG13	2.03	0.41
4:CG:24:GLU:CD	4:CG:112:VAL:HG21	2.41	0.41
4:CG:5:ILE:HG22	4:CG:5:ILE:O	2.21	0.41
5:CH:100:VAL:HA	5:CH:118:ILE:HG22	2.02	0.41
9:CL:32:ASP:O	9:CL:35:GLU:N	2.49	0.41
10:CM:15:THR:HG21	10:CM:92:THR:CG2	2.43	0.41
10:CM:16:LEU:HD22	10:CM:16:LEU:HA	1.76	0.41
12:CO:34:ARG:HD2	12:CO:82:VAL:CG1	2.49	0.41
13:CP:87:TYR:CD2	13:CP:87:TYR:C	2.93	0.41
14:CQ:44:LEU:HD12	14:CQ:44:LEU:C	2.41	0.41
18:CU:84:LYS:HE2	18:CU:84:LYS:HA	2.03	0.41
37:D0:65:LEU:HD12	37:D0:65:LEU:HA	1.86	0.41
40:D1:52:ARG:HB3	40:D1:52:ARG:HH11	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D8:35:GLN:C	54:D8:36:LYS:HG3	2.41	0.41
25:DA:1021:A:H62	25:DA:1141:U:H3	1.68	0.41
25:DA:1142(A):A:N7	25:DA:1144:G:C5	2.89	0.41
25:DA:550:G:O2'	25:DA:1220:A:N3	2.42	0.41
25:DA:1309:G:C2'	25:DA:1310:G:H5'	2.49	0.41
25:DA:1601:G:C6	25:DA:1602:U:C4	3.08	0.41
25:DA:1899:G:H1	25:DA:1902:C:H41	1.69	0.41
25:DA:2149:G:C2	25:DA:2150:U:C2	3.08	0.41
25:DA:2164:C:C5	25:DA:2165:G:N7	2.88	0.41
25:DA:218:A:H2	25:DA:235:U:H4'	1.84	0.41
25:DA:2857:G:N2	25:DA:2859:G:H3'	2.36	0.41
25:DA:631:A:N6	25:DA:632:A:C2	2.88	0.41
25:DA:80:G:C2'	25:DA:81:G:H5'	2.50	0.41
27:DD:9:TYR:CE2	27:DD:13:ARG:HG2	2.56	0.41
27:DD:68:LYS:CB	27:DD:70:TRP:CZ3	3.04	0.41
27:DD:78:LYS:HA	27:DD:115:GLN:O	2.19	0.41
29:DF:29:ASN:H	29:DF:112:MET:HE1	1.84	0.41
30:DG:5:VAL:HG22	50:D4:25:TYR:CE2	2.55	0.41
30:DG:64:THR:HG23	30:DG:65:GLY:H	1.84	0.41
31:DH:130:ARG:HB3	31:DH:130:ARG:NH1	2.35	0.41
31:DH:9:ILE:HG21	31:DH:51:ARG:HG2	2.03	0.41
33:DM:19:GLU:HG3	33:DM:59:LYS:CB	2.49	0.41
33:DM:98:VAL:HG23	33:DM:99:LEU:N	2.36	0.41
39:DR:1:MET:HA	39:DR:1:MET:CE	2.50	0.41
39:DR:64:ARG:O	39:DR:64:ARG:CG	2.67	0.41
44:DU:86:ARG:HB3	44:DU:88:LYS:NZ	2.34	0.41
45:DV:31:ARG:HE	45:DV:31:ARG:HB2	1.73	0.41
1:AA:1256:A:O4'	1:AA:1258:G:C2	2.74	0.41
1:AA:1336:C:C4'	1:AA:1336:C:OP1	2.66	0.41
1:AA:453:A:C5	1:AA:454:C:C5	3.08	0.41
1:AA:735:C:O2'	1:AA:736:C:H5'	2.20	0.41
23:AD:69:C:C5	23:AD:70:C:C5	3.08	0.41
2:AE:167:PRO:HG3	2:AE:188:ALA:HB2	2.01	0.41
2:AE:219:VAL:HA	2:AE:222:ILE:CD1	2.51	0.41
3:AF:47:LEU:HD12	3:AF:47:LEU:HA	1.78	0.41
5:AH:99:GLY:O	5:AH:117:ASP:HA	2.20	0.41
5:AH:154:GLY:O	5:AH:155:GLU:CB	2.67	0.41
13:AP:34:LEU:HA	13:AP:34:LEU:HD22	1.82	0.41
1:AA:1227:A:OP2	13:AP:96:LEU:HD21	2.20	0.41
10:AM:49:VAL:HG21	14:AQ:41:ARG:HB2	1.99	0.41
17:AT:100:LYS:O	17:AT:101:ARG:NE	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AV:65:ASN:ND2	19:AV:65:ASN:H	2.06	0.41
1:AA:323:U:H5'	20:AW:23:ARG:HB2	2.03	0.41
37:B0:87:TYR:CE1	37:B0:117:VAL:HG12	2.55	0.41
25:BA:1092:C:H42	25:BA:1099:G:H1	1.67	0.41
25:BA:814:C:O2'	25:BA:1225:C:N3	2.49	0.41
25:BA:1449(A):G:O2'	25:BA:1450:C:H5'	2.21	0.41
25:BA:1750:G:C2'	25:BA:1751:C:H5'	2.50	0.41
25:BA:1913:A:H4'	25:BA:1914:C:H5''	2.02	0.41
25:BA:2109:U:C4	25:BA:2110:G:O6	2.74	0.41
25:BA:2409:G:H2'	25:BA:2410:G:O4'	2.21	0.41
25:BA:2663:G:C2	25:BA:2664:G:H1'	2.56	0.41
25:BA:2690:C:OP2	25:BA:2690:C:H6	2.03	0.41
25:BA:2642:G:N2	25:BA:2773:C:C2	2.89	0.41
25:BA:2799:A:N7	25:BA:2801:A:N6	2.68	0.41
25:BA:36:G:C5	25:BA:37:C:C5	3.09	0.41
25:BA:856:C:H2'	25:BA:857:C:C6	2.49	0.41
27:BD:223:GLY:HA3	27:BD:231:HIS:CE1	2.55	0.41
28:BE:80:GLU:C	28:BE:82:ARG:H	2.23	0.41
29:BF:10:PRO:HG2	29:BF:124:LEU:HD12	2.03	0.41
33:BM:131:GLN:NE2	33:BM:132:ALA:N	2.63	0.41
35:BO:112:LEU:HA	35:BO:112:LEU:HD23	1.86	0.41
36:BP:87:LYS:O	36:BP:89:ASN:N	2.51	0.41
48:BW:61:LEU:HD23	48:BW:61:LEU:HA	1.78	0.41
49:BX:22:ALA:C	49:BX:24:LYS:N	2.73	0.41
47:BZ:83:GLU:N	47:BZ:83:GLU:OE2	2.45	0.41
1:CA:1121:U:O2'	1:CA:1122:U:H5'	2.20	0.41
1:CA:1126:U:H1'	1:CA:1127:G:P	2.61	0.41
1:CA:1157:A:H62	1:CA:1178:G:N2	2.18	0.41
1:CA:1226:C:H4'	1:CA:1227:A:OP1	2.20	0.41
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.56	0.41
1:CA:1374:A:C2'	1:CA:1375:A:H5'	2.50	0.41
1:CA:393:A:C4	1:CA:394:G:C8	3.08	0.41
1:CA:476:G:O2'	1:CA:477:G:H5'	2.19	0.41
1:CA:561:U:HO2'	1:CA:562:C:P	2.44	0.41
1:CA:671:G:C4	1:CA:672:U:C6	3.09	0.41
1:CA:92:G:H2'	1:CA:93:U:O4'	2.21	0.41
1:CA:977:A:C8	1:CA:982:U:O4	2.74	0.41
1:CA:9:G:H5'	5:CH:122:GLU:OE2	2.21	0.41
23:CD:31:G:C2	23:CD:32:G:C5	3.08	0.41
2:CE:188:ALA:O	2:CE:203:GLY:O	2.39	0.41
4:CG:189:PRO:HB2	4:CG:194:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CH:118:ILE:HD12	5:CH:118:ILE:HA	1.92	0.41
6:CI:61:LEU:HD23	6:CI:63:TYR:HH	1.82	0.41
8:CK:134:ILE:O	8:CK:135:CYS:HB3	2.20	0.41
10:CM:28:ARG:NH2	10:CM:34:VAL:HB	2.35	0.41
11:CN:13:GLN:HG3	11:CN:14:VAL:N	2.35	0.41
14:CQ:15:LYS:HZ3	14:CQ:15:LYS:HB3	1.85	0.41
25:DA:1652:A:N6	37:D0:11:ASN:HD21	1.95	0.41
40:D1:39:LEU:HA	40:D1:39:LEU:HD23	1.89	0.41
50:D4:24:THR:HB	50:D4:25:TYR:H	1.68	0.41
25:DA:250:G:P	54:D8:13:ARG:HH21	2.44	0.41
25:DA:1019:U:OP1	25:DA:1035:U:O2'	2.28	0.41
25:DA:1063:G:N1	25:DA:1064:C:O2	2.53	0.41
25:DA:1142:U:H5''	25:DA:1142(A):A:H5'	2.02	0.41
25:DA:1288:U:C2	25:DA:1327:C:C2	3.08	0.41
25:DA:1342:A:C6	25:DA:1602:U:N3	2.75	0.41
25:DA:46:C:H42	25:DA:179:G:H1	1.68	0.41
25:DA:1945:G:H2'	25:DA:1946:U:H6	1.85	0.41
25:DA:2469:A:N1	25:DA:2470:G:C4	2.88	0.41
25:DA:2552:U:C2	25:DA:2554:U:H5'	2.56	0.41
25:DA:628:G:H5''	54:D8:18:ALA:HB2	2.03	0.41
25:DA:679:C:H2'	25:DA:680:G:C8	2.55	0.41
25:DA:196:A:O2'	25:DA:805:G:O6	2.29	0.41
25:DA:842:G:H2'	25:DA:843:G:O4'	2.19	0.41
25:DA:866:A:C2	25:DA:867:C:C4	3.09	0.41
26:DB:99:A:C5	26:DB:100:G:C8	3.09	0.41
26:DB:21:G:H2'	26:DB:22:U:O4'	2.21	0.41
28:DE:54:GLN:O	28:DE:75:VAL:HG22	2.21	0.41
29:DF:129:PHE:HA	29:DF:142:TRP:NE1	2.35	0.41
25:DA:2060:A:P	29:DF:68:LYS:O	2.74	0.41
29:DF:7:TYR:CE2	29:DF:16:GLY:HA3	2.56	0.41
32:DK:104:GLN:CG	32:DK:105:HIS:CD2	3.03	0.41
35:DO:93:GLY:O	35:DO:123:LEU:HB2	2.20	0.41
35:DO:60:MET:HG3	35:DO:60:MET:O	2.21	0.41
36:DP:32:TYR:CD1	36:DP:114:ALA:HB3	2.55	0.41
39:DR:64:ARG:CB	39:DR:73:GLU:HG3	2.47	0.41
39:DR:88:ILE:CD1	39:DR:91:ARG:HG2	2.50	0.41
39:DR:90:GLN:HG3	39:DR:91:ARG:N	2.35	0.41
43:DT:12:VAL:HG22	43:DT:17:ALA:HB2	2.02	0.41
1:AA:108:G:C2	1:AA:109:A:C2	3.08	0.41
1:AA:877:C:H5''	8:AK:88:LYS:HD3	2.03	0.41
1:AA:937:A:C4	1:AA:938:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:988:G:C2	1:AA:1218:C:C2	3.08	0.41
22:AB:23:A:HO2'	22:AB:24:C:P	2.39	0.41
22:AB:50:A:H1'	22:AB:54:G:N2	2.36	0.41
23:AC:54:G:O2'	23:AC:55:U:H5'	2.21	0.41
2:AE:165:VAL:CG2	2:AE:166:ASP:N	2.82	0.41
2:AE:7:VAL:CG2	2:AE:8:LYS:HE2	2.50	0.41
4:AG:14:ARG:HD3	4:AG:14:ARG:HA	1.80	0.41
4:AG:19:LEU:CD2	4:AG:21:LEU:HD12	2.50	0.41
7:AJ:78:ARG:HH11	7:AJ:80:VAL:HG22	1.85	0.41
8:AK:129:VAL:HG23	8:AK:130:GLY:N	2.33	0.41
9:AL:85:LEU:O	9:AL:88:TYR:O	2.38	0.41
12:AO:113:ARG:NH2	12:AO:120:TYR:CE1	2.88	0.41
16:AS:12:LYS:HB3	16:AS:12:LYS:HE2	1.74	0.41
16:AS:74:LEU:HA	16:AS:74:LEU:HD23	1.94	0.41
25:BA:445:C:OP1	40:B1:2:PRO:HA	2.21	0.41
40:B1:88:ILE:HG22	40:B1:90:VAL:H	1.85	0.41
40:B1:92:ARG:NE	41:B2:11:GLN:H	2.19	0.41
46:B3:42:GLY:C	46:B3:57:PHE:CD1	2.92	0.41
25:BA:1057:A:C8	25:BA:1086:A:H2'	2.56	0.41
25:BA:1471:A:C2	25:BA:1472:A:C4	3.09	0.41
25:BA:1813:G:H4'	27:BD:44:ASN:O	2.21	0.41
25:BA:1856:G:C2'	25:BA:1857:G:H5'	2.50	0.41
25:BA:2161:C:C2'	25:BA:2162:G:H5'	2.50	0.41
25:BA:412:A:N6	25:BA:2412:A:O4'	2.54	0.41
25:BA:301:G:C2	25:BA:302:C:N3	2.88	0.41
25:BA:784:A:C8	25:BA:792:G:C5	3.09	0.41
36:BP:17:LEU:HD22	36:BP:17:LEU:HA	1.85	0.41
44:BU:79:CYS:O	44:BU:81:LYS:HD2	2.20	0.41
45:BV:5:LEU:HB3	45:BV:59:LEU:HA	2.02	0.41
49:BX:32:GLN:HE21	49:BX:32:GLN:HA	1.86	0.41
1:CA:101:A:C2'	1:CA:102:G:H5'	2.50	0.41
1:CA:1480:G:H2'	1:CA:1481:U:C6	2.56	0.41
1:CA:436:C:H2'	1:CA:437:U:H6	1.84	0.41
1:CA:740:U:OP2	15:CR:2:PRO:HA	2.21	0.41
1:CA:89:U:C4'	1:CA:90:C:OP1	2.68	0.41
1:CA:940:C:H2'	1:CA:941:G:H8	1.85	0.41
22:CB:31:C:N3	22:CB:32:C:C5	2.88	0.41
23:CC:23:G:C4	23:CC:24:C:C5	3.08	0.41
23:CC:54:G:O2'	23:CC:55:U:H5'	2.21	0.41
2:CE:73:THR:O	2:CE:74:LYS:C	2.58	0.41
5:CH:92:LYS:HG2	5:CH:93:PRO:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CL:89:ASN:N	9:CL:89:ASN:HD22	2.18	0.41
10:CM:54:PHE:CE2	10:CM:55:LYS:CD	3.01	0.41
19:CV:31:ILE:HG21	19:CV:33:THR:HG22	2.03	0.41
25:DA:1421:G:C2	25:DA:1422:G:N7	2.89	0.41
25:DA:1533:C:H3'	25:DA:1534:G:O4'	2.21	0.41
25:DA:1810:A:H2'	25:DA:1811:G:H5'	2.01	0.41
25:DA:1870:C:N4	25:DA:1871:A:C6	2.89	0.41
25:DA:2138:C:C2	25:DA:2139:C:C5	3.08	0.41
25:DA:2579:C:H2'	25:DA:2580:U:O4'	2.20	0.41
25:DA:2602:A:H4'	25:DA:2603:G:C5'	2.49	0.41
25:DA:946:G:O2'	25:DA:947:G:H5'	2.21	0.41
26:DB:90:C:H6	26:DB:90:C:H5''	1.85	0.41
31:DH:35:VAL:HG12	31:DH:35:VAL:O	2.21	0.41
32:DK:78:THR:HB	32:DK:104:GLN:NE2	2.30	0.41
34:DN:103:ALA:O	34:DN:106:LEU:HB2	2.20	0.41
38:DQ:35:ILE:HD11	38:DQ:101:LEU:CD2	2.41	0.41
39:DR:45:PHE:CE1	39:DR:74:ARG:HD2	2.56	0.41
43:DT:43:VAL:HG11	43:DT:81:VAL:HG11	2.02	0.41
43:DT:44:GLU:HG2	43:DT:49:VAL:O	2.20	0.41
48:DW:15:LYS:HD3	48:DW:67:LYS:NZ	2.36	0.41
47:DZ:65:SER:OG	47:DZ:66:HIS:CD2	2.66	0.41
1:AA:103:C:C2	1:AA:104:G:C8	3.09	0.41
1:AA:1157:A:O2'	1:AA:1158:C:C2	2.62	0.41
1:AA:1309:G:C5	1:AA:1329:A:C2	3.09	0.41
1:AA:1381:U:H2'	1:AA:1381:U:O2	2.21	0.41
1:AA:186(F):C:H2'	1:AA:187:C:O4'	2.21	0.41
1:AA:258:G:H2'	1:AA:259:G:C8	2.54	0.41
1:AA:428:G:C5	1:AA:430:A:C6	3.08	0.41
1:AA:397:A:N6	1:AA:548:G:N7	2.69	0.41
1:AA:674:G:H2'	1:AA:675:A:H8	1.84	0.41
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.20	0.41
23:AC:77:A:H5'	23:AC:77:A:H8	1.85	0.41
23:AC:76:C:C5'	23:AC:77:A:OP2	2.50	0.41
23:AD:13:C:C2'	23:AD:14:A:OP1	2.68	0.41
23:AD:11:A:N1	23:AD:26:C:C2	2.89	0.41
2:AE:72:GLY:CA	2:AE:165:VAL:HG22	2.50	0.41
2:AE:177:ALA:HB1	2:AE:182:ILE:HB	2.02	0.41
2:AE:224:GLN:HB2	2:AE:229:VAL:HG23	2.02	0.41
2:AE:8:LYS:HG2	2:AE:11:LEU:H	1.85	0.41
3:AF:34:LEU:HD21	3:AF:38:ARG:NH1	2.33	0.41
4:AG:155:LEU:O	4:AG:156:GLU:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:94:TYR:HD1	8:AK:132:GLU:HA	1.86	0.41
15:AR:56:LEU:HD12	15:AR:56:LEU:O	2.20	0.41
20:AW:72:LEU:HD21	20:AW:77:ALA:N	2.36	0.41
37:B0:92:GLY:N	37:B0:94:TYR:CE2	2.89	0.41
46:B3:32:ARG:HB3	46:B3:32:ARG:HE	1.67	0.41
25:BA:1195:G:N3	25:BA:1227:A:H2	2.18	0.41
25:BA:809:G:O4'	25:BA:1254:A:H1'	2.21	0.41
25:BA:1446:C:H2'	25:BA:1447:G:O5'	2.20	0.41
25:BA:1535:U:N3	25:BA:1537:C:O4'	2.52	0.41
25:BA:2059:A:O2'	29:BF:69:HIS:HD2	2.03	0.41
25:BA:2082:A:H2'	25:BA:2083:G:O4'	2.21	0.41
25:BA:2163:C:C5	25:BA:2164:C:C5	3.08	0.41
25:BA:2166:G:C2'	25:BA:2167:U:OP1	2.69	0.41
25:BA:2492:U:H2'	25:BA:2493:U:H6	1.85	0.41
25:BA:2607:G:H2'	25:BA:2608:G:O4'	2.21	0.41
25:BA:404:C:C2'	25:BA:405:U:OP2	2.68	0.41
25:BA:638:G:H2'	25:BA:639:U:O4'	2.19	0.41
25:BA:466:A:N3	25:BA:683:C:H1'	2.36	0.41
25:BA:847:U:H5'	25:BA:848:G:OP2	2.21	0.41
27:BD:269:PHE:N	27:BD:269:PHE:CD2	2.89	0.41
29:BF:191:ARG:HH11	29:BF:191:ARG:HB3	1.86	0.41
30:BG:26:GLN:HG3	30:BG:30:GLU:OE2	2.20	0.41
30:BG:44:GLY:O	30:BG:47:LYS:HE2	2.21	0.41
31:BH:102:ALA:HB2	31:BH:116:GLU:HB2	2.03	0.41
31:BH:13:LYS:HA	31:BH:13:LYS:HE2	2.03	0.41
31:BH:30:LYS:HG3	31:BH:79:VAL:O	2.21	0.41
25:BA:910:A:C5	36:BP:13:GLN:HG3	2.56	0.41
39:BR:93:ARG:NH1	39:BR:93:ARG:HG3	2.32	0.41
39:BR:6:LEU:HA	39:BR:9:LEU:HB2	2.01	0.41
43:BT:26:TYR:O	43:BT:81:VAL:HG12	2.21	0.41
45:BV:59:LEU:O	45:BV:60:GLU:C	2.59	0.41
1:CA:1069:C:HO2'	1:CA:1192:C:H1'	1.86	0.41
1:CA:1076:C:C2	1:CA:1082:G:N2	2.89	0.41
1:CA:1089:G:C6	1:CA:1090:U:C4	3.08	0.41
1:CA:1192:C:N4	1:CA:1193:G:C5	2.89	0.41
1:CA:1294:G:O2'	1:CA:1295:G:H5'	2.21	0.41
1:CA:1297:C:OP2	1:CA:1297:C:H6	2.04	0.41
1:CA:34:C:O2'	1:CA:35:G:H5'	2.20	0.41
1:CA:389:A:H2'	1:CA:389:A:N3	2.36	0.41
1:CA:862:C:C2	1:CA:863:U:C6	3.08	0.41
3:CF:27:LYS:HB3	3:CF:27:LYS:HZ3	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CH:107:ARG:HG2	5:CH:108:ALA:H	1.83	0.41
5:CH:33:VAL:HG12	5:CH:34:VAL:N	2.35	0.41
1:CA:1347:G:C5	9:CL:107:ARG:NH2	2.89	0.41
16:CS:81:ARG:O	16:CS:81:ARG:HG3	2.20	0.41
16:CS:8:ARG:HD2	16:CS:17:TYR:HE2	1.85	0.41
18:CU:25:THR:O	18:CU:25:THR:HG22	2.20	0.41
20:CW:94:ALA:O	20:CW:95:ALA:HB2	2.20	0.41
37:D0:29:LEU:HA	37:D0:29:LEU:HD12	1.93	0.41
41:D2:62:LEU:HB2	41:D2:93:GLU:O	2.21	0.41
50:D4:38:LYS:C	50:D4:40:HIS:N	2.74	0.41
54:D8:50:LEU:N	54:D8:50:LEU:CD1	2.79	0.41
25:DA:991:C:O2	25:DA:1164:G:C2	2.74	0.41
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.55	0.41
25:DA:565:C:H4'	25:DA:1253:A:C6	2.55	0.41
25:DA:12:U:O2	25:DA:12:U:C2'	2.64	0.41
25:DA:1424:G:H2'	25:DA:1425:G:O4'	2.21	0.41
25:DA:1932:A:H2'	25:DA:1933:G:O4'	2.21	0.41
25:DA:204:A:H5'	25:DA:206:U:H1'	2.02	0.41
25:DA:2157:G:O2'	25:DA:2158:A:O4'	2.27	0.41
25:DA:2173:A:H5'	25:DA:2174:C:OP2	2.20	0.41
25:DA:2387:U:H5'	25:DA:2388:A:OP2	2.20	0.41
25:DA:2464:C:H2'	25:DA:2465:C:O4'	2.20	0.41
25:DA:278:A:O2'	25:DA:279:C:P	2.78	0.41
25:DA:405:U:C2'	25:DA:405:U:O2	2.68	0.41
25:DA:511:U:H4'	25:DA:1235:G:H4'	2.02	0.41
25:DA:527:C:OP2	25:DA:2779:U:C5	2.60	0.41
25:DA:681:G:H2'	25:DA:682:G:O4'	2.20	0.41
25:DA:944:G:H2'	25:DA:944:G:N3	2.36	0.41
25:DA:988:A:C2'	25:DA:989:G:O5'	2.69	0.41
25:DA:988:A:H3'	49:DX:11:SER:HG	1.84	0.41
26:DB:46:A:H2'	26:DB:47:C:H6	1.86	0.41
26:DB:90:C:O5'	36:DP:17:LEU:O	2.38	0.41
27:DD:132:PRO:HD3	27:DD:190:TYR:CZ	2.55	0.41
29:DF:206:ILE:HG13	29:DF:206:ILE:O	2.19	0.41
29:DF:72:ARG:HB3	29:DF:72:ARG:HH11	1.86	0.41
31:DH:94:TYR:CZ	31:DH:107:VAL:O	2.74	0.41
34:DN:22:ILE:HG22	34:DN:23:ARG:N	2.36	0.41
35:DO:47:ASP:O	35:DO:48:PRO:C	2.59	0.41
28:DE:181:LEU:HD11	39:DR:7:ILE:HD12	2.01	0.41
43:DT:40:LYS:HG3	43:DT:51:VAL:HG11	2.03	0.41
44:DU:46:LYS:O	44:DU:47:LYS:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:98:VAL:CG1	44:DU:99:CYS:H	2.29	0.41
1:AA:1124:G:O2'	10:AM:38:ILE:HD13	2.21	0.41
1:AA:1162:C:C2	1:AA:1175:G:N2	2.89	0.41
1:AA:1180:A:H8	1:AA:1180:A:O5'	2.03	0.41
1:AA:1303:C:N4	1:AA:1304:G:C6	2.89	0.41
1:AA:1305:G:OP1	21:AX:2:GLY:HA3	2.21	0.41
1:AA:184:G:H2'	1:AA:185:A:C8	2.56	0.41
1:AA:61:G:H2'	1:AA:62:U:O4'	2.21	0.41
23:AC:48:U:H1'	23:AC:49:C:OP2	2.21	0.41
23:AD:29:C:O2'	23:AD:30:G:H5'	2.21	0.41
2:AE:130:ARG:HA	2:AE:131:PRO:HD3	1.91	0.41
2:AE:5:ILE:CG2	2:AE:221:LEU:HD23	2.50	0.41
7:AJ:54:THR:OG1	7:AJ:56:GLN:HG2	2.21	0.41
8:AK:56:LYS:HA	8:AK:57:PRO:HD2	1.95	0.41
16:AS:25:ARG:HG2	16:AS:25:ARG:H	1.61	0.41
18:AU:76:LEU:HD22	18:AU:76:LEU:HA	1.87	0.41
13:AP:86:CYS:HB2	19:AV:73:GLU:HB3	2.03	0.41
41:B2:18:LEU:HD22	41:B2:19:LYS:N	2.35	0.41
52:B6:40:CYS:CA	52:B6:46:HIS:HA	2.40	0.41
25:BA:1265:A:OP1	25:BA:1265:A:H8	2.04	0.41
25:BA:1449:A:C5'	25:BA:1449(A):G:OP2	2.68	0.41
25:BA:1889:A:N1	25:BA:2234:G:H1'	2.36	0.41
25:BA:1914:C:O5'	25:BA:1914:C:O2	2.39	0.41
25:BA:2467:C:N4	25:BA:2468:G:C6	2.89	0.41
25:BA:738:G:C6	25:BA:739:G:C2	3.09	0.41
25:BA:943:U:OP2	35:BO:36:LYS:CG	2.68	0.41
26:BB:42:C:H4'	30:BG:67:LYS:CD	2.51	0.41
26:BB:81:G:H2'	26:BB:82:G:C5'	2.50	0.41
27:BD:35:LYS:HG2	27:BD:64:ILE:CA	2.50	0.41
28:BE:92:THR:H	28:BE:95:ILE:HD11	1.86	0.41
30:BG:70:VAL:HA	30:BG:90:LEU:HD12	2.02	0.41
31:BH:152:ARG:C	31:BH:153:LYS:HD2	2.41	0.41
31:BH:153:LYS:HG3	31:BH:161:GLY:CA	2.50	0.41
32:BK:21:VAL:HG22	32:BK:22:LYS:H	1.85	0.41
32:BK:99:GLU:O	32:BK:100:ALA:C	2.59	0.41
33:BM:23:LEU:C	33:BM:23:LEU:HD12	2.41	0.41
33:BM:57:ALA:O	33:BM:58:ASP:OD1	2.39	0.41
25:BA:1952:A:C6	34:BN:22:ILE:HD11	2.56	0.41
36:BP:34:LEU:HD23	36:BP:104:PHE:CD1	2.56	0.41
44:BU:54:LYS:O	44:BU:55:TYR:HB2	2.21	0.41
45:BV:61:LEU:HA	45:BV:62:PRO:HD3	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:C1:13:U:O2	24:C1:13:U:C2'	2.52	0.41
1:CA:1128:C:C4	1:CA:1139:G:N1	2.89	0.41
1:CA:1060:C:C2	1:CA:1198:G:C2	3.09	0.41
1:CA:1234:C:C2'	1:CA:1235:U:H5'	2.50	0.41
1:CA:1258:G:O2'	1:CA:1259:C:H5'	2.21	0.41
1:CA:1394:A:H4'	1:CA:1395:C:OP2	2.20	0.41
1:CA:161:A:N6	1:CA:162:A:C6	2.88	0.41
1:CA:328:C:C2'	1:CA:329:A:OP2	2.68	0.41
1:CA:630:G:H5'	1:CA:631:G:OP2	2.21	0.41
1:CA:828:A:H61	1:CA:858:G:C2'	2.34	0.41
1:CA:932:C:H2'	1:CA:932:C:O2	2.20	0.41
1:CA:980:C:C5	1:CA:981:U:C2	3.09	0.41
3:CF:134:ILE:CG2	3:CF:168:ALA:HB3	2.41	0.41
2:CE:179:LYS:HA	8:CK:72:PRO:HG3	2.03	0.41
10:CM:78:ASN:HB3	10:CM:80:LYS:HB3	2.03	0.41
1:CA:675:A:H1'	11:CN:116:HIS:CG	2.55	0.41
11:CN:29:ILE:HG22	11:CN:44:SER:CB	2.37	0.41
16:CS:82:GLN:HG2	16:CS:82:GLN:H	1.54	0.41
20:CW:53:LEU:HD21	20:CW:92:LEU:HD11	2.02	0.41
25:DA:1130:U:C2	25:DA:2025:C:H5''	2.56	0.41
25:DA:1140:C:C4'	25:DA:1143:A:N7	2.84	0.41
25:DA:1190:G:H2'	25:DA:1191:G:C8	2.51	0.41
25:DA:1401:G:H2'	25:DA:1402:C:O4'	2.21	0.41
25:DA:1483:G:C6	25:DA:1507:A:C2	3.09	0.41
25:DA:2410:G:N3	25:DA:2411:A:H1'	2.35	0.41
25:DA:2415:G:C5	25:DA:2416:C:C4	3.09	0.41
25:DA:322:A:H5'	25:DA:340:A:C1'	2.47	0.41
25:DA:588:U:H1'	29:DF:90:PHE:HB3	2.03	0.41
25:DA:654(A):A:N1	25:DA:654(T):A:N1	2.69	0.41
25:DA:771:G:OP1	53:D7:10:ARG:HD3	2.21	0.41
25:DA:817:C:O2'	25:DA:839:U:H5''	2.21	0.41
25:DA:888:C:C4'	25:DA:889:C:OP2	2.69	0.41
25:DA:898:C:H3'	25:DA:899:A:H5''	2.03	0.41
27:DD:26:LYS:N	27:DD:26:LYS:HE3	2.36	0.41
28:DE:11:MET:HG3	28:DE:24:THR:CA	2.50	0.41
25:DA:674:G:O2'	29:DF:67:GLN:OE1	2.27	0.41
30:DG:103:LEU:O	30:DG:106:LEU:HB3	2.21	0.41
31:DH:120:GLY:O	31:DH:121:ILE:HD13	2.21	0.41
31:DH:35:VAL:HG11	31:DH:71:LEU:HG	2.02	0.41
36:DP:1:MET:HB3	36:DP:69:PHE:HE1	1.85	0.41
43:DT:57:LEU:N	43:DT:57:LEU:CD2	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:A1:14:U:HO2'	24:A1:15:U:C4'	2.34	0.41
1:AA:1242:C:O2'	1:AA:1243:C:H5'	2.21	0.41
1:AA:1290:G:N3	1:AA:1290:G:H2'	2.36	0.41
1:AA:1301:U:C4	1:AA:1303:C:N1	2.89	0.41
1:AA:1330:U:O4	1:AA:1331:G:C2	2.74	0.41
1:AA:198:G:O6	1:AA:220:G:C6	2.74	0.41
1:AA:136:C:N4	1:AA:227:G:H1	2.18	0.41
1:AA:46:G:H2'	1:AA:366:C:H5	1.85	0.41
1:AA:545:C:O2'	1:AA:549:C:H5''	2.21	0.41
23:AD:5:G:N2	23:AD:70:C:C4	2.78	0.41
2:AE:210:SER:O	2:AE:214:ILE:HG13	2.20	0.41
3:AF:69:HIS:HA	3:AF:104:GLN:O	2.20	0.41
3:AF:43:LEU:O	3:AF:47:LEU:HB2	2.20	0.41
16:AS:50:LYS:HD3	16:AS:50:LYS:C	2.40	0.41
18:AU:88:LYS:HB3	18:AU:88:LYS:HZ3	1.85	0.41
19:AV:32:LYS:HA	19:AV:50:ALA:HB3	2.03	0.41
41:B2:53:GLU:O	41:B2:53:GLU:HG2	2.21	0.41
53:B7:47:ARG:HB2	53:B7:48:LYS:H	1.64	0.41
25:BA:1048:A:N3	25:BA:1048:A:H2'	2.36	0.41
25:BA:1056:G:C2	25:BA:1103:A:N6	2.68	0.41
25:BA:1578:U:O2	25:BA:1578:U:H2'	2.21	0.41
25:BA:1586:A:N3	25:BA:1586:A:O4'	2.53	0.41
25:BA:1637:A:H4'	25:BA:2711:A:O2'	2.21	0.41
25:BA:1652:A:H2'	25:BA:1653:G:H5'	2.03	0.41
25:BA:1824:G:N3	27:BD:254:THR:OG1	2.54	0.41
25:BA:2135:A:C2'	25:BA:2136:C:O5'	2.68	0.41
25:BA:2554:U:H2'	25:BA:2555:U:C6	2.55	0.41
25:BA:2805:G:H5''	25:BA:2807:G:OP2	2.21	0.41
25:BA:2815:C:H2'	25:BA:2816:C:C6	2.54	0.41
25:BA:2839:G:H2'	25:BA:2840:C:C6	2.56	0.41
25:BA:442:G:N3	29:BF:48:THR:HG23	2.35	0.41
25:BA:830:G:H4'	25:BA:831:G:OP2	2.21	0.41
25:BA:975:G:H1'	25:BA:990:A:C2	2.55	0.41
27:BD:34:VAL:HG21	27:BD:103:ARG:HA	2.01	0.41
32:BK:77:LEU:CD1	32:BK:140:LEU:HB2	2.51	0.41
34:BN:34:THR:HG22	34:BN:37:ASP:OD2	2.20	0.41
38:BQ:111:GLU:CA	38:BQ:111:GLU:OE1	2.66	0.41
44:BU:52:SER:CB	44:BU:53:PRO:HD3	2.51	0.41
44:BU:81:LYS:HB3	44:BU:82:PRO:O	2.21	0.41
45:BV:121:HIS:C	45:BV:123:ASP:H	2.24	0.41
45:BV:164:ALA:C	45:BV:165:VAL:CG1	2.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1052:U:C5'	1:CA:1053:G:OP2	2.69	0.41
1:CA:1068:G:N7	1:CA:1094:G:N7	2.68	0.41
1:CA:1106:G:C4	1:CA:1107:C:C5	3.08	0.41
1:CA:1349:A:C2'	1:CA:1350:A:O5'	2.69	0.41
1:CA:1379:G:C2'	1:CA:1380:U:H5'	2.51	0.41
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.56	0.41
1:CA:1483:A:H8	1:CA:1483:A:O5'	2.02	0.41
1:CA:227:G:H2'	1:CA:228:A:O4'	2.21	0.41
1:CA:345:C:O2	1:CA:346:G:N2	2.54	0.41
1:CA:373:A:H2'	1:CA:374:A:H8	1.86	0.41
1:CA:407:G:H2'	1:CA:408:A:H8	1.83	0.41
1:CA:464:G:C6	1:CA:466:C:H5'	2.56	0.41
1:CA:577:G:H2'	1:CA:578:C:C6	2.56	0.41
1:CA:859:A:H2'	1:CA:860:A:O4'	2.21	0.41
1:CA:864:A:C2	1:CA:917:G:N3	2.89	0.41
1:CA:932:C:N4	7:CJ:3:ARG:NH2	2.69	0.41
22:CB:31:C:C4	22:CB:32:C:H5	2.39	0.41
23:CD:15:G:C2'	23:CD:15:G:N3	2.83	0.41
23:CD:5:G:N2	23:CD:70:C:C2	2.89	0.41
4:CG:111:ALA:HB2	4:CG:120:LEU:HD12	2.03	0.41
7:CJ:60:LYS:HA	7:CJ:60:LYS:HD2	1.90	0.41
8:CK:95:VAL:HG22	8:CK:131:GLY:O	2.20	0.41
9:CL:11:LYS:HG2	9:CL:11:LYS:O	2.21	0.41
13:CP:3:ARG:HB2	50:D4:34:GLU:CD	2.41	0.41
13:CP:73:GLU:OE2	50:D4:52:THR:HG21	2.21	0.41
1:CA:265:G:H5'	17:CT:64:PRO:O	2.20	0.41
25:DA:1225:C:O2'	41:D2:85:LYS:HB2	2.21	0.41
46:D3:19:LYS:HG3	46:D3:41:ARG:HH12	1.86	0.41
25:DA:1029:A:H8	25:DA:1029:A:O5'	2.03	0.41
25:DA:1113:U:H2'	25:DA:1114:G:C8	2.56	0.41
25:DA:1223:C:C2'	25:DA:1224:G:H5'	2.50	0.41
25:DA:1686:C:C2	25:DA:1703:G:N2	2.89	0.41
25:DA:1859:A:C2	25:DA:1884:A:H1'	2.56	0.41
25:DA:2103:C:O2'	25:DA:2104:G:H5'	2.21	0.41
25:DA:2525:G:N2	25:DA:2539:C:C2	2.89	0.41
25:DA:2593:U:C2	25:DA:2594:C:C5	3.09	0.41
25:DA:2698:U:H2'	25:DA:2699:C:H6	1.85	0.41
25:DA:2873:A:N3	25:DA:2873:A:H2'	2.36	0.41
25:DA:775:G:C4	25:DA:794:G:C8	3.09	0.41
25:DA:857:C:C6	25:DA:858:U:H5	2.39	0.41
29:DF:29:ASN:HA	29:DF:30:PRO:HD3	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:11:TYR:CE2	30:DG:16:ARG:HD2	2.56	0.41
30:DG:70:VAL:HA	30:DG:90:LEU:HD12	2.02	0.41
31:DH:20:ALA:O	31:DH:22:GLY:N	2.49	0.41
1:AA:55:A:C6	32:DK:89:TYR:CD1	3.09	0.41
25:DA:1012:U:N3	33:DM:25:ARG:HD3	2.36	0.41
35:DO:125:VAL:HG13	35:DO:144:GLU:HB3	2.01	0.41
25:DA:2415:G:C4'	35:DO:66:GLY:HA3	2.48	0.41
36:DP:7:MET:HB3	36:DP:10:ARG:NH1	2.36	0.41
36:DP:42:ILE:N	36:DP:42:ILE:HD12	2.36	0.41
38:DQ:106:ARG:HA	38:DQ:110:LEU:CG	2.51	0.41
38:DQ:104:GLY:C	38:DQ:106:ARG:H	2.24	0.41
38:DQ:107:GLU:H	38:DQ:110:LEU:HG	1.86	0.41
43:DT:51:VAL:O	43:DT:51:VAL:HG12	2.20	0.41
45:DV:117:LEU:HD13	45:DV:117:LEU:HA	1.78	0.41
45:DV:59:LEU:O	45:DV:60:GLU:CB	2.68	0.41
1:AA:1004:A:C5	1:AA:1025:U:H1'	2.55	0.41
1:AA:1131:G:C2'	1:AA:1132:C:H5'	2.51	0.41
1:AA:148:G:H2'	1:AA:149:A:H8	1.85	0.41
1:AA:1502:A:H2	1:AA:1505:G:C2	2.38	0.41
1:AA:775:G:C2'	1:AA:776:G:H5'	2.51	0.41
1:AA:8:A:H5'	5:AH:101:ILE:CG2	2.49	0.41
22:AB:45:U:C6	22:AB:45:U:C3'	3.03	0.41
23:AD:21:U:H3'	23:AD:22:A:H5'	2.02	0.41
3:AF:150:LYS:HE3	3:AF:152:ILE:CD1	2.51	0.41
4:AG:119:GLN:HG3	4:AG:123:HIS:CD2	2.56	0.41
6:AI:61:LEU:HD23	6:AI:63:TYR:OH	2.21	0.41
10:AM:80:LYS:HD3	10:AM:80:LYS:O	2.21	0.41
17:AT:68:ARG:O	17:AT:68:ARG:HG3	2.19	0.41
19:AV:40:ILE:O	19:AV:41:VAL:CG2	2.69	0.41
19:AV:41:VAL:O	50:B4:63:TYR:CE1	2.74	0.41
25:BA:559:G:N2	40:B1:49:HIS:CD2	2.82	0.41
54:B8:58:ILE:HA	54:B8:61:LEU:HG	2.03	0.41
25:BA:1331:A:HO2'	25:BA:1332:G:H8	1.67	0.41
25:BA:141:A:H1'	25:BA:1408:C:O4'	2.20	0.41
25:BA:2591:C:OP1	27:BD:239:ARG:HG3	2.20	0.41
25:BA:2598:A:C2'	25:BA:2599:G:O5'	2.69	0.41
25:BA:468:G:C6	25:BA:469:G:C4	3.09	0.41
25:BA:690:G:H2'	25:BA:691:C:C6	2.56	0.41
25:BA:728:G:H4'	27:BD:13:ARG:HD3	2.03	0.41
25:BA:882:G:H1	25:BA:894:C:N4	2.19	0.41
25:BA:981:A:H1'	25:BA:2037:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:997:G:OP1	40:B1:93:LYS:HD2	2.21	0.41
27:BD:58:HIS:HD2	27:BD:59:LYS:O	2.04	0.41
27:BD:64:ILE:HG21	27:BD:64:ILE:HD13	1.75	0.41
29:BF:101:LEU:HA	29:BF:101:LEU:HD12	1.81	0.41
29:BF:197:ASP:OD2	29:BF:197:ASP:N	2.52	0.41
30:BG:115:ARG:HG2	30:BG:115:ARG:H	1.67	0.41
31:BH:115:VAL:HG11	31:BH:148:ILE:CG1	2.49	0.41
31:BH:149:ARG:HG2	31:BH:149:ARG:O	2.21	0.41
32:BK:135:GLU:CD	32:BK:135:GLU:N	2.74	0.41
32:BK:84:GLY:N	32:BK:89:TYR:CE1	2.89	0.41
35:BO:49:ARG:HD2	54:B8:58:ILE:CG2	2.51	0.41
35:BO:62:LEU:O	35:BO:62:LEU:HD23	2.21	0.41
25:BA:2415:G:C4'	35:BO:66:GLY:HA3	2.47	0.41
35:BO:96:THR:C	35:BO:98:GLU:N	2.74	0.41
36:BP:85:LYS:HG2	36:BP:86:GLY:H	1.86	0.41
25:BA:2864:G:OP1	39:BR:119:LYS:HD2	2.21	0.41
39:BR:13:ARG:HG2	39:BR:13:ARG:H	1.73	0.41
44:BU:27:VAL:O	44:BU:27:VAL:CG2	2.69	0.41
45:BV:104:PHE:CE1	45:BV:119:GLU:HA	2.55	0.41
24:C1:19:U:H2'	24:C1:20:U:H6	1.86	0.41
1:CA:1022:G:C6	1:CA:1023:G:C5	3.09	0.41
1:CA:1132:C:H2'	1:CA:1133:G:O4'	2.20	0.41
1:CA:1206:G:O6	1:CA:1207:G:C6	2.73	0.41
1:CA:1378:C:C5	1:CA:1379:G:C4	3.02	0.41
1:CA:1417:G:C6	1:CA:1482:G:C6	3.09	0.41
1:CA:1413:A:C2	1:CA:1488:G:C2	3.09	0.41
1:CA:515:G:H2'	1:CA:516:U:O4'	2.21	0.41
1:CA:962:C:H2'	1:CA:963:G:O4'	2.21	0.41
1:CA:992:U:C2'	1:CA:993:G:OP2	2.69	0.41
23:CD:29:C:H2'	23:CD:30:G:C8	2.55	0.41
2:CE:71:VAL:HB	2:CE:164:VAL:HG13	2.03	0.41
3:CF:52:LEU:N	3:CF:52:LEU:HD23	2.36	0.41
5:CH:70:PRO:HB3	5:CH:144:THR:CG2	2.46	0.41
5:CH:79:GLU:HB3	5:CH:92:LYS:HG3	2.02	0.41
8:CK:33:GLU:OE1	8:CK:50:ARG:HD2	2.20	0.41
9:CL:47:LEU:C	9:CL:49:PRO:HD2	2.41	0.41
12:CO:35:GLY:HA3	12:CO:58:VAL:CG1	2.50	0.41
12:CO:60:LEU:CD2	12:CO:66:VAL:HG22	2.51	0.41
16:CS:3:LYS:HG3	16:CS:24:ALA:HB2	2.03	0.41
17:CT:86:GLU:O	17:CT:90:ILE:HG12	2.21	0.41
18:CU:84:LYS:HE2	18:CU:84:LYS:CA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:16:LEU:O	19:CV:20:LEU:HD23	2.21	0.41
25:DA:1651:G:OP1	37:D0:40:LYS:HE2	2.21	0.41
40:D1:24:TYR:O	40:D1:29:SER:HB3	2.20	0.41
51:D5:56:LYS:HA	51:D5:56:LYS:HD2	1.67	0.41
25:DA:1599:C:C2	25:DA:1600:C:C5	3.09	0.41
25:DA:2093:G:O5'	32:DK:24:GLY:HA3	2.21	0.41
25:DA:2393:A:H2'	25:DA:2394:C:O4'	2.20	0.41
25:DA:2517:C:N3	25:DA:2542:A:N6	2.69	0.41
25:DA:2745:C:O2'	31:DH:142:GLY:HA3	2.21	0.41
25:DA:2819:G:H2'	25:DA:2821:A:N7	2.35	0.41
25:DA:309:G:O3'	44:DU:18:GLY:HA3	2.21	0.41
25:DA:5:A:C2	25:DA:2899:G:C2	3.09	0.41
25:DA:71:A:H5''	25:DA:73:A:C8	2.56	0.41
25:DA:868:U:N3	25:DA:869:G:N7	2.69	0.41
25:DA:986:C:H2'	25:DA:987:G:C5'	2.49	0.41
26:DB:37:C:C5	26:DB:38:C:C5	3.09	0.41
26:DB:89(A):A:N7	26:DB:90:C:H1'	2.35	0.41
25:DA:773:U:H5'	27:DD:47:GLY:HA2	2.03	0.41
27:DD:83:GLU:HB2	27:DD:92:ILE:HG13	2.03	0.41
27:DD:9:TYR:HD2	27:DD:10:THR:HG23	1.86	0.41
29:DF:25:PRO:C	29:DF:27:GLU:N	2.74	0.41
32:DK:97:ILE:CD1	32:DK:140:LEU:HD22	2.50	0.41
35:DO:101:VAL:HG12	35:DO:102:ARG:N	2.36	0.41
36:DP:68:ILE:HD13	36:DP:103:MET:CB	2.47	0.41
39:DR:90:GLN:NE2	39:DR:90:GLN:HA	2.25	0.41
44:DU:89:PHE:HD1	44:DU:90:LEU:CD2	2.34	0.41
1:AA:1004:A:C4'	1:AA:1025:U:H3	2.33	0.41
1:AA:1157:A:N6	1:AA:1178:G:N2	2.68	0.41
1:AA:1223:C:H3'	1:AA:1224:G:H5''	2.02	0.41
1:AA:198:G:C5	1:AA:220:G:C2	3.09	0.41
1:AA:373:A:N6	1:AA:391:G:C2	2.89	0.41
1:AA:859:A:H2'	1:AA:860:A:O4'	2.20	0.41
2:AE:114:ARG:HE	2:AE:118:LEU:HD11	1.84	0.41
3:AF:84:ILE:O	3:AF:84:ILE:HG12	2.21	0.41
7:AJ:17:VAL:HB	7:AJ:44:TYR:CZ	2.56	0.41
12:AO:6:THR:OG1	12:AO:9:GLN:HG3	2.20	0.41
14:AQ:26:ARG:HD3	14:AQ:43:CYS:HB3	2.03	0.41
17:AT:78:GLU:O	17:AT:78:GLU:HG2	2.20	0.41
20:AW:58:LYS:O	20:AW:62:LEU:HD12	2.21	0.41
37:B0:44:LEU:HA	37:B0:44:LEU:HD23	1.89	0.41
50:B4:43:TYR:O	50:B4:43:TYR:CG	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B4:55:ARG:NH1	50:B4:56:VAL:HG23	2.35	0.41
25:BA:1049:C:C4	25:BA:1050:A:C2	3.09	0.41
25:BA:1091:G:N2	25:BA:1101:U:H1'	2.36	0.41
25:BA:1102:C:H2'	25:BA:1103:A:C8	2.52	0.41
25:BA:1447:G:O2'	25:BA:1448:G:H5'	2.21	0.41
25:BA:1458:C:H4'	25:BA:1459:G:C5'	2.50	0.41
25:BA:2125:G:C2	25:BA:2172:U:OP1	2.73	0.41
25:BA:2301:C:C6	25:BA:2301:C:C3'	3.04	0.41
25:BA:2313:C:H2'	25:BA:2314:C:H6	1.85	0.41
25:BA:2473:U:O2	25:BA:2473:U:H2'	2.21	0.41
25:BA:2472:G:C4	25:BA:2475:C:N4	2.89	0.41
25:BA:2598:A:H2'	25:BA:2599:G:O5'	2.21	0.41
25:BA:2712:U:O2'	25:BA:2712(A):A:OP2	2.34	0.41
25:BA:304:G:C2	25:BA:314:A:N3	2.89	0.41
25:BA:529:A:C8	25:BA:530:G:O6	2.74	0.41
25:BA:649:G:C5	25:BA:650:C:C4	3.09	0.41
25:BA:654(B):C:H2'	25:BA:654(C):G:C8	2.56	0.41
25:BA:743:G:C2'	25:BA:744:G:H5'	2.50	0.41
25:BA:809:G:H2'	25:BA:810:U:O5'	2.20	0.41
25:BA:856:C:O2'	25:BA:857:C:O5'	2.39	0.41
26:BB:31:C:O2'	26:BB:32:C:H5'	2.21	0.41
27:BD:101:GLU:HG3	27:BD:102:LYS:N	2.36	0.41
29:BF:9:ILE:CD1	29:BF:125:LEU:HG	2.38	0.41
31:BH:167:GLU:HA	31:BH:168:PRO:HD3	1.72	0.41
31:BH:4:ILE:CG1	31:BH:6:ARG:CZ	2.93	0.41
31:BH:77:LYS:O	31:BH:77:LYS:HG2	2.21	0.41
31:BH:84:SER:O	31:BH:85:LYS:HB2	2.20	0.41
33:BM:23:LEU:HD12	33:BM:23:LEU:O	2.21	0.41
35:BO:19:VAL:HG23	35:BO:27:HIS:CG	2.55	0.41
38:BQ:87:PHE:CE1	38:BQ:102:ALA:HB2	2.56	0.41
39:BR:37:GLY:O	39:BR:38:ASN:HB3	2.21	0.41
42:BS:88:ARG:HD3	42:BS:94:ASP:OD1	2.21	0.41
44:BU:30:VAL:HG22	44:BU:37:VAL:HG12	2.03	0.41
45:BV:52:SER:O	45:BV:52:SER:OG	2.30	0.41
1:CA:1091:U:C2	1:CA:1093:A:OP2	2.74	0.41
1:CA:1164:G:N1	1:CA:1173:G:C6	2.89	0.41
1:CA:1272:G:H2'	1:CA:1273:G:O4'	2.21	0.41
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.84	0.41
1:CA:345:C:O2'	1:CA:346:G:P	2.74	0.41
1:CA:359:U:H2'	1:CA:360:A:C8	2.56	0.41
1:CA:66:G:H4'	1:CA:173:U:C5	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CC:38:A:O2'	23:CC:39:A:H5'	2.21	0.41
23:CD:31:G:C4	23:CD:32:G:C8	3.09	0.41
1:CA:1205:U:H1'	3:CF:195:VAL:HG23	2.03	0.41
4:CG:126:ILE:HG23	4:CG:147:ALA:O	2.21	0.41
6:CI:7:ASN:HB3	18:CU:76:LEU:HD21	2.03	0.41
8:CK:119:LEU:HD13	8:CK:123:GLU:O	2.21	0.41
9:CL:81:ILE:O	9:CL:81:ILE:HG22	2.22	0.41
10:CM:99:LYS:HD3	10:CM:100:THR:N	2.35	0.41
12:CO:47:LYS:O	12:CO:49:ASN:N	2.54	0.41
1:CA:625:G:H4'	16:CS:16:HIS:CD2	2.56	0.41
20:CW:72:LEU:HD11	20:CW:80:ARG:NH1	2.36	0.41
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.21	0.41
25:DA:1488:G:C6	25:DA:1489:U:N3	2.89	0.41
25:DA:1831:G:H2'	25:DA:1832:C:C6	2.55	0.41
25:DA:2134:A:H2'	25:DA:2134:A:N3	2.36	0.41
25:DA:2364:C:H2'	25:DA:2365:G:C5'	2.51	0.41
25:DA:2529:G:H5''	25:DA:2530:A:H5''	2.03	0.41
25:DA:2526:G:C2	25:DA:2538:C:O2	2.74	0.41
25:DA:370:G:H4'	25:DA:371:A:OP2	2.21	0.41
25:DA:61:G:C8	48:DW:47:ASN:HB3	2.56	0.41
25:DA:668:G:C2'	25:DA:669:G:OP1	2.68	0.41
25:DA:820:A:H2'	25:DA:821:A:O4'	2.20	0.41
25:DA:862:G:H2'	25:DA:863:A:O4'	2.21	0.41
26:DB:42:C:H4'	30:DG:67:LYS:CD	2.49	0.41
27:DD:172:TYR:CD1	27:DD:186:HIS:HA	2.56	0.41
27:DD:28:GLU:CB	27:DD:29:PRO:CD	2.98	0.41
28:DE:57:LYS:NZ	28:DE:72:VAL:HG13	2.35	0.41
28:DE:28:ALA:O	28:DE:93:VAL:HG22	2.21	0.41
29:DF:128:ALA:O	29:DF:129:PHE:C	2.59	0.41
29:DF:18:ARG:CG	29:DF:19:GLU:N	2.84	0.41
32:DK:11:ASN:O	32:DK:12:LEU:HD12	2.21	0.41
32:DK:110:ASP:OD2	32:DK:130:TYR:HE1	2.04	0.41
33:DM:38:HIS:CE1	33:DM:39:ARG:CG	3.04	0.41
35:DO:71:VAL:HG13	35:DO:72:PRO:CD	2.51	0.41
42:DS:40:ASN:O	42:DS:40:ASN:ND2	2.52	0.41
45:DV:24:LEU:HA	45:DV:25:PRO:HD3	1.93	0.41
1:AA:1053:G:C5	1:AA:1199:U:C5	3.09	0.40
1:AA:1251:A:H1'	1:AA:1369:C:O2'	2.21	0.40
1:AA:1347:G:OP2	9:AL:107:ARG:HG2	2.21	0.40
1:AA:335:C:O2'	1:AA:1433:A:N3	2.45	0.40
1:AA:1443:G:H3'	1:AA:1446:A:C5'	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:838:G:N2	1:AA:848:C:N3	2.55	0.40
22:AB:42:U:H5'	22:AB:43:A:P	2.60	0.40
23:AC:2:G:C4	23:AC:3:C:C5	3.09	0.40
23:AC:19:G:C2	23:AC:59:A:C5	3.09	0.40
4:AG:88:VAL:HG12	4:AG:88:VAL:O	2.21	0.40
5:AH:9:LYS:HE3	5:AH:9:LYS:HB2	1.88	0.40
16:AS:82:GLN:H	16:AS:82:GLN:HG2	1.62	0.40
18:AU:22:VAL:O	18:AU:22:VAL:HG13	2.22	0.40
19:AV:41:VAL:HG21	19:AV:67:VAL:HG22	2.01	0.40
46:B3:31:VAL:HG11	46:B3:67:VAL:CG2	2.51	0.40
25:BA:464:U:H4'	53:B7:5:TRP:CZ3	2.56	0.40
25:BA:1084:A:C6	25:BA:1085:A:N6	2.89	0.40
25:BA:1532:C:H42	25:BA:1539:G:H1	1.68	0.40
25:BA:1831:G:H2'	25:BA:1832:C:C6	2.57	0.40
25:BA:2098:U:N3	25:BA:2099:U:C5	2.89	0.40
25:BA:459:U:H2'	25:BA:460:A:C8	2.56	0.40
25:BA:654:A:C2'	25:BA:654:A:N3	2.79	0.40
25:BA:747:U:P	51:B5:3:LYS:HG2	2.61	0.40
25:BA:776:G:H4'	25:BA:777:A:O5'	2.22	0.40
25:BA:814:C:C2'	25:BA:815:C:H5'	2.51	0.40
25:BA:818:G:H5'	25:BA:839:U:OP1	2.21	0.40
25:BA:979:G:H3'	25:BA:980:A:H5''	2.03	0.40
25:BA:991:C:C2	25:BA:992:C:C5	3.09	0.40
26:BB:99:A:C6	26:BB:100:G:C5	3.09	0.40
27:BD:25:THR:HG23	27:BD:26:LYS:HD2	2.02	0.40
29:BF:101:LEU:HD12	29:BF:102:PRO:CD	2.51	0.40
30:BG:111:LEU:O	30:BG:114:ILE:HG12	2.21	0.40
33:BM:114:ARG:O	33:BM:115:ARG:CB	2.69	0.40
35:BO:60:MET:O	35:BO:60:MET:HG3	2.21	0.40
36:BP:103:MET:CE	36:BP:125:LEU:HD13	2.51	0.40
44:BU:102:CYS:SG	44:BU:103:GLY:N	2.90	0.40
45:BV:112:ARG:C	45:BV:114:GLY:HA2	2.40	0.40
48:BW:59:ARG:O	48:BW:63:VAL:HG23	2.21	0.40
47:BZ:81:LYS:HA	47:BZ:81:LYS:HD2	1.89	0.40
1:CA:1002:G:C2	1:CA:1003:G:C4	3.09	0.40
1:CA:1126:U:C1'	1:CA:1127:G:P	3.08	0.40
1:CA:1348:U:H4'	9:CL:120:ARG:HG3	2.03	0.40
1:CA:444:C:H2'	1:CA:445:G:C8	2.56	0.40
1:CA:559:A:N3	1:CA:559:A:H2'	2.36	0.40
1:CA:655:A:C2	1:CA:754:C:N4	2.90	0.40
1:CA:934:C:C4	1:CA:1345:U:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:15:A:OP2	22:CB:16:U:H5	2.03	0.40
23:CC:12:G:H1'	25:DA:1923:U:O2'	2.21	0.40
23:CD:54:G:C4	23:CD:55:U:C5	3.08	0.40
3:CF:123:GLN:HB3	3:CF:128:PHE:HB2	2.03	0.40
3:CF:154:SER:O	3:CF:196:LEU:HD13	2.21	0.40
3:CF:190:ARG:N	3:CF:190:ARG:HD2	2.35	0.40
4:CG:88:VAL:HG13	5:CH:97:GLY:CA	2.51	0.40
5:CH:43:LEU:HB2	5:CH:136:MET:SD	2.60	0.40
7:CJ:79:ARG:HA	7:CJ:83:ALA:O	2.21	0.40
8:CK:21:LYS:HG2	8:CK:23:SER:O	2.22	0.40
14:CQ:22:THR:OG1	14:CQ:33:VAL:CG1	2.68	0.40
17:CT:100:LYS:HA	17:CT:100:LYS:HD2	1.78	0.40
18:CU:71:LYS:O	18:CU:75:ILE:HG13	2.21	0.40
41:D2:62:LEU:HD22	41:D2:95:LEU:N	2.36	0.40
50:D4:8:LYS:HA	50:D4:8:LYS:HD2	1.72	0.40
25:DA:1131:G:C2	25:DA:1132:A:C4	3.09	0.40
25:DA:1300:U:H4'	25:DA:1301:A:OP2	2.20	0.40
25:DA:1450:C:C2	25:DA:1451:C:C5	3.09	0.40
25:DA:1491:G:O2'	25:DA:1492:G:H5'	2.20	0.40
25:DA:1545(A):A:H2'	25:DA:1546:C:O5'	2.21	0.40
25:DA:1742:C:H5'	25:DA:1743:G:OP2	2.21	0.40
25:DA:1817:G:H2'	25:DA:1818:U:H5'	2.02	0.40
25:DA:1973:G:H2'	25:DA:1974:C:H6	1.87	0.40
25:DA:2016:U:H2'	25:DA:2017:U:H6	1.86	0.40
25:DA:213:A:H2'	25:DA:214:G:O4'	2.21	0.40
25:DA:2241:A:H2'	25:DA:2242:G:C8	2.56	0.40
25:DA:2262:U:O2'	25:DA:2263:C:H5'	2.21	0.40
25:DA:2335:A:O2'	25:DA:2336:A:O5'	2.35	0.40
25:DA:2401:U:O2	25:DA:2402:C:C5	2.73	0.40
25:DA:2581:G:N3	25:DA:2581:G:H2'	2.36	0.40
25:DA:2805:G:H2'	25:DA:2807:G:H8	1.85	0.40
25:DA:611:C:C2'	25:DA:612:G:H5'	2.51	0.40
25:DA:619:G:H5''	25:DA:620:G:OP2	2.21	0.40
25:DA:620:G:H8	25:DA:622:G:O6	2.03	0.40
25:DA:839:U:H1'	25:DA:1191:G:H1'	2.03	0.40
25:DA:84:A:OP2	44:DU:8:LYS:HD3	2.21	0.40
28:DE:105:THR:HA	28:DE:166:THR:HA	2.03	0.40
28:DE:58:ARG:O	28:DE:60:ASN:OD1	2.38	0.40
28:DE:46:ALA:CB	28:DE:82:ARG:CB	2.76	0.40
28:DE:8:LYS:C	28:DE:9:VAL:HG13	2.41	0.40
29:DF:116:ASP:OD1	29:DF:119:ARG:NH2	2.49	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:616:A:C8	29:DF:176:LEU:HD11	2.56	0.40
30:DG:142:PRO:HG2	30:DG:143:GLU:CD	2.41	0.40
30:DG:52:ILE:HD13	30:DG:52:ILE:HA	1.79	0.40
30:DG:81:LYS:HA	30:DG:81:LYS:HD3	1.90	0.40
34:DN:98:VAL:HG13	34:DN:117:LEU:HB3	2.03	0.40
35:DO:62:LEU:O	35:DO:62:LEU:HD23	2.21	0.40
38:DQ:106:ARG:H	38:DQ:106:ARG:HG3	1.30	0.40
1:AA:1301:U:O2	1:AA:1301:U:C2'	2.69	0.40
1:AA:144:G:C5	1:AA:179:A:C2	3.09	0.40
1:AA:1510:U:H1'	1:AA:1526:G:N2	2.36	0.40
1:AA:9:G:C2	1:AA:26:A:N1	2.89	0.40
1:AA:457:C:N3	1:AA:476:G:C2	2.89	0.40
1:AA:493:G:H8	1:AA:493:G:O5'	2.04	0.40
1:AA:723:U:C5'	1:AA:724:G:OP2	2.70	0.40
1:AA:872:A:C2	1:AA:874:G:C6	3.09	0.40
1:AA:943:U:H2'	1:AA:944:G:H5'	2.04	0.40
23:AC:17:C:O2	23:AC:17:C:O2'	2.39	0.40
2:AE:102:LEU:HB3	2:AE:180:LEU:CD1	2.52	0.40
5:AH:151:LEU:HD11	8:AK:77:GLU:OE2	2.20	0.40
9:AL:5:TYR:CG	9:AL:6:GLY:N	2.89	0.40
11:AN:73:MET:HA	11:AN:77:MET:H	1.86	0.40
11:AN:85:ARG:HH11	11:AN:85:ARG:HG3	1.87	0.40
12:AO:89:ARG:NH1	12:AO:89:ARG:CG	2.82	0.40
14:AQ:2:ALA:HB1	14:AQ:6:LEU:HD12	2.02	0.40
15:AR:48:LYS:HA	15:AR:48:LYS:HD2	1.90	0.40
18:AU:25:THR:C	18:AU:26:LEU:HD23	2.41	0.40
21:AX:25:LYS:O	21:AX:26:LYS:HB3	2.21	0.40
37:B0:75:LEU:HA	37:B0:78:LYS:HB3	2.03	0.40
50:B4:14:ILE:HG23	50:B4:15:ILE:N	2.36	0.40
25:BA:1142(A):A:C5	25:BA:1144:G:C5	3.09	0.40
25:BA:1163:G:C2	25:BA:1164:G:C8	3.10	0.40
25:BA:117:G:C6	25:BA:119:A:C6	3.09	0.40
25:BA:11:G:C2'	25:BA:12:U:H5'	2.51	0.40
25:BA:1210:A:C8	25:BA:1210:A:H5'	2.43	0.40
25:BA:1364:G:N7	47:BZ:2:SER:HB3	2.36	0.40
25:BA:1438:U:O2'	25:BA:1439:A:H5'	2.20	0.40
25:BA:2032:G:O2'	28:BE:145:LYS:HE3	2.22	0.40
25:BA:2124:G:C2'	25:BA:2125:G:H5'	2.51	0.40
25:BA:2199:A:OP2	25:BA:2205:C:H5	2.04	0.40
25:BA:2474:C:H3'	25:BA:2475:C:H6	1.85	0.40
25:BA:2768:C:C2	25:BA:2769:C:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:284:U:H2'	25:BA:285:C:C6	2.56	0.40
25:BA:355:G:O2'	25:BA:356:G:H5'	2.21	0.40
25:BA:365:C:H2'	25:BA:366:C:O4'	2.21	0.40
25:BA:452:G:C4	25:BA:458:G:C6	3.09	0.40
25:BA:477:A:C6	25:BA:478:A:C6	3.09	0.40
25:BA:889:C:O2	25:BA:889:C:O5'	2.39	0.40
25:BA:893:C:C4	25:BA:894:C:N4	2.90	0.40
26:BB:18:G:H1	26:BB:65:C:H42	1.70	0.40
27:BD:18:VAL:HG12	27:BD:19:ALA:N	2.37	0.40
27:BD:44:ASN:HB3	27:BD:48:ARG:C	2.41	0.40
28:BE:1:MET:HB3	28:BE:200:GLU:CD	2.41	0.40
28:BE:31:CYS:HB3	28:BE:49:LEU:HG	2.04	0.40
29:BF:117:ARG:HD3	29:BF:117:ARG:HA	1.50	0.40
29:BF:165:ARG:NH1	29:BF:165:ARG:HG3	2.36	0.40
29:BF:24:LEU:HA	29:BF:25:PRO:HD2	1.89	0.40
31:BH:137:ASP:O	31:BH:138:LYS:CB	2.68	0.40
32:BK:133:HIS:HB2	32:BK:134:PRO:HD2	2.03	0.40
32:BK:79:ILE:O	32:BK:142:VAL:HA	2.20	0.40
36:BP:137:TYR:C	36:BP:139:GLU:N	2.74	0.40
38:BQ:20:ARG:HE	38:BQ:20:ARG:HB3	1.57	0.40
42:BS:57:ASN:HA	42:BS:57:ASN:HD22	1.57	0.40
43:BT:3:THR:O	43:BT:6:ASP:HB2	2.21	0.40
44:BU:6:HIS:ND1	44:BU:7:VAL:HG13	2.37	0.40
44:BU:86:ARG:HA	44:BU:86:ARG:HD2	1.87	0.40
49:BX:32:GLN:NE2	49:BX:32:GLN:HA	2.36	0.40
49:BX:59:VAL:HG22	49:BX:60:GLU:N	2.37	0.40
47:BZ:21:ARG:HD3	47:BZ:35:THR:CG2	2.52	0.40
1:CA:1105:A:H2'	1:CA:1106:G:C8	2.56	0.40
1:CA:1227:A:H3'	1:CA:1227:A:C8	2.56	0.40
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.56	0.40
1:CA:852:G:C6	1:CA:853:G:N7	2.89	0.40
1:CA:966:G:O2'	9:CL:127:LYS:O	2.39	0.40
23:CD:24:C:H2'	23:CD:25:U:H6	1.85	0.40
2:CE:178:ARG:HA	2:CE:178:ARG:HD3	1.90	0.40
1:CA:1190:G:OP1	3:CF:4:LYS:HA	2.22	0.40
3:CF:79:ARG:HG2	3:CF:79:ARG:H	1.70	0.40
4:CG:13:ARG:O	4:CG:15:GLU:N	2.52	0.40
4:CG:190:ASP:O	4:CG:194:LEU:HD22	2.21	0.40
10:CM:24:VAL:HG12	10:CM:25:GLU:N	2.36	0.40
11:CN:33:THR:HG22	11:CN:39:PRO:HA	2.03	0.40
13:CP:22:ILE:HB	13:CP:25:ILE:HG13	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:32:GLU:O	13:CP:35:GLU:HB3	2.20	0.40
1:CA:719:C:H42	18:CU:71:LYS:HE2	1.85	0.40
19:CV:14:HIS:HD2	19:CV:15:LEU:H	1.68	0.40
37:D0:84:ALA:N	37:D0:85:PRO:HD2	2.36	0.40
40:D1:100:VAL:C	40:D1:101:ARG:HG2	2.40	0.40
46:D3:50:ASN:C	46:D3:62:LEU:HD12	2.42	0.40
25:DA:1059:G:O6	25:DA:1080:A:C6	2.75	0.40
25:DA:1321:A:H2'	25:DA:1322:A:O4'	2.22	0.40
25:DA:139:G:N3	25:DA:141:A:N1	2.69	0.40
25:DA:1908:C:O5'	25:DA:1908:C:H6	2.04	0.40
25:DA:2107:C:H2'	25:DA:2108:C:O4'	2.22	0.40
25:DA:2162:G:O2'	25:DA:2173:A:OP2	2.39	0.40
25:DA:221:A:C4	25:DA:266:G:N7	2.89	0.40
25:DA:2263:C:O2'	25:DA:2264:C:H5'	2.22	0.40
25:DA:2461:C:H2'	25:DA:2462:U:H6	1.84	0.40
25:DA:2751:G:C2	31:DH:2:SER:N	2.88	0.40
25:DA:329:G:C4'	25:DA:330:A:OP2	2.69	0.40
27:DD:35:LYS:HB3	27:DD:64:ILE:H	1.86	0.40
28:DE:60:ASN:HD22	28:DE:61:ARG:H	1.69	0.40
29:DF:140:LEU:HD22	29:DF:170:LEU:HD21	2.04	0.40
38:DQ:83:LYS:C	38:DQ:109:GLY:HA3	2.42	0.40
38:DQ:49:VAL:CG2	38:DQ:80:LEU:HD12	2.51	0.40
39:DR:113:LYS:HD2	39:DR:113:LYS:HA	1.78	0.40
42:DS:57:ASN:O	42:DS:61:ASN:HB2	2.22	0.40
45:DV:60:GLU:O	45:DV:61:LEU:O	2.39	0.40
48:DW:10:LEU:HA	48:DW:10:LEU:HD12	1.76	0.40
1:AA:1256:A:C2	1:AA:1277:C:C4	3.08	0.40
1:AA:260:G:H2'	1:AA:261:U:C6	2.57	0.40
1:AA:109:A:C6	1:AA:326:G:C6	3.10	0.40
1:AA:424:G:C2	1:AA:425:G:C8	3.09	0.40
1:AA:464:G:N2	1:AA:468:A:H62	2.20	0.40
1:AA:1190:G:OP2	3:AF:5:ILE:HG23	2.21	0.40
4:AG:25:ARG:CZ	4:AG:30:LYS:HG3	2.51	0.40
5:AH:96:PRO:HA	5:AH:117:ASP:OD1	2.22	0.40
1:AA:15:G:H4'	5:AH:24:ARG:NH1	2.36	0.40
8:AK:118:VAL:O	8:AK:119:LEU:HD23	2.21	0.40
9:AL:3:GLN:OE1	9:AL:20:ARG:NH1	2.54	0.40
10:AM:81:THR:O	10:AM:84:GLN:HB2	2.22	0.40
11:AN:12:ARG:HG2	11:AN:13:GLN:H	1.87	0.40
19:AV:13:ASP:O	19:AV:16:LEU:N	2.55	0.40
52:B6:36:LEU:HD23	52:B6:36:LEU:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1012:U:O4	33:BM:25:ARG:HA	2.21	0.40
25:BA:1077:A:N3	25:BA:1078:U:H5''	2.36	0.40
25:BA:1444:G:H5''	25:BA:1444(A):A:OP1	2.21	0.40
25:BA:1533:C:N4	25:BA:1538:G:H1	2.17	0.40
25:BA:1654:A:OP2	37:B0:2:ARG:HD3	2.21	0.40
25:BA:1728:G:C3'	25:BA:1729:A:H5''	2.44	0.40
25:BA:1894:C:O2'	25:BA:1895:C:H5'	2.21	0.40
25:BA:2246:G:H2'	25:BA:2247:A:C8	2.56	0.40
25:BA:2472:G:H22	25:BA:2477:C:H5''	1.86	0.40
25:BA:2689:U:H5'	25:BA:2689:U:C6	2.56	0.40
25:BA:270(Z):U:O3'	25:BA:271(A):C:H6	2.05	0.40
25:BA:2729:G:H1'	28:BE:187:ALA:HB2	2.03	0.40
25:BA:287:C:O2'	25:BA:288:C:H5'	2.21	0.40
25:BA:529:A:C8	25:BA:530:G:C6	3.07	0.40
25:BA:671:C:H2'	25:BA:672:C:C6	2.57	0.40
25:BA:868:U:C4	25:BA:869:G:N7	2.90	0.40
27:BD:131:LEU:HB2	27:BD:136:ILE:HD11	2.03	0.40
27:BD:35:LYS:HZ3	27:BD:104:TYR:CB	2.32	0.40
27:BD:43:ARG:HB2	27:BD:54:ARG:HB2	2.02	0.40
25:BA:779:U:OP1	27:BD:49:ILE:HG13	2.21	0.40
25:BA:2572:A:H2'	28:BE:144:ARG:HG3	2.04	0.40
30:BG:125:PHE:CZ	30:BG:170:ARG:HA	2.56	0.40
31:BH:89:ILE:O	31:BH:89:ILE:CG1	2.66	0.40
32:BK:47:LEU:O	32:BK:47:LEU:HD12	2.21	0.40
33:BM:28:THR:HA	33:BM:106:MET:CE	2.51	0.40
48:BW:24:LEU:O	48:BW:28:LYS:HG2	2.22	0.40
1:CA:1176:A:N6	1:CA:1177:G:C5	2.86	0.40
1:CA:1212:U:HO2'	1:CA:1213:A:H8	1.70	0.40
1:CA:1354:C:O2'	1:CA:1355:G:H5'	2.22	0.40
1:CA:1449:C:H2'	1:CA:1450:U:OP1	2.21	0.40
1:CA:147:G:O2'	1:CA:148:G:H5'	2.22	0.40
1:CA:57:G:C5	1:CA:58:C:C5	3.09	0.40
23:CC:35:C:C2	23:CC:36:A:C8	3.09	0.40
23:CD:21:U:H3'	23:CD:22:A:C5'	2.52	0.40
23:CD:42:C:C5	23:CD:43:G:N7	2.90	0.40
4:CG:59:ARG:NH2	4:CG:66:ARG:NH1	2.69	0.40
4:CG:76:ARG:NH2	4:CG:80:GLU:OE1	2.50	0.40
9:CL:5:TYR:CD2	9:CL:17:VAL:O	2.74	0.40
15:CR:4:THR:OG1	15:CR:7:GLU:HB2	2.21	0.40
16:CS:3:LYS:N	16:CS:22:THR:O	2.47	0.40
50:D4:14:ILE:HA	50:D4:30:GLU:HB3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D5:40:LYS:HB2	51:D5:40:LYS:HE3	1.90	0.40
25:DA:1476:C:O2'	25:DA:1477:A:H5'	2.22	0.40
25:DA:2115:G:H2'	25:DA:2116:G:C8	2.56	0.40
25:DA:2127:G:C2	25:DA:2173:A:C8	3.09	0.40
25:DA:2309:A:H2'	25:DA:2310:A:O4'	2.22	0.40
25:DA:2469:A:C8	25:DA:2482:G:C4	3.09	0.40
25:DA:2815:C:O2'	51:D5:43:HIS:CD2	2.75	0.40
25:DA:2817:G:OP1	37:D0:99:LYS:NZ	2.55	0.40
25:DA:319:C:H2'	25:DA:320:A:O4'	2.22	0.40
25:DA:631:A:C6	25:DA:632:A:C2	3.09	0.40
25:DA:68:G:H2'	25:DA:69:C:C6	2.57	0.40
25:DA:684:G:C2	25:DA:774:A:C2	3.10	0.40
27:DD:45:ASN:OD1	27:DD:45:ASN:C	2.60	0.40
30:DG:150:ASP:CG	30:DG:151:ALA:N	2.75	0.40
26:DB:55:U:O2'	30:DG:29:TRP:HD1	2.03	0.40
30:DG:56:ALA:HA	30:DG:59:GLU:HB3	2.04	0.40
35:DO:30:THR:O	35:DO:31:ALA:HB3	2.21	0.40
36:DP:77:LYS:HD3	36:DP:81:VAL:HG21	2.04	0.40
38:DQ:41:ASP:C	38:DQ:41:ASP:OD1	2.58	0.40
39:DR:19:LEU:HD22	39:DR:86:ILE:CG2	2.50	0.40
25:DA:309:G:O3'	44:DU:18:GLY:CA	2.69	0.40
44:DU:90:LEU:HD23	44:DU:90:LEU:N	2.35	0.40
45:DV:58:VAL:CG1	45:DV:60:GLU:HB3	2.52	0.40
48:DW:15:LYS:HD3	48:DW:67:LYS:HZ1	1.85	0.40
48:DW:68:ARG:HG3	48:DW:68:ARG:NH1	2.36	0.40
47:DZ:50:ARG:HE	47:DZ:50:ARG:HB2	1.61	0.40
1:AA:1004:A:C1'	1:AA:1036:G:N1	2.63	0.40
1:AA:1061:G:OP2	3:AF:2:GLY:O	2.40	0.40
1:AA:114:U:H2'	1:AA:115:G:C8	2.56	0.40
1:AA:1305:G:C8	1:AA:1305:G:OP2	2.75	0.40
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.56	0.40
1:AA:815:A:O2'	1:AA:1527:C:H1'	2.21	0.40
1:AA:55:A:H2	32:DK:82:ARG:HG2	1.86	0.40
1:AA:578:C:C2'	1:AA:579:G:O5'	2.69	0.40
1:AA:56:U:H2'	1:AA:57:G:C8	2.56	0.40
1:AA:812:C:H2'	1:AA:812:C:H6	1.63	0.40
1:AA:816:A:OP1	1:AA:1526:G:O2'	2.29	0.40
22:AB:18:G:H1'	22:AB:19:G:P	2.62	0.40
23:AC:25:U:H2'	23:AC:26:C:O4'	2.21	0.40
23:AD:75:C:H2'	23:AD:76:C:O4'	2.21	0.40
2:AE:206:ASP:O	2:AE:207:ALA:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:8:LYS:N	2:AE:8:LYS:CD	2.84	0.40
3:AF:181:ASN:HD21	3:AF:204:LEU:HB2	1.83	0.40
7:AJ:29:LYS:HA	7:AJ:29:LYS:HE2	2.02	0.40
7:AJ:69:VAL:HG12	7:AJ:69:VAL:O	2.21	0.40
9:AL:111:ARG:O	9:AL:111:ARG:HG3	2.20	0.40
10:AM:100:THR:O	10:AM:101:VAL:HG23	2.22	0.40
10:AM:30:SER:HG	10:AM:84:GLN:HE21	1.58	0.40
6:AI:97:PHE:CD2	18:AU:31:LEU:HD21	2.54	0.40
37:B0:1:MET:HE3	37:B0:1:MET:HB2	1.99	0.40
46:B3:31:VAL:HG23	46:B3:32:ARG:N	2.37	0.40
46:B3:75:LEU:HA	46:B3:75:LEU:HD23	1.90	0.40
35:BO:64:LYS:CG	54:B8:25:MET:SD	3.09	0.40
25:BA:1063:G:H22	25:BA:1076:C:H1'	1.86	0.40
25:BA:1085:A:N3	25:BA:1086:A:C5	2.89	0.40
25:BA:1581:G:C6	25:BA:1582:C:C4	3.10	0.40
25:BA:1642:G:O2'	25:BA:1643:G:H5'	2.20	0.40
25:BA:2364:C:C2'	25:BA:2365:G:H5'	2.51	0.40
25:BA:2370:G:C6	25:BA:2371:G:C6	3.09	0.40
25:BA:269:U:C5	25:BA:270(Z):U:C6	3.09	0.40
25:BA:2756:U:H1'	25:BA:2757:A:H5''	2.02	0.40
25:BA:2801:A:OP1	25:BA:2895:U:O2'	2.36	0.40
25:BA:314:A:O2'	25:BA:315:G:H5'	2.21	0.40
25:BA:821:A:C5'	25:BA:822:U:H6	2.35	0.40
26:BB:40:U:C2'	26:BB:41:U:OP1	2.69	0.40
27:BD:26:LYS:CD	27:BD:26:LYS:H	2.35	0.40
28:BE:35:GLN:CB	28:BE:48:GLN:HB2	2.51	0.40
28:BE:51:PHE:CE1	28:BE:52:LEU:CD2	2.98	0.40
30:BG:145:THR:HG22	50:B4:28:LYS:NZ	2.36	0.40
30:BG:73:ALA:CB	30:BG:82:LEU:HD11	2.51	0.40
31:BH:50:VAL:O	31:BH:50:VAL:CG2	2.70	0.40
31:BH:62:LYS:HB2	31:BH:62:LYS:HE2	1.88	0.40
32:BK:101:LEU:HD22	32:BK:109:ILE:CG2	2.51	0.40
32:BK:104:GLN:O	32:BK:105:HIS:HB2	2.19	0.40
32:BK:81:VAL:HG21	32:BK:88:ILE:CD1	2.50	0.40
32:BK:94:ALA:HB2	32:BK:116:LEU:HB2	2.04	0.40
34:BN:73:ASP:C	34:BN:73:ASP:OD1	2.59	0.40
38:BQ:106:ARG:O	38:BQ:107:GLU:HB3	2.21	0.40
39:BR:113:LYS:HD2	39:BR:113:LYS:HA	1.87	0.40
45:BV:111:VAL:HG21	45:BV:146:ILE:HG13	2.03	0.40
24:C1:16:A:H2'	24:C1:17:U:O4'	2.21	0.40
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1278:U:H5''	1:CA:1279:A:O4'	2.21	0.40
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.54	0.40
1:CA:1436:U:H2'	1:CA:1437:C:C6	2.57	0.40
1:CA:1446:A:C6	39:DR:118:ARG:NH1	2.90	0.40
1:CA:376:G:N3	1:CA:389:A:C2	2.90	0.40
1:CA:410:G:C2	1:CA:429:U:C2	3.09	0.40
1:CA:468:A:C8	1:CA:474:G:C8	3.09	0.40
1:CA:474:G:C2	1:CA:475:G:C4	3.10	0.40
1:CA:977:A:H8	1:CA:982:U:O4	2.05	0.40
22:CB:37:G:H2'	22:CB:38:G:H8	1.85	0.40
22:CB:2:C:H2'	22:CB:3:C:O4'	2.21	0.40
22:CB:44:G:C6	22:CB:45:U:N3	2.89	0.40
23:CC:62:C:N3	23:CC:63:C:C5	2.90	0.40
23:CD:15:G:C2	23:CD:49:C:O2	2.73	0.40
2:CE:55:PHE:HD1	2:CE:55:PHE:HA	1.76	0.40
2:CE:6:THR:O	2:CE:7:VAL:HB	2.21	0.40
3:CF:120:VAL:HG12	3:CF:121:ALA:N	2.36	0.40
4:CG:108:LEU:HD13	4:CG:174:LEU:HD13	2.03	0.40
4:CG:132:ARG:HG3	4:CG:133:VAL:N	2.36	0.40
4:CG:31:CYS:O	4:CG:32:ALA:CB	2.66	0.40
4:CG:50:ARG:HA	4:CG:51:PRO:HD3	1.80	0.40
1:CA:879:C:H5	12:CO:6:THR:HG21	1.87	0.40
19:CV:11:VAL:CG2	19:CV:16:LEU:HD11	2.51	0.40
37:D0:104:ARG:HB2	37:D0:107:ASP:OD2	2.20	0.40
37:D0:82:GLU:C	37:D0:85:PRO:HD2	2.41	0.40
50:D4:58:ARG:HH21	50:D4:58:ARG:HG3	1.87	0.40
37:D0:101:ALA:HB1	51:D5:41:PRO:HG3	2.03	0.40
53:D7:42:LEU:HA	53:D7:42:LEU:HD23	1.84	0.40
54:D8:29:LYS:HB2	54:D8:44:LYS:HB3	2.03	0.40
54:D8:30:ARG:O	54:D8:31:HIS:CB	2.70	0.40
54:D8:39:LYS:C	54:D8:41:ILE:N	2.70	0.40
25:DA:1000:A:N1	25:DA:1155:A:C4	2.89	0.40
25:DA:1087:G:H2'	25:DA:1089:G:O4'	2.21	0.40
25:DA:1105:U:O2'	25:DA:1106:G:H5'	2.21	0.40
25:DA:1508:A:H4'	25:DA:1510:A:C2	2.57	0.40
25:DA:1945:G:C4	25:DA:1946:U:C5	3.10	0.40
25:DA:1967:C:H2'	25:DA:1968:G:O5'	2.22	0.40
25:DA:1131:G:O6	25:DA:2040:C:H1'	2.22	0.40
25:DA:2070:G:C2	25:DA:2442:C:C2	3.09	0.40
25:DA:2489:G:O2'	25:DA:2490:G:H5'	2.20	0.40
25:DA:270(T):G:C6	25:DA:270(U):C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:751:A:C6	25:DA:789:A:C5	3.09	0.40
25:DA:809:G:O4'	25:DA:1254:A:H1'	2.21	0.40
25:DA:993:G:C5	25:DA:994:C:C5	3.10	0.40
26:DB:9:G:C2	26:DB:112:G:C4	3.10	0.40
26:DB:43:C:C4'	30:DG:66:GLN:NE2	2.84	0.40
27:DD:96:HIS:ND1	27:DD:102:LYS:HD3	2.37	0.40
28:DE:70:ALA:O	28:DE:72:VAL:HG23	2.21	0.40
30:DG:94:LEU:HD23	30:DG:94:LEU:H	1.87	0.40
31:DH:68:THR:HG22	31:DH:72:ILE:HD11	2.02	0.40
45:DV:155:LEU:HA	45:DV:155:LEU:HD23	1.76	0.40
45:DV:23:LYS:HE2	45:DV:40:ASP:OD2	2.22	0.40
1:AA:1372:U:C2'	1:AA:1373:G:O5'	2.70	0.40
1:AA:1405:G:H2'	1:AA:1406:U:O5'	2.22	0.40
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.56	0.40
1:AA:687:A:H2'	1:AA:701:C:N4	2.37	0.40
23:AD:6:G:O2'	23:AD:7:G:H5'	2.22	0.40
2:AE:111:ARG:HH11	2:AE:111:ARG:HA	1.86	0.40
3:AF:108:ASN:HB3	3:AF:111:LEU:HB2	2.04	0.40
3:AF:58:GLU:O	3:AF:59:ARG:HG3	2.21	0.40
4:AG:144:ASP:O	4:AG:184:LYS:HA	2.22	0.40
4:AG:146:ILE:CD1	4:AG:146:ILE:N	2.84	0.40
4:AG:3:ARG:H	4:AG:3:ARG:HG3	1.58	0.40
7:AJ:31:MET:CE	7:AJ:36:LYS:HZ2	2.35	0.40
7:AJ:56:GLN:H	7:AJ:56:GLN:HG2	1.65	0.40
10:AM:50:ILE:HD13	10:AM:60:ARG:HD3	2.03	0.40
40:B1:50:ARG:HG2	40:B1:53:ARG:HH22	1.86	0.40
40:B1:79:PHE:CE2	40:B1:83:LEU:CD2	3.01	0.40
52:B6:11:LEU:CD2	52:B6:26:ASN:HB3	2.52	0.40
52:B6:11:LEU:HD23	52:B6:26:ASN:HB3	2.04	0.40
53:B7:8:ASN:ND2	53:B7:11:LYS:HB3	2.36	0.40
54:B8:36:LYS:HD3	54:B8:40:GLU:OE2	2.21	0.40
25:BA:1018:C:H2'	25:BA:1018:C:O2	2.21	0.40
25:BA:1043:C:C2'	25:BA:1044:G:H5'	2.51	0.40
25:BA:988:A:O4'	25:BA:1155:A:H2	2.03	0.40
25:BA:1534:G:O2'	25:BA:1535:U:H4'	2.22	0.40
25:BA:1558:A:O2'	25:BA:1559:G:OP2	2.40	0.40
25:BA:1726:G:H2'	25:BA:1727:U:O4'	2.21	0.40
25:BA:1758:G:H4'	25:BA:1759:A:OP2	2.20	0.40
25:BA:2213:U:H6	25:BA:2213:U:O5'	2.04	0.40
25:BA:2298:A:N6	25:BA:2318:G:H1'	2.37	0.40
25:BA:2335:A:C8	25:BA:2337:G:C6	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2559:C:H2'	25:BA:2560:C:H6	1.86	0.40
25:BA:2734:A:C8	25:BA:2734:A:C5'	3.02	0.40
25:BA:2855:C:H2'	25:BA:2856:C:C6	2.55	0.40
25:BA:2841:C:C2	25:BA:2877:G:N2	2.90	0.40
25:BA:608:A:C4	25:BA:621:A:C6	3.10	0.40
25:BA:988:A:H8	25:BA:988:A:O5'	2.04	0.40
27:BD:161:THR:O	27:BD:162:SER:HB3	2.22	0.40
27:BD:181:GLU:HB2	27:BD:273:ARG:HB2	2.02	0.40
28:BE:61:ARG:C	28:BE:63:LEU:N	2.73	0.40
29:BF:63:LYS:HE2	29:BF:67:GLN:HB2	2.04	0.40
31:BH:152:ARG:HH21	31:BH:153:LYS:HE2	1.85	0.40
33:BM:114:ARG:O	33:BM:116:LEU:N	2.55	0.40
33:BM:17:ASP:O	33:BM:18:ALA:HB3	2.22	0.40
33:BM:43:THR:H	33:BM:48:MET:CE	2.34	0.40
35:BO:91:PHE:HZ	35:BO:103:ALA:CB	2.33	0.40
36:BP:29:PHE:HB3	36:BP:65:PHE:CE1	2.57	0.40
38:BQ:38:GLN:CG	38:BQ:47:THR:HG21	2.51	0.40
38:BQ:99:LYS:O	38:BQ:103:GLU:HG3	2.21	0.40
39:BR:111:ARG:O	39:BR:112:ARG:CG	2.69	0.40
42:BS:9:TYR:N	42:BS:102:HIS:CD2	2.80	0.40
43:BT:92:LEU:HD23	43:BT:92:LEU:HA	1.84	0.40
1:CA:1007:C:C4	1:CA:1008:C:C5	3.10	0.40
1:CA:1045:C:H2'	1:CA:1046:A:C4'	2.52	0.40
1:CA:1116:C:O2'	9:CL:108:VAL:HG11	2.22	0.40
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.57	0.40
1:CA:1399:C:H4'	1:CA:1400:C:O5'	2.21	0.40
1:CA:810:C:C2'	1:CA:811:C:H5'	2.51	0.40
1:CA:836:G:C6	1:CA:851:G:C6	3.10	0.40
1:CA:949:A:C2	1:CA:1233:G:N3	2.89	0.40
23:CD:37:U:C5	23:CD:38:A:N7	2.90	0.40
2:CE:169:LYS:O	2:CE:169:LYS:HD3	2.21	0.40
2:CE:85:ALA:CB	2:CE:92:TYR:HD1	2.32	0.40
3:CF:47:LEU:HD13	3:CF:47:LEU:O	2.21	0.40
4:CG:60:GLU:OE2	4:CG:199:ASN:N	2.53	0.40
5:CH:151:LEU:HD11	8:CK:77:GLU:OE2	2.20	0.40
11:CN:58:PRO:HG3	11:CN:89:ALA:O	2.20	0.40
12:CO:32:PHE:HD1	12:CO:86:ARG:HA	1.87	0.40
19:CV:40:ILE:HG22	19:CV:67:VAL:HA	2.02	0.40
1:CA:1320:C:C2	19:CV:72:GLY:HA3	2.56	0.40
40:D1:92:ARG:HG3	40:D1:94:ASN:N	2.31	0.40
54:D8:30:ARG:C	54:D8:32:LEU:H	2.24	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:835:A:OP1	54:D8:52:LYS:HG3	2.21	0.40
25:DA:1150:C:H2'	25:DA:1151:G:O4'	2.21	0.40
25:DA:1299:G:H5''	25:DA:1300:U:H5''	2.02	0.40
25:DA:1359:A:N7	25:DA:1372:U:O4	2.55	0.40
25:DA:1889:A:H2'	25:DA:1890:A:O4'	2.22	0.40
25:DA:2103:C:H2'	25:DA:2104:G:H8	1.83	0.40
25:DA:2271:G:H2'	25:DA:2272:U:H6	1.87	0.40
25:DA:2695:C:H2'	25:DA:2696:U:H6	1.85	0.40
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.57	0.40
25:DA:2:G:H1	25:DA:2901:C:N4	2.12	0.40
25:DA:506:G:H5''	25:DA:509:C:H1'	2.04	0.40
25:DA:637:A:OP1	35:DO:133:SER:HB3	2.21	0.40
25:DA:686:G:H1	53:D7:16:HIS:CD2	2.37	0.40
25:DA:826:U:H2'	25:DA:828:U:O4'	2.22	0.40
25:DA:910:A:N3	25:DA:2264:C:O2'	2.49	0.40
25:DA:959:A:N1	25:DA:960:A:C2	2.89	0.40
25:DA:1903:G:OP1	27:DD:241:PRO:HB2	2.21	0.40
25:DA:1902:C:OP1	27:DD:242:ARG:HD3	2.21	0.40
27:DD:44:ASN:HB3	27:DD:49:ILE:CA	2.29	0.40
28:DE:30:PRO:HB2	28:DE:90:THR:HG23	2.04	0.40
35:DO:102:ARG:HH21	35:DO:102:ARG:HG3	1.87	0.40
35:DO:128:HIS:CE1	35:DO:148:LEU:HD21	2.57	0.40
36:DP:54:MET:HG2	36:DP:117:ALA:HB1	2.03	0.40
38:DQ:62:LYS:HB3	38:DQ:97:ARG:CD	2.49	0.40
39:DR:92:GLY:HA2	39:DR:116:ALA:CA	2.49	0.40
42:DS:37:ARG:HG2	42:DS:38:TYR:CE2	2.57	0.40
45:DV:131:ARG:CD	45:DV:131:ARG:H	2.35	0.40
45:DV:6:LYS:H	45:DV:6:LYS:HG3	1.65	0.40

All (3) 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:AA:85:U:O2'	31:DH:100:GLY:O[3_555]	1.90	0.30
1:CA:86:U:O2'	25:DA:276:A:OP2[3_545]	2.02	0.18
6:AI:15:ASP:OD2	4:CG:27:TYR:OH[4_555]	2.17	0.03



## 5.3 Torsion angles ⓘ

### 5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AE	235/256 (92%)	190 (81%)	45 (19%)	0	100	100
2	CE	235/256 (92%)	190 (81%)	41 (17%)	4 (2%)	11	44
3	AF	203/239 (85%)	179 (88%)	24 (12%)	0	100	100
3	CF	204/239 (85%)	179 (88%)	23 (11%)	2 (1%)	18	59
4	AG	206/208 (99%)	179 (87%)	24 (12%)	3 (2%)	12	48
4	CG	206/208 (99%)	179 (87%)	25 (12%)	2 (1%)	18	59
5	AH	149/162 (92%)	137 (92%)	10 (7%)	2 (1%)	14	51
5	CH	149/162 (92%)	139 (93%)	10 (7%)	0	100	100
6	AI	99/101 (98%)	92 (93%)	7 (7%)	0	100	100
6	CI	99/101 (98%)	94 (95%)	5 (5%)	0	100	100
7	AJ	153/156 (98%)	142 (93%)	11 (7%)	0	100	100
7	CJ	153/156 (98%)	143 (94%)	10 (6%)	0	100	100
8	AK	136/138 (99%)	123 (90%)	12 (9%)	1 (1%)	25	67
8	CK	136/138 (99%)	123 (90%)	13 (10%)	0	100	100
9	AL	125/128 (98%)	110 (88%)	15 (12%)	0	100	100
9	CL	125/128 (98%)	114 (91%)	11 (9%)	0	100	100
10	AM	97/105 (92%)	86 (89%)	11 (11%)	0	100	100
10	CM	97/105 (92%)	84 (87%)	9 (9%)	4 (4%)	3	19
11	AN	117/129 (91%)	102 (87%)	14 (12%)	1 (1%)	20	62
11	CN	117/129 (91%)	104 (89%)	13 (11%)	0	100	100
12	AO	123/132 (93%)	105 (85%)	16 (13%)	2 (2%)	11	46
12	CO	123/132 (93%)	105 (85%)	15 (12%)	3 (2%)	7	34
13	AP	114/126 (90%)	89 (78%)	23 (20%)	2 (2%)	10	43
13	CP	115/126 (91%)	96 (84%)	17 (15%)	2 (2%)	11	44
14	AQ	58/61 (95%)	49 (84%)	9 (16%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	CQ	58/61 (95%)	49 (84%)	8 (14%)	1 (2%)	11	44
15	AR	86/89 (97%)	74 (86%)	11 (13%)	1 (1%)	15	53
15	CR	86/89 (97%)	76 (88%)	10 (12%)	0	100	100
16	AS	82/88 (93%)	71 (87%)	8 (10%)	3 (4%)	4	22
16	CS	82/88 (93%)	75 (92%)	7 (8%)	0	100	100
17	AT	98/105 (93%)	91 (93%)	7 (7%)	0	100	100
17	CT	98/105 (93%)	91 (93%)	7 (7%)	0	100	100
18	AU	70/88 (80%)	64 (91%)	5 (7%)	1 (1%)	13	49
18	CU	70/88 (80%)	61 (87%)	9 (13%)	0	100	100
19	AV	76/93 (82%)	68 (90%)	6 (8%)	2 (3%)	6	31
19	CV	76/93 (82%)	60 (79%)	12 (16%)	4 (5%)	2	13
20	AW	97/106 (92%)	84 (87%)	13 (13%)	0	100	100
20	CW	97/106 (92%)	80 (82%)	16 (16%)	1 (1%)	18	59
21	AX	23/27 (85%)	22 (96%)	1 (4%)	0	100	100
21	CX	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
27	BD	270/276 (98%)	243 (90%)	22 (8%)	5 (2%)	9	41
27	DD	270/276 (98%)	248 (92%)	15 (6%)	7 (3%)	6	31
28	BE	203/206 (98%)	149 (73%)	30 (15%)	24 (12%)	0	2
28	DE	203/206 (98%)	144 (71%)	41 (20%)	18 (9%)	1	4
29	BF	200/210 (95%)	179 (90%)	21 (10%)	0	100	100
29	DF	206/210 (98%)	168 (82%)	30 (15%)	8 (4%)	3	20
30	BG	179/182 (98%)	154 (86%)	20 (11%)	5 (3%)	6	29
30	DG	179/182 (98%)	150 (84%)	28 (16%)	1 (1%)	28	70
31	BH	168/180 (93%)	133 (79%)	28 (17%)	7 (4%)	3	18
31	DH	168/180 (93%)	125 (74%)	35 (21%)	8 (5%)	2	16
32	BK	144/148 (97%)	102 (71%)	32 (22%)	10 (7%)	1	7
32	DK	144/148 (97%)	113 (78%)	28 (19%)	3 (2%)	8	38
33	BM	136/140 (97%)	113 (83%)	16 (12%)	7 (5%)	2	14
33	DM	136/140 (97%)	119 (88%)	15 (11%)	2 (2%)	12	48
34	BN	120/122 (98%)	111 (92%)	9 (8%)	0	100	100
34	DN	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	22	64

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	BO	148/150 (99%)	107 (72%)	27 (18%)	14 (10%)	1	3
35	DO	148/150 (99%)	102 (69%)	24 (16%)	22 (15%)	0	1
36	BP	139/141 (99%)	109 (78%)	27 (19%)	3 (2%)	8	36
36	DP	139/141 (99%)	93 (67%)	30 (22%)	16 (12%)	0	2
37	B0	116/118 (98%)	101 (87%)	13 (11%)	2 (2%)	11	44
37	D0	115/118 (98%)	109 (95%)	6 (5%)	0	100	100
38	BQ	109/112 (97%)	86 (79%)	20 (18%)	3 (3%)	6	29
38	DQ	109/112 (97%)	87 (80%)	19 (17%)	3 (3%)	6	29
39	BR	135/146 (92%)	114 (84%)	21 (16%)	0	100	100
39	DR	135/146 (92%)	119 (88%)	14 (10%)	2 (2%)	12	48
40	B1	115/118 (98%)	103 (90%)	11 (10%)	1 (1%)	20	62
40	D1	115/118 (98%)	101 (88%)	14 (12%)	0	100	100
41	B2	99/101 (98%)	92 (93%)	5 (5%)	2 (2%)	9	39
41	D2	99/101 (98%)	78 (79%)	14 (14%)	7 (7%)	1	6
42	BS	111/113 (98%)	97 (87%)	10 (9%)	4 (4%)	4	22
42	DS	111/113 (98%)	103 (93%)	8 (7%)	0	100	100
43	BT	90/96 (94%)	84 (93%)	4 (4%)	2 (2%)	8	36
43	DT	90/96 (94%)	78 (87%)	10 (11%)	2 (2%)	8	36
44	BU	100/110 (91%)	80 (80%)	15 (15%)	5 (5%)	2	15
44	DU	100/110 (91%)	70 (70%)	24 (24%)	6 (6%)	2	10
45	BV	173/206 (84%)	129 (75%)	37 (21%)	7 (4%)	3	20
45	DV	177/206 (86%)	132 (75%)	35 (20%)	10 (6%)	2	12
46	B3	74/85 (87%)	67 (90%)	5 (7%)	2 (3%)	6	30
46	D3	75/85 (88%)	69 (92%)	6 (8%)	0	100	100
47	BZ	95/98 (97%)	85 (90%)	7 (7%)	3 (3%)	5	26
47	DZ	95/98 (97%)	84 (88%)	10 (10%)	1 (1%)	17	56
48	BW	64/72 (89%)	58 (91%)	4 (6%)	2 (3%)	5	26
48	DW	67/72 (93%)	60 (90%)	6 (9%)	1 (2%)	12	48
49	BX	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
49	DX	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
50	B4	64/71 (90%)	41 (64%)	21 (33%)	2 (3%)	5	26

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	D4	61/71 (86%)	32 (52%)	28 (46%)	1 (2%)	11	46
51	B5	57/60 (95%)	49 (86%)	7 (12%)	1 (2%)	10	43
51	D5	56/60 (93%)	48 (86%)	7 (12%)	1 (2%)	10	43
52	B6	43/54 (80%)	27 (63%)	14 (33%)	2 (5%)	3	16
52	D6	43/54 (80%)	29 (67%)	10 (23%)	4 (9%)	1	4
53	B7	47/49 (96%)	44 (94%)	3 (6%)	0	100	100
53	D7	47/49 (96%)	45 (96%)	2 (4%)	0	100	100
54	B8	59/65 (91%)	47 (80%)	7 (12%)	5 (8%)	1	4
54	D8	59/65 (91%)	40 (68%)	12 (20%)	7 (12%)	0	2
All	All	11335/12052 (94%)	9588 (85%)	1457 (13%)	290 (3%)	6	31

All (290) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	AG	13	ARG
4	AG	14	ARG
11	AN	82	VAL
16	AS	17	TYR
18	AU	22	VAL
27	BD	237	GLU
27	BD	271	ILE
28	BE	15	PHE
28	BE	48	GLN
28	BE	49	LEU
28	BE	54	GLN
28	BE	75	VAL
28	BE	83	ASP
30	BG	78	SER
30	BG	79	ASN
31	BH	165	ALA
31	BH	168	PRO
32	BK	15	VAL
32	BK	105	HIS
33	BM	22	THR
33	BM	46	VAL
33	BM	47	ALA
35	BO	10	PRO
35	BO	16	ARG
35	BO	56	SER

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Mol	Chain	Res	Type
35	BO	57	THR
35	BO	58	THR
42	BS	92	ARG
42	BS	95	ILE
43	BT	68	ARG
45	BV	165	VAL
45	BV	171	ILE
50	B4	50	VAL
51	B5	4	HIS
52	B6	45	LYS
54	B8	32	LEU
3	CF	64	VAL
4	CG	14	ARG
10	CM	58	ASP
19	CV	31	ILE
27	DD	237	GLU
28	DE	9	VAL
28	DE	25	VAL
28	DE	37	ARG
28	DE	45	THR
28	DE	51	PHE
28	DE	54	GLN
28	DE	80	GLU
28	DE	81	ILE
29	DF	68	LYS
29	DF	89	VAL
31	DH	151	ILE
31	DH	153	LYS
31	DH	155	SER
33	DM	46	VAL
35	DO	10	PRO
35	DO	16	ARG
35	DO	21	ARG
35	DO	35	HIS
35	DO	36	LYS
35	DO	46	LYS
35	DO	56	SER
35	DO	57	THR
35	DO	58	THR
36	DP	25	ASP
36	DP	60	ARG
36	DP	63	LYS

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Mol	Chain	Res	Type
36	DP	67	ARG
36	DP	89	ASN
38	DQ	87	PHE
38	DQ	88	ASP
39	DR	55	ASN
41	D2	71	LEU
41	D2	79	VAL
41	D2	83	ARG
41	D2	84	LYS
45	DV	53	ILE
45	DV	146	ILE
45	DV	171	ILE
50	D4	5	ILE
51	D5	4	HIS
52	D6	44	ARG
52	D6	48	VAL
52	D6	49	HIS
54	D8	32	LEU
54	D8	35	GLN
54	D8	51	ALA
8	AK	86	ILE
13	AP	113	PRO
13	AP	116	THR
16	AS	15	PRO
27	BD	28	GLU
28	BE	37	ARG
28	BE	47	VAL
28	BE	57	LYS
28	BE	58	ARG
28	BE	78	LEU
28	BE	81	ILE
28	BE	82	ARG
30	BG	82	LEU
32	BK	100	ALA
32	BK	106	GLY
32	BK	144	VAL
33	BM	9	VAL
33	BM	97	ARG
35	BO	12	ALA
35	BO	65	ARG
35	BO	66	GLY
35	BO	67	MET

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Mol	Chain	Res	Type
36	BP	66	ILE
38	BQ	89	ARG
40	B1	93	LYS
43	BT	67	GLY
45	BV	53	ILE
48	BW	16	LEU
50	B4	5	ILE
52	B6	46	HIS
54	B8	34	TRP
54	B8	35	GLN
54	B8	37	SER
2	CE	7	VAL
2	CE	74	LYS
10	CM	57	LYS
12	CO	26	ALA
19	CV	9	VAL
19	CV	67	VAL
19	CV	68	GLY
28	DE	34	VAL
28	DE	131	ALA
29	DF	87	GLY
29	DF	91	GLY
31	DH	169	VAL
32	DK	143	SER
32	DK	144	VAL
35	DO	11	GLY
35	DO	12	ALA
35	DO	38	GLN
35	DO	50	ARG
35	DO	65	ARG
35	DO	66	GLY
35	DO	67	MET
36	DP	7	MET
36	DP	19	GLY
36	DP	27	VAL
36	DP	28	ALA
36	DP	29	PHE
36	DP	66	ILE
36	DP	79	LEU
36	DP	88	GLY
38	DQ	89	ARG
39	DR	57	PHE

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Mol	Chain	Res	Type
41	D2	45	THR
44	DU	77	PRO
45	DV	142	SER
45	DV	145	GLU
45	DV	165	VAL
54	D8	48	PHE
54	D8	49	VAL
12	AO	18	VAL
12	AO	48	PRO
28	BE	17	ASP
28	BE	42	ASP
28	BE	52	LEU
28	BE	79	ARG
31	BH	84	SER
31	BH	154	PRO
32	BK	11	ASN
32	BK	101	LEU
32	BK	145	VAL
35	BO	6	LEU
38	BQ	86	ALA
41	B2	45	THR
42	BS	94	ASP
44	BU	39	VAL
45	BV	7	ALA
45	BV	141	VAL
46	B3	83	PRO
46	B3	84	LEU
47	BZ	82	LEU
47	BZ	92	LYS
54	B8	11	LYS
2	CE	153	ARG
28	DE	53	PRO
28	DE	82	ARG
29	DF	84	VAL
35	DO	6	LEU
41	D2	85	LYS
45	DV	116	VAL
52	D6	45	LYS
54	D8	50	LEU
16	AS	16	HIS
28	BE	4	ILE
28	BE	14	ILE

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Mol	Chain	Res	Type
28	BE	39	PRO
28	BE	53	PRO
31	BH	83	TYR
32	BK	39	ALA
38	BQ	85	VAL
44	BU	42	VAL
44	BU	49	VAL
44	BU	77	PRO
10	CM	32	ALA
14	CQ	14	PRO
20	CW	95	ALA
27	DD	26	LYS
27	DD	28	GLU
29	DF	92	PRO
31	DH	152	ARG
31	DH	154	PRO
41	D2	49	THR
44	DU	49	VAL
45	DV	161	VAL
4	AG	156	GLU
15	AR	87	ILE
27	BD	240	ALA
33	BM	128	HIS
35	BO	7	ARG
35	BO	11	GLY
35	BO	62	LEU
47	BZ	88	LYS
4	CG	151	LYS
10	CM	86	MET
12	CO	79	GLU
27	DD	29	PRO
27	DD	239	ARG
28	DE	26	ILE
28	DE	52	LEU
28	DE	83	ASP
29	DF	128	ALA
29	DF	132	VAL
33	DM	128	HIS
34	DN	48	PRO
35	DO	23	PRO
35	DO	48	PRO
35	DO	62	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
36	DP	21	THR
36	DP	90	VAL
28	BE	62	PRO
28	BE	118	LYS
30	BG	81	LYS
33	BM	115	ARG
37	B0	11	ASN
37	B0	71	GLN
48	BW	15	LYS
27	DD	240	ALA
28	DE	61	ARG
30	DG	5	VAL
43	DT	68	ARG
44	DU	85	VAL
19	AV	9	VAL
19	AV	41	VAL
28	BE	72	VAL
30	BG	5	VAL
32	BK	133	HIS
35	BO	95	VAL
12	CO	47	LYS
28	DE	134	ILE
43	DT	51	VAL
48	DW	17	SER
44	BU	3	VAL
45	BV	161	VAL
2	CE	39	ILE
3	CF	66	VAL
27	DD	3	VAL
28	DE	62	PRO
35	DO	34	GLY
44	DU	42	VAL
54	D8	53	PRO
5	AH	70	PRO
5	AH	115	VAL
31	BH	167	GLU
45	BV	166	SER
13	CP	117	VAL
31	DH	49	VAL
31	DH	167	GLU
32	DK	145	VAL
35	DO	7	ARG

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Mol	Chain	Res	Type
36	DP	61	GLY
45	DV	141	VAL
47	DZ	30	VAL
36	BP	27	VAL
41	B2	49	THR
44	DU	3	VAL
27	BD	35	LYS
31	BH	10	PRO
36	BP	90	VAL
42	BS	59	VAL
13	CP	84	ILE
44	DU	96	ILE
45	DV	61	LEU

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AE	205/220 (93%)	155 (76%)	50 (24%)	1	3
2	CE	205/220 (93%)	159 (78%)	46 (22%)	1	5
3	AF	159/188 (85%)	120 (76%)	39 (24%)	1	3
3	CF	160/188 (85%)	124 (78%)	36 (22%)	1	5
4	AG	180/180 (100%)	144 (80%)	36 (20%)	1	8
4	CG	180/180 (100%)	140 (78%)	40 (22%)	1	5
5	AH	116/123 (94%)	88 (76%)	28 (24%)	1	4
5	CH	116/123 (94%)	89 (77%)	27 (23%)	1	4
6	AI	90/90 (100%)	76 (84%)	14 (16%)	3	15
6	CI	90/90 (100%)	74 (82%)	16 (18%)	2	11
7	AJ	126/127 (99%)	104 (82%)	22 (18%)	2	11
7	CJ	126/127 (99%)	89 (71%)	37 (29%)	0	2
8	AK	119/119 (100%)	100 (84%)	19 (16%)	3	14
8	CK	119/119 (100%)	94 (79%)	25 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	AL	98/99 (99%)	70 (71%)	28 (29%)	0	2
9	CL	98/99 (99%)	69 (70%)	29 (30%)	0	2
10	AM	89/92 (97%)	66 (74%)	23 (26%)	0	3
10	CM	89/92 (97%)	60 (67%)	29 (33%)	0	1
11	AN	90/99 (91%)	74 (82%)	16 (18%)	2	11
11	CN	90/99 (91%)	73 (81%)	17 (19%)	2	9
12	AO	104/109 (95%)	88 (85%)	16 (15%)	3	15
12	CO	104/109 (95%)	80 (77%)	24 (23%)	1	4
13	AP	94/101 (93%)	71 (76%)	23 (24%)	1	3
13	CP	94/101 (93%)	75 (80%)	19 (20%)	1	7
14	AQ	49/50 (98%)	33 (67%)	16 (33%)	0	1
14	CQ	49/50 (98%)	39 (80%)	10 (20%)	1	7
15	AR	79/80 (99%)	68 (86%)	11 (14%)	4	18
15	CR	79/80 (99%)	66 (84%)	13 (16%)	2	13
16	AS	72/74 (97%)	53 (74%)	19 (26%)	0	3
16	CS	72/74 (97%)	62 (86%)	10 (14%)	4	18
17	AT	95/97 (98%)	82 (86%)	13 (14%)	4	19
17	CT	95/97 (98%)	89 (94%)	6 (6%)	21	57
18	AU	63/77 (82%)	50 (79%)	13 (21%)	1	7
18	CU	63/77 (82%)	48 (76%)	15 (24%)	1	4
19	AV	67/80 (84%)	47 (70%)	20 (30%)	0	2
19	CV	67/80 (84%)	53 (79%)	14 (21%)	1	6
20	AW	76/82 (93%)	60 (79%)	16 (21%)	1	6
20	CW	76/82 (93%)	55 (72%)	21 (28%)	0	2
21	AX	20/22 (91%)	17 (85%)	3 (15%)	3	16
21	CX	20/22 (91%)	20 (100%)	0	100	100
27	BD	214/218 (98%)	172 (80%)	42 (20%)	1	8
27	DD	214/218 (98%)	162 (76%)	52 (24%)	1	4
28	BE	165/166 (99%)	114 (69%)	51 (31%)	0	1
28	DE	165/166 (99%)	121 (73%)	44 (27%)	0	3
29	BF	161/166 (97%)	129 (80%)	32 (20%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles		
29	DF	165/166 (99%)	122 (74%)	43 (26%)	0	3	
30	BG	155/156 (99%)	115 (74%)	40 (26%)	0	3	
30	DG	155/156 (99%)	113 (73%)	42 (27%)	0	2	
31	BH	142/148 (96%)	107 (75%)	35 (25%)	1	3	
31	DH	142/148 (96%)	110 (78%)	32 (22%)	1	5	
32	BK	122/124 (98%)	91 (75%)	31 (25%)	0	3	
32	DK	122/124 (98%)	84 (69%)	38 (31%)	0	1	
33	BM	117/119 (98%)	87 (74%)	30 (26%)	0	3	
33	DM	117/119 (98%)	96 (82%)	21 (18%)	2	11	
34	BN	100/100 (100%)	83 (83%)	17 (17%)	2	12	
34	DN	100/100 (100%)	78 (78%)	22 (22%)	1	5	
35	BO	116/116 (100%)	78 (67%)	38 (33%)	0	1	
35	DO	116/116 (100%)	72 (62%)	44 (38%)	0	1	
36	BP	111/111 (100%)	84 (76%)	27 (24%)	1	4	
36	DP	111/111 (100%)	85 (77%)	26 (23%)	1	4	
37	B0	101/101 (100%)	78 (77%)	23 (23%)	1	5	
37	D0	100/101 (99%)	80 (80%)	20 (20%)	1	8	
38	BQ	87/88 (99%)	65 (75%)	22 (25%)	0	3	
38	DQ	87/88 (99%)	53 (61%)	34 (39%)	0	0	
39	BR	120/127 (94%)	92 (77%)	28 (23%)	1	4	
39	DR	120/127 (94%)	84 (70%)	36 (30%)	0	2	
40	B1	93/94 (99%)	76 (82%)	17 (18%)	2	10	
40	D1	93/94 (99%)	80 (86%)	13 (14%)	4	18	
41	B2	82/82 (100%)	61 (74%)	21 (26%)	0	3	
41	D2	82/82 (100%)	50 (61%)	32 (39%)	0	0	
42	BS	92/92 (100%)	72 (78%)	20 (22%)	1	6	
42	DS	92/92 (100%)	65 (71%)	27 (29%)	0	2	
43	BT	74/78 (95%)	61 (82%)	13 (18%)	2	11	
43	DT	74/78 (95%)	57 (77%)	17 (23%)	1	4	
44	BU	85/91 (93%)	65 (76%)	20 (24%)	1	4	
44	DU	85/91 (93%)	51 (60%)	34 (40%)	0	0	

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	BV	154/179 (86%)	116 (75%)	38 (25%)	1	3
45	DV	158/179 (88%)	124 (78%)	34 (22%)	1	6
46	B3	61/67 (91%)	54 (88%)	7 (12%)	6	27
46	D3	62/67 (92%)	47 (76%)	15 (24%)	1	4
47	BZ	82/83 (99%)	64 (78%)	18 (22%)	1	5
47	DZ	82/83 (99%)	64 (78%)	18 (22%)	1	5
48	BW	62/67 (92%)	42 (68%)	20 (32%)	0	1
48	DW	64/67 (96%)	50 (78%)	14 (22%)	1	5
49	BX	51/52 (98%)	41 (80%)	10 (20%)	1	8
49	DX	51/52 (98%)	42 (82%)	9 (18%)	2	11
50	B4	59/63 (94%)	41 (70%)	18 (30%)	0	2
50	D4	57/63 (90%)	38 (67%)	19 (33%)	0	1
51	B5	51/52 (98%)	35 (69%)	16 (31%)	0	1
51	D5	51/52 (98%)	37 (72%)	14 (28%)	0	2
52	B6	44/52 (85%)	27 (61%)	17 (39%)	0	0
52	D6	44/52 (85%)	31 (70%)	13 (30%)	0	2
53	B7	42/42 (100%)	34 (81%)	8 (19%)	2	9
53	D7	42/42 (100%)	32 (76%)	10 (24%)	1	4
54	B8	51/55 (93%)	40 (78%)	11 (22%)	1	6
54	D8	51/55 (93%)	41 (80%)	10 (20%)	1	8
All	All	9579/9996 (96%)	7317 (76%)	2262 (24%)	1	4

All (2262) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AE	4	GLU
2	AE	8	LYS
2	AE	9	GLU
2	AE	12	GLU
2	AE	15	VAL
2	AE	16	HIS
2	AE	17	PHE
2	AE	20	GLU
2	AE	21	ARG
2	AE	22	LYS

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Mol	Chain	Res	Type
2	AE	24	TRP
2	AE	32	ILE
2	AE	64	ARG
2	AE	67	THR
2	AE	68	ILE
2	AE	71	VAL
2	AE	75	LYS
2	AE	78	GLN
2	AE	82	ARG
2	AE	96	ARG
2	AE	107	THR
2	AE	111	ARG
2	AE	112	VAL
2	AE	119	GLU
2	AE	121	LEU
2	AE	144	ARG
2	AE	145	LEU
2	AE	154	LEU
2	AE	156	LYS
2	AE	163	PHE
2	AE	164	VAL
2	AE	169	LYS
2	AE	172	ILE
2	AE	174	VAL
2	AE	176	GLU
2	AE	178	ARG
2	AE	179	LYS
2	AE	185	ILE
2	AE	187	LEU
2	AE	190	THR
2	AE	191	ASP
2	AE	196	LEU
2	AE	200	ILE
2	AE	204	ASN
2	AE	211	ILE
2	AE	214	ILE
2	AE	215	LEU
2	AE	222	ILE
2	AE	223	ILE
2	AE	240	GLN
3	AF	3	ASN
3	AF	5	ILE

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Mol	Chain	Res	Type
3	AF	6	HIS
3	AF	14	ILE
3	AF	15	THR
3	AF	20	SER
3	AF	21	ARG
3	AF	26	LYS
3	AF	27	LYS
3	AF	29	TYR
3	AF	32	LEU
3	AF	36	ASP
3	AF	38	ARG
3	AF	40	ARG
3	AF	47	LEU
3	AF	49	SER
3	AF	52	LEU
3	AF	62	ASP
3	AF	63	ASN
3	AF	64	VAL
3	AF	79	ARG
3	AF	85	ARG
3	AF	104	GLN
3	AF	111	LEU
3	AF	125	GLU
3	AF	126	ARG
3	AF	128	PHE
3	AF	132	ARG
3	AF	136	GLN
3	AF	138	VAL
3	AF	152	ILE
3	AF	154	SER
3	AF	161	GLU
3	AF	165	THR
3	AF	167	TRP
3	AF	188	LEU
3	AF	192	THR
3	AF	196	LEU
3	AF	202	ILE
4	AG	3	ARG
4	AG	10	ARG
4	AG	11	LEU
4	AG	12	CYS
4	AG	13	ARG

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Mol	Chain	Res	Type
4	AG	14	ARG
4	AG	15	GLU
4	AG	19	LEU
4	AG	26	CYS
4	AG	30	LYS
4	AG	33	MET
4	AG	35	ARG
4	AG	52	SER
4	AG	58	LEU
4	AG	65	ARG
4	AG	84	LYS
4	AG	86	LYS
4	AG	96	LEU
4	AG	110	PHE
4	AG	114	ARG
4	AG	122	ARG
4	AG	127	THR
4	AG	132	ARG
4	AG	134	ASP
4	AG	135	LEU
4	AG	139	ARG
4	AG	154	ASN
4	AG	155	LEU
4	AG	181	MET
4	AG	188	LEU
4	AG	190	ASP
4	AG	192	GLU
4	AG	193	ASP
4	AG	194	LEU
4	AG	200	GLU
4	AG	201	GLN
5	AH	5	ASP
5	AH	10	MET
5	AH	11	ILE
5	AH	12	LEU
5	AH	16	THR
5	AH	20	GLN
5	AH	31	LEU
5	AH	33	VAL
5	AH	41	VAL
5	AH	43	LEU
5	AH	56	GLN

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Mol	Chain	Res	Type
5	AH	57	LYS
5	AH	60	TYR
5	AH	64	ARG
5	AH	72	GLN
5	AH	73	ASN
5	AH	79	GLU
5	AH	81	GLU
5	AH	83	GLU
5	AH	87	SER
5	AH	91	LEU
5	AH	116	THR
5	AH	121	LYS
5	AH	126	ARG
5	AH	131	ILE
5	AH	147	ASP
5	AH	153	LYS
5	AH	155	GLU
6	AI	16	GLN
6	AI	19	LEU
6	AI	21	LEU
6	AI	23	LYS
6	AI	24	GLU
6	AI	25	ILE
6	AI	40	VAL
6	AI	55	ASP
6	AI	64	GLN
6	AI	71	ARG
6	AI	73	ASN
6	AI	75	LEU
6	AI	93	SER
6	AI	98	LEU
7	AJ	8	GLU
7	AJ	12	LEU
7	AJ	24	THR
7	AJ	27	ILE
7	AJ	33	ASP
7	AJ	35	LYS
7	AJ	38	LEU
7	AJ	49	ILE
7	AJ	56	GLN
7	AJ	63	LYS
7	AJ	78	ARG

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Mol	Chain	Res	Type
7	AJ	80	VAL
7	AJ	89	MET
7	AJ	90	GLU
7	AJ	92	SER
7	AJ	104	LEU
7	AJ	113	GLU
7	AJ	124	LEU
7	AJ	131	LYS
7	AJ	141	VAL
7	AJ	149	ARG
7	AJ	155	ARG
8	AK	3	THR
8	AK	19	VAL
8	AK	37	ARG
8	AK	54	ASP
8	AK	63	LEU
8	AK	68	ARG
8	AK	69	ARG
8	AK	75	ARG
8	AK	77	GLU
8	AK	80	ILE
8	AK	85	ARG
8	AK	87	SER
8	AK	95	VAL
8	AK	98	LYS
8	AK	105	ARG
8	AK	107	LEU
8	AK	112	LEU
8	AK	115	SER
8	AK	123	GLU
9	AL	2	GLU
9	AL	7	THR
9	AL	9	ARG
9	AL	10	ARG
9	AL	16	ARG
9	AL	23	ASN
9	AL	25	LYS
9	AL	26	VAL
9	AL	35	GLU
9	AL	38	GLN
9	AL	42	ARG
9	AL	47	LEU

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Mol	Chain	Res	Type
9	AL	64	THR
9	AL	65	VAL
9	AL	70	LYS
9	AL	75	ASP
9	AL	79	LEU
9	AL	85	LEU
9	AL	89	ASN
9	AL	93	ARG
9	AL	95	LYS
9	AL	99	LEU
9	AL	102	LEU
9	AL	111	ARG
9	AL	112	LYS
9	AL	114	TYR
9	AL	121	ARG
9	AL	124	GLN
10	AM	22	LYS
10	AM	24	VAL
10	AM	25	GLU
10	AM	33	GLN
10	AM	34	VAL
10	AM	35	SER
10	AM	42	THR
10	AM	44	VAL
10	AM	46	ARG
10	AM	48	THR
10	AM	49	VAL
10	AM	55	LYS
10	AM	62	HIS
10	AM	70	ARG
10	AM	74	ILE
10	AM	78	ASN
10	AM	80	LYS
10	AM	85	LEU
10	AM	86	MET
10	AM	92	THR
10	AM	96	ILE
10	AM	100	THR
10	AM	101	VAL
11	AN	28	THR
11	AN	29	ILE
11	AN	30	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
11	AN	40	ILE
11	AN	41	THR
11	AN	48	ILE
11	AN	54	ARG
11	AN	63	LEU
11	AN	81	ASP
11	AN	84	VAL
11	AN	91	ARG
11	AN	104	GLN
11	AN	109	VAL
11	AN	114	VAL
11	AN	116	HIS
11	AN	124	LYS
12	AO	7	ILE
12	AO	20	LYS
12	AO	21	LYS
12	AO	59	ARG
12	AO	60	LEU
12	AO	78	GLN
12	AO	81	SER
12	AO	83	VAL
12	AO	85	ILE
12	AO	89	ARG
12	AO	91	LYS
12	AO	102	ARG
12	AO	114	LYS
12	AO	118	SER
12	AO	124	LYS
12	AO	127	GLU
13	AP	11	ARG
13	AP	13	LYS
13	AP	17	VAL
13	AP	20	THR
13	AP	22	ILE
13	AP	34	LEU
13	AP	39	ILE
13	AP	45	VAL
13	AP	47	ASP
13	AP	54	VAL
13	AP	56	LEU
13	AP	64	TRP
13	AP	67	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
13	AP	69	GLU
13	AP	70	LEU
13	AP	78	ILE
13	AP	88	ARG
13	AP	101	GLN
13	AP	102	ARG
13	AP	105	THR
13	AP	108	ARG
13	AP	114	ARG
13	AP	116	THR
14	AQ	3	ARG
14	AQ	7	ILE
14	AQ	9	LYS
14	AQ	13	THR
14	AQ	17	LYS
14	AQ	18	VAL
14	AQ	23	ARG
14	AQ	24	CYS
14	AQ	27	CYS
14	AQ	32	SER
14	AQ	35	ARG
14	AQ	41	ARG
14	AQ	43	CYS
14	AQ	44	LEU
14	AQ	46	GLU
14	AQ	57	ARG
15	AR	25	THR
15	AR	31	LEU
15	AR	38	ARG
15	AR	39	LEU
15	AR	41	GLU
15	AR	47	LYS
15	AR	62	GLN
15	AR	65	ARG
15	AR	66	LEU
15	AR	71	GLN
15	AR	88	ARG
16	AS	2	VAL
16	AS	11	SER
16	AS	16	HIS
16	AS	18	ARG
16	AS	19	ILE

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Mol	Chain	Res	Type
16	AS	20	VAL
16	AS	21	VAL
16	AS	22	THR
16	AS	25	ARG
16	AS	28	ARG
16	AS	53	VAL
16	AS	55	ARG
16	AS	58	TYR
16	AS	67	THR
16	AS	69	THR
16	AS	71	ARG
16	AS	72	ARG
16	AS	75	ARG
16	AS	82	GLN
17	AT	9	VAL
17	AT	17	LYS
17	AT	35	VAL
17	AT	45	HIS
17	AT	52	LYS
17	AT	57	VAL
17	AT	60	ILE
17	AT	62	SER
17	AT	67	LYS
17	AT	68	ARG
17	AT	74	LEU
17	AT	84	LEU
17	AT	101	ARG
18	AU	18	ARG
18	AU	26	LEU
18	AU	31	LEU
18	AU	32	ARG
18	AU	35	ARG
18	AU	36	ASN
18	AU	42	ARG
18	AU	46	GLU
18	AU	61	LYS
18	AU	65	ILE
18	AU	68	LYS
18	AU	76	LEU
18	AU	82	THR
19	AV	7	LYS
19	AV	10	PHE

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Mol	Chain	Res	Type
19	AV	15	LEU
19	AV	22	LEU
19	AV	28	LYS
19	AV	29	ARG
19	AV	30	LEU
19	AV	31	ILE
19	AV	35	SER
19	AV	37	ARG
19	AV	40	ILE
19	AV	43	GLU
19	AV	48	THR
19	AV	60	VAL
19	AV	61	TYR
19	AV	65	ASN
19	AV	66	MET
19	AV	77	THR
19	AV	81	ARG
19	AV	83	HIS
20	AW	8	ARG
20	AW	9	ASN
20	AW	13	LEU
20	AW	14	LYS
20	AW	24	LEU
20	AW	26	ASN
20	AW	29	LYS
20	AW	34	LYS
20	AW	36	LEU
20	AW	41	ILE
20	AW	50	GLU
20	AW	72	LEU
20	AW	73	HIS
20	AW	75	ASN
20	AW	84	LEU
20	AW	93	GLU
21	AX	15	ARG
21	AX	25	LYS
21	AX	26	LYS
27	BD	3	VAL
27	BD	17	THR
27	BD	26	LYS
27	BD	32	SER
27	BD	43	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
27	BD	44	ASN
27	BD	60	ARG
27	BD	61	LEU
27	BD	64	ILE
27	BD	65	ILE
27	BD	89	SER
27	BD	91	ARG
27	BD	94	LEU
27	BD	95	LEU
27	BD	99	ASP
27	BD	103	ARG
27	BD	111	LEU
27	BD	112	GLN
27	BD	115	GLN
27	BD	116	GLN
27	BD	117	VAL
27	BD	126	GLN
27	BD	127	VAL
27	BD	136	ILE
27	BD	141	VAL
27	BD	142	VAL
27	BD	155	LEU
27	BD	164	GLN
27	BD	166	GLN
27	BD	171	ASP
27	BD	183	ARG
27	BD	192	THR
27	BD	193	VAL
27	BD	202	LYS
27	BD	217	ARG
27	BD	221	VAL
27	BD	229	VAL
27	BD	242	ARG
27	BD	257	LEU
27	BD	259	THR
27	BD	267	SER
27	BD	271	ILE
28	BE	2	LYS
28	BE	13	ARG
28	BE	16	ARG
28	BE	19	ARG
28	BE	25	VAL

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Mol	Chain	Res	Type
28	BE	26	ILE
28	BE	27	LEU
28	BE	33	VAL
28	BE	40	GLU
28	BE	41	LYS
28	BE	42	ASP
28	BE	45	THR
28	BE	47	VAL
28	BE	48	GLN
28	BE	49	LEU
28	BE	52	LEU
28	BE	54	GLN
28	BE	57	LYS
28	BE	60	ASN
28	BE	63	LEU
28	BE	66	HIS
28	BE	67	PHE
28	BE	76	ARG
28	BE	81	ILE
28	BE	82	ARG
28	BE	89	ASP
28	BE	93	VAL
28	BE	95	ILE
28	BE	97	LYS
28	BE	101	ARG
28	BE	107	THR
28	BE	113	PHE
28	BE	116	VAL
28	BE	118	LYS
28	BE	119	ARG
28	BE	144	ARG
28	BE	146	THR
28	BE	154	LYS
28	BE	163	GLU
28	BE	167	VAL
28	BE	170	LEU
28	BE	171	GLU
28	BE	175	VAL
28	BE	179	GLU
28	BE	181	LEU
28	BE	182	LEU
28	BE	183	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	BE	185	LYS
28	BE	197	ILE
28	BE	202	LYS
28	BE	203	LYS
29	BF	7	TYR
29	BF	8	GLN
29	BF	9	ILE
29	BF	15	SER
29	BF	27	GLU
29	BF	32	LEU
29	BF	33	LEU
29	BF	38	ARG
29	BF	43	LYS
29	BF	45	ARG
29	BF	46	ARG
29	BF	57	VAL
29	BF	64	ILE
29	BF	67	GLN
29	BF	70	THR
29	BF	82	ILE
29	BF	88	VAL
29	BF	106	ARG
29	BF	108	LYS
29	BF	117	ARG
29	BF	120	GLU
29	BF	127	GLU
29	BF	132	VAL
29	BF	136	THR
29	BF	158	THR
29	BF	161	GLU
29	BF	165	ARG
29	BF	168	ARG
29	BF	181	LEU
29	BF	197	ASP
29	BF	203	GLN
29	BF	206	ILE
30	BG	3	LEU
30	BG	4	ASP
30	BG	10	LYS
30	BG	13	GLU
30	BG	16	ARG
30	BG	20	ILE

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Mol	Chain	Res	Type
30	BG	31	VAL
30	BG	43	LEU
30	BG	45	GLU
30	BG	51	ARG
30	BG	58	GLN
30	BG	60	LEU
30	BG	63	ILE
30	BG	64	THR
30	BG	67	LYS
30	BG	70	VAL
30	BG	71	THR
30	BG	72	ARG
30	BG	75	LYS
30	BG	77	ILE
30	BG	81	LYS
30	BG	82	LEU
30	BG	83	ARG
30	BG	84	LYS
30	BG	90	LEU
30	BG	94	LEU
30	BG	96	ARG
30	BG	101	ILE
30	BG	104	GLU
30	BG	115	ARG
30	BG	118	ARG
30	BG	121	ASN
30	BG	128	ARG
30	BG	130	ASN
30	BG	133	LEU
30	BG	159	VAL
30	BG	165	THR
30	BG	167	GLU
30	BG	174	GLU
30	BG	175	LEU
31	BH	4	ILE
31	BH	7	LEU
31	BH	9	ILE
31	BH	23	ARG
31	BH	24	VAL
31	BH	41	MET
31	BH	42	ARG
31	BH	44	VAL

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Mol	Chain	Res	Type
31	BH	45	VAL
31	BH	56	SER
31	BH	59	ARG
31	BH	77	LYS
31	BH	79	VAL
31	BH	80	SER
31	BH	81	GLU
31	BH	83	TYR
31	BH	89	ILE
31	BH	97	ARG
31	BH	105	LEU
31	BH	107	VAL
31	BH	113	VAL
31	BH	116	GLU
31	BH	122	THR
31	BH	129	THR
31	BH	132	ARG
31	BH	134	SER
31	BH	138	LYS
31	BH	139	GLN
31	BH	143	GLN
31	BH	153	LYS
31	BH	158	HIS
31	BH	164	TYR
31	BH	167	GLU
31	BH	170	ARG
31	BH	171	LEU
32	BK	2	LYS
32	BK	12	LEU
32	BK	20	ASP
32	BK	25	TYR
32	BK	35	LEU
32	BK	38	LEU
32	BK	41	GLU
32	BK	54	GLN
32	BK	57	ARG
32	BK	58	LEU
32	BK	64	GLU
32	BK	67	ARG
32	BK	68	LEU
32	BK	70	GLU
32	BK	71	ILE

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Mol	Chain	Res	Type
32	BK	77	LEU
32	BK	78	THR
32	BK	81	VAL
32	BK	82	ARG
32	BK	85	GLU
32	BK	87	LYS
32	BK	92	VAL
32	BK	93	THR
32	BK	95	LYS
32	BK	101	LEU
32	BK	102	SER
32	BK	103	ARG
32	BK	107	VAL
32	BK	108	THR
32	BK	135	GLU
32	BK	140	LEU
33	BM	7	LYS
33	BM	9	VAL
33	BM	10	GLU
33	BM	28	THR
33	BM	32	THR
33	BM	34	LEU
33	BM	42	TRP
33	BM	43	THR
33	BM	45	ASN
33	BM	46	VAL
33	BM	48	MET
33	BM	60	ILE
33	BM	61	ARG
33	BM	63	THR
33	BM	67	LEU
33	BM	70	LYS
33	BM	87	LEU
33	BM	89	LYS
33	BM	96	GLU
33	BM	97	ARG
33	BM	99	LEU
33	BM	115	ARG
33	BM	120	LEU
33	BM	122	VAL
33	BM	127	ASP
33	BM	130	HIS

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Mol	Chain	Res	Type
33	BM	131	GLN
33	BM	133	GLN
33	BM	134	ARG
33	BM	138	LEU
34	BN	1	MET
34	BN	8	LEU
34	BN	9	GLU
34	BN	20	MET
34	BN	22	ILE
34	BN	23	ARG
34	BN	24	VAL
34	BN	35	VAL
34	BN	38	VAL
34	BN	47	ILE
34	BN	52	VAL
34	BN	53	LYS
34	BN	66	LYS
34	BN	68	GLU
34	BN	82	ASN
34	BN	94	ARG
34	BN	98	VAL
35	BO	3	LEU
35	BO	14	LYS
35	BO	15	ARG
35	BO	16	ARG
35	BO	21	ARG
35	BO	29	LYS
35	BO	30	THR
35	BO	32	THR
35	BO	41	ARG
35	BO	45	LEU
35	BO	46	LYS
35	BO	49	ARG
35	BO	50	ARG
35	BO	61	ARG
35	BO	62	LEU
35	BO	64	LYS
35	BO	65	ARG
35	BO	68	GLN
35	BO	70	GLN
35	BO	75	ILE
35	BO	79	ARG

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Mol	Chain	Res	Type
35	BO	88	LEU
35	BO	90	ARG
35	BO	92	GLU
35	BO	96	THR
35	BO	99	LEU
35	BO	100	LEU
35	BO	105	LEU
35	BO	106	LEU
35	BO	112	LEU
35	BO	123	LEU
35	BO	125	VAL
35	BO	135	LEU
35	BO	138	LEU
35	BO	144	GLU
35	BO	146	VAL
35	BO	147	LEU
35	BO	148	LEU
36	BP	5	ARG
36	BP	7	MET
36	BP	10	ARG
36	BP	17	LEU
36	BP	25	ASP
36	BP	26	TYR
36	BP	35	VAL
36	BP	45	GLN
36	BP	46	GLN
36	BP	52	VAL
36	BP	58	PHE
36	BP	59	ARG
36	BP	60	ARG
36	BP	63	LYS
36	BP	79	LEU
36	BP	82	ARG
36	BP	83	MET
36	BP	87	LYS
36	BP	90	VAL
36	BP	91	GLU
36	BP	103	MET
36	BP	109	VAL
36	BP	110	THR
36	BP	112	GLU
36	BP	129	THR

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Mol	Chain	Res	Type
36	BP	134	ARG
36	BP	139	GLU
37	B0	4	LEU
37	B0	16	HIS
37	B0	18	LEU
37	B0	28	LEU
37	B0	29	LEU
37	B0	34	ILE
37	B0	36	THR
37	B0	37	THR
37	B0	44	LEU
37	B0	48	VAL
37	B0	54	LEU
37	B0	59	ASP
37	B0	60	LEU
37	B0	74	LYS
37	B0	75	LEU
37	B0	79	LEU
37	B0	83	ILE
37	B0	88	ARG
37	B0	91	GLN
37	B0	104	ARG
37	B0	105	ARG
37	B0	107	ASP
37	B0	113	LEU
38	BQ	5	THR
38	BQ	19	LYS
38	BQ	20	ARG
38	BQ	24	LEU
38	BQ	30	ARG
38	BQ	31	SER
38	BQ	35	ILE
38	BQ	36	TYR
38	BQ	43	GLU
38	BQ	50	SER
38	BQ	53	SER
38	BQ	54	LEU
38	BQ	56	LEU
38	BQ	58	LEU
38	BQ	69	VAL
38	BQ	73	LEU
38	BQ	83	LYS

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Mol	Chain	Res	Type
38	BQ	93	LYS
38	BQ	97	ARG
38	BQ	101	LEU
38	BQ	106	ARG
38	BQ	111	GLU
39	BR	6	LEU
39	BR	11	GLU
39	BR	15	VAL
39	BR	17	THR
39	BR	27	THR
39	BR	30	VAL
39	BR	35	LYS
39	BR	41	ARG
39	BR	42	ILE
39	BR	49	VAL
39	BR	50	ILE
39	BR	53	ARG
39	BR	58	ASN
39	BR	59	THR
39	BR	61	PHE
39	BR	64	ARG
39	BR	74	ARG
39	BR	85	LYS
39	BR	86	ILE
39	BR	87	ASP
39	BR	88	ILE
39	BR	99	LEU
39	BR	106	SER
39	BR	108	ARG
39	BR	110	ILE
39	BR	112	ARG
39	BR	118	ARG
39	BR	128	GLU
40	B1	3	ARG
40	B1	5	LYS
40	B1	8	VAL
40	B1	13	LYS
40	B1	27	LEU
40	B1	34	LYS
40	B1	52	ARG
40	B1	70	ARG
40	B1	74	LEU

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Mol	Chain	Res	Type
40	B1	79	PHE
40	B1	89	GLU
40	B1	95	LEU
40	B1	97	ASP
40	B1	98	LEU
40	B1	108	GLU
40	B1	111	GLU
40	B1	112	ARG
41	B2	1	MET
41	B2	5	VAL
41	B2	6	LYS
41	B2	15	GLU
41	B2	18	LEU
41	B2	21	ARG
41	B2	28	GLU
41	B2	33	VAL
41	B2	35	LEU
41	B2	39	LEU
41	B2	40	LEU
41	B2	45	THR
41	B2	47	VAL
41	B2	57	VAL
41	B2	68	LYS
41	B2	70	ILE
41	B2	72	VAL
41	B2	74	LYS
41	B2	78	LYS
41	B2	88	ARG
41	B2	99	ILE
42	BS	11	ARG
42	BS	16	LYS
42	BS	17	VAL
42	BS	28	SER
42	BS	37	ARG
42	BS	45	TYR
42	BS	51	LEU
42	BS	57	ASN
42	BS	67	ASP
42	BS	70	TYR
42	BS	76	VAL
42	BS	78	GLU
42	BS	88	ARG

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Mol	Chain	Res	Type
42	BS	90	ARG
42	BS	92	ARG
42	BS	96	ILE
42	BS	100	THR
42	BS	106	ILE
42	BS	107	LEU
42	BS	111	HIS
43	BT	12	VAL
43	BT	23	GLU
43	BT	27	THR
43	BT	44	GLU
43	BT	45	THR
43	BT	57	LEU
43	BT	64	LYS
43	BT	65	ARG
43	BT	70	LEU
43	BT	80	ILE
43	BT	83	VAL
43	BT	87	GLN
43	BT	88	LYS
44	BU	3	VAL
44	BU	6	HIS
44	BU	26	LYS
44	BU	33	LYS
44	BU	38	ILE
44	BU	40	GLU
44	BU	44	ILE
44	BU	52	SER
44	BU	57	GLN
44	BU	61	ILE
44	BU	64	GLU
44	BU	67	LEU
44	BU	76	CYS
44	BU	79	CYS
44	BU	81	LYS
44	BU	84	ARG
44	BU	86	ARG
44	BU	87	LYS
44	BU	90	LEU
44	BU	97	ARG
45	BV	2	GLU
45	BV	5	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
45	BV	16	SER
45	BV	19	ARG
45	BV	33	LEU
45	BV	41	LEU
45	BV	53	ILE
45	BV	59	LEU
45	BV	61	LEU
45	BV	71	VAL
45	BV	73	GLN
45	BV	76	LEU
45	BV	77	ASP
45	BV	80	ARG
45	BV	82	ARG
45	BV	86	VAL
45	BV	91	LEU
45	BV	92	SER
45	BV	93	ASP
45	BV	96	VAL
45	BV	97	GLU
45	BV	104	PHE
45	BV	111	VAL
45	BV	112	ARG
45	BV	117	LEU
45	BV	119	GLU
45	BV	121	HIS
45	BV	122	ARG
45	BV	128	VAL
45	BV	132	ASN
45	BV	144	LEU
45	BV	146	ILE
45	BV	148	ASP
45	BV	162	GLU
45	BV	163	LEU
45	BV	165	VAL
45	BV	169	GLU
45	BV	175	VAL
46	B3	11	ARG
46	B3	20	ARG
46	B3	36	ILE
46	B3	40	GLN
46	B3	53	MET
46	B3	55	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	B3	60	PHE
47	BZ	19	GLN
47	BZ	21	ARG
47	BZ	26	ARG
47	BZ	35	THR
47	BZ	40	ARG
47	BZ	41	ARG
47	BZ	50	ARG
47	BZ	62	VAL
47	BZ	75	GLU
47	BZ	78	LYS
47	BZ	80	LEU
47	BZ	81	LYS
47	BZ	82	LEU
47	BZ	83	GLU
47	BZ	85	LEU
47	BZ	88	LYS
47	BZ	91	LYS
47	BZ	97	LEU
48	BW	5	GLU
48	BW	7	ARG
48	BW	9	GLN
48	BW	16	LEU
48	BW	17	SER
48	BW	19	VAL
48	BW	23	LYS
48	BW	24	LEU
48	BW	32	LEU
48	BW	34	GLU
48	BW	35	LEU
48	BW	44	LEU
48	BW	47	ASN
48	BW	50	ILE
48	BW	53	LEU
48	BW	54	LYS
48	BW	55	ARG
48	BW	62	THR
48	BW	64	LEU
48	BW	65	ASN
49	BX	6	VAL
49	BX	7	LYS
49	BX	8	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
49	BX	31	LEU
49	BX	32	GLN
49	BX	33	GLN
49	BX	40	THR
49	BX	44	ARG
49	BX	53	LEU
49	BX	54	VAL
50	B4	10	VAL
50	B4	14	ILE
50	B4	15	ILE
50	B4	16	CYS
50	B4	22	ILE
50	B4	27	THR
50	B4	33	VAL
50	B4	38	LYS
50	B4	43	TYR
50	B4	47	GLN
50	B4	49	PHE
50	B4	53	GLU
50	B4	57	GLU
50	B4	59	PHE
50	B4	61	ARG
50	B4	62	ARG
50	B4	65	ASP
50	B4	66	SER
51	B5	3	LYS
51	B5	4	HIS
51	B5	6	VAL
51	B5	11	THR
51	B5	16	ARG
51	B5	29	THR
51	B5	36	CYS
51	B5	37	LYS
51	B5	40	LYS
51	B5	44	THR
51	B5	48	GLU
51	B5	51	TYR
51	B5	52	TYR
51	B5	55	ARG
51	B5	56	LYS
51	B5	58	LEU
52	B6	10	LEU

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Mol	Chain	Res	Type
52	B6	12	GLU
52	B6	13	CYS
52	B6	16	CYS
52	B6	17	LYS
52	B6	18	ARG
52	B6	25	LYS
52	B6	26	ASN
52	B6	27	LYS
52	B6	28	ARG
52	B6	32	ASN
52	B6	34	LEU
52	B6	36	LEU
52	B6	39	TYR
52	B6	42	TRP
52	B6	44	ARG
52	B6	45	LYS
53	B7	4	THR
53	B7	8	ASN
53	B7	14	LYS
53	B7	23	ARG
53	B7	24	THR
53	B7	43	THR
53	B7	46	VAL
53	B7	48	LYS
54	B8	29	LYS
54	B8	30	ARG
54	B8	34	TRP
54	B8	36	LYS
54	B8	40	GLU
54	B8	41	ILE
54	B8	44	LYS
54	B8	47	LYS
54	B8	50	LEU
54	B8	56	GLU
54	B8	58	ILE
2	CE	5	ILE
2	CE	16	HIS
2	CE	17	PHE
2	CE	19	HIS
2	CE	23	ARG
2	CE	24	TRP
2	CE	32	ILE

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Mol	Chain	Res	Type
2	CE	37	ASN
2	CE	44	LEU
2	CE	53	ARG
2	CE	55	PHE
2	CE	56	ARG
2	CE	67	THR
2	CE	73	THR
2	CE	78	GLN
2	CE	80	ILE
2	CE	84	GLU
2	CE	87	ARG
2	CE	92	TYR
2	CE	96	ARG
2	CE	105	PHE
2	CE	107	THR
2	CE	110	GLN
2	CE	111	ARG
2	CE	114	ARG
2	CE	130	ARG
2	CE	137	ARG
2	CE	139	LYS
2	CE	140	HIS
2	CE	141	GLU
2	CE	144	ARG
2	CE	145	LEU
2	CE	147	LYS
2	CE	164	VAL
2	CE	165	VAL
2	CE	178	ARG
2	CE	185	ILE
2	CE	187	LEU
2	CE	196	LEU
2	CE	201	ILE
2	CE	206	ASP
2	CE	215	LEU
2	CE	222	ILE
2	CE	226	ARG
2	CE	230	VAL
2	CE	238	LEU
3	CF	5	ILE
3	CF	6	HIS
3	CF	16	ARG

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Mol	Chain	Res	Type
3	CF	18	TRP
3	CF	21	ARG
3	CF	26	LYS
3	CF	27	LYS
3	CF	28	GLN
3	CF	29	TYR
3	CF	34	LEU
3	CF	36	ASP
3	CF	37	GLN
3	CF	42	LEU
3	CF	43	LEU
3	CF	63	ASN
3	CF	69	HIS
3	CF	76	VAL
3	CF	79	ARG
3	CF	83	ARG
3	CF	84	ILE
3	CF	85	ARG
3	CF	98	ASN
3	CF	99	VAL
3	CF	101	LEU
3	CF	120	VAL
3	CF	128	PHE
3	CF	131	ARG
3	CF	140	ARG
3	CF	175	LEU
3	CF	178	LEU
3	CF	184	TYR
3	CF	190	ARG
3	CF	192	THR
3	CF	196	LEU
3	CF	206	GLU
3	CF	207	VAL
4	CG	8	VAL
4	CG	9	CYS
4	CG	10	ARG
4	CG	11	LEU
4	CG	12	CYS
4	CG	13	ARG
4	CG	17	VAL
4	CG	19	LEU
4	CG	21	LEU

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Mol	Chain	Res	Type
4	CG	22	LYS
4	CG	25	ARG
4	CG	26	CYS
4	CG	30	LYS
4	CG	36	ARG
4	CG	50	ARG
4	CG	58	LEU
4	CG	59	ARG
4	CG	84	LYS
4	CG	85	LYS
4	CG	96	LEU
4	CG	98	GLU
4	CG	106	TYR
4	CG	107	ARG
4	CG	112	VAL
4	CG	118	ARG
4	CG	119	GLN
4	CG	122	ARG
4	CG	131	ARG
4	CG	132	ARG
4	CG	135	LEU
4	CG	139	ARG
4	CG	141	ARG
4	CG	150	GLU
4	CG	155	LEU
4	CG	170	VAL
4	CG	177	ASP
4	CG	187	ARG
4	CG	191	ARG
4	CG	194	LEU
4	CG	200	GLU
5	CH	5	ASP
5	CH	6	PHE
5	CH	9	LYS
5	CH	11	ILE
5	CH	12	LEU
5	CH	13	ILE
5	CH	18	ARG
5	CH	20	GLN
5	CH	31	LEU
5	CH	41	VAL
5	CH	43	LEU

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Mol	Chain	Res	Type
5	CH	53	LEU
5	CH	73	ASN
5	CH	75	THR
5	CH	76	ILE
5	CH	78	HIS
5	CH	79	GLU
5	CH	87	SER
5	CH	91	LEU
5	CH	101	ILE
5	CH	107	ARG
5	CH	116	THR
5	CH	136	MET
5	CH	141	GLN
5	CH	147	ASP
5	CH	153	LYS
5	CH	155	GLU
6	CI	2	ARG
6	CI	14	LEU
6	CI	15	ASP
6	CI	21	LEU
6	CI	27	GLN
6	CI	28	ARG
6	CI	45	LEU
6	CI	54	LYS
6	CI	55	ASP
6	CI	57	GLN
6	CI	63	TYR
6	CI	65	VAL
6	CI	75	LEU
6	CI	81	ILE
6	CI	87	ARG
6	CI	93	SER
7	CJ	4	ARG
7	CJ	5	ARG
7	CJ	8	GLU
7	CJ	9	VAL
7	CJ	11	GLN
7	CJ	12	LEU
7	CJ	13	GLN
7	CJ	16	LEU
7	CJ	22	LEU
7	CJ	24	THR

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Mol	Chain	Res	Type
7	CJ	37	ASN
7	CJ	38	LEU
7	CJ	41	ARG
7	CJ	47	CYS
7	CJ	49	ILE
7	CJ	51	GLN
7	CJ	53	LYS
7	CJ	60	LYS
7	CJ	63	LYS
7	CJ	72	ARG
7	CJ	75	VAL
7	CJ	78	ARG
7	CJ	85	TYR
7	CJ	86	GLN
7	CJ	87	VAL
7	CJ	89	MET
7	CJ	94	ARG
7	CJ	104	LEU
7	CJ	113	GLU
7	CJ	114	ARG
7	CJ	118	VAL
7	CJ	137	LYS
7	CJ	140	ASP
7	CJ	146	GLU
7	CJ	149	ARG
7	CJ	151	TYR
7	CJ	155	ARG
8	CK	1	MET
8	CK	8	ASP
8	CK	23	SER
8	CK	24	THR
8	CK	25	ASP
8	CK	30	ARG
8	CK	41	ARG
8	CK	52	ASP
8	CK	63	LEU
8	CK	77	GLU
8	CK	79	VAL
8	CK	82	HIS
8	CK	85	ARG
8	CK	88	LYS
8	CK	91	ARG

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Mol	Chain	Res	Type
8	CK	92	ARG
8	CK	102	ARG
8	CK	104	ARG
8	CK	109	ILE
8	CK	112	LEU
8	CK	115	SER
8	CK	116	LYS
8	CK	123	GLU
8	CK	125	ARG
8	CK	137	VAL
9	CL	7	THR
9	CL	14	VAL
9	CL	16	ARG
9	CL	20	ARG
9	CL	23	ASN
9	CL	29	ASN
9	CL	38	GLN
9	CL	40	LEU
9	CL	56	LEU
9	CL	58	HIS
9	CL	71	SER
9	CL	78	LYS
9	CL	79	LEU
9	CL	88	TYR
9	CL	89	ASN
9	CL	91	ASP
9	CL	95	LYS
9	CL	97	LYS
9	CL	102	LEU
9	CL	104	ARG
9	CL	108	VAL
9	CL	110	GLU
9	CL	112	LYS
9	CL	114	TYR
9	CL	117	HIS
9	CL	118	LYS
9	CL	120	ARG
9	CL	121	ARG
9	CL	125	TYR
10	CM	4	ILE
10	CM	13	HIS
10	CM	16	LEU

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Mol	Chain	Res	Type
10	CM	19	SER
10	CM	21	GLN
10	CM	22	LYS
10	CM	25	GLU
10	CM	30	SER
10	CM	38	ILE
10	CM	40	LEU
10	CM	47	PHE
10	CM	48	THR
10	CM	49	VAL
10	CM	51	ARG
10	CM	55	LYS
10	CM	57	LYS
10	CM	61	GLU
10	CM	62	HIS
10	CM	72	VAL
10	CM	79	ARG
10	CM	80	LYS
10	CM	84	GLN
10	CM	85	LEU
10	CM	87	THR
10	CM	90	LEU
10	CM	95	GLU
10	CM	96	ILE
10	CM	98	ILE
10	CM	99	LYS
11	CN	12	ARG
11	CN	14	VAL
11	CN	18	ARG
11	CN	29	ILE
11	CN	30	VAL
11	CN	48	ILE
11	CN	53	SER
11	CN	54	ARG
11	CN	57	THR
11	CN	63	LEU
11	CN	81	ASP
11	CN	83	ILE
11	CN	84	VAL
11	CN	112	THR
11	CN	117	ASN
11	CN	119	CYS

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Mol	Chain	Res	Type
11	CN	120	ARG
12	CO	20	LYS
12	CO	23	LYS
12	CO	24	VAL
12	CO	27	LEU
12	CO	28	LYS
12	CO	33	ARG
12	CO	36	VAL
12	CO	41	ARG
12	CO	42	THR
12	CO	46	LYS
12	CO	47	LYS
12	CO	55	VAL
12	CO	60	LEU
12	CO	65	GLU
12	CO	70	ILE
12	CO	83	VAL
12	CO	84	LEU
12	CO	85	ILE
12	CO	102	ARG
12	CO	104	VAL
12	CO	111	LYS
12	CO	117	ARG
12	CO	118	SER
12	CO	122	THR
13	CP	3	ARG
13	CP	4	ILE
13	CP	19	LEU
13	CP	32	GLU
13	CP	54	VAL
13	CP	55	ARG
13	CP	58	GLU
13	CP	63	THR
13	CP	64	TRP
13	CP	66	LEU
13	CP	70	LEU
13	CP	77	ASN
13	CP	82	MET
13	CP	83	ASP
13	CP	101	GLN
13	CP	103	THR
13	CP	105	THR

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Mol	Chain	Res	Type
13	CP	108	ARG
13	CP	110	ARG
14	CQ	6	LEU
14	CQ	15	LYS
14	CQ	16	PHE
14	CQ	18	VAL
14	CQ	22	THR
14	CQ	23	ARG
14	CQ	43	CYS
14	CQ	44	LEU
14	CQ	46	GLU
14	CQ	60	SER
15	CR	3	ILE
15	CR	4	THR
15	CR	17	ARG
15	CR	22	THR
15	CR	26	GLU
15	CR	31	LEU
15	CR	35	ARG
15	CR	38	ARG
15	CR	41	GLU
15	CR	58	MET
15	CR	82	ILE
15	CR	83	GLU
15	CR	88	ARG
16	CS	2	VAL
16	CS	5	ARG
16	CS	8	ARG
16	CS	21	VAL
16	CS	45	THR
16	CS	47	ASP
16	CS	53	VAL
16	CS	67	THR
16	CS	74	LEU
16	CS	82	GLN
17	CT	9	VAL
17	CT	52	LYS
17	CT	68	ARG
17	CT	74	LEU
17	CT	79	SER
17	CT	84	LEU
18	CU	21	LYS

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Mol	Chain	Res	Type
18	CU	22	VAL
18	CU	23	LYS
18	CU	28	GLU
18	CU	29	PHE
18	CU	32	ARG
18	CU	44	LEU
18	CU	45	SER
18	CU	47	THR
18	CU	53	ARG
18	CU	54	ARG
18	CU	58	LEU
18	CU	82	THR
18	CU	83	GLU
18	CU	86	VAL
19	CV	14	HIS
19	CV	15	LEU
19	CV	22	LEU
19	CV	23	ASN
19	CV	25	LYS
19	CV	28	LYS
19	CV	33	THR
19	CV	36	ARG
19	CV	41	VAL
19	CV	60	VAL
19	CV	66	MET
19	CV	78	ARG
19	CV	79	THR
19	CV	83	HIS
20	CW	9	ASN
20	CW	10	LEU
20	CW	11	SER
20	CW	14	LYS
20	CW	24	LEU
20	CW	26	ASN
20	CW	27	LYS
20	CW	36	LEU
20	CW	39	LYS
20	CW	41	ILE
20	CW	50	GLU
20	CW	56	MET
20	CW	58	LYS
20	CW	68	LYS

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Mol	Chain	Res	Type
20	CW	72	LEU
20	CW	73	HIS
20	CW	75	ASN
20	CW	81	LYS
20	CW	83	ARG
20	CW	84	LEU
20	CW	90	GLN
27	DD	3	VAL
27	DD	5	LYS
27	DD	20	ASP
27	DD	25	THR
27	DD	26	LYS
27	DD	27	THR
27	DD	28	GLU
27	DD	30	GLU
27	DD	31	LYS
27	DD	32	SER
27	DD	40	THR
27	DD	44	ASN
27	DD	46	GLN
27	DD	49	ILE
27	DD	61	LEU
27	DD	64	ILE
27	DD	65	ILE
27	DD	68	LYS
27	DD	69	ARG
27	DD	72	LYS
27	DD	88	ARG
27	DD	89	SER
27	DD	91	ARG
27	DD	94	LEU
27	DD	98	VAL
27	DD	99	ASP
27	DD	103	ARG
27	DD	105	ILE
27	DD	106	ILE
27	DD	112	GLN
27	DD	116	GLN
27	DD	117	VAL
27	DD	140	THR
27	DD	141	VAL
27	DD	147	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
27	DD	157	ARG
27	DD	166	GLN
27	DD	176	ARG
27	DD	192	THR
27	DD	193	VAL
27	DD	198	ASN
27	DD	200	ASP
27	DD	202	LYS
27	DD	211	ARG
27	DD	217	ARG
27	DD	218	ARG
27	DD	244	ARG
27	DD	255	LYS
27	DD	257	LEU
27	DD	260	ARG
27	DD	266	SER
27	DD	271	ILE
28	DE	23	VAL
28	DE	26	ILE
28	DE	33	VAL
28	DE	35	GLN
28	DE	36	ARG
28	DE	37	ARG
28	DE	44	TYR
28	DE	49	LEU
28	DE	54	GLN
28	DE	58	ARG
28	DE	60	ASN
28	DE	61	ARG
28	DE	63	LEU
28	DE	67	PHE
28	DE	69	LYS
28	DE	76	ARG
28	DE	77	ILE
28	DE	78	LEU
28	DE	79	ARG
28	DE	81	ILE
28	DE	82	ARG
28	DE	87	GLU
28	DE	91	VAL
28	DE	93	VAL
28	DE	95	ILE

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Mol	Chain	Res	Type
28	DE	111	ARG
28	DE	116	VAL
28	DE	119	ARG
28	DE	128	SER
28	DE	135	HIS
28	DE	141	ILE
28	DE	144	ARG
28	DE	146	THR
28	DE	154	LYS
28	DE	175	VAL
28	DE	178	GLU
28	DE	179	GLU
28	DE	181	LEU
28	DE	182	LEU
28	DE	188	VAL
28	DE	197	ILE
28	DE	200	GLU
28	DE	201	THR
28	DE	203	LYS
29	DF	2	LYS
29	DF	7	TYR
29	DF	8	GLN
29	DF	11	VAL
29	DF	15	SER
29	DF	17	ARG
29	DF	19	GLU
29	DF	20	LEU
29	DF	24	LEU
29	DF	28	ILE
29	DF	33	LEU
29	DF	38	ARG
29	DF	45	ARG
29	DF	48	THR
29	DF	53	THR
29	DF	62	ARG
29	DF	63	LYS
29	DF	67	GLN
29	DF	70	THR
29	DF	74	ARG
29	DF	83	PHE
29	DF	84	VAL
29	DF	88	VAL

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Mol	Chain	Res	Type
29	DF	93	LYS
29	DF	100	THR
29	DF	104	LYS
29	DF	107	LYS
29	DF	116	ASP
29	DF	117	ARG
29	DF	123	LEU
29	DF	125	LEU
29	DF	140	LEU
29	DF	149	ASP
29	DF	153	SER
29	DF	158	THR
29	DF	165	ARG
29	DF	181	LEU
29	DF	183	VAL
29	DF	194	MET
29	DF	199	TRP
29	DF	201	VAL
29	DF	203	GLN
29	DF	205	ARG
30	DG	4	ASP
30	DG	13	GLU
30	DG	16	ARG
30	DG	22	ARG
30	DG	26	GLN
30	DG	27	ASN
30	DG	28	VAL
30	DG	31	VAL
30	DG	33	ARG
30	DG	34	LEU
30	DG	35	GLU
30	DG	40	ASN
30	DG	45	GLU
30	DG	47	LYS
30	DG	49	ASP
30	DG	52	ILE
30	DG	63	ILE
30	DG	67	LYS
30	DG	71	THR
30	DG	75	LYS
30	DG	76	SER
30	DG	81	LYS

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Mol	Chain	Res	Type
30	DG	82	LEU
30	DG	83	ARG
30	DG	86	MET
30	DG	88	ILE
30	DG	90	LEU
30	DG	94	LEU
30	DG	96	ARG
30	DG	97	ASP
30	DG	108	ASN
30	DG	115	ARG
30	DG	117	PHE
30	DG	118	ARG
30	DG	128	ARG
30	DG	130	ASN
30	DG	137	GLU
30	DG	146	TYR
30	DG	148	MET
30	DG	162	THR
30	DG	165	THR
30	DG	173	LEU
31	DH	4	ILE
31	DH	7	LEU
31	DH	24	VAL
31	DH	30	LYS
31	DH	34	GLU
31	DH	37	VAL
31	DH	41	MET
31	DH	42	ARG
31	DH	43	VAL
31	DH	44	VAL
31	DH	50	VAL
31	DH	59	ARG
31	DH	63	SER
31	DH	64	LEU
31	DH	72	ILE
31	DH	83	TYR
31	DH	86	GLU
31	DH	87	LEU
31	DH	89	ILE
31	DH	101	ARG
31	DH	103	LEU
31	DH	105	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	DH	106	THR
31	DH	125	VAL
31	DH	132	ARG
31	DH	136	ILE
31	DH	139	GLN
31	DH	143	GLN
31	DH	152	ARG
31	DH	153	LYS
31	DH	155	SER
31	DH	171	LEU
32	DK	7	GLU
32	DK	9	LEU
32	DK	11	ASN
32	DK	14	ASP
32	DK	37	VAL
32	DK	41	GLU
32	DK	44	LEU
32	DK	51	ILE
32	DK	52	ARG
32	DK	54	GLN
32	DK	56	LYS
32	DK	62	LYS
32	DK	74	ASN
32	DK	75	LEU
32	DK	76	THR
32	DK	77	LEU
32	DK	78	THR
32	DK	81	VAL
32	DK	82	ARG
32	DK	87	LYS
32	DK	88	ILE
32	DK	101	LEU
32	DK	102	SER
32	DK	104	GLN
32	DK	107	VAL
32	DK	109	ILE
32	DK	110	ASP
32	DK	113	ARG
32	DK	114	LEU
32	DK	117	GLU
32	DK	122	GLU
32	DK	123	LEU

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Mol	Chain	Res	Type
32	DK	125	GLU
32	DK	128	LEU
32	DK	130	TYR
32	DK	133	HIS
32	DK	142	VAL
32	DK	144	VAL
33	DM	7	LYS
33	DM	28	THR
33	DM	32	THR
33	DM	33	LEU
33	DM	34	LEU
33	DM	35	ARG
33	DM	38	HIS
33	DM	43	THR
33	DM	45	ASN
33	DM	48	MET
33	DM	63	THR
33	DM	67	LEU
33	DM	69	GLN
33	DM	83	LYS
33	DM	87	LEU
33	DM	93	THR
33	DM	94	HIS
33	DM	97	ARG
33	DM	99	LEU
33	DM	127	ASP
33	DM	137	LYS
34	DN	3	GLN
34	DN	5	GLN
34	DN	8	LEU
34	DN	9	GLU
34	DN	14	THR
34	DN	20	MET
34	DN	22	ILE
34	DN	24	VAL
34	DN	28	SER
34	DN	35	VAL
34	DN	38	VAL
34	DN	42	SER
34	DN	49	ARG
34	DN	87	ILE
34	DN	91	LEU

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Mol	Chain	Res	Type
34	DN	94	ARG
34	DN	97	ARG
34	DN	98	VAL
34	DN	104	ARG
34	DN	108	GLU
34	DN	114	ILE
34	DN	117	LEU
35	DO	6	LEU
35	DO	7	ARG
35	DO	14	LYS
35	DO	15	ARG
35	DO	16	ARG
35	DO	21	ARG
35	DO	29	LYS
35	DO	30	THR
35	DO	36	LYS
35	DO	41	ARG
35	DO	45	LEU
35	DO	46	LYS
35	DO	49	ARG
35	DO	50	ARG
35	DO	61	ARG
35	DO	62	LEU
35	DO	64	LYS
35	DO	65	ARG
35	DO	68	GLN
35	DO	70	GLN
35	DO	75	ILE
35	DO	81	GLN
35	DO	85	LEU
35	DO	87	ASP
35	DO	95	VAL
35	DO	96	THR
35	DO	98	GLU
35	DO	100	LEU
35	DO	102	ARG
35	DO	105	LEU
35	DO	107	LYS
35	DO	110	TYR
35	DO	111	ARG
35	DO	112	LEU
35	DO	114	ILE

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Mol	Chain	Res	Type
35	DO	117	GLU
35	DO	121	LYS
35	DO	124	LYS
35	DO	125	VAL
35	DO	135	LEU
35	DO	138	LEU
35	DO	144	GLU
35	DO	147	LEU
35	DO	148	LEU
36	DP	3	MET
36	DP	5	ARG
36	DP	21	THR
36	DP	25	ASP
36	DP	26	TYR
36	DP	35	VAL
36	DP	45	GLN
36	DP	59	ARG
36	DP	63	LYS
36	DP	65	PHE
36	DP	75	THR
36	DP	79	LEU
36	DP	80	GLU
36	DP	82	ARG
36	DP	83	MET
36	DP	87	LYS
36	DP	90	VAL
36	DP	103	MET
36	DP	109	VAL
36	DP	110	THR
36	DP	112	GLU
36	DP	113	GLN
36	DP	120	ILE
36	DP	127	ILE
36	DP	133	ARG
36	DP	141	GLN
37	D0	6	SER
37	D0	16	HIS
37	D0	18	LEU
37	D0	26	LYS
37	D0	28	LEU
37	D0	29	LEU
37	D0	33	ARG

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Mol	Chain	Res	Type
37	D0	35	THR
37	D0	44	LEU
37	D0	48	VAL
37	D0	63	ARG
37	D0	65	LEU
37	D0	68	ARG
37	D0	76	VAL
37	D0	81	ASP
37	D0	91	GLN
37	D0	105	ARG
37	D0	107	ASP
37	D0	117	VAL
37	D0	118	GLU
38	DQ	3	ARG
38	DQ	8	GLU
38	DQ	12	PHE
38	DQ	14	VAL
38	DQ	15	ARG
38	DQ	17	ARG
38	DQ	20	ARG
38	DQ	21	THR
38	DQ	24	LEU
38	DQ	30	ARG
38	DQ	35	ILE
38	DQ	36	TYR
38	DQ	39	ILE
38	DQ	40	ILE
38	DQ	41	ASP
38	DQ	42	ASP
38	DQ	50	SER
38	DQ	52	SER
38	DQ	53	SER
38	DQ	58	LEU
38	DQ	61	ASN
38	DQ	63	THR
38	DQ	65	VAL
38	DQ	71	ARG
38	DQ	73	LEU
38	DQ	78	LEU
38	DQ	83	LYS
38	DQ	84	GLN
38	DQ	87	PHE

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Mol	Chain	Res	Type
38	DQ	89	ARG
38	DQ	101	LEU
38	DQ	103	GLU
38	DQ	106	ARG
38	DQ	110	LEU
39	DR	7	ILE
39	DR	8	LYS
39	DR	9	LEU
39	DR	11	GLU
39	DR	12	SER
39	DR	13	ARG
39	DR	23	ARG
39	DR	27	THR
39	DR	29	ARG
39	DR	30	VAL
39	DR	31	SER
39	DR	33	LYS
39	DR	42	ILE
39	DR	52	ILE
39	DR	53	ARG
39	DR	54	ARG
39	DR	66	VAL
39	DR	74	ARG
39	DR	86	ILE
39	DR	87	ASP
39	DR	88	ILE
39	DR	89	VAL
39	DR	90	GLN
39	DR	91	ARG
39	DR	93	ARG
39	DR	96	ARG
39	DR	98	LYS
39	DR	105	LEU
39	DR	107	ASP
39	DR	112	ARG
39	DR	117	ASP
39	DR	121	ILE
39	DR	132	LYS
39	DR	134	GLU
39	DR	136	GLN
39	DR	137	LYS
40	D1	20	LEU

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Mol	Chain	Res	Type
40	D1	31	SER
40	D1	55	ARG
40	D1	70	ARG
40	D1	71	GLN
40	D1	74	LEU
40	D1	83	LEU
40	D1	88	ILE
40	D1	92	ARG
40	D1	95	LEU
40	D1	97	ASP
40	D1	105	VAL
40	D1	112	ARG
41	D2	1	MET
41	D2	7	THR
41	D2	10	LYS
41	D2	12	TYR
41	D2	18	LEU
41	D2	19	LYS
41	D2	21	ARG
41	D2	22	VAL
41	D2	26	ASP
41	D2	32	THR
41	D2	34	GLU
41	D2	35	LEU
41	D2	38	LEU
41	D2	40	LEU
41	D2	47	VAL
41	D2	57	VAL
41	D2	61	VAL
41	D2	62	LEU
41	D2	66	ARG
41	D2	69	LYS
41	D2	71	LEU
41	D2	72	VAL
41	D2	74	LYS
41	D2	79	VAL
41	D2	80	GLN
41	D2	81	TYR
41	D2	82	ARG
41	D2	83	ARG
41	D2	84	LYS
41	D2	89	GLN

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Mol	Chain	Res	Type
41	D2	91	TYR
41	D2	95	LEU
42	DS	2	GLU
42	DS	11	ARG
42	DS	13	SER
42	DS	15	ARG
42	DS	17	VAL
42	DS	19	LEU
42	DS	20	VAL
42	DS	29	LEU
42	DS	37	ARG
42	DS	39	THR
42	DS	40	ASN
42	DS	50	VAL
42	DS	51	LEU
42	DS	52	GLU
42	DS	61	ASN
42	DS	65	LEU
42	DS	67	ASP
42	DS	70	TYR
42	DS	76	VAL
42	DS	83	LYS
42	DS	88	ARG
42	DS	95	ILE
42	DS	98	LYS
42	DS	100	THR
42	DS	106	ILE
42	DS	107	LEU
42	DS	111	HIS
43	DT	15	GLU
43	DT	30	VAL
43	DT	36	LYS
43	DT	48	LYS
43	DT	49	VAL
43	DT	52	VAL
43	DT	54	VAL
43	DT	55	ASN
43	DT	56	THR
43	DT	57	LEU
43	DT	60	ARG
43	DT	62	LYS
43	DT	63	LYS

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Mol	Chain	Res	Type
43	DT	69	TYR
43	DT	76	ARG
43	DT	80	ILE
43	DT	82	GLN
44	DU	3	VAL
44	DU	4	LYS
44	DU	5	MET
44	DU	6	HIS
44	DU	13	VAL
44	DU	14	LEU
44	DU	20	TYR
44	DU	23	ARG
44	DU	26	LYS
44	DU	28	LYS
44	DU	31	LEU
44	DU	40	GLU
44	DU	43	ASN
44	DU	44	ILE
44	DU	50	ARG
44	DU	51	VAL
44	DU	57	GLN
44	DU	60	PHE
44	DU	62	GLU
44	DU	63	LYS
44	DU	71	LYS
44	DU	75	ILE
44	DU	76	CYS
44	DU	79	CYS
44	DU	81	LYS
44	DU	86	ARG
44	DU	89	PHE
44	DU	90	LEU
44	DU	91	GLU
44	DU	95	LYS
44	DU	96	ILE
44	DU	97	ARG
44	DU	99	CYS
44	DU	102	CYS
45	DV	2	GLU
45	DV	14	LYS
45	DV	16	SER
45	DV	19	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
45	DV	23	LYS
45	DV	24	LEU
45	DV	27	VAL
45	DV	30	ASN
45	DV	32	HIS
45	DV	35	ARG
45	DV	37	VAL
45	DV	50	GLN
45	DV	52	SER
45	DV	60	GLU
45	DV	73	GLN
45	DV	74	VAL
45	DV	76	LEU
45	DV	79	ARG
45	DV	81	ARG
45	DV	87	ASP
45	DV	97	GLU
45	DV	103	ARG
45	DV	112	ARG
45	DV	117	LEU
45	DV	118	GLN
45	DV	119	GLU
45	DV	121	HIS
45	DV	148	ASP
45	DV	150	LEU
45	DV	163	LEU
45	DV	165	VAL
45	DV	166	SER
45	DV	170	THR
45	DV	179	ASP
46	D3	9	SER
46	D3	10	THR
46	D3	12	ASN
46	D3	16	SER
46	D3	23	VAL
46	D3	25	ARG
46	D3	36	ILE
46	D3	40	GLN
46	D3	43	THR
46	D3	44	ARG
46	D3	50	ASN
46	D3	55	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	D3	68	GLU
46	D3	70	GLN
46	D3	74	ARG
47	DZ	3	LYS
47	DZ	25	LYS
47	DZ	38	SER
47	DZ	41	ARG
47	DZ	42	GLN
47	DZ	56	GLN
47	DZ	62	VAL
47	DZ	74	VAL
47	DZ	76	ARG
47	DZ	78	LYS
47	DZ	81	LYS
47	DZ	82	LEU
47	DZ	83	GLU
47	DZ	85	LEU
47	DZ	90	ILE
47	DZ	91	LYS
47	DZ	92	LYS
47	DZ	98	LEU
48	DW	5	GLU
48	DW	8	LYS
48	DW	10	LEU
48	DW	15	LYS
48	DW	16	LEU
48	DW	22	GLU
48	DW	24	LEU
48	DW	30	ARG
48	DW	35	LEU
48	DW	41	ILE
48	DW	44	LEU
48	DW	47	ASN
48	DW	53	LEU
48	DW	60	LEU
49	DX	8	LEU
49	DX	17	LYS
49	DX	18	ASP
49	DX	24	LYS
49	DX	29	ARG
49	DX	32	GLN
49	DX	35	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
49	DX	40	THR
49	DX	53	LEU
50	D4	1	MET
50	D4	3	GLU
50	D4	6	HIS
50	D4	13	ARG
50	D4	16	CYS
50	D4	18	CYS
50	D4	20	ASN
50	D4	22	ILE
50	D4	24	THR
50	D4	30	GLU
50	D4	44	THR
50	D4	46	GLN
50	D4	48	ARG
50	D4	49	PHE
50	D4	52	THR
50	D4	53	GLU
50	D4	60	GLN
50	D4	61	ARG
50	D4	62	ARG
51	D5	3	LYS
51	D5	4	HIS
51	D5	6	VAL
51	D5	11	THR
51	D5	16	ARG
51	D5	23	HIS
51	D5	25	LEU
51	D5	26	THR
51	D5	29	THR
51	D5	33	CYS
51	D5	35	GLU
51	D5	48	GLU
51	D5	52	TYR
51	D5	56	LYS
52	D6	9	LEU
52	D6	10	LEU
52	D6	17	LYS
52	D6	29	ASN
52	D6	30	THR
52	D6	32	ASN
52	D6	36	LEU

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Mol	Chain	Res	Type
52	D6	37	ARG
52	D6	44	ARG
52	D6	45	LYS
52	D6	46	HIS
52	D6	49	HIS
52	D6	53	LYS
53	D7	1	MET
53	D7	4	THR
53	D7	8	ASN
53	D7	9	ARG
53	D7	11	LYS
53	D7	24	THR
53	D7	32	LYS
53	D7	46	VAL
53	D7	48	LYS
53	D7	49	ARG
54	D8	6	THR
54	D8	21	LYS
54	D8	33	ASN
54	D8	40	GLU
54	D8	41	ILE
54	D8	50	LEU
54	D8	52	LYS
54	D8	54	GLU
54	D8	58	ILE
54	D8	61	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (255) such sidechains are listed below:

Mol	Chain	Res	Type
2	AE	19	HIS
2	AE	204	ASN
2	AE	212	GLN
3	AF	104	GLN
3	AF	108	ASN
3	AF	136	GLN
3	AF	162	GLN
3	AF	170	GLN
3	AF	176	HIS
3	AF	181	ASN
4	AG	42	GLN
4	AG	45	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	AG	119	GLN
4	AG	123	HIS
4	AG	160	GLN
4	AG	201	GLN
5	AH	20	GLN
5	AH	78	HIS
6	AI	18	GLN
6	AI	27	GLN
6	AI	57	GLN
6	AI	64	GLN
6	AI	100	ASN
9	AL	124	GLN
10	AM	33	GLN
10	AM	56	HIS
10	AM	62	HIS
10	AM	84	GLN
11	AN	104	GLN
12	AO	9	GLN
12	AO	49	ASN
12	AO	75	HIS
13	AP	62	ASN
13	AP	92	HIS
13	AP	101	GLN
13	AP	106	ASN
14	AQ	49	HIS
15	AR	37	ASN
16	AS	82	GLN
17	AT	16	GLN
17	AT	94	ASN
18	AU	36	ASN
19	AV	23	ASN
19	AV	56	GLN
19	AV	57	HIS
19	AV	65	ASN
19	AV	83	HIS
20	AW	9	ASN
27	BD	58	HIS
27	BD	116	GLN
27	BD	166	GLN
27	BD	186	HIS
27	BD	198	ASN
27	BD	220	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	BE	35	GLN
28	BE	55	ASN
28	BE	143	ASN
28	BE	192	ASN
29	BF	67	GLN
29	BF	69	HIS
29	BF	169	ASN
29	BF	203	GLN
30	BG	26	GLN
30	BG	40	ASN
30	BG	66	GLN
30	BG	108	ASN
30	BG	121	ASN
31	BH	143	GLN
31	BH	147	ASN
32	BK	139	GLN
33	BM	38	HIS
33	BM	128	HIS
33	BM	131	GLN
33	BM	133	GLN
34	BN	82	ASN
35	BO	9	ASN
35	BO	27	HIS
35	BO	84	ASN
35	BO	128	HIS
36	BP	12	GLN
36	BP	89	ASN
37	B0	3	HIS
37	B0	16	HIS
37	B0	23	ASN
37	B0	71	GLN
39	BR	43	GLN
39	BR	79	HIS
39	BR	84	GLN
40	B1	44	ASN
40	B1	49	HIS
40	B1	94	ASN
41	B2	11	GLN
41	B2	89	GLN
42	BS	34	ASN
42	BS	40	ASN
42	BS	57	ASN

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Mol	Chain	Res	Type
42	BS	62	HIS
42	BS	102	HIS
42	BS	111	HIS
43	BT	31	HIS
43	BT	55	ASN
43	BT	82	GLN
43	BT	87	GLN
44	BU	6	HIS
45	BV	75	ASN
45	BV	132	ASN
45	BV	151	HIS
46	B3	17	GLN
46	B3	35	ASN
46	B3	40	GLN
47	BZ	56	GLN
47	BZ	66	HIS
48	BW	9	GLN
48	BW	43	GLN
48	BW	56	GLN
48	BW	65	ASN
49	BX	19	GLN
49	BX	32	GLN
49	BX	46	ASN
49	BX	52	HIS
50	B4	47	GLN
51	B5	4	HIS
51	B5	23	HIS
51	B5	43	HIS
52	B6	49	HIS
53	B7	8	ASN
53	B7	36	GLN
54	B8	35	GLN
2	CE	16	HIS
2	CE	78	GLN
2	CE	135	GLN
3	CF	3	ASN
3	CF	69	HIS
3	CF	98	ASN
3	CF	123	GLN
4	CG	43	HIS
4	CG	62	GLN
4	CG	77	ASN

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Mol	Chain	Res	Type
4	CG	160	GLN
4	CG	201	GLN
5	CH	20	GLN
5	CH	141	GLN
6	CI	32	ASN
6	CI	57	GLN
6	CI	100	ASN
7	CJ	37	ASN
7	CJ	84	ASN
7	CJ	86	GLN
8	CK	82	HIS
9	CL	3	GLN
9	CL	89	ASN
9	CL	124	GLN
10	CM	13	HIS
10	CM	56	HIS
11	CN	38	ASN
11	CN	104	GLN
11	CN	117	ASN
12	CO	8	ASN
12	CO	49	ASN
12	CO	75	HIS
12	CO	80	HIS
14	CQ	49	HIS
15	CR	37	ASN
15	CR	46	HIS
16	CS	82	GLN
17	CT	26	GLN
19	CV	14	HIS
19	CV	56	GLN
19	CV	57	HIS
19	CV	65	ASN
20	CW	16	HIS
20	CW	26	ASN
27	DD	44	ASN
27	DD	58	HIS
27	DD	96	HIS
27	DD	143	HIS
27	DD	166	GLN
27	DD	186	HIS
27	DD	198	ASN
28	DE	48	GLN

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Mol	Chain	Res	Type
28	DE	60	ASN
28	DE	66	HIS
28	DE	192	ASN
29	DF	169	ASN
30	DG	27	ASN
30	DG	40	ASN
30	DG	41	GLN
31	DH	74	ASN
31	DH	147	ASN
32	DK	11	ASN
32	DK	54	GLN
32	DK	104	GLN
32	DK	105	HIS
33	DM	45	ASN
33	DM	130	HIS
33	DM	133	GLN
34	DN	5	GLN
34	DN	82	ASN
35	DO	128	HIS
36	DP	123	HIS
37	D0	11	ASN
37	D0	13	HIS
37	D0	16	HIS
37	D0	23	ASN
37	D0	24	GLN
37	D0	53	HIS
38	DQ	95	HIS
39	DR	58	ASN
39	DR	79	HIS
39	DR	90	GLN
39	DR	136	GLN
40	D1	49	HIS
40	D1	71	GLN
40	D1	75	ASN
40	D1	81	HIS
41	D2	11	GLN
41	D2	64	HIS
41	D2	87	HIS
41	D2	89	GLN
42	DS	57	ASN
42	DS	60	ASN
42	DS	61	ASN

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Mol	Chain	Res	Type
42	DS	62	HIS
42	DS	102	HIS
43	DT	31	HIS
43	DT	41	ASN
43	DT	55	ASN
43	DT	82	GLN
43	DT	87	GLN
44	DU	43	ASN
45	DV	34	ASN
45	DV	50	GLN
45	DV	65	GLN
45	DV	75	ASN
45	DV	132	ASN
46	D3	12	ASN
46	D3	29	GLN
46	D3	50	ASN
46	D3	70	GLN
47	DZ	56	GLN
47	DZ	66	HIS
48	DW	9	GLN
48	DW	65	ASN
49	DX	19	GLN
49	DX	33	GLN
49	DX	46	ASN
49	DX	52	HIS
50	D4	40	HIS
50	D4	47	GLN
50	D4	60	GLN
51	D5	23	HIS
51	D5	43	HIS
52	D6	29	ASN
53	D7	8	ASN
53	D7	36	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1505/1506 (99%)	375 (24%)	32 (2%)
1	CA	1505/1506 (99%)	409 (27%)	41 (2%)
22	AB	86/87 (98%)	40 (46%)	5 (5%)
22	CB	86/87 (98%)	46 (53%)	2 (2%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
23	AC	77/77 (100%)	23 (29%)	6 (7%)
23	AD	76/77 (98%)	28 (36%)	1 (1%)
23	CC	77/77 (100%)	21 (27%)	5 (6%)
23	CD	76/77 (98%)	26 (34%)	1 (1%)
24	A1	9/10 (90%)	3 (33%)	1 (11%)
24	C1	9/10 (90%)	3 (33%)	0
25	BA	2911/2912 (99%)	713 (24%)	57 (1%)
25	DA	2905/2912 (99%)	763 (26%)	57 (1%)
26	BB	121/122 (99%)	30 (24%)	0
26	DB	121/122 (99%)	39 (32%)	0
All	All	9564/9582 (99%)	2519 (26%)	208 (2%)

All (2519) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	7	G
1	AA	8	A
1	AA	32	A
1	AA	33	A
1	AA	39	G
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	51	A
1	AA	54	C
1	AA	56	U
1	AA	61	G
1	AA	65	U
1	AA	66	G
1	AA	76	G
1	AA	78	G
1	AA	80	G
1	AA	81	G
1	AA	84	U
1	AA	85	U
1	AA	86	U
1	AA	87	A
1	AA	88	C
1	AA	89	U
1	AA	90	C
1	AA	91	C

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Mol	Chain	Res	Type
1	AA	92	G
1	AA	95	G
1	AA	99	C
1	AA	101	A
1	AA	116	A
1	AA	119	A
1	AA	120	A
1	AA	121	C
1	AA	123	C
1	AA	131	C
1	AA	143	A
1	AA	144	G
1	AA	154	C
1	AA	157	G
1	AA	158	G
1	AA	161	A
1	AA	163	C
1	AA	164	U
1	AA	168	G
1	AA	171	A
1	AA	173	U
1	AA	174	C
1	AA	188	U
1	AA	189	U
1	AA	190	G
1	AA	195	A
1	AA	197	A
1	AA	199	G
1	AA	201	C
1	AA	208	U
1	AA	209	U
1	AA	210	U
1	AA	216	G
1	AA	226	G
1	AA	243	A
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	262	A
1	AA	266	G
1	AA	267	C
1	AA	268	C

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Mol	Chain	Res	Type
1	AA	270	A
1	AA	281	G
1	AA	289	G
1	AA	313	A
1	AA	321	A
1	AA	328	C
1	AA	330	C
1	AA	332	G
1	AA	341	C
1	AA	342	C
1	AA	343	U
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	365	U
1	AA	367	U
1	AA	372	C
1	AA	384	G
1	AA	390	C
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	415	A
1	AA	419	C
1	AA	422	C
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	439	A
1	AA	452	A
1	AA	466	C
1	AA	467	G
1	AA	485	G
1	AA	487	A
1	AA	496	A

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Mol	Chain	Res	Type
1	AA	497	U
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	521	G
1	AA	524	G
1	AA	527	G
1	AA	530	G
1	AA	531	U
1	AA	533	A
1	AA	534	U
1	AA	536	C
1	AA	545	C
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	563	A
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	579	G
1	AA	596	C
1	AA	606	G
1	AA	607	A
1	AA	608	A
1	AA	609	A
1	AA	616	G
1	AA	617	G
1	AA	619	U
1	AA	622	A
1	AA	623	C
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	633	G
1	AA	639	G
1	AA	646	U
1	AA	651	C

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Mol	Chain	Res	Type
1	AA	653	A
1	AA	665	A
1	AA	666	G
1	AA	687	A
1	AA	688	G
1	AA	701	C
1	AA	704	A
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	747	C
1	AA	748	C
1	AA	749	C
1	AA	751	U
1	AA	755	G
1	AA	766	A
1	AA	767	A
1	AA	773	G
1	AA	774	G
1	AA	777	A
1	AA	787	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	802	A
1	AA	805	C
1	AA	813	U
1	AA	815	A
1	AA	817	C
1	AA	820	U
1	AA	821	G
1	AA	827	U
1	AA	828	A
1	AA	841	U
1	AA	842	C
1	AA	843	U
1	AA	848	C
1	AA	857	C
1	AA	859	A
1	AA	864	A
1	AA	871	U
1	AA	872	A

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Mol	Chain	Res	Type
1	AA	884	U
1	AA	887	G
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	939	G
1	AA	940	C
1	AA	941	G
1	AA	960	U
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	983	A
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	995	C
1	AA	1002	G
1	AA	1003	G
1	AA	1004	A
1	AA	1006	C
1	AA	1009	G
1	AA	1017	G
1	AA	1020	U
1	AA	1021	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1029	G
1	AA	1032(A)	G
1	AA	1036	G

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Mol	Chain	Res	Type
1	AA	1037	C
1	AA	1038	C
1	AA	1039	C
1	AA	1040	U
1	AA	1042	G
1	AA	1054	C
1	AA	1055	A
1	AA	1065	U
1	AA	1066	C
1	AA	1078	U
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1103	C
1	AA	1113	C
1	AA	1123	A
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1129	C
1	AA	1131	G
1	AA	1132	C
1	AA	1133	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1145	C
1	AA	1146	A
1	AA	1151	A
1	AA	1152	A
1	AA	1157	A
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1165	C
1	AA	1170	A
1	AA	1172	C
1	AA	1177	G
1	AA	1178	G

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Mol	Chain	Res	Type
1	AA	1179	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	A
1	AA	1186	G
1	AA	1187	G
1	AA	1188	A
1	AA	1193	G
1	AA	1194	U
1	AA	1195	C
1	AA	1196	U
1	AA	1197	G
1	AA	1201	A
1	AA	1212	U
1	AA	1213	A
1	AA	1224	G
1	AA	1225	A
1	AA	1227	A
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1270	C
1	AA	1272	G
1	AA	1273	G
1	AA	1275	A
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1288	A
1	AA	1290	G
1	AA	1291	G
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1303	C

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Mol	Chain	Res	Type
1	AA	1305	G
1	AA	1313	U
1	AA	1317	C
1	AA	1319	A
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1334	G
1	AA	1336	C
1	AA	1337	G
1	AA	1346	A
1	AA	1347	G
1	AA	1350	A
1	AA	1353	G
1	AA	1356	G
1	AA	1361	G
1	AA	1363	A
1	AA	1365	G
1	AA	1370	G
1	AA	1373	G
1	AA	1377	A
1	AA	1378	C
1	AA	1381	U
1	AA	1388	C
1	AA	1397	C
1	AA	1398	A
1	AA	1401	G
1	AA	1406	U
1	AA	1416	G
1	AA	1419	G
1	AA	1442	G
1	AA	1443	G
1	AA	1446	A
1	AA	1447	G
1	AA	1449	C
1	AA	1450	U
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1487	G
1	AA	1492	A
1	AA	1493	A

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Mol	Chain	Res	Type
1	AA	1497	G
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
22	AB	2	C
22	AB	7	G
22	AB	8	U
22	AB	9	G
22	AB	13	G
22	AB	14	A
22	AB	16	U
22	AB	17	U
22	AB	18	G
22	AB	19	G
22	AB	20	U
22	AB	21	A
22	AB	22	G
22	AB	23	A
22	AB	24	C
22	AB	26	C
22	AB	27	G
22	AB	34	U
22	AB	37	G
22	AB	39	U
22	AB	41	G
22	AB	42	U
22	AB	43	A
22	AB	48	C
22	AB	49	C
22	AB	50	A
22	AB	51	A
22	AB	52	U
22	AB	55	G
22	AB	56	G

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Mol	Chain	Res	Type
22	AB	58	U
22	AB	59	U
22	AB	60	A
22	AB	61	C
22	AB	71	U
22	AB	74	C
22	AB	76	U
22	AB	77	C
22	AB	85	C
22	AB	87	A
23	AC	2	G
23	AC	6	G
23	AC	9	G
23	AC	13	C
23	AC	14	A
23	AC	16	C
23	AC	18	C
23	AC	19	G
23	AC	20	G
23	AC	21	U
23	AC	22	A
23	AC	32	G
23	AC	38	A
23	AC	44	A
23	AC	45	A
23	AC	48	U
23	AC	49	C
23	AC	50	G
23	AC	52	C
23	AC	54	G
23	AC	60	A
23	AC	76	C
23	AC	77	A
23	AD	6	G
23	AD	8	U
23	AD	9	G
23	AD	10	G
23	AD	13	C
23	AD	14	A
23	AD	15	G
23	AD	17	C
23	AD	19	G

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Mol	Chain	Res	Type
23	AD	20	G
23	AD	21	U
23	AD	22	A
23	AD	23	G
23	AD	24	C
23	AD	40	C
23	AD	45	A
23	AD	46	G
23	AD	48	U
23	AD	49	C
23	AD	54	G
23	AD	58	A
23	AD	60	A
23	AD	61	U
23	AD	62	C
23	AD	68	C
23	AD	70	C
23	AD	74	A
23	AD	77	A
24	A1	14	U
24	A1	15	U
24	A1	19	U
25	BA	2	G
25	BA	5	A
25	BA	12	U
25	BA	13	A
25	BA	15	G
25	BA	26	G
25	BA	33	U
25	BA	34	C
25	BA	35	G
25	BA	46	C
25	BA	51	G
25	BA	63	U
25	BA	71	A
25	BA	74	A
25	BA	75	G
25	BA	85	G
25	BA	95	G
25	BA	99	U
25	BA	101	G
25	BA	110	G

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Mol	Chain	Res	Type
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	123	G
25	BA	125	G
25	BA	135	G
25	BA	138	G
25	BA	155	C
25	BA	162	U
25	BA	164	U
25	BA	165	U
25	BA	181	A
25	BA	188	G
25	BA	196	A
25	BA	197	A
25	BA	199	A
25	BA	214	G
25	BA	215	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	223	A
25	BA	227	A
25	BA	228	A
25	BA	229	A
25	BA	230	U
25	BA	232	G
25	BA	233	A
25	BA	248	G
25	BA	249	C
25	BA	250	G
25	BA	252	G
25	BA	261	G
25	BA	264	C
25	BA	269	U
25	BA	270(I)	G
25	BA	270(K)	C
25	BA	270(L)	U
25	BA	270(M)	U
25	BA	270(N)	G
25	BA	270(P)	C
25	BA	271(C)	U

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Mol	Chain	Res	Type
25	BA	271	G
25	BA	274	G
25	BA	275	G
25	BA	278	A
25	BA	279	C
25	BA	299	A
25	BA	311	A
25	BA	315	G
25	BA	323	G
25	BA	324	A
25	BA	329	G
25	BA	330	A
25	BA	334	C
25	BA	335	C
25	BA	339	U
25	BA	352	G
25	BA	357	A
25	BA	360	G
25	BA	363	G
25	BA	363(E)	U
25	BA	364	C
25	BA	372	G
25	BA	385	C
25	BA	386	G
25	BA	405	U
25	BA	411	G
25	BA	412	A
25	BA	418	G
25	BA	426	C
25	BA	428	A
25	BA	440	G
25	BA	444	C
25	BA	448	U
25	BA	454	A
25	BA	455	C
25	BA	457	A
25	BA	470	A
25	BA	471	A
25	BA	479	A
25	BA	481	G
25	BA	482	A
25	BA	491	G

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Mol	Chain	Res	Type
25	BA	505	A
25	BA	509	C
25	BA	528	A
25	BA	529	A
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	537	C
25	BA	539	G
25	BA	540	G
25	BA	546	C
25	BA	549	G
25	BA	556	G
25	BA	563	G
25	BA	564	C
25	BA	573	G
25	BA	575	A
25	BA	586	A
25	BA	588	U
25	BA	593	G
25	BA	603	A
25	BA	607	U
25	BA	613	U
25	BA	614	U
25	BA	617	G
25	BA	622	G
25	BA	627	A
25	BA	637	A
25	BA	640	C
25	BA	644	A
25	BA	645	C
25	BA	646	A
25	BA	647	G
25	BA	649	G
25	BA	652	C
25	BA	653	A
25	BA	654(A)	A
25	BA	654(C)	G
25	BA	654(G)	C
25	BA	654(I)	C
25	BA	654(K)	C

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Mol	Chain	Res	Type
25	BA	654(L)	G
25	BA	654(M)	C
25	BA	654(N)	G
25	BA	654(P)	G
25	BA	654(T)	A
25	BA	656	G
25	BA	686	G
25	BA	717	G
25	BA	730	C
25	BA	739	G
25	BA	745	G
25	BA	746	A
25	BA	753	C
25	BA	757	U
25	BA	763	G
25	BA	764	A
25	BA	765	G
25	BA	775	G
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	789	A
25	BA	790	C
25	BA	791	C
25	BA	792	G
25	BA	802	A
25	BA	805	G
25	BA	810	U
25	BA	812	C
25	BA	819	A
25	BA	824	A
25	BA	827	U
25	BA	828	U
25	BA	836	G
25	BA	847	U
25	BA	857	C
25	BA	858	U
25	BA	859	G
25	BA	866	A
25	BA	878	A
25	BA	879	G

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Mol	Chain	Res	Type
25	BA	880	G
25	BA	881	G
25	BA	882	G
25	BA	883	G
25	BA	884	C
25	BA	885	C
25	BA	886	C
25	BA	887	A
25	BA	888	C
25	BA	890	A
25	BA	893	C
25	BA	894	C
25	BA	895	U
25	BA	896	A
25	BA	897	C
25	BA	898	C
25	BA	899	A
25	BA	900	A
25	BA	901	A
25	BA	902	C
25	BA	906	G
25	BA	910	A
25	BA	917	A
25	BA	925	C
25	BA	926	A
25	BA	932	G
25	BA	938	G
25	BA	940	G
25	BA	941	A
25	BA	946	G
25	BA	961	C
25	BA	968	G
25	BA	974	G
25	BA	974(A)	C
25	BA	975	G
25	BA	983	A
25	BA	990	A
25	BA	995	C
25	BA	996	A
25	BA	999	U
25	BA	1003	G
25	BA	1005	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1010	A
25	BA	1011	G
25	BA	1012	U
25	BA	1013	C
25	BA	1015	G
25	BA	1020	A
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1027	A
25	BA	1033	U
25	BA	1037	G
25	BA	1044	G
25	BA	1045	A
25	BA	1046	A
25	BA	1047	G
25	BA	1050	A
25	BA	1054	A
25	BA	1055	G
25	BA	1056	G
25	BA	1057	A
25	BA	1060	U
25	BA	1061	U
25	BA	1062	G
25	BA	1066	U
25	BA	1067	A
25	BA	1068	G
25	BA	1070	A
25	BA	1071	G
25	BA	1073	A
25	BA	1075	C
25	BA	1076	C
25	BA	1077	A
25	BA	1078	U
25	BA	1079	C
25	BA	1083	U
25	BA	1084	A
25	BA	1085	A
25	BA	1086	A
25	BA	1087	G
25	BA	1088	A

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Mol	Chain	Res	Type
25	BA	1089	G
25	BA	1090	U
25	BA	1092	C
25	BA	1093	G
25	BA	1095	A
25	BA	1096	A
25	BA	1097	U
25	BA	1102	C
25	BA	1104	C
25	BA	1105	U
25	BA	1106	G
25	BA	1107	G
25	BA	1110	G
25	BA	1111	A
25	BA	1112	G
25	BA	1117	G
25	BA	1122	G
25	BA	1127	A
25	BA	1129	A
25	BA	1130	U
25	BA	1131	G
25	BA	1135	C
25	BA	1136	G
25	BA	1139	G
25	BA	1142	U
25	BA	1142(A)	A
25	BA	1144	G
25	BA	1148	A
25	BA	1149	G
25	BA	1151	G
25	BA	1154	G
25	BA	1155	A
25	BA	1170	G
25	BA	1171	G
25	BA	1176	G
25	BA	1178	C
25	BA	1179	C
25	BA	1180	C
25	BA	1195	G
25	BA	1204	A
25	BA	1205	U
25	BA	1210	A

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Mol	Chain	Res	Type
25	BA	1211	U
25	BA	1218	C
25	BA	1220	A
25	BA	1230	C
25	BA	1241	A
25	BA	1242	A
25	BA	1244	G
25	BA	1253	A
25	BA	1256	G
25	BA	1265	A
25	BA	1269	A
25	BA	1271	G
25	BA	1272	A
25	BA	1273	U
25	BA	1287	A
25	BA	1298	C
25	BA	1300	U
25	BA	1301	A
25	BA	1303	G
25	BA	1312	U
25	BA	1313	U
25	BA	1314	C
25	BA	1328	G
25	BA	1329	U
25	BA	1338	G
25	BA	1341	U
25	BA	1345	C
25	BA	1349	A
25	BA	1352	U
25	BA	1358	G
25	BA	1359	A
25	BA	1360	A
25	BA	1365	A
25	BA	1368	G
25	BA	1377	G
25	BA	1380	G
25	BA	1383	C
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1388	G
25	BA	1389	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1390	U
25	BA	1391	U
25	BA	1404	C
25	BA	1412	A
25	BA	1416	G
25	BA	1417	C
25	BA	1420	U
25	BA	1421	G
25	BA	1427	A
25	BA	1428	C
25	BA	1437	C
25	BA	1444(A)	A
25	BA	1447	G
25	BA	1449	A
25	BA	1449(A)	G
25	BA	1451	C
25	BA	1453	A
25	BA	1454	U
25	BA	1455	G
25	BA	1458	C
25	BA	1459	G
25	BA	1460	A
25	BA	1461	G
25	BA	1466	G
25	BA	1467	C
25	BA	1470	G
25	BA	1471	A
25	BA	1474	C
25	BA	1475	G
25	BA	1483	G
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1497	U
25	BA	1504	C
25	BA	1506	C
25	BA	1507	A
25	BA	1508	A
25	BA	1509	C
25	BA	1510	A
25	BA	1511	A
25	BA	1514	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1520	U
25	BA	1522	G
25	BA	1526	G
25	BA	1533	C
25	BA	1534	G
25	BA	1535	U
25	BA	1536	A
25	BA	1537	C
25	BA	1538	G
25	BA	1540	G
25	BA	1543	A
25	BA	1545	A
25	BA	1548	C
25	BA	1554	A
25	BA	1558	A
25	BA	1559	G
25	BA	1560	G
25	BA	1566	A
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1585	C
25	BA	1586	A
25	BA	1597	A
25	BA	1608	A
25	BA	1609	A
25	BA	1610	A
25	BA	1617	C
25	BA	1618	A
25	BA	1639	U
25	BA	1640	C
25	BA	1641	A
25	BA	1648	C
25	BA	1651	G
25	BA	1654	A
25	BA	1655	A
25	BA	1674	G
25	BA	1678	G
25	BA	1694	C
25	BA	1695	G
25	BA	1700	A
25	BA	1701	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1702	G
25	BA	1717	G
25	BA	1727	U
25	BA	1728	G
25	BA	1729	A
25	BA	1730	U
25	BA	1731	G
25	BA	1732	A
25	BA	1734	C
25	BA	1735	C
25	BA	1743	G
25	BA	1749	A
25	BA	1750	G
25	BA	1754	C
25	BA	1756	G
25	BA	1761	C
25	BA	1762	A
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1780	A
25	BA	1791	A
25	BA	1798	U
25	BA	1799	G
25	BA	1800	C
25	BA	1801	G
25	BA	1802	A
25	BA	1816	G
25	BA	1819	A
25	BA	1820	U
25	BA	1829	A
25	BA	1835	G
25	BA	1839	G
25	BA	1847	A
25	BA	1858	G
25	BA	1861	G
25	BA	1869	G
25	BA	1870	C
25	BA	1878	G
25	BA	1882	C
25	BA	1885	A
25	BA	1886	C

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Mol	Chain	Res	Type
25	BA	1887	C
25	BA	1889	A
25	BA	1900	A
25	BA	1906	G
25	BA	1914	C
25	BA	1916	A
25	BA	1926	U
25	BA	1929	G
25	BA	1930	G
25	BA	1931	U
25	BA	1936	A
25	BA	1937	A
25	BA	1938	A
25	BA	1955	U
25	BA	1956	U
25	BA	1963	U
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1982	C
25	BA	1984	G
25	BA	1993	U
25	BA	2020	A
25	BA	2023	G
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2043	C
25	BA	2051	A
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G
25	BA	2062	A
25	BA	2069	G
25	BA	2096	U
25	BA	2099	U
25	BA	2100	G
25	BA	2111	C
25	BA	2112	G

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Mol	Chain	Res	Type
25	BA	2113	U
25	BA	2114	A
25	BA	2115	G
25	BA	2116	G
25	BA	2118	U
25	BA	2120	G
25	BA	2122	U
25	BA	2126	A
25	BA	2127	G
25	BA	2128	C
25	BA	2129	C
25	BA	2131	G
25	BA	2132	U
25	BA	2133	G
25	BA	2135	A
25	BA	2136	C
25	BA	2139	C
25	BA	2144	U
25	BA	2146	C
25	BA	2148	G
25	BA	2151	G
25	BA	2157	G
25	BA	2158	A
25	BA	2159	G
25	BA	2165	G
25	BA	2166	G
25	BA	2168	G
25	BA	2169	A
25	BA	2170	A
25	BA	2171	A
25	BA	2173	A
25	BA	2176	A
25	BA	2181	G
25	BA	2185	C
25	BA	2189	U
25	BA	2190	G
25	BA	2191	G
25	BA	2192	G
25	BA	2198	A
25	BA	2205	C
25	BA	2210	G
25	BA	2211	G

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Mol	Chain	Res	Type
25	BA	2212	A
25	BA	2213	U
25	BA	2215	G
25	BA	2225	A
25	BA	2226	C
25	BA	2238	G
25	BA	2239	G
25	BA	2262	U
25	BA	2263	C
25	BA	2264	C
25	BA	2269	A
25	BA	2275	C
25	BA	2283	C
25	BA	2287	A
25	BA	2304	G
25	BA	2307	G
25	BA	2308	G
25	BA	2309	A
25	BA	2310	A
25	BA	2311	A
25	BA	2319	G
25	BA	2320	A
25	BA	2321	G
25	BA	2325	G
25	BA	2327	A
25	BA	2334	G
25	BA	2336	A
25	BA	2342	C
25	BA	2343	C
25	BA	2346	A
25	BA	2347	C
25	BA	2350	C
25	BA	2352	A
25	BA	2360	A
25	BA	2377	A
25	BA	2379	G
25	BA	2383	G
25	BA	2385	C
25	BA	2394	C
25	BA	2402	C
25	BA	2403	C
25	BA	2406	U

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Mol	Chain	Res	Type
25	BA	2408	U
25	BA	2410	G
25	BA	2423	U
25	BA	2425	A
25	BA	2428	G
25	BA	2429	G
25	BA	2430	A
25	BA	2434	A
25	BA	2435	A
25	BA	2439	A
25	BA	2440	C
25	BA	2441	C
25	BA	2448	A
25	BA	2468	G
25	BA	2474	C
25	BA	2476	A
25	BA	2478	A
25	BA	2487	G
25	BA	2498	C
25	BA	2502	G
25	BA	2504	U
25	BA	2505	G
25	BA	2506	U
25	BA	2518	A
25	BA	2525	G
25	BA	2529	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2573	C
25	BA	2582	G
25	BA	2584	U
25	BA	2599	G
25	BA	2601	C
25	BA	2602	A
25	BA	2609	U
25	BA	2610	C
25	BA	2611	U
25	BA	2612	C
25	BA	2613	U
25	BA	2614	A
25	BA	2615	U

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Mol	Chain	Res	Type
25	BA	2629	A
25	BA	2630	G
25	BA	2636	U
25	BA	2641	G
25	BA	2654	A
25	BA	2665	A
25	BA	2666	C
25	BA	2673	G
25	BA	2682	U
25	BA	2683	C
25	BA	2689	U
25	BA	2690	C
25	BA	2691	C
25	BA	2701	C
25	BA	2702	U
25	BA	2703	C
25	BA	2707	G
25	BA	2712	U
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2726	U
25	BA	2733	A
25	BA	2734	A
25	BA	2744	G
25	BA	2752	C
25	BA	2755	C
25	BA	2757	A
25	BA	2758	A
25	BA	2764	A
25	BA	2765	A
25	BA	2766	G
25	BA	2778	A
25	BA	2779	U
25	BA	2789	C
25	BA	2790	A
25	BA	2791	C
25	BA	2794	C
25	BA	2795	G
25	BA	2797	U
25	BA	2798	C
25	BA	2799	A

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Mol	Chain	Res	Type
25	BA	2803	C
25	BA	2805	G
25	BA	2807	G
25	BA	2808	U
25	BA	2818	G
25	BA	2820	A
25	BA	2821	A
25	BA	2823	A
25	BA	2830	G
25	BA	2833	G
25	BA	2834	G
25	BA	2849	U
25	BA	2850	A
25	BA	2851	A
25	BA	2864	G
25	BA	2872	G
25	BA	2891	G
25	BA	2892	A
25	BA	2894	G
25	BA	2899	G
25	BA	2901	C
26	BB	1	U
26	BB	4	C
26	BB	7	G
26	BB	12	C
26	BB	13	A
26	BB	15	A
26	BB	21	G
26	BB	31	C
26	BB	32	C
26	BB	35	U
26	BB	38	C
26	BB	41	U
26	BB	42	C
26	BB	44	G
26	BB	45	A
26	BB	50	G
26	BB	52	A
26	BB	53	A
26	BB	56	G
26	BB	65	C
26	BB	72	G

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Mol	Chain	Res	Type
26	BB	73	A
26	BB	74	U
26	BB	81	G
26	BB	82	G
26	BB	89	G
26	BB	95	U
26	BB	96	G
26	BB	105	G
26	BB	109	G
1	CA	7	G
1	CA	9	G
1	CA	22	G
1	CA	26	A
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	54	C
1	CA	64	G
1	CA	65	U
1	CA	66	G
1	CA	73	G
1	CA	78	G
1	CA	79	G
1	CA	81	G
1	CA	84	U
1	CA	85	U
1	CA	86	U
1	CA	87	A
1	CA	90	C
1	CA	91	C
1	CA	92	G
1	CA	95	G
1	CA	101	A
1	CA	116	A
1	CA	121	C
1	CA	131	C
1	CA	144	G
1	CA	161	A
1	CA	163	C

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Mol	Chain	Res	Type
1	CA	169	C
1	CA	174	C
1	CA	182	U
1	CA	186	C
1	CA	187	C
1	CA	188	U
1	CA	189	U
1	CA	190	G
1	CA	191(A)	G
1	CA	191(B)	G
1	CA	191(D)	U
1	CA	195	A
1	CA	197	A
1	CA	198	G
1	CA	208	U
1	CA	209	U
1	CA	210	U
1	CA	216	G
1	CA	226	G
1	CA	231	G
1	CA	240	C
1	CA	241	C
1	CA	243	A
1	CA	244	U
1	CA	245	C
1	CA	247	G
1	CA	250	A
1	CA	251	G
1	CA	253	U
1	CA	266	G
1	CA	267	C
1	CA	269	C
1	CA	271	C
1	CA	274	A
1	CA	279	A
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	298	A
1	CA	321	A
1	CA	328	C
1	CA	329	A

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Mol	Chain	Res	Type
1	CA	332	G
1	CA	340	U
1	CA	345	C
1	CA	346	G
1	CA	347	G
1	CA	350	G
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	356	A
1	CA	367	U
1	CA	372	C
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	429	U
1	CA	435	C
1	CA	439	A
1	CA	445	G
1	CA	451	A
1	CA	452	A
1	CA	465	A
1	CA	466	C
1	CA	467	G
1	CA	476	G
1	CA	478	A
1	CA	482	A
1	CA	484	G
1	CA	485	G
1	CA	486	U
1	CA	496	A
1	CA	497	U
1	CA	498	A
1	CA	500	G

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Mol	Chain	Res	Type
1	CA	504	C
1	CA	505	G
1	CA	506	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	513	C
1	CA	517	G
1	CA	518	C
1	CA	519	C
1	CA	521	G
1	CA	527	G
1	CA	530	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	535	A
1	CA	536	C
1	CA	544	G
1	CA	547	A
1	CA	553	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	564	C
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	601	C
1	CA	618	C
1	CA	620	C
1	CA	621	A
1	CA	629	G
1	CA	630	G
1	CA	631	G
1	CA	632	A
1	CA	633	G
1	CA	634	C
1	CA	641	U
1	CA	651	C
1	CA	653	A
1	CA	656	C

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Mol	Chain	Res	Type
1	CA	661	G
1	CA	665	A
1	CA	685	G
1	CA	686	U
1	CA	687	A
1	CA	688	G
1	CA	702	A
1	CA	703	G
1	CA	704	A
1	CA	707	C
1	CA	720	C
1	CA	721	G
1	CA	724	G
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	773	G
1	CA	777	A
1	CA	778	G
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	799	G
1	CA	800	G
1	CA	801	U
1	CA	802	A
1	CA	813	U
1	CA	816	A
1	CA	817	C
1	CA	819	A
1	CA	820	U
1	CA	821	G
1	CA	827	U
1	CA	828	A
1	CA	836	G
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	848	C
1	CA	859	A
1	CA	870	U
1	CA	871	U

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Mol	Chain	Res	Type
1	CA	885	G
1	CA	887	G
1	CA	889	A
1	CA	913	A
1	CA	914	A
1	CA	915	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	936	C
1	CA	956	U
1	CA	958	A
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	981	U
1	CA	982	U
1	CA	988	G
1	CA	989	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	995	C
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1009	G
1	CA	1013	G
1	CA	1014	A
1	CA	1016	A

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Mol	Chain	Res	Type
1	CA	1022	G
1	CA	1024	G
1	CA	1025	U
1	CA	1027	C
1	CA	1028	C
1	CA	1028(B)	C
1	CA	1029	G
1	CA	1030	C
1	CA	1032(A)	G
1	CA	1032(B)	G
1	CA	1036	G
1	CA	1039	C
1	CA	1040	U
1	CA	1042	G
1	CA	1045	C
1	CA	1046	A
1	CA	1052	U
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A
1	CA	1066	C
1	CA	1067	A
1	CA	1068	G
1	CA	1081	G
1	CA	1084	G
1	CA	1086	U
1	CA	1092	A
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1106	G
1	CA	1113	C
1	CA	1118	C
1	CA	1122	U
1	CA	1123	A
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1127	G
1	CA	1128	C
1	CA	1129	C
1	CA	1130	A

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Mol	Chain	Res	Type
1	CA	1131	G
1	CA	1133	G
1	CA	1136	U
1	CA	1137	C
1	CA	1139	G
1	CA	1146	A
1	CA	1147	C
1	CA	1152	A
1	CA	1154	G
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1171	G
1	CA	1178	G
1	CA	1179	A
1	CA	1180	A
1	CA	1181	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1185	G
1	CA	1187	G
1	CA	1196	U
1	CA	1201	A
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1220	G
1	CA	1223	C
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1228	C
1	CA	1232	U
1	CA	1235	U
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1252	A
1	CA	1256	A
1	CA	1257	U

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Mol	Chain	Res	Type
1	CA	1258	G
1	CA	1260	C
1	CA	1262	C
1	CA	1269	A
1	CA	1270	C
1	CA	1275	A
1	CA	1278	U
1	CA	1280	A
1	CA	1286	A
1	CA	1287	A
1	CA	1288	A
1	CA	1290	G
1	CA	1291	G
1	CA	1297	C
1	CA	1298	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1303	C
1	CA	1305	G
1	CA	1317	C
1	CA	1319	A
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1326	C
1	CA	1331	G
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1349	A
1	CA	1350	A
1	CA	1352	C
1	CA	1353	G
1	CA	1362(A)	C
1	CA	1364	U
1	CA	1368	G
1	CA	1370	G
1	CA	1379	G
1	CA	1382	C
1	CA	1391	U
1	CA	1392	G

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Mol	Chain	Res	Type
1	CA	1397	C
1	CA	1398	A
1	CA	1400	C
1	CA	1401	G
1	CA	1402	C
1	CA	1403	C
1	CA	1404	C
1	CA	1406	U
1	CA	1416	G
1	CA	1417	G
1	CA	1419	G
1	CA	1439	C
1	CA	1442	G
1	CA	1443	G
1	CA	1446	A
1	CA	1447	G
1	CA	1450	U
1	CA	1451	A
1	CA	1453	G
1	CA	1454	G
1	CA	1478	C
1	CA	1479	C
1	CA	1487	G
1	CA	1492	A
1	CA	1494	G
1	CA	1497	G
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
22	CB	2	C
22	CB	6	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
22	CB	7	G
22	CB	8	U
22	CB	9	G
22	CB	10	G
22	CB	11	U
22	CB	14	A
22	CB	17	U
22	CB	18	G
22	CB	19	G
22	CB	20	U
22	CB	21	A
22	CB	22	G
22	CB	23	A
22	CB	24	C
22	CB	25	A
22	CB	26	C
22	CB	27	G
22	CB	34	U
22	CB	37	G
22	CB	39	U
22	CB	41	G
22	CB	42	U
22	CB	43	A
22	CB	45	U
22	CB	46	G
22	CB	47	C
22	CB	48	C
22	CB	49	C
22	CB	50	A
22	CB	51	A
22	CB	52	U
22	CB	55	G
22	CB	56	G
22	CB	60	A
22	CB	66	U
22	CB	67	C
22	CB	70	G
22	CB	71	U
22	CB	72	C
22	CB	74	C
22	CB	83	U
22	CB	85	C

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Mol	Chain	Res	Type
22	CB	86	C
22	CB	87	A
23	CC	2	G
23	CC	8	U
23	CC	9	G
23	CC	16	C
23	CC	17	C
23	CC	18	C
23	CC	19	G
23	CC	20	G
23	CC	21	U
23	CC	22	A
23	CC	23	G
23	CC	31	G
23	CC	43	G
23	CC	48	U
23	CC	49	C
23	CC	50	G
23	CC	53	G
23	CC	61	U
23	CC	68	C
23	CC	69	C
23	CC	77	A
23	CD	9	G
23	CD	14	A
23	CD	15	G
23	CD	16	C
23	CD	17	C
23	CD	19	G
23	CD	21	U
23	CD	23	G
23	CD	24	C
23	CD	25	U
23	CD	28	U
23	CD	36	A
23	CD	39	A
23	CD	40	C
23	CD	46	G
23	CD	48	U
23	CD	49	C
23	CD	54	G
23	CD	57	C

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Mol	Chain	Res	Type
23	CD	59	A
23	CD	60	A
23	CD	62	C
23	CD	68	C
23	CD	70	C
23	CD	74	A
23	CD	77	A
24	C1	14	U
24	C1	19	U
24	C1	22	U
25	DA	5	A
25	DA	34	C
25	DA	36	G
25	DA	46	C
25	DA	49	A
25	DA	50	U
25	DA	55	G
25	DA	58	G
25	DA	60	G
25	DA	69	C
25	DA	71	A
25	DA	72	U
25	DA	74	A
25	DA	75	G
25	DA	90	U
25	DA	91	A
25	DA	94	G
25	DA	95	G
25	DA	101	G
25	DA	102	G
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	125	G
25	DA	129	C
25	DA	138	G
25	DA	148	C
25	DA	153	C
25	DA	154	G
25	DA	155	C
25	DA	172	C
25	DA	173	G

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Mol	Chain	Res	Type
25	DA	174	C
25	DA	175	G
25	DA	182	A
25	DA	196	A
25	DA	199	A
25	DA	205	G
25	DA	206	U
25	DA	214	G
25	DA	215	G
25	DA	216	A
25	DA	217	G
25	DA	221	A
25	DA	222	A
25	DA	225	A
25	DA	228	A
25	DA	229	A
25	DA	233	A
25	DA	239	U
25	DA	245	G
25	DA	248	G
25	DA	249	C
25	DA	250	G
25	DA	252	G
25	DA	270(K)	C
25	DA	270(L)	U
25	DA	270(M)	U
25	DA	270(O)	U
25	DA	270(Q)	C
25	DA	271(C)	U
25	DA	271	G
25	DA	273(C)	C
25	DA	273(D)	C
25	DA	274	G
25	DA	275	G
25	DA	276	A
25	DA	278	A
25	DA	279	C
25	DA	285	C
25	DA	287	C
25	DA	289	A
25	DA	298	G
25	DA	308	G

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Mol	Chain	Res	Type
25	DA	311	A
25	DA	312	G
25	DA	317	G
25	DA	324	A
25	DA	329	G
25	DA	330	A
25	DA	331	A
25	DA	333	G
25	DA	334	C
25	DA	342	G
25	DA	352	G
25	DA	354	G
25	DA	356	G
25	DA	363	G
25	DA	363(B)	G
25	DA	363(E)	U
25	DA	363(F)	A
25	DA	386	G
25	DA	394	A
25	DA	395	U
25	DA	396	G
25	DA	399	G
25	DA	405	U
25	DA	406	G
25	DA	411	G
25	DA	412	A
25	DA	414	C
25	DA	419	C
25	DA	428	A
25	DA	443	A
25	DA	444	C
25	DA	448	U
25	DA	454	A
25	DA	455	C
25	DA	457	A
25	DA	459	U
25	DA	470	A
25	DA	481	G
25	DA	485	C
25	DA	501	A
25	DA	504	U
25	DA	505	A

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Mol	Chain	Res	Type
25	DA	508	G
25	DA	509	C
25	DA	512	G
25	DA	529	A
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	543	C
25	DA	547	A
25	DA	556	G
25	DA	557	U
25	DA	563	G
25	DA	567	A
25	DA	568	U
25	DA	573	G
25	DA	575	A
25	DA	584	C
25	DA	588	U
25	DA	593	G
25	DA	595	C
25	DA	603	A
25	DA	607	U
25	DA	609(A)	G
25	DA	614	U
25	DA	617	G
25	DA	620	G
25	DA	621	A
25	DA	622	G
25	DA	627	A
25	DA	637	A
25	DA	644	A
25	DA	645	C
25	DA	646	A
25	DA	647	G
25	DA	650	C
25	DA	651	G
25	DA	654	A
25	DA	654(A)	A
25	DA	654(F)	C
25	DA	654(G)	C
25	DA	654(I)	C

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Mol	Chain	Res	Type
25	DA	654(J)	A
25	DA	654(K)	C
25	DA	654(L)	G
25	DA	654(N)	G
25	DA	654(Q)	C
25	DA	654(R)	C
25	DA	654(T)	A
25	DA	669	G
25	DA	670	A
25	DA	673	C
25	DA	686	G
25	DA	706	A
25	DA	707	G
25	DA	708	C
25	DA	717	G
25	DA	719	C
25	DA	720	C
25	DA	722	A
25	DA	730	C
25	DA	745	G
25	DA	752	A
25	DA	753	C
25	DA	757	U
25	DA	762	U
25	DA	765	G
25	DA	768	G
25	DA	776	G
25	DA	778	G
25	DA	779	U
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	789	A
25	DA	792	G
25	DA	793	A
25	DA	805	G
25	DA	812	C
25	DA	814	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	832	G

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Mol	Chain	Res	Type
25	DA	845	G
25	DA	848	G
25	DA	856	C
25	DA	857	C
25	DA	859	G
25	DA	869	G
25	DA	878	A
25	DA	879	G
25	DA	881	G
25	DA	882	G
25	DA	884	C
25	DA	886	C
25	DA	887	A
25	DA	888	C
25	DA	889	C
25	DA	890	A
25	DA	894	C
25	DA	896	A
25	DA	897	C
25	DA	899	A
25	DA	900	A
25	DA	901	A
25	DA	903	C
25	DA	905	U
25	DA	906	G
25	DA	907	U
25	DA	910	A
25	DA	914	C
25	DA	915	C
25	DA	917	A
25	DA	925	C
25	DA	932	G
25	DA	933	A
25	DA	934	G
25	DA	938	G
25	DA	941	A
25	DA	944	G
25	DA	945	A
25	DA	946	G
25	DA	959	A
25	DA	960	A
25	DA	961	C

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Mol	Chain	Res	Type
25	DA	974	G
25	DA	983	A
25	DA	989	G
25	DA	990	A
25	DA	991	C
25	DA	996	A
25	DA	997	G
25	DA	998	C
25	DA	1005	C
25	DA	1012	U
25	DA	1013	C
25	DA	1016	G
25	DA	1020	A
25	DA	1022	G
25	DA	1023	U
25	DA	1024	G
25	DA	1025	G
25	DA	1026	U
25	DA	1033	U
25	DA	1037	G
25	DA	1044	G
25	DA	1045	A
25	DA	1048	A
25	DA	1054	A
25	DA	1057	A
25	DA	1060	U
25	DA	1061	U
25	DA	1062	G
25	DA	1065	U
25	DA	1066	U
25	DA	1067	A
25	DA	1070	A
25	DA	1071	G
25	DA	1072	C
25	DA	1073	A
25	DA	1074	G
25	DA	1076	C
25	DA	1085	A
25	DA	1086	A
25	DA	1087	G
25	DA	1088	A
25	DA	1090	U

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Mol	Chain	Res	Type
25	DA	1093	G
25	DA	1095	A
25	DA	1096	A
25	DA	1098	A
25	DA	1099	G
25	DA	1100	C
25	DA	1105	U
25	DA	1108	U
25	DA	1111	A
25	DA	1112	G
25	DA	1115	G
25	DA	1122	G
25	DA	1127	A
25	DA	1128	A
25	DA	1129	A
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1137	G
25	DA	1139	G
25	DA	1141	U
25	DA	1142(A)	A
25	DA	1143	A
25	DA	1154	G
25	DA	1155	A
25	DA	1160	G
25	DA	1170	G
25	DA	1171	G
25	DA	1173	G
25	DA	1174	A
25	DA	1175	U
25	DA	1176	G
25	DA	1177	A
25	DA	1178	C
25	DA	1183	G
25	DA	1190	G
25	DA	1204	A
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1212	G
25	DA	1217	C

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Mol	Chain	Res	Type
25	DA	1220	A
25	DA	1221	C
25	DA	1237	A
25	DA	1245	G
25	DA	1247	A
25	DA	1250	G
25	DA	1253	A
25	DA	1255	U
25	DA	1256	G
25	DA	1269	A
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1275	A
25	DA	1284	A
25	DA	1287	A
25	DA	1298	C
25	DA	1300	U
25	DA	1301	A
25	DA	1304	C
25	DA	1313	U
25	DA	1314	C
25	DA	1319	G
25	DA	1325	G
25	DA	1329	U
25	DA	1332	G
25	DA	1342	A
25	DA	1347	G
25	DA	1348	G
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1368	G
25	DA	1379	A
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1389	G
25	DA	1390	U
25	DA	1391	U
25	DA	1395	A

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Mol	Chain	Res	Type
25	DA	1397	U
25	DA	1405	U
25	DA	1406	U
25	DA	1407	C
25	DA	1416	G
25	DA	1417	C
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1437	C
25	DA	1443	G
25	DA	1444(A)	A
25	DA	1445	C
25	DA	1449	A
25	DA	1449(A)	G
25	DA	1451	C
25	DA	1460	A
25	DA	1461	G
25	DA	1467	C
25	DA	1471	A
25	DA	1472	A
25	DA	1475	G
25	DA	1482	U
25	DA	1483	G
25	DA	1486	A
25	DA	1488	G
25	DA	1490	A
25	DA	1493	C
25	DA	1506	C
25	DA	1507	A
25	DA	1508	A
25	DA	1509	C
25	DA	1510	A
25	DA	1515	C
25	DA	1522	G
25	DA	1527	G
25	DA	1528	A
25	DA	1534	G
25	DA	1535	U
25	DA	1536	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	1537	C
25	DA	1538	G
25	DA	1541	U
25	DA	1543	A
25	DA	1544	C
25	DA	1546	C
25	DA	1547	C
25	DA	1548	C
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1560	G
25	DA	1566	A
25	DA	1569	A
25	DA	1578	U
25	DA	1580	A
25	DA	1582	C
25	DA	1586	A
25	DA	1587	A
25	DA	1588	C
25	DA	1589	C
25	DA	1596	A
25	DA	1597	A
25	DA	1598	C
25	DA	1608	A
25	DA	1609	A
25	DA	1610	A
25	DA	1616	A
25	DA	1619	G
25	DA	1625	C
25	DA	1639	U
25	DA	1640	C
25	DA	1648	C
25	DA	1654	A
25	DA	1655	A
25	DA	1660	C
25	DA	1661	G
25	DA	1674	G
25	DA	1675	C
25	DA	1678	G
25	DA	1688	U
25	DA	1696	G

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Mol	Chain	Res	Type
25	DA	1700	A
25	DA	1701	A
25	DA	1718	G
25	DA	1725	G
25	DA	1726	G
25	DA	1728	G
25	DA	1729	A
25	DA	1741	C
25	DA	1743	G
25	DA	1756	G
25	DA	1758	G
25	DA	1762	A
25	DA	1763	G
25	DA	1764	G
25	DA	1773	A
25	DA	1780	A
25	DA	1782	C
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1802	A
25	DA	1812	A
25	DA	1816	G
25	DA	1819	A
25	DA	1820	U
25	DA	1827	C
25	DA	1828	G
25	DA	1829	A
25	DA	1835	G
25	DA	1839	G
25	DA	1847	A
25	DA	1857	G
25	DA	1858	G
25	DA	1861	G
25	DA	1863	G
25	DA	1864	U
25	DA	1869	G
25	DA	1878	G
25	DA	1882	C
25	DA	1883	G
25	DA	1888	G
25	DA	1889	A

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Mol	Chain	Res	Type
25	DA	1896	G
25	DA	1900	A
25	DA	1906	G
25	DA	1909	C
25	DA	1913	A
25	DA	1916	A
25	DA	1917	U
25	DA	1919	A
25	DA	1929	G
25	DA	1930	G
25	DA	1936	A
25	DA	1937	A
25	DA	1938	A
25	DA	1940	U
25	DA	1955	U
25	DA	1956	U
25	DA	1963	U
25	DA	1967	C
25	DA	1968	G
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1981	A
25	DA	1991	U
25	DA	1993	U
25	DA	1994	C
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2036	C
25	DA	2039	C
25	DA	2043	C
25	DA	2049	G
25	DA	2055	C
25	DA	2056	G
25	DA	2059	A
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2063	C
25	DA	2066	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	2067	G
25	DA	2069	G
25	DA	2071	A
25	DA	2082	A
25	DA	2097	C
25	DA	2099	U
25	DA	2100	G
25	DA	2105	C
25	DA	2107	C
25	DA	2108	C
25	DA	2111	C
25	DA	2112	G
25	DA	2113	U
25	DA	2114	A
25	DA	2115	G
25	DA	2116	G
25	DA	2118	U
25	DA	2119	A
25	DA	2120	G
25	DA	2123	G
25	DA	2126	A
25	DA	2127	G
25	DA	2128	C
25	DA	2129	C
25	DA	2130	U
25	DA	2131	G
25	DA	2132	U
25	DA	2133	G
25	DA	2135	A
25	DA	2136	C
25	DA	2137	C
25	DA	2139	C
25	DA	2141	G
25	DA	2145	C
25	DA	2146	C
25	DA	2147	G
25	DA	2148	G
25	DA	2152	G
25	DA	2158	A
25	DA	2164	C
25	DA	2166	G
25	DA	2168	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	2169	A
25	DA	2170	A
25	DA	2171	A
25	DA	2172	U
25	DA	2173	A
25	DA	2174	C
25	DA	2175	C
25	DA	2182	G
25	DA	2189	U
25	DA	2190	G
25	DA	2192	G
25	DA	2193	G
25	DA	2198	A
25	DA	2210	G
25	DA	2211	G
25	DA	2212	A
25	DA	2213	U
25	DA	2215	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2240	C
25	DA	2245	U
25	DA	2246	G
25	DA	2262	U
25	DA	2267	A
25	DA	2272	U
25	DA	2273	A
25	DA	2275	C
25	DA	2276	G
25	DA	2279	G
25	DA	2280	G
25	DA	2282	G
25	DA	2283	C
25	DA	2285	C
25	DA	2286	A
25	DA	2287	A
25	DA	2297	C
25	DA	2298	A
25	DA	2304	G
25	DA	2307	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	2308	G
25	DA	2309	A
25	DA	2311	A
25	DA	2312	U
25	DA	2315	G
25	DA	2316	C
25	DA	2319	G
25	DA	2322	A
25	DA	2324	C
25	DA	2325	G
25	DA	2333	A
25	DA	2335	A
25	DA	2337	G
25	DA	2342	C
25	DA	2343	C
25	DA	2346	A
25	DA	2347	C
25	DA	2350	C
25	DA	2383	G
25	DA	2385	C
25	DA	2388	A
25	DA	2391	G
25	DA	2392	A
25	DA	2394	C
25	DA	2400	G
25	DA	2402	C
25	DA	2406	U
25	DA	2410	G
25	DA	2414	G
25	DA	2422	A
25	DA	2423	U
25	DA	2425	A
25	DA	2429	G
25	DA	2430	A
25	DA	2431	U
25	DA	2434	A
25	DA	2435	A
25	DA	2439	A
25	DA	2440	C
25	DA	2441	C
25	DA	2445	G
25	DA	2447	G

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Mol	Chain	Res	Type
25	DA	2448	A
25	DA	2466	C
25	DA	2469	A
25	DA	2470	G
25	DA	2471	C
25	DA	2472	G
25	DA	2476	A
25	DA	2484	G
25	DA	2487	G
25	DA	2502	G
25	DA	2504	U
25	DA	2505	G
25	DA	2506	U
25	DA	2507	C
25	DA	2518	A
25	DA	2523	G
25	DA	2525	G
25	DA	2529	G
25	DA	2532	G
25	DA	2543	G
25	DA	2553	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2569	G
25	DA	2571	C
25	DA	2572	A
25	DA	2573	C
25	DA	2584	U
25	DA	2585	U
25	DA	2601	C
25	DA	2602	A
25	DA	2603	G
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2613	U
25	DA	2615	U
25	DA	2629	A
25	DA	2630	G
25	DA	2655	G
25	DA	2665	A

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Mol	Chain	Res	Type
25	DA	2673	G
25	DA	2682	U
25	DA	2689	U
25	DA	2690	C
25	DA	2703	C
25	DA	2704	C
25	DA	2707	G
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2726	U
25	DA	2733	A
25	DA	2734	A
25	DA	2739	U
25	DA	2744	G
25	DA	2748	A
25	DA	2750	A
25	DA	2751	G
25	DA	2752	C
25	DA	2754	U
25	DA	2758	A
25	DA	2761	G
25	DA	2762	G
25	DA	2764	A
25	DA	2765	A
25	DA	2766	G
25	DA	2777	G
25	DA	2778	A
25	DA	2779	U
25	DA	2790	A
25	DA	2791	C
25	DA	2794	C
25	DA	2797	U
25	DA	2798	C
25	DA	2799	A
25	DA	2803	C
25	DA	2807	G
25	DA	2808	U
25	DA	2811	G
25	DA	2818	G
25	DA	2820	A
25	DA	2821	A

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Mol	Chain	Res	Type
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2839	G
25	DA	2845	G
25	DA	2847	U
25	DA	2848	G
25	DA	2849	U
25	DA	2860	A
25	DA	2872	G
25	DA	2873	A
25	DA	2880	C
25	DA	2892	A
25	DA	2893	G
25	DA	2894	G
25	DA	2896	C
25	DA	2897	U
26	DB	0	A
26	DB	3	C
26	DB	8	U
26	DB	9	G
26	DB	13	A
26	DB	15	A
26	DB	16	G
26	DB	24	G
26	DB	25	A
26	DB	26	A
26	DB	28	C
26	DB	29	A
26	DB	30	C
26	DB	31	C
26	DB	32	C
26	DB	40	U
26	DB	42	C
26	DB	44	G
26	DB	45	A
26	DB	46	A
26	DB	47	C
26	DB	65	C
26	DB	73	A
26	DB	74	U
26	DB	75	G

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Mol	Chain	Res	Type
26	DB	81	G
26	DB	82	G
26	DB	88	C
26	DB	89	G
26	DB	89(A)	A
26	DB	90	C
26	DB	100	G
26	DB	101	A
26	DB	105	G
26	DB	108	C
26	DB	109	G
26	DB	112	G
26	DB	115	G
26	DB	119	A

All (208) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	31	G
1	AA	49	U
1	AA	50	A
1	AA	115	G
1	AA	119	A
1	AA	244	U
1	AA	266	G
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	509	A
1	AA	530	G
1	AA	560	U
1	AA	687	A
1	AA	703	G
1	AA	748	C
1	AA	812	C
1	AA	820	U
1	AA	842	C
1	AA	871	U
1	AA	913	A
1	AA	975	A
1	AA	992	U

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Mol	Chain	Res	Type
1	AA	1025	U
1	AA	1027	C
1	AA	1065	U
1	AA	1178	G
1	AA	1285	A
1	AA	1498	U
1	AA	1503	A
1	AA	1504	G
22	AB	18	G
22	AB	19	G
22	AB	20	U
22	AB	23	A
22	AB	71	U
23	AC	1	C
23	AC	19	G
23	AC	20	G
23	AC	21	U
23	AC	48	U
23	AC	61	U
23	AD	13	C
24	A1	14	U
25	BA	74	A
25	BA	196	A
25	BA	222	A
25	BA	229	A
25	BA	270(L)	U
25	BA	271(B)	G
25	BA	271(C)	U
25	BA	404	C
25	BA	587	C
25	BA	654(S)	G
25	BA	685	A
25	BA	752	A
25	BA	764	A
25	BA	856	C
25	BA	881	G
25	BA	974(A)	C
25	BA	1022	G
25	BA	1026	U
25	BA	1060	U
25	BA	1069	A
25	BA	1085	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1130	U
25	BA	1175	U
25	BA	1178	C
25	BA	1210	A
25	BA	1312	U
25	BA	1379	A
25	BA	1427	A
25	BA	1510	A
25	BA	1536	A
25	BA	1558	A
25	BA	1608	A
25	BA	1609	A
25	BA	1617	C
25	BA	1653	G
25	BA	1694	C
25	BA	1762	A
25	BA	1799	G
25	BA	1819	A
25	BA	1899	G
25	BA	1937	A
25	BA	1955	U
25	BA	1992	G
25	BA	2157	G
25	BA	2211	G
25	BA	2346	A
25	BA	2402	C
25	BA	2422	A
25	BA	2428	G
25	BA	2439	A
25	BA	2566	A
25	BA	2610	C
25	BA	2613	U
25	BA	2681	C
25	BA	2689	U
25	BA	2751	G
25	BA	2756	U
1	CA	31	G
1	CA	64	G
1	CA	89	U
1	CA	115	G
1	CA	197	A
1	CA	201	C

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Mol	Chain	Res	Type
1	CA	209	U
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	279	A
1	CA	328	C
1	CA	345	C
1	CA	353	A
1	CA	412	A
1	CA	485	G
1	CA	509	A
1	CA	560	U
1	CA	575	G
1	CA	631	G
1	CA	632	A
1	CA	687	A
1	CA	748	C
1	CA	793	U
1	CA	812	C
1	CA	913	A
1	CA	974	A
1	CA	992	U
1	CA	1067	A
1	CA	1126	U
1	CA	1128	C
1	CA	1183	A
1	CA	1285	A
1	CA	1297	C
1	CA	1300	G
1	CA	1346	A
1	CA	1442	G
1	CA	1449	C
1	CA	1498	U
1	CA	1503	A
1	CA	1529	G
22	CB	21	A
22	CB	48	C
23	CC	1	C
23	CC	19	G
23	CC	20	G
23	CC	21	U
23	CC	48	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	CD	13	C
25	DA	49	A
25	DA	71	A
25	DA	74	A
25	DA	101	G
25	DA	128	C
25	DA	148	C
25	DA	196	A
25	DA	204	A
25	DA	205	G
25	DA	278	A
25	DA	654(S)	G
25	DA	669	G
25	DA	685	A
25	DA	752	A
25	DA	856	C
25	DA	877	U
25	DA	886	C
25	DA	888	C
25	DA	893	C
25	DA	945	A
25	DA	990	A
25	DA	1022	G
25	DA	1085	A
25	DA	1171	G
25	DA	1210	A
25	DA	1300	U
25	DA	1420	U
25	DA	1427	A
25	DA	1460	A
25	DA	1558	A
25	DA	1608	A
25	DA	1653	G
25	DA	1762	A
25	DA	1819	A
25	DA	1955	U
25	DA	1992	G
25	DA	2126	A
25	DA	2191	G
25	DA	2210	G
25	DA	2211	G
25	DA	2225	A

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Mol	Chain	Res	Type
25	DA	2275	C
25	DA	2282	G
25	DA	2311	A
25	DA	2406	U
25	DA	2422	A
25	DA	2439	A
25	DA	2447	G
25	DA	2602	A
25	DA	2610	C
25	DA	2611	U
25	DA	2689	U
25	DA	2776	A
25	DA	2778	A
25	DA	2790	A
25	DA	2859	G
25	DA	2893	G

## 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 1700 ligands modelled in this entry, 1700 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.



## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.



## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	AA	1506/1506 (100%)	-0.57	5 (0%) 93 82	50, 98, 179, 234	0
1	CA	1506/1506 (100%)	-0.56	4 (0%) 93 82	62, 109, 181, 235	0
2	AE	237/256 (92%)	0.27	9 (3%) 41 17	103, 136, 174, 185	0
2	CE	237/256 (92%)	0.59	25 (10%) 7 3	114, 151, 185, 201	0
3	AF	205/239 (85%)	0.91	34 (16%) 2 1	84, 111, 144, 153	0
3	CF	206/239 (86%)	1.40	59 (28%) 1 0	118, 138, 166, 174	0
4	AG	208/208 (100%)	0.47	13 (6%) 21 7	80, 105, 129, 142	0
4	CG	208/208 (100%)	0.39	14 (6%) 19 7	77, 102, 123, 136	0
5	AH	151/162 (93%)	0.52	8 (5%) 27 11	74, 97, 118, 152	0
5	CH	151/162 (93%)	0.22	7 (4%) 33 13	91, 112, 134, 153	0
6	AI	101/101 (100%)	0.93	14 (13%) 3 1	76, 99, 115, 137	0
6	CI	101/101 (100%)	0.95	19 (18%) 1 1	74, 95, 116, 141	0
7	AJ	155/156 (99%)	-0.08	8 (5%) 28 11	99, 114, 145, 155	0
7	CJ	155/156 (99%)	0.27	10 (6%) 20 7	102, 122, 149, 156	0
8	AK	138/138 (100%)	-0.02	0 100 100	84, 103, 117, 122	0
8	CK	138/138 (100%)	-0.21	1 (0%) 87 67	94, 116, 128, 136	0
9	AL	127/128 (99%)	-0.31	1 (0%) 86 64	85, 133, 153, 160	0
9	CL	127/128 (99%)	-0.02	4 (3%) 49 22	107, 145, 160, 164	0
10	AM	99/105 (94%)	0.38	6 (6%) 22 8	81, 132, 162, 165	0
10	CM	99/105 (94%)	0.49	3 (3%) 51 23	111, 149, 165, 170	0
11	AN	119/129 (92%)	1.10	19 (15%) 2 1	64, 97, 128, 154	0
11	CN	119/129 (92%)	1.48	32 (26%) 1 0	79, 101, 134, 158	0
12	AO	125/132 (94%)	0.41	8 (6%) 20 7	63, 73, 105, 151	0
12	CO	125/132 (94%)	1.07	27 (21%) 1 0	75, 98, 124, 160	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	AP	116/126 (92%)	-0.15	4 (3%) 46 20	86, 117, 136, 145	0
13	CP	117/126 (92%)	0.44	11 (9%) 9 3	106, 146, 161, 164	0
14	AQ	60/61 (98%)	-0.12	0 100 100	86, 101, 115, 126	0
14	CQ	60/61 (98%)	0.93	11 (18%) 1 1	118, 132, 146, 153	0
15	AR	88/89 (98%)	0.04	2 (2%) 61 31	72, 93, 114, 117	0
15	CR	88/89 (98%)	0.02	2 (2%) 61 31	73, 104, 127, 133	0
16	AS	84/88 (95%)	-0.37	0 100 100	90, 107, 133, 165	0
16	CS	84/88 (95%)	-0.34	0 100 100	81, 96, 120, 153	0
17	AT	100/105 (95%)	-0.21	1 (1%) 82 58	82, 100, 118, 130	0
17	CT	100/105 (95%)	-0.24	1 (1%) 82 58	82, 102, 125, 137	0
18	AU	72/88 (81%)	1.10	12 (16%) 2 1	78, 99, 132, 159	0
18	CU	72/88 (81%)	1.08	11 (15%) 2 1	85, 106, 144, 157	0
19	AV	78/93 (83%)	0.20	2 (2%) 56 27	100, 122, 137, 144	0
19	CV	78/93 (83%)	0.78	12 (15%) 2 1	136, 154, 174, 177	0
20	AW	99/106 (93%)	-0.44	0 100 100	93, 115, 144, 155	0
20	CW	99/106 (93%)	-0.23	0 100 100	83, 109, 143, 157	0
21	AX	25/27 (92%)	-0.63	0 100 100	88, 109, 125, 147	0
21	CX	25/27 (92%)	0.03	1 (4%) 39 16	112, 133, 148, 160	0
22	AB	87/87 (100%)	1.67	29 (33%) 0 0	78, 145, 185, 196	0
22	CB	87/87 (100%)	4.01	55 (63%) 0 0	92, 148, 188, 200	0
23	AC	77/77 (100%)	-0.36	0 100 100	63, 100, 132, 147	0
23	AD	77/77 (100%)	0.15	3 (3%) 40 16	71, 218, 232, 234	0
23	CC	77/77 (100%)	-0.20	1 (1%) 77 51	73, 107, 141, 153	0
23	CD	77/77 (100%)	0.64	12 (15%) 2 1	77, 219, 231, 234	0
24	A1	10/10 (100%)	0.52	2 (20%) 1 1	67, 81, 112, 112	0
24	C1	10/10 (100%)	0.51	2 (20%) 1 1	81, 98, 118, 124	0
25	BA	2912/2912 (100%)	-0.30	37 (1%) 77 51	36, 66, 200, 234	0
25	DA	2907/2912 (99%)	-0.26	48 (1%) 70 42	45, 80, 220, 235	0
26	BB	122/122 (100%)	-0.60	1 (0%) 86 64	66, 91, 110, 169	0
26	DB	122/122 (100%)	-0.47	1 (0%) 86 64	84, 120, 141, 189	0
27	BD	272/276 (98%)	0.09	1 (0%) 92 77	35, 57, 79, 96	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å <sup>2</sup> )	Q<0.9
27	DD	272/276 (98%)	0.37	9 (3%)	47	21	42, 67, 88, 119	0
28	BE	205/206 (99%)	0.42	15 (7%)	16	6	43, 77, 123, 132	0
28	DE	205/206 (99%)	0.24	11 (5%)	26	11	52, 88, 137, 159	0
29	BF	202/210 (96%)	-0.13	1 (0%)	90	74	38, 70, 108, 123	0
29	DF	208/210 (99%)	0.59	20 (9%)	9	3	48, 94, 152, 175	0
30	BG	181/182 (99%)	0.69	17 (9%)	9	3	81, 101, 130, 142	0
30	DG	181/182 (99%)	1.21	44 (24%)	1	0	112, 135, 155, 162	0
31	BH	170/180 (94%)	0.45	11 (6%)	20	7	74, 104, 121, 146	0
31	DH	170/180 (94%)	1.06	38 (22%)	1	0	148, 188, 209, 218	0
32	BK	146/148 (98%)	0.22	4 (2%)	55	26	69, 121, 137, 142	0
32	DK	146/148 (98%)	0.38	10 (6%)	18	7	77, 120, 143, 150	0
33	BM	138/140 (98%)	0.09	2 (1%)	75	49	57, 81, 116, 129	0
33	DM	138/140 (98%)	0.11	4 (2%)	52	24	71, 102, 133, 143	0
34	BN	122/122 (100%)	0.35	1 (0%)	86	64	48, 67, 83, 97	0
34	DN	122/122 (100%)	0.42	2 (1%)	72	44	62, 82, 102, 118	0
35	BO	150/150 (100%)	-0.12	2 (1%)	77	51	42, 77, 106, 153	0
35	DO	150/150 (100%)	0.95	27 (18%)	2	1	44, 99, 135, 171	0
36	BP	141/141 (100%)	0.44	11 (7%)	14	5	52, 78, 99, 125	0
36	DP	141/141 (100%)	0.90	24 (17%)	2	1	58, 98, 129, 148	0
37	B0	118/118 (100%)	0.33	1 (0%)	86	64	50, 76, 94, 110	0
37	D0	117/118 (99%)	0.01	2 (1%)	70	42	50, 75, 97, 113	0
38	BQ	111/112 (99%)	0.36	4 (3%)	43	18	70, 88, 110, 127	0
38	DQ	111/112 (99%)	0.41	9 (8%)	13	5	83, 117, 139, 159	0
39	BR	137/146 (93%)	0.19	4 (2%)	52	24	60, 82, 134, 163	0
39	DR	137/146 (93%)	0.17	5 (3%)	43	18	69, 93, 154, 174	0
40	B1	117/118 (99%)	-0.19	2 (1%)	70	42	44, 70, 101, 132	0
40	D1	117/118 (99%)	0.23	2 (1%)	70	42	58, 89, 131, 152	0
41	B2	101/101 (100%)	0.08	3 (2%)	51	23	48, 92, 115, 132	0
41	D2	101/101 (100%)	0.78	13 (12%)	4	1	58, 115, 133, 142	0
42	BS	113/113 (100%)	0.05	4 (3%)	44	19	41, 65, 97, 147	0
42	DS	113/113 (100%)	0.06	2 (1%)	69	40	54, 69, 104, 148	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
43	BT	92/96 (95%)	0.10	2 (2%) 62 33	49, 63, 87, 104	0
43	DT	92/96 (95%)	0.22	5 (5%) 26 11	64, 80, 104, 121	0
44	BU	102/110 (92%)	0.37	7 (6%) 18 6	67, 92, 142, 159	0
44	DU	102/110 (92%)	1.12	24 (23%) 1 0	82, 109, 160, 176	0
45	BV	175/206 (84%)	1.67	58 (33%) 0 0	80, 117, 179, 183	0
45	DV	179/206 (86%)	2.69	96 (53%) 0 0	110, 151, 199, 206	0
46	B3	76/85 (89%)	-0.16	1 (1%) 77 51	52, 68, 83, 117	0
46	D3	77/85 (90%)	0.16	1 (1%) 77 51	65, 86, 108, 141	0
47	BZ	97/98 (98%)	0.27	9 (9%) 9 3	46, 64, 122, 151	0
47	DZ	97/98 (98%)	0.15	4 (4%) 38 15	54, 77, 126, 148	0
48	BW	66/72 (91%)	-0.00	1 (1%) 74 47	55, 73, 90, 120	0
48	DW	69/72 (95%)	0.27	4 (5%) 24 9	77, 100, 130, 167	0
49	BX	59/60 (98%)	0.11	2 (3%) 46 20	60, 75, 105, 120	0
49	DX	59/60 (98%)	0.62	2 (3%) 46 20	73, 98, 130, 153	0
50	B4	66/71 (92%)	1.49	18 (27%) 1 0	111, 146, 164, 173	0
50	D4	63/71 (88%)	3.03	43 (68%) 0 0	140, 176, 185, 191	0
51	B5	59/60 (98%)	0.93	11 (18%) 1 1	43, 80, 163, 168	0
51	D5	58/60 (96%)	0.43	6 (10%) 7 3	52, 78, 167, 178	0
52	B6	45/54 (83%)	2.85	27 (60%) 0 0	105, 134, 156, 160	0
52	D6	45/54 (83%)	3.12	30 (66%) 0 0	121, 156, 173, 176	0
53	B7	49/49 (100%)	-0.10	2 (4%) 38 15	35, 45, 88, 118	0
53	D7	49/49 (100%)	0.26	3 (6%) 22 8	44, 54, 112, 131	0
54	B8	61/65 (93%)	-0.04	1 (1%) 72 44	51, 64, 81, 102	0
54	D8	61/65 (93%)	0.60	4 (6%) 19 7	65, 79, 94, 123	0
All	All	21104/21634 (97%)	0.11	1257 (5%) 23 9	35, 96, 177, 235	0

All (1257) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	CB	54	G	18.7
22	CB	53	A	15.6
22	CB	55	G	14.7
45	DV	147	GLY	14.6
22	CB	52	U	14.6

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Mol	Chain	Res	Type	RSRZ
35	DO	150	ALA	14.4
22	CB	51	A	13.9
45	DV	179	ASP	13.8
29	DF	1	MET	13.4
22	CB	82	G	13.3
25	DA	654(J)	A	12.2
45	DV	112	ARG	12.1
12	AO	129	ALA	11.7
22	CB	47	C	11.4
22	CB	17	U	11.2
25	BA	2901	C	10.9
51	B5	54	GLY	10.7
51	B5	2	ALA	10.2
22	CB	48	C	10.1
25	DA	654(I)	C	10.1
22	CB	56	G	10.0
22	CB	16	U	9.8
11	CN	129	SER	9.5
35	DO	149	GLU	9.5
52	D6	13	CYS	9.5
22	CB	50	A	9.5
29	DF	208	GLY	9.5
11	CN	13	GLN	9.3
12	CO	129	ALA	9.2
25	BA	2798	C	9.0
22	CB	49	C	8.7
22	CB	57	C	8.7
45	DV	146	ILE	8.7
25	DA	654(K)	C	8.5
25	BA	654(K)	C	8.5
31	DH	99	VAL	8.5
22	CB	46	G	8.4
53	B7	49	ARG	8.4
11	AN	11	LYS	8.4
11	AN	12	ARG	8.4
28	BE	205	ALA	8.2
11	AN	129	SER	8.1
28	DE	69	LYS	8.0
25	BA	2	G	8.0
25	BA	1536	A	7.9
45	DV	148	ASP	7.9
50	D4	42	PHE	7.9

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Mol	Chain	Res	Type	RSRZ
45	DV	121	HIS	7.9
22	CB	81	G	7.8
18	CU	88	LYS	7.8
51	B5	59	GLU	7.8
28	BE	79	ARG	7.8
22	CB	83	U	7.7
25	BA	654(J)	A	7.7
52	D6	14	THR	7.7
22	AB	51	A	7.6
52	B6	19	ARG	7.6
1	AA	86	U	7.5
22	CB	80	C	7.4
45	DV	172	ALA	7.4
22	AB	84	A	7.3
50	D4	40	HIS	7.3
25	BA	1	G	7.3
51	D5	59	GLU	7.2
47	BZ	98	LEU	7.2
45	DV	142	SER	7.2
53	D7	49	ARG	7.2
35	DO	110	TYR	7.2
36	DP	1	MET	7.2
31	BH	155	SER	7.1
25	DA	2901	C	7.1
50	D4	12	ALA	7.1
18	AU	88	LYS	7.1
50	D4	10	VAL	7.0
52	B6	42	TRP	6.9
45	DV	178	GLU	6.9
50	D4	28	LYS	6.7
30	DG	108	ASN	6.7
30	DG	139	LEU	6.7
25	DA	654(L)	G	6.7
50	D4	63	TYR	6.7
22	AB	52	U	6.6
30	DG	34	LEU	6.6
22	AB	83	U	6.6
52	B6	50	ARG	6.6
22	AB	53	A	6.5
13	CP	6	GLY	6.5
28	DE	59	VAL	6.5
25	BA	2902	C	6.5

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Mol	Chain	Res	Type	RSRZ
52	D6	52	VAL	6.5
45	DV	107	THR	6.5
45	DV	111	VAL	6.4
28	DE	70	ALA	6.4
25	DA	2798	C	6.4
22	CB	4	G	6.3
41	D2	45	THR	6.3
38	DQ	60	GLY	6.3
44	DU	49	VAL	6.3
45	DV	141	VAL	6.3
50	D4	54	GLY	6.3
25	DA	2799	A	6.3
45	DV	173	ALA	6.2
25	BA	2799	A	6.2
45	DV	168	GLU	6.2
45	DV	176	PRO	6.2
12	CO	64	TYR	6.2
3	CF	146	ALA	6.1
13	CP	4	ILE	6.1
17	CT	101	ARG	6.1
11	CN	12	ARG	6.1
25	BA	4	C	6.1
52	D6	21	TYR	6.1
45	BV	107	THR	6.0
13	CP	7	VAL	6.0
45	DV	144	LEU	6.0
45	DV	152	ALA	6.0
23	CD	18	C	6.0
44	DU	52	SER	5.9
31	DH	48	GLY	5.9
51	B5	60	VAL	5.9
52	D6	42	TRP	5.9
51	B5	53	ALA	5.9
3	CF	108	ASN	5.9
25	DA	654(F)	C	5.9
22	AB	54	G	5.9
52	D6	50	ARG	5.9
3	CF	60	ALA	5.9
25	BA	2900	A	5.9
22	AB	1	G	5.9
51	B5	55	ARG	5.8
45	DV	145	GLU	5.8

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Mol	Chain	Res	Type	RSRZ
29	DF	12	LEU	5.8
25	DA	654(H)	G	5.7
45	DV	55	HIS	5.7
45	DV	155	LEU	5.7
42	BS	113	LYS	5.7
45	DV	119	GLU	5.7
35	BO	149	GLU	5.7
45	DV	138	GLU	5.7
25	BA	2797	U	5.7
25	DA	654(O)	G	5.7
44	DU	48	ALA	5.7
25	DA	1177	A	5.7
30	BG	2	PRO	5.7
40	B1	118	GLY	5.6
50	D4	29	PRO	5.6
45	DV	149	SER	5.6
22	CB	1	G	5.6
11	CN	31	THR	5.6
51	D5	53	ALA	5.6
45	DV	113	ALA	5.6
22	CB	87	A	5.6
25	DA	654(M)	C	5.5
31	DH	32	GLU	5.5
45	BV	106	GLY	5.5
25	DA	887	A	5.5
45	DV	177	PRO	5.5
52	B6	29	ASN	5.5
51	D5	60	VAL	5.4
45	DV	9	TYR	5.4
30	BG	182	LYS	5.4
25	BA	1534	G	5.4
52	D6	26	ASN	5.4
45	DV	162	GLU	5.4
45	DV	150	LEU	5.4
52	B6	18	ARG	5.4
13	CP	5	ALA	5.4
22	CB	58	U	5.4
40	B1	117	GLN	5.3
23	AD	18	C	5.3
41	B2	36	PRO	5.3
28	BE	204	ALA	5.3
18	CU	46	GLU	5.3

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Mol	Chain	Res	Type	RSRZ
52	B6	53	LYS	5.3
54	D8	35	GLN	5.3
25	BA	3	U	5.3
25	BA	163	U	5.2
50	D4	13	ARG	5.2
25	BA	654(L)	G	5.2
52	B6	13	CYS	5.2
45	BV	142	SER	5.2
45	BV	171	ILE	5.2
22	AB	48	C	5.1
45	BV	172	ALA	5.1
50	D4	55	ARG	5.1
11	AN	81	ASP	5.0
52	B6	34	LEU	5.0
25	DA	1176	G	5.0
7	AJ	84	ASN	5.0
35	DO	148	LEU	5.0
45	BV	170	THR	4.9
23	CD	37	U	4.9
52	D6	27	LYS	4.9
51	B5	58	LEU	4.9
45	DV	143	GLY	4.9
2	AE	77	ALA	4.9
12	CO	128	ALA	4.9
25	BA	2899	G	4.9
25	DA	1535	U	4.9
2	CE	5	ILE	4.9
3	CF	53	ALA	4.9
42	DS	113	LYS	4.9
44	DU	47	LYS	4.9
7	AJ	78	ARG	4.8
24	C1	14	U	4.8
25	DA	2797	U	4.8
15	CR	2	PRO	4.8
22	CB	84	A	4.8
3	CF	79	ARG	4.8
30	BG	80	PHE	4.8
50	D4	41	PRO	4.8
5	AH	5	ASP	4.7
50	D4	7	PRO	4.7
28	DE	54	GLN	4.7
46	D3	85	ALA	4.7

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Mol	Chain	Res	Type	RSRZ
47	BZ	96	LYS	4.7
50	D4	24	THR	4.7
50	B4	31	ILE	4.7
27	DD	26	LYS	4.7
30	DG	39	ILE	4.7
29	DF	11	VAL	4.7
46	B3	85	ALA	4.7
52	D6	49	HIS	4.7
29	DF	2	LYS	4.7
44	DU	46	LYS	4.7
45	DV	56	VAL	4.7
12	AO	128	ALA	4.7
52	D6	22	ALA	4.7
7	CJ	86	GLN	4.6
52	D6	23	THR	4.6
45	DV	137	ILE	4.6
45	BV	99	TYR	4.6
50	D4	30	GLU	4.6
18	CU	42	ARG	4.6
18	CU	26	LEU	4.6
44	BU	52	SER	4.6
52	D6	30	THR	4.6
45	BV	60	GLU	4.6
52	B6	20	ASN	4.6
22	CB	19	G	4.6
45	DV	68	PRO	4.6
25	DA	2	G	4.6
47	DZ	98	LEU	4.6
22	AB	18	G	4.6
24	A1	14	U	4.6
52	B6	26	ASN	4.5
45	DV	169	GLU	4.5
22	CB	18	G	4.5
18	CU	23	LYS	4.5
52	D6	51	GLU	4.5
11	CN	11	LYS	4.5
25	DA	888	C	4.5
45	DV	50	GLN	4.5
45	BV	146	ILE	4.5
3	CF	206	GLU	4.5
23	CD	38	A	4.5
25	DA	2902	C	4.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
45	BV	108	PRO	4.5
25	DA	2899	G	4.5
47	DZ	96	LYS	4.4
2	AE	96	ARG	4.4
36	DP	66	ILE	4.4
44	DU	29	GLU	4.4
50	B4	3	GLU	4.4
22	AB	16	U	4.4
44	DU	45	VAL	4.4
35	DO	106	LEU	4.4
23	CD	16	C	4.4
50	D4	8	LYS	4.3
6	AI	48	LEU	4.3
7	AJ	85	TYR	4.3
39	BR	1	MET	4.3
53	B7	48	LYS	4.3
44	DU	50	ARG	4.3
4	AG	167	GLY	4.3
38	DQ	108	GLY	4.3
45	DV	106	GLY	4.3
45	BV	1	MET	4.3
52	D6	53	LYS	4.3
52	B6	23	THR	4.3
54	B8	37	SER	4.3
45	DV	109	ALA	4.2
6	AI	57	GLN	4.2
45	BV	153	SER	4.2
30	DG	58	GLN	4.2
25	DA	2900	A	4.2
22	AB	79	U	4.2
50	D4	37	SER	4.2
32	DK	146	ALA	4.2
25	BA	2795	G	4.2
31	DH	128	PRO	4.2
42	BS	111	HIS	4.2
52	B6	49	HIS	4.2
45	BV	70	LEU	4.1
23	CD	40	C	4.1
45	DV	110	GLY	4.1
45	DV	171	ILE	4.1
50	D4	9	LEU	4.1
3	CF	103	VAL	4.1

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Mol	Chain	Res	Type	RSRZ
22	AB	49	C	4.1
9	CL	115	GLY	4.1
22	AB	17	U	4.1
7	CJ	82	GLY	4.1
31	DH	98	LEU	4.1
36	DP	105	GLU	4.1
30	DG	82	LEU	4.1
22	CB	22	G	4.1
3	AF	72	LYS	4.0
31	DH	95	ARG	4.0
49	BX	60	GLU	4.0
31	BH	3	ARG	4.0
11	AN	82	VAL	4.0
45	DV	139	VAL	4.0
25	DA	654(G)	C	4.0
44	DU	58	GLY	4.0
45	DV	116	VAL	4.0
45	DV	118	GLN	4.0
3	CF	109	PRO	4.0
50	B4	28	LYS	4.0
3	CF	198	VAL	4.0
14	CQ	25	VAL	4.0
45	DV	57	ILE	4.0
23	CD	17	C	4.0
44	DU	63	LYS	3.9
45	BV	164	ALA	3.9
3	CF	204	LEU	3.9
4	AG	181	MET	3.9
3	CF	64	VAL	3.9
22	CB	21	A	3.9
25	DA	1509	C	3.9
31	DH	45	VAL	3.9
22	AB	55	G	3.9
25	BA	654(P)	G	3.9
50	D4	6	HIS	3.9
45	BV	66	SER	3.9
52	D6	24	GLU	3.9
2	CE	240	GLN	3.9
45	DV	122	ARG	3.9
2	CE	232	PRO	3.9
22	CB	5	A	3.9
22	AB	56	G	3.9

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Mol	Chain	Res	Type	RSRZ
12	CO	127	GLU	3.9
36	DP	104	PHE	3.9
25	BA	5	A	3.9
45	BV	145	GLU	3.9
35	DO	125	VAL	3.8
45	DV	70	LEU	3.8
48	BW	43	GLN	3.8
45	DV	5	LEU	3.8
3	AF	201	TYR	3.8
42	DS	112	GLY	3.8
45	BV	160	GLY	3.8
22	CB	77	C	3.8
54	D8	34	TRP	3.8
17	AT	101	ARG	3.8
50	B4	40	HIS	3.8
3	CF	56	ASP	3.8
50	D4	50	VAL	3.8
52	B6	47	THR	3.8
13	CP	8	GLU	3.8
45	BV	2	GLU	3.8
3	AF	131	ARG	3.8
30	BG	137	GLU	3.8
36	BP	91	GLU	3.8
45	BV	173	ALA	3.8
45	DV	140	ASP	3.8
31	DH	126	PRO	3.8
35	DO	118	GLY	3.8
45	DV	51	ALA	3.8
5	AH	6	PHE	3.8
35	BO	150	ALA	3.8
41	D2	91	TYR	3.8
50	B4	64	GLY	3.7
33	BM	134	ARG	3.7
45	BV	4	ARG	3.7
31	DH	155	SER	3.7
3	CF	10	PHE	3.7
4	AG	163	GLU	3.7
43	DT	92	LEU	3.7
31	DH	29	PRO	3.7
45	DV	4	ARG	3.7
35	DO	92	GLU	3.7
45	DV	154	ASP	3.7

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Mol	Chain	Res	Type	RSRZ
5	CH	6	PHE	3.7
51	B5	57	VAL	3.7
3	CF	144	SER	3.7
50	D4	45	GLY	3.7
52	D6	45	LYS	3.7
44	DU	59	GLY	3.7
44	DU	53	PRO	3.7
52	B6	43	CYS	3.7
31	DH	96	ALA	3.7
36	BP	136	ALA	3.7
7	CJ	78	ARG	3.7
45	BV	5	LEU	3.6
52	D6	41	PRO	3.6
30	DG	138	GLN	3.6
48	DW	43	GLN	3.6
29	DF	21	ALA	3.6
45	DV	153	SER	3.6
11	AN	128	ALA	3.6
19	CV	80	TYR	3.6
35	DO	64	LYS	3.6
4	AG	168	ARG	3.6
3	CF	135	LYS	3.6
25	DA	654(N)	G	3.6
3	AF	193	TYR	3.6
6	AI	46	ARG	3.6
27	DD	40	THR	3.6
45	DV	170	THR	3.6
30	BG	88	ILE	3.6
22	CB	24	C	3.6
23	CD	39	A	3.6
30	DG	178	PHE	3.6
11	AN	21	ILE	3.6
50	D4	47	GLN	3.6
3	CF	65	ALA	3.6
50	D4	27	THR	3.6
12	CO	28	LYS	3.6
3	CF	143	GLU	3.6
51	D5	54	GLY	3.6
30	DG	2	PRO	3.6
31	DH	24	VAL	3.6
12	CO	60	LEU	3.6
45	BV	117	LEU	3.6

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Mol	Chain	Res	Type	RSRZ
45	BV	155	LEU	3.6
36	DP	65	PHE	3.5
36	DP	86	GLY	3.5
45	BV	150	LEU	3.5
1	CA	1029	G	3.5
45	DV	52	SER	3.5
2	CE	156	LYS	3.5
29	DF	10	PRO	3.5
25	BA	654(H)	G	3.5
18	AU	28	GLU	3.5
32	DK	125	GLU	3.5
45	BV	168	GLU	3.5
6	AI	47	ARG	3.5
45	DV	163	LEU	3.5
43	DT	89	ILE	3.5
45	DV	95	PRO	3.5
11	CN	50	TYR	3.5
25	DA	1536	A	3.5
44	DU	44	ILE	3.5
50	D4	56	VAL	3.5
11	AN	36	ASP	3.5
18	CU	27	GLY	3.5
44	BU	99	CYS	3.5
22	CB	78	C	3.5
45	BV	133	ILE	3.5
1	AA	85	U	3.5
31	BH	18	GLU	3.5
45	DV	108	PRO	3.5
31	DH	103	LEU	3.5
26	BB	1(M)	A	3.4
52	D6	25	LYS	3.4
6	AI	55	ASP	3.4
30	DG	41	GLN	3.4
18	CU	87	ARG	3.4
3	CF	77	ILE	3.4
13	CP	66	LEU	3.4
12	CO	32	PHE	3.4
44	DU	62	GLU	3.4
31	DH	115	VAL	3.4
30	DG	157	ILE	3.4
50	D4	31	ILE	3.4
1	AA	345	C	3.4

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Mol	Chain	Res	Type	RSRZ
25	BA	654(F)	C	3.4
29	DF	20	LEU	3.4
2	CE	165	VAL	3.4
43	BT	92	LEU	3.4
22	AB	21	A	3.4
6	AI	101	ALA	3.4
14	CQ	39	LEU	3.4
22	CB	45	U	3.4
41	D2	80	GLN	3.4
23	CD	35	C	3.4
31	DH	52	VAL	3.4
39	DR	106	SER	3.4
7	AJ	153	HIS	3.4
49	DX	60	GLU	3.4
3	AF	200	ALA	3.4
3	CF	102	ASN	3.4
52	D6	9	LEU	3.4
30	DG	146	TYR	3.4
52	B6	21	TYR	3.4
3	CF	131	ARG	3.4
11	CN	36	ASP	3.3
28	DE	205	ALA	3.3
35	DO	123	LEU	3.3
11	CN	128	ALA	3.3
4	CG	35	ARG	3.3
29	DF	207	GLY	3.3
35	DO	147	LEU	3.3
30	DG	177	GLY	3.3
25	DA	3	U	3.3
19	CV	78	ARG	3.3
22	AB	81	G	3.3
30	DG	182	LYS	3.3
11	CN	109	VAL	3.3
22	CB	85	C	3.3
30	BG	135	LEU	3.3
3	CF	177	THR	3.3
11	CN	28	THR	3.3
30	DG	142	PRO	3.3
13	CP	3	ARG	3.3
45	DV	156	LYS	3.3
50	B4	39	CYS	3.3
50	D4	3	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
52	D6	18	ARG	3.3
22	CB	79	U	3.3
30	DG	152	LEU	3.3
25	BA	654(G)	C	3.3
25	DA	885	C	3.3
2	CE	6	THR	3.3
3	CF	147	LYS	3.3
36	DP	141	GLN	3.3
35	DO	94	GLU	3.3
39	DR	1	MET	3.3
7	AJ	154	TYR	3.3
50	D4	22	ILE	3.2
30	DG	62	LEU	3.2
31	DH	25	LYS	3.2
44	DU	88	LYS	3.2
30	DG	133	LEU	3.2
38	DQ	56	LEU	3.2
22	CB	68	A	3.2
50	D4	18	CYS	3.2
22	CB	72	C	3.2
52	B6	46	HIS	3.2
3	AF	135	LYS	3.2
10	AM	6	ILE	3.2
12	CO	68	ALA	3.2
45	DV	92	SER	3.2
12	CO	37	CYS	3.2
22	AB	57	C	3.2
25	DA	1064	C	3.2
45	DV	28	MET	3.2
44	BU	50	ARG	3.2
2	CE	70	PHE	3.2
31	DH	150	ALA	3.2
22	CB	9	G	3.2
22	AB	50	A	3.2
28	BE	90	THR	3.2
2	CE	163	PHE	3.2
1	CA	85	U	3.2
14	CQ	34	TYR	3.2
3	CF	78	GLY	3.2
4	AG	169	LYS	3.2
45	DV	53	ILE	3.2
47	BZ	93	GLU	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
27	DD	35	LYS	3.2
12	AO	64	TYR	3.2
43	DT	69	TYR	3.2
15	AR	89	GLY	3.1
45	DV	91	LEU	3.1
45	BV	98	MET	3.1
31	DH	43	VAL	3.1
3	CF	155	GLY	3.1
25	DA	1067	A	3.1
44	DU	5	MET	3.1
45	DV	6	LYS	3.1
14	CQ	53	LEU	3.1
41	D2	36	PRO	3.1
30	DG	37	VAL	3.1
45	DV	128	VAL	3.1
45	DV	7	ALA	3.1
47	BZ	92	LYS	3.1
3	CF	185	GLY	3.1
45	DV	93	ASP	3.1
18	CU	43	PHE	3.1
31	DH	125	VAL	3.1
22	AB	82	G	3.1
3	AF	82	GLU	3.1
19	CV	44	MET	3.1
29	DF	14	PRO	3.1
11	CN	89	ALA	3.1
50	B4	55	ARG	3.1
12	CO	69	TYR	3.1
45	BV	59	LEU	3.1
2	CE	233	SER	3.1
25	DA	1093	G	3.1
44	DU	79	CYS	3.1
22	CB	86	C	3.1
18	AU	78	LEU	3.1
25	DA	654(P)	G	3.1
28	DE	78	LEU	3.1
50	D4	26	SER	3.1
6	CI	55	ASP	3.1
7	CJ	79	ARG	3.1
30	DG	90	LEU	3.1
47	BZ	94	LEU	3.1
36	DP	63	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
33	DM	1	MET	3.0
36	BP	140	ALA	3.0
18	AU	19	LYS	3.0
23	CC	1	C	3.0
50	D4	25	TYR	3.0
18	AU	42	ARG	3.0
50	D4	39	CYS	3.0
30	DG	75	LYS	3.0
25	DA	4	C	3.0
11	CN	21	ILE	3.0
39	BR	2	ASN	3.0
14	CQ	38	GLY	3.0
45	DV	96	VAL	3.0
50	D4	46	GLN	3.0
3	CF	63	ASN	3.0
19	CV	43	GLU	3.0
47	DZ	97	LEU	3.0
45	BV	113	ALA	3.0
45	DV	120	ILE	3.0
3	CF	45	LYS	3.0
29	DF	27	GLU	3.0
3	AF	94	LEU	3.0
3	CF	6	HIS	3.0
22	CB	76	U	3.0
45	BV	88	PHE	3.0
32	BK	113	ARG	3.0
45	DV	1	MET	3.0
2	CE	4	GLU	3.0
3	AF	167	TRP	3.0
50	B4	25	TYR	3.0
45	BV	157	LEU	3.0
3	AF	166	GLU	3.0
3	AF	79	ARG	2.9
3	AF	87	LEU	2.9
15	CR	15	PHE	2.9
3	CF	52	LEU	2.9
2	CE	160	ASP	2.9
53	D7	47	ARG	2.9
50	B4	4	GLY	2.9
31	DH	76	VAL	2.9
35	DO	105	LEU	2.9
41	D2	12	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
23	CD	36	A	2.9
3	CF	199	LYS	2.9
35	DO	124	LYS	2.9
12	CO	55	VAL	2.9
6	AI	58	GLY	2.9
18	AU	21	LYS	2.9
52	B6	35	GLU	2.9
25	BA	277	C	2.9
25	BA	654(I)	C	2.9
41	D2	40	LEU	2.9
47	BZ	97	LEU	2.9
12	AO	28	LYS	2.9
31	DH	123	PHE	2.9
4	AG	24	GLU	2.9
3	CF	66	VAL	2.9
14	CQ	50	LYS	2.9
22	CB	61	C	2.9
4	CG	179	GLU	2.9
12	CO	65	GLU	2.9
25	BA	2898	U	2.9
45	BV	116	VAL	2.9
52	D6	36	LEU	2.9
25	DA	654(E)	C	2.9
45	DV	151	HIS	2.9
4	CG	161	ASN	2.9
7	CJ	32	ARG	2.9
6	CI	67	MET	2.9
22	AB	46	G	2.9
51	D5	58	LEU	2.9
28	DE	76	ARG	2.9
12	CO	62	SER	2.9
30	DG	36	LYS	2.9
31	DH	33	LEU	2.9
48	DW	44	LEU	2.9
36	DP	33	GLY	2.9
50	D4	33	VAL	2.8
39	DR	2	ASN	2.8
11	CN	99	GLN	2.8
50	D4	44	THR	2.8
31	DH	49	VAL	2.8
39	BR	21	GLU	2.8
12	CO	77	LEU	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	AF	199	LYS	2.8
31	DH	152	ARG	2.8
2	CE	29	ALA	2.8
52	D6	12	GLU	2.8
19	CV	79	THR	2.8
45	DV	117	LEU	2.8
21	CX	2	GLY	2.8
45	BV	149	SER	2.8
25	DA	883	G	2.8
50	D4	32	TYR	2.8
36	DP	102	VAL	2.8
44	BU	53	PRO	2.8
32	BK	146	ALA	2.8
3	CF	205	GLY	2.8
45	DV	54	HIS	2.8
50	B4	12	ALA	2.8
45	BV	96	VAL	2.8
45	DV	124	ILE	2.8
3	CF	145	GLY	2.8
6	AI	59	TYR	2.8
11	CN	58	PRO	2.8
33	BM	130	HIS	2.8
36	BP	32	TYR	2.8
3	AF	78	GLY	2.8
4	AG	111	ALA	2.8
41	D2	26	ASP	2.8
7	CJ	154	TYR	2.8
3	AF	151	VAL	2.8
31	DH	18	GLU	2.7
22	AB	4	G	2.7
25	DA	2795	G	2.7
12	CO	56	ALA	2.7
3	CF	138	VAL	2.7
50	B4	63	TYR	2.7
45	BV	63	ASP	2.7
45	BV	148	ASP	2.7
6	CI	39	LYS	2.7
1	AA	344	A	2.7
45	BV	101	PRO	2.7
41	B2	27	ALA	2.7
22	CB	60	A	2.7
50	B4	65	ASP	2.7

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Mol	Chain	Res	Type	RSRZ
10	AM	10	GLY	2.7
22	CB	20	U	2.7
24	C1	13	U	2.7
25	BA	2476	A	2.7
45	DV	27	VAL	2.7
6	CI	36	ARG	2.7
13	AP	8	GLU	2.7
22	AB	20	U	2.7
45	BV	166	SER	2.7
22	CB	13	G	2.7
25	DA	1066	U	2.7
38	DQ	2	ALA	2.7
50	B4	5	ILE	2.7
4	CG	11	LEU	2.7
12	CO	126	LYS	2.7
10	CM	34	VAL	2.7
3	CF	105	GLU	2.7
22	CB	67	C	2.7
3	CF	134	ILE	2.7
45	BV	169	GLU	2.7
50	D4	34	GLU	2.7
48	DW	72	ALA	2.7
2	AE	107	THR	2.7
3	CF	178	LEU	2.7
19	CV	29	ARG	2.7
22	AB	61	C	2.7
29	BF	6	VAL	2.7
30	DG	92	VAL	2.7
30	DG	179	PRO	2.6
50	D4	11	PRO	2.6
31	DH	71	LEU	2.6
11	AN	110	ASP	2.6
7	CJ	81	GLY	2.6
30	DG	28	VAL	2.6
36	DP	7	MET	2.6
6	CI	35	ALA	2.6
7	CJ	153	HIS	2.6
11	AN	98	LEU	2.6
5	AH	9	LYS	2.6
19	CV	82	GLY	2.6
11	AN	13	GLN	2.6
34	BN	112	MET	2.6

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Mol	Chain	Res	Type	RSRZ
34	DN	65	THR	2.6
4	CG	158	ILE	2.6
11	AN	83	ILE	2.6
24	A1	13	U	2.6
11	CN	35	PRO	2.6
45	DV	83	PRO	2.6
45	BV	104	PHE	2.6
3	CF	72	LYS	2.6
29	DF	13	SER	2.6
44	DU	86	ARG	2.6
45	BV	154	ASP	2.6
2	CE	164	VAL	2.6
36	BP	133	ARG	2.6
3	AF	139	GLN	2.6
37	D0	69	ASP	2.6
5	AH	138	ALA	2.6
7	CJ	85	TYR	2.6
11	AN	18	ARG	2.6
11	CN	91	ARG	2.6
6	CI	38	GLU	2.6
12	CO	35	GLY	2.6
11	AN	62	GLN	2.6
3	CF	200	ALA	2.6
3	AF	128	PHE	2.6
22	CB	2	C	2.6
45	DV	164	ALA	2.6
35	DO	144	GLU	2.6
3	AF	202	ILE	2.6
12	CO	21	LYS	2.6
27	DD	135	PHE	2.6
11	CN	37	GLY	2.6
25	BA	546	C	2.6
52	B6	12	GLU	2.6
11	CN	42	TRP	2.6
11	CN	71	LYS	2.6
45	DV	88	PHE	2.6
36	BP	132	VAL	2.6
50	D4	57	GLU	2.6
1	AA	84	U	2.6
7	CJ	156	TRP	2.6
52	D6	39	TYR	2.6
30	DG	97	ASP	2.6

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Mol	Chain	Res	Type	RSRZ
3	AF	47	LEU	2.6
18	AU	87	ARG	2.6
33	DM	48	MET	2.6
30	DG	52	ILE	2.6
18	AU	41	LYS	2.6
30	DG	72	ARG	2.6
50	B4	24	THR	2.6
45	BV	38	TYR	2.5
13	AP	6	GLY	2.5
28	BE	193	GLY	2.5
52	D6	28	ARG	2.5
5	CH	5	ASP	2.5
30	DG	137	GLU	2.5
54	D8	40	GLU	2.5
45	BV	165	VAL	2.5
5	CH	80	ILE	2.5
28	BE	55	ASN	2.5
44	DU	60	PHE	2.5
41	B2	45	THR	2.5
52	B6	30	THR	2.5
2	CE	155	LEU	2.5
4	AG	21	LEU	2.5
51	D5	55	ARG	2.5
36	DP	32	TYR	2.5
14	CQ	51	GLY	2.5
36	DP	37	LEU	2.5
47	BZ	82	LEU	2.5
2	AE	66	GLY	2.5
3	AF	107	GLN	2.5
12	CO	38	THR	2.5
45	DV	104	PHE	2.5
3	CF	142	MET	2.5
18	CU	83	GLU	2.5
3	CF	201	TYR	2.5
11	CN	30	VAL	2.5
32	BK	74	ASN	2.5
36	DP	103	MET	2.5
45	BV	156	LYS	2.5
25	BA	654(E)	C	2.5
2	AE	188	ALA	2.5
2	AE	228	GLY	2.5
12	CO	39	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
30	DG	176	LEU	2.5
3	CF	8	ILE	2.5
11	CN	51	LYS	2.5
36	BP	1	MET	2.5
30	BG	82	LEU	2.5
35	DO	88	LEU	2.5
36	DP	62	GLY	2.5
45	BV	161	VAL	2.5
3	CF	104	GLN	2.5
29	DF	23	ASP	2.5
3	CF	202	ILE	2.5
38	DQ	82	ILE	2.5
45	BV	162	GLU	2.5
52	B6	14	THR	2.5
10	CM	10	GLY	2.5
45	BV	141	VAL	2.5
45	DV	3	TYR	2.5
45	DV	125	LEU	2.5
36	DP	59	ARG	2.5
2	CE	102	LEU	2.5
19	AV	71	LEU	2.5
50	B4	10	VAL	2.5
39	DR	35	LYS	2.5
18	AU	80	PRO	2.5
35	DO	91	PHE	2.5
3	AF	56	ASP	2.5
6	AI	52	ILE	2.5
6	CI	69	GLU	2.5
35	DO	61	ARG	2.5
26	DB	1(M)	A	2.4
30	BG	103	LEU	2.4
42	BS	112	GLY	2.4
45	DV	102	LEU	2.4
3	CF	46	GLU	2.4
31	BH	26	VAL	2.4
52	D6	48	VAL	2.4
3	CF	85	ARG	2.4
2	CE	41	ILE	2.4
4	AG	145	GLU	2.4
28	BE	7	VAL	2.4
30	BG	89	GLY	2.4
38	DQ	109	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
31	DH	97	ARG	2.4
52	D6	29	ASN	2.4
30	DG	86	MET	2.4
3	CF	41	GLY	2.4
6	CI	6	VAL	2.4
45	BV	41	LEU	2.4
30	BG	59	GLU	2.4
18	CU	86	VAL	2.4
22	CB	7	G	2.4
3	AF	169	ALA	2.4
9	CL	127	LYS	2.4
30	DG	25	TYR	2.4
31	BH	21	PRO	2.4
13	CP	65	LYS	2.4
45	BV	54	HIS	2.4
45	BV	123	ASP	2.4
50	B4	22	ILE	2.4
5	CH	31	LEU	2.4
11	AN	14	VAL	2.4
6	CI	66	GLU	2.4
7	AJ	156	TRP	2.4
25	BA	1535	U	2.4
28	BE	89	ASP	2.4
15	AR	88	ARG	2.4
3	AF	115	LEU	2.4
3	CF	51	GLY	2.4
3	CF	207	VAL	2.4
30	DG	94	LEU	2.4
38	DQ	32	LEU	2.4
40	D1	90	VAL	2.4
22	CB	70	G	2.4
45	DV	8	TYR	2.4
3	CF	91	LEU	2.4
10	AM	101	VAL	2.4
11	CN	98	LEU	2.4
18	AU	79	LEU	2.4
22	AB	3	C	2.4
32	DK	86	THR	2.4
29	DF	196	LEU	2.4
2	AE	233	SER	2.4
29	DF	114	VAL	2.4
34	DN	58	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
50	D4	19	GLY	2.4
50	D4	49	PHE	2.4
31	DH	36	PRO	2.4
4	AG	180	GLY	2.4
11	CN	104	GLN	2.4
45	DV	48	PHE	2.4
47	DZ	28	GLY	2.4
43	DT	68	ARG	2.4
45	DV	46	LYS	2.4
52	D6	35	GLU	2.4
3	AF	182	ILE	2.4
3	CF	71	ALA	2.4
5	AH	89	ILE	2.4
22	CB	3	C	2.4
9	AL	19	LEU	2.4
45	BV	163	LEU	2.4
4	AG	102	ASP	2.3
41	D2	47	VAL	2.3
23	CD	2	G	2.3
45	BV	51	ALA	2.3
52	B6	9	LEU	2.3
10	CM	100	THR	2.3
12	CO	54	LYS	2.3
6	CI	61	LEU	2.3
28	BE	4	ILE	2.3
4	CG	17	VAL	2.3
6	CI	62	TRP	2.3
19	CV	28	LYS	2.3
25	BA	654(N)	G	2.3
2	CE	231	GLU	2.3
1	CA	1035	A	2.3
25	DA	654	A	2.3
47	BZ	80	LEU	2.3
52	D6	10	LEU	2.3
1	CA	208	U	2.3
6	CI	90	VAL	2.3
14	CQ	36	PHE	2.3
36	DP	106	VAL	2.3
28	BE	73	GLU	2.3
41	D2	93	GLU	2.3
36	BP	25	ASP	2.3
2	AE	68	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
22	AB	47	C	2.3
29	DF	22	ALA	2.3
36	DP	64	ILE	2.3
50	D4	5	ILE	2.3
31	DH	46	GLU	2.3
39	DR	104	ASN	2.3
41	D2	34	GLU	2.3
3	AF	168	ALA	2.3
6	CI	37	VAL	2.3
35	DO	111	ARG	2.3
37	D0	33	ARG	2.3
2	CE	187	LEU	2.3
27	DD	177	LEU	2.3
30	BG	150	ASP	2.3
30	DG	161	THR	2.3
38	BQ	105	ALA	2.3
52	B6	22	ALA	2.3
12	CO	40	VAL	2.3
30	DG	35	GLU	2.3
53	D7	1	MET	2.3
22	CB	10	G	2.3
3	AF	110	ASN	2.3
31	BH	83	TYR	2.3
39	BR	38	ASN	2.3
49	DX	26	LEU	2.3
3	CF	80	GLY	2.3
11	CN	32	ILE	2.3
12	CO	80	HIS	2.3
12	CO	100	ILE	2.3
27	DD	153	ALA	2.3
29	DF	163	VAL	2.3
41	D2	27	ALA	2.3
19	CV	13	ASP	2.3
28	DE	90	THR	2.3
45	DV	175	VAL	2.3
22	CB	25	A	2.3
30	BG	164	GLU	2.3
35	DO	145	PRO	2.3
44	DU	66	PRO	2.3
41	D2	38	LEU	2.3
8	CK	70	GLN	2.3
3	AF	179	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
14	CQ	49	HIS	2.3
6	CI	40	VAL	2.3
30	DG	40	ASN	2.3
22	CB	23	A	2.3
30	BG	52	ILE	2.3
2	CE	122	PHE	2.3
6	AI	9	VAL	2.3
45	BV	44	PHE	2.3
22	AB	80	C	2.3
25	BA	2477	C	2.3
30	DG	145	THR	2.3
40	D1	91	ASP	2.3
7	AJ	5	ARG	2.3
30	BG	94	LEU	2.3
30	DG	155	MET	2.3
45	BV	3	TYR	2.3
2	CE	9	GLU	2.2
4	CG	90	GLY	2.2
22	CB	75	G	2.2
3	CF	184	TYR	2.2
11	CN	19	ALA	2.2
29	DF	128	ALA	2.2
50	B4	32	TYR	2.2
7	AJ	79	ARG	2.2
22	CB	69	A	2.2
31	DH	105	LEU	2.2
3	CF	7	PRO	2.2
45	DV	133	ILE	2.2
25	BA	2794	C	2.2
25	DA	1092	C	2.2
31	DH	5	GLY	2.2
35	DO	104	GLY	2.2
36	BP	20	ALA	2.2
31	BH	152	ARG	2.2
28	BE	52	LEU	2.2
5	AH	135	THR	2.2
33	DM	41	ASP	2.2
11	CN	80	VAL	2.2
45	DV	69	THR	2.2
35	DO	90	ARG	2.2
35	DO	127	ALA	2.2
51	B5	52	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
4	CG	176	LEU	2.2
23	CD	41	C	2.2
45	BV	52	SER	2.2
45	DV	61	LEU	2.2
44	BU	44	ILE	2.2
13	AP	5	ALA	2.2
51	B5	35	GLU	2.2
22	CB	8	U	2.2
18	AU	40	LEU	2.2
3	CF	182	ILE	2.2
31	DH	109	PHE	2.2
10	AM	72	VAL	2.2
45	DV	72	ARG	2.2
45	DV	159	PRO	2.2
32	DK	140	LEU	2.2
31	BH	61	HIS	2.2
4	CG	168	ARG	2.2
6	AI	8	ILE	2.2
36	DP	30	GLY	2.2
6	AI	62	TRP	2.2
30	BG	178	PHE	2.2
50	D4	23	GLU	2.2
52	B6	48	VAL	2.2
13	CP	2	ALA	2.2
36	DP	93	TYR	2.2
45	DV	62	PRO	2.2
52	D6	37	ARG	2.2
2	CE	162	ILE	2.2
13	CP	74	VAL	2.2
28	BE	68	ALA	2.2
6	AI	56	PRO	2.2
31	BH	27	LYS	2.2
14	CQ	37	PHE	2.2
25	DA	884	C	2.2
25	DA	2139	C	2.2
31	BH	68	THR	2.2
12	AO	127	GLU	2.2
27	BD	173	VAL	2.2
36	BP	33	GLY	2.2
38	DQ	37	ALA	2.2
45	DV	99	TYR	2.2
10	AM	98	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
18	CU	56	THR	2.2
27	DD	30	GLU	2.2
27	DD	34	VAL	2.2
32	DK	11	ASN	2.2
30	DG	107	LEU	2.2
4	AG	110	PHE	2.2
33	DM	131	GLN	2.2
38	BQ	68	GLN	2.2
3	CF	44	GLU	2.2
38	BQ	85	VAL	2.2
11	CN	57	THR	2.2
12	CO	19	ARG	2.2
25	BA	887	A	2.2
50	D4	52	THR	2.2
23	AD	17	C	2.1
25	DA	654(Q)	C	2.1
27	DD	2	ALA	2.1
31	DH	102	ALA	2.1
23	AD	48	U	2.1
3	AF	83	ARG	2.1
3	AF	122	GLU	2.1
10	AM	23	ILE	2.1
12	CO	85	ILE	2.1
30	DG	160	VAL	2.1
47	BZ	83	GLU	2.1
38	DQ	61	ASN	2.1
6	AI	4	TYR	2.1
11	CN	25	TYR	2.1
32	DK	139	GLN	2.1
4	CG	145	GLU	2.1
22	AB	85	C	2.1
30	DG	10	LYS	2.1
32	BK	125	GLU	2.1
44	BU	2	ARG	2.1
44	DU	101	LYS	2.1
45	DV	2	GLU	2.1
25	DA	1065	U	2.1
45	DV	98	MET	2.1
30	BG	107	LEU	2.1
48	DW	71	ASN	2.1
52	B6	32	ASN	2.1
11	CN	18	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
12	AO	19	ARG	2.1
3	AF	152	ILE	2.1
41	D2	15	GLU	2.1
43	BT	89	ILE	2.1
6	CI	101	ALA	2.1
37	B0	86	ARG	2.1
43	DT	91	ALA	2.1
52	D6	43	CYS	2.1
4	CG	183	GLY	2.1
45	BV	68	PRO	2.1
45	BV	102	LEU	2.1
45	DV	134	PRO	2.1
9	CL	20	ARG	2.1
11	AN	127	LYS	2.1
30	DG	136	ARG	2.1
45	DV	44	PHE	2.1
11	CN	22	HIS	2.1
38	BQ	111	GLU	2.1
3	CF	152	ILE	2.1
6	CI	1	MET	2.1
52	B6	40	CYS	2.1
4	CG	49	ARG	2.1
32	DK	61	ARG	2.1
35	DO	102	ARG	2.1
11	AN	15	ALA	2.1
11	AN	84	VAL	2.1
36	DP	19	GLY	2.1
31	DH	30	LYS	2.1
44	DU	34	LYS	2.1
31	DH	53	GLU	2.1
25	BA	1067	A	2.1
2	AE	149	LEU	2.1
13	CP	90	LEU	2.1
50	B4	20	ASN	2.1
2	CE	7	VAL	2.1
11	CN	83	ILE	2.1
31	DH	17	VAL	2.1
45	DV	71	VAL	2.1
14	CQ	55	GLY	2.1
28	DE	3	GLY	2.1
44	DU	89	PHE	2.1
3	AF	90	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
25	DA	1068	G	2.1
44	DU	65	ALA	2.1
3	AF	66	VAL	2.1
11	CN	95	ILE	2.1
44	BU	102	CYS	2.1
50	D4	36	CYS	2.1
13	AP	96	LEU	2.1
19	CV	84	GLY	2.1
12	AO	94	PRO	2.1
25	BA	896	A	2.1
29	DF	18	ARG	2.1
32	DK	85	GLU	2.1
45	BV	25	PRO	2.1
31	DH	114	VAL	2.1
3	CF	124	ILE	2.1
32	DK	138	ILE	2.1
3	AF	91	LEU	2.1
6	CI	45	LEU	2.1
23	CD	19	G	2.1
18	AU	23	LYS	2.1
45	DV	132	ASN	2.1
54	D8	29	LYS	2.1
2	CE	218	ALA	2.1
28	BE	56	PRO	2.1
52	B6	39	TYR	2.1
3	CF	111	LEU	2.1
4	AG	96	LEU	2.1
5	AH	35	GLY	2.1
25	DA	1095	A	2.1
30	BG	106	LEU	2.1
36	DP	34	LEU	2.1
31	BH	60	ARG	2.0
51	B5	49	CYS	2.0
22	CB	12	G	2.0
19	CV	50	ALA	2.0
31	DH	169	VAL	2.0
28	DE	50	GLY	2.0
42	BS	69	LEU	2.0
5	AH	72	GLN	2.0
5	CH	63	ARG	2.0
22	AB	77	C	2.0
25	DA	1537	C	2.0

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Mol	Chain	Res	Type	RSRZ
28	DE	204	ALA	2.0
4	CG	146	ILE	2.0
12	CO	61	THR	2.0
30	DG	63	ILE	2.0
35	DO	138	LEU	2.0
36	DP	133	ARG	2.0
2	CE	135	GLN	2.0
3	AF	89	GLU	2.0
11	AN	30	VAL	2.0
35	DO	95	VAL	2.0
25	DA	889	C	2.0
6	CI	64	GLN	2.0
2	CE	113	HIS	2.0
6	CI	88	VAL	2.0
19	AV	61	TYR	2.0
28	BE	72	VAL	2.0
36	BP	137	TYR	2.0
29	DF	9	ILE	2.0
32	DK	9	LEU	2.0
25	DA	654(A)	A	2.0
19	CV	63	THR	2.0
36	DP	89	ASN	2.0
5	CH	8	GLU	2.0
9	CL	87	GLN	2.0
28	BE	102	VAL	2.0
5	CH	12	LEU	2.0
25	BA	1068	G	2.0
25	DA	1063	G	2.0
52	B6	41	PRO	2.0
12	AO	20	LYS	2.0
4	CG	19	LEU	2.0
30	DG	83	ARG	2.0
35	DO	126	VAL	2.0
49	BX	59	VAL	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.



## 6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
55	MG	BA	3061	1/1	0.89	0.54	87.54	61,61,61,61	0
55	MG	BA	3032	1/1	0.93	0.52	57.32	49,49,49,49	0
55	MG	DA	3019	1/1	0.89	0.92	52.49	90,90,90,90	0
55	MG	BA	3027	1/1	0.99	0.54	43.66	36,36,36,36	0
55	MG	AA	1691	1/1	0.98	0.49	39.32	50,50,50,50	0
55	MG	BA	3173	1/1	0.99	0.59	37.75	52,52,52,52	0
55	MG	AA	1837	1/1	0.96	0.53	37.70	73,73,73,73	0
55	MG	DA	3081	1/1	0.93	0.51	36.95	64,64,64,64	0
55	MG	BA	3096	1/1	0.96	0.50	36.38	56,56,56,56	0
55	MG	DA	3165	1/1	0.95	0.59	35.71	65,65,65,65	0
55	MG	BA	3157	1/1	0.98	0.60	34.89	45,45,45,45	0
55	MG	DA	3174	1/1	0.96	0.57	34.71	44,44,44,44	0
55	MG	BA	3269	1/1	0.98	0.45	34.17	61,61,61,61	0
55	MG	DA	3156	1/1	0.96	0.69	33.92	48,48,48,48	0
55	MG	DA	3433	1/1	0.97	0.53	33.91	57,57,57,57	0
55	MG	DA	3227	1/1	0.97	0.72	33.84	50,50,50,50	0
55	MG	DA	3228	1/1	0.95	0.47	33.71	44,44,44,44	0
55	MG	BA	3095	1/1	0.97	0.47	33.41	37,37,37,37	0
55	MG	BA	3169	1/1	0.94	0.60	32.57	63,63,63,63	0
55	MG	DA	3221	1/1	0.97	0.70	32.54	63,63,63,63	0
55	MG	DA	3513	1/1	0.83	0.76	32.50	67,67,67,67	0
55	MG	DA	3188	1/1	0.91	0.60	32.36	56,56,56,56	0
55	MG	BA	3516	1/1	0.90	0.86	32.24	78,78,78,78	0
55	MG	BA	3521	1/1	0.82	0.60	32.24	79,79,79,79	0
55	MG	DA	3385	1/1	0.90	0.70	32.18	62,62,62,62	0
55	MG	DA	3371	1/1	0.68	0.49	31.38	82,82,82,82	0
55	MG	BA	3163	1/1	0.98	0.58	31.22	50,50,50,50	0
55	MG	BA	3100	1/1	0.96	0.37	30.98	42,42,42,42	0
55	MG	DA	3260	1/1	0.99	0.62	30.40	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	3328	1/1	0.89	0.34	30.27	47,47,47,47	0
55	MG	DA	3204	1/1	0.97	0.39	29.83	51,51,51,51	0
55	MG	CA	1690	1/1	0.96	0.36	29.54	68,68,68,68	0
55	MG	CA	1668	1/1	0.89	0.42	29.08	79,79,79,79	0
55	MG	DA	3087	1/1	0.96	0.50	28.75	63,63,63,63	0
55	MG	DA	3113	1/1	0.97	0.55	28.54	43,43,43,43	0
55	MG	BA	3207	1/1	0.98	0.57	28.27	41,41,41,41	0
55	MG	BA	3393	1/1	0.90	0.51	27.71	81,81,81,81	0
55	MG	BA	3187	1/1	0.91	0.48	27.56	73,73,73,73	0
55	MG	DA	3264	1/1	0.97	0.65	27.30	59,59,59,59	0
55	MG	BA	3345	1/1	0.82	0.71	27.17	73,73,73,73	0
55	MG	AA	1610	1/1	0.95	0.49	26.99	51,51,51,51	0
55	MG	BA	3016	1/1	0.94	0.53	26.48	39,39,39,39	0
55	MG	BA	3172	1/1	0.98	0.36	26.42	34,34,34,34	0
55	MG	BA	3245	1/1	0.98	0.55	26.23	49,49,49,49	0
55	MG	DA	3355	1/1	0.91	0.50	25.97	77,77,77,77	0
55	MG	DA	3332	1/1	0.90	0.39	25.76	76,76,76,76	0
55	MG	BA	3262	1/1	0.99	0.57	25.69	33,33,33,33	0
55	MG	BA	3591	1/1	0.75	0.47	25.55	64,64,64,64	0
55	MG	BA	3001	1/1	0.97	0.48	25.34	47,47,47,47	0
55	MG	BA	3197	1/1	0.94	0.53	25.34	46,46,46,46	0
55	MG	BA	3314	1/1	0.89	0.58	25.21	64,64,64,64	0
55	MG	BA	3583	1/1	0.76	0.50	25.21	86,86,86,86	0
55	MG	BA	3361	1/1	0.81	0.41	24.46	64,64,64,64	0
55	MG	BA	3378	1/1	0.87	0.56	24.44	76,76,76,76	0
55	MG	DA	3114	1/1	0.99	0.56	24.41	54,54,54,54	0
55	MG	BA	3353	1/1	0.94	0.44	24.36	52,52,52,52	0
55	MG	DA	3063	1/1	0.92	0.53	24.22	75,75,75,75	0
55	MG	DA	3190	1/1	0.95	0.57	24.17	61,61,61,61	0
55	MG	DA	3080	1/1	0.73	0.55	23.86	75,75,75,75	0
55	MG	CC	102	1/1	0.97	0.52	23.78	73,73,73,73	0
55	MG	BA	3012	1/1	0.93	0.28	23.66	45,45,45,45	0
55	MG	BA	3153	1/1	0.95	0.44	23.42	52,52,52,52	0
55	MG	DA	3180	1/1	0.98	0.59	23.41	52,52,52,52	0
55	MG	CA	1739	1/1	0.93	0.56	23.25	75,75,75,75	0
55	MG	BA	3226	1/1	0.94	0.41	23.23	50,50,50,50	0
55	MG	BA	3616	1/1	0.93	0.38	23.22	58,58,58,58	0
55	MG	DA	3145	1/1	0.97	0.51	23.00	60,60,60,60	0
55	MG	BA	3428	1/1	0.96	0.36	22.77	68,68,68,68	0
55	MG	BA	3610	1/1	0.98	0.43	22.33	61,61,61,61	0
55	MG	BA	3005	1/1	0.97	0.49	22.29	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	3254	1/1	0.97	0.55	22.11	50,50,50,50	0
55	MG	DA	3399	1/1	0.88	0.45	22.01	76,76,76,76	0
55	MG	CA	1750	1/1	0.97	0.48	21.97	79,79,79,79	0
55	MG	DA	3157	1/1	0.97	0.69	21.89	47,47,47,47	0
55	MG	AA	1712	1/1	0.89	0.38	21.88	78,78,78,78	0
55	MG	BA	3144	1/1	0.90	0.29	21.73	48,48,48,48	0
55	MG	BA	3091	1/1	0.98	0.52	21.72	35,35,35,35	0
55	MG	CA	1771	1/1	0.80	0.42	21.41	76,76,76,76	0
55	MG	AA	1717	1/1	0.92	0.40	21.37	74,74,74,74	0
55	MG	DA	3196	1/1	0.97	0.46	21.31	50,50,50,50	0
55	MG	DA	3245	1/1	0.97	0.51	21.27	60,60,60,60	0
55	MG	DA	3155	1/1	0.97	0.46	21.24	46,46,46,46	0
55	MG	BA	3289	1/1	0.89	0.56	21.21	60,60,60,60	0
55	MG	CA	1676	1/1	0.97	0.44	21.19	55,55,55,55	0
55	MG	BA	3344	1/1	0.91	0.36	21.15	55,55,55,55	0
55	MG	BA	3055	1/1	0.97	0.43	21.15	57,57,57,57	0
55	MG	BA	3399	1/1	0.72	0.58	21.00	90,90,90,90	0
55	MG	BA	3004	1/1	0.98	0.46	20.96	35,35,35,35	0
55	MG	BA	3125	1/1	0.95	0.53	20.49	52,52,52,52	0
55	MG	DA	3176	1/1	0.95	0.55	20.12	65,65,65,65	0
55	MG	BA	3033	1/1	0.97	0.38	20.02	38,38,38,38	0
55	MG	AA	1651	1/1	0.85	0.56	19.88	71,71,71,71	0
55	MG	DA	3263	1/1	0.88	0.86	19.78	82,82,82,82	0
55	MG	BA	3452	1/1	0.96	0.40	19.51	41,41,41,41	0
55	MG	AA	1678	1/1	0.90	0.35	19.44	74,74,74,74	0
55	MG	AA	1661	1/1	0.92	0.34	19.40	48,48,48,48	0
55	MG	DA	3400	1/1	0.85	0.40	19.30	89,89,89,89	0
55	MG	BA	3287	1/1	0.94	0.39	19.23	62,62,62,62	0
55	MG	BA	3137	1/1	0.96	0.37	19.23	47,47,47,47	0
55	MG	BA	3126	1/1	0.98	0.42	19.21	46,46,46,46	0
55	MG	CA	1691	1/1	0.87	0.33	19.20	78,78,78,78	0
55	MG	DA	3364	1/1	0.83	0.27	18.98	71,71,71,71	0
55	MG	BA	3304	1/1	0.81	0.28	18.95	56,56,56,56	0
55	MG	DA	3169	1/1	0.96	0.31	18.77	69,69,69,69	0
55	MG	DA	3283	1/1	0.84	0.44	18.72	61,61,61,61	0
55	MG	BA	3008	1/1	0.96	0.49	18.71	37,37,37,37	0
55	MG	BA	3504	1/1	0.97	0.33	18.63	45,45,45,45	0
55	MG	CA	1634	1/1	0.88	0.46	18.59	77,77,77,77	0
55	MG	DA	3122	1/1	0.95	0.49	18.53	46,46,46,46	0
55	MG	DA	3104	1/1	0.98	0.40	18.51	43,43,43,43	0
55	MG	BA	3365	1/1	0.82	0.33	18.46	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	BA	3162	1/1	0.97	0.52	18.23	45,45,45,45	0
55	MG	CA	1804	1/1	0.86	0.30	18.18	75,75,75,75	0
55	MG	BA	3308	1/1	0.94	0.32	18.15	61,61,61,61	0
55	MG	DA	3376	1/1	0.88	0.53	18.12	82,82,82,82	0
55	MG	DA	3129	1/1	0.83	0.25	18.09	82,82,82,82	0
55	MG	DA	3213	1/1	0.99	0.49	18.04	41,41,41,41	0
55	MG	AA	1679	1/1	0.79	0.28	18.02	86,86,86,86	0
55	MG	BA	3007	1/1	0.98	0.54	17.87	53,53,53,53	0
55	MG	BA	3108	1/1	0.93	0.36	17.76	86,86,86,86	0
55	MG	BA	3124	1/1	0.96	0.52	17.67	45,45,45,45	0
55	MG	BA	3528	1/1	0.95	0.44	17.67	76,76,76,76	0
55	MG	BA	3195	1/1	0.92	0.49	17.54	47,47,47,47	0
55	MG	DA	3426	1/1	0.93	0.42	17.42	58,58,58,58	0
55	MG	DA	3224	1/1	0.93	0.47	17.28	66,66,66,66	0
55	MG	BA	3092	1/1	0.96	0.46	17.16	32,32,32,32	0
55	MG	DA	3262	1/1	0.94	0.46	16.88	48,48,48,48	0
55	MG	DA	3319	1/1	0.87	0.40	16.78	74,74,74,74	0
55	MG	AA	1658	1/1	0.95	0.65	16.74	49,49,49,49	0
55	MG	DA	3047	1/1	0.89	0.42	16.71	76,76,76,76	0
55	MG	BA	3146	1/1	0.91	0.38	16.42	59,59,59,59	0
55	MG	DA	3150	1/1	0.89	0.34	16.35	68,68,68,68	0
55	MG	CA	1647	1/1	0.89	0.51	16.29	61,61,61,61	0
55	MG	DA	3412	1/1	0.89	0.33	16.23	89,89,89,89	0
55	MG	DA	3212	1/1	0.93	0.60	16.16	48,48,48,48	0
55	MG	BO	201	1/1	0.93	0.36	16.13	62,62,62,62	0
55	MG	DA	3128	1/1	0.91	0.35	16.11	77,77,77,77	0
55	MG	BA	3002	1/1	0.98	0.47	16.09	43,43,43,43	0
55	MG	DA	3374	1/1	0.94	0.41	16.07	62,62,62,62	0
55	MG	BA	3133	1/1	0.78	0.29	16.04	66,66,66,66	0
55	MG	BA	3090	1/1	0.87	0.47	15.81	49,49,49,49	0
55	MG	DA	3096	1/1	0.97	0.58	15.80	53,53,53,53	0
55	MG	DA	3125	1/1	0.88	0.43	15.77	45,45,45,45	0
55	MG	BA	3256	1/1	0.84	0.41	15.74	61,61,61,61	0
55	MG	CA	1766	1/1	0.79	0.30	15.72	85,85,85,85	0
55	MG	AC	101	1/1	0.97	0.48	15.69	53,53,53,53	0
55	MG	BA	3046	1/1	0.97	0.38	15.60	39,39,39,39	0
55	MG	AA	1686	1/1	0.96	0.36	15.57	85,85,85,85	0
55	MG	DA	3456	1/1	0.95	0.36	15.41	83,83,83,83	0
55	MG	DA	3214	1/1	0.94	0.44	15.18	40,40,40,40	0
55	MG	BA	3206	1/1	0.85	0.38	15.12	75,75,75,75	0
55	MG	AA	1601	1/1	0.97	0.36	15.07	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3130	1/1	0.92	0.43	15.05	44,44,44,44	0
55	MG	AA	1836	1/1	0.69	0.60	15.00	79,79,79,79	0
55	MG	DA	3164	1/1	0.86	0.45	14.97	47,47,47,47	0
55	MG	BA	3014	1/1	0.97	0.48	14.92	53,53,53,53	0
55	MG	DA	3337	1/1	0.82	0.46	14.41	89,89,89,89	0
55	MG	DA	3112	1/1	0.89	0.35	14.31	81,81,81,81	0
55	MG	DA	3135	1/1	0.97	0.42	14.30	49,49,49,49	0
55	MG	BA	3160	1/1	0.97	0.42	14.00	42,42,42,42	0
55	MG	CA	1755	1/1	0.81	0.49	13.91	92,92,92,92	0
55	MG	BA	3119	1/1	0.97	0.38	13.74	62,62,62,62	0
55	MG	DA	3310	1/1	0.93	0.49	13.70	71,71,71,71	0
55	MG	DA	3103	1/1	0.97	0.40	13.63	50,50,50,50	0
55	MG	BA	3154	1/1	0.85	0.30	13.63	55,55,55,55	0
55	MG	DA	3046	1/1	0.95	0.34	13.57	65,65,65,65	0
55	MG	DA	3522	1/1	0.64	0.48	13.56	78,78,78,78	0
55	MG	BA	3040	1/1	0.95	0.36	13.56	54,54,54,54	0
55	MG	BA	3020	1/1	0.97	0.47	13.53	41,41,41,41	0
55	MG	BA	3066	1/1	0.97	0.31	13.43	62,62,62,62	0
55	MG	AA	1639	1/1	0.87	0.31	13.25	91,91,91,91	0
55	MG	DA	3198	1/1	0.94	0.31	13.16	47,47,47,47	0
55	MG	BA	3302	1/1	0.91	0.41	13.16	26,26,26,26	0
55	MG	DA	3105	1/1	0.94	0.36	13.07	45,45,45,45	0
55	MG	DA	3275	1/1	0.95	0.36	13.07	76,76,76,76	0
55	MG	BA	3367	1/1	0.78	0.26	13.00	82,82,82,82	0
55	MG	BA	3401	1/1	0.84	0.45	12.82	62,62,62,62	0
55	MG	DA	3281	1/1	0.82	0.88	12.79	76,76,76,76	0
55	MG	BA	3442	1/1	0.77	0.37	12.66	76,76,76,76	0
55	MG	BA	3021	1/1	0.97	0.53	12.64	41,41,41,41	0
55	MG	DA	3261	1/1	0.94	0.49	12.61	58,58,58,58	0
55	MG	BA	3258	1/1	0.93	0.29	12.59	45,45,45,45	0
55	MG	BA	3109	1/1	0.96	0.32	12.55	70,70,70,70	0
55	MG	BA	3044	1/1	0.95	0.33	12.55	62,62,62,62	0
55	MG	DA	3094	1/1	0.85	0.95	12.47	94,94,94,94	0
55	MG	CA	1654	1/1	0.90	0.31	12.46	99,99,99,99	0
55	MG	DB	211	1/1	0.74	0.41	12.45	93,93,93,93	0
55	MG	BA	3082	1/1	0.95	0.36	12.41	64,64,64,64	0
55	MG	CA	1686	1/1	0.88	0.42	12.35	73,73,73,73	0
55	MG	BA	3249	1/1	0.89	0.29	12.33	30,30,30,30	0
55	MG	DA	3450	1/1	0.94	0.33	12.28	88,88,88,88	0
55	MG	DA	3218	1/1	0.96	0.41	12.20	62,62,62,62	0
55	MG	DA	3278	1/1	0.96	0.51	12.15	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	3085	1/1	0.83	0.32	12.08	91,91,91,91	0
55	MG	BA	3600	1/1	0.93	0.34	12.08	66,66,66,66	0
55	MG	DA	3158	1/1	0.97	0.59	12.05	44,44,44,44	0
55	MG	DA	3210	1/1	0.97	0.42	12.00	63,63,63,63	0
55	MG	BE	301	1/1	0.92	0.39	11.89	59,59,59,59	0
55	MG	BA	3031	1/1	0.96	0.36	11.70	33,33,33,33	0
55	MG	BA	3102	1/1	0.97	0.28	11.64	66,66,66,66	0
55	MG	BB	215	1/1	0.95	0.26	11.59	82,82,82,82	0
55	MG	BA	3029	1/1	0.99	0.42	11.58	35,35,35,35	0
55	MG	DA	3127	1/1	0.94	0.40	11.55	74,74,74,74	0
55	MG	BA	3178	1/1	0.97	0.35	11.54	36,36,36,36	0
55	MG	CA	1646	1/1	0.95	0.37	11.53	76,76,76,76	0
55	MG	DA	3131	1/1	0.85	0.25	11.51	79,79,79,79	0
55	MG	CA	1606	1/1	0.90	0.35	11.40	87,87,87,87	0
55	MG	DA	3101	1/1	0.98	0.33	11.40	43,43,43,43	0
55	MG	BA	3211	1/1	0.88	0.46	11.37	39,39,39,39	0
55	MG	DA	3069	1/1	0.93	0.44	11.27	60,60,60,60	0
55	MG	BA	3138	1/1	0.96	0.47	11.23	46,46,46,46	0
55	MG	DA	3266	1/1	0.91	0.51	11.13	55,55,55,55	0
55	MG	DA	3187	1/1	0.80	0.45	11.10	42,42,42,42	0
55	MG	DA	3055	1/1	0.89	0.54	11.07	68,68,68,68	0
55	MG	CA	1648	1/1	0.88	0.42	10.92	65,65,65,65	0
55	MG	AA	1645	1/1	0.92	0.47	10.86	50,50,50,50	0
55	MG	CA	1754	1/1	0.98	0.32	10.82	86,86,86,86	0
55	MG	DA	3110	1/1	0.96	0.33	10.72	58,58,58,58	0
55	MG	AA	1663	1/1	0.91	0.27	10.71	47,47,47,47	0
55	MG	BA	3307	1/1	0.94	0.48	10.60	39,39,39,39	0
55	MG	BA	3183	1/1	0.97	0.30	10.49	47,47,47,47	0
55	MG	DB	207	1/1	0.55	0.33	10.48	115,115,115,115	0
55	MG	BA	3037	1/1	0.94	0.38	10.46	44,44,44,44	0
55	MG	BA	3186	1/1	0.97	0.42	10.42	36,36,36,36	0
55	MG	BA	3018	1/1	0.99	0.35	10.35	54,54,54,54	0
55	MG	DA	3331	1/1	0.95	0.55	10.24	50,50,50,50	0
55	MG	DA	3303	1/1	0.57	0.40	10.21	70,70,70,70	0
55	MG	BA	3389	1/1	0.93	0.23	10.20	59,59,59,59	0
55	MG	BA	3062	1/1	0.96	0.29	10.17	56,56,56,56	0
55	MG	DA	3239	1/1	0.97	0.36	10.11	45,45,45,45	0
55	MG	CA	1803	1/1	0.88	0.30	10.06	96,96,96,96	0
55	MG	BA	3216	1/1	0.99	0.32	10.03	33,33,33,33	0
55	MG	DA	3420	1/1	0.97	0.31	9.86	67,67,67,67	0
55	MG	CA	1722	1/1	0.96	0.38	9.83	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	BA	3319	1/1	0.87	0.28	9.83	65,65,65,65	0
55	MG	BA	3411	1/1	0.85	0.30	9.83	68,68,68,68	0
55	MG	AA	1602	1/1	0.97	0.33	9.68	79,79,79,79	0
55	MG	AA	1795	1/1	0.86	0.23	9.54	73,73,73,73	0
55	MG	BA	3064	1/1	0.95	0.29	9.50	49,49,49,49	0
55	MG	CA	1657	1/1	0.88	0.27	9.48	95,95,95,95	0
55	MG	BA	3375	1/1	0.87	0.25	9.45	50,50,50,50	0
55	MG	CA	1685	1/1	0.96	0.37	9.34	93,93,93,93	0
55	MG	DA	3274	1/1	0.78	0.30	9.33	87,87,87,87	0
55	MG	DA	3033	1/1	0.94	0.25	9.33	62,62,62,62	0
55	MG	BA	3025	1/1	0.94	0.36	9.13	42,42,42,42	0
55	MG	AA	1667	1/1	0.95	0.33	9.03	68,68,68,68	0
55	MG	AA	1783	1/1	0.98	0.60	8.83	67,67,67,67	0
55	MG	DA	3299	1/1	0.96	0.33	8.71	38,38,38,38	0
55	MG	CA	1650	1/1	0.98	0.26	8.67	102,102,102,102	0
55	MG	CA	1640	1/1	0.91	0.33	8.66	81,81,81,81	0
55	MG	DA	3326	1/1	0.93	0.36	8.62	70,70,70,70	0
55	MG	CA	1777	1/1	0.81	0.30	8.52	88,88,88,88	0
55	MG	DA	3162	1/1	0.97	0.38	8.51	66,66,66,66	0
55	MG	DA	3132	1/1	0.97	0.31	8.38	53,53,53,53	0
55	MG	BA	3619	1/1	0.89	0.33	8.38	69,69,69,69	0
55	MG	B1	201	1/1	0.93	0.30	8.23	47,47,47,47	0
55	MG	DA	3144	1/1	0.98	0.29	8.19	60,60,60,60	0
55	MG	BA	3158	1/1	0.98	0.32	8.19	41,41,41,41	0
55	MG	AA	1608	1/1	0.93	0.26	8.15	64,64,64,64	0
55	MG	DA	3335	1/1	0.70	0.21	8.09	61,61,61,61	0
55	MG	BA	3156	1/1	0.93	0.29	8.05	40,40,40,40	0
55	MG	BA	3346	1/1	0.93	0.33	7.92	51,51,51,51	0
55	MG	AA	1632	1/1	0.96	0.25	7.92	67,67,67,67	0
55	MG	CA	1678	1/1	0.92	0.23	7.81	70,70,70,70	0
55	MG	DA	3222	1/1	0.97	0.50	7.78	60,60,60,60	0
55	MG	BA	3076	1/1	0.94	0.33	7.72	68,68,68,68	0
55	MG	DA	3452	1/1	0.95	0.21	7.58	83,83,83,83	0
55	MG	BA	3184	1/1	0.96	0.23	7.55	39,39,39,39	0
55	MG	AA	1628	1/1	0.92	0.35	7.37	69,69,69,69	0
55	MG	DA	3284	1/1	0.97	0.33	7.34	56,56,56,56	0
55	MG	DA	3237	1/1	0.85	0.27	7.24	83,83,83,83	0
55	MG	DA	3134	1/1	0.74	0.28	7.24	72,72,72,72	0
55	MG	DA	3285	1/1	0.91	0.25	7.19	50,50,50,50	0
55	MG	CA	1758	1/1	0.71	0.46	7.12	78,78,78,78	0
55	MG	BA	3024	1/1	0.98	0.38	7.09	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AC	107	1/1	0.86	0.28	7.03	94,94,94,94	0
55	MG	AA	1789	1/1	0.96	0.29	6.97	74,74,74,74	0
55	MG	DA	3427	1/1	0.84	0.28	6.92	76,76,76,76	0
55	MG	BA	3181	1/1	0.97	0.35	6.74	39,39,39,39	0
55	MG	CA	1610	1/1	0.92	0.27	6.69	97,97,97,97	0
55	MG	DA	3369	1/1	0.89	0.27	6.60	74,74,74,74	0
55	MG	CA	1622	1/1	0.95	0.33	6.53	95,95,95,95	0
55	MG	DA	3233	1/1	0.97	0.42	6.40	52,52,52,52	0
55	MG	BA	3049	1/1	0.95	0.40	6.31	68,68,68,68	0
55	MG	BA	3196	1/1	0.98	0.32	6.28	33,33,33,33	0
55	MG	BA	3190	1/1	0.98	0.33	6.24	63,63,63,63	0
55	MG	BA	3056	1/1	0.93	0.21	6.10	54,54,54,54	0
55	MG	D1	201	1/1	0.89	0.39	6.08	71,71,71,71	0
55	MG	BA	3259	1/1	0.97	0.25	6.07	40,40,40,40	0
55	MG	CA	1784	1/1	0.87	0.23	6.05	81,81,81,81	0
55	MG	CA	1802	1/1	0.84	0.45	6.01	74,74,74,74	0
55	MG	AA	1699	1/1	0.92	0.26	6.01	64,64,64,64	0
55	MG	BA	3436	1/1	0.95	0.23	6.00	59,59,59,59	0
55	MG	DA	3191	1/1	0.97	0.55	5.93	46,46,46,46	0
55	MG	DA	3438	1/1	0.87	0.25	5.82	87,87,87,87	0
55	MG	BA	3270	1/1	0.89	0.22	5.73	76,76,76,76	0
55	MG	D1	202	1/1	0.46	0.46	5.72	89,89,89,89	0
55	MG	DA	3086	1/1	0.93	0.20	5.66	114,114,114,114	0
55	MG	BA	3199	1/1	0.97	0.42	5.60	49,49,49,49	0
55	MG	DA	3143	1/1	0.93	0.28	5.55	58,58,58,58	0
55	MG	AA	1762	1/1	0.95	0.21	5.40	80,80,80,80	0
55	MG	AA	1605	1/1	0.93	0.40	5.38	82,82,82,82	0
55	MG	AA	1722	1/1	0.89	0.46	5.31	68,68,68,68	0
55	MG	AA	1825	1/1	0.92	0.24	5.12	93,93,93,93	0
55	MG	BA	3293	1/1	0.91	0.26	5.09	65,65,65,65	0
55	MG	DA	3161	1/1	0.97	0.44	4.99	45,45,45,45	0
55	MG	DA	3052	1/1	0.98	0.45	4.96	71,71,71,71	0
55	MG	BA	3104	1/1	0.80	0.20	4.91	57,57,57,57	0
55	MG	DA	3201	1/1	0.98	0.25	4.86	47,47,47,47	0
55	MG	BA	3052	1/1	0.83	0.20	4.85	64,64,64,64	0
55	MG	CA	1604	1/1	0.80	0.17	4.80	81,81,81,81	0
55	MG	DA	3495	1/1	0.96	0.20	4.74	63,63,63,63	0
55	MG	BA	3275	1/1	0.95	0.21	4.68	73,73,73,73	0
55	MG	CA	1749	1/1	0.78	0.20	4.50	89,89,89,89	0
55	MG	BB	217	1/1	0.79	0.19	4.48	98,98,98,98	0
55	MG	BA	3484	1/1	0.67	0.23	4.31	117,117,117,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3098	1/1	0.76	0.25	4.30	48,48,48,48	0
55	MG	CA	1719	1/1	0.81	0.23	4.05	129,129,129,129	0
55	MG	BA	3478	1/1	0.95	0.23	3.91	63,63,63,63	0
55	MG	DA	3397	1/1	0.92	0.29	3.83	60,60,60,60	0
55	MG	DA	3159	1/1	0.96	0.26	3.83	37,37,37,37	0
55	MG	B0	201	1/1	0.98	0.32	3.82	51,51,51,51	0
55	MG	DA	3295	1/1	0.96	0.37	3.81	50,50,50,50	0
55	MG	DA	3317	1/1	0.95	0.22	3.80	81,81,81,81	0
55	MG	AA	1711	1/1	0.84	0.28	3.68	89,89,89,89	0
55	MG	AA	1636	1/1	0.93	0.28	3.68	87,87,87,87	0
55	MG	BA	3524	1/1	0.91	0.19	3.66	66,66,66,66	0
55	MG	BA	3093	1/1	0.93	0.27	3.54	57,57,57,57	0
55	MG	BA	3067	1/1	0.93	0.23	3.52	48,48,48,48	0
55	MG	DA	3215	1/1	0.97	0.42	3.52	42,42,42,42	0
55	MG	CA	1716	1/1	0.93	0.25	3.46	79,79,79,79	0
55	MG	CA	1798	1/1	0.82	0.21	3.35	85,85,85,85	0
55	MG	CS	101	1/1	0.61	0.30	3.32	87,87,87,87	0
55	MG	AA	1635	1/1	0.72	0.24	3.19	86,86,86,86	0
55	MG	BA	3514	1/1	0.85	0.31	3.16	71,71,71,71	0
55	MG	AA	1619	1/1	0.98	0.40	3.11	63,63,63,63	0
55	MG	BA	3297	1/1	0.94	0.22	3.04	58,58,58,58	0
55	MG	BA	3274	1/1	0.95	0.17	3.02	46,46,46,46	0
55	MG	BA	3532	1/1	0.88	0.22	2.83	85,85,85,85	0
55	MG	BA	3080	1/1	0.79	0.17	2.81	91,91,91,91	0
55	MG	DA	3230	1/1	0.90	0.16	2.78	59,59,59,59	0
55	MG	CA	1785	1/1	0.90	0.24	2.58	105,105,105,105	0
55	MG	AA	1682	1/1	0.86	0.16	2.39	91,91,91,91	0
55	MG	AA	1822	1/1	0.76	0.14	2.29	107,107,107,107	0
55	MG	BA	3584	1/1	0.86	0.18	2.14	72,72,72,72	0
55	MG	DE	303	1/1	0.96	0.35	2.14	56,56,56,56	0
55	MG	DA	3130	1/1	0.92	0.18	2.13	60,60,60,60	0
55	MG	DA	3121	1/1	0.96	0.17	2.12	64,64,64,64	0
55	MG	AA	1700	1/1	0.51	0.21	1.81	99,99,99,99	0
55	MG	AA	1701	1/1	0.92	0.19	1.77	70,70,70,70	0
55	MG	DA	3074	1/1	0.92	0.19	1.75	70,70,70,70	0
55	MG	BA	3380	1/1	0.96	0.17	1.70	65,65,65,65	0
55	MG	CA	1625	1/1	0.83	0.22	1.69	90,90,90,90	0
55	MG	CA	1653	1/1	0.93	0.17	1.69	77,77,77,77	0
55	MG	CA	1617	1/1	0.95	0.24	1.64	93,93,93,93	0
55	MG	DA	3037	1/1	0.89	0.34	1.63	98,98,98,98	0
55	MG	AA	1729	1/1	0.84	0.36	1.61	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DE	302	1/1	0.88	0.27	1.59	65,65,65,65	0
55	MG	CA	1629	1/1	0.84	0.16	1.51	98,98,98,98	0
55	MG	BA	3510	1/1	0.88	0.15	1.38	108,108,108,108	0
55	MG	DA	3401	1/1	0.68	0.16	1.17	71,71,71,71	0
55	MG	BB	202	1/1	0.90	0.14	1.10	79,79,79,79	0
55	MG	CA	1669	1/1	0.80	0.19	0.96	60,60,60,60	0
55	MG	BE	302	1/1	0.97	0.23	0.95	56,56,56,56	0
55	MG	DA	3324	1/1	0.92	0.20	0.77	78,78,78,78	0
56	ZN	AG	302	1/1	0.97	0.34	0.70	95,95,95,95	0
55	MG	A1	101	1/1	0.95	0.17	0.69	66,66,66,66	0
55	MG	AA	1744	1/1	0.88	0.13	0.65	117,117,117,117	0
55	MG	BA	3614	1/1	0.81	0.17	0.56	69,69,69,69	0
55	MG	AA	1644	1/1	0.91	0.16	0.47	62,62,62,62	0
55	MG	DB	202	1/1	0.90	0.18	0.45	98,98,98,98	0
55	MG	AA	1764	1/1	0.91	0.17	0.26	79,79,79,79	0
55	MG	CA	1609	1/1	0.88	0.17	0.18	115,115,115,115	0
55	MG	BA	3136	1/1	0.94	0.16	0.11	74,74,74,74	0
55	MG	BA	3342	1/1	0.75	0.30	0.10	66,66,66,66	0
55	MG	DA	3489	1/1	0.91	0.16	-0.09	71,71,71,71	0
55	MG	BA	3060	1/1	0.89	0.17	-0.12	64,64,64,64	0
55	MG	BA	3191	1/1	0.84	0.21	-0.21	81,81,81,81	0
56	ZN	CG	303	1/1	0.98	0.31	-0.33	118,118,118,118	0
55	MG	AN	201	1/1	0.96	0.18	-0.38	68,68,68,68	0
55	MG	BA	3198	1/1	0.93	0.17	-0.41	45,45,45,45	0
55	MG	BA	3229	1/1	0.98	0.12	-0.84	50,50,50,50	0
55	MG	B8	101	1/1	0.85	0.19	-0.85	97,97,97,97	0
56	ZN	CQ	101	1/1	0.94	0.14	-0.97	120,120,120,120	0
55	MG	BA	3083	1/1	0.86	0.12	-0.97	62,62,62,62	0
56	ZN	AQ	102	1/1	0.98	0.09	-1.11	122,122,122,122	0
55	MG	CN	201	1/1	0.96	0.15	-1.14	74,74,74,74	0
55	MG	CA	1623	1/1	0.80	0.10	-1.19	90,90,90,90	0
55	MG	BA	3558	1/1	0.93	0.14	-1.21	63,63,63,63	0
55	MG	DA	3286	1/1	0.97	0.14	-1.24	47,47,47,47	0
55	MG	CG	302	1/1	0.86	0.14	-1.38	101,101,101,101	0
55	MG	BA	3250	1/1	0.82	0.15	-1.59	60,60,60,60	0
55	MG	BA	3224	1/1	0.94	0.11	-1.65	55,55,55,55	0
55	MG	BA	3490	1/1	0.28	0.08	-1.70	166,166,166,166	0
55	MG	BF	301	1/1	0.95	0.07	-2.03	73,73,73,73	0
55	MG	CA	1631	1/1	0.91	0.11	-2.14	81,81,81,81	0
55	MG	DA	3077	1/1	0.86	0.11	-2.39	64,64,64,64	0
55	MG	CA	1698	1/1	0.86	0.09	-2.48	107,107,107,107	0
55	MG	DA	3323	1/1	0.94	0.14	-3.01	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	1797	1/1	0.83	0.11	-3.05	99,99,99,99	0
55	MG	CA	1674	1/1	0.96	0.12	-3.38	70,70,70,70	0
55	MG	BA	3063	1/1	0.97	0.13	-3.58	43,43,43,43	0
55	MG	AA	1606	1/1	0.96	0.07	-5.21	91,91,91,91	0
55	MG	BA	3208	1/1	0.92	0.10	-5.66	45,45,45,45	0
55	MG	DA	3152	1/1	0.91	0.07	-7.21	67,67,67,67	0
55	MG	AA	1692	1/1	0.90	0.13	-	115,115,115,115	0
55	MG	BB	207	1/1	0.96	0.18	-	83,83,83,83	0
55	MG	BA	3474	1/1	0.91	0.43	-	80,80,80,80	0
55	MG	BA	3493	1/1	0.94	0.37	-	63,63,63,63	0
55	MG	AA	1642	1/1	0.95	0.68	-	72,72,72,72	0
55	MG	BA	3019	1/1	0.99	0.44	-	66,66,66,66	0
55	MG	BA	3491	1/1	0.95	0.53	-	42,42,42,42	0
55	MG	CA	1775	1/1	0.93	0.40	-	72,72,72,72	0
55	MG	BA	3151	1/1	0.56	0.27	-	83,83,83,83	0
55	MG	BA	3549	1/1	0.92	0.34	-	68,68,68,68	0
55	MG	BA	3527	1/1	0.70	0.55	-	93,93,93,93	0
55	MG	BA	3485	1/1	0.85	0.26	-	80,80,80,80	0
55	MG	AA	1634	1/1	0.97	0.29	-	62,62,62,62	0
55	MG	BA	3086	1/1	0.68	0.31	-	95,95,95,95	0
55	MG	CA	1725	1/1	0.87	0.24	-	86,86,86,86	0
55	MG	AA	1676	1/1	0.94	0.38	-	70,70,70,70	0
55	MG	DA	3279	1/1	0.90	0.24	-	84,84,84,84	0
55	MG	BA	3567	1/1	0.97	0.23	-	80,80,80,80	0
55	MG	BA	3568	1/1	0.94	0.39	-	83,83,83,83	0
55	MG	DA	3363	1/1	0.86	0.79	-	79,79,79,79	0
55	MG	CA	1656	1/1	0.84	0.30	-	92,92,92,92	0
55	MG	BA	3414	1/1	0.92	0.13	-	72,72,72,72	0
55	MG	BA	3489	1/1	0.88	0.24	-	70,70,70,70	0
55	MG	AA	1777	1/1	0.62	0.38	-	90,90,90,90	0
55	MG	DA	3089	1/1	0.93	0.54	-	82,82,82,82	0
55	MG	DA	3461	1/1	0.66	0.23	-	84,84,84,84	0
55	MG	DA	3357	1/1	0.51	0.29	-	96,96,96,96	0
55	MG	DA	3220	1/1	0.89	0.36	-	66,66,66,66	0
55	MG	AA	1820	1/1	0.77	0.30	-	75,75,75,75	0
55	MG	CA	1692	1/1	0.96	0.49	-	82,82,82,82	0
55	MG	DA	3182	1/1	0.99	0.81	-	44,44,44,44	0
55	MG	DA	3469	1/1	0.93	0.60	-	80,80,80,80	0
55	MG	DA	3273	1/1	0.66	0.19	-	99,99,99,99	0
55	MG	BA	3212	1/1	0.98	0.61	-	43,43,43,43	0
55	MG	BA	3045	1/1	0.98	0.41	-	45,45,45,45	0
55	MG	BA	3457	1/1	0.81	0.91	-	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	3141	1/1	0.97	0.52	-	38,38,38,38	0
55	MG	BA	3481	1/1	0.73	0.55	-	69,69,69,69	0
55	MG	DA	3045	1/1	0.78	0.54	-	94,94,94,94	0
55	MG	DA	3439	1/1	0.88	0.33	-	62,62,62,62	0
55	MG	BA	3466	1/1	0.75	0.44	-	97,97,97,97	0
55	MG	DA	3202	1/1	0.97	0.43	-	47,47,47,47	0
55	MG	AA	1821	1/1	0.88	0.23	-	75,75,75,75	0
55	MG	DA	3480	1/1	0.69	0.41	-	63,63,63,63	0
55	MG	BA	3278	1/1	0.91	0.42	-	81,81,81,81	0
55	MG	BE	305	1/1	0.88	0.42	-	71,71,71,71	0
55	MG	DA	3493	1/1	0.76	0.55	-	82,82,82,82	0
55	MG	DA	3334	1/1	0.94	0.56	-	68,68,68,68	0
55	MG	DA	3409	1/1	0.78	0.50	-	76,76,76,76	0
55	MG	AA	1719	1/1	0.81	0.60	-	79,79,79,79	0
55	MG	AA	1728	1/1	0.82	0.12	-	108,108,108,108	0
55	MG	DA	3377	1/1	0.88	0.22	-	98,98,98,98	0
55	MG	DA	3036	1/1	0.95	0.21	-	99,99,99,99	0
55	MG	AA	1826	1/1	0.73	0.12	-	101,101,101,101	0
55	MG	DA	3443	1/1	0.94	0.35	-	80,80,80,80	0
55	MG	AA	1799	1/1	0.94	0.33	-	78,78,78,78	0
55	MG	BA	3325	1/1	0.52	0.43	-	76,76,76,76	0
55	MG	DA	3123	1/1	0.79	0.25	-	83,83,83,83	0
55	MG	DA	3246	1/1	0.97	0.43	-	53,53,53,53	0
55	MG	CA	1660	1/1	0.69	0.17	-	85,85,85,85	0
55	MG	BA	3594	1/1	0.97	0.55	-	79,79,79,79	0
55	MG	BA	3366	1/1	0.80	1.04	-	94,94,94,94	0
55	MG	BA	3382	1/1	0.98	0.39	-	43,43,43,43	0
55	MG	CA	1641	1/1	0.74	0.29	-	66,66,66,66	0
55	MG	DA	3416	1/1	0.92	0.49	-	59,59,59,59	0
55	MG	DA	3002	1/1	0.83	0.33	-	93,93,93,93	0
55	MG	DA	3498	1/1	0.90	0.24	-	85,85,85,85	0
55	MG	DA	3434	1/1	0.87	0.15	-	74,74,74,74	0
55	MG	DA	3474	1/1	0.99	0.60	-	83,83,83,83	0
55	MG	DA	3368	1/1	0.88	0.72	-	73,73,73,73	0
55	MG	DA	3428	1/1	0.88	0.58	-	84,84,84,84	0
55	MG	BA	3280	1/1	0.94	0.52	-	50,50,50,50	0
55	MG	AA	1708	1/1	0.79	0.40	-	91,91,91,91	0
55	MG	DA	3240	1/1	0.98	0.55	-	42,42,42,42	0
55	MG	AA	1706	1/1	0.77	0.46	-	74,74,74,74	0
55	MG	DA	3338	1/1	0.70	0.32	-	86,86,86,86	0
55	MG	DA	3325	1/1	0.93	0.54	-	73,73,73,73	0
55	MG	CA	1772	1/1	0.84	0.29	-	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	1775	1/1	0.93	0.12	-	79,79,79,79	0
55	MG	DA	3030	1/1	0.92	0.40	-	74,74,74,74	0
55	MG	CA	1612	1/1	0.78	0.51	-	82,82,82,82	0
55	MG	BA	3577	1/1	0.94	0.18	-	73,73,73,73	0
55	MG	DA	3108	1/1	0.96	0.33	-	54,54,54,54	0
55	MG	BA	3246	1/1	0.91	0.40	-	68,68,68,68	0
55	MG	AA	1773	1/1	0.89	0.26	-	87,87,87,87	0
55	MG	CA	1687	1/1	0.89	0.17	-	89,89,89,89	0
55	MG	DA	3022	1/1	0.95	0.55	-	60,60,60,60	0
55	MG	AA	1778	1/1	0.87	0.14	-	106,106,106,106	0
55	MG	BA	3017	1/1	0.98	0.46	-	25,25,25,25	0
55	MG	BA	3010	1/1	0.96	0.41	-	46,46,46,46	0
55	MG	BA	3494	1/1	0.89	0.77	-	76,76,76,76	0
55	MG	BA	3188	1/1	0.97	0.37	-	60,60,60,60	0
55	MG	BA	3589	1/1	0.89	0.31	-	41,41,41,41	0
55	MG	AA	1782	1/1	0.73	0.19	-	96,96,96,96	0
55	MG	BA	3312	1/1	0.94	0.48	-	57,57,57,57	0
55	MG	DA	3088	1/1	0.74	0.24	-	96,96,96,96	0
55	MG	CA	1787	1/1	0.82	0.13	-	87,87,87,87	0
55	MG	AA	1616	1/1	0.77	0.18	-	94,94,94,94	0
55	MG	BA	3400	1/1	0.84	0.52	-	80,80,80,80	0
55	MG	BA	3587	1/1	0.90	0.32	-	64,64,64,64	0
55	MG	BA	3448	1/1	0.88	0.43	-	100,100,100,100	0
55	MG	AA	1657	1/1	0.97	0.45	-	50,50,50,50	0
55	MG	BA	3435	1/1	0.89	0.28	-	65,65,65,65	0
55	MG	AA	1801	1/1	0.91	0.50	-	84,84,84,84	0
55	MG	DA	3313	1/1	0.92	0.29	-	85,85,85,85	0
55	MG	AA	1684	1/1	0.84	0.18	-	90,90,90,90	0
55	MG	BA	3605	1/1	0.96	0.51	-	47,47,47,47	0
55	MG	BA	3131	1/1	0.99	0.32	-	59,59,59,59	0
55	MG	AA	1823	1/1	0.83	0.44	-	77,77,77,77	0
55	MG	DA	3042	1/1	0.62	0.50	-	81,81,81,81	0
55	MG	CA	1608	1/1	0.84	0.30	-	81,81,81,81	0
55	MG	AA	1780	1/1	0.95	0.26	-	86,86,86,86	0
55	MG	AA	1714	1/1	0.95	0.32	-	107,107,107,107	0
55	MG	BA	3445	1/1	0.88	0.35	-	79,79,79,79	0
55	MG	CA	1760	1/1	0.88	0.27	-	91,91,91,91	0
55	MG	BA	3252	1/1	0.83	0.43	-	67,67,67,67	0
55	MG	DA	3244	1/1	0.96	0.46	-	71,71,71,71	0
55	MG	BA	3327	1/1	0.74	0.20	-	70,70,70,70	0
55	MG	AA	1741	1/1	0.96	0.31	-	67,67,67,67	0
55	MG	AA	1654	1/1	0.92	0.44	-	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	BA	3597	1/1	0.82	0.23	-	79,79,79,79	0
55	MG	BA	3189	1/1	0.98	0.39	-	49,49,49,49	0
55	MG	DA	3485	1/1	0.74	0.20	-	81,81,81,81	0
55	MG	CC	104	1/1	0.75	0.59	-	89,89,89,89	0
55	MG	DA	3072	1/1	0.81	0.44	-	112,112,112,112	0
55	MG	AA	1695	1/1	0.94	0.23	-	90,90,90,90	0
55	MG	AA	1737	1/1	0.88	0.55	-	83,83,83,83	0
55	MG	CC	103	1/1	0.95	1.01	-	72,72,72,72	0
55	MG	BA	3391	1/1	0.85	0.46	-	86,86,86,86	0
55	MG	AA	1839	1/1	0.85	0.37	-	74,74,74,74	0
55	MG	AA	1707	1/1	0.98	0.58	-	50,50,50,50	0
55	MG	AA	1731	1/1	0.63	0.30	-	103,103,103,103	0
55	MG	AA	1620	1/1	0.95	0.28	-	66,66,66,66	0
55	MG	DA	3422	1/1	0.68	0.39	-	84,84,84,84	0
55	MG	BA	3057	1/1	0.70	0.14	-	70,70,70,70	0
55	MG	BA	3379	1/1	0.59	0.45	-	82,82,82,82	0
55	MG	AA	1781	1/1	0.71	0.44	-	94,94,94,94	0
55	MG	DA	3229	1/1	0.92	0.50	-	62,62,62,62	0
55	MG	CA	1723	1/1	0.86	0.07	-	86,86,86,86	0
55	MG	BA	3288	1/1	0.92	0.46	-	76,76,76,76	0
55	MG	BA	3165	1/1	0.94	0.56	-	61,61,61,61	0
55	MG	BA	3607	1/1	0.84	0.34	-	96,96,96,96	0
55	MG	BA	3277	1/1	0.81	0.30	-	86,86,86,86	0
55	MG	BA	3450	1/1	0.94	0.18	-	54,54,54,54	0
55	MG	DA	3437	1/1	0.90	0.20	-	87,87,87,87	0
55	MG	BA	3585	1/1	0.97	0.38	-	60,60,60,60	0
55	MG	CA	1639	1/1	0.89	0.36	-	95,95,95,95	0
55	MG	BA	3225	1/1	0.89	0.17	-	65,65,65,65	0
55	MG	BA	3336	1/1	0.90	0.47	-	66,66,66,66	0
55	MG	BA	3368	1/1	0.75	0.30	-	88,88,88,88	0
55	MG	BA	3339	1/1	0.77	0.58	-	88,88,88,88	0
55	MG	CA	1732	1/1	0.80	0.21	-	109,109,109,109	0
55	MG	BA	3612	1/1	0.94	0.44	-	66,66,66,66	0
55	MG	DA	3382	1/1	0.96	0.52	-	78,78,78,78	0
55	MG	CA	1795	1/1	0.96	0.29	-	76,76,76,76	0
55	MG	BA	3536	1/1	0.78	0.68	-	73,73,73,73	0
55	MG	DA	3028	1/1	0.68	0.22	-	101,101,101,101	0
55	MG	AA	1750	1/1	0.97	0.54	-	62,62,62,62	0
55	MG	DA	3171	1/1	0.98	0.34	-	63,63,63,63	0
55	MG	DA	3342	1/1	0.84	0.42	-	82,82,82,82	0
55	MG	DA	3347	1/1	0.84	0.12	-	75,75,75,75	0
55	MG	BA	3569	1/1	0.88	0.54	-	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	DA	3448	1/1	0.81	0.71	-	79,79,79,79	0
55	MG	AA	1726	1/1	0.95	0.48	-	81,81,81,81	0
55	MG	DA	3238	1/1	0.95	0.42	-	60,60,60,60	0
55	MG	DA	3526	1/1	0.88	0.31	-	68,68,68,68	0
55	MG	DA	3035	1/1	0.94	0.26	-	62,62,62,62	0
55	MG	CA	1742	1/1	0.88	0.15	-	97,97,97,97	0
55	MG	AA	1669	1/1	0.95	0.43	-	68,68,68,68	0
55	MG	BA	3350	1/1	0.84	0.32	-	55,55,55,55	0
55	MG	BA	3026	1/1	0.96	0.31	-	47,47,47,47	0
55	MG	BU	201	1/1	0.96	0.25	-	81,81,81,81	0
55	MG	CA	1677	1/1	0.81	0.42	-	73,73,73,73	0
55	MG	BA	3561	1/1	0.97	0.31	-	74,74,74,74	0
55	MG	BA	3476	1/1	0.82	0.26	-	81,81,81,81	0
55	MG	BA	3255	1/1	0.98	0.38	-	46,46,46,46	0
55	MG	CA	1670	1/1	0.94	0.49	-	56,56,56,56	0
55	MG	BA	3438	1/1	0.81	0.41	-	91,91,91,91	0
55	MG	CA	1703	1/1	0.93	0.27	-	94,94,94,94	0
55	MG	BA	3243	1/1	0.96	0.48	-	48,48,48,48	0
55	MG	DU	201	1/1	0.81	0.15	-	72,72,72,72	0
55	MG	DA	3402	1/1	0.68	0.32	-	101,101,101,101	0
55	MG	CA	1779	1/1	0.94	0.33	-	72,72,72,72	0
55	MG	DA	3391	1/1	0.89	0.23	-	78,78,78,78	0
55	MG	DA	3370	1/1	0.86	0.10	-	67,67,67,67	0
55	MG	B2	201	1/1	0.86	0.42	-	85,85,85,85	0
55	MG	BA	3254	1/1	0.96	0.34	-	43,43,43,43	0
55	MG	DA	3117	1/1	0.85	0.38	-	78,78,78,78	0
55	MG	DA	3252	1/1	0.97	0.32	-	64,64,64,64	0
55	MG	BA	3395	1/1	0.88	0.31	-	72,72,72,72	0
55	MG	AA	1687	1/1	0.93	0.32	-	72,72,72,72	0
55	MG	BA	3451	1/1	0.90	0.48	-	65,65,65,65	0
55	MG	CA	1602	1/1	0.92	0.28	-	80,80,80,80	0
55	MG	BA	3447	1/1	0.89	0.49	-	71,71,71,71	0
55	MG	BF	302	1/1	0.88	0.22	-	72,72,72,72	0
55	MG	DA	3463	1/1	0.99	0.20	-	73,73,73,73	0
55	MG	BA	3123	1/1	0.98	0.21	-	51,51,51,51	0
55	MG	CA	1759	1/1	0.67	0.37	-	103,103,103,103	0
55	MG	BA	3506	1/1	0.87	0.37	-	78,78,78,78	0
55	MG	CA	1780	1/1	0.85	0.32	-	88,88,88,88	0
55	MG	DA	3356	1/1	0.84	0.29	-	67,67,67,67	0
55	MG	DA	3091	1/1	0.79	0.31	-	92,92,92,92	0
55	MG	BA	3285	1/1	0.86	0.35	-	72,72,72,72	0
55	MG	BA	3143	1/1	0.94	0.68	-	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	BA	3534	1/1	0.75	0.30	-	79,79,79,79	0
55	MG	CA	1636	1/1	0.83	0.27	-	78,78,78,78	0
55	MG	BA	3175	1/1	0.81	0.52	-	69,69,69,69	0
55	MG	DA	3477	1/1	0.84	0.60	-	89,89,89,89	0
55	MG	AA	1740	1/1	0.93	0.18	-	75,75,75,75	0
55	MG	DA	3151	1/1	0.61	0.25	-	85,85,85,85	0
55	MG	AA	1723	1/1	0.84	0.32	-	84,84,84,84	0
55	MG	DA	3025	1/1	0.82	1.38	-	84,84,84,84	0
55	MG	DA	3424	1/1	0.72	0.73	-	70,70,70,70	0
55	MG	BA	3147	1/1	0.95	0.15	-	55,55,55,55	0
55	MG	BA	3408	1/1	0.76	0.45	-	87,87,87,87	0
55	MG	CA	1626	1/1	0.81	0.18	-	93,93,93,93	0
55	MG	DA	3078	1/1	0.77	0.37	-	89,89,89,89	0
55	MG	DA	3312	1/1	0.77	0.29	-	85,85,85,85	0
55	MG	DA	3483	1/1	0.84	0.15	-	90,90,90,90	0
55	MG	BA	3301	1/1	0.81	0.32	-	76,76,76,76	0
55	MG	DA	3475	1/1	0.84	0.35	-	88,88,88,88	0
55	MG	DA	3211	1/1	0.98	0.49	-	42,42,42,42	0
55	MG	DA	3142	1/1	0.99	0.52	-	40,40,40,40	0
55	MG	BA	3236	1/1	0.93	0.44	-	52,52,52,52	0
55	MG	CA	1763	1/1	0.59	0.47	-	91,91,91,91	0
55	MG	CA	1615	1/1	0.88	0.22	-	81,81,81,81	0
55	MG	BA	3149	1/1	0.93	0.20	-	80,80,80,80	0
55	MG	DA	3518	1/1	0.91	0.41	-	83,83,83,83	0
55	MG	BA	3593	1/1	0.90	0.26	-	80,80,80,80	0
55	MG	DA	3417	1/1	0.81	0.22	-	81,81,81,81	0
55	MG	DA	3516	1/1	0.92	0.33	-	105,105,105,105	0
55	MG	DA	3306	1/1	0.86	0.54	-	65,65,65,65	0
55	MG	DA	3304	1/1	0.55	0.37	-	85,85,85,85	0
55	MG	DA	3511	1/1	0.89	0.43	-	76,76,76,76	0
55	MG	BA	3437	1/1	0.90	0.42	-	67,67,67,67	0
55	MG	CA	1671	1/1	0.96	0.56	-	49,49,49,49	0
55	MG	DA	3249	1/1	0.95	0.40	-	72,72,72,72	0
55	MG	BA	3292	1/1	0.90	0.40	-	85,85,85,85	0
55	MG	DA	3329	1/1	0.96	0.35	-	44,44,44,44	0
55	MG	CA	1638	1/1	0.71	0.34	-	101,101,101,101	0
55	MG	AA	1622	1/1	0.94	0.23	-	76,76,76,76	0
55	MG	DA	3464	1/1	0.50	0.49	-	98,98,98,98	0
55	MG	CA	1720	1/1	0.83	0.49	-	102,102,102,102	0
55	MG	BA	3218	1/1	0.94	0.54	-	48,48,48,48	0
55	MG	DA	3327	1/1	0.82	0.34	-	61,61,61,61	0
55	MG	BA	3351	1/1	0.92	0.96	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	AA	1841	1/1	0.98	0.38	-	59,59,59,59	0
55	MG	AA	1607	1/1	0.91	0.22	-	89,89,89,89	0
55	MG	CA	1614	1/1	0.73	0.38	-	86,86,86,86	0
55	MG	BA	3618	1/1	0.91	0.47	-	73,73,73,73	0
55	MG	DA	3216	1/1	0.95	0.30	-	49,49,49,49	0
55	MG	DA	3431	1/1	0.80	0.43	-	91,91,91,91	0
55	MG	DA	3484	1/1	0.83	0.40	-	83,83,83,83	0
55	MG	AA	1630	1/1	0.68	0.16	-	101,101,101,101	0
55	MG	DA	3419	1/1	0.78	0.45	-	84,84,84,84	0
55	MG	BA	3432	1/1	0.78	0.32	-	80,80,80,80	0
55	MG	CA	1696	1/1	0.67	0.37	-	91,91,91,91	0
55	MG	CA	1740	1/1	0.80	0.33	-	68,68,68,68	0
55	MG	AA	1734	1/1	0.89	0.19	-	96,96,96,96	0
55	MG	DA	3060	1/1	0.90	0.86	-	73,73,73,73	0
55	MG	BA	3041	1/1	0.99	0.31	-	46,46,46,46	0
55	MG	BA	3601	1/1	0.91	0.20	-	85,85,85,85	0
55	MG	BA	3364	1/1	0.87	0.45	-	82,82,82,82	0
55	MG	AA	1670	1/1	0.95	0.38	-	63,63,63,63	0
55	MG	DB	213	1/1	0.45	0.16	-	94,94,94,94	0
55	MG	BA	3213	1/1	0.97	0.56	-	49,49,49,49	0
55	MG	AA	1816	1/1	0.84	0.24	-	81,81,81,81	0
55	MG	CA	1645	1/1	0.74	0.22	-	86,86,86,86	0
55	MG	DA	3521	1/1	0.95	0.58	-	69,69,69,69	0
55	MG	BA	3576	1/1	0.95	0.41	-	74,74,74,74	0
55	MG	DA	3300	1/1	0.92	0.27	-	81,81,81,81	0
55	MG	BA	3413	1/1	0.93	0.52	-	78,78,78,78	0
55	MG	DA	3298	1/1	0.76	0.33	-	77,77,77,77	0
55	MG	BA	3338	1/1	0.92	0.21	-	71,71,71,71	0
55	MG	BA	3458	1/1	0.92	0.12	-	82,82,82,82	0
55	MG	DA	3208	1/1	0.93	0.47	-	74,74,74,74	0
55	MG	DA	3020	1/1	0.69	0.32	-	85,85,85,85	0
55	MG	AA	1611	1/1	0.79	0.18	-	92,92,92,92	0
55	MG	BA	3105	1/1	0.92	0.32	-	75,75,75,75	0
55	MG	DA	3013	1/1	0.95	0.53	-	56,56,56,56	0
55	MG	BA	3101	1/1	0.92	0.64	-	63,63,63,63	0
55	MG	AA	1612	1/1	0.71	0.14	-	91,91,91,91	0
55	MG	AA	1756	1/1	0.92	0.22	-	69,69,69,69	0
55	MG	BA	3015	1/1	0.98	0.34	-	38,38,38,38	0
55	MG	DA	3515	1/1	0.87	0.63	-	82,82,82,82	0
55	MG	DA	3496	1/1	0.90	0.24	-	83,83,83,83	0
55	MG	BA	3434	1/1	0.92	0.51	-	75,75,75,75	0
55	MG	DA	3346	1/1	0.79	0.58	-	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	DA	3386	1/1	0.94	0.48	-	61,61,61,61	0
55	MG	DB	210	1/1	0.82	0.38	-	71,71,71,71	0
55	MG	AA	1838	1/1	0.94	0.41	-	61,61,61,61	0
55	MG	DA	3017	1/1	0.91	0.37	-	75,75,75,75	0
55	MG	BA	3265	1/1	0.82	0.74	-	60,60,60,60	0
55	MG	DA	3243	1/1	0.95	0.51	-	79,79,79,79	0
55	MG	DA	3414	1/1	0.92	0.31	-	85,85,85,85	0
55	MG	DA	3491	1/1	0.46	0.61	-	103,103,103,103	0
55	MG	BA	3117	1/1	0.96	0.49	-	60,60,60,60	0
55	MG	AA	1627	1/1	0.98	0.32	-	53,53,53,53	0
55	MG	DA	3064	1/1	0.59	0.43	-	101,101,101,101	0
55	MG	DA	3487	1/1	0.37	0.39	-	95,95,95,95	0
55	MG	CA	1652	1/1	0.91	0.33	-	71,71,71,71	0
55	MG	AA	1798	1/1	0.95	0.25	-	58,58,58,58	0
55	MG	DA	3027	1/1	0.89	0.23	-	77,77,77,77	0
55	MG	BA	3200	1/1	0.93	0.39	-	62,62,62,62	0
55	MG	BA	3030	1/1	0.97	0.54	-	44,44,44,44	0
55	MG	BA	3545	1/1	0.92	0.38	-	69,69,69,69	0
55	MG	CA	1709	1/1	0.72	0.50	-	108,108,108,108	0
55	MG	BA	3337	1/1	0.94	0.30	-	72,72,72,72	0
55	MG	BA	3038	1/1	0.90	0.40	-	56,56,56,56	0
55	MG	BA	3215	1/1	0.85	0.48	-	74,74,74,74	0
55	MG	AC	105	1/1	0.85	0.50	-	93,93,93,93	0
55	MG	DA	3407	1/1	0.91	0.42	-	73,73,73,73	0
55	MG	DA	3044	1/1	0.91	0.29	-	73,73,73,73	0
55	MG	BA	3182	1/1	0.97	0.33	-	43,43,43,43	0
55	MG	BA	3107	1/1	0.95	0.43	-	36,36,36,36	0
55	MG	BA	3453	1/1	0.97	0.57	-	60,60,60,60	0
55	MG	AA	1748	1/1	0.92	0.42	-	84,84,84,84	0
55	MG	DA	3352	1/1	0.89	0.65	-	64,64,64,64	0
55	MG	AA	1818	1/1	0.95	0.60	-	76,76,76,76	0
55	MG	BA	3299	1/1	0.92	0.49	-	89,89,89,89	0
55	MG	BA	3205	1/1	0.91	0.33	-	80,80,80,80	0
55	MG	BA	3237	1/1	0.95	0.49	-	57,57,57,57	0
55	MG	AA	1827	1/1	0.95	0.28	-	87,87,87,87	0
55	MG	CA	1721	1/1	0.93	0.20	-	80,80,80,80	0
55	MG	DA	3384	1/1	0.85	0.42	-	65,65,65,65	0
55	MG	AA	1680	1/1	0.68	0.29	-	80,80,80,80	0
55	MG	BA	3454	1/1	0.94	0.36	-	92,92,92,92	0
55	MG	BA	3425	1/1	0.89	0.51	-	91,91,91,91	0
55	MG	BA	3467	1/1	0.74	0.32	-	78,78,78,78	0
55	MG	CC	106	1/1	0.96	0.60	-	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	3309	1/1	0.84	0.21	-	94,94,94,94	0
55	MG	BA	3333	1/1	0.92	0.47	-	80,80,80,80	0
55	MG	BA	3517	1/1	0.84	0.54	-	70,70,70,70	0
55	MG	DA	3509	1/1	0.85	0.41	-	64,64,64,64	0
55	MG	AA	1617	1/1	0.80	0.50	-	69,69,69,69	0
55	MG	BB	213	1/1	0.94	0.45	-	66,66,66,66	0
55	MG	BA	3112	1/1	0.85	0.28	-	77,77,77,77	0
55	MG	BA	3177	1/1	0.95	0.51	-	57,57,57,57	0
55	MG	BB	211	1/1	0.94	0.28	-	92,92,92,92	0
55	MG	AA	1664	1/1	0.90	0.20	-	45,45,45,45	0
55	MG	AA	1743	1/1	0.88	0.11	-	107,107,107,107	0
55	MG	BA	3282	1/1	0.74	0.09	-	83,83,83,83	0
55	MG	BA	3209	1/1	0.96	0.47	-	39,39,39,39	0
55	MG	BA	3242	1/1	0.94	0.44	-	50,50,50,50	0
55	MG	BA	3071	1/1	0.91	0.23	-	70,70,70,70	0
55	MG	BA	3318	1/1	0.91	0.53	-	75,75,75,75	0
55	MG	CA	1601	1/1	0.87	0.31	-	96,96,96,96	0
55	MG	AC	109	1/1	0.88	0.41	-	82,82,82,82	0
55	MG	DA	3106	1/1	0.98	0.41	-	48,48,48,48	0
55	MG	AA	1615	1/1	0.89	0.55	-	105,105,105,105	0
55	MG	AA	1751	1/1	0.54	0.29	-	98,98,98,98	0
55	MG	DA	3041	1/1	0.86	0.41	-	86,86,86,86	0
55	MG	BA	3421	1/1	0.90	0.35	-	62,62,62,62	0
55	MG	CA	1799	1/1	0.97	0.31	-	96,96,96,96	0
55	MG	BA	3479	1/1	0.87	0.46	-	82,82,82,82	0
55	MG	CC	108	1/1	0.91	0.56	-	106,106,106,106	0
55	MG	BA	3048	1/1	0.92	0.54	-	77,77,77,77	0
55	MG	CA	1689	1/1	0.48	0.29	-	89,89,89,89	0
55	MG	AA	1715	1/1	0.57	0.27	-	115,115,115,115	0
55	MG	CA	1701	1/1	0.92	0.42	-	88,88,88,88	0
55	MG	AA	1730	1/1	0.81	0.42	-	78,78,78,78	0
55	MG	BA	3503	1/1	0.88	0.20	-	65,65,65,65	0
55	MG	BA	3424	1/1	0.88	0.65	-	72,72,72,72	0
55	MG	BA	3497	1/1	0.87	0.21	-	71,71,71,71	0
55	MG	CA	1733	1/1	0.91	0.43	-	69,69,69,69	0
55	MG	DA	3209	1/1	0.97	0.50	-	66,66,66,66	0
55	MG	AA	1746	1/1	0.95	0.41	-	84,84,84,84	0
55	MG	CA	1655	1/1	0.90	0.37	-	87,87,87,87	0
55	MG	BA	3495	1/1	0.85	0.25	-	123,123,123,123	0
55	MG	AA	1694	1/1	0.88	0.12	-	91,91,91,91	0
55	MG	BA	3525	1/1	0.95	0.28	-	77,77,77,77	0
55	MG	BA	3359	1/1	0.83	0.43	-	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	BA	3116	1/1	0.76	0.33	-	73,73,73,73	0
55	MG	DA	3004	1/1	0.83	0.48	-	99,99,99,99	0
55	MG	BA	3161	1/1	0.82	0.22	-	56,56,56,56	0
55	MG	DA	3296	1/1	0.99	0.66	-	51,51,51,51	0
55	MG	BA	3272	1/1	0.67	0.16	-	94,94,94,94	0
55	MG	DA	3341	1/1	0.81	0.52	-	84,84,84,84	0
55	MG	BA	3330	1/1	0.81	0.29	-	79,79,79,79	0
55	MG	DA	3120	1/1	0.67	0.26	-	90,90,90,90	0
55	MG	BA	3540	1/1	0.91	0.30	-	61,61,61,61	0
55	MG	DA	3205	1/1	0.95	0.54	-	67,67,67,67	0
55	MG	B3	101	1/1	0.81	0.55	-	71,71,71,71	0
55	MG	DA	3154	1/1	0.89	0.32	-	69,69,69,69	0
55	MG	BA	3352	1/1	0.95	0.35	-	76,76,76,76	0
55	MG	BA	3228	1/1	0.94	0.62	-	72,72,72,72	0
55	MG	DA	3272	1/1	0.94	0.28	-	64,64,64,64	0
55	MG	BA	3251	1/1	0.96	0.39	-	68,68,68,68	0
55	MG	DA	3353	1/1	0.72	0.75	-	93,93,93,93	0
55	MG	BA	3127	1/1	0.91	0.59	-	53,53,53,53	0
55	MG	BA	3523	1/1	0.86	0.60	-	70,70,70,70	0
55	MG	DA	3116	1/1	0.98	0.40	-	74,74,74,74	0
55	MG	BA	3455	1/1	0.87	0.24	-	76,76,76,76	0
55	MG	AA	1791	1/1	0.82	0.11	-	109,109,109,109	0
55	MG	BA	3553	1/1	0.91	0.22	-	78,78,78,78	0
55	MG	BA	3194	1/1	0.92	0.42	-	68,68,68,68	0
55	MG	BA	3283	1/1	0.98	0.38	-	49,49,49,49	0
55	MG	CA	1764	1/1	0.96	0.54	-	72,72,72,72	0
55	MG	DA	3148	1/1	0.94	0.48	-	75,75,75,75	0
55	MG	BA	3311	1/1	0.92	0.30	-	83,83,83,83	0
55	MG	BA	3324	1/1	0.72	0.50	-	73,73,73,73	0
55	MG	BA	3498	1/1	0.94	0.33	-	85,85,85,85	0
55	MG	DA	3478	1/1	0.81	0.32	-	80,80,80,80	0
55	MG	D3	101	1/1	0.97	0.43	-	66,66,66,66	0
55	MG	AA	1696	1/1	0.79	0.29	-	88,88,88,88	0
55	MG	DA	3436	1/1	0.88	0.30	-	98,98,98,98	0
55	MG	DA	3405	1/1	0.88	0.47	-	79,79,79,79	0
55	MG	AA	1771	1/1	0.91	0.11	-	70,70,70,70	0
55	MG	BA	3502	1/1	0.88	0.26	-	67,67,67,67	0
55	MG	CA	1796	1/1	0.86	0.40	-	102,102,102,102	0
55	MG	CA	1681	1/1	0.81	0.52	-	72,72,72,72	0
55	MG	CA	1642	1/1	0.94	0.20	-	91,91,91,91	0
55	MG	CA	1753	1/1	0.85	0.26	-	123,123,123,123	0
55	MG	DA	3186	1/1	0.78	0.31	-	60,60,60,60	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	0.93	0.50	-	69,69,69,69	0
55	MG	DA	3514	1/1	0.90	0.68	-	59,59,59,59	0
55	MG	DA	3503	1/1	0.83	0.65	-	80,80,80,80	0
55	MG	BA	3468	1/1	0.92	0.32	-	77,77,77,77	0
55	MG	CA	1743	1/1	0.94	0.49	-	80,80,80,80	0
55	MG	BA	3606	1/1	0.68	0.35	-	77,77,77,77	0
55	MG	AA	1769	1/1	0.68	0.14	-	104,104,104,104	0
55	MG	CA	1632	1/1	0.72	0.30	-	95,95,95,95	0
55	MG	DA	3476	1/1	0.80	0.33	-	107,107,107,107	0
55	MG	DB	205	1/1	0.83	0.36	-	69,69,69,69	0
55	MG	DA	3056	1/1	0.91	0.44	-	81,81,81,81	0
55	MG	BA	3358	1/1	0.86	0.37	-	74,74,74,74	0
55	MG	CA	1715	1/1	0.89	0.25	-	104,104,104,104	0
55	MG	DA	3396	1/1	0.74	0.25	-	82,82,82,82	0
55	MG	DA	3048	1/1	0.89	0.49	-	75,75,75,75	0
55	MG	DA	3308	1/1	0.93	0.38	-	97,97,97,97	0
55	MG	DA	3361	1/1	0.85	0.71	-	79,79,79,79	0
55	MG	BA	3320	1/1	0.97	0.27	-	62,62,62,62	0
55	MG	BA	3073	1/1	0.76	0.42	-	82,82,82,82	0
55	MG	BA	3480	1/1	0.96	0.51	-	50,50,50,50	0
55	MG	BF	303	1/1	0.89	0.48	-	66,66,66,66	0
55	MG	BA	3586	1/1	0.82	0.35	-	63,63,63,63	0
55	MG	CA	1768	1/1	0.87	0.41	-	84,84,84,84	0
55	MG	DA	3267	1/1	0.93	0.36	-	64,64,64,64	0
55	MG	BA	3385	1/1	0.78	0.16	-	87,87,87,87	0
55	MG	CA	1707	1/1	0.88	0.57	-	98,98,98,98	0
55	MG	DA	3172	1/1	0.93	0.10	-	88,88,88,88	0
55	MG	CA	1736	1/1	0.95	0.73	-	79,79,79,79	0
55	MG	AA	1641	1/1	0.94	0.37	-	57,57,57,57	0
55	MG	DA	3012	1/1	0.94	0.50	-	66,66,66,66	0
55	MG	AA	1716	1/1	0.86	0.22	-	92,92,92,92	0
55	MG	DA	3007	1/1	0.81	0.25	-	74,74,74,74	0
55	MG	DB	214	1/1	0.88	0.19	-	96,96,96,96	0
55	MG	AA	1662	1/1	0.72	0.64	-	81,81,81,81	0
55	MG	CA	1662	1/1	0.83	0.24	-	90,90,90,90	0
55	MG	BA	3500	1/1	0.58	0.28	-	97,97,97,97	0
55	MG	DA	3343	1/1	0.91	0.36	-	95,95,95,95	0
55	MG	AA	1785	1/1	0.80	0.40	-	96,96,96,96	0
55	MG	BA	3486	1/1	0.93	0.41	-	80,80,80,80	0
55	MG	BA	3440	1/1	0.94	0.44	-	74,74,74,74	0
55	MG	CA	1710	1/1	0.98	0.28	-	106,106,106,106	0
55	MG	AA	1681	1/1	0.72	0.33	-	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3373	1/1	0.95	0.44	-	64,64,64,64	0
55	MG	AB	105	1/1	0.76	0.19	-	110,110,110,110	0
55	MG	BA	3369	1/1	0.93	0.30	-	73,73,73,73	0
55	MG	CA	1734	1/1	0.79	0.25	-	93,93,93,93	0
55	MG	DA	3333	1/1	0.81	0.52	-	87,87,87,87	0
55	MG	BA	3513	1/1	0.91	0.41	-	90,90,90,90	0
55	MG	BA	3349	1/1	0.68	0.43	-	97,97,97,97	0
55	MG	BA	3170	1/1	0.95	0.48	-	55,55,55,55	0
55	MG	BA	3371	1/1	0.86	0.31	-	70,70,70,70	0
55	MG	BA	3397	1/1	0.71	0.24	-	81,81,81,81	0
55	MG	DA	3289	1/1	0.94	0.43	-	90,90,90,90	0
55	MG	BA	3331	1/1	0.89	0.42	-	65,65,65,65	0
55	MG	AA	1808	1/1	0.90	0.53	-	76,76,76,76	0
55	MG	DA	3291	1/1	0.87	0.59	-	65,65,65,65	0
55	MG	BA	3023	1/1	0.99	0.36	-	45,45,45,45	0
55	MG	BA	3531	1/1	0.88	0.36	-	53,53,53,53	0
55	MG	AA	1677	1/1	0.82	0.32	-	87,87,87,87	0
55	MG	BA	3522	1/1	0.95	0.48	-	82,82,82,82	0
55	MG	AA	1690	1/1	0.71	0.17	-	96,96,96,96	0
55	MG	AA	1805	1/1	0.92	0.35	-	65,65,65,65	0
55	MG	DA	3179	1/1	0.90	0.32	-	70,70,70,70	0
55	MG	DA	3350	1/1	0.67	0.25	-	91,91,91,91	0
55	MG	DA	3001	1/1	0.96	0.46	-	67,67,67,67	0
55	MG	BA	3383	1/1	0.98	0.22	-	71,71,71,71	0
55	MG	BA	3469	1/1	0.91	0.30	-	60,60,60,60	0
55	MG	DA	3082	1/1	0.92	0.38	-	91,91,91,91	0
55	MG	BA	3390	1/1	0.98	0.31	-	60,60,60,60	0
55	MG	AA	1693	1/1	0.88	0.16	-	87,87,87,87	0
55	MG	CA	1712	1/1	0.83	0.53	-	86,86,86,86	0
55	MG	DA	3259	1/1	0.91	0.26	-	72,72,72,72	0
55	MG	BA	3150	1/1	0.94	0.44	-	36,36,36,36	0
55	MG	CA	1724	1/1	0.94	0.51	-	84,84,84,84	0
55	MG	CA	1699	1/1	0.76	0.27	-	97,97,97,97	0
55	MG	BA	3449	1/1	0.90	0.36	-	80,80,80,80	0
55	MG	DA	3362	1/1	0.93	0.61	-	53,53,53,53	0
55	MG	DA	3153	1/1	0.95	0.31	-	70,70,70,70	0
55	MG	AA	1800	1/1	0.96	0.31	-	82,82,82,82	0
55	MG	BA	3217	1/1	0.90	0.31	-	52,52,52,52	0
55	MG	BA	3604	1/1	0.96	0.11	-	61,61,61,61	0
55	MG	BA	3291	1/1	0.86	0.39	-	72,72,72,72	0
55	MG	BA	3515	1/1	0.94	0.21	-	72,72,72,72	0
55	MG	DA	3058	1/1	0.79	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	3084	1/1	0.80	0.53	-	82,82,82,82	0
55	MG	DA	3423	1/1	0.94	0.89	-	75,75,75,75	0
55	MG	DA	3071	1/1	0.93	0.24	-	81,81,81,81	0
55	MG	BA	3079	1/1	0.98	0.41	-	55,55,55,55	0
55	MG	BA	3370	1/1	0.82	0.46	-	56,56,56,56	0
55	MG	AA	1811	1/1	0.96	0.50	-	67,67,67,67	0
55	MG	CA	1705	1/1	0.94	0.47	-	80,80,80,80	0
55	MG	BA	3214	1/1	0.92	0.55	-	67,67,67,67	0
55	MG	DA	3425	1/1	0.74	0.25	-	81,81,81,81	0
55	MG	AA	1784	1/1	0.97	0.47	-	66,66,66,66	0
55	MG	AA	1637	1/1	0.82	0.18	-	98,98,98,98	0
55	MG	AA	1831	1/1	0.91	0.45	-	90,90,90,90	0
55	MG	DB	209	1/1	0.85	0.20	-	92,92,92,92	0
55	MG	DA	3207	1/1	0.93	0.57	-	66,66,66,66	0
55	MG	BA	3072	1/1	0.76	0.29	-	77,77,77,77	0
55	MG	DA	3282	1/1	0.94	0.44	-	69,69,69,69	0
55	MG	CA	1704	1/1	0.89	0.28	-	99,99,99,99	0
55	MG	CA	1790	1/1	0.84	0.19	-	110,110,110,110	0
55	MG	DA	3039	1/1	0.94	0.33	-	85,85,85,85	0
55	MG	BA	3166	1/1	0.84	0.62	-	72,72,72,72	0
55	MG	DA	3189	1/1	0.95	0.50	-	41,41,41,41	0
55	MG	BA	3566	1/1	0.91	0.29	-	88,88,88,88	0
55	MG	CA	1683	1/1	0.79	0.41	-	87,87,87,87	0
55	MG	BA	3461	1/1	0.39	0.27	-	91,91,91,91	0
55	MG	AA	1759	1/1	0.84	0.36	-	77,77,77,77	0
55	MG	DA	3345	1/1	0.95	0.39	-	64,64,64,64	0
55	MG	BA	3142	1/1	0.96	0.37	-	51,51,51,51	0
55	MG	CA	1611	1/1	0.87	0.89	-	93,93,93,93	0
55	MG	AA	1788	1/1	0.92	0.52	-	77,77,77,77	0
55	MG	AA	1646	1/1	0.96	0.41	-	67,67,67,67	0
55	MG	BA	3239	1/1	0.93	0.27	-	74,74,74,74	0
55	MG	BA	3431	1/1	0.74	0.71	-	88,88,88,88	0
55	MG	B5	101	1/1	0.94	0.35	-	45,45,45,45	0
55	MG	DA	3315	1/1	0.23	0.28	-	108,108,108,108	0
55	MG	DA	3075	1/1	0.82	0.35	-	79,79,79,79	0
55	MG	AA	1817	1/1	0.87	0.21	-	85,85,85,85	0
55	MG	DA	3512	1/1	0.80	0.48	-	75,75,75,75	0
55	MG	DA	3016	1/1	0.95	0.43	-	78,78,78,78	0
55	MG	CA	1735	1/1	0.94	0.20	-	89,89,89,89	0
55	MG	DA	3003	1/1	0.90	0.29	-	64,64,64,64	0
55	MG	BA	3013	1/1	0.98	0.43	-	34,34,34,34	0
55	MG	DA	3294	1/1	0.91	0.23	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	CA	1637	1/1	0.75	0.34	-	79,79,79,79	0
55	MG	AA	1618	1/1	0.84	0.27	-	82,82,82,82	0
55	MG	BA	3419	1/1	0.92	0.53	-	85,85,85,85	0
55	MG	BA	3221	1/1	0.96	0.37	-	60,60,60,60	0
55	MG	BA	3396	1/1	0.86	0.19	-	82,82,82,82	0
55	MG	BA	3535	1/1	0.90	0.44	-	80,80,80,80	0
55	MG	BA	3533	1/1	0.79	0.57	-	72,72,72,72	0
55	MG	DA	3093	1/1	0.91	0.20	-	80,80,80,80	0
55	MG	DA	3008	1/1	0.96	0.38	-	70,70,70,70	0
55	MG	DA	3051	1/1	0.84	0.27	-	85,85,85,85	0
55	MG	CA	1643	1/1	0.89	0.49	-	82,82,82,82	0
55	MG	CA	1800	1/1	0.87	0.32	-	78,78,78,78	0
55	MG	BA	3009	1/1	0.98	0.33	-	36,36,36,36	0
55	MG	BA	3571	1/1	0.80	0.36	-	92,92,92,92	0
55	MG	CA	1620	1/1	0.93	0.46	-	64,64,64,64	0
55	MG	DA	3322	1/1	0.92	0.54	-	70,70,70,70	0
55	MG	BA	3222	1/1	0.84	0.33	-	89,89,89,89	0
55	MG	CA	1793	1/1	0.95	0.34	-	91,91,91,91	0
55	MG	DA	3408	1/1	0.89	0.11	-	73,73,73,73	0
55	MG	BA	3356	1/1	0.86	0.51	-	70,70,70,70	0
55	MG	AA	1772	1/1	0.52	0.55	-	85,85,85,85	0
55	MG	BA	3281	1/1	0.90	0.54	-	72,72,72,72	0
55	MG	CA	1702	1/1	0.78	0.41	-	78,78,78,78	0
55	MG	DA	3441	1/1	0.53	0.10	-	137,137,137,137	0
55	MG	DA	3468	1/1	0.84	0.42	-	92,92,92,92	0
55	MG	DA	3268	1/1	0.93	0.48	-	69,69,69,69	0
55	MG	AA	1833	1/1	0.93	0.44	-	88,88,88,88	0
55	MG	DA	3241	1/1	0.96	0.47	-	46,46,46,46	0
55	MG	AB	101	1/1	0.84	0.28	-	90,90,90,90	0
55	MG	BO	202	1/1	0.89	0.23	-	37,37,37,37	0
55	MG	BA	3070	1/1	0.92	0.13	-	63,63,63,63	0
55	MG	CA	1738	1/1	0.96	0.41	-	63,63,63,63	0
55	MG	AA	1609	1/1	0.99	0.41	-	78,78,78,78	0
55	MG	BA	3599	1/1	0.94	0.47	-	69,69,69,69	0
55	MG	DA	3465	1/1	0.71	0.34	-	74,74,74,74	0
55	MG	DA	3293	1/1	0.91	0.47	-	75,75,75,75	0
55	MG	DA	3429	1/1	0.55	0.33	-	99,99,99,99	0
55	MG	DA	3348	1/1	0.90	0.60	-	73,73,73,73	0
55	MG	DA	3517	1/1	0.66	0.40	-	84,84,84,84	0
55	MG	BA	3488	1/1	0.91	0.36	-	80,80,80,80	0
55	MG	BA	3317	1/1	0.77	0.73	-	89,89,89,89	0
55	MG	BA	3266	1/1	0.87	0.41	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3417	1/1	0.73	0.27	-	99,99,99,99	0
55	MG	DA	3379	1/1	0.94	0.44	-	85,85,85,85	0
55	MG	CA	1718	1/1	0.91	0.07	-	92,92,92,92	0
55	MG	AC	102	1/1	0.88	0.67	-	93,93,93,93	0
55	MG	BB	210	1/1	0.79	0.40	-	64,64,64,64	0
55	MG	BA	3099	1/1	0.93	0.58	-	67,67,67,67	0
55	MG	AA	1803	1/1	0.84	0.29	-	91,91,91,91	0
55	MG	BA	3551	1/1	0.86	0.40	-	87,87,87,87	0
55	MG	DA	3482	1/1	0.87	0.45	-	81,81,81,81	0
55	MG	AB	103	1/1	0.69	0.30	-	111,111,111,111	0
55	MG	BA	3357	1/1	0.86	0.56	-	81,81,81,81	0
55	MG	BA	3578	1/1	0.87	0.35	-	81,81,81,81	0
55	MG	BA	3422	1/1	0.94	0.26	-	78,78,78,78	0
55	MG	AA	1666	1/1	0.94	0.52	-	62,62,62,62	0
55	MG	DA	3010	1/1	0.61	0.40	-	97,97,97,97	0
55	MG	BA	3118	1/1	0.88	0.42	-	61,61,61,61	0
55	MG	DA	3403	1/1	0.80	0.47	-	76,76,76,76	0
55	MG	BA	3402	1/1	0.72	0.27	-	91,91,91,91	0
55	MG	AA	1629	1/1	0.93	0.12	-	86,86,86,86	0
55	MG	BA	3544	1/1	0.90	0.41	-	72,72,72,72	0
55	MG	BA	3520	1/1	0.92	0.46	-	44,44,44,44	0
55	MG	DA	3455	1/1	0.87	0.29	-	69,69,69,69	0
55	MG	DA	3520	1/1	0.87	0.83	-	76,76,76,76	0
55	MG	BA	3047	1/1	0.94	0.41	-	74,74,74,74	0
55	MG	AB	104	1/1	0.89	0.35	-	82,82,82,82	0
55	MG	DA	3098	1/1	0.86	0.46	-	68,68,68,68	0
55	MG	CA	1801	1/1	0.83	0.28	-	89,89,89,89	0
55	MG	AC	106	1/1	0.83	0.56	-	89,89,89,89	0
55	MG	CA	1782	1/1	0.92	0.38	-	93,93,93,93	0
55	MG	CA	1783	1/1	0.85	0.47	-	100,100,100,100	0
55	MG	BA	3128	1/1	0.98	0.50	-	46,46,46,46	0
55	MG	DA	3292	1/1	0.85	0.24	-	89,89,89,89	0
55	MG	DA	3471	1/1	0.88	0.43	-	80,80,80,80	0
55	MG	AA	1757	1/1	0.84	0.06	-	110,110,110,110	0
55	MG	DA	3026	1/1	0.87	0.43	-	95,95,95,95	0
55	MG	BA	3167	1/1	0.89	0.38	-	73,73,73,73	0
55	MG	CA	1713	1/1	0.88	0.57	-	102,102,102,102	0
55	MG	AA	1793	1/1	0.85	0.39	-	73,73,73,73	0
55	MG	BA	3087	1/1	0.71	0.38	-	77,77,77,77	0
55	MG	AA	1647	1/1	0.77	0.36	-	88,88,88,88	0
55	MG	AA	1672	1/1	0.94	0.33	-	87,87,87,87	0
55	MG	AA	1668	1/1	0.90	0.63	-	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	AA	1626	1/1	0.86	0.46	-	69,69,69,69	0
55	MG	BA	3596	1/1	0.91	0.46	-	55,55,55,55	0
55	MG	DA	3040	1/1	0.88	0.14	-	81,81,81,81	0
55	MG	CA	1603	1/1	0.97	0.35	-	77,77,77,77	0
55	MG	DA	3344	1/1	0.73	0.33	-	95,95,95,95	0
55	MG	BA	3546	1/1	0.81	0.16	-	87,87,87,87	0
55	MG	DA	3288	1/1	0.97	0.37	-	47,47,47,47	0
55	MG	DA	3389	1/1	0.84	0.79	-	64,64,64,64	0
55	MG	BA	3573	1/1	0.73	0.46	-	83,83,83,83	0
55	MG	BD	301	1/1	0.59	0.62	-	85,85,85,85	0
55	MG	DA	3248	1/1	0.92	0.48	-	75,75,75,75	0
55	MG	DA	3440	1/1	0.81	0.36	-	86,86,86,86	0
55	MG	BA	3386	1/1	0.94	0.50	-	59,59,59,59	0
55	MG	DB	206	1/1	0.83	0.28	-	90,90,90,90	0
55	MG	DA	3090	1/1	0.88	0.33	-	86,86,86,86	0
55	MG	BA	3094	1/1	0.88	0.56	-	78,78,78,78	0
55	MG	BA	3114	1/1	0.88	0.20	-	74,74,74,74	0
55	MG	BA	3588	1/1	0.82	0.34	-	83,83,83,83	0
55	MG	AA	1698	1/1	0.81	0.33	-	72,72,72,72	0
55	MG	BA	3427	1/1	0.94	0.41	-	65,65,65,65	0
55	MG	BA	3465	1/1	0.55	0.46	-	93,93,93,93	0
55	MG	DA	3043	1/1	0.80	0.23	-	82,82,82,82	0
55	MG	CA	1695	1/1	0.96	0.50	-	87,87,87,87	0
55	MG	BA	3563	1/1	0.79	0.19	-	82,82,82,82	0
55	MG	BA	3129	1/1	0.97	0.44	-	52,52,52,52	0
55	MG	BA	3036	1/1	0.98	0.54	-	44,44,44,44	0
55	MG	BA	3219	1/1	0.91	0.43	-	76,76,76,76	0
55	MG	AA	1625	1/1	0.78	0.45	-	57,57,57,57	0
55	MG	AA	1830	1/1	0.87	0.30	-	73,73,73,73	0
55	MG	DA	3276	1/1	0.94	0.52	-	68,68,68,68	0
55	MG	BA	3459	1/1	0.91	0.42	-	70,70,70,70	0
55	MG	BA	3623	1/1	0.88	0.40	-	60,60,60,60	0
55	MG	AA	1787	1/1	0.89	0.47	-	96,96,96,96	0
55	MG	BA	3557	1/1	0.97	0.47	-	77,77,77,77	0
55	MG	CA	1675	1/1	0.95	0.48	-	62,62,62,62	0
55	MG	CA	1746	1/1	0.96	0.61	-	57,57,57,57	0
55	MG	BA	3562	1/1	0.94	0.30	-	79,79,79,79	0
55	MG	BA	3441	1/1	0.82	0.20	-	86,86,86,86	0
55	MG	DB	204	1/1	0.87	0.28	-	82,82,82,82	0
55	MG	BA	3305	1/1	0.91	0.42	-	70,70,70,70	0
55	MG	AA	1705	1/1	0.81	0.31	-	83,83,83,83	0
55	MG	DA	3432	1/1	0.83	0.29	-	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3069	1/1	0.77	0.45	-	77,77,77,77	0
55	MG	BA	3264	1/1	0.94	0.21	-	30,30,30,30	0
55	MG	BA	3286	1/1	0.94	0.28	-	66,66,66,66	0
55	MG	DA	3406	1/1	0.78	0.73	-	86,86,86,86	0
55	MG	BB	201	1/1	0.85	0.43	-	92,92,92,92	0
55	MG	BA	3227	1/1	0.69	0.40	-	91,91,91,91	0
55	MG	DA	3038	1/1	0.77	0.47	-	97,97,97,97	0
55	MG	DA	3076	1/1	0.90	0.37	-	86,86,86,86	0
55	MG	DA	3163	1/1	0.95	0.59	-	62,62,62,62	0
55	MG	DA	3494	1/1	0.67	0.21	-	75,75,75,75	0
55	MG	DA	3378	1/1	0.93	0.50	-	63,63,63,63	0
55	MG	BA	3276	1/1	0.97	0.23	-	74,74,74,74	0
55	MG	DE	301	1/1	0.99	0.38	-	41,41,41,41	0
55	MG	DA	3206	1/1	0.95	0.53	-	65,65,65,65	0
55	MG	AA	1770	1/1	0.70	0.25	-	102,102,102,102	0
55	MG	DB	203	1/1	0.88	0.33	-	66,66,66,66	0
55	MG	DA	3305	1/1	0.94	0.36	-	77,77,77,77	0
55	MG	BA	3326	1/1	0.95	0.34	-	52,52,52,52	0
55	MG	DA	3192	1/1	0.92	0.48	-	62,62,62,62	0
55	MG	DA	3251	1/1	0.79	0.27	-	74,74,74,74	0
55	MG	DA	3447	1/1	0.64	0.46	-	82,82,82,82	0
55	MG	BA	3471	1/1	0.87	0.31	-	72,72,72,72	0
55	MG	CA	1684	1/1	0.89	0.61	-	85,85,85,85	0
55	MG	BA	3621	1/1	0.88	0.15	-	63,63,63,63	0
55	MG	AA	1727	1/1	0.62	0.86	-	87,87,87,87	0
55	MG	DA	3170	1/1	0.95	0.44	-	68,68,68,68	0
55	MG	DA	3137	1/1	0.77	0.18	-	82,82,82,82	0
55	MG	AA	1819	1/1	0.83	0.35	-	87,87,87,87	0
55	MG	BA	3309	1/1	0.83	0.19	-	68,68,68,68	0
55	MG	DA	3140	1/1	0.85	0.28	-	78,78,78,78	0
55	MG	BA	3176	1/1	0.96	0.51	-	48,48,48,48	0
55	MG	BA	3496	1/1	0.82	0.26	-	96,96,96,96	0
55	MG	BA	3050	1/1	0.95	0.48	-	39,39,39,39	0
55	MG	BA	3121	1/1	0.74	0.48	-	57,57,57,57	0
55	MG	AA	1653	1/1	0.90	0.54	-	81,81,81,81	0
55	MG	DA	3079	1/1	0.98	0.38	-	54,54,54,54	0
55	MG	BA	3321	1/1	0.90	0.41	-	77,77,77,77	0
55	MG	CA	1694	1/1	0.92	0.47	-	97,97,97,97	0
55	MG	AA	1776	1/1	0.83	0.18	-	82,82,82,82	0
55	MG	AA	1660	1/1	0.98	0.62	-	53,53,53,53	0
55	MG	AA	1832	1/1	0.81	0.35	-	94,94,94,94	0
55	MG	AA	1631	1/1	0.89	0.21	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
55	MG	DA	3247	1/1	0.83	0.20	-	87,87,87,87	0
55	MG	CA	1791	1/1	0.84	0.30	-	79,79,79,79	0
55	MG	AA	1834	1/1	0.86	0.48	-	97,97,97,97	0
55	MG	BA	3279	1/1	0.93	0.09	-	70,70,70,70	0
55	MG	DA	3479	1/1	0.80	0.11	-	99,99,99,99	0
55	MG	CB	101	1/1	0.81	0.20	-	101,101,101,101	0
55	MG	AA	1824	1/1	0.83	0.56	-	86,86,86,86	0
55	MG	CA	1778	1/1	0.90	0.40	-	96,96,96,96	0
55	MG	BA	3294	1/1	0.98	0.35	-	72,72,72,72	0
55	MG	BA	3085	1/1	0.92	0.17	-	73,73,73,73	0
55	MG	AA	1604	1/1	0.99	0.33	-	67,67,67,67	0
55	MG	BA	3155	1/1	0.98	0.18	-	45,45,45,45	0
55	MG	BA	3122	1/1	0.91	0.30	-	37,37,37,37	0
55	MG	CA	1756	1/1	0.79	0.40	-	81,81,81,81	0
55	MG	BA	3477	1/1	0.92	0.46	-	95,95,95,95	0
55	MG	AA	1650	1/1	0.92	0.49	-	71,71,71,71	0
55	MG	DA	3126	1/1	0.97	0.26	-	41,41,41,41	0
55	MG	CA	1605	1/1	0.92	0.38	-	76,76,76,76	0
55	MG	CA	1792	1/1	0.99	0.62	-	70,70,70,70	0
55	MG	AA	1683	1/1	0.84	0.20	-	87,87,87,87	0
55	MG	AA	1806	1/1	0.81	0.28	-	81,81,81,81	0
55	MG	BA	3347	1/1	0.92	0.43	-	68,68,68,68	0
55	MG	DA	3490	1/1	0.42	0.14	-	126,126,126,126	0
55	MG	DB	201	1/1	0.89	0.37	-	81,81,81,81	0
55	MG	BA	3381	1/1	0.89	0.44	-	90,90,90,90	0
55	MG	BA	3171	1/1	0.99	0.54	-	61,61,61,61	0
55	MG	BA	3003	1/1	0.95	0.44	-	47,47,47,47	0
55	MG	BA	3377	1/1	0.93	0.74	-	62,62,62,62	0
55	MG	DA	3365	1/1	0.93	0.53	-	58,58,58,58	0
55	MG	DA	3481	1/1	0.88	0.41	-	96,96,96,96	0
55	MG	CA	1781	1/1	0.89	0.05	-	117,117,117,117	0
55	MG	BA	3120	1/1	0.84	0.42	-	56,56,56,56	0
55	MG	BB	205	1/1	0.93	0.35	-	74,74,74,74	0
55	MG	BA	3501	1/1	0.92	0.24	-	55,55,55,55	0
55	MG	AA	1738	1/1	0.93	0.54	-	79,79,79,79	0
55	MG	DA	3232	1/1	0.96	0.42	-	44,44,44,44	0
55	MG	AA	1735	1/1	0.79	0.46	-	79,79,79,79	0
55	MG	BA	3223	1/1	0.89	0.27	-	92,92,92,92	0
55	MG	DA	3394	1/1	0.76	0.20	-	90,90,90,90	0
55	MG	AA	1767	1/1	0.91	0.22	-	96,96,96,96	0
55	MG	DA	3415	1/1	0.75	0.54	-	96,96,96,96	0
55	MG	AA	1796	1/1	0.95	0.14	-	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	BA	3322	1/1	0.90	0.63	-	64,64,64,64	0
55	MG	DP	201	1/1	0.97	0.35	-	65,65,65,65	0
55	MG	CA	1679	1/1	0.88	0.37	-	85,85,85,85	0
55	MG	BA	3077	1/1	0.97	0.45	-	54,54,54,54	0
55	MG	DA	3318	1/1	0.91	0.22	-	63,63,63,63	0
55	MG	BA	3141	1/1	0.94	0.48	-	35,35,35,35	0
55	MG	CA	1667	1/1	0.80	0.16	-	102,102,102,102	0
55	MG	CA	1682	1/1	0.92	0.38	-	86,86,86,86	0
55	MG	DA	3109	1/1	0.96	0.23	-	65,65,65,65	0
55	MG	DA	3168	1/1	0.87	0.29	-	49,49,49,49	0
55	MG	AA	1652	1/1	0.80	0.44	-	81,81,81,81	0
55	MG	DA	3092	1/1	0.81	0.30	-	68,68,68,68	0
55	MG	BA	3248	1/1	0.95	0.35	-	53,53,53,53	0
55	MG	BB	203	1/1	0.93	0.42	-	65,65,65,65	0
55	MG	AA	1829	1/1	0.91	0.55	-	77,77,77,77	0
55	MG	CA	1635	1/1	0.90	0.78	-	86,86,86,86	0
55	MG	DA	3373	1/1	0.90	0.43	-	79,79,79,79	0
55	MG	DA	3470	1/1	0.95	0.11	-	80,80,80,80	0
55	MG	AA	1774	1/1	0.90	0.12	-	91,91,91,91	0
55	MG	BA	3247	1/1	0.77	0.48	-	70,70,70,70	0
55	MG	DA	3297	1/1	0.80	0.23	-	83,83,83,83	0
55	MG	BA	3398	1/1	0.82	0.44	-	70,70,70,70	0
55	MG	AA	1842	1/1	0.98	0.46	-	59,59,59,59	0
55	MG	DA	3029	1/1	0.78	0.27	-	79,79,79,79	0
55	MG	DA	3430	1/1	0.86	0.58	-	62,62,62,62	0
55	MG	DA	3435	1/1	0.88	0.11	-	72,72,72,72	0
55	MG	BA	3412	1/1	0.78	0.35	-	78,78,78,78	0
55	MG	DA	3253	1/1	0.90	0.17	-	87,87,87,87	0
55	MG	DA	3459	1/1	0.68	0.28	-	86,86,86,86	0
55	MG	BA	3615	1/1	0.92	0.41	-	81,81,81,81	0
55	MG	CA	1607	1/1	0.92	0.43	-	85,85,85,85	0
55	MG	DA	3054	1/1	0.95	0.61	-	58,58,58,58	0
55	MG	CA	1680	1/1	0.93	0.55	-	68,68,68,68	0
55	MG	DA	3388	1/1	0.94	0.28	-	74,74,74,74	0
55	MG	AA	1815	1/1	0.83	0.46	-	84,84,84,84	0
55	MG	DA	3393	1/1	0.78	0.52	-	69,69,69,69	0
55	MG	BA	3487	1/1	0.91	0.10	-	94,94,94,94	0
55	MG	DA	3242	1/1	0.91	0.58	-	63,63,63,63	0
55	MG	BA	3548	1/1	0.89	0.48	-	76,76,76,76	0
55	MG	AA	1673	1/1	0.89	0.47	-	78,78,78,78	0
55	MG	AA	1755	1/1	0.53	0.55	-	104,104,104,104	0
55	MG	DA	3360	1/1	0.93	0.39	-	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	BA	3622	1/1	0.86	0.47	-	59,59,59,59	0
55	MG	AC	103	1/1	0.81	0.38	-	66,66,66,66	0
55	MG	BA	3384	1/1	0.92	0.24	-	73,73,73,73	0
55	MG	DA	3031	1/1	0.93	0.22	-	72,72,72,72	0
55	MG	AA	1814	1/1	0.94	0.32	-	83,83,83,83	0
55	MG	BA	3006	1/1	0.94	0.43	-	38,38,38,38	0
55	MG	BA	3470	1/1	0.91	0.31	-	88,88,88,88	0
55	MG	AA	1813	1/1	0.75	0.29	-	107,107,107,107	0
55	MG	CA	1794	1/1	0.91	0.34	-	74,74,74,74	0
55	MG	BA	3538	1/1	0.98	0.55	-	66,66,66,66	0
55	MG	CA	1630	1/1	0.71	0.45	-	91,91,91,91	0
55	MG	AA	1768	1/1	0.82	0.36	-	101,101,101,101	0
55	MG	DA	3508	1/1	0.73	0.70	-	80,80,80,80	0
55	MG	DA	3178	1/1	0.97	0.75	-	59,59,59,59	0
55	MG	DA	3442	1/1	0.88	0.22	-	91,91,91,91	0
55	MG	CC	101	1/1	0.66	0.36	-	92,92,92,92	0
55	MG	BB	209	1/1	0.79	0.40	-	102,102,102,102	0
55	MG	CA	1727	1/1	0.80	0.45	-	94,94,94,94	0
55	MG	BU	202	1/1	0.91	0.12	-	55,55,55,55	0
55	MG	BA	3164	1/1	0.85	0.68	-	86,86,86,86	0
55	MG	BA	3404	1/1	0.79	0.17	-	60,60,60,60	0
55	MG	BA	3418	1/1	0.76	0.41	-	78,78,78,78	0
55	MG	AA	1623	1/1	0.95	0.74	-	65,65,65,65	0
55	MG	DA	3219	1/1	0.97	0.24	-	70,70,70,70	0
55	MG	DA	3257	1/1	0.97	0.33	-	49,49,49,49	0
55	MG	BA	3132	1/1	0.90	0.41	-	71,71,71,71	0
55	MG	BA	3603	1/1	0.64	0.61	-	63,63,63,63	0
55	MG	AD	101	1/1	0.45	0.39	-	101,101,101,101	0
55	MG	BA	3555	1/1	0.97	0.23	-	38,38,38,38	0
55	MG	DA	3492	1/1	0.61	0.34	-	88,88,88,88	0
55	MG	DA	3160	1/1	0.97	0.40	-	49,49,49,49	0
55	MG	DA	3223	1/1	0.98	0.48	-	52,52,52,52	0
55	MG	BA	3295	1/1	0.84	0.44	-	81,81,81,81	0
55	MG	CA	1770	1/1	0.74	0.23	-	102,102,102,102	0
55	MG	DA	3488	1/1	0.89	0.58	-	86,86,86,86	0
55	MG	DA	3453	1/1	0.94	0.24	-	66,66,66,66	0
55	MG	AA	1763	1/1	0.95	0.58	-	53,53,53,53	0
55	MG	DA	3387	1/1	0.79	0.29	-	92,92,92,92	0
55	MG	CA	1717	1/1	0.93	0.18	-	106,106,106,106	0
55	MG	BA	3348	1/1	0.86	0.29	-	61,61,61,61	0
55	MG	AA	1804	1/1	0.69	0.11	-	74,74,74,74	0
55	MG	BA	3303	1/1	0.91	0.38	-	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	DA	3133	1/1	0.98	0.38	-	42,42,42,42	0
55	MG	DA	3287	1/1	0.84	0.64	-	65,65,65,65	0
55	MG	BA	3028	1/1	0.97	0.41	-	46,46,46,46	0
55	MG	BA	3230	1/1	0.98	0.59	-	56,56,56,56	0
55	MG	DA	3173	1/1	0.89	0.22	-	60,60,60,60	0
55	MG	BA	3341	1/1	0.76	0.25	-	81,81,81,81	0
55	MG	BA	3405	1/1	0.94	0.47	-	56,56,56,56	0
55	MG	CA	1621	1/1	0.95	0.36	-	66,66,66,66	0
55	MG	DA	3457	1/1	0.96	0.76	-	65,65,65,65	0
55	MG	BA	3078	1/1	0.96	0.37	-	65,65,65,65	0
55	MG	BA	3159	1/1	0.92	0.51	-	58,58,58,58	0
55	MG	BA	3392	1/1	0.85	0.39	-	70,70,70,70	0
55	MG	BB	214	1/1	0.79	0.24	-	86,86,86,86	0
55	MG	BA	3220	1/1	0.97	0.45	-	44,44,44,44	0
55	MG	AA	1745	1/1	0.88	0.56	-	67,67,67,67	0
55	MG	BA	3323	1/1	0.89	0.32	-	66,66,66,66	0
55	MG	BA	3148	1/1	0.94	0.41	-	32,32,32,32	0
55	MG	BA	3313	1/1	0.80	0.18	-	88,88,88,88	0
55	MG	CA	1737	1/1	0.84	0.28	-	99,99,99,99	0
55	MG	BA	3554	1/1	0.98	0.47	-	45,45,45,45	0
55	MG	DA	3059	1/1	0.70	0.77	-	106,106,106,106	0
55	MG	DA	3023	1/1	0.87	0.44	-	57,57,57,57	0
55	MG	BA	3241	1/1	0.96	0.49	-	60,60,60,60	0
55	MG	DA	3375	1/1	0.94	0.69	-	88,88,88,88	0
55	MG	D5	2001	1/1	0.98	0.41	-	46,46,46,46	0
55	MG	AA	1749	1/1	0.83	0.21	-	81,81,81,81	0
55	MG	BA	3168	1/1	0.96	0.36	-	49,49,49,49	0
55	MG	BA	3416	1/1	0.89	0.18	-	87,87,87,87	0
55	MG	DA	3418	1/1	0.93	0.41	-	78,78,78,78	0
55	MG	DA	3506	1/1	0.91	0.40	-	78,78,78,78	0
55	MG	CA	1658	1/1	0.93	0.45	-	91,91,91,91	0
55	MG	AA	1633	1/1	0.87	0.25	-	74,74,74,74	0
55	MG	CA	1773	1/1	0.83	0.73	-	92,92,92,92	0
55	MG	BA	3340	1/1	0.93	0.31	-	77,77,77,77	0
55	MG	CA	1708	1/1	0.92	0.09	-	97,97,97,97	0
55	MG	BA	3443	1/1	0.95	0.14	-	77,77,77,77	0
55	MG	DA	3084	1/1	0.83	0.29	-	88,88,88,88	0
55	MG	DA	3349	1/1	0.91	0.29	-	63,63,63,63	0
55	MG	BA	3403	1/1	0.80	0.66	-	93,93,93,93	0
55	MG	DA	3197	1/1	0.83	0.70	-	70,70,70,70	0
55	MG	DA	3005	1/1	0.86	0.48	-	77,77,77,77	0
55	MG	CA	1627	1/1	0.91	0.31	-	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	BA	3509	1/1	0.77	0.29	-	83,83,83,83	0
55	MG	DA	3340	1/1	0.76	0.20	-	85,85,85,85	0
55	MG	AC	104	1/1	0.95	0.47	-	56,56,56,56	0
55	MG	CA	1807	1/1	0.66	0.24	-	126,126,126,126	0
55	MG	DB	212	1/1	0.86	0.26	-	88,88,88,88	0
55	MG	DA	3053	1/1	0.89	0.62	-	62,62,62,62	0
55	MG	AA	1643	1/1	0.89	0.62	-	85,85,85,85	0
55	MG	DA	3413	1/1	0.86	0.30	-	94,94,94,94	0
55	MG	DA	3339	1/1	0.94	0.32	-	66,66,66,66	0
55	MG	DA	3097	1/1	0.98	0.29	-	52,52,52,52	0
55	MG	DA	3061	1/1	0.85	0.56	-	74,74,74,74	0
55	MG	BA	3232	1/1	0.72	0.31	-	72,72,72,72	0
55	MG	BA	3410	1/1	0.95	0.72	-	62,62,62,62	0
55	MG	CA	1767	1/1	0.88	0.46	-	77,77,77,77	0
55	MG	A1	102	1/1	0.89	0.42	-	86,86,86,86	0
55	MG	CA	1751	1/1	0.46	0.27	-	94,94,94,94	0
55	MG	CA	1761	1/1	0.86	0.40	-	92,92,92,92	0
55	MG	AA	1621	1/1	0.70	0.19	-	108,108,108,108	0
55	MG	BA	3261	1/1	0.98	0.62	-	52,52,52,52	0
55	MG	AA	1659	1/1	0.95	0.75	-	69,69,69,69	0
55	MG	AA	1794	1/1	0.97	0.21	-	84,84,84,84	0
55	MG	AA	1732	1/1	0.92	0.33	-	92,92,92,92	0
55	MG	AA	1624	1/1	0.90	0.28	-	79,79,79,79	0
55	MG	DA	3006	1/1	0.97	0.48	-	71,71,71,71	0
55	MG	DA	3316	1/1	0.93	0.33	-	61,61,61,61	0
55	MG	AA	1753	1/1	0.61	0.10	-	108,108,108,108	0
55	MG	CB	103	1/1	0.82	0.46	-	103,103,103,103	0
55	MG	BA	3334	1/1	0.44	0.56	-	96,96,96,96	0
55	MG	BA	3042	1/1	0.98	0.34	-	41,41,41,41	0
55	MG	BA	3530	1/1	0.78	0.30	-	81,81,81,81	0
55	MG	BA	3529	1/1	0.95	0.38	-	68,68,68,68	0
55	MG	BA	3613	1/1	0.82	0.28	-	93,93,93,93	0
55	MG	AA	1640	1/1	0.85	0.33	-	90,90,90,90	0
55	MG	DA	3505	1/1	0.82	0.48	-	81,81,81,81	0
55	MG	BA	3253	1/1	0.96	0.26	-	51,51,51,51	0
55	MG	AA	1665	1/1	0.97	0.75	-	70,70,70,70	0
55	MG	CA	1697	1/1	0.88	0.30	-	65,65,65,65	0
55	MG	CA	1741	1/1	0.63	0.14	-	106,106,106,106	0
55	MG	DA	3067	1/1	0.73	0.35	-	94,94,94,94	0
55	MG	DA	3277	1/1	0.73	0.28	-	89,89,89,89	0
55	MG	BA	3234	1/1	0.91	0.43	-	86,86,86,86	0
55	MG	BA	3552	1/1	0.89	0.30	-	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	DA	3024	1/1	0.94	0.32	-	108,108,108,108	0
55	MG	DA	3146	1/1	0.59	0.53	-	92,92,92,92	0
55	MG	BA	3376	1/1	0.97	0.44	-	73,73,73,73	0
55	MG	AA	1725	1/1	0.53	0.19	-	82,82,82,82	0
55	MG	DA	3193	1/1	0.96	0.68	-	63,63,63,63	0
55	MG	DA	3445	1/1	0.93	0.33	-	78,78,78,78	0
55	MG	BA	3374	1/1	0.93	0.40	-	71,71,71,71	0
55	MG	AA	1709	1/1	0.85	0.19	-	70,70,70,70	0
55	MG	DA	3166	1/1	0.97	0.45	-	58,58,58,58	0
55	MG	DA	3499	1/1	0.95	0.21	-	61,61,61,61	0
55	MG	BA	3267	1/1	0.88	0.30	-	61,61,61,61	0
55	MG	DA	3234	1/1	0.96	0.43	-	52,52,52,52	0
55	MG	BA	3542	1/1	0.91	0.48	-	72,72,72,72	0
55	MG	DA	3083	1/1	0.94	0.49	-	85,85,85,85	0
55	MG	BA	3602	1/1	0.92	0.25	-	67,67,67,67	0
55	MG	BA	3068	1/1	0.98	0.34	-	75,75,75,75	0
55	MG	AA	1702	1/1	0.81	0.19	-	93,93,93,93	0
55	MG	BA	3473	1/1	0.80	0.49	-	76,76,76,76	0
55	MG	DA	3183	1/1	0.86	0.51	-	57,57,57,57	0
55	MG	BA	3582	1/1	0.91	0.42	-	86,86,86,86	0
55	MG	BA	3460	1/1	0.91	0.13	-	83,83,83,83	0
55	MG	DA	3462	1/1	0.79	0.78	-	107,107,107,107	0
55	MG	BA	3415	1/1	0.70	0.37	-	84,84,84,84	0
55	MG	CA	1748	1/1	0.94	0.16	-	87,87,87,87	0
55	MG	DA	3524	1/1	0.78	0.28	-	105,105,105,105	0
55	MG	AN	202	1/1	0.89	0.32	-	82,82,82,82	0
55	MG	DA	3525	1/1	0.84	0.78	-	79,79,79,79	0
55	MG	BA	3335	1/1	0.91	0.35	-	58,58,58,58	0
55	MG	AA	1655	1/1	0.94	0.47	-	88,88,88,88	0
55	MG	CA	1700	1/1	0.88	0.47	-	77,77,77,77	0
55	MG	DA	3358	1/1	0.90	0.53	-	88,88,88,88	0
55	MG	BA	3426	1/1	0.92	0.49	-	85,85,85,85	0
55	MG	DA	3050	1/1	0.91	0.68	-	66,66,66,66	0
55	MG	BA	3462	1/1	0.76	0.27	-	87,87,87,87	0
55	MG	BA	3290	1/1	0.74	0.39	-	97,97,97,97	0
55	MG	BA	3306	1/1	0.94	0.25	-	67,67,67,67	0
55	MG	CA	1711	1/1	0.85	0.38	-	90,90,90,90	0
55	MG	BA	3135	1/1	0.93	0.49	-	72,72,72,72	0
55	MG	BA	3407	1/1	0.97	0.26	-	59,59,59,59	0
55	MG	DA	3099	1/1	0.94	0.27	-	40,40,40,40	0
55	MG	BA	3430	1/1	0.94	0.27	-	57,57,57,57	0
55	MG	AA	1638	1/1	0.86	0.31	-	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	1810	1/1	0.91	0.45	-	67,67,67,67	0
55	MG	BB	208	1/1	0.74	0.25	-	74,74,74,74	0
55	MG	BA	3608	1/1	0.99	0.37	-	39,39,39,39	0
55	MG	AA	1710	1/1	0.79	0.29	-	92,92,92,92	0
55	MG	BA	3043	1/1	0.95	0.25	-	32,32,32,32	0
55	MG	BA	3360	1/1	0.90	0.14	-	84,84,84,84	0
55	MG	DA	3194	1/1	0.98	0.43	-	73,73,73,73	0
55	MG	BA	3519	1/1	0.93	0.31	-	80,80,80,80	0
55	MG	CA	1730	1/1	0.94	0.19	-	106,106,106,106	0
55	MG	AA	1809	1/1	0.90	0.36	-	63,63,63,63	0
55	MG	AH	201	1/1	0.49	0.39	-	99,99,99,99	0
55	MG	AA	1840	1/1	0.81	0.47	-	87,87,87,87	0
55	MG	CA	1789	1/1	0.92	0.58	-	71,71,71,71	0
55	MG	AA	1704	1/1	0.91	0.11	-	83,83,83,83	0
55	MG	BA	3174	1/1	0.92	0.81	-	71,71,71,71	0
55	MG	BA	3180	1/1	0.95	0.40	-	37,37,37,37	0
55	MG	DA	3065	1/1	0.98	0.41	-	74,74,74,74	0
55	MG	BA	3035	1/1	0.97	0.27	-	37,37,37,37	0
55	MG	CA	1714	1/1	0.18	0.60	-	92,92,92,92	0
55	MG	DA	3381	1/1	0.77	0.47	-	99,99,99,99	0
55	MG	DA	3184	1/1	0.96	0.65	-	61,61,61,61	0
55	MG	AA	1747	1/1	0.94	0.40	-	88,88,88,88	0
55	MG	BA	3240	1/1	0.86	0.54	-	88,88,88,88	0
55	MG	BA	3298	1/1	0.93	0.27	-	65,65,65,65	0
55	MG	DA	3367	1/1	0.86	0.43	-	82,82,82,82	0
55	MG	DA	3167	1/1	0.95	0.40	-	70,70,70,70	0
55	MG	BA	3203	1/1	0.87	0.34	-	85,85,85,85	0
55	MG	CA	1752	1/1	0.93	0.18	-	70,70,70,70	0
55	MG	BA	3231	1/1	0.88	0.50	-	73,73,73,73	0
55	MG	CA	1706	1/1	0.99	0.42	-	87,87,87,87	0
55	MG	AA	1752	1/1	0.87	0.27	-	78,78,78,78	0
55	MG	BA	3022	1/1	0.97	0.45	-	30,30,30,30	0
55	MG	CA	1644	1/1	0.72	0.29	-	120,120,120,120	0
55	MG	BA	3609	1/1	0.91	0.65	-	70,70,70,70	0
55	MG	BA	3134	1/1	0.86	0.18	-	81,81,81,81	0
55	MG	CA	1769	1/1	0.59	0.33	-	105,105,105,105	0
55	MG	CA	1728	1/1	0.95	0.66	-	69,69,69,69	0
55	MG	BA	3244	1/1	0.97	0.33	-	58,58,58,58	0
55	MG	BA	3617	1/1	0.91	0.72	-	71,71,71,71	0
55	MG	DA	3410	1/1	0.92	0.39	-	78,78,78,78	0
55	MG	DA	3068	1/1	0.67	0.18	-	91,91,91,91	0
55	MG	DA	3454	1/1	0.88	0.37	-	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	3420	1/1	0.66	0.34	-	94,94,94,94	0
55	MG	AA	1802	1/1	0.85	0.45	-	85,85,85,85	0
55	MG	AA	1713	1/1	0.82	0.31	-	115,115,115,115	0
55	MG	BA	3296	1/1	0.92	0.40	-	53,53,53,53	0
55	MG	AA	1703	1/1	0.62	0.23	-	92,92,92,92	0
55	MG	BA	3518	1/1	0.92	0.23	-	70,70,70,70	0
55	MG	BA	3394	1/1	0.86	0.19	-	81,81,81,81	0
55	MG	BA	3564	1/1	0.95	0.61	-	84,84,84,84	0
55	MG	DA	3177	1/1	0.97	0.34	-	74,74,74,74	0
55	MG	DA	3519	1/1	0.83	0.47	-	85,85,85,85	0
55	MG	DA	3107	1/1	0.97	0.36	-	53,53,53,53	0
55	MG	BA	3559	1/1	0.92	0.17	-	81,81,81,81	0
55	MG	CA	1765	1/1	0.92	0.25	-	101,101,101,101	0
55	MG	AA	1685	1/1	0.93	0.29	-	88,88,88,88	0
55	MG	BA	3065	1/1	0.91	0.34	-	91,91,91,91	0
55	MG	DA	3111	1/1	0.93	0.26	-	52,52,52,52	0
55	MG	BA	3423	1/1	0.90	0.56	-	61,61,61,61	0
55	MG	CA	1666	1/1	0.96	0.29	-	71,71,71,71	0
55	MG	BA	3492	1/1	0.95	0.43	-	77,77,77,77	0
55	MG	AA	1736	1/1	0.94	0.46	-	90,90,90,90	0
55	MG	CA	1774	1/1	0.87	0.13	-	104,104,104,104	0
55	MG	DA	3351	1/1	0.89	0.28	-	79,79,79,79	0
55	MG	DA	3009	1/1	0.92	0.53	-	68,68,68,68	0
55	MG	DA	3070	1/1	0.80	0.28	-	78,78,78,78	0
55	MG	AA	1689	1/1	0.82	0.26	-	115,115,115,115	0
55	MG	DA	3231	1/1	0.92	0.43	-	72,72,72,72	0
55	MG	DA	3015	1/1	0.88	0.69	-	89,89,89,89	0
55	MG	BA	3512	1/1	0.92	0.27	-	69,69,69,69	0
55	MG	DA	3354	1/1	0.97	0.41	-	73,73,73,73	0
55	MG	DA	3203	1/1	0.99	0.27	-	48,48,48,48	0
55	MG	DA	3473	1/1	0.82	0.48	-	96,96,96,96	0
55	MG	AA	1721	1/1	0.94	0.29	-	77,77,77,77	0
55	MG	DA	3380	1/1	0.59	0.18	-	139,139,139,139	0
55	MG	BA	3433	1/1	0.97	0.15	-	70,70,70,70	0
55	MG	BA	3483	1/1	0.92	0.34	-	68,68,68,68	0
55	MG	BE	303	1/1	0.97	0.40	-	44,44,44,44	0
55	MG	DA	3032	1/1	0.90	0.11	-	76,76,76,76	0
55	MG	CA	1688	1/1	0.90	0.34	-	71,71,71,71	0
55	MG	BA	3464	1/1	0.94	0.51	-	77,77,77,77	0
55	MG	BA	3499	1/1	0.93	0.39	-	68,68,68,68	0
55	MG	DA	3411	1/1	0.95	0.19	-	70,70,70,70	0
55	MG	BA	3598	1/1	0.73	0.38	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
55	MG	DA	3199	1/1	0.95	0.48	-	61,61,61,61	0
55	MG	DA	3451	1/1	0.91	0.47	-	75,75,75,75	0
55	MG	BA	3263	1/1	0.94	0.64	-	54,54,54,54	0
55	MG	AA	1761	1/1	0.79	0.41	-	113,113,113,113	0
55	MG	BA	3363	1/1	0.92	0.56	-	67,67,67,67	0
55	MG	BA	3081	1/1	0.92	0.30	-	75,75,75,75	0
55	MG	DA	3458	1/1	0.92	0.60	-	92,92,92,92	0
55	MG	DA	3256	1/1	0.97	0.44	-	49,49,49,49	0
55	MG	BA	3526	1/1	0.81	0.39	-	86,86,86,86	0
55	MG	BA	3201	1/1	0.96	0.64	-	66,66,66,66	0
55	MG	AA	1656	1/1	0.87	0.43	-	87,87,87,87	0
55	MG	CA	1731	1/1	0.95	0.58	-	72,72,72,72	0
55	MG	DA	3095	1/1	0.98	0.44	-	49,49,49,49	0
55	MG	CA	1797	1/1	0.78	0.32	-	87,87,87,87	0
55	MG	DA	3066	1/1	0.93	0.53	-	65,65,65,65	0
55	MG	AA	1671	1/1	0.95	0.12	-	67,67,67,67	0
55	MG	DA	3500	1/1	0.49	0.33	-	92,92,92,92	0
55	MG	DA	3510	1/1	0.92	0.31	-	85,85,85,85	0
55	MG	BA	3387	1/1	0.87	0.40	-	73,73,73,73	0
55	MG	BA	3355	1/1	0.97	0.57	-	46,46,46,46	0
55	MG	DA	3014	1/1	0.92	0.56	-	74,74,74,74	0
55	MG	BE	304	1/1	0.76	0.37	-	80,80,80,80	0
55	MG	BA	3145	1/1	0.91	0.35	-	74,74,74,74	0
55	MG	BA	3620	1/1	0.94	0.28	-	68,68,68,68	0
55	MG	CA	1672	1/1	0.86	0.75	-	75,75,75,75	0
55	MG	DA	3321	1/1	0.93	0.57	-	66,66,66,66	0
55	MG	AA	1739	1/1	0.88	0.07	-	93,93,93,93	0
55	MG	DA	3021	1/1	0.96	0.48	-	51,51,51,51	0
55	MG	BA	3139	1/1	0.98	0.39	-	35,35,35,35	0
55	MG	BA	3372	1/1	0.92	0.27	-	73,73,73,73	0
55	MG	BA	3152	1/1	0.96	0.51	-	40,40,40,40	0
55	MG	DA	3404	1/1	0.75	0.30	-	61,61,61,61	0
55	MG	DA	3018	1/1	0.89	0.28	-	77,77,77,77	0
55	MG	BA	3595	1/1	0.83	0.18	-	65,65,65,65	0
55	MG	DA	3390	1/1	0.97	0.35	-	75,75,75,75	0
55	MG	BA	3300	1/1	0.84	0.35	-	88,88,88,88	0
55	MG	BA	3328	1/1	0.79	0.71	-	69,69,69,69	0
55	MG	DA	3446	1/1	0.97	0.50	-	75,75,75,75	0
55	MG	BA	3058	1/1	0.97	0.32	-	62,62,62,62	0
55	MG	CA	1649	1/1	0.92	0.29	-	64,64,64,64	0
55	MG	BA	3110	1/1	0.84	0.52	-	59,59,59,59	0
55	MG	AA	1807	1/1	0.74	0.60	-	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	3193	1/1	0.83	0.51	-	85,85,85,85	0
55	MG	DA	3258	1/1	0.95	0.32	-	37,37,37,37	0
55	MG	BA	3051	1/1	0.97	0.23	-	74,74,74,74	0
55	MG	BA	3088	1/1	0.81	0.17	-	77,77,77,77	0
55	MG	DA	3280	1/1	0.97	0.57	-	46,46,46,46	0
55	MG	AA	1812	1/1	0.80	0.59	-	73,73,73,73	0
55	MG	BA	3074	1/1	0.99	0.47	-	49,49,49,49	0
55	MG	DA	3102	1/1	0.98	0.37	-	51,51,51,51	0
55	MG	AA	1720	1/1	0.68	0.19	-	93,93,93,93	0
55	MG	CA	1651	1/1	0.93	0.35	-	90,90,90,90	0
55	MG	BA	3409	1/1	0.81	0.20	-	68,68,68,68	0
55	MG	CA	1693	1/1	0.81	0.54	-	76,76,76,76	0
55	MG	BA	3547	1/1	0.41	0.41	-	77,77,77,77	0
55	MG	DA	3136	1/1	0.82	0.34	-	76,76,76,76	0
55	MG	BA	3511	1/1	0.88	0.15	-	89,89,89,89	0
55	MG	DA	3200	1/1	0.96	0.45	-	44,44,44,44	0
55	MG	CA	1776	1/1	0.92	0.50	-	71,71,71,71	0
55	MG	DA	3250	1/1	0.95	0.39	-	63,63,63,63	0
55	MG	BA	3257	1/1	0.90	0.25	-	64,64,64,64	0
55	MG	BB	204	1/1	0.88	0.31	-	78,78,78,78	0
55	MG	BA	3235	1/1	0.95	0.39	-	54,54,54,54	0
55	MG	DA	3226	1/1	0.91	0.41	-	62,62,62,62	0
55	MG	AA	1674	1/1	0.86	0.33	-	98,98,98,98	0
55	MG	DA	3501	1/1	0.84	0.92	-	88,88,88,88	0
55	MG	BA	3310	1/1	0.86	0.37	-	57,57,57,57	0
55	MG	BA	3579	1/1	0.81	0.13	-	92,92,92,92	0
55	MG	BA	3011	1/1	0.93	0.29	-	42,42,42,42	0
55	MG	BA	3054	1/1	0.77	0.25	-	80,80,80,80	0
55	MG	BA	3362	1/1	0.86	0.24	-	48,48,48,48	0
55	MG	DA	3311	1/1	0.96	0.41	-	73,73,73,73	0
55	MG	BA	3406	1/1	0.96	0.50	-	82,82,82,82	0
55	MG	AA	1675	1/1	0.88	0.45	-	80,80,80,80	0
55	MG	AA	1742	1/1	0.87	0.17	-	78,78,78,78	0
55	MG	B7	101	1/1	0.82	0.46	-	67,67,67,67	0
55	MG	AA	1754	1/1	0.79	0.19	-	95,95,95,95	0
55	MG	BA	3233	1/1	0.99	0.41	-	48,48,48,48	0
55	MG	CA	1805	1/1	0.18	0.28	-	94,94,94,94	0
55	MG	DA	3502	1/1	0.81	0.50	-	97,97,97,97	0
55	MG	DA	3139	1/1	0.81	0.44	-	80,80,80,80	0
55	MG	DA	3185	1/1	0.92	0.35	-	74,74,74,74	0
55	MG	BA	3034	1/1	0.89	0.34	-	41,41,41,41	0
55	MG	BA	3592	1/1	0.81	0.36	-	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	CA	1747	1/1	0.88	0.26	-	94,94,94,94	0
55	MG	BA	3444	1/1	0.88	0.50	-	78,78,78,78	0
55	MG	CA	1619	1/1	0.98	0.49	-	61,61,61,61	0
55	MG	DA	3062	1/1	0.86	0.27	-	72,72,72,72	0
55	MG	DA	3011	1/1	0.77	0.21	-	65,65,65,65	0
55	MG	BA	3446	1/1	0.75	0.19	-	92,92,92,92	0
55	MG	BA	3103	1/1	0.89	0.49	-	52,52,52,52	0
55	MG	DA	3236	1/1	0.76	0.32	-	55,55,55,55	0
55	MG	BA	3329	1/1	0.97	0.40	-	65,65,65,65	0
55	MG	DA	3270	1/1	0.94	0.28	-	83,83,83,83	0
55	MG	CA	1628	1/1	0.90	0.21	-	101,101,101,101	0
55	MG	CA	1661	1/1	0.81	0.22	-	87,87,87,87	0
55	MG	BA	3075	1/1	0.58	0.27	-	110,110,110,110	0
55	MG	CC	105	1/1	0.88	0.59	-	82,82,82,82	0
55	MG	CA	1616	1/1	0.77	0.28	-	88,88,88,88	0
55	MG	AA	1724	1/1	0.84	0.20	-	84,84,84,84	0
55	MG	DA	3449	1/1	0.83	0.38	-	87,87,87,87	0
55	MG	BA	3343	1/1	0.92	0.30	-	60,60,60,60	0
55	MG	BA	3059	1/1	0.75	0.38	-	91,91,91,91	0
55	MG	BA	3580	1/1	0.50	0.21	-	71,71,71,71	0
55	MG	DA	3235	1/1	0.98	0.42	-	48,48,48,48	0
55	MG	BA	3238	1/1	0.96	0.56	-	41,41,41,41	0
55	MG	AA	1766	1/1	0.83	0.16	-	79,79,79,79	0
55	MG	BA	3140	1/1	0.86	0.25	-	58,58,58,58	0
55	MG	DA	3467	1/1	0.85	0.40	-	61,61,61,61	0
55	MG	DA	3073	1/1	0.91	0.52	-	80,80,80,80	0
55	MG	DA	3504	1/1	0.88	0.34	-	65,65,65,65	0
55	MG	DR	201	1/1	0.79	0.22	-	71,71,71,71	0
55	MG	DA	3195	1/1	0.97	0.76	-	70,70,70,70	0
55	MG	BA	3111	1/1	0.97	0.33	-	59,59,59,59	0
55	MG	DA	3507	1/1	0.67	0.44	-	91,91,91,91	0
55	MG	BA	3505	1/1	0.73	0.48	-	96,96,96,96	0
55	MG	DA	3497	1/1	0.84	0.35	-	74,74,74,74	0
55	MG	BA	3113	1/1	0.96	0.53	-	57,57,57,57	0
55	MG	AA	1779	1/1	0.93	0.36	-	72,72,72,72	0
55	MG	AA	1613	1/1	0.88	0.07	-	85,85,85,85	0
55	MG	CA	1613	1/1	0.93	0.28	-	68,68,68,68	0
55	MG	AB	102	1/1	0.79	0.26	-	86,86,86,86	0
55	MG	DA	3149	1/1	0.97	0.62	-	57,57,57,57	0
55	MG	BA	3508	1/1	0.95	0.41	-	59,59,59,59	0
55	MG	CB	102	1/1	0.84	0.28	-	87,87,87,87	0
55	MG	DA	3265	1/1	0.97	0.41	-	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	BB	206	1/1	0.93	0.34	-	86,86,86,86	0
55	MG	BA	3429	1/1	0.93	0.12	-	75,75,75,75	0
55	MG	AQ	101	1/1	0.52	0.15	-	88,88,88,88	0
55	MG	BA	3543	1/1	0.89	0.41	-	80,80,80,80	0
55	MG	DA	3217	1/1	0.96	0.40	-	55,55,55,55	0
55	MG	DA	3466	1/1	0.86	0.63	-	78,78,78,78	0
55	MG	CG	301	1/1	0.66	0.36	-	83,83,83,83	0
55	MG	BA	3550	1/1	0.94	0.24	-	93,93,93,93	0
55	MG	CA	1757	1/1	0.64	0.21	-	97,97,97,97	0
55	MG	DA	3421	1/1	0.93	0.32	-	62,62,62,62	0
55	MG	DA	3175	1/1	0.88	0.34	-	83,83,83,83	0
55	MG	BA	3456	1/1	0.97	0.50	-	78,78,78,78	0
55	MG	AA	1835	1/1	0.87	0.29	-	87,87,87,87	0
55	MG	CC	107	1/1	0.31	0.63	-	99,99,99,99	0
55	MG	AA	1760	1/1	0.92	0.69	-	78,78,78,78	0
55	MG	AC	108	1/1	0.95	0.40	-	85,85,85,85	0
55	MG	BA	3106	1/1	0.74	0.36	-	75,75,75,75	0
55	MG	CA	1659	1/1	0.85	0.20	-	110,110,110,110	0
55	MG	BA	3284	1/1	0.95	0.45	-	56,56,56,56	0
55	MG	BA	3097	1/1	0.96	0.36	-	59,59,59,59	0
55	MG	BA	3210	1/1	0.89	0.20	-	74,74,74,74	0
55	MG	CA	1673	1/1	0.87	0.53	-	64,64,64,64	0
55	MG	DA	3359	1/1	0.91	0.36	-	76,76,76,76	0
55	MG	BA	3039	1/1	0.98	0.30	-	42,42,42,42	0
55	MG	DA	3472	1/1	0.98	0.69	-	71,71,71,71	0
55	MG	BA	3575	1/1	0.88	0.35	-	71,71,71,71	0
55	MG	BA	3574	1/1	0.88	0.53	-	78,78,78,78	0
55	MG	AA	1697	1/1	0.91	0.41	-	84,84,84,84	0
55	MG	BA	3570	1/1	0.68	0.41	-	87,87,87,87	0
55	MG	BA	3268	1/1	0.93	0.58	-	67,67,67,67	0
55	MG	CA	1762	1/1	0.67	0.31	-	96,96,96,96	0
55	MG	BA	3179	1/1	0.91	0.44	-	64,64,64,64	0
55	MG	BA	3556	1/1	0.91	0.51	-	58,58,58,58	0
55	MG	BA	3482	1/1	0.88	0.39	-	57,57,57,57	0
55	MG	DA	3330	1/1	0.81	0.15	-	81,81,81,81	0
55	MG	AG	301	1/1	0.98	0.57	-	81,81,81,81	0
55	MG	BA	3089	1/1	0.85	0.33	-	88,88,88,88	0
55	MG	CA	1618	1/1	0.80	0.17	-	93,93,93,93	0
55	MG	AA	1786	1/1	0.79	0.19	-	86,86,86,86	0
55	MG	CA	1806	1/1	0.94	0.48	-	96,96,96,96	0
55	MG	DA	3383	1/1	0.88	0.47	-	87,87,87,87	0
55	MG	DA	3314	1/1	0.91	0.47	-	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	DA	3271	1/1	0.96	0.47	-	58,58,58,58	0
55	MG	BA	3332	1/1	0.78	0.32	-	61,61,61,61	0
55	MG	DA	3255	1/1	0.92	0.28	-	75,75,75,75	0
55	MG	BA	3539	1/1	0.89	0.26	-	74,74,74,74	0
55	MG	DA	3486	1/1	0.87	0.33	-	68,68,68,68	0
55	MG	DA	3302	1/1	0.81	0.57	-	95,95,95,95	0
55	MG	BA	3463	1/1	0.47	0.30	-	72,72,72,72	0
55	MG	BA	3541	1/1	0.64	0.20	-	96,96,96,96	0
55	MG	DA	3395	1/1	0.88	0.47	-	69,69,69,69	0
55	MG	CA	1786	1/1	0.91	0.26	-	73,73,73,73	0
55	MG	DA	3269	1/1	0.90	0.42	-	84,84,84,84	0
55	MG	CA	1624	1/1	0.82	0.36	-	88,88,88,88	0
55	MG	DA	3118	1/1	0.98	0.35	-	71,71,71,71	0
55	MG	AA	1790	1/1	0.81	0.23	-	98,98,98,98	0
55	MG	BA	3204	1/1	0.88	0.34	-	78,78,78,78	0
55	MG	CA	1744	1/1	0.95	0.27	-	79,79,79,79	0
55	MG	BA	3590	1/1	0.94	0.34	-	63,63,63,63	0
55	MG	DA	3119	1/1	0.65	0.44	-	98,98,98,98	0
55	MG	DA	3225	1/1	0.90	0.59	-	73,73,73,73	0
55	MG	CA	1665	1/1	0.89	0.17	-	83,83,83,83	0
55	MG	BA	3439	1/1	0.90	0.36	-	71,71,71,71	0
55	MG	BA	3271	1/1	0.92	0.20	-	35,35,35,35	0
55	MG	BA	3537	1/1	0.84	0.41	-	89,89,89,89	0
55	MG	CA	1663	1/1	0.89	0.35	-	81,81,81,81	0
55	MG	AA	1688	1/1	0.82	0.21	-	72,72,72,72	0
55	MG	BA	3611	1/1	0.91	0.52	-	87,87,87,87	0
55	MG	DA	3523	1/1	0.87	0.91	-	81,81,81,81	0
55	MG	BA	3354	1/1	0.73	0.21	-	72,72,72,72	0
55	MG	AA	1718	1/1	0.89	0.58	-	82,82,82,82	0
55	MG	BA	3185	1/1	0.83	0.36	-	76,76,76,76	0
55	MG	AA	1603	1/1	0.94	0.33	-	63,63,63,63	0
55	MG	BA	3388	1/1	0.79	0.49	-	88,88,88,88	0
55	MG	CA	1729	1/1	0.75	0.84	-	77,77,77,77	0
55	MG	BA	3507	1/1	0.88	0.30	-	89,89,89,89	0
55	MG	BA	3192	1/1	0.97	0.33	-	34,34,34,34	0
55	MG	DB	208	1/1	0.73	0.22	-	90,90,90,90	0
55	MG	DA	3057	1/1	0.79	0.35	-	83,83,83,83	0
55	MG	DA	3100	1/1	0.95	0.44	-	44,44,44,44	0
55	MG	AA	1765	1/1	0.95	0.51	-	84,84,84,84	0
55	MG	BA	3053	1/1	0.89	0.28	-	95,95,95,95	0
55	MG	AA	1792	1/1	0.96	0.21	-	55,55,55,55	0
55	MG	CA	1726	1/1	0.99	0.62	-	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	DA	3290	1/1	0.72	0.31	-	79,79,79,79	0
55	MG	CA	1633	1/1	0.90	0.28	-	91,91,91,91	0
55	MG	CA	1664	1/1	0.66	0.29	-	99,99,99,99	0
55	MG	DA	3444	1/1	0.92	0.17	-	73,73,73,73	0
55	MG	BA	3560	1/1	0.94	0.56	-	78,78,78,78	0
55	MG	BA	3115	1/1	0.94	0.27	-	87,87,87,87	0
55	MG	BA	3565	1/1	0.86	0.28	-	77,77,77,77	0
55	MG	DA	3307	1/1	0.89	0.26	-	77,77,77,77	0
55	MG	DA	3366	1/1	0.76	0.43	-	83,83,83,83	0
55	MG	DA	3124	1/1	0.93	0.57	-	54,54,54,54	0
55	MG	DA	3181	1/1	0.96	0.49	-	50,50,50,50	0
55	MG	DA	3301	1/1	0.96	0.34	-	63,63,63,63	0
55	MG	BA	3202	1/1	0.97	0.39	-	51,51,51,51	0
55	MG	BA	3581	1/1	0.90	0.33	-	69,69,69,69	0
55	MG	BB	212	1/1	0.83	0.50	-	81,81,81,81	0
55	MG	DA	3392	1/1	0.92	0.42	-	68,68,68,68	0
55	MG	AA	1733	1/1	0.96	0.60	-	71,71,71,71	0
55	MG	DA	3320	1/1	0.71	0.15	-	76,76,76,76	0
55	MG	DA	3460	1/1	0.85	0.46	-	72,72,72,72	0
55	MG	AA	1649	1/1	0.96	0.37	-	79,79,79,79	0
55	MG	AA	1614	1/1	0.75	0.26	-	91,91,91,91	0
55	MG	CA	1788	1/1	0.92	0.33	-	84,84,84,84	0
55	MG	DA	3034	1/1	0.88	0.33	-	62,62,62,62	0
55	MG	DA	3372	1/1	0.93	0.36	-	65,65,65,65	0
55	MG	BA	3475	1/1	0.87	0.31	-	83,83,83,83	0
55	MG	AA	1758	1/1	0.49	0.35	-	85,85,85,85	0
55	MG	AA	1648	1/1	0.94	0.52	-	78,78,78,78	0
55	MG	DA	3115	1/1	0.99	0.53	-	49,49,49,49	0
55	MG	BA	3273	1/1	0.89	0.41	-	94,94,94,94	0
55	MG	CA	1745	1/1	0.86	0.12	-	91,91,91,91	0
55	MG	BB	216	1/1	0.75	0.15	-	94,94,94,94	0
55	MG	DA	3147	1/1	0.98	0.38	-	53,53,53,53	0
55	MG	BA	3472	1/1	0.69	0.61	-	89,89,89,89	0
55	MG	DA	3138	1/1	0.93	0.20	-	70,70,70,70	0
55	MG	BA	3260	1/1	0.89	0.42	-	47,47,47,47	0
55	MG	DA	3336	1/1	0.90	0.41	-	87,87,87,87	0
55	MG	DA	3398	1/1	0.90	0.40	-	74,74,74,74	0
55	MG	DA	3049	1/1	0.86	0.28	-	74,74,74,74	0
55	MG	BA	3572	1/1	0.82	0.30	-	87,87,87,87	0
55	MG	AA	1828	1/1	0.83	0.11	-	105,105,105,105	0
55	MG	BA	3315	1/1	0.92	0.34	-	78,78,78,78	0



## 6.5 Other polymers [i](#)

There are no such residues in this entry.