



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:23 PM GMT

PDB ID : 4V9S  
Title : Crystal structure of antibiotic GE82832 bound to 70S ribosome  
Authors : Bulkley, D.P.; Brandi, L.; Polikanov, Y.S.; Fabbretti, A.; O'Connor, M.;  
Gualerzi, C.O.; Steitz, T.A.  
Deposited on : 2013-12-05  
Resolution : 3.10 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

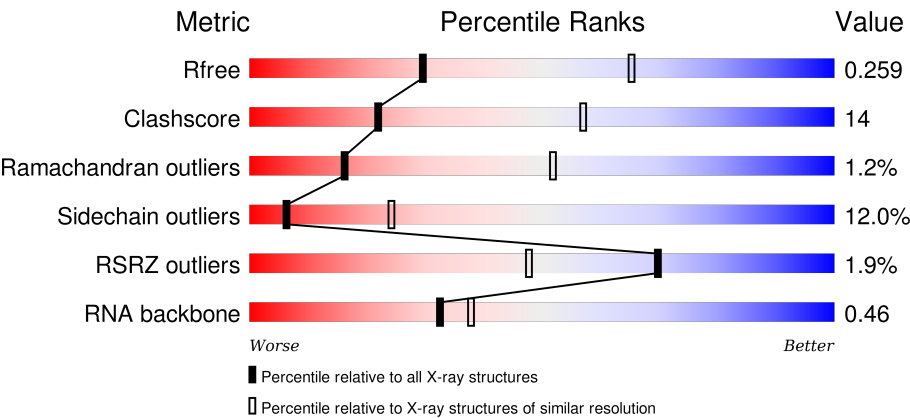
MolProbity : 4.02b-467  
Mogul : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : rb-20026688  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry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

# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:  
*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.10 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R <sub>free</sub>	91344	1114 (3.14-3.06)
Clashscore	102246	1222 (3.14-3.06)
Ramachandran outliers	100387	1174 (3.14-3.06)
Sidechain outliers	100360	1174 (3.14-3.06)
RSRZ outliers	91569	1119 (3.14-3.06)
RNA backbone	2183	1010 (3.52-2.68)

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	1522	<div><div>2%</div><div><div></div><div>36%</div><div>43%</div><div>17%</div><div>• •</div></div></div>
1	CA	1522	<div><div>2%</div><div><div></div><div>34%</div><div>43%</div><div>18%</div><div>• •</div></div></div>
2	AB	256	<div><div>3%</div><div><div></div><div>38%</div><div>39%</div><div>11%</div><div>• 10%</div></div></div>
2	CB	256	<div><div>5%</div><div><div></div><div>36%</div><div>44%</div><div>10%</div><div>10%</div></div></div>

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

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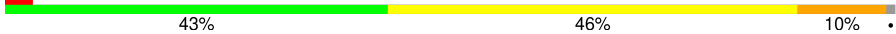



















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Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	24	
22	CV	24	
23	AX	77	
23	CX	77	
24	AW	10	
24	CW	10	
25	BA	2915	
25	DA	2915	
26	BB	122	
26	DB	122	
27	BD	276	
27	DD	276	

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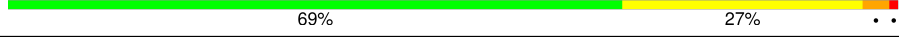

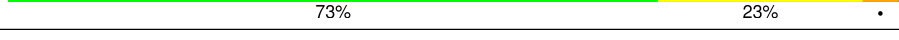
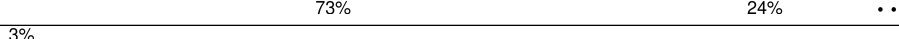
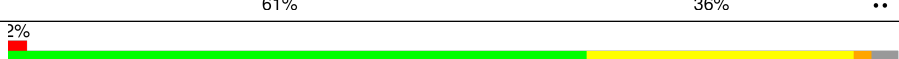





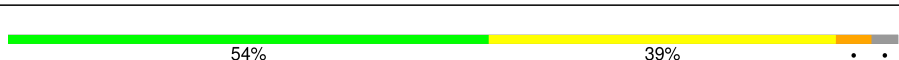




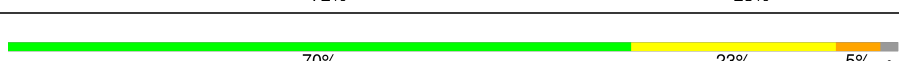
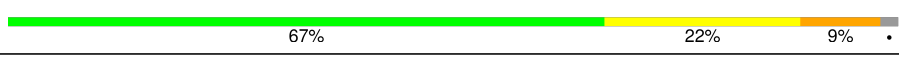





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Mol	Chain	Length	Quality of chain
28	BE	206	
28	DE	206	
29	BF	210	
29	DF	210	
30	BG	182	
30	DG	182	
31	BH	180	
31	DH	180	
32	BI	148	
32	DI	148	
33	BN	140	
33	DN	140	
34	BO	122	
34	DO	122	
35	BP	150	
35	DP	150	
36	BQ	141	
36	DQ	141	
37	BR	118	
37	DR	118	
38	BS	112	
38	DS	112	
39	BT	146	
39	DT	146	
40	BU	118	

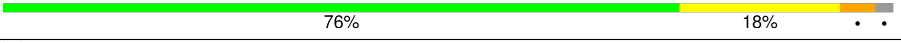


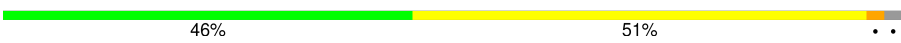


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Mol	Chain	Length	Quality of chain
40	DU	118	
41	BV	101	
41	DV	101	
42	BW	113	
42	DW	113	
43	BX	96	
43	DX	96	
44	BY	110	
44	DY	110	
45	BZ	206	
45	DZ	206	
46	B0	85	
46	D0	85	
47	B1	98	
47	D1	98	
48	B2	72	
48	D2	72	
49	B3	60	
49	D3	60	
50	B4	71	
50	D4	71	
51	B5	60	
51	D5	60	
52	B6	54	
52	D6	54	

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Mol	Chain	Length	Quality of chain
53	B7	49	
53	D7	49	
54	B8	65	
54	D8	65	
55	B9	37	
55	D9	37	

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
24	2QY	CW	10	-	-	X	-
24	MVA	CW	9	-	-	X	-
56	MG	AA	3008	-	-	-	X
56	MG	AA	3010	-	-	-	X
56	MG	AA	3011	-	-	-	X
56	MG	AA	3019	-	-	-	X
56	MG	AA	3024	-	-	-	X
56	MG	AA	3031	-	-	-	X
56	MG	AA	3033	-	-	-	X
56	MG	AA	3035	-	-	-	X
56	MG	AA	3036	-	-	-	X
56	MG	AA	3038	-	-	-	X
56	MG	AA	3039	-	-	-	X
56	MG	AA	3050	-	-	-	X
56	MG	AA	3060	-	-	-	X
56	MG	AA	3064	-	-	-	X
56	MG	AA	3071	-	-	-	X
56	MG	AA	3072	-	-	-	X
56	MG	AA	3082	-	-	-	X
56	MG	AA	3084	-	-	-	X
56	MG	AA	3088	-	-	-	X
56	MG	AA	3095	-	-	-	X
56	MG	AA	3107	-	-	-	X
56	MG	AA	3108	-	-	-	X
56	MG	AA	3109	-	-	-	X
56	MG	AA	3120	-	-	-	X
56	MG	AA	3145	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	AA	3146	-	-	-	X
56	MG	AA	3159	-	-	-	X
56	MG	AA	3160	-	-	-	X
56	MG	AA	3168	-	-	-	X
56	MG	AA	3171	-	-	-	X
56	MG	AA	3179	-	-	-	X
56	MG	AA	3180	-	-	-	X
56	MG	AA	3190	-	-	-	X
56	MG	AA	3208	-	-	-	X
56	MG	AA	3209	-	-	-	X
56	MG	B3	103	-	-	-	X
56	MG	B7	102	-	-	-	X
56	MG	B7	103	-	-	-	X
56	MG	B8	101	-	-	-	X
56	MG	BA	3014	-	-	-	X
56	MG	BA	3024	-	-	-	X
56	MG	BA	3025	-	-	-	X
56	MG	BA	3026	-	-	-	X
56	MG	BA	3033	-	-	-	X
56	MG	BA	3034	-	-	-	X
56	MG	BA	3036	-	-	-	X
56	MG	BA	3037	-	-	-	X
56	MG	BA	3038	-	-	-	X
56	MG	BA	3041	-	-	-	X
56	MG	BA	3042	-	-	-	X
56	MG	BA	3045	-	-	-	X
56	MG	BA	3047	-	-	-	X
56	MG	BA	3048	-	-	-	X
56	MG	BA	3057	-	-	-	X
56	MG	BA	3060	-	-	-	X
56	MG	BA	3079	-	-	-	X
56	MG	BA	3086	-	-	-	X
56	MG	BA	3093	-	-	-	X
56	MG	BA	3117	-	-	-	X
56	MG	BA	3121	-	-	-	X
56	MG	BA	3124	-	-	-	X
56	MG	BA	3128	-	-	-	X
56	MG	BA	3133	-	-	-	X
56	MG	BA	3139	-	-	-	X
56	MG	BA	3145	-	-	-	X
56	MG	BA	3147	-	-	-	X
56	MG	BA	3150	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	3153	-	-	-	X
56	MG	BA	3155	-	-	-	X
56	MG	BA	3160	-	-	-	X
56	MG	BA	3178	-	-	-	X
56	MG	BA	3184	-	-	-	X
56	MG	BA	3187	-	-	-	X
56	MG	BA	3192	-	-	-	X
56	MG	BA	3193	-	-	-	X
56	MG	BA	3196	-	-	-	X
56	MG	BA	3197	-	-	-	X
56	MG	BA	3199	-	-	-	X
56	MG	BA	3200	-	-	-	X
56	MG	BA	3203	-	-	-	X
56	MG	BA	3211	-	-	-	X
56	MG	BA	3222	-	-	-	X
56	MG	BA	3223	-	-	-	X
56	MG	BA	3227	-	-	-	X
56	MG	BA	3228	-	-	-	X
56	MG	BA	3230	-	-	-	X
56	MG	BA	3264	-	-	-	X
56	MG	BA	3277	-	-	-	X
56	MG	BA	3297	-	-	-	X
56	MG	BA	3299	-	-	-	X
56	MG	BA	3304	-	-	-	X
56	MG	BA	3311	-	-	-	X
56	MG	BA	3324	-	-	-	X
56	MG	BA	3328	-	-	-	X
56	MG	BA	3332	-	-	-	X
56	MG	BA	3343	-	-	-	X
56	MG	BA	3346	-	-	-	X
56	MG	BA	3349	-	-	-	X
56	MG	BA	3353	-	-	-	X
56	MG	BA	3356	-	-	-	X
56	MG	BA	3368	-	-	-	X
56	MG	BA	3370	-	-	-	X
56	MG	BA	3379	-	-	-	X
56	MG	BA	3402	-	-	-	X
56	MG	BA	3414	-	-	-	X
56	MG	BA	3416	-	-	-	X
56	MG	BA	3431	-	-	-	X
56	MG	BA	3435	-	-	-	X
56	MG	BA	3441	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	3451	-	-	-	X
56	MG	BA	3459	-	-	-	X
56	MG	BA	3480	-	-	-	X
56	MG	BA	3493	-	-	-	X
56	MG	BA	3503	-	-	-	X
56	MG	BA	3504	-	-	-	X
56	MG	BA	3512	-	-	-	X
56	MG	BA	3524	-	-	-	X
56	MG	BA	3525	-	-	-	X
56	MG	BA	3530	-	-	-	X
56	MG	BA	3544	-	-	-	X
56	MG	BA	3545	-	-	-	X
56	MG	BA	3546	-	-	-	X
56	MG	BA	3548	-	-	-	X
56	MG	BA	3550	-	-	-	X
56	MG	BA	3552	-	-	-	X
56	MG	BA	3557	-	-	-	X
56	MG	BA	3560	-	-	-	X
56	MG	BA	3576	-	-	-	X
56	MG	BA	3601	-	-	-	X
56	MG	BA	3607	-	-	-	X
56	MG	BA	3614	-	-	-	X
56	MG	BA	3622	-	-	-	X
56	MG	BA	3624	-	-	-	X
56	MG	BA	3630	-	-	-	X
56	MG	BA	3634	-	-	-	X
56	MG	BA	3637	-	-	-	X
56	MG	BA	3640	-	-	-	X
56	MG	BA	3642	-	-	-	X
56	MG	BA	3664	-	-	-	X
56	MG	BA	3671	-	-	-	X
56	MG	BA	3682	-	-	-	X
56	MG	BA	3689	-	-	-	X
56	MG	BA	3703	-	-	-	X
56	MG	BA	3719	-	-	-	X
56	MG	BA	3720	-	-	-	X
56	MG	BA	3726	-	-	-	X
56	MG	BA	3727	-	-	-	X
56	MG	BA	3729	-	-	-	X
56	MG	BA	3732	-	-	-	X
56	MG	BA	3737	-	-	-	X
56	MG	BA	3739	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BB	3003	-	-	-	X
56	MG	BB	3008	-	-	-	X
56	MG	BD	302	-	-	-	X
56	MG	BD	305	-	-	-	X
56	MG	BD	306	-	-	-	X
56	MG	BD	308	-	-	-	X
56	MG	BD	310	-	-	-	X
56	MG	BE	301	-	-	-	X
56	MG	BE	305	-	-	-	X
56	MG	BF	301	-	-	-	X
56	MG	BF	302	-	-	-	X
56	MG	BF	303	-	-	-	X
56	MG	BF	305	-	-	-	X
56	MG	BN	3001	-	-	-	X
56	MG	BN	3002	-	-	-	X
56	MG	BN	3003	-	-	-	X
56	MG	BN	3004	-	-	-	X
56	MG	BN	3005	-	-	-	X
56	MG	BP	201	-	-	-	X
56	MG	BP	203	-	-	-	X
56	MG	BQ	201	-	-	-	X
56	MG	BQ	202	-	-	-	X
56	MG	BQ	205	-	-	-	X
56	MG	BR	201	-	-	-	X
56	MG	BR	204	-	-	-	X
56	MG	BU	202	-	-	-	X
56	MG	BU	203	-	-	-	X
56	MG	BU	205	-	-	-	X
56	MG	BU	206	-	-	-	X
56	MG	BU	208	-	-	-	X
56	MG	BV	201	-	-	-	X
56	MG	BV	202	-	-	-	X
56	MG	BV	203	-	-	-	X
56	MG	BW	204	-	-	-	X
56	MG	BX	3001	-	-	-	X
56	MG	CA	3001	-	-	-	X
56	MG	CA	3007	-	-	-	X
56	MG	CA	3027	-	-	-	X
56	MG	CA	3032	-	-	-	X
56	MG	CA	3042	-	-	-	X
56	MG	CA	3043	-	-	-	X
56	MG	CA	3048	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	CA	3053	-	-	-	X
56	MG	CA	3061	-	-	-	X
56	MG	CA	3072	-	-	-	X
56	MG	CA	3098	-	-	-	X
56	MG	CA	3099	-	-	-	X
56	MG	CA	3101	-	-	-	X
56	MG	CA	3114	-	-	-	X
56	MG	CA	3119	-	-	-	X
56	MG	CA	3135	-	-	-	X
56	MG	CA	3152	-	-	-	X
56	MG	CA	3162	-	-	-	X
56	MG	CA	3170	-	-	-	X
56	MG	CE	3001	-	-	-	X
56	MG	CT	3001	-	-	-	X
56	MG	D3	101	-	-	-	X
56	MG	D5	102	-	-	-	X
56	MG	DA	3002	-	-	-	X
56	MG	DA	3006	-	-	-	X
56	MG	DA	3011	-	-	-	X
56	MG	DA	3016	-	-	-	X
56	MG	DA	3018	-	-	-	X
56	MG	DA	3025	-	-	-	X
56	MG	DA	3026	-	-	-	X
56	MG	DA	3033	-	-	-	X
56	MG	DA	3035	-	-	-	X
56	MG	DA	3039	-	-	-	X
56	MG	DA	3056	-	-	-	X
56	MG	DA	3065	-	-	-	X
56	MG	DA	3070	-	-	-	X
56	MG	DA	3078	-	-	-	X
56	MG	DA	3079	-	-	-	X
56	MG	DA	3092	-	-	-	X
56	MG	DA	3094	-	-	-	X
56	MG	DA	3097	-	-	-	X
56	MG	DA	3099	-	-	-	X
56	MG	DA	3100	-	-	-	X
56	MG	DA	3112	-	-	-	X
56	MG	DA	3114	-	-	-	X
56	MG	DA	3116	-	-	-	X
56	MG	DA	3121	-	-	-	X
56	MG	DA	3142	-	-	-	X
56	MG	DA	3143	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	DA	3148	-	-	-	X
56	MG	DA	3164	-	-	-	X
56	MG	DA	3170	-	-	-	X
56	MG	DA	3171	-	-	-	X
56	MG	DA	3173	-	-	-	X
56	MG	DA	3176	-	-	-	X
56	MG	DA	3178	-	-	-	X
56	MG	DA	3191	-	-	-	X
56	MG	DA	3197	-	-	-	X
56	MG	DA	3215	-	-	-	X
56	MG	DA	3236	-	-	-	X
56	MG	DA	3261	-	-	-	X
56	MG	DA	3262	-	-	-	X
56	MG	DA	3264	-	-	-	X
56	MG	DA	3265	-	-	-	X
56	MG	DA	3266	-	-	-	X
56	MG	DA	3272	-	-	-	X
56	MG	DA	3279	-	-	-	X
56	MG	DA	3295	-	-	-	X
56	MG	DA	3298	-	-	-	X
56	MG	DA	3302	-	-	-	X
56	MG	DA	3306	-	-	-	X
56	MG	DA	3312	-	-	-	X
56	MG	DA	3324	-	-	-	X
56	MG	DA	3326	-	-	-	X
56	MG	DA	3335	-	-	-	X
56	MG	DA	3346	-	-	-	X
56	MG	DA	3347	-	-	-	X
56	MG	DA	3364	-	-	-	X
56	MG	DA	3379	-	-	-	X
56	MG	DA	3395	-	-	-	X
56	MG	DA	3397	-	-	-	X
56	MG	DA	3401	-	-	-	X
56	MG	DA	3407	-	-	-	X
56	MG	DA	3408	-	-	-	X
56	MG	DA	3414	-	-	-	X
56	MG	DA	3418	-	-	-	X
56	MG	DA	3424	-	-	-	X
56	MG	DA	3432	-	-	-	X
56	MG	DA	3440	-	-	-	X
56	MG	DA	3450	-	-	-	X
56	MG	DA	3461	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	DA	3469	-	-	-	X
56	MG	DA	3473	-	-	-	X
56	MG	DA	3476	-	-	-	X
56	MG	DA	3479	-	-	-	X
56	MG	DA	3518	-	-	-	X
56	MG	DA	3535	-	-	-	X
56	MG	DA	3553	-	-	-	X
56	MG	DA	3554	-	-	-	X
56	MG	DA	3577	-	-	-	X
56	MG	DA	3581	-	-	-	X
56	MG	DA	3608	-	-	-	X
56	MG	DA	3609	-	-	-	X
56	MG	DA	3615	-	-	-	X
56	MG	DA	3620	-	-	-	X
56	MG	DA	3623	-	-	-	X
56	MG	DA	3624	-	-	-	X
56	MG	DA	3627	-	-	-	X
56	MG	DA	3628	-	-	-	X
56	MG	DA	3631	-	-	-	X
56	MG	DA	3633	-	-	-	X
56	MG	DA	3637	-	-	-	X
56	MG	DA	3638	-	-	-	X
56	MG	DA	3639	-	-	-	X
56	MG	DA	3641	-	-	-	X
56	MG	DA	3643	-	-	-	X
56	MG	DA	3649	-	-	-	X
56	MG	DA	3651	-	-	-	X
56	MG	DA	3652	-	-	-	X
56	MG	DA	3653	-	-	-	X
56	MG	DB	3007	-	-	-	X
56	MG	DD	301	-	-	-	X
56	MG	DD	305	-	-	-	X
56	MG	DD	306	-	-	-	X
56	MG	DD	307	-	-	-	X
56	MG	DE	301	-	-	-	X
56	MG	DF	301	-	-	-	X
56	MG	DF	304	-	-	-	X
56	MG	DF	305	-	-	-	X
56	MG	DQ	205	-	-	-	X
56	MG	DV	201	-	-	-	X
56	MG	DV	202	-	-	-	X
56	MG	DV	203	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	FME	AX	101	-	-	-	X
59	FME	CX	101	-	-	-	X

## 2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 286321 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	1498	Total	C	N	O	P	0	0	0
			32196	14328	5966	10404	1498			
1	CA	1503	Total	C	N	O	P	0	0	0
			32312	14381	5990	10438	1503			

- Molecule 2 is a protein called 30S Ribosomal Protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
2	CB	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 3 is a protein called 30S Ribosomal Protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1552	976	302	273	1			
3	CC	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 4 is a protein called 30S Ribosomal Protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1659	1040	326	286	7			
4	CD	208	Total	C	N	O	S	0	0	0
			1674	1050	333	284	7			

- Molecule 5 is a protein called 30S Ribosomal Protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
5	CE	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 6 is a protein called 30S Ribosomal Protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			806	511	143	149	3			
6	CF	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 7 is a protein called 30S Ribosomal Protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 8 is a protein called 30S Ribosomal Protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
8	CH	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 9 is a protein called 30S Ribosomal Protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O		0	0	0
			983	623	193	167				
9	CI	127	Total	C	N	O		0	0	0
			978	619	190	169				

- Molecule 10 is a protein called 30S Ribosomal Protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	97	Total	C	N	O		0	0	0
			709	440	138	131				

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	CJ	96	Total	C	N	O			
			714	445	138	131	0	0	0

- Molecule 11 is a protein called 30S Ribosomal Protein S11.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
11	AK	114	Total	C	N	O	S		
			829	516	155	155	3	0	0
11	CK	114	Total	C	N	O	S		
			833	519	156	155	3	0	0

- Molecule 12 is a protein called 30S Ribosomal Protein S12.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
12	AL	122	Total	C	N	O	S		
			930	585	185	159	1	0	0
12	CL	122	Total	C	N	O	S		
			930	585	185	159	1	0	0

- Molecule 13 is a protein called 30S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	AM	123	Total	C	N	O	S		
			958	592	198	166	2	0	0
13	CM	122	Total	C	N	O	S		
			950	586	197	165	2	0	0

- Molecule 14 is a protein called 30S Ribosomal Protein S14.

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

- Molecule 15 is a protein called 30S Ribosomal Protein S15.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S		
			728	456	144	126	2	0	0
15	CO	88	Total	C	N	O	S		
			728	456	144	126	2	0	0

- Molecule 16 is a protein called 30S Ribosomal Protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
16	CP	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 17 is a protein called 30S Ribosomal Protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 18 is a protein called 30S Ribosomal Protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	68	Total	C	N	O	0	0	0
			555	355	108	92			
18	CR	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 19 is a protein called 30S Ribosomal Protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	83	Total	C	N	O	S	0	0	0
			652	417	120	113	2			
19	CS	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 20 is a protein called 30S Ribosomal Protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
20	CT	96	Total	C	N	O	S	0	0	0
			727	446	155	124	2			

- Molecule 21 is a protein called 30S Ribosomal Protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	CU	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 22 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	7	Total	C	N	O	P	0	0	1
			114	49	22	37	6			
22	CV	6	Total	C	N	O	P	0	0	0
			113	49	22	36	6			

- Molecule 23 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AX	76	Total	C	N	O	P	0	0	0
			1623	723	294	530	76			
23	CX	76	Total	C	N	O	P	0	0	0
			1623	723	294	530	76			

- Molecule 24 is a protein called GE82832.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
24	AW	10	Total	C	N	O	0	0	0
			93	67	10	16			
24	CW	10	Total	C	N	O	0	0	0
			93	67	10	16			

- Molecule 25 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2731	Total	C	N	O	P	0	0	0
			58834	26185	11020	18899	2730			
25	DA	2714	Total	C	N	O	P	0	0	0
			58458	26018	10942	18786	2712			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	DB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 27 is a protein called 50S Ribosomal Protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
27	DD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 28 is a protein called 50S Ribosomal Protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BE	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
28	DE	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 29 is a protein called 50S Ribosomal Protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
29	DF	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- 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
			1425	914	256	251	4			
30	DG	181	Total	C	N	O	S	0	0	0
			1424	911	258	251	4			

- Molecule 31 is a protein called 50S Ribosomal Protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BH	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
31	DH	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

- Molecule 32 is a protein called 50S Ribosomal Protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BI	146	Total	C	N	O	S	0	0	0
			1085	693	189	202	1			
32	DI	146	Total	C	N	O	S	0	0	0
			1061	680	186	194	1			

- Molecule 33 is a protein called 50S Ribosomal Protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BN	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			
33	DN	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 34 is a protein called 50S Ribosomal Protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
34	DO	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	BP	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
35	DP	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 36 is a protein called 50S Ribosomal Protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
36	DQ	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	BR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
37	DR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 38 is a protein called 50S Ribosomal Protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BS	110	Total	C	N	O	S	0	0	0
			877	553	175	149				
38	DS	110	Total	C	N	O	S	0	0	0
			870	549	173	148				

- Molecule 39 is a protein called 50S Ribosomal Protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BT	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
39	DT	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 40 is a protein called 50S Ribosomal Protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
40	DU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 41 is a protein called 50S Ribosomal Protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BV	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
41	DV	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 42 is a protein called 50S Ribosomal Protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BW	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	DW	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 43 is a protein called 50S Ribosomal Protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BX	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
43	DX	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 44 is a protein called 50S Ribosomal Protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BY	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			
44	DY	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			

- Molecule 45 is a protein called 50S Ribosomal Protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BZ	171	Total	C	N	O	S	0	0	0
			1349	862	243	242	2			
45	DZ	174	Total	C	N	O	S	0	0	0
			1360	870	243	245	2			

- Molecule 46 is a protein called 50S Ribosomal Protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B0	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
46	D0	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			

- Molecule 47 is a protein called 50S Ribosomal Protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B1	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			
47	D1	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			

- Molecule 48 is a protein called 50S Ribosomal Protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
48	D2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 49 is a protein called 50S Ribosomal Protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	B3	59	Total	C	N	O	0	0	0
			469	298	90	81			
49	D3	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 50 is a protein called 50S Ribosomal Protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B4	69	Total	C	N	O	S	0	0	0
			551	348	99	99	5			
50	D4	69	Total	C	N	O	S	0	0	0
			531	338	97	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
			455	285	89	76	5			
51	D5	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 52 is a protein called 50S Ribosomal Protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B6	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
52	D6	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 53 is a protein called 50S Ribosomal Protein L34.

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

- Molecule 54 is a protein called 50S Ribosomal Protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B8	64	Total	C	N	O	S	0	0	0
			511	328	99	82	2			
54	D8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 55 is a protein called 50S Ribosomal Protein L36.

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

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	B4	1	Total	Mg	0	0
			1	1		
56	BA	738	Total	Mg	0	0
			738	738		
56	AK	1	Total	Mg	0	0
			1	1		
56	DQ	5	Total	Mg	0	0
			5	5		
56	D3	1	Total	Mg	0	0
			1	1		
56	DF	6	Total	Mg	0	0
			6	6		
56	B8	3	Total	Mg	0	0
			3	3		
56	BE	10	Total	Mg	0	0
			10	10		
56	B1	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AN	2	Total 2	Mg 2	0	0
56	BP	4	Total 4	Mg 4	0	0
56	AX	9	Total 9	Mg 9	0	0
56	DN	1	Total 1	Mg 1	0	0
56	CA	172	Total 172	Mg 172	0	0
56	B5	1	Total 1	Mg 1	0	0
56	BB	18	Total 18	Mg 18	0	0
56	D8	1	Total 1	Mg 1	0	0
56	DG	1	Total 1	Mg 1	0	0
56	B9	1	Total 1	Mg 1	0	0
56	BF	8	Total 8	Mg 8	0	0
56	AV	1	Total 1	Mg 1	0	0
56	BX	1	Total 1	Mg 1	0	0
56	B2	1	Total 1	Mg 1	0	0
56	AA	221	Total 221	Mg 221	0	0
56	BQ	5	Total 5	Mg 5	0	0
56	CQ	1	Total 1	Mg 1	0	0
56	CX	3	Total 3	Mg 3	0	0
56	DV	4	Total 4	Mg 4	0	0
56	AM	1	Total 1	Mg 1	0	0
56	BU	8	Total 8	Mg 8	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	DR	2	Total 2	Mg 2	0	0
56	AD	1	Total 1	Mg 1	0	0
56	BN	6	Total 6	Mg 6	0	0
56	CT	1	Total 1	Mg 1	0	0
56	D0	1	Total 1	Mg 1	0	0
56	BG	4	Total 4	Mg 4	0	0
56	BY	1	Total 1	Mg 1	0	0
56	DE	6	Total 6	Mg 6	0	0
56	B3	3	Total 3	Mg 3	0	0
56	BR	4	Total 4	Mg 4	0	0
56	DA	653	Total 653	Mg 653	0	0
56	DW	2	Total 2	Mg 2	0	0
56	B7	4	Total 4	Mg 4	0	0
56	CF	1	Total 1	Mg 1	0	0
56	BV	4	Total 4	Mg 4	0	0
56	DO	1	Total 1	Mg 1	0	0
56	BO	1	Total 1	Mg 1	0	0
56	BZ	1	Total 1	Mg 1	0	0
56	DY	1	Total 1	Mg 1	0	0
56	D5	2	Total 2	Mg 2	0	0
56	BD	12	Total 12	Mg 12	0	0

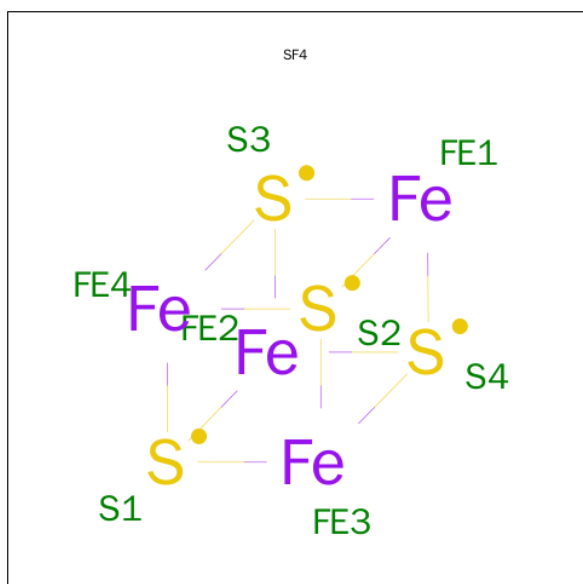
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	B0	4	Total	Mg	0	0
			4	4		
56	CE	2	Total	Mg	0	0
			2	2		
56	BW	5	Total	Mg	0	0
			5	5		
56	DD	8	Total	Mg	0	0
			8	8		
56	AF	1	Total	Mg	0	0
			1	1		
56	DB	12	Total	Mg	0	0
			12	12		

- Molecule 57 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula:  $\text{Fe}_4\text{S}_4$ ).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
57	AD	1	Total	Fe	S	0	0
			8	4	4		
57	CD	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula:  $\text{Zn}$ ).

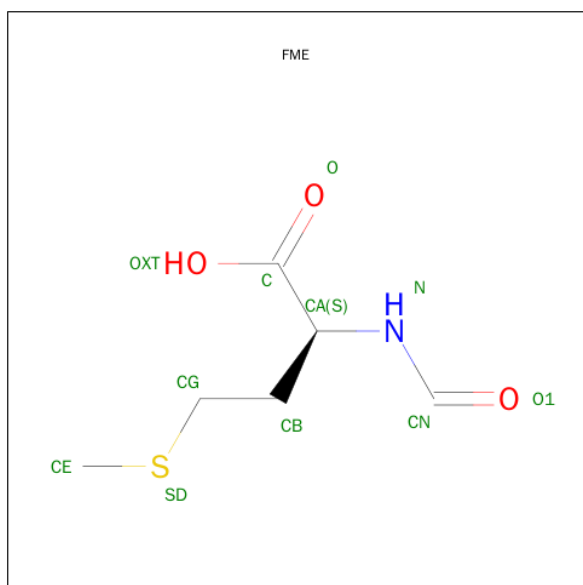
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	B5	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	B4	1	Total 1	Zn 1	0	0
58	CN	1	Total 1	Zn 1	0	0
58	BY	1	Total 1	Zn 1	0	0
58	B9	1	Total 1	Zn 1	0	0
58	DY	1	Total 1	Zn 1	0	0
58	D5	1	Total 1	Zn 1	0	0
58	D4	1	Total 1	Zn 1	0	0
58	AN	1	Total 1	Zn 1	0	0
58	D6	1	Total 1	Zn 1	0	0
58	D9	1	Total 1	Zn 1	0	0
58	B6	1	Total 1	Zn 1	0	0

- Molecule 59 is N-FORMYLMETHIONINE (three-letter code: FME) (formula:  $C_6H_{11}NO_3S$ ).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
59	AX	1	Total	C	N	O	S	0	0
			10	6	1	2	1		
59	CX	1	Total	C	N	O	S	0	0
			10	6	1	2	1		

- Molecule 60 is POTASSIUM ION (three-letter code: K) (formula: K).

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

- Molecule 61 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	AA	148	Total	O	0	0
			148	148		
61	AD	1	Total	O	0	0
			1	1		
61	AE	3	Total	O	0	0
			3	3		
61	AJ	1	Total	O	0	0
			1	1		
61	AL	1	Total	O	0	0
			1	1		
61	AP	1	Total	O	0	0
			1	1		
61	AU	1	Total	O	0	0
			1	1		
61	AV	1	Total	O	0	0
			1	1		
61	AX	1	Total	O	0	0
			1	1		
61	BA	1092	Total	O	0	0
			1092	1092		
61	BB	26	Total	O	0	0
			26	26		
61	BD	8	Total	O	0	0
			8	8		
61	BE	9	Total	O	0	0
			9	9		
61	BF	4	Total	O	0	0
			4	4		

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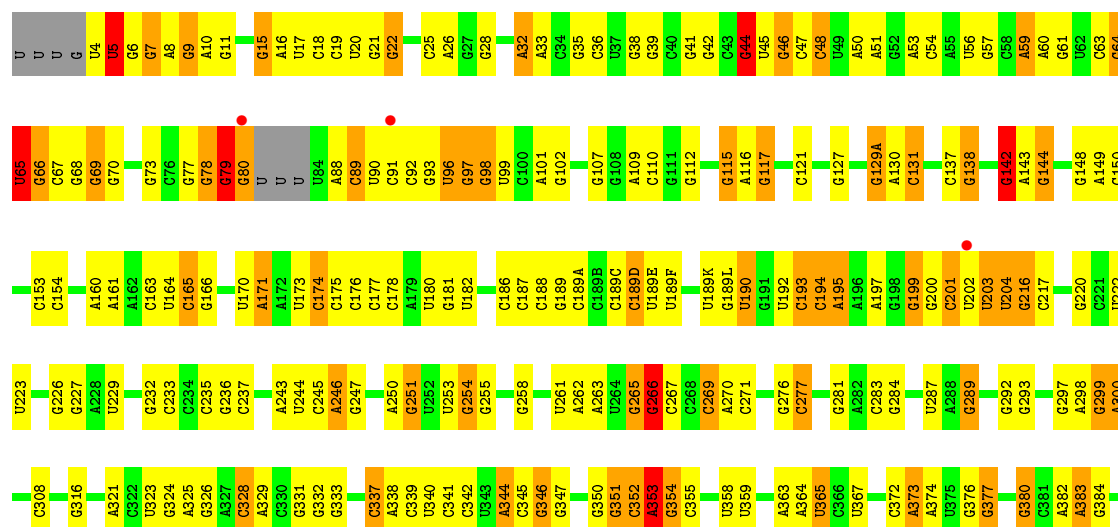
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	BG	1	Total	O	0	0
			1	1		
61	BN	3	Total	O	0	0
			3	3		
61	BO	2	Total	O	0	0
			2	2		
61	BP	15	Total	O	0	0
			15	15		
61	BQ	3	Total	O	0	0
			3	3		
61	BR	1	Total	O	0	0
			1	1		
61	BT	1	Total	O	0	0
			1	1		
61	BU	4	Total	O	0	0
			4	4		
61	BV	2	Total	O	0	0
			2	2		
61	BW	2	Total	O	0	0
			2	2		
61	BX	4	Total	O	0	0
			4	4		
61	B0	4	Total	O	0	0
			4	4		
61	B1	2	Total	O	0	0
			2	2		
61	B5	3	Total	O	0	0
			3	3		
61	B7	1	Total	O	0	0
			1	1		
61	B8	8	Total	O	0	0
			8	8		
61	CA	187	Total	O	0	0
			187	187		
61	CE	2	Total	O	0	0
			2	2		
61	CN	1	Total	O	0	0
			1	1		
61	CT	1	Total	O	0	0
			1	1		
61	CX	2	Total	O	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	DA	902	Total 902	O 902	0	0
61	DB	7	Total 7	O 7	0	0
61	DD	8	Total 8	O 8	0	0
61	DE	13	Total 13	O 13	0	0
61	DF	5	Total 5	O 5	0	0
61	DO	1	Total 1	O 1	0	0
61	DP	14	Total 14	O 14	0	0
61	DQ	3	Total 3	O 3	0	0
61	DU	4	Total 4	O 4	0	0
61	DV	1	Total 1	O 1	0	0
61	DX	2	Total 2	O 2	0	0
61	DY	2	Total 2	O 2	0	0
61	D0	5	Total 5	O 5	0	0
61	D1	1	Total 1	O 1	0	0
61	D7	2	Total 2	O 2	0	0
61	D8	4	Total 4	O 4	0	0



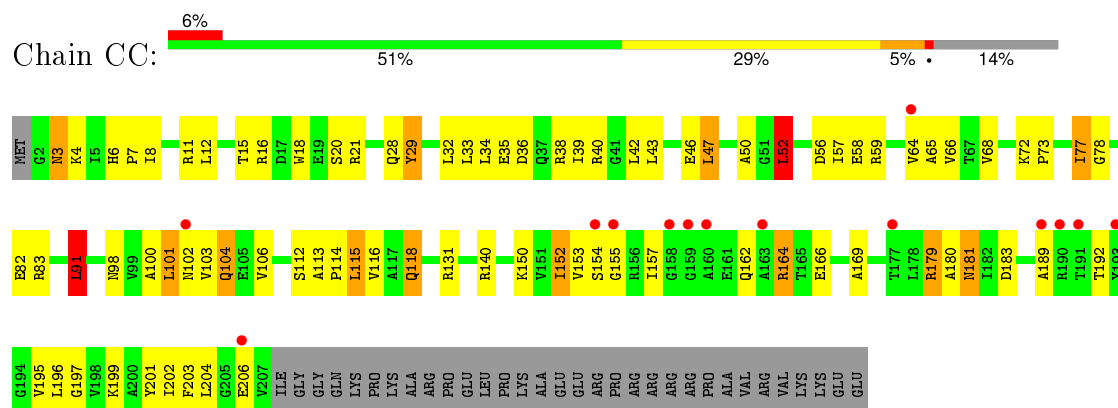


C1445	C1362	C1297	C1228	A1168	A1105	A1041	C985	A919	C934	G752	C680	A608	G538	C454	C388
U1446	C1363	C1298	G1233	A1169	G1106	G1042	A986	U920	U635	A753	G683	A609	A639	C455	A399
C1452	C1366	A1299	G1234	A1170	G1107	G1043	C989	U921	G636	G754	G684	G610	G540	C456	C390
G1457	C1367	G1300	U1235	C1171	G1108	A1044	C990	G922	G637	G755	A684	G615	G541	C457	G391
G1458	G1368	C1303	U1236	G1172	G1109	G1047	U991	A923	U638	G756	G685	G616	G542	C458	G392
C1459	C1369	G1304	C1237	G1173	A1110	G1048	U992	C924	U639	G757	U686	G617	G543	C460	A393
A1460	G1370	A1305	A1238	G1174	A1111	G1048	U992	G925	C940	G758	A687	U619	G544	A461	C396
C1461	A1306	C1306	A1239	A1175	C1112	C1051	G993	G926	U641	A759	G688	G620	C545	C470	A397
G1465	G1371	U1307	U1240	G1177	C1113	U1052	C995	G927	C948	G760	G689	G621	C546	G471	C398
C1466	A1372	G1373	G1241	G1178	G1105	G1053	U996	C995	U650	G761	G690	A622	C547	A472	G399
G1468	A1374	G1309	C1242	A1179	C1116	G1054	U997	U997	U651	A767	U692	G623	C548	G473	C400
C1469	A1375	A1180	C1243	A1180	C1117	A1055	G998	G928	G651	A768	G693	G624	C549	G474	C401
G1470	U1376	G1311	C1244	G1181	C1118	U1056	C999	G928	G655	A769	G694	G625	C550	G475	G402
G1479	A1377	G1312	C1245	A1182	C1119	G1057	U1000	G932	G658	G774	A694	G626	C551	G484	G403
C1480	C1378	U1313	C1246	A1183	U1120	G1058	C999	C934	G658	G775	C701	G627	C552	G485	U404
G1484	G1379	G1314	G1249	G1184	U1121	C1059	U1001	G935	A859	G776	A704	G628	C553	U486	U405
U1485	U1380	U1315	C1250	G1185	A1123	C1060	G1002	A937	A860	A777	U705	G629	C554	U487	U406
C1486	G1385	G1316	A1251	G1186	G1124	G1061	G1003	A938	G861	G778	A706	G630	C555	C488	G407
G1487	G1387	C1317	A1252	G1187	U1125	U1062	A1004	G939	G861	C783	G707	G631	C556	C489	A408
G1488	C1389	A1318	G1253	A1188	U1126	C1063	A1005	C940	A865	C784	G708	A632	C557	G490	G409
C1490	U1390	G1320	C1254	G1189	G1127	U1065	C1006	G941	C868	G785	G709	G634	C558	G491	G410
G1491	C1392	A1321	A1256	G1190	C1128	U1066	C1007	G942	C869	G786	G710	G635	C559	G492	A411
A1492	G1393	C1322	U1257	G1191	G1129	C1067	G1008	G947	G870	A790	G711	G638	C560	U494	A412
A1493	U1394	A1192	G1258	A1192	A1130	A1067	G1009	C948	A872	G791	A712	G639	C561	A495	G413
C1496	C1395	G1193	C1259	G1193	G1131	G1068	G1010	G951	A873	G792	G713	A640	C562	A496	A414
G1497	G1396	U1194	A1260	U1194	C1132	C1069	G1011	G952	G874	A793	G714	U641	C563	U498	C418
U1498	C1399	C1195	G1261	G1195	G1133	U1070	G1012	U953	G875	A794	A715	U642	C564	A499	G419
A1500	C1400	U1196	C1262	G1196	G1134	C1071	G1013	G954	G876	G797	A716	G646	C565	G500	C501
C1501	C1401	G1197	C1263	G1197	U1135	G1072	A1014	G955	G877	G798	C719	U646	C566	G502	G422
C1502	C1402	C1203	G1264	G1198	U1136	U1073	A1015	U955	G878	G799	C720	C647	C567	C503	G423
A1503	C1403	U1204	G1265	U1199	C1137	G1074	A1016	U956	G879	G800	G721	A648	C568	G504	G424
G1504	C1411	U1205	G1266	C1200	G1138	U1075	G1017	U957	C880	U801	A722	G649	C569	G505	G425
C1505	C1412	G1206	C1267	G1201	G1139	U1076	C1018	A958	G881	A802	G723	G650	C570	G506	G426
U1506	A1413	C1207	A1268	G1202	C1140	G1077	C1019	A959	C882	G803	G724	C651	C571	A509	U427
U1507	U1414	C1208	G1274	G1203	G1141	U1078	U1020	U960	C883	G804	G725	U652	C572	A510	G428
G1510	G1415	U1210	C1277	U1204	G1142	G1079	G1021	U961	G885	C805	G726	G653	C573	C511	U429
G1511	G1419	U1211	U1278	G1085	G1143	A1080	G1022	U964	G890	C806	G727	G654	C574	C512	A430
U1512	C1420	U1212	A1279	U1086	C1144	G1081	G1023	A965	U891	G807	G730	G655	C575	C513	A431
A1513	G1421	A1213	U1280	U1087	U1145	G1082	U1024	A966	A892	C811	G731	C656	C576	C514	A432
G1514	C1422	C1214	U1281	G1088	A1146	U1083	G1025	A967	C893	C812	G732	G660	C577	C515	C433
C1515	G1423	G1215	C1282	U1089	U1147	U1084	C1026	A968	G894	C813	G733	G661	C578	C516	C434
G1516	G1424	G1216	G1283	U1090	A1151	U1085	C1027	A969	C899	U814	A734	G662	C579	A520	C435
U1517	U1427	C1217	C1284	U1091	C1153	U1091	C1028	G970	A900	A815	G735	A663	C580	G521	C436
A1518	A1428	C1218	A1285	G1154	G1155	A1092	C1029	C972	A901	C816	G736	G664	C581	C522	U437
C1519	G1435	U1219	U1286	G1156	G1156	U1093	G1030	G973	G902	G818	A737	A665	C582	C523	G438
G1520	U1436	G1220	A1287	A1157	G1157	G1094	A1030	A974	G906	G821	C738	G666	C583	C524	A439
U1521	G1437	C1221	C1288	C1096	C1158	U1095	G1031	A975	A907	C826	U740	G667	C584	C525	A441
G1522	U1438	G1222	A1289	G1099	U1159	C1096	G1032	G976	A908	U827	G741	G671	C585	C526	C442
G1523	G1442	C1223	G1290	G1100	C1161	U1101	G1033	A977	A913	A828	G742	U672	C586	C527	C443
G1529	G1442B	G1224	U1291	A1101	C1162	A1102	A1035	C979	A914	A829	G743	G673	C587	C528	C444
G1530	A1442B	A1225	G1292	A1102	C1163	C1103	C1037	C980	A915	G829	G744	G674	C588	C529	C445
		G1226	G1293	C1103	C1163	C1038	C1038	U981	A916	G830	G745	G675	C589	C530	C446
		G1293	G1293	C1104	G1166	G1104	U1040	U982	G917	U831	G749	U677	C590	C531	C447
		G1293	G1293	G1104	G1166	G1104	U1040	A983	G918	C832	G750	U678	C591	C532	C448
		G1293	G1293	G1104	G1166	G1104	U1040	C984	A918	U833	G751	C679	C592	C533	C449
		G1293	G1293	G1104	G1166	G1104	U1040						C593	C534	C450
		G1293	G1293	G1104	G1166	G1104	U1040						C594	C535	C451
		G1293	G1293	G1104	G1166	G1104	U1040						C595	C536	C452
		G1293	G1293	G1104	G1166	G1104	U1040						C596	C537	C453
		G1293	G1293	G1104	G1166	G1104	U1040						C597	C538	C454
		G1293	G1293	G1104	G1166	G1104	U1040						C598	C539	C455
		G1293	G1293	G1104	G1166	G1104	U1040						C599	C540	C456
		G1293	G1293	G1104	G1166	G1104	U1040						C600	C541	C457
		G1293	G1293	G1104	G1166	G1104	U1040						C601	C542	C458
		G1293	G1293	G1104	G1166	G1104	U1040						C602	C543	C459
		G1293	G1293	G1104	G1166	G1104	U1040						C603	C544	C460
		G1293	G1293	G1104	G1166	G1104	U1040						C604	C545	C461
		G1293	G1293	G1104	G1166	G1104	U1040						C605	C546	C462
		G1293	G1293	G1104	G1166	G1104	U1040						C606	C547	C463
		G1293	G1293	G1104	G1166	G1104	U1040						C607	C548	C464
		G1293	G1293	G1104	G1166	G1104	U1040						C608	C549	C465
		G1293	G1293	G1104	G1166	G1104	U1040						C609	C550	C466
		G1293	G1293	G1104	G1166	G1104	U1040						C610	C551	C467
		G1293	G1293	G1104	G1166	G1104	U1040						C611	C552	C468
		G1293	G1293	G1104	G1166	G1104	U1040						C612	C553	C469
		G1293	G1293	G1104	G1166	G1104	U1040						C613	C554	C470
		G1293	G1293	G1104	G1166	G1104	U1040						C614	C555	C471
		G1293	G1293	G1104	G1166	G1104	U1040						C615	C556	C472
		G1293	G1293	G1104	G1166	G1104	U1040						C616	C557	C473
		G1293	G1293	G1104	G1166	G1104	U1040						C617	C558	C474
		G1293	G1293	G1104	G1166	G1104	U1040						C618	C559	C475
		G1293	G1293	G1104	G1166	G1104	U1040						C619	C560	C476
		G1293	G1293	G1104	G1166	G1104	U1040						C620	C561	C477
		G1293	G1293	G1104	G1166	G1104	U1040						C621	C562	C478
		G1293	G1293	G1104	G1166	G1104	U1040						C622	C563	C479
		G1293	G1293	G1104	G1166	G1104	U1040						C623	C564	C480
		G1293	G1293	G1104	G1166	G1104	U1040						C624	C565	C481
		G1293	G1293	G1104	G1166	G1104	U1040						C625	C566	C482
		G1293	G1293	G1104	G1166	G1104	U1040						C626	C567	C483
		G1293	G1293	G1104	G1166	G1104	U1040						C627	C568	C484
		G1293	G1293	G1104	G1166	G1104	U1040						C628	C569	C485
		G1293	G1293	G1104	G1166	G1104	U1040						C629	C570	C486
		G1293	G1293	G1104	G1166	G1104	U1040						C630	C571	C487
		G1293	G1293	G1104	G1166	G1104	U1040						C631	C572	C488
		G1293	G1293	G1104	G1166	G1104	U1040						C632	C573	C489
		G1293	G1293	G1104	G										

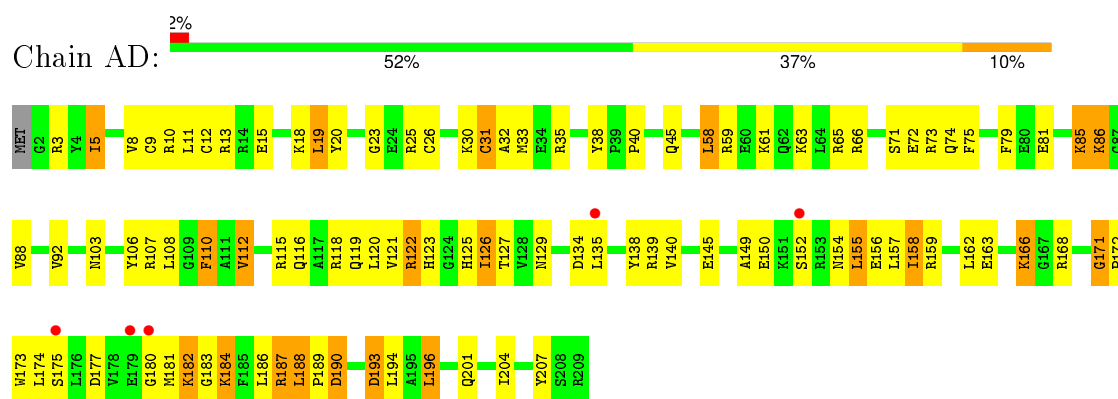




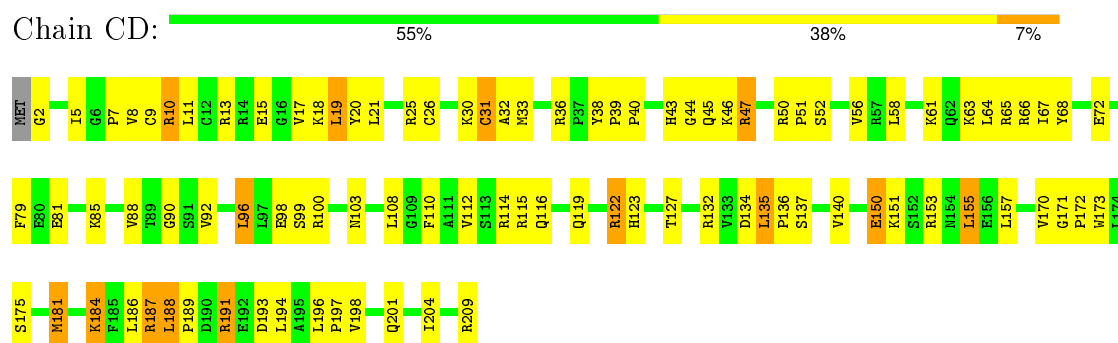
- Molecule 3: 30S Ribosomal Protein S3



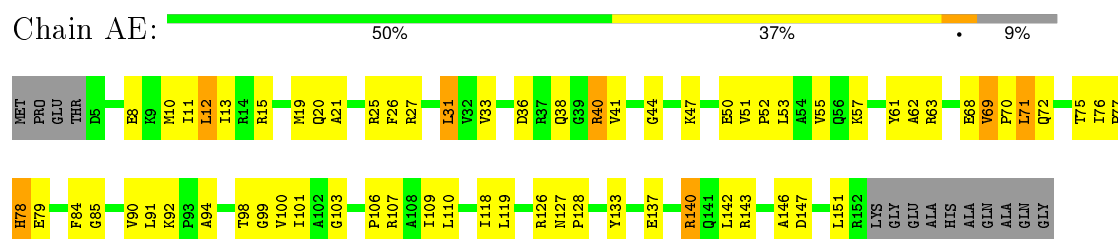
- Molecule 4: 30S Ribosomal Protein S4



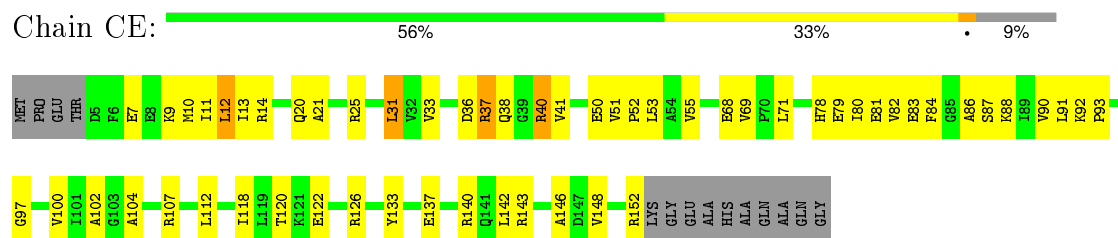
- Molecule 4: 30S Ribosomal Protein S4



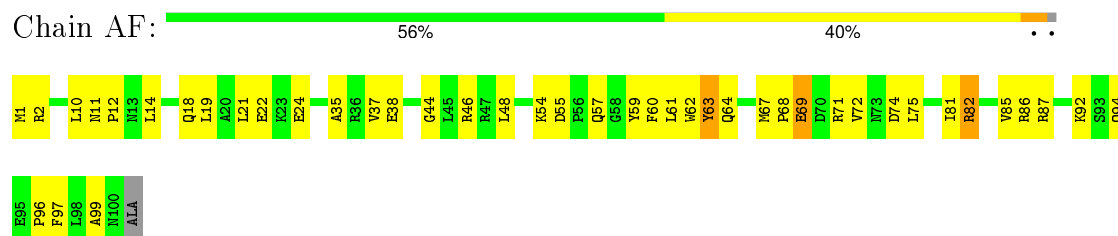
- Molecule 5: 30S Ribosomal Protein S5



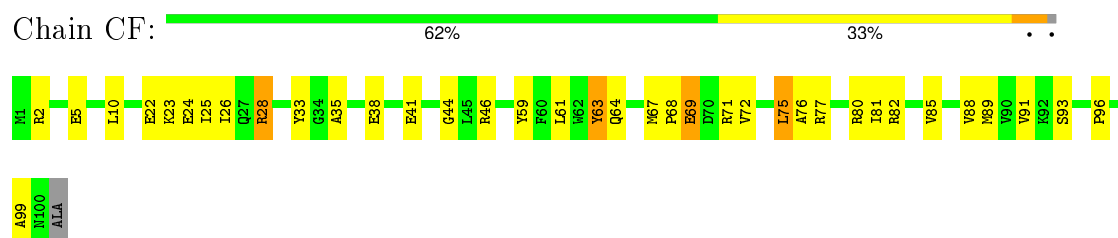
- Molecule 5: 30S Ribosomal Protein S5



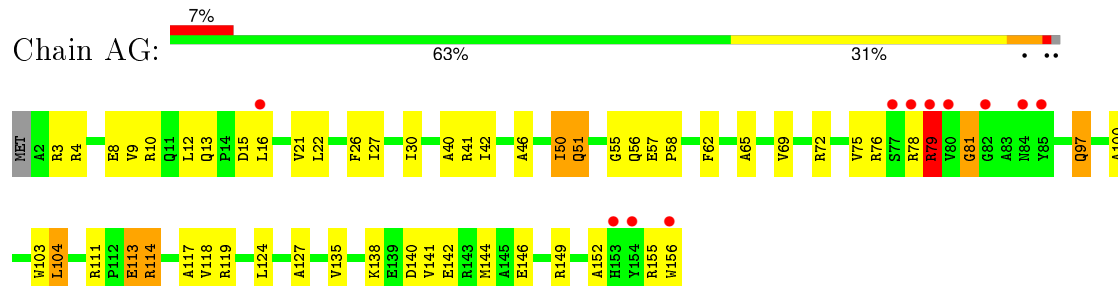
• Molecule 6: 30S Ribosomal Protein S6



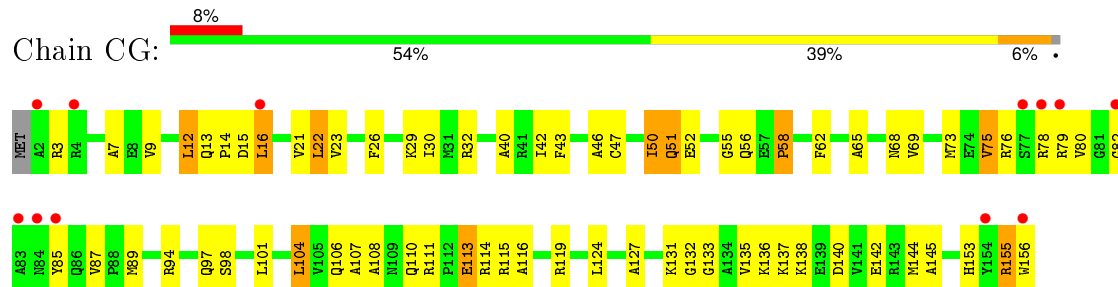
• Molecule 6: 30S Ribosomal Protein S6



• Molecule 7: 30S Ribosomal Protein S7

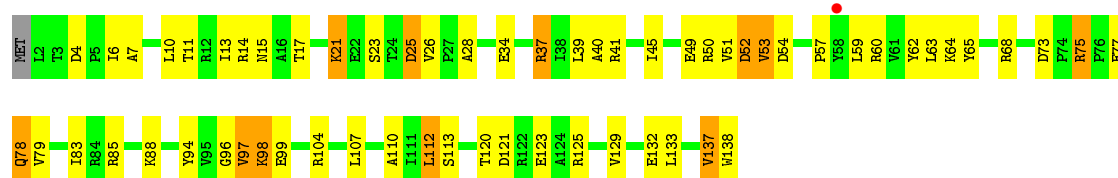


• Molecule 7: 30S Ribosomal Protein S7



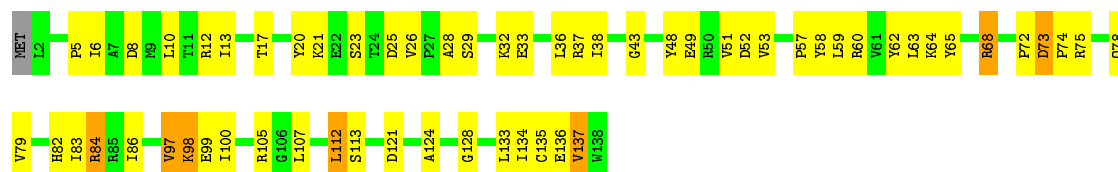
• Molecule 8: 30S Ribosomal Protein S8





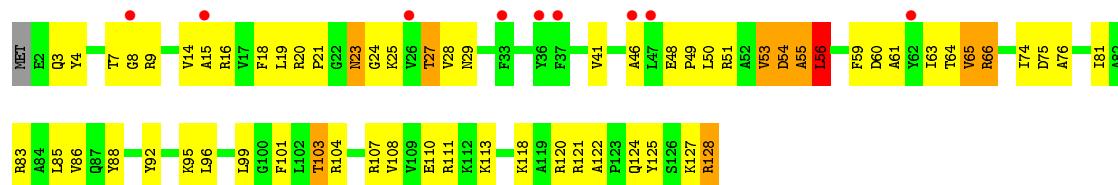
• Molecule 8: 30S Ribosomal Protein S8

Chain CH: 56% 38% 5% .



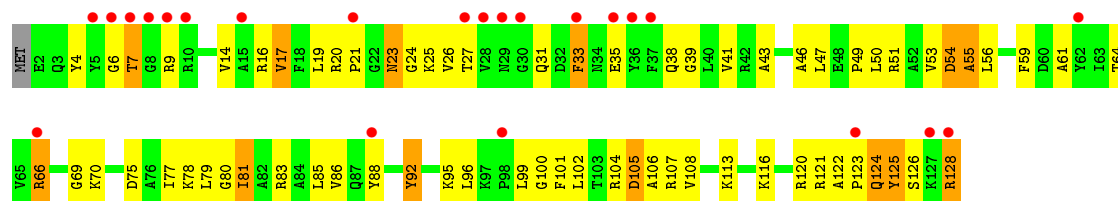
• Molecule 9: 30S Ribosomal Protein S9

Chain AI: 50% 41% 7% ..



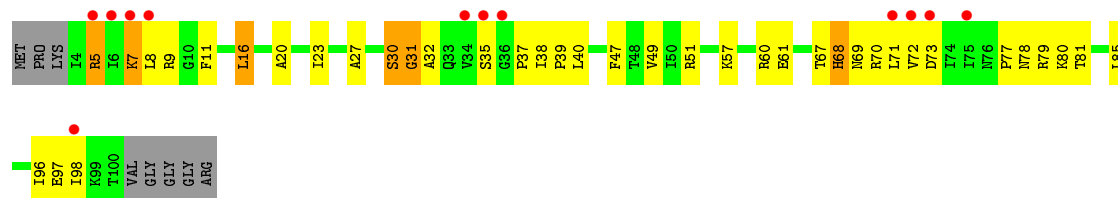
• Molecule 9: 30S Ribosomal Protein S9

Chain CI: 45% 44% 10% .



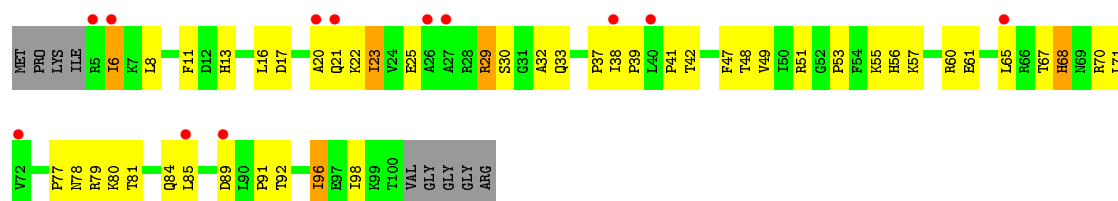
• Molecule 10: 30S Ribosomal Protein S10

Chain AJ: 11% 55% 31% 6% 8%



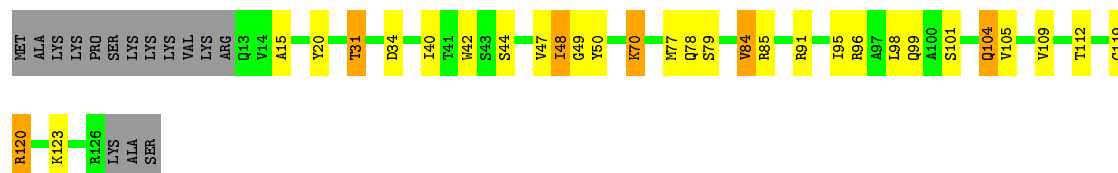
• Molecule 10: 30S Ribosomal Protein S10

Chain CJ: 11% 47% 40% 5% 9%



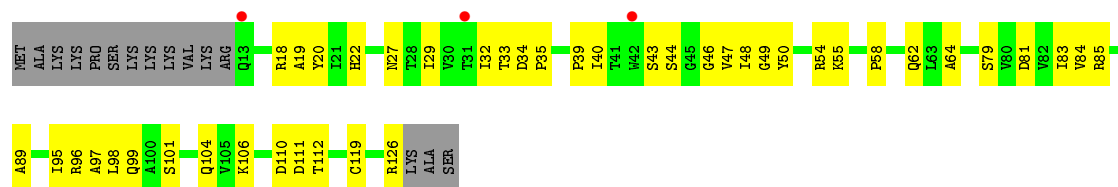
- Molecule 11: 30S Ribosomal Protein S11

Chain AK: 



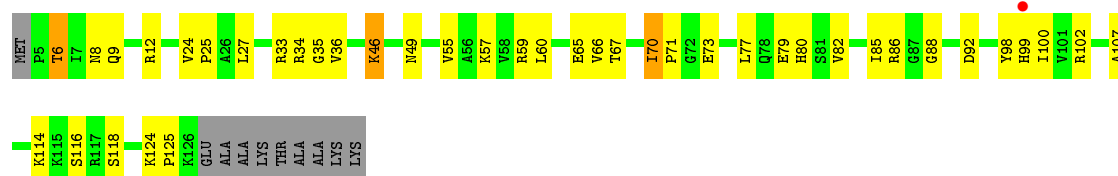
- Molecule 11: 30S Ribosomal Protein S11

Chain CK: 



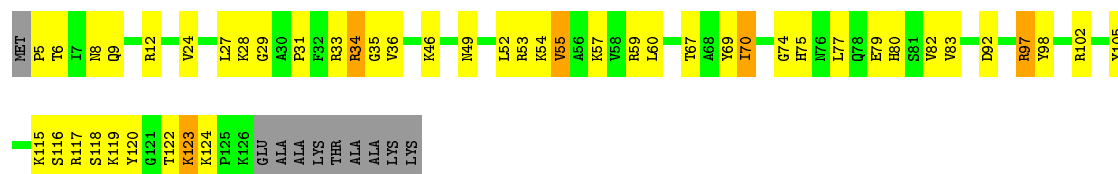
- Molecule 12: 30S Ribosomal Protein S12

Chain AL:  %



- Molecule 12: 30S Ribosomal Protein S12

Chain CL:  57% 32% 8%

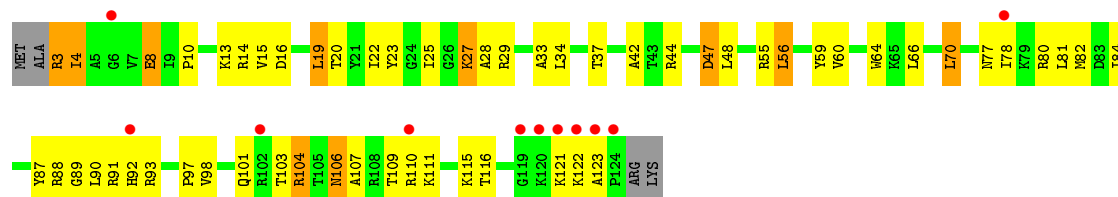


- Molecule 13: 30S Ribosomal Protein S13

Chain AM: 



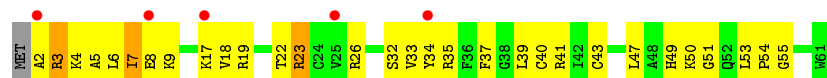
• Molecule 13: 30S Ribosomal Protein S13



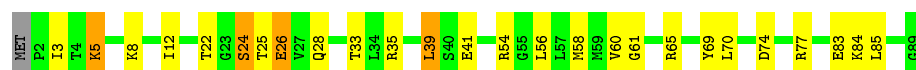
• Molecule 14: 30S Ribosomal Protein S14



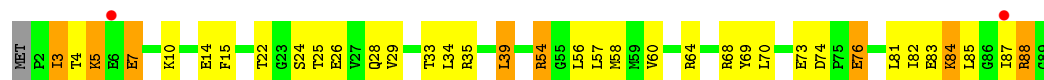
• Molecule 14: 30S Ribosomal Protein S14



• Molecule 15: 30S Ribosomal Protein S15

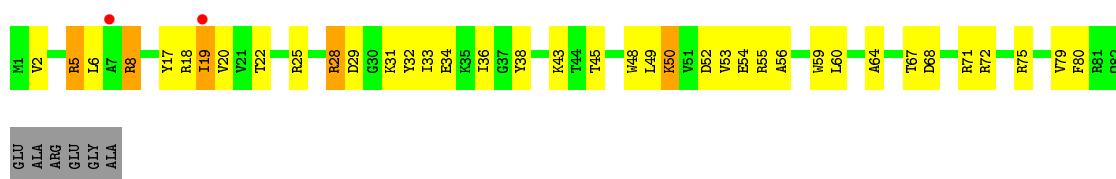


• Molecule 15: 30S Ribosomal Protein S15

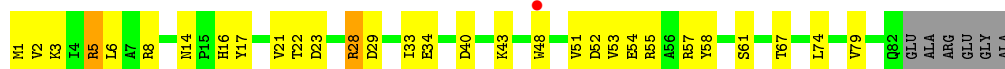


• Molecule 16: 30S Ribosomal Protein S16

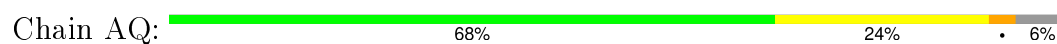




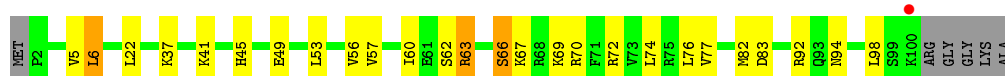
- Molecule 16: 30S Ribosomal Protein S16



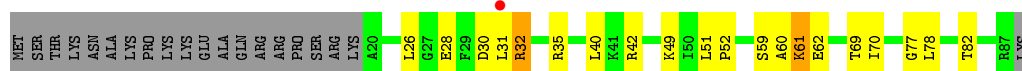
- Molecule 17: 30S Ribosomal Protein S17



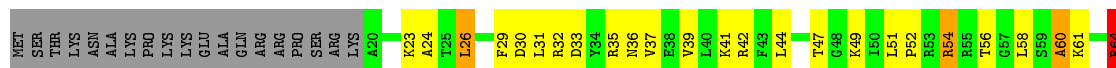
- Molecule 17: 30S Ribosomal Protein S17



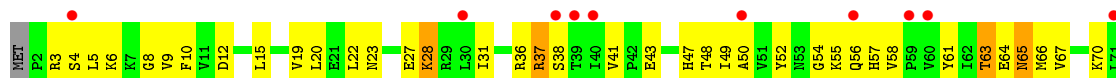
- Molecule 18: 30S Ribosomal Protein S18

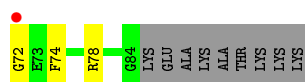


- Molecule 18: 30S Ribosomal Protein S18

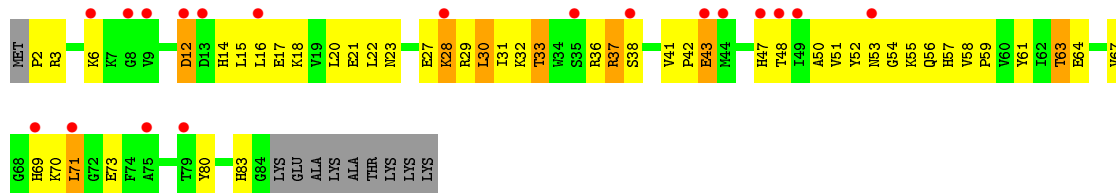


- Molecule 19: 30S Ribosomal Protein S19

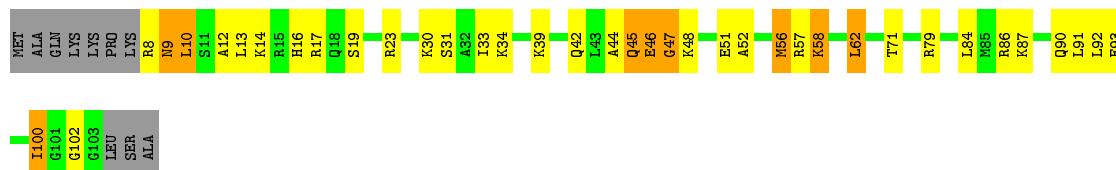




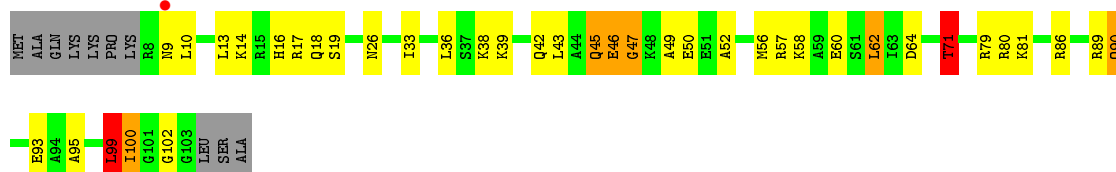
• Molecule 19: 30S Ribosomal Protein S19



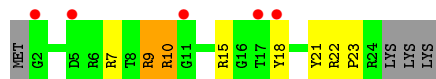
• Molecule 20: 30S Ribosomal Protein S20



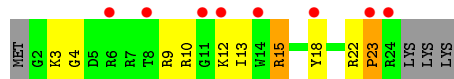
• Molecule 20: 30S Ribosomal Protein S20



• Molecule 21: 30S Ribosomal Protein THX



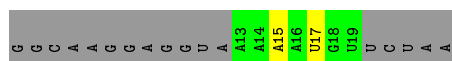
• Molecule 21: 30S Ribosomal Protein THX



• Molecule 22: mRNA







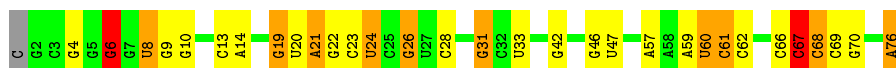
- Molecule 22: mRNA

Chain CV: 21% 75%



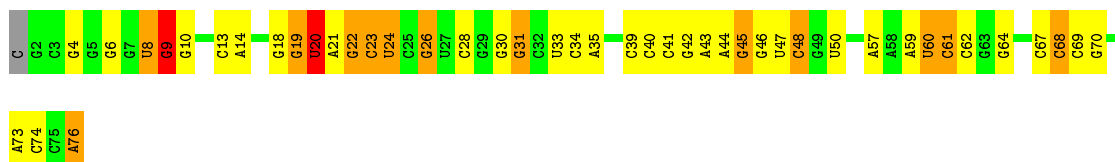
- Molecule 23: P-site tRNA

Chain AX: 58% 25% 13%



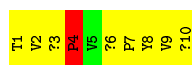
- Molecule 23: P-site tRNA

Chain CX: 40% 39% 17%



- Molecule 24: GE82832

Chain AW: 10% 80% 10%



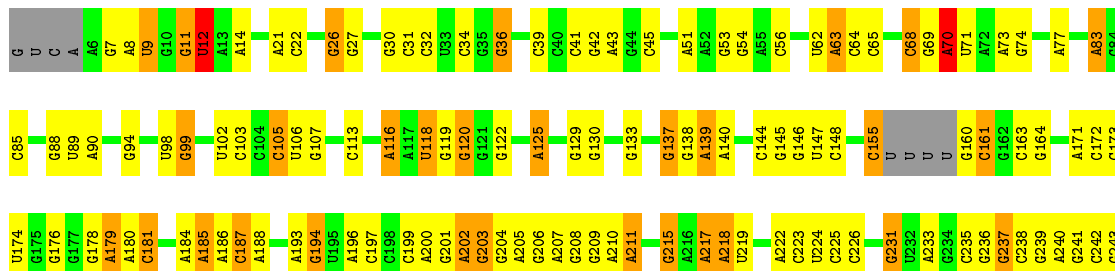
- Molecule 24: GE82832

Chain CW: 10% 70% 20%



- Molecule 25: 23S Ribosomal RNA

Chain BA: 47% 34% 10% 6%



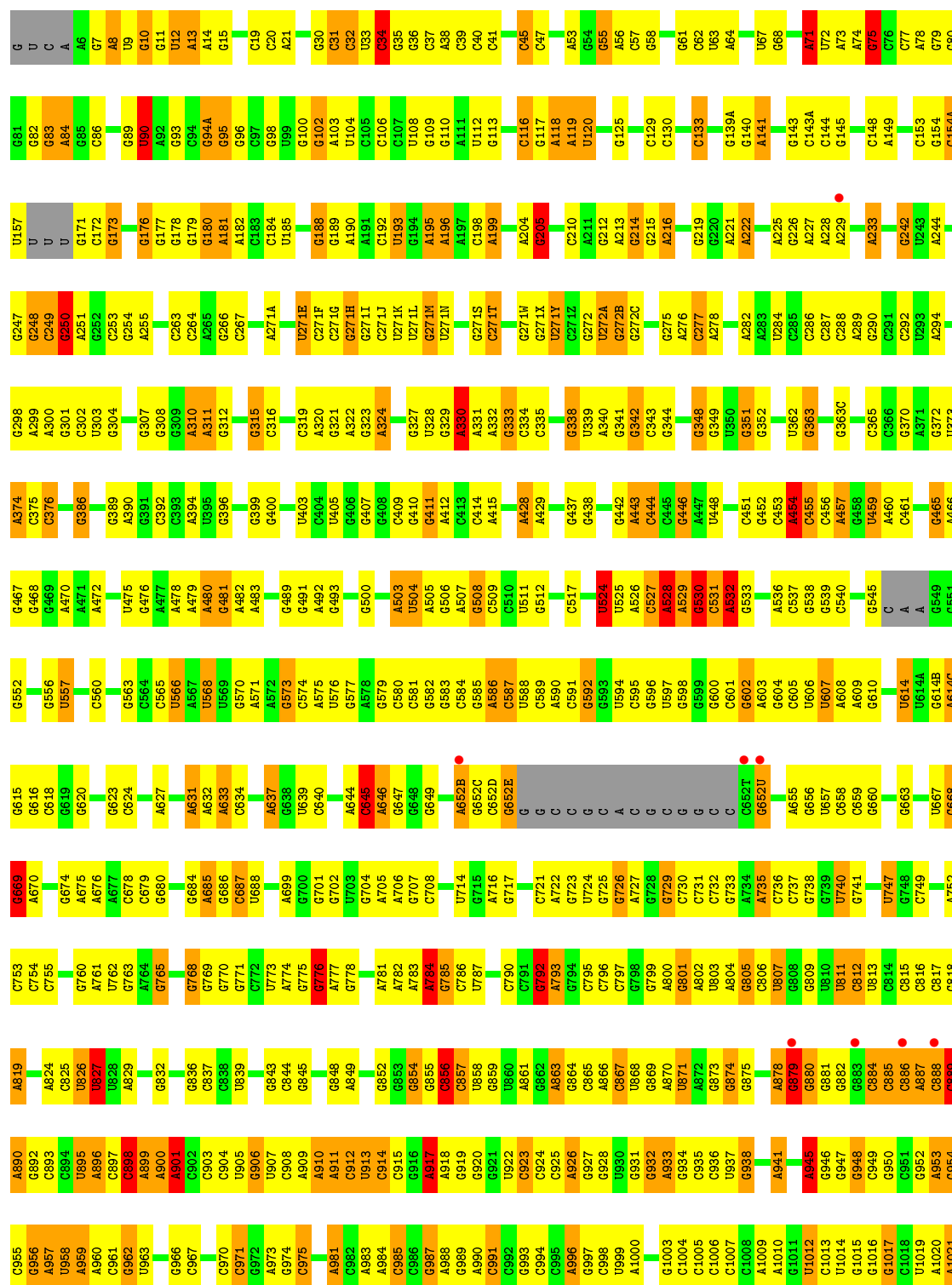
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U1346	A1347	G1356	U1359	C1360	G1361	U1362	A1363	G1366	A1367	G1370	G1373	G1374	A1377	A1378	U1379	A1382	G1383	G1384	G1385	U1386	A1387	U1388	A1389	G1390	C1391	G1394	A1395	U1398	G1402	U1403	G1404	A1405	A1406	G1410	A1411	A1412	G1416	G1417	U1418	C1421	G1422	G1423	U1424	A1425	G1426	G	U	A	C	G1437	G1438	A1439	C1440	G1441	A1442	G1443	A1444	G1445	A1446	G1447	A1448	G1449	A1450	G1451	A1452	G1453	A1454	G1455	A1456	G1457	A1458	G1459	A1460	G1461	A1462	G1463	A1464	G1465	U1466	A1467	G1468	A1469	G1470	A1471	G1472	A1473	G1474	A1475	G1476	A1477	G1478	A1479	G1480	C1481	A1482	G1483	G1484	A1485	G1486	A1487	G1488	A1489	G1490	A1491	A1492	G1493	A1494	G1495	A1496	G1497	A1498	G1499	A1500	G1501	A1502	G1503	A1504	G1505	A1506	G1507	A1508	G1509	A1510	G1511	A1512	G1513	A1514	G1515	C1516	A1517	G1518	A1519	G1520	C1521	G1522	A1523	G1524	A1525	G1526	A1527	G1528	A1529	G1530	A1531	G1532	A1533	G1534	A1535	G1536	A1537	G1538	A1539	G1540	A1541	G1542	A1543	G1544	A1545	G1546	A1547	G1548	A1549	G1550	A1551	G1552	A1553	G1554	A1555	G1556	A1557	G1558	A1559	G1560	A1561	G1562	C1563	A1564	G1565	A1566	G1567	A1568	C1569	A1570	G1571	A1572	C1573	G1574	A1575	G1576	A1577	C1578	A1579	G1580	A1581	G1582	A1583	G1584	A1585	G1586	A1587	C1588	A1589	G1590	A1591	G1592	A1593	C1594	A1595	G1596	A1597	C1598	A1599	G1600	A1601	G1602	C1603	A1604	G1605	A1606	C1607	A1608	G1609	A1610	C1611	G1612	A1613	G1614	A1615	C1616	G1617	A1618	G1619	A1620	C1621	G1622	A1623	G1624	C1625	A1626	G1627	C1628	A1629	G1630	C1631	A1632	G1633	C1634	A1635	G1636	C1637	A1638	G1639	C1640	A1641	G1642	C1643	A1644	G1645	C1646	A1647	G1648	C1649	A1650	G1651	C1652	A1653	G1654	C1655	A1656	G1657	C1658	A1659	G1660	C1661	A1662	G1663	C1664	A1665	G1666	C1667	A1668	G1669	C1670	A1671	G1672	C1673	A1674	G1675	C1676	A1677	G1678	C1679	A1680	G1681	C1682	A1683	G1684	C1685	A1686	G1687	C1688	A1689	G1690	C1691	A1692	G1693	C1694	A1695	G1696	C1697	A1698	G1699	C1700	A1701	G1702	C1703	A1704	G1705	C1706	A1707	G1708	C1709	A1710	G1711	C1712	A1713	G1714	C1715	A1716	G1717	C1718	A1719	G1720	C1721	A1722	G1723	C1724	A1725	G1726	C1727	A1728	G1729	C1730	A1731	G1732	C1733	A1734	G1735	C1736	A1737	G1738	C1739	A1740	G1741	C1742	A1743	G1744	C1745	A1746	G1747	C1748	A1749	G1750	C1751	A1752	G1753	C1754	A1755	G1756	C1757	A1758	G1759	C1760	A1761	G1762	C1763	A1764	G1765	C1766	A1767	G1768	C1769	A1770	G1771	C1772	A1773	G1774	C1775	A1776	G1777	C1778	A1779	G1780	C1781	A1782	G1783	C1784	A1785	G1786	C1787	A1788	G1789	C1790	A1791	G1792	C1793	A1794	G1795	C1796	A1797	G1798	C1799	A1800	G1801	C1802	A1803	G1804	C1805	A1806	G1807	C1808	A1809	G1810	C1811	A1812	G1813	C1814	A1815	G1816	C1817	A1818	G1819	C1820	A1821	G1822	C1823	A1824	G1825	C1826	A1827	G1828	C1829	A1830	G1831	C1832	A1833	G1834	C1835	A1836	G1837	C1838	A1839	G1840	C1841	A1842	G1843	C1844	A1845	G1846	C1847	A1848	G1849	C1850	A1851	G1852	C1853	A1854	G1855	C1856	A1857	G1858	C1859	A1860	G1861	C1862	A1863	G1864	C1865	A1866	G1867	C1868	A1869	G1870	C1871	A1872	G1873	C1874	A1875	G1876	C1877	A1878	G1879	C1880	A1881	G1882	C1883	A1884	G1885	C1886	A1887	G1888	C1889	A1890	G1891	C1892	A1893	G1894	C1895	A1896	G1897	C1898	A1899	G1900	C1901	A1902	G1903	C1904	A1905	G1906	C1907	A1908	G1909	C1910	A1911	G1912	C1913	A1914	G1915	C1916	A1917	G1918	C1919	A1920	G1921	C1922	A1923	G1924	C1925	A1926	G1927	C1928	A1929	G1930	C1931	A1932	G1933	C1934	A1935	G1936	C1937	A1938	G1939	C1940	A1941	G1942	C1943	A1944	G1945	C1946	A1947	G1948	C1949	A1950	G1951	C1952	A1953	G1954	C1955	A1956	G1957	C1958	A1959	G1960	C1961	A1962	G1963	C1964	A1965	G1966	C1967	A1968	G1969	C1970	A1971	G1972	C1973	A1974	G1975	C1976	A1977	G1978	C1979	A1980	G1981	C1982	A1983	G1984	C1985	A1986	G1987	C1988	A1989	G1990	C1991	A1992	G1993	C1994	A1995	G1996	C1997	A1998	G1999	C2000	A2001	G2002	C2003	A2004	G2005	C2006	A2007	G2008	C2009	A2010	G2011	C2012	A2013	G2014	C2015	A2016	G2017	C2018	A2019	G2020	C2021	A2022	G2023	C2024	A2025	G2026	C2027	A2028	G2029	C2030	A2031	G2032	C2033	A2034	G2035	C2036	A2037	G2038	C2039	A2040	G2041	C2042	A2043	G2044	C2045	A2046	G2047	C2048	A2049	G2050	C2051	A2052	G2053	C2054	A2055	G2056	C2057	A2058	G2059	C2060	A2061	G2062	C2063	A2064	G2065	C2066	A2067	G2068	C2069	A2070	G2071	C2072	A2073	G2074	C2075	A2076	G2077	C2078	A2079	G2080	C2081	A2082	G2083	C2084	A2085	G2086	C2087	A2088	G2089	C2090	A2091	G2092	C2093	A2094	G2095	C2096	A2097	G2098	C2099	A2100	G2101	C2102	A2103	G2104	C2105	A2106	G2107	C2108	A2109	G2110	C2111	A2112	G2113	C2114	A2115	G2116	C2117	A2118	G2119	C2120	A2121	G2122	C2123	A2124	G2125	C2126	A2127	G2128	C2129	A2130	G2131	C2132	A2133	G2134	C2135	A2136	G2137	C2138	A2139	G2140	C2141	A2142	G2143	C2144	A2145	G2146	C2147	A2148	G2149	C2150	A2151	G2152	C2153	A2154	G2155	C2156	A2157	G2158	C2159	A2160	G2161	C2162	A2163	G2164	C2165	A2166	G2167	C2168	A2169	G2170	C2171	A2172	G2173	C2174	A2175	G2176	C2177	A2178	G2179	C2180	A2181	G2182	C2183	A2184	G2185	C2186	A2187	G2188	C2189	A2190	G2191	C2192	A2193	G2194	C2195	A2196	G2197	C2198	A2199	G2200	C2201	A2202	G2203	C2204	A2205	G2206	C2207	A2208	G2209	C2210	A2211	G2212	C2213	A2214	G2215	C2216	A2217	G2218	C2219	A2220	G2221	C2222	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A2909						G2338	C	C	C2140	U1971	U1879		
A2910						G2339	C	C	C2141	U1972	U1880		
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A2913						G2342	C	C	C2144	U1975	U1883		
A2914						G2343	C	C	C2145	U1976	U1884		
A2915						G2344	C	C	C2146	U1977	U1885		
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A2917						G2346	C	C	C2148	U1979	U1887		
A2918						G2347	C	C	C2149	U1980	U1888		
A2919						G2348	C	C	C2150	U1981	U1889		
A2920						G2349	C	C	C2151	U1982	U1890		
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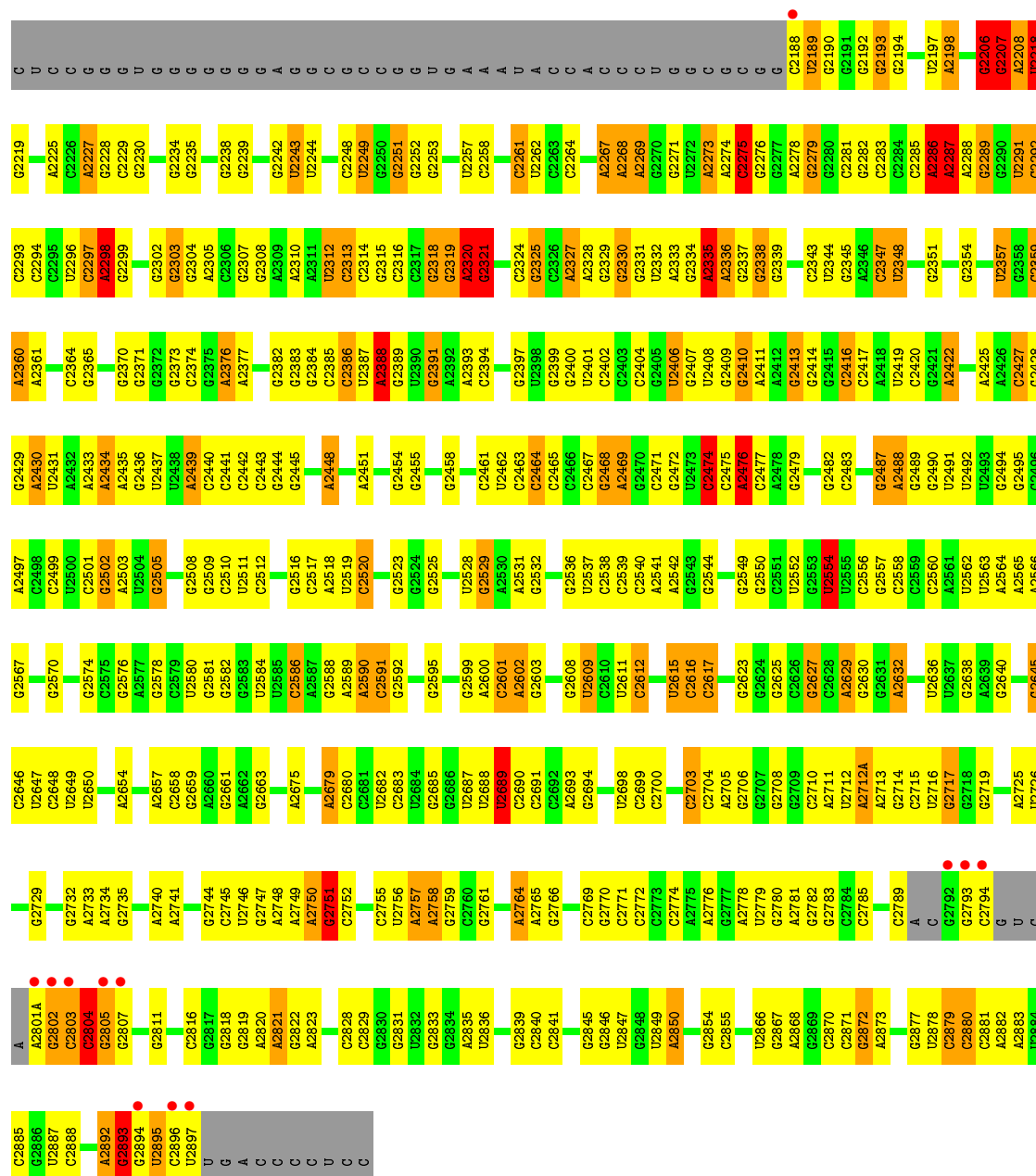
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- Molecule 25: 23S Ribosomal RNA

Chain DA: 

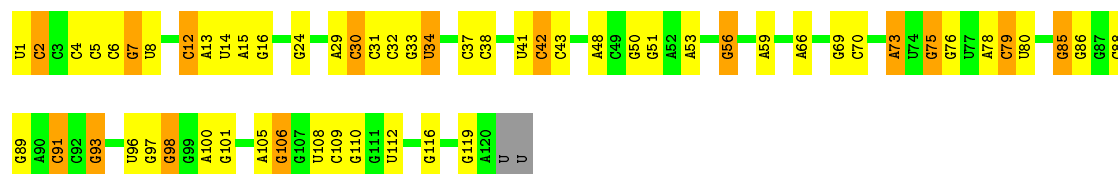


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A2082	G1935	G1846	G1776	C1675	G1594	G1519	G1449	U1372	U1300	C1221A	C1152	G1024
G2083	A1936	A1847	U1777	A1676	G1595	G1520	G1450		A1301	C1222	C1153	G1025
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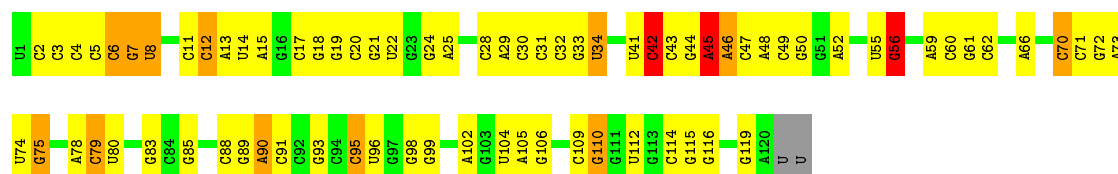
• Molecule 26: 5S Ribosomal RNA

Chain BB:



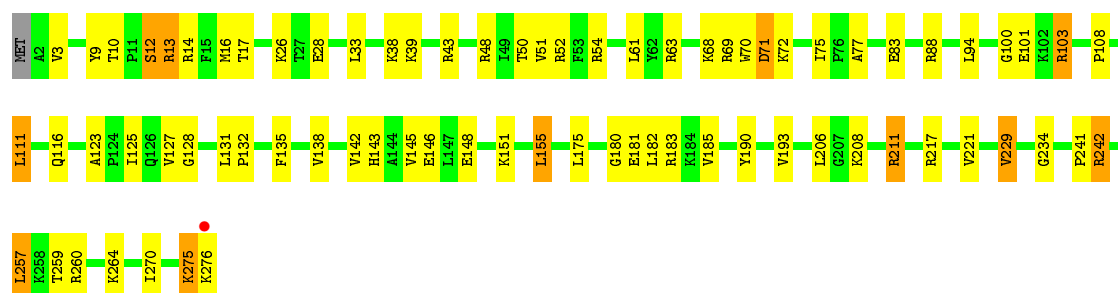
• Molecule 26: 5S Ribosomal RNA

Chain DB:



• Molecule 27: 50S Ribosomal Protein L2

Chain BD: 72% 24% .



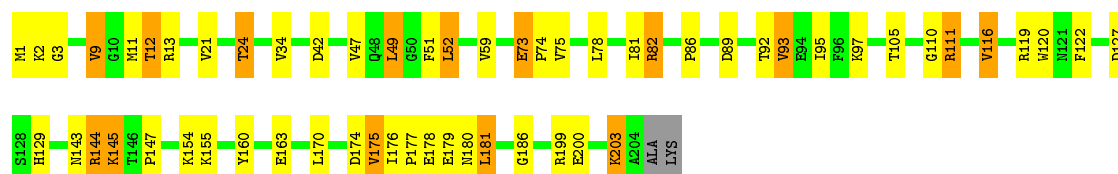
• Molecule 27: 50S Ribosomal Protein L2

Chain DD: 66% 27% 7%



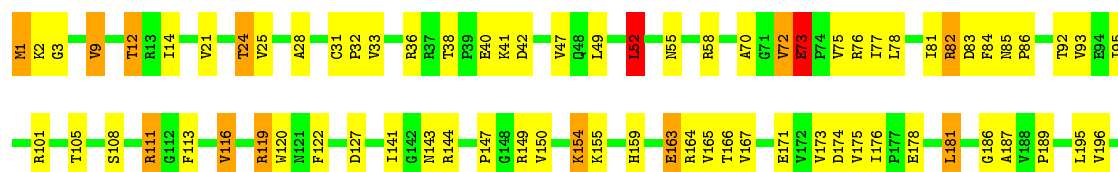
• Molecule 28: 50S Ribosomal Protein L3

Chain BE: 71% 21% 7% .



• Molecule 28: 50S Ribosomal Protein L3

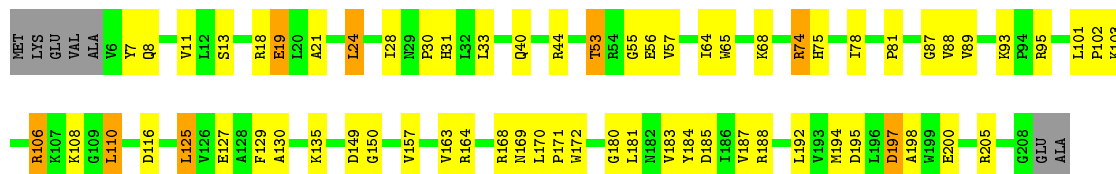
Chain DE: 62% 30% 6% ..





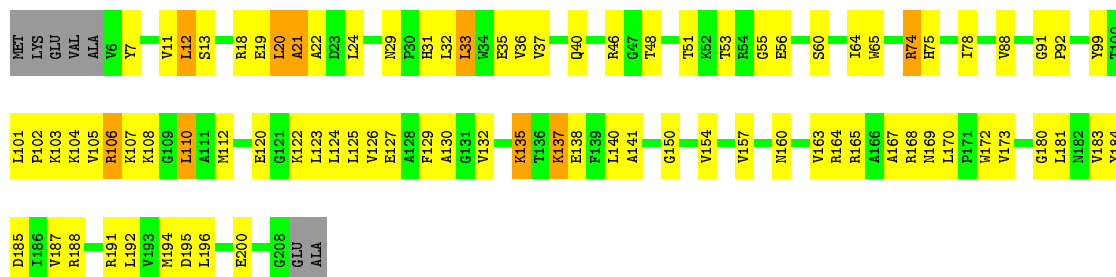
• Molecule 29: 50S Ribosomal Protein L4

Chain BF: 65% 28%



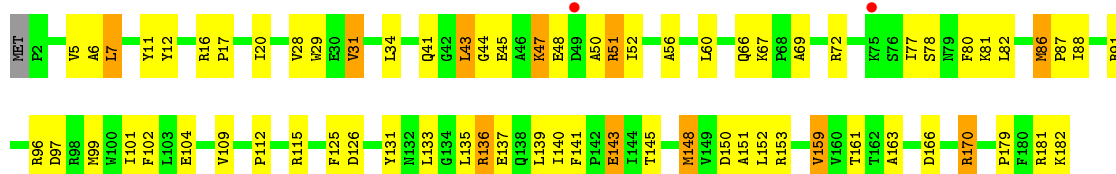
• Molecule 29: 50S Ribosomal Protein L4

Chain DF: 56% 36%



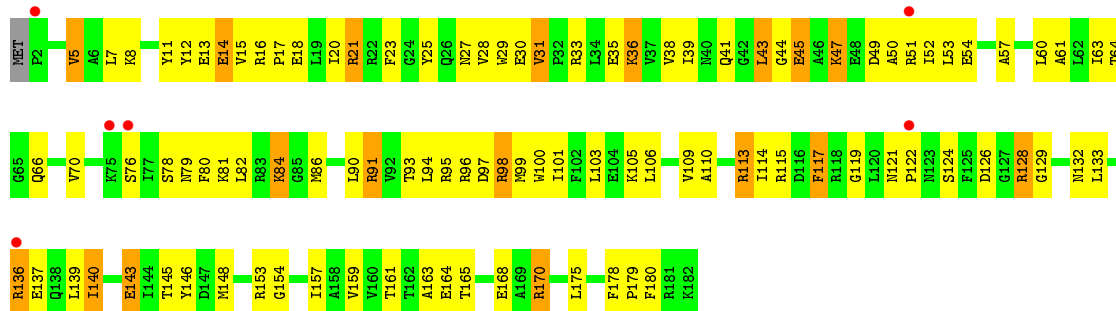
• Molecule 30: 50S Ribosomal Protein L5

Chain BG: % 61% 32% 6%



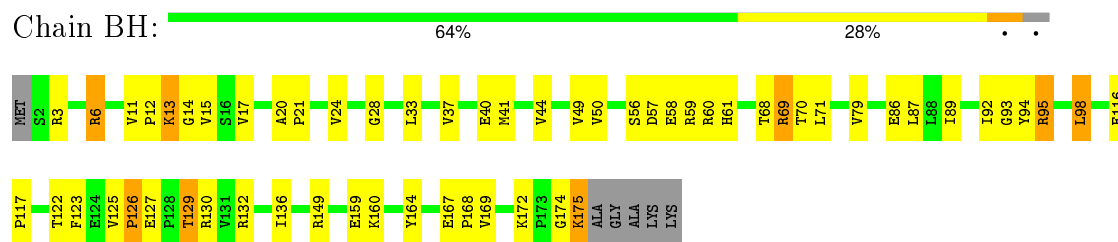
• Molecule 30: 50S Ribosomal Protein L5

Chain DG: 3% 43% 46% 10%

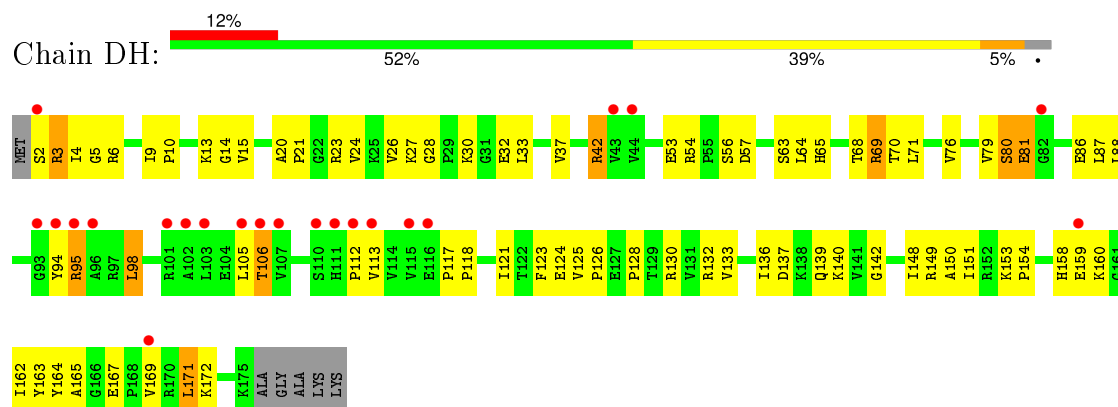


• Molecule 31: 50S Ribosomal Protein L6

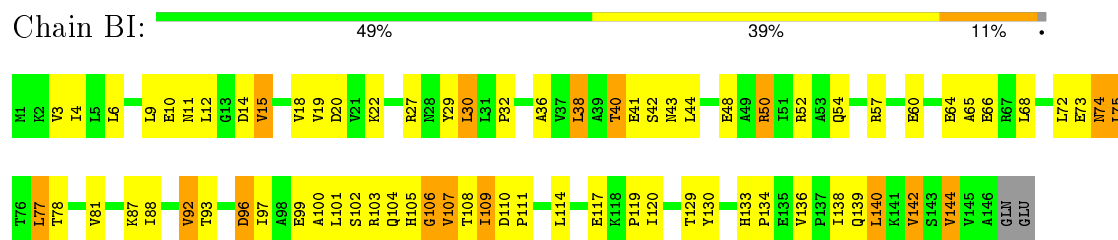




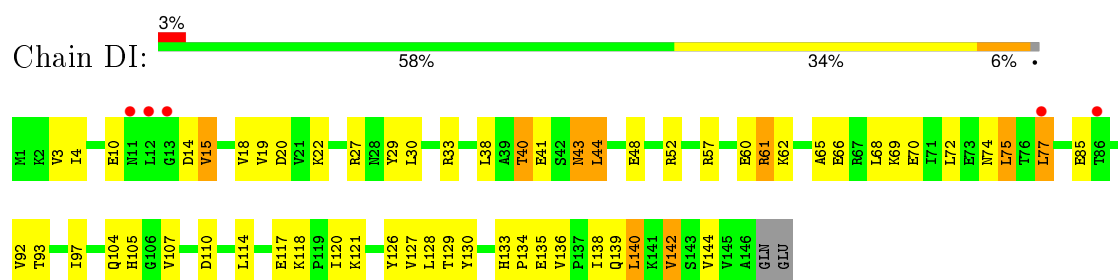
• Molecule 31: 50S Ribosomal Protein L6



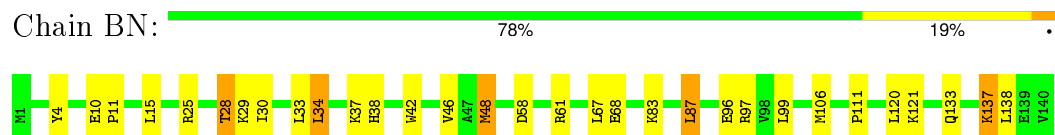
• Molecule 32: 50S Ribosomal Protein L9



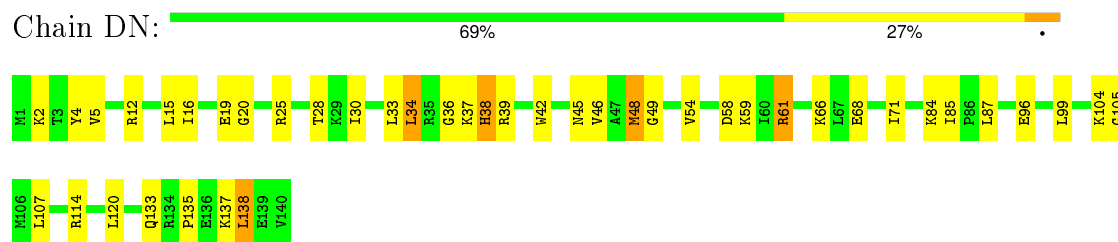
• Molecule 32: 50S Ribosomal Protein L9



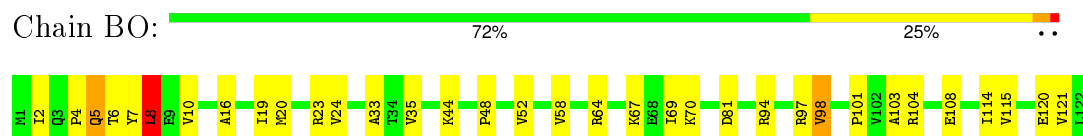
• Molecule 33: 50S Ribosomal Protein L13



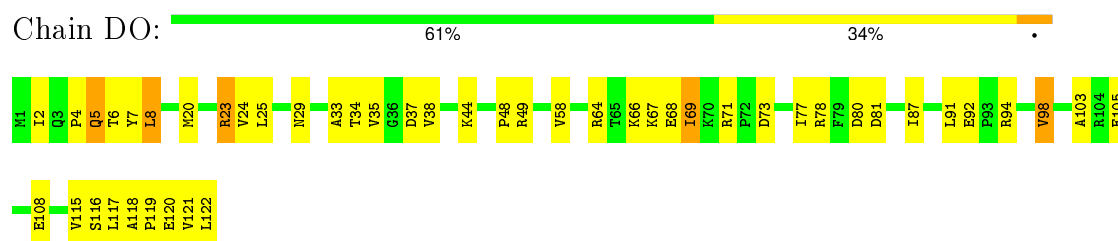
• Molecule 33: 50S Ribosomal Protein L13



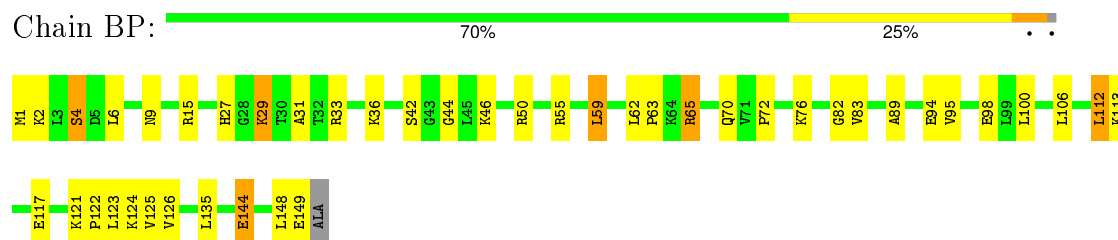
- Molecule 34: 50S Ribosomal Protein L14



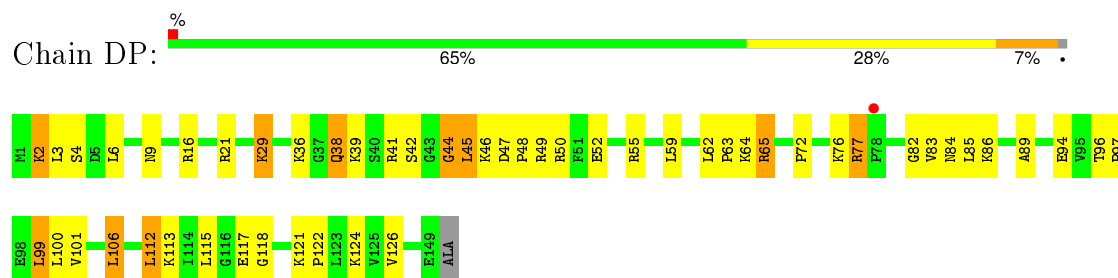
- Molecule 34: 50S Ribosomal Protein L14



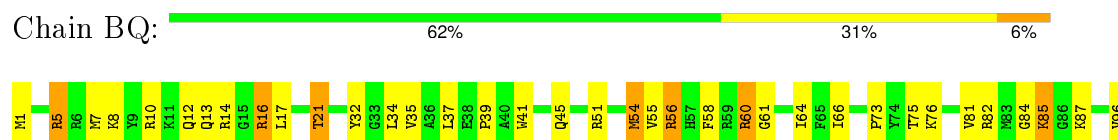
- Molecule 35: 50S Ribosomal Protein L15



- Molecule 35: 50S Ribosomal Protein L15



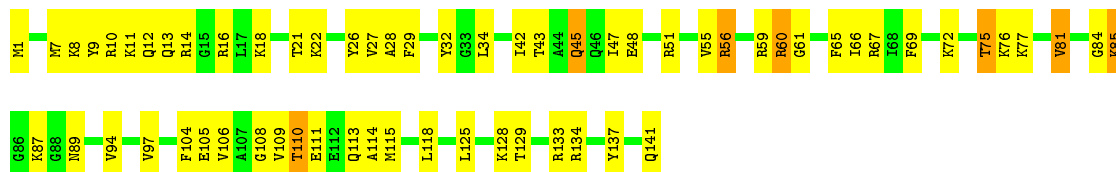
- Molecule 36: 50S Ribosomal Protein L16





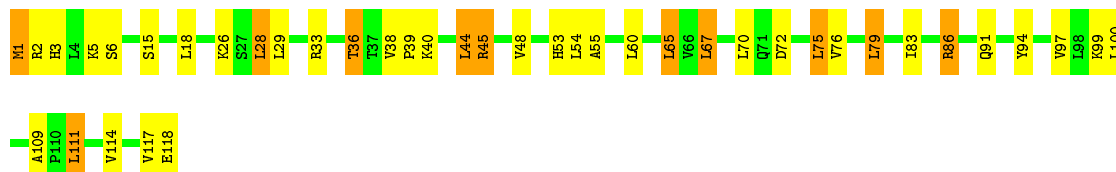
• Molecule 36: 50S Ribosomal Protein L16

Chain DQ: 55% 40% 5%



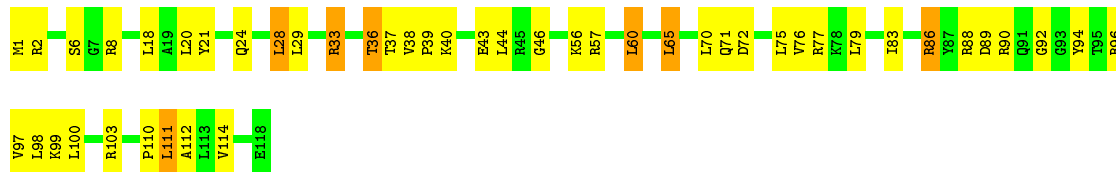
• Molecule 37: 50S Ribosomal Protein L17

Chain BR: 65% 25% 9%



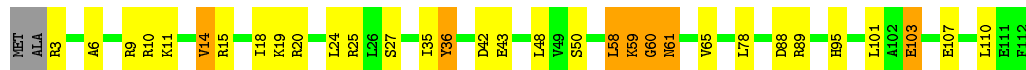
• Molecule 37: 50S Ribosomal Protein L17

Chain DR: 60% 34% 6%



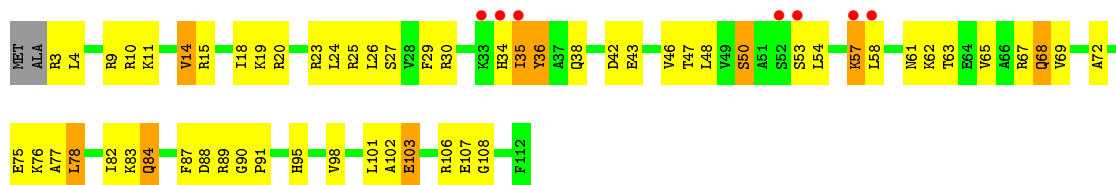
• Molecule 38: 50S Ribosomal Protein L18

Chain BS: 70% 22% 6%

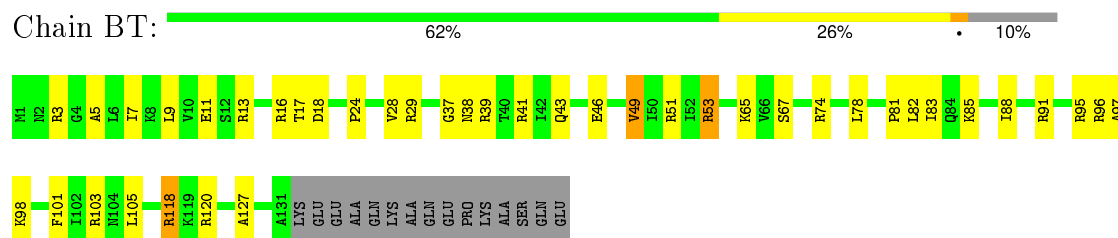


• Molecule 38: 50S Ribosomal Protein L18

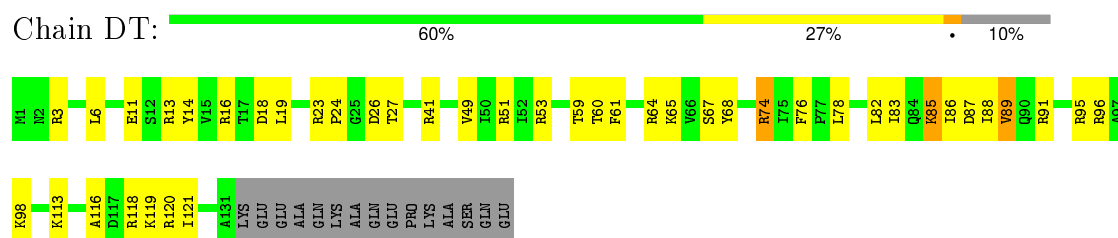
Chain DS: 6% 46% 45% 8%



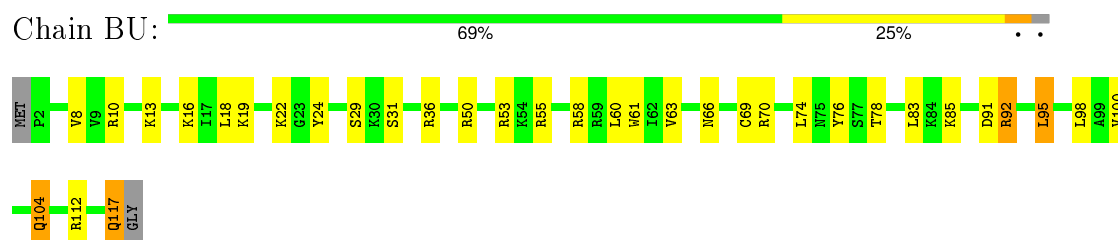
• Molecule 39: 50S Ribosomal Protein L19



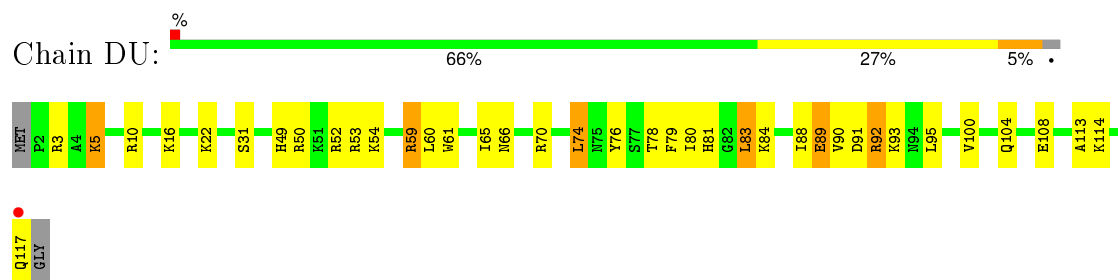
- Molecule 39: 50S Ribosomal Protein L19



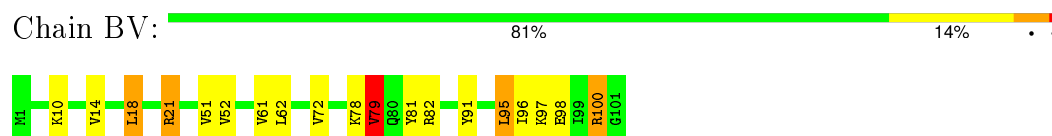
- Molecule 40: 50S Ribosomal Protein L20



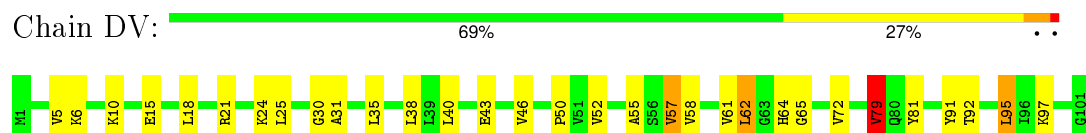
- Molecule 40: 50S Ribosomal Protein L20




- Molecule 41: 50S Ribosomal Protein L21



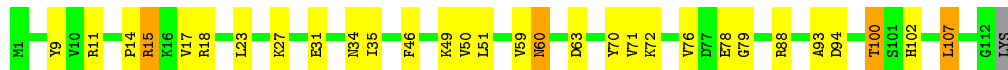
- Molecule 41: 50S Ribosomal Protein L21



## • Molecule 42: 50S Ribosomal Protein L22

Chain BW:  79% 17%

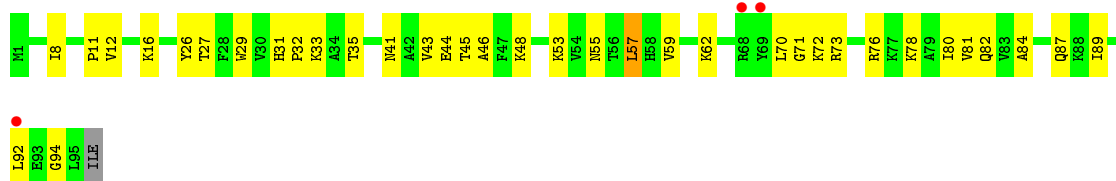
## • Molecule 42: 50S Ribosomal Protein L22

Chain DW:  73% 23%

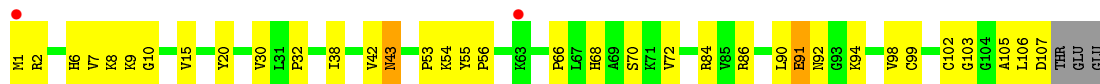
## • Molecule 43: 50S Ribosomal Protein L23

Chain BX:  73% 24%

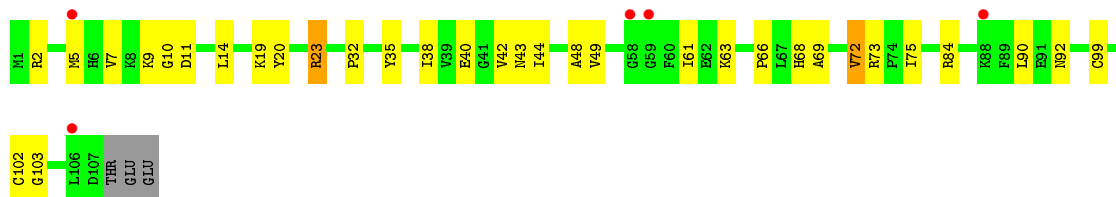
## • Molecule 43: 50S Ribosomal Protein L23

Chain DX:  3% 61% 36%

## • Molecule 44: 50S Ribosomal Protein L24

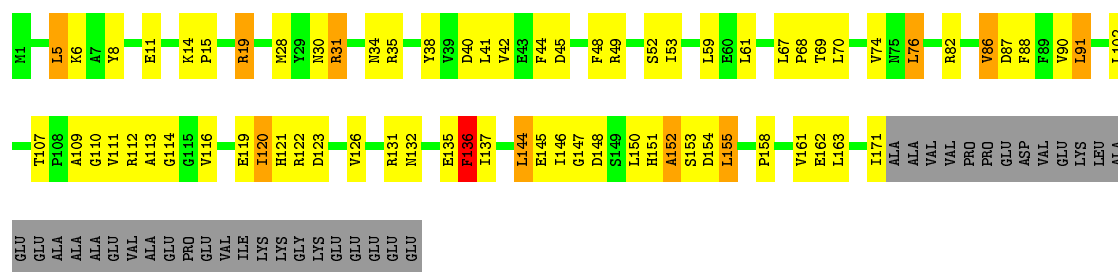
Chain BY:  2% 65% 30%

## • Molecule 44: 50S Ribosomal Protein L24

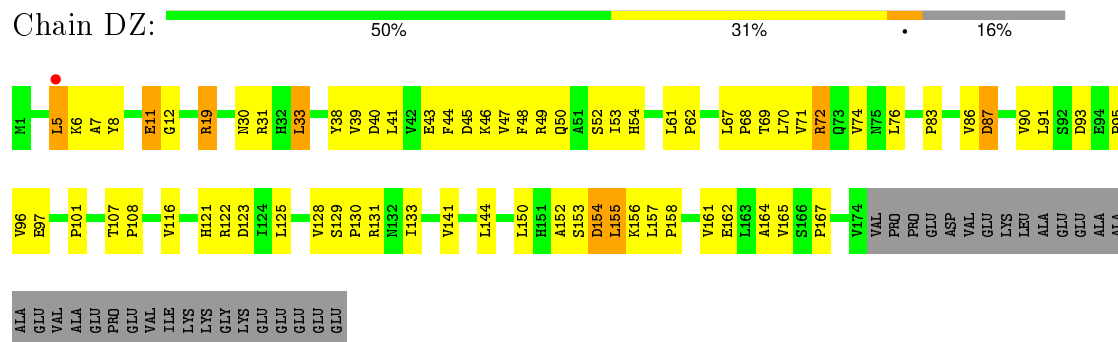
Chain DY:  5% 67% 28%

## • Molecule 45: 50S Ribosomal Protein L25

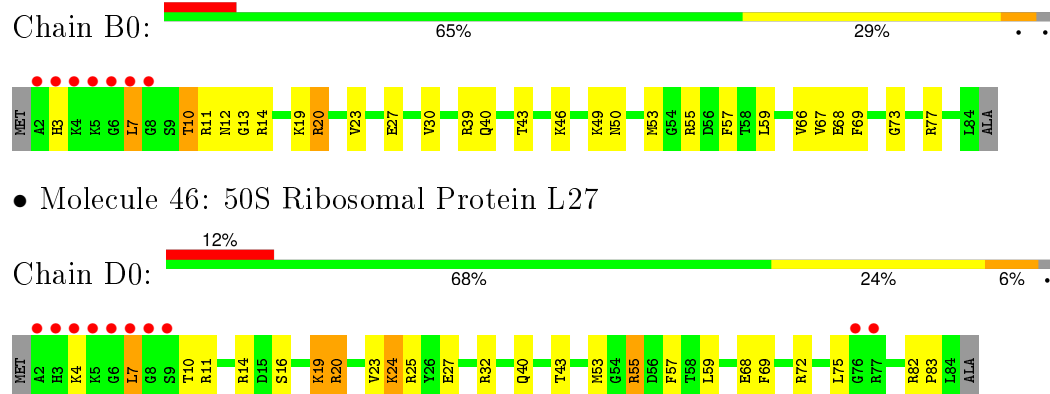
Chain BZ:  48% 30% 5% 17%



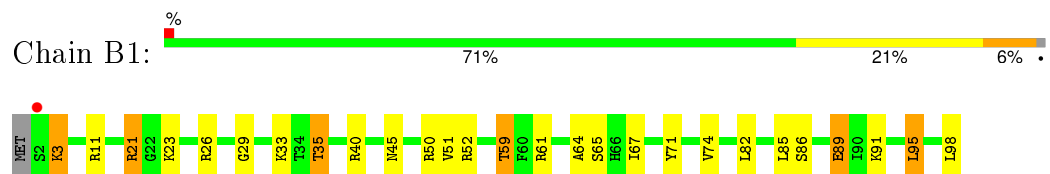
• Molecule 45: 50S Ribosomal Protein L25



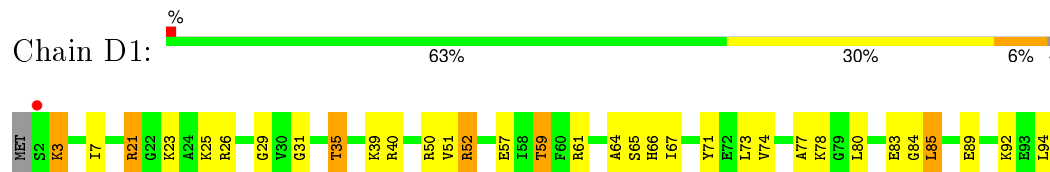
• Molecule 46: 50S Ribosomal Protein L27




• Molecule 47: 50S Ribosomal Protein L28



• Molecule 47: 50S Ribosomal Protein L28



• Molecule 48: 50S Ribosomal Protein L29

Chain B2: 



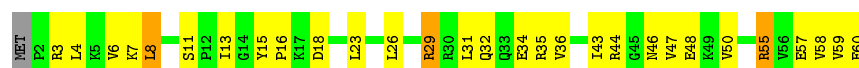
- Molecule 48: 50S Ribosomal Protein L29

Chain D2: 



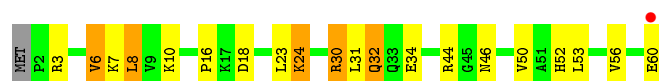
- Molecule 49: 50S Ribosomal Protein L30

Chain B3: 



- Molecule 49: 50S Ribosomal Protein L30

Chain D3: 



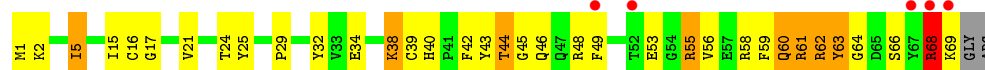
- Molecule 50: 50S Ribosomal Protein L31

Chain B4: 



- Molecule 50: 50S Ribosomal Protein L31

Chain D4: 



- Molecule 51: 50S Ribosomal Protein L32

Chain B5: 



- Molecule 51: 50S Ribosomal Protein L32

Chain D5: 



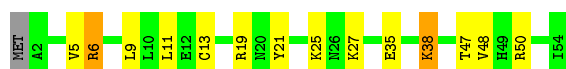
- Molecule 52: 50S Ribosomal Protein L33

Chain B6: 67% 22% 9%



- Molecule 52: 50S Ribosomal Protein L33

Chain D6: 72% 22%



- Molecule 53: 50S Ribosomal Protein L34

Chain B7: 76% 18%



- Molecule 53: 50S Ribosomal Protein L34

Chain D7: 2% 63% 35%



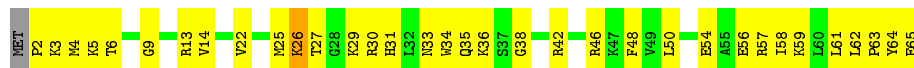
- Molecule 54: 50S Ribosomal Protein L35

Chain B8: 57% 42%



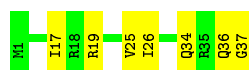
- Molecule 54: 50S Ribosomal Protein L35

Chain D8: 46% 51%



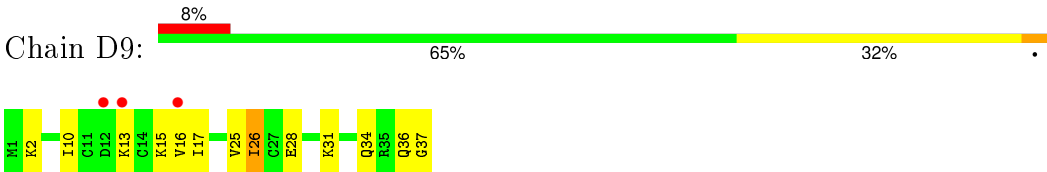
- Molecule 55: 50S Ribosomal Protein L36

Chain B9: 81% 19%



- Molecule 55: 50S Ribosomal Protein L36





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	209.68Å 450.64Å 622.54Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.68 – 3.10 49.68 – 3.10	Depositor EDS
% Data completeness (in resolution range)	98.2 (49.68-3.10) 98.2 (49.68-3.10)	Depositor EDS
$R_{merge}$	0.20	Depositor
$R_{sym}$	0.25	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.32 (at 3.12Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.2_1309)	Depositor
R, $R_{free}$	0.203 , 0.260 0.206 , 0.259	Depositor DCC
$R_{free}$ test set	51894 reflections (5.28%)	DCC
Wilson B-factor (Å <sup>2</sup> )	71.0	Xtriage
Anisotropy	0.077	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 67.2	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.46$ , $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	0 of 1034786 reflections	Xtriage
$F_o, F_c$ correlation	0.93	EDS
Total number of atoms	286321	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.83% of the height of the origin peak. No significant pseudotranslation is detected.*

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

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

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: MG, K, 2QZ, ZN, 2QY, MVA, 004, FME, 2R3, SF4, 2R1

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	0.75	2/36038 (0.0%)	1.31	240/56244 (0.4%)
1	CA	0.75	10/36170 (0.0%)	1.36	314/56452 (0.6%)
2	AB	0.49	0/1881	0.77	1/2542 (0.0%)
2	CB	0.54	0/1860	0.79	1/2518 (0.0%)
3	AC	0.47	0/1576	0.65	0/2130
3	CC	0.51	0/1566	0.71	2/2119 (0.1%)
4	AD	0.49	0/1689	0.73	0/2267
4	CD	0.49	0/1704	0.70	1/2284 (0.0%)
5	AE	0.47	0/1145	0.70	0/1543
5	CE	0.50	0/1149	0.71	0/1548
6	AF	0.47	0/819	0.69	0/1111
6	CF	0.52	0/829	0.74	1/1123 (0.1%)
7	AG	0.48	0/1250	0.67	1/1679 (0.1%)
7	CG	0.50	0/1254	0.71	1/1683 (0.1%)
8	AH	0.45	0/1108	0.66	0/1494
8	CH	0.48	0/1108	0.69	0/1494
9	AI	0.46	0/1002	0.72	0/1346
9	CI	0.56	0/997	0.75	1/1343 (0.1%)
10	AJ	0.47	0/722	0.68	0/982
10	CJ	0.51	0/727	0.68	0/988
11	AK	0.44	0/844	0.62	0/1145
11	CK	0.46	0/848	0.66	0/1149
12	AL	0.52	0/946	0.69	0/1274
12	CL	0.51	0/946	0.73	0/1274
13	AM	0.46	0/969	0.69	0/1302
13	CM	0.49	0/961	0.66	0/1291
14	AN	0.51	0/501	0.67	0/664
14	CN	0.54	0/501	0.68	0/664
15	AO	0.47	0/739	0.72	0/985
15	CO	0.46	0/739	0.73	0/985
16	AP	0.45	0/697	0.71	0/939
16	CP	0.47	0/693	0.65	0/935

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	AQ	0.48	0/836	0.66	0/1117
17	CQ	0.49	0/836	0.68	0/1117
18	AR	0.49	0/560	0.72	0/746
18	CR	0.51	0/560	0.75	1/746 (0.1%)
19	AS	0.47	0/667	0.68	0/900
19	CS	0.54	0/661	0.82	2/893 (0.2%)
20	AT	0.51	0/730	0.76	0/965
20	CT	0.44	0/729	0.68	0/965
21	AU	0.45	0/203	0.65	0/266
21	CU	0.51	0/203	0.68	0/266
22	AV	0.94	0/127	1.36	2/198 (1.0%)
22	CV	0.86	0/126	1.29	0/195
23	AX	0.85	5/1813 (0.3%)	1.59	36/2825 (1.3%)
23	CX	0.88	4/1813 (0.2%)	1.81	40/2825 (1.4%)
24	AW	0.50	0/20	0.80	0/23
24	CW	0.43	0/20	0.70	0/23
25	BA	1.06	33/65892 (0.1%)	1.42	649/102850 (0.6%)
25	DA	0.79	9/65466 (0.0%)	1.39	590/102184 (0.6%)
26	BB	0.82	0/2878	1.26	11/4490 (0.2%)
26	DB	0.89	0/2878	1.39	18/4490 (0.4%)
27	BD	0.67	1/2186 (0.0%)	0.78	1/2944 (0.0%)
27	DD	0.61	2/2186 (0.1%)	0.77	1/2944 (0.0%)
28	BE	0.69	0/1592	0.75	0/2149
28	DE	0.55	0/1592	0.77	1/2149 (0.0%)
29	BF	0.69	0/1619	0.76	0/2193
29	DF	0.53	0/1615	0.77	1/2188 (0.0%)
30	BG	0.46	0/1450	0.70	0/1959
30	DG	0.55	0/1449	0.74	0/1958
31	BH	0.60	0/1356	0.70	0/1834
31	DH	0.56	0/1356	0.70	0/1834
32	BI	0.49	0/1100	0.74	1/1501 (0.1%)
32	DI	0.48	0/1076	0.77	0/1471
33	BN	0.65	0/1144	0.73	0/1543
33	DN	0.50	0/1144	0.72	0/1543
34	BO	0.65	0/943	0.73	1/1269 (0.1%)
34	DO	0.54	0/943	0.73	1/1269 (0.1%)
35	BP	0.62	0/1152	0.77	0/1533
35	DP	0.53	0/1152	0.80	1/1533 (0.1%)
36	BQ	0.64	0/1143	0.76	0/1527
36	DQ	0.60	0/1143	0.79	0/1527
37	BR	0.59	0/982	0.78	0/1312
37	DR	0.49	0/982	0.71	0/1312
38	BS	0.54	0/887	0.77	0/1180

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	DS	0.47	0/880	0.72	0/1172
39	BT	0.59	0/1105	0.79	1/1477 (0.1%)
39	DT	0.50	0/1097	0.72	0/1468
40	BU	0.71	1/977 (0.1%)	0.73	0/1301
40	DU	0.54	0/977	0.71	1/1301 (0.1%)
41	BV	0.68	0/782	0.74	1/1049 (0.1%)
41	DV	0.55	0/782	0.71	0/1049
42	BW	0.74	0/897	0.74	0/1205
42	DW	0.56	0/897	0.72	0/1205
43	BX	0.66	0/764	0.96	3/1025 (0.3%)
43	DX	0.55	0/764	0.75	1/1025 (0.1%)
44	BY	0.64	0/819	0.78	0/1095
44	DY	0.54	0/819	0.74	0/1095
45	BZ	0.56	0/1379	0.75	0/1873
45	DZ	0.53	0/1390	0.71	0/1890
46	B0	0.63	0/662	0.81	2/881 (0.2%)
46	D0	0.54	0/662	0.73	0/881
47	B1	0.61	0/762	0.74	0/1014
47	D1	0.51	0/762	0.75	1/1014 (0.1%)
48	B2	0.61	0/590	0.79	0/781
48	D2	0.48	0/590	0.66	0/781
49	B3	0.70	0/474	0.76	0/635
49	D3	0.45	0/469	0.67	0/630
50	B4	0.58	0/564	0.79	0/759
50	D4	0.59	0/544	0.86	1/735 (0.1%)
51	B5	0.66	0/469	0.78	0/635
51	D5	0.53	0/469	0.74	1/635 (0.2%)
52	B6	0.67	0/460	0.64	0/613
52	D6	0.53	0/456	0.70	0/608
53	B7	0.79	0/426	0.78	0/561
53	D7	0.62	0/426	0.76	1/561 (0.2%)
54	B8	0.70	0/519	0.71	0/684
54	D8	0.55	0/525	0.75	0/691
55	B9	0.69	0/310	0.76	0/407
55	D9	0.60	0/310	0.79	0/407
All	All	0.79	67/305966 (0.0%)	1.24	1933/457396 (0.4%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	AB	0	3
4	CD	0	1
7	AG	0	1
23	CX	1	0
24	AW	0	1
24	CW	0	1
27	DD	0	1
38	BS	0	1
45	BZ	0	1
50	B4	0	1
All	All	1	11

All (67) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AX	76	A	N7-C5	-11.16	1.32	1.39
1	CA	1154	G	C6-N1	-11.02	1.31	1.39
1	CA	1154	G	N1-C2	-10.69	1.29	1.37
25	BA	1188	A	N9-C4	-10.29	1.31	1.37
1	CA	1119	C	N3-C4	-10.20	1.26	1.33
25	BA	2299	A	N9-C4	-9.27	1.32	1.37
23	CX	76	A	N7-C5	-8.97	1.33	1.39
25	BA	1067	A	N9-C4	-8.63	1.32	1.37
23	CX	76	A	C5-C6	-8.11	1.33	1.41
25	DA	528	A	N9-C4	-7.89	1.33	1.37
1	CA	1492	A	N9-C4	7.83	1.42	1.37
25	BA	1222	A	N9-C4	7.65	1.42	1.37
23	AX	76	A	C5-C6	-7.63	1.34	1.41
1	CA	1154	G	N7-C5	-7.45	1.34	1.39
25	BA	1234	A	N9-C4	-6.96	1.33	1.37
23	CX	76	A	C5-C4	-6.68	1.34	1.38
25	BA	1188	A	N3-C4	-6.67	1.30	1.34
25	DA	2287	A	N9-C4	-6.63	1.33	1.37
40	BU	69	CYS	CB-SG	-6.61	1.71	1.82
25	BA	2601	A	N9-C4	-6.59	1.33	1.37
25	DA	2207	G	N7-C5	-6.42	1.35	1.39
23	AX	22	G	N7-C5	6.40	1.43	1.39
27	DD	28	GLU	CG-CD	6.36	1.61	1.51
25	BA	1605	A	N9-C4	-6.13	1.34	1.37
25	BA	2444	A	C5-C6	-6.13	1.35	1.41
1	CA	1154	G	C5-C4	6.05	1.42	1.38
25	DA	1142(A)	A	N9-C4	-6.03	1.34	1.37
25	DA	2320	A	N9-C4	6.01	1.41	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	DA	2725	A	N9-C4	-5.99	1.34	1.37
1	CA	1154	G	N9-C4	5.94	1.42	1.38
23	AX	46	G	C6-N1	5.78	1.43	1.39
25	BA	978	A	N9-C4	-5.77	1.34	1.37
25	BA	657	A	N9-C4	-5.77	1.34	1.37
25	BA	178	G	N7-C5	-5.64	1.35	1.39
1	CA	1119	C	N1-C2	5.58	1.45	1.40
25	BA	1425	A	N9-C4	-5.57	1.34	1.37
25	BA	354	A	N9-C4	-5.49	1.34	1.37
25	BA	2527	C	N1-C6	-5.48	1.33	1.37
25	BA	552	C	N3-C4	-5.46	1.30	1.33
25	BA	782	A	N3-C4	-5.42	1.31	1.34
25	DA	530	G	N9-C8	5.42	1.41	1.37
25	BA	506	A	N7-C5	-5.42	1.36	1.39
1	CA	1154	G	C8-N7	-5.40	1.27	1.30
25	BA	2803	A	N9-C4	5.38	1.41	1.37
25	BA	1153	G	N9-C4	5.35	1.42	1.38
25	BA	2509	A	N3-C4	-5.31	1.31	1.34
25	BA	2039	U	C2-N3	-5.30	1.34	1.37
1	AA	1124	G	N9-C4	5.29	1.42	1.38
23	CX	22	G	N7-C5	5.27	1.42	1.39
1	AA	1531	A	N9-C4	5.25	1.41	1.37
27	DD	28	GLU	CB-CG	5.21	1.62	1.52
25	BA	840	A	N7-C5	-5.21	1.36	1.39
25	BA	1234	A	N3-C4	-5.20	1.31	1.34
25	DA	2599	G	C6-N1	-5.20	1.35	1.39
25	BA	840	A	C5-C6	-5.18	1.36	1.41
25	BA	1076	G	C6-N1	-5.17	1.35	1.39
25	DA	784	A	N9-C4	-5.17	1.34	1.37
25	BA	186	A	N3-C4	-5.17	1.31	1.34
1	CA	998	G	N7-C5	5.16	1.42	1.39
25	BA	781	A	N9-C4	-5.16	1.34	1.37
25	BA	1818	A	C6-N1	-5.04	1.32	1.35
27	BD	28	GLU	CG-CD	5.04	1.59	1.51
25	BA	1030	A	N9-C4	-5.02	1.34	1.37
25	BA	990	A	N9-C4	-5.02	1.34	1.37
25	BA	2598	C	N1-C6	-5.02	1.34	1.37
23	AX	14	A	N7-C5	-5.01	1.36	1.39
25	BA	2080	A	N3-C4	-5.01	1.31	1.34

All (1933) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CX	76	A	O4'-C1'-N9	38.71	139.17	108.20
1	CA	1119	C	N1-C2-O2	32.56	138.44	118.90
1	CA	1154	G	C5-C6-O6	28.63	145.78	128.60
1	CA	1154	G	N3-C2-N2	25.05	137.43	119.90
1	CA	1154	G	N1-C2-N2	-22.71	95.76	116.20
1	CA	1119	C	N3-C2-O2	-21.96	106.53	121.90
23	CX	76	A	C2-N3-C4	19.79	120.49	110.60
23	CX	76	A	N1-C2-N3	-19.05	119.78	129.30
23	AX	76	A	C2-N3-C4	18.48	119.84	110.60
23	AX	76	A	N1-C2-N3	-17.90	120.35	129.30
1	CA	1119	C	C2-N3-C4	17.09	128.45	119.90
1	CA	1154	G	C5-C6-N1	-17.07	102.97	111.50
1	CA	1119	C	C2-N1-C1'	16.03	136.44	118.80
43	BX	65	ARG	NE-CZ-NH2	15.41	128.00	120.30
23	AX	76	A	O4'-C1'-N9	15.35	120.48	108.20
1	CA	1154	G	C6-N1-C2	14.89	134.03	125.10
23	AX	8	U	C2-N3-C4	14.86	135.91	127.00
1	CA	1119	C	C5-C4-N4	14.60	130.42	120.20
1	CA	1154	G	N1-C6-O6	-14.49	111.20	119.90
25	BA	1067	A	C2-N3-C4	-14.43	103.38	110.60
1	CA	999	C	N1-C2-O2	13.32	126.89	118.90
1	CA	1154	G	C4-N9-C1'	12.75	143.07	126.50
25	DA	528	A	C2-N3-C4	-12.60	104.30	110.60
25	BA	2058	C	O5'-P-OP1	-12.50	94.45	105.70
23	CX	8	U	C2-N3-C4	12.28	134.37	127.00
1	CA	1119	C	N3-C4-N4	-12.22	109.45	118.00
1	CA	1119	C	C6-N1-C2	-12.18	115.43	120.30
25	BA	139	A	N7-C8-N9	12.11	119.86	113.80
25	DA	945	A	N1-C6-N6	11.58	125.55	118.60
25	BA	139	A	C5-N7-C8	-11.57	98.12	103.90
1	CA	1119	C	C6-N1-C1'	-11.45	107.07	120.80
43	BX	65	ARG	NE-CZ-NH1	-11.42	114.59	120.30
1	CA	1154	G	C8-N9-C1'	-11.28	112.34	127.00
25	BA	1188	A	C2-N3-C4	-11.10	105.05	110.60
1	AA	1125	U	N1-C2-O2	11.09	130.56	122.80
23	CX	76	A	N3-C4-C5	-10.90	119.17	126.80
23	CX	8	U	C5-C6-N1	10.69	128.04	122.70
26	BB	91	C	C6-N1-C2	10.59	124.53	120.30
23	AX	46	G	C6-N1-C2	-10.39	118.86	125.10
1	CA	1004	A	O4'-C1'-N9	10.33	116.47	108.20
25	BA	990	A	C5-N7-C8	-10.27	98.77	103.90
25	BA	1098	C	C6-N1-C2	-10.25	116.20	120.30
23	CX	76	A	C5-N7-C8	10.25	109.02	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2835	C	O5'-P-OP1	-10.24	96.48	105.70
23	CX	76	A	N7-C8-N9	-10.24	108.68	113.80
23	AX	76	A	N7-C8-N9	-10.15	108.72	113.80
1	AA	1125	U	N1-C2-N3	-10.09	108.85	114.90
25	DA	856	C	C6-N1-C2	-10.03	116.29	120.30
25	BA	201	G	O5'-P-OP2	-9.99	96.71	105.70
23	CX	46	G	C6-N1-C2	-9.84	119.20	125.10
1	CA	1119	C	C5-C6-N1	9.74	125.87	121.00
25	DA	1698	A	N1-C6-N6	9.70	124.42	118.60
1	CA	927	G	C5-C6-O6	9.70	134.42	128.60
25	DA	205	G	C8-N9-C4	9.64	110.26	106.40
25	BA	990	A	C2-N3-C4	-9.64	105.78	110.60
25	BA	1067	A	C5-N7-C8	-9.61	99.10	103.90
1	CA	1154	G	C5-N7-C8	9.58	109.09	104.30
25	DA	2084	C	C6-N1-C2	9.51	124.10	120.30
23	AX	76	A	C5-N7-C8	9.49	108.64	103.90
25	DA	1823	G	O5'-P-OP2	-9.46	97.19	105.70
25	BA	724	A	O5'-P-OP2	-9.43	97.22	105.70
25	BA	1440	U	O5'-P-OP1	-9.40	97.24	105.70
25	BA	1020	C	C6-N1-C2	9.38	124.05	120.30
25	BA	607	C	C6-N1-C2	9.38	124.05	120.30
25	BA	537	G	O4'-C1'-N9	9.35	115.68	108.20
25	DA	1021	A	C2-N3-C4	-9.26	105.97	110.60
23	AX	8	U	C5-C4-O4	9.26	131.45	125.90
23	AX	14	A	C5-N7-C8	9.19	108.49	103.90
25	BA	2299	A	C2-N3-C4	-9.15	106.03	110.60
1	AA	1127	G	N3-C4-N9	9.14	131.48	126.00
23	AX	22	G	C5-N7-C8	-9.09	99.76	104.30
25	DA	2253	G	N1-C6-O6	9.03	125.32	119.90
23	CX	22	G	C5-N7-C8	-9.03	99.79	104.30
25	BA	1225	C	C6-N1-C2	8.99	123.89	120.30
25	DA	2503	A	C5-C6-N6	-8.97	116.52	123.70
25	BA	354	A	C2-N3-C4	-8.94	106.13	110.60
25	BA	139	A	C8-N9-C4	-8.93	102.23	105.80
26	DB	115	G	C8-N9-C4	8.93	109.97	106.40
25	DA	2207	G	C6-C5-N7	-8.92	125.05	130.40
25	BA	1216	G	C8-N9-C4	-8.90	102.84	106.40
25	DA	915	C	C6-N1-C2	-8.87	116.75	120.30
23	AX	14	A	C4-C5-C6	8.85	121.42	117.00
25	DA	1269	A	N1-C6-N6	8.84	123.91	118.60
23	AX	76	A	N3-C4-C5	-8.83	120.62	126.80
25	DA	1204	A	C2-N3-C4	-8.80	106.20	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	934	A	O4'-C1'-N9	8.80	115.24	108.20
25	DA	970	C	N1-C2-O2	-8.78	113.63	118.90
1	CA	1154	G	C4-C5-C6	8.76	124.06	118.80
25	DA	2804	C	C6-N1-C2	-8.75	116.80	120.30
25	DA	1698	A	C6-C5-N7	-8.74	126.18	132.30
25	BA	930	G	O4'-C1'-N9	8.72	115.18	108.20
25	DA	2188	C	C6-N1-C2	-8.68	116.83	120.30
25	DA	1698	A	C2-N3-C4	-8.66	106.27	110.60
1	AA	1030(B)	C	C2-N1-C1'	8.62	128.28	118.80
25	DA	530	G	C8-N9-C4	-8.62	102.95	106.40
25	BA	1686	U	O5'-P-OP2	-8.60	97.96	105.70
1	CA	1003	G	N3-C4-C5	-8.57	124.32	128.60
25	BA	1314	A	C8-N9-C4	8.55	109.22	105.80
25	BA	1067	A	N3-C4-C5	8.55	132.79	126.80
1	AA	1036	G	C4-N9-C1'	8.55	137.61	126.50
23	CX	46	G	N3-C2-N2	-8.53	113.93	119.90
25	BA	2105	G	C5-C6-O6	-8.49	123.51	128.60
1	CA	1260	C	C6-N1-C2	-8.48	116.91	120.30
25	BA	507	G	O4'-C1'-N9	8.45	114.96	108.20
1	AA	166	G	C8-N9-C4	-8.43	103.03	106.40
25	BA	1665	G	O5'-P-OP2	-8.41	98.13	105.70
7	CG	22	LEU	CA-CB-CG	8.39	134.60	115.30
25	DA	1791	A	O5'-P-OP1	-8.39	98.15	105.70
1	CA	998	G	C6-C5-N7	8.37	135.42	130.40
1	CA	1154	G	C2-N3-C4	-8.36	107.72	111.90
25	BA	2630	G	N3-C4-C5	-8.35	124.42	128.60
25	DA	249	C	C6-N1-C2	8.34	123.64	120.30
25	DA	1489	U	N3-C2-O2	-8.34	116.36	122.20
23	AX	46	G	C5-C6-N1	8.31	115.66	111.50
1	CA	999	C	N3-C2-O2	-8.30	116.09	121.90
25	BA	1188	A	O5'-P-OP1	-8.29	98.24	105.70
25	DA	945	A	C2-N3-C4	-8.29	106.46	110.60
25	DA	528	A	N1-C2-N3	8.27	133.44	129.30
25	BA	837	C	O5'-P-OP2	-8.27	98.26	105.70
25	BA	1067	A	C5-C6-N1	-8.27	113.57	117.70
1	CA	1122	U	C2-N1-C1'	8.26	127.61	117.70
25	DA	1937	A	N1-C6-N6	8.26	123.56	118.60
25	DA	1284	A	N1-C6-N6	8.25	123.55	118.60
1	CA	1154	G	N3-C4-C5	-8.24	124.48	128.60
25	BA	2701	U	P-O3'-C3'	8.23	129.58	119.70
25	BA	1072	U	N1-C2-O2	8.23	128.56	122.80
25	BA	2830	A	N1-C6-N6	8.23	123.54	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	945	A	C6-C5-N7	-8.23	126.54	132.30
25	BA	194	G	C8-N9-C4	8.22	109.69	106.40
1	CA	1154	G	C4-C5-N7	-8.21	107.52	110.80
25	DA	37	C	C6-N1-C2	8.19	123.58	120.30
25	DA	1489	U	C2-N1-C1'	8.19	127.53	117.70
1	CA	1311	G	N3-C4-N9	-8.19	121.09	126.00
25	BA	553	A	C2-N3-C4	-8.18	106.51	110.60
1	CA	841	U	C5-C6-N1	8.18	126.79	122.70
25	BA	2298	A	N1-C2-N3	8.18	133.39	129.30
25	BA	1985	U	C2-N1-C1'	8.17	127.50	117.70
1	CA	1012	U	N1-C2-O2	-8.17	117.08	122.80
25	DA	2039	C	C6-N1-C2	-8.16	117.04	120.30
1	AA	1036	G	C8-N9-C1'	-8.15	116.41	127.00
23	AX	8	U	N1-C2-N3	-8.15	110.01	114.90
25	BA	990	A	C4-C5-N7	8.10	114.75	110.70
1	CA	1396	A	O5'-P-OP1	-8.10	98.42	105.70
25	DA	933	A	C5-N7-C8	-8.09	99.86	103.90
25	DA	1380	G	O5'-P-OP2	-8.08	98.43	105.70
25	DA	1786	A	O4'-C1'-N9	8.07	114.66	108.20
25	DA	249	C	O5'-P-OP2	-8.07	98.44	105.70
1	AA	896	C	C6-N1-C2	8.01	123.50	120.30
25	DA	1284	A	O5'-P-OP2	-8.01	98.49	105.70
25	BA	2331	G	N3-C4-C5	8.00	132.60	128.60
25	BA	133	G	N3-C4-C5	8.00	132.60	128.60
25	DA	945	A	C4-C5-N7	8.00	114.70	110.70
25	BA	254	A	N7-C8-N9	7.99	117.80	113.80
25	BA	1700	G	P-O3'-C3'	7.98	129.28	119.70
25	BA	1216	G	N7-C8-N9	7.98	117.09	113.10
25	DA	2503	A	N1-C6-N6	7.97	123.39	118.60
1	CA	1037	C	C6-N1-C2	-7.97	117.11	120.30
25	DA	330	A	C2-N3-C4	-7.96	106.62	110.60
25	BA	552	C	N3-C2-O2	-7.96	116.33	121.90
25	BA	254	A	C8-N9-C4	-7.96	102.62	105.80
1	CA	1141	C	C2-N1-C1'	-7.96	110.05	118.80
25	BA	2331	G	C2-N3-C4	-7.94	107.93	111.90
25	BA	2835	C	N1-C2-O2	-7.88	114.17	118.90
23	CX	39	C	C6-N1-C2	-7.88	117.15	120.30
25	BA	288	U	O4'-C1'-N1	7.87	114.50	108.20
25	BA	12	U	N3-C2-O2	-7.86	116.70	122.20
25	DA	898	C	C5-C6-N1	7.86	124.93	121.00
25	BA	2725	A	O5'-P-OP1	-7.85	98.64	105.70
25	BA	2830	A	C4-C5-N7	7.85	114.62	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1236	G	O5'-P-OP1	-7.85	98.64	105.70
1	CA	1149	C	C6-N1-C2	-7.84	117.16	120.30
25	DA	1934	C	C6-N1-C2	7.84	123.44	120.30
1	AA	193	C	C5-C6-N1	7.84	124.92	121.00
1	AA	1125	U	C2-N3-C4	7.84	131.70	127.00
23	AX	8	U	N1-C2-O2	7.83	128.28	122.80
23	CX	14	A	C5-N7-C8	7.79	107.79	103.90
25	DA	1640	C	N1-C2-O2	7.78	123.56	118.90
25	BA	2734	A	O5'-P-OP1	-7.77	98.71	105.70
25	BA	978	A	C5-N7-C8	-7.77	100.02	103.90
1	AA	1030(B)	C	N1-C2-O2	7.76	123.56	118.90
25	DA	2207	G	N1-C6-O6	7.76	124.56	119.90
25	BA	733	G	C5-C6-O6	-7.76	123.94	128.60
25	BA	2265	G	N1-C6-O6	7.76	124.55	119.90
1	AA	1530	G	N1-C6-O6	7.73	124.54	119.90
1	AA	1158	C	C4-C5-C6	7.71	121.25	117.40
1	CA	1017	G	C6-N1-C2	7.71	129.72	125.10
1	CA	1183	A	P-O3'-C3'	7.71	128.95	119.70
25	BA	2876	U	C5-C6-N1	-7.70	118.85	122.70
34	DO	8	LEU	CA-CB-CG	7.69	132.98	115.30
1	CA	1484	C	C6-N1-C2	7.67	123.37	120.30
25	BA	2830	A	N9-C4-C5	-7.67	102.73	105.80
1	AA	1131	G	C6-C5-N7	-7.65	125.81	130.40
25	DA	1372	U	C5-C4-O4	-7.64	121.32	125.90
25	DA	735	A	C8-N9-C4	7.64	108.85	105.80
25	DA	912	C	C6-N1-C2	-7.63	117.25	120.30
25	BA	961	C	N1-C2-O2	7.63	123.48	118.90
25	BA	484	G	N9-C4-C5	7.62	108.45	105.40
25	BA	1188	A	N3-C4-C5	7.62	132.14	126.80
25	BA	990	A	N7-C8-N9	7.62	117.61	113.80
25	DA	1118	C	C6-N1-C2	-7.62	117.25	120.30
1	CA	1133	G	C5-C6-O6	7.61	133.17	128.60
25	DA	2273	A	C8-N9-C4	7.61	108.84	105.80
25	DA	1703	G	N1-C6-O6	7.61	124.46	119.90
25	BA	2607	G	O5'-P-OP1	-7.61	98.86	105.70
1	CA	1033	G	N9-C4-C5	-7.59	102.36	105.40
25	DA	448	U	O5'-P-OP1	-7.59	98.87	105.70
25	BA	1067	A	N3-C4-N9	-7.58	121.33	127.40
25	DA	948	G	N3-C4-C5	7.58	132.39	128.60
25	BA	2250	G	O5'-P-OP1	-7.57	98.89	105.70
25	BA	139	A	C4-C5-N7	7.56	114.48	110.70
25	BA	990	A	C6-C5-N7	-7.56	127.01	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CX	76	A	N9-C4-C5	7.55	108.82	105.80
25	BA	1327	G	N1-C6-O6	7.54	124.42	119.90
25	BA	2092	G	N9-C4-C5	-7.51	102.40	105.40
1	CA	299	G	N1-C6-O6	7.50	124.40	119.90
25	BA	1222	A	C8-N9-C4	-7.49	102.80	105.80
1	CA	998	G	N1-C6-O6	-7.49	115.41	119.90
25	BA	1719	C	N3-C4-C5	-7.48	118.91	121.90
25	BA	2608	U	C5-C6-N1	-7.48	118.96	122.70
25	BA	1067	A	N1-C6-N6	7.48	123.09	118.60
1	AA	1137	C	C6-N1-C2	-7.48	117.31	120.30
25	DA	573	G	N1-C6-O6	-7.48	115.41	119.90
1	AA	188	C	C6-N1-C2	-7.47	117.31	120.30
25	DA	1372	U	N3-C4-O4	7.47	124.63	119.40
1	CA	927	G	N1-C6-O6	-7.47	115.42	119.90
1	CA	1054	C	C2-N1-C1'	7.45	127.00	118.80
25	BA	1093	G	N3-C4-C5	-7.44	124.88	128.60
26	DB	6	C	C6-N1-C2	7.43	123.27	120.30
25	BA	1800	G	N1-C6-O6	7.43	124.36	119.90
25	BA	2015	U	O5'-P-OP1	-7.43	99.01	105.70
1	AA	476	G	O4'-C1'-N9	7.43	114.14	108.20
25	DA	1489	U	N1-C2-O2	7.43	128.00	122.80
23	CX	76	A	C4-C5-N7	-7.42	106.99	110.70
25	BA	1153	G	N3-C4-C5	-7.42	124.89	128.60
25	BA	2262	G	O5'-P-OP2	-7.41	99.03	105.70
25	DA	2253	G	C4-C5-N7	7.40	113.76	110.80
1	AA	1124	G	C8-N9-C4	-7.40	103.44	106.40
25	BA	1093	G	N3-C4-N9	7.40	130.44	126.00
23	AX	22	G	N3-C4-N9	-7.40	121.56	126.00
25	BA	215	G	O4'-C1'-N9	7.39	114.11	108.20
23	AX	76	A	C5-C6-N1	7.39	121.39	117.70
25	BA	2081	A	C8-N9-C4	7.39	108.75	105.80
25	DA	1404	C	O5'-P-OP2	-7.38	99.06	105.70
1	CA	998	G	C4-C5-N7	-7.38	107.85	110.80
25	BA	990	A	N1-C6-N6	7.38	123.03	118.60
25	BA	1766	G	C4-C5-N7	7.36	113.74	110.80
25	DA	2805	G	N1-C6-O6	-7.35	115.49	119.90
25	DA	1022	G	N3-C4-N9	-7.34	121.59	126.00
25	BA	2515	A	N1-C2-N3	-7.33	125.64	129.30
1	AA	1124	G	N3-C4-C5	-7.33	124.94	128.60
1	CA	1154	G	N3-C4-N9	7.31	130.38	126.00
25	BA	2299	A	N3-C4-C5	7.30	131.91	126.80
25	DA	1696	G	O5'-P-OP2	-7.30	99.13	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	827	U	N3-C2-O2	7.29	127.31	122.20
1	CA	1141	C	C6-N1-C1'	7.29	129.55	120.80
25	DA	2805	G	N9-C4-C5	7.28	108.31	105.40
1	AA	738	C	C6-N1-C2	-7.27	117.39	120.30
23	AX	22	G	C4-C5-C6	-7.27	114.44	118.80
25	DA	2805	G	C4-C5-N7	-7.27	107.89	110.80
25	BA	2627	U	O5'-P-OP1	-7.25	99.17	105.70
1	CA	998	G	C5-C6-O6	7.24	132.95	128.60
25	DA	1142(A)	A	C2-N3-C4	-7.24	106.98	110.60
51	D5	58	LEU	CA-CB-CG	7.24	131.95	115.30
1	AA	728	A	O5'-P-OP2	-7.23	99.19	105.70
1	CA	927	G	C4-C5-N7	-7.23	107.91	110.80
25	DA	2261	C	C6-N1-C2	7.23	123.19	120.30
25	BA	201	G	O5'-P-OP1	7.22	119.37	110.70
25	BA	2331	G	C5-N7-C8	-7.22	100.69	104.30
25	DA	687	C	N3-C4-C5	7.21	124.78	121.90
1	AA	1030(B)	C	C6-N1-C2	-7.21	117.42	120.30
25	DA	2207	G	C4-C5-C6	7.21	123.12	118.80
25	DA	476	G	O5'-P-OP2	-7.21	99.22	105.70
25	DA	2374	C	C6-N1-C2	7.21	123.18	120.30
25	BA	2298	A	C4-C5-C6	7.20	120.60	117.00
1	AA	1028	C	C6-N1-C2	-7.19	117.42	120.30
25	DA	205	G	N7-C8-N9	-7.18	109.51	113.10
25	BA	2092	G	C8-N9-C4	7.18	109.27	106.40
25	DA	1204	A	O4'-C1'-N9	7.17	113.94	108.20
25	DA	2574	G	N1-C6-O6	7.17	124.20	119.90
25	DA	2463	C	C6-N1-C2	7.17	123.17	120.30
1	CA	1038	C	C2-N3-C4	7.16	123.48	119.90
1	CA	1492	A	C8-N9-C4	-7.16	102.94	105.80
25	BA	1054	C	N1-C2-O2	7.16	123.20	118.90
25	BA	1745	A	C2-N3-C4	-7.15	107.02	110.60
25	BA	2701	U	N3-C2-O2	-7.15	117.19	122.20
25	BA	2058	C	O5'-P-OP2	7.15	119.28	110.70
1	CA	1113	C	C6-N1-C2	-7.15	117.44	120.30
25	BA	2028	C	O5'-P-OP1	-7.15	99.27	105.70
25	BA	733	G	C4-C5-N7	7.14	113.66	110.80
25	BA	834	U	O5'-P-OP1	-7.14	99.27	105.70
25	BA	553	A	C6-N1-C2	7.14	122.88	118.60
23	AX	4	G	C8-N9-C4	7.14	109.25	106.40
25	BA	1076	G	N1-C2-N2	-7.13	109.78	116.20
25	BA	706	C	C6-N1-C2	7.12	123.15	120.30
23	CX	76	A	C4-C5-C6	7.12	120.56	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1605	A	C2-N3-C4	-7.11	107.04	110.60
25	BA	852	G	O5'-P-OP1	-7.11	99.31	105.70
25	BA	1077	G	N1-C6-O6	-7.10	115.64	119.90
25	DA	2588	G	O5'-P-OP1	-7.10	99.31	105.70
25	BA	2229	A	O4'-C1'-N9	7.10	113.88	108.20
25	BA	1249	A	O4'-C1'-N9	7.09	113.88	108.20
25	DA	528	A	N3-C4-C5	7.09	131.77	126.80
25	DA	2805	G	C8-N9-C4	-7.09	103.56	106.40
1	CA	1126	U	C5-C6-N1	7.08	126.24	122.70
1	AA	1026	G	C4-N9-C1'	7.07	135.69	126.50
25	DA	2321	G	N9-C4-C5	-7.07	102.57	105.40
25	BA	2556	G	N1-C6-O6	7.07	124.14	119.90
25	DA	129	C	C6-N1-C2	7.07	123.13	120.30
25	BA	1068	G	N3-C4-N9	-7.07	121.76	126.00
25	DA	1284	A	N9-C4-C5	-7.06	102.98	105.80
25	DA	2253	G	C6-C5-N7	-7.04	126.17	130.40
25	DA	2523	G	O5'-P-OP2	-7.04	99.37	105.70
25	BA	1067	A	N7-C8-N9	7.03	117.32	113.80
25	BA	103	C	O5'-P-OP2	-7.01	99.39	105.70
25	DA	2253	G	C5-C6-O6	-7.01	124.39	128.60
25	BA	473	A	O5'-P-OP1	-7.01	99.39	105.70
1	CA	927	G	N9-C4-C5	7.01	108.20	105.40
25	BA	1098	C	C5-C6-N1	7.01	124.50	121.00
1	CA	1033	G	C4-C5-N7	7.01	113.60	110.80
1	AA	1531	A	O4'-C1'-N9	-7.01	102.59	108.20
25	BA	733	G	N1-C6-O6	7.01	124.10	119.90
1	CA	1157	A	N1-C6-N6	-7.00	114.40	118.60
23	CX	14	A	C4-C5-C6	7.00	120.50	117.00
25	BA	602	G	N1-C6-O6	7.00	124.10	119.90
25	BA	2589	A	C8-N9-C4	-7.00	103.00	105.80
25	BA	122	G	O5'-P-OP2	-6.99	99.41	105.70
25	DA	2298	A	C6-N1-C2	6.99	122.79	118.60
25	DA	214	G	O4'-C1'-N9	6.98	113.78	108.20
25	BA	1871	G	N1-C6-O6	-6.98	115.71	119.90
25	BA	852	G	C5-C6-N1	6.97	114.99	111.50
25	BA	753	A	C2-N3-C4	-6.97	107.11	110.60
23	AX	46	G	C5-C6-O6	-6.97	124.42	128.60
25	BA	1006	C	O5'-P-OP2	-6.97	99.43	105.70
25	BA	2577	A	O5'-P-OP1	-6.97	99.43	105.70
25	BA	1719	C	C6-N1-C2	-6.96	117.52	120.30
25	BA	1844	G	C8-N9-C4	6.96	109.18	106.40
25	BA	819	C	C6-N1-C2	6.94	123.08	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	467	G	C8-N9-C4	6.94	109.17	106.40
1	AA	1131	G	N7-C8-N9	6.93	116.56	113.10
25	DA	2007	C	C6-N1-C2	6.93	123.07	120.30
25	DA	1204	A	N1-C6-N6	6.92	122.75	118.60
25	DA	2427	C	C6-N1-C2	6.92	123.07	120.30
25	BA	1188	A	N3-C4-N9	-6.92	121.86	127.40
25	DA	981	A	C5-C6-N6	6.91	129.23	123.70
25	BA	2081	A	N7-C8-N9	-6.91	110.34	113.80
1	CA	1259	C	C6-N1-C2	-6.91	117.53	120.30
25	BA	2804	C	C6-N1-C2	-6.90	117.54	120.30
25	DA	1339	G	O5'-P-OP1	-6.90	99.49	105.70
25	DA	1783	A	C8-N9-C4	6.90	108.56	105.80
25	DA	2298	A	N1-C2-N3	-6.90	125.85	129.30
25	BA	2331	G	C4-C5-N7	6.89	113.56	110.80
1	AA	199	G	C8-N9-C4	6.89	109.16	106.40
1	AA	383	A	C5-N7-C8	6.89	107.35	103.90
1	CA	1000	U	C5-C6-N1	6.89	126.14	122.70
25	DA	1251	C	N1-C2-O2	-6.89	114.77	118.90
25	BA	555	G	C4-C5-N7	6.88	113.55	110.80
1	CA	79	G	C5-C6-O6	6.88	132.73	128.60
1	AA	476	G	C4-N9-C1'	6.88	135.44	126.50
25	DA	1022	G	N3-C2-N2	-6.88	115.08	119.90
1	AA	1007	C	C5-C6-N1	6.88	124.44	121.00
1	CA	1119	C	N1-C2-N3	-6.88	114.39	119.20
25	DA	933	A	N7-C8-N9	6.88	117.24	113.80
25	DA	1653	G	C4-N9-C1'	6.88	135.44	126.50
1	CA	1017	G	C5-C6-O6	6.87	132.72	128.60
25	BA	2549	U	C5-C4-O4	6.87	130.02	125.90
1	CA	525	C	C5-C6-N1	6.87	124.43	121.00
1	AA	443	C	C2-N1-C1'	6.86	126.35	118.80
25	BA	1462	G	O4'-C1'-N9	6.86	113.69	108.20
1	AA	97	G	O4'-C1'-N9	6.86	113.69	108.20
1	AA	921	U	C2-N3-C4	6.85	131.11	127.00
25	DA	2689	U	P-O3'-C3'	6.85	127.92	119.70
1	AA	1397	C	O4'-C1'-N1	6.84	113.67	108.20
25	BA	1588	G	N3-C4-C5	-6.84	125.18	128.60
25	BA	2551	C	C6-N1-C2	6.84	123.03	120.30
25	DA	2829	C	C6-N1-C2	6.83	123.03	120.30
25	DA	1328	G	C5-C6-O6	-6.83	124.50	128.60
1	AA	720	C	C6-N1-C2	-6.83	117.57	120.30
25	DA	2206	G	C4-N9-C1'	-6.83	117.62	126.50
1	CA	1054	C	C6-N1-C2	-6.83	117.57	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	148	C	C6-N1-C2	6.83	123.03	120.30
1	AA	1396	A	C6-N1-C2	6.82	122.69	118.60
25	DA	2048	G	C5-C6-O6	6.82	132.69	128.60
1	CA	1163	C	C5-C6-N1	6.82	124.41	121.00
25	DA	294	A	N1-C6-N6	-6.82	114.51	118.60
25	BA	2105	G	N1-C6-O6	6.82	123.99	119.90
25	DA	1432	C	C6-N1-C2	6.82	123.03	120.30
25	DA	2345	G	C5-C6-O6	6.81	132.69	128.60
1	CA	117	G	N3-C4-N9	6.81	130.09	126.00
25	BA	555	G	N3-C4-C5	6.80	132.00	128.60
25	BA	2299	A	N3-C4-N9	-6.80	121.96	127.40
1	CA	1054	C	P-O3'-C3'	6.80	127.86	119.70
25	DA	2313	C	N1-C2-O2	6.79	122.97	118.90
1	AA	893	C	N1-C2-O2	6.79	122.97	118.90
25	DA	2751	G	N3-C4-C5	-6.79	125.21	128.60
1	AA	509	A	C8-N9-C4	-6.78	103.09	105.80
1	AA	63	C	N1-C2-O2	6.78	122.97	118.90
25	BA	824	A	N1-C2-N3	6.77	132.68	129.30
1	CA	1042	G	C6-N1-C2	6.76	129.16	125.10
25	BA	841	G	C5-C6-O6	6.76	132.65	128.60
25	BA	1314	A	N7-C8-N9	-6.75	110.42	113.80
25	BA	2444	A	N1-C6-N6	6.75	122.65	118.60
25	BA	553	A	N3-C4-C5	6.75	131.52	126.80
1	AA	1285	A	P-O3'-C3'	6.74	127.79	119.70
25	BA	2014	G	P-O3'-C3'	6.74	127.79	119.70
1	AA	1397	C	C2-N1-C1'	6.74	126.21	118.80
25	DA	524	U	O5'-P-OP2	-6.74	99.64	105.70
1	CA	1502	A	O5'-P-OP2	-6.73	99.64	105.70
25	DA	2010	G	O5'-P-OP2	6.73	118.78	110.70
25	BA	1843	A	O5'-P-OP1	-6.72	99.65	105.70
1	CA	848	C	C5-C6-N1	6.72	124.36	121.00
1	AA	1395	C	C2-N3-C4	6.72	123.26	119.90
25	DA	741	G	O5'-P-OP1	-6.72	99.65	105.70
1	CA	979	C	C6-N1-C2	-6.72	117.61	120.30
25	DA	110	G	C8-N9-C4	6.72	109.09	106.40
25	DA	1721	G	N3-C4-N9	6.71	130.03	126.00
1	CA	1258	G	O4'-C1'-N9	6.71	113.57	108.20
25	DA	2520	C	N3-C4-C5	6.71	124.58	121.90
1	CA	1003	G	N3-C4-N9	6.71	130.03	126.00
1	CA	1033	G	N1-C6-O6	6.71	123.93	119.90
25	DA	219	G	N3-C4-C5	-6.71	125.25	128.60
25	DA	1489	U	C4-C5-C6	6.70	123.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	CC	52	LEU	CA-CB-CG	6.70	130.72	115.30
25	DA	784	A	C8-N9-C4	6.70	108.48	105.80
1	CA	1126	U	C2-N1-C1'	6.69	125.73	117.70
1	CA	1135	U	O4'-C1'-N1	6.68	113.54	108.20
25	DA	738	G	N3-C4-C5	-6.67	125.26	128.60
1	AA	1502	A	O5'-P-OP2	-6.67	99.69	105.70
1	CA	1023	G	N3-C4-N9	6.67	130.00	126.00
26	DB	42	C	O5'-P-OP1	-6.67	99.70	105.70
1	CA	1456	G	C8-N9-C4	6.67	109.07	106.40
25	BA	1327	G	C5-C6-O6	-6.67	124.60	128.60
1	CA	1311	G	C6-C5-N7	6.67	134.40	130.40
25	BA	831	A	O4'-C1'-N9	6.66	113.53	108.20
25	DA	2360	A	C8-N9-C4	6.66	108.46	105.80
25	BA	555	G	C2-N3-C4	-6.66	108.57	111.90
25	DA	827	U	N1-C2-O2	-6.65	118.14	122.80
25	BA	1093	G	C4-N9-C1'	6.65	135.14	126.50
25	BA	2448	G	N3-C2-N2	-6.64	115.25	119.90
25	DA	1992	G	C8-N9-C4	-6.64	103.74	106.40
25	BA	43	A	C2-N3-C4	-6.64	107.28	110.60
25	DA	1281	G	O5'-P-OP2	6.64	118.67	110.70
25	DA	2286	A	N1-C6-N6	6.64	122.58	118.60
25	BA	2228	G	OP1-P-O3'	6.64	119.80	105.20
25	BA	2551	C	C5-C6-N1	-6.64	117.68	121.00
25	DA	776	G	C8-N9-C4	-6.64	103.75	106.40
25	DA	945	A	O4'-C1'-N9	6.64	113.51	108.20
25	DA	933	A	C4-C5-N7	6.63	114.02	110.70
25	DA	945	A	C5-N7-C8	-6.63	100.59	103.90
25	DA	2388	A	O4'-C1'-N9	6.63	113.50	108.20
26	DB	104	U	C6-N1-C2	6.63	124.98	121.00
25	BA	2260	C	O5'-P-OP2	-6.62	99.74	105.70
1	CA	726	C	O5'-P-OP1	-6.62	99.74	105.70
25	BA	2550	C	C6-N1-C2	6.62	122.95	120.30
25	DA	1395	A	O4'-C1'-N9	6.62	113.50	108.20
1	AA	1493	A	P-O3'-C3'	6.61	127.64	119.70
1	CA	1180	A	O4'-C1'-N9	6.61	113.48	108.20
25	BA	254	A	C5-N7-C8	-6.60	100.60	103.90
25	DA	63	U	N3-C4-O4	-6.60	114.78	119.40
25	DA	1489	U	C6-N1-C1'	-6.60	111.96	121.20
1	CA	1286	A	C8-N9-C4	-6.60	103.16	105.80
25	BA	805	C	C6-N1-C2	-6.59	117.66	120.30
1	CA	1123	A	O4'-C1'-N9	6.59	113.47	108.20
25	DA	2218	U	N3-C2-O2	-6.59	117.58	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	482	A	O5'-P-OP2	-6.59	99.77	105.70
25	DA	2050	C	C6-N1-C2	6.59	122.94	120.30
25	DA	2388	A	C2-N3-C4	6.59	113.89	110.60
25	DA	451	C	C6-N1-C2	6.59	122.94	120.30
1	AA	193	C	C6-N1-C2	-6.58	117.67	120.30
1	AA	458	C	C2-N1-C1'	6.58	126.04	118.80
25	BA	2298	A	C6-C5-N7	-6.58	127.69	132.30
25	DA	945	A	N9-C4-C5	-6.58	103.17	105.80
25	DA	2805	G	O4'-C1'-N9	6.58	113.46	108.20
25	BA	418	G	C5-C6-O6	-6.57	124.66	128.60
25	BA	148	C	C6-N1-C2	6.57	122.93	120.30
25	DA	826	U	C5-C6-N1	-6.57	119.41	122.70
25	DA	2253	G	N9-C4-C5	-6.57	102.77	105.40
1	CA	1003	G	C4-N9-C1'	6.57	135.04	126.50
1	CA	999	C	C6-N1-C1'	-6.57	112.92	120.80
25	BA	717	A	O4'-C1'-N9	-6.56	102.95	108.20
25	BA	2331	G	O4'-C1'-N9	6.55	113.44	108.20
1	CA	899	C	C6-N1-C2	6.55	122.92	120.30
1	AA	1137	C	C5-C6-N1	6.55	124.28	121.00
25	DA	2287	A	C2-N3-C4	-6.55	107.33	110.60
25	DA	2501	C	N3-C4-C5	6.55	124.52	121.90
25	BA	2054	G	N3-C4-C5	6.54	131.87	128.60
25	DA	2512	C	C6-N1-C2	6.54	122.92	120.30
1	AA	266	G	P-O3'-C3'	6.54	127.55	119.70
25	BA	1483	C	C6-N1-C2	-6.54	117.68	120.30
25	DA	2560	C	C6-N1-C2	6.54	122.92	120.30
25	BA	176	G	N1-C6-O6	6.54	123.82	119.90
25	DA	2061	G	C8-N9-C4	6.53	109.01	106.40
25	BA	666	C	C6-N1-C2	-6.51	117.69	120.30
1	AA	1127	G	C5-N7-C8	6.51	107.56	104.30
1	CA	1023	G	N3-C2-N2	6.51	124.46	119.90
25	BA	660	C	C6-N1-C2	-6.51	117.70	120.30
25	DA	1681	G	N3-C4-C5	6.50	131.85	128.60
25	BA	176	G	C4-C5-N7	6.49	113.40	110.80
1	CA	1502	A	N1-C2-N3	6.49	132.54	129.30
1	CA	1502	A	C5-N7-C8	-6.49	100.66	103.90
25	DA	1257	C	C6-N1-C2	-6.48	117.71	120.30
26	BB	98	G	O5'-P-OP2	-6.48	99.87	105.70
25	BA	781	A	N1-C6-N6	6.47	122.48	118.60
2	CB	154	LEU	CA-CB-CG	6.47	130.19	115.30
25	BA	2544	G	N1-C6-O6	6.47	123.78	119.90
25	DA	1022	G	C8-N9-C1'	6.47	135.41	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	987	G	C5-C6-O6	-6.47	124.72	128.60
23	AX	8	U	N3-C4-C5	-6.46	110.72	114.60
1	AA	382	A	N1-C6-N6	-6.46	114.72	118.60
1	AA	1125	U	C4-C5-C6	-6.46	115.83	119.70
1	CA	65	U	P-O3'-C3'	6.46	127.45	119.70
1	AA	470	C	N1-C2-O2	6.46	122.77	118.90
23	AX	22	G	N3-C4-C5	6.46	131.83	128.60
1	CA	1260	C	C5-C6-N1	6.46	124.23	121.00
25	DA	530	G	N3-C4-N9	-6.45	122.13	126.00
25	BA	1263	C	O5'-P-OP2	-6.45	99.90	105.70
25	BA	271	U	O4'-C1'-N1	6.44	113.35	108.20
25	DA	1635	G	N1-C6-O6	6.44	123.77	119.90
25	BA	2638	C	C6-N1-C2	6.44	122.88	120.30
25	DA	1142	U	N1-C2-O2	6.44	127.31	122.80
25	DA	933	A	N1-C6-N6	6.44	122.46	118.60
25	BA	2253	A	O5'-P-OP1	-6.43	99.91	105.70
1	CA	1163	C	C2-N3-C4	6.43	123.12	119.90
25	BA	139	A	O4'-C1'-N9	6.43	113.35	108.20
25	DA	2805	G	N3-C4-C5	-6.43	125.38	128.60
25	BA	1423	G	N1-C6-O6	-6.42	116.05	119.90
25	BA	1742	G	C6-C5-N7	-6.42	126.55	130.40
1	CA	1036	G	C5-C6-N1	-6.42	108.29	111.50
1	AA	1206	G	C5-C6-O6	-6.42	124.75	128.60
23	CX	46	G	C5-C6-N1	6.41	114.71	111.50
25	DA	216	A	C2-N3-C4	-6.41	107.40	110.60
1	AA	165	C	C6-N1-C2	-6.41	117.74	120.30
25	BA	2673	G	N3-C4-C5	-6.41	125.40	128.60
1	AA	532	A	OP1-P-O3'	6.40	119.29	105.20
25	DA	1021	A	N1-C2-N3	6.40	132.50	129.30
25	BA	2227	G	C4-N9-C1'	-6.40	118.18	126.50
25	BA	2891	C	C6-N1-C2	-6.40	117.74	120.30
25	DA	2544	G	N1-C6-O6	6.40	123.74	119.90
22	AV	17	U	C5-C4-O4	6.40	129.74	125.90
25	DA	2313	C	N3-C2-O2	-6.40	117.42	121.90
25	BA	2630	G	N3-C4-N9	6.40	129.84	126.00
25	BA	352	U	O5'-P-OP2	-6.40	99.94	105.70
1	AA	63	C	N3-C2-O2	-6.39	117.42	121.90
1	CA	1042	G	C8-N9-C4	6.39	108.96	106.40
43	DX	57	LEU	CA-CB-CG	6.39	130.00	115.30
1	CA	1132	C	C6-N1-C2	-6.39	117.74	120.30
25	DA	2512	C	N3-C2-O2	6.39	126.37	121.90
1	AA	458	C	N1-C2-O2	6.39	122.73	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2830	A	C6-C5-N7	-6.39	127.83	132.30
1	AA	841	U	C6-N1-C2	-6.39	117.17	121.00
25	BA	1045	U	O5'-P-OP2	-6.38	99.95	105.70
25	BA	2026	G	C2-N3-C4	-6.38	108.71	111.90
25	DA	1698	A	C4-C5-N7	6.38	113.89	110.70
25	BA	2331	G	N3-C4-N9	-6.38	122.17	126.00
25	BA	1312	G	C8-N9-C4	6.38	108.95	106.40
25	BA	1919	G	N1-C6-O6	6.38	123.73	119.90
1	CA	1033	G	C6-N1-C2	6.38	128.93	125.10
1	CA	1169	A	C4-C5-C6	6.38	120.19	117.00
25	DA	2850	A	OP1-P-OP2	-6.37	110.04	119.60
1	AA	1058	G	C5-C6-O6	-6.37	124.78	128.60
25	BA	2280	A	O5'-P-OP1	-6.36	99.97	105.70
1	AA	1024	G	C4-N9-C1'	6.36	134.76	126.50
25	DA	2574	G	C5-C6-O6	-6.36	124.78	128.60
25	BA	978	A	N7-C8-N9	6.35	116.98	113.80
25	BA	1812	C	C6-N1-C2	6.35	122.84	120.30
25	DA	63	U	C5-C4-O4	6.35	129.71	125.90
25	DA	1022	G	C4-N9-C1'	-6.35	118.24	126.50
1	CA	1511	G	N1-C6-O6	6.35	123.71	119.90
1	AA	496	A	C8-N9-C4	-6.34	103.26	105.80
25	BA	568	C	C6-N1-C2	6.34	122.84	120.30
1	CA	1122	U	C6-N1-C1'	-6.34	112.32	121.20
25	DA	31	C	C6-N1-C2	-6.34	117.76	120.30
1	AA	443	C	C6-N1-C1'	-6.34	113.19	120.80
1	CA	1012	U	N1-C2-N3	6.33	118.70	114.90
26	DB	95	C	C6-N1-C2	6.33	122.83	120.30
25	BA	2442	A	N1-C6-N6	-6.33	114.80	118.60
1	AA	800	G	C8-N9-C4	-6.33	103.87	106.40
25	BA	2701	U	C6-N1-C2	-6.33	117.20	121.00
1	CA	754	C	C2-N1-C1'	6.32	125.75	118.80
23	CX	22	G	C4-C5-C6	-6.32	115.01	118.80
25	BA	342	C	C6-N1-C2	-6.32	117.77	120.30
1	CA	1402	C	C6-N1-C2	-6.32	117.77	120.30
1	CA	1311	G	N3-C4-C5	6.32	131.76	128.60
26	DB	8	U	C5-C6-N1	6.31	125.86	122.70
35	DP	44	GLY	N-CA-C	-6.31	97.31	113.10
25	BA	2094	G	C6-C5-N7	-6.31	126.61	130.40
25	DA	1681	G	C2-N3-C4	-6.31	108.74	111.90
25	DA	2279	G	C8-N9-C4	6.31	108.92	106.40
1	AA	1054	C	P-O3'-C3'	6.31	127.27	119.70
1	CA	1391	U	C5-C4-O4	6.30	129.68	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1029	C	C2-N1-C1'	-6.30	111.87	118.80
25	BA	733	G	C6-C5-N7	-6.30	126.62	130.40
25	BA	781	A	C2-N3-C4	-6.30	107.45	110.60
1	CA	967	C	C6-N1-C2	6.30	122.82	120.30
1	CA	1227	A	N7-C8-N9	6.30	116.95	113.80
25	DA	1284	A	C5-C6-N6	-6.30	118.66	123.70
25	BA	2631	C	C6-N1-C2	6.29	122.82	120.30
1	CA	908	A	O5'-P-OP2	-6.29	100.04	105.70
25	DA	528	A	N1-C6-N6	6.29	122.38	118.60
25	DA	1363	C	C5-C6-N1	-6.29	117.85	121.00
25	BA	484	G	C8-N9-C4	-6.29	103.88	106.40
25	DA	2070	G	N1-C6-O6	-6.28	116.13	119.90
25	BA	849	A	C8-N9-C4	-6.28	103.29	105.80
1	CA	999	C	C2-N1-C1'	6.28	125.70	118.80
25	DA	1600	C	O5'-P-OP2	-6.28	100.05	105.70
1	AA	227	G	C8-N9-C4	6.27	108.91	106.40
25	DA	2617	C	O5'-P-OP1	-6.27	100.05	105.70
25	BA	1779	G	C8-N9-C4	-6.27	103.89	106.40
25	DA	2048	G	N1-C6-O6	-6.27	116.14	119.90
25	DA	271(Y)	U	O4'-C1'-N1	6.26	113.21	108.20
1	AA	383	A	C4-C5-C6	6.26	120.13	117.00
1	CA	528	C	C6-N1-C2	-6.26	117.80	120.30
25	DA	2357	U	O5'-P-OP2	-6.26	100.06	105.70
1	CA	1272	G	C5-C6-O6	6.26	132.35	128.60
25	DA	2554	U	O5'-P-OP2	-6.25	100.07	105.70
25	BA	405	C	C6-N1-C2	6.25	122.80	120.30
25	BA	474	U	N3-C2-O2	-6.25	117.82	122.20
1	CA	117	G	C8-N9-C1'	-6.25	118.87	127.00
1	CA	1500	A	N1-C6-N6	6.25	122.35	118.60
25	BA	2638	C	N3-C4-C5	6.24	124.40	121.90
1	AA	1127	G	N3-C4-C5	-6.24	125.48	128.60
26	DB	115	G	N9-C4-C5	-6.24	102.90	105.40
25	BA	2283	G	N3-C4-N9	6.24	129.74	126.00
25	DA	2406	U	O4'-C1'-N1	-6.24	103.21	108.20
1	AA	167	G	C4-N9-C1'	6.23	134.60	126.50
25	DA	1698	A	N1-C2-N3	6.23	132.41	129.30
1	AA	1127	G	C8-N9-C4	6.22	108.89	106.40
25	BA	1779	G	N7-C8-N9	6.22	116.21	113.10
25	BA	1926	G	N1-C6-O6	-6.22	116.17	119.90
1	CA	509	A	C8-N9-C4	-6.22	103.31	105.80
1	AA	175	C	C6-N1-C2	-6.21	117.81	120.30
1	AA	1067	A	P-O3'-C3'	6.21	127.16	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	5	U	C6-N1-C2	-6.21	117.27	121.00
1	CA	967	C	N3-C2-O2	6.21	126.25	121.90
25	DA	614	U	C5-C4-O4	6.21	129.63	125.90
25	DA	2751	G	C4-N9-C1'	6.21	134.57	126.50
26	BB	93	G	C8-N9-C4	-6.21	103.92	106.40
25	BA	1832	G	N1-C6-O6	6.20	123.62	119.90
1	CA	354	G	C6-C5-N7	-6.20	126.68	130.40
25	BA	1629	C	C5-C6-N1	-6.20	117.90	121.00
1	AA	1515	C	N3-C4-C5	-6.19	119.42	121.90
25	BA	77	A	N1-C6-N6	6.19	122.32	118.60
1	AA	1150	U	C2-N3-C4	6.19	130.71	127.00
25	BA	2298	A	N7-C8-N9	6.19	116.90	113.80
25	DA	566	U	C5-C6-N1	-6.19	119.61	122.70
25	DA	2520	C	C6-N1-C2	6.19	122.78	120.30
25	DA	2053	G	C8-N9-C4	6.18	108.87	106.40
25	DA	1558	A	P-O3'-C3'	6.18	127.12	119.70
1	CA	1064	G	P-O3'-C3'	6.18	127.12	119.70
25	BA	1343	C	OP1-P-O3'	6.18	118.79	105.20
1	AA	1131	G	C4-C5-N7	6.17	113.27	110.80
25	BA	595	A	N1-C6-N6	-6.17	114.90	118.60
25	DA	154(A)	C	N1-C2-O2	6.17	122.60	118.90
25	DA	1363	C	C6-N1-C2	6.17	122.77	120.30
25	DA	2298	A	N9-C4-C5	-6.16	103.33	105.80
25	BA	39	C	O5'-P-OP2	-6.16	100.16	105.70
19	CS	16	LEU	CA-CB-CG	6.16	129.47	115.30
1	AA	488	C	C6-N1-C2	-6.16	117.84	120.30
25	BA	1255	A	C8-N9-C4	-6.15	103.34	105.80
25	BA	2403	G	O4'-C1'-N9	6.15	113.12	108.20
25	DA	2591	C	C6-N1-C2	-6.15	117.84	120.30
25	DA	130	C	N3-C4-C5	6.15	124.36	121.90
1	CA	818	G	C8-N9-C4	6.15	108.86	106.40
25	BA	1067	A	C4-C5-N7	6.14	113.77	110.70
25	DA	1790	C	P-O3'-C3'	6.14	127.07	119.70
25	DA	2042	A	C8-N9-C4	6.14	108.25	105.80
25	BA	859	C	C6-N1-C2	-6.14	117.84	120.30
25	BA	842	C	N1-C2-O2	6.13	122.58	118.90
25	BA	994	C	C6-N1-C2	6.13	122.75	120.30
25	DA	75	G	C8-N9-C4	-6.13	103.95	106.40
1	AA	347	G	C4-N9-C1'	6.13	134.47	126.50
25	BA	1725	G	C8-N9-C4	-6.13	103.95	106.40
25	BA	1067	A	N1-C2-N3	6.13	132.37	129.30
25	DA	414	C	O5'-P-OP2	-6.13	100.18	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1026	G	N3-C4-C5	-6.13	125.54	128.60
1	AA	1531	A	C8-N9-C4	-6.13	103.35	105.80
1	CA	1122	U	C5-C4-O4	-6.13	122.22	125.90
25	BA	2624	C	O5'-P-OP1	-6.12	100.19	105.70
1	AA	226	G	C8-N9-C4	6.12	108.85	106.40
1	AA	536	C	O5'-P-OP2	-6.12	100.19	105.70
25	DA	2207	G	C4-N9-C1'	6.12	134.45	126.50
25	BA	892	G	O4'-C1'-N9	6.11	113.09	108.20
23	CX	46	G	N9-C4-C5	6.11	107.84	105.40
25	DA	2623	G	N1-C6-O6	6.11	123.57	119.90
1	AA	1530	G	C5-C6-O6	-6.11	124.94	128.60
25	BA	840	A	N1-C6-N6	6.11	122.26	118.60
25	BA	2298	A	C8-N9-C4	-6.10	103.36	105.80
25	DA	1239	G	N1-C6-O6	6.10	123.56	119.90
25	BA	139	A	C6-C5-N7	-6.10	128.03	132.30
25	BA	2807	C	C5-C6-N1	6.10	124.05	121.00
1	CA	1002	G	N3-C2-N2	-6.10	115.63	119.90
25	BA	590	A	C2-N3-C4	-6.09	107.55	110.60
25	BA	873	U	OP2-P-O3'	6.09	118.61	105.20
25	DA	133	C	O5'-P-OP2	-6.09	100.22	105.70
25	DA	141	A	N7-C8-N9	6.09	116.85	113.80
1	CA	894	G	N3-C4-C5	6.09	131.65	128.60
25	BA	834	U	N1-C2-N3	6.09	118.55	114.90
1	CA	1149	C	C5-C6-N1	6.08	124.04	121.00
25	DA	2084	C	C5-C6-N1	-6.08	117.96	121.00
1	CA	736	C	C6-N1-C2	-6.08	117.87	120.30
25	DA	2321	G	C8-N9-C1'	-6.08	119.09	127.00
1	AA	1030(A)	G	O4'-C1'-N9	6.08	113.06	108.20
25	DA	2218	U	N1-C2-O2	6.08	127.06	122.80
26	BB	30	C	C6-N1-C2	-6.07	117.87	120.30
1	CA	915	A	C8-N9-C4	6.07	108.23	105.80
25	DA	991	C	O5'-P-OP1	6.07	117.98	110.70
1	CA	1137	C	P-O3'-C3'	6.07	126.98	119.70
1	CA	1484	C	C5-C6-N1	-6.06	117.97	121.00
25	BA	56	C	C2-N3-C4	6.06	122.93	119.90
25	DA	1721	G	N3-C2-N2	6.06	124.14	119.90
1	CA	1154	G	O4'-C1'-N9	6.06	113.05	108.20
25	DA	1531	C	C5-C6-N1	6.06	124.03	121.00
25	BA	332	G	C6-C5-N7	-6.06	126.77	130.40
25	DA	1122	G	O5'-P-OP2	-6.06	100.25	105.70
25	BA	2077	C	C2-N3-C4	6.05	122.93	119.90
1	AA	383	A	C8-N9-C1'	-6.05	116.81	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1002	G	C5-C6-O6	6.05	132.23	128.60
25	BA	1298	G	N3-C2-N2	-6.05	115.67	119.90
1	AA	1030(B)	C	N3-C2-O2	-6.05	117.67	121.90
25	BA	12	U	C6-N1-C2	-6.05	117.37	121.00
25	BA	2107	C	O5'-P-OP2	-6.05	100.26	105.70
25	BA	332	G	C4-C5-N7	6.04	113.22	110.80
25	BA	552	C	N3-C4-N4	-6.04	113.77	118.00
25	DA	801	G	O5'-P-OP2	-6.04	100.26	105.70
25	BA	535	C	C6-N1-C2	-6.04	117.88	120.30
1	AA	1127	G	N9-C4-C5	-6.04	102.98	105.40
25	DA	94(A)	G	C8-N9-C4	-6.04	103.98	106.40
25	BA	254	A	C6-C5-N7	-6.03	128.08	132.30
25	DA	1653	G	C8-N9-C1'	-6.03	119.16	127.00
23	CX	8	U	N1-C2-N3	-6.03	111.28	114.90
25	BA	1718	U	N1-C2-O2	-6.03	118.58	122.80
26	BB	91	C	N3-C4-C5	6.03	124.31	121.90
25	DA	2540	C	C6-N1-C2	6.03	122.71	120.30
1	CA	299	G	N9-C4-C5	-6.03	102.99	105.40
25	DA	2335	A	O4'-C1'-N9	6.03	113.02	108.20
25	BA	588	C	N1-C2-O2	6.02	122.51	118.90
25	BA	2830	A	C5-N7-C8	-6.02	100.89	103.90
25	BA	783	C	N1-C2-O2	-6.02	115.29	118.90
1	CA	1044	A	C6-N1-C2	6.02	122.21	118.60
25	DA	461	C	N3-C2-O2	6.02	126.11	121.90
25	BA	978	A	O4'-C1'-N9	6.01	113.01	108.20
25	BA	2236	G	C8-N9-C4	6.01	108.81	106.40
25	DA	1763	G	O5'-P-OP2	-6.01	100.29	105.70
1	CA	992	U	P-O3'-C3'	6.01	126.91	119.70
25	BA	876	A	O5'-P-OP2	-6.00	100.30	105.70
25	BA	1076	G	N3-C2-N2	6.00	124.10	119.90
25	BA	2650	G	C8-N9-C4	-6.00	104.00	106.40
1	CA	1042	G	N1-C2-N3	-6.00	120.30	123.90
25	DA	482	A	C8-N9-C4	6.00	108.20	105.80
25	DA	971	C	N1-C2-O2	-6.00	115.30	118.90
25	BA	2462	A	N1-C6-N6	6.00	122.20	118.60
25	DA	141	A	C5-N7-C8	-6.00	100.90	103.90
1	AA	218	C	C6-N1-C2	-6.00	117.90	120.30
1	AA	1493	A	O5'-P-OP1	6.00	117.89	110.70
25	BA	2228	G	P-O3'-C3'	5.99	126.89	119.70
25	DA	680	G	N1-C6-O6	5.99	123.50	119.90
25	DA	2751	G	N3-C4-N9	5.99	129.59	126.00
23	CX	34	C	C6-N1-C2	-5.98	117.91	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	807	U	O5'-P-OP2	5.98	117.87	110.70
1	CA	841	U	C6-N1-C2	-5.98	117.41	121.00
23	CX	22	G	N7-C8-N9	5.97	116.09	113.10
25	DA	2090	G	N1-C6-O6	-5.97	116.32	119.90
1	AA	890	G	O4'-C1'-N9	5.97	112.97	108.20
25	BA	2110	G	N3-C4-C5	5.97	131.59	128.60
1	AA	1286	A	C8-N9-C4	-5.97	103.41	105.80
25	BA	2515	A	C2-N3-C4	5.97	113.58	110.60
25	DA	627	A	C8-N9-C4	5.96	108.19	105.80
25	BA	348	A	O5'-P-OP1	-5.96	100.33	105.70
1	AA	1131	G	N1-C6-O6	5.96	123.47	119.90
1	AA	1201	A	P-O3'-C3'	5.96	126.85	119.70
25	BA	89	U	N3-C2-O2	-5.96	118.03	122.20
1	CA	1028	C	C5-C6-N1	5.96	123.98	121.00
25	DA	53	A	C8-N9-C4	5.96	108.18	105.80
1	AA	738	C	C5-C6-N1	5.96	123.98	121.00
1	AA	1127	G	N7-C8-N9	-5.96	110.12	113.10
1	AA	1150	U	N3-C4-C5	-5.96	111.03	114.60
26	DB	74	U	C5-C4-O4	5.96	129.47	125.90
25	BA	1800	G	O5'-P-OP2	-5.96	100.34	105.70
1	AA	1007	C	C2-N1-C1'	5.95	125.35	118.80
25	DA	141	A	C2-N3-C4	-5.95	107.62	110.60
1	CA	1169	A	N1-C6-N6	5.95	122.17	118.60
25	BA	1072	U	C2-N1-C1'	5.95	124.84	117.70
25	DA	1573	G	C8-N9-C4	5.95	108.78	106.40
25	DA	2617	C	C6-N1-C2	5.95	122.68	120.30
1	CA	308	C	C6-N1-C2	5.95	122.68	120.30
25	DA	1325	G	C6-C5-N7	-5.95	126.83	130.40
25	BA	70	A	P-O3'-C3'	5.95	126.83	119.70
1	AA	92	C	C5-C6-N1	5.94	123.97	121.00
25	BA	354	A	C5-N7-C8	-5.94	100.93	103.90
26	BB	80	U	C5-C4-O4	5.94	129.47	125.90
25	DA	2351	G	N3-C4-N9	5.94	129.57	126.00
25	DA	901	A	N7-C8-N9	5.94	116.77	113.80
25	BA	1555	C	C6-N1-C2	-5.94	117.92	120.30
25	BA	2080	A	OP2-P-O3'	5.94	118.27	105.20
1	AA	476	G	C8-N9-C1'	-5.94	119.28	127.00
1	AA	1026	G	C8-N9-C1'	-5.94	119.28	127.00
25	BA	2372	A	C2-N3-C4	-5.94	107.63	110.60
1	AA	122	G	C8-N9-C4	5.93	108.77	106.40
25	DA	1129	A	N1-C6-N6	-5.93	115.04	118.60
25	DA	210	C	C2-N1-C1'	-5.93	112.28	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1673	U	C5-C4-O4	-5.93	122.34	125.90
25	BA	1072	U	N3-C2-O2	-5.92	118.05	122.20
1	CA	1312	G	N9-C4-C5	5.92	107.77	105.40
25	DA	1648	C	O5'-P-OP1	5.92	117.81	110.70
25	BA	1240	G	N9-C4-C5	5.92	107.77	105.40
25	BA	2735	G	N3-C4-N9	5.92	129.55	126.00
23	AX	8	U	C5-C6-N1	5.92	125.66	122.70
25	BA	2835	C	N3-C2-O2	5.92	126.04	121.90
25	BA	1423	G	C5-C6-O6	5.91	132.15	128.60
1	CA	916	G	C8-N9-C4	-5.91	104.03	106.40
25	DA	633	A	N1-C6-N6	5.91	122.15	118.60
25	DA	1640	C	C2-N1-C1'	5.91	125.30	118.80
25	BA	1757	C	C6-N1-C2	5.91	122.66	120.30
1	AA	383	A	C4-N9-C1'	5.91	136.93	126.30
25	DA	2351	G	N3-C4-C5	-5.91	125.65	128.60
25	BA	2026	G	OP2-P-O3'	5.90	118.19	105.20
25	DA	2805	G	C5-C6-O6	5.90	132.14	128.60
1	CA	204	U	C2-N1-C1'	5.90	124.78	117.70
7	AG	81	GLY	N-CA-C	5.90	127.85	113.10
25	BA	176	G	C6-C5-N7	-5.90	126.86	130.40
1	CA	337	C	C6-N1-C2	-5.90	117.94	120.30
25	DA	176	G	C8-N9-C4	5.90	108.76	106.40
23	CX	20	U	C2-N1-C1'	5.89	124.77	117.70
25	BA	1249	A	C2-N3-C4	-5.89	107.66	110.60
25	BA	2268	G	C4-C5-N7	5.88	113.15	110.80
1	CA	1125	U	C2-N1-C1'	5.88	124.76	117.70
25	DA	1368	G	O5'-P-OP2	-5.88	100.41	105.70
1	AA	1502	A	N7-C8-N9	5.88	116.74	113.80
25	BA	2354	C	C6-N1-C2	-5.88	117.95	120.30
25	BA	119	G	C5-C6-O6	-5.88	125.07	128.60
25	BA	670	C	C5-C6-N1	5.88	123.94	121.00
25	DA	1257	C	N3-C4-C5	-5.88	119.55	121.90
1	AA	1171	G	N3-C4-C5	-5.88	125.66	128.60
1	CA	998	G	N3-C4-N9	-5.88	122.47	126.00
25	DA	454	A	C8-N9-C4	5.88	108.15	105.80
25	BA	2601	A	C8-N9-C4	5.88	108.15	105.80
9	CI	105	ASP	CB-CG-OD1	5.88	123.59	118.30
1	AA	1181	G	C6-N1-C2	5.87	128.62	125.10
25	BA	2258	G	N9-C4-C5	-5.87	103.05	105.40
25	DA	2033	A	C2-N3-C4	5.87	113.53	110.60
25	BA	2506	G	C8-N9-C4	5.87	108.75	106.40
25	DA	2273	A	N7-C8-N9	-5.87	110.87	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1959	A	C8-N9-C4	5.87	108.15	105.80
23	AX	76	A	C5-C6-N6	-5.86	119.01	123.70
1	CA	917	G	C8-N9-C4	-5.86	104.06	106.40
25	BA	1377	A	C2-N3-C4	-5.86	107.67	110.60
25	DA	945	A	C5-C6-N6	-5.86	119.02	123.70
25	DA	1698	A	C4-C5-C6	5.85	119.93	117.00
1	AA	97	G	N3-C4-C5	-5.85	125.67	128.60
1	CA	901	A	N1-C6-N6	-5.85	115.09	118.60
1	CA	1169	A	C6-C5-N7	-5.85	128.21	132.30
25	DA	735	A	N7-C8-N9	-5.85	110.88	113.80
1	AA	1127	G	C4-C5-C6	5.84	122.31	118.80
25	DA	459	U	N3-C2-O2	-5.84	118.11	122.20
1	AA	990	C	C6-N1-C2	-5.84	117.96	120.30
25	DA	2032	G	N1-C6-O6	-5.84	116.40	119.90
25	BA	621	G	O5'-P-OP2	-5.84	100.44	105.70
25	DA	2324	C	N3-C4-C5	5.84	124.24	121.90
25	BA	279	G	N7-C8-N9	5.84	116.02	113.10
1	AA	841	U	C5-C6-N1	5.83	125.62	122.70
25	DA	948	G	C8-N9-C4	5.83	108.73	106.40
47	D1	85	LEU	CA-CB-CG	5.83	128.72	115.30
25	BA	1093	G	C8-N9-C1'	-5.83	119.42	127.00
1	AA	1054	C	N3-C2-O2	-5.83	117.82	121.90
25	BA	2105	G	N9-C4-C5	-5.83	103.07	105.40
1	CA	1311	G	C4-N9-C1'	-5.83	118.92	126.50
25	DA	2330	G	N1-C6-O6	5.83	123.40	119.90
25	BA	903	C	C6-N1-C2	-5.83	117.97	120.30
1	CA	1271	G	C5-C6-O6	-5.83	125.11	128.60
25	BA	1461	U	C5-C4-O4	5.82	129.39	125.90
1	CA	117	G	C6-C5-N7	-5.82	126.91	130.40
1	AA	1125	U	P-O3'-C3'	5.82	126.69	119.70
25	BA	2876	U	C4-C5-C6	5.82	123.19	119.70
1	CA	1286	A	N7-C8-N9	5.82	116.71	113.80
25	DA	2024	G	C8-N9-C4	5.82	108.73	106.40
25	BA	1719	C	N3-C4-N4	5.82	122.07	118.00
23	CX	18	G	N3-C4-C5	5.82	131.51	128.60
25	DA	2679	A	O5'-P-OP2	-5.82	100.47	105.70
25	DA	2287	A	N3-C4-C5	5.82	130.87	126.80
1	CA	1000	U	C2-N3-C4	5.81	130.49	127.00
1	CA	1157	A	C6-C5-N7	5.81	136.37	132.30
1	AA	884	U	O5'-P-OP2	-5.81	100.47	105.70
1	AA	1131	G	C4-N9-C1'	5.81	134.06	126.50
25	BA	1154	U	N1-C2-O2	5.81	126.87	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1663	C	C2-N3-C4	-5.81	116.99	119.90
25	BA	2729	U	N3-C2-O2	-5.81	118.13	122.20
25	DA	792	G	C5-C6-N1	5.81	114.41	111.50
1	AA	261	U	N1-C2-O2	-5.81	118.73	122.80
1	AA	1024	G	N3-C4-C5	-5.81	125.70	128.60
25	BA	555	G	C5-N7-C8	-5.81	101.40	104.30
1	CA	353	A	OP2-P-O3'	5.81	117.98	105.20
1	CA	1125	U	C5-C6-N1	5.81	125.60	122.70
25	DA	1192	G	C8-N9-C4	5.81	108.72	106.40
1	AA	904	C	C6-N1-C2	5.80	122.62	120.30
1	CA	117	G	C4-N9-C1'	5.80	134.05	126.50
1	AA	1269	A	N1-C6-N6	-5.80	115.12	118.60
25	BA	2026	G	N3-C4-C5	5.80	131.50	128.60
25	DA	901	A	C8-N9-C4	-5.80	103.48	105.80
25	BA	990	A	C5-C6-N1	-5.80	114.80	117.70
1	AA	336	C	N3-C2-O2	5.80	125.96	121.90
1	AA	421	U	N1-C2-O2	5.80	126.86	122.80
1	AA	1396	A	C5-C6-N6	5.80	128.34	123.70
25	BA	125	A	N1-C6-N6	5.80	122.08	118.60
1	CA	691	G	C8-N9-C4	5.79	108.72	106.40
23	AX	22	G	N7-C8-N9	5.79	116.00	113.10
25	DA	1682	G	C8-N9-C4	5.79	108.72	106.40
1	CA	1206	G	C5-C6-O6	-5.79	125.13	128.60
25	DA	1899	G	N9-C4-C5	-5.79	103.08	105.40
1	CA	79	G	C6-N1-C2	5.79	128.57	125.10
25	DA	205	G	N9-C4-C5	-5.79	103.09	105.40
25	BA	553	A	C4-C5-N7	5.78	113.59	110.70
25	BA	1255	A	P-O3'-C3'	5.78	126.64	119.70
25	DA	1405	U	O5'-P-OP2	-5.78	100.50	105.70
1	AA	991	U	P-O3'-C3'	5.78	126.63	119.70
1	CA	1149	C	N1-C2-O2	5.78	122.37	118.90
25	DA	1413	G	N1-C6-O6	5.78	123.37	119.90
1	AA	167	G	N7-C8-N9	5.78	115.99	113.10
25	BA	176	G	C5-N7-C8	-5.78	101.41	104.30
1	CA	1216	G	N3-C4-C5	5.78	131.49	128.60
25	DA	1325	G	N3-C4-N9	5.77	129.46	126.00
1	CA	1499	A	C8-N9-C4	5.77	108.11	105.80
25	DA	1239	G	C5-C6-O6	-5.77	125.14	128.60
25	BA	2320	G	N3-C4-C5	5.77	131.49	128.60
1	CA	1044	A	C5-C6-N6	5.77	128.32	123.70
1	AA	483	C	C6-N1-C2	5.77	122.61	120.30
25	DA	2010	G	C8-N9-C4	-5.77	104.09	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1578	C	C5-C6-N1	5.77	123.88	121.00
25	BA	1153	G	N3-C4-N9	5.76	129.46	126.00
25	BA	2065	C	N1-C2-O2	-5.76	115.44	118.90
1	CA	794	A	C8-N9-C4	-5.76	103.49	105.80
1	CA	398	C	N3-C4-N4	-5.76	113.97	118.00
25	DA	1284	A	C4-C5-N7	5.76	113.58	110.70
1	AA	1026	G	N3-C4-N9	5.76	129.46	126.00
25	BA	553	A	C5-N7-C8	-5.76	101.02	103.90
23	AX	14	A	C5-C6-N1	-5.76	114.82	117.70
25	BA	2044	U	O5'-P-OP1	-5.76	100.52	105.70
26	BB	41	U	C5-C6-N1	-5.76	119.82	122.70
25	DA	962	G	C8-N9-C4	-5.76	104.10	106.40
1	AA	1181	G	N3-C4-C5	5.76	131.48	128.60
25	BA	841	G	C4-C5-N7	-5.75	108.50	110.80
25	DA	467	G	N7-C8-N9	-5.75	110.22	113.10
25	DA	2347	C	N1-C2-O2	5.75	122.35	118.90
25	BA	2014	G	C2'-C3'-O3'	5.75	122.90	113.70
1	CA	890	G	O4'-C1'-N9	5.75	112.80	108.20
25	BA	2245	U	C5-C6-N1	-5.75	119.83	122.70
1	AA	1036	G	N3-C4-N9	5.74	129.45	126.00
1	CA	377	G	N3-C4-N9	5.74	129.45	126.00
46	B0	77	ARG	NE-CZ-NH1	-5.74	117.43	120.30
25	BA	1605	A	N1-C6-N6	5.74	122.04	118.60
23	CX	76	A	N3-C4-N9	5.74	131.99	127.40
25	DA	2281	C	O5'-P-OP1	-5.74	100.54	105.70
25	BA	1252	C	O5'-P-OP1	-5.74	100.54	105.70
25	DA	2744	G	C5-C6-O6	-5.74	125.16	128.60
1	CA	915	A	N7-C8-N9	-5.73	110.93	113.80
1	CA	721	G	N1-C6-O6	5.73	123.34	119.90
25	DA	727	A	C8-N9-C4	-5.73	103.51	105.80
25	DA	1027	A	N9-C4-C5	-5.73	103.51	105.80
1	CA	1002	G	N3-C4-N9	-5.73	122.56	126.00
25	DA	557	U	C5-C6-N1	-5.73	119.84	122.70
25	DA	308	G	O5'-P-OP2	-5.72	100.55	105.70
25	DA	981	A	N1-C6-N6	-5.72	115.17	118.60
23	AX	6	G	N1-C6-O6	5.72	123.33	119.90
25	BA	989	G	C4-N9-C1'	5.72	133.94	126.50
43	BX	57	LEU	CA-CB-CG	5.72	128.46	115.30
1	CA	1028	C	N3-C2-O2	5.72	125.90	121.90
25	DA	119	A	N1-C6-N6	5.72	122.03	118.60
25	DA	912	C	N1-C2-O2	5.72	122.33	118.90
1	AA	166	G	N7-C8-N9	5.71	115.96	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2509	G	C5-C6-N1	-5.71	108.64	111.50
1	CA	1157	A	C4-C5-N7	-5.71	107.84	110.70
25	DA	738	G	O5'-P-OP1	5.71	117.55	110.70
1	CA	997	U	C2-N3-C4	5.71	130.43	127.00
25	BA	2271	G	C8-N9-C4	-5.71	104.12	106.40
1	CA	1149	C	C2-N1-C1'	5.71	125.08	118.80
25	DA	242	G	N7-C8-N9	-5.71	110.25	113.10
25	DA	1647	G	O4'-C1'-N9	-5.71	103.63	108.20
1	AA	1531	A	N7-C8-N9	5.71	116.65	113.80
25	BA	2836	A	C8-N9-C4	5.71	108.08	105.80
19	CS	71	LEU	CA-CB-CG	5.71	128.42	115.30
25	DA	504	U	N1-C2-O2	5.71	126.79	122.80
25	BA	1694	G	O5'-P-OP1	-5.70	100.57	105.70
25	BA	1742	G	N3-C4-N9	5.70	129.42	126.00
25	DA	2271	G	N3-C4-N9	5.70	129.42	126.00
25	BA	990	A	O4'-C1'-N9	5.70	112.76	108.20
1	CA	1134	G	C8-N9-C4	-5.70	104.12	106.40
25	DA	1698	A	C5-N7-C8	-5.70	101.05	103.90
25	DA	560	C	C6-N1-C2	5.70	122.58	120.30
25	DA	991	C	O5'-P-OP2	-5.69	100.58	105.70
25	BA	295	C	O5'-P-OP2	-5.69	100.58	105.70
25	BA	1222	A	N7-C8-N9	5.69	116.65	113.80
46	B0	12	ASN	N-CA-C	5.69	126.37	111.00
1	CA	5	U	N3-C2-O2	-5.69	118.22	122.20
25	BA	2054	G	N3-C4-N9	-5.69	122.59	126.00
1	CA	754	C	N1-C2-O2	5.69	122.31	118.90
1	CA	1492	A	C2-N3-C4	5.69	113.44	110.60
25	DA	2057	A	C8-N9-C4	5.69	108.07	105.80
25	DA	2725	A	C2-N3-C4	-5.69	107.76	110.60
25	DA	1142(A)	A	N1-C2-N3	5.68	132.14	129.30
1	AA	162	A	C8-N9-C4	-5.68	103.53	105.80
1	AA	1124	G	C2-N3-C4	5.68	114.74	111.90
25	BA	2608	U	N1-C2-O2	-5.68	118.82	122.80
25	DA	193	U	N3-C4-O4	5.68	123.38	119.40
25	DA	885	C	C5-C6-N1	5.68	123.84	121.00
25	DA	2345	G	C8-N9-C4	-5.68	104.13	106.40
25	BA	1343	C	OP2-P-O3'	-5.68	92.71	105.20
25	DA	2794	C	C5-C6-N1	5.68	123.84	121.00
25	BA	2902	G	P-O3'-C3'	5.68	126.51	119.70
1	CA	266	G	N1-C6-O6	5.68	123.31	119.90
25	DA	795	C	O5'-P-OP2	-5.68	100.59	105.70
25	DA	1926	U	N3-C2-O2	-5.68	118.23	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1328	G	C4-C5-N7	5.67	113.07	110.80
1	AA	1054	C	N1-C2-O2	5.67	122.30	118.90
25	BA	2495	C	N1-C2-O2	5.67	122.30	118.90
25	BA	716	G	C8-N9-C4	5.67	108.67	106.40
25	BA	1766	G	C5-C6-O6	-5.67	125.20	128.60
25	DA	2590	A	O5'-P-OP2	5.67	117.50	110.70
25	BA	357	G	C4-N9-C1'	5.67	133.87	126.50
1	CA	1277	C	N1-C2-O2	5.67	122.30	118.90
26	DB	52	A	C8-N9-C4	-5.67	103.53	105.80
25	BA	2861	A	OP2-P-O3'	5.67	117.66	105.20
1	CA	142	G	N3-C4-C5	-5.67	125.77	128.60
25	BA	36	G	O5'-P-OP2	-5.66	100.61	105.70
25	DA	1377	G	N3-C4-C5	-5.66	125.77	128.60
25	BA	553	A	C5-C6-N1	-5.66	114.87	117.70
25	DA	1363	C	O5'-P-OP2	-5.66	100.61	105.70
25	BA	1850	A	C8-N9-C4	5.66	108.06	105.80
25	DA	2043	C	C2-N1-C1'	5.65	125.02	118.80
25	DA	2053	G	N9-C4-C5	-5.65	103.14	105.40
1	AA	71	C	N1-C2-O2	5.65	122.29	118.90
25	BA	2804	C	C5-C6-N1	5.65	123.83	121.00
25	BA	185	A	N1-C6-N6	5.65	121.99	118.60
25	BA	2056	U	N3-C4-O4	5.65	123.35	119.40
25	BA	737	G	N1-C6-O6	5.65	123.29	119.90
25	BA	1700	G	N3-C4-C5	-5.64	125.78	128.60
1	CA	557	G	N9-C4-C5	-5.64	103.14	105.40
25	DA	532	A	O4'-C1'-N9	5.64	112.72	108.20
25	DA	783	A	O5'-P-OP2	-5.64	100.62	105.70
25	DA	1997	G	N3-C4-C5	-5.64	125.78	128.60
26	DB	45	A	P-O3'-C3'	5.64	126.47	119.70
25	DA	1115	G	N3-C4-C5	5.64	131.42	128.60
25	BA	615	G	N1-C6-O6	-5.64	116.52	119.90
25	BA	1807	G	N1-C6-O6	5.64	123.28	119.90
25	DA	2061	G	N9-C4-C5	-5.64	103.14	105.40
25	BA	2522	C	C6-N1-C2	5.64	122.55	120.30
1	CA	1484	C	C2-N1-C1'	-5.64	112.60	118.80
1	CA	1272	G	N1-C6-O6	-5.63	116.52	119.90
25	DA	1455	G	N1-C6-O6	5.63	123.28	119.90
25	DA	2440	C	C5-C4-N4	5.63	124.14	120.20
25	DA	956	G	C4-N9-C1'	5.63	133.82	126.50
25	DA	781	A	N1-C6-N6	-5.63	115.22	118.60
25	BA	103	C	N1-C2-O2	5.63	122.28	118.90
25	BA	1667	U	N3-C4-C5	-5.62	111.22	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CX	8	U	N3-C4-C5	-5.62	111.23	114.60
1	AA	526	C	C6-N1-C2	5.62	122.55	120.30
25	DA	915	C	N3-C2-O2	-5.62	117.97	121.90
25	BA	1153	G	C8-N9-C4	-5.62	104.15	106.40
25	BA	2272	C	C5-C6-N1	-5.62	118.19	121.00
1	CA	1227	A	C8-N9-C4	-5.62	103.55	105.80
25	DA	768	G	N1-C6-O6	5.62	123.27	119.90
25	DA	1021	A	C5-C6-N1	-5.62	114.89	117.70
25	BA	1378	G	C4-C5-N7	5.62	113.05	110.80
1	CA	1189	C	C6-N1-C2	5.62	122.55	120.30
25	BA	2096	U	O5'-P-OP1	-5.62	100.65	105.70
25	DA	2206	G	C8-N9-C1'	5.61	134.30	127.00
25	BA	120	G	C5-C6-O6	-5.61	125.23	128.60
25	DA	971	C	N3-C4-N4	5.61	121.93	118.00
25	DA	1269	A	C5-C6-N1	-5.61	114.90	117.70
25	DA	2081	C	C6-N1-C2	5.61	122.54	120.30
29	DF	12	LEU	CA-CB-CG	5.61	128.20	115.30
1	AA	652	U	O5'-P-OP1	-5.61	100.66	105.70
25	BA	1378	G	C5-C6-O6	-5.60	125.24	128.60
25	BA	1681	A	C8-N9-C4	-5.60	103.56	105.80
25	DA	110	G	N7-C8-N9	-5.60	110.30	113.10
1	CA	399	G	C8-N9-C4	5.60	108.64	106.40
25	BA	1426	G	O5'-P-OP2	-5.60	100.66	105.70
1	CA	557	G	N3-C2-N2	5.60	123.82	119.90
25	BA	179	A	C5-N7-C8	-5.60	101.10	103.90
1	AA	340	U	C6-N1-C2	5.60	124.36	121.00
25	BA	1663	C	N3-C4-C5	5.60	124.14	121.90
40	DU	74	LEU	CA-CB-CG	5.59	128.17	115.30
25	BA	1188	A	C5-N7-C8	-5.59	101.10	103.90
1	CA	544	G	N1-C6-O6	-5.59	116.55	119.90
25	DA	956	G	N3-C4-C5	-5.59	125.80	128.60
25	BA	1068	G	N3-C2-N2	-5.59	115.99	119.90
25	BA	1390	G	N1-C6-O6	5.59	123.25	119.90
25	DA	806	C	N3-C4-C5	-5.59	119.66	121.90
25	DA	733	G	N9-C4-C5	-5.59	103.17	105.40
25	DA	912	C	C5-C6-N1	5.59	123.79	121.00
25	BA	2630	G	C6-N1-C2	-5.59	121.75	125.10
25	BA	2495	C	C5-C6-N1	5.58	123.79	121.00
25	BA	2239	A	N9-C4-C5	5.58	108.03	105.80
25	DA	2476	A	C8-N9-C4	-5.58	103.57	105.80
25	BA	1158	G	C8-N9-C4	-5.58	104.17	106.40
25	DA	242	G	C4-N9-C1'	-5.58	119.24	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2333	A	C8-N9-C4	5.58	108.03	105.80
1	CA	1042	G	N3-C4-C5	5.58	131.39	128.60
25	DA	2804	C	N3-C2-O2	-5.58	117.99	121.90
1	CA	1279	A	C5-N7-C8	-5.58	101.11	103.90
1	CA	687	A	P-O3'-C3'	5.58	126.39	119.70
25	DA	376	C	C6-N1-C2	5.58	122.53	120.30
25	BA	113	C	O5'-P-OP1	-5.57	100.68	105.70
25	BA	403	C	N3-C4-N4	-5.57	114.10	118.00
25	BA	1221	G	OP1-P-O3'	5.57	117.46	105.20
25	BA	2513	C	O4'-C1'-N1	5.57	112.66	108.20
25	BA	1152	G	O4'-C1'-N9	-5.57	103.74	108.20
25	DA	981	A	C6-N1-C2	5.57	121.94	118.60
25	DA	1328	G	N9-C4-C5	-5.57	103.17	105.40
1	CA	1051	C	N1-C2-O2	-5.57	115.56	118.90
25	BA	94	G	O5'-P-OP2	-5.57	100.69	105.70
25	DA	210	C	C6-N1-C2	5.57	122.53	120.30
1	AA	1030(B)	C	C5-C6-N1	5.57	123.78	121.00
25	BA	2641	A	O4'-C1'-N9	5.56	112.65	108.20
1	CA	1067	A	P-O3'-C3'	5.56	126.38	119.70
25	BA	514	G	C4-C5-N7	-5.56	108.58	110.80
3	CC	91	LEU	CA-CB-CG	5.56	128.09	115.30
25	DA	2771	C	O5'-P-OP1	-5.56	100.69	105.70
25	DA	2896	C	C6-N1-C2	-5.56	118.08	120.30
25	BA	2419	G	C8-N9-C1'	-5.56	119.77	127.00
25	BA	1659	G	C5-C6-O6	5.56	131.94	128.60
25	BA	2740	G	O5'-P-OP2	-5.56	100.70	105.70
25	DA	552	G	N3-C4-C5	5.56	131.38	128.60
25	DA	2464	C	C5-C6-N1	-5.56	118.22	121.00
25	BA	873	U	OP1-P-O3'	-5.55	92.99	105.20
1	AA	383	A	O4'-C1'-N9	5.55	112.64	108.20
1	CA	299	G	C6-C5-N7	-5.55	127.07	130.40
1	CA	1124	G	N3-C4-C5	-5.55	125.83	128.60
25	BA	472	G	N1-C6-O6	5.55	123.23	119.90
25	BA	105	C	C6-N1-C2	5.55	122.52	120.30
25	BA	2666	A	N1-C6-N6	5.55	121.93	118.60
25	DA	1348	G	C5-C6-O6	-5.55	125.27	128.60
1	CA	117	G	N9-C4-C5	-5.54	103.18	105.40
1	CA	1017	G	C5-C6-N1	-5.54	108.73	111.50
1	AA	1127	G	C8-N9-C1'	-5.54	119.80	127.00
1	AA	1192	C	C6-N1-C2	-5.54	118.08	120.30
25	BA	553	A	O4'-C1'-N9	-5.54	103.77	108.20
25	BA	1991	A	O5'-P-OP2	5.54	117.35	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2103	C	O5'-P-OP2	-5.54	100.71	105.70
25	DA	106	C	N1-C2-O2	5.54	122.22	118.90
1	CA	1492	A	N3-C4-C5	-5.54	122.92	126.80
25	DA	2416	C	N1-C2-O2	-5.54	115.58	118.90
25	BA	498	A	O5'-P-OP1	5.54	117.34	110.70
25	BA	1431	G	O4'-C1'-N9	5.54	112.63	108.20
25	BA	1832	G	C4-C5-N7	5.54	113.01	110.80
1	CA	365	U	C5-C6-N1	-5.54	119.93	122.70
25	DA	1213	A	C8-N9-C4	5.54	108.01	105.80
25	DA	2321	G	C6-N1-C2	5.54	128.42	125.10
1	AA	1298	C	N1-C2-O2	5.53	122.22	118.90
25	BA	1075	A	N1-C6-N6	5.53	121.92	118.60
25	BA	2061	C	C5-C6-N1	5.53	123.77	121.00
1	AA	1030(B)	C	C6-N1-C1'	-5.53	114.16	120.80
1	CA	1003	G	C8-N9-C1'	-5.53	119.81	127.00
25	BA	1746	G	C8-N9-C4	-5.53	104.19	106.40
25	DA	1769	G	C8-N9-C4	-5.53	104.19	106.40
25	DA	465	G	C5-C6-O6	-5.53	125.28	128.60
25	DA	1926	U	C5-C4-O4	5.53	129.22	125.90
25	BA	1929	G	N1-C6-O6	5.53	123.22	119.90
41	BV	82	ARG	NE-CZ-NH1	-5.53	117.54	120.30
1	CA	1279	A	N7-C8-N9	5.53	116.56	113.80
1	CA	1502	A	C4-C5-N7	5.53	113.46	110.70
25	BA	1325	G	O5'-P-OP2	-5.53	100.73	105.70
25	BA	1629	C	C6-N1-C2	5.53	122.51	120.30
1	CA	1011	G	C4-C5-N7	-5.53	108.59	110.80
1	AA	381	C	N1-C2-O2	5.52	122.21	118.90
23	CX	9	G	C4-N9-C1'	-5.52	119.32	126.50
1	AA	687	A	P-O3'-C3'	5.52	126.33	119.70
25	DA	2595	G	C8-N9-C4	5.52	108.61	106.40
1	AA	1154	G	N9-C4-C5	-5.52	103.19	105.40
25	BA	271	U	C2-N1-C1'	-5.52	111.08	117.70
25	BA	1284	G	N1-C6-O6	5.52	123.21	119.90
25	DA	277	C	C2-N1-C1'	5.52	124.87	118.80
23	AX	14	A	C4-C5-N7	-5.52	107.94	110.70
25	BA	1343	C	C6-N1-C2	5.52	122.51	120.30
25	DA	786	C	C6-N1-C2	5.52	122.51	120.30
26	DB	102	A	C8-N9-C4	5.52	108.01	105.80
25	BA	2094	G	C4-C5-N7	5.52	113.01	110.80
25	BA	990	A	C8-N9-C4	-5.51	103.59	105.80
26	BB	93	G	C6-C5-N7	-5.51	127.09	130.40
25	DA	1830	C	C6-N1-C2	5.51	122.50	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1007	C	N1-C2-O2	5.51	122.21	118.90
1	CA	1273	G	N3-C4-N9	5.51	129.31	126.00
25	BA	179	A	C5-C6-N6	-5.51	119.29	123.70
4	CD	188	LEU	CA-CB-CG	5.51	127.97	115.30
1	CA	265	G	O4'-C1'-N9	-5.50	103.80	108.20
25	DA	508	G	O5'-P-OP1	-5.50	100.75	105.70
26	DB	79	C	N3-C4-C5	-5.50	119.70	121.90
25	DA	389	G	C5-C6-O6	-5.50	125.30	128.60
25	DA	2744	G	N1-C6-O6	5.50	123.20	119.90
25	BA	179	A	C4-C5-N7	5.50	113.45	110.70
1	AA	913	A	P-O3'-C3'	5.49	126.29	119.70
23	AX	69	C	C2-N1-C1'	5.49	124.84	118.80
25	BA	68	C	OP2-P-O3'	5.49	117.29	105.20
25	DA	1665	A	C8-N9-C4	-5.49	103.60	105.80
25	BA	1078	A	C8-N9-C4	5.49	108.00	105.80
25	BA	1429	C	C5-C6-N1	5.49	123.75	121.00
1	CA	1183	A	OP1-P-O3'	5.49	117.28	105.20
1	CA	1271	G	N9-C4-C5	-5.49	103.20	105.40
25	BA	592	U	N1-C2-O2	-5.49	118.96	122.80
25	BA	2105	G	C4-C5-N7	5.49	113.00	110.80
25	BA	2622	C	O5'-P-OP1	-5.49	100.76	105.70
25	DA	1672	C	C5-C4-N4	-5.49	116.36	120.20
25	BA	902	G	N3-C4-N9	5.49	129.29	126.00
25	DA	1261	C	O5'-P-OP1	-5.49	100.76	105.70
25	BA	827	G	N3-C4-C5	-5.48	125.86	128.60
25	BA	1051	C	OP1-P-OP2	5.48	127.82	119.60
25	BA	2059	G	N3-C2-N2	5.48	123.74	119.90
28	DE	72	VAL	C-N-CA	5.48	135.41	121.70
1	CA	300	A	N1-C6-N6	-5.48	115.31	118.60
25	DA	250	G	C8-N9-C4	-5.48	104.21	106.40
1	AA	1058	G	N9-C4-C5	-5.48	103.21	105.40
25	BA	12	U	N1-C2-O2	5.48	126.64	122.80
1	CA	5	U	C2-N1-C1'	5.48	124.27	117.70
23	CX	18	G	C8-N9-C4	5.48	108.59	106.40
25	DA	917	A	OP1-P-O3'	5.48	117.25	105.20
25	BA	193	A	C8-N9-C4	5.48	107.99	105.80
1	AA	267	C	O5'-P-OP1	-5.47	100.77	105.70
25	DA	1531	C	C2-N1-C1'	5.47	124.82	118.80
25	DA	1982	C	N3-C4-C5	-5.47	119.71	121.90
1	AA	1145	C	N1-C2-O2	5.47	122.18	118.90
25	BA	2380	C	C6-N1-C2	5.47	122.49	120.30
1	CA	1022	G	N3-C4-N9	-5.47	122.72	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2054	G	C8-N9-C1'	5.47	134.11	127.00
25	BA	2601	A	N3-C4-C5	5.47	130.63	126.80
25	BA	2460	A	N1-C6-N6	5.46	121.88	118.60
1	CA	1420	C	C6-N1-C2	-5.46	118.11	120.30
25	BA	978	A	C4-C5-N7	5.46	113.43	110.70
1	CA	354	G	C4-N9-C1'	5.46	133.60	126.50
25	DA	2351	G	C4-N9-C1'	5.46	133.60	126.50
25	BA	235	C	O5'-P-OP1	-5.46	100.79	105.70
25	DA	1336	A	N1-C6-N6	-5.46	115.32	118.60
25	DA	2230	G	O5'-P-OP1	-5.46	100.79	105.70
25	DA	2252	G	N3-C4-N9	-5.46	122.72	126.00
1	AA	922	G	C6-N1-C2	5.46	128.38	125.10
25	BA	1055	A	C8-N9-C4	-5.46	103.62	105.80
25	DA	1672	C	C6-N1-C1'	-5.46	114.25	120.80
25	DA	2532	G	C5-C6-O6	-5.46	125.32	128.60
25	BA	2298	A	C4-N9-C1'	5.46	136.12	126.30
25	BA	2601	A	C4-C5-C6	-5.46	114.27	117.00
1	CA	1420	C	C5-C6-N1	5.46	123.73	121.00
1	CA	1502	A	C6-C5-N7	-5.46	128.48	132.30
25	BA	1402	G	C5-C6-O6	-5.45	125.33	128.60
25	DA	1004	C	N1-C2-O2	-5.45	115.63	118.90
25	DA	1688	U	O5'-P-OP2	-5.45	100.79	105.70
25	BA	2495	C	C2-N1-C1'	5.45	124.80	118.80
26	DB	104	U	C5-C6-N1	-5.45	119.97	122.70
25	BA	2498	G	N1-C6-O6	-5.45	116.63	119.90
25	DA	1123	C	C6-N1-C2	5.45	122.48	120.30
25	DA	1348	G	N1-C6-O6	5.45	123.17	119.90
1	CA	998	G	C4-N9-C1'	-5.45	119.42	126.50
25	DA	193	U	C5-C4-O4	-5.45	122.63	125.90
25	DA	1256	G	C4-N9-C1'	5.45	133.58	126.50
26	DB	56	G	N3-C4-C5	-5.45	125.88	128.60
25	DA	1236	G	O5'-P-OP2	5.45	117.24	110.70
1	CA	1034	G	N3-C4-N9	-5.45	122.73	126.00
1	CA	1122	U	C5-C6-N1	5.44	125.42	122.70
23	CX	76	A	C5-C6-N1	5.44	120.42	117.70
1	CA	1124	G	O4'-C1'-N9	5.44	112.56	108.20
25	BA	397	G	N9-C4-C5	-5.44	103.22	105.40
25	BA	552	C	C5-C4-N4	5.44	124.01	120.20
26	BB	79	C	C6-N1-C2	-5.44	118.12	120.30
25	DA	2623	G	C5-C6-O6	-5.44	125.33	128.60
1	AA	1058	G	N1-C6-O6	5.44	123.16	119.90
25	BA	828	A	C2-N3-C4	5.44	113.32	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1858	C	N3-C2-O2	-5.44	118.09	121.90
25	BA	1605	A	N3-C4-C5	5.44	130.61	126.80
25	BA	2830	A	C5-C6-N6	-5.44	119.35	123.70
1	CA	1290	G	C8-N9-C4	-5.44	104.22	106.40
25	BA	186	A	C5-N7-C8	-5.44	101.18	103.90
25	DA	668	G	C2-N3-C4	-5.44	109.18	111.90
1	AA	1007	C	C2-N3-C4	5.43	122.62	119.90
25	BA	1207	C	C6-N1-C2	-5.43	118.13	120.30
25	BA	1538	G	C8-N9-C4	5.43	108.57	106.40
25	DA	738	G	C4-N9-C1'	5.43	133.56	126.50
25	DA	2207	G	N3-C4-N9	5.43	129.26	126.00
25	BA	2248	C	C5-C4-N4	-5.43	116.40	120.20
25	DA	2458	G	N3-C4-N9	5.43	129.26	126.00
1	CA	1126	U	C6-N1-C2	-5.43	117.74	121.00
25	BA	993	G	N9-C4-C5	-5.43	103.23	105.40
1	AA	348	G	C5-C6-O6	-5.43	125.34	128.60
25	BA	839	G	N3-C2-N2	5.43	123.70	119.90
1	CA	525	C	N3-C4-N4	5.43	121.80	118.00
1	AA	458	C	C5-C6-N1	5.42	123.71	121.00
1	CA	1003	G	C4-C5-C6	5.42	122.06	118.80
1	CA	1227	A	C5-N7-C8	-5.42	101.19	103.90
1	CA	115	G	P-O3'-C3'	5.42	126.21	119.70
25	DA	242	G	C6-C5-N7	5.42	133.65	130.40
25	DA	1432	C	C5-C4-N4	-5.42	116.41	120.20
25	BA	125	A	C5-C6-N6	-5.42	119.36	123.70
25	DA	1769	G	N3-C4-C5	-5.42	125.89	128.60
1	AA	1530	G	C4-C5-N7	5.42	112.97	110.80
23	AX	76	A	N3-C4-N9	5.42	131.73	127.40
25	BA	1188	A	C5-C6-N1	-5.42	114.99	117.70
25	BA	2331	G	N1-C6-O6	5.42	123.15	119.90
1	CA	1028	C	N1-C2-O2	-5.42	115.65	118.90
25	DA	133	C	C6-N1-C2	5.42	122.47	120.30
25	DA	906	G	N9-C4-C5	5.42	107.57	105.40
1	AA	98	G	N7-C8-N9	5.42	115.81	113.10
25	BA	1608	G	C8-N9-C4	-5.42	104.23	106.40
26	BB	85	G	C6-C5-N7	-5.42	127.15	130.40
1	CA	794	A	N7-C8-N9	5.41	116.51	113.80
25	BA	279	G	C8-N9-C4	-5.41	104.24	106.40
25	BA	2460	A	C5-C6-N6	-5.41	119.37	123.70
1	AA	749	C	C5-C6-N1	5.41	123.70	121.00
25	BA	254	A	O4'-C1'-N9	5.41	112.53	108.20
25	BA	1985	U	C6-N1-C1'	-5.41	113.63	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	149	A	C8-N9-C4	-5.40	103.64	105.80
25	DA	242	G	C8-N9-C4	5.40	108.56	106.40
25	BA	2567	U	O5'-P-OP1	-5.40	100.84	105.70
25	BA	2896	G	C8-N9-C4	-5.40	104.24	106.40
1	CA	499	A	C8-N9-C4	5.40	107.96	105.80
1	CA	1199	U	C5-C4-O4	5.40	129.14	125.90
23	CX	22	G	N3-C4-N9	-5.40	122.76	126.00
25	BA	311	C	C6-N1-C2	5.40	122.46	120.30
25	BA	1577	C	P-O3'-C3'	5.40	126.18	119.70
25	DA	1937	A	C6-C5-N7	-5.40	128.52	132.30
25	BA	2094	G	N1-C6-O6	5.40	123.14	119.90
1	CA	993	G	N3-C4-N9	5.40	129.24	126.00
1	AA	1123	A	C6-N1-C2	5.40	121.84	118.60
1	AA	1149	C	C6-N1-C2	-5.39	118.14	120.30
25	DA	956	G	C4-C5-C6	5.39	122.04	118.80
25	DA	970	C	N3-C2-O2	5.39	125.68	121.90
25	BA	1177	G	O4'-C1'-N9	5.39	112.51	108.20
25	DA	2373	G	N1-C6-O6	5.39	123.14	119.90
34	BO	8	LEU	CA-CB-CG	5.39	127.70	115.30
25	DA	188	G	C4-C5-N7	5.39	112.96	110.80
25	DA	793	A	O5'-P-OP2	-5.39	100.85	105.70
1	CA	246	A	C8-N9-C4	5.39	107.95	105.80
1	CA	1125	U	C6-N1-C2	-5.39	117.77	121.00
1	CA	1311	G	C8-N9-C1'	5.39	134.00	127.00
23	CX	45	G	N3-C4-C5	5.39	131.29	128.60
25	DA	512	G	O4'-C1'-N9	5.39	112.51	108.20
50	D4	68	ARG	NE-CZ-NH2	5.39	122.99	120.30
1	CA	1415	G	O5'-P-OP2	-5.38	100.86	105.70
25	DA	2689	U	N3-C2-O2	-5.38	118.43	122.20
1	AA	1502	A	C6-C5-N7	-5.38	128.53	132.30
25	BA	2703	C	O5'-P-OP1	-5.38	100.86	105.70
1	CA	28	G	C8-N9-C4	-5.38	104.25	106.40
25	BA	187	C	OP2-P-O3'	5.38	117.03	105.20
25	BA	1302	G	C8-N9-C1'	-5.38	120.01	127.00
25	BA	2036	A	N1-C6-N6	5.38	121.83	118.60
25	DA	1430	C	N1-C2-O2	5.38	122.13	118.90
1	AA	115	G	P-O3'-C3'	5.38	126.15	119.70
25	BA	181	C	N3-C4-C5	5.38	124.05	121.90
1	CA	525	C	C5-C4-N4	-5.38	116.44	120.20
1	CA	913	A	P-O3'-C3'	5.37	126.15	119.70
25	BA	1304	C	C6-N1-C2	5.37	122.45	120.30
25	DA	1021	A	N1-C6-N6	5.37	121.82	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	166	G	N3-C4-C5	-5.37	125.92	128.60
1	AA	1139	G	C6-C5-N7	5.37	133.62	130.40
1	CA	502	G	OP1-P-O3'	5.37	117.01	105.20
1	CA	1366	C	C2-N3-C4	5.37	122.58	119.90
1	CA	1398	A	C8-N9-C4	5.37	107.95	105.80
25	DA	1365	A	C6-N1-C2	-5.37	115.38	118.60
25	DA	2616	C	N3-C2-O2	-5.37	118.14	121.90
25	BA	116	A	N1-C6-N6	-5.37	115.38	118.60
25	DA	530	G	N7-C8-N9	5.37	115.78	113.10
1	AA	63	C	C6-N1-C2	-5.37	118.15	120.30
25	BA	1412	A	N1-C6-N6	-5.37	115.38	118.60
25	BA	2059	G	N3-C4-N9	5.37	129.22	126.00
1	CA	354	G	N3-C4-N9	5.37	129.22	126.00
1	CA	397	A	OP2-P-O3'	5.37	117.00	105.20
25	DA	2332	U	C5-C6-N1	-5.37	120.02	122.70
25	BA	2476	C	C6-N1-C2	5.36	122.44	120.30
25	DA	179	G	C5-C6-O6	-5.36	125.38	128.60
25	DA	1607	C	N1-C2-O2	5.36	122.12	118.90
1	AA	1007	C	O4'-C1'-N1	-5.36	103.91	108.20
25	BA	716	G	N1-C6-O6	-5.36	116.68	119.90
1	CA	1312	G	N3-C4-N9	-5.36	122.78	126.00
1	AA	71	C	C5-C6-N1	5.36	123.68	121.00
1	CA	1325	C	C5-C4-N4	5.36	123.95	120.20
25	BA	2462	A	N1-C2-N3	-5.36	126.62	129.30
25	DA	2325	G	C8-N9-C4	-5.36	104.26	106.40
25	BA	1246	C	C6-N1-C2	5.36	122.44	120.30
25	BA	1543	U	N3-C4-O4	-5.36	115.65	119.40
25	BA	1298	G	C4-C5-N7	-5.35	108.66	110.80
25	BA	1919	G	C5-C6-O6	-5.35	125.39	128.60
32	BI	30	LEU	CA-CB-CG	-5.35	102.99	115.30
25	DA	907	U	C5-C6-N1	5.35	125.38	122.70
25	BA	678	A	C8-N9-C4	-5.35	103.66	105.80
25	DA	2275	C	O4'-C1'-N1	-5.35	103.92	108.20
1	AA	561	U	C6-N1-C2	5.35	124.21	121.00
25	BA	140	A	N1-C6-N6	-5.35	115.39	118.60
25	BA	1370	G	C8-N9-C4	5.35	108.54	106.40
25	BA	2265	G	C8-N9-C4	5.35	108.54	106.40
25	BA	2735	G	N3-C4-C5	-5.35	125.93	128.60
25	DA	179	G	N1-C6-O6	5.35	123.11	119.90
25	DA	1365	A	N1-C2-N3	5.35	131.97	129.30
25	DA	2503	A	N3-C4-N9	5.35	131.68	127.40
25	DA	530	G	N9-C4-C5	5.34	107.54	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1029	C	C6-N1-C1'	5.34	127.21	120.80
25	BA	145	G	O5'-P-OP2	-5.34	100.89	105.70
1	CA	1099	G	C4-C5-N7	-5.34	108.66	110.80
25	DA	116	C	C6-N1-C2	-5.34	118.16	120.30
1	AA	576	G	N1-C6-O6	5.34	123.10	119.90
25	BA	1783	C	C6-N1-C2	5.34	122.44	120.30
25	BA	1977	U	N1-C2-O2	-5.34	119.06	122.80
1	CA	1030(B)	C	C6-N1-C2	-5.34	118.16	120.30
25	DA	2540	C	C2-N1-C1'	-5.34	112.93	118.80
1	AA	561	U	N1-C2-N3	-5.34	111.70	114.90
25	DA	204	A	OP1-P-O3'	5.34	116.94	105.20
25	DA	1210	A	P-O3'-C3'	5.34	126.11	119.70
25	DA	2586	C	C5-C6-N1	5.34	123.67	121.00
26	DB	30	C	C6-N1-C2	-5.34	118.17	120.30
25	BA	2513	C	C2-N1-C1'	-5.33	112.93	118.80
25	DA	1781	C	N1-C2-O2	-5.33	115.70	118.90
1	CA	266	G	C5-N7-C8	-5.33	101.63	104.30
25	DA	1471	A	C8-N9-C4	-5.33	103.67	105.80
25	BA	1302	G	N9-C4-C5	-5.33	103.27	105.40
25	BA	2634	C	N3-C2-O2	5.33	125.63	121.90
25	BA	2734	A	C8-N9-C4	5.33	107.93	105.80
1	CA	1043	C	N3-C4-C5	-5.33	119.77	121.90
1	CA	1119	C	C4-C5-C6	-5.33	114.73	117.40
25	DA	1897	G	N1-C6-O6	5.33	123.10	119.90
25	DA	2488	A	C8-N9-C4	5.33	107.93	105.80
25	DA	2532	G	N1-C6-O6	5.33	123.10	119.90
25	BA	405	C	C5-C4-N4	-5.33	116.47	120.20
1	CA	572	A	C8-N9-C4	5.33	107.93	105.80
25	DA	811	U	C5-C6-N1	-5.33	120.04	122.70
25	BA	397	G	N3-C4-N9	5.32	129.19	126.00
25	BA	1723	A	N1-C6-N6	-5.32	115.41	118.60
25	BA	1389	G	C4-N9-C1'	5.32	133.42	126.50
1	CA	1005	A	OP1-P-O3'	5.32	116.91	105.20
1	CA	1063	C	C6-N1-C2	-5.32	118.17	120.30
1	AA	1388	C	N1-C2-O2	-5.32	115.71	118.90
25	BA	354	A	N3-C4-C5	5.32	130.52	126.80
25	BA	1298	G	N3-C4-N9	-5.32	122.81	126.00
1	CA	615	C	C6-N1-C2	-5.32	118.17	120.30
25	DA	1703	G	C6-C5-N7	-5.32	127.21	130.40
1	CA	1065	U	P-O3'-C3'	5.32	126.08	119.70
25	BA	2239	A	C8-N9-C4	-5.32	103.67	105.80
25	DA	1181	C	N1-C2-O2	5.32	122.09	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1930	G	C4-N9-C1'	-5.32	119.59	126.50
1	AA	1122	U	N3-C2-O2	-5.32	118.48	122.20
1	CA	701	C	N3-C2-O2	-5.32	118.18	121.90
25	BA	1746	G	N9-C4-C5	5.31	107.53	105.40
25	DA	1313	U	C2-N1-C1'	5.31	124.08	117.70
25	BA	2011	G	C8-N9-C4	5.31	108.52	106.40
25	DA	1204	A	C4-C5-N7	5.31	113.36	110.70
25	DA	2772	C	C6-N1-C2	5.31	122.42	120.30
1	AA	1067	A	O4'-C1'-N9	-5.31	103.95	108.20
25	BA	139	A	N1-C6-N6	5.31	121.79	118.60
25	BA	1154	U	N3-C2-O2	-5.31	118.48	122.20
1	CA	984	C	C2-N3-C4	5.31	122.55	119.90
25	DA	729	G	N1-C6-O6	5.31	123.09	119.90
25	DA	2755	C	C5-C6-N1	5.31	123.66	121.00
1	AA	1396	A	C5-C6-N1	-5.31	115.05	117.70
25	BA	2054	G	C5-N7-C8	-5.31	101.65	104.30
25	DA	1254	A	C8-N9-C4	-5.31	103.68	105.80
1	CA	1180	A	N7-C8-N9	5.31	116.45	113.80
25	BA	2036	A	N9-C4-C5	-5.30	103.68	105.80
25	BA	2370	G	N1-C6-O6	-5.30	116.72	119.90
25	BA	2518	U	O4'-C1'-N1	5.30	112.44	108.20
1	CA	783	C	N3-C4-C5	5.30	124.02	121.90
25	BA	478	G	N3-C4-C5	-5.30	125.95	128.60
25	DA	2207	G	C8-N9-C1'	-5.30	120.11	127.00
25	BA	410	U	C2-N1-C1'	-5.30	111.34	117.70
25	BA	839	G	O4'-C1'-N9	-5.30	103.96	108.20
25	DA	1142	U	N3-C2-O2	-5.30	118.49	122.20
25	BA	670	C	C2-N1-C1'	5.29	124.62	118.80
1	CA	1205	U	C6-N1-C2	-5.29	117.82	121.00
1	AA	97	G	N3-C4-N9	5.29	129.18	126.00
1	CA	400	C	C6-N1-C2	5.29	122.42	120.30
25	DA	1698	A	N9-C4-C5	-5.29	103.68	105.80
25	BA	139	A	C2-N3-C4	-5.29	107.96	110.60
25	DA	2338	G	C4-N9-C1'	-5.29	119.62	126.50
25	BA	342	C	N3-C4-C5	-5.29	119.78	121.90
25	BA	1425	A	OP2-P-O3'	5.29	116.83	105.20
1	AA	1131	G	C5-N7-C8	-5.29	101.66	104.30
25	BA	1068	G	N9-C4-C5	5.29	107.51	105.40
25	BA	1298	G	N9-C4-C5	5.29	107.51	105.40
25	BA	2495	C	C6-N1-C2	-5.29	118.19	120.30
1	CA	733	A	O5'-P-OP2	-5.29	100.94	105.70
25	DA	1831	G	C8-N9-C4	-5.29	104.29	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	557	G	C8-N9-C4	5.28	108.51	106.40
1	CA	1502	A	N7-C8-N9	5.28	116.44	113.80
1	AA	944	G	C4-N9-C1'	5.28	133.37	126.50
25	DA	1684	C	N3-C4-C5	-5.28	119.79	121.90
23	AX	46	G	N3-C2-N2	-5.28	116.20	119.90
25	DA	2479	G	N1-C6-O6	-5.28	116.73	119.90
25	BA	2262	G	C8-N9-C4	-5.28	104.29	106.40
1	CA	1163	C	N1-C2-O2	5.28	122.07	118.90
25	DA	2252	G	N3-C2-N2	-5.28	116.20	119.90
1	AA	1235	U	C6-N1-C2	-5.28	117.83	121.00
1	CA	660	G	C8-N9-C4	5.28	108.51	106.40
23	CX	24	U	C6-N1-C2	-5.28	117.83	121.00
25	DA	1653	G	C6-C5-N7	-5.28	127.23	130.40
25	BA	1954	A	O5'-P-OP1	-5.28	100.95	105.70
25	DA	1021	A	C5-N7-C8	-5.28	101.26	103.90
25	DA	1281	G	N3-C4-C5	5.27	131.24	128.60
25	BA	496	A	OP1-P-O3'	5.27	116.80	105.20
25	BA	1066	A	C8-N9-C4	-5.27	103.69	105.80
25	DA	2612	C	C6-N1-C2	5.27	122.41	120.30
1	AA	998	G	N3-C4-N9	-5.27	122.84	126.00
1	AA	1278	U	C5-C6-N1	5.27	125.33	122.70
25	BA	2858	G	O4'-C1'-N9	5.27	112.42	108.20
1	AA	422	C	O4'-C1'-N1	5.27	112.42	108.20
25	BA	1009	C	N3-C4-N4	5.27	121.69	118.00
25	DA	1212	G	C8-N9-C4	5.27	108.51	106.40
1	AA	159	G	C4-N9-C1'	-5.27	119.65	126.50
25	DA	669	G	OP1-P-OP2	-5.27	111.70	119.60
25	DA	2645	G	N3-C2-N2	5.27	123.59	119.90
25	DA	1880	C	C6-N1-C2	5.26	122.41	120.30
27	DD	275	LYS	N-CA-C	-5.26	96.79	111.00
25	BA	1421	C	OP1-P-O3'	5.26	116.78	105.20
1	CA	667	G	N3-C4-C5	5.26	131.23	128.60
1	CA	1004	A	N1-C6-N6	-5.26	115.44	118.60
25	DA	511	U	N3-C2-O2	-5.26	118.52	122.20
25	BA	2291	G	C8-N9-C4	5.26	108.50	106.40
25	BA	498	A	O5'-P-OP2	-5.26	100.97	105.70
25	BA	1444	C	OP2-P-O3'	5.26	116.77	105.20
25	DA	729	G	C4-N9-C1'	5.26	133.34	126.50
25	BA	1718	U	N3-C2-O2	5.25	125.88	122.20
1	CA	65	U	OP2-P-O3'	5.25	116.76	105.20
25	DA	1963	U	C2-N1-C1'	5.25	124.00	117.70
25	BA	1314	A	C2-N3-C4	-5.25	107.97	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1270	C	OP2-P-O3'	5.25	116.75	105.20
25	BA	2042	A	O5'-P-OP1	-5.25	100.97	105.70
1	CA	1026	G	N7-C8-N9	5.25	115.72	113.10
1	CA	1149	C	N3-C2-O2	-5.25	118.23	121.90
25	DA	2491	U	N1-C2-O2	5.25	126.47	122.80
1	CA	1312	G	C8-N9-C4	-5.25	104.30	106.40
25	DA	2057	A	N7-C8-N9	-5.25	111.18	113.80
25	DA	1899	G	OP1-P-O3'	5.24	116.73	105.20
25	BA	1308	A	N1-C6-N6	5.24	121.74	118.60
25	DA	740	U	O5'-P-OP1	5.24	116.99	110.70
1	AA	1113	C	C6-N1-C2	-5.24	118.20	120.30
25	BA	88	G	C8-N9-C4	-5.24	104.31	106.40
25	BA	193	A	N7-C8-N9	-5.24	111.18	113.80
25	BA	702	A	C8-N9-C4	-5.24	103.70	105.80
25	BA	912	C	C6-N1-C2	5.24	122.39	120.30
25	BA	12	U	C2-N1-C1'	5.24	123.98	117.70
25	DA	1997	G	N3-C4-N9	5.24	129.14	126.00
22	AV	17	U	C2-N3-C4	5.24	130.14	127.00
25	DA	71	A	N1-C6-N6	5.24	121.74	118.60
25	DA	2531	A	C8-N9-C4	5.24	107.89	105.80
25	BA	600	G	C8-N9-C4	5.23	108.49	106.40
25	DA	21	A	C8-N9-C4	5.23	107.89	105.80
1	AA	934	C	O5'-P-OP1	-5.23	100.99	105.70
1	AA	1150	U	C6-N1-C2	-5.23	117.86	121.00
25	BA	180	A	OP2-P-O3'	5.23	116.70	105.20
1	CA	354	G	C4-C5-N7	5.23	112.89	110.80
25	BA	719	C	OP2-P-O3'	5.23	116.70	105.20
25	DA	1571	A	N1-C6-N6	-5.23	115.46	118.60
25	BA	2684	G	C8-N9-C4	5.23	108.49	106.40
25	DA	116	C	C4-C5-C6	5.23	120.01	117.40
1	AA	98	G	N3-C4-N9	5.22	129.13	126.00
25	BA	827	G	C4-C5-C6	5.22	121.94	118.80
25	BA	2062	C	C6-N1-C2	5.22	122.39	120.30
25	BA	2283	G	C8-N9-C1'	-5.22	120.21	127.00
1	CA	44	G	C4-N9-C1'	5.22	133.29	126.50
25	DA	154(A)	C	C2-N1-C1'	5.22	124.55	118.80
1	AA	1531	A	C4-N9-C1'	5.22	135.70	126.30
25	DA	1372	U	C2-N1-C1'	5.22	123.97	117.70
1	CA	1080	A	N1-C6-N6	-5.22	115.47	118.60
25	DA	1880	C	C5-C6-N1	-5.22	118.39	121.00
25	DA	1992	G	C2-N3-C4	5.22	114.51	111.90
25	DA	2374	C	C5-C6-N1	-5.22	118.39	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	175	C	C5-C6-N1	5.22	123.61	121.00
1	AA	340	U	C5-C6-N1	-5.22	120.09	122.70
25	BA	194	G	O5'-P-OP2	-5.22	101.00	105.70
25	DA	2601	C	N3-C4-C5	5.22	123.99	121.90
25	BA	331	G	O5'-P-OP1	-5.21	101.01	105.70
23	CX	35	A	C5-C6-N6	5.21	127.87	123.70
1	AA	6	G	N3-C4-N9	5.21	129.13	126.00
25	DA	933	A	C6-C5-N7	-5.21	128.65	132.30
25	DA	1555	G	N1-C6-O6	5.21	123.03	119.90
25	DA	1970	A	O4'-C1'-N9	-5.21	104.03	108.20
25	BA	733	G	C5-N7-C8	-5.21	101.69	104.30
1	AA	167	G	C8-N9-C1'	-5.21	120.23	127.00
25	DA	1797	C	C5-C6-N1	-5.21	118.40	121.00
1	AA	354	G	O5'-P-OP2	-5.21	101.02	105.70
25	BA	231	G	N3-C4-C5	5.21	131.20	128.60
25	BA	2011	G	N7-C8-N9	-5.21	110.50	113.10
25	BA	2421	G	N1-C2-N2	-5.21	111.51	116.20
25	BA	989	G	C8-N9-C4	-5.20	104.32	106.40
25	BA	1725	G	N9-C4-C5	5.20	107.48	105.40
25	BA	2285	A	C8-N9-C4	-5.20	103.72	105.80
25	DA	1897	G	O5'-P-OP1	-5.20	101.02	105.70
25	BA	1187	U	C5-C6-N1	5.20	125.30	122.70
25	DA	885	C	C6-N1-C2	-5.20	118.22	120.30
25	DA	1475	G	N1-C6-O6	5.20	123.02	119.90
25	DA	2519	U	C6-N1-C2	5.20	124.12	121.00
1	AA	645	C	N1-C2-O2	5.20	122.02	118.90
25	DA	807	U	C6-N1-C2	-5.20	117.88	121.00
1	AA	1276	G	N3-C4-C5	-5.20	126.00	128.60
25	BA	1454	C	C6-N1-C2	-5.20	118.22	120.30
25	BA	1367	A	O5'-P-OP1	-5.19	101.03	105.70
25	DA	2249	U	C5-C4-O4	5.19	129.02	125.90
25	BA	665	C	N1-C2-O2	-5.19	115.79	118.90
25	BA	2227	G	C8-N9-C1'	5.19	133.75	127.00
1	CA	1141	C	C5-C4-N4	5.19	123.83	120.20
25	DA	2877	G	N3-C4-C5	5.19	131.19	128.60
53	D7	35	ARG	NE-CZ-NH1	-5.19	117.70	120.30
1	AA	339	C	C5-C6-N1	-5.19	118.41	121.00
1	CA	1226	C	C6-N1-C2	-5.19	118.22	120.30
23	CX	46	G	C8-N9-C1'	5.19	133.74	127.00
25	DA	1961	C	C2-N1-C1'	-5.19	113.09	118.80
25	DA	2010	G	O5'-P-OP1	-5.19	101.03	105.70
25	DA	2878	U	C6-N1-C2	-5.19	117.89	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1220	U	P-O3'-C3'	5.19	125.92	119.70
23	CX	23	C	O5'-P-OP1	-5.19	101.03	105.70
25	DA	1602	U	O5'-P-OP2	5.19	116.92	110.70
1	AA	496	A	N9-C4-C5	5.18	107.87	105.80
1	AA	1127	G	C6-C5-N7	-5.18	127.29	130.40
1	CA	1397	C	C2-N1-C1'	5.18	124.50	118.80
25	DA	1679	U	C5-C4-O4	5.18	129.01	125.90
1	AA	348	G	O5'-P-OP1	5.18	116.92	110.70
25	BA	2077	C	N3-C4-C5	-5.18	119.83	121.90
25	DA	792	G	N3-C4-C5	-5.18	126.01	128.60
25	BA	1386	U	N1-C2-O2	-5.18	119.17	122.80
25	BA	2389	A	C2-N3-C4	-5.18	108.01	110.60
25	DA	188	G	C5-N7-C8	-5.18	101.71	104.30
27	BD	111	LEU	CA-CB-CG	5.18	127.21	115.30
25	DA	2227	A	N1-C6-N6	-5.18	115.49	118.60
25	DA	2540	C	O5'-P-OP2	-5.18	101.04	105.70
25	BA	1382	A	O5'-P-OP2	-5.17	101.04	105.70
25	BA	2059	G	N1-C2-N2	-5.17	111.54	116.20
1	CA	1240	U	O4'-C1'-N1	5.17	112.34	108.20
25	DA	13	A	N1-C6-N6	-5.17	115.50	118.60
25	DA	1432	C	N3-C4-N4	5.17	121.62	118.00
25	BA	242	C	C6-N1-C2	5.17	122.37	120.30
1	CA	46	G	C5-C6-O6	-5.17	125.50	128.60
1	CA	64	G	C5-C6-N1	-5.17	108.91	111.50
25	BA	1035	G	N3-C4-N9	5.17	129.10	126.00
25	DA	954	G	N1-C6-O6	-5.17	116.80	119.90
25	DA	2804	C	N1-C2-O2	5.17	122.00	118.90
23	CX	9	G	N3-C4-C5	5.17	131.19	128.60
25	DA	1215	G	OP1-P-O3'	5.17	116.57	105.20
25	BA	1154	U	C2-N1-C1'	5.17	123.90	117.70
25	BA	1852	A	C8-N9-C4	-5.17	103.73	105.80
1	CA	254	G	OP2-P-O3'	5.17	116.57	105.20
1	CA	380	G	N3-C4-N9	-5.17	122.90	126.00
1	CA	1171	G	N7-C8-N9	5.17	115.68	113.10
25	DA	34	C	C6-N1-C2	-5.17	118.23	120.30
25	BA	2594	G	C8-N9-C4	-5.17	104.33	106.40
25	BA	962	G	N3-C4-C5	-5.16	126.02	128.60
25	BA	1175	A	N1-C6-N6	-5.16	115.50	118.60
25	BA	2299	A	C5-N7-C8	-5.16	101.32	103.90
1	CA	1036	G	C4-N9-C1'	5.16	133.21	126.50
25	BA	202	A	C8-N9-C4	5.16	107.86	105.80
1	CA	1246	C	N3-C2-O2	-5.16	118.29	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CX	26	G	C6-N1-C2	5.16	128.20	125.10
25	DA	448	U	C5-C6-N1	-5.16	120.12	122.70
25	DA	2320	A	C2-N3-C4	5.16	113.18	110.60
25	BA	1985	U	C5-C6-N1	5.16	125.28	122.70
25	BA	2299	A	O4'-C1'-N9	-5.16	104.07	108.20
25	DA	512	G	C8-N9-C1'	5.16	133.71	127.00
1	AA	46	G	N1-C6-O6	5.16	122.99	119.90
25	BA	2065	C	N3-C2-O2	5.16	125.51	121.90
18	CR	64	ARG	NE-CZ-NH2	-5.16	117.72	120.30
25	DA	1204	A	C5-N7-C8	-5.16	101.32	103.90
25	BA	639	G	O4'-C1'-N9	5.15	112.32	108.20
25	DA	2512	C	N1-C2-O2	-5.15	115.81	118.90
25	BA	1076	G	N9-C4-C5	-5.15	103.34	105.40
25	BA	1222	A	C4-C5-C6	5.15	119.58	117.00
25	DA	2386	C	N3-C4-C5	5.15	123.96	121.90
25	BA	1019	G	OP1-P-OP2	5.15	127.33	119.60
25	DA	446	G	C8-N9-C4	5.15	108.46	106.40
25	DA	645	C	C6-N1-C2	-5.15	118.24	120.30
26	DB	70	C	C6-N1-C2	-5.15	118.24	120.30
25	BA	2428	C	C5-C6-N1	5.15	123.57	121.00
1	CA	800	G	OP2-P-O3'	5.15	116.53	105.20
25	DA	2483	C	C5-C6-N1	5.15	123.58	121.00
25	BA	354	A	N1-C2-N3	5.15	131.87	129.30
25	DA	737	C	C6-N1-C2	5.15	122.36	120.30
25	BA	2537	G	O5'-P-OP1	5.14	116.87	110.70
25	DA	1937	A	N9-C4-C5	-5.14	103.74	105.80
25	BA	2061	C	C6-N1-C2	-5.14	118.24	120.30
25	BA	2544	G	C5-C6-O6	-5.14	125.52	128.60
25	BA	2574	U	C5-C6-N1	-5.14	120.13	122.70
25	DA	1313	U	C5-C6-N1	5.14	125.27	122.70
25	DA	2321	G	C6-C5-N7	-5.14	127.32	130.40
1	AA	159	G	N9-C1'-C2'	-5.14	106.35	112.00
25	BA	1321	A	C5-C6-N1	-5.14	115.13	117.70
25	BA	1745	A	N1-C6-N6	5.14	121.68	118.60
25	BA	2608	U	C6-N1-C2	5.14	124.08	121.00
25	DA	1487	G	C8-N9-C4	-5.14	104.34	106.40
25	BA	332	G	C8-N9-C1'	-5.14	120.32	127.00
1	CA	299	G	C5-C6-O6	-5.14	125.52	128.60
1	AA	1506	U	N3-C4-O4	5.13	122.99	119.40
25	BA	2256	U	N3-C4-O4	-5.13	115.81	119.40
25	BA	2419	G	C4-N9-C1'	5.13	133.18	126.50
25	BA	2566	U	N1-C2-O2	-5.13	119.21	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	271(M)	G	N3-C4-C5	-5.13	126.03	128.60
25	DA	792	G	N3-C4-N9	5.13	129.08	126.00
25	BA	30	G	OP1-P-O3'	5.13	116.49	105.20
1	AA	341	C	C6-N1-C2	5.13	122.35	120.30
25	DA	90	U	C2-N1-C1'	5.13	123.86	117.70
25	DA	1124	C	N3-C4-C5	5.13	123.95	121.90
25	BA	1153	G	C2-N3-C4	5.13	114.47	111.90
1	CA	1028	C	C6-N1-C2	-5.13	118.25	120.30
1	CA	1269	A	N1-C6-N6	-5.13	115.52	118.60
25	DA	762	U	C2-N1-C1'	5.13	123.86	117.70
25	DA	1375	C	O5'-P-OP1	-5.13	101.08	105.70
25	DA	1596	A	C8-N9-C4	5.13	107.85	105.80
25	DA	2039	C	C2-N1-C1'	5.13	124.44	118.80
1	AA	578	C	C6-N1-C2	-5.13	118.25	120.30
1	AA	1150	U	C5-C6-N1	5.13	125.26	122.70
25	BA	1707	C	C6-N1-C2	-5.13	118.25	120.30
25	DA	602	G	N3-C4-N9	5.13	129.08	126.00
1	CA	893	C	C6-N1-C2	5.13	122.35	120.30
1	CA	1307	U	C5-C6-N1	5.13	125.26	122.70
25	DA	914	C	N1-C2-O2	5.13	121.97	118.90
25	DA	1718	G	C4-N9-C1'	5.13	133.16	126.50
25	DA	1966	A	N1-C6-N6	-5.13	115.53	118.60
25	DA	2591	C	N3-C4-C5	-5.13	119.85	121.90
1	CA	1519	A	C8-N9-C4	-5.12	103.75	105.80
25	DA	889	C	C6-N1-C2	-5.12	118.25	120.30
1	AA	190	U	C5-C6-N1	5.12	125.26	122.70
25	DA	1017	G	C4-N9-C1'	5.12	133.16	126.50
25	DA	2413	G	N1-C6-O6	5.12	122.97	119.90
1	AA	781	A	N9-C4-C5	-5.12	103.75	105.80
1	AA	814	A	OP1-P-O3'	5.12	116.47	105.20
1	AA	1435	G	C5-C6-N1	-5.12	108.94	111.50
25	BA	332	G	C4-N9-C1'	5.12	133.16	126.50
25	BA	725	C	C6-N1-C2	5.12	122.35	120.30
25	DA	199	A	C5-C6-N6	-5.12	119.60	123.70
25	DA	2474	C	N1-C2-O2	5.12	121.97	118.90
25	BA	2258	G	C5-C6-O6	-5.12	125.53	128.60
1	CA	1502	A	C2-N3-C4	-5.12	108.04	110.60
25	BA	861	C	C4-C5-C6	-5.12	114.84	117.40
25	DA	1115	G	C4-N9-C1'	-5.12	119.85	126.50
1	CA	1522	U	OP2-P-O3'	5.11	116.45	105.20
25	BA	2040	G	O5'-P-OP1	5.11	116.83	110.70
1	AA	1004	A	P-O3'-C3'	5.11	125.83	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1145	C	N3-C2-O2	-5.11	118.32	121.90
25	BA	2230	U	N1-C2-O2	5.11	126.38	122.80
25	DA	783	A	C4-C5-C6	5.11	119.56	117.00
25	DA	1897	G	C5-C6-O6	-5.11	125.53	128.60
25	BA	1483	C	C2-N1-C1'	5.11	124.42	118.80
25	BA	1725	G	N3-C2-N2	-5.11	116.32	119.90
1	CA	865	A	C8-N9-C4	-5.11	103.76	105.80
25	DA	912	C	N3-C2-O2	-5.11	118.33	121.90
25	DA	2893	G	N9-C4-C5	-5.11	103.36	105.40
1	AA	421	U	N3-C2-O2	-5.11	118.63	122.20
25	BA	2621	U	C6-N1-C2	5.11	124.06	121.00
1	CA	998	G	N9-C4-C5	5.11	107.44	105.40
25	DA	584	C	N1-C2-O2	-5.11	115.84	118.90
25	BA	418	G	N1-C6-O6	5.10	122.96	119.90
25	DA	188	G	C5-C6-O6	-5.10	125.54	128.60
25	BA	515	G	N1-C6-O6	5.10	122.96	119.90
25	BA	553	A	O5'-P-OP2	-5.10	101.11	105.70
25	BA	1418	U	C5-C6-N1	5.10	125.25	122.70
25	BA	1429	C	C5-C4-N4	-5.10	116.63	120.20
25	DA	389	G	N1-C6-O6	5.10	122.96	119.90
25	DA	1363	C	N3-C4-N4	-5.10	114.43	118.00
25	DA	2297	C	C5-C6-N1	5.10	123.55	121.00
1	CA	833	U	O5'-P-OP2	-5.10	101.11	105.70
25	BA	1718	U	C5-C6-N1	5.10	125.25	122.70
25	BA	2054	G	C4-N9-C1'	-5.10	119.87	126.50
25	DA	560	C	C5-C6-N1	-5.10	118.45	121.00
25	DA	1204	A	N9-C1'-C2'	5.10	120.63	114.00
1	AA	192	U	C6-N1-C2	-5.10	117.94	121.00
1	AA	348	G	N1-C6-O6	5.10	122.96	119.90
25	BA	772	G	N3-C4-C5	-5.10	126.05	128.60
25	DA	1802	A	C6-N1-C2	-5.10	115.54	118.60
1	AA	840	C	O4'-C1'-N1	-5.10	104.12	108.20
1	AA	1125	U	C6-N1-C2	5.09	124.06	121.00
25	BA	2735	G	C8-N9-C1'	-5.09	120.38	127.00
25	DA	394	A	O5'-P-OP1	-5.09	101.12	105.70
26	DB	79	C	C6-N1-C2	-5.09	118.26	120.30
1	AA	977	A	N1-C6-N6	-5.09	115.54	118.60
26	DB	60	C	C5-C6-N1	5.09	123.55	121.00
25	BA	930	G	C4-N9-C1'	-5.09	119.88	126.50
25	DA	461	C	N3-C4-N4	5.09	121.56	118.00
25	DA	1439	A	C8-N9-C4	5.09	107.84	105.80
1	CA	1017	G	N3-C4-C5	5.09	131.15	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1296	C	N3-C2-O2	5.09	125.46	121.90
25	BA	816	G	N9-C4-C5	-5.09	103.36	105.40
1	CA	1044	A	N1-C6-N6	-5.09	115.55	118.60
1	AA	167	G	C6-C5-N7	-5.09	127.35	130.40
1	AA	532	A	P-O3'-C3'	5.09	125.80	119.70
23	AX	22	G	C8-N9-C1'	5.09	133.61	127.00
25	DA	783	A	N3-C4-C5	-5.09	123.24	126.80
25	DA	2591	C	N1-C2-O2	-5.09	115.85	118.90
1	AA	220	G	C4-N9-C1'	5.08	133.11	126.50
1	AA	162	A	N7-C8-N9	5.08	116.34	113.80
25	BA	332	G	N9-C4-C5	-5.08	103.37	105.40
25	BA	2383	G	N1-C2-N3	-5.08	120.85	123.90
25	DA	1614	A	N1-C6-N6	-5.08	115.55	118.60
25	DA	2523	G	O5'-P-OP1	5.08	116.80	110.70
25	BA	1459	G	C5-C6-O6	-5.08	125.55	128.60
25	DA	729	G	C8-N9-C1'	-5.08	120.39	127.00
25	DA	1588	C	N3-C4-C5	5.08	123.93	121.90
25	BA	103	C	N3-C4-C5	5.08	123.93	121.90
25	DA	1421	G	N1-C6-O6	5.08	122.95	119.90
1	AA	1183	A	P-O3'-C3'	5.08	125.79	119.70
25	BA	893	C	C6-N1-C2	5.08	122.33	120.30
25	DA	116	C	N3-C2-O2	-5.08	118.34	121.90
25	DA	2828	C	C6-N1-C2	5.08	122.33	120.30
25	DA	1653	G	N3-C4-N9	5.08	129.05	126.00
1	AA	1397	C	C6-N1-C1'	-5.08	114.71	120.80
23	AX	24	U	N3-C2-O2	-5.08	118.65	122.20
25	BA	1153	G	O5'-P-OP2	-5.08	101.13	105.70
25	DA	1253	A	C8-N9-C4	5.08	107.83	105.80
25	DA	1340	U	C5-C4-O4	-5.08	122.86	125.90
25	BA	1417	G	C5-C6-O6	-5.07	125.56	128.60
1	CA	1034	G	N9-C4-C5	5.07	107.43	105.40
1	CA	1036	G	C8-N9-C1'	-5.07	120.41	127.00
25	DA	148	C	C5-C6-N1	-5.07	118.46	121.00
25	BA	1578	C	C2-N1-C1'	5.07	124.38	118.80
23	AX	14	A	C4-N9-C1'	5.07	135.42	126.30
25	BA	639	G	C4-C5-N7	-5.07	108.77	110.80
25	BA	1076	G	C2-N3-C4	-5.07	109.37	111.90
25	BA	1412	A	C4-C5-N7	-5.07	108.17	110.70
25	BA	1920	U	C5-C4-O4	5.07	128.94	125.90
23	CX	22	G	C8-N9-C1'	5.07	133.59	127.00
25	DA	2286	A	C6-C5-N7	-5.07	128.75	132.30
1	CA	287	U	O5'-P-OP2	-5.06	101.14	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2347	C	N3-C2-O2	-5.06	118.36	121.90
25	DA	2519	U	C5-C6-N1	-5.06	120.17	122.70
1	CA	1020	U	N1-C2-O2	5.06	126.34	122.80
1	AA	460	G	N7-C8-N9	5.06	115.63	113.10
25	BA	2067	C	N3-C4-C5	5.06	123.92	121.90
25	BA	179	A	N1-C6-N6	5.06	121.64	118.60
25	BA	2549	U	N3-C4-O4	-5.06	115.86	119.40
25	BA	2627	U	C4-C5-C6	-5.06	116.66	119.70
25	DA	685	A	OP1-P-OP2	5.06	127.19	119.60
25	DA	2063	C	N1-C2-O2	-5.06	115.86	118.90
25	DA	2627	G	N1-C6-O6	-5.06	116.86	119.90
25	DA	2042	A	C2-N3-C4	-5.06	108.07	110.60
25	BA	829	A	C8-N9-C4	5.06	107.82	105.80
25	DA	1123	C	N3-C2-O2	5.06	125.44	121.90
25	BA	1745	A	C5-C6-N1	-5.05	115.17	117.70
25	BA	2227	G	N3-C4-C5	5.05	131.13	128.60
25	BA	2697	G	N1-C6-O6	-5.05	116.87	119.90
25	DA	985	C	C5-C6-N1	-5.05	118.47	121.00
25	DA	1620	G	O5'-P-OP2	5.05	116.77	110.70
25	DA	2338	G	C8-N9-C1'	5.05	133.57	127.00
25	BA	137	G	C8-N9-C4	5.05	108.42	106.40
25	BA	51	A	C8-N9-C4	-5.05	103.78	105.80
25	BA	107	G	C6-C5-N7	5.05	133.43	130.40
25	BA	2397	C	N3-C4-C5	5.05	123.92	121.90
1	CA	1028	C	C2-N3-C4	5.05	122.43	119.90
1	CA	1224	G	C8-N9-C4	-5.05	104.38	106.40
23	AX	67	C	N1-C2-O2	5.05	121.93	118.90
25	BA	1091	A	C8-N9-C4	5.05	107.82	105.80
25	BA	1821	C	P-O3'-C3'	5.05	125.76	119.70
1	CA	265	G	N1-C6-O6	5.05	122.93	119.90
25	DA	330	A	N3-C4-C5	5.05	130.33	126.80
26	BB	93	G	N7-C8-N9	5.05	115.62	113.10
25	DA	729	G	C6-C5-N7	-5.05	127.37	130.40
25	BA	194	G	N7-C8-N9	-5.05	110.58	113.10
25	BA	2265	G	N9-C4-C5	-5.05	103.38	105.40
1	CA	662	G	N3-C4-N9	5.05	129.03	126.00
25	DA	90	U	N3-C2-O2	-5.05	118.67	122.20
25	DA	315	G	O5'-P-OP1	5.05	116.76	110.70
25	DA	1189	A	O5'-P-OP1	5.05	116.75	110.70
25	BA	990	A	N1-C2-N3	5.04	131.82	129.30
25	DA	1022	G	N9-C4-C5	5.04	107.42	105.40
25	DA	975	C	C6-N1-C2	-5.04	118.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1899	G	N3-C4-N9	5.04	129.03	126.00
25	DA	2298	A	C4-C5-N7	5.04	113.22	110.70
25	DA	2440	C	C2-N1-C1'	-5.04	113.25	118.80
1	AA	1131	G	C5-C6-O6	-5.04	125.58	128.60
23	AX	14	A	C8-N9-C1'	-5.04	118.63	127.70
25	BA	622	G	C8-N9-C4	5.04	108.42	106.40
25	BA	1823	G	N3-C4-C5	5.04	131.12	128.60
1	CA	1264	C	C6-N1-C2	5.04	122.32	120.30
25	DA	879	G	N3-C4-C5	-5.04	126.08	128.60
1	AA	340	U	C2-N1-C1'	-5.04	111.65	117.70
6	CF	75	LEU	CA-CB-CG	5.04	126.89	115.30
25	DA	1251	C	N3-C2-O2	5.04	125.43	121.90
25	DA	1828	G	C5-C6-O6	5.04	131.62	128.60
1	AA	1286	A	O5'-P-OP1	-5.04	101.17	105.70
25	BA	1219	A	P-O3'-C3'	5.04	125.75	119.70
25	BA	2465	A	N1-C6-N6	-5.04	115.58	118.60
25	DA	2024	G	C5-C6-O6	-5.04	125.58	128.60
1	AA	1024	G	C8-N9-C1'	-5.04	120.45	127.00
25	DA	1488	G	N3-C4-C5	-5.04	126.08	128.60
25	DA	2321	G	C4-C5-N7	5.04	112.81	110.80
25	BA	2001	C	C6-N1-C2	-5.04	118.29	120.30
25	DA	374	A	N1-C6-N6	5.04	121.62	118.60
25	DA	1320	C	N1-C2-O2	-5.04	115.88	118.90
25	BA	418	G	N9-C4-C5	-5.03	103.39	105.40
25	DA	1441	G	C8-N9-C4	5.03	108.41	106.40
25	BA	666	C	N3-C4-C5	-5.03	119.89	121.90
25	DA	768	G	C5-C6-O6	-5.03	125.58	128.60
1	AA	827	U	N3-C2-O2	-5.03	118.68	122.20
25	BA	512	C	C6-N1-C2	5.03	122.31	120.30
25	BA	2610	A	C8-N9-C4	5.03	107.81	105.80
39	BT	103	ARG	NE-CZ-NH1	-5.03	117.78	120.30
1	CA	266	G	P-O3'-C3'	5.03	125.74	119.70
1	AA	30	U	OP2-P-O3'	5.03	116.26	105.20
25	BA	1366	C	C6-N1-C2	5.03	122.31	120.30
25	DA	1204	A	C5-C6-N1	-5.03	115.19	117.70
25	DA	1339	G	O5'-P-OP2	5.03	116.73	110.70
25	DA	2292	C	O5'-P-OP2	-5.03	101.18	105.70
1	AA	1395	C	N1-C2-O2	5.03	121.92	118.90
2	AB	128	GLU	N-CA-C	-5.03	97.43	111.00
25	BA	1687	C	N1-C2-O2	5.03	121.92	118.90
25	BA	2899	C	O5'-P-OP2	-5.03	101.18	105.70
1	CA	99	U	C2-N1-C1'	-5.03	111.67	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1169	A	C8-N9-C4	-5.03	103.79	105.80
1	AA	59	A	C2-N3-C4	5.02	113.11	110.60
1	AA	66	G	C5-C6-N1	-5.02	108.99	111.50
25	BA	1277	G	N3-C4-C5	5.02	131.11	128.60
25	BA	2527	C	C5-C4-N4	-5.02	116.69	120.20
25	BA	2550	C	N3-C4-C5	5.02	123.91	121.90
25	DA	1266	G	C8-N9-C4	5.02	108.41	106.40
25	BA	1177	G	N3-C2-N2	5.02	123.42	119.90
1	CA	1206	G	N1-C6-O6	5.02	122.91	119.90
1	AA	1007	C	C6-N1-C1'	-5.02	114.78	120.80
1	AA	1206	G	N1-C6-O6	5.02	122.91	119.90
25	BA	2300	A	N1-C6-N6	5.02	121.61	118.60
1	AA	975	A	O4'-C1'-N9	-5.02	104.19	108.20
25	DA	1259	G	OP2-P-O3'	5.02	116.24	105.20
1	AA	1502	A	C5-N7-C8	-5.02	101.39	103.90
25	BA	2579	G	C5-N7-C8	5.02	106.81	104.30
25	DA	1004	C	N3-C2-O2	5.02	125.41	121.90
25	BA	2843	G	N3-C4-N9	5.01	129.01	126.00
1	AA	328	C	O5'-P-OP1	-5.01	101.19	105.70
25	BA	1823	G	N3-C4-N9	-5.01	122.99	126.00
1	AA	1335	C	C6-N1-C2	5.01	122.30	120.30
25	BA	2451	A	O4'-C1'-N9	-5.01	104.19	108.20
25	BA	2906	U	C2-N1-C1'	5.01	123.72	117.70
23	CX	76	A	C5-C6-N6	-5.01	119.69	123.70
25	DA	389	G	C8-N9-C4	5.01	108.41	106.40
25	DA	2689	U	OP2-P-O3'	5.01	116.23	105.20
25	BA	1417	G	N1-C6-O6	5.01	122.91	119.90
25	BA	441	C	N3-C4-C5	5.01	123.90	121.90
25	DA	2896	C	N1-C2-O2	5.01	121.91	118.90
1	AA	1127	G	N1-C2-N2	-5.01	111.69	116.20
25	BA	120	G	N1-C6-O6	5.01	122.90	119.90
25	BA	2105	G	C8-N9-C4	5.01	108.40	106.40
1	CA	46	G	N1-C6-O6	5.00	122.90	119.90
25	DA	1703	G	C5-C6-O6	-5.00	125.60	128.60
25	BA	26	G	C6-C5-N7	-5.00	127.40	130.40
25	DA	863	A	OP2-P-O3'	5.00	116.21	105.20
1	AA	347	G	C8-N9-C1'	-5.00	120.50	127.00
25	BA	2283	G	C4-N9-C1'	5.00	133.00	126.50
1	CA	1132	C	C5-C6-N1	5.00	123.50	121.00
25	DA	461	C	N1-C2-O2	-5.00	115.90	118.90
25	DA	1432	C	N3-C2-O2	5.00	125.40	121.90
25	DA	1721	G	N3-C4-C5	-5.00	126.10	128.60

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
23	CX	76	A	C1'

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	231	GLU	Peptide
2	AB	8	LYS	Peptide
2	AB	9	GLU	Peptide
7	AG	79	ARG	Peptide
24	AW	4	PRO	Peptide
50	B4	59	PHE	Peptide
38	BS	58	LEU	Peptide
45	BZ	136	PHE	Peptide
4	CD	45	GLN	Peptide
24	CW	9	MVA	Peptide
27	DD	274	ARG	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	32196	0	16251	809	0
1	CA	32312	0	16307	915	0
2	AB	1846	0	1867	109	0
2	CB	1825	0	1828	119	0
3	AC	1552	0	1546	59	0
3	CC	1542	0	1517	66	0
4	AD	1659	0	1676	99	0
4	CD	1674	0	1714	78	0
5	AE	1129	0	1185	50	0
5	CE	1133	0	1191	45	0
6	AF	806	0	793	33	0
6	CF	816	0	808	27	0
7	AG	1231	0	1238	35	0
7	CG	1235	0	1249	56	0
8	AH	1088	0	1126	48	0
8	CH	1088	0	1126	46	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	AI	983	0	986	54	0
9	CI	978	0	966	57	0
10	AJ	709	0	650	35	0
10	CJ	714	0	672	47	0
11	AK	829	0	825	19	0
11	CK	833	0	836	29	0
12	AL	930	0	980	28	0
12	CL	930	0	980	34	0
13	AM	958	0	1002	25	0
13	CM	950	0	988	56	0
14	AN	492	0	529	26	0
14	CN	492	0	529	29	0
15	AO	728	0	760	16	0
15	CO	728	0	760	27	0
16	AP	681	0	697	29	0
16	CP	677	0	686	28	0
17	AQ	823	0	891	21	0
17	CQ	823	0	891	19	0
18	AR	555	0	618	17	0
18	CR	555	0	618	27	0
19	AS	652	0	662	36	0
19	CS	646	0	644	56	0
20	AT	728	0	798	30	0
20	CT	727	0	796	28	0
21	AU	199	0	208	5	0
21	CU	199	0	208	7	0
22	AV	114	0	54	0	0
22	CV	113	0	54	0	0
23	AX	1623	0	823	18	0
23	CX	1623	0	824	24	0
24	AW	93	0	84	9	0
24	CW	93	0	84	14	0
25	BA	58834	0	29667	785	0
25	DA	58458	0	29482	1100	0
26	BB	2573	0	1306	38	0
26	DB	2573	0	1306	54	0
27	BD	2136	0	2218	64	0
27	DD	2136	0	2218	74	0
28	BE	1559	0	1618	38	0
28	DE	1559	0	1618	60	0
29	BF	1584	0	1625	46	0
29	DF	1580	0	1619	69	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	BG	1425	0	1443	45	0
30	DG	1424	0	1434	82	0
31	BH	1330	0	1407	33	0
31	DH	1330	0	1407	52	0
32	BI	1085	0	1114	42	0
32	DI	1061	0	1080	31	0
33	BN	1117	0	1183	17	0
33	DN	1117	0	1184	26	0
34	BO	933	0	996	24	0
34	DO	933	0	996	36	0
35	BP	1135	0	1212	37	0
35	DP	1135	0	1211	46	0
36	BQ	1122	0	1179	38	0
36	DQ	1122	0	1179	47	0
37	BR	968	0	1033	24	0
37	DR	968	0	1032	30	0
38	BS	877	0	938	25	0
38	DS	870	0	923	47	0
39	BT	1091	0	1151	28	0
39	DT	1083	0	1136	36	0
40	BU	959	0	1019	26	0
40	DU	959	0	1019	37	0
41	BV	771	0	830	11	0
41	DV	771	0	830	23	0
42	BW	886	0	940	9	0
42	DW	886	0	940	17	0
43	BX	750	0	814	20	0
43	DX	750	0	814	25	0
44	BY	806	0	881	25	0
44	DY	806	0	881	21	0
45	BZ	1349	0	1355	47	0
45	DZ	1360	0	1363	48	0
46	B0	653	0	674	25	0
46	D0	653	0	674	23	0
47	B1	755	0	826	19	0
47	D1	755	0	826	26	0
48	B2	588	0	643	18	0
48	D2	588	0	643	20	0
49	B3	469	0	518	17	0
49	D3	464	0	514	12	0
50	B4	551	0	532	38	0
50	D4	531	0	502	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
51	B5	455	0	465	13	0
51	D5	455	0	465	11	0
52	B6	453	0	473	10	0
52	D6	449	0	469	10	0
53	B7	418	0	466	9	0
53	D7	418	0	467	9	0
54	B8	511	0	571	27	0
54	D8	517	0	582	27	0
55	B9	307	0	335	5	0
55	D9	307	0	335	10	0
56	AA	221	0	0	0	0
56	AD	1	0	0	0	0
56	AF	1	0	0	0	0
56	AK	1	0	0	0	0
56	AM	1	0	0	0	0
56	AN	2	0	0	0	0
56	AV	1	0	0	0	0
56	AX	9	0	0	0	0
56	B0	4	0	0	0	0
56	B1	1	0	0	0	0
56	B2	1	0	0	0	0
56	B3	3	0	0	0	0
56	B4	1	0	0	0	0
56	B5	1	0	0	0	0
56	B7	4	0	0	0	0
56	B8	3	0	0	0	0
56	B9	1	0	0	0	0
56	BA	738	0	0	0	0
56	BB	18	0	0	0	0
56	BD	12	0	0	0	0
56	BE	10	0	0	0	0
56	BF	8	0	0	0	0
56	BG	4	0	0	0	0
56	BN	6	0	0	0	0
56	BO	1	0	0	0	0
56	BP	4	0	0	0	0
56	BQ	5	0	0	0	0
56	BR	4	0	0	0	0
56	BU	8	0	0	0	0
56	BV	4	0	0	0	0
56	BW	5	0	0	0	0
56	BX	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	BY	1	0	0	0	0
56	BZ	1	0	0	0	0
56	CA	172	0	0	0	0
56	CE	2	0	0	0	0
56	CF	1	0	0	0	0
56	CQ	1	0	0	0	0
56	CT	1	0	0	0	0
56	CX	3	0	0	0	0
56	D0	1	0	0	0	0
56	D3	1	0	0	0	0
56	D5	2	0	0	0	0
56	D8	1	0	0	0	0
56	DA	653	0	0	0	0
56	DB	12	0	0	0	0
56	DD	8	0	0	0	0
56	DE	6	0	0	0	0
56	DF	6	0	0	0	0
56	DG	1	0	0	0	0
56	DN	1	0	0	0	0
56	DO	1	0	0	0	0
56	DQ	5	0	0	0	0
56	DR	2	0	0	0	0
56	DV	4	0	0	0	0
56	DW	2	0	0	0	0
56	DY	1	0	0	0	0
57	AD	8	0	0	1	0
57	CD	8	0	0	1	0
58	AN	1	0	0	0	0
58	B4	1	0	0	0	0
58	B5	1	0	0	0	0
58	B6	1	0	0	0	0
58	B9	1	0	0	0	0
58	BY	1	0	0	0	0
58	CN	1	0	0	0	0
58	D4	1	0	0	0	0
58	D5	1	0	0	0	0
58	D6	1	0	0	0	0
58	D9	1	0	0	0	0
58	DY	1	0	0	0	0
59	AX	10	0	10	0	0
59	CX	10	0	10	2	0
60	BA	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	DA	1	0	0	0	0
61	AA	148	0	0	27	0
61	AD	1	0	0	0	0
61	AE	3	0	0	0	0
61	AJ	1	0	0	0	0
61	AL	1	0	0	0	0
61	AP	1	0	0	0	0
61	AU	1	0	0	0	0
61	AV	1	0	0	0	0
61	AX	1	0	0	0	0
61	B0	4	0	0	0	0
61	B1	2	0	0	0	0
61	B5	3	0	0	1	0
61	B7	1	0	0	1	0
61	B8	8	0	0	1	0
61	BA	1092	0	0	113	0
61	BB	26	0	0	0	0
61	BD	8	0	0	1	0
61	BE	9	0	0	4	0
61	BF	4	0	0	0	0
61	BG	1	0	0	0	0
61	BN	3	0	0	0	0
61	BO	2	0	0	0	0
61	BP	15	0	0	3	0
61	BQ	3	0	0	1	0
61	BR	1	0	0	0	0
61	BT	1	0	0	0	0
61	BU	4	0	0	0	0
61	BV	2	0	0	0	0
61	BW	2	0	0	0	0
61	BX	4	0	0	1	0
61	CA	187	0	0	24	0
61	CE	2	0	0	0	0
61	CN	1	0	0	0	0
61	CT	1	0	0	0	0
61	CX	2	0	0	0	0
61	D0	5	0	0	1	0
61	D1	1	0	0	0	0
61	D7	2	0	0	0	0
61	D8	4	0	0	0	0
61	DA	902	0	0	120	0
61	DB	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	DD	8	0	0	0	0
61	DE	13	0	0	1	0
61	DF	5	0	0	0	0
61	DO	1	0	0	0	0
61	DP	14	0	0	0	0
61	DQ	3	0	0	1	0
61	DU	4	0	0	0	0
61	DV	1	0	0	0	0
61	DX	2	0	0	0	0
61	DY	2	0	0	0	0
All	All	286321	0	191126	6372	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 14.

All (6372) 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:CA:1002:G:H1	1:CA:1038:C:N4	1.42	1.16
1:AA:348:G:H2'	1:AA:349:A:H5'	1.36	1.04
1:AA:1125:U:N3	1:AA:1127:G:N7	2.06	1.03
39:BT:16:ARG:NH2	39:BT:83:ILE:O	1.92	1.02
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.40	1.02
2:CB:16:HIS:HB2	2:CB:204:ASN:HB3	1.41	1.01
1:CA:1162:C:H42	1:CA:1174:G:H1	1.02	1.00
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.01	1.00
1:AA:1129:C:N4	1:AA:1143:G:H1	1.59	0.99
2:AB:16:HIS:HB2	2:AB:204:ASN:HB3	1.43	0.98
25:DA:2206:G:H3'	25:DA:2207:G:C8	1.98	0.98
1:CA:1007:C:N3	1:CA:1022:G:N2	2.12	0.97
30:BG:41:GLN:HG3	30:BG:60:LEU:HD11	1.48	0.96
38:DS:35:ILE:HD11	38:DS:101:LEU:HD12	1.47	0.96
1:CA:998:G:H1	1:CA:1043:C:H42	1.14	0.95
25:BA:9:U:H3	25:BA:2641:A:H2	1.15	0.95
30:BG:66:GLN:HG2	50:B4:1:MET:HE3	1.44	0.95
10:CJ:8:LEU:HB2	10:CJ:70:ARG:HB2	1.49	0.95
1:CA:1163:C:H42	1:CA:1173:G:H1	1.07	0.94
25:DA:1689:A:H62	25:DA:1698:A:H2	1.15	0.93
25:BA:1065:U:HO2'	25:BA:1067:A:H2	1.05	0.93
25:DA:1798:U:H5'	27:DD:259:THR:HG22	1.50	0.92
35:BP:126:VAL:HG12	35:BP:148:LEU:HD22	1.49	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1002:G:N2	1:CA:1038:C:N3	2.16	0.92
1:AA:1129:C:H42	1:AA:1143:G:H1	0.95	0.91
25:DA:1693:U:O2'	27:DD:14:ARG:NH2	2.02	0.91
25:DA:1648:C:OP1	61:DA:4111:HOH:O	1.88	0.91
1:CA:999:C:N4	1:CA:1042:G:N1	2.17	0.91
26:DB:22:U:H3	26:DB:61:G:H1	1.18	0.91
1:CA:1007:C:N4	1:CA:1022:G:N1	2.19	0.91
1:AA:201:C:H42	1:AA:216:G:H1	1.11	0.90
25:DA:1204:A:H2	25:DA:1241:A:H62	1.19	0.90
39:DT:16:ARG:NH2	39:DT:83:ILE:O	2.02	0.90
25:BA:1829:U:H5'	27:BD:259:THR:HG22	1.52	0.90
28:BE:110:GLY:O	61:BE:406:HOH:O	1.89	0.90
50:D4:53:GLU:HG2	50:D4:55:ARG:H	1.34	0.90
1:CA:1153:C:H42	1:CA:1154:G:H21	1.17	0.90
25:DA:526:A:OP1	61:DA:4572:HOH:O	1.89	0.90
25:DA:195:A:N7	61:DA:4175:HOH:O	2.04	0.89
10:AJ:35:SER:HB3	10:AJ:73:ASP:HB2	1.54	0.89
44:BY:54:LYS:HA	44:BY:56:PRO:HD3	1.52	0.89
25:DA:566:U:H5''	35:DP:29:LYS:HE3	1.55	0.88
25:DA:2615:U:OP1	61:DA:3943:HOH:O	1.91	0.88
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.53	0.88
25:DA:740:U:OP2	61:DA:4117:HOH:O	1.92	0.88
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.55	0.88
1:CA:1163:C:N4	1:CA:1173:G:H1	1.72	0.88
1:CA:999:C:N4	1:CA:1042:G:C6	2.42	0.88
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.06	0.88
46:D0:11:ARG:O	46:D0:14:ARG:NH2	2.05	0.87
1:CA:563:A:N6	61:CA:4065:HOH:O	2.06	0.87
9:CI:9:ARG:HG2	9:CI:14:VAL:HG12	1.56	0.87
25:DA:981:A:OP1	61:DA:4033:HOH:O	1.92	0.86
1:CA:1318:A:H5''	19:CS:3:ARG:HH22	1.37	0.86
25:BA:1395:A:OP1	61:BA:4761:HOH:O	1.93	0.86
25:BA:1686:U:OP1	61:BA:4272:HOH:O	1.93	0.86
16:AP:53:VAL:HG13	16:AP:79:VAL:HG13	1.57	0.86
25:BA:537:G:N7	61:BA:4621:HOH:O	2.07	0.86
25:DA:2592:G:OP1	61:DA:4137:HOH:O	1.93	0.86
25:DA:323:G:HO2'	25:DA:1205:U:H3	1.23	0.86
25:DA:1153:C:OP1	40:DU:92:ARG:NH1	2.09	0.86
25:DA:1268:A:OP1	61:DA:3940:HOH:O	1.93	0.86
25:DA:2807:G:N1	25:DA:2893:G:O6	2.09	0.86
46:B0:11:ARG:O	46:B0:14:ARG:NH2	2.08	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.54	0.85
49:B3:8:LEU:HD13	49:B3:31:LEU:HD23	1.58	0.85
12:AL:36:VAL:HG23	24:AW:10:2QY:H89	1.57	0.85
13:AM:2:ALA:N	13:AM:8:GLU:OE1	2.09	0.85
45:DZ:69:THR:HG22	45:DZ:90:VAL:HA	1.57	0.85
1:CA:1493:A:H1'	25:DA:1913:A:H62	1.39	0.85
25:DA:770:G:OP2	61:DA:4148:HOH:O	1.94	0.85
25:BA:656:A:OP1	35:BP:65:ARG:NH1	2.09	0.85
25:BA:303:C:H42	25:BA:385:G:H1	1.24	0.85
4:CD:122:ARG:NH1	4:CD:134:ASP:O	2.09	0.85
25:DA:2879:C:OP2	61:DA:4045:HOH:O	1.95	0.85
1:CA:1502:A:H2	1:CA:1505:G:H1	1.24	0.85
25:BA:2720:G:O6	61:BA:4017:HOH:O	1.93	0.85
25:BA:1500:A:OP2	61:BA:3907:HOH:O	1.95	0.85
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.57	0.84
13:CM:122:LYS:HD3	13:CM:123:ALA:H	1.41	0.84
1:CA:1162:C:N4	1:CA:1174:G:H1	1.74	0.84
1:CA:656:C:O2'	15:CO:28:GLN:NE2	2.09	0.84
25:BA:894:U:O4	25:BA:978:A:N6	2.10	0.84
4:AD:155:LEU:HB3	4:AD:158:ILE:HD11	1.59	0.84
25:BA:1577:C:O2'	25:BA:1578:C:O5'	1.96	0.84
25:DA:1271:G:OP2	61:DA:4112:HOH:O	1.96	0.84
25:DA:1021:A:H62	25:DA:1141:U:H3	1.22	0.84
25:DA:2632:A:HO2'	25:DA:2811:G:HO2'	1.17	0.84
8:CH:51:VAL:HG11	8:CH:60:ARG:HH12	1.40	0.84
25:DA:301:G:OP2	44:DY:84:ARG:NH2	2.11	0.84
1:CA:1122:U:O4	1:CA:1151:A:N1	2.11	0.83
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.11	0.83
25:BA:1736:A:H62	25:BA:1745:A:H2	1.24	0.83
1:AA:1314:C:OP2	19:AS:4:SER:OG	1.94	0.83
25:BA:2587:C:OP2	61:BA:4081:HOH:O	1.96	0.83
30:DG:113:ARG:NH1	30:DG:139:LEU:O	2.12	0.83
4:AD:149:ALA:HB3	4:AD:152:SER:HB2	1.60	0.83
1:CA:999:C:C4	1:CA:1042:G:N1	2.47	0.83
32:BI:129:THR:HG22	32:BI:139:GLN:HE22	1.42	0.83
1:CA:599:C:H2'	1:CA:600:C:H5''	1.61	0.83
15:CO:54:ARG:NH1	15:CO:58:MET:SD	2.51	0.83
1:AA:166:G:H2'	1:AA:167:G:C8	2.14	0.83
30:DG:11:TYR:CZ	30:DG:16:ARG:HD3	2.14	0.83
25:BA:2585:C:OP1	61:BA:4081:HOH:O	1.97	0.82
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DP:96:THR:H	35:DP:99:LEU:HD21	1.44	0.82
36:DQ:81:VAL:HB	46:D0:7:LEU:HD21	1.59	0.82
25:DA:1030:G:OP2	36:DQ:128:LYS:NZ	2.11	0.82
25:DA:2748:A:H5'	31:DH:4:ILE:HD12	1.59	0.82
1:CA:64:G:H4'	1:CA:65:U:H3'	1.61	0.82
1:CA:972:C:OP1	61:CA:4184:HOH:O	1.95	0.82
46:D0:53:MET:HG3	46:D0:59:LEU:HD23	1.61	0.82
1:CA:1492:A:N3	25:DA:1913:A:N6	2.28	0.82
16:CP:1:MET:SD	16:CP:3:LYS:NZ	2.51	0.82
31:DH:98:LEU:HD22	31:DH:125:VAL:HG23	1.62	0.82
2:CB:178:ARG:HH22	8:CH:68:ARG:HH12	1.25	0.82
1:AA:1158:C:H5	1:AA:1181:G:H1	1.26	0.82
1:CA:1125:U:O2'	1:CA:1126:U:H2'	1.79	0.82
32:DI:72:LEU:HD21	32:DI:107:VAL:HG11	1.60	0.82
3:AC:134:ILE:HD11	3:AC:153:VAL:HG23	1.62	0.82
1:CA:1003:G:N2	1:CA:1025:U:O4	2.13	0.82
25:BA:237:G:OP1	61:BA:4880:HOH:O	1.96	0.81
1:CA:406:G:H5'	4:CD:5:ILE:HD11	1.59	0.81
23:CX:50:U:H3	23:CX:64:G:H1	1.28	0.81
27:DD:71:ASP:HB2	27:DD:103:ARG:HH22	1.45	0.81
1:CA:664:G:OP1	18:CR:64:ARG:NH2	2.13	0.81
51:D5:16:ARG:NH1	51:D5:17:ASP:OD1	2.12	0.81
1:AA:189(B):C:N4	1:AA:189(I):G:O6	2.11	0.81
25:DA:2243:U:OP1	61:DA:4350:HOH:O	1.98	0.81
1:CA:376:G:H5''	16:CP:5:ARG:HD3	1.63	0.81
25:BA:1503:G:OP2	61:BA:3908:HOH:O	1.99	0.81
38:BS:59:LYS:HE3	38:BS:60:GLY:H	1.44	0.81
1:CA:1007:C:N4	1:CA:1022:G:H1	1.77	0.81
2:CB:15:VAL:HG21	2:CB:213:LEU:HD12	1.62	0.81
25:DA:20:C:OP1	40:DU:22:LYS:NZ	2.12	0.81
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.61	0.81
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.63	0.81
25:BA:1683:C:OP2	61:BA:4524:HOH:O	1.99	0.81
25:DA:1782:C:OP1	61:DA:4383:HOH:O	1.99	0.81
25:BA:1462:G:N2	25:BA:1629:C:O2	2.11	0.81
26:BB:42:C:OP1	30:BG:67:LYS:NZ	2.13	0.81
2:CB:16:HIS:HB3	2:CB:210:SER:HB3	1.62	0.80
25:BA:1036:A:OP2	61:BA:4503:HOH:O	1.99	0.80
1:AA:1124:G:O2'	1:AA:1145:C:N4	2.14	0.80
23:CX:4:G:H1	23:CX:69:C:H42	1.28	0.80
1:AA:1414:U:H3	1:AA:1486:G:H1	1.28	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:570:G:O6	61:DA:4475:HOH:O	1.99	0.80
1:CA:975:A:H4'	1:CA:976:G:H5''	1.63	0.80
1:CA:953:G:H5'	1:CA:965:A:H61	1.47	0.80
25:DA:2022:U:OP1	61:DA:4084:HOH:O	1.99	0.80
1:CA:768:A:OP2	61:CA:4023:HOH:O	1.98	0.80
1:CA:608:A:OP2	61:CA:4182:HOH:O	1.99	0.80
1:AA:1304:G:OP2	61:AA:4087:HOH:O	1.97	0.80
25:DA:198:C:OP2	61:DA:4175:HOH:O	1.99	0.80
1:CA:1318:A:OP1	19:CS:3:ARG:NH1	2.15	0.80
2:CB:80:ILE:HD11	2:CB:212:GLN:HA	1.62	0.80
1:AA:1183:A:O2'	1:AA:1184:G:OP1	2.00	0.80
1:AA:421:U:O2'	1:AA:423:G:N7	2.14	0.80
25:DA:1352:U:OP1	61:DA:3785:HOH:O	1.98	0.80
25:DA:2052:G:O2'	61:DA:3729:HOH:O	1.99	0.80
25:BA:238:C:O2	54:B8:12:LYS:NZ	2.14	0.80
9:AI:64:THR:HG23	9:AI:66:ARG:HH21	1.47	0.80
1:CA:444:C:H2'	1:CA:445:G:H8	1.48	0.80
1:CA:1030(A):G:N1	1:CA:1030(D):A:OP2	2.13	0.80
25:DA:2037:G:O6	61:DA:4103:HOH:O	2.00	0.80
25:BA:1694:G:OP1	61:BA:4516:HOH:O	1.99	0.80
1:AA:166:G:H2'	1:AA:167:G:H8	1.47	0.79
29:BF:18:ARG:NH2	29:BF:127:GLU:OE1	2.14	0.79
1:AA:1502:A:H2	1:AA:1505:G:H1	1.25	0.79
25:BA:2297:C:OP2	52:B6:6:ARG:NH1	2.16	0.79
2:AB:16:HIS:HB3	2:AB:210:SER:HB2	1.64	0.79
35:BP:50:ARG:HH21	54:B8:7:HIS:HD2	1.28	0.79
28:DE:47:VAL:HG11	28:DE:86:PRO:HD2	1.65	0.79
1:AA:509:A:OP2	61:AA:4088:HOH:O	2.01	0.79
1:CA:673:G:H2'	1:CA:674:G:C8	2.16	0.79
20:CT:57:ARG:HH22	20:CT:100:ILE:HD12	1.46	0.79
29:BF:53:THR:HG23	29:BF:55:GLY:H	1.48	0.79
1:AA:1145:C:H4'	1:AA:1146:A:H5'	1.65	0.79
25:BA:831:A:OP2	61:BA:4454:HOH:O	1.99	0.79
35:BP:36:LYS:O	61:BP:304:HOH:O	1.99	0.79
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.45	0.79
1:AA:656:C:O2'	15:AO:28:GLN:NE2	2.15	0.79
2:AB:16:HIS:CG	2:AB:17:PHE:H	2.01	0.79
25:BA:2804:C:H2'	25:BA:2805:G:H8	1.47	0.79
1:AA:1492:A:N3	25:BA:1935:A:N6	2.31	0.79
25:BA:2299:A:H62	25:BA:2356:U:H3	1.28	0.79
2:CB:15:VAL:HG13	2:CB:209:ARG:HB3	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:165:C:H2'	1:AA:166:G:C8	2.18	0.79
25:BA:241:G:OP1	35:BP:50:ARG:NH1	2.16	0.79
30:BG:161:THR:HG22	30:BG:163:ALA:H	1.48	0.79
1:CA:939:G:H1	1:CA:1344:C:H42	1.27	0.79
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.64	0.79
25:BA:1001:G:O6	61:BA:3865:HOH:O	2.00	0.78
28:BE:105:THR:OG1	28:BE:199:ARG:NH2	2.16	0.78
25:DA:1250:G:OP1	61:DA:4455:HOH:O	2.00	0.78
25:BA:2614:A:OP1	61:BA:4815:HOH:O	2.01	0.78
1:AA:97:G:O2'	1:AA:98:G:O4'	2.00	0.78
25:DA:1159:U:H2'	25:DA:1160:G:H8	1.48	0.78
1:CA:1005:A:H1'	1:CA:1036:G:H1	1.49	0.78
1:CA:289:G:OP2	61:CA:4053:HOH:O	2.01	0.78
39:BT:95:ARG:HH11	39:BT:95:ARG:HG2	1.47	0.78
25:BA:988:U:OP2	61:BA:4601:HOH:O	2.01	0.78
25:DA:2005:A:OP1	61:DA:4386:HOH:O	2.01	0.78
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.28	0.78
25:BA:455:A:OP1	61:BA:3961:HOH:O	2.00	0.78
1:CA:1142:G:H3'	1:CA:1143:G:H8	1.47	0.78
1:AA:1124:G:HO2'	1:AA:1145:C:N4	1.82	0.78
25:DA:1997:G:OP2	61:DA:4560:HOH:O	2.01	0.78
25:BA:611:U:OP2	61:BA:4160:HOH:O	2.01	0.78
25:BA:1018:A:OP2	61:BA:4046:HOH:O	2.01	0.78
25:BA:535:C:OP1	61:BA:4621:HOH:O	2.00	0.77
29:DF:53:THR:HG23	29:DF:55:GLY:H	1.50	0.77
25:DA:271(A):A:N7	25:DA:271(W):G:N2	2.32	0.77
25:BA:1404:G:OP2	61:BA:4219:HOH:O	2.02	0.77
4:CD:13:ARG:HB2	4:CD:40:PRO:HD3	1.66	0.77
1:AA:289:G:OP2	61:AA:4071:HOH:O	2.02	0.77
39:BT:65:LYS:HE2	39:BT:67:SER:HB2	1.66	0.77
12:AL:49:ASN:ND2	12:AL:92:ASP:OD2	2.16	0.77
28:BE:93:VAL:HG21	28:BE:180:ASN:HA	1.67	0.77
13:CM:3:ARG:HA	50:D4:34:GLU:HG2	1.66	0.77
25:DA:1604:C:OP1	61:DA:3956:HOH:O	2.03	0.77
30:DG:5:VAL:HG22	30:DG:8:LYS:H	1.50	0.77
25:DA:1800:C:OP2	27:DD:183:ARG:NH2	2.18	0.77
34:BO:35:VAL:HG11	34:BO:103:ALA:HB3	1.66	0.77
25:BA:808:A:OP1	61:BA:4592:HOH:O	2.01	0.77
25:DA:2032:G:N7	61:DA:3886:HOH:O	2.16	0.77
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.67	0.77
32:DI:110:ASP:N	32:DI:130:TYR:OH	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1133:G:H1	1:CA:1141:C:H42	1.33	0.77
25:BA:1717:C:OP1	61:BA:3893:HOH:O	2.02	0.77
25:BA:2227:G:H3'	25:BA:2228:G:C8	2.19	0.77
1:CA:1048:G:OP1	14:CN:3:ARG:NH2	2.18	0.77
1:AA:1128:C:O2	1:AA:1147:C:N4	2.17	0.77
1:AA:1075:C:OP1	2:AB:179:LYS:NZ	2.18	0.77
25:DA:2296:U:OP2	38:DS:9:ARG:NH2	2.18	0.77
25:BA:11:G:H2'	25:BA:12:U:H5'	1.65	0.77
1:AA:1126:U:H5	10:AJ:71:LEU:HD22	1.49	0.76
1:CA:677:U:H3	1:CA:713:G:H22	1.33	0.76
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.67	0.76
25:BA:1016:C:OP2	61:BA:4637:HOH:O	2.04	0.76
25:DA:1488:G:C6	25:DA:1489:U:H5	2.03	0.76
1:AA:1492:A:O2'	25:BA:1935:A:N1	2.18	0.76
1:AA:642:A:N3	8:AH:113:SER:OG	2.17	0.76
1:CA:352:C:OP2	61:CA:4051:HOH:O	2.02	0.76
4:AD:13:ARG:NH1	4:AD:38:TYR:O	2.18	0.76
25:DA:120:U:OP2	61:DA:3744:HOH:O	2.03	0.76
4:CD:100:ARG:NH1	4:CD:137:SER:OG	2.19	0.76
4:AD:108:LEU:HD13	4:AD:174:LEU:HD13	1.65	0.76
26:DB:44:G:OP1	30:DG:98:ARG:NH2	2.19	0.76
25:DA:2805:G:H2'	25:DA:2807:G:H8	1.51	0.76
1:AA:167:G:H2'	1:AA:168:G:H8	1.49	0.76
25:BA:2604:G:O2'	61:BA:4655:HOH:O	1.99	0.76
1:CA:1132:C:H2'	1:CA:1133:G:H8	1.49	0.76
25:DA:1253:A:N7	61:DA:3854:HOH:O	2.18	0.76
19:CS:30:LEU:HD11	19:CS:32:LYS:HG3	1.67	0.76
25:BA:667:G:H21	25:BA:671:A:H2	1.34	0.76
1:CA:610:G:O6	61:CA:4180:HOH:O	2.04	0.76
25:DA:801:G:OP2	61:DA:3762:HOH:O	2.02	0.76
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.18	0.76
25:DA:1022:G:H22	25:DA:1142(A):A:H2	1.32	0.76
25:BA:934:A:H4'	25:BA:935:C:H5	1.51	0.76
1:AA:803:G:OP1	61:AA:4050:HOH:O	2.03	0.76
25:BA:1431:G:O2'	25:BA:1442:U:O2	2.03	0.76
27:BD:17:THR:O	27:BD:211:ARG:NH2	2.19	0.76
43:BX:31:HIS:HD2	43:BX:33:LYS:H	1.29	0.76
43:DX:11:PRO:HB3	43:DX:92:LEU:HD11	1.66	0.76
26:BB:31:C:O2	26:BB:53:A:N6	2.19	0.76
1:AA:975:A:H4'	1:AA:976:G:H5''	1.67	0.76
7:AG:50:ILE:HD11	7:AG:58:PRO:HA	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1494:G:HO2'	25:BA:1934:A:HO2'	1.32	0.75
25:BA:2331:G:H22	38:BS:3:ARG:HE	1.34	0.75
4:CD:25:ARG:NH1	4:CD:30:LYS:O	2.20	0.75
1:CA:323:U:OP1	20:CT:26:ASN:ND2	2.18	0.75
1:CA:999:C:N3	1:CA:1042:G:N2	2.34	0.75
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HD23	1.68	0.75
25:DA:2371:G:O6	61:DA:3975:HOH:O	2.03	0.75
20:AT:9:ASN:HB3	20:AT:10:LEU:HD12	1.69	0.75
2:AB:87:ARG:HH21	2:AB:219:VAL:HG12	1.51	0.75
1:AA:348:G:H2'	1:AA:349:A:C5'	2.16	0.75
29:BF:13:SER:HA	29:BF:127:GLU:HG3	1.66	0.75
25:BA:2331:G:H22	38:BS:3:ARG:NE	1.85	0.75
13:AM:58:GLU:O	13:AM:62:ASN:ND2	2.19	0.75
15:CO:14:GLU:OE2	15:CO:84:LYS:NZ	2.20	0.75
25:DA:1762:A:N1	61:DA:4178:HOH:O	2.18	0.75
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.21	0.75
25:BA:2732:G:OP2	61:BA:4645:HOH:O	2.03	0.75
1:AA:954:G:H21	1:AA:1227:A:H62	1.30	0.75
1:AA:165:C:H2'	1:AA:166:G:H8	1.52	0.75
1:AA:474:G:H2'	1:AA:475:G:H8	1.51	0.75
44:BY:92:ASN:HB3	44:BY:94:LYS:H	1.52	0.75
25:DA:1376:C:OP2	61:DA:3757:HOH:O	2.05	0.75
25:DA:2683:C:OP1	39:DT:53:ARG:NH2	2.20	0.75
25:BA:880:U:O2	35:BP:55:ARG:NH2	2.20	0.75
25:BA:2510:C:OP2	61:BA:4510:HOH:O	2.05	0.75
1:AA:180:U:O2	1:AA:196:A:N6	2.19	0.75
3:CC:58:GLU:HB3	10:CJ:92:THR:HG21	1.67	0.74
25:BA:945:A:O2'	25:BA:946:A:O5'	2.05	0.74
1:AA:406:G:H5'	4:AD:5:ILE:HD11	1.67	0.74
25:BA:1065:U:H3	25:BA:1188:A:H62	1.36	0.74
25:DA:2049:G:OP2	61:DA:3941:HOH:O	2.05	0.74
32:BI:77:LEU:HB3	32:BI:142:VAL:HG12	1.68	0.74
25:DA:631:A:OP1	35:DP:65:ARG:NH1	2.19	0.74
25:DA:452:G:OP2	61:DA:4105:HOH:O	2.04	0.74
25:BA:2059:G:N7	61:BA:4504:HOH:O	2.20	0.74
25:BA:139:A:H8	25:BA:1454:C:HO2'	1.35	0.74
25:DA:1315:C:OP2	61:DA:4076:HOH:O	2.05	0.74
1:CA:522:C:H41	12:CL:53:ARG:HH22	1.32	0.74
7:AG:62:PHE:HA	7:AG:124:LEU:HD22	1.70	0.74
28:BE:47:VAL:HG21	28:BE:86:PRO:HD2	1.69	0.74
25:BA:1356:G:OP2	53:B7:9:ARG:NH1	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2695:C:O2	34:BO:70:LYS:NZ	2.20	0.74
39:DT:26:ASP:OD1	39:DT:120:ARG:NH2	2.21	0.74
1:CA:1223:C:H5'	1:CA:1224:G:H5'	1.68	0.74
25:BA:2365:G:N7	61:BA:4327:HOH:O	2.19	0.74
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.68	0.74
26:DB:105:A:OP1	45:DZ:72:ARG:NH1	2.20	0.74
25:BA:591:U:O4	61:BA:4046:HOH:O	2.05	0.74
3:CC:32:LEU:HD12	3:CC:59:ARG:HH12	1.53	0.74
1:AA:574:A:OP2	61:AA:4004:HOH:O	2.04	0.74
25:DA:2287:A:H62	25:DA:2344:U:H3	1.31	0.74
7:CG:111:ARG:NH1	7:CG:113:GLU:OE2	2.21	0.74
25:BA:130:G:O6	61:BA:4550:HOH:O	2.04	0.74
1:CA:1153:C:H42	1:CA:1154:G:N2	1.86	0.74
8:AH:49:GLU:HG2	8:AH:62:TYR:HE2	1.53	0.74
25:DA:848:G:H2'	25:DA:849:A:C8	2.22	0.74
25:DA:832:G:OP1	61:DA:4165:HOH:O	2.06	0.74
1:CA:998:G:H1	1:CA:1043:C:N4	1.83	0.73
1:AA:1054:C:OP1	61:AA:4053:HOH:O	2.04	0.73
4:CD:187:ARG:NH2	4:CD:193:ASP:OD2	2.21	0.73
1:CA:804:U:OP1	61:CA:4020:HOH:O	2.06	0.73
1:AA:1162:C:H42	1:AA:1174:G:H1	1.35	0.73
25:BA:874:U:OP1	61:BA:4633:HOH:O	2.05	0.73
1:CA:504:C:OP1	61:CA:4009:HOH:O	2.05	0.73
25:BA:1809:U:O2	61:BA:4722:HOH:O	2.05	0.73
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.24	0.73
25:DA:2248:C:OP2	61:DA:3945:HOH:O	2.06	0.73
2:CB:163:PHE:HD1	2:CB:185:ILE:HG13	1.53	0.73
25:DA:919:G:N2	25:DA:2269:A:OP2	2.21	0.73
8:CH:51:VAL:HG12	8:CH:52:ASP:H	1.53	0.73
1:AA:184:G:H2'	1:AA:185:A:H8	1.54	0.73
25:DA:963:U:OP2	61:DA:4173:HOH:O	2.04	0.73
1:CA:316:G:OP2	1:CA:351:G:O2'	2.06	0.73
25:BA:2227:G:H5'	25:BA:2228:G:N7	2.03	0.73
43:BX:31:HIS:CD2	43:BX:33:LYS:H	2.07	0.73
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.89	0.73
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.02	0.73
37:BR:67:LEU:HD13	37:BR:76:VAL:HG21	1.71	0.73
1:AA:812:C:N3	61:AA:4028:HOH:O	2.22	0.73
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.71	0.73
3:AC:35:GLU:OE2	3:AC:59:ARG:NH2	2.21	0.73
1:CA:959:A:HO2'	1:CA:984:C:HO2'	1.37	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1513:G:HO2'	25:BA:1593:C:HO2'	1.34	0.73
25:BA:985:G:OP1	61:BA:4728:HOH:O	2.07	0.73
1:CA:664:G:P	18:CR:64:ARG:HH22	2.10	0.73
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.87	0.73
50:D4:38:LYS:O	50:D4:40:HIS:N	2.21	0.73
25:DA:1817:G:OP1	27:DD:88:ARG:NH2	2.21	0.73
1:AA:262:A:H2'	1:AA:263:A:C8	2.24	0.73
13:CM:27:LYS:HA	13:CM:27:LYS:HE2	1.69	0.73
25:DA:900:A:H2'	25:DA:901:A:C8	2.24	0.73
1:AA:742:G:OP2	15:AO:35:ARG:NH2	2.20	0.73
27:BD:69:ARG:NH2	27:BD:128:GLY:O	2.20	0.73
1:CA:989:C:N4	1:CA:1216:G:O6	2.17	0.73
25:DA:2445:G:OP1	29:DF:74:ARG:NH2	2.22	0.73
25:BA:1398:U:OP2	61:BA:3932:HOH:O	2.05	0.73
1:AA:558:G:OP1	61:AA:4042:HOH:O	2.07	0.73
1:AA:266:G:H5''	1:AA:268:C:H41	1.53	0.73
13:AM:34:LEU:HD13	13:AM:41:PRO:HA	1.70	0.73
30:DG:80:PHE:O	30:DG:82:LEU:N	2.20	0.73
40:DU:83:LEU:HD12	40:DU:88:ILE:HD12	1.70	0.72
30:BG:48:GLU:HA	30:BG:51:ARG:HE	1.53	0.72
25:DA:2749:A:H1'	31:DH:63:SER:HB3	1.71	0.72
1:CA:1251:A:HO2'	1:CA:1369:C:HO2'	1.32	0.72
1:AA:601:C:H2'	1:AA:602:A:C8	2.24	0.72
2:CB:52:GLU:HG2	2:CB:56:ARG:HH22	1.54	0.72
46:D0:27:GLU:HG3	46:D0:68:GLU:HA	1.71	0.72
25:BA:2745:G:OP1	28:BE:203:LYS:NZ	2.17	0.72
11:AK:15:ALA:HB1	11:AK:78:GLN:HB2	1.69	0.72
1:AA:1028:C:H42	1:AA:1033:G:H1	1.36	0.72
1:CA:1003:G:H1	1:CA:1035:A:H61	1.37	0.72
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HD23	1.71	0.72
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.35	0.72
25:DA:963:U:OP1	61:DA:3740:HOH:O	2.08	0.72
1:AA:864:A:OP1	61:AA:4127:HOH:O	2.08	0.72
15:AO:56:LEU:O	15:AO:60:VAL:HG23	1.88	0.72
25:BA:2019:G:OP2	61:BA:4565:HOH:O	2.07	0.72
25:DA:574:C:OP1	61:DA:3788:HOH:O	2.08	0.72
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.72	0.72
1:AA:972:C:OP1	61:AA:4123:HOH:O	2.08	0.72
1:AA:881:G:P	12:AL:12:ARG:HH22	2.12	0.72
38:BS:15:ARG:O	38:BS:19:LYS:HG2	1.89	0.72
25:DA:1876:A:H2'	25:DA:1877:A:C8	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1695:C:OP1	61:BA:4516:HOH:O	2.07	0.72
34:DO:115:VAL:HG13	34:DO:121:VAL:HG21	1.72	0.72
4:CD:18:LYS:NZ	4:CD:31:CYS:SG	2.63	0.72
25:DA:1670:C:OP1	61:DA:3750:HOH:O	2.07	0.72
25:DA:400:G:O6	61:DA:4274:HOH:O	2.06	0.72
1:AA:346:G:O6	1:AA:348:G:N2	2.23	0.72
27:DD:71:ASP:CB	27:DD:103:ARG:HH22	2.03	0.72
1:CA:1135:U:O2'	1:CA:1137:C:O2	2.05	0.72
13:CM:16:ASP:HB3	13:CM:34:LEU:HD11	1.72	0.72
50:B4:57:GLU:HB3	50:B4:58:ARG:HA	1.71	0.72
7:CG:68:ASN:ND2	7:CG:127:ALA:O	2.19	0.72
1:CA:559:A:OP1	5:CE:126:ARG:NH2	2.22	0.72
30:DG:136:ARG:HH11	30:DG:137:GLU:H	1.37	0.72
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.72	0.72
32:BI:48:GLU:HG2	32:BI:52:ARG:HH22	1.55	0.71
25:DA:731:C:OP1	61:DA:4224:HOH:O	2.08	0.71
51:B5:17:ASP:OD2	61:B5:602:HOH:O	2.07	0.71
35:BP:100:LEU:HD12	35:BP:112:LEU:HD11	1.70	0.71
30:BG:16:ARG:NE	30:BG:31:VAL:HG11	2.05	0.71
5:AE:100:VAL:O	5:AE:107:ARG:NH2	2.22	0.71
1:CA:693:G:H2'	1:CA:694:A:C8	2.25	0.71
1:AA:1027:C:O2'	1:AA:1034:G:N2	2.23	0.71
35:BP:50:ARG:HH21	54:B8:7:HIS:CD2	2.09	0.71
25:DA:89:G:H3'	25:DA:90:U:H5''	1.71	0.71
26:BB:48:A:H4'	38:BS:95:HIS:HD2	1.53	0.71
25:BA:1679:A:OP2	61:BA:4622:HOH:O	2.07	0.71
1:CA:1376:U:OP1	7:CG:98:SER:OG	2.08	0.71
25:BA:2804:C:H2'	25:BA:2805:G:C8	2.24	0.71
25:DA:600:G:N3	61:DA:3733:HOH:O	2.23	0.71
1:CA:1457:G:OP1	20:CT:39:LYS:NZ	2.22	0.71
25:BA:1379:C:OP2	61:BA:4121:HOH:O	2.07	0.71
25:DA:11:G:H2'	25:DA:12:U:H5'	1.71	0.71
10:AJ:7:LYS:HE2	10:AJ:9:ARG:HH12	1.55	0.71
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.24	0.71
2:CB:96:ARG:HD2	2:CB:98:LEU:HD22	1.72	0.71
25:DA:1140:C:O3'	33:DN:25:ARG:NH1	2.23	0.71
1:AA:1036:G:H5'	1:AA:1037:C:H5	1.55	0.71
25:DA:2267:A:H5''	25:DA:2268:A:H5'	1.71	0.71
25:DA:819:A:OP2	25:DA:1187:G:N2	2.19	0.71
46:B0:40:GLN:HE21	46:B0:57:PHE:HB3	1.55	0.71
1:CA:21:G:OP1	61:CA:4062:HOH:O	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2228:G:O2'	25:BA:2229:A:OP1	2.07	0.71
1:CA:148:G:H2'	1:CA:149:A:H8	1.54	0.71
49:D3:8:LEU:HD13	49:D3:31:LEU:HD23	1.73	0.71
25:DA:1665:A:OP2	61:DA:4385:HOH:O	2.08	0.71
25:BA:1094:A:OP2	25:BA:1155:C:N4	2.23	0.71
49:B3:3:ARG:NH1	49:B3:60:GLU:OE2	2.19	0.71
36:DQ:34:LEU:HD11	36:DQ:129:THR:HB	1.73	0.71
1:CA:1189:C:O2	61:CA:4087:HOH:O	2.08	0.71
1:AA:1223:C:H5''	1:AA:1224:G:H5'	1.72	0.71
4:AD:15:GLU:HG3	4:AD:63:LYS:HE2	1.72	0.71
25:BA:597:C:OP1	61:BA:3998:HOH:O	2.09	0.71
31:DH:159:GLU:HG3	31:DH:169:VAL:HG11	1.72	0.71
4:CD:13:ARG:NH1	4:CD:38:TYR:O	2.23	0.70
46:D0:14:ARG:NH1	61:D0:202:HOH:O	2.23	0.70
3:CC:73:PRO:HB3	3:CC:103:VAL:HG11	1.70	0.70
1:CA:954:G:H21	1:CA:1227:A:H62	1.39	0.70
25:DA:1593:G:H2'	25:DA:1594:G:C8	2.26	0.70
25:DA:1488:G:C6	25:DA:1489:U:C5	2.78	0.70
25:DA:2819:G:N7	61:DA:4006:HOH:O	2.24	0.70
30:BG:102:PHE:HE1	30:BG:141:PHE:HE2	1.37	0.70
1:AA:411:A:OP1	4:AD:30:LYS:NZ	2.19	0.70
25:DA:287:C:H2'	25:DA:288:C:H6	1.56	0.70
25:BA:1039:G:OP1	40:BU:50:ARG:NH2	2.25	0.70
1:AA:17:U:H2'	1:AA:18:C:C6	2.26	0.70
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.72	0.70
1:AA:167:G:H2'	1:AA:168:G:C8	2.26	0.70
1:CA:1142:G:H3'	1:CA:1143:G:C8	2.26	0.70
9:AI:53:VAL:O	9:AI:55:ALA:N	2.21	0.70
25:BA:1189:A:OP1	33:BN:25:ARG:NH2	2.24	0.70
25:BA:932:C:H3'	25:BA:933:C:H5''	1.73	0.70
25:BA:322:G:N7	61:BA:3883:HOH:O	2.23	0.70
25:DA:1310:G:OP2	53:D7:9:ARG:NH1	2.21	0.70
2:AB:16:HIS:CD2	2:AB:17:PHE:H	2.09	0.70
25:DA:2805:G:H2'	25:DA:2807:G:C8	2.25	0.70
8:AH:51:VAL:HG12	8:AH:52:ASP:H	1.56	0.70
25:BA:2862:G:OP1	61:BA:4875:HOH:O	2.10	0.70
10:AJ:78:ASN:O	10:AJ:80:LYS:N	2.25	0.70
1:CA:572:A:OP1	61:CA:4046:HOH:O	2.10	0.70
35:BP:33:ARG:O	61:BP:301:HOH:O	2.07	0.70
10:CJ:17:ASP:OD1	10:CJ:70:ARG:NH1	2.24	0.70
1:AA:221:C:H2'	1:AA:222:U:H6	1.54	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2849:U:OP2	39:DT:95:ARG:NH1	2.24	0.70
25:DA:1235:G:OP1	61:DA:4361:HOH:O	2.08	0.70
27:DD:148:GLU:HB2	27:DD:151:LYS:HD2	1.73	0.70
25:BA:1055:A:OP2	33:BN:37:LYS:NZ	2.19	0.70
25:DA:827:U:OP1	61:DA:4180:HOH:O	2.08	0.70
1:AA:1129:C:N3	1:AA:1143:G:N2	2.37	0.70
4:AD:173:TRP:CZ3	4:AD:174:LEU:HG	2.27	0.70
1:CA:811:C:N4	61:CA:4026:HOH:O	2.25	0.70
25:BA:147:U:O4	61:BA:4550:HOH:O	2.06	0.70
25:BA:2101:U:O4	61:BA:4300:HOH:O	2.09	0.70
42:DW:14:PRO:HG2	42:DW:78:GLU:HG2	1.73	0.70
50:D4:68:ARG:HG3	50:D4:68:ARG:HH21	1.54	0.70
45:DZ:93:ASP:O	45:DZ:131:ARG:NH1	2.23	0.70
36:DQ:85:LYS:HG2	46:D0:7:LEU:HB3	1.74	0.70
25:DA:2705:A:OP2	61:DA:4123:HOH:O	2.08	0.70
25:DA:2206:G:H3'	25:DA:2207:G:H8	1.56	0.70
2:CB:178:ARG:NH2	8:CH:68:ARG:HH12	1.90	0.70
36:DQ:48:GLU:OE1	36:DQ:51:ARG:NH2	2.24	0.70
36:BQ:10:ARG:NH1	61:BQ:302:HOH:O	2.25	0.70
1:AA:148:G:HO2'	1:AA:149:A:H8	1.40	0.70
24:CW:9:MVA:O	24:CW:10:2QY:H86	1.91	0.70
25:BA:70:A:N7	43:BX:31:HIS:HE1	1.90	0.69
1:CA:1269:A:N1	1:CA:1312:G:O2'	2.24	0.69
25:BA:284:G:O6	61:BA:4714:HOH:O	2.09	0.69
2:CB:18:GLY:HA2	2:CB:42:ILE:HG13	1.73	0.69
12:CL:24:VAL:HG11	12:CL:27:LEU:HD22	1.74	0.69
25:BA:1249:A:H2	25:BA:1287:A:H62	1.40	0.69
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.73	0.69
25:BA:9:U:N3	25:BA:2641:A:H2	1.89	0.69
20:CT:49:ALA:HB3	20:CT:99:LEU:HD22	1.74	0.69
4:CD:119:GLN:HG2	4:CD:123:HIS:CD2	2.27	0.69
1:AA:1292:U:OP2	7:AG:41:ARG:NH2	2.24	0.69
1:CA:1002:G:H2'	1:CA:1003:G:C8	2.27	0.69
25:BA:388:A:H2'	25:BA:389:G:C8	2.27	0.69
25:BA:2339:A:H2'	25:BA:2340:A:C8	2.27	0.69
25:DA:1671:U:HO2'	25:DA:1673:U:H5	1.40	0.69
25:DA:993:G:OP1	40:DU:50:ARG:NH2	2.25	0.69
25:DA:1803:A:O2'	27:DD:259:THR:HG21	1.92	0.69
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.74	0.69
52:D6:13:CYS:SG	52:D6:47:THR:HG21	2.33	0.69
2:CB:178:ARG:HH22	8:CH:68:ARG:NH1	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:56:SER:OG	31:BH:57:ASP:N	2.26	0.69
25:DA:1017:G:N7	61:DA:4208:HOH:O	2.25	0.69
13:AM:122:LYS:HD3	13:AM:123:ALA:H	1.58	0.69
25:DA:1637:A:OP2	61:DA:4412:HOH:O	2.10	0.69
25:BA:2457:G:OP1	29:BF:74:ARG:NH2	2.26	0.69
25:BA:1831:C:OP1	27:BD:264:LYS:NZ	2.24	0.69
25:BA:1480:A:H61	25:BA:1605:A:H62	1.40	0.69
1:CA:503:C:OP2	12:CL:116:SER:HB3	1.93	0.69
1:CA:427:U:OP1	4:CD:13:ARG:NH2	2.26	0.69
1:AA:1025:U:O2	1:AA:1036:G:O6	2.11	0.69
25:DA:1509(B):A:H2'	25:DA:1510:G:C8	2.28	0.69
1:CA:652:U:O4	1:CA:752:G:O2'	2.10	0.69
25:BA:956:A:H62	36:BQ:12:GLN:HA	1.58	0.69
25:DA:2682:U:OP2	61:DA:3802:HOH:O	2.09	0.69
12:AL:24:VAL:HG11	12:AL:27:LEU:HD22	1.74	0.69
19:AS:3:ARG:NH1	19:AS:8:GLY:O	2.25	0.69
25:DA:1430:C:H2'	25:DA:1431:U:H6	1.57	0.69
4:CD:15:GLU:HG2	4:CD:63:LYS:HB3	1.75	0.69
25:DA:1143:A:OP1	33:DN:25:ARG:NH2	2.26	0.69
25:BA:2101:U:O3'	47:B1:35:THR:OG1	2.11	0.69
29:DF:185:ASP:HA	29:DF:188:ARG:HD3	1.75	0.69
44:BY:102:CYS:SG	44:BY:103:GLY:N	2.66	0.69
1:CA:532:A:O2'	1:CA:533:A:OP1	2.11	0.69
25:BA:1648:U:O4	61:BA:4117:HOH:O	2.08	0.69
25:DA:649:G:H4'	54:D8:46:ARG:HH22	1.57	0.69
19:AS:9:VAL:HG21	50:B4:61:ARG:HH22	1.57	0.69
25:BA:1613:A:OP1	27:BD:211:ARG:NH1	2.26	0.69
25:BA:551:A:OP1	61:BA:4499:HOH:O	2.11	0.69
28:DE:72:VAL:HG22	28:DE:73:GLU:HG2	1.75	0.69
18:CR:54:ARG:HH11	18:CR:54:ARG:HB2	1.58	0.69
1:AA:596:C:OP2	61:AA:4043:HOH:O	2.11	0.69
1:CA:837:G:H1	1:CA:849:C:H42	1.41	0.69
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.73	0.69
25:BA:2619:G:O3'	61:BA:4188:HOH:O	2.11	0.69
20:CT:60:GLU:HG3	20:CT:81:LYS:HD2	1.75	0.69
1:AA:1003:G:N2	1:AA:1038:C:N3	2.41	0.68
28:DE:72:VAL:HG13	28:DE:73:GLU:O	1.93	0.68
1:CA:891:U:OP2	61:CA:4083:HOH:O	2.11	0.68
9:CI:24:GLY:HA2	9:CI:59:PHE:O	1.93	0.68
29:DF:195:ASP:OD1	29:DF:196:LEU:N	2.26	0.68
27:BD:71:ASP:HB3	27:BD:103:ARG:HH22	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2016:U:H2'	25:DA:2017:U:C6	2.29	0.68
5:CE:12:LEU:HB3	5:CE:31:LEU:HB2	1.74	0.68
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.93	0.68
25:DA:1963:U:O2'	61:DA:4441:HOH:O	2.11	0.68
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.73	0.68
25:DA:1593:G:H2'	25:DA:1594:G:H8	1.56	0.68
1:AA:839:U:O2'	1:AA:840:C:OP1	2.11	0.68
25:BA:272:U:H4'	32:BI:50:ARG:HH12	1.58	0.68
32:BI:92:VAL:HG13	32:BI:120:ILE:HB	1.75	0.68
25:BA:1315:A:N7	61:BA:4265:HOH:O	2.25	0.68
1:AA:21:G:OP1	61:AA:4080:HOH:O	2.10	0.68
1:AA:35:G:O2'	12:AL:118:SER:O	2.12	0.68
1:AA:1125:U:O2'	1:AA:1126:U:OP2	2.10	0.68
10:AJ:5:ARG:NE	10:AJ:73:ASP:OD1	2.25	0.68
1:AA:1025:U:O2'	1:AA:1026:G:O4'	2.12	0.68
25:BA:2460:A:OP2	61:BA:4510:HOH:O	2.11	0.68
25:DA:2552:U:H2'	25:DA:2554:U:OP2	1.93	0.68
42:BW:14:PRO:HG2	42:BW:78:GLU:HG2	1.76	0.68
61:DA:4599:HOH:O	46:D0:4:LYS:NZ	2.24	0.68
1:CA:1003:G:H1	1:CA:1035:A:N6	1.91	0.68
25:BA:1576:G:C6	25:BA:1577:C:N4	2.61	0.68
25:BA:1815:A:OP2	61:BA:4519:HOH:O	2.10	0.68
6:AF:18:GLN:HA	6:AF:21:LEU:HD12	1.76	0.68
44:DY:102:CYS:SG	44:DY:103:GLY:N	2.67	0.68
2:CB:144:ARG:NH1	2:CB:148:TYR:OH	2.26	0.68
50:D4:44:THR:O	50:D4:46:GLN:N	2.27	0.68
39:BT:24:PRO:HA	39:BT:49:VAL:HG22	1.74	0.68
25:BA:1463:C:O2'	25:BA:1633:A:N3	2.27	0.68
19:CS:42:PRO:HG3	50:D4:61:ARG:HG2	1.75	0.68
27:DD:132:PRO:HD3	27:DD:190:TYR:CZ	2.28	0.68
47:D1:50:ARG:HG2	47:D1:59:THR:HB	1.76	0.68
2:AB:17:PHE:HB2	2:AB:44:LEU:HD21	1.74	0.68
13:CM:3:ARG:HE	13:CM:4:ILE:HG22	1.58	0.68
25:BA:927:G:N2	25:BA:944:C:N3	2.41	0.68
50:D4:24:THR:OG1	50:D4:25:TYR:N	2.27	0.68
1:CA:1193:G:O2'	5:CE:25:ARG:NH2	2.27	0.68
25:DA:639:U:H2'	25:DA:640:C:C6	2.29	0.68
12:CL:57:LYS:HG2	12:CL:67:THR:HG22	1.73	0.68
27:DD:132:PRO:HG2	27:DD:135:PHE:HD2	1.57	0.68
1:AA:836:G:OP2	18:AR:61:LYS:NZ	2.27	0.68
3:CC:152:ILE:HG23	3:CC:199:LYS:HB2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:149:ARG:NH1	31:BH:167:GLU:OE2	2.27	0.68
25:DA:1200:C:H5'	61:DA:3770:HOH:O	1.94	0.68
1:CA:735:C:H2'	1:CA:736:C:H6	1.58	0.68
1:CA:419:C:OP1	1:CA:513:C:O2'	2.10	0.68
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.74	0.68
1:AA:661:G:H1	1:AA:744:C:H42	1.39	0.68
1:CA:646:U:H2'	1:CA:647:C:C6	2.29	0.68
25:DA:2393:A:H5''	35:DP:63:PRO:HB3	1.76	0.68
25:DA:2394:C:OP2	54:D8:30:ARG:NH1	2.27	0.68
25:BA:1047:A:OP2	61:BA:3917:HOH:O	2.11	0.68
29:BF:8:GLN:NE2	29:BF:21:ALA:HB2	2.09	0.68
2:CB:210:SER:O	2:CB:214:ILE:HG12	1.94	0.68
1:AA:664:G:H22	1:AA:741:G:H1	1.39	0.68
1:CA:460:G:O6	1:CA:470:C:H5''	1.93	0.68
3:AC:3:ASN:OD1	3:AC:3:ASN:N	2.26	0.68
1:AA:1086:U:H3	1:AA:1099:G:H22	1.42	0.68
25:BA:2734:A:N7	61:BA:4015:HOH:O	2.27	0.68
1:AA:278:G:OP2	17:AQ:92:ARG:NH2	2.27	0.68
25:DA:2287:A:N6	25:DA:2344:U:H3	1.92	0.68
1:CA:474:G:H2'	1:CA:475:G:H8	1.58	0.68
25:BA:2212:G:H2'	25:BA:2213:G:O4'	1.93	0.68
25:DA:2427:C:OP1	61:DA:4257:HOH:O	2.11	0.68
40:BU:76:TYR:OH	40:BU:92:ARG:NH1	2.26	0.68
1:AA:342:C:N3	1:AA:343:U:H5	1.92	0.67
61:BE:406:HOH:O	37:BR:3:HIS:NE2	2.27	0.67
5:CE:9:LYS:HB2	5:CE:112:LEU:HD11	1.76	0.67
25:DA:652(D):C:H42	25:DA:652(U):G:H1	1.42	0.67
25:BA:335:A:OP2	61:BA:4497:HOH:O	2.11	0.67
25:DA:1607:C:N4	25:DA:1622:G:OP2	2.27	0.67
1:AA:59:A:H3'	1:AA:331:G:H22	1.59	0.67
25:BA:1361:C:OP2	61:BA:4471:HOH:O	2.12	0.67
46:D0:24:LYS:HA	46:D0:24:LYS:HE2	1.76	0.67
47:D1:65:SER:HG	47:D1:66:HIS:HD1	1.39	0.67
1:CA:1042:G:O2'	1:CA:1043:C:O4'	2.12	0.67
1:CA:382:A:H2'	1:CA:383:A:C8	2.28	0.67
1:AA:946:A:H2'	1:AA:947:G:C8	2.28	0.67
25:DA:2006:C:OP2	61:DA:4388:HOH:O	2.12	0.67
25:DA:962:G:OP1	61:DA:4173:HOH:O	2.12	0.67
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.76	0.67
47:D1:77:ALA:HA	47:D1:80:LEU:HD13	1.77	0.67
34:DO:68:GLU:HB3	34:DO:78:ARG:HB2	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:565:U:OP2	61:CA:4054:HOH:O	2.13	0.67
25:BA:2081:A:OP2	61:BA:4212:HOH:O	2.12	0.67
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.77	0.67
25:BA:2361:G:OP1	61:BA:3947:HOH:O	2.12	0.67
25:DA:588:U:OP2	61:DA:3873:HOH:O	2.11	0.67
25:DA:994:C:OP2	40:DU:54:LYS:NZ	2.28	0.67
1:CA:1251:A:O2'	1:CA:1369:C:O2'	2.08	0.67
31:BH:56:SER:HB3	31:BH:61:HIS:ND1	2.10	0.67
50:D4:62:ARG:O	50:D4:64:GLY:N	2.28	0.67
25:DA:272:G:H4'	25:DA:272(A):U:H5''	1.74	0.67
25:DA:2431:U:OP2	61:DA:3860:HOH:O	2.12	0.67
51:B5:16:ARG:NH1	51:B5:17:ASP:OD1	2.28	0.67
23:CX:73:A:H5''	23:CX:74:C:H5'	1.77	0.67
1:AA:1030(D):A:H62	1:AA:1031:G:H21	1.43	0.67
25:BA:1391:C:OP2	61:BA:3931:HOH:O	2.10	0.67
25:BA:2460:A:OP1	61:BA:4034:HOH:O	2.11	0.67
1:AA:933:G:O6	7:AG:3:ARG:NH2	2.28	0.67
1:AA:1108:G:O6	61:AA:4120:HOH:O	2.10	0.67
25:DA:754:C:H2'	25:DA:755:C:H6	1.60	0.67
25:DA:2291:U:H2'	25:DA:2292:C:C6	2.29	0.67
25:DA:1971:A:OP1	61:DA:3909:HOH:O	2.13	0.67
25:BA:324:A:OP2	44:BY:86:ARG:NH2	2.28	0.67
1:AA:1063:C:OP2	1:AA:1064:G:O2'	2.10	0.67
1:CA:1226:C:N4	13:CM:104:ARG:HG3	2.10	0.67
1:CA:117:G:OP2	61:CA:4053:HOH:O	2.13	0.67
25:DA:2430:A:OP2	61:DA:4180:HOH:O	2.12	0.67
9:CI:33:PHE:HE1	9:CI:43:ALA:HB1	1.59	0.67
1:CA:1075:C:OP1	2:CB:179:LYS:NZ	2.28	0.67
25:BA:2420:U:OP2	61:BA:4137:HOH:O	2.13	0.67
30:DG:16:ARG:O	30:DG:20:ILE:HG13	1.95	0.67
38:BS:25:ARG:NH1	38:BS:42:ASP:OD1	2.27	0.67
25:DA:1359:A:H2'	25:DA:1360:A:H5'	1.77	0.67
32:DI:104:GLN:O	32:DI:105:HIS:ND1	2.28	0.67
6:AF:68:PRO:HB2	6:AF:71:ARG:HG3	1.77	0.67
1:CA:619:U:N3	4:CD:134:ASP:OD1	2.20	0.67
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.30	0.67
14:AN:37:PHE:HB3	14:AN:39:LEU:HD12	1.76	0.67
1:CA:1004:A:C6	1:CA:1037:C:C2	2.82	0.66
23:CX:64:G:H4'	36:DQ:10:ARG:HH21	1.59	0.66
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.31	0.66
27:BD:132:PRO:HG2	27:BD:135:PHE:HD2	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1170:A:O2'	1:CA:1171:G:O4'	2.12	0.66
45:BZ:69:THR:HG22	45:BZ:90:VAL:HA	1.77	0.66
25:BA:2897:U:H2'	25:BA:2898:C:C6	2.30	0.66
25:DA:602:G:O2'	25:DA:655:A:N6	2.28	0.66
25:BA:449:A:OP2	61:BA:3954:HOH:O	2.13	0.66
1:AA:1286:A:C8	1:AA:1287:A:H4'	2.30	0.66
25:BA:1007:G:OP1	61:BA:4616:HOH:O	2.12	0.66
1:CA:947:G:O3'	13:CM:109:THR:OG1	2.14	0.66
9:AI:3:GLN:OE1	9:AI:20:ARG:NH2	2.27	0.66
1:AA:1422:G:H5''	34:BO:48:PRO:HB3	1.77	0.66
1:AA:1321:C:H5''	1:AA:1322:C:H2'	1.77	0.66
25:DA:1652:A:OP1	37:DR:8:ARG:NH1	2.28	0.66
45:DZ:108:PRO:HG3	45:DZ:141:VAL:HB	1.77	0.66
33:DN:42:TRP:HA	33:DN:48:MET:HE1	1.78	0.66
25:DA:1606:G:OP1	61:DA:4577:HOH:O	2.13	0.66
33:DN:20:GLY:HA2	33:DN:61:ARG:HE	1.58	0.66
25:BA:2600:G:OP2	61:BA:4789:HOH:O	2.14	0.66
25:DA:2685:G:O6	61:DA:3896:HOH:O	2.09	0.66
48:B2:16:LEU:O	48:B2:67:LYS:NZ	2.27	0.66
25:DA:773:U:OP1	61:DA:4405:HOH:O	2.12	0.66
1:AA:1189:C:OP1	10:AJ:51:ARG:NH2	2.28	0.66
27:DD:206:LEU:HD22	27:DD:211:ARG:HG2	1.76	0.66
23:CX:23:C:H2'	23:CX:24:U:C6	2.30	0.66
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.10	0.66
1:AA:243:A:H4'	1:AA:244:U:H5''	1.77	0.66
25:DA:1301:A:OP1	61:DA:4411:HOH:O	2.13	0.66
45:DZ:72:ARG:NH2	45:DZ:97:GLU:O	2.29	0.66
25:DA:271(E):U:H2'	25:DA:271(F):C:C6	2.30	0.66
29:DF:18:ARG:NH2	29:DF:127:GLU:OE1	2.28	0.66
7:CG:113:GLU:HG2	7:CG:119:ARG:HG2	1.78	0.66
29:DF:13:SER:HA	29:DF:127:GLU:HG3	1.77	0.66
25:BA:2817:G:N1	25:BA:2902:G:O6	2.19	0.66
25:DA:1774:C:OP1	61:DA:3936:HOH:O	2.13	0.66
1:AA:452:A:H4'	16:AP:72:ARG:NH1	2.11	0.66
5:CE:137:GLU:HG2	5:CE:140:ARG:HH11	1.61	0.66
42:BW:12:ILE:HD13	42:BW:17:VAL:HG13	1.77	0.66
25:BA:2324:U:H5'	30:BG:88:ILE:HD11	1.78	0.66
25:BA:1218:G:O2'	25:BA:1219:A:O4'	2.13	0.66
1:AA:407:G:H5''	4:AD:115:ARG:HB3	1.78	0.66
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	1.78	0.66
3:CC:78:GLY:HA3	3:CC:83:ARG:H	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1120:G:O6	1:CA:1154:G:N2	2.29	0.66
1:AA:117:G:OP2	61:AA:4071:HOH:O	2.14	0.66
50:D4:61:ARG:O	50:D4:61:ARG:NH1	2.28	0.66
27:BD:108:PRO:HD2	27:BD:111:LEU:HG	1.78	0.66
25:DA:818:G:OP2	61:DA:3837:HOH:O	2.13	0.66
4:CD:43:HIS:HA	4:CD:46:LYS:HG3	1.77	0.66
25:DA:2070:G:OP2	61:DA:4339:HOH:O	2.13	0.66
25:BA:1091:A:OP1	25:BA:1091:A:H4'	1.94	0.65
1:CA:539:A:H2'	1:CA:540:G:C8	2.31	0.65
25:DA:900:A:H2'	25:DA:901:A:H8	1.61	0.65
5:CE:122:GLU:O	5:CE:126:ARG:NH1	2.30	0.65
10:CJ:29:ARG:HB2	10:CJ:84:GLN:HE22	1.60	0.65
26:DB:75:G:N2	45:DZ:87:ASP:OD1	2.28	0.65
1:CA:1236:A:O2'	1:CA:1304:G:H4'	1.96	0.65
25:DA:2867:G:OP2	39:DT:119:LYS:NZ	2.28	0.65
25:DA:1313:U:OP1	61:DA:3981:HOH:O	2.15	0.65
2:CB:47:THR:O	2:CB:51:LEU:N	2.27	0.65
25:BA:839:G:OP2	61:BA:4064:HOH:O	2.13	0.65
19:CS:15:LEU:HD12	19:CS:18:LYS:HD2	1.79	0.65
9:CI:85:LEU:HB3	9:CI:92:TYR:CD2	2.31	0.65
10:CJ:42:THR:HG21	10:CJ:68:HIS:HD2	1.61	0.65
1:CA:56:U:H2'	1:CA:57:G:C8	2.31	0.65
35:BP:59:LEU:HD11	54:B8:10:ALA:HB2	1.78	0.65
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	1.78	0.65
1:AA:1182:G:H4'	1:AA:1183:A:H5'	1.78	0.65
25:DA:411:G:OP1	61:DA:3857:HOH:O	2.14	0.65
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.30	0.65
28:DE:14:ILE:HD11	28:DE:173:VAL:HG11	1.76	0.65
25:BA:601:A:OP2	61:BA:4002:HOH:O	2.14	0.65
2:AB:15:VAL:HB	2:AB:209:ARG:HG2	1.79	0.65
30:DG:25:TYR:HB3	30:DG:30:GLU:HB2	1.79	0.65
33:DN:15:LEU:HB2	33:DN:135:PRO:HB2	1.77	0.65
26:DB:55:U:O3'	30:DG:27:ASN:ND2	2.30	0.65
25:BA:2832:G:OP2	61:BE:406:HOH:O	2.13	0.65
1:AA:1198:G:OP2	61:AA:4053:HOH:O	2.14	0.65
44:BY:98:VAL:HG12	44:BY:105:ALA:HA	1.78	0.65
4:AD:31:CYS:SG	4:AD:32:ALA:N	2.69	0.65
8:CH:12:ARG:HD2	8:CH:26:VAL:HG12	1.79	0.65
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.32	0.65
1:AA:159:G:H2'	1:AA:161:A:OP2	1.97	0.65
25:DA:31:C:OP1	61:DA:4153:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:950:C:H2'	25:BA:951:U:C6	2.32	0.65
9:AI:16:ARG:HB2	9:AI:64:THR:HB	1.77	0.65
2:AB:87:ARG:NH1	2:AB:233:SER:OG	2.30	0.65
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.30	0.65
1:CA:1305:G:N2	1:CA:1331:G:H1'	2.12	0.65
1:AA:1320:C:H5'	19:AS:70:LYS:HG3	1.78	0.65
8:CH:49:GLU:HG2	8:CH:62:TYR:HE2	1.62	0.65
25:BA:849:A:OP1	61:BA:4293:HOH:O	2.13	0.65
25:BA:2349:G:OP1	61:BA:4028:HOH:O	2.13	0.65
35:BP:44:GLY:O	61:BP:302:HOH:O	2.14	0.65
23:CX:40:C:H2'	23:CX:41:C:H6	1.62	0.65
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.62	0.65
1:CA:558:G:OP1	61:CA:4171:HOH:O	2.14	0.65
53:B7:33:ARG:NH2	61:B7:4001:HOH:O	2.30	0.65
25:DA:1557:C:OP2	25:DA:1558:A:O2'	2.14	0.65
32:DI:77:LEU:HB3	32:DI:142:VAL:HG12	1.79	0.65
2:CB:19:HIS:CE1	2:CB:206:ASP:HB2	2.32	0.65
24:AW:1:2QZ:H11	24:AW:9:MVA:HG23	1.77	0.65
25:BA:2442:A:OP2	61:BA:4633:HOH:O	2.14	0.65
1:AA:659:U:H2'	1:AA:660:G:H8	1.62	0.65
1:AA:673:G:H2'	1:AA:674:G:C8	2.32	0.65
25:DA:370:G:OP1	25:DA:403:U:N3	2.24	0.65
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.77	0.64
2:AB:16:HIS:HB3	2:AB:210:SER:CB	2.26	0.64
4:AD:173:TRP:NE1	4:AD:193:ASP:OD1	2.29	0.64
25:BA:1398:U:OP1	61:BA:3990:HOH:O	2.15	0.64
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.32	0.64
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG3	1.79	0.64
43:BX:92:LEU:C	43:BX:94:GLY:H	2.00	0.64
1:CA:353:A:H8	1:CA:353:A:H5'	1.62	0.64
39:DT:65:LYS:HE2	39:DT:67:SER:HB2	1.79	0.64
25:DA:2680:C:H1'	28:DE:187:ALA:HB1	1.78	0.64
54:B8:6:THR:HG22	54:B8:63:PRO:HD2	1.79	0.64
25:BA:589:U:H5''	35:BP:29:LYS:HE3	1.79	0.64
1:CA:662:G:O2'	1:CA:836:G:OP1	2.14	0.64
25:DA:2708:G:H1'	37:DR:71:GLN:HE22	1.62	0.64
5:AE:137:GLU:HG2	5:AE:140:ARG:HH11	1.63	0.64
2:AB:210:SER:O	2:AB:214:ILE:HG12	1.97	0.64
30:DG:129:GLY:O	30:DG:161:THR:HB	1.97	0.64
25:DA:143:G:H2'	25:DA:143(A):C:C6	2.32	0.64
37:BR:28:LEU:HD12	37:BR:48:VAL:HG21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:12:LEU:HB3	5:AE:31:LEU:HB2	1.78	0.64
25:BA:1848:G:OP1	27:BD:88:ARG:NH2	2.30	0.64
25:DA:455:C:N3	25:DA:472:A:H2'	2.12	0.64
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.32	0.64
1:CA:69:G:H2'	1:CA:70:G:H8	1.62	0.64
1:CA:1154:G:N7	1:CA:1155:G:C4	2.66	0.64
25:BA:1093:G:H2'	25:BA:1156:G:H22	1.61	0.64
1:CA:1273:G:H3'	1:CA:1274:G:H8	1.62	0.64
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.79	0.64
45:DZ:153:SER:OG	45:DZ:154:ASP:OD1	2.14	0.64
2:AB:231:GLU:HB3	2:AB:232:PRO:CD	2.28	0.64
25:DA:524:U:H2'	25:DA:525:U:C6	2.33	0.64
25:DA:2062:A:OP1	61:DA:3798:HOH:O	2.14	0.64
19:AS:27:GLU:HB3	19:AS:28:LYS:HB3	1.77	0.64
33:DN:38:HIS:CE1	33:DN:39:ARG:HG3	2.32	0.64
19:CS:37:ARG:O	19:CS:70:LYS:NZ	2.28	0.64
1:AA:457:C:H2'	1:AA:458:C:C6	2.33	0.64
1:AA:476:G:H2'	1:AA:477:A:O4'	1.98	0.64
20:CT:86:ARG:O	20:CT:90:GLN:HB2	1.98	0.64
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.12	0.64
1:AA:56:U:H2'	1:AA:57:G:C8	2.33	0.64
1:AA:123:C:OP1	1:AA:311:C:O2'	2.13	0.64
23:AX:6:G:H1	23:AX:67:C:H42	1.45	0.64
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HG2	1.78	0.64
50:D4:64:GLY:C	50:D4:66:SER:H	2.01	0.64
25:DA:1776:G:OP2	61:DA:3756:HOH:O	2.14	0.64
25:BA:2405:A:H5'	35:BP:63:PRO:HB3	1.79	0.64
59:CX:101:FME:HCN	25:DA:2451:A:H2	1.62	0.64
4:CD:92:VAL:O	4:CD:96:LEU:HD22	1.97	0.64
28:DE:150:VAL:HG13	28:DE:154:LYS:HG3	1.79	0.64
1:CA:254:G:OP1	17:CQ:66:SER:OG	2.16	0.64
1:CA:1133:G:H1	1:CA:1141:C:N4	1.95	0.64
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.33	0.64
1:AA:193:C:H2'	1:AA:194:C:H6	1.61	0.64
1:CA:1312:G:N7	19:CS:2:PRO:HG2	2.12	0.64
1:AA:161:A:H2'	1:AA:162:A:C8	2.32	0.64
3:AC:12:LEU:HD23	3:AC:16:ARG:HB3	1.78	0.64
25:DA:1973:G:OP1	61:DA:4138:HOH:O	2.15	0.64
37:DR:97:VAL:HG22	37:DR:114:VAL:HG22	1.79	0.64
13:CM:37:THR:O	13:CM:55:ARG:NH1	2.31	0.64
1:CA:814:A:H2'	1:CA:816:A:H5''	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DQ:26:TYR:O	36:DQ:67:ARG:NH1	2.28	0.64
1:AA:1042:G:O2'	1:AA:1043:C:O4'	2.14	0.64
25:BA:325:G:OP2	44:BY:84:ARG:NH2	2.31	0.64
25:DA:586:A:N1	25:DA:809:G:O2'	2.25	0.64
1:AA:1530:G:H2'	1:AA:1531:A:O4'	1.97	0.64
25:DA:594:U:H3	25:DA:663:G:H1	1.44	0.64
25:BA:1997:G:OP2	61:BA:4529:HOH:O	2.15	0.64
25:DA:1604:C:OP2	61:DA:4392:HOH:O	2.15	0.64
25:DA:2781:A:H5''	25:DA:2782:G:H5'	1.79	0.64
37:BR:53:HIS:ND1	37:BR:94:TYR:OH	2.30	0.64
26:DB:11:C:OP2	26:DB:12:C:N4	2.27	0.64
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.80	0.64
16:AP:19:ILE:HD13	16:AP:36:ILE:HG13	1.78	0.64
1:AA:630:G:H2'	1:AA:631:G:H8	1.62	0.64
2:CB:16:HIS:CB	2:CB:204:ASN:HB3	2.24	0.64
25:DA:2298:A:C6	25:DA:2321:G:N1	2.66	0.64
25:BA:778:C:OP2	61:BA:4592:HOH:O	2.15	0.64
28:DE:73:GLU:HG3	28:DE:73:GLU:O	1.96	0.64
19:CS:64:GLU:HB2	50:D4:59:PHE:HE1	1.62	0.64
3:AC:36:ASP:O	3:AC:40:ARG:HG3	1.98	0.64
42:DW:71:VAL:HA	42:DW:107:LEU:HD12	1.79	0.64
25:DA:1266:G:O5'	42:DW:15:ARG:NH2	2.30	0.64
25:BA:1091:A:H1'	25:BA:1093:G:N3	2.13	0.63
20:CT:64:ASP:OD2	20:CT:81:LYS:NZ	2.28	0.63
25:BA:641:G:OP1	29:BF:40:GLN:NE2	2.24	0.63
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.31	0.63
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.33	0.63
25:DA:365:C:OP2	61:DA:4447:HOH:O	2.15	0.63
36:DQ:59:ARG:O	36:DQ:61:GLY:N	2.23	0.63
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.80	0.63
13:CM:22:ILE:HB	13:CM:25:ILE:HD13	1.79	0.63
1:AA:518:C:O2'	1:AA:530:G:N2	2.31	0.63
1:CA:404:U:H5'	4:CD:122:ARG:HD3	1.80	0.63
1:CA:953:G:H5'	1:CA:965:A:N6	2.13	0.63
25:BA:2331:G:N2	38:BS:3:ARG:HA	2.14	0.63
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.45	0.63
1:AA:945:G:OP2	61:AA:4057:HOH:O	2.15	0.63
1:CA:59:A:H3'	1:CA:331:G:H22	1.62	0.63
25:BA:2369:U:OP1	46:B0:20:ARG:NH1	2.31	0.63
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.80	0.63
1:CA:1129:C:H2'	1:CA:1139:G:N7	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.34	0.63
6:AF:97:PHE:N	18:AR:30:ASP:OD1	2.29	0.63
25:BA:1466:U:O2'	25:BA:1467:G:OP1	2.13	0.63
25:BA:53:G:O2'	53:B7:35:ARG:HD3	1.98	0.63
25:DA:910:A:H62	36:DQ:12:GLN:HA	1.63	0.63
25:BA:2701:U:H4'	25:BA:2702:C:O5'	1.97	0.63
1:CA:405:U:O4	4:CD:2:GLY:N	2.32	0.63
1:CA:1362:C:H2'	1:CA:1363:C:H5''	1.81	0.63
25:DA:1667:G:O2'	25:DA:1991:U:O4	2.13	0.63
50:B4:24:THR:OG1	50:B4:25:TYR:N	2.31	0.63
25:DA:1766:U:H2'	25:DA:1767:C:H6	1.63	0.63
25:DA:2816:C:O3'	37:DR:99:LYS:NZ	2.32	0.63
1:CA:1320:C:H5'	19:CS:70:LYS:HG3	1.80	0.63
2:CB:56:ARG:HB3	2:CB:56:ARG:HH11	1.63	0.63
25:BA:560:C:O3'	40:BU:53:ARG:NH1	2.31	0.63
2:CB:87:ARG:HE	2:CB:233:SER:HB3	1.63	0.63
25:BA:1639:G:H2'	25:BA:1640:G:C8	2.33	0.63
31:DH:28:GLY:HA3	31:DH:79:VAL:HB	1.80	0.63
1:AA:333:G:H4'	20:AT:16:HIS:CE1	2.33	0.63
26:DB:14:U:OP2	26:DB:70:C:O2'	2.14	0.63
25:DA:298:G:H5''	25:DA:299:A:OP1	1.98	0.63
4:CD:31:CYS:SG	4:CD:33:MET:N	2.71	0.63
25:BA:1701:A:OP2	61:BA:4089:HOH:O	2.15	0.63
25:DA:568:U:H5'	25:DA:945:A:N1	2.14	0.63
1:CA:1145:C:H4'	1:CA:1146:A:H5'	1.81	0.63
12:AL:79:GLU:HB3	12:AL:80:HIS:HD2	1.64	0.63
40:DU:92:ARG:HA	40:DU:95:LEU:HB2	1.81	0.63
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.80	0.63
2:AB:62:ALA:HB2	2:AB:222:ILE:HG22	1.80	0.63
25:BA:1044:C:OP1	61:BA:4480:HOH:O	2.15	0.63
11:CK:98:LEU:O	11:CK:101:SER:OG	2.13	0.63
25:DA:144:C:H2'	25:DA:145:G:H8	1.62	0.63
23:CX:48:C:C2	23:CX:59:A:H1'	2.34	0.63
2:AB:195:ASP:O	8:AH:68:ARG:NH2	2.31	0.63
4:AD:177:ASP:HB3	4:AD:182:LYS:HD3	1.81	0.63
25:BA:1020:C:OP1	61:BA:4060:HOH:O	2.16	0.63
1:AA:427:U:OP1	4:AD:13:ARG:NH2	2.32	0.63
1:AA:1346:A:OP1	9:AI:120:ARG:NH1	2.28	0.63
29:DF:21:ALA:CB	29:DF:22:ALA:HA	2.28	0.63
1:AA:503:C:OP2	12:AL:116:SER:HB3	1.99	0.63
25:BA:599:U:OP1	61:BA:4467:HOH:O	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:5:LYS:HD2	15:AO:5:LYS:H	1.63	0.63
27:DD:183:ARG:HG3	27:DD:270:ILE:HG12	1.81	0.63
25:DA:1653:G:H3'	37:DR:2:ARG:HD3	1.81	0.63
25:DA:2803:C:H2'	25:DA:2804:C:H6	1.63	0.63
38:BS:27:SER:HA	38:BS:88:ASP:HB3	1.80	0.63
25:DA:1889:A:H2'	25:DA:1890:A:C8	2.33	0.63
25:DA:1721:G:H8	25:DA:1741:A:H62	1.46	0.63
2:AB:78:GLN:O	2:AB:81:VAL:HG23	1.98	0.63
5:AE:78:HIS:CD2	5:AE:142:LEU:HD23	2.34	0.63
25:DA:1688:U:O2	25:DA:1700:A:H5'	1.99	0.63
1:AA:200:G:H5'	1:AA:201:C:OP2	1.99	0.62
25:DA:1159:U:H2'	25:DA:1160:G:C8	2.32	0.62
4:AD:173:TRP:CE3	4:AD:174:LEU:HG	2.34	0.62
1:CA:45:U:H2'	1:CA:46:G:C8	2.34	0.62
25:DA:2016:U:H2'	25:DA:2017:U:H6	1.64	0.62
50:D4:59:PHE:HA	50:D4:61:ARG:N	2.14	0.62
25:DA:2098:U:H2'	25:DA:2099:U:O4'	1.99	0.62
25:DA:2469:A:H4'	36:DQ:56:ARG:HD2	1.79	0.62
1:CA:585:G:OP1	17:CQ:37:LYS:NZ	2.24	0.62
1:AA:400:C:H5''	4:AD:73:ARG:HH22	1.63	0.62
29:DF:165:ARG:HG2	29:DF:168:ARG:NH2	2.14	0.62
1:AA:445:G:H2'	1:AA:446:G:C8	2.33	0.62
1:CA:1163:C:N3	1:CA:1173:G:N2	2.47	0.62
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.81	0.62
28:DE:72:VAL:HA	28:DE:73:GLU:HB3	1.81	0.62
1:AA:404:U:H5'	4:AD:122:ARG:HD2	1.81	0.62
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.63	0.62
44:BY:6:HIS:H	44:BY:6:HIS:CD2	2.15	0.62
25:BA:2367:C:H1'	46:B0:39:ARG:HH21	1.63	0.62
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG12	1.81	0.62
25:DA:2206:G:H3'	25:DA:2207:G:N7	2.14	0.62
45:BZ:151:HIS:O	45:BZ:153:SER:N	2.31	0.62
25:DA:2079:U:OP1	47:D1:21:ARG:NH2	2.32	0.62
25:DA:854:G:H2'	25:DA:855:G:H8	1.64	0.62
1:AA:187:C:H2'	1:AA:188:C:H6	1.65	0.62
25:DA:994:C:OP1	40:DU:53:ARG:NH2	2.32	0.62
8:AH:14:ARG:NH2	8:AH:83:ILE:O	2.33	0.62
1:AA:552:U:C2'	1:AA:553:A:H5'	2.29	0.62
1:AA:937:A:OP2	61:AA:4095:HOH:O	2.16	0.62
32:BI:40:THR:O	32:BI:44:LEU:HB2	1.99	0.62
1:AA:486:U:H2'	1:AA:487:A:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:62:C:H42	25:DA:93:G:H1	1.46	0.62
16:AP:43:LYS:HG2	16:AP:48:TRP:CD2	2.34	0.62
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.15	0.62
25:DA:2079:U:O3'	47:D1:35:THR:OG1	2.17	0.62
1:AA:560:U:O2'	1:AA:561:U:OP2	2.16	0.62
43:DX:53:LYS:HB3	43:DX:82:GLN:HB3	1.80	0.62
3:AC:114:PRO:O	3:AC:118:GLN:NE2	2.32	0.62
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.81	0.62
2:CB:163:PHE:CD1	2:CB:185:ILE:HG13	2.34	0.62
28:DE:3:GLY:HA3	28:DE:81:ILE:HD12	1.80	0.62
25:DA:333:G:H5''	25:DA:334:C:OP2	1.99	0.62
52:B6:13:CYS:SG	52:B6:47:THR:HG21	2.39	0.62
30:DG:179:PRO:HB2	50:D4:42:PHE:HE1	1.64	0.62
2:AB:74:LYS:NZ	2:AB:205:ASP:OD2	2.32	0.62
12:CL:49:ASN:ND2	12:CL:92:ASP:OD2	2.31	0.62
25:DA:1036:G:H1	25:DA:1119:C:H42	1.45	0.62
16:AP:53:VAL:HG22	16:AP:79:VAL:HG22	1.80	0.62
1:AA:96:U:H2'	1:AA:97:G:C8	2.35	0.62
1:AA:406:G:N3	4:AD:119:GLN:NE2	2.46	0.62
19:AS:36:ARG:HB3	19:AS:72:GLY:HA3	1.79	0.62
3:CC:6:HIS:HB3	14:CN:49:HIS:ND1	2.14	0.62
1:CA:1108:G:O6	61:CA:4092:HOH:O	2.14	0.62
1:CA:1036:G:H5'	1:CA:1037:C:C6	2.35	0.62
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.81	0.62
1:CA:586:C:O2'	1:CA:878:G:H4'	1.98	0.62
16:AP:43:LYS:HG2	16:AP:48:TRP:CE2	2.35	0.62
34:DO:35:VAL:HG11	34:DO:103:ALA:HB3	1.80	0.62
25:DA:1495:A:H2'	25:DA:1496:A:C8	2.35	0.62
25:BA:2348:A:H61	46:B0:43:THR:CG2	2.12	0.62
25:DA:2584:U:O4	61:DA:3959:HOH:O	2.13	0.62
23:CX:9:G:O2'	23:CX:10:G:N7	2.23	0.62
3:CC:179:ARG:NH1	3:CC:206:GLU:OE1	2.33	0.62
1:AA:983:A:H1'	1:AA:1049:U:O2	2.00	0.62
25:DA:1005:C:H2'	25:DA:1006:C:C6	2.35	0.62
1:AA:863:U:OP1	61:AA:4128:HOH:O	2.16	0.62
25:DA:658:C:H2'	25:DA:659:C:C6	2.35	0.62
1:AA:1125:U:C2	1:AA:1127:G:N7	2.68	0.62
30:DG:11:TYR:CE2	30:DG:16:ARG:HD3	2.35	0.62
9:CI:85:LEU:HB3	9:CI:92:TYR:HD2	1.64	0.62
9:AI:29:ASN:ND2	9:AI:65:VAL:O	2.33	0.62
45:BZ:102:LEU:HD13	45:BZ:123:ASP:HA	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DZ:45:ASP:OD1	45:DZ:49:ARG:NH1	2.32	0.62
32:BI:72:LEU:O	32:BI:74:ASN:N	2.31	0.62
50:B4:15:ILE:HD12	50:B4:21:VAL:HG22	1.82	0.62
11:CK:110:ASP:HB3	18:CR:85:LEU:HB3	1.81	0.62
1:CA:1502:A:H2	1:CA:1505:G:N1	1.95	0.61
1:AA:460:G:O6	1:AA:470:C:H5'	2.00	0.61
1:AA:175:C:H2'	1:AA:176:C:H6	1.64	0.61
29:DF:183:VAL:O	29:DF:187:VAL:HG23	2.00	0.61
20:AT:14:LYS:HG3	20:AT:17:ARG:NH2	2.15	0.61
19:CS:41:VAL:HG12	19:CS:43:GLU:H	1.63	0.61
25:DA:2285:C:OP2	52:D6:6:ARG:NH1	2.33	0.61
1:CA:447:G:O6	61:CA:4157:HOH:O	2.16	0.61
25:DA:579:G:H2'	25:DA:580:C:C6	2.35	0.61
1:AA:1305:G:H22	1:AA:1331:G:H1'	1.64	0.61
8:AH:51:VAL:HG11	8:AH:60:ARG:HH12	1.65	0.61
1:AA:993:G:H1	1:AA:1045:C:H42	1.48	0.61
1:CA:1239:A:H62	1:CA:1299:A:H62	1.47	0.61
1:AA:1442(A):G:C8	39:BT:118:ARG:HG2	2.35	0.61
25:DA:2218:U:O2	47:D1:52:ARG:NH2	2.33	0.61
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	1.82	0.61
30:DG:18:GLU:OE2	30:DG:21:ARG:NH1	2.32	0.61
19:AS:64:GLU:HB2	50:B4:59:PHE:HE1	1.65	0.61
39:DT:85:LYS:NZ	39:DT:87:ASP:OD2	2.33	0.61
1:AA:1241:G:H1	1:AA:1296:C:H42	1.49	0.61
25:BA:2713:C:H2'	25:BA:2714:U:H2'	1.81	0.61
35:DP:50:ARG:HH21	35:DP:50:ARG:HG3	1.66	0.61
34:DO:119:PRO:HB2	39:DT:68:TYR:CE2	2.35	0.61
1:CA:202:U:H3'	1:CA:203:U:H6	1.63	0.61
3:CC:47:LEU:HD12	3:CC:68:VAL:HG11	1.81	0.61
1:CA:1041:A:N6	1:CA:1042:G:O6	2.33	0.61
25:DA:1496:A:N3	25:DA:1577:C:O2'	2.32	0.61
25:BA:2412:G:O6	61:BA:4067:HOH:O	2.14	0.61
25:DA:2640:G:N7	61:DA:3808:HOH:O	2.31	0.61
25:DA:867:C:H2'	25:DA:868:U:C6	2.35	0.61
1:CA:1004:A:H8	1:CA:1005:A:H4'	1.66	0.61
2:CB:48:MET:HA	2:CB:51:LEU:HB2	1.83	0.61
25:DA:2748:A:O2'	31:DH:63:SER:O	2.19	0.61
1:AA:1158:C:H5	1:AA:1181:G:N1	1.98	0.61
27:BD:71:ASP:CB	27:BD:103:ARG:HH22	2.13	0.61
39:DT:24:PRO:HA	39:DT:49:VAL:HG22	1.82	0.61
14:CN:37:PHE:HB3	14:CN:39:LEU:HD12	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2303:G:O2'	30:DG:132:ASN:HB2	2.01	0.61
6:AF:38:GLU:HB2	6:AF:64:GLN:HG2	1.83	0.61
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.35	0.61
25:DA:1773:A:H5''	61:DA:4248:HOH:O	1.99	0.61
11:CK:58:PRO:HG3	11:CK:89:ALA:O	2.00	0.61
9:AI:50:LEU:HD13	9:AI:56:LEU:HA	1.82	0.61
1:CA:1422:G:O3'	34:DO:49:ARG:NH1	2.34	0.61
25:DA:2557:G:H2'	25:DA:2558:C:H6	1.66	0.61
28:BE:175:VAL:HG22	28:BE:177:PRO:HD3	1.82	0.61
25:DA:2404:C:O3'	35:DP:77:ARG:NH2	2.33	0.61
15:CO:88:ARG:HB3	15:CO:88:ARG:HH21	1.63	0.61
1:AA:154:C:N4	1:AA:168:G:O6	2.34	0.61
23:CX:4:G:H1	23:CX:69:C:N4	1.97	0.61
1:AA:601:C:H2'	1:AA:602:A:H8	1.63	0.61
1:CA:192:U:O2'	1:CA:193:C:H5'	2.00	0.61
25:DA:958:U:OP2	36:DQ:14:ARG:NH1	2.34	0.61
15:CO:5:LYS:HD2	15:CO:5:LYS:H	1.64	0.61
25:DA:307:G:N1	25:DA:310:A:OP2	2.33	0.61
25:DA:2273:A:H2'	25:DA:2274:A:C8	2.36	0.61
28:BE:24:THR:HG22	28:BE:186:GLY:O	2.01	0.61
6:CF:24:GLU:HG3	6:CF:28:ARG:HH11	1.65	0.61
1:AA:1260:C:O5'	1:AA:1284:C:H4'	2.01	0.61
41:DV:5:VAL:HG11	41:DV:57:VAL:HG21	1.83	0.61
4:AD:184:LYS:HB3	4:AD:184:LYS:NZ	2.16	0.61
6:CF:25:ILE:HD13	6:CF:82:ARG:HE	1.65	0.61
4:CD:17:VAL:HG11	4:CD:197:PRO:HG3	1.82	0.61
25:DA:2589:A:OP1	61:DA:4063:HOH:O	2.15	0.61
1:CA:1150:U:O4	1:CA:1151:A:N6	2.34	0.61
1:AA:923:A:O2'	1:AA:1399:C:OP2	2.18	0.61
20:CT:57:ARG:HH12	20:CT:100:ILE:HG13	1.65	0.61
39:DT:95:ARG:HG2	39:DT:95:ARG:HH11	1.64	0.61
25:DA:948:G:OP1	61:DA:4173:HOH:O	2.16	0.61
1:CA:9:G:H2'	1:CA:10:A:H8	1.65	0.61
25:DA:867:C:H2'	25:DA:868:U:H6	1.66	0.61
25:DA:887:A:O2'	25:DA:889:C:OP2	2.18	0.61
29:DF:103:LYS:HA	29:DF:106:ARG:HG3	1.82	0.61
37:DR:36:THR:HG22	37:DR:37:THR:H	1.66	0.61
25:BA:1577:C:HO2'	25:BA:1578:C:P	2.23	0.61
25:BA:2460:A:N1	61:BA:4605:HOH:O	2.31	0.61
25:BA:787:U:OP2	61:BA:4519:HOH:O	2.16	0.61
25:BA:1199:C:OP1	40:BU:92:ARG:NH1	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:11:VAL:HG22	29:DF:125:LEU:HB2	1.83	0.61
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.16	0.61
10:CJ:32:ALA:HB1	10:CJ:33:GLN:HA	1.82	0.61
25:DA:1900:A:OP2	61:DA:3902:HOH:O	2.16	0.61
25:DA:2845:G:H2'	25:DA:2846:G:C8	2.36	0.61
25:BA:1405:A:H61	25:BA:1418:U:H3	1.49	0.61
5:AE:92:LYS:HB3	5:AE:119:LEU:HB2	1.83	0.61
29:BF:65:TRP:CZ2	29:BF:75:HIS:HD2	2.19	0.61
39:DT:16:ARG:NH1	39:DT:18:ASP:OD2	2.35	0.60
25:BA:1219:A:H4'	25:BA:1220:U:OP1	2.01	0.60
25:BA:1701:A:OP1	37:BR:1:MET:HA	2.00	0.60
1:AA:552:U:H2'	1:AA:553:A:H5'	1.83	0.60
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.36	0.60
25:DA:973:A:OP2	61:DA:3814:HOH:O	2.17	0.60
6:CF:61:LEU:HB3	6:CF:63:TYR:HE1	1.65	0.60
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.83	0.60
26:DB:41:U:H5	30:DG:70:VAL:H	1.48	0.60
25:DA:289:A:N6	25:DA:351:G:O2'	2.34	0.60
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.16	0.60
25:BA:1231:G:H2'	25:BA:1232:G:O4'	2.01	0.60
1:CA:346:G:OP1	39:DT:41:ARG:NH2	2.32	0.60
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.65	0.60
1:AA:1026:G:H5'	1:AA:1027:C:H5''	1.83	0.60
3:AC:40:ARG:NH2	3:AC:55:VAL:O	2.35	0.60
11:CK:62:GLN:HG3	11:CK:97:ALA:HB2	1.82	0.60
16:CP:52:ASP:O	16:CP:54:GLU:N	2.32	0.60
25:DA:585:G:O2'	25:DA:1254:A:N6	2.31	0.60
25:DA:1531:C:H42	25:DA:1538:G:H1	1.49	0.60
25:DA:667:U:O2	54:D8:2:PRO:HD2	2.01	0.60
1:AA:201:C:N4	1:AA:216:G:H1	1.91	0.60
1:AA:1271:G:H5''	1:AA:1314:C:OP1	2.02	0.60
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.34	0.60
25:BA:2340:A:H2'	25:BA:2341:G:C8	2.36	0.60
25:BA:272:U:H4'	32:BI:50:ARG:NH1	2.16	0.60
1:AA:827:U:H5''	1:AA:828:A:OP2	2.02	0.60
1:CA:826:C:H2'	1:CA:827:U:C6	2.35	0.60
25:DA:390:A:N6	61:DA:4490:HOH:O	2.33	0.60
45:BZ:109:ALA:HB3	45:BZ:145:GLU:HG3	1.83	0.60
25:BA:649:C:O2'	25:BA:704:U:OP1	2.19	0.60
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.36	0.60
25:BA:1829:U:H5'	27:BD:259:THR:CG2	2.28	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2570:G:O6	61:DA:4417:HOH:O	2.12	0.60
25:DA:1125:G:H5'	55:D9:37:GLY:HA2	1.81	0.60
1:CA:67:C:H2'	1:CA:68:G:C8	2.35	0.60
1:AA:677:U:H3	1:AA:713:G:H22	1.47	0.60
25:DA:2870:C:H2'	25:DA:2871:C:O4'	2.00	0.60
5:AE:11:ILE:HB	5:AE:31:LEU:HB3	1.83	0.60
25:DA:2785:C:OP1	28:DE:41:LYS:NZ	2.17	0.60
10:AJ:11:PHE:HE1	10:AJ:67:THR:HG22	1.66	0.60
1:AA:953:G:H5'	1:AA:965:A:H61	1.66	0.60
25:BA:594:A:O2'	41:BV:78:LYS:NZ	2.32	0.60
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.34	0.60
1:AA:1007:C:N3	1:AA:1022:G:O6	2.35	0.60
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.82	0.60
1:AA:486:U:H2'	1:AA:487:A:H8	1.65	0.60
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.82	0.60
25:DA:898:C:H2'	25:DA:899:A:O4'	2.02	0.60
33:DN:34:LEU:O	33:DN:49:GLY:HA3	2.01	0.60
28:DE:52:LEU:O	28:DE:76:ARG:N	2.24	0.60
9:AI:86:VAL:HG13	9:AI:96:LEU:HD12	1.83	0.60
43:DX:59:VAL:HG21	43:DX:78:LYS:HE3	1.84	0.60
44:DY:38:ILE:HD13	44:DY:66:PRO:HA	1.83	0.60
1:AA:691:G:H2'	1:AA:692:U:C6	2.36	0.60
12:AL:59:ARG:HD3	24:AW:1:2QZ:OG1	2.02	0.60
25:BA:2227:G:H3'	25:BA:2228:G:N7	2.15	0.60
1:CA:491:G:O6	61:CA:4132:HOH:O	2.11	0.60
31:BH:3:ARG:HG2	31:BH:6:ARG:HG2	1.84	0.60
30:DG:39:ILE:HG23	30:DG:157:ILE:HG12	1.83	0.60
1:AA:383:A:C2	1:AA:384:G:H1'	2.36	0.60
25:BA:1739:U:H2'	25:BA:1741:C:C5	2.37	0.60
1:CA:749:C:OP2	61:CA:4142:HOH:O	2.16	0.60
35:DP:89:ALA:O	35:DP:121:LYS:NZ	2.29	0.60
25:DA:2397:G:N2	25:DA:2420:C:H1'	2.16	0.60
30:DG:16:ARG:HE	30:DG:31:VAL:HG11	1.65	0.60
1:AA:232:G:H1'	1:AA:262:A:N1	2.17	0.60
31:BH:40:GLU:OE1	31:BH:61:HIS:NE2	2.31	0.60
1:CA:1286:A:H2	21:CU:18:TYR:HH	1.50	0.60
1:CA:69:G:H2'	1:CA:70:G:C8	2.37	0.60
25:DA:1266:G:O2'	25:DA:2012:G:O6	2.13	0.60
28:BE:120:TRP:CE3	28:BE:155:LYS:HD3	2.37	0.60
50:D4:15:ILE:HB	50:D4:32:TYR:HD1	1.66	0.60
1:AA:322:C:O2'	20:AT:23:ARG:HD2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1668:G:OP2	61:BA:4215:HOH:O	2.17	0.60
31:BH:92:ILE:H	31:BH:92:ILE:HD12	1.67	0.60
30:BG:170:ARG:NH2	30:BG:182:LYS:O	2.35	0.60
1:CA:939:G:H1	1:CA:1344:C:N4	1.98	0.60
1:AA:961:U:OP2	1:AA:1223:C:O2'	2.16	0.60
1:CA:735:C:H2'	1:CA:736:C:C6	2.35	0.60
29:BF:183:VAL:O	29:BF:187:VAL:HG23	2.01	0.60
1:CA:1442:G:O2'	1:CA:1442(A):G:OP1	2.18	0.60
38:DS:14:VAL:O	38:DS:18:ILE:HG12	2.02	0.60
36:DQ:66:ILE:HG12	36:DQ:104:PHE:CE2	2.37	0.60
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.33	0.60
25:DA:981:A:N1	25:DA:2027:G:O2'	2.28	0.60
36:DQ:34:LEU:HB2	36:DQ:118:LEU:HD22	1.83	0.60
50:B4:62:ARG:HB2	50:B4:63:TYR:HD1	1.67	0.60
1:AA:454:C:P	16:AP:75:ARG:HH22	2.24	0.60
35:DP:47:ASP:OD2	35:DP:50:ARG:NH2	2.34	0.60
25:BA:1889:G:N2	25:BA:1905:G:H2'	2.17	0.60
25:BA:278:G:H2'	25:BA:279:G:H5''	1.82	0.60
20:CT:58:LYS:HE3	20:CT:62:LEU:HD12	1.84	0.60
16:CP:14:ASN:OD1	16:CP:16:HIS:HE1	1.85	0.60
6:AF:61:LEU:HB3	6:AF:63:TYR:HE1	1.65	0.60
2:AB:163:PHE:HD1	2:AB:185:ILE:HD12	1.67	0.59
1:CA:1151:A:C5'	10:CJ:41:PRO:HA	2.32	0.59
25:BA:830:A:OP2	61:BA:4454:HOH:O	2.17	0.59
25:BA:599:U:H2'	25:BA:600:G:C8	2.36	0.59
25:BA:922:G:H1	25:BA:948:C:H42	1.49	0.59
3:CC:157:ILE:HD12	3:CC:164:ARG:HB3	1.84	0.59
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.84	0.59
34:BO:98:VAL:HG11	34:BO:114:ILE:HG23	1.84	0.59
20:AT:44:ALA:HB2	20:AT:52:ALA:HB1	1.83	0.59
25:BA:98:U:OP1	25:BA:99:G:O2'	2.14	0.59
25:DA:443:A:H5''	25:DA:444:C:OP1	2.02	0.59
34:DO:98:VAL:HG13	34:DO:117:LEU:HB3	1.84	0.59
25:DA:704:G:H1'	25:DA:726:G:N2	2.17	0.59
11:CK:48:ILE:O	11:CK:50:TYR:N	2.33	0.59
2:CB:100:GLY:O	2:CB:104:ASN:N	2.34	0.59
25:DA:82:G:N1	25:DA:103:A:OP2	2.28	0.59
25:BA:542:C:OP1	51:B5:16:ARG:NH2	2.35	0.59
25:BA:2406:C:OP2	54:B8:30:ARG:NH1	2.35	0.59
50:D4:15:ILE:HB	50:D4:32:TYR:CD1	2.36	0.59
27:DD:108:PRO:HG2	27:DD:111:LEU:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D8:33:ASN:HA	54:D8:36:LYS:HD2	1.84	0.59
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.82	0.59
1:AA:128:G:O2'	17:AQ:3:LYS:NZ	2.34	0.59
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.02	0.59
29:DF:21:ALA:HB3	29:DF:22:ALA:HA	1.84	0.59
6:CF:33:TYR:HB2	6:CF:75:LEU:HD23	1.83	0.59
48:D2:29:LYS:HG2	48:D2:57:ILE:HD13	1.84	0.59
46:B0:53:MET:HG3	46:B0:59:LEU:HD23	1.83	0.59
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.02	0.59
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.85	0.59
25:BA:139:A:H8	25:BA:1454:C:O2'	1.86	0.59
39:BT:53:ARG:HH11	39:BT:53:ARG:HB3	1.67	0.59
10:AJ:7:LYS:HB3	10:AJ:97:GLU:HB2	1.83	0.59
12:CL:36:VAL:HG23	24:CW:10:2QY:H89	1.85	0.59
29:DF:184:TYR:CE2	29:DF:188:ARG:HD2	2.37	0.59
25:DA:1903:G:OP1	27:DD:241:PRO:HB2	2.02	0.59
19:CS:51:VAL:O	19:CS:58:VAL:N	2.30	0.59
15:CO:3:ILE:HG21	15:CO:34:LEU:HD21	1.83	0.59
25:DA:885:C:H2'	25:DA:886:C:H4'	1.84	0.59
35:BP:89:ALA:O	35:BP:121:LYS:NZ	2.29	0.59
18:AR:42:ARG:HH21	18:AR:42:ARG:HA	1.67	0.59
25:BA:2274:U:OP2	46:B0:19:LYS:NZ	2.34	0.59
25:BA:2092:G:N3	61:BA:3834:HOH:O	2.31	0.59
1:AA:501:C:H1'	1:AA:549:C:H1'	1.84	0.59
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.37	0.59
25:DA:226:G:H21	25:DA:228:A:H62	1.50	0.59
25:BA:2213:G:H5'	25:BA:2214:G:OP2	2.03	0.59
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.02	0.59
1:CA:827:U:H5''	1:CA:828:A:OP2	2.02	0.59
25:DA:799:G:O6	61:DA:4430:HOH:O	2.15	0.59
2:CB:68:ILE:HG12	2:CB:161:ALA:HB3	1.84	0.59
1:AA:1009:G:O6	1:AA:1020:U:O2	2.20	0.59
25:BA:1501:U:O2'	25:BA:1502:G:N7	2.33	0.59
25:DA:1632:A:OP2	61:DA:4177:HOH:O	2.17	0.59
47:D1:3:LYS:HB2	47:D1:61:ARG:NH1	2.18	0.59
25:BA:1229:G:H5'	49:B3:29:ARG:NH1	2.17	0.59
26:DB:48:A:H4'	38:DS:95:HIS:HD2	1.68	0.59
1:AA:1342:C:H4'	9:AI:125:TYR:HB3	1.84	0.59
25:DA:212:G:H2'	25:DA:213:A:O4'	2.02	0.59
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	1.84	0.59
2:CB:7:VAL:HB	2:CB:9:GLU:HG3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:8:LEU:HD12	10:CJ:20:ALA:HB2	1.85	0.59
1:AA:78:G:H1	1:AA:92:C:N4	2.01	0.59
4:CD:8:VAL:HB	4:CD:115:ARG:HH12	1.67	0.59
4:AD:182:LYS:HG2	4:AD:183:GLY:N	2.16	0.59
2:AB:95:GLN:HG3	2:AB:147:LYS:HD3	1.84	0.59
25:BA:479:C:OP1	61:BA:4179:HOH:O	2.17	0.59
25:BA:1385:G:H5''	43:BX:16:LYS:HD3	1.83	0.59
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.17	0.59
1:AA:623:C:H2'	1:AA:624:C:H6	1.68	0.59
25:BA:1897:C:H2'	25:BA:1898:A:O4'	2.02	0.59
47:D1:3:LYS:HB2	47:D1:61:ARG:HH11	1.66	0.59
1:CA:776:G:N2	1:CA:802:A:OP2	2.29	0.59
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.66	0.59
1:CA:427:U:H3'	1:CA:428:G:H2'	1.85	0.59
30:BG:12:TYR:HA	30:BG:16:ARG:HG2	1.84	0.59
1:CA:457:C:H2'	1:CA:458:C:H6	1.68	0.59
25:DA:2802:G:H2'	25:DA:2803:C:O4'	2.01	0.59
1:AA:1442:G:O2'	1:AA:1442(A):G:OP1	2.18	0.59
30:DG:50:ALA:O	30:DG:52:ILE:N	2.35	0.59
34:DO:77:ILE:HG13	39:DT:74:ARG:HG2	1.83	0.59
27:BD:183:ARG:HG3	27:BD:270:ILE:HG12	1.85	0.59
55:D9:25:VAL:HB	55:D9:34:GLN:HB2	1.83	0.59
25:BA:1410:G:P	47:B1:3:LYS:HG3	2.43	0.59
16:AP:50:LYS:HA	16:AP:50:LYS:HE2	1.85	0.59
3:CC:114:PRO:O	3:CC:118:GLN:HG2	2.03	0.59
25:DA:2074:U:OP1	61:DA:3911:HOH:O	2.17	0.59
1:AA:1126:U:C5	10:AJ:71:LEU:HD22	2.36	0.59
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.38	0.59
1:CA:1493:A:H1'	25:DA:1913:A:N6	2.13	0.59
1:AA:433:C:H2'	1:AA:434:U:H6	1.67	0.59
25:DA:1314:C:OP1	61:DA:4076:HOH:O	2.17	0.59
1:CA:693:G:H2'	1:CA:694:A:H8	1.68	0.59
25:DA:1359:A:N1	25:DA:1372:U:O4	2.35	0.59
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.34	0.59
3:CC:6:HIS:HD2	3:CC:8:ILE:H	1.51	0.59
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.02	0.59
31:DH:30:LYS:HG3	31:DH:80:SER:O	2.02	0.59
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.85	0.59
5:CE:36:ASP:O	5:CE:38:GLN:N	2.36	0.59
25:BA:1077:G:H21	55:B9:36:GLN:HE22	1.50	0.59
25:DA:2298:A:N1	25:DA:2321:G:C6	2.71	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:174:C:H2'	1:AA:175:C:C6	2.38	0.59
1:AA:659:U:H2'	1:AA:660:G:C8	2.38	0.59
25:DA:1359:A:H61	25:DA:1372:U:H3	1.50	0.59
1:CA:1287:A:N3	1:CA:1353:G:O2'	2.32	0.59
1:CA:826:C:H2'	1:CA:827:U:H6	1.68	0.59
1:AA:715:A:H2'	1:AA:716:A:C8	2.38	0.59
1:AA:382:A:C2	1:AA:383:A:N7	2.70	0.59
1:AA:323:U:H2'	1:AA:324:G:O4'	2.02	0.59
1:AA:501:C:O2'	1:AA:549:C:O2	2.21	0.59
1:AA:913:A:OP1	12:AL:46:LYS:NZ	2.36	0.59
25:DA:1840:G:OP2	61:DA:4306:HOH:O	2.16	0.59
16:CP:51:VAL:HG12	16:CP:53:VAL:H	1.68	0.59
45:BZ:111:VAL:C	45:BZ:113:ALA:H	2.06	0.59
11:CK:22:HIS:HB3	11:CK:29:ILE:HB	1.84	0.59
52:B6:14:THR:HB	52:B6:48:VAL:O	2.03	0.59
25:BA:129:G:OP1	61:BA:3963:HOH:O	2.17	0.59
1:AA:711:G:OP1	6:AF:54:LYS:NZ	2.35	0.59
1:CA:1005:A:H1'	1:CA:1036:G:N1	2.16	0.58
25:DA:2299:G:N1	25:DA:2318:G:C8	2.71	0.58
43:BX:31:HIS:CD2	43:BX:33:LYS:HB2	2.37	0.58
25:DA:143:G:H2'	25:DA:143(A):C:H6	1.66	0.58
1:AA:692:U:O2'	1:AA:694:A:N7	2.28	0.58
25:BA:2579:G:H2'	25:BA:2580:C:C6	2.38	0.58
1:AA:833:U:H2'	1:AA:834:C:C6	2.38	0.58
25:DA:2472:G:N1	25:DA:2477:C:OP1	2.25	0.58
7:CG:76:ARG:O	7:CG:87:VAL:N	2.36	0.58
1:CA:1005:A:O2'	1:CA:1006:C:OP1	2.20	0.58
1:CA:999:C:N4	1:CA:1043:C:N3	2.51	0.58
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.32	0.58
25:BA:2745:G:P	28:BE:203:LYS:HZ1	2.26	0.58
5:CE:9:LYS:HD2	5:CE:112:LEU:HD21	1.86	0.58
1:CA:1286:A:C8	1:CA:1287:A:H4'	2.38	0.58
4:AD:31:CYS:SG	4:AD:33:MET:N	2.74	0.58
43:DX:31:HIS:CD2	43:DX:33:LYS:H	2.21	0.58
48:D2:22:GLU:OE2	48:D2:68:ARG:NH2	2.36	0.58
42:DW:60:ASN:HD22	42:DW:60:ASN:N	2.02	0.58
5:AE:143:ARG:NH1	8:AH:77:GLU:OE1	2.36	0.58
1:CA:552:U:C2'	1:CA:553:A:H5'	2.33	0.58
39:BT:51:ARG:HG3	39:BT:98:LYS:HD2	1.86	0.58
28:DE:28:ALA:HB3	28:DE:93:VAL:HG12	1.84	0.58
7:CG:75:VAL:HG13	7:CG:145:ALA:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1121:U:H2'	1:CA:1122:U:O4'	2.03	0.58
1:CA:1047:G:H1	1:CA:1210:C:H42	1.51	0.58
1:AA:600:C:H2'	1:AA:601:C:C6	2.38	0.58
1:CA:9:G:H2'	1:CA:10:A:C8	2.38	0.58
5:AE:110:LEU:HD13	5:AE:118:ILE:HG21	1.86	0.58
1:CA:1271:G:H5''	1:CA:1314:C:OP1	2.04	0.58
45:BZ:151:HIS:C	45:BZ:153:SER:H	2.06	0.58
1:CA:202:U:H3'	1:CA:203:U:C6	2.38	0.58
25:DA:2314:C:H2'	25:DA:2315:G:C8	2.38	0.58
25:BA:1233:U:H4'	41:BV:79:VAL:HG22	1.84	0.58
1:AA:713:G:H2'	1:AA:714:G:C8	2.38	0.58
1:AA:737:A:H2'	1:AA:738:C:C6	2.37	0.58
2:CB:40:HIS:HB3	2:CB:190:THR:HG21	1.85	0.58
53:D7:5:TRP:CD1	53:D7:7:PRO:HD3	2.38	0.58
29:DF:137:LYS:HA	29:DF:140:LEU:HD23	1.85	0.58
25:DA:2502:G:N7	61:DA:4548:HOH:O	2.31	0.58
32:BI:4:ILE:HG12	32:BI:18:VAL:HG22	1.84	0.58
3:AC:157:ILE:HD12	3:AC:164:ARG:HB3	1.84	0.58
1:AA:1030(C):G:H2'	1:AA:1030(D):A:C8	2.39	0.58
3:CC:180:ALA:HB1	3:CC:203:PHE:HE1	1.69	0.58
1:CA:1086:U:H3	1:CA:1099:G:H22	1.51	0.58
20:AT:45:GLN:HA	20:AT:91:LEU:HB3	1.84	0.58
11:AK:15:ALA:HA	11:AK:77:MET:HA	1.84	0.58
1:AA:1392:G:N2	1:AA:1502:A:H8	2.02	0.58
1:CA:1138:G:C6	1:CA:1140:C:H1'	2.38	0.58
25:BA:1185:C:O3'	33:BN:25:ARG:NH1	2.36	0.58
31:BH:40:GLU:OE2	31:BH:60:ARG:NH1	2.37	0.58
25:BA:2853:G:O6	61:BA:4561:HOH:O	2.17	0.58
25:DA:1188:U:H4'	41:DV:79:VAL:HG22	1.84	0.58
6:CF:81:ILE:HD11	27:DD:125:ILE:HB	1.86	0.58
31:BH:33:LEU:HD21	31:BH:136:ILE:HG13	1.85	0.58
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.85	0.58
45:DZ:130:PRO:O	45:DZ:133:ILE:HG13	2.03	0.58
1:AA:269:C:H2'	1:AA:270:A:C8	2.37	0.58
34:DO:80:ASP:OD1	39:DT:64:ARG:NH2	2.36	0.58
1:CA:1123:A:H4'	10:CJ:37:PRO:HD2	1.86	0.58
40:DU:65:ILE:HD11	40:DU:95:LEU:HB3	1.86	0.58
7:AG:46:ALA:O	7:AG:50:ILE:HG23	2.04	0.58
44:DY:23:ARG:HG2	44:DY:42:VAL:HG22	1.84	0.58
19:AS:41:VAL:HG12	19:AS:43:GLU:H	1.68	0.58
25:DA:83:G:O2'	25:DA:102:G:N2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2080:A:N7	61:BA:4112:HOH:O	2.32	0.58
1:CA:222:U:H2'	1:CA:223:U:C6	2.38	0.58
28:DE:9:VAL:HB	39:DT:3:ARG:HG2	1.85	0.58
12:AL:36:VAL:HG22	12:AL:82:VAL:HG22	1.86	0.58
1:CA:975:A:N1	10:CJ:48:THR:HB	2.19	0.58
1:AA:924:C:O2'	1:AA:1502:A:N6	2.35	0.58
34:BO:35:VAL:HG21	34:BO:69:ILE:HD13	1.85	0.58
5:AE:94:ALA:HB2	5:AE:119:LEU:HG	1.85	0.58
31:DH:124:GLU:HB2	31:DH:132:ARG:HB3	1.86	0.58
26:BB:6:C:H2'	26:BB:7:G:H5''	1.85	0.58
25:BA:1779:G:H5''	25:BA:1779:G:H8	1.68	0.58
53:B7:47:ARG:HH11	53:B7:47:ARG:HB3	1.67	0.58
43:BX:41:ASN:O	43:BX:45:THR:HG23	2.04	0.58
1:CA:130:A:O2'	1:CA:131:C:O5'	2.19	0.58
1:CA:1026:G:H5'	1:CA:1027:C:H5''	1.85	0.58
9:AI:16:ARG:HD3	9:AI:64:THR:HG21	1.85	0.58
1:CA:426:G:H2'	1:CA:427:U:C6	2.39	0.58
39:BT:53:ARG:NH1	39:BT:53:ARG:HB3	2.18	0.58
5:CE:78:HIS:CE1	5:CE:143:ARG:H	2.22	0.58
30:DG:38:VAL:HG22	30:DG:93:THR:HG23	1.84	0.58
25:BA:2022:G:OP1	37:BR:5:LYS:NZ	2.37	0.58
25:DA:171:G:H2'	25:DA:172:C:C6	2.39	0.58
7:AG:42:ILE:HG23	7:AG:117:ALA:HA	1.84	0.58
25:BA:2251:G:OP2	61:BA:4210:HOH:O	2.17	0.58
1:CA:913:A:OP1	12:CL:46:LYS:NZ	2.36	0.58
25:DA:7:G:H2'	25:DA:8:A:C8	2.38	0.58
1:CA:1316:G:H2'	1:CA:1318:A:OP2	2.04	0.58
25:DA:2680:C:OP2	28:DE:111:ARG:NH2	2.37	0.58
1:CA:437:U:H5'	4:CD:155:LEU:HD21	1.85	0.58
36:BQ:110:THR:HG23	36:BQ:113:GLN:OE1	2.04	0.58
32:BI:104:GLN:HG3	32:BI:105:HIS:CD2	2.38	0.58
1:CA:642:A:N3	8:CH:113:SER:OG	2.35	0.58
2:CB:30:ARG:HH21	2:CB:194:PRO:HB2	1.68	0.58
8:AH:83:ILE:HB	8:AH:137:VAL:HG13	1.86	0.58
25:BA:945:A:O2'	25:BA:946:A:H8	1.87	0.58
6:AF:10:LEU:HD23	6:AF:61:LEU:HD13	1.86	0.58
3:CC:39:ILE:O	3:CC:43:LEU:HG	2.04	0.58
25:DA:1618:A:H5'	61:DA:3986:HOH:O	2.04	0.58
1:CA:582:U:OP1	15:CO:68:ARG:NH2	2.25	0.58
2:CB:87:ARG:NE	2:CB:233:SER:HB3	2.18	0.57
5:AE:147:ASP:O	5:AE:151:LEU:HG	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1327:C:OP2	61:DA:3851:HOH:O	2.17	0.57
25:DA:1169:G:H1	25:DA:1180:C:H42	1.52	0.57
4:CD:150:GLU:OE2	4:CD:151:LYS:N	2.37	0.57
1:AA:997:U:H3	1:AA:1044:A:H61	1.52	0.57
1:AA:1521:G:N3	61:AA:4036:HOH:O	2.32	0.57
7:CG:14:PRO:HG3	7:CG:21:VAL:HG13	1.86	0.57
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.84	0.57
29:BF:53:THR:HG22	29:BF:56:GLU:HG3	1.85	0.57
1:AA:1189:C:O2	61:AA:4114:HOH:O	2.16	0.57
23:CX:23:C:H2'	23:CX:24:U:H6	1.69	0.57
1:CA:1422:G:H5''	34:DO:48:PRO:HB3	1.86	0.57
43:DX:31:HIS:HD2	43:DX:33:LYS:H	1.51	0.57
1:CA:17:U:H2'	1:CA:18:C:C6	2.39	0.57
28:DE:116:VAL:HG13	28:DE:122:PHE:HB2	1.85	0.57
1:CA:689:C:OP2	11:CK:55:LYS:NZ	2.35	0.57
31:BH:98:LEU:HD22	31:BH:125:VAL:HG23	1.85	0.57
3:AC:56:ASP:HB2	3:AC:67:THR:HB	1.86	0.57
1:CA:392:G:H2'	1:CA:393:A:C8	2.39	0.57
25:DA:2591:C:OP1	27:DD:239:ARG:HD2	2.03	0.57
25:BA:1425:A:H4'	25:BA:1426:G:OP2	2.04	0.57
7:CG:26:PHE:O	7:CG:30:ILE:HG13	2.04	0.57
19:AS:31:ILE:HB	19:AS:49:ILE:HG12	1.85	0.57
44:BY:54:LYS:HA	44:BY:56:PRO:CD	2.31	0.57
15:CO:54:ARG:O	15:CO:58:MET:HG3	2.04	0.57
25:DA:286:C:H2'	25:DA:287:C:C6	2.38	0.57
1:CA:1269:A:C8	1:CA:1270:C:H1'	2.38	0.57
1:CA:839:U:O2'	1:CA:840:C:OP1	2.20	0.57
1:CA:1309:G:O2'	13:CM:77:ASN:ND2	2.38	0.57
9:CI:51:ARG:HG2	9:CI:56:LEU:HD21	1.85	0.57
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.39	0.57
1:CA:148:G:H2'	1:CA:149:A:C8	2.37	0.57
19:CS:64:GLU:HB2	50:D4:59:PHE:CE1	2.39	0.57
1:AA:444:C:H2'	1:AA:445:G:H8	1.69	0.57
25:BA:1890:A:N6	25:BA:1905:G:O2'	2.38	0.57
7:CG:76:ARG:CZ	7:CG:89:MET:HB2	2.34	0.57
25:BA:2045:G:H5'	25:BA:2629:C:H4'	1.86	0.57
2:AB:60:ASP:OD1	2:AB:64:ARG:NE	2.35	0.57
28:BE:12:THR:HG22	28:BE:13:ARG:H	1.68	0.57
7:AG:27:ILE:HD12	7:AG:40:ALA:HA	1.85	0.57
24:AW:4:PRO:O	24:AW:6:2R1:N	2.37	0.57
29:BF:197:ASP:OD1	29:BF:197:ASP:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DR:83:ILE:O	37:DR:86:ARG:HG2	2.04	0.57
25:BA:303:C:N4	25:BA:385:G:H1	1.98	0.57
1:AA:1270:C:C2'	1:AA:1271:G:H5'	2.34	0.57
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.87	0.57
25:DA:674:G:H1'	29:DF:74:ARG:HD3	1.87	0.57
1:CA:1160:G:H22	1:CA:1176:A:H2	1.52	0.57
18:CR:47:THR:HG23	18:CR:49:LYS:HG3	1.87	0.57
25:DA:2839:G:H5'	37:DR:46:GLY:HA2	1.87	0.57
45:DZ:39:VAL:HG21	45:DZ:44:PHE:HB2	1.85	0.57
34:DO:87:ILE:HD12	34:DO:91:LEU:HA	1.86	0.57
1:CA:785:G:C2'	1:CA:786:G:H5'	2.34	0.57
25:DA:1031:G:H21	55:D9:36:GLN:HE22	1.52	0.57
25:DA:956:G:H5'	25:DA:957:A:OP2	2.04	0.57
11:CK:20:TYR:CZ	11:CK:83:ILE:HD12	2.38	0.57
1:AA:347:G:H21	1:AA:348:G:H3'	1.69	0.57
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD22	1.86	0.57
25:DA:195:A:H5''	25:DA:196:A:O5'	2.03	0.57
1:CA:1318:A:H5''	19:CS:3:ARG:NH2	2.15	0.57
3:AC:15:THR:CG2	3:AC:181:ASN:HA	2.34	0.57
1:AA:96:U:O2'	1:AA:97:G:H5'	2.04	0.57
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.38	0.57
3:CC:58:GLU:HB2	3:CC:65:ALA:HB3	1.86	0.57
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.87	0.57
1:CA:243:A:H4'	1:CA:244:U:H5''	1.85	0.57
6:AF:44:GLY:HA2	6:AF:59:TYR:CZ	2.40	0.57
5:AE:50:GLU:HB2	5:AE:53:LEU:HD13	1.85	0.57
2:CB:102:LEU:HD23	2:CB:182:ILE:HD12	1.86	0.57
33:DN:58:ASP:OD1	33:DN:58:ASP:N	2.34	0.57
2:CB:166:ASP:HB3	2:CB:169:LYS:HB2	1.86	0.57
25:BA:1068:G:H22	25:BA:1188:A:H2	1.47	0.57
40:DU:76:TYR:HH	40:DU:92:ARG:HH11	1.52	0.57
2:CB:179:LYS:HA	8:CH:72:PRO:HG3	1.85	0.57
1:CA:706:A:H5''	11:CK:22:HIS:CE1	2.39	0.57
35:DP:86:LYS:HB3	35:DP:118:GLY:HA3	1.86	0.57
25:BA:625:G:O2'	25:BA:702:A:N6	2.38	0.57
1:CA:1125:U:HO2'	1:CA:1126:U:H2'	1.69	0.57
1:AA:1392:G:H21	1:AA:1502:A:H8	1.53	0.57
14:CN:4:LYS:HA	14:CN:7:ILE:HD13	1.87	0.57
1:AA:1162:C:N4	1:AA:1174:G:H1	2.01	0.57
25:DA:10:G:H2'	25:DA:11:G:H8	1.70	0.57
15:CO:4:THR:HB	15:CO:5:LYS:HD2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:828:A:H2'	1:AA:829:G:O4'	2.05	0.57
25:BA:572:A:O2'	25:BA:573:G:OP1	2.21	0.57
25:BA:2786:C:H2'	25:BA:2787:C:H6	1.68	0.57
25:BA:181:C:OP1	61:BA:3915:HOH:O	2.17	0.57
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.19	0.57
1:AA:216:G:H2'	1:AA:217:C:C6	2.40	0.57
25:BA:2299:A:N6	25:BA:2356:U:H3	2.01	0.57
30:BG:47:LYS:HG3	30:BG:48:GLU:H	1.69	0.57
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.87	0.57
25:DA:30:G:H2'	25:DA:31:C:C6	2.40	0.57
30:DG:103:LEU:HD23	30:DG:106:LEU:HD23	1.86	0.57
28:BE:174:ASP:OD1	28:BE:175:VAL:N	2.38	0.57
25:DA:2689:U:OP2	25:DA:2719:G:N2	2.36	0.57
48:B2:1:MET:HE2	48:B2:6:VAL:HG22	1.86	0.57
25:DA:2189:U:H2'	25:DA:2190:G:C8	2.40	0.57
25:BA:2308:U:OP2	38:BS:9:ARG:NH2	2.37	0.57
30:DG:114:ILE:HB	30:DG:117:PHE:HB2	1.87	0.57
25:BA:676:G:OP1	54:B8:19:SER:OG	2.21	0.57
10:CJ:55:LYS:HG3	10:CJ:56:HIS:CD2	2.40	0.57
25:DA:38:A:H2'	25:DA:39:C:C6	2.40	0.57
25:DA:660:G:H5'	29:DF:99:TYR:CE2	2.40	0.57
27:DD:182:LEU:HB2	27:DD:272:ALA:HB3	1.86	0.57
28:DE:101:ARG:NH2	28:DE:171:GLU:HB2	2.19	0.57
25:DA:2312:U:C5	25:DA:2313:C:H5	2.23	0.57
25:DA:2562:U:H1'	34:DO:23:ARG:HH11	1.70	0.57
2:CB:44:LEU:H	2:CB:44:LEU:HD22	1.70	0.57
1:AA:1028:C:N4	1:AA:1033:G:H1	2.00	0.57
25:DA:82:G:O6	61:DA:4494:HOH:O	2.17	0.57
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.39	0.57
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.40	0.57
35:BP:2:LYS:NZ	35:BP:4:SER:HB3	2.20	0.57
45:DZ:48:PHE:CE1	45:DZ:52:SER:HA	2.40	0.57
25:BA:311:C:H2'	25:BA:312:C:H6	1.69	0.57
25:BA:1836:U:O2	27:BD:50:THR:HB	2.04	0.57
28:DE:174:ASP:OD1	28:DE:175:VAL:N	2.37	0.57
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HG23	1.87	0.56
1:CA:1157:A:N6	1:CA:1180:A:C4	2.72	0.56
1:AA:1002:G:H3'	1:AA:1003:G:H8	1.70	0.56
1:CA:1138:G:C5	1:CA:1140:C:H1'	2.40	0.56
1:AA:175:C:H2'	1:AA:176:C:C6	2.39	0.56
25:DA:1636:C:H2'	25:DA:1637:A:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:738:C:H2'	1:CA:739:C:H6	1.70	0.56
25:BA:2348:A:H61	46:B0:43:THR:HG22	1.70	0.56
25:DA:71:A:H5''	25:DA:73:A:C8	2.40	0.56
45:BZ:158:PRO:O	45:BZ:161:VAL:HG12	2.04	0.56
25:BA:118:U:OP2	61:BA:3886:HOH:O	2.17	0.56
13:AM:56:LEU:O	13:AM:60:VAL:HG23	2.04	0.56
10:CJ:65:LEU:HD12	14:CN:55:GLY:O	2.05	0.56
1:AA:994:A:N1	1:AA:1047:G:H4'	2.20	0.56
25:BA:1338:U:H2'	25:BA:1339:C:C6	2.39	0.56
4:CD:173:TRP:CZ3	4:CD:193:ASP:HB3	2.40	0.56
1:CA:149:A:H2'	1:CA:150:C:C6	2.40	0.56
15:CO:25:THR:HG21	15:CO:70:LEU:HB2	1.87	0.56
43:BX:88:LYS:NZ	43:BX:90:GLU:OE1	2.33	0.56
7:CG:106:GLN:O	7:CG:110:GLN:HG3	2.05	0.56
32:DI:40:THR:O	32:DI:44:LEU:HB2	2.05	0.56
25:BA:1211:U:H2'	25:BA:1212:C:C6	2.40	0.56
25:BA:692:C:H2'	25:BA:693:G:O4'	2.05	0.56
1:CA:1414:U:H3	1:CA:1486:G:H1	1.53	0.56
2:AB:16:HIS:CG	2:AB:17:PHE:N	2.70	0.56
25:DA:1798:U:H5'	27:DD:259:THR:CG2	2.31	0.56
1:CA:1318:A:O2'	19:CS:37:ARG:HB2	2.06	0.56
1:AA:409:G:N2	1:AA:433:C:O2	2.38	0.56
8:CH:68:ARG:NH1	8:CH:74:PRO:HB3	2.20	0.56
25:DA:2299:G:N2	25:DA:2318:G:H8	2.02	0.56
1:AA:1025:U:C2	1:AA:1036:G:O6	2.58	0.56
1:AA:78:G:H1	1:AA:92:C:H42	1.54	0.56
1:AA:192:U:HO2'	1:AA:193:C:H6	1.52	0.56
4:CD:31:CYS:SG	4:CD:32:ALA:N	2.79	0.56
50:B4:56:VAL:HB	50:B4:60:GLN:HG3	1.88	0.56
1:AA:149:A:H2'	1:AA:150:C:C6	2.40	0.56
37:BR:44:LEU:HD22	37:BR:48:VAL:HG23	1.87	0.56
15:CO:5:LYS:CD	15:CO:5:LYS:H	2.17	0.56
13:CM:81:LEU:HD22	13:CM:88:ARG:HB3	1.86	0.56
25:DA:1278:A:OP1	37:DR:36:THR:HG23	2.04	0.56
3:CC:56:ASP:O	3:CC:57:ILE:HD12	2.05	0.56
31:BH:86:GLU:OE2	31:BH:130:ARG:HD3	2.06	0.56
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.85	0.56
16:CP:21:VAL:HG13	16:CP:33:ILE:HB	1.86	0.56
25:BA:2860:A:OP2	25:BA:2876:U:H5	1.89	0.56
25:DA:1470:G:H5''	25:DA:1471:A:OP1	2.05	0.56
25:BA:2431:U:O4	61:BA:4236:HOH:O	2.14	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:103:GLY:O	5:AE:106:PRO:HD2	2.04	0.56
2:CB:120:ALA:O	2:CB:122:PHE:N	2.34	0.56
1:AA:532:A:O2'	1:AA:533:A:OP1	2.20	0.56
1:AA:1125:U:H1'	1:AA:1126:U:O5'	2.06	0.56
25:BA:1066:A:N1	25:BA:1186:U:O2'	2.27	0.56
1:CA:1279:A:H5''	1:CA:1280:A:OP1	2.06	0.56
25:BA:1000:C:OP1	36:BQ:87:LYS:HE3	2.05	0.56
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.40	0.56
1:AA:193:C:H2'	1:AA:194:C:C6	2.39	0.56
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.39	0.56
1:CA:834:C:H2'	1:CA:835:U:C6	2.40	0.56
17:AQ:3:LYS:HD2	17:AQ:60:ILE:HD11	1.87	0.56
1:CA:1104:G:H5'	2:CB:111:ARG:HD2	1.86	0.56
25:BA:624:C:O2'	25:BA:628:C:OP1	2.16	0.56
25:DA:500:G:N1	25:DA:503:A:OP2	2.38	0.56
18:AR:51:LEU:HD23	18:AR:52:PRO:HD2	1.87	0.56
25:BA:2013:U:H2'	25:BA:2014:G:H5''	1.86	0.56
53:D7:26:GLY:O	53:D7:30:VAL:HG23	2.05	0.56
2:CB:170:GLU:O	2:CB:174:VAL:HG23	2.04	0.56
25:DA:479:A:N3	25:DA:481:G:H5''	2.20	0.56
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.88	0.56
28:DE:143:ASN:HD22	28:DE:147:PRO:HD3	1.70	0.56
25:DA:375:C:H2'	25:DA:376:C:C6	2.40	0.56
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.40	0.56
1:AA:538:G:H5''	12:AL:114:LYS:HB2	1.86	0.56
1:CA:1002:G:N2	1:CA:1039:C:N3	2.54	0.56
1:AA:1125:U:H3'	10:AJ:5:ARG:HH22	1.70	0.56
25:DA:1359:A:N6	25:DA:1372:U:H3	2.03	0.56
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.06	0.56
29:DF:157:VAL:HB	29:DF:194:MET:HG2	1.87	0.56
26:DB:95:C:H2'	26:DB:96:U:C6	2.40	0.56
26:BB:50:G:H5''	38:BS:61:ASN:HD22	1.69	0.56
25:BA:2694:U:OP2	61:BA:4014:HOH:O	2.17	0.56
9:CI:6:GLY:H	9:CI:17:VAL:HG12	1.70	0.56
16:AP:18:ARG:NH1	16:AP:32:TYR:OH	2.38	0.56
1:AA:1202:G:N2	14:AN:46:GLU:OE1	2.32	0.56
1:CA:38:G:H22	1:CA:397:A:H5''	1.71	0.56
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.05	0.56
25:BA:83:A:H5'	44:BY:8:LYS:HG2	1.86	0.56
9:CI:125:TYR:HD1	9:CI:126:SER:N	2.03	0.56
23:CX:8:U:H6	23:CX:8:U:O5'	1.89	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1615:G:P	27:BD:63:ARG:HH22	2.29	0.56
12:CL:74:GLY:O	12:CL:102:ARG:NH1	2.27	0.56
25:DA:857:C:H4'	46:D0:23:VAL:HG21	1.88	0.56
25:DA:271(H):G:H2'	25:DA:271(I):G:H8	1.69	0.56
1:AA:1030(D):A:H2'	1:AA:1031:G:O4'	2.06	0.56
28:BE:127:ASP:OD2	61:BE:408:HOH:O	2.18	0.56
25:BA:2481:A:O2'	36:BQ:56:ARG:HD2	2.06	0.56
25:DA:988:A:N7	61:DA:3839:HOH:O	2.32	0.56
25:BA:1553:A:O2'	25:BA:1554:A:O4'	2.24	0.56
1:AA:1074:G:O2'	1:AA:1101:A:N1	2.30	0.56
1:CA:200:G:H2'	1:CA:201:C:C6	2.41	0.56
27:BD:206:LEU:HD22	27:BD:211:ARG:HG2	1.87	0.56
1:AA:1318:A:H4'	19:AS:10:PHE:CZ	2.40	0.56
2:AB:231:GLU:HB3	2:AB:232:PRO:HD3	1.87	0.56
59:CX:101:FME:HCN	25:DA:2451:A:C2	2.40	0.56
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HA	1.88	0.56
4:CD:103:ASN:OD1	4:CD:114:ARG:NE	2.37	0.56
48:B2:32:LEU:HD12	48:B2:36:ARG:HH11	1.69	0.56
43:DX:8:ILE:O	48:D2:36:ARG:NH2	2.39	0.56
34:BO:2:ILE:HB	34:BO:33:ALA:HB3	1.87	0.56
25:BA:1067:A:H8	25:BA:1068:G:H5''	1.69	0.56
1:CA:1125:U:C2	10:CJ:38:ILE:HD13	2.41	0.56
9:AI:4:TYR:CE1	9:AI:88:TYR:HA	2.41	0.56
26:DB:48:A:H2'	26:DB:49:C:C6	2.40	0.56
25:DA:172:C:H2'	25:DA:173:G:H8	1.70	0.56
31:BH:125:VAL:HG12	31:BH:127:GLU:O	2.05	0.56
31:BH:11:VAL:HG21	31:BH:50:VAL:HG23	1.88	0.56
25:DA:1338:G:N3	25:DA:1393:A:H2	2.04	0.56
14:AN:14:PRO:HG2	14:AN:16:PHE:O	2.06	0.56
30:BG:72:ARG:NH1	30:BG:87:PRO:HG3	2.21	0.56
1:CA:187:C:H2'	1:CA:188:C:H6	1.71	0.56
25:BA:1566:U:H2'	25:BA:1567:G:O4'	2.06	0.56
30:BG:179:PRO:HB2	50:B4:42:PHE:HE2	1.70	0.56
14:AN:21:TYR:OH	14:AN:23:ARG:NH2	2.38	0.56
25:BA:930:G:H2'	25:BA:931:C:C6	2.41	0.56
1:CA:861:G:OP1	8:CH:75:ARG:NH2	2.38	0.56
31:DH:69:ARG:HG3	31:DH:70:THR:N	2.20	0.56
37:DR:88:ARG:NH2	37:DR:89:ASP:OD2	2.38	0.56
29:BF:185:ASP:OD1	29:BF:188:ARG:NH1	2.35	0.56
25:BA:1091:A:O2'	25:BA:1093:G:C4	2.57	0.56
1:CA:1263:C:H2'	1:CA:1264:C:C6	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:68:GLU:CB	34:DO:78:ARG:HB2	2.36	0.56
1:CA:890:G:O2'	1:CA:906:G:O6	2.19	0.56
41:BV:21:ARG:HG2	41:BV:91:TYR:CD1	2.41	0.56
19:CS:28:LYS:HB2	19:CS:29:ARG:CA	2.35	0.56
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.88	0.56
11:CK:18:ARG:NH2	11:CK:35:PRO:O	2.32	0.56
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.06	0.56
1:AA:1138:G:C6	1:AA:1140:C:H1'	2.41	0.56
25:DA:247:G:H4'	25:DA:386:G:C5	2.40	0.56
1:AA:272:C:H2'	1:AA:273:A:H8	1.71	0.56
25:DA:1815:A:OP2	27:DD:54:ARG:NH2	2.37	0.56
4:AD:155:LEU:HD22	4:AD:156:GLU:H	1.70	0.56
12:CL:24:VAL:HG12	12:CL:27:LEU:HB2	1.86	0.56
9:CI:53:VAL:O	9:CI:55:ALA:N	2.39	0.56
33:BN:67:LEU:HD12	33:BN:87:LEU:HD13	1.87	0.56
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.06	0.56
8:CH:84:ARG:HD2	8:CH:136:GLU:HG2	1.87	0.56
30:DG:43:LEU:HD12	30:DG:45:GLU:HG3	1.88	0.56
30:DG:12:TYR:HA	30:DG:16:ARG:HG2	1.88	0.55
25:DA:287:C:H2'	25:DA:288:C:C6	2.38	0.55
1:AA:1030(C):G:H2'	1:AA:1030(D):A:H8	1.70	0.55
1:CA:814:A:N7	1:CA:816:A:C4	2.73	0.55
4:AD:154:ASN:HA	4:AD:159:ARG:HH21	1.71	0.55
25:BA:918:U:OP1	36:BQ:5:ARG:HD3	2.06	0.55
25:DA:1309:G:HO2'	25:DA:1611:C:HO2'	1.53	0.55
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.05	0.55
25:DA:275:G:H2'	25:DA:276:A:C8	2.41	0.55
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.41	0.55
2:CB:189:ASP:HB3	2:CB:204:ASN:HA	1.89	0.55
1:CA:444:C:H2'	1:CA:445:G:C8	2.34	0.55
39:BT:95:ARG:NH1	39:BT:95:ARG:HG2	2.21	0.55
1:AA:221:C:H2'	1:AA:222:U:C6	2.38	0.55
50:D4:46:GLN:C	50:D4:48:ARG:H	2.09	0.55
30:DG:101:ILE:HG22	30:DG:105:LYS:HE2	1.87	0.55
23:CX:59:A:H2'	23:CX:60:U:H5'	1.89	0.55
32:BI:72:LEU:C	32:BI:74:ASN:H	2.09	0.55
48:B2:1:MET:N	48:B2:52:ASP:OD2	2.38	0.55
15:AO:26:GLU:OE2	15:AO:77:ARG:NE	2.39	0.55
1:CA:8:A:N6	4:CD:209:ARG:HB2	2.21	0.55
25:DA:1379:A:H4'	25:DA:1380:G:OP2	2.05	0.55
1:AA:520:A:N1	1:AA:536:C:H1'	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:98:LYS:H	8:AH:98:LYS:HD3	1.71	0.55
25:BA:606:G:OP2	40:BU:10:ARG:NH1	2.36	0.55
1:CA:138:G:H8	1:CA:138:G:H5'	1.71	0.55
29:BF:101:LEU:O	29:BF:106:ARG:HD3	2.06	0.55
25:BA:7:G:H2'	25:BA:8:A:O4'	2.06	0.55
1:AA:437:U:H5'	4:AD:155:LEU:HD11	1.88	0.55
27:DD:108:PRO:HB3	27:DD:143:HIS:CE1	2.40	0.55
25:BA:2661:U:H2'	25:BA:2662:U:C6	2.41	0.55
25:BA:231:G:O2'	25:BA:243:G:O6	2.20	0.55
55:D9:15:LYS:HE2	55:D9:17:ILE:HD13	1.89	0.55
25:BA:645:G:H5'	25:BA:645:G:N3	2.22	0.55
61:BA:4299:HOH:O	37:BR:15:SER:HB3	2.06	0.55
3:CC:113:ALA:HB2	3:CC:202:ILE:HG13	1.87	0.55
25:BA:934:A:H4'	25:BA:935:C:C5	2.39	0.55
1:CA:324:G:N7	61:CA:4084:HOH:O	2.33	0.55
25:DA:286:C:H2'	25:DA:287:C:H6	1.71	0.55
2:AB:229:VAL:HG12	2:AB:230:VAL:H	1.70	0.55
25:DA:906:G:O2'	36:DQ:67:ARG:NH2	2.37	0.55
3:CC:43:LEU:HD21	3:CC:91:LEU:HD13	1.89	0.55
1:AA:738:C:OP1	6:AF:2:ARG:NH1	2.39	0.55
20:AT:45:GLN:HB2	20:AT:91:LEU:HD13	1.88	0.55
25:BA:742:G:OP1	25:BA:1426:G:O2'	2.22	0.55
25:DA:957:A:H5'	36:DQ:76:LYS:HG3	1.88	0.55
25:BA:1553:A:O2'	25:BA:1554:A:H8	1.88	0.55
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.06	0.55
25:DA:2357:U:OP1	46:D0:20:ARG:HD3	2.06	0.55
35:BP:62:LEU:O	54:B8:13:ARG:HD3	2.05	0.55
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.40	0.55
35:BP:50:ARG:HD3	54:B8:7:HIS:CD2	2.40	0.55
25:BA:2332:A:H2'	25:BA:2332:A:N3	2.20	0.55
25:BA:2053:A:C6	25:BA:2510:C:H1'	2.41	0.55
25:BA:721:G:H1'	29:BF:74:ARG:HD3	1.88	0.55
25:BA:2373:A:OP1	54:B8:27:THR:OG1	2.24	0.55
1:AA:487:A:H2'	1:AA:488:C:O4'	2.06	0.55
15:CO:88:ARG:NH2	15:CO:88:ARG:HB3	2.21	0.55
1:CA:433:C:H2'	1:CA:434:U:H6	1.72	0.55
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.88	0.55
15:CO:69:TYR:O	15:CO:73:GLU:HG2	2.07	0.55
36:DQ:29:PHE:HB2	36:DQ:105:GLU:OE2	2.06	0.55
7:CG:78:ARG:HG2	7:CG:79:ARG:HB2	1.87	0.55
12:AL:71:PRO:HG2	12:AL:102:ARG:HG3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DN:96:GLU:H	33:DN:96:GLU:CD	2.10	0.55
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.07	0.55
1:CA:1320:C:O4'	19:CS:73:GLU:HG3	2.07	0.55
25:BA:1001:G:OP2	36:BQ:14:ARG:NH2	2.39	0.55
2:AB:219:VAL:HA	2:AB:222:ILE:HD11	1.88	0.55
1:AA:630:G:H2'	1:AA:631:G:C8	2.41	0.55
25:DA:2640:G:H1	25:DA:2774:C:H42	1.55	0.55
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.88	0.55
1:CA:130:A:H5'	17:CQ:63:ARG:HE	1.71	0.55
1:CA:441:A:H3'	1:CA:442:C:C6	2.40	0.55
25:DA:614(C):A:C4	29:DF:180:GLY:HA2	2.42	0.55
6:CF:99:ALA:HB1	18:CR:23:LYS:HE3	1.88	0.55
25:BA:1766:G:H3'	25:BA:1767:A:H5''	1.87	0.55
32:BI:133:HIS:ND1	32:BI:134:PRO:O	2.38	0.55
31:DH:149:ARG:NH1	31:DH:167:GLU:OE2	2.38	0.55
2:AB:163:PHE:HA	2:AB:185:ILE:HG13	1.89	0.55
1:CA:445:G:H2'	1:CA:446:G:C8	2.42	0.55
25:BA:1466:U:HO2'	25:BA:1467:G:P	2.29	0.55
25:DA:2314:C:H2'	25:DA:2315:G:H8	1.72	0.55
1:AA:833:U:H2'	1:AA:834:C:H6	1.71	0.55
26:DB:95:C:H2'	26:DB:96:U:H6	1.71	0.55
25:DA:2541:A:N7	61:DA:3938:HOH:O	2.33	0.55
54:B8:39:LYS:O	54:B8:43:GLN:HG3	2.06	0.55
1:AA:768:A:OP2	61:AA:4024:HOH:O	2.18	0.55
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.89	0.55
16:AP:28:ARG:HG2	16:AP:29:ASP:OD1	2.05	0.55
11:CK:85:ARG:HE	11:CK:111:ASP:HB3	1.71	0.55
25:DA:1025:G:O2'	61:DA:4219:HOH:O	2.06	0.55
10:AJ:35:SER:CB	10:AJ:73:ASP:HB2	2.29	0.55
1:AA:91:C:H2'	1:AA:92:C:C6	2.42	0.55
13:CM:60:VAL:HG23	13:CM:64:TRP:CE3	2.42	0.55
1:AA:1260:C:OP1	1:AA:1284:C:O2'	2.25	0.55
25:BA:1232:G:H5''	41:BV:81:TYR:CE1	2.41	0.55
1:AA:727:G:N2	1:AA:730:G:OP2	2.39	0.55
45:BZ:48:PHE:CE1	45:BZ:52:SER:HA	2.41	0.55
1:AA:1239:A:H62	1:AA:1299:A:N6	2.05	0.55
47:D1:85:LEU:HB3	47:D1:89:GLU:HB3	1.88	0.55
25:BA:1698:G:OP1	37:BR:40:LYS:HE3	2.06	0.55
27:DD:73:VAL:HG13	27:DD:120:GLY:HA3	1.88	0.55
25:DA:1805:U:O2	27:DD:50:THR:HB	2.07	0.55
25:DA:668:G:H5'	25:DA:669:G:OP2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:927:G:H2'	1:CA:928:G:H8	1.72	0.55
4:AD:3:ARG:HE	4:AD:118:ARG:HD3	1.71	0.55
1:AA:880:C:OP1	12:AL:8:ASN:ND2	2.37	0.55
9:CI:121:ARG:NH1	9:CI:122:ALA:O	2.39	0.55
25:DA:800:A:OP1	25:DA:800:A:H8	1.90	0.55
23:AX:59:A:H2'	23:AX:60:U:H5'	1.88	0.55
1:CA:1025:U:H1'	1:CA:1026:G:C8	2.42	0.55
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.22	0.55
2:AB:87:ARG:NH2	2:AB:220:ASP:OD1	2.24	0.55
1:CA:1272:G:H2'	1:CA:1273:G:O4'	2.06	0.55
1:CA:840:C:H4'	1:CA:841:U:OP1	2.06	0.55
27:BD:132:PRO:HG2	27:BD:135:PHE:CD2	2.39	0.55
25:DA:1889:A:N1	25:DA:2234:G:H1'	2.22	0.55
1:AA:1008:C:H42	1:AA:1021:G:H1	1.54	0.55
45:DZ:52:SER:OG	45:DZ:53:ILE:N	2.40	0.55
2:AB:30:ARG:HH21	2:AB:194:PRO:HB2	1.72	0.55
42:DW:9:TYR:H	42:DW:102:HIS:CE1	2.25	0.55
7:CG:69:VAL:HG21	7:CG:104:LEU:HD11	1.88	0.55
4:AD:107:ARG:NH2	4:AD:194:LEU:HD22	2.21	0.55
25:DA:1448:G:H4'	25:DA:1542:A:OP1	2.06	0.55
1:AA:1127:G:H1'	1:AA:1280:A:C6	2.42	0.55
25:DA:848:G:N3	25:DA:933:A:H1'	2.21	0.55
25:BA:933:C:H4'	25:BA:933:C:OP1	2.05	0.55
25:BA:1639:G:H2'	25:BA:1640:G:H8	1.72	0.55
25:DA:139(A):G:N7	61:DA:4443:HOH:O	2.33	0.55
25:DA:71:A:N7	43:DX:31:HIS:HE1	2.04	0.55
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.42	0.55
29:BF:116:ASP:OD2	35:BP:1:MET:HB2	2.07	0.55
49:D3:10:LYS:HB3	49:D3:53:LEU:HA	1.89	0.55
25:DA:1014:U:H2'	25:DA:1015:G:H8	1.72	0.55
46:B0:30:VAL:HG22	46:B0:66:VAL:HG22	1.89	0.55
1:CA:543:C:C2'	1:CA:544:G:H5'	2.36	0.55
35:DP:101:VAL:HA	35:DP:106:LEU:O	2.07	0.55
2:AB:7:VAL:HG11	2:AB:221:LEU:HD23	1.89	0.55
1:CA:880:C:OP1	12:CL:8:ASN:ND2	2.40	0.55
8:CH:68:ARG:HH11	8:CH:68:ARG:HG3	1.71	0.54
25:DA:19:C:H2'	25:DA:20:C:H6	1.71	0.54
25:DA:1427:A:H4'	25:DA:1428:C:O5'	2.07	0.54
1:CA:1216:G:H5''	14:CN:5:ALA:CB	2.37	0.54
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE1	2.25	0.54
5:CE:78:HIS:CE1	5:CE:142:LEU:HA	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:178:ARG:NH2	8:AH:68:ARG:HH22	2.05	0.54
20:AT:47:GLY:HA2	20:AT:48:LYS:HB2	1.89	0.54
25:DA:253:C:OP2	54:D8:5:LYS:NZ	2.30	0.54
5:AE:15:ARG:HD2	5:AE:26:PHE:CD2	2.41	0.54
21:CU:12:LYS:HB3	21:CU:22:ARG:HD2	1.89	0.54
25:DA:1651:G:OP1	37:DR:40:LYS:HE3	2.07	0.54
1:AA:1216:G:OP1	14:AN:2:ALA:HA	2.06	0.54
25:DA:1009:A:OP2	61:DA:4091:HOH:O	2.18	0.54
50:B4:63:TYR:N	50:B4:63:TYR:HD1	2.06	0.54
1:CA:192:U:H2'	1:CA:193:C:H6	1.71	0.54
1:CA:671:G:H2'	1:CA:672:U:O4'	2.07	0.54
25:BA:1405:A:N1	25:BA:1418:U:O4	2.40	0.54
1:CA:1051:C:H2'	1:CA:1052:U:H6	1.71	0.54
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.42	0.54
1:CA:8:A:C6	4:CD:209:ARG:HB2	2.42	0.54
3:CC:116:VAL:HG21	3:CC:202:ILE:HD11	1.89	0.54
1:AA:877:C:H5''	8:AH:88:LYS:HD3	1.89	0.54
25:DA:1579:A:H2'	25:DA:1580:A:C8	2.43	0.54
37:BR:97:VAL:HG22	37:BR:114:VAL:HG22	1.89	0.54
33:BN:58:ASP:OD1	33:BN:58:ASP:N	2.37	0.54
1:AA:339:C:OP2	34:BO:97:ARG:HD3	2.07	0.54
1:CA:1025:U:N3	1:CA:1036:G:C6	2.75	0.54
1:AA:96:U:H2'	1:AA:97:G:H8	1.71	0.54
4:AD:172:PRO:HB2	4:AD:187:ARG:NH2	2.22	0.54
38:BS:11:LYS:HD2	38:BS:15:ARG:HH12	1.73	0.54
40:BU:76:TYR:HH	40:BU:92:ARG:HH11	1.50	0.54
5:CE:53:LEU:HD12	5:CE:53:LEU:H	1.73	0.54
25:BA:1553:A:O2'	25:BA:1554:A:O5'	2.25	0.54
4:AD:103:ASN:O	4:AD:107:ARG:HG2	2.07	0.54
9:CI:23:ASN:OD1	9:CI:25:LYS:HE3	2.08	0.54
52:D6:35:GLU:HG2	52:D6:50:ARG:HD3	1.88	0.54
49:B3:55:ARG:NH1	49:B3:57:GLU:OE1	2.36	0.54
25:DA:2887:U:H2'	25:DA:2888:C:C6	2.42	0.54
1:CA:1120:G:C6	1:CA:1154:G:C2	2.95	0.54
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.08	0.54
25:BA:1003:U:OP2	36:BQ:14:ARG:NH1	2.41	0.54
30:BG:16:ARG:CZ	30:BG:31:VAL:HG11	2.37	0.54
1:AA:105:G:H2'	1:AA:106:C:C6	2.43	0.54
1:AA:1010:G:N2	1:AA:1020:U:O2'	2.40	0.54
1:CA:552:U:H2'	1:CA:553:A:H5'	1.89	0.54
25:BA:2044:U:O2'	25:BA:2629:C:H5'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:98:GLU:OE1	4:CD:103:ASN:ND2	2.39	0.54
39:DT:116:ALA:HB1	39:DT:121:ILE:HD11	1.88	0.54
1:AA:986:A:H1'	19:AS:54:GLY:O	2.07	0.54
25:DA:2335:A:O2'	25:DA:2336:A:H5''	2.07	0.54
32:DI:117:GLU:HG3	32:DI:118:LYS:H	1.71	0.54
27:BD:242:ARG:HD3	27:BD:242:ARG:N	2.22	0.54
10:AJ:8:LEU:HB2	10:AJ:70:ARG:HB2	1.90	0.54
50:D4:2:LYS:HB2	50:D4:5:ILE:HD13	1.89	0.54
1:CA:560:U:O2'	1:CA:561:U:OP2	2.22	0.54
25:DA:918:A:H5''	26:DB:98:G:O2'	2.08	0.54
26:BB:43:C:H5''	50:B4:1:MET:HG2	1.90	0.54
1:CA:1015:A:H2'	1:CA:1016:A:H8	1.72	0.54
4:AD:122:ARG:HA	4:AD:122:ARG:HE	1.72	0.54
4:AD:18:LYS:HD2	4:AD:31:CYS:SG	2.48	0.54
45:BZ:145:GLU:O	45:BZ:148:ASP:N	2.39	0.54
34:DO:116:SER:OG	34:DO:117:LEU:N	2.40	0.54
36:BQ:56:ARG:HG3	36:BQ:56:ARG:HH11	1.71	0.54
1:CA:250:A:H4'	1:CA:251:G:O5'	2.08	0.54
27:DD:172:TYR:CD1	27:DD:186:HIS:HA	2.43	0.54
5:AE:36:ASP:OD2	5:AE:40:ARG:HB2	2.06	0.54
25:BA:762:G:H2'	25:BA:763:A:O4'	2.08	0.54
21:CU:15:ARG:HB2	21:CU:15:ARG:HH11	1.72	0.54
25:BA:144:C:H5'	43:BX:2:LYS:HE2	1.89	0.54
1:CA:1154:G:N7	1:CA:1155:G:C8	2.76	0.54
25:DA:195:A:OP1	35:DP:46:LYS:NZ	2.37	0.54
1:CA:1129:C:H1'	1:CA:1130:A:N7	2.21	0.54
1:AA:190:U:H2'	1:AA:191:G:H8	1.70	0.54
32:BI:92:VAL:HG11	32:BI:144:VAL:HG11	1.89	0.54
1:AA:1095:U:H5''	1:AA:1109:C:O2	2.07	0.54
1:AA:159:G:N2	1:AA:161:A:H3'	2.22	0.54
5:AE:77:PRO:HD2	5:AE:142:LEU:HD22	1.89	0.54
49:D3:46:ASN:O	49:D3:50:VAL:HG22	2.07	0.54
25:DA:348:G:H2'	25:DA:349:G:H8	1.72	0.54
25:BA:1475:G:H2'	25:BA:1476:C:C6	2.43	0.54
44:DY:7:VAL:HG21	44:DY:72:VAL:HG12	1.90	0.54
9:CI:4:TYR:CZ	9:CI:88:TYR:HA	2.43	0.54
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.12	0.54
10:AJ:49:VAL:HG23	14:AN:41:ARG:HD2	1.90	0.54
26:DB:50:G:OP1	38:DS:63:THR:OG1	2.19	0.54
9:CI:4:TYR:CE2	9:CI:88:TYR:HD1	2.25	0.54
19:CS:17:GLU:O	19:CS:21:GLU:N	2.34	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1341:U:OP2	25:DA:1394:U:O2'	2.23	0.54
25:DA:607:U:OP1	29:DF:102:PRO:HA	2.08	0.54
29:DF:129:PHE:CD2	29:DF:163:VAL:HG21	2.43	0.54
39:BT:5:ALA:O	39:BT:9:LEU:N	2.41	0.54
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.42	0.54
28:BE:59:VAL:HG21	28:BE:74:PRO:HB3	1.90	0.54
1:AA:434:U:H2'	1:AA:435:C:C6	2.42	0.54
25:DA:1270:C:H5''	25:DA:1271:G:H5'	1.90	0.54
1:AA:78:G:C6	1:AA:91:C:N4	2.75	0.54
34:BO:35:VAL:HG11	34:BO:103:ALA:CB	2.36	0.54
1:AA:1316:G:H2'	1:AA:1318:A:OP2	2.07	0.54
1:CA:1169:A:N7	1:CA:1170:A:C5	2.76	0.54
1:AA:186:C:H2'	1:AA:187:C:C6	2.42	0.54
1:CA:942:G:C2	1:CA:1342:C:C2	2.96	0.54
25:DA:340:A:N6	25:DA:341:G:C2	2.75	0.54
1:CA:991:U:O4	1:CA:1212:U:H1'	2.08	0.54
25:BA:1471:G:H2'	25:BA:1472:G:C8	2.43	0.54
1:AA:72:C:H2'	1:AA:73:G:O4'	2.08	0.54
38:DS:34:HIS:ND1	38:DS:53:SER:OG	2.33	0.54
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.08	0.54
25:BA:236:G:H4'	25:BA:413:G:C5	2.43	0.54
28:DE:24:THR:HG22	28:DE:186:GLY:O	2.07	0.54
1:CA:1154:G:N7	1:CA:1155:G:N9	2.55	0.54
30:BG:11:TYR:CZ	30:BG:16:ARG:HD3	2.41	0.54
25:DA:2268:A:OP1	61:DA:4048:HOH:O	2.18	0.54
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.07	0.54
5:AE:76:ILE:HB	5:AE:77:PRO:HD2	1.90	0.54
25:DA:887:A:H5'	25:DA:888:C:OP1	2.07	0.54
25:BA:312:C:H2'	25:BA:313:A:H8	1.72	0.54
25:DA:2331:G:O2'	46:D0:43:THR:HG22	2.08	0.54
9:CI:4:TYR:CE1	9:CI:88:TYR:HA	2.42	0.54
25:BA:287:G:N7	25:BA:448:U:H2'	2.22	0.54
25:DA:708:C:H42	25:DA:723:G:H1	1.55	0.54
30:BG:143:GLU:OE2	50:B4:26:SER:OG	2.20	0.54
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.72	0.54
23:AX:61:C:H2'	23:AX:62:C:H6	1.72	0.54
3:CC:50:ALA:HB1	3:CC:72:LYS:O	2.08	0.54
25:DA:2706:G:N7	61:DA:4124:HOH:O	2.34	0.54
25:BA:1067:A:H3'	25:BA:1067:A:C8	2.43	0.54
9:CI:9:ARG:H	9:CI:79:LEU:HD23	1.73	0.54
1:CA:841:U:H6	1:CA:841:U:OP1	1.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1064:G:H4'	1:AA:1065:U:OP1	2.07	0.54
13:CM:25:ILE:HD11	13:CM:66:LEU:HD13	1.90	0.54
25:DA:529:A:H62	25:DA:2041:U:H3	1.56	0.54
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.42	0.54
1:CA:985:C:H2'	1:CA:986:A:C8	2.43	0.54
25:DA:2657:A:O3'	31:DH:160:LYS:NZ	2.41	0.54
19:AS:61:TYR:CE2	19:AS:63:THR:HG23	2.44	0.54
1:AA:69:G:H2'	1:AA:70:G:C8	2.43	0.54
3:AC:129:ALA:HB3	3:AC:132:ARG:HB2	1.90	0.54
36:BQ:84:GLY:O	36:BQ:85:LYS:HB2	2.08	0.54
33:BN:4:TYR:CD2	40:BU:100:VAL:HG11	2.43	0.54
25:DA:997:G:OP1	40:DU:92:ARG:HG2	2.08	0.53
1:CA:1128:C:H1'	1:CA:1147:C:H42	1.73	0.53
12:CL:36:VAL:HG22	12:CL:82:VAL:HG22	1.89	0.53
6:AF:69:GLU:OE1	6:AF:69:GLU:N	2.39	0.53
1:CA:737:A:H2'	1:CA:738:C:C6	2.43	0.53
25:BA:479:C:O2	25:BA:483:A:O2'	2.24	0.53
25:DA:2689:U:P	25:DA:2719:G:H22	2.31	0.53
19:CS:20:LEU:HD23	19:CS:23:ASN:HD22	1.73	0.53
25:BA:2474:U:H1'	25:BA:2503:U:O4	2.08	0.53
28:DE:55:ASN:O	28:DE:58:ARG:HG2	2.07	0.53
40:DU:89:GLU:HB2	41:DV:50:PRO:HB2	1.89	0.53
1:CA:276:G:H2'	1:CA:277:C:H5'	1.90	0.53
2:AB:109:SER:HA	2:AB:112:VAL:HG13	1.90	0.53
1:AA:316:G:OP2	1:AA:351:G:O2'	2.24	0.53
10:CJ:77:PRO:O	10:CJ:81:THR:OG1	2.25	0.53
25:BA:2822:G:N2	25:BA:2899:C:O2	2.41	0.53
25:BA:1834:A:O2'	27:BD:259:THR:HG21	2.09	0.53
1:CA:1118:C:H1'	1:CA:1179:A:C5	2.43	0.53
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.08	0.53
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.90	0.53
50:B4:63:TYR:CD1	50:B4:63:TYR:N	2.76	0.53
1:CA:192:U:H2'	1:CA:193:C:C6	2.43	0.53
25:BA:272:U:OP1	32:BI:50:ARG:NH2	2.42	0.53
1:AA:21:G:H2'	1:AA:22:G:C8	2.43	0.53
4:AD:116:GLN:NE2	4:AD:157:LEU:HD21	2.23	0.53
5:CE:52:PRO:HG2	5:CE:53:LEU:HD12	1.91	0.53
25:DA:1469:A:H2'	25:DA:1470:G:O4'	2.08	0.53
1:AA:1118:C:H2'	1:AA:1119:C:C6	2.42	0.53
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.43	0.53
25:BA:469:A:H1'	25:BA:1246:C:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:119:ARG:HD2	28:DE:120:TRP:CE2	2.43	0.53
25:DA:1826:G:H4'	27:DD:242:ARG:NH1	2.23	0.53
31:DH:64:LEU:O	31:DH:68:THR:OG1	2.20	0.53
53:B7:1:MET:H3	53:B7:1:MET:HE3	1.73	0.53
23:CX:19:G:H4'	23:CX:20:U:OP2	2.09	0.53
25:BA:1985:U:H4'	25:BA:1986:G:OP1	2.08	0.53
1:AA:1243:C:H2'	1:AA:1244:C:C6	2.43	0.53
25:BA:1346:U:H4'	25:BA:1347:A:H5'	1.91	0.53
2:CB:16:HIS:HB2	2:CB:204:ASN:CB	2.26	0.53
1:CA:598:U:H2'	1:CA:599:C:C6	2.43	0.53
10:CJ:48:THR:O	14:CN:34:TYR:OH	2.27	0.53
1:CA:557:G:C6	1:CA:558:G:C6	2.96	0.53
43:BX:11:PRO:HB3	43:BX:92:LEU:HD11	1.90	0.53
35:BP:121:LYS:HG2	35:BP:122:PRO:HD2	1.91	0.53
31:DH:80:SER:OG	31:DH:81:GLU:N	2.40	0.53
18:CR:29:PHE:HE1	18:CR:31:LEU:HD13	1.72	0.53
8:AH:34:GLU:OE2	8:AH:37:ARG:NH1	2.34	0.53
31:DH:33:LEU:HD21	31:DH:136:ILE:HG13	1.90	0.53
11:AK:98:LEU:O	11:AK:101:SER:OG	2.17	0.53
7:AG:111:ARG:NH1	7:AG:113:GLU:OE2	2.38	0.53
1:CA:999:C:N3	1:CA:1042:G:C2	2.77	0.53
25:DA:300:A:H1'	25:DA:319:C:H1'	1.88	0.53
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	2.08	0.53
1:AA:262:A:C6	1:AA:263:A:C6	2.96	0.53
1:CA:1170:A:O2'	1:CA:1171:G:C8	2.61	0.53
1:CA:1305:G:H22	1:CA:1331:G:H1'	1.73	0.53
23:CX:10:G:N2	23:CX:26:G:H1'	2.24	0.53
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.43	0.53
13:CM:92:HIS:CE1	13:CM:98:VAL:HG11	2.44	0.53
26:BB:33:G:C2	26:BB:50:G:C2	2.97	0.53
30:DG:41:GLN:HB3	30:DG:43:LEU:HD22	1.91	0.53
25:DA:2831:G:OP1	28:DE:58:ARG:NH2	2.28	0.53
1:AA:545:C:H5'	4:AD:72:GLU:HG2	1.90	0.53
28:DE:163:GLU:HG2	28:DE:164:ARG:N	2.23	0.53
25:BA:2642:G:H2'	25:BA:2643:G:C8	2.43	0.53
1:CA:1128:C:H1'	1:CA:1147:C:N3	2.22	0.53
1:CA:1126:U:H4'	1:CA:1281:U:H1'	1.91	0.53
25:DA:2849:U:O4	39:DT:23:ARG:NH2	2.32	0.53
1:AA:664:G:N2	1:AA:741:G:H1	2.06	0.53
1:CA:837:G:H1	1:CA:849:C:N4	2.06	0.53
45:DZ:154:ASP:N	45:DZ:154:ASP:OD1	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:991:U:N3	1:AA:1212:U:H1'	2.24	0.53
11:AK:48:ILE:O	11:AK:50:TYR:N	2.40	0.53
25:DA:1816:G:O6	27:DD:35:LYS:NZ	2.23	0.53
47:D1:23:LYS:HB3	47:D1:29:GLY:HA3	1.91	0.53
3:AC:121:ALA:HB1	3:AC:189:ALA:HB2	1.91	0.53
26:BB:78:A:C2	26:BB:100:A:C4	2.95	0.53
1:AA:352:C:OP2	61:AA:4067:HOH:O	2.19	0.53
25:DA:997:G:O2'	25:DA:998:C:H5'	2.08	0.53
16:CP:5:ARG:NH1	16:CP:28:ARG:HA	2.24	0.53
25:DA:2299:G:H22	25:DA:2318:G:H8	1.56	0.53
1:CA:1326:C:H5''	21:CU:18:TYR:O	2.09	0.53
17:CQ:66:SER:OG	17:CQ:67:LYS:N	2.42	0.53
17:CQ:66:SER:O	17:CQ:70:ARG:NH1	2.41	0.53
1:AA:102:G:H2'	1:AA:103:C:C6	2.43	0.53
25:BA:1405:A:N3	25:BA:1405:A:H5'	2.24	0.53
1:CA:1104:G:H4'	2:CB:111:ARG:HH11	1.73	0.53
25:BA:2255:U:H2'	25:BA:2256:U:C6	2.44	0.53
45:DZ:53:ILE:HG22	45:DZ:71:VAL:O	2.09	0.53
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.73	0.53
2:AB:35:GLU:HB2	2:AB:40:HIS:CD2	2.44	0.53
27:BD:148:GLU:HB2	27:BD:151:LYS:HD2	1.90	0.53
25:BA:346:A:H5'	25:BA:364:A:H1'	1.89	0.53
35:BP:124:LYS:HG3	35:BP:144:GLU:HG2	1.91	0.53
18:AR:40:LEU:HD22	18:AR:70:ILE:HG12	1.90	0.53
32:BI:108:THR:O	32:BI:109:ILE:HD12	2.09	0.53
25:BA:1293:A:OP1	29:BF:95:ARG:NH2	2.39	0.53
25:DA:1914:C:H2'	25:DA:1915:U:O4'	2.08	0.53
25:BA:1775:C:H5'	25:BA:1776:G:OP2	2.08	0.53
25:BA:776:G:H2'	25:BA:1806:U:H1'	1.90	0.53
4:AD:196:LEU:H	4:AD:196:LEU:HD12	1.73	0.53
25:DA:1946:U:H2'	25:DA:1947:C:C6	2.43	0.53
44:BY:38:ILE:HD11	44:BY:66:PRO:HG3	1.90	0.53
25:DA:2600:A:C6	25:DA:2601:C:N4	2.77	0.53
25:DA:2510:C:H4'	61:DA:4416:HOH:O	2.07	0.53
1:AA:33:A:H2'	1:AA:34:C:C6	2.44	0.53
11:AK:15:ALA:O	11:AK:79:SER:N	2.33	0.53
35:BP:65:ARG:HG3	54:B8:25:MET:HG3	1.91	0.53
2:AB:219:VAL:O	2:AB:222:ILE:HG13	2.09	0.53
1:AA:473:G:C2	1:AA:474:G:C5	2.97	0.53
25:DA:2286:A:H4'	25:DA:2287:A:O4'	2.08	0.53
1:AA:1031:G:H2'	1:AA:1032:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:22:LEU:HD13	19:AS:47:HIS:CD2	2.44	0.53
1:AA:1118:C:H1'	1:AA:1179:A:C5	2.44	0.53
48:D2:28:LYS:HD3	48:D2:60:LEU:HD11	1.91	0.53
1:AA:652:U:O4	1:AA:752:G:O2'	2.22	0.53
28:DE:108:SER:HB3	28:DE:165:VAL:HG21	1.91	0.53
10:CJ:78:ASN:O	10:CJ:80:LYS:N	2.41	0.53
37:BR:55:ALA:HB2	37:BR:79:LEU:HD13	1.90	0.53
1:CA:1182:G:H4'	1:CA:1183:A:H3'	1.90	0.53
30:DG:96:ARG:O	30:DG:99:MET:HB3	2.09	0.53
25:BA:1660:A:OP1	25:BA:1663:C:N4	2.39	0.53
23:AX:23:C:H2'	23:AX:24:U:C6	2.44	0.53
1:CA:587:G:N2	1:CA:754:C:OP2	2.34	0.53
25:DA:67:U:H2'	25:DA:68:G:O4'	2.09	0.53
1:AA:258:G:H2'	1:AA:259:G:H8	1.73	0.53
1:CA:1220:G:O3'	19:CS:36:ARG:HD3	2.09	0.53
1:AA:376:G:O3'	16:AP:5:ARG:NH2	2.41	0.53
8:AH:39:LEU:HB3	8:AH:45:ILE:HD11	1.90	0.53
12:CL:117:ARG:HB3	12:CL:122:THR:HB	1.89	0.53
25:BA:1067:A:H2'	25:BA:1069:U:H5'	1.89	0.53
4:AD:119:GLN:HG2	4:AD:123:HIS:CD2	2.43	0.53
25:BA:139:A:C8	25:BA:1454:C:O2'	2.60	0.53
25:DA:1319:G:C6	25:DA:1320:C:N4	2.77	0.53
1:AA:243:A:C2	1:AA:246:A:C8	2.97	0.53
25:DA:2469:A:C2	25:DA:2482:G:C8	2.97	0.53
13:CM:89:GLY:O	13:CM:93:ARG:HG3	2.09	0.53
25:DA:2189:U:H2'	25:DA:2190:G:H8	1.74	0.53
25:DA:796:C:H2'	25:DA:797:C:C6	2.44	0.53
7:CG:51:GLN:O	7:CG:55:GLY:HA2	2.08	0.53
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.44	0.53
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.09	0.53
18:CR:61:LYS:O	18:CR:65:ILE:HG12	2.08	0.53
25:BA:326:C:H2'	25:BA:327:U:H6	1.74	0.53
25:BA:407:U:H2'	25:BA:408:G:H8	1.73	0.53
25:DA:96:G:H4'	48:D2:48:HIS:CD2	2.43	0.53
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.44	0.53
1:CA:1007:C:C4	1:CA:1022:G:N1	2.73	0.53
1:CA:1122:U:C4	1:CA:1151:A:N1	2.77	0.53
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.44	0.53
32:BI:3:VAL:HG12	32:BI:38:LEU:HA	1.91	0.53
1:AA:381:C:N4	1:AA:382:A:C2	2.77	0.53
41:BV:95:LEU:HD13	41:BV:97:LYS:HD3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2255:U:OP1	61:BA:3915:HOH:O	2.19	0.53
23:AX:59:A:C2'	23:AX:60:U:H5'	2.39	0.53
36:BQ:85:LYS:HG2	46:B0:7:LEU:HB3	1.91	0.53
23:AX:23:C:H2'	23:AX:24:U:H6	1.74	0.53
35:DP:38:GLN:O	35:DP:39:LYS:HB3	2.09	0.53
38:DS:11:LYS:O	38:DS:15:ARG:HG3	2.09	0.53
1:AA:987:G:H1	1:AA:1218:C:H42	1.57	0.53
25:BA:1597:C:OP1	25:BA:1765:U:O2'	2.19	0.53
30:DG:63:ILE:HA	30:DG:143:GLU:HG3	1.89	0.53
1:CA:73:G:C6	1:CA:97:G:C6	2.97	0.53
1:AA:1027:C:C2	1:AA:1034:G:N1	2.69	0.53
7:CG:62:PHE:HA	7:CG:124:LEU:HD22	1.90	0.53
1:CA:954:G:H2'	1:CA:955:U:C6	2.44	0.53
1:CA:1095:U:H2'	1:CA:1096:C:O4'	2.09	0.53
13:AM:37:THR:HG21	13:AM:56:LEU:HA	1.90	0.53
25:DA:687:C:H42	25:DA:787:U:H4'	1.73	0.53
1:CA:1360:A:OP2	14:CN:35:ARG:NH2	2.41	0.53
15:CO:33:THR:HG21	15:CO:85:LEU:HD22	1.91	0.53
32:BI:27:ARG:HD2	47:B1:71:TYR:CE1	2.44	0.53
25:BA:851:A:OP1	61:BA:4484:HOH:O	2.19	0.53
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	1.91	0.53
32:BI:29:TYR:O	32:BI:32:PRO:HD2	2.09	0.53
52:B6:6:ARG:NH1	52:B6:26:ASN:HB2	2.24	0.52
1:AA:975:A:H8	1:AA:975:A:H5'	1.74	0.52
1:CA:983:A:H2	1:CA:984:C:C6	2.26	0.52
50:D4:46:GLN:HB3	50:D4:48:ARG:HG2	1.90	0.52
1:CA:473:G:H2'	1:CA:474:G:C8	2.45	0.52
27:BD:108:PRO:HG3	27:BD:143:HIS:CE1	2.43	0.52
25:DA:475:U:C4	25:DA:481:G:O6	2.62	0.52
25:BA:1993:A:C4	27:BD:241:PRO:HD3	2.45	0.52
5:CE:90:VAL:O	5:CE:91:LEU:HD13	2.08	0.52
25:DA:1344:G:O2'	25:DA:1385:G:H2'	2.09	0.52
25:BA:1653:C:H4'	25:BA:1654:A:O5'	2.09	0.52
1:CA:850:U:H2'	1:CA:851:G:H5''	1.90	0.52
25:DA:2750:A:H8	25:DA:2750:A:OP1	1.92	0.52
1:AA:1070:U:OP1	5:AE:25:ARG:NH1	2.38	0.52
25:DA:1858:G:O6	61:DA:4292:HOH:O	2.16	0.52
2:CB:16:HIS:CG	2:CB:17:PHE:H	2.28	0.52
1:AA:154:C:N3	1:AA:168:G:N1	2.58	0.52
2:CB:178:ARG:CZ	8:CH:74:PRO:HG3	2.40	0.52
1:AA:923:A:H2'	1:AA:924:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:10:G:H2'	25:DA:11:G:C8	2.44	0.52
25:DA:1434:A:H61	25:DA:1558:A:N6	2.07	0.52
1:AA:56:U:H2'	1:AA:57:G:H8	1.72	0.52
25:DA:2313:C:O2	25:DA:2313:C:H2'	2.09	0.52
54:B8:33:ASN:HA	54:B8:36:LYS:HD2	1.90	0.52
35:BP:82:GLY:HA2	35:BP:113:LYS:O	2.09	0.52
25:DA:2646:C:H2'	25:DA:2647:U:O4'	2.09	0.52
25:DA:531:C:H5'	61:DA:4094:HOH:O	2.09	0.52
31:DH:105:LEU:HD11	31:DH:148:ILE:HG23	1.91	0.52
43:DX:84:ALA:HB3	43:DX:87:GLN:NE2	2.24	0.52
25:BA:1954:A:H2'	25:BA:1955:G:O4'	2.09	0.52
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.90	0.52
32:DI:43:ASN:C	32:DI:43:ASN:HD22	2.12	0.52
25:BA:1952:G:O2'	25:BA:1990:G:O6	2.20	0.52
1:AA:1272:G:H2'	1:AA:1273:G:O4'	2.10	0.52
1:CA:1179:A:N1	1:CA:1180:A:C8	2.78	0.52
24:AW:8:2R3:H65	24:AW:10:2QY:CE1	2.38	0.52
1:AA:1005:A:H1'	1:AA:1036:G:H22	1.75	0.52
25:DA:2454:G:H1'	61:DA:3886:HOH:O	2.08	0.52
30:BG:16:ARG:HE	30:BG:31:VAL:HG11	1.73	0.52
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.44	0.52
49:B3:59:VAL:O	49:B3:60:GLU:HG2	2.09	0.52
32:DI:126:TYR:HB2	32:DI:142:VAL:HG23	1.92	0.52
36:DQ:56:ARG:CG	36:DQ:56:ARG:HH11	2.22	0.52
1:CA:583:A:H2'	1:CA:584:G:O4'	2.09	0.52
1:AA:1256:A:H5''	1:AA:1258:G:H1'	1.92	0.52
16:CP:53:VAL:HG13	16:CP:79:VAL:HG22	1.91	0.52
25:DA:1219:G:H1	25:DA:1230:C:H42	1.55	0.52
40:DU:78:THR:O	40:DU:117:GLN:NE2	2.42	0.52
25:BA:1913:G:H2'	25:BA:1914:C:C6	2.45	0.52
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.72	0.52
1:AA:1187:G:H4'	9:AI:111:ARG:HH11	1.73	0.52
1:AA:719:C:O2'	18:AR:49:LYS:HB3	2.10	0.52
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.74	0.52
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.91	0.52
1:AA:558:G:H5''	1:AA:559:A:OP2	2.10	0.52
1:CA:1131:G:OP1	9:CI:20:ARG:NH2	2.42	0.52
40:DU:79:PHE:CZ	40:DU:83:LEU:HD21	2.44	0.52
25:DA:2704:C:H2'	25:DA:2705:A:O4'	2.09	0.52
1:CA:838:G:H1	1:CA:848:C:H42	1.56	0.52
25:BA:1221:G:N2	25:BA:1223:C:OP2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2099:U:H5'	25:DA:2100:G:OP2	2.09	0.52
25:DA:2562:U:H1'	34:DO:23:ARG:HD3	1.92	0.52
1:CA:1237:C:HO2'	1:CA:1300:G:H1	1.55	0.52
25:BA:662:A:H8	35:BP:117:GLU:HG3	1.74	0.52
47:D1:73:LEU:HB3	47:D1:94:LEU:HD22	1.91	0.52
25:DA:991:C:OP1	61:DA:4100:HOH:O	2.19	0.52
27:DD:133:LEU:HA	27:DD:136:ILE:HD12	1.90	0.52
25:DA:446:G:OP1	40:DU:3:ARG:NH1	2.39	0.52
34:DO:71:ARG:NE	34:DO:105:GLU:OE2	2.42	0.52
25:DA:184:C:H2'	25:DA:185:U:H6	1.75	0.52
34:BO:8:LEU:HB2	34:BO:19:ILE:HG13	1.91	0.52
4:CD:175:SER:HB3	4:CD:186:LEU:HD11	1.91	0.52
26:BB:86:G:H1	26:BB:91:C:N4	2.08	0.52
1:AA:364:A:H2'	1:AA:365:U:C6	2.44	0.52
38:DS:26:LEU:HD22	38:DS:87:PHE:CE1	2.44	0.52
1:CA:1004:A:N7	1:CA:1037:C:H2'	2.25	0.52
25:DA:1589:C:H2'	25:DA:1590:U:C6	2.44	0.52
1:CA:1216:G:H5''	14:CN:5:ALA:HB2	1.91	0.52
1:AA:503:C:H2'	1:AA:504:C:H6	1.74	0.52
1:CA:1310:G:H5'	13:CM:77:ASN:ND2	2.25	0.52
1:AA:985:C:H2'	1:AA:986:A:C8	2.44	0.52
17:AQ:56:VAL:HB	17:AQ:78:GLU:HB3	1.91	0.52
18:CR:33:ASP:OD2	18:CR:36:ASN:HB2	2.08	0.52
4:CD:99:SER:O	4:CD:140:VAL:HG23	2.09	0.52
1:AA:100:C:H2'	1:AA:101:A:C8	2.44	0.52
1:AA:1210:C:H2'	1:AA:1211:U:H5'	1.92	0.52
25:DA:2751:G:C8	31:DH:2:SER:N	2.77	0.52
30:DG:122:PRO:HG3	30:DG:180:PHE:HB3	1.92	0.52
25:BA:2819:A:C6	25:BA:2820:A:C6	2.98	0.52
32:DI:93:THR:O	32:DI:97:ILE:HG13	2.09	0.52
1:CA:1399:C:C2	1:CA:1502:A:N6	2.78	0.52
38:DS:3:ARG:O	38:DS:4:LEU:HD23	2.10	0.52
1:AA:195:A:N3	1:AA:222:U:O2'	2.30	0.52
28:BE:47:VAL:HG21	28:BE:86:PRO:CD	2.38	0.52
1:AA:148:G:O2'	1:AA:149:A:H8	1.91	0.52
25:DA:271(H):G:H2'	25:DA:271(I):G:C8	2.45	0.52
25:DA:1300:U:H4'	25:DA:1301:A:H5''	1.91	0.52
25:DA:524:U:H2'	25:DA:525:U:H6	1.73	0.52
5:AE:78:HIS:HD1	8:AH:104:ARG:HD2	1.74	0.52
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.44	0.52
25:DA:1309:G:O2'	25:DA:1611:C:O2'	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:520:A:O2'	12:AL:73:GLU:OE1	2.14	0.52
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.90	0.52
25:DA:1857:G:O2'	25:DA:1885:A:N6	2.42	0.52
25:DA:947:G:N2	25:DA:971:C:C2	2.78	0.52
41:DV:62:LEU:HD11	41:DV:95:LEU:HB2	1.91	0.52
1:CA:358:U:H2'	1:CA:359:U:H6	1.75	0.52
25:DA:468:G:H5''	29:DF:60:SER:HB2	1.90	0.52
25:DA:539:G:H2'	25:DA:540:C:H6	1.73	0.52
37:DR:38:VAL:HG22	37:DR:112:ALA:HB2	1.92	0.52
41:DV:65:GLY:HA3	41:DV:91:TYR:CZ	2.44	0.52
31:DH:56:SER:OG	31:DH:57:ASP:N	2.40	0.52
1:AA:134:A:H61	16:AP:25:ARG:NH1	2.07	0.52
1:CA:1041:A:C6	1:CA:1042:G:C6	2.98	0.52
30:DG:82:LEU:HA	30:DG:86:MET:SD	2.49	0.52
25:BA:2897:U:H2'	25:BA:2898:C:H6	1.72	0.52
33:DN:38:HIS:ND1	33:DN:39:ARG:HG3	2.25	0.52
25:DA:2262:U:H4'	25:DA:2328:A:C2	2.45	0.52
25:BA:354:A:H2	25:BA:1255:A:HO2'	1.57	0.52
25:BA:173:C:H2'	25:BA:174:U:C6	2.44	0.52
25:DA:592:G:O2'	54:D8:4:MET:HG3	2.09	0.52
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.30	0.52
25:BA:1941:A:H5''	25:BA:1942:C:OP2	2.10	0.52
45:DZ:6:LYS:HE2	45:DZ:43:GLU:OE1	2.09	0.52
26:BB:76:G:N2	26:BB:101:G:O6	2.40	0.52
45:DZ:152:ALA:O	45:DZ:155:LEU:HD22	2.10	0.52
45:DZ:157:LEU:HB3	45:DZ:161:VAL:HG13	1.92	0.52
2:CB:76:GLN:HB2	2:CB:208:ILE:HG12	1.91	0.52
30:DG:16:ARG:NE	30:DG:31:VAL:HG11	2.25	0.52
25:BA:1717:C:O2	28:BE:129:HIS:NE2	2.34	0.52
25:BA:1814:A:OP1	61:BA:4519:HOH:O	2.18	0.52
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.75	0.52
1:CA:192:U:C2'	1:CA:193:C:H5'	2.40	0.52
26:DB:19:G:H2'	26:DB:20:C:O4'	2.09	0.52
1:AA:826:C:H2'	1:AA:827:U:C6	2.44	0.52
15:AO:74:ASP:OD2	15:AO:77:ARG:HG3	2.09	0.52
25:BA:1993:A:OP2	27:BD:242:ARG:NH2	2.42	0.52
25:DA:348:G:H2'	25:DA:349:G:C8	2.45	0.52
45:DZ:8:TYR:HB2	45:DZ:38:TYR:CE2	2.45	0.52
54:B8:62:LEU:HB3	54:B8:65:GLU:HG2	1.91	0.52
34:BO:16:ALA:HB2	34:BO:52:VAL:HG21	1.92	0.52
15:AO:33:THR:HG21	15:AO:85:LEU:HD22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:85:LYS:HG3	4:AD:86:LYS:N	2.24	0.52
6:AF:67:MET:SD	6:AF:75:LEU:HD13	2.50	0.52
26:DB:46:A:H2'	26:DB:47:C:C6	2.44	0.52
1:CA:792:A:H4'	1:CA:793:U:O5'	2.10	0.52
25:DA:323:G:O2'	25:DA:1205:U:N3	2.32	0.52
25:DA:1268:A:H2'	25:DA:1269:A:O4'	2.10	0.52
1:CA:1492:A:H2'	1:CA:1493:A:H1'	1.92	0.52
2:CB:56:ARG:NH1	2:CB:56:ARG:HB3	2.25	0.52
1:CA:1269:A:H2	1:CA:1312:G:N3	2.08	0.52
50:B4:63:TYR:N	50:B4:64:GLY:HA2	2.25	0.52
1:AA:407:G:H2'	1:AA:408:A:H8	1.74	0.52
1:CA:1323:G:H4'	1:CA:1363:C:C2	2.45	0.52
1:CA:1063:C:H5''	1:CA:1064:G:H2'	1.92	0.52
25:DA:72:U:OP2	48:D2:29:LYS:NZ	2.33	0.52
19:CS:28:LYS:HB2	19:CS:29:ARG:CB	2.40	0.52
9:AI:7:THR:O	9:AI:83:ARG:NH1	2.41	0.52
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.45	0.52
25:BA:344:A:OP1	29:BF:135:LYS:NZ	2.41	0.52
27:DD:69:ARG:NH2	27:DD:128:GLY:O	2.39	0.52
1:AA:447:G:H2'	1:AA:485:G:N2	2.25	0.52
23:AX:10:G:N2	23:AX:26:G:H1'	2.25	0.52
29:BF:157:VAL:HB	29:BF:194:MET:HG2	1.91	0.52
10:AJ:61:GLU:OE2	14:AN:45:ARG:NE	2.35	0.52
32:BI:93:THR:HG22	32:BI:119:PRO:HB3	1.92	0.52
9:CI:78:LYS:HD3	9:CI:101:PHE:HD2	1.75	0.52
36:BQ:35:VAL:HG13	36:BQ:130:LYS:HB3	1.92	0.52
37:DR:56:LYS:NZ	37:DR:90:ARG:O	2.43	0.52
43:DX:12:VAL:HG22	43:DX:29:TRP:CE2	2.45	0.52
2:AB:55:PHE:HA	2:AB:58:ILE:HD12	1.92	0.52
40:DU:76:TYR:OH	40:DU:92:ARG:NH1	2.42	0.52
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.92	0.52
1:CA:1309:G:H5'	13:CM:78:ILE:HD11	1.92	0.52
25:DA:154:G:O6	25:DA:172:C:N4	2.43	0.52
25:BA:2108:U:H2'	25:BA:2109:G:C8	2.45	0.52
2:AB:60:ASP:O	2:AB:64:ARG:HB2	2.10	0.52
28:DE:120:TRP:CE3	28:DE:155:LYS:HD3	2.45	0.52
40:DU:78:THR:HG22	40:DU:117:GLN:NE2	2.24	0.52
25:DA:601:C:O2	25:DA:605:C:H4'	2.10	0.52
25:DA:864:G:C6	25:DA:865:C:N4	2.78	0.52
31:BH:24:VAL:HG13	31:BH:37:VAL:HG21	1.91	0.52
20:CT:13:LEU:O	20:CT:17:ARG:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:65:TRP:CZ2	29:DF:75:HIS:HD2	2.28	0.52
25:BA:2784:C:H2'	25:BA:2785:C:C6	2.44	0.52
31:DH:106:THR:HG23	31:DH:112:PRO:HB3	1.92	0.52
1:AA:1328:C:OP1	21:AU:21:TYR:OH	2.25	0.52
25:DA:774:A:N3	25:DA:774:A:H2'	2.25	0.52
25:BA:864:C:O2'	25:BA:886:U:H5''	2.10	0.52
26:DB:66:A:H61	26:DB:109:C:H5'	1.75	0.52
25:DA:84:A:N1	25:DA:98:G:O2'	2.41	0.52
39:DT:23:ARG:HG3	39:DT:120:ARG:NH1	2.24	0.51
1:AA:184:G:H2'	1:AA:185:A:C8	2.42	0.51
1:AA:1223:C:H5''	1:AA:1224:G:C5'	2.40	0.51
12:CL:97:ARG:HB2	12:CL:98:TYR:CE2	2.45	0.51
1:CA:652:U:O2'	1:CA:653:A:OP2	2.24	0.51
1:AA:657:G:C2	1:AA:658:G:C8	2.98	0.51
1:AA:503:C:H2'	1:AA:504:C:C6	2.46	0.51
28:BE:11:MET:HG2	28:BE:24:THR:HB	1.92	0.51
25:BA:239:G:OP2	54:B8:13:ARG:NH2	2.43	0.51
26:BB:91:C:OP2	36:BQ:16:ARG:NH1	2.42	0.51
26:DB:43:C:H5''	50:D4:1:MET:HG2	1.91	0.51
25:DA:528:A:C2	25:DA:2042:A:H2'	2.45	0.51
27:BD:234:GLY:O	61:BD:402:HOH:O	2.19	0.51
1:CA:15:G:H2'	1:CA:16:A:H8	1.74	0.51
1:AA:396:G:O2'	1:AA:398:C:OP1	2.15	0.51
25:DA:1529:G:H2'	25:DA:1530:C:H6	1.75	0.51
39:DT:19:LEU:HD22	39:DT:86:ILE:HG13	1.92	0.51
1:CA:742:G:OP2	15:CO:35:ARG:NH2	2.40	0.51
1:CA:1517:G:H1'	25:DA:1919:A:O3'	2.10	0.51
1:CA:660:G:H1	1:CA:745:C:H42	1.58	0.51
32:DI:62:LYS:HG2	32:DI:133:HIS:NE2	2.25	0.51
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.44	0.51
25:BA:611:U:H2'	25:BA:612:C:C6	2.46	0.51
1:AA:192:U:O2'	1:AA:193:C:H6	1.92	0.51
1:CA:1227:A:H8	1:CA:1227:A:H3'	1.75	0.51
1:CA:1206:G:H4'	3:CC:192:THR:O	2.09	0.51
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.10	0.51
25:BA:1378:G:OP1	61:BA:4471:HOH:O	2.19	0.51
1:CA:1311:G:H1	1:CA:1326:C:H42	1.57	0.51
25:DA:652(B):A:C2	25:DA:655:A:H1'	2.44	0.51
1:AA:454:C:OP1	16:AP:75:ARG:NH2	2.42	0.51
26:DB:6:C:H2'	26:DB:7:G:H5''	1.92	0.51
20:CT:16:HIS:O	20:CT:19:SER:OG	2.17	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:141:ILE:O	28:DE:154:LYS:HE2	2.10	0.51
1:AA:502:G:C6	1:AA:503:C:C4	2.98	0.51
32:BI:72:LEU:HA	32:BI:75:LEU:HD11	1.91	0.51
43:BX:1:MET:HE1	48:B2:26:ARG:HH21	1.75	0.51
1:AA:785:G:C2'	1:AA:786:G:H5'	2.41	0.51
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.92	0.51
25:BA:2779:G:H2'	25:BA:2779:G:N3	2.24	0.51
2:CB:167:PRO:HG3	2:CB:188:ALA:HB2	1.92	0.51
9:AI:64:THR:HG23	9:AI:66:ARG:HD2	1.92	0.51
1:CA:1121:U:C4	1:CA:1122:U:C5	2.98	0.51
25:BA:895:G:H2'	25:BA:896:A:C8	2.46	0.51
1:AA:1399:C:C2	1:AA:1502:A:N6	2.78	0.51
2:AB:220:ASP:O	2:AB:223:ILE:HG12	2.10	0.51
25:BA:1218:G:O2'	25:BA:1219:A:O5'	2.28	0.51
10:CJ:22:LYS:HA	10:CJ:25:GLU:HB2	1.93	0.51
25:BA:2372:A:H8	25:BA:2372:A:O5'	1.92	0.51
3:CC:180:ALA:HB1	3:CC:203:PHE:CE1	2.46	0.51
47:B1:3:LYS:HB2	47:B1:61:ARG:NH1	2.25	0.51
45:BZ:110:GLY:O	45:BZ:113:ALA:HB3	2.10	0.51
25:DA:2474:C:H5''	25:DA:2475:C:OP2	2.10	0.51
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.45	0.51
1:AA:45:U:H2'	1:AA:46:G:C8	2.45	0.51
1:CA:344:A:H4'	1:CA:345:C:OP2	2.10	0.51
36:BQ:51:ARG:HD3	36:BQ:66:ILE:HD11	1.93	0.51
1:AA:202:U:H3'	1:AA:203:U:H6	1.75	0.51
38:DS:88:ASP:OD1	38:DS:90:GLY:N	2.43	0.51
25:BA:2889:C:OP2	61:BA:4427:HOH:O	2.19	0.51
25:DA:852:G:N2	25:DA:926:A:H1'	2.26	0.51
25:DA:1563:G:H2'	25:DA:1564:C:C6	2.45	0.51
1:AA:626:U:C2	1:AA:627:G:C8	2.98	0.51
47:D1:51:VAL:HG11	47:D1:74:VAL:HG21	1.92	0.51
47:B1:91:LYS:O	47:B1:95:LEU:HD22	2.11	0.51
1:CA:1004:A:H2'	1:CA:1005:A:H5'	1.92	0.51
1:AA:413:G:N2	1:AA:428:G:H1'	2.24	0.51
8:AH:25:ASP:N	8:AH:25:ASP:OD1	2.43	0.51
1:AA:674:G:H2'	1:AA:675:A:H8	1.74	0.51
25:BA:1405:A:N6	25:BA:1418:U:H3	2.09	0.51
48:B2:2:LYS:O	48:B2:6:VAL:HG23	2.11	0.51
8:AH:41:ARG:NH2	8:AH:123:GLU:OE2	2.35	0.51
25:DA:184:C:H2'	25:DA:185:U:C6	2.45	0.51
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BY:99:CYS:HB2	44:BY:106:LEU:HD21	1.92	0.51
8:CH:86:ILE:HG13	8:CH:133:LEU:HD22	1.92	0.51
1:CA:266:G:H5'	1:CA:266:G:C8	2.46	0.51
28:BE:2:LYS:HG3	28:BE:200:GLU:HB2	1.93	0.51
1:AA:543:C:C2'	1:AA:544:G:H5'	2.41	0.51
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.44	0.51
1:CA:1001(A):G:H2'	1:CA:1002:G:O4'	2.11	0.51
4:AD:158:ILE:O	4:AD:162:LEU:N	2.42	0.51
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.45	0.51
1:AA:865:A:C2	1:AA:918:A:H4'	2.46	0.51
19:AS:65:ASN:HA	50:B4:58:ARG:HG3	1.93	0.51
25:BA:559:U:H2'	25:BA:560:C:C6	2.45	0.51
50:B4:61:ARG:HG3	50:B4:62:ARG:N	2.26	0.51
19:CS:64:GLU:O	19:CS:67:VAL:HG23	2.10	0.51
25:DA:588:U:H2'	25:DA:589:C:C6	2.45	0.51
25:DA:1766:U:H2'	25:DA:1767:C:C6	2.44	0.51
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.91	0.51
1:AA:102:G:H2'	1:AA:103:C:H6	1.76	0.51
1:CA:392:G:H2'	1:CA:393:A:H8	1.73	0.51
5:CE:40:ARG:NH2	5:CE:68:GLU:HA	2.25	0.51
25:BA:549:U:H2'	25:BA:550:U:C6	2.46	0.51
7:AG:146:GLU:O	7:AG:149:ARG:HB2	2.11	0.51
49:D3:16:PRO:HB2	49:D3:18:ASP:OD1	2.11	0.51
1:AA:671:G:H2'	1:AA:672:U:O4'	2.11	0.51
25:DA:637:A:H8	35:DP:117:GLU:HG3	1.74	0.51
48:B2:44:LEU:HD23	48:B2:47:ASN:HA	1.93	0.51
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.45	0.51
25:DA:1297:C:H2'	25:DA:1298:C:H6	1.76	0.51
1:CA:424:G:H2'	1:CA:425:G:H8	1.75	0.51
1:AA:1144:G:N2	1:AA:1146:A:H62	2.09	0.51
25:DA:848:G:N9	25:DA:933:A:H8	2.08	0.51
1:AA:714:G:H2'	1:AA:715:A:C8	2.46	0.51
25:BA:155:C:H6	25:BA:155:C:OP2	1.94	0.51
1:AA:1187:G:H2'	1:AA:1188:A:C8	2.45	0.51
1:AA:747:C:OP2	1:AA:748:C:N4	2.44	0.51
25:BA:1647:G:N7	61:BA:4116:HOH:O	2.35	0.51
44:DY:44:ILE:HA	44:DY:63:LYS:O	2.11	0.51
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.45	0.51
25:BA:296:U:H2'	25:BA:297:C:H6	1.76	0.51
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.11	0.51
1:CA:920:U:H2'	1:CA:921:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:581:G:OP1	33:BN:111:PRO:HD2	2.11	0.51
30:BG:131:TYR:HB3	30:BG:159:VAL:HG13	1.91	0.51
13:CM:14:ARG:CZ	13:CM:42:ALA:HA	2.40	0.51
36:DQ:75:THR:HA	36:DQ:89:ASN:O	2.11	0.51
25:DA:2602:A:OP2	25:DA:2603:G:H5''	2.11	0.51
1:CA:229:U:O2'	16:CP:23:ASP:OD2	2.26	0.51
2:AB:19:HIS:CD2	2:AB:206:ASP:HB2	2.46	0.51
1:CA:144:G:H1	1:CA:178:C:H42	1.59	0.51
2:CB:138:LEU:HA	2:CB:141:GLU:HB3	1.92	0.51
1:AA:346:G:C6	1:AA:348:G:N2	2.78	0.51
1:CA:1316:G:O2'	1:CA:1318:A:N7	2.38	0.51
1:CA:620:C:C2	4:CD:135:LEU:HG	2.46	0.51
25:DA:2849:U:H4'	25:DA:2868:A:C2	2.46	0.51
38:BS:11:LYS:HD2	38:BS:15:ARG:NH1	2.25	0.51
50:B4:62:ARG:HB2	50:B4:63:TYR:CD1	2.44	0.51
25:DA:411:G:C5	35:DP:72:PRO:HB3	2.46	0.51
2:CB:87:ARG:NH2	2:CB:220:ASP:OD1	2.35	0.51
35:BP:121:LYS:O	35:BP:123:LEU:N	2.44	0.51
34:BO:2:ILE:HD12	34:BO:6:THR:HG21	1.92	0.51
7:AG:111:ARG:HB3	7:AG:113:GLU:OE2	2.11	0.51
25:DA:2408:U:H6	25:DA:2408:U:O5'	1.94	0.51
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.46	0.51
25:BA:2050:U:H2'	25:BA:2051:G:O4'	2.11	0.51
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.25	0.51
3:CC:42:LEU:O	3:CC:46:GLU:HG2	2.11	0.51
1:CA:596:C:H2'	1:CA:597:G:H8	1.74	0.51
3:CC:100:ALA:O	3:CC:102:ASN:ND2	2.44	0.51
37:BR:26:LYS:HE2	37:BR:70:LEU:O	2.10	0.51
1:CA:1002:G:N2	1:CA:1039:C:C4	2.79	0.51
1:CA:1162:C:N3	1:CA:1174:G:N2	2.45	0.51
25:BA:8:A:H2'	25:BA:9:U:H6	1.76	0.51
12:AL:59:ARG:HD3	24:AW:10:2QY:C	2.41	0.51
25:DA:2320:A:N3	25:DA:2320:A:H2'	2.24	0.51
7:CG:107:ALA:O	7:CG:111:ARG:HG3	2.10	0.51
2:CB:84:GLU:OE1	2:CB:216:SER:HA	2.11	0.51
27:BD:132:PRO:HD3	27:BD:190:TYR:CZ	2.46	0.51
4:AD:18:LYS:HG2	57:AD:501:SF4:S1	2.51	0.51
1:AA:991:U:C4	1:AA:1212:U:H1'	2.46	0.51
1:AA:1442:G:H2'	1:AA:1442(A):G:H5'	1.93	0.51
3:CC:164:ARG:NH2	3:CC:166:GLU:OE1	2.44	0.51
1:AA:738:C:H2'	1:AA:739:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1164:G:H2'	25:DA:1165:U:C6	2.46	0.51
4:AD:3:ARG:HE	4:AD:118:ARG:CD	2.24	0.51
25:DA:1529:G:H2'	25:DA:1530:C:C6	2.45	0.51
25:DA:924:C:H2'	25:DA:925:C:C6	2.46	0.51
1:CA:1260:C:HO2'	1:CA:1283:G:HO2'	1.59	0.51
25:BA:1373:C:O2'	61:BA:3810:HOH:O	2.17	0.51
25:BA:1284:G:OP2	61:BA:4767:HOH:O	2.18	0.51
25:DA:2293:C:H5'	38:DS:89:ARG:NH2	2.25	0.51
1:CA:568:G:N7	12:CL:5:PRO:HD3	2.26	0.51
1:CA:1009:G:H2'	1:CA:1010:G:O4'	2.10	0.51
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.46	0.51
14:AN:3:ARG:HH21	14:AN:3:ARG:HB3	1.75	0.51
1:CA:980:C:H1'	14:CN:19:ARG:HA	1.92	0.51
45:BZ:150:LEU:HB3	45:BZ:171:ILE:HD11	1.92	0.51
25:DA:903:C:H2'	25:DA:904:C:C6	2.46	0.51
2:AB:185:ILE:CG2	2:AB:199:TYR:HB2	2.41	0.51
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.46	0.51
1:CA:599:C:C2'	1:CA:600:C:H5''	2.37	0.51
1:CA:623:C:H2'	1:CA:624:C:H6	1.75	0.51
44:BY:92:ASN:HB3	44:BY:94:LYS:N	2.22	0.51
2:CB:91:PRO:HG3	2:CB:154:LEU:HD12	1.92	0.51
25:DA:817:C:H2'	25:DA:818:G:O4'	2.11	0.51
25:DA:30:G:OP2	40:DU:5:LYS:HE2	2.10	0.51
13:CM:82:MET:HE2	13:CM:92:HIS:HB3	1.93	0.51
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.10	0.51
26:BB:86:G:H1	26:BB:91:C:H42	1.59	0.51
1:AA:542:G:P	4:AD:10:ARG:HH22	2.34	0.51
25:DA:873:G:N2	25:DA:905:U:C2	2.78	0.51
17:CQ:45:HIS:HA	17:CQ:69:LYS:HE3	1.92	0.51
12:AL:34:ARG:HG2	12:AL:35:GLY:N	2.26	0.51
25:DA:1161:C:H2'	25:DA:1162:G:H8	1.76	0.51
25:DA:909:A:H2'	25:DA:912:C:H5	1.76	0.51
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.92	0.51
25:DA:2850:A:OP2	25:DA:2866:U:H5	1.94	0.51
13:AM:49:THR:HB	13:AM:52:GLU:H	1.75	0.51
47:B1:50:ARG:HG2	47:B1:59:THR:HB	1.93	0.51
1:CA:1005:A:C2	1:CA:1026:G:C8	2.99	0.51
2:CB:162:ILE:O	2:CB:185:ILE:HG12	2.11	0.51
25:DA:1022:G:N7	33:DN:66:LYS:HE2	2.26	0.51
26:DB:21:G:H2'	26:DB:22:U:O4'	2.10	0.51
1:CA:1120:G:C6	1:CA:1121:U:C4	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1122:U:H3	1:CA:1151:A:H2	1.59	0.51
1:AA:474:G:H2'	1:AA:475:G:C8	2.40	0.51
3:CC:35:GLU:OE2	3:CC:59:ARG:NH2	2.35	0.51
1:CA:396:G:O2'	1:CA:398:C:OP1	2.22	0.51
25:BA:1008:U:OP2	61:BA:4616:HOH:O	2.19	0.51
25:DA:784:A:C5	27:DD:229:VAL:HG21	2.46	0.51
1:AA:693:G:H2'	1:AA:694:A:C8	2.46	0.51
16:CP:51:VAL:HG12	16:CP:53:VAL:N	2.26	0.51
7:CG:76:ARG:HD3	7:CG:89:MET:HG3	1.93	0.51
28:DE:92:THR:O	28:DE:95:ILE:HG23	2.11	0.51
25:BA:1549:U:H2'	25:BA:1550:C:C6	2.46	0.51
3:AC:11:ARG:NH2	3:AC:177:THR:O	2.39	0.51
33:DN:4:TYR:CD2	40:DU:100:VAL:HG11	2.46	0.51
2:CB:60:ASP:O	2:CB:64:ARG:HG2	2.10	0.51
1:AA:394:G:H2'	1:AA:395:C:H6	1.76	0.51
30:BG:137:GLU:OE1	30:BG:139:LEU:HD11	2.11	0.51
25:BA:1921:G:H2'	25:BA:1921:G:N3	2.26	0.51
27:BD:123:ALA:HB3	27:BD:131:LEU:HG	1.93	0.51
49:B3:44:ARG:O	49:B3:48:GLU:HG3	2.11	0.51
25:DA:1833:U:H2'	25:DA:1834:U:H6	1.75	0.51
2:CB:80:ILE:HD13	2:CB:80:ILE:O	2.11	0.50
1:CA:922:G:H2'	1:CA:923:A:C8	2.45	0.50
1:AA:1002:G:H3'	1:AA:1003:G:C8	2.45	0.50
1:AA:1025:U:H3	1:AA:1036:G:H1	1.60	0.50
50:B4:63:TYR:H	50:B4:63:TYR:HD1	1.57	0.50
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.93	0.50
23:AX:6:G:H1	23:AX:67:C:N4	2.09	0.50
1:CA:758:G:N7	61:CA:4152:HOH:O	2.34	0.50
3:CC:155:GLY:HA3	3:CC:196:LEU:HD13	1.92	0.50
6:CF:69:GLU:O	6:CF:72:VAL:HG12	2.11	0.50
25:BA:930:G:O6	25:BA:939:C:C2	2.64	0.50
18:AR:59:SER:H	18:AR:62:GLU:HG3	1.76	0.50
25:BA:2847:G:H21	37:BR:45:ARG:HH12	1.59	0.50
1:CA:127:G:OP1	1:CA:635:G:H1'	2.11	0.50
1:CA:545:C:OP1	4:CD:61:LYS:NZ	2.42	0.50
25:BA:1846:A:OP2	27:BD:54:ARG:NH2	2.45	0.50
25:DA:1819:A:H5''	27:DD:161:THR:HG21	1.93	0.50
29:DF:154:VAL:HG22	29:DF:191:ARG:HB2	1.94	0.50
25:BA:208:G:H2'	25:BA:209:G:O4'	2.11	0.50
31:BH:94:TYR:CE2	31:BH:160:LYS:HG2	2.46	0.50
1:CA:1060:C:H4'	10:CJ:51:ARG:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:34:ARG:HG3	12:CL:105:TYR:CE2	2.45	0.50
7:AG:26:PHE:O	7:AG:30:ILE:HG13	2.11	0.50
9:AI:23:ASN:ND2	9:AI:25:LYS:HG2	2.26	0.50
25:DA:2847:U:OP1	39:DT:98:LYS:NZ	2.42	0.50
25:DA:118:A:N3	25:DA:178:G:H1'	2.26	0.50
31:DH:117:PRO:HG3	31:DH:123:PHE:CD2	2.46	0.50
28:BE:116:VAL:HG13	28:BE:122:PHE:HB2	1.93	0.50
25:DA:1007:C:P	33:DN:37:LYS:HZ2	2.34	0.50
25:DA:2615:U:H2'	25:DA:2616:C:H6	1.77	0.50
30:DG:14:GLU:O	30:DG:17:PRO:HD2	2.11	0.50
26:BB:42:C:C6	30:BG:69:ALA:HB2	2.46	0.50
25:BA:831:A:C5	27:BD:229:VAL:HG21	2.46	0.50
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.46	0.50
25:DA:1665:A:H4'	34:DO:67:LYS:HB2	1.93	0.50
1:CA:1273:G:H3'	1:CA:1274:G:C8	2.43	0.50
30:DG:97:ASP:O	30:DG:101:ILE:HG13	2.11	0.50
35:BP:63:PRO:HD3	54:B8:27:THR:HG22	1.93	0.50
25:DA:2316:C:O2'	30:DG:128:ARG:NH1	2.44	0.50
25:BA:310:C:H2'	25:BA:311:C:C6	2.46	0.50
8:CH:73:ASP:OD1	8:CH:75:ARG:HD3	2.10	0.50
19:CS:28:LYS:HB2	19:CS:29:ARG:HA	1.92	0.50
29:BF:164:ARG:O	29:BF:168:ARG:HB2	2.11	0.50
25:BA:346:A:OP1	29:BF:168:ARG:HD2	2.11	0.50
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.45	0.50
13:CM:80:ARG:HH22	19:CS:69:HIS:CE1	2.29	0.50
55:B9:25:VAL:HB	55:B9:34:GLN:HB2	1.93	0.50
25:DA:581:C:H2'	25:DA:582:G:C8	2.47	0.50
30:DG:36:LYS:HE3	30:DG:95:ARG:NH1	2.27	0.50
35:DP:94:GLU:HG3	35:DP:124:LYS:HD3	1.94	0.50
35:DP:2:LYS:NZ	35:DP:4:SER:OG	2.42	0.50
1:CA:1028:C:O2	1:CA:1034:G:H1'	2.11	0.50
28:BE:34:VAL:HG21	28:BE:78:LEU:HD11	1.93	0.50
1:CA:509:A:C8	1:CA:509:A:H3'	2.45	0.50
3:CC:181:ASN:ND2	3:CC:204:LEU:HD12	2.26	0.50
1:CA:91:C:H2'	1:CA:92:C:C6	2.46	0.50
32:DI:134:PRO:C	32:DI:136:VAL:H	2.15	0.50
34:DO:25:LEU:HD12	34:DO:38:VAL:HG12	1.93	0.50
23:CX:44:A:C6	23:CX:45:G:C6	3.00	0.50
30:DG:13:GLU:O	30:DG:15:VAL:N	2.44	0.50
1:AA:1003:G:C2'	1:AA:1004:A:H4'	2.41	0.50
1:AA:1036:G:H5'	1:AA:1037:C:C5	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:487:A:H2'	1:CA:488:C:O4'	2.11	0.50
25:DA:1187:G:H5''	41:DV:81:TYR:CE1	2.46	0.50
1:AA:946:A:O2'	1:AA:1333:A:N3	2.40	0.50
25:DA:454:A:H4'	25:DA:455:C:OP2	2.11	0.50
1:CA:689:C:OP1	11:CK:27:ASN:ND2	2.45	0.50
25:BA:239:G:H2'	25:BA:240:A:C8	2.47	0.50
5:CE:100:VAL:HG22	5:CE:118:ILE:HG22	1.92	0.50
1:AA:985:C:H2'	1:AA:986:A:H8	1.76	0.50
18:AR:59:SER:H	18:AR:62:GLU:CG	2.24	0.50
1:CA:1249:C:O4'	9:CI:70:LYS:HE2	2.11	0.50
30:BG:109:VAL:C	30:BG:112:PRO:HD2	2.31	0.50
46:B0:27:GLU:HG3	46:B0:68:GLU:HA	1.92	0.50
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.93	0.50
27:BD:26:LYS:HB3	27:BD:83:GLU:HG2	1.93	0.50
1:AA:308:C:H2'	1:AA:309:G:C8	2.46	0.50
1:AA:261:U:OP2	20:AT:79:ARG:NH2	2.44	0.50
2:CB:76:GLN:HG3	2:CB:206:ASP:O	2.11	0.50
1:CA:1256:A:H61	1:CA:1278:U:C1'	2.23	0.50
1:CA:411:A:OP1	4:CD:30:LYS:NZ	2.25	0.50
25:DA:465:G:C6	25:DA:466:A:N6	2.79	0.50
1:CA:1270:C:C2'	1:CA:1271:G:H5'	2.42	0.50
1:CA:300:A:H1'	1:CA:565:U:O2	2.11	0.50
9:AI:3:GLN:HG2	9:AI:20:ARG:HE	1.77	0.50
33:DN:20:GLY:HA2	33:DN:61:ARG:NE	2.27	0.50
25:BA:2062:C:H2'	25:BA:2063:U:O4'	2.12	0.50
25:BA:2377:G:O6	54:B8:39:LYS:HE3	2.11	0.50
27:BD:12:SER:HB3	27:BD:208:LYS:HB3	1.93	0.50
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.46	0.50
25:BA:275:C:H2'	25:BA:276:C:C6	2.47	0.50
25:DA:250:G:H2'	25:DA:251:A:C8	2.47	0.50
19:AS:52:TYR:HA	19:AS:56:GLN:O	2.11	0.50
1:AA:684:A:H2'	1:AA:685:G:C8	2.46	0.50
1:CA:998:G:N2	1:CA:1043:C:N3	2.48	0.50
25:BA:1834:A:H4'	27:BD:259:THR:HG23	1.93	0.50
8:AH:4:ASP:OD2	8:AH:85:ARG:NH1	2.36	0.50
43:BX:31:HIS:HD2	43:BX:33:LYS:N	2.05	0.50
43:DX:92:LEU:C	43:DX:94:GLY:H	2.15	0.50
25:DA:1412:A:H2'	25:DA:1413:G:H8	1.72	0.50
25:BA:1093:G:H2'	25:BA:1156:G:H1	1.77	0.50
1:CA:757:U:H2'	1:CA:758:G:O4'	2.11	0.50
1:CA:1072:G:C6	1:CA:1073:U:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2336:A:H61	46:D0:43:THR:HG21	1.76	0.50
25:DA:937:U:H2'	25:DA:938:G:O4'	2.12	0.50
1:CA:170:U:O2'	1:CA:171:A:H5'	2.12	0.50
27:DD:221:VAL:HG22	27:DD:226:MET:CE	2.42	0.50
20:CT:42:GLN:O	20:CT:45:GLN:HB3	2.11	0.50
1:CA:977:A:N3	1:CA:977:A:H2'	2.26	0.50
52:B6:11:LEU:HB2	52:B6:21:TYR:HB2	1.92	0.50
29:DF:167:ALA:O	29:DF:170:LEU:HB2	2.11	0.50
7:AG:16:LEU:HD23	9:AI:41:VAL:HG12	1.92	0.50
9:AI:48:GLU:OE2	9:AI:51:ARG:HD2	2.12	0.50
48:D2:1:MET:SD	48:D2:56:GLN:NE2	2.85	0.50
1:CA:1004:A:C8	1:CA:1005:A:H4'	2.47	0.50
10:CJ:13:HIS:O	10:CJ:17:ASP:HB2	2.12	0.50
25:DA:1697:G:OP2	25:DA:1698:A:O2'	2.24	0.50
9:CI:9:ARG:O	9:CI:104:ARG:HG3	2.11	0.50
1:AA:166:G:C4	1:AA:167:G:N7	2.79	0.50
9:AI:53:VAL:HG11	9:AI:92:TYR:CE1	2.46	0.50
25:BA:2211:U:H2'	25:BA:2212:G:H5'	1.92	0.50
25:DA:1359:A:N1	25:DA:1372:U:C4	2.80	0.50
1:AA:407:G:OP1	4:AD:115:ARG:HD3	2.12	0.50
1:CA:1093:A:H5''	1:CA:1094:G:OP2	2.12	0.50
1:AA:826:C:H2'	1:AA:827:U:H6	1.77	0.50
1:AA:382:A:N3	1:AA:383:A:N7	2.59	0.50
1:AA:36:C:O2'	1:AA:501:C:OP1	2.26	0.50
1:AA:738:C:H2'	1:AA:739:C:H6	1.75	0.50
28:DE:9:VAL:HG22	28:DE:25:VAL:HB	1.94	0.50
41:BV:14:VAL:HA	41:BV:18:LEU:HD12	1.93	0.50
28:DE:101:ARG:CZ	28:DE:171:GLU:HB2	2.41	0.50
25:DA:2262:U:OP2	46:D0:19:LYS:HD3	2.12	0.50
1:CA:276:G:C2'	1:CA:277:C:H5'	2.41	0.50
32:BI:29:TYR:C	32:BI:32:PRO:HD2	2.31	0.50
1:AA:67:C:H2'	1:AA:68:G:C8	2.46	0.50
41:DV:95:LEU:HD13	41:DV:97:LYS:HD3	1.93	0.50
25:DA:1563:G:H2'	25:DA:1564:C:H6	1.77	0.50
25:DA:2293:C:H5'	25:DA:2294:C:OP2	2.11	0.50
5:AE:98:THR:HG22	5:AE:99:GLY:O	2.12	0.50
33:BN:15:LEU:HD12	33:BN:137:LYS:HG2	1.94	0.50
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.47	0.50
61:BA:3804:HOH:O	51:B5:15:ARG:HG2	2.11	0.50
20:CT:9:ASN:O	20:CT:10:LEU:HB2	2.11	0.50
11:CK:81:ASP:OD1	11:CK:106:LYS:HE2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:16:LEU:H	7:CG:16:LEU:HD22	1.77	0.50
25:BA:1153:G:H2'	25:BA:1153:G:N3	2.27	0.50
7:AG:69:VAL:HG22	7:AG:135:VAL:HG22	1.94	0.50
40:DU:66:ASN:O	40:DU:70:ARG:HG3	2.12	0.50
25:DA:1153:C:H2'	25:DA:1154:G:O4'	2.12	0.50
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.92	0.50
2:AB:71:VAL:HB	2:AB:164:VAL:HG13	1.93	0.50
1:CA:1095:U:P	1:CA:1108:G:H1	2.35	0.50
1:AA:491:G:H2'	1:AA:492:G:O4'	2.12	0.50
25:DA:2336:A:H61	46:D0:43:THR:CG2	2.25	0.50
45:DZ:5:LEU:HD13	45:DZ:6:LYS:O	2.12	0.50
25:DA:2293:C:H42	25:DA:2339:G:H1	1.58	0.50
46:B0:27:GLU:HA	46:B0:67:VAL:HG12	1.94	0.50
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.47	0.50
7:AG:78:ARG:HG2	7:AG:79:ARG:HB2	1.94	0.50
25:BA:179:A:N3	25:BA:726:C:O2'	2.37	0.50
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.11	0.50
2:AB:45:GLN:O	2:AB:49:GLU:HB2	2.11	0.50
25:DA:1346:G:OP2	61:DA:4263:HOH:O	2.20	0.50
13:AM:84:ILE:HG13	19:AS:74:PHE:HE1	1.75	0.50
9:CI:105:ASP:HB2	9:CI:107:ARG:HG3	1.93	0.50
27:BD:38:LYS:HE3	27:BD:39:LYS:O	2.12	0.50
1:AA:872:A:C8	1:AA:874:G:C8	3.00	0.50
38:DS:25:ARG:NH1	38:DS:42:ASP:OD1	2.41	0.50
1:AA:397:A:N3	1:AA:397:A:H3'	2.26	0.50
42:DW:35:ILE:HG23	51:D5:28:PRO:HD2	1.93	0.50
1:CA:1036:G:N7	1:CA:1037:C:C2	2.80	0.50
1:CA:715:A:H2'	1:CA:716:A:C8	2.47	0.50
1:AA:414:A:H2'	1:AA:415:A:O4'	2.12	0.50
25:DA:2711:A:H5''	25:DA:2712:U:H5''	1.94	0.50
9:AI:19:LEU:HB3	9:AI:59:PHE:HD2	1.76	0.50
25:BA:1221:G:H1'	25:BA:1222:A:O5'	2.11	0.50
25:DA:330:A:H2	25:DA:1210:A:H2'	1.76	0.50
13:CM:93:ARG:HD3	25:DA:888:C:OP2	2.12	0.50
25:DA:1406:U:H2'	25:DA:1407:C:C6	2.46	0.50
25:DA:954:G:C5	25:DA:955:C:C5	2.99	0.50
5:CE:80:ILE:HG22	5:CE:91:LEU:HB2	1.94	0.50
25:BA:1712:A:H4'	34:BO:67:LYS:HB2	1.92	0.50
1:CA:153:C:H2'	1:CA:154:C:C6	2.47	0.50
25:DA:2386:C:H2'	25:DA:2387:U:C6	2.46	0.50
25:BA:225:C:H2'	25:BA:226:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:150:GLY:HA2	29:DF:172:TRP:CE3	2.47	0.50
25:BA:1855:G:OP1	27:BD:52:ARG:NH1	2.40	0.50
20:CT:43:LEU:O	20:CT:47:GLY:N	2.45	0.50
1:AA:701:C:O2	1:AA:703:G:N1	2.45	0.50
25:DA:2882:A:OP1	37:DR:96:ARG:NE	2.44	0.50
1:AA:1269:A:H2	1:AA:1312:G:N3	2.10	0.50
5:AE:90:VAL:O	5:AE:91:LEU:HD13	2.10	0.50
1:AA:1129:C:O2'	1:AA:1139:G:N7	2.33	0.50
13:AM:3:ARG:HG3	13:AM:4:ILE:H	1.77	0.50
25:BA:831:A:H5'	25:BA:832:G:OP1	2.12	0.50
1:AA:457:C:H2'	1:AA:458:C:H6	1.74	0.50
35:DP:65:ARG:HG3	54:D8:25:MET:HG3	1.93	0.50
25:DA:878:A:N6	25:DA:900:A:N7	2.60	0.50
19:AS:65:ASN:HD22	19:AS:65:ASN:N	2.08	0.50
1:AA:1224:G:O2'	1:AA:1322:C:OP1	2.29	0.50
1:AA:174:C:H2'	1:AA:175:C:H6	1.76	0.50
25:DA:754:C:H2'	25:DA:755:C:C6	2.43	0.50
27:DD:16:MET:HG3	27:DD:206:LEU:O	2.12	0.50
25:DA:2302:G:C6	25:DA:2303:G:N7	2.80	0.50
1:AA:137:C:H2'	1:AA:138:G:H5'	1.94	0.50
27:BD:10:THR:OG1	27:BD:13:ARG:HB2	2.12	0.50
32:BI:93:THR:OG1	32:BI:96:ASP:OD1	2.19	0.50
25:BA:910:A:H2'	25:BA:911:G:H8	1.77	0.50
1:AA:203:U:OP2	1:AA:203:U:H2'	2.12	0.50
25:DA:873:G:H2'	25:DA:874:G:H5''	1.94	0.50
25:DA:1453:U:OP1	37:DR:77:ARG:NH1	2.36	0.50
25:BA:1201:A:OP1	40:BU:55:ARG:HD3	2.11	0.50
25:BA:1312:G:O5'	42:BW:15:ARG:NH2	2.45	0.50
4:AD:25:ARG:HG2	4:AD:25:ARG:O	2.11	0.50
26:DB:3:C:H2'	26:DB:4:C:C6	2.47	0.50
1:CA:501:C:H2'	1:CA:502:G:C8	2.47	0.50
1:AA:1145:C:H4'	1:AA:1146:A:C5'	2.41	0.49
18:CR:60:ALA:O	18:CR:64:ARG:HG3	2.12	0.49
30:BG:16:ARG:HB2	30:BG:17:PRO:HD3	1.94	0.49
1:CA:1227:A:H3'	1:CA:1227:A:C8	2.47	0.49
1:AA:1241:G:H1	1:AA:1296:C:N4	2.10	0.49
38:DS:10:ARG:HH21	38:DS:91:PRO:HB2	1.77	0.49
11:CK:20:TYR:CE1	11:CK:83:ILE:HD12	2.46	0.49
25:BA:2899:C:H2'	25:BA:2900:G:O4'	2.12	0.49
15:CO:29:VAL:HG11	15:CO:81:LEU:HD21	1.94	0.49
25:BA:2486:C:H5''	25:BA:2487:C:OP2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.93	0.49
4:CD:26:CYS:HA	57:CD:501:SF4:S2	2.52	0.49
1:AA:524:G:H2'	1:AA:525:C:C6	2.46	0.49
48:D2:32:LEU:HD23	48:D2:53:LEU:HB3	1.94	0.49
1:CA:999:C:C4	1:CA:1042:G:C2	2.99	0.49
1:AA:160:A:N1	1:AA:343:U:C2	2.80	0.49
27:DD:71:ASP:HB2	27:DD:103:ARG:NH2	2.22	0.49
25:DA:1996:C:H4'	25:DA:1997:G:OP1	2.11	0.49
1:CA:1047:G:H5''	14:CN:4:LYS:HD3	1.93	0.49
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.47	0.49
32:DI:140:LEU:HD13	32:DI:142:VAL:HG13	1.94	0.49
1:CA:59:A:H5''	1:CA:60:A:H5''	1.94	0.49
19:CS:27:GLU:HG2	19:CS:47:HIS:NE2	2.28	0.49
25:DA:1651:G:H5'	37:DR:39:PRO:HG2	1.94	0.49
1:AA:1210:C:C2'	1:AA:1211:U:H5'	2.42	0.49
25:DA:1161:C:H2'	25:DA:1162:G:C8	2.46	0.49
46:B0:27:GLU:HB2	46:B0:69:PHE:HD1	1.77	0.49
7:AG:78:ARG:HH21	7:AG:156:TRP:HB3	1.77	0.49
2:CB:230:VAL:HG22	2:CB:231:GLU:H	1.77	0.49
25:DA:608:A:H2'	25:DA:609:A:C8	2.47	0.49
7:CG:47:CYS:O	7:CG:50:ILE:HG12	2.11	0.49
25:BA:1827:U:H2'	25:BA:1828:C:C6	2.47	0.49
1:AA:64:G:H4'	1:AA:65:U:H3'	1.93	0.49
23:AX:20:U:H5''	23:AX:21:A:OP2	2.12	0.49
8:CH:124:ALA:O	8:CH:128:GLY:N	2.44	0.49
1:CA:1516:G:N2	1:CA:1519:A:OP2	2.45	0.49
1:AA:1492:A:H1'	25:BA:1935:A:H61	1.78	0.49
25:BA:1001:G:OP2	36:BQ:87:LYS:HE2	2.12	0.49
1:CA:691:G:H2'	1:CA:692:U:C6	2.46	0.49
1:CA:297:G:N2	1:CA:300:A:OP2	2.45	0.49
25:BA:1222:A:H3'	25:BA:1223:C:C6	2.48	0.49
29:DF:20:LEU:HD22	29:DF:21:ALA:H	1.77	0.49
32:BI:38:LEU:HB2	32:BI:40:THR:HG22	1.94	0.49
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.46	0.49
1:CA:358:U:H2'	1:CA:359:U:C6	2.47	0.49
25:BA:354:A:HO2'	25:BA:355:A:H8	1.58	0.49
35:DP:84:ASN:OD1	35:DP:117:GLU:HB2	2.12	0.49
25:BA:296:U:H2'	25:BA:297:C:C6	2.46	0.49
1:AA:41:G:H2'	1:AA:42:G:C8	2.47	0.49
10:CJ:11:PHE:CE1	10:CJ:67:THR:HG22	2.47	0.49
21:AU:9:ARG:HA	21:AU:22:ARG:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:2:ILE:HD12	34:DO:6:THR:HG21	1.94	0.49
47:D1:7:ILE:HG23	47:D1:98:LEU:HD11	1.93	0.49
41:BV:98:GLU:OE1	41:BV:100:ARG:HD3	2.12	0.49
20:AT:57:ARG:HH22	20:AT:100:ILE:HD12	1.77	0.49
25:DA:812:C:H2'	25:DA:813:U:H6	1.77	0.49
12:CL:54:LYS:O	12:CL:70:ILE:HG13	2.11	0.49
42:BW:18:ARG:NH1	42:BW:76:VAL:O	2.46	0.49
25:BA:2314:G:C2	25:BA:2327:G:C2	3.00	0.49
7:CG:132:GLY:O	7:CG:136:LYS:HG2	2.12	0.49
54:D8:3:LYS:HB2	54:D8:64:TYR:OH	2.11	0.49
1:CA:1057:G:C5	1:CA:1204:A:C2	3.00	0.49
1:AA:615:C:H2'	1:AA:616:G:O4'	2.12	0.49
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.93	0.49
26:DB:78:A:H2'	26:DB:79:C:O4'	2.12	0.49
1:CA:1025:U:O2'	1:CA:1026:G:H5''	2.12	0.49
25:DA:2592:G:N7	61:DA:3923:HOH:O	2.34	0.49
25:DA:816:C:O2'	25:DA:932:G:O6	2.31	0.49
51:B5:16:ARG:HG2	51:B5:16:ARG:HH11	1.78	0.49
24:CW:9:MVA:HG13	24:CW:10:2QY:H82	1.94	0.49
12:CL:24:VAL:HG13	12:CL:98:TYR:CE1	2.47	0.49
50:D4:46:GLN:HG3	50:D4:48:ARG:HH21	1.77	0.49
13:CM:60:VAL:HG23	13:CM:64:TRP:HE3	1.77	0.49
25:BA:1904:C:H2'	25:BA:1905:G:O4'	2.13	0.49
16:CP:74:LEU:O	16:CP:79:VAL:HG23	2.13	0.49
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	1.94	0.49
1:AA:391:G:O3'	16:AP:8:ARG:NH2	2.46	0.49
25:DA:637:A:H2'	35:DP:117:GLU:OE2	2.11	0.49
39:DT:51:ARG:HG3	39:DT:98:LYS:HD2	1.94	0.49
26:BB:15:A:OP1	26:BB:108:U:O2'	2.24	0.49
12:AL:25:PRO:HD2	12:AL:98:TYR:OH	2.12	0.49
29:BF:31:HIS:HB2	35:BP:9:ASN:OD1	2.12	0.49
31:DH:27:LYS:HZ3	31:DH:32:GLU:HB2	1.77	0.49
1:CA:189(L):G:H2'	1:CA:190:U:H6	1.76	0.49
1:AA:757:U:H2'	1:AA:758:G:O4'	2.11	0.49
35:DP:97:PRO:HD3	35:DP:126:VAL:O	2.11	0.49
31:DH:3:ARG:HH22	31:DH:5:GLY:H	1.61	0.49
1:CA:1079:G:O3'	5:CE:14:ARG:NH2	2.44	0.49
25:BA:2827:G:OP1	37:BR:99:LYS:HE2	2.12	0.49
33:BN:96:GLU:H	33:BN:96:GLU:CD	2.16	0.49
25:BA:1248:G:O6	61:BA:4634:HOH:O	2.19	0.49
1:CA:1240:U:OP2	7:CG:115:ARG:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:51:VAL:HG11	8:CH:60:ARG:NH1	2.20	0.49
25:DA:315:G:H2'	25:DA:316:C:C6	2.48	0.49
4:AD:30:LYS:HA	4:AD:35:ARG:HH11	1.78	0.49
25:DA:2552:U:C2	25:DA:2554:U:H5''	2.48	0.49
1:AA:1189:C:H5''	1:AA:1190:G:OP2	2.13	0.49
25:DA:2845:G:H2'	25:DA:2846:G:H8	1.75	0.49
4:CD:150:GLU:HA	4:CD:153:ARG:HE	1.77	0.49
8:CH:20:TYR:CE2	8:CH:75:ARG:HG2	2.47	0.49
1:AA:1243:C:H2'	1:AA:1244:C:H6	1.78	0.49
25:BA:407:U:H2'	25:BA:408:G:C8	2.47	0.49
25:BA:1940:A:O2'	25:BA:1942:C:N4	2.46	0.49
1:AA:394:G:H2'	1:AA:395:C:C6	2.46	0.49
25:BA:809:U:H4'	25:BA:810:G:O5'	2.12	0.49
25:BA:2398:C:O2'	61:BA:3871:HOH:O	2.20	0.49
43:DX:44:GLU:O	43:DX:48:LYS:N	2.45	0.49
1:AA:665:A:H1'	1:AA:733:A:O4'	2.12	0.49
25:DA:1614:A:C2	42:DW:93:ALA:HB2	2.47	0.49
25:DA:483:A:O2'	44:DY:49:VAL:O	2.19	0.49
25:BA:1298:G:C2	25:BA:1299:A:C2	3.01	0.49
1:AA:130:A:O2'	1:AA:131:C:O5'	2.28	0.49
40:BU:58:ARG:HA	40:BU:61:TRP:CE3	2.47	0.49
25:DA:684:G:OP1	53:D7:16:HIS:ND1	2.45	0.49
34:DO:20:MET:HE3	34:DO:44:LYS:HE3	1.95	0.49
1:CA:1228:C:OP1	13:CM:115:LYS:N	2.33	0.49
25:BA:672:G:H8	25:BA:672:G:O5'	1.96	0.49
12:CL:24:VAL:HG13	12:CL:98:TYR:HE1	1.77	0.49
1:CA:1423:G:P	34:DO:49:ARG:HH12	2.34	0.49
2:AB:20:GLU:HG2	2:AB:191:ASP:HB3	1.94	0.49
25:BA:207:A:C2	25:BA:224:U:H4'	2.47	0.49
1:AA:542:G:H2'	1:AA:543:C:C6	2.47	0.49
9:CI:38:GLN:HG2	9:CI:39:GLY:N	2.27	0.49
1:AA:999:C:H2'	1:AA:1000:U:O4'	2.13	0.49
1:CA:628:G:H2'	1:CA:629:G:C8	2.48	0.49
25:BA:1919:G:H2'	25:BA:1920:U:O4'	2.13	0.49
25:BA:1825:U:H2'	25:BA:1826:C:C6	2.47	0.49
25:DA:807:U:OP1	35:DP:36:LYS:NZ	2.40	0.49
25:DA:2471:C:N4	25:DA:2476:A:O2'	2.46	0.49
1:AA:678:U:H2'	1:AA:679:C:C6	2.47	0.49
25:DA:176:G:O2'	25:DA:177:G:H5'	2.12	0.49
25:BA:2879:G:H2'	25:BA:2880:C:O4'	2.13	0.49
13:AM:50:GLU:O	13:AM:54:VAL:HG22	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:70:GLU:O	32:DI:74:ASN:HB2	2.13	0.49
25:DA:1472:A:H2'	25:DA:1473:G:O4'	2.13	0.49
2:CB:221:LEU:HD13	2:CB:224:GLN:HE22	1.76	0.49
5:AE:84:PHE:CE2	5:AE:133:TYR:HD2	2.31	0.49
1:CA:1151:A:H5''	10:CJ:41:PRO:HA	1.95	0.49
1:CA:427:U:H2'	1:CA:428:G:C8	2.48	0.49
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.13	0.49
1:CA:975:A:H4'	1:CA:976:G:C5'	2.40	0.49
9:AI:21:PRO:HA	9:AI:59:PHE:HA	1.94	0.49
25:DA:1313:U:H2'	25:DA:1610:A:N1	2.27	0.49
1:CA:253:U:H2'	1:CA:254:G:H8	1.77	0.49
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.78	0.49
1:AA:540:G:H2'	1:AA:541:G:O4'	2.12	0.49
25:BA:1552:C:O2'	25:BA:1553:A:H5'	2.13	0.49
25:DA:539:G:H2'	25:DA:540:C:C6	2.47	0.49
25:DA:2880:C:O3'	37:DR:90:ARG:NH1	2.45	0.49
25:DA:601:C:O2'	29:DF:104:LYS:NZ	2.46	0.49
25:DA:895:U:O2'	25:DA:896:A:H2'	2.13	0.49
2:AB:98:LEU:HB2	2:AB:101:MET:SD	2.52	0.49
27:BD:175:LEU:HD12	27:BD:185:VAL:HG21	1.95	0.49
13:AM:40:ASN:O	13:AM:43:THR:OG1	2.29	0.49
25:BA:2507:G:H5''	36:BQ:82:ARG:HG2	1.93	0.49
1:CA:1012:U:H2'	1:CA:1013:G:C8	2.47	0.49
25:BA:1098:C:O5'	25:BA:1098:C:H6	1.96	0.49
25:DA:1899:G:N3	25:DA:1899:G:H2'	2.28	0.49
2:CB:23:ARG:HB2	2:CB:23:ARG:NH1	2.28	0.49
25:DA:491:G:H2'	25:DA:492:A:C8	2.48	0.49
25:BA:1700:G:H3'	37:BR:2:ARG:HD3	1.93	0.49
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.12	0.49
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.95	0.49
25:DA:999:U:O2'	25:DA:1000:A:H5'	2.13	0.49
1:CA:600:C:H2'	1:CA:601:C:C6	2.48	0.49
25:BA:1317:G:OP2	61:BA:4516:HOH:O	2.20	0.49
1:AA:472:A:N6	1:AA:473:G:C2	2.80	0.49
1:AA:191:G:C6	1:AA:192:U:C4	3.01	0.49
25:BA:2316:G:H22	25:BA:2324:U:H3	1.61	0.49
25:DA:1434:A:H61	25:DA:1558:A:H62	1.59	0.49
25:DA:2100:G:H2'	25:DA:2101:G:H5'	1.94	0.49
1:AA:445:G:H2'	1:AA:446:G:H8	1.78	0.49
25:DA:1531:C:N4	25:DA:1538:G:H1	2.10	0.49
25:BA:231:G:C8	54:B8:5:LYS:HG2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1810:U:H2'	61:BA:4800:HOH:O	2.11	0.49
25:DA:989:G:H4'	25:DA:990:A:OP1	2.12	0.49
27:DD:228:PRO:HD3	27:DD:235:GLY:CA	2.42	0.49
25:DA:2649:U:H2'	25:DA:2650:U:C6	2.47	0.49
49:B3:11:SER:OG	49:B3:13:ILE:HG13	2.12	0.49
1:AA:302:G:N3	1:AA:556:C:H4'	2.28	0.49
41:DV:24:LYS:HA	41:DV:92:THR:OG1	2.12	0.49
29:DF:88:VAL:HG21	29:DF:91:GLY:HA3	1.95	0.49
25:BA:821:A:H2'	25:BA:821:A:N3	2.27	0.49
1:AA:250:A:H4'	1:AA:251:G:O5'	2.13	0.49
25:BA:330:U:H2'	25:BA:331:G:O4'	2.13	0.49
14:CN:47:LEU:O	14:CN:51:GLY:N	2.44	0.49
25:BA:1521:C:H2'	25:BA:1522:G:C8	2.48	0.49
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.13	0.49
1:AA:438:G:O2'	1:AA:494:U:O4	2.23	0.49
1:CA:1129:C:H4'	9:CI:16:ARG:HH22	1.78	0.49
2:AB:20:GLU:O	2:AB:40:HIS:HB2	2.12	0.49
1:AA:542:G:H2'	1:AA:543:C:H6	1.78	0.49
1:AA:308:C:H2'	1:AA:309:G:H8	1.77	0.49
23:AX:8:U:O5'	23:AX:8:U:H6	1.95	0.49
1:CA:164:U:H2'	1:CA:165:C:C6	2.47	0.49
33:DN:104:LYS:HA	33:DN:107:LEU:HD12	1.93	0.49
40:BU:24:TYR:HB2	40:BU:29:SER:HB3	1.95	0.49
30:DG:7:LEU:HD22	30:DG:100:TRP:HE3	1.78	0.49
44:DY:35:TYR:CE2	44:DY:69:ALA:HB3	2.47	0.49
36:BQ:133:ARG:HG2	36:BQ:134:ARG:N	2.28	0.49
25:BA:1588:G:H5''	25:BA:1589:A:OP2	2.12	0.49
44:DY:14:LEU:HB2	44:DY:75:ILE:HD11	1.95	0.49
37:DR:72:ASP:O	37:DR:76:VAL:HG23	2.13	0.49
9:CI:49:PRO:HG2	9:CI:81:ILE:HG23	1.95	0.49
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.95	0.49
16:CP:28:ARG:HG3	16:CP:29:ASP:N	2.28	0.49
1:AA:1183:A:H3'	1:AA:1184:G:H5''	1.95	0.49
1:AA:864:A:H2'	1:AA:865:A:C8	2.47	0.49
1:CA:532:A:H2	1:CA:1207:G:H4'	1.77	0.49
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.94	0.49
3:CC:29:TYR:OH	14:CN:54:PRO:O	2.23	0.49
3:CC:36:ASP:O	3:CC:40:ARG:HG3	2.12	0.49
25:DA:1815:A:P	27:DD:54:ARG:HH22	2.36	0.49
35:DP:38:GLN:HG2	35:DP:45:LEU:H	1.78	0.49
38:DS:15:ARG:O	38:DS:19:LYS:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:392:G:H2'	1:AA:393:A:H8	1.78	0.49
50:B4:20:ASN:ND2	50:B4:36:CYS:SG	2.82	0.49
1:AA:276:G:H2'	1:AA:277:C:H5'	1.95	0.49
25:DA:2740:A:C6	25:DA:2741:A:C6	3.01	0.49
25:DA:321:G:OP2	29:DF:135:LYS:HG3	2.12	0.49
45:BZ:146:ILE:HA	45:BZ:147:GLY:HA2	1.62	0.49
1:AA:1237:C:O2'	1:AA:1300:G:N2	2.45	0.49
25:BA:602:G:H2'	25:BA:603:C:C6	2.48	0.49
1:CA:1006:C:C4	1:CA:1007:C:C5	3.01	0.48
1:AA:1145:C:H5''	1:AA:1146:A:OP1	2.13	0.48
1:AA:435:C:H2'	1:AA:436:C:H6	1.77	0.48
1:AA:438:G:OP1	4:AD:125:HIS:NE2	2.33	0.48
20:AT:9:ASN:ND2	20:AT:10:LEU:H	2.11	0.48
25:BA:1525:G:O2'	25:BA:1605:A:N1	2.43	0.48
1:AA:1015:A:H8	1:AA:1015:A:O5'	1.96	0.48
25:DA:792:G:OP2	61:DA:3818:HOH:O	2.20	0.48
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.48	0.48
31:DH:86:GLU:OE1	31:DH:130:ARG:HD3	2.13	0.48
8:CH:83:ILE:HB	8:CH:137:VAL:HG13	1.95	0.48
25:BA:1615:G:OP2	27:BD:63:ARG:NH2	2.45	0.48
1:CA:199:G:O2'	1:CA:200:G:H5'	2.12	0.48
36:DQ:65:PHE:HB2	36:DQ:105:GLU:HB2	1.93	0.48
44:DY:49:VAL:HG21	44:DY:61:ILE:HG23	1.94	0.48
25:DA:2505:G:O6	25:DA:2576:G:H2'	2.13	0.48
1:CA:831:U:H3	1:CA:855:G:H1	1.60	0.48
7:CG:133:GLY:O	7:CG:137:LYS:N	2.45	0.48
54:D8:6:THR:HG22	54:D8:63:PRO:HD2	1.94	0.48
7:CG:22:LEU:HD13	7:CG:97:GLN:OE1	2.13	0.48
25:DA:2031:A:N3	25:DA:2455:G:O2'	2.41	0.48
54:D8:62:LEU:HB3	54:D8:65:GLU:HG2	1.94	0.48
28:DE:178:GLU:OE2	28:DE:178:GLU:N	2.36	0.48
12:CL:123:LYS:H	12:CL:123:LYS:HG2	1.37	0.48
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.77	0.48
34:BO:7:TYR:CE1	34:BO:20:MET:HB2	2.48	0.48
25:DA:409:C:O2'	25:DA:410:G:H5'	2.12	0.48
1:CA:1036:G:H3'	1:CA:1037:C:O4'	2.14	0.48
10:AJ:5:ARG:HH21	10:AJ:73:ASP:CG	2.17	0.48
25:BA:839:G:H5''	25:BA:840:A:H5'	1.95	0.48
7:CG:111:ARG:HB3	7:CG:113:GLU:OE2	2.12	0.48
25:DA:2711:A:OP2	61:DA:3973:HOH:O	2.20	0.48
4:CD:63:LYS:HG3	4:CD:198:VAL:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1314:A:H2'	25:BA:1315:A:O4'	2.13	0.48
1:CA:736:C:H2'	1:CA:737:A:C8	2.47	0.48
32:DI:75:LEU:HD11	32:DI:105:HIS:CD2	2.47	0.48
1:AA:62:U:O2'	1:AA:379:C:H1'	2.14	0.48
25:DA:2360:A:H2'	25:DA:2361:A:O4'	2.13	0.48
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.13	0.48
31:DH:94:TYR:CE2	31:DH:160:LYS:HG2	2.48	0.48
1:AA:236:G:H2'	1:AA:237:C:C6	2.47	0.48
29:DF:167:ALA:HB1	29:DF:173:VAL:HG11	1.95	0.48
37:DR:103:ARG:NH1	37:DR:110:PRO:HD3	2.28	0.48
2:CB:105:PHE:CD2	2:CB:158:LEU:HG	2.48	0.48
1:AA:293:G:C6	1:AA:294:U:C4	3.01	0.48
25:BA:1285:G:H2'	25:BA:1286:U:O4'	2.13	0.48
25:BA:2444:A:C8	47:B1:33:LYS:HD2	2.48	0.48
1:CA:730:G:C5	1:CA:731:G:H1'	2.47	0.48
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.13	0.48
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.48	0.48
25:BA:1817:A:H1'	25:BA:1960:A:N6	2.28	0.48
25:BA:870:G:C6	25:BA:882:A:N1	2.80	0.48
25:DA:116:C:H2'	25:DA:117:G:O4'	2.12	0.48
25:DA:322:A:OP2	29:DF:169:ASN:HB2	2.13	0.48
25:DA:2391:G:O2'	25:DA:2422:A:N7	2.46	0.48
1:AA:1353:G:OP1	21:AU:10:ARG:NH1	2.45	0.48
1:CA:1038:C:O2'	1:CA:1039:C:H5'	2.13	0.48
44:BY:53:PRO:HA	44:BY:56:PRO:HD3	1.94	0.48
1:AA:437:U:O3'	4:AD:125:HIS:HE1	1.96	0.48
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.49	0.48
25:BA:70:A:H3'	25:BA:70:A:OP2	2.13	0.48
20:AT:9:ASN:HD22	20:AT:10:LEU:H	1.61	0.48
1:AA:430:A:OP2	4:AD:8:VAL:HG12	2.13	0.48
1:CA:460:G:H1'	1:CA:472:A:H61	1.77	0.48
13:CM:37:THR:HG21	13:CM:56:LEU:HA	1.94	0.48
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.36	0.48
3:AC:52:LEU:HA	3:AC:70:VAL:HG22	1.95	0.48
48:B2:32:LEU:HD23	48:B2:53:LEU:HB3	1.95	0.48
36:DQ:27:VAL:HG11	36:DQ:134:ARG:HG3	1.95	0.48
40:DU:113:ALA:O	40:DU:117:GLN:HG2	2.13	0.48
38:DS:87:PHE:CZ	38:DS:102:ALA:HB2	2.48	0.48
1:AA:1051:C:H2'	1:AA:1052:U:H6	1.79	0.48
1:AA:1052:U:H5''	1:AA:1053:G:OP2	2.13	0.48
25:DA:328:U:H4'	44:DY:68:HIS:CD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BQ:55:VAL:HG12	36:BQ:64:ILE:HD12	1.96	0.48
20:AT:56:MET:HG3	20:AT:84:LEU:HD22	1.95	0.48
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.49	0.48
1:CA:48:C:OP2	61:CA:4095:HOH:O	2.20	0.48
1:CA:129(A):G:C6	1:CA:189(E):U:H4'	2.48	0.48
1:CA:5:U:H5'	1:CA:6:G:C5	2.48	0.48
25:DA:1916:A:H2'	25:DA:1917:U:O4'	2.12	0.48
25:BA:794:U:O2	25:BA:2036:A:H1'	2.13	0.48
50:B4:46:GLN:HG2	50:B4:48:ARG:HG2	1.95	0.48
27:BD:72:LYS:HE3	27:BD:75:ILE:HD12	1.95	0.48
1:AA:1340:A:O2'	23:AX:31:G:O3'	2.31	0.48
25:BA:347:G:C8	29:BF:171:PRO:HG3	2.48	0.48
25:DA:2025:C:H2'	25:DA:2026:C:C6	2.49	0.48
1:CA:1005:A:H8	1:CA:1005:A:O5'	1.96	0.48
1:CA:1007:C:N4	1:CA:1022:G:C6	2.81	0.48
1:CA:1040:U:C4	1:CA:1041:A:C8	3.01	0.48
1:CA:1226:C:H4'	19:CS:80:TYR:CZ	2.49	0.48
30:DG:136:ARG:HD2	30:DG:137:GLU:N	2.28	0.48
25:BA:596:G:O2'	25:BA:597:C:H3'	2.13	0.48
2:AB:12:GLU:O	2:AB:15:VAL:HG13	2.14	0.48
2:AB:15:VAL:HG11	2:AB:213:LEU:HD12	1.95	0.48
1:AA:1530:G:H4'	1:AA:1530:G:OP1	2.13	0.48
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.95	0.48
2:AB:77:ALA:O	2:AB:81:VAL:HG22	2.13	0.48
25:DA:330:A:HO2'	25:DA:331:A:H8	1.61	0.48
6:CF:24:GLU:HG3	6:CF:28:ARG:HD3	1.95	0.48
4:AD:175:SER:OG	4:AD:184:LYS:HB2	2.13	0.48
25:DA:784:A:OP2	61:DA:4063:HOH:O	2.20	0.48
1:AA:384:G:C2	1:AA:385:C:C4	3.02	0.48
25:DA:614(C):A:N3	29:DF:180:GLY:HA2	2.29	0.48
1:CA:986:A:O2'	19:CS:55:LYS:O	2.31	0.48
27:DD:242:ARG:N	27:DD:242:ARG:HD3	2.28	0.48
25:DA:2293:C:OP1	25:DA:2377:A:N6	2.46	0.48
1:CA:255:G:OP1	17:CQ:69:LYS:NZ	2.35	0.48
36:BQ:54:MET:HG3	36:BQ:117:ALA:HB1	1.95	0.48
27:DD:58:HIS:HD1	27:DD:59:LYS:N	2.11	0.48
25:DA:2872:G:C2	25:DA:2873:A:N6	2.82	0.48
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.96	0.48
1:CA:1446:U:O2'	1:CA:1447:A:O5'	2.31	0.48
25:BA:2623:U:H6	25:BA:2623:U:H5'	1.79	0.48
25:DA:1520:G:H3'	25:DA:1523:U:H6	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:72:ARG:HG3	7:AG:142:GLU:OE2	2.12	0.48
25:DA:2001:A:H2'	25:DA:2002:G:C8	2.49	0.48
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.49	0.48
32:DI:29:TYR:O	32:DI:33:ARG:HD2	2.14	0.48
1:CA:216:G:H2'	1:CA:217:C:C6	2.49	0.48
25:BA:1845:G:H4'	27:BD:51:VAL:HG21	1.96	0.48
25:DA:1449:A:H5'	25:DA:1450:G:OP2	2.14	0.48
28:BE:179:GLU:HB3	28:BE:181:LEU:HD22	1.95	0.48
33:BN:28:THR:HG22	33:BN:29:LYS:N	2.29	0.48
25:BA:2601:A:N3	61:BA:3847:HOH:O	2.35	0.48
2:CB:71:VAL:HG23	2:CB:164:VAL:HA	1.95	0.48
2:CB:127:ILE:HG12	2:CB:128:GLU:H	1.78	0.48
31:DH:113:VAL:HG11	31:DH:151:ILE:HD13	1.94	0.48
1:CA:1003:G:C6	1:CA:1004:A:C2	3.02	0.48
2:CB:16:HIS:CG	2:CB:17:PHE:N	2.81	0.48
1:AA:1182:G:C4'	1:AA:1183:A:H5'	2.43	0.48
1:AA:926:G:C6	1:AA:1505:G:C6	3.02	0.48
34:BO:101:PRO:HG3	39:BT:67:SER:OG	2.13	0.48
31:BH:56:SER:OG	31:BH:58:GLU:HG2	2.13	0.48
25:BA:956:A:C5	36:BQ:13:GLN:HG3	2.49	0.48
1:CA:839:U:H5''	1:CA:840:C:C5	2.48	0.48
25:DA:2680:C:H5'	28:DE:189:PRO:HA	1.96	0.48
31:DH:26:VAL:HG12	31:DH:79:VAL:HG11	1.95	0.48
34:DO:98:VAL:HG22	34:DO:118:ALA:HA	1.95	0.48
11:CK:33:THR:HA	11:CK:39:PRO:HA	1.95	0.48
30:DG:41:GLN:NE2	30:DG:154:GLY:O	2.46	0.48
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.48	0.48
52:B6:21:TYR:CE2	52:B6:38:LYS:HG2	2.48	0.48
23:AX:19:G:H4'	23:AX:20:U:OP2	2.12	0.48
30:BG:56:ALA:HA	30:BG:153:ARG:NH2	2.29	0.48
25:BA:2303:U:O2'	25:BA:2386:C:O2	2.24	0.48
25:DA:507:A:H5''	25:DA:508:G:H3'	1.95	0.48
25:DA:934:G:H2'	25:DA:935:C:H6	1.79	0.48
6:CF:68:PRO:HB2	6:CF:71:ARG:HG3	1.95	0.48
25:DA:428:A:H3'	25:DA:429:A:C8	2.48	0.48
1:CA:520:A:N1	1:CA:536:C:H1'	2.29	0.48
11:CK:19:ALA:HA	11:CK:32:ILE:HD13	1.96	0.48
1:CA:554:C:H2'	1:CA:555:C:H6	1.77	0.48
1:AA:1131:G:H8	1:AA:1131:G:O5'	1.96	0.48
3:CC:34:LEU:HG	3:CC:38:ARG:HH12	1.78	0.48
27:BD:68:LYS:HD2	27:BD:70:TRP:CH2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DV:30:GLY:H	41:DV:61:VAL:HG13	1.79	0.48
1:AA:620:C:H2'	1:AA:621:A:O4'	2.14	0.48
1:CA:1002:G:H1	1:CA:1038:C:H42	0.67	0.48
10:AJ:5:ARG:HD3	10:AJ:71:LEU:HD11	1.95	0.48
1:CA:1015:A:H1'	1:CA:1219:U:H5'	1.95	0.48
30:BG:102:PHE:HE1	30:BG:141:PHE:CE2	2.26	0.48
19:AS:3:ARG:NH1	19:AS:10:PHE:HB2	2.27	0.48
2:CB:73:THR:HB	2:CB:95:GLN:O	2.14	0.48
30:DG:101:ILE:HD13	50:D4:25:TYR:HB2	1.94	0.48
1:CA:1169:A:H8	1:CA:1169:A:H3'	1.79	0.48
10:CJ:42:THR:CG2	10:CJ:68:HIS:HD2	2.25	0.48
8:CH:49:GLU:HG2	8:CH:62:TYR:CE2	2.45	0.48
1:CA:585:G:N3	1:CA:879:C:H4'	2.29	0.48
25:BA:2343:G:O2'	25:BA:2348:A:N1	2.35	0.48
34:DO:120:GLU:HG2	34:DO:122:LEU:HG	1.95	0.48
10:CJ:47:PHE:CZ	14:CN:37:PHE:HE1	2.32	0.48
25:DA:784:A:C8	25:DA:792:G:C5	3.01	0.48
25:DA:1666:G:OP1	34:DO:66:LYS:HE3	2.14	0.48
25:DA:1163:G:C2	25:DA:1164:G:C8	3.01	0.48
48:B2:32:LEU:HD12	48:B2:36:ARG:NH1	2.29	0.48
7:CG:78:ARG:HH21	7:CG:156:TRP:HB3	1.78	0.48
1:AA:1298:C:H2'	7:AG:114:ARG:NH1	2.28	0.48
2:AB:168:THR:OG1	2:AB:192:SER:HB3	2.13	0.48
38:DS:27:SER:HA	38:DS:88:ASP:HB3	1.95	0.48
2:AB:19:HIS:NE2	2:AB:206:ASP:OD2	2.46	0.48
12:CL:34:ARG:HG2	12:CL:35:GLY:N	2.29	0.48
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.29	0.48
13:AM:15:VAL:O	13:AM:19:LEU:HD22	2.13	0.48
31:DH:24:VAL:HG13	31:DH:37:VAL:HG21	1.96	0.48
10:AJ:57:LYS:HD2	10:AJ:60:ARG:HH21	1.79	0.48
9:CI:31:GLN:HB2	9:CI:35:GLU:OE2	2.13	0.48
25:BA:1537:G:O2'	27:BD:101:GLU:HB2	2.14	0.48
1:CA:270:A:H2'	1:CA:271:C:C6	2.48	0.48
42:DW:70:TYR:OH	42:DW:72:LYS:HG3	2.14	0.48
7:AG:152:ALA:HB1	7:AG:155:ARG:NH2	2.28	0.48
25:DA:180:G:H5''	25:DA:181:A:OP2	2.13	0.48
1:CA:999:C:N4	1:CA:1042:G:C2	2.81	0.48
1:CA:999:C:N4	1:CA:1043:C:C4	2.81	0.48
1:CA:1320:C:C1'	19:CS:73:GLU:HG3	2.44	0.48
1:AA:154:C:H5	1:AA:155:C:C5	2.31	0.48
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1137:C:H1'	1:CA:1138:G:C2	2.48	0.48
25:BA:217:A:H2'	25:BA:219:U:O4'	2.13	0.48
25:BA:1815:A:H5''	61:BA:4186:HOH:O	2.13	0.48
25:BA:1093:G:H2'	25:BA:1156:G:N2	2.26	0.48
25:BA:1604:C:H5''	25:BA:1605:A:OP2	2.14	0.48
1:CA:758:G:H5''	1:CA:758:G:H8	1.78	0.48
46:B0:53:MET:HG3	46:B0:59:LEU:CD2	2.43	0.48
26:DB:50:G:OP2	38:DS:62:LYS:HD3	2.13	0.48
3:AC:135:LYS:HE2	5:AE:53:LEU:HD11	1.95	0.48
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.28	0.48
1:AA:364:A:H2'	1:AA:365:U:H6	1.79	0.48
25:DA:2094:G:OP1	32:DI:22:LYS:HD2	2.14	0.48
25:BA:438:G:C5	35:BP:72:PRO:HB3	2.49	0.48
25:DA:2489:G:C6	25:DA:2490:G:C6	3.02	0.48
32:BI:100:ALA:HA	32:BI:103:ARG:HG2	1.94	0.48
10:AJ:68:HIS:CD2	10:AJ:68:HIS:H	2.31	0.48
41:DV:6:LYS:HB2	41:DV:38:LEU:HD21	1.94	0.48
25:DA:78:A:H2'	25:DA:79:G:H8	1.78	0.48
25:DA:1041:C:OP1	45:DZ:46:LYS:NZ	2.43	0.48
1:CA:422:C:H4'	1:CA:423:G:C4	2.48	0.48
10:CJ:8:LEU:CD2	10:CJ:96:ILE:HG23	2.43	0.48
1:CA:1492:A:H2'	1:CA:1493:A:C1'	2.43	0.48
25:BA:1576:G:O2'	25:BA:1577:C:H5'	2.14	0.48
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.13	0.48
14:CN:7:ILE:HG12	14:CN:8:GLU:N	2.27	0.48
20:AT:10:LEU:HB3	20:AT:12:ALA:H	1.79	0.48
3:AC:32:LEU:HD22	3:AC:59:ARG:HH12	1.79	0.48
25:BA:388:A:H2'	25:BA:389:G:H8	1.77	0.48
4:CD:15:GLU:OE2	4:CD:66:ARG:NH1	2.46	0.48
27:DD:132:PRO:HG2	27:DD:135:PHE:CD2	2.44	0.48
1:CA:418:C:H2'	1:CA:419:C:C6	2.48	0.48
16:CP:51:VAL:O	16:CP:53:VAL:HG23	2.14	0.48
31:DH:20:ALA:HB3	31:DH:23:ARG:HG3	1.95	0.48
27:BD:9:TYR:CZ	27:BD:13:ARG:HG2	2.49	0.48
13:AM:84:ILE:HD12	19:AS:74:PHE:HZ	1.78	0.48
25:DA:1256:G:H5'	25:DA:1257:C:OP2	2.13	0.48
1:CA:364:A:H2'	1:CA:365:U:H6	1.79	0.48
1:AA:1206:G:C6	1:AA:1207:G:C5	3.01	0.48
25:DA:1287:A:H5''	25:DA:1288:U:OP2	2.13	0.48
25:BA:860:U:H2'	25:BA:861:C:C6	2.48	0.48
48:D2:10:LEU:HD22	48:D2:14:ARG:NH1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2814:C:H2'	25:BA:2815:C:O4'	2.14	0.48
25:BA:137:G:O2'	25:BA:138:G:H5'	2.14	0.48
16:AP:52:ASP:OD1	16:AP:54:GLU:HG3	2.14	0.48
1:CA:797:C:O2'	1:CA:798:G:H5'	2.13	0.48
25:DA:1022:G:C6	25:DA:1140:C:C4	3.01	0.48
1:CA:1151:A:O4'	10:CJ:39:PRO:HB2	2.14	0.48
1:CA:1321:C:H5''	1:CA:1322:C:H2'	1.95	0.48
46:D0:27:GLU:HB2	46:D0:69:PHE:HD1	1.78	0.48
25:BA:1093:G:HO2'	25:BA:1094:A:H8	1.61	0.48
1:AA:430:A:OP1	4:AD:9:CYS:HB2	2.13	0.48
1:CA:192:U:O2'	20:CT:60:GLU:OE2	2.25	0.48
1:AA:658:G:H2'	1:AA:659:U:C6	2.48	0.48
26:BB:8:U:O3'	38:BS:25:ARG:NH2	2.47	0.48
45:BZ:30:ASN:ND2	45:BZ:90:VAL:HB	2.28	0.48
1:AA:1286:A:H2	21:AU:18:TYR:HH	1.60	0.48
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.13	0.48
25:DA:892:G:H2'	25:DA:893:C:O4'	2.14	0.48
25:DA:2261:C:H1'	25:DA:2388:A:N3	2.29	0.48
1:CA:790:A:H2'	1:CA:791:G:C8	2.49	0.48
30:BG:50:ALA:O	30:BG:52:ILE:N	2.47	0.48
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.49	0.48
25:BA:1362:U:H2'	25:BA:1363:A:C8	2.49	0.48
25:BA:905:U:O2	25:BA:2280:A:H2'	2.14	0.48
25:DA:2823:A:OP1	28:DE:159:HIS:NE2	2.42	0.48
1:AA:662:G:H2'	1:AA:663:A:C8	2.48	0.48
34:DO:64:ARG:NH1	34:DO:81:ASP:OD1	2.47	0.48
1:AA:300:A:H2'	1:AA:301:G:O4'	2.13	0.48
1:AA:300:A:O2'	1:AA:564:C:N3	2.36	0.48
34:DO:73:ASP:HB2	39:DT:82:LEU:HD13	1.96	0.48
45:BZ:152:ALA:HA	45:BZ:155:LEU:HD22	1.94	0.48
45:DZ:19:ARG:HE	45:DZ:19:ARG:HB2	1.44	0.48
40:BU:16:LYS:HE2	40:BU:16:LYS:HB3	1.55	0.48
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.13	0.48
2:CB:8:LYS:HD2	2:CB:51:LEU:HD13	1.96	0.48
25:BA:1067:A:H8	25:BA:1067:A:H3'	1.79	0.48
30:DG:11:TYR:O	30:DG:16:ARG:HG2	2.13	0.48
32:DI:110:ASP:H	32:DI:130:TYR:HH	1.55	0.48
1:AA:1028:C:H2'	1:AA:1029:C:O4'	2.14	0.48
25:DA:271(F):C:H2'	25:DA:271(G):C:H6	1.78	0.48
29:DF:164:ARG:O	29:DF:168:ARG:HB2	2.14	0.48
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:10:LEU:HD12	6:CF:85:VAL:HA	1.94	0.48
38:DS:53:SER:OG	38:DS:54:LEU:N	2.47	0.48
1:AA:376:G:H2'	1:AA:377:G:H8	1.79	0.48
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.49	0.48
1:AA:1237:C:HO2'	1:AA:1300:G:H1	1.62	0.48
25:BA:484:G:C8	53:B7:37:LYS:HG2	2.49	0.48
42:BW:86:LEU:HD12	42:BW:87:PRO:HD2	1.96	0.48
26:BB:37:C:C5	26:BB:38:C:C5	3.02	0.48
28:DE:127:ASP:OD2	61:DE:408:HOH:O	2.19	0.48
25:DA:729:G:OP2	27:DD:13:ARG:NH1	2.45	0.48
17:CQ:62:SER:OG	17:CQ:72:ARG:HD3	2.13	0.48
25:DA:1463:C:H2'	25:DA:1464:C:H6	1.78	0.48
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.44	0.48
47:D1:64:ALA:HA	47:D1:67:ILE:HG13	1.96	0.48
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.96	0.47
4:AD:155:LEU:HD22	4:AD:156:GLU:N	2.29	0.47
1:CA:1358:U:OP2	1:CA:1359:C:H5	1.97	0.47
29:DF:53:THR:HG22	29:DF:56:GLU:HG3	1.96	0.47
25:BA:777:C:OP2	61:BA:4592:HOH:O	2.20	0.47
25:BA:671:A:H2'	25:BA:672:G:O4'	2.14	0.47
25:DA:1593:G:C2	25:DA:1594:G:C4	3.02	0.47
1:CA:1262:C:H42	1:CA:1273:G:H1	1.61	0.47
1:CA:1206:G:C6	1:CA:1207:G:C5	3.03	0.47
1:CA:671:G:H5'	6:CF:77:ARG:HH22	1.79	0.47
1:AA:1030(A):G:H2'	1:AA:1030(C):G:OP2	2.13	0.47
25:BA:1220:U:OP1	25:BA:1222:A:N6	2.47	0.47
1:AA:606:G:H1'	1:AA:632:A:H61	1.79	0.47
25:DA:910:A:C5	36:DQ:13:GLN:HG3	2.49	0.47
25:DA:867:C:O2	25:DA:913:U:H5'	2.14	0.47
1:CA:785:G:H2'	1:CA:786:G:H5'	1.96	0.47
48:B2:32:LEU:CD1	48:B2:36:ARG:HH11	2.26	0.47
19:CS:27:GLU:HB2	19:CS:28:LYS:HE2	1.95	0.47
25:DA:253:C:O2'	61:DA:4187:HOH:O	2.16	0.47
25:BA:1925:G:OP1	27:BD:241:PRO:HB2	2.14	0.47
29:DF:126:VAL:HG21	29:DF:129:PHE:CZ	2.49	0.47
25:BA:2303:U:H2'	25:BA:2304:C:C6	2.49	0.47
6:CF:44:GLY:HA2	6:CF:59:TYR:CZ	2.48	0.47
4:AD:12:CYS:SG	4:AD:19:LEU:N	2.77	0.47
27:DD:72:LYS:HB3	27:DD:75:ILE:HD12	1.96	0.47
9:AI:99:LEU:HB3	9:AI:101:PHE:HE1	1.79	0.47
25:BA:2087:C:H2'	25:BA:2088:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:688:U:H5'	25:DA:1780:A:C2	2.49	0.47
4:CD:36:ARG:HG3	4:CD:38:TYR:CE2	2.49	0.47
25:BA:1686:U:O2'	25:BA:1687:C:H5'	2.14	0.47
20:CT:50:GLU:HB2	20:CT:99:LEU:HD23	1.96	0.47
25:BA:1091:A:OP1	25:BA:1092:A:H3'	2.13	0.47
29:DF:7:TYR:O	29:DF:22:ALA:N	2.46	0.47
30:DG:103:LEU:HD22	30:DG:178:PHE:HZ	1.80	0.47
6:AF:44:GLY:HA2	6:AF:59:TYR:CE2	2.49	0.47
1:CA:543:C:O2'	1:CA:544:G:H5'	2.14	0.47
25:BA:904:C:H4'	46:B0:23:VAL:HG21	1.96	0.47
25:DA:1463:C:H2'	25:DA:1464:C:C6	2.49	0.47
25:BA:1086:C:H2'	25:BA:1087:C:O4'	2.14	0.47
31:DH:87:LEU:HD23	31:DH:164:TYR:HA	1.96	0.47
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.49	0.47
47:D1:83:GLU:HA	47:D1:84:GLY:HA2	1.62	0.47
28:BE:92:THR:O	28:BE:95:ILE:HG23	2.14	0.47
8:AH:96:GLY:H	8:AH:99:GLU:CD	2.18	0.47
1:CA:109:A:H2'	1:CA:326:G:N2	2.28	0.47
27:DD:275:LYS:HB3	27:DD:276:LYS:HA	1.96	0.47
5:AE:72:GLN:O	5:AE:75:THR:HG22	2.14	0.47
1:AA:49:U:H3	1:AA:362:G:H1'	1.80	0.47
1:AA:1127:G:H21	1:AA:1148:U:H3	1.61	0.47
1:CA:1157:A:N7	1:CA:1180:A:C6	2.82	0.47
19:AS:65:ASN:ND2	19:AS:66:MET:HG3	2.29	0.47
1:AA:146:G:H5''	1:AA:146:G:H8	1.80	0.47
25:DA:1637:A:H4'	25:DA:2711:A:O2'	2.14	0.47
1:CA:457:C:H2'	1:CA:458:C:C6	2.49	0.47
14:AN:37:PHE:CE2	14:AN:53:LEU:HD13	2.50	0.47
1:CA:577:G:C8	1:CA:816:A:C6	3.02	0.47
6:CF:2:ARG:NE	6:CF:69:GLU:HG2	2.29	0.47
30:DG:114:ILE:HD12	30:DG:117:PHE:HD2	1.79	0.47
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.62	0.47
25:BA:1913:G:H2'	25:BA:1914:C:H6	1.78	0.47
1:CA:1009:G:N2	1:CA:1010:G:H1'	2.30	0.47
25:DA:1935:G:H1'	25:DA:1964:G:N2	2.29	0.47
34:BO:64:ARG:NH1	34:BO:81:ASP:OD1	2.46	0.47
25:BA:1740:U:O2'	27:BD:14:ARG:NH2	2.46	0.47
25:BA:2698:G:H5'	61:BA:4643:HOH:O	2.15	0.47
1:CA:932:C:H2'	1:CA:933:G:C8	2.49	0.47
20:CT:46:GLU:HG2	20:CT:46:GLU:O	2.13	0.47
25:DA:1027:A:C6	25:DA:1126:A:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:79:GLU:HB3	12:CL:80:HIS:HD2	1.78	0.47
44:DY:9:LYS:HA	44:DY:10:GLY:HA2	1.67	0.47
1:AA:129(A):G:C6	1:AA:189(E):U:H4'	2.50	0.47
25:DA:1786:A:H1'	25:DA:1938:A:N6	2.29	0.47
1:AA:1125:U:O4	1:AA:1128:C:C5	2.68	0.47
10:AJ:5:ARG:O	10:AJ:98:ILE:HA	2.14	0.47
2:CB:163:PHE:HA	2:CB:185:ILE:HG12	1.96	0.47
25:DA:2319:G:C2	38:DS:3:ARG:HA	2.49	0.47
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.29	0.47
19:CS:30:LEU:CD1	19:CS:32:LYS:HG3	2.41	0.47
1:AA:430:A:H2'	1:AA:431:A:O4'	2.15	0.47
25:BA:956:A:OP2	61:BA:4430:HOH:O	2.20	0.47
28:DE:72:VAL:HA	28:DE:73:GLU:CB	2.43	0.47
29:BF:7:TYR:CD2	29:BF:24:LEU:HB2	2.49	0.47
1:CA:1074:G:O2'	1:CA:1101:A:N1	2.37	0.47
27:BD:132:PRO:HA	27:BD:190:TYR:HA	1.96	0.47
45:DZ:153:SER:HB3	45:DZ:167:PRO:HB3	1.96	0.47
29:DF:165:ARG:HG2	29:DF:168:ARG:HH21	1.79	0.47
25:DA:2303:G:H2'	25:DA:2304:G:O4'	2.14	0.47
50:D4:15:ILE:HG23	50:D4:21:VAL:HG22	1.96	0.47
14:AN:4:LYS:HD3	14:AN:7:ILE:CG2	2.44	0.47
25:BA:2643:G:N2	25:BA:2800:C:O2	2.40	0.47
25:BA:911:G:O2'	25:BA:912:C:H5'	2.14	0.47
25:DA:1528(A):A:C8	25:DA:1529:G:C8	3.03	0.47
25:DA:118:A:H1'	25:DA:178:G:O4'	2.14	0.47
1:AA:277:C:H5''	17:AQ:68:ARG:NH2	2.30	0.47
25:DA:1523:U:C2	25:DA:1524:G:C8	3.01	0.47
28:BE:176:ILE:HB	28:BE:181:LEU:HB2	1.96	0.47
1:CA:554:C:H2'	1:CA:555:C:C6	2.49	0.47
31:DH:13:LYS:HA	31:DH:14:GLY:HA2	1.61	0.47
25:BA:2538:G:H5'	25:BA:2755:C:O2'	2.13	0.47
49:D3:3:ARG:HH11	49:D3:60:GLU:CB	2.27	0.47
6:AF:99:ALA:O	18:AR:28:GLU:HG3	2.14	0.47
52:D6:38:LYS:NZ	52:D6:38:LYS:HB2	2.29	0.47
32:BI:110:ASP:HA	32:BI:111:PRO:HD2	1.72	0.47
3:AC:123:GLN:HG2	3:AC:128:PHE:CD2	2.50	0.47
1:CA:341:C:H6	1:CA:341:C:O5'	1.98	0.47
25:BA:2116:G:OP1	32:BI:22:LYS:HD2	2.14	0.47
25:DA:1932:A:H2'	25:DA:1933:G:O4'	2.14	0.47
25:DA:1012:U:H5	33:DN:28:THR:HG21	1.79	0.47
25:DA:565:C:H2'	25:DA:566:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DP:99:LEU:HD23	35:DP:99:LEU:H	1.79	0.47
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.96	0.47
1:CA:1133:G:N2	1:CA:1141:C:N3	2.59	0.47
25:BA:934:A:O2'	25:BA:935:C:OP2	2.27	0.47
1:CA:954:G:H21	1:CA:1227:A:N6	2.08	0.47
25:DA:639:U:H2'	25:DA:640:C:H6	1.79	0.47
1:CA:719:C:O2'	18:CR:49:LYS:HB3	2.13	0.47
29:BF:7:TYR:HD2	29:BF:24:LEU:HB2	1.78	0.47
36:DQ:59:ARG:C	36:DQ:61:GLY:H	2.13	0.47
25:BA:2702:C:N4	25:BA:2726:A:H1'	2.29	0.47
30:DG:106:LEU:HA	30:DG:110:ALA:HB3	1.95	0.47
1:CA:834:C:H2'	1:CA:835:U:H6	1.77	0.47
1:AA:1256:A:H5''	1:AA:1258:G:C1'	2.44	0.47
47:D1:3:LYS:H	47:D1:61:ARG:HH12	1.62	0.47
25:DA:1291:C:H2'	25:DA:1292:U:C6	2.49	0.47
9:CI:6:GLY:HA3	9:CI:80:GLY:O	2.14	0.47
25:BA:83:A:H5''	44:BY:8:LYS:HE3	1.97	0.47
29:DF:160:ASN:HB3	29:DF:163:VAL:HB	1.96	0.47
1:AA:685:G:C2	1:AA:686:U:C4	3.02	0.47
25:BA:1828:C:H4'	27:BD:257:LEU:O	2.15	0.47
25:DA:78:A:H2'	25:DA:79:G:C8	2.49	0.47
9:AI:49:PRO:HG3	9:AI:101:PHE:HD2	1.79	0.47
29:BF:110:LEU:HD12	29:BF:205:ARG:HG2	1.96	0.47
25:DA:1513:C:H2'	25:DA:1514:U:C6	2.49	0.47
5:CE:83:GLU:HG2	5:CE:88:LYS:HG3	1.95	0.47
1:AA:481:G:H1'	1:AA:483:C:N4	2.30	0.47
28:DE:195:LEU:HG	28:DE:196:VAL:N	2.30	0.47
25:BA:2795:G:OP2	61:BA:4647:HOH:O	2.20	0.47
9:AI:28:VAL:HA	9:AI:63:ILE:HB	1.97	0.47
29:BF:195:ASP:HB3	29:BF:198:ALA:H	1.78	0.47
5:AE:69:VAL:HG22	5:AE:71:LEU:HD23	1.96	0.47
25:DA:86:C:H4'	25:DA:104:U:H1'	1.96	0.47
1:CA:1023:G:H3'	1:CA:1024:G:H8	1.79	0.47
2:AB:16:HIS:CB	2:AB:204:ASN:HB3	2.29	0.47
27:DD:71:ASP:OD2	27:DD:103:ARG:NH2	2.47	0.47
30:BG:67:LYS:H	50:B4:6:HIS:CE1	2.33	0.47
25:BA:12:U:O2	25:BA:12:U:H2'	2.14	0.47
1:CA:1217:C:H2'	1:CA:1218:C:O4'	2.14	0.47
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.15	0.47
25:DA:900:A:H2'	25:DA:901:A:O4'	2.15	0.47
2:AB:166:ASP:HA	2:AB:167:PRO:HD3	1.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:674:G:H2'	1:AA:675:A:C8	2.49	0.47
6:AF:97:PHE:HD2	18:AR:31:LEU:HD23	1.80	0.47
30:DG:103:LEU:HA	30:DG:106:LEU:HB3	1.96	0.47
41:DV:5:VAL:CG1	41:DV:57:VAL:HG21	2.44	0.47
13:CM:82:MET:CE	13:CM:92:HIS:HB3	2.45	0.47
25:BA:1517:G:C6	25:BA:1567:G:N7	2.83	0.47
1:AA:1137:C:H5''	1:AA:1138:G:OP1	2.15	0.47
36:DQ:32:TYR:CE1	36:DQ:133:ARG:HG3	2.49	0.47
26:DB:43:C:C5	26:DB:45:A:N6	2.82	0.47
25:DA:2408:U:H2'	25:DA:2409:G:C8	2.49	0.47
25:BA:1549:U:H2'	25:BA:1550:C:H6	1.79	0.47
25:BA:2325:C:C2'	25:BA:2326:C:H5'	2.45	0.47
1:CA:1292:U:C2	1:CA:1293:G:C8	3.03	0.47
25:BA:2087:C:H2'	25:BA:2088:C:H6	1.79	0.47
25:BA:2846:U:C4	25:BA:2893:A:N6	2.83	0.47
25:BA:1547:C:O4'	27:BD:100:GLY:HA2	2.15	0.47
1:AA:567:G:H1'	61:AA:4081:HOH:O	2.13	0.47
25:DA:1845:G:OP1	27:DD:258:LYS:NZ	2.43	0.47
1:CA:1080:A:H5''	1:CA:1081:G:OP2	2.15	0.47
39:BT:37:GLY:HA2	39:BT:38:ASN:HA	1.66	0.47
20:AT:58:LYS:O	20:AT:62:LEU:HB2	2.14	0.47
30:DG:64:THR:HB	30:DG:94:LEU:HD11	1.96	0.47
5:AE:33:VAL:HG21	5:AE:109:ILE:HA	1.96	0.47
25:DA:735:A:C6	25:DA:736:C:C2	3.03	0.47
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.49	0.47
5:AE:8:GLU:OE1	5:AE:63:ARG:NH2	2.48	0.47
16:AP:38:TYR:O	16:AP:49:LEU:HD12	2.15	0.47
25:BA:2285:A:H2'	25:BA:2286:A:C8	2.49	0.47
39:BT:91:ARG:HH11	39:BT:120:ARG:NH1	2.12	0.47
1:CA:1119:C:N3	1:CA:1154:G:O6	2.48	0.47
25:BA:1577:C:H1'	25:BA:1578:C:OP1	2.15	0.47
1:CA:622:A:H3'	1:CA:623:C:C6	2.49	0.47
25:DA:2319:G:N2	38:DS:3:ARG:HA	2.29	0.47
1:CA:1137:C:H5''	1:CA:1138:G:OP1	2.15	0.47
1:CA:410:G:H5''	1:CA:411:A:OP1	2.14	0.47
30:BG:11:TYR:CE2	30:BG:16:ARG:HD3	2.50	0.47
4:AD:11:LEU:HD23	4:AD:66:ARG:HB3	1.96	0.47
25:DA:1359:A:C2	25:DA:1372:U:O4	2.68	0.47
25:BA:1223:C:H2'	25:BA:1224:C:C6	2.49	0.47
10:CJ:25:GLU:O	10:CJ:29:ARG:HD3	2.15	0.47
5:AE:12:LEU:HD22	5:AE:13:ILE:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.83	0.47
35:BP:63:PRO:HB2	54:B8:30:ARG:NH2	2.30	0.47
50:B4:14:ILE:HD12	50:B4:24:THR:HG21	1.96	0.47
1:AA:676:A:H2'	1:AA:677:U:C6	2.50	0.47
5:AE:53:LEU:HD12	5:AE:53:LEU:H	1.79	0.47
25:BA:572:A:H61	41:BV:18:LEU:HD23	1.80	0.47
8:CH:6:ILE:O	8:CH:10:LEU:HG	2.15	0.47
31:BH:86:GLU:OE1	31:BH:132:ARG:NH1	2.45	0.47
28:DE:143:ASN:HD22	28:DE:147:PRO:CD	2.28	0.47
1:CA:985:C:H2'	1:CA:986:A:H8	1.80	0.47
25:BA:2642:G:H2'	25:BA:2643:G:H8	1.79	0.47
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.14	0.47
25:BA:908:A:H2'	25:BA:909:G:O4'	2.14	0.47
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.80	0.47
1:AA:110:C:O2'	16:AP:25:ARG:O	2.32	0.47
45:BZ:144:LEU:HD11	45:BZ:150:LEU:HD22	1.95	0.47
2:CB:127:ILE:C	2:CB:129:GLU:H	2.16	0.47
1:CA:865:A:C2	1:CA:918:A:H4'	2.50	0.47
1:CA:337:C:H2'	1:CA:338:A:C8	2.50	0.47
26:BB:29:A:C2	26:BB:30:C:C2	3.03	0.47
25:DA:2659:G:N2	25:DA:2661:G:H3'	2.30	0.47
32:DI:3:VAL:HG12	32:DI:38:LEU:HA	1.96	0.47
25:BA:399:G:H8	47:B1:65:SER:O	1.97	0.47
3:CC:140:ARG:NH1	3:CC:140:ARG:HB2	2.29	0.47
45:BZ:70:LEU:HA	45:BZ:70:LEU:HD23	1.58	0.47
25:DA:2508:G:C2	25:DA:2582:G:C6	3.02	0.47
47:D1:25:LYS:HG3	47:D1:31:GLY:HA2	1.97	0.47
49:D3:6:VAL:HG13	49:D3:56:VAL:HG13	1.96	0.47
6:CF:35:ALA:HA	6:CF:67:MET:HB3	1.96	0.47
25:DA:153:C:OP2	47:D1:92:LYS:NZ	2.46	0.47
25:DA:1197:G:H5'	25:DA:1227:G:O2'	2.14	0.47
17:AQ:10:VAL:HG13	17:AQ:19:VAL:HB	1.97	0.47
9:CI:7:THR:OG1	9:CI:83:ARG:NH1	2.48	0.47
9:AI:9:ARG:HG2	9:AI:14:VAL:HG13	1.97	0.47
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.95	0.47
1:CA:1226:C:H4'	19:CS:80:TYR:OH	2.14	0.47
1:AA:1392:G:C2'	1:AA:1393:U:H5'	2.45	0.47
25:BA:2299:A:H2	25:BA:2358:A:H62	1.60	0.47
27:BD:16:MET:HG3	27:BD:206:LEU:O	2.15	0.47
25:DA:2078:C:C4	25:DA:2079:U:C4	3.02	0.47
25:DA:2315:G:H2'	25:DA:2316:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1188:U:C4'	41:DV:79:VAL:HG22	2.45	0.47
25:BA:623:G:N2	25:BA:628:C:O3'	2.47	0.47
1:CA:452:A:O2'	1:CA:453:A:OP2	2.29	0.47
25:DA:2364:C:OP1	46:D0:55:ARG:NH1	2.48	0.47
1:CA:441:A:H3'	1:CA:442:C:H6	1.79	0.47
26:DB:79:C:H2'	26:DB:80:U:O4'	2.15	0.47
25:DA:2538:C:H2'	25:DA:2539:C:H6	1.79	0.47
1:CA:429:U:H1'	1:CA:430:A:H5''	1.97	0.47
25:BA:2584:A:N7	28:BE:144:ARG:HD2	2.30	0.47
25:BA:1833:A:N1	25:BA:1853:G:H1'	2.30	0.47
25:BA:1759:C:H2'	25:BA:1760:U:O4'	2.15	0.47
25:BA:1496:A:H5'	25:BA:1497:G:OP2	2.14	0.47
3:AC:112:SER:O	3:AC:116:VAL:HG23	2.14	0.47
1:CA:1209:C:O2'	1:CA:1214:C:N4	2.30	0.47
47:B1:64:ALA:HA	47:B1:67:ILE:HG13	1.97	0.47
38:BS:24:LEU:HA	38:BS:24:LEU:HD23	1.70	0.47
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.49	0.47
1:AA:1125:U:N3	1:AA:1127:G:C5	2.68	0.47
1:CA:1154:G:C8	1:CA:1155:G:C8	3.02	0.47
24:AW:9:MVA:O	24:AW:10:2QY:CD2	2.62	0.47
1:AA:435:C:H2'	1:AA:436:C:C6	2.50	0.47
20:CT:50:GLU:HG3	20:CT:100:ILE:HD13	1.97	0.47
3:AC:181:ASN:ND2	3:AC:204:LEU:HD12	2.30	0.47
25:BA:1809:U:H2'	25:BA:1815:A:N6	2.30	0.47
1:CA:957:U:H2'	1:CA:959:A:OP2	2.14	0.47
13:CM:16:ASP:N	13:CM:16:ASP:OD1	2.48	0.47
1:CA:885:G:O2'	1:CA:914:A:N1	2.38	0.47
25:BA:932:C:H3'	25:BA:933:C:C5'	2.43	0.47
1:AA:172:A:N7	1:AA:174:C:C4	2.83	0.47
1:CA:838:G:H1	1:CA:848:C:N4	2.13	0.47
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.50	0.47
25:DA:585:G:H2'	25:DA:1251:C:H42	1.79	0.47
3:AC:44:GLU:HG2	3:AC:52:LEU:HD22	1.97	0.47
42:DW:59:VAL:HG12	42:DW:60:ASN:HD22	1.80	0.47
29:BF:101:LEU:HD12	29:BF:102:PRO:HD2	1.97	0.47
5:CE:104:ALA:HA	5:CE:107:ARG:HB3	1.96	0.47
40:DU:89:GLU:HB2	41:DV:50:PRO:CB	2.45	0.47
1:AA:652:U:O2'	1:AA:653:A:OP2	2.26	0.47
35:DP:45:LEU:HA	35:DP:45:LEU:HD23	1.51	0.47
1:AA:276:G:C2'	1:AA:277:C:H5'	2.45	0.47
5:AE:68:GLU:HG2	5:AE:70:PRO:HG3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:20:TYR:HB2	11:AK:31:THR:HG23	1.97	0.47
5:CE:84:PHE:N	5:CE:87:SER:O	2.48	0.47
40:BU:78:THR:HG22	40:BU:117:GLN:HE22	1.80	0.47
8:AH:112:LEU:HB3	8:AH:133:LEU:HA	1.97	0.47
1:CA:859:A:H2'	1:CA:860:A:O4'	2.15	0.47
29:BF:150:GLY:HA2	29:BF:172:TRP:CE3	2.50	0.47
7:CG:138:LYS:HE2	7:CG:142:GLU:OE1	2.15	0.47
25:BA:2335:G:H2'	25:BA:2336:C:O4'	2.15	0.47
25:BA:553:A:C2	25:BA:2065:C:H4'	2.50	0.47
4:AD:65:ARG:HG2	4:AD:75:PHE:CD1	2.50	0.47
1:CA:78:G:H2'	1:CA:79:G:H5'	1.97	0.47
39:DT:78:LEU:O	39:DT:78:LEU:HD13	2.14	0.47
25:DA:678:C:H2'	25:DA:679:C:C6	2.50	0.47
1:CA:1492:A:H5''	1:CA:1493:A:OP2	2.15	0.47
25:DA:19:C:H2'	25:DA:20:C:C6	2.50	0.47
4:AD:173:TRP:HB2	4:AD:187:ARG:O	2.15	0.47
1:AA:458:C:H2'	1:AA:460:G:C8	2.50	0.47
25:BA:2745:G:H3'	25:BA:2746:A:O4'	2.14	0.47
25:DA:10:G:H1'	25:DA:2801(A):A:C6	2.50	0.47
25:DA:1509(B):A:H2'	25:DA:1510:G:H8	1.77	0.47
1:AA:159:G:O2'	1:AA:161:A:N7	2.35	0.47
2:AB:178:ARG:HH22	8:AH:68:ARG:HH22	1.62	0.47
43:DX:59:VAL:N	43:DX:76:ARG:O	2.33	0.47
1:AA:735:C:H2'	1:AA:736:C:H6	1.80	0.47
16:CP:21:VAL:HG22	16:CP:33:ILE:HD12	1.97	0.47
15:AO:24:SER:OG	15:AO:25:THR:N	2.48	0.47
1:AA:1140:C:H2'	1:AA:1141:C:C6	2.49	0.47
7:CG:79:ARG:HB3	7:CG:80:VAL:H	1.39	0.47
25:BA:908:A:N3	26:BB:79:C:O2'	2.41	0.47
1:AA:1273:G:H3'	1:AA:1274:G:H8	1.78	0.47
4:CD:184:LYS:HE3	4:CD:186:LEU:HD23	1.96	0.47
25:DA:489:G:N7	42:DW:49:LYS:NZ	2.61	0.47
25:DA:2227:A:OP1	27:DD:263:ARG:HD2	2.15	0.47
1:CA:160:A:H61	1:CA:347:G:H1'	1.80	0.47
25:DA:701:G:N2	25:DA:732:C:C2	2.82	0.47
27:DD:80:ALA:HB3	27:DD:94:LEU:HD13	1.96	0.47
25:DA:922:U:H2'	25:DA:923:C:C6	2.50	0.47
7:CG:155:ARG:CZ	7:CG:155:ARG:HB3	2.43	0.47
18:CR:76:LEU:HD12	18:CR:76:LEU:HA	1.74	0.47
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.50	0.47
32:DI:65:ALA:O	32:DI:69:LYS:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DQ:125:LEU:O	61:DQ:302:HOH:O	2.20	0.47
1:AA:499:A:N3	1:AA:546:G:N2	2.54	0.47
1:AA:342:C:N3	1:AA:348:G:O6	2.48	0.46
1:AA:1129:C:H5''	9:AI:16:ARG:HH12	1.79	0.46
1:CA:922:G:N3	1:CA:1398:A:H2	2.13	0.46
1:AA:1392:G:N2	1:AA:1502:A:C8	2.83	0.46
1:AA:93:G:O2'	1:AA:96:U:H5'	2.15	0.46
15:CO:39:LEU:HB3	15:CO:56:LEU:HD13	1.96	0.46
25:DA:1199:U:H2'	25:DA:1200:C:C6	2.50	0.46
46:B0:43:THR:O	46:B0:43:THR:HG23	2.14	0.46
1:AA:103:C:OP2	20:AT:14:LYS:NZ	2.30	0.46
1:AA:103:C:P	20:AT:17:ARG:HH21	2.38	0.46
1:AA:1442:G:HO2'	1:AA:1442(A):G:P	2.34	0.46
25:DA:2302:G:C2	25:DA:2303:G:C8	3.03	0.46
1:CA:1309:G:N2	1:CA:1329:A:H1'	2.30	0.46
1:CA:1310:G:H5'	13:CM:77:ASN:HD21	1.80	0.46
25:BA:1229:G:H5'	49:B3:29:ARG:HH12	1.80	0.46
25:DA:2312:U:C4	25:DA:2313:C:H5	2.32	0.46
7:AG:113:GLU:HG3	7:AG:118:VAL:HG12	1.97	0.46
35:DP:44:GLY:CA	35:DP:45:LEU:HB2	2.45	0.46
1:AA:189(F):U:O2'	17:AQ:63:ARG:NH2	2.48	0.46
25:DA:807:U:OP2	35:DP:41:ARG:NH2	2.48	0.46
1:AA:189(D):C:O2	1:AA:189(H):G:C6	2.68	0.46
10:AJ:57:LYS:HD2	10:AJ:60:ARG:NH2	2.30	0.46
29:DF:29:ASN:HB3	29:DF:112:MET:HE1	1.97	0.46
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.98	0.46
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.15	0.46
25:DA:1151:G:H5''	40:DU:81:HIS:CD2	2.50	0.46
35:DP:49:ARG:NH1	54:D8:61:LEU:HD23	2.30	0.46
53:D7:24:THR:O	53:D7:28:ARG:HG3	2.15	0.46
25:BA:714:U:O2	54:B8:2:PRO:HD2	2.14	0.46
6:AF:12:PRO:HG3	6:AF:57:GLN:O	2.15	0.46
1:CA:1068:G:N2	1:CA:1191:A:N3	2.55	0.46
10:AJ:27:ALA:HA	10:AJ:81:THR:CG2	2.45	0.46
35:DP:82:GLY:HA2	35:DP:113:LYS:O	2.15	0.46
30:DG:78:SER:OG	30:DG:79:ASN:N	2.48	0.46
13:AM:16:ASP:N	13:AM:16:ASP:OD1	2.47	0.46
25:DA:2051:A:H5'	25:DA:2578:G:O4'	2.14	0.46
25:DA:1317:A:H2'	25:DA:1318:C:C6	2.50	0.46
25:DA:75:G:H4'	48:D2:55:ARG:NH1	2.30	0.46
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:376:G:H2'	1:CA:377:G:H8	1.80	0.46
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.77	0.46
1:AA:918:A:H2'	1:AA:919:A:C8	2.50	0.46
25:DA:1866:C:H2'	25:DA:1876:A:O4'	2.15	0.46
1:AA:1223:C:OP2	19:AS:78:ARG:NH2	2.45	0.46
1:CA:840:C:H5''	1:CA:841:U:H5	1.80	0.46
2:AB:174:VAL:O	2:AB:178:ARG:HB2	2.14	0.46
25:DA:333:G:N3	25:DA:333:G:H2'	2.30	0.46
29:DF:36:VAL:HG11	29:DF:183:VAL:HG11	1.97	0.46
25:DA:330:A:H2	25:DA:1210:A:HO2'	1.63	0.46
25:BA:1900:G:H2'	25:BA:1901:C:C6	2.49	0.46
29:BF:106:ARG:HG2	29:BF:106:ARG:H	1.37	0.46
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.96	0.46
25:DA:924:C:H2'	25:DA:925:C:H6	1.79	0.46
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.15	0.46
25:BA:329:U:H2'	25:BA:330:U:C6	2.50	0.46
1:AA:646:U:H2'	1:AA:647:C:C6	2.50	0.46
1:AA:1457:G:P	20:AT:39:LYS:HZ1	2.38	0.46
25:DA:1669:A:H5''	25:DA:2550:G:OP1	2.15	0.46
25:BA:768:C:H2'	25:BA:769:A:C8	2.49	0.46
6:CF:5:GLU:HG3	6:CF:93:SER:OG	2.16	0.46
48:B2:37:PHE:O	48:B2:40:SER:HB3	2.14	0.46
25:BA:1688:A:H2'	25:BA:1689:G:O4'	2.14	0.46
10:CJ:57:LYS:HD2	10:CJ:60:ARG:HH21	1.81	0.46
25:DA:2348:U:O4	25:DA:2382:G:N1	2.48	0.46
25:DA:1221(A):C:C2	25:DA:1229:G:C2	3.03	0.46
1:CA:1003:G:C6	1:CA:1004:A:H2	2.34	0.46
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.15	0.46
2:CB:15:VAL:CG1	2:CB:209:ARG:HB3	2.41	0.46
2:CB:77:ALA:HA	2:CB:80:ILE:HG22	1.96	0.46
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.80	0.46
40:DU:76:TYR:CZ	40:DU:80:ILE:HG13	2.51	0.46
24:AW:9:MVA:HA	24:AW:10:2QY:H82	1.39	0.46
30:DG:16:ARG:HB2	30:DG:17:PRO:HD3	1.98	0.46
1:AA:1005:A:H5'	1:AA:1038:C:H1'	1.96	0.46
30:BG:16:ARG:O	30:BG:20:ILE:HG13	2.15	0.46
25:DA:1593:G:C4	25:DA:1594:G:C8	3.03	0.46
26:DB:90:A:N7	26:DB:91:C:H1'	2.30	0.46
25:BA:335:A:C6	25:BA:352:U:C4	3.04	0.46
25:BA:324:A:P	44:BY:86:ARG:HH22	2.38	0.46
13:CM:60:VAL:HG22	13:CM:66:LEU:HD11	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1740:G:H2'	25:DA:1741:A:C8	2.51	0.46
26:DB:33:G:C2	26:DB:50:G:C2	3.04	0.46
5:CE:36:ASP:C	5:CE:38:GLN:H	2.18	0.46
1:AA:532:A:O2'	1:AA:533:A:P	2.74	0.46
29:DF:129:PHE:O	29:DF:132:VAL:HG13	2.15	0.46
25:BA:364:A:H2'	25:BA:365:G:O4'	2.15	0.46
45:BZ:120:ILE:HB	45:BZ:171:ILE:HA	1.97	0.46
25:DA:874:G:H2'	25:DA:875:G:O4'	2.15	0.46
25:BA:2314:G:N2	25:BA:2327:G:C4	2.84	0.46
1:AA:616:G:C2	1:AA:617:G:C8	3.04	0.46
25:DA:491:G:H2'	25:DA:492:A:H8	1.80	0.46
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.50	0.46
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.14	0.46
25:BA:2389:A:H2'	25:BA:2390:A:C8	2.50	0.46
25:BA:636:G:N2	25:BA:640:A:O2'	2.48	0.46
25:DA:263:C:H2'	25:DA:264:C:O4'	2.15	0.46
25:BA:664:U:H2'	25:BA:665:C:C6	2.50	0.46
32:BI:81:VAL:HG21	32:BI:88:ILE:HD13	1.96	0.46
1:AA:1232:U:OP1	9:AI:124:GLN:HG2	2.15	0.46
40:DU:59:ARG:HB3	40:DU:59:ARG:HH11	1.80	0.46
28:BE:51:PHE:H	28:BE:75:VAL:CG1	2.27	0.46
25:BA:982:U:H2'	25:BA:983:G:O4'	2.15	0.46
25:DA:861:A:C2	25:DA:917:A:C4	3.03	0.46
10:AJ:20:ALA:HA	10:AJ:23:ILE:HG22	1.95	0.46
19:AS:20:LEU:HD23	19:AS:23:ASN:HD22	1.80	0.46
51:B5:42:PRO:HB2	51:B5:43:HIS:ND1	2.30	0.46
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.51	0.46
25:BA:436:C:O2'	25:BA:437:G:H5'	2.16	0.46
2:CB:167:PRO:HD3	2:CB:187:LEU:O	2.15	0.46
4:AD:155:LEU:O	4:AD:158:ILE:HG12	2.15	0.46
14:CN:3:ARG:O	14:CN:7:ILE:HG23	2.15	0.46
25:BA:1592:A:H2'	25:BA:1593:C:O4'	2.16	0.46
25:BA:2658:C:OP2	25:BA:2745:G:O2'	2.19	0.46
25:DA:857:C:H2'	25:DA:858:U:C6	2.50	0.46
25:BA:926:G:H2'	25:BA:927:G:C1'	2.46	0.46
54:D8:30:ARG:HD3	54:D8:30:ARG:HA	1.69	0.46
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.15	0.46
25:DA:1358:G:O2'	25:DA:1359:A:H5''	2.15	0.46
25:BA:1217:G:H3'	25:BA:1218:G:H5'	1.98	0.46
25:DA:568:U:H5'	25:DA:945:A:C2	2.50	0.46
3:CC:6:HIS:CD2	3:CC:8:ILE:H	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:656:G:H2'	25:DA:657:U:O4'	2.14	0.46
25:DA:792:G:H5''	25:DA:793:A:H5'	1.98	0.46
25:DA:888:C:H2'	25:DA:889:C:N3	2.30	0.46
25:DA:889:C:O2'	25:DA:890:A:H8	1.99	0.46
25:DA:956:G:OP1	36:DQ:87:LYS:HG3	2.16	0.46
25:BA:2225:U:O4'	27:BD:151:LYS:HE2	2.14	0.46
8:AH:39:LEU:HD12	8:AH:39:LEU:HA	1.79	0.46
1:CA:1238:A:C2	1:CA:1303:C:H4'	2.50	0.46
1:AA:391:G:C6	1:AA:392:G:C5	3.03	0.46
25:DA:1529:G:O2'	25:DA:1530:C:H5'	2.16	0.46
25:DA:1259:G:H2'	25:DA:1260:G:C8	2.50	0.46
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.16	0.46
1:CA:1240:U:O2'	7:CG:32:ARG:HD3	2.16	0.46
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.80	0.46
25:BA:736:A:N3	25:BA:826:U:O2'	2.43	0.46
9:AI:121:ARG:NH1	9:AI:122:ALA:O	2.49	0.46
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.16	0.46
25:DA:647:G:H8	25:DA:647:G:O5'	1.99	0.46
25:BA:85:C:H4'	25:BA:102:U:H1'	1.97	0.46
25:DA:1142:U:H2'	25:DA:1142:U:O2	2.15	0.46
44:BY:30:VAL:O	44:BY:32:PRO:HD3	2.16	0.46
1:AA:814:A:H2'	1:AA:816:A:H5''	1.97	0.46
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.81	0.46
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.98	0.46
2:AB:16:HIS:CD2	2:AB:17:PHE:N	2.81	0.46
1:CA:1120:G:N1	1:CA:1154:G:N3	2.64	0.46
1:AA:437:U:O3'	4:AD:125:HIS:CE1	2.69	0.46
25:DA:302:C:H2'	25:DA:303:U:C6	2.50	0.46
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.96	0.46
25:DA:2287:A:O2'	25:DA:2288:A:H3'	2.15	0.46
1:AA:863:U:H2'	1:AA:865:A:OP2	2.15	0.46
1:CA:693:G:H1'	7:CG:82:GLY:HA3	1.97	0.46
29:DF:184:TYR:CE1	35:DP:3:LEU:HD21	2.50	0.46
1:AA:59:A:H5''	1:AA:60:A:H5''	1.97	0.46
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.96	0.46
5:CE:137:GLU:HG2	5:CE:140:ARG:NH1	2.29	0.46
1:AA:186:C:H2'	1:AA:187:C:H6	1.80	0.46
10:AJ:67:THR:O	10:AJ:67:THR:OG1	2.31	0.46
25:DA:2747:G:H21	25:DA:2757:A:H62	1.64	0.46
40:DU:78:THR:HG22	40:DU:117:GLN:HE21	1.81	0.46
25:BA:696:C:P	25:BA:696:C:H6	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:910:A:H2'	25:BA:911:G:C8	2.50	0.46
1:CA:1240:U:C2	7:CG:32:ARG:HD2	2.50	0.46
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.50	0.46
25:DA:1506:C:H2'	25:DA:1507:A:H5'	1.98	0.46
8:AH:97:VAL:HG23	8:AH:129:VAL:O	2.16	0.46
33:DN:71:ILE:HG21	33:DN:84:LYS:HB3	1.98	0.46
13:CM:15:VAL:HG11	13:CM:48:LEU:HD21	1.96	0.46
13:CM:33:ALA:HA	13:CM:59:TYR:CE2	2.49	0.46
3:CC:104:GLN:HB3	3:CC:104:GLN:HE21	1.58	0.46
25:DA:34:C:OP1	25:DA:34:C:H6	1.99	0.46
31:DH:137:ASP:HB3	31:DH:140:LYS:HB3	1.95	0.46
6:CF:38:GLU:HB2	6:CF:64:GLN:HG2	1.96	0.46
2:CB:17:PHE:HB2	2:CB:44:LEU:CD1	2.46	0.46
1:CA:1154:G:N7	1:CA:1155:G:C5	2.83	0.46
1:CA:1154:G:O6	1:CA:1155:G:N1	2.48	0.46
29:DF:53:THR:HG23	29:DF:55:GLY:N	2.26	0.46
13:CM:3:ARG:CA	50:D4:34:GLU:HG2	2.43	0.46
1:CA:323:U:H2'	1:CA:324:G:O4'	2.16	0.46
25:DA:1589:C:H2'	25:DA:1590:U:H6	1.80	0.46
25:BA:2901:A:N6	25:BA:2902:G:N1	2.64	0.46
1:CA:1145:C:H5''	1:CA:1146:A:OP1	2.16	0.46
25:BA:922:G:H1	25:BA:948:C:N4	2.13	0.46
20:CT:33:ILE:HG13	20:CT:62:LEU:HD22	1.96	0.46
25:DA:1364:G:P	47:D1:3:LYS:HG3	2.55	0.46
19:CS:22:LEU:HB3	19:CS:27:GLU:HG3	1.97	0.46
25:DA:1341:U:OP1	25:DA:1397:U:N3	2.40	0.46
1:AA:292:G:N7	1:AA:293:G:H1'	2.31	0.46
25:BA:553:A:N1	25:BA:2064:A:H2'	2.30	0.46
9:CI:26:VAL:HG22	9:CI:61:ALA:HB3	1.97	0.46
16:CP:6:LEU:HD23	16:CP:17:TYR:CG	2.51	0.46
1:CA:25:C:H2'	1:CA:26:A:C8	2.51	0.46
1:CA:32:A:C2	1:CA:33:A:C4	3.04	0.46
25:BA:68:C:O2'	25:BA:69:G:H5'	2.16	0.46
38:DS:38:GLN:HB2	38:DS:47:THR:HG23	1.96	0.46
45:DZ:54:HIS:CG	45:DZ:101:PRO:HG3	2.51	0.46
2:AB:127:ILE:HB	2:AB:129:GLU:H	1.79	0.46
4:CD:191:ARG:O	4:CD:191:ARG:HD2	2.16	0.46
7:CG:12:LEU:H	7:CG:12:LEU:HD12	1.80	0.46
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.51	0.46
1:AA:346:G:OP1	39:BT:41:ARG:NH2	2.48	0.46
9:CI:14:VAL:HG22	9:CI:66:ARG:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1270:C:H2'	1:AA:1271:G:H5'	1.98	0.46
1:CA:1126:U:H6	1:CA:1281:U:O2	1.98	0.46
3:AC:58:GLU:O	3:AC:59:ARG:HG3	2.15	0.46
1:AA:865:A:H2	1:AA:918:A:H4'	1.79	0.46
30:BG:102:PHE:CE1	30:BG:141:PHE:HE2	2.25	0.46
25:DA:1324:G:C2	25:DA:1331:A:C2	3.04	0.46
25:DA:1371:G:H2'	25:DA:1372:U:H5	1.80	0.46
25:DA:1420:U:HO2'	25:DA:1421:G:P	2.39	0.46
34:DO:120:GLU:HB2	39:DT:68:TYR:HE2	1.81	0.46
24:AW:3:004:C	24:AW:4:PRO:O	2.63	0.46
36:DQ:32:TYR:OH	36:DQ:111:GLU:OE1	2.29	0.46
1:AA:877:C:OP1	8:AH:88:LYS:NZ	2.34	0.46
9:CI:99:LEU:HB3	9:CI:101:PHE:HE1	1.81	0.46
1:CA:918:A:H2'	1:CA:919:A:C8	2.50	0.46
46:D0:82:ARG:HA	46:D0:83:PRO:HD3	1.73	0.46
25:DA:2443:C:H2'	25:DA:2444:G:H8	1.80	0.46
25:BA:1071:G:C4	25:BA:1180:C:H1'	2.50	0.46
25:DA:2885:C:O2'	51:D5:34:PRO:HG3	2.14	0.46
43:DX:41:ASN:O	43:DX:45:THR:HG23	2.15	0.46
1:CA:232:G:H1'	1:CA:262:A:N1	2.30	0.46
51:D5:40:LYS:HD3	51:D5:41:PRO:O	2.16	0.46
5:CE:7:GLU:OE1	5:CE:37:ARG:NH2	2.47	0.46
3:CC:106:VAL:HG11	3:CC:115:LEU:HD21	1.98	0.46
36:BQ:21:THR:HG21	36:BQ:101:ARG:HB2	1.98	0.46
28:DE:36:ARG:HD3	28:DE:85:ASN:HD21	1.80	0.46
2:AB:54:THR:HG22	2:AB:58:ILE:HD11	1.97	0.46
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.98	0.46
1:CA:1491:G:H3'	1:CA:1492:A:C8	2.50	0.46
50:D4:46:GLN:HG2	50:D4:48:ARG:HE	1.81	0.46
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.50	0.46
1:AA:658:G:C2	1:AA:749:C:N3	2.83	0.46
25:BA:1465:A:O2'	25:BA:1467:G:N7	2.44	0.46
5:AE:77:PRO:HG2	5:AE:78:HIS:CD2	2.51	0.46
3:AC:115:LEU:O	3:AC:118:GLN:HG2	2.15	0.46
25:DA:1773:A:C5	25:DA:1829:A:H1'	2.51	0.46
25:BA:1233:U:C2'	25:BA:1234:A:H5'	2.45	0.46
1:AA:676:A:H2'	1:AA:677:U:H6	1.79	0.46
25:BA:279:G:H5''	25:BA:279:G:H8	1.81	0.46
26:DB:31:C:C2'	26:DB:32:C:H5'	2.45	0.46
19:CS:20:LEU:HA	19:CS:23:ASN:HD22	1.81	0.46
25:BA:1662:A:H4'	25:BA:1663:C:OP2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:96:U:O2'	1:CA:97:G:H5'	2.15	0.46
30:DG:170:ARG:HH21	30:DG:180:PHE:CB	2.28	0.46
25:DA:492:A:H2'	25:DA:493:G:O4'	2.16	0.46
41:DV:64:HIS:CD2	41:DV:92:THR:HG1	2.33	0.46
1:CA:283:C:H2'	1:CA:284:G:O4'	2.15	0.46
1:CA:174:C:H2'	1:CA:175:C:H6	1.81	0.46
25:DA:32:C:O2'	25:DA:33:U:H5'	2.16	0.46
31:BH:71:LEU:HA	31:BH:71:LEU:HD12	1.70	0.46
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.16	0.46
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.16	0.46
2:CB:19:HIS:HB2	2:CB:204:ASN:HB2	1.98	0.46
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.51	0.46
25:BA:1199:C:H2'	25:BA:1200:G:O4'	2.16	0.46
25:BA:1008:U:H2'	25:BA:1009:C:C6	2.51	0.46
17:CQ:41:LYS:NZ	17:CQ:92:ARG:HH21	2.14	0.46
1:AA:597:G:H5''	1:AA:598:U:OP2	2.16	0.46
25:DA:704:G:H1'	25:DA:726:G:H22	1.81	0.46
1:AA:736:C:H2'	1:AA:737:A:C8	2.51	0.46
25:BA:2786:C:H2'	25:BA:2787:C:C6	2.51	0.46
25:DA:1163:G:O2'	25:DA:1164:G:H5'	2.16	0.46
25:BA:160:G:O2'	25:BA:161:C:H5'	2.16	0.46
55:D9:17:ILE:HD12	55:D9:17:ILE:HA	1.76	0.46
36:DQ:111:GLU:O	36:DQ:115:MET:HG2	2.16	0.46
25:DA:2831:G:P	28:DE:58:ARG:HH22	2.38	0.46
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.96	0.46
7:CG:50:ILE:HD11	7:CG:58:PRO:HA	1.98	0.46
9:AI:27:THR:O	9:AI:63:ILE:N	2.49	0.46
1:CA:89:C:H2'	1:CA:90:U:O4'	2.16	0.46
25:DA:2228:G:C6	25:DA:2229:C:C4	3.04	0.46
2:CB:145:LEU:O	2:CB:149:LEU:HB2	2.15	0.46
25:DA:1417:C:H2'	25:DA:1418:G:O4'	2.16	0.46
1:AA:1068:G:N7	1:AA:1094:G:H2'	2.31	0.46
1:AA:920:U:H2'	1:AA:921:U:C6	2.51	0.46
25:BA:1096:A:N3	25:BA:1096:A:H2'	2.30	0.46
25:BA:593:G:H2'	25:BA:2052:A:C5	2.50	0.46
40:BU:95:LEU:HA	40:BU:95:LEU:HD12	1.78	0.46
52:D6:19:ARG:N	52:D6:19:ARG:HD2	2.30	0.46
25:DA:189:G:H2'	25:DA:205:G:N2	2.30	0.46
40:BU:66:ASN:O	40:BU:70:ARG:HG3	2.15	0.46
25:DA:2207:G:H3'	25:DA:2208:A:H5''	1.98	0.46
1:CA:923:A:H2'	1:CA:924:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1629:C:H2'	25:BA:1630:A:H8	1.81	0.46
1:AA:78:G:C2	1:AA:91:C:N3	2.84	0.46
1:CA:983:A:H3'	1:CA:983:A:N3	2.31	0.46
1:AA:658:G:H2'	1:AA:659:U:H6	1.80	0.46
1:CA:1305:G:O2'	1:CA:1331:G:N2	2.49	0.46
32:BI:104:GLN:HG3	32:BI:105:HIS:HD2	1.80	0.46
25:DA:1885:A:H2'	25:DA:1886:C:O4'	2.17	0.46
25:BA:1854:G:OP1	27:BD:54:ARG:NH1	2.48	0.46
16:CP:40:ASP:O	16:CP:48:TRP:HB2	2.16	0.46
1:CA:1077:G:C2	1:CA:1081:G:C6	3.04	0.46
10:AJ:30:SER:O	10:AJ:81:THR:HG23	2.16	0.46
25:BA:1171:G:H5'	55:B9:37:GLY:HA2	1.98	0.46
25:DA:2354:G:OP1	46:D0:32:ARG:NH2	2.49	0.46
25:BA:1264:G:OP2	40:BU:19:LYS:HE3	2.15	0.46
28:BE:143:ASN:HD22	28:BE:147:PRO:HD3	1.81	0.46
25:DA:2461:C:H2'	25:DA:2462:U:C6	2.51	0.46
25:BA:751:G:O2'	25:BA:773:G:N2	2.35	0.46
36:DQ:108:GLY:HA3	45:DZ:116:VAL:HG13	1.96	0.46
25:BA:508:A:H5''	25:BA:509:A:OP1	2.16	0.46
33:DN:19:GLU:HA	33:DN:59:LYS:HB2	1.97	0.46
27:BD:182:LEU:HA	27:BD:182:LEU:HD23	1.65	0.46
45:DZ:70:LEU:HA	45:DZ:70:LEU:HD23	1.79	0.46
25:BA:2812:A:N3	25:BA:2904:U:H1'	2.31	0.46
44:BY:15:VAL:HG21	44:BY:42:VAL:HG11	1.99	0.46
4:AD:190:ASP:OD1	4:AD:190:ASP:N	2.49	0.45
26:BB:48:A:H4'	38:BS:95:HIS:CD2	2.42	0.45
4:AD:30:LYS:HA	4:AD:35:ARG:NH1	2.31	0.45
11:AK:99:GLN:HG3	11:AK:105:VAL:HG11	1.97	0.45
33:DN:30:ILE:O	33:DN:34:LEU:HD22	2.16	0.45
25:DA:1405:U:H2'	25:DA:1406:U:H6	1.77	0.45
3:CC:183:ASP:N	3:CC:202:ILE:O	2.46	0.45
1:CA:433:C:H2'	1:CA:434:U:C6	2.49	0.45
36:BQ:85:LYS:HD3	46:B0:7:LEU:HG	1.98	0.45
1:AA:752:G:H4'	15:AO:69:TYR:OH	2.16	0.45
4:CD:20:TYR:CD1	4:CD:26:CYS:HB3	2.51	0.45
1:CA:1243:C:H2'	1:CA:1244:C:H6	1.81	0.45
27:BD:72:LYS:HB3	27:BD:75:ILE:HD12	1.99	0.45
25:DA:77:C:O2'	48:D2:14:ARG:NH2	2.49	0.45
1:CA:931:C:H42	1:CA:1386:G:H1	1.64	0.45
11:AK:31:THR:HA	11:AK:42:TRP:HA	1.98	0.45
44:DY:19:LYS:HE2	44:DY:20:TYR:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1707:G:H2'	25:DA:1708:C:C6	2.51	0.45
36:DQ:42:ILE:HG22	36:DQ:47:ILE:HG13	1.98	0.45
1:CA:1058:G:N2	10:CJ:53:PRO:HG3	2.31	0.45
25:DA:556:G:C6	25:DA:557:U:C4	3.04	0.45
26:BB:75:G:H8	26:BB:75:G:H5''	1.80	0.45
1:AA:1424:C:H2'	1:AA:1425:U:O4'	2.15	0.45
25:DA:1783:A:H5'	25:DA:2608:G:H4'	1.98	0.45
38:DS:77:ALA:HB1	38:DS:82:ILE:HB	1.97	0.45
39:DT:61:PHE:CE1	39:DT:76:PHE:HB2	2.51	0.45
25:DA:2065:C:H2'	25:DA:2066:C:H6	1.80	0.45
42:BW:71:VAL:HA	42:BW:107:LEU:HD12	1.98	0.45
1:CA:1004:A:H3'	1:CA:1005:A:O4'	2.16	0.45
2:CB:51:LEU:HD23	2:CB:201:ILE:HD12	1.97	0.45
1:AA:923:A:OP1	5:AE:21:ALA:HB2	2.15	0.45
25:DA:858:U:O2	25:DA:2268:A:H2'	2.16	0.45
29:BF:8:GLN:OE1	29:BF:19:GLU:HG2	2.17	0.45
5:CE:33:VAL:HG13	5:CE:112:LEU:HD12	1.98	0.45
19:AS:38:SER:O	19:AS:70:LYS:HD3	2.17	0.45
25:DA:1266:G:O4'	42:DW:15:ARG:NH2	2.48	0.45
25:DA:776:G:C8	25:DA:793:A:C2	3.04	0.45
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.57	0.45
1:CA:689:C:O4'	1:CA:704:A:H2	1.99	0.45
41:DV:62:LEU:CD1	41:DV:95:LEU:HB2	2.46	0.45
45:DZ:6:LYS:HE3	45:DZ:8:TYR:OH	2.16	0.45
25:DA:881:G:C2	25:DA:882:G:C4	3.03	0.45
25:DA:428:A:H3'	25:DA:429:A:H8	1.81	0.45
28:BE:144:ARG:HB3	28:BE:145:LYS:H	1.36	0.45
25:DA:2443:C:H2'	25:DA:2444:G:C8	2.51	0.45
29:DF:31:HIS:NE2	29:DF:35:GLU:OE2	2.49	0.45
25:DA:94(A):G:N2	48:D2:47:ASN:OD1	2.40	0.45
30:BG:97:ASP:O	30:BG:101:ILE:HG13	2.16	0.45
25:DA:1321:A:H2'	25:DA:1322:A:O4'	2.16	0.45
34:DO:4:PRO:O	34:DO:5:GLN:HB2	2.17	0.45
39:BT:29:ARG:HB2	39:BT:46:GLU:HG3	1.97	0.45
38:DS:30:ARG:HD3	38:DS:98:VAL:HG22	1.97	0.45
1:AA:958:A:C6	1:AA:959:A:N1	2.84	0.45
30:DG:61:ALA:HA	30:DG:66:GLN:O	2.15	0.45
45:BZ:136:PHE:O	45:BZ:137:ILE:HG13	2.17	0.45
27:BD:43:ARG:HA	27:BD:48:ARG:O	2.16	0.45
25:DA:57:C:H2'	25:DA:58:G:O4'	2.16	0.45
11:AK:84:VAL:HG11	11:AK:91:ARG:HD2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:174:GLY:O	31:BH:175:LYS:HB3	2.16	0.45
25:BA:1702:A:H3'	25:BA:1703:C:H6	1.81	0.45
1:CA:1007:C:N3	1:CA:1022:G:C2	2.83	0.45
25:DA:987:G:O2'	25:DA:1000:A:N3	2.44	0.45
29:BF:184:TYR:O	29:BF:188:ARG:HG3	2.16	0.45
1:AA:181:G:N1	1:AA:195:A:C8	2.84	0.45
3:CC:28:GLN:HB3	3:CC:32:LEU:HD23	1.96	0.45
25:DA:858:U:H1'	25:DA:2268:A:H2'	1.97	0.45
1:AA:660:G:H2'	1:AA:661:G:H8	1.82	0.45
1:CA:299:G:H2'	1:CA:300:A:C8	2.50	0.45
1:AA:1030:C:H5''	1:AA:1030(A):G:O5'	2.16	0.45
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.52	0.45
36:DQ:56:ARG:HG3	36:DQ:56:ARG:HH11	1.81	0.45
1:AA:323:U:OP1	20:AT:23:ARG:HA	2.16	0.45
1:CA:243:A:C2	1:CA:246:A:C8	3.05	0.45
1:CA:1342:C:H4'	9:CI:125:TYR:HB3	1.97	0.45
19:CS:22:LEU:HD23	19:CS:28:LYS:HA	1.98	0.45
4:AD:107:ARG:HD2	4:AD:107:ARG:HA	1.72	0.45
25:DA:2335:A:C8	25:DA:2337:G:N7	2.84	0.45
1:CA:1479:C:H2'	1:CA:1480:G:C8	2.51	0.45
12:CL:117:ARG:NH2	12:CL:124:LYS:HB2	2.31	0.45
1:CA:790:A:C6	1:CA:791:G:C6	3.05	0.45
25:DA:903:C:H2'	25:DA:904:C:H6	1.80	0.45
19:AS:12:ASP:OD1	19:AS:37:ARG:HD2	2.16	0.45
20:CT:89:ARG:O	20:CT:93:GLU:HB2	2.15	0.45
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.81	0.45
5:AE:44:GLY:HA3	5:AE:62:ALA:HB2	1.99	0.45
25:BA:471:C:H2'	25:BA:472:G:O4'	2.16	0.45
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.51	0.45
25:DA:2439:A:C8	25:DA:2439:A:H5'	2.50	0.45
45:BZ:28:MET:HA	45:BZ:88:PHE:O	2.16	0.45
1:AA:355:C:C4	1:AA:356:A:N7	2.84	0.45
1:AA:1082:G:H2'	1:AA:1083:U:O4'	2.16	0.45
1:AA:1035:A:H2	1:AA:1036:G:N7	2.15	0.45
4:AD:15:GLU:HG2	4:AD:63:LYS:HB3	1.99	0.45
31:DH:163:TYR:CE2	31:DH:169:VAL:HG22	2.52	0.45
50:B4:59:PHE:C	50:B4:61:ARG:H	2.18	0.45
1:CA:474:G:H2'	1:CA:475:G:C8	2.47	0.45
54:B8:30:ARG:HA	54:B8:30:ARG:HD3	1.58	0.45
1:CA:757:U:O2'	1:CA:879:C:O2	2.32	0.45
3:CC:179:ARG:O	3:CC:206:GLU:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DZ:45:ASP:OD2	45:DZ:49:ARG:HD2	2.16	0.45
7:CG:153:HIS:CE1	11:CK:58:PRO:HD2	2.50	0.45
1:CA:872:A:C4	1:CA:874:G:N7	2.85	0.45
25:DA:140:G:N2	25:DA:1596:A:H4'	2.31	0.45
16:CP:22:THR:HA	16:CP:33:ILE:HG13	1.99	0.45
1:CA:186:C:H2'	1:CA:187:C:C6	2.51	0.45
15:AO:74:ASP:CG	15:AO:77:ARG:HG3	2.37	0.45
1:CA:927:G:H2'	1:CA:928:G:C8	2.52	0.45
25:BA:1882:U:H3	25:BA:1913:G:H1	1.64	0.45
25:BA:1825:U:H2'	25:BA:1826:C:H6	1.82	0.45
1:AA:299:G:C6	1:AA:300:A:C6	3.04	0.45
25:BA:1183:G:H2'	33:BN:106:MET:HE2	1.98	0.45
25:BA:2117:C:H2'	25:BA:2118:U:O4'	2.16	0.45
43:BX:26:TYR:CE2	43:BX:89:ILE:HG13	2.51	0.45
26:BB:32:C:C2	26:BB:51:G:N2	2.85	0.45
1:CA:35:G:C5	1:CA:36:C:C4	3.04	0.45
1:CA:35:G:C6	1:CA:36:C:N4	2.85	0.45
35:DP:52:GLU:OE2	54:D8:57:ARG:NH1	2.46	0.45
1:AA:1523:G:OP1	11:AK:123:LYS:HD2	2.16	0.45
1:CA:1186:G:O3'	9:CI:113:LYS:NZ	2.49	0.45
1:CA:685:G:C2	1:CA:686:U:C4	3.04	0.45
25:DA:747:U:O2	25:DA:2014:A:H1'	2.17	0.45
31:BH:159:GLU:HG3	31:BH:169:VAL:HG11	1.99	0.45
25:BA:270:C:H6	25:BA:270:C:O5'	1.99	0.45
32:DI:129:THR:HG22	32:DI:139:GLN:HE22	1.80	0.45
46:D0:72:ARG:O	46:D0:75:LEU:HB2	2.16	0.45
25:DA:1803:A:H4'	27:DD:259:THR:HG23	1.98	0.45
1:AA:433:C:H2'	1:AA:434:U:C6	2.49	0.45
1:CA:489:C:H2'	1:CA:490:G:H8	1.81	0.45
43:DX:26:TYR:CE2	43:DX:89:ILE:HG13	2.51	0.45
3:CC:73:PRO:O	3:CC:77:ILE:HG12	2.16	0.45
45:DZ:131:ARG:HD2	45:DZ:131:ARG:H	1.81	0.45
1:AA:1030(C):G:N7	1:AA:1031:G:N2	2.65	0.45
4:CD:43:HIS:CA	4:CD:46:LYS:HG3	2.45	0.45
5:AE:78:HIS:NE2	5:AE:142:LEU:HA	2.32	0.45
25:DA:139(A):G:O2'	25:DA:140:G:H5'	2.17	0.45
26:DB:33:G:C2'	26:DB:34:U:H5'	2.47	0.45
31:DH:20:ALA:HB3	31:DH:23:ARG:CG	2.46	0.45
1:AA:1239:A:H62	1:AA:1299:A:H62	1.64	0.45
38:DS:36:TYR:CD1	38:DS:36:TYR:N	2.85	0.45
1:AA:202:U:H3'	1:AA:203:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B6:11:LEU:HB3	52:B6:49:HIS:HB3	1.99	0.45
25:DA:2564:A:OP1	25:DA:2648:C:H4'	2.16	0.45
25:DA:506:G:O3'	25:DA:507:A:H8	2.00	0.45
9:AI:99:LEU:HB3	9:AI:101:PHE:CE1	2.52	0.45
25:DA:714:U:O2	25:DA:716:A:C8	2.70	0.45
36:BQ:34:LEU:HD11	36:BQ:129:THR:HB	1.99	0.45
34:BO:104:ARG:NH2	39:BT:43:GLN:OE1	2.50	0.45
1:AA:303:A:HO2'	1:AA:555:C:HO2'	1.57	0.45
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.51	0.45
25:DA:1927:A:H2'	25:DA:1928:A:C8	2.52	0.45
2:CB:180:LEU:HD23	2:CB:180:LEU:HA	1.69	0.45
13:CM:8:GLU:HG2	30:DG:146:TYR:HD2	1.81	0.45
14:CN:32:SER:O	14:CN:40:CYS:HA	2.17	0.45
7:AG:103:TRP:CH2	7:AG:141:VAL:HG21	2.52	0.45
45:BZ:8:TYR:HB2	45:BZ:38:TYR:CE2	2.51	0.45
8:AH:53:VAL:HG12	8:AH:54:ASP:OD1	2.16	0.45
8:AH:28:ALA:HA	8:AH:59:LEU:HG	1.98	0.45
38:BS:10:ARG:O	38:BS:14:VAL:HG13	2.16	0.45
25:DA:198:C:H5'	25:DA:2244:U:OP1	2.17	0.45
25:BA:1003:U:HO2'	25:BA:1004:A:P	2.40	0.45
9:CI:16:ARG:HB2	9:CI:64:THR:HB	1.99	0.45
7:AG:50:ILE:CD1	7:AG:58:PRO:HA	2.41	0.45
1:AA:473:G:H2'	1:AA:474:G:C8	2.52	0.45
3:AC:58:GLU:HB2	3:AC:65:ALA:CB	2.46	0.45
1:CA:959:A:O2'	1:CA:984:C:O2'	2.14	0.45
18:CR:56:THR:HB	18:CR:58:LEU:HD23	1.98	0.45
1:CA:840:C:H5''	1:CA:848:C:O2	2.17	0.45
25:BA:1314:A:C2	25:BA:2035:A:C4	3.05	0.45
29:BF:7:TYR:O	29:BF:21:ALA:HA	2.16	0.45
5:AE:137:GLU:HG2	5:AE:140:ARG:NH1	2.30	0.45
25:DA:955:C:OP1	36:DQ:87:LYS:HE3	2.16	0.45
1:AA:1179:A:O3'	9:AI:103:THR:HB	2.16	0.45
38:DS:26:LEU:HD22	38:DS:87:PHE:CD1	2.51	0.45
1:AA:130:A:H5'	17:AQ:63:ARG:HE	1.81	0.45
28:DE:77:ILE:HD13	28:DE:195:LEU:HD13	1.98	0.45
29:DF:33:LEU:HB3	35:DP:6:LEU:HD21	1.99	0.45
25:DA:646:A:H2'	25:DA:647:G:O4'	2.16	0.45
25:DA:222:A:C2	25:DA:233:A:H5''	2.52	0.45
8:AH:121:ASP:OD1	8:AH:121:ASP:N	2.49	0.45
25:DA:2658:C:O3'	31:DH:158:HIS:HE1	1.98	0.45
25:DA:1539:G:H2'	25:DA:1540:U:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:881:G:P	12:CL:12:ARG:HH22	2.40	0.45
25:BA:1938:A:H2'	25:BA:1939:U:O4'	2.17	0.45
9:CI:47:LEU:HD22	9:CI:50:LEU:HD21	1.99	0.45
1:AA:1309:G:OP1	13:AM:88:ARG:NH1	2.49	0.45
45:BZ:74:VAL:HG22	45:BZ:86:VAL:HG12	1.99	0.45
37:DR:60:LEU:HA	37:DR:60:LEU:HD23	1.77	0.45
13:CM:47:ASP:N	13:CM:47:ASP:OD1	2.50	0.45
4:CD:108:LEU:HD12	4:CD:108:LEU:HA	1.68	0.45
8:CH:63:LEU:HA	8:CH:63:LEU:HD13	1.85	0.45
47:B1:86:SER:N	47:B1:89:GLU:HG3	2.31	0.45
17:CQ:94:ASN:O	17:CQ:98:LEU:HD13	2.16	0.45
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.17	0.45
40:DU:49:HIS:HA	40:DU:52:ARG:HB3	1.97	0.45
6:AF:81:ILE:HD11	27:BD:125:ILE:HB	1.99	0.45
27:DD:2:ALA:O	27:DD:3:VAL:HB	2.16	0.45
1:AA:1123:A:H61	1:AA:1149:C:N4	2.15	0.45
1:AA:1125:U:HO2'	1:AA:1126:U:P	2.39	0.45
2:CB:17:PHE:HB2	2:CB:44:LEU:HD12	1.97	0.45
25:DA:1138:G:H2'	25:DA:1139:G:O4'	2.16	0.45
4:CD:10:ARG:HB2	4:CD:40:PRO:HG3	1.99	0.45
25:DA:1003:G:N2	25:DA:1153:C:C2	2.84	0.45
1:CA:624:C:H2'	1:CA:625:G:H8	1.82	0.45
1:CA:376:G:H5''	16:CP:5:ARG:HB2	1.99	0.45
25:DA:2370:G:H2'	25:DA:2371:G:C8	2.51	0.45
25:DA:919:G:C6	25:DA:920:G:C5	3.05	0.45
25:DA:1876:A:H2'	25:DA:1877:A:H8	1.77	0.45
25:DA:11:G:C2'	25:DA:12:U:H5'	2.43	0.45
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.50	0.45
1:CA:584:G:H2'	1:CA:585:G:C8	2.51	0.45
43:DX:53:LYS:NZ	43:DX:55:ASN:OD1	2.32	0.45
3:CC:52:LEU:HD23	3:CC:68:VAL:HG13	1.98	0.45
25:BA:1410:G:OP2	47:B1:3:LYS:HG3	2.16	0.45
10:CJ:55:LYS:HE3	10:CJ:56:HIS:HE2	1.82	0.45
25:DA:1291:C:H2'	25:DA:1292:U:H6	1.82	0.45
5:AE:36:ASP:OD1	5:AE:38:GLN:N	2.37	0.45
20:CT:43:LEU:HB3	20:CT:52:ALA:HB2	1.99	0.45
36:BQ:54:MET:HB3	36:BQ:64:ILE:HD11	1.99	0.45
25:DA:729:G:C5	27:DD:208:LYS:HB2	2.51	0.45
25:DA:1786:A:C4	25:DA:1938:A:C6	3.04	0.45
28:BE:51:PHE:O	28:BE:75:VAL:HG13	2.16	0.45
51:D5:41:PRO:HG2	51:D5:44:THR:OG1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BZ:45:ASP:OD1	45:BZ:49:ARG:HD2	2.16	0.45
26:BB:14:U:OP2	26:BB:70:C:O2'	2.29	0.45
27:DD:268:ARG:HD3	27:DD:269:PHE:CE2	2.51	0.45
25:BA:561:A:H2'	25:BA:562:C:C6	2.52	0.45
25:BA:1002:A:N1	25:BA:2470:G:H4'	2.32	0.45
25:DA:2019:A:OP2	51:D5:9:LYS:NZ	2.30	0.45
25:DA:362:U:O2'	25:DA:363:G:H5'	2.17	0.45
31:BH:13:LYS:HA	31:BH:14:GLY:HA2	1.78	0.45
1:AA:419:C:OP1	1:AA:513:C:O2'	2.27	0.45
1:AA:109:A:H2'	1:AA:326:G:N2	2.32	0.45
29:BF:181:LEU:HD12	29:BF:181:LEU:HA	1.71	0.45
44:BY:55:TYR:CD2	44:BY:55:TYR:N	2.84	0.45
25:BA:943:C:H6	25:BA:943:C:O5'	2.00	0.45
11:AK:70:LYS:HB2	11:AK:70:LYS:NZ	2.31	0.45
14:CN:6:LEU:HB3	14:CN:23:ARG:NH2	2.32	0.45
14:CN:2:ALA:HB1	14:CN:6:LEU:HD13	1.97	0.45
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.52	0.45
25:DA:1006:C:C2	25:DA:1138:G:N2	2.85	0.45
1:CA:1118:C:C2	1:CA:1119:C:H5	2.35	0.45
4:CD:132:ARG:NH2	4:CD:134:ASP:OD2	2.49	0.45
1:AA:1002:G:H5''	1:AA:1003:G:OP2	2.17	0.45
8:AH:7:ALA:HB2	8:AH:85:ARG:HD2	1.98	0.45
4:AD:189:PRO:HB3	4:AD:193:ASP:HB3	1.99	0.45
4:AD:5:ILE:O	4:AD:5:ILE:HD13	2.17	0.45
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.52	0.45
39:DT:95:ARG:HG2	39:DT:95:ARG:NH1	2.31	0.45
25:DA:64:A:O3'	43:DX:71:GLY:HA3	2.17	0.45
1:CA:21:G:H2'	1:CA:22:G:C8	2.52	0.45
27:DD:148:GLU:CB	27:DD:151:LYS:HD2	2.45	0.45
2:AB:95:GLN:HB3	2:AB:147:LYS:HZ2	1.82	0.45
1:AA:991:U:H1'	1:AA:993:G:C8	2.52	0.45
6:CF:61:LEU:HB3	6:CF:63:TYR:CE1	2.49	0.45
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.17	0.45
25:BA:2092:G:H2'	25:BA:2093:A:O4'	2.16	0.45
1:CA:130:A:H5'	17:CQ:63:ARG:NE	2.32	0.45
1:CA:130:A:OP2	17:CQ:63:ARG:NE	2.44	0.45
25:DA:2261:C:C5	46:D0:16:SER:HB3	2.52	0.45
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.99	0.45
25:BA:211:A:H5''	25:BA:448:U:OP1	2.16	0.45
25:DA:1857:G:C6	25:DA:1858:G:N1	2.85	0.45
1:AA:44:G:C2	1:AA:45:U:H1'	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1710:C:H2'	25:DA:1711:C:C6	2.51	0.45
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.51	0.45
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.17	0.45
1:AA:721:G:C6	1:AA:733:A:C2	3.04	0.45
27:DD:58:HIS:ND1	27:DD:59:LYS:N	2.65	0.45
1:CA:1403:C:H6	1:CA:1403:C:O5'	1.99	0.45
25:BA:1715:A:H4'	25:BA:1716:A:O5'	2.16	0.45
1:CA:615:C:H2'	1:CA:616:G:O4'	2.16	0.45
23:CX:67:C:C2'	23:CX:68:C:H5'	2.46	0.45
25:BA:1735:U:O2	25:BA:1747:A:H5'	2.17	0.45
26:DB:17:C:H2'	26:DB:18:G:O4'	2.16	0.45
29:DF:120:GLU:HB3	29:DF:122:LYS:HG2	1.99	0.45
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.82	0.45
25:DA:1477:A:H2'	25:DA:1478:G:O4'	2.16	0.45
35:BP:46:LYS:HB3	35:BP:46:LYS:HE3	1.77	0.45
1:AA:1285:A:O5'	1:AA:1285:A:H8	1.99	0.45
37:DR:28:LEU:HD23	37:DR:28:LEU:HA	1.85	0.45
1:AA:1351:U:O4	9:AI:118:LYS:NZ	2.49	0.45
6:AF:60:PHE:CE2	18:AR:78:LEU:HD21	2.52	0.45
25:BA:2289:G:OP2	46:B0:10:THR:HG21	2.16	0.45
26:BB:106:G:OP1	45:BZ:31:ARG:HG2	2.17	0.45
16:AP:56:ALA:O	16:AP:60:LEU:HD23	2.17	0.45
25:DA:2528:U:O2'	25:DA:2529:G:H3'	2.16	0.45
25:BA:1834:A:C8	25:BA:1835:C:C5	3.04	0.45
25:BA:2299:A:C4	25:BA:2301:G:C8	3.05	0.45
4:AD:13:ARG:HB3	4:AD:38:TYR:O	2.17	0.45
49:D3:8:LEU:O	49:D3:32:GLN:N	2.38	0.45
25:DA:652(B):A:H2	25:DA:655:A:H1'	1.82	0.45
9:CI:53:VAL:HG21	9:CI:92:TYR:OH	2.17	0.45
4:CD:17:VAL:HG11	4:CD:197:PRO:CG	2.47	0.45
26:BB:50:G:O5'	26:BB:50:G:H8	2.00	0.45
25:BA:211:A:H3'	25:BA:448:U:H5'	1.99	0.45
28:DE:119:ARG:HB3	28:DE:120:TRP:CD1	2.52	0.45
25:DA:2699:C:H2'	25:DA:2700:C:O4'	2.17	0.45
49:D3:6:VAL:HG12	49:D3:56:VAL:HG22	1.98	0.45
1:AA:921:U:O2	5:AE:19:MET:HB2	2.17	0.45
1:CA:35:G:O2'	12:CL:118:SER:O	2.34	0.45
1:AA:303:A:O2'	1:AA:555:C:O2'	2.34	0.45
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.51	0.45
4:CD:79:PHE:HE1	4:CD:204:ILE:HD13	1.81	0.45
25:DA:1525:G:H2'	25:DA:1526:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2624:C:H2'	25:BA:2625:U:H5'	1.99	0.45
25:DA:193:U:O3'	25:DA:803:U:H4'	2.17	0.45
25:DA:804:A:H5''	25:DA:805:G:OP1	2.17	0.45
6:AF:11:ASN:HB3	6:AF:14:LEU:HG	1.99	0.45
28:DE:1:MET:HB3	28:DE:83:ASP:O	2.16	0.45
52:B6:19:ARG:NH2	52:B6:52:VAL:HG11	2.32	0.45
25:DA:587:C:OP2	35:DP:21:ARG:NH2	2.50	0.45
2:CB:81:VAL:O	2:CB:85:ALA:N	2.49	0.45
25:BA:163:C:H2'	25:BA:164:G:O4'	2.17	0.45
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.52	0.45
25:DA:2242:G:H2'	25:DA:2243:U:O4'	2.17	0.45
1:CA:1136:U:O5'	1:CA:1137:C:C4	2.69	0.45
25:BA:217:A:OP1	35:BP:76:LYS:NZ	2.42	0.45
1:AA:192:U:O2'	1:AA:193:C:C6	2.68	0.45
25:DA:1817:G:H2'	25:DA:1818:U:H5'	1.98	0.45
1:CA:1227:A:N3	19:CS:83:HIS:HB3	2.32	0.45
25:BA:2211:U:C2'	25:BA:2212:G:H5'	2.47	0.45
25:DA:652(D):C:N4	25:DA:652(U):G:H1	2.10	0.45
25:DA:1652:A:C2'	25:DA:1653:G:H5'	2.47	0.45
1:AA:452:A:O2'	1:AA:453:A:OP2	2.29	0.45
2:AB:71:VAL:HA	2:AB:93:VAL:HG23	1.99	0.45
46:B0:43:THR:OG1	46:B0:46:LYS:HG2	2.16	0.45
25:BA:2274:U:P	46:B0:19:LYS:HZ3	2.40	0.45
25:BA:254:A:H1'	25:BA:255:G:O4'	2.17	0.45
25:BA:2660:C:H2'	25:BA:2661:U:C6	2.53	0.45
25:BA:2473:C:H2'	25:BA:2474:U:C6	2.51	0.45
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.82	0.45
25:BA:2784:C:H2'	25:BA:2785:C:H6	1.82	0.45
13:AM:84:ILE:N	13:AM:85:GLY:HA2	2.32	0.45
44:DY:49:VAL:CG2	44:DY:61:ILE:HG23	2.47	0.45
9:CI:77:ILE:O	9:CI:81:ILE:HG22	2.17	0.45
1:CA:1289:A:H2	1:CA:1372:U:O4'	2.00	0.45
25:DA:2002:G:OP2	61:DA:3782:HOH:O	2.21	0.45
1:CA:590:C:H2'	1:CA:591:U:C6	2.52	0.45
1:CA:1066:C:O2'	1:CA:1067:A:H5'	2.17	0.45
13:CM:87:TYR:O	13:CM:91:ARG:HG2	2.17	0.45
30:BG:115:ARG:HB3	30:BG:136:ARG:HH22	1.81	0.45
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.17	0.45
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.51	0.45
25:DA:1575:C:H2'	25:DA:1576:U:H6	1.81	0.45
54:B8:54:GLU:O	54:B8:58:ILE:HG13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:453:C:O2	25:DA:457:A:O2'	2.35	0.45
27:BD:180:GLY:HA3	27:BD:275:LYS:HD2	1.98	0.45
54:D8:54:GLU:O	54:D8:58:ILE:HG13	2.17	0.45
38:DS:57:LYS:HE2	38:DS:57:LYS:HB2	1.79	0.45
40:BU:85:LYS:HE2	40:BU:85:LYS:HB3	1.78	0.45
1:AA:1347:G:H5''	9:AI:107:ARG:HB3	1.99	0.45
17:AQ:26:GLN:HE21	17:AQ:37:LYS:HG2	1.81	0.45
25:BA:1321:A:N1	25:BA:1341:C:O2'	2.48	0.45
5:AE:127:ASN:HA	5:AE:128:PRO:HD3	1.85	0.45
28:DE:176:ILE:HB	28:DE:181:LEU:HB2	1.98	0.45
38:DS:23:ARG:NH2	38:DS:84:GLN:HG2	2.32	0.45
25:DA:1022:G:C5	25:DA:1140:C:C4	3.06	0.44
1:CA:1118:C:H2'	1:CA:1119:C:H6	1.82	0.44
40:DU:65:ILE:CD1	40:DU:95:LEU:HB3	2.47	0.44
40:DU:76:TYR:HH	40:DU:92:ARG:NH1	2.15	0.44
1:CA:953:G:N7	13:CM:104:ARG:NH1	2.65	0.44
1:CA:1030(A):G:HO2'	1:CA:1030(B):C:H5	1.61	0.44
25:DA:1489:U:O3'	25:DA:1490:A:H8	2.00	0.44
1:CA:1166:G:H1'	1:CA:1171:G:H22	1.81	0.44
23:CX:40:C:H2'	23:CX:41:C:C6	2.46	0.44
25:DA:911:A:H2'	36:DQ:9:TYR:CZ	2.53	0.44
31:DH:86:GLU:CD	31:DH:130:ARG:HD3	2.38	0.44
25:DA:39:C:H2'	25:DA:40:C:C6	2.52	0.44
25:DA:614:U:H4'	25:DA:614(C):A:N6	2.32	0.44
54:B8:42:ARG:HD2	61:B8:203:HOH:O	2.17	0.44
21:CU:22:ARG:HA	21:CU:23:PRO:HD3	1.74	0.44
4:AD:61:LYS:NZ	4:AD:72:GLU:OE2	2.48	0.44
25:BA:722:A:C8	25:BA:851:A:C6	3.05	0.44
25:DA:1857:G:C6	25:DA:1858:G:C6	3.05	0.44
1:AA:1187:G:H4'	9:AI:111:ARG:NH1	2.31	0.44
1:CA:791:G:C5	1:CA:792:A:N7	2.85	0.44
1:CA:1009:G:N2	1:CA:1021:G:H1'	2.32	0.44
7:CG:56:GLN:O	7:CG:58:PRO:HD3	2.17	0.44
1:CA:1291:G:C6	1:CA:1292:U:C4	3.05	0.44
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.45	0.44
25:DA:1540:U:O2'	25:DA:1541:G:H5'	2.17	0.44
36:BQ:135:ASP:OD2	45:BZ:49:ARG:NH2	2.50	0.44
25:DA:931:G:O2'	49:D3:24:LYS:HD3	2.16	0.44
42:BW:84:ARG:HG3	42:BW:98:LYS:HD2	1.99	0.44
32:DI:27:ARG:HD2	47:D1:71:TYR:CE1	2.52	0.44
42:DW:18:ARG:NH1	42:DW:76:VAL:O	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:12:LEU:HD23	3:CC:16:ARG:HB3	1.98	0.44
25:BA:659:C:H2'	25:BA:660:C:C6	2.52	0.44
1:AA:590:C:H2'	1:AA:591:U:H6	1.81	0.44
54:D8:34:TRP:CG	54:D8:35:GLN:N	2.85	0.44
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.17	0.44
25:BA:1032:C:C2'	25:BA:1033:G:H5'	2.47	0.44
3:CC:66:VAL:HB	3:CC:101:LEU:HA	1.99	0.44
49:B3:43:ILE:O	49:B3:47:VAL:HG23	2.18	0.44
24:CW:4:PRO:O	24:CW:5:MVA:HG23	2.17	0.44
1:CA:1005:A:H3'	1:CA:1006:C:O4'	2.17	0.44
1:CA:1119:C:C4	1:CA:1154:G:O6	2.71	0.44
1:CA:1118:C:C2	1:CA:1119:C:C5	3.06	0.44
1:AA:922:G:C6	1:AA:923:A:C6	3.04	0.44
3:CC:58:GLU:O	3:CC:59:ARG:HG3	2.16	0.44
25:BA:597:C:H1'	25:BA:2077:C:C6	2.53	0.44
9:AI:85:LEU:HB3	9:AI:92:TYR:HD2	1.82	0.44
25:DA:2714:G:P	61:DA:3973:HOH:O	2.75	0.44
4:AD:122:ARG:O	4:AD:134:ASP:HB2	2.18	0.44
6:AF:21:LEU:O	6:AF:24:GLU:HB3	2.16	0.44
1:CA:738:C:H2'	1:CA:739:C:C6	2.50	0.44
1:CA:719:C:N4	18:CR:71:LYS:HE2	2.32	0.44
4:CD:43:HIS:ND1	4:CD:46:LYS:HE3	2.32	0.44
28:DE:150:VAL:CG1	28:DE:154:LYS:HG3	2.45	0.44
4:AD:177:ASP:OD2	4:AD:180:GLY:HA3	2.16	0.44
25:DA:1420:U:O2'	25:DA:1421:G:OP1	2.31	0.44
13:CM:78:ILE:HD12	13:CM:92:HIS:NE2	2.32	0.44
1:AA:384:G:H2'	1:AA:385:C:C6	2.51	0.44
9:CI:51:ARG:HG2	9:CI:56:LEU:CD2	2.46	0.44
2:CB:74:LYS:HZ2	2:CB:166:ASP:HB2	1.82	0.44
8:CH:17:THR:HA	8:CH:65:TYR:HE2	1.82	0.44
25:DA:1527:G:H2'	25:DA:1542:A:N1	2.32	0.44
38:DS:36:TYR:OH	38:DS:54:LEU:HD22	2.17	0.44
1:CA:269:C:H2'	1:CA:270:A:C8	2.51	0.44
1:CA:1209:C:HO2'	1:CA:1214:C:H42	1.61	0.44
1:AA:1068:G:OP2	1:AA:1068:G:H8	2.00	0.44
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.98	0.44
36:BQ:32:TYR:OH	36:BQ:111:GLU:OE1	2.15	0.44
36:BQ:137:TYR:O	36:BQ:141:GLN:HG2	2.16	0.44
31:BH:93:GLY:O	31:BH:95:ARG:NH2	2.50	0.44
43:BX:24:GLY:O	43:BX:83:VAL:HG22	2.17	0.44
20:AT:92:LEU:HA	20:AT:92:LEU:HD23	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:34:LEU:HA	30:BG:34:LEU:HD23	1.76	0.44
51:B5:48:GLU:HA	51:B5:48:GLU:OE1	2.16	0.44
10:CJ:23:ILE:HD12	10:CJ:85:LEU:HD22	2.00	0.44
25:DA:949:C:H2'	25:DA:950:G:C8	2.51	0.44
51:B5:33:CYS:HB2	51:B5:40:LYS:HD2	1.98	0.44
49:B3:46:ASN:O	49:B3:50:VAL:HG22	2.17	0.44
1:CA:1004:A:H62	1:CA:1037:C:H2'	1.81	0.44
2:CB:7:VAL:HG12	2:CB:8:LYS:HG2	1.99	0.44
10:CJ:16:LEU:HD23	10:CJ:16:LEU:HA	1.88	0.44
25:BA:11:G:C2'	25:BA:12:U:H5'	2.42	0.44
1:CA:811:C:O2'	1:CA:901:A:N1	2.48	0.44
1:CA:671:G:N2	1:CA:735:C:O2	2.49	0.44
30:DG:110:ALA:HA	30:DG:140:ILE:O	2.17	0.44
3:CC:150:LYS:HD2	3:CC:201:TYR:HD2	1.82	0.44
6:CF:72:VAL:O	6:CF:75:LEU:HB3	2.18	0.44
1:CA:1339:A:H2'	1:CA:1340:A:O4'	2.18	0.44
25:BA:1778:G:H2'	25:BA:1779:G:H5''	1.99	0.44
25:DA:953:A:O2'	25:DA:954:G:H5'	2.18	0.44
25:BA:701:A:H2	25:BA:702:A:C2	2.36	0.44
30:DG:114:ILE:HD12	30:DG:117:PHE:CD2	2.52	0.44
14:AN:13:THR:HA	14:AN:14:PRO:HD3	1.85	0.44
1:CA:186:C:H2'	1:CA:187:C:H6	1.83	0.44
1:AA:272:C:H2'	1:AA:273:A:C8	2.52	0.44
7:CG:78:ARG:NH2	7:CG:79:ARG:HH22	2.16	0.44
31:DH:149:ARG:NH1	31:DH:154:PRO:HG2	2.32	0.44
25:DA:1448:G:H1'	25:DA:1528:A:N1	2.33	0.44
25:DA:341:G:H2'	25:DA:342:G:O4'	2.17	0.44
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.99	0.44
18:CR:36:ASN:OD1	18:CR:39:VAL:HG23	2.17	0.44
6:AF:1:MET:HA	6:AF:67:MET:O	2.18	0.44
32:BI:93:THR:H	32:BI:96:ASP:CG	2.21	0.44
52:D6:11:LEU:HA	52:D6:11:LEU:HD23	1.80	0.44
1:AA:1456:G:O3'	20:AT:39:LYS:NZ	2.51	0.44
8:AH:121:ASP:HB2	8:AH:125:ARG:NH1	2.31	0.44
36:BQ:135:ASP:O	36:BQ:139:GLU:HG3	2.17	0.44
1:AA:109:A:C6	1:AA:326:G:C6	3.06	0.44
25:DA:2044:C:C2	25:DA:2625:G:C2	3.05	0.44
45:DZ:11:GLU:HB3	45:DZ:12:GLY:H	1.53	0.44
3:AC:26:LYS:HA	14:AN:36:PHE:CE1	2.52	0.44
3:AC:26:LYS:HA	14:AN:36:PHE:HE1	1.81	0.44
33:DN:16:ILE:HB	33:DN:54:VAL:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:7:G:O2'	5:CE:120:THR:O	2.35	0.44
31:BH:69:ARG:HG3	31:BH:70:THR:N	2.32	0.44
25:BA:1709:C:H1'	25:BA:2699:U:H5''	1.99	0.44
35:DP:62:LEU:O	54:D8:13:ARG:HD3	2.17	0.44
1:AA:977:A:H1'	1:AA:982:U:O4	2.17	0.44
36:DQ:77:LYS:HE3	36:DQ:84:GLY:O	2.17	0.44
48:D2:3:LEU:HD23	48:D2:3:LEU:HA	1.72	0.44
33:BN:138:LEU:HA	33:BN:138:LEU:HD23	1.53	0.44
25:BA:288:U:H2'	25:BA:288:U:H6	1.56	0.44
25:DA:583:G:OP2	40:DU:10:ARG:NH1	2.50	0.44
25:DA:1223:G:N2	25:DA:1226:A:OP2	2.44	0.44
1:CA:1001(A):G:N3	1:CA:1002:G:H1'	2.32	0.44
2:CB:9:GLU:HA	2:CB:48:MET:SD	2.58	0.44
25:DA:1005:C:H4'	25:DA:1012:U:C6	2.52	0.44
2:AB:47:THR:O	2:AB:51:LEU:N	2.40	0.44
30:DG:11:TYR:HA	30:DG:15:VAL:HB	2.00	0.44
7:AG:56:GLN:O	7:AG:58:PRO:HD3	2.17	0.44
1:CA:1223:C:H5''	1:CA:1224:G:C5'	2.43	0.44
1:AA:410:G:H5''	1:AA:411:A:OP1	2.17	0.44
25:BA:2101:U:OP1	47:B1:21:ARG:NH2	2.51	0.44
1:AA:149:A:H2'	1:AA:150:C:H6	1.81	0.44
50:D4:46:GLN:HG3	50:D4:48:ARG:NH2	2.32	0.44
25:BA:927:G:C2	25:BA:928:G:C8	3.05	0.44
25:DA:2708:G:H1'	37:DR:71:GLN:NE2	2.32	0.44
3:CC:6:HIS:HA	3:CC:7:PRO:HD3	1.83	0.44
1:CA:1091:U:H2'	1:CA:1093:A:OP2	2.18	0.44
25:BA:2348:A:H61	46:B0:43:THR:HG21	1.81	0.44
30:DG:70:VAL:HA	30:DG:90:LEU:HD23	2.00	0.44
25:DA:2745:C:C4	25:DA:2746:U:C4	3.04	0.44
45:BZ:120:ILE:HD13	45:BZ:120:ILE:N	2.33	0.44
25:DA:2881:C:H2'	25:DA:2882:A:O4'	2.18	0.44
1:CA:189(L):G:H2'	1:CA:190:U:C6	2.52	0.44
1:CA:1243:C:H2'	1:CA:1244:C:C6	2.53	0.44
25:DA:2734:A:H2'	25:DA:2735:G:O4'	2.17	0.44
25:DA:1041:C:H42	25:DA:1114:G:H1	1.64	0.44
25:BA:768:C:H2'	25:BA:769:A:H8	1.82	0.44
28:BE:51:PHE:CD2	28:BE:52:LEU:HG	2.51	0.44
29:BF:28:ILE:O	29:BF:30:PRO:HD3	2.17	0.44
25:BA:41:C:H2'	25:BA:42:G:O4'	2.17	0.44
1:CA:633:G:H2'	1:CA:634:C:C6	2.53	0.44
25:DA:192:C:O2'	25:DA:802:A:N3	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2042:A:O2'	25:BA:2043:C:H5'	2.17	0.44
31:BH:87:LEU:HD23	31:BH:164:TYR:HA	1.99	0.44
25:BA:2425:G:H2'	25:BA:2426:G:O4'	2.18	0.44
8:CH:98:LYS:HE3	8:CH:98:LYS:HB2	1.66	0.44
37:BR:65:LEU:HD13	37:BR:65:LEU:HA	1.59	0.44
55:D9:2:LYS:HE2	55:D9:31:LYS:O	2.17	0.44
3:AC:43:LEU:HD21	3:AC:91:LEU:HD13	1.99	0.44
50:B4:40:HIS:HA	50:B4:41:PRO:HD2	1.84	0.44
25:DA:675:A:C6	25:DA:676:A:C6	3.05	0.44
50:D4:16:CYS:SG	50:D4:17:GLY:N	2.90	0.44
1:AA:144:G:H1	1:AA:178:C:H42	1.64	0.44
1:CA:1024:G:H2'	1:CA:1024:G:N3	2.33	0.44
1:CA:1004:A:C6	1:CA:1038:C:C6	3.06	0.44
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.83	0.44
1:CA:620:C:H2'	1:CA:621:A:O4'	2.17	0.44
25:DA:2318:G:N2	38:DS:3:ARG:NH1	2.66	0.44
7:AG:50:ILE:HD11	7:AG:58:PRO:CA	2.40	0.44
13:CM:16:ASP:HB3	13:CM:34:LEU:CD1	2.46	0.44
25:BA:2340:A:H2'	25:BA:2341:G:H8	1.83	0.44
25:BA:1044:C:OP2	40:BU:92:ARG:NH2	2.51	0.44
25:DA:652(D):C:H2'	25:DA:652(E):G:O4'	2.17	0.44
1:AA:1030(B):C:H2'	1:AA:1030(C):G:H5'	2.00	0.44
25:DA:817:C:O2'	25:DA:839:U:H5''	2.18	0.44
20:AT:16:HIS:O	20:AT:19:SER:OG	2.24	0.44
26:DB:70:C:H2'	26:DB:71:C:H6	1.83	0.44
41:DV:35:LEU:HB2	41:DV:57:VAL:HG23	1.99	0.44
1:CA:66:G:C2	1:CA:67:C:C6	3.05	0.44
7:CG:26:PHE:CE2	7:CG:30:ILE:HD11	2.52	0.44
45:BZ:161:VAL:HG13	45:BZ:161:VAL:O	2.18	0.44
1:CA:397:A:H3'	1:CA:397:A:N3	2.32	0.44
7:CG:69:VAL:HG21	7:CG:104:LEU:CD1	2.48	0.44
29:DF:102:PRO:HB2	29:DF:105:VAL:HG23	2.00	0.44
10:CJ:30:SER:O	10:CJ:81:THR:HG23	2.17	0.44
25:BA:851:A:H5''	25:BA:852:G:OP1	2.17	0.44
1:AA:392:G:H2'	1:AA:393:A:C8	2.53	0.44
1:CA:1259:C:C4	1:CA:1260:C:H1'	2.53	0.44
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.51	0.44
32:BI:99:GLU:O	32:BI:103:ARG:NH1	2.50	0.44
25:BA:2116:G:P	32:BI:22:LYS:HD2	2.57	0.44
1:AA:500:G:N2	1:AA:546:G:H1'	2.32	0.44
25:BA:640:A:C4	29:BF:180:GLY:HA2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1096:A:H3'	25:BA:1097:G:H8	1.82	0.44
25:BA:1002:A:H5'	36:BQ:76:LYS:HG3	1.98	0.44
2:AB:145:LEU:O	2:AB:149:LEU:HB2	2.18	0.44
1:AA:1289:A:N1	1:AA:1371:G:O2'	2.42	0.44
29:DF:64:ILE:HG21	29:DF:78:ILE:HG23	1.98	0.44
3:AC:6:HIS:HD2	3:AC:8:ILE:H	1.65	0.44
25:BA:2410:U:H2'	25:BA:2411:G:C8	2.53	0.44
44:BY:20:TYR:CE1	44:BY:43:ASN:HA	2.52	0.44
25:BA:2418:U:OP1	61:BA:4136:HOH:O	2.21	0.44
15:AO:54:ARG:O	15:AO:58:MET:HG3	2.17	0.44
36:DQ:137:TYR:CE1	45:DZ:83:PRO:HG3	2.52	0.44
25:BA:2545:A:H2'	25:BA:2546:A:O4'	2.17	0.44
25:BA:964:A:H5''	26:BB:98:G:O2'	2.18	0.44
30:BG:43:LEU:HB3	30:BG:44:GLY:H	1.52	0.44
1:CA:1036:G:N7	1:CA:1037:C:O2	2.51	0.44
2:CB:16:HIS:CB	2:CB:210:SER:HB3	2.42	0.44
25:DA:2318:G:H21	38:DS:3:ARG:HD3	1.83	0.44
1:AA:457:C:H2'	1:AA:458:C:C5	2.53	0.44
1:CA:692:U:O2'	1:CA:694:A:N7	2.37	0.44
2:CB:96:ARG:NH1	2:CB:98:LEU:HD13	2.33	0.44
40:BU:50:ARG:HG2	40:BU:53:ARG:NH2	2.33	0.44
25:BA:927:G:C2'	25:BA:928:G:H5'	2.48	0.44
1:CA:472:A:C2	1:CA:473:G:H1'	2.53	0.44
16:AP:75:ARG:HA	16:AP:80:PHE:HD2	1.82	0.44
1:AA:1346:A:C8	1:AA:1348:U:O2	2.71	0.44
25:DA:1721:G:H8	25:DA:1741:A:N6	2.12	0.44
1:AA:444:C:H2'	1:AA:445:G:C8	2.50	0.44
25:DA:311:A:C8	25:DA:332:A:N7	2.85	0.44
1:AA:62:U:OP1	1:AA:385:C:O2'	2.35	0.44
26:DB:31:C:H4'	30:DG:29:TRP:CZ2	2.52	0.44
25:BA:939:C:O2'	25:BA:940:C:H5'	2.16	0.44
30:DG:170:ARG:HD3	30:DG:170:ARG:C	2.38	0.44
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.82	0.44
25:DA:1027:A:N6	25:DA:1126:A:C4	2.86	0.44
29:DF:33:LEU:HD22	29:DF:112:MET:HE3	2.00	0.44
25:DA:2461:C:H2'	25:DA:2462:U:H6	1.83	0.44
25:DA:108:U:H2'	25:DA:109:G:C8	2.52	0.44
7:CG:40:ALA:HB1	9:CI:41:VAL:HG21	1.98	0.44
7:CG:42:ILE:HD13	7:CG:116:ALA:HB3	1.99	0.44
31:BH:28:GLY:HA3	31:BH:79:VAL:HB	2.00	0.44
2:CB:172:ILE:O	2:CB:176:GLU:HG3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:26:ARG:NH2	14:AN:47:LEU:HD21	2.33	0.44
44:DY:90:LEU:HD23	44:DY:92:ASN:HB2	1.99	0.44
25:DA:815:C:C2	25:DA:1193:G:C2	3.05	0.44
2:AB:113:HIS:HA	2:AB:116:GLU:HB2	2.00	0.44
1:CA:1380:U:C4	7:CG:3:ARG:HG2	2.52	0.44
1:CA:292:G:C5	1:CA:293:G:H1'	2.53	0.44
12:AL:57:LYS:HG2	12:AL:65:GLU:OE2	2.18	0.44
4:AD:188:LEU:H	4:AD:188:LEU:HD23	1.82	0.44
2:AB:155:LEU:HD21	2:AB:159:PRO:HG3	1.98	0.44
1:CA:407:G:N2	1:CA:436:C:C2	2.86	0.44
16:AP:6:LEU:HD23	16:AP:17:TYR:CD2	2.52	0.44
28:BE:111:ARG:HG3	28:BE:160:TYR:CD2	2.53	0.44
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.17	0.44
13:AM:4:ILE:HB	13:AM:57:ARG:HG3	1.99	0.44
1:CA:767:A:H2'	1:CA:768:A:O4'	2.16	0.44
19:CS:14:HIS:O	19:CS:18:LYS:HG3	2.18	0.44
26:BB:31:C:H4'	30:BG:29:TRP:CH2	2.51	0.44
1:AA:1291:G:H2'	1:AA:1292:U:C6	2.53	0.44
4:CD:64:LEU:HD22	4:CD:198:VAL:HG11	1.99	0.44
45:DZ:141:VAL:O	45:DZ:144:LEU:HB2	2.18	0.44
35:BP:59:LEU:HD21	54:B8:10:ALA:HA	1.99	0.44
1:CA:60:A:N6	1:CA:110:C:N3	2.64	0.44
25:DA:2556:C:H2'	25:DA:2557:G:O4'	2.18	0.44
25:BA:648:G:H2'	25:BA:649:C:C6	2.52	0.44
25:BA:254:A:C8	25:BA:255:G:H1'	2.53	0.44
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.18	0.44
11:CK:85:ARG:HA	11:CK:112:THR:OG1	2.17	0.44
1:AA:376:G:H2'	1:AA:377:G:C8	2.52	0.44
45:DZ:5:LEU:HD22	45:DZ:6:LYS:H	1.83	0.44
25:BA:276:C:O3'	32:BI:42:SER:OG	2.36	0.44
25:DA:2410:G:H2'	25:DA:2411:A:O4'	2.17	0.44
25:DA:2294:C:OP2	38:DS:89:ARG:NH2	2.41	0.44
7:CG:131:LYS:HG2	7:CG:132:GLY:H	1.83	0.44
28:BE:181:LEU:HD12	28:BE:181:LEU:HA	1.79	0.44
1:CA:430:A:H2'	1:CA:431:A:O4'	2.18	0.44
1:CA:1191:A:OP2	3:CC:3:ASN:ND2	2.50	0.44
35:DP:64:LYS:HA	54:D8:13:ARG:HB3	2.00	0.44
25:BA:442:A:H2'	25:BA:443:C:C6	2.53	0.44
25:DA:984:A:H5''	25:DA:985:C:H5	1.81	0.44
4:AD:20:TYR:HD1	4:AD:26:CYS:HB3	1.82	0.44
46:D0:40:GLN:HE21	46:D0:57:PHE:HB3	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:460:A:P	53:D7:41:ARG:HH22	2.41	0.44
3:AC:47:LEU:HD12	3:AC:68:VAL:HG11	1.98	0.44
26:BB:12:C:H2'	46:B0:73:GLY:HA3	1.99	0.44
1:AA:720:C:H6	1:AA:720:C:O5'	2.01	0.44
8:CH:36:LEU:HA	8:CH:36:LEU:HD23	1.89	0.44
20:AT:34:LYS:HE2	20:AT:34:LYS:HB2	1.69	0.44
3:AC:77:ILE:H	3:AC:77:ILE:HG12	1.70	0.44
1:AA:799:G:H5''	1:AA:799:G:H8	1.82	0.44
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.17	0.44
1:AA:1060:C:N4	3:AC:2:GLY:HA3	2.32	0.44
1:CA:1005:A:H2	1:CA:1026:G:C8	2.36	0.44
1:AA:1125:U:O2'	1:AA:1126:U:P	2.75	0.44
4:CD:39:PRO:O	4:CD:44:GLY:HA3	2.18	0.44
1:CA:1277:C:HO2'	1:CA:1279:A:H1'	1.83	0.44
1:CA:922:G:C6	1:CA:923:A:C6	3.05	0.44
1:CA:1142:G:C2	1:CA:1143:G:H1'	2.52	0.44
1:AA:456:C:H2'	1:AA:457:C:C6	2.53	0.44
1:AA:1198:G:C6	1:AA:1199:U:C4	3.06	0.44
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.83	0.44
25:DA:1115:G:OP2	25:DA:1115:G:H8	2.01	0.44
25:DA:2251:G:OP1	61:DA:4599:HOH:O	2.21	0.44
25:BA:926:G:H2'	25:BA:927:G:O4'	2.17	0.44
9:CI:53:VAL:C	9:CI:55:ALA:H	2.20	0.44
25:BA:2850:C:H4'	37:BR:53:HIS:CE1	2.53	0.44
13:CM:82:MET:O	13:CM:93:ARG:NH2	2.51	0.44
3:CC:33:LEU:HD21	14:CN:53:LEU:CD2	2.48	0.44
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.52	0.44
1:AA:532:A:H5'	3:AC:161:GLU:OE2	2.18	0.44
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.53	0.44
36:DQ:27:VAL:O	36:DQ:29:PHE:N	2.51	0.44
25:DA:863:A:O2'	25:DA:864:G:H5'	2.18	0.44
25:DA:875:G:C2	25:DA:903:C:C2	3.06	0.44
2:CB:230:VAL:HG13	2:CB:231:GLU:O	2.18	0.44
1:CA:933:G:C6	1:CA:1385:G:C6	3.05	0.44
25:BA:2336:C:H5''	25:BA:2337:G:H5'	2.00	0.44
1:CA:1068:G:H8	1:CA:1068:G:OP2	2.00	0.44
1:AA:1456:G:N1	20:AT:51:GLU:OE1	2.51	0.44
26:DB:42:C:O2'	30:DG:66:GLN:HG2	2.18	0.44
27:BD:145:VAL:HG12	27:BD:146:GLU:O	2.18	0.44
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.52	0.44
52:B6:9:LEU:HD21	52:B6:25:LYS:HB3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:77:ALA:HB2	27:DD:97:TYR:CD2	2.52	0.44
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.18	0.44
10:AJ:40:LEU:HB2	10:AJ:69:ASN:HB3	2.00	0.44
47:B1:51:VAL:HG11	47:B1:74:VAL:HG21	1.99	0.44
11:AK:85:ARG:HA	11:AK:112:THR:OG1	2.18	0.44
33:BN:30:ILE:HG22	33:BN:34:LEU:HD22	2.00	0.44
1:AA:1134:G:N3	1:AA:1134:G:H2'	2.33	0.44
25:DA:55:G:H2'	25:DA:56:A:H8	1.83	0.44
1:AA:1084:G:C5	1:AA:1085:U:C4	3.06	0.44
31:DH:150:ALA:HA	31:DH:153:LYS:HG3	2.00	0.44
25:BA:2614:A:N7	46:B0:3:HIS:CE1	2.86	0.44
1:AA:78:G:N1	1:AA:91:C:N4	2.66	0.44
1:CA:713:G:H2'	1:CA:714:G:C8	2.53	0.44
1:AA:600:C:H2'	1:AA:601:C:H6	1.83	0.44
25:BA:1091:A:H2'	25:BA:1091:A:N3	2.31	0.44
25:BA:1157:A:N3	25:BA:1158:G:H1'	2.33	0.44
12:CL:36:VAL:HG23	24:CW:10:2QY:CE1	2.47	0.44
25:BA:2214:G:H5'	25:BA:2215:G:OP2	2.18	0.44
25:DA:271(F):C:H2'	25:DA:271(G):C:C6	2.52	0.44
1:CA:1324:A:H5'	1:CA:1362:C:O2'	2.18	0.44
31:BH:126:PRO:HB2	31:BH:127:GLU:H	1.51	0.44
1:AA:539:A:H2'	1:AA:540:G:C8	2.52	0.44
19:CS:28:LYS:HD2	19:CS:47:HIS:HA	2.00	0.44
7:CG:51:GLN:HB3	7:CG:51:GLN:HE21	1.63	0.44
25:DA:2854:G:H2'	25:DA:2855:C:C6	2.52	0.44
25:BA:2830:A:OP1	37:BR:2:ARG:NH2	2.51	0.44
1:CA:165:C:O5'	1:CA:165:C:H6	2.01	0.44
25:BA:63:A:O3'	43:BX:71:GLY:HA3	2.18	0.44
39:DT:88:ILE:HG21	39:DT:91:ARG:NE	2.33	0.44
1:AA:8:A:H5'	5:AE:101:ILE:HG22	2.00	0.44
20:AT:42:GLN:NE2	20:AT:46:GLU:OE2	2.51	0.44
3:CC:153:VAL:HA	3:CC:197:GLY:O	2.17	0.44
6:AF:48:LEU:HD22	18:AR:77:GLY:HA3	1.99	0.44
25:BA:1749:G:H2'	25:BA:1750:G:O4'	2.17	0.44
38:BS:103:GLU:O	38:BS:107:GLU:HG3	2.18	0.44
37:BR:72:ASP:OD2	37:BR:75:LEU:HB2	2.18	0.44
4:AD:106:TYR:HE2	4:AD:112:VAL:O	2.01	0.44
25:BA:1805:C:O5'	25:BA:1805:C:H6	2.01	0.44
33:DN:138:LEU:HA	33:DN:138:LEU:HD23	1.75	0.44
1:AA:1164:G:H2'	1:AA:1165:C:H6	1.82	0.44
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:26:ARG:HB3	14:CN:43:CYS:SG	2.57	0.44
1:CA:142:G:H2'	1:CA:143:A:C8	2.53	0.44
10:AJ:31:GLY:HA2	10:AJ:32:ALA:HA	1.46	0.44
1:AA:346:G:H3'	1:AA:346:G:N3	2.33	0.43
25:BA:1188:A:C4	25:BA:1190:G:C8	3.05	0.43
39:DT:16:ARG:HD2	39:DT:18:ASP:OD1	2.18	0.43
1:CA:926:G:C6	1:CA:1505:G:C6	3.06	0.43
1:AA:10:A:OP2	5:AE:126:ARG:HD2	2.17	0.43
15:CO:54:ARG:O	15:CO:57:LEU:HB2	2.18	0.43
19:AS:50:ALA:HA	19:AS:58:VAL:O	2.18	0.43
25:BA:2804:C:H6	25:BA:2804:C:OP2	2.01	0.43
1:CA:1017:G:H2'	1:CA:1018:C:O4'	2.17	0.43
1:AA:266:G:O3'	17:AQ:67:LYS:HB2	2.18	0.43
8:AH:25:ASP:HA	8:AH:60:ARG:HA	1.99	0.43
1:AA:404:U:H2'	1:AA:405:U:C6	2.53	0.43
29:DF:196:LEU:HA	29:DF:196:LEU:HD23	1.66	0.43
1:CA:380:G:C2	1:CA:384:G:C6	3.06	0.43
27:DD:206:LEU:HD23	27:DD:206:LEU:HA	1.68	0.43
27:DD:206:LEU:CD2	27:DD:211:ARG:HG2	2.46	0.43
17:CQ:41:LYS:HZ2	17:CQ:92:ARG:HH21	1.65	0.43
25:BA:588:C:H2'	25:BA:589:U:O4'	2.18	0.43
8:AH:94:TYR:HD1	8:AH:132:GLU:HA	1.83	0.43
25:DA:1991:U:H2'	25:DA:1992:G:H5''	1.99	0.43
23:CX:59:A:C2'	23:CX:60:U:H5'	2.47	0.43
1:AA:106:C:O2'	1:AA:379:C:H5''	2.17	0.43
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.32	0.43
25:DA:479:A:O2'	25:DA:481:G:H5'	2.18	0.43
26:BB:33:G:C2'	26:BB:34:U:H5'	2.47	0.43
1:CA:93:G:O2'	1:CA:96:U:H5'	2.18	0.43
25:BA:174:U:H4'	25:BA:207:A:H4'	2.00	0.43
14:AN:45:ARG:HG2	14:AN:49:HIS:HD2	1.83	0.43
5:CE:84:PHE:CE2	5:CE:133:TYR:HD2	2.36	0.43
1:CA:89:C:C4	1:CA:90:U:C5	3.05	0.43
1:CA:1066:C:H2'	1:CA:1067:A:C8	2.53	0.43
25:BA:1319:U:H4'	25:BA:1321:A:OP2	2.18	0.43
5:CE:102:ALA:HB2	5:CE:120:THR:HG21	2.00	0.43
4:CD:112:VAL:HG22	4:CD:116:GLN:OE1	2.18	0.43
25:BA:171:A:H2'	25:BA:172:C:O4'	2.18	0.43
25:BA:31:C:C4	25:BA:32:C:C5	3.05	0.43
1:CA:579:G:C6	1:CA:580:U:C4	3.06	0.43
25:DA:2197:U:H1'	25:DA:2198:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:54:GLU:O	30:DG:57:ALA:HB3	2.17	0.43
25:DA:271(S):G:C2'	25:DA:271(T):C:H5'	2.47	0.43
25:DA:644:A:H4'	25:DA:645:C:N4	2.33	0.43
45:DZ:67:LEU:HA	45:DZ:68:PRO:HD3	1.64	0.43
25:BA:1874:C:H6	25:BA:1874:C:O5'	2.01	0.43
40:DU:16:LYS:HB3	40:DU:16:LYS:HE2	1.78	0.43
4:AD:110:PHE:CD1	4:AD:110:PHE:N	2.86	0.43
25:DA:1942:C:OP2	25:DA:1943:U:O2'	2.20	0.43
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.53	0.43
25:DA:777:A:H2'	25:DA:778:G:H8	1.83	0.43
25:BA:1617:A:H2'	25:BA:1618:A:C8	2.53	0.43
25:DA:1268:A:C2	25:DA:2013:A:C4	3.06	0.43
1:AA:432:A:OP2	1:AA:433:C:N4	2.43	0.43
1:CA:1133:G:C2'	1:CA:1134:G:H8	2.30	0.43
1:CA:1224:G:O2'	1:CA:1322:C:OP1	2.26	0.43
1:AA:428:G:O4'	1:AA:430:A:C8	2.72	0.43
24:CW:1:2QZ:CG2	24:CW:10:2QY:H83	2.48	0.43
36:BQ:12:GLN:HG2	36:BQ:73:PRO:HD2	2.00	0.43
28:DE:70:ALA:O	28:DE:72:VAL:N	2.42	0.43
1:CA:848:C:H2'	1:CA:849:C:O4'	2.18	0.43
2:AB:230:VAL:HG22	2:AB:231:GLU:H	1.83	0.43
25:DA:910:A:H2'	25:DA:2264:C:O2'	2.18	0.43
25:DA:657:U:H2'	25:DA:658:C:C6	2.52	0.43
35:DP:47:ASP:HA	35:DP:48:PRO:HD3	1.80	0.43
25:DA:307:G:H21	25:DA:330:A:H62	1.66	0.43
25:DA:2274:A:C5	25:DA:2276:G:C8	3.05	0.43
25:DA:880:G:N2	25:DA:898:C:H1'	2.33	0.43
36:DQ:66:ILE:HG12	36:DQ:104:PHE:HE2	1.82	0.43
3:CC:155:GLY:O	3:CC:157:ILE:HG13	2.19	0.43
25:BA:1899:A:H5'	25:BA:1900:G:OP2	2.18	0.43
19:CS:20:LEU:HA	19:CS:23:ASN:ND2	2.34	0.43
1:CA:1237:C:O2'	1:CA:1300:G:N1	2.43	0.43
1:CA:245:C:O2	1:CA:283:C:N3	2.51	0.43
3:CC:12:LEU:HA	3:CC:16:ARG:HB3	2.00	0.43
38:BS:35:ILE:HG12	38:BS:101:LEU:HD12	2.00	0.43
29:DF:123:LEU:HD12	29:DF:124:LEU:N	2.32	0.43
18:CR:66:LEU:O	18:CR:70:ILE:HG13	2.18	0.43
25:BA:400:U:H1'	25:BA:450:A:N3	2.34	0.43
1:CA:960:U:O2	1:CA:960:U:H2'	2.17	0.43
25:BA:733:G:OP2	25:BA:733:G:H4'	2.18	0.43
43:BX:40:LYS:HE2	61:BX:3103:HOH:O	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:10:GLU:O	32:BI:12:LEU:N	2.51	0.43
25:BA:1072:U:H4'	25:BA:1073:A:OP1	2.18	0.43
25:BA:1042:A:H4'	40:BU:91:ASP:OD2	2.17	0.43
17:AQ:50:LYS:HD2	17:AQ:51:TYR:CZ	2.53	0.43
2:CB:187:LEU:HD13	2:CB:205:ASP:HA	2.01	0.43
1:CA:1119:C:H2'	1:CA:1120:G:H8	1.82	0.43
1:AA:1034:G:H5''	1:AA:1035:A:OP2	2.18	0.43
1:CA:1134:G:H2'	1:CA:1135:U:H5'	2.00	0.43
39:DT:53:ARG:HD3	39:DT:60:THR:OG1	2.18	0.43
1:AA:180:U:O2'	1:AA:181:G:H5'	2.18	0.43
1:AA:414:A:C5	1:AA:431:A:C2	3.06	0.43
9:AI:53:VAL:C	9:AI:55:ALA:H	2.17	0.43
50:B4:62:ARG:C	50:B4:64:GLY:HA2	2.38	0.43
2:CB:95:GLN:HB2	2:CB:148:TYR:HD1	1.83	0.43
25:DA:2776:A:C6	25:DA:2782:G:H1'	2.54	0.43
29:DF:11:VAL:HG21	29:DF:20:LEU:HB2	1.99	0.43
1:AA:400:C:H5''	4:AD:73:ARG:NH2	2.32	0.43
2:CB:100:GLY:HA2	2:CB:103:THR:OG1	2.18	0.43
16:CP:74:LEU:HD23	16:CP:79:VAL:HG11	2.00	0.43
5:AE:52:PRO:HG2	5:AE:53:LEU:HD12	1.99	0.43
25:BA:2307:C:C2'	25:BA:2308:U:H5'	2.48	0.43
45:BZ:126:VAL:HG13	45:BZ:161:VAL:HG23	1.99	0.43
19:CS:28:LYS:CB	19:CS:29:ARG:HA	2.48	0.43
1:AA:375:U:C2	1:AA:376:G:C8	3.06	0.43
1:CA:791:G:C6	1:CA:792:A:N7	2.86	0.43
1:AA:584:G:H1	1:AA:757:U:H3	1.65	0.43
31:DH:54:ARG:HD3	31:DH:65:HIS:ND1	2.34	0.43
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.19	0.43
25:BA:2671:G:O2'	31:BH:175:LYS:NZ	2.50	0.43
6:AF:22:GLU:OE2	6:AF:82:ARG:HG2	2.18	0.43
37:BR:38:VAL:HB	37:BR:39:PRO:HD3	2.00	0.43
49:D3:7:LYS:HG3	49:D3:34:GLU:HG3	2.00	0.43
25:BA:1541:A:C6	25:BA:1542:A:C6	3.06	0.43
3:AC:24:ALA:HB1	3:AC:28:GLN:O	2.19	0.43
29:BF:81:PRO:HA	29:BF:87:GLY:O	2.17	0.43
25:BA:2858:G:C8	39:BT:97:ALA:HB2	2.53	0.43
7:AG:22:LEU:HD13	7:AG:97:GLN:OE1	2.18	0.43
40:DU:61:TRP:CH2	40:DU:93:LYS:HB2	2.53	0.43
5:CE:93:PRO:HG2	8:CH:105:ARG:NE	2.33	0.43
5:CE:148:VAL:HG21	8:CH:107:LEU:HD12	2.00	0.43
25:BA:843:C:H2'	25:BA:844:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:D9:13:LYS:HD3	55:D9:28:GLU:OE2	2.17	0.43
25:DA:1907:G:C2	25:DA:1908:C:C2	3.07	0.43
25:DA:2494:G:C4	25:DA:2495:G:C8	3.06	0.43
32:DI:48:GLU:OE2	32:DI:52:ARG:HD3	2.18	0.43
4:AD:129:ASN:OD1	4:AD:145:GLU:N	2.45	0.43
9:CI:128:ARG:NH2	23:CX:33:U:OP2	2.50	0.43
32:DI:61:ARG:HA	32:DI:61:ARG:HD3	1.81	0.43
54:D8:50:LEU:HD23	54:D8:50:LEU:HA	1.75	0.43
27:BD:77:ALA:O	27:BD:116:GLN:HG3	2.18	0.43
25:BA:609:A:H5'	29:BF:89:VAL:HG21	1.99	0.43
10:CJ:89:ASP:O	10:CJ:91:PRO:HD3	2.18	0.43
32:DI:92:VAL:CG2	32:DI:120:ILE:HB	2.48	0.43
1:AA:1125:U:C3'	10:AJ:5:ARG:HH22	2.30	0.43
1:CA:1122:U:C4	1:CA:1123:A:N7	2.87	0.43
25:DA:999:U:H3'	25:DA:1154:G:O6	2.19	0.43
45:DZ:30:ASN:ND2	45:DZ:90:VAL:HB	2.33	0.43
1:AA:1502:A:H2	1:AA:1505:G:N1	2.04	0.43
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.53	0.43
1:AA:170:U:O2'	1:AA:171:A:H5'	2.17	0.43
46:D0:24:LYS:O	46:D0:25:ARG:HD3	2.18	0.43
16:AP:68:ASP:O	16:AP:71:ARG:HG2	2.17	0.43
1:AA:630:G:O2'	1:AA:631:G:H5'	2.18	0.43
11:CK:99:GLN:C	11:CK:101:SER:H	2.21	0.43
29:DF:36:VAL:HG11	29:DF:183:VAL:CG1	2.48	0.43
4:AD:184:LYS:HB3	4:AD:184:LYS:HZ2	1.83	0.43
6:CF:25:ILE:CD1	6:CF:82:ARG:HH21	2.31	0.43
47:B1:3:LYS:HB2	47:B1:61:ARG:HH11	1.83	0.43
1:AA:442:C:H5'	1:AA:443:C:OP2	2.18	0.43
26:DB:46:A:C5	26:DB:47:C:C4	3.06	0.43
9:CI:46:ALA:HA	9:CI:78:LYS:HB2	2.01	0.43
45:BZ:150:LEU:HB3	45:BZ:171:ILE:CD1	2.48	0.43
27:DD:221:VAL:HG22	27:DD:226:MET:HE3	2.00	0.43
7:CG:94:ARG:O	7:CG:97:GLN:HB3	2.19	0.43
1:AA:298:A:C6	1:AA:299:G:C2	3.06	0.43
25:DA:729:G:C6	27:DD:208:LYS:HB2	2.53	0.43
53:D7:22:MET:HA	53:D7:28:ARG:HG2	2.00	0.43
1:CA:1105:A:C2	1:CA:1106:G:N7	2.86	0.43
2:AB:118:LEU:HD11	2:AB:141:GLU:HG2	2.01	0.43
51:B5:40:LYS:HE2	51:B5:40:LYS:HB2	1.88	0.43
25:DA:644:A:H4'	25:DA:645:C:C4	2.53	0.43
25:BA:715:G:H5'	25:BA:716:G:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:33:GLU:HG2	8:CH:48:TYR:CE2	2.53	0.43
25:BA:1721:G:H1'	25:BA:1723:A:N6	2.33	0.43
19:CS:12:ASP:OD2	19:CS:38:SER:OG	2.36	0.43
47:B1:23:LYS:HB3	47:B1:29:GLY:HA3	1.99	0.43
12:AL:77:LEU:HD21	12:AL:107:ALA:HA	1.99	0.43
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.19	0.43
48:B2:63:VAL:O	48:B2:66:GLU:HB2	2.18	0.43
6:AF:92:LYS:HB2	6:AF:92:LYS:HE2	1.83	0.43
33:BN:38:HIS:HD1	33:BN:38:HIS:H	1.66	0.43
25:DA:2249:U:O4	61:DA:3947:HOH:O	2.21	0.43
12:CL:75:HIS:ND1	12:CL:77:LEU:HB2	2.33	0.43
1:CA:1038:C:C2'	1:CA:1039:C:H5'	2.49	0.43
1:CA:1118:C:H2'	1:CA:1119:C:C6	2.53	0.43
1:CA:401:C:H1'	1:CA:622:A:H1'	2.01	0.43
1:AA:147:G:C6	1:AA:148:G:C5	3.07	0.43
30:DG:25:TYR:HB3	30:DG:30:GLU:CB	2.47	0.43
1:AA:631:G:H2'	1:AA:632:A:H8	1.82	0.43
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.18	0.43
1:CA:688:G:H5'	11:CK:46:GLY:C	2.39	0.43
25:DA:1784:A:H4'	25:DA:1785:A:O5'	2.19	0.43
19:CS:31:ILE:HG22	19:CS:33:THR:HG22	2.00	0.43
26:DB:46:A:H2'	26:DB:47:C:H6	1.84	0.43
1:CA:545:C:H5'	4:CD:72:GLU:CB	2.49	0.43
25:DA:483:A:O4'	44:DY:48:ALA:HB1	2.18	0.43
25:BA:1183:G:H2'	25:BA:1184:G:O4'	2.18	0.43
1:CA:35:G:C5	1:CA:36:C:N4	2.86	0.43
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	2.00	0.43
25:BA:2768:C:C4	55:B9:19:ARG:NH1	2.86	0.43
25:DA:1970:A:OP2	61:DA:3905:HOH:O	2.20	0.43
25:DA:1859:A:N6	25:DA:1883:G:O2'	2.52	0.43
1:AA:353:A:H5'	1:AA:353:A:H8	1.84	0.43
35:DP:100:LEU:HD12	35:DP:112:LEU:HD11	1.99	0.43
26:BB:73:A:C4	26:BB:105:A:C2	3.06	0.43
25:BA:1324:A:OP1	37:BR:36:THR:HG22	2.18	0.43
26:BB:66:A:H61	26:BB:109:C:H5'	1.82	0.43
1:CA:683:G:C6	1:CA:684:A:C5	3.07	0.43
1:AA:416:G:C6	1:AA:417:C:C4	3.06	0.43
2:AB:146:GLN:O	2:AB:150:SER:HB3	2.19	0.43
47:B1:82:LEU:HA	47:B1:85:LEU:HD12	2.01	0.43
53:B7:24:THR:HG22	53:B7:26:GLY:N	2.32	0.43
37:DR:92:GLY:HA2	37:DR:94:TYR:CZ	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1142:G:H3'	1:AA:1143:G:C8	2.53	0.43
26:DB:5:C:OP1	26:DB:61:G:O2'	2.34	0.43
1:CA:1151:A:C4	1:CA:1152:A:N7	2.87	0.43
25:DA:517:C:OP1	51:D5:16:ARG:NH2	2.51	0.43
1:AA:93:G:H2'	1:AA:96:U:O4'	2.19	0.43
1:CA:1134:G:N3	1:CA:1134:G:H2'	2.32	0.43
7:AG:50:ILE:O	7:AG:50:ILE:HD12	2.19	0.43
31:DH:169:VAL:HG12	31:DH:171:LEU:HD22	2.00	0.43
1:CA:1312:G:O6	19:CS:2:PRO:HD2	2.18	0.43
50:B4:59:PHE:HA	50:B4:61:ARG:HG2	2.00	0.43
25:DA:1955:U:O4	25:DA:2554:U:H5	2.01	0.43
50:D4:62:ARG:HD3	50:D4:62:ARG:H	1.83	0.43
1:AA:246:A:N1	1:AA:278:G:O2'	2.39	0.43
1:AA:1030:C:H3'	1:AA:1030(A):G:H4'	2.01	0.43
23:AX:66:C:H2'	23:AX:67:C:O4'	2.17	0.43
23:AX:6:G:N2	23:AX:68:C:C2	2.86	0.43
1:AA:598:U:H2'	1:AA:599:C:H6	1.84	0.43
30:DG:179:PRO:HG3	50:D4:43:TYR:OH	2.18	0.43
1:CA:1093:A:N3	1:CA:1109:C:O2'	2.47	0.43
13:CM:88:ARG:HG3	13:CM:98:VAL:HG12	2.00	0.43
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.84	0.43
7:AG:27:ILE:CD1	7:AG:40:ALA:HA	2.47	0.43
28:DE:147:PRO:HB2	28:DE:149:ARG:HG2	2.01	0.43
34:BO:2:ILE:HG23	34:BO:6:THR:HG21	2.01	0.43
25:BA:2661:U:H2'	25:BA:2662:U:H6	1.84	0.43
55:D9:17:ILE:HG21	55:D9:26:ILE:HD11	2.01	0.43
25:DA:2330:G:H2'	25:DA:2331:G:O4'	2.18	0.43
10:CJ:11:PHE:CD1	10:CJ:67:THR:HG22	2.54	0.43
47:D1:95:LEU:O	47:D1:98:LEU:HB2	2.18	0.43
3:AC:123:GLN:HG2	3:AC:128:PHE:HD2	1.84	0.43
13:CM:15:VAL:O	13:CM:19:LEU:HD22	2.19	0.43
3:CC:12:LEU:HD23	3:CC:12:LEU:HA	1.86	0.43
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.19	0.43
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.53	0.43
25:DA:2636:U:H1'	25:DA:2783:G:N2	2.34	0.43
26:BB:24:G:N7	26:BB:56:G:H2'	2.34	0.43
23:CX:61:C:H2'	23:CX:62:C:H6	1.82	0.43
1:AA:6:G:O2'	1:AA:7:G:H5'	2.18	0.43
25:BA:2306:C:OP2	38:BS:89:ARG:NH2	2.46	0.43
1:CA:724:G:C2	1:CA:725:G:C8	3.06	0.43
1:CA:500:G:C6	1:CA:546:G:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1032:G:H2'	1:CA:1033:G:C8	2.54	0.43
25:DA:271(X):G:C2	25:DA:271(Y):U:O4	2.71	0.43
42:DW:88:ARG:NH1	42:DW:94:ASP:OD2	2.52	0.43
49:B3:18:ASP:N	49:B3:18:ASP:OD1	2.51	0.43
32:BI:87:LYS:HE3	32:BI:87:LYS:HB2	1.85	0.43
49:B3:4:LEU:O	49:B3:36:VAL:HA	2.18	0.43
4:CD:52:SER:O	4:CD:56:VAL:HG23	2.19	0.43
25:BA:403:C:H42	25:BA:425:G:H1	1.65	0.43
10:CJ:16:LEU:HD13	10:CJ:70:ARG:CG	2.47	0.43
25:DA:2027:G:H2'	25:DA:2028:U:O4'	2.19	0.43
1:AA:436:C:H5''	4:AD:156:GLU:OE2	2.19	0.43
35:DP:96:THR:N	35:DP:99:LEU:HD21	2.24	0.43
1:CA:1125:U:H2'	1:CA:1127:G:N7	2.34	0.43
1:CA:445:G:H2'	1:CA:446:G:H8	1.83	0.43
1:CA:1015:A:C6	1:CA:1016:A:C6	3.07	0.43
27:BD:206:LEU:HD23	27:BD:206:LEU:HA	1.78	0.43
25:DA:702:G:C2	25:DA:731:C:C2	3.06	0.43
42:DW:14:PRO:HG2	42:DW:78:GLU:CG	2.46	0.43
25:DA:31:C:H5'	25:DA:1239:G:OP1	2.19	0.43
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.32	0.43
1:CA:1052:U:H5''	1:CA:1053:G:OP2	2.17	0.43
25:DA:154:G:C6	25:DA:173:G:C6	3.07	0.43
25:DA:952:G:C6	25:DA:953:A:N7	2.87	0.43
26:DB:28:C:H2'	26:DB:29:A:O4'	2.19	0.43
9:CI:96:LEU:HD22	9:CI:101:PHE:HB2	2.00	0.43
25:DA:863:A:H2'	25:DA:864:G:C8	2.53	0.43
25:DA:863:A:OP1	36:DQ:22:LYS:HG3	2.18	0.43
1:AA:625:G:O2'	1:AA:626:U:H5'	2.17	0.43
12:CL:34:ARG:HB3	12:CL:34:ARG:HE	1.37	0.43
21:AU:22:ARG:HA	21:AU:23:PRO:HD3	1.65	0.43
25:DA:242:G:H5''	54:D8:64:TYR:CE2	2.54	0.43
31:DH:3:ARG:NH1	31:DH:3:ARG:HB3	2.34	0.43
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.54	0.43
10:AJ:81:THR:O	10:AJ:85:LEU:HG	2.18	0.43
1:AA:1343:G:O2'	9:AI:121:ARG:HD2	2.19	0.43
3:CC:112:SER:O	3:CC:115:LEU:HB2	2.19	0.43
25:BA:1095:C:H2'	25:BA:1096:A:H8	1.84	0.43
28:DE:181:LEU:HD12	28:DE:181:LEU:HA	1.58	0.43
25:DA:108:U:H2'	25:DA:109:G:H8	1.84	0.43
6:AF:82:ARG:HB3	6:AF:85:VAL:HG23	2.00	0.43
48:D2:65:ASN:OD1	48:D2:69:ARG:NH1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2843:G:H4'	25:BA:2844:G:OP2	2.19	0.43
25:DA:1475:G:C2	25:DA:1517:G:C2	3.06	0.43
25:BA:1558:G:H2'	25:BA:1559:C:C6	2.54	0.43
25:DA:844:C:C5	25:DA:845:G:C6	3.06	0.43
25:DA:2645:G:H4'	25:DA:2732:G:O3'	2.19	0.43
25:BA:199:C:H2'	25:BA:200:A:C8	2.54	0.43
1:AA:389:A:C6	1:AA:390:C:H1'	2.53	0.43
25:DA:2464:C:C2	25:DA:2487:G:C2	3.07	0.43
17:CQ:56:VAL:O	17:CQ:77:VAL:HB	2.19	0.43
2:AB:124:SER:HB3	2:AB:125:PRO:HA	2.01	0.43
1:CA:937:A:H1'	1:CA:1379:G:N2	2.34	0.43
8:CH:121:ASP:OD1	8:CH:121:ASP:N	2.50	0.43
25:BA:1034:A:H8	25:BA:1034:A:O5'	2.02	0.43
25:DA:763:G:H1'	25:DA:765:G:O4'	2.18	0.43
26:BB:96:U:H2'	26:BB:97:G:C8	2.54	0.43
25:BA:316:C:C2	25:BA:373:G:C2	3.07	0.43
25:DA:1462:C:H4'	25:DA:2703:C:H5'	2.00	0.43
4:CD:67:ILE:HG22	4:CD:68:TYR:CD1	2.54	0.43
45:DZ:121:HIS:HB3	45:DZ:123:ASP:O	2.18	0.43
1:CA:1005:A:N6	1:CA:1024:G:O2'	2.51	0.43
25:DA:1005:C:C2	25:DA:1143:A:C5	3.06	0.43
1:CA:1178:G:H2'	1:CA:1180:A:OP2	2.18	0.43
25:DA:2318:G:H21	38:DS:3:ARG:CD	2.31	0.43
1:AA:975:A:H4'	1:AA:976:G:C5'	2.44	0.43
1:CA:961:U:OP2	1:CA:1223:C:O2'	2.31	0.43
7:CG:111:ARG:HB2	7:CG:119:ARG:HD2	2.00	0.43
1:AA:637:G:C6	1:AA:638:G:C5	3.06	0.43
7:CG:65:ALA:HB3	7:CG:124:LEU:HD23	2.01	0.43
50:D4:59:PHE:HA	50:D4:60:GLN:C	2.39	0.43
1:CA:473:G:O2'	1:CA:474:G:H5'	2.19	0.43
9:AI:19:LEU:HB3	9:AI:59:PHE:CD2	2.52	0.43
3:AC:12:LEU:HD11	14:AN:51:GLY:CA	2.48	0.43
26:DB:11:C:H3'	26:DB:12:C:C6	2.54	0.43
25:BA:866:A:C4	25:BA:1234:A:C2	3.06	0.43
25:DA:898:C:H6	25:DA:898:C:H3'	1.84	0.43
19:CS:23:ASN:OD1	19:CS:47:HIS:NE2	2.51	0.43
1:CA:452:A:C2	1:CA:453:A:C4	3.06	0.43
1:AA:1187:G:H2'	1:AA:1188:A:H8	1.84	0.43
25:DA:537:C:H2'	25:DA:538:G:O4'	2.19	0.43
45:DZ:161:VAL:O	45:DZ:161:VAL:HG13	2.19	0.43
32:BI:93:THR:O	32:BI:97:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2094:G:P	32:DI:22:LYS:HD2	2.59	0.43
25:DA:706:A:H2'	25:DA:707:G:O4'	2.19	0.43
25:DA:2409:G:H2'	25:DA:2410:G:O4'	2.18	0.43
25:BA:1854:G:N2	61:BA:3835:HOH:O	2.41	0.43
1:CA:1385:G:C6	1:CA:1386:G:C5	3.07	0.43
38:BS:14:VAL:O	38:BS:18:ILE:HG12	2.17	0.43
28:DE:1:MET:O	28:DE:84:PHE:HB2	2.19	0.43
25:BA:2418:U:H2'	25:BA:2418:U:OP2	2.19	0.43
25:DA:2494:G:C5	25:DA:2495:G:N7	2.87	0.43
1:AA:113:G:H2'	1:AA:114:U:C6	2.54	0.43
2:AB:180:LEU:O	2:AB:181:PHE:HB2	2.18	0.43
8:CH:37:ARG:NH2	8:CH:38:ILE:HG12	2.34	0.43
4:AD:163:GLU:O	4:AD:166:LYS:HG2	2.19	0.43
36:BQ:58:PHE:HB3	36:BQ:61:GLY:O	2.18	0.43
25:DA:616:G:C2	25:DA:618:C:C2	3.06	0.43
25:DA:1759:A:H4'	25:DA:2715:C:O4'	2.19	0.43
25:DA:2563:U:O2	25:DA:2565:A:H8	2.01	0.43
1:AA:312:C:H2'	1:AA:313:A:H8	1.83	0.43
25:DA:2679:A:C2	25:DA:2729:G:C2	3.07	0.43
33:BN:48:MET:H	33:BN:48:MET:HG3	1.70	0.43
25:DA:1578:U:H2'	25:DA:1578:U:O2	2.18	0.43
40:BU:104:GLN:CD	40:BU:104:GLN:H	2.22	0.43
1:CA:1157:A:N6	1:CA:1180:A:N3	2.67	0.43
1:AA:433:C:H6	1:AA:433:C:O5'	2.02	0.43
1:AA:601:C:O2	1:AA:637:G:N2	2.27	0.43
25:BA:2576:A:C2	25:BA:2659:U:H4'	2.54	0.43
25:DA:1665:A:C4'	34:DO:67:LYS:HB2	2.48	0.43
5:CE:12:LEU:HD22	5:CE:13:ILE:N	2.33	0.43
30:DG:23:PHE:HB2	30:DG:25:TYR:CZ	2.53	0.43
1:AA:161:A:H2'	1:AA:162:A:H8	1.82	0.43
1:AA:357:G:O2'	1:AA:358:U:H5'	2.19	0.43
25:BA:1766:G:H3'	25:BA:1767:A:C5'	2.47	0.43
28:DE:163:GLU:HG2	28:DE:164:ARG:H	1.83	0.43
8:AH:40:ALA:HA	8:AH:45:ILE:HG13	2.00	0.43
25:DA:536:A:H2'	25:DA:537:C:C6	2.54	0.43
36:BQ:37:LEU:HD21	36:BQ:130:LYS:HE2	2.00	0.43
1:AA:625:G:C2'	1:AA:626:U:H5'	2.48	0.43
25:DA:1711:C:H2'	25:DA:1712:C:C6	2.53	0.43
1:AA:309:G:H1'	1:AA:608:A:C2	2.54	0.43
37:DR:96:ARG:HD3	37:DR:98:LEU:HD11	2.00	0.43
12:AL:85:ILE:HD12	12:AL:98:TYR:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:881:G:H1	25:DA:895:U:H3	1.67	0.43
25:DA:2648:C:H2'	25:DA:2649:U:C6	2.54	0.43
25:DA:322:A:P	29:DF:169:ASN:HB2	2.59	0.43
1:AA:298:A:H5''	1:AA:299:G:OP2	2.18	0.43
36:DQ:42:ILE:HD13	36:DQ:97:VAL:CG2	2.49	0.43
1:AA:958:A:C2	19:AS:55:LYS:HB2	2.54	0.43
45:BZ:44:PHE:CZ	45:BZ:86:VAL:HG11	2.53	0.43
3:CC:16:ARG:HA	3:CC:16:ARG:HD2	1.80	0.43
2:AB:155:LEU:HD11	2:AB:159:PRO:HD3	2.01	0.43
39:DT:88:ILE:HG13	39:DT:91:ARG:NH2	2.34	0.43
4:AD:23:GLY:HA3	4:AD:112:VAL:HB	2.01	0.43
25:BA:1073:A:C2	25:BA:2500:A:H5'	2.53	0.43
1:AA:114:U:H1'	1:AA:353:A:H1'	2.00	0.43
29:BF:11:VAL:HG22	29:BF:125:LEU:HB2	2.00	0.43
25:DA:1332:G:OP1	61:DA:4077:HOH:O	2.21	0.43
25:DA:2000:G:N7	61:DA:4008:HOH:O	2.36	0.43
25:BA:1176:U:O2	25:BA:2047:C:H5''	2.19	0.43
42:BW:20:VAL:O	42:BW:23:LEU:HB2	2.19	0.43
30:BG:150:ASP:OD2	30:BG:151:ALA:N	2.52	0.43
39:BT:81:PRO:HG2	39:BT:82:LEU:HD12	2.01	0.43
1:AA:327:A:C4	1:AA:329:A:C8	3.07	0.43
45:BZ:19:ARG:HB2	45:BZ:19:ARG:HE	1.65	0.43
28:BE:73:GLU:HG3	28:BE:73:GLU:H	1.54	0.43
3:AC:34:LEU:O	3:AC:34:LEU:HD12	2.19	0.43
29:BF:149:ASP:OD1	29:BF:149:ASP:N	2.45	0.43
44:BY:91:GLU:CD	44:BY:91:GLU:N	2.72	0.43
25:BA:302:A:H8	25:BA:302:A:P	2.42	0.43
1:CA:402:G:C2'	1:CA:403:C:H5'	2.49	0.43
31:DH:95:ARG:HB2	31:DH:128:PRO:HB2	2.01	0.43
1:AA:1443:G:C2	1:AA:1460:A:N3	2.87	0.43
1:AA:901:A:C5	1:AA:902:G:H1'	2.54	0.43
25:DA:196:A:H2'	25:DA:196:A:N3	2.34	0.43
30:DG:16:ARG:HA	30:DG:16:ARG:HD2	1.69	0.43
50:B4:59:PHE:HA	50:B4:61:ARG:H	1.83	0.43
5:CE:11:ILE:HB	5:CE:31:LEU:HB3	2.00	0.43
25:DA:854:G:H2'	25:DA:855:G:C8	2.48	0.43
25:DA:2302:G:C6	25:DA:2315:G:C6	3.06	0.43
15:CO:4:THR:OG1	15:CO:7:GLU:OE1	2.27	0.43
11:CK:48:ILE:C	11:CK:50:TYR:H	2.21	0.43
25:DA:1169:G:O5'	25:DA:1169:G:H8	2.01	0.43
2:AB:192:SER:O	2:AB:194:PRO:HD3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:101:LEU:O	7:CG:104:LEU:HB2	2.18	0.43
25:DA:538:G:H2'	25:DA:539:G:H8	1.83	0.43
25:DA:601:C:O2'	25:DA:605:C:H5''	2.19	0.43
1:AA:309:G:O2'	1:AA:607:A:N1	2.48	0.43
13:AM:40:ASN:OD1	13:AM:42:ALA:HB3	2.19	0.43
25:BA:2830:A:O2'	25:BA:2831:A:OP1	2.37	0.43
1:CA:80:G:N2	1:CA:90:U:H1'	2.34	0.43
25:DA:2310:A:H61	30:DG:79:ASN:ND2	2.17	0.43
25:DA:55:G:H2'	25:DA:56:A:C8	2.54	0.43
5:CE:92:LYS:HA	5:CE:93:PRO:HD2	1.84	0.43
25:DA:1638:C:H5''	25:DA:2710:C:O2'	2.19	0.43
34:DO:34:THR:O	34:DO:37:ASP:HB2	2.19	0.43
45:BZ:5:LEU:O	45:BZ:59:LEU:HA	2.19	0.43
25:BA:2490:A:H2'	25:BA:2491:G:O4'	2.19	0.43
13:CM:97:PRO:HB3	13:CM:101:GLN:OE1	2.19	0.43
32:BI:65:ALA:HB1	32:BI:136:VAL:HG11	1.99	0.43
27:DD:139:GLY:H	27:DD:165:ILE:HB	1.84	0.43
15:CO:82:ILE:HB	15:CO:87:ILE:HB	2.01	0.43
31:BH:89:ILE:O	31:BH:129:THR:HG22	2.19	0.43
1:CA:1375:A:O2'	7:CG:29:LYS:NZ	2.50	0.43
25:BA:1752:G:C6	25:BA:1753:U:C4	3.07	0.43
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.54	0.43
1:AA:687:A:N3	1:AA:688:G:H1'	2.33	0.43
25:BA:64:C:H2'	25:BA:65:C:H6	1.83	0.43
26:BB:1:U:H2'	26:BB:2:C:C6	2.53	0.43
25:DA:2675:A:H4'	34:DO:29:ASN:ND2	2.34	0.43
30:DG:76:SER:CB	30:DG:84:LYS:H	2.32	0.43
4:CD:19:LEU:O	4:CD:21:LEU:N	2.51	0.43
16:AP:22:THR:HA	16:AP:33:ILE:HG12	2.00	0.43
20:AT:90:GLN:O	20:AT:93:GLU:HB3	2.19	0.43
25:DA:927:G:H2'	25:DA:928:G:C8	2.53	0.43
25:BA:2070:G:C5	25:BA:2071:G:C8	3.07	0.43
48:D2:35:LEU:HA	48:D2:35:LEU:HD23	1.80	0.43
54:D8:22:VAL:CG2	54:D8:59:LYS:HG3	2.48	0.43
4:AD:45:GLN:HB3	4:AD:45:GLN:HE21	1.59	0.43
1:CA:261:U:C5	20:CT:79:ARG:CZ	3.02	0.43
12:CL:55:VAL:HG12	12:CL:69:TYR:HA	2.01	0.43
36:BQ:39:PRO:HA	36:BQ:97:VAL:O	2.19	0.43
1:AA:1362:C:H2'	1:AA:1363:C:H5''	2.00	0.43
25:DA:2257:U:H2'	25:DA:2258:C:C6	2.54	0.43
1:AA:1129:C:H1'	1:AA:1130:A:N7	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:64:THR:CG2	9:AI:66:ARG:HD2	2.49	0.42
30:DG:109:VAL:O	30:DG:113:ARG:HB2	2.19	0.42
1:CA:664:G:H5'	18:CR:64:ARG:NH2	2.33	0.42
30:DG:33:ARG:O	30:DG:161:THR:HG23	2.18	0.42
1:CA:939:G:H2'	1:CA:940:C:C6	2.54	0.42
25:BA:2331:G:C8	25:BA:2332:A:C2	3.07	0.42
25:BA:2658:C:H2'	25:BA:2659:U:O4'	2.19	0.42
1:CA:1445:C:C2	1:CA:1458:G:C2	3.07	0.42
1:AA:453:A:C5	1:AA:454:C:C4	3.07	0.42
1:CA:491:G:C2	1:CA:492:G:C4	3.07	0.42
25:DA:879:G:C8	25:DA:880:G:C8	3.07	0.42
3:AC:44:GLU:HG2	3:AC:52:LEU:CD2	2.49	0.42
33:DN:96:GLU:N	33:DN:96:GLU:OE2	2.46	0.42
7:CG:69:VAL:HG22	7:CG:135:VAL:HG22	2.01	0.42
26:DB:28:C:OP1	38:DS:36:TYR:OH	2.34	0.42
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.82	0.42
1:CA:1317:C:OP1	14:CN:17:LYS:HG2	2.19	0.42
25:BA:1712:A:C4'	34:BO:67:LYS:HB2	2.49	0.42
1:CA:414:A:C5	1:CA:431:A:C2	3.07	0.42
29:DF:31:HIS:HB2	35:DP:9:ASN:OD1	2.19	0.42
25:BA:1702:A:H3'	25:BA:1703:C:C6	2.53	0.42
8:AH:73:ASP:OD2	8:AH:75:ARG:NH1	2.52	0.42
30:BG:96:ARG:O	30:BG:99:MET:HB3	2.19	0.42
26:BB:4:C:H2'	26:BB:5:C:O4'	2.19	0.42
25:DA:272(B):G:H2'	25:DA:272(C):G:C8	2.54	0.42
29:DF:138:GLU:O	29:DF:141:ALA:HB3	2.19	0.42
25:BA:771:U:H2'	25:BA:772:G:O4'	2.18	0.42
25:DA:2076:U:O5'	25:DA:2076:U:H6	2.02	0.42
1:AA:1445:C:C4	1:AA:1446:U:C4	3.07	0.42
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	2.00	0.42
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	2.00	0.42
4:AD:13:ARG:HB2	4:AD:40:PRO:HD3	2.00	0.42
25:DA:1412:A:C2	25:DA:1591:G:C2	3.07	0.42
25:BA:2442:A:N3	25:BA:2442:A:H2'	2.33	0.42
51:B5:16:ARG:O	51:B5:20:ARG:HG3	2.19	0.42
4:AD:15:GLU:OE2	4:AD:66:ARG:NH1	2.52	0.42
1:AA:410:G:N1	1:AA:431:A:OP2	2.48	0.42
8:AH:51:VAL:HG21	8:AH:60:ARG:HB2	2.00	0.42
5:CE:10:MET:HG2	5:CE:13:ILE:HD11	2.00	0.42
1:CA:382:A:H2'	1:CA:383:A:H8	1.78	0.42
25:DA:754:C:H4'	25:DA:1272:A:N6	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CX:22:G:H2'	23:CX:23:C:C6	2.54	0.42
28:DE:14:ILE:HB	39:DT:14:TYR:CE2	2.54	0.42
25:DA:945:A:C4	25:DA:2448:A:C2	3.07	0.42
25:BA:311:C:H2'	25:BA:312:C:C6	2.51	0.42
25:DA:1338:G:N7	43:DX:62:LYS:NZ	2.64	0.42
54:B8:39:LYS:HA	54:B8:42:ARG:NH1	2.34	0.42
10:AJ:16:LEU:HD21	10:AJ:70:ARG:CG	2.49	0.42
30:DG:121:ASN:HB3	30:DG:124:SER:HB2	2.00	0.42
25:DA:2408:U:H2'	25:DA:2409:G:H8	1.84	0.42
1:CA:1390:U:H2'	1:CA:1391:U:C6	2.54	0.42
34:DO:7:TYR:CZ	34:DO:44:LYS:HG3	2.54	0.42
2:CB:23:ARG:HB2	2:CB:23:ARG:HH11	1.82	0.42
25:DA:77:C:H5''	48:D2:10:LEU:HD21	2.01	0.42
26:BB:37:C:C5	26:BB:38:C:C4	3.06	0.42
25:DA:1514:U:H2'	25:DA:1515:G:C8	2.55	0.42
25:DA:1515:G:H2'	25:DA:1516:C:C6	2.55	0.42
38:BS:6:ALA:O	38:BS:10:ARG:HB2	2.18	0.42
4:AD:110:PHE:HD1	4:AD:110:PHE:N	2.16	0.42
45:BZ:15:PRO:O	45:BZ:19:ARG:HB2	2.19	0.42
1:AA:1446:U:O2'	1:AA:1447:A:O5'	2.38	0.42
1:CA:339:C:H2'	1:CA:340:U:C6	2.54	0.42
42:DW:46:PHE:O	42:DW:50:VAL:HG23	2.19	0.42
29:DF:37:VAL:HA	29:DF:40:GLN:HB2	2.00	0.42
25:BA:21:A:H2'	25:BA:22:C:O4'	2.19	0.42
20:AT:30:LYS:HA	20:AT:33:ILE:HD12	2.00	0.42
34:BO:115:VAL:HG13	34:BO:121:VAL:HG21	2.00	0.42
1:AA:1100:C:O2'	1:AA:1102:A:OP1	2.34	0.42
25:DA:2193:G:H2'	25:DA:2194:G:C8	2.54	0.42
17:CQ:5:VAL:O	17:CQ:6:LEU:HD13	2.19	0.42
25:DA:532:A:N7	25:DA:2021:C:O2'	2.42	0.42
12:AL:6:THR:HG23	12:AL:9:GLN:OE1	2.19	0.42
1:AA:317:G:C6	1:AA:318:G:C5	3.07	0.42
45:DZ:7:ALA:O	45:DZ:62:PRO:HD3	2.19	0.42
13:CM:23:TYR:CD2	13:CM:70:LEU:HD13	2.54	0.42
1:CA:1205:U:O2'	3:CC:195:VAL:HG23	2.19	0.42
25:BA:873:U:H2'	25:BA:875:U:O4'	2.19	0.42
25:DA:768:G:C6	25:DA:769:G:C5	3.07	0.42
1:AA:39:G:C6	1:AA:40:C:C4	3.07	0.42
2:CB:187:LEU:HD23	2:CB:201:ILE:HG22	2.00	0.42
1:CA:1122:U:C5	1:CA:1123:A:N7	2.88	0.42
1:AA:1006:C:H2'	1:AA:1007:C:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BQ:14:ARG:HG2	36:BQ:41:TRP:HH2	1.83	0.42
1:CA:1014:A:H4'	19:CS:14:HIS:CE1	2.54	0.42
4:AD:119:GLN:HG2	4:AD:123:HIS:NE2	2.35	0.42
25:BA:2695:C:OP1	39:BT:53:ARG:NH2	2.52	0.42
1:CA:9:G:O6	1:CA:558:G:H2'	2.20	0.42
12:AL:24:VAL:CG1	12:AL:27:LEU:HD22	2.44	0.42
29:DF:184:TYR:O	29:DF:188:ARG:HG3	2.20	0.42
19:AS:64:GLU:O	19:AS:67:VAL:HG23	2.19	0.42
50:D4:64:GLY:C	50:D4:66:SER:N	2.71	0.42
25:DA:652(D):C:C2'	25:DA:652(E):G:H5'	2.49	0.42
9:AI:3:GLN:CG	9:AI:20:ARG:HE	2.32	0.42
1:CA:448:A:P	1:CA:485:G:H22	2.42	0.42
47:D1:52:ARG:NH2	47:D1:57:GLU:HB2	2.34	0.42
1:CA:833:U:H2'	1:CA:834:C:C6	2.54	0.42
25:DA:289:A:H2'	25:DA:290:G:C8	2.54	0.42
45:BZ:111:VAL:HG12	45:BZ:112:ARG:N	2.34	0.42
25:DA:660:G:H5'	29:DF:99:TYR:CD2	2.55	0.42
25:BA:1766:G:H8	25:BA:1770:A:H62	1.66	0.42
25:BA:287:G:O2'	25:BA:448:U:OP2	2.26	0.42
25:DA:934:G:H2'	25:DA:935:C:C6	2.55	0.42
25:DA:180:G:H5''	25:DA:181:A:P	2.59	0.42
25:DA:1167:U:O2	25:DA:1183:G:N2	2.52	0.42
8:CH:28:ALA:HB3	8:CH:57:PRO:HB2	2.02	0.42
33:BN:42:TRP:CE3	40:BU:63:VAL:HG11	2.54	0.42
1:CA:19:C:H5''	5:CE:86:ALA:HB3	2.02	0.42
1:AA:310:G:H5''	16:AP:31:LYS:HB2	2.02	0.42
25:DA:837:C:N3	25:DA:941:A:N6	2.67	0.42
43:BX:12:VAL:HG22	43:BX:29:TRP:CE2	2.54	0.42
50:B4:8:LYS:HB3	50:B4:8:LYS:HE2	1.70	0.42
25:DA:2275:C:H5'	25:DA:2275:C:H6	1.84	0.42
38:DS:69:VAL:O	38:DS:72:ALA:HB3	2.18	0.42
3:AC:64:VAL:HG13	3:AC:99:VAL:HA	2.01	0.42
25:DA:760:G:H2'	25:DA:761:A:O4'	2.19	0.42
7:AG:51:GLN:O	7:AG:55:GLY:HA2	2.19	0.42
1:AA:1114:C:H42	1:AA:1186:G:H1	1.67	0.42
1:AA:1091:U:H2'	1:AA:1093:A:OP2	2.19	0.42
1:CA:1005:A:H1'	1:CA:1036:G:C6	2.55	0.42
1:CA:1023:G:C4	1:CA:1024:G:C8	3.07	0.42
1:CA:1120:G:C6	1:CA:1154:G:N2	2.87	0.42
1:CA:540:G:H2'	1:CA:541:G:O4'	2.19	0.42
25:BA:895:G:O6	25:BA:974:G:H2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2298:A:C8	25:DA:2299:G:C8	3.07	0.42
1:AA:922:G:H2'	1:AA:923:A:C8	2.54	0.42
1:CA:1210:C:H2'	1:CA:1211:U:H5''	2.01	0.42
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.34	0.42
1:CA:473:G:H2'	1:CA:474:G:H8	1.81	0.42
1:AA:1086:U:C2'	1:AA:1087:G:H5'	2.49	0.42
1:CA:383:A:H5''	1:CA:384:G:OP2	2.20	0.42
9:CI:33:PHE:CE1	9:CI:43:ALA:HB1	2.46	0.42
8:AH:104:ARG:HG3	8:AH:138:TRP:CD2	2.54	0.42
25:DA:2419:U:H2'	25:DA:2420:C:C6	2.54	0.42
16:CP:53:VAL:O	16:CP:57:ARG:HB2	2.19	0.42
45:BZ:111:VAL:HG12	45:BZ:112:ARG:H	1.84	0.42
25:DA:2477:C:N4	55:D9:10:ILE:HG23	2.34	0.42
31:BH:17:VAL:HG21	31:BH:50:VAL:HG21	2.01	0.42
30:BG:86:MET:HA	30:BG:87:PRO:HD3	1.90	0.42
25:BA:776:G:OP2	27:BD:13:ARG:NH1	2.45	0.42
1:CA:97:G:O2'	1:CA:98:G:O4'	2.35	0.42
9:CI:99:LEU:HB3	9:CI:101:PHE:CE1	2.54	0.42
34:DO:2:ILE:HB	34:DO:33:ALA:HB3	2.01	0.42
1:AA:998:G:H2'	1:AA:999:C:C6	2.55	0.42
1:CA:590:C:H2'	1:CA:591:U:H6	1.84	0.42
52:D6:11:LEU:HB2	52:D6:21:TYR:HB2	2.00	0.42
25:DA:1418:G:O5'	25:DA:1418:G:H8	2.03	0.42
1:CA:35:G:H2'	1:CA:36:C:C6	2.55	0.42
4:CD:90:GLY:HA2	4:CD:204:ILE:HD11	2.01	0.42
25:BA:2760:G:C2	25:BA:2769:U:C5	3.07	0.42
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.54	0.42
25:DA:1517:G:C6	25:DA:1518:U:C4	3.07	0.42
25:DA:836:G:H2'	25:DA:837:C:C6	2.53	0.42
29:DF:110:LEU:HD21	29:DF:181:LEU:HG	2.00	0.42
31:DH:88:LEU:HD23	31:DH:165:ALA:HA	2.01	0.42
39:BT:7:ILE:O	39:BT:11:GLU:HG3	2.19	0.42
27:DD:134:ARG:NH1	27:DD:188:GLU:OE2	2.51	0.42
6:CF:76:ALA:O	6:CF:80:ARG:HG3	2.20	0.42
51:D5:48:GLU:O	51:D5:60:VAL:HG11	2.20	0.42
25:DA:871:U:H5''	36:DQ:69:PHE:CE2	2.54	0.42
1:AA:1524:C:OP1	11:AK:120:ARG:NH1	2.50	0.42
38:DS:24:LEU:HD23	38:DS:24:LEU:HA	1.88	0.42
16:AP:34:GLU:OE2	16:AP:55:ARG:NH2	2.39	0.42
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.20	0.42
38:DS:78:LEU:HD11	38:DS:108:GLY:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:130:ARG:HA	2:CB:131:PRO:HD3	1.80	0.42
1:CA:1023:G:H3'	1:CA:1024:G:C8	2.54	0.42
1:AA:1129:C:N4	1:AA:1143:G:N1	2.40	0.42
1:CA:1179:A:C6	1:CA:1180:A:C8	3.07	0.42
25:DA:319:C:N4	25:DA:320:A:C6	2.87	0.42
1:CA:622:A:H3'	1:CA:623:C:H6	1.84	0.42
16:CP:5:ARG:HH12	16:CP:28:ARG:HA	1.84	0.42
25:DA:2298:A:N6	25:DA:2321:G:H1	2.18	0.42
1:AA:1486:G:H2'	1:AA:1487:G:C1'	2.50	0.42
25:DA:2005:A:H5''	25:DA:2006:C:OP2	2.20	0.42
1:CA:973:G:H3'	1:CA:974:A:H5''	2.01	0.42
1:AA:406:G:N2	4:AD:119:GLN:HE22	2.18	0.42
25:DA:829:A:N7	25:DA:2248:C:H5'	2.35	0.42
25:DA:900:A:C2'	25:DA:901:A:H8	2.32	0.42
50:B4:53:GLU:O	50:B4:56:VAL:HG13	2.20	0.42
24:CW:9:MVA:CB	24:CW:10:2QY:H82	2.49	0.42
24:CW:9:MVA:O	24:CW:10:2QY:CD2	2.63	0.42
25:DA:1636:C:H2'	25:DA:1637:A:H8	1.80	0.42
1:CA:460:G:C6	1:CA:470:C:H5''	2.53	0.42
19:AS:19:VAL:O	19:AS:22:LEU:HB2	2.19	0.42
2:AB:170:GLU:O	2:AB:174:VAL:HG23	2.20	0.42
25:BA:2245:U:H2'	25:BA:2246:G:C8	2.54	0.42
1:CA:391:G:C6	1:CA:392:G:C5	3.07	0.42
25:DA:1815:A:P	27:DD:54:ARG:NH2	2.92	0.42
34:BO:10:VAL:HG21	34:BO:16:ALA:HB3	2.01	0.42
5:CE:40:ARG:HH21	5:CE:68:GLU:HA	1.82	0.42
25:DA:608:A:C6	25:DA:609:A:C6	3.07	0.42
25:DA:2740:A:C6	25:DA:2764:A:C8	3.07	0.42
25:BA:904:C:N4	25:BA:905:U:O4	2.52	0.42
35:DP:6:LEU:HA	35:DP:6:LEU:HD23	1.76	0.42
26:BB:16:G:C6	26:BB:69:G:C2	3.08	0.42
25:DA:1790:C:H5''	25:DA:1791:A:OP1	2.19	0.42
45:DZ:95:PRO:HA	45:DZ:129:SER:HA	2.00	0.42
25:DA:442:G:O4'	29:DF:46:ARG:HG3	2.19	0.42
1:AA:575:G:O2'	1:AA:821:G:H5'	2.19	0.42
38:DS:103:GLU:O	38:DS:107:GLU:HG3	2.20	0.42
1:CA:373:A:H2'	1:CA:374:A:H8	1.84	0.42
25:DA:576:U:H2'	25:DA:577:G:C8	2.55	0.42
37:BR:83:ILE:O	37:BR:86:ARG:HG2	2.20	0.42
35:DP:83:VAL:O	35:DP:115:LEU:N	2.44	0.42
45:DZ:122:ARG:HH11	45:DZ:122:ARG:HG2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:49:LEU:HA	28:BE:49:LEU:HD12	1.89	0.42
47:B1:98:LEU:HA	47:B1:98:LEU:HD23	1.88	0.42
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.87	0.42
45:DZ:150:LEU:HD12	45:DZ:150:LEU:HA	1.58	0.42
36:DQ:18:LYS:HE3	36:DQ:18:LYS:HB2	1.91	0.42
25:DA:2055:C:H5'	25:DA:2056:G:O5'	2.19	0.42
1:AA:448:A:H2'	1:AA:449:C:C6	2.54	0.42
1:CA:1002:G:N3	1:CA:1003:G:N7	2.67	0.42
1:CA:999:C:C2	1:CA:1042:G:N2	2.87	0.42
25:DA:14:A:C6	25:DA:526:A:C2	3.08	0.42
4:AD:158:ILE:HB	4:AD:162:LEU:HD12	2.01	0.42
25:DA:994:C:O2'	25:DA:996:A:OP1	2.30	0.42
4:CD:173:TRP:CE2	4:CD:189:PRO:HG3	2.54	0.42
25:DA:1510:G:O5'	25:DA:1510:G:H8	2.03	0.42
1:CA:837:G:H2'	1:CA:838:G:C8	2.55	0.42
1:CA:735:C:H5'	18:CR:71:LYS:HD3	2.00	0.42
1:AA:1346:A:H5''	9:AI:120:ARG:NH1	2.34	0.42
1:AA:1041:A:C2'	1:AA:1042:G:H5'	2.49	0.42
1:CA:1145:C:H4'	1:CA:1146:A:C5'	2.48	0.42
15:AO:5:LYS:CD	15:AO:5:LYS:H	2.31	0.42
2:CB:61:LEU:HD23	2:CB:68:ILE:HD11	2.01	0.42
25:DA:172:C:H2'	25:DA:173:G:C8	2.52	0.42
1:AA:271:C:H2'	1:AA:272:C:C6	2.54	0.42
29:DF:32:LEU:HD11	29:DF:105:VAL:HG13	2.00	0.42
26:DB:24:G:H4'	26:DB:25:A:N7	2.35	0.42
25:BA:354:A:H2	25:BA:1255:A:O2'	2.02	0.42
14:AN:45:ARG:HG2	14:AN:49:HIS:CD2	2.53	0.42
23:AX:19:G:C5	23:AX:57:A:C2	3.07	0.42
1:CA:1057:G:C4	1:CA:1204:A:C2	3.07	0.42
1:CA:881:G:H2'	1:CA:882:C:O4'	2.19	0.42
25:DA:2046:G:H2'	25:DA:2047:U:C6	2.53	0.42
4:CD:81:GLU:O	4:CD:85:LYS:HB2	2.20	0.42
25:DA:1844:C:OP1	27:DD:257:LEU:HD23	2.19	0.42
29:DF:51:THR:HG23	29:DF:92:PRO:HG2	2.01	0.42
13:AM:20:THR:C	13:AM:22:ILE:H	2.21	0.42
25:BA:196:A:H2'	25:BA:197:C:O4'	2.18	0.42
30:BG:125:PHE:HB3	30:BG:166:ASP:OD1	2.20	0.42
26:DB:15:A:O4'	26:DB:110:G:C8	2.73	0.42
30:BG:145:THR:OG1	30:BG:148:MET:SD	2.73	0.42
25:DA:2399:G:C6	25:DA:2400:G:C5	3.07	0.42
25:BA:1308:A:OP1	42:BW:99:ARG:NH1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2703:C:O3'	25:BA:2881:C:H4'	2.20	0.42
25:DA:1479:G:C6	25:DA:1480:G:C5	3.08	0.42
48:B2:3:LEU:HA	48:B2:3:LEU:HD23	1.76	0.42
27:BD:33:LEU:HA	27:BD:33:LEU:HD23	1.81	0.42
1:CA:1002:G:N2	1:CA:1038:C:C2	2.82	0.42
1:CA:1002:G:H5'	1:CA:1003:G:OP2	2.19	0.42
1:CA:1002:G:C2	1:CA:1038:C:N3	2.83	0.42
1:AA:341:C:O2'	1:AA:342:C:H5'	2.20	0.42
39:BT:16:ARG:HD2	39:BT:18:ASP:OD1	2.20	0.42
2:CB:69:LEU:HD12	2:CB:70:PHE:H	1.84	0.42
25:DA:2319:G:H22	38:DS:3:ARG:HE	1.68	0.42
1:AA:1001:A:N6	1:AA:1001(A):G:O6	2.53	0.42
1:CA:149:A:H2'	1:CA:150:C:H6	1.83	0.42
49:B3:3:ARG:HD3	49:B3:60:GLU:OE2	2.20	0.42
1:CA:811:C:H4'	1:CA:900:A:N6	2.34	0.42
1:CA:1158:C:H2'	1:CA:1160:G:H5'	2.02	0.42
4:AD:121:VAL:HA	4:AD:126:ILE:HG13	2.01	0.42
1:AA:840:C:H4'	1:AA:841:U:OP1	2.20	0.42
9:AI:4:TYR:CZ	9:AI:88:TYR:HD1	2.38	0.42
43:BX:92:LEU:C	43:BX:94:GLY:N	2.71	0.42
3:AC:19:GLU:HB3	3:AC:40:ARG:NH2	2.35	0.42
1:CA:1239:A:H62	1:CA:1299:A:N6	2.16	0.42
1:AA:1047:G:O3'	14:AN:4:LYS:HB2	2.20	0.42
25:DA:2510:C:C4	25:DA:2511:U:C4	3.08	0.42
1:AA:68:G:H22	1:AA:101:A:H2	1.67	0.42
30:DG:170:ARG:HD3	30:DG:170:ARG:O	2.19	0.42
26:DB:45:A:H2'	26:DB:46:A:H8	1.84	0.42
25:DA:864:G:OP2	36:DQ:22:LYS:HE2	2.20	0.42
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.55	0.42
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.54	0.42
1:CA:865:A:H2	1:CA:918:A:H4'	1.83	0.42
25:DA:2348:U:OP2	54:D8:42:ARG:NH2	2.52	0.42
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.87	0.42
2:AB:102:LEU:HB3	2:AB:180:LEU:CD1	2.50	0.42
18:CR:24:ALA:C	18:CR:26:LEU:H	2.23	0.42
25:DA:1425:G:H2'	25:DA:1426:G:O4'	2.19	0.42
25:DA:1654:A:O2'	28:DE:113:PHE:O	2.30	0.42
1:CA:189:G:C5	1:CA:189(A):C:C4	3.07	0.42
31:DH:42:ARG:NH1	31:DH:53:GLU:OE2	2.52	0.42
25:DA:2009:G:O2'	25:DA:2010:G:H5'	2.20	0.42
2:CB:28:PHE:CD1	2:CB:31:TYR:HB2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:145:VAL:HG12	27:DD:146:GLU:O	2.18	0.42
25:BA:2887:G:O2'	25:BA:2888:U:H5'	2.18	0.42
25:DA:824:A:H2'	25:DA:825:C:O4'	2.19	0.42
25:BA:416:G:N1	35:BP:70:GLN:HG3	2.34	0.42
31:DH:118:PRO:HD2	31:DH:121:ILE:HB	2.00	0.42
38:DS:68:GLN:HE21	38:DS:68:GLN:HA	1.85	0.42
2:AB:156:LYS:HB3	2:AB:156:LYS:HE2	1.81	0.42
25:DA:2307:G:H8	25:DA:2307:G:OP1	2.03	0.42
2:CB:78:GLN:O	2:CB:94:ASN:ND2	2.52	0.42
25:DA:530:G:O4'	25:DA:530:G:N3	2.53	0.42
1:CA:938:A:N6	1:CA:939:G:C6	2.88	0.42
25:DA:1375:C:H2'	25:DA:1376:C:H6	1.84	0.42
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.34	0.42
20:CT:39:LYS:HB2	20:CT:39:LYS:HE3	1.90	0.42
24:CW:8:2R3:H62	24:CW:9:MVA:HN1	1.62	0.42
50:D4:60:GLN:HA	50:D4:62:ARG:HG2	2.02	0.42
31:BH:167:GLU:HA	31:BH:168:PRO:HD3	1.86	0.42
1:CA:947:G:H2'	1:CA:948:C:O4'	2.20	0.42
25:BA:950:C:H2'	25:BA:951:U:H6	1.83	0.42
25:BA:589:U:OP1	35:BP:29:LYS:HD2	2.19	0.42
25:DA:13:A:N1	25:DA:525:U:H2'	2.34	0.42
19:CS:50:ALA:HA	19:CS:58:VAL:O	2.20	0.42
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.20	0.42
6:AF:63:TYR:CD1	6:AF:63:TYR:N	2.88	0.42
25:DA:1364:G:OP2	47:D1:3:LYS:HG3	2.20	0.42
26:BB:6:C:C2	26:BB:116:G:N2	2.88	0.42
25:DA:2590:A:O2'	25:DA:2591:C:H5'	2.20	0.42
16:CP:21:VAL:CG1	16:CP:34:GLU:HB3	2.50	0.42
25:BA:83:A:C5'	44:BY:8:LYS:HG2	2.49	0.42
30:DG:45:GLU:C	30:DG:47:LYS:H	2.23	0.42
25:DA:1015:G:O2'	25:DA:1016:G:H5'	2.20	0.42
1:CA:991:U:C4	1:CA:1212:U:H1'	2.54	0.42
3:AC:121:ALA:O	3:AC:125:GLU:HG3	2.19	0.42
9:CI:95:LYS:HA	9:CI:99:LEU:HD13	2.00	0.42
1:CA:15:G:H2'	1:CA:16:A:C8	2.53	0.42
1:CA:741:G:H2'	1:CA:742:G:O4'	2.20	0.42
29:DF:154:VAL:HG22	29:DF:191:ARG:CB	2.49	0.42
25:BA:2326:C:H2'	25:BA:2327:G:C8	2.55	0.42
1:CA:1292:U:O2'	1:CA:1293:G:H5'	2.20	0.42
27:DD:13:ARG:HD2	27:DD:13:ARG:HA	1.43	0.42
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:683:G:H2'	1:CA:684:A:C8	2.55	0.42
25:DA:9:U:O4	25:DA:2629:A:H2	2.02	0.42
28:BE:3:GLY:HA3	28:BE:81:ILE:HD12	2.01	0.42
1:CA:1522:U:H2'	1:CA:1523:G:H8	1.84	0.42
25:BA:1273:G:OP1	40:BU:13:LYS:HG2	2.19	0.42
1:CA:176:C:H2'	1:CA:177:C:C6	2.54	0.42
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.19	0.42
2:CB:20:GLU:HG3	2:CB:191:ASP:HB3	2.02	0.42
48:B2:18:PRO:HA	48:B2:21:LEU:HB2	2.02	0.42
25:BA:753:A:H2'	25:BA:754:G:O4'	2.20	0.42
2:AB:119:GLU:OE2	2:AB:153:ARG:NH2	2.53	0.42
25:DA:571:A:N6	25:DA:2499:C:O3'	2.53	0.42
32:BI:130:TYR:HB3	32:BI:138:ILE:HB	2.02	0.42
54:D8:26:LYS:HG2	54:D8:48:PHE:CD1	2.55	0.42
1:AA:1057:G:OP2	61:AA:4014:HOH:O	2.22	0.42
35:BP:135:LEU:HD23	35:BP:135:LEU:HA	1.86	0.42
38:BS:58:LEU:HD23	38:BS:58:LEU:HA	1.83	0.42
1:AA:1503:A:OP1	1:AA:1503:A:H8	2.03	0.42
27:DD:127:VAL:HA	27:DD:193:VAL:HG22	2.01	0.42
25:DA:959:A:C6	25:DA:960:A:C6	3.08	0.42
25:DA:1184:G:OP1	49:D3:30:ARG:HD2	2.19	0.42
25:DA:2298:A:N7	25:DA:2299:G:C4	2.88	0.42
25:BA:1629:C:C2	25:BA:1630:A:C8	3.08	0.42
1:CA:951:G:C6	1:CA:952:U:C4	3.08	0.42
1:CA:677:U:H1'	11:CK:119:CYS:SG	2.60	0.42
1:CA:714:G:H2'	1:CA:715:A:C8	2.55	0.42
40:DU:79:PHE:O	40:DU:83:LEU:HD22	2.20	0.42
1:AA:657:G:C2	1:AA:750:G:C5	3.08	0.42
1:CA:472:A:H2'	1:CA:473:G:O4'	2.20	0.42
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.39	0.42
25:DA:144:C:H2'	25:DA:145:G:C8	2.50	0.42
30:DG:128:ARG:HE	30:DG:128:ARG:HB2	1.55	0.42
1:AA:1256:A:C2	1:AA:1277:C:N4	2.88	0.42
1:AA:1277:C:H1'	1:AA:1282:C:C2	2.55	0.42
25:BA:1898:A:H2'	25:BA:1899:A:C8	2.54	0.42
1:AA:357:G:C2	1:AA:358:U:C5	3.08	0.42
25:BA:2860:A:C2	25:BA:2861:A:C4	3.08	0.42
19:CS:27:GLU:HG2	19:CS:47:HIS:HE2	1.83	0.42
1:AA:352:C:O2'	1:AA:354:G:OP1	2.28	0.42
25:DA:537:C:H1'	33:DN:45:ASN:HD21	1.85	0.42
23:AX:19:G:C4	23:AX:57:A:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1522:G:N2	25:BA:1565:G:C4	2.87	0.42
1:CA:576:G:N2	1:CA:760:G:OP2	2.53	0.42
34:BO:7:TYR:CZ	34:BO:44:LYS:HG3	2.55	0.42
25:BA:2623:U:H2'	51:B5:2:ALA:O	2.20	0.42
1:CA:160:A:H2'	1:CA:161:A:C8	2.55	0.42
1:AA:589:C:O2'	1:AA:590:C:H5'	2.20	0.42
1:AA:977:A:H2'	1:AA:978:A:H5''	2.01	0.42
1:AA:1060:C:H41	3:AC:2:GLY:HA3	1.85	0.42
6:CF:80:ARG:NH1	6:CF:88:VAL:O	2.53	0.42
32:BI:6:LEU:HG	32:BI:36:ALA:HA	2.01	0.42
1:AA:66:G:O3'	1:AA:199:G:H4'	2.20	0.42
9:AI:110:GLU:OE2	9:AI:113:LYS:NZ	2.49	0.42
25:DA:2821:A:C2	25:DA:2822:G:C4	3.08	0.42
25:BA:1370:G:C4	25:BA:1374:G:O6	2.72	0.42
45:BZ:67:LEU:HA	45:BZ:68:PRO:HD3	1.72	0.42
25:DA:244:A:C2	25:DA:255:A:C4	3.08	0.42
25:BA:1387:U:OP1	25:BA:1443:U:N3	2.47	0.42
25:DA:459:U:H4'	53:D7:40:TRP:CZ3	2.55	0.42
25:DA:1912:A:C8	25:DA:1918:A:C2	3.08	0.42
25:BA:439:A:O5'	25:BA:439:A:H8	2.03	0.42
25:BA:1790:A:H1'	25:BA:2723:A:C2	2.55	0.42
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.55	0.42
25:DA:595:C:H2'	25:DA:596:G:O4'	2.19	0.42
4:CD:135:LEU:O	4:CD:137:SER:N	2.53	0.42
1:CA:952:U:O2'	1:CA:965:A:N6	2.52	0.42
5:AE:20:GLN:NE2	5:AE:21:ALA:O	2.53	0.42
25:BA:831:A:C8	25:BA:839:G:C5	3.08	0.42
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.85	0.42
1:AA:192:U:C2	1:AA:193:C:C5	3.08	0.42
3:AC:22:TRP:CD1	3:AC:59:ARG:HD2	2.54	0.42
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.19	0.42
24:CW:9:MVA:HN3	24:CW:10:2QY:CE2	2.49	0.42
1:CA:1270:C:H2'	1:CA:1271:G:H5'	2.02	0.42
1:AA:22:G:H2'	1:AA:23:C:C6	2.55	0.42
16:AP:71:ARG:O	16:AP:75:ARG:N	2.30	0.42
25:BA:1224:C:O2'	25:BA:1225:C:H5'	2.20	0.42
1:AA:673:G:N2	1:AA:674:G:C2	2.88	0.42
1:AA:55:A:C5	1:AA:56:U:C5	3.08	0.42
1:CA:59:A:H5''	1:CA:60:A:C5'	2.49	0.42
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.54	0.42
25:DA:776:G:C8	25:DA:793:A:N3	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1277:C:H2'	1:AA:1279:A:C8	2.53	0.42
31:DH:130:ARG:HH11	31:DH:132:ARG:NH2	2.18	0.42
19:CS:29:ARG:O	19:CS:31:ILE:HG13	2.19	0.42
25:BA:374:U:H2'	25:BA:375:G:O4'	2.20	0.42
36:DQ:133:ARG:HG2	36:DQ:134:ARG:N	2.34	0.42
25:BA:2376:C:H2'	25:BA:2377:G:O4'	2.20	0.42
41:DV:58:VAL:O	41:DV:97:LYS:N	2.38	0.42
9:CI:96:LEU:HA	9:CI:96:LEU:HD23	1.92	0.42
1:AA:684:A:H2'	1:AA:685:G:H8	1.84	0.42
1:CA:1228:C:H4'	13:CM:116:THR:HA	2.01	0.42
1:CA:1291:G:H4'	9:CI:39:GLY:HA3	2.02	0.42
27:DD:228:PRO:HD3	27:DD:235:GLY:HA3	2.02	0.42
25:DA:1575:C:H2'	25:DA:1576:U:C6	2.55	0.42
2:AB:158:LEU:HA	2:AB:159:PRO:HD3	1.88	0.42
27:BD:145:VAL:HB	27:BD:155:LEU:HB2	2.02	0.42
3:AC:175:LEU:HD21	3:AC:201:TYR:HE2	1.85	0.42
32:DI:14:ASP:OD1	32:DI:15:VAL:N	2.53	0.42
32:DI:4:ILE:HG12	32:DI:18:VAL:HG22	2.01	0.42
25:BA:2673:G:H2'	25:BA:2674:A:C8	2.55	0.42
25:BA:2677:A:C2	25:BA:2678:C:C2	3.08	0.42
25:BA:738:C:O2'	25:BA:739:C:H5'	2.20	0.42
51:D5:49:CYS:SG	51:D5:51:TYR:HB2	2.59	0.42
37:BR:117:VAL:HG12	37:BR:118:GLU:N	2.34	0.42
25:DA:1275:A:N1	25:DA:1295:C:O2'	2.39	0.42
49:B3:26:LEU:O	49:B3:35:ARG:NE	2.51	0.42
39:BT:101:PHE:HD2	39:BT:105:LEU:HD11	1.84	0.42
25:BA:2517:G:O6	25:BA:2588:G:H2'	2.19	0.42
40:BU:112:ARG:H	40:BU:112:ARG:HG2	1.53	0.42
25:DA:1024:G:O5'	25:DA:1024:G:H8	2.02	0.42
34:DO:69:ILE:HD13	34:DO:69:ILE:H	1.85	0.42
28:BE:178:GLU:OE2	28:BE:178:GLU:N	2.47	0.42
25:BA:2450:U:O2'	25:BA:2452:C:OP1	2.30	0.42
1:CA:226:G:C2	1:CA:227:G:C8	3.08	0.42
15:AO:61:GLY:O	15:AO:65:ARG:HG3	2.19	0.42
1:AA:1308:U:H5''	13:AM:98:VAL:CG2	2.49	0.42
25:DA:597:U:H2'	25:DA:598:G:C8	2.55	0.42
1:AA:890:G:O2'	1:AA:906:G:O6	2.31	0.42
25:BA:2797:C:O2'	28:BE:42:ASP:OD1	2.22	0.42
25:DA:190:A:OP2	47:D1:39:LYS:HE3	2.19	0.42
25:BA:801:C:H2'	25:BA:802:C:C6	2.55	0.42
25:DA:1138:G:O2'	33:DN:105:GLY:HA3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:922:G:H2'	1:CA:923:A:H8	1.85	0.41
34:BO:120:GLU:OE1	39:BT:67:SER:OG	2.27	0.41
10:CJ:49:VAL:HG23	14:CN:41:ARG:HD2	2.00	0.41
43:BX:31:HIS:HD2	43:BX:33:LYS:HB2	1.84	0.41
2:AB:219:VAL:HA	2:AB:222:ILE:CD1	2.49	0.41
25:DA:848:G:C4	25:DA:933:A:H8	2.38	0.41
25:DA:30:G:H2'	25:DA:31:C:H6	1.84	0.41
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.20	0.41
1:AA:503:C:O2'	1:AA:504:C:H5'	2.20	0.41
1:CA:447:G:H2'	1:CA:485:G:N2	2.35	0.41
25:DA:884:C:H5'	25:DA:885:C:OP2	2.20	0.41
1:AA:622:A:H3'	1:AA:623:C:C6	2.55	0.41
45:BZ:111:VAL:C	45:BZ:113:ALA:N	2.71	0.41
25:BA:310:C:H2'	25:BA:311:C:H6	1.85	0.41
25:BA:312:C:H2'	25:BA:313:A:C8	2.53	0.41
25:DA:275:G:H2'	25:DA:276:A:H8	1.83	0.41
1:AA:767:A:H2'	1:AA:768:A:O4'	2.20	0.41
25:DA:721:C:H2'	25:DA:722:A:C8	2.55	0.41
31:BH:37:VAL:HG13	31:BH:68:THR:CG2	2.50	0.41
25:DA:1833:U:O2'	25:DA:1969:A:N1	2.37	0.41
13:CM:80:ARG:O	13:CM:84:ILE:HG23	2.20	0.41
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.55	0.41
1:CA:1245:A:H61	1:CA:1292:U:H3	1.68	0.41
25:DA:489:G:H2'	25:DA:491:G:O4'	2.20	0.41
1:CA:1105:A:C2	1:CA:1106:G:C8	3.08	0.41
11:CK:43:SER:HA	11:CK:47:VAL:HG21	2.02	0.41
10:CJ:23:ILE:HD13	10:CJ:23:ILE:HA	1.74	0.41
35:DP:85:LEU:HG	35:DP:115:LEU:O	2.20	0.41
4:CD:110:PHE:N	4:CD:110:PHE:HD1	2.18	0.41
43:DX:46:ALA:O	48:D2:30:ARG:NH2	2.50	0.41
25:DA:2376:A:N3	38:DS:106:ARG:NH2	2.60	0.41
15:CO:76:GLU:HA	15:CO:76:GLU:OE1	2.20	0.41
25:DA:623:G:C2	25:DA:624:C:C2	3.08	0.41
36:DQ:43:THR:OG1	36:DQ:45:GLN:HG2	2.20	0.41
25:DA:2758:A:C2	25:DA:2759:G:H1'	2.55	0.41
25:DA:1366:A:H2'	25:DA:1367:A:O4'	2.20	0.41
25:BA:202:A:H2'	25:BA:203:G:O4'	2.19	0.41
25:BA:2798:C:H2'	25:BA:2799:U:C6	2.55	0.41
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.20	0.41
1:CA:61:G:C5	1:CA:107:G:C2	3.08	0.41
12:AL:124:LYS:HA	12:AL:125:PRO:HD3	1.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BY:1:MET:HE2	44:BY:1:MET:HB2	1.89	0.41
35:BP:6:LEU:HA	35:BP:6:LEU:HD23	1.71	0.41
4:AD:81:GLU:OE2	4:AD:139:ARG:NH2	2.53	0.41
32:DI:127:VAL:O	32:DI:128:LEU:HD23	2.19	0.41
25:BA:518:G:H2'	25:BA:519:G:O4'	2.20	0.41
25:DA:1339:G:H5''	43:DX:16:LYS:HD3	2.01	0.41
1:CA:538:G:OP2	12:CL:115:LYS:HB2	2.18	0.41
25:DA:1954:G:N2	25:DA:1956:U:C2	2.89	0.41
25:DA:1032:A:O3'	55:D9:16:VAL:HG11	2.19	0.41
25:DA:590:A:H2'	25:DA:591:C:C6	2.54	0.41
42:DW:31:GLU:O	42:DW:34:ASN:HB2	2.20	0.41
1:AA:342:C:N3	1:AA:348:G:C6	2.87	0.41
49:B3:31:LEU:HD23	49:B3:31:LEU:HA	1.88	0.41
25:DA:1782:C:O4'	25:DA:2609:U:C2	2.73	0.41
1:AA:1004:A:C8	1:AA:1037:C:C2	3.09	0.41
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.19	0.41
15:CO:15:PHE:CZ	15:CO:84:LYS:HG2	2.55	0.41
1:CA:557:G:N1	1:CA:558:G:C2	2.88	0.41
1:CA:44:G:H2'	1:CA:45:U:O4'	2.20	0.41
4:CD:8:VAL:HA	4:CD:11:LEU:HD13	2.02	0.41
25:DA:2070:G:C2	25:DA:2442:C:C2	3.08	0.41
25:DA:843:G:C2	25:DA:936:C:C2	3.08	0.41
30:DG:178:PHE:HA	30:DG:179:PRO:HD2	1.87	0.41
45:BZ:121:HIS:HB3	45:BZ:123:ASP:O	2.20	0.41
1:CA:833:U:H2'	1:CA:834:C:H6	1.85	0.41
25:BA:1889:G:H21	25:BA:1905:G:H2'	1.84	0.41
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.55	0.41
26:DB:33:G:C6	26:DB:34:U:C4	3.08	0.41
30:DG:117:PHE:CE1	30:DG:119:GLY:HA2	2.55	0.41
38:BS:61:ASN:O	38:BS:65:VAL:HG23	2.19	0.41
1:AA:1118:C:OP1	9:AI:104:ARG:NH1	2.48	0.41
1:CA:137:C:H2'	1:CA:138:G:H5'	2.00	0.41
1:CA:991:U:H3'	1:CA:1212:U:N3	2.35	0.41
23:CX:19:G:C4	23:CX:57:A:C2	3.08	0.41
8:AH:34:GLU:CD	8:AH:37:ARG:HH22	2.23	0.41
1:AA:545:C:H5'	4:AD:72:GLU:CB	2.51	0.41
27:DD:68:LYS:O	27:DD:69:ARG:HB2	2.20	0.41
31:DH:123:PHE:CD1	31:DH:133:VAL:HG22	2.56	0.41
1:CA:1245:A:H2'	1:CA:1246:C:O4'	2.20	0.41
25:DA:1026:U:H4'	25:DA:1027:A:OP1	2.20	0.41
25:BA:2285:A:O2'	25:BA:2286:A:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:407:G:O2'	4:CD:116:GLN:HG3	2.20	0.41
25:DA:442:G:H21	29:DF:48:THR:HB	1.86	0.41
1:AA:20:U:H1'	1:AA:916:G:N2	2.34	0.41
53:D7:12:ARG:NH2	53:D7:44:PRO:HB3	2.35	0.41
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.20	0.41
3:CC:11:ARG:HB3	3:CC:15:THR:HB	2.00	0.41
27:DD:232:PRO:HG2	27:DD:248:SER:O	2.20	0.41
43:DX:72:LYS:HG2	43:DX:73:ARG:O	2.20	0.41
6:CF:89:MET:HG2	6:CF:91:VAL:HG23	2.02	0.41
1:AA:1325:C:O2'	1:AA:1326:C:H5'	2.19	0.41
36:DQ:141:GLN:NE2	45:DZ:74:VAL:O	2.42	0.41
25:DA:2416:C:H2'	25:DA:2417:C:H6	1.85	0.41
25:DA:2058:A:N7	61:DA:3842:HOH:O	2.37	0.41
8:AH:21:LYS:O	8:AH:65:TYR:OH	2.24	0.41
4:AD:138:TYR:HE1	4:AD:140:VAL:HA	1.85	0.41
25:BA:233:A:C2	25:BA:244:A:C4	3.08	0.41
25:DA:826:U:H5''	25:DA:2428:G:O3'	2.20	0.41
41:DV:40:LEU:HD11	41:DV:55:ALA:HB2	2.01	0.41
25:DA:1399:C:O2'	25:DA:1400:G:H5'	2.20	0.41
10:AJ:38:ILE:HA	10:AJ:39:PRO:HD3	1.85	0.41
39:BT:16:ARG:NH1	39:BT:18:ASP:OD2	2.53	0.41
1:CA:1151:A:C2	1:CA:1152:A:C5	3.08	0.41
1:CA:1155:G:N7	1:CA:1156:G:C5	2.88	0.41
25:DA:2892:A:H2'	25:DA:2893:G:H5'	2.02	0.41
25:BA:895:G:N9	25:BA:978:A:H8	2.18	0.41
25:DA:2319:G:H4'	25:DA:2320:A:OP1	2.19	0.41
1:CA:663:A:C2'	1:CA:664:G:H5'	2.49	0.41
1:AA:1001(A):G:C5	1:AA:1002:G:C8	3.08	0.41
1:CA:445:G:C6	1:CA:490:G:C6	3.09	0.41
1:AA:1162:C:C2	1:AA:1175:G:C2	3.09	0.41
25:DA:674:G:C1'	29:DF:74:ARG:HD3	2.50	0.41
50:B4:56:VAL:HB	50:B4:57:GLU:H	1.65	0.41
24:CW:1:2QZ:CB	24:CW:10:2QY:H83	2.49	0.41
24:CW:8:2R3:H69	24:CW:8:2R3:H67	1.72	0.41
25:BA:324:A:H2'	25:BA:358:C:H1'	2.02	0.41
3:AC:19:GLU:HB3	3:AC:40:ARG:HH21	1.85	0.41
13:CM:29:ARG:NH1	13:CM:64:TRP:HB3	2.35	0.41
1:CA:1309:G:H2'	1:CA:1310:G:O4'	2.20	0.41
19:AS:31:ILE:O	19:AS:49:ILE:HG23	2.20	0.41
25:DA:254:G:N7	54:D8:5:LYS:HE2	2.35	0.41
25:DA:340:A:H2'	25:DA:341:G:O4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D1:23:LYS:HB2	47:D1:23:LYS:HE3	1.70	0.41
25:BA:1775:C:H6	25:BA:1775:C:H5''	1.85	0.41
1:AA:258:G:N3	1:AA:259:G:C8	2.89	0.41
25:BA:694:G:N1	25:BA:696:C:O2	2.53	0.41
45:DZ:5:LEU:HD22	45:DZ:6:LYS:N	2.35	0.41
25:DA:2517:C:C6	25:DA:2542:A:N7	2.88	0.41
1:CA:1260:C:O5'	1:CA:1284:C:H4'	2.20	0.41
25:DA:1639:U:C2'	25:DA:1640:C:H5''	2.51	0.41
23:AX:8:U:O2	23:AX:21:A:H2	2.03	0.41
41:DV:25:LEU:H	41:DV:92:THR:HG1	1.65	0.41
25:DA:2030:A:H4'	25:DA:2031:A:C8	2.55	0.41
25:DA:79:G:C4	25:DA:80:G:C8	3.08	0.41
25:DA:729:G:O5'	27:DD:208:LYS:NZ	2.54	0.41
39:BT:88:ILE:HG21	39:BT:91:ARG:NE	2.35	0.41
25:BA:442:A:H2'	25:BA:443:C:H6	1.85	0.41
1:AA:1085:U:OP2	61:AA:4121:HOH:O	2.22	0.41
25:BA:1722:C:H2'	25:BA:1723:A:O4'	2.20	0.41
16:AP:55:ARG:HA	16:AP:55:ARG:HD2	1.89	0.41
1:AA:575:G:HO2'	1:AA:821:G:H5'	1.85	0.41
4:AD:71:SER:OG	4:AD:74:GLN:HB2	2.21	0.41
43:DX:43:VAL:HG21	43:DX:81:VAL:HG11	2.03	0.41
18:CR:35:ARG:O	18:CR:37:VAL:N	2.51	0.41
32:BI:102:SER:HA	32:BI:106:GLY:HA3	2.01	0.41
37:DR:21:TYR:OH	37:DR:43:GLU:HG2	2.21	0.41
25:BA:2038:U:H1'	51:B5:6:VAL:HG13	2.02	0.41
1:AA:1039:C:N4	1:AA:1040:U:O4	2.53	0.41
17:CQ:53:LEU:HD23	17:CQ:82:MET:HE1	2.01	0.41
36:DQ:106:VAL:HG21	36:DQ:114:ALA:HB1	2.02	0.41
36:DQ:72:LYS:HB3	36:DQ:94:VAL:HG23	2.01	0.41
37:DR:65:LEU:HA	37:DR:65:LEU:HD12	1.65	0.41
48:D2:21:LEU:HA	48:D2:21:LEU:HD23	1.86	0.41
35:DP:16:ARG:HH11	35:DP:16:ARG:HD2	1.73	0.41
55:B9:17:ILE:HD12	55:B9:17:ILE:HA	1.81	0.41
48:B2:10:LEU:HD23	48:B2:10:LEU:HA	1.90	0.41
31:DH:71:LEU:HA	31:DH:71:LEU:HD12	1.78	0.41
25:BA:2455:C:OP1	29:BF:68:LYS:HD3	2.20	0.41
1:CA:964:A:N3	1:CA:969:A:O2'	2.34	0.41
1:CA:1001:A:N6	1:CA:1001(A):G:O6	2.53	0.41
2:CB:213:LEU:HD22	2:CB:214:ILE:HD13	2.02	0.41
1:CA:1120:G:H8	1:CA:1120:G:O5'	2.02	0.41
30:DG:17:PRO:HA	30:DG:20:ILE:HD12	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:100:ARG:HG2	4:CD:137:SER:HA	2.01	0.41
25:DA:2023:G:H4'	25:DA:2617:C:O3'	2.20	0.41
25:DA:996:A:H4'	40:DU:91:ASP:OD2	2.20	0.41
4:AD:190:ASP:H	4:AD:193:ASP:HB2	1.86	0.41
1:CA:558:G:H5''	1:CA:559:A:OP2	2.20	0.41
26:DB:90:A:C5	26:DB:91:C:H1'	2.56	0.41
5:CE:137:GLU:HA	5:CE:140:ARG:HB3	2.02	0.41
25:DA:1313:U:H2'	25:DA:1610:A:C2	2.55	0.41
19:AS:22:LEU:HD13	19:AS:47:HIS:HD2	1.85	0.41
25:DA:1364:G:C8	47:D1:3:LYS:HD2	2.55	0.41
26:DB:33:G:N3	26:DB:50:G:C2	2.88	0.41
2:CB:192:SER:O	2:CB:194:PRO:HD3	2.20	0.41
25:BA:469:A:H5''	25:BA:470:C:OP1	2.19	0.41
1:AA:258:G:H2'	1:AA:259:G:C8	2.55	0.41
35:DP:38:GLN:O	35:DP:39:LYS:CB	2.69	0.41
25:BA:223:C:H2'	25:BA:224:U:C6	2.56	0.41
1:CA:727:G:N2	1:CA:730:G:OP2	2.51	0.41
25:BA:2303:U:OP1	25:BA:2392:C:O2'	2.25	0.41
5:CE:81:GLU:OE1	5:CE:88:LYS:HE2	2.20	0.41
1:CA:1077:G:N1	1:CA:1081:G:C6	2.89	0.41
1:CA:865:A:H5'	1:CA:1078:U:O4	2.20	0.41
50:B4:68:ARG:HB3	50:B4:69:LYS:H	1.43	0.41
8:AH:28:ALA:HB3	8:AH:57:PRO:HB2	2.01	0.41
1:AA:1349:A:OP2	9:AI:118:LYS:HE3	2.20	0.41
54:D8:56:GLU:HA	54:D8:59:LYS:HE3	2.02	0.41
18:CR:26:LEU:HA	18:CR:26:LEU:HD13	1.93	0.41
39:BT:101:PHE:CD2	39:BT:105:LEU:HD11	2.56	0.41
28:DE:166:THR:HG21	28:DE:199:ARG:HH22	1.85	0.41
30:BG:6:ALA:HB3	30:BG:104:GLU:OE2	2.20	0.41
29:BF:129:PHE:CD2	29:BF:163:VAL:HG21	2.56	0.41
1:CA:1266:G:N2	1:CA:1268:A:H3'	2.35	0.41
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.21	0.41
42:DW:79:GLY:CA	42:DW:100:THR:HG22	2.51	0.41
25:BA:1506:G:H5''	25:BA:1507:A:OP2	2.20	0.41
35:BP:27:HIS:O	35:BP:31:ALA:HA	2.19	0.41
25:DA:45:C:H2'	25:DA:47:C:C6	2.56	0.41
1:CA:971:G:OP1	1:CA:971:G:H3'	2.19	0.41
1:CA:438:G:O2'	1:CA:494:U:O4	2.32	0.41
34:BO:4:PRO:O	34:BO:5:GLN:HB2	2.20	0.41
1:CA:328:C:H4'	1:CA:329:A:H5'	2.02	0.41
2:CB:7:VAL:HB	2:CB:8:LYS:H	1.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1179:A:C6	1:CA:1180:A:N7	2.89	0.41
1:CA:1127:G:H2'	1:CA:1128:C:C6	2.55	0.41
43:DX:26:TYR:HB3	43:DX:92:LEU:CD2	2.51	0.41
20:CT:26:ASN:OD1	20:CT:71:THR:HG23	2.21	0.41
25:BA:1155:C:C5	25:BA:1156:G:C6	3.09	0.41
1:CA:1227:A:C3'	1:CA:1227:A:C8	3.03	0.41
1:CA:1264:C:C2	1:CA:1272:G:N2	2.88	0.41
1:AA:404:U:H2'	1:AA:405:U:H6	1.86	0.41
25:BA:1047:A:H2'	25:BA:1048:G:O4'	2.20	0.41
28:DE:167:VAL:HG11	28:DE:189:PRO:HD3	2.02	0.41
5:AE:31:LEU:HA	5:AE:31:LEU:HD23	1.80	0.41
5:AE:78:HIS:CE1	8:AH:104:ARG:NH1	2.89	0.41
30:DG:18:GLU:HG2	30:DG:175:LEU:HD21	2.01	0.41
6:AF:62:TRP:CD1	18:AR:35:ARG:HD2	2.56	0.41
25:DA:2472:G:H2'	25:DA:2475:C:H42	1.85	0.41
4:CD:153:ARG:HB2	4:CD:181:MET:SD	2.61	0.41
25:BA:1530:G:N2	25:BA:1552:C:C2	2.88	0.41
46:D0:19:LYS:NZ	46:D0:19:LYS:H	2.18	0.41
44:BY:106:LEU:O	44:BY:107:ASP:HB2	2.20	0.41
25:DA:705:A:H2'	25:DA:706:A:O4'	2.21	0.41
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.86	0.41
26:DB:3:C:H2'	26:DB:4:C:H6	1.84	0.41
25:BA:1520:G:C6	25:BA:1521:C:N3	2.89	0.41
1:CA:325:A:H2'	1:CA:326:G:O4'	2.20	0.41
1:CA:919:A:O2'	1:CA:1080:A:N1	2.50	0.41
16:CP:55:ARG:O	16:CP:58:TYR:N	2.51	0.41
19:AS:20:LEU:HD13	50:B4:69:LYS:HE2	2.03	0.41
25:BA:1074:A:N6	25:BA:1171:G:H2'	2.35	0.41
1:AA:512:U:H2'	1:AA:513:C:C6	2.56	0.41
13:CM:91:ARG:HA	13:CM:91:ARG:HD2	1.93	0.41
36:BQ:137:TYR:HB3	45:BZ:76:LEU:HD21	2.01	0.41
25:DA:1790:C:O3'	25:DA:1791:A:C8	2.73	0.41
2:AB:36:ARG:C	2:AB:38:GLY:H	2.23	0.41
25:DA:343:C:H2'	25:DA:344:G:H8	1.85	0.41
30:BG:77:ILE:HG21	30:BG:80:PHE:CD2	2.56	0.41
3:AC:152:ILE:O	3:AC:198:VAL:HA	2.20	0.41
9:AI:128:ARG:NH2	23:AX:33:U:OP2	2.53	0.41
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.21	0.41
33:BN:10:GLU:OE1	33:BN:11:PRO:HD2	2.21	0.41
25:DA:632:A:H2'	25:DA:633:A:C8	2.55	0.41
1:CA:868:C:H2'	1:CA:869:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:53:A:N6	1:CA:54:C:C4	2.88	0.41
4:CD:171:GLY:HA2	4:CD:172:PRO:HD3	1.93	0.41
25:DA:372:G:O2'	25:DA:373:U:OP2	2.37	0.41
2:AB:80:ILE:HD11	2:AB:212:GLN:HA	2.01	0.41
44:BY:9:LYS:HA	44:BY:10:GLY:HA2	1.80	0.41
40:BU:18:LEU:HD23	40:BU:18:LEU:HA	1.89	0.41
25:DA:2297:C:C6	25:DA:2297:C:H3'	2.55	0.41
38:BS:110:LEU:HD12	38:BS:110:LEU:HA	1.70	0.41
25:DA:966:G:C6	25:DA:967:C:N4	2.88	0.41
2:AB:48:MET:HA	2:AB:51:LEU:HD12	2.03	0.41
25:DA:301:G:C4	25:DA:302:C:C5	3.08	0.41
1:AA:1005:A:H1'	1:AA:1036:G:N2	2.35	0.41
36:BQ:41:TRP:CD1	36:BQ:96:VAL:HG22	2.55	0.41
4:AD:59:ARG:NH2	4:AD:66:ARG:NH1	2.68	0.41
4:CD:15:GLU:CG	4:CD:63:LYS:HB3	2.46	0.41
25:DA:1788:C:H2'	25:DA:1789:A:O4'	2.20	0.41
45:BZ:151:HIS:C	45:BZ:153:SER:N	2.73	0.41
19:CS:41:VAL:HG12	19:CS:43:GLU:N	2.30	0.41
25:DA:2640:G:H1	25:DA:2774:C:N4	2.17	0.41
1:CA:749:C:O2'	1:CA:750:G:H5'	2.20	0.41
1:AA:538:G:O2'	1:AA:539:A:H5'	2.21	0.41
11:CK:33:THR:OG1	11:CK:34:ASP:O	2.31	0.41
8:CH:82:HIS:NE2	8:CH:84:ARG:HG2	2.36	0.41
2:AB:30:ARG:HG3	2:AB:31:TYR:CD1	2.55	0.41
25:DA:1580:A:OP2	25:DA:1580:A:H8	2.04	0.41
1:AA:376:G:OP1	16:AP:5:ARG:HB2	2.20	0.41
43:DX:84:ALA:O	43:DX:87:GLN:HG3	2.21	0.41
25:DA:705:A:H1'	27:DD:9:TYR:CE1	2.55	0.41
23:CX:43:A:C2	23:CX:44:A:C4	3.09	0.41
25:BA:999:G:N3	25:BA:2286:A:C2	2.88	0.41
1:CA:429:U:H3'	4:CD:9:CYS:SG	2.61	0.41
38:DS:29:PHE:CD1	38:DS:30:ARG:N	2.89	0.41
25:DA:1525:G:H2'	25:DA:1526:G:C8	2.56	0.41
24:CW:4:PRO:HA	24:CW:5:MVA:HN1	1.33	0.41
53:B7:24:THR:HG22	53:B7:26:GLY:H	1.86	0.41
29:DF:110:LEU:HA	29:DF:110:LEU:HD23	1.79	0.41
17:AQ:62:SER:CB	17:AQ:72:ARG:HD3	2.49	0.41
1:CA:1111:A:H2'	1:CA:1112:C:C6	2.56	0.41
2:CB:200:ILE:O	2:CB:200:ILE:HG12	2.21	0.41
19:AS:15:LEU:HD12	19:AS:15:LEU:HA	1.96	0.41
47:B1:11:ARG:HD2	47:B1:11:ARG:HH11	1.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:137:ARG:NH1	2:AB:137:ARG:HB3	2.36	0.41
25:DA:1854:A:H2'	25:DA:1855:G:O4'	2.20	0.41
25:BA:1421:C:H2'	25:BA:1422:C:H6	1.85	0.41
1:AA:628:G:H2'	1:AA:629:G:C8	2.55	0.41
25:BA:2555:G:H2'	25:BA:2556:G:C8	2.55	0.41
1:CA:1039:C:N4	1:CA:1040:U:O4	2.54	0.41
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.21	0.41
26:DB:5:C:OP1	26:DB:62:C:H5'	2.21	0.41
25:DA:2320:A:H4'	25:DA:2321:G:N7	2.36	0.41
1:CA:664:G:P	18:CR:64:ARG:HH12	2.44	0.41
25:DA:1487:G:H2'	25:DA:1488:G:H8	1.85	0.41
1:CA:10:A:O2'	1:CA:11:G:H5'	2.20	0.41
1:CA:955:U:O2'	19:CS:83:HIS:HD2	2.03	0.41
1:CA:647:C:C2'	1:CA:648:A:H5'	2.50	0.41
45:DZ:144:LEU:HD23	45:DZ:144:LEU:HA	1.89	0.41
13:CM:20:THR:C	13:CM:22:ILE:H	2.23	0.41
25:DA:910:A:C6	25:DA:911:A:C6	3.08	0.41
25:DA:784:A:H5'	25:DA:785:G:OP1	2.20	0.41
3:CC:18:TRP:NE1	14:CN:53:LEU:O	2.53	0.41
1:AA:1258:G:H1	1:AA:1277:C:H42	1.68	0.41
43:DX:31:HIS:HA	43:DX:32:PRO:HD3	1.87	0.41
15:CO:64:ARG:HH11	15:CO:68:ARG:NH2	2.17	0.41
25:BA:816:G:H5'	25:BA:1425:A:N6	2.36	0.41
25:DA:375:C:H2'	25:DA:376:C:H6	1.84	0.41
7:CG:69:VAL:HG12	7:CG:69:VAL:O	2.21	0.41
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.56	0.41
25:DA:2337:G:C2	25:DA:2338:G:C8	3.08	0.41
25:DA:1341:U:H3'	25:DA:1397:U:O2	2.21	0.41
1:CA:991:U:N3	1:CA:1212:U:O2	2.53	0.41
1:CA:1258:G:O2'	1:CA:1259:C:H5'	2.21	0.41
13:AM:49:THR:OG1	13:AM:52:GLU:OE1	2.28	0.41
30:BG:139:LEU:HG	30:BG:139:LEU:H	1.53	0.41
9:AI:23:ASN:ND2	9:AI:25:LYS:HE3	2.36	0.41
31:DH:3:ARG:NH2	31:DH:5:GLY:H	2.19	0.41
1:CA:1245:A:H2'	1:CA:1246:C:C6	2.56	0.41
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.21	0.41
25:DA:2488:A:O2'	25:DA:2489:G:H5'	2.21	0.41
25:BA:1362:U:H2'	25:BA:1363:A:H8	1.85	0.41
25:BA:642:G:H5'	29:BF:205:ARG:HD2	2.02	0.41
40:DU:81:HIS:O	40:DU:84:LYS:HB3	2.21	0.41
1:CA:1191:A:OP1	3:CC:4:LYS:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:811:U:H2'	35:DP:21:ARG:HA	2.02	0.41
26:DB:83:G:H5''	49:D3:52:HIS:CE1	2.55	0.41
25:BA:1505:C:H4'	25:BA:1506:G:O5'	2.19	0.41
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.21	0.41
25:DA:2467:C:C5	25:DA:2468:G:C6	3.08	0.41
37:DR:33:ARG:NH2	51:D5:57:VAL:O	2.49	0.41
49:B3:15:TYR:HA	49:B3:16:PRO:HD3	1.88	0.41
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.21	0.41
7:AG:104:LEU:HD13	7:AG:104:LEU:HA	1.88	0.41
41:DV:43:GLU:N	41:DV:43:GLU:OE2	2.54	0.41
48:D2:8:LYS:HA	48:D2:8:LYS:HD2	1.92	0.41
32:BI:30:LEU:HD23	32:BI:30:LEU:HA	1.70	0.41
25:DA:2836:U:C4	25:DA:2883:A:N6	2.88	0.41
25:DA:1850:G:C6	25:DA:1851:U:C4	3.09	0.41
51:B5:35:GLU:HG3	51:B5:51:TYR:CD2	2.56	0.41
23:CX:30:G:C4	23:CX:31:G:C8	3.09	0.41
24:CW:3:004:O	24:CW:6:2R1:N	2.53	0.41
10:CJ:8:LEU:HB3	10:CJ:16:LEU:CD2	2.51	0.41
1:CA:541:G:H2'	1:CA:542:G:H8	1.85	0.41
4:CD:38:TYR:HA	4:CD:39:PRO:HD3	1.92	0.41
13:AM:3:ARG:CG	13:AM:8:GLU:HA	2.51	0.41
10:CJ:6:ILE:HD13	10:CJ:98:ILE:HD11	2.02	0.41
25:DA:1486:A:O2'	25:DA:1487:G:H5'	2.21	0.41
1:CA:1218:C:OP2	14:CN:9:LYS:NZ	2.31	0.41
25:DA:932:G:H4'	25:DA:933:A:O5'	2.21	0.41
25:BA:1051:C:O2	25:BA:1189:A:C6	2.74	0.41
25:BA:2120:U:C4	25:BA:2121:U:C5	3.09	0.41
10:CJ:21:GLN:O	10:CJ:25:GLU:HG2	2.20	0.41
3:AC:12:LEU:HD23	3:AC:12:LEU:HA	1.96	0.41
2:AB:71:VAL:HG13	2:AB:93:VAL:HG21	2.02	0.41
3:CC:180:ALA:HA	3:CC:206:GLU:HB3	2.02	0.41
50:B4:15:ILE:HB	50:B4:32:TYR:CD1	2.55	0.41
1:CA:202:U:O2'	1:CA:203:U:O5'	2.19	0.41
1:CA:1442:G:H2'	1:CA:1442(A):G:H5'	2.02	0.41
1:CA:437:U:C5'	4:CD:155:LEU:HD11	2.50	0.41
25:DA:2590:A:OP2	27:DD:238:GLY:HA2	2.20	0.41
7:CG:26:PHE:CD2	7:CG:30:ILE:HD11	2.56	0.41
9:CI:54:ASP:O	9:CI:56:LEU:N	2.44	0.41
27:DD:182:LEU:HA	27:DD:182:LEU:HD23	1.90	0.41
14:AN:12:ARG:HG2	14:AN:13:THR:N	2.35	0.41
30:DG:43:LEU:HB3	30:DG:44:GLY:H	1.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.84	0.41
2:AB:109:SER:O	2:AB:112:VAL:HG22	2.20	0.41
25:BA:776:G:C6	27:BD:208:LYS:HB2	2.56	0.41
38:DS:19:LYS:H	38:DS:19:LYS:HG2	1.59	0.41
25:BA:1652:G:H5''	25:BA:1653:C:OP1	2.21	0.41
25:DA:1274:A:N3	25:DA:1297:C:H1'	2.35	0.41
30:BG:137:GLU:HG2	30:BG:152:LEU:HD22	2.03	0.41
11:CK:81:ASP:OD1	11:CK:106:LYS:HB2	2.21	0.41
1:AA:872:A:C4	1:AA:874:G:N7	2.88	0.41
31:DH:3:ARG:CD	31:DH:54:ARG:HH12	2.34	0.41
25:DA:990:A:N1	25:DA:1186:G:O2'	2.52	0.41
50:B4:18:CYS:SG	50:B4:20:ASN:HB2	2.61	0.41
41:DV:31:ALA:O	41:DV:61:VAL:HG12	2.20	0.41
52:D6:21:TYR:CE1	52:D6:38:LYS:HG2	2.55	0.41
1:AA:178:C:H2'	1:AA:179:A:O4'	2.21	0.41
1:CA:292:G:N7	1:CA:293:G:H1'	2.35	0.41
34:DO:29:ASN:OD1	34:DO:29:ASN:N	2.54	0.41
25:BA:771:U:C4	25:BA:772:G:C5	3.09	0.41
13:AM:17:VAL:O	13:AM:20:THR:OG1	2.19	0.41
25:BA:1821:C:H5''	25:BA:1822:A:OP1	2.20	0.41
39:DT:27:THR:O	39:DT:89:VAL:HG22	2.20	0.41
25:DA:2638:G:P	28:DE:82:ARG:NH2	2.94	0.41
44:DY:5:MET:HE1	44:DY:32:PRO:HA	2.03	0.41
44:BY:68:HIS:CE1	44:BY:70:SER:HB3	2.56	0.41
25:DA:1664:A:OP1	61:DA:4384:HOH:O	2.21	0.41
25:BA:2219:U:H1'	25:BA:2220:A:C8	2.55	0.41
1:CA:678:U:H2'	1:CA:679:C:C6	2.56	0.41
25:DA:1649:G:C2'	25:DA:1650:G:H5'	2.51	0.41
4:AD:79:PHE:HE1	4:AD:204:ILE:HD13	1.86	0.41
51:D5:19:ARG:HH11	51:D5:19:ARG:HD2	1.74	0.41
30:BG:7:LEU:HD23	30:BG:7:LEU:HA	1.85	0.41
25:DA:527:C:H5'	25:DA:527:C:O2	2.21	0.41
48:B2:41:ILE:HG12	48:B2:41:ILE:H	1.67	0.41
8:CH:97:VAL:O	8:CH:100:ILE:HG13	2.21	0.41
25:BA:785:G:C6	25:BA:786:G:C2	3.07	0.41
28:DE:31:CYS:HA	28:DE:32:PRO:HD2	1.83	0.41
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.56	0.41
10:AJ:38:ILE:HG13	10:AJ:71:LEU:HB3	2.03	0.41
1:CA:1154:G:H8	1:CA:1154:G:H2'	1.35	0.41
1:CA:1493:A:O2'	1:CA:1494:G:O5'	2.34	0.41
1:CA:601:C:C2	1:CA:638:G:N2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:11:TYR:O	30:DG:16:ARG:N	2.49	0.41
1:CA:1256:A:H2	1:CA:1277:C:H42	1.67	0.41
1:CA:952:U:C5	13:CM:104:ARG:NH1	2.89	0.41
1:AA:1304:G:C6	1:AA:1305:G:N1	2.89	0.41
1:AA:509:A:O4'	4:AD:58:LEU:HD12	2.21	0.41
1:CA:939:G:N2	1:CA:1344:C:N3	2.59	0.41
13:CM:3:ARG:C	13:CM:3:ARG:HD2	2.41	0.41
1:CA:1047:G:H1	1:CA:1210:C:N4	2.16	0.41
1:CA:410:G:OP1	4:CD:30:LYS:NZ	2.22	0.41
3:CC:59:ARG:HG3	3:CC:64:VAL:HA	2.03	0.41
25:BA:215:G:H21	25:BA:217:A:H62	1.67	0.41
25:BA:146:G:C6	25:BA:147:U:C4	3.09	0.41
25:DA:878:A:C6	25:DA:900:A:N7	2.89	0.41
1:AA:741:G:H2'	1:AA:742:G:O4'	2.21	0.41
40:DU:88:ILE:HG22	40:DU:90:VAL:HG23	2.03	0.41
2:CB:52:GLU:HG2	2:CB:56:ARG:NH2	2.30	0.41
2:CB:56:ARG:CB	2:CB:56:ARG:HH11	2.31	0.41
2:CB:219:VAL:O	2:CB:223:ILE:HG23	2.21	0.41
1:CA:22:G:H4'	1:CA:885:G:C8	2.56	0.41
1:AA:146:G:C4	1:AA:147:G:C8	3.08	0.41
4:CD:196:LEU:O	4:CD:198:VAL:N	2.46	0.41
25:BA:2119:C:H2'	25:BA:2120:U:O4'	2.21	0.41
25:DA:1607:C:H5''	25:DA:1608:A:H5'	2.03	0.41
25:DA:1533:G:C2	25:DA:1537:G:C6	3.08	0.41
43:BX:92:LEU:O	43:BX:94:GLY:N	2.51	0.41
1:CA:353:A:C8	1:CA:353:A:H5'	2.49	0.41
19:AS:22:LEU:O	19:AS:27:GLU:HG3	2.21	0.41
4:CD:88:VAL:HG13	5:CE:97:GLY:HA2	2.02	0.41
25:DA:2627:G:N3	25:DA:2781:A:H2	2.19	0.41
19:CS:58:VAL:HA	19:CS:59:PRO:HD2	1.80	0.41
2:AB:71:VAL:HG12	2:AB:170:GLU:HG2	2.03	0.41
25:DA:1739:U:O2'	25:DA:1740:G:H8	2.04	0.41
2:AB:211:ILE:H	2:AB:211:ILE:HG13	1.69	0.41
25:DA:2274:A:C6	25:DA:2276:G:C8	3.09	0.41
33:DN:36:GLY:HA3	33:DN:49:GLY:HA2	2.03	0.41
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.85	0.41
1:AA:129:U:H5'	17:AQ:3:LYS:HZ3	1.86	0.41
26:DB:48:A:H4'	38:DS:95:HIS:CD2	2.53	0.41
1:AA:138:G:H2'	1:AA:139:G:O4'	2.21	0.41
27:DD:182:LEU:O	27:DD:271:ILE:N	2.47	0.41
14:AN:46:GLU:O	14:AN:50:LYS:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:20:TYR:HE2	8:CH:75:ARG:HG2	1.85	0.41
1:AA:1136:U:H5''	1:AA:1137:C:C4	2.56	0.41
9:CI:23:ASN:HD22	9:CI:23:ASN:H	1.68	0.41
26:DB:24:G:N7	26:DB:56:G:H2'	2.35	0.41
11:AK:44:SER:O	11:AK:48:ILE:HD13	2.21	0.41
45:DZ:5:LEU:HG	45:DZ:47:VAL:HG21	2.03	0.41
4:AD:85:LYS:HG3	4:AD:86:LYS:H	1.85	0.41
26:DB:43:C:C4	26:DB:45:A:C6	3.08	0.41
25:DA:863:A:H2'	25:DA:864:G:H8	1.86	0.41
25:DA:2516:G:C6	25:DA:2517:C:C4	3.09	0.41
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.20	0.41
30:BG:109:VAL:HG13	50:B4:33:VAL:HG11	2.03	0.41
1:AA:872:A:C5	1:AA:874:G:C8	3.09	0.41
41:BV:98:GLU:CD	41:BV:100:ARG:HH11	2.24	0.41
25:DA:2505:G:H2'	25:DA:2576:G:O6	2.20	0.41
25:BA:870:G:C6	25:BA:882:A:C6	3.09	0.41
1:CA:589:C:O2'	1:CA:590:C:H5'	2.21	0.41
27:DD:12:SER:HB3	27:DD:208:LYS:HB3	2.03	0.41
1:CA:919:A:H8	1:CA:919:A:O5'	2.03	0.41
16:CP:58:TYR:O	16:CP:61:SER:N	2.52	0.41
40:BU:19:LYS:O	40:BU:22:LYS:HG3	2.21	0.41
50:B4:40:HIS:O	50:B4:43:TYR:N	2.54	0.41
25:BA:441:C:O2'	25:BA:442:A:H5'	2.21	0.41
1:AA:1084:G:H2'	1:AA:1085:U:C5	2.56	0.41
1:CA:500:G:N2	1:CA:546:G:H1'	2.36	0.41
20:AT:86:ARG:O	20:AT:90:GLN:NE2	2.54	0.41
1:CA:1330:U:O3'	13:CM:23:TYR:HE1	2.04	0.41
29:DF:110:LEU:HD11	29:DF:181:LEU:HD23	2.03	0.41
25:BA:415:G:O2'	25:BA:416:G:N7	2.43	0.41
25:DA:2416:C:O5'	25:DA:2416:C:H6	2.04	0.41
3:CC:11:ARG:HD3	3:CC:15:THR:HB	2.02	0.41
45:DZ:125:LEU:HG	45:DZ:164:ALA:HB3	2.01	0.41
27:DD:175:LEU:HD12	27:DD:185:VAL:HG21	2.03	0.41
25:DA:1348:G:O6	25:DA:1349:A:N6	2.54	0.41
1:CA:454:C:OP2	1:CA:455:C:N4	2.52	0.41
25:DA:2840:C:H2'	25:DA:2841:C:C6	2.56	0.41
9:CI:106:ALA:O	9:CI:108:VAL:HG23	2.21	0.41
43:DX:27:THR:OG1	43:DX:80:ILE:HG12	2.21	0.41
25:DA:335:C:H4'	44:DY:73:ARG:CD	2.51	0.41
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.20	0.41
30:DG:91:ARG:HB3	30:DG:91:ARG:HE	1.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:108:GLU:HG3	34:BO:108:GLU:H	1.63	0.41
17:AQ:81:ARG:HD2	17:AQ:81:ARG:HA	1.86	0.41
33:DN:114:ARG:HD2	33:DN:114:ARG:HH11	1.75	0.41
25:DA:1804:C:O5'	25:DA:1804:C:H6	2.02	0.41
25:BA:496:A:H5''	25:BA:496:A:C8	2.56	0.41
13:AM:108:ARG:HA	13:AM:108:ARG:HD3	1.83	0.41
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.20	0.41
32:BI:14:ASP:OD1	32:BI:15:VAL:N	2.54	0.41
3:AC:82:GLU:O	3:AC:85:ARG:HB2	2.21	0.41
45:DZ:156:LYS:NZ	45:DZ:158:PRO:HD3	2.35	0.41
25:BA:26:G:C6	25:BA:27:G:N1	2.88	0.41
52:D6:5:VAL:O	52:D6:27:LYS:HG2	2.21	0.41
45:BZ:119:GLU:OE2	45:BZ:122:ARG:NH1	2.54	0.41
37:DR:20:LEU:O	37:DR:24:GLN:HG3	2.21	0.41
1:AA:857:C:H2'	1:AA:858:G:O4'	2.21	0.41
25:BA:1830:G:O2'	27:BD:181:GLU:OE2	2.29	0.41
25:BA:2240:G:C5	25:BA:2241:C:C4	3.09	0.41
48:B2:65:ASN:OD1	48:B2:69:ARG:NH1	2.39	0.41
1:AA:717:C:H6	1:AA:717:C:H5''	1.86	0.41
30:DG:53:LEU:HA	30:DG:53:LEU:HD23	1.84	0.41
1:AA:1168:A:C6	1:AA:1169:A:C6	3.09	0.41
1:CA:505:G:C6	1:CA:535:A:C2	3.09	0.41
1:CA:1233:G:H2'	1:CA:1234:C:C6	2.55	0.41
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	2.02	0.41
1:AA:1125:U:H2'	1:AA:1125:U:OP2	2.21	0.41
1:CA:426:G:OP1	4:CD:38:TYR:OH	2.33	0.41
25:BA:2710:U:H2'	25:BA:2711:C:C6	2.56	0.41
1:CA:1492:A:H2'	25:DA:1913:A:H62	1.84	0.41
25:DA:994:C:H1'	41:DV:10:LYS:HE3	2.03	0.41
1:AA:475:G:O2'	1:AA:476:G:H5'	2.19	0.41
25:DA:2287:A:C4	25:DA:2289:G:C8	3.09	0.41
25:DA:2801(A):A:N3	25:DA:2895:U:H1'	2.36	0.41
1:CA:20:U:H2'	1:CA:21:G:O4'	2.21	0.41
1:CA:955:U:H2'	1:CA:956:U:O4'	2.21	0.41
32:DI:104:GLN:O	32:DI:105:HIS:CG	2.73	0.41
25:DA:855:G:H2'	25:DA:856:C:C6	2.56	0.41
25:DA:658:C:H2'	25:DA:659:C:H6	1.85	0.41
1:AA:991:U:H1'	1:AA:993:G:H8	1.86	0.41
1:AA:827:U:H2'	1:AA:859:A:H61	1.85	0.41
25:DA:2746:U:H2'	25:DA:2747:G:H5'	2.01	0.41
6:AF:19:LEU:HD11	6:AF:59:TYR:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1210:G:H2'	25:BA:1211:U:C6	2.56	0.41
45:BZ:52:SER:OG	45:BZ:53:ILE:N	2.54	0.41
1:AA:1216:G:N2	1:AA:1217:C:C2	2.89	0.41
1:CA:991:U:H3'	1:CA:1212:U:C4	2.56	0.41
26:BB:78:A:H2'	26:BB:79:C:O4'	2.21	0.41
15:CO:81:LEU:HD11	15:CO:85:LEU:HD12	2.02	0.41
36:BQ:16:ARG:HG3	36:BQ:17:LEU:H	1.86	0.41
7:CG:46:ALA:O	7:CG:50:ILE:HG23	2.21	0.41
2:CB:127:ILE:O	2:CB:128:GLU:HB2	2.20	0.41
25:BA:1024:G:C2	25:BA:1032:C:C2	3.09	0.41
1:AA:1371:G:C6	1:AA:1372:U:C4	3.08	0.41
45:BZ:14:LYS:HA	45:BZ:15:PRO:HD3	1.95	0.41
1:CA:263:A:OP1	20:CT:79:ARG:NH1	2.54	0.41
25:DA:2193:G:H2'	25:DA:2194:G:H8	1.87	0.41
25:DA:623:G:C6	25:DA:624:C:C4	3.09	0.41
25:DA:2416:C:O2'	25:DA:2417:C:H5'	2.21	0.41
44:DY:5:MET:HB2	44:DY:5:MET:HE2	1.91	0.41
25:DA:1334:G:H2'	25:DA:1335:U:C6	2.56	0.41
2:AB:197:VAL:HB	2:AB:200:ILE:CG2	2.51	0.41
31:BH:117:PRO:HG3	31:BH:123:PHE:CD2	2.56	0.41
26:DB:114:C:H4'	38:DS:46:VAL:HG22	2.02	0.41
2:CB:137:ARG:HB3	2:CB:137:ARG:NH1	2.36	0.41
25:BA:1908:C:O5'	25:BA:1908:C:H6	2.04	0.41
54:B8:50:LEU:HA	54:B8:50:LEU:HD23	1.94	0.41
38:DS:61:ASN:O	38:DS:65:VAL:HG23	2.21	0.41
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.92	0.41
3:AC:150:LYS:HG2	3:AC:151:VAL:N	2.36	0.41
13:CM:107:ALA:HB3	13:CM:111:LYS:HE3	2.03	0.41
1:AA:1127:G:C2'	1:AA:1128:C:H5'	2.50	0.40
2:CB:13:ALA:C	2:CB:15:VAL:H	2.25	0.40
25:BA:1067:A:C3'	25:BA:1067:A:C8	3.04	0.40
40:DU:80:ILE:HD13	40:DU:80:ILE:HA	1.91	0.40
45:DZ:33:LEU:HD21	45:DZ:90:VAL:HG21	2.03	0.40
1:AA:1314:C:N4	1:AA:1315:U:O4	2.54	0.40
1:CA:401:C:O2'	1:CA:621:A:N3	2.47	0.40
32:DI:72:LEU:HB2	32:DI:138:ILE:HG21	2.03	0.40
1:CA:446:G:H1	1:CA:488:C:H42	1.70	0.40
29:BF:56:GLU:OE2	29:BF:93:LYS:NZ	2.47	0.40
25:BA:1431:G:H4'	25:BA:1432:C:OP1	2.21	0.40
25:DA:1682:G:H1'	25:DA:1762:A:C6	2.57	0.40
25:DA:1590:U:H2'	25:DA:1591:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:266:G:H5'	1:AA:266:G:C8	2.56	0.40
25:DA:89:G:C3'	25:DA:90:U:H5''	2.44	0.40
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.44	0.40
4:CD:11:LEU:HD23	4:CD:66:ARG:HB3	2.03	0.40
18:CR:51:LEU:HA	18:CR:52:PRO:HD3	1.94	0.40
19:CS:63:THR:OG1	19:CS:64:GLU:N	2.54	0.40
1:AA:933:G:C6	1:AA:1385:G:C6	3.09	0.40
1:CA:1074:G:C2	1:CA:1075:C:C2	3.09	0.40
1:CA:1325:C:O2'	1:CA:1326:C:H5'	2.22	0.40
25:BA:1223:C:H2'	25:BA:1224:C:H6	1.85	0.40
1:AA:407:G:O2'	4:AD:116:GLN:HG3	2.21	0.40
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.56	0.40
25:DA:1957:C:O2'	25:DA:1985:G:H1'	2.22	0.40
2:AB:78:GLN:NE2	2:AB:95:GLN:OE1	2.54	0.40
25:BA:922:G:O2'	45:BZ:151:HIS:CE1	2.74	0.40
19:CS:41:VAL:CG1	19:CS:43:GLU:H	2.29	0.40
6:AF:37:VAL:HG12	6:AF:38:GLU:N	2.36	0.40
13:CM:92:HIS:CE1	13:CM:98:VAL:HG21	2.55	0.40
35:DP:121:LYS:HG2	35:DP:122:PRO:HD2	2.03	0.40
28:DE:2:LYS:HB2	28:DE:95:ILE:HD12	2.03	0.40
44:DY:40:GLU:O	44:DY:42:VAL:HG23	2.21	0.40
25:BA:815:G:C6	25:BA:816:G:C5	3.08	0.40
41:BV:14:VAL:HB	41:BV:96:ILE:HG13	2.03	0.40
25:DA:2361:A:P	54:D8:27:THR:HG1	2.44	0.40
31:DH:149:ARG:HA	31:DH:162:ILE:HG21	2.03	0.40
29:DF:101:LEU:HD12	29:DF:102:PRO:HD2	2.03	0.40
1:CA:1220:G:H2'	1:CA:1221:G:O4'	2.20	0.40
54:B8:16:ILE:HD11	54:B8:62:LEU:HD12	2.02	0.40
9:CI:96:LEU:O	9:CI:100:GLY:N	2.54	0.40
1:AA:44:G:H2'	1:AA:45:U:O4'	2.20	0.40
2:AB:189:ASP:OD1	2:AB:189:ASP:N	2.35	0.40
18:AR:59:SER:OG	18:AR:62:GLU:HG2	2.21	0.40
1:AA:684:A:C6	1:AA:685:G:C6	3.09	0.40
7:AG:79:ARG:HH21	7:AG:79:ARG:HB2	1.85	0.40
1:AA:584:G:O6	61:AA:4012:HOH:O	2.20	0.40
25:DA:1131:G:C2	25:DA:1132:A:C4	3.10	0.40
5:AE:69:VAL:HA	5:AE:70:PRO:HD3	1.72	0.40
7:CG:155:ARG:NH1	7:CG:155:ARG:HB3	2.36	0.40
25:DA:2228:G:C5	25:DA:2229:C:C4	3.09	0.40
47:B1:86:SER:H	47:B1:89:GLU:HG3	1.85	0.40
25:DA:1195:G:O2'	25:DA:1226:A:N1	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1541:A:H2'	25:BA:1542:A:C8	2.55	0.40
32:DI:60:GLU:CB	32:DI:61:ARG:HH21	2.34	0.40
2:AB:102:LEU:HB3	2:AB:180:LEU:HD12	2.02	0.40
25:BA:496:A:OP1	25:BA:496:A:H4'	2.20	0.40
25:BA:2564:U:C2	25:BA:2566:U:H5'	2.56	0.40
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.20	0.40
31:DH:9:ILE:HA	31:DH:10:PRO:HD2	1.94	0.40
5:CE:152:ARG:HG3	8:CH:43:GLY:O	2.21	0.40
27:DD:164:GLN:NE2	27:DD:176:ARG:HH22	2.19	0.40
25:BA:2718:G:C2	25:BA:2719:G:H1'	2.56	0.40
25:DA:1801:G:H3'	25:DA:1802:A:H5'	2.03	0.40
12:CL:28:LYS:N	12:CL:29:GLY:HA2	2.36	0.40
12:CL:6:THR:HG23	12:CL:9:GLN:OE1	2.21	0.40
9:CI:116:LYS:HA	9:CI:123:PRO:HD3	2.02	0.40
48:B2:48:HIS:CE1	48:B2:49:LYS:HG3	2.56	0.40
1:CA:233:C:H6	1:CA:233:C:O5'	2.04	0.40
25:BA:857:U:O5'	25:BA:857:U:H6	2.04	0.40
45:BZ:91:LEU:HD13	45:BZ:91:LEU:HA	1.88	0.40
28:BE:9:VAL:HB	39:BT:3:ARG:HG2	2.02	0.40
25:BA:639:G:N2	29:BF:44:ARG:O	2.53	0.40
25:DA:227:A:C2	25:DA:2407:G:H1'	2.56	0.40
1:CA:236:G:C6	1:CA:237:C:C4	3.09	0.40
25:DA:2436:G:C6	25:DA:2437:U:C4	3.10	0.40
25:DA:1022:G:C6	25:DA:1140:C:N3	2.90	0.40
1:AA:1139:G:N2	1:AA:1143:G:C6	2.89	0.40
2:AB:55:PHE:CE1	2:AB:218:ALA:HA	2.56	0.40
1:CA:1178:G:N3	1:CA:1180:A:H2	2.19	0.40
35:DP:46:LYS:HE3	35:DP:46:LYS:HB3	1.90	0.40
25:DA:300:A:H1'	25:DA:319:C:C1'	2.51	0.40
1:CA:598:U:H2'	1:CA:599:C:H6	1.86	0.40
25:DA:2298:A:N1	25:DA:2321:G:C2	2.88	0.40
1:CA:1226:C:H6	13:CM:103:THR:OG1	2.04	0.40
25:DA:530:G:C5	25:DA:2022:U:H5''	2.56	0.40
1:CA:489:C:H2'	1:CA:490:G:C8	2.57	0.40
25:BA:1316:C:H5''	25:BA:1317:G:O5'	2.21	0.40
1:AA:92:C:H2'	1:AA:93:G:C8	2.56	0.40
25:DA:996:A:N6	25:DA:1160:G:C6	2.90	0.40
1:CA:1014:A:N3	1:CA:1219:U:H1'	2.36	0.40
1:CA:522:C:H5''	12:CL:120:TYR:OH	2.21	0.40
7:CG:65:ALA:HB1	7:CG:127:ALA:HB3	2.03	0.40
1:CA:458:C:C2	1:CA:460:G:C8	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1971:A:C4	27:DD:241:PRO:HD3	2.57	0.40
30:DG:25:TYR:CD2	30:DG:30:GLU:HB3	2.57	0.40
34:DO:35:VAL:HG11	34:DO:103:ALA:CB	2.50	0.40
1:CA:1063:C:H3'	1:CA:1064:G:H2'	2.04	0.40
26:DB:32:C:C4	26:DB:33:G:N7	2.89	0.40
28:DE:93:VAL:O	28:DE:95:ILE:N	2.54	0.40
20:AT:45:GLN:HE21	20:AT:45:GLN:HB3	1.60	0.40
3:CC:113:ALA:CB	3:CC:202:ILE:HG13	2.50	0.40
1:AA:491:G:C4	1:AA:492:G:C8	3.09	0.40
1:CA:986:A:H1'	19:CS:54:GLY:O	2.21	0.40
48:D2:48:HIS:O	48:D2:52:ASP:HB2	2.20	0.40
12:AL:60:LEU:HA	12:AL:60:LEU:HD13	1.93	0.40
1:AA:237:C:OP2	17:AQ:40:LYS:NZ	2.48	0.40
1:AA:670:G:C4	1:AA:671:G:C8	3.09	0.40
20:CT:10:LEU:HD12	20:CT:10:LEU:HA	1.88	0.40
1:CA:1244:C:H42	1:CA:1293:G:H1	1.68	0.40
25:BA:2354:C:O2'	25:BA:2386:C:H5''	2.20	0.40
7:AG:152:ALA:HB1	7:AG:155:ARG:HH21	1.86	0.40
25:BA:2075:G:OP1	28:BE:144:ARG:HG2	2.20	0.40
54:D8:38:GLY:O	54:D8:42:ARG:HB2	2.20	0.40
44:DY:19:LYS:HB3	44:DY:19:LYS:HE2	1.91	0.40
17:AQ:26:GLN:HG2	17:AQ:37:LYS:HG2	2.03	0.40
54:D8:9:GLY:O	54:D8:13:ARG:HG2	2.20	0.40
1:AA:1164:G:H2'	1:AA:1165:C:C6	2.56	0.40
1:AA:1164:G:O2'	1:AA:1165:C:H5'	2.21	0.40
25:DA:1032:A:H2	25:DA:1122:G:H22	1.70	0.40
41:DV:40:LEU:HB2	41:DV:46:VAL:HG22	2.02	0.40
52:B6:40:CYS:HA	52:B6:41:PRO:HD3	1.85	0.40
25:DA:699:A:H4'	25:DA:1554:A:N6	2.36	0.40
12:AL:88:GLY:O	12:AL:99:HIS:HD2	2.04	0.40
25:DA:324:A:N6	25:DA:338:G:O2'	2.50	0.40
25:DA:2282:G:H4'	25:DA:2389:G:O2'	2.21	0.40
36:BQ:108:GLY:HA3	45:BZ:116:VAL:HG13	2.03	0.40
1:AA:1110:A:OP2	61:AA:4115:HOH:O	2.22	0.40
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.21	0.40
25:BA:505:A:N3	25:BA:507:G:H5''	2.37	0.40
25:DA:282:A:N6	25:DA:284:U:C2	2.89	0.40
25:DA:112:U:H2'	25:DA:113:G:O4'	2.21	0.40
1:AA:341:C:C2'	1:AA:342:C:H5'	2.51	0.40
1:AA:1127:G:H22	1:AA:1147:C:N4	2.20	0.40
25:BA:2832:G:O2'	25:BA:2834:C:OP2	2.31	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1122:U:C4	1:CA:1123:A:C5	3.09	0.40
40:DU:76:TYR:CE1	40:DU:80:ILE:HG13	2.57	0.40
25:BA:1736:A:N6	25:BA:1745:A:H2	2.04	0.40
1:AA:78:G:N2	1:AA:91:C:N3	2.69	0.40
4:AD:171:GLY:HA2	4:AD:172:PRO:HD3	1.95	0.40
4:AD:173:TRP:HA	4:AD:186:LEU:HB2	2.02	0.40
1:AA:477:A:O2'	1:AA:479:C:H5'	2.22	0.40
1:AA:184:G:O4'	1:AA:224:C:H4'	2.21	0.40
1:AA:864:A:O5'	1:AA:864:A:H8	2.05	0.40
25:DA:2267:A:H5''	25:DA:2268:A:C5'	2.47	0.40
1:AA:1321:C:H3'	1:AA:1322:C:H6	1.86	0.40
25:BA:2701:U:OP2	25:BA:2882:G:N2	2.47	0.40
25:DA:310:A:HO2'	25:DA:311:A:P	2.44	0.40
38:DS:10:ARG:O	38:DS:14:VAL:HG13	2.22	0.40
17:AQ:60:ILE:HG12	17:AQ:61:GLU:N	2.36	0.40
1:AA:1277:C:H2'	1:AA:1279:A:H8	1.85	0.40
25:BA:1900:G:H2'	25:BA:1901:C:H6	1.86	0.40
25:BA:2430:A:H2'	25:BA:2431:U:O4'	2.21	0.40
25:DA:2329:G:H2'	25:DA:2330:G:O4'	2.22	0.40
35:BP:94:GLU:HG3	35:BP:124:LYS:HB3	2.03	0.40
30:DG:121:ASN:HA	30:DG:122:PRO:HD3	1.89	0.40
1:AA:731:G:OP1	1:AA:766:A:H1'	2.20	0.40
25:DA:724:U:H2'	25:DA:725:G:O4'	2.21	0.40
25:DA:248:G:H5'	25:DA:250:G:N7	2.35	0.40
11:CK:104:GLN:HG2	11:CK:106:LYS:HG2	2.02	0.40
34:DO:7:TYR:CE1	34:DO:20:MET:HB2	2.57	0.40
25:DA:392:C:H5''	25:DA:409:C:H5''	2.03	0.40
39:BT:91:ARG:HH11	39:BT:120:ARG:HH11	1.68	0.40
25:DA:2536:G:C5	25:DA:2537:U:C5	3.09	0.40
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.56	0.40
25:DA:94(A):G:H2'	25:DA:95:G:O4'	2.21	0.40
27:BD:275:LYS:HB3	27:BD:276:LYS:H	1.36	0.40
1:CA:340:U:C2	1:CA:350:G:N2	2.89	0.40
25:DA:45:C:H2'	25:DA:47:C:H6	1.86	0.40
25:BA:26:G:C6	25:BA:27:G:C6	3.09	0.40
25:DA:1753:G:H2'	25:DA:1755:A:OP2	2.22	0.40
1:CA:41:G:H2'	1:CA:42:G:C8	2.56	0.40
1:CA:654:G:H2'	1:CA:655:A:O4'	2.21	0.40
27:BD:127:VAL:HA	27:BD:193:VAL:HG22	2.04	0.40
36:DQ:110:THR:HG23	36:DQ:113:GLN:OE1	2.21	0.40
18:CR:44:LEU:HD11	18:CR:79:LEU:HB3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2428:C:H6	25:BA:2428:C:O5'	2.04	0.40
3:AC:92:ALA:HA	3:AC:95:THR:CB	2.51	0.40
38:DS:50:SER:O	38:DS:76:LYS:NZ	2.49	0.40
1:AA:633:G:H2'	1:AA:634:C:C6	2.57	0.40
30:DG:165:THR:HG23	30:DG:168:GLU:OE2	2.21	0.40
25:DA:870:A:C2	25:DA:908:C:C2	3.09	0.40
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.52	0.40
1:AA:1122:U:C4	1:AA:1123:A:N7	2.89	0.40
1:CA:1150:U:C4	1:CA:1151:A:N6	2.89	0.40
25:BA:1686:U:H4'	25:BA:2711:C:H4'	2.02	0.40
8:CH:51:VAL:HG21	8:CH:60:ARG:HB2	2.04	0.40
8:AH:6:ILE:O	8:AH:10:LEU:HG	2.21	0.40
50:B4:59:PHE:CA	50:B4:61:ARG:H	2.34	0.40
18:CR:52:PRO:HB2	18:CR:54:ARG:HG2	2.03	0.40
1:AA:1030:C:N4	1:AA:1031:G:C6	2.90	0.40
1:CA:1166:G:H2'	1:CA:1169:A:OP2	2.22	0.40
28:DE:14:ILE:HB	39:DT:14:TYR:CZ	2.56	0.40
25:DA:30:G:H2'	25:DA:31:C:O4'	2.21	0.40
25:DA:143:G:C6	25:DA:143(A):C:C4	3.10	0.40
6:CF:82:ARG:NH1	6:CF:82:ARG:HB3	2.36	0.40
1:CA:551:U:H2'	1:CA:552:U:C6	2.56	0.40
25:DA:2745:C:H4'	31:DH:142:GLY:O	2.20	0.40
1:CA:688:G:H2'	1:CA:689:C:H6	1.85	0.40
31:BH:11:VAL:HA	31:BH:12:PRO:HD3	1.94	0.40
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.56	0.40
25:BA:1857:G:H4'	27:BD:242:ARG:CZ	2.51	0.40
26:DB:98:G:C5	26:DB:99:G:C8	3.09	0.40
28:DE:105:THR:HG21	28:DE:164:ARG:CZ	2.51	0.40
25:BA:346:A:OP2	29:BF:169:ASN:HB2	2.21	0.40
1:AA:235:C:H2'	1:AA:236:G:H8	1.87	0.40
1:CA:596:C:H2'	1:CA:597:G:C8	2.54	0.40
1:CA:1317:C:H42	14:CN:19:ARG:HH21	1.69	0.40
1:AA:583:A:N6	1:AA:758:G:O2'	2.54	0.40
37:DR:70:LEU:O	37:DR:72:ASP:N	2.55	0.40
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.21	0.40
25:DA:1131:G:C8	25:DA:2025:C:H4'	2.56	0.40
25:DA:2769:C:H2'	25:DA:2770:G:O4'	2.21	0.40
25:DA:1288:U:O2'	25:DA:1647:G:N2	2.55	0.40
4:AD:65:ARG:HG2	4:AD:75:PHE:CG	2.57	0.40
1:CA:79:G:H1	1:CA:90:U:H3	1.70	0.40
39:DT:59:THR:HG23	39:DT:78:LEU:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:708:C:H2'	1:CA:709:G:H8	1.86	0.40
53:B7:24:THR:O	53:B7:28:ARG:HG3	2.22	0.40
1:AA:1443:G:C2	1:AA:1460:A:C2	3.09	0.40
15:CO:74:ASP:OD1	15:CO:76:GLU:HB2	2.21	0.40
25:DA:373:U:H2'	25:DA:374:A:H8	1.86	0.40
52:D6:25:LYS:HE3	52:D6:27:LYS:HA	2.04	0.40
45:DZ:96:VAL:N	45:DZ:128:VAL:O	2.45	0.40
1:CA:363:A:C5	12:CL:31:PRO:HD2	2.57	0.40
46:B0:49:LYS:O	46:B0:50:ASN:HB2	2.22	0.40
37:BR:109:ALA:O	37:BR:111:LEU:HD22	2.22	0.40
25:BA:105:C:H2'	25:BA:106:U:H6	1.85	0.40
28:DE:12:THR:HG21	39:DT:11:GLU:OE2	2.21	0.40
1:CA:194:C:H5''	1:CA:195:A:OP2	2.22	0.40
25:DA:2580:U:C5	25:DA:2581:G:C6	3.09	0.40
25:BA:2528:G:C6	25:BA:2529:C:N4	2.89	0.40
40:BU:98:LEU:HA	40:BU:98:LEU:HD23	1.80	0.40
8:AH:78:GLN:HE21	8:AH:78:GLN:HB2	1.65	0.40
38:BS:36:TYR:CD1	38:BS:36:TYR:N	2.90	0.40
5:AE:27:ARG:HB2	5:AE:27:ARG:HE	1.45	0.40
2:AB:215:LEU:HD23	2:AB:215:LEU:HA	1.86	0.40
1:AA:256:U:H2'	1:AA:257:G:C8	2.57	0.40
25:BA:511:C:H2'	25:BA:512:C:C6	2.56	0.40
28:DE:38:THR:O	28:DE:42:ASP:N	2.40	0.40
1:AA:1247:U:H2'	1:AA:1248:A:O4'	2.22	0.40
45:BZ:34:ASN:O	45:BZ:35:ARG:HD2	2.21	0.40
25:BA:2650:G:P	28:BE:82:ARG:HH22	2.45	0.40
1:CA:1003:G:C2'	1:CA:1004:A:H4'	2.52	0.40
25:BA:1394:G:O6	25:BA:1395:A:N6	2.55	0.40
25:DA:2748:A:C6	25:DA:2749:A:C5	3.10	0.40
1:AA:1005:A:H5''	1:AA:1006:C:OP2	2.20	0.40
10:CJ:49:VAL:HG12	10:CJ:61:GLU:O	2.22	0.40
1:CA:1272:G:C5	1:CA:1273:G:C8	3.10	0.40
1:AA:1095:U:P	1:AA:1108:G:H1	2.43	0.40
25:DA:1301:A:C8	25:DA:1303:G:C8	3.09	0.40
25:BA:2372:A:C2	25:BA:2373:A:H1'	2.56	0.40
2:AB:95:GLN:HB3	2:AB:147:LYS:NZ	2.36	0.40
13:CM:90:LEU:HD23	13:CM:93:ARG:NE	2.37	0.40
37:DR:37:THR:HA	37:DR:111:LEU:HD12	2.02	0.40
1:AA:828:A:N6	1:AA:829:G:C2	2.90	0.40
3:CC:18:TRP:O	3:CC:21:ARG:NH1	2.54	0.40
1:AA:676:A:H2	11:AK:119:CYS:SG	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2274:U:O2'	25:BA:2275:C:H5'	2.21	0.40
1:CA:1086:U:H2'	1:CA:1087:G:O4'	2.21	0.40
41:BV:18:LEU:O	41:BV:95:LEU:HD23	2.22	0.40
25:BA:938:G:C2	25:BA:939:C:C2	3.10	0.40
25:BA:1698:G:N2	25:BA:2029:C:C2	2.90	0.40
4:AD:107:ARG:HH22	4:AD:194:LEU:HD22	1.86	0.40
1:AA:69:G:H2'	1:AA:70:G:H8	1.82	0.40
4:AD:61:LYS:HD2	4:AD:207:TYR:OH	2.21	0.40
18:AR:40:LEU:HD23	18:AR:40:LEU:HA	1.72	0.40
1:CA:1183:A:H5'	1:CA:1183:A:H8	1.85	0.40
19:CS:36:ARG:NH1	19:CS:53:ASN:HA	2.37	0.40
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	2.04	0.40
2:AB:19:HIS:HE1	2:AB:189:ASP:CB	2.35	0.40
14:AN:3:ARG:HH21	14:AN:3:ARG:CB	2.34	0.40
46:B0:27:GLU:HB2	46:B0:69:PHE:CD1	2.56	0.40
1:AA:41:G:H2'	1:AA:42:G:H8	1.87	0.40
25:DA:1416:G:HO2'	25:DA:1417:C:H5	1.65	0.40
39:DT:61:PHE:CZ	39:DT:76:PHE:HB2	2.57	0.40
1:AA:1367:C:N3	1:AA:1368:G:C8	2.90	0.40
25:DA:1842:G:H2'	25:DA:1843:C:O4'	2.22	0.40
25:BA:2310:A:H2'	25:BA:2311:G:O4'	2.21	0.40
25:DA:478:A:C6	25:DA:480:A:C6	3.09	0.40
25:BA:1781:G:O2'	25:BA:2870:A:N1	2.48	0.40
25:DA:1171:G:H1	25:DA:1178:C:H42	1.69	0.40
25:BA:504:A:C6	25:BA:506:A:C6	3.09	0.40
49:B3:7:LYS:HG3	49:B3:34:GLU:HG3	2.04	0.40
5:AE:57:LYS:HD3	5:AE:61:TYR:HE2	1.87	0.40
45:BZ:163:LEU:HA	45:BZ:163:LEU:HD12	1.87	0.40
50:B4:9:LEU:HA	50:B4:9:LEU:HD23	1.96	0.40
25:BA:218:A:H3'	25:BA:218:A:C8	2.57	0.40
32:BI:140:LEU:HA	32:BI:140:LEU:HD23	1.71	0.40
1:AA:1079:G:C6	1:AA:1080:A:N6	2.90	0.40
16:AP:59:TRP:HB3	16:AP:64:ALA:HB2	2.04	0.40
25:DA:2433:A:H5''	25:DA:2434:A:OP1	2.21	0.40
17:AQ:58:GLU:O	17:AQ:74:LEU:N	2.43	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles ⓘ

### 5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	229/256 (90%)	200 (87%)	23 (10%)	6 (3%)	7	32
2	CB	229/256 (90%)	201 (88%)	18 (8%)	10 (4%)	3	18
3	AC	204/239 (85%)	179 (88%)	22 (11%)	3 (2%)	13	46
3	CC	204/239 (85%)	178 (87%)	24 (12%)	2 (1%)	19	58
4	AD	206/209 (99%)	182 (88%)	22 (11%)	2 (1%)	19	58
4	CD	206/209 (99%)	185 (90%)	18 (9%)	3 (2%)	13	46
5	AE	146/162 (90%)	127 (87%)	15 (10%)	4 (3%)	6	31
5	CE	146/162 (90%)	133 (91%)	10 (7%)	3 (2%)	9	37
6	AF	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
6	CF	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
7	AG	153/156 (98%)	137 (90%)	14 (9%)	2 (1%)	15	50
7	CG	153/156 (98%)	137 (90%)	15 (10%)	1 (1%)	26	65
8	AH	135/138 (98%)	129 (96%)	6 (4%)	0	100	100
8	CH	135/138 (98%)	129 (96%)	5 (4%)	1 (1%)	26	65
9	AI	125/128 (98%)	111 (89%)	10 (8%)	4 (3%)	5	26
9	CI	125/128 (98%)	112 (90%)	11 (9%)	2 (2%)	12	44
10	AJ	95/105 (90%)	85 (90%)	7 (7%)	3 (3%)	5	26
10	CJ	94/105 (90%)	86 (92%)	7 (7%)	1 (1%)	17	55
11	AK	112/129 (87%)	98 (88%)	13 (12%)	1 (1%)	21	61
11	CK	112/129 (87%)	99 (88%)	12 (11%)	1 (1%)	21	61
12	AL	120/132 (91%)	116 (97%)	4 (3%)	0	100	100
12	CL	120/132 (91%)	112 (93%)	8 (7%)	0	100	100
13	AM	121/126 (96%)	106 (88%)	15 (12%)	0	100	100
13	CM	120/126 (95%)	104 (87%)	14 (12%)	2 (2%)	11	43
14	AN	58/61 (95%)	54 (93%)	4 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	CN	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
15	AO	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
15	CO	86/89 (97%)	80 (93%)	5 (6%)	1 (1%)	16	52
16	AP	80/88 (91%)	69 (86%)	11 (14%)	0	100	100
16	CP	80/88 (91%)	70 (88%)	10 (12%)	0	100	100
17	AQ	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
17	CQ	97/105 (92%)	93 (96%)	4 (4%)	0	100	100
18	AR	66/88 (75%)	60 (91%)	5 (8%)	1 (2%)	13	46
18	CR	66/88 (75%)	60 (91%)	5 (8%)	1 (2%)	13	46
19	AS	81/93 (87%)	74 (91%)	7 (9%)	0	100	100
19	CS	81/93 (87%)	69 (85%)	12 (15%)	0	100	100
20	AT	94/106 (89%)	84 (89%)	5 (5%)	5 (5%)	2	14
20	CT	94/106 (89%)	85 (90%)	3 (3%)	6 (6%)	2	10
21	AU	21/27 (78%)	17 (81%)	4 (19%)	0	100	100
21	CU	21/27 (78%)	18 (86%)	1 (5%)	2 (10%)	1	4
24	AW	3/10 (30%)	1 (33%)	0	2 (67%)	0	0
24	CW	3/10 (30%)	1 (33%)	1 (33%)	1 (33%)	0	0
27	BD	273/276 (99%)	259 (95%)	13 (5%)	1 (0%)	39	75
27	DD	273/276 (99%)	257 (94%)	13 (5%)	3 (1%)	17	55
28	BE	202/206 (98%)	195 (96%)	6 (3%)	1 (0%)	34	72
28	DE	202/206 (98%)	194 (96%)	6 (3%)	2 (1%)	19	58
29	BF	201/210 (96%)	193 (96%)	7 (4%)	1 (0%)	34	72
29	DF	201/210 (96%)	189 (94%)	10 (5%)	2 (1%)	19	58
30	BG	179/182 (98%)	163 (91%)	13 (7%)	3 (2%)	11	43
30	DG	179/182 (98%)	160 (89%)	13 (7%)	6 (3%)	5	25
31	BH	172/180 (96%)	161 (94%)	10 (6%)	1 (1%)	30	68
31	DH	172/180 (96%)	159 (92%)	11 (6%)	2 (1%)	16	52
32	BI	144/148 (97%)	122 (85%)	17 (12%)	5 (4%)	4	24
32	DI	144/148 (97%)	123 (85%)	17 (12%)	4 (3%)	6	30
33	BN	138/140 (99%)	134 (97%)	4 (3%)	0	100	100
33	DN	138/140 (99%)	131 (95%)	6 (4%)	1 (1%)	26	65

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	BO	120/122 (98%)	115 (96%)	4 (3%)	1 (1%)	24	63
34	DO	120/122 (98%)	117 (98%)	2 (2%)	1 (1%)	24	63
35	BP	147/150 (98%)	132 (90%)	14 (10%)	1 (1%)	26	65
35	DP	147/150 (98%)	133 (90%)	12 (8%)	2 (1%)	14	48
36	BQ	139/141 (99%)	130 (94%)	8 (6%)	1 (1%)	26	65
36	DQ	139/141 (99%)	129 (93%)	8 (6%)	2 (1%)	14	48
37	BR	116/118 (98%)	110 (95%)	5 (4%)	1 (1%)	21	61
37	DR	116/118 (98%)	109 (94%)	7 (6%)	0	100	100
38	BS	108/112 (96%)	100 (93%)	7 (6%)	1 (1%)	21	61
38	DS	108/112 (96%)	102 (94%)	5 (5%)	1 (1%)	21	61
39	BT	129/146 (88%)	124 (96%)	4 (3%)	1 (1%)	24	63
39	DT	129/146 (88%)	125 (97%)	4 (3%)	0	100	100
40	BU	114/118 (97%)	114 (100%)	0	0	100	100
40	DU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
41	BV	99/101 (98%)	91 (92%)	7 (7%)	1 (1%)	19	58
41	DV	99/101 (98%)	92 (93%)	6 (6%)	1 (1%)	19	58
42	BW	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
42	DW	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
43	BX	93/96 (97%)	89 (96%)	3 (3%)	1 (1%)	17	55
43	DX	93/96 (97%)	87 (94%)	6 (6%)	0	100	100
44	BY	105/110 (96%)	95 (90%)	10 (10%)	0	100	100
44	DY	105/110 (96%)	97 (92%)	8 (8%)	0	100	100
45	BZ	169/206 (82%)	150 (89%)	17 (10%)	2 (1%)	16	52
45	DZ	172/206 (84%)	157 (91%)	15 (9%)	0	100	100
46	B0	81/85 (95%)	77 (95%)	3 (4%)	1 (1%)	16	52
46	D0	81/85 (95%)	76 (94%)	5 (6%)	0	100	100
47	B1	95/98 (97%)	93 (98%)	0	2 (2%)	9	37
47	D1	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	17	55
48	B2	68/72 (94%)	66 (97%)	2 (3%)	0	100	100
48	D2	68/72 (94%)	65 (96%)	3 (4%)	0	100	100
49	B3	57/60 (95%)	54 (95%)	3 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	D3	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
50	B4	67/71 (94%)	50 (75%)	9 (13%)	8 (12%)	0	2
50	D4	67/71 (94%)	50 (75%)	8 (12%)	9 (13%)	0	1
51	B5	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
51	D5	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
52	B6	51/54 (94%)	48 (94%)	3 (6%)	0	100	100
52	D6	51/54 (94%)	48 (94%)	3 (6%)	0	100	100
53	B7	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
53	D7	46/49 (94%)	44 (96%)	1 (2%)	1 (2%)	8	36
54	B8	62/65 (95%)	60 (97%)	2 (3%)	0	100	100
54	D8	62/65 (95%)	59 (95%)	3 (5%)	0	100	100
55	B9	35/37 (95%)	35 (100%)	0	0	100	100
55	D9	35/37 (95%)	35 (100%)	0	0	100	100
All	All	11415/12148 (94%)	10525 (92%)	749 (7%)	141 (1%)	16	52

All (141) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	17	PHE
2	AB	125	PRO
3	AC	65	ALA
3	AC	107	GLN
4	AD	166	LYS
7	AG	4	ARG
9	AI	54	ASP
9	AI	56	LEU
10	AJ	31	GLY
10	AJ	79	ARG
18	AR	60	ALA
20	AT	10	LEU
27	BD	275	LYS
29	BF	130	ALA
30	BG	51	ARG
30	BG	126	ASP
31	BH	126	PRO
32	BI	73	GLU
36	BQ	60	ARG

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Mol	Chain	Res	Type
38	BS	60	GLY
47	B1	3	LYS
50	B4	49	PHE
50	B4	55	ARG
50	B4	68	ARG
2	CB	16	HIS
2	CB	126	GLU
2	CB	231	GLU
3	CC	91	LEU
3	CC	181	ASN
7	CG	7	ALA
13	CM	106	ASN
20	CT	95	ALA
20	CT	99	LEU
27	DD	239	ARG
29	DF	21	ALA
29	DF	130	ALA
30	DG	14	GLU
30	DG	47	LYS
30	DG	51	ARG
30	DG	81	LYS
30	DG	126	ASP
31	DH	126	PRO
32	DI	10	GLU
35	DP	38	GLN
36	DQ	28	ALA
36	DQ	60	ARG
47	D1	3	LYS
50	D4	39	CYS
50	D4	45	GLY
50	D4	55	ARG
50	D4	63	TYR
53	D7	46	VAL
2	AB	16	HIS
2	AB	19	HIS
4	AD	171	GLY
5	AE	85	GLY
5	AE	140	ARG
9	AI	95	LYS
11	AK	49	GLY
20	AT	47	GLY
32	BI	11	ASN

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Mol	Chain	Res	Type
32	BI	106	GLY
34	BO	5	GLN
41	BV	79	VAL
46	B0	13	GLY
50	B4	47	GLN
50	B4	56	VAL
50	B4	66	SER
2	CB	8	LYS
2	CB	10	LEU
2	CB	17	PHE
2	CB	20	GLU
2	CB	121	LEU
2	CB	123	ALA
9	CI	54	ASP
9	CI	55	ALA
10	CJ	79	ARG
11	CK	49	GLY
31	DH	80	SER
33	DN	2	LYS
34	DO	5	GLN
41	DV	79	VAL
50	D4	38	LYS
50	D4	60	GLN
50	D4	62	ARG
2	AB	128	GLU
9	AI	55	ALA
20	AT	102	GLY
35	BP	29	LYS
37	BR	45	ARG
43	BX	93	GLU
45	BZ	152	ALA
50	B4	57	GLU
50	B4	62	ARG
2	CB	21	ARG
5	CE	146	ALA
13	CM	10	PRO
20	CT	47	GLY
21	CU	3	LYS
28	DE	52	LEU
32	DI	30	LEU
32	DI	135	GLU
38	DS	84	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
50	D4	49	PHE
3	AC	66	VAL
20	AT	71	THR
24	AW	7	PRO
28	BE	52	LEU
32	BI	107	VAL
39	BT	127	ALA
4	CD	47	ARG
5	CE	37	ARG
21	CU	23	PRO
24	CW	4	PRO
27	DD	3	VAL
28	DE	73	GLU
7	AG	81	GLY
30	BG	47	LYS
32	BI	117	GLU
4	CD	136	PRO
15	CO	88	ARG
18	CR	60	ALA
20	CT	71	THR
20	CT	102	GLY
35	DP	45	LEU
5	AE	146	ALA
10	AJ	77	PRO
47	B1	45	ASN
8	CH	73	ASP
30	DG	117	PHE
32	DI	85	GLU
50	D4	29	PRO
2	AB	231	GLU
24	AW	4	PRO
20	AT	100	ILE
20	CT	100	ILE
27	DD	238	GLY
5	AE	69	VAL
45	BZ	114	GLY
5	CE	69	VAL
4	CD	7	PRO

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	192/220 (87%)	147 (77%)	45 (23%)	1	4
2	CB	187/220 (85%)	152 (81%)	35 (19%)	2	8
3	AC	143/188 (76%)	125 (87%)	18 (13%)	5	22
3	CC	140/188 (74%)	122 (87%)	18 (13%)	5	21
4	AD	170/181 (94%)	145 (85%)	25 (15%)	4	16
4	CD	173/181 (96%)	152 (88%)	21 (12%)	6	24
5	AE	113/123 (92%)	104 (92%)	9 (8%)	15	48
5	CE	114/123 (93%)	107 (94%)	7 (6%)	23	59
6	AF	83/90 (92%)	76 (92%)	7 (8%)	14	46
6	CF	85/90 (94%)	79 (93%)	6 (7%)	18	54
7	AG	119/127 (94%)	100 (84%)	19 (16%)	3	13
7	CG	120/127 (94%)	102 (85%)	18 (15%)	3	15
8	AH	114/119 (96%)	98 (86%)	16 (14%)	4	18
8	CH	114/119 (96%)	102 (90%)	12 (10%)	8	31
9	AI	90/99 (91%)	76 (84%)	14 (16%)	3	14
9	CI	89/99 (90%)	75 (84%)	14 (16%)	3	13
10	AJ	66/92 (72%)	60 (91%)	6 (9%)	12	40
10	CJ	69/92 (75%)	64 (93%)	5 (7%)	18	53
11	AK	82/99 (83%)	73 (89%)	9 (11%)	8	30
11	CK	83/99 (84%)	77 (93%)	6 (7%)	18	53
12	AL	97/109 (89%)	90 (93%)	7 (7%)	18	53
12	CL	97/109 (89%)	87 (90%)	10 (10%)	9	32
13	AM	93/101 (92%)	82 (88%)	11 (12%)	6	25
13	CM	92/101 (91%)	80 (87%)	12 (13%)	5	21
14	AN	49/50 (98%)	41 (84%)	8 (16%)	3	12
14	CN	49/50 (98%)	42 (86%)	7 (14%)	4	17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	AO	78/80 (98%)	69 (88%)	9 (12%)	7	27
15	CO	78/80 (98%)	66 (85%)	12 (15%)	3	14
16	AP	69/74 (93%)	60 (87%)	9 (13%)	5	21
16	CP	68/74 (92%)	63 (93%)	5 (7%)	17	51
17	AQ	94/97 (97%)	89 (95%)	5 (5%)	28	64
17	CQ	94/97 (97%)	87 (93%)	7 (7%)	17	51
18	AR	59/77 (77%)	55 (93%)	4 (7%)	20	55
18	CR	59/77 (77%)	52 (88%)	7 (12%)	6	25
19	AS	69/80 (86%)	63 (91%)	6 (9%)	13	44
19	CS	67/80 (84%)	57 (85%)	10 (15%)	4	15
20	AT	70/82 (85%)	61 (87%)	9 (13%)	5	21
20	CT	70/82 (85%)	60 (86%)	10 (14%)	4	17
21	AU	18/22 (82%)	14 (78%)	4 (22%)	1	5
21	CU	18/22 (82%)	16 (89%)	2 (11%)	8	29
24	AW	3/3 (100%)	2 (67%)	1 (33%)	0	0
24	CW	3/3 (100%)	2 (67%)	1 (33%)	0	0
27	BD	215/218 (99%)	198 (92%)	17 (8%)	15	49
27	DD	215/218 (99%)	190 (88%)	25 (12%)	7	27
28	BE	164/166 (99%)	142 (87%)	22 (13%)	5	20
28	DE	164/166 (99%)	144 (88%)	20 (12%)	6	24
29	BF	160/166 (96%)	143 (89%)	17 (11%)	8	31
29	DF	159/166 (96%)	145 (91%)	14 (9%)	12	43
30	BG	143/156 (92%)	123 (86%)	20 (14%)	4	18
30	DG	142/156 (91%)	116 (82%)	26 (18%)	2	9
31	BH	144/148 (97%)	129 (90%)	15 (10%)	9	32
31	DH	144/148 (97%)	131 (91%)	13 (9%)	12	41
32	BI	110/124 (89%)	82 (74%)	28 (26%)	1	2
32	DI	104/124 (84%)	86 (83%)	18 (17%)	2	11
33	BN	118/119 (99%)	103 (87%)	15 (13%)	5	22
33	DN	118/119 (99%)	102 (86%)	16 (14%)	5	19
34	BO	100/100 (100%)	94 (94%)	6 (6%)	24	60

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	DO	100/100 (100%)	91 (91%)	9 (9%)	12	41
35	BP	115/116 (99%)	102 (89%)	13 (11%)	7	28
35	DP	115/116 (99%)	104 (90%)	11 (10%)	10	37
36	BQ	111/111 (100%)	94 (85%)	17 (15%)	3	14
36	DQ	111/111 (100%)	96 (86%)	15 (14%)	5	20
37	BR	101/101 (100%)	83 (82%)	18 (18%)	2	10
37	DR	101/101 (100%)	85 (84%)	16 (16%)	3	13
38	BS	87/88 (99%)	77 (88%)	10 (12%)	7	27
38	DS	85/88 (97%)	70 (82%)	15 (18%)	2	10
39	BT	115/127 (91%)	104 (90%)	11 (10%)	10	37
39	DT	113/127 (89%)	105 (93%)	8 (7%)	18	54
40	BU	93/94 (99%)	83 (89%)	10 (11%)	8	30
40	DU	93/94 (99%)	82 (88%)	11 (12%)	6	25
41	BV	80/82 (98%)	69 (86%)	11 (14%)	4	19
41	DV	80/82 (98%)	71 (89%)	9 (11%)	7	28
42	BW	90/92 (98%)	79 (88%)	11 (12%)	6	24
42	DW	90/92 (98%)	80 (89%)	10 (11%)	8	29
43	BX	77/78 (99%)	73 (95%)	4 (5%)	29	65
43	DX	77/78 (99%)	74 (96%)	3 (4%)	39	75
44	BY	85/91 (93%)	79 (93%)	6 (7%)	18	54
44	DY	85/91 (93%)	79 (93%)	6 (7%)	18	54
45	BZ	145/179 (81%)	121 (83%)	24 (17%)	3	12
45	DZ	145/179 (81%)	126 (87%)	19 (13%)	5	21
46	B0	65/67 (97%)	61 (94%)	4 (6%)	23	59
46	D0	65/67 (97%)	59 (91%)	6 (9%)	11	40
47	B1	80/83 (96%)	72 (90%)	8 (10%)	9	34
47	D1	80/83 (96%)	73 (91%)	7 (9%)	12	43
48	B2	65/67 (97%)	56 (86%)	9 (14%)	4	19
48	D2	65/67 (97%)	57 (88%)	8 (12%)	6	23
49	B3	51/52 (98%)	44 (86%)	7 (14%)	4	19
49	D3	50/52 (96%)	43 (86%)	7 (14%)	4	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
50	B4	59/63 (94%)	48 (81%)	11 (19%)	2	9
50	D4	53/63 (84%)	45 (85%)	8 (15%)	3	15
51	B5	50/52 (96%)	45 (90%)	5 (10%)	9	34
51	D5	50/52 (96%)	45 (90%)	5 (10%)	9	34
52	B6	51/52 (98%)	45 (88%)	6 (12%)	6	25
52	D6	50/52 (96%)	46 (92%)	4 (8%)	15	48
53	B7	41/42 (98%)	37 (90%)	4 (10%)	10	36
53	D7	41/42 (98%)	39 (95%)	2 (5%)	31	68
54	B8	53/55 (96%)	49 (92%)	4 (8%)	17	51
54	D8	54/55 (98%)	50 (93%)	4 (7%)	17	51
55	B9	34/34 (100%)	33 (97%)	1 (3%)	50	81
55	D9	34/34 (100%)	33 (97%)	1 (3%)	50	81
All	All	9325/10072 (93%)	8209 (88%)	1116 (12%)	6	24

All (1116) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	7	VAL
2	AB	11	LEU
2	AB	15	VAL
2	AB	17	PHE
2	AB	19	HIS
2	AB	20	GLU
2	AB	21	ARG
2	AB	24	TRP
2	AB	49	GLU
2	AB	53	ARG
2	AB	56	ARG
2	AB	67	THR
2	AB	71	VAL
2	AB	80	ILE
2	AB	81	VAL
2	AB	87	ARG
2	AB	96	ARG
2	AB	109	SER
2	AB	112	VAL
2	AB	114	ARG
2	AB	116	GLU

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Mol	Chain	Res	Type
2	AB	126	GLU
2	AB	128	GLU
2	AB	142	LEU
2	AB	144	ARG
2	AB	145	LEU
2	AB	153	ARG
2	AB	155	LEU
2	AB	156	LYS
2	AB	157	ARG
2	AB	158	LEU
2	AB	170	GLU
2	AB	178	ARG
2	AB	185	ILE
2	AB	187	LEU
2	AB	190	THR
2	AB	196	LEU
2	AB	200	ILE
2	AB	208	ILE
2	AB	209	ARG
2	AB	217	ARG
2	AB	221	LEU
2	AB	222	ILE
2	AB	226	ARG
2	AB	233	SER
3	AC	3	ASN
3	AC	17	ASP
3	AC	27	LYS
3	AC	28	GLN
3	AC	29	TYR
3	AC	47	LEU
3	AC	52	LEU
3	AC	54	ARG
3	AC	77	ILE
3	AC	82	GLU
3	AC	98	ASN
3	AC	104	GLN
3	AC	118	GLN
3	AC	119	ARG
3	AC	131	ARG
3	AC	150	LYS
3	AC	154	SER
3	AC	165	THR

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Mol	Chain	Res	Type
4	AD	5	ILE
4	AD	19	LEU
4	AD	31	CYS
4	AD	58	LEU
4	AD	85	LYS
4	AD	86	LYS
4	AD	110	PHE
4	AD	112	VAL
4	AD	122	ARG
4	AD	126	ILE
4	AD	127	THR
4	AD	135	LEU
4	AD	150	GLU
4	AD	155	LEU
4	AD	158	ILE
4	AD	168	ARG
4	AD	181	MET
4	AD	182	LYS
4	AD	184	LYS
4	AD	187	ARG
4	AD	188	LEU
4	AD	190	ASP
4	AD	193	ASP
4	AD	196	LEU
4	AD	201	GLN
5	AE	10	MET
5	AE	12	LEU
5	AE	31	LEU
5	AE	40	ARG
5	AE	41	VAL
5	AE	47	LYS
5	AE	71	LEU
5	AE	78	HIS
5	AE	79	GLU
6	AF	46	ARG
6	AF	55	ASP
6	AF	63	TYR
6	AF	69	GLU
6	AF	74	ASP
6	AF	82	ARG
6	AF	94	GLN
7	AG	8	GLU

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Mol	Chain	Res	Type
7	AG	9	VAL
7	AG	12	LEU
7	AG	13	GLN
7	AG	15	ASP
7	AG	21	VAL
7	AG	50	ILE
7	AG	51	GLN
7	AG	57	GLU
7	AG	75	VAL
7	AG	76	ARG
7	AG	79	ARG
7	AG	97	GLN
7	AG	104	LEU
7	AG	113	GLU
7	AG	114	ARG
7	AG	138	LYS
7	AG	140	ASP
7	AG	144	MET
8	AH	21	LYS
8	AH	23	SER
8	AH	25	ASP
8	AH	26	VAL
8	AH	37	ARG
8	AH	50	ARG
8	AH	52	ASP
8	AH	53	VAL
8	AH	63	LEU
8	AH	75	ARG
8	AH	78	GLN
8	AH	97	VAL
8	AH	98	LYS
8	AH	107	LEU
8	AH	112	LEU
8	AH	137	VAL
9	AI	23	ASN
9	AI	27	THR
9	AI	53	VAL
9	AI	54	ASP
9	AI	56	LEU
9	AI	60	ASP
9	AI	65	VAL
9	AI	66	ARG

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Mol	Chain	Res	Type
9	AI	75	ASP
9	AI	81	ILE
9	AI	103	THR
9	AI	108	VAL
9	AI	127	LYS
9	AI	128	ARG
10	AJ	5	ARG
10	AJ	7	LYS
10	AJ	16	LEU
10	AJ	30	SER
10	AJ	68	HIS
10	AJ	96	ILE
11	AK	31	THR
11	AK	48	ILE
11	AK	70	LYS
11	AK	84	VAL
11	AK	95	ILE
11	AK	96	ARG
11	AK	104	GLN
11	AK	109	VAL
11	AK	120	ARG
12	AL	6	THR
12	AL	33	ARG
12	AL	46	LYS
12	AL	55	VAL
12	AL	67	THR
12	AL	70	ILE
12	AL	86	ARG
13	AM	3	ARG
13	AM	4	ILE
13	AM	8	GLU
13	AM	19	LEU
13	AM	43	THR
13	AM	50	GLU
13	AM	56	LEU
13	AM	70	LEU
13	AM	73	GLU
13	AM	110	ARG
13	AM	121	LYS
14	AN	3	ARG
14	AN	6	LEU
14	AN	7	ILE

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Mol	Chain	Res	Type
14	AN	18	VAL
14	AN	22	THR
14	AN	23	ARG
14	AN	32	SER
14	AN	33	VAL
15	AO	3	ILE
15	AO	5	LYS
15	AO	22	THR
15	AO	24	SER
15	AO	26	GLU
15	AO	39	LEU
15	AO	41	GLU
15	AO	83	GLU
15	AO	84	LYS
16	AP	2	VAL
16	AP	5	ARG
16	AP	8	ARG
16	AP	19	ILE
16	AP	20	VAL
16	AP	28	ARG
16	AP	45	THR
16	AP	50	LYS
16	AP	67	THR
17	AQ	14	LYS
17	AQ	53	LEU
17	AQ	60	ILE
17	AQ	63	ARG
17	AQ	74	LEU
18	AR	26	LEU
18	AR	32	ARG
18	AR	61	LYS
18	AR	82	THR
19	AS	5	LEU
19	AS	6	LYS
19	AS	28	LYS
19	AS	37	ARG
19	AS	63	THR
19	AS	65	ASN
20	AT	8	ARG
20	AT	9	ASN
20	AT	13	LEU
20	AT	31	SER

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Mol	Chain	Res	Type
20	AT	45	GLN
20	AT	46	GLU
20	AT	56	MET
20	AT	58	LYS
20	AT	62	LEU
21	AU	7	ARG
21	AU	9	ARG
21	AU	10	ARG
21	AU	15	ARG
24	AW	2	VAL
27	BD	3	VAL
27	BD	12	SER
27	BD	13	ARG
27	BD	61	LEU
27	BD	71	ASP
27	BD	94	LEU
27	BD	103	ARG
27	BD	138	VAL
27	BD	142	VAL
27	BD	155	LEU
27	BD	211	ARG
27	BD	217	ARG
27	BD	221	VAL
27	BD	229	VAL
27	BD	242	ARG
27	BD	257	LEU
27	BD	260	ARG
28	BE	1	MET
28	BE	9	VAL
28	BE	12	THR
28	BE	21	VAL
28	BE	24	THR
28	BE	49	LEU
28	BE	73	GLU
28	BE	82	ARG
28	BE	89	ASP
28	BE	93	VAL
28	BE	97	LYS
28	BE	111	ARG
28	BE	116	VAL
28	BE	119	ARG
28	BE	144	ARG

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Mol	Chain	Res	Type
28	BE	145	LYS
28	BE	154	LYS
28	BE	163	GLU
28	BE	170	LEU
28	BE	175	VAL
28	BE	181	LEU
28	BE	203	LYS
29	BF	19	GLU
29	BF	24	LEU
29	BF	33	LEU
29	BF	53	THR
29	BF	57	VAL
29	BF	64	ILE
29	BF	74	ARG
29	BF	78	ILE
29	BF	88	VAL
29	BF	106	ARG
29	BF	108	LYS
29	BF	110	LEU
29	BF	125	LEU
29	BF	170	LEU
29	BF	192	LEU
29	BF	197	ASP
29	BF	200	GLU
30	BG	5	VAL
30	BG	7	LEU
30	BG	28	VAL
30	BG	31	VAL
30	BG	43	LEU
30	BG	45	GLU
30	BG	78	SER
30	BG	81	LYS
30	BG	82	LEU
30	BG	86	MET
30	BG	91	ARG
30	BG	133	LEU
30	BG	135	LEU
30	BG	136	ARG
30	BG	140	ILE
30	BG	143	GLU
30	BG	148	MET
30	BG	159	VAL

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Mol	Chain	Res	Type
30	BG	170	ARG
30	BG	181	ARG
31	BH	6	ARG
31	BH	13	LYS
31	BH	15	VAL
31	BH	41	MET
31	BH	44	VAL
31	BH	49	VAL
31	BH	59	ARG
31	BH	69	ARG
31	BH	95	ARG
31	BH	98	LEU
31	BH	116	GLU
31	BH	122	THR
31	BH	129	THR
31	BH	172	LYS
31	BH	175	LYS
32	BI	9	LEU
32	BI	15	VAL
32	BI	19	VAL
32	BI	20	ASP
32	BI	38	LEU
32	BI	40	THR
32	BI	41	GLU
32	BI	43	ASN
32	BI	50	ARG
32	BI	54	GLN
32	BI	57	ARG
32	BI	60	GLU
32	BI	64	GLU
32	BI	66	GLU
32	BI	68	LEU
32	BI	74	ASN
32	BI	75	LEU
32	BI	77	LEU
32	BI	78	THR
32	BI	92	VAL
32	BI	96	ASP
32	BI	101	LEU
32	BI	107	VAL
32	BI	109	ILE
32	BI	114	LEU

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Mol	Chain	Res	Type
32	BI	140	LEU
32	BI	142	VAL
32	BI	144	VAL
33	BN	28	THR
33	BN	33	LEU
33	BN	34	LEU
33	BN	46	VAL
33	BN	48	MET
33	BN	61	ARG
33	BN	68	GLU
33	BN	83	LYS
33	BN	87	LEU
33	BN	97	ARG
33	BN	99	LEU
33	BN	120	LEU
33	BN	121	LYS
33	BN	133	GLN
33	BN	137	LYS
34	BO	8	LEU
34	BO	23	ARG
34	BO	24	VAL
34	BO	58	VAL
34	BO	94	ARG
34	BO	98	VAL
35	BP	4	SER
35	BP	15	ARG
35	BP	42	SER
35	BP	59	LEU
35	BP	65	ARG
35	BP	83	VAL
35	BP	95	VAL
35	BP	98	GLU
35	BP	106	LEU
35	BP	112	LEU
35	BP	125	VAL
35	BP	144	GLU
35	BP	149	GLU
36	BQ	1	MET
36	BQ	5	ARG
36	BQ	7	MET
36	BQ	8	LYS
36	BQ	16	ARG

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Mol	Chain	Res	Type
36	BQ	21	THR
36	BQ	45	GLN
36	BQ	54	MET
36	BQ	56	ARG
36	BQ	60	ARG
36	BQ	75	THR
36	BQ	81	VAL
36	BQ	85	LYS
36	BQ	109	VAL
36	BQ	110	THR
36	BQ	129	THR
36	BQ	138	ASP
37	BR	1	MET
37	BR	6	SER
37	BR	18	LEU
37	BR	28	LEU
37	BR	29	LEU
37	BR	33	ARG
37	BR	36	THR
37	BR	44	LEU
37	BR	54	LEU
37	BR	60	LEU
37	BR	65	LEU
37	BR	67	LEU
37	BR	75	LEU
37	BR	79	LEU
37	BR	86	ARG
37	BR	91	GLN
37	BR	100	LEU
37	BR	111	LEU
38	BS	14	VAL
38	BS	20	ARG
38	BS	36	TYR
38	BS	43	GLU
38	BS	48	LEU
38	BS	50	SER
38	BS	59	LYS
38	BS	61	ASN
38	BS	78	LEU
38	BS	103	GLU
39	BT	13	ARG
39	BT	17	THR

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Mol	Chain	Res	Type
39	BT	28	VAL
39	BT	39	ARG
39	BT	49	VAL
39	BT	53	ARG
39	BT	74	ARG
39	BT	78	LEU
39	BT	85	LYS
39	BT	96	ARG
39	BT	118	ARG
40	BU	8	VAL
40	BU	31	SER
40	BU	36	ARG
40	BU	60	LEU
40	BU	74	LEU
40	BU	83	LEU
40	BU	92	ARG
40	BU	95	LEU
40	BU	104	GLN
40	BU	117	GLN
41	BV	10	LYS
41	BV	18	LEU
41	BV	21	ARG
41	BV	51	VAL
41	BV	52	VAL
41	BV	61	VAL
41	BV	62	LEU
41	BV	72	VAL
41	BV	79	VAL
41	BV	95	LEU
41	BV	100	ARG
42	BW	11	ARG
42	BW	15	ARG
42	BW	17	VAL
42	BW	23	LEU
42	BW	27	LYS
42	BW	51	LEU
42	BW	60	ASN
42	BW	63	ASP
42	BW	67	ASP
42	BW	100	THR
42	BW	107	LEU
43	BX	2	LYS

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Mol	Chain	Res	Type
43	BX	57	LEU
43	BX	66	LEU
43	BX	70	LEU
44	BY	2	ARG
44	BY	7	VAL
44	BY	43	ASN
44	BY	72	VAL
44	BY	90	LEU
44	BY	91	GLU
45	BZ	5	LEU
45	BZ	6	LYS
45	BZ	11	GLU
45	BZ	19	ARG
45	BZ	31	ARG
45	BZ	40	ASP
45	BZ	41	LEU
45	BZ	42	VAL
45	BZ	61	LEU
45	BZ	76	LEU
45	BZ	82	ARG
45	BZ	86	VAL
45	BZ	87	ASP
45	BZ	91	LEU
45	BZ	107	THR
45	BZ	120	ILE
45	BZ	131	ARG
45	BZ	132	ASN
45	BZ	135	GLU
45	BZ	136	PHE
45	BZ	144	LEU
45	BZ	154	ASP
45	BZ	155	LEU
45	BZ	162	GLU
46	B0	7	LEU
46	B0	10	THR
46	B0	20	ARG
46	B0	55	ARG
47	B1	21	ARG
47	B1	26	ARG
47	B1	35	THR
47	B1	40	ARG
47	B1	52	ARG

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Mol	Chain	Res	Type
47	B1	59	THR
47	B1	89	GLU
47	B1	95	LEU
48	B2	28	LYS
48	B2	30	ARG
48	B2	41	ILE
48	B2	45	SER
48	B2	52	ASP
48	B2	53	LEU
48	B2	55	ARG
48	B2	64	LEU
48	B2	70	GLN
49	B3	6	VAL
49	B3	8	LEU
49	B3	23	LEU
49	B3	29	ARG
49	B3	32	GLN
49	B3	55	ARG
49	B3	58	VAL
50	B4	5	ILE
50	B4	28	LYS
50	B4	34	GLU
50	B4	46	GLN
50	B4	49	PHE
50	B4	56	VAL
50	B4	58	ARG
50	B4	61	ARG
50	B4	63	TYR
50	B4	68	ARG
50	B4	69	LYS
51	B5	6	VAL
51	B5	29	THR
51	B5	40	LYS
51	B5	58	LEU
51	B5	60	VAL
52	B6	4	GLU
52	B6	6	ARG
52	B6	14	THR
52	B6	38	LYS
52	B6	48	VAL
52	B6	49	HIS
53	B7	1	MET

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Mol	Chain	Res	Type
53	B7	23	ARG
53	B7	43	THR
53	B7	47	ARG
54	B8	14	VAL
54	B8	29	LYS
54	B8	31	HIS
54	B8	32	LEU
55	B9	26	ILE
2	CB	7	VAL
2	CB	11	LEU
2	CB	22	LYS
2	CB	23	ARG
2	CB	24	TRP
2	CB	44	LEU
2	CB	56	ARG
2	CB	67	THR
2	CB	71	VAL
2	CB	80	ILE
2	CB	108	ILE
2	CB	115	LEU
2	CB	126	GLU
2	CB	128	GLU
2	CB	140	HIS
2	CB	142	LEU
2	CB	144	ARG
2	CB	145	LEU
2	CB	153	ARG
2	CB	154	LEU
2	CB	157	ARG
2	CB	158	LEU
2	CB	160	ASP
2	CB	169	LYS
2	CB	178	ARG
2	CB	185	ILE
2	CB	187	LEU
2	CB	191	ASP
2	CB	200	ILE
2	CB	217	ARG
2	CB	221	LEU
2	CB	224	GLN
2	CB	226	ARG
2	CB	233	SER

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Mol	Chain	Res	Type
2	CB	235	SER
3	CC	3	ASN
3	CC	20	SER
3	CC	29	TYR
3	CC	47	LEU
3	CC	52	LEU
3	CC	77	ILE
3	CC	82	GLU
3	CC	98	ASN
3	CC	101	LEU
3	CC	104	GLN
3	CC	115	LEU
3	CC	118	GLN
3	CC	131	ARG
3	CC	152	ILE
3	CC	154	SER
3	CC	162	GLN
3	CC	164	ARG
3	CC	179	ARG
4	CD	10	ARG
4	CD	19	LEU
4	CD	31	CYS
4	CD	47	ARG
4	CD	58	LEU
4	CD	65	ARG
4	CD	96	LEU
4	CD	122	ARG
4	CD	127	THR
4	CD	135	LEU
4	CD	150	GLU
4	CD	155	LEU
4	CD	157	LEU
4	CD	170	VAL
4	CD	181	MET
4	CD	184	LYS
4	CD	187	ARG
4	CD	188	LEU
4	CD	191	ARG
4	CD	194	LEU
4	CD	201	GLN
5	CE	12	LEU
5	CE	31	LEU

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Mol	Chain	Res	Type
5	CE	40	ARG
5	CE	41	VAL
5	CE	71	LEU
5	CE	79	GLU
5	CE	82	VAL
6	CF	23	LYS
6	CF	28	ARG
6	CF	41	GLU
6	CF	46	ARG
6	CF	63	TYR
6	CF	69	GLU
7	CG	9	VAL
7	CG	12	LEU
7	CG	13	GLN
7	CG	15	ASP
7	CG	16	LEU
7	CG	50	ILE
7	CG	51	GLN
7	CG	52	GLU
7	CG	58	PRO
7	CG	73	MET
7	CG	75	VAL
7	CG	85	TYR
7	CG	104	LEU
7	CG	113	GLU
7	CG	114	ARG
7	CG	140	ASP
7	CG	144	MET
7	CG	155	ARG
8	CH	21	LYS
8	CH	23	SER
8	CH	25	ASP
8	CH	53	VAL
8	CH	68	ARG
8	CH	78	GLN
8	CH	84	ARG
8	CH	97	VAL
8	CH	98	LYS
8	CH	99	GLU
8	CH	112	LEU
8	CH	137	VAL
9	CI	7	THR

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Mol	Chain	Res	Type
9	CI	17	VAL
9	CI	23	ASN
9	CI	27	THR
9	CI	33	PHE
9	CI	66	ARG
9	CI	75	ASP
9	CI	81	ILE
9	CI	86	VAL
9	CI	92	TYR
9	CI	102	LEU
9	CI	124	GLN
9	CI	125	TYR
9	CI	128	ARG
10	CJ	6	ILE
10	CJ	23	ILE
10	CJ	29	ARG
10	CJ	68	HIS
10	CJ	96	ILE
11	CK	54	ARG
11	CK	79	SER
11	CK	84	VAL
11	CK	95	ILE
11	CK	96	ARG
11	CK	126	ARG
12	CL	33	ARG
12	CL	34	ARG
12	CL	52	LEU
12	CL	55	VAL
12	CL	59	ARG
12	CL	60	LEU
12	CL	70	ILE
12	CL	83	VAL
12	CL	97	ARG
12	CL	123	LYS
13	CM	3	ARG
13	CM	4	ILE
13	CM	8	GLU
13	CM	19	LEU
13	CM	27	LYS
13	CM	47	ASP
13	CM	56	LEU
13	CM	70	LEU

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Mol	Chain	Res	Type
13	CM	104	ARG
13	CM	106	ASN
13	CM	110	ARG
13	CM	121	LYS
14	CN	3	ARG
14	CN	7	ILE
14	CN	18	VAL
14	CN	22	THR
14	CN	23	ARG
14	CN	33	VAL
14	CN	50	LYS
15	CO	3	ILE
15	CO	5	LYS
15	CO	7	GLU
15	CO	10	LYS
15	CO	22	THR
15	CO	24	SER
15	CO	26	GLU
15	CO	39	LEU
15	CO	54	ARG
15	CO	76	GLU
15	CO	83	GLU
15	CO	84	LYS
16	CP	2	VAL
16	CP	5	ARG
16	CP	8	ARG
16	CP	28	ARG
16	CP	67	THR
17	CQ	6	LEU
17	CQ	49	GLU
17	CQ	60	ILE
17	CQ	63	ARG
17	CQ	66	SER
17	CQ	74	LEU
17	CQ	83	ASP
18	CR	26	LEU
18	CR	32	ARG
18	CR	41	LYS
18	CR	42	ARG
18	CR	54	ARG
18	CR	64	ARG
18	CR	76	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
19	CS	6	LYS
19	CS	12	ASP
19	CS	28	LYS
19	CS	30	LEU
19	CS	33	THR
19	CS	37	ARG
19	CS	43	GLU
19	CS	56	GLN
19	CS	63	THR
19	CS	71	LEU
20	CT	36	LEU
20	CT	38	LYS
20	CT	45	GLN
20	CT	46	GLU
20	CT	56	MET
20	CT	62	LEU
20	CT	71	THR
20	CT	80	ARG
20	CT	90	GLN
20	CT	99	LEU
21	CU	10	ARG
21	CU	15	ARG
24	CW	2	VAL
27	DD	13	ARG
27	DD	32	SER
27	DD	61	LEU
27	DD	69	ARG
27	DD	88	ARG
27	DD	94	LEU
27	DD	103	ARG
27	DD	106	ILE
27	DD	113	VAL
27	DD	116	GLN
27	DD	134	ARG
27	DD	138	VAL
27	DD	142	VAL
27	DD	155	LEU
27	DD	200	ASP
27	DD	211	ARG
27	DD	217	ARG
27	DD	221	VAL
27	DD	229	VAL

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Mol	Chain	Res	Type
27	DD	242	ARG
27	DD	257	LEU
27	DD	259	THR
27	DD	260	ARG
27	DD	274	ARG
27	DD	276	LYS
28	DE	1	MET
28	DE	9	VAL
28	DE	12	THR
28	DE	21	VAL
28	DE	24	THR
28	DE	33	VAL
28	DE	40	GLU
28	DE	49	LEU
28	DE	52	LEU
28	DE	73	GLU
28	DE	75	VAL
28	DE	78	LEU
28	DE	82	ARG
28	DE	111	ARG
28	DE	116	VAL
28	DE	119	ARG
28	DE	144	ARG
28	DE	154	LYS
28	DE	163	GLU
28	DE	181	LEU
29	DF	12	LEU
29	DF	19	GLU
29	DF	20	LEU
29	DF	24	LEU
29	DF	33	LEU
29	DF	74	ARG
29	DF	106	ARG
29	DF	107	LYS
29	DF	108	LYS
29	DF	110	LEU
29	DF	135	LYS
29	DF	137	LYS
29	DF	192	LEU
29	DF	200	GLU
30	DG	5	VAL
30	DG	21	ARG

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Mol	Chain	Res	Type
30	DG	28	VAL
30	DG	31	VAL
30	DG	35	GLU
30	DG	36	LYS
30	DG	43	LEU
30	DG	45	GLU
30	DG	49	ASP
30	DG	60	LEU
30	DG	84	LYS
30	DG	91	ARG
30	DG	98	ARG
30	DG	113	ARG
30	DG	115	ARG
30	DG	128	ARG
30	DG	133	LEU
30	DG	136	ARG
30	DG	140	ILE
30	DG	143	GLU
30	DG	145	THR
30	DG	148	MET
30	DG	153	ARG
30	DG	159	VAL
30	DG	164	GLU
30	DG	170	ARG
31	DH	3	ARG
31	DH	6	ARG
31	DH	15	VAL
31	DH	42	ARG
31	DH	69	ARG
31	DH	76	VAL
31	DH	81	GLU
31	DH	95	ARG
31	DH	98	LEU
31	DH	106	THR
31	DH	139	GLN
31	DH	171	LEU
31	DH	172	LYS
32	DI	15	VAL
32	DI	19	VAL
32	DI	20	ASP
32	DI	40	THR
32	DI	41	GLU

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Mol	Chain	Res	Type
32	DI	43	ASN
32	DI	44	LEU
32	DI	57	ARG
32	DI	61	ARG
32	DI	66	GLU
32	DI	68	LEU
32	DI	75	LEU
32	DI	77	LEU
32	DI	114	LEU
32	DI	121	LYS
32	DI	140	LEU
32	DI	142	VAL
32	DI	144	VAL
33	DN	5	VAL
33	DN	12	ARG
33	DN	33	LEU
33	DN	34	LEU
33	DN	38	HIS
33	DN	46	VAL
33	DN	48	MET
33	DN	61	ARG
33	DN	68	GLU
33	DN	85	ILE
33	DN	87	LEU
33	DN	99	LEU
33	DN	120	LEU
33	DN	133	GLN
33	DN	137	LYS
33	DN	138	LEU
34	DO	8	LEU
34	DO	23	ARG
34	DO	24	VAL
34	DO	58	VAL
34	DO	69	ILE
34	DO	92	GLU
34	DO	94	ARG
34	DO	98	VAL
34	DO	108	GLU
35	DP	2	LYS
35	DP	29	LYS
35	DP	42	SER
35	DP	55	ARG

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Mol	Chain	Res	Type
35	DP	59	LEU
35	DP	65	ARG
35	DP	76	LYS
35	DP	77	ARG
35	DP	99	LEU
35	DP	106	LEU
35	DP	112	LEU
36	DQ	1	MET
36	DQ	7	MET
36	DQ	8	LYS
36	DQ	11	LYS
36	DQ	16	ARG
36	DQ	21	THR
36	DQ	45	GLN
36	DQ	55	VAL
36	DQ	56	ARG
36	DQ	60	ARG
36	DQ	75	THR
36	DQ	81	VAL
36	DQ	85	LYS
36	DQ	109	VAL
36	DQ	110	THR
37	DR	1	MET
37	DR	6	SER
37	DR	18	LEU
37	DR	28	LEU
37	DR	29	LEU
37	DR	33	ARG
37	DR	36	THR
37	DR	44	LEU
37	DR	57	ARG
37	DR	60	LEU
37	DR	65	LEU
37	DR	75	LEU
37	DR	79	LEU
37	DR	86	ARG
37	DR	100	LEU
37	DR	111	LEU
38	DS	14	VAL
38	DS	20	ARG
38	DS	35	ILE
38	DS	36	TYR

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Mol	Chain	Res	Type
38	DS	43	GLU
38	DS	48	LEU
38	DS	50	SER
38	DS	57	LYS
38	DS	58	LEU
38	DS	67	ARG
38	DS	68	GLN
38	DS	75	GLU
38	DS	78	LEU
38	DS	83	LYS
38	DS	103	GLU
39	DT	6	LEU
39	DT	13	ARG
39	DT	74	ARG
39	DT	85	LYS
39	DT	89	VAL
39	DT	96	ARG
39	DT	113	LYS
39	DT	118	ARG
40	DU	5	LYS
40	DU	31	SER
40	DU	59	ARG
40	DU	60	LEU
40	DU	74	LEU
40	DU	83	LEU
40	DU	89	GLU
40	DU	92	ARG
40	DU	104	GLN
40	DU	108	GLU
40	DU	114	LYS
41	DV	15	GLU
41	DV	18	LEU
41	DV	21	ARG
41	DV	52	VAL
41	DV	57	VAL
41	DV	62	LEU
41	DV	72	VAL
41	DV	79	VAL
41	DV	95	LEU
42	DW	11	ARG
42	DW	15	ARG
42	DW	17	VAL

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Mol	Chain	Res	Type
42	DW	23	LEU
42	DW	27	LYS
42	DW	51	LEU
42	DW	60	ASN
42	DW	63	ASP
42	DW	100	THR
42	DW	107	LEU
43	DX	35	THR
43	DX	57	LEU
43	DX	70	LEU
44	DY	2	ARG
44	DY	11	ASP
44	DY	23	ARG
44	DY	43	ASN
44	DY	72	VAL
44	DY	99	CYS
45	DZ	5	LEU
45	DZ	11	GLU
45	DZ	19	ARG
45	DZ	31	ARG
45	DZ	33	LEU
45	DZ	40	ASP
45	DZ	41	LEU
45	DZ	50	GLN
45	DZ	61	LEU
45	DZ	72	ARG
45	DZ	76	LEU
45	DZ	86	VAL
45	DZ	87	ASP
45	DZ	91	LEU
45	DZ	107	THR
45	DZ	154	ASP
45	DZ	155	LEU
45	DZ	162	GLU
45	DZ	165	VAL
46	D0	7	LEU
46	D0	10	THR
46	D0	19	LYS
46	D0	20	ARG
46	D0	24	LYS
46	D0	55	ARG
47	D1	21	ARG

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Mol	Chain	Res	Type
47	D1	26	ARG
47	D1	35	THR
47	D1	40	ARG
47	D1	52	ARG
47	D1	59	THR
47	D1	78	LYS
48	D2	28	LYS
48	D2	30	ARG
48	D2	40	SER
48	D2	45	SER
48	D2	52	ASP
48	D2	53	LEU
48	D2	55	ARG
48	D2	70	GLN
49	D3	6	VAL
49	D3	8	LEU
49	D3	23	LEU
49	D3	24	LYS
49	D3	30	ARG
49	D3	32	GLN
49	D3	44	ARG
50	D4	5	ILE
50	D4	44	THR
50	D4	56	VAL
50	D4	58	ARG
50	D4	61	ARG
50	D4	63	TYR
50	D4	68	ARG
50	D4	69	LYS
51	D5	29	THR
51	D5	33	CYS
51	D5	40	LYS
51	D5	48	GLU
51	D5	58	LEU
52	D6	6	ARG
52	D6	9	LEU
52	D6	38	LYS
52	D6	48	VAL
53	D7	1	MET
53	D7	48	LYS
54	D8	14	VAL
54	D8	26	LYS

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Mol	Chain	Res	Type
54	D8	29	LYS
54	D8	31	HIS
55	D9	26	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (113) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	40	HIS
3	AC	6	HIS
3	AC	28	GLN
3	AC	104	GLN
3	AC	118	GLN
3	AC	136	GLN
3	AC	181	ASN
4	AD	45	GLN
5	AE	20	GLN
5	AE	56	GLN
5	AE	141	GLN
6	AF	94	GLN
6	AF	100	ASN
7	AG	28	ASN
7	AG	148	ASN
9	AI	23	ASN
9	AI	31	GLN
9	AI	34	ASN
9	AI	89	ASN
10	AJ	13	HIS
10	AJ	56	HIS
11	AK	93	GLN
12	AL	78	GLN
12	AL	99	HIS
13	AM	92	HIS
15	AO	28	GLN
15	AO	62	GLN
16	AP	13	HIS
17	AQ	16	GLN
17	AQ	26	GLN
19	AS	23	ASN
19	AS	47	HIS
19	AS	65	ASN
19	AS	69	HIS
20	AT	9	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
20	AT	45	GLN
20	AT	90	GLN
27	BD	253	GLN
29	BF	69	HIS
29	BF	169	ASN
29	BF	203	GLN
31	BH	158	HIS
32	BI	43	ASN
32	BI	139	GLN
35	BP	38	GLN
36	BQ	45	GLN
39	BT	123	GLN
40	BU	117	GLN
41	BV	80	GLN
43	BX	31	HIS
44	BY	6	HIS
44	BY	43	ASN
45	BZ	32	HIS
45	BZ	151	HIS
46	B0	3	HIS
48	B2	38	GLN
48	B2	70	GLN
49	B3	32	GLN
55	B9	36	GLN
2	CB	19	HIS
2	CB	40	HIS
2	CB	224	GLN
3	CC	6	HIS
3	CC	28	GLN
3	CC	37	GLN
3	CC	104	GLN
3	CC	118	GLN
3	CC	123	GLN
3	CC	136	GLN
4	CD	45	GLN
4	CD	74	GLN
4	CD	125	HIS
5	CE	20	GLN
5	CE	78	HIS
5	CE	141	GLN
7	CG	51	GLN
8	CH	78	GLN

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Mol	Chain	Res	Type
9	CI	31	GLN
9	CI	58	HIS
10	CJ	68	HIS
11	CK	22	HIS
11	CK	93	GLN
12	CL	78	GLN
13	CM	77	ASN
15	CO	28	GLN
16	CP	16	HIS
19	CS	65	ASN
19	CS	69	HIS
20	CT	16	HIS
27	DD	87	ASN
27	DD	164	GLN
27	DD	253	GLN
28	DE	85	ASN
29	DF	69	HIS
29	DF	169	ASN
29	DF	203	GLN
30	DG	40	ASN
30	DG	79	ASN
31	DH	139	GLN
31	DH	158	HIS
32	DI	43	ASN
35	DP	38	GLN
36	DQ	45	GLN
37	DR	13	HIS
37	DR	71	GLN
38	DS	68	GLN
39	DT	123	GLN
41	DV	64	HIS
43	DX	31	HIS
44	DY	43	ASN
46	D0	3	HIS
48	D2	38	GLN
55	D9	36	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1495/1522 (98%)	393 (26%)	25 (1%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	CA	1502/1522 (98%)	388 (25%)	31 (2%)
22	AV	4/24 (16%)	1 (25%)	0
22	CV	4/24 (16%)	1 (25%)	0
23	AX	75/77 (97%)	16 (21%)	0
23	CX	75/77 (97%)	16 (21%)	0
25	BA	2722/2915 (93%)	508 (18%)	40 (1%)
25	DA	2704/2915 (92%)	535 (19%)	37 (1%)
26	BB	119/122 (97%)	18 (15%)	0
26	DB	119/122 (97%)	24 (20%)	1 (0%)
All	All	8819/9320 (94%)	1900 (21%)	134 (1%)

All (1900) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	9	G
1	AA	15	G
1	AA	22	G
1	AA	32	A
1	AA	39	G
1	AA	44	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	59	A
1	AA	61	G
1	AA	63	C
1	AA	69	G
1	AA	77	G
1	AA	78	G
1	AA	79	G
1	AA	96	U
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	102	G
1	AA	112	G
1	AA	115	G
1	AA	116	A
1	AA	121	C
1	AA	129(A)	G

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Mol	Chain	Res	Type
1	AA	131	C
1	AA	138	G
1	AA	141	A
1	AA	142	G
1	AA	143	A
1	AA	144	G
1	AA	149	A
1	AA	163	C
1	AA	165	C
1	AA	166	G
1	AA	171	A
1	AA	173	U
1	AA	174	C
1	AA	180	U
1	AA	181	G
1	AA	182	U
1	AA	189(D)	C
1	AA	189(F)	U
1	AA	190	U
1	AA	193	C
1	AA	194	C
1	AA	195	A
1	AA	197	A
1	AA	199	G
1	AA	201	C
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	220	G
1	AA	247	G
1	AA	251	G
1	AA	258	G
1	AA	266	G
1	AA	267	C
1	AA	269	C
1	AA	277	C
1	AA	281	G
1	AA	289	G
1	AA	298	A
1	AA	301	G
1	AA	321	A
1	AA	328	C

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Mol	Chain	Res	Type
1	AA	332	G
1	AA	342	C
1	AA	346	G
1	AA	347	G
1	AA	348	G
1	AA	349	A
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	355	C
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	383	A
1	AA	388	G
1	AA	396	G
1	AA	397	A
1	AA	398	C
1	AA	403	C
1	AA	406	G
1	AA	409	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	415	A
1	AA	422	C
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	439	A
1	AA	442	C
1	AA	443	C
1	AA	452	A
1	AA	461	A
1	AA	471	G
1	AA	474	G
1	AA	484	G
1	AA	485	G
1	AA	492	G
1	AA	496	A

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Mol	Chain	Res	Type
1	AA	498	U
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	513	C
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	536	C
1	AA	544	G
1	AA	547	A
1	AA	553	A
1	AA	559	A
1	AA	561	U
1	AA	571	U
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	592	G
1	AA	596	C
1	AA	597	G
1	AA	606	G
1	AA	626	U
1	AA	630	G
1	AA	631	G
1	AA	633	G
1	AA	639	G
1	AA	641	U
1	AA	649	G
1	AA	650	G
1	AA	651	C
1	AA	653	A
1	AA	665	A
1	AA	673	G
1	AA	680	C
1	AA	687	A
1	AA	688	G
1	AA	693	G

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Mol	Chain	Res	Type
1	AA	704	A
1	AA	711	G
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	749	C
1	AA	752	G
1	AA	755	G
1	AA	760	G
1	AA	774	G
1	AA	777	A
1	AA	786	G
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	802	A
1	AA	806	C
1	AA	812	C
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	821	G
1	AA	827	U
1	AA	828	A
1	AA	829	G
1	AA	836	G
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	851	G
1	AA	855	G
1	AA	858	G
1	AA	859	A
1	AA	870	U
1	AA	873	A
1	AA	876	G
1	AA	902	G
1	AA	914	A
1	AA	916	G
1	AA	922	G

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Mol	Chain	Res	Type
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	942	G
1	AA	958	A
1	AA	960	U
1	AA	961	U
1	AA	967	C
1	AA	968	A
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	982	U
1	AA	983	A
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	999	C
1	AA	1000	U
1	AA	1001	A
1	AA	1001(A)	G
1	AA	1002	G
1	AA	1003	G
1	AA	1004	A
1	AA	1005	A
1	AA	1006	C
1	AA	1007	C
1	AA	1009	G
1	AA	1011	G
1	AA	1013	G
1	AA	1014	A
1	AA	1019	C
1	AA	1020	U
1	AA	1022	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G

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Mol	Chain	Res	Type
1	AA	1027	C
1	AA	1028	C
1	AA	1029	C
1	AA	1030	C
1	AA	1030(A)	G
1	AA	1030(C)	G
1	AA	1031	G
1	AA	1033	G
1	AA	1035	A
1	AA	1036	G
1	AA	1037	C
1	AA	1039	C
1	AA	1042	G
1	AA	1043	C
1	AA	1052	U
1	AA	1053	G
1	AA	1054	C
1	AA	1055	A
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1070	U
1	AA	1076	C
1	AA	1081	G
1	AA	1087	G
1	AA	1091	U
1	AA	1092	A
1	AA	1093	A
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1104	G
1	AA	1108	G
1	AA	1109	C
1	AA	1119	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1128	C
1	AA	1130	A
1	AA	1132	C
1	AA	1134	G

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Mol	Chain	Res	Type
1	AA	1135	U
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1141	C
1	AA	1145	C
1	AA	1146	A
1	AA	1151	A
1	AA	1152	A
1	AA	1154	G
1	AA	1157	A
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1166	G
1	AA	1173	G
1	AA	1176	A
1	AA	1181	G
1	AA	1183	A
1	AA	1184	G
1	AA	1189	C
1	AA	1193	G
1	AA	1196	U
1	AA	1197	G
1	AA	1200	C
1	AA	1202	G
1	AA	1204	A
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1223	C
1	AA	1224	G
1	AA	1227	A
1	AA	1235	U
1	AA	1236	A
1	AA	1238	A
1	AA	1250	A
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1259	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	1260	C
1	AA	1262	C
1	AA	1270	C
1	AA	1271	G
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1283	G
1	AA	1284	C
1	AA	1286	A
1	AA	1287	A
1	AA	1294	G
1	AA	1296	C
1	AA	1297	C
1	AA	1299	A
1	AA	1300	G
1	AA	1302	U
1	AA	1305	G
1	AA	1311	G
1	AA	1314	C
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1338	G
1	AA	1340	A
1	AA	1343	G
1	AA	1346	A
1	AA	1347	G
1	AA	1353	G
1	AA	1354	C
1	AA	1358	U
1	AA	1360	A
1	AA	1361	G
1	AA	1363	C
1	AA	1370	G
1	AA	1377	A
1	AA	1379	G
1	AA	1393	U

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Mol	Chain	Res	Type
1	AA	1396	A
1	AA	1397	C
1	AA	1402	C
1	AA	1419	G
1	AA	1422	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1446	U
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1457	G
1	AA	1469	G
1	AA	1487	G
1	AA	1489	G
1	AA	1493	A
1	AA	1494	G
1	AA	1497	G
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1506	U
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1532	U
22	AV	15	A
23	AX	6	G
23	AX	9	G
23	AX	13	C
23	AX	19	G
23	AX	21	A
23	AX	26	G
23	AX	28	C
23	AX	31	G
23	AX	42	G
23	AX	47	U
23	AX	60	U
23	AX	61	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	AX	67	C
23	AX	68	C
23	AX	70	G
23	AX	76	A
25	BA	9	U
25	BA	11	G
25	BA	12	U
25	BA	14	A
25	BA	34	C
25	BA	36	G
25	BA	45	C
25	BA	54	G
25	BA	62	U
25	BA	63	A
25	BA	70	A
25	BA	71	U
25	BA	73	A
25	BA	74	G
25	BA	83	A
25	BA	90	A
25	BA	99	G
25	BA	116	A
25	BA	118	U
25	BA	120	G
25	BA	125	A
25	BA	155	C
25	BA	161	C
25	BA	185	A
25	BA	187	C
25	BA	188	A
25	BA	194	G
25	BA	203	G
25	BA	204	G
25	BA	205	A
25	BA	206	G
25	BA	210	A
25	BA	211	A
25	BA	217	A
25	BA	218	A
25	BA	222	A
25	BA	237	G
25	BA	250	G

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Mol	Chain	Res	Type
25	BA	263	C
25	BA	265	U
25	BA	269	G
25	BA	271	U
25	BA	272	U
25	BA	273	G
25	BA	274	U
25	BA	275	C
25	BA	276	C
25	BA	279	G
25	BA	288	U
25	BA	289	G
25	BA	294	C
25	BA	296	U
25	BA	303	C
25	BA	306	A
25	BA	307	A
25	BA	332	G
25	BA	335	A
25	BA	353	G
25	BA	354	A
25	BA	360	C
25	BA	376	G
25	BA	381	A
25	BA	387	G
25	BA	391	G
25	BA	399	G
25	BA	407	U
25	BA	413	G
25	BA	432	U
25	BA	434	G
25	BA	438	G
25	BA	439	A
25	BA	448	U
25	BA	455	A
25	BA	469	A
25	BA	470	C
25	BA	474	U
25	BA	478	G
25	BA	482	C
25	BA	483	A
25	BA	496	A

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Mol	Chain	Res	Type
25	BA	505	A
25	BA	506	A
25	BA	507	G
25	BA	508	A
25	BA	515	G
25	BA	519	G
25	BA	522	A
25	BA	526	A
25	BA	529	U
25	BA	530	A
25	BA	534	C
25	BA	543	G
25	BA	549	U
25	BA	554	A
25	BA	555	G
25	BA	556	C
25	BA	557	A
25	BA	558	G
25	BA	569	G
25	BA	573	G
25	BA	586	G
25	BA	596	G
25	BA	598	A
25	BA	609	A
25	BA	610	C
25	BA	616	G
25	BA	625	G
25	BA	626	A
25	BA	627	G
25	BA	630	U
25	BA	633	G
25	BA	638	U
25	BA	639	G
25	BA	641	G
25	BA	659	C
25	BA	662	A
25	BA	670	C
25	BA	671	A
25	BA	692	C
25	BA	693	G
25	BA	697	C
25	BA	698	G

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Mol	Chain	Res	Type
25	BA	701	A
25	BA	712	C
25	BA	716	G
25	BA	724	A
25	BA	733	G
25	BA	745	C
25	BA	749	G
25	BA	764	G
25	BA	777	C
25	BA	811	A
25	BA	822	G
25	BA	823	G
25	BA	826	U
25	BA	829	A
25	BA	831	A
25	BA	832	G
25	BA	839	G
25	BA	852	G
25	BA	858	U
25	BA	859	C
25	BA	866	A
25	BA	874	U
25	BA	875	U
25	BA	877	G
25	BA	902	G
25	BA	906	G
25	BA	926	G
25	BA	927	G
25	BA	928	G
25	BA	929	G
25	BA	930	G
25	BA	931	C
25	BA	932	C
25	BA	933	C
25	BA	934	A
25	BA	935	C
25	BA	937	A
25	BA	938	G
25	BA	940	C
25	BA	942	A
25	BA	944	C
25	BA	945	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	946	A
25	BA	956	A
25	BA	965	G
25	BA	977	G
25	BA	983	G
25	BA	986	A
25	BA	989	G
25	BA	990	A
25	BA	991	G
25	BA	998	A
25	BA	1003	U
25	BA	1004	A
25	BA	1006	C
25	BA	1015	C
25	BA	1019	G
25	BA	1020	C
25	BA	1029	A
25	BA	1036	A
25	BA	1042	A
25	BA	1051	C
25	BA	1058	U
25	BA	1059	C
25	BA	1066	A
25	BA	1067	A
25	BA	1068	G
25	BA	1069	U
25	BA	1072	U
25	BA	1076	G
25	BA	1079	U
25	BA	1080	G
25	BA	1085	G
25	BA	1087	C
25	BA	1088	G
25	BA	1089	C
25	BA	1091	A
25	BA	1092	A
25	BA	1093	G
25	BA	1153	G
25	BA	1154	U
25	BA	1156	G
25	BA	1158	G
25	BA	1168	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1174	A
25	BA	1175	A
25	BA	1176	U
25	BA	1180	C
25	BA	1181	G
25	BA	1184	G
25	BA	1186	U
25	BA	1187	U
25	BA	1188	A
25	BA	1189	A
25	BA	1195	G
25	BA	1202	A
25	BA	1210	G
25	BA	1216	G
25	BA	1217	G
25	BA	1218	G
25	BA	1219	A
25	BA	1220	U
25	BA	1221	G
25	BA	1222	A
25	BA	1223	C
25	BA	1225	C
25	BA	1229	G
25	BA	1255	A
25	BA	1256	U
25	BA	1263	C
25	BA	1266	C
25	BA	1296	G
25	BA	1298	G
25	BA	1299	A
25	BA	1302	G
25	BA	1311	A
25	BA	1317	G
25	BA	1318	A
25	BA	1319	U
25	BA	1321	A
25	BA	1346	U
25	BA	1347	A
25	BA	1359	U
25	BA	1360	C
25	BA	1367	A
25	BA	1384	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1398	U
25	BA	1405	A
25	BA	1406	A
25	BA	1411	A
25	BA	1416	C
25	BA	1417	G
25	BA	1418	U
25	BA	1426	G
25	BA	1430	A
25	BA	1431	G
25	BA	1432	C
25	BA	1462	G
25	BA	1463	C
25	BA	1466	U
25	BA	1467	G
25	BA	1468	G
25	BA	1474	C
25	BA	1487	G
25	BA	1491	A
25	BA	1496	A
25	BA	1507	A
25	BA	1514	C
25	BA	1518	A
25	BA	1519	A
25	BA	1525	G
25	BA	1529	G
25	BA	1536	A
25	BA	1539	C
25	BA	1554	A
25	BA	1555	C
25	BA	1556	A
25	BA	1569	U
25	BA	1574	A
25	BA	1578	C
25	BA	1579	C
25	BA	1589	A
25	BA	1590	C
25	BA	1592	A
25	BA	1605	A
25	BA	1613	A
25	BA	1616	A
25	BA	1625	U

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Mol	Chain	Res	Type
25	BA	1628	G
25	BA	1631	C
25	BA	1632	A
25	BA	1654	A
25	BA	1655	A
25	BA	1656	A
25	BA	1660	A
25	BA	1686	U
25	BA	1694	G
25	BA	1695	C
25	BA	1696	G
25	BA	1701	A
25	BA	1711	A
25	BA	1721	G
25	BA	1722	C
25	BA	1735	U
25	BA	1742	G
25	BA	1743	G
25	BA	1747	A
25	BA	1748	A
25	BA	1766	G
25	BA	1767	A
25	BA	1768	U
25	BA	1769	G
25	BA	1776	G
25	BA	1777	G
25	BA	1779	G
25	BA	1787	G
25	BA	1791	A
25	BA	1794	G
25	BA	1795	G
25	BA	1804	A
25	BA	1811	A
25	BA	1813	C
25	BA	1822	A
25	BA	1831	C
25	BA	1832	G
25	BA	1843	A
25	BA	1847	G
25	BA	1860	A
25	BA	1870	G
25	BA	1878	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1879	A
25	BA	1899	A
25	BA	1900	G
25	BA	1911	A
25	BA	1922	A
25	BA	1928	G
25	BA	1935	A
25	BA	1936	C
25	BA	1941	A
25	BA	1951	G
25	BA	1952	G
25	BA	1953	U
25	BA	1954	A
25	BA	1958	A
25	BA	1960	A
25	BA	1963	C
25	BA	1977	U
25	BA	1985	U
25	BA	1987	C
25	BA	1989	C
25	BA	1992	A
25	BA	1993	A
25	BA	1994	A
25	BA	2014	G
25	BA	2015	U
25	BA	2019	G
25	BA	2042	A
25	BA	2045	G
25	BA	2053	A
25	BA	2054	G
25	BA	2055	A
25	BA	2065	C
25	BA	2071	G
25	BA	2074	G
25	BA	2077	C
25	BA	2078	G
25	BA	2082	A
25	BA	2083	G
25	BA	2084	A
25	BA	2091	G
25	BA	2115	G
25	BA	2121	U

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Mol	Chain	Res	Type
25	BA	2122	G
25	BA	2212	G
25	BA	2214	G
25	BA	2217	C
25	BA	2220	A
25	BA	2227	G
25	BA	2228	G
25	BA	2229	A
25	BA	2230	U
25	BA	2237	A
25	BA	2246	G
25	BA	2250	G
25	BA	2251	G
25	BA	2260	C
25	BA	2264	G
25	BA	2280	A
25	BA	2281	A
25	BA	2285	A
25	BA	2287	C
25	BA	2295	C
25	BA	2299	A
25	BA	2301	G
25	BA	2306	C
25	BA	2308	U
25	BA	2317	A
25	BA	2320	G
25	BA	2326	C
25	BA	2332	A
25	BA	2337	G
25	BA	2339	A
25	BA	2346	G
25	BA	2347	A
25	BA	2348	A
25	BA	2353	G
25	BA	2355	C
25	BA	2359	C
25	BA	2362	C
25	BA	2366	G
25	BA	2373	A
25	BA	2384	G
25	BA	2388	A
25	BA	2391	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	2395	G
25	BA	2397	C
25	BA	2401	G
25	BA	2412	G
25	BA	2418	U
25	BA	2422	G
25	BA	2430	A
25	BA	2434	A
25	BA	2435	U
25	BA	2436	C
25	BA	2437	A
25	BA	2441	G
25	BA	2442	A
25	BA	2443	U
25	BA	2447	A
25	BA	2451	A
25	BA	2453	C
25	BA	2459	G
25	BA	2460	A
25	BA	2480	G
25	BA	2481	A
25	BA	2486	C
25	BA	2488	A
25	BA	2490	A
25	BA	2510	C
25	BA	2514	G
25	BA	2517	G
25	BA	2518	U
25	BA	2530	A
25	BA	2532	C
25	BA	2537	G
25	BA	2541	G
25	BA	2547	G
25	BA	2566	U
25	BA	2578	A
25	BA	2579	G
25	BA	2594	G
25	BA	2614	A
25	BA	2615	G
25	BA	2621	U
25	BA	2622	C
25	BA	2623	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	2624	C
25	BA	2632	C
25	BA	2641	A
25	BA	2642	G
25	BA	2653	G
25	BA	2666	A
25	BA	2674	A
25	BA	2690	C
25	BA	2691	A
25	BA	2701	U
25	BA	2702	C
25	BA	2703	C
25	BA	2714	U
25	BA	2715	C
25	BA	2719	G
25	BA	2725	A
25	BA	2726	A
25	BA	2727	G
25	BA	2739	U
25	BA	2746	A
25	BA	2764	G
25	BA	2770	A
25	BA	2771	A
25	BA	2777	A
25	BA	2778	A
25	BA	2779	G
25	BA	2782	C
25	BA	2788	A
25	BA	2791	A
25	BA	2803	A
25	BA	2804	C
25	BA	2807	C
25	BA	2813	G
25	BA	2816	G
25	BA	2828	G
25	BA	2830	A
25	BA	2831	A
25	BA	2843	G
25	BA	2845	A
25	BA	2849	G
25	BA	2876	U
25	BA	2882	G

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Mol	Chain	Res	Type
25	BA	2883	A
25	BA	2884	C
25	BA	2890	C
25	BA	2893	A
25	BA	2899	C
25	BA	2901	A
25	BA	2903	G
25	BA	2906	U
26	BB	2	C
26	BB	7	G
26	BB	12	C
26	BB	13	A
26	BB	34	U
26	BB	42	C
26	BB	56	G
26	BB	59	A
26	BB	73	A
26	BB	75	G
26	BB	85	G
26	BB	88	C
26	BB	89	G
26	BB	93	G
26	BB	106	G
26	BB	110	G
26	BB	112	U
26	BB	119	G
1	CA	7	G
1	CA	9	G
1	CA	15	G
1	CA	22	G
1	CA	32	A
1	CA	39	G
1	CA	44	G
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	59	A
1	CA	63	C
1	CA	65	U
1	CA	66	G
1	CA	69	G

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Mol	Chain	Res	Type
1	CA	77	G
1	CA	78	G
1	CA	79	G
1	CA	80	G
1	CA	88	A
1	CA	89	C
1	CA	96	U
1	CA	97	G
1	CA	98	G
1	CA	101	A
1	CA	102	G
1	CA	112	G
1	CA	115	G
1	CA	116	A
1	CA	121	C
1	CA	129(A)	G
1	CA	131	C
1	CA	138	G
1	CA	142	G
1	CA	144	G
1	CA	163	C
1	CA	165	C
1	CA	166	G
1	CA	171	A
1	CA	173	U
1	CA	174	C
1	CA	180	U
1	CA	181	G
1	CA	182	U
1	CA	189(D)	C
1	CA	189(F)	U
1	CA	190	U
1	CA	193	C
1	CA	194	C
1	CA	195	A
1	CA	197	A
1	CA	199	G
1	CA	201	C
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	220	G

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Mol	Chain	Res	Type
1	CA	247	G
1	CA	251	G
1	CA	258	G
1	CA	265	G
1	CA	266	G
1	CA	267	C
1	CA	269	C
1	CA	277	C
1	CA	281	G
1	CA	289	G
1	CA	298	A
1	CA	321	A
1	CA	328	C
1	CA	332	G
1	CA	342	C
1	CA	344	A
1	CA	346	G
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	355	C
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	383	A
1	CA	388	G
1	CA	396	G
1	CA	397	A
1	CA	398	C
1	CA	403	C
1	CA	406	G
1	CA	409	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	415	A
1	CA	422	C
1	CA	424	G
1	CA	427	U
1	CA	429	U

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Mol	Chain	Res	Type
1	CA	430	A
1	CA	439	A
1	CA	442	C
1	CA	452	A
1	CA	461	A
1	CA	471	G
1	CA	474	G
1	CA	484	G
1	CA	485	G
1	CA	492	G
1	CA	496	A
1	CA	498	U
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	513	C
1	CA	518	C
1	CA	521	G
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	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	571	U
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	592	G
1	CA	596	C
1	CA	597	G
1	CA	600	C
1	CA	606	G
1	CA	626	U
1	CA	630	G
1	CA	631	G
1	CA	633	G

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Mol	Chain	Res	Type
1	CA	639	G
1	CA	641	U
1	CA	650	G
1	CA	651	C
1	CA	653	A
1	CA	665	A
1	CA	673	G
1	CA	680	C
1	CA	687	A
1	CA	688	G
1	CA	693	G
1	CA	711	G
1	CA	721	G
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	752	G
1	CA	755	G
1	CA	760	G
1	CA	774	G
1	CA	777	A
1	CA	786	G
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	802	A
1	CA	806	C
1	CA	812	C
1	CA	815	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	821	G
1	CA	827	U
1	CA	828	A
1	CA	829	G
1	CA	836	G
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	851	G
1	CA	855	G

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Mol	Chain	Res	Type
1	CA	858	G
1	CA	859	A
1	CA	873	A
1	CA	876	G
1	CA	902	G
1	CA	914	A
1	CA	916	G
1	CA	922	G
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	942	G
1	CA	958	A
1	CA	960	U
1	CA	961	U
1	CA	967	C
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	982	U
1	CA	983	A
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	995	C
1	CA	1001	A
1	CA	1001(A)	G
1	CA	1002	G
1	CA	1003	G
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1007	C
1	CA	1011	G
1	CA	1013	G
1	CA	1014	A

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Mol	Chain	Res	Type
1	CA	1019	C
1	CA	1020	U
1	CA	1022	G
1	CA	1025	U
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1030	C
1	CA	1030(A)	G
1	CA	1030(C)	G
1	CA	1031	G
1	CA	1033	G
1	CA	1035	A
1	CA	1036	G
1	CA	1037	C
1	CA	1039	C
1	CA	1041	A
1	CA	1042	G
1	CA	1043	C
1	CA	1052	U
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A
1	CA	1063	C
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1070	U
1	CA	1076	C
1	CA	1081	G
1	CA	1087	G
1	CA	1089	G
1	CA	1091	U
1	CA	1092	A
1	CA	1093	A
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1104	G
1	CA	1108	G
1	CA	1109	C
1	CA	1117	G

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Mol	Chain	Res	Type
1	CA	1119	C
1	CA	1120	G
1	CA	1122	U
1	CA	1124	G
1	CA	1125	U
1	CA	1128	C
1	CA	1129	C
1	CA	1130	A
1	CA	1132	C
1	CA	1134	G
1	CA	1135	U
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1141	C
1	CA	1145	C
1	CA	1146	A
1	CA	1147	C
1	CA	1151	A
1	CA	1152	A
1	CA	1154	G
1	CA	1157	A
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1163	C
1	CA	1171	G
1	CA	1173	G
1	CA	1176	A
1	CA	1181	G
1	CA	1183	A
1	CA	1184	G
1	CA	1189	C
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1202	G
1	CA	1204	A
1	CA	1211	U
1	CA	1212	U

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Mol	Chain	Res	Type
1	CA	1213	A
1	CA	1214	C
1	CA	1223	C
1	CA	1224	G
1	CA	1227	A
1	CA	1235	U
1	CA	1236	A
1	CA	1238	A
1	CA	1250	A
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1259	C
1	CA	1260	C
1	CA	1262	C
1	CA	1270	C
1	CA	1271	G
1	CA	1273	G
1	CA	1278	U
1	CA	1279	A
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1283	G
1	CA	1284	C
1	CA	1287	A
1	CA	1297	C
1	CA	1299	A
1	CA	1300	G
1	CA	1305	G
1	CA	1311	G
1	CA	1314	C
1	CA	1317	C
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1338	G
1	CA	1340	A
1	CA	1343	G
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G

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Mol	Chain	Res	Type
1	CA	1354	C
1	CA	1358	U
1	CA	1360	A
1	CA	1361	G
1	CA	1363	C
1	CA	1370	G
1	CA	1377	A
1	CA	1379	G
1	CA	1393	U
1	CA	1396	A
1	CA	1397	C
1	CA	1402	C
1	CA	1419	G
1	CA	1422	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1447	A
1	CA	1456	G
1	CA	1457	G
1	CA	1469	G
1	CA	1487	G
1	CA	1489	G
1	CA	1493	A
1	CA	1497	G
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1506	U
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
1	CA	1532	U
22	CV	15	A
23	CX	6	G
23	CX	9	G
23	CX	13	C
23	CX	19	G
23	CX	20	U

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Mol	Chain	Res	Type
23	CX	21	A
23	CX	28	C
23	CX	31	G
23	CX	42	G
23	CX	47	U
23	CX	48	C
23	CX	60	U
23	CX	61	C
23	CX	68	C
23	CX	70	G
23	CX	76	A
25	DA	8	A
25	DA	10	G
25	DA	12	U
25	DA	15	G
25	DA	32	C
25	DA	34	C
25	DA	35	G
25	DA	36	G
25	DA	41	C
25	DA	45	C
25	DA	55	G
25	DA	61	G
25	DA	71	A
25	DA	74	A
25	DA	75	G
25	DA	83	G
25	DA	84	A
25	DA	90	U
25	DA	95	G
25	DA	100	G
25	DA	102	G
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	125	G
25	DA	133	C
25	DA	141	A
25	DA	149	A
25	DA	154(A)	C
25	DA	157	U
25	DA	173	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	180	G
25	DA	181	A
25	DA	182	A
25	DA	188	G
25	DA	196	A
25	DA	199	A
25	DA	205	G
25	DA	214	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	225	A
25	DA	229	A
25	DA	233	A
25	DA	248	G
25	DA	250	G
25	DA	266	G
25	DA	267	C
25	DA	271(E)	U
25	DA	271(H)	G
25	DA	271(J)	C
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(M)	G
25	DA	271(N)	U
25	DA	271(T)	C
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	277	C
25	DA	278	A
25	DA	292	C
25	DA	304	G
25	DA	311	A
25	DA	312	G
25	DA	324	A
25	DA	327	G
25	DA	329	G
25	DA	330	A
25	DA	333	G
25	DA	338	G
25	DA	339	U

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Mol	Chain	Res	Type
25	DA	342	G
25	DA	348	G
25	DA	351	G
25	DA	352	G
25	DA	363	G
25	DA	363(C)	G
25	DA	386	G
25	DA	396	G
25	DA	399	G
25	DA	405	U
25	DA	407	G
25	DA	411	G
25	DA	412	A
25	DA	415	A
25	DA	428	A
25	DA	437	G
25	DA	438	G
25	DA	443	A
25	DA	444	C
25	DA	454	A
25	DA	455	C
25	DA	456	C
25	DA	457	A
25	DA	470	A
25	DA	480	A
25	DA	481	G
25	DA	504	U
25	DA	505	A
25	DA	509	C
25	DA	524	U
25	DA	527	C
25	DA	528	A
25	DA	529	A
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	545	G
25	DA	563	G
25	DA	568	U
25	DA	573	G
25	DA	575	A

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Mol	Chain	Res	Type
25	DA	586	A
25	DA	587	C
25	DA	592	G
25	DA	603	A
25	DA	604	G
25	DA	606	U
25	DA	607	U
25	DA	610	G
25	DA	614(B)	G
25	DA	614(C)	A
25	DA	615	G
25	DA	631	A
25	DA	634	C
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	652(B)	A
25	DA	652(C)	G
25	DA	652(E)	G
25	DA	652(U)	G
25	DA	669	G
25	DA	670	A
25	DA	686	G
25	DA	717	G
25	DA	726	G
25	DA	730	C
25	DA	747	U
25	DA	749	C
25	DA	752	A
25	DA	753	C
25	DA	765	G
25	DA	771	G
25	DA	775	G
25	DA	776	G
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	790	C
25	DA	792	G
25	DA	805	G
25	DA	812	C
25	DA	819	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	827	U
25	DA	854	G
25	DA	857	C
25	DA	859	G
25	DA	866	A
25	DA	867	C
25	DA	869	G
25	DA	871	U
25	DA	874	G
25	DA	878	A
25	DA	879	G
25	DA	880	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	895	U
25	DA	896	A
25	DA	897	C
25	DA	898	C
25	DA	899	A
25	DA	900	A
25	DA	901	A
25	DA	910	A
25	DA	911	A
25	DA	913	U
25	DA	914	C
25	DA	917	A
25	DA	923	C
25	DA	926	A
25	DA	932	G
25	DA	938	G
25	DA	941	A
25	DA	945	A
25	DA	946	G
25	DA	953	A
25	DA	957	A
25	DA	958	U
25	DA	959	A
25	DA	961	C

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Mol	Chain	Res	Type
25	DA	974	G
25	DA	975	C
25	DA	983	A
25	DA	996	A
25	DA	1010	A
25	DA	1012	U
25	DA	1013	C
25	DA	1020	A
25	DA	1022	G
25	DA	1023	U
25	DA	1025	G
25	DA	1027	A
25	DA	1033	U
25	DA	1034	G
25	DA	1038	C
25	DA	1039	G
25	DA	1040	C
25	DA	1041	C
25	DA	1043	C
25	DA	1114	G
25	DA	1115	G
25	DA	1118	C
25	DA	1119	C
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1139	G
25	DA	1142(A)	A
25	DA	1155	A
25	DA	1170	G
25	DA	1171	G
25	DA	1186	G
25	DA	1204	A
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1219	G
25	DA	1220	A
25	DA	1230	C
25	DA	1249	U
25	DA	1253	A
25	DA	1256	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1284	A
25	DA	1287	A
25	DA	1300	U
25	DA	1301	A
25	DA	1313	U
25	DA	1314	C
25	DA	1315	C
25	DA	1321	A
25	DA	1332	G
25	DA	1345	C
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1366	A
25	DA	1368	G
25	DA	1370	C
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1395	A
25	DA	1403	C
25	DA	1410	G
25	DA	1411	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	1445	A
25	DA	1445(A)	C
25	DA	1449	A
25	DA	1450	G
25	DA	1455	G
25	DA	1459	G
25	DA	1466	G

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Mol	Chain	Res	Type
25	DA	1467	C
25	DA	1471	A
25	DA	1482	G
25	DA	1490	A
25	DA	1492	G
25	DA	1493	C
25	DA	1495	A
25	DA	1496	A
25	DA	1497	U
25	DA	1504	C
25	DA	1508	A
25	DA	1509	C
25	DA	1509(A)	A
25	DA	1531	C
25	DA	1541	G
25	DA	1542	A
25	DA	1543	C
25	DA	1547	C
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1566	A
25	DA	1569	A
25	DA	1578	U
25	DA	1580	A
25	DA	1586	A
25	DA	1588	C
25	DA	1595	G
25	DA	1598	C
25	DA	1603	A
25	DA	1608	A
25	DA	1609	A
25	DA	1610	A
25	DA	1613	G
25	DA	1618	A
25	DA	1625	C
25	DA	1631(A)	A
25	DA	1632	A
25	DA	1640	C
25	DA	1648	C
25	DA	1654	A
25	DA	1674	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	1676	A
25	DA	1682	G
25	DA	1696	G
25	DA	1700	A
25	DA	1701	A
25	DA	1703	G
25	DA	1718	G
25	DA	1721	G
25	DA	1722	A
25	DA	1740	G
25	DA	1746	G
25	DA	1756	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	1786	A
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1812	A
25	DA	1816	G
25	DA	1823	G
25	DA	1829	A
25	DA	1835	G
25	DA	1836	C
25	DA	1847	A
25	DA	1848	A
25	DA	1860	G
25	DA	1877	A
25	DA	1878	G
25	DA	1881	C
25	DA	1900	A
25	DA	1906	G
25	DA	1913	A
25	DA	1914	C
25	DA	1926	U
25	DA	1929	G
25	DA	1930	G
25	DA	1931	U

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Mol	Chain	Res	Type
25	DA	1936	A
25	DA	1938	A
25	DA	1955	U
25	DA	1960	A
25	DA	1963	U
25	DA	1966	A
25	DA	1967	C
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1984	G
25	DA	1993	U
25	DA	1997	G
25	DA	2005	A
25	DA	2020	A
25	DA	2021	C
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2034	U
25	DA	2039	C
25	DA	2043	C
25	DA	2049	G
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G
25	DA	2076	U
25	DA	2082	A
25	DA	2093	G
25	DA	2097	C
25	DA	2099	U
25	DA	2101	G
25	DA	2189	U
25	DA	2192	G
25	DA	2193	G
25	DA	2198	A
25	DA	2206	G
25	DA	2207	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	2208	A
25	DA	2218	U
25	DA	2219	G
25	DA	2225	A
25	DA	2235	G
25	DA	2238	G
25	DA	2239	G
25	DA	2243	U
25	DA	2251	G
25	DA	2267	A
25	DA	2268	A
25	DA	2269	A
25	DA	2275	C
25	DA	2278	A
25	DA	2279	G
25	DA	2283	C
25	DA	2286	A
25	DA	2287	A
25	DA	2289	G
25	DA	2291	U
25	DA	2298	A
25	DA	2303	G
25	DA	2305	A
25	DA	2308	G
25	DA	2312	U
25	DA	2318	G
25	DA	2319	G
25	DA	2320	A
25	DA	2321	G
25	DA	2325	G
25	DA	2327	A
25	DA	2334	G
25	DA	2335	A
25	DA	2336	A
25	DA	2343	C
25	DA	2347	C
25	DA	2348	U
25	DA	2359	C
25	DA	2376	A
25	DA	2383	G
25	DA	2384	G
25	DA	2385	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	2388	A
25	DA	2391	G
25	DA	2401	U
25	DA	2402	C
25	DA	2406	U
25	DA	2410	G
25	DA	2413	G
25	DA	2414	G
25	DA	2422	A
25	DA	2425	A
25	DA	2429	G
25	DA	2430	A
25	DA	2434	A
25	DA	2435	A
25	DA	2439	A
25	DA	2441	C
25	DA	2448	A
25	DA	2465	C
25	DA	2468	G
25	DA	2469	A
25	DA	2474	C
25	DA	2476	A
25	DA	2487	G
25	DA	2492	U
25	DA	2497	A
25	DA	2502	G
25	DA	2505	G
25	DA	2518	A
25	DA	2520	C
25	DA	2525	G
25	DA	2529	G
25	DA	2549	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2586	C
25	DA	2602	A
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2615	U
25	DA	2629	A

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Mol	Chain	Res	Type
25	DA	2630	G
25	DA	2632	A
25	DA	2654	A
25	DA	2663	G
25	DA	2689	U
25	DA	2690	C
25	DA	2691	C
25	DA	2703	C
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2717	G
25	DA	2726	U
25	DA	2733	A
25	DA	2751	G
25	DA	2752	C
25	DA	2757	A
25	DA	2758	A
25	DA	2761	G
25	DA	2764	A
25	DA	2765	A
25	DA	2766	G
25	DA	2778	A
25	DA	2779	U
25	DA	2780	G
25	DA	2789	C
25	DA	2793	G
25	DA	2802	G
25	DA	2803	C
25	DA	2804	C
25	DA	2818	G
25	DA	2820	A
25	DA	2821	A
25	DA	2833	G
25	DA	2835	A
25	DA	2872	G
25	DA	2879	C
25	DA	2880	C
25	DA	2892	A
25	DA	2893	G
25	DA	2894	G
25	DA	2895	U
25	DA	2897	U

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Mol	Chain	Res	Type
26	DB	2	C
26	DB	7	G
26	DB	8	U
26	DB	12	C
26	DB	13	A
26	DB	34	U
26	DB	42	C
26	DB	45	A
26	DB	46	A
26	DB	56	G
26	DB	59	A
26	DB	72	G
26	DB	73	A
26	DB	75	G
26	DB	85	G
26	DB	88	C
26	DB	89	G
26	DB	90	A
26	DB	93	G
26	DB	106	G
26	DB	110	G
26	DB	112	U
26	DB	116	G
26	DB	119	G

All (134) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	97	G
1	AA	115	G
1	AA	148	G
1	AA	266	G
1	AA	429	U
1	AA	509	A
1	AA	532	A
1	AA	560	U
1	AA	687	A
1	AA	793	U
1	AA	913	A
1	AA	991	U
1	AA	1027	C
1	AA	1042	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1125	U
1	AA	1165	C
1	AA	1201	A
1	AA	1256	A
1	AA	1285	A
1	AA	1299	A
1	AA	1442	G
25	BA	70	A
25	BA	99	G
25	BA	184	A
25	BA	185	A
25	BA	273	G
25	BA	302	A
25	BA	553	A
25	BA	716	G
25	BA	732	A
25	BA	793	A
25	BA	811	A
25	BA	821	A
25	BA	874	U
25	BA	945	A
25	BA	990	A
25	BA	1003	U
25	BA	1019	G
25	BA	1219	A
25	BA	1220	U
25	BA	1221	G
25	BA	1255	A
25	BA	1425	A
25	BA	1466	U
25	BA	1507	A
25	BA	1577	C
25	BA	1654	A
25	BA	1655	A
25	BA	1700	G
25	BA	1793	A
25	BA	2014	G
25	BA	2228	G

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Mol	Chain	Res	Type
25	BA	2347	A
25	BA	2418	U
25	BA	2434	A
25	BA	2442	A
25	BA	2623	U
25	BA	2701	U
25	BA	2763	A
25	BA	2769	U
25	BA	2902	G
1	CA	4	U
1	CA	5	U
1	CA	65	U
1	CA	97	G
1	CA	115	G
1	CA	204	U
1	CA	266	G
1	CA	429	U
1	CA	509	A
1	CA	532	A
1	CA	560	U
1	CA	687	A
1	CA	793	U
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1005	A
1	CA	1027	C
1	CA	1054	C
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1128	C
1	CA	1137	C
1	CA	1183	A
1	CA	1201	A
1	CA	1212	U
1	CA	1256	A
1	CA	1299	A
1	CA	1442	G
1	CA	1531	A
25	DA	195	A
25	DA	249	C

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Mol	Chain	Res	Type
25	DA	271(M)	G
25	DA	277	C
25	DA	310	A
25	DA	503	A
25	DA	528	A
25	DA	620	G
25	DA	669	G
25	DA	685	A
25	DA	752	A
25	DA	827	U
25	DA	856	C
25	DA	900	A
25	DA	1026	U
25	DA	1210	A
25	DA	1378	A
25	DA	1379	A
25	DA	1395	A
25	DA	1420	U
25	DA	1427	A
25	DA	1530	C
25	DA	1543	C
25	DA	1558	A
25	DA	1559	G
25	DA	1608	A
25	DA	1653	G
25	DA	1790	C
25	DA	1992	G
25	DA	2318	G
25	DA	2335	A
25	DA	2406	U
25	DA	2439	A
25	DA	2611	U
25	DA	2689	U
25	DA	2750	A
25	DA	2756	U
26	DB	45	A

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

14 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and



the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
24	2QZ	AW	1	24	7,8,9	0.37	0	7,10,12	4.62	2 (28%)
24	2QY	AW	10	24	13,13,14	2.70	2 (15%)	12,16,18	2.08	3 (25%)
24	004	AW	3	24	9,10,11	0.83	0	10,12,14	1.14	0
24	MVA	AW	5	24	6,7,8	0.33	0	6,8,10	1.71	1 (16%)
24	2R1	AW	6	24	7,10,11	1.74	2 (28%)	2,13,15	3.37	2 (100%)
24	2R3	AW	8	24	13,14,15	0.73	0	16,18,20	1.71	6 (37%)
24	MVA	AW	9	24	6,7,8	0.52	0	6,8,10	1.45	2 (33%)
24	2QZ	CW	1	24	7,8,9	0.67	0	7,10,12	4.12	2 (28%)
24	2QY	CW	10	24	13,13,14	2.83	3 (23%)	12,16,18	1.38	1 (8%)
24	004	CW	3	24	9,10,11	1.20	1 (11%)	10,12,14	1.14	1 (10%)
24	MVA	CW	5	24	6,7,8	0.81	0	6,8,10	1.20	0
24	2R1	CW	6	24	7,10,11	2.05	2 (28%)	2,13,15	2.12	1 (50%)
24	2R3	CW	8	24	13,14,15	0.61	0	16,18,20	1.58	4 (25%)
24	MVA	CW	9	24	6,7,8	1.37	1 (16%)	6,8,10	1.59	1 (16%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	2QZ	AW	1	24	-	0/6/10/12	0/0/0/0
24	2QY	AW	10	24	-	0/3/8/10	0/1/1/1
24	004	AW	3	24	-	0/4/6/8	0/1/1/1
24	MVA	AW	5	24	-	1/5/8/10	0/0/0/0
24	2R1	AW	6	24	-	0/1/14/16	0/0/1/1
24	2R3	AW	8	24	-	0/10/12/14	0/1/1/1
24	MVA	AW	9	24	-	0/5/8/10	0/0/0/0
24	2QZ	CW	1	24	-	0/6/10/12	0/0/0/0
24	2QY	CW	10	24	-	0/3/8/10	0/1/1/1
24	004	CW	3	24	-	0/4/6/8	0/1/1/1
24	MVA	CW	5	24	-	0/5/8/10	0/0/0/0
24	2R1	CW	6	24	-	0/1/14/16	0/0/1/1
24	2R3	CW	8	24	-	0/10/12/14	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	MVA	CW	9	24	-	0/5/8/10	0/0/0/0

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	CW	3	004	CB-CA	-3.19	1.49	1.52
24	AW	6	2R1	C-CA	2.39	1.48	1.45
24	CW	10	2QY	CG-CB	3.00	1.53	1.46
24	CW	9	MVA	CB-CA	3.29	1.58	1.54
24	AW	6	2R1	CA-N	3.33	1.45	1.36
24	CW	6	2R1	CA-N	3.64	1.46	1.36
24	CW	6	2R1	C-CA	3.72	1.50	1.45
24	CW	10	2QY	CA-N	4.97	1.47	1.34
24	AW	10	2QY	CA-N	5.56	1.49	1.34
24	AW	10	2QY	C-CA	7.44	1.52	1.43
24	CW	10	2QY	C-CA	8.23	1.53	1.43

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AW	10	2QY	O-C-CA	-4.88	118.21	125.40
24	CW	10	2QY	O-C-CA	-4.20	119.21	125.40
24	AW	10	2QY	CG-CB-CA	-3.91	123.86	130.60
24	AW	6	2R1	CG2-CB-CA	-3.52	118.45	123.61
24	AW	6	2R1	O-C-CA	-3.21	119.16	125.35
24	CW	1	2QZ	CG2-CB-CA	-3.18	108.02	112.53
24	CW	6	2R1	O-C-CA	-2.97	119.62	125.35
24	CW	8	2R3	CO-OH-CZ	-2.88	110.78	117.51
24	CW	8	2R3	CD2-CE2-CZ	-2.63	116.43	119.74
24	CW	8	2R3	O-C-CA	-2.51	118.81	125.44
24	AW	1	2QZ	OG1-CB-CA	-2.39	103.76	108.96
24	AW	9	MVA	O-C-CA	-2.23	118.89	125.74
24	AW	8	2R3	CD2-CE2-CZ	-2.22	116.95	119.74
24	AW	8	2R3	O-C-CA	-2.17	119.70	125.44
24	AW	8	2R3	CO-OH-CZ	-2.09	112.62	117.51
24	AW	8	2R3	CD1-CE1-CZ	2.14	122.43	119.74
24	AW	10	2QY	CD2-CG-CD1	2.17	120.96	117.64
24	CW	3	004	C-CA-N	2.27	114.05	109.12
24	CW	9	MVA	CN-N-CA	2.41	121.07	113.65
24	CW	8	2R3	CE2-CD2-CG	2.44	123.71	121.20
24	AW	9	MVA	CN-N-CA	2.69	121.93	113.65
24	AW	8	2R3	CE2-CD2-CG	2.94	124.22	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AW	8	2R3	OB-CB-CA	3.16	114.47	107.44
24	AW	5	MVA	CN-N-CA	3.52	124.49	113.65
24	CW	1	2QZ	OG1-CB-CG2	10.05	138.68	109.61
24	AW	1	2QZ	OG1-CB-CG2	11.54	142.97	109.61

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
24	AW	5	MVA	CB-CA-N-CN

There are no ring outliers.

13 monomers are involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
24	AW	1	2QZ	2	0
24	AW	10	2QY	5	0
24	AW	3	004	1	0
24	AW	6	2R1	1	0
24	AW	8	2R3	1	0
24	AW	9	MVA	3	0
24	CW	1	2QZ	2	0
24	CW	10	2QY	9	0
24	CW	3	004	1	0
24	CW	5	MVA	2	0
24	CW	6	2R1	1	0
24	CW	8	2R3	2	0
24	CW	9	MVA	6	0

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 1991 ligands modelled in this entry, 1987 are monoatomic - leaving 4 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link

column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
57	SF4	AD	501	4	0,12,12	0.00	-	0,24,24	0.00	-
59	FME	AX	101	23	8,9,10	0.91	0	6,9,11	1.65	2 (33%)
57	SF4	CD	501	4	0,12,12	0.00	-	0,24,24	0.00	-
59	FME	CX	101	23	8,9,10	1.02	1 (12%)	6,9,11	1.35	2 (33%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	SF4	AD	501	4	-	0/0/48/48	0/6/5/5
59	FME	AX	101	23	-	1/6/9/11	0/0/0/0
57	SF4	CD	501	4	-	0/0/48/48	0/6/5/5
59	FME	CX	101	23	-	1/6/9/11	0/0/0/0

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	CX	101	FME	CA-N	2.17	1.49	1.46

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	AX	101	FME	CA-N-CN	-2.85	118.44	122.82
59	AX	101	FME	O1-CN-N	-2.34	121.39	124.76
59	CX	101	FME	CA-N-CN	-2.17	119.49	122.82
59	CX	101	FME	O1-CN-N	-2.09	121.74	124.76

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
59	CX	101	FME	O1-CN-N-CA
59	AX	101	FME	O1-CN-N-CA

There are no ring outliers.

3 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	AD	501	SF4	1	0
57	CD	501	SF4	1	0
59	CX	101	FME	2	0

## 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	1498/1522 (98%)	-0.15	33 (2%) 65 42	36, 80, 103, 123	0
1	CA	1503/1522 (98%)	-0.16	36 (2%) 62 39	38, 80, 103, 122	0
2	AB	231/256 (90%)	-0.06	8 (3%) 48 23	71, 88, 98, 107	0
2	CB	231/256 (90%)	0.24	13 (5%) 28 11	71, 89, 99, 108	0
3	AC	206/239 (86%)	0.21	7 (3%) 49 24	74, 87, 96, 108	0
3	CC	206/239 (86%)	0.36	14 (6%) 20 7	75, 89, 98, 106	0
4	AD	208/209 (99%)	0.09	5 (2%) 62 39	62, 80, 92, 99	0
4	CD	208/209 (99%)	-0.13	0 100 100	61, 79, 92, 99	0
5	AE	148/162 (91%)	-0.24	0 100 100	53, 73, 83, 96	0
5	CE	148/162 (91%)	-0.20	0 100 100	54, 74, 85, 98	0
6	AF	100/101 (99%)	-0.21	0 100 100	60, 78, 89, 92	0
6	CF	100/101 (99%)	-0.30	0 100 100	62, 79, 89, 94	0
7	AG	155/156 (99%)	0.32	11 (7%) 19 7	74, 85, 97, 104	0
7	CG	155/156 (99%)	0.39	12 (7%) 16 5	76, 86, 99, 105	0
8	AH	137/138 (99%)	-0.05	1 (0%) 89 78	60, 75, 83, 90	0
8	CH	137/138 (99%)	-0.13	0 100 100	61, 76, 83, 90	0
9	AI	127/128 (99%)	0.47	9 (7%) 19 7	70, 92, 99, 103	0
9	CI	127/128 (99%)	1.03	23 (18%) 2 1	69, 93, 100, 105	0
10	AJ	97/105 (92%)	0.69	12 (12%) 5 2	71, 93, 101, 106	0
10	CJ	96/105 (91%)	0.72	12 (12%) 5 2	75, 95, 102, 107	0
11	AK	114/129 (88%)	-0.21	0 100 100	53, 74, 88, 93	0
11	CK	114/129 (88%)	-0.00	3 (2%) 59 35	54, 76, 88, 93	0
12	AL	122/132 (92%)	-0.15	1 (0%) 87 75	56, 68, 80, 86	0
12	CL	122/132 (92%)	-0.16	0 100 100	55, 68, 79, 87	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	AM	123/126 (97%)	0.32	9 (7%) 18 6	67, 83, 95, 104	0
13	CM	122/126 (96%)	0.62	11 (9%) 12 4	77, 91, 101, 105	0
14	AN	60/61 (98%)	0.20	2 (3%) 50 26	74, 85, 95, 97	0
14	CN	60/61 (98%)	0.58	5 (8%) 14 5	77, 88, 95, 100	0
15	AO	88/89 (98%)	-0.21	0 100 100	59, 73, 87, 94	0
15	CO	88/89 (98%)	0.07	2 (2%) 64 40	58, 73, 87, 95	0
16	AP	82/88 (93%)	0.43	2 (2%) 62 39	66, 77, 88, 95	0
16	CP	82/88 (93%)	0.01	1 (1%) 81 64	66, 76, 89, 93	0
17	AQ	99/105 (94%)	0.05	0 100 100	59, 73, 84, 87	0
17	CQ	99/105 (94%)	-0.06	1 (1%) 84 69	60, 73, 84, 85	0
18	AR	68/88 (77%)	0.18	1 (1%) 76 58	66, 76, 86, 90	0
18	CR	68/88 (77%)	0.42	0 100 100	67, 77, 87, 89	0
19	AS	83/93 (89%)	0.83	11 (13%) 4 2	79, 91, 100, 105	0
19	CS	83/93 (89%)	1.28	19 (22%) 1 0	82, 92, 102, 106	0
20	AT	96/106 (90%)	0.09	0 100 100	62, 75, 88, 91	0
20	CT	96/106 (90%)	0.12	1 (1%) 84 69	62, 75, 86, 94	0
21	AU	23/27 (85%)	1.28	5 (21%) 1 0	76, 87, 90, 91	0
21	CU	23/27 (85%)	1.24	8 (34%) 0 0	77, 87, 91, 92	0
22	AV	7/24 (29%)	0.06	0 100 100	61, 73, 97, 100	0
22	CV	6/24 (25%)	0.40	0 100 100	64, 75, 94, 103	0
23	AX	76/77 (98%)	0.05	0 100 100	48, 79, 96, 101	0
23	CX	76/77 (98%)	0.05	0 100 100	47, 81, 98, 101	0
24	AW	3/10 (30%)	0.03	0 100 100	78, 78, 93, 96	0
24	CW	3/10 (30%)	0.60	1 (33%) 0 0	67, 67, 87, 96	0
25	BA	2731/2915 (93%)	-0.26	11 (0%) 93 85	24, 44, 86, 114	0
25	DA	2714/2915 (93%)	-0.47	21 (0%) 87 75	27, 48, 87, 118	0
26	BB	120/122 (98%)	-0.39	0 100 100	41, 68, 81, 96	0
26	DB	120/122 (98%)	-0.31	0 100 100	47, 73, 86, 98	0
27	BD	275/276 (99%)	-0.46	1 (0%) 93 85	24, 41, 62, 85	0
27	DD	275/276 (99%)	-0.45	0 100 100	25, 44, 63, 86	0
28	BE	204/206 (99%)	-0.33	0 100 100	22, 45, 68, 90	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	DE	204/206 (99%)	-0.44	0 100 100	24, 47, 70, 90	0
29	BF	203/210 (96%)	-0.31	0 100 100	24, 53, 77, 97	0
29	DF	203/210 (96%)	-0.44	0 100 100	25, 56, 79, 96	0
30	BG	181/182 (99%)	-0.28	2 (1%) 82 66	61, 76, 89, 100	0
30	DG	181/182 (99%)	0.12	6 (3%) 50 26	65, 79, 91, 100	0
31	BH	174/180 (96%)	-0.30	0 100 100	49, 67, 81, 85	0
31	DH	174/180 (96%)	0.56	22 (12%) 5 2	54, 72, 85, 89	0
32	BI	146/148 (98%)	-0.14	0 100 100	49, 77, 88, 94	0
32	DI	146/148 (98%)	0.16	5 (3%) 49 24	49, 78, 88, 94	0
33	BN	140/140 (100%)	-0.35	0 100 100	33, 48, 71, 78	0
33	DN	140/140 (100%)	-0.42	0 100 100	35, 52, 73, 81	0
34	BO	122/122 (100%)	-0.48	0 100 100	23, 40, 61, 76	0
34	DO	122/122 (100%)	-0.46	0 100 100	37, 53, 71, 80	0
35	BP	149/150 (99%)	-0.31	0 100 100	25, 54, 77, 83	0
35	DP	149/150 (99%)	-0.05	1 (0%) 89 78	27, 57, 81, 87	0
36	BQ	141/141 (100%)	-0.32	0 100 100	36, 52, 68, 79	0
36	DQ	141/141 (100%)	-0.44	0 100 100	38, 55, 71, 81	0
37	BR	118/118 (100%)	-0.49	0 100 100	20, 35, 52, 64	0
37	DR	118/118 (100%)	-0.38	0 100 100	36, 52, 68, 84	0
38	BS	110/112 (98%)	-0.42	0 100 100	35, 54, 71, 85	0
38	DS	110/112 (98%)	0.30	7 (6%) 23 9	65, 81, 92, 95	0
39	BT	131/146 (89%)	-0.47	0 100 100	31, 45, 75, 92	0
39	DT	131/146 (89%)	-0.44	0 100 100	45, 59, 80, 90	0
40	BU	116/118 (98%)	-0.63	0 100 100	21, 31, 52, 63	0
40	DU	116/118 (98%)	-0.33	1 (0%) 85 72	36, 61, 78, 92	0
41	BV	101/101 (100%)	-0.40	0 100 100	27, 53, 73, 80	0
41	DV	101/101 (100%)	-0.17	0 100 100	29, 58, 78, 80	0
42	BW	112/113 (99%)	-0.42	0 100 100	27, 38, 62, 92	0
42	DW	112/113 (99%)	-0.24	0 100 100	30, 42, 64, 94	0
43	BX	95/96 (98%)	-0.36	0 100 100	29, 47, 72, 81	0
43	DX	95/96 (98%)	-0.27	3 (3%) 51 27	33, 51, 73, 82	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	BY	107/110 (97%)	-0.17	2 (1%) 70 48	39, 61, 80, 89	0
44	DY	107/110 (97%)	0.31	5 (4%) 35 16	43, 65, 82, 92	0
45	BZ	171/206 (83%)	-0.37	0 100 100	53, 71, 85, 96	0
45	DZ	174/206 (84%)	-0.05	1 (0%) 90 80	58, 74, 87, 95	0
46	B0	83/85 (97%)	-0.06	7 (8%) 14 4	25, 39, 80, 108	0
46	D0	83/85 (97%)	0.44	10 (12%) 6 2	42, 66, 86, 104	0
47	B1	97/98 (98%)	-0.25	1 (1%) 84 69	27, 44, 74, 83	0
47	D1	97/98 (98%)	-0.21	1 (1%) 84 69	35, 58, 79, 86	0
48	B2	70/72 (97%)	-0.53	0 100 100	35, 48, 64, 90	0
48	D2	70/72 (97%)	-0.25	0 100 100	59, 74, 83, 92	0
49	B3	59/60 (98%)	-0.34	0 100 100	24, 38, 63, 85	0
49	D3	59/60 (98%)	0.22	1 (1%) 73 52	45, 62, 80, 90	0
50	B4	69/71 (97%)	-0.15	1 (1%) 78 60	60, 85, 103, 105	0
50	D4	69/71 (97%)	0.41	5 (7%) 18 7	82, 96, 106, 112	0
51	B5	59/60 (98%)	-0.59	0 100 100	14, 36, 59, 74	0
51	D5	59/60 (98%)	-0.53	0 100 100	31, 50, 72, 82	0
52	B6	53/54 (98%)	-0.25	0 100 100	43, 53, 68, 75	0
52	D6	53/54 (98%)	-0.24	0 100 100	45, 56, 69, 73	0
53	B7	48/49 (97%)	-0.28	0 100 100	24, 32, 62, 84	0
53	D7	48/49 (97%)	-0.13	1 (2%) 67 44	26, 35, 63, 86	0
54	B8	64/65 (98%)	-0.28	0 100 100	31, 42, 51, 64	0
54	D8	64/65 (98%)	-0.28	0 100 100	34, 46, 56, 66	0
55	B9	37/37 (100%)	0.09	0 100 100	43, 53, 71, 77	0
55	D9	37/37 (100%)	0.67	3 (8%) 15 5	46, 58, 73, 78	0
All	All	20462/21468 (95%)	-0.16	397 (1%) 70 48	14, 65, 95, 123	0

All (397) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	CM	124	PRO	15.7
13	CM	123	ALA	13.0
13	AM	124	PRO	10.1
13	AM	123	ALA	9.8
46	B0	3	HIS	8.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	CM	122	LYS	7.9
7	CG	78	ARG	6.8
1	CA	1030(B)	C	6.7
3	CC	159	GLY	6.1
46	D0	3	HIS	6.0
19	CS	49	ILE	5.9
9	CI	36	TYR	5.6
9	CI	30	GLY	5.5
13	CM	121	LYS	5.4
1	AA	1000	U	5.4
3	CC	155	GLY	5.4
13	AM	122	LYS	5.4
46	B0	7	LEU	5.3
7	AG	78	ARG	5.1
7	CG	79	ARG	5.0
1	CA	1001(A)	G	4.9
7	AG	79	ARG	4.9
1	AA	1030(B)	C	4.9
25	DA	229	A	4.9
1	CA	1532	U	4.8
7	AG	156	TRP	4.7
46	B0	6	GLY	4.7
7	CG	156	TRP	4.7
1	AA	1036	G	4.7
40	DU	117	GLN	4.7
1	AA	1001	A	4.7
13	CM	120	LYS	4.6
10	CJ	6	ILE	4.5
1	CA	1026	G	4.4
46	D0	8	GLY	4.3
7	AG	153	HIS	4.2
2	CB	232	PRO	4.2
1	AA	1001(A)	G	4.2
9	CI	7	THR	4.2
1	AA	202	U	4.2
19	CS	38	SER	4.1
25	DA	2802	G	4.1
50	D4	68	ARG	4.1
3	CC	160	ALA	4.1
46	B0	5	LYS	4.1
1	AA	1030(C)	G	4.0
9	CI	62	TYR	4.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	AM	121	LYS	4.0
46	D0	2	ALA	3.9
31	DH	112	PRO	3.9
46	D0	6	GLY	3.9
1	AA	1028	C	3.9
7	CG	2	ALA	3.9
1	CA	1002	G	3.9
1	CA	1030(C)	G	3.9
31	DH	2	SER	3.9
3	AC	206	GLU	3.9
19	AS	39	THR	3.9
9	CI	9	ARG	3.8
10	AJ	35	SER	3.8
1	AA	1002	G	3.8
1	CA	1001	A	3.8
13	CM	119	GLY	3.8
25	BA	1555	C	3.8
46	D0	76	GLY	3.8
7	AG	85	TYR	3.7
19	CS	48	THR	3.7
46	B0	8	GLY	3.7
25	DA	2793	G	3.7
7	CG	84	ASN	3.7
1	CA	1036	G	3.7
10	CJ	20	ALA	3.6
1	CA	1034	G	3.6
1	CA	1035	A	3.6
7	AG	77	SER	3.6
31	DH	103	LEU	3.6
46	D0	5	LYS	3.6
47	D1	2	SER	3.5
55	D9	12	ASP	3.5
1	CA	1030(A)	G	3.5
2	AB	228	GLY	3.5
19	AS	38	SER	3.5
1	AA	1037	C	3.5
10	AJ	6	ILE	3.5
1	AA	1026	G	3.5
31	DH	111	HIS	3.5
7	CG	82	GLY	3.5
2	CB	135	GLN	3.4
1	AA	1044	A	3.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	AJ	5	ARG	3.4
21	AU	18	TYR	3.4
7	CG	4	ARG	3.4
25	DA	652(B)	A	3.4
43	DX	68	ARG	3.3
7	CG	77	SER	3.3
10	CJ	85	LEU	3.3
2	AB	133	LYS	3.3
25	BA	2815	C	3.3
1	CA	1531	A	3.3
31	DH	102	ALA	3.3
9	CI	66	ARG	3.2
4	AD	179	GLU	3.2
31	DH	115	VAL	3.2
3	AC	193	TYR	3.2
3	AC	87	LEU	3.2
10	CJ	89	ASP	3.2
46	D0	7	LEU	3.2
30	DG	2	PRO	3.2
1	AA	1030	C	3.2
31	DH	82	GLY	3.1
9	AI	33	PHE	3.1
53	D7	48	LYS	3.1
10	AJ	98	ILE	3.1
11	CK	13	GLN	3.1
31	DH	43	VAL	3.1
55	D9	13	LYS	3.1
19	AS	72	GLY	3.1
25	DA	2803	C	3.1
9	AI	15	ALA	3.1
1	AA	204	U	3.1
1	AA	999	C	3.0
25	BA	935	C	3.0
25	BA	2814	C	3.0
1	AA	1029	C	3.0
10	AJ	7	LYS	3.0
14	AN	17	LYS	3.0
38	DS	35	ILE	3.0
25	DA	1509	C	3.0
1	AA	201	C	3.0
3	AC	160	ALA	3.0
25	BA	2816	G	3.0

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Mol	Chain	Res	Type	RSRZ
44	BY	1	MET	3.0
19	AS	50	ALA	3.0
20	CT	9	ASN	3.0
21	CU	24	ARG	2.9
19	CS	47	HIS	2.9
25	BA	1221	G	2.9
7	AG	80	VAL	2.9
3	CC	154	SER	2.9
21	CU	14	TRP	2.9
25	BA	2807	C	2.9
3	CC	193	TYR	2.9
4	AD	180	GLY	2.9
1	CA	1040	U	2.8
1	CA	1286	A	2.8
1	CA	1037	C	2.8
7	AG	84	ASN	2.8
31	DH	113	VAL	2.8
13	CM	102	ARG	2.8
7	CG	154	TYR	2.8
19	CS	12	ASP	2.8
46	B0	4	LYS	2.8
9	CI	37	PHE	2.8
31	DH	105	LEU	2.8
9	CI	15	ALA	2.8
1	AA	1030(A)	G	2.8
1	CA	1041	A	2.8
3	AC	192	THR	2.7
19	AS	59	PRO	2.7
19	CS	69	HIS	2.7
19	AS	71	LEU	2.7
21	AU	11	GLY	2.7
44	DY	58	GLY	2.7
2	CB	132	LYS	2.7
1	CA	1023	G	2.7
30	BG	75	LYS	2.7
50	D4	52	THR	2.7
3	CC	190	ARG	2.7
46	B0	2	ALA	2.7
9	CI	21	PRO	2.7
43	DX	92	LEU	2.7
10	AJ	73	ASP	2.7
14	CN	17	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
25	DA	2801(A)	A	2.7
1	AA	1007	C	2.7
10	CJ	21	GLN	2.7
25	BA	2806	G	2.7
1	CA	1042	G	2.6
14	CN	8	GLU	2.6
9	CI	128	ARG	2.6
9	AI	62	TYR	2.6
13	AM	97	PRO	2.6
25	DA	2792	G	2.6
30	DG	75	LYS	2.6
50	B4	66	SER	2.6
1	CA	1027	C	2.6
2	CB	133	LYS	2.6
7	AG	16	LEU	2.6
32	DI	12	LEU	2.6
10	CJ	26	ALA	2.6
1	CA	1003	G	2.6
49	D3	60	GLU	2.6
25	DA	888	C	2.6
19	CS	75	ALA	2.6
1	CA	1257	U	2.6
13	CM	110	ARG	2.6
44	DY	59	GLY	2.6
25	DA	2188	C	2.6
1	AA	1041	A	2.5
1	CA	1030(D)	A	2.5
50	D4	69	LYS	2.5
1	CA	80	G	2.5
1	CA	1024	G	2.5
9	AI	47	LEU	2.5
44	DY	88	LYS	2.5
7	AG	154	TYR	2.5
31	DH	107	VAL	2.5
10	AJ	71	LEU	2.5
1	AA	1027	C	2.5
14	CN	2	ALA	2.5
9	CI	35	GLU	2.5
25	DA	2805	G	2.5
3	CC	191	THR	2.5
9	CI	10	ARG	2.5
2	CB	115	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
9	AI	37	PHE	2.5
10	CJ	40	LEU	2.5
1	AA	1023	G	2.5
31	DH	169	VAL	2.5
9	CI	29	ASN	2.5
32	DI	13	GLY	2.5
10	AJ	72	VAL	2.5
55	D9	16	VAL	2.5
10	AJ	36	GLY	2.5
2	AB	122	PHE	2.5
10	AJ	34	VAL	2.5
19	CS	9	VAL	2.5
25	BA	696	C	2.5
31	DH	94	TYR	2.5
10	AJ	8	LEU	2.5
13	AM	119	GLY	2.5
44	DY	5	MET	2.5
31	DH	116	GLU	2.5
1	AA	1024	G	2.4
19	AS	40	ILE	2.4
2	CB	137	ARG	2.4
1	AA	1031	G	2.4
2	CB	48	MET	2.4
3	CC	177	THR	2.4
21	CU	6	ARG	2.4
10	CJ	65	LEU	2.4
10	CJ	5	ARG	2.4
32	DI	11	ASN	2.4
2	CB	134	GLU	2.4
25	DA	2794	C	2.4
17	CQ	100	LYS	2.4
19	CS	35	SER	2.4
25	DA	2896	C	2.4
9	AI	36	TYR	2.4
25	DA	2807	G	2.4
3	CC	189	ALA	2.4
19	CS	43	GLU	2.4
2	CB	122	PHE	2.4
19	AS	60	VAL	2.4
4	AD	152	SER	2.4
19	AS	56	GLN	2.4
15	CO	6	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
3	CC	64	VAL	2.4
9	CI	5	TYR	2.4
9	CI	28	VAL	2.4
19	CS	13	ASP	2.4
30	DG	76	SER	2.4
1	AA	1137	C	2.4
25	DA	2897	U	2.4
1	AA	1531	A	2.4
3	CC	206	GLU	2.4
10	CJ	27	ALA	2.4
38	DS	33	LYS	2.4
30	BG	49	ASP	2.3
1	CA	1029	C	2.3
9	CI	33	PHE	2.3
30	DG	136	ARG	2.3
9	CI	27	THR	2.3
1	CA	1031	G	2.3
25	DA	2894	G	2.3
13	AM	120	LYS	2.3
19	CS	44	MET	2.3
2	AB	227	GLY	2.3
21	AU	17	THR	2.3
1	CA	1030	C	2.3
10	CJ	38	ILE	2.3
12	AL	99	HIS	2.3
16	AP	7	ALA	2.3
11	CK	31	THR	2.3
9	CI	88	TYR	2.3
1	AA	1034	G	2.3
32	DI	86	THR	2.3
38	DS	52	SER	2.3
3	CC	158	GLY	2.3
38	DS	58	LEU	2.3
10	CJ	72	VAL	2.3
50	D4	67	TYR	2.3
1	AA	1039	C	2.3
3	AC	100	ALA	2.3
16	AP	19	ILE	2.3
1	AA	1257	U	2.3
21	CU	8	THR	2.3
19	AS	30	LEU	2.3
19	CS	28	LYS	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	CA	1033	G	2.3
11	CK	42	TRP	2.3
31	DH	106	THR	2.3
32	DI	77	LEU	2.3
9	CI	127	LYS	2.3
14	CN	25	VAL	2.3
2	CB	131	PRO	2.3
1	AA	1003	G	2.3
1	CA	1000	U	2.3
31	DH	110	SER	2.3
19	CS	53	ASN	2.2
50	D4	49	PHE	2.2
10	AJ	75	ILE	2.2
25	DA	879	G	2.2
13	AM	2	ALA	2.2
2	AB	135	GLN	2.2
21	AU	5	ASP	2.2
7	AG	82	GLY	2.2
1	CA	1493	A	2.2
14	AN	15	LYS	2.2
2	AB	129	GLU	2.2
1	AA	1286	A	2.2
13	AM	96	LEU	2.2
21	CU	12	LYS	2.2
4	AD	175	SER	2.2
9	CI	98	PRO	2.2
1	CA	1149	C	2.2
9	CI	6	GLY	2.2
19	CS	16	LEU	2.2
27	BD	276	LYS	2.2
44	BY	63	LYS	2.2
2	AB	63	MET	2.2
3	CC	102	ASN	2.2
2	CB	113	HIS	2.2
46	D0	9	SER	2.2
1	CA	1004	A	2.2
1	CA	1283	G	2.2
46	D0	4	LYS	2.2
9	AI	46	ALA	2.1
30	DG	122	PRO	2.1
9	AI	26	VAL	2.1
13	CM	78	ILE	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
24	CW	2	VAL	2.1
38	DS	57	LYS	2.1
1	AA	1038	C	2.1
47	B1	2	SER	2.1
31	DH	159	GLU	2.1
7	CG	85	TYR	2.1
46	D0	77	ARG	2.1
9	CI	123	PRO	2.1
19	CS	79	THR	2.1
1	CA	1038	C	2.1
13	CM	6	GLY	2.1
2	CB	165	VAL	2.1
19	AS	4	SER	2.1
18	AR	31	LEU	2.1
25	BA	2813	G	2.1
30	DG	51	ARG	2.1
35	DP	78	PRO	2.1
21	AU	2	GLY	2.1
25	BA	2805	G	2.1
25	DA	652(U)	G	2.1
25	DA	652(T)	C	2.1
21	CU	23	PRO	2.1
13	CM	92	HIS	2.1
7	CG	83	ALA	2.1
19	CS	8	GLY	2.1
21	CU	11	GLY	2.1
1	CA	202	U	2.1
31	DH	95	ARG	2.1
8	AH	58	TYR	2.1
1	CA	91	C	2.0
2	CB	96	ARG	2.0
4	AD	135	LEU	2.0
25	DA	883	G	2.0
38	DS	34	HIS	2.0
31	DH	101	ARG	2.0
45	DZ	5	LEU	2.0
2	AB	214	ILE	2.0
15	CO	87	ILE	2.0
7	CG	16	LEU	2.0
44	DY	106	LEU	2.0
1	AA	1020	U	2.0
31	DH	96	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
19	CS	6	LYS	2.0
9	CI	8	GLY	2.0
16	CP	48	TRP	2.0
38	DS	53	SER	2.0
3	AC	207	VAL	2.0
19	CS	71	LEU	2.0
25	DA	886	C	2.0
9	AI	8	GLY	2.0
14	CN	34	TYR	2.0
31	DH	44	VAL	2.0
31	DH	93	GLY	2.0
21	CU	18	TYR	2.0
43	DX	69	TYR	2.0
3	CC	163	ALA	2.0

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

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
24	2R3	CW	8	14/15	0.96	0.11	-	47,70,74,79	0
24	MVA	CW	5	8/9	0.94	0.20	-	51,78,86,88	0
24	MVA	AW	9	8/9	0.93	0.24	-	65,78,87,91	0
24	2QZ	AW	1	9/10	0.95	0.22	-	58,64,81,82	0
24	MVA	CW	9	8/9	0.92	0.21	-	61,72,80,84	0
24	2QY	AW	10	13/14	0.97	0.14	-	55,67,75,79	0
24	2R1	AW	6	10/11	0.90	0.12	-	68,82,98,104	0
24	2R3	AW	8	14/15	0.95	0.15	-	54,79,87,90	0
24	MVA	AW	5	8/9	0.93	0.19	-	66,87,90,90	0
24	2QZ	CW	1	9/10	0.95	0.24	-	57,72,81,93	0
24	004	CW	3	10/11	0.94	0.15	-	60,76,84,86	0
24	2R1	CW	6	10/11	0.94	0.11	-	79,86,90,94	0
24	2QY	CW	10	13/14	0.91	0.14	-	55,69,84,94	0
24	004	AW	3	10/11	0.82	0.13	-	71,89,99,106	0

## 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
56	MG	DA	3581	1/1	0.71	0.86	126.13	73,73,73,73	0
56	MG	BA	3014	1/1	0.95	0.76	83.86	34,34,34,34	0
56	MG	AA	3011	1/1	0.91	1.19	73.14	55,55,55,55	0
56	MG	BA	3634	1/1	0.98	0.70	72.21	63,63,63,63	0
56	MG	DA	3092	1/1	0.88	0.61	62.70	39,39,39,39	0
56	MG	BA	3223	1/1	0.96	0.68	61.58	47,47,47,47	0
56	MG	BA	3038	1/1	0.91	0.60	56.20	51,51,51,51	0
56	MG	BA	3042	1/1	0.95	0.76	55.48	47,47,47,47	0
56	MG	BA	3196	1/1	0.92	0.76	49.64	56,56,56,56	0
56	MG	BA	3297	1/1	0.73	1.46	48.81	53,53,53,53	0
56	MG	DF	301	1/1	0.91	0.51	43.16	32,32,32,32	0
56	MG	DD	306	1/1	0.95	1.14	42.96	44,44,44,44	0
56	MG	BA	3607	1/1	0.96	0.43	40.74	53,53,53,53	0
56	MG	CA	3007	1/1	0.82	0.56	39.00	68,68,68,68	0
56	MG	BA	3160	1/1	0.78	0.64	38.61	53,53,53,53	0
56	MG	BA	3187	1/1	0.91	0.64	36.94	50,50,50,50	0
56	MG	DA	3112	1/1	0.86	0.43	32.14	54,54,54,54	0
56	MG	BP	201	1/1	0.95	0.66	32.11	40,40,40,40	0
56	MG	CA	3053	1/1	0.61	1.18	30.79	73,73,73,73	0
56	MG	B8	101	1/1	0.93	0.46	30.44	49,49,49,49	0
56	MG	DA	3018	1/1	0.89	0.47	28.91	48,48,48,48	0
56	MG	BA	3150	1/1	0.98	0.45	28.65	34,34,34,34	0
56	MG	AA	3060	1/1	0.93	0.53	26.72	60,60,60,60	0
56	MG	D5	102	1/1	0.95	0.58	26.27	55,55,55,55	0
56	MG	DA	3639	1/1	0.96	0.30	26.18	15,15,15,15	0
56	MG	BA	3024	1/1	0.90	0.40	25.42	35,35,35,35	0
56	MG	CA	3042	1/1	0.57	0.55	24.99	85,85,85,85	0
56	MG	BU	208	1/1	0.95	0.88	22.96	56,56,56,56	0
56	MG	DA	3011	1/1	0.75	0.38	22.52	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BV	203	1/1	0.95	1.03	22.44	46,46,46,46	0
56	MG	DA	3643	1/1	0.92	0.72	22.16	53,53,53,53	0
56	MG	DA	3016	1/1	0.94	0.27	21.38	37,37,37,37	0
56	MG	BA	3034	1/1	0.96	0.41	21.31	52,52,52,52	0
56	MG	DA	3178	1/1	0.96	0.37	20.98	43,43,43,43	0
56	MG	DA	3197	1/1	0.95	0.45	20.76	36,36,36,36	0
56	MG	DA	3615	1/1	0.78	0.40	20.59	60,60,60,60	0
56	MG	BA	3664	1/1	0.89	0.26	20.17	68,68,68,68	0
56	MG	B7	103	1/1	0.90	0.85	19.81	48,48,48,48	0
56	MG	BP	203	1/1	0.97	0.70	19.23	29,29,29,29	0
56	MG	BF	301	1/1	0.97	0.52	19.13	45,45,45,45	0
56	MG	DV	203	1/1	0.86	0.74	19.12	54,54,54,54	0
56	MG	AA	3008	1/1	0.93	0.42	18.92	54,54,54,54	0
56	MG	BA	3727	1/1	0.87	0.66	18.44	68,68,68,68	0
56	MG	DA	3079	1/1	0.87	0.27	18.00	37,37,37,37	0
56	MG	BA	3199	1/1	0.96	0.46	17.87	36,36,36,36	0
56	MG	DA	3173	1/1	0.97	0.41	17.87	39,39,39,39	0
56	MG	DF	305	1/1	0.94	0.73	17.84	39,39,39,39	0
56	MG	AA	3180	1/1	0.90	0.38	17.72	66,66,66,66	0
56	MG	DD	305	1/1	0.94	0.64	17.69	49,49,49,49	0
56	MG	AA	3159	1/1	0.99	0.32	17.67	57,57,57,57	0
56	MG	BA	3230	1/1	0.89	0.47	17.62	46,46,46,46	0
56	MG	AA	3107	1/1	0.96	0.31	17.57	44,44,44,44	0
56	MG	DA	3279	1/1	0.82	0.31	17.57	63,63,63,63	0
56	MG	BA	3047	1/1	0.90	0.41	17.35	47,47,47,47	0
56	MG	AA	3038	1/1	0.82	0.35	17.33	66,66,66,66	0
56	MG	DD	307	1/1	0.85	0.61	17.21	38,38,38,38	0
56	MG	BE	301	1/1	0.96	0.56	17.10	43,43,43,43	0
56	MG	BV	202	1/1	0.95	0.44	16.55	56,56,56,56	0
56	MG	BA	3041	1/1	0.96	0.37	16.12	32,32,32,32	0
56	MG	BA	3026	1/1	0.97	0.47	15.86	36,36,36,36	0
56	MG	BA	3622	1/1	0.65	0.52	15.82	77,77,77,77	0
56	MG	BD	306	1/1	0.93	0.45	15.77	46,46,46,46	0
56	MG	CA	3135	1/1	0.70	0.56	15.36	76,76,76,76	0
56	MG	DA	3624	1/1	0.90	0.40	15.34	51,51,51,51	0
56	MG	AA	3082	1/1	0.92	0.24	15.29	39,39,39,39	0
56	MG	DA	3056	1/1	0.76	0.38	15.24	43,43,43,43	0
56	MG	BA	3155	1/1	0.81	0.38	15.14	57,57,57,57	0
56	MG	BE	305	1/1	0.90	0.70	14.86	42,42,42,42	0
56	MG	AA	3209	1/1	0.94	0.40	14.82	70,70,70,70	0
56	MG	CA	3152	1/1	0.92	0.38	14.77	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3739	1/1	0.82	0.77	14.57	50,50,50,50	0
56	MG	BA	3493	1/1	0.98	0.37	14.53	15,15,15,15	0
56	MG	AA	3208	1/1	0.97	0.34	14.18	46,46,46,46	0
59	FME	CX	101	10/11	0.70	0.57	14.05	71,82,97,105	0
56	MG	AA	3010	1/1	0.95	0.37	14.01	70,70,70,70	0
56	MG	AA	3108	1/1	0.96	0.46	13.89	67,67,67,67	0
56	MG	BA	3726	1/1	0.96	0.55	13.75	47,47,47,47	0
56	MG	BA	3227	1/1	0.98	0.31	13.48	32,32,32,32	0
56	MG	AA	3050	1/1	0.88	0.50	13.34	63,63,63,63	0
56	MG	BA	3184	1/1	0.97	0.38	13.23	49,49,49,49	0
56	MG	BR	201	1/1	0.98	0.60	12.92	51,51,51,51	0
56	MG	BA	3153	1/1	0.93	0.32	12.85	35,35,35,35	0
56	MG	BA	3145	1/1	0.95	0.40	12.78	38,38,38,38	0
56	MG	DA	3473	1/1	0.98	0.31	12.78	32,32,32,32	0
56	MG	BA	3211	1/1	0.94	0.29	12.63	38,38,38,38	0
56	MG	BA	3637	1/1	0.96	0.35	12.58	33,33,33,33	0
56	MG	DA	3176	1/1	0.97	0.27	12.50	39,39,39,39	0
56	MG	BA	3614	1/1	0.99	0.42	12.48	30,30,30,30	0
56	MG	DA	3553	1/1	0.86	0.36	12.37	70,70,70,70	0
56	MG	BN	3005	1/1	0.95	0.84	12.28	52,52,52,52	0
56	MG	AA	3019	1/1	0.89	0.39	12.21	74,74,74,74	0
56	MG	BA	3060	1/1	0.93	0.40	12.17	40,40,40,40	0
56	MG	DA	3100	1/1	0.94	0.50	12.08	56,56,56,56	0
56	MG	DA	3033	1/1	0.91	0.25	12.07	39,39,39,39	0
56	MG	DV	202	1/1	0.85	0.84	11.94	63,63,63,63	0
56	MG	BD	302	1/1	0.96	0.36	11.84	58,58,58,58	0
56	MG	DA	3461	1/1	0.90	0.21	11.83	41,41,41,41	0
56	MG	BA	3133	1/1	0.93	0.27	11.80	32,32,32,32	0
56	MG	DA	3401	1/1	0.91	0.29	11.52	58,58,58,58	0
56	MG	AA	3120	1/1	0.77	0.63	11.52	71,71,71,71	0
56	MG	DA	3116	1/1	0.92	0.31	11.51	39,39,39,39	0
56	MG	BN	3001	1/1	0.91	0.76	11.50	54,54,54,54	0
56	MG	AA	3071	1/1	0.79	0.29	11.43	60,60,60,60	0
56	MG	DA	3039	1/1	0.96	0.40	11.17	59,59,59,59	0
56	MG	AA	3190	1/1	0.92	0.33	10.92	67,67,67,67	0
56	MG	BA	3729	1/1	0.97	0.40	10.80	46,46,46,46	0
56	MG	B3	103	1/1	0.93	0.63	10.79	41,41,41,41	0
56	MG	DA	3432	1/1	0.96	0.27	10.77	66,66,66,66	0
56	MG	BA	3524	1/1	0.96	0.25	10.69	55,55,55,55	0
56	MG	BU	206	1/1	0.76	0.38	10.59	60,60,60,60	0
56	MG	AA	3160	1/1	0.97	0.30	10.59	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	DA	3265	1/1	0.96	0.27	10.41	51,51,51,51	0
56	MG	BF	303	1/1	0.99	0.27	10.29	36,36,36,36	0
56	MG	BA	3503	1/1	0.96	0.28	10.23	31,31,31,31	0
56	MG	AA	3109	1/1	0.94	0.33	10.15	65,65,65,65	0
56	MG	AA	3084	1/1	0.70	0.36	10.11	78,78,78,78	0
56	MG	BA	3033	1/1	0.97	0.37	10.09	35,35,35,35	0
59	FME	AX	101	10/11	0.86	0.44	10.03	48,75,97,113	0
56	MG	DA	3097	1/1	0.92	0.22	9.94	61,61,61,61	0
56	MG	DE	301	1/1	0.96	0.62	9.92	51,51,51,51	0
56	MG	DA	3651	1/1	0.92	0.60	9.90	52,52,52,52	0
56	MG	AA	3035	1/1	0.76	0.42	9.79	71,71,71,71	0
56	MG	DA	3191	1/1	0.89	0.44	9.59	47,47,47,47	0
56	MG	DA	3171	1/1	0.87	0.25	9.54	39,39,39,39	0
56	MG	AA	3033	1/1	0.88	0.38	9.43	64,64,64,64	0
56	MG	BA	3139	1/1	0.90	0.25	9.23	51,51,51,51	0
56	MG	AA	3168	1/1	0.95	0.31	9.17	68,68,68,68	0
56	MG	BA	3045	1/1	0.88	0.29	9.12	34,34,34,34	0
56	MG	DA	3298	1/1	0.95	0.32	9.11	37,37,37,37	0
56	MG	BA	3530	1/1	0.97	0.28	8.98	31,31,31,31	0
56	MG	CA	3170	1/1	0.89	0.48	8.94	50,50,50,50	0
56	MG	CA	3043	1/1	0.97	0.34	8.89	49,49,49,49	0
56	MG	BR	204	1/1	0.92	0.62	8.83	43,43,43,43	0
56	MG	BA	3435	1/1	0.97	0.23	8.68	24,24,24,24	0
56	MG	BA	3197	1/1	0.89	0.30	8.54	39,39,39,39	0
56	MG	BA	3086	1/1	0.94	0.33	8.51	49,49,49,49	0
56	MG	BA	3025	1/1	0.96	0.25	8.50	28,28,28,28	0
56	MG	DA	3577	1/1	0.96	0.25	8.31	44,44,44,44	0
56	MG	DA	3479	1/1	0.94	0.19	8.27	57,57,57,57	0
56	MG	BA	3057	1/1	0.94	0.27	8.22	35,35,35,35	0
56	MG	BA	3192	1/1	0.88	0.48	8.13	58,58,58,58	0
56	MG	DA	3215	1/1	0.98	0.30	8.10	29,29,29,29	0
56	MG	BA	3222	1/1	0.98	0.29	7.99	25,25,25,25	0
56	MG	BA	3732	1/1	0.99	0.52	7.98	61,61,61,61	0
56	MG	AA	3088	1/1	0.77	0.33	7.88	63,63,63,63	0
56	MG	BA	3671	1/1	0.90	0.33	7.87	57,57,57,57	0
56	MG	DA	3469	1/1	0.94	0.22	7.85	47,47,47,47	0
56	MG	DA	3440	1/1	0.89	0.32	7.75	33,33,33,33	0
56	MG	BA	3576	1/1	0.95	0.26	7.61	23,23,23,23	0
56	MG	CA	3032	1/1	0.83	0.20	7.60	42,42,42,42	0
56	MG	CA	3114	1/1	0.82	0.26	7.41	82,82,82,82	0
56	MG	DA	3609	1/1	0.84	0.35	7.23	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	BA	3546	1/1	0.94	0.31	7.19	48,48,48,48	0
56	MG	DA	3099	1/1	0.86	0.27	7.18	44,44,44,44	0
56	MG	BF	305	1/1	0.97	0.32	7.15	35,35,35,35	0
56	MG	BA	3550	1/1	0.97	0.24	7.13	45,45,45,45	0
56	MG	BD	308	1/1	0.97	0.32	7.11	23,23,23,23	0
56	MG	DA	3170	1/1	0.92	0.81	6.92	57,57,57,57	0
56	MG	AA	3031	1/1	0.89	0.21	6.81	41,41,41,41	0
56	MG	BW	204	1/1	0.96	0.35	6.78	35,35,35,35	0
56	MG	DB	3007	1/1	0.80	0.27	6.70	45,45,45,45	0
56	MG	BB	3003	1/1	0.82	0.24	6.66	43,43,43,43	0
56	MG	BN	3004	1/1	0.98	0.40	6.59	66,66,66,66	0
56	MG	BD	310	1/1	0.98	0.32	6.59	48,48,48,48	0
56	MG	BA	3441	1/1	0.95	0.25	6.58	25,25,25,25	0
56	MG	BA	3048	1/1	0.90	0.23	6.33	31,31,31,31	0
56	MG	DA	3295	1/1	0.92	0.24	6.29	39,39,39,39	0
56	MG	AA	3064	1/1	0.95	0.30	6.22	79,79,79,79	0
56	MG	BA	3451	1/1	0.97	0.30	6.22	28,28,28,28	0
56	MG	DA	3407	1/1	0.95	0.24	6.20	21,21,21,21	0
56	MG	DD	301	1/1	0.95	0.32	6.19	46,46,46,46	0
56	MG	BA	3416	1/1	0.99	0.25	6.17	42,42,42,42	0
56	MG	DA	3264	1/1	0.90	0.32	6.12	49,49,49,49	0
56	MG	BA	3642	1/1	0.96	0.24	6.10	51,51,51,51	0
56	MG	DA	3094	1/1	0.96	0.18	6.05	26,26,26,26	0
56	MG	DA	3608	1/1	0.98	0.28	6.04	57,57,57,57	0
56	MG	DA	3346	1/1	0.99	0.23	6.02	29,29,29,29	0
56	MG	DA	3326	1/1	0.93	0.20	5.96	33,33,33,33	0
56	MG	BU	203	1/1	0.98	0.35	5.96	33,33,33,33	0
56	MG	AA	3039	1/1	0.89	0.24	5.94	60,60,60,60	0
56	MG	DA	3272	1/1	0.99	0.28	5.92	27,27,27,27	0
56	MG	DA	3266	1/1	0.96	0.23	5.90	43,43,43,43	0
56	MG	DA	3324	1/1	0.99	0.23	5.89	40,40,40,40	0
56	MG	BA	3277	1/1	0.86	0.37	5.79	45,45,45,45	0
56	MG	DA	3627	1/1	0.93	0.21	5.66	43,43,43,43	0
56	MG	AA	3095	1/1	0.93	0.24	5.65	58,58,58,58	0
56	MG	BQ	205	1/1	0.94	0.42	5.63	49,49,49,49	0
56	MG	CA	3099	1/1	0.93	0.33	5.62	65,65,65,65	0
56	MG	BA	3200	1/1	0.99	0.27	5.61	25,25,25,25	0
56	MG	BA	3630	1/1	0.96	0.25	5.61	52,52,52,52	0
56	MG	DA	3364	1/1	0.94	0.19	5.55	32,32,32,32	0
56	MG	DA	3070	1/1	0.86	0.27	5.53	44,44,44,44	0
56	MG	BU	202	1/1	0.95	0.36	5.51	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3328	1/1	0.92	0.21	5.36	42,42,42,42	0
56	MG	DA	3142	1/1	0.96	0.24	5.34	33,33,33,33	0
56	MG	BA	3548	1/1	0.95	0.22	5.34	50,50,50,50	0
56	MG	DA	3335	1/1	0.97	0.26	5.26	38,38,38,38	0
56	MG	BV	201	1/1	0.96	0.39	5.21	53,53,53,53	0
56	MG	CA	3098	1/1	0.98	0.23	5.21	46,46,46,46	0
56	MG	BA	3459	1/1	0.98	0.22	5.14	31,31,31,31	0
56	MG	BA	3203	1/1	0.97	0.26	5.12	32,32,32,32	0
56	MG	DA	3236	1/1	0.98	0.17	5.08	46,46,46,46	0
56	MG	DA	3641	1/1	0.96	0.43	5.02	61,61,61,61	0
56	MG	BA	3178	1/1	0.94	0.28	4.98	48,48,48,48	0
56	MG	DA	3035	1/1	0.98	0.23	4.98	56,56,56,56	0
56	MG	BA	3353	1/1	0.95	0.24	4.91	57,57,57,57	0
56	MG	BA	3402	1/1	0.82	0.25	4.87	71,71,71,71	0
56	MG	DA	3312	1/1	0.99	0.27	4.83	43,43,43,43	0
56	MG	AA	3179	1/1	0.98	0.26	4.83	34,34,34,34	0
56	MG	BQ	202	1/1	0.94	0.30	4.79	28,28,28,28	0
56	MG	DA	3554	1/1	0.92	0.19	4.72	70,70,70,70	0
56	MG	BN	3003	1/1	0.89	0.39	4.71	59,59,59,59	0
56	MG	BX	3001	1/1	0.93	0.29	4.69	55,55,55,55	0
56	MG	AA	3145	1/1	0.94	0.25	4.68	63,63,63,63	0
56	MG	DA	3025	1/1	0.98	0.38	4.63	44,44,44,44	0
56	MG	BA	3552	1/1	0.97	0.23	4.59	29,29,29,29	0
56	MG	BA	3356	1/1	0.89	0.27	4.48	56,56,56,56	0
56	MG	BA	3193	1/1	0.93	0.57	4.46	52,52,52,52	0
56	MG	BA	3370	1/1	0.81	0.19	4.44	54,54,54,54	0
56	MG	BA	3504	1/1	0.96	0.29	4.43	41,41,41,41	0
56	MG	BA	3228	1/1	0.98	0.27	4.41	63,63,63,63	0
56	MG	BA	3512	1/1	0.96	0.23	4.38	40,40,40,40	0
56	MG	CA	3162	1/1	0.91	0.21	4.37	46,46,46,46	0
56	MG	BU	205	1/1	0.84	0.33	4.34	42,42,42,42	0
56	MG	DA	3535	1/1	0.95	0.19	4.31	33,33,33,33	0
56	MG	BA	3703	1/1	0.72	0.22	4.27	31,31,31,31	0
56	MG	DA	3631	1/1	0.83	0.17	4.26	56,56,56,56	0
56	MG	BA	3624	1/1	0.85	0.25	4.15	52,52,52,52	0
56	MG	BA	3117	1/1	0.96	0.24	4.11	25,25,25,25	0
56	MG	BQ	201	1/1	0.98	0.43	4.09	61,61,61,61	0
56	MG	BD	305	1/1	0.94	0.23	4.07	48,48,48,48	0
56	MG	BA	3346	1/1	0.88	0.23	4.06	37,37,37,37	0
56	MG	DA	3164	1/1	0.94	0.26	4.03	48,48,48,48	0
56	MG	DA	3026	1/1	0.98	0.21	4.01	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3306	1/1	0.95	0.21	4.00	33,33,33,33	0
56	MG	BA	3560	1/1	0.90	0.20	3.99	61,61,61,61	0
56	MG	BA	3304	1/1	0.94	0.19	3.98	49,49,49,49	0
56	MG	BA	3124	1/1	0.94	0.23	3.93	39,39,39,39	0
56	MG	BB	3008	1/1	0.87	0.21	3.93	35,35,35,35	0
56	MG	BA	3079	1/1	0.94	0.28	3.91	42,42,42,42	0
56	MG	DA	3637	1/1	0.96	0.28	3.90	48,48,48,48	0
56	MG	DF	304	1/1	0.90	0.28	3.88	44,44,44,44	0
56	MG	BA	3480	1/1	0.98	0.20	3.84	17,17,17,17	0
56	MG	DA	3408	1/1	0.98	0.22	3.82	37,37,37,37	0
56	MG	DA	3476	1/1	0.98	0.21	3.80	45,45,45,45	0
56	MG	DA	3620	1/1	0.90	0.19	3.76	71,71,71,71	0
56	MG	BA	3557	1/1	0.98	0.23	3.75	31,31,31,31	0
56	MG	DA	3078	1/1	0.88	0.17	3.70	44,44,44,44	0
56	MG	BA	3682	1/1	0.97	0.22	3.68	38,38,38,38	0
56	MG	BA	3601	1/1	0.93	0.28	3.67	64,64,64,64	0
56	MG	BA	3093	1/1	0.96	0.22	3.67	25,25,25,25	0
56	MG	DA	3633	1/1	0.96	0.20	3.66	54,54,54,54	0
56	MG	BA	3379	1/1	0.97	0.22	3.65	22,22,22,22	0
56	MG	DA	3347	1/1	0.94	0.19	3.58	62,62,62,62	0
56	MG	BA	3640	1/1	0.93	0.25	3.58	60,60,60,60	0
56	MG	DA	3006	1/1	0.92	0.16	3.53	42,42,42,42	0
56	MG	BA	3036	1/1	0.98	0.18	3.47	38,38,38,38	0
56	MG	CA	3072	1/1	0.96	0.22	3.47	38,38,38,38	0
56	MG	BA	3128	1/1	0.99	0.27	3.46	40,40,40,40	0
56	MG	DA	3114	1/1	0.94	0.19	3.42	37,37,37,37	0
56	MG	BN	3002	1/1	0.88	0.30	3.40	56,56,56,56	0
56	MG	DA	3628	1/1	0.96	0.22	3.36	63,63,63,63	0
56	MG	CE	3001	1/1	0.81	0.33	3.35	68,68,68,68	0
56	MG	BA	3737	1/1	0.96	0.25	3.32	60,60,60,60	0
56	MG	BA	3689	1/1	0.91	0.23	3.25	39,39,39,39	0
56	MG	DA	3302	1/1	0.97	0.18	3.22	22,22,22,22	0
56	MG	DA	3450	1/1	0.93	0.16	3.20	43,43,43,43	0
56	MG	BA	3343	1/1	0.96	0.19	3.20	40,40,40,40	0
56	MG	DQ	205	1/1	0.82	0.40	3.18	55,55,55,55	0
56	MG	BA	3368	1/1	0.96	0.19	3.18	35,35,35,35	0
56	MG	BA	3544	1/1	0.98	0.23	3.17	27,27,27,27	0
56	MG	BA	3147	1/1	0.89	0.24	3.17	46,46,46,46	0
56	MG	CT	3001	1/1	0.90	0.43	3.15	57,57,57,57	0
56	MG	BA	3311	1/1	0.97	0.23	3.15	42,42,42,42	0
56	MG	AA	3024	1/1	0.92	0.18	3.11	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	CA	3001	1/1	0.99	0.21	3.10	55,55,55,55	0
56	MG	DA	3424	1/1	0.93	0.20	3.07	30,30,30,30	0
56	MG	BA	3264	1/1	0.98	0.17	3.06	30,30,30,30	0
56	MG	BA	3431	1/1	0.94	0.23	3.06	17,17,17,17	0
56	MG	DA	3379	1/1	0.99	0.22	3.04	28,28,28,28	0
56	MG	DA	3649	1/1	0.98	0.24	3.02	24,24,24,24	0
56	MG	BA	3414	1/1	0.99	0.21	3.00	19,19,19,19	0
56	MG	AA	3072	1/1	0.92	0.26	2.93	79,79,79,79	0
56	MG	DA	3065	1/1	0.85	0.18	2.89	38,38,38,38	0
56	MG	DA	3638	1/1	0.89	0.30	2.86	62,62,62,62	0
56	MG	BA	3545	1/1	0.95	0.24	2.85	47,47,47,47	0
56	MG	DA	3653	1/1	0.91	0.35	2.82	60,60,60,60	0
56	MG	BF	302	1/1	0.91	0.31	2.78	46,46,46,46	0
56	MG	DV	201	1/1	0.96	0.38	2.76	55,55,55,55	0
56	MG	DA	3397	1/1	0.96	0.18	2.72	41,41,41,41	0
56	MG	BA	3299	1/1	0.93	0.23	2.72	9,9,9,9	0
56	MG	BA	3525	1/1	0.98	0.23	2.72	43,43,43,43	0
56	MG	DA	3262	1/1	0.97	0.22	2.71	44,44,44,44	0
56	MG	CA	3061	1/1	0.94	0.30	2.67	46,46,46,46	0
56	MG	DA	3002	1/1	0.93	0.19	2.63	55,55,55,55	0
56	MG	DA	3395	1/1	0.98	0.21	2.63	34,34,34,34	0
56	MG	DA	3261	1/1	0.95	0.22	2.61	35,35,35,35	0
56	MG	BA	3349	1/1	0.97	0.26	2.59	43,43,43,43	0
56	MG	BA	3037	1/1	0.95	0.20	2.55	31,31,31,31	0
56	MG	DA	3143	1/1	0.91	0.22	2.52	46,46,46,46	0
56	MG	BA	3324	1/1	0.96	0.18	2.49	36,36,36,36	0
56	MG	DA	3518	1/1	0.96	0.20	2.48	40,40,40,40	0
56	MG	DA	3148	1/1	0.91	0.23	2.43	47,47,47,47	0
56	MG	AA	3171	1/1	0.97	0.25	2.41	72,72,72,72	0
56	MG	D3	101	1/1	0.96	0.45	2.41	63,63,63,63	0
56	MG	B7	102	1/1	0.99	0.25	2.38	40,40,40,40	0
56	MG	AA	3146	1/1	0.93	0.20	2.37	48,48,48,48	0
56	MG	DA	3623	1/1	0.89	0.17	2.37	53,53,53,53	0
56	MG	CA	3119	1/1	0.91	0.23	2.30	64,64,64,64	0
56	MG	AA	3036	1/1	0.91	0.24	2.25	71,71,71,71	0
56	MG	BA	3332	1/1	0.95	0.19	2.24	39,39,39,39	0
56	MG	DA	3121	1/1	0.95	0.19	2.16	48,48,48,48	0
56	MG	BA	3720	1/1	0.97	0.20	2.15	33,33,33,33	0
56	MG	BA	3719	1/1	0.82	0.25	2.08	25,25,25,25	0
56	MG	CA	3048	1/1	0.83	0.20	2.07	62,62,62,62	0
56	MG	CA	3101	1/1	0.97	0.18	2.03	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	CA	3027	1/1	0.88	0.17	2.03	57,57,57,57	0
56	MG	DA	3418	1/1	0.98	0.17	2.03	29,29,29,29	0
56	MG	BA	3121	1/1	0.96	0.27	2.02	57,57,57,57	0
56	MG	DA	3652	1/1	0.98	0.60	2.02	60,60,60,60	0
56	MG	DA	3414	1/1	0.93	0.17	2.00	49,49,49,49	0
56	MG	DA	3498	1/1	0.96	0.18	1.97	56,56,56,56	0
56	MG	DA	3133	1/1	0.96	0.15	1.95	33,33,33,33	0
56	MG	DA	3221	1/1	0.92	0.18	1.90	49,49,49,49	0
56	MG	BA	3125	1/1	0.90	0.20	1.89	39,39,39,39	0
56	MG	DA	3429	1/1	0.96	0.18	1.88	44,44,44,44	0
56	MG	BA	3098	1/1	0.93	0.15	1.88	35,35,35,35	0
56	MG	BB	3001	1/1	0.97	0.17	1.86	54,54,54,54	0
56	MG	DA	3595	1/1	0.95	0.18	1.81	72,72,72,72	0
56	MG	DA	3588	1/1	0.98	0.18	1.81	40,40,40,40	0
56	MG	CA	3171	1/1	0.97	0.32	1.78	67,67,67,67	0
56	MG	DA	3284	1/1	0.90	0.14	1.77	68,68,68,68	0
56	MG	BA	3397	1/1	0.95	0.19	1.76	28,28,28,28	0
56	MG	BA	3393	1/1	0.98	0.18	1.72	38,38,38,38	0
56	MG	DA	3341	1/1	0.96	0.19	1.70	23,23,23,23	0
56	MG	DA	3613	1/1	0.85	0.16	1.67	54,54,54,54	0
56	MG	BA	3724	1/1	0.93	0.19	1.67	58,58,58,58	0
56	MG	BA	3185	1/1	0.94	0.20	1.64	47,47,47,47	0
56	MG	DD	304	1/1	0.97	0.22	1.59	35,35,35,35	0
56	MG	DA	3012	1/1	0.93	0.18	1.57	57,57,57,57	0
56	MG	B7	101	1/1	0.91	0.20	1.51	43,43,43,43	0
56	MG	BE	307	1/1	0.95	0.24	1.50	39,39,39,39	0
56	MG	BA	3403	1/1	0.93	0.21	1.50	41,41,41,41	0
56	MG	BA	3215	1/1	0.89	0.14	1.50	69,69,69,69	0
56	MG	AN	103	1/1	0.88	0.38	1.48	60,60,60,60	0
56	MG	DA	3579	1/1	0.93	0.17	1.46	23,23,23,23	0
56	MG	DA	3073	1/1	0.91	0.18	1.45	44,44,44,44	0
56	MG	AK	3001	1/1	0.90	0.18	1.43	45,45,45,45	0
56	MG	DA	3472	1/1	0.93	0.17	1.43	36,36,36,36	0
56	MG	AA	3054	1/1	0.94	0.20	1.42	45,45,45,45	0
56	MG	BA	3077	1/1	0.97	0.19	1.40	39,39,39,39	0
56	MG	BA	3331	1/1	0.91	0.19	1.38	47,47,47,47	0
56	MG	DA	3499	1/1	0.80	0.13	1.38	46,46,46,46	0
56	MG	BA	3162	1/1	0.97	0.19	1.37	23,23,23,23	0
56	MG	AA	3214	1/1	0.99	0.27	1.30	75,75,75,75	0
56	MG	BA	3575	1/1	0.96	0.19	1.27	51,51,51,51	0
56	MG	BA	3407	1/1	0.99	0.19	1.25	15,15,15,15	0
56	MG	DA	3017	1/1	0.95	0.16	1.20	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3350	1/1	0.90	0.24	1.16	47,47,47,47	0
56	MG	BA	3281	1/1	0.98	0.18	1.15	52,52,52,52	0
56	MG	DA	3575	1/1	0.96	0.19	1.15	43,43,43,43	0
56	MG	BA	3359	1/1	0.96	0.20	1.15	23,23,23,23	0
56	MG	BA	3412	1/1	0.94	0.18	1.13	26,26,26,26	0
56	MG	BD	303	1/1	0.96	0.19	1.08	42,42,42,42	0
56	MG	DA	3569	1/1	0.98	0.19	0.98	37,37,37,37	0
56	MG	BA	3582	1/1	0.97	0.22	0.94	25,25,25,25	0
56	MG	BA	3009	1/1	0.85	0.17	0.93	25,25,25,25	0
56	MG	BA	3287	1/1	0.74	0.17	0.93	53,53,53,53	0
56	MG	BD	307	1/1	0.94	0.20	0.93	43,43,43,43	0
56	MG	DA	3328	1/1	0.96	0.15	0.86	28,28,28,28	0
56	MG	AA	3021	1/1	0.96	0.19	0.86	76,76,76,76	0
56	MG	BA	3039	1/1	0.92	0.14	0.82	42,42,42,42	0
56	MG	DA	3309	1/1	0.97	0.17	0.80	33,33,33,33	0
56	MG	CA	3089	1/1	0.93	0.15	0.77	52,52,52,52	0
56	MG	CA	3004	1/1	0.96	0.21	0.77	96,96,96,96	0
56	MG	BA	3527	1/1	0.97	0.18	0.75	64,64,64,64	0
56	MG	BA	3249	1/1	0.86	0.24	0.72	40,40,40,40	0
56	MG	DA	3263	1/1	0.95	0.19	0.68	31,31,31,31	0
56	MG	CF	3001	1/1	0.94	0.22	0.68	55,55,55,55	0
56	MG	DA	3139	1/1	0.92	0.18	0.67	40,40,40,40	0
56	MG	DA	3219	1/1	0.90	0.17	0.66	60,60,60,60	0
56	MG	DA	3349	1/1	0.97	0.17	0.62	54,54,54,54	0
56	MG	DA	3301	1/1	0.99	0.14	0.62	45,45,45,45	0
56	MG	AA	3014	1/1	0.83	0.19	0.60	28,28,28,28	0
56	MG	AA	3103	1/1	0.98	0.19	0.59	38,38,38,38	0
56	MG	BA	3194	1/1	0.90	0.18	0.48	55,55,55,55	0
56	MG	AA	3023	1/1	0.68	0.17	0.43	65,65,65,65	0
56	MG	BA	3615	1/1	0.96	0.17	0.40	36,36,36,36	0
56	MG	CA	3124	1/1	0.94	0.17	0.40	61,61,61,61	0
56	MG	CQ	201	1/1	0.86	0.19	0.40	56,56,56,56	0
56	MG	DA	3119	1/1	0.88	0.15	0.38	44,44,44,44	0
56	MG	CA	3120	1/1	0.97	0.19	0.38	58,58,58,58	0
56	MG	AA	3219	1/1	0.91	0.20	0.38	57,57,57,57	0
56	MG	BA	3396	1/1	0.97	0.18	0.37	22,22,22,22	0
56	MG	DA	3182	1/1	0.96	0.17	0.37	32,32,32,32	0
56	MG	BE	308	1/1	0.98	0.18	0.32	52,52,52,52	0
56	MG	DA	3320	1/1	0.98	0.17	0.29	30,30,30,30	0
56	MG	BA	3108	1/1	0.92	0.14	0.27	55,55,55,55	0
56	MG	AA	3170	1/1	0.95	0.16	0.26	101,101,101,101	0
56	MG	DA	3500	1/1	0.87	0.17	0.25	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
56	MG	DA	3129	1/1	0.90	0.14	0.25	43,43,43,43	0
56	MG	DA	3110	1/1	0.88	0.14	0.23	49,49,49,49	0
56	MG	AA	3003	1/1	0.90	0.24	0.22	63,63,63,63	0
56	MG	CA	3020	1/1	0.95	0.18	0.21	47,47,47,47	0
56	MG	AX	110	1/1	0.97	0.20	0.20	42,42,42,42	0
56	MG	DA	3251	1/1	0.97	0.14	0.19	54,54,54,54	0
56	MG	DA	3398	1/1	0.88	0.15	0.17	35,35,35,35	0
56	MG	DA	3468	1/1	0.96	0.14	0.17	48,48,48,48	0
56	MG	BA	3438	1/1	0.97	0.18	0.15	30,30,30,30	0
56	MG	DA	3160	1/1	0.97	0.15	0.15	44,44,44,44	0
56	MG	BA	3734	1/1	0.97	0.26	0.13	45,45,45,45	0
56	MG	DA	3452	1/1	0.94	0.17	0.12	56,56,56,56	0
56	MG	BA	3583	1/1	0.98	0.20	0.10	27,27,27,27	0
56	MG	DA	3300	1/1	0.97	0.15	0.03	37,37,37,37	0
56	MG	DA	3555	1/1	0.95	0.12	0.02	41,41,41,41	0
56	MG	BA	3569	1/1	0.98	0.18	0.02	19,19,19,19	0
56	MG	CA	3064	1/1	0.98	0.12	0.02	58,58,58,58	0
56	MG	DA	3330	1/1	0.98	0.14	0.00	37,37,37,37	0
56	MG	BA	3260	1/1	0.95	0.17	-0.01	22,22,22,22	0
56	MG	BF	306	1/1	0.97	0.18	-0.03	37,37,37,37	0
56	MG	BA	3468	1/1	0.92	0.17	-0.03	30,30,30,30	0
56	MG	DA	3297	1/1	0.96	0.14	-0.04	57,57,57,57	0
56	MG	AN	101	1/1	0.91	0.19	-0.05	63,63,63,63	0
56	MG	BA	3010	1/1	0.98	0.17	-0.05	32,32,32,32	0
56	MG	DA	3385	1/1	0.98	0.15	-0.07	35,35,35,35	0
56	MG	DA	3482	1/1	0.86	0.13	-0.07	55,55,55,55	0
56	MG	CA	3087	1/1	0.93	0.19	-0.08	41,41,41,41	0
56	MG	AA	3004	1/1	0.86	0.15	-0.10	55,55,55,55	0
56	MG	BA	3526	1/1	0.98	0.19	-0.10	19,19,19,19	0
56	MG	BA	3314	1/1	0.97	0.17	-0.10	24,24,24,24	0
56	MG	BA	3735	1/1	0.92	0.20	-0.12	45,45,45,45	0
56	MG	CA	3150	1/1	0.90	0.12	-0.15	59,59,59,59	0
56	MG	DA	3380	1/1	0.98	0.16	-0.16	26,26,26,26	0
56	MG	BA	3695	1/1	0.97	0.17	-0.16	15,15,15,15	0
56	MG	DA	3489	1/1	0.92	0.16	-0.20	36,36,36,36	0
56	MG	DA	3419	1/1	0.91	0.17	-0.21	31,31,31,31	0
56	MG	BE	303	1/1	0.86	0.17	-0.21	29,29,29,29	0
56	MG	AA	3143	1/1	0.98	0.15	-0.21	45,45,45,45	0
56	MG	DA	3654	1/1	0.94	0.17	-0.24	52,52,52,52	0
56	MG	BA	3432	1/1	0.92	0.16	-0.25	60,60,60,60	0
56	MG	DA	3391	1/1	0.90	0.14	-0.25	41,41,41,41	0
56	MG	DA	3576	1/1	0.95	0.15	-0.27	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	DA	3040	1/1	0.92	0.10	-0.28	42,42,42,42	0
56	MG	BA	3511	1/1	0.94	0.16	-0.30	39,39,39,39	0
56	MG	BA	3003	1/1	0.97	0.16	-0.33	43,43,43,43	0
56	MG	CA	3097	1/1	0.93	0.15	-0.33	48,48,48,48	0
56	MG	DA	3394	1/1	0.98	0.14	-0.33	47,47,47,47	0
56	MG	BD	309	1/1	0.96	0.14	-0.44	42,42,42,42	0
56	MG	BA	3592	1/1	0.93	0.17	-0.47	28,28,28,28	0
56	MG	BA	3229	1/1	0.95	0.15	-0.51	22,22,22,22	0
56	MG	DA	3338	1/1	0.99	0.14	-0.51	29,29,29,29	0
56	MG	AA	3075	1/1	0.87	0.11	-0.54	52,52,52,52	0
56	MG	DA	3162	1/1	0.66	0.13	-0.54	71,71,71,71	0
56	MG	AA	3025	1/1	0.92	0.14	-0.55	69,69,69,69	0
56	MG	BA	3070	1/1	0.98	0.14	-0.57	35,35,35,35	0
56	MG	AA	3156	1/1	0.97	0.18	-0.57	62,62,62,62	0
56	MG	BA	3188	1/1	0.92	0.15	-0.59	37,37,37,37	0
56	MG	CA	3006	1/1	0.91	0.17	-0.60	77,77,77,77	0
56	MG	DE	306	1/1	0.95	0.14	-0.64	32,32,32,32	0
56	MG	D0	101	1/1	0.97	0.13	-0.65	63,63,63,63	0
56	MG	DA	3636	1/1	0.93	0.14	-0.65	61,61,61,61	0
56	MG	BA	3404	1/1	0.97	0.15	-0.65	35,35,35,35	0
56	MG	BA	3559	1/1	0.97	0.14	-0.67	48,48,48,48	0
56	MG	DA	3507	1/1	0.95	0.15	-0.68	54,54,54,54	0
56	MG	BB	3016	1/1	0.98	0.12	-0.72	21,21,21,21	0
56	MG	DA	3423	1/1	0.84	0.14	-0.74	29,29,29,29	0
56	MG	DA	3282	1/1	0.97	0.14	-0.75	36,36,36,36	0
56	MG	DQ	204	1/1	0.97	0.13	-0.78	43,43,43,43	0
56	MG	AA	3216	1/1	0.95	0.14	-0.81	58,58,58,58	0
58	ZN	D6	501	1/1	0.97	0.12	-0.82	61,61,61,61	0
56	MG	DA	3010	1/1	0.95	0.14	-0.89	39,39,39,39	0
56	MG	DA	3250	1/1	0.98	0.14	-0.89	31,31,31,31	0
56	MG	AA	3161	1/1	0.96	0.12	-0.90	72,72,72,72	0
57	SF4	CD	501	8/8	0.99	0.14	-0.91	64,75,91,95	0
56	MG	BA	3424	1/1	0.98	0.17	-0.93	15,15,15,15	0
58	ZN	CN	501	1/1	0.93	0.12	-0.95	108,108,108,108	0
58	ZN	B6	501	1/1	1.00	0.13	-0.95	49,49,49,49	0
56	MG	AA	3091	1/1	0.98	0.15	-0.96	75,75,75,75	0
58	ZN	B5	501	1/1	0.99	0.11	-0.99	54,54,54,54	0
58	ZN	B9	501	1/1	1.00	0.12	-1.01	48,48,48,48	0
57	SF4	AD	501	8/8	0.99	0.14	-1.01	59,72,92,96	0
56	MG	CA	3023	1/1	0.83	0.14	-1.03	37,37,37,37	0
56	MG	BA	3589	1/1	0.93	0.15	-1.03	51,51,51,51	0
56	MG	DA	3227	1/1	0.98	0.14	-1.04	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
58	ZN	BY	202	1/1	0.98	0.09	-1.05	71,71,71,71	0
56	MG	BA	3394	1/1	0.93	0.12	-1.05	49,49,49,49	0
56	MG	DA	3568	1/1	0.96	0.10	-1.17	42,42,42,42	0
56	MG	CA	3080	1/1	0.99	0.14	-1.20	55,55,55,55	0
56	MG	BA	3533	1/1	0.98	0.18	-1.21	32,32,32,32	0
56	MG	AA	3175	1/1	0.96	0.14	-1.34	76,76,76,76	0
56	MG	CA	3050	1/1	0.97	0.13	-1.35	43,43,43,43	0
56	MG	B3	101	1/1	0.98	0.15	-1.35	28,28,28,28	0
58	ZN	D5	103	1/1	0.99	0.07	-1.36	70,70,70,70	0
56	MG	DA	3446	1/1	0.97	0.11	-1.42	52,52,52,52	0
56	MG	CE	3002	1/1	0.98	0.07	-1.45	55,55,55,55	0
56	MG	BA	3389	1/1	0.98	0.12	-1.47	48,48,48,48	0
56	MG	DA	3190	1/1	0.99	0.13	-1.47	37,37,37,37	0
56	MG	BA	3538	1/1	0.96	0.16	-1.51	36,36,36,36	0
56	MG	DA	3601	1/1	0.95	0.12	-1.53	77,77,77,77	0
56	MG	BA	3316	1/1	0.98	0.16	-1.54	28,28,28,28	0
56	MG	CA	3012	1/1	0.96	0.12	-1.54	49,49,49,49	0
56	MG	DG	3001	1/1	0.79	0.14	-1.57	63,63,63,63	0
56	MG	BA	3716	1/1	0.93	0.11	-1.61	27,27,27,27	0
56	MG	BA	3050	1/1	0.93	0.15	-1.64	21,21,21,21	0
56	MG	DA	3514	1/1	0.97	0.12	-1.64	39,39,39,39	0
56	MG	BA	3712	1/1	0.86	0.09	-1.68	58,58,58,58	0
58	ZN	AN	102	1/1	0.93	0.12	-1.71	90,90,90,90	0
56	MG	DE	303	1/1	0.98	0.11	-1.71	41,41,41,41	0
56	MG	BA	3051	1/1	0.99	0.15	-1.72	20,20,20,20	0
58	ZN	D4	501	1/1	0.85	0.09	-1.73	153,153,153,153	0
56	MG	DA	3356	1/1	0.97	0.11	-1.75	27,27,27,27	0
58	ZN	B4	3002	1/1	0.72	0.07	-1.78	165,165,165,165	0
56	MG	CX	104	1/1	0.97	0.14	-1.79	40,40,40,40	0
56	MG	BA	3447	1/1	0.97	0.13	-1.79	37,37,37,37	0
56	MG	AA	3201	1/1	0.93	0.12	-1.80	67,67,67,67	0
56	MG	DA	3009	1/1	0.87	0.12	-1.81	31,31,31,31	0
56	MG	BA	3600	1/1	0.97	0.15	-1.81	47,47,47,47	0
56	MG	BA	3366	1/1	0.96	0.09	-1.81	63,63,63,63	0
56	MG	DA	3552	1/1	0.94	0.12	-1.84	34,34,34,34	0
56	MG	DB	3004	1/1	0.96	0.14	-1.85	68,68,68,68	0
56	MG	CA	3056	1/1	0.91	0.11	-1.85	64,64,64,64	0
58	ZN	D9	501	1/1	0.96	0.05	-1.87	66,66,66,66	0
56	MG	BA	3418	1/1	0.98	0.15	-1.87	27,27,27,27	0
56	MG	DA	3390	1/1	0.98	0.09	-1.89	42,42,42,42	0
58	ZN	DY	501	1/1	0.97	0.05	-1.93	83,83,83,83	0
56	MG	BA	3539	1/1	0.97	0.16	-1.93	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	CA	3068	1/1	0.86	0.11	-1.94	41,41,41,41	0
56	MG	DA	3544	1/1	0.96	0.11	-1.98	51,51,51,51	0
56	MG	DA	3019	1/1	0.98	0.13	-2.01	30,30,30,30	0
56	MG	DA	3646	1/1	0.94	0.07	-2.02	38,38,38,38	0
56	MG	DA	3318	1/1	0.84	0.11	-2.03	45,45,45,45	0
56	MG	BG	3002	1/1	0.88	0.11	-2.06	42,42,42,42	0
56	MG	BA	3283	1/1	0.98	0.15	-2.12	17,17,17,17	0
56	MG	DA	3382	1/1	0.95	0.14	-2.12	25,25,25,25	0
56	MG	BA	3413	1/1	0.96	0.14	-2.12	20,20,20,20	0
56	MG	AM	3001	1/1	0.94	0.06	-2.13	65,65,65,65	0
56	MG	DA	3562	1/1	0.92	0.10	-2.13	61,61,61,61	0
56	MG	CA	3066	1/1	0.95	0.10	-2.14	55,55,55,55	0
56	MG	BA	3011	1/1	0.90	0.09	-2.15	37,37,37,37	0
56	MG	BA	3388	1/1	0.98	0.14	-2.16	34,34,34,34	0
56	MG	DA	3317	1/1	0.98	0.11	-2.21	32,32,32,32	0
56	MG	DA	3547	1/1	0.97	0.10	-2.23	41,41,41,41	0
56	MG	BA	3553	1/1	0.99	0.13	-2.26	31,31,31,31	0
56	MG	BA	3329	1/1	0.97	0.13	-2.28	29,29,29,29	0
56	MG	BP	202	1/1	0.97	0.11	-2.31	40,40,40,40	0
56	MG	BA	3446	1/1	0.93	0.13	-2.34	49,49,49,49	0
56	MG	DA	3054	1/1	0.93	0.11	-2.35	51,51,51,51	0
56	MG	BA	3506	1/1	0.95	0.14	-2.36	30,30,30,30	0
56	MG	DA	3448	1/1	0.98	0.08	-2.46	57,57,57,57	0
56	MG	BA	3536	1/1	0.96	0.14	-2.48	27,27,27,27	0
56	MG	DA	3047	1/1	0.95	0.08	-2.52	34,34,34,34	0
56	MG	DA	3459	1/1	0.92	0.11	-2.53	33,33,33,33	0
56	MG	BA	3365	1/1	0.89	0.14	-2.54	20,20,20,20	0
56	MG	DA	3294	1/1	0.96	0.10	-2.60	47,47,47,47	0
56	MG	CA	3058	1/1	0.94	0.09	-2.70	40,40,40,40	0
56	MG	DA	3304	1/1	1.00	0.11	-2.72	35,35,35,35	0
56	MG	DA	3183	1/1	0.91	0.11	-2.73	54,54,54,54	0
56	MG	BA	3378	1/1	0.99	0.12	-2.80	20,20,20,20	0
56	MG	AA	3020	1/1	0.73	0.10	-2.93	77,77,77,77	0
56	MG	CA	3125	1/1	0.87	0.13	-2.93	72,72,72,72	0
56	MG	DA	3205	1/1	0.98	0.09	-2.93	38,38,38,38	0
56	MG	DA	3059	1/1	0.98	0.08	-2.97	46,46,46,46	0
56	MG	BA	3723	1/1	0.98	0.14	-2.97	49,49,49,49	0
56	MG	CA	3167	1/1	0.94	0.09	-2.99	78,78,78,78	0
56	MG	BA	3406	1/1	0.92	0.14	-2.99	28,28,28,28	0
56	MG	AA	3182	1/1	0.97	0.12	-3.06	49,49,49,49	0
56	MG	BA	3429	1/1	0.98	0.14	-3.10	20,20,20,20	0
56	MG	BA	3593	1/1	0.97	0.14	-3.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3688	1/1	0.94	0.11	-3.28	54,54,54,54	0
56	MG	BA	3074	1/1	0.94	0.08	-3.29	42,42,42,42	0
56	MG	CA	3118	1/1	0.97	0.08	-3.29	37,37,37,37	0
56	MG	DA	3028	1/1	0.99	0.06	-3.31	35,35,35,35	0
56	MG	DA	3402	1/1	0.80	0.08	-3.34	61,61,61,61	0
56	MG	BA	3477	1/1	0.96	0.11	-3.35	25,25,25,25	0
56	MG	DA	3431	1/1	0.97	0.12	-3.37	41,41,41,41	0
56	MG	BA	3341	1/1	0.98	0.10	-3.37	33,33,33,33	0
56	MG	CA	3026	1/1	0.96	0.07	-3.42	52,52,52,52	0
56	MG	BA	3521	1/1	0.97	0.12	-3.43	49,49,49,49	0
56	MG	DA	3565	1/1	0.95	0.07	-3.45	57,57,57,57	0
56	MG	BB	3007	1/1	0.96	0.09	-3.47	47,47,47,47	0
56	MG	BA	3326	1/1	0.95	0.09	-3.49	41,41,41,41	0
56	MG	BA	3715	1/1	0.97	0.13	-3.56	47,47,47,47	0
56	MG	CA	3071	1/1	0.88	0.08	-3.56	63,63,63,63	0
56	MG	BA	3458	1/1	0.96	0.12	-3.60	29,29,29,29	0
56	MG	BA	3318	1/1	0.99	0.13	-3.63	33,33,33,33	0
56	MG	AA	3102	1/1	0.97	0.06	-3.63	64,64,64,64	0
56	MG	BA	3421	1/1	0.95	0.12	-3.65	36,36,36,36	0
56	MG	BA	3408	1/1	0.93	0.15	-3.71	24,24,24,24	0
56	MG	DA	3490	1/1	0.95	0.10	-3.87	39,39,39,39	0
56	MG	DA	3504	1/1	0.97	0.08	-3.89	44,44,44,44	0
56	MG	AA	3124	1/1	0.90	0.10	-3.89	57,57,57,57	0
56	MG	BA	3013	1/1	0.96	0.14	-3.93	40,40,40,40	0
56	MG	DA	3311	1/1	0.96	0.09	-3.95	32,32,32,32	0
56	MG	DA	3345	1/1	0.96	0.09	-3.95	31,31,31,31	0
56	MG	DA	3247	1/1	0.96	0.08	-4.19	31,31,31,31	0
56	MG	CA	3019	1/1	0.93	0.07	-4.20	49,49,49,49	0
56	MG	BA	3423	1/1	0.99	0.07	-4.37	26,26,26,26	0
56	MG	DA	3315	1/1	0.91	0.09	-4.50	31,31,31,31	0
56	MG	BA	3357	1/1	0.93	0.13	-4.55	49,49,49,49	0
56	MG	DA	3149	1/1	0.92	0.06	-4.56	47,47,47,47	0
56	MG	DA	3625	1/1	0.99	0.10	-4.60	35,35,35,35	0
56	MG	DA	3524	1/1	0.89	0.12	-4.65	28,28,28,28	0
56	MG	BA	3602	1/1	0.98	0.09	-4.72	35,35,35,35	0
56	MG	AA	3198	1/1	0.92	0.11	-5.27	87,87,87,87	0
56	MG	BA	3113	1/1	0.98	0.08	-5.48	32,32,32,32	0
56	MG	BA	3580	1/1	0.95	0.12	-5.49	58,58,58,58	0
56	MG	AA	3057	1/1	0.97	0.09	-5.60	37,37,37,37	0
56	MG	BA	3721	1/1	0.97	0.08	-5.62	25,25,25,25	0
56	MG	AA	3062	1/1	0.98	0.08	-5.63	32,32,32,32	0
56	MG	AA	3152	1/1	0.93	0.09	-5.77	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3644	1/1	0.98	0.07	-5.77	42,42,42,42	0
56	MG	AA	3027	1/1	0.98	0.06	-5.84	55,55,55,55	0
56	MG	BA	3112	1/1	0.96	0.09	-6.02	38,38,38,38	0
56	MG	DA	3436	1/1	0.97	0.07	-6.08	62,62,62,62	0
56	MG	BA	3217	1/1	0.96	0.09	-6.46	28,28,28,28	0
56	MG	BA	3564	1/1	0.97	0.07	-6.58	52,52,52,52	0
56	MG	CA	3083	1/1	0.97	0.07	-6.68	39,39,39,39	0
56	MG	BA	3636	1/1	0.97	0.11	-7.29	36,36,36,36	0
56	MG	BA	3516	1/1	0.99	0.09	-7.40	47,47,47,47	0
56	MG	DA	3177	1/1	0.98	0.08	-7.77	33,33,33,33	0
56	MG	BA	3220	1/1	0.97	0.10	-8.95	57,57,57,57	0
56	MG	BA	3351	1/1	0.97	0.07	-9.61	30,30,30,30	0
56	MG	BA	3434	1/1	0.96	0.12	-9.64	32,32,32,32	0
56	MG	BA	3635	1/1	0.94	0.10	-9.81	78,78,78,78	0
56	MG	BA	3454	1/1	0.98	0.09	-14.15	22,22,22,22	0
56	MG	DA	3517	1/1	0.90	0.19	-	50,50,50,50	0
56	MG	CA	3028	1/1	0.96	0.44	-	43,43,43,43	0
56	MG	DA	3455	1/1	0.97	0.17	-	60,60,60,60	0
56	MG	BA	3486	1/1	0.97	0.06	-	38,38,38,38	0
56	MG	CA	3014	1/1	0.94	0.18	-	50,50,50,50	0
56	MG	AA	3069	1/1	0.92	0.14	-	84,84,84,84	0
56	MG	BA	3373	1/1	0.88	0.28	-	36,36,36,36	0
56	MG	DB	3012	1/1	0.93	0.27	-	59,59,59,59	0
56	MG	BA	3507	1/1	0.91	0.10	-	68,68,68,68	0
56	MG	AA	3155	1/1	0.95	0.17	-	70,70,70,70	0
56	MG	CA	3055	1/1	0.73	0.29	-	62,62,62,62	0
56	MG	AA	3206	1/1	0.93	0.07	-	70,70,70,70	0
56	MG	DA	3519	1/1	0.93	0.14	-	44,44,44,44	0
56	MG	BA	3710	1/1	0.97	0.21	-	48,48,48,48	0
56	MG	BA	3065	1/1	0.73	0.44	-	50,50,50,50	0
56	MG	DA	3352	1/1	0.79	0.38	-	47,47,47,47	0
56	MG	CA	3107	1/1	0.93	0.12	-	60,60,60,60	0
56	MG	BA	3623	1/1	0.97	0.21	-	47,47,47,47	0
56	MG	CA	3057	1/1	0.81	0.25	-	49,49,49,49	0
56	MG	DA	3399	1/1	0.96	0.19	-	41,41,41,41	0
56	MG	DA	3283	1/1	0.95	0.21	-	33,33,33,33	0
56	MG	CA	3005	1/1	0.85	0.31	-	54,54,54,54	0
56	MG	DA	3027	1/1	0.94	0.43	-	39,39,39,39	0
56	MG	BA	3020	1/1	0.91	0.11	-	45,45,45,45	0
56	MG	BB	3002	1/1	0.96	0.19	-	59,59,59,59	0
56	MG	AA	3172	1/1	0.98	0.05	-	53,53,53,53	0
56	MG	DA	3267	1/1	0.95	0.17	-	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3229	1/1	0.94	0.11	-	40,40,40,40	0
56	MG	BA	3152	1/1	0.83	0.33	-	46,46,46,46	0
56	MG	DA	3200	1/1	0.89	0.20	-	42,42,42,42	0
56	MG	DA	3616	1/1	0.97	0.23	-	62,62,62,62	0
56	MG	BA	3006	1/1	0.87	0.27	-	42,42,42,42	0
56	MG	DB	3009	1/1	0.94	0.37	-	40,40,40,40	0
56	MG	BA	3428	1/1	0.97	0.11	-	45,45,45,45	0
56	MG	DA	3072	1/1	0.93	0.14	-	41,41,41,41	0
56	MG	DA	3233	1/1	0.93	0.19	-	42,42,42,42	0
56	MG	DA	3086	1/1	0.88	0.30	-	43,43,43,43	0
56	MG	DA	3291	1/1	0.97	0.24	-	35,35,35,35	0
56	MG	BA	3303	1/1	0.91	0.16	-	35,35,35,35	0
56	MG	DQ	201	1/1	0.88	0.42	-	48,48,48,48	0
56	MG	BA	3442	1/1	0.98	0.15	-	12,12,12,12	0
56	MG	B1	3001	1/1	0.74	0.86	-	54,54,54,54	0
56	MG	CA	3154	1/1	0.99	0.14	-	49,49,49,49	0
56	MG	AA	3063	1/1	0.78	0.30	-	61,61,61,61	0
56	MG	DA	3090	1/1	0.94	0.34	-	47,47,47,47	0
56	MG	BA	3092	1/1	0.88	0.27	-	51,51,51,51	0
56	MG	AA	3087	1/1	0.64	0.36	-	72,72,72,72	0
56	MG	CA	3127	1/1	0.76	0.25	-	79,79,79,79	0
56	MG	DA	3387	1/1	0.89	0.14	-	56,56,56,56	0
56	MG	DA	3118	1/1	0.95	0.10	-	39,39,39,39	0
56	MG	CA	3141	1/1	0.93	0.25	-	70,70,70,70	0
56	MG	BA	3061	1/1	0.89	0.49	-	51,51,51,51	0
56	MG	DA	3246	1/1	0.92	0.17	-	24,24,24,24	0
56	MG	BA	3143	1/1	0.91	0.31	-	40,40,40,40	0
56	MG	DA	3370	1/1	0.98	0.15	-	38,38,38,38	0
56	MG	BU	207	1/1	0.98	0.22	-	40,40,40,40	0
56	MG	DA	3488	1/1	0.96	0.04	-	46,46,46,46	0
56	MG	BA	3080	1/1	0.97	0.52	-	45,45,45,45	0
56	MG	DA	3460	1/1	0.89	0.36	-	50,50,50,50	0
56	MG	DA	3600	1/1	0.98	0.07	-	45,45,45,45	0
56	MG	BA	3122	1/1	0.92	0.27	-	52,52,52,52	0
56	MG	DA	3102	1/1	0.88	0.25	-	41,41,41,41	0
56	MG	AA	3030	1/1	0.81	0.32	-	69,69,69,69	0
56	MG	AA	3078	1/1	0.95	0.27	-	42,42,42,42	0
56	MG	BA	3494	1/1	0.99	0.34	-	18,18,18,18	0
56	MG	AA	3074	1/1	0.87	0.44	-	47,47,47,47	0
56	MG	BA	3668	1/1	0.97	0.13	-	38,38,38,38	0
56	MG	BA	3030	1/1	0.93	0.44	-	51,51,51,51	0
56	MG	BA	3625	1/1	0.96	0.13	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3611	1/1	0.91	0.09	-	42,42,42,42	0
56	MG	CA	3132	1/1	0.96	0.11	-	70,70,70,70	0
56	MG	BA	3577	1/1	0.90	0.10	-	52,52,52,52	0
56	MG	CA	3041	1/1	0.50	0.69	-	75,75,75,75	0
56	MG	BA	3455	1/1	0.97	0.14	-	47,47,47,47	0
56	MG	BA	3075	1/1	0.76	0.26	-	45,45,45,45	0
56	MG	BA	3173	1/1	0.97	0.59	-	37,37,37,37	0
56	MG	BA	3452	1/1	0.82	0.26	-	47,47,47,47	0
56	MG	BA	3251	1/1	0.89	0.21	-	61,61,61,61	0
56	MG	DA	3258	1/1	0.97	0.18	-	32,32,32,32	0
56	MG	DA	3310	1/1	0.88	0.21	-	53,53,53,53	0
56	MG	DA	3015	1/1	0.93	0.26	-	49,49,49,49	0
56	MG	DA	3409	1/1	0.96	0.15	-	32,32,32,32	0
56	MG	AX	107	1/1	0.91	0.25	-	66,66,66,66	0
56	MG	DA	3058	1/1	0.87	0.34	-	47,47,47,47	0
56	MG	DA	3463	1/1	0.96	0.37	-	43,43,43,43	0
56	MG	DA	3051	1/1	0.91	0.12	-	46,46,46,46	0
56	MG	CA	3100	1/1	0.98	0.11	-	60,60,60,60	0
56	MG	BA	3261	1/1	0.94	0.26	-	34,34,34,34	0
56	MG	BA	3296	1/1	0.97	0.24	-	46,46,46,46	0
56	MG	DA	3362	1/1	0.94	0.13	-	41,41,41,41	0
56	MG	BA	3520	1/1	0.99	0.14	-	34,34,34,34	0
56	MG	DA	3120	1/1	0.95	0.76	-	51,51,51,51	0
56	MG	DA	3111	1/1	0.92	0.23	-	53,53,53,53	0
56	MG	AA	3192	1/1	0.98	0.08	-	57,57,57,57	0
56	MG	BA	3244	1/1	0.82	0.47	-	65,65,65,65	0
56	MG	DA	3495	1/1	0.97	0.22	-	39,39,39,39	0
56	MG	BE	302	1/1	0.98	0.22	-	33,33,33,33	0
56	MG	BA	3490	1/1	0.97	0.26	-	38,38,38,38	0
56	MG	CA	3110	1/1	0.86	0.21	-	97,97,97,97	0
56	MG	BA	3551	1/1	0.96	0.22	-	25,25,25,25	0
56	MG	BB	3014	1/1	0.92	0.13	-	69,69,69,69	0
56	MG	BA	3372	1/1	0.91	0.17	-	38,38,38,38	0
56	MG	DA	3578	1/1	0.94	0.38	-	49,49,49,49	0
56	MG	DA	3467	1/1	0.98	0.09	-	35,35,35,35	0
56	MG	CX	102	1/1	0.97	0.06	-	61,61,61,61	0
56	MG	BA	3054	1/1	0.96	0.29	-	46,46,46,46	0
56	MG	DA	3635	1/1	0.91	0.32	-	58,58,58,58	0
56	MG	BA	3195	1/1	0.98	0.33	-	47,47,47,47	0
56	MG	BA	3056	1/1	0.91	0.42	-	44,44,44,44	0
56	MG	DA	3196	1/1	0.94	0.34	-	44,44,44,44	0
56	MG	BA	3571	1/1	0.96	0.08	-	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
56	MG	AA	3015	1/1	0.85	0.16	-	73,73,73,73	0
56	MG	AA	3093	1/1	0.38	0.58	-	88,88,88,88	0
56	MG	DA	3525	1/1	0.81	0.70	-	70,70,70,70	0
56	MG	BA	3436	1/1	0.98	0.09	-	37,37,37,37	0
56	MG	DA	3001	1/1	0.95	0.30	-	78,78,78,78	0
56	MG	DE	305	1/1	0.94	0.63	-	65,65,65,65	0
56	MG	DA	3573	1/1	0.97	0.20	-	40,40,40,40	0
56	MG	DB	3010	1/1	0.95	0.18	-	73,73,73,73	0
56	MG	DA	3439	1/1	0.96	0.19	-	28,28,28,28	0
56	MG	DA	3091	1/1	0.96	0.38	-	44,44,44,44	0
56	MG	CA	3149	1/1	0.94	0.17	-	74,74,74,74	0
56	MG	DA	3357	1/1	0.85	0.20	-	56,56,56,56	0
56	MG	BA	3599	1/1	0.93	0.31	-	46,46,46,46	0
56	MG	BA	3298	1/1	0.88	0.33	-	49,49,49,49	0
56	MG	DA	3610	1/1	0.90	0.28	-	54,54,54,54	0
56	MG	DA	3238	1/1	0.85	0.10	-	61,61,61,61	0
56	MG	BA	3648	1/1	0.96	0.30	-	49,49,49,49	0
56	MG	AA	3001	1/1	0.86	0.18	-	68,68,68,68	0
56	MG	BA	3409	1/1	0.99	0.23	-	27,27,27,27	0
56	MG	AA	3073	1/1	0.99	0.07	-	46,46,46,46	0
56	MG	DA	3632	1/1	0.86	0.18	-	71,71,71,71	0
56	MG	DA	3457	1/1	0.96	0.12	-	37,37,37,37	0
56	MG	AA	3013	1/1	0.86	0.23	-	78,78,78,78	0
56	MG	BA	3271	1/1	0.95	0.12	-	36,36,36,36	0
56	MG	CA	3105	1/1	0.92	0.09	-	79,79,79,79	0
56	MG	DA	3184	1/1	0.97	0.32	-	45,45,45,45	0
56	MG	BA	3238	1/1	0.93	0.16	-	51,51,51,51	0
56	MG	BA	3180	1/1	0.81	0.98	-	43,43,43,43	0
56	MG	CA	3081	1/1	0.84	0.10	-	72,72,72,72	0
56	MG	AA	3026	1/1	0.93	0.17	-	41,41,41,41	0
56	MG	AA	3048	1/1	0.71	0.24	-	57,57,57,57	0
56	MG	BA	3629	1/1	0.97	0.13	-	47,47,47,47	0
56	MG	DA	3062	1/1	0.86	0.34	-	55,55,55,55	0
56	MG	BA	3049	1/1	0.92	0.38	-	35,35,35,35	0
56	MG	DA	3277	1/1	0.98	0.25	-	49,49,49,49	0
56	MG	BA	3290	1/1	0.82	0.24	-	49,49,49,49	0
56	MG	DA	3316	1/1	0.98	0.17	-	58,58,58,58	0
56	MG	DA	3165	1/1	0.98	0.23	-	44,44,44,44	0
56	MG	BA	3069	1/1	0.80	0.44	-	41,41,41,41	0
56	MG	BA	3183	1/1	0.90	0.24	-	48,48,48,48	0
56	MG	BA	3342	1/1	0.99	0.19	-	31,31,31,31	0
56	MG	BA	3400	1/1	0.97	0.19	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3212	1/1	0.93	0.10	-	48,48,48,48	0
56	MG	BA	3067	1/1	0.93	0.33	-	53,53,53,53	0
56	MG	AA	3173	1/1	0.93	0.24	-	32,32,32,32	0
56	MG	DA	3260	1/1	0.87	0.10	-	40,40,40,40	0
56	MG	BA	3465	1/1	0.94	0.12	-	40,40,40,40	0
56	MG	BA	3278	1/1	0.93	0.17	-	34,34,34,34	0
56	MG	BA	3262	1/1	0.91	0.20	-	56,56,56,56	0
56	MG	CA	3161	1/1	0.82	0.12	-	54,54,54,54	0
56	MG	DA	3538	1/1	0.90	0.18	-	44,44,44,44	0
56	MG	BA	3684	1/1	0.93	0.17	-	58,58,58,58	0
56	MG	CA	3049	1/1	0.97	0.24	-	53,53,53,53	0
56	MG	DA	3415	1/1	0.93	0.25	-	56,56,56,56	0
56	MG	DA	3465	1/1	0.90	0.17	-	49,49,49,49	0
56	MG	DA	3135	1/1	0.65	0.23	-	50,50,50,50	0
56	MG	DA	3211	1/1	0.69	0.10	-	51,51,51,51	0
56	MG	CA	3160	1/1	0.89	0.13	-	59,59,59,59	0
56	MG	AA	3047	1/1	0.89	0.32	-	61,61,61,61	0
56	MG	DA	3031	1/1	0.95	0.29	-	55,55,55,55	0
56	MG	BA	3385	1/1	0.96	0.24	-	26,26,26,26	0
56	MG	BA	3198	1/1	0.86	0.14	-	52,52,52,52	0
56	MG	BA	3405	1/1	0.97	0.14	-	34,34,34,34	0
56	MG	DA	3587	1/1	0.77	0.14	-	64,64,64,64	0
56	MG	B8	103	1/1	0.97	0.19	-	24,24,24,24	0
56	MG	BA	3363	1/1	0.97	0.15	-	39,39,39,39	0
56	MG	DF	303	1/1	0.90	0.33	-	43,43,43,43	0
56	MG	BA	3179	1/1	0.98	0.20	-	43,43,43,43	0
56	MG	DA	3526	1/1	0.91	0.19	-	54,54,54,54	0
56	MG	DA	3064	1/1	0.76	0.41	-	50,50,50,50	0
56	MG	DA	3617	1/1	0.94	0.19	-	58,58,58,58	0
56	MG	AA	3077	1/1	0.84	0.41	-	65,65,65,65	0
56	MG	DA	3104	1/1	0.84	0.28	-	62,62,62,62	0
56	MG	B4	3001	1/1	0.61	0.27	-	100,100,100,100	0
56	MG	DA	3208	1/1	0.88	0.93	-	43,43,43,43	0
56	MG	BA	3327	1/1	0.97	0.15	-	38,38,38,38	0
56	MG	AA	3163	1/1	0.98	0.17	-	28,28,28,28	0
56	MG	AA	3210	1/1	0.94	0.06	-	40,40,40,40	0
56	MG	BA	3567	1/1	0.98	0.22	-	37,37,37,37	0
56	MG	DA	3140	1/1	0.83	0.34	-	54,54,54,54	0
56	MG	BA	3698	1/1	0.93	0.20	-	41,41,41,41	0
56	MG	BA	3651	1/1	0.96	0.13	-	45,45,45,45	0
56	MG	DA	3101	1/1	0.94	0.33	-	48,48,48,48	0
56	MG	BA	3685	1/1	0.96	0.10	-	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	AA	3144	1/1	0.99	0.08	-	48,48,48,48	0
56	MG	CA	3163	1/1	0.85	0.24	-	65,65,65,65	0
56	MG	BA	3254	1/1	0.92	0.19	-	59,59,59,59	0
56	MG	AA	3139	1/1	0.89	0.34	-	56,56,56,56	0
56	MG	BA	3472	1/1	0.96	0.08	-	30,30,30,30	0
56	MG	BA	3172	1/1	0.91	0.98	-	48,48,48,48	0
56	MG	BA	3555	1/1	0.93	0.18	-	53,53,53,53	0
56	MG	BA	3411	1/1	0.98	0.15	-	38,38,38,38	0
56	MG	CA	3051	1/1	0.98	0.10	-	63,63,63,63	0
56	MG	BA	3390	1/1	0.97	0.25	-	30,30,30,30	0
56	MG	D5	101	1/1	0.86	0.48	-	53,53,53,53	0
56	MG	CA	3153	1/1	0.91	0.10	-	83,83,83,83	0
56	MG	BA	3528	1/1	0.99	0.22	-	33,33,33,33	0
56	MG	DA	3350	1/1	0.95	0.04	-	32,32,32,32	0
56	MG	DA	3404	1/1	0.98	0.16	-	47,47,47,47	0
56	MG	DA	3185	1/1	0.88	0.59	-	52,52,52,52	0
56	MG	BA	3347	1/1	0.98	0.27	-	25,25,25,25	0
56	MG	DA	3203	1/1	0.96	0.13	-	41,41,41,41	0
56	MG	DA	3014	1/1	0.92	0.21	-	34,34,34,34	0
56	MG	BA	3463	1/1	0.90	0.20	-	55,55,55,55	0
56	MG	BA	3012	1/1	0.93	0.16	-	40,40,40,40	0
56	MG	DQ	202	1/1	0.95	0.22	-	34,34,34,34	0
56	MG	DA	3137	1/1	0.93	0.28	-	56,56,56,56	0
56	MG	BA	3491	1/1	0.99	0.19	-	23,23,23,23	0
56	MG	DA	3354	1/1	0.98	0.15	-	27,27,27,27	0
56	MG	DA	3296	1/1	0.92	0.08	-	31,31,31,31	0
56	MG	CA	3091	1/1	0.87	0.17	-	72,72,72,72	0
56	MG	AA	3123	1/1	0.91	0.43	-	39,39,39,39	0
56	MG	BA	3621	1/1	0.97	0.36	-	74,74,74,74	0
56	MG	AA	3068	1/1	0.93	0.08	-	66,66,66,66	0
56	MG	BB	3013	1/1	0.98	0.10	-	39,39,39,39	0
56	MG	BA	3662	1/1	0.99	0.12	-	39,39,39,39	0
56	MG	BA	3613	1/1	0.64	0.29	-	76,76,76,76	0
56	MG	BA	3291	1/1	0.96	0.17	-	41,41,41,41	0
56	MG	CA	3075	1/1	0.95	0.17	-	76,76,76,76	0
56	MG	DA	3605	1/1	0.96	0.15	-	44,44,44,44	0
56	MG	BQ	203	1/1	0.90	0.23	-	58,58,58,58	0
56	MG	BA	3232	1/1	0.97	0.15	-	29,29,29,29	0
56	MG	BA	3460	1/1	0.99	0.13	-	33,33,33,33	0
56	MG	AD	502	1/1	0.96	0.46	-	43,43,43,43	0
56	MG	BA	3647	1/1	0.93	0.10	-	34,34,34,34	0
56	MG	AA	3041	1/1	0.92	0.15	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3522	1/1	0.98	0.14	-	49,49,49,49	0
56	MG	DA	3477	1/1	0.98	0.09	-	49,49,49,49	0
56	MG	AA	3199	1/1	0.93	0.17	-	88,88,88,88	0
56	MG	AA	3067	1/1	0.87	0.37	-	87,87,87,87	0
56	MG	AA	3101	1/1	0.91	0.15	-	56,56,56,56	0
56	MG	AA	3115	1/1	0.90	0.10	-	48,48,48,48	0
56	MG	DA	3095	1/1	0.86	0.23	-	61,61,61,61	0
56	MG	BA	3134	1/1	0.82	0.32	-	47,47,47,47	0
56	MG	BA	3481	1/1	0.91	0.23	-	38,38,38,38	0
56	MG	DA	3210	1/1	0.88	0.15	-	40,40,40,40	0
56	MG	AA	3122	1/1	0.95	0.55	-	44,44,44,44	0
56	MG	BA	3654	1/1	0.95	0.16	-	25,25,25,25	0
56	MG	BA	3594	1/1	0.95	0.31	-	42,42,42,42	0
56	MG	BA	3305	1/1	0.98	0.13	-	44,44,44,44	0
56	MG	CA	3013	1/1	0.95	0.12	-	51,51,51,51	0
56	MG	BA	3015	1/1	0.96	0.34	-	44,44,44,44	0
56	MG	AA	3042	1/1	0.87	0.33	-	44,44,44,44	0
56	MG	DA	3537	1/1	0.93	0.22	-	65,65,65,65	0
56	MG	BA	3371	1/1	0.99	0.18	-	15,15,15,15	0
56	MG	BA	3489	1/1	0.97	0.15	-	43,43,43,43	0
56	MG	DA	3063	1/1	0.94	0.12	-	52,52,52,52	0
56	MG	DA	3186	1/1	0.68	0.51	-	53,53,53,53	0
56	MG	CA	3003	1/1	0.83	0.11	-	66,66,66,66	0
56	MG	CA	3109	1/1	0.85	0.11	-	83,83,83,83	0
56	MG	DA	3022	1/1	0.86	0.26	-	45,45,45,45	0
56	MG	BA	3040	1/1	0.85	0.35	-	51,51,51,51	0
56	MG	DO	5001	1/1	0.97	0.12	-	35,35,35,35	0
56	MG	BA	3216	1/1	0.88	0.22	-	41,41,41,41	0
56	MG	BA	3002	1/1	0.97	0.20	-	54,54,54,54	0
56	MG	BA	3694	1/1	0.97	0.37	-	56,56,56,56	0
56	MG	DA	3057	1/1	0.94	0.16	-	52,52,52,52	0
56	MG	AA	3135	1/1	0.93	0.24	-	41,41,41,41	0
56	MG	BA	3295	1/1	0.39	0.57	-	75,75,75,75	0
56	MG	BA	3241	1/1	0.79	0.38	-	63,63,63,63	0
56	MG	BA	3667	1/1	0.96	0.10	-	63,63,63,63	0
56	MG	BA	3660	1/1	0.94	0.27	-	71,71,71,71	0
56	MG	DA	3249	1/1	0.96	0.21	-	28,28,28,28	0
56	MG	CA	3166	1/1	0.97	0.23	-	59,59,59,59	0
56	MG	CA	3133	1/1	0.98	0.05	-	49,49,49,49	0
56	MG	BA	3335	1/1	0.91	0.17	-	35,35,35,35	0
56	MG	DA	3206	1/1	0.96	0.26	-	42,42,42,42	0
56	MG	BA	3508	1/1	0.99	0.14	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3306	1/1	0.94	0.14	-	48,48,48,48	0
56	MG	BB	3009	1/1	0.91	0.16	-	48,48,48,48	0
56	MG	DA	3359	1/1	0.89	0.23	-	46,46,46,46	0
56	MG	BA	3027	1/1	0.86	0.23	-	45,45,45,45	0
56	MG	AA	3118	1/1	0.80	0.31	-	52,52,52,52	0
56	MG	DA	3383	1/1	0.94	0.09	-	56,56,56,56	0
56	MG	DA	3438	1/1	0.74	0.51	-	70,70,70,70	0
56	MG	BA	3355	1/1	0.89	0.23	-	64,64,64,64	0
56	MG	DA	3008	1/1	0.93	0.23	-	51,51,51,51	0
56	MG	BA	3427	1/1	0.96	0.12	-	48,48,48,48	0
56	MG	DA	3366	1/1	0.93	0.35	-	36,36,36,36	0
56	MG	DA	3327	1/1	0.98	0.18	-	29,29,29,29	0
56	MG	DA	3523	1/1	0.98	0.06	-	55,55,55,55	0
56	MG	AA	3106	1/1	0.96	0.25	-	56,56,56,56	0
56	MG	DA	3505	1/1	0.92	0.06	-	65,65,65,65	0
56	MG	BA	3156	1/1	0.87	0.39	-	56,56,56,56	0
56	MG	BA	3627	1/1	0.95	0.20	-	50,50,50,50	0
56	MG	BV	204	1/1	0.96	0.20	-	20,20,20,20	0
56	MG	CA	3078	1/1	0.96	0.29	-	46,46,46,46	0
56	MG	DA	3245	1/1	0.95	0.15	-	37,37,37,37	0
56	MG	DA	3406	1/1	0.95	0.12	-	40,40,40,40	0
56	MG	CA	3134	1/1	0.93	0.16	-	82,82,82,82	0
56	MG	BA	3064	1/1	0.97	0.19	-	39,39,39,39	0
56	MG	BA	3484	1/1	0.95	0.17	-	54,54,54,54	0
56	MG	BA	3563	1/1	0.95	0.21	-	37,37,37,37	0
56	MG	DA	3136	1/1	0.97	0.11	-	49,49,49,49	0
56	MG	CA	3088	1/1	0.97	0.26	-	43,43,43,43	0
56	MG	DA	3270	1/1	0.96	0.20	-	36,36,36,36	0
56	MG	DA	3532	1/1	0.92	0.10	-	57,57,57,57	0
56	MG	AA	3194	1/1	0.92	0.19	-	54,54,54,54	0
56	MG	CA	3142	1/1	0.87	0.18	-	59,59,59,59	0
56	MG	DA	3369	1/1	0.90	0.13	-	47,47,47,47	0
56	MG	DA	3466	1/1	0.90	0.14	-	56,56,56,56	0
56	MG	DA	3400	1/1	0.93	0.19	-	42,42,42,42	0
56	MG	DA	3648	1/1	0.95	0.17	-	52,52,52,52	0
56	MG	BA	3462	1/1	0.86	0.12	-	52,52,52,52	0
56	MG	BA	3448	1/1	0.98	0.09	-	29,29,29,29	0
56	MG	BA	3110	1/1	0.86	0.34	-	55,55,55,55	0
56	MG	AA	3165	1/1	0.98	0.15	-	23,23,23,23	0
56	MG	AA	3220	1/1	0.98	0.12	-	40,40,40,40	0
56	MG	BA	3597	1/1	0.93	0.35	-	60,60,60,60	0
56	MG	DA	3240	1/1	0.88	0.26	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3207	1/1	0.94	0.13	-	58,58,58,58	0
56	MG	DF	302	1/1	0.85	0.27	-	43,43,43,43	0
56	MG	BA	3091	1/1	0.94	0.60	-	45,45,45,45	0
56	MG	BA	3628	1/1	0.95	0.21	-	41,41,41,41	0
56	MG	BA	3537	1/1	0.96	0.38	-	31,31,31,31	0
56	MG	BA	3420	1/1	0.98	0.30	-	33,33,33,33	0
56	MG	BA	3482	1/1	0.94	0.17	-	72,72,72,72	0
56	MG	DA	3141	1/1	0.95	0.13	-	62,62,62,62	0
56	MG	DA	3451	1/1	0.95	0.07	-	49,49,49,49	0
56	MG	DA	3511	1/1	0.95	0.08	-	65,65,65,65	0
56	MG	DA	3454	1/1	0.80	0.31	-	55,55,55,55	0
56	MG	DB	3011	1/1	0.88	0.34	-	55,55,55,55	0
56	MG	BA	3325	1/1	0.92	0.19	-	58,58,58,58	0
56	MG	BB	3010	1/1	0.99	0.26	-	40,40,40,40	0
56	MG	DA	3098	1/1	0.78	1.25	-	43,43,43,43	0
56	MG	DA	3223	1/1	0.70	0.26	-	66,66,66,66	0
56	MG	AA	3076	1/1	0.79	0.29	-	66,66,66,66	0
56	MG	BA	3076	1/1	0.96	0.23	-	41,41,41,41	0
56	MG	BA	3191	1/1	0.96	0.19	-	52,52,52,52	0
56	MG	BD	312	1/1	0.91	0.85	-	80,80,80,80	0
56	MG	BA	3352	1/1	0.97	0.12	-	34,34,34,34	0
56	MG	DA	3109	1/1	0.92	0.56	-	66,66,66,66	0
56	MG	BA	3053	1/1	0.95	0.34	-	39,39,39,39	0
56	MG	DA	3041	1/1	0.90	0.45	-	57,57,57,57	0
56	MG	BA	3474	1/1	0.86	0.21	-	42,42,42,42	0
56	MG	DA	3456	1/1	0.85	0.13	-	47,47,47,47	0
56	MG	CA	3102	1/1	0.95	0.09	-	41,41,41,41	0
56	MG	DA	3285	1/1	0.94	0.26	-	55,55,55,55	0
56	MG	BA	3141	1/1	0.92	0.30	-	43,43,43,43	0
56	MG	BA	3738	1/1	0.89	0.35	-	59,59,59,59	0
56	MG	DA	3049	1/1	0.74	0.30	-	58,58,58,58	0
56	MG	BA	3631	1/1	0.94	0.14	-	78,78,78,78	0
56	MG	DA	3443	1/1	0.93	0.17	-	53,53,53,53	0
56	MG	BA	3100	1/1	0.88	0.24	-	48,48,48,48	0
56	MG	BA	3609	1/1	0.90	0.12	-	46,46,46,46	0
56	MG	BA	3728	1/1	0.93	0.52	-	32,32,32,32	0
56	MG	DA	3377	1/1	0.98	0.24	-	59,59,59,59	0
56	MG	DA	3201	1/1	0.96	0.12	-	48,48,48,48	0
56	MG	DA	3024	1/1	0.82	0.36	-	65,65,65,65	0
56	MG	DA	3393	1/1	0.94	0.19	-	41,41,41,41	0
56	MG	BA	3344	1/1	0.94	0.09	-	30,30,30,30	0
56	MG	BA	3419	1/1	0.94	0.14	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3218	1/1	0.90	0.25	-	62,62,62,62	0
56	MG	AA	3002	1/1	0.89	0.20	-	57,57,57,57	0
56	MG	AA	3022	1/1	0.83	0.27	-	48,48,48,48	0
56	MG	AA	3133	1/1	0.88	0.35	-	63,63,63,63	0
56	MG	BB	3017	1/1	0.85	0.20	-	64,64,64,64	0
56	MG	DA	3340	1/1	0.92	0.14	-	47,47,47,47	0
56	MG	DA	3358	1/1	0.94	0.18	-	46,46,46,46	0
56	MG	BA	3235	1/1	0.71	0.28	-	47,47,47,47	0
56	MG	B7	104	1/1	0.85	0.13	-	51,51,51,51	0
56	MG	BA	3616	1/1	0.95	0.10	-	33,33,33,33	0
56	MG	DA	3640	1/1	0.90	0.68	-	56,56,56,56	0
56	MG	AX	106	1/1	0.86	0.17	-	73,73,73,73	0
56	MG	DA	3271	1/1	0.99	0.21	-	37,37,37,37	0
56	MG	CA	3025	1/1	0.70	0.18	-	94,94,94,94	0
56	MG	CA	3126	1/1	0.88	0.24	-	61,61,61,61	0
56	MG	BA	3367	1/1	0.96	0.16	-	50,50,50,50	0
56	MG	CA	3039	1/1	0.85	0.36	-	72,72,72,72	0
56	MG	DA	3586	1/1	0.97	0.09	-	29,29,29,29	0
56	MG	D8	5001	1/1	0.91	0.41	-	47,47,47,47	0
56	MG	BA	3500	1/1	0.95	0.15	-	37,37,37,37	0
56	MG	DA	3626	1/1	0.95	0.07	-	68,68,68,68	0
56	MG	DA	3598	1/1	0.83	0.30	-	66,66,66,66	0
56	MG	BA	3270	1/1	0.71	0.31	-	50,50,50,50	0
56	MG	DA	3584	1/1	0.97	0.15	-	61,61,61,61	0
56	MG	BD	304	1/1	0.92	0.51	-	58,58,58,58	0
56	MG	BA	3322	1/1	0.97	0.24	-	22,22,22,22	0
56	MG	BA	3499	1/1	0.94	0.17	-	55,55,55,55	0
56	MG	BA	3686	1/1	0.94	0.14	-	25,25,25,25	0
56	MG	DE	302	1/1	0.81	0.38	-	44,44,44,44	0
56	MG	DA	3564	1/1	0.94	0.77	-	61,61,61,61	0
56	MG	BA	3568	1/1	0.91	0.23	-	47,47,47,47	0
56	MG	AA	3090	1/1	0.77	0.17	-	68,68,68,68	0
56	MG	DA	3378	1/1	0.94	0.15	-	45,45,45,45	0
56	MG	DA	3464	1/1	0.60	0.57	-	50,50,50,50	0
56	MG	BD	301	1/1	0.85	0.27	-	28,28,28,28	0
56	MG	DA	3458	1/1	0.84	0.15	-	71,71,71,71	0
56	MG	BA	3358	1/1	0.95	0.09	-	33,33,33,33	0
56	MG	AA	3176	1/1	0.97	0.09	-	63,63,63,63	0
56	MG	DA	3220	1/1	0.95	0.12	-	37,37,37,37	0
56	MG	BA	3202	1/1	0.95	0.25	-	41,41,41,41	0
56	MG	DA	3123	1/1	0.76	0.23	-	59,59,59,59	0
56	MG	DA	3152	1/1	0.96	0.23	-	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
56	MG	BB	3011	1/1	0.99	0.15	-	37,37,37,37	0
56	MG	CA	3136	1/1	0.92	0.18	-	45,45,45,45	0
56	MG	DA	3551	1/1	0.98	0.08	-	52,52,52,52	0
56	MG	DA	3549	1/1	0.99	0.24	-	52,52,52,52	0
56	MG	AA	3154	1/1	0.92	0.08	-	63,63,63,63	0
56	MG	BA	3610	1/1	0.94	0.21	-	40,40,40,40	0
56	MG	DA	3255	1/1	0.92	0.20	-	40,40,40,40	0
56	MG	BA	3700	1/1	0.95	0.12	-	67,67,67,67	0
56	MG	BA	3212	1/1	0.97	0.28	-	43,43,43,43	0
56	MG	DA	3093	1/1	0.86	0.20	-	53,53,53,53	0
56	MG	DA	3235	1/1	0.96	0.20	-	50,50,50,50	0
56	MG	BA	3470	1/1	0.95	0.24	-	54,54,54,54	0
56	MG	DA	3412	1/1	0.97	0.28	-	30,30,30,30	0
56	MG	BA	3717	1/1	0.94	0.22	-	57,57,57,57	0
56	MG	BA	3488	1/1	0.96	0.35	-	35,35,35,35	0
56	MG	BA	3483	1/1	0.96	0.26	-	53,53,53,53	0
56	MG	BA	3337	1/1	0.98	0.17	-	23,23,23,23	0
56	MG	BA	3226	1/1	0.91	0.30	-	32,32,32,32	0
56	MG	DA	3322	1/1	0.95	0.13	-	55,55,55,55	0
56	MG	DA	3313	1/1	0.98	0.17	-	52,52,52,52	0
56	MG	DA	3287	1/1	0.96	0.27	-	53,53,53,53	0
56	MG	BA	3126	1/1	0.99	0.22	-	24,24,24,24	0
56	MG	AA	3196	1/1	0.95	0.31	-	65,65,65,65	0
56	MG	CA	3090	1/1	0.95	0.19	-	73,73,73,73	0
56	MG	BA	3096	1/1	0.97	0.35	-	62,62,62,62	0
56	MG	BA	3071	1/1	0.83	0.30	-	55,55,55,55	0
56	MG	BA	3643	1/1	0.87	0.28	-	43,43,43,43	0
56	MG	DA	3036	1/1	0.86	0.30	-	35,35,35,35	0
56	MG	DA	3131	1/1	0.67	0.23	-	54,54,54,54	0
56	MG	DA	3179	1/1	0.92	0.22	-	46,46,46,46	0
56	MG	BA	3510	1/1	0.95	0.23	-	40,40,40,40	0
56	MG	DA	3372	1/1	0.98	0.12	-	45,45,45,45	0
56	MG	DA	3343	1/1	0.88	0.21	-	41,41,41,41	0
56	MG	BA	3088	1/1	0.85	0.36	-	56,56,56,56	0
56	MG	BA	3658	1/1	0.80	0.27	-	79,79,79,79	0
56	MG	BA	3498	1/1	0.95	0.15	-	39,39,39,39	0
56	MG	AA	3092	1/1	0.90	0.51	-	50,50,50,50	0
56	MG	BA	3205	1/1	0.88	0.19	-	40,40,40,40	0
56	MG	AA	3211	1/1	0.92	0.20	-	36,36,36,36	0
56	MG	DA	3572	1/1	0.94	0.11	-	53,53,53,53	0
56	MG	BA	3072	1/1	0.92	0.28	-	45,45,45,45	0
56	MG	DA	3146	1/1	0.94	0.18	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3060	1/1	0.87	0.26	-	55,55,55,55	0
56	MG	BA	3705	1/1	0.97	0.05	-	39,39,39,39	0
56	MG	BA	3505	1/1	0.91	0.19	-	59,59,59,59	0
56	MG	BA	3515	1/1	0.93	0.05	-	56,56,56,56	0
56	MG	BA	3492	1/1	0.99	0.25	-	23,23,23,23	0
56	MG	DA	3084	1/1	0.84	0.32	-	70,70,70,70	0
56	MG	BA	3225	1/1	0.92	0.33	-	62,62,62,62	0
56	MG	CA	3144	1/1	0.81	0.59	-	63,63,63,63	0
56	MG	BA	3681	1/1	0.98	0.14	-	40,40,40,40	0
56	MG	BA	3214	1/1	0.87	0.09	-	53,53,53,53	0
56	MG	BA	3354	1/1	0.88	0.15	-	74,74,74,74	0
56	MG	CA	3104	1/1	0.92	0.19	-	62,62,62,62	0
56	MG	AA	3104	1/1	0.96	0.16	-	37,37,37,37	0
56	MG	AA	3099	1/1	0.96	0.41	-	60,60,60,60	0
56	MG	DA	3122	1/1	0.88	0.15	-	62,62,62,62	0
56	MG	DA	3561	1/1	0.98	0.19	-	45,45,45,45	0
56	MG	DA	3336	1/1	0.93	0.12	-	27,27,27,27	0
56	MG	B0	101	1/1	0.93	0.20	-	36,36,36,36	0
56	MG	BA	3619	1/1	0.91	0.27	-	40,40,40,40	0
56	MG	AA	3150	1/1	0.97	0.27	-	46,46,46,46	0
56	MG	BB	3012	1/1	0.98	0.15	-	56,56,56,56	0
56	MG	BA	3395	1/1	0.96	0.20	-	25,25,25,25	0
56	MG	AA	3134	1/1	0.89	0.43	-	70,70,70,70	0
56	MG	DA	3365	1/1	0.98	0.06	-	40,40,40,40	0
56	MG	BA	3541	1/1	0.95	0.23	-	30,30,30,30	0
56	MG	BN	3006	1/1	0.99	0.12	-	24,24,24,24	0
56	MG	BE	309	1/1	0.98	0.26	-	25,25,25,25	0
56	MG	DB	3003	1/1	0.69	0.12	-	63,63,63,63	0
56	MG	BA	3708	1/1	0.90	0.23	-	40,40,40,40	0
56	MG	DA	3125	1/1	0.69	0.55	-	48,48,48,48	0
56	MG	DA	3254	1/1	0.90	0.22	-	30,30,30,30	0
56	MG	DA	3368	1/1	0.97	0.12	-	39,39,39,39	0
56	MG	DA	3046	1/1	0.90	0.18	-	56,56,56,56	0
56	MG	DA	3486	1/1	0.96	0.12	-	38,38,38,38	0
56	MG	BA	3579	1/1	0.71	0.24	-	63,63,63,63	0
56	MG	BA	3240	1/1	0.84	0.17	-	28,28,28,28	0
56	MG	DA	3521	1/1	0.93	0.12	-	62,62,62,62	0
56	MG	AX	104	1/1	0.95	0.14	-	76,76,76,76	0
56	MG	CA	3021	1/1	0.79	0.21	-	53,53,53,53	0
56	MG	DA	3607	1/1	0.96	0.10	-	45,45,45,45	0
56	MG	CA	3155	1/1	0.87	0.16	-	71,71,71,71	0
56	MG	AA	3121	1/1	0.91	0.53	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3541	1/1	0.98	0.28	-	35,35,35,35	0
56	MG	BA	3382	1/1	0.98	0.13	-	51,51,51,51	0
56	MG	DA	3228	1/1	0.76	0.25	-	45,45,45,45	0
56	MG	BA	3676	1/1	0.91	0.22	-	51,51,51,51	0
56	MG	BA	3673	1/1	0.83	0.20	-	53,53,53,53	0
56	MG	DA	3497	1/1	0.82	0.23	-	60,60,60,60	0
56	MG	BA	3018	1/1	0.94	0.34	-	40,40,40,40	0
56	MG	BA	3653	1/1	0.91	0.15	-	69,69,69,69	0
56	MG	DA	3543	1/1	0.92	0.15	-	42,42,42,42	0
56	MG	BA	3562	1/1	0.82	0.10	-	73,73,73,73	0
56	MG	AA	3142	1/1	0.91	0.25	-	38,38,38,38	0
56	MG	DA	3071	1/1	0.83	0.52	-	46,46,46,46	0
56	MG	DA	3430	1/1	0.91	0.28	-	55,55,55,55	0
56	MG	DA	3417	1/1	0.96	0.15	-	34,34,34,34	0
56	MG	DA	3043	1/1	0.97	0.45	-	54,54,54,54	0
56	MG	CA	3085	1/1	0.98	0.30	-	43,43,43,43	0
56	MG	BA	3137	1/1	0.92	0.29	-	42,42,42,42	0
56	MG	BA	3286	1/1	0.95	0.26	-	32,32,32,32	0
56	MG	BA	3340	1/1	0.96	0.13	-	57,57,57,57	0
56	MG	BA	3476	1/1	0.94	0.13	-	40,40,40,40	0
56	MG	BA	3129	1/1	0.95	0.25	-	36,36,36,36	0
56	MG	BF	307	1/1	0.73	0.40	-	47,47,47,47	0
56	MG	BA	3218	1/1	0.89	0.20	-	62,62,62,62	0
56	MG	BA	3106	1/1	0.91	0.12	-	48,48,48,48	0
56	MG	BA	3323	1/1	0.97	0.14	-	23,23,23,23	0
56	MG	BR	203	1/1	0.97	0.18	-	15,15,15,15	0
56	MG	DA	3332	1/1	0.99	0.13	-	33,33,33,33	0
56	MG	AA	3040	1/1	0.95	0.12	-	55,55,55,55	0
56	MG	DA	3478	1/1	0.92	0.25	-	46,46,46,46	0
56	MG	BA	3585	1/1	0.89	0.17	-	51,51,51,51	0
56	MG	BA	3532	1/1	0.97	0.18	-	34,34,34,34	0
56	MG	DA	3303	1/1	0.94	0.17	-	47,47,47,47	0
56	MG	BA	3257	1/1	0.93	0.30	-	38,38,38,38	0
56	MG	BA	3495	1/1	0.87	0.33	-	84,84,84,84	0
56	MG	AA	3189	1/1	0.93	0.10	-	77,77,77,77	0
56	MG	CA	3069	1/1	0.99	0.11	-	69,69,69,69	0
56	MG	DA	3494	1/1	0.95	0.09	-	78,78,78,78	0
56	MG	DA	3167	1/1	0.89	0.23	-	48,48,48,48	0
56	MG	DA	3166	1/1	0.96	0.08	-	32,32,32,32	0
56	MG	BA	3587	1/1	0.97	0.18	-	23,23,23,23	0
56	MG	DA	3038	1/1	0.94	0.15	-	39,39,39,39	0
56	MG	DA	3280	1/1	0.93	0.20	-	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3115	1/1	0.97	0.26	-	36,36,36,36	0
56	MG	DA	3566	1/1	0.94	0.14	-	71,71,71,71	0
56	MG	CA	3108	1/1	0.95	0.22	-	52,52,52,52	0
56	MG	BA	3683	1/1	0.90	0.22	-	60,60,60,60	0
56	MG	DA	3032	1/1	0.87	0.13	-	46,46,46,46	0
56	MG	CA	3146	1/1	0.87	0.20	-	69,69,69,69	0
56	MG	BG	3003	1/1	0.96	0.15	-	42,42,42,42	0
56	MG	CA	3070	1/1	0.84	0.34	-	55,55,55,55	0
56	MG	BA	3733	1/1	0.98	0.11	-	27,27,27,27	0
56	MG	DA	3619	1/1	0.95	0.22	-	48,48,48,48	0
56	MG	DA	3308	1/1	0.98	0.32	-	30,30,30,30	0
56	MG	BA	3255	1/1	0.89	0.18	-	41,41,41,41	0
56	MG	DA	3083	1/1	0.95	0.25	-	41,41,41,41	0
56	MG	BA	3219	1/1	0.96	0.21	-	65,65,65,65	0
56	MG	BA	3714	1/1	0.90	0.21	-	58,58,58,58	0
56	MG	BA	3267	1/1	0.97	0.16	-	41,41,41,41	0
56	MG	BA	3693	1/1	0.88	0.14	-	64,64,64,64	0
56	MG	BA	3207	1/1	0.98	0.22	-	35,35,35,35	0
56	MG	BA	3574	1/1	0.98	0.08	-	54,54,54,54	0
56	MG	AA	3051	1/1	0.76	0.51	-	73,73,73,73	0
56	MG	BA	3028	1/1	0.93	0.21	-	48,48,48,48	0
56	MG	CA	3037	1/1	0.90	0.30	-	67,67,67,67	0
56	MG	AV	101	1/1	0.93	0.17	-	36,36,36,36	0
56	MG	BA	3561	1/1	0.96	0.19	-	24,24,24,24	0
56	MG	AA	3009	1/1	0.88	0.23	-	79,79,79,79	0
56	MG	AA	3053	1/1	0.94	0.33	-	49,49,49,49	0
56	MG	BA	3068	1/1	0.83	0.45	-	54,54,54,54	0
56	MG	DA	3106	1/1	0.94	0.21	-	41,41,41,41	0
56	MG	BA	3282	1/1	0.87	0.37	-	49,49,49,49	0
56	MG	DA	3539	1/1	0.94	0.17	-	53,53,53,53	0
56	MG	DA	3226	1/1	0.91	0.21	-	50,50,50,50	0
56	MG	BA	3595	1/1	0.95	0.16	-	41,41,41,41	0
56	MG	BA	3245	1/1	0.92	0.30	-	47,47,47,47	0
56	MG	AA	3080	1/1	0.90	0.17	-	53,53,53,53	0
56	MG	DA	3621	1/1	0.91	0.14	-	54,54,54,54	0
56	MG	BZ	3001	1/1	0.83	0.28	-	61,61,61,61	0
56	MG	DA	3612	1/1	0.99	0.14	-	39,39,39,39	0
56	MG	BA	3334	1/1	0.83	0.30	-	73,73,73,73	0
56	MG	DA	3435	1/1	0.94	0.21	-	46,46,46,46	0
56	MG	CA	3024	1/1	0.72	0.44	-	65,65,65,65	0
56	MG	DA	3181	1/1	0.99	0.30	-	36,36,36,36	0
56	MG	BA	3265	1/1	0.96	0.11	-	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3567	1/1	0.91	0.15	-	62,62,62,62	0
56	MG	DA	3630	1/1	0.97	0.20	-	40,40,40,40	0
56	MG	DA	3510	1/1	0.93	0.23	-	63,63,63,63	0
56	MG	BA	3603	1/1	0.95	0.08	-	39,39,39,39	0
56	MG	BA	3617	1/1	0.92	0.23	-	62,62,62,62	0
56	MG	DA	3428	1/1	0.97	0.27	-	51,51,51,51	0
56	MG	AA	3167	1/1	0.93	0.19	-	67,67,67,67	0
56	MG	BA	3330	1/1	0.95	0.16	-	39,39,39,39	0
56	MG	AA	3174	1/1	0.96	0.22	-	33,33,33,33	0
56	MG	BA	3101	1/1	0.95	0.17	-	35,35,35,35	0
56	MG	CA	3073	1/1	0.82	0.39	-	55,55,55,55	0
56	MG	BA	3626	1/1	0.85	0.11	-	43,43,43,43	0
56	MG	BA	3107	1/1	0.94	0.23	-	40,40,40,40	0
56	MG	BA	3170	1/1	0.97	0.66	-	48,48,48,48	0
56	MG	CA	3131	1/1	0.86	0.10	-	55,55,55,55	0
56	MG	BA	3464	1/1	0.91	0.10	-	43,43,43,43	0
56	MG	DA	3528	1/1	0.94	0.09	-	56,56,56,56	0
56	MG	DA	3044	1/1	0.90	0.13	-	46,46,46,46	0
56	MG	BA	3016	1/1	0.92	0.24	-	33,33,33,33	0
56	MG	AA	3128	1/1	0.71	0.20	-	68,68,68,68	0
56	MG	DA	3158	1/1	0.96	0.34	-	57,57,57,57	0
56	MG	DA	3373	1/1	0.93	0.23	-	29,29,29,29	0
56	MG	BA	3711	1/1	0.93	0.17	-	86,86,86,86	0
56	MG	DA	3550	1/1	0.95	0.17	-	53,53,53,53	0
56	MG	AA	3185	1/1	0.97	0.28	-	46,46,46,46	0
56	MG	CA	3156	1/1	0.95	0.15	-	70,70,70,70	0
56	MG	DB	3001	1/1	0.81	0.25	-	68,68,68,68	0
56	MG	DA	3508	1/1	0.97	0.19	-	38,38,38,38	0
56	MG	DA	3534	1/1	0.95	0.18	-	45,45,45,45	0
56	MG	BU	204	1/1	0.93	0.38	-	44,44,44,44	0
56	MG	DA	3371	1/1	0.97	0.07	-	44,44,44,44	0
56	MG	DA	3453	1/1	0.92	0.36	-	61,61,61,61	0
56	MG	BA	3208	1/1	0.98	0.29	-	41,41,41,41	0
56	MG	DA	3582	1/1	0.90	0.11	-	52,52,52,52	0
56	MG	DA	3222	1/1	0.85	0.13	-	71,71,71,71	0
56	MG	BA	3639	1/1	0.95	0.16	-	50,50,50,50	0
56	MG	BA	3572	1/1	0.97	0.20	-	36,36,36,36	0
56	MG	BA	3046	1/1	0.99	0.14	-	29,29,29,29	0
56	MG	CA	3129	1/1	0.98	0.14	-	45,45,45,45	0
56	MG	CA	3067	1/1	0.73	0.30	-	80,80,80,80	0
56	MG	BA	3253	1/1	0.86	0.16	-	51,51,51,51	0
56	MG	AA	3217	1/1	0.90	0.64	-	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3201	1/1	0.95	0.29	-	36,36,36,36	0
56	MG	BA	3004	1/1	0.95	0.12	-	24,24,24,24	0
56	MG	BA	3132	1/1	0.91	0.25	-	35,35,35,35	0
56	MG	DA	3189	1/1	0.82	0.11	-	55,55,55,55	0
56	MG	BA	3123	1/1	0.82	0.33	-	69,69,69,69	0
56	MG	BA	3136	1/1	0.85	0.23	-	58,58,58,58	0
56	MG	DA	3503	1/1	0.90	0.17	-	71,71,71,71	0
56	MG	BA	3604	1/1	0.96	0.11	-	72,72,72,72	0
56	MG	BA	3479	1/1	0.97	0.10	-	56,56,56,56	0
56	MG	DA	3470	1/1	0.93	0.28	-	52,52,52,52	0
56	MG	BA	3336	1/1	0.89	0.21	-	54,54,54,54	0
56	MG	BA	3426	1/1	0.96	0.27	-	51,51,51,51	0
56	MG	CA	3165	1/1	0.98	0.08	-	40,40,40,40	0
56	MG	BA	3399	1/1	0.99	0.19	-	18,18,18,18	0
56	MG	BA	3645	1/1	0.95	0.09	-	56,56,56,56	0
56	MG	BA	3146	1/1	0.80	0.28	-	52,52,52,52	0
56	MG	DA	3422	1/1	0.96	0.11	-	38,38,38,38	0
56	MG	DA	3007	1/1	0.96	0.23	-	30,30,30,30	0
56	MG	DA	3323	1/1	0.98	0.18	-	30,30,30,30	0
56	MG	DA	3355	1/1	0.99	0.27	-	18,18,18,18	0
56	MG	BA	3517	1/1	0.97	0.08	-	49,49,49,49	0
56	MG	DA	3256	1/1	0.84	0.18	-	63,63,63,63	0
56	MG	AA	3094	1/1	0.85	0.21	-	68,68,68,68	0
56	MG	DA	3075	1/1	0.90	0.34	-	44,44,44,44	0
56	MG	CA	3011	1/1	0.95	0.28	-	42,42,42,42	0
56	MG	AA	3097	1/1	0.98	0.25	-	43,43,43,43	0
56	MG	AA	3138	1/1	0.88	0.54	-	37,37,37,37	0
56	MG	AA	3184	1/1	0.90	0.10	-	72,72,72,72	0
56	MG	AA	3151	1/1	0.99	0.08	-	41,41,41,41	0
56	MG	AA	3178	1/1	0.96	0.18	-	65,65,65,65	0
56	MG	CA	3040	1/1	0.88	0.35	-	42,42,42,42	0
56	MG	BA	3672	1/1	0.95	0.31	-	48,48,48,48	0
56	MG	B2	101	1/1	0.82	0.36	-	40,40,40,40	0
56	MG	DA	3204	1/1	0.94	0.41	-	34,34,34,34	0
56	MG	BA	3233	1/1	0.95	0.18	-	47,47,47,47	0
56	MG	BA	3263	1/1	0.72	0.24	-	79,79,79,79	0
56	MG	BA	3111	1/1	0.85	0.40	-	53,53,53,53	0
56	MG	DA	3293	1/1	0.80	0.28	-	53,53,53,53	0
56	MG	BB	3004	1/1	0.82	0.26	-	54,54,54,54	0
56	MG	CA	3035	1/1	0.83	0.23	-	52,52,52,52	0
56	MG	BA	3031	1/1	0.97	0.79	-	41,41,41,41	0
56	MG	AA	3110	1/1	0.80	0.24	-	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	AA	3187	1/1	0.95	0.04	-	62,62,62,62	0
56	MG	BA	3159	1/1	0.90	0.31	-	48,48,48,48	0
56	MG	AA	3018	1/1	0.94	0.27	-	38,38,38,38	0
56	MG	DA	3591	1/1	0.86	0.26	-	58,58,58,58	0
56	MG	BA	3439	1/1	0.94	0.16	-	34,34,34,34	0
56	MG	DA	3188	1/1	0.92	0.34	-	47,47,47,47	0
56	MG	DA	3493	1/1	0.97	0.15	-	29,29,29,29	0
56	MG	AA	3052	1/1	0.90	0.25	-	60,60,60,60	0
56	MG	BA	3605	1/1	0.95	0.30	-	59,59,59,59	0
56	MG	BA	3035	1/1	0.96	0.09	-	37,37,37,37	0
56	MG	DA	3286	1/1	0.89	0.17	-	62,62,62,62	0
56	MG	AA	3169	1/1	0.91	0.16	-	76,76,76,76	0
56	MG	DA	3003	1/1	0.81	0.35	-	56,56,56,56	0
56	MG	DA	3599	1/1	0.88	0.23	-	72,72,72,72	0
56	MG	BA	3062	1/1	0.88	0.34	-	42,42,42,42	0
56	MG	CA	3093	1/1	0.98	0.06	-	53,53,53,53	0
56	MG	BA	3293	1/1	0.94	0.18	-	45,45,45,45	0
56	MG	DA	3126	1/1	0.90	0.34	-	43,43,43,43	0
56	MG	CA	3016	1/1	0.64	0.48	-	76,76,76,76	0
56	MG	CA	3145	1/1	0.96	0.08	-	43,43,43,43	0
56	MG	DA	3273	1/1	0.93	0.13	-	30,30,30,30	0
56	MG	DA	3384	1/1	0.95	0.11	-	23,23,23,23	0
56	MG	DA	3290	1/1	0.98	0.07	-	42,42,42,42	0
56	MG	BA	3166	1/1	0.84	0.53	-	59,59,59,59	0
56	MG	CA	3018	1/1	0.76	0.31	-	54,54,54,54	0
56	MG	AA	3136	1/1	0.91	0.08	-	62,62,62,62	0
56	MG	DA	3020	1/1	0.93	0.30	-	52,52,52,52	0
56	MG	DA	3475	1/1	0.98	0.11	-	36,36,36,36	0
56	MG	DA	3420	1/1	0.96	0.13	-	51,51,51,51	0
56	MG	BA	3234	1/1	0.96	0.30	-	55,55,55,55	0
56	MG	AA	3058	1/1	0.93	0.16	-	50,50,50,50	0
56	MG	BA	3017	1/1	0.88	0.54	-	44,44,44,44	0
56	MG	DD	308	1/1	0.93	0.15	-	55,55,55,55	0
56	MG	DA	3563	1/1	0.97	0.14	-	64,64,64,64	0
56	MG	DA	3403	1/1	0.96	0.14	-	28,28,28,28	0
56	MG	CA	3096	1/1	0.96	0.10	-	60,60,60,60	0
56	MG	AA	3181	1/1	0.89	0.28	-	57,57,57,57	0
56	MG	CA	3128	1/1	0.98	0.26	-	41,41,41,41	0
56	MG	DA	3292	1/1	0.87	0.22	-	37,37,37,37	0
56	MG	DA	3187	1/1	0.82	0.44	-	59,59,59,59	0
56	MG	DA	3444	1/1	0.95	0.13	-	43,43,43,43	0
56	MG	BA	3501	1/1	0.87	0.26	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	CA	3123	1/1	0.82	0.14	-	77,77,77,77	0
56	MG	DA	3281	1/1	0.93	0.21	-	42,42,42,42	0
56	MG	BA	3437	1/1	0.97	0.15	-	42,42,42,42	0
56	MG	AA	3070	1/1	0.95	0.10	-	75,75,75,75	0
56	MG	BA	3650	1/1	0.94	0.15	-	45,45,45,45	0
56	MG	CA	3015	1/1	0.83	0.34	-	51,51,51,51	0
56	MG	DA	3442	1/1	0.94	0.19	-	40,40,40,40	0
56	MG	BA	3142	1/1	0.94	0.71	-	46,46,46,46	0
56	MG	DA	3474	1/1	0.93	0.08	-	61,61,61,61	0
56	MG	AA	3195	1/1	0.95	0.17	-	71,71,71,71	0
56	MG	BA	3339	1/1	0.95	0.22	-	43,43,43,43	0
56	MG	CA	3112	1/1	0.97	0.23	-	59,59,59,59	0
56	MG	DA	3156	1/1	0.94	0.56	-	29,29,29,29	0
56	MG	DA	3153	1/1	0.96	0.20	-	38,38,38,38	0
56	MG	CA	3076	1/1	0.94	0.33	-	40,40,40,40	0
56	MG	DA	3405	1/1	0.88	0.11	-	47,47,47,47	0
56	MG	BW	203	1/1	0.87	0.32	-	45,45,45,45	0
56	MG	BA	3487	1/1	0.98	0.12	-	31,31,31,31	0
56	MG	BA	3272	1/1	0.97	0.34	-	7,7,7,7	0
56	MG	DA	3209	1/1	0.94	0.17	-	41,41,41,41	0
56	MG	DA	3248	1/1	0.96	0.29	-	51,51,51,51	0
56	MG	DW	201	1/1	0.93	0.31	-	46,46,46,46	0
56	MG	CA	3140	1/1	0.92	0.16	-	73,73,73,73	0
56	MG	DN	5001	1/1	0.96	0.12	-	75,75,75,75	0
56	MG	BA	3246	1/1	0.93	0.24	-	46,46,46,46	0
56	MG	AA	3212	1/1	0.85	0.15	-	79,79,79,79	0
56	MG	BA	3130	1/1	0.96	0.59	-	43,43,43,43	0
56	MG	BA	3247	1/1	0.51	0.96	-	68,68,68,68	0
56	MG	DA	3193	1/1	0.91	0.22	-	65,65,65,65	0
56	MG	DA	3172	1/1	0.91	0.44	-	51,51,51,51	0
56	MG	DA	3381	1/1	0.96	0.27	-	47,47,47,47	0
56	MG	AA	3117	1/1	0.75	0.26	-	71,71,71,71	0
56	MG	BA	3259	1/1	0.94	0.49	-	27,27,27,27	0
56	MG	DA	3441	1/1	0.89	0.30	-	53,53,53,53	0
56	MG	DA	3077	1/1	0.90	0.28	-	50,50,50,50	0
56	MG	BA	3055	1/1	0.91	0.23	-	44,44,44,44	0
56	MG	BA	3531	1/1	0.99	0.29	-	38,38,38,38	0
56	MG	BA	3558	1/1	0.89	0.22	-	35,35,35,35	0
56	MG	AA	3158	1/1	0.97	0.20	-	44,44,44,44	0
56	MG	BA	3032	1/1	0.97	0.19	-	49,49,49,49	0
56	MG	BA	3102	1/1	0.84	0.32	-	52,52,52,52	0
56	MG	CA	3074	1/1	0.93	0.18	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3529	1/1	0.98	0.10	-	63,63,63,63	0
56	MG	DA	3557	1/1	0.96	0.12	-	45,45,45,45	0
56	MG	BA	3485	1/1	0.96	0.29	-	44,44,44,44	0
56	MG	BA	3513	1/1	0.96	0.11	-	45,45,45,45	0
56	MG	BA	3590	1/1	0.86	0.13	-	64,64,64,64	0
56	MG	BA	3058	1/1	0.88	0.45	-	38,38,38,38	0
56	MG	AA	3186	1/1	0.97	0.07	-	49,49,49,49	0
56	MG	BD	311	1/1	0.82	0.54	-	45,45,45,45	0
56	MG	BA	3084	1/1	0.94	0.14	-	33,33,33,33	0
56	MG	DA	3055	1/1	0.95	0.20	-	48,48,48,48	0
56	MG	DA	3288	1/1	0.94	0.17	-	47,47,47,47	0
56	MG	AA	3045	1/1	0.64	0.31	-	61,61,61,61	0
56	MG	CA	3002	1/1	0.88	0.07	-	62,62,62,62	0
56	MG	DA	3342	1/1	0.91	0.12	-	52,52,52,52	0
56	MG	CA	3151	1/1	0.91	0.25	-	80,80,80,80	0
56	MG	AA	3017	1/1	0.94	0.27	-	55,55,55,55	0
56	MG	CA	3095	1/1	0.96	0.11	-	39,39,39,39	0
56	MG	DQ	203	1/1	0.97	0.32	-	57,57,57,57	0
56	MG	CX	103	1/1	0.76	0.25	-	60,60,60,60	0
56	MG	BA	3044	1/1	0.94	0.30	-	42,42,42,42	0
56	MG	BA	3095	1/1	0.98	0.47	-	55,55,55,55	0
56	MG	CA	3158	1/1	0.85	0.23	-	76,76,76,76	0
56	MG	AX	105	1/1	0.91	0.69	-	56,56,56,56	0
56	MG	BA	3210	1/1	0.97	0.11	-	34,34,34,34	0
56	MG	BA	3308	1/1	0.98	0.08	-	44,44,44,44	0
56	MG	BA	3097	1/1	0.95	0.19	-	33,33,33,33	0
56	MG	BA	3702	1/1	0.98	0.12	-	56,56,56,56	0
56	MG	DA	3314	1/1	0.80	0.19	-	64,64,64,64	0
56	MG	DW	202	1/1	0.73	0.42	-	58,58,58,58	0
56	MG	CA	3143	1/1	0.88	0.07	-	87,87,87,87	0
56	MG	DA	3634	1/1	0.94	0.14	-	51,51,51,51	0
56	MG	CA	3115	1/1	0.96	0.09	-	55,55,55,55	0
56	MG	BA	3675	1/1	0.98	0.12	-	49,49,49,49	0
56	MG	DA	3593	1/1	0.89	0.23	-	73,73,73,73	0
56	MG	DA	3023	1/1	0.97	0.28	-	52,52,52,52	0
56	MG	BA	3157	1/1	0.82	0.39	-	63,63,63,63	0
56	MG	BA	3570	1/1	0.94	0.12	-	61,61,61,61	0
56	MG	DA	3559	1/1	0.92	0.19	-	46,46,46,46	0
56	MG	BA	3549	1/1	0.93	0.22	-	27,27,27,27	0
56	MG	CA	3138	1/1	0.80	0.24	-	72,72,72,72	0
56	MG	DA	3144	1/1	0.93	0.39	-	36,36,36,36	0
56	MG	DA	3392	1/1	0.94	0.17	-	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3081	1/1	0.88	0.20	-	48,48,48,48	0
56	MG	DA	3168	1/1	0.86	0.38	-	48,48,48,48	0
56	MG	AA	3034	1/1	0.93	0.18	-	48,48,48,48	0
56	MG	BA	3120	1/1	0.97	0.09	-	51,51,51,51	0
56	MG	DA	3145	1/1	0.89	0.46	-	65,65,65,65	0
56	MG	DA	3590	1/1	0.89	0.17	-	80,80,80,80	0
56	MG	BW	202	1/1	0.96	0.18	-	34,34,34,34	0
56	MG	BA	3313	1/1	0.98	0.27	-	36,36,36,36	0
56	MG	BA	3680	1/1	0.97	0.35	-	37,37,37,37	0
56	MG	DA	3533	1/1	0.98	0.08	-	68,68,68,68	0
56	MG	AA	3197	1/1	0.94	0.30	-	69,69,69,69	0
56	MG	DA	3127	1/1	0.93	0.09	-	48,48,48,48	0
56	MG	CA	3060	1/1	0.81	0.37	-	43,43,43,43	0
56	MG	BA	3158	1/1	0.80	0.53	-	64,64,64,64	0
56	MG	DA	3367	1/1	0.83	0.26	-	42,42,42,42	0
56	MG	BA	3275	1/1	0.78	0.21	-	46,46,46,46	0
56	MG	BA	3598	1/1	0.84	0.12	-	56,56,56,56	0
56	MG	AA	3153	1/1	0.96	0.13	-	45,45,45,45	0
56	MG	BA	3736	1/1	0.82	0.25	-	48,48,48,48	0
56	MG	BA	3066	1/1	0.94	0.26	-	44,44,44,44	0
56	MG	AA	3215	1/1	0.90	0.10	-	53,53,53,53	0
56	MG	BA	3250	1/1	0.93	0.21	-	45,45,45,45	0
56	MG	BA	3566	1/1	0.96	0.09	-	53,53,53,53	0
56	MG	BA	3655	1/1	0.98	0.21	-	52,52,52,52	0
56	MG	BA	3186	1/1	0.98	0.14	-	53,53,53,53	0
56	MG	DA	3105	1/1	0.90	0.38	-	48,48,48,48	0
56	MG	DA	3050	1/1	0.92	0.57	-	31,31,31,31	0
56	MG	AA	3191	1/1	0.93	0.13	-	71,71,71,71	0
56	MG	BA	3401	1/1	0.92	0.12	-	42,42,42,42	0
56	MG	DA	3234	1/1	0.98	0.23	-	33,33,33,33	0
56	MG	BA	3073	1/1	0.95	0.86	-	41,41,41,41	0
56	MG	CA	3017	1/1	0.98	0.25	-	42,42,42,42	0
56	MG	BA	3556	1/1	0.98	0.31	-	27,27,27,27	0
56	MG	CA	3009	1/1	0.95	0.14	-	47,47,47,47	0
56	MG	CA	3106	1/1	0.91	0.35	-	64,64,64,64	0
56	MG	BA	3175	1/1	0.85	0.25	-	48,48,48,48	0
56	MG	DA	3108	1/1	0.87	0.47	-	37,37,37,37	0
56	MG	DA	3325	1/1	0.95	0.17	-	36,36,36,36	0
56	MG	BA	3417	1/1	0.94	0.18	-	18,18,18,18	0
56	MG	DA	3214	1/1	0.88	0.27	-	64,64,64,64	0
56	MG	BA	3190	1/1	0.93	0.20	-	42,42,42,42	0
56	MG	DA	3213	1/1	0.90	0.21	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3285	1/1	0.85	0.14	-	32,32,32,32	0
56	MG	DA	3481	1/1	0.87	0.27	-	47,47,47,47	0
56	MG	DA	3501	1/1	0.94	0.20	-	23,23,23,23	0
56	MG	AA	3028	1/1	0.65	0.47	-	60,60,60,60	0
56	MG	BA	3302	1/1	0.97	0.13	-	27,27,27,27	0
56	MG	BY	201	1/1	0.94	0.43	-	58,58,58,58	0
56	MG	BA	3375	1/1	0.98	0.24	-	31,31,31,31	0
56	MG	BA	3236	1/1	0.87	0.17	-	36,36,36,36	0
56	MG	BA	3103	1/1	0.89	0.12	-	53,53,53,53	0
56	MG	AA	3119	1/1	0.90	0.37	-	63,63,63,63	0
56	MG	CA	3010	1/1	0.91	0.11	-	32,32,32,32	0
56	MG	DA	3269	1/1	0.97	0.12	-	48,48,48,48	0
56	MG	DA	3276	1/1	0.96	0.22	-	36,36,36,36	0
56	MG	AA	3203	1/1	0.97	0.12	-	63,63,63,63	0
56	MG	BA	3652	1/1	0.92	0.20	-	64,64,64,64	0
56	MG	DA	3319	1/1	0.95	0.18	-	53,53,53,53	0
56	MG	DA	3515	1/1	0.83	0.22	-	48,48,48,48	0
56	MG	DA	3169	1/1	0.89	0.38	-	57,57,57,57	0
56	MG	BA	3392	1/1	0.97	0.26	-	56,56,56,56	0
56	MG	DA	3259	1/1	0.96	0.15	-	47,47,47,47	0
56	MG	AA	3137	1/1	0.87	0.21	-	42,42,42,42	0
56	MG	BA	3730	1/1	0.90	0.64	-	45,45,45,45	0
56	MG	DA	3329	1/1	0.95	0.16	-	53,53,53,53	0
56	MG	BA	3475	1/1	0.96	0.21	-	36,36,36,36	0
56	MG	BA	3307	1/1	0.98	0.20	-	33,33,33,33	0
56	MG	CA	3084	1/1	0.94	0.11	-	64,64,64,64	0
56	MG	DA	3066	1/1	0.90	0.37	-	53,53,53,53	0
56	MG	DA	3548	1/1	0.90	0.13	-	37,37,37,37	0
56	MG	BA	3440	1/1	0.96	0.40	-	38,38,38,38	0
56	MG	AA	3043	1/1	0.51	0.50	-	74,74,74,74	0
56	MG	DA	3348	1/1	0.95	0.32	-	37,37,37,37	0
56	MG	DA	3052	1/1	0.94	0.20	-	23,23,23,23	0
56	MG	BA	3677	1/1	0.82	0.27	-	67,67,67,67	0
56	MG	DA	3516	1/1	0.95	0.17	-	40,40,40,40	0
56	MG	DA	3061	1/1	0.85	0.45	-	52,52,52,52	0
56	MG	DA	3421	1/1	0.97	0.19	-	34,34,34,34	0
56	MG	DA	3202	1/1	0.92	0.33	-	42,42,42,42	0
56	MG	CA	3052	1/1	0.97	0.12	-	39,39,39,39	0
56	MG	AA	3066	1/1	0.93	0.30	-	38,38,38,38	0
56	MG	BA	3273	1/1	0.93	0.39	-	42,42,42,42	0
56	MG	AX	102	1/1	0.69	0.25	-	74,74,74,74	0
56	MG	BA	3461	1/1	0.95	0.24	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	AA	3125	1/1	0.91	0.16	-	47,47,47,47	0
56	MG	B8	102	1/1	0.98	0.10	-	60,60,60,60	0
56	MG	BA	3690	1/1	0.93	0.17	-	53,53,53,53	0
56	MG	DY	502	1/1	0.94	0.10	-	60,60,60,60	0
56	MG	AA	3204	1/1	0.97	0.14	-	54,54,54,54	0
56	MG	DA	3252	1/1	0.88	0.12	-	45,45,45,45	0
56	MG	BA	3687	1/1	0.93	0.22	-	38,38,38,38	0
56	MG	DA	3096	1/1	0.90	0.17	-	60,60,60,60	0
56	MG	BA	3001	1/1	0.96	0.15	-	69,69,69,69	0
56	MG	BA	3644	1/1	0.97	0.16	-	43,43,43,43	0
56	MG	CA	3045	1/1	0.97	0.09	-	54,54,54,54	0
56	MG	CA	3077	1/1	0.99	0.22	-	53,53,53,53	0
56	MG	DA	3614	1/1	0.95	0.20	-	48,48,48,48	0
56	MG	AA	3089	1/1	0.80	0.43	-	78,78,78,78	0
56	MG	BA	3209	1/1	0.79	0.38	-	40,40,40,40	0
56	MG	BA	3019	1/1	0.90	0.18	-	39,39,39,39	0
56	MG	BA	3380	1/1	0.96	0.13	-	53,53,53,53	0
56	MG	AA	3044	1/1	0.71	0.22	-	66,66,66,66	0
56	MG	DA	3331	1/1	0.99	0.09	-	34,34,34,34	0
56	MG	AA	3056	1/1	0.95	0.19	-	39,39,39,39	0
56	MG	BA	3177	1/1	0.89	0.21	-	62,62,62,62	0
56	MG	CA	3082	1/1	0.95	0.08	-	47,47,47,47	0
56	MG	DA	3574	1/1	0.94	0.17	-	56,56,56,56	0
56	MG	BA	3456	1/1	0.97	0.10	-	52,52,52,52	0
56	MG	BA	3116	1/1	0.97	0.20	-	31,31,31,31	0
56	MG	B5	502	1/1	0.95	0.10	-	54,54,54,54	0
56	MG	CA	3086	1/1	0.88	0.20	-	80,80,80,80	0
56	MG	BA	3312	1/1	0.95	0.10	-	58,58,58,58	0
56	MG	BA	3008	1/1	0.98	0.13	-	50,50,50,50	0
56	MG	BA	3608	1/1	0.93	0.13	-	68,68,68,68	0
56	MG	BA	3310	1/1	0.98	0.17	-	13,13,13,13	0
56	MG	BA	3692	1/1	0.94	0.40	-	36,36,36,36	0
56	MG	BA	3450	1/1	0.97	0.27	-	46,46,46,46	0
56	MG	BA	3360	1/1	0.97	0.19	-	38,38,38,38	0
56	MG	BF	304	1/1	0.92	0.09	-	35,35,35,35	0
56	MG	BA	3167	1/1	0.97	0.39	-	39,39,39,39	0
56	MG	BA	3410	1/1	0.99	0.15	-	27,27,27,27	0
56	MG	DA	3150	1/1	0.88	0.21	-	64,64,64,64	0
56	MG	BA	3430	1/1	0.92	0.32	-	49,49,49,49	0
56	MG	BA	3547	1/1	0.95	0.18	-	31,31,31,31	0
56	MG	DA	3351	1/1	0.98	0.38	-	35,35,35,35	0
56	MG	BA	3082	1/1	0.94	0.29	-	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
56	MG	DA	3485	1/1	0.96	0.09	-	38,38,38,38	0
56	MG	BA	3266	1/1	0.96	0.33	-	46,46,46,46	0
56	MG	DA	3037	1/1	0.97	0.30	-	35,35,35,35	0
56	MG	AA	3188	1/1	0.99	0.24	-	53,53,53,53	0
56	MG	CA	3062	1/1	0.80	0.26	-	57,57,57,57	0
56	MG	BA	3151	1/1	0.96	0.06	-	52,52,52,52	0
56	MG	DA	3571	1/1	0.97	0.13	-	46,46,46,46	0
56	MG	BA	3280	1/1	0.88	0.70	-	69,69,69,69	0
56	MG	DA	3216	1/1	0.95	0.17	-	31,31,31,31	0
56	MG	BA	3386	1/1	0.94	0.14	-	58,58,58,58	0
56	MG	BA	3242	1/1	0.82	0.36	-	48,48,48,48	0
56	MG	BA	3171	1/1	0.97	0.41	-	40,40,40,40	0
56	MG	BA	3333	1/1	0.97	0.12	-	49,49,49,49	0
56	MG	AA	3061	1/1	0.80	0.19	-	82,82,82,82	0
56	MG	BO	201	1/1	0.97	0.14	-	70,70,70,70	0
56	MG	DA	3068	1/1	0.67	0.33	-	55,55,55,55	0
56	MG	BA	3471	1/1	0.99	0.17	-	51,51,51,51	0
56	MG	AA	3105	1/1	0.92	0.22	-	46,46,46,46	0
56	MG	DA	3433	1/1	0.94	0.17	-	48,48,48,48	0
56	MG	DA	3082	1/1	0.96	0.10	-	19,19,19,19	0
56	MG	BA	3666	1/1	0.91	0.31	-	61,61,61,61	0
56	MG	BA	3104	1/1	0.89	0.28	-	45,45,45,45	0
56	MG	DA	3650	1/1	0.97	0.59	-	48,48,48,48	0
56	MG	BA	3731	1/1	0.80	0.36	-	55,55,55,55	0
56	MG	BA	3606	1/1	0.96	0.23	-	25,25,25,25	0
56	MG	BA	3586	1/1	0.98	0.19	-	29,29,29,29	0
56	MG	DA	3622	1/1	0.96	0.08	-	55,55,55,55	0
56	MG	BA	3204	1/1	0.97	0.40	-	25,25,25,25	0
56	MG	DA	3536	1/1	0.92	0.16	-	80,80,80,80	0
56	MG	CA	3029	1/1	0.89	0.15	-	59,59,59,59	0
56	MG	AA	3037	1/1	0.72	0.41	-	61,61,61,61	0
56	MG	BA	3540	1/1	0.95	0.27	-	34,34,34,34	0
56	MG	DF	306	1/1	0.96	0.23	-	50,50,50,50	0
56	MG	DA	3487	1/1	0.89	0.19	-	57,57,57,57	0
56	MG	AA	3029	1/1	0.84	0.69	-	52,52,52,52	0
56	MG	CA	3033	1/1	0.76	0.19	-	68,68,68,68	0
56	MG	BA	3391	1/1	0.91	0.14	-	48,48,48,48	0
56	MG	DA	3128	1/1	0.90	0.19	-	52,52,52,52	0
56	MG	AA	3205	1/1	0.98	0.19	-	61,61,61,61	0
56	MG	B0	102	1/1	0.84	0.61	-	40,40,40,40	0
56	MG	DA	3239	1/1	0.97	0.21	-	39,39,39,39	0
56	MG	DA	3556	1/1	0.93	0.08	-	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
56	MG	DA	3502	1/1	0.92	0.13	-	65,65,65,65	0
56	MG	BA	3518	1/1	0.97	0.10	-	41,41,41,41	0
56	MG	AX	103	1/1	0.81	0.08	-	66,66,66,66	0
56	MG	BA	3081	1/1	0.98	0.08	-	14,14,14,14	0
56	MG	BA	3284	1/1	0.95	0.10	-	54,54,54,54	0
56	MG	DA	3103	1/1	0.70	0.78	-	48,48,48,48	0
56	MG	BA	3699	1/1	0.74	0.51	-	56,56,56,56	0
56	MG	BA	3466	1/1	0.91	0.14	-	61,61,61,61	0
56	MG	BE	304	1/1	0.97	0.09	-	49,49,49,49	0
56	MG	DA	3386	1/1	0.96	0.18	-	56,56,56,56	0
56	MG	DA	3232	1/1	0.95	0.25	-	50,50,50,50	0
56	MG	DA	3496	1/1	0.91	0.15	-	53,53,53,53	0
56	MG	DA	3449	1/1	0.97	0.09	-	43,43,43,43	0
56	MG	BA	3638	1/1	0.91	0.21	-	37,37,37,37	0
56	MG	CA	3038	1/1	0.68	0.46	-	70,70,70,70	0
56	MG	BA	3301	1/1	0.94	0.13	-	56,56,56,56	0
56	MG	AA	3086	1/1	0.74	0.30	-	51,51,51,51	0
56	MG	BA	3213	1/1	0.96	0.05	-	41,41,41,41	0
56	MG	DA	3363	1/1	0.90	0.09	-	57,57,57,57	0
56	MG	BA	3029	1/1	0.80	0.38	-	53,53,53,53	0
56	MG	DA	3257	1/1	0.96	0.10	-	48,48,48,48	0
56	MG	CA	3031	1/1	0.84	0.39	-	53,53,53,53	0
56	MG	DA	3080	1/1	0.87	0.14	-	44,44,44,44	0
56	MG	BA	3268	1/1	0.87	0.17	-	46,46,46,46	0
56	MG	AA	3079	1/1	0.60	1.07	-	74,74,74,74	0
56	MG	DA	3427	1/1	0.58	0.54	-	60,60,60,60	0
56	MG	BW	205	1/1	0.93	0.46	-	41,41,41,41	0
56	MG	CA	3172	1/1	0.81	0.15	-	51,51,51,51	0
56	MG	BA	3620	1/1	0.95	0.12	-	47,47,47,47	0
56	MG	DA	3396	1/1	0.95	0.19	-	35,35,35,35	0
56	MG	BA	3243	1/1	0.90	0.15	-	48,48,48,48	0
56	MG	AA	3126	1/1	0.95	0.16	-	54,54,54,54	0
56	MG	BE	306	1/1	0.93	0.44	-	46,46,46,46	0
56	MG	BA	3231	1/1	0.76	0.54	-	38,38,38,38	0
56	MG	BA	3252	1/1	0.87	0.17	-	55,55,55,55	0
56	MG	BA	3163	1/1	0.88	0.18	-	50,50,50,50	0
56	MG	BA	3384	1/1	0.96	0.40	-	60,60,60,60	0
56	MG	AA	3046	1/1	0.88	0.12	-	73,73,73,73	0
56	MG	BA	3237	1/1	0.89	0.55	-	51,51,51,51	0
56	MG	BA	3189	1/1	0.95	0.16	-	54,54,54,54	0
56	MG	BA	3149	1/1	0.89	0.55	-	40,40,40,40	0
56	MG	AA	3148	1/1	0.95	0.21	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	BA	3127	1/1	0.89	0.38	-	50,50,50,50	0
56	MG	AA	3200	1/1	0.92	0.24	-	68,68,68,68	0
56	MG	DA	3522	1/1	0.95	0.17	-	61,61,61,61	0
56	MG	BA	3364	1/1	0.97	0.24	-	29,29,29,29	0
56	MG	BA	3449	1/1	0.94	0.12	-	21,21,21,21	0
56	MG	DA	3045	1/1	0.93	0.37	-	41,41,41,41	0
56	MG	BA	3174	1/1	0.90	0.09	-	48,48,48,48	0
56	MG	DA	3530	1/1	0.96	0.15	-	49,49,49,49	0
56	MG	DA	3580	1/1	0.93	0.14	-	46,46,46,46	0
56	MG	DB	3002	1/1	0.95	0.25	-	56,56,56,56	0
56	MG	BA	3083	1/1	0.82	0.23	-	63,63,63,63	0
56	MG	AA	3132	1/1	0.88	0.36	-	76,76,76,76	0
56	MG	DA	3604	1/1	0.87	0.20	-	54,54,54,54	0
56	MG	CA	3094	1/1	0.95	0.18	-	43,43,43,43	0
56	MG	AA	3005	1/1	0.90	0.20	-	66,66,66,66	0
56	MG	BA	3443	1/1	0.91	0.17	-	26,26,26,26	0
56	MG	DA	3480	1/1	0.98	0.09	-	52,52,52,52	0
56	MG	DA	3299	1/1	0.95	0.22	-	40,40,40,40	0
56	MG	BA	3519	1/1	0.98	0.12	-	39,39,39,39	0
56	MG	DA	3531	1/1	0.85	0.09	-	57,57,57,57	0
56	MG	DA	3175	1/1	0.94	0.17	-	40,40,40,40	0
56	MG	BA	3422	1/1	0.95	0.23	-	42,42,42,42	0
56	MG	DA	3570	1/1	0.95	0.22	-	28,28,28,28	0
56	MG	DA	3606	1/1	0.96	0.10	-	58,58,58,58	0
56	MG	DA	3224	1/1	0.88	0.15	-	47,47,47,47	0
56	MG	CA	3044	1/1	0.94	0.20	-	63,63,63,63	0
56	MG	BA	3119	1/1	0.97	0.25	-	58,58,58,58	0
56	MG	BA	3663	1/1	0.96	0.23	-	56,56,56,56	0
56	MG	DA	3334	1/1	0.93	0.15	-	49,49,49,49	0
56	MG	BA	3618	1/1	0.95	0.27	-	46,46,46,46	0
56	MG	BA	3090	1/1	0.92	0.20	-	46,46,46,46	0
56	MG	AA	3147	1/1	0.63	0.48	-	61,61,61,61	0
56	MG	BE	310	1/1	0.97	0.24	-	50,50,50,50	0
56	MG	BA	3118	1/1	0.96	0.18	-	39,39,39,39	0
56	MG	BA	3669	1/1	0.85	0.24	-	75,75,75,75	0
56	MG	DA	3540	1/1	0.99	0.23	-	54,54,54,54	0
56	MG	CA	3103	1/1	0.85	0.19	-	83,83,83,83	0
56	MG	BA	3279	1/1	0.83	0.22	-	48,48,48,48	0
56	MG	BA	3022	1/1	0.80	0.34	-	52,52,52,52	0
56	MG	AA	3177	1/1	0.93	0.14	-	80,80,80,80	0
56	MG	BA	3292	1/1	0.89	0.21	-	63,63,63,63	0
56	MG	BA	3043	1/1	0.95	0.18	-	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	DA	3124	1/1	0.84	0.13	-	67,67,67,67	0
56	MG	BA	3656	1/1	0.98	0.11	-	33,33,33,33	0
56	MG	DA	3426	1/1	0.96	0.15	-	74,74,74,74	0
56	MG	DA	3596	1/1	0.97	0.10	-	67,67,67,67	0
56	MG	AA	3221	1/1	0.97	0.10	-	64,64,64,64	0
56	MG	BA	3165	1/1	0.84	0.31	-	53,53,53,53	0
56	MG	DV	204	1/1	0.89	0.21	-	41,41,41,41	0
56	MG	BA	3425	1/1	0.96	0.36	-	36,36,36,36	0
56	MG	AA	3032	1/1	0.88	0.28	-	57,57,57,57	0
56	MG	BA	3535	1/1	0.94	0.19	-	37,37,37,37	0
56	MG	AX	109	1/1	0.99	0.09	-	43,43,43,43	0
56	MG	BR	202	1/1	0.94	0.29	-	27,27,27,27	0
56	MG	AA	3218	1/1	0.85	0.54	-	65,65,65,65	0
56	MG	DA	3115	1/1	0.87	0.09	-	63,63,63,63	0
56	MG	DA	3447	1/1	0.93	0.05	-	56,56,56,56	0
56	MG	DA	3376	1/1	0.91	0.08	-	31,31,31,31	0
60	K	DA	3231	1/1	0.93	0.22	-	96,96,96,96	0
56	MG	DA	3483	1/1	0.84	0.19	-	49,49,49,49	0
56	MG	CA	3159	1/1	0.88	0.61	-	91,91,91,91	0
56	MG	DA	3243	1/1	0.89	0.21	-	67,67,67,67	0
56	MG	DA	3161	1/1	0.87	0.30	-	60,60,60,60	0
56	MG	AA	3006	1/1	0.73	0.08	-	78,78,78,78	0
56	MG	CA	3022	1/1	0.98	0.04	-	70,70,70,70	0
56	MG	DA	3048	1/1	0.89	0.37	-	37,37,37,37	0
56	MG	AA	3149	1/1	0.96	0.09	-	50,50,50,50	0
56	MG	DA	3339	1/1	0.91	0.10	-	37,37,37,37	0
56	MG	DA	3337	1/1	0.98	0.09	-	27,27,27,27	0
56	MG	BA	3670	1/1	0.98	0.08	-	59,59,59,59	0
56	MG	CA	3148	1/1	0.98	0.19	-	68,68,68,68	0
56	MG	BA	3529	1/1	0.98	0.21	-	35,35,35,35	0
56	MG	BA	3138	1/1	0.95	0.17	-	46,46,46,46	0
56	MG	BA	3309	1/1	0.89	0.13	-	46,46,46,46	0
56	MG	DA	3194	1/1	0.89	0.13	-	48,48,48,48	0
56	MG	DA	3199	1/1	0.93	0.13	-	42,42,42,42	0
56	MG	AA	3164	1/1	0.85	0.38	-	69,69,69,69	0
56	MG	DA	3069	1/1	0.91	0.12	-	51,51,51,51	0
56	MG	BA	3140	1/1	0.85	0.19	-	64,64,64,64	0
56	MG	AA	3085	1/1	0.81	0.32	-	69,69,69,69	0
56	MG	BA	3321	1/1	0.99	0.16	-	29,29,29,29	0
56	MG	BA	3445	1/1	0.98	0.20	-	25,25,25,25	0
56	MG	AA	3012	1/1	0.81	0.14	-	56,56,56,56	0
56	MG	BA	3374	1/1	0.92	0.19	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3274	1/1	0.97	0.09	-	52,52,52,52	0
56	MG	BA	3596	1/1	0.90	0.12	-	51,51,51,51	0
56	MG	DA	3013	1/1	0.92	0.09	-	47,47,47,47	0
56	MG	DA	3132	1/1	0.89	0.70	-	54,54,54,54	0
56	MG	DA	3159	1/1	0.89	0.24	-	51,51,51,51	0
56	MG	BA	3078	1/1	0.95	0.26	-	17,17,17,17	0
56	MG	BA	3496	1/1	0.83	0.40	-	57,57,57,57	0
56	MG	DA	3353	1/1	0.95	0.10	-	62,62,62,62	0
56	MG	BA	3679	1/1	0.98	0.40	-	27,27,27,27	0
56	MG	AA	3016	1/1	0.94	0.07	-	63,63,63,63	0
56	MG	BA	3289	1/1	0.73	0.34	-	60,60,60,60	0
56	MG	AA	3157	1/1	0.96	0.08	-	35,35,35,35	0
56	MG	BA	3181	1/1	0.90	0.34	-	38,38,38,38	0
56	MG	DA	3603	1/1	0.93	0.16	-	55,55,55,55	0
56	MG	DA	3004	1/1	0.95	0.19	-	29,29,29,29	0
56	MG	DA	3237	1/1	0.94	0.15	-	45,45,45,45	0
56	MG	BA	3387	1/1	0.93	0.07	-	48,48,48,48	0
56	MG	CA	3059	1/1	0.97	0.26	-	51,51,51,51	0
56	MG	BG	3004	1/1	0.95	0.04	-	62,62,62,62	0
56	MG	AA	3130	1/1	0.95	0.23	-	46,46,46,46	0
56	MG	BA	3697	1/1	0.95	0.14	-	78,78,78,78	0
56	MG	DA	3113	1/1	0.80	0.57	-	43,43,43,43	0
56	MG	BA	3317	1/1	0.97	0.15	-	40,40,40,40	0
56	MG	DA	3416	1/1	0.96	0.07	-	44,44,44,44	0
56	MG	DA	3217	1/1	0.88	0.56	-	54,54,54,54	0
56	MG	BA	3348	1/1	0.95	0.20	-	64,64,64,64	0
56	MG	DA	3361	1/1	0.89	0.11	-	61,61,61,61	0
56	MG	BA	3701	1/1	0.97	0.13	-	32,32,32,32	0
56	MG	CA	3054	1/1	0.86	0.39	-	48,48,48,48	0
56	MG	DA	3445	1/1	0.97	0.23	-	39,39,39,39	0
56	MG	BA	3478	1/1	0.98	0.15	-	29,29,29,29	0
56	MG	BA	3444	1/1	0.82	0.15	-	74,74,74,74	0
56	MG	BA	3661	1/1	0.94	0.15	-	68,68,68,68	0
56	MG	DA	3647	1/1	0.81	0.37	-	66,66,66,66	0
56	MG	DA	3520	1/1	0.95	0.20	-	51,51,51,51	0
56	MG	AA	3096	1/1	0.78	0.28	-	44,44,44,44	0
56	MG	DA	3107	1/1	0.92	0.30	-	55,55,55,55	0
56	MG	CA	3169	1/1	0.97	0.16	-	57,57,57,57	0
56	MG	BA	3578	1/1	0.90	0.32	-	54,54,54,54	0
56	MG	BA	3514	1/1	0.89	0.14	-	37,37,37,37	0
56	MG	BB	3005	1/1	0.79	0.28	-	61,61,61,61	0
56	MG	DA	3147	1/1	0.88	0.11	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DA	3029	1/1	0.92	0.10	-	61,61,61,61	0
56	MG	AA	3055	1/1	0.96	0.20	-	50,50,50,50	0
56	MG	BA	3725	1/1	0.98	0.12	-	49,49,49,49	0
56	MG	BA	3612	1/1	0.98	0.15	-	37,37,37,37	0
56	MG	BA	3274	1/1	0.97	0.16	-	52,52,52,52	0
56	MG	BA	3573	1/1	0.94	0.16	-	56,56,56,56	0
56	MG	BA	3258	1/1	0.92	0.23	-	40,40,40,40	0
56	MG	BA	3534	1/1	0.97	0.12	-	41,41,41,41	0
56	MG	BA	3161	1/1	0.94	0.65	-	49,49,49,49	0
56	MG	AA	3007	1/1	0.95	0.18	-	82,82,82,82	0
56	MG	BB	3015	1/1	0.97	0.10	-	37,37,37,37	0
56	MG	BA	3320	1/1	0.88	0.29	-	57,57,57,57	0
56	MG	DA	3602	1/1	0.90	0.19	-	52,52,52,52	0
56	MG	AA	3127	1/1	0.78	0.18	-	62,62,62,62	0
56	MG	AA	3081	1/1	0.91	0.23	-	41,41,41,41	0
56	MG	DA	3275	1/1	0.97	0.07	-	38,38,38,38	0
56	MG	BA	3361	1/1	0.96	0.26	-	34,34,34,34	0
56	MG	DA	3157	1/1	0.85	0.99	-	62,62,62,62	0
56	MG	AA	3113	1/1	0.79	0.28	-	68,68,68,68	0
56	MG	BA	3649	1/1	0.96	0.17	-	66,66,66,66	0
56	MG	BA	3581	1/1	0.98	0.10	-	51,51,51,51	0
56	MG	BA	3148	1/1	0.94	0.35	-	52,52,52,52	0
56	MG	DA	3546	1/1	0.97	0.12	-	44,44,44,44	0
56	MG	B9	502	1/1	0.86	0.27	-	49,49,49,49	0
56	MG	AA	3114	1/1	0.60	0.51	-	66,66,66,66	0
56	MG	BA	3154	1/1	0.99	0.17	-	61,61,61,61	0
56	MG	BA	3221	1/1	0.87	0.27	-	44,44,44,44	0
56	MG	BA	3588	1/1	0.95	0.21	-	48,48,48,48	0
56	MG	DA	3471	1/1	0.97	0.14	-	37,37,37,37	0
56	MG	BA	3094	1/1	0.40	0.86	-	61,61,61,61	0
56	MG	DD	302	1/1	0.87	0.23	-	46,46,46,46	0
56	MG	BA	3085	1/1	0.73	0.46	-	48,48,48,48	0
56	MG	BA	3176	1/1	0.96	0.19	-	38,38,38,38	0
56	MG	DA	3087	1/1	0.83	0.16	-	49,49,49,49	0
56	MG	CA	3130	1/1	0.97	0.08	-	65,65,65,65	0
56	MG	CA	3111	1/1	0.92	0.12	-	64,64,64,64	0
56	MG	BA	3377	1/1	0.94	0.14	-	32,32,32,32	0
56	MG	B3	102	1/1	0.98	0.13	-	59,59,59,59	0
56	MG	BA	3168	1/1	0.89	0.28	-	42,42,42,42	0
56	MG	DA	3085	1/1	0.96	0.12	-	36,36,36,36	0
56	MG	AA	3141	1/1	0.98	0.21	-	48,48,48,48	0
56	MG	DA	3138	1/1	0.95	0.23	-	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
56	MG	BA	3383	1/1	0.99	0.18	-	38,38,38,38	0
56	MG	DA	3629	1/1	0.96	0.17	-	19,19,19,19	0
56	MG	BA	3182	1/1	0.93	0.31	-	51,51,51,51	0
56	MG	BA	3665	1/1	0.96	0.21	-	39,39,39,39	0
56	MG	CA	3034	1/1	0.88	0.26	-	65,65,65,65	0
56	MG	AA	3193	1/1	0.98	0.09	-	60,60,60,60	0
56	MG	BA	3021	1/1	0.96	0.27	-	42,42,42,42	0
56	MG	BA	3502	1/1	0.91	0.20	-	43,43,43,43	0
56	MG	DA	3305	1/1	0.93	0.09	-	33,33,33,33	0
56	MG	BA	3542	1/1	0.96	0.23	-	19,19,19,19	0
56	MG	BB	3006	1/1	0.93	0.24	-	39,39,39,39	0
56	MG	DA	3134	1/1	0.88	0.23	-	46,46,46,46	0
56	MG	DA	3344	1/1	0.97	0.11	-	26,26,26,26	0
56	MG	CA	3164	1/1	0.88	0.39	-	49,49,49,49	0
56	MG	DA	3642	1/1	0.96	0.13	-	35,35,35,35	0
56	MG	BA	3691	1/1	0.66	0.39	-	49,49,49,49	0
56	MG	AA	3083	1/1	0.95	0.09	-	65,65,65,65	0
56	MG	DA	3592	1/1	0.86	0.15	-	65,65,65,65	0
56	MG	AA	3049	1/1	0.93	0.50	-	51,51,51,51	0
56	MG	DA	3089	1/1	0.79	0.39	-	57,57,57,57	0
56	MG	CA	3116	1/1	0.94	0.17	-	76,76,76,76	0
56	MG	AA	3116	1/1	0.61	0.53	-	52,52,52,52	0
56	MG	BA	3381	1/1	0.98	0.10	-	37,37,37,37	0
56	MG	DA	3030	1/1	0.95	0.28	-	51,51,51,51	0
56	MG	BA	3248	1/1	0.91	0.24	-	43,43,43,43	0
56	MG	AA	3100	1/1	0.78	0.68	-	40,40,40,40	0
56	MG	BA	3523	1/1	0.89	0.12	-	48,48,48,48	0
56	MG	DA	3151	1/1	0.92	0.29	-	60,60,60,60	0
56	MG	BA	3114	1/1	0.90	0.36	-	51,51,51,51	0
56	MG	BA	3641	1/1	0.86	0.12	-	45,45,45,45	0
56	MG	BA	3591	1/1	0.98	0.32	-	48,48,48,48	0
56	MG	AA	3162	1/1	0.92	0.23	-	74,74,74,74	0
56	MG	CA	3008	1/1	0.84	0.79	-	53,53,53,53	0
56	MG	BA	3005	1/1	0.89	0.18	-	36,36,36,36	0
56	MG	DA	3117	1/1	0.71	0.17	-	53,53,53,53	0
56	MG	DA	3053	1/1	0.87	0.15	-	42,42,42,42	0
56	MG	DA	3542	1/1	0.99	0.18	-	32,32,32,32	0
56	MG	BA	3565	1/1	0.94	0.11	-	55,55,55,55	0
56	MG	DA	3268	1/1	0.98	0.17	-	40,40,40,40	0
56	MG	BA	3369	1/1	0.97	0.22	-	45,45,45,45	0
56	MG	BA	3007	1/1	0.90	0.23	-	35,35,35,35	0
56	MG	BA	3659	1/1	0.94	0.21	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	AF	3001	1/1	0.94	0.17	-	61,61,61,61	0
56	MG	BP	204	1/1	0.96	0.17	-	55,55,55,55	0
56	MG	DA	3289	1/1	0.96	0.14	-	26,26,26,26	0
56	MG	DA	3583	1/1	0.97	0.28	-	48,48,48,48	0
56	MG	DA	3491	1/1	0.96	0.15	-	56,56,56,56	0
56	MG	DA	3597	1/1	0.92	0.22	-	47,47,47,47	0
56	MG	DA	3512	1/1	0.92	0.25	-	61,61,61,61	0
56	MG	BU	201	1/1	0.92	0.75	-	39,39,39,39	0
56	MG	BW	201	1/1	0.81	0.89	-	53,53,53,53	0
56	MG	CA	3046	1/1	0.90	0.38	-	53,53,53,53	0
56	MG	DA	3594	1/1	0.91	0.30	-	47,47,47,47	0
60	K	BA	3300	1/1	0.87	0.28	-	100,100,100,100	0
56	MG	DB	3006	1/1	0.95	0.13	-	42,42,42,42	0
56	MG	BA	3706	1/1	0.82	0.46	-	63,63,63,63	0
56	MG	DA	3195	1/1	0.89	0.10	-	50,50,50,50	0
56	MG	BA	3288	1/1	0.84	0.22	-	61,61,61,61	0
56	MG	BA	3633	1/1	0.92	0.13	-	58,58,58,58	0
56	MG	DA	3225	1/1	0.92	0.16	-	45,45,45,45	0
56	MG	CA	3137	1/1	0.94	0.13	-	48,48,48,48	0
56	MG	DA	3241	1/1	0.97	0.21	-	15,15,15,15	0
56	MG	CA	3079	1/1	0.89	0.14	-	48,48,48,48	0
56	MG	BA	3398	1/1	0.98	0.11	-	41,41,41,41	0
56	MG	AA	3213	1/1	0.95	0.16	-	29,29,29,29	0
56	MG	DA	3088	1/1	0.97	0.16	-	46,46,46,46	0
56	MG	AX	108	1/1	0.77	0.21	-	61,61,61,61	0
56	MG	DA	3174	1/1	0.98	0.26	-	41,41,41,41	0
56	MG	BA	3457	1/1	0.90	0.12	-	57,57,57,57	0
56	MG	DA	3180	1/1	0.97	0.21	-	46,46,46,46	0
56	MG	BA	3345	1/1	0.96	0.21	-	33,33,33,33	0
56	MG	BA	3109	1/1	0.96	0.09	-	36,36,36,36	0
56	MG	B0	103	1/1	0.80	0.84	-	59,59,59,59	0
56	MG	DA	3410	1/1	0.76	0.22	-	69,69,69,69	0
56	MG	DA	3360	1/1	0.91	0.25	-	41,41,41,41	0
56	MG	BA	3099	1/1	0.92	0.17	-	44,44,44,44	0
56	MG	DA	3074	1/1	0.92	0.21	-	54,54,54,54	0
56	MG	DE	304	1/1	0.96	0.20	-	41,41,41,41	0
56	MG	BA	3611	1/1	0.82	0.28	-	52,52,52,52	0
56	MG	DA	3545	1/1	0.67	0.62	-	75,75,75,75	0
56	MG	BA	3509	1/1	0.89	0.16	-	27,27,27,27	0
56	MG	DA	3198	1/1	0.84	0.28	-	48,48,48,48	0
56	MG	DA	3527	1/1	0.93	0.10	-	46,46,46,46	0
56	MG	DA	3437	1/1	0.93	0.14	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	CA	3147	1/1	0.80	0.27	-	66,66,66,66	0
56	MG	DR	202	1/1	0.94	0.18	-	37,37,37,37	0
56	MG	BA	3453	1/1	0.94	0.19	-	18,18,18,18	0
56	MG	DD	303	1/1	0.97	0.20	-	19,19,19,19	0
56	MG	AA	3111	1/1	0.95	0.17	-	95,95,95,95	0
56	MG	BA	3362	1/1	0.97	0.09	-	43,43,43,43	0
56	MG	BA	3722	1/1	0.93	0.17	-	32,32,32,32	0
56	MG	DA	3042	1/1	0.90	0.25	-	36,36,36,36	0
56	MG	DA	3506	1/1	0.95	0.07	-	59,59,59,59	0
56	MG	CA	3168	1/1	0.98	0.38	-	77,77,77,77	0
56	MG	DA	3154	1/1	0.95	0.61	-	45,45,45,45	0
56	MG	AA	3202	1/1	0.93	0.23	-	76,76,76,76	0
56	MG	BA	3554	1/1	0.97	0.20	-	31,31,31,31	0
56	MG	BA	3269	1/1	0.91	0.65	-	34,34,34,34	0
56	MG	BA	3169	1/1	0.95	0.70	-	46,46,46,46	0
56	MG	BA	3224	1/1	0.95	0.74	-	64,64,64,64	0
56	MG	BA	3415	1/1	0.99	0.24	-	27,27,27,27	0
56	MG	DA	3333	1/1	0.96	0.24	-	58,58,58,58	0
56	MG	DA	3253	1/1	0.89	0.14	-	42,42,42,42	0
56	MG	DA	3411	1/1	0.95	0.16	-	21,21,21,21	0
56	MG	BA	3433	1/1	0.98	0.24	-	39,39,39,39	0
56	MG	DA	3155	1/1	0.93	0.17	-	50,50,50,50	0
56	MG	BA	3256	1/1	0.92	0.18	-	58,58,58,58	0
56	MG	AA	3183	1/1	0.96	0.10	-	42,42,42,42	0
56	MG	DA	3618	1/1	0.99	0.12	-	39,39,39,39	0
56	MG	BA	3497	1/1	0.96	0.14	-	62,62,62,62	0
56	MG	DA	3560	1/1	0.89	0.11	-	34,34,34,34	0
56	MG	DA	3307	1/1	0.95	0.30	-	37,37,37,37	0
56	MG	BA	3467	1/1	0.98	0.06	-	40,40,40,40	0
56	MG	BA	3707	1/1	0.96	0.20	-	36,36,36,36	0
56	MG	DA	3192	1/1	0.97	0.12	-	47,47,47,47	0
56	MG	DA	3513	1/1	0.96	0.22	-	49,49,49,49	0
56	MG	DA	3163	1/1	0.83	0.18	-	39,39,39,39	0
56	MG	BA	3144	1/1	0.90	0.27	-	74,74,74,74	0
56	MG	BA	3319	1/1	0.96	0.17	-	25,25,25,25	0
56	MG	BA	3105	1/1	0.90	0.44	-	34,34,34,34	0
56	MG	B0	104	1/1	0.94	0.10	-	43,43,43,43	0
56	MG	BA	3315	1/1	0.97	0.11	-	37,37,37,37	0
56	MG	BB	3018	1/1	0.94	0.19	-	60,60,60,60	0
56	MG	DA	3389	1/1	0.96	0.28	-	27,27,27,27	0
56	MG	BA	3632	1/1	0.73	0.30	-	57,57,57,57	0
56	MG	BA	3704	1/1	0.93	0.19	-	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
56	MG	DA	3005	1/1	0.88	0.21	-	42,42,42,42	0
56	MG	BA	3709	1/1	0.96	0.12	-	86,86,86,86	0
56	MG	BG	3001	1/1	0.93	0.13	-	64,64,64,64	0
56	MG	DA	3558	1/1	0.95	0.18	-	37,37,37,37	0
56	MG	DA	3375	1/1	0.97	0.14	-	60,60,60,60	0
56	MG	BA	3543	1/1	0.96	0.29	-	52,52,52,52	0
56	MG	AA	3166	1/1	0.87	0.18	-	48,48,48,48	0
56	MG	CA	3122	1/1	0.99	0.07	-	47,47,47,47	0
56	MG	BA	3131	1/1	0.98	0.72	-	54,54,54,54	0
56	MG	DR	201	1/1	0.85	0.62	-	65,65,65,65	0
56	MG	BA	3087	1/1	0.78	0.45	-	61,61,61,61	0
56	MG	BA	3276	1/1	0.95	0.32	-	40,40,40,40	0
56	MG	AA	3207	1/1	0.97	0.27	-	45,45,45,45	0
56	MG	DA	3034	1/1	0.95	0.15	-	40,40,40,40	0
56	MG	DA	3374	1/1	0.97	0.05	-	37,37,37,37	0
56	MG	DB	3008	1/1	0.94	0.08	-	45,45,45,45	0
56	MG	DA	3278	1/1	0.93	0.17	-	47,47,47,47	0
56	MG	DA	3462	1/1	0.90	0.11	-	55,55,55,55	0
56	MG	BA	3678	1/1	0.99	0.17	-	53,53,53,53	0
56	MG	DA	3589	1/1	0.95	0.18	-	59,59,59,59	0
56	MG	AA	3112	1/1	0.94	0.12	-	51,51,51,51	0
56	MG	AA	3065	1/1	0.73	0.27	-	60,60,60,60	0
56	MG	AA	3131	1/1	0.88	0.50	-	56,56,56,56	0
56	MG	CA	3063	1/1	0.86	0.10	-	61,61,61,61	0
56	MG	DA	3509	1/1	0.92	0.14	-	55,55,55,55	0
56	MG	CA	3113	1/1	0.96	0.23	-	77,77,77,77	0
56	MG	BA	3473	1/1	0.97	0.12	-	51,51,51,51	0
56	MG	AA	3129	1/1	0.65	0.30	-	77,77,77,77	0
56	MG	CA	3047	1/1	0.91	0.16	-	63,63,63,63	0
56	MG	DA	3230	1/1	0.99	0.16	-	62,62,62,62	0
56	MG	BA	3294	1/1	0.97	0.28	-	37,37,37,37	0
56	MG	BA	3646	1/1	0.97	0.23	-	52,52,52,52	0
56	MG	CA	3121	1/1	0.97	0.26	-	53,53,53,53	0
56	MG	CA	3030	1/1	0.71	0.45	-	73,73,73,73	0
56	MG	DA	3067	1/1	0.88	0.54	-	43,43,43,43	0
56	MG	DA	3585	1/1	0.95	0.15	-	62,62,62,62	0
56	MG	DA	3425	1/1	0.96	0.11	-	27,27,27,27	0
56	MG	DA	3492	1/1	0.81	0.37	-	68,68,68,68	0
56	MG	DA	3242	1/1	0.97	0.23	-	35,35,35,35	0
56	MG	CA	3139	1/1	0.83	0.27	-	75,75,75,75	0
56	MG	BA	3696	1/1	0.97	0.26	-	39,39,39,39	0
56	MG	DA	3130	1/1	0.96	0.12	-	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	DB	3005	1/1	0.90	0.26	-	43,43,43,43	0
56	MG	DA	3434	1/1	0.95	0.26	-	49,49,49,49	0
56	MG	BQ	204	1/1	0.97	0.18	-	12,12,12,12	0
56	MG	BA	3164	1/1	0.83	0.72	-	56,56,56,56	0
56	MG	BA	3239	1/1	0.97	0.10	-	33,33,33,33	0
56	MG	DA	3321	1/1	0.96	0.23	-	41,41,41,41	0
56	MG	CA	3092	1/1	0.98	0.12	-	47,47,47,47	0
56	MG	CA	3117	1/1	0.92	0.15	-	68,68,68,68	0
56	MG	BA	3657	1/1	0.96	0.16	-	56,56,56,56	0
56	MG	BA	3063	1/1	0.97	0.28	-	43,43,43,43	0
56	MG	BA	3059	1/1	0.95	0.60	-	45,45,45,45	0
56	MG	BA	3718	1/1	0.78	0.37	-	57,57,57,57	0
56	MG	AA	3098	1/1	0.92	0.35	-	72,72,72,72	0
56	MG	DA	3244	1/1	0.98	0.31	-	29,29,29,29	0
56	MG	AA	3059	1/1	0.84	1.19	-	54,54,54,54	0
56	MG	BA	3713	1/1	0.97	0.10	-	66,66,66,66	0
56	MG	AA	3140	1/1	0.84	0.12	-	70,70,70,70	0
56	MG	BA	3584	1/1	0.96	0.18	-	22,22,22,22	0
56	MG	BA	3052	1/1	0.92	0.25	-	29,29,29,29	0
56	MG	BA	3469	1/1	0.97	0.09	-	38,38,38,38	0
56	MG	CA	3157	1/1	0.88	0.11	-	54,54,54,54	0
56	MG	BA	3089	1/1	0.74	0.58	-	61,61,61,61	0
56	MG	DA	3413	1/1	0.99	0.20	-	53,53,53,53	0
56	MG	DA	3484	1/1	0.85	0.25	-	51,51,51,51	0
56	MG	CA	3065	1/1	0.92	0.23	-	75,75,75,75	0
56	MG	BA	3135	1/1	0.85	0.17	-	42,42,42,42	0
56	MG	DA	3645	1/1	0.98	0.09	-	30,30,30,30	0
56	MG	BA	3023	1/1	0.88	0.13	-	66,66,66,66	0
56	MG	BA	3376	1/1	0.96	0.10	-	48,48,48,48	0
56	MG	BA	3338	1/1	0.97	0.21	-	50,50,50,50	0
56	MG	BA	3206	1/1	0.76	0.35	-	57,57,57,57	0
56	MG	CA	3036	1/1	0.89	0.52	-	68,68,68,68	0
56	MG	DA	3076	1/1	0.93	0.56	-	44,44,44,44	0
56	MG	BF	308	1/1	0.86	0.25	-	28,28,28,28	0
56	MG	BA	3674	1/1	0.95	0.18	-	55,55,55,55	0
56	MG	DA	3388	1/1	0.82	0.16	-	54,54,54,54	0
56	MG	DA	3021	1/1	0.95	0.15	-	35,35,35,35	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.