Full wwPDB X-ray Structure Validation Report ⓘ

Aug 11, 2021 – 11:41 am BST

PDB ID	:	7A0R
Title	:	50S Deinococcus radiodurans ribosome bounded with mycinamicin I
Authors	:	Breiner, E.; Eyal, Z.; Matzov, D.; Halfon, Y.; Cimicata, G.; Rozenberg, H.; Zimmerman, E.; Bashan, A.; Yonath, A.
Deposited on	:	2020-08-10
Resolution	:	3.30 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

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

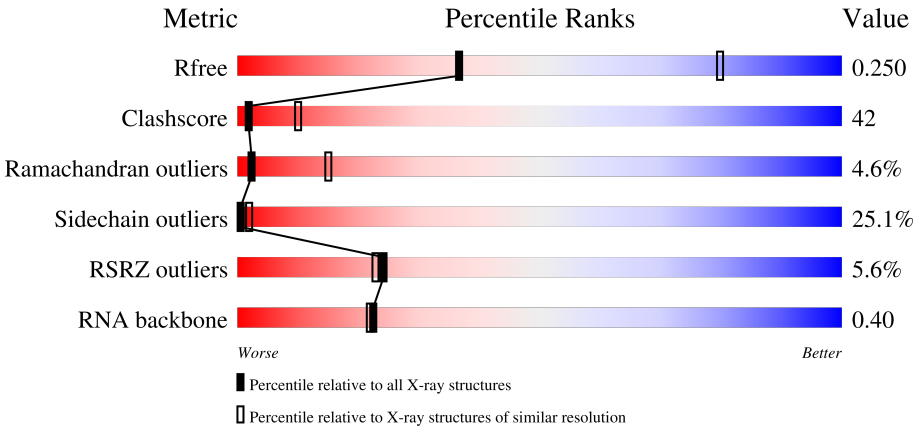
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.23.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.23.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1149 (3.34-3.26)
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)
RSRZ outliers	127900	1115 (3.34-3.26)
RNA backbone	3102	1117 (3.70-2.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	X	2877	3% 19% 45% 26% 5% 5%
2	Y	120	21% 54% 22% .
3	A	271	4% 42% 42% 15% .
4	B	206	43% 42% 15%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
5	C	197	8% 30% 49% 18%
6	D	177	13% 31% 57% 12%
7	E	171	14% 31% 59% 10%
8	G	143	8% 31% 48% 20%
9	H	134	% 35% 51% 14%
10	I	137	9% 35% 42% 18% 5%
11	J	136	4% 19% 53% 26%
12	K	116	35% 50% 15%
13	L	104	12% 35% 46% 18%
14	M	113	6% 36% 41% 21%
15	N	117	% 25% 54% 21%
16	O	98	2% 30% 50% 17%
17	P	128	% 37% 48% 14%
18	Q	93	34% 47% 17%
19	R	110	13% 17% 56% 25%
20	S	175	29% 31% 57% 12%
21	T	74	9% 28% 58% 14%
22	U	74	5% 32% 47% 16%
23	V	61	7% 36% 56% 8%
24	W	55	18% 31% 42% 24%
25	Z	58	2% 26% 59% 14%
26	1	49	14% 55% 22% 18%
27	2	47	13% 47% 36% 15%
28	3	63	3% 22% 35% 43%

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 crite-

ria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
30	MG	X	2999	-	-	-	X
30	MG	X	3022	-	-	-	X
30	MG	X	3059	-	-	-	X
30	MG	X	3071	-	-	-	X
30	MG	X	3081	-	-	-	X
30	MG	X	3089	-	-	-	X
30	MG	X	3104	-	-	-	X
30	MG	X	3111	-	-	-	X
30	MG	X	3135	-	-	-	X
30	MG	X	3137	-	-	-	X
30	MG	X	3175	-	-	-	X
30	MG	X	3177	-	-	-	X
30	MG	X	3187	-	-	-	X
30	MG	X	3197	-	-	-	X
30	MG	X	3208	-	-	-	X
30	MG	X	3209	-	-	-	X
30	MG	X	3212	-	-	-	X
30	MG	Y	208	-	-	-	X
30	MG	Y	216	-	-	-	X

2 Entry composition

There are 30 unique types of molecules in this entry. The entry contains 84973 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called RNA (2730-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	X	2730	Total	C	N	O	P	0	0	0
			58592	26137	10810	18916	2729			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
X	1526	U	C	conflict	GB 1026245073

- Molecule 2 is a RNA chain called RNA (120-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	Y	120	Total	C	N	O	P	0	0	0
			2561	1143	471	827	120			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	A	271	Total	C	N	O	S	0	0	0
			1976	1234	382	358	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	B	206	Total	C	N	O	S	0	0	0
			1529	959	290	272	8			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	C	197	Total	C	N	O	S	0	0	0
			1486	924	282	278	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	D	177	Total	C	N	O	S	0	0	0
			1353	865	234	248	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	E	171	Total	C	N	O	S	0	0	0
			1270	803	234	232	1			

- Molecule 8 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	G	143	Total	C	N	O	S	0	0	0
			1106	697	205	201	3			

- Molecule 9 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	H	134	Total	C	N	O	S	0	0	0
			991	611	195	180	5			

- Molecule 10 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	I	137	Total	C	N	O	S	0	0	0
			970	594	191	184	1			

- Molecule 11 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	J	136	Total	C	N	O	S	0	0	0
			1064	675	197	185	7			

- Molecule 12 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	K	116	Total	C	N	O	S	0	0	0
			900	554	183	160	3			

- Molecule 13 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	L	104	Total	C	N	O	0	0	0
			772	470	161	141			

- Molecule 14 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	M	113	Total	C	N	O	S	0	0	0
			885	554	171	159	1			

- Molecule 15 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	N	117	Total	C	N	O	S	0	0	0
			972	605	207	159	1			

- Molecule 16 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	O	98	Total	C	N	O	S	0	0	0
			733	460	134	138	1			

- Molecule 17 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	P	128	Total	C	N	O	S	0	0	0
			1006	634	195	175	2			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
P	6	ALA	GLN	conflict	UNP Q9RXJ7

- Molecule 18 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	Q	93	Total	C	N	O	S	0	0	0
			712	451	131	128	2			

- Molecule 19 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	R	110	Total	C	N	O	S	0	0	0
			813	507	154	151	1			

- Molecule 20 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	S	175	Total	C	N	O	S	0	0	0
			1309	823	227	253	6			

- Molecule 21 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	T	74	Total	C	N	O	S	0	0	0
			543	344	102	96	1			

- Molecule 22 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
22	U	74	Total	C	N	O	0	0	0
			537	338	101	98			

- Molecule 23 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	V	61	Total	C	N	O	S	0	0	0
			490	301	100	87	2			

- Molecule 24 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	W	55	Total	C	N	O	S	0	0	0
			424	264	82	76	2			

- Molecule 25 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Z	58	Total	C	N	O	S	0	0	0
			457	281	94	77	5			

- Molecule 26 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	1	49	Total	C	N	O	0	0	0
			303	187	54	62			

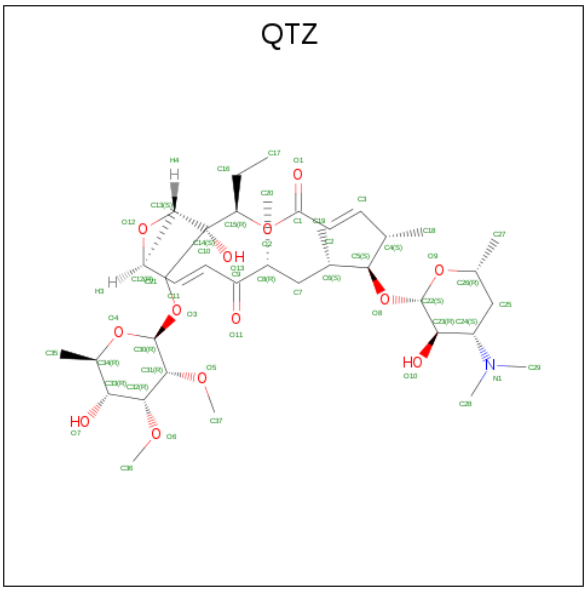
- Molecule 27 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	2	47	Total	C	N	O	S	0	0	0
			376	224	88	62	2			

- Molecule 28 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	3	63	Total	C	N	O	S	0	0	0
			447	278	92	75	2			

- Molecule 29 is mycinamicin II (three-letter code: QTZ) (formula: $C_{37}H_{61}NO_{13}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
29	X	1	Total	C	N	O	3	0
			51	37	1	13		

- Molecule 30 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
30	X	320	Total	Mg	0	0
			320	320		

Continued on next page...

Continued from previous page...

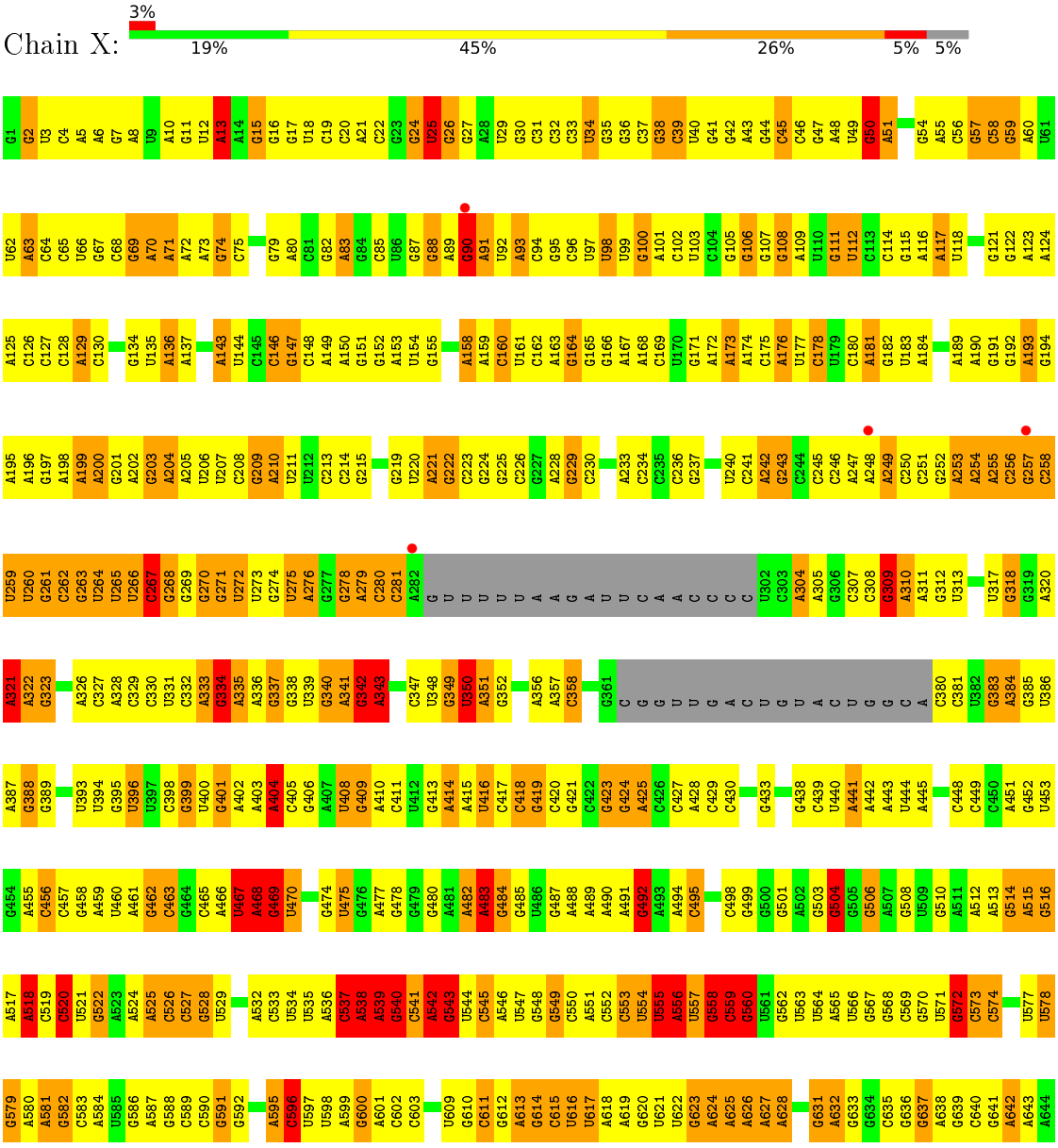
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	Y	16	Total Mg 16 16	0	0
30	A	3	Total Mg 3 3	0	0
30	I	1	Total Mg 1 1	0	0
30	J	2	Total Mg 2 2	0	0
30	K	1	Total Mg 1 1	0	0
30	O	1	Total Mg 1 1	0	0
30	2	1	Total Mg 1 1	0	0

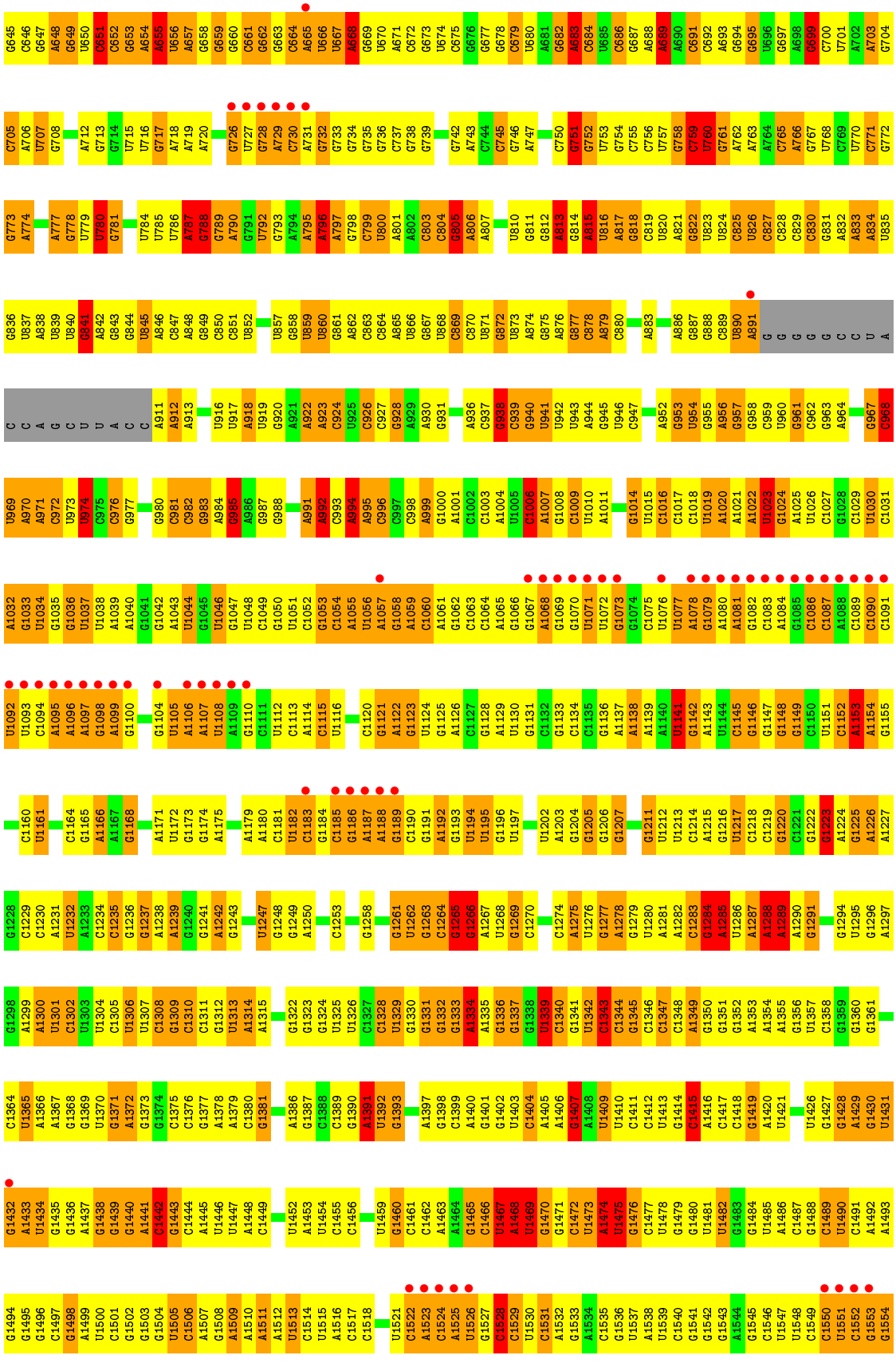
3 Residue-property plots (i)

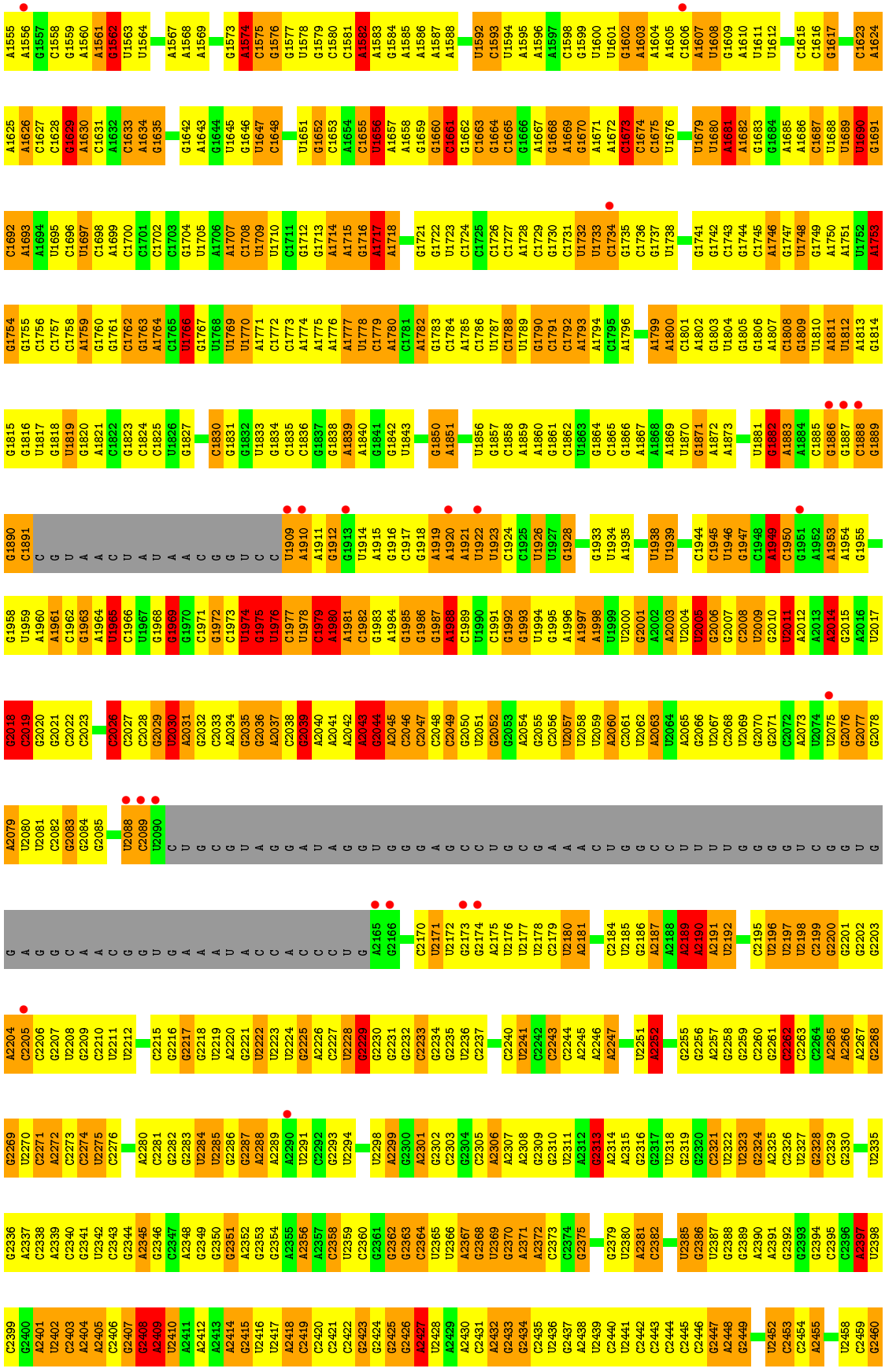
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

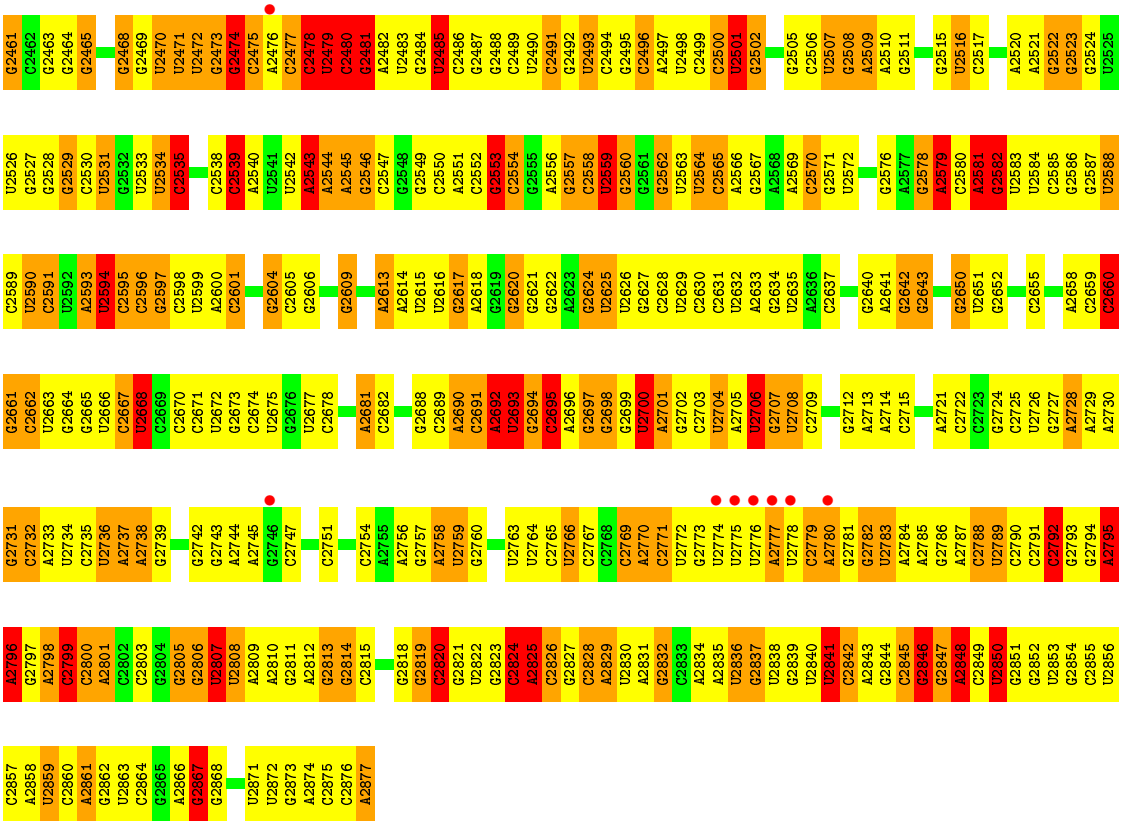
- Molecule 1: RNA (2730-MER)

Chain X:

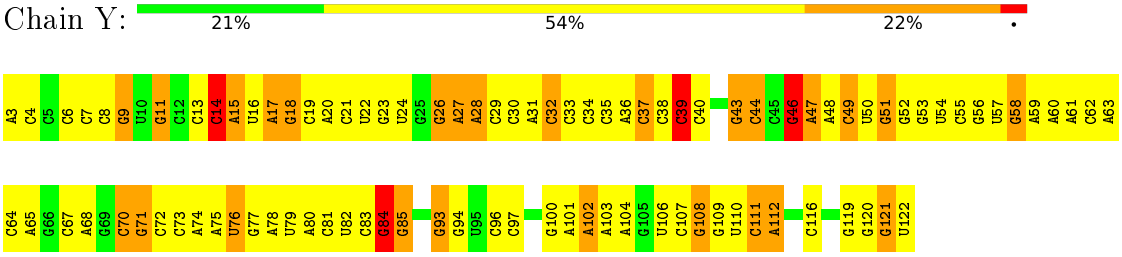




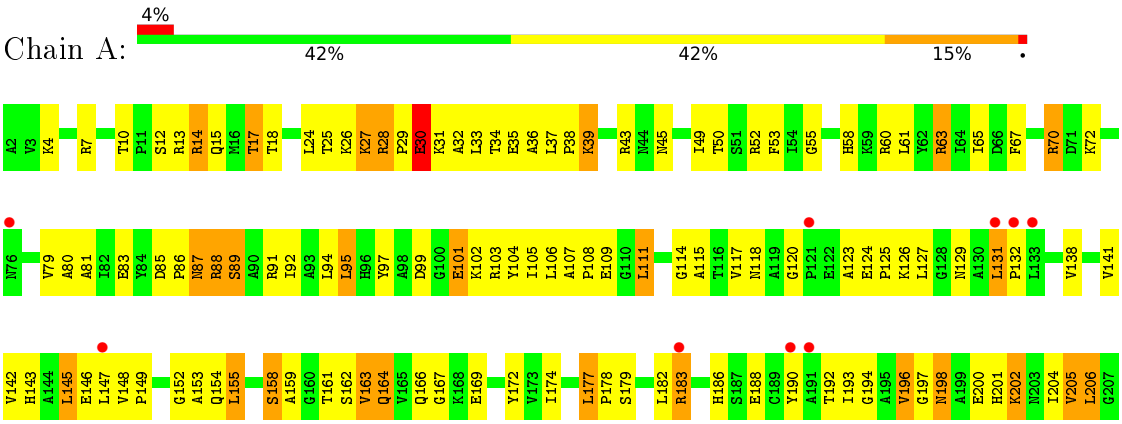


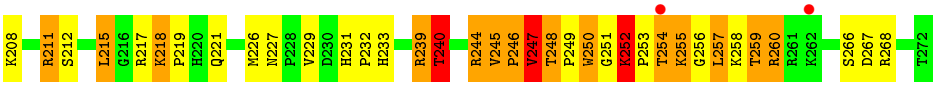


• Molecule 2: RNA (120-MER)



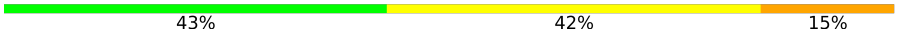
• Molecule 3: 50S ribosomal protein L2

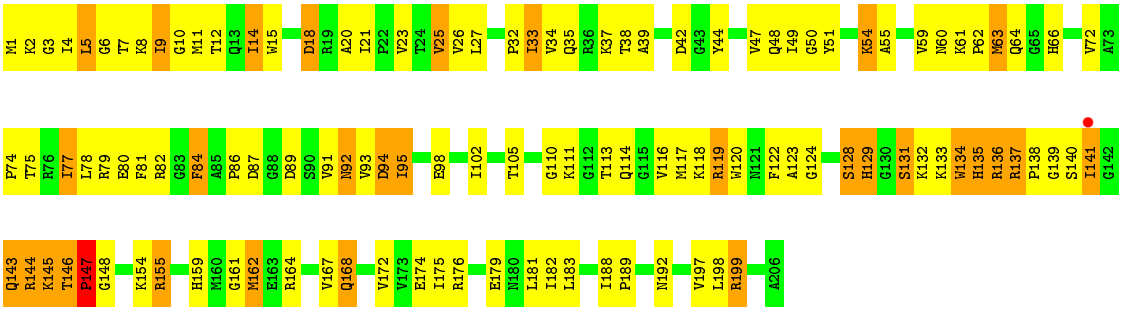




- Molecule 4: 50S ribosomal protein L3

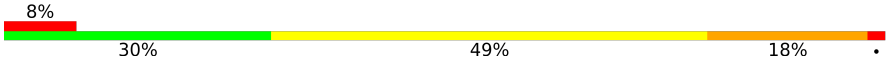
Chain B:

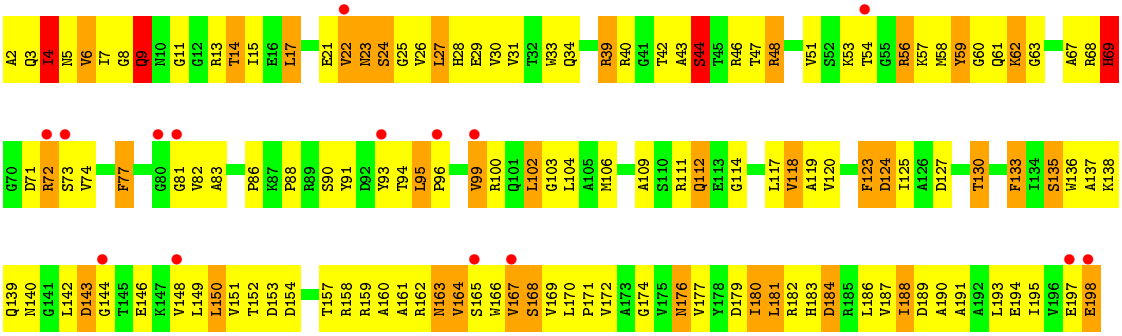




- Molecule 5: 50S ribosomal protein L4

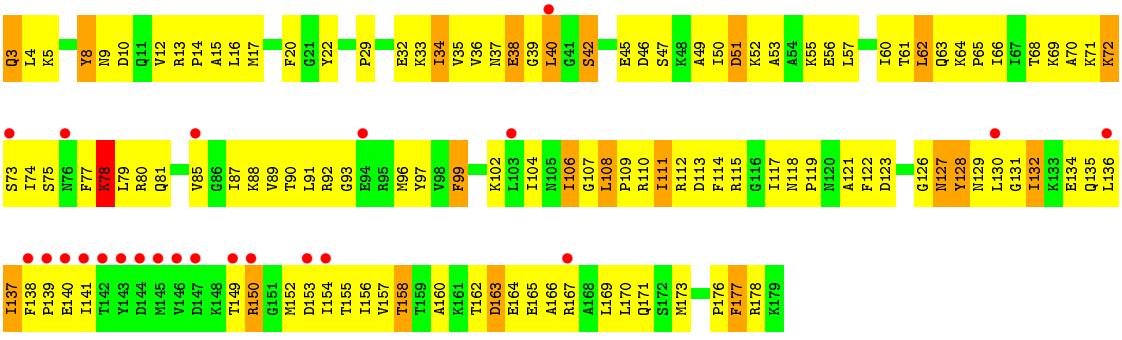
Chain C:





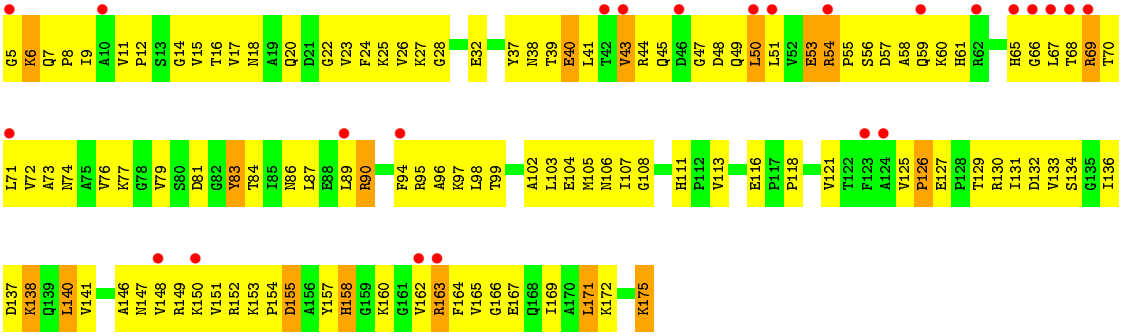
- Molecule 6: 50S ribosomal protein L5

Chain D:

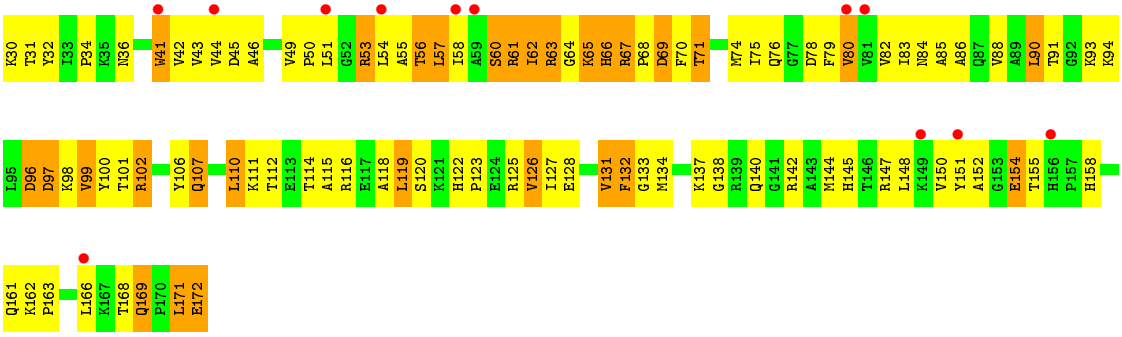


- Molecule 7: 50S ribosomal protein L6

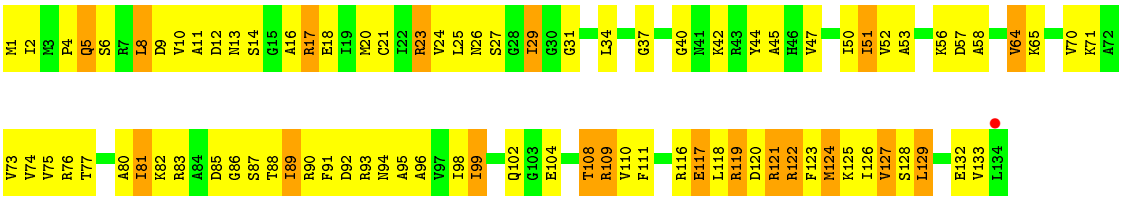
Chain E:



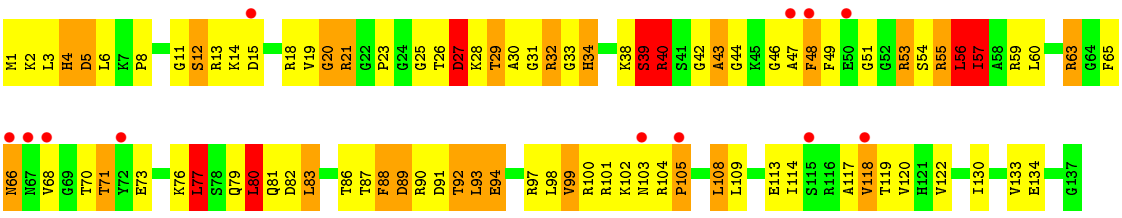
• Molecule 8: 50S ribosomal protein L13



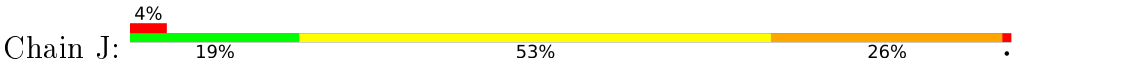
• Molecule 9: 50S ribosomal protein L14

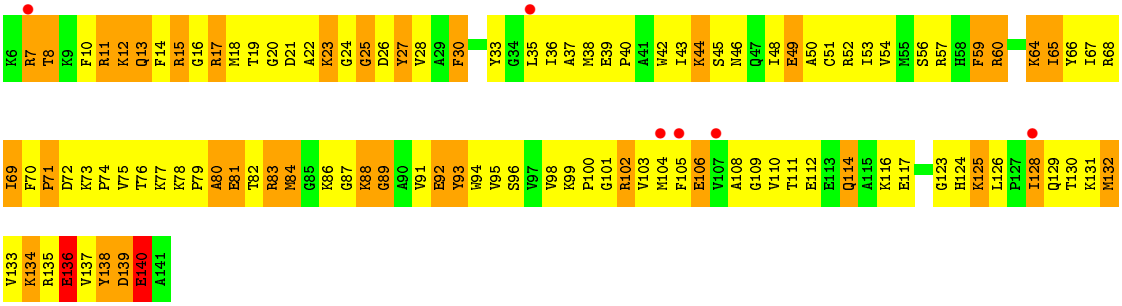


• Molecule 10: 50S ribosomal protein L15



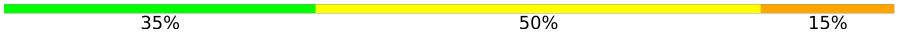
• Molecule 11: 50S ribosomal protein L16

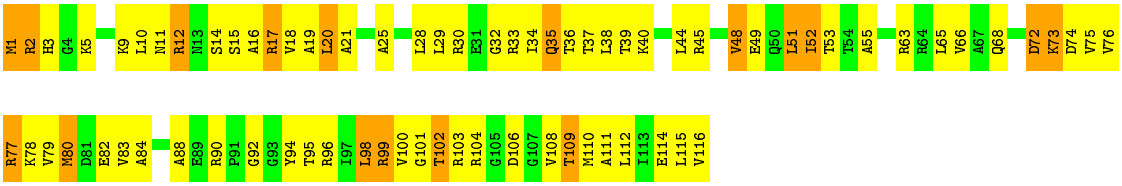




• Molecule 12: 50S ribosomal protein L17

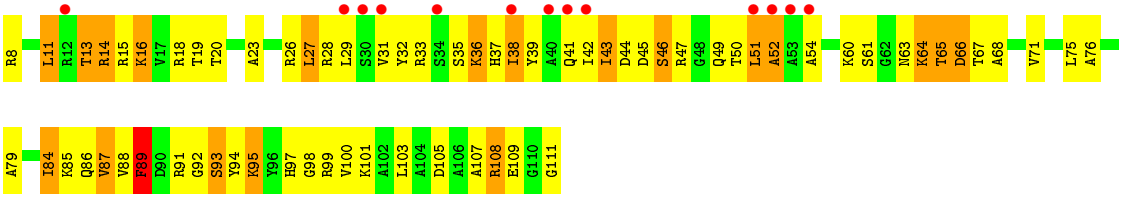
Chain K:





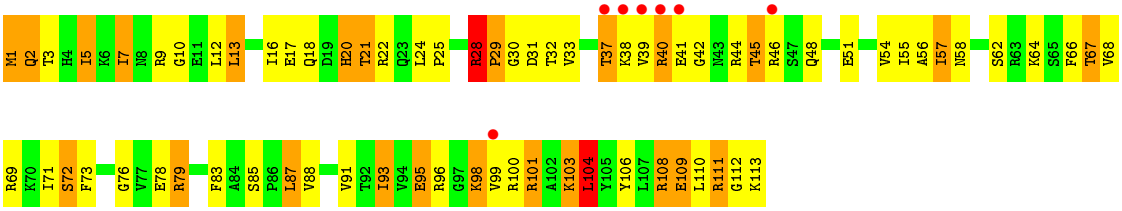
• Molecule 13: 50S ribosomal protein L18

Chain L:



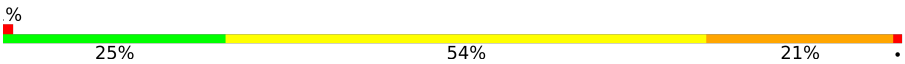
• Molecule 14: 50S ribosomal protein L19

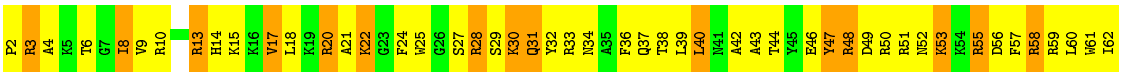
Chain M:

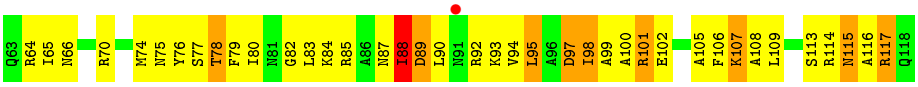


• Molecule 15: 50S ribosomal protein L20

Chain N:

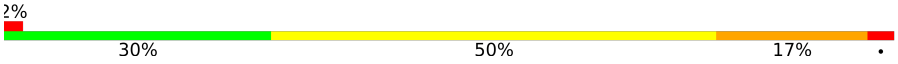


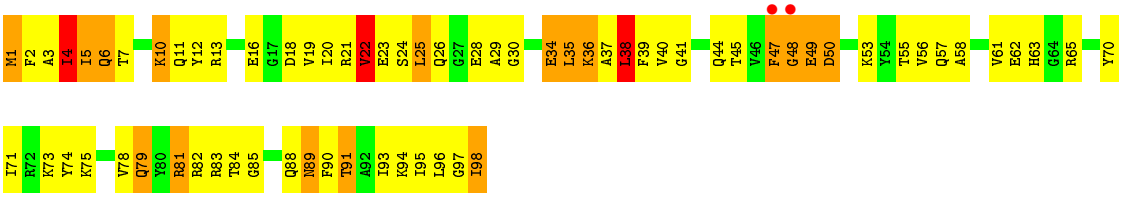




• Molecule 16: 50S ribosomal protein L21

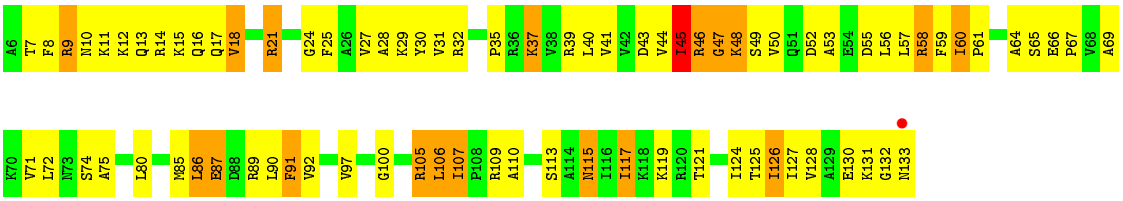
Chain O:





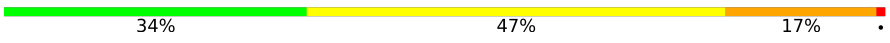
• Molecule 17: 50S ribosomal protein L22

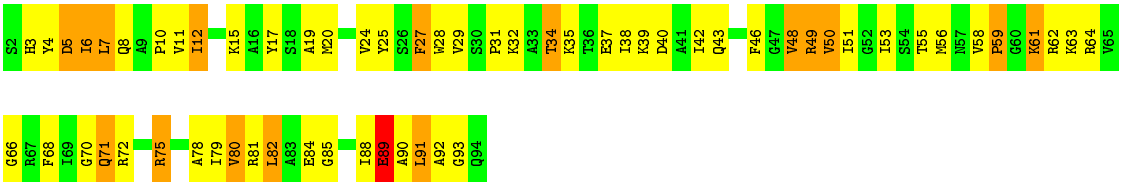
Chain P:



• Molecule 18: 50S ribosomal protein L23

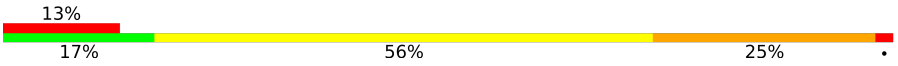
Chain Q:

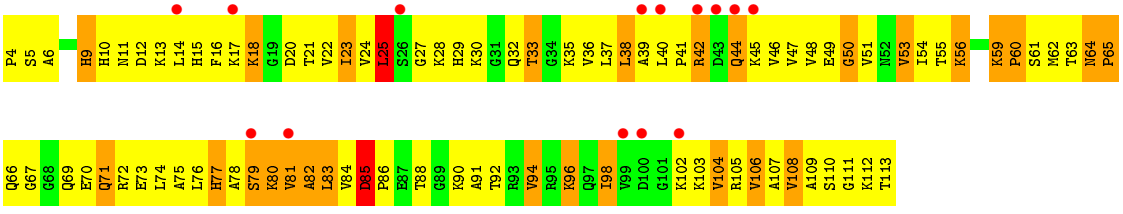




• Molecule 19: 50S ribosomal protein L24

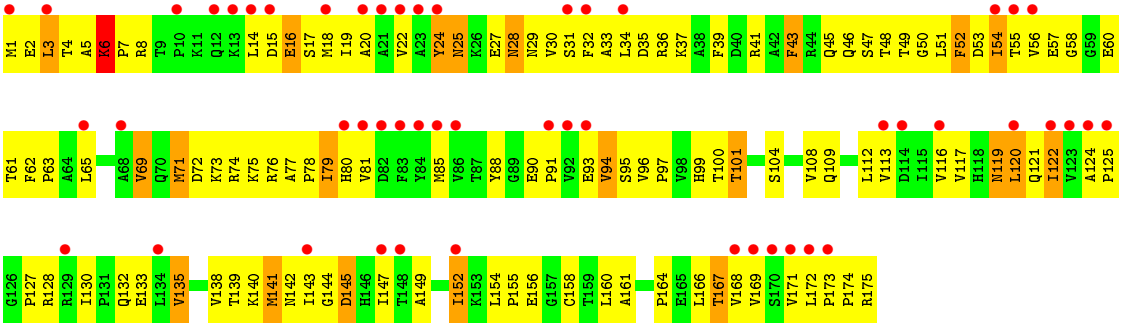
Chain R:



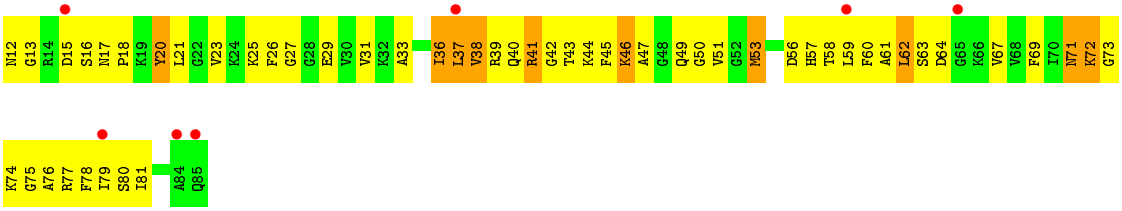


• Molecule 20: 50S ribosomal protein L25

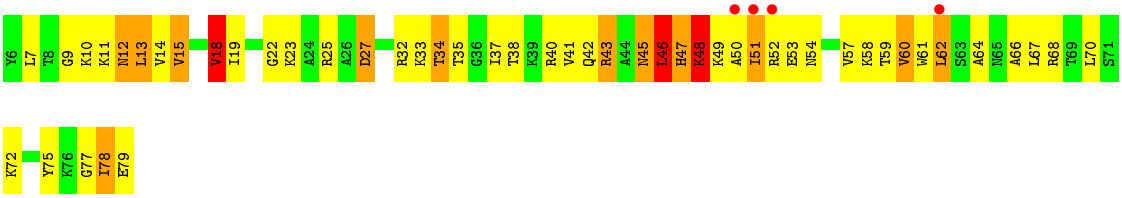
Chain S:



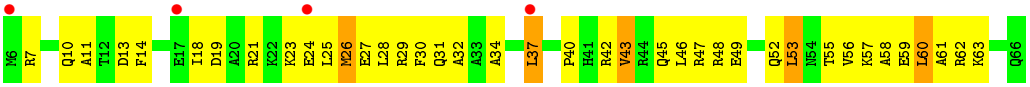
• Molecule 21: 50S ribosomal protein L27



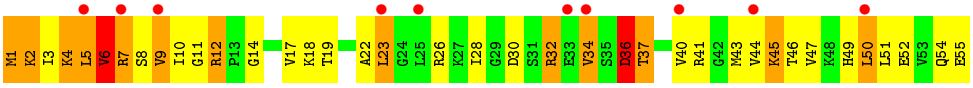
• Molecule 22: 50S ribosomal protein L28



• Molecule 23: 50S ribosomal protein L29

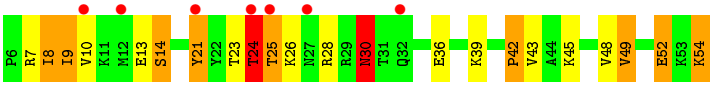


• Molecule 24: 50S ribosomal protein L30

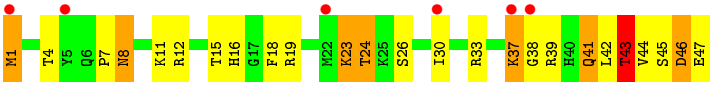


• Molecule 25: 50S ribosomal protein L32

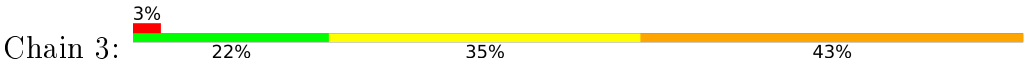
- Molecule 26: 50S ribosomal protein L33

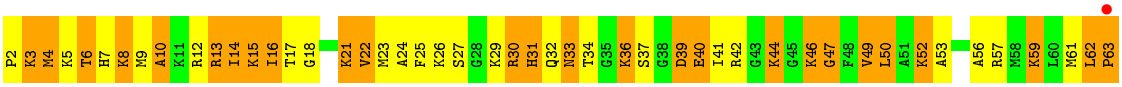


- Molecule 27: 50S ribosomal protein L34



- Molecule 28: 50S ribosomal protein L35





4 Data and refinement statistics (i)

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α, β, γ	170.48Å 408.93Å 697.32Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.55 – 3.30 49.54 – 3.30	Depositor EDS
% Data completeness (in resolution range)	98.3 (49.55-3.30) 98.4 (49.54-3.30)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.67 (at 3.33Å)	Xtriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	0.215 , 0.249 0.215 , 0.250	Depositor DCC
R_{free} test set	17957 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å^2)	98.1	Xtriage
Anisotropy	0.547	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.20 , 73.5	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	84973	wwPDB-VP
Average B, all atoms (Å^2)	125.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.04% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	X	0.84	57/65613 (0.1%)	1.45	988/102349 (1.0%)
2	Y	0.55	1/2863 (0.0%)	1.17	14/4461 (0.3%)
3	A	0.43	0/2016	0.66	2/2735 (0.1%)
4	B	0.60	0/1556	0.77	0/2093
5	C	0.47	0/1509	0.67	0/2046
6	D	0.31	0/1372	0.49	0/1848
7	E	0.35	0/1292	0.53	0/1751
8	G	0.53	0/1130	0.66	0/1532
9	H	0.63	0/1001	0.75	1/1345 (0.1%)
10	I	0.52	0/982	0.80	2/1326 (0.2%)
11	J	0.53	0/1085	0.68	0/1453
12	K	0.70	0/908	0.88	1/1218 (0.1%)
13	L	0.36	0/777	0.61	0/1037
14	M	0.70	0/898	0.87	2/1207 (0.2%)
15	N	0.55	0/988	0.74	1/1316 (0.1%)
16	O	0.46	0/741	0.73	1/994 (0.1%)
17	P	0.68	0/1019	0.81	0/1368
18	Q	0.45	0/723	0.64	0/971
19	R	0.44	0/823	0.65	1/1107 (0.1%)
20	S	0.33	0/1333	0.52	0/1821
21	T	0.52	1/550 (0.2%)	0.69	0/732
22	U	0.40	0/542	0.67	1/729 (0.1%)
23	V	0.37	0/493	0.49	0/656
24	W	0.40	0/426	0.68	1/568 (0.2%)
25	Z	0.61	0/469	0.76	0/629
26	1	0.37	0/305	0.69	0/420
27	2	0.44	0/379	0.69	0/500
28	3	0.50	0/451	0.74	0/596
All	All	0.76	59/92244 (0.1%)	1.31	1015/138808 (0.7%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if

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

Mol	Chain	#Chirality outliers	#Planarity outliers
3	A	0	1
4	B	0	2
5	C	0	2
8	G	0	2
9	H	0	1
10	I	0	5
11	J	0	2
14	M	0	1
17	P	0	1
19	R	0	1
22	U	0	2
28	3	0	1
All	All	0	21

All (59) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	542	A	N9-C4	-10.58	1.31	1.37
1	X	1278	A	N3-C4	-8.78	1.29	1.34
1	X	1468	A	N9-C4	8.26	1.42	1.37
1	X	1278	A	N9-C4	-7.85	1.33	1.37
1	X	2045	A	N9-C4	6.97	1.42	1.37
1	X	1682	A	N7-C5	-6.89	1.35	1.39
1	X	2043	A	N9-C4	-6.75	1.33	1.37
1	X	1634	A	N9-C4	-6.73	1.33	1.37
1	X	540	G	C2-N3	6.32	1.37	1.32
1	X	2018	G	N9-C8	6.32	1.42	1.37
1	X	1283	C	N3-C4	-6.27	1.29	1.33
1	X	827	C	N1-C6	-6.25	1.33	1.37
1	X	923	A	C5-C6	-6.24	1.35	1.41
1	X	2701	A	N9-C4	-6.24	1.34	1.37
1	X	1333	G	N9-C8	6.21	1.42	1.37
1	X	774	A	N7-C5	6.18	1.43	1.39
1	X	1981	A	N7-C5	-6.12	1.35	1.39
1	X	1753	A	N9-C4	6.12	1.41	1.37
1	X	2854	G	N9-C8	6.06	1.42	1.37
1	X	1665	C	N3-C4	-5.97	1.29	1.33
1	X	1665	C	N1-C6	-5.95	1.33	1.37
1	X	1333	G	N9-C4	-5.94	1.33	1.38
1	X	2485	U	N1-C2	5.89	1.43	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	1467	U	C2-N3	-5.84	1.33	1.37
1	X	1670	G	C5-C4	-5.78	1.34	1.38
1	X	762	A	N9-C4	-5.76	1.34	1.37
1	X	2553	G	N9-C8	5.75	1.41	1.37
1	X	1687	C	N1-C6	-5.62	1.33	1.37
1	X	1992	G	C5-C4	-5.60	1.34	1.38
1	X	2045	A	N3-C4	5.60	1.38	1.34
1	X	1655	C	N1-C6	-5.57	1.33	1.37
1	X	542	A	N3-C4	-5.56	1.31	1.34
1	X	2045	A	C5-C6	5.55	1.46	1.41
1	X	2045	A	N7-C5	5.53	1.42	1.39
1	X	2581	A	N9-C4	5.49	1.41	1.37
1	X	962	C	N3-C4	-5.48	1.30	1.33
21	T	17	ASN	C-N	5.45	1.44	1.34
1	X	2559	U	C4-C5	-5.43	1.38	1.43
1	X	559	C	O3'-P	5.43	1.67	1.61
1	X	1283	C	N1-C6	-5.39	1.33	1.37
1	X	2427	A	N3-C4	-5.35	1.31	1.34
1	X	1992	G	N1-C2	-5.34	1.33	1.37
1	X	774	A	N9-C4	-5.31	1.34	1.37
1	X	1670	G	N9-C8	-5.28	1.34	1.37
1	X	2582	G	P-O5'	5.28	1.65	1.59
1	X	981	C	N3-C4	-5.26	1.30	1.33
1	X	2559	U	C4-O4	-5.24	1.19	1.23
1	X	2560	G	N7-C5	-5.24	1.36	1.39
1	X	774	A	N9-C8	5.22	1.42	1.37
1	X	1265	G	N9-C8	-5.18	1.34	1.37
1	X	2823	G	N9-C8	-5.17	1.34	1.37
1	X	404	A	N9-C4	5.16	1.41	1.37
1	X	2530	C	N1-C6	-5.13	1.34	1.37
1	X	2018	G	C5-C6	-5.12	1.37	1.42
1	X	762	A	C5-C6	-5.07	1.36	1.41
2	Y	14	C	N1-C2	5.07	1.45	1.40
1	X	2604	G	N7-C5	-5.04	1.36	1.39
1	X	558	G	N9-C4	5.03	1.42	1.38
1	X	1770	U	N3-C4	-5.03	1.33	1.38

All (1015) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	841	G	C6-C5-N7	-18.22	119.47	130.40
1	X	2018	G	C4-C5-N7	17.12	117.65	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1333	G	N3-C4-N9	-16.84	115.90	126.00
1	X	1468	A	C8-N9-C4	-16.42	99.23	105.80
1	X	1333	G	N3-C4-C5	15.21	136.21	128.60
1	X	1339	U	O5'-P-OP2	-14.95	92.25	105.70
1	X	2018	G	C5-N7-C8	-14.64	96.98	104.30
1	X	841	G	C4-N9-C1'	14.50	145.35	126.50
1	X	841	G	N7-C8-N9	14.37	120.29	113.10
1	X	1670	G	C8-N9-C4	13.72	111.89	106.40
1	X	1153	A	N9-C4-C5	-13.22	100.51	105.80
1	X	841	G	C4-C5-N7	12.96	115.98	110.80
1	X	841	G	C5-N7-C8	-12.95	97.83	104.30
1	X	1333	G	C2-N3-C4	-12.78	105.51	111.90
1	X	1278	A	N1-C2-N3	12.11	135.36	129.30
1	X	841	G	C8-N9-C1'	-11.78	111.68	127.00
1	X	1664	G	O5'-P-OP1	-11.67	95.20	105.70
1	X	2018	G	O4'-C1'-N9	11.65	117.52	108.20
1	X	1278	A	C2-N3-C4	-11.50	104.85	110.60
1	X	1682	A	C4-C5-C6	11.43	122.71	117.00
1	X	1682	A	O5'-P-OP1	-11.35	95.49	105.70
1	X	537	C	N1-C2-O2	11.17	125.60	118.90
1	X	1675	C	O5'-P-OP1	-11.14	95.67	105.70
1	X	1153	A	C6-C5-N7	-11.03	124.58	132.30
1	X	2018	G	C6-C5-N7	-10.85	123.89	130.40
1	X	1467	U	C6-N1-C2	10.83	127.50	121.00
1	X	1670	G	N7-C8-N9	-10.76	107.72	113.10
1	X	2018	G	C5-C6-O6	-10.74	122.15	128.60
1	X	1980	A	O5'-P-OP2	-10.55	96.21	105.70
1	X	574	C	C6-N1-C2	-10.42	116.13	120.30
1	X	760	U	O5'-P-OP2	-10.36	96.38	105.70
1	X	1467	U	N1-C2-O2	10.35	130.05	122.80
1	X	1153	A	C4-C5-N7	10.35	115.87	110.70
1	X	2594	U	O5'-P-OP2	-10.32	96.41	105.70
1	X	1975	G	N3-C4-C5	-10.31	123.44	128.60
1	X	1656	U	C5-C6-N1	-10.30	117.55	122.70
1	X	1682	A	N1-C6-N6	10.24	124.74	118.60
1	X	841	G	C8-N9-C4	-10.21	102.32	106.40
1	X	1468	A	N7-C8-N9	10.17	118.89	113.80
1	X	2018	G	N7-C8-N9	9.80	118.00	113.10
1	X	774	A	C5-N7-C8	-9.76	99.02	103.90
1	X	1288	A	O4'-C1'-N9	9.75	116.00	108.20
1	X	923	A	N1-C6-N6	9.63	124.38	118.60
1	X	1679	U	C5-C6-N1	-9.62	117.89	122.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	343	A	C8-N9-C4	-9.60	101.96	105.80
1	X	841	G	C4-C5-C6	9.58	124.55	118.80
1	X	841	G	N1-C6-O6	9.55	125.63	119.90
1	X	1664	G	O5'-P-OP2	9.54	122.15	110.70
1	X	1468	A	C5-C6-N1	9.53	122.47	117.70
2	Y	14	C	N1-C2-O2	9.37	124.52	118.90
1	X	2419	C	C6-N1-C2	-9.37	116.55	120.30
1	X	2018	G	N1-C6-O6	9.36	125.52	119.90
1	X	956	A	N1-C6-N6	9.34	124.20	118.60
1	X	689	A	C5-N7-C8	-9.33	99.24	103.90
1	X	1682	A	C6-C5-N7	-9.30	125.79	132.30
1	X	1466	C	C6-N1-C2	-9.28	116.59	120.30
1	X	540	G	C6-C5-N7	-9.25	124.85	130.40
1	X	573	C	C6-N1-C2	9.25	124.00	120.30
2	Y	14	C	N3-C2-O2	-9.24	115.43	121.90
1	X	2018	G	N9-C1'-C2'	9.23	126.00	114.00
1	X	343	A	N7-C8-N9	9.22	118.41	113.80
1	X	542	A	C5-N7-C8	-9.22	99.29	103.90
1	X	558	G	C8-N9-C4	-9.18	102.73	106.40
1	X	1153	A	N1-C6-N6	9.18	124.11	118.60
1	X	1278	A	N7-C8-N9	9.16	118.38	113.80
1	X	689	A	N1-C6-N6	9.13	124.08	118.60
1	X	1009	C	C6-N1-C2	9.05	123.92	120.30
1	X	699	G	N3-C4-C5	8.94	133.07	128.60
1	X	2553	G	C8-N9-C4	-8.91	102.84	106.40
1	X	1468	A	C2-N3-C4	8.86	115.03	110.60
1	X	1278	A	O4'-C1'-N9	8.85	115.28	108.20
1	X	542	A	C2-N3-C4	-8.84	106.18	110.60
1	X	774	A	C4-C5-C6	-8.83	112.58	117.00
1	X	1278	A	C5-N7-C8	-8.83	99.48	103.90
1	X	1984	A	O5'-P-OP1	-8.83	97.75	105.70
1	X	574	C	C5-C6-N1	8.81	125.41	121.00
1	X	2693	U	N1-C2-N3	8.81	120.19	114.90
1	X	2523	G	C8-N9-C4	-8.80	102.88	106.40
1	X	540	G	C4-C5-N7	8.71	114.28	110.80
1	X	2854	G	C5-N7-C8	-8.69	99.96	104.30
1	X	689	A	C2-N3-C4	-8.68	106.26	110.60
1	X	1679	U	C6-N1-C2	8.63	126.18	121.00
1	X	559	C	O4'-C1'-N1	8.61	115.09	108.20
1	X	1153	A	N3-C4-N9	8.58	134.26	127.40
1	X	2854	G	C4-C5-N7	8.57	114.23	110.80
1	X	343	A	O4'-C1'-N9	8.56	115.05	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1297	A	C2-N3-C4	-8.55	106.32	110.60
1	X	538	A	C8-N9-C4	-8.53	102.39	105.80
1	X	2459	C	C2-N1-C1'	-8.52	109.43	118.80
1	X	699	G	N3-C4-N9	-8.45	120.93	126.00
1	X	841	G	C2-N3-C4	-8.41	107.69	111.90
1	X	1643	A	N9-C4-C5	-8.39	102.44	105.80
1	X	583	C	O5'-P-OP2	-8.35	98.19	105.70
1	X	2019	C	C6-N1-C2	-8.34	116.96	120.30
1	X	841	G	N1-C2-N2	-8.33	108.70	116.20
1	X	2692	A	O5'-P-OP2	-8.29	98.24	105.70
1	X	661	C	N1-C2-O2	8.24	123.84	118.90
1	X	2582	G	O5'-P-OP2	8.21	120.55	110.70
1	X	1442	C	N1-C2-O2	8.21	123.82	118.90
1	X	1682	A	O5'-P-OP2	8.19	120.53	110.70
1	X	1281	A	O5'-P-OP2	-8.17	98.35	105.70
1	X	1988	A	C8-N9-C4	8.16	109.06	105.80
14	M	28	ARG	C-N-CD	-8.14	102.68	120.60
1	X	2668	U	C5-C6-N1	-8.13	118.63	122.70
1	X	956	A	C5-C6-N6	-8.10	117.22	123.70
1	X	1472	C	N3-C4-C5	8.08	125.13	121.90
1	X	2706	U	N1-C2-O2	-8.03	117.18	122.80
1	X	2815	C	N3-C4-C5	8.02	125.11	121.90
1	X	1278	A	C6-C5-N7	-8.02	126.69	132.30
1	X	841	G	N1-C2-N3	8.01	128.71	123.90
1	X	1205	G	C8-N9-C4	8.01	109.60	106.40
1	X	2747	C	C6-N1-C2	8.01	123.50	120.30
1	X	2018	G	C4-N9-C1'	8.01	136.91	126.50
1	X	1656	U	C2-N1-C1'	-7.99	108.12	117.70
1	X	542	A	N3-C4-N9	-7.93	121.05	127.40
1	X	1282	A	N1-C6-N6	7.92	123.35	118.60
1	X	2018	G	N9-C4-C5	-7.91	102.24	105.40
1	X	542	A	C8-N9-C4	-7.89	102.64	105.80
1	X	1283	C	C4-C5-C6	7.89	121.34	117.40
1	X	1278	A	C4-C5-C6	7.89	120.94	117.00
1	X	1468	A	N3-C4-C5	-7.84	121.31	126.80
1	X	1673	C	OP2-P-O3'	7.82	122.41	105.20
1	X	759	C	C6-N1-C2	7.81	123.42	120.30
1	X	2693	U	C2-N3-C4	-7.80	122.32	127.00
1	X	2262	C	C2-N1-C1'	-7.80	110.22	118.80
1	X	542	A	N7-C8-N9	7.79	117.69	113.80
1	X	1975	G	C2-N3-C4	7.77	115.79	111.90
1	X	1288	A	C4-N9-C1'	7.76	140.27	126.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	762	A	N1-C6-N6	7.76	123.25	118.60
1	X	2867	G	N3-C4-C5	7.75	132.47	128.60
1	X	923	A	C4-C5-N7	7.75	114.57	110.70
1	X	1333	G	C8-N9-C1'	7.74	137.06	127.00
1	X	1630	A	N1-C6-N6	-7.73	113.96	118.60
1	X	2867	G	N1-C6-O6	7.72	124.53	119.90
1	X	1340	C	N3-C4-C5	-7.72	118.81	121.90
1	X	1153	A	C8-N9-C1'	-7.72	113.80	127.70
1	X	596	C	N3-C4-C5	-7.71	118.82	121.90
1	X	1285	A	O5'-P-OP2	-7.67	98.80	105.70
1	X	2693	U	N1-C2-O2	-7.67	117.44	122.80
1	X	2693	U	C2-N1-C1'	-7.65	108.52	117.70
1	X	2591	C	N3-C4-N4	7.64	123.35	118.00
1	X	1281	A	O5'-P-OP1	7.64	119.87	110.70
1	X	1656	U	C6-N1-C2	7.64	125.58	121.00
1	X	343	A	N1-C2-N3	7.64	133.12	129.30
1	X	689	A	N7-C8-N9	7.64	117.62	113.80
1	X	996	C	C6-N1-C2	7.63	123.35	120.30
1	X	1663	C	OP1-P-O3'	7.61	121.94	105.20
1	X	2316	G	C4-C5-N7	7.60	113.84	110.80
1	X	689	A	C4-C5-N7	7.59	114.50	110.70
1	X	2005	U	C5-C6-N1	-7.58	118.91	122.70
1	X	1770	U	O4'-C1'-N1	7.54	114.23	108.20
1	X	573	C	C5-C6-N1	-7.53	117.23	121.00
1	X	700	C	C6-N1-C2	-7.52	117.29	120.30
1	X	1472	C	C6-N1-C2	7.51	123.31	120.30
1	X	2433	G	O5'-P-OP1	-7.51	98.94	105.70
1	X	16	G	C8-N9-C4	7.50	109.40	106.40
1	X	833	A	N1-C6-N6	7.49	123.09	118.60
1	X	1562	G	N3-C4-C5	7.48	132.34	128.60
1	X	1153	A	C5-N7-C8	-7.46	100.17	103.90
1	X	1716	G	P-O3'-C3'	7.46	128.65	119.70
1	X	2854	G	N3-C4-C5	7.45	132.33	128.60
1	X	1562	G	N3-C4-N9	-7.45	121.53	126.00
1	X	2690	A	C2-N3-C4	-7.44	106.88	110.60
1	X	765	C	P-O3'-C3'	7.44	128.62	119.70
1	X	1702	C	C6-N1-C2	7.44	123.28	120.30
1	X	2262	C	N1-C2-O2	-7.42	114.45	118.90
1	X	1671	A	OP2-P-O3'	7.42	121.52	105.20
1	X	2655	C	C6-N1-C2	7.41	123.26	120.30
1	X	2408	G	O5'-P-OP1	-7.41	99.03	105.70
9	H	129	LEU	C-N-CA	-7.41	103.19	121.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	787	A	C2-N3-C4	-7.40	106.90	110.60
1	X	996	C	N3-C4-C5	7.39	124.86	121.90
1	X	2595	C	O5'-P-OP1	-7.39	99.05	105.70
1	X	1278	A	C8-N9-C4	-7.38	102.85	105.80
1	X	1442	C	C2-N1-C1'	7.38	126.92	118.80
2	Y	85	G	N3-C4-C5	7.38	132.29	128.60
1	X	762	A	C4-C5-N7	7.38	114.39	110.70
1	X	1882	G	C2-N3-C4	-7.34	108.23	111.90
1	X	2820	C	N3-C4-C5	7.33	124.83	121.90
1	X	1627	C	C6-N1-C2	-7.33	117.37	120.30
1	X	1415	C	N3-C2-O2	-7.32	116.78	121.90
1	X	661	C	C2-N1-C1'	7.31	126.84	118.80
1	X	994	A	C2-N3-C4	7.30	114.25	110.60
1	X	699	G	C5-N7-C8	-7.29	100.65	104.30
1	X	985	G	C4-C5-N7	7.26	113.70	110.80
1	X	1333	G	C8-N9-C4	-7.25	103.50	106.40
1	X	1282	A	C2-N3-C4	-7.25	106.98	110.60
1	X	2820	C	C6-N1-C2	7.24	123.19	120.30
1	X	404	A	N3-C4-N9	7.23	133.18	127.40
1	X	2018	G	C8-N9-C1'	-7.23	117.61	127.00
1	X	2846	G	C4-N9-C1'	-7.22	117.11	126.50
1	X	309	G	C4-C5-N7	7.22	113.69	110.80
1	X	2553	G	C5-N7-C8	-7.21	100.70	104.30
22	U	46	LEU	CA-CB-CG	7.20	131.85	115.30
1	X	1297	A	N1-C6-N6	7.19	122.92	118.60
1	X	1153	A	C4-N9-C1'	7.19	139.24	126.30
1	X	611	C	C2-N1-C1'	7.18	126.70	118.80
1	X	2459	C	N1-C2-O2	-7.18	114.59	118.90
1	X	999	A	N1-C6-N6	-7.18	114.29	118.60
1	X	1407	G	C4-N9-C1'	7.17	135.82	126.50
1	X	1675	C	O5'-P-OP2	7.17	119.30	110.70
1	X	777	A	C8-N9-C4	-7.14	102.94	105.80
1	X	2521	A	O5'-P-OP2	-7.14	99.27	105.70
1	X	1717	A	O5'-P-OP1	-7.14	99.28	105.70
1	X	1333	G	C5-N7-C8	-7.13	100.73	104.30
1	X	1281	A	N1-C2-N3	7.12	132.86	129.30
1	X	343	A	C4-C5-C6	7.11	120.56	117.00
1	X	1979	C	OP1-P-OP2	-7.11	108.93	119.60
1	X	2243	C	N1-C2-O2	-7.11	114.63	118.90
1	X	2478	C	C5-C6-N1	7.10	124.55	121.00
1	X	1006	C	N3-C2-O2	-7.09	116.94	121.90
1	X	799	C	C6-N1-C2	7.08	123.13	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2806	G	C8-N9-C4	-7.08	103.57	106.40
1	X	762	A	C5-N7-C8	-7.08	100.36	103.90
1	X	343	A	C4-N9-C1'	7.07	139.03	126.30
1	X	1690	U	N3-C4-C5	7.07	118.84	114.60
1	X	2697	G	C5-C6-N1	7.06	115.03	111.50
1	X	1283	C	C5-C6-N1	-7.04	117.48	121.00
1	X	787	A	N1-C6-N6	7.02	122.81	118.60
1	X	540	G	C5-N7-C8	-7.02	100.79	104.30
1	X	923	A	C5-C6-N6	-7.01	118.09	123.70
1	X	1229	C	N3-C4-C5	7.00	124.70	121.90
1	X	2668	U	C2-N1-C1'	-7.00	109.31	117.70
1	X	2799	C	C6-N1-C2	-6.99	117.50	120.30
1	X	2419	C	N3-C4-C5	-6.99	119.11	121.90
1	X	2846	G	N7-C8-N9	-6.99	109.61	113.10
1	X	1333	G	C5-C6-N1	-6.99	108.01	111.50
1	X	2827	G	N3-C2-N2	6.99	124.79	119.90
1	X	334	G	N3-C4-C5	-6.98	125.11	128.60
1	X	2045	A	N1-C6-N6	-6.98	114.41	118.60
1	X	1998	A	C8-N9-C4	6.97	108.59	105.80
1	X	2045	A	C5-N7-C8	6.96	107.38	103.90
1	X	334	G	P-O3'-C3'	6.96	128.05	119.70
1	X	661	C	C6-N1-C2	-6.95	117.52	120.30
1	X	2693	U	C5-C6-N1	-6.95	119.22	122.70
1	X	1288	A	C6-C5-N7	-6.95	127.44	132.30
1	X	2409	A	C8-N9-C4	-6.94	103.02	105.80
1	X	1263	G	O5'-P-OP2	-6.94	99.45	105.70
1	X	1668	G	C8-N9-C4	-6.94	103.62	106.40
1	X	2037	A	C8-N9-C4	-6.94	103.02	105.80
1	X	2041	A	N1-C6-N6	6.93	122.76	118.60
1	X	1670	G	N3-C2-N2	6.93	124.75	119.90
1	X	538	A	N3-C4-C5	-6.91	121.96	126.80
1	X	1670	G	N1-C2-N2	-6.91	109.98	116.20
1	X	841	G	C5-C6-N1	-6.89	108.05	111.50
1	X	923	A	C6-C5-N7	-6.89	127.48	132.30
1	X	2543	A	N9-C4-C5	6.89	108.56	105.80
1	X	1991	C	C5-C6-N1	-6.88	117.56	121.00
1	X	1288	A	C8-N9-C1'	-6.87	115.33	127.70
1	X	1757	C	C6-N1-C2	6.87	123.05	120.30
1	X	90	G	N3-C4-C5	-6.87	125.17	128.60
1	X	586	G	C8-N9-C4	6.87	109.15	106.40
1	X	2701	A	C2-N3-C4	-6.86	107.17	110.60
1	X	1750	A	O5'-P-OP1	-6.85	99.53	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2570	C	C6-N1-C2	-6.85	117.56	120.30
1	X	2558	C	N1-C2-O2	-6.84	114.80	118.90
1	X	1153	A	C5-C6-N6	-6.84	118.23	123.70
1	X	2459	C	C6-N1-C1'	6.82	128.98	120.80
1	X	1975	G	N3-C4-N9	6.82	130.09	126.00
1	X	2553	G	N7-C8-N9	6.81	116.51	113.10
1	X	1988	A	N7-C8-N9	-6.81	110.39	113.80
1	X	982	C	C6-N1-C2	-6.80	117.58	120.30
1	X	178	C	C5-C6-N1	-6.79	117.60	121.00
1	X	1467	U	C6-N1-C1'	-6.79	111.70	121.20
1	X	556	A	N1-C6-N6	6.79	122.67	118.60
1	X	1223	G	C4-C5-N7	6.78	113.51	110.80
1	X	1656	U	C2-N3-C4	-6.78	122.94	127.00
1	X	2005	U	O5'-P-OP2	-6.78	99.60	105.70
1	X	50	G	C4-N9-C1'	6.77	135.30	126.50
1	X	1407	G	C6-C5-N7	-6.77	126.34	130.40
1	X	924	C	C2-N1-C1'	6.75	126.23	118.80
1	X	985	G	C6-C5-N7	-6.75	126.35	130.40
1	X	1979	C	O5'-P-OP1	6.75	118.80	110.70
1	X	2554	C	O5'-P-OP1	-6.74	99.63	105.70
1	X	2252	A	N1-C6-N6	-6.74	114.56	118.60
1	X	788	G	P-O3'-C3'	6.73	127.78	119.70
1	X	1030	U	C2-N3-C4	-6.73	122.96	127.00
1	X	1716	G	C8-N9-C4	-6.73	103.71	106.40
1	X	774	A	C4-C5-N7	6.73	114.06	110.70
1	X	1975	G	P-O3'-C3'	6.72	127.76	119.70
1	X	2030	U	OP1-P-O3'	6.71	119.97	105.20
1	X	2033	C	C6-N1-C2	-6.71	117.61	120.30
1	X	1770	U	C5-C6-N1	-6.71	119.35	122.70
1	X	918	A	N1-C6-N6	-6.70	114.58	118.60
1	X	2697	G	C2-N3-C4	6.70	115.25	111.90
1	X	2540	A	O4'-C1'-N9	6.69	113.55	108.20
1	X	2827	G	N1-C6-O6	-6.68	115.89	119.90
1	X	1223	G	C6-C5-N7	-6.68	126.39	130.40
1	X	1991	C	OP2-P-O3'	6.67	119.87	105.20
1	X	2596	C	C5-C6-N1	-6.67	117.67	121.00
1	X	2582	G	C4-N9-C1'	6.66	135.15	126.50
1	X	2846	G	O4'-C1'-N9	6.66	113.53	108.20
1	X	1391	A	P-O3'-C3'	6.65	127.68	119.70
1	X	968	C	C5-C6-N1	6.63	124.32	121.00
1	X	689	A	C6-C5-N7	-6.63	127.66	132.30
1	X	796	A	C2-N3-C4	-6.63	107.29	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	596	C	C6-N1-C2	-6.62	117.65	120.30
1	X	1237	G	N3-C4-N9	6.62	129.97	126.00
1	X	540	G	N7-C8-N9	6.62	116.41	113.10
1	X	2044	G	O5'-P-OP2	-6.62	99.74	105.70
1	X	558	G	N3-C4-C5	-6.62	125.29	128.60
1	X	2474	G	N3-C4-N9	6.61	129.97	126.00
1	X	2769	C	C2-N1-C1'	-6.60	111.54	118.80
1	X	343	A	C6-C5-N7	-6.59	127.69	132.30
1	X	404	A	C6-C5-N7	-6.59	127.69	132.30
1	X	522	G	O4'-C1'-N9	6.59	113.47	108.20
1	X	2225	G	N3-C4-C5	-6.59	125.30	128.60
2	Y	85	G	N3-C4-N9	-6.59	122.05	126.00
1	X	2796	A	O5'-P-OP2	-6.59	99.77	105.70
1	X	2766	U	C6-N1-C2	6.58	124.95	121.00
1	X	833	A	C4-C5-N7	6.58	113.99	110.70
1	X	543	G	O5'-P-OP1	-6.58	99.78	105.70
1	X	2751	C	C6-N1-C2	6.57	122.93	120.30
1	X	2046	C	N1-C2-O2	-6.57	114.96	118.90
1	X	558	G	C2-N3-C4	6.56	115.18	111.90
1	X	1709	U	N3-C2-O2	-6.56	117.61	122.20
1	X	2543	A	N1-C6-N6	-6.56	114.67	118.60
1	X	803	C	C6-N1-C2	-6.56	117.68	120.30
1	X	2043	A	O4'-C1'-N9	6.56	113.45	108.20
1	X	1670	G	N1-C6-O6	-6.55	115.97	119.90
1	X	815	A	O5'-P-OP2	-6.55	99.81	105.70
1	X	1697	U	C6-N1-C1'	-6.55	112.03	121.20
1	X	2701	A	C5-C6-N1	-6.55	114.43	117.70
1	X	773	G	C8-N9-C4	6.55	109.02	106.40
1	X	1001	A	C8-N9-C4	-6.54	103.18	105.80
1	X	2825	A	N1-C6-N6	6.53	122.52	118.60
1	X	1466	C	C2-N1-C1'	6.53	125.98	118.80
1	X	1757	C	C5-C6-N1	-6.53	117.74	121.00
1	X	2474	G	N3-C4-C5	-6.53	125.34	128.60
1	X	1770	U	C5-C4-O4	6.52	129.81	125.90
1	X	2601	C	N1-C2-O2	-6.52	114.99	118.90
1	X	2850	U	O5'-P-OP1	-6.51	99.84	105.70
1	X	1030	U	C5-C4-O4	-6.51	121.99	125.90
1	X	1282	A	N9-C4-C5	-6.51	103.20	105.80
1	X	841	G	O4'-C1'-N9	6.50	113.40	108.20
1	X	1981	A	N1-C6-N6	6.49	122.49	118.60
1	X	1291	G	C8-N9-C4	6.49	109.00	106.40
1	X	1629	G	N1-C6-O6	-6.49	116.01	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2478	C	C6-N1-C2	-6.49	117.70	120.30
1	X	1670	G	C5-N7-C8	6.49	107.54	104.30
1	X	2815	C	C6-N1-C2	6.48	122.89	120.30
1	X	2827	G	N3-C4-N9	6.48	129.89	126.00
1	X	1770	U	C4-C5-C6	6.47	123.58	119.70
1	X	1992	G	OP1-P-OP2	-6.47	109.89	119.60
1	X	2845	C	N1-C2-O2	-6.47	115.02	118.90
1	X	501	G	C4-C5-N7	-6.46	108.22	110.80
1	X	1009	C	C5-C6-N1	-6.46	117.77	121.00
1	X	2819	G	N3-C4-C5	-6.46	125.37	128.60
1	X	1690	U	C5-C4-O4	-6.45	122.03	125.90
1	X	2668	U	N1-C2-O2	-6.45	118.29	122.80
1	X	1975	G	O4'-C1'-N9	-6.45	103.04	108.20
1	X	2820	C	C5-C6-N1	-6.45	117.78	121.00
1	X	661	C	N3-C2-O2	-6.43	117.40	121.90
1	X	1974	U	C4-C5-C6	6.43	123.56	119.70
1	X	174	A	C6-N1-C2	-6.43	114.74	118.60
1	X	2662	C	C5-C6-N1	6.43	124.22	121.00
1	X	1223	G	C5-N7-C8	-6.43	101.09	104.30
1	X	469	G	P-O3'-C3'	6.42	127.40	119.70
1	X	582	G	N1-C6-O6	-6.41	116.05	119.90
1	X	2837	G	O5'-P-OP1	-6.41	99.93	105.70
1	X	334	G	N1-C6-O6	-6.41	116.06	119.90
1	X	538	A	N9-C4-C5	6.40	108.36	105.80
1	X	1974	U	N1-C2-O2	-6.40	118.32	122.80
1	X	1979	C	C4-C5-C6	-6.39	114.20	117.40
1	X	2854	G	N7-C8-N9	6.39	116.30	113.10
1	X	2474	G	C2-N3-C4	6.39	115.09	111.90
1	X	1344	C	N1-C2-O2	6.38	122.72	118.90
1	X	174	A	N1-C6-N6	-6.37	114.78	118.60
1	X	579	G	N1-C6-O6	-6.37	116.08	119.90
1	X	1663	C	N1-C2-O2	6.37	122.72	118.90
1	X	803	C	C5-C6-N1	6.35	124.18	121.00
1	X	1141	U	P-O3'-C3'	6.35	127.32	119.70
1	X	1634	A	O5'-P-OP2	-6.35	99.98	105.70
1	X	1442	C	C6-N1-C1'	-6.35	113.18	120.80
1	X	954	U	O5'-P-OP2	6.34	118.31	110.70
1	X	2795	A	P-O3'-C3'	6.34	127.31	119.70
1	X	928	G	C6-C5-N7	-6.34	126.60	130.40
1	X	1670	G	N9-C4-C5	-6.34	102.86	105.40
1	X	542	A	N3-C4-C5	6.34	131.24	126.80
1	X	2712	G	N3-C2-N2	6.34	124.34	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2867	G	C4-C5-N7	6.34	113.33	110.80
1	X	24	G	O5'-P-OP1	-6.32	100.01	105.70
1	X	2667	C	C6-N1-C2	6.32	122.83	120.30
1	X	1415	C	N1-C2-O2	6.32	122.69	118.90
1	X	1467	U	C5-C6-N1	-6.32	119.54	122.70
1	X	2531	U	C5-C6-N1	-6.31	119.55	122.70
1	X	1349	A	C5-C6-N1	6.31	120.86	117.70
12	K	30	ARG	NE-CZ-NH1	-6.31	117.15	120.30
1	X	771	C	C2-N3-C4	-6.30	116.75	119.90
1	X	2660	C	C5-C6-N1	-6.30	117.85	121.00
1	X	2553	G	N3-C4-N9	-6.29	122.22	126.00
1	X	765	C	C2-N1-C1'	6.29	125.72	118.80
1	X	2487	G	N1-C6-O6	-6.29	116.13	119.90
1	X	1280	U	O5'-P-OP2	-6.28	100.05	105.70
1	X	404	A	C4-N9-C1'	6.27	137.59	126.30
1	X	985	G	C5-N7-C8	-6.27	101.16	104.30
1	X	1750	A	C6-N1-C2	-6.27	114.84	118.60
1	X	350	U	O5'-P-OP2	-6.27	100.06	105.70
1	X	528	G	C8-N9-C4	-6.27	103.89	106.40
1	X	2049	C	C6-N1-C2	-6.27	117.79	120.30
1	X	796	A	C5-C6-N1	-6.27	114.57	117.70
1	X	841	G	N9-C1'-C2'	6.27	122.14	114.00
1	X	1746	A	C8-N9-C4	-6.26	103.30	105.80
1	X	174	A	C4-C5-N7	-6.26	107.57	110.70
2	Y	84	G	C8-N9-C4	6.25	108.90	106.40
1	X	983	G	C8-N9-C4	-6.25	103.90	106.40
1	X	1474	A	N1-C6-N6	-6.25	114.85	118.60
1	X	1724	C	C6-N1-C2	6.25	122.80	120.30
1	X	2433	G	C4-C5-N7	-6.25	108.30	110.80
1	X	2468	G	C5-C6-N1	6.25	114.62	111.50
1	X	559	C	N3-C2-O2	-6.24	117.53	121.90
1	X	2701	A	N1-C2-N3	6.24	132.42	129.30
1	X	1333	G	N9-C4-C5	6.24	107.90	105.40
1	X	2712	G	N1-C2-N2	-6.23	110.59	116.20
1	X	691	C	C2-N3-C4	-6.23	116.79	119.90
1	X	803	C	C2-N1-C1'	6.23	125.65	118.80
1	X	956	A	C4-C5-N7	6.23	113.81	110.70
1	X	974	U	N3-C4-O4	6.22	123.76	119.40
1	X	1407	G	N7-C8-N9	6.22	116.21	113.10
1	X	2056	C	N1-C2-O2	-6.21	115.17	118.90
1	X	2841	U	P-O3'-C3'	6.21	127.15	119.70
1	X	1468	A	N9-C4-C5	6.21	108.28	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	994	A	N3-C4-C5	-6.20	122.46	126.80
1	X	1222	G	N3-C4-C5	-6.20	125.50	128.60
1	X	1963	G	N3-C4-C5	-6.20	125.50	128.60
1	X	1274	C	C6-N1-C2	6.20	122.78	120.30
1	X	2701	A	C5-C6-N6	6.20	128.66	123.70
1	X	805	G	O5'-P-OP2	-6.19	100.13	105.70
1	X	2262	C	C6-N1-C1'	6.19	128.23	120.80
1	X	2668	U	C2-N3-C4	-6.19	123.29	127.00
1	X	1288	A	N1-C6-N6	6.19	122.31	118.60
1	X	2553	G	C4-C5-N7	6.18	113.27	110.80
1	X	1665	C	O5'-P-OP1	6.18	118.11	110.70
1	X	2590	U	N1-C2-O2	6.17	127.12	122.80
1	X	992	A	N1-C6-N6	-6.16	114.90	118.60
1	X	1682	A	N1-C2-N3	6.16	132.38	129.30
1	X	16	G	N7-C8-N9	-6.16	110.02	113.10
1	X	2671	C	O5'-P-OP2	-6.16	100.16	105.70
1	X	1472	C	C4-C5-C6	-6.15	114.33	117.40
1	X	991	A	N1-C6-N6	6.14	122.29	118.60
1	X	831	G	C8-N9-C1'	-6.13	119.03	127.00
1	X	2488	G	C5-C6-O6	-6.12	124.92	128.60
1	X	1467	U	N1-C2-N3	-6.12	111.23	114.90
1	X	2487	G	C5-C6-N1	6.12	114.56	111.50
1	X	1984	A	O5'-P-OP2	6.12	118.04	110.70
1	X	2035	G	C4-C5-N7	-6.12	108.35	110.80
1	X	572	G	C4-N9-C1'	6.11	134.44	126.50
1	X	2488	G	N9-C4-C5	-6.11	102.96	105.40
1	X	2693	U	C6-N1-C1'	6.11	129.75	121.20
1	X	780	U	C5-C6-N1	-6.11	119.65	122.70
1	X	2590	U	C2-N1-C1'	6.11	125.03	117.70
1	X	2827	G	N3-C4-C5	-6.10	125.55	128.60
1	X	1288	A	N7-C8-N9	6.10	116.85	113.80
1	X	2371	A	N7-C8-N9	6.10	116.85	113.80
1	X	581	A	C5-C6-N1	6.10	120.75	117.70
1	X	843	G	N1-C6-O6	6.10	123.56	119.90
1	X	2846	G	OP1-P-O3'	6.09	118.60	105.20
1	X	2488	G	C4-C5-N7	6.09	113.23	110.80
1	X	987	G	O5'-P-OP1	-6.08	100.22	105.70
1	X	1670	G	N3-C4-N9	6.08	129.65	126.00
1	X	2535	C	N1-C2-O2	6.08	122.55	118.90
1	X	343	A	N9-C1'-C2'	6.07	121.89	114.00
1	X	1668	G	N7-C8-N9	6.07	116.14	113.10
1	X	404	A	N3-C4-C5	-6.07	122.55	126.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1467	U	O4'-C1'-N1	-6.07	103.34	108.20
1	X	1562	G	C4-N9-C1'	-6.07	118.61	126.50
1	X	1682	A	C4-N9-C1'	6.07	137.22	126.30
1	X	2371	A	C8-N9-C4	-6.06	103.38	105.80
1	X	321	A	O4'-C1'-N9	6.05	113.04	108.20
1	X	1746	A	N9-C4-C5	6.05	108.22	105.80
1	X	2190	A	O4'-C1'-N9	6.05	113.04	108.20
1	X	2867	G	C5-C6-O6	-6.05	124.97	128.60
1	X	833	A	C5-C6-N6	-6.05	118.86	123.70
1	X	1407	G	C8-N9-C1'	-6.04	119.14	127.00
1	X	1278	A	C5-C6-N1	-6.04	114.68	117.70
1	X	25	U	C6-N1-C2	-6.04	117.38	121.00
15	N	33	ARG	NE-CZ-NH1	-6.04	117.28	120.30
1	X	2543	A	C8-N9-C4	-6.03	103.39	105.80
1	X	655	A	P-O3'-C3'	6.03	126.94	119.70
1	X	1992	G	N7-C8-N9	-6.03	110.09	113.10
1	X	1466	C	N3-C2-O2	-6.03	117.68	121.90
1	X	2582	G	N3-C4-N9	6.03	129.62	126.00
1	X	2827	G	C2-N3-C4	6.02	114.91	111.90
24	W	36	ASP	C-N-CA	6.02	136.76	121.70
1	X	786	U	C5-C6-N1	-6.02	119.69	122.70
1	X	1333	G	N3-C2-N2	-6.02	115.69	119.90
1	X	267	C	C2-N1-C1'	-6.02	112.18	118.80
1	X	2554	C	O5'-P-OP2	6.02	117.92	110.70
1	X	1756	C	C6-N1-C2	6.01	122.71	120.30
1	X	2423	G	N1-C6-O6	-6.01	116.29	119.90
1	X	1288	A	C1'-O4'-C4'	-6.01	105.09	109.90
1	X	1681	A	C8-N9-C4	-6.00	103.40	105.80
1	X	1998	A	N7-C8-N9	-6.00	110.80	113.80
3	A	215	LEU	CA-CB-CG	-5.99	101.52	115.30
1	X	1697	U	C2-N1-C1'	5.98	124.88	117.70
1	X	834	A	C2-N3-C4	-5.98	107.61	110.60
1	X	1660	G	N1-C6-O6	-5.97	116.32	119.90
1	X	2274	C	C2-N1-C1'	5.97	125.37	118.80
1	X	2419	C	C5-C6-N1	5.97	123.99	121.00
1	X	2565	C	OP1-P-O3'	5.97	118.34	105.20
1	X	2026	C	C6-N1-C2	-5.97	117.91	120.30
1	X	501	G	N9-C4-C5	5.96	107.79	105.40
1	X	579	G	C5-C6-O6	5.96	132.18	128.60
2	Y	85	G	C2-N3-C4	-5.96	108.92	111.90
1	X	555	U	C5-C6-N1	-5.96	119.72	122.70
1	X	765	C	OP2-P-O3'	5.96	118.31	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1748	U	C5-C6-N1	-5.96	119.72	122.70
1	X	1997	A	C8-N9-C4	5.96	108.18	105.80
2	Y	14	C	C6-N1-C2	-5.95	117.92	120.30
1	X	1468	A	C6-N1-C2	-5.95	115.03	118.60
1	X	1633	C	C5-C6-N1	-5.95	118.03	121.00
1	X	774	A	N3-C4-C5	5.95	130.96	126.80
1	X	1334	A	O5'-P-OP1	-5.94	100.35	105.70
1	X	2005	U	C2-N3-C4	-5.94	123.43	127.00
1	X	2539	C	C2-N1-C1'	5.94	125.34	118.80
1	X	2792	C	C6-N1-C2	5.94	122.68	120.30
1	X	2576	G	C6-C5-N7	-5.93	126.84	130.40
1	X	1680	U	N3-C4-C5	5.93	118.16	114.60
1	X	2704	U	C6-N1-C2	-5.93	117.44	121.00
1	X	747	A	C8-N9-C4	5.93	108.17	105.80
1	X	2594	U	N3-C2-O2	5.92	126.35	122.20
1	X	2819	G	N3-C4-N9	5.92	129.56	126.00
1	X	1687	C	C4-C5-C6	5.92	120.36	117.40
1	X	2039	G	C8-N9-C4	-5.92	104.03	106.40
1	X	1919	A	C2-N3-C4	-5.92	107.64	110.60
1	X	1928	G	C8-N9-C1'	-5.92	119.31	127.00
1	X	1981	A	C4-C5-C6	5.91	119.96	117.00
1	X	484	G	C8-N9-C4	-5.91	104.03	106.40
1	X	1980	A	O5'-P-OP1	-5.91	100.38	105.70
1	X	1693	A	C8-N9-C4	-5.91	103.44	105.80
1	X	2620	G	C8-N9-C4	5.90	108.76	106.40
1	X	2854	G	O4'-C1'-N9	5.90	112.92	108.20
1	X	2582	G	N3-C4-C5	-5.90	125.65	128.60
1	X	2700	U	O5'-P-OP1	-5.89	100.39	105.70
1	X	1652	G	C4-C5-N7	5.89	113.16	110.80
1	X	1748	U	C6-N1-C2	5.89	124.53	121.00
1	X	2031	A	N1-C2-N3	5.89	132.25	129.30
1	X	2582	G	C8-N9-C1'	-5.89	119.34	127.00
1	X	508	G	C5-C6-O6	-5.89	125.07	128.60
1	X	2229	G	N3-C4-N9	-5.88	122.47	126.00
1	X	2478	C	N3-C4-N4	5.88	122.11	118.00
1	X	2014	A	C6-N1-C2	-5.88	115.08	118.60
19	R	25	LEU	CA-CB-CG	5.87	128.81	115.30
1	X	1979	C	N1-C2-N3	-5.87	115.09	119.20
1	X	501	G	C5-C6-O6	5.87	132.12	128.60
1	X	1670	G	C5-C6-N1	5.86	114.43	111.50
1	X	799	C	C5-C6-N1	-5.86	118.07	121.00
1	X	968	C	C2-N1-C1'	5.86	125.24	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2846	G	C8-N9-C4	5.86	108.74	106.40
1	X	2029	G	OP2-P-O3'	5.86	118.08	105.20
1	X	1983	G	C8-N9-C4	5.85	108.74	106.40
1	X	1289	A	N9-C4-C5	-5.85	103.46	105.80
1	X	2370	G	N1-C6-O6	-5.85	116.39	119.90
1	X	334	G	C2-N3-C4	5.85	114.83	111.90
1	X	587	A	C5-N7-C8	5.85	106.83	103.90
1	X	985	G	N7-C8-N9	5.85	116.03	113.10
1	X	2534	U	C5-C4-O4	-5.85	122.39	125.90
1	X	2660	C	C4-C5-C6	5.84	120.32	117.40
1	X	1278	A	C4-N9-C1'	5.84	136.81	126.30
1	X	2034	A	C5-N7-C8	-5.84	100.98	103.90
1	X	1562	G	C8-N9-C1'	5.84	134.59	127.00
1	X	309	G	C5-C6-O6	-5.83	125.10	128.60
1	X	2597	G	N1-C2-N3	5.83	127.40	123.90
16	O	38	LEU	CA-CB-CG	5.83	128.71	115.30
1	X	1281	A	C4-C5-C6	5.83	119.92	117.00
1	X	830	C	C6-N1-C2	5.83	122.63	120.30
1	X	841	G	N3-C4-N9	5.83	129.50	126.00
1	X	2445	C	C2-N1-C1'	5.83	125.21	118.80
1	X	1014	G	N1-C6-O6	-5.82	116.41	119.90
1	X	1288	A	N9-C1'-C2'	5.82	121.57	114.00
1	X	2650	G	C8-N9-C4	5.82	108.73	106.40
1	X	2662	C	N1-C2-O2	5.82	122.39	118.90
1	X	2316	G	C5-C6-O6	-5.82	125.11	128.60
1	X	2668	U	O5'-P-OP1	-5.81	100.47	105.70
1	X	558	G	N7-C8-N9	5.81	116.01	113.10
1	X	1343	C	C5-C6-N1	5.80	123.90	121.00
1	X	1277	G	OP2-P-O3'	5.80	117.97	105.20
1	X	2009	U	N3-C2-O2	5.80	126.26	122.20
1	X	2655	C	C5-C6-N1	-5.80	118.10	121.00
1	X	2521	A	N1-C6-N6	-5.79	115.13	118.60
1	X	661	C	C5-C6-N1	5.79	123.89	121.00
1	X	1778	U	N3-C2-O2	-5.79	118.15	122.20
1	X	2488	G	C5-C6-N1	5.78	114.39	111.50
1	X	1304	U	C6-N1-C2	5.78	124.47	121.00
1	X	396	U	O4'-C1'-N1	5.77	112.82	108.20
1	X	686	C	N1-C2-O2	-5.77	115.44	118.90
1	X	2371	A	C5-C6-N1	-5.77	114.82	117.70
1	X	924	C	C6-N1-C1'	-5.77	113.88	120.80
1	X	50	G	C8-N9-C4	-5.76	104.10	106.40
1	X	2690	A	P-O3'-C3'	5.76	126.61	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	309	G	C6-C5-N7	-5.76	126.94	130.40
1	X	928	G	N1-C6-O6	5.76	123.36	119.90
1	X	1333	G	C6-N1-C2	5.76	128.55	125.10
1	X	2045	A	C4-C5-N7	-5.76	107.82	110.70
1	X	1302	C	C6-N1-C2	5.75	122.60	120.30
1	X	1975	G	N1-C6-O6	-5.75	116.45	119.90
1	X	1333	G	N7-C8-N9	5.75	115.97	113.10
1	X	492	G	O4'-C1'-N9	5.75	112.80	108.20
1	X	771	C	C5-C6-N1	-5.75	118.13	121.00
1	X	994	A	C6-N1-C2	-5.74	115.16	118.60
1	X	2704	U	O5'-P-OP1	5.74	117.58	110.70
1	X	1217	U	C5-C6-N1	-5.73	119.83	122.70
1	X	2434	G	C4-N9-C1'	5.72	133.94	126.50
1	X	538	A	C6-N1-C2	-5.72	115.17	118.60
1	X	160	C	C6-N1-C2	-5.71	118.02	120.30
1	X	928	G	C5-C6-O6	-5.71	125.17	128.60
1	X	751	G	C8-N9-C4	-5.71	104.12	106.40
1	X	1928	G	C4-N9-C1'	5.70	133.91	126.50
1	X	2535	C	C6-N1-C1'	-5.70	113.96	120.80
1	X	1310	C	N1-C2-O2	-5.70	115.48	118.90
1	X	817	A	C5-C6-N6	-5.70	119.14	123.70
1	X	1284	G	C6-C5-N7	-5.70	126.98	130.40
1	X	1328	C	C6-N1-C2	-5.70	118.02	120.30
1	X	527	C	C2-N1-C1'	5.69	125.06	118.80
1	X	1751	A	C8-N9-C4	5.69	108.08	105.80
1	X	309	G	N1-C6-O6	5.69	123.31	119.90
1	X	1309	G	OP2-P-O3'	5.69	117.71	105.20
1	X	956	A	C6-C5-N7	-5.68	128.32	132.30
1	X	2041	A	N9-C4-C5	-5.68	103.53	105.80
1	X	174	A	C5-N7-C8	5.68	106.74	103.90
1	X	559	C	OP2-P-O3'	5.68	117.69	105.20
1	X	2559	U	C5-C4-O4	-5.68	122.49	125.90
1	X	843	G	C5-C6-O6	-5.67	125.20	128.60
1	X	1690	U	C4-C5-C6	-5.67	116.30	119.70
1	X	1985	G	C2-N3-C4	-5.67	109.06	111.90
1	X	501	G	N3-C2-N2	-5.67	115.93	119.90
1	X	2530	C	C4-C5-C6	5.67	120.23	117.40
1	X	1682	A	N3-C4-N9	5.67	131.93	127.40
1	X	2576	G	N1-C6-O6	5.66	123.30	119.90
1	X	2704	U	C5-C6-N1	5.66	125.53	122.70
1	X	542	A	N1-C2-N3	5.66	132.13	129.30
1	X	1014	G	C8-N9-C4	-5.66	104.14	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1235	C	N1-C2-O2	-5.65	115.51	118.90
1	X	2492	G	O5'-P-OP2	-5.65	100.61	105.70
1	X	2668	U	C6-N1-C2	5.65	124.39	121.00
14	M	104	LEU	CA-CB-CG	5.65	128.30	115.30
1	X	759	C	C5-C6-N1	-5.65	118.18	121.00
1	X	1472	C	C5-C4-N4	-5.64	116.25	120.20
1	X	2766	U	C5-C6-N1	-5.64	119.88	122.70
1	X	2005	U	C2-N1-C1'	-5.64	110.94	117.70
1	X	1308	C	OP2-P-O3'	5.64	117.60	105.20
1	X	2698	G	OP1-P-O3'	5.64	117.60	105.20
1	X	468	A	C8-N9-C4	-5.63	103.55	105.80
1	X	1979	C	N1-C2-O2	5.63	122.28	118.90
1	X	2859	U	N1-C2-N3	5.63	118.28	114.90
1	X	537	C	C6-N1-C1'	-5.63	114.04	120.80
1	X	617	U	C4-C5-C6	5.63	123.08	119.70
1	X	483	A	C4-C5-C6	-5.63	114.19	117.00
1	X	833	A	C5-N7-C8	-5.63	101.09	103.90
1	X	1288	A	C5-N7-C8	-5.62	101.09	103.90
1	X	2597	G	N3-C2-N2	-5.62	115.97	119.90
1	X	404	A	C8-N9-C1'	-5.61	117.60	127.70
2	Y	46	G	N1-C6-O6	-5.61	116.53	119.90
1	X	2688	G	N1-C6-O6	5.60	123.26	119.90
1	X	57	G	C8-N9-C4	-5.60	104.16	106.40
1	X	796	A	OP1-P-OP2	5.60	128.00	119.60
1	X	178	C	C6-N1-C2	5.60	122.54	120.30
1	X	2688	G	C8-N9-C4	5.60	108.64	106.40
1	X	1980	A	OP1-P-OP2	5.60	127.99	119.60
1	X	2854	G	C5-C6-O6	-5.59	125.24	128.60
1	X	465	C	C2-N1-C1'	-5.59	112.65	118.80
1	X	2468	G	N1-C6-O6	-5.59	116.55	119.90
1	X	2609	G	C8-N9-C4	-5.59	104.16	106.40
1	X	1975	G	C4-N9-C1'	5.59	133.76	126.50
1	X	845	U	O5'-P-OP2	-5.58	100.67	105.70
1	X	2637	C	C6-N1-C2	5.58	122.53	120.30
1	X	1919	A	N3-C4-C5	5.58	130.71	126.80
1	X	90	G	N3-C4-N9	5.58	129.35	126.00
1	X	540	G	C5-C6-O6	-5.58	125.25	128.60
1	X	1664	G	O4'-C1'-N9	-5.58	103.74	108.20
1	X	2754	C	C6-N1-C2	-5.58	118.07	120.30
1	X	2579	A	C8-N9-C4	5.57	108.03	105.80
1	X	1343	C	C6-N1-C2	-5.56	118.07	120.30
1	X	954	U	O5'-P-OP1	-5.56	100.70	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2591	C	C5-C4-N4	-5.56	116.31	120.20
1	X	2313	G	N7-C8-N9	5.55	115.88	113.10
1	X	1168	G	N3-C4-N9	5.54	129.33	126.00
1	X	2556	A	N9-C4-C5	5.54	108.02	105.80
1	X	516	G	O4'-C1'-N9	5.54	112.63	108.20
1	X	1475	U	C2-N1-C1'	5.54	124.34	117.70
1	X	2005	U	N1-C2-N3	5.53	118.22	114.90
1	X	2582	G	C6-C5-N7	-5.53	127.08	130.40
1	X	2593	A	C6-N1-C2	-5.53	115.28	118.60
1	X	581	A	C2-N3-C4	5.53	113.36	110.60
1	X	683	A	P-O3'-C3'	5.53	126.33	119.70
1	X	1278	A	N9-C1'-C2'	5.53	121.19	114.00
1	X	1333	G	C5-C6-O6	5.53	131.92	128.60
1	X	2596	C	C4-C5-C6	5.53	120.16	117.40
1	X	1223	G	C4-N9-C1'	5.53	133.68	126.50
1	X	1237	G	C5-C6-N1	5.53	114.26	111.50
1	X	1168	G	N9-C4-C5	-5.52	103.19	105.40
1	X	2432	A	C6-N1-C2	5.52	121.92	118.60
1	X	579	G	C4-C5-N7	-5.52	108.59	110.80
1	X	1153	A	N7-C8-N9	5.52	116.56	113.80
1	X	1976	U	N1-C2-N3	5.52	118.21	114.90
1	X	1690	U	P-O3'-C3'	5.51	126.32	119.70
1	X	309	G	C5-N7-C8	-5.51	101.55	104.30
1	X	467	U	O4'-C1'-N1	5.51	112.61	108.20
1	X	2313	G	C8-N9-C4	-5.51	104.20	106.40
1	X	358	C	C6-N1-C2	-5.51	118.10	120.30
1	X	611	C	C6-N1-C1'	-5.50	114.20	120.80
1	X	1658	A	C2-N3-C4	-5.50	107.85	110.60
1	X	1032	A	C2-N3-C4	-5.49	107.86	110.60
1	X	1234	C	C6-N1-C2	5.49	122.50	120.30
1	X	1295	U	N1-C2-N3	5.49	118.19	114.90
1	X	985	G	N1-C6-O6	5.49	123.19	119.90
1	X	967	G	C4-C5-C6	5.48	122.09	118.80
1	X	1961	A	C8-N9-C4	-5.48	103.61	105.80
1	X	1682	A	N3-C4-C5	-5.47	122.97	126.80
1	X	2189	A	C8-N9-C4	-5.47	103.61	105.80
1	X	1264	C	O5'-P-OP1	-5.47	100.77	105.70
1	X	683	A	O4'-C1'-N9	-5.47	103.82	108.20
1	X	583	C	N3-C4-C5	-5.47	119.71	121.90
1	X	2531	U	C4-C5-C6	5.47	122.98	119.70
1	X	800	U	O5'-P-OP1	5.47	117.26	110.70
1	X	956	A	C5-N7-C8	-5.47	101.17	103.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1155	G	C8-N9-C4	5.46	108.58	106.40
1	X	1780	A	N1-C6-N6	5.46	121.88	118.60
1	X	343	A	C2-N3-C4	-5.46	107.87	110.60
1	X	342	G	N3-C4-C5	-5.46	125.87	128.60
1	X	1266	G	O5'-P-OP2	-5.46	100.79	105.70
1	X	2846	G	P-O3'-C3'	5.46	126.25	119.70
1	X	323	G	C4-C5-N7	5.46	112.98	110.80
1	X	1997	A	C5-C6-N1	-5.46	114.97	117.70
1	X	26	G	C8-N9-C4	-5.46	104.22	106.40
1	X	994	A	N9-C4-C5	5.45	107.98	105.80
1	X	1473	U	N3-C2-O2	5.45	126.02	122.20
1	X	2472	U	O5'-P-OP1	-5.45	100.79	105.70
1	X	2662	C	C2-N3-C4	5.45	122.63	119.90
2	Y	85	G	C5-C6-N1	-5.45	108.77	111.50
1	X	1582	A	N1-C6-N6	-5.45	115.33	118.60
1	X	813	A	C2-N3-C4	-5.44	107.88	110.60
1	X	1282	A	C6-C5-N7	-5.44	128.49	132.30
1	X	2559	U	N3-C4-C5	5.44	117.86	114.60
1	X	178	C	C2-N1-C1'	-5.44	112.82	118.80
1	X	499	G	N3-C4-N9	5.43	129.26	126.00
1	X	1475	U	O4'-C1'-N1	-5.43	103.85	108.20
1	X	1643	A	C8-N9-C4	5.43	107.97	105.80
1	X	1333	G	C4-N9-C1'	-5.43	119.44	126.50
1	X	572	G	C8-N9-C1'	-5.43	119.94	127.00
1	X	1760	G	O5'-P-OP2	-5.43	100.81	105.70
1	X	1277	G	C8-N9-C4	5.43	108.57	106.40
1	X	2828	C	N3-C4-C5	5.43	124.07	121.90
1	X	994	A	C8-N9-C4	-5.43	103.63	105.80
1	X	968	C	N1-C2-O2	5.43	122.16	118.90
1	X	1759	A	O5'-P-OP2	-5.43	100.82	105.70
1	X	1475	U	C5-C6-N1	5.42	125.41	122.70
1	X	404	A	C4-C5-C6	5.42	119.71	117.00
1	X	1349	A	C2-N3-C4	5.42	113.31	110.60
1	X	1935	A	N1-C6-N6	-5.42	115.35	118.60
1	X	2478	C	C2-N1-C1'	5.42	124.76	118.80
3	A	257	LEU	CA-CB-CG	-5.42	102.84	115.30
1	X	1681	A	N7-C8-N9	5.42	116.51	113.80
1	X	1977	C	C4-C5-C6	-5.41	114.69	117.40
1	X	2523	G	N7-C8-N9	5.41	115.81	113.10
1	X	540	G	N3-C2-N2	5.41	123.69	119.90
1	X	2507	U	N3-C2-O2	-5.41	118.41	122.20
1	X	2854	G	N1-C6-O6	5.40	123.14	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	404	A	C6-N1-C2	-5.40	115.36	118.60
1	X	662	G	N1-C6-O6	5.40	123.14	119.90
1	X	796	A	C6-C5-N7	-5.40	128.52	132.30
1	X	2445	C	N3-C4-C5	-5.40	119.74	121.90
1	X	1313	U	O5'-P-OP2	-5.39	100.84	105.70
1	X	1630	A	C5-C6-N6	5.39	128.01	123.70
1	X	518	A	OP2-P-O3'	5.39	117.06	105.20
1	X	806	A	N1-C2-N3	5.39	132.00	129.30
1	X	1023	U	P-O3'-C3'	5.39	126.17	119.70
1	X	267	C	C6-N1-C1'	5.39	127.26	120.80
1	X	1211	G	O5'-P-OP2	-5.39	100.85	105.70
1	X	962	C	C5-C6-N1	-5.38	118.31	121.00
1	X	2846	G	N9-C1'-C2'	-5.38	106.08	112.00
1	X	501	G	N3-C4-N9	-5.38	122.78	126.00
1	X	1295	U	N1-C2-O2	-5.38	119.04	122.80
1	X	1407	G	N1-C6-O6	5.37	123.12	119.90
1	X	540	G	C4-N9-C1'	5.37	133.48	126.50
1	X	918	A	N9-C4-C5	5.37	107.95	105.80
1	X	2700	U	OP1-P-O3'	5.37	117.01	105.20
1	X	1753	A	C8-N9-C4	-5.37	103.65	105.80
1	X	1682	A	C5-C6-N6	-5.36	119.41	123.70
1	X	1974	U	OP1-P-O3'	5.36	117.00	105.20
1	X	2018	G	N3-C4-C5	5.36	131.28	128.60
1	X	2796	A	N1-C6-N6	-5.36	115.38	118.60
1	X	1665	C	C5-C6-N1	-5.36	118.32	121.00
1	X	2433	G	N1-C6-O6	-5.36	116.69	119.90
1	X	2706	U	N3-C2-O2	5.36	125.95	122.20
1	X	2766	U	N3-C2-O2	5.35	125.95	122.20
1	X	1708	C	C5-C6-N1	-5.35	118.32	121.00
1	X	538	A	C4-C5-C6	5.35	119.67	117.00
1	X	2480	C	C6-N1-C1'	5.35	127.22	120.80
1	X	498	C	N3-C2-O2	-5.34	118.16	121.90
1	X	2039	G	N9-C4-C5	5.34	107.54	105.40
1	X	1574	A	O4'-C1'-N9	5.34	112.47	108.20
1	X	2485	U	N3-C2-O2	-5.34	118.46	122.20
1	X	773	G	N9-C4-C5	-5.34	103.27	105.40
1	X	2485	U	N1-C2-O2	5.33	126.53	122.80
1	X	1469	U	O4'-C1'-N1	5.33	112.47	108.20
1	X	2397	A	N9-C4-C5	-5.33	103.67	105.80
1	X	499	G	C5-N7-C8	5.33	106.96	104.30
1	X	1474	A	N9-C4-C5	5.33	107.93	105.80
1	X	869	C	N1-C2-O2	-5.32	115.71	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1344	C	N3-C2-O2	-5.32	118.17	121.90
1	X	1281	A	OP2-P-O3'	5.32	116.90	105.20
1	X	1223	G	N7-C8-N9	5.32	115.76	113.10
1	X	2807	U	C2-N1-C1'	5.32	124.08	117.70
1	X	923	A	C5-N7-C8	-5.31	101.25	103.90
1	X	1473	U	N1-C2-O2	-5.31	119.08	122.80
1	X	1923	U	P-O3'-C3'	5.31	126.07	119.70
1	X	804	C	N3-C2-O2	-5.31	118.19	121.90
1	X	465	C	C5-C6-N1	-5.30	118.35	121.00
1	X	1766	U	C5-C4-O4	-5.30	122.72	125.90
1	X	1287	A	O5'-P-OP1	-5.30	100.93	105.70
1	X	555	U	N1-C2-N3	5.30	118.08	114.90
1	X	2029	G	C4-N9-C1'	5.30	133.39	126.50
1	X	1284	G	N1-C2-N2	-5.30	111.43	116.20
1	X	1963	G	C8-N9-C4	-5.30	104.28	106.40
1	X	817	A	N1-C6-N6	5.30	121.78	118.60
1	X	2622	G	C8-N9-C4	5.30	108.52	106.40
1	X	953	G	OP2-P-O3'	5.29	116.85	105.20
1	X	1629	G	N3-C4-C5	-5.29	125.95	128.60
1	X	2421	C	C6-N1-C2	-5.29	118.18	120.30
1	X	2423	G	C6-N1-C2	-5.29	121.92	125.10
1	X	1283	C	N3-C4-C5	-5.29	119.78	121.90
1	X	651	C	C6-N1-C2	5.29	122.42	120.30
1	X	2523	G	N9-C4-C5	5.28	107.51	105.40
1	X	632	A	C2-N3-C4	-5.28	107.96	110.60
1	X	2461	G	C4-N9-C1'	5.28	133.37	126.50
1	X	1030	U	N3-C4-C5	5.28	117.77	114.60
1	X	1237	G	N3-C4-C5	-5.28	125.96	128.60
1	X	2617	G	N1-C6-O6	-5.28	116.73	119.90
1	X	1304	U	C5-C6-N1	-5.28	120.06	122.70
1	X	2057	U	N3-C2-O2	-5.27	118.51	122.20
1	X	50	G	N3-C4-C5	-5.27	125.96	128.60
1	X	2011	U	C4-C5-C6	5.27	122.86	119.70
1	X	1982	C	C4-C5-C6	5.27	120.03	117.40
1	X	2848	A	C8-N9-C4	-5.27	103.69	105.80
10	I	56	LEU	CA-CB-CG	5.27	127.42	115.30
1	X	1205	G	N7-C8-N9	-5.27	110.47	113.10
1	X	2439	U	C5-C6-N1	5.27	125.33	122.70
1	X	766	A	C5-C6-N1	5.26	120.33	117.70
1	X	1297	A	C5-C6-N1	-5.26	115.07	117.70
1	X	2559	U	C6-N1-C1'	-5.26	113.84	121.20
1	X	174	A	N9-C4-C5	5.25	107.90	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1407	G	C4-C5-N7	5.25	112.90	110.80
1	X	1665	C	C4-C5-C6	5.25	120.03	117.40
1	X	520	C	N3-C2-O2	-5.25	118.23	121.90
1	X	745	C	N1-C2-O2	-5.25	115.75	118.90
1	X	1001	A	N9-C4-C5	5.25	107.90	105.80
1	X	1980	A	C4-C5-N7	-5.25	108.08	110.70
1	X	2409	A	N7-C8-N9	5.25	116.42	113.80
1	X	2475	C	C6-N1-C2	-5.25	118.20	120.30
1	X	1661	C	C6-N1-C2	-5.24	118.20	120.30
1	X	1949	A	O4'-C1'-N9	5.24	112.39	108.20
1	X	2562	G	C6-C5-N7	5.24	133.54	130.40
1	X	2008	C	C6-N1-C2	-5.24	118.20	120.30
1	X	2540	A	O5'-P-OP2	-5.24	100.99	105.70
1	X	831	G	OP1-P-O3'	5.23	116.71	105.20
1	X	2037	A	N7-C8-N9	5.23	116.42	113.80
1	X	2274	C	N1-C2-O2	5.23	122.04	118.90
1	X	1356	G	C4-N9-C1'	5.23	133.30	126.50
1	X	1681	A	O4'-C1'-N9	-5.23	104.02	108.20
1	X	1769	U	O5'-P-OP2	-5.23	100.99	105.70
1	X	2681	A	C4-C5-N7	5.23	113.31	110.70
1	X	1294	G	C8-N9-C4	5.22	108.49	106.40
1	X	1672	A	C4-C5-C6	5.22	119.61	117.00
1	X	2827	G	C5-C6-N1	5.22	114.11	111.50
1	X	506	G	OP2-P-O3'	5.22	116.68	105.20
1	X	700	C	C5-C6-N1	5.22	123.61	121.00
1	X	773	G	N3-C4-C5	5.22	131.21	128.60
1	X	2807	U	C6-N1-C1'	-5.22	113.89	121.20
1	X	2468	G	C6-N1-C2	-5.22	121.97	125.10
1	X	581	A	N1-C6-N6	-5.21	115.47	118.60
1	X	591	G	C8-N9-C4	5.21	108.48	106.40
1	X	2233	C	C6-N1-C2	5.21	122.38	120.30
1	X	518	A	N7-C8-N9	5.21	116.41	113.80
1	X	957	G	N1-C6-O6	-5.21	116.77	119.90
1	X	1279	G	OP1-P-O3'	5.21	116.66	105.20
1	X	1283	C	N1-C2-O2	-5.21	115.77	118.90
1	X	527	C	N1-C2-O2	5.21	122.03	118.90
1	X	777	A	N7-C8-N9	5.21	116.41	113.80
1	X	2433	G	O5'-P-OP2	5.21	116.95	110.70
2	Y	14	C	C2-N1-C1'	5.21	124.53	118.80
1	X	525	A	C8-N9-C4	-5.21	103.72	105.80
1	X	560	G	C4-C5-N7	5.21	112.88	110.80
1	X	796	A	N1-C6-N6	5.21	121.72	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2695	C	N1-C2-O2	-5.21	115.78	118.90
1	X	25	U	N1-C2-N3	5.20	118.02	114.90
1	X	2491	C	C5-C4-N4	-5.20	116.56	120.20
1	X	2501	U	N3-C2-O2	-5.20	118.56	122.20
1	X	1687	C	C5-C6-N1	-5.20	118.40	121.00
1	X	1982	C	OP2-P-O3'	5.20	116.63	105.20
1	X	1050	G	C4-N9-C1'	5.20	133.25	126.50
1	X	2493	U	C2-N1-C1'	-5.20	111.47	117.70
1	X	1770	U	C2-N1-C1'	-5.19	111.47	117.70
1	X	1871	G	O4'-C1'-N9	5.19	112.35	108.20
1	X	2039	G	N1-C2-N3	5.19	127.02	123.90
1	X	2624	G	C5-N7-C8	-5.19	101.70	104.30
2	Y	51	G	C6-C5-N7	5.19	133.52	130.40
1	X	2826	C	N3-C2-O2	5.19	125.53	121.90
1	X	1663	C	C6-N1-C2	5.19	122.38	120.30
1	X	968	C	C2-N3-C4	5.19	122.49	119.90
1	X	2703	C	OP2-P-O3'	5.18	116.61	105.20
1	X	2559	U	C2-N1-C1'	5.18	123.92	117.70
1	X	2864	C	C4-C5-C6	5.18	119.99	117.40
1	X	518	A	C8-N9-C4	-5.18	103.73	105.80
1	X	2697	G	C6-N1-C2	-5.18	121.99	125.10
1	X	2792	C	OP1-P-O3'	5.18	116.59	105.20
1	X	1938	U	C2-N1-C1'	-5.18	111.49	117.70
1	X	2859	U	C6-N1-C2	-5.18	117.89	121.00
1	X	2589	C	N3-C4-C5	5.18	123.97	121.90
1	X	1676	U	C5-C6-N1	-5.17	120.12	122.70
1	X	1928	G	N3-C4-N9	5.17	129.10	126.00
1	X	343	A	C5-N7-C8	-5.17	101.32	103.90
1	X	1977	C	N3-C4-C5	5.17	123.97	121.90
1	X	2481	G	C8-N9-C4	-5.17	104.33	106.40
1	X	13	A	C8-N9-C4	-5.16	103.74	105.80
1	X	877	G	C5-C6-N1	5.15	114.08	111.50
1	X	1375	C	C5-C6-N1	-5.15	118.42	121.00
1	X	2594	U	N3-C4-O4	5.15	123.00	119.40
1	X	967	G	C5-C6-N1	-5.15	108.92	111.50
1	X	1983	G	OP2-P-O3'	5.15	116.53	105.20
1	X	1528	C	C2-N1-C1'	5.15	124.46	118.80
1	X	2189	A	N7-C8-N9	5.14	116.37	113.80
1	X	1969	G	C4-C5-N7	5.14	112.86	110.80
1	X	2665	G	O5'-P-OP1	-5.14	101.08	105.70
1	X	747	A	N1-C6-N6	5.14	121.68	118.60
1	X	2521	A	N9-C4-C5	5.13	107.85	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2474	G	C5-C6-N1	5.13	114.06	111.50
2	Y	70	C	C2-N1-C1'	-5.13	113.16	118.80
1	X	323	G	N9-C4-C5	-5.13	103.35	105.40
1	X	334	G	C4-C5-N7	-5.13	108.75	110.80
1	X	831	G	C8-N9-C4	5.12	108.45	106.40
2	Y	39	C	C2-N1-C1'	5.12	124.44	118.80
1	X	2668	U	N3-C4-O4	-5.12	115.81	119.40
10	I	77	LEU	CA-CB-CG	5.12	127.08	115.30
1	X	705	C	C6-N1-C2	5.12	122.35	120.30
1	X	2229	G	N3-C4-C5	5.12	131.16	128.60
1	X	2813	G	C8-N9-C4	5.12	108.45	106.40
1	X	50	G	C8-N9-C1'	-5.12	120.35	127.00
1	X	787	A	C5-N7-C8	-5.12	101.34	103.90
1	X	1153	A	C3'-C2'-C1'	5.12	105.59	101.50
1	X	2534	U	N3-C4-O4	5.11	122.98	119.40
1	X	985	G	C8-N9-C4	-5.10	104.36	106.40
1	X	938	G	P-O3'-C3'	5.10	125.82	119.70
1	X	982	C	C5-C6-N1	5.10	123.55	121.00
1	X	1629	G	N3-C2-N2	5.10	123.47	119.90
1	X	689	A	N1-C2-N3	5.10	131.85	129.30
1	X	1153	A	C4-C5-C6	5.10	119.55	117.00
1	X	1709	U	N1-C2-O2	5.10	126.37	122.80
1	X	2805	G	O5'-P-OP1	-5.10	101.11	105.70
1	X	2824	C	P-O3'-C3'	5.10	125.82	119.70
1	X	2434	G	N3-C4-C5	-5.10	126.05	128.60
1	X	539	A	C5-C6-N6	-5.09	119.62	123.70
1	X	668	A	O4'-C1'-N9	5.09	112.27	108.20
1	X	1770	U	N1-C2-N3	5.09	117.96	114.90
2	Y	58	G	N3-C4-C5	-5.09	126.06	128.60
1	X	780	U	C6-N1-C2	5.09	124.05	121.00
1	X	780	U	P-O3'-C3'	5.09	125.80	119.70
1	X	2859	U	C4-C5-C6	5.09	122.75	119.70
1	X	200	A	N1-C6-N6	-5.08	115.55	118.60
1	X	1707	A	C2-N3-C4	-5.08	108.06	110.60
1	X	963	G	C8-N9-C4	5.08	108.43	106.40
1	X	2813	G	N9-C4-C5	-5.08	103.37	105.40
1	X	745	C	N3-C4-C5	-5.07	119.87	121.90
1	X	961	G	N1-C6-O6	-5.07	116.86	119.90
1	X	2867	G	C2-N3-C4	-5.07	109.36	111.90
1	X	1965	U	N3-C2-O2	-5.07	118.65	122.20
1	X	582	G	OP2-P-O3'	5.07	116.35	105.20
1	X	803	C	N1-C2-O2	5.07	121.94	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	1712	G	C6-C5-N7	-5.07	127.36	130.40
1	X	2014	A	N1-C2-N3	5.06	131.83	129.30
1	X	1712	G	C4-N9-C1'	5.06	133.08	126.50
1	X	2681	A	C5-N7-C8	-5.06	101.37	103.90
1	X	717	G	O4'-C1'-N9	5.06	112.25	108.20
1	X	2820	C	C2-N3-C4	-5.06	117.37	119.90
1	X	2041	A	C5-C6-N6	-5.06	119.66	123.70
1	X	1750	A	N1-C2-N3	5.05	131.83	129.30
1	X	1704	G	C5-C6-O6	-5.05	125.57	128.60
1	X	1777	A	O4'-C1'-N9	5.05	112.24	108.20
1	X	574	C	C2-N1-C1'	5.05	124.35	118.80
1	X	2316	G	N9-C4-C5	-5.05	103.38	105.40
1	X	2846	G	C5-N7-C8	5.05	106.82	104.30
1	X	762	A	N3-C4-C5	5.04	130.33	126.80
1	X	2479	U	N1-C2-O2	5.04	126.33	122.80
1	X	751	G	N9-C4-C5	5.04	107.42	105.40
1	X	2712	G	N1-C6-O6	-5.04	116.88	119.90
1	X	2846	G	C8-N9-C1'	5.04	133.55	127.00
1	X	2829	A	C5-N7-C8	-5.04	101.38	103.90
1	X	751	G	P-O3'-C3'	5.03	125.74	119.70
1	X	787	A	C4-C5-N7	5.03	113.22	110.70
1	X	1928	G	C6-C5-N7	-5.03	127.38	130.40
1	X	2544	A	C2-N3-C4	5.03	113.12	110.60
1	X	2867	G	C5-N7-C8	-5.03	101.78	104.30
1	X	831	G	N3-C4-N9	5.03	129.02	126.00
1	X	967	G	C6-C5-N7	-5.03	127.38	130.40
1	X	504	G	C4-C5-N7	5.03	112.81	110.80
1	X	586	G	N7-C8-N9	-5.03	110.59	113.10
1	X	1716	G	N1-C6-O6	-5.03	116.89	119.90
1	X	2801	A	OP1-P-O3'	5.03	116.26	105.20
1	X	761	G	O4'-C1'-N9	5.02	112.22	108.20
1	X	1339	U	O5'-P-OP1	5.02	116.73	110.70
1	X	2576	G	C5-C6-O6	-5.02	125.59	128.60
1	X	2461	G	C6-C5-N7	-5.02	127.39	130.40
1	X	2039	G	C6-N1-C2	-5.02	122.09	125.10
1	X	796	A	C4-C5-C6	5.01	119.51	117.00
1	X	1232	U	N3-C4-C5	-5.01	111.59	114.60
1	X	1288	A	C4-C5-C6	5.01	119.51	117.00
1	X	1682	A	C8-N9-C1'	-5.01	118.67	127.70
1	X	2516	U	C5-C6-N1	-5.01	120.19	122.70
1	X	822	G	N9-C4-C5	5.01	107.40	105.40
1	X	2747	C	N3-C4-C5	5.01	123.91	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	2443	C	C6-N1-C2	-5.01	118.30	120.30
1	X	582	G	C2-N3-C4	5.01	114.40	111.90
1	X	1979	C	C2-N3-C4	5.01	122.40	119.90
1	X	2034	A	C4-C5-N7	5.01	113.20	110.70
1	X	2049	C	N1-C2-N3	5.01	122.70	119.20

There are no chirality outliers.

All (21) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	3	49	VAL	Peptide
3	A	247	VAL	Peptide
4	B	129	HIS	Peptide
4	B	131	SER	Peptide
5	C	159	ARG	Peptide
5	C	164	VAL	Peptide
8	G	107	GLN	Peptide
8	G	118	ALA	Peptide
9	H	26	ASN	Peptide
10	I	20	GLY	Peptide
10	I	46	GLY	Peptide
10	I	49	PHE	Peptide
10	I	57	ILE	Peptide
10	I	86	THR	Peptide
11	J	60	ARG	Peptide
11	J	89	GLY	Peptide
14	M	30	GLY	Peptide
17	P	45	ILE	Peptide
19	R	79	SER	Peptide
22	U	12	ASN	Peptide
22	U	46	LEU	Peptide

5.2 Too-close contacts (i)

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	X	58592	0	29522	2975	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	Y	2561	0	1306	154	0
3	A	1976	0	1957	261	0
4	B	1529	0	1578	169	0
5	C	1486	0	1488	284	0
6	D	1353	0	1388	221	0
7	E	1270	0	1310	155	0
8	G	1106	0	1108	134	0
9	H	991	0	1035	122	0
10	I	970	0	940	171	0
11	J	1064	0	1078	176	0
12	K	900	0	953	105	0
13	L	772	0	813	118	0
14	M	885	0	898	123	0
15	N	972	0	1009	126	0
16	O	733	0	725	101	0
17	P	1006	0	1073	122	0
18	Q	712	0	730	79	0
19	R	813	0	859	176	0
20	S	1309	0	1293	158	0
21	T	543	0	553	69	0
22	U	537	0	557	107	0
23	V	490	0	509	39	0
24	W	424	0	470	40	0
25	Z	457	0	464	85	0
26	1	303	0	238	37	0
27	2	376	0	396	43	0
28	3	447	0	465	115	0
29	X	51	0	0	2	0
30	2	1	0	0	0	0
30	A	3	0	0	0	0
30	I	1	0	0	0	0
30	J	2	0	0	0	0
30	K	1	0	0	0	0
30	O	1	0	0	0	0
30	X	320	0	0	0	0
30	Y	16	0	0	0	0
All	All	84973	0	54715	5865	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 42.

All (5865) 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)
8:G:42:VAL:CG1	8:G:166:LEU:HD13	1.32	1.51
8:G:42:VAL:CG1	8:G:166:LEU:CD1	1.88	1.48
8:G:42:VAL:HG11	8:G:166:LEU:CD1	1.56	1.26
8:G:61:ARG:NH1	8:G:166:LEU:HD21	1.49	1.23
1:X:1277:G:OP1	25:Z:19:ARG:NH2	1.73	1.20
12:K:99:ARG:HG2	12:K:99:ARG:HH11	1.07	1.19
4:B:146:THR:HG22	4:B:147:PRO:CD	1.73	1.19
5:C:95:LEU:HD23	5:C:96:PRO:HD2	1.23	1.17
8:G:42:VAL:HG12	8:G:166:LEU:HD13	1.26	1.16
1:X:1007:A:H1'	16:O:6:GLN:HG2	1.28	1.16
8:G:42:VAL:HG13	8:G:166:LEU:CD1	1.72	1.15
3:A:37:LEU:HG	3:A:39:LYS:HG2	1.28	1.15
1:X:552:C:H2'	1:X:553:C:H5"	1.22	1.13
1:X:1034:U:H2'	1:X:1035:G:H5'	1.29	1.12
6:D:75:SER:HB2	6:D:79:LEU:HD13	1.21	1.11
11:J:42:TRP:HB3	11:J:95:VAL:CG1	1.81	1.11
16:O:23:GLU:HB3	16:O:25:LEU:HD13	1.25	1.11
6:D:74:ILE:HG12	6:D:80:ARG:HA	1.31	1.11
3:A:43:ARG:HD2	3:A:49:ILE:HG12	1.31	1.10
8:G:68:PRO:HB2	8:G:70:PHE:CE1	1.87	1.10
22:U:7:LEU:HG	22:U:46:LEU:HD12	1.26	1.10
14:M:98:LYS:H	14:M:98:LYS:HD2	1.09	1.09
25:Z:4:HIS:HB3	25:Z:5:PRO:HD3	1.32	1.09
4:B:2:LYS:HA	4:B:84:PHE:HE1	1.08	1.09
1:X:649:G:H22	1:X:661:C:H1'	1.09	1.09
1:X:1058:G:H2'	1:X:1121:G:H1	1.15	1.09
5:C:22:VAL:HA	5:C:27:LEU:CB	1.81	1.08
19:R:94:VAL:HG22	19:R:104:VAL:HG21	1.23	1.08
5:C:21:GLU:HB3	5:C:24:SER:HB2	1.28	1.08
12:K:55:ALA:HB1	12:K:80:MET:HE3	1.33	1.07
1:X:558:G:C4'	1:X:559:C:H5'	1.84	1.07
28:3:16:ILE:HD13	28:3:63:PRO:HB3	1.33	1.07
11:J:40:PRO:HB3	11:J:99:LYS:HE2	1.37	1.06
15:N:66:ASN:HB3	15:N:76:TYR:HB2	1.10	1.06
18:Q:51:ILE:HD11	18:Q:81:ARG:HD3	1.36	1.06
5:C:188:ILE:HB	5:C:193:LEU:HD21	1.32	1.06
13:L:27:LEU:HD12	13:L:44:ASP:HA	1.33	1.06
1:X:1997:A:H5"	17:P:115:ASN:HD21	1.20	1.05
17:P:21:ARG:HA	17:P:21:ARG:HE	1.19	1.05
4:B:146:THR:CG2	4:B:147:PRO:HD3	1.85	1.05
1:X:2402:U:O2'	1:X:2404:A:H2'	1.54	1.05
5:C:22:VAL:HA	5:C:27:LEU:HB2	1.07	1.05

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:88:VAL:HG21	8:G:127:ILE:HD11	1.36	1.05
1:X:1332:G:O2'	1:X:1333:G:H5'	1.57	1.04
20:S:3:LEU:HD11	20:S:32:PHE:HB3	1.38	1.04
7:E:121:VAL:HG21	7:E:140:LEU:HD12	1.37	1.04
8:G:42:VAL:HG11	8:G:166:LEU:HD11	1.33	1.04
6:D:72:LYS:HA	6:D:81:GLN:HA	1.35	1.04
15:N:83:LEU:HD12	15:N:113:SER:HB2	1.34	1.04
8:G:61:ARG:HH12	8:G:166:LEU:HD21	1.02	1.03
5:C:43:ALA:HB1	5:C:86:PRO:HB2	1.40	1.03
9:H:110:VAL:HG23	9:H:129:LEU:HB2	1.38	1.03
1:X:559:C:H2'	1:X:560:G:O4'	1.59	1.02
1:X:89:A:H4'	1:X:90:G:H5"	1.41	1.02
7:E:97:LYS:HE3	7:E:104:GLU:HG2	1.39	1.02
1:X:2366:U:H1'	21:T:41:ARG:HH12	1.25	1.02
26:1:14:SER:OG	26:1:52:GLU:OE1	1.77	1.01
28:3:16:ILE:CD1	28:3:63:PRO:HB3	1.89	1.01
1:X:2324:G:N3	1:X:2360:C:H2'	1.74	1.01
11:J:42:TRP:CB	11:J:95:VAL:HG11	1.89	1.01
28:3:16:ILE:H	28:3:16:ILE:HD12	1.25	1.01
14:M:29:PRO:HB2	14:M:99:VAL:HG11	1.41	1.01
1:X:504:G:H4'	17:P:27:VAL:HG13	1.42	1.00
1:X:1992:G:H2'	1:X:1993:G:H5'	1.42	1.00
1:X:2550:C:O3'	4:B:146:THR:OG1	1.79	1.00
1:X:517:A:H5"	1:X:518:A:H5'	1.42	1.00
1:X:2424:G:H2'	1:X:2425:G:H5'	1.42	1.00
5:C:149:LEU:HD11	5:C:170:LEU:HD13	1.42	1.00
11:J:21:ASP:HA	11:J:99:LYS:HD2	1.42	1.00
9:H:75:VAL:HG12	9:H:118:LEU:HD21	1.39	1.00
1:X:1095:A:H2'	1:X:1096:A:H5"	1.42	1.00
8:G:61:ARG:HH12	8:G:166:LEU:CD2	1.74	1.00
3:A:252:LYS:N	3:A:252:LYS:HE3	1.75	1.00
3:A:245:VAL:HA	3:A:252:LYS:HE2	1.41	0.99
16:O:10:LYS:HB2	16:O:37:ALA:H	1.26	0.99
4:B:2:LYS:HA	4:B:84:PHE:CE1	1.97	0.99
1:X:89:A:H4'	1:X:90:G:C5'	1.92	0.99
5:C:5:ASN:HB3	5:C:120:VAL:HG11	1.43	0.99
19:R:18:LYS:H	19:R:18:LYS:HD3	1.24	0.99
1:X:559:C:H2'	1:X:560:G:C1'	1.92	0.99
15:N:17:VAL:HG21	15:N:32:TYR:HE1	1.26	0.99
5:C:48:ARG:HD3	5:C:51:VAL:HG22	1.43	0.98
11:J:11:ARG:HG3	11:J:12:LYS:H	1.29	0.98

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:O:3:ALA:HB1	16:O:5:ILE:HG22	1.42	0.98
13:L:37:HIS:O	13:L:39:TYR:N	1.97	0.98
14:M:17:GLU:HG3	14:M:62:SER:OG	1.63	0.98
20:S:90:GLU:HA	20:S:127:PRO:HD3	1.45	0.98
1:X:1153:A:O2'	1:X:1154:A:H3'	1.61	0.98
8:G:42:VAL:CG1	8:G:166:LEU:HD11	1.85	0.98
5:C:166:TRP:HB3	5:C:167:VAL:HG23	1.45	0.97
1:X:1804:U:H1'	3:A:45:ASN:HB2	1.45	0.97
12:K:35:GLN:HB3	12:K:112:LEU:HD23	1.42	0.97
22:U:9:GLY:HA3	22:U:12:ASN:HB2	1.43	0.97
1:X:1468:A:H5"	1:X:1472:C:N4	1.79	0.97
1:X:2170:C:H3'	1:X:2171:U:H5"	1.46	0.97
9:H:29:ILE:HD11	9:H:122:ARG:HB2	1.45	0.97
1:X:841:G:H2'	1:X:842:A:C8	1.99	0.97
4:B:33:ILE:HD11	4:B:89:ASP:HA	1.43	0.97
3:A:155:LEU:H	3:A:155:LEU:HD22	1.29	0.96
6:D:39:GLY:O	6:D:42:SER:OG	1.83	0.96
12:K:14:SER:HA	12:K:17:ARG:HH12	1.30	0.96
1:X:649:G:N2	1:X:661:C:H1'	1.80	0.96
5:C:176:ASN:HD21	5:C:179:ASP:HB2	1.28	0.96
5:C:188:ILE:HB	5:C:193:LEU:CD2	1.95	0.96
19:R:25:LEU:HD12	19:R:81:VAL:HG22	1.47	0.96
1:X:787:A:H2	1:X:800:U:HO2'	1.04	0.96
28:3:26:LYS:HB3	28:3:44:LYS:HA	1.46	0.96
9:H:10:VAL:HG21	9:H:16:ALA:O	1.65	0.96
1:X:1731:C:H2'	1:X:1732:U:H5"	1.46	0.95
11:J:11:ARG:HA	11:J:11:ARG:HE	1.30	0.95
12:K:79:VAL:HA	12:K:83:VAL:HG13	1.47	0.95
1:X:558:G:H4'	1:X:559:C:H5'	1.46	0.95
1:X:304:A:N7	1:X:356:A:N6	2.13	0.95
2:Y:52:G:OP1	13:L:65:THR:HG22	1.67	0.95
18:Q:19:ALA:O	18:Q:24:VAL:HG22	1.67	0.94
11:J:64:LYS:HE2	11:J:64:LYS:HA	1.48	0.94
18:Q:38:ILE:O	18:Q:42:ILE:HG22	1.67	0.94
20:S:71:MET:HA	20:S:79:ILE:HB	1.48	0.94
1:X:824:U:H2'	10:I:21:ARG:HA	1.49	0.94
18:Q:88:ILE:HG13	18:Q:92:ALA:HB2	1.49	0.94
1:X:1270:C:H4'	5:C:77:PHE:CE1	2.02	0.94
1:X:2585:C:H2'	1:X:2586:G:H5'	1.46	0.94
4:B:12:THR:OG1	14:M:17:GLU:OE1	1.84	0.94
1:X:2368:G:H5"	1:X:2369:U:H5'	1.49	0.94

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:252:LYS:HZ1	3:A:253:PRO:HD2	1.31	0.94
11:J:44:LYS:HA	11:J:95:VAL:HA	1.48	0.94
28:3:21:LYS:HD3	28:3:22:VAL:H	1.29	0.94
22:U:15:VAL:HG21	22:U:46:LEU:HA	1.49	0.94
7:E:108:GLY:HA3	7:E:152:ARG:HH22	1.29	0.94
15:N:97:ASP:OD1	15:N:98:ILE:N	2.00	0.93
4:B:93:VAL:O	4:B:95:ILE:N	1.99	0.93
1:X:596:C:OP2	10:I:21:ARG:NH1	2.01	0.93
28:3:6:THR:HG22	28:3:59:LYS:HG3	1.50	0.93
1:X:1992:G:C2'	1:X:1993:G:H5'	1.96	0.93
1:X:689:A:H8	1:X:2052:G:H21	1.11	0.93
15:N:66:ASN:HB3	15:N:76:TYR:CB	1.99	0.93
1:X:168:A:H2'	1:X:169:C:C6	2.03	0.93
1:X:317:U:H2'	1:X:318:G:H5"	1.51	0.93
1:X:2598:C:O2'	1:X:2599:U:H5'	1.68	0.93
15:N:89:ASP:HA	16:O:47:PHE:CE1	2.03	0.93
20:S:25:ASN:HD22	20:S:85:MET:HB2	1.34	0.93
26:1:36:GLU:HB2	26:1:52:GLU:HB2	1.51	0.93
1:X:105:G:H2'	1:X:106:G:H5'	1.49	0.93
8:G:69:ASP:O	8:G:76:GLN:NE2	2.00	0.93
19:R:48:VAL:HG12	19:R:50:GLY:H	1.33	0.93
1:X:2424:G:C2'	1:X:2425:G:H5'	1.98	0.93
5:C:30:VAL:HG11	5:C:177:VAL:HG21	1.48	0.93
8:G:132:PHE:CZ	8:G:145:HIS:HB2	2.03	0.93
1:X:759:C:O2'	1:X:760:U:OP2	1.86	0.92
3:A:108:PRO:HG2	3:A:111:LEU:HB2	1.48	0.92
5:C:22:VAL:CA	5:C:27:LEU:HB2	1.99	0.92
1:X:1034:U:C2'	1:X:1035:G:H5'	1.99	0.92
1:X:1542:G:H22	1:X:1562:G:H1	1.11	0.92
9:H:27:SER:OG	9:H:50:ILE:HB	1.69	0.92
13:L:88:VAL:O	13:L:89:PHE:HB3	1.65	0.92
14:M:99:VAL:HG21	14:M:104:LEU:HD12	1.48	0.92
1:X:2726:U:H2'	1:X:2727:G:H5'	1.51	0.92
6:D:75:SER:OG	6:D:79:LEU:HD22	1.70	0.92
5:C:188:ILE:CB	5:C:193:LEU:HD21	2.01	0.91
1:X:482:A:H2'	1:X:483:A:O4'	1.69	0.91
4:B:105:THR:CG2	4:B:197:VAL:HB	1.99	0.91
22:U:15:VAL:CG2	22:U:46:LEU:HA	2.01	0.91
13:L:38:ILE:HD13	13:L:68:ALA:HB1	1.51	0.91
1:X:1263:G:N7	10:I:18:ARG:NH2	2.17	0.91
5:C:118:VAL:HG13	5:C:193:LEU:HD23	1.50	0.91

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:163:ARG:NE	7:E:163:ARG:HA	1.86	0.91
1:X:1793:A:H2'	1:X:1794:A:C8	2.05	0.91
13:L:95:LYS:HE2	13:L:95:LYS:HA	1.50	0.91
16:O:95:ILE:O	16:O:96:LEU:HD13	1.70	0.91
11:J:44:LYS:CA	11:J:95:VAL:HA	2.00	0.91
1:X:1835:C:O2'	3:A:254:THR:HB	1.71	0.90
1:X:1887:G:H2'	1:X:1888:C:H5'	1.52	0.90
4:B:59:VAL:HG12	4:B:64:GLN:HG2	1.54	0.90
20:S:6:LYS:HB3	20:S:32:PHE:HA	1.52	0.90
1:X:12:U:O2	1:X:12:U:H2'	1.70	0.90
20:S:121:GLN:O	20:S:161:ALA:HB3	1.71	0.90
25:Z:56:GLN:OE1	25:Z:56:GLN:N	2.03	0.90
1:X:467:U:O2'	1:X:468:A:OP1	1.88	0.90
12:K:100:VAL:O	12:K:100:VAL:HG22	1.71	0.90
13:L:28:ARG:HA	13:L:88:VAL:HG12	1.51	0.90
1:X:1761:G:H2'	1:X:1762:C:H5'	1.52	0.90
5:C:21:GLU:OE1	5:C:24:SER:OG	1.89	0.90
18:Q:48:VAL:HG11	18:Q:88:ILE:HG22	1.53	0.90
20:S:71:MET:HB2	20:S:78:PRO:HA	1.54	0.90
9:H:2:ILE:HB	9:H:45:ALA:HB3	1.51	0.90
10:I:79:GLN:O	10:I:80:LEU:HB3	1.70	0.90
1:X:334:G:H5'	5:C:162:ARG:HH11	1.32	0.90
19:R:51:VAL:HG11	19:R:74:LEU:O	1.72	0.90
25:Z:36:CYS:HB2	25:Z:49:CYS:SG	2.11	0.90
1:X:209:G:O2'	1:X:210:A:O5'	1.89	0.90
1:X:2691:C:O2'	1:X:2692:A:H5"	1.71	0.90
11:J:42:TRP:HB3	11:J:95:VAL:HG11	0.93	0.90
4:B:146:THR:HG22	4:B:147:PRO:HD3	0.91	0.89
1:X:826:U:H2'	1:X:827:C:C6	2.07	0.89
6:D:104:ILE:HA	6:D:108:LEU:HD21	1.53	0.89
5:C:46:ARG:HG2	5:C:51:VAL:HG23	1.52	0.89
11:J:49:GLU:OE2	11:J:52:ARG:NH2	2.04	0.89
1:X:1322:G:H4'	27:2:7:PRO:HB2	1.54	0.89
1:X:2499:C:H2'	1:X:2500:C:H5'	1.55	0.89
10:I:19:VAL:CG1	10:I:30:ALA:HB1	2.03	0.89
4:B:75:THR:HG22	4:B:77:ILE:H	1.36	0.89
4:B:134:TRP:H	4:B:134:TRP:HD1	1.20	0.89
12:K:99:ARG:HG2	12:K:99:ARG:NH1	1.85	0.89
1:X:1974:U:H2'	1:X:1975:G:H5"	1.54	0.89
21:T:41:ARG:HH11	21:T:41:ARG:HG3	1.37	0.89
3:A:245:VAL:CA	3:A:252:LYS:HE2	2.03	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:U:9:GLY:CA	22:U:12:ASN:HB2	2.02	0.88
22:U:51:ILE:CD1	22:U:59:THR:HB	2.02	0.88
1:X:2198:U:H3'	1:X:2199:C:C4'	2.04	0.88
5:C:163:ASN:ND2	5:C:167:VAL:O	2.05	0.88
4:B:159:HIS:HE1	4:B:162:MET:HB2	1.39	0.88
18:Q:10:PRO:HA	18:Q:27:PHE:HB3	1.56	0.88
1:X:409:G:O2'	22:U:45:ASN:ND2	2.07	0.88
3:A:252:LYS:HE3	3:A:252:LYS:H	1.37	0.88
25:Z:15:LYS:HA	25:Z:18:MET:HG3	1.55	0.88
4:B:37:LYS:HD2	4:B:42:ASP:OD2	1.74	0.88
7:E:133:VAL:HG12	7:E:141:VAL:HG13	1.53	0.88
20:S:71:MET:CB	20:S:78:PRO:HA	2.03	0.88
1:X:1153:A:H4'	1:X:1154:A:OP1	1.72	0.88
10:I:39:SER:OG	10:I:40:ARG:N	2.06	0.88
3:A:252:LYS:NZ	3:A:253:PRO:HD2	1.88	0.87
5:C:162:ARG:O	5:C:164:VAL:HG23	1.74	0.87
1:X:642:A:O2'	10:I:59:ARG:HG2	1.73	0.87
1:X:261:G:OP1	1:X:262:C:N4	2.07	0.87
1:X:1225:G:H1'	1:X:1250:A:N6	1.89	0.87
16:O:4:ILE:HG12	16:O:4:ILE:O	1.70	0.87
22:U:7:LEU:HG	22:U:46:LEU:CD1	2.04	0.87
1:X:2029:G:OP1	25:Z:15:LYS:NZ	2.06	0.87
1:X:2379:G:C2'	1:X:2380:U:H5'	2.04	0.87
3:A:198:ASN:ND2	3:A:201:HIS:HB2	1.90	0.87
13:L:28:ARG:HA	13:L:88:VAL:CG1	2.04	0.87
20:S:3:LEU:HD13	20:S:33:ALA:H	1.38	0.87
1:X:795:A:C2	3:A:226:MET:HG2	2.10	0.87
2:Y:93:G:OP1	11:J:19:THR:HB	1.75	0.87
9:H:29:ILE:HD11	9:H:122:ARG:HD3	1.57	0.87
1:X:1004:A:H1'	16:O:88:GLN:OE1	1.74	0.87
1:X:1466:C:H2'	1:X:1467:U:H1'	1.56	0.87
1:X:1270:C:H4'	5:C:77:PHE:CD1	2.09	0.86
7:E:44:ARG:CB	7:E:50:LEU:HD21	2.05	0.86
1:X:269:G:H2'	1:X:270:G:H5'	1.54	0.86
2:Y:47:A:H1'	6:D:92:ARG:CZ	2.05	0.86
1:X:1888:C:O2'	1:X:1889:G:OP2	1.94	0.86
1:X:2285:U:C4	6:D:42:SER:HB2	2.11	0.86
14:M:98:LYS:HD2	14:M:98:LYS:N	1.89	0.86
20:S:143:ILE:HA	20:S:171:VAL:CG1	2.05	0.86
6:D:166:ALA:O	6:D:170:LEU:HG	1.75	0.86
1:X:1689:U:H2'	1:X:1690:U:H5'	1.56	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2030:U:O2'	1:X:2031:A:H5'	1.75	0.86
1:X:2366:U:C1'	21:T:41:ARG:HH12	1.88	0.86
27:2:39:ARG:HD3	27:2:42:LEU:HD13	1.56	0.86
1:X:1095:A:N3	1:X:1116:U:O2'	2.09	0.86
5:C:5:ASN:HB3	5:C:120:VAL:CG1	2.05	0.86
1:X:1882:G:N2	1:X:1885:C:H41	1.73	0.86
5:C:6:VAL:HG13	5:C:120:VAL:HG22	1.54	0.86
6:D:5:LYS:O	6:D:8:TYR:N	2.09	0.86
12:K:14:SER:HA	12:K:17:ARG:NH1	1.91	0.86
1:X:1448:A:H61	1:X:1574:A:H61	1.21	0.86
19:R:90:LYS:HG3	19:R:108:VAL:HB	1.57	0.86
23:V:32:ALA:HB2	23:V:37:LEU:HD12	1.58	0.86
1:X:1173:G:H4'	16:O:22:VAL:HG22	1.57	0.86
1:X:1466:C:H2'	1:X:1467:U:C1'	2.06	0.86
1:X:1573:G:H3'	1:X:1574:A:H5"	1.58	0.86
15:N:66:ASN:CB	15:N:76:TYR:HB2	2.01	0.86
13:L:37:HIS:O	13:L:37:HIS:ND1	2.08	0.85
1:X:1370:U:H2'	1:X:1371:G:C8	2.11	0.85
10:I:54:SER:HB2	10:I:55:ARG:HH22	1.40	0.85
19:R:37:LEU:HD11	19:R:49:GLU:HG3	1.57	0.85
1:X:664:C:H5'	1:X:666:U:H5"	1.57	0.85
5:C:176:ASN:ND2	5:C:179:ASP:HB2	1.91	0.85
8:G:123:PRO:O	8:G:126:VAL:HG23	1.75	0.85
1:X:269:G:C2'	1:X:270:G:H5'	2.05	0.85
15:N:61:TRP:CH2	15:N:94:VAL:HG22	2.12	0.85
19:R:22:VAL:HG11	19:R:80:LYS:HD3	1.56	0.85
22:U:50:ALA:O	22:U:51:ILE:HG13	1.76	0.85
13:L:95:LYS:HA	13:L:95:LYS:CE	2.05	0.85
14:M:32:THR:HG22	14:M:93:ILE:HA	1.59	0.85
1:X:263:G:N2	1:X:264:U:O4	2.09	0.85
1:X:1850:G:H1'	1:X:1867:A:N6	1.92	0.85
7:E:50:LEU:HD22	7:E:51:LEU:H	1.42	0.85
6:D:22:TYR:OH	6:D:165:GLU:OE1	1.93	0.85
19:R:18:LYS:HD3	19:R:18:LYS:N	1.91	0.85
1:X:1761:G:C2'	1:X:1762:C:H5'	2.06	0.85
19:R:59:LYS:HB3	19:R:67:GLY:N	1.91	0.85
1:X:2007:G:O2'	1:X:2008:C:H5'	1.76	0.84
21:T:23:VAL:HA	21:T:38:VAL:HG23	1.59	0.84
1:X:2859:U:H3	25:Z:52:TYR:HE1	1.25	0.84
1:X:857:U:H2'	1:X:858:G:O4'	1.77	0.84
5:C:95:LEU:HD23	5:C:96:PRO:CD	2.05	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:90:ARG:HB3	10:I:94:GLU:HA	1.57	0.84
18:Q:11:VAL:HG23	18:Q:27:PHE:HA	1.60	0.84
18:Q:48:VAL:HG21	18:Q:82:LEU:HD23	1.59	0.84
28:3:52:LYS:HD2	28:3:56:ALA:HB2	1.60	0.84
1:X:1223:G:H5'	1:X:1225:G:O4'	1.76	0.84
3:A:17:THR:HG21	3:A:205:VAL:HG13	1.59	0.84
6:D:75:SER:HB2	6:D:79:LEU:CD1	2.06	0.84
9:H:104:GLU:HG2	9:H:125:LYS:HD2	1.59	0.84
28:3:36:LYS:HA	28:3:36:LYS:HZ3	1.42	0.84
2:Y:39:C:H5'	2:Y:40:C:OP2	1.77	0.84
5:C:149:LEU:HD12	5:C:150:LEU:H	1.40	0.84
1:X:2581:A:H2'	1:X:2582:G:C4'	2.06	0.84
5:C:6:VAL:HG13	5:C:7:ILE:H	1.41	0.84
5:C:188:ILE:CB	5:C:193:LEU:HD11	2.07	0.84
11:J:136:GLU:HG3	11:J:137:VAL:O	1.78	0.84
4:B:37:LYS:NZ	4:B:80:GLU:OE2	2.10	0.84
5:C:188:ILE:HB	5:C:193:LEU:HD11	1.57	0.84
20:S:91:PRO:HG2	20:S:125:PRO:HG2	1.58	0.84
1:X:2084:G:H2'	1:X:2085:G:H8	1.39	0.84
1:X:2811:G:H2'	1:X:2812:A:C8	2.11	0.84
11:J:19:THR:HG23	11:J:99:LYS:HE3	1.59	0.84
1:X:656:U:H4'	1:X:657:A:C8	2.13	0.83
3:A:28:ARG:HE	3:A:29:PRO:HD3	1.43	0.83
3:A:145:LEU:CB	3:A:155:LEU:HD21	2.08	0.83
1:X:1856:U:OP1	1:X:2389:G:O2'	1.96	0.83
3:A:255:LYS:H	3:A:255:LYS:HD3	1.43	0.83
9:H:83:ARG:CZ	9:H:89:ILE:HD11	2.08	0.83
18:Q:62:ARG:O	18:Q:70:GLY:HA3	1.77	0.83
25:Z:45:ILE:HG13	25:Z:52:TYR:HB2	1.58	0.83
1:X:2398:U:H5"	28:3:34:THR:HG21	1.59	0.83
5:C:188:ILE:CG2	5:C:193:LEU:HD11	2.08	0.83
7:E:121:VAL:CG2	7:E:140:LEU:HD12	2.09	0.83
1:X:196:A:O2'	1:X:197:G:H5'	1.76	0.83
1:X:558:G:H4'	1:X:559:C:C5'	2.09	0.83
5:C:197:GLU:HG2	5:C:198:GLU:HG3	1.61	0.83
1:X:265:U:O2'	1:X:266:U:O5'	1.97	0.83
1:X:1187:A:H2'	1:X:1188:A:C5	2.13	0.83
1:X:1538:A:O2'	1:X:1539:U:H5'	1.79	0.83
1:X:2585:C:C2'	1:X:2586:G:H5'	2.08	0.83
3:A:148:VAL:HG13	3:A:149:PRO:HD2	1.61	0.83
6:D:111:ILE:HG13	6:D:114:PHE:HB2	1.61	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:U:51:ILE:CG1	22:U:59:THR:HB	2.09	0.83
1:X:168:A:H2'	1:X:169:C:H6	1.42	0.83
1:X:1058:G:H2'	1:X:1121:G:N1	1.94	0.83
1:X:1373:G:H22	1:X:2192:U:H3	1.25	0.83
1:X:2727:G:OP1	7:E:138:LYS:NZ	2.11	0.83
25:Z:4:HIS:HB3	25:Z:5:PRO:CD	2.07	0.83
1:X:817:A:H5"	1:X:818:G:OP1	1.77	0.83
4:B:132:LYS:HA	4:B:134:TRP:HE1	1.42	0.83
6:D:74:ILE:HG12	6:D:80:ARG:CA	2.08	0.83
16:O:4:ILE:HG13	16:O:20:ILE:HD12	1.59	0.83
17:P:8:PHE:HB3	17:P:9:ARG:HH11	1.42	0.83
1:X:580:A:H4'	1:X:581:A:OP1	1.79	0.83
1:X:1939:U:H1'	1:X:2531:U:OP1	1.77	0.83
22:U:14:VAL:O	22:U:15:VAL:HB	1.78	0.83
1:X:462:G:H5"	1:X:463:C:OP2	1.78	0.83
1:X:1522:C:H2'	1:X:1523:A:H4'	1.59	0.83
1:X:1623:C:H4'	1:X:1624:A:C5'	2.08	0.83
1:X:2171:U:H2'	1:X:2172:U:C6	2.14	0.83
6:D:9:ASN:O	6:D:13:ARG:N	2.08	0.83
6:D:111:ILE:CD1	6:D:114:PHE:HB2	2.09	0.83
1:X:63:A:O2'	18:Q:70:GLY:HA2	1.79	0.82
1:X:338:G:H5'	19:R:9:HIS:HE1	1.43	0.82
1:X:2314:A:O2'	1:X:2315:A:H2'	1.79	0.82
13:L:108:ARG:NH2	13:L:111:GLY:HA3	1.94	0.82
4:B:188:ILE:HG23	4:B:189:PRO:HD2	1.62	0.82
1:X:883:A:H4'	11:J:10:PHE:CB	2.10	0.82
1:X:2218:G:H5'	3:A:249:PRO:HG3	1.59	0.82
1:X:2310:G:H4'	21:T:43:THR:H	1.42	0.82
2:Y:27:A:O2'	2:Y:28:A:O5'	1.96	0.82
8:G:68:PRO:HB2	8:G:70:PHE:HE1	1.43	0.82
19:R:35:LYS:HE3	19:R:37:LEU:HD21	1.60	0.82
1:X:1508:G:H5'	1:X:1509:A:H5"	1.59	0.82
1:X:1440:G:H3'	1:X:1441:A:H5"	1.62	0.82
3:A:37:LEU:HD12	3:A:39:LYS:HE2	1.62	0.82
5:C:189:ASP:O	5:C:193:LEU:HB2	1.80	0.82
7:E:41:LEU:HD11	7:E:55:PRO:HD3	1.61	0.82
1:X:1278:A:H2	1:X:1997:A:H62	1.27	0.82
6:D:38:GLU:CB	6:D:87:ILE:HB	2.09	0.82
28:3:16:ILE:HD12	28:3:16:ILE:N	1.95	0.82
1:X:409:G:OP1	22:U:13:LEU:HD21	1.79	0.82
4:B:51:TYR:H	4:B:75:THR:HG21	1.43	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:111:ILE:HG13	6:D:114:PHE:CD1	2.15	0.82
7:E:154:PRO:HA	7:E:160:LYS:O	1.78	0.82
8:G:42:VAL:HG11	8:G:166:LEU:HD13	1.24	0.82
1:X:317:U:C2'	1:X:318:G:H5"	2.09	0.82
5:C:6:VAL:CG1	5:C:120:VAL:HG22	2.09	0.82
11:J:22:ALA:HB2	11:J:99:LYS:HB2	1.60	0.82
14:M:44:ARG:HH22	14:M:46:ARG:HH21	1.28	0.82
19:R:25:LEU:HD13	19:R:79:SER:O	1.80	0.82
1:X:107:G:H2'	1:X:108:G:H5"	1.62	0.82
1:X:469:G:H3'	27:2:38:GLY:O	1.80	0.82
1:X:2640:G:H2'	1:X:2641:A:C8	2.15	0.82
1:X:109:A:H5"	23:V:62:ARG:HH21	1.44	0.82
1:X:331:U:O2'	5:C:162:ARG:NH2	2.13	0.82
1:X:1030:U:H2'	1:X:1032:A:H2	1.44	0.81
28:3:36:LYS:HA	28:3:36:LYS:NZ	1.94	0.81
1:X:349:G:O2'	1:X:350:U:O5'	1.97	0.81
1:X:1432:G:H21	1:X:1596:A:H62	1.25	0.81
1:X:393:U:O2'	22:U:18:VAL:HG22	1.81	0.81
1:X:590:C:H2'	1:X:591:G:H8	1.44	0.81
1:X:797:A:C5	3:A:229:VAL:HG21	2.16	0.81
1:X:1734:C:C5	1:X:1735:G:H1'	2.15	0.81
1:X:2270:U:O2'	1:X:2271:C:H5'	1.81	0.81
5:C:151:VAL:O	5:C:189:ASP:HB2	1.81	0.81
6:D:36:VAL:CG1	6:D:89:VAL:HB	2.10	0.81
10:I:93:LEU:HD23	10:I:97:ARG:CZ	2.09	0.81
14:M:99:VAL:HG21	14:M:104:LEU:CD1	2.10	0.81
17:P:25:PHE:HD2	17:P:127:ILE:HD11	1.46	0.81
18:Q:53:ILE:HD12	18:Q:79:ILE:O	1.80	0.81
28:3:31:HIS:O	28:3:32:GLN:HG2	1.79	0.81
28:3:52:LYS:CE	28:3:56:ALA:HB2	2.08	0.81
1:X:504:G:H4'	17:P:27:VAL:CG1	2.09	0.81
1:X:870:C:O2'	1:X:871:U:H5'	1.80	0.81
10:I:1:MET:HG2	10:I:2:LYS:H	1.43	0.81
13:L:27:LEU:CD1	13:L:44:ASP:HA	2.09	0.81
22:U:50:ALA:HB1	22:U:52:ARG:NH2	1.95	0.81
22:U:51:ILE:HD13	22:U:59:THR:HB	1.61	0.81
1:X:215:G:H21	1:X:632:A:H8	1.29	0.81
4:B:14:ILE:HG12	14:M:20:HIS:CD2	2.16	0.81
17:P:37:LYS:HA	17:P:40:LEU:HD12	1.60	0.81
19:R:77:HIS:O	19:R:79:SER:N	2.13	0.81
6:D:3:GLN:OE1	6:D:4:LEU:HG	1.80	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1189:G:H2'	1:X:1190:C:C6	2.15	0.81
1:X:1805:G:N3	3:A:50:THR:HG21	1.95	0.81
1:X:2499:C:C2'	1:X:2500:C:H5'	2.11	0.81
6:D:74:ILE:CG1	6:D:80:ARG:HA	2.11	0.81
7:E:163:ARG:HA	7:E:163:ARG:HE	1.46	0.81
11:J:11:ARG:HE	11:J:11:ARG:CA	1.94	0.81
15:N:83:LEU:CD1	15:N:113:SER:HB2	2.11	0.81
1:X:653:G:H2'	1:X:654:A:C5'	2.10	0.81
1:X:457:C:C2'	1:X:458:G:H5'	2.11	0.81
1:X:1429:A:H2	1:X:1599:G:H21	1.28	0.81
7:E:6:LYS:HE2	7:E:7:GLN:HE22	1.44	0.81
9:H:75:VAL:HG12	9:H:118:LEU:CD2	2.11	0.81
19:R:22:VAL:HG11	19:R:80:LYS:CD	2.11	0.81
1:X:482:A:C2'	1:X:483:A:H5'	2.11	0.81
1:X:1236:G:N2	1:X:1239:A:OP2	2.13	0.81
1:X:2859:U:H2'	1:X:2860:C:H5'	1.63	0.81
16:O:50:ASP:O	16:O:53:LYS:HG2	1.80	0.81
11:J:139:ASP:O	11:J:140:GLU:HB2	1.79	0.80
27:2:39:ARG:CD	27:2:42:LEU:HD13	2.11	0.80
1:X:552:C:H2'	1:X:553:C:C5'	2.08	0.80
1:X:1469:U:H5'	1:X:1470:G:OP2	1.80	0.80
1:X:1581:C:OP1	3:A:4:LYS:NZ	2.14	0.80
1:X:1623:C:H4'	1:X:1624:A:O5'	1.80	0.80
1:X:29:U:O2'	15:N:8:ILE:HD11	1.79	0.80
1:X:2485:U:O2	1:X:2485:U:H2'	1.81	0.80
4:B:3:GLY:HA3	4:B:81:PHE:CE2	2.16	0.80
11:J:99:LYS:HD3	11:J:100:PRO:CD	2.11	0.80
25:Z:52:TYR:HB3	25:Z:56:GLN:NE2	1.95	0.80
5:C:95:LEU:CD2	5:C:96:PRO:HD2	2.07	0.80
20:S:3:LEU:CD1	20:S:32:PHE:HB3	2.11	0.80
1:X:334:G:H3'	5:C:162:ARG:HE	1.45	0.80
5:C:188:ILE:HB	5:C:193:LEU:CD1	2.11	0.80
6:D:34:ILE:HG12	6:D:156:ILE:HG12	1.64	0.80
21:T:21:LEU:HD21	21:T:41:ARG:HE	1.43	0.80
1:X:318:G:H5'	1:X:318:G:H8	1.44	0.80
1:X:2398:U:H5"	28:3:34:THR:CG2	2.12	0.80
1:X:2495:G:C2'	1:X:2496:C:H5'	2.11	0.80
8:G:70:PHE:HB2	8:G:76:GLN:HE22	1.46	0.80
1:X:108:G:H5'	1:X:108:G:H8	1.45	0.80
1:X:1188:A:O2'	1:X:1189:G:OP1	1.98	0.80
5:C:43:ALA:CB	5:C:86:PRO:HB2	2.11	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:R:44:GLN:O	19:R:77:HIS:HB2	1.81	0.80
2:Y:120:G:H2'	2:Y:121:G:H5"	1.63	0.80
1:X:653:G:H2'	1:X:654:A:H5"	1.62	0.80
9:H:77:THR:HA	9:H:94:ASN:OD1	1.82	0.80
20:S:128:ARG:H	20:S:130:ILE:HD11	1.47	0.80
1:X:82:G:H1	1:X:100:G:HO2'	1.28	0.80
1:X:405:C:H2'	1:X:406:G:H8	1.46	0.80
1:X:688:A:H4'	5:C:61:GLN:OE1	1.82	0.80
1:X:1919:A:H62	1:X:1946:U:H3	1.30	0.80
1:X:34:U:C6	19:R:4:PRO:HA	2.17	0.79
1:X:2368:G:H5"	1:X:2369:U:C5'	2.11	0.79
16:O:3:ALA:CB	16:O:5:ILE:HG22	2.12	0.79
17:P:8:PHE:HB3	17:P:9:ARG:NH1	1.96	0.79
1:X:635:C:C5	10:I:92:THR:HG23	2.16	0.79
1:X:1882:G:H21	1:X:1885:C:H41	1.29	0.79
4:B:147:PRO:HD2	4:B:148:GLY:H	1.47	0.79
1:X:474:G:N2	1:X:477:A:OP2	2.13	0.79
1:X:2240:C:O2'	1:X:2241:U:H5'	1.80	0.79
5:C:4:ILE:HD13	5:C:4:ILE:H	1.45	0.79
7:E:163:ARG:HD3	7:E:167:GLU:CB	2.11	0.79
16:O:19:VAL:O	16:O:20:ILE:HD13	1.82	0.79
4:B:132:LYS:HA	4:B:134:TRP:NE1	1.98	0.79
5:C:186:LEU:HD11	5:C:188:ILE:HG23	1.64	0.79
19:R:23:ILE:HD12	19:R:23:ILE:H	1.48	0.79
20:S:141:MET:HG3	20:S:145:ASP:HB2	1.63	0.79
1:X:999:A:OP2	24:W:8:SER:OG	2.00	0.79
1:X:1172:U:H4'	16:O:7:THR:HG21	1.65	0.79
2:Y:15:A:O2'	2:Y:17:A:H5"	1.82	0.79
16:O:23:GLU:HG3	16:O:91:THR:HG21	1.64	0.79
1:X:1857:G:N2	1:X:1860:A:OP2	2.14	0.79
5:C:188:ILE:HG22	5:C:193:LEU:HD11	1.64	0.79
6:D:111:ILE:CG1	6:D:114:PHE:HB2	2.12	0.79
28:3:12:ARG:O	28:3:14:ILE:N	2.16	0.79
1:X:1586:A:H2'	1:X:1587:A:C8	2.17	0.79
2:Y:30:C:OP1	13:L:37:HIS:HB2	1.82	0.79
28:3:17:THR:HG22	28:3:21:LYS:O	1.81	0.79
1:X:1153:A:C8	1:X:1153:A:H5"	2.18	0.79
1:X:1804:U:O2'	3:A:45:ASN:HB2	1.83	0.79
1:X:1997:A:C5'	17:P:115:ASN:HD21	1.95	0.79
1:X:871:U:OP1	21:T:44:LYS:NZ	2.15	0.79
3:A:206:LEU:HD23	3:A:206:LEU:H	1.48	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:61:THR:HA	6:D:99:PHE:CE1	2.18	0.79
7:E:107:ILE:O	7:E:152:ARG:NH2	2.16	0.79
17:P:21:ARG:HA	17:P:21:ARG:NE	1.97	0.79
18:Q:90:ALA:O	18:Q:93:GLY:N	2.14	0.79
20:S:47:SER:OG	20:S:48:THR:N	2.16	0.79
1:X:537:C:C4	1:X:2759:U:H2'	2.17	0.79
4:B:32:PRO:HA	4:B:89:ASP:OD1	1.83	0.79
16:O:2:PHE:HA	16:O:11:GLN:CB	2.12	0.79
1:X:1181:C:H2'	1:X:1182:U:H5'	1.65	0.78
17:P:35:PRO:O	17:P:39:ARG:HG3	1.84	0.78
17:P:9:ARG:HE	17:P:10:ASN:H	1.30	0.78
22:U:52:ARG:HB3	22:U:79:GLU:HA	1.65	0.78
28:3:53:ALA:O	28:3:57:ARG:HG2	1.83	0.78
1:X:58:C:H5"	1:X:59:G:OP2	1.84	0.78
1:X:1194:U:H2'	1:X:1195:U:C6	2.19	0.78
1:X:495:C:OP2	19:R:59:LYS:NZ	2.16	0.78
1:X:1336:G:OP1	17:P:105:ARG:HD2	1.83	0.78
1:X:1582:A:OP1	3:A:211:ARG:NH2	2.14	0.78
1:X:1770:U:H5	1:X:1775:A:N7	1.82	0.78
1:X:2282:G:H4'	6:D:122:PHE:HA	1.65	0.78
1:X:2736:U:H1'	1:X:2737:A:H5"	1.65	0.78
3:A:246:PRO:HD2	3:A:250:TRP:N	1.97	0.78
15:N:115:ASN:O	15:N:117:ARG:N	2.15	0.78
19:R:25:LEU:CD1	19:R:81:VAL:HG13	2.13	0.78
1:X:1499:A:H2'	1:X:1500:U:O4'	1.82	0.78
6:D:57:LEU:CD2	6:D:61:THR:HG21	2.13	0.78
6:D:77:PHE:HB3	6:D:78:LYS:HE3	1.64	0.78
17:P:55:ASP:OD1	25:Z:39:LYS:HG3	1.83	0.78
1:X:652:C:H5'	1:X:653:G:OP2	1.83	0.78
1:X:2629:U:H2'	1:X:2630:C:H6	1.46	0.78
3:A:198:ASN:ND2	3:A:198:ASN:O	2.15	0.78
6:D:111:ILE:HG13	6:D:114:PHE:CB	2.13	0.78
8:G:70:PHE:HA	15:N:64:ARG:HE	1.48	0.78
1:X:617:U:H5	1:X:632:A:C2	2.02	0.78
1:X:649:G:H22	1:X:661:C:C1'	1.94	0.78
1:X:1076:U:O2	1:X:1084:A:N6	2.17	0.78
15:N:66:ASN:HB2	15:N:70:ARG:HH12	1.48	0.78
1:X:613:A:N6	1:X:668:A:O2'	2.17	0.78
17:P:37:LYS:HE2	17:P:64:ALA:H	1.49	0.78
19:R:108:VAL:HG13	19:R:109:ALA:H	1.48	0.78
1:X:2171:U:H4'	1:X:2171:U:OP1	1.84	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2379:G:H2'	1:X:2380:U:H5'	1.65	0.78
7:E:164:PHE:O	7:E:165:VAL:HB	1.84	0.78
11:J:40:PRO:CB	11:J:99:LYS:HE2	2.13	0.78
22:U:48:LYS:HG3	22:U:49:LYS:H	1.49	0.78
26:1:9:ILE:HD13	26:1:9:ILE:H	1.47	0.78
1:X:220:U:H2'	1:X:221:A:H5'	1.66	0.77
1:X:645:G:H2'	1:X:646:C:C6	2.18	0.77
1:X:1964:A:H5"	1:X:1965:U:OP2	1.83	0.77
7:E:67:LEU:HD23	7:E:71:LEU:HG	1.66	0.77
19:R:22:VAL:HG13	19:R:81:VAL:O	1.84	0.77
28:3:36:LYS:HZ2	28:3:37:SER:H	1.32	0.77
1:X:475:U:O3'	27:2:12:ARG:NH2	2.18	0.77
1:X:623:G:H21	1:X:626:A:H2	1.31	0.77
1:X:1173:G:H4'	16:O:22:VAL:CG2	2.13	0.77
22:U:51:ILE:HG12	22:U:59:THR:HB	1.65	0.77
28:3:52:LYS:CD	28:3:56:ALA:HB2	2.14	0.77
1:X:1305:C:C2'	1:X:1306:U:H5'	2.13	0.77
1:X:2178:U:O2'	1:X:2179:C:H5'	1.84	0.77
1:X:2385:U:O2'	1:X:2386:G:OP2	2.02	0.77
1:X:2516:U:H2'	1:X:2517:C:C6	2.19	0.77
1:X:2533:U:H2'	1:X:2534:U:C6	2.18	0.77
11:J:66:TYR:HB2	11:J:106:GLU:OE2	1.85	0.77
15:N:28:ARG:HD3	15:N:38:THR:OG1	1.84	0.77
1:X:552:C:C2'	1:X:553:C:H5"	2.11	0.77
1:X:1008:G:OP1	15:N:93:LYS:HG2	1.83	0.77
1:X:2088:U:O2'	1:X:2089:C:OP1	2.01	0.77
1:X:2563:U:H2'	1:X:2564:U:H5'	1.65	0.77
6:D:108:LEU:O	6:D:111:ILE:HG23	1.84	0.77
10:I:56:LEU:HB3	28:3:12:ARG:HA	1.66	0.77
1:X:1105:U:O2'	1:X:1106:A:H5'	1.83	0.77
10:I:114:ILE:HG23	10:I:134:GLU:HB2	1.65	0.77
17:P:85:MET:CE	17:P:130:GLU:HG3	2.15	0.77
18:Q:88:ILE:CG1	18:Q:92:ALA:HB2	2.14	0.77
22:U:50:ALA:HB1	22:U:52:ARG:HH22	1.47	0.77
1:X:1850:G:H1'	1:X:1867:A:H61	1.50	0.77
3:A:79:VAL:HG23	3:A:115:ALA:O	1.84	0.77
4:B:93:VAL:HG12	4:B:94:ASP:OD2	1.84	0.77
11:J:28:VAL:CG1	11:J:135:ARG:HB3	2.13	0.77
14:M:55:ILE:HA	14:M:104:LEU:CD2	2.13	0.77
22:U:52:ARG:HD2	22:U:79:GLU:HA	1.67	0.77
1:X:647:G:H2'	10:I:102:LYS:HE3	1.66	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:188:ILE:HB	5:C:193:LEU:CG	2.14	0.77
15:N:95:LEU:HD12	15:N:95:LEU:O	1.84	0.77
5:C:27:LEU:HD12	5:C:181:LEU:CD1	2.14	0.77
6:D:121:ALA:HB3	6:D:163:ASP:HB3	1.65	0.77
8:G:70:PHE:HA	15:N:64:ARG:NE	1.99	0.77
18:Q:82:LEU:H	18:Q:82:LEU:HD12	1.50	0.77
1:X:682:G:H2'	1:X:682:G:N3	1.99	0.77
17:P:28:ALA:HB2	17:P:71:VAL:CG2	2.15	0.77
19:R:24:VAL:HA	19:R:80:LYS:HA	1.67	0.77
1:X:810:U:OP1	5:C:56:ARG:HG2	1.85	0.76
1:X:1427:G:H2'	1:X:1428:G:H1'	1.66	0.76
1:X:1428:G:N2	1:X:1602:G:OP2	2.19	0.76
1:X:1515:U:H2'	1:X:1516:A:H8	1.50	0.76
2:Y:46:G:N2	2:Y:50:U:H1'	2.00	0.76
6:D:57:LEU:HD23	6:D:61:THR:HG21	1.66	0.76
26:1:14:SER:HA	26:1:52:GLU:HA	1.67	0.76
1:X:693:A:H2'	1:X:694:G:C8	2.20	0.76
1:X:2266:A:N6	1:X:2323:U:H3	1.82	0.76
1:X:2605:C:O2'	1:X:2606:G:H5'	1.85	0.76
11:J:11:ARG:CG	11:J:12:LYS:H	1.98	0.76
14:M:104:LEU:HB2	14:M:106:TYR:HE1	1.51	0.76
23:V:24:GLU:O	23:V:28:LEU:HD23	1.85	0.76
1:X:152:G:O2'	1:X:153:A:H5'	1.85	0.76
3:A:27:LYS:HE3	3:A:83:GLU:OE2	1.86	0.76
4:B:3:GLY:HA3	4:B:81:PHE:CD2	2.19	0.76
6:D:46:ASP:HB2	6:D:49:ALA:HB3	1.66	0.76
12:K:35:GLN:HB3	12:K:112:LEU:CD2	2.15	0.76
19:R:25:LEU:HB3	19:R:81:VAL:CG2	2.16	0.76
1:X:398:C:O2'	1:X:399:G:OP2	2.04	0.76
1:X:1605:A:O2'	1:X:1606:C:H5'	1.85	0.76
6:D:45:GLU:OE2	6:D:80:ARG:NH1	2.19	0.76
7:E:7:GLN:HB3	7:E:8:PRO:HD2	1.67	0.76
7:E:74:ASN:OD1	7:E:138:LYS:NZ	2.19	0.76
7:E:146:ALA:O	7:E:150:LYS:HG3	1.85	0.76
8:G:55:ALA:C	8:G:134:MET:HE1	2.05	0.76
17:P:71:VAL:HG12	17:P:126:ILE:HG23	1.67	0.76
24:W:45:LYS:HB2	24:W:45:LYS:NZ	1.98	0.76
1:X:203:G:O2'	1:X:204:A:O5'	2.01	0.76
9:H:27:SER:HB3	9:H:50:ILE:HD12	1.68	0.76
20:S:101:THR:HG22	20:S:135:VAL:HG22	1.67	0.76
1:X:995:A:OP2	1:X:996:C:N4	2.14	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1095:A:C2'	1:X:1096:A:H5"	2.15	0.76
1:X:1804:U:C1'	3:A:45:ASN:HB2	2.14	0.76
9:H:83:ARG:NH1	9:H:89:ILE:HD11	1.99	0.76
24:W:23:LEU:HD12	24:W:43:MET:HE2	1.66	0.76
1:X:396:U:H2'	1:X:398:C:H5	1.50	0.76
1:X:557:U:H4'	1:X:558:G:OP1	1.85	0.76
1:X:618:A:H2'	1:X:619:A:C8	2.20	0.76
1:X:817:A:OP2	10:I:40:ARG:HD3	1.84	0.76
3:A:37:LEU:CG	3:A:39:LYS:HG2	2.13	0.76
6:D:74:ILE:HG23	6:D:79:LEU:O	1.85	0.76
10:I:55:ARG:H	10:I:55:ARG:CZ	1.99	0.76
21:T:61:ALA:HA	21:T:81:ILE:HD11	1.67	0.76
1:X:2836:U:O2'	1:X:2837:G:H5'	1.85	0.76
5:C:6:VAL:H	5:C:120:VAL:CG1	1.98	0.76
1:X:416:U:O2'	1:X:419:G:H1'	1.85	0.76
1:X:815:A:H5"	1:X:816:U:OP2	1.86	0.76
1:X:1467:U:H3'	1:X:1468:A:H5'	1.68	0.76
1:X:2218:G:H5'	3:A:249:PRO:CG	2.15	0.76
8:G:43:VAL:HG23	8:G:163:PRO:HB2	1.68	0.76
28:3:36:LYS:HA	28:3:36:LYS:CE	2.15	0.76
2:Y:52:G:OP2	13:L:64:LYS:HD3	1.85	0.76
7:E:22:GLY:HA2	7:E:37:TYR:HD2	1.50	0.76
11:J:28:VAL:HG12	11:J:138:TYR:HE2	1.50	0.76
1:X:1212:U:H2'	1:X:1213:U:C6	2.21	0.75
1:X:2398:U:O4	28:3:31:HIS:NE2	2.19	0.75
5:C:6:VAL:HG11	5:C:119:ALA:HA	1.67	0.75
7:E:125:VAL:HG22	7:E:131:ILE:HA	1.66	0.75
16:O:10:LYS:HG2	16:O:37:ALA:HB3	1.66	0.75
1:X:752:G:N2	1:X:753:U:O4	2.14	0.75
1:X:1505:U:H2'	1:X:1506:C:H5"	1.67	0.75
11:J:134:LYS:HZ3	11:J:136:GLU:HA	1.49	0.75
25:Z:45:ILE:CG1	25:Z:52:TYR:HB2	2.16	0.75
27:2:23:LYS:O	27:2:23:LYS:NZ	2.16	0.75
1:X:11:G:C2'	1:X:12:U:H5'	2.17	0.75
1:X:939:C:O2'	1:X:940:G:OP1	2.03	0.75
11:J:19:THR:CG2	11:J:99:LYS:HE3	2.16	0.75
14:M:55:ILE:HG12	14:M:67:THR:HG22	1.67	0.75
16:O:4:ILE:HG13	16:O:20:ILE:CD1	2.15	0.75
22:U:51:ILE:HG23	22:U:59:THR:HA	1.67	0.75
1:X:923:A:H5"	1:X:924:C:H5"	1.67	0.75
1:X:1347:C:O2'	1:X:1348:C:H5'	1.86	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1993:G:OP1	17:P:37:LYS:HE3	1.85	0.75
12:K:20:LEU:HD23	12:K:21:ALA:N	2.01	0.75
22:U:10:LYS:HD3	22:U:60:VAL:HG11	1.66	0.75
1:X:1046:U:OP1	7:E:59:GLN:NE2	2.18	0.75
14:M:29:PRO:CB	14:M:99:VAL:HG11	2.15	0.75
20:S:149:ALA:HB1	20:S:160:LEU:HD13	1.66	0.75
1:X:525:A:H2'	1:X:526:C:H5'	1.68	0.75
1:X:2342:U:O2'	1:X:2343:C:H5'	1.85	0.75
21:T:43:THR:HG22	21:T:43:THR:O	1.85	0.75
1:X:647:G:OP1	10:I:120:VAL:HG23	1.86	0.75
1:X:1598:C:H2'	1:X:1599:G:H5'	1.67	0.75
1:X:2174:G:H2'	1:X:2175:A:C8	2.22	0.75
1:X:2706:U:O2'	1:X:2707:G:H5'	1.87	0.75
1:X:1674:C:H2'	1:X:1675:C:H6	1.50	0.75
1:X:2366:U:H1'	21:T:41:ARG:NH1	2.00	0.75
15:N:27:SER:HB2	15:N:31:GLN:HG3	1.67	0.75
15:N:95:LEU:HD21	16:O:10:LYS:NZ	2.01	0.75
22:U:42:GLN:OE1	22:U:42:GLN:N	2.19	0.75
1:X:85:C:OP1	19:R:42:ARG:HD2	1.87	0.75
1:X:1054:C:H5'	1:X:1055:A:OP2	1.85	0.75
1:X:1689:U:C2'	1:X:1690:U:H5'	2.17	0.75
1:X:1008:G:O2'	1:X:1009:C:H5'	1.87	0.74
1:X:1683:G:O3'	9:H:6:SER:HB2	1.87	0.74
1:X:2251:U:H5"	1:X:2252:A:OP1	1.86	0.74
4:B:33:ILE:HD13	4:B:49:ILE:HD11	1.69	0.74
5:C:21:GLU:HB3	5:C:24:SER:CB	2.15	0.74
8:G:91:THR:O	8:G:94:LYS:HE3	1.85	0.74
12:K:14:SER:CA	12:K:17:ARG:HH12	2.00	0.74
1:X:310:A:O2'	1:X:311:A:H5'	1.87	0.74
1:X:2477:C:O2'	1:X:2478:C:H5'	1.87	0.74
1:X:2730:A:H4'	1:X:2731:G:OP1	1.87	0.74
14:M:9:ARG:HA	14:M:12:LEU:HD12	1.69	0.74
15:N:17:VAL:HG21	15:N:32:TYR:CE1	2.17	0.74
1:X:2796:A:H2'	1:X:2797:G:H8	1.52	0.74
2:Y:61:A:H2'	2:Y:62:C:H6	1.53	0.74
4:B:105:THR:HG23	4:B:197:VAL:HB	1.69	0.74
16:O:23:GLU:CB	16:O:25:LEU:HD13	2.12	0.74
1:X:1006:C:O2	8:G:31:THR:OG1	2.04	0.74
8:G:61:ARG:NH1	8:G:166:LEU:CD2	2.37	0.74
10:I:39:SER:OG	10:I:40:ARG:HG2	1.87	0.74
22:U:51:ILE:HG12	22:U:59:THR:CA	2.17	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Z:51:TYR:CD1	25:Z:55:ARG:HB2	2.23	0.74
1:X:125:A:H5"	1:X:126:C:O4'	1.88	0.74
4:B:175:ILE:HG12	4:B:182:ILE:CD1	2.17	0.74
8:G:56:THR:O	8:G:60:SER:OG	2.04	0.74
1:X:350:U:H4'	1:X:351:A:OP1	1.87	0.74
1:X:1353:A:H2'	18:Q:56:MET:HE1	1.69	0.74
20:S:1:MET:O	20:S:2:GLU:HG2	1.88	0.74
26:1:13:GLU:H	26:1:54:LYS:HG2	1.53	0.74
1:X:107:G:C2'	1:X:108:G:H5"	2.18	0.74
1:X:1507:A:O4'	3:A:99:ASP:HB3	1.86	0.74
6:D:127:ASN:CB	6:D:158:THR:H	2.00	0.74
12:K:35:GLN:CB	12:K:112:LEU:HD23	2.17	0.74
13:L:88:VAL:HG13	13:L:89:PHE:N	2.03	0.74
21:T:50:GLY:O	21:T:81:ILE:HD12	1.87	0.74
4:B:133:LYS:HG3	4:B:137:ARG:HG2	1.68	0.74
1:X:1276:U:O2'	25:Z:11:THR:HG23	1.86	0.74
1:X:1353:A:H2'	18:Q:56:MET:CE	2.18	0.74
14:M:104:LEU:HD23	14:M:104:LEU:O	1.87	0.74
15:N:61:TRP:CZ2	15:N:94:VAL:HG22	2.23	0.74
26:1:36:GLU:HB3	26:1:52:GLU:HG3	1.68	0.74
1:X:242:A:N6	1:X:440:U:O2'	2.21	0.74
1:X:1120:C:H3'	1:X:1121:G:C8	2.22	0.74
12:K:10:LEU:HB2	12:K:12:ARG:HG3	1.70	0.74
1:X:10:A:H2'	1:X:11:G:C8	2.23	0.73
1:X:339:U:H4'	19:R:77:HIS:NE2	2.02	0.73
1:X:1598:C:C2'	1:X:1599:G:H5'	2.18	0.73
1:X:1804:U:H1'	3:A:45:ASN:CB	2.17	0.73
1:X:2672:U:H2'	1:X:2673:G:H8	1.52	0.73
12:K:100:VAL:HG12	12:K:111:ALA:HA	1.69	0.73
1:X:477:A:H5"	27:2:30:ILE:HG21	1.69	0.73
1:X:1336:G:H2'	1:X:1337:G:H5'	1.70	0.73
6:D:75:SER:H	6:D:79:LEU:HB2	1.53	0.73
11:J:36:ILE:HG22	11:J:131:LYS:O	1.88	0.73
1:X:971:A:H5"	1:X:972:C:OP2	1.88	0.73
1:X:1623:C:H4'	1:X:1624:A:H5'	1.71	0.73
1:X:2344:G:H4'	21:T:60:PHE:CE2	2.22	0.73
7:E:22:GLY:O	7:E:37:TYR:HB3	1.88	0.73
10:I:51:GLY:HA2	10:I:53:ARG:HD2	1.69	0.73
12:K:55:ALA:CB	12:K:80:MET:HE3	2.17	0.73
15:N:42:ALA:O	15:N:46:GLU:HG3	1.89	0.73
1:X:20:C:O2'	1:X:21:A:H5'	1.89	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:919:U:O2'	1:X:920:G:H5'	1.88	0.73
1:X:2475:C:OP2	11:J:83:ARG:HG3	1.88	0.73
4:B:51:TYR:N	4:B:75:THR:HG21	2.02	0.73
6:D:108:LEU:O	6:D:111:ILE:HD12	1.87	0.73
13:L:103:LEU:O	13:L:103:LEU:HD23	1.87	0.73
19:R:23:ILE:HG23	19:R:33:THR:HB	1.71	0.73
21:T:23:VAL:HA	21:T:38:VAL:CG2	2.17	0.73
1:X:653:G:C2'	1:X:654:A:H5"	2.17	0.73
1:X:789:G:H4'	1:X:790:A:H5"	1.70	0.73
1:X:2795:A:H3'	1:X:2795:A:N3	2.04	0.73
5:C:6:VAL:H	5:C:120:VAL:HG11	1.51	0.73
7:E:97:LYS:HB2	7:E:104:GLU:HB3	1.69	0.73
9:H:47:VAL:HA	9:H:74:VAL:HG12	1.69	0.73
12:K:51:LEU:CD1	12:K:66:VAL:HG22	2.18	0.73
20:S:46:GLN:CB	20:S:50:GLY:HA3	2.19	0.73
1:X:147:G:O2'	1:X:149:A:N6	2.18	0.73
1:X:2196:U:H3'	1:X:2197:U:C6	2.23	0.73
1:X:2402:U:H1'	1:X:2404:A:C5	2.23	0.73
2:Y:54:U:H4'	2:Y:54:U:OP1	1.88	0.73
5:C:21:GLU:CB	5:C:24:SER:HB2	2.16	0.73
20:S:143:ILE:HA	20:S:171:VAL:HG11	1.70	0.73
1:X:2:G:H2'	1:X:3:U:C6	2.23	0.73
1:X:386:U:O2	1:X:386:U:H2'	1.86	0.73
1:X:590:C:H2'	1:X:591:G:C8	2.23	0.73
7:E:11:VAL:HG13	7:E:15:VAL:HG21	1.70	0.73
20:S:149:ALA:HB3	20:S:164:PRO:HA	1.70	0.73
1:X:1107:A:H3'	1:X:1108:U:H5"	1.70	0.73
1:X:1870:U:C2'	1:X:1871:G:H5'	2.19	0.73
2:Y:53:G:H21	2:Y:54:U:H5	1.36	0.73
5:C:6:VAL:HG13	5:C:7:ILE:N	2.03	0.73
6:D:9:ASN:OD1	6:D:10:ASP:N	2.22	0.73
6:D:60:ILE:HG22	6:D:140:GLU:HB2	1.71	0.73
10:I:100:ARG:HA	10:I:117:ALA:O	1.89	0.73
1:X:70:A:H5'	1:X:71:A:H2'	1.71	0.73
1:X:544:U:H2'	1:X:545:C:C6	2.24	0.73
1:X:691:C:H2'	1:X:692:C:H6	1.53	0.73
25:Z:15:LYS:O	25:Z:18:MET:HB2	1.89	0.73
19:R:20:ASP:O	19:R:36:VAL:HG23	1.89	0.73
26:1:9:ILE:O	26:1:9:ILE:HG12	1.88	0.73
28:3:52:LYS:NZ	28:3:56:ALA:HB2	2.04	0.73
1:X:2731:G:H5'	1:X:2732:C:C5	2.23	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:202:LYS:O	3:A:202:LYS:HE3	1.88	0.72
4:B:14:ILE:HG23	4:B:15:TRP:N	2.04	0.72
5:C:28:HIS:CE1	10:I:8:PRO:HB3	2.24	0.72
9:H:116:ARG:CZ	14:M:38:LYS:HD2	2.19	0.72
11:J:44:LYS:CB	11:J:95:VAL:HG13	2.19	0.72
19:R:83:LEU:H	19:R:83:LEU:HD12	1.54	0.72
1:X:1043:A:O2'	1:X:1044:U:H5'	1.87	0.72
1:X:2198:U:C3'	1:X:2199:C:H4'	2.19	0.72
1:X:2522:G:H2'	1:X:2523:G:C8	2.24	0.72
13:L:29:LEU:HD13	13:L:42:ILE:HD11	1.70	0.72
20:S:6:LYS:HE2	20:S:6:LYS:N	2.02	0.72
22:U:45:ASN:O	22:U:46:LEU:HD13	1.89	0.72
24:W:54:GLN:O	24:W:55:GLU:HG3	1.89	0.72
28:3:26:LYS:CB	28:3:44:LYS:HA	2.18	0.72
1:X:254:A:O2'	1:X:255:A:OP2	2.04	0.72
1:X:423:G:H5"	1:X:424:G:H5'	1.70	0.72
1:X:841:G:N2	1:X:2226:A:O4'	2.23	0.72
1:X:2770:A:H4'	1:X:2771:C:O5'	1.88	0.72
6:D:47:SER:HA	6:D:50:ILE:HD12	1.71	0.72
11:J:44:LYS:CB	11:J:95:VAL:HA	2.18	0.72
12:K:92:GLY:HA2	12:K:94:TYR:CZ	2.24	0.72
23:V:40:PRO:O	23:V:43:VAL:HG23	1.90	0.72
1:X:1225:G:H1'	1:X:1250:A:H61	1.53	0.72
1:X:2796:A:H2'	1:X:2797:G:C8	2.24	0.72
5:C:96:PRO:HB2	5:C:99:VAL:HG23	1.71	0.72
6:D:13:ARG:HB3	6:D:14:PRO:HD3	1.71	0.72
7:E:50:LEU:HD22	7:E:51:LEU:N	2.02	0.72
9:H:116:ARG:HG2	14:M:40:ARG:NH2	2.04	0.72
10:I:66:ASN:N	10:I:98:LEU:O	2.22	0.72
1:X:278:G:H1	1:X:380:C:H42	1.36	0.72
1:X:338:G:H5'	19:R:9:HIS:CE1	2.24	0.72
1:X:1137:A:H4'	1:X:1138:A:O5'	1.88	0.72
1:X:2798:A:H2'	1:X:2799:C:H5'	1.72	0.72
6:D:75:SER:HG	6:D:79:LEU:HD22	1.54	0.72
6:D:111:ILE:HD11	6:D:114:PHE:HB2	1.70	0.72
8:G:127:ILE:O	8:G:131:VAL:HG23	1.90	0.72
1:X:1887:G:C2'	1:X:1888:C:H5'	2.20	0.72
1:X:2329:C:H2'	1:X:2330:G:O4'	1.89	0.72
5:C:48:ARG:HD3	5:C:51:VAL:CG2	2.18	0.72
9:H:85:ASP:OD1	9:H:86:GLY:N	2.22	0.72
12:K:72:ASP:OD1	12:K:75:VAL:HG23	1.89	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:200:A:H2	1:X:420:C:O2	1.73	0.72
1:X:1448:A:H61	1:X:1574:A:N6	1.88	0.72
1:X:1819:U:C2'	1:X:1820:G:H5'	2.20	0.72
6:D:51:ASP:O	6:D:55:LYS:HD3	1.89	0.72
8:G:169:GLN:OE1	8:G:169:GLN:N	2.22	0.72
14:M:55:ILE:CG1	14:M:67:THR:HG22	2.19	0.72
17:P:92:VAL:HG13	17:P:126:ILE:HD12	1.72	0.72
19:R:20:ASP:OD2	19:R:83:LEU:HD23	1.89	0.72
1:X:196:A:N3	1:X:211:U:O2'	2.18	0.72
1:X:1961:A:O2'	1:X:1962:C:H5'	1.90	0.72
1:X:2821:G:H2'	1:X:2822:U:C6	2.25	0.72
8:G:132:PHE:HZ	8:G:142:ARG:HA	1.53	0.72
23:V:32:ALA:CB	23:V:37:LEU:HD12	2.19	0.72
1:X:158:A:H2'	1:X:159:A:C8	2.25	0.72
1:X:2464:G:C2'	1:X:2465:G:H5'	2.20	0.72
5:C:154:ASP:OD1	5:C:157:THR:OG1	2.07	0.72
6:D:72:LYS:CA	6:D:81:GLN:HA	2.15	0.72
13:L:33:ARG:HD3	13:L:99:ARG:HD2	1.71	0.72
16:O:25:LEU:HD23	16:O:30:GLY:HA3	1.71	0.72
28:3:21:LYS:HD3	28:3:22:VAL:N	2.03	0.72
1:X:1187:A:H2'	1:X:1188:A:C4	2.24	0.71
3:A:95:LEU:HG	3:A:105:ILE:CD1	2.19	0.71
5:C:118:VAL:HG12	5:C:190:ALA:HA	1.72	0.71
11:J:64:LYS:HE2	11:J:64:LYS:CA	2.19	0.71
19:R:83:LEU:H	19:R:83:LEU:CD1	2.03	0.71
1:X:457:C:O2'	1:X:458:G:H5'	1.89	0.71
1:X:1432:G:N2	1:X:1596:A:H62	1.88	0.71
1:X:1778:U:H2'	1:X:1779:C:H6	1.55	0.71
1:X:1806:G:OP2	1:X:1807:A:O2'	2.02	0.71
1:X:2245:A:H4'	1:X:2246:A:N3	2.06	0.71
1:X:2867:G:OP2	1:X:2867:G:H8	1.73	0.71
2:Y:9:G:H5'	13:L:32:TYR:CE1	2.25	0.71
3:A:65:ILE:HD13	3:A:88:ARG:NH1	2.05	0.71
5:C:117:LEU:O	5:C:188:ILE:HG13	1.89	0.71
6:D:34:ILE:HG12	6:D:156:ILE:CG1	2.20	0.71
6:D:60:ILE:HD13	6:D:141:ILE:HD11	1.72	0.71
1:X:591:G:H2'	1:X:592:G:C8	2.25	0.71
3:A:55:GLY:HA3	3:A:218:LYS:HG3	1.71	0.71
4:B:122:PHE:O	4:B:123:ALA:HB3	1.89	0.71
1:X:105:G:C2'	1:X:106:G:H5'	2.21	0.71
1:X:317:U:C3'	1:X:318:G:H5"	2.19	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:356:A:HO2'	1:X:357:A:H8	1.37	0.71
1:X:542:A:H5"	15:N:28:ARG:HH21	1.55	0.71
1:X:760:U:C6	25:Z:3:LYS:HD2	2.25	0.71
1:X:1525:A:H2'	1:X:1526:U:H5'	1.72	0.71
1:X:2189:A:N1	1:X:2190:A:N6	2.37	0.71
1:X:2625:U:H6	1:X:2625:U:H5'	1.56	0.71
4:B:33:ILE:HA	4:B:49:ILE:HD12	1.71	0.71
10:I:19:VAL:HG12	10:I:30:ALA:HB1	1.71	0.71
12:K:79:VAL:HA	12:K:83:VAL:CG1	2.20	0.71
22:U:27:ASP:HB2	22:U:32:ARG:CB	2.20	0.71
1:X:224:G:OP2	1:X:226:C:N4	2.24	0.71
1:X:2174:G:H2'	1:X:2175:A:H8	1.54	0.71
1:X:2222:U:H2'	1:X:2223:U:C6	2.25	0.71
2:Y:11:G:OP1	13:L:16:LYS:NZ	2.20	0.71
14:M:112:GLY:O	14:M:113:LYS:HG2	1.91	0.71
17:P:85:MET:HE3	17:P:130:GLU:HG3	1.73	0.71
28:3:21:LYS:HZ3	28:3:53:ALA:HB2	1.54	0.71
1:X:482:A:O2'	1:X:483:A:H5'	1.89	0.71
1:X:839:U:H5"	1:X:2408:G:OP2	1.90	0.71
1:X:2000:U:O2	25:Z:10:LYS:HB2	1.90	0.71
9:H:83:ARG:NE	9:H:89:ILE:HD11	2.05	0.71
11:J:52:ARG:HG3	11:J:67:ILE:HD11	1.71	0.71
15:N:21:ALA:O	15:N:22:LYS:HG2	1.89	0.71
1:X:267:C:H2'	1:X:268:G:H8	1.55	0.71
1:X:2640:G:O2'	1:X:2641:A:H5'	1.90	0.71
8:G:123:PRO:HG2	8:G:152:ALA:HB2	1.72	0.71
14:M:29:PRO:HA	14:M:54:VAL:O	1.90	0.71
19:R:82:ALA:HB1	19:R:83:LEU:HD12	1.72	0.71
1:X:2434:G:H2'	1:X:2435:C:C6	2.25	0.71
3:A:65:ILE:HD11	3:A:92:ILE:HG21	1.71	0.71
6:D:37:ASN:O	6:D:39:GLY:N	2.23	0.71
7:E:45:GLN:O	7:E:50:LEU:HD23	1.91	0.71
12:K:17:ARG:HH11	12:K:17:ARG:HB2	1.56	0.71
10:I:53:ARG:O	10:I:53:ARG:HG2	1.88	0.71
17:P:92:VAL:HG13	17:P:126:ILE:CD1	2.21	0.71
1:X:719:A:H2'	1:X:720:A:O4'	1.90	0.71
1:X:1270:C:H5'	5:C:69:HIS:CE1	2.25	0.71
5:C:71:ASP:OD1	5:C:72:ARG:N	2.20	0.71
5:C:118:VAL:HG12	5:C:190:ALA:CB	2.20	0.71
10:I:77:LEU:O	10:I:77:LEU:HD22	1.91	0.71
14:M:79:ARG:HH11	14:M:79:ARG:HG3	1.56	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:240:U:H2'	1:X:241:C:O4'	1.90	0.70
1:X:387:A:H2'	1:X:388:G:H5'	1.72	0.70
1:X:540:G:H4'	1:X:541:C:OP1	1.91	0.70
1:X:542:A:C5'	15:N:28:ARG:HH21	2.04	0.70
1:X:1068:A:H8	1:X:1097:A:H2'	1.54	0.70
3:A:60:ARG:HG2	3:A:86:PRO:HB2	1.73	0.70
8:G:50:PRO:HB2	8:G:53:ARG:HG3	1.73	0.70
17:P:9:ARG:CZ	17:P:13:GLN:HB2	2.21	0.70
18:Q:8:GLN:O	23:V:29:ARG:NH1	2.24	0.70
1:X:91:A:H2'	1:X:92:U:C6	2.24	0.70
1:X:1328:C:C2'	1:X:1329:U:H5'	2.22	0.70
1:X:2286:G:H1	1:X:2287:G:HO2'	1.37	0.70
20:S:130:ILE:H	20:S:130:ILE:HD12	1.54	0.70
1:X:348:U:H2'	1:X:349:G:H5"	1.73	0.70
1:X:542:A:C2	1:X:2004:U:H2'	2.26	0.70
3:A:155:LEU:HD22	3:A:155:LEU:N	2.00	0.70
10:I:23:PRO:HB3	16:O:79:GLN:HG3	1.71	0.70
13:L:38:ILE:HD13	13:L:68:ALA:CB	2.20	0.70
19:R:90:LYS:HB2	19:R:108:VAL:HG21	1.73	0.70
24:W:14:GLY:O	24:W:17:VAL:HG12	1.91	0.70
28:3:14:ILE:N	28:3:14:ILE:HD13	2.07	0.70
1:X:612:G:O2'	1:X:614:G:O2'	2.06	0.70
1:X:2236:U:O2'	1:X:2237:C:H5'	1.91	0.70
1:X:2266:A:H62	1:X:2323:U:H3	1.38	0.70
3:A:244:ARG:O	3:A:252:LYS:NZ	2.23	0.70
8:G:70:PHE:HA	15:N:64:ARG:NH1	2.06	0.70
11:J:92:GLU:OE1	11:J:92:GLU:HA	1.90	0.70
1:X:1020:A:N3	1:X:1164:C:O2'	2.21	0.70
1:X:1336:G:H2'	1:X:1337:G:C5'	2.22	0.70
1:X:1504:G:H5"	1:X:1505:U:OP2	1.91	0.70
1:X:1549:C:H2'	1:X:1550:C:O4'	1.90	0.70
1:X:2020:G:H2'	1:X:2021:G:C8	2.26	0.70
4:B:39:ALA:HA	4:B:44:TYR:N	2.06	0.70
6:D:111:ILE:HG13	6:D:114:PHE:CG	2.26	0.70
9:H:27:SER:HB3	9:H:50:ILE:CD1	2.21	0.70
13:L:88:VAL:HG13	13:L:89:PHE:H	1.56	0.70
28:3:16:ILE:CD1	28:3:16:ILE:H	2.03	0.70
1:X:349:G:HO2'	1:X:350:U:P	2.15	0.70
1:X:917:U:H2'	1:X:918:A:H5'	1.73	0.70
1:X:1152:C:OP1	8:G:91:THR:OG1	2.08	0.70
1:X:1347:C:C2'	1:X:1348:C:H5'	2.21	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1789:U:H5'	3:A:257:LEU:HB2	1.72	0.70
3:A:17:THR:HG23	3:A:205:VAL:H	1.56	0.70
11:J:50:ALA:O	11:J:54:VAL:HG23	1.91	0.70
1:X:537:C:N4	1:X:2759:U:OP2	2.25	0.70
1:X:958:G:H2'	1:X:959:C:H6	1.57	0.70
1:X:1283:C:H5"	1:X:1284:G:C5'	2.22	0.70
2:Y:32:C:H1'	2:Y:59:A:H61	1.54	0.70
3:A:161:THR:H	3:A:196:VAL:HG23	1.57	0.70
6:D:36:VAL:HG13	6:D:89:VAL:HB	1.73	0.70
7:E:41:LEU:HD21	7:E:55:PRO:HD3	1.73	0.70
9:H:65:LYS:N	9:H:65:LYS:HD2	2.06	0.70
2:Y:77:G:C2'	2:Y:78:A:H5'	2.22	0.70
3:A:17:THR:CG2	3:A:205:VAL:HG13	2.22	0.70
4:B:84:PHE:CD2	4:B:86:PRO:HD3	2.27	0.70
13:L:15:ARG:CD	13:L:91:ARG:HH21	2.05	0.70
14:M:79:ARG:HG3	14:M:79:ARG:NH1	2.07	0.70
1:X:559:C:H2'	1:X:560:G:H1'	1.73	0.70
1:X:919:U:O3'	11:J:24:GLY:HA3	1.91	0.70
1:X:1428:G:H22	1:X:1602:G:C5'	2.05	0.70
1:X:2044:G:HO2'	1:X:2046:C:H5	1.40	0.70
5:C:48:ARG:NH2	5:C:51:VAL:HG21	2.07	0.70
5:C:149:LEU:HD12	5:C:150:LEU:N	2.06	0.70
12:K:52:ILE:HD11	12:K:94:TYR:CD2	2.26	0.70
1:X:438:G:O2'	1:X:439:C:H5'	1.92	0.69
1:X:618:A:H2'	1:X:619:A:H8	1.55	0.69
1:X:1055:A:H4'	1:X:1055:A:OP1	1.91	0.69
1:X:1437:A:H2'	1:X:1438:G:C8	2.27	0.69
1:X:2468:G:O2'	1:X:2469:G:H5'	1.91	0.69
1:X:2708:U:H2'	1:X:2709:C:C6	2.27	0.69
6:D:61:THR:HG22	6:D:99:PHE:CZ	2.27	0.69
15:N:66:ASN:CB	15:N:70:ARG:HH12	2.05	0.69
1:X:578:U:H5"	1:X:579:G:OP2	1.91	0.69
1:X:797:A:H5"	3:A:227:ASN:ND2	2.07	0.69
1:X:1042:G:O2'	1:X:1043:A:H5'	1.91	0.69
1:X:2083:G:H2'	1:X:2084:G:O4'	1.92	0.69
1:X:2306:A:H2'	1:X:2307:A:C8	2.26	0.69
1:X:2795:A:H4'	12:K:3:HIS:CD2	2.27	0.69
3:A:37:LEU:HD12	3:A:39:LYS:CE	2.21	0.69
4:B:33:ILE:CD1	4:B:89:ASP:HA	2.19	0.69
14:M:7:ILE:HG13	14:M:12:LEU:HD11	1.73	0.69
1:X:148:C:O2'	1:X:149:A:H5'	1.92	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:278:G:H2'	1:X:279:A:O4'	1.92	0.69
1:X:405:C:H2'	1:X:406:G:C8	2.27	0.69
1:X:969:U:H4'	1:X:970:A:OP2	1.91	0.69
1:X:1439:G:H2'	1:X:1440:G:C8	2.27	0.69
1:X:1524:C:O2	1:X:1524:C:H2'	1.90	0.69
1:X:1769:U:H2'	1:X:1775:A:N6	2.07	0.69
3:A:206:LEU:HB3	3:A:211:ARG:HD3	1.73	0.69
6:D:63:GLN:NE2	6:D:90:THR:O	2.21	0.69
6:D:72:LYS:HB3	6:D:81:GLN:CG	2.22	0.69
1:X:1683:G:O2'	9:H:6:SER:HB3	1.91	0.69
1:X:1731:C:C2'	1:X:1732:U:H5"	2.19	0.69
3:A:145:LEU:HB3	3:A:155:LEU:HD21	1.74	0.69
3:A:231:HIS:CE1	3:A:247:VAL:HA	2.27	0.69
4:B:59:VAL:CG1	4:B:64:GLN:HG2	2.23	0.69
11:J:99:LYS:HD3	11:J:100:PRO:HD2	1.73	0.69
1:X:624:A:O2'	1:X:626:A:OP2	2.06	0.69
1:X:760:U:C5	25:Z:3:LYS:HD2	2.27	0.69
3:A:161:THR:N	3:A:196:VAL:HG23	2.08	0.69
6:D:93:GLY:O	6:D:96:MET:HG2	1.92	0.69
18:Q:4:TYR:CE2	23:V:23:LYS:HB2	2.27	0.69
21:T:53:MET:HA	21:T:58:THR:O	1.92	0.69
1:X:859:U:O2'	1:X:860:U:O5'	2.10	0.69
1:X:870:C:C2'	1:X:871:U:H5'	2.22	0.69
1:X:1524:C:H3'	1:X:1525:A:H8	1.57	0.69
6:D:29:PRO:HB2	6:D:169:LEU:HD22	1.75	0.69
19:R:25:LEU:CD1	19:R:81:VAL:HG22	2.21	0.69
19:R:60:PRO:HB2	19:R:62:MET:HG2	1.74	0.69
21:T:27:GLY:HA2	21:T:67:VAL:HG12	1.73	0.69
1:X:82:G:N2	1:X:100:G:H1'	2.08	0.69
1:X:1793:A:H2'	1:X:1794:A:H8	1.52	0.69
1:X:1995:G:O3'	17:P:117:ILE:HD12	1.92	0.69
1:X:2240:C:C2'	1:X:2241:U:H5'	2.22	0.69
1:X:2550:C:O2'	4:B:146:THR:CG2	2.41	0.69
1:X:2785:A:H2'	1:X:2786:G:H5'	1.73	0.69
5:C:166:TRP:HB3	5:C:167:VAL:CG2	2.22	0.69
5:C:166:TRP:CB	5:C:167:VAL:HG23	2.21	0.69
16:O:23:GLU:CG	16:O:91:THR:HG21	2.23	0.69
21:T:72:LYS:HE2	21:T:72:LYS:HA	1.72	0.69
22:U:34:THR:HG23	22:U:35:THR:N	2.06	0.69
25:Z:3:LYS:O	25:Z:4:HIS:C	2.31	0.69
1:X:38:G:H1	1:X:453:U:H3	1.41	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:38:G:H2'	1:X:39:C:C6	2.28	0.69
1:X:111:G:H5'	1:X:112:U:OP1	1.93	0.69
1:X:1061:A:H2'	1:X:1062:G:H5'	1.74	0.69
1:X:1438:G:H2'	1:X:1439:G:C8	2.28	0.69
1:X:1468:A:H5"	1:X:1472:C:H41	1.57	0.69
1:X:1673:C:H2'	1:X:1674:C:H6	1.57	0.69
1:X:1690:U:H6	1:X:1690:U:H3'	1.58	0.69
1:X:1787:U:H2'	1:X:1788:C:H6	1.56	0.69
1:X:2218:G:H5'	3:A:249:PRO:HD3	1.75	0.69
1:X:2736:U:H4'	1:X:2737:A:OP1	1.93	0.69
3:A:38:PRO:HB3	3:A:60:ARG:O	1.93	0.69
5:C:186:LEU:HD21	5:C:188:ILE:HG23	1.75	0.69
9:H:27:SER:CB	9:H:50:ILE:HD12	2.23	0.69
17:P:75:ALA:HB1	17:P:128:VAL:HG13	1.75	0.69
23:V:48:ARG:O	23:V:52:GLN:HG3	1.93	0.69
1:X:409:G:H5"	22:U:13:LEU:CD2	2.23	0.69
1:X:533:C:H1'	1:X:563:U:O2'	1.92	0.69
1:X:2358:C:H2'	1:X:2359:U:C6	2.28	0.69
2:Y:77:G:H1'	20:S:22:VAL:HG11	1.74	0.69
5:C:3:GLN:HB2	5:C:112:GLN:NE2	2.08	0.69
19:R:61:SER:HB3	19:R:65:PRO:HA	1.74	0.69
1:X:2201:G:H5"	3:A:186:HIS:CD2	2.28	0.69
1:X:2285:U:N3	6:D:42:SER:HB2	2.08	0.69
4:B:78:LEU:O	4:B:79:ARG:NE	2.25	0.69
6:D:46:ASP:CB	6:D:49:ALA:HB3	2.23	0.69
9:H:29:ILE:CD1	9:H:122:ARG:HB2	2.22	0.69
16:O:20:ILE:HG22	16:O:21:ARG:H	1.58	0.69
22:U:34:THR:HG23	22:U:35:THR:H	1.58	0.69
1:X:754:G:O2'	1:X:755:C:H5'	1.93	0.68
1:X:1068:A:C8	1:X:1097:A:H2'	2.27	0.68
1:X:2270:U:C2'	1:X:2271:C:H5'	2.24	0.68
2:Y:51:G:OP2	13:L:99:ARG:NH2	2.26	0.68
10:I:57:ILE:HD13	10:I:57:ILE:N	2.07	0.68
11:J:134:LYS:NZ	11:J:136:GLU:HA	2.07	0.68
17:P:17:GLN:O	17:P:18:VAL:HG23	1.91	0.68
17:P:50:VAL:HG23	17:P:91:PHE:HA	1.74	0.68
17:P:89:ARG:HH21	17:P:89:ARG:HG3	1.58	0.68
1:X:548:G:C2'	1:X:549:G:H5'	2.24	0.68
1:X:1909:U:H3'	1:X:1910:A:C8	2.28	0.68
10:I:19:VAL:HG11	10:I:30:ALA:HB1	1.75	0.68
15:N:47:TYR:CE2	16:O:73:LYS:HE2	2.27	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1468:A:H5"	1:X:1472:C:H42	1.53	0.68
1:X:2871:U:H2'	1:X:2872:U:C6	2.28	0.68
3:A:246:PRO:HD2	3:A:250:TRP:O	1.93	0.68
4:B:59:VAL:HG12	4:B:64:GLN:CG	2.23	0.68
4:B:120:TRP:CE3	4:B:155:ARG:HD2	2.28	0.68
5:C:27:LEU:O	5:C:31:VAL:HG23	1.94	0.68
5:C:48:ARG:CD	5:C:51:VAL:HG22	2.19	0.68
5:C:133:PHE:HD2	5:C:160:ALA:HB3	1.57	0.68
7:E:133:VAL:CG1	7:E:141:VAL:HG13	2.23	0.68
7:E:155:ASP:OD1	7:E:158:HIS:N	2.27	0.68
18:Q:53:ILE:HD11	18:Q:78:ALA:HB1	1.75	0.68
22:U:9:GLY:HA3	22:U:12:ASN:CB	2.21	0.68
26:1:9:ILE:HB	26:1:28:ARG:HA	1.76	0.68
1:X:252:G:H2'	1:X:253:A:O4'	1.92	0.68
1:X:640:C:O2	1:X:650:U:O2'	2.11	0.68
1:X:926:C:H6	1:X:926:C:H5'	1.58	0.68
1:X:1057:A:H5'	1:X:1058:G:OP2	1.94	0.68
1:X:2293:G:H5'	6:D:35:VAL:HG11	1.75	0.68
5:C:53:LYS:O	5:C:54:THR:HG23	1.92	0.68
6:D:34:ILE:HG21	6:D:91:LEU:HD12	1.74	0.68
7:E:54:ARG:HD3	7:E:54:ARG:H	1.59	0.68
13:L:27:LEU:O	13:L:88:VAL:N	2.26	0.68
16:O:12:TYR:CE1	16:O:41:GLY:HA2	2.28	0.68
25:Z:15:LYS:HA	25:Z:18:MET:CG	2.23	0.68
1:X:1014:G:O2'	1:X:1021:A:N1	2.25	0.68
5:C:15:ILE:HG12	5:C:194:GLU:CD	2.14	0.68
28:3:46:LYS:HG2	28:3:47:GLY:N	2.07	0.68
1:X:656:U:O2'	1:X:657:A:OP2	2.12	0.68
1:X:2286:G:H2'	1:X:2286:G:N3	2.08	0.68
2:Y:30:C:O2'	2:Y:31:A:H5'	1.94	0.68
2:Y:47:A:H1'	6:D:92:ARG:NH1	2.09	0.68
6:D:104:ILE:HA	6:D:108:LEU:CD2	2.24	0.68
10:I:55:ARG:NH1	10:I:55:ARG:O	2.26	0.68
1:X:623:G:H3'	1:X:624:A:H5"	1.76	0.68
1:X:1333:G:N2	1:X:1344:C:H41	1.92	0.68
1:X:2327:U:C2'	1:X:2328:G:H5'	2.24	0.68
1:X:2807:U:H5'	1:X:2807:U:H6	1.57	0.68
3:A:231:HIS:HD2	3:A:233:HIS:H	1.42	0.68
5:C:123:PHE:HB2	5:C:125:ILE:CD1	2.23	0.68
7:E:83:TYR:CE2	7:E:138:LYS:HB2	2.28	0.68
8:G:70:PHE:CA	15:N:64:ARG:HE	2.07	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:N:74:MET:HG3	15:N:114:ARG:NH1	2.08	0.68
16:O:34:GLU:OE1	16:O:34:GLU:HA	1.94	0.68
18:Q:12:ILE:O	18:Q:12:ILE:HG12	1.94	0.68
1:X:427:C:H2'	1:X:428:A:C8	2.29	0.68
1:X:1061:A:C2'	1:X:1062:G:H5'	2.24	0.68
1:X:2873:G:H2'	1:X:2874:A:H8	1.59	0.68
2:Y:39:C:O2	2:Y:39:C:H2'	1.93	0.68
3:A:255:LYS:H	3:A:255:LYS:CD	2.06	0.68
5:C:47:THR:CB	5:C:82:VAL:HB	2.24	0.68
16:O:19:VAL:HG13	16:O:90:PHE:CD1	2.29	0.68
16:O:21:ARG:O	16:O:22:VAL:HG13	1.93	0.68
19:R:14:LEU:CD1	19:R:39:ALA:HB1	2.24	0.68
22:U:33:LYS:O	22:U:34:THR:HB	1.94	0.68
22:U:51:ILE:HG12	22:U:59:THR:CB	2.24	0.68
1:X:264:U:O2	1:X:264:U:H2'	1.94	0.68
1:X:2737:A:N1	7:E:67:LEU:HD12	2.09	0.68
1:X:387:A:H2'	1:X:388:G:C5'	2.24	0.68
1:X:555:U:HO2'	1:X:556:A:P	2.17	0.68
1:X:1120:C:H3'	1:X:1121:G:H8	1.58	0.68
1:X:1242:A:C2'	1:X:1243:G:H5'	2.24	0.68
1:X:1401:G:O2'	1:X:1402:G:H5'	1.93	0.68
1:X:1599:G:C2	1:X:1600:U:H1'	2.29	0.68
1:X:1816:G:OP1	3:A:52:ARG:HD3	1.94	0.68
1:X:2280:A:H2'	1:X:2281:C:C6	2.28	0.68
1:X:2286:G:C6	1:X:2287:G:H1'	2.29	0.68
1:X:2348:A:O2'	1:X:2349:G:H5'	1.94	0.68
2:Y:80:A:H2'	2:Y:81:C:O4'	1.92	0.68
12:K:52:ILE:HD11	12:K:94:TYR:CG	2.29	0.68
1:X:455:A:N7	5:C:39:ARG:HD3	2.08	0.67
1:X:689:A:H8	1:X:2052:G:N2	1.90	0.67
1:X:1223:G:H4'	1:X:1224:A:H5"	1.74	0.67
1:X:2781:G:H2'	1:X:2782:G:H5'	1.76	0.67
1:X:2781:G:C2'	1:X:2782:G:H5'	2.24	0.67
1:X:2876:C:O2'	1:X:2877:A:H5'	1.94	0.67
5:C:27:LEU:HD12	5:C:181:LEU:HD11	1.75	0.67
8:G:132:PHE:CE1	8:G:145:HIS:HB2	2.29	0.67
1:X:469:G:N2	1:X:480:G:H2'	2.09	0.67
1:X:1674:C:P	4:B:135:HIS:CB	2.82	0.67
1:X:2324:G:H21	1:X:2360:C:H3'	1.59	0.67
6:D:122:PHE:HB2	6:D:128:TYR:HB2	1.76	0.67
10:I:70:THR:HA	10:I:73:GLU:HB3	1.76	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:R:38:LEU:HB3	19:R:47:VAL:CG2	2.24	0.67
1:X:39:C:H2'	1:X:40:U:C6	2.29	0.67
1:X:1153:A:H5"	1:X:1153:A:H8	1.55	0.67
1:X:2866:A:H3'	1:X:2867:G:C8	2.29	0.67
14:M:38:LYS:HE3	14:M:41:GLU:HG3	1.75	0.67
14:M:39:VAL:HG12	14:M:45:THR:HG23	1.77	0.67
20:S:35:ASP:OD1	20:S:36:ARG:N	2.28	0.67
21:T:39:ARG:HG2	21:T:39:ARG:HH11	1.59	0.67
22:U:53:GLU:OE1	22:U:57:VAL:HG23	1.94	0.67
1:X:717:G:O2'	1:X:739:G:N2	2.25	0.67
1:X:923:A:H5"	1:X:924:C:C5'	2.24	0.67
1:X:958:G:H2'	1:X:959:C:C6	2.28	0.67
2:Y:7:C:H2'	2:Y:8:C:C6	2.29	0.67
7:E:9:ILE:HA	7:E:69:ARG:NH1	2.10	0.67
13:L:88:VAL:CG1	13:L:89:PHE:H	2.08	0.67
17:P:28:ALA:HB2	17:P:71:VAL:HG21	1.75	0.67
1:X:538:A:H3'	1:X:538:A:N3	2.10	0.67
1:X:969:U:H5'	11:J:17:ARG:NH2	2.10	0.67
1:X:1056:U:HO2'	1:X:1057:A:P	2.17	0.67
1:X:2417:U:O2'	1:X:2418:A:H5"	1.95	0.67
1:X:2550:C:O2'	4:B:146:THR:HG21	1.94	0.67
4:B:147:PRO:CD	4:B:148:GLY:H	2.07	0.67
9:H:76:ARG:O	9:H:94:ASN:HA	1.94	0.67
10:I:55:ARG:HG2	10:I:56:LEU:N	2.10	0.67
19:R:42:ARG:HG2	19:R:42:ARG:HH11	1.58	0.67
22:U:51:ILE:O	22:U:52:ARG:HD3	1.94	0.67
1:X:251:C:N4	1:X:252:G:O6	2.28	0.67
1:X:1674:C:H2'	1:X:1675:C:C6	2.28	0.67
6:D:60:ILE:HA	6:D:140:GLU:HG3	1.76	0.67
6:D:121:ALA:CB	6:D:163:ASP:HB3	2.24	0.67
8:G:45:ASP:HA	8:G:83:ILE:CD1	2.25	0.67
19:R:42:ARG:HH11	19:R:42:ARG:CG	2.07	0.67
1:X:623:G:C3'	1:X:624:A:H5"	2.24	0.67
1:X:1283:C:H5"	1:X:1284:G:H5'	1.74	0.67
1:X:1630:A:N6	17:P:113:SER:O	2.24	0.67
1:X:1732:U:H4'	1:X:1733:U:OP2	1.94	0.67
1:X:2170:C:H3'	1:X:2171:U:C5'	2.24	0.67
1:X:2196:U:H3'	1:X:2197:U:H6	1.59	0.67
6:D:3:GLN:OE1	6:D:5:LYS:N	2.25	0.67
8:G:42:VAL:HG13	8:G:166:LEU:HD12	1.74	0.67
11:J:20:GLY:O	11:J:99:LYS:HG3	1.95	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:R:25:LEU:HD12	19:R:81:VAL:CG2	2.24	0.67
1:X:334:G:C5'	5:C:162:ARG:HH11	2.08	0.67
1:X:1505:U:C2'	1:X:1506:C:H5"	2.24	0.67
1:X:1536:G:H2'	1:X:1537:U:C6	2.30	0.67
1:X:1563:U:H2'	1:X:1564:U:C6	2.30	0.67
1:X:1835:C:HO2'	3:A:254:THR:HB	1.59	0.67
1:X:2218:G:C5'	3:A:249:PRO:HD3	2.25	0.67
2:Y:68:A:N6	2:Y:110:U:H3'	2.09	0.67
4:B:98:GLU:OE1	4:B:174:GLU:HA	1.94	0.67
19:R:74:LEU:HD12	19:R:75:ALA:N	2.10	0.67
19:R:108:VAL:HG13	19:R:109:ALA:N	2.09	0.67
20:S:90:GLU:OE1	20:S:90:GLU:N	2.27	0.67
21:T:40:GLN:NE2	21:T:57:HIS:O	2.27	0.67
27:2:18:PHE:N	27:2:45:SER:OG	2.23	0.67
1:X:249:A:H5'	1:X:250:C:OP2	1.95	0.67
1:X:693:A:H2'	1:X:694:G:H8	1.58	0.67
1:X:2222:U:O2'	1:X:2223:U:H5'	1.94	0.67
2:Y:61:A:H2'	2:Y:62:C:C6	2.30	0.67
6:D:12:VAL:HG11	6:D:169:LEU:CD1	2.25	0.67
8:G:54:LEU:HD12	8:G:54:LEU:O	1.95	0.67
1:X:546:A:H2'	1:X:547:U:C6	2.30	0.67
1:X:558:G:O4'	1:X:559:C:H5'	1.93	0.67
1:X:631:G:N3	1:X:631:G:H5"	2.10	0.67
1:X:1278:A:N6	1:X:1996:A:H5"	2.10	0.67
1:X:2195:C:H5'	1:X:2196:U:OP2	1.95	0.67
1:X:2260:C:O2'	1:X:2261:G:H5'	1.95	0.67
1:X:2398:U:O3'	28:3:34:THR:HG21	1.94	0.67
1:X:2793:G:O2'	1:X:2794:G:H5'	1.95	0.67
3:A:206:LEU:HD23	3:A:206:LEU:N	2.09	0.67
16:O:10:LYS:CB	16:O:37:ALA:H	2.06	0.67
16:O:47:PHE:O	16:O:49:GLU:N	2.27	0.67
1:X:408:U:H2'	1:X:409:G:C8	2.30	0.66
1:X:2197:U:H5'	1:X:2198:U:OP1	1.93	0.66
1:X:2198:U:C3'	1:X:2199:C:C4'	2.73	0.66
1:X:2852:G:C2'	1:X:2853:U:H5'	2.26	0.66
11:J:28:VAL:O	11:J:28:VAL:HG13	1.94	0.66
1:X:514:G:H4'	1:X:515:A:OP2	1.94	0.66
1:X:596:C:O2'	10:I:19:VAL:HG21	1.95	0.66
1:X:1733:U:O2'	1:X:1734:C:OP1	2.13	0.66
5:C:186:LEU:HG	5:C:188:ILE:HG12	1.76	0.66
10:I:54:SER:HB2	10:I:55:ARG:NH2	2.11	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:36:ILE:HD11	11:J:101:GLY:O	1.96	0.66
1:X:423:G:H5"	1:X:424:G:C5'	2.26	0.66
1:X:1512:A:H2'	1:X:1514:C:C5	2.31	0.66
1:X:1787:U:H2'	1:X:1788:C:C6	2.29	0.66
1:X:1813:A:H2'	1:X:1814:G:H8	1.60	0.66
1:X:1813:A:H2'	1:X:1814:G:C8	2.30	0.66
19:R:59:LYS:O	19:R:59:LYS:HD2	1.95	0.66
23:V:25:LEU:HD21	23:V:47:ARG:HD3	1.77	0.66
1:X:143:A:H2'	1:X:144:U:C6	2.30	0.66
1:X:760:U:O2	1:X:1997:A:H1'	1.96	0.66
1:X:1418:C:H2'	1:X:1419:G:C8	2.31	0.66
1:X:2362:G:O2'	1:X:2363:G:O5'	2.13	0.66
1:X:2432:A:H2'	1:X:2433:G:H8	1.60	0.66
3:A:17:THR:CG2	3:A:205:VAL:HG22	2.25	0.66
3:A:60:ARG:HD3	3:A:87:ASN:HD22	1.59	0.66
1:X:1278:A:H61	1:X:1996:A:H5"	1.61	0.66
1:X:2201:G:H5"	3:A:186:HIS:NE2	2.11	0.66
4:B:14:ILE:HG22	4:B:21:ILE:HB	1.77	0.66
18:Q:32:LYS:H	18:Q:32:LYS:HD2	1.59	0.66
28:3:2:PRO:O	28:3:3:LYS:HB3	1.95	0.66
1:X:31:C:C2'	1:X:32:C:H5'	2.26	0.66
1:X:663:G:H3'	1:X:664:C:H5"	1.77	0.66
1:X:730:C:H5"	1:X:731:A:OP2	1.95	0.66
1:X:871:U:O2	1:X:2247:A:H2'	1.95	0.66
1:X:1151:U:OP1	8:G:53:ARG:NH2	2.29	0.66
1:X:2272:A:H5"	13:L:15:ARG:NH1	2.09	0.66
2:Y:59:A:H3'	2:Y:60:A:H8	1.58	0.66
7:E:90:ARG:NH2	7:E:163:ARG:HG3	2.11	0.66
7:E:175:LYS:HA	7:E:175:LYS:NZ	2.10	0.66
15:N:61:TRP:CZ3	15:N:94:VAL:HG22	2.31	0.66
1:X:89:A:C4'	1:X:90:G:H5"	2.23	0.66
1:X:558:G:C8	1:X:559:C:C5	2.84	0.66
1:X:2204:A:H4'	1:X:2205:C:O5'	1.95	0.66
1:X:2226:A:H2'	1:X:2227:C:C6	2.31	0.66
1:X:2598:C:C2'	1:X:2599:U:H5'	2.24	0.66
6:D:72:LYS:HB3	6:D:81:GLN:HG2	1.77	0.66
6:D:75:SER:N	6:D:79:LEU:HB2	2.11	0.66
8:G:94:LYS:HA	8:G:97:ASP:OD2	1.95	0.66
10:I:57:ILE:HD13	10:I:57:ILE:H	1.58	0.66
17:P:13:GLN:HA	17:P:16:GLN:HG2	1.78	0.66
1:X:1918:G:H1'	1:X:1947:G:N2	2.11	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2314:A:HO2'	1:X:2315:A:H2'	1.58	0.66
2:Y:47:A:H5'	2:Y:48:A:OP2	1.95	0.66
2:Y:63:A:H2'	2:Y:64:C:H6	1.60	0.66
4:B:5:LEU:CD1	4:B:197:VAL:HG22	2.26	0.66
7:E:105:MET:HB2	7:E:113:VAL:HB	1.77	0.66
10:I:2:LYS:CB	10:I:5:ASP:HB2	2.24	0.66
18:Q:10:PRO:HD3	23:V:30:PHE:CE1	2.31	0.66
21:T:46:LYS:HE3	21:T:76:ALA:HA	1.77	0.66
1:X:635:C:C4	10:I:92:THR:HG23	2.31	0.66
1:X:826:U:H2'	1:X:827:C:H6	1.58	0.66
2:Y:49:C:H2'	2:Y:50:U:H5'	1.78	0.66
5:C:47:THR:O	5:C:81:GLY:HA3	1.96	0.66
12:K:33:ARG:HB2	12:K:114:GLU:CB	2.26	0.66
13:L:32:TYR:O	13:L:38:ILE:HA	1.96	0.66
17:P:9:ARG:H	17:P:9:ARG:NE	1.94	0.66
27:2:37:LYS:HG3	27:2:37:LYS:O	1.95	0.66
1:X:25:U:H5"	1:X:26:G:OP2	1.96	0.66
1:X:1418:C:H2'	1:X:1419:G:H8	1.61	0.66
1:X:1715:A:C8	1:X:1717:A:O4'	2.49	0.66
1:X:2336:G:N2	1:X:2339:A:OP2	2.29	0.66
2:Y:7:C:H2'	2:Y:8:C:H6	1.61	0.66
4:B:188:ILE:HG23	4:B:189:PRO:CD	2.26	0.66
15:N:98:ILE:HD12	15:N:101:ARG:NH2	2.11	0.66
25:Z:58:LEU:HD12	25:Z:58:LEU:O	1.96	0.66
1:X:334:G:H5'	5:C:162:ARG:NH1	2.08	0.65
1:X:430:C:H1'	1:X:2386:G:N2	2.12	0.65
1:X:1098:G:N2	1:X:1114:A:H1'	2.11	0.65
1:X:1525:A:H3'	1:X:1526:U:H6	1.61	0.65
1:X:1561:A:O2'	1:X:1562:G:OP1	2.14	0.65
1:X:1939:U:O2	1:X:1939:U:H2'	1.94	0.65
1:X:2742:G:C2'	1:X:2743:G:H5'	2.26	0.65
5:C:163:ASN:HA	5:C:166:TRP:O	1.96	0.65
6:D:70:ALA:HB2	6:D:85:VAL:CG1	2.26	0.65
1:X:403:A:H4'	1:X:404:A:H5'	1.77	0.65
1:X:812:G:H3'	1:X:813:A:H2'	1.78	0.65
1:X:1196:G:H2'	1:X:1197:U:O4'	1.95	0.65
1:X:1542:G:N2	1:X:1562:G:H22	1.94	0.65
1:X:2704:U:OP1	4:B:111:LYS:HE3	1.95	0.65
2:Y:47:A:H2'	2:Y:47:A:N3	2.10	0.65
3:A:145:LEU:HD12	3:A:146:GLU:N	2.11	0.65
1:X:810:U:H2'	1:X:811:G:O4'	1.94	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:833:A:H1'	1:X:954:U:H1'	1.77	0.65
3:A:36:ALA:HB2	3:A:61:LEU:HD13	1.78	0.65
5:C:111:ARG:NH1	5:C:183:HIS:O	2.29	0.65
6:D:60:ILE:HG22	6:D:140:GLU:CB	2.26	0.65
17:P:9:ARG:NH1	17:P:13:GLN:HB2	2.12	0.65
28:3:27:SER:O	28:3:30:ARG:HB2	1.97	0.65
1:X:1783:G:C2'	1:X:1784:C:H5'	2.26	0.65
1:X:1883:A:H1'	1:X:1953:A:H2'	1.78	0.65
10:I:57:ILE:HD11	28:3:25:PHE:CZ	2.32	0.65
11:J:99:LYS:HD3	11:J:100:PRO:HD3	1.77	0.65
20:S:43:PHE:HE2	20:S:69:VAL:HG21	1.60	0.65
22:U:25:ARG:CB	22:U:35:THR:HA	2.26	0.65
1:X:688:A:C2'	1:X:689:A:H5'	2.25	0.65
1:X:1148:G:H5"	1:X:1149:G:OP2	1.97	0.65
1:X:1399:C:O2'	1:X:1400:A:H5'	1.97	0.65
1:X:2082:C:H2'	1:X:2083:G:H5'	1.78	0.65
3:A:252:LYS:H	3:A:252:LYS:CE	2.09	0.65
22:U:10:LYS:CD	22:U:60:VAL:HG11	2.26	0.65
28:3:21:LYS:HZ3	28:3:53:ALA:CB	2.08	0.65
1:X:640:C:H1'	1:X:650:U:H1'	1.78	0.65
1:X:1182:U:O2'	1:X:1183:C:O5'	2.14	0.65
1:X:1329:U:O2'	1:X:1330:G:H5'	1.97	0.65
11:J:15:ARG:HB3	11:J:15:ARG:HH21	1.62	0.65
11:J:64:LYS:NZ	11:J:65:ILE:O	2.30	0.65
12:K:100:VAL:O	12:K:100:VAL:CG2	2.44	0.65
1:X:643:A:N6	1:X:652:C:OP1	2.29	0.65
1:X:1204:G:OP1	10:I:31:GLY:HA2	1.97	0.65
1:X:1503:G:H2'	1:X:1504:G:C8	2.31	0.65
1:X:1728:A:O2'	1:X:1729:C:H5'	1.95	0.65
1:X:1919:A:H3'	1:X:1920:A:H5'	1.77	0.65
1:X:2394:G:H2'	1:X:2395:C:C6	2.31	0.65
1:X:2559:U:H5"	1:X:2560:G:OP2	1.96	0.65
4:B:98:GLU:HA	4:B:172:VAL:HG12	1.78	0.65
4:B:175:ILE:HG12	4:B:182:ILE:HD13	1.77	0.65
6:D:60:ILE:HG21	6:D:141:ILE:CD1	2.27	0.65
7:E:11:VAL:HG13	7:E:15:VAL:CG2	2.27	0.65
11:J:56:SER:O	11:J:60:ARG:HB2	1.97	0.65
13:L:15:ARG:HD2	13:L:91:ARG:HH21	1.61	0.65
1:X:384:A:OP1	1:X:384:A:H4'	1.97	0.65
1:X:517:A:H5"	1:X:518:A:C5'	2.22	0.65
1:X:558:G:O5'	1:X:558:G:N3	2.29	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1059:A:O2'	1:X:1060:C:OP1	2.11	0.65
1:X:1508:G:H5'	1:X:1509:A:C5'	2.27	0.65
1:X:1526:U:H3'	1:X:1527:G:H8	1.61	0.65
1:X:2043:A:H3'	5:C:62:LYS:NZ	2.11	0.65
1:X:2206:C:O2'	1:X:2207:G:H5'	1.96	0.65
1:X:2824:C:P	14:M:100:ARG:HH11	2.19	0.65
4:B:102:ILE:HD13	4:B:172:VAL:HG23	1.77	0.65
10:I:55:ARG:HG3	28:3:30:ARG:HE	1.60	0.65
10:I:102:LYS:HA	10:I:122:VAL:HG21	1.79	0.65
19:R:23:ILE:O	19:R:81:VAL:HG23	1.96	0.65
1:X:1029:C:O2'	1:X:1030:U:H5'	1.97	0.65
1:X:1433:A:O2'	1:X:1434:U:OP1	2.15	0.65
1:X:2594:U:C6	25:Z:7:PRO:HA	2.32	0.65
1:X:2629:U:H2'	1:X:2630:C:C6	2.31	0.65
6:D:34:ILE:CD1	6:D:156:ILE:HD11	2.27	0.65
6:D:65:PRO:HA	6:D:89:VAL:HG22	1.79	0.65
14:M:55:ILE:HA	14:M:104:LEU:HD21	1.77	0.65
15:N:24:PHE:HB2	15:N:29:SER:HB3	1.79	0.65
21:T:41:ARG:HG3	21:T:41:ARG:NH1	2.11	0.65
22:U:52:ARG:HB3	22:U:79:GLU:CA	2.26	0.65
1:X:242:A:H2'	1:X:243:G:O4'	1.97	0.65
1:X:761:G:OP2	17:P:109:ARG:HG3	1.96	0.65
1:X:2448:A:N6	1:X:2460:G:H1'	2.12	0.65
10:I:71:THR:HG22	10:I:104:ARG:O	1.96	0.65
17:P:80:LEU:CD1	17:P:87:GLU:HB3	2.27	0.65
28:3:12:ARG:O	28:3:14:ILE:HD13	1.96	0.65
1:X:982:C:H2'	1:X:983:G:C5'	2.27	0.64
1:X:1607:A:H2'	1:X:1608:U:C6	2.32	0.64
1:X:1997:A:H2'	1:X:1998:A:C8	2.32	0.64
1:X:2564:U:H4'	1:X:2565:C:OP1	1.95	0.64
6:D:167:ARG:HG3	6:D:177:PHE:CZ	2.32	0.64
8:G:71:THR:OG1	8:G:74:MET:HG3	1.97	0.64
10:I:63:ARG:HE	10:I:63:ARG:C	2.01	0.64
14:M:99:VAL:CG2	14:M:104:LEU:HD12	2.24	0.64
15:N:70:ARG:HG3	15:N:70:ARG:HH11	1.62	0.64
20:S:166:LEU:HD12	20:S:167:THR:H	1.62	0.64
1:X:625:A:N6	5:C:163:ASN:OD1	2.31	0.64
1:X:712:A:H2'	1:X:713:G:O4'	1.97	0.64
1:X:1477:C:H2'	1:X:1478:U:H6	1.60	0.64
1:X:2581:A:H2'	1:X:2582:G:H4'	1.76	0.64
1:X:2727:G:O6	1:X:2735:C:H5"	1.97	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:70:PHE:HA	15:N:64:ARG:CZ	2.27	0.64
8:G:70:PHE:HA	15:N:64:ARG:HH11	1.60	0.64
9:H:11:ALA:O	9:H:110:VAL:HA	1.98	0.64
14:M:79:ARG:HH11	14:M:79:ARG:CG	2.10	0.64
18:Q:49:ARG:HG3	18:Q:49:ARG:O	1.97	0.64
19:R:25:LEU:HB3	19:R:81:VAL:HG22	1.79	0.64
24:W:6:VAL:O	24:W:7:ARG:HG2	1.98	0.64
1:X:1007:A:C1'	16:O:6:GLN:HG2	2.18	0.64
1:X:1909:U:P	1:X:1912:G:H22	2.21	0.64
4:B:8:LYS:HG2	4:B:192:ASN:HA	1.79	0.64
11:J:22:ALA:H	11:J:99:LYS:HB3	1.61	0.64
25:Z:4:HIS:CB	25:Z:5:PRO:HD3	2.19	0.64
1:X:2198:U:H3'	1:X:2199:C:H4'	1.77	0.64
1:X:2358:C:H2'	1:X:2359:U:H6	1.62	0.64
5:C:8:GLY:N	5:C:120:VAL:HG23	2.12	0.64
6:D:46:ASP:O	6:D:50:ILE:HG13	1.97	0.64
6:D:68:THR:CG2	6:D:88:LYS:HB2	2.27	0.64
10:I:114:ILE:HG23	10:I:134:GLU:CB	2.28	0.64
18:Q:63:LYS:HD3	18:Q:63:LYS:O	1.97	0.64
20:S:90:GLU:CG	20:S:124:ALA:HA	2.27	0.64
21:T:23:VAL:HG13	21:T:38:VAL:HG23	1.78	0.64
27:2:42:LEU:O	27:2:43:THR:HG22	1.97	0.64
1:X:1574:A:O2'	1:X:1575:C:O5'	2.12	0.64
1:X:1819:U:H2'	1:X:1820:G:H5'	1.79	0.64
1:X:2470:U:H5'	1:X:2471:U:OP2	1.97	0.64
1:X:2726:U:C2'	1:X:2727:G:H5'	2.27	0.64
20:S:143:ILE:HA	20:S:171:VAL:HG12	1.79	0.64
28:3:40:GLU:N	28:3:40:GLU:OE1	2.31	0.64
1:X:558:G:O2'	1:X:559:C:OP2	2.13	0.64
1:X:1296:G:H22	1:X:1299:A:H5'	1.62	0.64
1:X:1675:C:OP1	4:B:134:TRP:CE2	2.50	0.64
1:X:1834:G:O2'	1:X:1835:C:H5'	1.97	0.64
1:X:1919:A:H2	1:X:1926:U:N3	1.96	0.64
1:X:2436:U:C2'	1:X:2437:G:H5'	2.27	0.64
1:X:2838:U:O2'	1:X:2839:G:H5'	1.96	0.64
2:Y:108:G:O2'	2:Y:109:G:H5'	1.97	0.64
13:L:16:LYS:HA	13:L:19:THR:HG22	1.78	0.64
19:R:25:LEU:HB3	19:R:81:VAL:HG21	1.78	0.64
26:1:36:GLU:CB	26:1:52:GLU:HG3	2.28	0.64
27:2:45:SER:O	27:2:47:GLU:N	2.31	0.64
1:X:332:C:O2'	1:X:351:A:H1'	1.98	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:443:A:H5"	1:X:444:U:OP2	1.97	0.64
1:X:525:A:C2'	1:X:526:C:H5'	2.28	0.64
1:X:1370:U:H2'	1:X:1371:G:H8	1.58	0.64
1:X:1944:C:H5"	1:X:1945:C:OP2	1.98	0.64
1:X:2811:G:H2'	1:X:2812:A:H8	1.58	0.64
6:D:34:ILE:CG2	6:D:91:LEU:HD12	2.27	0.64
11:J:27:TYR:HD1	11:J:27:TYR:H	1.46	0.64
16:O:23:GLU:O	16:O:24:SER:OG	2.11	0.64
17:P:60:ILE:HG22	17:P:65:SER:OG	1.98	0.64
18:Q:7:LEU:HD22	18:Q:8:GLN:N	2.11	0.64
19:R:74:LEU:HD12	19:R:75:ALA:H	1.62	0.64
20:S:14:LEU:O	20:S:14:LEU:HD23	1.98	0.64
1:X:602:C:O2'	28:3:3:LYS:HB3	1.97	0.64
1:X:661:C:H2'	1:X:662:G:C8	2.33	0.64
1:X:1275:A:C2	25:Z:10:LYS:HE3	2.33	0.64
1:X:1517:C:O2'	1:X:1518:C:H5'	1.98	0.64
1:X:1985:G:OP2	12:K:9:LYS:HE2	1.96	0.64
1:X:2191:A:H5"	1:X:2192:U:H5	1.62	0.64
1:X:2218:G:H5'	3:A:249:PRO:CD	2.27	0.64
1:X:2343:C:O2'	1:X:2344:G:H5'	1.98	0.64
1:X:2475:C:P	11:J:83:ARG:HG3	2.36	0.64
3:A:43:ARG:CD	3:A:49:ILE:HG12	2.20	0.64
3:A:246:PRO:CD	3:A:250:TRP:O	2.45	0.64
5:C:5:ASN:ND2	5:C:120:VAL:HG12	2.12	0.64
5:C:15:ILE:O	5:C:15:ILE:HD12	1.98	0.64
1:X:555:U:O2'	1:X:556:A:OP2	2.13	0.64
1:X:939:C:H3'	1:X:940:G:H5'	1.80	0.64
1:X:2262:C:C6	1:X:2368:G:H2'	2.33	0.64
1:X:2795:A:H4'	12:K:3:HIS:HD2	1.61	0.64
7:E:27:LYS:HG2	7:E:32:GLU:HB2	1.80	0.64
8:G:43:VAL:HG23	8:G:163:PRO:CB	2.27	0.64
12:K:45:ARG:O	12:K:49:GLU:HG3	1.98	0.64
19:R:54:ILE:CD1	19:R:71:GLN:HB2	2.28	0.64
24:W:2:LYS:O	24:W:3:ILE:HD13	1.98	0.64
1:X:202:A:H2'	1:X:203:G:H5'	1.80	0.64
1:X:559:C:C2'	1:X:560:G:C1'	2.73	0.64
1:X:1349:A:O2'	1:X:1350:G:H5'	1.97	0.64
1:X:1468:A:P	1:X:1468:A:H8	2.20	0.64
3:A:72:LYS:NZ	3:A:99:ASP:OD2	2.24	0.64
3:A:146:GLU:HG2	3:A:152:GLY:C	2.17	0.64
8:G:64:GLY:O	8:G:66:HIS:N	2.30	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:K:38:LEU:HD12	12:K:38:LEU:O	1.98	0.64
24:W:23:LEU:HD12	24:W:43:MET:CE	2.28	0.64
1:X:11:G:O2'	1:X:12:U:H5'	1.96	0.63
1:X:383:G:H4'	1:X:384:A:OP2	1.97	0.63
1:X:503:G:H2'	1:X:504:G:O4'	1.97	0.63
1:X:642:A:OP2	28:3:15:LYS:NZ	2.29	0.63
1:X:939:C:H3'	1:X:940:G:C5'	2.27	0.63
1:X:1230:C:P	15:N:15:LYS:HZ2	2.20	0.63
1:X:2604:G:H2'	1:X:2605:C:C6	2.33	0.63
3:A:255:LYS:HD3	3:A:255:LYS:N	2.10	0.63
3:A:256:GLY:O	3:A:257:LEU:HD23	1.98	0.63
4:B:10:GLY:O	4:B:25:VAL:HG23	1.98	0.63
5:C:43:ALA:HB1	5:C:86:PRO:CB	2.24	0.63
5:C:118:VAL:HG12	5:C:190:ALA:CA	2.28	0.63
7:E:6:LYS:HG2	7:E:7:GLN:NE2	2.13	0.63
7:E:98:LEU:HD12	7:E:102:ALA:O	1.98	0.63
11:J:27:TYR:CE2	11:J:140:GLU:HB3	2.33	0.63
27:2:39:ARG:HD3	27:2:42:LEU:HB2	1.80	0.63
1:X:1296:G:N2	1:X:1299:A:H5'	2.14	0.63
1:X:2545:A:H61	9:H:40:GLY:HA3	1.63	0.63
3:A:131:LEU:HB2	3:A:132:PRO:HD2	1.79	0.63
11:J:16:GLY:C	11:J:17:ARG:HG2	2.17	0.63
12:K:33:ARG:HB2	12:K:114:GLU:HB2	1.80	0.63
20:S:116:VAL:HB	20:S:168:VAL:O	1.98	0.63
21:T:46:LYS:HB2	21:T:78:PHE:CD2	2.33	0.63
24:W:47:VAL:HG23	24:W:47:VAL:O	1.98	0.63
1:X:1034:U:H2'	1:X:1035:G:C5'	2.19	0.63
1:X:1474:A:H2'	1:X:1474:A:N3	2.13	0.63
1:X:1524:C:H3'	1:X:1525:A:C8	2.33	0.63
21:T:43:THR:CG2	21:T:46:LYS:HD3	2.28	0.63
21:T:53:MET:HG3	21:T:57:HIS:HA	1.78	0.63
22:U:15:VAL:HG11	22:U:46:LEU:HD13	1.81	0.63
25:Z:16:ARG:HD3	25:Z:20:ARG:NH1	2.13	0.63
28:3:22:VAL:HG13	28:3:57:ARG:HD3	1.80	0.63
1:X:564:U:H2'	1:X:565:A:C8	2.33	0.63
1:X:845:U:HO2'	10:I:48:PHE:HZ	1.43	0.63
1:X:1219:C:H2'	1:X:1220:G:O4'	1.99	0.63
1:X:1283:C:H5"	1:X:1284:G:O5'	1.97	0.63
1:X:1386:A:OP1	1:X:2191:A:N6	2.28	0.63
1:X:1442:C:O2'	1:X:1443:G:H5'	1.99	0.63
1:X:1778:U:H2'	1:X:1779:C:C6	2.33	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2859:U:C2'	1:X:2860:C:H5'	2.27	0.63
4:B:48:GLN:OE1	4:B:78:LEU:HD13	1.99	0.63
6:D:77:PHE:O	6:D:79:LEU:N	2.30	0.63
28:3:3:LYS:HG3	28:3:3:LYS:O	1.98	0.63
1:X:409:G:H4'	22:U:45:ASN:HD21	1.64	0.63
1:X:559:C:C2'	1:X:560:G:O4'	2.42	0.63
1:X:1060:C:H5"	1:X:1061:A:OP2	1.98	0.63
1:X:1506:C:H2'	1:X:1507:A:H5'	1.79	0.63
3:A:141:VAL:HG13	3:A:162:SER:HB3	1.79	0.63
16:O:40:VAL:HG22	16:O:45:THR:HB	1.78	0.63
17:P:21:ARG:HE	17:P:21:ARG:CA	2.02	0.63
19:R:61:SER:HA	19:R:64:ASN:C	2.18	0.63
20:S:104:SER:HA	20:S:139:THR:HA	1.81	0.63
28:3:21:LYS:NZ	28:3:53:ALA:HB2	2.14	0.63
28:3:33:ASN:ND2	28:3:33:ASN:O	2.31	0.63
1:X:105:G:H2'	1:X:106:G:C5'	2.25	0.63
1:X:134:G:N2	1:X:136:A:H5"	2.13	0.63
1:X:148:C:H6	1:X:148:C:OP1	1.82	0.63
1:X:220:U:C2'	1:X:221:A:H5'	2.28	0.63
1:X:2398:U:C5'	28:3:34:THR:HG21	2.28	0.63
5:C:31:VAL:HG21	10:I:6:LEU:HD11	1.78	0.63
6:D:61:THR:HG22	6:D:99:PHE:HZ	1.63	0.63
10:I:25:GLY:O	10:I:26:THR:HG22	1.99	0.63
10:I:31:GLY:O	10:I:32:ARG:HG3	1.97	0.63
11:J:37:ALA:HA	11:J:130:THR:HG22	1.80	0.63
12:K:32:GLY:HA2	12:K:115:LEU:HD12	1.80	0.63
17:P:27:VAL:HB	17:P:125:THR:HG22	1.81	0.63
22:U:53:GLU:CD	22:U:57:VAL:HA	2.19	0.63
1:X:26:G:H1'	1:X:524:A:N6	2.13	0.63
1:X:37:C:H5"	5:C:46:ARG:HH21	1.64	0.63
1:X:911:A:H2'	1:X:911:A:N3	2.13	0.63
1:X:2508:G:OP2	7:E:172:LYS:NZ	2.20	0.63
5:C:34:GLN:NE2	5:C:176:ASN:HB2	2.14	0.63
28:3:13:ARG:CB	28:3:25:PHE:HB2	2.29	0.63
1:X:1189:G:H2'	1:X:1190:C:C5	2.34	0.63
1:X:2501:U:O2'	1:X:2626:U:OP1	2.15	0.63
5:C:6:VAL:HG22	5:C:7:ILE:HG13	1.81	0.63
5:C:27:LEU:HD12	5:C:181:LEU:HD12	1.79	0.63
5:C:118:VAL:CG1	5:C:193:LEU:HD23	2.25	0.63
12:K:9:LYS:HA	12:K:17:ARG:HE	1.62	0.63
16:O:89:ASN:N	16:O:89:ASN:OD1	2.29	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:7:PRO:O	27:2:8:ASN:HB2	1.99	0.63
1:X:737:C:O2'	1:X:738:G:H5'	1.99	0.63
1:X:2785:A:C2'	1:X:2786:G:H5'	2.29	0.63
1:X:2873:G:H2'	1:X:2874:A:C8	2.34	0.63
4:B:6:GLY:HA3	4:B:27:LEU:O	1.99	0.63
9:H:29:ILE:O	9:H:29:ILE:HD13	1.98	0.63
14:M:57:ILE:HD12	14:M:103:LYS:NZ	2.14	0.63
19:R:29:HIS:CE1	19:R:51:VAL:HA	2.34	0.63
28:3:57:ARG:HG3	28:3:57:ARG:HH21	1.64	0.63
1:X:650:U:H2'	1:X:651:C:H6	1.64	0.62
1:X:1261:G:O2'	1:X:1262:U:OP1	2.15	0.62
1:X:1427:G:H2'	1:X:1428:G:C1'	2.28	0.62
1:X:2495:G:O2'	1:X:2496:C:H5'	1.99	0.62
1:X:2798:A:C2'	1:X:2799:C:H5'	2.29	0.62
3:A:17:THR:HG22	3:A:205:VAL:HG22	1.81	0.62
4:B:33:ILE:HD11	4:B:89:ASP:CA	2.24	0.62
5:C:169:VAL:C	5:C:170:LEU:HD12	2.20	0.62
5:C:188:ILE:CG1	5:C:193:LEU:HD21	2.29	0.62
7:E:67:LEU:O	7:E:71:LEU:HG	1.99	0.62
7:E:97:LYS:CE	7:E:104:GLU:HG2	2.24	0.62
10:I:92:THR:HG22	10:I:93:LEU:CD1	2.29	0.62
12:K:103:ARG:HD3	12:K:110:MET:HE2	1.81	0.62
18:Q:48:VAL:HG21	18:Q:82:LEU:CD2	2.28	0.62
19:R:14:LEU:HD12	19:R:39:ALA:HB1	1.80	0.62
23:V:32:ALA:HA	23:V:37:LEU:HB2	1.79	0.62
28:3:26:LYS:HD3	28:3:46:LYS:HD2	1.80	0.62
1:X:320:A:O3'	19:R:27:GLY:HA2	1.99	0.62
1:X:559:C:C2'	1:X:560:G:H1'	2.28	0.62
1:X:652:C:O2	1:X:652:C:H2'	1.99	0.62
1:X:810:U:P	5:C:56:ARG:HG2	2.39	0.62
1:X:1582:A:P	3:A:211:ARG:HH21	2.20	0.62
2:Y:108:G:C2'	2:Y:109:G:H5'	2.29	0.62
6:D:49:ALA:HA	6:D:52:LYS:HB3	1.82	0.62
9:H:110:VAL:CG2	9:H:129:LEU:HB2	2.23	0.62
10:I:93:LEU:HD23	10:I:97:ARG:NH2	2.14	0.62
14:M:29:PRO:HB2	14:M:99:VAL:CG1	2.24	0.62
20:S:54:ILE:CD1	20:S:62:PHE:HB2	2.29	0.62
1:X:5:A:H2'	1:X:6:A:C8	2.35	0.62
1:X:1576:G:H2'	1:X:1577:G:H5'	1.80	0.62
1:X:1758:C:C2'	1:X:1759:A:H5'	2.29	0.62
1:X:1792:C:N4	1:X:2184:C:O2'	2.32	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1865:C:H2'	1:X:1866:G:O4'	1.99	0.62
1:X:1882:G:N2	1:X:1885:C:N4	2.47	0.62
1:X:2000:U:O2'	25:Z:9:LYS:HA	2.00	0.62
1:X:2245:A:H4'	1:X:2246:A:C2	2.34	0.62
1:X:2807:U:H5'	1:X:2807:U:C6	2.34	0.62
3:A:148:VAL:HG13	3:A:149:PRO:CD	2.29	0.62
25:Z:51:TYR:CE1	25:Z:55:ARG:HB2	2.34	0.62
1:X:512:A:HO2'	17:P:15:LYS:HZ2	1.45	0.62
1:X:1508:G:C5'	1:X:1509:A:H5"	2.29	0.62
1:X:1753:A:OP1	1:X:1753:A:H4'	1.99	0.62
6:D:111:ILE:HD13	6:D:111:ILE:O	2.00	0.62
6:D:162:THR:OG1	6:D:165:GLU:HG3	2.00	0.62
8:G:34:PRO:HG2	8:G:70:PHE:CD2	2.34	0.62
8:G:61:ARG:HG2	8:G:61:ARG:HH11	1.64	0.62
14:M:57:ILE:HD12	14:M:57:ILE:H	1.65	0.62
15:N:97:ASP:O	15:N:100:ALA:N	2.32	0.62
26:1:48:VAL:HG22	26:1:49:VAL:H	1.64	0.62
1:X:477:A:H2'	1:X:478:G:H5'	1.81	0.62
1:X:543:G:H5'	15:N:24:PHE:CE1	2.34	0.62
1:X:682:G:N3	1:X:682:G:C2'	2.62	0.62
1:X:755:C:H2'	1:X:756:C:C6	2.34	0.62
1:X:872:G:HO2'	1:X:928:G:H1	1.44	0.62
1:X:1598:C:H2'	1:X:1599:G:C5'	2.29	0.62
3:A:89:SER:O	3:A:89:SER:OG	2.18	0.62
7:E:20:GLN:O	7:E:23:VAL:HG22	1.99	0.62
8:G:56:THR:HA	8:G:134:MET:HE1	1.79	0.62
15:N:66:ASN:HB2	15:N:70:ARG:NH1	2.15	0.62
15:N:95:LEU:HD22	16:O:3:ALA:CB	2.30	0.62
20:S:152:ILE:HD11	20:S:168:VAL:HG21	1.79	0.62
1:X:520:C:O2	1:X:520:C:H2'	2.00	0.62
1:X:1166:A:H5"	15:N:55:ARG:HH11	1.64	0.62
1:X:1870:U:H2'	1:X:1871:G:H5'	1.81	0.62
7:E:6:LYS:N	7:E:6:LYS:HD3	2.14	0.62
8:G:43:VAL:HG23	8:G:163:PRO:HG2	1.81	0.62
11:J:91:VAL:HG12	11:J:92:GLU:N	2.14	0.62
28:3:6:THR:HG21	28:3:59:LYS:HD2	1.82	0.62
1:X:129:A:H2'	1:X:130:C:C6	2.34	0.62
1:X:257:G:H2'	1:X:258:C:H6	1.64	0.62
1:X:413:G:N7	22:U:68:ARG:NH1	2.48	0.62
1:X:1452:U:O2'	1:X:1453:A:H5'	2.00	0.62
1:X:1573:G:C3'	1:X:1574:A:H5"	2.29	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1838:G:H3'	1:X:1839:A:C8	2.35	0.62
1:X:2293:G:H2'	1:X:2294:U:C6	2.35	0.62
2:Y:49:C:C2'	2:Y:50:U:H5'	2.30	0.62
5:C:123:PHE:HB3	5:C:136:TRP:NE1	2.13	0.62
5:C:176:ASN:HD21	5:C:179:ASP:CB	2.08	0.62
7:E:155:ASP:OD1	7:E:157:TYR:N	2.32	0.62
19:R:23:ILE:HD12	19:R:23:ILE:N	2.14	0.62
20:S:168:VAL:HG12	20:S:169:VAL:HG12	1.82	0.62
22:U:52:ARG:NE	22:U:79:GLU:OE1	2.33	0.62
1:X:691:C:H2'	1:X:692:C:C6	2.34	0.62
1:X:1791:C:H42	1:X:1809:G:N2	1.98	0.62
1:X:1963:G:O2'	1:X:1965:U:OP2	2.16	0.62
1:X:2424:G:H2'	1:X:2425:G:C5'	2.25	0.62
1:X:2698:G:C2'	1:X:2699:G:H5'	2.29	0.62
2:Y:75:A:C2	2:Y:76:U:H1'	2.35	0.62
3:A:109:GLU:HB2	3:A:197:GLY:HA2	1.80	0.62
3:A:247:VAL:HG12	3:A:248:THR:N	2.13	0.62
4:B:132:LYS:HA	4:B:134:TRP:CD1	2.35	0.62
8:G:61:ARG:HE	8:G:66:HIS:CE1	2.17	0.62
19:R:25:LEU:HG	19:R:81:VAL:CG1	2.30	0.62
20:S:141:MET:HG3	20:S:145:ASP:CB	2.28	0.62
1:X:538:A:H5"	8:G:142:ARG:HH12	1.64	0.62
1:X:818:G:OP2	10:I:38:LYS:HD3	1.99	0.62
1:X:83:A:OP2	19:R:17:LYS:HE2	2.00	0.62
1:X:224:G:H4'	1:X:399:G:C5	2.34	0.62
1:X:551:A:O2'	1:X:552:C:H5'	1.99	0.62
1:X:1741:G:C2'	1:X:1742:G:H5'	2.29	0.62
1:X:1788:C:O2'	3:A:257:LEU:HD12	1.99	0.62
1:X:2207:G:H2'	1:X:2208:U:O4'	1.99	0.62
3:A:60:ARG:O	3:A:61:LEU:HD23	2.00	0.62
6:D:47:SER:HA	6:D:50:ILE:CD1	2.29	0.62
7:E:68:THR:O	7:E:72:VAL:HG23	2.00	0.62
9:H:109:ARG:HG3	9:H:111:PHE:CE1	2.35	0.62
11:J:66:TYR:HB2	11:J:106:GLU:CD	2.21	0.62
12:K:51:LEU:HD12	12:K:66:VAL:HG22	1.82	0.62
20:S:17:SER:O	20:S:36:ARG:HB2	2.00	0.62
1:X:55:A:O2'	1:X:56:C:H5'	1.99	0.61
1:X:521:U:C2'	1:X:522:G:H5'	2.30	0.61
1:X:1044:U:OP2	1:X:1044:U:H4'	1.99	0.61
1:X:1181:C:H2'	1:X:1182:U:C5'	2.30	0.61
1:X:1305:C:O2'	1:X:1306:U:H5'	1.99	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1509:A:C8	1:X:1510:A:N7	2.68	0.61
1:X:2694:G:H2'	1:X:2695:C:O5'	1.99	0.61
4:B:144:ARG:O	4:B:146:THR:N	2.32	0.61
5:C:25:GLY:O	5:C:29:GLU:HG3	2.00	0.61
7:E:38:ASN:OD1	7:E:40:GLU:HB3	2.00	0.61
13:L:87:VAL:HG22	13:L:88:VAL:H	1.63	0.61
15:N:50:ARG:HA	15:N:53:LYS:HE3	1.82	0.61
19:R:23:ILE:HA	19:R:32:GLN:O	1.99	0.61
20:S:56:VAL:O	20:S:58:GLY:N	2.31	0.61
1:X:256:C:H1'	1:X:257:G:H5"	1.82	0.61
1:X:2364:C:H2'	1:X:2365:U:C6	2.35	0.61
1:X:2698:G:H2'	1:X:2699:G:H5'	1.83	0.61
6:D:53:ALA:CB	6:D:87:ILE:HD12	2.29	0.61
1:X:540:G:O6	1:X:2006:G:OP1	2.19	0.61
1:X:1714:A:H5"	1:X:1715:A:H5"	1.82	0.61
3:A:39:LYS:H	3:A:39:LYS:HD3	1.65	0.61
3:A:108:PRO:HG2	3:A:111:LEU:CB	2.26	0.61
6:D:12:VAL:HA	6:D:15:ALA:HB3	1.81	0.61
9:H:119:ARG:HH12	14:M:42:GLY:H	1.48	0.61
17:P:58:ARG:HH11	17:P:58:ARG:HG3	1.64	0.61
19:R:37:LEU:HD11	19:R:49:GLU:CG	2.30	0.61
21:T:47:ALA:HB2	21:T:59:LEU:HD22	1.82	0.61
1:X:484:G:O2'	1:X:485:G:H5'	2.01	0.61
1:X:488:A:H8	1:X:488:A:OP1	1.84	0.61
1:X:567:G:H5'	8:G:140:GLN:OE1	2.00	0.61
1:X:628:A:OP1	5:C:100:ARG:HD2	2.00	0.61
1:X:2343:C:C2'	1:X:2344:G:H5'	2.30	0.61
1:X:2399:C:O5'	1:X:2399:C:H6	1.83	0.61
1:X:2795:A:C4'	12:K:3:HIS:HD2	2.13	0.61
1:X:2860:C:H2'	1:X:2861:A:O4'	2.00	0.61
5:C:119:ALA:O	5:C:190:ALA:HB3	2.00	0.61
6:D:60:ILE:HG21	6:D:141:ILE:HD11	1.81	0.61
7:E:86:ASN:O	7:E:87:LEU:HD23	2.00	0.61
15:N:6:THR:HG21	15:N:10:ARG:NH2	2.14	0.61
22:U:52:ARG:CD	22:U:79:GLU:HA	2.31	0.61
1:X:1328:C:O2'	1:X:1329:U:H5'	1.99	0.61
1:X:1366:A:H2'	1:X:1367:A:C8	2.36	0.61
1:X:1592:U:H2'	1:X:1593:C:H5'	1.82	0.61
1:X:1805:G:N3	3:A:50:THR:CG2	2.63	0.61
1:X:1974:U:C2'	1:X:1975:G:H5"	2.29	0.61
1:X:2001:G:OP1	25:Z:9:LYS:HE3	2.00	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2009:U:O2'	1:X:2010:G:H5'	2.00	0.61
1:X:2039:G:H2'	1:X:2039:G:N3	2.16	0.61
7:E:26:VAL:HG11	7:E:79:VAL:HG21	1.81	0.61
7:E:69:ARG:C	7:E:69:ARG:HD3	2.21	0.61
27:2:42:LEU:C	27:2:43:THR:HG22	2.21	0.61
1:X:2:G:H2'	1:X:3:U:H6	1.65	0.61
1:X:1972:G:O2'	1:X:1973:C:H5'	2.00	0.61
1:X:2634:G:O2'	1:X:2643:G:O6	2.08	0.61
2:Y:62:C:H2'	2:Y:63:A:H8	1.66	0.61
6:D:129:ASN:CB	6:D:155:THR:HA	2.30	0.61
9:H:70:VAL:CG2	9:H:98:ILE:HG23	2.29	0.61
12:K:106:ASP:OD1	12:K:108:VAL:HB	2.00	0.61
16:O:20:ILE:HG22	16:O:21:ARG:N	2.15	0.61
1:X:79:G:C2'	1:X:80:A:H5'	2.30	0.61
1:X:171:G:O2'	1:X:172:A:H5'	2.01	0.61
1:X:199:A:N6	1:X:209:G:H1'	2.16	0.61
1:X:677:G:C2'	1:X:678:G:H5'	2.30	0.61
1:X:919:U:H4'	11:J:24:GLY:O	2.00	0.61
1:X:1349:A:H2'	1:X:1350:G:H8	1.65	0.61
1:X:2065:A:H2'	1:X:2066:G:H5'	1.83	0.61
1:X:2424:G:C2'	1:X:2425:G:C5'	2.76	0.61
2:Y:85:G:H5'	24:W:49:HIS:CE1	2.36	0.61
3:A:31:LYS:O	3:A:32:ALA:HB3	2.00	0.61
4:B:5:LEU:HD11	4:B:197:VAL:HG22	1.81	0.61
8:G:31:THR:HG22	15:N:64:ARG:HH22	1.65	0.61
11:J:137:VAL:HG21	20:S:43:PHE:CE1	2.36	0.61
13:L:95:LYS:HE2	13:L:95:LYS:CA	2.29	0.61
15:N:95:LEU:HD21	16:O:10:LYS:HZ2	1.66	0.61
17:P:43:ASP:HA	17:P:46:ARG:NH1	2.15	0.61
20:S:154:LEU:HD21	20:S:160:LEU:HD21	1.81	0.61
2:Y:37:C:H2'	2:Y:38:C:O4'	2.01	0.61
3:A:246:PRO:HD2	3:A:250:TRP:H	1.65	0.61
5:C:33:TRP:CD1	5:C:95:LEU:HB2	2.35	0.61
8:G:100:TYR:OH	8:G:126:VAL:HG12	2.00	0.61
1:X:335:A:N6	1:X:349:G:H1'	2.15	0.61
1:X:649:G:N1	1:X:661:C:O2	2.34	0.61
1:X:1343:C:O2'	1:X:1344:C:H5'	2.00	0.61
29:X:2901:QTZ:C37	29:X:2901:QTZ:O6	2.49	0.61
3:A:28:ARG:NE	3:A:29:PRO:HD3	2.12	0.61
6:D:122:PHE:CD2	6:D:128:TYR:HB2	2.36	0.61
7:E:18:ASN:OD1	7:E:25:LYS:NZ	2.24	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:50:G:O2'	1:X:51:A:OP2	2.13	0.61
1:X:793:G:H21	1:X:796:A:H62	1.46	0.61
1:X:2318:U:H2'	1:X:2319:G:H8	1.66	0.61
3:A:143:HIS:ND1	3:A:194:GLY:O	2.27	0.61
7:E:41:LEU:HD11	7:E:55:PRO:CD	2.30	0.61
7:E:53:GLU:HA	7:E:65:HIS:CD2	2.35	0.61
8:G:45:ASP:HA	8:G:83:ILE:HD11	1.83	0.61
10:I:11:GLY:O	10:I:12:SER:HB3	2.00	0.61
14:M:38:LYS:NZ	14:M:46:ARG:HD2	2.15	0.61
17:P:106:LEU:HD23	17:P:106:LEU:C	2.21	0.61
21:T:21:LEU:CD1	21:T:41:ARG:HD3	2.31	0.61
1:X:19:C:C2'	1:X:20:C:H5'	2.31	0.60
1:X:1887:G:H2'	1:X:1888:C:C5'	2.29	0.60
1:X:2202:G:C2'	1:X:2203:G:H5'	2.31	0.60
4:B:120:TRP:CD2	4:B:155:ARG:HD2	2.36	0.60
5:C:144:GLY:HA2	5:C:166:TRP:CZ2	2.36	0.60
19:R:16:PHE:HZ	19:R:46:VAL:CG2	2.13	0.60
19:R:38:LEU:HD22	19:R:39:ALA:N	2.16	0.60
23:V:27:GLU:HA	23:V:27:GLU:OE1	2.01	0.60
1:X:857:U:H3'	1:X:858:G:C8	2.37	0.60
1:X:1007:A:H1'	16:O:6:GLN:CG	2.17	0.60
1:X:1333:G:N2	1:X:1344:C:N4	2.49	0.60
1:X:1997:A:H5"	17:P:115:ASN:ND2	2.04	0.60
2:Y:106:U:C2'	2:Y:107:C:H5'	2.31	0.60
12:K:83:VAL:HG22	12:K:84:ALA:N	2.16	0.60
25:Z:6:VAL:HG13	25:Z:7:PRO:HD2	1.82	0.60
28:3:9:MET:O	28:3:14:ILE:HD11	2.00	0.60
1:X:409:G:H5"	22:U:13:LEU:HD22	1.84	0.60
1:X:1218:C:C2'	1:X:1219:C:H5'	2.31	0.60
1:X:1741:G:O2'	1:X:1742:G:H5'	2.01	0.60
1:X:1861:G:O2'	1:X:1862:C:H5'	2.01	0.60
1:X:2395:C:OP1	10:I:57:ILE:HG22	2.00	0.60
3:A:182:LEU:HB2	3:A:268:ARG:O	2.02	0.60
7:E:27:LYS:HE2	7:E:32:GLU:OE1	2.01	0.60
8:G:51:LEU:HD12	8:G:88:VAL:HG11	1.82	0.60
9:H:10:VAL:HG22	9:H:17:ARG:O	2.00	0.60
13:L:79:ALA:HB1	13:L:84:ILE:HG12	1.83	0.60
28:3:50:LEU:N	28:3:50:LEU:HD23	2.16	0.60
1:X:38:G:H2'	1:X:39:C:H6	1.65	0.60
1:X:79:G:O2'	1:X:80:A:H5'	2.01	0.60
1:X:171:G:H2'	1:X:172:A:O4'	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:982:C:C2'	1:X:983:G:H5'	2.32	0.60
1:X:2314:A:O2'	1:X:2315:A:H8	1.85	0.60
1:X:2528:G:C2'	1:X:2529:G:H5'	2.31	0.60
1:X:2661:G:O6	1:X:2708:U:H1'	2.01	0.60
5:C:6:VAL:HG12	5:C:120:VAL:HG13	1.81	0.60
9:H:23:ARG:HG3	9:H:23:ARG:HH21	1.66	0.60
9:H:116:ARG:NH2	14:M:38:LYS:HD2	2.15	0.60
15:N:27:SER:HB2	15:N:31:GLN:CG	2.30	0.60
1:X:116:A:H3'	1:X:117:A:H5"	1.82	0.60
1:X:1432:G:H21	1:X:1596:A:N6	1.98	0.60
1:X:1763:G:H5"	1:X:1764:A:OP2	2.00	0.60
1:X:2035:G:C2'	1:X:2036:G:H5'	2.31	0.60
1:X:2198:U:H2'	1:X:2199:C:C1'	2.32	0.60
1:X:2757:G:H5"	1:X:2758:A:H5'	1.82	0.60
1:X:2834:A:O2'	1:X:2835:A:H5'	2.01	0.60
5:C:48:ARG:CZ	5:C:51:VAL:HG21	2.30	0.60
10:I:101:ARG:CB	10:I:118:VAL:HG22	2.32	0.60
16:O:58:ALA:HB1	16:O:94:LYS:O	2.01	0.60
19:R:107:ALA:HB2	19:R:111:GLY:O	2.01	0.60
20:S:51:LEU:HB3	20:S:65:LEU:HD12	1.83	0.60
1:X:11:G:H2'	1:X:12:U:H5'	1.82	0.60
1:X:44:G:H5"	1:X:45:C:OP1	2.01	0.60
1:X:1547:U:H2'	1:X:1548:U:C6	2.37	0.60
1:X:1673:C:C2'	1:X:1674:C:O5'	2.49	0.60
1:X:1816:G:O2'	1:X:1817:U:H5'	2.01	0.60
1:X:2039:G:C2	1:X:2040:A:C8	2.89	0.60
1:X:2198:U:OP2	1:X:2199:C:H5"	2.00	0.60
1:X:2398:U:C3'	28:3:34:THR:HG21	2.32	0.60
1:X:2508:G:H5"	1:X:2509:A:H5'	1.83	0.60
7:E:105:MET:HE2	7:E:105:MET:HA	1.84	0.60
9:H:92:ASP:OD2	14:M:76:GLY:HA3	2.01	0.60
20:S:3:LEU:HD12	20:S:4:THR:N	2.17	0.60
20:S:91:PRO:O	20:S:125:PRO:HD2	2.01	0.60
1:X:455:A:H1'	1:X:1215:A:O4'	2.02	0.60
1:X:699:G:H1	27:2:12:ARG:HB2	1.67	0.60
1:X:846:A:O2'	1:X:847:C:H5'	2.02	0.60
1:X:2551:A:P	4:B:146:THR:OG1	2.60	0.60
5:C:6:VAL:CG1	5:C:120:VAL:H	2.14	0.60
6:D:127:ASN:HA	6:D:158:THR:HG23	1.84	0.60
7:E:108:GLY:CA	7:E:152:ARG:HH22	2.08	0.60
7:E:137:ASP:HB3	7:E:140:LEU:HB2	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:61:ARG:HE	8:G:66:HIS:CG	2.19	0.60
28:3:52:LYS:HD2	28:3:56:ALA:CB	2.30	0.60
1:X:31:C:O2'	1:X:32:C:H5'	2.02	0.60
1:X:1191:G:H2'	1:X:1192:A:O4'	2.02	0.60
1:X:1426:U:H2'	1:X:1427:G:O4'	2.02	0.60
1:X:1428:G:H2'	1:X:1428:G:N3	2.17	0.60
1:X:1910:A:H2'	1:X:1911:A:O4'	2.01	0.60
1:X:2371:A:OP2	28:3:32:GLN:NE2	2.33	0.60
5:C:14:THR:O	5:C:15:ILE:HG23	2.02	0.60
6:D:132:ILE:HG13	6:D:138:PHE:HZ	1.66	0.60
7:E:86:ASN:HA	7:E:132:ASP:OD1	2.02	0.60
9:H:75:VAL:CG1	9:H:118:LEU:HD21	2.24	0.60
14:M:57:ILE:H	14:M:103:LYS:HZ1	1.48	0.60
15:N:102:GLU:OE2	16:O:1:MET:HG2	2.01	0.60
18:Q:27:PHE:N	18:Q:27:PHE:CD1	2.69	0.60
20:S:3:LEU:HB2	20:S:34:LEU:HB3	1.84	0.60
1:X:257:G:H2'	1:X:258:C:C6	2.37	0.60
1:X:938:G:O2'	1:X:939:C:H5'	2.01	0.60
1:X:2721:A:H2'	1:X:2722:C:O4'	2.00	0.60
4:B:93:VAL:C	4:B:95:ILE:H	2.02	0.60
6:D:72:LYS:HD3	6:D:81:GLN:OE1	2.02	0.60
8:G:44:VAL:HG11	8:G:54:LEU:HD11	1.84	0.60
9:H:13:ASN:ND2	9:H:109:ARG:HG2	2.17	0.60
9:H:104:GLU:HG2	9:H:125:LYS:CD	2.31	0.60
11:J:30:PHE:HD1	11:J:30:PHE:H	1.50	0.60
13:L:88:VAL:CG1	13:L:89:PHE:N	2.64	0.60
1:X:321:A:O2'	1:X:322:A:O5'	2.13	0.60
1:X:1469:U:OP2	1:X:1471:G:OP2	2.20	0.60
1:X:2291:U:H5'	6:D:85:VAL:HG21	1.82	0.60
21:T:21:LEU:HD11	21:T:41:ARG:CD	2.32	0.60
26:1:36:GLU:HB2	26:1:52:GLU:CB	2.30	0.60
1:X:114:C:O2'	1:X:115:G:H5'	2.02	0.59
1:X:213:C:H2'	1:X:214:C:H6	1.67	0.59
1:X:648:A:H2	1:X:649:G:H21	1.50	0.59
1:X:735:G:O2'	1:X:736:G:H5'	2.01	0.59
1:X:1459:U:C2	1:X:1475:U:H1'	2.37	0.59
1:X:2788:C:H2'	1:X:2789:U:H6	1.67	0.59
5:C:158:ARG:O	5:C:161:ALA:N	2.34	0.59
6:D:12:VAL:HG11	6:D:169:LEU:HD12	1.84	0.59
6:D:129:ASN:HA	6:D:155:THR:HA	1.83	0.59
7:E:67:LEU:HD21	7:E:71:LEU:HD11	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:O:25:LEU:HD23	16:O:30:GLY:CA	2.31	0.59
17:P:46:ARG:O	17:P:48:LYS:N	2.32	0.59
20:S:43:PHE:HD1	20:S:43:PHE:O	1.84	0.59
22:U:78:ILE:HD13	22:U:79:GLU:N	2.17	0.59
1:X:742:G:OP2	3:A:13:ARG:NH1	2.29	0.59
1:X:1115:C:O2'	1:X:1116:U:H5'	2.01	0.59
1:X:1433:A:HO2'	1:X:1434:U:P	2.24	0.59
1:X:1514:C:H4'	1:X:1592:U:O2'	2.02	0.59
1:X:1555:A:H2'	1:X:1556:A:C8	2.37	0.59
1:X:1998:A:H1'	25:Z:3:LYS:HG3	1.84	0.59
7:E:125:VAL:HG22	7:E:130:ARG:O	2.02	0.59
10:I:117:ALA:O	10:I:118:VAL:HG23	2.02	0.59
23:V:32:ALA:HB2	23:V:37:LEU:CD1	2.30	0.59
1:X:1122:A:O2'	1:X:1123:G:H4'	2.01	0.59
1:X:1364:C:H2'	1:X:1365:U:C6	2.37	0.59
1:X:1573:G:H3'	1:X:1574:A:C5'	2.31	0.59
1:X:2196:U:H5'	1:X:2197:U:OP2	2.02	0.59
1:X:2229:G:H5"	1:X:2229:G:N3	2.17	0.59
1:X:2436:U:O2'	1:X:2437:G:H5'	2.03	0.59
6:D:53:ALA:HB3	6:D:87:ILE:HD12	1.84	0.59
10:I:119:THR:CB	10:I:122:VAL:HG23	2.31	0.59
11:J:109:GLY:HA3	20:S:112:LEU:HD21	1.84	0.59
13:L:43:ILE:N	13:L:43:ILE:HD12	2.17	0.59
14:M:44:ARG:HH22	14:M:46:ARG:NH2	1.98	0.59
22:U:15:VAL:HG22	22:U:46:LEU:HA	1.81	0.59
1:X:5:A:H2'	1:X:6:A:H8	1.68	0.59
1:X:69:G:O2'	1:X:111:G:O2'	2.10	0.59
1:X:93:A:O2'	1:X:94:C:H5'	2.03	0.59
1:X:726:G:H2'	1:X:727:U:C2	2.37	0.59
1:X:1100:G:N2	1:X:1113:C:H42	2.01	0.59
1:X:1104:G:N1	1:X:1105:U:O4	2.35	0.59
1:X:1774:A:H5'	1:X:2587:G:H4'	1.83	0.59
1:X:2342:U:C2'	1:X:2343:C:H5'	2.31	0.59
2:Y:32:C:C1'	2:Y:59:A:H61	2.15	0.59
4:B:128:SER:O	4:B:129:HIS:HB2	2.01	0.59
5:C:124:ASP:OD1	5:C:124:ASP:N	2.30	0.59
5:C:144:GLY:CA	5:C:166:TRP:HZ2	2.16	0.59
6:D:104:ILE:CA	6:D:108:LEU:HD21	2.30	0.59
6:D:122:PHE:HD2	6:D:129:ASN:H	1.51	0.59
8:G:85:ALA:O	8:G:88:VAL:HG23	2.02	0.59
9:H:116:ARG:HG2	14:M:40:ARG:HH21	1.67	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:P:87:GLU:HA	17:P:90:LEU:HG	1.83	0.59
18:Q:19:ALA:HB1	18:Q:24:VAL:HG21	1.83	0.59
1:X:469:G:C8	27:2:37:LYS:HD2	2.37	0.59
1:X:688:A:O2'	1:X:689:A:H5'	2.02	0.59
1:X:971:A:H61	11:J:84:MET:CE	2.16	0.59
1:X:1026:U:O2'	1:X:1027:C:H5'	2.02	0.59
1:X:2022:C:OP1	8:G:137:LYS:NZ	2.27	0.59
1:X:2821:G:H2'	1:X:2822:U:H6	1.65	0.59
2:Y:44:C:O2'	6:D:64:LYS:O	2.14	0.59
11:J:21:ASP:HA	11:J:99:LYS:CD	2.26	0.59
11:J:106:GLU:CD	11:J:106:GLU:N	2.56	0.59
13:L:33:ARG:HG3	13:L:33:ARG:O	2.01	0.59
1:X:265:U:O2'	1:X:266:U:O4'	2.20	0.59
1:X:1212:U:H2'	1:X:1213:U:H6	1.64	0.59
1:X:1511:A:H2	1:X:1594:U:H1'	1.66	0.59
1:X:1573:G:C5'	1:X:1574:A:H5"	2.31	0.59
1:X:1961:A:C2'	1:X:1962:C:H5'	2.32	0.59
1:X:2398:U:OP2	28:3:41:ILE:HD13	2.02	0.59
1:X:2399:C:P	28:3:34:THR:HG23	2.41	0.59
1:X:2651:U:H2'	1:X:2652:G:O5'	2.02	0.59
3:A:198:ASN:HD21	3:A:201:HIS:HB2	1.64	0.59
4:B:81:PHE:HZ	4:B:197:VAL:HG13	1.66	0.59
6:D:112:ARG:HE	6:D:113:ASP:HB2	1.67	0.59
9:H:25:LEU:HD11	9:H:52:VAL:HG23	1.83	0.59
14:M:17:GLU:CG	14:M:62:SER:H	2.16	0.59
15:N:20:ARG:HB3	15:N:39:LEU:HD11	1.84	0.59
19:R:28:LYS:O	19:R:29:HIS:HB2	2.03	0.59
19:R:106:VAL:O	19:R:112:LYS:HA	2.03	0.59
24:W:3:ILE:HG22	24:W:51:LEU:HD22	1.84	0.59
1:X:1190:C:N4	1:X:1191:G:O6	2.36	0.59
1:X:1193:G:C2'	1:X:1194:U:H5'	2.33	0.59
1:X:2470:U:H2'	1:X:2470:U:O2	2.02	0.59
1:X:2522:G:H2'	1:X:2523:G:H8	1.65	0.59
7:E:163:ARG:HH11	7:E:167:GLU:CB	2.16	0.59
13:L:28:ARG:CA	13:L:88:VAL:HG12	2.30	0.59
18:Q:5:ASP:OD1	18:Q:5:ASP:N	2.35	0.59
18:Q:10:PRO:HD3	23:V:30:PHE:CD1	2.38	0.59
20:S:69:VAL:HG13	20:S:81:VAL:HG13	1.85	0.59
1:X:1488:G:H5"	1:X:1489:C:OP2	2.02	0.59
1:X:2027:C:O2'	1:X:2028:C:H5'	2.02	0.59
1:X:2856:U:O2'	1:X:2857:C:H5'	2.03	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:252:LYS:H	3:A:253:PRO:HD2	1.67	0.59
4:B:18:ASP:N	4:B:18:ASP:OD1	2.35	0.59
7:E:94:PHE:HB3	7:E:107:ILE:HG22	1.85	0.59
10:I:47:ALA:HA	10:I:48:PHE:CE1	2.38	0.59
10:I:103:ASN:OD1	10:I:122:VAL:HA	2.03	0.59
15:N:66:ASN:CG	15:N:70:ARG:HH12	2.06	0.59
19:R:16:PHE:HZ	19:R:46:VAL:HG22	1.67	0.59
20:S:117:VAL:CG2	20:S:168:VAL:HG13	2.33	0.59
23:V:52:GLN:O	23:V:56:VAL:HG23	2.02	0.59
1:X:542:A:C2	1:X:2004:U:C2'	2.85	0.59
1:X:1123:G:O2'	1:X:1124:U:H5'	2.02	0.59
1:X:1513:U:OP2	1:X:1514:C:H5	1.86	0.59
1:X:1522:C:H2'	1:X:1523:A:C4'	2.31	0.59
1:X:1721:G:O2'	1:X:1722:G:H5'	2.03	0.59
1:X:1729:C:O2'	1:X:1730:G:H5'	2.02	0.59
1:X:1758:C:H2'	1:X:1759:A:H5'	1.84	0.59
1:X:1835:C:H2'	1:X:1836:C:H6	1.68	0.59
4:B:114:GLN:OE1	4:B:114:GLN:HA	2.02	0.59
4:B:136:ARG:O	4:B:137:ARG:O	2.21	0.59
10:I:65:PHE:CD1	10:I:98:LEU:HB2	2.37	0.59
11:J:123:GLY:HA2	11:J:126:LEU:HD12	1.85	0.59
19:R:106:VAL:HG22	19:R:113:THR:OG1	2.02	0.59
1:X:521:U:C3'	1:X:522:G:H5'	2.33	0.59
1:X:651:C:H2'	1:X:652:C:C6	2.38	0.59
1:X:859:U:O2'	1:X:860:U:P	2.61	0.59
1:X:1242:A:O2'	1:X:1243:G:H5'	2.03	0.59
1:X:1268:U:C6	5:C:67:ALA:HA	2.38	0.59
1:X:1443:G:H2'	1:X:1444:C:C6	2.38	0.59
1:X:1573:G:O5'	1:X:1574:A:H5"	2.02	0.59
1:X:1816:G:OP1	3:A:52:ARG:CD	2.51	0.59
1:X:2819:G:H2'	1:X:2820:C:H6	1.67	0.59
2:Y:27:A:O2'	2:Y:28:A:P	2.60	0.59
6:D:34:ILE:HG12	6:D:156:ILE:CD1	2.33	0.59
6:D:160:ALA:CB	6:D:166:ALA:HB2	2.33	0.59
9:H:47:VAL:HA	9:H:74:VAL:CG1	2.31	0.59
12:K:99:ARG:HA	12:K:111:ALA:CB	2.33	0.59
22:U:10:LYS:CE	22:U:60:VAL:HG11	2.33	0.59
1:X:2210:C:OP1	22:U:45:ASN:HA	2.03	0.58
1:X:2468:G:C2'	1:X:2469:G:H5'	2.33	0.58
2:Y:46:G:H1'	2:Y:49:C:N4	2.18	0.58
3:A:120:GLY:HA2	3:A:190:TYR:OH	2.02	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:252:LYS:HZ1	3:A:253:PRO:CD	2.12	0.58
5:C:181:LEU:HD23	10:I:1:MET:N	2.17	0.58
13:L:51:LEU:O	13:L:52:ALA:CB	2.51	0.58
20:S:27:GLU:HG3	20:S:28:ASN:OD1	2.03	0.58
1:X:1467:U:O4	1:X:1473:U:C2	2.56	0.58
1:X:2017:U:C2'	1:X:2018:G:H5'	2.33	0.58
2:Y:32:C:H1'	2:Y:59:A:N6	2.17	0.58
3:A:105:ILE:HG22	3:A:106:LEU:N	2.16	0.58
5:C:47:THR:CB	5:C:82:VAL:HG23	2.33	0.58
20:S:20:ALA:HB3	20:S:80:HIS:HD2	1.69	0.58
21:T:37:LEU:HD22	21:T:67:VAL:CG2	2.33	0.58
23:V:25:LEU:HD13	23:V:46:LEU:HB2	1.84	0.58
1:X:980:G:O3'	24:W:11:GLY:HA2	2.04	0.58
1:X:2211:U:P	22:U:43:ARG:HH22	2.27	0.58
1:X:2284:U:H2'	1:X:2285:U:H5"	1.85	0.58
1:X:2285:U:H1'	6:D:150:ARG:NH2	2.18	0.58
1:X:2286:G:N1	1:X:2287:G:H1'	2.19	0.58
6:D:78:LYS:HE3	6:D:78:LYS:H	1.67	0.58
18:Q:88:ILE:HG13	18:Q:92:ALA:CB	2.28	0.58
1:X:349:G:OP1	19:R:13:LYS:NZ	2.23	0.58
1:X:617:U:C5	1:X:632:A:C2	2.88	0.58
1:X:699:G:N1	27:2:12:ARG:HB2	2.18	0.58
1:X:922:A:H2'	1:X:923:A:C8	2.38	0.58
1:X:982:C:O2'	1:X:983:G:H5'	2.03	0.58
1:X:1094:C:O2	1:X:1096:A:H2'	2.03	0.58
1:X:1389:C:O2'	1:X:1390:G:H5'	2.03	0.58
1:X:1427:G:O2'	1:X:1604:A:N6	2.36	0.58
1:X:1525:A:C5	1:X:1526:U:H1'	2.39	0.58
1:X:1655:C:H4'	1:X:2689:C:O2	2.02	0.58
1:X:1827:G:H1'	1:X:1914:U:C2	2.38	0.58
1:X:2000:U:O2'	25:Z:10:LYS:N	2.34	0.58
1:X:2261:G:N2	1:X:2369:U:O2	2.32	0.58
1:X:2668:U:OP2	1:X:2699:G:N2	2.34	0.58
2:Y:32:C:C2'	2:Y:59:A:H61	2.17	0.58
5:C:90:SER:O	5:C:91:TYR:HB2	2.04	0.58
7:E:26:VAL:O	7:E:32:GLU:HA	2.02	0.58
11:J:28:VAL:HG11	11:J:135:ARG:HB3	1.85	0.58
15:N:74:MET:HG2	15:N:78:THR:CG2	2.33	0.58
16:O:40:VAL:CG2	16:O:45:THR:HB	2.33	0.58
18:Q:7:LEU:HD22	18:Q:8:GLN:H	1.68	0.58
25:Z:52:TYR:HB3	25:Z:56:GLN:HE22	1.68	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1171:A:N3	16:O:6:GLN:NE2	2.52	0.58
1:X:1354:A:H2'	1:X:1410:U:O2	2.03	0.58
1:X:2318:U:H2'	1:X:2319:G:C8	2.38	0.58
1:X:2549:G:H2'	1:X:2550:C:O4'	2.02	0.58
2:Y:100:G:H2'	2:Y:101:A:H5'	1.86	0.58
5:C:26:VAL:HG11	5:C:102:LEU:HD13	1.84	0.58
5:C:152:THR:CG2	5:C:158:ARG:HG3	2.34	0.58
6:D:70:ALA:HB2	6:D:85:VAL:HG13	1.84	0.58
9:H:8:LEU:N	9:H:8:LEU:HD23	2.19	0.58
13:L:50:THR:C	13:L:51:LEU:HD13	2.24	0.58
20:S:100:THR:HG23	20:S:138:VAL:HG13	1.84	0.58
26:1:39:LYS:HA	26:1:48:VAL:O	2.04	0.58
1:X:129:A:H2'	1:X:130:C:H6	1.69	0.58
1:X:614:G:C2'	1:X:615:C:H5'	2.33	0.58
1:X:971:A:H61	11:J:84:MET:HE2	1.69	0.58
1:X:1049:C:C2	1:X:1129:A:C2	2.92	0.58
1:X:1770:U:C5	1:X:1775:A:N7	2.70	0.58
3:A:149:PRO:HB3	3:A:188:GLU:HB3	1.84	0.58
4:B:14:ILE:HG12	14:M:20:HIS:NE2	2.17	0.58
4:B:146:THR:CG2	4:B:147:PRO:CD	2.61	0.58
10:I:18:ARG:HH11	10:I:18:ARG:HG3	1.68	0.58
17:P:18:VAL:O	17:P:18:VAL:HG12	2.03	0.58
21:T:51:VAL:HG21	21:T:79:ILE:O	2.03	0.58
22:U:70:LEU:HB3	22:U:79:GLU:OE2	2.02	0.58
23:V:7:ARG:HD2	23:V:7:ARG:C	2.24	0.58
1:X:18:U:O2'	1:X:563:U:OP1	2.20	0.58
1:X:968:C:O2'	1:X:970:A:H5"	2.03	0.58
1:X:1288:A:H2	1:X:1308:C:O2	1.87	0.58
1:X:2197:U:H3'	1:X:2198:U:C5	2.38	0.58
1:X:2211:U:OP1	22:U:43:ARG:NH2	2.35	0.58
1:X:2284:U:C3'	1:X:2285:U:H5"	2.33	0.58
1:X:2285:U:O4	6:D:42:SER:HB2	2.03	0.58
1:X:2352:A:H2'	1:X:2353:G:C8	2.39	0.58
3:A:26:LYS:HB2	3:A:26:LYS:NZ	2.17	0.58
3:A:153:ALA:O	3:A:154:GLN:HG3	2.03	0.58
11:J:11:ARG:CG	11:J:12:LYS:N	2.66	0.58
11:J:75:VAL:HB	11:J:93:TYR:CE1	2.38	0.58
28:3:57:ARG:HG3	28:3:57:ARG:NH2	2.18	0.58
1:X:1336:G:H2'	1:X:1337:G:O5'	2.04	0.58
1:X:1859:A:H2'	1:X:1860:A:C8	2.39	0.58
1:X:2042:A:O3'	5:C:63:GLY:HA2	2.02	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2084:G:H2'	1:X:2085:G:C8	2.30	0.58
1:X:2199:C:C2'	1:X:2200:G:H5'	2.34	0.58
1:X:2219:U:O2'	1:X:2220:A:H5'	2.03	0.58
1:X:2338:C:H5"	28:3:50:LEU:CD1	2.34	0.58
1:X:2756:A:H4'	1:X:2757:G:H5"	1.86	0.58
2:Y:77:G:H2'	2:Y:78:A:H5'	1.86	0.58
3:A:145:LEU:HD12	3:A:146:GLU:H	1.69	0.58
25:Z:33:CYS:HG	25:Z:46:CYS:HG	1.52	0.58
1:X:175:C:H2'	1:X:176:A:H5"	1.86	0.58
1:X:478:G:OP1	27:2:33:ARG:NH2	2.37	0.58
1:X:1270:C:H5'	5:C:69:HIS:HE1	1.66	0.58
1:X:1300:A:H2'	1:X:1300:A:N3	2.18	0.58
1:X:1329:U:H2'	1:X:1330:G:H8	1.69	0.58
1:X:1561:A:H2'	1:X:1562:G:O4'	2.03	0.58
1:X:2403:C:H2'	1:X:2408:G:O2'	2.04	0.58
1:X:2696:A:O2'	1:X:2697:G:H5'	2.02	0.58
3:A:28:ARG:HE	3:A:29:PRO:CD	2.14	0.58
4:B:6:GLY:CA	4:B:27:LEU:O	2.51	0.58
4:B:11:MET:HA	4:B:23:VAL:O	2.04	0.58
6:D:130:LEU:HD22	6:D:131:GLY:H	1.68	0.58
13:L:38:ILE:O	13:L:38:ILE:HG12	2.04	0.58
15:N:49:ASP:O	15:N:53:LYS:HG2	2.02	0.58
1:X:91:A:H2'	1:X:92:U:C5	2.39	0.58
1:X:663:G:H2'	1:X:664:C:H4'	1.85	0.58
1:X:1307:U:C2'	1:X:1308:C:H5'	2.34	0.58
1:X:1437:A:H2'	1:X:1438:G:H8	1.69	0.58
1:X:1467:U:H3'	1:X:1468:A:C5'	2.34	0.58
1:X:1731:C:H2'	1:X:1732:U:C5'	2.27	0.58
1:X:1988:A:H5"	1:X:1989:C:OP2	2.04	0.58
1:X:2871:U:H2'	1:X:2872:U:H6	1.66	0.58
2:Y:101:A:H2'	2:Y:102:A:OP2	2.03	0.58
2:Y:116:C:H4'	13:L:49:GLN:HG2	1.84	0.58
11:J:116:LYS:HE3	11:J:132:MET:CE	2.34	0.58
12:K:52:ILE:HG13	12:K:53:THR:N	2.19	0.58
17:P:25:PHE:HA	17:P:127:ILE:HG12	1.85	0.58
17:P:28:ALA:HB2	17:P:71:VAL:HG22	1.85	0.58
17:P:29:LYS:HB3	17:P:30:TYR:CD2	2.39	0.58
19:R:66:GLN:H	19:R:66:GLN:CD	2.06	0.58
1:X:726:G:H2'	1:X:727:U:N1	2.19	0.57
1:X:917:U:C2'	1:X:918:A:H5'	2.34	0.57
1:X:2010:G:C2'	1:X:2011:U:O5'	2.52	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2273:C:H5"	13:L:11:LEU:HD11	1.86	0.57
1:X:2507:U:H2'	1:X:2509:A:H5"	1.85	0.57
7:E:6:LYS:CE	7:E:7:GLN:HE22	2.15	0.57
7:E:12:PRO:O	7:E:15:VAL:HG22	2.04	0.57
20:S:71:MET:HB2	20:S:78:PRO:CA	2.29	0.57
22:U:52:ARG:HD2	22:U:79:GLU:CA	2.33	0.57
1:X:109:A:OP1	23:V:62:ARG:NH2	2.37	0.57
1:X:267:C:H2'	1:X:268:G:C8	2.37	0.57
1:X:351:A:H2'	1:X:352:G:O4'	2.03	0.57
1:X:460:U:O4	1:X:592:G:H1'	2.04	0.57
1:X:631:G:H4'	1:X:632:A:OP1	2.04	0.57
1:X:1998:A:H1'	25:Z:3:LYS:CG	2.34	0.57
1:X:2047:C:H2'	1:X:2048:C:C6	2.39	0.57
1:X:2797:G:H2'	1:X:2798:A:H5"	1.85	0.57
6:D:61:THR:HA	6:D:99:PHE:HE1	1.67	0.57
14:M:5:ILE:HD12	14:M:5:ILE:H	1.69	0.57
17:P:106:LEU:HD23	17:P:106:LEU:O	2.05	0.57
1:X:21:A:O2'	1:X:22:C:H5'	2.03	0.57
1:X:321:A:O2'	1:X:322:A:H2'	2.04	0.57
1:X:859:U:HO2'	1:X:860:U:P	2.27	0.57
1:X:1185:C:H2'	1:X:1186:G:H2'	1.87	0.57
1:X:2406:C:H5"	1:X:2407:G:OP1	2.03	0.57
1:X:2516:U:H2'	1:X:2517:C:H6	1.68	0.57
4:B:51:TYR:H	4:B:75:THR:CG2	2.15	0.57
10:I:113:GLU:O	10:I:133:VAL:HG13	2.04	0.57
14:M:55:ILE:O	14:M:56:ALA:HB2	2.04	0.57
18:Q:84:GLU:HG3	18:Q:85:GLY:N	2.19	0.57
1:X:940:G:O2'	1:X:941:U:OP2	2.20	0.57
1:X:1469:U:O2	12:K:63:ARG:HD2	2.03	0.57
1:X:1576:G:C2'	1:X:1577:G:H5'	2.33	0.57
1:X:1628:C:H2'	1:X:1629:G:O5'	2.04	0.57
1:X:2261:G:H4'	1:X:2368:G:O2'	2.03	0.57
3:A:123:ALA:O	3:A:131:LEU:HD22	2.04	0.57
6:D:77:PHE:CB	6:D:78:LYS:HE3	2.33	0.57
9:H:24:VAL:C	9:H:25:LEU:HD23	2.25	0.57
9:H:121:ARG:O	9:H:123:PHE:HD1	1.87	0.57
10:I:48:PHE:N	10:I:48:PHE:CD1	2.72	0.57
11:J:28:VAL:HG12	11:J:138:TYR:CE2	2.36	0.57
12:K:25:ALA:HB1	12:K:48:VAL:HG23	1.86	0.57
19:R:54:ILE:HD13	19:R:71:GLN:HA	1.87	0.57
27:2:18:PHE:H	27:2:45:SER:HG	1.46	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:196:A:C2'	1:X:197:G:H5'	2.35	0.57
1:X:222:G:OP1	10:I:60:LEU:HD23	2.05	0.57
1:X:409:G:H5"	22:U:13:LEU:HD21	1.87	0.57
1:X:595:A:H5'	5:C:83:ALA:HB3	1.86	0.57
1:X:1194:U:H2'	1:X:1195:U:H6	1.69	0.57
1:X:1403:U:O2'	1:X:1404:C:H5"	2.04	0.57
1:X:1512:A:O2'	1:X:1593:C:O2'	2.17	0.57
1:X:2221:G:H2'	1:X:2222:U:O5'	2.04	0.57
1:X:2226:A:H2'	1:X:2227:C:H6	1.68	0.57
1:X:2498:U:C5	1:X:2520:A:C6	2.92	0.57
4:B:54:LYS:CD	4:B:55:ALA:H	2.17	0.57
5:C:3:GLN:OE1	5:C:3:GLN:HA	2.05	0.57
5:C:4:ILE:H	5:C:4:ILE:CD1	2.14	0.57
5:C:186:LEU:HD21	5:C:188:ILE:CG2	2.34	0.57
6:D:60:ILE:HG13	6:D:61:THR:HG23	1.85	0.57
7:E:171:LEU:N	7:E:171:LEU:HD12	2.19	0.57
11:J:23:LYS:HA	20:S:73:LYS:NZ	2.20	0.57
20:S:18:MET:HB3	20:S:34:LEU:O	2.05	0.57
1:X:745:C:H2'	1:X:746:G:O4'	2.05	0.57
1:X:941:U:H2'	1:X:942:U:O4'	2.05	0.57
1:X:1310:C:H2'	1:X:1311:C:H6	1.68	0.57
1:X:1823:G:H2'	1:X:1824:C:C6	2.39	0.57
1:X:1835:C:H2'	1:X:1836:C:C6	2.39	0.57
1:X:2061:C:O2'	1:X:2062:U:H5'	2.05	0.57
1:X:2197:U:H2'	1:X:2198:U:C5	2.39	0.57
1:X:2828:C:O2'	1:X:2829:A:H5'	2.03	0.57
2:Y:31:A:H2'	2:Y:32:C:C6	2.39	0.57
4:B:105:THR:HB	4:B:199:ARG:NH2	2.20	0.57
4:B:176:ARG:HE	14:M:16:ILE:HD13	1.68	0.57
7:E:73:ALA:O	7:E:77:LYS:HG2	2.04	0.57
7:E:83:TYR:HE2	7:E:138:LYS:HB2	1.68	0.57
10:I:55:ARG:CZ	10:I:55:ARG:N	2.66	0.57
10:I:82:ASP:OD1	10:I:114:ILE:HB	2.04	0.57
22:U:46:LEU:O	22:U:47:HIS:HB2	2.04	0.57
1:X:165:G:C2'	1:X:166:G:H5'	2.34	0.57
1:X:259:U:O2'	1:X:260:U:O5'	2.22	0.57
1:X:526:C:O2'	1:X:527:C:H5'	2.05	0.57
1:X:650:U:H2'	1:X:651:C:C6	2.40	0.57
1:X:1466:C:H2'	1:X:1467:U:O4'	2.04	0.57
1:X:1477:C:H2'	1:X:1478:U:C6	2.38	0.57
1:X:1790:G:OP1	3:A:258:LYS:HG3	2.05	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2198:U:H3'	1:X:2199:C:C5'	2.35	0.57
1:X:2409:A:H2'	1:X:2409:A:N3	2.18	0.57
4:B:119:ARG:HG2	4:B:120:TRP:NE1	2.20	0.57
5:C:47:THR:CA	5:C:82:VAL:H	2.18	0.57
6:D:167:ARG:HG3	6:D:177:PHE:HZ	1.69	0.57
11:J:11:ARG:CA	11:J:11:ARG:NE	2.67	0.57
16:O:2:PHE:CB	16:O:13:ARG:CB	2.82	0.57
17:P:105:ARG:HD3	17:P:119:LYS:HG3	1.87	0.57
26:1:54:LYS:HB2	26:1:54:LYS:HZ3	1.70	0.57
1:X:107:G:C3'	1:X:108:G:H5"	2.34	0.57
1:X:167:A:N6	1:X:184:A:H1'	2.19	0.57
1:X:1079:G:O2'	1:X:1080:A:H5'	2.04	0.57
1:X:1247:U:O2'	1:X:1248:G:H5'	2.04	0.57
1:X:1264:C:H5"	15:N:13:ARG:NH1	2.20	0.57
1:X:1427:G:H3'	1:X:1428:G:C8	2.39	0.57
1:X:1584:G:N7	3:A:28:ARG:NH2	2.49	0.57
1:X:2217:G:H2'	1:X:2217:G:N3	2.18	0.57
5:C:133:PHE:CD2	5:C:160:ALA:HB3	2.40	0.57
8:G:34:PRO:CD	8:G:70:PHE:HB3	2.35	0.57
8:G:132:PHE:CZ	8:G:142:ARG:HA	2.39	0.57
13:L:26:ARG:NH1	13:L:86:GLN:HB3	2.19	0.57
19:R:23:ILE:HG22	19:R:32:GLN:O	2.05	0.57
1:X:256:C:O2'	1:X:257:G:H5'	2.05	0.57
1:X:387:A:N3	1:X:414:A:C2	2.72	0.57
1:X:1551:U:O2	1:X:1551:U:H2'	2.04	0.57
1:X:1801:C:H42	22:U:48:LYS:HZ1	1.52	0.57
1:X:1872:A:H2'	1:X:1873:A:C8	2.39	0.57
1:X:2535:C:H6	1:X:2535:C:H5"	1.70	0.57
3:A:36:ALA:CB	3:A:61:LEU:HD13	2.35	0.57
6:D:35:VAL:O	6:D:154:ILE:HA	2.04	0.57
6:D:72:LYS:HG2	6:D:81:GLN:CA	2.35	0.57
17:P:27:VAL:CB	17:P:125:THR:HG22	2.34	0.57
20:S:5:ALA:HB1	20:S:7:PRO:HD3	1.87	0.57
20:S:94:VAL:HG13	20:S:125:PRO:HG3	1.86	0.57
28:3:17:THR:HG23	28:3:18:GLY:O	2.05	0.57
1:X:70:A:H4'	1:X:71:A:H5"	1.86	0.57
1:X:341:A:O2'	1:X:342:G:OP1	2.23	0.57
1:X:494:A:O4'	19:R:56:LYS:HB2	2.04	0.57
1:X:1247:U:C2'	1:X:1248:G:H5'	2.35	0.57
1:X:1288:A:H2'	1:X:1289:A:O4'	2.05	0.57
1:X:1960:A:C2'	1:X:1961:A:H5'	2.34	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:P:72:LEU:HG	17:P:72:LEU:O	2.05	0.57
20:S:95:SER:HB3	20:S:119:ASN:HD22	1.70	0.57
21:T:43:THR:HG21	21:T:46:LYS:HD3	1.86	0.57
22:U:11:LYS:HA	22:U:11:LYS:CE	2.32	0.57
1:X:666:U:OP1	1:X:666:U:H4'	2.04	0.56
1:X:993:C:H5"	1:X:994:A:OP1	2.05	0.56
1:X:1357:U:H4'	1:X:1397:A:C6	2.40	0.56
1:X:1537:U:O2'	1:X:1538:A:H5'	2.05	0.56
1:X:1802:A:H2'	1:X:1803:G:O4'	2.04	0.56
1:X:2399:C:P	28:3:34:THR:CG2	2.93	0.56
1:X:2454:C:H2'	1:X:2455:A:H5'	1.87	0.56
1:X:2533:U:H2'	1:X:2534:U:C5	2.40	0.56
1:X:2585:C:H2'	1:X:2586:G:C5'	2.29	0.56
1:X:2819:G:H2'	1:X:2820:C:C6	2.40	0.56
4:B:34:VAL:HG21	4:B:78:LEU:HD22	1.85	0.56
8:G:56:THR:N	8:G:134:MET:HE1	2.20	0.56
27:2:23:LYS:HD3	27:2:23:LYS:C	2.26	0.56
28:3:5:LYS:HZ1	28:3:62:LEU:HG	1.69	0.56
28:3:24:ALA:H	28:3:47:GLY:HA3	1.70	0.56
1:X:124:A:H5'	27:2:19:ARG:CG	2.35	0.56
1:X:256:C:H1'	1:X:257:G:C5'	2.35	0.56
1:X:427:C:H2'	1:X:428:A:H8	1.69	0.56
1:X:1276:U:H1'	25:Z:10:LYS:HG3	1.87	0.56
1:X:1287:A:N1	1:X:1661:C:O2'	2.30	0.56
1:X:1498:G:N1	1:X:1523:A:H1'	2.19	0.56
1:X:2269:G:H2'	1:X:2270:U:O4'	2.04	0.56
4:B:120:TRP:HB3	4:B:155:ARG:NH1	2.21	0.56
6:D:78:LYS:HE3	6:D:78:LYS:N	2.20	0.56
8:G:56:THR:CA	8:G:134:MET:HE1	2.35	0.56
18:Q:50:VAL:HG21	18:Q:80:VAL:HG11	1.88	0.56
22:U:61:TRP:O	22:U:62:LEU:HD13	2.05	0.56
1:X:409:G:P	22:U:13:LEU:HD21	2.45	0.56
1:X:441:A:H3'	1:X:442:A:H8	1.70	0.56
1:X:528:G:H2'	1:X:529:U:C6	2.41	0.56
1:X:542:A:N1	1:X:2004:U:H2'	2.19	0.56
1:X:654:A:H5'	1:X:655:A:OP2	2.06	0.56
1:X:664:C:C5'	1:X:666:U:H5"	2.33	0.56
1:X:1056:U:O2'	1:X:1057:A:O5'	2.20	0.56
1:X:1733:U:O2'	1:X:1734:C:P	2.62	0.56
1:X:1785:A:H2'	1:X:1786:C:H6	1.69	0.56
1:X:1971:C:C2'	1:X:1972:G:H5'	2.35	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2000:U:H5”	1:X:2001:G:P	2.46	0.56
1:X:2221:G:C2’	1:X:2222:U:O5’	2.53	0.56
1:X:2255:G:C2’	1:X:2256:G:H5’	2.35	0.56
1:X:2414:A:H2’	1:X:2415:G:O5’	2.04	0.56
1:X:2490:U:H2’	1:X:2491:C:O4’	2.04	0.56
1:X:2784:A:C6	1:X:2866:A:C8	2.92	0.56
1:X:2859:U:H5	1:X:2860:C:C4	2.23	0.56
3:A:231:HIS:CD2	3:A:233:HIS:H	2.22	0.56
5:C:4:ILE:O	5:C:118:VAL:HG21	2.05	0.56
5:C:6:VAL:CG1	5:C:119:ALA:HA	2.35	0.56
5:C:33:TRP:CG	5:C:95:LEU:HD12	2.40	0.56
5:C:47:THR:CB	5:C:82:VAL:CB	2.84	0.56
7:E:89:LEU:HD13	7:E:95:ARG:HA	1.88	0.56
7:E:107:ILE:HD11	7:E:151:VAL:HG12	1.86	0.56
10:I:70:THR:O	10:I:73:GLU:HB3	2.05	0.56
11:J:33:TYR:O	11:J:106:GLU:HA	2.04	0.56
18:Q:32:LYS:HD2	18:Q:32:LYS:N	2.20	0.56
22:U:47:HIS:CG	22:U:48:LYS:H	2.24	0.56
1:X:134:G:C2	1:X:136:A:H5”	2.40	0.56
1:X:577:U:O5’	1:X:956:A:N6	2.38	0.56
1:X:694:G:H2’	1:X:695:G:O4’	2.05	0.56
1:X:742:G:C5	3:A:208:LYS:HB2	2.41	0.56
1:X:841:G:H2’	1:X:842:A:N7	2.20	0.56
1:X:916:U:O2’	1:X:917:U:H5’	2.05	0.56
1:X:2422:C:O2’	1:X:2423:G:H5’	2.05	0.56
1:X:2807:U:H1’	1:X:2808:U:OP2	2.06	0.56
4:B:143:GLN:O	4:B:146:THR:HB	2.06	0.56
5:C:123:PHE:HD2	5:C:136:TRP:CZ2	2.24	0.56
6:D:49:ALA:O	6:D:52:LYS:HB3	2.05	0.56
10:I:90:ARG:O	10:I:94:GLU:CB	2.53	0.56
10:I:102:LYS:HA	10:I:122:VAL:CG2	2.35	0.56
11:J:116:LYS:HE3	11:J:132:MET:HE2	1.87	0.56
17:P:105:ARG:HH11	17:P:119:LYS:HZ1	1.54	0.56
1:X:457:C:H2’	1:X:458:G:H5’	1.86	0.56
1:X:1349:A:H2’	1:X:1350:G:C8	2.39	0.56
1:X:1468:A:C8	1:X:1468:A:O5’	2.59	0.56
1:X:1523:A:H2’	1:X:1523:A:N3	2.20	0.56
1:X:2313:G:N7	13:L:13:THR:HG22	2.19	0.56
1:X:2338:C:H5”	28:3:50:LEU:HD12	1.86	0.56
1:X:2373:C:OP1	10:I:56:LEU:HD22	2.05	0.56
1:X:2563:U:C2’	1:X:2564:U:H5’	2.33	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2772:U:H2'	1:X:2773:G:C8	2.41	0.56
2:Y:21:C:C2'	2:Y:22:U:H5'	2.35	0.56
5:C:9:GLN:H	5:C:120:VAL:CG2	2.19	0.56
11:J:106:GLU:OE2	11:J:106:GLU:O	2.23	0.56
16:O:25:LEU:HB3	16:O:30:GLY:CA	2.35	0.56
19:R:28:LYS:HG2	19:R:29:HIS:CD2	2.41	0.56
23:V:58:ALA:O	23:V:61:ALA:HB3	2.05	0.56
1:X:532:A:O2'	1:X:533:C:H5'	2.05	0.56
1:X:1440:G:H3'	1:X:1441:A:C5'	2.32	0.56
1:X:1714:A:H5"	1:X:1715:A:C5'	2.36	0.56
1:X:1782:A:H4'	3:A:206:LEU:O	2.05	0.56
1:X:2738:A:C5	7:E:67:LEU:HD11	2.40	0.56
1:X:2855:C:O2'	12:K:90:ARG:HD2	2.06	0.56
3:A:36:ALA:HA	3:A:61:LEU:HB3	1.87	0.56
11:J:45:SER:HG	11:J:46:ASN:H	1.50	0.56
11:J:80:ALA:HB3	11:J:81:GLU:OE1	2.06	0.56
18:Q:53:ILE:HD13	18:Q:80:VAL:HG13	1.87	0.56
1:X:318:G:H5'	1:X:318:G:C8	2.33	0.56
1:X:408:U:H2'	1:X:409:G:N7	2.19	0.56
1:X:642:A:O2'	10:I:59:ARG:CG	2.50	0.56
1:X:1058:G:C2'	1:X:1121:G:H22	2.19	0.56
1:X:1130:U:C2'	1:X:1131:G:H5'	2.36	0.56
1:X:1777:A:H1'	1:X:1921:A:N6	2.21	0.56
1:X:2206:C:C2'	1:X:2207:G:H5'	2.35	0.56
1:X:2770:A:H4'	1:X:2771:C:C5'	2.36	0.56
5:C:152:THR:OG1	5:C:153:ASP:N	2.38	0.56
8:G:138:GLY:O	8:G:142:ARG:HG3	2.05	0.56
9:H:73:VAL:HG21	9:H:123:PHE:CE2	2.41	0.56
11:J:18:MET:HG2	11:J:19:THR:H	1.70	0.56
11:J:40:PRO:HB3	11:J:99:LYS:CE	2.23	0.56
12:K:55:ALA:O	12:K:80:MET:HE1	2.05	0.56
19:R:45:LYS:HA	19:R:76:LEU:O	2.05	0.56
19:R:96:LYS:NZ	19:R:98:ILE:HG23	2.21	0.56
26:1:14:SER:HB3	26:1:52:GLU:HG2	1.87	0.56
1:X:542:A:N6	1:X:2003:A:H1'	2.21	0.56
1:X:614:G:H2'	1:X:615:C:H5'	1.88	0.56
1:X:969:U:C5	11:J:17:ARG:HB2	2.41	0.56
1:X:2195:C:H5'	1:X:2196:U:P	2.46	0.56
1:X:2505:G:C2'	1:X:2506:C:H5'	2.36	0.56
1:X:2538:C:C2'	1:X:2539:C:H5'	2.36	0.56
1:X:2627:G:H2'	1:X:2628:C:H6	1.71	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:46:ARG:HG2	5:C:51:VAL:CG2	2.31	0.56
14:M:44:ARG:NH2	14:M:46:ARG:HH21	2.01	0.56
15:N:79:PHE:CD1	15:N:80:ILE:HD13	2.40	0.56
17:P:8:PHE:HE2	17:P:17:GLN:HG3	1.71	0.56
17:P:8:PHE:HD2	17:P:9:ARG:HH12	1.53	0.56
1:X:203:G:H2'	1:X:204:A:C8	2.41	0.56
1:X:670:U:H2'	1:X:671:A:C8	2.41	0.56
1:X:1367:A:H2'	1:X:1368:G:O4'	2.05	0.56
12:K:28:LEU:O	12:K:28:LEU:HD23	2.06	0.56
17:P:28:ALA:CB	17:P:71:VAL:HG21	2.36	0.56
22:U:52:ARG:CB	22:U:79:GLU:HA	2.34	0.56
25:Z:4:HIS:CB	25:Z:5:PRO:CD	2.81	0.56
1:X:39:C:H2'	1:X:40:U:H6	1.68	0.56
1:X:845:U:O2'	10:I:48:PHE:HZ	1.89	0.56
1:X:1204:G:OP1	10:I:31:GLY:CA	2.54	0.56
1:X:1526:U:H2'	1:X:1527:G:O4'	2.06	0.56
1:X:1552:C:H4'	1:X:1553:G:O4'	2.06	0.56
1:X:2043:A:H3'	5:C:62:LYS:HZ2	1.71	0.56
1:X:2272:A:O3'	13:L:95:LYS:HD2	2.06	0.56
3:A:163:VAL:O	3:A:163:VAL:HG12	2.03	0.56
3:A:231:HIS:CD2	3:A:232:PRO:HD2	2.42	0.56
3:A:247:VAL:HG12	3:A:248:THR:H	1.69	0.56
6:D:72:LYS:HB3	6:D:81:GLN:CD	2.27	0.56
7:E:18:ASN:HB3	7:E:20:GLN:OE1	2.07	0.56
19:R:96:LYS:HD2	19:R:96:LYS:C	2.26	0.56
1:X:356:A:O5'	1:X:356:A:H8	1.89	0.55
1:X:387:A:C2'	1:X:388:G:H5'	2.36	0.55
1:X:428:A:O2'	1:X:429:C:H5'	2.06	0.55
1:X:1985:G:C2'	1:X:1986:G:H5'	2.36	0.55
1:X:2263:C:OP1	26:1:8:ILE:HD12	2.06	0.55
1:X:2424:G:O2'	1:X:2425:G:H5'	2.06	0.55
1:X:2441:U:H2'	1:X:2442:C:H6	1.70	0.55
1:X:2471:U:O2'	1:X:2472:U:H5'	2.06	0.55
3:A:28:ARG:HH11	3:A:29:PRO:CD	2.19	0.55
3:A:245:VAL:HA	3:A:250:TRP:O	2.06	0.55
6:D:32:GLU:HB3	6:D:157:VAL:HB	1.87	0.55
7:E:37:TYR:HE1	7:E:68:THR:HG21	1.71	0.55
9:H:70:VAL:HG22	9:H:71:LYS:N	2.20	0.55
12:K:55:ALA:HB1	12:K:80:MET:CE	2.22	0.55
13:L:45:ASP:O	13:L:46:SER:OG	2.22	0.55
13:L:46:SER:OG	13:L:47:ARG:N	2.35	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:M:69:ARG:NH1	14:M:78:GLU:OE2	2.38	0.55
20:S:3:LEU:HD13	20:S:33:ALA:O	2.06	0.55
1:X:175:C:O2'	1:X:176:A:O5'	2.19	0.55
1:X:393:U:H2'	1:X:394:U:C6	2.41	0.55
1:X:609:U:O2'	1:X:610:G:H5'	2.06	0.55
1:X:642:A:H2'	10:I:59:ARG:HG3	1.88	0.55
1:X:789:G:C4'	1:X:790:A:H5"	2.36	0.55
1:X:1003:C:H4'	16:O:71:ILE:HG12	1.88	0.55
1:X:1053:G:O2'	1:X:1054:C:OP1	2.24	0.55
1:X:1594:U:H2'	1:X:1595:A:H8	1.71	0.55
1:X:1673:C:C2	1:X:1674:C:C5	2.95	0.55
1:X:1887:G:O2'	1:X:1911:A:N1	2.32	0.55
1:X:2010:G:H2'	1:X:2011:U:O5'	2.05	0.55
3:A:10:THR:OG1	3:A:13:ARG:HG2	2.06	0.55
3:A:246:PRO:HG2	3:A:248:THR:O	2.06	0.55
5:C:33:TRP:CB	5:C:95:LEU:HD12	2.36	0.55
5:C:102:LEU:HD21	5:C:106:MET:HE2	1.88	0.55
5:C:158:ARG:O	5:C:161:ALA:HB2	2.05	0.55
7:E:6:LYS:HG2	7:E:7:GLN:CD	2.27	0.55
11:J:19:THR:CG2	11:J:99:LYS:CE	2.83	0.55
19:R:61:SER:HA	19:R:65:PRO:N	2.21	0.55
20:S:91:PRO:HD3	20:S:127:PRO:N	2.21	0.55
20:S:166:LEU:HD12	20:S:167:THR:N	2.20	0.55
22:U:9:GLY:C	22:U:12:ASN:HB2	2.26	0.55
1:X:182:G:HO2'	1:X:183:U:P	2.30	0.55
1:X:456:C:O2'	1:X:457:C:H5'	2.06	0.55
1:X:517:A:C5'	1:X:518:A:H5'	2.28	0.55
1:X:1218:C:O2'	1:X:1219:C:H5'	2.05	0.55
3:A:108:PRO:CG	3:A:111:LEU:HD12	2.37	0.55
3:A:145:LEU:CG	3:A:155:LEU:HD21	2.35	0.55
3:A:177:LEU:HD13	3:A:178:PRO:HD2	1.88	0.55
4:B:75:THR:CG2	4:B:77:ILE:O	2.55	0.55
5:C:96:PRO:HB2	5:C:99:VAL:CG2	2.35	0.55
5:C:137:ALA:HB1	5:C:142:LEU:HB2	1.89	0.55
6:D:56:GLU:O	6:D:60:ILE:HG23	2.05	0.55
8:G:128:GLU:HG3	8:G:150:VAL:HG21	1.87	0.55
11:J:38:MET:HA	11:J:38:MET:HE2	1.87	0.55
12:K:52:ILE:HG12	12:K:94:TYR:CD2	2.41	0.55
17:P:13:GLN:O	17:P:17:GLN:HG2	2.06	0.55
19:R:55:THR:CG2	19:R:72:ARG:HD3	2.35	0.55
1:X:600:G:H21	28:3:2:PRO:HD2	1.72	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:663:G:H3'	1:X:664:C:C5'	2.37	0.55
1:X:1018:C:H3'	1:X:1019:U:H5"	1.88	0.55
1:X:1332:G:C6	1:X:1333:G:N1	2.75	0.55
1:X:1420:A:H2'	1:X:1421:U:C6	2.42	0.55
1:X:1550:C:H1'	1:X:1554:G:N2	2.22	0.55
1:X:1605:A:C2'	1:X:1606:C:H5'	2.36	0.55
1:X:2335:U:H2'	1:X:2336:G:C8	2.40	0.55
1:X:2432:A:H2'	1:X:2433:G:C8	2.41	0.55
1:X:2510:A:H5"	7:E:157:TYR:CZ	2.42	0.55
3:A:95:LEU:HG	3:A:105:ILE:HD11	1.89	0.55
5:C:161:ALA:HB2	5:C:169:VAL:HG21	1.89	0.55
11:J:109:GLY:HA3	20:S:112:LEU:CD2	2.36	0.55
13:L:16:LYS:HA	13:L:19:THR:CG2	2.36	0.55
15:N:27:SER:HB2	15:N:31:GLN:CD	2.27	0.55
15:N:58:ARG:HH21	15:N:93:LYS:NZ	2.03	0.55
17:P:24:GLY:O	17:P:127:ILE:HA	2.07	0.55
19:R:51:VAL:CG1	19:R:74:LEU:O	2.52	0.55
21:T:21:LEU:HD11	21:T:41:ARG:HD3	1.87	0.55
21:T:27:GLY:HA2	21:T:67:VAL:CG1	2.37	0.55
24:W:5:LEU:HB3	24:W:28:ILE:HA	1.88	0.55
28:3:6:THR:HG23	28:3:8:LYS:HG2	1.89	0.55
1:X:623:G:H2'	1:X:624:A:H5"	1.89	0.55
1:X:1416:A:O2'	1:X:1417:C:H5'	2.07	0.55
1:X:1579:G:O2'	1:X:1580:C:H5'	2.06	0.55
1:X:2418:A:H4'	1:X:2419:C:O5'	2.05	0.55
3:A:79:VAL:HB	3:A:114:GLY:H	1.72	0.55
4:B:144:ARG:C	4:B:146:THR:H	2.10	0.55
7:E:89:LEU:CD1	7:E:95:ARG:HA	2.36	0.55
1:X:108:G:H5'	1:X:108:G:C8	2.34	0.55
1:X:1024:G:H2'	1:X:1025:A:H8	1.72	0.55
1:X:2060:A:O2'	1:X:2061:C:H5'	2.07	0.55
1:X:2073:A:C6	1:X:2209:G:C6	2.94	0.55
1:X:2223:U:H2'	1:X:2224:U:O4'	2.05	0.55
1:X:2477:C:H5'	1:X:2477:C:H6	1.70	0.55
2:Y:96:C:H2'	2:Y:97:C:C6	2.42	0.55
3:A:28:ARG:HH11	3:A:29:PRO:HD3	1.71	0.55
5:C:5:ASN:HD22	5:C:120:VAL:HG12	1.71	0.55
8:G:61:ARG:HH11	8:G:166:LEU:HD21	1.63	0.55
20:S:94:VAL:CG1	20:S:125:PRO:HG3	2.37	0.55
21:T:72:LYS:HE2	21:T:72:LYS:CA	2.37	0.55
1:X:521:U:H2'	1:X:522:G:H5'	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:867:G:H2'	1:X:868:U:C6	2.41	0.55
1:X:969:U:H5'	11:J:17:ARG:HH22	1.70	0.55
1:X:1580:C:O2'	1:X:1581:C:H5'	2.06	0.55
1:X:1972:G:C2'	1:X:1973:C:H5'	2.36	0.55
1:X:2875:C:H2'	1:X:2876:C:H5'	1.89	0.55
4:B:81:PHE:CZ	4:B:197:VAL:HG13	2.41	0.55
17:P:80:LEU:HD13	17:P:87:GLU:HB3	1.88	0.55
19:R:90:LYS:HG3	19:R:91:ALA:O	2.07	0.55
20:S:90:GLU:HG2	20:S:124:ALA:HA	1.88	0.55
20:S:172:LEU:CD2	20:S:173:PRO:HD2	2.36	0.55
28:3:6:THR:CG2	28:3:59:LYS:HG3	2.31	0.55
28:3:36:LYS:NZ	28:3:37:SER:H	2.05	0.55
1:X:4:C:O2'	1:X:5:A:H5'	2.06	0.55
1:X:704:G:O4'	3:A:43:ARG:NH1	2.40	0.55
1:X:969:U:OP2	11:J:17:ARG:NH2	2.39	0.55
1:X:1586:A:H2'	1:X:1587:A:H8	1.71	0.55
1:X:1909:U:H3'	1:X:1910:A:H8	1.71	0.55
6:D:65:PRO:HB3	6:D:89:VAL:CG2	2.36	0.55
8:G:51:LEU:CD1	8:G:127:ILE:HD13	2.36	0.55
8:G:63:ARG:NE	8:G:63:ARG:O	2.38	0.55
9:H:133:VAL:HG13	9:H:133:VAL:O	2.07	0.55
10:I:93:LEU:N	10:I:93:LEU:HD12	2.22	0.55
11:J:137:VAL:HG21	20:S:43:PHE:CZ	2.42	0.55
13:L:8:ARG:NH2	13:L:11:LEU:HD12	2.21	0.55
15:N:3:ARG:HG3	15:N:4:ALA:N	2.21	0.55
15:N:106:PHE:HA	15:N:109:LEU:HD12	1.89	0.55
16:O:74:TYR:O	16:O:75:LYS:HG2	2.07	0.55
1:X:356:A:O2'	1:X:357:A:H8	1.90	0.55
1:X:872:G:H1'	1:X:873:U:H5	1.72	0.55
1:X:998:C:H2'	1:X:999:A:O5'	2.06	0.55
1:X:1494:G:O2'	1:X:1574:A:H2	1.89	0.55
1:X:2202:G:H2'	1:X:2203:G:H5'	1.89	0.55
1:X:2614:A:H2'	1:X:2615:U:O5'	2.07	0.55
1:X:2796:A:OP2	12:K:3:HIS:NE2	2.32	0.55
2:Y:39:C:H5"	2:Y:40:C:C6	2.42	0.55
2:Y:106:U:H2'	2:Y:107:C:H5'	1.88	0.55
6:D:57:LEU:HD23	6:D:61:THR:CG2	2.36	0.55
19:R:90:LYS:HG2	19:R:90:LYS:O	2.06	0.55
20:S:4:THR:OG1	20:S:5:ALA:N	2.40	0.55
1:X:38:G:H21	5:C:42:THR:HG21	1.72	0.55
1:X:512:A:H5"	17:P:16:GLN:HA	1.88	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:602:C:O2'	28:3:2:PRO:O	2.20	0.55
1:X:912:A:H3'	1:X:913:A:H8	1.72	0.55
1:X:1402:G:H2'	1:X:1403:U:O4'	2.06	0.55
1:X:1468:A:P	1:X:1468:A:C8	3.00	0.55
1:X:1587:A:H2'	1:X:1588:A:C8	2.41	0.55
1:X:1834:G:H2'	1:X:1835:C:H6	1.71	0.55
1:X:2209:G:H1'	22:U:47:HIS:CE1	2.42	0.55
1:X:2408:G:H5'	1:X:2409:A:P	2.46	0.55
1:X:2499:C:C6	1:X:2546:G:H1'	2.41	0.55
1:X:2605:C:C2'	1:X:2606:G:H5'	2.37	0.55
1:X:2850:U:H2'	1:X:2850:U:O2	2.07	0.55
3:A:111:LEU:HG	3:A:127:LEU:CD1	2.36	0.55
5:C:21:GLU:OE1	5:C:21:GLU:HA	2.07	0.55
5:C:22:VAL:CG1	10:I:1:MET:SD	2.95	0.55
5:C:124:ASP:C	5:C:125:ILE:HD12	2.27	0.55
10:I:104:ARG:O	10:I:105:PRO:O	2.24	0.55
13:L:41:GLN:HB3	13:L:50:THR:HG21	1.89	0.55
14:M:1:MET:HG2	14:M:2:GLN:H	1.71	0.55
14:M:17:GLU:HG3	14:M:62:SER:HG	1.70	0.55
14:M:66:PHE:HD1	14:M:83:PHE:CE1	2.25	0.55
19:R:16:PHE:CZ	19:R:80:LYS:HE2	2.42	0.55
19:R:25:LEU:HD11	19:R:81:VAL:HG13	1.88	0.55
1:X:190:A:O2'	1:X:191:G:H5'	2.07	0.54
1:X:388:G:O2'	1:X:389:G:H5'	2.07	0.54
1:X:880:C:O2	1:X:880:C:H2'	2.05	0.54
1:X:922:A:H1'	1:X:2243:C:O2'	2.07	0.54
1:X:1017:C:O3'	8:G:65:LYS:NZ	2.40	0.54
1:X:1398:G:O2'	1:X:1409:U:O2	2.25	0.54
1:X:1812:U:O2	3:A:202:LYS:HB2	2.07	0.54
1:X:2176:U:C2'	1:X:2177:U:H5'	2.37	0.54
6:D:34:ILE:HD11	6:D:156:ILE:HD11	1.89	0.54
8:G:161:GLN:OE1	8:G:161:GLN:N	2.40	0.54
12:K:29:LEU:O	12:K:78:LYS:HE2	2.06	0.54
16:O:21:ARG:O	16:O:22:VAL:HG22	2.06	0.54
17:P:59:PHE:CD2	25:Z:30:LEU:HD21	2.42	0.54
17:P:85:MET:HE2	17:P:130:GLU:HG3	1.89	0.54
22:U:15:VAL:O	22:U:15:VAL:HG12	2.06	0.54
24:W:36:ASP:OD1	24:W:41:ARG:HG3	2.06	0.54
1:X:542:A:C2	1:X:2004:U:O2'	2.61	0.54
1:X:643:A:H5'	10:I:59:ARG:HB2	1.89	0.54
1:X:656:U:C2'	1:X:657:A:OP2	2.54	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:755:C:H2'	1:X:756:C:H6	1.71	0.54
1:X:837:U:O2'	1:X:838:A:H5'	2.08	0.54
1:X:1727:C:H2'	1:X:1728:A:H8	1.73	0.54
1:X:2196:U:H3'	1:X:2197:U:O4'	2.08	0.54
3:A:155:LEU:H	3:A:155:LEU:CD2	2.07	0.54
7:E:137:ASP:O	7:E:141:VAL:HG23	2.07	0.54
8:G:132:PHE:CD2	8:G:145:HIS:CD2	2.96	0.54
10:I:65:PHE:HD1	10:I:98:LEU:HB2	1.71	0.54
17:P:107:ILE:O	17:P:107:ILE:HG12	2.05	0.54
20:S:3:LEU:CB	20:S:34:LEU:HB3	2.37	0.54
20:S:5:ALA:C	20:S:6:LYS:HE2	2.27	0.54
1:X:1056:U:H1'	1:X:1058:G:H1'	1.88	0.54
1:X:1563:U:H2'	1:X:1564:U:H6	1.73	0.54
1:X:1728:A:H2'	1:X:1729:C:H6	1.72	0.54
1:X:2211:U:O2'	1:X:2212:U:H5'	2.08	0.54
1:X:2280:A:H2'	1:X:2281:C:H6	1.72	0.54
1:X:2394:G:H2'	1:X:2395:C:H6	1.73	0.54
1:X:2727:G:P	7:E:138:LYS:NZ	2.80	0.54
10:I:71:THR:HB	10:I:105:PRO:HB2	1.89	0.54
12:K:28:LEU:HD23	12:K:28:LEU:C	2.28	0.54
13:L:43:ILE:HD12	13:L:43:ILE:H	1.72	0.54
14:M:17:GLU:HG2	14:M:62:SER:H	1.72	0.54
16:O:48:GLY:C	16:O:50:ASP:H	2.10	0.54
18:Q:7:LEU:C	18:Q:7:LEU:HD13	2.28	0.54
19:R:29:HIS:ND1	19:R:32:GLN:OE1	2.35	0.54
19:R:35:LYS:HE3	19:R:37:LEU:CD2	2.32	0.54
20:S:100:THR:HG23	20:S:138:VAL:CG1	2.37	0.54
21:T:51:VAL:C	21:T:62:LEU:HD22	2.28	0.54
1:X:276:A:H4'	1:X:276:A:OP1	2.07	0.54
1:X:280:C:O2'	1:X:281:C:H6	1.90	0.54
1:X:328:A:H2'	1:X:329:C:H6	1.72	0.54
1:X:455:A:H2	1:X:1258:G:N3	2.06	0.54
1:X:1467:U:C3'	1:X:1468:A:H5'	2.35	0.54
1:X:2197:U:H3'	1:X:2198:U:H5	1.71	0.54
1:X:2345:A:H3'	1:X:2346:G:H8	1.73	0.54
6:D:49:ALA:CA	6:D:52:LYS:HB3	2.37	0.54
6:D:71:LYS:O	6:D:72:LYS:HB2	2.07	0.54
9:H:132:GLU:HB2	14:M:73:PHE:HE2	1.72	0.54
12:K:52:ILE:CD1	12:K:94:TYR:CD2	2.91	0.54
19:R:25:LEU:HG	19:R:81:VAL:HG13	1.89	0.54
21:T:37:LEU:HD11	21:T:61:ALA:N	2.22	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:147:G:C2'	1:X:149:A:H62	2.21	0.54
1:X:1734:C:C6	1:X:1735:G:H1'	2.42	0.54
1:X:2008:C:O2'	1:X:2009:U:H5'	2.08	0.54
4:B:20:ALA:HB2	9:H:85:ASP:O	2.08	0.54
10:I:70:THR:CA	10:I:73:GLU:HB3	2.38	0.54
19:R:108:VAL:HG22	19:R:109:ALA:N	2.23	0.54
1:X:677:G:O2'	1:X:678:G:H5'	2.07	0.54
1:X:686:C:C2'	1:X:687:G:H5'	2.37	0.54
1:X:872:G:O2'	1:X:928:G:N1	2.37	0.54
1:X:982:C:H2'	1:X:983:G:H5'	1.90	0.54
1:X:1468:A:C8	1:X:1468:A:OP2	2.61	0.54
1:X:1579:G:C2'	1:X:1580:C:H5'	2.37	0.54
1:X:2171:U:O2'	1:X:2172:U:H5'	2.07	0.54
3:A:60:ARG:C	3:A:61:LEU:HD23	2.28	0.54
4:B:135:HIS:O	4:B:136:ARG:O	2.26	0.54
9:H:83:ARG:NH1	9:H:89:ILE:CD1	2.68	0.54
11:J:30:PHE:N	11:J:30:PHE:CD1	2.74	0.54
12:K:33:ARG:HG3	12:K:114:GLU:HB3	1.89	0.54
14:M:13:LEU:N	14:M:13:LEU:HD13	2.22	0.54
20:S:96:VAL:HG23	20:S:122:ILE:HD12	1.90	0.54
1:X:147:G:H5'	1:X:148:C:OP2	2.08	0.54
1:X:662:G:O2'	1:X:663:G:H5'	2.08	0.54
1:X:827:C:O2'	1:X:828:C:H5'	2.08	0.54
1:X:1265:G:O2'	1:X:1266:G:O4'	2.25	0.54
1:X:2538:C:H2'	1:X:2539:C:H5'	1.88	0.54
1:X:2641:A:H2'	1:X:2642:G:O4'	2.07	0.54
1:X:2672:U:H2'	1:X:2673:G:C8	2.39	0.54
1:X:2757:G:C5'	1:X:2758:A:H5'	2.38	0.54
2:Y:36:A:N6	2:Y:46:G:H2'	2.23	0.54
7:E:105:MET:HE1	7:E:131:ILE:HD11	1.89	0.54
9:H:124:MET:O	9:H:127:VAL:HG12	2.07	0.54
13:L:45:ASP:O	13:L:46:SER:CB	2.56	0.54
14:M:37:THR:HG22	14:M:45:THR:HG22	1.90	0.54
24:W:7:ARG:HG2	24:W:7:ARG:HH21	1.72	0.54
1:X:152:G:C2'	1:X:153:A:H5'	2.38	0.54
1:X:233:A:H2'	1:X:234:C:H6	1.72	0.54
1:X:467:U:HO2'	1:X:468:A:P	2.29	0.54
1:X:485:G:HO2'	1:X:520:C:H6	1.56	0.54
1:X:623:G:C2'	1:X:624:A:H5"	2.38	0.54
1:X:640:C:H5"	1:X:660:G:O2'	2.08	0.54
1:X:1307:U:H2'	1:X:1308:C:H5'	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2447:G:O2'	1:X:2448:A:H8	1.90	0.54
2:Y:17:A:H4'	2:Y:17:A:OP1	2.06	0.54
5:C:3:GLN:HG2	5:C:112:GLN:OE1	2.07	0.54
5:C:117:LEU:HD23	5:C:187:VAL:HG22	1.90	0.54
9:H:116:ARG:CZ	9:H:116:ARG:HB2	2.38	0.54
14:M:55:ILE:O	14:M:103:LYS:O	2.25	0.54
18:Q:70:GLY:O	18:Q:71:GLN:CB	2.56	0.54
19:R:55:THR:HG21	19:R:72:ARG:HD3	1.90	0.54
20:S:90:GLU:HG3	20:S:124:ALA:CB	2.37	0.54
1:X:336:A:H2'	1:X:337:G:C8	2.43	0.54
1:X:386:U:O2	1:X:386:U:C2'	2.56	0.54
1:X:409:G:C5'	22:U:13:LEU:HD21	2.38	0.54
1:X:660:G:O3'	28:3:17:THR:OG1	2.26	0.54
1:X:1153:A:H8	1:X:1153:A:C5'	2.21	0.54
1:X:1186:G:O2'	1:X:1187:A:C2	2.59	0.54
1:X:1275:A:H2	25:Z:10:LYS:HE3	1.72	0.54
1:X:1545:G:H2'	1:X:1546:C:H6	1.72	0.54
1:X:2176:U:O2'	1:X:2177:U:H5'	2.07	0.54
1:X:2526:U:O2	9:H:23:ARG:NH1	2.40	0.54
5:C:15:ILE:HG21	5:C:194:GLU:OE2	2.07	0.54
6:D:110:ARG:O	6:D:137:ILE:HG21	2.08	0.54
7:E:89:LEU:HD13	7:E:95:ARG:CA	2.38	0.54
8:G:44:VAL:HG11	8:G:54:LEU:CD1	2.38	0.54
13:L:63:ASN:OD1	13:L:66:ASP:HB3	2.07	0.54
15:N:25:TRP:O	15:N:28:ARG:HB2	2.07	0.54
15:N:70:ARG:HG3	15:N:70:ARG:NH1	2.21	0.54
18:Q:89:GLU:O	18:Q:92:ALA:HB3	2.07	0.54
1:X:655:A:O2'	1:X:656:U:O4'	2.21	0.54
1:X:656:U:H4'	1:X:657:A:H8	1.72	0.54
1:X:1261:G:H5'	5:C:86:PRO:HD3	1.90	0.54
1:X:1332:G:C2	1:X:1333:G:C2	2.95	0.54
1:X:1336:G:OP1	17:P:105:ARG:NH1	2.40	0.54
1:X:1351:G:O2'	1:X:1352:G:H5'	2.08	0.54
1:X:1494:G:HO2'	1:X:1574:A:H2	1.55	0.54
1:X:1805:G:O2'	3:A:43:ARG:O	2.18	0.54
1:X:2084:G:O2'	1:X:2085:G:H5'	2.08	0.54
1:X:2273:C:OP1	13:L:11:LEU:HD11	2.08	0.54
1:X:2307:A:H2'	1:X:2308:A:C8	2.43	0.54
1:X:2782:G:H2'	1:X:2783:U:O5'	2.08	0.54
4:B:14:ILE:CG2	4:B:15:TRP:N	2.71	0.54
4:B:33:ILE:CD1	4:B:49:ILE:HD11	2.37	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:111:HIS:ND1	7:E:111:HIS:O	2.40	0.54
8:G:56:THR:HA	8:G:134:MET:CE	2.37	0.54
11:J:53:ILE:O	11:J:57:ARG:HG3	2.07	0.54
12:K:80:MET:CE	12:K:80:MET:HA	2.38	0.54
13:L:33:ARG:NH2	13:L:99:ARG:HD2	2.22	0.54
17:P:109:ARG:HG3	17:P:110:ALA:H	1.72	0.54
20:S:43:PHE:CE2	20:S:69:VAL:HG21	2.40	0.54
1:X:175:C:C2'	1:X:176:A:O5'	2.56	0.53
1:X:242:A:H2'	1:X:243:G:C1'	2.38	0.53
1:X:470:U:O2	1:X:470:U:H2'	2.08	0.53
1:X:976:C:H6	1:X:976:C:H5"	1.71	0.53
1:X:1968:G:C2'	1:X:1969:G:O5'	2.56	0.53
1:X:2043:A:H1'	1:X:2481:G:O4'	2.07	0.53
1:X:2651:U:C2'	1:X:2652:G:O5'	2.57	0.53
5:C:28:HIS:HA	10:I:6:LEU:HD13	1.90	0.53
11:J:35:LEU:HD11	11:J:130:THR:OG1	2.08	0.53
17:P:105:ARG:NH1	17:P:119:LYS:NZ	2.56	0.53
19:R:55:THR:HG23	19:R:55:THR:O	2.08	0.53
1:X:341:A:H2	1:X:1223:G:HO2'	1.55	0.53
1:X:565:A:H8	1:X:565:A:O5'	1.91	0.53
1:X:1889:G:H21	1:X:1890:G:H1'	1.73	0.53
1:X:1979:C:H4'	1:X:1980:A:OP1	2.08	0.53
1:X:2184:C:H2'	1:X:2185:U:O4'	2.08	0.53
1:X:2262:C:H6	1:X:2368:G:H2'	1.70	0.53
1:X:2379:G:O2'	1:X:2380:U:H5'	2.08	0.53
1:X:2661:G:C2'	1:X:2662:C:H5'	2.38	0.53
14:M:99:VAL:HG22	14:M:100:ARG:N	2.23	0.53
20:S:101:THR:HG21	20:S:135:VAL:HG13	1.89	0.53
22:U:15:VAL:HG11	22:U:45:ASN:O	2.07	0.53
1:X:4:C:C2'	1:X:5:A:H5'	2.38	0.53
1:X:874:A:H2'	1:X:875:G:O4'	2.07	0.53
1:X:1679:U:H2'	1:X:1680:U:O4'	2.08	0.53
1:X:1728:A:H2'	1:X:1729:C:C6	2.43	0.53
1:X:1851:A:N1	1:X:1867:A:H1'	2.23	0.53
1:X:1949:A:O2'	1:X:2572:U:H5'	2.08	0.53
1:X:2414:A:C2'	1:X:2415:G:O5'	2.56	0.53
1:X:2707:G:H2'	1:X:2708:U:H6	1.74	0.53
1:X:2779:C:H2'	1:X:2780:A:C8	2.43	0.53
2:Y:17:A:OP1	2:Y:17:A:C4'	2.55	0.53
2:Y:77:G:C1'	20:S:22:VAL:HG11	2.38	0.53
3:A:145:LEU:HB3	3:A:155:LEU:CD2	2.38	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:134:GLU:HG2	6:D:136:LEU:H	1.73	0.53
14:M:55:ILE:HA	14:M:104:LEU:HD22	1.90	0.53
17:P:59:PHE:HD2	25:Z:30:LEU:HD11	1.73	0.53
19:R:18:LYS:H	19:R:18:LYS:CD	2.11	0.53
25:Z:36:CYS:HB2	25:Z:49:CYS:CB	2.38	0.53
1:X:1047:G:H2'	1:X:1048:U:H5'	1.91	0.53
1:X:1225:G:H2'	1:X:1249:G:H22	1.72	0.53
1:X:2000:U:H5"	1:X:2001:G:OP2	2.07	0.53
5:C:17:LEU:HG	5:C:109:ALA:HB2	1.89	0.53
8:G:45:ASP:HA	8:G:83:ILE:HD12	1.90	0.53
8:G:51:LEU:HD11	8:G:127:ILE:HD13	1.89	0.53
11:J:11:ARG:HD3	11:J:12:LYS:HG2	1.90	0.53
15:N:66:ASN:ND2	15:N:70:ARG:HH12	2.07	0.53
19:R:61:SER:HA	19:R:65:PRO:CA	2.38	0.53
21:T:43:THR:O	21:T:43:THR:CG2	2.55	0.53
1:X:544:U:O2'	15:N:49:ASP:OD2	2.13	0.53
1:X:984:A:O4'	1:X:1202:U:C6	2.62	0.53
1:X:1030:U:C2'	1:X:1032:A:H2	2.16	0.53
1:X:1046:U:H5'	7:E:59:GLN:HG2	1.90	0.53
1:X:1174:G:H2'	1:X:1175:A:H8	1.74	0.53
1:X:1267:A:H5"	1:X:1268:U:H5"	1.89	0.53
1:X:1428:G:H22	1:X:1602:G:P	2.31	0.53
1:X:2341:G:C2'	1:X:2342:U:H5'	2.38	0.53
1:X:2441:U:H2'	1:X:2442:C:C6	2.43	0.53
1:X:2742:G:H2'	1:X:2743:G:H5'	1.90	0.53
3:A:70:ARG:NH2	3:A:188:GLU:O	2.37	0.53
5:C:6:VAL:HG12	5:C:120:VAL:H	1.72	0.53
13:L:54:ALA:CB	13:L:75:LEU:HB2	2.39	0.53
14:M:93:ILE:HG22	14:M:95:GLU:O	2.08	0.53
15:N:117:ARG:HH21	15:N:117:ARG:HG3	1.74	0.53
17:P:89:ARG:HG3	17:P:89:ARG:NH2	2.21	0.53
19:R:38:LEU:HB3	19:R:47:VAL:HB	1.90	0.53
20:S:117:VAL:HG22	20:S:168:VAL:HA	1.89	0.53
22:U:53:GLU:OE1	22:U:57:VAL:HA	2.07	0.53
1:X:1112:U:O2'	1:X:1113:C:H5'	2.09	0.53
1:X:1467:U:H3'	1:X:1467:U:H6	1.74	0.53
1:X:2035:G:H2'	1:X:2036:G:H5'	1.90	0.53
1:X:2495:G:H2'	1:X:2496:C:H5'	1.89	0.53
1:X:2728:A:OP1	7:E:70:THR:HG21	2.09	0.53
4:B:98:GLU:HA	4:B:172:VAL:CG1	2.39	0.53
5:C:186:LEU:CD1	5:C:188:ILE:HG23	2.38	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:I:1:MET:HG2	10:I:2:LYS:N	2.21	0.53
13:L:97:HIS:O	13:L:101:LYS:N	2.28	0.53
19:R:41:PRO:O	19:R:44:GLN:NE2	2.41	0.53
1:X:846:A:H2'	1:X:847:C:C6	2.44	0.53
1:X:866:U:O2'	1:X:867:G:H5'	2.08	0.53
1:X:1136:G:OP2	1:X:1137:A:O2'	2.27	0.53
1:X:1549:C:C2'	1:X:1550:C:H5'	2.39	0.53
1:X:1705:U:O4'	1:X:1718:A:N6	2.42	0.53
1:X:1833:U:H2'	1:X:1834:G:H8	1.74	0.53
1:X:2039:G:N2	1:X:2040:A:H1'	2.23	0.53
1:X:2543:A:C2	1:X:2626:U:H4'	2.44	0.53
2:Y:46:G:N3	2:Y:49:C:N4	2.57	0.53
4:B:105:THR:HB	4:B:199:ARG:HH22	1.73	0.53
5:C:120:VAL:HG23	5:C:120:VAL:O	2.08	0.53
5:C:130:THR:HG23	5:C:160:ALA:HA	1.90	0.53
6:D:52:LYS:HE3	6:D:150:ARG:HG3	1.89	0.53
11:J:111:THR:HG23	11:J:114:GLN:OE1	2.09	0.53
13:L:51:LEU:N	13:L:51:LEU:HD22	2.24	0.53
16:O:10:LYS:HD3	16:O:10:LYS:C	2.29	0.53
18:Q:10:PRO:HA	18:Q:27:PHE:CB	2.33	0.53
19:R:22:VAL:O	19:R:33:THR:HA	2.09	0.53
23:V:42:ARG:NH1	23:V:45:GLN:OE1	2.41	0.53
27:2:1:MET:HA	27:2:1:MET:CE	2.39	0.53
1:X:307:C:O2'	1:X:308:C:H5'	2.08	0.53
1:X:339:U:N3	1:X:343:A:C2	2.77	0.53
1:X:573:C:O2'	1:X:574:C:H5'	2.09	0.53
1:X:734:G:O2'	1:X:735:G:H5'	2.08	0.53
1:X:2076:G:N7	1:X:2204:A:H2'	2.23	0.53
1:X:2201:G:O2'	1:X:2202:G:H5'	2.08	0.53
1:X:2605:C:H2'	1:X:2606:G:H8	1.73	0.53
7:E:6:LYS:HE2	7:E:7:GLN:NE2	2.18	0.53
7:E:18:ASN:HB3	7:E:20:GLN:CD	2.28	0.53
15:N:47:TYR:HE2	16:O:73:LYS:HE2	1.72	0.53
1:X:172:A:H61	1:X:175:C:H3'	1.74	0.53
1:X:261:G:H5'	1:X:262:C:C5	2.44	0.53
1:X:310:A:H8	1:X:310:A:OP2	1.91	0.53
1:X:356:A:H2'	1:X:357:A:C8	2.44	0.53
1:X:641:G:C3'	1:X:642:A:H5"	2.38	0.53
1:X:805:G:C8	1:X:2419:C:O2	2.62	0.53
1:X:1340:C:O3'	12:K:104:ARG:NH2	2.41	0.53
1:X:2046:C:H2'	1:X:2047:C:H5'	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:113:THR:O	4:B:113:THR:HG22	2.08	0.53
4:B:159:HIS:CE1	4:B:162:MET:HB2	2.30	0.53
11:J:91:VAL:O	11:J:92:GLU:HB2	2.09	0.53
19:R:82:ALA:HB1	19:R:83:LEU:CD1	2.38	0.53
22:U:10:LYS:HD3	22:U:60:VAL:CG1	2.36	0.53
25:Z:36:CYS:HB2	25:Z:49:CYS:HB3	1.91	0.53
1:X:304:A:H5'	1:X:305:A:OP2	2.09	0.53
1:X:347:C:H2'	1:X:348:U:C6	2.44	0.53
1:X:615:C:O2	1:X:670:U:O2'	2.27	0.53
1:X:1465:G:H2'	1:X:1466:C:C6	2.43	0.53
1:X:1611:U:O2'	1:X:1612:U:H5'	2.09	0.53
1:X:1685:A:N6	1:X:1693:A:H61	2.06	0.53
1:X:1783:G:H2'	1:X:1784:C:H5'	1.90	0.53
1:X:2281:C:C2'	1:X:2282:G:H5'	2.39	0.53
1:X:2284:U:C2'	1:X:2285:U:H5"	2.39	0.53
5:C:195:ILE:HG23	5:C:195:ILE:O	2.08	0.53
9:H:80:ALA:HB1	9:H:88:THR:CG2	2.39	0.53
13:L:105:ASP:O	13:L:109:GLU:HB3	2.09	0.53
20:S:127:PRO:O	20:S:128:ARG:HB3	2.08	0.53
1:X:24:G:H2'	1:X:25:U:H6	1.74	0.52
1:X:124:A:H5'	27:2:19:ARG:HG3	1.91	0.52
1:X:647:G:H2'	10:I:102:LYS:CE	2.38	0.52
1:X:1503:G:H2'	1:X:1504:G:H8	1.72	0.52
1:X:2176:U:H2'	1:X:2177:U:O4'	2.09	0.52
1:X:2505:G:O2'	1:X:2506:C:H5'	2.09	0.52
1:X:2581:A:C2'	1:X:2582:G:H4'	2.38	0.52
1:X:2734:U:H5"	1:X:2735:C:OP2	2.09	0.52
4:B:147:PRO:CD	4:B:148:GLY:N	2.68	0.52
9:H:57:ASP:OD1	9:H:58:ALA:N	2.42	0.52
10:I:33:GLY:O	10:I:34:HIS:HB2	2.09	0.52
11:J:77:LYS:HG3	11:J:92:GLU:HG2	1.91	0.52
12:K:76:VAL:O	12:K:79:VAL:HG12	2.08	0.52
14:M:5:ILE:H	14:M:5:ILE:CD1	2.22	0.52
16:O:12:TYR:HB2	16:O:39:PHE:CB	2.38	0.52
18:Q:20:MET:HG3	18:Q:25:TYR:CE1	2.44	0.52
19:R:25:LEU:CB	19:R:81:VAL:HG22	2.39	0.52
19:R:59:LYS:HB3	19:R:67:GLY:H	1.72	0.52
20:S:24:TYR:HB3	20:S:29:ASN:HA	1.90	0.52
25:Z:3:LYS:O	25:Z:4:HIS:O	2.28	0.52
25:Z:33:CYS:SG	25:Z:34:PRO:HD2	2.49	0.52
26:1:13:GLU:N	26:1:54:LYS:HG2	2.22	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:127:C:O2'	1:X:128:C:H5'	2.10	0.52
1:X:236:C:O2'	1:X:632:A:O2'	2.19	0.52
1:X:756:C:C2'	1:X:757:U:H5'	2.38	0.52
1:X:1431:U:H3'	1:X:1432:G:O4'	2.08	0.52
1:X:1473:U:O2	1:X:1474:A:N6	2.42	0.52
1:X:1574:A:HO2'	1:X:1575:C:P	2.31	0.52
1:X:1985:G:H2'	1:X:1986:G:H5'	1.91	0.52
1:X:2234:G:C2'	1:X:2235:G:H5'	2.39	0.52
1:X:2281:C:O2'	1:X:2282:G:H5'	2.09	0.52
1:X:2434:G:H2'	1:X:2435:C:H6	1.70	0.52
2:Y:54:U:H2'	2:Y:55:C:O4'	2.08	0.52
3:A:169:GLU:O	3:A:172:TYR:O	2.27	0.52
4:B:75:THR:HG22	4:B:77:ILE:N	2.15	0.52
5:C:8:GLY:N	5:C:120:VAL:CG2	2.72	0.52
5:C:118:VAL:HG13	5:C:193:LEU:CD2	2.32	0.52
5:C:158:ARG:NH1	5:C:171:PRO:HG3	2.25	0.52
15:N:24:PHE:O	15:N:29:SER:HB3	2.09	0.52
21:T:31:VAL:HG11	21:T:37:LEU:CD2	2.39	0.52
23:V:48:ARG:HG3	23:V:49:GLU:N	2.24	0.52
25:Z:36:CYS:SG	25:Z:48:ASN:HB3	2.48	0.52
28:3:5:LYS:HZ2	28:3:64:ARG:HB2	1.74	0.52
1:X:38:G:H4'	5:C:44:SER:OG	2.09	0.52
1:X:57:G:N3	1:X:72:A:H2	2.07	0.52
1:X:386:U:O2	1:X:387:A:C8	2.63	0.52
1:X:797:A:N7	3:A:229:VAL:HG21	2.25	0.52
1:X:825:C:H5"	1:X:1263:G:HO2'	1.74	0.52
1:X:1373:G:N2	1:X:2192:U:H3	2.02	0.52
1:X:1526:U:H3'	1:X:1527:G:C8	2.43	0.52
1:X:2198:U:H3'	1:X:2199:C:O4'	2.08	0.52
1:X:2464:G:H2'	1:X:2465:G:H5'	1.90	0.52
1:X:2594:U:C2	25:Z:7:PRO:HA	2.44	0.52
2:Y:26:G:H5"	2:Y:27:A:O5'	2.10	0.52
2:Y:27:A:HO2'	2:Y:28:A:P	2.33	0.52
3:A:259:THR:HG22	3:A:260:ARG:H	1.73	0.52
11:J:100:PRO:HB2	20:S:74:ARG:HG2	1.91	0.52
19:R:27:GLY:O	19:R:30:LYS:HE2	2.10	0.52
19:R:61:SER:HA	19:R:64:ASN:O	2.09	0.52
24:W:36:ASP:HB3	24:W:41:ARG:NH1	2.24	0.52
1:X:43:A:H2'	1:X:44:G:C8	2.45	0.52
1:X:249:A:H8	1:X:381:C:H1'	1.73	0.52
1:X:398:C:HO2'	1:X:399:G:P	2.30	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:558:G:H8	1:X:559:C:H5	1.57	0.52
1:X:664:C:C5	1:X:666:U:H5	2.27	0.52
1:X:1016:C:H5'	1:X:1023:U:H5'	1.91	0.52
1:X:1160:C:H2'	1:X:1161:U:O4'	2.09	0.52
1:X:1486:A:H2'	1:X:1487:C:C6	2.43	0.52
1:X:1525:A:N7	1:X:1526:U:H1'	2.24	0.52
1:X:1525:A:C2'	1:X:1526:U:H5'	2.40	0.52
1:X:2196:U:C3'	1:X:2197:U:O4'	2.58	0.52
1:X:2305:C:H5'	1:X:2306:A:OP2	2.09	0.52
2:Y:59:A:H2'	2:Y:59:A:N3	2.24	0.52
3:A:145:LEU:CA	3:A:155:LEU:HD21	2.38	0.52
4:B:188:ILE:CG2	4:B:189:PRO:HD2	2.38	0.52
6:D:34:ILE:HG12	6:D:156:ILE:HD11	1.91	0.52
6:D:118:ASN:ND2	6:D:119:PRO:HD2	2.25	0.52
7:E:5:GLY:N	7:E:6:LYS:HD3	2.25	0.52
11:J:43:ILE:HD13	11:J:98:VAL:HB	1.90	0.52
19:R:5:SER:O	19:R:6:ALA:HB3	2.09	0.52
1:X:683:A:OP1	10:I:40:ARG:HB3	2.09	0.52
1:X:825:C:H5"	1:X:1263:G:O2'	2.09	0.52
1:X:1017:C:H2'	1:X:1018:C:O5'	2.09	0.52
1:X:1286:U:H4'	1:X:1288:A:OP2	2.10	0.52
1:X:1347:C:H2'	1:X:1348:C:H5'	1.90	0.52
1:X:1479:G:O2'	1:X:1480:G:H5'	2.09	0.52
1:X:2044:G:O2'	1:X:2046:C:H5	1.93	0.52
1:X:2551:A:C8	4:B:144:ARG:HG2	2.44	0.52
2:Y:73:C:H2'	2:Y:74:A:O4'	2.09	0.52
4:B:75:THR:HG21	4:B:77:ILE:O	2.09	0.52
8:G:61:ARG:NE	8:G:66:HIS:CE1	2.78	0.52
15:N:40:LEU:N	15:N:40:LEU:HD23	2.25	0.52
26:1:21:TYR:CD1	26:1:21:TYR:C	2.83	0.52
1:X:171:G:C2'	1:X:172:A:H5'	2.40	0.52
1:X:219:G:H2'	28:3:4:MET:HA	1.92	0.52
1:X:330:C:H2'	1:X:331:U:O4'	2.08	0.52
1:X:455:A:N7	5:C:39:ARG:CD	2.73	0.52
1:X:548:G:O2'	1:X:549:G:H5'	2.09	0.52
1:X:596:C:P	10:I:21:ARG:HH12	2.32	0.52
1:X:597:U:H2'	1:X:598:U:C6	2.44	0.52
1:X:916:U:C2'	1:X:917:U:H5'	2.40	0.52
1:X:971:A:C5'	1:X:972:C:OP2	2.57	0.52
1:X:1669:A:H62	12:K:11:ASN:HD21	1.57	0.52
1:X:1708:C:O2'	1:X:1709:U:H5'	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1801:C:H42	22:U:48:LYS:NZ	2.08	0.52
1:X:1836:C:H5'	3:A:254:THR:O	2.10	0.52
1:X:2065:A:C2'	1:X:2066:G:H5'	2.39	0.52
1:X:2191:A:C5'	1:X:2192:U:H5	2.22	0.52
1:X:2198:U:C2	1:X:2199:C:H1'	2.45	0.52
1:X:2335:U:H2'	1:X:2336:G:H8	1.74	0.52
1:X:2344:G:H4'	21:T:60:PHE:CZ	2.45	0.52
1:X:2554:C:O2'	4:B:140:SER:HB2	2.09	0.52
1:X:2594:U:N1	25:Z:7:PRO:HA	2.25	0.52
4:B:50:GLY:HA2	4:B:78:LEU:HD23	1.91	0.52
6:D:70:ALA:HB2	6:D:85:VAL:HG11	1.91	0.52
8:G:43:VAL:HG23	8:G:163:PRO:CG	2.38	0.52
16:O:20:ILE:O	16:O:90:PHE:HB2	2.09	0.52
16:O:35:LEU:O	16:O:36:LYS:CB	2.58	0.52
18:Q:34:THR:HG23	18:Q:37:GLU:OE1	2.09	0.52
20:S:25:ASN:HD22	20:S:85:MET:CB	2.14	0.52
1:X:135:U:H2'	1:X:136:A:C8	2.44	0.52
1:X:542:A:H5"	15:N:28:ARG:NH2	2.24	0.52
1:X:1032:A:N6	1:X:1151:U:H3	2.08	0.52
1:X:1277:G:H1'	1:X:1998:A:N6	2.25	0.52
1:X:2177:U:H2'	1:X:2178:U:C6	2.44	0.52
1:X:2590:U:O4'	29:X:2901:QTZ:C17	2.58	0.52
2:Y:119:G:H2'	2:Y:120:G:O4'	2.08	0.52
3:A:167:GLY:H	3:A:174:ILE:HB	1.74	0.52
3:A:260:ARG:HD2	3:A:260:ARG:N	2.25	0.52
5:C:68:ARG:O	5:C:69:HIS:O	2.27	0.52
6:D:9:ASN:O	6:D:13:ARG:HB2	2.10	0.52
6:D:33:LYS:HD2	6:D:90:THR:HG23	1.92	0.52
10:I:55:ARG:HG3	28:3:30:ARG:NE	2.25	0.52
10:I:73:GLU:OE2	10:I:81:GLN:HB2	2.10	0.52
13:L:16:LYS:CA	13:L:19:THR:HG22	2.40	0.52
17:P:55:ASP:O	17:P:58:ARG:N	2.43	0.52
24:W:50:LEU:HD23	24:W:50:LEU:N	2.24	0.52
1:X:571:U:C4	1:X:2019:C:O4'	2.63	0.52
1:X:773:G:H2'	1:X:774:A:O4'	2.10	0.52
1:X:797:A:H5"	3:A:227:ASN:CG	2.30	0.52
1:X:865:A:H2'	1:X:866:U:C6	2.44	0.52
1:X:1204:G:OP1	10:I:32:ARG:N	2.41	0.52
1:X:1469:U:H5'	1:X:1470:G:P	2.50	0.52
1:X:2624:G:H3'	1:X:2625:U:C5'	2.39	0.52
3:A:159:ALA:HB1	3:A:197:GLY:O	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:252:LYS:CE	3:A:253:PRO:HD2	2.40	0.52
4:B:54:LYS:HD2	4:B:55:ALA:H	1.72	0.52
5:C:133:PHE:CD1	5:C:133:PHE:C	2.83	0.52
6:D:114:PHE:HE2	6:D:176:PRO:CB	2.23	0.52
7:E:6:LYS:O	7:E:7:GLN:HB2	2.10	0.52
8:G:62:ILE:HG13	8:G:80:VAL:CG2	2.40	0.52
9:H:10:VAL:O	9:H:10:VAL:HG23	2.08	0.52
10:I:118:VAL:HG13	10:I:122:VAL:HB	1.92	0.52
11:J:45:SER:OG	11:J:46:ASN:N	2.37	0.52
11:J:64:LYS:HE2	11:J:65:ILE:H	1.75	0.52
15:N:58:ARG:HH21	15:N:93:LYS:CE	2.23	0.52
1:X:716:U:H2'	1:X:717:G:O4'	2.10	0.52
1:X:886:A:H1'	11:J:30:PHE:HE2	1.75	0.52
1:X:1164:C:H2'	1:X:1165:G:C8	2.44	0.52
1:X:1818:G:H2'	1:X:1819:U:O5'	2.09	0.52
1:X:2065:A:H2'	1:X:2066:G:C5'	2.40	0.52
1:X:2546:G:H2'	1:X:2547:C:H6	1.75	0.52
2:Y:51:G:OP1	13:L:99:ARG:HG2	2.10	0.52
2:Y:52:G:P	13:L:64:LYS:HD3	2.50	0.52
3:A:161:THR:H	3:A:196:VAL:CG2	2.22	0.52
3:A:252:LYS:N	3:A:252:LYS:CE	2.61	0.52
8:G:84:ASN:HA	8:G:152:ALA:O	2.09	0.52
10:I:56:LEU:HD22	10:I:56:LEU:H	1.75	0.52
15:N:52:ASN:HA	15:N:55:ARG:HG3	1.92	0.52
15:N:107:LYS:HG3	15:N:108:ALA:N	2.24	0.52
20:S:94:VAL:O	20:S:122:ILE:HD13	2.10	0.52
22:U:10:LYS:HE3	22:U:60:VAL:HG11	1.91	0.52
1:X:20:C:C2'	1:X:21:A:H5'	2.40	0.52
1:X:333:A:C2'	5:C:162:ARG:NH1	2.73	0.52
1:X:380:C:O2	1:X:380:C:H2'	2.10	0.52
1:X:1021:A:H1'	1:X:1164:C:H1'	1.91	0.52
1:X:1502:G:O2'	1:X:1503:G:H5'	2.10	0.52
1:X:1609:G:H2'	1:X:1610:A:O4'	2.09	0.52
1:X:1690:U:H3'	1:X:1690:U:C6	2.42	0.52
5:C:6:VAL:HG12	5:C:120:VAL:N	2.25	0.52
6:D:70:ALA:HA	6:D:85:VAL:HG21	1.92	0.52
6:D:152:MET:CE	6:D:154:ILE:HD11	2.39	0.52
8:G:71:THR:HG1	8:G:74:MET:HG3	1.75	0.52
10:I:56:LEU:HB3	28:3:12:ARG:CA	2.39	0.52
22:U:11:LYS:HD2	22:U:11:LYS:N	2.25	0.52
22:U:52:ARG:CG	22:U:79:GLU:HA	2.40	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Z:49:CYS:SG	25:Z:51:TYR:HB2	2.50	0.52
1:X:116:A:N3	1:X:155:G:H1'	2.24	0.51
1:X:598:U:O2'	1:X:599:A:H5'	2.10	0.51
1:X:930:A:C2	2:Y:82:U:H4'	2.44	0.51
1:X:1152:C:N3	8:G:50:PRO:HD3	2.25	0.51
1:X:1727:C:H2'	1:X:1728:A:C8	2.45	0.51
1:X:1818:G:C2'	1:X:1819:U:O5'	2.57	0.51
1:X:2282:G:C1'	6:D:122:PHE:HB3	2.40	0.51
1:X:2370:G:N2	1:X:2408:G:H1'	2.25	0.51
1:X:2463:G:O2'	11:J:125:LYS:HB2	2.10	0.51
1:X:2625:U:H6	1:X:2625:U:C5'	2.21	0.51
2:Y:14:C:O2	2:Y:14:C:H2'	2.09	0.51
2:Y:68:A:H61	2:Y:110:U:H3'	1.72	0.51
4:B:1:MET:O	4:B:84:PHE:CD1	2.63	0.51
8:G:140:GLN:O	8:G:144:MET:HG3	2.10	0.51
9:H:116:ARG:HG3	9:H:116:ARG:O	2.10	0.51
19:R:61:SER:HA	19:R:65:PRO:HA	1.92	0.51
1:X:691:C:C2	1:X:692:C:C5	2.98	0.51
1:X:1122:A:O2'	1:X:1123:G:P	2.69	0.51
1:X:1190:C:H2'	1:X:1191:G:C8	2.44	0.51
1:X:1226:A:H5"	1:X:1227:A:OP2	2.10	0.51
1:X:1336:G:C2'	1:X:1337:G:H5'	2.39	0.51
1:X:1433:A:C8	1:X:1595:A:N6	2.79	0.51
1:X:1696:C:O2	1:X:1696:C:H2'	2.10	0.51
2:Y:43:G:C8	6:D:66:ILE:HD11	2.45	0.51
2:Y:63:A:H2'	2:Y:64:C:C6	2.42	0.51
3:A:33:LEU:HD23	3:A:104:TYR:CD2	2.45	0.51
3:A:117:VAL:HG12	3:A:118:ASN:N	2.25	0.51
3:A:124:GLU:O	3:A:129:ASN:ND2	2.37	0.51
6:D:72:LYS:HG2	6:D:81:GLN:C	2.30	0.51
7:E:105:MET:HA	7:E:105:MET:CE	2.41	0.51
8:G:55:ALA:O	8:G:134:MET:HE1	2.09	0.51
9:H:81:ILE:HG13	9:H:81:ILE:O	2.10	0.51
12:K:73:LYS:O	12:K:76:VAL:HG12	2.10	0.51
13:L:33:ARG:CZ	13:L:99:ARG:HD2	2.41	0.51
17:P:9:ARG:HE	17:P:10:ASN:N	2.04	0.51
17:P:13:GLN:HA	17:P:16:GLN:HE21	1.75	0.51
19:R:61:SER:CB	19:R:65:PRO:HA	2.40	0.51
1:X:334:G:C3'	5:C:162:ARG:HE	2.19	0.51
1:X:750:C:H2'	1:X:751:G:H5'	1.92	0.51
1:X:1024:G:H2'	1:X:1025:A:C8	2.46	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1046:U:H2'	1:X:1047:G:C8	2.45	0.51
1:X:1091:C:H2'	1:X:1092:U:C5	2.45	0.51
1:X:1277:G:H5'	25:Z:11:THR:CG2	2.39	0.51
1:X:1427:G:H3'	1:X:1428:G:H8	1.76	0.51
1:X:1922:U:H5	1:X:1950:C:HO2'	1.58	0.51
1:X:2197:U:H2'	1:X:2197:U:O2	2.09	0.51
1:X:2309:G:C2'	1:X:2310:G:H5'	2.40	0.51
1:X:2327:U:O2'	1:X:2328:G:H5'	2.09	0.51
1:X:2528:G:H2'	1:X:2529:G:H5'	1.93	0.51
1:X:2779:C:H2'	1:X:2780:A:O4'	2.10	0.51
1:X:2799:C:H2'	1:X:2800:C:O4'	2.10	0.51
5:C:26:VAL:O	5:C:30:VAL:HG23	2.10	0.51
5:C:118:VAL:HG12	5:C:190:ALA:HB2	1.92	0.51
6:D:60:ILE:CG2	6:D:140:GLU:HB2	2.37	0.51
6:D:60:ILE:CG1	6:D:61:THR:HG23	2.40	0.51
14:M:64:LYS:HD3	14:M:83:PHE:CE2	2.45	0.51
15:N:79:PHE:HD1	15:N:80:ILE:HD13	1.74	0.51
19:R:38:LEU:HD13	19:R:40:LEU:HG	1.93	0.51
20:S:101:THR:CG2	20:S:135:VAL:HG22	2.38	0.51
1:X:558:G:C8	1:X:559:C:H5	2.27	0.51
1:X:920:G:P	11:J:24:GLY:HA3	2.50	0.51
1:X:946:U:H2'	1:X:947:C:H6	1.76	0.51
1:X:1015:U:H1'	1:X:1021:A:H2'	1.91	0.51
1:X:1332:G:HO2'	1:X:1333:G:H5'	1.72	0.51
1:X:1401:G:C2'	1:X:1402:G:H5'	2.40	0.51
1:X:1604:A:H3'	1:X:1605:A:C8	2.45	0.51
1:X:1604:A:H3'	1:X:1605:A:H8	1.75	0.51
1:X:1607:A:H2'	1:X:1608:U:H6	1.72	0.51
1:X:2256:G:OP1	11:J:87:GLY:HA3	2.10	0.51
4:B:7:THR:HG21	14:M:5:ILE:HD11	1.93	0.51
12:K:83:VAL:CG2	12:K:84:ALA:N	2.72	0.51
13:L:29:LEU:HB2	13:L:87:VAL:HG21	1.92	0.51
19:R:44:GLN:O	19:R:77:HIS:CB	2.54	0.51
20:S:97:PRO:HG2	20:S:133:GLU:HA	1.92	0.51
20:S:172:LEU:HD22	20:S:173:PRO:HD2	1.92	0.51
27:2:12:ARG:O	27:2:15:THR:O	2.28	0.51
28:3:10:ALA:HB1	28:3:64:ARG:HE	1.75	0.51
1:X:70:A:H5'	1:X:71:A:C2'	2.39	0.51
1:X:263:G:H1'	1:X:264:U:C5	2.45	0.51
1:X:338:G:H1'	19:R:10:HIS:HE1	1.76	0.51
1:X:550:C:O2'	1:X:551:A:H5'	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:836:G:H2'	1:X:837:U:C6	2.45	0.51
1:X:862:A:H2'	1:X:863:C:C6	2.45	0.51
1:X:867:G:H2'	1:X:868:U:H6	1.76	0.51
1:X:880:C:O2	1:X:880:C:C2'	2.57	0.51
1:X:1016:C:O2'	8:G:56:THR:HG21	2.11	0.51
1:X:1089:C:H1'	1:X:1099:A:C2	2.45	0.51
1:X:1332:G:C5	1:X:1333:G:C6	2.99	0.51
1:X:1412:C:OP1	18:Q:81:ARG:NH1	2.44	0.51
1:X:1805:G:H21	3:A:50:THR:HG22	1.76	0.51
1:X:2036:G:O2'	1:X:2037:A:H5'	2.11	0.51
1:X:2080:U:H2'	1:X:2081:U:C6	2.45	0.51
1:X:2546:G:H2'	1:X:2547:C:C6	2.45	0.51
1:X:2670:C:H5'	1:X:2847:G:H5"	1.92	0.51
3:A:163:VAL:HG22	3:A:177:LEU:HA	1.91	0.51
6:D:53:ALA:HB3	6:D:87:ILE:CD1	2.39	0.51
6:D:71:LYS:O	6:D:71:LYS:HD3	2.09	0.51
7:E:131:ILE:HG22	7:E:132:ASP:N	2.26	0.51
8:G:115:ALA:O	8:G:116:ARG:CB	2.59	0.51
10:I:108:LEU:O	10:I:109:LEU:HG	2.11	0.51
12:K:16:ALA:O	12:K:17:ARG:C	2.48	0.51
12:K:52:ILE:CG1	12:K:94:TYR:CD2	2.93	0.51
12:K:78:LYS:O	12:K:82:GLU:HB2	2.11	0.51
15:N:51:ARG:HD2	15:N:51:ARG:N	2.25	0.51
18:Q:42:ILE:HD12	18:Q:46:PHE:CD1	2.46	0.51
19:R:83:LEU:HD12	19:R:83:LEU:N	2.22	0.51
27:2:15:THR:O	27:2:16:HIS:HB2	2.10	0.51
27:2:39:ARG:HD3	27:2:42:LEU:CD1	2.35	0.51
28:3:29:LYS:CB	28:3:33:ASN:OD1	2.58	0.51
1:X:82:G:N1	1:X:100:G:O2'	2.29	0.51
1:X:780:U:HO2'	1:X:781:G:C5'	2.23	0.51
1:X:873:U:C6	1:X:2247:A:O4'	2.63	0.51
1:X:1017:C:O2'	1:X:1018:C:H5'	2.10	0.51
1:X:1129:A:H2'	1:X:1130:U:O4'	2.09	0.51
1:X:1277:G:H5'	25:Z:11:THR:HG21	1.93	0.51
1:X:1558:C:H2'	1:X:1559:G:H5'	1.92	0.51
1:X:1673:C:H2'	1:X:1674:C:C6	2.40	0.51
1:X:1785:A:H2'	1:X:1786:C:C6	2.44	0.51
1:X:2261:G:H5"	1:X:2262:C:O4'	2.10	0.51
1:X:2474:G:OP1	11:J:83:ARG:NE	2.43	0.51
1:X:2605:C:H2'	1:X:2606:G:C8	2.46	0.51
5:C:22:VAL:HG23	10:I:6:LEU:HD21	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:75:ILE:HG13	8:G:75:ILE:O	2.10	0.51
9:H:10:VAL:HA	9:H:96:ALA:O	2.09	0.51
12:K:2:ARG:NH2	12:K:5:LYS:CB	2.74	0.51
13:L:97:HIS:HD1	13:L:98:GLY:H	1.56	0.51
20:S:24:TYR:CB	20:S:29:ASN:HA	2.41	0.51
20:S:71:MET:HB3	20:S:78:PRO:HA	1.90	0.51
23:V:18:ILE:HG13	23:V:53:LEU:HD22	1.92	0.51
26:1:14:SER:HB3	26:1:52:GLU:CG	2.40	0.51
28:3:26:LYS:CD	28:3:46:LYS:HD2	2.40	0.51
1:X:42:G:H2'	1:X:43:A:C8	2.46	0.51
1:X:339:U:N3	1:X:343:A:H2	2.09	0.51
1:X:1495:G:H5'	1:X:1574:A:C2	2.45	0.51
1:X:1697:U:O2'	1:X:1754:G:N7	2.34	0.51
1:X:1790:G:N7	3:A:179:SER:OG	2.40	0.51
1:X:2046:C:O2	1:X:2430:A:C2	2.64	0.51
1:X:2210:C:H2'	1:X:2211:U:H6	1.74	0.51
1:X:2215:C:C2'	1:X:2216:G:H5'	2.41	0.51
1:X:2284:U:H3'	1:X:2285:U:H5"	1.91	0.51
1:X:2523:G:O2'	1:X:2524:G:H5'	2.10	0.51
3:A:15:GLN:OE1	3:A:15:GLN:HA	2.11	0.51
6:D:61:THR:C	6:D:62:LEU:HG	2.31	0.51
10:I:55:ARG:H	10:I:55:ARG:NH2	2.09	0.51
11:J:134:LYS:HD2	11:J:135:ARG:O	2.11	0.51
13:L:19:THR:OG1	13:L:88:VAL:HG21	2.10	0.51
16:O:83:ARG:O	16:O:84:THR:HG23	2.10	0.51
28:3:36:LYS:HZ2	28:3:37:SER:N	2.06	0.51
1:X:873:U:H1'	1:X:2247:A:H5"	1.92	0.51
1:X:946:U:H2'	1:X:947:C:C6	2.45	0.51
1:X:1004:A:OP1	15:N:50:ARG:HD2	2.10	0.51
1:X:1017:C:H1'	8:G:134:MET:HB3	1.92	0.51
1:X:1734:C:H5"	1:X:1735:G:C8	2.45	0.51
1:X:2028:C:C2'	1:X:2029:G:O5'	2.58	0.51
1:X:2228:U:H4'	1:X:2229:G:OP2	2.11	0.51
1:X:2255:G:H2'	1:X:2256:G:H5'	1.93	0.51
1:X:2674:C:H2'	1:X:2675:U:C6	2.45	0.51
1:X:2674:C:H2'	1:X:2675:U:H6	1.74	0.51
3:A:52:ARG:O	3:A:53:PHE:HB2	2.10	0.51
3:A:97:TYR:HE1	3:A:103:ARG:HB2	1.76	0.51
3:A:163:VAL:HG23	3:A:178:PRO:HD3	1.91	0.51
4:B:9:ILE:HD11	4:B:27:LEU:HB2	1.93	0.51
5:C:48:ARG:CZ	5:C:51:VAL:HG11	2.41	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:104:ILE:O	6:D:108:LEU:HD11	2.10	0.51
7:E:99:THR:O	7:E:99:THR:HG22	2.09	0.51
9:H:82:LYS:HG2	9:H:83:ARG:N	2.24	0.51
10:I:71:THR:HG22	10:I:104:ARG:C	2.31	0.51
14:M:58:ASN:O	14:M:64:LYS:HA	2.11	0.51
16:O:10:LYS:HZ2	16:O:11:GLN:CB	2.24	0.51
1:X:83:A:H3'	19:R:18:LYS:HD2	1.93	0.51
1:X:105:G:C2'	1:X:106:G:C5'	2.87	0.51
1:X:441:A:OP2	1:X:441:A:H8	1.93	0.51
1:X:618:A:O2'	1:X:619:A:H5'	2.11	0.51
1:X:653:G:H2'	1:X:654:A:H5'	1.91	0.51
1:X:877:G:H2'	1:X:878:C:C6	2.45	0.51
1:X:1096:A:C4'	1:X:1097:A:OP1	2.59	0.51
1:X:1237:G:O3'	16:O:85:GLY:HA3	2.11	0.51
1:X:1529:C:C2'	1:X:1530:U:H5'	2.40	0.51
1:X:1917:C:O2'	1:X:1918:G:H5'	2.11	0.51
1:X:2262:C:H2'	1:X:2263:C:O4'	2.11	0.51
1:X:2263:C:OP2	26:1:9:ILE:HD11	2.10	0.51
1:X:2446:C:O2'	1:X:2447:G:H5'	2.11	0.51
1:X:2479:U:H5"	1:X:2480:C:OP2	2.11	0.51
1:X:2542:U:OP1	9:H:37:GLY:N	2.41	0.51
2:Y:52:G:H5"	13:L:63:ASN:HB2	1.93	0.51
5:C:31:VAL:HG21	10:I:6:LEU:CD1	2.40	0.51
5:C:146:GLU:O	5:C:148:VAL:HG13	2.11	0.51
7:E:97:LYS:O	7:E:104:GLU:N	2.43	0.51
8:G:123:PRO:CG	8:G:152:ALA:HB2	2.41	0.51
13:L:35:SER:C	13:L:36:LYS:HE3	2.30	0.51
15:N:14:HIS:CE1	15:N:32:TYR:CE2	2.99	0.51
15:N:66:ASN:HD22	15:N:70:ARG:HH22	1.59	0.51
19:R:96:LYS:NZ	19:R:98:ILE:HG12	2.26	0.51
1:X:108:G:H2'	1:X:109:A:O4'	2.10	0.51
1:X:448:C:H2'	1:X:449:C:H5'	1.93	0.51
1:X:627:A:OP1	5:C:34:GLN:HG2	2.11	0.51
1:X:750:C:H2'	1:X:751:G:C5'	2.41	0.51
1:X:1129:A:C2'	1:X:1130:U:O5'	2.59	0.51
1:X:1322:G:O2'	1:X:1323:G:H5'	2.11	0.51
1:X:1331:G:C2'	1:X:1332:G:H5'	2.41	0.51
1:X:1429:A:O2'	1:X:1430:G:H5'	2.11	0.51
1:X:1475:U:H3'	1:X:1475:U:O2	2.11	0.51
1:X:1542:G:N2	1:X:1562:G:H1	1.93	0.51
1:X:1659:G:C2'	1:X:1660:G:H5'	2.40	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1682:A:H1'	9:H:1:MET:HE2	1.92	0.51
1:X:2454:C:C2'	1:X:2455:A:H5'	2.40	0.51
1:X:2579:A:O2'	1:X:2580:C:H5'	2.11	0.51
1:X:2766:U:O2'	1:X:2767:C:H5'	2.11	0.51
1:X:2807:U:H4'	1:X:2808:U:H5"	1.92	0.51
5:C:158:ARG:O	5:C:161:ALA:CB	2.59	0.51
6:D:108:LEU:HA	6:D:111:ILE:CG2	2.41	0.51
17:P:43:ASP:HA	17:P:46:ARG:HH12	1.76	0.51
22:U:49:LYS:HG3	22:U:49:LYS:O	2.11	0.51
23:V:11:ALA:HA	23:V:14:PHE:HB2	1.93	0.51
26:1:9:ILE:CB	26:1:28:ARG:HA	2.40	0.51
1:X:1096:A:H4'	1:X:1097:A:OP1	2.10	0.50
1:X:1652:G:H2'	1:X:1653:C:C6	2.46	0.50
1:X:1858:C:H2'	1:X:1859:A:H5'	1.93	0.50
1:X:2289:A:H2'	1:X:2289:A:N3	2.26	0.50
1:X:2528:G:C2	1:X:2529:G:N7	2.79	0.50
2:Y:17:A:OP2	2:Y:110:U:H2'	2.12	0.50
6:D:75:SER:CB	6:D:79:LEU:HD22	2.40	0.50
8:G:30:LYS:HG2	8:G:30:LYS:O	2.11	0.50
11:J:48:ILE:HD11	11:J:69:ILE:HD11	1.93	0.50
12:K:37:THR:OG1	12:K:40:LYS:HG3	2.10	0.50
12:K:90:ARG:NH2	12:K:116:VAL:HG12	2.26	0.50
19:R:25:LEU:CG	19:R:81:VAL:HG13	2.41	0.50
19:R:42:ARG:HG2	19:R:42:ARG:NH1	2.22	0.50
1:X:333:A:O2'	5:C:162:ARG:NH1	2.43	0.50
1:X:657:A:N3	1:X:657:A:H2'	2.27	0.50
1:X:1168:G:H2'	24:W:28:ILE:HD11	1.94	0.50
1:X:2627:G:H2'	1:X:2628:C:C6	2.46	0.50
1:X:2681:A:OP1	12:K:73:LYS:NZ	2.45	0.50
5:C:144:GLY:CA	5:C:166:TRP:CZ2	2.93	0.50
6:D:129:ASN:CA	6:D:155:THR:HA	2.42	0.50
7:E:87:LEU:HD13	7:E:162:VAL:CG1	2.41	0.50
9:H:27:SER:HG	9:H:50:ILE:HB	1.74	0.50
9:H:116:ARG:NH1	14:M:38:LYS:HD2	2.26	0.50
12:K:52:ILE:HD11	12:K:94:TYR:CE2	2.46	0.50
13:L:52:ALA:O	13:L:75:LEU:HD11	2.12	0.50
15:N:75:ASN:HD21	15:N:77:SER:HB3	1.76	0.50
21:T:72:LYS:HE2	21:T:73:GLY:N	2.25	0.50
1:X:1417:C:O2'	1:X:1418:C:H5'	2.11	0.50
1:X:1690:U:C6	1:X:1690:U:C3'	2.94	0.50
1:X:1796:A:H1'	3:A:50:THR:HG23	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2190:A:O2'	1:X:2191:A:OP2	2.27	0.50
1:X:2306:A:H3'	1:X:2307:A:C8	2.47	0.50
1:X:2557:G:N2	1:X:2558:C:C2	2.80	0.50
2:Y:93:G:H5'	11:J:19:THR:CG2	2.41	0.50
4:B:35:GLN:HB3	4:B:48:GLN:CB	2.42	0.50
5:C:6:VAL:H	5:C:120:VAL:HG13	1.74	0.50
5:C:170:LEU:HD23	5:C:174:GLY:O	2.10	0.50
7:E:126:PRO:HG2	7:E:127:GLU:H	1.76	0.50
13:L:26:ARG:HH12	13:L:86:GLN:HB3	1.75	0.50
14:M:72:SER:O	14:M:73:PHE:C	2.49	0.50
18:Q:11:VAL:HG23	18:Q:27:PHE:CA	2.35	0.50
20:S:173:PRO:HB2	20:S:174:PRO:HD2	1.93	0.50
25:Z:45:ILE:HG13	25:Z:52:TYR:CB	2.35	0.50
1:X:349:G:O2'	1:X:350:U:P	2.65	0.50
1:X:753:U:H2'	1:X:754:G:C8	2.46	0.50
1:X:1063:C:H2'	1:X:1064:C:C6	2.46	0.50
1:X:1153:A:O2'	1:X:1154:A:C3'	2.46	0.50
1:X:1514:C:O4'	1:X:1593:C:C5'	2.58	0.50
1:X:1616:C:C2'	1:X:1617:G:H5'	2.41	0.50
1:X:1631:C:C5	1:X:1633:C:C4	3.00	0.50
1:X:2020:G:H2'	1:X:2021:G:H8	1.74	0.50
1:X:2553:G:O2'	4:B:143:GLN:HB2	2.12	0.50
1:X:2777:A:H2'	1:X:2777:A:N3	2.27	0.50
3:A:145:LEU:HG	3:A:155:LEU:HD21	1.93	0.50
5:C:22:VAL:HG13	5:C:23:ASN:H	1.77	0.50
5:C:22:VAL:HB	5:C:27:LEU:HG	1.94	0.50
7:E:14:GLY:O	7:E:28:GLY:HA2	2.11	0.50
8:G:36:ASN:OD1	8:G:36:ASN:N	2.44	0.50
11:J:38:MET:O	11:J:100:PRO:HG3	2.11	0.50
11:J:57:ARG:HG2	11:J:57:ARG:HH11	1.77	0.50
17:P:80:LEU:HD11	17:P:87:GLU:HB3	1.94	0.50
17:P:105:ARG:NH1	17:P:119:LYS:HZ1	2.10	0.50
20:S:27:GLU:HG3	20:S:28:ASN:CG	2.32	0.50
26:1:23:THR:C	26:1:24:THR:HG23	2.31	0.50
1:X:34:U:H1'	19:R:4:PRO:N	2.26	0.50
1:X:165:G:O2'	1:X:166:G:H5'	2.12	0.50
1:X:351:A:C2'	1:X:352:G:H5'	2.41	0.50
1:X:513:A:C4'	1:X:514:G:H5'	2.42	0.50
1:X:1072:U:H4'	1:X:1081:A:O2'	2.11	0.50
1:X:1561:A:H3'	1:X:1561:A:C8	2.46	0.50
1:X:1608:U:H2'	1:X:1609:G:C8	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2475:C:C2'	1:X:2476:A:H5'	2.42	0.50
1:X:2475:C:O2'	1:X:2476:A:H5'	2.11	0.50
1:X:2781:G:O2'	1:X:2782:G:H5"	2.11	0.50
2:Y:35:C:O2'	2:Y:36:A:H5'	2.12	0.50
2:Y:121:G:O2'	2:Y:122:U:H5'	2.11	0.50
3:A:244:ARG:C	3:A:252:LYS:HZ3	2.13	0.50
5:C:133:PHE:O	5:C:133:PHE:HD1	1.93	0.50
6:D:8:TYR:HB2	6:D:173:MET:SD	2.52	0.50
6:D:40:LEU:HD22	6:D:87:ILE:HD11	1.94	0.50
6:D:117:ILE:HD11	6:D:176:PRO:HG2	1.94	0.50
12:K:74:ASP:OD1	12:K:77:ARG:NH2	2.44	0.50
17:P:59:PHE:CD2	25:Z:30:LEU:HD11	2.47	0.50
20:S:96:VAL:CG2	20:S:122:ILE:HD12	2.42	0.50
22:U:51:ILE:HG12	22:U:59:THR:C	2.31	0.50
22:U:52:ARG:HB3	22:U:78:ILE:O	2.11	0.50
1:X:147:G:H2'	1:X:149:A:N7	2.26	0.50
1:X:317:U:O4	1:X:321:A:N7	2.45	0.50
1:X:692:C:H2'	1:X:693:A:H8	1.77	0.50
1:X:1141:U:O2'	1:X:1142:G:O5'	2.26	0.50
1:X:1223:G:H5"	1:X:1224:A:H3'	1.93	0.50
1:X:1269:G:O3'	5:C:69:HIS:HE1	1.93	0.50
1:X:1328:C:H2'	1:X:1329:U:H5'	1.93	0.50
1:X:1485:U:H2'	1:X:1486:A:C8	2.47	0.50
1:X:1504:G:H22	1:X:1516:A:H2	1.58	0.50
1:X:1692:C:N4	1:X:1976:U:O4'	2.42	0.50
1:X:2464:G:O2'	1:X:2465:G:H5'	2.11	0.50
2:Y:59:A:H3'	2:Y:60:A:C8	2.43	0.50
2:Y:103:A:H2'	2:Y:104:A:O4'	2.12	0.50
5:C:27:LEU:HD13	5:C:177:VAL:HG11	1.93	0.50
9:H:109:ARG:HG3	9:H:109:ARG:HH11	1.76	0.50
11:J:64:LYS:HB2	11:J:108:ALA:HB3	1.92	0.50
16:O:12:TYR:CD1	16:O:41:GLY:HA2	2.46	0.50
17:P:57:LEU:HD13	17:P:69:ALA:HA	1.94	0.50
18:Q:7:LEU:HD13	18:Q:7:LEU:O	2.12	0.50
19:R:60:PRO:CB	19:R:62:MET:HG2	2.42	0.50
21:T:53:MET:HB2	21:T:59:LEU:HD23	1.93	0.50
28:3:39:ASP:HA	28:3:42:ARG:NH1	2.26	0.50
1:X:536:A:N6	1:X:2605:C:H4'	2.26	0.50
1:X:642:A:C2'	10:I:59:ARG:HG3	2.42	0.50
1:X:649:G:N1	1:X:660:G:N1	2.60	0.50
1:X:849:G:H2'	1:X:850:C:C6	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1130:U:H2'	1:X:1131:G:H5'	1.94	0.50
1:X:1413:U:O2'	1:X:1414:G:H5'	2.11	0.50
1:X:1536:G:O2'	1:X:1537:U:H5'	2.12	0.50
1:X:1574:A:O2'	1:X:1575:C:H3'	2.12	0.50
1:X:1889:G:O2'	1:X:1890:G:OP2	2.29	0.50
1:X:1909:U:C2'	1:X:1910:A:OP1	2.60	0.50
1:X:2209:G:H1'	22:U:47:HIS:ND1	2.27	0.50
1:X:2398:U:C5'	28:3:34:THR:CG2	2.87	0.50
8:G:57:LEU:HD12	8:G:57:LEU:O	2.11	0.50
9:H:116:ARG:CD	14:M:40:ARG:HE	2.25	0.50
9:H:119:ARG:NH2	14:M:41:GLU:HA	2.27	0.50
11:J:95:VAL:HG12	11:J:96:SER:N	2.27	0.50
16:O:34:GLU:HB2	16:O:56:VAL:O	2.11	0.50
23:V:27:GLU:O	23:V:31:GLN:HG3	2.11	0.50
27:2:23:LYS:HD3	27:2:24:THR:N	2.26	0.50
1:X:1484:G:O2'	1:X:1485:U:H5'	2.12	0.50
1:X:1733:U:O4'	1:X:1733:U:OP1	2.29	0.50
1:X:2017:U:H2'	1:X:2018:G:H5'	1.93	0.50
1:X:2043:A:H62	5:C:68:ARG:NH1	2.09	0.50
1:X:2485:U:HO2'	1:X:2486:C:C5'	2.25	0.50
1:X:2587:G:H8	1:X:2587:G:O5'	1.95	0.50
1:X:2763:U:O2'	1:X:2764:U:H5'	2.11	0.50
3:A:218:LYS:HB3	3:A:219:PRO:HD2	1.94	0.50
5:C:181:LEU:HD23	10:I:1:MET:H2	1.77	0.50
7:E:6:LYS:HG2	7:E:7:GLN:OE1	2.11	0.50
15:N:29:SER:OG	15:N:30:LYS:HD3	2.11	0.50
15:N:61:TRP:CH2	15:N:94:VAL:CG2	2.92	0.50
15:N:74:MET:HG2	15:N:78:THR:HG22	1.93	0.50
1:X:32:C:O2'	1:X:33:C:H5'	2.11	0.50
1:X:136:A:H8	1:X:136:A:OP2	1.95	0.50
1:X:202:A:H2'	1:X:203:G:C5'	2.42	0.50
1:X:267:C:C2	1:X:268:G:N7	2.80	0.50
1:X:627:A:H2'	1:X:628:A:C8	2.47	0.50
1:X:1310:C:H2'	1:X:1311:C:C6	2.47	0.50
1:X:1528:C:H5'	1:X:1529:C:OP2	2.12	0.50
1:X:1558:C:C2'	1:X:1559:G:H5'	2.42	0.50
1:X:1623:C:C4'	1:X:1624:A:H5'	2.39	0.50
1:X:1686:A:H5"	1:X:1687:C:OP2	2.12	0.50
1:X:1790:G:N2	3:A:155:LEU:HA	2.27	0.50
1:X:1869:A:H2'	1:X:1870:U:O4'	2.11	0.50
1:X:2615:U:O5'	4:B:80:GLU:HG3	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:21:C:H2'	2:Y:22:U:H5'	1.92	0.50
2:Y:23:G:O2'	2:Y:24:U:H5'	2.12	0.50
3:A:94:LEU:HD13	3:A:104:TYR:CE1	2.47	0.50
3:A:245:VAL:N	3:A:252:LYS:HE2	2.27	0.50
5:C:58:MET:HG3	5:C:59:TYR:N	2.27	0.50
8:G:32:TYR:HB2	15:N:101:ARG:NH2	2.27	0.50
11:J:26:ASP:HA	11:J:101:GLY:O	2.12	0.50
14:M:5:ILE:HD12	14:M:5:ILE:N	2.27	0.50
17:P:40:LEU:HD22	25:Z:25:LEU:HD13	1.94	0.50
21:T:39:ARG:HG2	21:T:39:ARG:NH1	2.25	0.50
1:X:664:C:C6	1:X:666:U:H5	2.30	0.49
1:X:833:A:H1'	1:X:954:U:O2'	2.11	0.49
1:X:946:U:O2'	1:X:947:C:H5'	2.12	0.49
1:X:1182:U:H5'	1:X:1182:U:H6	1.77	0.49
1:X:1583:A:C2'	3:A:86:PRO:HG3	2.42	0.49
1:X:1887:G:C2'	1:X:1888:C:C5'	2.88	0.49
1:X:2073:A:N6	1:X:2209:G:O6	2.45	0.49
1:X:2690:A:OP1	1:X:2692:A:OP1	2.29	0.49
4:B:141:ILE:HG22	4:B:154:LYS:HE3	1.93	0.49
15:N:82:GLY:HA3	15:N:113:SER:OG	2.12	0.49
18:Q:12:ILE:O	18:Q:12:ILE:CG1	2.59	0.49
18:Q:19:ALA:HB1	18:Q:24:VAL:CG2	2.42	0.49
24:W:4:LYS:HE3	24:W:52:GLU:O	2.12	0.49
28:3:2:PRO:O	28:3:3:LYS:CB	2.59	0.49
1:X:356:A:C2'	1:X:357:A:H8	2.25	0.49
1:X:542:A:H8	15:N:28:ARG:NH2	2.10	0.49
1:X:1047:G:C2'	1:X:1048:U:H5'	2.41	0.49
1:X:1469:U:OP1	1:X:1470:G:OP2	2.31	0.49
1:X:1573:G:P	1:X:1574:A:H5'	2.52	0.49
1:X:1919:A:H2	1:X:1926:U:H3	1.60	0.49
1:X:2012:A:H3'	1:X:2014:A:OP1	2.13	0.49
1:X:2850:U:O2'	14:M:10:GLY:HA3	2.11	0.49
3:A:29:PRO:O	3:A:30:GLU:CB	2.60	0.49
5:C:27:LEU:HD21	5:C:106:MET:HB2	1.94	0.49
5:C:72:ARG:HA	5:C:77:PHE:CD2	2.47	0.49
9:H:110:VAL:HG23	9:H:129:LEU:CB	2.25	0.49
12:K:65:LEU:O	12:K:68:GLN:HB2	2.11	0.49
17:P:46:ARG:O	17:P:92:VAL:HB	2.12	0.49
20:S:24:TYR:HA	20:S:29:ASN:HA	1.94	0.49
23:V:42:ARG:O	23:V:46:LEU:HG	2.11	0.49
26:1:14:SER:OG	26:1:23:THR:HG22	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:202:A:C2'	1:X:203:G:H5'	2.41	0.49
1:X:320:A:N3	1:X:340:G:O2'	2.40	0.49
1:X:649:G:C2	1:X:660:G:N2	2.80	0.49
1:X:1019:U:H4'	15:N:59:ARG:HH22	1.76	0.49
1:X:1235:C:O2'	1:X:1236:G:H5'	2.12	0.49
1:X:1343:C:C2'	1:X:1344:C:O5'	2.61	0.49
1:X:2398:U:O4	28:3:31:HIS:CE1	2.65	0.49
1:X:2485:U:O2	1:X:2485:U:C2'	2.57	0.49
1:X:2542:U:O2	1:X:2544:A:H8	1.95	0.49
2:Y:18:G:O2'	2:Y:19:C:H5'	2.12	0.49
2:Y:78:A:H2'	2:Y:79:U:O4'	2.13	0.49
3:A:80:ALA:HB3	3:A:94:LEU:HB3	1.94	0.49
3:A:91:ARG:O	3:A:107:ALA:CB	2.60	0.49
3:A:146:GLU:HA	3:A:153:ALA:HA	1.93	0.49
5:C:56:ARG:HD2	5:C:57:LYS:H	1.77	0.49
12:K:55:ALA:O	12:K:80:MET:CE	2.60	0.49
13:L:29:LEU:N	13:L:88:VAL:HG12	2.27	0.49
13:L:42:ILE:HD12	13:L:87:VAL:HG21	1.93	0.49
15:N:58:ARG:HH21	15:N:93:LYS:HE2	1.77	0.49
15:N:92:ARG:H	16:O:5:ILE:HD12	1.77	0.49
18:Q:39:LYS:HE3	18:Q:50:VAL:HG12	1.93	0.49
19:R:90:LYS:CG	19:R:108:VAL:HB	2.33	0.49
23:V:31:GLN:O	23:V:34:ALA:HB3	2.12	0.49
23:V:59:GLU:O	23:V:63:LYS:HB2	2.12	0.49
24:W:4:LYS:HB2	24:W:30:ASP:O	2.12	0.49
1:X:31:C:H2'	1:X:32:C:H5'	1.93	0.49
1:X:256:C:O2'	1:X:257:G:OP2	2.21	0.49
1:X:489:A:N1	1:X:510:G:H4'	2.28	0.49
1:X:539:A:C2	1:X:2006:G:C8	3.01	0.49
1:X:867:G:H2'	1:X:868:U:O4'	2.12	0.49
1:X:1039:A:H2'	1:X:1040:A:C8	2.47	0.49
1:X:1291:G:OP1	12:K:36:THR:OG1	2.24	0.49
3:A:161:THR:HG23	3:A:178:PRO:HB3	1.94	0.49
3:A:251:GLY:C	3:A:252:LYS:HE3	2.30	0.49
3:A:255:LYS:HG2	3:A:257:LEU:HD21	1.93	0.49
4:B:174:GLU:HB3	4:B:183:LEU:HB2	1.92	0.49
5:C:102:LEU:HD21	5:C:106:MET:CE	2.42	0.49
6:D:8:TYR:O	6:D:12:VAL:HG23	2.13	0.49
8:G:61:ARG:HD2	8:G:78:ASP:OD2	2.12	0.49
10:I:51:GLY:C	10:I:53:ARG:H	2.15	0.49
15:N:57:PHE:HB3	15:N:61:TRP:CZ2	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1016:C:H1'	1:X:1023:U:H3	1.77	0.49
1:X:1121:G:H8	1:X:1121:G:OP2	1.96	0.49
1:X:1217:U:O2'	1:X:1218:C:H5'	2.11	0.49
1:X:1412:C:C2'	1:X:1413:U:H5'	2.42	0.49
1:X:1645:U:O2	1:X:2677:U:H5"	2.12	0.49
1:X:1662:G:H5"	1:X:1663:C:H5'	1.94	0.49
1:X:2274:C:OP1	13:L:8:ARG:NH1	2.45	0.49
1:X:2560:G:H2'	1:X:2560:G:N3	2.27	0.49
1:X:2581:A:H2'	1:X:2582:G:C5'	2.42	0.49
3:A:39:LYS:HD3	3:A:39:LYS:N	2.25	0.49
5:C:179:ASP:OD1	5:C:182:ARG:NH2	2.44	0.49
7:E:107:ILE:HD11	7:E:151:VAL:CG1	2.42	0.49
10:I:23:PRO:CB	16:O:79:GLN:HG3	2.42	0.49
20:S:104:SER:HB3	20:S:138:VAL:HG23	1.95	0.49
20:S:128:ARG:N	20:S:130:ILE:HD11	2.23	0.49
27:2:18:PHE:N	27:2:45:SER:HG	2.07	0.49
28:3:44:LYS:CA	28:3:44:LYS:HE3	2.43	0.49
1:X:37:C:H2'	1:X:38:G:C8	2.47	0.49
1:X:116:A:H3'	1:X:117:A:C5'	2.42	0.49
1:X:673:G:H5'	5:C:93:TYR:CE2	2.47	0.49
1:X:956:A:C4	1:X:2427:A:C2	3.01	0.49
1:X:1429:A:H1'	1:X:1603:A:C6	2.48	0.49
1:X:1882:G:O2'	1:X:1883:A:H5"	2.13	0.49
1:X:2362:G:H2'	1:X:2363:G:C8	2.47	0.49
1:X:2485:U:O2'	1:X:2486:C:O5'	2.30	0.49
3:A:164:GLN:OE1	3:A:166:GLN:NE2	2.45	0.49
9:H:88:THR:O	14:M:79:ARG:HD3	2.12	0.49
16:O:20:ILE:CG2	16:O:21:ARG:H	2.26	0.49
17:P:105:ARG:HD3	17:P:119:LYS:HZ1	1.76	0.49
18:Q:51:ILE:CD1	18:Q:81:ARG:HD3	2.25	0.49
20:S:174:PRO:O	20:S:175:ARG:HB2	2.11	0.49
22:U:48:LYS:HE2	22:U:48:LYS:HA	1.95	0.49
1:X:636:G:O6	10:I:92:THR:OG1	2.30	0.49
1:X:970:A:H1'	1:X:2436:U:O2'	2.13	0.49
1:X:1660:G:H2'	1:X:1661:C:O5'	2.13	0.49
1:X:1864:G:C2'	1:X:1865:C:H5'	2.42	0.49
1:X:2426:G:O2'	1:X:2479:U:OP2	2.20	0.49
1:X:2681:A:C5	1:X:2682:C:C5	3.01	0.49
2:Y:64:C:H2'	2:Y:65:A:H8	1.77	0.49
4:B:161:GLY:O	4:B:162:MET:HB2	2.12	0.49
7:E:41:LEU:CD1	7:E:55:PRO:HD3	2.37	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:4:PRO:O	9:H:5:GLN:HB2	2.12	0.49
11:J:40:PRO:HA	11:J:98:VAL:O	2.13	0.49
12:K:55:ALA:HB2	12:K:66:VAL:HG21	1.95	0.49
14:M:33:VAL:HG22	14:M:51:GLU:HB2	1.95	0.49
20:S:19:ILE:HG23	20:S:79:ILE:O	2.13	0.49
1:X:242:A:O2'	1:X:243:G:H4'	2.13	0.49
1:X:263:G:H8	1:X:263:G:OP2	1.96	0.49
1:X:393:U:O2'	1:X:394:U:H5'	2.13	0.49
1:X:558:G:H8	1:X:559:C:C5	2.28	0.49
1:X:708:G:OP1	1:X:1393:G:O2'	2.31	0.49
1:X:787:A:HO2'	1:X:788:G:P	2.35	0.49
1:X:787:A:O2'	1:X:788:G:O5'	2.26	0.49
1:X:1180:A:H2'	1:X:1181:C:H6	1.76	0.49
1:X:1380:C:H5"	1:X:1381:G:OP2	2.13	0.49
1:X:1460:G:H2'	1:X:1461:C:H6	1.78	0.49
1:X:1467:U:C3'	1:X:1467:U:H6	2.26	0.49
1:X:1494:G:O2'	1:X:1574:A:C2	2.66	0.49
1:X:2197:U:H2'	1:X:2198:U:C6	2.48	0.49
1:X:2727:G:P	7:E:138:LYS:HZ2	2.36	0.49
2:Y:54:U:C2'	2:Y:55:C:H5'	2.42	0.49
6:D:36:VAL:HA	6:D:153:ASP:O	2.13	0.49
8:G:128:GLU:CG	8:G:150:VAL:HG21	2.42	0.49
11:J:69:ILE:HG22	11:J:104:MET:HA	1.94	0.49
11:J:132:MET:O	11:J:133:VAL:HG13	2.12	0.49
12:K:52:ILE:CD1	12:K:94:TYR:CG	2.96	0.49
15:N:6:THR:O	15:N:9:VAL:HG23	2.13	0.49
19:R:42:ARG:HH11	19:R:42:ARG:CB	2.26	0.49
1:X:317:U:C3'	1:X:318:G:C5'	2.89	0.49
1:X:485:G:C6	1:X:520:C:N4	2.80	0.49
1:X:638:A:H4'	1:X:639:G:OP1	2.12	0.49
1:X:642:A:C2'	10:I:59:ARG:CG	2.90	0.49
1:X:1448:A:C2'	1:X:1449:C:H5'	2.43	0.49
1:X:1501:C:H2'	1:X:1502:G:O4'	2.13	0.49
1:X:1794:A:H2	1:X:1815:G:O4'	1.95	0.49
1:X:2373:C:P	10:I:55:ARG:HB2	2.53	0.49
1:X:2819:G:C2'	1:X:2820:C:O5'	2.61	0.49
6:D:12:VAL:HG12	6:D:16:LEU:CD1	2.43	0.49
6:D:13:ARG:HB3	6:D:14:PRO:CD	2.42	0.49
6:D:104:ILE:O	6:D:108:LEU:HD21	2.13	0.49
14:M:55:ILE:CG1	14:M:67:THR:CG2	2.89	0.49
24:W:46:THR:HG22	24:W:47:VAL:CG1	2.42	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:13:A:N3	1:X:15:G:C6	2.81	0.49
1:X:257:G:N2	1:X:262:C:O2	2.46	0.49
1:X:789:G:H4'	1:X:790:A:C5'	2.41	0.49
1:X:1153:A:HO2'	1:X:1154:A:H3'	1.73	0.49
1:X:1386:A:H2'	1:X:1387:G:O4'	2.12	0.49
1:X:1429:A:C8	1:X:1603:A:C8	3.01	0.49
1:X:1474:A:C2	1:X:1476:G:C6	3.00	0.49
1:X:1693:A:C2	1:X:1976:U:H5'	2.48	0.49
1:X:2206:C:H2'	1:X:2207:G:C5'	2.43	0.49
1:X:2614:A:C2'	1:X:2615:U:O5'	2.60	0.49
2:Y:17:A:O2'	2:Y:112:A:C8	2.65	0.49
3:A:141:VAL:CG1	3:A:162:SER:HB3	2.42	0.49
3:A:183:ARG:HD3	3:A:266:SER:O	2.13	0.49
5:C:189:ASP:N	5:C:193:LEU:HD13	2.28	0.49
10:I:25:GLY:O	10:I:26:THR:CG2	2.61	0.49
15:N:78:THR:OG1	15:N:117:ARG:NH1	2.46	0.49
1:X:209:G:O2'	1:X:210:A:P	2.70	0.48
1:X:357:A:H3'	1:X:358:C:O4'	2.12	0.48
1:X:1231:A:H2'	1:X:1232:U:C6	2.48	0.48
1:X:1386:A:H5"	1:X:2191:A:N6	2.27	0.48
1:X:1439:G:O2'	1:X:1440:G:P	2.71	0.48
1:X:1813:A:H5'	3:A:158:SER:OG	2.13	0.48
1:X:1842:G:H2'	1:X:1843:U:O4'	2.13	0.48
1:X:1933:G:C8	1:X:1934:U:H5	2.31	0.48
1:X:2343:C:H2'	1:X:2344:G:C5'	2.43	0.48
2:Y:83:C:H2'	2:Y:84:G:O5'	2.12	0.48
3:A:239:ARG:O	3:A:240:THR:OG1	2.24	0.48
5:C:6:VAL:HG12	5:C:120:VAL:HG22	1.92	0.48
6:D:152:MET:HE1	6:D:154:ILE:HD11	1.94	0.48
9:H:4:PRO:O	9:H:5:GLN:CB	2.61	0.48
11:J:76:THR:HG22	11:J:89:GLY:O	2.13	0.48
26:1:14:SER:CA	26:1:52:GLU:HA	2.40	0.48
26:1:25:THR:HG23	26:1:26:LYS:N	2.26	0.48
1:X:201:G:O2'	1:X:202:A:H5'	2.13	0.48
1:X:320:A:H4'	19:R:27:GLY:HA2	1.94	0.48
1:X:482:A:C2'	1:X:483:A:C5'	2.88	0.48
1:X:538:A:H4'	1:X:539:A:OP1	2.14	0.48
1:X:967:G:OP1	11:J:88:LYS:HA	2.14	0.48
1:X:1217:U:H2'	1:X:1218:C:H6	1.78	0.48
1:X:1300:A:H3'	1:X:1301:U:H6	1.78	0.48
1:X:1807:A:H4'	1:X:1808:C:OP1	2.11	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2272:A:H5"	13:L:15:ARG:HH12	1.78	0.48
1:X:2343:C:H4'	21:T:56:ASP:OD1	2.13	0.48
1:X:2401:A:H62	28:3:32:GLN:HE22	1.59	0.48
2:Y:62:C:C2	2:Y:63:A:N7	2.81	0.48
5:C:138:LYS:HD2	5:C:139:GLN:OE1	2.13	0.48
7:E:54:ARG:HB2	7:E:61:HIS:HB3	1.96	0.48
10:I:2:LYS:O	10:I:5:ASP:N	2.46	0.48
12:K:38:LEU:HD12	12:K:38:LEU:C	2.30	0.48
14:M:55:ILE:CA	14:M:104:LEU:CD2	2.89	0.48
22:U:22:GLY:O	22:U:38:THR:OG1	2.30	0.48
25:Z:20:ARG:C	25:Z:22:HIS:H	2.17	0.48
1:X:83:A:C2	1:X:101:A:C5	3.01	0.48
1:X:514:G:H2'	17:P:15:LYS:HZ3	1.78	0.48
1:X:612:G:HO2'	1:X:614:G:HO2'	1.40	0.48
1:X:1068:A:H2'	1:X:1068:A:N3	2.28	0.48
1:X:1096:A:O2'	1:X:1097:A:C2	2.67	0.48
1:X:1545:G:H2'	1:X:1546:C:C6	2.47	0.48
1:X:2742:G:O2'	1:X:2743:G:H5'	2.12	0.48
1:X:2837:G:O2'	1:X:2838:U:H5'	2.13	0.48
2:Y:14:C:O2	2:Y:14:C:C2'	2.61	0.48
2:Y:54:U:H2'	2:Y:55:C:H5'	1.94	0.48
2:Y:101:A:O2'	2:Y:102:A:O4'	2.30	0.48
2:Y:108:G:H2'	2:Y:109:G:H5'	1.93	0.48
3:A:205:VAL:CG2	3:A:205:VAL:O	2.61	0.48
4:B:3:GLY:CA	4:B:81:PHE:CE2	2.94	0.48
5:C:48:ARG:NH1	5:C:51:VAL:HG11	2.28	0.48
5:C:144:GLY:HA2	5:C:166:TRP:HZ2	1.74	0.48
7:E:56:SER:C	7:E:58:ALA:H	2.16	0.48
8:G:64:GLY:O	8:G:66:HIS:HD2	1.96	0.48
11:J:72:ASP:C	11:J:72:ASP:OD1	2.50	0.48
11:J:111:THR:OG1	11:J:114:GLN:HG2	2.12	0.48
14:M:57:ILE:HD12	14:M:103:LYS:HZ3	1.78	0.48
19:R:28:LYS:HG2	19:R:29:HIS:N	2.28	0.48
19:R:56:LYS:HB3	19:R:69:GLN:HG2	1.95	0.48
19:R:103:LYS:HE2	19:R:104:VAL:O	2.13	0.48
1:X:275:U:OP1	1:X:275:U:H6	1.96	0.48
1:X:326:A:H2'	1:X:327:C:C6	2.49	0.48
1:X:756:C:O2'	1:X:757:U:H5'	2.14	0.48
1:X:983:G:OP2	1:X:985:G:H5"	2.12	0.48
1:X:1025:A:O2'	1:X:1026:U:H5'	2.14	0.48
1:X:1217:U:O2'	10:I:4:HIS:HE1	1.96	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1624:A:H1'	1:X:1626:A:OP2	2.13	0.48
1:X:1804:U:C2'	3:A:45:ASN:HB2	2.44	0.48
1:X:2398:U:P	28:3:41:ILE:HD13	2.53	0.48
1:X:2431:C:O2'	1:X:2432:A:H5'	2.12	0.48
1:X:2438:A:N3	1:X:2438:A:H2'	2.27	0.48
1:X:2470:U:O2	1:X:2470:U:C2'	2.60	0.48
2:Y:8:C:H2'	2:Y:9:G:O4'	2.14	0.48
2:Y:96:C:H2'	2:Y:97:C:H6	1.78	0.48
5:C:59:TYR:CD1	5:C:60:GLY:N	2.81	0.48
8:G:57:LEU:HD12	8:G:57:LEU:C	2.34	0.48
11:J:7:ARG:H	11:J:7:ARG:HD2	1.78	0.48
12:K:11:ASN:C	12:K:12:ARG:HG2	2.33	0.48
16:O:3:ALA:C	16:O:5:ILE:H	2.17	0.48
17:P:41:VAL:O	17:P:44:VAL:HG12	2.14	0.48
28:3:46:LYS:CG	28:3:47:GLY:N	2.74	0.48
1:X:96:C:O2'	1:X:97:U:H5'	2.12	0.48
1:X:254:A:HO2'	1:X:255:A:P	2.30	0.48
1:X:751:G:O2'	1:X:752:G:H5'	2.13	0.48
1:X:2069:U:H2'	1:X:2070:G:C8	2.48	0.48
1:X:2769:C:H1'	1:X:2866:A:H2	1.78	0.48
10:I:18:ARG:HG3	10:I:18:ARG:NH1	2.27	0.48
15:N:65:ILE:HD11	15:N:93:LYS:O	2.14	0.48
19:R:37:LEU:HB2	19:R:47:VAL:HG12	1.94	0.48
28:3:26:LYS:HB3	28:3:44:LYS:CA	2.33	0.48
1:X:399:G:H5'	1:X:401:G:H22	1.77	0.48
1:X:641:G:H5"	1:X:642:A:OP2	2.14	0.48
1:X:699:G:H1	27:2:12:ARG:HE	1.61	0.48
1:X:1299:A:O2'	1:X:1300:A:H5"	2.13	0.48
1:X:1314:A:H2	1:X:1642:G:N3	2.11	0.48
1:X:1465:G:H2'	1:X:1466:C:H6	1.79	0.48
1:X:1493:A:H2'	1:X:1494:G:O4'	2.14	0.48
1:X:1606:C:C2'	1:X:1607:A:H5'	2.44	0.48
1:X:1831:G:C6	1:X:1910:A:C2	3.01	0.48
1:X:2198:U:O3'	1:X:2199:C:H4'	2.10	0.48
1:X:2318:U:O3'	2:Y:43:G:N2	2.46	0.48
1:X:2448:A:H62	1:X:2460:G:H1'	1.79	0.48
1:X:2642:G:H2'	1:X:2643:G:O5'	2.14	0.48
1:X:2691:C:HO2'	1:X:2692:A:H5"	1.78	0.48
2:Y:116:C:O2'	13:L:50:THR:N	2.43	0.48
5:C:154:ASP:OD2	5:C:157:THR:HG23	2.13	0.48
6:D:3:GLN:CD	6:D:4:LEU:HG	2.33	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:135:GLN:HG3	6:D:150:ARG:O	2.14	0.48
7:E:84:THR:HA	7:E:133:VAL:O	2.14	0.48
8:G:43:VAL:CG2	8:G:163:PRO:HG2	2.43	0.48
9:H:70:VAL:HG21	9:H:98:ILE:HG23	1.95	0.48
9:H:109:ARG:HG3	9:H:111:PHE:HE1	1.74	0.48
13:L:89:PHE:CZ	13:L:91:ARG:HB3	2.49	0.48
24:W:45:LYS:HB2	24:W:45:LYS:HZ2	1.77	0.48
1:X:70:A:H4'	1:X:71:A:C5'	2.43	0.48
1:X:242:A:N6	1:X:441:A:C8	2.81	0.48
1:X:263:G:H1'	1:X:264:U:H5	1.77	0.48
1:X:1034:U:OP2	1:X:1036:G:O2'	2.31	0.48
1:X:1538:A:C2'	1:X:1539:U:H5'	2.44	0.48
1:X:2198:U:C5	1:X:2199:C:C6	3.01	0.48
1:X:2266:A:C5	1:X:2268:G:C5	3.02	0.48
4:B:92:ASN:OD1	4:B:92:ASN:O	2.32	0.48
5:C:133:PHE:C	5:C:133:PHE:HD1	2.16	0.48
7:E:84:THR:HB	7:E:134:SER:OG	2.13	0.48
12:K:33:ARG:HG2	12:K:34:ILE:N	2.27	0.48
13:L:54:ALA:O	13:L:71:VAL:CG1	2.61	0.48
17:P:117:ILE:HA	17:P:117:ILE:HD13	1.67	0.48
18:Q:51:ILE:C	18:Q:51:ILE:HD12	2.33	0.48
24:W:9:VAL:O	24:W:12:ARG:HB2	2.14	0.48
1:X:448:C:C2'	1:X:449:C:H5'	2.44	0.48
1:X:868:U:H2'	1:X:869:C:C6	2.49	0.48
1:X:1339:U:C2'	1:X:1340:C:H5'	2.44	0.48
1:X:1567:A:H2'	1:X:1568:A:H8	1.78	0.48
1:X:1732:U:C4'	1:X:1733:U:OP2	2.60	0.48
1:X:1882:G:H21	1:X:1885:C:N4	2.07	0.48
1:X:2171:U:H2'	1:X:2172:U:H6	1.77	0.48
1:X:2694:G:C2'	1:X:2695:C:O5'	2.62	0.48
1:X:2713:A:H2'	1:X:2714:A:O5'	2.14	0.48
1:X:2837:G:H2'	1:X:2838:U:H6	1.78	0.48
2:Y:34:C:H2'	2:Y:35:C:C6	2.48	0.48
5:C:22:VAL:HA	5:C:27:LEU:CG	2.41	0.48
6:D:34:ILE:HA	6:D:156:ILE:HG12	1.96	0.48
10:I:12:SER:OG	10:I:13:ARG:N	2.45	0.48
11:J:33:TYR:CE2	11:J:112:GLU:HA	2.49	0.48
11:J:91:VAL:CG1	11:J:92:GLU:N	2.76	0.48
12:K:79:VAL:CA	12:K:83:VAL:HG13	2.32	0.48
13:L:11:LEU:HA	13:L:14:ARG:HE	1.79	0.48
21:T:74:LYS:HG3	21:T:74:LYS:O	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:175:C:H2'	1:X:176:A:C5'	2.44	0.48
1:X:455:A:C2	1:X:1258:G:N3	2.82	0.48
1:X:599:A:O2'	1:X:600:G:H5'	2.14	0.48
1:X:1070:G:H5"	1:X:1071:U:H2'	1.96	0.48
1:X:1428:G:H1	1:X:1602:G:P	2.37	0.48
1:X:2407:G:H5"	1:X:2408:G:OP1	2.14	0.48
1:X:2635:U:O2	1:X:2635:U:H2'	2.14	0.48
1:X:2670:C:C5'	1:X:2847:G:H5"	2.42	0.48
1:X:2791:C:C2'	1:X:2792:C:H5'	2.44	0.48
1:X:2859:U:N3	25:Z:52:TYR:CE1	2.74	0.48
2:Y:34:C:H2'	2:Y:35:C:H6	1.78	0.48
7:E:6:LYS:HG2	7:E:7:GLN:HE22	1.79	0.48
10:I:57:ILE:O	10:I:57:ILE:HG12	2.14	0.48
12:K:99:ARG:HA	12:K:111:ALA:HB2	1.96	0.48
14:M:24:LEU:HD13	14:M:91:VAL:CG2	2.43	0.48
19:R:59:LYS:HB2	19:R:65:PRO:O	2.14	0.48
20:S:71:MET:HG3	20:S:77:ALA:O	2.14	0.48
23:V:60:LEU:N	23:V:60:LEU:HD23	2.29	0.48
26:1:49:VAL:O	26:1:49:VAL:HG12	2.14	0.48
1:X:753:U:H1'	1:X:1964:A:N3	2.29	0.48
1:X:938:G:O2'	1:X:939:C:P	2.72	0.48
1:X:1433:A:O2'	1:X:1434:U:P	2.71	0.48
1:X:1480:G:O2'	1:X:1481:U:H5'	2.13	0.48
1:X:2039:G:N2	1:X:2040:A:C1'	2.77	0.48
1:X:2070:G:C2'	1:X:2071:G:H5'	2.44	0.48
1:X:2180:U:C2'	1:X:2181:A:O5'	2.62	0.48
1:X:2229:G:N3	1:X:2229:G:O4'	2.46	0.48
1:X:2268:G:N3	1:X:2268:G:H2'	2.28	0.48
1:X:2282:G:O2'	6:D:122:PHE:CG	2.66	0.48
1:X:2301:A:C2'	1:X:2302:G:H5'	2.44	0.48
1:X:2336:G:H5'	21:T:20:TYR:OH	2.13	0.48
1:X:2523:G:C2'	1:X:2524:G:H5'	2.44	0.48
1:X:2661:G:C5	1:X:2662:C:C5	3.01	0.48
1:X:2733:A:H2'	1:X:2734:U:O4'	2.13	0.48
1:X:2813:G:C2'	1:X:2814:G:H5'	2.44	0.48
1:X:2831:A:H2'	1:X:2832:G:O4'	2.14	0.48
5:C:133:PHE:CD1	5:C:133:PHE:O	2.67	0.48
7:E:148:VAL:O	7:E:162:VAL:HG21	2.14	0.48
8:G:119:LEU:HD12	8:G:120:SER:N	2.28	0.48
9:H:116:ARG:HD2	14:M:40:ARG:NE	2.29	0.48
13:L:88:VAL:O	13:L:89:PHE:CB	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:L:103:LEU:HD23	13:L:103:LEU:C	2.34	0.48
16:O:23:GLU:HA	16:O:23:GLU:OE2	2.13	0.48
20:S:39:PHE:CZ	20:S:43:PHE:HD2	2.32	0.48
23:V:25:LEU:HD21	23:V:47:ARG:CD	2.44	0.48
1:X:12:U:O2	1:X:12:U:C2'	2.49	0.47
1:X:36:G:N3	1:X:462:G:O2'	2.47	0.47
1:X:124:A:OP1	27:2:45:SER:HB3	2.14	0.47
1:X:260:U:H5'	1:X:261:G:OP2	2.14	0.47
1:X:261:G:OP1	1:X:262:C:C4	2.66	0.47
1:X:358:C:O5'	1:X:358:C:H6	1.96	0.47
1:X:571:U:C2	1:X:581:A:C8	3.02	0.47
1:X:645:G:H2'	1:X:646:C:H6	1.72	0.47
1:X:677:G:H2'	1:X:678:G:H5'	1.94	0.47
1:X:780:U:O2'	1:X:781:G:O5'	2.32	0.47
1:X:818:G:H3'	1:X:819:C:H5'	1.96	0.47
1:X:826:U:O2'	1:X:1238:A:H1'	2.13	0.47
1:X:847:C:C2	1:X:848:A:C8	3.02	0.47
1:X:953:G:C2'	1:X:954:U:H5'	2.44	0.47
1:X:1043:A:H2'	1:X:1044:U:OP2	2.14	0.47
1:X:1184:G:H3'	1:X:1185:C:H5"	1.96	0.47
1:X:1343:C:H2'	1:X:1344:C:O5'	2.13	0.47
1:X:1415:C:C2'	1:X:1416:A:H5'	2.44	0.47
1:X:1475:U:O2	1:X:1475:U:C2'	2.61	0.47
1:X:1529:C:O2'	1:X:1530:U:H5'	2.14	0.47
1:X:1690:U:O2'	1:X:1691:G:H5'	2.13	0.47
1:X:1695:U:C5	1:X:1696:C:C5	3.03	0.47
1:X:1816:G:H2'	1:X:1817:U:H6	1.79	0.47
1:X:1922:U:H5	1:X:1950:C:O2'	1.97	0.47
5:C:21:GLU:HA	5:C:24:SER:OG	2.14	0.47
5:C:47:THR:O	5:C:81:GLY:CA	2.61	0.47
6:D:12:VAL:HG11	6:D:169:LEU:HD13	1.95	0.47
7:E:37:TYR:CE1	7:E:68:THR:HG21	2.48	0.47
8:G:70:PHE:CA	15:N:64:ARG:HH11	2.26	0.47
9:H:27:SER:HB3	9:H:50:ILE:CG1	2.44	0.47
10:I:33:GLY:O	10:I:34:HIS:CB	2.62	0.47
11:J:8:THR:HG22	11:J:70:PHE:HE1	1.79	0.47
11:J:23:LYS:HA	20:S:73:LYS:HZ2	1.79	0.47
12:K:92:GLY:CA	12:K:94:TYR:CZ	2.97	0.47
20:S:149:ALA:HB1	20:S:160:LEU:CD1	2.39	0.47
24:W:34:VAL:HG22	24:W:40:VAL:HG11	1.96	0.47
28:3:44:LYS:CD	28:3:44:LYS:N	2.76	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:159:A:O2'	1:X:160:C:H5'	2.14	0.47
1:X:588:G:H2'	1:X:589:C:C6	2.49	0.47
1:X:1055:A:N3	1:X:1055:A:H5"	2.29	0.47
1:X:1467:U:C3'	1:X:1467:U:C6	2.97	0.47
1:X:1474:A:O2'	1:X:1476:G:N7	2.29	0.47
1:X:1741:G:H2'	1:X:1742:G:H5'	1.95	0.47
1:X:2371:A:C4	1:X:2408:G:C6	3.02	0.47
1:X:2386:G:H8	1:X:2386:G:O5'	1.97	0.47
1:X:2407:G:OP1	1:X:2408:G:OP1	2.32	0.47
1:X:2526:U:H2'	1:X:2527:G:C8	2.49	0.47
1:X:2795:A:N3	1:X:2795:A:C3'	2.75	0.47
1:X:2824:C:H4'	1:X:2825:A:O5'	2.14	0.47
2:Y:59:A:H5'	2:Y:60:A:OP2	2.14	0.47
2:Y:67:C:H2'	2:Y:111:C:H41	1.78	0.47
7:E:164:PHE:HB2	7:E:167:GLU:CB	2.44	0.47
10:I:93:LEU:HD23	10:I:97:ARG:NH1	2.29	0.47
13:L:29:LEU:HD13	13:L:42:ILE:CD1	2.42	0.47
13:L:33:ARG:CD	13:L:99:ARG:HD2	2.40	0.47
17:P:21:ARG:NE	17:P:21:ARG:CA	2.69	0.47
18:Q:66:GLY:O	18:Q:68:PHE:N	2.47	0.47
28:3:9:MET:CA	28:3:14:ILE:HD11	2.44	0.47
1:X:60:A:H4'	23:V:37:LEU:CD1	2.44	0.47
1:X:121:G:H2'	1:X:122:G:O4'	2.15	0.47
1:X:330:C:O2'	1:X:331:U:H5'	2.14	0.47
1:X:572:G:OP1	1:X:572:G:H4'	2.14	0.47
1:X:1180:A:H2'	1:X:1181:C:C6	2.49	0.47
1:X:1190:C:O5'	1:X:1190:C:H6	1.97	0.47
1:X:1440:G:H5"	1:X:1441:A:OP2	2.13	0.47
1:X:1802:A:O2'	1:X:1803:G:H5'	2.14	0.47
1:X:1839:A:H8	1:X:1839:A:OP2	1.98	0.47
1:X:2265:A:H61	26:1:25:THR:HG21	1.79	0.47
1:X:2781:G:O2'	1:X:2782:G:C5'	2.63	0.47
5:C:149:LEU:HD23	5:C:180:ILE:HA	1.97	0.47
5:C:172:VAL:C	5:C:174:GLY:H	2.18	0.47
6:D:106:ILE:HG21	6:D:139:PRO:HB3	1.96	0.47
7:E:5:GLY:O	7:E:66:GLY:HA2	2.14	0.47
13:L:11:LEU:HG	13:L:14:ARG:CZ	2.44	0.47
16:O:10:LYS:NZ	16:O:11:GLN:CB	2.77	0.47
17:P:59:PHE:CG	25:Z:30:LEU:HD21	2.50	0.47
21:T:25:LYS:HB2	21:T:37:LEU:HA	1.95	0.47
26:1:36:GLU:OE1	26:1:36:GLU:HA	2.13	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:42:LEU:C	27:2:43:THR:CG2	2.82	0.47
1:X:34:U:H5"	1:X:34:U:O2	2.14	0.47
1:X:544:U:H2'	1:X:545:C:H6	1.78	0.47
1:X:573:C:H2'	1:X:574:C:O4'	2.14	0.47
1:X:1202:U:H4'	16:O:78:VAL:HG22	1.95	0.47
1:X:1300:A:H5"	1:X:1301:U:OP2	2.14	0.47
1:X:1835:C:O2'	1:X:1836:C:H5'	2.13	0.47
1:X:2273:C:C5'	13:L:11:LEU:HD11	2.45	0.47
1:X:2404:A:O2'	1:X:2405:A:OP2	2.26	0.47
1:X:2490:U:H2'	1:X:2491:C:C6	2.50	0.47
1:X:2594:U:O4'	25:Z:7:PRO:HB3	2.14	0.47
1:X:2801:A:H2'	1:X:2801:A:N3	2.29	0.47
2:Y:51:G:OP2	13:L:99:ARG:NE	2.48	0.47
4:B:172:VAL:HG12	4:B:172:VAL:O	2.12	0.47
5:C:47:THR:CB	5:C:82:VAL:CG2	2.92	0.47
7:E:77:LYS:O	7:E:81:ASP:HB2	2.13	0.47
7:E:175:LYS:HA	7:E:175:LYS:HZ1	1.79	0.47
17:P:41:VAL:O	17:P:44:VAL:CG1	2.62	0.47
18:Q:90:ALA:C	18:Q:93:GLY:H	2.13	0.47
20:S:91:PRO:HD3	20:S:127:PRO:CD	2.44	0.47
1:X:50:G:H4'	1:X:51:A:H5'	1.96	0.47
1:X:229:G:H2'	1:X:230:C:C6	2.49	0.47
1:X:338:G:C5'	19:R:9:HIS:HE1	2.21	0.47
1:X:467:U:O2'	1:X:468:A:P	2.70	0.47
1:X:729:A:H2'	1:X:730:C:O4'	2.14	0.47
1:X:1008:G:C2'	1:X:1009:C:H5'	2.44	0.47
1:X:1056:U:OP1	1:X:1056:U:H4'	2.15	0.47
1:X:1058:G:OP2	1:X:1058:G:H8	1.97	0.47
1:X:1086:C:H2'	1:X:1086:C:O2	2.13	0.47
1:X:1217:U:O2'	10:I:4:HIS:CE1	2.67	0.47
1:X:1268:U:C5	5:C:67:ALA:HA	2.49	0.47
1:X:1981:A:O3'	1:X:2704:U:H4'	2.15	0.47
1:X:2190:A:HO2'	1:X:2191:A:P	2.38	0.47
1:X:2201:G:H5"	3:A:186:HIS:HE2	1.79	0.47
1:X:2681:A:C2'	1:X:2682:C:H5'	2.44	0.47
2:Y:56:G:H2'	2:Y:57:U:O4'	2.15	0.47
3:A:36:ALA:O	3:A:37:LEU:C	2.52	0.47
3:A:129:ASN:O	3:A:192:THR:HA	2.14	0.47
9:H:119:ARG:NH2	14:M:41:GLU:HB3	2.30	0.47
11:J:83:ARG:HG2	11:J:83:ARG:HH21	1.80	0.47
13:L:19:THR:HG23	13:L:20:THR:N	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:L:68:ALA:HA	13:L:71:VAL:HG23	1.97	0.47
14:M:24:LEU:HD13	14:M:91:VAL:HG21	1.95	0.47
14:M:31:ASP:C	14:M:32:THR:HG23	2.35	0.47
19:R:38:LEU:CB	19:R:47:VAL:HB	2.45	0.47
1:X:229:G:H2'	1:X:230:C:H6	1.79	0.47
1:X:352:G:H8	1:X:352:G:O5'	1.97	0.47
1:X:401:G:H5'	1:X:402:A:OP2	2.14	0.47
1:X:572:G:H5'	1:X:581:A:H4'	1.97	0.47
1:X:611:C:O2	1:X:615:C:H4'	2.15	0.47
1:X:666:U:N3	1:X:667:U:C5	2.83	0.47
1:X:737:C:H2'	1:X:738:G:C8	2.50	0.47
1:X:815:A:N3	1:X:815:A:H2'	2.29	0.47
1:X:1301:U:O2'	1:X:1664:G:N2	2.48	0.47
1:X:1332:G:C2'	1:X:1333:G:H5'	2.44	0.47
1:X:1454:U:H2'	1:X:1455:C:C6	2.50	0.47
1:X:1553:G:H2'	1:X:1554:G:C8	2.49	0.47
1:X:1766:U:H5"	1:X:1767:G:OP2	2.15	0.47
1:X:2030:U:HO2'	1:X:2031:A:H5'	1.78	0.47
1:X:2048:C:H1'	1:X:2428:U:N3	2.29	0.47
1:X:2227:C:H2'	1:X:2228:U:O4'	2.14	0.47
1:X:2302:G:H2'	1:X:2303:C:O4'	2.15	0.47
2:Y:39:C:N4	2:Y:51:G:O4'	2.48	0.47
3:A:29:PRO:HG3	3:A:63:ARG:HH12	1.79	0.47
3:A:31:LYS:O	3:A:32:ALA:CB	2.61	0.47
3:A:72:LYS:HZ1	3:A:101:GLU:HG2	1.80	0.47
4:B:188:ILE:CG2	4:B:189:PRO:CD	2.93	0.47
11:J:56:SER:HA	11:J:60:ARG:HG2	1.95	0.47
15:N:61:TRP:CE2	15:N:94:VAL:HG22	2.48	0.47
17:P:105:ARG:HH11	17:P:119:LYS:NZ	2.12	0.47
17:P:130:GLU:O	17:P:132:GLY:N	2.48	0.47
18:Q:15:LYS:HD2	18:Q:15:LYS:HA	1.53	0.47
22:U:25:ARG:O	22:U:27:ASP:OD1	2.32	0.47
24:W:19:THR:HG21	24:W:47:VAL:HG13	1.97	0.47
1:X:34:U:C1'	19:R:5:SER:H	2.28	0.47
1:X:70:A:C5'	1:X:71:A:O5'	2.63	0.47
1:X:309:G:H5"	1:X:310:A:OP1	2.14	0.47
1:X:310:A:N3	1:X:330:C:O2'	2.48	0.47
1:X:321:A:C2'	1:X:322:A:O5'	2.63	0.47
1:X:451:A:H2'	1:X:452:G:C8	2.50	0.47
1:X:689:A:C2	1:X:815:A:N6	2.83	0.47
1:X:824:U:C2'	10:I:21:ARG:HA	2.34	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:846:A:H2'	1:X:847:C:H6	1.79	0.47
1:X:983:G:OP2	1:X:984:A:O2'	2.27	0.47
1:X:994:A:HO2'	1:X:995:A:P	2.37	0.47
1:X:1035:G:C6	1:X:1036:G:C6	3.02	0.47
1:X:1089:C:H5"	1:X:1090:C:OP1	2.14	0.47
1:X:1107:A:C2	1:X:1108:U:H1'	2.49	0.47
1:X:1122:A:HO2'	1:X:1123:G:P	2.37	0.47
1:X:1427:G:N2	1:X:1603:A:N7	2.62	0.47
1:X:1535:C:C2'	1:X:1536:G:H5'	2.45	0.47
1:X:1745:C:H2'	1:X:1746:A:C8	2.50	0.47
1:X:1776:A:C8	1:X:1778:U:C5	3.02	0.47
1:X:1918:G:N2	1:X:1947:G:OP2	2.45	0.47
1:X:2184:C:O2'	1:X:2185:U:H5'	2.15	0.47
1:X:2206:C:H2'	1:X:2207:G:H5'	1.95	0.47
1:X:2694:G:C8	1:X:2694:G:H3'	2.49	0.47
1:X:2731:G:H5'	1:X:2732:C:H5	1.75	0.47
1:X:2837:G:C5	1:X:2838:U:C5	3.03	0.47
3:A:25:THR:CB	3:A:81:ALA:HB1	2.45	0.47
3:A:55:GLY:HA3	3:A:218:LYS:CG	2.41	0.47
4:B:98:GLU:OE1	4:B:175:ILE:N	2.47	0.47
5:C:119:ALA:O	5:C:190:ALA:CB	2.63	0.47
5:C:123:PHE:CD1	5:C:157:THR:HG21	2.49	0.47
6:D:52:LYS:CE	6:D:150:ARG:HG3	2.45	0.47
6:D:65:PRO:CA	6:D:89:VAL:HG22	2.45	0.47
6:D:71:LYS:O	6:D:72:LYS:CB	2.62	0.47
7:E:17:VAL:HG13	7:E:24:PHE:CE2	2.50	0.47
7:E:165:VAL:HG12	7:E:166:GLY:N	2.29	0.47
8:G:66:HIS:O	8:G:67:ARG:HG2	2.15	0.47
8:G:171:LEU:HD13	8:G:172:GLU:HG3	1.95	0.47
10:I:76:LYS:HE2	10:I:88:PHE:CE2	2.50	0.47
10:I:93:LEU:CD1	10:I:93:LEU:N	2.77	0.47
12:K:37:THR:HG1	12:K:40:LYS:HG3	1.79	0.47
14:M:67:THR:HG22	14:M:67:THR:O	2.14	0.47
15:N:43:ALA:O	15:N:44:THR:C	2.53	0.47
15:N:101:ARG:O	15:N:101:ARG:HG3	2.10	0.47
17:P:86:LEU:N	17:P:86:LEU:CD1	2.77	0.47
17:P:91:PHE:O	17:P:128:VAL:HA	2.15	0.47
20:S:4:THR:O	20:S:6:LYS:NZ	2.29	0.47
20:S:72:ASP:HB3	20:S:75:LYS:O	2.14	0.47
25:Z:51:TYR:CE1	25:Z:55:ARG:HD3	2.49	0.47
26:1:9:ILE:H	26:1:9:ILE:CD1	2.23	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:1:MET:HA	27:2:1:MET:HE2	1.96	0.47
27:2:45:SER:O	27:2:46:ASP:C	2.53	0.47
1:X:196:A:H2	1:X:211:U:O2	1.98	0.47
1:X:438:G:C2'	1:X:439:C:H5'	2.45	0.47
1:X:728:G:H3'	1:X:730:C:OP1	2.15	0.47
1:X:1123:G:H2'	1:X:1124:U:O4'	2.13	0.47
1:X:1133:G:H2'	1:X:1134:C:H5'	1.97	0.47
1:X:1225:G:HO2'	1:X:1226:A:P	2.38	0.47
1:X:1726:C:H2'	1:X:1727:C:C6	2.50	0.47
1:X:1802:A:C2'	1:X:1803:G:H5'	2.45	0.47
1:X:1909:U:P	1:X:1912:G:N2	2.88	0.47
1:X:2210:C:H2'	1:X:2211:U:C6	2.50	0.47
1:X:2668:U:P	1:X:2699:G:H22	2.38	0.47
1:X:2852:G:H2'	1:X:2853:U:H5'	1.94	0.47
2:Y:33:C:C2	2:Y:34:C:C5	3.03	0.47
6:D:34:ILE:CG1	6:D:156:ILE:HD11	2.45	0.47
14:M:1:MET:HG2	14:M:2:GLN:N	2.29	0.47
16:O:61:VAL:O	16:O:62:GLU:HB2	2.14	0.47
24:W:1:MET:HB3	24:W:34:VAL:HG12	1.97	0.47
1:X:189:A:C2'	1:X:190:A:H5'	2.45	0.47
1:X:333:A:C2'	5:C:162:ARG:HH12	2.28	0.47
1:X:334:G:O2'	1:X:335:A:P	2.73	0.47
1:X:356:A:H2'	1:X:357:A:H8	1.80	0.47
1:X:674:U:H2'	1:X:675:C:O4'	2.14	0.47
1:X:770:U:O2'	1:X:771:C:H5'	2.14	0.47
1:X:1628:C:C2'	1:X:1629:G:O5'	2.62	0.47
1:X:1968:G:H2'	1:X:1969:G:O5'	2.15	0.47
1:X:1992:G:O2'	1:X:1993:G:H5'	2.14	0.47
1:X:2215:C:H2'	1:X:2216:G:H5'	1.97	0.47
1:X:2543:A:H5'	1:X:2627:G:H4'	1.96	0.47
1:X:2763:U:C2'	1:X:2764:U:H5'	2.44	0.47
2:Y:75:A:H4'	2:Y:75:A:OP1	2.15	0.47
7:E:96:ALA:HB2	7:E:105:MET:CE	2.44	0.47
8:G:41:TRP:CZ3	8:G:79:PHE:CD1	3.02	0.47
15:N:74:MET:HG2	15:N:78:THR:HG21	1.97	0.47
16:O:73:LYS:HB2	16:O:82:ARG:HB2	1.97	0.47
20:S:56:VAL:C	20:S:58:GLY:H	2.17	0.47
20:S:108:VAL:O	20:S:108:VAL:HG12	2.15	0.47
1:X:19:C:O2'	1:X:20:C:H5'	2.15	0.47
1:X:653:G:C2'	1:X:654:A:C5'	2.83	0.47
1:X:864:C:O2'	1:X:865:A:H5'	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:953:G:H2'	1:X:954:U:H5'	1.96	0.47
1:X:1325:U:H4'	1:X:1326:U:O5'	2.14	0.47
1:X:1674:C:OP2	4:B:135:HIS:CB	2.63	0.47
1:X:1891:C:H4'	1:X:1891:C:OP1	2.15	0.47
1:X:2063:A:OP1	22:U:38:THR:HG21	2.15	0.47
1:X:2234:G:H2'	1:X:2235:G:H5'	1.96	0.47
1:X:2321:C:O2	1:X:2321:C:H2'	2.15	0.47
1:X:2371:A:H2	1:X:2403:C:H42	1.61	0.47
1:X:2402:U:H1'	1:X:2404:A:C4	2.49	0.47
1:X:2448:A:N6	1:X:2460:G:O2'	2.48	0.47
2:Y:56:G:O2'	2:Y:57:U:H5'	2.15	0.47
4:B:136:ARG:O	4:B:137:ARG:HB3	2.16	0.47
5:C:152:THR:HG23	5:C:158:ARG:HG3	1.97	0.47
11:J:64:LYS:NZ	11:J:65:ILE:H	2.13	0.47
13:L:87:VAL:HG22	13:L:88:VAL:N	2.29	0.47
20:S:1:MET:HE2	20:S:52:PHE:HD2	1.80	0.47
20:S:97:PRO:HB2	20:S:99:HIS:CE1	2.49	0.47
22:U:19:ILE:HG22	22:U:42:GLN:CD	2.34	0.47
24:W:3:ILE:CG2	24:W:51:LEU:HD22	2.45	0.47
1:X:226:C:OP2	1:X:2373:C:O2'	2.31	0.46
1:X:414:A:O2'	1:X:415:A:O5'	2.29	0.46
1:X:558:G:H4'	1:X:559:C:H5"	1.97	0.46
1:X:596:C:C2	1:X:684:C:O4'	2.68	0.46
1:X:1091:C:H2'	1:X:1092:U:C6	2.49	0.46
1:X:1187:A:H2'	1:X:1188:A:C8	2.49	0.46
1:X:1329:U:H2'	1:X:1330:G:C8	2.50	0.46
1:X:1484:G:H2'	1:X:1485:U:H6	1.79	0.46
1:X:1535:C:O2'	1:X:1536:G:H5'	2.15	0.46
1:X:2029:G:C2'	1:X:2030:U:O5'	2.63	0.46
1:X:2081:U:H2'	1:X:2082:C:C6	2.50	0.46
1:X:2197:U:C3'	1:X:2198:U:C5	2.98	0.46
1:X:2270:U:H2'	1:X:2271:C:H6	1.80	0.46
2:Y:67:C:C2	2:Y:111:C:N4	2.82	0.46
5:C:13:ARG:NH2	5:C:194:GLU:O	2.48	0.46
5:C:22:VAL:HG11	10:I:1:MET:SD	2.55	0.46
5:C:44:SER:OG	5:C:88:PRO:HG3	2.15	0.46
6:D:123:ASP:HB2	6:D:126:GLY:N	2.29	0.46
7:E:97:LYS:HB2	7:E:104:GLU:CB	2.42	0.46
9:H:27:SER:OG	9:H:50:ILE:HD12	2.15	0.46
10:I:4:HIS:ND1	10:I:4:HIS:N	2.62	0.46
11:J:38:MET:C	11:J:100:PRO:HG3	2.35	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:L:20:THR:HG22	13:L:20:THR:O	2.15	0.46
15:N:36:PHE:CE1	15:N:40:LEU:HD21	2.50	0.46
16:O:70:TYR:CE2	16:O:83:ARG:NH1	2.83	0.46
19:R:22:VAL:HG11	19:R:80:LYS:HD2	1.93	0.46
20:S:95:SER:HB3	20:S:119:ASN:ND2	2.28	0.46
24:W:4:LYS:O	24:W:51:LEU:HD23	2.15	0.46
25:Z:42:SER:O	25:Z:44:HIS:ND1	2.48	0.46
1:X:17:G:H2'	1:X:18:U:C6	2.51	0.46
1:X:411:C:OP2	22:U:64:ALA:HB3	2.15	0.46
1:X:492:G:OP1	1:X:492:G:H4'	2.15	0.46
1:X:534:U:H2'	1:X:535:U:C6	2.50	0.46
1:X:542:A:H2	1:X:2004:U:O2'	1.97	0.46
1:X:665:A:H2'	1:X:666:U:O4'	2.15	0.46
1:X:1332:G:C2	1:X:1333:G:N2	2.82	0.46
1:X:1606:C:O2'	1:X:1607:A:H5'	2.15	0.46
1:X:1707:A:H3'	1:X:1708:C:H6	1.80	0.46
1:X:1944:C:H5"	1:X:1945:C:P	2.55	0.46
1:X:2368:G:C5'	1:X:2369:U:H5'	2.35	0.46
3:A:158:SER:O	3:A:196:VAL:HG21	2.15	0.46
6:D:53:ALA:HB1	6:D:87:ILE:HD12	1.97	0.46
9:H:13:ASN:OD1	9:H:108:THR:N	2.48	0.46
11:J:43:ILE:CG2	11:J:48:ILE:HG13	2.45	0.46
18:Q:7:LEU:HA	18:Q:29:VAL:HG12	1.97	0.46
18:Q:61:LYS:HA	18:Q:72:ARG:H	1.81	0.46
19:R:15:HIS:NE2	19:R:80:LYS:NZ	2.61	0.46
22:U:19:ILE:HA	22:U:41:VAL:O	2.15	0.46
25:Z:6:VAL:HG13	25:Z:7:PRO:CD	2.44	0.46
1:X:7:G:H2'	1:X:8:A:H8	1.80	0.46
1:X:40:U:H2'	1:X:41:G:C8	2.51	0.46
1:X:380:C:H6	1:X:380:C:OP1	1.98	0.46
1:X:649:G:N7	1:X:650:U:C5	2.84	0.46
1:X:715:U:H2'	1:X:716:U:O4'	2.16	0.46
1:X:729:A:H2'	1:X:730:C:C1'	2.45	0.46
1:X:797:A:C6	1:X:805:G:O4'	2.68	0.46
1:X:879:A:C2	1:X:880:C:C5	3.04	0.46
1:X:890:U:H4'	1:X:891:A:OP1	2.15	0.46
1:X:1016:C:H1'	1:X:1023:U:N3	2.30	0.46
1:X:1070:G:H3'	1:X:1071:U:H2'	1.96	0.46
1:X:1485:U:H2'	1:X:1486:A:H8	1.81	0.46
1:X:1608:U:H2'	1:X:1609:G:H8	1.80	0.46
1:X:1673:C:O2'	1:X:1674:C:O5'	2.32	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1861:G:H2'	1:X:1862:C:H6	1.80	0.46
1:X:1889:G:O2'	1:X:1890:G:P	2.73	0.46
1:X:2282:G:H4'	6:D:122:PHE:CA	2.41	0.46
1:X:2286:G:N2	1:X:2287:G:HO2'	2.11	0.46
1:X:2372:A:H5"	10:I:55:ARG:CB	2.45	0.46
1:X:2522:G:H2'	1:X:2523:G:O4'	2.15	0.46
1:X:2721:A:H8	1:X:2721:A:O5'	1.98	0.46
1:X:2822:U:OP1	14:M:103:LYS:HD3	2.16	0.46
6:D:35:VAL:N	6:D:155:THR:O	2.48	0.46
6:D:60:ILE:HG13	6:D:61:THR:CG2	2.46	0.46
7:E:38:ASN:OD1	7:E:40:GLU:N	2.47	0.46
10:I:42:GLY:O	10:I:43:ALA:CB	2.63	0.46
11:J:104:MET:HB2	11:J:105:PHE:CD2	2.50	0.46
13:L:84:ILE:O	13:L:84:ILE:HG22	2.14	0.46
15:N:21:ALA:O	15:N:22:LYS:C	2.51	0.46
18:Q:88:ILE:O	18:Q:92:ALA:HB3	2.15	0.46
19:R:9:HIS:CD2	19:R:9:HIS:N	2.82	0.46
19:R:85:ASP:OD2	19:R:86:PRO:HD3	2.15	0.46
20:S:109:GLN:OE1	20:S:109:GLN:N	2.48	0.46
21:T:51:VAL:CG2	21:T:80:SER:HA	2.45	0.46
25:Z:51:TYR:HE1	25:Z:55:ARG:HD3	1.81	0.46
1:X:195:A:O2'	1:X:196:A:H5'	2.15	0.46
1:X:399:G:H5'	1:X:401:G:N2	2.31	0.46
1:X:617:U:C5	1:X:632:A:N1	2.84	0.46
1:X:636:G:O2'	1:X:669:G:H4'	2.15	0.46
1:X:797:A:N7	1:X:805:G:C4	2.84	0.46
1:X:1415:C:H2'	1:X:1416:A:H5'	1.97	0.46
1:X:2077:G:O2'	1:X:2078:G:H5'	2.15	0.46
1:X:2282:G:H1'	6:D:122:PHE:HB3	1.96	0.46
1:X:2343:C:H2'	1:X:2344:G:H5'	1.97	0.46
1:X:2369:U:O5'	1:X:2369:U:H6	1.97	0.46
1:X:2542:U:OP1	9:H:37:GLY:HA3	2.15	0.46
1:X:2594:U:C2	1:X:2595:C:C5	3.03	0.46
1:X:2708:U:H2'	1:X:2709:C:H6	1.79	0.46
2:Y:71:G:H5'	2:Y:72:C:OP2	2.16	0.46
3:A:85:ASP:OD2	3:A:88:ARG:NH2	2.48	0.46
3:A:117:VAL:HG12	3:A:118:ASN:H	1.79	0.46
3:A:147:LEU:HG	3:A:155:LEU:HD12	1.97	0.46
5:C:59:TYR:HD1	5:C:60:GLY:N	2.14	0.46
6:D:68:THR:HG21	6:D:88:LYS:HB2	1.96	0.46
11:J:75:VAL:HB	11:J:93:TYR:CD1	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:T:41:ARG:HD2	21:T:41:ARG:HA	1.35	0.46
1:X:348:U:C2'	1:X:349:G:H5"	2.42	0.46
1:X:527:C:OP2	25:Z:13:LYS:HD3	2.14	0.46
1:X:642:A:H2'	10:I:59:ARG:CG	2.45	0.46
1:X:759:C:O2'	1:X:760:U:P	2.71	0.46
1:X:919:U:OP1	11:J:25:GLY:HA2	2.15	0.46
1:X:938:G:O2'	1:X:939:C:C5'	2.64	0.46
1:X:939:C:HO2'	1:X:940:G:P	2.31	0.46
1:X:1514:C:O4'	1:X:1593:C:H5"	2.16	0.46
1:X:1561:A:H3'	1:X:1561:A:H8	1.81	0.46
1:X:1861:G:H2'	1:X:1862:C:C6	2.51	0.46
1:X:1960:A:H2'	1:X:1961:A:H5'	1.96	0.46
1:X:1978:U:H3'	1:X:1979:C:H2'	1.97	0.46
1:X:2291:U:H5'	6:D:85:VAL:CG2	2.45	0.46
1:X:2402:U:HO2'	1:X:2404:A:H2'	1.72	0.46
1:X:2562:G:H2'	1:X:2562:G:N3	2.30	0.46
1:X:2806:G:O4'	1:X:2858:A:C2	2.69	0.46
1:X:2862:G:O2'	1:X:2863:U:H5'	2.15	0.46
4:B:133:LYS:O	4:B:133:LYS:HG2	2.15	0.46
5:C:123:PHE:CD1	5:C:123:PHE:N	2.83	0.46
8:G:107:GLN:O	8:G:107:GLN:HG2	2.15	0.46
10:I:73:GLU:CD	10:I:81:GLN:HG3	2.36	0.46
11:J:16:GLY:O	11:J:17:ARG:CB	2.63	0.46
11:J:36:ILE:HG13	11:J:103:VAL:HA	1.96	0.46
13:L:8:ARG:NH2	13:L:11:LEU:CD1	2.79	0.46
14:M:109:GLU:H	14:M:109:GLU:HG3	1.58	0.46
15:N:52:ASN:O	15:N:55:ARG:HG3	2.16	0.46
20:S:54:ILE:HD12	20:S:62:PHE:O	2.15	0.46
23:V:60:LEU:HD22	23:V:60:LEU:HA	1.75	0.46
1:X:1696:C:O2	1:X:1696:C:C2'	2.61	0.46
1:X:1823:G:H2'	1:X:1824:C:H6	1.81	0.46
3:A:38:PRO:CB	3:A:60:ARG:O	2.63	0.46
5:C:6:VAL:C	5:C:120:VAL:HG21	2.36	0.46
5:C:27:LEU:HD13	5:C:177:VAL:CG1	2.46	0.46
6:D:56:GLU:O	6:D:60:ILE:HG12	2.16	0.46
6:D:77:PHE:C	6:D:79:LEU:HD12	2.36	0.46
7:E:136:ILE:HD12	7:E:136:ILE:N	2.31	0.46
11:J:44:LYS:H	11:J:96:SER:H	1.62	0.46
18:Q:61:LYS:HG2	18:Q:61:LYS:O	2.05	0.46
18:Q:89:GLU:HB2	18:Q:90:ALA:H	1.52	0.46
20:S:41:ARG:NH2	20:S:41:ARG:HB3	2.30	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:W:45:LYS:HB2	24:W:45:LYS:HZ1	1.76	0.46
1:X:193:A:C8	1:X:445:A:C6	3.04	0.46
1:X:236:C:C2'	1:X:632:A:O2'	2.64	0.46
1:X:357:A:N3	1:X:357:A:H2'	2.30	0.46
1:X:520:C:O2	1:X:520:C:C2'	2.63	0.46
1:X:673:G:H2'	1:X:674:U:C6	2.51	0.46
1:X:960:U:H2'	1:X:961:G:H8	1.80	0.46
1:X:1120:C:O2	1:X:1120:C:H2'	2.15	0.46
1:X:1213:U:H2'	1:X:1214:C:C6	2.51	0.46
1:X:1659:G:H2'	1:X:1660:G:H5'	1.98	0.46
1:X:1681:A:H2'	1:X:1682:A:C8	2.50	0.46
1:X:1834:G:H2'	1:X:1835:C:C6	2.50	0.46
1:X:2046:C:C2'	1:X:2047:C:H5'	2.45	0.46
1:X:2078:G:H1	1:X:2177:U:H3	1.63	0.46
1:X:2364:C:H2'	1:X:2365:U:H6	1.77	0.46
1:X:2581:A:H2'	1:X:2582:G:O4'	2.16	0.46
1:X:2689:C:H2'	1:X:2690:A:O4'	2.15	0.46
2:Y:62:C:C2	2:Y:63:A:C8	3.04	0.46
3:A:28:ARG:NH1	3:A:29:PRO:HD3	2.31	0.46
4:B:2:LYS:CA	4:B:84:PHE:CE1	2.86	0.46
6:D:51:ASP:OD1	6:D:51:ASP:N	2.41	0.46
9:H:29:ILE:HD11	9:H:122:ARG:CD	2.38	0.46
10:I:83:LEU:HD23	10:I:87:THR:HG23	1.97	0.46
11:J:66:TYR:O	11:J:106:GLU:OE2	2.34	0.46
15:N:74:MET:CE	15:N:114:ARG:HG3	2.45	0.46
21:T:23:VAL:HB	21:T:26:PHE:CE2	2.50	0.46
1:X:108:G:O2'	1:X:109:A:H5'	2.16	0.46
1:X:259:U:O2	1:X:260:U:C6	2.68	0.46
1:X:396:U:H2'	1:X:398:C:C5	2.40	0.46
1:X:548:G:H2'	1:X:549:G:H5'	1.96	0.46
1:X:830:C:O2'	1:X:852:U:H5"	2.15	0.46
1:X:998:C:C2'	1:X:999:A:O5'	2.63	0.46
1:X:1067:G:H4'	1:X:1097:A:C8	2.51	0.46
1:X:1439:G:O2'	1:X:1440:G:O5'	2.34	0.46
1:X:1442:C:H1'	1:X:1443:G:OP1	2.15	0.46
1:X:1652:G:H2'	1:X:1653:C:H6	1.80	0.46
1:X:1670:G:O6	12:K:10:LEU:O	2.34	0.46
1:X:1870:U:O2'	1:X:1871:G:H5'	2.16	0.46
1:X:1971:C:H2'	1:X:1972:G:H5'	1.98	0.46
1:X:2328:G:OP2	28:3:42:ARG:CD	2.64	0.46
1:X:2449:G:O6	1:X:2460:G:N2	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2818:G:C2'	1:X:2819:G:H5'	2.46	0.46
1:X:2820:C:H2'	1:X:2821:G:H8	1.81	0.46
2:Y:6:C:C2	2:Y:7:C:C5	3.04	0.46
2:Y:77:G:H4'	20:S:31:SER:CB	2.46	0.46
3:A:257:LEU:HD23	3:A:257:LEU:HA	1.44	0.46
10:I:92:THR:HB	10:I:93:LEU:HD13	1.98	0.46
18:Q:6:ILE:HD13	18:Q:6:ILE:HA	1.79	0.46
21:T:53:MET:HE3	21:T:53:MET:HB3	1.73	0.46
1:X:318:G:N2	1:X:321:A:O5'	2.45	0.46
1:X:554:U:H5"	1:X:556:A:C2	2.51	0.46
1:X:652:C:H42	1:X:657:A:H61	1.64	0.46
1:X:960:U:H2'	1:X:961:G:C8	2.51	0.46
1:X:973:U:C2'	1:X:974:U:O5'	2.64	0.46
1:X:1072:U:O4'	1:X:1081:A:H1'	2.16	0.46
1:X:1883:A:N3	1:X:1953:A:H2'	2.31	0.46
1:X:2080:U:H2'	1:X:2081:U:H6	1.81	0.46
1:X:2677:U:H2'	1:X:2678:C:C6	2.51	0.46
1:X:2852:G:O2'	1:X:2853:U:H5'	2.15	0.46
2:Y:50:U:N3	2:Y:51:G:N7	2.64	0.46
7:E:103:LEU:HD21	7:E:131:ILE:CD1	2.46	0.46
9:H:14:SER:OG	9:H:98:ILE:HD12	2.16	0.46
19:R:23:ILE:N	19:R:23:ILE:CD1	2.77	0.46
19:R:81:VAL:O	19:R:82:ALA:O	2.34	0.46
20:S:54:ILE:HD12	20:S:54:ILE:H	1.80	0.46
28:3:59:LYS:HB2	28:3:59:LYS:NZ	2.31	0.46
1:X:60:A:H4'	23:V:37:LEU:HD13	1.98	0.46
1:X:334:G:H3'	5:C:162:ARG:NE	2.22	0.46
1:X:652:C:O2	1:X:652:C:C2'	2.63	0.46
1:X:692:C:H2'	1:X:693:A:C8	2.51	0.46
1:X:704:G:H2'	1:X:705:C:H6	1.80	0.46
1:X:750:C:C2'	1:X:751:G:H5'	2.46	0.46
1:X:857:U:C2'	1:X:858:G:O4'	2.57	0.46
1:X:936:A:H2'	1:X:937:C:O4'	2.16	0.46
1:X:1061:A:C2	1:X:2731:G:C6	3.04	0.46
1:X:1426:U:C2'	1:X:1427:G:H5'	2.46	0.46
1:X:1985:G:OP2	12:K:9:LYS:CE	2.63	0.46
1:X:2327:U:H2'	1:X:2328:G:H5'	1.96	0.46
1:X:2352:A:H2'	1:X:2353:G:H8	1.81	0.46
1:X:2368:G:H5"	1:X:2369:U:O5'	2.15	0.46
1:X:2875:C:C2'	1:X:2876:C:H5'	2.46	0.46
5:C:7:ILE:HD11	5:C:140:ASN:OD1	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:H:82:LYS:HB2	9:H:82:LYS:NZ	2.30	0.46
10:I:80:LEU:O	10:I:80:LEU:HD12	2.16	0.46
14:M:99:VAL:HG22	14:M:100:ARG:H	1.81	0.46
20:S:15:ASP:OD1	20:S:16:GLU:N	2.49	0.46
22:U:51:ILE:HG21	22:U:59:THR:HG22	1.98	0.46
1:X:253:A:O2'	1:X:254:A:H5'	2.17	0.45
1:X:351:A:H2'	1:X:352:G:C5'	2.47	0.45
1:X:513:A:H4'	1:X:514:G:H5'	1.98	0.45
1:X:822:G:O2'	1:X:823:U:H5'	2.17	0.45
1:X:860:U:O2	1:X:860:U:C2'	2.64	0.45
1:X:886:A:H1'	11:J:30:PHE:CE2	2.51	0.45
1:X:1018:C:OP2	1:X:1019:U:H3'	2.16	0.45
1:X:1193:G:H2'	1:X:1194:U:H5'	1.98	0.45
1:X:1193:G:O2'	1:X:1194:U:H5'	2.16	0.45
1:X:1237:G:H4'	16:O:85:GLY:O	2.16	0.45
1:X:1310:C:C2	1:X:1311:C:C5	3.04	0.45
1:X:1369:G:C6	1:X:1370:U:C4	3.03	0.45
1:X:1430:G:H4'	1:X:1603:A:C2	2.51	0.45
1:X:1607:A:HO2'	1:X:1608:U:P	2.40	0.45
1:X:1783:G:O2'	1:X:1784:C:H5'	2.16	0.45
1:X:1790:G:C6	3:A:177:LEU:HD12	2.51	0.45
1:X:2018:G:H4'	1:X:2019:C:OP2	2.16	0.45
1:X:2070:G:O2'	1:X:2071:G:H5'	2.15	0.45
1:X:2418:A:H4'	1:X:2419:C:C5'	2.46	0.45
1:X:2658:A:O2'	1:X:2659:C:H5'	2.15	0.45
3:A:161:THR:CG2	3:A:178:PRO:HG3	2.46	0.45
3:A:256:GLY:C	3:A:257:LEU:HD23	2.36	0.45
4:B:176:ARG:HH21	14:M:16:ILE:HD13	1.81	0.45
5:C:34:GLN:HE22	5:C:176:ASN:HB2	1.81	0.45
5:C:58:MET:CE	5:C:69:HIS:HB2	2.46	0.45
7:E:76:VAL:HA	7:E:79:VAL:HG22	1.97	0.45
7:E:107:ILE:O	7:E:107:ILE:HG13	2.16	0.45
13:L:54:ALA:HB3	13:L:75:LEU:HB2	1.97	0.45
20:S:141:MET:CG	20:S:145:ASP:HB2	2.41	0.45
1:X:543:G:H5'	15:N:24:PHE:CD1	2.51	0.45
1:X:1130:U:O2'	1:X:1131:G:H5'	2.16	0.45
1:X:1206:G:C2'	1:X:1207:G:H5'	2.46	0.45
1:X:1261:G:O2'	1:X:1262:U:C5'	2.64	0.45
1:X:1270:C:OP1	5:C:69:HIS:CE1	2.69	0.45
1:X:1291:G:OP1	12:K:36:THR:CB	2.63	0.45
1:X:1469:U:H5"	1:X:1470:G:N7	2.31	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1540:C:H2'	1:X:1541:G:O5'	2.16	0.45
1:X:1779:C:O3'	3:A:221:GLN:NE2	2.49	0.45
1:X:2048:C:O2'	1:X:2049:C:H5'	2.16	0.45
1:X:2281:C:H2'	1:X:2282:G:H5'	1.98	0.45
1:X:2526:U:H2'	1:X:2527:G:H8	1.80	0.45
1:X:2624:G:H3'	1:X:2625:U:H5'	1.97	0.45
2:Y:9:G:C5'	13:L:32:TYR:CE1	2.98	0.45
7:E:163:ARG:NH1	7:E:164:PHE:HD2	2.15	0.45
11:J:59:PHE:CZ	11:J:110:VAL:HG21	2.51	0.45
11:J:83:ARG:HG2	11:J:83:ARG:NH2	2.31	0.45
17:P:97:VAL:HG22	17:P:124:ILE:HG23	1.98	0.45
18:Q:50:VAL:HG21	18:Q:80:VAL:CG1	2.46	0.45
19:R:18:LYS:O	19:R:36:VAL:O	2.34	0.45
27:2:15:THR:O	27:2:16:HIS:CB	2.64	0.45
1:X:482:A:H2'	1:X:483:A:H5'	1.97	0.45
1:X:562:G:H2'	1:X:563:U:O4'	2.17	0.45
1:X:664:C:O2'	1:X:665:A:C2	2.69	0.45
1:X:829:C:H2'	1:X:830:C:C6	2.51	0.45
1:X:1037:U:H3'	1:X:1037:U:H6	1.81	0.45
1:X:1066:G:H2'	1:X:1067:G:O4'	2.16	0.45
1:X:1097:A:H3'	1:X:1097:A:N3	2.31	0.45
1:X:1181:C:C2'	1:X:1182:U:C5'	2.94	0.45
1:X:1524:C:O2	1:X:1524:C:C2'	2.63	0.45
1:X:1812:U:H4'	1:X:1813:A:OP2	2.16	0.45
1:X:2030:U:H2'	1:X:2031:A:H8	1.81	0.45
1:X:2195:C:H2'	1:X:2196:U:C6	2.52	0.45
1:X:2306:A:C2'	1:X:2307:A:C8	2.98	0.45
1:X:2358:C:C2	1:X:2359:U:C5	3.05	0.45
1:X:2408:G:H5'	1:X:2409:A:OP1	2.16	0.45
3:A:27:LYS:HE2	3:A:94:LEU:HD23	1.97	0.45
6:D:36:VAL:HG12	6:D:89:VAL:O	2.16	0.45
9:H:27:SER:OG	9:H:50:ILE:CB	2.54	0.45
11:J:52:ARG:CG	11:J:67:ILE:HD11	2.44	0.45
13:L:23:ALA:HB1	13:L:45:ASP:OD2	2.16	0.45
15:N:97:ASP:O	15:N:100:ALA:HB3	2.17	0.45
15:N:99:ALA:O	15:N:106:PHE:HB2	2.16	0.45
16:O:94:LYS:C	16:O:95:ILE:HD13	2.36	0.45
17:P:87:GLU:C	17:P:89:ARG:H	2.20	0.45
19:R:23:ILE:HD13	19:R:81:VAL:HG23	1.98	0.45
20:S:37:LYS:O	20:S:41:ARG:HG3	2.16	0.45
25:Z:41:LEU:HD12	25:Z:41:LEU:HA	1.56	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:47:G:C6	1:X:155:G:O6	2.69	0.45
1:X:271:G:H5'	1:X:279:A:OP1	2.16	0.45
1:X:387:A:H1'	1:X:414:A:N1	2.31	0.45
1:X:1429:A:N1	1:X:1600:U:O2'	2.48	0.45
1:X:1441:A:O2'	3:A:31:LYS:NZ	2.38	0.45
1:X:1675:C:OP1	4:B:134:TRP:CZ2	2.69	0.45
1:X:1882:G:C2	1:X:1886:G:C6	3.04	0.45
1:X:2282:G:C4	1:X:2283:G:C8	3.05	0.45
1:X:2323:U:O2'	1:X:2324:G:P	2.75	0.45
1:X:2375:G:H2'	1:X:2375:G:N3	2.31	0.45
1:X:2859:U:C5	1:X:2860:C:C2	3.04	0.45
3:A:164:GLN:HG3	3:A:164:GLN:O	2.15	0.45
4:B:35:GLN:HB3	4:B:48:GLN:HB3	1.98	0.45
5:C:102:LEU:O	5:C:102:LEU:HD22	2.17	0.45
8:G:168:THR:O	8:G:168:THR:HG22	2.16	0.45
9:H:121:ARG:O	9:H:123:PHE:CD1	2.68	0.45
9:H:129:LEU:HD23	9:H:129:LEU:N	2.31	0.45
11:J:69:ILE:HG21	11:J:104:MET:HB3	1.98	0.45
13:L:29:LEU:HA	13:L:41:GLN:O	2.17	0.45
13:L:94:TYR:CD1	13:L:94:TYR:N	2.84	0.45
14:M:87:LEU:HD23	14:M:87:LEU:N	2.31	0.45
19:R:23:ILE:HD11	19:R:84:VAL:HG13	1.99	0.45
20:S:6:LYS:HD3	20:S:32:PHE:CD1	2.51	0.45
20:S:112:LEU:HG	20:S:113:VAL:N	2.31	0.45
22:U:19:ILE:HD12	22:U:40:ARG:CB	2.45	0.45
1:X:67:G:H2'	1:X:68:C:O4'	2.17	0.45
1:X:161:U:H2'	1:X:162:C:C6	2.51	0.45
1:X:318:G:H22	1:X:321:A:P	2.40	0.45
1:X:482:A:H2'	1:X:483:A:C5'	2.46	0.45
1:X:514:G:O6	17:P:14:ARG:NH2	2.49	0.45
1:X:1066:G:N3	1:X:1096:A:H2	2.14	0.45
1:X:1218:C:O4'	10:I:4:HIS:CE1	2.70	0.45
1:X:1473:U:O2	1:X:1473:U:O4'	2.27	0.45
1:X:2594:U:C6	25:Z:7:PRO:CA	2.98	0.45
1:X:2600:A:H2'	1:X:2601:C:H5'	1.99	0.45
1:X:2707:G:H2'	1:X:2708:U:C6	2.51	0.45
1:X:2859:U:O2	25:Z:52:TYR:CE1	2.69	0.45
4:B:32:PRO:O	4:B:49:ILE:HA	2.17	0.45
4:B:168:GLN:H	4:B:168:GLN:HG2	1.51	0.45
5:C:151:VAL:HG13	5:C:171:PRO:O	2.16	0.45
6:D:36:VAL:HG21	6:D:152:MET:HE3	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:116:ARG:O	8:G:119:LEU:HG	2.17	0.45
10:I:90:ARG:O	10:I:94:GLU:CA	2.65	0.45
11:J:27:TYR:HE2	11:J:140:GLU:HB3	1.80	0.45
11:J:64:LYS:CE	11:J:65:ILE:H	2.29	0.45
11:J:70:PHE:O	11:J:72:ASP:N	2.49	0.45
14:M:55:ILE:HG22	14:M:104:LEU:HD21	1.99	0.45
17:P:105:ARG:CD	17:P:119:LYS:HZ1	2.30	0.45
19:R:42:ARG:CG	19:R:42:ARG:NH1	2.75	0.45
19:R:108:VAL:CG1	19:R:109:ALA:H	2.18	0.45
22:U:11:LYS:HA	22:U:11:LYS:HE3	1.97	0.45
22:U:68:ARG:O	22:U:72:LYS:NZ	2.47	0.45
1:X:24:G:H2'	1:X:25:U:C6	2.51	0.45
1:X:75:C:C2	1:X:109:A:C2	3.05	0.45
1:X:643:A:O4'	10:I:59:ARG:HG3	2.16	0.45
1:X:719:A:OP1	3:A:7:ARG:NH2	2.49	0.45
1:X:1022:A:C4	1:X:1024:G:C8	3.04	0.45
1:X:1030:U:H2'	1:X:1032:A:C2	2.36	0.45
1:X:1078:A:OP1	1:X:1078:A:C8	2.69	0.45
1:X:1223:G:C5'	1:X:1225:G:O4'	2.57	0.45
1:X:1376:C:C2'	1:X:1377:G:H5'	2.46	0.45
1:X:1405:A:H2'	1:X:1406:A:C8	2.51	0.45
1:X:1419:G:O2'	1:X:1420:A:H5'	2.16	0.45
1:X:1484:G:H2'	1:X:1485:U:C6	2.51	0.45
1:X:1699:A:H2'	1:X:1700:C:C6	2.51	0.45
1:X:1947:G:O2'	1:X:1950:C:OP1	2.34	0.45
1:X:2288:A:C5	1:X:2289:A:N7	2.85	0.45
1:X:2493:U:H2'	1:X:2494:C:C6	2.51	0.45
1:X:2545:A:N6	9:H:40:GLY:HA3	2.32	0.45
1:X:2666:U:H2'	1:X:2667:C:O4'	2.16	0.45
1:X:2859:U:O4	25:Z:43:HIS:N	2.44	0.45
8:G:43:VAL:O	8:G:43:VAL:HG12	2.17	0.45
9:H:85:ASP:OD1	9:H:87:SER:N	2.28	0.45
9:H:102:GLN:HB2	9:H:104:GLU:OE2	2.16	0.45
10:I:76:LYS:CE	10:I:88:PHE:CE2	3.00	0.45
15:N:95:LEU:HD21	16:O:10:LYS:HZ1	1.81	0.45
17:P:40:LEU:HB3	25:Z:25:LEU:HD22	1.99	0.45
19:R:61:SER:O	19:R:63:THR:N	2.50	0.45
19:R:108:VAL:HG22	19:R:109:ALA:H	1.81	0.45
25:Z:44:HIS:N	25:Z:44:HIS:HD1	2.13	0.45
1:X:621:U:H2'	1:X:622:U:C6	2.52	0.45
1:X:742:G:OP2	3:A:13:ARG:HD3	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:792:U:OP1	3:A:49:ILE:HG13	2.16	0.45
1:X:795:A:N1	3:A:226:MET:HE2	2.32	0.45
1:X:964:A:OP2	11:J:18:MET:SD	2.75	0.45
1:X:1404:C:H1'	18:Q:15:LYS:HE2	1.98	0.45
1:X:1532:A:OP2	1:X:1533:G:N7	2.50	0.45
1:X:1858:C:C2'	1:X:1859:A:H5'	2.46	0.45
1:X:2196:U:H2'	1:X:2197:U:H1'	1.98	0.45
1:X:2231:G:C4	1:X:2232:G:C8	3.04	0.45
1:X:2324:G:C2	1:X:2360:C:C2	3.04	0.45
1:X:2367:A:N7	1:X:2368:G:C6	2.85	0.45
1:X:2779:C:H2'	1:X:2780:A:H8	1.81	0.45
3:A:94:LEU:C	3:A:95:LEU:HD23	2.36	0.45
4:B:60:ASN:O	4:B:64:GLN:HG3	2.16	0.45
5:C:15:ILE:HG12	5:C:194:GLU:OE1	2.16	0.45
6:D:78:LYS:HD2	6:D:78:LYS:C	2.37	0.45
8:G:62:ILE:HG13	8:G:80:VAL:HG23	1.99	0.45
9:H:82:LYS:HG2	9:H:83:ARG:H	1.80	0.45
9:H:117:GLU:O	9:H:120:ASP:HB2	2.16	0.45
11:J:13:GLN:O	11:J:74:PRO:HG3	2.16	0.45
11:J:114:GLN:HE21	11:J:114:GLN:HB3	1.56	0.45
14:M:110:LEU:O	14:M:111:ARG:C	2.55	0.45
17:P:66:GLU:HB3	17:P:67:PRO:HD3	1.97	0.45
21:T:42:GLY:O	21:T:57:HIS:ND1	2.50	0.45
21:T:73:GLY:O	21:T:75:GLY:N	2.49	0.45
22:U:62:LEU:HD12	22:U:66:ALA:CB	2.46	0.45
1:X:125:A:H5"	1:X:126:C:C1'	2.46	0.45
1:X:263:G:C2	1:X:264:U:O4	2.69	0.45
1:X:525:A:C8	1:X:526:C:C5	3.05	0.45
1:X:540:G:H1'	1:X:2004:U:O2'	2.17	0.45
1:X:876:A:H2'	1:X:877:G:H8	1.82	0.45
1:X:945:G:H2'	1:X:946:U:H6	1.81	0.45
1:X:991:A:C4	1:X:1146:G:O4'	2.70	0.45
1:X:1153:A:C8	1:X:1153:A:C5'	2.95	0.45
1:X:1322:G:C2'	1:X:1323:G:H5'	2.46	0.45
1:X:1336:G:C2'	1:X:1337:G:O5'	2.63	0.45
1:X:1791:C:N4	1:X:1809:G:N2	2.64	0.45
1:X:1958:G:C6	1:X:1959:U:N3	2.85	0.45
1:X:1997:A:C5'	17:P:115:ASN:ND2	2.70	0.45
1:X:2036:G:H5"	4:B:145:LYS:N	2.32	0.45
1:X:2186:G:H2'	1:X:2187:A:C8	2.52	0.45
1:X:2258:G:O6	21:T:15:ASP:HB3	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2275:U:H4'	1:X:2276:C:OP1	2.15	0.45
1:X:2390:A:H2'	1:X:2391:A:H8	1.82	0.45
1:X:2613:A:C2'	1:X:2614:A:H5'	2.47	0.45
1:X:2642:G:C2'	1:X:2643:G:O5'	2.65	0.45
4:B:32:PRO:HB2	4:B:72:VAL:HG11	1.98	0.45
5:C:111:ARG:HH12	10:I:1:MET:N	2.14	0.45
6:D:72:LYS:CB	6:D:81:GLN:HA	2.47	0.45
6:D:102:LYS:NZ	6:D:140:GLU:OE2	2.50	0.45
7:E:94:PHE:CB	7:E:107:ILE:HG22	2.46	0.45
10:I:68:VAL:HG23	10:I:99:VAL:HG12	1.99	0.45
11:J:75:VAL:HB	11:J:93:TYR:HE1	1.80	0.45
15:N:97:ASP:CG	15:N:98:ILE:N	2.69	0.45
16:O:10:LYS:HG2	16:O:37:ALA:CB	2.42	0.45
19:R:63:THR:O	19:R:63:THR:HG22	2.17	0.45
19:R:102:LYS:O	19:R:102:LYS:HG2	2.17	0.45
20:S:19:ILE:HG21	20:S:81:VAL:HG23	1.99	0.45
22:U:51:ILE:CG2	22:U:59:THR:HG22	2.47	0.45
24:W:49:HIS:HD2	24:W:50:LEU:HD21	1.82	0.45
25:Z:33:CYS:CB	25:Z:46:CYS:HG	2.30	0.45
1:X:494:A:C8	19:R:56:LYS:CE	3.00	0.45
1:X:668:A:OP1	1:X:668:A:C4'	2.65	0.45
1:X:742:G:C4	1:X:1766:U:O2	2.70	0.45
1:X:759:C:HO2'	1:X:760:U:P	2.33	0.45
1:X:982:C:H2'	1:X:983:G:O4'	2.17	0.45
1:X:1213:U:H2'	1:X:1214:C:H6	1.81	0.45
1:X:1372:A:H2'	1:X:1373:G:H5'	1.98	0.45
1:X:1414:G:H2'	1:X:1415:C:O4'	2.17	0.45
1:X:1469:U:O2	1:X:1469:U:H2'	2.16	0.45
1:X:1549:C:O2'	1:X:1550:C:H5'	2.17	0.45
1:X:1558:C:H2'	1:X:1559:G:C5'	2.47	0.45
1:X:1857:G:C4	1:X:1859:A:OP2	2.70	0.45
1:X:2196:U:H5'	1:X:2197:U:P	2.56	0.45
1:X:2431:C:H2'	1:X:2432:A:C8	2.52	0.45
1:X:2477:C:C2'	1:X:2478:C:H5'	2.47	0.45
1:X:2596:C:O2'	1:X:2597:G:H5'	2.17	0.45
1:X:2789:U:H5"	1:X:2790:C:OP2	2.17	0.45
2:Y:6:C:H2'	2:Y:7:C:H6	1.82	0.45
2:Y:27:A:C2	2:Y:57:U:O4	2.70	0.45
4:B:50:GLY:CA	4:B:78:LEU:HD23	2.47	0.45
5:C:161:ALA:CB	5:C:169:VAL:HG21	2.46	0.45
6:D:12:VAL:O	6:D:16:LEU:N	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:13:ARG:O	6:D:17:MET:HG3	2.17	0.45
6:D:49:ALA:HA	6:D:52:LYS:CB	2.46	0.45
11:J:117:GLU:HA	11:J:117:GLU:OE1	2.17	0.45
14:M:57:ILE:HD12	14:M:57:ILE:N	2.31	0.45
22:U:62:LEU:HD12	22:U:66:ALA:HB1	1.99	0.45
24:W:17:VAL:CG1	24:W:18:LYS:N	2.79	0.45
25:Z:33:CYS:SG	25:Z:46:CYS:SG	3.09	0.45
26:1:30:ASN:OD1	26:1:30:ASN:N	2.42	0.45
1:X:27:G:O2'	1:X:522:G:N2	2.48	0.45
1:X:249:A:C8	1:X:381:C:H1'	2.51	0.45
1:X:439:C:C2'	1:X:440:U:H5'	2.47	0.45
1:X:654:A:H2'	1:X:654:A:N3	2.32	0.45
1:X:796:A:H8	1:X:797:A:H4'	1.82	0.45
1:X:877:G:H2'	1:X:878:C:H6	1.82	0.45
1:X:1148:G:O2'	8:G:133:GLY:HA3	2.17	0.45
1:X:1690:U:H6	1:X:1690:U:C3'	2.24	0.45
1:X:2270:U:H2'	1:X:2271:C:C6	2.51	0.45
2:Y:50:U:H2'	2:Y:51:G:C8	2.52	0.45
3:A:95:LEU:HG	3:A:105:ILE:HD12	1.97	0.45
4:B:91:VAL:HG12	4:B:93:VAL:H	1.82	0.45
5:C:30:VAL:HG11	5:C:177:VAL:CG2	2.34	0.45
7:E:7:GLN:CB	7:E:8:PRO:HD2	2.43	0.45
9:H:9:ASP:O	9:H:95:ALA:HA	2.16	0.45
9:H:20:MET:HB3	9:H:56:LYS:HE2	1.98	0.45
10:I:76:LYS:HE2	10:I:88:PHE:CZ	2.52	0.45
11:J:18:MET:CG	11:J:19:THR:H	2.30	0.45
16:O:62:GLU:HG2	16:O:63:HIS:N	2.32	0.45
18:Q:19:ALA:C	18:Q:24:VAL:HG22	2.35	0.45
20:S:3:LEU:HD21	20:S:32:PHE:CB	2.47	0.45
20:S:53:ASP:HB3	20:S:61:THR:HG23	1.98	0.45
20:S:90:GLU:CA	20:S:127:PRO:HD3	2.33	0.45
1:X:90:G:H5'	1:X:91:A:P	2.56	0.44
1:X:220:U:OP1	28:3:5:LYS:HE3	2.17	0.44
1:X:415:A:H5'	1:X:416:U:OP2	2.17	0.44
1:X:936:A:O2'	1:X:937:C:H5'	2.16	0.44
1:X:1341:G:H8	1:X:1341:G:O5'	2.00	0.44
1:X:1474:A:H4'	1:X:1475:U:O5'	2.16	0.44
1:X:2661:G:C8	4:B:11:MET:HE2	2.52	0.44
2:Y:46:G:H22	2:Y:50:U:H1'	1.80	0.44
3:A:28:ARG:HH11	3:A:29:PRO:CG	2.30	0.44
4:B:128:SER:OG	4:B:129:HIS:N	2.46	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:117:LEU:HG	5:C:118:VAL:N	2.32	0.44
6:D:136:LEU:HD21	6:D:149:THR:OG1	2.17	0.44
8:G:61:ARG:HH11	8:G:61:ARG:CG	2.27	0.44
8:G:63:ARG:O	8:G:63:ARG:HG3	2.17	0.44
9:H:12:ASP:HA	9:H:109:ARG:O	2.18	0.44
10:I:2:LYS:CB	10:I:5:ASP:CB	2.93	0.44
13:L:8:ARG:HH22	13:L:11:LEU:HD12	1.82	0.44
15:N:52:ASN:O	15:N:56:ASP:OD1	2.34	0.44
18:Q:20:MET:HA	18:Q:24:VAL:O	2.16	0.44
19:R:80:LYS:HE3	19:R:80:LYS:O	2.17	0.44
20:S:6:LYS:HD3	20:S:32:PHE:HD1	1.82	0.44
21:T:21:LEU:HD13	21:T:41:ARG:HD3	1.99	0.44
21:T:26:PHE:N	21:T:29:GLU:OE1	2.43	0.44
22:U:19:ILE:HA	22:U:42:GLN:HA	1.99	0.44
22:U:50:ALA:O	22:U:51:ILE:CG1	2.56	0.44
28:3:9:MET:CB	28:3:59:LYS:HG2	2.48	0.44
28:3:17:THR:HG22	28:3:21:LYS:C	2.36	0.44
1:X:162:C:H4'	1:X:195:A:H4'	1.99	0.44
1:X:223:C:O2'	1:X:398:C:H5'	2.16	0.44
1:X:255:A:O2'	1:X:256:C:P	2.75	0.44
1:X:477:A:C2'	1:X:478:G:H5'	2.45	0.44
1:X:540:G:O2'	1:X:542:A:C2	2.67	0.44
1:X:973:U:H2'	1:X:974:U:O5'	2.16	0.44
1:X:1043:A:C2'	1:X:1044:U:OP2	2.65	0.44
1:X:1142:G:H21	8:G:101:THR:HG23	1.82	0.44
1:X:1736:C:O2'	1:X:1737:G:H5'	2.17	0.44
1:X:2198:U:H2'	1:X:2199:C:H1'	1.99	0.44
1:X:2550:C:C3'	4:B:146:THR:OG1	2.65	0.44
1:X:2849:C:H2'	1:X:2850:U:H6	1.83	0.44
3:A:233:HIS:CE1	3:A:245:VAL:O	2.70	0.44
4:B:176:ARG:HE	14:M:16:ILE:CD1	2.30	0.44
6:D:16:LEU:O	6:D:20:PHE:N	2.42	0.44
6:D:40:LEU:HD13	6:D:53:ALA:HB2	1.98	0.44
7:E:147:ASN:HA	7:E:150:LYS:HD2	1.98	0.44
12:K:76:VAL:HA	12:K:79:VAL:HG12	1.98	0.44
13:L:29:LEU:O	13:L:89:PHE:O	2.35	0.44
14:M:17:GLU:O	14:M:21:THR:OG1	2.36	0.44
14:M:66:PHE:CD1	14:M:83:PHE:CE1	3.05	0.44
19:R:21:THR:O	19:R:22:VAL:HG23	2.16	0.44
20:S:140:LYS:HE3	20:S:147:ILE:HD11	1.98	0.44
22:U:51:ILE:HG12	22:U:59:THR:HA	1.96	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:317:U:H3'	1:X:318:G:C5'	2.48	0.44
1:X:512:A:O2'	17:P:15:LYS:NZ	2.24	0.44
1:X:796:A:C8	1:X:797:A:H4'	2.53	0.44
1:X:988:G:H5'	15:N:55:ARG:HH12	1.83	0.44
1:X:1448:A:O2'	1:X:1449:C:H5'	2.18	0.44
1:X:1987:G:C4	1:X:1988:A:C8	3.05	0.44
1:X:2077:G:N2	1:X:2179:C:H1'	2.31	0.44
1:X:2341:G:O2'	1:X:2342:U:H5'	2.17	0.44
1:X:2617:G:P	4:B:82:ARG:NH2	2.91	0.44
1:X:2660:C:C2	1:X:2704:U:O4	2.70	0.44
1:X:2661:G:O2'	1:X:2662:C:H5'	2.16	0.44
1:X:2738:A:C2	1:X:2739:G:H1'	2.53	0.44
2:Y:62:C:O2'	2:Y:63:A:H5'	2.17	0.44
3:A:101:GLU:O	3:A:101:GLU:HG3	2.17	0.44
4:B:179:GLU:HB3	4:B:181:LEU:HG	1.99	0.44
6:D:130:LEU:HD22	6:D:131:GLY:N	2.31	0.44
7:E:103:LEU:HD21	7:E:131:ILE:HD13	1.97	0.44
11:J:80:ALA:CB	11:J:81:GLU:OE1	2.65	0.44
11:J:102:ARG:HG3	11:J:102:ARG:HH11	1.82	0.44
13:L:45:ASP:N	13:L:45:ASP:OD1	2.51	0.44
14:M:57:ILE:HD12	14:M:103:LYS:HZ1	1.79	0.44
16:O:19:VAL:CG1	16:O:90:PHE:CG	3.00	0.44
17:P:31:VAL:HG21	17:P:124:ILE:CD1	2.47	0.44
20:S:71:MET:HB2	20:S:79:ILE:N	2.32	0.44
22:U:40:ARG:O	22:U:41:VAL:HG13	2.16	0.44
1:X:50:G:H3'	1:X:50:G:OP2	2.17	0.44
1:X:552:C:C2'	1:X:553:C:C5'	2.84	0.44
1:X:597:U:O4	1:X:683:A:H1'	2.17	0.44
1:X:1093:U:H2'	1:X:1094:C:O4'	2.17	0.44
1:X:1277:G:H8	1:X:1277:G:O5'	2.00	0.44
1:X:1336:G:C2'	1:X:1337:G:C5'	2.95	0.44
1:X:1531:C:HO2'	1:X:1532:A:C5'	2.31	0.44
1:X:2738:A:C6	7:E:67:LEU:HD11	2.53	0.44
2:Y:62:C:O2	2:Y:63:A:C8	2.71	0.44
3:A:142:VAL:HG12	3:A:193:ILE:HD13	1.99	0.44
5:C:9:GLN:H	5:C:120:VAL:HG21	1.83	0.44
5:C:13:ARG:CD	5:C:194:GLU:HB3	2.47	0.44
7:E:89:LEU:HD22	7:E:107:ILE:HG21	1.98	0.44
12:K:80:MET:HE3	12:K:80:MET:HA	1.99	0.44
13:L:29:LEU:HB2	13:L:87:VAL:CG2	2.48	0.44
14:M:112:GLY:C	14:M:113:LYS:HG2	2.37	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:N:74:MET:HE3	15:N:114:ARG:HG3	1.98	0.44
19:R:42:ARG:HH11	19:R:42:ARG:HB3	1.81	0.44
1:X:82:G:H22	1:X:100:G:H1'	1.82	0.44
1:X:542:A:H2	1:X:2004:U:C2'	2.30	0.44
1:X:760:U:C4	25:Z:3:LYS:HD2	2.52	0.44
1:X:1202:U:C5'	16:O:78:VAL:HG22	2.47	0.44
1:X:1377:G:C2	1:X:1381:G:C6	3.06	0.44
1:X:1404:C:H41	1:X:1407:G:C5'	2.31	0.44
1:X:1514:C:C4'	1:X:1593:C:H5"	2.46	0.44
1:X:1550:C:H1'	1:X:1554:G:H22	1.82	0.44
1:X:2222:U:H2'	1:X:2223:U:H6	1.79	0.44
1:X:2266:A:C4	1:X:2268:G:N7	2.86	0.44
1:X:2268:G:C2	1:X:2269:G:C8	3.06	0.44
1:X:2372:A:H5"	10:I:55:ARG:HB3	1.98	0.44
1:X:2725:C:H2'	1:X:2726:U:C6	2.53	0.44
3:A:65:ILE:HD13	3:A:88:ARG:CZ	2.47	0.44
8:G:96:ASP:N	8:G:96:ASP:OD1	2.49	0.44
10:I:89:ASP:O	10:I:90:ARG:HG3	2.17	0.44
10:I:102:LYS:CA	10:I:122:VAL:HG21	2.48	0.44
11:J:48:ILE:CD1	11:J:69:ILE:HG12	2.47	0.44
12:K:11:ASN:H	12:K:12:ARG:CG	2.31	0.44
13:L:61:SER:HB3	13:L:67:THR:HA	2.00	0.44
14:M:103:LYS:O	14:M:104:LEU:CD2	2.66	0.44
16:O:38:LEU:HD13	16:O:38:LEU:C	2.38	0.44
17:P:46:ARG:HB3	17:P:47:GLY:H	1.71	0.44
19:R:44:GLN:CA	19:R:44:GLN:HE21	2.30	0.44
19:R:51:VAL:O	19:R:51:VAL:HG13	2.16	0.44
22:U:51:ILE:O	22:U:51:ILE:HG22	2.17	0.44
24:W:4:LYS:HE2	24:W:4:LYS:N	2.33	0.44
24:W:46:THR:HG22	24:W:47:VAL:HG13	1.99	0.44
1:X:272:U:OP1	1:X:272:U:H4'	2.17	0.44
1:X:577:U:H2'	1:X:579:G:OP2	2.17	0.44
1:X:647:G:C2	10:I:102:LYS:NZ	2.81	0.44
1:X:656:U:H4'	1:X:657:A:N7	2.32	0.44
1:X:940:G:C4	1:X:941:U:C5	3.05	0.44
1:X:1193:G:C6	1:X:1194:U:O4	2.71	0.44
1:X:1239:A:OP1	16:O:83:ARG:NH2	2.50	0.44
1:X:1291:G:H4'	12:K:34:ILE:HD12	2.00	0.44
1:X:1326:U:H4'	1:X:1345:G:H4'	1.99	0.44
1:X:1673:C:H2'	1:X:1674:C:O5'	2.18	0.44
1:X:1810:U:O2'	1:X:1811:A:P	2.75	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2177:U:H2'	1:X:2178:U:H6	1.83	0.44
1:X:2274:C:H2'	1:X:2275:U:O5'	2.18	0.44
1:X:2447:G:O2'	1:X:2448:A:P	2.76	0.44
1:X:2641:A:H2'	1:X:2642:G:C5'	2.47	0.44
2:Y:39:C:O2	2:Y:39:C:C2'	2.63	0.44
2:Y:49:C:C3'	2:Y:50:U:H5'	2.48	0.44
2:Y:121:G:C2'	2:Y:122:U:H5'	2.48	0.44
3:A:25:THR:HB	3:A:81:ALA:HB1	1.99	0.44
7:E:125:VAL:HG13	7:E:130:ARG:O	2.18	0.44
7:E:125:VAL:CG2	7:E:131:ILE:HA	2.43	0.44
11:J:125:LYS:HE3	11:J:125:LYS:HB3	1.70	0.44
12:K:14:SER:N	12:K:17:ARG:HH12	2.15	0.44
13:L:29:LEU:H	13:L:88:VAL:HG12	1.83	0.44
14:M:104:LEU:HB2	14:M:106:TYR:CE1	2.41	0.44
16:O:26:GLN:O	16:O:29:ALA:HB3	2.18	0.44
16:O:56:VAL:O	16:O:56:VAL:HG23	2.18	0.44
17:P:55:ASP:O	17:P:56:LEU:C	2.56	0.44
19:R:14:LEU:HA	19:R:14:LEU:HD23	1.64	0.44
21:T:72:LYS:HA	21:T:72:LYS:CE	2.42	0.44
22:U:47:HIS:CG	22:U:48:LYS:N	2.85	0.44
28:3:24:ALA:O	28:3:47:GLY:CA	2.65	0.44
1:X:259:U:OP2	1:X:259:U:H4'	2.18	0.44
1:X:265:U:O2'	1:X:266:U:H6	2.01	0.44
1:X:341:A:HO2'	1:X:342:G:P	2.40	0.44
1:X:620:G:O2'	1:X:621:U:H5'	2.18	0.44
1:X:697:G:OP1	27:2:16:HIS:ND1	2.50	0.44
1:X:728:G:C2'	1:X:729:A:OP1	2.66	0.44
1:X:780:U:C2'	1:X:781:G:O5'	2.65	0.44
1:X:890:U:O2'	1:X:891:A:OP1	2.29	0.44
1:X:954:U:OP1	10:I:33:GLY:O	2.36	0.44
1:X:1076:U:O3'	1:X:1077:U:O4'	2.36	0.44
1:X:2732:C:H2'	1:X:2733:A:O4'	2.18	0.44
2:Y:43:G:O6	6:D:69:LYS:NZ	2.37	0.44
5:C:6:VAL:N	5:C:120:VAL:HG13	2.32	0.44
5:C:39:ARG:HH21	5:C:39:ARG:HB3	1.83	0.44
5:C:117:LEU:HD12	5:C:118:VAL:H	1.83	0.44
6:D:57:LEU:O	6:D:61:THR:OG1	2.16	0.44
7:E:41:LEU:CD2	7:E:55:PRO:HD3	2.45	0.44
10:I:47:ALA:HA	10:I:48:PHE:CD1	2.53	0.44
10:I:80:LEU:O	10:I:80:LEU:CG	2.65	0.44
10:I:89:ASP:C	10:I:90:ARG:HG3	2.38	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:M:69:ARG:HG3	14:M:78:GLU:HG2	2.00	0.44
15:N:87:ASN:O	15:N:88:ILE:O	2.36	0.44
19:R:60:PRO:HG2	19:R:62:MET:HG2	2.00	0.44
25:Z:30:LEU:HD23	25:Z:30:LEU:HA	1.81	0.44
28:3:6:THR:CG2	28:3:6:THR:O	2.66	0.44
28:3:24:ALA:O	28:3:47:GLY:HA3	2.18	0.44
1:X:171:G:H2'	1:X:172:A:C5'	2.48	0.44
1:X:177:U:C6	1:X:178:C:C6	3.06	0.44
1:X:280:C:O2'	1:X:281:C:O5'	2.35	0.44
1:X:307:C:C2'	1:X:308:C:H5'	2.48	0.44
1:X:357:A:OP2	1:X:358:C:N3	2.51	0.44
1:X:430:C:H6	1:X:430:C:O5'	2.00	0.44
1:X:494:A:C8	19:R:56:LYS:HE3	2.53	0.44
1:X:558:G:C3'	1:X:559:C:H5'	2.46	0.44
1:X:686:C:H2'	1:X:687:G:H5'	1.98	0.44
1:X:982:C:C2'	1:X:983:G:C5'	2.91	0.44
1:X:994:A:O2'	1:X:995:A:P	2.76	0.44
1:X:1047:G:C6	1:X:1131:G:C6	3.06	0.44
1:X:1305:C:H2'	1:X:1306:U:H5'	1.93	0.44
1:X:1329:U:H2'	1:X:1330:G:O5'	2.18	0.44
1:X:1331:G:H2'	1:X:1332:G:H5'	2.00	0.44
1:X:1339:U:H5"	1:X:1994:U:H1'	2.00	0.44
1:X:1495:G:O2'	1:X:1496:G:H5'	2.17	0.44
1:X:1692:C:H2'	1:X:1693:A:O4'	2.18	0.44
1:X:1809:G:C2'	1:X:1810:U:H5'	2.48	0.44
1:X:2050:G:O2'	1:X:2052:G:H5"	2.17	0.44
1:X:2308:A:H2'	1:X:2309:G:C8	2.53	0.44
5:C:2:ALA:N	5:C:14:THR:HA	2.33	0.44
5:C:13:ARG:HD2	5:C:194:GLU:HB3	1.99	0.44
9:H:2:ILE:CB	9:H:45:ALA:HB3	2.36	0.44
9:H:18:GLU:O	9:H:18:GLU:HG3	2.18	0.44
9:H:70:VAL:HG21	9:H:98:ILE:CG2	2.47	0.44
12:K:103:ARG:NH1	12:K:110:MET:HE1	2.32	0.44
13:L:51:LEU:O	13:L:52:ALA:HB3	2.17	0.44
13:L:63:ASN:ND2	13:L:65:THR:HG23	2.31	0.44
14:M:28:ARG:HA	14:M:29:PRO:HD2	1.66	0.44
15:N:95:LEU:HD22	16:O:3:ALA:HB2	2.00	0.44
16:O:34:GLU:HB2	16:O:56:VAL:HG23	2.00	0.44
17:P:53:ALA:HB1	17:P:72:LEU:HD22	1.99	0.44
18:Q:8:GLN:HB3	18:Q:28:TRP:C	2.38	0.44
19:R:38:LEU:HB3	19:R:47:VAL:CB	2.47	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:S:168:VAL:HG12	20:S:169:VAL:CG1	2.48	0.44
1:X:65:C:C2	1:X:66:U:C6	3.06	0.44
1:X:528:G:H2'	1:X:529:U:H6	1.81	0.44
1:X:547:U:H2'	1:X:548:G:C8	2.53	0.44
1:X:627:A:H2'	1:X:628:A:H8	1.82	0.44
1:X:715:U:O2'	1:X:716:U:H5'	2.18	0.44
1:X:1340:C:O2'	1:X:1341:G:H5'	2.17	0.44
1:X:1491:C:H2'	1:X:1492:A:O4'	2.18	0.44
1:X:1660:G:C2'	1:X:1661:C:O5'	2.66	0.44
1:X:2197:U:C3'	1:X:2198:U:C6	3.01	0.44
1:X:2200:G:O2'	3:A:149:PRO:HG2	2.17	0.44
1:X:2621:G:H5'	8:G:106:TYR:CD2	2.52	0.44
6:D:57:LEU:HD12	6:D:87:ILE:HG21	2.00	0.44
6:D:108:LEU:HG	6:D:109:PRO:HD3	2.00	0.44
7:E:45:GLN:O	7:E:50:LEU:CD2	2.64	0.44
8:G:51:LEU:CD1	8:G:88:VAL:HG11	2.46	0.44
9:H:91:PHE:CD1	9:H:91:PHE:N	2.86	0.44
12:K:18:VAL:HG12	12:K:19:ALA:N	2.31	0.44
12:K:66:VAL:CG1	12:K:76:VAL:HG23	2.48	0.44
14:M:38:LYS:CE	14:M:46:ARG:HD2	2.48	0.44
16:O:20:ILE:CG2	16:O:21:ARG:N	2.81	0.44
17:P:9:ARG:HE	17:P:9:ARG:H	1.65	0.44
17:P:75:ALA:HB1	17:P:128:VAL:CG1	2.44	0.44
19:R:25:LEU:CG	19:R:81:VAL:HG22	2.47	0.44
23:V:55:THR:O	23:V:59:GLU:HG3	2.17	0.44
1:X:20:C:H2'	1:X:21:A:H8	1.83	0.43
1:X:35:G:H1'	1:X:466:A:C4	2.53	0.43
1:X:233:A:O2'	1:X:234:C:H5'	2.18	0.43
1:X:482:A:H2'	1:X:483:A:C4'	2.45	0.43
1:X:701:U:H5'	1:X:1771:A:C2	2.52	0.43
1:X:813:A:C6	1:X:815:A:H1'	2.53	0.43
1:X:994:A:O2'	1:X:995:A:OP1	2.33	0.43
1:X:1017:C:N3	1:X:1018:C:C5	2.86	0.43
1:X:1048:U:H2'	1:X:1049:C:O4'	2.17	0.43
1:X:1092:U:O5'	1:X:1092:U:H6	2.00	0.43
1:X:1242:A:H2'	1:X:1243:G:H5'	1.97	0.43
1:X:1329:U:C2'	1:X:1330:G:O5'	2.66	0.43
1:X:1452:U:C4	1:X:1568:A:C2	3.06	0.43
1:X:1509:A:H2'	1:X:1510:A:H8	1.84	0.43
1:X:1573:G:C5'	1:X:1574:A:C5'	2.95	0.43
1:X:1745:C:OP1	14:M:101:ARG:NH2	2.51	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1850:G:C2'	1:X:1851:A:OP2	2.66	0.43
1:X:1869:A:C5	1:X:1870:U:C5	3.06	0.43
1:X:1979:C:O5'	1:X:1979:C:H6	2.01	0.43
1:X:2311:U:H4'	1:X:2315:A:H62	1.82	0.43
1:X:2380:U:C2'	1:X:2381:A:O5'	2.66	0.43
1:X:2385:U:C2'	1:X:2386:G:OP2	2.66	0.43
1:X:2553:G:H1'	4:B:143:GLN:HB2	2.00	0.43
1:X:2692:A:H5'	1:X:2693:U:OP2	2.17	0.43
1:X:2701:A:H2'	1:X:2702:G:O4'	2.18	0.43
1:X:2764:U:H2'	1:X:2765:C:C6	2.53	0.43
1:X:2779:C:H2'	1:X:2780:A:O5'	2.18	0.43
1:X:2844:G:C2'	1:X:2845:C:H5'	2.48	0.43
2:Y:61:A:C4	2:Y:62:C:C6	3.06	0.43
3:A:65:ILE:HG21	3:A:67:PHE:CE1	2.53	0.43
3:A:95:LEU:HB2	3:A:103:ARG:O	2.17	0.43
3:A:108:PRO:CD	3:A:111:LEU:HD12	2.48	0.43
3:A:259:THR:HG22	3:A:260:ARG:HD2	1.99	0.43
4:B:59:VAL:HG21	4:B:74:PRO:CB	2.48	0.43
9:H:119:ARG:HH22	14:M:41:GLU:CA	2.31	0.43
16:O:55:THR:O	16:O:98:ILE:HG13	2.17	0.43
17:P:9:ARG:HG2	17:P:10:ASN:N	2.33	0.43
17:P:10:ASN:C	17:P:10:ASN:OD1	2.56	0.43
17:P:25:PHE:CD2	17:P:127:ILE:HD11	2.37	0.43
19:R:46:VAL:N	19:R:76:LEU:O	2.46	0.43
1:X:388:G:C2'	1:X:389:G:H5'	2.48	0.43
1:X:590:C:C2	1:X:591:G:C8	3.05	0.43
1:X:799:C:C2'	1:X:800:U:H5'	2.48	0.43
1:X:1211:G:C2	1:X:1212:U:C5	3.06	0.43
1:X:1674:C:C2	1:X:1675:C:C5	3.06	0.43
1:X:1710:U:O2'	3:A:14:ARG:NH2	2.46	0.43
1:X:2044:G:OP1	5:C:62:LYS:HE3	2.17	0.43
1:X:2176:U:O5'	1:X:2176:U:H6	2.01	0.43
1:X:2387:U:H2'	1:X:2388:G:C8	2.53	0.43
2:Y:13:C:O5'	2:Y:13:C:H6	2.01	0.43
2:Y:39:C:H5"	2:Y:40:C:H6	1.83	0.43
3:A:70:ARG:NH1	3:A:146:GLU:OE2	2.51	0.43
5:C:22:VAL:O	10:I:6:LEU:HD22	2.18	0.43
5:C:47:THR:O	5:C:82:VAL:N	2.51	0.43
6:D:121:ALA:HB3	6:D:163:ASP:CB	2.41	0.43
7:E:44:ARG:CB	7:E:50:LEU:HD11	2.48	0.43
10:I:1:MET:CG	10:I:2:LYS:H	2.22	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:M:32:THR:O	14:M:51:GLU:HA	2.18	0.43
16:O:12:TYR:CZ	16:O:41:GLY:HA2	2.53	0.43
18:Q:82:LEU:H	18:Q:82:LEU:CD1	2.18	0.43
20:S:144:GLY:H	20:S:171:VAL:HG12	1.83	0.43
20:S:147:ILE:O	20:S:168:VAL:HB	2.18	0.43
22:U:62:LEU:HB3	22:U:67:LEU:CD1	2.47	0.43
1:X:159:A:H2'	1:X:160:C:H6	1.83	0.43
1:X:190:A:O2'	1:X:191:G:C5'	2.66	0.43
1:X:210:A:H61	1:X:442:A:H61	1.65	0.43
1:X:259:U:O2	1:X:260:U:H6	2.00	0.43
1:X:333:A:H5"	1:X:351:A:O4'	2.19	0.43
1:X:541:C:OP2	1:X:570:G:N1	2.51	0.43
1:X:673:G:N2	10:I:12:SER:HA	2.32	0.43
1:X:746:G:N7	1:X:774:A:N7	2.66	0.43
1:X:873:U:C1'	1:X:2247:A:H5"	2.49	0.43
1:X:1357:U:H4'	1:X:1397:A:N6	2.33	0.43
1:X:1366:A:H2'	1:X:1367:A:H8	1.83	0.43
1:X:1428:G:H8	1:X:1428:G:OP2	2.01	0.43
1:X:1965:U:H2'	1:X:1966:C:C6	2.53	0.43
1:X:2434:G:C4	1:X:2435:C:C5	3.06	0.43
1:X:2631:C:H2'	1:X:2632:U:O4'	2.18	0.43
2:Y:15:A:N1	2:Y:71:G:H2'	2.34	0.43
2:Y:77:G:H1'	20:S:22:VAL:CG1	2.45	0.43
2:Y:116:C:O2'	13:L:49:GLN:HA	2.18	0.43
3:A:125:PRO:HA	3:A:131:LEU:HD21	2.00	0.43
4:B:75:THR:HG22	4:B:77:ILE:O	2.18	0.43
6:D:8:TYR:HD2	6:D:173:MET:SD	2.41	0.43
7:E:175:LYS:HA	7:E:175:LYS:HZ2	1.82	0.43
8:G:97:ASP:O	8:G:99:VAL:HG22	2.18	0.43
9:H:125:LYS:O	9:H:129:LEU:HG	2.18	0.43
11:J:15:ARG:NH2	11:J:73:LYS:NZ	2.67	0.43
14:M:29:PRO:HB3	14:M:104:LEU:HD13	1.99	0.43
15:N:117:ARG:HG3	15:N:117:ARG:NH2	2.32	0.43
20:S:6:LYS:N	20:S:7:PRO:CD	2.82	0.43
20:S:79:ILE:HG22	20:S:80:HIS:N	2.33	0.43
21:T:45:PHE:CE1	21:T:69:PHE:HE2	2.36	0.43
26:1:14:SER:HB3	26:1:52:GLU:CA	2.48	0.43
28:3:15:LYS:HG3	28:3:23:MET:CB	2.49	0.43
28:3:46:LYS:C	28:3:46:LYS:HD3	2.38	0.43
1:X:341:A:O2'	1:X:342:G:P	2.76	0.43
1:X:795:A:N1	3:A:226:MET:CE	2.81	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:969:U:O4	11:J:18:MET:HA	2.18	0.43
1:X:1011:A:C8	1:X:1165:G:N2	2.87	0.43
1:X:1049:C:C2	1:X:1129:A:H2	2.34	0.43
1:X:1122:A:O2'	1:X:1123:G:OP1	2.35	0.43
1:X:1342:U:H5"	1:X:1343:C:H5	1.84	0.43
1:X:1513:U:C2	1:X:1594:U:OP1	2.71	0.43
1:X:1673:C:H5"	4:B:136:ARG:CB	2.48	0.43
1:X:1705:U:O2	1:X:1717:A:H5'	2.18	0.43
1:X:2178:U:H2'	1:X:2179:C:H6	1.83	0.43
1:X:2198:U:H2'	1:X:2199:C:O4'	2.18	0.43
1:X:2365:U:H2'	1:X:2366:U:O4'	2.17	0.43
1:X:2426:G:C2'	1:X:2479:U:OP2	2.66	0.43
1:X:2440:C:H2'	1:X:2441:U:C6	2.54	0.43
1:X:2571:G:H2'	1:X:2572:U:O4'	2.19	0.43
1:X:2596:C:H2'	1:X:2597:G:H8	1.84	0.43
3:A:126:LYS:O	3:A:193:ILE:HB	2.19	0.43
4:B:133:LYS:HG3	4:B:137:ARG:CG	2.43	0.43
5:C:190:ALA:HA	5:C:193:LEU:HD22	1.99	0.43
6:D:46:ASP:HB3	6:D:49:ALA:HB3	2.00	0.43
7:E:16:THR:HG22	7:E:17:VAL:N	2.33	0.43
8:G:154:GLU:H	8:G:154:GLU:CD	2.19	0.43
10:I:98:LEU:N	10:I:98:LEU:HD23	2.34	0.43
10:I:118:VAL:CG1	10:I:122:VAL:HB	2.49	0.43
12:K:14:SER:CA	12:K:17:ARG:NH1	2.68	0.43
12:K:33:ARG:HB2	12:K:114:GLU:HB3	2.01	0.43
17:P:100:GLY:HA3	17:P:121:THR:OG1	2.18	0.43
18:Q:63:LYS:O	18:Q:63:LYS:CD	2.66	0.43
22:U:34:THR:CG2	22:U:35:THR:N	2.74	0.43
22:U:53:GLU:HB3	22:U:58:LYS:N	2.33	0.43
1:X:89:A:OP1	1:X:90:G:N2	2.51	0.43
1:X:381:C:O2	1:X:381:C:H2'	2.17	0.43
1:X:615:C:H1'	1:X:670:U:H1'	1.99	0.43
1:X:876:A:O2'	1:X:877:G:H5'	2.19	0.43
1:X:999:A:C2'	1:X:1000:G:O5'	2.66	0.43
1:X:1086:C:H2'	1:X:1087:C:OP1	2.18	0.43
1:X:1122:A:O2'	1:X:1123:G:C4'	2.64	0.43
1:X:1290:A:H2'	1:X:1291:G:C8	2.54	0.43
1:X:1436:G:O2'	1:X:1508:G:H2'	2.18	0.43
1:X:1462:C:O2'	1:X:1463:A:H5'	2.17	0.43
1:X:1573:G:OP1	1:X:1574:A:H5'	2.18	0.43
1:X:1744:G:OP1	14:M:100:ARG:HD2	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1842:G:C2'	1:X:1843:U:H5'	2.49	0.43
1:X:1919:A:N6	1:X:1946:U:H3	2.06	0.43
1:X:2081:U:H2'	1:X:2082:C:H6	1.83	0.43
1:X:2178:U:C2'	1:X:2179:C:H5'	2.48	0.43
1:X:2191:A:H5"	1:X:2192:U:C5	2.49	0.43
1:X:2270:U:O2'	1:X:2353:G:N3	2.50	0.43
1:X:2306:A:C5	1:X:2367:A:N1	2.86	0.43
1:X:2354:G:C5	1:X:2356:A:OP2	2.72	0.43
1:X:2407:G:H4'	1:X:2408:G:C4	2.54	0.43
1:X:2578:G:C2	1:X:2579:A:C8	3.06	0.43
2:Y:101:A:C2'	2:Y:102:A:OP2	2.64	0.43
3:A:246:PRO:HD3	3:A:250:TRP:O	2.19	0.43
5:C:8:GLY:C	5:C:9:GLN:HE21	2.22	0.43
5:C:186:LEU:CD2	5:C:188:ILE:HG23	2.45	0.43
8:G:32:TYR:CE2	8:G:34:PRO:HG3	2.54	0.43
8:G:70:PHE:O	15:N:60:LEU:HD21	2.18	0.43
13:L:16:LYS:C	13:L:19:THR:HG22	2.38	0.43
15:N:74:MET:HG3	15:N:114:ARG:HH12	1.80	0.43
16:O:23:GLU:HB3	16:O:25:LEU:CD1	2.19	0.43
17:P:50:VAL:CG2	17:P:91:PHE:HA	2.47	0.43
17:P:66:GLU:HB3	17:P:67:PRO:CD	2.49	0.43
1:X:111:G:C5'	1:X:112:U:OP1	2.66	0.43
1:X:331:U:HO2'	5:C:162:ARG:NH2	2.13	0.43
1:X:942:U:O2'	24:W:22:ALA:HA	2.17	0.43
1:X:1312:G:N2	1:X:1657:A:C8	2.87	0.43
1:X:1360:G:O2'	1:X:1361:G:H5'	2.18	0.43
1:X:1615:C:OP1	18:Q:35:LYS:HG3	2.18	0.43
1:X:1669:A:H3'	1:X:1670:G:C8	2.53	0.43
1:X:1883:A:H1'	1:X:1953:A:C2'	2.48	0.43
1:X:2640:G:H2'	1:X:2641:A:H8	1.75	0.43
1:X:2757:G:H5"	1:X:2758:A:C5'	2.46	0.43
1:X:2803:C:H4'	14:M:1:MET:HG3	2.00	0.43
2:Y:28:A:C8	2:Y:29:C:C6	3.07	0.43
3:A:215:LEU:HA	3:A:215:LEU:HD23	1.14	0.43
4:B:54:LYS:HD2	4:B:55:ALA:N	2.33	0.43
4:B:134:TRP:O	4:B:135:HIS:O	2.37	0.43
5:C:176:ASN:HD22	5:C:176:ASN:N	2.16	0.43
7:E:149:ARG:NH1	7:E:163:ARG:HH22	2.16	0.43
9:H:27:SER:CB	9:H:50:ILE:CG1	2.96	0.43
14:M:106:TYR:HD1	14:M:106:TYR:H	1.65	0.43
17:P:45:ILE:O	17:P:48:LYS:HB2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:S:24:TYR:HB2	20:S:29:ASN:OD1	2.19	0.43
28:3:36:LYS:NZ	28:3:37:SER:N	2.66	0.43
1:X:161:U:O4'	1:X:193:A:H2	2.00	0.43
1:X:318:G:N1	1:X:321:A:OP2	2.49	0.43
1:X:487:G:O4'	1:X:515:A:C2	2.72	0.43
1:X:534:U:H4'	1:X:564:U:H4'	2.01	0.43
1:X:542:A:H4'	1:X:543:G:C8	2.54	0.43
1:X:654:A:C2	1:X:655:A:H3'	2.54	0.43
1:X:679:C:H2'	1:X:680:U:C6	2.53	0.43
1:X:1016:C:C2	1:X:1017:C:C5	3.06	0.43
1:X:1033:G:C6	1:X:1151:U:C5	3.07	0.43
1:X:1059:A:OP2	1:X:1120:C:N4	2.52	0.43
1:X:1179:A:H2'	1:X:1180:A:C8	2.52	0.43
1:X:1261:G:C2'	1:X:1262:U:OP1	2.66	0.43
1:X:1276:U:C1'	25:Z:10:LYS:HG3	2.49	0.43
1:X:1773:C:O4'	1:X:2588:U:C2	2.72	0.43
1:X:2006:G:O2'	1:X:2007:G:H5'	2.18	0.43
1:X:2083:G:H2'	1:X:2084:G:C1'	2.49	0.43
1:X:2220:A:O2'	1:X:2221:G:H5'	2.18	0.43
1:X:2692:A:C5'	1:X:2693:U:OP2	2.66	0.43
1:X:2735:C:O2	1:X:2735:C:H2'	2.17	0.43
1:X:2825:A:H2'	1:X:2826:C:C6	2.54	0.43
1:X:2842:C:C6	1:X:2842:C:C3'	3.02	0.43
1:X:2842:C:C6	1:X:2842:C:H3'	2.53	0.43
3:A:60:ARG:HG2	3:A:86:PRO:CB	2.46	0.43
3:A:60:ARG:NE	3:A:86:PRO:O	2.50	0.43
5:C:153:ASP:OD1	5:C:172:VAL:HG13	2.19	0.43
6:D:4:LEU:HD11	6:D:97:TYR:HB3	2.00	0.43
6:D:108:LEU:C	6:D:111:ILE:HG23	2.36	0.43
8:G:34:PRO:HG2	8:G:70:PHE:CG	2.54	0.43
8:G:49:VAL:HG11	8:G:54:LEU:HB2	2.00	0.43
8:G:86:ALA:HB2	8:G:152:ALA:HB1	1.99	0.43
9:H:29:ILE:HD13	9:H:29:ILE:N	2.33	0.43
10:I:42:GLY:O	10:I:43:ALA:HB2	2.18	0.43
11:J:14:PHE:C	11:J:15:ARG:HG2	2.39	0.43
11:J:36:ILE:HG13	11:J:102:ARG:O	2.18	0.43
15:N:47:TYR:CD1	15:N:47:TYR:C	2.92	0.43
19:R:22:VAL:CG1	19:R:80:LYS:HD2	2.49	0.43
19:R:85:ASP:CG	19:R:86:PRO:HD3	2.39	0.43
20:S:88:TYR:HA	20:S:127:PRO:HG3	2.01	0.43
20:S:125:PRO:HA	20:S:158:CYS:SG	2.59	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:237:G:O4'	1:X:632:A:H1'	2.19	0.43
1:X:703:A:O2'	1:X:793:G:OP1	2.36	0.43
1:X:818:G:H3'	1:X:819:C:C5'	2.49	0.43
1:X:879:A:H2'	1:X:879:A:N3	2.34	0.43
1:X:1075:C:C2'	1:X:1076:U:H5'	2.49	0.43
1:X:1128:G:O2'	1:X:1129:A:H5'	2.19	0.43
1:X:1455:C:H2'	1:X:1456:C:H6	1.83	0.43
1:X:1475:U:O2	1:X:1475:U:H2'	2.19	0.43
1:X:1788:C:H2'	1:X:1789:U:C6	2.53	0.43
1:X:1823:G:C4	1:X:1958:G:N2	2.87	0.43
1:X:2197:U:O3'	1:X:2198:U:H6	2.02	0.43
1:X:2233:C:O2'	1:X:2234:G:H5'	2.19	0.43
1:X:2283:G:H2'	1:X:2283:G:N3	2.34	0.43
1:X:2314:A:HO2'	1:X:2315:A:P	2.42	0.43
1:X:2510:A:H2'	1:X:2511:G:C5'	2.48	0.43
4:B:49:ILE:HD12	4:B:49:ILE:HA	1.86	0.43
5:C:33:TRP:HB3	5:C:95:LEU:HD12	1.99	0.43
5:C:149:LEU:CD1	5:C:170:LEU:HD13	2.30	0.43
14:M:69:ARG:HB2	14:M:78:GLU:HG2	2.01	0.43
17:P:45:ILE:HD12	17:P:53:ALA:HA	2.00	0.43
17:P:50:VAL:HG23	17:P:91:PHE:CA	2.45	0.43
20:S:117:VAL:HG23	20:S:117:VAL:O	2.18	0.43
1:X:154:U:H3'	1:X:155:G:H8	1.84	0.43
1:X:181:A:O4'	1:X:183:U:C6	2.72	0.43
1:X:224:G:H4'	1:X:399:G:C6	2.54	0.43
1:X:265:U:O2'	1:X:266:U:P	2.76	0.43
1:X:318:G:N2	1:X:320:A:H3'	2.34	0.43
1:X:515:A:H2'	1:X:516:G:H5'	2.01	0.43
1:X:829:C:H2'	1:X:830:C:H6	1.83	0.43
1:X:844:G:N2	10:I:48:PHE:CE2	2.87	0.43
1:X:1073:G:H1'	1:X:1099:A:N7	2.34	0.43
1:X:1406:A:N6	18:Q:15:LYS:HD3	2.34	0.43
1:X:1583:A:O2'	3:A:86:PRO:HG3	2.18	0.43
1:X:1779:C:H5"	1:X:1780:A:OP2	2.19	0.43
1:X:1915:A:H2'	1:X:1916:G:O4'	2.18	0.43
1:X:1982:C:OP1	1:X:2704:U:H5'	2.19	0.43
1:X:2029:G:H2'	1:X:2030:U:O5'	2.19	0.43
1:X:2043:A:H3'	5:C:62:LYS:HZ1	1.82	0.43
1:X:2283:G:H1	1:X:2291:U:H3	1.67	0.43
1:X:2553:G:H8	1:X:2553:G:O5'	2.02	0.43
1:X:2837:G:C4	1:X:2838:U:C5	3.07	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:32:C:O2'	2:Y:59:A:N1	2.50	0.43
2:Y:83:C:H2'	2:Y:84:G:C5'	2.48	0.43
4:B:14:ILE:HA	14:M:20:HIS:HD2	1.83	0.43
5:C:149:LEU:HD11	5:C:170:LEU:CD1	2.29	0.43
18:Q:8:GLN:HB3	18:Q:28:TRP:O	2.19	0.43
20:S:93:GLU:HB3	20:S:121:GLN:OE1	2.19	0.43
26:1:14:SER:OG	26:1:23:THR:CG2	2.67	0.43
1:X:83:A:OP2	19:R:17:LYS:CE	2.66	0.43
1:X:410:A:O2'	1:X:411:C:H5'	2.19	0.43
1:X:617:U:H3'	1:X:617:U:O2	2.19	0.43
1:X:726:G:N2	1:X:732:G:C4	2.87	0.43
1:X:1148:G:H21	8:G:134:MET:HG2	1.84	0.43
1:X:1412:C:O2'	1:X:1413:U:H5'	2.19	0.43
1:X:1574:A:H2'	1:X:1575:C:H5"	2.00	0.43
1:X:1659:G:H2'	1:X:1660:G:C5'	2.49	0.43
1:X:2065:A:C8	1:X:2066:G:C8	3.07	0.43
1:X:2189:A:C2	1:X:2190:A:N6	2.87	0.43
1:X:2202:G:H2'	1:X:2203:G:O4'	2.19	0.43
1:X:2620:G:OP1	8:G:102:ARG:HD2	2.19	0.43
1:X:2791:C:O2'	1:X:2792:C:H5'	2.18	0.43
1:X:2797:G:O2'	1:X:2799:C:OP2	2.31	0.43
5:C:135:SER:O	5:C:139:GLN:HG2	2.18	0.43
10:I:114:ILE:O	10:I:114:ILE:HG22	2.19	0.43
11:J:78:LYS:HE2	11:J:79:PRO:HD2	2.01	0.43
17:P:60:ILE:HA	17:P:61:PRO:HD3	1.81	0.43
22:U:27:ASP:OD1	22:U:27:ASP:N	2.51	0.43
25:Z:51:TYR:HA	25:Z:55:ARG:HA	2.01	0.43
28:3:6:THR:HG22	28:3:59:LYS:CG	2.34	0.43
1:X:10:A:H2'	1:X:11:G:H8	1.81	0.42
1:X:167:A:H2'	1:X:168:A:C8	2.54	0.42
1:X:258:C:N3	1:X:260:U:OP1	2.51	0.42
1:X:384:A:H1'	1:X:386:U:C6	2.54	0.42
1:X:632:A:C2	1:X:633:G:C4	3.07	0.42
1:X:760:U:O5'	1:X:760:U:H6	2.02	0.42
1:X:847:C:H2'	1:X:848:A:H8	1.84	0.42
1:X:1314:A:N3	1:X:1314:A:H2'	2.34	0.42
1:X:1481:U:H2'	1:X:1482:U:OP1	2.19	0.42
1:X:1933:G:C8	1:X:1934:U:C5	3.06	0.42
1:X:2069:U:H2'	1:X:2070:G:H8	1.84	0.42
1:X:2197:U:O2	1:X:2197:U:C2'	2.67	0.42
1:X:2245:A:C4'	1:X:2246:A:C2	3.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2567:G:O6	1:X:2586:G:C6	2.71	0.42
1:X:2731:G:C5'	1:X:2732:C:C5	2.99	0.42
2:Y:72:C:O2'	2:Y:73:C:H5'	2.18	0.42
3:A:35:GLU:O	3:A:36:ALA:C	2.57	0.42
3:A:79:VAL:HB	3:A:114:GLY:N	2.34	0.42
3:A:182:LEU:O	3:A:267:ASP:HB2	2.18	0.42
4:B:92:ASN:O	4:B:93:VAL:C	2.58	0.42
5:C:47:THR:CB	5:C:82:VAL:H	2.32	0.42
7:E:7:GLN:HB3	7:E:8:PRO:CD	2.41	0.42
9:H:73:VAL:HG12	9:H:99:ILE:HG21	2.00	0.42
9:H:83:ARG:HH11	9:H:89:ILE:HD11	1.82	0.42
10:I:27:ASP:OD1	10:I:27:ASP:N	2.31	0.42
13:L:108:ARG:NH2	13:L:108:ARG:HG3	2.33	0.42
16:O:5:ILE:HG21	16:O:10:LYS:HD2	2.00	0.42
20:S:117:VAL:HG23	20:S:168:VAL:HG13	2.01	0.42
28:3:9:MET:HA	28:3:14:ILE:HD11	2.00	0.42
1:X:69:G:C2'	1:X:111:G:O2'	2.66	0.42
1:X:330:C:H2'	1:X:331:U:C6	2.54	0.42
1:X:485:G:C4	1:X:520:C:C5	3.06	0.42
1:X:649:G:C2	1:X:661:C:O2	2.71	0.42
1:X:706:A:H2'	1:X:707:U:O4'	2.19	0.42
1:X:729:A:H2'	1:X:730:C:H1'	2.01	0.42
1:X:754:G:H2'	1:X:755:C:H6	1.84	0.42
1:X:847:C:HO2'	1:X:2337:A:HO2'	1.64	0.42
1:X:863:C:H2'	1:X:864:C:C6	2.54	0.42
1:X:917:U:H2'	1:X:918:A:C5'	2.46	0.42
1:X:1225:G:O2'	1:X:1226:A:H8	2.02	0.42
1:X:1400:A:C2'	1:X:1401:G:O5'	2.67	0.42
1:X:1469:U:O2	1:X:1469:U:C2'	2.66	0.42
1:X:1645:U:O2	1:X:2677:U:H4'	2.19	0.42
1:X:1697:U:O2	1:X:1754:G:H3'	2.18	0.42
1:X:1748:U:C2'	1:X:1749:G:OP1	2.66	0.42
1:X:1804:U:O2'	1:X:1805:G:H5'	2.19	0.42
1:X:1922:U:O2	1:X:1922:U:H2'	2.19	0.42
1:X:2370:G:H21	1:X:2408:G:H1'	1.82	0.42
1:X:2825:A:C2	1:X:2826:C:C2	3.07	0.42
2:Y:70:C:H2'	2:Y:71:G:O4'	2.19	0.42
2:Y:77:G:H2'	2:Y:78:A:C5'	2.49	0.42
3:A:34:THR:C	3:A:36:ALA:H	2.21	0.42
3:A:145:LEU:C	3:A:155:LEU:HD21	2.38	0.42
5:C:21:GLU:HB3	5:C:26:VAL:HG23	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:144:GLY:HA2	5:C:166:TRP:HE1	1.84	0.42
5:C:189:ASP:C	5:C:193:LEU:HD22	2.39	0.42
6:D:112:ARG:NE	6:D:113:ASP:HB2	2.33	0.42
7:E:40:GLU:HG2	7:E:41:LEU:HD22	2.00	0.42
11:J:19:THR:CG2	11:J:20:GLY:N	2.82	0.42
11:J:48:ILE:HD13	11:J:69:ILE:HG12	2.01	0.42
15:N:6:THR:HG21	15:N:10:ARG:HH21	1.82	0.42
24:W:32:ARG:HE	24:W:32:ARG:HB2	1.47	0.42
28:3:9:MET:O	28:3:14:ILE:CD1	2.67	0.42
1:X:13:A:N3	1:X:15:G:O6	2.52	0.42
1:X:146:C:H5"	1:X:147:G:OP2	2.19	0.42
1:X:335:A:H62	1:X:349:G:H1'	1.84	0.42
1:X:402:A:N3	1:X:2391:A:H2	2.17	0.42
1:X:656:U:O2'	1:X:657:A:P	2.77	0.42
1:X:658:G:H2'	1:X:659:G:H8	1.83	0.42
1:X:671:A:H2'	1:X:672:C:O4'	2.19	0.42
1:X:1732:U:H5'	1:X:1733:U:OP2	2.20	0.42
1:X:1809:G:H2'	1:X:1810:U:H5'	2.00	0.42
1:X:1818:G:C5	1:X:1819:U:C5	3.07	0.42
1:X:1830:C:HO2'	1:X:1881:U:H5	1.64	0.42
1:X:2309:G:H2'	1:X:2310:G:H5'	2.01	0.42
1:X:2423:G:H2'	1:X:2424:G:O5'	2.20	0.42
1:X:2440:C:H2'	1:X:2441:U:H6	1.85	0.42
1:X:2447:G:HO2'	1:X:2448:A:P	2.42	0.42
1:X:2616:U:H5'	4:B:44:TYR:CZ	2.54	0.42
1:X:2797:G:OP2	4:B:110:GLY:O	2.38	0.42
4:B:4:ILE:CG1	4:B:5:LEU:H	2.33	0.42
4:B:136:ARG:O	4:B:137:ARG:CB	2.65	0.42
6:D:108:LEU:CG	6:D:109:PRO:HD3	2.49	0.42
7:E:126:PRO:CG	7:E:127:GLU:H	2.33	0.42
11:J:88:LYS:HE2	11:J:88:LYS:HB3	1.59	0.42
16:O:25:LEU:HB3	16:O:30:GLY:HA2	2.01	0.42
16:O:93:ILE:HG13	16:O:95:ILE:HD11	2.00	0.42
19:R:98:ILE:HG21	19:R:105:ARG:NH1	2.34	0.42
27:2:41:GLN:CB	27:2:47:GLU:O	2.67	0.42
1:X:98:U:H6	1:X:98:U:H5"	1.83	0.42
1:X:246:C:O2	1:X:246:C:H2'	2.19	0.42
1:X:1185:C:H2'	1:X:1186:G:C2'	2.49	0.42
1:X:1332:G:C2	1:X:1347:C:C2	3.07	0.42
1:X:1568:A:O2'	1:X:1569:A:H5'	2.19	0.42
1:X:1779:C:O2	1:X:1779:C:H2'	2.18	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2395:C:H6	1:X:2395:C:O5'	2.02	0.42
1:X:2650:G:H2'	1:X:2651:U:C6	2.55	0.42
1:X:2714:A:O2'	1:X:2715:C:H5'	2.19	0.42
3:A:166:GLN:HB2	3:A:174:ILE:HG22	2.02	0.42
3:A:206:LEU:HB3	3:A:211:ARG:HB3	2.00	0.42
4:B:95:ILE:HA	4:B:95:ILE:HD13	1.64	0.42
5:C:6:VAL:HG22	5:C:7:ILE:N	2.34	0.42
6:D:57:LEU:HD22	6:D:61:THR:HG21	1.99	0.42
6:D:108:LEU:HA	6:D:111:ILE:HG23	2.02	0.42
6:D:153:ASP:O	6:D:154:ILE:HG13	2.19	0.42
8:G:58:ILE:HG12	8:G:80:VAL:HG11	2.01	0.42
9:H:42:LYS:NZ	9:H:44:TYR:O	2.40	0.42
11:J:21:ASP:OD1	11:J:22:ALA:N	2.52	0.42
12:K:1:MET:HG2	12:K:3:HIS:HE1	1.85	0.42
14:M:71:ILE:HD11	14:M:111:ARG:HD3	2.00	0.42
15:N:18:LEU:O	15:N:21:ALA:HB3	2.20	0.42
15:N:89:ASP:OD1	16:O:47:PHE:CZ	2.72	0.42
18:Q:58:VAL:HA	18:Q:59:PRO:HD3	1.64	0.42
18:Q:64:ARG:HD3	18:Q:64:ARG:HA	1.87	0.42
19:R:25:LEU:CD1	19:R:79:SER:O	2.60	0.42
20:S:91:PRO:HD3	20:S:127:PRO:CB	2.49	0.42
20:S:122:ILE:HD13	20:S:122:ILE:O	2.19	0.42
1:X:90:G:H5'	1:X:91:A:O5'	2.19	0.42
1:X:247:A:C2'	1:X:248:A:H5'	2.50	0.42
1:X:247:A:O2'	1:X:248:A:H5'	2.20	0.42
1:X:732:G:C4	1:X:733:G:C8	3.08	0.42
1:X:860:U:O2	1:X:860:U:H2'	2.19	0.42
1:X:1145:C:C6	1:X:1147:G:OP2	2.73	0.42
1:X:1486:A:C6	1:X:1538:A:N1	2.88	0.42
1:X:2282:G:H2'	1:X:2283:G:H8	1.83	0.42
1:X:2340:C:OP1	28:3:27:SER:OG	2.30	0.42
1:X:2579:A:H2'	1:X:2580:C:C6	2.54	0.42
1:X:2594:U:C6	25:Z:7:PRO:HB3	2.55	0.42
1:X:2595:C:H2'	1:X:2596:C:H6	1.84	0.42
1:X:2628:C:H2'	1:X:2629:U:C6	2.55	0.42
1:X:2705:A:C4	1:X:2707:G:C8	3.07	0.42
1:X:2728:A:H2'	1:X:2729:A:O4'	2.20	0.42
1:X:2781:G:C2'	1:X:2782:G:C5'	2.96	0.42
3:A:255:LYS:HE2	3:A:257:LEU:HD11	2.01	0.42
4:B:117:MET:HE2	4:B:136:ARG:HA	2.00	0.42
5:C:22:VAL:HG13	10:I:1:MET:SD	2.60	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:181:LEU:HD21	10:I:1:MET:HB3	2.01	0.42
6:D:40:LEU:CD1	6:D:52:LYS:HD3	2.49	0.42
6:D:77:PHE:O	6:D:79:LEU:HD12	2.19	0.42
9:H:27:SER:HB3	9:H:50:ILE:HG13	2.01	0.42
10:I:81:GLN:HA	10:I:81:GLN:HE21	1.83	0.42
11:J:139:ASP:O	11:J:140:GLU:CB	2.61	0.42
17:P:60:ILE:HG13	25:Z:28:PRO:HD3	2.01	0.42
18:Q:7:LEU:HD11	23:V:30:PHE:CE1	2.54	0.42
22:U:48:LYS:HG3	22:U:49:LYS:N	2.27	0.42
27:2:26:SER:O	27:2:30:ILE:HG13	2.19	0.42
28:3:5:LYS:HE2	28:3:5:LYS:HB3	1.69	0.42
1:X:59:G:N7	1:X:62:U:C6	2.87	0.42
1:X:383:G:C4'	1:X:384:A:OP2	2.66	0.42
1:X:704:G:H5'	3:A:43:ARG:HH11	1.83	0.42
1:X:767:G:H2'	1:X:768:U:C6	2.55	0.42
1:X:888:G:H2'	1:X:889:C:H6	1.84	0.42
1:X:919:U:HO2'	1:X:920:G:H5'	1.81	0.42
1:X:938:G:H2'	1:X:940:G:N7	2.34	0.42
1:X:977:G:O4'	1:X:2246:A:N6	2.53	0.42
1:X:1104:G:N2	1:X:1110:G:O6	2.53	0.42
1:X:1490:U:OP2	1:X:1490:U:C6	2.73	0.42
1:X:1498:G:H1	1:X:1523:A:H1'	1.84	0.42
1:X:2026:C:C2'	1:X:2027:C:H5'	2.50	0.42
1:X:2028:C:H2'	1:X:2029:G:O5'	2.19	0.42
1:X:2031:A:C2'	1:X:2032:G:O5'	2.67	0.42
1:X:2293:G:OP1	6:D:88:LYS:HE3	2.19	0.42
1:X:2325:A:H5'	1:X:2362:G:O4'	2.19	0.42
1:X:2472:U:H2'	1:X:2473:G:C5'	2.49	0.42
1:X:2510:A:H2'	1:X:2511:G:H5'	2.01	0.42
1:X:2551:A:C2	4:B:144:ARG:NH1	2.88	0.42
1:X:2641:A:H2'	1:X:2642:G:C4'	2.49	0.42
1:X:2836:U:H2'	1:X:2837:G:H8	1.85	0.42
3:A:249:PRO:O	3:A:250:TRP:CB	2.66	0.42
4:B:144:ARG:C	4:B:146:THR:N	2.73	0.42
6:D:115:ARG:O	6:D:178:ARG:HG2	2.19	0.42
7:E:40:GLU:HG2	7:E:41:LEU:CD2	2.50	0.42
8:G:110:LEU:O	8:G:111:LYS:C	2.57	0.42
9:H:2:ILE:HG13	9:H:8:LEU:HD11	2.01	0.42
18:Q:31:PRO:HG3	18:Q:75:ARG:HA	2.01	0.42
20:S:49:THR:HG23	20:S:95:SER:O	2.20	0.42
21:T:21:LEU:HD21	21:T:41:ARG:NE	2.24	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:T:37:LEU:HD12	21:T:60:PHE:CA	2.49	0.42
22:U:23:LYS:HG2	22:U:37:ILE:HG23	2.01	0.42
23:V:26:MET:HB2	23:V:29:ARG:HH21	1.85	0.42
24:W:23:LEU:CD1	24:W:43:MET:HB3	2.49	0.42
25:Z:20:ARG:O	25:Z:22:HIS:N	2.52	0.42
1:X:89:A:H4'	1:X:90:G:O5'	2.19	0.42
1:X:495:C:OP1	19:R:59:LYS:HG2	2.19	0.42
1:X:521:U:C5	1:X:522:G:C5	3.08	0.42
1:X:758:G:H5"	1:X:759:C:OP2	2.20	0.42
1:X:827:C:OP1	16:O:82:ARG:HA	2.19	0.42
1:X:1031:C:O4'	1:X:1032:A:C2	2.73	0.42
1:X:1064:C:O5'	1:X:1064:C:H6	2.02	0.42
1:X:1300:A:H3'	1:X:1301:U:C6	2.53	0.42
1:X:1474:A:H1'	1:X:1475:U:H5'	2.01	0.42
1:X:1505:U:O2'	1:X:1506:C:O4'	2.37	0.42
1:X:2067:U:H2'	1:X:2068:C:C6	2.55	0.42
1:X:2342:U:O2	21:T:39:ARG:NH2	2.53	0.42
1:X:2350:G:N2	1:X:2351:G:C4	2.88	0.42
1:X:2614:A:C2	1:X:2764:U:C2	3.07	0.42
1:X:2663:U:C4	1:X:2664:G:N7	2.88	0.42
1:X:2807:U:C1'	1:X:2808:U:OP2	2.67	0.42
2:Y:77:G:H2'	2:Y:78:A:O4'	2.20	0.42
4:B:14:ILE:HG22	4:B:21:ILE:CB	2.44	0.42
5:C:54:THR:OG1	5:C:73:SER:HB3	2.20	0.42
6:D:77:PHE:HB3	6:D:78:LYS:CE	2.43	0.42
7:E:59:GLN:HG3	7:E:60:LYS:N	2.35	0.42
10:I:57:ILE:HD11	28:3:25:PHE:CE1	2.53	0.42
11:J:28:VAL:CG1	11:J:28:VAL:O	2.63	0.42
11:J:39:GLU:OE2	11:J:129:GLN:HG2	2.19	0.42
12:K:20:LEU:O	12:K:21:ALA:C	2.53	0.42
12:K:73:LYS:O	12:K:76:VAL:CG1	2.67	0.42
14:M:38:LYS:HD3	14:M:48:GLN:OE1	2.19	0.42
15:N:47:TYR:CE1	15:N:51:ARG:CZ	3.03	0.42
15:N:88:ILE:HD13	15:N:88:ILE:N	2.35	0.42
19:R:96:LYS:HZ1	19:R:98:ILE:HG23	1.85	0.42
20:S:19:ILE:HD11	20:S:36:ARG:NH2	2.35	0.42
25:Z:45:ILE:HG21	25:Z:57:VAL:HG21	2.00	0.42
25:Z:53:ASP:OD1	25:Z:53:ASP:N	2.52	0.42
26:1:24:THR:O	26:1:24:THR:OG1	2.35	0.42
1:X:163:A:H2'	1:X:164:G:C8	2.54	0.42
1:X:310:A:N1	1:X:333:A:O2'	2.29	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:384:A:C1'	1:X:386:U:C6	3.03	0.42
1:X:394:U:H2'	1:X:395:G:C8	2.55	0.42
1:X:423:G:H5"	1:X:424:G:O5'	2.19	0.42
1:X:491:A:H1'	19:R:53:VAL:HG21	2.02	0.42
1:X:540:G:C5	1:X:2005:U:H5'	2.55	0.42
1:X:1038:U:O2	1:X:1038:U:H2'	2.18	0.42
1:X:1125:G:O2'	1:X:1126:A:H5'	2.20	0.42
1:X:1542:G:N2	1:X:1562:G:N2	2.65	0.42
1:X:2017:U:C3'	1:X:2018:G:H5'	2.48	0.42
1:X:2083:G:O6	1:X:2173:G:C6	2.72	0.42
1:X:2398:U:OP1	28:3:41:ILE:CD1	2.68	0.42
1:X:2415:G:C5	1:X:2416:U:C5	3.08	0.42
1:X:2558:C:H2'	1:X:2559:U:O4'	2.20	0.42
1:X:2738:A:C2'	1:X:2739:G:H5'	2.50	0.42
1:X:2795:A:OP1	12:K:2:ARG:NH1	2.52	0.42
1:X:2829:A:H2'	1:X:2830:U:O4'	2.19	0.42
1:X:2830:U:H2'	1:X:2831:A:C8	2.54	0.42
2:Y:6:C:H2'	2:Y:7:C:C6	2.55	0.42
3:A:29:PRO:HB3	3:A:63:ARG:NH1	2.34	0.42
3:A:246:PRO:HD2	3:A:250:TRP:C	2.40	0.42
4:B:54:LYS:HD2	4:B:54:LYS:HA	1.47	0.42
4:B:98:GLU:CD	4:B:174:GLU:HA	2.40	0.42
6:D:34:ILE:HB	6:D:91:LEU:HB2	2.01	0.42
6:D:107:GLY:O	6:D:111:ILE:HG22	2.20	0.42
7:E:131:ILE:HD12	7:E:148:VAL:HG11	2.02	0.42
7:E:155:ASP:OD1	7:E:155:ASP:C	2.57	0.42
8:G:132:PHE:HB2	8:G:145:HIS:CE1	2.55	0.42
13:L:76:ALA:HB2	13:L:107:ALA:O	2.20	0.42
14:M:38:LYS:NZ	14:M:46:ARG:CD	2.82	0.42
15:N:89:ASP:HA	16:O:47:PHE:HE1	1.71	0.42
15:N:105:ALA:O	15:N:108:ALA:N	2.53	0.42
18:Q:39:LYS:HE2	18:Q:43:GLN:NE2	2.35	0.42
20:S:19:ILE:HD11	20:S:36:ARG:HG3	2.01	0.42
21:T:37:LEU:HD22	21:T:67:VAL:HG21	2.02	0.42
24:W:17:VAL:HG13	24:W:18:LYS:N	2.35	0.42
1:X:38:G:HO2'	1:X:39:C:P	2.42	0.42
1:X:54:G:O2'	1:X:55:A:H5'	2.20	0.42
1:X:74:G:N3	1:X:74:G:H2'	2.33	0.42
1:X:165:G:H2'	1:X:166:G:H5'	2.01	0.42
1:X:820:U:C2	1:X:821:A:C8	3.08	0.42
1:X:1306:U:C2'	1:X:1307:U:O5'	2.67	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1429:A:H2'	1:X:1429:A:N3	2.34	0.42
1:X:1430:G:H2'	1:X:1431:U:C6	2.55	0.42
1:X:1577:G:O2'	1:X:1578:U:H5'	2.19	0.42
1:X:1791:C:N4	1:X:1809:G:H22	2.17	0.42
1:X:2048:C:H1'	1:X:2428:U:H3	1.84	0.42
1:X:2247:A:H5'	1:X:2247:A:H8	1.84	0.42
1:X:2306:A:C3'	1:X:2307:A:C8	3.03	0.42
1:X:2313:G:H3'	1:X:2314:A:H5'	2.02	0.42
1:X:2600:A:C2'	1:X:2601:C:H5'	2.50	0.42
1:X:2605:C:H2'	1:X:2606:G:O4'	2.20	0.42
1:X:2670:C:H4'	1:X:2846:G:O2'	2.20	0.42
1:X:2796:A:O2'	1:X:2797:G:H5'	2.19	0.42
2:Y:62:C:H2'	2:Y:63:A:C8	2.50	0.42
2:Y:77:G:H4'	20:S:31:SER:HB3	2.02	0.42
5:C:30:VAL:CG1	5:C:177:VAL:HG21	2.35	0.42
7:E:97:LYS:CB	7:E:104:GLU:HB3	2.46	0.42
8:G:132:PHE:CZ	8:G:145:HIS:CB	2.89	0.42
9:H:70:VAL:CG2	9:H:71:LYS:N	2.83	0.42
19:R:24:VAL:HB	19:R:29:HIS:O	2.19	0.42
21:T:71:ASN:HA	21:T:77:ARG:HB3	2.02	0.42
22:U:54:ASN:HB3	22:U:77:GLY:HA2	2.02	0.42
1:X:21:A:C2'	1:X:22:C:H5'	2.50	0.42
1:X:63:A:H2'	1:X:63:A:N3	2.35	0.42
1:X:89:A:H4'	1:X:90:G:C4'	2.47	0.42
1:X:418:C:OP2	1:X:418:C:O4'	2.38	0.42
1:X:553:C:C5'	1:X:553:C:H6	2.33	0.42
1:X:704:G:H2'	1:X:705:C:C6	2.55	0.42
1:X:992:A:N1	1:X:2010:G:O2'	2.42	0.42
1:X:1058:G:OP2	1:X:1058:G:C8	2.73	0.42
1:X:1335:A:N1	1:X:1346:C:O2'	2.45	0.42
1:X:1540:C:H3'	1:X:1540:C:C6	2.55	0.42
1:X:1635:G:O2'	27:2:1:MET:HB2	2.20	0.42
1:X:1778:U:C2	1:X:1779:C:C5	3.08	0.42
1:X:2782:G:C2'	1:X:2783:U:O5'	2.67	0.42
1:X:2821:G:H2'	1:X:2822:U:O4'	2.20	0.42
1:X:2836:U:C2'	1:X:2837:G:H5'	2.50	0.42
3:A:17:THR:HG23	3:A:205:VAL:HG22	2.02	0.42
3:A:88:ARG:HE	3:A:88:ARG:HB2	1.27	0.42
6:D:12:VAL:HG12	6:D:16:LEU:HG	2.01	0.42
6:D:167:ARG:HG3	6:D:177:PHE:CE2	2.55	0.42
7:E:154:PRO:HG3	7:E:162:VAL:O	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:43:ILE:HG21	11:J:69:ILE:HD11	2.01	0.42
12:K:25:ALA:CB	12:K:48:VAL:HG23	2.48	0.42
13:L:38:ILE:O	13:L:38:ILE:CG1	2.68	0.42
17:P:13:GLN:HA	17:P:16:GLN:NE2	2.34	0.42
17:P:39:ARG:HG2	17:P:97:VAL:HB	2.02	0.42
18:Q:17:TYR:HD1	18:Q:20:MET:HE1	1.84	0.42
21:T:33:ALA:HB2	21:T:63:SER:HA	2.02	0.42
21:T:36:ILE:CG2	21:T:58:THR:CG2	2.98	0.42
28:3:3:LYS:O	28:3:3:LYS:CG	2.61	0.42
1:X:338:G:C5'	19:R:9:HIS:CE1	2.99	0.41
1:X:467:U:O2	1:X:467:U:C2'	2.68	0.41
1:X:480:G:C6	27:2:39:ARG:NH2	2.88	0.41
1:X:589:C:H2'	1:X:590:C:C6	2.55	0.41
1:X:664:C:H5'	1:X:666:U:C5'	2.40	0.41
1:X:761:G:C8	1:X:763:A:C8	3.08	0.41
1:X:834:A:H5'	1:X:835:U:C6	2.55	0.41
1:X:1051:U:C2	1:X:1052:C:C6	3.08	0.41
1:X:1202:U:H4'	16:O:78:VAL:CG2	2.50	0.41
1:X:2206:C:C2'	1:X:2207:G:C5'	2.98	0.41
1:X:2769:C:H2'	1:X:2770:A:N7	2.35	0.41
2:Y:63:A:C4	2:Y:64:C:C5	3.07	0.41
6:D:40:LEU:HD22	6:D:53:ALA:HB3	2.01	0.41
7:E:7:GLN:O	7:E:51:LEU:HD13	2.19	0.41
7:E:41:LEU:HD21	7:E:55:PRO:CD	2.47	0.41
7:E:90:ARG:NH2	7:E:163:ARG:CG	2.82	0.41
8:G:151:TYR:OH	8:G:158:HIS:NE2	2.50	0.41
10:I:70:THR:HA	10:I:73:GLU:CB	2.48	0.41
13:L:68:ALA:HA	13:L:71:VAL:CG2	2.50	0.41
16:O:91:THR:O	16:O:91:THR:HG22	2.19	0.41
19:R:25:LEU:HD12	19:R:81:VAL:CB	2.50	0.41
19:R:38:LEU:HB3	19:R:47:VAL:HG23	2.02	0.41
19:R:59:LYS:HB3	19:R:67:GLY:CA	2.49	0.41
19:R:75:ALA:O	19:R:76:LEU:HD23	2.20	0.41
23:V:26:MET:HB2	23:V:29:ARG:NH2	2.35	0.41
1:X:93:A:H2'	1:X:94:C:O5'	2.21	0.41
1:X:150:A:H2'	1:X:151:G:O4'	2.20	0.41
1:X:453:U:O2	5:C:40:ARG:NH1	2.53	0.41
1:X:467:U:O2	1:X:467:U:H3'	2.20	0.41
1:X:852:U:O2'	1:X:1205:G:N3	2.51	0.41
1:X:1188:A:H8	1:X:1188:A:O5'	2.03	0.41
1:X:1203:A:O2'	10:I:33:GLY:HA2	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1284:G:C2	1:X:1633:C:H4'	2.55	0.41
1:X:1686:A:H5"	1:X:2529:G:OP1	2.19	0.41
1:X:1732:U:O2	1:X:1732:U:H2'	2.20	0.41
1:X:2482:A:H4'	1:X:2483:U:OP1	2.19	0.41
1:X:2500:C:O2'	1:X:2543:A:H1'	2.20	0.41
1:X:2578:G:N3	1:X:2579:A:C8	2.88	0.41
1:X:2658:A:H2'	1:X:2659:C:O5'	2.20	0.41
2:Y:51:G:OP2	13:L:99:ARG:CZ	2.66	0.41
5:C:25:GLY:O	5:C:29:GLU:CG	2.68	0.41
5:C:53:LYS:O	5:C:54:THR:CG2	2.66	0.41
5:C:142:LEU:O	5:C:143:ASP:O	2.37	0.41
7:E:169:ILE:HD13	7:E:169:ILE:HA	1.81	0.41
9:H:9:ASP:O	9:H:96:ALA:N	2.43	0.41
9:H:64:VAL:C	9:H:65:LYS:HD2	2.40	0.41
12:K:98:LEU:O	12:K:111:ALA:HB1	2.19	0.41
13:L:64:LYS:H	13:L:64:LYS:CD	2.34	0.41
14:M:7:ILE:HA	14:M:7:ILE:HD12	1.65	0.41
19:R:14:LEU:HG	19:R:41:PRO:HA	2.01	0.41
19:R:82:ALA:CB	19:R:83:LEU:HD12	2.45	0.41
20:S:152:ILE:H	20:S:152:ILE:HG13	1.51	0.41
1:X:89:A:H4'	1:X:90:G:O4'	2.21	0.41
1:X:171:G:C2'	1:X:172:A:C5'	2.98	0.41
1:X:425:A:N7	1:X:2391:A:H1'	2.35	0.41
1:X:946:U:C2	1:X:947:C:C5	3.08	0.41
1:X:1225:G:O6	17:P:12:LYS:HB3	2.21	0.41
1:X:1334:A:H2'	1:X:1335:A:O4'	2.19	0.41
1:X:1369:G:C2'	1:X:1370:U:H5'	2.50	0.41
1:X:1411:C:H2'	1:X:1412:C:C6	2.55	0.41
1:X:2051:U:O2	1:X:2051:U:H2'	2.21	0.41
1:X:2057:U:H2'	1:X:2058:U:C6	2.55	0.41
1:X:2243:C:H2'	1:X:2244:C:O4'	2.20	0.41
1:X:2391:A:H3'	1:X:2392:G:H8	1.84	0.41
1:X:2628:C:C2	1:X:2629:U:C5	3.09	0.41
1:X:2659:C:H5'	4:B:189:PRO:HA	2.01	0.41
1:X:2713:A:C2'	1:X:2714:A:O5'	2.68	0.41
1:X:2795:A:O2'	1:X:2796:A:P	2.78	0.41
1:X:2813:G:H2'	1:X:2814:G:O4'	2.20	0.41
2:Y:94:G:H5"	20:S:74:ARG:HH22	1.85	0.41
3:A:182:LEU:HD23	3:A:182:LEU:HA	1.78	0.41
6:D:60:ILE:HG22	6:D:140:GLU:HB3	2.02	0.41
10:I:29:THR:H	10:I:29:THR:HG22	1.60	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:K:103:ARG:NH2	12:K:106:ASP:OD2	2.54	0.41
14:M:104:LEU:CD2	14:M:104:LEU:O	2.61	0.41
15:N:56:ASP:OD1	15:N:56:ASP:N	2.51	0.41
18:Q:91:LEU:HD13	18:Q:91:LEU:HA	1.79	0.41
20:S:22:VAL:HA	20:S:31:SER:HA	2.02	0.41
25:Z:16:ARG:HD2	25:Z:17:ASP:OD1	2.20	0.41
28:3:16:ILE:CG1	28:3:63:PRO:HB3	2.49	0.41
1:X:31:C:C4	1:X:32:C:C5	3.09	0.41
1:X:205:A:C8	1:X:205:A:H3'	2.55	0.41
1:X:557:U:C4'	1:X:558:G:OP1	2.64	0.41
1:X:613:A:N6	1:X:668:A:H1'	2.35	0.41
1:X:643:A:N3	1:X:2382:C:O2'	2.44	0.41
1:X:662:G:H8	1:X:662:G:O5'	2.03	0.41
1:X:677:G:C2	1:X:678:G:C8	3.08	0.41
1:X:872:G:O2'	1:X:873:U:OP2	2.39	0.41
1:X:1052:C:O2	1:X:1052:C:H2'	2.20	0.41
1:X:1067:G:H4'	1:X:1097:A:H8	1.85	0.41
1:X:1182:U:H3'	1:X:1182:U:C6	2.54	0.41
1:X:1182:U:C2'	1:X:1183:C:O5'	2.68	0.41
1:X:1217:U:H2'	1:X:1218:C:C6	2.54	0.41
1:X:1391:A:O2'	1:X:1392:U:O5'	2.38	0.41
1:X:1543:G:N1	1:X:1560:A:OP2	2.44	0.41
1:X:1574:A:O2'	1:X:1575:C:C5'	2.69	0.41
1:X:1685:A:O2'	1:X:1691:G:N7	2.40	0.41
1:X:1744:G:OP1	14:M:100:ARG:CD	2.68	0.41
1:X:1851:A:C2	1:X:1867:A:H1'	2.55	0.41
1:X:2039:G:N2	25:Z:4:HIS:O	2.53	0.41
1:X:2452:U:OP1	1:X:2454:C:N4	2.53	0.41
1:X:2681:A:H2'	1:X:2682:C:H5'	2.01	0.41
4:B:51:TYR:CE2	14:M:3:THR:HG21	2.55	0.41
8:G:82:VAL:HB	8:G:150:VAL:HG13	2.02	0.41
11:J:54:VAL:HG21	11:J:125:LYS:HD3	2.02	0.41
12:K:52:ILE:HD11	12:K:94:TYR:CD1	2.56	0.41
13:L:36:LYS:HE3	13:L:36:LYS:N	2.36	0.41
15:N:74:MET:HE3	15:N:114:ARG:N	2.35	0.41
17:P:13:GLN:NE2	17:P:16:GLN:HE22	2.18	0.41
19:R:42:ARG:H	19:R:42:ARG:HG3	1.63	0.41
20:S:1:MET:HG2	20:S:2:GLU:H	1.85	0.41
20:S:55:THR:O	20:S:55:THR:HG22	2.19	0.41
21:T:50:GLY:O	21:T:62:LEU:HB2	2.21	0.41
25:Z:52:TYR:HD1	25:Z:52:TYR:HA	1.75	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:3:26:LYS:HD2	28:3:26:LYS:HA	1.90	0.41
1:X:456:C:OP2	15:N:2:PRO:HD3	2.20	0.41
1:X:818:G:OP2	10:I:38:LYS:CD	2.68	0.41
1:X:818:G:H22	1:X:841:G:H5"	1.86	0.41
1:X:940:G:O5'	24:W:37:THR:HG21	2.20	0.41
1:X:1009:C:C2'	1:X:1010:U:O5'	2.68	0.41
1:X:1061:A:C6	1:X:1062:G:N7	2.89	0.41
1:X:1185:C:C2'	1:X:1186:G:H2'	2.50	0.41
1:X:1339:U:OP2	1:X:1339:U:C6	2.73	0.41
1:X:1567:A:H2'	1:X:1568:A:C8	2.54	0.41
1:X:1714:A:O2'	1:X:1961:A:OP1	2.27	0.41
1:X:1796:A:N3	3:A:50:THR:HG23	2.35	0.41
1:X:1890:G:H2'	1:X:1891:C:OP1	2.20	0.41
1:X:2323:U:O2'	1:X:2324:G:H3'	2.20	0.41
1:X:2397:A:H5"	1:X:2398:U:OP2	2.20	0.41
1:X:2479:U:H2'	1:X:2483:U:H5	1.85	0.41
1:X:2583:U:C2'	1:X:2584:U:H5'	2.50	0.41
2:Y:83:C:C2'	2:Y:84:G:O5'	2.69	0.41
3:A:94:LEU:HD12	3:A:95:LEU:H	1.84	0.41
3:A:206:LEU:N	3:A:206:LEU:CD2	2.79	0.41
4:B:81:PHE:CZ	4:B:197:VAL:CG1	3.03	0.41
5:C:170:LEU:HD23	5:C:174:GLY:C	2.41	0.41
11:J:22:ALA:CB	11:J:99:LYS:HB2	2.43	0.41
11:J:48:ILE:O	11:J:51:CYS:N	2.54	0.41
11:J:131:LYS:HB3	11:J:131:LYS:HE2	1.88	0.41
17:P:71:VAL:HG12	17:P:126:ILE:CG2	2.44	0.41
18:Q:39:LYS:HG3	18:Q:50:VAL:HG11	2.02	0.41
19:R:83:LEU:CD1	19:R:83:LEU:N	2.78	0.41
20:S:6:LYS:CB	20:S:31:SER:O	2.68	0.41
20:S:149:ALA:O	20:S:160:LEU:HD11	2.19	0.41
22:U:50:ALA:HB3	22:U:62:LEU:HD23	2.02	0.41
24:W:1:MET:HB3	24:W:34:VAL:O	2.21	0.41
25:Z:51:TYR:CE1	25:Z:55:ARG:CD	3.04	0.41
1:X:30:G:O2'	1:X:31:C:H5'	2.21	0.41
1:X:208:C:H2'	1:X:209:G:O4'	2.21	0.41
1:X:552:C:H6	1:X:552:C:O5'	2.04	0.41
1:X:568:G:H2'	1:X:569:C:O4'	2.20	0.41
1:X:657:A:C2	1:X:658:G:C4	3.09	0.41
1:X:699:G:H21	27:2:7:PRO:HA	1.86	0.41
1:X:718:A:H2'	1:X:719:A:H8	1.85	0.41
1:X:833:A:N3	1:X:954:U:O2'	2.43	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1264:C:OP1	15:N:10:ARG:HG3	2.20	0.41
1:X:1542:G:H22	1:X:1562:G:N2	2.18	0.41
1:X:1791:C:OP2	3:A:183:ARG:NH2	2.51	0.41
1:X:2083:G:C2'	1:X:2084:G:O4'	2.67	0.41
1:X:2701:A:H1'	1:X:2848:A:O2'	2.20	0.41
2:Y:93:G:H5'	11:J:19:THR:HG21	2.02	0.41
3:A:246:PRO:HD2	3:A:250:TRP:CA	2.50	0.41
7:E:41:LEU:HD13	7:E:41:LEU:HA	1.78	0.41
9:H:27:SER:CB	9:H:50:ILE:CD1	2.91	0.41
9:H:53:ALA:O	9:H:70:VAL:HG12	2.20	0.41
10:I:90:ARG:CB	10:I:94:GLU:HA	2.40	0.41
11:J:70:PHE:HA	11:J:71:PRO:HD2	1.91	0.41
11:J:71:PRO:HA	11:J:95:VAL:O	2.20	0.41
11:J:128:ILE:HG13	11:J:130:THR:CG2	2.50	0.41
12:K:73:LYS:HA	12:K:76:VAL:HG12	2.02	0.41
12:K:106:ASP:CG	12:K:108:VAL:HB	2.40	0.41
19:R:15:HIS:CD2	19:R:80:LYS:HZ1	2.39	0.41
21:T:63:SER:O	21:T:81:ILE:HG21	2.20	0.41
23:V:32:ALA:CA	23:V:37:LEU:HB2	2.49	0.41
1:X:1017:C:C2'	1:X:1018:C:O5'	2.68	0.41
1:X:1065:A:H2'	1:X:1066:G:H5'	2.03	0.41
1:X:1098:G:O6	1:X:1100:G:N2	2.53	0.41
1:X:1323:G:H2'	1:X:1324:G:H5'	2.03	0.41
1:X:1430:G:H2'	1:X:1431:U:H6	1.86	0.41
1:X:1630:A:O5'	1:X:1630:A:H8	2.03	0.41
1:X:1960:A:O2'	1:X:1961:A:H5'	2.21	0.41
1:X:2190:A:O2'	1:X:2191:A:P	2.79	0.41
1:X:2197:U:C2'	1:X:2198:U:C5	3.02	0.41
1:X:2510:A:C5'	7:E:157:TYR:CE1	3.04	0.41
2:Y:3:A:H2'	2:Y:4:C:C6	2.56	0.41
2:Y:71:G:C5	2:Y:72:C:C5	3.09	0.41
4:B:174:GLU:O	4:B:182:ILE:HD12	2.20	0.41
5:C:3:GLN:HB2	5:C:112:GLN:CD	2.41	0.41
5:C:6:VAL:CG1	5:C:7:ILE:H	2.19	0.41
5:C:47:THR:HA	5:C:82:VAL:H	1.86	0.41
6:D:74:ILE:CD1	6:D:80:ARG:HA	2.49	0.41
7:E:6:LYS:HB2	7:E:65:HIS:HE1	1.86	0.41
9:H:119:ARG:NH2	14:M:41:GLU:CA	2.84	0.41
14:M:66:PHE:HD1	14:M:83:PHE:HE1	1.66	0.41
20:S:45:GLN:OE1	20:S:45:GLN:HA	2.21	0.41
20:S:54:ILE:HD12	20:S:62:PHE:HB2	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Z:10:LYS:HG2	25:Z:11:THR:N	2.35	0.41
26:1:8:ILE:H	26:1:8:ILE:HG13	1.70	0.41
28:3:31:HIS:C	28:3:32:GLN:HG2	2.39	0.41
1:X:34:U:H6	19:R:4:PRO:HA	1.75	0.41
1:X:38:G:C4'	5:C:44:SER:OG	2.69	0.41
1:X:102:C:H2'	1:X:103:U:C6	2.56	0.41
1:X:203:G:H5'	1:X:234:C:H4'	2.03	0.41
1:X:542:A:P	1:X:570:G:H21	2.44	0.41
1:X:572:G:N3	15:N:37:GLN:NE2	2.69	0.41
1:X:595:A:H5'	5:C:83:ALA:CB	2.49	0.41
1:X:648:A:C6	1:X:662:G:O4'	2.73	0.41
1:X:797:A:N6	1:X:2055:G:O2'	2.53	0.41
1:X:861:G:C6	1:X:943:U:C2	3.09	0.41
1:X:1631:C:C5	1:X:1633:C:N3	2.89	0.41
1:X:1722:G:O2'	1:X:1723:U:H5'	2.20	0.41
1:X:1742:G:C6	1:X:1743:C:N4	2.89	0.41
1:X:1777:A:C4	1:X:1921:A:C6	3.09	0.41
1:X:1885:C:N3	1:X:1886:G:H1'	2.36	0.41
1:X:2078:G:H2'	1:X:2079:A:H8	1.86	0.41
1:X:2273:C:H5"	13:L:11:LEU:CD1	2.51	0.41
1:X:2310:G:HO2'	1:X:2315:A:H61	1.69	0.41
1:X:2423:G:C2'	1:X:2424:G:O5'	2.69	0.41
1:X:2425:G:C2'	1:X:2426:G:O5'	2.68	0.41
1:X:2441:U:H2'	1:X:2442:C:O4'	2.20	0.41
1:X:2489:C:C4	1:X:2490:U:C4	3.08	0.41
1:X:2594:U:H2'	1:X:2595:C:H6	1.85	0.41
1:X:2840:U:OP2	1:X:2841:U:O2'	2.34	0.41
2:Y:64:C:C2	2:Y:65:A:C8	3.09	0.41
2:Y:77:G:O2'	2:Y:78:A:H5'	2.21	0.41
3:A:155:LEU:N	3:A:155:LEU:HD13	2.36	0.41
5:C:13:ARG:NE	5:C:194:GLU:HB3	2.35	0.41
6:D:10:ASP:HA	6:D:14:PRO:HD2	2.01	0.41
7:E:45:GLN:H	7:E:45:GLN:CD	2.22	0.41
9:H:50:ILE:HG22	9:H:51:ILE:N	2.35	0.41
10:I:101:ARG:CA	10:I:118:VAL:HG22	2.50	0.41
11:J:48:ILE:HD11	11:J:69:ILE:CD1	2.49	0.41
11:J:136:GLU:CG	11:J:137:VAL:O	2.59	0.41
13:L:35:SER:OG	13:L:36:LYS:N	2.54	0.41
14:M:103:LYS:O	14:M:104:LEU:HD22	2.21	0.41
19:R:22:VAL:CG1	19:R:23:ILE:N	2.83	0.41
19:R:64:ASN:O	19:R:64:ASN:CG	2.59	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:3:57:ARG:HH21	28:3:57:ARG:CG	2.30	0.41
1:X:173:A:N3	1:X:173:A:H2'	2.36	0.41
1:X:387:A:H2'	1:X:388:G:O5'	2.20	0.41
1:X:402:A:C2	1:X:2391:A:H2	2.39	0.41
1:X:459:A:N1	1:X:466:A:O2'	2.46	0.41
1:X:490:A:C2	1:X:491:A:C5	3.09	0.41
1:X:566:U:H6	1:X:566:U:H3'	1.85	0.41
1:X:637:G:C6	10:I:92:THR:HB	2.56	0.41
1:X:675:C:H5'	10:I:14:LYS:O	2.21	0.41
1:X:799:C:O2'	1:X:800:U:H5'	2.21	0.41
1:X:870:C:H2'	1:X:871:U:H5'	2.01	0.41
1:X:971:A:O3'	1:X:972:C:H3'	2.21	0.41
1:X:1079:G:H21	1:X:1106:A:C2'	2.34	0.41
1:X:1174:G:C2	1:X:1175:A:C5	3.09	0.41
1:X:1231:A:H2'	1:X:1232:U:H6	1.85	0.41
1:X:1261:G:O2'	1:X:1262:U:H5"	2.21	0.41
1:X:1270:C:C5'	5:C:69:HIS:CE1	3.02	0.41
1:X:1291:G:H4'	12:K:34:ILE:CD1	2.51	0.41
1:X:1445:A:H2'	1:X:1446:U:O4'	2.21	0.41
1:X:1498:G:O2'	1:X:1499:A:H5'	2.20	0.41
1:X:1538:A:H2'	1:X:1539:U:O4'	2.21	0.41
1:X:1567:A:O2'	1:X:1568:A:H5'	2.21	0.41
1:X:1574:A:O2'	1:X:1575:C:C3'	2.69	0.41
1:X:1602:G:H5'	1:X:1603:A:OP2	2.21	0.41
1:X:1648:C:O2	1:X:1648:C:H2'	2.20	0.41
1:X:1656:U:H4'	1:X:2678:C:H4'	2.02	0.41
1:X:1681:A:O2'	1:X:1682:A:H5'	2.21	0.41
1:X:1770:U:C2	1:X:1774:A:N7	2.88	0.41
1:X:1799:A:H3'	1:X:1800:A:C8	2.55	0.41
1:X:2082:C:C2'	1:X:2083:G:H5'	2.49	0.41
1:X:2084:G:N3	1:X:2085:G:C8	2.88	0.41
1:X:2186:G:H2'	1:X:2187:A:H8	1.86	0.41
1:X:2223:U:O2'	1:X:2224:U:H5'	2.21	0.41
1:X:2293:G:C5'	6:D:35:VAL:HG11	2.49	0.41
1:X:2310:G:H2'	1:X:2311:U:O4'	2.21	0.41
1:X:2452:U:OP1	1:X:2453:C:H5	2.04	0.41
1:X:2542:U:OP1	9:H:37:GLY:CA	2.69	0.41
1:X:2559:U:C5	1:X:2560:G:C6	3.09	0.41
1:X:2785:A:H2'	1:X:2786:G:C5'	2.47	0.41
1:X:2818:G:H2'	1:X:2819:G:H5'	2.03	0.41
1:X:2856:U:H2'	1:X:2857:C:C6	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:95:LEU:O	3:A:102:LYS:HA	2.20	0.41
3:A:146:GLU:HB3	3:A:148:VAL:O	2.21	0.41
4:B:60:ASN:OD1	4:B:62:PRO:HD2	2.20	0.41
5:C:4:ILE:HD13	5:C:4:ILE:N	2.23	0.41
5:C:30:VAL:HG21	5:C:103:GLY:HA3	2.02	0.41
6:D:10:ASP:O	6:D:14:PRO:HD2	2.21	0.41
6:D:78:LYS:HD2	6:D:78:LYS:O	2.21	0.41
7:E:37:TYR:CE2	7:E:43:VAL:HG13	2.55	0.41
8:G:90:LEU:HD13	8:G:90:LEU:HA	1.67	0.41
9:H:65:LYS:N	9:H:65:LYS:CD	2.80	0.41
9:H:127:VAL:CG1	9:H:128:SER:N	2.84	0.41
10:I:25:GLY:C	10:I:26:THR:HG22	2.41	0.41
10:I:51:GLY:HA2	10:I:53:ARG:CD	2.44	0.41
10:I:57:ILE:N	10:I:57:ILE:CD1	2.78	0.41
10:I:80:LEU:O	10:I:80:LEU:HG	2.20	0.41
12:K:101:GLY:H	25:Z:44:HIS:HD2	1.68	0.41
12:K:102:THR:HA	12:K:109:THR:HA	2.03	0.41
13:L:92:GLY:HA3	13:L:94:TYR:HE1	1.86	0.41
14:M:17:GLU:HG3	14:M:62:SER:CB	2.48	0.41
16:O:74:TYR:C	16:O:75:LYS:HG2	2.41	0.41
16:O:81:ARG:HD2	16:O:81:ARG:N	2.36	0.41
19:R:25:LEU:HD12	19:R:81:VAL:N	2.35	0.41
20:S:3:LEU:CD1	20:S:33:ALA:H	2.21	0.41
20:S:43:PHE:O	20:S:43:PHE:CD1	2.71	0.41
26:1:21:TYR:C	26:1:21:TYR:HD1	2.23	0.41
26:1:36:GLU:CB	26:1:52:GLU:CG	2.99	0.41
28:3:14:ILE:N	28:3:14:ILE:CD1	2.79	0.41
1:X:494:A:H2'	1:X:495:C:O5'	2.21	0.41
1:X:784:U:H2'	1:X:785:U:C6	2.56	0.41
1:X:866:U:H6	1:X:866:U:O5'	2.04	0.41
1:X:1053:G:O6	1:X:1125:G:C6	2.74	0.41
1:X:1215:A:H2'	1:X:1216:G:C8	2.56	0.41
1:X:1514:C:O4'	1:X:1593:C:C4'	2.69	0.41
1:X:1646:G:C2'	1:X:1647:U:H5'	2.50	0.41
1:X:1737:G:H2'	1:X:1738:U:O4'	2.21	0.41
1:X:1742:G:C2'	1:X:1743:C:O5'	2.68	0.41
1:X:1817:U:H2'	1:X:1818:G:C8	2.56	0.41
1:X:2030:U:C2'	1:X:2031:A:H5'	2.48	0.41
1:X:2299:A:N3	1:X:2299:A:C2'	2.83	0.41
1:X:2491:C:H4'	4:B:122:PHE:CE2	2.56	0.41
1:X:2528:G:C2	1:X:2529:G:C8	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2690:A:OP1	1:X:2692:A:P	2.79	0.41
2:Y:120:G:C2'	2:Y:121:G:H5"	2.44	0.41
3:A:91:ARG:O	3:A:107:ALA:HB3	2.21	0.41
4:B:61:LYS:N	4:B:62:PRO:CD	2.83	0.41
9:H:34:LEU:HD23	9:H:34:LEU:HA	1.88	0.41
10:I:89:ASP:C	10:I:90:ARG:CG	2.89	0.41
12:K:92:GLY:HA2	12:K:94:TYR:CE2	2.54	0.41
14:M:55:ILE:O	14:M:56:ALA:CB	2.68	0.41
20:S:120:LEU:HD23	20:S:120:LEU:HA	1.81	0.41
21:T:31:VAL:HG11	21:T:67:VAL:HG23	2.03	0.41
23:V:26:MET:O	23:V:26:MET:HG2	2.20	0.41
25:Z:51:TYR:CD2	25:Z:54:GLY:O	2.74	0.41
28:3:17:THR:C	28:3:18:GLY:O	2.57	0.41
1:X:210:A:H61	1:X:442:A:N6	2.18	0.40
1:X:469:G:O3'	27:2:39:ARG:HA	2.21	0.40
1:X:482:A:HO2'	1:X:483:A:H5'	1.86	0.40
1:X:616:U:O2'	1:X:671:A:H4'	2.21	0.40
1:X:618:A:OP1	5:C:94:THR:OG1	2.24	0.40
1:X:683:A:OP1	10:I:40:ARG:NE	2.49	0.40
1:X:883:A:C2	1:X:920:G:C5	3.09	0.40
1:X:1009:C:H2'	1:X:1010:U:O5'	2.21	0.40
1:X:1182:U:C6	1:X:1182:U:C3'	3.04	0.40
1:X:1309:G:H2'	1:X:1310:C:O5'	2.21	0.40
1:X:1550:C:H2'	1:X:1553:G:N2	2.36	0.40
1:X:1839:A:O2'	1:X:1840:A:N7	2.53	0.40
1:X:2060:A:C2'	1:X:2061:C:H5'	2.50	0.40
1:X:2301:A:H2'	1:X:2302:G:H5'	2.03	0.40
1:X:2494:C:C2	1:X:2549:G:C2	3.09	0.40
1:X:2515:G:C6	1:X:2516:U:C4	3.09	0.40
1:X:2558:C:H6	1:X:2558:C:O5'	2.04	0.40
1:X:2790:C:H2'	1:X:2791:C:H6	1.86	0.40
2:Y:76:U:O2	2:Y:76:U:H2'	2.21	0.40
2:Y:120:G:C6	2:Y:121:G:N7	2.89	0.40
3:A:85:ASP:OD1	3:A:87:ASN:OD1	2.39	0.40
4:B:33:ILE:HG23	4:B:49:ILE:CD1	2.50	0.40
5:C:21:GLU:CB	5:C:24:SER:CB	2.90	0.40
6:D:60:ILE:O	6:D:99:PHE:HE1	2.03	0.40
10:I:101:ARG:CB	10:I:118:VAL:CG2	2.98	0.40
11:J:37:ALA:O	11:J:38:MET:HE3	2.22	0.40
11:J:102:ARG:HG3	11:J:102:ARG:NH1	2.36	0.40
16:O:48:GLY:C	16:O:50:ASP:N	2.74	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:S:3:LEU:HD13	20:S:33:ALA:N	2.19	0.40
21:T:46:LYS:O	21:T:78:PHE:HA	2.22	0.40
21:T:73:GLY:C	21:T:75:GLY:H	2.24	0.40
22:U:51:ILE:HG12	22:U:60:VAL:N	2.36	0.40
24:W:3:ILE:HD12	24:W:3:ILE:HG23	1.86	0.40
27:2:8:ASN:HB3	27:2:11:LYS:HB3	2.03	0.40
1:X:65:C:H1'	1:X:88:G:N2	2.37	0.40
1:X:70:A:H5'	1:X:71:A:C3'	2.51	0.40
1:X:108:G:H8	1:X:108:G:C5'	2.24	0.40
1:X:334:G:O2'	1:X:335:A:OP2	2.29	0.40
1:X:528:G:C4	1:X:529:U:C5	3.10	0.40
1:X:541:C:N3	1:X:572:G:C8	2.90	0.40
1:X:554:U:OP1	1:X:554:U:H6	2.03	0.40
1:X:852:U:H1'	1:X:1205:G:H1'	2.03	0.40
1:X:1087:C:OP1	1:X:1087:C:O4'	2.38	0.40
1:X:1285:A:OP1	1:X:1664:G:OP1	2.39	0.40
1:X:1447:U:H1'	1:X:1577:G:N2	2.37	0.40
1:X:1468:A:OP2	1:X:1468:A:N7	2.54	0.40
1:X:2027:C:H2'	1:X:2028:C:O5'	2.20	0.40
1:X:2569:A:H2'	1:X:2570:C:H6	1.86	0.40
1:X:2791:C:C2	1:X:2806:G:N2	2.90	0.40
2:Y:3:A:H2'	2:Y:4:C:H6	1.86	0.40
5:C:168:SER:HB2	5:C:183:HIS:NE2	2.36	0.40
6:D:57:LEU:HD13	6:D:89:VAL:CG2	2.52	0.40
7:E:105:MET:N	7:E:113:VAL:O	2.54	0.40
8:G:131:VAL:HG21	8:G:148:LEU:HD21	2.02	0.40
9:H:27:SER:CB	9:H:50:ILE:HG13	2.52	0.40
11:J:16:GLY:O	11:J:17:ARG:HB3	2.20	0.40
14:M:99:VAL:CG2	14:M:100:ARG:N	2.84	0.40
15:N:98:ILE:O	15:N:101:ARG:HG2	2.21	0.40
19:R:80:LYS:HD2	19:R:80:LYS:C	2.41	0.40
20:S:62:PHE:HB3	20:S:85:MET:SD	2.62	0.40
20:S:91:PRO:HD3	20:S:127:PRO:HB3	2.03	0.40
1:X:213:C:H2'	1:X:214:C:C6	2.52	0.40
1:X:661:C:H2'	1:X:662:G:H8	1.86	0.40
1:X:704:G:C4'	3:A:43:ARG:HH11	2.33	0.40
1:X:912:A:H2'	1:X:913:A:O4'	2.21	0.40
1:X:958:G:O2'	1:X:995:A:N1	2.42	0.40
1:X:1049:C:O2	1:X:1129:A:C2	2.74	0.40
1:X:1079:G:H21	1:X:1106:A:H2'	1.86	0.40
1:X:1787:U:O2'	1:X:1788:C:H5'	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1918:G:C5	1:X:1945:C:C5	3.10	0.40
1:X:2054:A:H2'	1:X:2055:G:H8	1.87	0.40
1:X:2410:U:O2	1:X:2412:A:C8	2.74	0.40
1:X:2511:G:N2	1:X:2642:G:O2'	2.54	0.40
1:X:2569:A:H2'	1:X:2570:C:C6	2.56	0.40
1:X:2793:G:C2'	1:X:2794:G:H5'	2.51	0.40
3:A:52:ARG:H	3:A:52:ARG:HG3	1.50	0.40
4:B:63:MET:HE3	4:B:66:HIS:HD2	1.86	0.40
5:C:148:VAL:HG22	5:C:166:TRP:HE3	1.86	0.40
8:G:102:ARG:NH2	8:G:112:THR:OG1	2.54	0.40
9:H:80:ALA:HB1	9:H:88:THR:HG23	2.04	0.40
11:J:48:ILE:HD12	11:J:71:PRO:HD3	2.03	0.40
14:M:78:GLU:CD	14:M:108:ARG:HE	2.24	0.40
15:N:48:ARG:HG2	15:N:48:ARG:HH11	1.86	0.40
16:O:50:ASP:N	16:O:50:ASP:OD1	2.54	0.40
17:P:71:VAL:CG1	17:P:126:ILE:HG23	2.46	0.40
21:T:53:MET:HB2	21:T:59:LEU:CD2	2.52	0.40
1:X:90:G:C5'	1:X:91:A:OP2	2.69	0.40
1:X:121:G:H2'	1:X:122:G:H8	1.86	0.40
1:X:182:G:O2'	1:X:183:U:P	2.79	0.40
1:X:487:G:H4'	1:X:512:A:H61	1.87	0.40
1:X:648:A:H4'	1:X:649:G:C4'	2.51	0.40
1:X:753:U:C2	1:X:754:G:N7	2.90	0.40
1:X:1186:G:C4'	1:X:1187:A:OP1	2.70	0.40
1:X:1352:G:C6	1:X:1353:A:N6	2.89	0.40
1:X:1517:C:C2'	1:X:1518:C:H5'	2.51	0.40
1:X:1583:A:H4'	3:A:58:HIS:CD2	2.56	0.40
1:X:1587:A:H2'	1:X:1588:A:H8	1.86	0.40
1:X:1598:C:O2'	1:X:1599:G:H5'	2.21	0.40
1:X:1698:C:H6	1:X:1698:C:O5'	2.05	0.40
1:X:1796:A:N3	3:A:50:THR:CG2	2.85	0.40
1:X:1882:G:C2'	1:X:1883:A:OP2	2.69	0.40
1:X:2083:G:H2'	1:X:2084:G:C8	2.57	0.40
1:X:2198:U:C2'	1:X:2199:C:O4'	2.69	0.40
1:X:2291:U:H4'	6:D:85:VAL:HG23	2.04	0.40
1:X:2343:C:C2'	1:X:2344:G:C5'	2.98	0.40
1:X:2399:C:P	28:3:34:THR:HG21	2.60	0.40
1:X:2501:U:H5"	1:X:2502:G:OP2	2.21	0.40
1:X:2667:C:N4	1:X:2700:U:OP2	2.50	0.40
1:X:2849:C:C2	1:X:2850:U:C5	3.09	0.40
1:X:2850:U:O2	1:X:2850:U:C2'	2.69	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:60:ARG:NH1	3:A:86:PRO:O	2.53	0.40
3:A:246:PRO:HB2	3:A:247:VAL:H	1.68	0.40
4:B:1:MET:O	4:B:84:PHE:HD1	2.03	0.40
5:C:125:ILE:HD12	5:C:125:ILE:N	2.37	0.40
6:D:106:ILE:O	6:D:110:ARG:CB	2.69	0.40
8:G:46:ALA:HB2	8:G:54:LEU:HD21	2.03	0.40
14:M:16:ILE:HD13	14:M:16:ILE:HA	1.74	0.40
14:M:20:HIS:ND1	14:M:20:HIS:N	2.68	0.40
17:P:25:PHE:HA	17:P:127:ILE:CG1	2.51	0.40
20:S:30:VAL:HB	20:S:32:PHE:CZ	2.57	0.40
20:S:95:SER:HA	20:S:121:GLN:HA	2.03	0.40
22:U:15:VAL:CG1	22:U:45:ASN:O	2.68	0.40
22:U:48:LYS:HG3	22:U:48:LYS:HZ2	1.47	0.40
23:V:32:ALA:HB2	23:V:37:LEU:CG	2.52	0.40
26:1:42:PRO:HB2	26:1:43:VAL:H	1.60	0.40
26:1:48:VAL:HG22	26:1:49:VAL:N	2.33	0.40
28:3:52:LYS:NZ	28:3:56:ALA:CB	2.80	0.40
1:X:636:G:N7	10:I:92:THR:OG1	2.39	0.40
1:X:778:G:H2'	1:X:779:U:H6	1.87	0.40
1:X:1355:A:C2	1:X:1358:C:C5	3.10	0.40
1:X:1524:C:H2'	1:X:1525:A:OP1	2.21	0.40
1:X:1573:G:H5"	1:X:1574:A:C5'	2.51	0.40
1:X:1607:A:O2'	1:X:1608:U:P	2.80	0.40
1:X:1887:G:C3'	1:X:1888:C:H5'	2.51	0.40
1:X:2270:U:C2	1:X:2271:C:C5	3.09	0.40
1:X:2694:G:C8	1:X:2694:G:C3'	3.04	0.40
4:B:26:VAL:HB	4:B:182:ILE:HG23	2.04	0.40
4:B:122:PHE:CE2	4:B:138:PRO:HB3	2.56	0.40
4:B:134:TRP:CD1	4:B:134:TRP:N	2.69	0.40
5:C:15:ILE:HD13	5:C:17:LEU:HD13	2.04	0.40
9:H:1:MET:HE3	9:H:1:MET:HB3	1.95	0.40
9:H:9:ASP:OD2	9:H:93:ARG:NH2	2.43	0.40
13:L:11:LEU:HG	13:L:14:ARG:NH2	2.37	0.40
13:L:15:ARG:HA	13:L:15:ARG:HD3	1.92	0.40
16:O:56:VAL:HA	16:O:97:GLY:HA3	2.04	0.40
18:Q:39:LYS:HG3	18:Q:50:VAL:CG1	2.51	0.40
19:R:10:HIS:O	19:R:12:ASP:N	2.55	0.40
19:R:48:VAL:CG1	19:R:49:GLU:N	2.85	0.40
19:R:61:SER:CA	19:R:65:PRO:HA	2.50	0.40
22:U:18:VAL:O	22:U:18:VAL:CG1	2.68	0.40
27:2:23:LYS:C	27:2:23:LYS:CD	2.89	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:3:22:VAL:CG1	28:3:57:ARG:HD3	2.49	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	A	269/271 (99%)	240 (89%)	21 (8%)	8 (3%)	4 24
4	B	204/206 (99%)	183 (90%)	13 (6%)	8 (4%)	3 18
5	C	195/197 (99%)	157 (80%)	28 (14%)	10 (5%)	2 13
6	D	175/177 (99%)	158 (90%)	12 (7%)	5 (3%)	4 24
7	E	169/171 (99%)	148 (88%)	16 (10%)	5 (3%)	4 24
8	G	141/143 (99%)	120 (85%)	18 (13%)	3 (2%)	7 31
9	H	132/134 (98%)	118 (89%)	11 (8%)	3 (2%)	6 29
10	I	135/137 (98%)	100 (74%)	20 (15%)	15 (11%)	0 2
11	J	134/136 (98%)	110 (82%)	14 (10%)	10 (8%)	1 7
12	K	114/116 (98%)	104 (91%)	8 (7%)	2 (2%)	8 35
13	L	102/104 (98%)	84 (82%)	11 (11%)	7 (7%)	1 8
14	M	111/113 (98%)	95 (86%)	12 (11%)	4 (4%)	3 20
15	N	115/117 (98%)	104 (90%)	7 (6%)	4 (4%)	3 21
16	O	96/98 (98%)	76 (79%)	12 (12%)	8 (8%)	1 5
17	P	126/128 (98%)	109 (86%)	13 (10%)	4 (3%)	4 22
18	Q	91/93 (98%)	79 (87%)	8 (9%)	4 (4%)	2 16
19	R	108/110 (98%)	82 (76%)	18 (17%)	8 (7%)	1 7
20	S	173/175 (99%)	154 (89%)	14 (8%)	5 (3%)	4 24
21	T	72/74 (97%)	66 (92%)	4 (6%)	2 (3%)	5 25

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
22	U	72/74 (97%)	52 (72%)	13 (18%)	7 (10%)	0 3
23	V	59/61 (97%)	57 (97%)	2 (3%)	0	100 100
24	W	53/55 (96%)	50 (94%)	2 (4%)	1 (2%)	8 34
25	Z	56/58 (97%)	48 (86%)	6 (11%)	2 (4%)	3 20
26	1	47/49 (96%)	33 (70%)	10 (21%)	4 (8%)	1 5
27	2	45/47 (96%)	36 (80%)	4 (9%)	5 (11%)	0 2
28	3	61/63 (97%)	49 (80%)	6 (10%)	6 (10%)	0 3
All	All	3055/3107 (98%)	2612 (86%)	303 (10%)	140 (5%)	2 15

All (140) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	A	240	THR
3	A	244	ARG
4	B	94	ASP
4	B	136	ARG
5	C	44	SER
5	C	69	HIS
5	C	143	ASP
5	C	191	ALA
6	D	38	GLU
6	D	78	LYS
7	E	126	PRO
10	I	43	ALA
10	I	80	LEU
10	I	105	PRO
11	J	86	LYS
11	J	92	GLU
11	J	140	GLU
12	K	88	ALA
13	L	38	ILE
13	L	46	SER
13	L	52	ALA
13	L	85	LYS
14	M	29	PRO
14	M	111	ARG
15	N	88	ILE
15	N	116	ALA
16	O	22	VAL
16	O	35	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	O	36	LYS
16	O	38	LEU
17	P	46	ARG
18	Q	59	PRO
18	Q	71	GLN
19	R	78	ALA
19	R	82	ALA
19	R	85	ASP
21	T	18	PRO
22	U	34	THR
22	U	48	LYS
25	Z	4	HIS
26	1	30	ASN
27	2	43	THR
27	2	46	ASP
28	3	3	LYS
28	3	13	ARG
4	B	124	GLY
4	B	144	ARG
5	C	6	VAL
5	C	184	ASP
7	E	47	GLY
7	E	48	ASP
9	H	31	GLY
9	H	64	VAL
10	I	20	GLY
10	I	39	SER
10	I	40	ARG
11	J	17	ARG
11	J	25	GLY
11	J	80	ALA
11	J	136	GLU
12	K	2	ARG
13	L	89	PHE
13	L	93	SER
15	N	117	ARG
16	O	48	GLY
17	P	18	VAL
18	Q	89	GLU
19	R	110	SER
20	S	155	PRO
22	U	51	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	2	41	GLN
28	3	10	ALA
3	A	39	LYS
3	A	247	VAL
3	A	250	TRP
4	B	135	HIS
4	B	147	PRO
6	D	127	ASN
8	G	65	LYS
8	G	110	LEU
10	I	27	ASP
10	I	28	LYS
10	I	34	HIS
10	I	108	LEU
10	I	130	ILE
11	J	44	LYS
11	J	71	PRO
14	M	25	PRO
19	R	65	PRO
20	S	57	GLU
21	T	13	GLY
22	U	15	VAL
22	U	45	ASN
26	1	42	PRO
3	A	30	GLU
5	C	9	GLN
6	D	72	LYS
7	E	57	ASP
9	H	5	GLN
10	I	12	SER
10	I	32	ARG
10	I	44	GLY
10	I	94	GLU
11	J	84	MET
14	M	28	ARG
16	O	6	GLN
16	O	49	GLU
19	R	50	GLY
19	R	60	PRO
20	S	25	ASN
22	U	18	VAL
22	U	27	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	Z	21	SER
26	1	45	LYS
28	3	61	MET
3	A	246	PRO
4	B	137	ARG
5	C	11	GLY
15	N	115	ASN
16	O	4	ILE
17	P	131	LYS
26	1	24	THR
27	2	8	ASN
5	C	4	ILE
5	C	114	GLY
18	Q	61	LYS
20	S	63	PRO
27	2	44	VAL
8	G	162	LYS
3	A	252	LYS
6	D	106	ILE
17	P	47	GLY
19	R	108	VAL
4	B	139	GLY
7	E	118	PRO
20	S	6	LYS
28	3	63	PRO
13	L	87	VAL
24	W	6	VAL
28	3	47	GLY

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	A	191/212 (90%)	146 (76%)	45 (24%)	1 3
4	B	152/155 (98%)	119 (78%)	33 (22%)	1 4
5	C	152/157 (97%)	111 (73%)	41 (27%)	0 1

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
6	D	141/153 (92%)	120 (85%)	21 (15%)	3 13
7	E	132/136 (97%)	110 (83%)	22 (17%)	2 10
8	G	115/119 (97%)	82 (71%)	33 (29%)	0 1
9	H	102/103 (99%)	83 (81%)	19 (19%)	1 7
10	I	90/105 (86%)	63 (70%)	27 (30%)	0 1
11	J	105/110 (96%)	72 (69%)	33 (31%)	0 1
12	K	92/93 (99%)	71 (77%)	21 (23%)	1 3
13	L	73/74 (99%)	53 (73%)	20 (27%)	0 1
14	M	93/98 (95%)	64 (69%)	29 (31%)	0 1
15	N	95/96 (99%)	67 (70%)	28 (30%)	0 1
16	O	70/78 (90%)	49 (70%)	21 (30%)	0 1
17	P	107/109 (98%)	84 (78%)	23 (22%)	1 4
18	Q	72/75 (96%)	55 (76%)	17 (24%)	1 3
19	R	89/91 (98%)	61 (68%)	28 (32%)	0 1
20	S	141/149 (95%)	114 (81%)	27 (19%)	1 6
21	T	52/55 (94%)	38 (73%)	14 (27%)	0 1
22	U	52/59 (88%)	42 (81%)	10 (19%)	1 6
23	V	48/49 (98%)	38 (79%)	10 (21%)	1 4
24	W	48/48 (100%)	30 (62%)	18 (38%)	0 0
25	Z	51/51 (100%)	39 (76%)	12 (24%)	1 3
26	1	21/44 (48%)	9 (43%)	12 (57%)	0 0
27	2	37/40 (92%)	31 (84%)	6 (16%)	2 10
28	3	40/50 (80%)	17 (42%)	23 (58%)	0 0
All	All	2361/2509 (94%)	1768 (75%)	593 (25%)	0 2

All (593) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	A	12	SER
3	A	14	ARG
3	A	17	THR
3	A	18	THR
3	A	24	LEU
3	A	27	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	A	28	ARG
3	A	30	GLU
3	A	63	ARG
3	A	70	ARG
3	A	87	ASN
3	A	88	ARG
3	A	89	SER
3	A	95	LEU
3	A	101	GLU
3	A	111	LEU
3	A	131	LEU
3	A	138	VAL
3	A	145	LEU
3	A	155	LEU
3	A	158	SER
3	A	163	VAL
3	A	164	GLN
3	A	177	LEU
3	A	183	ARG
3	A	196	VAL
3	A	198	ASN
3	A	200	GLU
3	A	202	LYS
3	A	204	ILE
3	A	205	VAL
3	A	206	LEU
3	A	211	ARG
3	A	212	SER
3	A	217	ARG
3	A	218	LYS
3	A	239	ARG
3	A	240	THR
3	A	245	VAL
3	A	248	THR
3	A	252	LYS
3	A	254	THR
3	A	255	LYS
3	A	259	THR
3	A	260	ARG
4	B	5	LEU
4	B	9	ILE
4	B	14	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	B	18	ASP
4	B	25	VAL
4	B	33	ILE
4	B	38	THR
4	B	47	VAL
4	B	54	LYS
4	B	63	MET
4	B	77	ILE
4	B	84	PHE
4	B	87	ASP
4	B	92	ASN
4	B	95	ILE
4	B	116	VAL
4	B	118	LYS
4	B	119	ARG
4	B	128	SER
4	B	131	SER
4	B	134	TRP
4	B	141	ILE
4	B	143	GLN
4	B	145	LYS
4	B	146	THR
4	B	147	PRO
4	B	155	ARG
4	B	162	MET
4	B	164	ARG
4	B	167	VAL
4	B	168	GLN
4	B	198	LEU
4	B	199	ARG
5	C	4	ILE
5	C	9	GLN
5	C	14	THR
5	C	17	LEU
5	C	22	VAL
5	C	23	ASN
5	C	24	SER
5	C	27	LEU
5	C	39	ARG
5	C	44	SER
5	C	48	ARG
5	C	56	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	C	59	TYR
5	C	62	LYS
5	C	69	HIS
5	C	72	ARG
5	C	74	VAL
5	C	77	PHE
5	C	95	LEU
5	C	99	VAL
5	C	102	LEU
5	C	104	LEU
5	C	112	GLN
5	C	118	VAL
5	C	123	PHE
5	C	124	ASP
5	C	127	ASP
5	C	130	THR
5	C	133	PHE
5	C	135	SER
5	C	150	LEU
5	C	163	ASN
5	C	165	SER
5	C	167	VAL
5	C	168	SER
5	C	176	ASN
5	C	180	ILE
5	C	181	LEU
5	C	184	ASP
5	C	188	ILE
5	C	198	GLU
6	D	3	GLN
6	D	8	TYR
6	D	34	ILE
6	D	40	LEU
6	D	42	SER
6	D	51	ASP
6	D	62	LEU
6	D	73	SER
6	D	78	LYS
6	D	99	PHE
6	D	108	LEU
6	D	111	ILE
6	D	128	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	D	132	ILE
6	D	137	ILE
6	D	150	ARG
6	D	158	THR
6	D	163	ASP
6	D	164	GLU
6	D	171	GLN
6	D	177	PHE
7	E	6	LYS
7	E	39	THR
7	E	40	GLU
7	E	43	VAL
7	E	49	GLN
7	E	50	LEU
7	E	53	GLU
7	E	54	ARG
7	E	69	ARG
7	E	83	TYR
7	E	90	ARG
7	E	106	ASN
7	E	116	GLU
7	E	129	THR
7	E	138	LYS
7	E	140	LEU
7	E	153	LYS
7	E	155	ASP
7	E	158	HIS
7	E	163	ARG
7	E	171	LEU
7	E	175	LYS
8	G	41	TRP
8	G	53	ARG
8	G	56	THR
8	G	57	LEU
8	G	60	SER
8	G	61	ARG
8	G	62	ILE
8	G	63	ARG
8	G	66	HIS
8	G	67	ARG
8	G	69	ASP
8	G	71	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	G	80	VAL
8	G	90	LEU
8	G	93	LYS
8	G	96	ASP
8	G	97	ASP
8	G	98	LYS
8	G	99	VAL
8	G	102	ARG
8	G	114	THR
8	G	119	LEU
8	G	122	HIS
8	G	125	ARG
8	G	126	VAL
8	G	131	VAL
8	G	132	PHE
8	G	147	ARG
8	G	154	GLU
8	G	155	THR
8	G	169	GLN
8	G	171	LEU
8	G	172	GLU
9	H	8	LEU
9	H	17	ARG
9	H	21	CYS
9	H	23	ARG
9	H	29	ILE
9	H	51	ILE
9	H	81	ILE
9	H	89	ILE
9	H	90	ARG
9	H	99	ILE
9	H	108	THR
9	H	109	ARG
9	H	117	GLU
9	H	119	ARG
9	H	121	ARG
9	H	122	ARG
9	H	124	MET
9	H	126	ILE
9	H	127	VAL
10	I	3	LEU
10	I	4	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	I	5	ASP
10	I	15	ASP
10	I	21	ARG
10	I	27	ASP
10	I	29	THR
10	I	39	SER
10	I	40	ARG
10	I	48	PHE
10	I	53	ARG
10	I	55	ARG
10	I	56	LEU
10	I	57	ILE
10	I	63	ARG
10	I	66	ASN
10	I	71	THR
10	I	77	LEU
10	I	80	LEU
10	I	83	LEU
10	I	88	PHE
10	I	89	ASP
10	I	91	ASP
10	I	92	THR
10	I	93	LEU
10	I	99	VAL
10	I	118	VAL
11	J	7	ARG
11	J	8	THR
11	J	11	ARG
11	J	12	LYS
11	J	13	GLN
11	J	15	ARG
11	J	23	LYS
11	J	27	TYR
11	J	30	PHE
11	J	49	GLU
11	J	59	PHE
11	J	64	LYS
11	J	65	ILE
11	J	68	ARG
11	J	69	ILE
11	J	81	GLU
11	J	82	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	J	83	ARG
11	J	88	LYS
11	J	93	TYR
11	J	94	TRP
11	J	102	ARG
11	J	106	GLU
11	J	114	GLN
11	J	124	HIS
11	J	125	LYS
11	J	128	ILE
11	J	132	MET
11	J	134	LYS
11	J	136	GLU
11	J	138	TYR
11	J	139	ASP
11	J	140	GLU
12	K	1	MET
12	K	12	ARG
12	K	15	SER
12	K	17	ARG
12	K	20	LEU
12	K	35	GLN
12	K	39	THR
12	K	44	LEU
12	K	48	VAL
12	K	51	LEU
12	K	52	ILE
12	K	72	ASP
12	K	73	LYS
12	K	77	ARG
12	K	80	MET
12	K	95	THR
12	K	96	ARG
12	K	98	LEU
12	K	99	ARG
12	K	102	THR
12	K	109	THR
13	L	11	LEU
13	L	13	THR
13	L	14	ARG
13	L	16	LYS
13	L	18	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	L	27	LEU
13	L	31	VAL
13	L	36	LYS
13	L	43	ILE
13	L	51	LEU
13	L	60	LYS
13	L	64	LYS
13	L	65	THR
13	L	66	ASP
13	L	84	ILE
13	L	89	PHE
13	L	93	SER
13	L	95	LYS
13	L	100	VAL
13	L	108	ARG
14	M	1	MET
14	M	2	GLN
14	M	5	ILE
14	M	7	ILE
14	M	13	LEU
14	M	18	GLN
14	M	20	HIS
14	M	21	THR
14	M	22	ARG
14	M	37	THR
14	M	40	ARG
14	M	45	THR
14	M	57	ILE
14	M	67	THR
14	M	68	VAL
14	M	72	SER
14	M	79	ARG
14	M	85	SER
14	M	87	LEU
14	M	88	VAL
14	M	93	ILE
14	M	95	GLU
14	M	96	ARG
14	M	98	LYS
14	M	101	ARG
14	M	103	LYS
14	M	104	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	M	108	ARG
14	M	109	GLU
15	N	3	ARG
15	N	8	ILE
15	N	13	ARG
15	N	17	VAL
15	N	20	ARG
15	N	22	LYS
15	N	28	ARG
15	N	30	LYS
15	N	31	GLN
15	N	34	ASN
15	N	40	LEU
15	N	47	TYR
15	N	48	ARG
15	N	53	LYS
15	N	55	ARG
15	N	58	ARG
15	N	62	ILE
15	N	78	THR
15	N	84	LYS
15	N	85	ARG
15	N	88	ILE
15	N	89	ASP
15	N	90	LEU
15	N	95	LEU
15	N	97	ASP
15	N	98	ILE
15	N	101	ARG
15	N	107	LYS
16	O	1	MET
16	O	4	ILE
16	O	5	ILE
16	O	10	LYS
16	O	16	GLU
16	O	18	ASP
16	O	22	VAL
16	O	25	LEU
16	O	28	GLU
16	O	34	GLU
16	O	38	LEU
16	O	44	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	O	47	PHE
16	O	50	ASP
16	O	57	GLN
16	O	65	ARG
16	O	79	GLN
16	O	81	ARG
16	O	89	ASN
16	O	91	THR
16	O	98	ILE
17	P	7	THR
17	P	9	ARG
17	P	11	LYS
17	P	21	ARG
17	P	32	ARG
17	P	37	LYS
17	P	45	ILE
17	P	48	LYS
17	P	49	SER
17	P	52	ASP
17	P	58	ARG
17	P	60	ILE
17	P	74	SER
17	P	86	LEU
17	P	87	GLU
17	P	91	PHE
17	P	105	ARG
17	P	106	LEU
17	P	107	ILE
17	P	115	ASN
17	P	117	ILE
17	P	126	ILE
17	P	133	ASN
18	Q	3	HIS
18	Q	5	ASP
18	Q	6	ILE
18	Q	7	LEU
18	Q	12	ILE
18	Q	27	PHE
18	Q	34	THR
18	Q	40	ASP
18	Q	48	VAL
18	Q	49	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
18	Q	50	VAL
18	Q	55	THR
18	Q	75	ARG
18	Q	80	VAL
18	Q	82	LEU
18	Q	89	GLU
18	Q	91	LEU
19	R	9	HIS
19	R	11	ASN
19	R	18	LYS
19	R	23	ILE
19	R	25	LEU
19	R	33	THR
19	R	38	LEU
19	R	42	ARG
19	R	44	GLN
19	R	53	VAL
19	R	56	LYS
19	R	59	LYS
19	R	64	ASN
19	R	70	GLU
19	R	71	GLN
19	R	73	GLU
19	R	77	HIS
19	R	80	LYS
19	R	81	VAL
19	R	83	LEU
19	R	85	ASP
19	R	88	THR
19	R	92	THR
19	R	94	VAL
19	R	96	LYS
19	R	98	ILE
19	R	104	VAL
19	R	106	VAL
20	S	3	LEU
20	S	6	LYS
20	S	8	ARG
20	S	16	GLU
20	S	24	TYR
20	S	28	ASN
20	S	43	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	S	52	PHE
20	S	54	ILE
20	S	60	GLU
20	S	69	VAL
20	S	71	MET
20	S	76	ARG
20	S	79	ILE
20	S	94	VAL
20	S	101	THR
20	S	119	ASN
20	S	120	LEU
20	S	122	ILE
20	S	132	GLN
20	S	135	VAL
20	S	141	MET
20	S	142	ASN
20	S	145	ASP
20	S	152	ILE
20	S	156	GLU
20	S	167	THR
21	T	12	ASN
21	T	16	SER
21	T	20	TYR
21	T	36	ILE
21	T	37	LEU
21	T	38	VAL
21	T	41	ARG
21	T	46	LYS
21	T	49	GLN
21	T	53	MET
21	T	62	LEU
21	T	64	ASP
21	T	71	ASN
21	T	72	LYS
22	U	13	LEU
22	U	18	VAL
22	U	43	ARG
22	U	46	LEU
22	U	47	HIS
22	U	48	LYS
22	U	60	VAL
22	U	62	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	U	75	TYR
22	U	78	ILE
23	V	10	GLN
23	V	13	ASP
23	V	19	ASP
23	V	21	ARG
23	V	26	MET
23	V	37	LEU
23	V	43	VAL
23	V	53	LEU
23	V	57	LYS
23	V	60	LEU
24	W	1	MET
24	W	2	LYS
24	W	4	LYS
24	W	5	LEU
24	W	6	VAL
24	W	7	ARG
24	W	9	VAL
24	W	10	ILE
24	W	12	ARG
24	W	23	LEU
24	W	26	ARG
24	W	32	ARG
24	W	34	VAL
24	W	36	ASP
24	W	37	THR
24	W	44	VAL
24	W	45	LYS
24	W	50	LEU
25	Z	4	HIS
25	Z	11	THR
25	Z	12	SER
25	Z	19	ARG
25	Z	26	THR
25	Z	35	GLN
25	Z	41	LEU
25	Z	44	HIS
25	Z	45	ILE
25	Z	52	TYR
25	Z	53	ASP
25	Z	57	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	1	7	ARG
26	1	8	ILE
26	1	9	ILE
26	1	10	VAL
26	1	14	SER
26	1	21	TYR
26	1	24	THR
26	1	25	THR
26	1	30	ASN
26	1	49	VAL
26	1	52	GLU
26	1	54	LYS
27	2	1	MET
27	2	4	THR
27	2	23	LYS
27	2	24	THR
27	2	37	LYS
27	2	43	THR
28	3	4	MET
28	3	6	THR
28	3	7	HIS
28	3	8	LYS
28	3	14	ILE
28	3	15	LYS
28	3	16	ILE
28	3	21	LYS
28	3	22	VAL
28	3	30	ARG
28	3	31	HIS
28	3	33	ASN
28	3	36	LYS
28	3	39	ASP
28	3	40	GLU
28	3	44	LYS
28	3	46	LYS
28	3	49	VAL
28	3	50	LEU
28	3	52	LYS
28	3	59	LYS
28	3	62	LEU
28	3	64	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (22)

such sidechains are listed below:

Mol	Chain	Res	Type
3	A	76	ASN
3	A	227	ASN
3	A	231	HIS
4	B	159	HIS
5	C	69	HIS
7	E	7	GLN
7	E	65	HIS
8	G	76	GLN
8	G	107	GLN
8	G	145	HIS
10	I	4	HIS
15	N	14	HIS
15	N	75	ASN
16	O	57	GLN
17	P	13	GLN
17	P	16	GLN
17	P	115	ASN
19	R	9	HIS
19	R	10	HIS
20	S	119	ASN
22	U	45	ASN
28	3	32	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	X	2725/2877 (94%)	801 (29%)	104 (3%)
2	Y	119/120 (99%)	29 (24%)	1 (0%)
All	All	2844/2997 (94%)	830 (29%)	105 (3%)

All (830) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	X	2	G
1	X	13	A
1	X	15	G
1	X	25	U
1	X	34	U
1	X	39	C
1	X	45	C
1	X	46	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	48	A
1	X	49	U
1	X	50	G
1	X	51	A
1	X	58	C
1	X	59	G
1	X	63	A
1	X	64	C
1	X	69	G
1	X	70	A
1	X	71	A
1	X	73	A
1	X	74	G
1	X	83	A
1	X	87	G
1	X	88	G
1	X	90	G
1	X	91	A
1	X	93	A
1	X	95	G
1	X	98	U
1	X	99	U
1	X	100	G
1	X	106	G
1	X	108	G
1	X	111	G
1	X	112	U
1	X	117	A
1	X	118	U
1	X	123	A
1	X	129	A
1	X	136	A
1	X	137	A
1	X	143	A
1	X	146	C
1	X	147	G
1	X	158	A
1	X	164	G
1	X	173	A
1	X	176	A
1	X	180	C
1	X	181	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	192	G
1	X	193	A
1	X	194	G
1	X	198	A
1	X	199	A
1	X	204	A
1	X	206	U
1	X	207	U
1	X	210	A
1	X	221	A
1	X	222	G
1	X	225	G
1	X	228	A
1	X	229	G
1	X	242	A
1	X	243	G
1	X	245	C
1	X	249	A
1	X	253	A
1	X	254	A
1	X	255	A
1	X	256	C
1	X	257	G
1	X	258	C
1	X	259	U
1	X	260	U
1	X	261	G
1	X	262	C
1	X	263	G
1	X	264	U
1	X	265	U
1	X	266	U
1	X	267	C
1	X	268	G
1	X	270	G
1	X	271	G
1	X	272	U
1	X	273	U
1	X	274	G
1	X	275	U
1	X	276	A
1	X	278	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	279	A
1	X	280	C
1	X	281	C
1	X	304	A
1	X	309	G
1	X	310	A
1	X	312	G
1	X	313	U
1	X	318	G
1	X	321	A
1	X	322	A
1	X	323	G
1	X	333	A
1	X	334	G
1	X	335	A
1	X	337	G
1	X	340	G
1	X	342	G
1	X	343	A
1	X	349	G
1	X	350	U
1	X	351	A
1	X	384	A
1	X	385	G
1	X	388	G
1	X	399	G
1	X	400	U
1	X	401	G
1	X	404	A
1	X	408	U
1	X	409	G
1	X	414	A
1	X	416	U
1	X	417	C
1	X	418	C
1	X	419	G
1	X	421	G
1	X	423	G
1	X	424	G
1	X	425	A
1	X	433	G
1	X	441	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	456	C
1	X	461	A
1	X	462	G
1	X	463	C
1	X	467	U
1	X	468	A
1	X	469	G
1	X	470	U
1	X	475	U
1	X	482	A
1	X	483	A
1	X	492	G
1	X	495	C
1	X	504	G
1	X	506	G
1	X	514	G
1	X	515	A
1	X	518	A
1	X	519	C
1	X	520	C
1	X	526	C
1	X	537	C
1	X	538	A
1	X	539	A
1	X	541	C
1	X	542	A
1	X	543	G
1	X	545	C
1	X	549	G
1	X	553	C
1	X	554	U
1	X	555	U
1	X	556	A
1	X	558	G
1	X	559	C
1	X	560	G
1	X	572	G
1	X	578	U
1	X	582	G
1	X	584	A
1	X	595	A
1	X	596	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	600	G
1	X	601	A
1	X	603	C
1	X	613	A
1	X	614	G
1	X	615	C
1	X	616	U
1	X	623	G
1	X	624	A
1	X	625	A
1	X	626	A
1	X	627	A
1	X	628	A
1	X	631	G
1	X	637	G
1	X	642	A
1	X	648	A
1	X	649	G
1	X	651	C
1	X	652	C
1	X	653	G
1	X	654	A
1	X	655	A
1	X	656	U
1	X	657	A
1	X	659	G
1	X	664	C
1	X	665	A
1	X	666	U
1	X	667	U
1	X	668	A
1	X	679	C
1	X	682	G
1	X	683	A
1	X	684	C
1	X	689	A
1	X	695	G
1	X	699	G
1	X	703	A
1	X	707	U
1	X	726	G
1	X	728	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	729	A
1	X	730	C
1	X	732	G
1	X	743	A
1	X	752	G
1	X	758	G
1	X	759	C
1	X	760	U
1	X	765	C
1	X	766	A
1	X	772	G
1	X	777	A
1	X	778	G
1	X	781	G
1	X	787	A
1	X	788	G
1	X	789	G
1	X	790	A
1	X	792	U
1	X	795	A
1	X	796	A
1	X	797	A
1	X	798	G
1	X	801	A
1	X	803	C
1	X	804	C
1	X	805	G
1	X	806	A
1	X	807	A
1	X	813	A
1	X	814	G
1	X	815	A
1	X	816	U
1	X	818	G
1	X	825	C
1	X	826	U
1	X	832	A
1	X	840	U
1	X	841	G
1	X	851	C
1	X	859	U
1	X	860	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	872	G
1	X	878	C
1	X	879	A
1	X	887	G
1	X	891	A
1	X	912	A
1	X	922	A
1	X	926	C
1	X	927	C
1	X	931	G
1	X	939	C
1	X	940	G
1	X	941	U
1	X	944	A
1	X	952	A
1	X	955	G
1	X	957	G
1	X	968	C
1	X	969	U
1	X	970	A
1	X	971	A
1	X	972	C
1	X	974	U
1	X	976	C
1	X	981	C
1	X	985	G
1	X	992	A
1	X	994	A
1	X	995	A
1	X	1006	C
1	X	1007	A
1	X	1016	C
1	X	1019	U
1	X	1020	A
1	X	1022	A
1	X	1023	U
1	X	1024	G
1	X	1033	G
1	X	1034	U
1	X	1036	G
1	X	1037	U
1	X	1044	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1046	U
1	X	1053	G
1	X	1054	C
1	X	1055	A
1	X	1056	U
1	X	1057	A
1	X	1058	G
1	X	1060	C
1	X	1068	A
1	X	1069	G
1	X	1071	U
1	X	1073	G
1	X	1077	U
1	X	1078	A
1	X	1079	G
1	X	1081	A
1	X	1082	G
1	X	1083	C
1	X	1087	C
1	X	1090	C
1	X	1092	U
1	X	1095	A
1	X	1097	A
1	X	1098	G
1	X	1099	A
1	X	1105	U
1	X	1106	A
1	X	1107	A
1	X	1108	U
1	X	1115	C
1	X	1121	G
1	X	1122	A
1	X	1123	G
1	X	1138	A
1	X	1139	A
1	X	1141	U
1	X	1142	G
1	X	1143	A
1	X	1145	C
1	X	1146	G
1	X	1148	G
1	X	1149	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1152	C
1	X	1153	A
1	X	1154	A
1	X	1161	U
1	X	1166	A
1	X	1182	U
1	X	1183	C
1	X	1185	C
1	X	1186	G
1	X	1187	A
1	X	1189	G
1	X	1192	A
1	X	1194	U
1	X	1195	U
1	X	1207	G
1	X	1220	G
1	X	1223	G
1	X	1226	A
1	X	1239	A
1	X	1241	G
1	X	1242	A
1	X	1247	U
1	X	1253	C
1	X	1261	G
1	X	1262	U
1	X	1265	G
1	X	1266	G
1	X	1269	G
1	X	1275	A
1	X	1284	G
1	X	1285	A
1	X	1288	A
1	X	1289	A
1	X	1300	A
1	X	1301	U
1	X	1302	C
1	X	1306	U
1	X	1313	U
1	X	1314	A
1	X	1315	A
1	X	1329	U
1	X	1331	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1332	G
1	X	1334	A
1	X	1336	G
1	X	1337	G
1	X	1339	U
1	X	1342	U
1	X	1343	C
1	X	1345	G
1	X	1347	C
1	X	1365	U
1	X	1371	G
1	X	1372	A
1	X	1378	A
1	X	1379	A
1	X	1381	G
1	X	1391	A
1	X	1392	U
1	X	1393	G
1	X	1404	C
1	X	1407	G
1	X	1415	C
1	X	1419	G
1	X	1428	G
1	X	1429	A
1	X	1430	G
1	X	1431	U
1	X	1432	G
1	X	1433	A
1	X	1434	U
1	X	1435	G
1	X	1438	G
1	X	1439	G
1	X	1440	G
1	X	1441	A
1	X	1442	C
1	X	1443	G
1	X	1460	G
1	X	1465	G
1	X	1467	U
1	X	1468	A
1	X	1469	U
1	X	1470	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1474	A
1	X	1475	U
1	X	1476	G
1	X	1482	U
1	X	1489	C
1	X	1490	U
1	X	1497	C
1	X	1498	G
1	X	1505	U
1	X	1506	C
1	X	1509	A
1	X	1511	A
1	X	1513	U
1	X	1521	U
1	X	1522	C
1	X	1523	A
1	X	1524	C
1	X	1525	A
1	X	1526	U
1	X	1528	C
1	X	1529	C
1	X	1531	C
1	X	1550	C
1	X	1551	U
1	X	1552	C
1	X	1553	G
1	X	1554	G
1	X	1561	A
1	X	1562	G
1	X	1574	A
1	X	1575	C
1	X	1576	G
1	X	1582	A
1	X	1585	A
1	X	1592	U
1	X	1593	C
1	X	1601	U
1	X	1602	G
1	X	1603	A
1	X	1607	A
1	X	1608	U
1	X	1617	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1623	C
1	X	1624	A
1	X	1625	A
1	X	1626	A
1	X	1629	G
1	X	1634	A
1	X	1635	G
1	X	1647	U
1	X	1648	C
1	X	1651	U
1	X	1656	U
1	X	1661	C
1	X	1665	C
1	X	1667	A
1	X	1668	G
1	X	1669	A
1	X	1674	C
1	X	1681	A
1	X	1688	U
1	X	1689	U
1	X	1690	U
1	X	1691	G
1	X	1692	C
1	X	1713	G
1	X	1714	A
1	X	1715	A
1	X	1716	G
1	X	1717	A
1	X	1718	A
1	X	1732	U
1	X	1733	U
1	X	1734	C
1	X	1747	G
1	X	1753	A
1	X	1754	G
1	X	1755	G
1	X	1762	C
1	X	1763	G
1	X	1764	A
1	X	1766	U
1	X	1772	C
1	X	1779	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1782	A
1	X	1788	C
1	X	1790	G
1	X	1791	C
1	X	1792	C
1	X	1793	A
1	X	1799	A
1	X	1800	A
1	X	1808	C
1	X	1809	G
1	X	1811	A
1	X	1812	U
1	X	1819	U
1	X	1821	A
1	X	1825	C
1	X	1830	C
1	X	1839	A
1	X	1851	A
1	X	1883	A
1	X	1886	G
1	X	1888	C
1	X	1889	G
1	X	1890	G
1	X	1891	C
1	X	1910	A
1	X	1912	G
1	X	1920	A
1	X	1921	A
1	X	1922	U
1	X	1923	U
1	X	1924	C
1	X	1926	U
1	X	1928	G
1	X	1938	U
1	X	1939	U
1	X	1945	C
1	X	1946	U
1	X	1947	G
1	X	1949	A
1	X	1950	C
1	X	1953	A
1	X	1954	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1955	G
1	X	1965	U
1	X	1969	G
1	X	1972	G
1	X	1974	U
1	X	1975	G
1	X	1976	U
1	X	1977	C
1	X	1978	U
1	X	1979	C
1	X	1980	A
1	X	1986	G
1	X	1987	G
1	X	1988	A
1	X	1993	G
1	X	2001	G
1	X	2003	A
1	X	2005	U
1	X	2006	G
1	X	2011	U
1	X	2014	A
1	X	2015	G
1	X	2018	G
1	X	2019	C
1	X	2023	C
1	X	2026	C
1	X	2030	U
1	X	2036	G
1	X	2038	C
1	X	2039	G
1	X	2043	A
1	X	2044	G
1	X	2045	A
1	X	2047	C
1	X	2052	G
1	X	2059	U
1	X	2060	A
1	X	2063	A
1	X	2075	U
1	X	2076	G
1	X	2077	G
1	X	2079	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	2083	G
1	X	2089	C
1	X	2171	U
1	X	2180	U
1	X	2181	A
1	X	2187	A
1	X	2189	A
1	X	2190	A
1	X	2191	A
1	X	2192	U
1	X	2196	U
1	X	2197	U
1	X	2198	U
1	X	2199	C
1	X	2200	G
1	X	2204	A
1	X	2205	C
1	X	2217	G
1	X	2222	U
1	X	2225	G
1	X	2229	G
1	X	2230	G
1	X	2241	U
1	X	2247	A
1	X	2252	A
1	X	2257	A
1	X	2259	G
1	X	2262	C
1	X	2265	A
1	X	2266	A
1	X	2267	A
1	X	2268	G
1	X	2269	G
1	X	2271	C
1	X	2272	A
1	X	2275	U
1	X	2284	U
1	X	2285	U
1	X	2287	G
1	X	2288	A
1	X	2298	U
1	X	2299	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	2301	A
1	X	2306	A
1	X	2313	G
1	X	2321	C
1	X	2322	U
1	X	2323	U
1	X	2324	G
1	X	2326	C
1	X	2328	G
1	X	2345	A
1	X	2351	G
1	X	2356	A
1	X	2358	C
1	X	2362	G
1	X	2363	G
1	X	2364	C
1	X	2367	A
1	X	2368	G
1	X	2369	U
1	X	2372	A
1	X	2375	G
1	X	2381	A
1	X	2382	C
1	X	2385	U
1	X	2386	G
1	X	2397	A
1	X	2401	A
1	X	2402	U
1	X	2403	C
1	X	2404	A
1	X	2405	A
1	X	2407	G
1	X	2408	G
1	X	2409	A
1	X	2410	U
1	X	2414	A
1	X	2415	G
1	X	2418	A
1	X	2420	C
1	X	2425	G
1	X	2426	G
1	X	2427	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	2444	C
1	X	2448	A
1	X	2449	G
1	X	2452	U
1	X	2453	C
1	X	2455	A
1	X	2458	U
1	X	2460	G
1	X	2461	G
1	X	2465	G
1	X	2470	U
1	X	2471	U
1	X	2473	G
1	X	2474	G
1	X	2477	C
1	X	2478	C
1	X	2479	U
1	X	2480	C
1	X	2481	G
1	X	2484	G
1	X	2485	U
1	X	2496	C
1	X	2497	A
1	X	2500	C
1	X	2501	U
1	X	2502	G
1	X	2508	G
1	X	2509	A
1	X	2522	G
1	X	2529	G
1	X	2535	C
1	X	2539	C
1	X	2543	A
1	X	2545	A
1	X	2546	G
1	X	2552	C
1	X	2553	G
1	X	2557	G
1	X	2559	U
1	X	2564	U
1	X	2566	A
1	X	2578	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	2579	A
1	X	2581	A
1	X	2582	G
1	X	2588	U
1	X	2591	C
1	X	2594	U
1	X	2609	G
1	X	2613	A
1	X	2618	A
1	X	2625	U
1	X	2633	A
1	X	2642	G
1	X	2643	G
1	X	2660	C
1	X	2661	G
1	X	2668	U
1	X	2692	A
1	X	2693	U
1	X	2694	G
1	X	2695	C
1	X	2700	U
1	X	2706	U
1	X	2707	G
1	X	2708	U
1	X	2724	G
1	X	2728	A
1	X	2731	G
1	X	2732	C
1	X	2736	U
1	X	2737	A
1	X	2738	A
1	X	2744	A
1	X	2745	A
1	X	2758	A
1	X	2759	U
1	X	2760	G
1	X	2770	A
1	X	2771	C
1	X	2774	U
1	X	2775	U
1	X	2776	U
1	X	2777	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	2778	U
1	X	2779	C
1	X	2780	A
1	X	2782	G
1	X	2783	U
1	X	2787	A
1	X	2788	C
1	X	2789	U
1	X	2792	C
1	X	2795	A
1	X	2796	A
1	X	2798	A
1	X	2799	C
1	X	2800	C
1	X	2805	G
1	X	2807	U
1	X	2808	U
1	X	2809	A
1	X	2810	A
1	X	2814	G
1	X	2820	C
1	X	2824	C
1	X	2825	A
1	X	2832	G
1	X	2836	U
1	X	2841	U
1	X	2842	C
1	X	2843	A
1	X	2846	G
1	X	2847	G
1	X	2848	A
1	X	2850	U
1	X	2851	G
1	X	2861	A
1	X	2867	G
1	X	2868	G
1	X	2877	A
2	Y	9	G
2	Y	11	G
2	Y	14	C
2	Y	15	A
2	Y	16	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	Y	17	A
2	Y	18	G
2	Y	20	A
2	Y	26	G
2	Y	27	A
2	Y	28	A
2	Y	32	C
2	Y	37	C
2	Y	39	C
2	Y	43	G
2	Y	44	C
2	Y	46	G
2	Y	47	A
2	Y	49	C
2	Y	58	G
2	Y	71	G
2	Y	76	U
2	Y	84	G
2	Y	93	G
2	Y	102	A
2	Y	108	G
2	Y	111	C
2	Y	112	A
2	Y	121	G

All (105) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	X	38	G
1	X	48	A
1	X	50	G
1	X	98	U
1	X	203	G
1	X	209	G
1	X	334	G
1	X	341	A
1	X	349	G
1	X	383	G
1	X	467	U
1	X	469	G
1	X	518	A
1	X	538	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	540	G
1	X	553	C
1	X	555	U
1	X	557	U
1	X	558	G
1	X	656	U
1	X	683	A
1	X	751	G
1	X	759	C
1	X	765	C
1	X	780	U
1	X	787	A
1	X	788	G
1	X	803	C
1	X	806	A
1	X	813	A
1	X	859	U
1	X	890	U
1	X	938	G
1	X	969	U
1	X	971	A
1	X	994	A
1	X	1023	U
1	X	1053	G
1	X	1056	U
1	X	1059	A
1	X	1086	C
1	X	1096	A
1	X	1122	A
1	X	1141	U
1	X	1153	A
1	X	1182	U
1	X	1186	G
1	X	1188	A
1	X	1194	U
1	X	1225	G
1	X	1261	G
1	X	1288	A
1	X	1391	A
1	X	1409	U
1	X	1433	A
1	X	1439	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	1442	C
1	X	1474	A
1	X	1475	U
1	X	1524	C
1	X	1561	A
1	X	1562	G
1	X	1574	A
1	X	1607	A
1	X	1623	C
1	X	1634	A
1	X	1673	C
1	X	1690	U
1	X	1716	G
1	X	1732	U
1	X	1733	U
1	X	1799	A
1	X	1800	A
1	X	1811	A
1	X	1850	G
1	X	1882	G
1	X	1888	C
1	X	1909	U
1	X	1923	U
1	X	1975	G
1	X	1978	U
1	X	2005	U
1	X	2088	U
1	X	2189	A
1	X	2190	A
1	X	2204	A
1	X	2228	U
1	X	2323	U
1	X	2385	U
1	X	2402	U
1	X	2404	A
1	X	2447	G
1	X	2460	G
1	X	2593	A
1	X	2691	C
1	X	2694	G
1	X	2736	U
1	X	2770	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	X	2795	A
1	X	2807	U
1	X	2824	C
1	X	2841	U
1	X	2846	G
1	X	2848	A
2	Y	27	A

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 346 ligands modelled in this entry, 345 are monoatomic - leaving 1 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	$\#\|Z\| > 2$
29	QTZ	X	2901	-	52,54,54	0.32	0	68,79,79	1.06	4 (5%)

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
29	QTZ	X	2901	-	-	15/57/103/103	0/3/4/4

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	X	2901	QTZ	O12-C12-C11	3.23	123.38	115.37
29	X	2901	QTZ	C5-C4-C3	2.90	118.89	109.52
29	X	2901	QTZ	C13-C12-C11	-2.29	115.58	122.47
29	X	2901	QTZ	C25-C24-N1	-2.22	109.40	115.67

There are no chirality outliers.

All (15) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
29	X	2901	QTZ	C10-C11-C12-C13
29	X	2901	QTZ	C10-C11-C12-O12
29	X	2901	QTZ	C12-C13-C14-C21
29	X	2901	QTZ	C23-C24-N1-C29
29	X	2901	QTZ	C31-C30-O3-C21
29	X	2901	QTZ	O4-C30-O3-C21
29	X	2901	QTZ	C6-C7-C8-C9
29	X	2901	QTZ	O13-C14-C15-O2
29	X	2901	QTZ	C32-C31-O5-C37
29	X	2901	QTZ	C13-C14-C15-O2
29	X	2901	QTZ	O2-C15-C16-C17
29	X	2901	QTZ	C14-C15-C16-C17
29	X	2901	QTZ	C14-C15-O2-C1
29	X	2901	QTZ	C20-C8-C9-C10
29	X	2901	QTZ	C20-C8-C9-O11

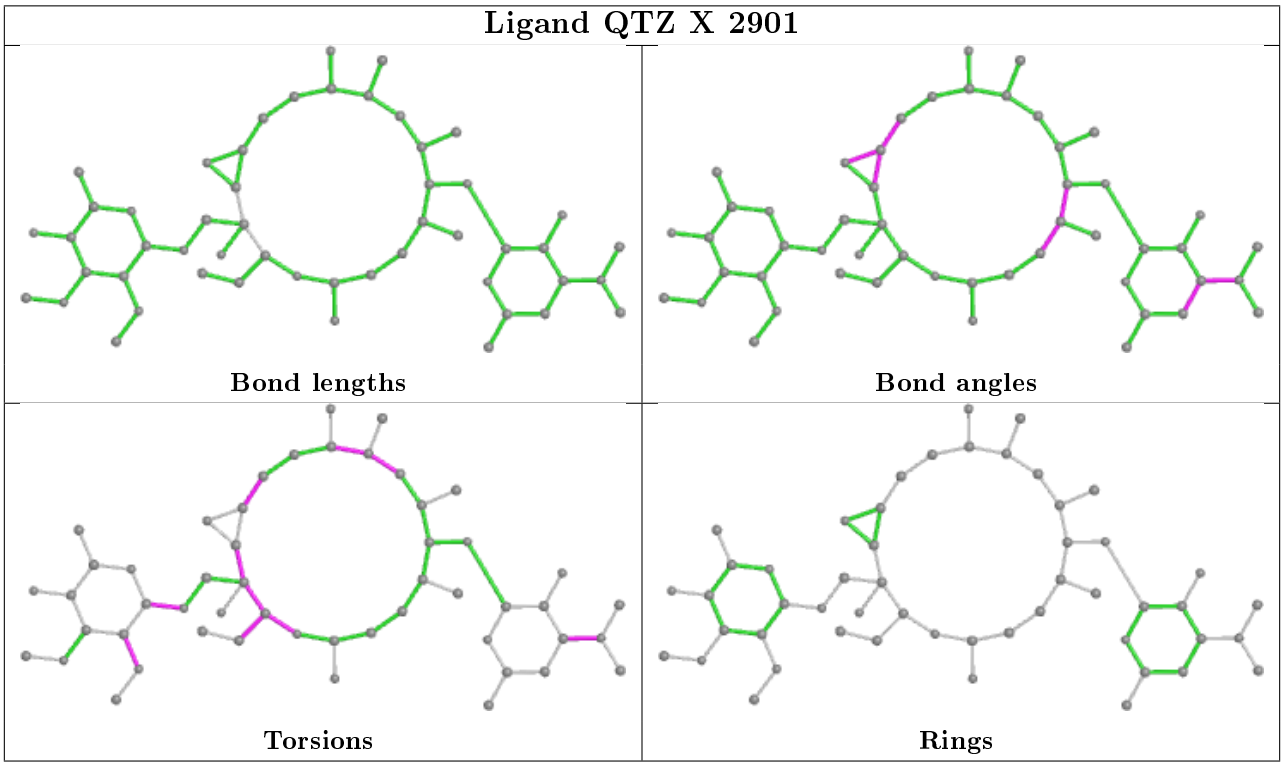
There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
29	X	2901	QTZ	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier.

The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	X	2730/2877 (94%)	-0.14	96 (3%) 44 42	60, 111, 218, 326	0
2	Y	120/120 (100%)	-0.35	0 100 100	119, 176, 204, 212	0
3	A	271/271 (100%)	0.17	11 (4%) 37 35	97, 129, 158, 168	0
4	B	206/206 (100%)	-0.15	1 (0%) 91 91	71, 83, 105, 129	0
5	C	197/197 (100%)	0.23	15 (7%) 13 13	91, 137, 162, 205	0
6	D	177/177 (100%)	0.39	23 (12%) 3 3	190, 209, 236, 255	0
7	E	171/171 (100%)	0.57	24 (14%) 2 2	116, 158, 215, 221	0
8	G	143/143 (100%)	0.26	12 (8%) 11 10	82, 109, 128, 147	0
9	H	134/134 (100%)	-0.29	1 (0%) 87 88	73, 83, 97, 108	0
10	I	137/137 (100%)	0.29	12 (8%) 10 10	94, 146, 163, 170	0
11	J	136/136 (100%)	0.26	6 (4%) 34 33	123, 142, 160, 166	0
12	K	116/116 (100%)	-0.25	0 100 100	60, 70, 80, 87	0
13	L	104/104 (100%)	0.59	13 (12%) 3 3	156, 174, 193, 206	0
14	M	113/113 (100%)	-0.03	7 (6%) 20 20	71, 84, 129, 151	0
15	N	117/117 (100%)	-0.11	1 (0%) 84 84	81, 107, 134, 147	0
16	O	98/98 (100%)	-0.15	2 (2%) 65 64	95, 138, 176, 178	0
17	P	128/128 (100%)	-0.09	1 (0%) 86 86	68, 81, 126, 158	0
18	Q	93/93 (100%)	0.03	0 100 100	100, 123, 166, 170	0
19	R	110/110 (100%)	0.54	14 (12%) 3 3	105, 133, 180, 296	0
20	S	175/175 (100%)	1.29	51 (29%) 0 0	137, 177, 196, 209	0
21	T	74/74 (100%)	0.49	7 (9%) 8 8	126, 132, 152, 181	0
22	U	74/74 (100%)	0.10	4 (5%) 25 24	119, 143, 170, 178	0
23	V	61/61 (100%)	0.39	4 (6%) 18 18	130, 152, 208, 209	0
24	W	55/55 (100%)	1.16	10 (18%) 1 1	115, 132, 152, 155	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
25	Z	58/58 (100%)	-0.32	1 (1%) 70 68	71, 82, 130, 133	0
26	1	49/49 (100%)	0.44	7 (14%) 2 2	145, 153, 184, 185	0
27	2	47/47 (100%)	0.89	6 (12%) 3 3	91, 98, 114, 116	0
28	3	63/63 (100%)	0.07	2 (3%) 47 46	114, 131, 156, 158	0
All	All	5957/6104 (97%)	0.05	331 (5%) 24 23	60, 123, 207, 326	0

All (331) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	X	1090	C	11.0
10	I	67	ASN	10.0
1	X	1524	C	8.9
20	S	22	VAL	8.0
6	D	146	VAL	7.6
19	R	102	LYS	7.5
1	X	1095	A	7.2
19	R	100	ASP	7.2
1	X	1523	A	7.2
20	S	92	VAL	7.1
6	D	145	MET	7.1
1	X	1525	A	7.0
1	X	1089	C	6.8
1	X	731	A	6.8
13	L	40	ALA	6.7
20	S	82	ASP	6.6
7	E	5	GLY	6.6
1	X	2090	U	6.5
1	X	1099	A	6.5
19	R	99	VAL	6.4
1	X	1522	C	6.4
1	X	2776	U	6.3
20	S	91	PRO	6.0
1	X	1091	C	5.9
1	X	1189	G	5.9
7	E	123	PHE	5.7
6	D	147	ASP	5.7
20	S	23	ALA	5.6
1	X	2777	A	5.5
1	X	1068	A	5.5
20	S	15	ASP	5.5
1	X	1073	G	5.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	L	52	ALA	5.4
1	X	1104	G	5.3
1	X	1098	G	5.2
1	X	2089	C	5.2
1	X	728	G	5.1
1	X	1094	C	5.0
20	S	86	VAL	5.0
1	X	1086	C	5.0
6	D	144	ASP	4.9
7	E	62	ARG	4.9
1	X	665	A	4.8
1	X	1106	A	4.8
1	X	730	C	4.7
1	X	1553	G	4.7
1	X	1552	C	4.6
14	M	40	ARG	4.6
26	1	27	ASN	4.6
13	L	30	SER	4.5
1	X	727	U	4.5
1	X	1085	G	4.4
1	X	2775	U	4.3
1	X	2165	A	4.3
1	X	1069	G	4.3
20	S	31	SER	4.2
20	S	83	PHE	4.2
20	S	14	LEU	4.2
1	X	1093	U	4.2
21	T	84	ALA	4.1
20	S	24	TYR	4.1
20	S	93	GLU	4.1
20	S	143	ILE	4.1
26	1	25	THR	4.1
19	R	43	ASP	4.1
20	S	34	LEU	4.1
1	X	1071	U	4.0
10	I	47	ALA	4.0
13	L	29	LEU	4.0
1	X	1083	C	4.0
19	R	44	GLN	4.0
26	1	10	VAL	4.0
1	X	891	A	4.0
14	M	38	LYS	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
20	S	171	VAL	4.0
7	E	68	THR	3.9
1	X	2166	G	3.9
1	X	1551	U	3.9
10	I	68	VAL	3.9
1	X	1088	A	3.9
21	T	15	ASP	3.9
20	S	84	TYR	3.9
1	X	1188	A	3.9
13	L	34	SER	3.8
10	I	105	PRO	3.8
7	E	50	LEU	3.8
10	I	48	PHE	3.8
20	S	21	ALA	3.8
10	I	103	ASN	3.7
6	D	94	GLU	3.7
24	W	33	GLU	3.7
13	L	53	ALA	3.7
1	X	2174	G	3.7
1	X	1092	U	3.6
7	E	67	LEU	3.6
1	X	2774	U	3.6
3	A	132	PRO	3.6
8	G	44	VAL	3.6
20	S	65	LEU	3.6
1	X	1526	U	3.6
13	L	31	VAL	3.6
13	L	51	LEU	3.6
24	W	7	ARG	3.6
20	S	168	VAL	3.6
1	X	2088	U	3.6
1	X	1070	G	3.6
1	X	1183	C	3.5
7	E	65	HIS	3.5
1	X	2290	A	3.5
1	X	1913	G	3.5
6	D	76	ASN	3.5
20	S	3	LEU	3.5
1	X	729	A	3.5
6	D	140	GLU	3.4
20	S	148	THR	3.4
3	A	190	TYR	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	Z	2	ALA	3.4
22	U	52	ARG	3.4
1	X	2173	G	3.4
1	X	1082	G	3.3
6	D	153	ASP	3.3
20	S	81	VAL	3.3
20	S	114	ASP	3.3
8	G	166	LEU	3.3
6	D	142	THR	3.3
1	X	1097	A	3.3
8	G	41	TRP	3.3
8	G	81	VAL	3.3
20	S	54	ILE	3.3
24	W	23	LEU	3.3
20	S	152	ILE	3.2
3	A	191	ALA	3.2
1	X	1100	G	3.2
26	1	21	TYR	3.2
20	S	123	VAL	3.2
7	E	46	ASP	3.2
7	E	51	LEU	3.2
20	S	12	GLN	3.2
1	X	1909	U	3.2
1	X	1187	A	3.2
3	A	133	LEU	3.2
9	H	134	LEU	3.2
13	L	41	GLN	3.2
20	S	10	PRO	3.1
1	X	1087	C	3.1
15	N	91	ASN	3.1
19	R	42	ARG	3.1
7	E	162	VAL	3.1
10	I	115	SER	3.1
20	S	68	ALA	3.1
19	R	81	VAL	3.1
10	I	66	ASN	3.1
1	X	1556	A	3.1
1	X	1072	U	3.1
3	A	183	ARG	3.1
20	S	1	MET	3.0
8	G	54	LEU	3.0
23	V	6	MET	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	X	2746	G	3.0
17	P	133	ASN	3.0
1	X	1185	C	3.0
13	L	12	ARG	3.0
1	X	726	G	3.0
5	C	165	SER	3.0
20	S	169	VAL	2.9
1	X	1920	A	2.9
19	R	40	LEU	2.9
6	D	149	THR	2.9
8	G	80	VAL	2.9
6	D	141	ILE	2.9
7	E	59	GLN	2.9
6	D	167	ARG	2.8
20	S	124	ALA	2.8
10	I	15	ASP	2.8
11	J	7	ARG	2.8
1	X	1109	A	2.8
1	X	2780	A	2.8
11	J	105	PHE	2.8
20	S	55	THR	2.8
1	X	257	G	2.8
5	C	197	GLU	2.8
20	S	125	PRO	2.8
27	2	1	MET	2.8
20	S	80	HIS	2.8
20	S	18	MET	2.8
1	X	1107	A	2.8
5	C	144	GLY	2.8
20	S	147	ILE	2.8
1	X	2778	U	2.8
24	W	5	LEU	2.8
26	1	24	THR	2.7
1	X	1057	A	2.7
1	X	1080	A	2.7
20	S	113	VAL	2.7
20	S	173	PRO	2.7
1	X	2205	C	2.7
1	X	1910	A	2.7
20	S	56	VAL	2.7
5	C	73	SER	2.7
8	G	149	LYS	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
24	W	40	VAL	2.7
5	C	54	THR	2.7
27	2	37	LYS	2.6
20	S	20	ALA	2.6
1	X	1096	A	2.6
1	X	1734	C	2.6
27	2	38	GLY	2.6
6	D	40	LEU	2.6
5	C	80	GLY	2.6
11	J	107	VAL	2.6
24	W	34	VAL	2.6
16	O	47	PHE	2.6
1	X	1108	U	2.6
3	A	131	LEU	2.6
23	V	17	GLU	2.6
1	X	1067	G	2.6
1	X	1110	G	2.6
28	3	63	PRO	2.6
7	E	54	ARG	2.6
1	X	1887	G	2.6
20	S	129	ARG	2.6
13	L	38	ILE	2.6
20	S	170	SER	2.5
23	V	37	LEU	2.5
6	D	154	ILE	2.5
6	D	130	LEU	2.5
19	R	14	LEU	2.5
21	T	59	LEU	2.5
1	X	282	A	2.4
1	X	1081	A	2.4
24	W	50	LEU	2.4
7	E	43	VAL	2.4
26	1	12	MET	2.4
19	R	79	SER	2.4
13	L	42	ILE	2.4
3	A	254	THR	2.4
6	D	85	VAL	2.4
6	D	139	PRO	2.4
3	A	147	LEU	2.4
6	D	136	LEU	2.4
7	E	148	VAL	2.4
6	D	138	PHE	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
11	J	104	MET	2.4
22	U	51	ILE	2.4
19	R	26	SER	2.4
1	X	1186	G	2.4
1	X	1432	G	2.4
1	X	1951	G	2.4
19	R	39	ALA	2.4
5	C	81	GLY	2.3
20	S	116	VAL	2.3
20	S	13	LYS	2.3
1	X	248	A	2.3
10	I	50	GLU	2.3
21	T	37	LEU	2.3
21	T	65	GLY	2.3
1	X	1084	A	2.3
7	E	10	ALA	2.3
7	E	150	LYS	2.3
28	3	64	ARG	2.3
13	L	54	ALA	2.3
16	O	48	GLY	2.3
21	T	85	GLN	2.3
22	U	50	ALA	2.3
19	R	17	LYS	2.3
24	W	25	LEU	2.3
14	M	46	ARG	2.3
14	M	41	GLU	2.3
7	E	163	ARG	2.3
3	A	76	ASN	2.3
7	E	124	ALA	2.3
26	1	32	GLN	2.2
7	E	71	LEU	2.2
7	E	94	PHE	2.2
3	A	121	PRO	2.2
7	E	69	ARG	2.2
14	M	39	VAL	2.2
7	E	89	LEU	2.2
11	J	35	LEU	2.2
11	J	128	ILE	2.2
20	S	32	PHE	2.2
1	X	2476	A	2.2
7	E	42	THR	2.2
8	G	58	ILE	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	G	156	HIS	2.2
1	X	90	G	2.2
8	G	51	LEU	2.2
6	D	73	SER	2.1
5	C	22	VAL	2.1
24	W	9	VAL	2.1
24	W	44	VAL	2.1
27	2	22	MET	2.1
8	G	59	ALA	2.1
14	M	37	THR	2.1
19	R	45	LYS	2.1
1	X	1606	C	2.1
6	D	150	ARG	2.1
6	D	143	TYR	2.1
10	I	72	TYR	2.1
1	X	1079	G	2.1
1	X	1078	A	2.1
1	X	1886	G	2.1
20	S	85	MET	2.1
27	2	5	TYR	2.1
3	A	262	LYS	2.1
5	C	167	VAL	2.1
20	S	172	LEU	2.1
20	S	120	LEU	2.1
1	X	1076	U	2.1
5	C	96	PRO	2.1
22	U	62	LEU	2.1
1	X	1922	U	2.1
10	I	118	VAL	2.1
1	X	1888	C	2.1
20	S	122	ILE	2.0
5	C	198	GLU	2.0
5	C	93	TYR	2.0
5	C	148	VAL	2.0
20	S	134	LEU	2.0
23	V	24	GLU	2.0
21	T	79	ILE	2.0
27	2	30	ILE	2.0
4	B	141	ILE	2.0
6	D	103	LEU	2.0
1	X	1550	C	2.0
1	X	2075	U	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
5	C	99	VAL	2.0
5	C	72	ARG	2.0
8	G	151	TYR	2.0
7	E	66	GLY	2.0
14	M	99	VAL	2.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	Y	216	1/1	0.47	0.56	145,145,145,145	0
30	MG	X	3187	1/1	0.51	0.82	98,98,98,98	0
30	MG	X	3104	1/1	0.55	0.57	95,95,95,95	0
30	MG	X	3081	1/1	0.59	0.62	85,85,85,85	0
30	MG	X	3209	1/1	0.60	0.54	98,98,98,98	0
30	MG	X	3111	1/1	0.61	0.58	77,77,77,77	0
30	MG	Y	208	1/1	0.62	0.41	158,158,158,158	0
30	MG	X	3080	1/1	0.67	0.21	91,91,91,91	0
30	MG	X	3106	1/1	0.68	0.27	100,100,100,100	0
30	MG	X	3162	1/1	0.68	0.31	166,166,166,166	0
30	MG	X	3208	1/1	0.69	0.82	103,103,103,103	0
30	MG	X	3177	1/1	0.69	1.70	156,156,156,156	0
30	MG	X	3112	1/1	0.69	0.33	84,84,84,84	0
30	MG	X	3191	1/1	0.69	0.31	136,136,136,136	0
30	MG	X	3022	1/1	0.73	0.65	98,98,98,98	0
30	MG	X	3064	1/1	0.73	0.33	79,79,79,79	0
30	MG	X	3078	1/1	0.73	0.38	85,85,85,85	0
30	MG	X	3135	1/1	0.73	0.85	85,85,85,85	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	X	3089	1/1	0.75	0.50	65,65,65,65	0
30	MG	X	3212	1/1	0.75	0.53	69,69,69,69	0
30	MG	X	3128	1/1	0.77	0.31	67,67,67,67	0
30	MG	X	3169	1/1	0.78	0.37	64,64,64,64	0
30	MG	X	3175	1/1	0.78	0.80	105,105,105,105	0
30	MG	X	3197	1/1	0.78	0.52	73,73,73,73	0
30	MG	X	3137	1/1	0.78	0.45	72,72,72,72	0
30	MG	X	3071	1/1	0.79	0.87	97,97,97,97	0
30	MG	X	2995	1/1	0.79	0.34	74,74,74,74	0
30	MG	K	201	1/1	0.79	0.35	71,71,71,71	0
30	MG	X	3216	1/1	0.80	0.13	75,75,75,75	0
30	MG	X	2999	1/1	0.80	0.84	102,102,102,102	0
30	MG	X	3059	1/1	0.80	0.43	57,57,57,57	0
30	MG	X	3166	1/1	0.80	0.26	49,49,49,49	0
30	MG	X	3113	1/1	0.81	0.67	99,99,99,99	0
30	MG	X	3041	1/1	0.82	0.40	91,91,91,91	0
30	MG	X	3051	1/1	0.82	0.53	92,92,92,92	0
30	MG	Y	210	1/1	0.82	0.21	125,125,125,125	0
30	MG	X	3108	1/1	0.82	2.20	104,104,104,104	0
30	MG	X	3079	1/1	0.82	0.40	69,69,69,69	0
30	MG	Y	206	1/1	0.83	0.72	120,120,120,120	0
30	MG	X	3067	1/1	0.83	0.72	59,59,59,59	0
30	MG	Y	209	1/1	0.83	0.53	103,103,103,103	0
30	MG	X	3034	1/1	0.83	0.60	63,63,63,63	0
30	MG	X	3088	1/1	0.83	0.22	48,48,48,48	0
30	MG	X	3201	1/1	0.83	0.42	81,81,81,81	0
30	MG	X	2994	1/1	0.84	0.77	79,79,79,79	0
30	MG	X	3127	1/1	0.84	0.41	60,60,60,60	0
30	MG	X	2954	1/1	0.84	0.28	86,86,86,86	0
30	MG	X	3172	1/1	0.84	0.49	63,63,63,63	0
30	MG	X	3098	1/1	0.84	0.59	97,97,97,97	0
30	MG	X	3176	1/1	0.84	0.29	129,129,129,129	0
30	MG	X	2962	1/1	0.84	0.39	71,71,71,71	0
30	MG	X	3154	1/1	0.85	0.38	123,123,123,123	0
30	MG	X	2989	1/1	0.85	0.22	68,68,68,68	0
30	MG	X	3204	1/1	0.85	1.13	76,76,76,76	0
30	MG	X	2960	1/1	0.85	0.91	73,73,73,73	0
30	MG	X	3054	1/1	0.85	0.72	83,83,83,83	0
30	MG	Y	215	1/1	0.85	0.21	123,123,123,123	0
30	MG	X	3147	1/1	0.85	0.84	85,85,85,85	0
30	MG	X	3215	1/1	0.85	0.20	91,91,91,91	0
30	MG	X	3168	1/1	0.86	0.21	60,60,60,60	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	X	2951	1/1	0.86	1.11	100,100,100,100	0
30	MG	Y	207	1/1	0.86	0.52	96,96,96,96	0
30	MG	X	3170	1/1	0.86	0.31	69,69,69,69	0
30	MG	X	3146	1/1	0.86	0.30	73,73,73,73	0
30	MG	X	3039	1/1	0.86	0.25	64,64,64,64	0
30	MG	X	2924	1/1	0.86	0.30	75,75,75,75	0
30	MG	X	3017	1/1	0.86	0.57	57,57,57,57	0
30	MG	X	2927	1/1	0.86	0.48	100,100,100,100	0
30	MG	X	3056	1/1	0.87	0.71	102,102,102,102	0
30	MG	X	2985	1/1	0.87	0.88	77,77,77,77	0
30	MG	X	3047	1/1	0.87	0.72	84,84,84,84	0
30	MG	X	3210	1/1	0.87	0.70	107,107,107,107	0
30	MG	X	3120	1/1	0.87	0.24	83,83,83,83	0
30	MG	X	3038	1/1	0.87	0.57	110,110,110,110	0
30	MG	X	3010	1/1	0.87	0.74	70,70,70,70	0
30	MG	J	202	1/1	0.87	0.20	111,111,111,111	0
30	MG	Y	201	1/1	0.87	0.40	101,101,101,101	0
30	MG	2	101	1/1	0.87	0.38	77,77,77,77	0
30	MG	X	3035	1/1	0.88	0.56	68,68,68,68	0
30	MG	X	3107	1/1	0.88	0.85	82,82,82,82	0
30	MG	X	3173	1/1	0.88	0.24	80,80,80,80	0
30	MG	X	3015	1/1	0.88	0.40	64,64,64,64	0
30	MG	X	3194	1/1	0.88	0.24	75,75,75,75	0
30	MG	X	3050	1/1	0.89	0.30	70,70,70,70	0
30	MG	X	2970	1/1	0.89	0.54	123,123,123,123	0
30	MG	X	3040	1/1	0.89	0.11	60,60,60,60	0
30	MG	Y	213	1/1	0.89	1.37	107,107,107,107	0
30	MG	X	3000	1/1	0.89	0.50	83,83,83,83	0
30	MG	X	3031	1/1	0.89	0.21	95,95,95,95	0
30	MG	Y	202	1/1	0.89	0.36	95,95,95,95	0
30	MG	X	3063	1/1	0.89	0.39	61,61,61,61	0
30	MG	X	3188	1/1	0.89	0.30	79,79,79,79	0
30	MG	X	3152	1/1	0.90	0.42	82,82,82,82	0
30	MG	X	3217	1/1	0.90	0.52	60,60,60,60	0
30	MG	X	3087	1/1	0.90	0.24	65,65,65,65	0
30	MG	X	3016	1/1	0.90	0.33	65,65,65,65	0
30	MG	X	3114	1/1	0.90	0.56	75,75,75,75	0
30	MG	X	3167	1/1	0.90	0.26	49,49,49,49	0
30	MG	X	2982	1/1	0.90	0.58	93,93,93,93	0
30	MG	X	3002	1/1	0.90	0.64	79,79,79,79	0
30	MG	X	3053	1/1	0.90	0.54	68,68,68,68	0
30	MG	X	2963	1/1	0.90	0.49	48,48,48,48	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	X	2950	1/1	0.90	0.43	52,52,52,52	0
30	MG	X	3174	1/1	0.90	0.19	88,88,88,88	0
30	MG	A	302	1/1	0.90	0.90	79,79,79,79	0
30	MG	X	3042	1/1	0.90	0.48	59,59,59,59	0
30	MG	X	3214	1/1	0.90	0.47	88,88,88,88	0
30	MG	X	3061	1/1	0.90	0.54	82,82,82,82	0
30	MG	X	3202	1/1	0.91	0.56	58,58,58,58	0
30	MG	X	3066	1/1	0.91	0.41	61,61,61,61	0
30	MG	X	3044	1/1	0.91	0.23	68,68,68,68	0
30	MG	X	3092	1/1	0.91	0.59	75,75,75,75	0
30	MG	X	3045	1/1	0.91	0.99	77,77,77,77	0
30	MG	X	3183	1/1	0.91	0.67	75,75,75,75	0
30	MG	X	3057	1/1	0.91	0.57	120,120,120,120	0
30	MG	X	2948	1/1	0.91	0.49	90,90,90,90	0
30	MG	X	2964	1/1	0.91	0.59	73,73,73,73	0
30	MG	X	3007	1/1	0.91	0.42	88,88,88,88	0
30	MG	X	3110	1/1	0.91	0.52	81,81,81,81	0
30	MG	X	2939	1/1	0.91	0.38	59,59,59,59	0
30	MG	X	2942	1/1	0.92	0.69	76,76,76,76	0
30	MG	X	2946	1/1	0.92	0.86	76,76,76,76	0
30	MG	X	2991	1/1	0.92	0.44	62,62,62,62	0
30	MG	X	3158	1/1	0.92	0.44	109,109,109,109	0
30	MG	X	3049	1/1	0.92	0.20	48,48,48,48	0
30	MG	X	2969	1/1	0.92	0.56	63,63,63,63	0
30	MG	X	3196	1/1	0.92	0.44	56,56,56,56	0
30	MG	X	3115	1/1	0.92	0.24	78,78,78,78	0
30	MG	X	3198	1/1	0.92	0.54	72,72,72,72	0
30	MG	X	2915	1/1	0.92	0.43	58,58,58,58	0
30	MG	Y	212	1/1	0.92	0.41	164,164,164,164	0
30	MG	X	3126	1/1	0.92	0.57	45,45,45,45	0
30	MG	X	3101	1/1	0.92	0.29	68,68,68,68	0
30	MG	X	2981	1/1	0.92	0.51	57,57,57,57	0
30	MG	X	3133	1/1	0.92	0.10	68,68,68,68	0
30	MG	A	303	1/1	0.92	0.72	88,88,88,88	0
30	MG	X	2911	1/1	0.92	0.50	33,33,33,33	0
30	MG	X	3027	1/1	0.92	0.26	60,60,60,60	0
30	MG	O	101	1/1	0.92	0.74	51,51,51,51	0
30	MG	X	3043	1/1	0.92	0.29	102,102,102,102	0
30	MG	X	2976	1/1	0.93	0.34	58,58,58,58	0
30	MG	X	3023	1/1	0.93	0.22	85,85,85,85	0
30	MG	X	2993	1/1	0.93	0.35	46,46,46,46	0
30	MG	X	2943	1/1	0.93	0.38	71,71,71,71	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	X	3132	1/1	0.93	0.23	62,62,62,62	0
30	MG	X	3103	1/1	0.93	0.12	62,62,62,62	0
30	MG	X	3072	1/1	0.93	0.60	106,106,106,106	0
30	MG	X	3073	1/1	0.93	0.54	75,75,75,75	0
30	MG	X	3142	1/1	0.93	1.02	124,124,124,124	0
30	MG	Y	205	1/1	0.93	1.19	92,92,92,92	0
30	MG	X	3075	1/1	0.93	0.32	81,81,81,81	0
30	MG	X	3184	1/1	0.93	0.27	84,84,84,84	0
30	MG	X	3185	1/1	0.93	0.41	100,100,100,100	0
30	MG	X	3077	1/1	0.93	0.66	59,59,59,59	0
30	MG	X	3150	1/1	0.93	0.37	114,114,114,114	0
30	MG	X	2910	1/1	0.93	0.67	46,46,46,46	0
30	MG	X	2922	1/1	0.93	0.46	65,65,65,65	0
30	MG	X	3155	1/1	0.93	0.17	119,119,119,119	0
30	MG	X	3156	1/1	0.93	0.30	112,112,112,112	0
30	MG	X	3036	1/1	0.93	0.66	58,58,58,58	0
30	MG	X	3160	1/1	0.93	0.33	87,87,87,87	0
30	MG	X	3046	1/1	0.93	0.50	83,83,83,83	0
30	MG	X	3203	1/1	0.93	0.21	63,63,63,63	0
30	MG	X	2913	1/1	0.93	0.63	59,59,59,59	0
30	MG	X	3048	1/1	0.93	0.19	66,66,66,66	0
30	MG	X	2971	1/1	0.94	0.97	85,85,85,85	0
30	MG	X	3004	1/1	0.94	0.56	76,76,76,76	0
30	MG	X	2988	1/1	0.94	0.43	67,67,67,67	0
30	MG	X	3163	1/1	0.94	0.25	68,68,68,68	0
30	MG	X	3009	1/1	0.94	0.51	62,62,62,62	0
30	MG	X	3055	1/1	0.94	0.52	119,119,119,119	0
30	MG	X	2973	1/1	0.94	0.65	61,61,61,61	0
30	MG	X	3121	1/1	0.94	0.52	56,56,56,56	0
30	MG	X	3085	1/1	0.94	0.27	58,58,58,58	0
30	MG	X	2990	1/1	0.94	0.11	63,63,63,63	0
30	MG	X	3058	1/1	0.94	0.19	115,115,115,115	0
30	MG	X	2974	1/1	0.94	0.69	55,55,55,55	0
30	MG	X	2975	1/1	0.94	0.23	61,61,61,61	0
30	MG	X	3020	1/1	0.94	0.58	93,93,93,93	0
30	MG	Y	203	1/1	0.94	0.44	73,73,73,73	0
30	MG	X	3099	1/1	0.94	1.18	72,72,72,72	0
30	MG	X	3178	1/1	0.94	0.29	63,63,63,63	0
30	MG	X	3182	1/1	0.94	0.25	60,60,60,60	0
30	MG	X	3141	1/1	0.94	0.73	116,116,116,116	0
30	MG	X	2965	1/1	0.94	0.56	69,69,69,69	0
30	MG	X	3143	1/1	0.94	0.47	63,63,63,63	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	X	2979	1/1	0.94	0.20	65,65,65,65	0
29	QTZ	X	2901	51/51	0.94	0.20	55,57,60,60	20
30	MG	X	3105	1/1	0.94	1.14	61,61,61,61	0
30	MG	X	3193	1/1	0.94	0.20	75,75,75,75	0
30	MG	X	3068	1/1	0.94	0.30	101,101,101,101	0
30	MG	X	3195	1/1	0.94	0.41	80,80,80,80	0
30	MG	X	3029	1/1	0.94	0.81	42,42,42,42	0
30	MG	X	2923	1/1	0.94	0.94	57,57,57,57	0
30	MG	X	3032	1/1	0.94	0.42	73,73,73,73	0
30	MG	X	3199	1/1	0.94	0.46	76,76,76,76	0
30	MG	X	3037	1/1	0.95	0.43	51,51,51,51	0
30	MG	X	3189	1/1	0.95	0.43	132,132,132,132	0
30	MG	X	3190	1/1	0.95	0.25	129,129,129,129	0
30	MG	X	3218	1/1	0.95	0.52	44,44,44,44	0
30	MG	X	3221	1/1	0.95	0.39	61,61,61,61	0
30	MG	X	3003	1/1	0.95	0.40	90,90,90,90	0
30	MG	X	3144	1/1	0.95	0.31	83,83,83,83	0
30	MG	X	3100	1/1	0.95	0.21	124,124,124,124	0
30	MG	Y	204	1/1	0.95	0.80	115,115,115,115	0
30	MG	X	2998	1/1	0.95	0.53	77,77,77,77	0
30	MG	X	2938	1/1	0.95	0.84	62,62,62,62	0
30	MG	X	3069	1/1	0.95	0.57	78,78,78,78	0
30	MG	X	3082	1/1	0.95	0.45	82,82,82,82	0
30	MG	X	3008	1/1	0.95	0.31	73,73,73,73	0
30	MG	X	3200	1/1	0.95	0.74	69,69,69,69	0
30	MG	X	3131	1/1	0.95	0.18	75,75,75,75	0
30	MG	X	2902	1/1	0.95	0.85	80,80,80,80	0
30	MG	X	3179	1/1	0.95	0.72	41,41,41,41	0
30	MG	X	3181	1/1	0.95	0.38	68,68,68,68	0
30	MG	X	2996	1/1	0.95	0.48	59,59,59,59	0
30	MG	X	3026	1/1	0.95	0.15	78,78,78,78	0
30	MG	X	3076	1/1	0.95	0.32	90,90,90,90	0
30	MG	X	3211	1/1	0.95	0.45	52,52,52,52	0
30	MG	X	3164	1/1	0.95	0.90	85,85,85,85	0
30	MG	X	3096	1/1	0.95	0.43	75,75,75,75	0
30	MG	X	2961	1/1	0.96	0.69	60,60,60,60	0
30	MG	X	3136	1/1	0.96	0.47	85,85,85,85	0
30	MG	X	2992	1/1	0.96	0.23	51,51,51,51	0
30	MG	X	3139	1/1	0.96	0.28	61,61,61,61	0
30	MG	X	2930	1/1	0.96	0.26	67,67,67,67	0
30	MG	X	3012	1/1	0.96	0.22	72,72,72,72	0
30	MG	X	3013	1/1	0.96	0.31	45,45,45,45	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	X	2934	1/1	0.96	0.51	51,51,51,51	0
30	MG	X	3109	1/1	0.96	0.57	60,60,60,60	0
30	MG	X	2977	1/1	0.96	0.69	66,66,66,66	0
30	MG	X	3148	1/1	0.96	0.55	75,75,75,75	0
30	MG	X	3186	1/1	0.96	0.21	134,134,134,134	0
30	MG	X	3149	1/1	0.96	0.46	41,41,41,41	0
30	MG	X	2918	1/1	0.96	0.86	63,63,63,63	0
30	MG	X	2920	1/1	0.96	0.08	66,66,66,66	0
30	MG	X	3021	1/1	0.96	0.60	63,63,63,63	0
30	MG	X	2968	1/1	0.96	0.24	62,62,62,62	0
30	MG	X	2984	1/1	0.96	0.60	76,76,76,76	0
30	MG	X	3118	1/1	0.96	0.17	70,70,70,70	0
30	MG	X	3090	1/1	0.96	0.29	69,69,69,69	0
30	MG	X	3024	1/1	0.96	0.33	83,83,83,83	0
30	MG	X	3122	1/1	0.96	0.17	68,68,68,68	0
30	MG	Y	214	1/1	0.96	0.66	94,94,94,94	0
30	MG	X	3094	1/1	0.96	0.90	104,104,104,104	0
30	MG	X	2926	1/1	0.96	0.38	48,48,48,48	0
30	MG	A	301	1/1	0.96	0.43	84,84,84,84	0
30	MG	X	2956	1/1	0.96	0.19	51,51,51,51	0
30	MG	X	3129	1/1	0.96	0.26	55,55,55,55	0
30	MG	X	3130	1/1	0.96	0.14	55,55,55,55	0
30	MG	X	3028	1/1	0.96	0.76	58,58,58,58	0
30	MG	X	2957	1/1	0.96	0.51	53,53,53,53	0
30	MG	X	2903	1/1	0.96	0.51	66,66,66,66	0
30	MG	X	3161	1/1	0.97	0.61	74,74,74,74	0
30	MG	X	2928	1/1	0.97	0.29	54,54,54,54	0
30	MG	X	3124	1/1	0.97	0.40	58,58,58,58	0
30	MG	X	3125	1/1	0.97	0.62	51,51,51,51	0
30	MG	X	3205	1/1	0.97	0.61	61,61,61,61	0
30	MG	X	3165	1/1	0.97	0.52	72,72,72,72	0
30	MG	X	3062	1/1	0.97	0.59	61,61,61,61	0
30	MG	X	3091	1/1	0.97	0.31	62,62,62,62	0
30	MG	X	2908	1/1	0.97	0.57	21,21,21,21	0
30	MG	X	3093	1/1	0.97	0.17	64,64,64,64	0
30	MG	X	3213	1/1	0.97	0.22	85,85,85,85	0
30	MG	X	2931	1/1	0.97	0.17	69,69,69,69	0
30	MG	X	3019	1/1	0.97	0.50	64,64,64,64	0
30	MG	X	2978	1/1	0.97	0.26	68,68,68,68	0
30	MG	X	2944	1/1	0.97	0.17	50,50,50,50	0
30	MG	X	3134	1/1	0.97	0.25	71,71,71,71	0
30	MG	X	3220	1/1	0.97	0.42	56,56,56,56	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	X	2980	1/1	0.97	0.30	78,78,78,78	0
30	MG	X	2945	1/1	0.97	0.40	61,61,61,61	0
30	MG	X	3102	1/1	0.97	0.56	78,78,78,78	0
30	MG	X	2932	1/1	0.97	0.35	57,57,57,57	0
30	MG	X	3140	1/1	0.97	0.23	77,77,77,77	0
30	MG	X	2904	1/1	0.97	0.49	38,38,38,38	0
30	MG	X	2949	1/1	0.97	0.69	87,87,87,87	0
30	MG	X	2987	1/1	0.97	0.72	61,61,61,61	0
30	MG	X	2935	1/1	0.97	0.21	61,61,61,61	0
30	MG	X	3030	1/1	0.97	0.49	32,32,32,32	0
30	MG	X	2936	1/1	0.97	0.23	53,53,53,53	0
30	MG	X	2953	1/1	0.97	0.98	55,55,55,55	0
30	MG	X	3033	1/1	0.97	0.34	56,56,56,56	0
30	MG	X	3011	1/1	0.97	0.38	46,46,46,46	0
30	MG	X	3151	1/1	0.97	0.36	80,80,80,80	0
30	MG	X	3083	1/1	0.97	0.12	105,105,105,105	0
30	MG	X	3153	1/1	0.97	0.30	86,86,86,86	0
30	MG	X	3084	1/1	0.97	0.23	99,99,99,99	0
30	MG	X	2937	1/1	0.97	0.35	68,68,68,68	0
30	MG	X	3086	1/1	0.97	0.41	59,59,59,59	0
30	MG	X	2905	1/1	0.97	0.59	57,57,57,57	0
30	MG	X	3159	1/1	0.97	0.25	102,102,102,102	0
30	MG	X	3014	1/1	0.97	0.27	95,95,95,95	0
30	MG	X	2952	1/1	0.98	0.15	88,88,88,88	0
30	MG	X	2921	1/1	0.98	0.62	68,68,68,68	0
30	MG	X	3074	1/1	0.98	0.30	73,73,73,73	0
30	MG	X	3052	1/1	0.98	0.15	87,87,87,87	0
30	MG	X	2914	1/1	0.98	0.62	54,54,54,54	0
30	MG	X	3157	1/1	0.98	0.05	97,97,97,97	0
30	MG	X	3219	1/1	0.98	0.44	51,51,51,51	0
30	MG	X	2997	1/1	0.98	0.15	81,81,81,81	0
30	MG	X	2983	1/1	0.98	0.29	60,60,60,60	0
30	MG	X	2929	1/1	0.98	0.52	60,60,60,60	0
30	MG	X	2907	1/1	0.98	0.39	50,50,50,50	0
30	MG	X	3192	1/1	0.98	0.20	160,160,160,160	0
30	MG	X	3001	1/1	0.98	0.20	55,55,55,55	0
30	MG	X	2986	1/1	0.98	0.54	80,80,80,80	0
30	MG	X	3060	1/1	0.98	0.18	58,58,58,58	0
30	MG	X	2958	1/1	0.98	0.34	50,50,50,50	0
30	MG	X	3138	1/1	0.98	0.12	69,69,69,69	0
30	MG	X	2959	1/1	0.98	0.33	43,43,43,43	0
30	MG	X	3005	1/1	0.98	0.16	77,77,77,77	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	MG	Y	211	1/1	0.98	0.24	149,149,149,149	0
30	MG	X	3006	1/1	0.98	0.46	83,83,83,83	0
30	MG	X	3065	1/1	0.98	0.15	65,65,65,65	0
30	MG	X	2947	1/1	0.98	0.34	64,64,64,64	0
30	MG	X	2906	1/1	0.98	0.43	68,68,68,68	0
30	MG	X	3145	1/1	0.98	0.08	81,81,81,81	0
30	MG	X	3116	1/1	0.98	0.11	74,74,74,74	0
30	MG	X	3206	1/1	0.98	0.62	57,57,57,57	0
30	MG	X	2909	1/1	0.98	0.19	41,41,41,41	0
30	MG	I	201	1/1	0.98	0.13	60,60,60,60	0
30	MG	J	201	1/1	0.98	0.12	66,66,66,66	0
30	MG	X	2940	1/1	0.98	0.19	48,48,48,48	0
30	MG	X	3070	1/1	0.98	0.58	109,109,109,109	0
30	MG	X	2933	1/1	0.98	0.48	67,67,67,67	0
30	MG	X	3095	1/1	0.98	0.63	44,44,44,44	0
30	MG	X	3180	1/1	0.99	0.38	58,58,58,58	0
30	MG	X	3119	1/1	0.99	0.16	72,72,72,72	0
30	MG	X	2955	1/1	0.99	0.35	47,47,47,47	0
30	MG	X	3018	1/1	0.99	0.12	60,60,60,60	0
30	MG	X	2912	1/1	0.99	0.59	55,55,55,55	0
30	MG	X	3123	1/1	0.99	0.66	50,50,50,50	0
30	MG	X	3097	1/1	0.99	0.24	63,63,63,63	0
30	MG	X	2919	1/1	0.99	0.60	42,42,42,42	0
30	MG	X	2916	1/1	0.99	0.34	55,55,55,55	0
30	MG	X	2966	1/1	0.99	0.24	73,73,73,73	0
30	MG	X	2967	1/1	0.99	0.53	84,84,84,84	0
30	MG	X	3207	1/1	0.99	0.25	84,84,84,84	0
30	MG	X	2925	1/1	0.99	0.28	76,76,76,76	0
30	MG	X	3025	1/1	0.99	0.28	83,83,83,83	0
30	MG	X	2941	1/1	0.99	0.36	63,63,63,63	0
30	MG	X	3117	1/1	0.99	0.81	66,66,66,66	0
30	MG	X	2917	1/1	0.99	0.21	69,69,69,69	0
30	MG	X	3171	1/1	1.00	0.11	53,53,53,53	0
30	MG	X	2972	1/1	1.00	0.29	83,83,83,83	0

6.5 Other polymers

There are no such residues in this entry.