



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 27, 2014 – 02:18 PM GMT

PDB ID : 4B8H  
Title : RNA3  
Authors : Gao, Y.G.; Feng, S.; Chen, Y.  
Deposited on : 2012-08-28  
Resolution : 3.70 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

---

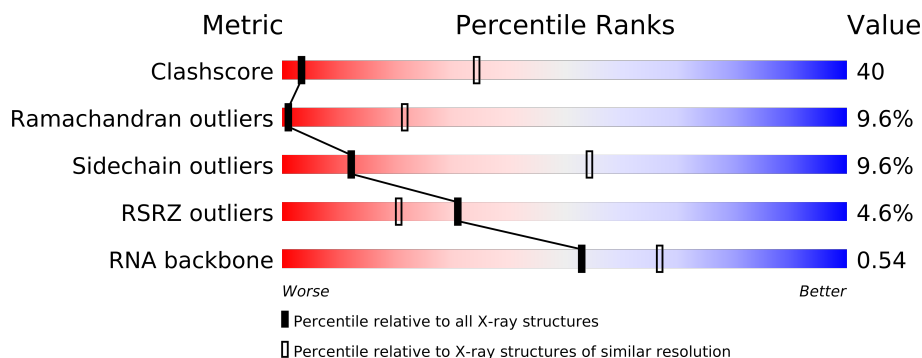
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Mogul : 1.15 2013  
Xtriage (Phenix) : dev-1323  
EDS : stable22639  
Percentile statistics : 21963  
Refmac : 5.8.0049  
CCP4 : 6.3.0 (Settle)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : stable22683

# 1 Overall quality at a glance

The reported resolution of this entry is 3.70 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))
Clashscore	79885	1009 (3.94-3.46)
Ramachandran outliers	78287	1016 (3.98-3.42)
Sidechain outliers	78261	1014 (3.98-3.42)
RSRZ outliers	66119	1099 (4.00-3.40)
RNA backbone	1838	1008 (4.52-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	A	1522	
2	B	256	
3	C	239	
4	D	209	
5	E	162	
6	F	101	
7	G	156	
8	H	138	
9	I	128	
10	J	105	
11	K	129	
12	L	132	
13	M	126	
14	N	61	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
15	O	89	
16	P	88	
17	Q	105	
18	R	88	
19	S	93	
20	T	106	
21	U	27	
22	V	76	
23	W	77	
24	X	25	
25	Y	691	

## 2 Entry composition

There are 29 unique types of molecules in this entry. The entry contains 60287 atoms, of which 0 are hydrogen and 0 are deuterium.

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	P	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Q	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	R	70	Total	C	N	O	0	0	0
			574	367	112	95			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	U	25	Total	C	N	O	0	0	1
			209	128	51	30			

- Molecule 22 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			

- Molecule 23 is a RNA chain called RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	W	77	Total	C	N	O	P	0	0	0
			1641	733	297	535	76			

- Molecule 24 is a RNA chain called RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	12	Total	C	N	O	P	0	0	0
			257	116	49	80	12			

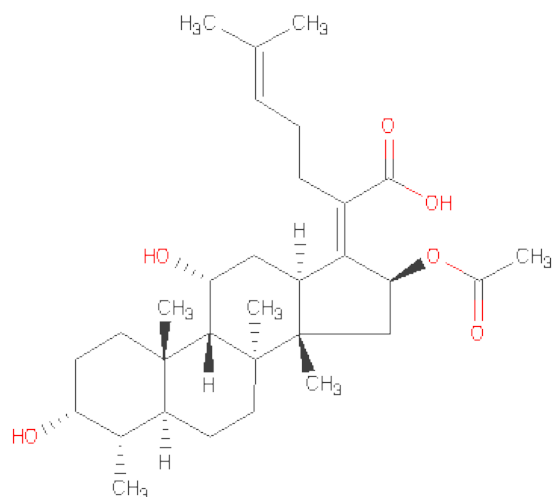
- Molecule 25 is a protein called ELONGATION FACTOR G.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	667	Total	C	N	O	S	0	0	1
			5215	3316	893	988	18			

- Molecule 26 is ZINC ION (three-letter code: ZN) (formula: Zn).

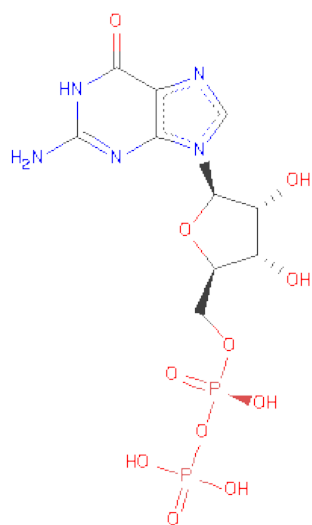
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
26	W	1	Total	Zn	0	0
			1	1		
26	D	1	Total	Zn	0	0
			1	1		
26	C	1	Total	Zn	0	0
			1	1		
26	N	1	Total	Zn	0	0
			1	1		

- Molecule 27 is FUSIDIC ACID (three-letter code: FUA) (formula: C<sub>31</sub>H<sub>48</sub>O<sub>6</sub>).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
27	F	1	Total	C	O	0	0
			37	31	6		

- Molecule 28 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula:  $C_{10}H_{15}N_5O_{11}P_2$ ).



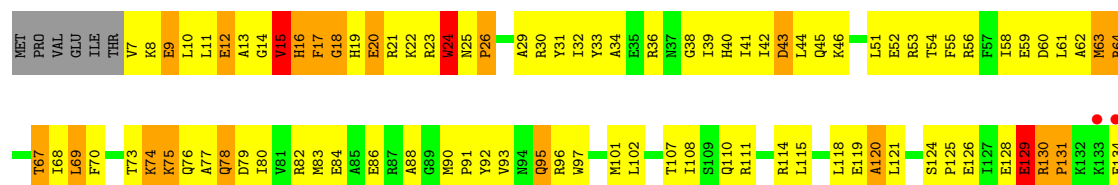
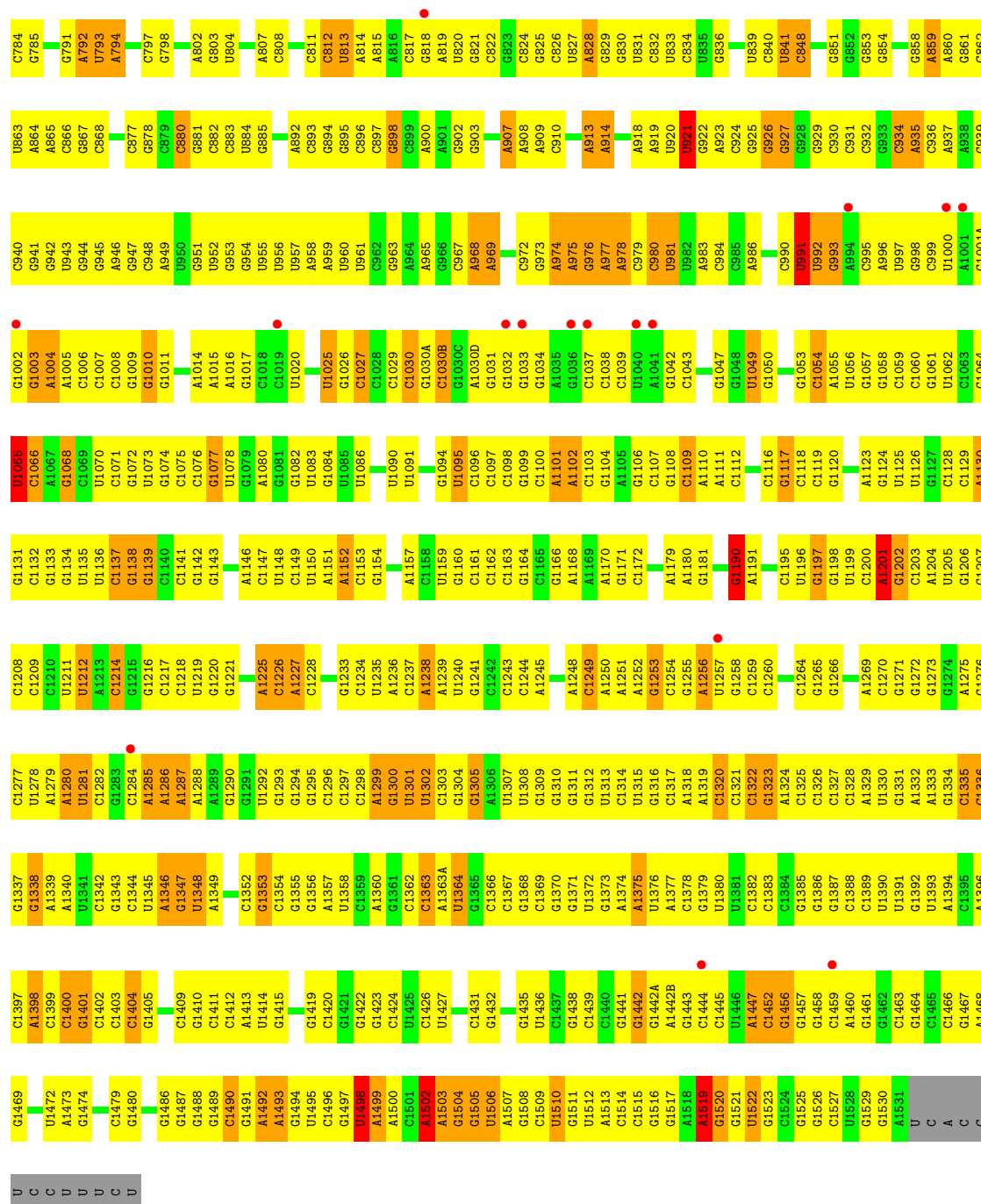
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
28	Y	1	Total	C	N	O	P	
			28	10	5	11	2	

- Molecule 29 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
29	Y	1	Total	Mg	0	0
			1	1		

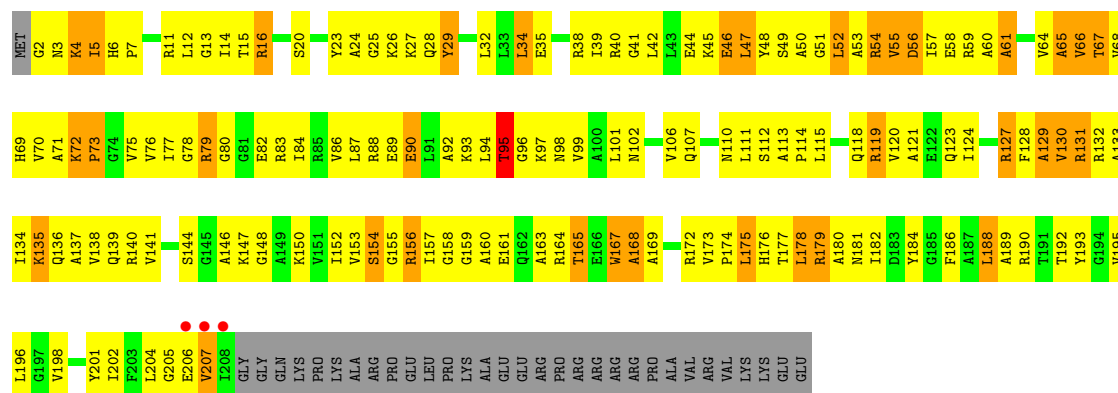






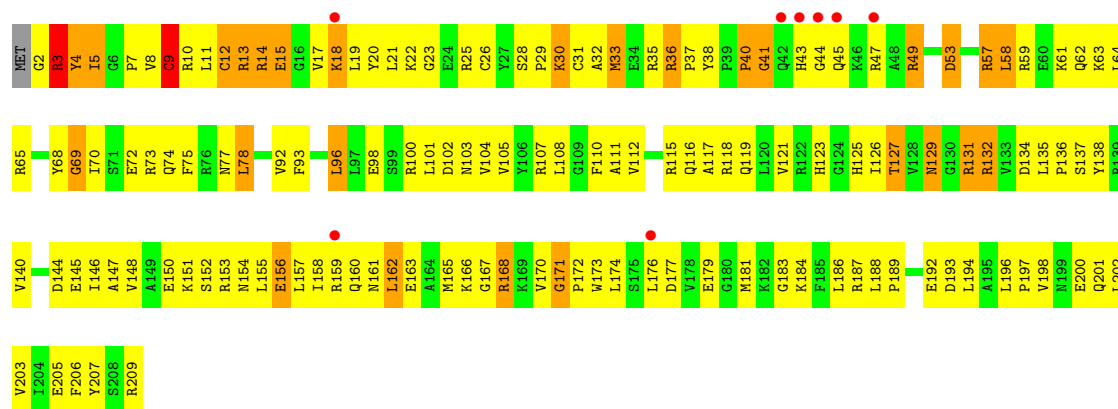
### • Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain C:



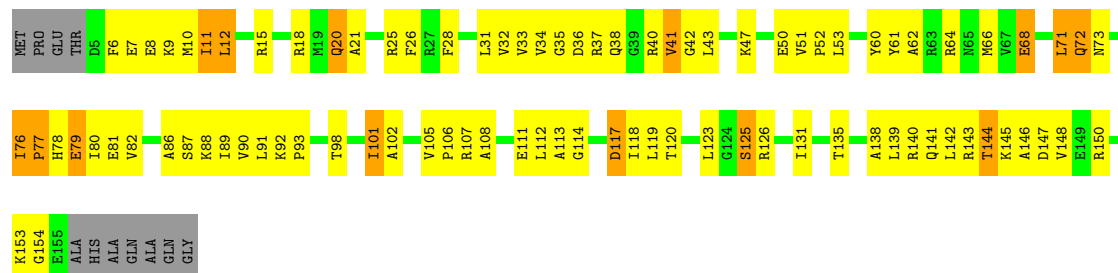
### • Molecule 4: 30S RIBOSOMAL PROTEIN S4

Chain D:



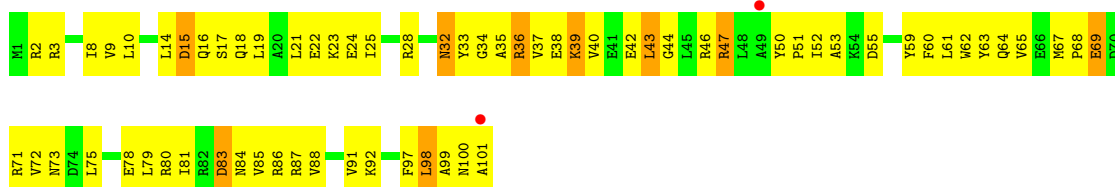
### • Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain E:



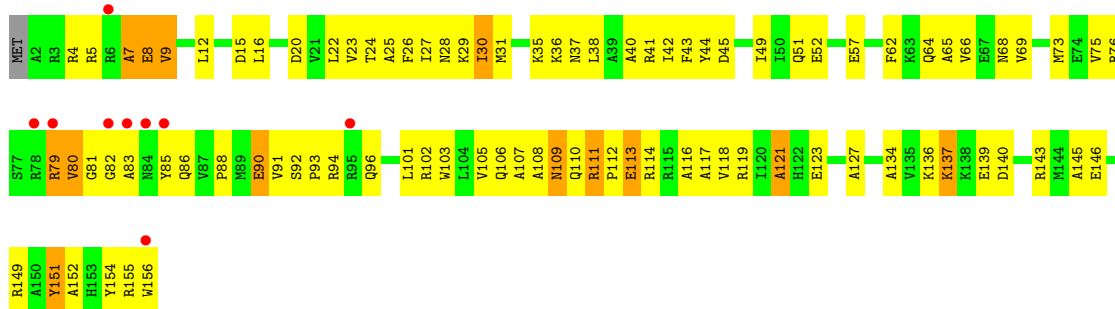
### • Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain F:



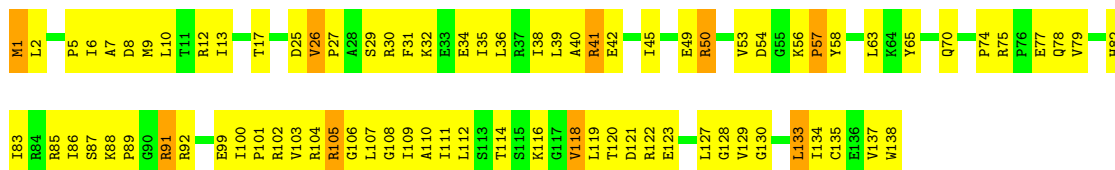
● Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain G:



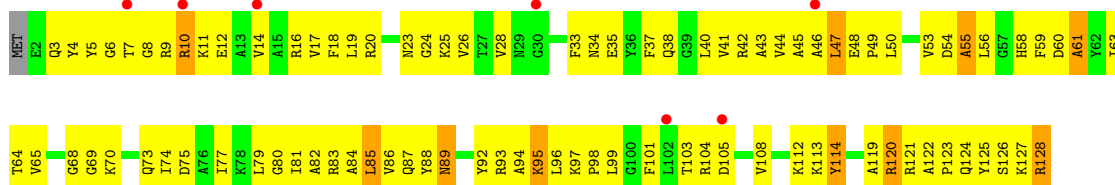
- Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain H:



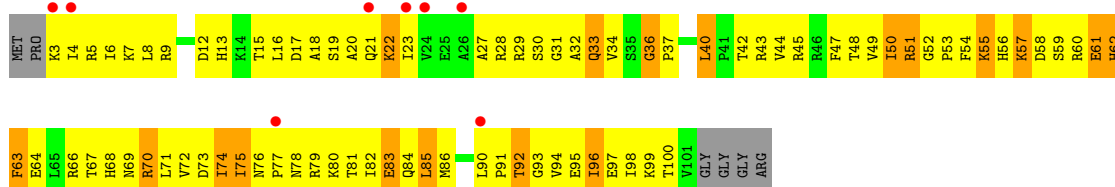
● Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain I:



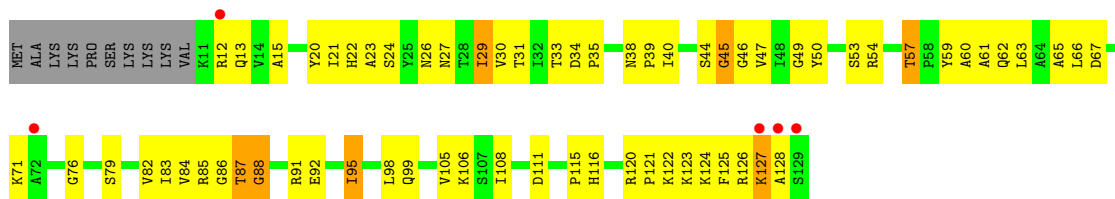
- Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain J:



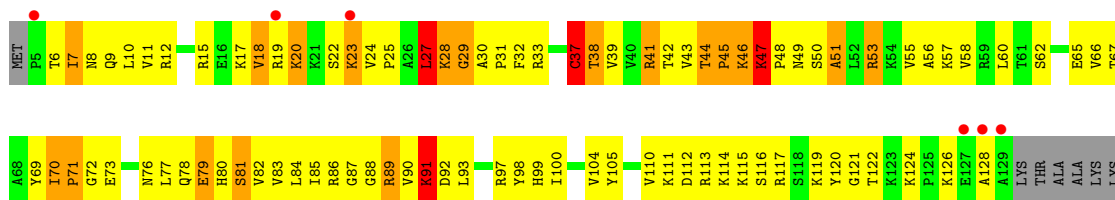
- Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain K:



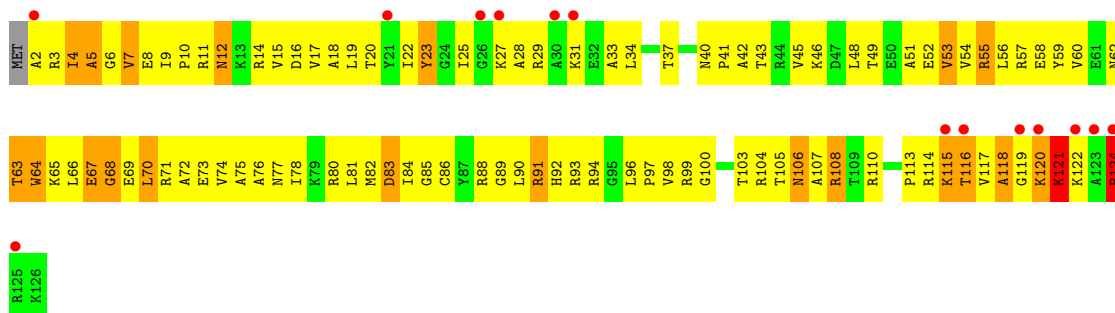
- Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain L:



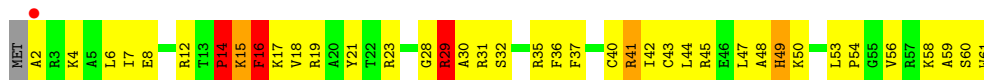
- Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain M:



- Molecule 14: 30S RIBOSOMAL PROTEIN S14 TYPE Z

Chain N:



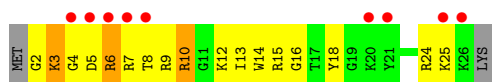
- Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain O:



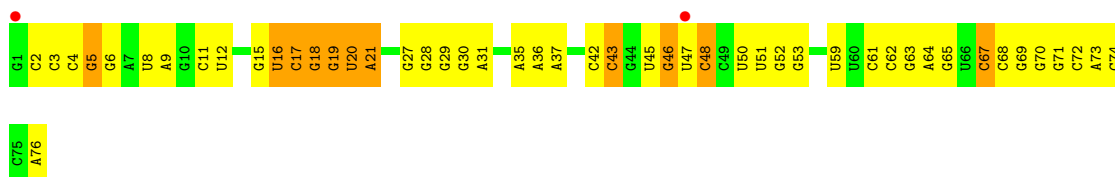
- Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain U: 



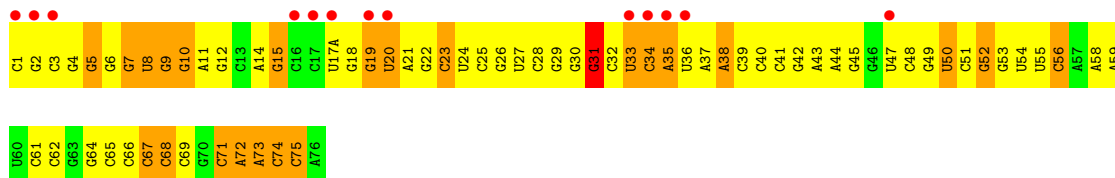
• Molecule 22: MRNA

Chain V:



• Molecule 23: RNA

Chain W:



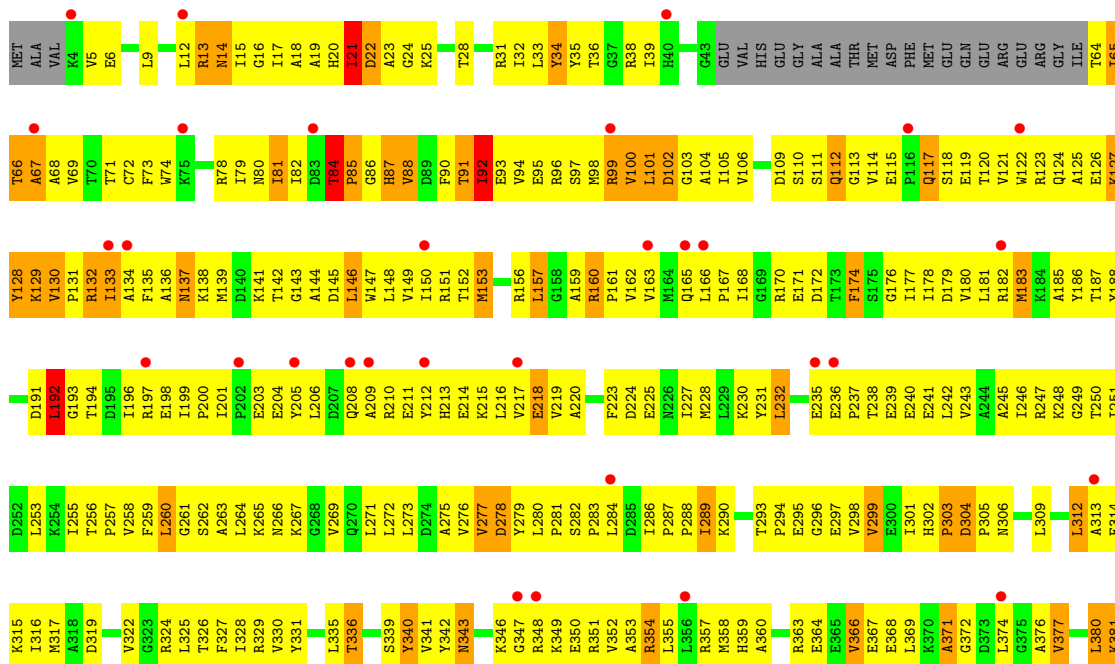
• Molecule 24: RNA

Chain X:

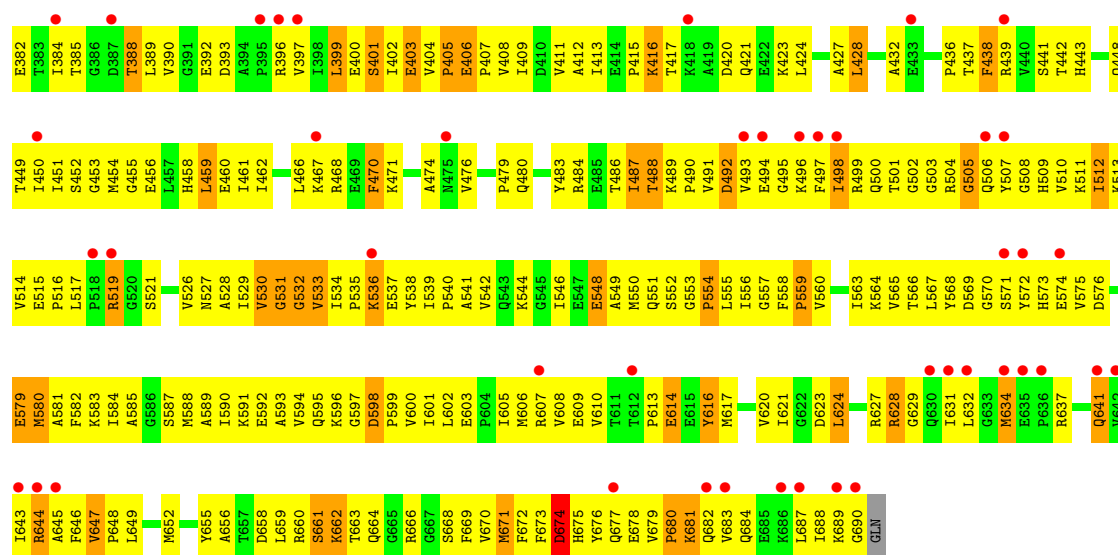


• Molecule 25: ELONGATION FACTOR G

Chain Y:







## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	291.36Å 269.43Å 401.95Å 90.00° 91.78° 90.00°	Depositor
Resolution (Å)	49.75 – 3.70 49.75 – 3.40	Depositor EDS
% Data completeness (in resolution range)	99.9 (49.75-3.70) 99.8 (49.75-3.40)	Depositor EDS
$R_{merge}$	0.20	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.47 (at 3.40Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, $R_{free}$	0.214 , 0.249 0.427 , (Not available)	Depositor DCC
$R_{free}$ test set	No test flags present.	DCC
Wilson B-factor (Å <sup>2</sup> )	84.2	Xtriage
Anisotropy	0.051	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 73.1	EDS
Estimated twinning fraction	0.048 for h,-k,-l	Xtriage
L-test for twinning	$\langle  L  \rangle = 0.41$ , $\langle L^2 \rangle = 0.24$	Xtriage
Outliers	0 of 846438 reflections	Xtriage
$F_o, F_c$ correlation	0.47	EDS
Total number of atoms	60287	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	106.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 8.34% of the height of the origin peak. No significant pseudotranslation is detected.*

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

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: GDP, 5MU, ZN, MG, FUA

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	A	0.51	0/36190	0.74	16/56486 (0.0%)
2	B	0.41	0/1936	0.68	0/2611
3	C	0.43	0/1637	0.64	0/2207
4	D	0.39	0/1733	0.65	0/2318
5	E	0.50	0/1163	0.68	0/1566
6	F	0.38	0/856	0.64	0/1154
7	G	0.38	0/1276	0.61	0/1709
8	H	0.43	0/1136	0.70	0/1527
9	I	0.40	0/1027	0.66	0/1373
10	J	0.42	0/808	0.69	0/1087
11	K	0.41	0/900	0.69	0/1213
12	L	0.45	0/987	0.70	0/1322
13	M	0.38	0/999	0.67	0/1338
14	N	0.45	0/501	0.67	0/664
15	O	0.39	0/745	0.62	0/992
16	P	0.40	0/717	0.62	0/965
17	Q	0.44	0/837	0.66	0/1119
18	R	0.46	0/579	0.68	0/768
19	S	0.41	0/643	0.68	1/867 (0.1%)
20	T	0.36	0/765	0.65	0/1007
21	U	0.46	0/213	0.62	0/279
22	V	0.46	0/1809	0.69	0/2819
23	W	0.95	2/1810 (0.1%)	0.68	0/2821
24	X	0.69	1/288 (0.3%)	0.85	1/446 (0.2%)
25	Y	0.45	0/5313	0.68	0/7195
All	All	0.50	3/64868 (0.0%)	0.71	18/95853 (0.0%)

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
1	A	1	21

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	W	38	A	O3'-P	37.35	2.06	1.61
24	X	19	A	O3'-P	-9.03	1.50	1.61
23	W	31	G	O3'-P	7.01	1.69	1.61

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1498	U	C2'-C3'-O3'	9.60	130.62	109.50
1	A	115	G	C2'-C3'-O3'	8.27	127.70	109.50
1	A	533	A	C2'-C3'-O3'	7.49	125.97	109.50
1	A	60	A	C2'-C3'-O3'	7.49	125.97	109.50
1	A	328	C	C2'-C3'-O3'	7.21	125.35	109.50
1	A	575	G	C2'-C3'-O3'	7.09	125.10	109.50
1	A	428	G	C2'-C3'-O3'	6.69	124.40	113.70
1	A	366	C	C2'-C3'-O3'	6.46	124.04	113.70
1	A	1502	A	N9-C1'-C2'	6.04	121.85	114.00
19	S	5	LEU	CA-CB-CG	5.93	128.94	115.30
24	X	19	A	OP2-P-O3'	5.87	118.12	105.20
1	A	921	U	C5'-C4'-C3'	-5.84	106.66	116.00
1	A	1201	A	C2'-C3'-O3'	5.70	122.81	113.70
1	A	1190	G	N9-C1'-C2'	5.56	121.22	114.00
1	A	553	A	C5'-C4'-C3'	-5.28	107.56	116.00
1	A	204	U	O4'-C1'-N1	5.25	112.40	108.20
1	A	586	C	N1-C1'-C2'	-5.06	106.43	112.00
1	A	1109	C	OP2-P-O3'	5.01	116.23	105.20

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A	1498	U	C3'

All (21) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1065	U	Sidechain
1	A	1077	G	Sidechain
1	A	108	G	Sidechain

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Group
1	A	118	U	Sidechain
1	A	1190	G	Sidechain
1	A	1214	C	Sidechain
1	A	1401	G	Sidechain
1	A	1502	A	Sidechain
1	A	1510	U	Sidechain
1	A	1519	A	Sidechain
1	A	1522	U	Sidechain
1	A	1525	G	Sidechain
1	A	189(G)	G	Sidechain
1	A	250	A	Sidechain
1	A	436	C	Sidechain
1	A	586	C	Sidechain
1	A	672	U	Sidechain
1	A	749	C	Sidechain
1	A	880	C	Sidechain
1	A	898	G	Sidechain
1	A	991	U	Sidechain

## 5.2 Close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	32329	0	16318	1198	0
2	B	1901	0	1951	225	0
3	C	1613	0	1677	191	0
4	D	1703	0	1763	178	0
5	E	1147	0	1207	112	0
6	F	843	0	857	79	0
7	G	1257	0	1296	93	0
8	H	1116	0	1177	88	0
9	I	1010	0	1035	137	0
10	J	795	0	840	159	0
11	K	885	0	904	63	0
12	L	971	0	1057	145	0
13	M	988	0	1059	150	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	N	492	0	529	63	0
15	O	734	0	771	71	0
16	P	701	0	720	67	0
17	Q	824	0	891	65	0
18	R	574	0	644	79	0
19	S	630	0	652	102	0
20	T	763	0	861	94	0
21	U	209	0	221	17	0
22	V	1619	0	822	56	0
23	W	1641	0	840	111	0
24	X	257	0	130	50	0
25	Y	5215	0	5287	800	0
26	C	1	0	0	0	0
26	D	1	0	0	0	0
26	N	1	0	0	0	0
26	W	1	0	0	0	0
27	F	37	0	47	26	0
28	Y	28	0	12	10	0
29	Y	1	0	0	0	0
All	All	60287	0	43568	4108	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 40.

All (4108) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:34:C:C3'	23:W:35:A:H5''	1.42	1.47
22:V:36:A:N1	24:X:16:U:O4	1.61	1.32
24:X:11:A:H4'	24:X:12:A:C5'	1.69	1.23
23:W:34:C:C2'	23:W:35:A:H5''	1.71	1.19
2:B:185:ILE:HG22	2:B:199:TYR:HB2	1.24	1.16
2:B:168:THR:HG23	2:B:192:SER:HB3	1.17	1.16
24:X:11:A:H4'	24:X:12:A:H5'	1.24	1.14
27:F:1103:FUA:H5	27:F:1103:FUA:H202	1.29	1.14
1:A:1503:A:C2	24:X:11:A:C2	2.35	1.13
1:A:979:C:H3'	1:A:980:C:H5''	1.20	1.13
23:W:38:A:O3'	23:W:39:C:P	2.06	1.13
25:Y:490:PRO:HG3	25:Y:516:PRO:HD2	1.30	1.12
9:I:112:LYS:HA	9:I:119:ALA:HB2	1.22	1.12
25:Y:146:LEU:HD12	25:Y:167:PRO:HD3	1.30	1.12
25:Y:510:VAL:HA	25:Y:570:GLY:HA3	1.28	1.12
24:X:11:A:H1'	24:X:12:A:N7	1.65	1.11

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:124:PRO:HG2	25:Y:574:GLU:H	1.13	1.11
23:W:34:C:H2'	23:W:35:A:O4'	1.50	1.10
23:W:34:C:H3'	23:W:35:A:C5'	1.81	1.09
25:Y:546:ILE:HG21	25:Y:565:VAL:HG21	1.35	1.09
25:Y:491:VAL:HG13	25:Y:596:LYS:HE2	1.33	1.09
23:W:34:C:C3'	23:W:35:A:C5'	2.31	1.08
1:A:793:U:H3'	1:A:794:A:H5''	1.30	1.08
25:Y:499:ARG:HB2	25:Y:506:GLN:HB3	1.21	1.08
10:J:48:THR:HA	10:J:62:HIS:HB3	1.37	1.06
2:B:165:VAL:HG23	2:B:166:ASP:H	1.19	1.06
12:L:18:VAL:HG23	12:L:19:ARG:H	1.14	1.06
3:C:70:VAL:HG12	3:C:72:LYS:H	1.16	1.05
1:A:1503:A:C2	24:X:11:A:H2	1.73	1.05
10:J:75:ILE:HG13	10:J:76:ASN:H	1.08	1.05
25:Y:136:ALA:HB3	25:Y:260:LEU:HB3	1.35	1.05
13:M:108:ARG:HA	13:M:108:ARG:HH11	1.22	1.04
15:O:17:ARG:HD3	15:O:26:GLU:HG3	1.40	1.04
1:A:1399:C:H4'	1:A:1400:C:C5'	1.88	1.03
25:Y:157:LEU:H	25:Y:157:LEU:HD23	1.22	1.02
23:W:14:A:H3'	23:W:15:G:H5''	1.36	1.01
25:Y:289:ILE:HG22	25:Y:290:LYS:H	0.89	1.01
25:Y:289:ILE:HG22	25:Y:290:LYS:N	1.73	1.01
10:J:50:ILE:HD13	10:J:50:ILE:H	1.23	1.01
25:Y:223:PHE:HB3	25:Y:248:LYS:HD3	1.38	1.01
25:Y:546:ILE:HG23	25:Y:590:ILE:HG13	1.43	1.01
1:A:1057:G:H5''	3:C:154:SER:HB2	1.40	1.01
23:W:3:C:H2'	23:W:4:G:H5''	1.41	1.00
25:Y:439:ARG:H	25:Y:452:SER:HB3	1.22	1.00
25:Y:289:ILE:CG2	25:Y:290:LYS:H	1.71	1.00
2:B:223:ILE:HG12	2:B:226:ARG:NH2	1.75	1.00
25:Y:539:ILE:HD12	25:Y:567:LEU:HD21	1.43	1.00
23:W:34:C:C2'	23:W:35:A:C5'	2.40	1.00
12:L:41:ARG:HB3	12:L:41:ARG:HH11	1.25	0.99
23:W:34:C:H3'	23:W:35:A:H5''	1.01	0.99
25:Y:348:ARG:HG2	25:Y:382:GLU:HG3	1.43	0.99
1:A:975:A:H4'	1:A:976:G:H5''	1.45	0.98
18:R:29:PHE:H	18:R:29:PHE:HD1	1.09	0.98
3:C:58:GLU:H	3:C:65:ALA:HB3	1.28	0.97
25:Y:606:MET:HE2	25:Y:671:MET:HG2	1.42	0.97
25:Y:487:ILE:HG22	25:Y:594:VAL:HG13	1.45	0.97
1:A:979:C:C3'	1:A:980:C:H5''	1.95	0.97
7:G:27:ILE:HD11	7:G:40:ALA:HA	1.45	0.97

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:80:G:H3'	1:A:81:U:H5'	1.45	0.95
25:Y:409:ILE:HG22	25:Y:459:LEU:HD21	1.47	0.95
25:Y:227:ILE:HG23	25:Y:237:PRO:HG2	1.49	0.95
22:V:51:U:H3	22:V:63:G:H1	1.05	0.95
11:K:54:ARG:O	11:K:57:THR:HG22	1.65	0.95
24:X:11:A:H4'	24:X:12:A:O5'	1.65	0.95
1:A:1003:G:H2'	1:A:1004:A:H4'	1.46	0.94
25:Y:548:GLU:HA	25:Y:551:GLN:HE21	1.29	0.94
5:E:50:GLU:HG3	5:E:52:PRO:HD2	1.48	0.94
1:A:656:C:H4'	15:O:62:GLN:HE22	1.30	0.94
25:Y:573:HIS:HD2	25:Y:576:ASP:H	1.08	0.93
1:A:1004:A:H5'	1:A:1025:U:H3	1.32	0.93
25:Y:530:VAL:HG22	25:Y:531:GLY:H	1.32	0.93
3:C:206:GLU:HG2	3:C:207:VAL:H	1.34	0.93
14:N:12:ARG:HH12	14:N:14:PRO:HG3	1.34	0.93
17:Q:69:LYS:O	17:Q:70:ARG:HD2	1.68	0.93
9:I:4:TYR:HB2	9:I:19:LEU:HB2	1.51	0.93
9:I:119:ALA:O	9:I:120:ARG:HG2	1.69	0.93
10:J:75:ILE:HG13	10:J:76:ASN:N	1.81	0.93
25:Y:632:LEU:HG	25:Y:645:ALA:HA	1.46	0.93
20:T:57:ARG:NH1	20:T:102:GLY:HA2	1.84	0.93
12:L:41:ARG:HG2	12:L:42:THR:H	1.34	0.92
13:M:3:ARG:HG2	13:M:9:ILE:HD11	1.52	0.92
20:T:48:LYS:HB3	20:T:51:GLU:HG2	1.52	0.92
10:J:49:VAL:HG23	14:N:41:ARG:HB2	1.52	0.92
1:A:1363(A):A:H4'	1:A:1364:U:H5''	1.50	0.92
1:A:148:G:H2'	1:A:149:A:H8	1.33	0.92
6:F:67:MET:HB2	6:F:68:PRO:HD2	1.52	0.92
13:M:23:TYR:HB3	13:M:67:GLU:HB3	1.50	0.92
25:Y:427:ALA:HB1	25:Y:466:LEU:HG	1.50	0.91
1:A:1399:C:H4'	1:A:1400:C:H5'	1.50	0.91
25:Y:92:ILE:HG12	25:Y:405:PRO:HG2	1.52	0.91
4:D:49:ARG:HE	4:D:49:ARG:HA	1.33	0.91
10:J:34:VAL:HG22	10:J:74:ILE:HG22	1.52	0.91
22:V:36:A:N1	24:X:16:U:C4	2.38	0.91
25:Y:5:VAL:HG13	25:Y:6:GLU:H	1.32	0.90
20:T:23:ARG:O	20:T:27:LYS:HB2	1.71	0.90
2:B:204:ASN:ND2	2:B:206:ASP:H	1.69	0.90
8:H:83:ILE:HD12	8:H:137:VAL:HG22	1.54	0.90
25:Y:84:THR:H	25:Y:85:PRO:HD3	1.35	0.90
1:A:1277:C:H2'	1:A:1278:U:H5'	1.54	0.90
25:Y:92:ILE:HG21	25:Y:454:MET:HE1	1.54	0.89

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:I:17:VAL:HG11	9:I:81:ILE:HD13	1.54	0.89
11:K:111:ASP:HA	18:R:84:LYS:HD2	1.51	0.89
1:A:1490:C:H5'	1:A:1490:C:H6	1.37	0.89
25:Y:185:ALA:HB3	25:Y:199:ILE:O	1.72	0.89
10:J:6:ILE:HD11	10:J:72:VAL:HB	1.52	0.89
1:A:1004:A:H61	1:A:1034:G:H2'	1.36	0.89
10:J:4:ILE:HD11	10:J:77:PRO:HB3	1.54	0.88
3:C:90:GLU:O	3:C:93:LYS:HB3	1.73	0.88
1:A:129(A):G:O2'	1:A:189(F):U:H2'	1.73	0.88
4:D:36:ARG:CB	4:D:36:ARG:HH11	1.86	0.88
1:A:1030(D):A:H2'	1:A:1031:G:H5'	1.56	0.88
3:C:34:LEU:HD22	3:C:38:ARG:HD2	1.55	0.88
24:X:11:A:H1'	24:X:12:A:C8	2.09	0.88
2:B:88:ALA:HB2	2:B:219:VAL:HG13	1.56	0.88
14:N:12:ARG:O	14:N:14:PRO:HD3	1.73	0.88
5:E:101:ILE:HD11	5:E:119:LEU:HD23	1.56	0.88
1:A:979:C:H3'	1:A:980:C:C5'	2.04	0.88
10:J:54:PHE:CE2	10:J:55:LYS:HD2	2.08	0.87
10:J:78:ASN:HD22	10:J:81:THR:HG21	1.39	0.87
2:B:204:ASN:HD22	2:B:205:ASP:N	1.73	0.87
2:B:17:PHE:HB3	2:B:44:LEU:HD21	1.56	0.87
1:A:973:G:O4'	10:J:55:LYS:HG3	1.74	0.87
2:B:42:ILE:HD11	2:B:202:PRO:HB2	1.56	0.87
1:A:1227:A:H2'	13:M:117:VAL:HG21	1.56	0.87
1:A:1399:C:H4'	1:A:1400:C:H5''	1.56	0.87
25:Y:529:ILE:HD11	25:Y:567:LEU:HD11	1.54	0.86
22:V:36:A:C6	24:X:16:U:O4	2.28	0.86
4:D:108:LEU:HD21	4:D:183:GLY:HA3	1.57	0.86
25:Y:330:VAL:HG21	25:Y:369:LEU:HB3	1.57	0.86
1:A:509:A:H5'	1:A:510:A:OP2	1.75	0.86
13:M:3:ARG:HH21	13:M:7:VAL:HG13	1.39	0.86
2:B:12:GLU:O	2:B:14:GLY:N	2.09	0.86
23:W:7:G:H3'	23:W:8:U:H5'	1.58	0.86
4:D:194:LEU:HB3	4:D:196:LEU:HD13	1.57	0.86
1:A:998:G:H2'	1:A:999:C:C2	2.11	0.86
25:Y:330:VAL:HG12	25:Y:371:ALA:HA	1.58	0.86
25:Y:453:GLY:HA2	25:Y:458:HIS:CD2	2.11	0.85
23:W:30:G:C2'	23:W:31:G:H5''	2.05	0.85
10:J:49:VAL:O	10:J:60:ARG:HB3	1.76	0.85
3:C:156:ARG:HH21	3:C:161:GLU:HA	1.40	0.85
16:P:20:VAL:HG21	16:P:32:TYR:CG	2.11	0.85
25:Y:228:MET:O	25:Y:232:LEU:HD22	1.76	0.85

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:58:LEU:HB3	18:R:62:GLU:HB3	1.58	0.85
2:B:21:ARG:HD2	2:B:39:ILE:HG12	1.59	0.85
1:A:686:U:HO2'	1:A:687:A:H8	0.93	0.85
25:Y:32:ILE:O	25:Y:36:THR:HG23	1.77	0.85
2:B:107:THR:HA	2:B:110:GLN:HE21	1.41	0.85
12:L:41:ARG:NH1	12:L:41:ARG:HB3	1.90	0.84
13:M:97:PRO:HA	13:M:110:ARG:HD3	1.57	0.84
12:L:90:VAL:O	12:L:92:ASP:N	2.10	0.84
25:Y:606:MET:O	25:Y:646:PHE:HA	1.77	0.84
6:F:33:TYR:HA	6:F:71:ARG:NH2	1.91	0.84
1:A:328:C:H2'	1:A:328:C:O2	1.77	0.84
25:Y:605:ILE:HD11	25:Y:677:GLN:HG2	1.57	0.84
1:A:1152:A:H5''	10:J:13:HIS:CD2	2.12	0.84
10:J:7:LYS:HB2	10:J:97:GLU:HB2	1.59	0.84
1:A:973:G:H1'	10:J:55:LYS:CE	2.08	0.84
23:W:51:C:H2'	23:W:52:G:H5''	1.60	0.84
25:Y:628:ARG:HE	25:Y:648:PRO:HG2	1.43	0.84
10:J:6:ILE:O	10:J:6:ILE:HD12	1.78	0.83
23:W:30:G:H2'	23:W:31:G:H5''	1.59	0.83
1:A:1026:G:H2'	1:A:1027:C:H5'	1.60	0.83
3:C:52:LEU:HD23	3:C:52:LEU:H	1.42	0.83
1:A:100:C:H2'	1:A:101:A:C8	2.13	0.83
25:Y:546:ILE:HD13	25:Y:565:VAL:HG11	1.60	0.83
5:E:76:ILE:HG13	5:E:142:LEU:HD13	1.59	0.83
1:A:1502:A:H2	1:A:1505:G:H1	1.24	0.83
25:Y:353:ALA:O	25:Y:354:ARG:HB2	1.79	0.83
3:C:79:ARG:HH11	3:C:79:ARG:HB2	1.41	0.83
27:F:1103:FUA:H122	27:F:1103:FUA:H231	1.59	0.83
25:Y:548:GLU:O	25:Y:551:GLN:HG2	1.78	0.83
15:O:80:ALA:HB1	15:O:84:LYS:HE2	1.59	0.83
20:T:50:GLU:HB3	20:T:99:LEU:HB2	1.61	0.83
3:C:3:ASN:O	3:C:4:LYS:HB2	1.78	0.83
1:A:736:C:H2'	1:A:737:A:C8	2.14	0.83
25:Y:289:ILE:O	25:Y:290:LYS:HG3	1.78	0.83
9:I:5:TYR:CD1	9:I:6:GLY:N	2.46	0.83
24:X:11:A:C4'	24:X:12:A:H5'	2.08	0.83
25:Y:453:GLY:HA2	25:Y:458:HIS:HD2	1.42	0.83
5:E:80:ILE:HG22	8:H:104:ARG:NH2	1.92	0.83
2:B:126:GLU:HA	2:B:129:GLU:OE2	1.78	0.83
1:A:1112:C:O2	3:C:179:ARG:HG3	1.79	0.83
3:C:50:ALA:HB1	3:C:70:VAL:HG11	1.61	0.82
25:Y:605:ILE:CG2	25:Y:646:PHE:HB3	2.09	0.82

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1234:C:O2'	1:A:1235:U:H5'	1.77	0.82
2:B:44:LEU:H	2:B:44:LEU:HD12	1.42	0.82
2:B:43:ASP:OD2	2:B:46:LYS:HB2	1.77	0.82
1:A:1004:A:H5'	1:A:1025:U:N3	1.92	0.82
4:D:36:ARG:HH11	4:D:36:ARG:HB3	1.41	0.82
1:A:1321:C:H3'	1:A:1322:C:H5''	1.61	0.82
3:C:112:SER:HB3	3:C:115:LEU:HD12	1.62	0.82
1:A:1503:A:N1	24:X:11:A:N3	2.26	0.82
25:Y:82:ILE:HD12	25:Y:101:LEU:HD23	1.58	0.82
23:W:68:C:H2'	23:W:69:C:C6	2.14	0.82
23:W:1:C:H2'	23:W:2:G:H8	1.42	0.82
1:A:80:G:H3'	1:A:81:U:C5'	2.08	0.82
13:M:15:VAL:HG12	13:M:45:VAL:HG22	1.61	0.82
20:T:13:LEU:H	20:T:13:LEU:HD12	1.43	0.82
13:M:49:THR:HG22	13:M:51:ALA:H	1.42	0.82
1:A:148:G:H2'	1:A:149:A:C8	2.14	0.82
13:M:82:MET:HA	13:M:93:ARG:HH21	1.43	0.82
1:A:1116:C:H2'	1:A:1117:G:H5'	1.62	0.82
1:A:1237:C:H3'	1:A:1238:A:H5'	1.60	0.82
1:A:1054:C:O2'	1:A:1055:A:H5''	1.77	0.81
13:M:10:PRO:CB	13:M:18:ALA:HB1	2.09	0.81
25:Y:488:THR:HG23	25:Y:600:VAL:HB	1.60	0.81
1:A:793:U:C3'	1:A:794:A:H5''	2.09	0.81
10:J:63:PHE:HB3	14:N:58:LYS:HA	1.62	0.81
5:E:102:ALA:HB2	5:E:120:THR:OG1	1.80	0.81
11:K:99:GLN:HG2	11:K:105:VAL:HG21	1.60	0.81
27:F:1103:FUA:H121	25:Y:90:PHE:CZ	2.15	0.81
25:Y:548:GLU:OE1	25:Y:583:LYS:HE2	1.81	0.81
25:Y:573:HIS:CD2	25:Y:576:ASP:H	1.97	0.81
25:Y:156:ARG:HB2	25:Y:157:LEU:HD23	1.61	0.81
1:A:656:C:H4'	15:O:62:GLN:NE2	1.95	0.81
9:I:88:TYR:O	9:I:89:ASN:HB2	1.81	0.81
18:R:59:SER:H	18:R:62:GLU:HB2	1.44	0.81
1:A:1250:A:H4'	9:I:68:GLY:H	1.46	0.81
23:W:34:C:O2'	23:W:35:A:C5'	2.29	0.81
13:M:8:GLU:OE1	13:M:22:ILE:HA	1.80	0.81
25:Y:281:PRO:HB2	25:Y:286:ILE:HD11	1.61	0.81
5:E:11:ILE:HD12	5:E:31:LEU:HD12	1.61	0.81
24:X:17:U:H2'	24:X:18:C:H6	1.44	0.81
3:C:134:ILE:HD11	3:C:153:VAL:HG23	1.62	0.81
12:L:47:LYS:NZ	12:L:48:PRO:HD3	1.96	0.81
25:Y:17:ILE:O	25:Y:85:PRO:HG2	1.79	0.81

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:182:U:H5'	1:A:183:G:OP2	1.81	0.81
12:L:70:ILE:HG23	12:L:100:ILE:HD12	1.61	0.81
2:B:20:GLU:O	2:B:39:ILE:HG23	1.81	0.80
18:R:87:ARG:HB3	18:R:87:ARG:NH1	1.95	0.80
25:Y:238:THR:HG23	25:Y:241:GLU:H	1.47	0.80
23:W:50:U:H3	23:W:64:G:H22	1.30	0.80
1:A:792:A:O2'	1:A:794:A:N7	2.14	0.80
25:Y:12:LEU:O	25:Y:283:PRO:HD3	1.81	0.80
4:D:8:VAL:C	4:D:10:ARG:H	1.84	0.80
20:T:57:ARG:HH11	20:T:102:GLY:HA2	1.46	0.80
3:C:83:ARG:O	3:C:86:VAL:HG22	1.80	0.80
9:I:53:VAL:HG23	9:I:55:ALA:HB3	1.63	0.80
19:S:48:THR:HG22	19:S:61:TYR:HA	1.64	0.80
3:C:16:ARG:HH11	3:C:16:ARG:HB2	1.46	0.80
23:W:22:G:C2'	23:W:23:C:H5''	2.11	0.80
4:D:64:LEU:HB2	4:D:198:VAL:HG11	1.64	0.80
1:A:1104:G:O5'	2:B:111:ARG:HD2	1.82	0.80
12:L:18:VAL:HG23	12:L:19:ARG:N	1.95	0.80
23:W:14:A:C3'	23:W:15:G:H5''	2.09	0.79
11:K:85:ARG:HG2	11:K:111:ASP:O	1.81	0.79
24:X:18:C:C5'	24:X:19:A:OP1	2.30	0.79
1:A:1002:G:H22	1:A:1039:C:H2'	1.47	0.79
3:C:157:ILE:HD12	3:C:164:ARG:HB2	1.64	0.79
15:O:33:THR:HG21	15:O:85:LEU:HD21	1.64	0.79
24:X:11:A:C1'	24:X:12:A:C8	2.65	0.79
3:C:173:VAL:HG12	3:C:175:LEU:HD12	1.63	0.79
12:L:83:VAL:HG11	12:L:100:ILE:HD13	1.65	0.79
25:Y:568:TYR:CE1	25:Y:569:ASP:HB2	2.18	0.79
25:Y:223:PHE:CZ	25:Y:249:GLY:HA3	2.16	0.79
1:A:1490:C:H5'	1:A:1490:C:C6	2.18	0.79
25:Y:584:ILE:O	25:Y:588:MET:HG3	1.82	0.79
1:A:1489:G:H2'	1:A:1490:C:H5''	1.65	0.79
16:P:25:ARG:HG3	16:P:25:ARG:HH11	1.48	0.79
22:V:52:G:H2'	22:V:53:G:C8	2.18	0.79
1:A:438:G:H4'	1:A:439:A:OP1	1.82	0.79
24:X:17:U:H2'	24:X:18:C:C6	2.17	0.79
12:L:126:LYS:HG3	12:L:128:ALA:H	1.46	0.79
25:Y:509:HIS:ND1	25:Y:570:GLY:HA2	1.98	0.79
23:W:3:C:C2'	23:W:4:G:H5''	2.13	0.79
1:A:973:G:H3'	1:A:974:A:H5''	1.64	0.79
22:V:52:G:H2'	22:V:53:G:H8	1.48	0.79
25:Y:251:ILE:HG23	25:Y:281:PRO:HB3	1.62	0.78

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:483:C:H3'	1:A:484:G:H5''	1.63	0.78
23:W:34:C:O2'	23:W:35:A:C4'	2.31	0.78
25:Y:91:THR:O	25:Y:93:GLU:N	2.15	0.78
5:E:144:THR:O	5:E:148:VAL:HG23	1.83	0.78
10:J:61:GLU:OE1	14:N:45:ARG:HD2	1.83	0.78
25:Y:272:LEU:O	25:Y:276:VAL:HG23	1.83	0.78
12:L:20:LYS:HD3	12:L:20:LYS:H	1.46	0.78
10:J:69:ASN:O	10:J:70:ARG:HD2	1.84	0.78
4:D:30:LYS:C	4:D:32:ALA:H	1.87	0.78
12:L:25:PRO:C	12:L:27:LEU:H	1.85	0.78
2:B:168:THR:CG2	2:B:192:SER:HB3	2.09	0.78
14:N:29:ARG:HG3	14:N:29:ARG:HH11	1.49	0.78
13:M:3:ARG:NH2	13:M:7:VAL:HG13	1.98	0.78
1:A:284:G:H2'	1:A:285:G:H8	1.48	0.78
10:J:33:GLN:O	10:J:75:ILE:HG12	1.84	0.78
1:A:625:G:H2'	1:A:626:U:C6	2.18	0.78
1:A:201:C:H2'	1:A:202:U:H5''	1.66	0.78
1:A:101:A:O2'	1:A:102:G:H5'	1.83	0.77
22:V:2:C:H2'	22:V:3:C:H6	1.48	0.77
12:L:6:THR:H	12:L:9:GLN:NE2	1.81	0.77
1:A:1489:G:C2'	1:A:1490:C:H5''	2.14	0.77
1:A:1226:C:N4	13:M:104:ARG:HD2	1.99	0.77
25:Y:628:ARG:NE	25:Y:648:PRO:HG2	1.99	0.77
2:B:96:ARG:HD2	2:B:96:ARG:N	1.99	0.77
10:J:53:PRO:HA	14:N:42:ILE:HD11	1.67	0.77
1:A:1004:A:N6	1:A:1034:G:H2'	1.99	0.77
1:A:1152:A:H5''	10:J:13:HIS:HD2	1.49	0.77
1:A:697:U:H2'	1:A:698:G:H5'	1.66	0.77
12:L:39:VAL:HB	12:L:57:LYS:HB2	1.65	0.77
1:A:579:G:H5'	1:A:728:A:H1'	1.64	0.77
25:Y:544:LYS:O	25:Y:548:GLU:HB3	1.83	0.77
9:I:4:TYR:CD2	9:I:88:TYR:HB2	2.20	0.77
15:O:83:GLU:C	15:O:85:LEU:H	1.88	0.77
1:A:797:C:OP1	11:K:124:LYS:HE3	1.85	0.77
9:I:40:LEU:HD11	9:I:70:LYS:HG2	1.67	0.77
17:Q:52:LYS:HD2	17:Q:52:LYS:H	1.49	0.77
25:Y:95:GLU:OE1	25:Y:124:GLN:HB3	1.84	0.77
9:I:65:VAL:HG21	9:I:73:GLN:HB3	1.65	0.77
1:A:1342:C:H4'	9:I:125:TYR:HB3	1.66	0.77
4:D:129:ASN:HD22	4:D:129:ASN:N	1.83	0.77
23:W:34:C:C2'	23:W:35:A:O4'	2.30	0.77
25:Y:33:LEU:HD23	25:Y:360:ALA:HB2	1.67	0.77

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:T:45:GLN:HB2	20:T:91:LEU:HD13	1.66	0.77
19:S:21:GLU:HG3	19:S:22:LEU:HD23	1.66	0.77
7:G:45:ASP:O	7:G:49:ILE:HG12	1.83	0.77
25:Y:513:LYS:CB	25:Y:566:THR:HB	2.15	0.77
16:P:20:VAL:HG21	16:P:32:TYR:HB2	1.66	0.77
6:F:43:LEU:H	6:F:43:LEU:HD12	1.48	0.77
25:Y:124:GLN:HA	25:Y:127:LYS:HD2	1.67	0.76
25:Y:9:LEU:O	25:Y:9:LEU:HD23	1.83	0.76
10:J:64:GLU:HG2	14:N:59:ALA:HB2	1.67	0.76
1:A:1225:A:H2'	1:A:1225:A:N3	1.98	0.76
24:X:12:A:H4'	24:X:13:A:OP2	1.85	0.76
13:M:96:LEU:HB3	13:M:97:PRO:HD2	1.67	0.76
2:B:204:ASN:C	2:B:204:ASN:HD22	1.88	0.76
4:D:9:CYS:SG	4:D:22:LYS:HD2	2.26	0.76
1:A:522:C:H41	12:L:53:ARG:HH22	1.33	0.76
5:E:64:ARG:HG3	5:E:64:ARG:HH11	1.51	0.76
1:A:1504:G:OP1	1:A:1507:A:H4'	1.85	0.76
10:J:4:ILE:HB	10:J:74:ILE:HD11	1.68	0.76
1:A:1047:G:H5''	14:N:4:LYS:HD3	1.68	0.76
8:H:10:LEU:HD22	8:H:83:ILE:HD11	1.66	0.76
1:A:939:G:H5''	7:G:102:ARG:NH2	2.01	0.76
12:L:6:THR:H	12:L:9:GLN:HE21	1.34	0.76
27:F:1103:FUA:C12	27:F:1103:FUA:H231	2.15	0.76
2:B:124:SER:OG	2:B:125:PRO:HD2	1.86	0.76
9:I:53:VAL:C	9:I:55:ALA:H	1.88	0.76
25:Y:21:ILE:O	25:Y:22:ASP:HB2	1.83	0.76
4:D:96:LEU:H	4:D:96:LEU:HD22	1.49	0.76
20:T:26:ASN:O	20:T:30:LYS:HB2	1.85	0.76
1:A:720:C:H3'	1:A:721:G:H5''	1.68	0.76
1:A:1100:C:H2'	1:A:1101:A:H5''	1.68	0.76
1:A:759:A:H2'	1:A:760:G:H5'	1.68	0.76
25:Y:606:MET:HE2	25:Y:671:MET:CG	2.15	0.75
13:M:15:VAL:O	13:M:19:LEU:HD23	1.85	0.75
1:A:522:C:H41	12:L:53:ARG:NH2	1.84	0.75
19:S:9:VAL:O	19:S:11:VAL:N	2.19	0.75
2:B:165:VAL:HG23	2:B:166:ASP:N	1.98	0.75
1:A:1037:C:H2'	1:A:1038:C:C2	2.20	0.75
25:Y:162:VAL:HG21	25:Y:255:ILE:HD11	1.68	0.75
9:I:104:ARG:O	9:I:104:ARG:HG2	1.86	0.75
23:W:49:G:H2'	23:W:50:U:H5''	1.68	0.75
13:M:49:THR:O	13:M:53:VAL:HG23	1.85	0.75
25:Y:187:THR:HG22	25:Y:197:ARG:O	1.87	0.75

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:17:THR:HB	8:H:78:GLN:OE1	1.85	0.75
1:A:1299:A:H2'	1:A:1299:A:N3	1.99	0.75
4:D:18:LYS:HE2	4:D:20:TYR:HE1	1.52	0.75
19:S:78:ARG:HB2	19:S:81:ARG:HH11	1.50	0.75
12:L:47:LYS:HB3	12:L:47:LYS:HZ2	1.51	0.75
3:C:35:GLU:HG3	3:C:95:THR:HG21	1.68	0.75
25:Y:377:VAL:HG21	25:Y:380:LEU:HD22	1.67	0.75
25:Y:592:GLU:HA	25:Y:595:GLN:HB2	1.66	0.75
9:I:47:LEU:HD12	9:I:47:LEU:N	2.01	0.75
25:Y:290:LYS:HB3	25:Y:298:VAL:HG23	1.68	0.75
18:R:56:THR:HB	18:R:58:LEU:HD13	1.69	0.75
2:B:83:MET:HG3	2:B:234:PRO:HG3	1.68	0.75
2:B:185:ILE:HG22	2:B:199:TYR:CB	2.13	0.75
25:Y:265:LYS:O	25:Y:267:LYS:HG3	1.87	0.75
25:Y:409:ILE:HD11	25:Y:656:ALA:HB3	1.68	0.75
20:T:82:SER:O	20:T:86:ARG:HB2	1.87	0.75
19:S:41:VAL:HG21	19:S:44:MET:HB2	1.68	0.75
1:A:376:G:H2'	1:A:377:G:H8	1.51	0.75
1:A:1238:A:H5'	1:A:1336:C:H41	1.51	0.75
4:D:5:ILE:HA	4:D:115:ARG:HH12	1.49	0.75
25:Y:499:ARG:HB2	25:Y:506:GLN:CB	2.11	0.74
27:F:1103:FUA:H202	27:F:1103:FUA:C5	2.14	0.74
25:Y:17:ILE:HD12	25:Y:17:ILE:H	1.50	0.74
25:Y:272:LEU:HD12	25:Y:275:ALA:HB3	1.69	0.74
12:L:89:ARG:HD3	12:L:91:LYS:NZ	2.02	0.74
1:A:773:G:O2'	1:A:774:G:H5'	1.88	0.74
8:H:50:ARG:HB3	8:H:50:ARG:HH11	1.52	0.74
25:Y:513:LYS:HB3	25:Y:566:THR:HB	1.67	0.74
1:A:707:C:H4'	11:K:20:TYR:CD2	2.22	0.74
1:A:694:A:O2'	23:W:38:A:O2'	2.05	0.74
10:J:50:ILE:HD13	10:J:50:ILE:N	1.99	0.74
1:A:1364:U:O2	1:A:1364:U:H2'	1.87	0.74
1:A:1348:U:H4'	9:I:120:ARG:HG3	1.68	0.74
25:Y:227:ILE:HD12	25:Y:245:ALA:HB2	1.69	0.74
5:E:51:VAL:HB	5:E:52:PRO:HD3	1.68	0.74
25:Y:272:LEU:HA	25:Y:275:ALA:HB3	1.68	0.74
2:B:55:PHE:HD1	2:B:221:LEU:HG	1.53	0.74
5:E:79:GLU:HB3	5:E:93:PRO:HD2	1.68	0.74
25:Y:533:VAL:HG12	25:Y:571:SER:HA	1.69	0.74
25:Y:28:THR:O	25:Y:32:ILE:HG13	1.87	0.74
11:K:91:ARG:NH1	18:R:88:LYS:HE3	2.03	0.74
25:Y:131:PRO:HG2	25:Y:281:PRO:HG3	1.70	0.74

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:128:TYR:O	25:Y:129:LYS:HB2	1.86	0.74
9:I:95:LYS:HD3	9:I:96:LEU:N	2.03	0.73
25:Y:489:LYS:HG2	25:Y:598:ASP:HB2	1.68	0.73
25:Y:528:ALA:O	25:Y:568:TYR:HA	1.88	0.73
2:B:29:ALA:O	2:B:32:ILE:HG22	1.87	0.73
1:A:625:G:H2'	1:A:626:U:H6	1.52	0.73
25:Y:589:ALA:O	25:Y:593:ALA:HB2	1.87	0.73
1:A:1128:C:H2'	1:A:1129:C:H5''	1.69	0.73
4:D:129:ASN:ND2	4:D:145:GLU:H	1.86	0.73
15:O:78:TYR:O	15:O:82:ILE:HG22	1.88	0.73
8:H:89:PRO:HA	8:H:92:ARG:NH1	2.03	0.73
19:S:31:ILE:HG23	19:S:49:ILE:HA	1.70	0.73
15:O:11:VAL:O	15:O:14:GLU:HB3	1.87	0.73
25:Y:541:ALA:HB1	25:Y:579:GLU:O	1.88	0.73
25:Y:174:PHE:CZ	25:Y:261:GLY:HA2	2.24	0.73
25:Y:193:GLY:HA3	25:Y:266:ASN:HB3	1.71	0.73
12:L:6:THR:OG1	12:L:9:GLN:HG3	1.88	0.73
1:A:939:G:H5''	7:G:102:ARG:CZ	2.19	0.73
25:Y:210:ARG:HG2	25:Y:210:ARG:HH11	1.51	0.73
25:Y:152:THR:O	25:Y:156:ARG:HG2	1.89	0.73
25:Y:512:ILE:H	25:Y:512:ILE:HD13	1.53	0.73
1:A:1226:C:H5'	13:M:96:LEU:HD13	1.71	0.73
2:B:95:GLN:C	2:B:96:ARG:HD2	2.07	0.73
19:S:50:ALA:HB1	19:S:57:HIS:HB3	1.71	0.73
10:J:78:ASN:O	10:J:82:ILE:HG12	1.89	0.73
10:J:96:ILE:H	10:J:96:ILE:HD13	1.53	0.73
1:A:677:U:H3	1:A:713:G:H22	1.37	0.73
25:Y:160:ARG:HH21	25:Y:219:VAL:HG22	1.52	0.73
25:Y:539:ILE:HA	25:Y:542:VAL:HG12	1.70	0.72
25:Y:71:THR:HG22	25:Y:80:ASN:OD1	1.89	0.72
12:L:57:LYS:HG3	12:L:67:THR:HG22	1.71	0.72
1:A:1325:C:H2'	1:A:1326:C:H6	1.54	0.72
5:E:87:SER:HB3	5:E:131:ILE:HD13	1.71	0.72
25:Y:65:ILE:HG12	25:Y:65:ILE:O	1.88	0.72
23:W:32:C:H6	23:W:32:C:O5'	1.72	0.72
25:Y:145:ASP:O	25:Y:149:VAL:HG23	1.89	0.72
1:A:1226:C:C5	13:M:104:ARG:HB2	2.23	0.72
1:A:363:A:OP2	12:L:33:ARG:HD3	1.89	0.72
25:Y:526:VAL:HB	25:Y:566:THR:HA	1.71	0.72
25:Y:238:THR:HG22	25:Y:241:GLU:HG2	1.69	0.72
25:Y:277:VAL:HG13	25:Y:278:ASP:H	1.54	0.72
1:A:1279:A:H5'	1:A:1280:A:OP1	1.89	0.72

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:91:ARG:HD2	13:M:97:PRO:O	1.89	0.72
12:L:47:LYS:HZ3	12:L:48:PRO:HD3	1.54	0.72
3:C:16:ARG:NH1	3:C:16:ARG:HB2	2.04	0.72
23:W:2:G:H1	23:W:71:C:H42	1.37	0.72
1:A:108:G:H5'	1:A:109:A:H5''	1.71	0.72
1:A:1479:C:H2'	1:A:1480:G:H8	1.53	0.72
3:C:59:ARG:HG3	3:C:64:VAL:HA	1.71	0.72
1:A:1227:A:C2'	13:M:117:VAL:HG21	2.18	0.72
4:D:13:ARG:O	4:D:15:GLU:N	2.22	0.72
1:A:1161:C:H2'	1:A:1162:C:C6	2.25	0.72
1:A:1294:G:O2'	1:A:1295:G:H5'	1.89	0.72
1:A:1220:G:H2'	1:A:1221:G:H8	1.53	0.72
12:L:41:ARG:CG	12:L:42:THR:H	2.00	0.72
1:A:1255:G:H2'	1:A:1279:A:H62	1.54	0.72
3:C:156:ARG:NH2	3:C:161:GLU:HA	2.05	0.72
20:T:48:LYS:HB3	20:T:51:GLU:CG	2.20	0.72
16:P:21:VAL:O	16:P:33:ILE:HB	1.88	0.72
12:L:32:PHE:HE1	12:L:86:ARG:HG3	1.51	0.72
9:I:114:TYR:HE2	10:J:60:ARG:H	1.36	0.72
25:Y:181:LEU:HD21	25:Y:243:VAL:HG22	1.71	0.72
23:W:23:C:H2'	23:W:24:U:C6	2.24	0.72
1:A:1404:C:H1'	1:A:1499:A:N1	2.05	0.72
1:A:194:C:H2'	1:A:195:A:H5''	1.72	0.72
22:V:4:C:HO2'	22:V:5:G:H8	1.38	0.72
16:P:8:ARG:HB3	16:P:28:ARG:HH12	1.55	0.72
25:Y:137:ASN:HD21	25:Y:263:ALA:CB	2.03	0.72
25:Y:180:VAL:HG23	25:Y:216:LEU:HD22	1.72	0.72
7:G:80:VAL:CG2	7:G:83:ALA:HB3	2.19	0.72
7:G:4:ARG:HB3	7:G:5:ARG:HH11	1.54	0.72
25:Y:327:PHE:HA	25:Y:376:ALA:HA	1.72	0.72
7:G:23:VAL:HG13	7:G:43:PHE:CE2	2.25	0.72
3:C:15:THR:HG21	3:C:181:ASN:HA	1.72	0.72
25:Y:135:PHE:CD1	25:Y:272:LEU:HD22	2.24	0.72
12:L:27:LEU:HB2	12:L:62:SER:HB2	1.70	0.72
25:Y:346:LYS:HE2	25:Y:384:ILE:HG23	1.72	0.72
2:B:118:LEU:HB3	2:B:142:LEU:HD12	1.71	0.71
1:A:447:G:H2'	1:A:485:G:N2	2.05	0.71
1:A:1486:G:H2'	1:A:1487:G:O4'	1.90	0.71
25:Y:120:THR:O	25:Y:124:GLN:CD	2.28	0.71
5:E:11:ILE:HD12	5:E:31:LEU:CD1	2.20	0.71
2:B:233:SER:HB2	2:B:234:PRO:CD	2.20	0.71
2:B:75:LYS:HA	2:B:78:GLN:HG3	1.70	0.71

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:275:G:H5''	17:Q:14:LYS:HB2	1.72	0.71
1:A:349:A:H2'	1:A:350:G:H5''	1.71	0.71
19:S:9:VAL:HG12	19:S:9:VAL:O	1.88	0.71
1:A:631:G:H2'	1:A:632:A:C8	2.24	0.71
25:Y:487:ILE:CG2	25:Y:594:VAL:HG13	2.20	0.71
9:I:4:TYR:CE2	9:I:88:TYR:HB2	2.26	0.71
3:C:134:ILE:HD11	3:C:153:VAL:CG2	2.21	0.71
2:B:84:GLU:HB3	2:B:219:VAL:HG21	1.73	0.71
13:M:66:LEU:N	13:M:66:LEU:HD12	2.04	0.71
23:W:24:U:H2'	23:W:25:C:C6	2.25	0.71
18:R:37:VAL:HG23	18:R:38:GLU:H	1.55	0.71
24:X:11:A:H3'	24:X:11:A:N3	2.06	0.71
23:W:35:A:N6	24:X:14:U:O4	2.20	0.71
1:A:1129:C:H6	1:A:1129:C:H5'	1.54	0.71
1:A:99:U:H2'	1:A:100:C:C6	2.26	0.71
24:X:16:U:C2'	24:X:17:U:H5'	2.20	0.71
25:Y:289:ILE:HD11	25:Y:331:TYR:CZ	2.25	0.71
25:Y:488:THR:HG23	25:Y:600:VAL:CB	2.21	0.71
1:A:1349:A:OP1	9:I:120:ARG:HB2	1.90	0.71
23:W:51:C:C2'	23:W:52:G:H5''	2.20	0.71
25:Y:605:ILE:HD11	25:Y:677:GLN:CG	2.21	0.71
1:A:973:G:H1'	10:J:55:LYS:NZ	2.05	0.71
16:P:33:ILE:O	16:P:34:GLU:HB2	1.91	0.71
1:A:1321:C:H5''	1:A:1322:C:H5''	1.71	0.71
1:A:243:A:H4'	1:A:244:U:O5'	1.91	0.71
1:A:1375:A:H5'	1:A:1376:U:OP2	1.90	0.71
20:T:42:GLN:HA	20:T:42:GLN:HE21	1.54	0.71
25:Y:69:VAL:HA	25:Y:81:ILE:O	1.90	0.71
25:Y:138:LYS:HE2	28:Y:1690:GDP:N9	2.05	0.71
25:Y:609:GLU:O	25:Y:669:PHE:HA	1.90	0.71
25:Y:632:LEU:HD12	25:Y:644:ARG:HB2	1.73	0.70
1:A:408:A:H4'	4:D:112:VAL:HG11	1.73	0.70
1:A:545:C:O2'	1:A:546:G:H5'	1.91	0.70
25:Y:670:VAL:HG23	25:Y:671:MET:N	2.05	0.70
6:F:9:VAL:HB	6:F:87:ARG:HB2	1.73	0.70
10:J:75:ILE:CG1	10:J:76:ASN:H	1.96	0.70
13:M:78:ILE:O	13:M:82:MET:HG2	1.90	0.70
3:C:123:GLN:HB3	3:C:128:PHE:HD2	1.54	0.70
4:D:61:LYS:HD3	4:D:206:PHE:CE2	2.26	0.70
25:Y:100:VAL:HG23	25:Y:312:LEU:HD13	1.73	0.70
23:W:22:G:H2'	23:W:23:C:H5''	1.72	0.70
16:P:53:VAL:HG23	16:P:54:GLU:H	1.56	0.70

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:79:GLU:HB2	25:Y:442:THR:HG21	1.73	0.70
13:M:4:ILE:HG22	13:M:5:ALA:H	1.55	0.70
25:Y:112:GLN:HG3	25:Y:115:GLU:HB3	1.72	0.70
9:I:53:VAL:HG13	9:I:95:LYS:HE3	1.72	0.70
18:R:37:VAL:HG23	18:R:38:GLU:N	2.06	0.70
1:A:490:G:H2'	1:A:491:G:H8	1.56	0.70
25:Y:409:ILE:CD1	25:Y:656:ALA:HB3	2.21	0.70
25:Y:148:LEU:HA	25:Y:151:ARG:HD2	1.72	0.70
1:A:254:G:OP1	17:Q:67:LYS:O	2.10	0.70
10:J:8:LEU:CD2	10:J:96:ILE:HG22	2.21	0.70
3:C:14:ILE:HG13	3:C:15:THR:N	2.05	0.70
25:Y:137:ASN:HD21	25:Y:263:ALA:HB3	1.56	0.70
10:J:32:ALA:HB2	10:J:76:ASN:HD22	1.57	0.70
10:J:55:LYS:H	10:J:55:LYS:HE3	1.57	0.70
11:K:21:ILE:HG13	11:K:30:VAL:HG12	1.73	0.70
8:H:89:PRO:HA	8:H:92:ARG:HH11	1.56	0.70
1:A:434:U:H2'	1:A:435:C:C6	2.26	0.70
24:X:15:G:O2'	24:X:16:U:H5''	1.91	0.70
25:Y:157:LEU:N	25:Y:157:LEU:HD23	2.03	0.70
1:A:625:G:H4'	16:P:16:HIS:CD2	2.27	0.70
3:C:113:ALA:HB3	3:C:114:PRO:HD3	1.71	0.70
25:Y:101:LEU:HD13	25:Y:103:GLY:O	1.91	0.70
27:F:1103:FUA:H121	25:Y:90:PHE:HZ	1.55	0.70
25:Y:36:THR:HB	25:Y:72:CYS:HB2	1.73	0.70
17:Q:52:LYS:H	17:Q:52:LYS:CD	2.03	0.70
11:K:84:VAL:HG11	11:K:95:ILE:HD11	1.73	0.70
4:D:159:ARG:HG3	4:D:159:ARG:HH11	1.55	0.70
27:F:1103:FUA:H9	25:Y:90:PHE:HE2	1.56	0.70
25:Y:512:ILE:HG22	25:Y:567:LEU:HA	1.74	0.70
23:W:14:A:H3'	23:W:15:G:C5'	2.15	0.70
19:S:58:VAL:HG23	19:S:58:VAL:O	1.92	0.70
25:Y:613:PRO:HG2	25:Y:666:ARG:NH2	2.07	0.70
25:Y:21:ILE:HG21	25:Y:88:VAL:HG13	1.73	0.69
2:B:12:GLU:HA	2:B:16:HIS:ND1	2.07	0.69
1:A:301:G:O2'	1:A:302:G:H5'	1.92	0.69
23:W:34:C:C2'	23:W:35:A:C4'	2.70	0.69
25:Y:489:LYS:HD3	25:Y:598:ASP:OD1	1.91	0.69
25:Y:546:ILE:O	25:Y:550:MET:HG3	1.91	0.69
18:R:45:SER:H	18:R:51:LEU:HG	1.58	0.69
1:A:473:G:H2'	1:A:474:G:H8	1.56	0.69
15:O:33:THR:HG21	15:O:85:LEU:CD2	2.21	0.69
1:A:1459:C:H2'	1:A:1460:A:C8	2.27	0.69

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:15:G:H3'	22:V:16:U:H5''	1.73	0.69
8:H:109:ILE:HG12	8:H:110:ALA:N	2.07	0.69
3:C:50:ALA:O	3:C:70:VAL:HG13	1.91	0.69
23:W:7:G:H3'	23:W:8:U:C5'	2.22	0.69
1:A:1512:U:H2'	1:A:1513:A:H8	1.58	0.69
24:X:16:U:H2'	24:X:17:U:H5'	1.74	0.69
25:Y:100:VAL:HG22	25:Y:329:ARG:HB2	1.74	0.69
25:Y:509:HIS:HE1	25:Y:511:LYS:HE3	1.56	0.69
25:Y:605:ILE:HG21	25:Y:646:PHE:HB3	1.74	0.69
22:V:35:A:O2'	22:V:36:A:H5'	1.92	0.69
2:B:54:THR:HG21	2:B:201:ILE:HD11	1.73	0.69
10:J:9:ARG:HG2	10:J:69:ASN:OD1	1.93	0.69
6:F:42:GLU:O	6:F:44:GLY:N	2.24	0.69
3:C:70:VAL:O	3:C:106:VAL:HG23	1.93	0.69
20:T:33:ILE:HD13	20:T:63:ILE:HA	1.72	0.69
1:A:1151:A:HO2'	1:A:1152:A:H8	1.41	0.69
10:J:61:GLU:OE2	14:N:49:HIS:HE1	1.75	0.69
11:K:124:LYS:HD2	11:K:125:PHE:HE1	1.58	0.69
1:A:477:A:O2'	1:A:479:C:H5'	1.92	0.69
1:A:748:C:OP2	1:A:748:C:H6	1.76	0.69
4:D:131:ARG:H	4:D:131:ARG:HD3	1.58	0.69
25:Y:112:GLN:CG	25:Y:115:GLU:HB3	2.22	0.69
25:Y:546:ILE:HG23	25:Y:590:ILE:CG1	2.21	0.69
3:C:154:SER:O	3:C:165:THR:HA	1.91	0.69
25:Y:627:ARG:HD3	25:Y:652:MET:HE3	1.75	0.69
9:I:18:PHE:O	9:I:61:ALA:HA	1.93	0.69
9:I:8:GLY:HA2	9:I:79:LEU:HD12	1.74	0.69
1:A:973:G:H1'	10:J:55:LYS:HE2	1.75	0.69
13:M:49:THR:HB	13:M:52:GLU:HG3	1.74	0.69
9:I:47:LEU:CD1	9:I:47:LEU:H	2.05	0.69
1:A:1161:C:H2'	1:A:1162:C:H6	1.56	0.69
9:I:46:ALA:O	9:I:49:PRO:HD2	1.91	0.69
1:A:250:A:H4'	1:A:251:G:O5'	1.92	0.69
25:Y:293:THR:HA	25:Y:397:VAL:HG12	1.74	0.69
1:A:1009:G:H2'	1:A:1009:G:N3	2.08	0.69
10:J:82:ILE:O	10:J:86:MET:HB2	1.93	0.69
1:A:268:C:O2	1:A:268:C:H2'	1.92	0.69
10:J:4:ILE:HD12	10:J:4:ILE:N	2.08	0.69
18:R:88:LYS:HD3	18:R:88:LYS:C	2.13	0.69
25:Y:424:LEU:O	25:Y:428:LEU:HD23	1.93	0.69
8:H:42:GLU:HG3	8:H:109:ILE:HD12	1.74	0.69
25:Y:608:VAL:O	25:Y:644:ARG:HA	1.93	0.69

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:266:G:C8	1:A:266:G:H5''	2.28	0.69
20:T:64:ASP:OD1	20:T:81:LYS:HD2	1.93	0.69
1:A:1251:A:H2'	1:A:1252:A:C8	2.28	0.69
1:A:1296:C:H5'	1:A:1297:C:OP2	1.93	0.69
25:Y:487:ILE:CD1	25:Y:563:ILE:HG22	2.22	0.68
5:E:148:VAL:HG21	8:H:107:LEU:HD22	1.75	0.68
22:V:5:G:O2'	22:V:6:G:H5'	1.93	0.68
2:B:77:ALA:HB2	2:B:211:ILE:HD13	1.75	0.68
1:A:1459:C:H2'	1:A:1460:A:H8	1.58	0.68
1:A:1016:A:H2'	1:A:1017:G:O4'	1.91	0.68
17:Q:67:LYS:HA	17:Q:70:ARG:HH12	1.58	0.68
16:P:20:VAL:HG21	16:P:32:TYR:CB	2.23	0.68
1:A:60:A:H5''	1:A:331:G:H22	1.58	0.68
1:A:160:A:H1'	1:A:344:A:C5	2.29	0.68
1:A:1356:G:H2'	1:A:1357:A:C8	2.28	0.68
1:A:666:G:H5'	1:A:726:C:H1'	1.76	0.68
1:A:740:U:O2'	1:A:741:G:H5'	1.94	0.68
9:I:112:LYS:CA	9:I:119:ALA:HB2	2.11	0.68
1:A:266:G:H8	1:A:266:G:H5''	1.57	0.68
20:T:50:GLU:HA	20:T:53:LEU:HD12	1.74	0.68
23:W:31:G:H5'	23:W:31:G:H8	1.58	0.68
4:D:23:GLY:HA3	4:D:112:VAL:HG22	1.74	0.68
12:L:23:LYS:O	12:L:24:VAL:HG23	1.93	0.68
25:Y:34:TYR:O	25:Y:38:ARG:HB2	1.93	0.68
6:F:63:TYR:O	6:F:65:VAL:HG13	1.93	0.68
1:A:1323:G:H2'	1:A:1324:A:C8	2.29	0.68
25:Y:343:ASN:OD1	25:Y:346:LYS:HB2	1.94	0.68
8:H:103:VAL:CG2	8:H:110:ALA:HB2	2.23	0.68
14:N:53:LEU:HB3	14:N:56:VAL:HG21	1.74	0.68
25:Y:553:GLY:HA2	25:Y:560:VAL:CG2	2.22	0.68
8:H:41:ARG:HH22	8:H:123:GLU:CD	1.96	0.68
25:Y:484:ARG:HD2	25:Y:559:PRO:HB2	1.76	0.68
25:Y:616:TYR:HE2	25:Y:664:GLN:HE21	1.42	0.68
11:K:108:ILE:N	11:K:108:ILE:HD12	2.08	0.68
25:Y:381:LYS:HD2	25:Y:381:LYS:N	2.09	0.68
1:A:719:C:O2'	18:R:49:LYS:HB3	1.94	0.68
20:T:93:GLU:C	20:T:95:ALA:H	1.96	0.68
19:S:41:VAL:C	19:S:43:GLU:H	1.97	0.68
4:D:144:ASP:O	4:D:184:LYS:HA	1.93	0.68
25:Y:400:GLU:O	25:Y:402:ILE:HG13	1.94	0.68
27:F:1103:FUA:O1	27:F:1103:FUA:H12	1.93	0.68
1:A:148:G:H1	1:A:174:C:H42	1.41	0.68

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:61:LYS:HE2	4:D:62:GLN:HE21	1.58	0.68
25:Y:335:LEU:O	25:Y:368:GLU:HA	1.94	0.68
25:Y:100:VAL:HG22	25:Y:329:ARG:CB	2.24	0.68
25:Y:411:VAL:HG23	25:Y:459:LEU:HD22	1.76	0.68
1:A:1404:C:H1'	1:A:1499:A:C2	2.29	0.68
1:A:781:A:H4'	1:A:1522:U:O2'	1.93	0.68
22:V:61:C:H2'	22:V:62:C:H6	1.59	0.68
25:Y:655:TYR:CE1	25:Y:659:LEU:HB2	2.29	0.68
13:M:10:PRO:HB2	13:M:18:ALA:HB1	1.75	0.68
19:S:78:ARG:HB2	19:S:81:ARG:NH1	2.08	0.68
12:L:117:ARG:NH2	12:L:124:LYS:HB2	2.08	0.68
1:A:664:G:H22	1:A:741:G:H1	1.41	0.68
25:Y:455:GLY:HA2	25:Y:660:ARG:HH12	1.59	0.68
25:Y:227:ILE:HG23	25:Y:237:PRO:CG	2.22	0.68
1:A:1117:G:O2'	9:I:104:ARG:HD3	1.93	0.68
17:Q:47:PRO:HG2	17:Q:48:GLU:OE2	1.93	0.68
17:Q:9:VAL:HG11	17:Q:84:LEU:HD12	1.75	0.68
6:F:2:ARG:HD3	6:F:92:LYS:HE3	1.75	0.68
25:Y:227:ILE:HG22	25:Y:227:ILE:O	1.94	0.67
25:Y:181:LEU:HD11	25:Y:242:LEU:HB3	1.76	0.67
4:D:173:TRP:HB3	4:D:187:ARG:NH1	2.09	0.67
17:Q:58:GLU:HB2	17:Q:74:LEU:HB3	1.76	0.67
1:A:1228:C:OP1	13:M:115:LYS:HG3	1.94	0.67
13:M:27:LYS:HE2	13:M:31:LYS:HE3	1.76	0.67
12:L:37:CYS:HB3	12:L:79:GLU:O	1.95	0.67
1:A:818:G:O2'	1:A:819:A:H5'	1.94	0.67
1:A:189:G:H2'	1:A:189(A):C:C6	2.30	0.67
1:A:461:A:O2'	1:A:470:C:H5'	1.93	0.67
24:X:12:A:N3	24:X:12:A:H2'	2.10	0.67
25:Y:313:ALA:HA	25:Y:328:ILE:HG22	1.76	0.67
10:J:49:VAL:CG2	14:N:41:ARG:HB2	2.23	0.67
10:J:7:LYS:O	10:J:96:ILE:HA	1.94	0.67
5:E:6:PHE:HB3	5:E:35:GLY:O	1.94	0.67
1:A:514:C:H2'	1:A:515:G:H8	1.58	0.67
25:Y:170:ARG:H	25:Y:170:ARG:HD2	1.59	0.67
25:Y:673:PHE:CG	25:Y:674:ASP:N	2.62	0.67
1:A:267:C:H2'	1:A:268:C:H6	1.59	0.67
4:D:92:VAL:O	4:D:96:LEU:HD22	1.95	0.67
6:F:75:LEU:O	6:F:79:LEU:HG	1.94	0.67
23:W:51:C:C3'	23:W:52:G:H5''	2.25	0.67
9:I:95:LYS:HZ3	9:I:96:LEU:HD12	1.60	0.67
1:A:1006:C:H2'	1:A:1007:C:C6	2.29	0.67

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:P:4:ILE:HG13	16:P:64:ALA:HB1	1.77	0.67
1:A:176:C:H2'	1:A:177:C:H6	1.60	0.67
1:A:1160:G:O6	1:A:1181:G:O6	2.12	0.67
13:M:37:THR:HG21	13:M:56:LEU:HD22	1.77	0.67
25:Y:512:ILE:HD11	25:Y:589:ALA:HB1	1.77	0.67
1:A:491:G:H2'	1:A:492:G:H8	1.58	0.67
1:A:659:U:O2'	1:A:660:G:H5'	1.94	0.67
25:Y:111:SER:O	25:Y:113:GLY:N	2.27	0.67
3:C:46:GLU:O	3:C:47:LEU:HB2	1.93	0.67
1:A:509:A:H3'	1:A:510:A:C8	2.30	0.67
12:L:53:ARG:NH1	12:L:92:ASP:OD2	2.26	0.67
10:J:42:THR:HG23	10:J:67:THR:O	1.94	0.67
10:J:4:ILE:HB	10:J:74:ILE:CD1	2.24	0.67
25:Y:413:ILE:HG22	25:Y:449:THR:O	1.95	0.67
1:A:178:C:O2'	1:A:179:A:H5'	1.94	0.67
12:L:7:ILE:O	12:L:11:VAL:HG23	1.94	0.67
17:Q:22:LEU:HD11	17:Q:39:SER:HB2	1.77	0.67
25:Y:609:GLU:H	25:Y:670:VAL:HG22	1.59	0.67
3:C:206:GLU:HG2	3:C:207:VAL:N	2.09	0.67
25:Y:281:PRO:HB2	25:Y:286:ILE:CD1	2.24	0.67
12:L:46:LYS:HB2	12:L:92:ASP:O	1.94	0.67
19:S:44:MET:SD	19:S:44:MET:N	2.67	0.67
4:D:4:TYR:O	4:D:5:ILE:HB	1.93	0.67
1:A:1211:U:H5'	1:A:1212:U:OP1	1.95	0.67
2:B:156:LYS:O	2:B:157:ARG:HB2	1.94	0.67
11:K:79:SER:OG	11:K:106:LYS:HD2	1.95	0.67
9:I:24:GLY:HA2	9:I:59:PHE:O	1.95	0.66
4:D:64:LEU:HD23	4:D:75:PHE:HZ	1.59	0.66
22:V:6:G:H1	22:V:67:C:H42	1.43	0.66
9:I:47:LEU:CD1	9:I:47:LEU:N	2.58	0.66
1:A:585:G:H4'	12:L:8:ASN:HD21	1.59	0.66
25:Y:215:LYS:HA	25:Y:218:GLU:OE1	1.95	0.66
13:M:124:PRO:HG2	25:Y:574:GLU:N	1.98	0.66
3:C:68:VAL:HG12	3:C:70:VAL:HG23	1.76	0.66
1:A:1057:G:H5''	3:C:154:SER:CB	2.21	0.66
7:G:151:TYR:OH	11:K:54:ARG:HD3	1.95	0.66
2:B:187:LEU:HD11	2:B:204:ASN:O	1.94	0.66
5:E:145:LYS:HA	8:H:107:LEU:HD21	1.75	0.66
1:A:523:A:N1	12:L:92:ASP:HB2	2.11	0.66
2:B:120:ALA:O	2:B:121:LEU:HD23	1.95	0.66
2:B:61:LEU:HD23	2:B:68:ILE:HD11	1.75	0.66
15:O:64:ARG:HH11	15:O:64:ARG:HG3	1.61	0.66

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:509:A:C5'	1:A:510:A:OP2	2.42	0.66
19:S:13:ASP:C	19:S:15:LEU:H	1.97	0.66
1:A:241:C:O2'	1:A:242:C:H5'	1.95	0.66
1:A:163:C:O2'	1:A:164:U:H5'	1.95	0.66
25:Y:84:THR:H	25:Y:85:PRO:CD	2.05	0.66
1:A:627:G:O2'	1:A:628:G:H5'	1.96	0.66
25:Y:223:PHE:CE2	25:Y:249:GLY:HA3	2.29	0.66
10:J:70:ARG:HG2	10:J:70:ARG:HH11	1.60	0.66
9:I:33:PHE:CZ	9:I:47:LEU:HD11	2.30	0.66
1:A:345:C:H5'	1:A:346:G:OP2	1.96	0.66
1:A:56:U:H2'	1:A:57:G:C8	2.30	0.66
24:X:11:A:O4'	24:X:12:A:C8	2.49	0.66
24:X:11:A:C4'	24:X:12:A:O5'	2.41	0.66
1:A:1371:G:O3'	9:I:69:GLY:HA3	1.96	0.66
25:Y:139:MET:O	25:Y:171:GLU:HA	1.95	0.66
18:R:29:PHE:CD1	18:R:29:PHE:N	2.59	0.66
1:A:1004:A:H61	1:A:1034:G:C2'	2.06	0.66
5:E:79:GLU:HB3	5:E:92:LYS:HA	1.76	0.66
1:A:663:A:O2'	1:A:664:G:H5'	1.96	0.66
8:H:85:ARG:HH12	8:H:134:ILE:HG23	1.59	0.66
25:Y:406:GLU:HB3	25:Y:407:PRO:HD2	1.78	0.66
1:A:865:A:H2	1:A:918:A:H4'	1.59	0.66
1:A:1489:G:H2'	1:A:1490:C:C5'	2.25	0.66
25:Y:74:TRP:CG	25:Y:273:LEU:HD22	2.30	0.66
1:A:203:U:H5''	1:A:204:U:OP1	1.96	0.66
1:A:301:G:H2'	1:A:302:G:H8	1.61	0.66
2:B:137:ARG:C	2:B:137:ARG:HD3	2.16	0.66
25:Y:503:GLY:C	25:Y:505:GLY:H	1.98	0.66
25:Y:101:LEU:O	25:Y:101:LEU:HD12	1.96	0.66
3:C:47:LEU:HD21	3:C:68:VAL:HG11	1.76	0.66
10:J:6:ILE:HD11	10:J:72:VAL:CB	2.23	0.66
19:S:21:GLU:HG3	19:S:22:LEU:CD2	2.25	0.66
18:R:31:LEU:HD23	18:R:31:LEU:H	1.60	0.66
1:A:1072:G:H2'	1:A:1073:U:C6	2.30	0.66
25:Y:117:GLN:C	25:Y:119:GLU:H	1.98	0.66
13:M:19:LEU:HA	13:M:22:ILE:HD13	1.77	0.66
1:A:1190:G:H3'	3:C:3:ASN:HD22	1.60	0.66
1:A:948:C:O2'	1:A:949:A:H5'	1.96	0.66
3:C:25:GLY:C	3:C:27:LYS:H	1.98	0.66
25:Y:602:LEU:HB3	25:Y:676:TYR:HB3	1.76	0.65
5:E:82:VAL:HG21	5:E:138:ALA:HA	1.78	0.65
1:A:1129:C:H2'	1:A:1139:G:N7	2.11	0.65

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:439:A:H2'	1:A:441:A:H5'	1.78	0.65
22:V:2:C:H2'	22:V:3:C:C6	2.30	0.65
1:A:277:C:O2'	1:A:278:G:H5'	1.95	0.65
25:Y:98:MET:HA	25:Y:101:LEU:HD12	1.78	0.65
3:C:82:GLU:O	3:C:86:VAL:HG13	1.95	0.65
1:A:953:G:H5'	1:A:965:A:H61	1.61	0.65
1:A:585:G:H4'	12:L:8:ASN:ND2	2.12	0.65
1:A:1456:G:H2'	1:A:1457:G:H5'	1.78	0.65
22:V:46:G:O2'	22:V:47:U:H5'	1.96	0.65
1:A:980:C:H2'	1:A:981:U:H5'	1.76	0.65
9:I:112:LYS:HA	9:I:119:ALA:CB	2.15	0.65
25:Y:191:ASP:HA	25:Y:267:LYS:HE3	1.78	0.65
1:A:1002:G:N2	1:A:1039:C:H2'	2.11	0.65
13:M:6:GLY:C	13:M:8:GLU:H	1.99	0.65
25:Y:168:ILE:HB	25:Y:176:GLY:O	1.96	0.65
19:S:40:ILE:HG12	19:S:71:LEU:HD23	1.77	0.65
25:Y:580:MET:HG2	25:Y:580:MET:O	1.94	0.65
1:A:1258:G:H2'	1:A:1259:C:C6	2.31	0.65
25:Y:510:VAL:HG22	25:Y:534:ILE:HD11	1.78	0.65
25:Y:487:ILE:H	25:Y:487:ILE:HD13	1.61	0.65
10:J:27:ALA:HA	10:J:30:SER:OG	1.97	0.65
10:J:27:ALA:HB2	10:J:85:LEU:HD11	1.76	0.65
9:I:77:ILE:O	9:I:81:ILE:HG12	1.96	0.65
2:B:233:SER:HB2	2:B:234:PRO:HD2	1.78	0.65
1:A:1513:A:H2'	1:A:1514:C:H6	1.60	0.65
16:P:9:PHE:CE2	16:P:18:ARG:CZ	2.79	0.65
22:V:36:A:H1'	25:Y:503:GLY:H	1.61	0.65
25:Y:312:LEU:O	25:Y:328:ILE:HA	1.97	0.65
10:J:50:ILE:H	10:J:50:ILE:CD1	2.00	0.65
14:N:12:ARG:C	14:N:14:PRO:HD3	2.15	0.65
10:J:13:HIS:O	10:J:17:ASP:HB2	1.96	0.65
23:W:22:G:O2'	23:W:23:C:H5''	1.96	0.65
25:Y:264:LEU:O	25:Y:264:LEU:HD23	1.95	0.65
11:K:124:LYS:HD2	11:K:125:PHE:CE1	2.30	0.65
3:C:110:ASN:ND2	3:C:140:ARG:HB3	2.12	0.65
6:F:8:ILE:HG23	6:F:85:VAL:HG13	1.78	0.65
13:M:46:LYS:O	13:M:46:LYS:HD3	1.97	0.65
25:Y:88:VAL:HB	25:Y:90:PHE:CE1	2.31	0.65
1:A:1352:C:H2'	1:A:1353:G:C8	2.32	0.65
8:H:10:LEU:CD2	8:H:83:ILE:HD11	2.26	0.65
25:Y:377:VAL:HG21	25:Y:380:LEU:HD13	1.77	0.65
1:A:1513:A:H2'	1:A:1514:C:C6	2.31	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:41:GLY:O	3:C:45:LYS:HG3	1.96	0.65
16:P:9:PHE:HE2	16:P:18:ARG:CZ	2.10	0.65
7:G:145:ALA:O	7:G:146:GLU:HB2	1.96	0.65
2:B:238:LEU:HG	2:B:238:LEU:O	1.95	0.65
25:Y:315:LYS:NZ	25:Y:317:MET:HG2	2.11	0.65
25:Y:580:MET:O	25:Y:584:ILE:HG12	1.96	0.65
1:A:1329:A:O2'	1:A:1330:U:H5'	1.97	0.65
1:A:1358:U:OP1	14:N:35:ARG:HG3	1.97	0.65
10:J:55:LYS:H	10:J:55:LYS:CE	2.09	0.65
4:D:188:LEU:HD12	4:D:189:PRO:HD2	1.78	0.65
12:L:89:ARG:HD3	12:L:91:LYS:HZ1	1.58	0.65
13:M:34:LEU:HD13	13:M:41:PRO:HG3	1.77	0.65
1:A:1109:C:O2'	1:A:1110:A:H5'	1.97	0.65
3:C:59:ARG:HD3	3:C:64:VAL:HG22	1.79	0.64
1:A:1208:C:H2'	1:A:1209:C:H6	1.60	0.64
13:M:3:ARG:HA	13:M:9:ILE:HG13	1.79	0.64
2:B:22:LYS:H	2:B:40:HIS:CE1	2.15	0.64
1:A:1128:C:H1'	1:A:1147:C:H42	1.62	0.64
2:B:14:GLY:O	2:B:15:VAL:HG13	1.97	0.64
19:S:22:LEU:O	19:S:26:GLY:HA2	1.96	0.64
2:B:233:SER:CB	2:B:234:PRO:HD2	2.28	0.64
6:F:50:TYR:CE1	18:R:77:GLY:HA2	2.31	0.64
25:Y:110:SER:HA	25:Y:149:VAL:HG21	1.79	0.64
12:L:18:VAL:CG2	12:L:19:ARG:H	1.97	0.64
3:C:59:ARG:CG	3:C:64:VAL:HA	2.27	0.64
13:M:97:PRO:CA	13:M:110:ARG:HD3	2.28	0.64
25:Y:78:ARG:HH11	25:Y:78:ARG:HG3	1.62	0.64
1:A:1026:G:C2'	1:A:1027:C:H5'	2.26	0.64
1:A:736:C:H2'	1:A:737:A:H8	1.61	0.64
2:B:33:TYR:HB2	2:B:43:ASP:HB2	1.79	0.64
3:C:130:VAL:HG11	3:C:157:ILE:HG23	1.79	0.64
1:A:164:U:H2'	1:A:165:C:C6	2.32	0.64
18:R:31:LEU:CD2	18:R:31:LEU:H	2.11	0.64
17:Q:53:LEU:HD21	17:Q:85:VAL:HG11	1.79	0.64
19:S:6:LYS:H	19:S:6:LYS:CE	2.10	0.64
24:X:11:A:O2'	24:X:12:A:P	2.56	0.64
25:Y:264:LEU:HD22	25:Y:265:LYS:HZ2	1.62	0.64
25:Y:483:TYR:O	25:Y:558:PHE:HB3	1.97	0.64
6:F:33:TYR:HA	6:F:71:ARG:HH21	1.62	0.64
1:A:1298:C:O2	1:A:1298:C:H2'	1.96	0.64
1:A:275:G:H5''	17:Q:14:LYS:CB	2.27	0.64
2:B:223:ILE:HG23	2:B:226:ARG:NH1	2.11	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:82:ARG:HH11	2:B:82:ARG:HG3	1.62	0.64
20:T:29:LYS:O	20:T:33:ILE:HG13	1.96	0.64
3:C:86:VAL:O	3:C:90:GLU:HG2	1.98	0.64
4:D:107:ARG:HH21	4:D:194:LEU:CD1	2.11	0.64
1:A:555:C:H2'	1:A:556:C:C6	2.32	0.64
1:A:1298:C:H1'	1:A:1299:A:C6	2.33	0.64
4:D:112:VAL:HG12	4:D:116:GLN:NE2	2.12	0.64
2:B:139:LYS:O	2:B:143:GLU:HG2	1.98	0.64
25:Y:95:GLU:O	25:Y:99:ARG:HD3	1.97	0.64
15:O:26:GLU:HA	15:O:81:LEU:HD22	1.80	0.64
1:A:972:C:OP2	10:J:57:LYS:HG2	1.97	0.64
1:A:1239:A:H2'	1:A:1298:C:H42	1.61	0.64
10:J:47:PHE:CZ	14:N:37:PHE:HE1	2.16	0.64
13:M:54:VAL:O	13:M:58:GLU:HG2	1.98	0.64
2:B:156:LYS:O	2:B:157:ARG:CB	2.45	0.64
1:A:1010:G:N1	1:A:1020:U:H1'	2.13	0.64
25:Y:14:ASN:O	25:Y:101:LEU:HB2	1.98	0.64
2:B:223:ILE:HG12	2:B:226:ARG:CZ	2.27	0.64
13:M:3:ARG:HG2	13:M:9:ILE:CD1	2.26	0.64
1:A:1199:U:H4'	10:J:54:PHE:CE1	2.32	0.64
3:C:173:VAL:HG12	3:C:175:LEU:CD1	2.28	0.64
1:A:630:G:C2'	1:A:631:G:H5'	2.27	0.64
1:A:1005:A:OP1	1:A:1006:C:N3	2.31	0.64
17:Q:9:VAL:HG12	17:Q:56:VAL:HG22	1.78	0.64
19:S:53:ASN:C	19:S:55:LYS:H	1.99	0.64
27:F:1103:FUA:H122	27:F:1103:FUA:C23	2.28	0.64
25:Y:14:ASN:HB2	25:Y:102:ASP:OD1	1.96	0.64
12:L:17:LYS:HD3	12:L:18:VAL:HG22	1.78	0.64
25:Y:601:ILE:HD12	25:Y:684:GLN:HG3	1.78	0.64
19:S:24:ALA:O	19:S:25:LYS:HB2	1.97	0.64
1:A:415:A:H2'	1:A:416:G:C8	2.33	0.64
1:A:270:A:H2'	1:A:271:C:C6	2.32	0.64
1:A:833:U:H2'	1:A:834:C:C6	2.33	0.64
10:J:78:ASN:HD22	10:J:81:THR:CG2	2.11	0.64
3:C:6:HIS:CD2	3:C:7:PRO:HD2	2.32	0.64
20:T:86:ARG:HH11	20:T:86:ARG:HG3	1.63	0.64
9:I:93:ARG:C	9:I:95:LYS:H	2.00	0.64
12:L:38:THR:HG23	12:L:57:LYS:HB3	1.78	0.64
1:A:475:G:O2'	1:A:476:G:H5'	1.98	0.64
16:P:1:MET:SD	16:P:3:LYS:HE3	2.38	0.64
25:Y:467:LYS:O	25:Y:471:LYS:HA	1.97	0.64
25:Y:553:GLY:O	25:Y:557:GLY:HA2	1.98	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1404:C:O2	1:A:1404:C:H2'	1.96	0.64
1:A:1499:A:H1'	1:A:1520:G:H5'	1.80	0.64
1:A:1004:A:C5'	1:A:1025:U:H3	2.09	0.64
1:A:973:G:C1'	10:J:55:LYS:HE2	2.27	0.64
25:Y:13:ARG:HB3	25:Y:79:ILE:HG23	1.80	0.64
18:R:32:ARG:HA	18:R:69:THR:HG21	1.78	0.64
1:A:992:U:H1'	1:A:993:G:C2	2.33	0.64
1:A:1053:G:C3'	1:A:1054:C:H5'	2.28	0.63
2:B:31:TYR:O	2:B:42:ILE:HG13	1.98	0.63
25:Y:276:VAL:HA	25:Y:280:LEU:HD23	1.80	0.63
1:A:718:G:C8	11:K:116:HIS:HB3	2.33	0.63
13:M:40:ASN:ND2	13:M:42:ALA:HB3	2.13	0.63
1:A:52:G:O2'	1:A:53:A:H5'	1.99	0.63
4:D:192:GLU:H	4:D:192:GLU:CD	2.01	0.63
25:Y:605:ILE:HG23	25:Y:646:PHE:HB3	1.78	0.63
5:E:76:ILE:CG2	5:E:118:ILE:HD13	2.29	0.63
20:T:90:GLN:HA	20:T:93:GLU:OE2	1.98	0.63
2:B:83:MET:CG	2:B:234:PRO:HG3	2.27	0.63
25:Y:165:GLN:HE21	25:Y:177:ILE:HG21	1.63	0.63
17:Q:66:SER:O	17:Q:70:ARG:NH1	2.32	0.63
4:D:31:CYS:SG	4:D:31:CYS:O	2.56	0.63
1:A:1314:C:H2'	1:A:1315:U:H6	1.63	0.63
25:Y:670:VAL:HG23	25:Y:671:MET:H	1.63	0.63
13:M:22:ILE:HB	13:M:25:ILE:HD12	1.79	0.63
1:A:1128:C:C2'	1:A:1129:C:H5''	2.28	0.63
1:A:1250:A:H4'	9:I:68:GLY:N	2.11	0.63
1:A:1239:A:H2'	1:A:1298:C:N4	2.14	0.63
13:M:94:ARG:NE	19:S:82:GLY:N	2.46	0.63
25:Y:517:LEU:HD23	25:Y:521:SER:HB3	1.80	0.63
25:Y:621:ILE:HD11	25:Y:634:MET:HE3	1.78	0.63
25:Y:327:PHE:CD1	25:Y:376:ALA:HB2	2.34	0.63
17:Q:53:LEU:HD23	17:Q:54:GLY:N	2.13	0.63
1:A:1082:G:O2'	1:A:1083:U:H5'	1.99	0.63
1:A:41:G:H2'	1:A:42:G:H8	1.64	0.63
25:Y:632:LEU:HD12	25:Y:644:ARG:CB	2.29	0.63
1:A:1226:C:H41	13:M:104:ARG:HD2	1.62	0.63
9:I:95:LYS:NZ	9:I:96:LEU:CD1	2.62	0.63
8:H:123:GLU:O	8:H:127:LEU:HD23	1.98	0.63
5:E:9:LYS:HB3	5:E:112:LEU:HD11	1.79	0.63
15:O:39:LEU:HD13	15:O:56:LEU:HB2	1.81	0.63
21:U:2:GLY:O	21:U:4:GLY:N	2.32	0.63
1:A:1367:C:H4'	10:J:48:THR:HG21	1.81	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:41:ARG:HG2	12:L:42:THR:N	2.12	0.63
3:C:58:GLU:HB2	3:C:65:ALA:HB2	1.81	0.63
13:M:10:PRO:CG	13:M:18:ALA:HB1	2.28	0.63
1:A:1392:G:O2'	1:A:1393:U:H5'	1.97	0.63
6:F:46:ARG:HH22	18:R:37:VAL:HG21	1.62	0.63
22:V:20:U:H5'	22:V:21:A:OP2	1.98	0.63
1:A:1208:C:H2'	1:A:1209:C:C6	2.33	0.63
7:G:28:ASN:O	7:G:31:MET:HB3	1.98	0.63
7:G:79:ARG:HD2	7:G:79:ARG:O	1.99	0.63
3:C:84:ILE:O	3:C:88:ARG:HG3	1.99	0.63
25:Y:5:VAL:HG13	25:Y:6:GLU:N	2.10	0.63
1:A:1409:C:O2'	1:A:1410:G:H5'	1.98	0.63
3:C:16:ARG:CB	3:C:16:ARG:HH11	2.12	0.63
25:Y:377:VAL:CG2	25:Y:380:LEU:HD13	2.28	0.63
3:C:47:LEU:HD23	3:C:52:LEU:HD13	1.81	0.62
25:Y:227:ILE:HD11	25:Y:241:GLU:HG3	1.80	0.62
3:C:155:GLY:O	3:C:156:ARG:HB2	1.99	0.62
10:J:3:LYS:NZ	10:J:77:PRO:HD2	2.14	0.62
9:I:82:ALA:HB1	9:I:96:LEU:HD11	1.81	0.62
1:A:1325:C:H2'	1:A:1326:C:C6	2.33	0.62
1:A:176:C:H2'	1:A:177:C:C6	2.33	0.62
25:Y:437:THR:HB	25:Y:454:MET:HE1	1.81	0.62
14:N:12:ARG:NH1	14:N:12:ARG:HB2	2.14	0.62
8:H:104:ARG:O	8:H:106:GLY:N	2.33	0.62
9:I:104:ARG:O	9:I:105:ASP:HB3	1.99	0.62
1:A:1148:U:O3'	9:I:14:VAL:HG11	1.99	0.62
1:A:275:G:H2'	1:A:276:G:H8	1.63	0.62
2:B:67:THR:HG22	2:B:90:MET:SD	2.40	0.62
1:A:750:G:N3	15:O:23:GLY:HA3	2.14	0.62
1:A:1003:G:H1'	1:A:1039:C:O2	1.99	0.62
2:B:12:GLU:HA	2:B:16:HIS:CG	2.35	0.62
1:A:1442:G:C6	1:A:1442(B):A:H2	2.17	0.62
22:V:11:C:O2'	22:V:12:U:H5'	1.99	0.62
25:Y:491:VAL:CG1	25:Y:492:ASP:N	2.62	0.62
7:G:37:ASN:HD21	9:I:40:LEU:HA	1.65	0.62
20:T:26:ASN:HB2	20:T:71:THR:HG23	1.81	0.62
9:I:79:LEU:HD11	9:I:83:ARG:HD2	1.81	0.62
16:P:20:VAL:CG2	16:P:32:TYR:HB2	2.28	0.62
1:A:708:C:H2'	1:A:709:G:H8	1.64	0.62
1:A:986:A:H1'	19:S:54:GLY:O	1.99	0.62
1:A:164:U:H2'	1:A:165:C:H6	1.63	0.62
3:C:110:ASN:O	3:C:141:VAL:HG22	1.98	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:995:C:O2'	1:A:996:A:H5'	2.00	0.62
25:Y:519:ARG:HD3	25:Y:676:TYR:O	1.99	0.62
13:M:8:GLU:C	13:M:9:ILE:HD12	2.20	0.62
1:A:1147:C:O2	9:I:16:ARG:NH1	2.32	0.62
1:A:963:G:H21	10:J:55:LYS:HD3	1.63	0.62
3:C:175:LEU:HD21	3:C:201:TYR:CE2	2.33	0.62
12:L:28:LYS:O	12:L:29:GLY:C	2.38	0.62
1:A:1329:A:P	13:M:28:ALA:HB3	2.39	0.62
2:B:60:ASP:HB3	2:B:64:ARG:NH2	2.14	0.62
25:Y:688:ILE:O	25:Y:688:ILE:HG22	1.99	0.62
23:W:49:G:C2'	23:W:50:U:H5''	2.28	0.62
23:W:22:G:H2'	23:W:23:C:C5'	2.29	0.62
1:A:201:C:C2'	1:A:202:U:H5''	2.30	0.62
22:V:61:C:O2'	22:V:62:C:H5'	2.00	0.62
1:A:1431:C:H2'	1:A:1432:G:H5'	1.82	0.62
1:A:528:C:H41	12:L:49:ASN:HD21	1.45	0.62
25:Y:530:VAL:HG12	25:Y:533:VAL:CG2	2.30	0.62
1:A:1444:C:H2'	1:A:1445:C:C6	2.35	0.62
3:C:99:VAL:O	3:C:99:VAL:HG23	2.00	0.62
3:C:167:TRP:O	3:C:168:ALA:CB	2.47	0.62
15:O:5:LYS:O	15:O:9:GLN:HG2	1.98	0.62
24:X:18:C:H5'	24:X:19:A:OP1	1.98	0.62
25:Y:183:MET:O	25:Y:201:ILE:HD11	2.00	0.62
9:I:28:VAL:HG22	9:I:63:ILE:HB	1.81	0.62
1:A:1479:C:H2'	1:A:1480:G:C8	2.34	0.62
1:A:490:G:H2'	1:A:491:G:C8	2.35	0.62
4:D:74:GLN:HA	4:D:77:ASN:HD22	1.64	0.62
1:A:116:A:H2'	1:A:117:G:O4'	2.00	0.62
25:Y:198:GLU:HG3	25:Y:198:GLU:O	1.99	0.62
25:Y:487:ILE:HD12	25:Y:563:ILE:HG22	1.80	0.62
10:J:32:ALA:HB3	10:J:76:ASN:O	1.99	0.62
25:Y:220:ALA:O	25:Y:245:ALA:HB1	2.00	0.62
25:Y:74:TRP:NE1	25:Y:273:LEU:HB3	2.15	0.62
23:W:23:C:H2'	23:W:24:U:H6	1.63	0.62
1:A:538:G:OP1	12:L:113:ARG:HD2	1.99	0.62
3:C:110:ASN:HD21	3:C:140:ARG:HB3	1.65	0.62
1:A:357:G:O2'	1:A:358:U:H5'	2.00	0.62
1:A:35:G:H2'	1:A:36:C:C6	2.35	0.62
1:A:1226:C:H4'	1:A:1227:A:OP1	2.00	0.61
18:R:58:LEU:HB3	18:R:62:GLU:CB	2.30	0.61
1:A:191:G:H1'	20:T:105:SER:HA	1.80	0.61
23:W:23:C:H6	23:W:23:C:H5'	1.65	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:27:LEU:O	12:L:29:GLY:N	2.32	0.61
25:Y:9:LEU:CD2	25:Y:284:LEU:HB2	2.30	0.61
16:P:8:ARG:NH2	16:P:15:PRO:HG3	2.15	0.61
1:A:741:G:O2'	1:A:742:G:H5'	2.00	0.61
5:E:33:VAL:HG12	5:E:34:VAL:N	2.14	0.61
1:A:598:U:H2'	1:A:599:C:C6	2.35	0.61
1:A:943:U:H2'	1:A:944:G:H5'	1.82	0.61
25:Y:170:ARG:N	25:Y:170:ARG:HD2	2.15	0.61
10:J:30:SER:OG	10:J:81:THR:HG22	1.99	0.61
7:G:27:ILE:CD1	7:G:40:ALA:HA	2.28	0.61
22:V:3:C:O2'	22:V:4:C:H5'	2.00	0.61
13:M:80:ARG:O	13:M:83:ASP:HB3	2.00	0.61
23:W:28:C:H2'	23:W:29:G:H8	1.65	0.61
25:Y:439:ARG:N	25:Y:452:SER:HB3	2.07	0.61
25:Y:548:GLU:HA	25:Y:551:GLN:NE2	2.10	0.61
5:E:80:ILE:HD11	5:E:138:ALA:HB1	1.83	0.61
25:Y:493:VAL:HB	25:Y:592:GLU:OE2	1.99	0.61
1:A:1218:C:H2'	1:A:1219:U:C6	2.35	0.61
1:A:1512:U:H2'	1:A:1513:A:C8	2.35	0.61
10:J:48:THR:HG23	10:J:62:HIS:ND1	2.15	0.61
25:Y:509:HIS:CE1	25:Y:511:LYS:HE3	2.35	0.61
1:A:793:U:H3'	1:A:794:A:C5'	2.19	0.61
16:P:22:THR:HA	16:P:33:ILE:HG12	1.83	0.61
1:A:737:A:H2'	1:A:738:C:C6	2.35	0.61
2:B:101:MET:O	2:B:102:LEU:HD12	2.01	0.61
25:Y:100:VAL:HG21	25:Y:314:PHE:HD2	1.65	0.61
25:Y:15:ILE:HD12	25:Y:81:ILE:HG23	1.81	0.61
25:Y:512:ILE:N	25:Y:512:ILE:HD13	2.15	0.61
25:Y:247:ARG:HD2	25:Y:278:ASP:O	2.01	0.61
4:D:36:ARG:HB3	4:D:36:ARG:NH1	2.13	0.61
1:A:1292:U:H2'	1:A:1293:G:C8	2.35	0.61
1:A:66:G:H4'	1:A:173:U:C5	2.35	0.61
25:Y:400:GLU:HG2	25:Y:401:SER:N	2.15	0.61
13:M:106:ASN:O	13:M:107:ALA:HB3	2.00	0.61
2:B:193:ASP:O	2:B:193:ASP:OD1	2.17	0.61
24:X:14:U:H5'	24:X:15:G:OP2	2.00	0.61
3:C:47:LEU:HD11	3:C:76:VAL:HG12	1.82	0.61
1:A:1149:C:H2'	1:A:1150:U:C6	2.35	0.61
1:A:1301:U:H3'	1:A:1302:U:H5''	1.82	0.61
1:A:714:G:H2'	1:A:715:A:C8	2.35	0.61
1:A:179:A:H2'	1:A:180:U:C6	2.36	0.61
23:W:58:A:H4'	23:W:59:A:OP1	2.00	0.61

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:559:A:H4'	1:A:560:U:H5'	1.83	0.61
1:A:836:G:C6	1:A:851:G:C6	2.89	0.61
25:Y:330:VAL:CG1	25:Y:371:ALA:HA	2.31	0.61
25:Y:84:THR:N	25:Y:85:PRO:HD3	2.13	0.61
17:Q:59:ILE:HG23	17:Q:71:PHE:HB3	1.82	0.61
1:A:1030(A):G:H1'	1:A:1031:G:H1	1.66	0.61
12:L:47:LYS:HD2	12:L:48:PRO:HD3	1.82	0.61
3:C:175:LEU:HD21	3:C:201:TYR:HE2	1.65	0.61
1:A:1160:G:N3	1:A:1160:G:H2'	2.15	0.61
1:A:219:C:H2'	1:A:220:G:O4'	2.01	0.61
1:A:1170:A:H2'	1:A:1171:G:O4'	2.01	0.61
20:T:12:ALA:O	20:T:15:ARG:HB2	1.99	0.61
10:J:12:ASP:OD2	10:J:15:THR:HG23	2.00	0.61
1:A:976:G:H5'	1:A:1358:U:O2'	2.01	0.61
25:Y:264:LEU:HD22	25:Y:265:LYS:NZ	2.15	0.61
3:C:76:VAL:HG23	3:C:77:ILE:HG13	1.81	0.61
1:A:235:C:H5'	17:Q:70:ARG:HG2	1.83	0.61
9:I:81:ILE:O	9:I:85:LEU:HG	2.00	0.61
18:R:46:GLU:HA	18:R:46:GLU:OE1	2.01	0.61
25:Y:25:LYS:HE2	25:Y:86:GLY:HA2	1.82	0.61
1:A:20:U:H2'	1:A:21:G:O4'	2.00	0.61
5:E:71:LEU:HD11	5:E:114:GLY:HA3	1.82	0.61
1:A:683:G:H5'	1:A:684:A:OP2	2.01	0.61
25:Y:84:THR:N	25:Y:85:PRO:CD	2.63	0.61
25:Y:85:PRO:HA	25:Y:94:VAL:HG13	1.83	0.61
2:B:207:ALA:HB3	2:B:210:SER:CB	2.31	0.61
25:Y:688:ILE:N	25:Y:688:ILE:HD12	2.15	0.61
3:C:60:ALA:O	3:C:61:ALA:HB2	2.00	0.61
25:Y:146:LEU:HD12	25:Y:167:PRO:CD	2.20	0.60
25:Y:210:ARG:HG2	25:Y:210:ARG:NH1	2.16	0.60
19:S:15:LEU:O	19:S:19:VAL:HG23	2.01	0.60
3:C:11:ARG:HH21	3:C:180:ALA:HB3	1.66	0.60
1:A:552:U:H4'	12:L:86:ARG:HG2	1.81	0.60
25:Y:92:ILE:HG23	25:Y:93:GLU:N	2.16	0.60
25:Y:546:ILE:CD1	25:Y:565:VAL:HG11	2.29	0.60
25:Y:652:MET:CE	25:Y:652:MET:HA	2.31	0.60
5:E:11:ILE:HG22	5:E:12:LEU:N	2.16	0.60
1:A:579:G:C5'	1:A:728:A:H1'	2.30	0.60
2:B:233:SER:CB	2:B:234:PRO:CD	2.79	0.60
25:Y:484:ARG:CD	25:Y:559:PRO:HB2	2.31	0.60
7:G:38:LEU:O	7:G:42:ILE:HG13	2.01	0.60
25:Y:388:THR:HG21	25:Y:399:LEU:HD13	1.83	0.60

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:188:TYR:CD1	25:Y:196:ILE:HG22	2.37	0.60
2:B:187:LEU:HD12	2:B:205:ASP:HA	1.82	0.60
25:Y:66:THR:O	25:Y:358:MET:HE2	2.01	0.60
12:L:8:ASN:O	12:L:12:ARG:HG3	2.01	0.60
1:A:1284:C:H3'	1:A:1285:A:H5''	1.82	0.60
1:A:404:U:H2'	1:A:405:U:H6	1.66	0.60
10:J:78:ASN:HB2	10:J:81:THR:HG23	1.84	0.60
1:A:1321:C:C3'	1:A:1322:C:H5''	2.31	0.60
1:A:1321:C:H5''	1:A:1322:C:C5'	2.31	0.60
19:S:41:VAL:O	19:S:41:VAL:HG23	2.01	0.60
1:A:1342:C:O2'	1:A:1343:G:H5'	2.01	0.60
16:P:28:ARG:HH11	16:P:28:ARG:HG2	1.67	0.60
8:H:103:VAL:HG21	8:H:110:ALA:HB2	1.83	0.60
1:A:1305:G:OP1	21:U:2:GLY:N	2.34	0.60
1:A:22:G:H4'	1:A:885:G:C8	2.37	0.60
1:A:1288:A:H2	1:A:1352:C:O2	1.85	0.60
9:I:8:GLY:CA	9:I:79:LEU:HD12	2.30	0.60
1:A:999:C:H2'	1:A:1000:U:C5	2.37	0.60
13:M:82:MET:CA	13:M:93:ARG:HH21	2.15	0.60
6:F:99:ALA:O	6:F:100:ASN:HB2	2.01	0.60
25:Y:82:ILE:CD1	25:Y:101:LEU:HD23	2.30	0.60
25:Y:546:ILE:CG2	25:Y:590:ILE:HG13	2.26	0.60
9:I:114:TYR:HD2	10:J:60:ARG:HG3	1.65	0.60
20:T:26:ASN:HA	20:T:29:LYS:HG2	1.82	0.60
10:J:71:LEU:HD12	10:J:72:VAL:H	1.67	0.60
23:W:49:G:C3'	23:W:50:U:H5''	2.31	0.60
25:Y:276:VAL:O	25:Y:280:LEU:HD23	2.02	0.60
19:S:53:ASN:O	19:S:55:LYS:N	2.35	0.60
1:A:1431:C:C2'	1:A:1432:G:H5'	2.31	0.60
4:D:43:HIS:O	4:D:45:GLN:N	2.34	0.60
1:A:1030(D):A:C2'	1:A:1031:G:H5'	2.30	0.60
1:A:1226:C:H5'	13:M:96:LEU:CD1	2.31	0.60
12:L:70:ILE:CG2	12:L:100:ILE:HD12	2.32	0.60
4:D:9:CYS:SG	4:D:31:CYS:O	2.60	0.60
16:P:67:THR:N	16:P:70:ALA:HB3	2.17	0.60
7:G:81:GLY:O	7:G:83:ALA:N	2.35	0.60
1:A:865:A:H5'	1:A:1078:U:O4	2.02	0.60
18:R:43:PHE:HE2	18:R:58:LEU:HD11	1.66	0.60
12:L:27:LEU:HD13	12:L:28:LYS:H	1.67	0.60
19:S:11:VAL:HG23	19:S:38:SER:HB2	1.82	0.60
1:A:1326:C:O2'	1:A:1327:C:H5'	2.01	0.60
1:A:865:A:C2	1:A:918:A:H4'	2.35	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:82:VAL:HG12	12:L:105:TYR:CD2	2.37	0.60
25:Y:451:ILE:HD11	25:Y:462:ILE:HG21	1.82	0.60
9:I:113:LYS:HD2	9:I:119:ALA:HB1	1.83	0.60
25:Y:25:LYS:CE	25:Y:86:GLY:HA2	2.31	0.60
22:V:4:C:O2'	22:V:5:G:H8	1.83	0.60
11:K:30:VAL:HG21	11:K:65:ALA:HA	1.83	0.60
24:X:11:A:C1'	24:X:12:A:N7	2.52	0.60
25:Y:174:PHE:HZ	25:Y:261:GLY:HA2	1.66	0.60
25:Y:609:GLU:CG	25:Y:670:VAL:HG21	2.32	0.60
25:Y:25:LYS:NZ	25:Y:86:GLY:HA2	2.17	0.60
19:S:62:ILE:HG23	19:S:62:ILE:O	2.02	0.60
25:Y:377:VAL:HG21	25:Y:380:LEU:CD2	2.32	0.60
25:Y:293:THR:HB	25:Y:294:PRO:HD2	1.83	0.60
1:A:1005:A:H5'	1:A:1006:C:OP2	2.01	0.60
1:A:1008:C:H2'	1:A:1009:G:H8	1.66	0.60
1:A:59:A:H2'	1:A:59:A:N3	2.14	0.60
1:A:460:G:H5'	1:A:461:A:OP2	2.02	0.60
10:J:20:ALA:C	10:J:22:LYS:H	2.06	0.60
5:E:41:VAL:HG22	5:E:113:ALA:HA	1.82	0.60
7:G:22:LEU:HD23	7:G:22:LEU:O	2.01	0.60
8:H:63:LEU:H	8:H:63:LEU:HD22	1.67	0.60
25:Y:16:GLY:O	25:Y:104:ALA:HB1	2.02	0.59
25:Y:92:ILE:CG1	25:Y:405:PRO:HG2	2.30	0.59
25:Y:136:ALA:HB3	25:Y:260:LEU:CB	2.22	0.59
9:I:114:TYR:CD2	10:J:60:ARG:HG3	2.37	0.59
25:Y:652:MET:HE2	25:Y:655:TYR:HB2	1.84	0.59
23:W:50:U:H3	23:W:64:G:N2	1.97	0.59
23:W:11:A:H61	23:W:24:U:H3	1.48	0.59
1:A:41:G:H2'	1:A:42:G:C8	2.36	0.59
1:A:943:U:C2'	1:A:944:G:H5'	2.32	0.59
1:A:403:C:O2'	1:A:404:U:H5'	2.01	0.59
1:A:936:C:O2'	1:A:937:A:H5'	2.01	0.59
15:O:82:ILE:C	15:O:82:ILE:HD13	2.23	0.59
1:A:1346:A:N1	1:A:1374:A:H5''	2.18	0.59
1:A:418:C:H2'	1:A:419:C:C6	2.37	0.59
25:Y:415:PRO:HA	25:Y:474:ALA:CB	2.32	0.59
1:A:1255:G:H2'	1:A:1279:A:N6	2.17	0.59
10:J:8:LEU:HD21	10:J:96:ILE:HG22	1.83	0.59
1:A:542:G:O2'	1:A:543:C:H5'	2.01	0.59
9:I:53:VAL:CG1	9:I:95:LYS:HE3	2.31	0.59
19:S:29:ARG:O	19:S:31:ILE:HG22	2.03	0.59
25:Y:135:PHE:CE1	25:Y:272:LEU:HD22	2.37	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:36:U:H6	23:W:36:U:O5'	1.85	0.59
25:Y:314:PHE:HD1	25:Y:315:LYS:HB2	1.67	0.59
1:A:975:A:H8	1:A:975:A:H5'	1.67	0.59
25:Y:182:ARG:HG2	25:Y:239:GLU:OE2	2.03	0.59
1:A:192:U:O4'	20:T:103:GLY:HA2	2.02	0.59
1:A:1116:C:H2'	1:A:1117:G:C5'	2.31	0.59
10:J:54:PHE:CG	10:J:55:LYS:HE3	2.38	0.59
2:B:9:GLU:N	2:B:9:GLU:OE1	2.36	0.59
18:R:56:THR:CB	18:R:58:LEU:HD13	2.32	0.59
25:Y:25:LYS:HA	25:Y:28:THR:HB	1.84	0.59
13:M:40:ASN:HD21	13:M:42:ALA:HB3	1.68	0.59
11:K:126:ARG:O	11:K:128:ALA:N	2.36	0.59
25:Y:495:GLY:O	25:Y:585:ALA:HB1	2.02	0.59
1:A:731:G:OP1	1:A:766:A:H1'	2.02	0.59
14:N:41:ARG:HG2	14:N:41:ARG:HH11	1.67	0.59
10:J:34:VAL:HG13	10:J:73:ASP:O	2.02	0.59
9:I:5:TYR:HD1	9:I:6:GLY:H	1.46	0.59
9:I:125:TYR:HD1	9:I:126:SER:N	1.99	0.59
16:P:67:THR:HB	16:P:70:ALA:HB2	1.85	0.59
1:A:1318:A:H1'	19:S:37:ARG:HH21	1.66	0.59
1:A:46:G:O2'	1:A:365:U:H1'	2.03	0.59
12:L:18:VAL:O	12:L:19:ARG:HB3	2.03	0.59
1:A:1053:G:N7	1:A:1200:C:H5"	2.18	0.59
1:A:1238:A:C5'	1:A:1336:C:H41	2.16	0.59
25:Y:134:ALA:HB3	25:Y:258:VAL:HG22	1.84	0.59
1:A:1370:G:C2	1:A:1371:G:C8	2.91	0.59
25:Y:157:LEU:CD2	25:Y:157:LEU:H	2.00	0.59
1:A:1510:U:H2'	1:A:1511:G:C8	2.38	0.59
25:Y:670:VAL:HB	25:Y:672:PHE:CZ	2.37	0.59
14:N:12:ARG:NH1	14:N:14:PRO:HG3	2.12	0.59
5:E:101:ILE:HG12	5:E:101:ILE:O	2.02	0.59
4:D:30:LYS:C	4:D:32:ALA:N	2.56	0.59
4:D:121:VAL:O	4:D:134:ASP:HA	2.03	0.59
1:A:1270:C:H4'	1:A:1313:U:O2'	2.03	0.59
10:J:44:VAL:HG22	10:J:66:ARG:HG2	1.84	0.59
20:T:43:LEU:HB3	20:T:48:LYS:HB2	1.84	0.59
10:J:6:ILE:CD1	10:J:72:VAL:HB	2.29	0.59
9:I:53:VAL:O	9:I:54:ASP:HB2	2.02	0.59
19:S:45:VAL:O	19:S:47:HIS:N	2.36	0.59
11:K:21:ILE:HG13	11:K:30:VAL:CG1	2.33	0.59
2:B:80:ILE:H	2:B:80:ILE:HD12	1.68	0.59
3:C:152:ILE:HG22	3:C:167:TRP:HA	1.84	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1308:U:H5''	13:M:98:VAL:HG23	1.85	0.59
25:Y:145:ASP:OD2	25:Y:148:LEU:HB2	2.02	0.59
3:C:70:VAL:HG12	3:C:71:ALA:N	2.17	0.59
10:J:37:PRO:HA	10:J:72:VAL:HG22	1.83	0.59
1:A:820:U:H4'	1:A:821:G:OP2	2.02	0.59
5:E:7:GLU:HG2	5:E:112:LEU:HD22	1.84	0.59
25:Y:415:PRO:HB2	25:Y:420:ASP:C	2.23	0.59
12:L:60:LEU:HD21	12:L:66:VAL:HG22	1.85	0.59
17:Q:26:GLN:HG2	17:Q:37:LYS:HG3	1.85	0.59
25:Y:144:ALA:HB3	25:Y:171:GLU:HB3	1.83	0.59
3:C:70:VAL:HG12	3:C:72:LYS:N	2.01	0.59
1:A:1303:C:C2'	1:A:1304:G:H5'	2.33	0.59
1:A:539:A:H2'	1:A:540:G:C8	2.38	0.59
1:A:695:A:H2'	1:A:696:A:C8	2.37	0.59
8:H:114:THR:HG21	8:H:129:VAL:HG23	1.85	0.59
2:B:148:TYR:O	2:B:149:LEU:HD23	2.03	0.59
1:A:296:U:O2'	1:A:297:G:H5'	2.02	0.59
7:G:16:LEU:CD1	9:I:42:ARG:HA	2.33	0.58
23:W:30:G:O2'	23:W:31:G:H5''	2.02	0.58
4:D:31:CYS:O	4:D:32:ALA:HB3	2.03	0.58
1:A:759:A:C2'	1:A:760:G:H5'	2.33	0.58
1:A:630:G:O2'	1:A:631:G:H5'	2.02	0.58
25:Y:165:GLN:C	25:Y:166:LEU:HD12	2.24	0.58
11:K:15:ALA:HA	11:K:76:GLY:O	2.02	0.58
3:C:94:LEU:O	3:C:95:THR:HG23	2.02	0.58
25:Y:652:MET:HA	25:Y:652:MET:HE2	1.85	0.58
14:N:12:ARG:CB	14:N:12:ARG:HH11	2.17	0.58
2:B:44:LEU:N	2:B:44:LEU:HD12	2.15	0.58
4:D:9:CYS:HA	4:D:12:CYS:HB2	1.85	0.58
14:N:37:PHE:HE2	14:N:53:LEU:HD22	1.68	0.58
25:Y:113:GLY:HA3	25:Y:148:LEU:HD23	1.85	0.58
3:C:53:ALA:HB2	3:C:115:LEU:HG	1.85	0.58
20:T:42:GLN:HA	20:T:42:GLN:NE2	2.19	0.58
1:A:1269:A:H2'	1:A:1270:C:H5'	1.85	0.58
23:W:61:C:H2'	23:W:62:C:C6	2.38	0.58
22:V:17:C:H1'	22:V:18:G:OP2	2.03	0.58
25:Y:491:VAL:CG1	25:Y:596:LYS:HE2	2.23	0.58
2:B:54:THR:O	2:B:58:ILE:HG13	2.03	0.58
9:I:83:ARG:O	9:I:86:VAL:HG12	2.03	0.58
3:C:79:ARG:NH1	3:C:79:ARG:HB2	2.16	0.58
20:T:13:LEU:N	20:T:13:LEU:HD12	2.15	0.58
5:E:81:GLU:HG3	5:E:90:VAL:HG13	1.84	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:390:C:O3'	16:P:28:ARG:NH2	2.36	0.58
25:Y:339:SER:HB2	25:Y:352:VAL:CG1	2.34	0.58
1:A:895:G:H2'	1:A:896:C:C6	2.39	0.58
14:N:32:SER:O	14:N:40:CYS:HA	2.04	0.58
25:Y:499:ARG:CB	25:Y:506:GLN:HB3	2.15	0.58
25:Y:223:PHE:HB3	25:Y:248:LYS:CD	2.24	0.58
25:Y:603:GLU:O	25:Y:676:TYR:HA	2.04	0.58
25:Y:679:VAL:HB	25:Y:683:VAL:HB	1.85	0.58
20:T:50:GLU:HB2	20:T:100:ILE:HB	1.84	0.58
2:B:115:LEU:HD13	2:B:145:LEU:HB3	1.86	0.58
12:L:89:ARG:HA	12:L:97:ARG:HA	1.86	0.58
22:V:36:A:H2	24:X:16:U:H3	1.51	0.58
19:S:41:VAL:O	19:S:43:GLU:N	2.36	0.58
25:Y:580:MET:HE2	25:Y:581:ALA:N	2.19	0.58
15:O:40:SER:O	15:O:44:LYS:HG3	2.04	0.58
25:Y:658:ASP:O	25:Y:662:LYS:HG2	2.02	0.58
25:Y:499:ARG:O	25:Y:505:GLY:O	2.21	0.58
25:Y:486:THR:HG23	25:Y:600:VAL:HG13	1.84	0.58
25:Y:247:ARG:HH11	25:Y:247:ARG:HG3	1.68	0.58
13:M:15:VAL:HA	13:M:18:ALA:HB3	1.86	0.58
2:B:21:ARG:CD	2:B:39:ILE:HG12	2.31	0.58
1:A:1054:C:OP2	1:A:1197:G:OP2	2.22	0.58
18:R:58:LEU:N	18:R:58:LEU:HD12	2.19	0.58
25:Y:25:LYS:HE2	25:Y:86:GLY:H	1.69	0.58
1:A:934:C:H5	1:A:1344:C:H2'	1.68	0.58
25:Y:114:VAL:O	25:Y:114:VAL:HG13	2.04	0.58
25:Y:488:THR:OG1	25:Y:598:ASP:HB3	2.02	0.58
2:B:17:PHE:O	2:B:204:ASN:HB2	2.03	0.58
25:Y:32:ILE:HG22	25:Y:33:LEU:HD12	1.86	0.58
2:B:62:ALA:O	2:B:64:ARG:N	2.31	0.58
1:A:575:G:OP1	1:A:575:G:H4'	2.04	0.58
13:M:9:ILE:N	13:M:9:ILE:HD12	2.19	0.58
5:E:80:ILE:HG22	8:H:104:ARG:HH22	1.64	0.58
10:J:22:LYS:HE3	10:J:23:ILE:N	2.19	0.58
1:A:119:A:O2'	1:A:120:A:OP2	2.21	0.58
1:A:1358:U:P	14:N:35:ARG:HG3	2.44	0.58
25:Y:542:VAL:HG23	25:Y:582:PHE:O	2.03	0.58
2:B:164:VAL:HG12	2:B:165:VAL:N	2.19	0.58
14:N:12:ARG:NH1	14:N:12:ARG:CB	2.67	0.58
2:B:15:VAL:H	2:B:16:HIS:CE1	2.22	0.58
25:Y:12:LEU:HD11	25:Y:78:ARG:HD2	1.86	0.58
15:O:83:GLU:C	15:O:85:LEU:N	2.57	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:697:U:C2'	1:A:698:G:H5'	2.34	0.58
1:A:60:A:H5''	1:A:331:G:N2	2.19	0.58
1:A:36:C:H4'	12:L:122:THR:O	2.04	0.58
8:H:63:LEU:N	8:H:63:LEU:HD22	2.19	0.58
3:C:148:GLY:HA3	3:C:172:ARG:O	2.03	0.58
25:Y:141:LYS:HE3	28:Y:1690:GDP:N2	2.19	0.57
25:Y:191:ASP:O	25:Y:265:LYS:O	2.21	0.57
7:G:15:ASP:OD1	7:G:16:LEU:N	2.36	0.57
2:B:22:LYS:HA	2:B:22:LYS:HE2	1.86	0.57
3:C:180:ALA:O	3:C:181:ASN:HB3	2.03	0.57
19:S:9:VAL:CG1	19:S:9:VAL:O	2.52	0.57
1:A:473:G:H2'	1:A:474:G:C8	2.39	0.57
1:A:269:C:H2'	1:A:270:A:C8	2.39	0.57
24:X:21:A:H2'	24:X:22:A:H8	1.69	0.57
23:W:56:C:OP1	23:W:56:C:C6	2.57	0.57
5:E:68:GLU:HG3	5:E:68:GLU:O	2.04	0.57
25:Y:104:ALA:O	25:Y:132:ARG:HB2	2.04	0.57
25:Y:491:VAL:HG11	25:Y:596:LYS:HG2	1.86	0.57
22:V:50:U:O2'	22:V:51:U:H5'	2.04	0.57
10:J:5:ARG:HG3	10:J:71:LEU:HD11	1.86	0.57
25:Y:72:CYS:SG	25:Y:79:ILE:HB	2.44	0.57
4:D:30:LYS:HB3	4:D:35:ARG:HD2	1.85	0.57
4:D:8:VAL:C	4:D:10:ARG:N	2.57	0.57
1:A:624:C:O2'	1:A:625:G:H5'	2.03	0.57
4:D:127:THR:HA	4:D:132:ARG:HA	1.86	0.57
25:Y:65:ILE:H	25:Y:65:ILE:HD13	1.69	0.57
17:Q:74:LEU:HD12	17:Q:75:ARG:HG2	1.85	0.57
6:F:28:ARG:O	6:F:32:ASN:HB2	2.04	0.57
23:W:74:C:C2'	23:W:75:C:H5'	2.34	0.57
14:N:12:ARG:HH11	14:N:12:ARG:HB3	1.68	0.57
2:B:32:ILE:HD12	2:B:40:HIS:HB3	1.87	0.57
25:Y:25:LYS:HE2	25:Y:86:GLY:CA	2.34	0.57
1:A:449:C:O2	16:P:42:ARG:HD2	2.04	0.57
1:A:1090:U:H2'	1:A:1091:U:H6	1.69	0.57
8:H:118:VAL:O	8:H:119:LEU:HD23	2.04	0.57
25:Y:85:PRO:HA	25:Y:94:VAL:HG22	1.85	0.57
23:W:67:C:H2'	23:W:68:C:H5'	1.86	0.57
1:A:183:G:H2'	1:A:184:G:C8	2.39	0.57
16:P:14:ASN:N	16:P:15:PRO:HD3	2.20	0.57
4:D:158:ILE:HG23	4:D:162:LEU:HD12	1.85	0.57
2:B:137:ARG:HG2	2:B:137:ARG:HH11	1.69	0.57
2:B:238:LEU:O	2:B:240:GLN:N	2.37	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:176:LEU:HD12	4:D:177:ASP:H	1.69	0.57
5:E:36:ASP:OD1	5:E:38:GLN:HB2	2.03	0.57
1:A:332:G:H2'	1:A:333:G:H8	1.70	0.57
17:Q:80:GLY:O	17:Q:81:ARG:HD2	2.05	0.57
25:Y:355:LEU:HG	25:Y:369:LEU:HD13	1.87	0.57
27:F:1103:FUA:H121	25:Y:90:PHE:CE2	2.38	0.57
1:A:1347:G:O2'	1:A:1348:U:OP2	2.22	0.57
25:Y:179:ASP:O	25:Y:183:MET:HA	2.04	0.57
25:Y:512:ILE:CD1	25:Y:589:ALA:HB1	2.34	0.57
19:S:19:VAL:HG11	19:S:44:MET:HG2	1.85	0.57
25:Y:186:TYR:CD2	25:Y:271:LEU:HD11	2.39	0.57
5:E:20:GLN:O	5:E:21:ALA:C	2.42	0.57
23:W:40:C:O2'	23:W:41:C:H5'	2.04	0.57
11:K:33:THR:HA	11:K:40:ILE:HG12	1.86	0.57
1:A:1354:C:H2'	1:A:1355:G:H8	1.69	0.57
1:A:908:A:H2'	1:A:909:A:C8	2.40	0.57
1:A:1503:A:C2	24:X:11:A:N3	2.72	0.57
7:G:85:TYR:CD2	7:G:154:TYR:HE2	2.22	0.57
7:G:80:VAL:HG21	7:G:83:ALA:HB3	1.86	0.57
10:J:32:ALA:HB1	10:J:75:ILE:HG13	1.87	0.57
5:E:76:ILE:HG22	5:E:118:ILE:HD13	1.85	0.57
18:R:44:LEU:O	18:R:45:SER:C	2.42	0.57
3:C:174:PRO:O	3:C:176:HIS:N	2.37	0.57
16:P:67:THR:H	16:P:70:ALA:HB3	1.70	0.57
1:A:512:U:H2'	1:A:513:C:H6	1.70	0.57
1:A:513:C:O2'	1:A:514:C:H5'	2.05	0.57
19:S:6:LYS:H	19:S:6:LYS:CD	2.17	0.57
1:A:1060:C:H4'	10:J:52:GLY:N	2.20	0.57
5:E:98:THR:HB	5:E:117:ASP:HB3	1.84	0.57
25:Y:98:MET:HA	25:Y:101:LEU:CD1	2.35	0.57
18:R:50:ILE:HD12	18:R:70:ILE:HG21	1.85	0.57
21:U:2:GLY:C	21:U:4:GLY:H	2.08	0.57
9:I:10:ARG:HG3	9:I:75:ASP:HB3	1.87	0.57
1:A:1206:G:H4'	3:C:192:THR:O	2.05	0.57
1:A:1368:G:O2'	1:A:1369:C:H5'	2.04	0.57
25:Y:513:LYS:HB2	25:Y:566:THR:HB	1.86	0.57
3:C:50:ALA:HB1	3:C:70:VAL:CG1	2.35	0.57
25:Y:607:ARG:HA	25:Y:645:ALA:O	2.05	0.57
17:Q:3:LYS:HB3	17:Q:61:GLU:HB3	1.86	0.57
4:D:28:SER:O	4:D:30:LYS:N	2.36	0.57
12:L:38:THR:CG2	12:L:57:LYS:HB3	2.35	0.57
11:K:91:ARG:HH11	18:R:88:LYS:HE3	1.68	0.57

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:32:PHE:CE1	12:L:86:ARG:HG3	2.38	0.57
25:Y:539:ILE:O	25:Y:542:VAL:HG12	2.05	0.57
10:J:4:ILE:HB	10:J:74:ILE:CG1	2.34	0.57
9:I:104:ARG:C	9:I:105:ASP:N	2.58	0.57
1:A:424:G:H2'	1:A:425:G:H8	1.69	0.57
1:A:1190:G:OP1	3:C:5:ILE:HD12	2.05	0.57
1:A:1314:C:H2'	1:A:1315:U:C6	2.40	0.57
1:A:833:U:H2'	1:A:834:C:H6	1.68	0.57
8:H:29:SER:OG	8:H:32:LYS:HG3	2.05	0.57
16:P:74:LEU:HD23	16:P:79:VAL:HG21	1.85	0.57
1:A:487:A:H2'	1:A:488:C:O4'	2.05	0.57
10:J:94:VAL:HG12	10:J:95:GLU:N	2.19	0.56
2:B:12:GLU:HB3	2:B:16:HIS:HB2	1.87	0.56
8:H:87:SER:OG	8:H:92:ARG:HA	2.04	0.56
14:N:37:PHE:CE2	14:N:53:LEU:HD22	2.40	0.56
1:A:658:G:O4'	15:O:22:THR:HB	2.04	0.56
19:S:6:LYS:N	19:S:6:LYS:HE3	2.20	0.56
4:D:176:LEU:HD12	4:D:177:ASP:N	2.19	0.56
22:V:68:C:H2'	22:V:69:G:C8	2.40	0.56
1:A:1076:C:H5'	1:A:1077:G:OP2	2.05	0.56
7:G:51:GLN:OE1	7:G:51:GLN:HA	2.05	0.56
25:Y:462:ILE:O	25:Y:466:LEU:HD13	2.04	0.56
25:Y:530:VAL:HG22	25:Y:531:GLY:N	2.11	0.56
9:I:26:VAL:HG22	9:I:61:ALA:HB3	1.85	0.56
2:B:213:LEU:HD23	2:B:213:LEU:O	2.06	0.56
25:Y:25:LYS:HZ1	25:Y:86:GLY:HA2	1.70	0.56
25:Y:631:ILE:HD11	25:Y:643:ILE:HG21	1.87	0.56
16:P:19:ILE:N	16:P:37:GLY:O	2.38	0.56
22:V:42:C:H2'	22:V:42:C:O2	2.04	0.56
24:X:18:C:H5''	24:X:19:A:OP1	2.02	0.56
25:Y:505:GLY:HA3	25:Y:576:ASP:CG	2.26	0.56
25:Y:21:ILE:H	25:Y:21:ILE:HD13	1.69	0.56
3:C:78:GLY:HA3	3:C:83:ARG:HB3	1.88	0.56
13:M:119:GLY:O	13:M:120:LYS:HB2	2.05	0.56
25:Y:228:MET:O	25:Y:231:TYR:HB3	2.04	0.56
3:C:79:ARG:HG3	3:C:79:ARG:O	2.05	0.56
1:A:738:C:H2'	1:A:739:C:H6	1.70	0.56
10:J:63:PHE:CD1	10:J:63:PHE:N	2.73	0.56
25:Y:316:ILE:HG21	25:Y:324:ARG:NH2	2.21	0.56
2:B:142:LEU:O	2:B:146:GLN:HB2	2.05	0.56
25:Y:35:TYR:CE2	25:Y:269:VAL:HB	2.41	0.56
1:A:368:U:P	25:Y:351:ARG:HH21	2.28	0.56

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1010:G:H1	1:A:1020:U:H1'	1.70	0.56
13:M:92:HIS:CE1	13:M:98:VAL:HG21	2.40	0.56
6:F:18:GLN:O	6:F:21:LEU:HB2	2.06	0.56
8:H:34:GLU:HB3	8:H:118:VAL:HG21	1.88	0.56
15:O:57:LEU:HD23	15:O:57:LEU:H	1.70	0.56
1:A:1061:G:O2'	1:A:1062:U:H5'	2.05	0.56
6:F:80:ARG:HH11	6:F:88:VAL:HB	1.70	0.56
1:A:337:C:H2'	1:A:338:A:H8	1.69	0.56
24:X:12:A:C4'	24:X:13:A:OP2	2.53	0.56
25:Y:132:ARG:HG2	25:Y:132:ARG:O	2.06	0.56
18:R:87:ARG:HB3	18:R:87:ARG:HH11	1.70	0.56
4:D:28:SER:HB3	4:D:29:PRO:HD2	1.86	0.56
4:D:70:ILE:HD11	4:D:74:GLN:HB3	1.86	0.56
6:F:47:ARG:HG2	6:F:47:ARG:HH11	1.70	0.56
25:Y:21:ILE:O	25:Y:22:ASP:CB	2.53	0.56
3:C:58:GLU:N	3:C:65:ALA:HB3	2.09	0.56
25:Y:530:VAL:O	25:Y:532:GLY:N	2.38	0.56
5:E:145:LYS:HA	8:H:107:LEU:CD2	2.35	0.56
16:P:25:ARG:NH1	16:P:25:ARG:HG3	2.19	0.56
12:L:53:ARG:HG2	12:L:93:LEU:HD21	1.87	0.56
1:A:1106:G:O2'	1:A:1107:C:H5'	2.06	0.56
1:A:1266:G:N2	1:A:1270:C:N3	2.52	0.56
1:A:992:U:H4'	1:A:993:G:O5'	2.04	0.56
1:A:1444:C:H2'	1:A:1445:C:H6	1.70	0.56
7:G:35:LYS:HE3	7:G:38:LEU:HD23	1.86	0.56
12:L:82:VAL:HG12	12:L:105:TYR:HD2	1.70	0.56
1:A:1495:U:H2'	1:A:1496:C:H6	1.70	0.56
25:Y:15:ILE:HB	25:Y:104:ALA:HA	1.86	0.56
25:Y:655:TYR:CZ	25:Y:659:LEU:HB2	2.41	0.56
25:Y:530:VAL:O	25:Y:531:GLY:C	2.44	0.56
25:Y:282:SER:O	25:Y:286:ILE:HD13	2.06	0.56
1:A:931:C:H1'	1:A:1387:G:N2	2.21	0.56
20:T:45:GLN:HB2	20:T:91:LEU:HD22	1.86	0.56
17:Q:48:GLU:O	17:Q:49:GLU:C	2.43	0.56
1:A:165:C:O2'	1:A:166:G:H5'	2.05	0.56
8:H:6:ILE:HG21	8:H:85:ARG:NH1	2.20	0.56
5:E:36:ASP:OD1	5:E:38:GLN:N	2.34	0.56
15:O:17:ARG:CD	15:O:26:GLU:HG3	2.26	0.56
25:Y:620:VAL:O	25:Y:624:LEU:HD22	2.06	0.56
1:A:1490:C:O2'	1:A:1491:G:H5'	2.05	0.56
18:R:73:ALA:HB3	18:R:79:LEU:HD12	1.87	0.56
19:S:6:LYS:HG2	19:S:7:LYS:HE3	1.87	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:167:PRO:HG2	2:B:192:SER:OG	2.05	0.56
25:Y:115:GLU:OE2	25:Y:152:THR:HG21	2.05	0.56
2:B:165:VAL:CG2	2:B:166:ASP:H	2.05	0.56
15:O:17:ARG:HH11	15:O:17:ARG:HG3	1.71	0.56
20:T:47:GLY:O	20:T:49:ALA:N	2.27	0.56
13:M:52:GLU:HA	13:M:55:ARG:HD3	1.87	0.56
1:A:1292:U:H2'	1:A:1293:G:H8	1.71	0.56
1:A:957:U:O2	1:A:959:A:H8	1.88	0.56
5:E:33:VAL:CG1	5:E:112:LEU:HD12	2.36	0.56
1:A:382:A:H2'	1:A:383:A:H8	1.70	0.56
25:Y:210:ARG:O	25:Y:214:GLU:HG2	2.06	0.56
3:C:52:LEU:CD2	3:C:52:LEU:H	2.14	0.56
23:W:4:G:O2'	23:W:5:G:H8	1.89	0.56
2:B:51:LEU:CD2	2:B:55:PHE:HE2	2.19	0.56
4:D:104:VAL:HG21	4:D:140:VAL:HG21	1.88	0.56
7:G:140:ASP:HA	7:G:143:ARG:NH1	2.21	0.56
22:V:64:A:H2'	22:V:65:G:H8	1.70	0.56
7:G:29:LYS:HB2	7:G:105:VAL:HG21	1.87	0.56
25:Y:438:PHE:HB3	25:Y:458:HIS:NE2	2.19	0.56
3:C:6:HIS:HD2	3:C:7:PRO:HD2	1.69	0.56
7:G:139:GLU:O	7:G:143:ARG:HG3	2.06	0.56
1:A:1305:G:H5'	21:U:4:GLY:HA3	1.87	0.56
23:W:56:C:H2'	23:W:56:C:O2	2.06	0.56
6:F:98:LEU:HD13	6:F:101:ALA:HB2	1.86	0.56
20:T:55:ILE:O	20:T:58:LYS:HB3	2.06	0.56
9:I:3:GLN:NE2	9:I:20:ARG:HH21	2.03	0.56
25:Y:208:GLN:O	25:Y:211:GLU:HG2	2.06	0.55
3:C:58:GLU:O	3:C:59:ARG:HG3	2.05	0.55
13:M:116:THR:HG22	13:M:117:VAL:N	2.21	0.55
1:A:1342:C:H1'	9:I:124:GLN:HG3	1.88	0.55
1:A:1420:C:H42	1:A:1480:G:H1	1.54	0.55
1:A:956:U:O2'	1:A:957:U:H5'	2.05	0.55
17:Q:4:LYS:HG3	17:Q:6:LEU:HD21	1.87	0.55
15:O:16:ALA:HB1	15:O:21:ASP:HB3	1.88	0.55
5:E:101:ILE:HD11	5:E:119:LEU:HA	1.89	0.55
5:E:135:THR:O	5:E:138:ALA:HB3	2.06	0.55
7:G:75:VAL:HG11	7:G:86:GLN:HB3	1.88	0.55
1:A:821:G:O2'	1:A:822:C:H5'	2.05	0.55
16:P:9:PHE:HE2	16:P:18:ARG:NE	2.03	0.55
22:V:68:C:H2'	22:V:69:G:H8	1.70	0.55
23:W:54:5MU:H2'	23:W:55:U:O4'	2.06	0.55
1:A:1435:G:H2'	1:A:1436:U:C6	2.41	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:30:G:H2'	23:W:31:G:C5'	2.31	0.55
4:D:10:ARG:O	4:D:13:ARG:HB2	2.07	0.55
4:D:61:LYS:HD3	4:D:206:PHE:CD2	2.41	0.55
1:A:1441:G:H4'	1:A:1442:G:C4	2.40	0.55
3:C:167:TRP:O	3:C:168:ALA:HB3	2.06	0.55
6:F:36:ARG:HB3	6:F:36:ARG:NH1	2.21	0.55
4:D:152:SER:O	4:D:155:LEU:HG	2.05	0.55
8:H:5:PRO:O	8:H:8:ASP:HB3	2.06	0.55
25:Y:438:PHE:O	25:Y:438:PHE:HD1	1.90	0.55
25:Y:489:LYS:HG2	25:Y:598:ASP:CB	2.34	0.55
9:I:88:TYR:O	9:I:89:ASN:CB	2.53	0.55
13:M:74:VAL:HA	13:M:77:ASN:HD22	1.69	0.55
5:E:91:LEU:HA	5:E:120:THR:HG22	1.87	0.55
9:I:53:VAL:CG2	9:I:55:ALA:HB3	2.34	0.55
3:C:14:ILE:HG13	3:C:15:THR:H	1.71	0.55
1:A:275:G:H2'	1:A:276:G:C8	2.41	0.55
6:F:14:LEU:HD22	6:F:18:GLN:HE21	1.70	0.55
23:W:53:G:O2'	23:W:54:5MU:H5''	2.07	0.55
2:B:236:TYR:CD2	2:B:239:VAL:HG21	2.41	0.55
21:U:3:LYS:HB3	21:U:14:TRP:CD1	2.41	0.55
12:L:17:LYS:CD	12:L:18:VAL:HG22	2.36	0.55
25:Y:316:ILE:HG23	25:Y:326:THR:HG22	1.89	0.55
1:A:1219:U:H2'	1:A:1220:G:H8	1.72	0.55
11:K:33:THR:HG22	11:K:39:PRO:HA	1.89	0.55
6:F:38:GLU:O	6:F:39:LYS:O	2.25	0.55
1:A:812:C:HO2'	1:A:813:U:P	2.29	0.55
20:T:36:LEU:HD12	20:T:59:ALA:HB2	1.87	0.55
14:N:44:LEU:O	14:N:44:LEU:HD12	2.07	0.55
1:A:1288:A:N1	1:A:1371:G:H1'	2.21	0.55
25:Y:171:GLU:O	25:Y:174:PHE:HB2	2.06	0.55
10:J:32:ALA:CB	10:J:76:ASN:HB3	2.36	0.55
2:B:24:TRP:CZ3	2:B:26:PRO:HA	2.41	0.55
25:Y:71:THR:HB	25:Y:78:ARG:HH12	1.70	0.55
1:A:1202:G:C2	14:N:42:ILE:HG21	2.41	0.55
1:A:407:G:O2'	4:D:116:GLN:HG3	2.06	0.55
20:T:42:GLN:NE2	20:T:42:GLN:CA	2.70	0.55
4:D:61:LYS:CE	4:D:62:GLN:HE21	2.19	0.55
15:O:39:LEU:HD22	15:O:43:LEU:HG	1.87	0.55
6:F:36:ARG:HB3	6:F:36:ARG:CZ	2.36	0.55
10:J:29:ARG:HB3	10:J:29:ARG:CZ	2.35	0.55
3:C:127:ARG:HH11	3:C:127:ARG:HG2	1.71	0.55
12:L:76:ASN:CG	12:L:76:ASN:O	2.44	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:486:THR:HG23	25:Y:600:VAL:CG1	2.37	0.55
2:B:82:ARG:NH1	2:B:82:ARG:HG3	2.21	0.55
25:Y:606:MET:CE	25:Y:671:MET:HG2	2.27	0.55
4:D:173:TRP:O	4:D:174:LEU:HD23	2.06	0.55
20:T:11:SER:HA	20:T:13:LEU:CD1	2.36	0.55
11:K:99:GLN:CG	11:K:105:VAL:HG21	2.33	0.55
9:I:55:ALA:HA	9:I:58:HIS:CD2	2.41	0.55
1:A:404:U:H2'	1:A:405:U:C6	2.42	0.55
1:A:405:U:H3'	1:A:406:G:H5'	1.89	0.55
6:F:22:GLU:C	6:F:24:GLU:H	2.10	0.55
1:A:520:A:N1	1:A:536:C:H1'	2.22	0.55
25:Y:119:GLU:C	25:Y:121:VAL:H	2.10	0.55
1:A:1490:C:C2'	1:A:1491:G:H5'	2.37	0.55
10:J:8:LEU:HD23	10:J:96:ILE:HG22	1.89	0.55
18:R:45:SER:OG	18:R:46:GLU:N	2.38	0.55
1:A:687:A:N6	1:A:703:G:H1'	2.22	0.55
1:A:1386:G:O2'	1:A:1387:G:H5'	2.06	0.55
1:A:191:G:N3	20:T:105:SER:HB3	2.22	0.55
3:C:157:ILE:C	3:C:159:GLY:H	2.10	0.55
1:A:358:U:H2'	1:A:359:U:C6	2.41	0.55
10:J:18:ALA:C	10:J:20:ALA:H	2.09	0.55
7:G:109:ASN:HA	7:G:119:ARG:HE	1.70	0.55
25:Y:262:SER:OG	25:Y:265:LYS:HG2	2.07	0.55
2:B:166:ASP:HB3	2:B:169:LYS:HB2	1.89	0.55
25:Y:238:THR:CG2	25:Y:241:GLU:HG2	2.35	0.55
13:M:70:LEU:C	13:M:70:LEU:HD23	2.28	0.55
1:A:1190:G:OP1	3:C:4:LYS:HA	2.07	0.55
23:W:24:U:H2'	23:W:25:C:H6	1.72	0.55
4:D:154:ASN:O	4:D:155:LEU:HD23	2.07	0.55
1:A:603:U:H2'	1:A:604:G:C8	2.41	0.55
1:A:309:G:H1'	1:A:608:A:C2	2.42	0.55
25:Y:536:LYS:HZ2	25:Y:536:LYS:H	1.55	0.55
1:A:793:U:O2	1:A:1516:G:H4'	2.07	0.55
23:W:6:G:H2'	23:W:7:G:O4'	2.06	0.55
1:A:1221:G:H1'	19:S:54:GLY:HA3	1.87	0.55
1:A:382:A:H2'	1:A:383:A:C8	2.41	0.55
1:A:1168:A:H8	1:A:1168:A:OP1	1.90	0.55
1:A:639:G:O2'	1:A:640:A:H5'	2.07	0.55
2:B:69:LEU:HD12	2:B:70:PHE:N	2.22	0.55
22:V:35:A:H2	24:X:18:C:C2	2.24	0.54
23:W:34:C:O2'	23:W:35:A:H4'	2.06	0.54
25:Y:100:VAL:HG21	25:Y:314:PHE:CD2	2.42	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:315:LYS:HZ2	25:Y:317:MET:HG2	1.72	0.54
12:L:42:THR:HG23	12:L:42:THR:O	2.07	0.54
10:J:16:LEU:HD11	10:J:70:ARG:HB2	1.88	0.54
2:B:7:VAL:O	2:B:11:LEU:HG	2.08	0.54
9:I:95:LYS:HZ3	9:I:96:LEU:CD1	2.18	0.54
19:S:17:GLU:O	19:S:21:GLU:HG2	2.07	0.54
1:A:299:G:H2'	1:A:300:A:C8	2.42	0.54
1:A:1319:A:OP1	19:S:10:PHE:CE1	2.60	0.54
3:C:20:SER:HB3	3:C:40:ARG:HH22	1.72	0.54
3:C:20:SER:HB3	3:C:40:ARG:NH2	2.22	0.54
1:A:673:G:H2'	1:A:674:G:C8	2.42	0.54
23:W:65:C:H2'	23:W:66:C:C6	2.42	0.54
9:I:54:ASP:O	9:I:56:LEU:N	2.37	0.54
12:L:6:THR:HG23	12:L:9:GLN:HE21	1.71	0.54
19:S:6:LYS:H	19:S:6:LYS:HE3	1.72	0.54
1:A:324:G:O5'	1:A:324:G:H8	1.90	0.54
15:O:17:ARG:NH1	15:O:77:ARG:CZ	2.71	0.54
13:M:15:VAL:HA	13:M:18:ALA:CB	2.38	0.54
25:Y:415:PRO:HA	25:Y:474:ALA:HB2	1.89	0.54
25:Y:298:VAL:HG22	25:Y:299:VAL:N	2.23	0.54
25:Y:553:GLY:HA2	25:Y:560:VAL:HG23	1.89	0.54
13:M:108:ARG:N	13:M:108:ARG:HD2	2.21	0.54
1:A:963:G:H21	10:J:55:LYS:CD	2.21	0.54
2:B:15:VAL:C	2:B:16:HIS:CG	2.81	0.54
1:A:687:A:O2'	1:A:701:C:N4	2.40	0.54
12:L:83:VAL:CG1	12:L:100:ILE:HG23	2.38	0.54
1:A:450:G:H1	1:A:483:C:H42	1.56	0.54
20:T:45:GLN:HA	20:T:91:LEU:HB3	1.90	0.54
1:A:472:A:H2'	1:A:473:G:O4'	2.07	0.54
13:M:56:LEU:C	13:M:56:LEU:HD13	2.26	0.54
13:M:83:ASP:CG	13:M:84:ILE:N	2.61	0.54
4:D:201:GLN:O	4:D:205:GLU:HG3	2.08	0.54
1:A:862:C:O2'	1:A:863:U:H5'	2.06	0.54
10:J:40:LEU:N	10:J:40:LEU:HD23	2.22	0.54
7:G:37:ASN:ND2	9:I:40:LEU:HA	2.22	0.54
1:A:192:U:H2'	1:A:193:C:C6	2.41	0.54
1:A:1116:C:C2'	1:A:1117:G:H5'	2.35	0.54
1:A:1128:C:H4'	1:A:1148:U:O2	2.07	0.54
1:A:426:G:P	4:D:36:ARG:HH22	2.30	0.54
13:M:81:LEU:N	13:M:81:LEU:HD22	2.23	0.54
2:B:208:ILE:O	2:B:212:GLN:HB2	2.07	0.54
1:A:476:G:H2'	1:A:477:A:H8	1.72	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:59:A:H1'	1:A:354:G:N2	2.22	0.54
25:Y:614:GLU:HA	25:Y:617:MET:HB2	1.89	0.54
22:V:37:A:C2	24:X:16:U:C4	2.96	0.54
10:J:95:GLU:OE1	10:J:95:GLU:HA	2.08	0.54
19:S:13:ASP:C	19:S:15:LEU:N	2.60	0.54
1:A:1344:C:O2'	1:A:1345:U:H5'	2.08	0.54
4:D:158:ILE:O	4:D:162:LEU:HB2	2.08	0.54
16:P:1:MET:CE	16:P:65:GLN:HG3	2.38	0.54
1:A:1082:G:C2'	1:A:1083:U:H5'	2.38	0.54
8:H:114:THR:HG22	8:H:130:GLY:O	2.07	0.54
10:J:29:ARG:HH11	10:J:29:ARG:HG2	1.73	0.54
3:C:49:SER:HB2	3:C:75:VAL:HG11	1.88	0.54
3:C:150:LYS:HB2	3:C:169:ALA:HB1	1.90	0.54
1:A:757:U:H2'	1:A:758:G:O4'	2.08	0.54
2:B:178:ARG:HH22	2:B:196:LEU:HA	1.73	0.54
25:Y:438:PHE:HD2	25:Y:462:ILE:HD13	1.72	0.54
9:I:40:LEU:C	9:I:42:ARG:H	2.09	0.54
5:E:78:HIS:O	5:E:93:PRO:HD3	2.07	0.54
9:I:17:VAL:HG13	9:I:63:ILE:HG12	1.89	0.54
7:G:114:ARG:HG2	7:G:114:ARG:HH11	1.73	0.54
7:G:107:ALA:O	7:G:110:GLN:HB2	2.08	0.54
25:Y:568:TYR:CD1	25:Y:569:ASP:HB2	2.42	0.54
3:C:52:LEU:HD23	3:C:52:LEU:N	2.17	0.54
10:J:78:ASN:C	10:J:79:ARG:HH11	2.11	0.54
20:T:30:LYS:NZ	20:T:34:LYS:HE3	2.23	0.54
1:A:1112:C:O2'	3:C:179:ARG:HG2	2.08	0.54
5:E:12:LEU:O	5:E:12:LEU:HD13	2.06	0.54
12:L:47:LYS:HD2	12:L:48:PRO:CD	2.37	0.54
1:A:202:U:H5'	1:A:203:U:H5	1.72	0.54
4:D:159:ARG:HG3	4:D:159:ARG:NH1	2.21	0.54
1:A:807:A:H2'	1:A:808:C:C6	2.43	0.54
12:L:41:ARG:CG	12:L:42:THR:N	2.70	0.54
5:E:28:PHE:CD2	5:E:51:VAL:HG22	2.43	0.54
1:A:974:A:C8	14:N:31:ARG:HD2	2.43	0.54
2:B:11:LEU:HD11	2:B:217:ARG:NH2	2.23	0.54
4:D:173:TRP:HB2	4:D:187:ARG:O	2.08	0.54
1:A:1387:G:C6	1:A:1388:C:N4	2.76	0.54
4:D:129:ASN:H	4:D:129:ASN:HD22	1.55	0.54
16:P:8:ARG:HB3	16:P:28:ARG:NH1	2.20	0.54
9:I:11:LYS:O	9:I:12:GLU:HB2	2.08	0.54
2:B:236:TYR:HA	2:B:239:VAL:HG23	1.89	0.54
25:Y:537:GLU:O	25:Y:540:PRO:HD2	2.08	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:42:GLY:HA3	5:E:66:MET:HG2	1.88	0.54
1:A:826:C:H2'	1:A:827:U:H6	1.72	0.54
25:Y:230:LYS:HZ1	25:Y:237:PRO:HA	1.72	0.54
3:C:154:SER:OG	3:C:155:GLY:N	2.40	0.54
25:Y:178:ILE:HD11	25:Y:185:ALA:CB	2.38	0.54
12:L:24:VAL:HG13	12:L:98:TYR:CE2	2.43	0.54
25:Y:441:SER:O	25:Y:449:THR:HA	2.08	0.54
1:A:662:G:H2'	1:A:663:A:C8	2.43	0.54
1:A:1270:C:H2'	1:A:1271:G:C8	2.43	0.54
2:B:235:SER:O	2:B:237:ALA:N	2.36	0.54
1:A:710:G:O2'	1:A:711:G:H5'	2.08	0.54
1:A:67:C:H2'	1:A:68:G:C8	2.43	0.54
1:A:824:C:H2'	1:A:825:G:H8	1.72	0.54
25:Y:319:ASP:HB2	25:Y:325:LEU:HD12	1.90	0.53
1:A:1347:G:C2'	1:A:1348:U:OP2	2.56	0.53
2:B:24:TRP:HA	2:B:190:THR:O	2.08	0.53
1:A:424:G:O2'	1:A:425:G:H5'	2.08	0.53
25:Y:78:ARG:NH1	25:Y:78:ARG:HG3	2.23	0.53
18:R:87:ARG:HH11	18:R:87:ARG:CB	2.21	0.53
19:S:44:MET:HB3	19:S:47:HIS:HD2	1.73	0.53
12:L:28:LYS:O	12:L:30:ALA:N	2.41	0.53
3:C:54:ARG:HD3	3:C:69:HIS:ND1	2.23	0.53
8:H:86:ILE:HG12	8:H:135:CYS:HA	1.90	0.53
10:J:56:HIS:O	10:J:58:ASP:O	2.26	0.53
17:Q:7:THR:O	17:Q:23:VAL:HG13	2.08	0.53
12:L:58:VAL:O	12:L:65:GLU:HA	2.08	0.53
8:H:40:ALA:HA	8:H:45:ILE:HG13	1.90	0.53
1:A:1119:C:O2'	1:A:1120:G:H5'	2.07	0.53
1:A:1516:G:N1	1:A:1519:A:OP2	2.41	0.53
6:F:71:ARG:HG3	6:F:71:ARG:HH11	1.73	0.53
20:T:33:ILE:HG21	20:T:63:ILE:HG12	1.90	0.53
4:D:173:TRP:CE2	4:D:189:PRO:HB3	2.43	0.53
1:A:1026:G:C3'	1:A:1027:C:H5'	2.38	0.53
1:A:555:C:H2'	1:A:556:C:H6	1.72	0.53
17:Q:48:GLU:O	17:Q:50:LYS:N	2.41	0.53
3:C:141:VAL:HG11	3:C:202:ILE:HD12	1.91	0.53
12:L:10:LEU:HB3	17:Q:32:TYR:CE2	2.42	0.53
15:O:29:VAL:HG11	15:O:67:LEU:HD21	1.91	0.53
1:A:841:U:H3'	1:A:848:C:H5'	1.90	0.53
1:A:393:A:O2'	1:A:394:G:H5'	2.08	0.53
25:Y:15:ILE:C	25:Y:101:LEU:HD22	2.28	0.53
25:Y:548:GLU:HG2	25:Y:548:GLU:O	2.07	0.53

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:S:6:LYS:C	19:S:7:LYS:HE3	2.27	0.53
1:A:936:C:H2'	1:A:937:A:O4'	2.08	0.53
1:A:603:U:H2'	1:A:604:G:H8	1.73	0.53
5:E:143:ARG:HH12	8:H:77:GLU:CD	2.11	0.53
1:A:892:A:O2'	1:A:1415:G:H4'	2.07	0.53
1:A:646:U:H2'	1:A:647:C:C6	2.44	0.53
25:Y:392:GLU:HG3	25:Y:393:ASP:OD2	2.08	0.53
18:R:55:ARG:HG3	18:R:55:ARG:HH11	1.73	0.53
4:D:33:MET:O	4:D:37:PRO:HG3	2.08	0.53
1:A:1369:C:H2'	1:A:1370:G:C8	2.44	0.53
1:A:815:A:H62	1:A:1509:C:H1'	1.72	0.53
2:B:51:LEU:HD23	2:B:55:PHE:HE2	1.74	0.53
9:I:35:GLU:HA	9:I:38:GLN:HB2	1.90	0.53
1:A:376:G:H2'	1:A:377:G:C8	2.36	0.53
4:D:2:GLY:O	4:D:4:TYR:N	2.41	0.53
9:I:45:ALA:O	9:I:48:GLU:HB2	2.09	0.53
22:V:29:G:N2	22:V:42:C:H1'	2.23	0.53
1:A:392:G:H2'	1:A:393:A:H8	1.73	0.53
1:A:1137:C:H4'	1:A:1138:G:C2	2.43	0.53
1:A:920:U:H1'	1:A:1080:A:C2	2.43	0.53
25:Y:689:LYS:HG3	25:Y:690:GLY:N	2.24	0.53
25:Y:103:GLY:HA2	25:Y:130:VAL:HG22	1.91	0.53
25:Y:88:VAL:O	25:Y:90:PHE:HD1	1.90	0.53
25:Y:92:ILE:CG2	25:Y:93:GLU:N	2.71	0.53
25:Y:193:GLY:HA3	25:Y:266:ASN:CB	2.37	0.53
2:B:82:ARG:O	2:B:86:GLU:HG3	2.07	0.53
1:A:626:U:H5'	1:A:627:G:OP2	2.08	0.53
1:A:1269:A:C2	1:A:1313:U:O4'	2.61	0.53
19:S:6:LYS:HG2	19:S:7:LYS:CE	2.39	0.53
16:P:1:MET:HE3	16:P:65:GLN:HG3	1.91	0.53
1:A:502:G:H2'	1:A:503:C:O4'	2.07	0.53
3:C:186:PHE:HA	3:C:198:VAL:O	2.09	0.53
25:Y:313:ALA:CA	25:Y:328:ILE:HG22	2.37	0.53
25:Y:329:ARG:HG2	25:Y:331:TYR:OH	2.08	0.53
10:J:4:ILE:HB	10:J:74:ILE:HG13	1.91	0.53
5:E:101:ILE:HD13	5:E:101:ILE:N	2.23	0.53
3:C:86:VAL:O	3:C:89:GLU:HB3	2.08	0.53
1:A:521:G:H4'	12:L:73:GLU:HG3	1.89	0.53
1:A:1388:C:H2'	1:A:1389:C:C6	2.43	0.53
3:C:181:ASN:ND2	3:C:204:LEU:HB2	2.23	0.53
1:A:109:A:C6	1:A:326:G:C6	2.97	0.53
19:S:37:ARG:O	19:S:70:LYS:HD2	2.09	0.53

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:S:36:ARG:NH1	19:S:52:TYR:O	2.41	0.53
21:U:8:THR:O	21:U:12:LYS:HB2	2.08	0.53
14:N:18:VAL:HG23	14:N:19:ARG:N	2.24	0.53
12:L:45:PRO:HG2	12:L:51:ALA:HB3	1.90	0.53
1:A:878:G:H5'	8:H:89:PRO:HG2	1.90	0.53
11:K:108:ILE:N	11:K:108:ILE:CD1	2.71	0.53
8:H:7:ALA:HB2	8:H:85:ARG:HD3	1.91	0.53
1:A:1318:A:H2'	1:A:1319:A:H5'	1.91	0.53
11:K:59:TYR:CE2	11:K:63:LEU:HD11	2.43	0.53
6:F:83:ASP:OD1	6:F:83:ASP:N	2.42	0.53
25:Y:490:PRO:CG	25:Y:516:PRO:HD2	2.22	0.53
25:Y:609:GLU:HG2	25:Y:670:VAL:HG21	1.90	0.53
1:A:1387:G:H2'	1:A:1388:C:C6	2.43	0.53
3:C:11:ARG:O	3:C:13:GLY:N	2.42	0.53
1:A:538:G:H2'	1:A:539:A:H8	1.74	0.53
25:Y:19:ALA:O	25:Y:87:HIS:HB2	2.09	0.53
1:A:1347:G:O2'	1:A:1348:U:P	2.66	0.53
25:Y:539:ILE:HA	25:Y:542:VAL:CG1	2.38	0.53
25:Y:181:LEU:HD12	25:Y:242:LEU:HD13	1.91	0.53
20:T:30:LYS:HZ2	20:T:34:LYS:HE3	1.73	0.53
20:T:13:LEU:O	20:T:16:HIS:N	2.42	0.53
18:R:87:ARG:NH1	18:R:87:ARG:CB	2.71	0.53
1:A:1300:G:O2'	1:A:1301:U:P	2.67	0.53
1:A:713:G:H2'	1:A:714:G:C8	2.43	0.53
1:A:1006:C:H2'	1:A:1007:C:C5	2.44	0.53
1:A:1452:C:H1'	1:A:1456:G:N2	2.24	0.53
1:A:45:U:H2'	1:A:46:G:C8	2.44	0.53
1:A:1308:U:H5''	13:M:98:VAL:CG2	2.39	0.53
25:Y:15:ILE:C	25:Y:15:ILE:HD12	2.29	0.53
25:Y:315:LYS:HZ2	25:Y:317:MET:CG	2.21	0.53
25:Y:566:THR:O	25:Y:567:LEU:C	2.47	0.53
12:L:47:LYS:CD	12:L:48:PRO:HD3	2.39	0.53
1:A:939:G:C5'	7:G:102:ARG:NH2	2.72	0.53
25:Y:592:GLU:HG2	25:Y:592:GLU:O	2.08	0.53
3:C:150:LYS:HB2	3:C:169:ALA:CB	2.39	0.53
1:A:1163:C:H2'	1:A:1164:G:H8	1.74	0.53
25:Y:514:VAL:HG12	25:Y:515:GLU:N	2.24	0.52
25:Y:146:LEU:O	25:Y:150:ILE:HG13	2.10	0.52
25:Y:191:ASP:O	25:Y:266:ASN:HB2	2.09	0.52
3:C:165:THR:HG23	3:C:165:THR:O	2.10	0.52
2:B:219:VAL:O	2:B:223:ILE:HG13	2.09	0.52
9:I:4:TYR:CE2	9:I:88:TYR:CB	2.91	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:999:C:H2'	1:A:1000:U:C6	2.44	0.52
23:W:51:C:H3'	23:W:52:G:H5''	1.91	0.52
1:A:1269:A:C2'	1:A:1270:C:H5'	2.39	0.52
2:B:63:MET:HB3	2:B:225:ALA:HB1	1.91	0.52
25:Y:21:ILE:CG2	25:Y:88:VAL:HG13	2.37	0.52
10:J:32:ALA:N	10:J:78:ASN:HD21	2.07	0.52
9:I:40:LEU:O	9:I:42:ARG:N	2.42	0.52
5:E:76:ILE:HG13	5:E:77:PRO:HD2	1.90	0.52
10:J:71:LEU:HD12	10:J:72:VAL:N	2.24	0.52
1:A:738:C:H2'	1:A:739:C:C6	2.44	0.52
1:A:439:A:H2'	1:A:441:A:C5'	2.39	0.52
12:L:27:LEU:CD1	12:L:28:LYS:H	2.21	0.52
4:D:126:ILE:CG2	4:D:127:THR:N	2.72	0.52
25:Y:381:LYS:H	25:Y:381:LYS:HD2	1.74	0.52
6:F:8:ILE:CG2	6:F:85:VAL:HG13	2.39	0.52
1:A:1313:U:OP2	19:S:6:LYS:CB	2.57	0.52
19:S:6:LYS:HD2	19:S:6:LYS:H	1.74	0.52
5:E:33:VAL:HG12	5:E:112:LEU:HD12	1.90	0.52
6:F:37:VAL:HG12	6:F:38:GLU:N	2.23	0.52
22:V:36:A:N3	25:Y:502:GLY:HA2	2.24	0.52
25:Y:14:ASN:HD22	25:Y:14:ASN:N	2.08	0.52
25:Y:411:VAL:HG12	25:Y:412:ALA:N	2.25	0.52
25:Y:566:THR:O	25:Y:566:THR:HG22	2.09	0.52
12:L:17:LYS:HD3	12:L:18:VAL:N	2.25	0.52
1:A:1037:C:H2'	1:A:1038:C:N3	2.24	0.52
1:A:1234:C:H1'	1:A:1364:U:C6	2.45	0.52
2:B:9:GLU:HG2	2:B:10:LEU:N	2.24	0.52
12:L:47:LYS:NZ	12:L:47:LYS:HB3	2.24	0.52
19:S:29:ARG:O	19:S:31:ILE:N	2.41	0.52
1:A:483:C:C3'	1:A:484:G:H5''	2.36	0.52
1:A:1375:A:OP1	7:G:12:LEU:HD21	2.08	0.52
14:N:53:LEU:HB3	14:N:56:VAL:CG2	2.39	0.52
1:A:519:C:H2'	1:A:520:A:O4'	2.07	0.52
25:Y:14:ASN:OD1	25:Y:374:LEU:HD13	2.09	0.52
25:Y:510:VAL:HA	25:Y:570:GLY:CA	2.21	0.52
2:B:20:GLU:HB2	2:B:190:THR:OG1	2.10	0.52
25:Y:25:LYS:HE2	25:Y:86:GLY:N	2.24	0.52
12:L:47:LYS:HB3	12:L:48:PRO:HD3	1.92	0.52
25:Y:384:ILE:HG13	25:Y:385:THR:N	2.25	0.52
8:H:35:ILE:HG22	8:H:39:LEU:HD21	1.90	0.52
16:P:82:GLN:O	16:P:84:ALA:N	2.42	0.52
1:A:399:G:H2'	1:A:400:C:C6	2.44	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:9:A:C2	22:V:45:U:C4	2.98	0.52
1:A:1499:A:O2'	1:A:1500:A:H5'	2.10	0.52
25:Y:249:GLY:C	25:Y:255:ILE:HG22	2.29	0.52
3:C:34:LEU:CD2	3:C:38:ARG:HD2	2.35	0.52
5:E:80:ILE:CD1	5:E:138:ALA:HB1	2.40	0.52
1:A:1152:A:H2'	1:A:1153:C:H6	1.74	0.52
2:B:107:THR:HA	2:B:110:GLN:NE2	2.20	0.52
2:B:119:GLU:C	2:B:121:LEU:H	2.13	0.52
12:L:80:HIS:O	12:L:81:SER:HB2	2.09	0.52
1:A:284:G:H2'	1:A:285:G:C8	2.36	0.52
19:S:21:GLU:CG	19:S:22:LEU:HD23	2.37	0.52
1:A:1411:C:H2'	1:A:1412:C:H6	1.74	0.52
1:A:264:U:H4'	17:Q:63:ARG:HD3	1.92	0.52
10:J:27:ALA:CB	10:J:85:LEU:HD11	2.39	0.52
25:Y:610:VAL:HG12	25:Y:669:PHE:CB	2.40	0.52
7:G:75:VAL:CG1	7:G:86:GLN:HB3	2.40	0.52
1:A:542:G:H5'	4:D:41:GLY:CA	2.40	0.52
2:B:96:ARG:N	2:B:96:ARG:CD	2.71	0.52
4:D:101:LEU:HD23	4:D:121:VAL:HG13	1.92	0.52
25:Y:385:THR:HG21	25:Y:436:PRO:HG3	1.90	0.52
1:A:747:C:H2'	1:A:748:C:C1'	2.40	0.52
2:B:137:ARG:HG2	2:B:137:ARG:NH1	2.25	0.52
19:S:4:SER:O	19:S:6:LYS:HE3	2.09	0.52
4:D:57:ARG:HH11	4:D:57:ARG:HG2	1.75	0.52
8:H:101:PRO:HG2	8:H:133:LEU:HD11	1.90	0.52
25:Y:535:PRO:HD2	25:Y:538:TYR:HD2	1.75	0.52
1:A:526:C:C5	1:A:527:G:H1'	2.44	0.52
1:A:1438:G:H2'	1:A:1439:C:C6	2.45	0.52
27:F:1103:FUA:H62	25:Y:93:GLU:HG3	1.90	0.52
27:F:1103:FUA:H201	27:F:1103:FUA:O1	2.09	0.52
1:A:1004:A:H5'	1:A:1025:U:C4	2.43	0.52
1:A:1364:U:C2'	1:A:1364:U:O2	2.58	0.52
10:J:3:LYS:O	10:J:100:THR:HG23	2.10	0.52
25:Y:276:VAL:HG13	25:Y:280:LEU:HG	1.92	0.52
9:I:125:TYR:HD1	9:I:126:SER:H	1.56	0.52
1:A:1298:C:C5	7:G:114:ARG:HD3	2.44	0.52
6:F:42:GLU:C	6:F:44:GLY:N	2.63	0.52
23:W:74:C:H2'	23:W:75:C:H5'	1.92	0.52
22:V:30:G:O2'	22:V:31:A:H5'	2.10	0.52
1:A:1014:A:H4'	19:S:14:HIS:CE1	2.45	0.52
1:A:291:C:O2'	1:A:292:G:H5'	2.09	0.52
10:J:32:ALA:N	10:J:78:ASN:ND2	2.58	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:2:ALA:O	13:M:9:ILE:HG23	2.10	0.52
1:A:425:G:O2'	1:A:426:G:H5'	2.10	0.52
1:A:974:A:H8	1:A:974:A:OP1	1.93	0.52
5:E:60:TYR:CE1	5:E:64:ARG:NH2	2.74	0.52
15:O:71:GLN:HB2	15:O:78:TYR:CD1	2.45	0.52
6:F:42:GLU:C	6:F:44:GLY:H	2.13	0.52
1:A:159:G:C2'	1:A:160:A:H5''	2.40	0.52
1:A:114:U:H2'	1:A:115:G:C8	2.45	0.52
1:A:633:G:H5'	1:A:634:C:OP2	2.10	0.52
1:A:980:C:C5	1:A:981:U:C2	2.98	0.52
9:I:65:VAL:HG21	9:I:73:GLN:CB	2.36	0.52
13:M:108:ARG:HA	13:M:108:ARG:NH1	2.06	0.52
1:A:265:G:H4'	17:Q:66:SER:HA	1.92	0.52
13:M:65:LYS:C	13:M:66:LEU:HD12	2.29	0.52
18:R:87:ARG:HB3	18:R:87:ARG:CZ	2.40	0.52
4:D:25:ARG:HH12	4:D:30:LYS:HD2	1.75	0.52
1:A:939:G:H5''	7:G:102:ARG:NH1	2.24	0.52
2:B:207:ALA:HB3	2:B:210:SER:HB2	1.92	0.52
1:A:1354:C:O2'	1:A:1355:G:H5'	2.09	0.52
15:O:53:HIS:CE1	15:O:57:LEU:HD21	2.45	0.52
1:A:1412:C:H2'	1:A:1413:A:C8	2.44	0.52
1:A:236:G:O2'	1:A:237:C:H5'	2.10	0.52
6:F:15:ASP:OD1	6:F:17:SER:HB2	2.10	0.52
1:A:635:G:O2'	1:A:636:U:H5'	2.09	0.52
14:N:23:ARG:NH1	14:N:30:ALA:HB2	2.25	0.52
21:U:9:ARG:O	21:U:13:ILE:HG13	2.10	0.52
7:G:134:ALA:O	7:G:137:LYS:HB2	2.09	0.52
25:Y:138:LYS:HG2	28:Y:1690:GDP:C4	2.45	0.52
2:B:204:ASN:HD21	2:B:206:ASP:H	1.55	0.52
1:A:1490:C:C5'	1:A:1490:C:H6	2.15	0.52
18:R:44:LEU:N	18:R:44:LEU:HD12	2.25	0.52
2:B:121:LEU:HA	2:B:124:SER:HB3	1.92	0.52
19:S:43:GLU:HB2	19:S:44:MET:SD	2.50	0.52
8:H:103:VAL:HG23	8:H:110:ALA:HB2	1.92	0.52
18:R:74:ARG:HB3	18:R:81:PHE:CE1	2.45	0.52
1:A:802:A:H3'	1:A:803:G:C8	2.45	0.52
25:Y:552:SER:HB3	25:Y:591:LYS:NZ	2.25	0.52
10:J:21:GLN:O	10:J:21:GLN:HG2	2.10	0.52
1:A:353:A:H5'	1:A:353:A:H8	1.74	0.52
25:Y:91:THR:HB	25:Y:95:GLU:HG2	1.91	0.51
25:Y:488:THR:HG23	25:Y:600:VAL:CG1	2.39	0.51
25:Y:191:ASP:O	25:Y:193:GLY:N	2.43	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:510:VAL:HG12	25:Y:511:LYS:N	2.25	0.51
25:Y:528:ALA:HB3	25:Y:567:LEU:O	2.11	0.51
7:G:15:ASP:OD1	7:G:44:TYR:OH	2.28	0.51
5:E:101:ILE:CD1	5:E:119:LEU:HD23	2.33	0.51
9:I:5:TYR:CE1	9:I:18:PHE:HE1	2.27	0.51
10:J:16:LEU:HD12	10:J:70:ARG:HD3	1.91	0.51
13:M:97:PRO:HA	13:M:110:ARG:CD	2.36	0.51
25:Y:74:TRP:CE2	25:Y:273:LEU:HB3	2.45	0.51
12:L:25:PRO:C	12:L:27:LEU:N	2.58	0.51
12:L:38:THR:HG22	12:L:57:LYS:O	2.10	0.51
9:I:126:SER:O	9:I:128:ARG:HD2	2.09	0.51
1:A:1239:A:H62	1:A:1299:A:N6	2.08	0.51
20:T:56:MET:HG3	20:T:84:LEU:HD12	1.92	0.51
27:F:1103:FUA:H152	25:Y:84:THR:HG22	1.92	0.51
25:Y:92:ILE:O	25:Y:92:ILE:HD13	2.09	0.51
1:A:1515:C:O2'	1:A:1516:G:H5'	2.10	0.51
25:Y:162:VAL:HG21	25:Y:255:ILE:CD1	2.39	0.51
6:F:67:MET:HB2	6:F:68:PRO:CD	2.31	0.51
10:J:70:ARG:HG2	10:J:70:ARG:NH1	2.25	0.51
16:P:20:VAL:HG23	16:P:34:GLU:C	2.30	0.51
1:A:276:G:O2'	1:A:277:C:H5'	2.10	0.51
25:Y:413:ILE:HG23	25:Y:413:ILE:O	2.10	0.51
25:Y:621:ILE:HD11	25:Y:634:MET:CE	2.40	0.51
3:C:40:ARG:O	3:C:44:GLU:HG3	2.09	0.51
7:G:108:ALA:C	7:G:110:GLN:H	2.14	0.51
1:A:1334:G:H5'	1:A:1335:C:OP2	2.10	0.51
3:C:95:THR:O	3:C:97:LYS:N	2.43	0.51
20:T:50:GLU:HG3	20:T:51:GLU:N	2.26	0.51
16:P:20:VAL:HG23	16:P:34:GLU:O	2.10	0.51
6:F:2:ARG:HD3	6:F:92:LYS:CE	2.41	0.51
1:A:658:G:H2'	1:A:659:U:H6	1.76	0.51
25:Y:388:THR:CG2	25:Y:399:LEU:HD13	2.40	0.51
1:A:8:A:N6	4:D:209:ARG:HB2	2.25	0.51
1:A:1332:A:O2'	1:A:1333:A:H5'	2.09	0.51
25:Y:17:ILE:HD11	25:Y:81:ILE:HG21	1.92	0.51
25:Y:438:PHE:C	25:Y:438:PHE:HD1	2.14	0.51
25:Y:149:VAL:O	25:Y:152:THR:HG22	2.10	0.51
20:T:96:GLY:O	20:T:97:ALA:O	2.28	0.51
25:Y:36:THR:CB	25:Y:72:CYS:HB2	2.39	0.51
23:W:51:C:H2'	23:W:52:G:C5'	2.37	0.51
12:L:83:VAL:HG12	12:L:84:LEU:H	1.75	0.51
1:A:542:G:H5'	4:D:41:GLY:HA2	1.92	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:S:43:GLU:O	19:S:45:VAL:HG13	2.10	0.51
25:Y:377:VAL:HG21	25:Y:380:LEU:CD1	2.40	0.51
25:Y:65:ILE:C	25:Y:67:ALA:H	2.12	0.51
4:D:162:LEU:HD13	4:D:181:MET:HG2	1.93	0.51
1:A:769:G:H4'	1:A:1513:A:H4'	1.93	0.51
13:M:34:LEU:HD13	13:M:41:PRO:CG	2.40	0.51
13:M:34:LEU:HD13	13:M:41:PRO:CB	2.40	0.51
2:B:102:LEU:HG	2:B:158:LEU:CD2	2.41	0.51
22:V:27:G:H2'	22:V:28:G:H8	1.75	0.51
1:A:636:U:H2'	1:A:637:G:C8	2.45	0.51
2:B:163:PHE:CD1	2:B:185:ILE:HG13	2.46	0.51
25:Y:600:VAL:O	25:Y:600:VAL:HG13	2.10	0.51
25:Y:227:ILE:HD12	25:Y:245:ALA:CB	2.39	0.51
25:Y:659:LEU:C	25:Y:659:LEU:HD13	2.30	0.51
25:Y:670:VAL:HB	25:Y:672:PHE:CE1	2.45	0.51
7:G:15:ASP:HA	7:G:24:THR:HG23	1.92	0.51
5:E:144:THR:N	5:E:147:ASP:OD1	2.40	0.51
5:E:79:GLU:CB	5:E:93:PRO:HD2	2.36	0.51
1:A:1116:C:C2'	1:A:1117:G:C5'	2.87	0.51
1:A:547:A:OP2	4:D:2:GLY:N	2.43	0.51
2:B:207:ALA:C	2:B:209:ARG:N	2.61	0.51
13:M:40:ASN:HD22	13:M:43:THR:HG23	1.75	0.51
5:E:34:VAL:HG12	5:E:62:ALA:HB1	1.92	0.51
13:M:17:VAL:O	13:M:20:THR:HB	2.11	0.51
1:A:238:G:P	17:Q:25:ARG:HH22	2.34	0.51
2:B:223:ILE:HG12	2:B:226:ARG:HH22	1.68	0.51
25:Y:603:GLU:CG	25:Y:677:GLN:HG2	2.40	0.51
1:A:1064:G:N2	1:A:1190:G:H2'	2.25	0.51
5:E:91:LEU:HD13	5:E:120:THR:CG2	2.41	0.51
4:D:117:ALA:O	4:D:121:VAL:HG23	2.11	0.51
1:A:243:A:C2	1:A:246:A:C8	2.98	0.51
25:Y:428:LEU:O	25:Y:432:ALA:HB2	2.11	0.51
9:I:48:GLU:N	9:I:49:PRO:HD2	2.26	0.51
1:A:59:A:H5''	1:A:60:A:H5'	1.91	0.51
13:M:105:THR:O	13:M:106:ASN:CG	2.49	0.51
1:A:1456:G:C2'	1:A:1457:G:H5'	2.39	0.51
1:A:1109:C:C2'	1:A:1110:A:H5'	2.40	0.51
6:F:15:ASP:C	6:F:17:SER:H	2.14	0.51
7:G:91:VAL:HG12	7:G:92:SER:N	2.26	0.51
8:H:99:GLU:O	8:H:100:ILE:C	2.49	0.51
6:F:16:GLN:HA	6:F:19:LEU:HB3	1.93	0.51
11:K:67:ASP:OD1	11:K:71:LYS:HE3	2.11	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:455:GLY:CA	25:Y:660:ARG:HH12	2.21	0.51
23:W:67:C:C2'	23:W:68:C:H5'	2.41	0.51
3:C:65:ALA:O	3:C:66:VAL:HB	2.11	0.51
2:B:8:LYS:O	2:B:11:LEU:N	2.44	0.51
25:Y:73:PHE:CZ	25:Y:78:ARG:NH2	2.79	0.51
25:Y:73:PHE:HZ	25:Y:78:ARG:NH2	2.09	0.51
1:A:1064:G:H21	1:A:1190:G:H2'	1.75	0.51
23:W:1:C:H2'	23:W:2:G:C8	2.33	0.51
12:L:20:LYS:N	12:L:20:LYS:HD3	2.22	0.51
4:D:162:LEU:CD1	4:D:181:MET:HG2	2.41	0.51
1:A:135:C:H2'	1:A:136:C:H5'	1.93	0.51
1:A:1084:G:OP1	1:A:1086:U:C4	2.64	0.51
7:G:69:VAL:O	7:G:69:VAL:HG12	2.10	0.51
25:Y:15:ILE:CD1	25:Y:81:ILE:HG23	2.40	0.51
25:Y:188:TYR:HD1	25:Y:196:ILE:HG22	1.76	0.51
25:Y:670:VAL:CG2	25:Y:671:MET:N	2.74	0.51
1:A:1033:G:H2'	1:A:1034:G:O4'	2.11	0.51
9:I:84:ALA:C	9:I:86:VAL:H	2.15	0.51
1:A:1303:C:OP1	1:A:1304:G:OP2	2.29	0.51
3:C:7:PRO:HG3	3:C:184:TYR:CD1	2.46	0.51
3:C:6:HIS:ND1	14:N:49:HIS:HB3	2.25	0.51
22:V:71:G:H2'	22:V:72:C:O4'	2.11	0.51
4:D:146:ILE:HD13	4:D:146:ILE:N	2.25	0.51
7:G:49:ILE:HG22	7:G:49:ILE:O	2.10	0.51
4:D:126:ILE:HG22	4:D:127:THR:N	2.26	0.51
1:A:781:A:C3'	1:A:782:A:H5'	2.41	0.51
1:A:1259:C:C4	1:A:1260:C:O2	2.64	0.51
1:A:1307:U:H2'	1:A:1308:U:C6	2.46	0.51
25:Y:304:ASP:C	25:Y:306:ASN:H	2.14	0.51
1:A:1049:U:H1'	1:A:1201:A:N7	2.26	0.51
1:A:940:C:O2'	1:A:941:G:H5'	2.11	0.51
25:Y:170:ARG:O	25:Y:171:GLU:HG3	2.11	0.51
25:Y:496:LYS:HE2	25:Y:498:ILE:HD13	1.92	0.51
3:C:77:ILE:HA	3:C:84:ILE:HB	1.92	0.51
2:B:55:PHE:HE1	2:B:218:ALA:HA	1.76	0.51
8:H:82:HIS:HD2	8:H:138:TRP:NE1	2.08	0.51
10:J:6:ILE:HD11	10:J:72:VAL:CG2	2.41	0.51
20:T:86:ARG:NH1	20:T:86:ARG:HG3	2.25	0.51
15:O:83:GLU:O	15:O:85:LEU:N	2.41	0.51
1:A:1301:U:H3'	1:A:1302:U:C5'	2.41	0.51
9:I:47:LEU:H	9:I:47:LEU:HD12	1.70	0.51
1:A:559:A:H4'	1:A:560:U:C5'	2.41	0.51

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:45:U:H2'	1:A:46:G:H8	1.75	0.51
1:A:1308:U:C5	13:M:99:ARG:NH1	2.78	0.51
1:A:828:A:H2'	1:A:829:G:O4'	2.11	0.51
19:S:72:GLY:O	19:S:74:PHE:N	2.44	0.51
15:O:4:THR:HG23	15:O:7:GLU:OE1	2.11	0.51
5:E:73:ASN:N	5:E:73:ASN:HD22	2.07	0.51
23:W:34:C:H2'	23:W:35:A:C4'	2.31	0.51
25:Y:141:LYS:HE3	28:Y:1690:GDP:HN22	1.75	0.51
10:J:30:SER:HA	10:J:80:LYS:HE2	1.93	0.51
25:Y:649:LEU:HD21	25:Y:671:MET:HE3	1.93	0.51
5:E:107:ARG:HG2	5:E:108:ALA:N	2.25	0.51
4:D:17:VAL:HG11	4:D:197:PRO:HB2	1.92	0.51
19:S:47:HIS:O	19:S:62:ILE:HG21	2.11	0.51
9:I:33:PHE:C	9:I:35:GLU:H	2.13	0.51
1:A:407:G:OP1	4:D:115:ARG:CZ	2.59	0.51
4:D:61:LYS:HD2	4:D:207:TYR:OH	2.11	0.51
25:Y:442:THR:HA	25:Y:449:THR:HA	1.93	0.51
4:D:163:GLU:OE1	4:D:163:GLU:HA	2.10	0.51
8:H:41:ARG:NH2	8:H:123:GLU:OE1	2.44	0.51
7:G:140:ASP:HA	7:G:143:ARG:HH11	1.76	0.51
19:S:39:THR:HA	19:S:70:LYS:HD3	1.92	0.51
1:A:528:C:H41	12:L:49:ASN:ND2	2.09	0.51
11:K:12:ARG:HG2	11:K:13:GLN:N	2.25	0.51
25:Y:661:SER:C	25:Y:663:THR:H	2.14	0.51
8:H:111:ILE:HG22	8:H:112:LEU:N	2.25	0.51
1:A:1509:C:O2'	1:A:1510:U:H5'	2.11	0.50
8:H:104:ARG:NH2	8:H:138:TRP:CZ3	2.80	0.50
1:A:1226:C:H5''	13:M:103:THR:OG1	2.11	0.50
4:D:98:GLU:CD	4:D:103:ASN:HD21	2.14	0.50
1:A:191:G:C2	20:T:105:SER:HB3	2.45	0.50
4:D:78:LEU:HD21	4:D:96:LEU:CB	2.41	0.50
4:D:121:VAL:HA	4:D:126:ILE:HD13	1.93	0.50
11:K:21:ILE:HD13	11:K:82:VAL:HG13	1.92	0.50
25:Y:67:ALA:HB2	25:Y:358:MET:HG3	1.93	0.50
1:A:59:A:H3'	1:A:331:G:H22	1.75	0.50
17:Q:9:VAL:CG1	17:Q:56:VAL:HG22	2.41	0.50
1:A:821:G:H2'	1:A:822:C:H6	1.76	0.50
1:A:22:G:O2'	1:A:913:A:N1	2.34	0.50
2:B:63:MET:HG3	2:B:63:MET:O	2.11	0.50
1:A:427:U:C4	1:A:428:G:C6	2.99	0.50
23:W:44:A:H2'	23:W:45:G:C8	2.46	0.50
3:C:129:ALA:HB3	3:C:132:ARG:HB3	1.92	0.50

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:329:ARG:HG2	25:Y:331:TYR:CZ	2.46	0.50
25:Y:91:THR:O	25:Y:92:ILE:HG22	2.11	0.50
25:Y:529:ILE:HD11	25:Y:567:LEU:CD1	2.34	0.50
3:C:70:VAL:CG1	3:C:71:ALA:N	2.73	0.50
2:B:189:ASP:OD2	2:B:205:ASP:OD1	2.28	0.50
23:W:22:G:C2'	23:W:23:C:C5'	2.88	0.50
15:O:76:GLU:C	15:O:78:TYR:H	2.15	0.50
25:Y:346:LYS:NZ	25:Y:384:ILE:HG12	2.26	0.50
1:A:990:C:H2'	1:A:991:U:C6	2.46	0.50
2:B:60:ASP:HB3	2:B:64:ARG:HH21	1.76	0.50
21:U:10:ARG:O	21:U:13:ILE:N	2.45	0.50
3:C:129:ALA:O	3:C:131:ARG:N	2.44	0.50
9:I:37:PHE:HB3	9:I:43:ALA:HB2	1.93	0.50
1:A:1423:G:H2'	1:A:1424:C:C6	2.46	0.50
25:Y:125:ALA:HB3	25:Y:132:ARG:HH11	1.76	0.50
25:Y:298:VAL:HG22	25:Y:299:VAL:H	1.76	0.50
25:Y:196:ILE:O	25:Y:196:ILE:HD12	2.11	0.50
25:Y:259:PHE:C	25:Y:260:LEU:HD13	2.31	0.50
25:Y:539:ILE:CA	25:Y:542:VAL:HG12	2.40	0.50
25:Y:512:ILE:HG22	25:Y:567:LEU:CA	2.41	0.50
12:L:17:LYS:HD3	12:L:18:VAL:H	1.76	0.50
1:A:1004:A:C6	1:A:1034:G:H2'	2.46	0.50
13:M:19:LEU:O	13:M:22:ILE:HD13	2.11	0.50
13:M:6:GLY:O	13:M:8:GLU:N	2.42	0.50
8:H:104:ARG:O	8:H:105:ARG:C	2.50	0.50
1:A:543:C:O2'	1:A:544:G:H5'	2.12	0.50
19:S:61:TYR:O	19:S:62:ILE:HB	2.09	0.50
17:Q:52:LYS:CE	17:Q:52:LYS:H	2.24	0.50
1:A:942:G:H21	9:I:124:GLN:NE2	2.09	0.50
1:A:658:G:H2'	1:A:659:U:C6	2.46	0.50
2:B:69:LEU:HD11	2:B:93:VAL:HG23	1.93	0.50
11:K:24:SER:O	11:K:88:GLY:HA3	2.12	0.50
1:A:1058:G:O5'	1:A:1058:G:H8	1.93	0.50
7:G:152:ALA:O	7:G:155:ARG:HG3	2.10	0.50
1:A:63:C:O2'	1:A:380:G:H4'	2.11	0.50
5:E:26:PHE:CD1	5:E:26:PHE:N	2.78	0.50
27:F:1103:FUA:O1	27:F:1103:FUA:C1	2.57	0.50
25:Y:147:TRP:O	25:Y:151:ARG:HG3	2.10	0.50
25:Y:649:LEU:CD2	25:Y:671:MET:HE3	2.41	0.50
1:A:265:G:O2'	1:A:266:G:H5'	2.12	0.50
25:Y:272:LEU:HA	25:Y:275:ALA:CB	2.39	0.50
9:I:125:TYR:CD1	9:I:126:SER:N	2.78	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:91:LYS:O	12:L:91:LYS:HG3	2.10	0.50
1:A:1221:G:H4'	19:S:77:THR:HG21	1.93	0.50
1:A:539:A:H2'	1:A:540:G:H8	1.76	0.50
13:M:4:ILE:HG22	13:M:5:ALA:N	2.26	0.50
25:Y:402:ILE:O	25:Y:402:ILE:HG22	2.12	0.50
1:A:512:U:H2'	1:A:513:C:C6	2.46	0.50
8:H:91:ARG:HB2	12:L:7:ILE:HG21	1.94	0.50
1:A:693:G:H21	23:W:37:A:H2	1.58	0.50
17:Q:40:LYS:HD3	17:Q:42:TYR:OH	2.11	0.50
1:A:1065:U:O2'	1:A:1066:C:P	2.70	0.50
2:B:97:TRP:HH2	2:B:176:GLU:CD	2.14	0.50
5:E:88:LYS:HB3	5:E:123:LEU:O	2.11	0.50
24:X:11:A:C3'	24:X:11:A:N3	2.74	0.50
27:F:1103:FUA:H5	27:F:1103:FUA:C20	2.12	0.50
25:Y:14:ASN:ND2	25:Y:14:ASN:N	2.59	0.50
8:H:10:LEU:HD22	8:H:83:ILE:CD1	2.41	0.50
1:A:56:U:H2'	1:A:57:G:H8	1.75	0.50
25:Y:494:GLU:HG2	25:Y:495:GLY:H	1.77	0.50
6:F:14:LEU:HD22	6:F:18:GLN:NE2	2.27	0.50
10:J:90:LEU:N	10:J:91:PRO:CD	2.74	0.50
25:Y:15:ILE:O	25:Y:81:ILE:HA	2.12	0.50
1:A:1347:G:HO2'	1:A:1373:G:H1	1.59	0.50
1:A:194:C:C2'	1:A:195:A:H5''	2.42	0.50
18:R:44:LEU:HD22	18:R:79:LEU:HD22	1.93	0.50
5:E:90:VAL:O	5:E:120:THR:HA	2.12	0.50
19:S:19:VAL:CG1	19:S:44:MET:HG2	2.41	0.50
4:D:129:ASN:N	4:D:129:ASN:ND2	2.55	0.50
1:A:932:C:H4'	7:G:4:ARG:NH2	2.26	0.50
10:J:47:PHE:CE2	14:N:37:PHE:HE1	2.28	0.50
25:Y:402:ILE:O	25:Y:404:VAL:HG23	2.11	0.50
18:R:31:LEU:HD23	18:R:31:LEU:N	2.24	0.50
23:W:27:U:O2'	23:W:28:C:H5'	2.11	0.50
1:A:143:A:H2	1:A:220:G:H1	1.59	0.50
9:I:11:LYS:O	9:I:11:LYS:HG2	2.11	0.50
15:O:69:TYR:CZ	15:O:73:GLU:HG3	2.47	0.50
24:X:11:A:O2'	24:X:12:A:OP2	2.30	0.50
1:A:979:C:C3'	1:A:980:C:C5'	2.80	0.50
25:Y:111:SER:OG	25:Y:141:LYS:HB3	2.11	0.50
25:Y:590:ILE:HA	25:Y:593:ALA:HB3	1.93	0.50
2:B:169:LYS:O	2:B:169:LYS:HD3	2.10	0.50
25:Y:227:ILE:HG12	25:Y:237:PRO:HB3	1.93	0.50
2:B:51:LEU:HD23	2:B:201:ILE:HD12	1.92	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:145:LYS:CA	8:H:107:LEU:HD21	2.41	0.50
1:A:1227:A:H2'	13:M:117:VAL:CG2	2.35	0.50
5:E:12:LEU:CD1	5:E:31:LEU:HB3	2.41	0.50
20:T:86:ARG:O	20:T:90:GLN:HG3	2.12	0.50
12:L:83:VAL:HG12	12:L:84:LEU:N	2.27	0.50
1:A:1314:C:OP2	19:S:6:LYS:HD3	2.12	0.50
2:B:162:ILE:HG22	2:B:182:ILE:HG22	1.94	0.50
1:A:812:C:O2'	1:A:813:U:P	2.70	0.50
1:A:841:U:H3'	1:A:848:C:C5'	2.42	0.50
6:F:15:ASP:C	6:F:17:SER:N	2.65	0.50
1:A:977:A:H2'	1:A:978:A:H5'	1.94	0.50
14:N:47:LEU:O	14:N:50:LYS:N	2.45	0.50
1:A:1310:G:O2'	1:A:1311:G:H5'	2.12	0.50
27:F:1103:FUA:C9	25:Y:90:PHE:HE2	2.23	0.50
25:Y:213:HIS:O	25:Y:217:VAL:HG23	2.12	0.50
25:Y:530:VAL:CG2	25:Y:531:GLY:H	2.14	0.50
1:A:521:G:O2'	1:A:522:C:H5'	2.12	0.50
12:L:50:SER:O	12:L:51:ALA:HB2	2.12	0.50
22:V:3:C:C2	22:V:71:G:N2	2.79	0.50
5:E:64:ARG:CG	5:E:64:ARG:HH11	2.23	0.50
1:A:1294:G:C2'	1:A:1295:G:H5'	2.42	0.50
2:B:207:ALA:O	2:B:210:SER:N	2.45	0.50
1:A:861:G:O2'	1:A:862:C:H5'	2.12	0.50
19:S:27:GLU:O	19:S:28:LYS:O	2.30	0.50
21:U:6:ARG:NH2	21:U:15:ARG:NH2	2.60	0.50
3:C:101:LEU:C	3:C:101:LEU:HD23	2.32	0.50
24:X:13:A:H2'	24:X:14:U:O4'	2.12	0.50
13:M:15:VAL:HG12	13:M:45:VAL:CG2	2.37	0.50
1:A:1151:A:O2'	1:A:1152:A:H8	1.94	0.50
2:B:12:GLU:CA	2:B:16:HIS:ND1	2.75	0.50
18:R:50:ILE:CD1	18:R:70:ILE:HG21	2.41	0.50
1:A:1238:A:C8	1:A:1303:C:H1'	2.46	0.50
25:Y:271:LEU:O	25:Y:275:ALA:HB2	2.11	0.50
1:A:1101:A:H4'	1:A:1102:A:C4'	2.42	0.50
4:D:126:ILE:N	4:D:126:ILE:HD12	2.27	0.50
4:D:161:ASN:O	4:D:165:MET:HG2	2.11	0.50
1:A:159:G:H2'	1:A:160:A:H5''	1.93	0.50
1:A:514:C:H2'	1:A:515:G:C8	2.44	0.50
3:C:136:GLN:O	3:C:137:ALA:C	2.49	0.50
1:A:1438:G:H2'	1:A:1439:C:H6	1.77	0.50
1:A:1098:C:O2'	1:A:1099:G:H5'	2.12	0.50
1:A:652:U:C2	1:A:752:G:N2	2.80	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:5:ASP:O	21:U:7:ARG:N	2.45	0.50
6:F:72:VAL:HG13	6:F:73:ASN:N	2.26	0.50
25:Y:438:PHE:CD1	25:Y:438:PHE:C	2.85	0.49
25:Y:24:GLY:O	25:Y:28:THR:N	2.42	0.49
12:L:47:LYS:HB3	12:L:48:PRO:CD	2.42	0.49
19:S:13:ASP:O	19:S:15:LEU:N	2.45	0.49
4:D:100:ARG:HB3	4:D:102:ASP:OD1	2.11	0.49
18:R:32:ARG:CA	18:R:69:THR:HG21	2.40	0.49
19:S:6:LYS:O	19:S:7:LYS:HE3	2.12	0.49
1:A:529:G:O6	12:L:49:ASN:HA	2.11	0.49
6:F:22:GLU:C	6:F:24:GLU:N	2.65	0.49
25:Y:289:ILE:HB	25:Y:301:ILE:CG1	2.41	0.49
25:Y:289:ILE:HB	25:Y:301:ILE:HG12	1.94	0.49
25:Y:456:GLU:O	25:Y:460:GLU:HB2	2.11	0.49
1:A:980:C:H5	1:A:981:U:C2	2.29	0.49
25:Y:138:LYS:HE2	28:Y:1690:GDP:C4	2.46	0.49
10:J:6:ILE:HA	10:J:97:GLU:O	2.12	0.49
13:M:117:VAL:O	13:M:118:ALA:O	2.30	0.49
15:O:12:ILE:O	15:O:14:GLU:N	2.44	0.49
2:B:207:ALA:HB3	2:B:210:SER:HB3	1.93	0.49
15:O:64:ARG:HH11	15:O:64:ARG:CG	2.25	0.49
1:A:8:A:C6	4:D:209:ARG:HB2	2.47	0.49
23:W:38:A:O5'	23:W:38:A:H8	1.94	0.49
25:Y:138:LYS:HG2	28:Y:1690:GDP:C5	2.46	0.49
25:Y:152:THR:HG23	25:Y:153:MET:N	2.27	0.49
25:Y:193:GLY:O	25:Y:196:ILE:HG23	2.12	0.49
25:Y:211:GLU:HB2	25:Y:215:LYS:NZ	2.26	0.49
25:Y:510:VAL:HG11	25:Y:567:LEU:HD13	1.93	0.49
8:H:82:HIS:CD2	8:H:138:TRP:NE1	2.80	0.49
9:I:50:LEU:HD23	9:I:85:LEU:CD2	2.41	0.49
1:A:349:A:C2'	1:A:350:G:H5''	2.41	0.49
3:C:54:ARG:HG2	3:C:54:ARG:HH11	1.77	0.49
1:A:1133:G:H22	1:A:1143:G:H1'	1.76	0.49
21:U:24:ARG:HH11	21:U:24:ARG:HG2	1.77	0.49
1:A:294:U:H2'	1:A:295:C:C6	2.47	0.49
1:A:106:C:C2'	1:A:107:G:H5'	2.42	0.49
25:Y:170:ARG:HH22	25:Y:205:TYR:HE1	1.60	0.49
9:I:114:TYR:HE2	10:J:60:ARG:N	2.07	0.49
25:Y:220:ALA:HB2	25:Y:246:ILE:HD11	1.93	0.49
2:B:204:ASN:C	2:B:204:ASN:ND2	2.59	0.49
5:E:101:ILE:H	5:E:101:ILE:HD13	1.76	0.49
18:R:59:SER:N	18:R:62:GLU:HB2	2.21	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:S:41:VAL:C	19:S:43:GLU:N	2.64	0.49
7:G:102:ARG:HG2	7:G:106:GLN:HE21	1.77	0.49
7:G:102:ARG:HG2	7:G:106:GLN:NE2	2.28	0.49
2:B:207:ALA:O	2:B:208:ILE:C	2.50	0.49
20:T:42:GLN:HE21	20:T:42:GLN:CA	2.18	0.49
1:A:444:C:H42	1:A:490:G:H1	1.59	0.49
4:D:163:GLU:C	4:D:165:MET:N	2.66	0.49
1:A:218:C:H5'	1:A:470:C:N4	2.28	0.49
1:A:866:C:H2'	1:A:867:G:O4'	2.11	0.49
19:S:53:ASN:C	19:S:55:LYS:N	2.66	0.49
25:Y:494:GLU:HG2	25:Y:495:GLY:N	2.27	0.49
16:P:74:LEU:CD2	16:P:79:VAL:HG21	2.41	0.49
22:V:48:C:H2'	22:V:59:U:H4'	1.94	0.49
1:A:883:C:O2'	1:A:884:U:H5'	2.12	0.49
16:P:60:LEU:HD21	16:P:66:PRO:HD3	1.95	0.49
6:F:68:PRO:HG2	6:F:71:ARG:HB2	1.93	0.49
3:C:86:VAL:HG23	3:C:87:LEU:HD23	1.94	0.49
1:A:1191:A:P	3:C:3:ASN:HD21	2.36	0.49
1:A:1321:C:C5'	1:A:1322:C:H5''	2.41	0.49
1:A:1303:C:H2'	1:A:1304:G:H5'	1.94	0.49
4:D:19:LEU:CD2	4:D:21:LEU:HD21	2.43	0.49
1:A:1329:A:C2'	1:A:1330:U:H5'	2.43	0.49
25:Y:613:PRO:HG2	25:Y:666:ARG:HH21	1.75	0.49
25:Y:339:SER:O	25:Y:351:ARG:HD2	2.12	0.49
12:L:7:ILE:HG22	12:L:8:ASN:N	2.27	0.49
1:A:1163:C:H2'	1:A:1164:G:C8	2.48	0.49
2:B:151:GLY:O	2:B:152:PHE:C	2.50	0.49
8:H:54:ASP:O	8:H:56:LYS:HG3	2.13	0.49
15:O:49:ASP:OD1	15:O:49:ASP:O	2.31	0.49
25:Y:573:HIS:CD2	25:Y:575:VAL:H	2.30	0.49
25:Y:125:ALA:C	25:Y:127:LYS:N	2.65	0.49
25:Y:139:MET:HA	25:Y:144:ALA:HB1	1.95	0.49
25:Y:491:VAL:HG21	25:Y:597:GLY:HA2	1.94	0.49
3:C:35:GLU:OE2	3:C:59:ARG:NH1	2.45	0.49
25:Y:627:ARG:NH2	25:Y:655:TYR:HA	2.28	0.49
1:A:80:G:C6	1:A:90:U:H5'	2.48	0.49
13:M:10:PRO:HG3	13:M:18:ALA:HB1	1.94	0.49
10:J:3:LYS:HZ3	10:J:77:PRO:HD2	1.76	0.49
25:Y:5:VAL:CG1	25:Y:6:GLU:H	2.14	0.49
2:B:17:PHE:CG	2:B:18:GLY:N	2.79	0.49
25:Y:178:ILE:HD11	25:Y:185:ALA:HB2	1.94	0.49
13:M:118:ALA:HB3	13:M:120:LYS:HE3	1.95	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:33:LEU:HD12	25:Y:33:LEU:N	2.27	0.49
9:I:95:LYS:HZ2	9:I:96:LEU:HD13	1.77	0.49
16:P:28:ARG:NH1	16:P:28:ARG:HG2	2.27	0.49
15:O:75:PRO:O	15:O:79:ARG:HG3	2.13	0.49
1:A:1293:G:O2'	1:A:1294:G:H5'	2.13	0.49
6:F:86:ARG:O	6:F:87:ARG:HG2	2.13	0.49
1:A:867:G:O2'	1:A:868:C:H5'	2.12	0.49
18:R:72:ARG:O	18:R:76:LEU:HD22	2.13	0.49
5:E:34:VAL:CG1	5:E:62:ALA:HB1	2.43	0.49
1:A:332:G:O2'	1:A:333:G:H5'	2.12	0.49
1:A:674:G:H4'	18:R:81:PHE:CD2	2.48	0.49
1:A:824:C:H1'	8:H:1:MET:HE2	1.94	0.49
1:A:1413:A:H2'	1:A:1414:U:O4'	2.13	0.49
12:L:112:ASP:O	12:L:114:LYS:HG3	2.13	0.49
23:W:34:C:O2'	23:W:35:A:O5'	2.30	0.49
25:Y:147:TRP:HB2	25:Y:151:ARG:NH2	2.28	0.49
25:Y:509:HIS:CE1	25:Y:570:GLY:HA2	2.46	0.49
2:B:223:ILE:HG23	2:B:226:ARG:CZ	2.43	0.49
1:A:1002:G:C8	1:A:1003:G:N7	2.81	0.49
1:A:255:G:O3'	17:Q:17:LYS:HD2	2.12	0.49
17:Q:69:LYS:C	17:Q:70:ARG:HD2	2.32	0.49
9:I:9:ARG:CB	9:I:104:ARG:HH12	2.26	0.49
1:A:1505:G:H5'	1:A:1506:U:OP1	2.12	0.49
15:O:71:GLN:O	15:O:71:GLN:HG2	2.11	0.49
1:A:1220:G:H2'	1:A:1221:G:C8	2.42	0.49
8:H:109:ILE:HG13	8:H:120:THR:HB	1.95	0.49
25:Y:293:THR:C	25:Y:295:GLU:H	2.16	0.49
1:A:865:A:H2'	1:A:866:C:C6	2.48	0.49
1:A:358:U:H2'	1:A:359:U:H6	1.77	0.49
13:M:83:ASP:CG	13:M:84:ILE:H	2.16	0.49
17:Q:4:LYS:CG	17:Q:6:LEU:HD21	2.42	0.49
25:Y:250:THR:HG21	25:Y:279:TYR:O	2.13	0.49
1:A:342:C:O2'	1:A:343:U:H5'	2.12	0.49
1:A:902:G:O2'	1:A:903:G:H5'	2.13	0.49
25:Y:18:ALA:O	25:Y:106:VAL:HA	2.12	0.49
25:Y:409:ILE:HG22	25:Y:459:LEU:CD2	2.31	0.49
1:A:1507:A:H2'	1:A:1508:G:C8	2.47	0.49
1:A:1500:A:OP1	1:A:1508:G:OP1	2.30	0.49
25:Y:608:VAL:HG12	25:Y:609:GLU:N	2.28	0.49
5:E:150:ARG:HB2	5:E:150:ARG:NH1	2.28	0.49
11:K:111:ASP:HA	18:R:84:LYS:CD	2.35	0.49
25:Y:168:ILE:HD11	25:Y:178:ILE:CD1	2.41	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1198:G:H2'	1:A:1199:U:O4'	2.11	0.49
4:D:127:THR:HG22	4:D:147:ALA:O	2.12	0.49
25:Y:343:ASN:O	25:Y:347:GLY:HA2	2.13	0.49
2:B:208:ILE:HA	2:B:211:ILE:HD12	1.94	0.49
4:D:163:GLU:C	4:D:165:MET:H	2.16	0.49
15:O:55:GLY:O	15:O:56:LEU:C	2.51	0.49
2:B:101:MET:C	2:B:102:LEU:HD12	2.33	0.49
25:Y:416:LYS:HB3	25:Y:420:ASP:OD2	2.12	0.49
5:E:36:ASP:OD2	5:E:40:ARG:HB2	2.12	0.49
6:F:80:ARG:NH1	6:F:88:VAL:O	2.45	0.49
4:D:152:SER:O	4:D:154:ASN:N	2.46	0.49
8:H:65:TYR:HA	8:H:79:VAL:HG23	1.95	0.49
1:A:1275:A:O2'	1:A:1276:G:H5'	2.13	0.49
1:A:926:G:N2	24:X:16:U:OP2	2.39	0.49
25:Y:554:PRO:HG3	25:Y:594:VAL:HG11	1.94	0.49
25:Y:519:ARG:NH2	25:Y:678:GLU:HB2	2.28	0.49
25:Y:276:VAL:O	25:Y:280:LEU:HB2	2.12	0.49
1:A:1225:A:N3	1:A:1225:A:C2'	2.73	0.49
12:L:86:ARG:NH2	12:L:99:HIS:CG	2.81	0.49
1:A:769:G:O2'	1:A:770:C:H5'	2.12	0.49
5:E:9:LYS:CB	5:E:112:LEU:HD11	2.43	0.49
15:O:39:LEU:CD1	15:O:56:LEU:HB2	2.43	0.49
11:K:126:ARG:HG2	11:K:126:ARG:HH11	1.77	0.49
15:O:53:HIS:O	15:O:57:LEU:HD23	2.12	0.49
1:A:711:G:O2'	1:A:712:A:H5'	2.12	0.49
22:V:9:A:N3	22:V:45:U:C2	2.81	0.49
25:Y:159:ALA:O	25:Y:161:PRO:CD	2.60	0.49
25:Y:96:ARG:HG3	25:Y:403:GLU:OE2	2.12	0.49
14:N:7:ILE:HG13	14:N:8:GLU:N	2.27	0.49
25:Y:454:MET:H	25:Y:458:HIS:CD2	2.31	0.49
25:Y:174:PHE:HD2	25:Y:267:LYS:HD3	1.78	0.49
10:J:81:THR:C	10:J:83:GLU:N	2.65	0.49
1:A:192:U:H2'	1:A:193:C:H6	1.76	0.49
1:A:149:A:N3	1:A:149:A:H2'	2.28	0.49
4:D:36:ARG:CB	4:D:36:ARG:NH1	2.68	0.49
1:A:973:G:H1'	10:J:55:LYS:HZ3	1.77	0.49
23:W:50:U:H3	23:W:64:G:H1	1.61	0.49
19:S:40:ILE:O	19:S:41:VAL:C	2.51	0.49
19:S:51:VAL:HG22	19:S:71:LEU:HD13	1.93	0.49
4:D:59:ARG:NH2	4:D:62:GLN:HG3	2.28	0.49
12:L:78:GLN:O	12:L:79:GLU:C	2.51	0.49
8:H:120:THR:HG23	8:H:123:GLU:OE1	2.13	0.49

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:30:ASP:O	18:R:32:ARG:N	2.38	0.49
7:G:29:LYS:CB	7:G:105:VAL:HG21	2.42	0.49
7:G:103:TRP:CE2	7:G:137:LYS:HD3	2.47	0.49
10:J:90:LEU:N	10:J:91:PRO:HD3	2.28	0.49
1:A:1132:C:N4	1:A:1133:G:C6	2.80	0.49
16:P:49:LEU:HD12	16:P:50:LYS:H	1.77	0.49
1:A:830:G:O2'	1:A:831:U:H5'	2.12	0.49
1:A:791:G:N2	1:A:1497:G:O3'	2.42	0.49
25:Y:427:ALA:HB1	25:Y:466:LEU:CG	2.34	0.48
3:C:35:GLU:O	3:C:38:ARG:HG2	2.13	0.48
1:A:182:U:H5'	1:A:183:G:P	2.51	0.48
1:A:183:G:O2'	1:A:224:C:H4'	2.13	0.48
3:C:15:THR:HG22	3:C:16:ARG:N	2.28	0.48
4:D:129:ASN:HD21	4:D:145:GLU:H	1.60	0.48
16:P:8:ARG:HG2	16:P:8:ARG:HH11	1.77	0.48
15:O:74:ASP:C	15:O:76:GLU:H	2.15	0.48
7:G:80:VAL:HG23	7:G:83:ALA:HB3	1.94	0.48
12:L:119:LYS:O	12:L:120:TYR:HB2	2.13	0.48
1:A:864:A:H2'	1:A:865:A:C8	2.48	0.48
2:B:235:SER:C	2:B:237:ALA:H	2.14	0.48
17:Q:24:GLU:O	17:Q:25:ARG:HB3	2.13	0.48
1:A:1134:G:C2'	1:A:1135:U:H5'	2.43	0.48
11:K:26:ASN:O	11:K:27:ASN:HB2	2.12	0.48
1:A:93:G:O2'	1:A:96:U:H5'	2.12	0.48
18:R:85:LEU:HD12	18:R:86:VAL:H	1.78	0.48
25:Y:507:TYR:CD2	25:Y:573:HIS:HB2	2.48	0.48
1:A:793:U:C3'	1:A:794:A:C5'	2.87	0.48
25:Y:230:LYS:HB2	25:Y:230:LYS:HZ2	1.78	0.48
1:A:1001(A):G:H8	1:A:1002:G:C8	2.30	0.48
1:A:174:C:O2'	1:A:175:C:H5'	2.13	0.48
5:E:101:ILE:HD13	5:E:118:ILE:O	2.12	0.48
9:I:7:THR:O	9:I:83:ARG:HD2	2.13	0.48
18:R:44:LEU:O	18:R:45:SER:O	2.30	0.48
2:B:33:TYR:HB2	2:B:43:ASP:CB	2.43	0.48
10:J:61:GLU:OE2	14:N:49:HIS:CE1	2.61	0.48
10:J:61:GLU:HG3	14:N:58:LYS:NZ	2.28	0.48
1:A:1323:G:H2'	1:A:1324:A:H8	1.76	0.48
7:G:83:ALA:HB1	7:G:85:TYR:CE1	2.47	0.48
10:J:47:PHE:CE2	14:N:37:PHE:CE1	3.01	0.48
4:D:192:GLU:N	4:D:192:GLU:CD	2.65	0.48
1:A:398:C:H6	1:A:398:C:O5'	1.95	0.48
3:C:111:LEU:HD21	3:C:144:SER:HB2	1.95	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:O:28:GLN:O	15:O:32:LEU:HG	2.12	0.48
7:G:118:VAL:O	7:G:121:ALA:HB3	2.13	0.48
1:A:1492:A:H2'	1:A:1493:A:C8	2.48	0.48
25:Y:637:ARG:HH11	25:Y:637:ARG:HG3	1.78	0.48
1:A:1316:G:O2'	14:N:18:VAL:HG11	2.14	0.48
12:L:41:ARG:NH1	12:L:41:ARG:CB	2.69	0.48
17:Q:18:THR:HG23	17:Q:44:ALA:O	2.13	0.48
10:J:6:ILE:C	10:J:6:ILE:HD12	2.31	0.48
1:A:423:G:H2'	1:A:424:G:H5'	1.95	0.48
1:A:1029:C:O2'	1:A:1032:G:N2	2.47	0.48
4:D:196:LEU:C	4:D:198:VAL:H	2.16	0.48
1:A:687:A:N1	1:A:700:G:O2'	2.34	0.48
19:S:61:TYR:CG	19:S:62:ILE:N	2.79	0.48
13:M:4:ILE:O	13:M:5:ALA:C	2.52	0.48
1:A:1318:A:O3'	19:S:10:PHE:CD2	2.65	0.48
1:A:35:G:C6	1:A:36:C:N4	2.82	0.48
6:F:21:LEU:O	6:F:24:GLU:HB3	2.13	0.48
1:A:1414:U:H2'	1:A:1415:G:C8	2.48	0.48
1:A:1216:G:OP1	14:N:2:ALA:HA	2.13	0.48
3:C:23:TYR:CG	3:C:24:ALA:N	2.81	0.48
25:Y:117:GLN:C	25:Y:119:GLU:N	2.66	0.48
1:A:1316:G:H4'	14:N:18:VAL:HG12	1.95	0.48
3:C:189:ALA:HB3	3:C:196:LEU:HB2	1.94	0.48
1:A:1037:C:H2'	1:A:1038:C:C4	2.48	0.48
1:A:1038:C:H2'	1:A:1039:C:C5	2.49	0.48
1:A:1195:C:H2'	1:A:1197:G:O4'	2.14	0.48
1:A:963:G:N2	10:J:55:LYS:HD3	2.28	0.48
2:B:8:LYS:HB2	2:B:9:GLU:OE1	2.13	0.48
20:T:93:GLU:C	20:T:95:ALA:N	2.65	0.48
9:I:56:LEU:C	9:I:56:LEU:HD23	2.34	0.48
1:A:555:C:OP1	12:L:20:LYS:HE2	2.14	0.48
4:D:18:LYS:HE2	4:D:20:TYR:CE1	2.42	0.48
1:A:715:A:H2'	1:A:716:A:C8	2.48	0.48
12:L:86:ARG:NH2	12:L:99:HIS:CD2	2.81	0.48
22:V:16:U:H4'	22:V:16:U:OP1	2.13	0.48
6:F:97:PHE:O	18:R:31:LEU:HD23	2.14	0.48
1:A:1061:G:C2'	1:A:1062:U:H5'	2.43	0.48
17:Q:4:LYS:HG3	17:Q:6:LEU:CD2	2.43	0.48
2:B:151:GLY:O	2:B:153:ARG:N	2.46	0.48
1:A:429:U:H1'	1:A:430:A:H5''	1.96	0.48
11:K:29:ILE:HB	11:K:44:SER:CB	2.43	0.48
13:M:11:ARG:HG2	13:M:12:ASN:N	2.28	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:443:HIS:CD2	25:Y:450:ILE:HD11	2.49	0.48
25:Y:192:LEU:HD12	25:Y:194:THR:CG2	2.43	0.48
1:A:189(D):C:H1'	1:A:189(H):G:N2	2.28	0.48
2:B:185:ILE:HA	2:B:199:TYR:O	2.14	0.48
13:M:66:LEU:O	13:M:67:GLU:O	2.31	0.48
2:B:17:PHE:CD1	2:B:18:GLY:N	2.81	0.48
25:Y:131:PRO:CG	25:Y:281:PRO:HG3	2.40	0.48
4:D:101:LEU:HD23	4:D:121:VAL:CG1	2.43	0.48
2:B:77:ALA:O	2:B:78:GLN:C	2.51	0.48
1:A:1166:G:H5'	1:A:1168:A:OP2	2.14	0.48
1:A:1096:C:H2'	1:A:1097:C:C6	2.48	0.48
4:D:110:PHE:N	4:D:110:PHE:CD1	2.81	0.48
25:Y:468:ARG:NH1	25:Y:468:ARG:HB2	2.29	0.48
22:V:35:A:C2	24:X:18:C:C2	3.01	0.48
25:Y:646:PHE:O	25:Y:647:VAL:HG13	2.13	0.48
25:Y:670:VAL:CG2	25:Y:671:MET:H	2.26	0.48
2:B:20:GLU:CG	2:B:189:ASP:OD2	2.62	0.48
9:I:8:GLY:O	9:I:9:ARG:HG3	2.12	0.48
3:C:112:SER:CB	3:C:115:LEU:HD12	2.39	0.48
13:M:78:ILE:HA	13:M:81:LEU:HD23	1.95	0.48
9:I:93:ARG:C	9:I:95:LYS:N	2.67	0.48
23:W:11:A:H2'	23:W:12:G:H8	1.76	0.48
5:E:105:VAL:HB	5:E:106:PRO:CD	2.44	0.48
25:Y:92:ILE:C	25:Y:92:ILE:HD13	2.34	0.48
13:M:66:LEU:HA	13:M:70:LEU:HD12	1.95	0.48
4:D:98:GLU:HG2	4:D:189:PRO:HG3	1.96	0.48
23:W:31:G:H5'	23:W:31:G:C8	2.45	0.48
16:P:33:ILE:O	16:P:33:ILE:HG22	2.14	0.48
23:W:2:G:H1	23:W:71:C:N4	2.07	0.48
10:J:61:GLU:HG3	14:N:58:LYS:HZ3	1.79	0.48
2:B:108:ILE:O	2:B:111:ARG:HB2	2.14	0.48
1:A:624:C:H2'	1:A:625:G:H8	1.78	0.48
1:A:188:C:H2'	1:A:189:G:H8	1.78	0.48
1:A:1270:C:H2'	1:A:1271:G:H8	1.79	0.48
1:A:38:G:C2	1:A:397:A:C2	3.02	0.48
6:F:19:LEU:HD23	6:F:19:LEU:C	2.33	0.48
1:A:692:U:O4	11:K:53:SER:HA	2.13	0.48
1:A:723:U:H5'	1:A:724:G:OP2	2.13	0.48
25:Y:290:LYS:HB3	25:Y:298:VAL:CG2	2.42	0.48
25:Y:596:LYS:O	25:Y:596:LYS:HG3	2.13	0.48
1:A:1404:C:H5'	1:A:1405:G:OP2	2.14	0.48
25:Y:277:VAL:HG13	25:Y:278:ASP:N	2.27	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:4:G:O2'	23:W:5:G:C8	2.65	0.48
13:M:7:VAL:O	13:M:7:VAL:HG12	2.14	0.48
2:B:32:ILE:CD1	2:B:40:HIS:HB3	2.43	0.48
25:Y:168:ILE:HB	25:Y:176:GLY:C	2.34	0.48
7:G:86:GLN:HE22	23:W:31:G:H21	1.60	0.48
4:D:8:VAL:O	4:D:10:ARG:N	2.43	0.48
1:A:1298:C:C2'	1:A:1298:C:O2	2.62	0.48
1:A:1218:C:H2'	1:A:1219:U:C5	2.49	0.48
1:A:1219:U:H2'	1:A:1220:G:C8	2.49	0.48
21:U:2:GLY:C	21:U:4:GLY:N	2.67	0.48
4:D:65:ARG:NH1	4:D:70:ILE:O	2.44	0.48
1:A:745:C:H2'	1:A:746:A:C8	2.49	0.48
1:A:1284:C:H3'	1:A:1285:A:C5'	2.43	0.48
21:U:13:ILE:O	21:U:16:GLY:N	2.46	0.48
25:Y:303:PRO:O	25:Y:305:PRO:HD3	2.13	0.48
15:O:10:LYS:HD2	15:O:10:LYS:O	2.13	0.48
25:Y:211:GLU:HG3	25:Y:212:TYR:CD2	2.48	0.48
25:Y:629:GLY:HA3	25:Y:647:VAL:HG12	1.96	0.48
25:Y:669:PHE:CE2	25:Y:671:MET:HB2	2.48	0.48
20:T:43:LEU:O	20:T:46:GLU:N	2.47	0.48
20:T:16:HIS:O	20:T:19:SER:HB3	2.14	0.48
1:A:184:G:O2'	1:A:185:A:H5'	2.14	0.48
4:D:157:LEU:HG	4:D:161:ASN:HD21	1.78	0.48
22:V:17:C:O2'	22:V:18:G:P	2.72	0.48
1:A:636:U:H2'	1:A:637:G:H8	1.79	0.48
1:A:342:C:C2'	1:A:343:U:H5'	2.44	0.48
25:Y:170:ARG:HH22	25:Y:208:GLN:HE22	1.62	0.48
3:C:206:GLU:CG	3:C:207:VAL:H	2.09	0.48
1:A:973:G:C3'	1:A:974:A:H5'	2.41	0.48
23:W:71:C:H2'	23:W:72:A:H8	1.79	0.48
20:T:93:GLU:OE1	20:T:93:GLU:N	2.46	0.48
9:I:95:LYS:NZ	9:I:96:LEU:HD13	2.27	0.48
1:A:1327:C:H2'	1:A:1328:C:C6	2.49	0.48
1:A:1479:C:O2'	1:A:1480:G:H5'	2.13	0.48
1:A:491:G:H2'	1:A:492:G:C8	2.45	0.48
3:C:25:GLY:C	3:C:27:LYS:N	2.65	0.48
1:A:1463:C:O2'	1:A:1464:G:H5'	2.14	0.48
20:T:73:HIS:O	20:T:74:LYS:C	2.52	0.48
12:L:81:SER:O	12:L:83:VAL:HG23	2.14	0.47
1:A:779:C:O2'	1:A:780:A:H5'	2.14	0.47
1:A:538:G:H2'	1:A:539:A:C8	2.49	0.47
1:A:781:A:H2'	1:A:782:A:H5'	1.94	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:P:18:ARG:HD3	16:P:35:LYS:HD2	1.96	0.47
16:P:9:PHE:CE2	16:P:18:ARG:NE	2.82	0.47
1:A:333:G:O2'	1:A:334:C:H5'	2.13	0.47
1:A:1205:U:O2'	3:C:195:VAL:HG23	2.14	0.47
6:F:78:GLU:O	6:F:81:ILE:HG13	2.14	0.47
4:D:58:LEU:C	4:D:58:LEU:HD23	2.33	0.47
23:W:34:C:H2'	23:W:35:A:H5''	1.80	0.47
25:Y:491:VAL:HG13	25:Y:492:ASP:N	2.29	0.47
2:B:84:GLU:HB3	2:B:219:VAL:CG2	2.42	0.47
14:N:15:LYS:O	14:N:16:PHE:C	2.51	0.47
1:A:1030:C:H2'	1:A:1030(A):G:H5'	1.97	0.47
12:L:70:ILE:HG21	12:L:77:LEU:HD12	1.95	0.47
19:S:29:ARG:N	19:S:29:ARG:HD2	2.28	0.47
19:S:31:ILE:CG2	19:S:49:ILE:HA	2.41	0.47
3:C:119:ARG:O	3:C:123:GLN:HG3	2.13	0.47
1:A:525:C:OP1	12:L:91:LYS:HE2	2.13	0.47
4:D:148:VAL:HG12	4:D:152:SER:HB2	1.96	0.47
1:A:1382:C:H2'	1:A:1383:C:H6	1.79	0.47
13:M:63:THR:HG22	13:M:64:TRP:N	2.29	0.47
15:O:48:LYS:HA	15:O:48:LYS:HD3	1.67	0.47
10:J:49:VAL:HG21	14:N:41:ARG:O	2.14	0.47
7:G:24:THR:O	7:G:27:ILE:HG22	2.14	0.47
13:M:67:GLU:O	13:M:69:GLU:N	2.47	0.47
20:T:26:ASN:HD22	20:T:27:LYS:N	2.11	0.47
20:T:27:LYS:HD3	20:T:27:LYS:O	2.14	0.47
1:A:1117:G:O3'	9:I:104:ARG:HD2	2.15	0.47
10:J:8:LEU:HB2	10:J:70:ARG:O	2.14	0.47
3:C:82:GLU:N	3:C:82:GLU:OE1	2.46	0.47
1:A:1104:G:H4'	2:B:111:ARG:NH1	2.28	0.47
9:I:126:SER:O	9:I:127:LYS:HB3	2.15	0.47
16:P:28:ARG:HG2	16:P:29:ASP:OD1	2.14	0.47
1:A:277:C:C2'	1:A:278:G:H5'	2.45	0.47
1:A:1060:C:C5	3:C:2:GLY:HA2	2.48	0.47
6:F:69:GLU:O	6:F:72:VAL:HG12	2.14	0.47
1:A:1134:G:N2	1:A:1141:C:C2	2.82	0.47
1:A:1426:C:H2'	1:A:1427:U:H6	1.80	0.47
25:Y:174:PHE:CD2	25:Y:267:LYS:HD3	2.49	0.47
1:A:1399:C:C2	1:A:1401:G:C5	3.02	0.47
7:G:23:VAL:O	7:G:27:ILE:HB	2.14	0.47
8:H:104:ARG:CZ	8:H:138:TRP:CZ3	2.97	0.47
17:Q:52:LYS:CD	17:Q:55:ASP:OD2	2.63	0.47
1:A:390:C:H2'	1:A:391:G:C8	2.49	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:O:82:ILE:HD13	15:O:82:ILE:O	2.14	0.47
7:G:5:ARG:HD2	7:G:5:ARG:N	2.30	0.47
1:A:499:A:H4'	1:A:500:G:OP1	2.14	0.47
13:M:58:GLU:O	13:M:62:ASN:HB2	2.13	0.47
6:F:97:PHE:HB2	18:R:32:ARG:HH21	1.79	0.47
19:S:37:ARG:HG3	19:S:37:ARG:H	1.41	0.47
1:A:745:C:H2'	1:A:746:A:H8	1.79	0.47
8:H:116:LYS:HD2	8:H:129:VAL:HG11	1.96	0.47
1:A:1070:U:O2'	1:A:1071:C:H5'	2.14	0.47
3:C:29:TYR:OH	14:N:54:PRO:HD2	2.14	0.47
1:A:1447:A:N3	1:A:1447:A:H2'	2.28	0.47
1:A:1403:C:H1'	1:A:1500:A:N1	2.29	0.47
13:M:66:LEU:N	13:M:66:LEU:CD1	2.73	0.47
2:B:24:TRP:CH2	2:B:26:PRO:HA	2.50	0.47
5:E:147:ASP:HA	5:E:150:ARG:NH1	2.29	0.47
10:J:96:ILE:HD13	10:J:96:ILE:N	2.26	0.47
25:Y:628:ARG:HH11	25:Y:628:ARG:HG2	1.79	0.47
1:A:376:G:OP2	16:P:67:THR:HG21	2.13	0.47
11:K:21:ILE:HA	11:K:30:VAL:HG12	1.95	0.47
2:B:131:PRO:HG2	2:B:134:GLU:HG2	1.96	0.47
1:A:1431:C:H2'	1:A:1432:G:C5'	2.43	0.47
23:W:36:U:C6	23:W:36:U:O5'	2.67	0.47
1:A:803:G:C6	1:A:804:U:N3	2.82	0.47
1:A:312:C:H2'	1:A:313:A:C8	2.49	0.47
17:Q:27:PHE:CZ	17:Q:36:ILE:HD11	2.50	0.47
1:A:1286:A:H2'	1:A:1287:A:H4'	1.97	0.47
23:W:66:C:N4	23:W:67:C:N4	2.63	0.47
1:A:265:G:H2'	1:A:267:C:H5	1.79	0.47
13:M:6:GLY:C	13:M:8:GLU:N	2.66	0.47
2:B:189:ASP:CG	2:B:205:ASP:OD1	2.52	0.47
23:W:50:U:H2'	23:W:51:C:C6	2.50	0.47
4:D:11:LEU:O	4:D:12:CYS:C	2.53	0.47
14:N:28:GLY:O	14:N:29:ARG:O	2.31	0.47
4:D:78:LEU:CD2	4:D:96:LEU:HB2	2.44	0.47
16:P:8:ARG:CB	16:P:28:ARG:NH1	2.77	0.47
2:B:77:ALA:HA	2:B:80:ILE:HD13	1.95	0.47
1:A:275:G:O2'	1:A:276:G:H5'	2.14	0.47
4:D:159:ARG:O	4:D:163:GLU:N	2.47	0.47
1:A:1007:C:H2'	1:A:1008:C:C6	2.50	0.47
8:H:30:ARG:HB3	8:H:30:ARG:NH1	2.29	0.47
25:Y:124:GLN:O	25:Y:127:LYS:HB3	2.15	0.47
25:Y:331:TYR:O	25:Y:371:ALA:HB1	2.15	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:F:1103:FUA:C6	25:Y:93:GLU:HG3	2.45	0.47
13:M:124:PRO:CG	25:Y:574:GLU:H	2.04	0.47
2:B:86:GLU:C	2:B:88:ALA:H	2.17	0.47
3:C:35:GLU:O	3:C:39:ILE:HG13	2.15	0.47
25:Y:655:TYR:OH	25:Y:659:LEU:HD23	2.15	0.47
1:A:192:U:O3'	20:T:57:ARG:HD2	2.15	0.47
25:Y:168:ILE:HD11	25:Y:178:ILE:HD12	1.96	0.47
1:A:1129:C:H5'	1:A:1129:C:C6	2.43	0.47
2:B:213:LEU:HD23	2:B:213:LEU:C	2.35	0.47
18:R:46:GLU:C	18:R:48:GLY:N	2.66	0.47
18:R:58:LEU:CD1	18:R:58:LEU:N	2.78	0.47
1:A:328:C:C2'	1:A:328:C:O2	2.51	0.47
25:Y:276:VAL:CA	25:Y:280:LEU:HD23	2.44	0.47
12:L:57:LYS:HG3	12:L:67:THR:CG2	2.42	0.47
8:H:50:ARG:HH11	8:H:50:ARG:CB	2.25	0.47
4:D:61:LYS:HG3	4:D:203:VAL:HG13	1.95	0.47
22:V:61:C:H2'	22:V:62:C:C6	2.45	0.47
7:G:88:PRO:HB3	7:G:145:ALA:HA	1.97	0.47
1:A:1320:C:OP1	19:S:70:LYS:NZ	2.43	0.47
1:A:34:C:O2'	1:A:35:G:H5'	2.14	0.47
11:K:126:ARG:HG2	11:K:126:ARG:NH1	2.30	0.47
1:A:1132:C:O2'	1:A:1133:G:H5'	2.15	0.47
12:L:111:LYS:O	12:L:112:ASP:HB2	2.14	0.47
11:K:44:SER:O	11:K:46:GLY:N	2.48	0.47
1:A:1426:C:H2'	1:A:1427:U:C6	2.50	0.47
2:B:179:LYS:NZ	2:B:179:LYS:HB2	2.30	0.47
4:D:168:ARG:N	4:D:168:ARG:HD2	2.30	0.47
2:B:53:ARG:HG2	2:B:53:ARG:O	2.14	0.47
24:X:13:A:OP1	24:X:14:U:OP1	2.33	0.47
14:N:18:VAL:CG2	14:N:19:ARG:N	2.78	0.47
25:Y:594:VAL:HG12	25:Y:594:VAL:O	2.15	0.47
19:S:32:LYS:HA	19:S:50:ALA:HB3	1.97	0.47
16:P:53:VAL:HG23	16:P:54:GLU:N	2.27	0.47
6:F:10:LEU:HB2	6:F:59:TYR:HB3	1.97	0.47
3:C:60:ALA:O	3:C:61:ALA:CB	2.63	0.47
15:O:57:LEU:HD23	15:O:57:LEU:N	2.29	0.47
6:F:37:VAL:HG12	6:F:38:GLU:H	1.80	0.47
4:D:68:TYR:O	4:D:69:GLY:C	2.52	0.47
1:A:1111:A:N1	3:C:177:THR:OG1	2.44	0.47
27:F:1103:FUA:O4	27:F:1103:FUA:C31	2.62	0.47
25:Y:120:THR:O	25:Y:124:GLN:CG	2.62	0.47
25:Y:327:PHE:CD1	25:Y:327:PHE:N	2.82	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:187:LEU:HA	2:B:201:ILE:HB	1.97	0.47
9:I:9:ARG:HB3	9:I:104:ARG:HH12	1.80	0.47
1:A:1152:A:OP1	10:J:68:HIS:CD2	2.67	0.47
1:A:687:A:H62	1:A:703:G:H1'	1.80	0.47
14:N:29:ARG:HG3	14:N:29:ARG:NH1	2.22	0.47
18:R:37:VAL:CG2	18:R:38:GLU:N	2.76	0.47
4:D:78:LEU:HB3	4:D:93:PHE:HE1	1.79	0.47
3:C:136:GLN:HG3	3:C:139:GLN:HB3	1.96	0.47
1:A:1305:G:C5'	21:U:4:GLY:HA3	2.45	0.47
1:A:22:G:O2'	1:A:23:C:H5'	2.15	0.47
9:I:10:ARG:O	9:I:11:LYS:HB3	2.14	0.47
1:A:311:C:O2'	1:A:312:C:H5'	2.15	0.47
25:Y:359:HIS:CD2	25:Y:364:GLU:HB2	2.49	0.47
2:B:172:ILE:HD12	2:B:172:ILE:N	2.30	0.47
2:B:45:GLN:O	2:B:45:GLN:HG2	2.14	0.47
25:Y:503:GLY:O	25:Y:505:GLY:N	2.44	0.47
1:A:1347:G:H3'	9:I:108:VAL:O	2.15	0.47
25:Y:652:MET:HG2	25:Y:671:MET:SD	2.55	0.47
17:Q:67:LYS:CA	17:Q:70:ARG:HH12	2.26	0.47
4:D:13:ARG:O	4:D:14:ARG:C	2.54	0.47
19:S:29:ARG:HB2	19:S:48:THR:H	1.78	0.47
2:B:111:ARG:O	2:B:145:LEU:HD12	2.14	0.47
17:Q:52:LYS:HD3	17:Q:55:ASP:OD2	2.15	0.47
25:Y:377:VAL:CG2	25:Y:380:LEU:HD22	2.41	0.47
16:P:67:THR:HG22	16:P:68:ASP:N	2.30	0.47
2:B:142:LEU:HD23	2:B:142:LEU:O	2.15	0.47
1:A:918:A:H2'	1:A:919:A:O4'	2.15	0.47
19:S:5:LEU:HG	19:S:10:PHE:CD1	2.50	0.47
7:G:26:PHE:CE2	7:G:30:ILE:HD11	2.49	0.47
1:A:1411:C:H2'	1:A:1412:C:C6	2.49	0.47
1:A:882:C:O2'	1:A:883:C:H5'	2.15	0.47
1:A:1243:C:O2'	1:A:1244:C:H5'	2.15	0.47
1:A:1123:A:O3'	10:J:36:GLY:HA3	2.14	0.47
4:D:119:GLN:HG3	4:D:123:HIS:CD2	2.49	0.47
8:H:26:VAL:HG23	8:H:27:PRO:HD2	1.97	0.47
10:J:94:VAL:HG12	10:J:95:GLU:H	1.80	0.46
4:D:187:ARG:HH11	4:D:187:ARG:HG2	1.79	0.46
25:Y:78:ARG:C	25:Y:79:ILE:HG13	2.33	0.46
1:A:186:C:C2	1:A:187:C:C5	3.04	0.46
12:L:22:SER:C	12:L:24:VAL:H	2.19	0.46
12:L:91:LYS:HZ3	12:L:91:LYS:HB2	1.80	0.46
12:L:110:VAL:CG2	12:L:120:TYR:HB3	2.46	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1271:G:H2'	1:A:1272:G:H8	1.80	0.46
25:Y:517:LEU:HD11	25:Y:564:LYS:HB2	1.96	0.46
1:A:64:G:N2	1:A:67:C:C4	2.83	0.46
6:F:3:ARG:HH11	6:F:3:ARG:HG3	1.78	0.46
20:T:8:ARG:HH11	20:T:8:ARG:HG3	1.79	0.46
1:A:265:G:N2	1:A:267:C:H5'	2.30	0.46
2:B:215:LEU:HD22	2:B:215:LEU:N	2.30	0.46
1:A:1148:U:H2'	1:A:1149:C:O4'	2.14	0.46
3:C:15:THR:CG2	3:C:181:ASN:HA	2.42	0.46
20:T:45:GLN:HB2	20:T:91:LEU:CD1	2.41	0.46
2:B:233:SER:OG	2:B:234:PRO:HD2	2.15	0.46
4:D:3:ARG:HG2	4:D:118:ARG:HE	1.80	0.46
2:B:236:TYR:O	2:B:237:ALA:C	2.53	0.46
25:Y:614:GLU:HG3	25:Y:641:GLN:NE2	2.30	0.46
8:H:30:ARG:CB	8:H:30:ARG:HH11	2.27	0.46
25:Y:491:VAL:HG13	25:Y:492:ASP:H	1.80	0.46
23:W:68:C:H2'	23:W:69:C:H6	1.71	0.46
25:Y:610:VAL:HG12	25:Y:669:PHE:HB2	1.96	0.46
25:Y:583:LYS:C	25:Y:583:LYS:HD3	2.35	0.46
1:A:255:G:O6	1:A:266:G:O6	2.32	0.46
20:T:22:ARG:O	20:T:26:ASN:ND2	2.48	0.46
2:B:204:ASN:HD22	2:B:206:ASP:H	1.57	0.46
2:B:22:LYS:H	2:B:40:HIS:HE1	1.62	0.46
1:A:1148:U:C2'	1:A:1149:C:H5'	2.46	0.46
10:J:54:PHE:CD2	10:J:55:LYS:HD2	2.49	0.46
19:S:58:VAL:HG21	19:S:75:ALA:CB	2.45	0.46
1:A:1343:G:H2'	1:A:1344:C:C6	2.50	0.46
4:D:145:GLU:C	4:D:146:ILE:HD13	2.36	0.46
15:O:23:GLY:O	15:O:27:VAL:HB	2.16	0.46
1:A:337:C:H2'	1:A:338:A:C8	2.49	0.46
1:A:860:A:H2'	1:A:861:G:O4'	2.14	0.46
1:A:802:A:H3'	1:A:803:G:H8	1.80	0.46
1:A:256:U:H2'	1:A:257:G:C8	2.49	0.46
25:Y:236:GLU:HG3	25:Y:236:GLU:O	2.15	0.46
4:D:200:GLU:CD	4:D:200:GLU:H	2.18	0.46
25:Y:201:ILE:HG21	25:Y:206:LEU:HA	1.96	0.46
25:Y:230:LYS:HB2	25:Y:230:LYS:NZ	2.30	0.46
2:B:21:ARG:NH2	2:B:38:GLY:HA3	2.30	0.46
9:I:63:ILE:HD11	9:I:81:ILE:HD11	1.97	0.46
25:Y:168:ILE:HD12	25:Y:176:GLY:HA3	1.98	0.46
16:P:23:ASP:OD1	16:P:25:ARG:N	2.46	0.46
2:B:126:GLU:HA	2:B:129:GLU:CD	2.35	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:72:A:O2'	23:W:73:A:O5'	2.31	0.46
5:E:12:LEU:C	5:E:12:LEU:HD22	2.34	0.46
19:S:31:ILE:HG21	19:S:49:ILE:HG12	1.96	0.46
1:A:1328:C:H2'	1:A:1329:A:C8	2.50	0.46
1:A:298:A:H2'	1:A:299:G:O4'	2.16	0.46
1:A:1442:G:H1	1:A:1461:G:H21	1.64	0.46
1:A:1171:G:H2'	1:A:1172:C:C6	2.50	0.46
1:A:1414:U:H2'	1:A:1415:G:H8	1.80	0.46
1:A:1096:C:H2'	1:A:1097:C:H6	1.79	0.46
20:T:37:SER:O	20:T:41:ILE:HG12	2.16	0.46
25:Y:497:PHE:N	25:Y:508:GLY:O	2.48	0.46
25:Y:97:SER:O	25:Y:100:VAL:HG12	2.15	0.46
25:Y:437:THR:HB	25:Y:454:MET:CE	2.44	0.46
27:F:1103:FUA:C11	25:Y:90:PHE:HE2	2.29	0.46
1:A:1402:C:H2'	1:A:1403:C:O4'	2.16	0.46
13:M:3:ARG:HG2	13:M:9:ILE:CG1	2.46	0.46
1:A:1277:C:H3'	1:A:1277:C:H6	1.81	0.46
16:P:5:ARG:HE	16:P:22:THR:CG2	2.28	0.46
1:A:1026:G:H3'	1:A:1027:C:H5'	1.97	0.46
3:C:51:GLY:O	3:C:115:LEU:HD21	2.16	0.46
4:D:26:CYS:O	4:D:31:CYS:HB2	2.15	0.46
3:C:159:GLY:HA2	3:C:193:TYR:CE1	2.51	0.46
18:R:37:VAL:CG2	18:R:38:GLU:H	2.25	0.46
1:A:1298:C:O2'	1:A:1299:A:C2	2.69	0.46
1:A:1376:U:H2'	1:A:1377:A:C8	2.49	0.46
12:L:11:VAL:HG13	17:Q:29:HIS:HD2	1.79	0.46
7:G:112:PRO:HG2	7:G:113:GLU:OE2	2.16	0.46
1:A:398:C:H2'	1:A:399:G:H8	1.81	0.46
1:A:665:A:H2'	1:A:725:G:N2	2.30	0.46
8:H:27:PRO:HA	8:H:58:TYR:CD1	2.51	0.46
1:A:373:A:C2	1:A:482:A:C6	3.04	0.46
1:A:1203:C:O2'	1:A:1204:A:H5'	2.15	0.46
24:X:11:A:O2'	24:X:12:A:O5'	2.31	0.46
24:X:12:A:H5''	24:X:13:A:OP2	2.15	0.46
13:M:22:ILE:N	13:M:22:ILE:HD12	2.31	0.46
11:K:111:ASP:OD1	18:R:84:LYS:HE2	2.15	0.46
4:D:189:PRO:HB2	4:D:194:LEU:HD21	1.97	0.46
1:A:1391:U:H2'	1:A:1392:G:C8	2.50	0.46
20:T:89:ARG:HD2	20:T:104:LEU:HG	1.97	0.46
20:T:94:ALA:O	20:T:95:ALA:HB3	2.16	0.46
23:W:10:G:H2'	23:W:11:A:H8	1.81	0.46
12:L:23:LYS:O	12:L:24:VAL:CG2	2.63	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:346:LYS:HE2	25:Y:384:ILE:HG12	1.97	0.46
5:E:20:GLN:NE2	5:E:25:ARG:NH2	2.64	0.46
1:A:813:U:O2'	1:A:814:A:H5'	2.15	0.46
25:Y:170:ARG:NH2	25:Y:205:TYR:HE1	2.12	0.46
25:Y:496:LYS:HG3	25:Y:509:HIS:HD2	1.81	0.46
25:Y:590:ILE:O	25:Y:590:ILE:HG22	2.16	0.46
10:J:32:ALA:HB1	10:J:76:ASN:HB3	1.96	0.46
25:Y:230:LYS:NZ	25:Y:237:PRO:HA	2.31	0.46
10:J:6:ILE:HG22	10:J:98:ILE:HD12	1.97	0.46
22:V:3:C:C2'	22:V:4:C:H5'	2.46	0.46
11:K:30:VAL:O	11:K:30:VAL:HG23	2.15	0.46
25:Y:413:ILE:HG12	25:Y:424:LEU:HD21	1.97	0.46
1:A:991:U:C4	1:A:1212:U:H1'	2.51	0.46
15:O:56:LEU:O	15:O:60:VAL:HG23	2.15	0.46
1:A:405:U:OP2	4:D:3:ARG:HD2	2.16	0.46
7:G:108:ALA:HB2	7:G:123:GLU:HG2	1.97	0.46
1:A:1056:U:H4'	3:C:163:ALA:HB2	1.97	0.46
1:A:853:G:O2'	1:A:854:G:H5'	2.16	0.46
25:Y:123:ARG:HG3	25:Y:123:ARG:NH1	2.31	0.46
25:Y:503:GLY:C	25:Y:505:GLY:N	2.68	0.46
25:Y:317:MET:O	25:Y:325:LEU:HB2	2.15	0.46
3:C:66:VAL:HG12	3:C:66:VAL:O	2.16	0.46
25:Y:556:ILE:HG22	25:Y:687:LEU:O	2.16	0.46
5:E:28:PHE:O	5:E:47:LYS:HA	2.16	0.46
1:A:265:G:H5'	17:Q:64:PRO:O	2.16	0.46
9:I:79:LEU:HD13	9:I:83:ARG:HB2	1.97	0.46
1:A:1026:G:H3'	1:A:1027:C:C5'	2.46	0.46
1:A:1392:G:N2	1:A:1502:A:H8	2.13	0.46
20:T:64:ASP:O	20:T:67:ALA:HB3	2.15	0.46
9:I:99:LEU:N	9:I:99:LEU:HD22	2.31	0.46
1:A:458:C:H3'	1:A:460:G:H8	1.81	0.46
1:A:1452:C:OP1	1:A:1456:G:C6	2.69	0.46
1:A:636:U:C5'	17:Q:2:PRO:HG3	2.46	0.46
20:T:73:HIS:HB3	20:T:74:LYS:HD3	1.97	0.46
25:Y:507:TYR:CD1	25:Y:508:GLY:N	2.84	0.46
25:Y:327:PHE:N	25:Y:327:PHE:HD1	2.14	0.46
25:Y:147:TRP:HZ3	25:Y:163:VAL:HG21	1.80	0.46
3:C:76:VAL:HG23	3:C:77:ILE:N	2.31	0.46
9:I:89:ASN:O	9:I:92:TYR:HB2	2.16	0.46
1:A:1030(A):G:H2'	1:A:1030(B):C:H5'	1.98	0.46
13:M:81:LEU:HD12	13:M:86:CYS:SG	2.56	0.46
4:D:29:PRO:C	4:D:30:LYS:HG2	2.36	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:375:U:H2'	1:A:376:G:H8	1.81	0.46
2:B:134:GLU:O	2:B:137:ARG:HB3	2.15	0.46
1:A:1074:G:O2'	1:A:1075:C:H5'	2.16	0.46
25:Y:688:ILE:N	25:Y:688:ILE:CD1	2.79	0.46
1:A:66:G:C4'	1:A:173:U:C5	2.99	0.46
1:A:413:G:H21	1:A:428:G:H1'	1.80	0.46
1:A:1097:C:O2'	1:A:1098:C:H5'	2.16	0.46
1:A:983:A:H5'	1:A:984:C:OP2	2.15	0.46
1:A:155:C:H2'	1:A:156:G:H8	1.81	0.46
1:A:103:C:H3'	1:A:104:G:H8	1.81	0.46
10:J:32:ALA:HB2	10:J:76:ASN:ND2	2.27	0.46
17:Q:65:ILE:O	17:Q:66:SER:HB3	2.16	0.46
2:B:204:ASN:ND2	2:B:206:ASP:N	2.52	0.46
25:Y:286:ILE:HD12	25:Y:286:ILE:N	2.31	0.46
12:L:53:ARG:HH11	12:L:53:ARG:HG2	1.80	0.46
1:A:1388:C:H2'	1:A:1389:C:H6	1.81	0.46
19:S:40:ILE:CG1	19:S:71:LEU:HD23	2.46	0.46
12:L:27:LEU:CB	12:L:62:SER:HB2	2.44	0.46
16:P:67:THR:HB	16:P:70:ALA:CB	2.46	0.46
1:A:1308:U:O2'	1:A:1309:G:H5'	2.15	0.46
1:A:756:C:H2'	1:A:757:U:O4'	2.16	0.46
18:R:55:ARG:HG3	18:R:55:ARG:NH1	2.30	0.46
1:A:622:A:C8	1:A:623:C:C5	3.04	0.46
1:A:189(D):C:H2'	1:A:189(E):U:O4'	2.15	0.46
1:A:1244:C:H2'	1:A:1245:A:H8	1.81	0.46
1:A:534:U:H5'	1:A:534:U:H6	1.80	0.46
1:A:1264:C:O2'	1:A:1265:G:H5'	2.15	0.46
25:Y:245:ALA:O	25:Y:248:LYS:HB3	2.16	0.45
2:B:82:ARG:NH1	2:B:92:TYR:OH	2.49	0.45
1:A:1502:A:H2	1:A:1505:G:N1	2.03	0.45
1:A:1112:C:H1'	3:C:179:ARG:HD3	1.98	0.45
3:C:157:ILE:C	3:C:159:GLY:N	2.69	0.45
25:Y:9:LEU:HD22	25:Y:284:LEU:HD22	1.98	0.45
4:D:78:LEU:HD21	4:D:96:LEU:HB2	1.97	0.45
19:S:12:ASP:H	19:S:38:SER:HB3	1.81	0.45
1:A:545:C:H5''	4:D:72:GLU:HG2	1.97	0.45
22:V:19:G:H4'	22:V:20:U:OP1	2.16	0.45
1:A:269:C:H2'	1:A:270:A:H8	1.79	0.45
3:C:92:ALA:HB2	3:C:99:VAL:HG22	1.99	0.45
25:Y:549:ALA:HB2	25:Y:587:SER:OG	2.16	0.45
1:A:689:C:H6	1:A:689:C:O5'	1.99	0.45
1:A:61:G:OP1	20:T:10:LEU:HD11	2.16	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:X:11:A:C2'	24:X:11:A:N3	2.79	0.45
25:Y:554:PRO:HD2	25:Y:560:VAL:HG22	1.98	0.45
25:Y:243:VAL:O	25:Y:247:ARG:CB	2.64	0.45
5:E:51:VAL:HB	5:E:52:PRO:CD	2.40	0.45
14:N:12:ARG:CZ	14:N:12:ARG:HB2	2.47	0.45
20:T:50:GLU:HB2	20:T:100:ILE:CB	2.46	0.45
13:M:68:GLY:CA	13:M:71:ARG:HB3	2.46	0.45
1:A:247:G:C6	1:A:278:G:C2	3.04	0.45
5:E:7:GLU:O	5:E:8:GLU:HB3	2.16	0.45
1:A:8:A:N6	4:D:205:GLU:O	2.49	0.45
1:A:582:U:OP1	15:O:68:ARG:NH2	2.49	0.45
25:Y:121:VAL:HG23	25:Y:122:TRP:N	2.30	0.45
25:Y:141:LYS:O	25:Y:144:ALA:HB2	2.15	0.45
10:J:32:ALA:HB1	10:J:75:ILE:CG1	2.46	0.45
14:N:15:LYS:O	14:N:16:PHE:O	2.34	0.45
15:O:27:VAL:O	15:O:30:ALA:N	2.49	0.45
1:A:417:C:H2'	1:A:418:C:C6	2.51	0.45
5:E:36:ASP:O	5:E:37:ARG:HB2	2.16	0.45
6:F:38:GLU:O	6:F:39:LYS:C	2.54	0.45
25:Y:304:ASP:C	25:Y:306:ASN:N	2.69	0.45
5:E:15:ARG:CZ	5:E:26:PHE:CE2	3.00	0.45
1:A:1216:G:H2'	1:A:1217:C:H6	1.82	0.45
8:H:74:PRO:O	8:H:75:ARG:C	2.55	0.45
1:A:967:C:H2'	1:A:968:A:C8	2.51	0.45
1:A:261:U:O2	1:A:263:A:C8	2.70	0.45
11:K:66:LEU:HD23	11:K:66:LEU:HA	1.79	0.45
25:Y:100:VAL:O	25:Y:329:ARG:HD3	2.15	0.45
10:J:62:HIS:CD2	10:J:62:HIS:H	2.34	0.45
9:I:70:LYS:O	9:I:74:ILE:HG13	2.16	0.45
4:D:49:ARG:HE	4:D:49:ARG:CA	2.13	0.45
1:A:1053:G:N7	1:A:1199:U:H2'	2.32	0.45
1:A:1389:C:H2'	1:A:1390:U:O4'	2.17	0.45
4:D:19:LEU:O	4:D:26:CYS:SG	2.75	0.45
2:B:80:ILE:N	2:B:80:ILE:HD12	2.30	0.45
13:M:56:LEU:HD13	13:M:60:VAL:HG23	1.99	0.45
1:A:1270:C:O2'	1:A:1271:G:H5'	2.17	0.45
1:A:935:A:H2'	1:A:936:C:C6	2.51	0.45
1:A:907:A:H2'	1:A:908:A:O4'	2.16	0.45
1:A:392:G:H2'	1:A:393:A:C8	2.50	0.45
3:C:121:ALA:O	3:C:124:ILE:HB	2.17	0.45
2:B:174:VAL:HG13	2:B:184:VAL:HG11	1.98	0.45
25:Y:315:LYS:HZ3	25:Y:317:MET:HG2	1.80	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:489:LYS:HG2	25:Y:598:ASP:CG	2.37	0.45
1:A:975:A:C8	1:A:975:A:H5'	2.49	0.45
25:Y:179:ASP:OD2	25:Y:182:ARG:HB2	2.15	0.45
25:Y:262:SER:HB3	25:Y:265:LYS:HB2	1.99	0.45
1:A:1508:G:H2'	1:A:1509:C:H6	1.82	0.45
13:M:118:ALA:CB	13:M:120:LYS:HE3	2.46	0.45
20:T:89:ARG:HD2	20:T:104:LEU:CG	2.47	0.45
1:A:720:C:H6	1:A:720:C:O5'	2.00	0.45
1:A:1239:A:H62	1:A:1299:A:H62	1.65	0.45
1:A:500:G:H5'	12:L:124:LYS:NZ	2.31	0.45
2:B:158:LEU:HA	2:B:159:PRO:HD3	1.86	0.45
4:D:155:LEU:O	4:D:156:GLU:C	2.55	0.45
1:A:711:G:H2'	1:A:712:A:C8	2.52	0.45
1:A:1065:U:O2'	1:A:1066:C:OP2	2.35	0.45
1:A:1131:G:C6	1:A:1132:C:N4	2.85	0.45
1:A:724:G:O2'	1:A:725:G:H5'	2.17	0.45
20:T:73:HIS:HB3	20:T:74:LYS:CE	2.47	0.45
2:B:194:PRO:HG2	2:B:195:ASP:H	1.81	0.45
2:B:194:PRO:O	2:B:197:VAL:HG23	2.15	0.45
1:A:858:G:O2'	1:A:859:A:H5''	2.16	0.45
27:F:1103:FUA:O2	27:F:1103:FUA:H211	2.16	0.45
3:C:52:LEU:HA	3:C:70:VAL:HG22	1.99	0.45
1:A:973:G:OP1	10:J:57:LYS:HD3	2.16	0.45
1:A:1226:C:C4	13:M:104:ARG:HB2	2.51	0.45
4:D:107:ARG:HH21	4:D:194:LEU:HD13	1.80	0.45
23:W:1:C:N3	23:W:73:A:C2	2.84	0.45
1:A:1303:C:O2'	1:A:1304:G:H5'	2.17	0.45
4:D:31:CYS:O	4:D:32:ALA:CB	2.64	0.45
19:S:58:VAL:O	19:S:59:PRO:C	2.53	0.45
1:A:437:U:H2'	1:A:438:G:O4'	2.17	0.45
1:A:1328:C:H2'	1:A:1329:A:H8	1.81	0.45
1:A:539:A:OP2	12:L:115:LYS:HE3	2.16	0.45
4:D:157:LEU:HG	4:D:161:ASN:ND2	2.32	0.45
1:A:1005:A:H3'	1:A:1006:C:O4'	2.16	0.45
6:F:97:PHE:N	18:R:30:ASP:OD1	2.50	0.45
3:C:133:ALA:O	3:C:137:ALA:HB2	2.15	0.45
1:A:1315:U:O2	1:A:1360:A:H2	1.99	0.45
13:M:14:ARG:CZ	13:M:42:ALA:HA	2.47	0.45
1:A:1444:C:C2	1:A:1445:C:C5	3.05	0.45
8:H:31:PHE:O	8:H:34:GLU:HB2	2.17	0.45
7:G:113:GLU:CG	7:G:119:ARG:HG2	2.47	0.45
8:H:39:LEU:H	8:H:39:LEU:HD22	1.81	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:F:15:ASP:O	6:F:17:SER:N	2.50	0.45
8:H:111:ILE:CG2	8:H:112:LEU:N	2.80	0.45
1:A:413:G:N2	1:A:428:G:H1'	2.32	0.45
1:A:657:G:H4'	15:O:28:GLN:HG2	1.99	0.45
25:Y:448:GLN:OE1	25:Y:480:GLN:HG2	2.17	0.45
7:G:41:ARG:HG2	7:G:41:ARG:NH1	2.32	0.45
1:A:1290:G:H2'	1:A:1290:G:N3	2.32	0.45
1:A:980:C:O2	14:N:19:ARG:HA	2.17	0.45
25:Y:208:GLN:HA	25:Y:211:GLU:OE2	2.17	0.45
15:O:24:SER:O	15:O:25:THR:C	2.54	0.45
23:W:5:G:H2'	23:W:6:G:H8	1.82	0.45
5:E:76:ILE:HD11	5:E:142:LEU:CD2	2.46	0.45
8:H:9:MET:O	8:H:10:LEU:C	2.53	0.45
1:A:1054:C:HO2'	1:A:1055:A:H5''	1.76	0.45
2:B:8:LYS:O	2:B:9:GLU:C	2.55	0.45
4:D:98:GLU:CG	4:D:189:PRO:HG3	2.46	0.45
7:G:86:GLN:NE2	23:W:31:G:H21	2.15	0.45
18:R:52:PRO:O	18:R:56:THR:HG23	2.17	0.45
5:E:64:ARG:NH1	5:E:64:ARG:HG3	2.24	0.45
12:L:97:ARG:C	12:L:98:TYR:CD1	2.90	0.45
25:Y:65:ILE:CG1	25:Y:65:ILE:O	2.63	0.45
5:E:33:VAL:HG12	5:E:34:VAL:H	1.81	0.45
1:A:357:G:H2'	1:A:358:U:H6	1.82	0.45
1:A:1090:U:H2'	1:A:1091:U:C6	2.51	0.45
1:A:319:G:O2'	1:A:320:C:H5'	2.16	0.45
22:V:36:A:C2	24:X:16:U:N3	2.82	0.45
25:Y:453:GLY:HA3	25:Y:459:LEU:HG	1.98	0.45
25:Y:458:HIS:O	25:Y:462:ILE:HG13	2.17	0.45
14:N:14:PRO:O	14:N:15:LYS:O	2.35	0.45
2:B:20:GLU:HG3	2:B:189:ASP:OD2	2.16	0.45
5:E:101:ILE:CD1	5:E:118:ILE:O	2.65	0.45
10:J:16:LEU:CD1	10:J:70:ARG:HD3	2.46	0.45
23:W:11:A:H2'	23:W:12:G:C8	2.51	0.45
1:A:628:G:O2'	1:A:629:G:H5'	2.17	0.45
25:Y:541:ALA:HB2	25:Y:579:GLU:HG2	1.98	0.45
2:B:77:ALA:O	2:B:78:GLN:O	2.35	0.45
25:Y:441:SER:C	25:Y:449:THR:HG23	2.37	0.45
1:A:770:C:O2'	1:A:771:G:H5'	2.17	0.45
9:I:99:LEU:HB2	9:I:101:PHE:CD2	2.51	0.45
1:A:217:C:O2'	1:A:470:C:N4	2.49	0.45
1:A:1320:C:N4	19:S:36:ARG:HG3	2.31	0.45
19:S:5:LEU:HG	19:S:10:PHE:HD1	1.82	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:14:ARG:HB3	13:M:16:ASP:OD1	2.16	0.45
7:G:65:ALA:HB1	7:G:127:ALA:HB3	1.99	0.45
1:A:1337:G:H5''	1:A:1338:G:OP2	2.16	0.45
1:A:1281:U:H5''	1:A:1282:C:H5	1.82	0.45
1:A:69:G:H2'	1:A:70:G:H8	1.82	0.45
25:Y:20:HIS:N	25:Y:121:VAL:HG11	2.32	0.45
25:Y:514:VAL:CG1	25:Y:515:GLU:N	2.79	0.45
25:Y:488:THR:O	25:Y:516:PRO:HG3	2.16	0.45
25:Y:149:VAL:O	25:Y:152:THR:CG2	2.65	0.45
1:A:147:G:N2	1:A:148:G:H1'	2.31	0.45
2:B:17:PHE:O	2:B:18:GLY:C	2.55	0.45
2:B:189:ASP:C	2:B:191:ASP:H	2.19	0.45
1:A:1095:U:P	1:A:1108:G:H1	2.40	0.45
1:A:797:C:H2'	1:A:798:G:C8	2.52	0.45
1:A:1324:A:H2'	1:A:1325:C:C6	2.51	0.45
17:Q:99:SER:C	17:Q:100:LYS:HG3	2.36	0.45
1:A:954:G:H2'	1:A:955:U:C6	2.52	0.45
6:F:97:PHE:HB2	18:R:32:ARG:NH2	2.31	0.45
3:C:25:GLY:O	3:C:27:LYS:N	2.49	0.45
13:M:83:ASP:C	13:M:85:GLY:N	2.65	0.45
23:W:33:U:O2	23:W:36:U:OP2	2.33	0.45
1:A:853:G:H2'	1:A:854:G:H8	1.80	0.45
11:K:34:ASP:HB2	11:K:35:PRO:CD	2.47	0.45
1:A:1466:C:H2'	1:A:1467:G:O4'	2.17	0.45
25:Y:20:HIS:CE1	25:Y:21:ILE:HD11	2.52	0.45
10:J:79:ARG:HA	10:J:79:ARG:HD3	1.68	0.45
3:C:32:LEU:HD22	3:C:59:ARG:HH12	1.82	0.45
1:A:183:G:H2'	1:A:184:G:H8	1.80	0.45
1:A:204:U:HO2'	1:A:216:G:P	2.40	0.45
1:A:797:C:H2'	1:A:798:G:H8	1.81	0.45
1:A:1325:C:C2	1:A:1326:C:C5	3.05	0.45
25:Y:66:THR:O	25:Y:67:ALA:HB2	2.16	0.45
1:A:500:G:C5'	12:L:124:LYS:NZ	2.80	0.45
1:A:955:U:O2'	1:A:956:U:H5'	2.17	0.45
12:L:105:TYR:CD1	12:L:105:TYR:N	2.85	0.45
22:V:17:C:O2'	22:V:18:G:OP2	2.34	0.45
13:M:63:THR:HG22	13:M:64:TRP:H	1.81	0.45
6:F:60:PHE:C	6:F:61:LEU:HD12	2.38	0.45
1:A:1118:C:H1'	1:A:1179:A:C4	2.52	0.45
25:Y:490:PRO:HB3	25:Y:515:GLU:HA	2.00	0.44
1:A:1508:G:H2'	1:A:1509:C:C6	2.52	0.44
15:O:17:ARG:HG3	15:O:17:ARG:NH1	2.32	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:10:PRO:HB2	13:M:18:ALA:CB	2.44	0.44
13:M:3:ARG:CA	13:M:9:ILE:HG13	2.47	0.44
10:J:17:ASP:OD1	10:J:70:ARG:NH1	2.50	0.44
1:A:1226:C:C6	13:M:103:THR:O	2.70	0.44
4:D:64:LEU:HD23	4:D:75:PHE:CZ	2.46	0.44
25:Y:286:ILE:HA	25:Y:287:PRO:HD3	1.81	0.44
23:W:72:A:H4'	23:W:73:A:OP1	2.17	0.44
19:S:51:VAL:O	19:S:58:VAL:HG22	2.17	0.44
19:S:46:GLY:N	19:S:62:ILE:HG23	2.32	0.44
1:A:375:U:H4'	16:P:17:TYR:CE2	2.52	0.44
1:A:1324:A:O2'	1:A:1325:C:H5'	2.16	0.44
25:Y:137:ASN:ND2	25:Y:263:ALA:CB	2.78	0.44
25:Y:341:VAL:HG13	25:Y:352:VAL:HG12	1.99	0.44
1:A:1521:G:H2'	1:A:1522:U:C6	2.52	0.44
1:A:781:A:C2'	1:A:782:A:H5'	2.47	0.44
1:A:954:G:N2	1:A:1228:C:N3	2.65	0.44
7:G:143:ARG:O	7:G:145:ALA:O	2.35	0.44
1:A:1110:A:H8	1:A:1110:A:O5'	2.00	0.44
8:H:36:LEU:O	8:H:38:ILE:N	2.49	0.44
1:A:1413:A:C2	1:A:1488:G:C2	3.05	0.44
1:A:1458:G:OP1	20:T:35:THR:HG21	2.16	0.44
7:G:8:GLU:O	7:G:9:VAL:C	2.55	0.44
14:N:36:PHE:CD1	14:N:36:PHE:C	2.90	0.44
25:Y:146:LEU:CD2	25:Y:150:ILE:HD11	2.47	0.44
25:Y:181:LEU:CD1	25:Y:242:LEU:HD13	2.48	0.44
25:Y:679:VAL:CG2	25:Y:684:GLN:HB2	2.47	0.44
20:T:97:ALA:O	20:T:99:LEU:N	2.51	0.44
13:M:23:TYR:CE1	13:M:70:LEU:HD22	2.52	0.44
13:M:70:LEU:O	13:M:71:ARG:C	2.56	0.44
1:A:1152:A:OP1	10:J:68:HIS:HD2	1.99	0.44
2:B:188:ALA:O	2:B:202:PRO:HA	2.17	0.44
1:A:930:C:C2'	1:A:931:C:H5'	2.47	0.44
1:A:185:A:N3	20:T:81:LYS:NZ	2.66	0.44
4:D:17:VAL:O	4:D:19:LEU:HD12	2.17	0.44
14:N:42:ILE:HG22	14:N:43:CYS:N	2.31	0.44
25:Y:316:ILE:HG21	25:Y:324:ARG:CZ	2.47	0.44
1:A:112:G:H4'	1:A:389:A:H5''	1.99	0.44
15:O:71:GLN:HB2	15:O:78:TYR:CE1	2.52	0.44
1:A:159:G:C3'	1:A:160:A:H5''	2.48	0.44
1:A:819:A:H4'	1:A:820:U:OP2	2.17	0.44
25:Y:166:LEU:O	25:Y:177:ILE:HG23	2.17	0.44
15:O:54:ARG:HG2	15:O:58:MET:HE2	2.00	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:149:LEU:O	2:B:150:SER:C	2.56	0.44
1:A:907:A:C2	1:A:908:A:C4	3.04	0.44
7:G:134:ALA:O	7:G:137:LYS:N	2.43	0.44
2:B:181:PHE:HD1	8:H:70:GLN:HB3	1.82	0.44
1:A:610:G:H5'	1:A:611:A:OP2	2.18	0.44
5:E:86:ALA:HB3	5:E:125:SER:HB3	1.98	0.44
5:E:10:MET:HB2	5:E:32:VAL:HG13	1.99	0.44
1:A:676:A:H1'	11:K:115:PRO:HB3	1.99	0.44
25:Y:122:TRP:CD1	25:Y:122:TRP:C	2.90	0.44
25:Y:122:TRP:CH2	25:Y:256:THR:OG1	2.70	0.44
25:Y:15:ILE:O	25:Y:15:ILE:HD12	2.18	0.44
25:Y:88:VAL:HB	25:Y:90:PHE:HE1	1.77	0.44
25:Y:487:ILE:HB	25:Y:597:GLY:O	2.16	0.44
1:A:1399:C:C4'	1:A:1400:C:H5'	2.36	0.44
13:M:23:TYR:HE1	13:M:70:LEU:HD22	1.82	0.44
13:M:68:GLY:N	13:M:71:ARG:HB3	2.32	0.44
8:H:104:ARG:HB3	8:H:108:GLY:H	1.82	0.44
1:A:1392:G:N2	1:A:1502:A:C8	2.86	0.44
2:B:121:LEU:HD22	2:B:126:GLU:HB2	1.99	0.44
1:A:948:C:OP1	13:M:107:ALA:HA	2.16	0.44
1:A:1319:A:OP2	19:S:5:LEU:HD23	2.17	0.44
1:A:46:G:H2'	1:A:366:C:H5	1.82	0.44
19:S:72:GLY:C	19:S:74:PHE:H	2.21	0.44
7:G:7:ALA:O	7:G:8:GLU:HB2	2.16	0.44
1:A:600:C:H4'	8:H:128:GLY:O	2.18	0.44
25:Y:117:GLN:HE22	25:Y:120:THR:HG23	1.83	0.44
1:A:815:A:O2'	1:A:1527:C:H1'	2.18	0.44
1:A:1003:G:C2	1:A:1004:A:H1'	2.52	0.44
13:M:68:GLY:H	13:M:71:ARG:CB	2.30	0.44
9:I:79:LEU:HD13	9:I:79:LEU:C	2.38	0.44
10:J:6:ILE:HG13	10:J:72:VAL:O	2.17	0.44
16:P:21:VAL:HG11	16:P:59:TRP:NE1	2.33	0.44
25:Y:74:TRP:CD1	25:Y:273:LEU:HB3	2.52	0.44
12:L:44:THR:HA	12:L:45:PRO:HD3	1.89	0.44
20:T:81:LYS:O	20:T:83:ARG:N	2.50	0.44
25:Y:580:MET:CE	25:Y:581:ALA:N	2.80	0.44
12:L:28:LYS:HB2	12:L:33:ARG:NH2	2.32	0.44
6:F:46:ARG:HH22	18:R:37:VAL:CG2	2.28	0.44
15:O:76:GLU:O	15:O:78:TYR:N	2.50	0.44
25:Y:343:ASN:O	25:Y:347:GLY:CA	2.65	0.44
1:A:965:A:C2	1:A:969:A:N1	2.86	0.44
7:G:146:GLU:OE2	7:G:149:ARG:HD2	2.17	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:745:C:H5''	1:A:851:G:H1'	1.98	0.44
1:A:47:C:H6	1:A:365:U:H2'	1.82	0.44
6:F:22:GLU:O	6:F:24:GLU:N	2.50	0.44
1:A:765:G:H1	1:A:812:C:H2'	1.82	0.44
3:C:127:ARG:HG2	3:C:127:ARG:NH1	2.32	0.44
1:A:622:A:C8	1:A:623:C:C6	3.06	0.44
1:A:1422:G:O2'	1:A:1423:G:H5'	2.17	0.44
18:R:40:LEU:O	18:R:42:ARG:N	2.50	0.44
1:A:50:A:N6	1:A:361:G:H4'	2.32	0.44
1:A:688:G:H5'	11:K:47:VAL:HA	2.00	0.44
25:Y:681:LYS:O	25:Y:681:LYS:HD2	2.17	0.44
25:Y:656:ALA:O	25:Y:660:ARG:HD2	2.17	0.44
25:Y:182:ARG:HG3	25:Y:182:ARG:HH11	1.82	0.44
25:Y:191:ASP:HB3	25:Y:265:LYS:HD2	1.99	0.44
1:A:193:C:H2'	1:A:194:C:C6	2.53	0.44
13:M:15:VAL:HG11	13:M:48:LEU:HD11	1.98	0.44
2:B:29:ALA:HA	2:B:32:ILE:HG22	2.00	0.44
1:A:1490:C:H2'	1:A:1491:G:C5'	2.47	0.44
9:I:9:ARG:HG2	9:I:14:VAL:HA	1.99	0.44
5:E:12:LEU:HD13	5:E:31:LEU:HB3	1.99	0.44
17:Q:52:LYS:N	17:Q:52:LYS:HD2	2.23	0.44
1:A:1015:A:H2'	1:A:1016:A:C8	2.52	0.44
25:Y:309:LEU:O	25:Y:390:VAL:HA	2.17	0.44
18:R:32:ARG:HA	18:R:69:THR:CG2	2.46	0.44
3:C:141:VAL:HG11	3:C:202:ILE:CD1	2.47	0.44
1:A:559:A:P	5:E:126:ARG:HH22	2.40	0.44
18:R:74:ARG:HD3	18:R:81:PHE:CD1	2.52	0.44
1:A:67:C:O2'	1:A:171:A:H1'	2.18	0.44
8:H:38:ILE:O	8:H:39:LEU:C	2.56	0.44
21:U:6:ARG:NH2	21:U:15:ARG:HH21	2.15	0.44
5:E:10:MET:HG3	5:E:32:VAL:HG22	1.99	0.44
13:M:89:GLY:O	13:M:90:LEU:C	2.55	0.44
17:Q:88:TYR:O	17:Q:89:LEU:C	2.54	0.44
27:F:1103:FUA:H72	25:Y:93:GLU:HG3	2.00	0.44
1:A:975:A:N6	1:A:1367:C:O4'	2.50	0.44
25:Y:659:LEU:HD11	25:Y:668:SER:N	2.33	0.44
7:G:16:LEU:HD12	9:I:42:ARG:HA	2.00	0.44
9:I:59:PHE:N	9:I:59:PHE:CD1	2.86	0.44
20:T:53:LEU:HB3	20:T:102:GLY:HA3	1.99	0.44
2:B:221:LEU:O	2:B:221:LEU:HD13	2.17	0.44
5:E:150:ARG:CZ	5:E:150:ARG:HB2	2.47	0.44
5:E:150:ARG:HA	5:E:153:LYS:HE2	1.98	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:116:THR:CG2	13:M:117:VAL:N	2.80	0.44
2:B:15:VAL:HG23	2:B:16:HIS:CE1	2.52	0.44
1:A:540:G:H2'	1:A:541:G:O4'	2.18	0.44
4:D:160:GLN:O	4:D:163:GLU:HB3	2.18	0.44
15:O:39:LEU:CD2	15:O:43:LEU:HG	2.47	0.44
1:A:116:A:O2'	1:A:117:G:H5'	2.18	0.44
1:A:403:C:H5''	4:D:136:PRO:HD2	1.99	0.44
1:A:334:C:H2'	1:A:335:C:C6	2.53	0.44
22:V:64:A:H2'	22:V:65:G:C8	2.52	0.44
25:Y:342:TYR:O	25:Y:389:LEU:HA	2.18	0.44
25:Y:329:ARG:CG	25:Y:331:TYR:CZ	3.00	0.44
25:Y:512:ILE:HB	25:Y:565:VAL:HG12	2.00	0.44
25:Y:674:ASP:HB3	25:Y:675:HIS:H	1.67	0.44
10:J:8:LEU:HA	10:J:95:GLU:O	2.17	0.44
13:M:120:LYS:HD2	13:M:120:LYS:N	2.33	0.44
25:Y:251:ILE:CG2	25:Y:281:PRO:HB3	2.43	0.44
1:A:441:A:H2'	1:A:442:C:H5'	1.99	0.44
1:A:1008:C:H6	1:A:1008:C:O5'	2.00	0.44
1:A:953:G:O6	1:A:1228:C:N4	2.51	0.44
6:F:61:LEU:O	6:F:62:TRP:HB2	2.18	0.44
6:F:60:PHE:CE2	18:R:78:LEU:HD21	2.52	0.44
25:Y:555:LEU:HD11	25:Y:599:PRO:HG2	1.99	0.44
17:Q:76:LEU:HD21	17:Q:79:SER:HB2	1.99	0.44
1:A:1316:G:H4'	14:N:18:VAL:CG1	2.47	0.44
1:A:1370:G:C2	1:A:1371:G:N7	2.86	0.44
25:Y:206:LEU:O	25:Y:209:ALA:HB3	2.18	0.44
12:L:17:LYS:NZ	12:L:18:VAL:HG22	2.32	0.44
1:A:1256:A:C2	1:A:1277:C:C4	3.05	0.44
1:A:423:G:C2'	1:A:424:G:H5'	2.47	0.44
1:A:1030(A):G:H1'	1:A:1031:G:N1	2.31	0.44
25:Y:74:TRP:HB3	25:Y:79:ILE:HD11	2.00	0.44
13:M:51:ALA:O	13:M:55:ARG:HB3	2.17	0.44
4:D:4:TYR:CG	4:D:5:ILE:N	2.84	0.44
15:O:74:ASP:C	15:O:76:GLU:N	2.71	0.44
15:O:76:GLU:C	15:O:78:TYR:N	2.71	0.44
12:L:11:VAL:HG13	17:Q:29:HIS:CD2	2.52	0.44
2:B:140:HIS:O	2:B:143:GLU:HB2	2.18	0.44
1:A:766:A:C2'	1:A:767:A:H5'	2.48	0.44
7:G:93:PRO:HG2	7:G:94:ARG:H	1.82	0.44
6:F:16:GLN:N	6:F:16:GLN:CD	2.72	0.44
25:Y:468:ARG:HH11	25:Y:468:ARG:CB	2.31	0.44
1:A:248:C:O2'	1:A:249:U:H5'	2.18	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:125:U:H2'	1:A:126:G:C8	2.53	0.44
1:A:1362:C:O2'	1:A:1363:C:H5''	2.18	0.44
1:A:1468:A:H2'	1:A:1469:G:O4'	2.18	0.44
7:G:136:LYS:HB3	7:G:136:LYS:HE3	1.80	0.44
3:C:52:LEU:HD12	3:C:55:VAL:CG2	2.48	0.44
1:A:181:G:N2	1:A:195:A:C4	2.86	0.44
20:T:48:LYS:HD2	20:T:51:GLU:OE2	2.17	0.44
2:B:215:LEU:O	2:B:218:ALA:HB3	2.18	0.44
8:H:104:ARG:O	8:H:107:LEU:N	2.51	0.44
1:A:1152:A:H2'	1:A:1153:C:C6	2.52	0.44
10:J:54:PHE:CD1	10:J:55:LYS:HE3	2.52	0.44
13:M:117:VAL:O	13:M:118:ALA:C	2.56	0.44
3:C:128:PHE:O	3:C:130:VAL:N	2.50	0.44
9:I:128:ARG:OXT	9:I:128:ARG:HG2	2.18	0.44
4:D:111:ALA:HA	4:D:116:GLN:OE1	2.17	0.44
2:B:74:LYS:O	2:B:75:LYS:C	2.56	0.44
1:A:476:G:H2'	1:A:477:A:C8	2.52	0.44
25:Y:294:PRO:HG2	25:Y:295:GLU:OE2	2.18	0.44
1:A:346:G:H2'	1:A:347:G:O4'	2.18	0.44
1:A:1313:U:P	19:S:6:LYS:HG3	2.58	0.44
13:M:83:ASP:OD1	13:M:85:GLY:N	2.34	0.44
3:C:146:ALA:O	3:C:148:GLY:N	2.51	0.44
1:A:321:A:C2	1:A:333:G:C2	3.06	0.44
1:A:977:A:C2'	1:A:978:A:H5'	2.46	0.44
20:T:73:HIS:HB3	20:T:74:LYS:HE2	1.98	0.44
23:W:19:G:H4'	23:W:20:U:OP1	2.17	0.44
25:Y:142:THR:HG22	25:Y:143:GLY:N	2.33	0.44
25:Y:462:ILE:CG2	25:Y:466:LEU:HD13	2.48	0.43
25:Y:170:ARG:O	25:Y:171:GLU:CG	2.65	0.43
15:O:17:ARG:NH1	15:O:77:ARG:NH1	2.66	0.43
3:C:35:GLU:OE1	3:C:97:LYS:HE3	2.18	0.43
2:B:21:ARG:O	2:B:21:ARG:HG3	2.18	0.43
2:B:44:LEU:H	2:B:44:LEU:CD1	2.20	0.43
1:A:1489:G:C5	1:A:1490:C:C5	3.06	0.43
23:W:1:C:C2	23:W:2:G:C8	3.06	0.43
12:L:28:LYS:C	12:L:30:ALA:N	2.68	0.43
4:D:111:ALA:HB3	4:D:117:ALA:HB2	2.00	0.43
1:A:956:U:H2'	1:A:957:U:H6	1.83	0.43
6:F:97:PHE:CD2	18:R:65:ILE:CD1	3.00	0.43
1:A:1269:A:N1	1:A:1312:G:O2'	2.41	0.43
1:A:115:G:H1'	1:A:116:A:N7	2.33	0.43
7:G:62:PHE:O	7:G:65:ALA:N	2.51	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:937:A:C2	1:A:1379:G:O6	2.71	0.43
25:Y:134:ALA:HB3	25:Y:258:VAL:HA	2.00	0.43
1:A:308:C:H2'	1:A:309:G:H8	1.83	0.43
4:D:53:ASP:O	4:D:57:ARG:HD2	2.18	0.43
10:J:56:HIS:O	10:J:58:ASP:N	2.51	0.43
8:H:36:LEU:C	8:H:38:ILE:N	2.71	0.43
6:F:72:VAL:CG1	6:F:73:ASN:N	2.81	0.43
1:A:811:C:H4'	1:A:900:A:N6	2.32	0.43
2:B:34:ALA:O	2:B:41:ILE:HB	2.18	0.43
17:Q:86:GLU:O	17:Q:90:ILE:HG12	2.18	0.43
25:Y:573:HIS:CD2	25:Y:576:ASP:HB2	2.53	0.43
25:Y:125:ALA:C	25:Y:127:LYS:H	2.22	0.43
23:W:4:G:C2	23:W:5:G:C4	3.05	0.43
25:Y:644:ARG:O	25:Y:645:ALA:HB2	2.18	0.43
1:A:1004:A:N1	1:A:1034:G:H2'	2.33	0.43
5:E:78:HIS:CE1	5:E:80:ILE:HG23	2.54	0.43
16:P:23:ASP:OD1	16:P:24:ALA:N	2.51	0.43
1:A:186:C:H1'	20:T:81:LYS:HE2	2.00	0.43
9:I:95:LYS:C	9:I:98:PRO:HD2	2.39	0.43
18:R:37:VAL:C	18:R:39:VAL:H	2.21	0.43
1:A:773:G:C2'	1:A:774:G:H5'	2.48	0.43
1:A:747:C:H2'	1:A:748:C:O4'	2.17	0.43
1:A:1319:A:OP1	19:S:10:PHE:CZ	2.71	0.43
15:O:9:GLN:HB3	15:O:13:GLN:NE2	2.33	0.43
15:O:57:LEU:CD2	15:O:57:LEU:N	2.81	0.43
7:G:103:TRP:NE1	7:G:137:LYS:HD3	2.34	0.43
21:U:18:TYR:CD2	21:U:24:ARG:HG3	2.53	0.43
25:Y:105:ILE:HD12	25:Y:105:ILE:N	2.33	0.43
1:A:72:C:H2'	1:A:73:G:H8	1.83	0.43
25:Y:16:GLY:HA3	25:Y:101:LEU:HD21	2.00	0.43
25:Y:462:ILE:HG22	25:Y:462:ILE:O	2.18	0.43
9:I:119:ALA:O	9:I:120:ARG:CG	2.55	0.43
25:Y:496:LYS:HE2	25:Y:498:ILE:CD1	2.49	0.43
25:Y:678:GLU:HG2	25:Y:679:VAL:N	2.32	0.43
1:A:1490:C:H2'	1:A:1491:G:H5'	2.00	0.43
1:A:1129:C:H1'	1:A:1130:A:N7	2.34	0.43
1:A:1126:U:O4	10:J:7:LYS:HE2	2.18	0.43
1:A:1299:A:C2	1:A:1301:U:C2	3.07	0.43
25:Y:358:MET:HE3	25:Y:363:ARG:HG2	1.99	0.43
2:B:210:SER:O	2:B:211:ILE:C	2.55	0.43
1:A:630:G:H2'	1:A:631:G:H5'	2.00	0.43
1:A:470:C:C2'	1:A:471:G:OP1	2.66	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:347:G:C2	1:A:348:G:C8	3.06	0.43
1:A:693:G:N2	23:W:37:A:H2	2.15	0.43
25:Y:192:LEU:HD12	25:Y:194:THR:HG23	2.00	0.43
25:Y:468:ARG:NH1	25:Y:468:ARG:CB	2.82	0.43
1:A:61:G:H2'	1:A:62:U:O4'	2.17	0.43
1:A:1339:A:H2'	1:A:1340:A:H5'	1.98	0.43
7:G:64:GLN:HE21	7:G:68:ASN:HD21	1.67	0.43
25:Y:501:THR:O	25:Y:501:THR:HG22	2.18	0.43
8:H:122:ARG:HB3	8:H:122:ARG:HH11	1.83	0.43
1:A:150:C:H6	1:A:150:C:O5'	2.01	0.43
5:E:140:ARG:HE	5:E:140:ARG:HB2	1.45	0.43
23:W:68:C:O2'	23:W:69:C:H5'	2.18	0.43
5:E:76:ILE:HD11	5:E:142:LEU:HD22	1.99	0.43
8:H:137:VAL:HG12	8:H:138:TRP:N	2.32	0.43
9:I:50:LEU:HD23	9:I:85:LEU:HD23	2.01	0.43
16:P:33:ILE:O	16:P:34:GLU:CB	2.61	0.43
1:A:719:C:O2	18:R:50:ILE:HG12	2.18	0.43
1:A:929:G:O2'	1:A:930:C:H5'	2.18	0.43
12:L:115:LYS:O	12:L:117:ARG:N	2.51	0.43
4:D:179:GLU:O	4:D:181:MET:HG3	2.18	0.43
25:Y:34:TYR:CD2	25:Y:35:TYR:CE1	3.06	0.43
6:F:91:VAL:HG12	6:F:92:LYS:N	2.33	0.43
8:H:35:ILE:HG22	8:H:39:LEU:CD2	2.47	0.43
11:K:44:SER:O	11:K:45:GLY:C	2.55	0.43
20:T:73:HIS:HB3	20:T:74:LYS:CD	2.48	0.43
1:A:1244:C:H2'	1:A:1245:A:C8	2.53	0.43
1:A:445:G:H2'	1:A:446:G:H8	1.84	0.43
22:V:43:C:H2'	22:V:43:C:O2	2.17	0.43
11:K:22:HIS:CD2	11:K:22:HIS:C	2.92	0.43
25:Y:312:LEU:O	25:Y:328:ILE:CA	2.66	0.43
25:Y:554:PRO:HG3	25:Y:594:VAL:CG1	2.48	0.43
13:M:23:TYR:C	13:M:23:TYR:CD1	2.92	0.43
1:A:1226:C:H5	13:M:104:ARG:HB2	1.80	0.43
1:A:930:C:O2'	1:A:931:C:H5'	2.19	0.43
1:A:184:G:H2'	1:A:185:A:H8	1.83	0.43
12:L:39:VAL:O	12:L:56:ALA:HA	2.18	0.43
4:D:125:HIS:C	4:D:126:ILE:HD12	2.38	0.43
1:A:1259:C:C5	1:A:1260:C:O2	2.71	0.43
10:J:18:ALA:C	10:J:20:ALA:N	2.71	0.43
1:A:518:C:H5''	1:A:519:C:C6	2.54	0.43
3:C:20:SER:HA	3:C:57:ILE:O	2.17	0.43
11:K:29:ILE:HB	11:K:44:SER:HB2	1.99	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:25:THR:C	18:R:26:LEU:HD23	2.38	0.43
1:A:17:U:H2'	1:A:18:C:C6	2.54	0.43
1:A:680:C:O2'	1:A:681:C:H5'	2.18	0.43
1:A:1378:C:O2	7:G:76:ARG:NH2	2.51	0.43
12:L:69:TYR:O	12:L:71:PRO:HD3	2.19	0.43
25:Y:97:SER:O	25:Y:101:LEU:N	2.52	0.43
25:Y:124:GLN:CA	25:Y:127:LYS:HD2	2.44	0.43
25:Y:313:ALA:HA	25:Y:327:PHE:O	2.18	0.43
3:C:50:ALA:CB	3:C:70:VAL:HG11	2.39	0.43
7:G:15:ASP:HB3	7:G:20:ASP:H	1.82	0.43
2:B:19:HIS:CD2	2:B:20:GLU:HG2	2.54	0.43
5:E:77:PRO:HG2	5:E:78:HIS:H	1.84	0.43
1:A:129(A):G:H8	1:A:129(A):G:H5''	1.84	0.43
13:M:91:ARG:CD	13:M:97:PRO:O	2.64	0.43
25:Y:13:ARG:O	25:Y:79:ILE:HG23	2.18	0.43
1:A:1190:G:OP1	3:C:5:ILE:N	2.43	0.43
4:D:40:PRO:HB2	4:D:41:GLY:H	1.63	0.43
14:N:29:ARG:NH1	14:N:29:ARG:CG	2.81	0.43
1:A:939:G:H5''	7:G:102:ARG:HH22	1.81	0.43
4:D:126:ILE:O	4:D:132:ARG:HB2	2.18	0.43
25:Y:346:LYS:HZ3	25:Y:384:ILE:HG12	1.83	0.43
25:Y:309:LEU:HD21	25:Y:335:LEU:HD13	2.01	0.43
1:A:826:C:H2'	1:A:827:U:C6	2.50	0.43
2:B:97:TRP:CH2	2:B:176:GLU:CD	2.91	0.43
3:C:67:THR:HG23	3:C:102:ASN:HB2	2.00	0.43
1:A:157:G:H2'	1:A:158:G:H8	1.84	0.43
25:Y:64:THR:O	25:Y:64:THR:HG23	2.18	0.43
25:Y:126:GLU:HB3	25:Y:132:ARG:HH12	1.84	0.43
25:Y:146:LEU:HD22	25:Y:150:ILE:HD11	2.01	0.43
10:J:78:ASN:C	10:J:79:ARG:NH1	2.72	0.43
25:Y:227:ILE:CG2	25:Y:227:ILE:O	2.65	0.43
17:Q:59:ILE:HD13	17:Q:59:ILE:HA	1.85	0.43
20:T:52:ALA:O	20:T:53:LEU:C	2.56	0.43
3:C:78:GLY:CA	3:C:83:ARG:HB3	2.49	0.43
1:A:1226:C:HO2'	1:A:1227:A:P	2.41	0.43
16:P:22:THR:OG1	16:P:23:ASP:N	2.52	0.43
3:C:6:HIS:HD2	3:C:7:PRO:CD	2.31	0.43
1:A:1299:A:C2	1:A:1301:U:N3	2.87	0.43
25:Y:326:THR:OG1	25:Y:377:VAL:HG22	2.18	0.43
16:P:67:THR:O	16:P:70:ALA:HB3	2.18	0.43
12:L:87:GLY:HA2	12:L:98:TYR:HA	2.00	0.43
1:A:1522:U:H2'	1:A:1523:G:C8	2.54	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:54:VAL:HA	13:M:57:ARG:HE	1.82	0.43
16:P:3:LYS:HG2	16:P:65:GLN:HB2	1.99	0.43
1:A:116:A:O5'	1:A:116:A:H8	2.02	0.43
6:F:18:GLN:HE21	6:F:18:GLN:HB2	1.62	0.43
1:A:909:A:H2'	1:A:910:C:O4'	2.19	0.43
25:Y:340:TYR:O	25:Y:392:GLU:HB3	2.19	0.43
25:Y:549:ALA:HB2	25:Y:587:SER:CB	2.48	0.43
14:N:2:ALA:O	14:N:6:LEU:HD12	2.19	0.43
1:A:151:A:C2'	1:A:152:A:H5'	2.49	0.43
10:J:92:THR:HG23	10:J:93:GLY:H	1.83	0.43
1:A:370:C:O2'	1:A:371:G:H5'	2.19	0.43
25:Y:680:PRO:O	25:Y:682:GLN:N	2.47	0.43
8:H:49:GLU:HG3	8:H:49:GLU:O	2.19	0.43
24:X:11:A:O4'	24:X:12:A:H8	2.01	0.43
25:Y:147:TRP:HE3	25:Y:150:ILE:HD12	1.84	0.43
25:Y:624:LEU:HA	25:Y:627:ARG:HB2	2.01	0.43
25:Y:603:GLU:C	25:Y:676:TYR:HD1	2.21	0.43
1:A:254:G:O2'	1:A:255:G:H5'	2.19	0.43
25:Y:13:ARG:HH21	25:Y:282:SER:HB2	1.83	0.43
1:A:489:C:H2'	1:A:490:G:H8	1.83	0.43
1:A:301:G:H2'	1:A:302:G:C8	2.47	0.43
9:I:99:LEU:HB2	9:I:101:PHE:HD2	1.84	0.43
1:A:965:A:C2	1:A:969:A:C2	3.07	0.43
1:A:179:A:H2'	1:A:180:U:H6	1.81	0.43
5:E:34:VAL:O	5:E:34:VAL:HG13	2.18	0.43
4:D:37:PRO:O	4:D:38:TYR:HB3	2.19	0.43
6:F:16:GLN:CD	6:F:16:GLN:H	2.22	0.43
8:H:56:LYS:HA	8:H:57:PRO:HD2	1.75	0.43
25:Y:443:HIS:HB2	25:Y:448:GLN:O	2.19	0.43
7:G:41:ARG:HG2	7:G:41:ARG:HH11	1.83	0.43
16:P:55:ARG:O	16:P:58:TYR:N	2.52	0.43
1:A:921:U:O2'	5:E:18:ARG:HB2	2.19	0.43
25:Y:112:GLN:HG3	25:Y:115:GLU:CB	2.45	0.43
3:C:32:LEU:HD22	3:C:59:ARG:NH1	2.34	0.43
9:I:64:THR:O	9:I:64:THR:HG22	2.18	0.43
1:A:1030:C:N4	1:A:1032:G:C2	2.87	0.43
1:A:1227:A:O2'	13:M:117:VAL:HG21	2.17	0.43
20:T:90:GLN:CA	20:T:93:GLU:OE2	2.65	0.43
25:Y:133:ILE:CD1	25:Y:272:LEU:HD11	2.49	0.43
1:A:939:G:C5'	7:G:102:ARG:HH22	2.32	0.43
1:A:325:A:N6	1:A:326:G:N1	2.66	0.43
25:Y:34:TYR:CD2	25:Y:35:TYR:HE1	2.37	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:42:C:O2	22:V:42:C:C2'	2.67	0.43
1:A:1495:U:H2'	1:A:1496:C:C6	2.51	0.43
20:T:36:LEU:HD12	20:T:59:ALA:CB	2.48	0.43
7:G:111:ARG:HD2	7:G:123:GLU:HB2	2.01	0.43
22:V:30:G:C2'	22:V:31:A:H5'	2.48	0.43
23:W:44:A:C6	23:W:45:G:C2	3.06	0.43
1:A:1422:G:H2'	1:A:1423:G:H8	1.83	0.43
16:P:60:LEU:HD23	16:P:60:LEU:HA	1.92	0.43
1:A:591:U:O2'	1:A:592:G:H5'	2.19	0.43
25:Y:330:VAL:O	25:Y:372:GLY:N	2.51	0.43
3:C:47:LEU:CD1	3:C:76:VAL:HG12	2.47	0.43
25:Y:238:THR:C	25:Y:240:GLU:H	2.22	0.43
25:Y:632:LEU:HG	25:Y:645:ALA:CA	2.34	0.43
25:Y:629:GLY:HA3	25:Y:647:VAL:CG1	2.49	0.43
20:T:26:ASN:ND2	20:T:26:ASN:N	2.66	0.43
9:I:80:GLY:O	9:I:84:ALA:N	2.52	0.43
2:B:11:LEU:O	2:B:12:GLU:O	2.36	0.43
12:L:90:VAL:C	12:L:92:ASP:N	2.71	0.43
1:A:1191:A:P	3:C:3:ASN:ND2	2.91	0.43
4:D:25:ARG:NH1	4:D:30:LYS:HD2	2.34	0.43
20:T:45:GLN:CB	20:T:91:LEU:HD22	2.48	0.43
11:K:20:TYR:CD1	11:K:83:ILE:HB	2.54	0.43
1:A:246:A:O2'	17:Q:99:SER:HA	2.19	0.43
4:D:179:GLU:C	4:D:181:MET:H	2.22	0.43
5:E:7:GLU:HG2	5:E:112:LEU:CD2	2.49	0.43
7:G:22:LEU:HD22	7:G:62:PHE:CE2	2.54	0.43
7:G:92:SER:O	7:G:93:PRO:C	2.55	0.43
1:A:1058:G:C6	1:A:1059:C:C4	3.06	0.43
1:A:96:U:O2'	1:A:97:G:H8	2.02	0.43
7:G:66:VAL:HG21	7:G:101:LEU:HD23	2.01	0.43
1:A:946:A:H5'	1:A:947:G:OP2	2.19	0.43
10:J:99:LYS:HD3	10:J:99:LYS:HA	1.80	0.43
24:X:18:C:H1'	25:Y:503:GLY:HA3	2.01	0.42
27:F:1103:FUA:C11	25:Y:90:PHE:CE2	3.02	0.42
27:F:1103:FUA:H152	25:Y:84:THR:CG2	2.48	0.42
25:Y:319:ASP:OD2	25:Y:322:VAL:HG22	2.19	0.42
1:A:1368:G:C2'	1:A:1369:C:H5'	2.49	0.42
5:E:102:ALA:O	5:E:107:ARG:NH1	2.52	0.42
4:D:12:CYS:SG	4:D:19:LEU:O	2.76	0.42
11:K:20:TYR:O	11:K:30:VAL:HA	2.18	0.42
2:B:73:THR:O	2:B:75:LYS:N	2.51	0.42
1:A:1296:C:C5'	1:A:1297:C:OP2	2.62	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:8:ASN:HB2	17:Q:34:LYS:NZ	2.34	0.42
11:K:33:THR:HB	11:K:38:ASN:O	2.19	0.42
7:G:91:VAL:HG12	7:G:92:SER:H	1.84	0.42
14:N:47:LEU:O	14:N:48:ALA:C	2.55	0.42
1:A:1142:G:H2'	1:A:1143:G:O4'	2.19	0.42
2:B:152:PHE:O	2:B:153:ARG:HB2	2.19	0.42
1:A:1134:G:O2'	1:A:1135:U:H5'	2.19	0.42
1:A:429:U:C1'	1:A:430:A:H5''	2.49	0.42
16:P:43:LYS:HA	16:P:48:TRP:HB3	1.99	0.42
19:S:79:THR:O	19:S:80:TYR:HB3	2.18	0.42
2:B:170:GLU:O	2:B:171:ALA:C	2.57	0.42
27:F:1103:FUA:C12	27:F:1103:FUA:C23	2.84	0.42
1:A:1367:C:N3	1:A:1368:G:C8	2.87	0.42
25:Y:179:ASP:OD2	25:Y:182:ARG:HD2	2.19	0.42
25:Y:526:VAL:HG11	25:Y:566:THR:HG23	2.01	0.42
25:Y:590:ILE:HA	25:Y:593:ALA:CB	2.49	0.42
25:Y:679:VAL:HG23	25:Y:684:GLN:HB2	2.00	0.42
9:I:63:ILE:CG2	9:I:64:THR:N	2.83	0.42
13:M:120:LYS:C	13:M:121:LYS:HZ2	2.21	0.42
1:A:999:C:H6	1:A:999:C:H3'	1.85	0.42
5:E:81:GLU:HA	5:E:89:ILE:O	2.19	0.42
4:D:129:ASN:HD21	4:D:144:ASP:HB3	1.84	0.42
1:A:1329:A:OP1	13:M:29:ARG:HG3	2.19	0.42
25:Y:65:ILE:O	25:Y:67:ALA:N	2.44	0.42
4:D:203:VAL:O	4:D:206:PHE:HB3	2.19	0.42
1:A:663:A:C2'	1:A:664:G:H5'	2.49	0.42
2:B:102:LEU:HD23	2:B:182:ILE:HD12	2.01	0.42
5:E:71:LEU:HD11	5:E:114:GLY:CA	2.48	0.42
6:F:80:ARG:HG2	6:F:88:VAL:CG2	2.49	0.42
25:Y:614:GLU:CG	25:Y:641:GLN:NE2	2.81	0.42
4:D:105:VAL:HG13	4:D:110:PHE:HB2	2.01	0.42
13:M:88:ARG:HH11	13:M:88:ARG:HG2	1.85	0.42
25:Y:119:GLU:C	25:Y:121:VAL:N	2.73	0.42
25:Y:411:VAL:HG23	25:Y:459:LEU:CD2	2.48	0.42
1:A:1348:U:O3'	9:I:120:ARG:HG3	2.18	0.42
25:Y:646:PHE:HE1	25:Y:674:ASP:OD2	2.02	0.42
20:T:50:GLU:HB2	20:T:100:ILE:CG2	2.49	0.42
1:A:1150:U:H1'	1:A:1280:A:N6	2.34	0.42
18:R:58:LEU:CD1	18:R:58:LEU:H	2.31	0.42
3:C:179:ARG:HG3	3:C:179:ARG:H	1.53	0.42
20:T:11:SER:HA	20:T:13:LEU:HD11	2.00	0.42
9:I:97:LYS:O	9:I:98:PRO:C	2.58	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:25:C:O2'	23:W:26:G:H5'	2.20	0.42
3:C:157:ILE:O	3:C:159:GLY:N	2.52	0.42
12:L:20:LYS:CD	12:L:20:LYS:N	2.82	0.42
11:K:120:ARG:HA	11:K:121:PRO:HD3	1.87	0.42
18:R:35:ARG:O	18:R:37:VAL:N	2.48	0.42
1:A:552:U:H2'	1:A:553:A:C8	2.53	0.42
25:Y:346:LYS:CE	25:Y:384:ILE:HG12	2.49	0.42
1:A:501:C:OP1	12:L:117:ARG:NH2	2.48	0.42
16:P:4:ILE:CG1	16:P:64:ALA:HB1	2.48	0.42
13:M:54:VAL:O	13:M:56:LEU:N	2.53	0.42
1:A:584:G:H2'	1:A:585:G:C8	2.54	0.42
1:A:1313:U:H2'	1:A:1314:C:C6	2.54	0.42
1:A:766:A:H2'	1:A:767:A:H5'	2.02	0.42
1:A:401:C:H1'	1:A:622:A:H1'	2.01	0.42
1:A:1065:U:C2'	1:A:1066:C:OP2	2.67	0.42
1:A:1134:G:H2'	1:A:1135:U:H5'	2.01	0.42
1:A:689:C:P	11:K:46:GLY:HA3	2.59	0.42
3:C:28:GLN:O	3:C:29:TYR:C	2.58	0.42
25:Y:366:VAL:HG23	25:Y:367:GLU:N	2.34	0.42
3:C:48:TYR:HE1	3:C:118:GLN:HE21	1.68	0.42
1:A:396:G:OP1	25:Y:349:LYS:NZ	2.52	0.42
25:Y:122:TRP:HH2	25:Y:256:THR:OG1	2.03	0.42
27:F:1103:FUA:H21	25:Y:461:ILE:HD11	2.00	0.42
25:Y:265:LYS:O	25:Y:266:ASN:C	2.57	0.42
25:Y:610:VAL:HG11	25:Y:655:TYR:OH	2.20	0.42
1:A:186:C:H2'	1:A:187:C:C6	2.55	0.42
20:T:82:SER:O	20:T:86:ARG:CB	2.64	0.42
4:D:15:GLU:HG3	4:D:63:LYS:HE2	2.01	0.42
15:O:33:THR:CG2	15:O:85:LEU:HD21	2.42	0.42
1:A:779:C:H1'	11:K:120:ARG:HD2	2.00	0.42
1:A:741:G:C2'	1:A:742:G:H5'	2.49	0.42
25:Y:406:GLU:HB3	25:Y:407:PRO:CD	2.48	0.42
12:L:104:VAL:HG12	12:L:105:TYR:CD1	2.54	0.42
7:G:92:SER:O	7:G:96:GLN:HG3	2.19	0.42
1:A:1133:G:C1'	1:A:1142:G:H22	2.32	0.42
1:A:106:C:O2	1:A:379:C:H4'	2.20	0.42
1:A:601:C:H2'	1:A:602:A:H8	1.85	0.42
17:Q:43:LEU:HD12	17:Q:68:ARG:HB3	2.00	0.42
6:F:52:ILE:O	6:F:53:ALA:HB3	2.19	0.42
25:Y:423:LYS:NZ	25:Y:470:PHE:O	2.47	0.42
23:W:34:C:O4'	23:W:34:C:O2	2.37	0.42
10:J:49:VAL:HG22	10:J:50:ILE:N	2.35	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:J:4:ILE:CD1	10:J:4:ILE:N	2.79	0.42
1:A:1054:C:OP1	1:A:1198:G:OP2	2.37	0.42
13:M:74:VAL:O	13:M:78:ILE:HG13	2.20	0.42
19:S:15:LEU:HD21	19:S:33:THR:OG1	2.20	0.42
1:A:1108:G:H5'	3:C:176:HIS:CD2	2.55	0.42
1:A:376:G:N3	1:A:389:A:C2	2.88	0.42
1:A:300:A:H2'	1:A:301:G:O4'	2.19	0.42
1:A:1271:G:H2'	1:A:1272:G:C8	2.55	0.42
19:S:4:SER:O	19:S:5:LEU:C	2.58	0.42
2:B:147:LYS:HE2	2:B:148:TYR:CE1	2.54	0.42
6:F:37:VAL:HG12	6:F:38:GLU:O	2.19	0.42
19:S:72:GLY:C	19:S:74:PHE:N	2.72	0.42
11:K:87:THR:O	11:K:88:GLY:C	2.58	0.42
1:A:1216:G:H2'	1:A:1217:C:C6	2.55	0.42
11:K:60:ALA:O	11:K:61:ALA:C	2.56	0.42
1:A:923:A:O2'	1:A:924:C:H5'	2.19	0.42
16:P:12:LYS:O	16:P:13:HIS:HB2	2.20	0.42
25:Y:438:PHE:HD2	25:Y:462:ILE:CD1	2.32	0.42
25:Y:157:LEU:CD2	25:Y:157:LEU:N	2.74	0.42
25:Y:141:LYS:CE	28:Y:1690:GDP:HN22	2.31	0.42
25:Y:188:TYR:CE1	25:Y:196:ILE:HG22	2.54	0.42
25:Y:491:VAL:CG2	25:Y:597:GLY:HA2	2.49	0.42
1:A:1401:G:C2'	1:A:1402:C:H5'	2.50	0.42
10:J:79:ARG:HG2	10:J:79:ARG:NH1	2.34	0.42
25:Y:217:VAL:HA	25:Y:220:ALA:HB3	2.01	0.42
7:G:23:VAL:CG1	7:G:43:PHE:CE2	3.01	0.42
2:B:17:PHE:CD1	2:B:17:PHE:C	2.92	0.42
2:B:187:LEU:CD1	2:B:205:ASP:HA	2.50	0.42
4:D:173:TRP:CZ3	4:D:193:ASP:HB3	2.54	0.42
2:B:119:GLU:O	2:B:121:LEU:N	2.51	0.42
10:J:63:PHE:HB3	14:N:58:LYS:CA	2.41	0.42
1:A:187:C:OP1	20:T:82:SER:HB2	2.19	0.42
4:D:26:CYS:HA	4:D:31:CYS:HA	2.01	0.42
9:I:93:ARG:O	9:I:95:LYS:N	2.52	0.42
12:L:20:LYS:CD	12:L:20:LYS:H	2.23	0.42
1:A:375:U:H2'	1:A:376:G:C8	2.54	0.42
1:A:1346:A:N6	1:A:1375:A:OP2	2.45	0.42
1:A:537:G:H2'	1:A:538:G:H8	1.84	0.42
1:A:821:G:H2'	1:A:822:C:C6	2.54	0.42
7:G:113:GLU:HB2	7:G:119:ARG:HG2	2.01	0.42
4:D:168:ARG:HH11	4:D:168:ARG:HA	1.83	0.42
1:A:505:G:H5'	1:A:534:U:H2'	2.02	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:260:G:H2'	1:A:261:U:C6	2.55	0.42
1:A:152:A:N6	1:A:170:U:C2	2.87	0.42
4:D:171:GLY:HA2	4:D:172:PRO:HD3	1.85	0.42
1:A:1248:A:C5	1:A:1249:C:C5	3.08	0.42
2:B:231:GLU:HB2	2:B:232:PRO:CD	2.50	0.42
4:D:137:SER:O	4:D:138:TYR:C	2.57	0.42
25:Y:350:GLU:OE1	25:Y:350:GLU:HA	2.19	0.42
15:O:26:GLU:HA	15:O:81:LEU:CD2	2.47	0.42
25:Y:230:LYS:HD2	25:Y:235:GLU:OE1	2.19	0.42
3:C:155:GLY:O	3:C:196:LEU:HD13	2.19	0.42
25:Y:601:ILE:HD13	25:Y:687:LEU:HD12	2.02	0.42
13:M:66:LEU:HA	13:M:70:LEU:CD1	2.49	0.42
2:B:17:PHE:N	2:B:17:PHE:CD1	2.86	0.42
9:I:50:LEU:HG	9:I:81:ILE:HG21	2.02	0.42
4:D:104:VAL:O	4:D:108:LEU:HB2	2.19	0.42
3:C:178:LEU:C	3:C:180:ALA:H	2.23	0.42
1:A:1103:C:C4	1:A:1104:G:N7	2.88	0.42
15:O:85:LEU:O	15:O:85:LEU:HD23	2.20	0.42
22:V:70:G:O2'	22:V:71:G:H5'	2.20	0.42
1:A:474:G:H2'	1:A:475:G:H8	1.85	0.42
25:Y:295:GLU:HB2	25:Y:296:GLY:H	1.72	0.42
1:A:383:A:H2'	1:A:384:G:H5'	2.01	0.42
20:T:74:LYS:HB2	20:T:75:ASN:H	1.44	0.42
1:A:897:C:O2'	1:A:898:G:H5'	2.20	0.42
25:Y:253:LEU:N	25:Y:253:LEU:HD12	2.34	0.42
23:W:38:A:C3'	23:W:39:C:P	3.04	0.42
3:C:52:LEU:HD12	3:C:55:VAL:HG22	2.02	0.42
1:A:1277:C:H2'	1:A:1278:U:C5'	2.36	0.42
1:A:1490:C:C5'	1:A:1490:C:C6	2.97	0.42
3:C:80:GLY:HA3	3:C:82:GLU:OE2	2.19	0.42
1:A:973:G:C1'	10:J:55:LYS:CE	2.84	0.42
3:C:134:ILE:O	3:C:135:LYS:C	2.58	0.42
9:I:95:LYS:HD3	9:I:95:LYS:C	2.40	0.42
19:S:15:LEU:HD22	19:S:15:LEU:HA	1.86	0.42
12:L:23:LYS:HE3	12:L:89:ARG:HE	1.85	0.42
13:M:106:ASN:O	13:M:107:ALA:CB	2.64	0.42
1:A:1379:G:C6	1:A:1380:U:C4	3.08	0.42
23:W:33:U:O2	23:W:33:U:H2'	2.19	0.42
11:K:126:ARG:O	11:K:127:LYS:C	2.58	0.42
1:A:400:C:H2'	1:A:401:C:C6	2.55	0.42
1:A:636:U:H5''	17:Q:2:PRO:HG3	2.00	0.42
17:Q:76:LEU:HD12	17:Q:77:VAL:N	2.35	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:78:G:H22	1:A:91:C:N4	2.18	0.42
1:A:784:C:H2'	1:A:785:G:H8	1.84	0.42
1:A:557:G:H2'	1:A:558:G:O4'	2.19	0.42
13:M:72:ALA:O	13:M:75:ALA:N	2.52	0.42
22:V:35:A:H2'	22:V:36:A:H8	1.85	0.42
27:F:1103:FUA:C7	25:Y:93:GLU:HG3	2.50	0.42
25:Y:138:LYS:HE2	28:Y:1690:GDP:C1'	2.50	0.42
25:Y:147:TRP:CE3	25:Y:150:ILE:HD12	2.54	0.42
1:A:192:U:C4'	20:T:103:GLY:HA2	2.49	0.42
2:B:59:GLU:HB2	2:B:221:LEU:HD11	2.02	0.42
5:E:76:ILE:CG1	5:E:77:PRO:HD2	2.50	0.42
18:R:44:LEU:HA	18:R:49:LYS:O	2.20	0.42
1:A:1321:C:C5'	1:A:1322:C:C5'	2.96	0.42
12:L:70:ILE:HG21	12:L:77:LEU:CD1	2.50	0.42
18:R:37:VAL:O	18:R:39:VAL:N	2.53	0.42
12:L:98:TYR:N	12:L:98:TYR:CD1	2.88	0.42
25:Y:541:ALA:CB	25:Y:579:GLU:HG2	2.50	0.42
25:Y:346:LYS:HE2	25:Y:384:ILE:CG2	2.47	0.42
8:H:109:ILE:HG12	8:H:110:ALA:H	1.83	0.42
1:A:345:C:C5'	1:A:346:G:OP2	2.67	0.42
8:H:63:LEU:H	8:H:63:LEU:CD2	2.32	0.42
1:A:110:C:H2'	1:A:111:G:O4'	2.20	0.42
2:B:194:PRO:O	2:B:197:VAL:N	2.52	0.42
1:A:1042:G:O2'	1:A:1043:C:H5'	2.20	0.42
1:A:877:C:OP1	8:H:88:LYS:NZ	2.47	0.42
1:A:161:A:O2'	1:A:162:A:H5'	2.20	0.42
2:B:23:ARG:HD2	2:B:23:ARG:HA	1.77	0.42
25:Y:68:ALA:H	25:Y:327:PHE:HE2	1.68	0.42
25:Y:486:THR:CG2	25:Y:600:VAL:HG13	2.47	0.42
25:Y:491:VAL:HG12	25:Y:492:ASP:N	2.35	0.42
1:A:1519:A:H3'	1:A:1520:G:C5'	2.50	0.42
8:H:83:ILE:HD12	8:H:137:VAL:CG2	2.38	0.42
1:A:703:G:C2'	1:A:704:A:OP2	2.67	0.42
25:Y:71:THR:HB	25:Y:78:ARG:NH1	2.35	0.42
2:B:43:ASP:OD2	2:B:46:LYS:HE3	2.19	0.42
2:B:142:LEU:HD23	2:B:142:LEU:C	2.40	0.42
1:A:1442(B):A:H4'	1:A:1443:G:OP1	2.20	0.42
1:A:1008:C:H2'	1:A:1009:G:C8	2.51	0.42
1:A:958:A:C6	1:A:959:A:N1	2.88	0.42
12:L:8:ASN:HB2	17:Q:34:LYS:HZ3	1.85	0.42
1:A:1109:C:H2'	1:A:1110:A:O4'	2.19	0.42
1:A:1010:G:C2	1:A:1011:G:C8	3.08	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:J:22:LYS:HZ1	10:J:23:ILE:HA	1.85	0.42
10:J:22:LYS:NZ	10:J:23:ILE:HA	2.35	0.42
1:A:64:G:N2	1:A:67:C:N4	2.68	0.42
1:A:1042:G:C2'	1:A:1043:C:H5'	2.50	0.42
1:A:671:G:H2'	1:A:672:U:O4'	2.19	0.42
25:Y:120:THR:O	25:Y:124:GLN:HG3	2.20	0.41
25:Y:19:ALA:C	25:Y:121:VAL:HG11	2.41	0.41
25:Y:201:ILE:HD12	25:Y:201:ILE:H	1.85	0.41
25:Y:510:VAL:CA	25:Y:570:GLY:HA3	2.21	0.41
20:T:48:LYS:O	20:T:49:ALA:C	2.58	0.41
1:A:1107:C:C4	1:A:1108:G:C8	3.08	0.41
25:Y:580:MET:C	25:Y:580:MET:CE	2.89	0.41
5:E:64:ARG:CG	5:E:64:ARG:NH1	2.81	0.41
2:B:83:MET:SD	2:B:234:PRO:HG3	2.60	0.41
4:D:165:MET:O	4:D:167:GLY:N	2.53	0.41
9:I:49:PRO:HD3	9:I:101:PHE:CE1	2.55	0.41
25:Y:616:TYR:HE2	25:Y:664:GLN:NE2	2.14	0.41
16:P:2:VAL:HG22	16:P:64:ALA:HA	2.01	0.41
1:A:584:G:H2'	1:A:585:G:H8	1.85	0.41
11:K:79:SER:CB	11:K:106:LYS:HD2	2.50	0.41
1:A:1073:U:O2'	1:A:1074:G:H5'	2.20	0.41
1:A:1305:G:H5''	21:U:4:GLY:C	2.40	0.41
8:H:32:LYS:C	8:H:34:GLU:N	2.73	0.41
6:F:35:ALA:O	6:F:36:ARG:C	2.57	0.41
2:B:69:LEU:HD13	2:B:91:PRO:HB2	2.01	0.41
17:Q:31:LEU:HG	17:Q:32:TYR:CE1	2.55	0.41
1:A:1133:G:N2	1:A:1143:G:H1'	2.35	0.41
1:A:342:C:C5	1:A:343:U:C5	3.07	0.41
1:A:429:U:H4'	1:A:430:A:O5'	2.20	0.41
25:Y:448:GLN:HG3	25:Y:448:GLN:O	2.20	0.41
25:Y:500:GLN:HE21	25:Y:500:GLN:HB2	1.58	0.41
9:I:25:LYS:HB2	9:I:25:LYS:HE3	1.87	0.41
25:Y:489:LYS:CD	25:Y:598:ASP:OD1	2.66	0.41
1:A:1287:A:H2'	1:A:1288:A:C8	2.55	0.41
3:C:73:PRO:HA	3:C:76:VAL:HG22	2.01	0.41
1:A:1234:C:C2'	1:A:1235:U:H5'	2.50	0.41
1:A:323:U:H5'	20:T:23:ARG:HB2	2.02	0.41
2:B:21:ARG:HB3	2:B:39:ILE:HA	2.02	0.41
13:M:121:LYS:NZ	13:M:121:LYS:HB2	2.36	0.41
16:P:20:VAL:HG21	16:P:32:TYR:CD1	2.55	0.41
18:R:43:PHE:C	18:R:44:LEU:HD12	2.41	0.41
18:R:51:LEU:HA	18:R:52:PRO:HD3	1.79	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:13:ARG:NH1	4:D:40:PRO:HA	2.36	0.41
9:I:97:LYS:N	9:I:98:PRO:CD	2.83	0.41
1:A:779:C:H5'	11:K:122:LYS:HG2	2.02	0.41
1:A:108:G:OP2	1:A:109:A:C2	2.73	0.41
2:B:75:LYS:C	2:B:75:LYS:HD3	2.39	0.41
4:D:61:LYS:NZ	4:D:72:GLU:OE1	2.49	0.41
4:D:159:ARG:O	4:D:162:LEU:N	2.54	0.41
3:C:92:ALA:HB2	3:C:99:VAL:CG2	2.49	0.41
8:H:8:ASP:O	8:H:12:ARG:HG3	2.19	0.41
10:J:29:ARG:C	10:J:31:GLY:H	2.23	0.41
10:J:28:ARG:NH1	10:J:28:ARG:HG2	2.35	0.41
12:L:15:ARG:HA	12:L:15:ARG:HD3	1.84	0.41
15:O:31:LEU:N	15:O:31:LEU:CD2	2.82	0.41
25:Y:327:PHE:CD1	25:Y:376:ALA:CB	3.03	0.41
25:Y:138:LYS:HE2	28:Y:1690:GDP:C8	2.55	0.41
25:Y:204:GLU:O	25:Y:205:TYR:C	2.58	0.41
25:Y:206:LEU:CD1	25:Y:210:ARG:HH12	2.34	0.41
15:O:25:THR:O	15:O:26:GLU:C	2.58	0.41
10:J:50:ILE:N	10:J:50:ILE:CD1	2.70	0.41
20:T:100:ILE:HG13	20:T:101:GLY:H	1.85	0.41
5:E:147:ASP:HA	5:E:150:ARG:HH12	1.85	0.41
9:I:60:ASP:O	9:I:61:ALA:O	2.38	0.41
19:S:29:ARG:HD2	19:S:30:LEU:N	2.35	0.41
6:F:43:LEU:HD11	18:R:35:ARG:NH1	2.34	0.41
1:A:707:C:O2'	1:A:708:C:H5'	2.20	0.41
11:K:21:ILE:HD12	11:K:21:ILE:N	2.35	0.41
11:K:95:ILE:O	11:K:98:LEU:N	2.53	0.41
1:A:243:A:C2	1:A:245:C:C2	3.08	0.41
25:Y:339:SER:HB2	25:Y:352:VAL:HG13	2.01	0.41
1:A:47:C:H5	1:A:365:U:H3'	1.84	0.41
14:N:21:TYR:HE2	14:N:23:ARG:NH2	2.18	0.41
25:Y:661:SER:O	25:Y:663:THR:N	2.52	0.41
1:A:155:C:H2'	1:A:156:G:C8	2.56	0.41
11:K:23:ALA:O	11:K:86:GLY:HA3	2.21	0.41
4:D:202:LEU:HA	4:D:202:LEU:HD23	1.81	0.41
25:Y:92:ILE:CG2	25:Y:93:GLU:H	2.34	0.41
1:A:1368:G:H5'	9:I:112:LYS:O	2.21	0.41
9:I:69:GLY:O	9:I:73:GLN:HG3	2.20	0.41
25:Y:510:VAL:HG12	25:Y:511:LYS:H	1.85	0.41
1:A:815:A:N6	1:A:1509:C:H1'	2.34	0.41
25:Y:227:ILE:HD13	25:Y:242:LEU:HD23	2.03	0.41
25:Y:669:PHE:HE2	25:Y:671:MET:HB2	1.85	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:7:VAL:C	2:B:11:LEU:HG	2.41	0.41
19:S:41:VAL:O	19:S:41:VAL:CG2	2.68	0.41
19:S:25:LYS:O	19:S:26:GLY:C	2.59	0.41
1:A:390:C:H2'	1:A:391:G:H8	1.82	0.41
10:J:42:THR:HG23	10:J:67:THR:C	2.40	0.41
1:A:949:A:C2	1:A:1233:G:C4	3.08	0.41
19:S:6:LYS:N	19:S:6:LYS:CD	2.81	0.41
5:E:9:LYS:NZ	5:E:111:GLU:OE1	2.52	0.41
1:A:66:G:H4'	1:A:173:U:H5	1.81	0.41
1:A:892:A:H2'	1:A:893:C:C6	2.55	0.41
14:N:21:TYR:CE2	14:N:23:ARG:NH2	2.89	0.41
1:A:1497:G:O2'	1:A:1498:U:H5'	2.20	0.41
25:Y:456:GLU:O	25:Y:459:LEU:HD12	2.21	0.41
25:Y:210:ARG:CG	25:Y:210:ARG:NH1	2.80	0.41
10:J:78:ASN:HB2	10:J:81:THR:CG2	2.49	0.41
25:Y:647:VAL:HG21	25:Y:652:MET:SD	2.61	0.41
1:A:1054:C:H3'	1:A:1054:C:O2	2.21	0.41
1:A:703:G:O2'	1:A:704:A:OP2	2.39	0.41
1:A:930:C:C4	1:A:931:C:C5	3.09	0.41
12:L:47:LYS:HD2	12:L:48:PRO:N	2.35	0.41
11:K:21:ILE:HB	11:K:84:VAL:HG12	2.03	0.41
25:Y:358:MET:CE	25:Y:363:ARG:HG2	2.50	0.41
1:A:1442:G:H8	1:A:1442:G:H3'	1.86	0.41
25:Y:335:LEU:HD11	25:Y:352:VAL:HG11	2.02	0.41
1:A:1157:A:H1'	1:A:1181:G:H21	1.84	0.41
1:A:1258:G:C6	1:A:1259:C:N4	2.88	0.41
3:C:138:VAL:O	3:C:139:GLN:C	2.58	0.41
25:Y:416:LYS:HG2	25:Y:417:THR:N	2.34	0.41
25:Y:134:ALA:CB	25:Y:258:VAL:HG22	2.50	0.41
1:A:1308:U:OP1	13:M:98:VAL:N	2.48	0.41
16:P:71:ARG:HA	16:P:74:LEU:HB2	2.01	0.41
1:A:1338:G:C6	1:A:1339:A:C6	3.08	0.41
1:A:360:A:O2'	1:A:361:G:H5'	2.21	0.41
1:A:1180:A:OP1	9:I:103:THR:HG23	2.20	0.41
1:A:1473:A:O2'	1:A:1474:G:H5'	2.20	0.41
5:E:53:LEU:N	5:E:53:LEU:HD23	2.34	0.41
24:X:12:A:N3	24:X:12:A:C2'	2.83	0.41
25:Y:18:ALA:HA	25:Y:85:PRO:CB	2.51	0.41
25:Y:139:MET:HE2	25:Y:167:PRO:HB3	2.03	0.41
25:Y:191:ASP:C	25:Y:193:GLY:N	2.72	0.41
25:Y:200:PRO:O	25:Y:201:ILE:C	2.59	0.41
25:Y:539:ILE:C	25:Y:542:VAL:HG12	2.41	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:94:LEU:HD12	3:C:94:LEU:O	2.19	0.41
25:Y:603:GLU:HG2	25:Y:677:GLN:O	2.20	0.41
1:A:1001(A):G:H2'	1:A:1002:G:O4'	2.20	0.41
17:Q:44:ALA:HA	17:Q:71:PHE:O	2.21	0.41
13:M:91:ARG:HH21	19:S:81:ARG:NH2	2.19	0.41
2:B:11:LEU:HB3	2:B:213:LEU:HD11	2.02	0.41
4:D:30:LYS:O	4:D:32:ALA:N	2.52	0.41
4:D:129:ASN:ND2	4:D:145:GLU:N	2.64	0.41
16:P:67:THR:H	16:P:70:ALA:CB	2.33	0.41
2:B:118:LEU:CB	2:B:142:LEU:HD12	2.47	0.41
1:A:500:G:N2	1:A:546:G:H1'	2.36	0.41
1:A:1010:G:H2'	1:A:1011:G:H8	1.86	0.41
4:D:3:ARG:HG2	4:D:118:ARG:NE	2.36	0.41
1:A:1495:U:C2	1:A:1496:C:C5	3.08	0.41
25:Y:617:MET:HE3	25:Y:641:GLN:HB3	2.03	0.41
7:G:108:ALA:O	7:G:110:GLN:N	2.54	0.41
1:A:397:A:H5'	1:A:398:C:OP1	2.21	0.41
1:A:236:G:C6	1:A:237:C:C4	3.08	0.41
25:Y:159:ALA:O	25:Y:161:PRO:HD3	2.21	0.41
13:M:11:ARG:HG2	13:M:12:ASN:H	1.86	0.41
1:A:256:U:H2'	1:A:257:G:H8	1.86	0.41
1:A:329:A:H3'	1:A:330:C:H5'	2.01	0.41
1:A:78:G:H1	1:A:91:C:N4	2.18	0.41
1:A:189(K):U:H2'	1:A:189(L):G:C8	2.56	0.41
1:A:288:A:H2'	1:A:289:G:H4'	2.01	0.41
1:A:197:A:H4'	1:A:198:G:H5'	2.02	0.41
13:M:33:ALA:HA	13:M:59:TYR:HE2	1.85	0.41
4:D:150:GLU:HG2	4:D:151:LYS:N	2.36	0.41
25:Y:120:THR:O	25:Y:124:GLN:OE1	2.38	0.41
25:Y:17:ILE:CD1	25:Y:81:ILE:HG21	2.50	0.41
25:Y:18:ALA:O	25:Y:19:ALA:HB2	2.20	0.41
1:A:1347:G:H2'	1:A:1373:G:C6	2.56	0.41
15:O:74:ASP:HA	15:O:75:PRO:HD2	1.96	0.41
1:A:1513:A:C4	1:A:1514:C:C5	3.09	0.41
25:Y:293:THR:C	25:Y:295:GLU:N	2.73	0.41
23:W:28:C:H2'	23:W:29:G:C8	2.51	0.41
3:C:146:ALA:C	3:C:148:GLY:H	2.23	0.41
3:C:120:VAL:HG12	3:C:121:ALA:N	2.35	0.41
25:Y:102:ASP:OD1	25:Y:102:ASP:N	2.52	0.41
25:Y:69:VAL:O	25:Y:69:VAL:HG13	2.21	0.41
1:A:1366:C:H2'	1:A:1367:C:H6	1.86	0.41
25:Y:115:GLU:CD	25:Y:118:SER:HB3	2.41	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:138:LYS:HG2	28:Y:1690:GDP:C6	2.55	0.41
25:Y:260:LEU:HD13	25:Y:260:LEU:N	2.36	0.41
3:C:72:LYS:HA	3:C:72:LYS:HE3	2.02	0.41
3:C:94:LEU:CD1	3:C:94:LEU:O	2.68	0.41
25:Y:610:VAL:HG23	25:Y:610:VAL:O	2.20	0.41
2:B:39:ILE:HG22	2:B:40:HIS:O	2.20	0.41
12:L:45:PRO:HG3	12:L:53:ARG:HD3	2.02	0.41
20:T:104:LEU:HD23	20:T:105:SER:O	2.21	0.41
4:D:8:VAL:HG23	4:D:9:CYS:N	2.36	0.41
3:C:174:PRO:O	3:C:175:LEU:C	2.56	0.41
4:D:102:ASP:HA	4:D:121:VAL:HG21	2.01	0.41
12:L:91:LYS:HA	12:L:91:LYS:NZ	2.36	0.41
1:A:771:G:H2'	1:A:772:U:C6	2.55	0.41
22:V:46:G:OP1	22:V:46:G:H8	2.04	0.41
17:Q:53:LEU:C	17:Q:53:LEU:HD23	2.41	0.41
1:A:832:C:H2'	1:A:833:U:O4'	2.20	0.41
13:M:14:ARG:NH2	13:M:42:ALA:HA	2.35	0.41
25:Y:415:PRO:O	25:Y:416:LYS:C	2.59	0.41
25:Y:587:SER:O	25:Y:591:LYS:HG2	2.21	0.41
3:C:129:ALA:C	3:C:131:ARG:N	2.73	0.41
1:A:294:U:H2'	1:A:295:C:H6	1.85	0.41
2:B:25:ASN:OD1	2:B:25:ASN:C	2.59	0.41
24:X:11:A:C5'	24:X:12:A:H5'	2.50	0.41
25:Y:20:HIS:NE2	25:Y:117:GLN:HB3	2.36	0.41
25:Y:299:VAL:O	25:Y:301:ILE:HD13	2.20	0.41
25:Y:145:ASP:HB3	25:Y:148:LEU:HB3	2.03	0.41
25:Y:205:TYR:O	25:Y:206:LEU:C	2.59	0.41
25:Y:259:PHE:N	25:Y:259:PHE:CD1	2.88	0.41
25:Y:510:VAL:CG1	25:Y:567:LEU:HD13	2.50	0.41
3:C:42:LEU:HD12	3:C:46:GLU:OE2	2.20	0.41
10:J:80:LYS:HZ3	10:J:80:LYS:HB3	1.86	0.41
2:B:223:ILE:HA	2:B:226:ARG:HB3	2.03	0.41
1:A:1031:G:H2'	1:A:1032:G:H5'	2.03	0.41
16:P:5:ARG:NH2	16:P:26:ARG:HB2	2.35	0.41
18:R:44:LEU:CD1	18:R:44:LEU:N	2.83	0.41
1:A:1068:G:OP1	1:A:1387:G:O2'	2.38	0.41
1:A:1190:G:OP1	3:C:5:ILE:HG23	2.21	0.41
5:E:12:LEU:CD1	5:E:12:LEU:H	2.33	0.41
1:A:187:C:O2'	20:T:89:ARG:HD3	2.20	0.41
19:S:47:HIS:O	19:S:62:ILE:CG2	2.69	0.41
3:C:123:GLN:HB3	3:C:128:PHE:CD2	2.44	0.41
1:A:33:A:O2'	1:A:363:A:N3	2.52	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:579:G:H4'	1:A:728:A:H1'	2.03	0.41
11:K:122:LYS:O	11:K:124:LYS:N	2.54	0.41
25:Y:377:VAL:HG23	25:Y:380:LEU:HD13	2.03	0.41
12:L:91:LYS:HA	12:L:91:LYS:HZ2	1.85	0.41
1:A:278:G:OP2	17:Q:41:LYS:HE2	2.21	0.41
12:L:119:LYS:HB2	12:L:120:TYR:CD1	2.55	0.41
12:L:117:ARG:O	12:L:119:LYS:O	2.39	0.41
25:Y:424:LEU:O	25:Y:428:LEU:CD2	2.67	0.41
25:Y:336:THR:HG23	25:Y:368:GLU:HB3	2.01	0.41
15:O:64:ARG:HB2	15:O:64:ARG:CZ	2.50	0.41
18:R:68:LYS:O	18:R:69:THR:C	2.58	0.41
1:A:1258:G:O2'	1:A:1259:C:H5'	2.20	0.41
13:M:34:LEU:HD13	13:M:41:PRO:HB3	2.03	0.41
1:A:1207:G:O2'	1:A:1208:C:H5'	2.21	0.41
5:E:33:VAL:CG1	5:E:34:VAL:N	2.82	0.41
1:A:1431:C:H2'	1:A:1432:G:O4'	2.21	0.41
1:A:913:A:H1'	1:A:914:A:O4'	2.21	0.41
1:A:913:A:H4'	1:A:914:A:H4'	2.02	0.41
1:A:894:G:O2'	1:A:895:G:H5'	2.21	0.41
23:W:56:C:O2	23:W:56:C:C2'	2.69	0.41
6:F:25:ILE:HA	6:F:28:ARG:HD3	2.03	0.41
1:A:316:G:C6	1:A:338:A:C6	3.09	0.41
7:G:30:ILE:HD13	7:G:105:VAL:HG22	2.03	0.41
1:A:238:G:C6	1:A:239:U:C4	3.09	0.41
23:W:9:G:C2	23:W:45:G:C6	3.09	0.41
1:A:411:A:O2'	1:A:413:G:H5'	2.20	0.41
1:A:1422:G:H2'	1:A:1423:G:C8	2.56	0.41
25:Y:159:ALA:O	25:Y:161:PRO:HD2	2.20	0.41
20:T:69:GLY:O	20:T:73:HIS:NE2	2.54	0.41
8:H:53:VAL:HB	8:H:58:TYR:CD2	2.56	0.41
2:B:194:PRO:O	2:B:195:ASP:C	2.60	0.41
5:E:32:VAL:O	5:E:43:LEU:HD12	2.21	0.41
18:R:42:ARG:HB2	18:R:42:ARG:HE	1.73	0.41
13:M:72:ALA:O	13:M:73:GLU:C	2.59	0.41
1:A:189(B):C:C2	1:A:189(J):G:C2	3.08	0.41
6:F:40:VAL:O	6:F:40:VAL:HG13	2.20	0.41
25:Y:224:ASP:OD2	25:Y:245:ALA:HB2	2.21	0.41
1:A:235:C:H1'	17:Q:61:GLU:OE2	2.21	0.41
1:A:268:C:C2'	1:A:268:C:O2	2.62	0.41
1:A:1234:C:C4'	1:A:1364:U:H1'	2.51	0.41
1:A:1256:A:C2	1:A:1277:C:C5	3.08	0.41
1:A:1116:C:O2'	1:A:1117:G:H5''	2.20	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1117:G:O2'	9:I:104:ARG:CD	2.66	0.41
25:Y:74:TRP:CD1	25:Y:273:LEU:HD22	2.56	0.41
2:B:144:ARG:HG3	2:B:145:LEU:N	2.36	0.41
25:Y:380:LEU:N	25:Y:380:LEU:HD12	2.36	0.41
25:Y:65:ILE:N	25:Y:65:ILE:HD13	2.34	0.41
6:F:44:GLY:HA2	6:F:59:TYR:CE1	2.56	0.41
5:E:61:TYR:O	5:E:62:ALA:C	2.58	0.41
1:A:28:G:O2'	1:A:296:U:OP1	2.38	0.41
1:A:826:C:C2	1:A:827:U:C5	3.09	0.41
1:A:238:G:O2'	1:A:239:U:H5'	2.21	0.41
6:F:19:LEU:HD21	6:F:23:LYS:HE2	2.03	0.41
1:A:600:C:H2'	1:A:601:C:C6	2.56	0.41
6:F:51:PRO:HA	6:F:55:ASP:O	2.20	0.41
1:A:386:C:H2'	1:A:387:U:O4'	2.21	0.41
7:G:73:MET:HG2	7:G:90:GLU:HA	2.03	0.41
25:Y:31:ARG:HA	25:Y:31:ARG:HH11	1.83	0.41
3:C:188:LEU:HD22	3:C:188:LEU:N	2.36	0.41
25:Y:315:LYS:NZ	25:Y:317:MET:CG	2.78	0.40
25:Y:85:PRO:CA	25:Y:94:VAL:HG13	2.51	0.40
15:O:21:ASP:OD1	15:O:24:SER:HB3	2.21	0.40
17:Q:18:THR:HG23	17:Q:69:LYS:HE3	2.03	0.40
5:E:144:THR:C	5:E:146:ALA:N	2.70	0.40
8:H:10:LEU:O	8:H:13:ILE:HB	2.21	0.40
25:Y:353:ALA:O	25:Y:354:ARG:CB	2.57	0.40
1:A:1236:A:H2'	1:A:1237:C:C6	2.56	0.40
1:A:1104:G:P	2:B:111:ARG:HD2	2.61	0.40
12:L:30:ALA:HA	12:L:31:PRO:HD3	1.90	0.40
18:R:35:ARG:O	18:R:37:VAL:HG13	2.21	0.40
18:R:69:THR:O	18:R:72:ARG:HB2	2.21	0.40
6:F:21:LEU:O	6:F:25:ILE:HG12	2.22	0.40
1:A:608:A:O2'	1:A:609:A:H5'	2.22	0.40
8:H:30:ARG:CB	8:H:30:ARG:NH1	2.85	0.40
25:Y:389:LEU:N	25:Y:389:LEU:HD12	2.36	0.40
1:A:1253:G:C2	1:A:1254:C:C2	3.09	0.40
19:S:20:LEU:HA	19:S:23:ASN:HB2	2.03	0.40
12:L:43:VAL:HG13	12:L:55:VAL:HG21	2.03	0.40
1:A:15:G:H8	1:A:1396:A:O2'	2.04	0.40
2:B:114:ARG:O	2:B:114:ARG:CD	2.69	0.40
1:A:1371:G:C6	1:A:1372:U:C4	3.10	0.40
25:Y:512:ILE:N	25:Y:512:ILE:CD1	2.84	0.40
25:Y:553:GLY:HA3	25:Y:558:PHE:H	1.87	0.40
15:O:17:ARG:HD3	15:O:26:GLU:CG	2.29	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:N:12:ARG:O	14:N:14:PRO:CD	2.57	0.40
9:I:19:LEU:HB3	9:I:59:PHE:CD2	2.57	0.40
9:I:19:LEU:HB3	9:I:59:PHE:HD2	1.86	0.40
5:E:92:LYS:HA	5:E:93:PRO:HD2	1.79	0.40
1:A:1256:A:H2	1:A:1277:C:C4	2.39	0.40
2:B:30:ARG:NH2	2:B:31:TYR:OH	2.55	0.40
19:S:33:THR:OG1	19:S:34:TRP:N	2.54	0.40
3:C:139:GLN:O	3:C:140:ARG:C	2.60	0.40
1:A:52:G:H2'	1:A:53:A:O4'	2.22	0.40
7:G:79:ARG:C	7:G:79:ARG:HD2	2.42	0.40
10:J:20:ALA:C	10:J:22:LYS:N	2.73	0.40
10:J:22:LYS:C	10:J:22:LYS:HD2	2.42	0.40
1:A:1379:G:O2'	1:A:1380:U:H5'	2.20	0.40
4:D:57:ARG:NH1	4:D:205:GLU:OE1	2.47	0.40
6:F:19:LEU:CD2	6:F:23:LYS:HE2	2.51	0.40
1:A:945:G:C2	1:A:946:A:C8	3.10	0.40
2:B:52:GLU:O	2:B:56:ARG:HG2	2.22	0.40
1:A:222:U:H2'	1:A:223:U:C6	2.56	0.40
25:Y:488:THR:HG23	25:Y:600:VAL:HG11	2.02	0.40
25:Y:170:ARG:NH1	25:Y:205:TYR:OH	2.54	0.40
25:Y:260:LEU:HB2	25:Y:261:GLY:H	1.50	0.40
10:J:81:THR:C	10:J:83:GLU:H	2.24	0.40
20:T:100:ILE:HG13	20:T:101:GLY:N	2.36	0.40
5:E:78:HIS:HD2	8:H:107:LEU:HD12	1.86	0.40
25:Y:178:ILE:CD1	25:Y:185:ALA:CB	2.99	0.40
1:A:719:C:C2	18:R:50:ILE:HG12	2.57	0.40
20:T:11:SER:HA	20:T:13:LEU:HD12	2.01	0.40
13:M:82:MET:HA	13:M:93:ARG:NH2	2.23	0.40
25:Y:137:ASN:ND2	25:Y:263:ALA:HB2	2.37	0.40
1:A:349:A:H2'	1:A:350:G:C5'	2.45	0.40
1:A:1460:A:H2'	1:A:1461:G:O4'	2.20	0.40
9:I:49:PRO:HD3	9:I:101:PHE:HE1	1.86	0.40
1:A:956:U:C2'	1:A:957:U:H5'	2.50	0.40
22:V:21:A:N6	22:V:46:G:C4	2.90	0.40
1:A:1314:C:C2	1:A:1315:U:C5	3.10	0.40
1:A:992:U:O2'	1:A:993:G:OP2	2.37	0.40
3:C:54:ARG:NH1	3:C:56:ASP:OD1	2.54	0.40
8:H:38:ILE:C	8:H:40:ALA:N	2.73	0.40
1:A:505:G:H2'	1:A:506:G:H8	1.86	0.40
9:I:122:ALA:HB1	9:I:123:PRO:HD2	2.03	0.40
1:A:922:G:O2'	1:A:1398:A:N1	2.42	0.40
25:Y:411:VAL:CG1	25:Y:412:ALA:N	2.84	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:539:ILE:HD12	25:Y:567:LEU:CD2	2.31	0.40
5:E:150:ARG:CB	5:E:150:ARG:NH1	2.84	0.40
1:A:1150:U:O4	1:A:1151:A:N6	2.52	0.40
9:I:84:ALA:O	9:I:86:VAL:N	2.54	0.40
13:M:121:LYS:HB2	13:M:121:LYS:HZ3	1.86	0.40
4:D:170:VAL:HG12	4:D:174:LEU:HB2	2.03	0.40
23:W:49:G:H3'	23:W:50:U:H5''	2.01	0.40
1:A:1392:G:C2'	1:A:1393:U:H5'	2.52	0.40
1:A:1505:G:H4'	1:A:1506:U:H5''	2.02	0.40
3:C:5:ILE:HG22	10:J:51:ARG:HH22	1.86	0.40
25:Y:133:ILE:HD11	25:Y:272:LEU:HD11	2.04	0.40
6:F:43:LEU:H	6:F:43:LEU:CD1	2.23	0.40
4:D:132:ARG:HH11	4:D:132:ARG:HG2	1.87	0.40
1:A:538:G:O2'	1:A:539:A:H5'	2.21	0.40
6:F:10:LEU:HA	6:F:84:ASN:O	2.20	0.40
1:A:953:G:O2'	13:M:122:LYS:HB2	2.21	0.40
2:B:130:ARG:HA	2:B:131:PRO:HD2	1.86	0.40
3:C:182:ILE:HA	3:C:202:ILE:O	2.20	0.40
15:O:54:ARG:O	15:O:55:GLY:C	2.60	0.40
7:G:25:ALA:O	7:G:28:ASN:HB2	2.20	0.40
4:D:3:ARG:CG	4:D:118:ARG:HE	2.34	0.40
22:V:64:A:C4	22:V:65:G:C8	3.09	0.40
1:A:189(C):C:H2'	1:A:189(D):C:O4'	2.21	0.40
1:A:452:A:O2'	1:A:453:A:H8	2.04	0.40
1:A:1472:U:O2'	1:A:1473:A:H5'	2.20	0.40
1:A:925:G:C2	1:A:927:G:C8	3.10	0.40
1:A:571:U:H2'	1:A:572:A:H5''	2.02	0.40
1:A:221:C:O2	1:A:221:C:H2'	2.21	0.40
25:Y:119:GLU:O	25:Y:121:VAL:N	2.45	0.40
1:A:1526:G:H2'	1:A:1527:C:C6	2.57	0.40
12:L:42:THR:CG2	12:L:42:THR:O	2.69	0.40
3:C:65:ALA:O	3:C:66:VAL:CB	2.70	0.40
1:A:1001(A):G:H2'	1:A:1002:G:C8	2.56	0.40
9:I:23:ASN:OD1	9:I:24:GLY:N	2.55	0.40
1:A:1130:A:H5'	9:I:18:PHE:HE2	1.86	0.40
1:A:998:G:N3	1:A:999:C:O2	2.55	0.40
1:A:1068:G:N2	1:A:1191:A:N3	2.68	0.40
23:W:1:C:O2	23:W:73:A:H2	2.05	0.40
12:L:83:VAL:HG12	12:L:100:ILE:HG23	2.04	0.40
1:A:375:U:O2'	16:P:28:ARG:HD2	2.21	0.40
4:D:5:ILE:CA	4:D:115:ARG:HH12	2.28	0.40
1:A:276:G:C2'	1:A:277:C:H5'	2.51	0.40

*Continued on next page...*



Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:952:U:O2'	1:A:953:G:H5'	2.22	0.40
3:C:182:ILE:HG23	3:C:202:ILE:O	2.22	0.40
23:W:42:G:C2'	23:W:43:A:H5'	2.52	0.40
10:J:12:ASP:C	10:J:12:ASP:OD1	2.59	0.40
1:A:767:A:H2'	1:A:768:A:O4'	2.20	0.40
1:A:1163:C:O2'	1:A:1164:G:H5'	2.21	0.40
1:A:803:G:C6	1:A:804:U:C4	3.10	0.40
25:Y:302:HIS:O	25:Y:304:ASP:N	2.51	0.40
1:A:902:G:H2'	1:A:903:G:H8	1.86	0.40
1:A:96:U:HO2'	1:A:97:G:P	2.45	0.40
13:M:63:THR:CG2	13:M:64:TRP:H	2.34	0.40
1:A:610:G:N3	1:A:610:G:H2'	2.35	0.40
1:A:946:A:C5'	1:A:947:G:OP2	2.70	0.40
13:M:73:GLU:O	13:M:76:ALA:HB3	2.21	0.40
14:N:60:SER:O	14:N:61:TRP:HB3	2.22	0.40
1:A:880:C:H2'	1:A:881:G:H8	1.85	0.40
5:E:139:LEU:C	5:E:141:GLN:H	2.24	0.40
11:K:31:THR:O	11:K:31:THR:HG23	2.21	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	233/256 (91%)	148 (64%)	52 (22%)	33 (14%)	0	10
3	C	205/239 (86%)	148 (72%)	31 (15%)	26 (13%)	0	13
4	D	206/209 (99%)	138 (67%)	49 (24%)	19 (9%)	1	24
5	E	149/162 (92%)	118 (79%)	26 (17%)	5 (3%)	6	56
6	F	99/101 (98%)	69 (70%)	26 (26%)	4 (4%)	5	50
7	G	153/156 (98%)	112 (73%)	29 (19%)	12 (8%)	1	29
8	H	136/138 (99%)	105 (77%)	27 (20%)	4 (3%)	7	60
9	I	121/128 (94%)	87 (72%)	25 (21%)	9 (7%)	2	31

Continued on next page...



*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	J	97/105 (92%)	68 (70%)	18 (19%)	11 (11%)	1	16
11	K	117/129 (91%)	85 (73%)	23 (20%)	9 (8%)	1	29
12	L	123/132 (93%)	84 (68%)	19 (15%)	20 (16%)	0	7
13	M	123/126 (98%)	75 (61%)	30 (24%)	18 (15%)	0	10
14	N	58/61 (95%)	42 (72%)	11 (19%)	5 (9%)	1	25
15	O	86/89 (97%)	54 (63%)	25 (29%)	7 (8%)	1	27
16	P	82/88 (93%)	63 (77%)	14 (17%)	5 (6%)	2	37
17	Q	98/105 (93%)	80 (82%)	15 (15%)	3 (3%)	7	59
18	R	68/88 (77%)	48 (71%)	12 (18%)	8 (12%)	1	15
19	S	77/93 (83%)	40 (52%)	19 (25%)	18 (23%)	0	2
20	T	97/106 (92%)	57 (59%)	27 (28%)	13 (13%)	0	12
21	U	23/27 (85%)	13 (56%)	7 (30%)	3 (13%)	0	13
25	Y	663/691 (96%)	482 (73%)	125 (19%)	56 (8%)	1	26
All	All	3014/3229 (93%)	2116 (70%)	610 (20%)	288 (10%)	1	22

All (288) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	12	GLU
2	B	13	ALA
2	B	15	VAL
2	B	74	LYS
2	B	75	LYS
2	B	95	GLN
2	B	128	GLU
2	B	129	GLU
2	B	153	ARG
2	B	157	ARG
2	B	195	ASP
2	B	233	SER
2	B	239	VAL
3	C	12	LEU
3	C	47	LEU
3	C	61	ALA
3	C	65	ALA
3	C	95	THR
3	C	96	GLY

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
3	C	154	SER
3	C	168	ALA
3	C	207	VAL
4	D	3	ARG
4	D	13	ARG
4	D	14	ARG
4	D	18	LYS
4	D	30	LYS
4	D	40	PRO
4	D	44	GLY
4	D	153	ARG
4	D	186	LEU
5	E	11	ILE
6	F	39	LYS
6	F	43	LEU
7	G	8	GLU
7	G	36	LYS
8	H	105	ARG
9	I	41	VAL
9	I	61	ALA
9	I	89	ASN
10	J	36	GLY
10	J	51	ARG
10	J	75	ILE
10	J	83	GLU
11	K	127	LYS
12	L	18	VAL
12	L	28	LYS
12	L	71	PRO
12	L	91	LYS
13	M	5	ALA
13	M	7	VAL
13	M	12	ASN
13	M	63	THR
13	M	67	GLU
13	M	83	ASP
13	M	118	ALA
13	M	124	PRO
14	N	15	LYS
14	N	16	PHE
14	N	29	ARG
16	P	34	GLU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
16	P	83	GLU
17	Q	49	GLU
18	R	45	SER
19	S	10	PHE
19	S	28	LYS
19	S	29	ARG
19	S	44	MET
19	S	61	TYR
19	S	62	ILE
20	T	48	LYS
20	T	49	ALA
20	T	99	LEU
25	Y	21	ILE
25	Y	39	ILE
25	Y	129	LYS
25	Y	203	GLU
25	Y	299	VAL
25	Y	354	ARG
25	Y	366	VAL
25	Y	416	LYS
25	Y	498	ILE
25	Y	505	GLY
25	Y	681	LYS
2	B	18	GLY
2	B	20	GLU
2	B	78	GLN
2	B	236	TYR
3	C	26	LYS
3	C	66	VAL
3	C	107	GLN
3	C	147	LYS
3	C	156	ARG
3	C	160	ALA
3	C	175	LEU
3	C	205	GLY
4	D	5	ILE
4	D	41	GLY
4	D	69	GLY
4	D	156	GLU
4	D	166	LYS
4	D	171	GLY
6	F	34	GLY

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
7	G	7	ALA
7	G	9	VAL
7	G	82	GLY
7	G	90	GLU
7	G	109	ASN
8	H	121	ASP
9	I	55	ALA
9	I	85	LEU
9	I	120	ARG
10	J	33	GLN
10	J	57	LYS
10	J	59	SER
11	K	49	GLY
11	K	50	TYR
11	K	88	GLY
12	L	37	CYS
12	L	38	THR
12	L	45	PRO
12	L	46	LYS
12	L	121	GLY
13	M	55	ARG
13	M	70	LEU
13	M	100	GLY
13	M	114	ARG
14	N	14	PRO
15	O	14	GLU
15	O	24	SER
15	O	86	GLY
18	R	38	GLU
18	R	41	LYS
18	R	68	LYS
19	S	26	GLY
19	S	46	GLY
19	S	54	GLY
19	S	80	TYR
20	T	63	ILE
20	T	74	LYS
20	T	82	SER
20	T	97	ALA
21	U	3	LYS
21	U	6	ARG
25	Y	23	ALA

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	Y	34	TYR
25	Y	85	PRO
25	Y	92	ILE
25	Y	112	GLN
25	Y	192	LEU
25	Y	289	ILE
25	Y	297	GLU
25	Y	371	ALA
25	Y	401	SER
25	Y	479	PRO
25	Y	504	ARG
25	Y	530	VAL
25	Y	531	GLY
25	Y	532	GLY
25	Y	559	PRO
25	Y	662	LYS
25	Y	674	ASP
25	Y	680	PRO
2	B	24	TRP
2	B	63	MET
2	B	64	ARG
2	B	76	GLN
2	B	120	ALA
2	B	131	PRO
2	B	190	THR
2	B	207	ALA
2	B	216	SER
2	B	237	ALA
3	C	4	LYS
3	C	129	ALA
3	C	130	VAL
3	C	135	LYS
4	D	4	TYR
4	D	47	ARG
5	E	71	LEU
7	G	80	VAL
7	G	117	ALA
7	G	121	ALA
8	H	2	LEU
9	I	34	ASN
9	I	94	ALA
10	J	61	GLU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
10	J	85	LEU
11	K	45	GLY
11	K	57	THR
11	K	62	GLN
12	L	23	LYS
12	L	27	LEU
12	L	51	ALA
12	L	81	SER
12	L	89	ARG
12	L	116	SER
13	M	53	VAL
13	M	121	LYS
15	O	77	ARG
15	O	84	LYS
17	Q	25	ARG
18	R	69	THR
18	R	87	ARG
19	S	14	HIS
19	S	27	GLU
19	S	73	GLU
19	S	81	ARG
20	T	71	THR
20	T	96	GLY
20	T	98	PRO
21	U	25	LYS
25	Y	66	THR
25	Y	84	THR
25	Y	91	THR
25	Y	127	LYS
25	Y	174	PHE
25	Y	380	LEU
25	Y	519	ARG
25	Y	554	PRO
25	Y	671	MET
2	B	130	ARG
2	B	171	ALA
3	C	165	THR
5	E	72	GLN
5	E	77	PRO
7	G	116	ALA
10	J	19	SER
11	K	123	LYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
12	L	72	GLY
12	L	79	GLU
13	M	106	ASN
13	M	116	THR
14	N	17	LYS
16	P	54	GLU
17	Q	66	SER
18	R	31	LEU
19	S	30	LEU
20	T	73	HIS
25	Y	67	ALA
25	Y	87	HIS
25	Y	133	ILE
25	Y	288	PRO
25	Y	303	PRO
25	Y	399	LEU
2	B	9	GLU
3	C	29	TYR
4	D	9	CYS
6	F	36	ARG
7	G	52	GLU
9	I	44	VAL
11	K	95	ILE
12	L	47	LYS
13	M	4	ILE
13	M	68	GLY
15	O	76	GLU
16	P	56	ALA
20	T	61	SER
25	Y	172	ASP
25	Y	183	MET
25	Y	406	GLU
2	B	152	PHE
10	J	84	GLN
12	L	29	GLY
16	P	76	GLN
19	S	42	PRO
20	T	95	ALA
25	Y	257	PRO
25	Y	470	PHE
25	Y	598	ASP
25	Y	628	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
3	C	73	PRO
4	D	7	PRO
5	E	154	GLY
19	S	41	VAL
25	Y	160	ARG
2	B	232	PRO
12	L	88	GLY
25	Y	277	VAL
25	Y	408	VAL
2	B	26	PRO
3	C	55	VAL
3	C	158	GLY
8	H	57	PRO
15	O	87	ILE
25	Y	405	PRO
18	R	37	VAL
19	S	9	VAL

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	B	202/220 (92%)	183 (91%)	19 (9%)	13	55
3	C	160/188 (85%)	139 (87%)	21 (13%)	6	37
4	D	180/181 (99%)	160 (89%)	20 (11%)	9	46
5	E	115/123 (94%)	104 (90%)	11 (10%)	12	54
6	F	90/90 (100%)	83 (92%)	7 (8%)	18	65
7	G	126/127 (99%)	118 (94%)	8 (6%)	25	75
8	H	119/119 (100%)	110 (92%)	9 (8%)	19	67
9	I	98/99 (99%)	91 (93%)	7 (7%)	21	70
10	J	88/92 (96%)	76 (86%)	12 (14%)	5	35
11	K	90/99 (91%)	87 (97%)	3 (3%)	50	89
12	L	104/109 (95%)	93 (89%)	11 (11%)	10	49
13	M	99/101 (98%)	90 (91%)	9 (9%)	14	57

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	N	49/50 (98%)	44 (90%)	5 (10%)	11	51
15	O	79/80 (99%)	73 (92%)	6 (8%)	19	67
16	P	72/74 (97%)	68 (94%)	4 (6%)	30	78
17	Q	94/97 (97%)	88 (94%)	6 (6%)	25	74
18	R	61/77 (79%)	58 (95%)	3 (5%)	35	82
19	S	69/80 (86%)	60 (87%)	9 (13%)	6	37
20	T	76/82 (93%)	67 (88%)	9 (12%)	8	42
21	U	19/22 (86%)	18 (95%)	1 (5%)	32	80
25	Y	563/582 (97%)	498 (88%)	65 (12%)	8	44
All	All	2553/2692 (95%)	2308 (90%)	245 (10%)	12	54

All (245) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	15	VAL
2	B	16	HIS
2	B	17	PHE
2	B	24	TRP
2	B	36	ARG
2	B	43	ASP
2	B	67	THR
2	B	69	LEU
2	B	79	ASP
2	B	129	GLU
2	B	137	ARG
2	B	146	GLN
2	B	162	ILE
2	B	172	ILE
2	B	178	ARG
2	B	196	LEU
2	B	200	ILE
2	B	204	ASN
2	B	221	LEU
3	C	5	ILE
3	C	16	ARG
3	C	34	LEU
3	C	46	GLU
3	C	52	LEU
3	C	54	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
3	C	56	ASP
3	C	67	THR
3	C	72	LYS
3	C	79	ARG
3	C	90	GLU
3	C	95	THR
3	C	98	ASN
3	C	119	ARG
3	C	127	ARG
3	C	131	ARG
3	C	167	TRP
3	C	178	LEU
3	C	179	ARG
3	C	188	LEU
3	C	190	ARG
4	D	3	ARG
4	D	9	CYS
4	D	12	CYS
4	D	15	GLU
4	D	33	MET
4	D	36	ARG
4	D	49	ARG
4	D	53	ASP
4	D	57	ARG
4	D	58	LEU
4	D	73	ARG
4	D	78	LEU
4	D	96	LEU
4	D	127	THR
4	D	129	ASN
4	D	131	ARG
4	D	132	ARG
4	D	135	LEU
4	D	162	LEU
4	D	168	ARG
5	E	12	LEU
5	E	20	GLN
5	E	41	VAL
5	E	68	GLU
5	E	72	GLN
5	E	76	ILE
5	E	79	GLU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
5	E	101	ILE
5	E	117	ASP
5	E	125	SER
5	E	144	THR
6	F	15	ASP
6	F	32	ASN
6	F	47	ARG
6	F	64	GLN
6	F	69	GLU
6	F	83	ASP
6	F	98	LEU
7	G	30	ILE
7	G	57	GLU
7	G	79	ARG
7	G	111	ARG
7	G	113	GLU
7	G	137	LYS
7	G	151	TYR
7	G	156	TRP
8	H	1	MET
8	H	25	ASP
8	H	26	VAL
8	H	41	ARG
8	H	50	ARG
8	H	91	ARG
8	H	102	ARG
8	H	118	VAL
8	H	133	LEU
9	I	10	ARG
9	I	47	LEU
9	I	87	GLN
9	I	95	LYS
9	I	114	TYR
9	I	121	ARG
9	I	128	ARG
10	J	22	LYS
10	J	40	LEU
10	J	43	ARG
10	J	45	ARG
10	J	50	ILE
10	J	55	LYS
10	J	62	HIS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
10	J	63	PHE
10	J	70	ARG
10	J	74	ILE
10	J	92	THR
10	J	96	ILE
11	K	29	ILE
11	K	87	THR
11	K	92	GLU
12	L	7	ILE
12	L	20	LYS
12	L	27	LEU
12	L	37	CYS
12	L	41	ARG
12	L	44	THR
12	L	47	LYS
12	L	53	ARG
12	L	70	ILE
12	L	85	ILE
12	L	91	LYS
13	M	23	TYR
13	M	64	TRP
13	M	91	ARG
13	M	108	ARG
13	M	113	PRO
13	M	115	LYS
13	M	120	LYS
13	M	121	LYS
13	M	124	PRO
14	N	14	PRO
14	N	16	PHE
14	N	29	ARG
14	N	41	ARG
14	N	49	HIS
15	O	10	LYS
15	O	31	LEU
15	O	39	LEU
15	O	57	LEU
15	O	82	ILE
15	O	88	ARG
16	P	1	MET
16	P	2	VAL
16	P	32	TYR

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
16	P	72	ARG
17	Q	7	THR
17	Q	23	VAL
17	Q	35	VAL
17	Q	48	GLU
17	Q	52	LYS
17	Q	78	GLU
18	R	19	LYS
18	R	29	PHE
18	R	31	LEU
19	S	5	LEU
19	S	6	LYS
19	S	7	LYS
19	S	15	LEU
19	S	29	ARG
19	S	34	TRP
19	S	37	ARG
19	S	44	MET
19	S	66	MET
20	T	13	LEU
20	T	24	LEU
20	T	26	ASN
20	T	36	LEU
20	T	42	GLN
20	T	73	HIS
20	T	74	LYS
20	T	84	LEU
20	T	93	GLU
21	U	10	ARG
25	Y	13	ARG
25	Y	14	ASN
25	Y	21	ILE
25	Y	22	ASP
25	Y	65	ILE
25	Y	81	ILE
25	Y	84	THR
25	Y	88	VAL
25	Y	92	ILE
25	Y	99	ARG
25	Y	100	VAL
25	Y	101	LEU
25	Y	102	ASP

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	Y	109	ASP
25	Y	117	GLN
25	Y	128	TYR
25	Y	130	VAL
25	Y	132	ARG
25	Y	137	ASN
25	Y	146	LEU
25	Y	153	MET
25	Y	157	LEU
25	Y	192	LEU
25	Y	218	GLU
25	Y	225	GLU
25	Y	232	LEU
25	Y	260	LEU
25	Y	278	ASP
25	Y	304	ASP
25	Y	312	LEU
25	Y	336	THR
25	Y	340	TYR
25	Y	343	ASN
25	Y	357	ARG
25	Y	377	VAL
25	Y	381	LYS
25	Y	388	THR
25	Y	396	ARG
25	Y	403	GLU
25	Y	421	GLN
25	Y	428	LEU
25	Y	438	PHE
25	Y	459	LEU
25	Y	476	VAL
25	Y	487	ILE
25	Y	488	THR
25	Y	492	ASP
25	Y	512	ILE
25	Y	527	ASN
25	Y	533	VAL
25	Y	536	LYS
25	Y	548	GLU
25	Y	572	TYR
25	Y	579	GLU
25	Y	580	MET

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	Y	614	GLU
25	Y	616	TYR
25	Y	623	ASP
25	Y	624	LEU
25	Y	634	MET
25	Y	641	GLN
25	Y	644	ARG
25	Y	647	VAL
25	Y	661	SER
25	Y	674	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (83) such sidechains are listed below:

Mol	Chain	Res	Type
2	B	37	ASN
2	B	40	HIS
2	B	78	GLN
2	B	110	GLN
2	B	113	HIS
2	B	146	GLN
2	B	204	ASN
2	B	212	GLN
3	C	28	GLN
3	C	110	ASN
3	C	118	GLN
3	C	170	GLN
3	C	176	HIS
3	C	181	ASN
4	D	62	GLN
4	D	74	GLN
4	D	77	ASN
4	D	129	ASN
4	D	160	GLN
4	D	161	ASN
5	E	20	GLN
5	E	72	GLN
5	E	73	ASN
6	F	18	GLN
6	F	27	GLN
6	F	32	ASN
6	F	100	ASN
7	G	13	GLN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
7	G	37	ASN
7	G	68	ASN
7	G	84	ASN
7	G	86	GLN
7	G	96	GLN
7	G	106	GLN
8	H	82	HIS
9	I	3	GLN
9	I	58	HIS
9	I	124	GLN
10	J	13	HIS
10	J	56	HIS
10	J	68	HIS
10	J	76	ASN
10	J	78	ASN
10	J	84	GLN
11	K	22	HIS
11	K	117	ASN
12	L	8	ASN
12	L	9	GLN
12	L	49	ASN
13	M	40	ASN
13	M	77	ASN
13	M	101	GLN
14	N	49	HIS
15	O	9	GLN
15	O	13	GLN
15	O	28	GLN
15	O	37	ASN
15	O	53	HIS
15	O	62	GLN
17	Q	16	GLN
19	S	14	HIS
19	S	47	HIS
20	T	16	HIS
20	T	26	ASN
20	T	42	GLN
20	T	75	ASN
25	Y	14	ASN
25	Y	40	HIS
25	Y	87	HIS
25	Y	117	GLN

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	Y	124	GLN
25	Y	137	ASN
25	Y	165	GLN
25	Y	208	GLN
25	Y	421	GLN
25	Y	458	HIS
25	Y	500	GLN
25	Y	527	ASN
25	Y	551	GLN
25	Y	573	HIS
25	Y	625	ASN
25	Y	630	GLN
25	Y	641	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	1503/1522 (98%)	252 (16%)	34 (2%)
22	V	75/76 (98%)	15 (20%)	1 (1%)
23	W	76/77 (98%)	27 (35%)	1 (1%)
24	X	12/25 (48%)	7 (58%)	2 (16%)
All	All	1666/1700 (98%)	301 (18%)	38 (2%)

All (301) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	7	G
1	A	9	G
1	A	31	G
1	A	32	A
1	A	33	A
1	A	39	G
1	A	47	C
1	A	48	C
1	A	51	A
1	A	60	A
1	A	61	G
1	A	79	G
1	A	81	U
1	A	88	A
1	A	89	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	A	90	U
1	A	91	C
1	A	97	G
1	A	98	G
1	A	104	G
1	A	116	A
1	A	120	A
1	A	121	C
1	A	129(A)	G
1	A	131	C
1	A	144	G
1	A	146	G
1	A	147	G
1	A	149	A
1	A	160	A
1	A	181	G
1	A	182	U
1	A	189(G)	G
1	A	189(H)	G
1	A	195	A
1	A	197	A
1	A	202	U
1	A	203	U
1	A	204	U
1	A	216	G
1	A	243	A
1	A	244	U
1	A	247	G
1	A	251	G
1	A	266	G
1	A	267	C
1	A	289	G
1	A	316	G
1	A	321	A
1	A	328	C
1	A	329	A
1	A	332	G
1	A	345	C
1	A	346	G
1	A	350	G
1	A	352	C
1	A	353	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	A	354	G
1	A	367	U
1	A	372	C
1	A	397	A
1	A	412	A
1	A	413	G
1	A	414	A
1	A	422	C
1	A	428	G
1	A	429	U
1	A	430	A
1	A	435	C
1	A	437	U
1	A	439	A
1	A	441	A
1	A	444	C
1	A	460	G
1	A	461	A
1	A	471	G
1	A	481	G
1	A	484	G
1	A	485	G
1	A	496	A
1	A	498	U
1	A	509	A
1	A	510	A
1	A	511	C
1	A	518	C
1	A	527	G
1	A	530	G
1	A	531	U
1	A	532	A
1	A	533	A
1	A	534	U
1	A	535	A
1	A	536	C
1	A	547	A
1	A	560	U
1	A	561	U
1	A	562	C
1	A	572	A
1	A	573	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	A	575	G
1	A	576	G
1	A	577	G
1	A	588	G
1	A	631	G
1	A	632	A
1	A	650	G
1	A	653	A
1	A	665	A
1	A	682	G
1	A	683	G
1	A	686	U
1	A	687	A
1	A	688	G
1	A	704	A
1	A	721	G
1	A	723	U
1	A	724	G
1	A	728	A
1	A	731	G
1	A	744	C
1	A	748	C
1	A	749	C
1	A	755	G
1	A	777	A
1	A	792	A
1	A	793	U
1	A	794	A
1	A	813	U
1	A	817	C
1	A	828	A
1	A	839	U
1	A	840	C
1	A	841	U
1	A	848	C
1	A	859	A
1	A	907	A
1	A	914	A
1	A	921	U
1	A	926	G
1	A	927	G
1	A	934	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	A	935	A
1	A	951	G
1	A	960	U
1	A	961	U
1	A	968	A
1	A	969	A
1	A	974	A
1	A	975	A
1	A	976	G
1	A	977	A
1	A	978	A
1	A	980	C
1	A	981	U
1	A	991	U
1	A	992	U
1	A	993	G
1	A	997	U
1	A	1003	G
1	A	1004	A
1	A	1010	G
1	A	1025	U
1	A	1027	C
1	A	1030	C
1	A	1030(B)	C
1	A	1050	G
1	A	1054	C
1	A	1065	U
1	A	1066	C
1	A	1068	G
1	A	1094	G
1	A	1095	U
1	A	1101	A
1	A	1102	A
1	A	1117	G
1	A	1124	G
1	A	1125	U
1	A	1130	A
1	A	1136	U
1	A	1137	C
1	A	1138	G
1	A	1139	G
1	A	1146	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	A	1152	A
1	A	1154	G
1	A	1159	U
1	A	1196	U
1	A	1197	G
1	A	1202	G
1	A	1212	U
1	A	1214	C
1	A	1225	A
1	A	1226	C
1	A	1227	A
1	A	1238	A
1	A	1240	U
1	A	1241	G
1	A	1249	C
1	A	1253	G
1	A	1256	A
1	A	1257	U
1	A	1273	G
1	A	1280	A
1	A	1281	U
1	A	1285	A
1	A	1286	A
1	A	1287	A
1	A	1299	A
1	A	1300	G
1	A	1301	U
1	A	1302	U
1	A	1305	G
1	A	1317	C
1	A	1320	C
1	A	1322	C
1	A	1323	G
1	A	1331	G
1	A	1335	C
1	A	1336	C
1	A	1338	G
1	A	1346	A
1	A	1348	U
1	A	1353	G
1	A	1363	C
1	A	1364	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	A	1375	A
1	A	1385	G
1	A	1394	A
1	A	1397	C
1	A	1398	A
1	A	1400	C
1	A	1404	C
1	A	1419	G
1	A	1442	G
1	A	1442(A)	G
1	A	1447	A
1	A	1452	C
1	A	1456	G
1	A	1490	C
1	A	1492	A
1	A	1493	A
1	A	1494	G
1	A	1499	A
1	A	1503	A
1	A	1504	G
1	A	1505	G
1	A	1506	U
1	A	1517	G
1	A	1519	A
1	A	1520	G
1	A	1529	G
1	A	1530	G
22	V	5	G
22	V	8	U
22	V	16	U
22	V	17	C
22	V	18	G
22	V	19	G
22	V	20	U
22	V	21	A
22	V	43	C
22	V	46	G
22	V	48	C
22	V	67	C
22	V	73	A
22	V	74	C
22	V	76	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
23	W	5	G
23	W	7	G
23	W	8	U
23	W	9	G
23	W	10	G
23	W	15	G
23	W	17(A)	U
23	W	18	G
23	W	19	G
23	W	20	U
23	W	21	A
23	W	23	C
23	W	31	G
23	W	33	U
23	W	34	C
23	W	35	A
23	W	47	U
23	W	48	C
23	W	50	U
23	W	52	G
23	W	56	C
23	W	67	C
23	W	68	C
23	W	71	C
23	W	73	A
23	W	74	C
23	W	75	C
24	X	12	A
24	X	13	A
24	X	14	U
24	X	15	G
24	X	16	U
24	X	18	C
24	X	19	A

All (38) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	30	U
1	A	60	A
1	A	115	G
1	A	119	A

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
1	A	203	U
1	A	243	A
1	A	250	A
1	A	315	A
1	A	328	C
1	A	345	C
1	A	366	C
1	A	428	G
1	A	429	U
1	A	438	G
1	A	533	A
1	A	534	U
1	A	575	G
1	A	703	G
1	A	748	C
1	A	812	C
1	A	913	A
1	A	992	U
1	A	1049	U
1	A	1065	U
1	A	1101	A
1	A	1201	A
1	A	1225	A
1	A	1226	C
1	A	1281	U
1	A	1285	A
1	A	1300	G
1	A	1347	G
1	A	1493	A
1	A	1498	U
22	V	17	C
23	W	72	A
24	X	11	A
24	X	12	A

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

1 non-standard protein/DNA/RNA residue is modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length

(or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
23	5MU	W	54	23	20,22,23	0.87	2 (10%)	25,32,35	1.38	3 (12%)

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
23	5MU	W	54	23	-	0/6/25/26	0/2/2/2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	W	54	5MU	P-OP1	2.19	1.49	1.46
23	W	54	5MU	C6-C5	-2.17	1.34	1.40

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	W	54	5MU	C6-N1-C2	-4.87	121.02	122.41
23	W	54	5MU	C5-C6-N1	2.40	123.92	121.59
23	W	54	5MU	C5M-C5-C6	2.01	122.87	118.59

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

## 5.5 Carbohydrates

There are no carbohydrates in this entry.

## 5.6 Ligand geometry

Of 7 ligands modelled in this entry, 5 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
27	FUA	F	1103	-	40,40,40	1.78	8 (20%)	64,64,64	1.46	10 (15%)
28	GDP	Y	1690	29	30,30,30	1.30	5 (16%)	44,47,47	1.78	10 (22%)

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
27	FUA	F	1103	-	-	0/18/92/92	0/0/4/4
28	GDP	Y	1690	29	-	0/16/32/32	0/1/3/3

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	F	1103	FUA	C17-C22	4.55	1.39	1.34
27	F	1103	FUA	C23-C22	-4.28	1.39	1.51
27	F	1103	FUA	C29-C22	4.23	1.53	1.47
27	F	1103	FUA	C23-C24	-3.97	1.39	1.53
27	F	1103	FUA	C24-C25	-3.86	1.39	1.50
28	Y	1690	GDP	C4-N9	-2.72	1.33	1.37
27	F	1103	FUA	C14-C8	-2.53	1.53	1.58
28	Y	1690	GDP	C8-N9	-2.30	1.33	1.36
27	F	1103	FUA	C25-C26	2.30	1.39	1.32
28	Y	1690	GDP	C6-N1	2.23	1.41	1.37
28	Y	1690	GDP	O4'-C1'	2.14	1.44	1.41
27	F	1103	FUA	C10-C9	-2.12	1.53	1.57
28	Y	1690	GDP	C2-N1	2.11	1.40	1.36

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	Y	1690	GDP	C6-C5-N7	-5.12	133.45	134.14
28	Y	1690	GDP	PA-O3A-PB	-4.32	119.01	131.68

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	F	1103	FUA	C16-O2-C31	-4.05	110.67	117.13
27	F	1103	FUA	C24-C23-C22	3.85	121.43	111.93
28	Y	1690	GDP	C2-N3-C4	3.67	120.25	115.09
28	Y	1690	GDP	C4'-O4'-C1'	-3.55	105.89	109.75
28	Y	1690	GDP	N2-C2-N1	3.35	121.55	117.86
27	F	1103	FUA	C13-C12-C11	-3.21	107.47	112.00
28	Y	1690	GDP	C2'-C3'-C4'	-2.90	96.87	102.65
27	F	1103	FUA	C8-C9-C10	-2.89	113.40	116.45
28	Y	1690	GDP	N3-C4-N9	2.78	130.99	126.91
27	F	1103	FUA	C23-C24-C25	2.72	119.39	111.62
28	Y	1690	GDP	C5-C4-N3	-2.37	122.51	125.94
27	F	1103	FUA	C12-C13-C14	-2.33	110.82	115.00
27	F	1103	FUA	O2-C31-C32	2.22	115.29	111.12
28	Y	1690	GDP	O4'-C4'-C3'	-2.20	100.72	105.17
28	Y	1690	GDP	C4-C5-N7	-2.08	107.74	109.52
27	F	1103	FUA	C28-C26-C27	2.08	119.93	114.62
27	F	1103	FUA	C10-C5-C4	-2.07	110.51	113.19
27	F	1103	FUA	C10-C9-C11	-2.01	111.24	114.55

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

## 5.7 Other polymers ⓘ

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	1504/1522 (98%)	0.11	33 (2%) 59 37	43, 89, 174, 200	0
2	B	235/256 (91%)	0.10	3 (1%) 74 50	53, 102, 164, 194	0
3	C	207/239 (86%)	0.12	3 (1%) 72 48	45, 93, 143, 190	0
4	D	208/209 (99%)	0.39	8 (3%) 38 25	48, 107, 157, 188	0
5	E	151/162 (93%)	0.06	0 100 100	45, 76, 117, 200	0
6	F	101/101 (100%)	0.27	2 (1%) 62 39	72, 115, 152, 183	0
7	G	155/156 (99%)	0.30	9 (5%) 22 15	63, 108, 150, 193	0
8	H	138/138 (100%)	0.08	0 100 100	45, 79, 117, 147	0
9	I	127/128 (99%)	0.45	7 (5%) 24 16	68, 111, 151, 175	0
10	J	99/105 (94%)	0.71	8 (8%) 12 10	60, 127, 179, 190	0
11	K	119/129 (92%)	0.27	5 (4%) 35 22	48, 89, 126, 181	0
12	L	125/132 (94%)	0.57	6 (4%) 29 19	42, 82, 124, 200	0
13	M	125/126 (99%)	0.47	14 (11%) 6 6	63, 126, 171, 200	0
14	N	60/61 (98%)	0.31	1 (1%) 67 44	58, 91, 127, 146	0
15	O	88/89 (98%)	0.28	2 (2%) 57 36	31, 82, 119, 141	0
16	P	84/88 (95%)	0.37	1 (1%) 75 52	58, 95, 126, 166	0
17	Q	100/105 (95%)	0.38	6 (6%) 21 15	60, 84, 120, 147	0
18	R	70/88 (79%)	0.18	2 (2%) 49 31	60, 95, 142, 167	0
19	S	79/93 (84%)	0.45	2 (2%) 54 34	74, 117, 181, 199	0
20	T	99/106 (93%)	0.34	2 (2%) 62 39	72, 103, 153, 173	0
21	U	25/27 (92%)	1.69	9 (36%) 1 1	77, 115, 145, 164	0
22	V	76/76 (100%)	-0.12	2 (2%) 53 33	67, 107, 165, 200	0
23	W	77/77 (100%)	0.90	13 (16%) 2 3	97, 190, 200, 200	0
24	X	12/25 (48%)	0.80	2 (16%) 2 3	52, 114, 172, 193	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
25	Y	667/691 (96%)	0.74	75 (11%) 6 6	84, 151, 186, 200	0
All	All	4731/4929 (95%)	0.31	215 (4%) 31 21	31, 103, 178, 200	0

All (215) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
12	L	129	ALA	11.1
12	L	128	ALA	7.2
25	Y	682	GLN	6.3
25	Y	67	ALA	6.2
23	W	16	C	6.2
25	Y	686	LYS	6.0
23	W	17	C	6.0
25	Y	641	GLN	5.9
12	L	127	GLU	5.8
25	Y	165	GLN	5.4
10	J	3	LYS	5.3
19	S	81	ARG	5.2
18	R	88	LYS	5.2
25	Y	519	ARG	5.2
23	W	47	U	5.0
10	J	4	ILE	4.9
21	U	7	ARG	4.8
19	S	82	GLY	4.7
25	Y	574	GLU	4.6
25	Y	683	VAL	4.6
23	W	34	C	4.6
25	Y	644	ARG	4.4
1	A	1257	U	4.3
25	Y	116	PRO	4.3
7	G	83	ALA	4.2
13	M	125	ARG	4.2
23	W	33	U	4.2
25	Y	166	LEU	4.1
13	M	124	PRO	4.1
23	W	1	C	4.0
24	X	22	A	4.0
23	W	2	G	4.0
15	O	89	GLY	4.0
4	D	176	LEU	4.0
21	U	26	LYS	4.0
21	U	5	ASP	3.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	A	1000	U	3.9
25	Y	134	ALA	3.9
13	M	122	LYS	3.8
1	A	1036	G	3.8
13	M	120	LYS	3.8
25	Y	205	TYR	3.7
25	Y	571	SER	3.7
23	W	3	C	3.6
1	A	143	A	3.5
25	Y	212	TYR	3.5
13	M	27	LYS	3.5
25	Y	497	PHE	3.4
21	U	21	TYR	3.4
13	M	119	GLY	3.4
25	Y	689	LYS	3.4
25	Y	133	ILE	3.3
22	V	1	G	3.3
25	Y	612	THR	3.3
11	K	128	ALA	3.3
12	L	5	PRO	3.2
1	A	142	G	3.2
23	W	35	A	3.2
2	B	133	LYS	3.2
22	V	47	U	3.1
9	I	30	GLY	3.1
24	X	21	A	3.1
1	A	306	G	3.1
21	U	6	ARG	3.1
25	Y	572	TYR	3.1
25	Y	395	PRO	3.1
4	D	42	GLN	3.1
1	A	1037	C	3.0
13	M	26	GLY	3.0
1	A	204	U	3.0
23	W	17(A)	U	3.0
15	O	8	LYS	3.0
25	Y	632	LEU	3.0
4	D	45	GLN	3.0
1	A	89	C	3.0
25	Y	643	ILE	3.0
25	Y	83	ASP	2.9
21	U	20	LYS	2.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
25	Y	12	LEU	2.9
25	Y	439	ARG	2.9
25	Y	496	LYS	2.9
7	G	85	TYR	2.8
25	Y	642	VAL	2.8
1	A	82	U	2.8
4	D	18	LYS	2.8
25	Y	467	LYS	2.8
25	Y	418	LYS	2.8
17	Q	74	LEU	2.8
25	Y	99	ARG	2.8
9	I	14	VAL	2.8
23	W	19	G	2.8
13	M	31	LYS	2.8
25	Y	635	GLU	2.8
25	Y	374	LEU	2.8
25	Y	518	PRO	2.7
23	W	36	U	2.7
25	Y	236	GLU	2.7
25	Y	687	LEU	2.7
1	A	1001	A	2.7
1	A	1002	G	2.7
25	Y	507	TYR	2.7
10	J	77	PRO	2.7
14	N	2	ALA	2.7
2	B	134	GLU	2.7
25	Y	506	GLN	2.6
25	Y	284	LEU	2.6
10	J	24	VAL	2.6
11	K	127	LYS	2.6
12	L	19	ARG	2.6
17	Q	67	LYS	2.6
12	L	23	LYS	2.6
25	Y	677	GLN	2.6
17	Q	68	ARG	2.6
25	Y	347	GLY	2.6
25	Y	313	ALA	2.6
4	D	43	HIS	2.6
1	A	76	C	2.6
25	Y	397	VAL	2.6
25	Y	235	GLU	2.5
25	Y	636	PRO	2.5

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	A	630	G	2.5
1	A	73	G	2.5
10	J	26	ALA	2.5
17	Q	58	GLU	2.5
25	Y	208	GLN	2.5
6	F	101	ALA	2.5
13	M	115	LYS	2.4
25	Y	493	VAL	2.4
20	T	54	LYS	2.4
13	M	30	ALA	2.4
25	Y	217	VAL	2.4
11	K	12	ARG	2.4
25	Y	498	ILE	2.4
25	Y	690	GLY	2.4
1	A	1019	C	2.4
25	Y	122	TRP	2.3
7	G	78	ARG	2.3
25	Y	607	ARG	2.3
1	A	994	A	2.3
25	Y	384	ILE	2.3
7	G	6	ARG	2.3
25	Y	4	LYS	2.3
7	G	84	ASN	2.3
25	Y	475	ASN	2.3
25	Y	450	ILE	2.3
21	U	4	GLY	2.3
10	J	23	ILE	2.3
25	Y	197	ARG	2.3
1	A	631	G	2.3
25	Y	387	ASP	2.3
3	C	206	GLU	2.3
1	A	197	A	2.3
25	Y	209	ALA	2.3
3	C	207	VAL	2.3
21	U	8	THR	2.3
20	T	39	LYS	2.3
25	Y	150	ILE	2.2
25	Y	75	LYS	2.2
25	Y	645	ALA	2.2
4	D	47	ARG	2.2
9	I	102	LEU	2.2
11	K	72	ALA	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	A	818	G	2.2
2	B	137	ARG	2.2
9	I	46	ALA	2.2
25	Y	630	GLN	2.2
9	I	10	ARG	2.2
4	D	44	GLY	2.2
7	G	156	TRP	2.2
7	G	95	ARG	2.2
23	W	20	U	2.2
25	Y	182	ARG	2.2
3	C	208	ILE	2.2
25	Y	348	ARG	2.2
1	A	78	G	2.2
4	D	159	ARG	2.2
21	U	25	LYS	2.2
17	Q	70	ARG	2.2
1	A	77	G	2.2
1	A	88	A	2.2
25	Y	163	VAL	2.2
13	M	116	THR	2.2
18	R	87	ARG	2.2
1	A	1459	C	2.2
25	Y	634	MET	2.2
13	M	123	ALA	2.2
7	G	79	ARG	2.2
1	A	1032	G	2.2
25	Y	40	HIS	2.2
10	J	90	LEU	2.2
25	Y	536	LYS	2.1
1	A	1284	C	2.1
9	I	105	ASP	2.1
25	Y	356	LEU	2.1
1	A	79	G	2.1
17	Q	44	ALA	2.1
1	A	131	C	2.1
7	G	82	GLY	2.1
16	P	52	ASP	2.1
25	Y	396	ARG	2.1
25	Y	494	GLU	2.1
25	Y	433	GLU	2.1
25	Y	631	ILE	2.1
9	I	7	THR	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
10	J	21	GLN	2.1
11	K	129	SER	2.1
25	Y	202	PRO	2.1
1	A	1040	U	2.0
13	M	2	ALA	2.0
1	A	144	G	2.0
13	M	21	TYR	2.0
1	A	1444	C	2.0
6	F	49	ALA	2.0
1	A	1033	G	2.0
1	A	1041	A	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
23	5MU	W	54	21/22	0.18	-	200,200,200,200	0

## 6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 6.4 Ligands ⓘ

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

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
28	GDP	Y	1690	28/28	0.20	-	96,102,109,110	0
26	ZN	C	1000	1/1	0.12	-	123,123,123,123	0
26	ZN	D	1210	1/1	0.12	-	69,69,69,69	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
26	ZN	W	1000	1/1	0.23	-	200,200,200,200	0
26	ZN	N	1062	1/1	0.05	-	86,86,86,86	0
27	FUA	F	1103	37/37	0.38	-	102,104,107,109	0
29	MG	Y	1691	1/1	0.16	-	46,46,46,46	0

## 6.5 Other polymers

There are no such residues in this entry.