Full wwPDB X-ray Structure Validation Report ⓘ

Oct 25, 2023 – 09:55 PM EDT

PDB ID	:	2ZWK
Title	:	Crystal structure of intimin-Tir90 complex
Authors	:	Ma, Y.; Gao, F.; Li, D.-F.; Gao, G.F.
Deposited on	:	2008-12-16
Resolution	:	3.10 Å(reported)

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

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

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

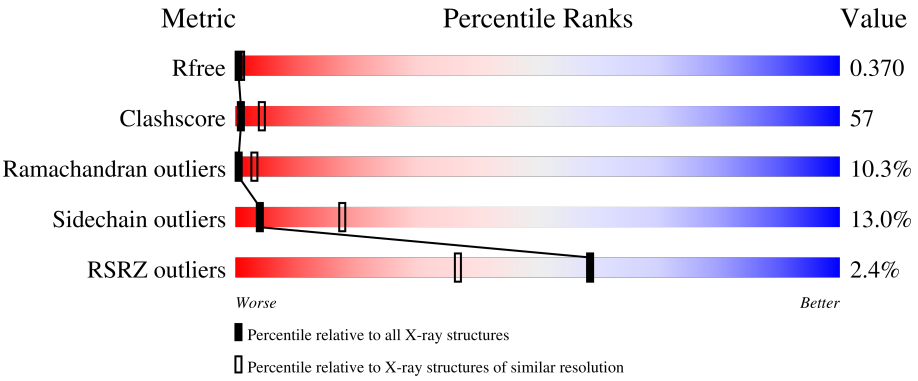
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.10 Å.

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



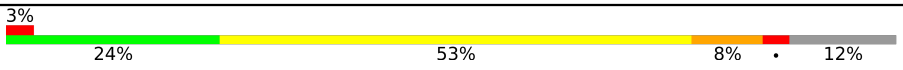
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1094 (3.10-3.10)
Clashscore	141614	1184 (3.10-3.10)
Ramachandran outliers	138981	1141 (3.10-3.10)
Sidechain outliers	138945	1141 (3.10-3.10)
RSRZ outliers	127900	1067 (3.10-3.10)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	184	27% 58% 15%
1	C	184	3% 24% 60% 15%
1	E	184	3% 20% 61% 18%
2	B	72	36% 47% 12%
2	D	72	3% 21% 53% 14% 12%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	F	72	

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 5655 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Intimin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	183	Total	C	N	O	S	0	0	0
			1410	890	231	284	5			
1	C	183	Total	C	N	O	S	0	0	0
			1410	890	231	284	5			
1	E	183	Total	C	N	O	S	0	0	0
			1410	890	231	284	5			

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	5	MET	-	initiating methionine	UNP P43261
C	5	MET	-	initiating methionine	UNP P43261
E	5	MET	-	initiating methionine	UNP P43261

- Molecule 2 is a protein called Putative translocated intimin receptor protein (Translocated intimin receptor Tir).

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
2	B	63	Total	C	N	O	0	0	0
			475	286	83	106			
2	D	63	Total	C	N	O	0	0	0
			475	286	83	106			
2	F	63	Total	C	N	O	0	0	0
			475	286	83	106			

There are 27 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	5	MET	-	initiating methionine	UNP Q7DB77
B	69	LEU	-	expression tag	UNP Q7DB77
B	70	GLU	-	expression tag	UNP Q7DB77
B	71	HIS	-	expression tag	UNP Q7DB77

Continued on next page...

Continued from previous page...

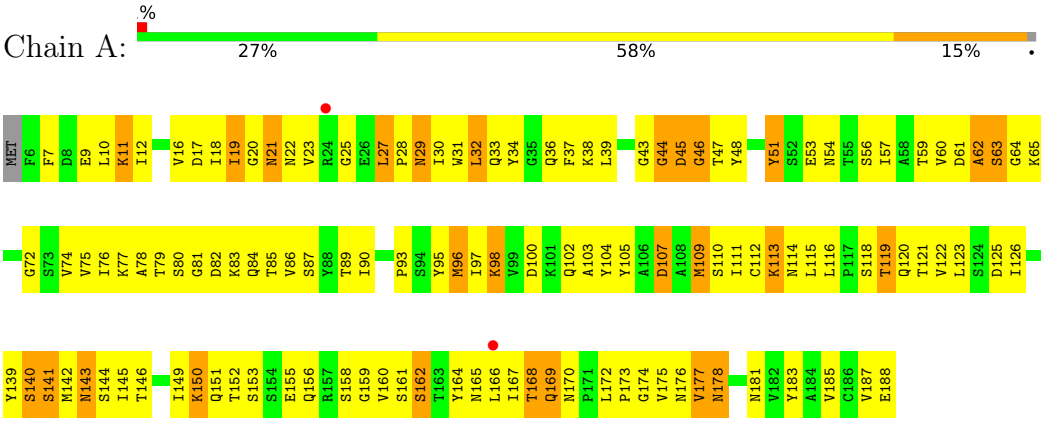
Chain	Residue	Modelled	Actual	Comment	Reference
B	72	HIS	-	expression tag	UNP Q7DB77
B	73	HIS	-	expression tag	UNP Q7DB77
B	74	HIS	-	expression tag	UNP Q7DB77
B	75	HIS	-	expression tag	UNP Q7DB77
B	76	HIS	-	expression tag	UNP Q7DB77
D	5	MET	-	initiating methionine	UNP Q7DB77
D	69	LEU	-	expression tag	UNP Q7DB77
D	70	GLU	-	expression tag	UNP Q7DB77
D	71	HIS	-	expression tag	UNP Q7DB77
D	72	HIS	-	expression tag	UNP Q7DB77
D	73	HIS	-	expression tag	UNP Q7DB77
D	74	HIS	-	expression tag	UNP Q7DB77
D	75	HIS	-	expression tag	UNP Q7DB77
D	76	HIS	-	expression tag	UNP Q7DB77
F	5	MET	-	initiating methionine	UNP Q7DB77
F	69	LEU	-	expression tag	UNP Q7DB77
F	70	GLU	-	expression tag	UNP Q7DB77
F	71	HIS	-	expression tag	UNP Q7DB77
F	72	HIS	-	expression tag	UNP Q7DB77
F	73	HIS	-	expression tag	UNP Q7DB77
F	74	HIS	-	expression tag	UNP Q7DB77
F	75	HIS	-	expression tag	UNP Q7DB77
F	76	HIS	-	expression tag	UNP Q7DB77

3 Residue-property plots (i)

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

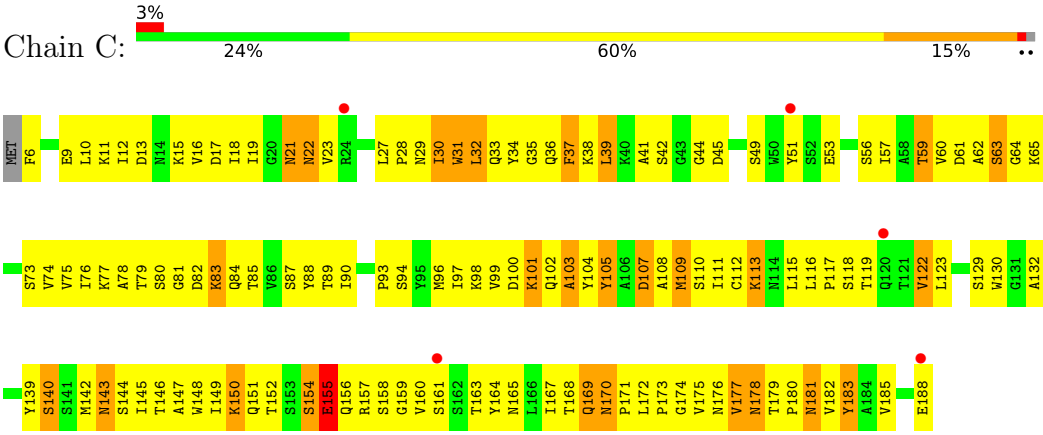
• Molecule 1: Intimin

Chain A:



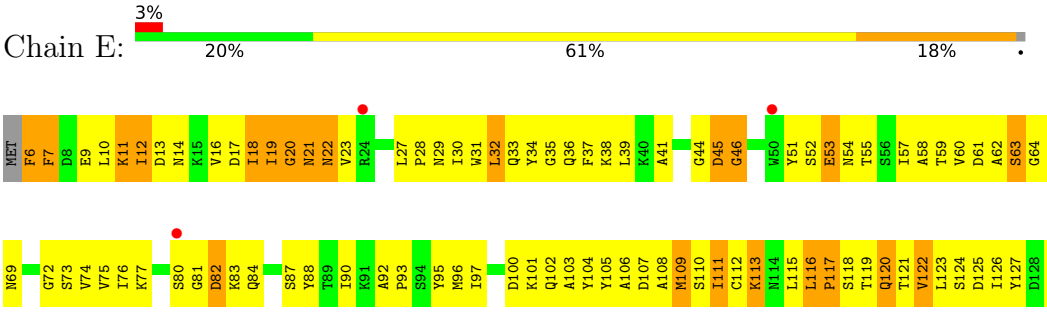
• Molecule 1: Intimin

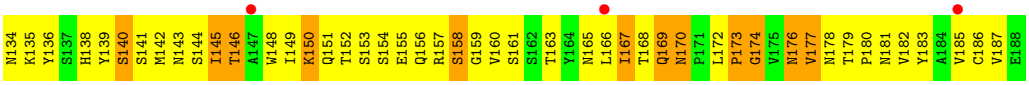
Chain C:



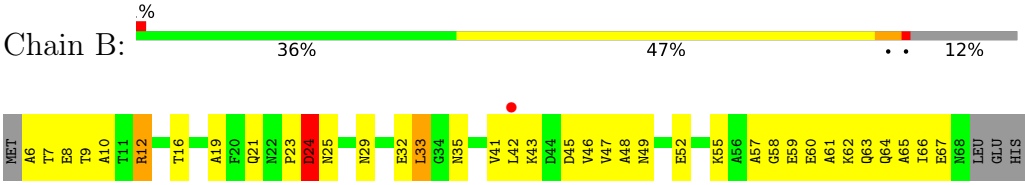
• Molecule 1: Intimin

Chain E:

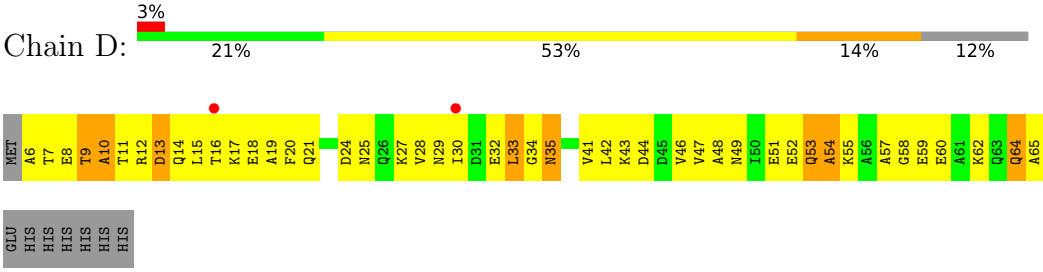




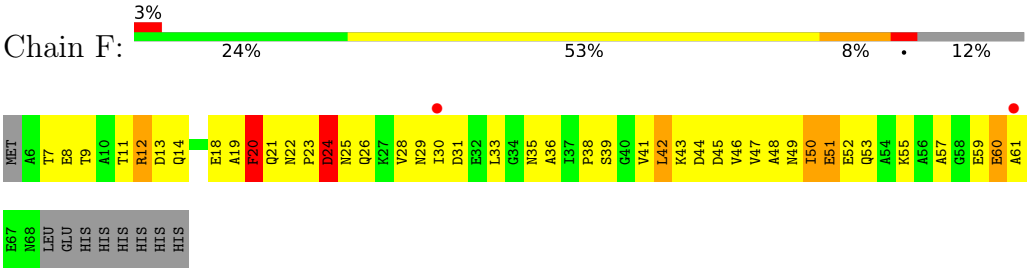
• Molecule 2: Putative translocated intimin receptor protein (Translocated intimin receptor Tir)



• Molecule 2: Putative translocated intimin receptor protein (Translocated intimin receptor Tir)



• Molecule 2: Putative translocated intimin receptor protein (Translocated intimin receptor Tir)



4 Data and refinement statistics (i)

Property	Value	Source
Space group	I 41 2 2	Depositor
Cell constants a, b, c, α, β, γ	96.78Å 96.78Å 644.31Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	66.67 – 3.10 66.70 – 3.10	Depositor EDS
% Data completeness (in resolution range)	83.1 (66.67-3.10) 92.8 (66.70-3.10)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	0.12	Depositor
$< I/\sigma(I) >$ [1]	3.33 (at 3.13Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.301 , 0.360 0.308 , 0.370	Depositor DCC
R_{free} test set	2658 reflections (9.93%)	wwPDB-VP
Wilson B-factor (Å^2)	73.3	Xtriage
Anisotropy	1.113	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 123.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	5655	wwPDB-VP
Average B, all atoms (Å^2)	114.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 59.08 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 1.8614e-05. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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	0.46	0/1439	0.75	0/1956
1	C	0.38	0/1439	0.66	0/1956
1	E	0.39	0/1439	0.67	1/1956 (0.1%)
2	B	0.39	0/477	0.76	0/645
2	D	0.35	0/477	0.71	0/645
2	F	0.38	0/477	0.71	0/645
All	All	0.40	0/5748	0.70	1/7803 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	116	LEU	CA-CB-CG	5.01	126.82	115.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1410	0	1379	154	0
1	C	1410	0	1379	179	0
1	E	1410	0	1379	202	0
2	B	475	0	457	37	0
2	D	475	0	457	48	0
2	F	475	0	457	38	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	5655	0	5508	640	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 57.

All (640) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:VAL:HA	1:A:177:VAL:HG13	1.26	1.11
1:C:151:GLN:HG2	1:C:161:SER:HB2	1.29	1.09
1:C:160:VAL:HA	1:C:177:VAL:HG13	1.42	1.01
1:E:68:LEU:HD12	1:E:68:LEU:H	1.26	1.01
1:C:33:GLN:HE22	1:C:98:LYS:HG3	1.25	1.00
1:E:60:VAL:HB	1:E:66:VAL:HG22	1.47	0.94
1:C:60:VAL:HB	1:C:66:VAL:HG22	1.53	0.89
1:C:149:ILE:HG12	1:C:163:THR:HA	1.55	0.88
1:C:109:MET:HG2	1:C:116:LEU:HD12	1.54	0.88
1:C:18:ILE:HB	1:C:21:ASN:HD21	1.37	0.86
1:E:12:ILE:HD13	1:E:12:ILE:H	1.40	0.86
1:E:146:THR:HA	1:E:165:ASN:HA	1.58	0.86
1:C:103:ALA:HB1	1:C:107:ASP:HB2	1.57	0.85
1:A:33:GLN:HE22	1:A:98:LYS:HD3	1.42	0.84
1:E:112:CYS:HB3	1:E:115:LEU:O	1.76	0.84
1:E:76:ILE:HG13	1:E:76:ILE:O	1.75	0.84
1:C:75:VAL:HG22	1:C:89:THR:HG22	1.58	0.84
1:A:164:TYR:CE2	1:A:169:GLN:HA	2.13	0.83
1:E:18:ILE:H	1:E:18:ILE:HD13	1.43	0.83
1:C:101:LYS:H	1:C:101:LYS:HD3	1.44	0.82
1:C:149:ILE:CG1	1:C:163:THR:HA	2.09	0.81
1:C:151:GLN:NE2	1:C:177:VAL:HG11	1.95	0.81
1:A:75:VAL:HG12	1:A:89:THR:HA	1.61	0.81
1:E:59:THR:O	1:E:66:VAL:HG13	1.80	0.80
1:C:102:GLN:HE21	1:C:181:ASN:HA	1.46	0.80
1:C:116:LEU:HB3	1:C:117:PRO:HD2	1.62	0.80
2:F:28:VAL:HG11	2:F:36:ALA:HB1	1.64	0.79
1:A:77:LYS:HD3	1:A:87:SER:HB3	1.64	0.79
1:A:103:ALA:HB1	1:A:107:ASP:OD2	1.82	0.79
1:E:148:TRP:O	1:E:149:ILE:HD13	1.83	0.79
1:E:145:ILE:HB	1:E:167:ILE:HD11	1.64	0.78
1:E:77:LYS:HE2	1:E:87:SER:OG	1.83	0.78
1:E:167:ILE:HD13	1:E:167:ILE:H	1.49	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:18:ILE:HA	1:E:37:PHE:HA	1.64	0.78
1:A:122:VAL:HG12	1:A:123:LEU:HD23	1.66	0.77
1:E:109:MET:HG2	1:E:116:LEU:HD21	1.65	0.77
1:A:79:THR:HG23	1:A:85:THR:OG1	1.84	0.77
1:E:123:LEU:O	1:E:126:ILE:HG22	1.85	0.77
1:C:30:ILE:HD13	1:C:30:ILE:H	1.50	0.77
1:E:10:LEU:HD12	1:E:11:LYS:H	1.50	0.76
1:A:142:MET:CE	1:A:145:ILE:HD11	2.15	0.76
1:E:74:VAL:CG1	1:E:90:ILE:HD12	2.16	0.75
1:A:12:ILE:HD12	1:A:86:VAL:HG23	1.68	0.75
1:A:160:VAL:CA	1:A:177:VAL:HG13	2.10	0.75
1:A:109:MET:HG2	1:A:116:LEU:HD12	1.67	0.75
1:E:122:VAL:HG12	1:E:123:LEU:HD23	1.69	0.75
1:E:145:ILE:HG12	1:E:183:TYR:CE1	2.22	0.75
1:C:105:TYR:HE2	1:C:150:LYS:HA	1.53	0.74
1:E:45:ASP:OD1	1:E:81:GLY:HA3	1.87	0.74
1:E:107:ASP:O	1:E:111:ILE:HG12	1.88	0.73
1:A:134:ASN:O	1:A:140:SER:HA	1.88	0.73
1:E:74:VAL:HG12	1:E:90:ILE:HD12	1.70	0.73
2:F:12:ARG:HG2	2:F:12:ARG:HH11	1.52	0.73
1:C:33:GLN:NE2	1:C:98:LYS:HG3	2.03	0.73
1:C:152:THR:O	1:C:156:GLN:HB2	1.89	0.73
1:A:96:MET:O	1:A:96:MET:HG3	1.88	0.73
1:E:53:GLU:HB2	1:E:75:VAL:HG23	1.69	0.73
1:C:30:ILE:HG22	1:C:94:SER:HB2	1.70	0.72
1:E:160:VAL:HA	1:E:177:VAL:HG13	1.72	0.72
1:A:145:ILE:O	1:A:165:ASN:HA	1.90	0.72
1:C:36:GLN:H	1:C:136:TYR:HE2	1.38	0.72
1:A:30:ILE:HD12	1:A:126:ILE:HD12	1.72	0.71
1:A:139:TYR:O	1:A:141:SER:N	2.24	0.71
1:C:49:SER:O	1:C:78:ALA:HA	1.90	0.71
1:C:37:PHE:CE1	1:C:66:VAL:HB	2.24	0.71
1:C:60:VAL:HG11	1:C:76:ILE:HD11	1.71	0.71
1:A:165:ASN:O	1:A:169:GLN:N	2.23	0.70
1:A:145:ILE:HG21	1:A:166:LEU:HD12	1.73	0.70
1:A:158:SER:HB3	2:B:43:LYS:HB3	1.72	0.70
1:E:167:ILE:HD13	1:E:167:ILE:N	2.05	0.70
1:A:102:GLN:HA	1:A:183:TYR:HA	1.75	0.69
1:A:115:LEU:HD22	1:A:187:VAL:O	1.92	0.69
2:D:15:LEU:C	2:D:17:LYS:H	1.96	0.69
1:E:45:ASP:HB2	1:E:82:ASP:OD1	1.91	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:27:LEU:HD12	1:C:28:PRO:HD2	1.75	0.69
1:A:153:SER:O	1:A:156:GLN:HB3	1.93	0.69
1:C:168:THR:O	1:C:169:GLN:HB2	1.92	0.68
1:C:160:VAL:HG11	2:D:27:LYS:HG2	1.73	0.68
1:A:145:ILE:HG13	1:A:167:ILE:HD11	1.75	0.68
1:C:31:TRP:HB3	1:C:130:TRP:CZ2	2.28	0.68
1:C:33:GLN:HE22	1:C:98:LYS:CG	2.04	0.68
1:A:168:THR:O	1:A:169:GLN:HB2	1.92	0.68
2:B:57:ALA:O	2:B:60:GLU:HB3	1.94	0.68
1:E:52:SER:HB3	1:E:76:ILE:HG22	1.76	0.68
1:E:109:MET:CE	1:E:150:LYS:HD3	2.24	0.68
2:D:6:ALA:O	2:F:9:THR:HG21	1.92	0.67
1:A:21:ASN:O	1:A:23:VAL:HG23	1.95	0.67
1:E:100:ASP:HB3	1:E:101:LYS:NZ	2.09	0.67
1:A:45:ASP:HB2	1:A:82:ASP:OD1	1.94	0.67
1:A:74:VAL:HG12	1:A:90:ILE:HB	1.75	0.67
1:A:152:THR:HG22	1:A:155:GLU:HG2	1.75	0.67
1:C:31:TRP:CZ2	1:C:93:PRO:HD3	2.29	0.67
2:B:42:LEU:HB2	2:B:47:VAL:HG23	1.78	0.66
1:A:47:THR:HG22	1:A:48:TYR:H	1.59	0.66
2:B:12:ARG:HG2	2:B:12:ARG:HH11	1.60	0.66
1:C:105:TYR:CE2	1:C:150:LYS:HA	2.30	0.66
2:F:49:ASN:HA	2:F:52:GLU:HB3	1.78	0.66
1:A:176:ASN:C	1:A:178:ASN:H	1.99	0.65
2:D:12:ARG:HD3	2:D:51:GLU:OE2	1.96	0.65
1:E:167:ILE:H	1:E:167:ILE:CD1	2.06	0.65
1:E:168:THR:O	1:E:169:GLN:HB2	1.95	0.65
1:E:52:SER:CB	1:E:76:ILE:HG22	2.26	0.65
1:E:102:GLN:NE2	1:E:181:ASN:HA	2.11	0.65
1:E:39:LEU:HD12	1:E:76:ILE:HD11	1.79	0.65
1:E:39:LEU:CD1	1:E:76:ILE:HD11	2.26	0.65
1:C:17:ASP:HB3	1:C:38:LYS:HB3	1.77	0.64
1:A:151:GLN:HB3	1:A:161:SER:HB2	1.79	0.64
1:C:31:TRP:CZ3	1:C:68:LEU:HD22	2.32	0.64
1:C:118:SER:HA	1:C:150:LYS:HE2	1.80	0.64
1:C:176:ASN:O	1:C:179:THR:HG22	1.98	0.64
1:C:143:ASN:N	1:C:143:ASN:HD22	1.95	0.64
1:C:102:GLN:HG2	1:C:182:VAL:H	1.63	0.63
1:C:134:ASN:O	1:C:140:SER:HA	1.98	0.63
1:E:52:SER:HA	1:E:76:ILE:HA	1.81	0.63
1:E:108:ALA:HA	1:E:111:ILE:HD11	1.80	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:77:LYS:HG2	1:C:87:SER:OG	1.97	0.63
2:F:66:ILE:O	2:F:66:ILE:HG13	1.98	0.63
1:A:140:SER:C	1:A:142:MET:H	2.01	0.62
1:C:176:ASN:HB3	2:D:29:ASN:OD1	1.98	0.62
1:A:123:LEU:HD23	1:A:123:LEU:N	2.15	0.62
1:C:36:GLN:HA	1:C:66:VAL:O	1.99	0.62
1:A:75:VAL:CG1	1:A:89:THR:HG22	2.30	0.62
1:E:33:GLN:CD	1:E:34:TYR:HE1	2.03	0.62
1:E:170:ASN:HD21	1:E:172:LEU:HD21	1.64	0.62
1:C:105:TYR:C	1:C:105:TYR:CD1	2.72	0.62
1:E:152:THR:HG22	1:E:155:GLU:CG	2.29	0.62
1:E:107:ASP:HA	1:E:110:SER:HB3	1.81	0.61
1:C:45:ASP:OD1	1:C:81:GLY:HA3	2.00	0.61
1:C:97:ILE:HG23	1:C:185:VAL:CG1	2.30	0.61
1:E:54:ASN:H	1:E:74:VAL:CG2	2.13	0.61
1:C:102:GLN:HG2	1:C:182:VAL:N	2.16	0.61
1:A:21:ASN:OD1	1:A:23:VAL:HB	2.01	0.61
2:D:49:ASN:HD21	2:D:53:GLN:NE2	1.98	0.61
1:E:95:TYR:HE1	1:E:97:ILE:HD11	1.65	0.61
1:A:10:LEU:HD12	1:A:11:LYS:H	1.64	0.60
2:F:8:GLU:OE1	2:F:55:LYS:HG2	2.02	0.60
1:E:140:SER:C	1:E:142:MET:H	2.04	0.60
1:C:10:LEU:HD12	1:C:42:SER:O	2.01	0.60
1:E:19:ILE:CD1	1:E:65:LYS:HG3	2.30	0.60
1:A:37:PHE:HE2	1:A:68:LEU:HD11	1.66	0.60
1:A:112:CYS:O	1:A:115:LEU:N	2.34	0.60
1:A:118:SER:OG	1:A:119:THR:HG22	2.01	0.60
1:C:30:ILE:HD13	1:C:30:ILE:N	2.16	0.60
1:A:47:THR:HG22	1:A:48:TYR:N	2.17	0.59
1:C:32:LEU:HD11	1:C:139:TYR:HE1	1.68	0.59
1:E:100:ASP:C	1:E:101:LYS:HD3	2.22	0.59
1:E:134:ASN:O	1:E:140:SER:HA	2.03	0.59
1:C:160:VAL:CG1	2:D:27:LYS:HG2	2.32	0.59
1:E:33:GLN:HG3	1:E:96:MET:SD	2.43	0.59
1:C:21:ASN:HD22	1:C:22:ASN:N	2.00	0.59
2:F:47:VAL:HA	2:F:50:ILE:HB	1.84	0.59
1:A:37:PHE:CE2	1:A:68:LEU:HD11	2.37	0.59
2:B:58:GLY:C	2:B:60:GLU:H	2.05	0.59
1:C:10:LEU:HD22	1:C:80:SER:OG	2.03	0.59
1:E:97:ILE:HG23	1:E:185:VAL:HG13	1.83	0.59
1:A:36:GLN:H	1:A:136:TYR:HE2	1.49	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:ILE:HD11	1:A:72:GLY:HA3	1.84	0.58
1:C:152:THR:HG22	1:C:155:GLU:CD	2.24	0.58
1:E:12:ILE:H	1:E:12:ILE:CD1	2.14	0.58
1:A:12:ILE:HD11	1:A:78:ALA:CB	2.33	0.58
1:C:39:LEU:HD21	1:C:88:TYR:HD1	1.67	0.58
1:E:17:ASP:O	1:E:38:LYS:N	2.33	0.58
1:E:38:LYS:HA	1:E:64:GLY:O	2.03	0.58
1:A:104:TYR:CD1	1:A:178:ASN:HA	2.39	0.58
1:E:145:ILE:HG21	1:E:166:LEU:HD12	1.86	0.58
1:E:95:TYR:CE1	1:E:97:ILE:HD11	2.38	0.58
1:E:139:TYR:O	1:E:141:SER:N	2.36	0.58
1:A:122:VAL:HG12	1:A:123:LEU:N	2.16	0.58
1:C:45:ASP:N	1:C:82:ASP:OD1	2.37	0.58
2:D:16:THR:O	2:D:16:THR:HG22	2.04	0.58
2:D:65:ALA:C	2:D:67:GLU:H	2.07	0.58
2:F:57:ALA:O	2:F:60:GLU:HB2	2.04	0.58
1:E:35:GLY:O	1:E:36:GLN:HG3	2.04	0.57
1:E:12:ILE:HD13	1:E:12:ILE:N	2.17	0.57
1:E:140:SER:C	1:E:142:MET:N	2.56	0.57
1:A:36:GLN:HA	1:A:66:VAL:O	2.04	0.57
1:A:67:THR:HG22	1:A:69:ASN:OD1	2.03	0.57
1:E:116:LEU:HB2	1:E:117:PRO:HD2	1.85	0.57
1:E:149:ILE:O	1:E:149:ILE:HG22	2.04	0.57
2:D:14:GLN:O	2:D:17:LYS:HB3	2.04	0.57
2:F:20:PHE:HE2	2:F:26:GLN:NE2	2.03	0.57
1:A:134:ASN:HA	1:A:140:SER:H	1.69	0.57
1:A:10:LEU:O	1:A:11:LYS:HB3	2.05	0.57
2:D:9:THR:O	2:D:11:THR:N	2.37	0.56
2:F:24:ASP:N	2:F:24:ASP:OD2	2.38	0.56
2:B:62:LYS:C	2:B:64:GLN:H	2.07	0.56
1:C:102:GLN:HA	1:C:183:TYR:HA	1.87	0.56
1:E:51:TYR:O	1:E:76:ILE:HA	2.06	0.56
1:C:56:SER:O	1:C:69:ASN:HB2	2.06	0.56
1:C:99:VAL:HG22	1:C:185:VAL:HG22	1.88	0.56
1:C:180:PRO:O	1:C:181:ASN:HB2	2.06	0.56
2:B:41:VAL:HG12	2:B:42:LEU:N	2.19	0.56
1:C:83:LYS:O	1:C:83:LYS:HG3	2.06	0.56
1:E:145:ILE:CG2	1:E:166:LEU:HD12	2.36	0.56
1:A:44:GLY:O	1:A:45:ASP:C	2.45	0.56
1:E:134:ASN:O	1:E:140:SER:HB3	2.06	0.56
1:C:122:VAL:HG12	1:C:123:LEU:HD23	1.87	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:53:GLU:O	1:E:54:ASN:ND2	2.39	0.55
1:A:170:ASN:O	1:A:172:LEU:HD22	2.05	0.55
1:C:53:GLU:HB2	1:C:75:VAL:O	2.05	0.55
1:E:33:GLN:HB2	1:E:97:ILE:O	2.07	0.55
2:B:9:THR:O	2:B:12:ARG:HB3	2.05	0.55
1:A:142:MET:HE1	1:A:145:ILE:HD11	1.87	0.55
1:E:155:GLU:OE1	1:E:161:SER:HA	2.06	0.55
1:C:97:ILE:HG23	1:C:185:VAL:HG13	1.89	0.55
1:C:132:ALA:HB1	1:C:134:ASN:OD1	2.07	0.55
2:F:30:ILE:N	2:F:30:ILE:HD12	2.22	0.55
1:C:61:ASP:O	1:C:63:SER:N	2.40	0.55
1:C:82:ASP:O	1:C:84:GLN:N	2.40	0.55
1:E:33:GLN:CD	1:E:34:TYR:CE1	2.79	0.55
1:C:18:ILE:N	1:C:18:ILE:HD12	2.23	0.54
1:A:10:LEU:N	1:A:84:GLN:OE1	2.41	0.54
1:C:35:GLY:HA2	1:C:136:TYR:CD2	2.42	0.54
1:E:125:ASP:C	1:E:127:TYR:H	2.09	0.54
1:A:105:TYR:CD1	1:A:105:TYR:C	2.81	0.54
1:A:145:ILE:HA	1:A:183:TYR:CE1	2.41	0.54
1:C:108:ALA:C	1:C:110:SER:H	2.10	0.54
1:E:12:ILE:HG12	1:E:12:ILE:O	2.08	0.54
2:F:12:ARG:HG2	2:F:12:ARG:NH1	2.20	0.54
1:A:152:THR:CG2	1:A:155:GLU:HG2	2.37	0.54
1:C:151:GLN:HE22	1:C:177:VAL:HG11	1.69	0.54
1:E:39:LEU:HD12	1:E:76:ILE:CD1	2.38	0.54
1:C:31:TRP:CE2	1:C:93:PRO:HB3	2.42	0.54
1:C:116:LEU:HB3	1:C:117:PRO:CD	2.36	0.54
1:C:164:TYR:CD1	1:C:171:PRO:HG3	2.43	0.54
2:D:41:VAL:HG12	2:D:42:LEU:N	2.21	0.54
2:D:44:ASP:O	2:D:48:ALA:HB2	2.08	0.54
1:A:56:SER:OG	1:A:57:ILE:N	2.40	0.54
1:A:12:ILE:HD11	1:A:78:ALA:HB3	1.90	0.54
1:E:28:PRO:HG3	1:E:130:TRP:NE1	2.23	0.54
1:C:107:ASP:O	1:C:110:SER:HB3	2.08	0.54
2:B:32:GLU:HB2	2:B:33:LEU:HD23	1.90	0.53
1:E:28:PRO:HG3	1:E:130:TRP:HE1	1.73	0.53
1:E:36:GLN:HG2	1:E:66:VAL:O	2.07	0.53
1:A:54:ASN:ND2	1:E:53:GLU:HG3	2.22	0.53
2:D:19:ALA:O	2:D:21:GLN:N	2.38	0.53
1:E:103:ALA:HB1	1:E:107:ASP:OD2	2.08	0.53
1:A:38:LYS:HG3	1:A:64:GLY:C	2.29	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:188:GLU:OXT	1:C:188:GLU:HG2	2.07	0.53
1:E:109:MET:HE2	1:E:150:LYS:HD3	1.89	0.53
2:B:61:ALA:O	2:B:65:ALA:HB2	2.09	0.53
1:E:31:TRP:CZ3	1:E:68:LEU:HD23	2.44	0.53
1:A:104:TYR:CE1	1:A:178:ASN:O	2.62	0.53
1:E:10:LEU:HD22	1:E:80:SER:HB3	1.90	0.53
1:E:134:ASN:O	1:E:140:SER:CA	2.57	0.53
1:E:165:ASN:N	1:E:169:GLN:O	2.42	0.53
1:C:9:GLU:HA	1:C:84:GLN:HE22	1.73	0.52
1:C:164:TYR:CE1	1:C:171:PRO:HG3	2.45	0.52
2:D:67:GLU:HA	2:D:67:GLU:OE1	2.08	0.52
2:F:46:VAL:C	2:F:48:ALA:H	2.12	0.52
2:F:28:VAL:CG1	2:F:36:ALA:HB1	2.36	0.52
2:F:43:LYS:O	2:F:45:ASP:N	2.41	0.52
1:E:10:LEU:HD11	1:E:41:ALA:HB1	1.90	0.52
1:A:10:LEU:HG	1:A:11:LYS:N	2.25	0.52
1:E:58:ALA:HB3	1:E:74:VAL:HG11	1.92	0.52
1:A:38:LYS:HA	1:A:64:GLY:O	2.10	0.52
1:E:113:LYS:C	1:E:115:LEU:H	2.12	0.52
1:E:176:ASN:O	1:E:179:THR:HG22	2.10	0.52
1:E:55:THR:HA	1:E:58:ALA:O	2.10	0.52
1:E:127:TYR:C	1:E:129:SER:H	2.12	0.52
1:A:95:TYR:HA	1:A:188:GLU:OXT	2.10	0.52
1:A:118:SER:HA	1:A:150:LYS:HE2	1.92	0.52
1:C:32:LEU:O	1:C:32:LEU:HG	2.10	0.52
1:C:159:GLY:O	1:C:177:VAL:HG22	2.10	0.52
1:E:20:GLY:HA2	1:E:135:LYS:HE3	1.92	0.52
1:E:123:LEU:HD13	1:E:166:LEU:HD21	1.90	0.52
1:A:134:ASN:O	1:A:140:SER:CA	2.56	0.51
2:B:42:LEU:HB2	2:B:47:VAL:CG2	2.41	0.51
1:E:119:THR:OG1	1:E:120:GLN:N	2.43	0.51
2:F:47:VAL:HG13	2:F:50:ILE:HG21	1.92	0.51
1:C:105:TYR:CE2	1:C:151:GLN:HG3	2.45	0.51
1:C:12:ILE:HA	1:C:41:ALA:HA	1.91	0.51
1:C:78:ALA:O	1:C:85:THR:HA	2.10	0.51
1:E:152:THR:HG22	1:E:155:GLU:HG3	1.92	0.51
1:A:145:ILE:CG2	1:A:166:LEU:HD12	2.40	0.51
1:C:142:MET:O	1:C:167:ILE:HD13	2.11	0.51
1:E:121:THR:O	1:E:124:SER:HB3	2.10	0.51
1:A:105:TYR:CE2	1:A:150:LYS:HA	2.45	0.51
1:A:160:VAL:HA	1:A:177:VAL:CG1	2.19	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:42:LEU:HD12	2:D:47:VAL:HG22	1.93	0.51
1:E:16:VAL:HG12	1:E:39:LEU:HD21	1.92	0.51
1:E:18:ILE:O	1:E:20:GLY:N	2.43	0.51
1:E:81:GLY:C	1:E:83:LYS:H	2.14	0.51
1:A:10:LEU:CD1	1:A:11:LYS:H	2.24	0.51
2:B:6:ALA:HB3	2:B:8:GLU:HG2	1.92	0.51
2:D:8:GLU:HA	2:D:54:ALA:O	2.11	0.51
1:E:180:PRO:O	1:E:181:ASN:HB2	2.11	0.51
1:A:31:TRP:CH2	1:A:93:PRO:HD3	2.46	0.51
1:C:79:THR:HA	1:C:84:GLN:O	2.11	0.51
1:C:133:ALA:HB1	1:C:139:TYR:CD1	2.46	0.51
1:E:115:LEU:O	1:E:116:LEU:HB3	2.11	0.51
1:C:111:ILE:C	1:C:113:LYS:H	2.14	0.50
1:C:170:ASN:HD21	1:C:172:LEU:HD21	1.75	0.50
2:B:33:LEU:HD23	2:B:33:LEU:N	2.27	0.50
2:B:66:ILE:HG13	2:B:66:ILE:O	2.12	0.50
1:C:148:TRP:C	1:C:149:ILE:HD13	2.31	0.50
1:E:53:GLU:HB2	1:E:75:VAL:CG2	2.39	0.50
1:A:32:LEU:HD11	1:A:139:TYR:HE1	1.76	0.50
1:C:31:TRP:CH2	1:C:93:PRO:HD3	2.46	0.50
1:C:61:ASP:OD2	1:C:65:LYS:HB3	2.12	0.50
2:D:11:THR:O	2:D:12:ARG:C	2.50	0.50
1:E:10:LEU:HD23	1:E:84:GLN:O	2.11	0.50
1:A:122:VAL:CG1	1:A:123:LEU:HD23	2.38	0.50
1:C:31:TRP:NE1	1:C:93:PRO:HB3	2.26	0.50
1:C:181:ASN:N	1:C:181:ASN:HD22	2.08	0.50
1:E:142:MET:SD	1:E:145:ILE:HD11	2.51	0.50
1:E:28:PRO:CG	1:E:130:TRP:HE1	2.24	0.50
1:A:51:TYR:HD1	1:A:77:LYS:HB2	1.77	0.50
1:C:33:GLN:HG2	1:C:34:TYR:CD1	2.46	0.50
1:C:165:ASN:O	1:C:169:GLN:N	2.45	0.50
1:E:145:ILE:HG23	1:E:183:TYR:CD1	2.47	0.50
1:A:176:ASN:O	1:A:178:ASN:N	2.42	0.50
1:E:19:ILE:HB	1:E:36:GLN:HB3	1.93	0.50
1:C:33:GLN:HG3	1:C:96:MET:SD	2.51	0.50
2:D:32:GLU:CD	2:D:32:GLU:H	2.14	0.50
1:A:7:PHE:HB3	1:A:44:GLY:HA2	1.94	0.50
1:A:59:THR:CG2	1:A:60:VAL:N	2.74	0.50
1:C:175:VAL:HG13	2:D:28:VAL:O	2.13	0.49
1:C:143:ASN:N	1:C:143:ASN:ND2	2.60	0.49
1:C:149:ILE:O	1:C:149:ILE:HG22	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:168:THR:O	1:C:169:GLN:CB	2.58	0.49
2:D:15:LEU:C	2:D:17:LYS:N	2.65	0.49
1:C:103:ALA:O	1:C:104:TYR:C	2.50	0.49
1:C:154:SER:O	1:C:157:ARG:N	2.45	0.49
1:E:32:LEU:O	1:E:33:GLN:C	2.50	0.49
1:A:75:VAL:HG11	1:A:89:THR:HG22	1.94	0.49
1:A:120:GLN:C	1:A:122:VAL:H	2.16	0.49
1:C:30:ILE:O	1:C:30:ILE:HG12	2.12	0.49
1:C:145:ILE:HG13	1:C:167:ILE:CD1	2.42	0.49
1:E:176:ASN:C	1:E:176:ASN:HD22	2.15	0.49
2:B:62:LYS:O	2:B:66:ILE:HG23	2.12	0.49
1:E:60:VAL:CB	1:E:66:VAL:HG22	2.33	0.49
1:E:73:SER:HA	1:E:90:ILE:O	2.12	0.49
1:A:160:VAL:HB	1:A:175:VAL:O	2.11	0.49
2:B:64:GLN:C	2:B:66:ILE:N	2.65	0.49
1:C:21:ASN:O	1:C:23:VAL:HG23	2.12	0.49
1:E:19:ILE:HD11	1:E:65:LYS:HG3	1.95	0.49
1:E:176:ASN:C	1:E:178:ASN:H	2.16	0.49
1:E:115:LEU:HD22	1:E:187:VAL:O	2.13	0.49
1:A:33:GLN:NE2	1:A:98:LYS:HD3	2.21	0.49
1:C:144:SER:HB3	2:D:33:LEU:HA	1.93	0.49
1:A:76:ILE:O	1:A:87:SER:HA	2.13	0.49
2:B:23:PRO:C	2:B:25:ASN:H	2.16	0.49
1:E:181:ASN:HD22	1:E:181:ASN:N	2.09	0.49
1:C:36:GLN:N	1:C:136:TYR:CD2	2.80	0.48
1:C:136:TYR:N	1:C:136:TYR:CD1	2.81	0.48
2:D:51:GLU:OE2	2:D:51:GLU:HA	2.13	0.48
1:A:145:ILE:HG13	1:A:167:ILE:CD1	2.42	0.48
1:C:130:TRP:HB3	1:C:136:TYR:OH	2.13	0.48
1:E:18:ILE:HD11	1:E:23:VAL:O	2.14	0.48
1:A:61:ASP:O	1:A:63:SER:N	2.46	0.48
2:B:23:PRO:O	2:B:25:ASN:N	2.46	0.48
1:C:49:SER:N	1:C:79:THR:O	2.46	0.48
1:C:51:TYR:O	1:C:76:ILE:HG13	2.13	0.48
1:A:144:SER:N	1:A:167:ILE:HD12	2.29	0.48
1:A:176:ASN:C	1:A:178:ASN:N	2.65	0.48
1:E:18:ILE:C	1:E:20:GLY:N	2.67	0.48
1:E:153:SER:O	1:E:156:GLN:HB3	2.13	0.48
1:A:17:ASP:O	1:A:37:PHE:HA	2.14	0.48
2:B:42:LEU:CB	2:B:47:VAL:HG23	2.42	0.48
2:B:59:GLU:OE2	2:B:63:GLN:HB2	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:58:GLY:C	2:D:60:GLU:H	2.16	0.48
1:A:110:SER:HG	1:A:111:ILE:H	1.61	0.48
1:C:164:TYR:OH	1:C:169:GLN:HG2	2.14	0.48
2:D:42:LEU:HB2	2:D:47:VAL:HG23	1.93	0.48
1:E:45:ASP:OD2	1:E:46:GLY:N	2.47	0.48
1:E:146:THR:HG22	1:E:163:THR:HB	1.96	0.48
1:A:75:VAL:HG12	1:A:89:THR:HG22	1.96	0.48
1:A:80:SER:OG	1:A:84:GLN:HB3	2.14	0.48
2:B:60:GLU:C	2:B:62:LYS:H	2.16	0.48
1:A:21:ASN:O	1:A:23:VAL:N	2.47	0.47
1:A:36:GLN:N	1:A:136:TYR:CE2	2.79	0.47
1:A:152:THR:O	1:A:153:SER:C	2.52	0.47
2:B:62:LYS:C	2:B:64:GLN:N	2.67	0.47
1:C:170:ASN:N	1:C:171:PRO:HD3	2.29	0.47
1:A:27:LEU:HD21	1:A:37:PHE:CD2	2.50	0.47
1:C:45:ASP:HB3	1:C:82:ASP:OD1	2.14	0.47
1:A:181:ASN:N	1:A:181:ASN:HD22	2.10	0.47
2:B:8:GLU:OE1	2:B:55:LYS:HD2	2.14	0.47
1:C:11:LYS:O	1:C:42:SER:N	2.42	0.47
1:C:104:TYR:O	1:C:105:TYR:C	2.52	0.47
1:E:31:TRP:CE3	1:E:68:LEU:HD23	2.50	0.47
1:A:151:GLN:NE2	1:A:160:VAL:O	2.41	0.47
2:B:64:GLN:O	2:B:67:GLU:HG2	2.15	0.47
1:E:148:TRP:CE3	1:E:148:TRP:HA	2.50	0.47
2:D:42:LEU:HB2	2:D:47:VAL:CG2	2.45	0.47
2:D:9:THR:HG22	2:D:10:ALA:N	2.29	0.47
1:C:133:ALA:O	1:C:139:TYR:HD1	1.98	0.47
1:E:17:ASP:HB3	1:E:38:LYS:HB3	1.96	0.47
1:E:68:LEU:H	1:E:68:LEU:CD1	2.03	0.47
1:E:10:LEU:HD12	1:E:11:LYS:N	2.24	0.47
1:C:37:PHE:CD1	1:C:66:VAL:HB	2.50	0.47
1:E:76:ILE:HG13	1:E:88:TYR:HB3	1.95	0.47
1:A:62:ALA:O	1:A:63:SER:HB3	2.15	0.46
1:A:159:GLY:O	1:A:177:VAL:HG22	2.15	0.46
1:C:11:LYS:O	1:C:41:ALA:HA	2.15	0.46
1:C:38:LYS:HA	1:C:64:GLY:O	2.15	0.46
1:C:160:VAL:CA	1:C:177:VAL:HG13	2.28	0.46
1:E:144:SER:O	1:E:145:ILE:HG13	2.15	0.46
1:A:120:GLN:O	1:A:122:VAL:N	2.48	0.46
1:C:60:VAL:CG1	1:C:76:ILE:HD11	2.41	0.46
2:D:8:GLU:HG3	2:D:55:LYS:HA	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:102:GLN:HB2	1:E:182:VAL:O	2.15	0.46
1:E:152:THR:HG22	1:E:155:GLU:CD	2.36	0.46
2:B:24:ASP:OD2	2:B:24:ASP:N	2.43	0.46
2:F:43:LYS:C	2:F:45:ASP:H	2.19	0.46
2:D:41:VAL:CG1	2:D:42:LEU:N	2.79	0.46
1:C:149:ILE:HG13	1:C:163:THR:HA	1.91	0.46
1:E:20:GLY:C	1:E:135:LYS:NZ	2.69	0.46
1:E:44:GLY:O	1:E:45:ASP:C	2.54	0.46
2:F:42:LEU:N	2:F:42:LEU:HD22	2.30	0.46
1:C:132:ALA:O	1:C:135:LYS:HB2	2.16	0.46
1:C:170:ASN:HD22	1:C:170:ASN:C	2.17	0.46
1:E:16:VAL:HG12	1:E:39:LEU:CD2	2.46	0.46
1:E:97:ILE:HD12	1:E:97:ILE:N	2.31	0.46
1:E:112:CYS:O	1:E:113:LYS:C	2.54	0.46
1:C:160:VAL:HA	1:C:177:VAL:CG1	2.30	0.46
1:C:179:THR:HB	2:D:29:ASN:OD1	2.15	0.46
2:D:35:ASN:HD22	2:D:35:ASN:HA	1.52	0.46
1:E:158:SER:HB2	1:E:160:VAL:HG22	1.97	0.46
1:A:134:ASN:N	1:A:134:ASN:HD22	2.14	0.46
2:D:30:ILE:HA	2:D:35:ASN:O	2.16	0.46
1:A:105:TYR:HE2	1:A:150:LYS:HA	1.80	0.46
1:A:123:LEU:HD23	1:A:123:LEU:H	1.81	0.46
1:C:82:ASP:O	1:C:83:LYS:C	2.54	0.46
1:C:149:ILE:O	1:C:150:LYS:O	2.34	0.46
1:E:33:GLN:NE2	1:E:34:TYR:HE1	2.13	0.46
1:A:16:VAL:N	1:A:25:GLY:O	2.35	0.45
1:A:18:ILE:O	1:A:19:ILE:C	2.54	0.45
1:A:140:SER:C	1:A:142:MET:N	2.67	0.45
1:C:104:TYR:HB3	1:C:178:ASN:HA	1.98	0.45
1:E:179:THR:HG21	2:F:30:ILE:HD13	1.99	0.45
1:C:12:ILE:HD11	1:C:78:ALA:CB	2.46	0.45
1:C:134:ASN:HB3	1:C:167:ILE:HD13	1.99	0.45
1:E:154:SER:O	1:E:157:ARG:N	2.44	0.45
2:F:62:LYS:O	2:F:66:ILE:HG23	2.16	0.45
1:A:27:LEU:HD23	1:A:27:LEU:HA	1.74	0.45
1:A:162:SER:HB3	1:A:173:PRO:HA	1.97	0.45
1:C:112:CYS:HB3	1:C:115:LEU:O	2.16	0.45
1:C:146:THR:HA	1:C:165:ASN:HA	1.98	0.45
2:D:62:LYS:O	2:D:66:ILE:HG23	2.16	0.45
1:E:38:LYS:HD2	1:E:65:LYS:N	2.31	0.45
1:E:105:TYR:CE1	1:E:109:MET:HG3	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:45:ASP:OD1	1:A:46:GLY:N	2.50	0.45
1:E:30:ILE:HG22	1:E:95:TYR:CE2	2.52	0.45
2:F:14:GLN:O	2:F:18:GLU:HB2	2.17	0.45
2:B:46:VAL:CG1	2:B:47:VAL:N	2.79	0.45
1:E:18:ILE:HG22	1:E:36:GLN:O	2.16	0.45
1:E:105:TYR:OH	1:E:150:LYS:HA	2.16	0.45
1:C:27:LEU:HD12	1:C:28:PRO:CD	2.43	0.45
1:C:33:GLN:NE2	1:C:98:LYS:HA	2.32	0.45
1:E:100:ASP:HB3	1:E:101:LYS:CE	2.47	0.45
1:E:108:ALA:HA	1:E:111:ILE:CD1	2.46	0.45
1:C:76:ILE:HG23	1:C:76:ILE:O	2.17	0.45
1:E:96:MET:HG2	1:E:97:ILE:N	2.31	0.45
1:E:100:ASP:HB3	1:E:101:LYS:HZ1	1.82	0.45
1:E:159:GLY:O	1:E:177:VAL:HG13	2.16	0.45
1:E:172:LEU:HD13	2:F:36:ALA:HB2	1.99	0.45
1:A:47:THR:O	1:A:48:TYR:CG	2.70	0.45
1:A:164:TYR:OH	1:A:169:GLN:HG2	2.16	0.45
1:C:147:ALA:O	1:C:163:THR:HB	2.17	0.45
2:D:57:ALA:HA	2:D:60:GLU:HG2	1.98	0.45
1:E:38:LYS:HD2	1:E:64:GLY:C	2.37	0.45
1:E:38:LYS:HE2	1:E:63:SER:O	2.17	0.45
1:E:145:ILE:HA	1:E:183:TYR:CD1	2.51	0.45
1:E:20:GLY:C	1:E:22:ASN:H	2.20	0.44
1:A:10:LEU:O	1:A:11:LYS:CB	2.64	0.44
1:A:10:LEU:CG	1:A:11:LYS:N	2.79	0.44
1:A:97:ILE:CD1	1:A:187:VAL:HG22	2.48	0.44
1:C:112:CYS:O	1:C:113:LYS:C	2.55	0.44
1:C:146:THR:OG1	2:D:34:GLY:HA2	2.17	0.44
1:C:172:LEU:HA	1:C:173:PRO:HD3	1.79	0.44
1:E:27:LEU:HD11	1:E:37:PHE:CD2	2.51	0.44
1:E:145:ILE:HB	1:E:167:ILE:CD1	2.39	0.44
1:C:144:SER:OG	1:C:165:ASN:ND2	2.50	0.44
1:E:13:ASP:OD1	1:E:14:ASN:N	2.49	0.44
1:E:101:LYS:HD3	1:E:101:LYS:N	2.32	0.44
1:E:109:MET:HE1	1:E:150:LYS:NZ	2.32	0.44
1:E:176:ASN:C	1:E:176:ASN:ND2	2.70	0.44
1:A:136:TYR:CD1	1:A:136:TYR:N	2.86	0.44
1:A:149:ILE:O	1:A:150:LYS:O	2.35	0.44
1:C:151:GLN:NE2	1:C:177:VAL:CG1	2.75	0.44
2:D:49:ASN:O	2:D:52:GLU:HB3	2.17	0.44
1:E:36:GLN:N	1:E:130:TRP:HZ3	2.15	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:41:VAL:HG12	2:F:42:LEU:O	2.18	0.44
1:A:57:ILE:HG21	1:A:74:VAL:HB	2.00	0.44
1:C:36:GLN:N	1:C:136:TYR:CE2	2.72	0.44
1:E:21:ASN:N	1:E:135:LYS:HZ1	2.15	0.44
1:A:29:ASN:HD22	1:A:29:ASN:HA	1.53	0.44
1:C:176:ASN:C	1:C:178:ASN:H	2.19	0.44
1:E:104:TYR:O	1:E:105:TYR:C	2.56	0.44
1:A:33:GLN:HG2	1:A:34:TYR:CD1	2.52	0.44
2:B:41:VAL:CG1	2:B:42:LEU:N	2.80	0.44
2:B:49:ASN:O	2:B:52:GLU:HB3	2.18	0.44
1:C:13:ASP:OD2	1:C:15:LYS:O	2.36	0.44
1:C:51:TYR:CE1	1:C:77:LYS:HB2	2.52	0.44
1:C:60:VAL:HG23	1:C:65:LYS:O	2.18	0.44
2:F:7:THR:CG2	2:F:61:ALA:HB2	2.48	0.44
1:A:144:SER:HB2	2:B:33:LEU:HA	2.00	0.44
1:A:145:ILE:HB	1:A:167:ILE:HG13	1.99	0.44
2:B:64:GLN:C	2:B:66:ILE:H	2.21	0.44
1:A:176:ASN:HB3	2:B:29:ASN:OD1	2.16	0.43
1:C:74:VAL:CG1	1:C:90:ILE:HG13	2.48	0.43
1:C:80:SER:OG	1:C:84:GLN:HB2	2.17	0.43
1:C:176:ASN:CB	2:D:29:ASN:OD1	2.64	0.43
1:A:144:SER:CA	1:A:167:ILE:HD12	2.49	0.43
1:C:170:ASN:C	1:C:170:ASN:ND2	2.71	0.43
1:A:116:LEU:HD23	1:A:185:VAL:O	2.17	0.43
2:B:8:GLU:O	2:B:9:THR:C	2.55	0.43
2:B:45:ASP:O	2:B:48:ALA:HB3	2.18	0.43
1:C:30:ILE:N	1:C:30:ILE:CD1	2.80	0.43
1:C:154:SER:O	1:C:156:GLN:N	2.52	0.43
1:E:125:ASP:C	1:E:127:TYR:N	2.71	0.43
1:A:77:LYS:CD	1:A:87:SER:HB3	2.41	0.43
1:A:112:CYS:O	1:A:113:LYS:C	2.56	0.43
1:C:116:LEU:HD23	1:C:185:VAL:O	2.19	0.43
1:C:167:ILE:O	1:C:167:ILE:HG22	2.17	0.43
1:E:21:ASN:O	1:E:23:VAL:N	2.48	0.43
2:F:50:ILE:HG22	2:F:51:GLU:OE2	2.18	0.43
1:A:47:THR:O	1:A:48:TYR:CD1	2.71	0.43
1:A:32:LEU:O	1:A:33:GLN:C	2.55	0.43
2:B:63:GLN:OE1	2:B:63:GLN:HA	2.18	0.43
1:E:127:TYR:CD1	1:E:131:GLY:O	2.71	0.43
2:F:47:VAL:HG12	2:F:47:VAL:O	2.19	0.43
1:C:108:ALA:C	1:C:110:SER:N	2.72	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:59:GLU:HA	2:D:59:GLU:OE1	2.18	0.43
1:E:16:VAL:HG21	1:E:27:LEU:HD13	1.99	0.43
1:E:105:TYR:C	1:E:105:TYR:CD1	2.92	0.43
1:E:154:SER:O	1:E:156:GLN:N	2.52	0.43
1:A:111:ILE:HG22	1:A:112:CYS:N	2.34	0.43
2:D:19:ALA:C	2:D:21:GLN:H	2.18	0.43
1:E:100:ASP:OD1	1:E:186:CYS:SG	2.76	0.43
1:E:160:VAL:CA	1:E:177:VAL:HG13	2.47	0.43
1:A:33:GLN:HB2	1:A:96:MET:SD	2.59	0.43
1:A:74:VAL:HG22	1:A:75:VAL:N	2.34	0.43
1:E:31:TRP:CH2	1:E:93:PRO:HD3	2.54	0.43
1:E:112:CYS:O	1:E:115:LEU:N	2.52	0.43
2:F:8:GLU:O	2:F:9:THR:C	2.55	0.43
1:A:43:GLY:O	1:A:44:GLY:O	2.37	0.43
1:A:45:ASP:OD2	1:A:81:GLY:C	2.58	0.43
1:E:102:GLN:O	1:E:103:ALA:HB2	2.19	0.43
1:C:34:TYR:HA	1:C:68:LEU:O	2.19	0.42
1:C:12:ILE:HD11	1:C:78:ALA:HB2	2.01	0.42
1:E:154:SER:O	1:E:155:GLU:C	2.58	0.42
1:A:152:THR:HG22	1:A:155:GLU:CG	2.48	0.42
2:B:19:ALA:C	2:B:21:GLN:H	2.22	0.42
1:E:10:LEU:CD1	1:E:11:LYS:H	2.27	0.42
1:E:31:TRP:CE3	1:E:68:LEU:CD2	3.03	0.42
1:E:77:LYS:HB3	1:E:87:SER:HA	2.00	0.42
1:C:57:ILE:N	1:C:57:ILE:HD12	2.34	0.42
2:D:53:GLN:O	2:D:55:LYS:N	2.53	0.42
1:E:10:LEU:O	1:E:11:LYS:HB3	2.20	0.42
1:E:32:LEU:O	1:E:32:LEU:HG	2.19	0.42
1:E:102:GLN:CD	1:E:181:ASN:HA	2.39	0.42
1:E:7:PHE:CD2	1:E:7:PHE:N	2.88	0.42
1:E:29:ASN:O	1:E:93:PRO:HA	2.20	0.42
2:F:29:ASN:OD1	2:F:39:SER:HB3	2.20	0.42
2:F:46:VAL:C	2:F:48:ALA:N	2.71	0.42
1:C:112:CYS:O	1:C:115:LEU:N	2.43	0.42
1:E:18:ILE:HD13	1:E:18:ILE:N	2.22	0.42
1:A:44:GLY:O	1:A:45:ASP:O	2.38	0.42
1:E:55:THR:O	1:E:69:ASN:ND2	2.51	0.42
1:E:105:TYR:CZ	1:E:151:GLN:HG3	2.55	0.42
1:E:140:SER:O	1:E:142:MET:N	2.53	0.42
1:A:125:ASP:O	1:A:126:ILE:C	2.58	0.42
1:C:53:GLU:CB	1:C:75:VAL:O	2.68	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:73:SER:HA	1:C:90:ILE:O	2.20	0.42
1:E:9:GLU:HA	1:E:84:GLN:OE1	2.20	0.42
2:F:22:ASN:OD1	2:F:24:ASP:N	2.53	0.42
2:B:58:GLY:C	2:B:60:GLU:N	2.73	0.42
2:D:24:ASP:O	2:D:43:LYS:HE3	2.19	0.42
2:D:33:LEU:HD23	2:D:33:LEU:N	2.35	0.42
2:D:65:ALA:O	2:D:67:GLU:N	2.49	0.42
1:A:143:ASN:OD1	1:A:143:ASN:N	2.52	0.41
1:C:36:GLN:N	1:C:136:TYR:HE2	2.12	0.41
1:C:75:VAL:HG13	1:C:87:SER:HB3	2.01	0.41
1:C:157:ARG:O	1:C:159:GLY:N	2.54	0.41
1:E:158:SER:HB3	2:F:43:LYS:HB3	2.01	0.41
2:F:19:ALA:C	2:F:21:GLN:H	2.24	0.41
2:F:23:PRO:C	2:F:25:ASN:H	2.23	0.41
1:E:21:ASN:HA	1:E:135:LYS:NZ	2.35	0.41
1:A:27:LEU:HA	1:A:28:PRO:HD3	1.76	0.41
1:A:98:LYS:HB3	1:A:188:GLU:OE1	2.20	0.41
1:C:122:VAL:HG12	1:C:123:LEU:N	2.35	0.41
1:C:157:ARG:C	1:C:159:GLY:H	2.24	0.41
1:C:129:SER:HB2	1:C:130:TRP:CD1	2.55	0.41
1:C:176:ASN:O	1:C:178:ASN:N	2.49	0.41
1:E:113:LYS:O	1:E:115:LEU:N	2.47	0.41
1:A:47:THR:CG2	1:A:48:TYR:H	2.31	0.41
1:C:146:THR:OG1	1:C:165:ASN:ND2	2.51	0.41
1:A:12:ILE:HD11	1:A:78:ALA:HB2	2.03	0.41
1:A:38:LYS:HG3	1:A:65:LYS:N	2.36	0.41
1:C:39:LEU:HD11	1:C:88:TYR:HE1	1.85	0.41
1:E:57:ILE:HD13	1:E:72:GLY:HA3	2.01	0.41
1:C:154:SER:C	1:C:156:GLN:N	2.74	0.41
2:D:32:GLU:O	2:D:33:LEU:HB3	2.20	0.41
1:E:57:ILE:O	1:E:57:ILE:HG22	2.18	0.41
1:A:145:ILE:HA	1:A:183:TYR:CD1	2.55	0.41
1:E:61:ASP:O	1:E:63:SER:N	2.54	0.41
2:F:49:ASN:HB3	2:F:53:GLN:HG3	2.02	0.41
1:A:45:ASP:N	1:A:82:ASP:OD1	2.54	0.41
1:A:110:SER:OG	1:A:111:ILE:N	2.54	0.41
1:A:149:ILE:O	1:A:149:ILE:HG22	2.21	0.41
1:C:21:ASN:HD22	1:C:21:ASN:C	2.21	0.41
1:C:177:VAL:O	1:C:177:VAL:HG23	2.20	0.41
1:C:181:ASN:N	1:C:181:ASN:ND2	2.69	0.41
2:D:64:GLN:O	2:D:67:GLU:HB2	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:146:THR:O	1:E:183:TYR:HB2	2.21	0.41
1:E:152:THR:HG22	1:E:155:GLU:OE2	2.20	0.41
1:E:157:ARG:O	1:E:159:GLY:N	2.54	0.41
2:F:43:LYS:C	2:F:45:ASP:N	2.73	0.41
2:B:10:ALA:C	2:B:12:ARG:N	2.74	0.41
1:C:33:GLN:NE2	1:C:98:LYS:CG	2.75	0.41
1:C:33:GLN:O	1:C:34:TYR:HB2	2.21	0.41
1:E:36:GLN:NE2	1:E:136:TYR:HD2	2.19	0.41
1:E:104:TYR:CE1	1:E:178:ASN:O	2.74	0.41
1:A:60:VAL:HB	1:A:66:VAL:HG22	2.02	0.40
1:C:180:PRO:O	1:C:181:ASN:CB	2.69	0.40
2:D:19:ALA:O	2:D:25:ASN:ND2	2.49	0.40
1:E:95:TYR:CD1	1:E:95:TYR:O	2.74	0.40
1:E:112:CYS:SG	1:E:186:CYS:N	2.93	0.40
1:E:151:GLN:HG2	1:E:160:VAL:O	2.21	0.40
1:E:173:PRO:O	1:E:174:GLY:C	2.58	0.40
1:A:19:ILE:HB	1:A:36:GLN:O	2.22	0.40
1:C:59:THR:O	1:C:66:VAL:HG13	2.22	0.40
2:D:32:GLU:CD	2:D:32:GLU:N	2.75	0.40
1:E:20:GLY:C	1:E:135:LYS:HZ2	2.24	0.40
1:E:20:GLY:HA3	1:E:136:TYR:OH	2.21	0.40
1:E:60:VAL:HG23	1:E:65:LYS:O	2.21	0.40
1:E:145:ILE:HA	1:E:183:TYR:HD1	1.87	0.40
2:F:12:ARG:NH1	2:F:12:ARG:CG	2.84	0.40
1:A:181:ASN:N	1:A:181:ASN:ND2	2.69	0.40
1:C:76:ILE:CG2	1:C:88:TYR:HB3	2.51	0.40
1:C:176:ASN:N	2:D:28:VAL:O	2.49	0.40
1:A:20:GLY:HA2	1:A:135:LYS:HG2	2.03	0.40
1:A:75:VAL:HG12	1:A:89:THR:CA	2.42	0.40
1:E:6:PHE:N	1:E:6:PHE:CD1	2.89	0.40
2:F:28:VAL:HG12	2:F:29:ASN:N	2.36	0.40
1:A:16:VAL:HG12	1:A:39:LEU:HD23	2.03	0.40
2:F:26:GLN:HG3	2:F:41:VAL:O	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	181/184 (98%)	133 (74%)	31 (17%)	17 (9%)	0 3
1	C	181/184 (98%)	133 (74%)	30 (17%)	18 (10%)	0 3
1	E	181/184 (98%)	120 (66%)	37 (20%)	24 (13%)	0 1
2	B	61/72 (85%)	44 (72%)	16 (26%)	1 (2%)	9 37
2	D	61/72 (85%)	37 (61%)	15 (25%)	9 (15%)	0 0
2	F	61/72 (85%)	41 (67%)	14 (23%)	6 (10%)	0 3
All	All	726/768 (94%)	508 (70%)	143 (20%)	75 (10%)	0 3

All (75) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	22	ASN
1	A	63	SER
1	A	140	SER
2	B	24	ASP
1	C	83	LYS
1	C	150	LYS
2	D	9	THR
2	D	10	ALA
2	D	20	PHE
1	E	45	ASP
1	E	62	ALA
1	E	63	SER
1	E	117	PRO
1	E	140	SER
1	A	44	GLY
1	A	45	ASP
1	A	62	ALA
1	A	113	LYS
1	A	121	THR
1	A	150	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	174	GLY
1	A	177	VAL
1	C	44	GLY
1	C	62	ALA
1	C	63	SER
1	C	122	VAL
1	C	174	GLY
1	C	177	VAL
2	D	13	ASP
2	D	33	LEU
2	D	54	ALA
2	D	66	ILE
1	E	20	GLY
1	E	22	ASN
1	E	106	ALA
1	E	113	LYS
1	E	158	SER
1	E	174	GLY
1	E	177	VAL
2	F	24	ASP
2	F	44	ASP
2	F	66	ILE
1	A	11	LYS
1	A	21	ASN
1	A	141	SER
1	A	169	GLN
1	C	113	LYS
1	C	133	ALA
1	C	140	SER
1	C	155	GLU
1	C	158	SER
1	C	169	GLN
2	D	53	GLN
1	E	11	LYS
1	E	19	ILE
1	E	21	ASN
1	E	46	GLY
1	A	46	GLY
1	C	103	ALA
1	C	105	TYR
1	E	150	LYS
1	E	169	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	F	13	ASP
2	F	20	PHE
2	F	31	ASP
1	C	154	SER
1	C	181	ASN
1	E	82	ASP
1	E	92	ALA
1	E	122	VAL
1	E	118	SER
1	E	145	ILE
2	D	46	VAL
1	A	19	ILE
1	E	173	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	158/159 (99%)	139 (88%)	19 (12%)	5 20
1	C	158/159 (99%)	136 (86%)	22 (14%)	3 15
1	E	158/159 (99%)	143 (90%)	15 (10%)	8 31
2	B	50/59 (85%)	44 (88%)	6 (12%)	5 20
2	D	50/59 (85%)	44 (88%)	6 (12%)	5 20
2	F	50/59 (85%)	37 (74%)	13 (26%)	0 1
All	All	624/654 (95%)	543 (87%)	81 (13%)	4 18

All (81) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	9	GLU
1	A	27	LEU
1	A	29	ASN
1	A	32	LEU
1	A	51	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	83	LYS
1	A	96	MET
1	A	98	LYS
1	A	100	ASP
1	A	107	ASP
1	A	109	MET
1	A	114	ASN
1	A	119	THR
1	A	134	ASN
1	A	143	ASN
1	A	146	THR
1	A	162	SER
1	A	168	THR
1	A	178	ASN
2	B	7	THR
2	B	12	ARG
2	B	16	THR
2	B	24	ASP
2	B	33	LEU
2	B	35	ASN
1	C	6	PHE
1	C	16	VAL
1	C	19	ILE
1	C	21	ASN
1	C	22	ASN
1	C	29	ASN
1	C	30	ILE
1	C	31	TRP
1	C	32	LEU
1	C	37	PHE
1	C	39	LEU
1	C	59	THR
1	C	100	ASP
1	C	101	LYS
1	C	107	ASP
1	C	109	MET
1	C	119	THR
1	C	143	ASN
1	C	155	GLU
1	C	170	ASN
1	C	178	ASN
1	C	183	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	D	7	THR
2	D	13	ASP
2	D	18	GLU
2	D	35	ASN
2	D	64	GLN
2	D	67	GLU
1	E	6	PHE
1	E	7	PHE
1	E	12	ILE
1	E	18	ILE
1	E	32	LEU
1	E	53	GLU
1	E	109	MET
1	E	111	ILE
1	E	120	GLN
1	E	138	HIS
1	E	143	ASN
1	E	146	THR
1	E	167	ILE
1	E	170	ASN
1	E	176	ASN
2	F	11	THR
2	F	12	ARG
2	F	20	PHE
2	F	24	ASP
2	F	33	LEU
2	F	35	ASN
2	F	38	PRO
2	F	42	LEU
2	F	50	ILE
2	F	51	GLU
2	F	59	GLU
2	F	60	GLU
2	F	64	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (30) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	29	ASN
1	A	33	GLN
1	A	120	GLN
1	A	134	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	151	GLN
1	A	156	GLN
1	C	21	ASN
1	C	22	ASN
1	C	29	ASN
1	C	33	GLN
1	C	36	GLN
1	C	102	GLN
1	C	138	HIS
1	C	143	ASN
1	C	151	GLN
1	C	165	ASN
1	C	170	ASN
2	D	26	GLN
2	D	35	ASN
2	D	49	ASN
1	E	33	GLN
1	E	36	GLN
1	E	102	GLN
1	E	156	GLN
1	E	170	ASN
1	E	176	ASN
1	E	181	ASN
2	F	21	GLN
2	F	26	GLN
2	F	64	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

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^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	183/184 (99%)	0.24	2 (1%)	80	64	63, 95, 126, 185	0
1	C	183/184 (99%)	0.27	5 (2%)	54	31	58, 116, 159, 194	0
1	E	183/184 (99%)	0.33	6 (3%)	46	24	80, 121, 151, 175	0
2	B	63/72 (87%)	0.26	1 (1%)	72	51	71, 99, 130, 157	0
2	D	63/72 (87%)	0.48	2 (3%)	47	25	99, 126, 161, 174	0
2	F	63/72 (87%)	0.42	2 (3%)	47	25	85, 130, 169, 196	0
All	All	738/768 (96%)	0.31	18 (2%)	59	37	58, 113, 154, 196	0

All (18) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	F	30	ILE	3.3
2	D	16	THR	3.0
1	A	24	ARG	2.7
1	E	147	ALA	2.7
1	E	80	SER	2.6
1	E	166	LEU	2.6
1	E	185	VAL	2.5
1	C	188	GLU	2.5
2	F	61	ALA	2.4
1	C	161	SER	2.4
1	E	50	TRP	2.4
1	C	24	ARG	2.4
1	E	24	ARG	2.2
1	C	51	TYR	2.1
2	B	42	LEU	2.1
1	A	166	LEU	2.1
2	D	30	ILE	2.1
1	C	120	GLN	2.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.