Full wwPDB X-ray Structure Validation Report ⓘ

Jun 16, 2024 – 02:34 PM EDT

PDB ID	:	2R69
Title	:	Crystal structure of Fab 1A1D-2 complexed with E-DIII of Dengue virus at 3.8 angstrom resolution
Authors	:	Lok, S.M.; Kostyuchenko, V.K.; Nybakken, G.E.; Holdaway, H.A.; Battisti, A.J.; Sukupolvi-petty, S.; Sedlak, D.; Fremont, D.H.; Chipman, P.R.; Roehrig, J.T.; Diamond, M.S.; Kuhn, R.J.; Rossmann, M.G.
Deposited on	:	2007-09-05
Resolution	:	3.80 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:

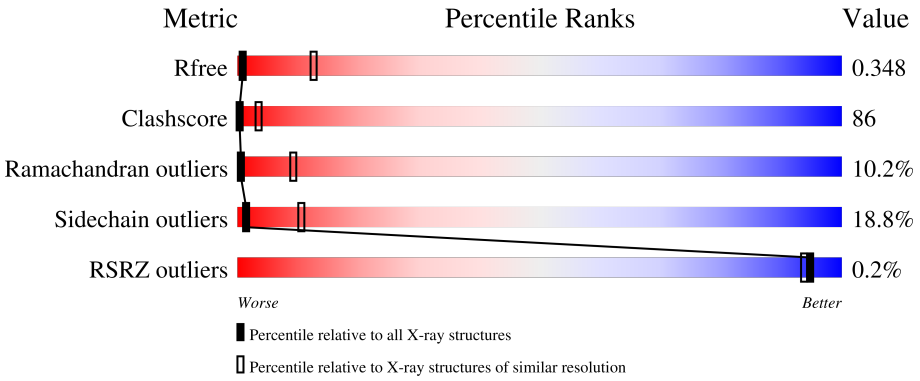
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.20.1
EDS	:	2.37.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.80 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	1212 (4.00-3.60)
Clashscore	141614	1288 (4.00-3.60)
Ramachandran outliers	138981	1243 (4.00-3.60)
Sidechain outliers	138945	1237 (4.00-3.60)
RSRZ outliers	127900	1121 (4.00-3.60)

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	97	27% 49% 19% 5%
2	H	214	25% 52% 16% • 5%
3	L	212	19% 50% 22% 6% •

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 3886 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 Major envelope protein E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	97	Total	C	N	O	S	0	0	0
			768	495	126	143	4			

- Molecule 2 is a protein called Heavy chain of 1A1D-2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	H	203	Total	C	N	O	S	0	0	0
			1536	979	248	304	5			

- Molecule 3 is a protein called Light chain of 1A1D-2.

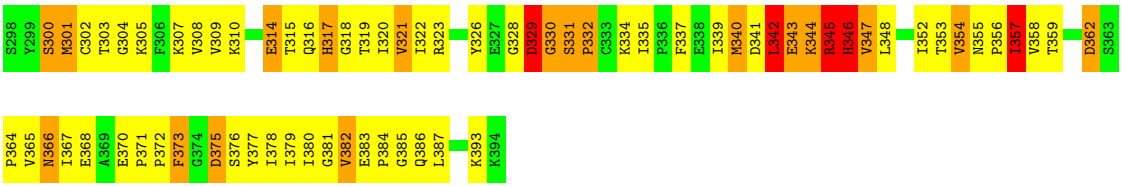
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	L	204	Total	C	N	O	S	0	0	0
			1582	989	268	319	6			

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.

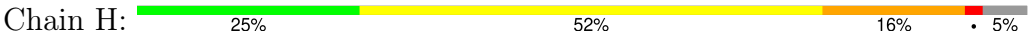
• Molecule 1: Major envelope protein E

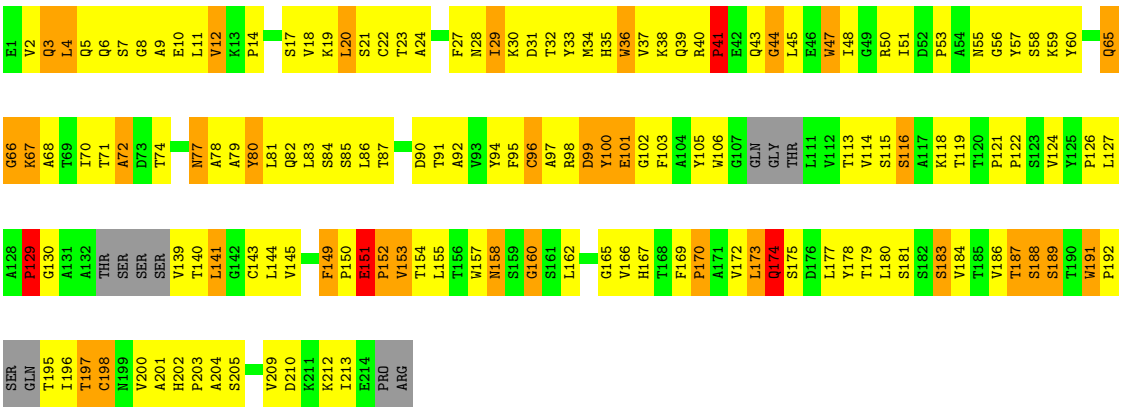
Chain A:



• Molecule 2: Heavy chain of 1A1D-2

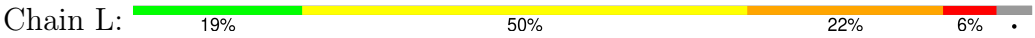
Chain H:

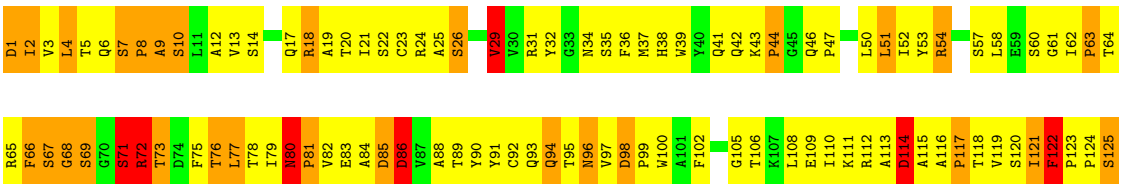


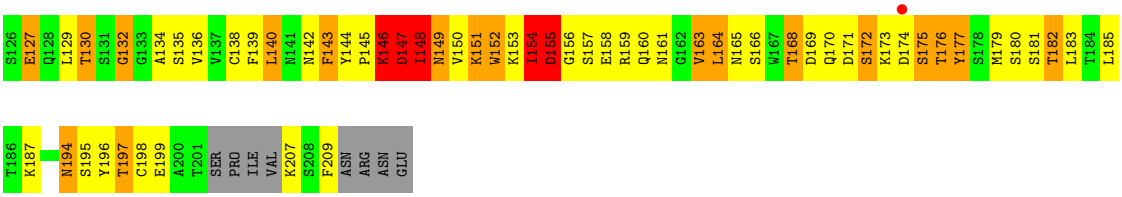


• Molecule 3: Light chain of 1A1D-2

Chain L:






S126
E127
Q128
L129
T130
S131
G132
G133
A134
S135
V136
V137
C138
F139
L140
N141
N142
F143
Y144
P145
K146
D147
I148
N149
V150
K151
W152
K153
I154
D155
G156
S157
E158
R159
Q160
N161
G162
V163
L164
N165
S166
W167
T168
D169
Q170
D171
S172
K173
D174
S175
T176
Y177
S178
M179
S180
S181
T182
L183
T184
L185
T186
K187
N194
S195
Y196
T197
C198
E199
A200
T201
SER
PRO
ILE
VAL
K207
S208
F209
ASN
ARG
ASN
GLU

4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	164.77Å 66.89Å 79.41Å 90.00° 113.05° 90.00°	Depositor
Resolution (Å)	20.00 – 3.80 30.41 – 3.60	Depositor EDS
% Data completeness (in resolution range)	73.2 (20.00-3.80) 68.4 (30.41-3.60)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.87 (at 3.56Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.313 , 0.363 0.305 , 0.348	Depositor DCC
R_{free} test set	705 reflections (10.96%)	wwPDB-VP
Wilson B-factor (Å^2)	61.4	Xtriage
Anisotropy	0.818	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.25 , -10.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.36$, $< L^2 > = 0.18$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.75	EDS
Total number of atoms	3886	wwPDB-VP
Average B, all atoms (Å^2)	19.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.44% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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	0.68	0/785	1.19	10/1060 (0.9%)
2	H	0.67	2/1574 (0.1%)	1.09	9/2149 (0.4%)
3	L	0.67	0/1618	1.25	19/2199 (0.9%)
All	All	0.67	2/3977 (0.1%)	1.17	38/5408 (0.7%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
3	L	0	2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	H	77	ASN	C-O	-5.29	1.13	1.23
2	H	47	TRP	CB-CG	5.19	1.59	1.50

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	L	148	ILE	N-CA-C	11.60	142.31	111.00
3	L	122	PHE	CB-CG-CD2	-10.57	113.40	120.80
3	L	147	ASP	N-CA-C	9.40	136.38	111.00
3	L	67	SER	N-CA-C	8.85	134.90	111.00
2	H	77	ASN	N-CA-C	8.28	133.36	111.00
2	H	175	SER	N-CA-C	7.92	132.40	111.00
1	A	373	PHE	N-CA-C	7.74	131.89	111.00
2	H	174	GLN	N-CA-C	-7.71	90.17	111.00
1	A	343	GLU	N-CA-C	-7.29	91.31	111.00
3	L	71	SER	N-CA-C	7.27	130.62	111.00
3	L	156	GLY	N-CA-C	-7.24	95.00	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	382	VAL	N-CA-C	-7.22	91.50	111.00
2	H	189	SER	N-CA-C	7.19	130.42	111.00
1	A	301	MET	N-CA-C	-7.14	91.73	111.00
1	A	345	ARG	N-CA-C	-6.96	92.22	111.00
1	A	300	SER	N-CA-C	6.38	128.23	111.00
3	L	66	PHE	N-CA-C	6.38	128.22	111.00
2	H	160	GLY	N-CA-C	-6.27	97.43	113.10
3	L	86	ASP	N-CA-C	6.27	127.92	111.00
3	L	154	ILE	N-CA-C	-6.24	94.15	111.00
3	L	175	SER	N-CA-C	6.21	127.76	111.00
2	H	129	PRO	CA-CB-CG	-6.09	92.42	104.00
3	L	146	LYS	C-N-CA	-5.88	106.99	121.70
3	L	140	LEU	N-CA-C	-5.85	95.21	111.00
1	A	347	VAL	N-CA-C	5.76	126.55	111.00
3	L	127	GLU	N-CA-C	-5.68	95.67	111.00
1	A	329	ASP	N-CA-C	5.62	126.18	111.00
3	L	121	ILE	N-CA-C	-5.62	95.83	111.00
2	H	151	GLU	N-CA-C	5.57	126.05	111.00
3	L	68	GLY	N-CA-C	5.55	126.99	113.10
2	H	72	ALA	N-CA-C	-5.48	96.21	111.00
1	A	344	LYS	N-CA-C	-5.46	96.27	111.00
2	H	80	TYR	CB-CG-CD2	-5.42	117.75	121.00
3	L	98	ASP	N-CA-C	5.40	125.57	111.00
1	A	342	LEU	N-CA-C	5.38	125.54	111.00
3	L	63	PRO	N-CA-C	-5.27	98.41	112.10
3	L	155	ASP	CA-C-N	-5.10	106.00	116.20
3	L	72	ARG	N-CA-C	-5.08	97.28	111.00

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	L	122	PHE	Sidechain
3	L	177	TYR	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	768	0	780	141	0
2	H	1536	0	1498	285	0
3	L	1582	0	1517	293	0
All	All	3886	0	3795	664	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 86.

All (664) 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)
2:H:129:PRO:HG3	3:L:122:PHE:CZ	1.53	1.43
1:A:301:MET:HA	1:A:334:LYS:HB3	1.24	1.17
3:L:160:GLN:O	3:L:163:VAL:HG23	1.44	1.16
3:L:148:ILE:CG2	3:L:149:ASN:H	1.61	1.14
2:H:183:SER:HB2	3:L:139:PHE:CE1	1.84	1.11
3:L:83:GLU:HG3	3:L:84:ALA:H	1.16	1.11
3:L:77:LEU:HD12	3:L:78:THR:H	1.09	1.11
2:H:68:ALA:HB1	2:H:81:LEU:HD11	1.32	1.10
3:L:148:ILE:HG23	3:L:149:ASN:H	0.97	1.10
3:L:120:SER:HB3	3:L:139:PHE:HB2	1.27	1.09
1:A:304:GLY:HA3	1:A:326:TYR:CE1	1.87	1.09
3:L:134:ALA:HB1	3:L:185:LEU:H	1.18	1.09
2:H:196:ILE:HG22	2:H:197:THR:H	1.17	1.09
3:L:71:SER:HA	3:L:75:PHE:HE2	1.15	1.08
3:L:121:ILE:HG12	3:L:207:LYS:N	1.70	1.07
2:H:139:VAL:HB	2:H:187:THR:HA	1.37	1.06
2:H:129:PRO:HB3	3:L:122:PHE:HE2	1.21	1.06
1:A:354:VAL:HG23	1:A:355:ASN:H	1.15	1.05
3:L:121:ILE:O	3:L:122:PHE:CD1	2.10	1.04
1:A:352:ILE:HD11	1:A:370:GLU:HB2	1.36	1.03
3:L:148:ILE:HG23	3:L:149:ASN:N	1.73	1.03
2:H:81:LEU:HD12	2:H:82:GLN:H	1.15	1.03
1:A:373:PHE:HB3	1:A:393:LYS:HD3	1.42	1.02
1:A:319:THR:OG1	1:A:368:GLU:HG3	1.60	1.01
3:L:120:SER:CB	3:L:139:PHE:HB2	1.90	1.01
2:H:127:LEU:HD23	3:L:125:SER:HB2	1.37	1.01
2:H:129:PRO:CG	3:L:122:PHE:CZ	2.43	1.01
3:L:118:THR:HG22	3:L:119:VAL:H	1.25	1.01
2:H:91:THR:HG23	2:H:113:THR:HA	1.40	1.00
3:L:18:ARG:H	3:L:18:ARG:HD3	1.25	1.00
2:H:127:LEU:CD2	3:L:125:SER:H	1.74	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:129:PRO:HG3	3:L:122:PHE:CE2	1.97	0.99
2:H:2:VAL:HG11	2:H:98:ARG:HH22	1.27	0.99
2:H:191:TRP:HB3	2:H:192:PRO:HD3	1.42	0.98
2:H:28:ASN:ND2	2:H:30:LYS:HB2	1.78	0.98
2:H:2:VAL:CG2	2:H:98:ARG:HH12	1.76	0.97
3:L:163:VAL:O	3:L:164:LEU:HD23	1.65	0.97
1:A:341:ASP:HB2	1:A:345:ARG:HB3	1.44	0.96
1:A:304:GLY:HA3	1:A:326:TYR:HE1	1.31	0.96
2:H:129:PRO:CG	3:L:122:PHE:CE2	2.49	0.96
2:H:40:ARG:HB3	2:H:41:PRO:HD2	1.46	0.96
3:L:84:ALA:HB1	3:L:172:SER:O	1.67	0.95
1:A:331:SER:OG	1:A:332:PRO:HD3	1.67	0.94
1:A:342:LEU:HD22	1:A:377:TYR:CZ	2.01	0.94
3:L:153:LYS:HA	3:L:158:GLU:HG3	1.47	0.94
3:L:93:GLN:HG2	3:L:94:GLN:H	1.30	0.93
2:H:129:PRO:CB	3:L:122:PHE:HE2	1.81	0.93
2:H:129:PRO:CB	3:L:122:PHE:CE2	2.52	0.93
2:H:184:VAL:HG22	2:H:186:VAL:HG22	1.50	0.93
2:H:139:VAL:HB	2:H:187:THR:CA	1.98	0.93
2:H:129:PRO:HB3	3:L:122:PHE:CE2	2.04	0.92
3:L:83:GLU:O	3:L:86:ASP:HB2	1.69	0.92
3:L:80:ASN:HB3	3:L:81:PRO:CD	1.98	0.92
3:L:108:LEU:HD12	3:L:109:GLU:H	1.35	0.92
2:H:23:THR:HA	2:H:78:ALA:HB2	1.51	0.91
2:H:197:THR:HG23	2:H:210:ASP:OD1	1.70	0.91
2:H:150:PRO:HG2	2:H:202:HIS:HE2	1.34	0.89
2:H:173:LEU:HD22	2:H:178:TYR:CE1	2.07	0.89
1:A:353:THR:HG21	1:A:356:PRO:HB3	1.55	0.88
3:L:14:SER:OG	3:L:17:GLN:HG2	1.71	0.88
1:A:307:LYS:HB2	3:L:54:ARG:NH2	1.88	0.88
1:A:341:ASP:HB2	1:A:345:ARG:CB	2.03	0.88
1:A:309:VAL:HA	2:H:100:TYR:HB3	1.55	0.88
3:L:71:SER:HA	3:L:75:PHE:CE2	2.07	0.87
3:L:153:LYS:HB3	3:L:197:THR:HB	1.56	0.86
1:A:340:MET:SD	1:A:344:LYS:HG3	2.16	0.86
3:L:77:LEU:HD12	3:L:78:THR:N	1.91	0.86
3:L:120:SER:HB3	3:L:139:PHE:CB	2.06	0.86
2:H:2:VAL:HG13	2:H:2:VAL:O	1.76	0.85
3:L:80:ASN:HB3	3:L:81:PRO:HD3	1.57	0.85
1:A:342:LEU:N	1:A:342:LEU:HD23	1.92	0.85
1:A:335:ILE:O	1:A:337:PHE:N	2.10	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2:VAL:CG1	2:H:98:ARG:HH22	1.88	0.84
3:L:39:TRP:HB2	3:L:52:ILE:HB	1.57	0.84
2:H:81:LEU:HD12	2:H:82:GLN:N	1.92	0.83
3:L:134:ALA:CB	3:L:185:LEU:H	1.90	0.83
3:L:50:LEU:HD12	3:L:51:LEU:H	1.44	0.83
3:L:89:THR:HA	3:L:106:THR:O	1.79	0.83
3:L:22:SER:HA	3:L:76:THR:HA	1.61	0.83
2:H:23:THR:HA	2:H:78:ALA:CB	2.09	0.83
3:L:77:LEU:CD1	3:L:78:THR:H	1.91	0.83
2:H:2:VAL:HG22	2:H:98:ARG:HH12	1.45	0.82
1:A:305:LYS:HZ3	1:A:385:GLY:HA2	1.43	0.82
1:A:373:PHE:HB3	1:A:393:LYS:CD	2.09	0.82
3:L:83:GLU:HG3	3:L:84:ALA:N	1.94	0.82
3:L:153:LYS:HA	3:L:158:GLU:CG	2.08	0.82
1:A:354:VAL:HG23	1:A:355:ASN:N	1.94	0.82
2:H:191:TRP:CB	2:H:192:PRO:HD3	2.09	0.82
3:L:97:VAL:HG12	3:L:99:PRO:HD3	1.60	0.82
2:H:139:VAL:CB	2:H:187:THR:HA	2.10	0.81
1:A:343:GLU:C	1:A:345:ARG:H	1.82	0.81
3:L:118:THR:HG22	3:L:119:VAL:N	1.95	0.81
3:L:118:THR:CG2	3:L:119:VAL:H	1.93	0.81
3:L:183:LEU:CD1	3:L:185:LEU:HD21	2.11	0.81
3:L:86:ASP:O	3:L:108:LEU:HD23	1.80	0.80
3:L:29:VAL:O	3:L:29:VAL:HG13	1.81	0.80
3:L:44:PRO:O	3:L:46:GLN:HG3	1.82	0.80
2:H:27:PHE:CE2	2:H:98:ARG:NH1	2.49	0.80
2:H:40:ARG:HG2	2:H:92:ALA:CB	2.13	0.79
2:H:22:CYS:O	2:H:78:ALA:HB1	1.82	0.79
3:L:120:SER:CB	3:L:139:PHE:CB	2.59	0.79
3:L:25:ALA:HB3	3:L:73:THR:OG1	1.84	0.79
2:H:196:ILE:HG22	2:H:197:THR:N	1.95	0.78
3:L:170:GLN:HA	3:L:176:THR:O	1.83	0.78
3:L:95:THR:HA	3:L:100:TRP:CD1	2.19	0.78
2:H:40:ARG:HH21	2:H:43:GLN:HG2	1.47	0.77
2:H:2:VAL:HG21	2:H:98:ARG:HH12	1.49	0.77
2:H:37:VAL:HG12	2:H:38:LYS:N	1.98	0.76
3:L:96:ASN:HD22	3:L:96:ASN:C	1.88	0.76
2:H:68:ALA:HB1	2:H:81:LEU:CD1	2.14	0.76
3:L:153:LYS:CA	3:L:158:GLU:HG3	2.15	0.76
2:H:50:ARG:HD3	3:L:100:TRP:HZ3	1.51	0.75
1:A:341:ASP:O	1:A:343:GLU:O	2.05	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:153:LYS:N	3:L:197:THR:O	2.20	0.75
3:L:83:GLU:CG	3:L:84:ALA:H	1.98	0.74
2:H:2:VAL:O	2:H:2:VAL:CG1	2.35	0.74
2:H:4:LEU:HD21	2:H:27:PHE:HZ	1.53	0.74
2:H:209:VAL:HG22	2:H:210:ASP:N	2.02	0.74
2:H:7:SER:OG	2:H:21:SER:OG	2.06	0.74
2:H:27:PHE:CD2	2:H:98:ARG:NH1	2.55	0.74
2:H:129:PRO:HG2	2:H:130:GLY:N	2.01	0.74
2:H:50:ARG:CD	3:L:100:TRP:HZ3	2.00	0.74
2:H:98:ARG:NH2	2:H:105:TYR:HD2	1.85	0.74
1:A:379:ILE:HA	1:A:387:LEU:O	1.87	0.73
2:H:202:HIS:CE1	2:H:205:SER:H	2.06	0.73
3:L:154:ILE:HD12	3:L:196:TYR:CE2	2.23	0.73
1:A:342:LEU:HD23	1:A:342:LEU:H	1.54	0.73
2:H:209:VAL:HG22	2:H:210:ASP:H	1.52	0.73
2:H:83:LEU:HB2	2:H:86:LEU:HD21	1.71	0.72
2:H:43:GLN:H	2:H:43:GLN:CD	1.93	0.72
3:L:76:THR:HG23	3:L:76:THR:O	1.89	0.72
3:L:148:ILE:CG2	3:L:149:ASN:N	2.38	0.72
2:H:186:VAL:HG12	2:H:188:SER:HB2	1.70	0.72
1:A:342:LEU:HD22	1:A:377:TYR:CE1	2.24	0.72
2:H:55:ASN:ND2	2:H:57:TYR:HB2	2.04	0.72
3:L:122:PHE:CD2	3:L:123:PRO:HD2	2.24	0.72
3:L:4:LEU:HA	3:L:24:ARG:O	1.89	0.72
2:H:34:MET:HG3	2:H:97:ALA:O	1.90	0.72
1:A:305:LYS:NZ	1:A:385:GLY:HA2	2.05	0.71
2:H:38:LYS:HB2	2:H:48:ILE:HD11	1.72	0.71
1:A:329:ASP:O	1:A:330:GLY:O	2.07	0.71
2:H:27:PHE:HE2	2:H:98:ARG:HH11	1.37	0.71
3:L:29:VAL:O	3:L:29:VAL:CG1	2.38	0.71
2:H:43:GLN:CD	2:H:43:GLN:N	2.43	0.71
2:H:150:PRO:HG2	2:H:202:HIS:NE2	2.04	0.71
2:H:186:VAL:C	2:H:188:SER:H	1.93	0.71
1:A:304:GLY:CA	1:A:326:TYR:HE1	2.02	0.71
3:L:21:ILE:HD12	3:L:21:ILE:N	2.05	0.71
1:A:343:GLU:C	1:A:345:ARG:N	2.43	0.71
1:A:352:ILE:HG22	1:A:352:ILE:O	1.91	0.71
1:A:375:ASP:OD2	1:A:375:ASP:N	2.24	0.71
2:H:184:VAL:HG22	2:H:186:VAL:CG2	2.20	0.70
3:L:18:ARG:HD3	3:L:18:ARG:N	2.04	0.70
3:L:31:ARG:HG2	3:L:32:TYR:HD1	1.54	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:129:PRO:HG3	3:L:122:PHE:HZ	1.47	0.70
2:H:4:LEU:HD13	2:H:22:CYS:SG	2.31	0.70
3:L:108:LEU:HD12	3:L:109:GLU:N	2.07	0.70
1:A:301:MET:CA	1:A:334:LYS:HB3	2.15	0.70
2:H:38:LYS:HG3	2:H:94:TYR:HE2	1.56	0.69
1:A:323:ARG:HD3	1:A:366:ASN:HD21	1.56	0.69
1:A:341:ASP:HB3	1:A:345:ARG:HD2	1.74	0.69
3:L:69:SER:HB3	3:L:76:THR:O	1.93	0.69
2:H:98:ARG:NH2	2:H:105:TYR:CD2	2.61	0.69
2:H:170:PRO:HD2	3:L:166:SER:OG	1.91	0.69
3:L:183:LEU:HD11	3:L:185:LEU:HD21	1.75	0.69
2:H:119:THR:HG22	2:H:150:PRO:HG3	1.73	0.69
3:L:68:GLY:O	3:L:69:SER:HB2	1.92	0.69
2:H:196:ILE:CG2	2:H:197:THR:H	2.00	0.69
1:A:320:ILE:HG13	1:A:320:ILE:O	1.93	0.69
2:H:139:VAL:N	2:H:187:THR:HG23	2.08	0.68
2:H:139:VAL:CG1	2:H:140:THR:N	2.56	0.68
2:H:68:ALA:CB	2:H:81:LEU:HD11	2.18	0.68
2:H:183:SER:HB2	3:L:139:PHE:HE1	1.57	0.68
1:A:335:ILE:HG22	1:A:337:PHE:HB2	1.76	0.67
2:H:39:GLN:HE22	3:L:42:GLN:NE2	1.91	0.67
3:L:121:ILE:HG22	3:L:122:PHE:N	2.09	0.67
1:A:305:LYS:HD3	1:A:385:GLY:HA3	1.76	0.67
3:L:46:GLN:HB3	3:L:47:PRO:HD2	1.77	0.67
2:H:172:VAL:C	2:H:173:LEU:HD23	2.15	0.67
1:A:352:ILE:CD1	1:A:370:GLU:HB2	2.18	0.67
3:L:62:ILE:HG23	3:L:62:ILE:O	1.94	0.67
1:A:357:ILE:HD13	1:A:357:ILE:H	1.60	0.66
2:H:55:ASN:O	2:H:57:TYR:N	2.28	0.66
1:A:307:LYS:HB2	3:L:54:ARG:HH22	1.60	0.66
3:L:110:ILE:HD11	3:L:175:SER:OG	1.96	0.66
2:H:28:ASN:HD21	2:H:30:LYS:HB2	1.56	0.66
3:L:57:SER:O	3:L:58:LEU:HD22	1.95	0.66
3:L:134:ALA:HB1	3:L:185:LEU:N	2.00	0.66
1:A:366:ASN:O	1:A:367:ILE:HD12	1.96	0.66
3:L:142:ASN:C	3:L:143:PHE:HD1	1.99	0.66
1:A:335:ILE:CG2	1:A:337:PHE:HB2	2.26	0.66
1:A:317:HIS:C	1:A:317:HIS:CD2	2.69	0.66
3:L:57:SER:C	3:L:58:LEU:HD22	2.16	0.66
2:H:55:ASN:HD21	2:H:57:TYR:HB2	1.61	0.65
3:L:21:ILE:O	3:L:77:LEU:N	2.24	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2:VAL:HG11	2:H:98:ARG:NH2	2.07	0.65
3:L:42:GLN:O	3:L:88:ALA:HB1	1.96	0.65
2:H:158:ASN:HB2	2:H:162:LEU:HB2	1.78	0.65
3:L:31:ARG:HG2	3:L:32:TYR:CD1	2.32	0.65
3:L:93:GLN:HG2	3:L:94:GLN:N	2.06	0.65
2:H:127:LEU:HD23	3:L:125:SER:H	1.60	0.65
2:H:2:VAL:HG21	2:H:98:ARG:NH1	2.10	0.65
2:H:186:VAL:O	2:H:188:SER:N	2.30	0.65
3:L:96:ASN:C	3:L:96:ASN:ND2	2.46	0.65
2:H:40:ARG:HB3	2:H:41:PRO:CD	2.26	0.65
2:H:195:THR:HG22	2:H:212:LYS:NZ	2.11	0.65
2:H:81:LEU:CD1	2:H:82:GLN:H	2.00	0.65
2:H:150:PRO:HG3	2:H:204:ALA:CB	2.27	0.64
2:H:195:THR:HG22	2:H:212:LYS:HZ2	1.62	0.64
2:H:127:LEU:HD22	3:L:123:PRO:O	1.98	0.64
3:L:62:ILE:O	3:L:62:ILE:CG2	2.45	0.64
3:L:84:ALA:HB1	3:L:172:SER:C	2.17	0.64
3:L:43:LYS:NZ	3:L:85:ASP:OD1	2.28	0.64
2:H:149:PHE:O	2:H:150:PRO:C	2.35	0.64
3:L:80:ASN:CB	3:L:81:PRO:CD	2.75	0.64
2:H:139:VAL:HG12	2:H:140:THR:N	2.13	0.64
1:A:379:ILE:HG22	1:A:380:ILE:N	2.12	0.64
3:L:50:LEU:HD12	3:L:51:LEU:N	2.12	0.64
1:A:358:VAL:HG13	1:A:365:VAL:CG2	2.27	0.64
2:H:38:LYS:HG3	2:H:94:TYR:CE2	2.31	0.64
1:A:303:THR:HG23	1:A:303:THR:O	1.97	0.64
1:A:326:TYR:CZ	1:A:328:GLY:HA3	2.34	0.63
2:H:202:HIS:CE1	2:H:204:ALA:HB3	2.33	0.63
2:H:59:LYS:HD2	3:L:98:ASP:HB3	1.81	0.63
3:L:163:VAL:O	3:L:164:LEU:CD2	2.44	0.63
2:H:44:GLY:C	2:H:45:LEU:HD12	2.18	0.63
3:L:38:HIS:CE1	3:L:95:THR:OG1	2.52	0.63
3:L:51:LEU:HG	3:L:62:ILE:HD12	1.79	0.63
1:A:307:LYS:HD2	2:H:101:GLU:HB2	1.80	0.63
2:H:127:LEU:HD23	3:L:125:SER:CB	2.22	0.63
2:H:72:ALA:HB2	2:H:79:ALA:HA	1.81	0.62
2:H:51:ILE:HG13	2:H:58:SER:HB3	1.81	0.62
2:H:118:LYS:HD3	2:H:119:THR:H	1.63	0.62
1:A:340:MET:CE	1:A:344:LYS:HE3	2.29	0.62
3:L:117:PRO:HA	3:L:142:ASN:O	1.99	0.62
3:L:161:ASN:O	3:L:183:LEU:CD1	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:35:HIS:O	2:H:96:CYS:HA	1.99	0.62
3:L:120:SER:HB2	3:L:139:PHE:O	2.00	0.62
3:L:124:PRO:CB	3:L:135:SER:OG	2.48	0.62
1:A:376:SER:O	1:A:377:TYR:HD2	1.83	0.62
2:H:184:VAL:O	2:H:186:VAL:HG23	1.98	0.61
3:L:2:ILE:CG2	3:L:3:VAL:N	2.63	0.61
3:L:142:ASN:OD1	3:L:143:PHE:N	2.33	0.61
2:H:139:VAL:CA	2:H:187:THR:HA	2.30	0.61
3:L:19:ALA:O	3:L:78:THR:HG23	2.00	0.61
3:L:84:ALA:CB	3:L:172:SER:O	2.45	0.61
2:H:150:PRO:CG	2:H:204:ALA:HB3	2.31	0.61
2:H:2:VAL:CG2	2:H:98:ARG:NH1	2.56	0.61
2:H:186:VAL:C	2:H:188:SER:N	2.49	0.61
1:A:334:LYS:HD2	1:A:335:ILE:H	1.64	0.61
2:H:65:GLN:HG2	2:H:66:GLY:N	2.15	0.61
2:H:99:ASP:HB2	2:H:102:GLY:O	2.01	0.61
3:L:120:SER:HB2	3:L:139:PHE:HB2	1.82	0.61
3:L:120:SER:HB2	3:L:139:PHE:CB	2.29	0.61
2:H:2:VAL:O	2:H:3:GLN:OE1	2.19	0.60
2:H:154:THR:HB	2:H:201:ALA:HB3	1.83	0.60
3:L:163:VAL:C	3:L:164:LEU:HD23	2.21	0.60
1:A:344:LYS:O	1:A:344:LYS:HG2	2.01	0.60
2:H:98:ARG:HG3	2:H:99:ASP:OD1	2.01	0.60
3:L:154:ILE:HD12	3:L:196:TYR:HE2	1.65	0.60
3:L:6:GLN:HE22	3:L:91:TYR:HA	1.65	0.60
1:A:373:PHE:CB	1:A:393:LYS:HD3	2.26	0.60
2:H:87:THR:O	2:H:114:VAL:HG21	2.02	0.60
2:H:172:VAL:HG12	2:H:179:THR:HB	1.83	0.60
3:L:12:ALA:HB2	3:L:109:GLU:HB3	1.82	0.60
2:H:184:VAL:O	2:H:184:VAL:HG13	2.02	0.60
2:H:32:THR:OG1	2:H:33:TYR:N	2.35	0.59
3:L:152:TRP:HA	3:L:152:TRP:CE3	2.36	0.59
3:L:146:LYS:HG3	3:L:177:TYR:CE1	2.37	0.59
3:L:14:SER:OG	3:L:17:GLN:CG	2.49	0.59
2:H:18:VAL:O	2:H:82:GLN:HG3	2.01	0.59
3:L:136:VAL:HG12	3:L:152:TRP:CZ2	2.37	0.59
1:A:300:SER:O	1:A:334:LYS:N	2.35	0.59
1:A:379:ILE:CG2	1:A:380:ILE:N	2.65	0.59
2:H:72:ALA:CB	2:H:79:ALA:HA	2.32	0.59
3:L:112:ARG:HD3	3:L:175:SER:HB3	1.85	0.59
1:A:307:LYS:HE3	2:H:100:TYR:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:380:ILE:O	1:A:387:LEU:HB2	2.01	0.59
1:A:383:GLU:O	1:A:384:PRO:C	2.38	0.59
2:H:150:PRO:CG	2:H:204:ALA:CB	2.80	0.59
1:A:357:ILE:HD13	1:A:357:ILE:N	2.18	0.59
3:L:51:LEU:O	3:L:52:ILE:HG12	2.03	0.59
2:H:191:TRP:HB3	2:H:192:PRO:CD	2.26	0.59
1:A:305:LYS:NZ	1:A:385:GLY:CA	2.65	0.58
2:H:37:VAL:HG12	2:H:38:LYS:H	1.66	0.58
3:L:62:ILE:O	3:L:63:PRO:C	2.41	0.58
1:A:305:LYS:CD	1:A:385:GLY:HA3	2.32	0.58
3:L:121:ILE:O	3:L:122:PHE:CG	2.55	0.58
1:A:319:THR:HG21	1:A:368:GLU:OE2	2.04	0.58
1:A:332:PRO:HA	1:A:358:VAL:O	2.03	0.58
1:A:342:LEU:HD22	1:A:377:TYR:CE2	2.38	0.58
2:H:29:ILE:HG12	2:H:53:PRO:HG2	1.84	0.58
2:H:60:TYR:HE2	2:H:70:ILE:HG13	1.67	0.58
3:L:166:SER:HB3	3:L:180:SER:O	2.04	0.58
2:H:100:TYR:O	2:H:101:GLU:HB2	2.04	0.58
3:L:14:SER:HA	3:L:111:LYS:HB2	1.85	0.58
2:H:50:ARG:NE	3:L:100:TRP:CZ3	2.71	0.58
2:H:139:VAL:CG1	2:H:141:LEU:CD2	2.82	0.58
2:H:180:LEU:HD23	2:H:181:SER:N	2.18	0.58
2:H:81:LEU:CD1	2:H:82:GLN:N	2.65	0.58
1:A:309:VAL:CA	2:H:100:TYR:HB3	2.32	0.57
1:A:323:ARG:CD	1:A:366:ASN:HD21	2.17	0.57
2:H:14:PRO:HG3	2:H:114:VAL:HG12	1.85	0.57
3:L:121:ILE:O	3:L:122:PHE:CB	2.52	0.57
3:L:161:ASN:O	3:L:183:LEU:HD13	2.03	0.57
3:L:77:LEU:CD1	3:L:78:THR:N	2.60	0.57
3:L:77:LEU:CG	3:L:78:THR:N	2.68	0.57
1:A:321:VAL:HG13	1:A:368:GLU:HB2	1.87	0.57
2:H:40:ARG:NH2	2:H:43:GLN:HG2	2.18	0.57
3:L:3:VAL:HG23	3:L:26:SER:HB3	1.87	0.57
2:H:37:VAL:CG1	2:H:38:LYS:N	2.66	0.57
2:H:186:VAL:HG12	2:H:188:SER:CB	2.35	0.56
3:L:146:LYS:HG3	3:L:177:TYR:HE1	1.70	0.56
1:A:342:LEU:N	1:A:342:LEU:CD2	2.64	0.56
2:H:6:GLN:HA	2:H:21:SER:O	2.04	0.56
2:H:40:ARG:CB	2:H:41:PRO:HD2	2.29	0.56
1:A:322:ILE:HG22	1:A:323:ARG:N	2.21	0.56
1:A:366:ASN:C	1:A:367:ILE:HD12	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:36:TRP:HA	2:H:95:PHE:O	2.05	0.56
3:L:97:VAL:HG12	3:L:99:PRO:CD	2.32	0.56
3:L:163:VAL:O	3:L:163:VAL:HG12	2.04	0.56
1:A:335:ILE:C	1:A:337:PHE:N	2.58	0.56
2:H:50:ARG:NE	3:L:100:TRP:HZ3	2.04	0.56
2:H:169:PHE:CE2	3:L:168:THR:OG1	2.58	0.56
2:H:30:LYS:HA	2:H:53:PRO:HB2	1.87	0.56
2:H:173:LEU:HD23	2:H:173:LEU:N	2.21	0.56
1:A:335:ILE:C	1:A:337:PHE:H	2.06	0.56
2:H:4:LEU:HD23	2:H:24:ALA:HA	1.88	0.56
2:H:45:LEU:HD13	3:L:91:TYR:CE2	2.41	0.56
2:H:139:VAL:N	2:H:187:THR:HA	2.20	0.56
2:H:202:HIS:CE1	2:H:205:SER:N	2.73	0.56
2:H:115:SER:OG	2:H:116:SER:N	2.39	0.56
2:H:98:ARG:HH22	2:H:105:TYR:HD2	1.54	0.56
3:L:5:THR:N	3:L:24:ARG:O	2.39	0.56
3:L:6:GLN:NE2	3:L:92:CYS:N	2.53	0.56
3:L:154:ILE:CD1	3:L:196:TYR:CE2	2.89	0.55
1:A:301:MET:HA	1:A:334:LYS:CB	2.18	0.55
2:H:34:MET:HA	2:H:97:ALA:O	2.06	0.55
1:A:323:ARG:HD3	1:A:366:ASN:ND2	2.20	0.55
2:H:2:VAL:CG2	2:H:27:PHE:HD2	2.19	0.55
2:H:65:GLN:O	2:H:67:LYS:N	2.40	0.55
2:H:59:LYS:CD	3:L:98:ASP:HB3	2.36	0.55
2:H:157:TRP:CZ3	2:H:198:CYS:SG	3.00	0.55
3:L:5:THR:OG1	3:L:24:ARG:HB2	2.07	0.55
1:A:358:VAL:HG13	1:A:365:VAL:HG22	1.88	0.55
2:H:40:ARG:HG2	2:H:92:ALA:HB2	1.89	0.55
3:L:71:SER:CA	3:L:75:PHE:HE2	2.06	0.54
2:H:127:LEU:CD2	3:L:125:SER:N	2.58	0.54
2:H:139:VAL:HB	2:H:186:VAL:O	2.08	0.54
2:H:3:GLN:O	2:H:5:GLN:HG3	2.08	0.54
2:H:144:LEU:C	2:H:144:LEU:HD23	2.27	0.54
1:A:353:THR:HG22	1:A:356:PRO:HD3	1.89	0.54
2:H:68:ALA:HA	2:H:82:GLN:O	2.08	0.54
3:L:39:TRP:O	3:L:50:LEU:HD12	2.08	0.54
1:A:381:GLY:C	1:A:382:VAL:O	2.37	0.54
2:H:173:LEU:HD22	2:H:178:TYR:HE1	1.65	0.54
2:H:40:ARG:HH21	2:H:43:GLN:CG	2.19	0.54
2:H:67:LYS:HB3	2:H:83:LEU:HD23	1.90	0.54
3:L:151:LYS:O	3:L:199:GLU:N	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:169:PHE:HB3	3:L:166:SER:OG	2.07	0.54
3:L:6:GLN:NE2	3:L:92:CYS:H	2.05	0.54
3:L:29:VAL:HG12	3:L:73:THR:OG1	2.08	0.54
1:A:337:PHE:CE1	1:A:367:ILE:HG21	2.42	0.54
2:H:36:TRP:HE3	2:H:95:PHE:O	1.90	0.54
2:H:209:VAL:CG2	2:H:210:ASP:N	2.70	0.54
3:L:50:LEU:O	3:L:51:LEU:HD22	2.07	0.54
1:A:379:ILE:C	1:A:380:ILE:HG13	2.28	0.53
2:H:155:LEU:HD23	2:H:155:LEU:O	2.09	0.53
3:L:118:THR:CG2	3:L:119:VAL:N	2.61	0.53
1:A:317:HIS:CD2	1:A:319:THR:HG22	2.42	0.53
3:L:31:ARG:HB3	3:L:36:PHE:CE1	2.43	0.53
2:H:150:PRO:HG3	2:H:204:ALA:HB3	1.91	0.53
2:H:209:VAL:CG2	2:H:210:ASP:H	2.18	0.53
3:L:6:GLN:NE2	3:L:105:GLY:HA2	2.24	0.53
1:A:335:ILE:CD1	1:A:367:ILE:HD11	2.39	0.53
3:L:35:SER:O	3:L:54:ARG:HA	2.09	0.53
3:L:182:THR:OG1	3:L:183:LEU:N	2.36	0.53
1:A:354:VAL:CG2	1:A:355:ASN:H	1.96	0.53
1:A:380:ILE:O	1:A:387:LEU:HD23	2.09	0.53
2:H:180:LEU:HD23	2:H:180:LEU:C	2.30	0.53
1:A:307:LYS:CB	3:L:54:ARG:HH22	2.21	0.53
1:A:376:SER:C	1:A:377:TYR:HD2	2.12	0.53
1:A:334:LYS:HG3	1:A:335:ILE:N	2.23	0.52
3:L:22:SER:CA	3:L:76:THR:HA	2.36	0.52
2:H:37:VAL:HG21	2:H:106:TRP:HZ3	1.74	0.52
2:H:39:GLN:NE2	3:L:42:GLN:HE22	2.07	0.52
3:L:154:ILE:O	3:L:154:ILE:CG2	2.56	0.52
2:H:126:PRO:O	3:L:125:SER:CB	2.57	0.52
3:L:95:THR:C	3:L:100:TRP:HE1	2.12	0.52
3:L:113:ALA:O	3:L:114:ASP:C	2.48	0.52
3:L:124:PRO:HB3	3:L:135:SER:OG	2.08	0.52
2:H:47:TRP:CG	3:L:100:TRP:O	2.63	0.52
2:H:50:ARG:HD3	3:L:100:TRP:CZ3	2.38	0.52
2:H:83:LEU:CB	2:H:86:LEU:HD21	2.39	0.52
2:H:144:LEU:HD23	2:H:145:VAL:N	2.25	0.52
3:L:187:LYS:O	3:L:187:LYS:HG2	2.10	0.52
2:H:20:LEU:CD1	2:H:21:SER:H	2.23	0.52
3:L:132:GLY:HA2	3:L:187:LYS:HB2	1.92	0.52
3:L:51:LEU:O	3:L:52:ILE:HD13	2.10	0.52
3:L:97:VAL:O	3:L:100:TRP:CD1	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:102:GLY:N	3:L:38:HIS:NE2	2.57	0.51
3:L:9:ALA:O	3:L:10:SER:HB3	2.10	0.51
1:A:340:MET:SD	1:A:344:LYS:CG	2.96	0.51
2:H:39:GLN:HE22	3:L:42:GLN:CD	2.14	0.51
2:H:68:ALA:HB2	2:H:83:LEU:CD2	2.40	0.51
3:L:51:LEU:O	3:L:52:ILE:CG1	2.59	0.51
3:L:154:ILE:O	3:L:154:ILE:HG22	2.08	0.51
2:H:27:PHE:HE2	2:H:98:ARG:NH1	1.98	0.51
2:H:100:TYR:O	2:H:101:GLU:CB	2.59	0.51
1:A:378:ILE:CG2	1:A:379:ILE:N	2.72	0.51
3:L:124:PRO:O	3:L:125:SER:C	2.47	0.51
3:L:37:MET:HE1	3:L:93:GLN:O	2.11	0.51
1:A:334:LYS:HE3	1:A:335:ILE:O	2.11	0.51
1:A:339:ILE:C	1:A:340:MET:HG2	2.30	0.51
2:H:129:PRO:CG	2:H:130:GLY:N	2.55	0.51
2:H:172:VAL:HB	2:H:179:THR:O	2.11	0.51
3:L:151:LYS:N	3:L:199:GLU:O	2.26	0.51
3:L:153:LYS:CA	3:L:158:GLU:CG	2.83	0.51
2:H:150:PRO:HG3	2:H:204:ALA:HB1	1.93	0.51
1:A:321:VAL:HG12	1:A:367:ILE:O	2.11	0.51
2:H:33:TYR:O	2:H:98:ARG:HA	2.11	0.51
1:A:308:VAL:O	2:H:101:GLU:HG3	2.11	0.50
1:A:345:ARG:O	1:A:346:HIS:C	2.48	0.50
3:L:8:PRO:C	3:L:10:SER:H	2.14	0.50
3:L:29:VAL:HG21	3:L:94:GLN:CD	2.31	0.50
3:L:154:ILE:HD13	3:L:159:ARG:CG	2.41	0.50
2:H:44:GLY:HA2	3:L:91:TYR:OH	2.10	0.50
2:H:118:LYS:HD3	2:H:119:THR:HG23	1.93	0.50
3:L:37:MET:CE	3:L:93:GLN:O	2.59	0.50
2:H:4:LEU:HD21	2:H:27:PHE:CZ	2.40	0.50
3:L:142:ASN:C	3:L:143:PHE:CD1	2.82	0.50
1:A:317:HIS:C	1:A:317:HIS:HD2	2.12	0.50
2:H:127:LEU:HD22	3:L:125:SER:H	1.69	0.50
2:H:212:LYS:HG3	2:H:213:ILE:N	2.27	0.50
2:H:40:ARG:HG2	2:H:92:ALA:HB3	1.92	0.50
2:H:127:LEU:H	2:H:143:CYS:HA	1.77	0.50
3:L:2:ILE:HG23	3:L:3:VAL:N	2.25	0.50
1:A:344:LYS:O	1:A:344:LYS:CG	2.60	0.50
3:L:18:ARG:O	3:L:18:ARG:HG2	2.10	0.50
2:H:6:GLN:OE1	2:H:95:PHE:HA	2.11	0.49
2:H:201:ALA:O	2:H:203:PRO:HD3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:38:HIS:HB2	3:L:93:GLN:HB3	1.94	0.49
3:L:76:THR:O	3:L:76:THR:CG2	2.58	0.49
3:L:93:GLN:CG	3:L:94:GLN:H	2.14	0.49
2:H:169:PHE:CD2	3:L:168:THR:OG1	2.66	0.49
2:H:212:LYS:O	2:H:213:ILE:HG12	2.12	0.49
3:L:39:TRP:CD2	3:L:77:LEU:HD22	2.47	0.49
3:L:41:GLN:HG3	3:L:90:TYR:HE1	1.77	0.49
1:A:316:GLN:C	1:A:318:GLY:N	2.66	0.49
3:L:142:ASN:C	3:L:142:ASN:OD1	2.51	0.49
2:H:11:LEU:HD11	2:H:115:SER:HB3	1.95	0.49
2:H:139:VAL:HB	2:H:187:THR:C	2.32	0.49
1:A:353:THR:O	1:A:354:VAL:C	2.50	0.49
2:H:2:VAL:HG22	2:H:98:ARG:NH1	2.21	0.49
3:L:155:ASP:HB2	3:L:195:SER:OG	2.13	0.49
2:H:24:ALA:HB1	2:H:27:PHE:CZ	2.48	0.49
3:L:2:ILE:HG23	3:L:3:VAL:H	1.78	0.49
2:H:157:TRP:CZ2	2:H:184:VAL:HG12	2.47	0.49
3:L:166:SER:HB3	3:L:180:SER:HB3	1.94	0.49
1:A:386:GLN:H	1:A:386:GLN:CD	2.17	0.48
2:H:126:PRO:HA	2:H:143:CYS:HB2	1.95	0.48
3:L:112:ARG:O	3:L:144:TYR:CD2	2.66	0.48
2:H:29:ILE:HG12	2:H:53:PRO:CG	2.43	0.48
3:L:2:ILE:O	3:L:3:VAL:HG22	2.14	0.48
3:L:154:ILE:HG22	3:L:157:SER:O	2.13	0.48
2:H:37:VAL:CG1	2:H:38:LYS:H	2.26	0.48
3:L:6:GLN:CD	3:L:92:CYS:HB3	2.34	0.48
3:L:21:ILE:N	3:L:21:ILE:CD1	2.74	0.48
1:A:334:LYS:CG	1:A:335:ILE:N	2.76	0.48
2:H:43:GLN:N	2:H:43:GLN:NE2	2.61	0.48
3:L:95:THR:C	3:L:100:TRP:NE1	2.67	0.48
1:A:344:LYS:O	1:A:345:ARG:C	2.51	0.48
2:H:100:TYR:HD1	2:H:101:GLU:N	2.12	0.48
1:A:343:GLU:O	1:A:345:ARG:N	2.42	0.48
3:L:14:SER:HG	3:L:17:GLN:HG2	1.72	0.48
3:L:37:MET:O	3:L:38:HIS:CD2	2.67	0.48
3:L:121:ILE:CG2	3:L:122:PHE:N	2.77	0.48
1:A:307:LYS:HZ1	2:H:99:ASP:HB3	1.79	0.48
2:H:166:VAL:HG12	2:H:167:HIS:N	2.29	0.48
3:L:51:LEU:O	3:L:52:ILE:CD1	2.61	0.48
1:A:335:ILE:HD11	1:A:365:VAL:HG11	1.95	0.48
2:H:197:THR:HG23	2:H:210:ASP:CG	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:23:CYS:O	3:L:24:ARG:HG2	2.13	0.48
3:L:8:PRO:O	3:L:10:SER:N	2.47	0.47
1:A:341:ASP:CB	1:A:345:ARG:HD2	2.44	0.47
2:H:103:PHE:N	2:H:103:PHE:CD2	2.82	0.47
2:H:157:TRP:CH2	2:H:198:CYS:SG	3.06	0.47
1:A:316:GLN:C	1:A:318:GLY:H	2.16	0.47
2:H:139:VAL:C	2:H:140:THR:HG23	2.33	0.47
2:H:28:ASN:HD21	2:H:30:LYS:HD2	1.79	0.47
2:H:65:GLN:O	2:H:66:GLY:C	2.51	0.47
2:H:12:VAL:HG11	2:H:17:SER:O	2.15	0.47
2:H:36:TRP:CE3	2:H:95:PHE:O	2.67	0.47
2:H:39:GLN:NE2	3:L:42:GLN:NE2	2.58	0.47
3:L:31:ARG:HB3	3:L:36:PHE:HE1	1.78	0.47
3:L:51:LEU:C	3:L:52:ILE:HG12	2.35	0.47
1:A:353:THR:O	1:A:354:VAL:O	2.32	0.47
1:A:373:PHE:HB3	1:A:393:LYS:CE	2.45	0.47
2:H:28:ASN:O	2:H:30:LYS:N	2.48	0.47
3:L:71:SER:C	3:L:72:ARG:O	2.49	0.47
3:L:194:ASN:CG	3:L:195:SER:N	2.69	0.47
2:H:60:TYR:CE2	2:H:70:ILE:HG13	2.50	0.46
2:H:36:TRP:HA	2:H:36:TRP:CE3	2.50	0.46
2:H:78:ALA:O	2:H:80:TYR:CE1	2.68	0.46
2:H:27:PHE:HD2	2:H:98:ARG:NH1	2.12	0.46
2:H:80:TYR:N	2:H:80:TYR:CD1	2.82	0.46
1:A:340:MET:HE2	1:A:344:LYS:HE3	1.97	0.46
3:L:7:SER:HB3	3:L:8:PRO:CD	2.46	0.46
2:H:141:LEU:N	2:H:141:LEU:HD23	2.30	0.46
3:L:1:ASP:O	3:L:2:ILE:HG12	2.16	0.46
2:H:4:LEU:CD2	2:H:24:ALA:HB2	2.46	0.46
3:L:22:SER:HB2	3:L:75:PHE:O	2.16	0.46
3:L:153:LYS:CB	3:L:158:GLU:HG3	2.46	0.46
3:L:4:LEU:CA	3:L:24:ARG:O	2.63	0.46
3:L:8:PRO:C	3:L:10:SER:N	2.68	0.46
3:L:77:LEU:HG	3:L:78:THR:N	2.31	0.46
3:L:122:PHE:HA	3:L:123:PRO:HD2	1.44	0.46
3:L:143:PHE:N	3:L:143:PHE:CD1	2.84	0.46
3:L:116:ALA:HA	3:L:117:PRO:HD2	1.70	0.46
1:A:339:ILE:CG2	1:A:377:TYR:O	2.64	0.46
1:A:339:ILE:HG23	1:A:378:ILE:HD13	1.98	0.46
2:H:157:TRP:CE2	2:H:184:VAL:HG12	2.51	0.46
3:L:43:LYS:NZ	3:L:85:ASP:O	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:94:GLN:O	3:L:94:GLN:HG2	2.16	0.45
3:L:154:ILE:CG2	3:L:157:SER:O	2.64	0.45
2:H:28:ASN:O	2:H:29:ILE:C	2.54	0.45
2:H:67:LYS:HZ3	2:H:86:LEU:HA	1.82	0.45
3:L:53:TYR:C	3:L:54:ARG:HG3	2.35	0.45
2:H:124:VAL:HG11	2:H:209:VAL:HG11	1.97	0.45
3:L:172:SER:O	3:L:173:LYS:C	2.54	0.45
3:L:4:LEU:HD11	3:L:102:PHE:O	2.16	0.45
3:L:152:TRP:O	3:L:158:GLU:HB3	2.16	0.45
2:H:20:LEU:HD13	2:H:21:SER:H	1.80	0.45
2:H:27:PHE:CE2	2:H:98:ARG:HD3	2.52	0.45
2:H:39:GLN:CD	3:L:42:GLN:HE22	2.20	0.45
3:L:31:ARG:O	3:L:34:ASN:O	2.34	0.45
3:L:79:ILE:O	3:L:79:ILE:HG22	2.17	0.45
3:L:140:LEU:HD12	3:L:140:LEU:N	2.32	0.45
3:L:110:ILE:HG21	3:L:110:ILE:HD13	1.59	0.45
1:A:307:LYS:NZ	2:H:101:GLU:O	2.44	0.45
2:H:187:THR:HG22	2:H:187:THR:O	2.16	0.45
3:L:154:ILE:HD13	3:L:159:ARG:HG2	1.99	0.45
2:H:139:VAL:O	2:H:140:THR:CG2	2.65	0.45
3:L:7:SER:O	3:L:9:ALA:N	2.49	0.45
2:H:67:LYS:NZ	2:H:86:LEU:HA	2.31	0.44
3:L:127:GLU:HB3	3:L:130:THR:OG1	2.17	0.44
1:A:353:THR:CG2	1:A:356:PRO:HD3	2.48	0.44
2:H:139:VAL:CG1	2:H:141:LEU:HD23	2.47	0.44
3:L:115:ALA:HB3	3:L:144:TYR:N	2.33	0.44
1:A:322:ILE:O	1:A:323:ARG:HG2	2.18	0.44
1:A:334:LYS:CD	1:A:335:ILE:H	2.30	0.44
3:L:29:VAL:HG21	3:L:94:GLN:CG	2.48	0.44
3:L:148:ILE:HG23	3:L:149:ASN:HB2	1.98	0.44
3:L:150:VAL:CG2	3:L:199:GLU:O	2.65	0.44
2:H:84:SER:O	2:H:85:SER:C	2.56	0.44
2:H:91:THR:O	2:H:92:ALA:HB2	2.18	0.44
2:H:106:TRP:N	2:H:106:TRP:CD1	2.85	0.44
2:H:152:PRO:O	2:H:153:VAL:HG13	2.18	0.44
1:A:345:ARG:O	1:A:346:HIS:O	2.36	0.44
2:H:77:ASN:HB3	2:H:78:ALA:H	1.55	0.44
3:L:68:GLY:O	3:L:69:SER:CB	2.63	0.44
1:A:308:VAL:CG2	1:A:310:LYS:O	2.66	0.43
1:A:362:ASP:OD1	1:A:362:ASP:N	2.38	0.43
2:H:45:LEU:HD13	3:L:91:TYR:CZ	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:81:LEU:CG	2:H:82:GLN:N	2.81	0.43
1:A:352:ILE:O	1:A:352:ILE:CG2	2.62	0.43
2:H:37:VAL:HG21	2:H:106:TRP:CZ3	2.52	0.43
3:L:84:ALA:C	3:L:172:SER:HB2	2.39	0.43
3:L:84:ALA:O	3:L:172:SER:HB2	2.18	0.43
3:L:89:THR:HG1	3:L:91:TYR:HE1	1.63	0.43
3:L:164:LEU:O	3:L:181:SER:OG	2.22	0.43
2:H:174:GLN:O	2:H:177:LEU:O	2.36	0.43
3:L:115:ALA:H	3:L:144:TYR:HB3	1.83	0.43
1:A:314:GLU:O	1:A:315:THR:C	2.54	0.43
1:A:337:PHE:C	1:A:337:PHE:CD2	2.91	0.43
1:A:357:ILE:HG12	1:A:358:VAL:N	2.33	0.43
1:A:376:SER:C	1:A:377:TYR:CD2	2.92	0.43
2:H:72:ALA:HB2	2:H:79:ALA:CB	2.49	0.43
2:H:153:VAL:HG23	2:H:153:VAL:O	2.18	0.43
3:L:51:LEU:HD13	3:L:51:LEU:HA	1.77	0.43
2:H:47:TRP:CB	3:L:100:TRP:O	2.66	0.43
3:L:3:VAL:CG2	3:L:26:SER:HB3	2.47	0.43
3:L:3:VAL:O	3:L:25:ALA:HA	2.18	0.43
3:L:31:ARG:CG	3:L:32:TYR:CD1	3.00	0.43
3:L:120:SER:HB2	3:L:139:PHE:C	2.38	0.43
3:L:127:GLU:OE1	3:L:127:GLU:HA	2.18	0.43
3:L:153:LYS:NZ	3:L:199:GLU:OE1	2.50	0.43
1:A:339:ILE:HG22	1:A:340:MET:N	2.34	0.43
1:A:355:ASN:CG	1:A:355:ASN:O	2.57	0.43
2:H:45:LEU:HD12	2:H:45:LEU:N	2.33	0.43
2:H:68:ALA:HB2	2:H:83:LEU:HD23	1.99	0.43
3:L:95:THR:HG22	3:L:95:THR:O	2.18	0.43
1:A:353:THR:CG2	1:A:356:PRO:HB3	2.36	0.43
3:L:51:LEU:CG	3:L:62:ILE:HD12	2.48	0.43
2:H:40:ARG:O	2:H:41:PRO:C	2.57	0.43
3:L:52:ILE:HG23	3:L:57:SER:OG	2.19	0.43
3:L:183:LEU:CG	3:L:185:LEU:HD21	2.48	0.43
1:A:308:VAL:HG12	2:H:101:GLU:OE2	2.19	0.43
2:H:72:ALA:HB2	2:H:79:ALA:CA	2.49	0.43
1:A:379:ILE:C	1:A:380:ILE:CG1	2.88	0.43
3:L:29:VAL:HG21	3:L:94:GLN:HG3	2.00	0.42
2:H:60:TYR:HE2	2:H:70:ILE:H	1.65	0.42
3:L:12:ALA:HA	3:L:109:GLU:O	2.19	0.42
3:L:95:THR:HA	3:L:100:TRP:NE1	2.34	0.42
3:L:154:ILE:CD1	3:L:196:TYR:HE2	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:19:LYS:HA	2:H:81:LEU:O	2.19	0.42
2:H:169:PHE:HB3	2:H:170:PRO:HD2	2.01	0.42
2:H:195:THR:CG2	2:H:212:LYS:NZ	2.82	0.42
3:L:6:GLN:HE22	3:L:92:CYS:H	1.66	0.42
2:H:50:ARG:O	2:H:58:SER:HB2	2.19	0.42
3:L:13:VAL:CG1	3:L:17:GLN:HB2	2.50	0.42
3:L:89:THR:O	3:L:91:TYR:CD1	2.72	0.42
3:L:127:GLU:C	3:L:129:LEU:N	2.72	0.42
1:A:341:ASP:OD1	1:A:348:LEU:HB3	2.20	0.42
2:H:2:VAL:HG21	2:H:27:PHE:HD2	1.83	0.42
2:H:70:ILE:HG22	2:H:71:THR:N	2.34	0.42
2:H:124:VAL:HG13	2:H:124:VAL:O	2.20	0.42
2:H:197:THR:CG2	2:H:198:CYS:N	2.82	0.42
3:L:12:ALA:CB	3:L:109:GLU:HB3	2.49	0.42
1:A:331:SER:O	1:A:359:THR:O	2.37	0.42
1:A:317:HIS:NE2	1:A:319:THR:CG2	2.82	0.42
2:H:118:LYS:CD	2:H:119:THR:H	2.31	0.42
1:A:357:ILE:N	1:A:357:ILE:CD1	2.82	0.42
3:L:29:VAL:HG22	3:L:96:ASN:HB3	2.01	0.42
2:H:51:ILE:CD1	2:H:71:THR:HA	2.49	0.42
2:H:183:SER:CB	3:L:139:PHE:CE1	2.78	0.42
1:A:335:ILE:HG22	1:A:337:PHE:N	2.35	0.42
1:A:340:MET:O	1:A:377:TYR:HB2	2.20	0.42
2:H:4:LEU:HA	2:H:24:ALA:HA	2.01	0.42
2:H:27:PHE:CD1	2:H:27:PHE:C	2.93	0.42
2:H:139:VAL:CG1	2:H:140:THR:H	2.33	0.42
3:L:20:THR:C	3:L:21:ILE:HD12	2.38	0.42
3:L:52:ILE:HG22	3:L:53:TYR:N	2.34	0.42
2:H:67:LYS:HZ2	2:H:86:LEU:HD23	1.85	0.41
2:H:212:LYS:C	2:H:213:ILE:CG1	2.89	0.41
3:L:121:ILE:CD1	3:L:207:LYS:HB2	2.50	0.41
3:L:147:ASP:HB3	3:L:148:ILE:H	1.73	0.41
2:H:65:GLN:C	2:H:67:LYS:N	2.73	0.41
2:H:103:PHE:HD1	2:H:106:TRP:CH2	2.38	0.41
3:L:51:LEU:HD11	3:L:62:ILE:HB	2.02	0.41
1:A:341:ASP:HB2	1:A:345:ARG:HB2	1.95	0.41
3:L:2:ILE:C	3:L:3:VAL:CG2	2.88	0.41
2:H:139:VAL:CG1	2:H:186:VAL:O	2.68	0.41
2:H:155:LEU:HD12	2:H:200:VAL:HG22	2.02	0.41
1:A:364:PRO:HG3	2:H:31:ASP:HB3	2.01	0.41
3:L:63:PRO:O	3:L:65:ARG:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:27:PHE:CD1	2:H:27:PHE:O	2.74	0.41
1:A:383:GLU:O	1:A:385:GLY:N	2.53	0.41
3:L:145:PRO:O	3:L:147:ASP:N	2.53	0.41
1:A:307:LYS:HD2	2:H:101:GLU:CB	2.50	0.41
1:A:341:ASP:CB	1:A:345:ARG:CB	2.89	0.41
2:H:4:LEU:CD2	2:H:27:PHE:HZ	2.30	0.41
3:L:108:LEU:CD1	3:L:109:GLU:H	2.19	0.41
3:L:174:ASP:O	3:L:175:SER:HB3	2.20	0.41
2:H:139:VAL:HG11	2:H:186:VAL:O	2.21	0.41
3:L:4:LEU:H	3:L:4:LEU:HD12	1.85	0.41
3:L:134:ALA:HB2	3:L:185:LEU:C	2.41	0.41
1:A:387:LEU:HD13	1:A:387:LEU:HA	1.90	0.40
3:L:38:HIS:HE1	3:L:95:THR:OG1	2.03	0.40
3:L:154:ILE:HD13	3:L:159:ARG:HG3	2.01	0.40
2:H:28:ASN:HD21	2:H:30:LYS:CB	2.28	0.40
1:A:305:LYS:HZ2	1:A:385:GLY:CA	2.32	0.40
1:A:378:ILE:HG22	1:A:379:ILE:N	2.36	0.40
2:H:9:ALA:O	2:H:10:GLU:HG3	2.22	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	95/97 (98%)	64 (67%)	23 (24%)	8 (8%)	1 13
2	H	195/214 (91%)	144 (74%)	31 (16%)	20 (10%)	0 9
3	L	200/212 (94%)	133 (66%)	45 (22%)	22 (11%)	0 8
All	All	490/523 (94%)	341 (70%)	99 (20%)	50 (10%)	0 9

All (50) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	330	GLY
1	A	332	PRO
1	A	354	VAL
2	H	8	GLY
2	H	56	GLY
2	H	67	LYS
2	H	129	PRO
2	H	149	PHE
2	H	151	GLU
3	L	26	SER
3	L	29	VAL
3	L	67	SER
3	L	86	ASP
3	L	117	PRO
3	L	148	ILE
3	L	163	VAL
2	H	29	ILE
2	H	41	PRO
2	H	44	GLY
2	H	65	GLN
2	H	101	GLU
2	H	189	SER
3	L	61	GLY
3	L	64	THR
3	L	69	SER
1	A	331	SER
1	A	346	HIS
1	A	371	PRO
2	H	66	GLY
2	H	187	THR
3	L	44	PRO
3	L	76	THR
3	L	80	ASN
3	L	114	ASP
3	L	146	LYS
1	A	342	LEU
2	H	121	PRO
3	L	8	PRO
3	L	132	GLY
2	H	153	VAL
3	L	9	ALA
3	L	10	SER
3	L	73	THR

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Mol	Chain	Res	Type
2	H	152	PRO
2	H	165	GLY
3	L	7	SER
1	A	357	ILE
2	H	160	GLY
3	L	122	PHE
2	H	170	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	87/87 (100%)	72 (83%)	15 (17%)	2 13
2	H	171/181 (94%)	147 (86%)	24 (14%)	3 21
3	L	178/186 (96%)	135 (76%)	43 (24%)	0 5
All	All	436/454 (96%)	354 (81%)	82 (19%)	1 10

All (82) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	302	CYS
1	A	314	GLU
1	A	317	HIS
1	A	321	VAL
1	A	329	ASP
1	A	340	MET
1	A	342	LEU
1	A	345	ARG
1	A	346	HIS
1	A	347	VAL
1	A	357	ILE
1	A	362	ASP
1	A	366	ASN
1	A	372	PRO
1	A	375	ASP

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Mol	Chain	Res	Type
2	H	3	GLN
2	H	4	LEU
2	H	12	VAL
2	H	20	LEU
2	H	36	TRP
2	H	41	PRO
2	H	74	THR
2	H	90	ASP
2	H	96	CYS
2	H	99	ASP
2	H	100	TYR
2	H	116	SER
2	H	122	PRO
2	H	129	PRO
2	H	141	LEU
2	H	151	GLU
2	H	158	ASN
2	H	173	LEU
2	H	174	GLN
2	H	183	SER
2	H	188	SER
2	H	191	TRP
2	H	197	THR
2	H	198	CYS
3	L	1	ASP
3	L	2	ILE
3	L	4	LEU
3	L	18	ARG
3	L	29	VAL
3	L	51	LEU
3	L	54	ARG
3	L	60	SER
3	L	66	PHE
3	L	71	SER
3	L	72	ARG
3	L	77	LEU
3	L	80	ASN
3	L	81	PRO
3	L	82	VAL
3	L	85	ASP
3	L	94	GLN
3	L	96	ASN

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Mol	Chain	Res	Type
3	L	114	ASP
3	L	125	SER
3	L	130	THR
3	L	138	CYS
3	L	143	PHE
3	L	147	ASP
3	L	148	ILE
3	L	149	ASN
3	L	151	LYS
3	L	152	TRP
3	L	154	ILE
3	L	155	ASP
3	L	164	LEU
3	L	165	ASN
3	L	168	THR
3	L	169	ASP
3	L	171	ASP
3	L	172	SER
3	L	176	THR
3	L	179	MET
3	L	182	THR
3	L	194	ASN
3	L	197	THR
3	L	198	CYS
3	L	209	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (12) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	316	GLN
1	A	317	HIS
1	A	325	GLN
1	A	366	ASN
1	A	390	ASN
2	H	28	ASN
2	H	39	GLN
2	H	82	GLN
3	L	6	GLN
3	L	42	GLN
3	L	46	GLN
3	L	194	ASN

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	97/97 (100%)	-0.38	0	100	100	20, 20, 20, 20	0
2	H	203/214 (94%)	-0.43	0	100	100	20, 20, 20, 20	0
3	L	204/212 (96%)	-0.32	1 (0%)	91	87	20, 20, 20, 20	0
All	All	504/523 (96%)	-0.38	1 (0%)	95	94	20, 20, 20, 20	0

All (1) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	L	174	ASP	2.2

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

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

6.3 Carbohydrates

There are no monosaccharides in this entry.

6.4 Ligands

There are no ligands in this entry.

6.5 Other polymers

There are no such residues in this entry.