Full wwPDB X-ray Structure Validation Report ⓘ

Mar 8, 2026 – 08:13 AM UTC

PDB ID	:	6ULW / pdb_00006ulw
Title	:	Adenylation, ketoreductase, and pseudo Asub multidomain structure of a keto acid-selecting NRPS module
Authors	:	Alonzo, D.A.; Wang, J.; Chiche-Lapierre, C.; Schmeing, T.M.
Deposited on	:	2019-10-08
Resolution	:	3.40 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:

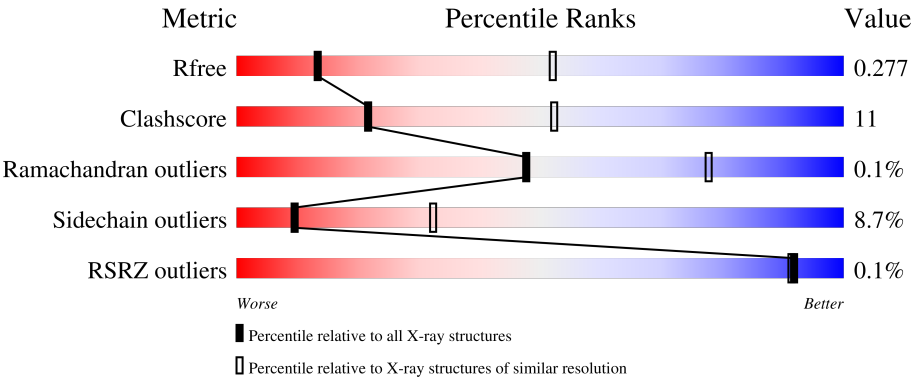
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

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 3.40 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}	180053	1001 (3.44-3.36)
Clashscore	190562	1022 (3.44-3.36)
Ramachandran outliers	187476	1012 (3.44-3.36)
Sidechain outliers	187428	1012 (3.44-3.36)
RSRZ outliers	180081	1001 (3.44-3.36)

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	1327	67% 21% • 10%
1	B	1327	66% 22% • 9%
1	C	1327	66% 22% • 9%
1	D	1327	67% 21% • 10%

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 74888 atoms, of which 37048 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 Amino acid adenylation domain-containing protein.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	1193	Total	C	H	N	O	S	0	0	0
			18613	5974	9210	1598	1782	49			
1	B	1209	Total	C	H	N	O	S	0	0	0
			18852	6049	9327	1618	1808	50			
1	C	1203	Total	C	H	N	O	S	0	0	0
			18783	6024	9294	1613	1803	49			
1	D	1193	Total	C	H	N	O	S	0	0	0
			18631	5979	9217	1600	1786	49			

There are 36 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1319	ALA	-	expression tag	UNP M5R382
A	1320	ALA	-	expression tag	UNP M5R382
A	1321	ALA	-	expression tag	UNP M5R382
A	1322	GLU	-	expression tag	UNP M5R382
A	1323	ASN	-	expression tag	UNP M5R382
A	1324	LEU	-	expression tag	UNP M5R382
A	1325	TYR	-	expression tag	UNP M5R382
A	1326	PHE	-	expression tag	UNP M5R382
A	1327	GLN	-	expression tag	UNP M5R382
B	1319	ALA	-	expression tag	UNP M5R382
B	1320	ALA	-	expression tag	UNP M5R382
B	1321	ALA	-	expression tag	UNP M5R382
B	1322	GLU	-	expression tag	UNP M5R382
B	1323	ASN	-	expression tag	UNP M5R382
B	1324	LEU	-	expression tag	UNP M5R382
B	1325	TYR	-	expression tag	UNP M5R382
B	1326	PHE	-	expression tag	UNP M5R382
B	1327	GLN	-	expression tag	UNP M5R382
C	1319	ALA	-	expression tag	UNP M5R382
C	1320	ALA	-	expression tag	UNP M5R382
C	1321	ALA	-	expression tag	UNP M5R382

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Chain	Residue	Modelled	Actual	Comment	Reference
C	1322	GLU	-	expression tag	UNP M5R382
C	1323	ASN	-	expression tag	UNP M5R382
C	1324	LEU	-	expression tag	UNP M5R382
C	1325	TYR	-	expression tag	UNP M5R382
C	1326	PHE	-	expression tag	UNP M5R382
C	1327	GLN	-	expression tag	UNP M5R382
D	1319	ALA	-	expression tag	UNP M5R382
D	1320	ALA	-	expression tag	UNP M5R382
D	1321	ALA	-	expression tag	UNP M5R382
D	1322	GLU	-	expression tag	UNP M5R382
D	1323	ASN	-	expression tag	UNP M5R382
D	1324	LEU	-	expression tag	UNP M5R382
D	1325	TYR	-	expression tag	UNP M5R382
D	1326	PHE	-	expression tag	UNP M5R382
D	1327	GLN	-	expression tag	UNP M5R382

- Molecule 2 is CALCIUM ION (CCD ID: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	2	Total Ca 2 2	0	0
2	B	2	Total Ca 2 2	0	0
2	C	2	Total Ca 2 2	0	0
2	D	2	Total Ca 2 2	0	0

- Molecule 3 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

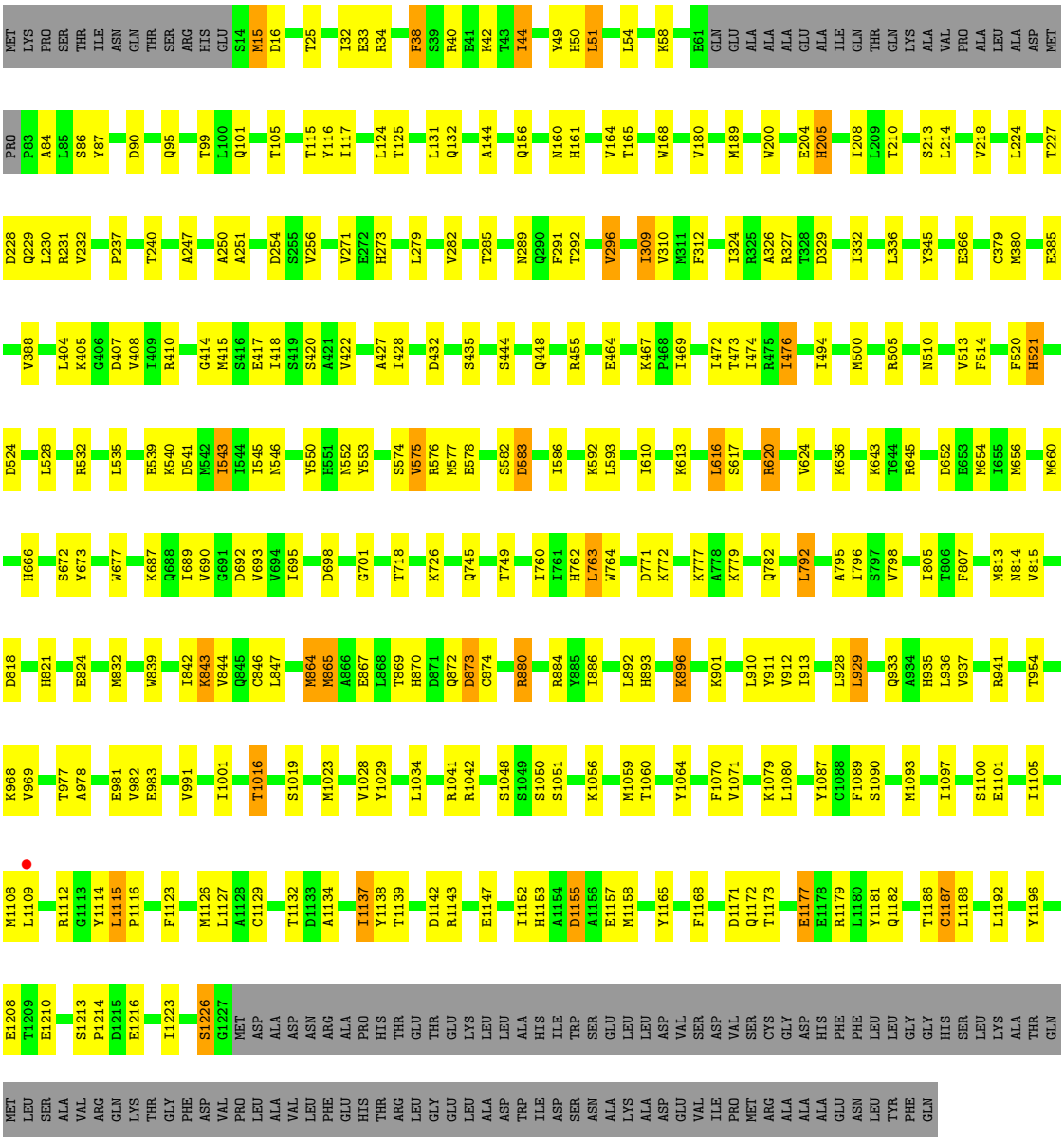
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	D	1	Total Mg 1 1	0	0

3 Residue-property plots (i)

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

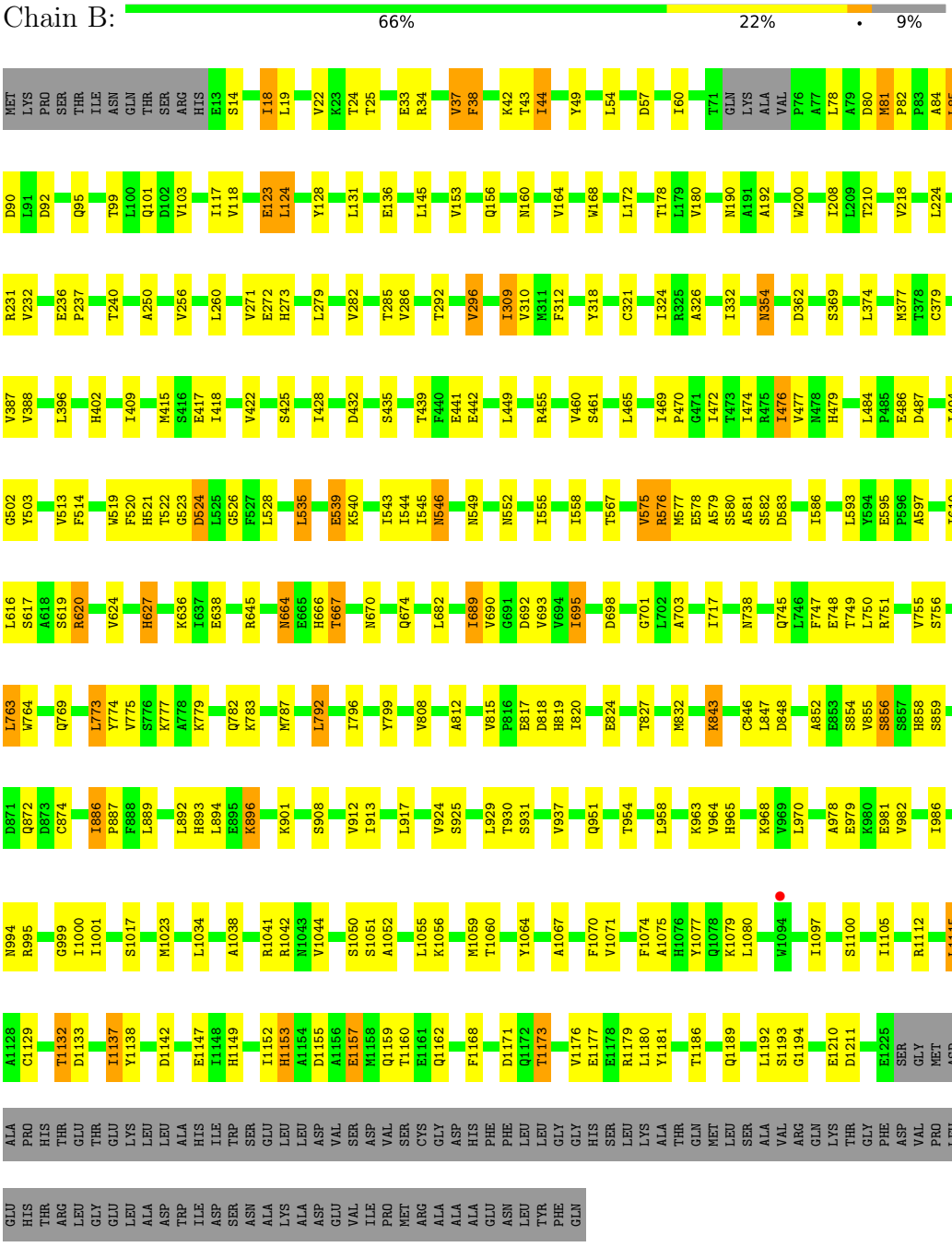
- Molecule 1: Amino acid adenylation domain-containing protein

Chain A:



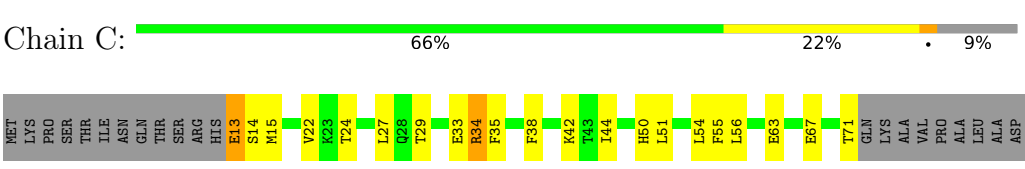
• Molecule 1: Amino acid adenylation domain-containing protein

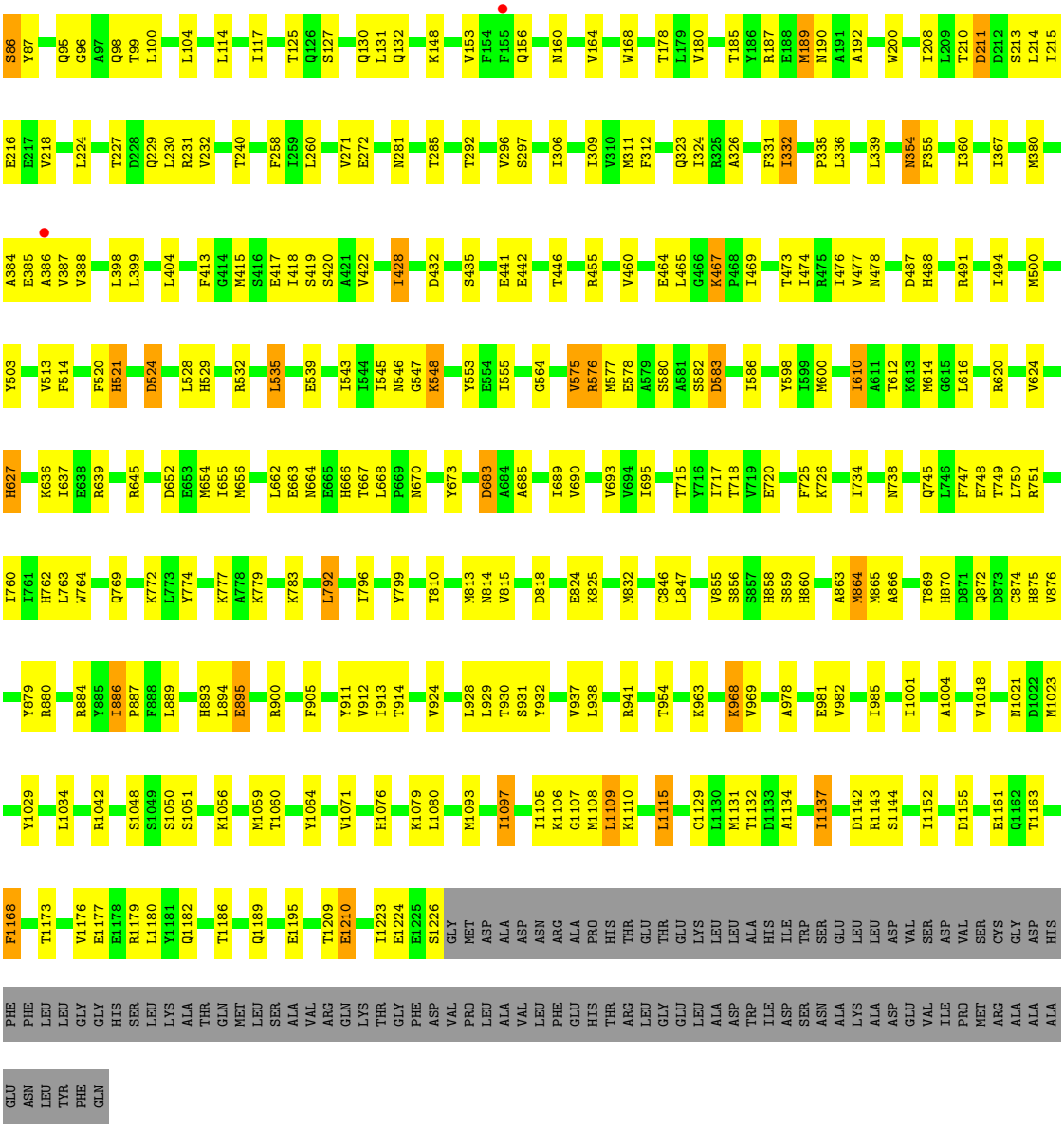
Chain B:



• Molecule 1: Amino acid adenylation domain-containing protein

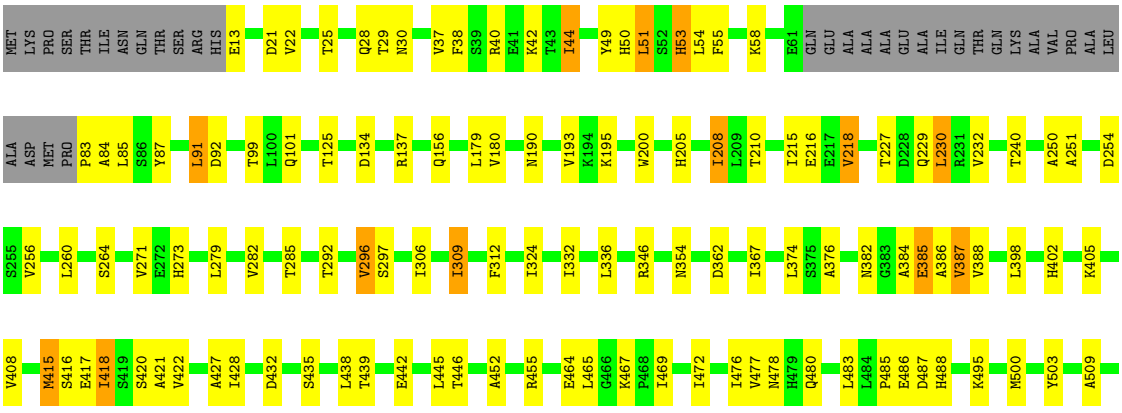
Chain C:

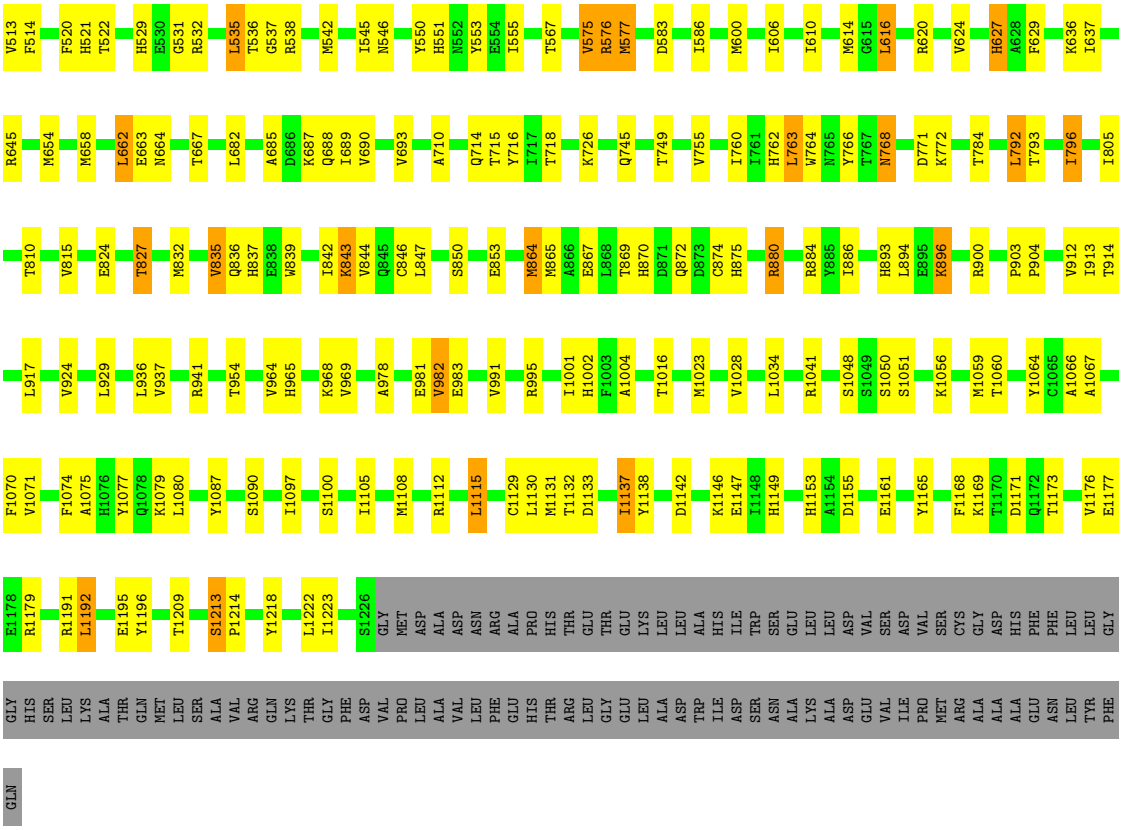




• Molecule 1: Amino acid adenylation domain-containing protein

Chain D:




V513 F514
F520 H521 T522
H529 E530 G531 R532
L535 T536 G537 R538
M642
I545 N546
Y550 H551 N552 Y553 E554 I555
T567
V575 R576 M577
D583
I586
M600
I606
I610
M614 G615 L616
R620
V624
H627 A628 F629
K636 I637
R645
M654
M658
L662 E663 N664
T667
L682
A685 D686 K687 Q688 I689 V690
V693
A710
Q714 T715 Y716 I717 T718
K726
Q745
T749
V755
I760 I761 H762 L763 W764 N765 Y766 T767 N768
D771 K772
T784
L792 T793
I796
I805
T810
V815
E824
T827
M832
V835 Q836 H837 E838 W839
I842 K843 V844 Q845 C846 L847
S850
E853
M864 M865 A866 E867 L868 T869 H870 D871 Q872 D873 C874 H875
R880
R884 Y885 I886
H893 L894 E895 K896
R900
P903 P904
V912 I913 T914
L917
V924
L929
L936 V937
R941
T954
V964 H965
K968 V969
A978
E981 V982 E983
V991
R995
I1001 H1002 F1003 A1004
T1016
M1023
V1028
L1034
R1041
S1048 S1049 S1050 S1051
K1056
M1059 T1060
Y1064 C1065 A1066 A1067
F1070 V1071
F1074 A1075 H1076 Y1077 Q1078 K1079 L1080
Y1087
S1090
I1097
S1100
I1105
M1108
R1112
L1115
C1129 L1130 M1131 T1132 D1133
I1137 Y1138
D1142
K1146 E1147 I1148 H1149
H1153 A1154 D1155
E1161
Y1165
F1168 K1169 T1170 D1171 Q1172 T1173
V1176 E1177
E1178 R1179
R1191 L1192
E1195 Y1196
T1209
S1213 P1214
Y1218
L1222 I1223
S1226
GLY MET ASP ALA ASP ASN ARG ALA PRO HIS THR GLU THR GLU LYS LEU LEU ALA HIS ILE TRP SER GLU LEU LEU ASP VAL SER ASP VAL SER CYS GLY ASP HIS PHE PHE LEU LEU GLY
GLY HIS SER LEU LYS ALA THR GLN MET LEU SER ALA VAL ARG GLN LYS THR GLY PHE ASP VAL PRO LEU ALA VAL LEU PHE GLU HIS THR ARG LEU GLY GLU LEU ALA ASP TRP ILE ASP SER ASN ALA LYS ALA ASP GLU VAL ILE PRO MET ARG ALA ALA ALA GLU ASN LEU TYR PHE
GLN

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	141.66Å 143.66Å 431.87Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.11 – 3.40 49.11 – 3.40	Depositor EDS
% Data completeness (in resolution range)	98.6 (49.11-3.40) 98.6 (49.11-3.40)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.24 (at 3.40Å)	Xtriage
Refinement program	PHENIX 1.15.2_3472, REFMAC 5.8.0158	Depositor
R, R_{free}	0.228 , 0.275 0.233 , 0.277	Depositor DCC
R_{free} test set	5963 reflections (4.89%)	wwPDB-VP
Wilson B-factor (Å^2)	141.6	Xtriage
Anisotropy	0.390	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 123.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	0.037 for k,h,-l	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	74888	wwPDB-VP
Average B, all atoms (Å^2)	199.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.32% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
1	A	0.18	0/9620	0.40	0/13037
1	B	0.18	0/9744	0.40	0/13207
1	C	0.19	0/9706	0.41	0/13153
1	D	0.18	0/9631	0.39	0/13052
All	All	0.18	0/38701	0.40	0/52449

There are no bond length outliers.

There are no bond angle outliers.

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	9403	9210	9210	205	0
1	B	9525	9327	9326	230	0
1	C	9489	9294	9294	212	0
1	D	9414	9217	9217	207	0
2	A	2	0	0	0	0
2	B	2	0	0	0	0
2	C	2	0	0	0	0
2	D	2	0	0	0	0
3	D	1	0	0	0	0
All	All	37840	37048	37047	809	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 11.

All (809) 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:B:769:GLN:HB2	1:B:820:ILE:HD13	1.51	0.91
1:C:545:ILE:HD11	1:C:548:LYS:HD2	1.57	0.86
1:C:717:ILE:HD13	1:C:750:LEU:HD22	1.57	0.86
1:C:208:ILE:HB	1:C:232:VAL:HG12	1.56	0.85
1:A:1129:CYS:O	1:A:1132:THR:HG22	1.76	0.85
1:D:418:ILE:HG21	1:D:520:PHE:CZ	2.12	0.84
1:C:441:GLU:OE2	1:C:455:ARG:NH2	2.12	0.82
1:C:487:ASP:OD1	1:C:529:HIS:ND1	2.12	0.82
1:C:86:SER:HB2	1:C:528:LEU:HD21	1.63	0.81
1:B:208:ILE:HB	1:B:232:VAL:HG12	1.63	0.81
1:D:195:LYS:NZ	1:D:264:SER:O	2.13	0.81
1:D:354:ASN:ND2	1:D:386:ALA:O	2.14	0.81
1:C:683:ASP:OD1	1:C:683:ASP:N	2.14	0.81
1:D:208:ILE:HB	1:D:232:VAL:HG12	1.63	0.81
1:C:872:GLN:N	1:C:872:GLN:OE1	2.14	0.80
1:D:771:ASP:OD2	1:D:772:LYS:N	2.14	0.80
1:B:285:THR:HA	1:B:469:ILE:HD11	1.65	0.79
1:C:417:GLU:N	1:C:417:GLU:OE1	2.17	0.77
1:C:1129:CYS:O	1:C:1132:THR:HG22	1.85	0.77
1:B:309:ILE:HD12	1:B:310:VAL:HG23	1.67	0.76
1:B:576:ARG:NE	1:B:583:ASP:OD2	2.19	0.76
1:B:417:GLU:OE1	1:B:417:GLU:N	2.19	0.75
1:C:1209:THR:OG1	1:C:1210:GLU:OE2	2.06	0.74
1:C:745:GLN:O	1:C:749:THR:HG23	1.88	0.74
1:A:1023:MET:HE2	1:A:1064:TYR:HA	1.68	0.73
1:B:296:VAL:HG12	1:B:324:ILE:HD11	1.69	0.73
1:D:465:LEU:HD11	1:D:535:LEU:HB2	1.69	0.73
1:A:417:GLU:N	1:A:417:GLU:OE1	2.20	0.73
1:C:67:GLU:O	1:C:71:THR:HG23	1.88	0.73
1:B:271:VAL:HG13	1:B:500:MET:SD	2.28	0.72
1:A:54:LEU:HD12	1:C:668:LEU:CD2	2.19	0.72
1:D:205:HIS:ND1	1:D:229:GLN:OE1	2.21	0.72
1:A:200:TRP:HH2	1:A:227:THR:HG21	1.54	0.72
1:D:180:VAL:HG11	1:D:260:LEU:HD22	1.69	0.72
1:B:418:ILE:HG21	1:B:494:ILE:HD11	1.71	0.72
1:B:616:LEU:HD13	1:B:617:SER:N	2.06	0.71
1:B:418:ILE:HG21	1:B:494:ILE:CD1	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:285:THR:HA	1:A:469:ILE:HD11	1.72	0.70
1:B:773:LEU:HD23	1:B:1077:TYR:CZ	2.27	0.70
1:C:189:MET:HE2	1:C:224:LEU:HD22	1.72	0.70
1:C:664:ASN:O	1:C:667:THR:HG22	1.92	0.70
1:A:474:ILE:HG12	1:A:494:ILE:HG22	1.73	0.69
1:C:156:GLN:O	1:C:210:THR:HG22	1.91	0.69
1:D:84:ALA:O	1:D:483:LEU:HD21	1.92	0.69
1:D:296:VAL:HG12	1:D:324:ILE:HD11	1.75	0.69
1:A:271:VAL:HG13	1:A:500:MET:SD	2.33	0.69
1:B:761:ILE:HG22	1:B:763:LEU:CD1	2.23	0.69
1:C:760:ILE:HD11	1:C:796:ILE:HD12	1.74	0.69
1:C:285:THR:HA	1:C:469:ILE:HD11	1.75	0.69
1:C:846:CYS:O	1:C:847:LEU:HD23	1.92	0.69
1:D:606:ILE:O	1:D:610:ILE:HD12	1.94	0.68
1:C:866:ALA:O	1:C:870:HIS:ND1	2.27	0.68
1:D:200:TRP:HH2	1:D:227:THR:HG21	1.59	0.68
1:A:1188:LEU:HD21	1:C:22:VAL:CG2	2.23	0.68
1:D:1059:MET:O	1:D:1060:THR:HG22	1.94	0.67
1:A:427:ALA:C	1:A:428:ILE:HD12	2.19	0.67
1:A:847:LEU:HD11	1:A:867:GLU:HG2	1.76	0.67
1:A:54:LEU:HD12	1:C:668:LEU:HD23	1.75	0.67
1:B:777:LYS:NZ	1:B:824:GLU:OE1	2.27	0.67
1:C:577:MET:HE2	1:C:577:MET:HA	1.77	0.67
1:A:760:ILE:HD11	1:A:796:ILE:HD12	1.75	0.67
1:C:156:GLN:NE2	1:C:180:VAL:HG23	2.10	0.67
1:C:418:ILE:O	1:C:419:SER:OG	2.10	0.67
1:C:428:ILE:HG23	1:C:428:ILE:O	1.95	0.67
1:C:84:ALA:O	1:C:528:LEU:HD23	1.93	0.67
1:C:180:VAL:HG11	1:C:260:LEU:HD22	1.77	0.67
1:D:271:VAL:HG11	1:D:417:GLU:O	1.95	0.67
1:D:1080:LEU:HD13	1:D:1080:LEU:O	1.95	0.67
1:D:346:ARG:HG3	1:D:376:ALA:HB2	1.76	0.66
1:D:805:ILE:HD11	1:D:842:ILE:HD11	1.77	0.66
1:A:983:GLU:OE2	1:A:1041:ARG:NH2	2.28	0.66
1:B:500:MET:HE2	1:B:520:PHE:HZ	1.59	0.66
1:B:474:ILE:HG12	1:B:494:ILE:HG22	1.78	0.66
1:C:117:ILE:HD12	1:C:326:ALA:HB2	1.76	0.66
1:D:417:GLU:HG2	1:D:418:ILE:HG23	1.78	0.66
1:D:792:LEU:C	1:D:792:LEU:HD12	2.21	0.66
1:A:418:ILE:HG21	1:A:494:ILE:CD1	2.26	0.66
1:B:309:ILE:HD12	1:B:310:VAL:H	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:846:CYS:O	1:B:847:LEU:HD23	1.96	0.66
1:A:936:LEU:HB2	1:A:969:VAL:HG23	1.76	0.66
1:C:545:ILE:HD11	1:C:548:LYS:CD	2.26	0.66
1:C:418:ILE:HG21	1:C:494:ILE:CD1	2.25	0.66
1:D:1023:MET:HE2	1:D:1064:TYR:HA	1.77	0.66
1:C:924:VAL:HG11	1:C:1001:ILE:HD13	1.78	0.65
1:D:846:CYS:O	1:D:847:LEU:HD23	1.96	0.65
1:A:847:LEU:HD12	1:A:864:MET:HE3	1.77	0.65
1:D:837:HIS:O	1:D:1059:MET:HE2	1.97	0.65
1:D:924:VAL:HG11	1:D:1001:ILE:HD13	1.77	0.65
1:B:1080:LEU:HD13	1:B:1080:LEU:O	1.97	0.65
1:A:289:ASN:OD1	1:A:410:ARG:NH2	2.30	0.65
1:B:44:ILE:HD13	1:B:44:ILE:O	1.97	0.64
1:B:769:GLN:CB	1:B:820:ILE:HD13	2.27	0.64
1:A:1188:LEU:HD21	1:C:22:VAL:HG21	1.79	0.64
1:A:204:GLU:O	1:A:205:HIS:ND1	2.31	0.64
1:A:1059:MET:O	1:A:1060:THR:HG22	1.97	0.64
1:D:427:ALA:C	1:D:428:ILE:HD12	2.23	0.64
1:C:271:VAL:HG13	1:C:500:MET:SD	2.38	0.64
1:D:354:ASN:OD1	1:D:382:ASN:ND2	2.30	0.64
1:A:296:VAL:HG12	1:A:324:ILE:HD11	1.80	0.64
1:A:846:CYS:O	1:A:847:LEU:HD23	1.98	0.64
1:C:1132:THR:HG23	1:C:1134:ALA:H	1.63	0.64
1:B:558:ILE:CD1	1:B:614:MET:HE2	2.28	0.63
1:B:1050:SER:OG	1:B:1051:SER:N	2.31	0.63
1:C:200:TRP:HH2	1:C:227:THR:HG21	1.63	0.63
1:D:271:VAL:HG13	1:D:500:MET:SD	2.39	0.63
1:A:200:TRP:CH2	1:A:227:THR:HG21	2.34	0.63
1:B:1152:ILE:O	1:B:1153:HIS:ND1	2.29	0.63
1:C:227:THR:HG22	1:C:229:GLN:H	1.63	0.63
1:B:18:ILE:HD12	1:D:1191:ARG:NH1	2.15	0.62
1:B:1023:MET:HE2	1:B:1064:TYR:HA	1.81	0.62
1:B:1179:ARG:NH1	1:D:29:THR:HG22	2.14	0.62
1:A:874:CYS:SG	1:A:884:ARG:NH2	2.70	0.62
1:D:682:LEU:HD23	1:D:872:GLN:OE1	1.99	0.62
1:A:577:MET:HE3	1:A:620:ARG:NH2	2.14	0.62
1:A:792:LEU:C	1:A:792:LEU:HD12	2.25	0.62
1:C:717:ILE:HD13	1:C:750:LEU:CD2	2.29	0.62
1:D:545:ILE:HG22	1:D:583:ASP:O	1.99	0.62
1:A:1213:SER:HB3	1:A:1214:PRO:HD2	1.82	0.62
1:B:441:GLU:OE2	1:B:455:ARG:NH2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1080:LEU:HD13	1:C:1080:LEU:O	1.99	0.62
1:B:847:LEU:HD12	1:B:864:MET:HE3	1.82	0.61
1:A:847:LEU:HD12	1:A:864:MET:CE	2.30	0.61
1:C:1093:MET:HE3	1:C:1097:ILE:HD11	1.82	0.61
1:D:85:LEU:HD11	1:D:486:GLU:N	2.16	0.61
1:D:550:TYR:HB3	1:D:555:ILE:HD11	1.83	0.61
1:D:230:LEU:HD23	1:D:230:LEU:O	2.01	0.61
1:D:362:ASP:OD2	1:D:567:THR:OG1	2.13	0.61
1:D:815:VAL:HG22	1:D:880:ARG:HH21	1.65	0.61
1:A:40:ARG:NH1	1:C:1224:GLU:OE2	2.32	0.61
1:C:690:VAL:HG23	1:C:690:VAL:O	2.00	0.61
1:C:792:LEU:C	1:C:792:LEU:HD12	2.26	0.61
1:A:1182:GLN:O	1:A:1186:THR:HG23	2.01	0.61
1:C:13:GLU:OE1	1:C:14:SER:N	2.33	0.61
1:A:546:ASN:ND2	1:A:616:LEU:HD21	2.15	0.61
1:A:1172:GLN:O	1:A:1173:THR:OG1	2.18	0.61
1:B:855:VAL:HG12	1:B:855:VAL:O	1.98	0.61
1:C:418:ILE:HD12	1:C:422:VAL:HG11	1.82	0.60
1:A:189:MET:SD	1:A:224:LEU:HD21	2.42	0.60
1:D:101:GLN:OE1	1:D:250:ALA:HB2	2.01	0.60
1:C:418:ILE:HG21	1:C:494:ILE:HD12	1.83	0.60
1:D:745:GLN:O	1:D:749:THR:HG23	2.01	0.60
1:A:49:TYR:HD2	1:A:54:LEU:HD11	1.66	0.60
1:B:545:ILE:HD13	1:B:616:LEU:HG	1.84	0.60
1:D:1087:TYR:CD1	1:D:1130:LEU:HD23	2.37	0.60
1:C:762:HIS:CE1	1:C:764:TRP:HB2	2.37	0.60
1:A:205:HIS:O	1:A:205:HIS:CG	2.54	0.60
1:D:847:LEU:HD12	1:D:864:MET:HE3	1.82	0.60
1:C:153:VAL:O	1:C:178:THR:N	2.34	0.59
1:D:374:LEU:HD12	1:D:402:HIS:HB2	1.83	0.59
1:C:156:GLN:HE21	1:C:180:VAL:HG23	1.67	0.59
1:C:465:LEU:HD11	1:C:535:LEU:HB2	1.84	0.59
1:C:847:LEU:HD12	1:C:864:MET:HE3	1.85	0.59
1:A:792:LEU:HD11	1:A:805:ILE:HD13	1.82	0.59
1:D:190:ASN:HD21	1:D:193:VAL:HG23	1.67	0.59
1:D:500:MET:HE2	1:D:520:PHE:HZ	1.67	0.59
1:B:761:ILE:HG22	1:B:763:LEU:HD11	1.83	0.59
1:C:792:LEU:HD12	1:C:792:LEU:O	2.01	0.59
1:C:1173:THR:O	1:C:1173:THR:HG22	2.03	0.59
1:C:190:ASN:OD1	1:C:192:ALA:N	2.35	0.59
1:B:815:VAL:O	1:B:817:GLU:N	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1129:CYS:O	1:B:1132:THR:HG22	2.02	0.58
1:A:616:LEU:HD13	1:A:617:SER:H	1.68	0.58
1:D:664:ASN:O	1:D:667:THR:OG1	2.21	0.58
1:B:309:ILE:CD1	1:B:310:VAL:HG23	2.32	0.58
1:B:917:LEU:HD23	1:B:951:GLN:HB3	1.85	0.58
1:B:924:VAL:HG11	1:B:1001:ILE:HD13	1.85	0.58
1:A:44:ILE:O	1:A:44:ILE:HD13	2.03	0.58
1:A:1115:LEU:H	1:A:1115:LEU:HD22	1.69	0.58
1:B:558:ILE:HD12	1:B:614:MET:HE2	1.85	0.58
1:D:513:VAL:HG23	1:D:514:PHE:H	1.69	0.58
1:D:805:ILE:CD1	1:D:842:ILE:HD11	2.33	0.58
1:A:418:ILE:HG21	1:A:494:ILE:HD12	1.86	0.57
1:B:374:LEU:HD12	1:B:402:HIS:HB2	1.86	0.57
1:D:388:VAL:HG23	1:D:388:VAL:O	2.02	0.57
1:A:213:SER:OG	1:A:214:LEU:HD12	2.04	0.57
1:A:432:ASP:OD2	1:A:435:SER:N	2.37	0.57
1:A:1016:THR:HG23	1:A:1019:SER:H	1.68	0.57
1:D:555:ILE:HD13	1:D:614:MET:SD	2.43	0.57
1:C:813:MET:HE2	1:C:876:VAL:HG11	1.86	0.57
1:B:362:ASP:OD2	1:B:567:THR:OG1	2.11	0.57
1:D:91:LEU:HD22	1:D:92:ASP:C	2.30	0.57
1:D:835:VAL:HG12	1:D:836:GLN:N	2.19	0.57
1:B:208:ILE:HD12	1:B:230:LEU:HD21	1.86	0.57
1:C:180:VAL:CG1	1:C:260:LEU:HD22	2.33	0.57
1:A:666:HIS:O	1:C:51:LEU:HD23	2.04	0.57
1:B:230:LEU:HD22	1:B:231:ARG:N	2.20	0.57
1:D:487:ASP:OD1	1:D:529:HIS:ND1	2.38	0.57
1:B:388:VAL:HG23	1:B:388:VAL:O	2.03	0.57
1:C:413:PHE:CB	1:C:465:LEU:HD13	2.34	0.57
1:A:1179:ARG:HH12	1:C:29:THR:HG22	1.68	0.57
1:C:442:GLU:HG2	1:C:460:VAL:HG13	1.87	0.57
1:D:575:VAL:CG1	1:D:586:ILE:HD13	2.34	0.57
1:A:545:ILE:HG22	1:A:583:ASP:O	2.05	0.57
1:C:388:VAL:HG23	1:C:388:VAL:O	2.05	0.57
1:C:467:LYS:H	1:C:467:LYS:HD2	1.69	0.57
1:A:49:TYR:O	1:C:667:THR:O	2.23	0.56
1:A:546:ASN:HD22	1:A:616:LEU:HD21	1.70	0.56
1:A:913:ILE:HG12	1:A:1001:ILE:HB	1.87	0.56
1:A:1186:THR:HG22	1:B:231:ARG:HD2	1.87	0.56
1:D:500:MET:HE2	1:D:520:PHE:CZ	2.40	0.56
1:C:1050:SER:OG	1:C:1051:SER:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:843:LYS:HD3	1:D:843:LYS:C	2.31	0.56
1:A:208:ILE:HD12	1:A:230:LEU:HD11	1.86	0.56
1:B:690:VAL:HG23	1:B:690:VAL:O	2.06	0.56
1:A:660:MET:HE3	1:C:50:HIS:HB2	1.87	0.56
1:B:666:HIS:HA	1:D:51:LEU:HD11	1.88	0.56
1:D:44:ILE:HD13	1:D:44:ILE:O	2.06	0.56
1:D:273:HIS:NE2	1:D:418:ILE:O	2.38	0.56
1:A:745:GLN:O	1:A:749:THR:HG23	2.06	0.56
1:A:54:LEU:HD23	1:C:895:GLU:HG2	1.87	0.56
1:A:500:MET:HE2	1:A:520:PHE:HZ	1.71	0.55
1:B:616:LEU:HD13	1:B:617:SER:H	1.69	0.55
1:B:978:ALA:HB3	1:B:981:GLU:HB3	1.88	0.55
1:C:513:VAL:HG23	1:C:514:PHE:H	1.70	0.55
1:A:38:PHE:CE2	1:C:1223:ILE:HD11	2.41	0.55
1:B:761:ILE:HG22	1:B:763:LEU:HD13	1.88	0.55
1:A:227:THR:HG22	1:A:229:GLN:H	1.72	0.55
1:C:875:HIS:ND1	1:C:876:VAL:HG23	2.22	0.55
1:B:449:LEU:HD13	1:B:487:ASP:O	2.05	0.55
1:D:179:LEU:CD1	1:D:309:ILE:HD13	2.37	0.55
1:B:513:VAL:HG23	1:B:514:PHE:H	1.72	0.55
1:B:1052:ALA:O	1:B:1055:LEU:HD12	2.05	0.55
1:A:1080:LEU:HD13	1:A:1080:LEU:O	2.06	0.55
1:C:56:LEU:HD23	1:C:56:LEU:O	2.05	0.55
1:D:688:GLN:O	1:D:690:VAL:HG13	2.07	0.55
1:A:231:ARG:CD	1:B:1186:THR:HG22	2.37	0.55
1:C:855:VAL:HG12	1:C:855:VAL:O	2.06	0.55
1:B:432:ASP:OD2	1:B:435:SER:N	2.40	0.55
1:C:652:ASP:HA	1:C:655:ILE:HG22	1.89	0.55
1:A:418:ILE:HD12	1:A:422:VAL:CG1	2.38	0.54
1:B:1132:THR:OG1	1:B:1133:ASP:N	2.36	0.54
1:D:610:ILE:HG23	1:D:614:MET:HE3	1.88	0.54
1:A:388:VAL:O	1:A:388:VAL:HG23	2.05	0.54
1:A:1112:ARG:NH1	1:A:1147:GLU:OE2	2.39	0.54
1:B:362:ASP:O	1:B:1173:THR:HG21	2.08	0.54
1:B:717:ILE:HD13	1:B:750:LEU:HD22	1.89	0.54
1:C:1023:MET:HE2	1:C:1064:TYR:HA	1.89	0.54
1:B:227:THR:HG22	1:B:229:GLN:H	1.73	0.54
1:B:409:ILE:HB	1:B:428:ILE:HG21	1.89	0.54
1:A:51:LEU:CD2	1:C:668:LEU:HB2	2.38	0.54
1:A:117:ILE:HD12	1:A:326:ALA:HB2	1.89	0.54
1:A:1050:SER:OG	1:A:1051:SER:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:339:LEU:HD11	1:C:399:LEU:HD21	1.89	0.54
1:D:415:MET:HE1	1:D:522:THR:HB	1.89	0.54
1:B:1162:GLN:HA	1:D:40:ARG:O	2.08	0.54
1:A:541:ASP:O	1:A:552:ASN:ND2	2.40	0.54
1:A:839:TRP:O	1:A:842:ILE:HG22	2.07	0.54
1:B:1115:LEU:HD21	1:B:1142:ASP:HB2	1.90	0.54
1:A:513:VAL:HG23	1:A:514:PHE:H	1.73	0.54
1:B:153:VAL:O	1:B:178:THR:N	2.41	0.54
1:D:839:TRP:O	1:D:842:ILE:HG22	2.07	0.54
1:A:1115:LEU:HD21	1:A:1142:ASP:HB2	1.90	0.54
1:D:418:ILE:HG22	1:D:500:MET:SD	2.48	0.54
1:D:432:ASP:OD2	1:D:435:SER:N	2.41	0.54
1:A:1155:ASP:OD2	1:A:1155:ASP:N	2.42	0.53
1:C:500:MET:HE2	1:C:520:PHE:HZ	1.74	0.53
1:B:1149:HIS:NE2	1:B:1155:ASP:HA	2.23	0.53
1:C:384:ALA:HA	1:C:387:VAL:HG23	1.89	0.53
1:C:846:CYS:C	1:C:847:LEU:HD23	2.33	0.53
1:D:180:VAL:CG1	1:D:260:LEU:HD22	2.39	0.53
1:A:279:LEU:HA	1:A:282:VAL:HG22	1.90	0.53
1:B:760:ILE:HD11	1:B:796:ILE:HD12	1.90	0.53
1:A:1093:MET:HE3	1:A:1116:PRO:HB3	1.89	0.53
1:B:843:LYS:HD3	1:B:843:LYS:C	2.34	0.53
1:C:306:ILE:HG12	1:C:420:SER:H	1.74	0.53
1:C:513:VAL:O	1:C:521:HIS:N	2.32	0.53
1:C:717:ILE:CD1	1:C:750:LEU:HD22	2.35	0.53
1:B:279:LEU:HA	1:B:282:VAL:HG22	1.91	0.53
1:D:575:VAL:HG13	1:D:586:ILE:HD13	1.91	0.53
1:C:464:GLU:OE1	1:C:532:ARG:NH1	2.42	0.53
1:A:418:ILE:HG21	1:A:494:ILE:HD11	1.90	0.52
1:A:513:VAL:O	1:A:521:HIS:N	2.34	0.52
1:A:805:ILE:CD1	1:A:842:ILE:HD11	2.40	0.52
1:C:131:LEU:HD21	1:C:168:TRP:CD1	2.44	0.52
1:D:1192:LEU:HD13	1:D:1196:TYR:HB3	1.91	0.52
1:A:805:ILE:HD11	1:A:842:ILE:HD11	1.89	0.52
1:B:156:GLN:HE21	1:B:180:VAL:HG23	1.74	0.52
1:B:180:VAL:CG1	1:B:260:LEU:HD22	2.39	0.52
1:B:396:LEU:HD11	1:B:409:ILE:HG12	1.91	0.52
1:D:1059:MET:O	1:D:1060:THR:CG2	2.57	0.52
1:B:503:TYR:HE2	1:B:513:VAL:HG11	1.74	0.52
1:B:1168:PHE:CZ	1:B:1180:LEU:HD13	2.44	0.52
1:A:380:MET:HE1	1:A:404:LEU:HD21	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:128:TYR:OH	1:B:321:CYS:O	2.19	0.52
1:C:777:LYS:NZ	1:C:824:GLU:OE1	2.39	0.52
1:D:880:ARG:HE	1:D:880:ARG:HA	1.73	0.52
1:A:880:ARG:HE	1:A:880:ARG:HA	1.73	0.52
1:D:85:LEU:HD11	1:D:486:GLU:CA	2.40	0.52
1:D:346:ARG:CG	1:D:376:ALA:HB2	2.40	0.52
1:A:1123:PHE:CE2	1:A:1127:LEU:HD11	2.45	0.52
1:C:1129:CYS:SG	1:C:1137:ILE:CD1	2.98	0.52
1:A:160:ASN:O	1:A:164:VAL:HG23	2.09	0.52
1:A:204:GLU:OE2	1:A:505:ARG:NH2	2.42	0.52
1:A:1179:ARG:NH1	1:C:29:THR:HG22	2.24	0.52
1:B:180:VAL:HG11	1:B:260:LEU:HD22	1.91	0.52
1:D:256:VAL:HG12	1:D:273:HIS:O	2.10	0.52
1:A:1226:SER:O	1:A:1226:SER:OG	2.28	0.52
1:C:213:SER:OG	1:C:214:LEU:HD12	2.10	0.52
1:D:1213:SER:CB	1:D:1214:PRO:CD	2.88	0.52
1:A:677:TRP:HZ2	1:A:813:MET:HE3	1.74	0.51
1:C:331:PHE:CD2	1:C:332:ILE:HD12	2.45	0.51
1:A:777:LYS:NZ	1:A:824:GLU:OE1	2.44	0.51
1:B:256:VAL:HG12	1:B:273:HIS:O	2.11	0.51
1:C:500:MET:HE2	1:C:520:PHE:CZ	2.45	0.51
1:C:627:HIS:C	1:C:627:HIS:ND1	2.67	0.51
1:C:367:ILE:HG21	1:C:398:LEU:HG	1.92	0.51
1:D:227:THR:HG22	1:D:229:GLN:H	1.75	0.51
1:B:272:GLU:O	1:B:500:MET:HB2	2.11	0.51
1:C:576:ARG:HG3	1:C:582:SER:O	2.11	0.51
1:D:627:HIS:ND1	1:D:627:HIS:C	2.68	0.51
1:B:1123:PHE:CE2	1:B:1127:LEU:HD11	2.46	0.51
1:A:574:SER:O	1:A:643:LYS:NZ	2.27	0.51
1:D:762:HIS:CE1	1:D:764:TRP:HB2	2.46	0.51
1:B:664:ASN:O	1:B:667:THR:OG1	2.28	0.51
1:A:251:ALA:HB3	1:A:254:ASP:OD1	2.11	0.51
1:A:1186:THR:HG22	1:B:231:ARG:CD	2.41	0.51
1:B:745:GLN:O	1:B:749:THR:HG23	2.09	0.51
1:B:846:CYS:C	1:B:847:LEU:HD23	2.36	0.51
1:C:432:ASP:OD2	1:C:435:SER:N	2.43	0.51
1:A:327:ARG:NH2	1:A:329:ASP:OD2	2.39	0.51
1:D:156:GLN:O	1:D:210:THR:HG22	2.11	0.51
1:D:297:SER:O	1:D:324:ILE:HD12	2.11	0.51
1:D:978:ALA:HB3	1:D:981:GLU:HB3	1.92	0.51
1:B:693:VAL:HG12	1:B:759:HIS:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:87:TYR:CD1	1:C:473:THR:HG22	2.46	0.51
1:C:189:MET:CE	1:C:224:LEU:HD22	2.41	0.51
1:C:474:ILE:HG12	1:C:494:ILE:HG22	1.92	0.51
1:C:575:VAL:HG12	1:C:586:ILE:HD13	1.93	0.51
1:B:893:HIS:HB3	1:B:896:LYS:HD2	1.92	0.50
1:D:1028:VAL:HG22	1:D:1070:PHE:CD2	2.46	0.50
1:B:285:THR:CA	1:B:469:ILE:HD11	2.38	0.50
1:B:892:LEU:HD22	1:B:1137:ILE:HD12	1.92	0.50
1:C:84:ALA:C	1:C:528:LEU:HD23	2.37	0.50
1:C:610:ILE:HD13	1:C:610:ILE:N	2.25	0.50
1:A:575:VAL:CG1	1:A:586:ILE:HD13	2.42	0.50
1:D:285:THR:HA	1:D:469:ILE:HD11	1.92	0.50
1:D:662:LEU:O	1:D:663:GLU:C	2.54	0.50
1:A:231:ARG:HD2	1:B:1186:THR:HG22	1.93	0.50
1:A:545:ILE:HD13	1:A:616:LEU:HG	1.93	0.50
1:B:14:SER:O	1:B:18:ILE:HD13	2.10	0.50
1:D:687:LYS:O	1:D:869:THR:HB	2.12	0.50
1:B:682:LEU:HD23	1:B:872:GLN:OE1	2.11	0.50
1:C:610:ILE:HG22	1:C:616:LEU:O	2.12	0.50
1:D:85:LEU:HD11	1:D:486:GLU:HA	1.93	0.50
1:D:874:CYS:SG	1:D:884:ARG:NH2	2.84	0.50
1:A:843:LYS:HD3	1:A:843:LYS:C	2.36	0.50
1:B:117:ILE:HD12	1:B:326:ALA:HB2	1.93	0.50
1:B:552:ASN:HA	1:B:555:ILE:HD12	1.93	0.50
1:B:695:ILE:HD11	1:B:703:ALA:HB1	1.93	0.50
1:A:54:LEU:HD12	1:C:668:LEU:HD21	1.91	0.49
1:B:500:MET:HE2	1:B:520:PHE:CZ	2.43	0.49
1:B:576:ARG:CD	1:B:583:ASP:OD2	2.60	0.49
1:B:616:LEU:HD13	1:B:617:SER:O	2.11	0.49
1:B:832:MET:HE2	1:B:832:MET:HA	1.92	0.49
1:C:413:PHE:HB3	1:C:465:LEU:HD13	1.93	0.49
1:D:689:ILE:HD12	1:D:714:GLN:OE1	2.12	0.49
1:A:84:ALA:HB1	1:A:476:ILE:HD11	1.93	0.49
1:A:762:HIS:CE1	1:A:764:TRP:HB2	2.47	0.49
1:B:1055:LEU:HD11	1:B:1138:TYR:CD1	2.48	0.49
1:B:695:ILE:HD11	1:B:703:ALA:CB	2.41	0.49
1:B:854:SER:O	1:B:856:SER:N	2.45	0.49
1:D:658:MET:O	1:D:662:LEU:HD22	2.12	0.49
1:D:969:VAL:O	1:D:969:VAL:HG13	2.11	0.49
1:A:610:ILE:HG22	1:A:616:LEU:O	2.13	0.49
1:A:912:VAL:HG23	1:A:937:VAL:HG13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:415:MET:SD	1:B:522:THR:HG22	2.53	0.49
1:B:418:ILE:HD13	1:B:494:ILE:CD1	2.42	0.49
1:B:762:HIS:CE1	1:B:764:TRP:HB2	2.48	0.49
1:C:215:ILE:HD11	1:C:232:VAL:HG23	1.95	0.49
1:C:582:SER:OG	1:C:583:ASP:N	2.45	0.49
1:B:92:ASP:OD2	1:B:95:GLN:HB2	2.12	0.49
1:C:814:ASN:HD22	1:C:1076:HIS:HB3	1.77	0.49
1:D:760:ILE:HD11	1:D:796:ILE:HD12	1.94	0.49
1:A:415:MET:H	1:A:418:ILE:HD11	1.78	0.49
1:D:912:VAL:HG23	1:D:937:VAL:HG13	1.94	0.49
1:A:911:TYR:CD2	1:A:928:LEU:HD13	2.47	0.49
1:C:858:HIS:O	1:C:859:SER:C	2.56	0.49
1:C:1093:MET:SD	1:C:1109:LEU:HD21	2.53	0.49
1:C:886:ILE:HD12	1:C:887:PRO:N	2.27	0.49
1:D:1090:SER:OG	1:D:1138:TYR:CD1	2.65	0.49
1:B:593:LEU:HD21	1:B:1181:TYR:CD1	2.47	0.49
1:D:54:LEU:HD12	1:D:55:PHE:N	2.28	0.49
1:A:1059:MET:O	1:A:1060:THR:CG2	2.61	0.48
1:A:1090:SER:OG	1:A:1138:TYR:CD1	2.66	0.48
1:B:664:ASN:N	1:B:667:THR:OG1	2.46	0.48
1:D:83:PRO:HG3	1:D:486:GLU:HB2	1.95	0.48
1:D:763:LEU:HD22	1:D:763:LEU:H	1.78	0.48
1:C:1186:THR:O	1:C:1189:GLN:HG3	2.13	0.48
1:C:1161:GLU:HA	1:C:1195:GLU:O	2.13	0.48
1:A:49:TYR:OH	1:C:893:HIS:HA	2.13	0.48
1:A:1132:THR:HG23	1:A:1134:ALA:H	1.78	0.48
1:D:1115:LEU:HD22	1:D:1115:LEU:H	1.78	0.48
1:A:418:ILE:HD12	1:A:422:VAL:HG13	1.94	0.48
1:C:815:VAL:O	1:C:818:ASP:OD2	2.32	0.48
1:D:84:ALA:O	1:D:85:LEU:HB2	2.13	0.48
1:D:156:GLN:HB2	1:D:210:THR:HG22	1.96	0.48
1:D:271:VAL:HG21	1:D:417:GLU:HB2	1.94	0.48
1:B:19:LEU:HD11	1:B:37:VAL:HG22	1.95	0.48
1:B:575:VAL:HG22	1:B:577:MET:H	1.79	0.48
1:B:309:ILE:HD12	1:B:310:VAL:N	2.26	0.48
1:C:911:TYR:CD2	1:C:928:LEU:HD13	2.49	0.48
1:D:509:ALA:O	1:D:513:VAL:HG22	2.13	0.48
1:A:15:MET:SD	1:A:16:ASP:N	2.83	0.48
1:A:1097:ILE:HG12	1:A:1101:GLU:HG3	1.96	0.48
1:D:936:LEU:HB2	1:D:969:VAL:HG23	1.96	0.48
1:B:627:HIS:ND1	1:B:627:HIS:C	2.71	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:332:ILE:HD11	1:C:355:PHE:CZ	2.49	0.48
1:B:1000:ILE:HD12	1:B:1038:ALA:HB2	1.96	0.48
1:C:810:THR:O	1:C:825:LYS:NZ	2.44	0.48
1:B:131:LEU:HD21	1:B:168:TRP:CD1	2.49	0.47
1:B:581:ALA:C	1:B:582:SER:HG	2.19	0.47
1:B:670:ASN:HB2	1:D:49:TYR:CE1	2.49	0.47
1:C:1105:ILE:O	1:C:1108:MET:HB3	2.13	0.47
1:C:1176:VAL:O	1:C:1180:LEU:N	2.45	0.47
1:B:354:ASN:OD1	1:B:388:VAL:HG22	2.14	0.47
1:B:894:LEU:H	1:B:894:LEU:HD12	1.79	0.47
1:C:418:ILE:HG21	1:C:494:ILE:HD11	1.95	0.47
1:B:555:ILE:HA	1:B:614:MET:HE1	1.96	0.47
1:B:575:VAL:CG1	1:B:586:ILE:HD13	2.43	0.47
1:C:1105:ILE:O	1:C:1105:ILE:HG22	2.13	0.47
1:B:610:ILE:HG22	1:B:616:LEU:O	2.14	0.47
1:B:1112:ARG:NH1	1:B:1147:GLU:OE2	2.45	0.47
1:D:537:GLY:C	1:D:542:MET:HE2	2.39	0.47
1:A:698:ASP:OD1	1:A:701:GLY:N	2.43	0.47
1:B:156:GLN:NE2	1:B:180:VAL:HG23	2.28	0.47
1:B:619:SER:OG	1:B:620:ARG:N	2.47	0.47
1:D:503:TYR:HE2	1:D:513:VAL:HG11	1.79	0.47
1:A:543:ILE:HD13	1:A:550:TYR:O	2.15	0.47
1:A:677:TRP:CZ2	1:A:813:MET:HE3	2.50	0.47
1:B:200:TRP:HH2	1:B:227:THR:HG21	1.79	0.47
1:C:160:ASN:O	1:C:164:VAL:HG23	2.14	0.47
1:C:1059:MET:O	1:C:1060:THR:HG22	2.15	0.47
1:A:824:GLU:OE2	1:A:824:GLU:N	2.41	0.47
1:A:978:ALA:HB3	1:A:981:GLU:HB3	1.96	0.47
1:B:513:VAL:HG23	1:B:514:PHE:CD2	2.50	0.47
1:B:1059:MET:O	1:B:1060:THR:HG22	2.15	0.47
1:C:114:LEU:HD21	1:C:323:GLN:NE2	2.30	0.47
1:C:779:LYS:HG2	1:C:1029:TYR:CZ	2.50	0.47
1:A:892:LEU:CD2	1:A:1137:ILE:HD12	2.44	0.47
1:D:85:LEU:HD21	1:D:486:GLU:HA	1.97	0.47
1:A:87:TYR:CD1	1:A:473:THR:HG22	2.50	0.47
1:C:211:ASP:OD1	1:C:211:ASP:N	2.48	0.47
1:C:555:ILE:HA	1:C:614:MET:HE1	1.97	0.47
1:C:1109:LEU:HD23	1:C:1110:LYS:N	2.30	0.47
1:D:832:MET:HE2	1:D:832:MET:HA	1.96	0.47
1:A:49:TYR:CD2	1:A:54:LEU:HD11	2.47	0.46
1:A:1028:VAL:HG22	1:A:1070:PHE:CD2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:577:MET:C	1:B:579:ALA:H	2.23	0.46
1:D:685:ALA:HA	1:D:870:HIS:CE1	2.49	0.46
1:D:846:CYS:C	1:D:847:LEU:HD23	2.39	0.46
1:A:513:VAL:HG23	1:A:514:PHE:CD2	2.50	0.46
1:D:190:ASN:ND2	1:D:193:VAL:HG23	2.29	0.46
1:A:156:GLN:HE21	1:A:180:VAL:HG23	1.80	0.46
1:C:583:ASP:N	1:C:583:ASP:OD1	2.49	0.46
1:C:600:MET:HG3	1:C:662:LEU:HD11	1.97	0.46
1:B:925:SER:HB2	1:B:958:LEU:HD21	1.97	0.46
1:D:279:LEU:HA	1:D:282:VAL:HG22	1.96	0.46
1:A:1208:GLU:OE2	1:C:34:ARG:NH1	2.48	0.46
1:C:491:ARG:HD2	1:C:539:GLU:OE2	2.15	0.46
1:C:500:MET:HE1	1:C:503:TYR:CD2	2.51	0.46
1:A:687:LYS:O	1:A:869:THR:HB	2.15	0.46
1:A:779:LYS:HG2	1:A:1029:TYR:CZ	2.51	0.46
1:A:893:HIS:HB3	1:A:896:LYS:HD2	1.97	0.46
1:B:540:LYS:HE2	1:B:540:LYS:HA	1.96	0.46
1:B:1129:CYS:O	1:B:1132:THR:CG2	2.64	0.46
1:C:413:PHE:HB2	1:C:465:LEU:HD13	1.98	0.46
1:D:792:LEU:HD11	1:D:805:ILE:HD13	1.97	0.46
1:C:63:GLU:O	1:C:67:GLU:HG2	2.16	0.46
1:D:385:GLU:HB3	1:D:538:ARG:HD2	1.96	0.46
1:B:85:LEU:HD13	1:B:86:SER:N	2.30	0.46
1:B:886:ILE:HD12	1:B:887:PRO:O	2.16	0.46
1:C:855:VAL:O	1:C:856:SER:C	2.59	0.46
1:C:1107:GLY:O	1:C:1110:LYS:N	2.46	0.46
1:D:1129:CYS:SG	1:D:1137:ILE:HD11	2.56	0.46
1:B:792:LEU:HD12	1:B:792:LEU:O	2.15	0.46
1:C:912:VAL:HG23	1:C:937:VAL:HG13	1.98	0.46
1:A:38:PHE:HE2	1:C:1223:ILE:HD11	1.80	0.46
1:B:763:LEU:HD13	1:B:763:LEU:N	2.31	0.46
1:C:428:ILE:O	1:C:428:ILE:CG2	2.64	0.46
1:C:564:GLY:HA3	1:C:598:TYR:HE1	1.81	0.46
1:D:87:TYR:CE1	1:D:531:GLY:HA2	2.51	0.46
1:D:513:VAL:HG23	1:D:514:PHE:CD2	2.51	0.46
1:C:476:ILE:HD12	1:C:488:HIS:O	2.16	0.45
1:C:524:ASP:OD1	1:C:524:ASP:N	2.48	0.45
1:C:1059:MET:C	1:C:1060:THR:HG22	2.42	0.45
1:D:91:LEU:HD22	1:D:92:ASP:N	2.30	0.45
1:D:306:ILE:HB	1:D:416:SER:O	2.16	0.45
1:D:824:GLU:OE2	1:D:824:GLU:N	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:439:THR:OG1	1:D:452:ALA:O	2.33	0.45
1:D:1050:SER:OG	1:D:1051:SER:N	2.41	0.45
1:A:666:HIS:C	1:C:51:LEU:HD23	2.41	0.45
1:A:689:ILE:HD11	1:A:865:MET:HE1	1.99	0.45
1:B:33:GLU:OE1	1:D:1171:ASP:OD2	2.35	0.45
1:B:937:VAL:O	1:B:937:VAL:HG13	2.16	0.45
1:A:116:TYR:HB2	1:A:124:LEU:HB2	1.99	0.45
1:A:673:TYR:OH	1:A:1143:ARG:HB3	2.16	0.45
1:D:536:THR:O	1:D:551:HIS:NE2	2.49	0.45
1:A:86:SER:N	1:A:528:LEU:HD21	2.31	0.45
1:A:208:ILE:HB	1:A:232:VAL:HG12	1.99	0.45
1:A:652:ASP:O	1:A:656:MET:HG3	2.15	0.45
1:A:872:GLN:O	1:A:873:ASP:CB	2.64	0.45
1:D:55:PHE:CZ	1:D:58:LYS:HB2	2.52	0.45
1:D:1115:LEU:HD21	1:D:1142:ASP:HB2	1.99	0.45
1:A:131:LEU:HD21	1:A:168:TRP:CD1	2.52	0.45
1:A:405:LYS:O	1:A:408:VAL:HG13	2.16	0.45
1:A:464:GLU:OE1	1:A:532:ARG:NH1	2.49	0.45
1:A:1087:TYR:OH	1:A:1132:THR:O	2.28	0.45
1:B:82:PRO:HB2	1:B:486:GLU:HB2	1.98	0.45
1:B:418:ILE:HG21	1:B:494:ILE:HD12	1.97	0.45
1:B:682:LEU:HD22	1:B:870:HIS:CD2	2.51	0.45
1:C:685:ALA:HB3	1:C:870:HIS:CE1	2.52	0.45
1:B:912:VAL:HG23	1:B:937:VAL:HG13	1.99	0.45
1:D:374:LEU:HD12	1:D:402:HIS:CB	2.46	0.45
1:D:893:HIS:HB3	1:D:896:LYS:HD2	1.99	0.45
1:D:914:THR:OG1	1:D:1002:HIS:HA	2.16	0.45
1:D:969:VAL:O	1:D:969:VAL:CG1	2.65	0.45
1:D:1213:SER:HB3	1:D:1214:PRO:CD	2.47	0.45
1:B:38:PHE:CD2	1:D:1223:ILE:HD11	2.52	0.45
1:B:369:SER:O	1:B:369:SER:OG	2.25	0.45
1:B:698:ASP:OD1	1:B:701:GLY:N	2.41	0.45
1:B:930:THR:OG1	1:B:931:SER:N	2.49	0.45
1:C:446:THR:O	1:C:488:HIS:NE2	2.50	0.45
1:C:832:MET:HE2	1:C:832:MET:HA	1.98	0.45
1:D:664:ASN:N	1:D:667:THR:OG1	2.50	0.45
1:A:336:LEU:C	1:A:336:LEU:HD12	2.43	0.44
1:B:524:ASP:N	1:B:524:ASP:OD1	2.50	0.44
1:C:725:PHE:HD1	1:C:726:LYS:N	2.14	0.44
1:C:748:GLU:OE1	1:C:799:TYR:OH	2.28	0.44
1:A:49:TYR:HE2	1:C:894:LEU:HB2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:200:TRP:CZ2	1:B:230:LEU:HB2	2.52	0.44
1:B:476:ILE:HG21	1:B:526:GLY:O	2.18	0.44
1:B:858:HIS:O	1:B:859:SER:C	2.60	0.44
1:C:937:VAL:HG13	1:C:937:VAL:O	2.17	0.44
1:D:964:VAL:HG23	1:D:965:HIS:ND1	2.32	0.44
1:D:1112:ARG:NH1	1:D:1147:GLU:OE2	2.46	0.44
1:A:54:LEU:HD21	1:C:895:GLU:N	2.32	0.44
1:B:783:LYS:HA	1:B:787:MET:HB2	2.00	0.44
1:C:930:THR:OG1	1:C:931:SER:N	2.51	0.44
1:D:1132:THR:O	1:D:1133:ASP:HB2	2.17	0.44
1:B:999:GLY:HA2	1:B:1044:VAL:HG12	2.00	0.44
1:B:1176:VAL:O	1:B:1177:GLU:C	2.60	0.44
1:D:1161:GLU:HA	1:D:1195:GLU:O	2.18	0.44
1:A:32:ILE:HD12	1:C:1168:PHE:CE1	2.53	0.44
1:A:49:TYR:CE1	1:C:670:ASN:HB2	2.53	0.44
1:A:156:GLN:NE2	1:A:180:VAL:HG23	2.33	0.44
1:B:1168:PHE:CE1	1:B:1180:LEU:HD22	2.53	0.44
1:C:1106:LYS:O	1:C:1109:LEU:HD22	2.17	0.44
1:D:405:LYS:O	1:D:408:VAL:HG13	2.18	0.44
1:B:748:GLU:OE1	1:B:799:TYR:OH	2.32	0.44
1:C:27:LEU:HD21	1:C:35:PHE:HE2	1.82	0.44
1:D:827:THR:HG22	1:D:1066:ALA:O	2.18	0.44
1:D:850:SER:HB2	1:D:880:ARG:NE	2.33	0.44
1:A:795:ALA:O	1:A:798:VAL:HG12	2.17	0.44
1:B:964:VAL:HG23	1:B:965:HIS:ND1	2.31	0.44
1:C:1182:GLN:O	1:C:1186:THR:HG23	2.18	0.44
1:A:115:THR:HG21	1:A:345:TYR:HE1	1.83	0.44
1:A:524:ASP:OD1	1:A:524:ASP:N	2.50	0.44
1:B:88:GLY:O	1:B:470:PRO:HA	2.17	0.44
1:B:747:PHE:O	1:B:751:ARG:HG2	2.16	0.44
1:B:787:MET:HE1	1:B:1017:SER:HB2	2.00	0.44
1:C:127:SER:O	1:C:130:GLN:N	2.51	0.44
1:D:464:GLU:OE2	1:D:532:ARG:NH1	2.51	0.44
1:D:600:MET:HG3	1:D:662:LEU:HD11	1.99	0.44
1:A:969:VAL:HG13	1:A:969:VAL:O	2.17	0.44
1:B:586:ILE:N	1:B:586:ILE:HD12	2.32	0.44
1:B:792:LEU:HD12	1:B:792:LEU:C	2.43	0.44
1:D:1074:PHE:O	1:D:1077:TYR:N	2.51	0.44
1:A:407:ASP:HA	1:A:428:ILE:O	2.17	0.43
1:B:738:ASN:HB2	1:B:783:LYS:HB2	1.99	0.43
1:C:477:VAL:HG12	1:C:478:ASN:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:914:THR:HB	1:C:1004:ALA:HB2	2.00	0.43
1:C:1142:ASP:OD1	1:C:1144:SER:HB3	2.18	0.43
1:D:1176:VAL:O	1:D:1177:GLU:C	2.60	0.43
1:B:442:GLU:HG2	1:B:460:VAL:HG13	2.00	0.43
1:B:1171:ASP:OD1	1:B:1171:ASP:N	2.51	0.43
1:C:380:MET:HE1	1:C:404:LEU:HD21	2.00	0.43
1:D:50:HIS:O	1:D:53:HIS:N	2.45	0.43
1:D:91:LEU:HD22	1:D:92:ASP:O	2.18	0.43
1:D:766:TYR:HA	1:D:810:THR:HG23	1.99	0.43
1:A:101:GLN:OE1	1:A:250:ALA:HB2	2.18	0.43
1:C:673:TYR:OH	1:C:1143:ARG:HB2	2.19	0.43
1:C:1186:THR:O	1:C:1189:GLN:CG	2.66	0.43
1:D:49:TYR:HD2	1:D:54:LEU:CD2	2.32	0.43
1:D:218:VAL:HG12	1:D:232:VAL:HG11	2.01	0.43
1:A:291:PHE:HZ	1:A:379:CYS:HG	1.63	0.43
1:A:846:CYS:C	1:A:847:LEU:HD23	2.43	0.43
1:B:160:ASN:O	1:B:164:VAL:HG23	2.18	0.43
1:B:218:VAL:HG12	1:B:232:VAL:HG11	2.00	0.43
1:B:577:MET:HE3	1:B:620:ARG:NH2	2.32	0.43
1:B:886:ILE:HD12	1:B:887:PRO:N	2.34	0.43
1:D:1105:ILE:HG22	1:D:1105:ILE:O	2.18	0.43
1:A:84:ALA:CB	1:A:476:ILE:HD11	2.49	0.43
1:A:872:GLN:O	1:A:873:ASP:HB3	2.19	0.43
1:B:123:GLU:O	1:B:124:LEU:HD23	2.18	0.43
1:B:682:LEU:HD22	1:B:870:HIS:HD2	1.84	0.43
1:D:218:VAL:CG1	1:D:232:VAL:HG11	2.49	0.43
1:D:1129:CYS:SG	1:D:1137:ILE:CD1	3.06	0.43
1:A:237:PRO:HB2	1:D:28:GLN:O	2.18	0.43
1:A:814:ASN:HB2	1:A:821:HIS:CE1	2.53	0.43
1:A:910:LEU:HD12	1:A:935:HIS:O	2.18	0.43
1:B:84:ALA:HB2	1:B:484:LEU:O	2.18	0.43
1:B:540:LYS:HE2	1:B:540:LYS:N	2.34	0.43
1:C:178:THR:HA	1:C:258:PHE:HB2	2.01	0.43
1:D:629:PHE:HE2	1:D:637:ILE:HG23	1.84	0.43
1:B:57:ASP:O	1:B:60:ILE:HG13	2.19	0.43
1:B:576:ARG:HG3	1:B:583:ASP:OD2	2.19	0.43
1:C:96:GLY:O	1:C:98:GLN:NE2	2.52	0.43
1:C:285:THR:CA	1:C:469:ILE:HD11	2.47	0.43
1:D:982:VAL:HG12	1:D:983:GLU:N	2.34	0.43
1:A:51:LEU:HG	1:C:666:HIS:HA	2.00	0.43
1:A:1105:ILE:O	1:A:1105:ILE:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1165:TYR:CZ	1:A:1223:ILE:HG23	2.54	0.43
1:B:422:VAL:HB	1:B:472:ILE:CD1	2.48	0.43
1:B:1192:LEU:HD12	1:B:1193:SER:N	2.33	0.43
1:D:420:SER:OG	1:D:421:ALA:N	2.52	0.43
1:D:446:THR:O	1:D:488:HIS:NE2	2.52	0.43
1:B:377:MET:HE1	1:B:379:CYS:O	2.18	0.43
1:B:439:THR:HG22	1:B:461:SER:OG	2.19	0.43
1:C:331:PHE:CE2	1:C:332:ILE:HD12	2.54	0.43
1:C:968:LYS:HA	1:C:968:LYS:HE2	2.00	0.43
1:D:847:LEU:HD11	1:D:867:GLU:HG2	2.00	0.43
1:A:500:MET:HE2	1:A:520:PHE:CZ	2.51	0.43
1:A:815:VAL:O	1:A:818:ASP:HB2	2.19	0.43
1:A:1187:CYS:HB2	1:B:145:LEU:HD23	2.00	0.43
1:B:544:ILE:HG13	1:B:549:ASN:HB3	2.01	0.43
1:C:335:PRO:HB2	1:C:360:ILE:HD13	2.01	0.43
1:C:513:VAL:HG23	1:C:514:PHE:CD2	2.53	0.43
1:C:663:GLU:C	1:C:667:THR:HB	2.44	0.43
1:A:1179:ARG:HH21	1:B:237:PRO:HG3	1.84	0.42
1:B:282:VAL:O	1:B:286:VAL:HG23	2.19	0.42
1:B:1129:CYS:SG	1:B:1137:ILE:CD1	3.07	0.42
1:C:747:PHE:O	1:C:751:ARG:HG2	2.19	0.42
1:D:49:TYR:HB3	1:D:54:LEU:HD23	2.01	0.42
1:D:760:ILE:HD11	1:D:796:ILE:CD1	2.49	0.42
1:D:1149:HIS:CD2	1:D:1153:HIS:ND1	2.87	0.42
1:D:1213:SER:HB2	1:D:1214:PRO:HD2	2.01	0.42
1:A:224:LEU:HD23	1:A:224:LEU:C	2.44	0.42
1:A:586:ILE:HD12	1:A:586:ILE:N	2.34	0.42
1:B:136:GLU:HG3	1:B:172:LEU:HD13	2.01	0.42
1:B:674:GLN:O	1:B:889:LEU:HA	2.19	0.42
1:C:547:GLY:C	1:C:548:LYS:HG3	2.44	0.42
1:D:1074:PHE:O	1:D:1075:ALA:C	2.63	0.42
1:B:500:MET:HE3	1:B:502:GLY:HA2	2.01	0.42
1:B:913:ILE:HG12	1:B:1001:ILE:HB	2.01	0.42
1:C:218:VAL:HG12	1:C:232:VAL:HG11	2.01	0.42
1:C:874:CYS:SG	1:C:884:ARG:NH2	2.92	0.42
1:D:792:LEU:HD12	1:D:793:THR:N	2.34	0.42
1:A:285:THR:CA	1:A:469:ILE:HD11	2.46	0.42
1:B:575:VAL:HG12	1:B:586:ILE:HD13	2.02	0.42
1:B:595:GLU:OE1	1:B:597:ALA:HB3	2.19	0.42
1:B:769:GLN:CG	1:B:820:ILE:HD13	2.50	0.42
1:B:1105:ILE:O	1:B:1105:ILE:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:354:ASN:HD22	1:D:388:VAL:HG22	1.83	0.42
1:D:422:VAL:HB	1:D:472:ILE:CD1	2.50	0.42
1:D:937:VAL:HG13	1:D:937:VAL:O	2.20	0.42
1:B:503:TYR:CE2	1:B:513:VAL:HG11	2.53	0.42
1:B:558:ILE:HD13	1:B:614:MET:HE2	2.00	0.42
1:C:863:ALA:HB1	1:C:879:TYR:CE2	2.54	0.42
1:C:905:PHE:HB2	1:C:932:TYR:CE2	2.55	0.42
1:C:978:ALA:HB3	1:C:981:GLU:HB3	2.01	0.42
1:A:593:LEU:HD21	1:A:1181:TYR:CD1	2.54	0.42
1:A:969:VAL:O	1:A:969:VAL:CG1	2.68	0.42
1:B:1059:MET:C	1:B:1060:THR:HG22	2.44	0.42
1:C:272:GLU:O	1:C:500:MET:HB2	2.20	0.42
1:C:913:ILE:HB	1:C:938:LEU:HD22	2.02	0.42
1:D:85:LEU:HD21	1:D:485:PRO:O	2.20	0.42
1:A:760:ILE:CD1	1:A:796:ILE:HD12	2.47	0.42
1:A:1192:LEU:HD13	1:A:1196:TYR:HB3	2.01	0.42
1:A:87:TYR:OH	1:A:90:ASP:HA	2.19	0.42
1:A:105:THR:HG22	1:A:132:GLN:OE1	2.20	0.42
1:A:414:GLY:HA2	1:A:418:ILE:HD11	2.02	0.42
1:B:101:GLN:OE1	1:B:250:ALA:HB2	2.19	0.42
1:B:449:LEU:HD12	1:B:449:LEU:N	2.34	0.42
1:B:986:ILE:HG21	1:B:1041:ARG:HH21	1.85	0.42
1:D:913:ILE:HG12	1:D:1001:ILE:HB	2.02	0.42
1:B:190:ASN:OD1	1:B:192:ALA:N	2.52	0.42
1:B:1189:GLN:O	1:B:1192:LEU:HD23	2.19	0.42
1:B:1192:LEU:HD12	1:B:1194:GLY:H	1.85	0.42
1:C:185:THR:OG1	1:C:187:ARG:HG2	2.20	0.42
1:C:513:VAL:HG23	1:C:514:PHE:N	2.33	0.42
1:D:983:GLU:OE2	1:D:1041:ARG:NH2	2.52	0.42
1:B:34:ARG:O	1:D:1169:LYS:HB3	2.20	0.42
1:B:500:MET:HE1	1:B:503:TYR:CD2	2.55	0.42
1:B:970:LEU:HD22	1:B:989:HIS:CE1	2.55	0.42
1:C:281:ASN:O	1:C:285:THR:N	2.44	0.42
1:C:889:LEU:O	1:C:1152:ILE:HG23	2.19	0.42
1:D:768:ASN:O	1:D:768:ASN:CG	2.62	0.42
1:D:903:PRO:HA	1:D:904:PRO:HD3	1.93	0.42
1:D:936:LEU:O	1:D:969:VAL:HA	2.20	0.42
1:D:1105:ILE:O	1:D:1108:MET:HB3	2.20	0.42
1:A:50:HIS:CE1	1:C:656:MET:HG2	2.55	0.41
1:B:692:ASP:HB2	1:B:756:SER:O	2.20	0.41
1:B:855:VAL:O	1:B:856:SER:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1074:PHE:O	1:B:1075:ALA:C	2.63	0.41
1:C:230:LEU:O	1:C:231:ARG:NH2	2.53	0.41
1:C:1176:VAL:O	1:C:1177:GLU:C	2.63	0.41
1:D:796:ILE:O	1:D:796:ILE:HG23	2.19	0.41
1:B:689:ILE:HD11	1:B:865:MET:HE1	2.03	0.41
1:B:717:ILE:HD13	1:B:750:LEU:CD2	2.49	0.41
1:B:1067:ALA:O	1:B:1070:PHE:HB3	2.20	0.41
1:C:418:ILE:HD12	1:C:422:VAL:CG1	2.49	0.41
1:C:545:ILE:HD13	1:C:616:LEU:HD22	2.00	0.41
1:D:469:ILE:HG22	1:D:472:ILE:HD13	2.01	0.41
1:D:1059:MET:C	1:D:1060:THR:HG22	2.44	0.41
1:A:695:ILE:HG23	1:A:695:ILE:O	2.21	0.41
1:A:1171:ASP:OD2	1:C:33:GLU:OE1	2.39	0.41
1:D:477:VAL:HG12	1:D:478:ASN:O	2.21	0.41
1:D:586:ILE:N	1:D:586:ILE:HD12	2.34	0.41
1:D:900:ARG:HH11	1:D:1131:MET:HA	1.86	0.41
1:A:936:LEU:O	1:A:969:VAL:HA	2.21	0.41
1:B:425:SER:HB2	1:B:465:LEU:O	2.21	0.41
1:B:540:LYS:HE2	1:B:540:LYS:CA	2.50	0.41
1:B:545:ILE:O	1:B:546:ASN:C	2.63	0.41
1:C:84:ALA:HB1	1:C:476:ILE:HG12	2.03	0.41
1:D:85:LEU:CD2	1:D:476:ILE:HD11	2.50	0.41
1:D:1067:ALA:O	1:D:1070:PHE:HB3	2.20	0.41
1:A:144:ALA:O	1:D:21:ASP:CG	2.64	0.41
1:A:256:VAL:HG12	1:A:273:HIS:O	2.20	0.41
1:A:309:ILE:HD12	1:A:310:VAL:H	1.85	0.41
1:A:380:MET:O	1:A:410:ARG:N	2.53	0.41
1:B:78:LEU:HB2	1:B:81:MET:HB2	2.02	0.41
1:B:86:SER:HB2	1:B:528:LEU:HD21	2.02	0.41
1:B:523:GLY:O	1:B:539:GLU:HB2	2.21	0.41
1:B:773:LEU:HD12	1:B:773:LEU:C	2.46	0.41
1:B:819:HIS:ND1	1:B:852:ALA:CB	2.84	0.41
1:C:664:ASN:C	1:C:666:HIS:N	2.76	0.41
1:C:869:THR:OG1	1:C:870:HIS:ND1	2.51	0.41
1:D:44:ILE:HD13	1:D:44:ILE:C	2.45	0.41
1:D:87:TYR:CD1	1:D:531:GLY:HA2	2.55	0.41
1:D:576:ARG:HE	1:D:577:MET:H	1.66	0.41
1:A:763:LEU:HD22	1:A:763:LEU:H	1.85	0.41
1:A:771:ASP:O	1:A:777:LYS:HE2	2.21	0.41
1:A:933:GLN:OE1	1:A:933:GLN:N	2.53	0.41
1:A:937:VAL:HG13	1:A:937:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:236:GLU:HB2	1:B:237:PRO:HD3	2.02	0.41
1:B:479:HIS:NE2	1:D:480:GLN:OE1	2.54	0.41
1:C:500:MET:HE1	1:C:503:TYR:CE2	2.55	0.41
1:C:913:ILE:HG12	1:C:1001:ILE:HB	2.02	0.41
1:D:1173:THR:HG22	1:D:1173:THR:O	2.21	0.41
1:A:101:GLN:NE2	1:A:247:ALA:HB1	2.36	0.41
1:A:161:HIS:O	1:A:165:THR:HG23	2.21	0.41
1:A:218:VAL:HG12	1:A:232:VAL:HG11	2.01	0.41
1:A:539:GLU:HG2	1:A:540:LYS:HG3	2.03	0.41
1:A:672:SER:OG	1:A:1139:THR:HG22	2.21	0.41
1:A:1105:ILE:O	1:A:1108:MET:HB3	2.21	0.41
1:B:22:VAL:O	1:B:25:THR:OG1	2.33	0.41
1:B:761:ILE:CG2	1:B:763:LEU:HD11	2.50	0.41
1:B:819:HIS:CE1	1:B:852:ALA:HB1	2.56	0.41
1:B:1023:MET:HE1	1:B:1064:TYR:HD1	1.85	0.41
1:B:1168:PHE:HE1	1:B:1180:LEU:HD22	1.86	0.41
1:C:354:ASN:CB	1:C:386:ALA:O	2.69	0.41
1:C:720:GLU:O	1:C:734:ILE:HA	2.21	0.41
1:C:900:ARG:HH11	1:C:1131:MET:HA	1.86	0.41
1:C:969:VAL:O	1:C:969:VAL:HG13	2.21	0.41
1:C:1115:LEU:HD21	1:C:1142:ASP:HB2	2.03	0.41
1:D:22:VAL:HG11	1:D:37:VAL:HG21	2.03	0.41
1:D:215:ILE:HG23	1:D:216:GLU:N	2.36	0.41
1:D:442:GLU:HA	1:D:445:LEU:HD13	2.03	0.41
1:D:710:ALA:HB2	1:D:716:TYR:CZ	2.56	0.41
1:D:875:HIS:CD2	1:D:875:HIS:C	2.98	0.41
1:D:1213:SER:CB	1:D:1214:PRO:HD2	2.50	0.41
1:A:832:MET:HE2	1:A:832:MET:HA	2.03	0.41
1:B:37:VAL:HA	1:D:1165:TYR:O	2.21	0.41
1:B:925:SER:CB	1:B:958:LEU:HD21	2.51	0.41
1:C:215:ILE:HG23	1:C:216:GLU:N	2.36	0.41
1:C:637:ILE:O	1:C:639:ARG:N	2.54	0.41
1:C:860:HIS:CD2	1:C:860:HIS:H	2.39	0.41
1:D:85:LEU:HA	1:D:87:TYR:HE1	1.85	0.41
1:D:367:ILE:HD13	1:D:398:LEU:HG	2.01	0.41
1:D:438:LEU:HD11	1:D:464:GLU:OE2	2.21	0.41
1:A:510:ASN:HB3	1:A:514:PHE:CZ	2.56	0.40
1:A:1109:LEU:CD2	1:A:1114:TYR:HB2	2.52	0.40
1:A:1214:PRO:O	1:A:1216:GLU:N	2.54	0.40
1:B:575:VAL:HG22	1:B:577:MET:N	2.36	0.40
1:C:738:ASN:HB2	1:C:783:LYS:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:134:ASP:HA	1:D:137:ARG:HD2	2.02	0.40
1:A:513:VAL:O	1:A:521:HIS:HB2	2.20	0.40
1:B:103:VAL:HG13	1:B:318:TYR:HA	2.04	0.40
1:B:495:LYS:HB2	1:B:519:TRP:CD2	2.55	0.40
1:D:792:LEU:C	1:D:792:LEU:CD1	2.90	0.40
1:D:853:GLU:HA	1:D:853:GLU:OE2	2.22	0.40
1:D:914:THR:HB	1:D:1004:ALA:HB2	2.02	0.40
1:D:1218:TYR:CE1	1:D:1222:LEU:HD11	2.56	0.40
1:A:32:ILE:HD12	1:C:1168:PHE:CD1	2.56	0.40
1:A:87:TYR:HD1	1:A:472:ILE:O	2.03	0.40
1:A:592:LYS:HB3	1:A:1177:GLU:HG3	2.02	0.40
1:A:763:LEU:HD22	1:A:763:LEU:N	2.36	0.40
1:A:929:LEU:HD12	1:A:929:LEU:HA	1.96	0.40
1:B:616:LEU:CD1	1:B:617:SER:O	2.70	0.40
1:B:763:LEU:HD12	1:B:808:VAL:HB	2.03	0.40
1:B:908:SER:O	1:B:995:ARG:NH2	2.54	0.40
1:C:54:LEU:O	1:C:55:PHE:HB2	2.20	0.40
1:C:297:SER:O	1:C:324:ILE:HD12	2.21	0.40
1:D:384:ALA:O	1:D:387:VAL:HG23	2.21	0.40
1:D:550:TYR:CZ	1:D:616:LEU:HD22	2.56	0.40
1:A:444:SER:HB2	1:A:448:GLN:O	2.21	0.40
1:A:869:THR:OG1	1:A:870:HIS:ND1	2.48	0.40
1:A:1089:PHE:CE2	1:A:1126:MET:HE3	2.56	0.40
1:B:49:TYR:CE2	1:D:894:LEU:HD12	2.56	0.40
1:B:465:LEU:HD11	1:B:535:LEU:HB2	2.03	0.40
1:D:763:LEU:HD22	1:D:763:LEU:N	2.37	0.40
1:D:835:VAL:CG1	1:D:836:GLN:N	2.82	0.40
1:A:543:ILE:HD13	1:A:543:ILE:H	1.87	0.40
1:A:762:HIS:HB3	1:A:807:PHE:CD1	2.57	0.40
1:B:775:VAL:N	1:B:979:GLU:OE1	2.52	0.40
1:B:812:ALA:N	1:B:848:ASP:OD1	2.44	0.40
1:C:104:LEU:HD21	1:C:132:GLN:HA	2.04	0.40
1:C:1137:ILE:O	1:C:1137:ILE:HG12	2.22	0.40
1:D:251:ALA:HB3	1:D:254:ASP:OD1	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	1189/1327 (90%)	1099 (92%)	88 (7%)	2 (0%)	43 71
1	B	1205/1327 (91%)	1105 (92%)	98 (8%)	2 (0%)	43 71
1	C	1199/1327 (90%)	1098 (92%)	101 (8%)	0	100 100
1	D	1189/1327 (90%)	1093 (92%)	94 (8%)	2 (0%)	43 71
All	All	4782/5308 (90%)	4395 (92%)	381 (8%)	6 (0%)	48 78

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	1213	SER
1	A	420	SER
1	B	546	ASN
1	B	1157	GLU
1	A	873	ASP
1	D	546	ASN

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	1009/1125 (90%)	923 (92%)	86 (8%)	10 33
1	B	1020/1125 (91%)	928 (91%)	92 (9%)	9 30
1	C	1018/1125 (90%)	929 (91%)	89 (9%)	9 32
1	D	1011/1125 (90%)	926 (92%)	85 (8%)	10 34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	4058/4500 (90%)	3706 (91%)	352 (9%)	9 32

All (352) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	15	MET
1	A	25	THR
1	A	33	GLU
1	A	34	ARG
1	A	38	PHE
1	A	42	LYS
1	A	44	ILE
1	A	51	LEU
1	A	58	LYS
1	A	95	GLN
1	A	99	THR
1	A	125	THR
1	A	205	HIS
1	A	210	THR
1	A	228	ASP
1	A	240	THR
1	A	292	THR
1	A	296	VAL
1	A	309	ILE
1	A	312	PHE
1	A	332	ILE
1	A	366	GLU
1	A	385	GLU
1	A	455	ARG
1	A	467	LYS
1	A	476	ILE
1	A	521	HIS
1	A	535	LEU
1	A	543	ILE
1	A	553	TYR
1	A	575	VAL
1	A	576	ARG
1	A	578	GLU
1	A	582	SER
1	A	583	ASP
1	A	613	LYS
1	A	616	LEU

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Mol	Chain	Res	Type
1	A	620	ARG
1	A	624	VAL
1	A	636	LYS
1	A	645	ARG
1	A	654	MET
1	A	690	VAL
1	A	692	ASP
1	A	693	VAL
1	A	718	THR
1	A	726	LYS
1	A	763	LEU
1	A	772	LYS
1	A	782	GLN
1	A	792	LEU
1	A	843	LYS
1	A	844	VAL
1	A	864	MET
1	A	865	MET
1	A	880	ARG
1	A	886	ILE
1	A	896	LYS
1	A	901	LYS
1	A	929	LEU
1	A	941	ARG
1	A	954	THR
1	A	968	LYS
1	A	977	THR
1	A	982	VAL
1	A	991	VAL
1	A	1016	THR
1	A	1034	LEU
1	A	1042	ARG
1	A	1048	SER
1	A	1056	LYS
1	A	1071	VAL
1	A	1079	LYS
1	A	1100	SER
1	A	1115	LEU
1	A	1137	ILE
1	A	1152	ILE
1	A	1153	HIS
1	A	1155	ASP

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Mol	Chain	Res	Type
1	A	1157	GLU
1	A	1158	MET
1	A	1168	PHE
1	A	1177	GLU
1	A	1187	CYS
1	A	1210	GLU
1	A	1226	SER
1	B	18	ILE
1	B	24	THR
1	B	37	VAL
1	B	38	PHE
1	B	42	LYS
1	B	43	THR
1	B	44	ILE
1	B	54	LEU
1	B	80	ASP
1	B	81	MET
1	B	85	LEU
1	B	90	ASP
1	B	99	THR
1	B	118	VAL
1	B	123	GLU
1	B	124	LEU
1	B	210	THR
1	B	224	LEU
1	B	230	LEU
1	B	240	THR
1	B	292	THR
1	B	296	VAL
1	B	309	ILE
1	B	312	PHE
1	B	332	ILE
1	B	354	ASN
1	B	382	ASN
1	B	385	GLU
1	B	387	VAL
1	B	476	ILE
1	B	477	VAL
1	B	521	HIS
1	B	524	ASP
1	B	535	LEU
1	B	539	GLU

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Mol	Chain	Res	Type
1	B	543	ILE
1	B	575	VAL
1	B	576	ARG
1	B	578	GLU
1	B	580	SER
1	B	613	LYS
1	B	620	ARG
1	B	624	VAL
1	B	627	HIS
1	B	636	LYS
1	B	638	GLU
1	B	645	ARG
1	B	664	ASN
1	B	667	THR
1	B	689	ILE
1	B	695	ILE
1	B	755	VAL
1	B	763	LEU
1	B	773	LEU
1	B	774	TYR
1	B	779	LYS
1	B	782	GLN
1	B	792	LEU
1	B	818	ASP
1	B	827	THR
1	B	843	LYS
1	B	856	SER
1	B	864	MET
1	B	865	MET
1	B	874	CYS
1	B	886	ILE
1	B	896	LYS
1	B	901	LYS
1	B	929	LEU
1	B	954	THR
1	B	963	LYS
1	B	968	LYS
1	B	982	VAL
1	B	991	VAL
1	B	994	ASN
1	B	1034	LEU
1	B	1042	ARG

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Mol	Chain	Res	Type
1	B	1056	LYS
1	B	1071	VAL
1	B	1079	LYS
1	B	1097	ILE
1	B	1100	SER
1	B	1115	LEU
1	B	1132	THR
1	B	1137	ILE
1	B	1153	HIS
1	B	1157	GLU
1	B	1159	GLN
1	B	1160	THR
1	B	1173	THR
1	B	1210	GLU
1	B	1211	ASP
1	C	13	GLU
1	C	15	MET
1	C	24	THR
1	C	34	ARG
1	C	38	PHE
1	C	42	LYS
1	C	44	ILE
1	C	86	SER
1	C	95	GLN
1	C	99	THR
1	C	100	LEU
1	C	125	THR
1	C	148	LYS
1	C	189	MET
1	C	211	ASP
1	C	240	THR
1	C	292	THR
1	C	296	VAL
1	C	309	ILE
1	C	311	MET
1	C	312	PHE
1	C	332	ILE
1	C	336	LEU
1	C	354	ASN
1	C	385	GLU
1	C	415	MET
1	C	428	ILE

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Mol	Chain	Res	Type
1	C	467	LYS
1	C	521	HIS
1	C	524	ASP
1	C	535	LEU
1	C	543	ILE
1	C	546	ASN
1	C	548	LYS
1	C	553	TYR
1	C	575	VAL
1	C	576	ARG
1	C	578	GLU
1	C	580	SER
1	C	583	ASP
1	C	610	ILE
1	C	612	THR
1	C	620	ARG
1	C	624	VAL
1	C	627	HIS
1	C	636	LYS
1	C	645	ARG
1	C	654	MET
1	C	683	ASP
1	C	689	ILE
1	C	693	VAL
1	C	695	ILE
1	C	715	THR
1	C	718	THR
1	C	763	LEU
1	C	769	GLN
1	C	772	LYS
1	C	774	TYR
1	C	792	LEU
1	C	864	MET
1	C	865	MET
1	C	880	ARG
1	C	886	ILE
1	C	895	GLU
1	C	929	LEU
1	C	941	ARG
1	C	954	THR
1	C	963	LYS
1	C	968	LYS

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Mol	Chain	Res	Type
1	C	982	VAL
1	C	985	ILE
1	C	1018	VAL
1	C	1021	ASN
1	C	1034	LEU
1	C	1042	ARG
1	C	1048	SER
1	C	1056	LYS
1	C	1071	VAL
1	C	1079	LYS
1	C	1097	ILE
1	C	1109	LEU
1	C	1115	LEU
1	C	1137	ILE
1	C	1155	ASP
1	C	1163	THR
1	C	1168	PHE
1	C	1179	ARG
1	C	1210	GLU
1	C	1226	SER
1	D	13	GLU
1	D	25	THR
1	D	30	ASN
1	D	38	PHE
1	D	42	LYS
1	D	44	ILE
1	D	51	LEU
1	D	53	HIS
1	D	91	LEU
1	D	99	THR
1	D	125	THR
1	D	208	ILE
1	D	218	VAL
1	D	230	LEU
1	D	240	THR
1	D	292	THR
1	D	296	VAL
1	D	309	ILE
1	D	312	PHE
1	D	332	ILE
1	D	336	LEU
1	D	385	GLU

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Mol	Chain	Res	Type
1	D	387	VAL
1	D	415	MET
1	D	418	ILE
1	D	455	ARG
1	D	467	LYS
1	D	495	LYS
1	D	521	HIS
1	D	535	LEU
1	D	553	TYR
1	D	575	VAL
1	D	576	ARG
1	D	577	MET
1	D	616	LEU
1	D	620	ARG
1	D	624	VAL
1	D	627	HIS
1	D	636	LYS
1	D	645	ARG
1	D	654	MET
1	D	662	LEU
1	D	693	VAL
1	D	715	THR
1	D	718	THR
1	D	726	LYS
1	D	755	VAL
1	D	763	LEU
1	D	768	ASN
1	D	784	THR
1	D	792	LEU
1	D	796	ILE
1	D	827	THR
1	D	835	VAL
1	D	843	LYS
1	D	844	VAL
1	D	864	MET
1	D	865	MET
1	D	880	ARG
1	D	886	ILE
1	D	896	LYS
1	D	917	LEU
1	D	929	LEU
1	D	941	ARG

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Mol	Chain	Res	Type
1	D	954	THR
1	D	968	LYS
1	D	982	VAL
1	D	991	VAL
1	D	995	ARG
1	D	1016	THR
1	D	1034	LEU
1	D	1048	SER
1	D	1056	LYS
1	D	1071	VAL
1	D	1079	LYS
1	D	1097	ILE
1	D	1100	SER
1	D	1115	LEU
1	D	1137	ILE
1	D	1146	LYS
1	D	1155	ASP
1	D	1168	PHE
1	D	1179	ARG
1	D	1192	LEU
1	D	1209	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (34) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	126	GLN
1	A	226	HIS
1	A	711	ASN
1	A	768	ASN
1	A	858	HIS
1	A	875	HIS
1	A	1120	GLN
1	A	1124	GLN
1	B	30	ASN
1	B	59	HIS
1	B	98	GLN
1	B	198	HIS
1	B	402	HIS
1	B	604	GLN
1	B	641	GLN
1	B	670	ASN
1	B	738	ASN

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Mol	Chain	Res	Type
1	B	1002	HIS
1	B	1008	GLN
1	B	1078	GLN
1	C	59	HIS
1	C	293	GLN
1	C	402	HIS
1	C	493	GLN
1	C	521	HIS
1	C	546	ASN
1	C	641	GLN
1	C	714	GLN
1	C	1185	HIS
1	D	59	HIS
1	D	130	GLN
1	D	745	GLN
1	D	961	GLN
1	D	1172	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 oligosaccharides in this entry.

5.6 Ligand geometry

Of 9 ligands modelled in this entry, 9 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	1193/1327 (89%)	-0.66	1 (0%)	92	91	96, 218, 342, 403	0
1	B	1209/1327 (91%)	-0.63	1 (0%)	92	91	108, 188, 266, 378	0
1	C	1203/1327 (90%)	-0.62	2 (0%)	91	87	104, 182, 277, 350	0
1	D	1193/1327 (89%)	-0.69	0	100	100	99, 195, 287, 336	0
All	All	4798/5308 (90%)	-0.65	4 (0%)	92	91	96, 190, 308, 403	0

All (4) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	1109	LEU	2.7
1	C	386	ALA	2.4
1	C	155	PHE	2.2
1	B	1094	TRP	2.1

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 oligosaccharides 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. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	CA	A	1401	1/1	0.74	0.15	179,179,179,179	0
3	MG	D	1401	1/1	0.81	0.17	139,139,139,139	0
2	CA	B	1401	1/1	0.86	0.09	154,154,154,154	0
2	CA	B	1402	1/1	0.90	0.12	154,154,154,154	0
2	CA	A	1402	1/1	0.90	0.05	188,188,188,188	0
2	CA	D	1403	1/1	0.91	0.04	172,172,172,172	0
2	CA	C	1401	1/1	0.91	0.07	178,178,178,178	0
2	CA	C	1402	1/1	0.95	0.05	154,154,154,154	0
2	CA	D	1402	1/1	0.98	0.05	129,129,129,129	0

6.5 Other polymers (i)

There are no such residues in this entry.