Full wwPDB EM Validation Report ⓘ

Dec 7, 2022 – 01:29 PM JST

PDB ID	:	7EYB
EMDB ID	:	EMD-31317
Title	:	core proteins
Authors	:	Liu, H.R.; Chen, W.Y.
Deposited on	:	2021-05-30
Resolution	:	3.70 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp
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:

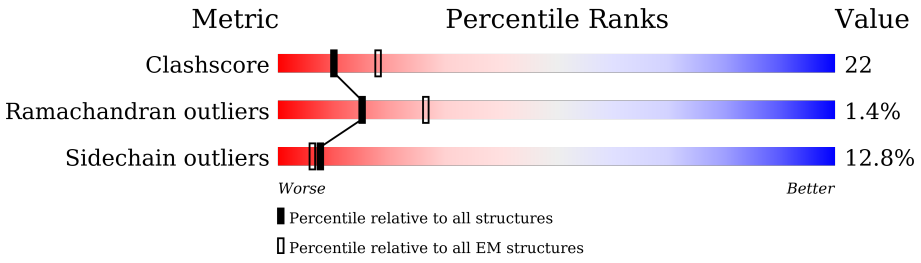
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.70 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	a	196	22% 39% · 60%
1	b	196	18% 38% · 60%
1	c	196	22% 39% · 60%
1	d	196	19% 39% · 60%
1	e	196	21% 39% · 60%
1	f	196	19% 39% · 60%
1	g	196	21% 38% · 60%
1	h	196	19% 39% · 60%

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Mol	Chain	Length	Quality of chain
2	A	747	24% 47% 34% 6% 13%
2	B	747	20% 47% 31% 8% 13%
2	C	747	24% 48% 33% 5% 13%
2	D	747	21% 46% 32% 8% 13%
2	E	747	23% 48% 33% 6% 13%
2	F	747	21% 46% 32% 8% 13%
2	G	747	23% 47% 34% 6% 13%
2	H	747	22% 47% 31% 8% 13%
3	I	1318	13% 51% 31% 16%
3	J	1318	12% 51% 31% 16%
3	K	1318	12% 50% 31% 16%
3	L	1318	12% 50% 31% 16%

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 78184 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Internal virion protein gp14.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	a	78	Total 387	C 231	N 78	O 78	0	0
1	b	78	Total 387	C 231	N 78	O 78	0	0
1	c	78	Total 387	C 231	N 78	O 78	0	0
1	d	78	Total 387	C 231	N 78	O 78	0	0
1	e	78	Total 387	C 231	N 78	O 78	0	0
1	f	78	Total 387	C 231	N 78	O 78	0	0
1	g	78	Total 387	C 231	N 78	O 78	0	0
1	h	78	Total 387	C 231	N 78	O 78	0	0

- Molecule 2 is a protein called Internal virion protein gp15.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0
2	B	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0
2	C	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0
2	D	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0
2	E	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0
2	F	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0
2	G	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	H	647	Total 5148	C 3184	N 904	O 1031	S 29	0	0

- Molecule 3 is a protein called Peptidoglycan transglycosylase gp16.

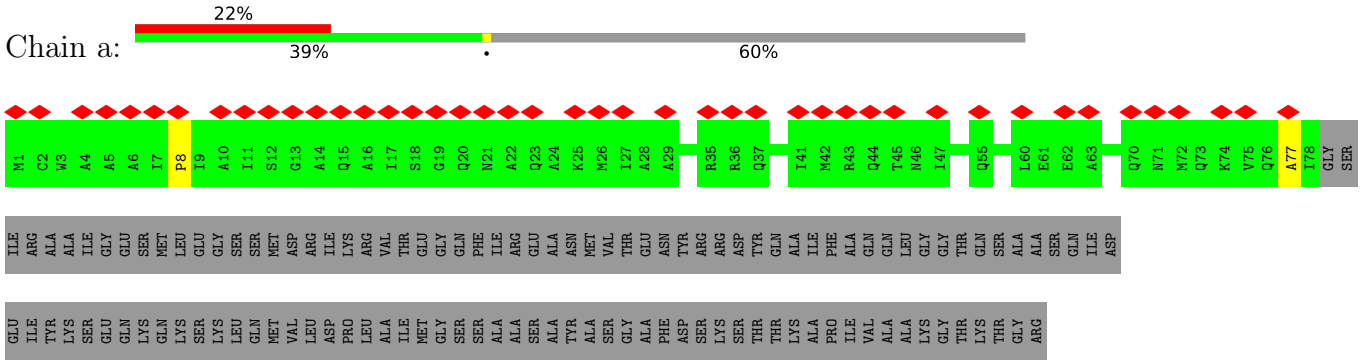
Mol	Chain	Residues	Atoms					AltConf	Trace
3	I	1101	Total 8476	C 5312	N 1492	O 1628	S 44	0	0
3	J	1101	Total 8476	C 5312	N 1492	O 1628	S 44	0	0
3	K	1101	Total 8476	C 5312	N 1492	O 1628	S 44	0	0
3	L	1101	Total 8476	C 5312	N 1492	O 1628	S 44	0	0

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 atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

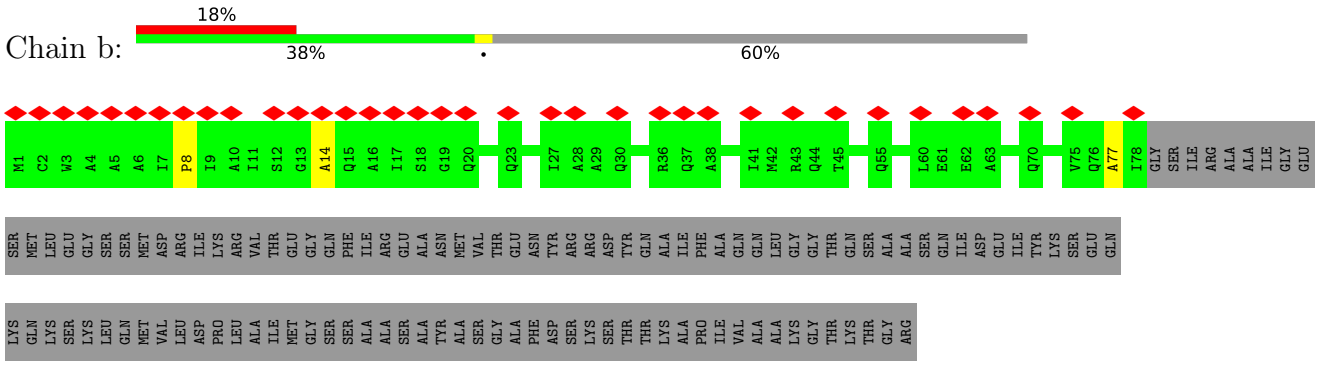
• Molecule 1: Internal virion protein gp14

Chain a:



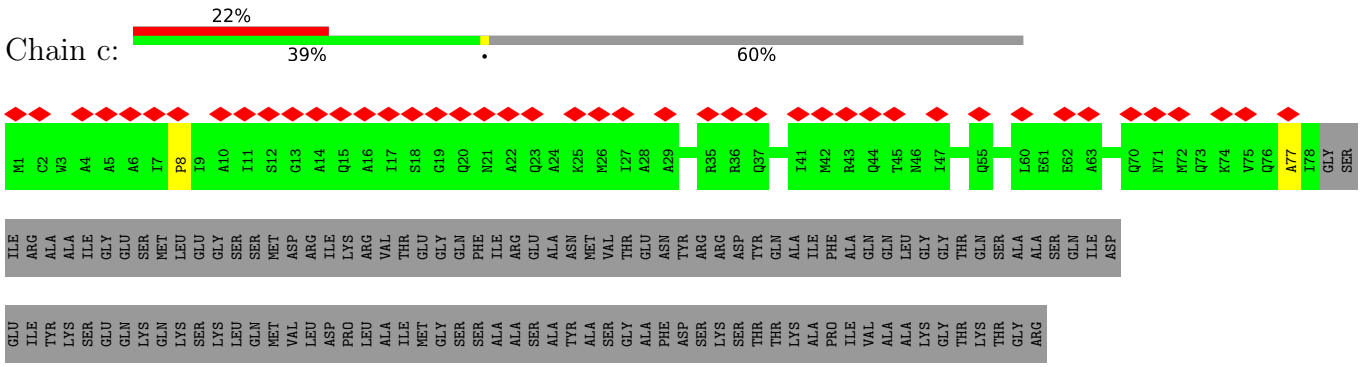
• Molecule 1: Internal virion protein gp14

Chain b:



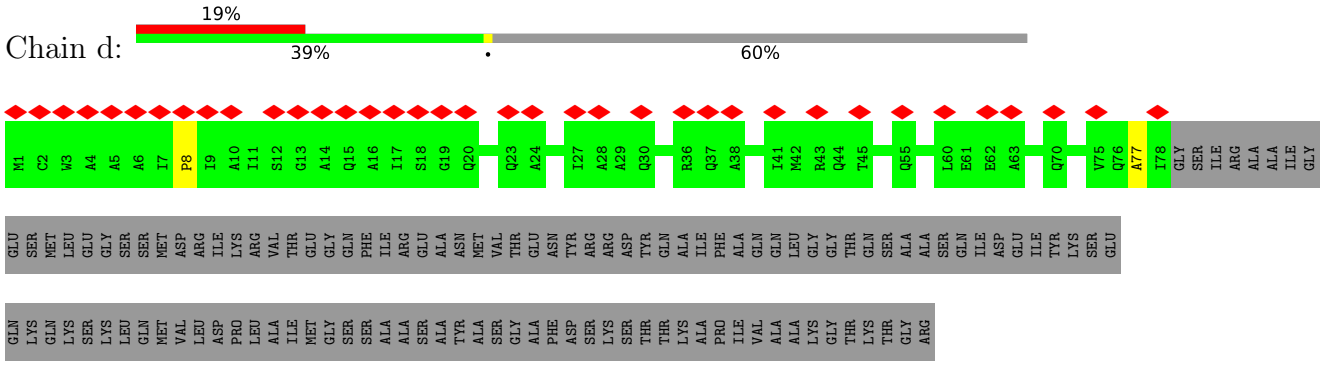
• Molecule 1: Internal virion protein gp14

Chain c:



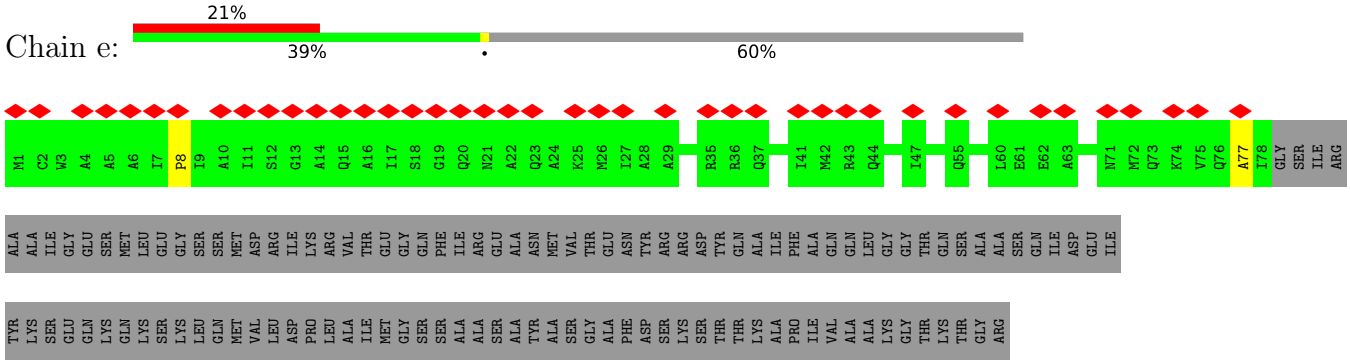
• Molecule 1: Internal virion protein gp14

Chain d:



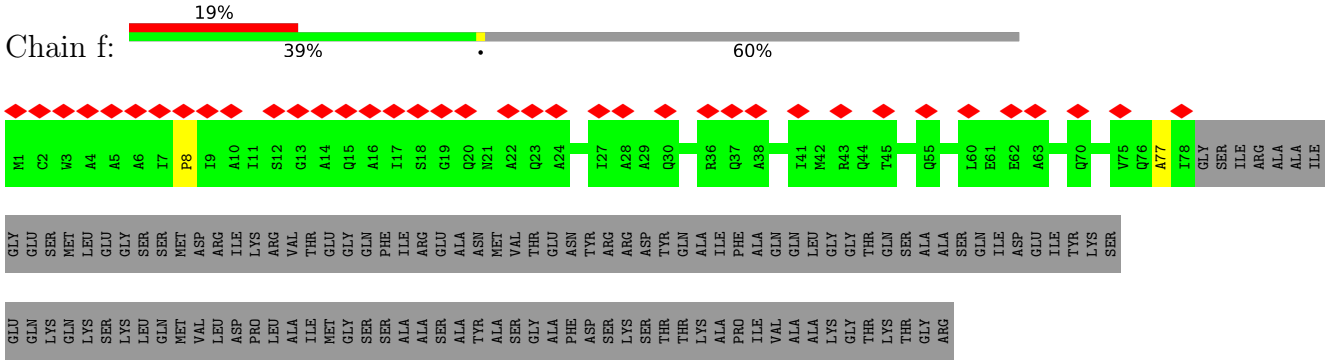
• Molecule 1: Internal virion protein gp14

Chain e:



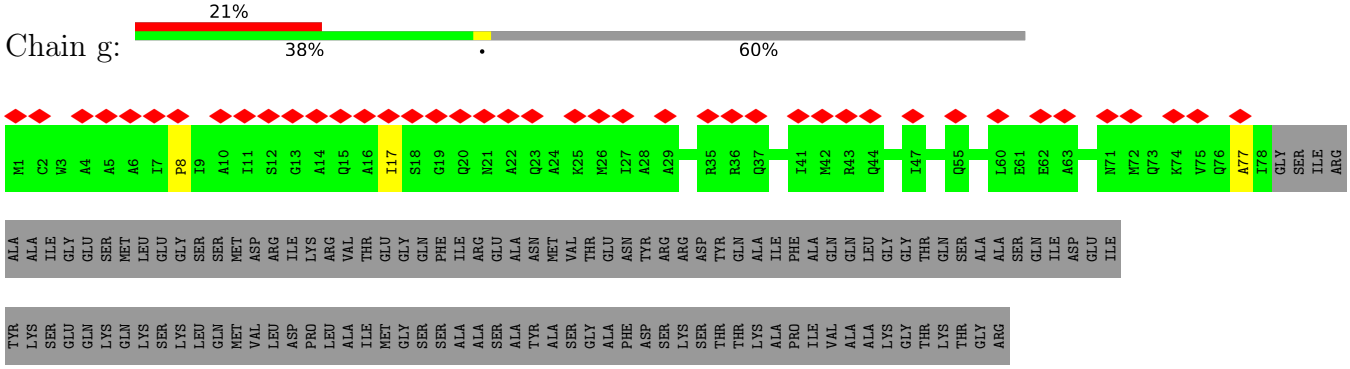
• Molecule 1: Internal virion protein gp14

Chain f:



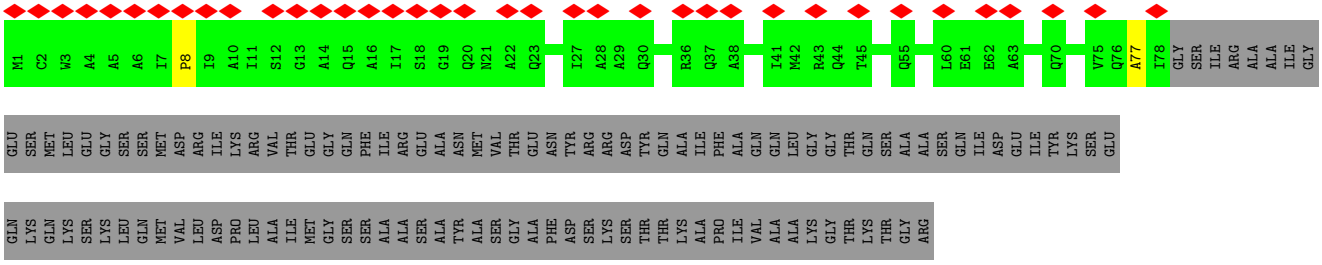
• Molecule 1: Internal virion protein gp14

Chain g:



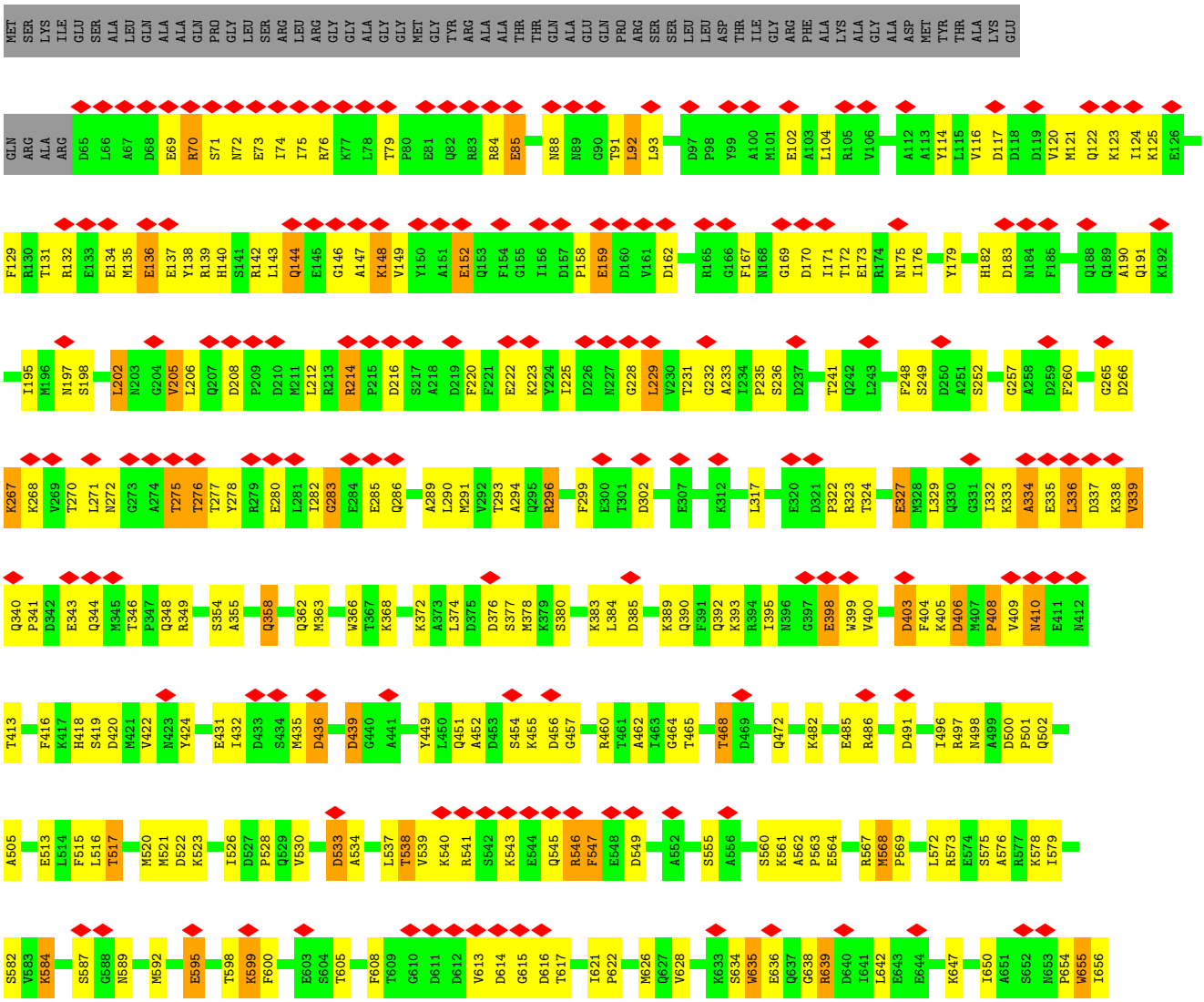
• Molecule 1: Internal virion protein gp14

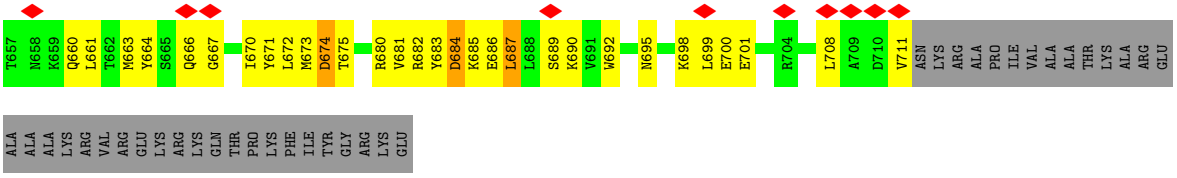
Chain h:



• Molecule 2: Internal virion protein gp15

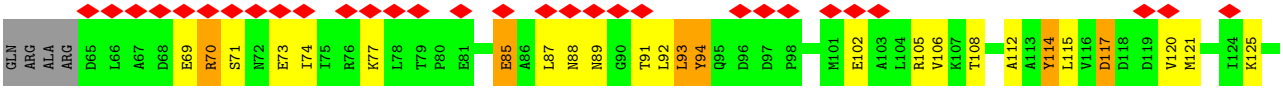
Chain A:

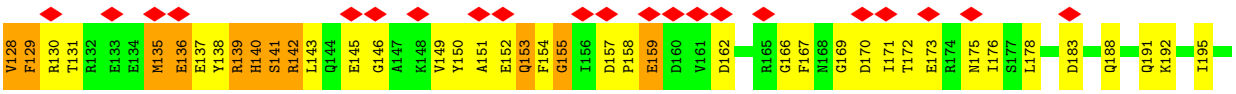


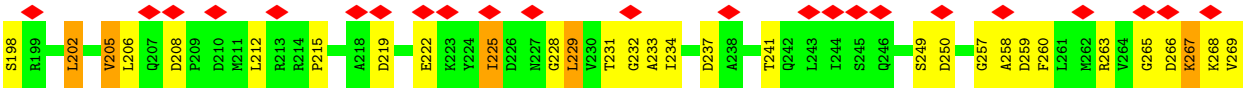


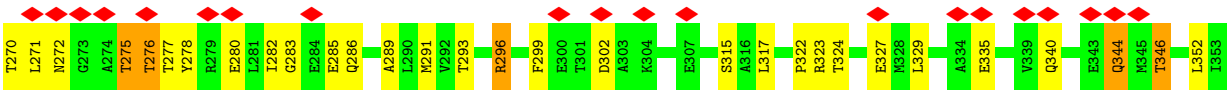
• Molecule 2: Internal virion protein gp15

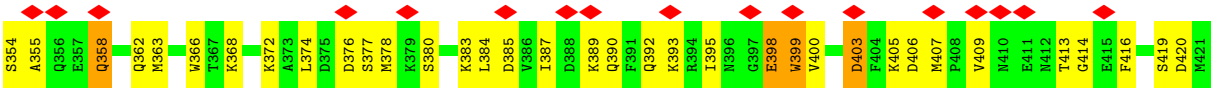
Chain B:

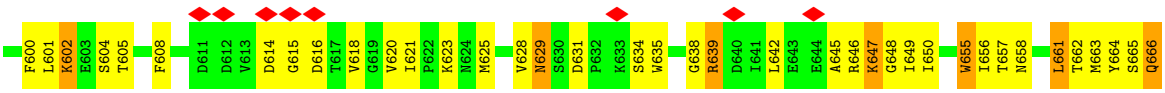


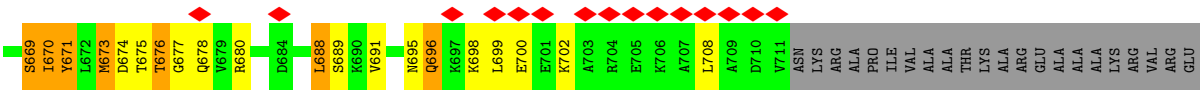


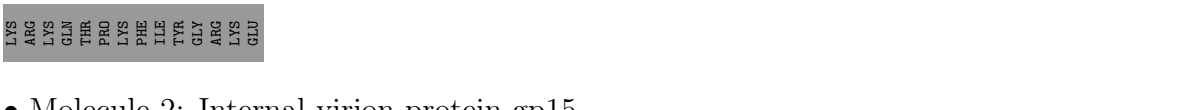






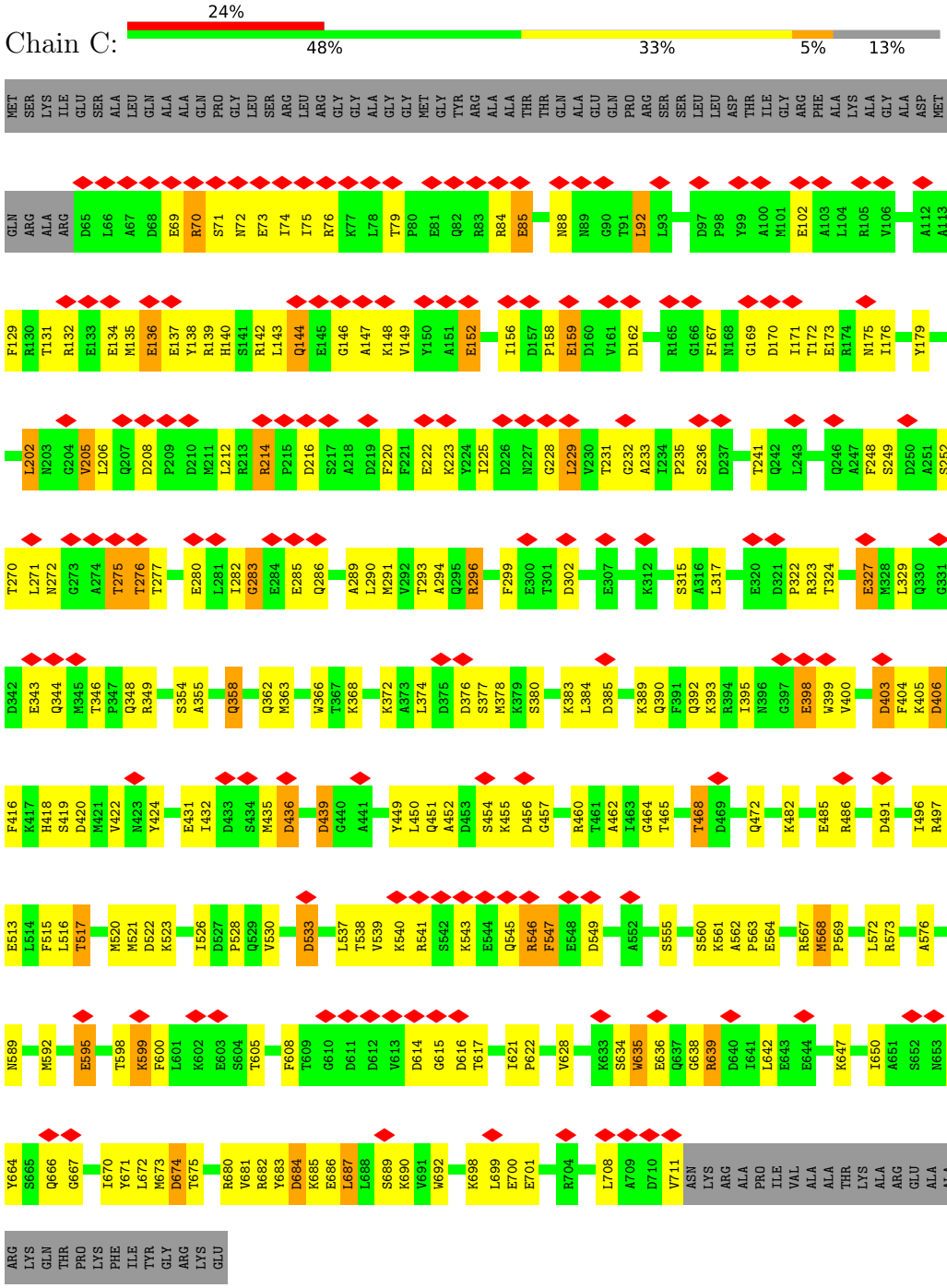






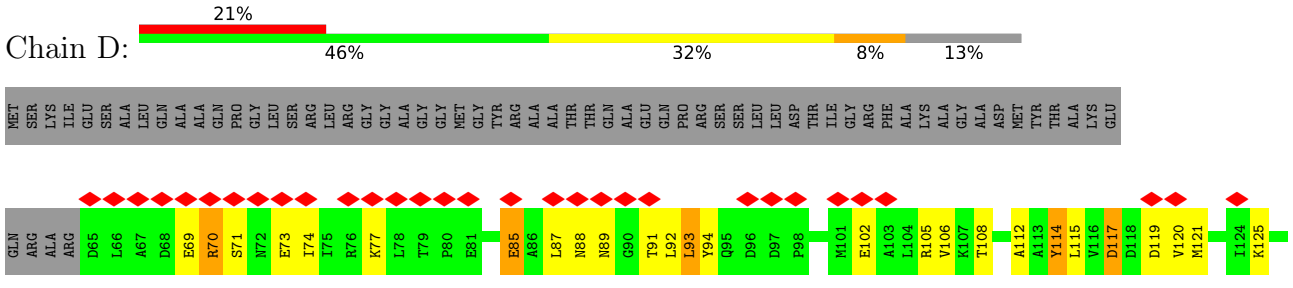
• Molecule 2: Internal virion protein gp15

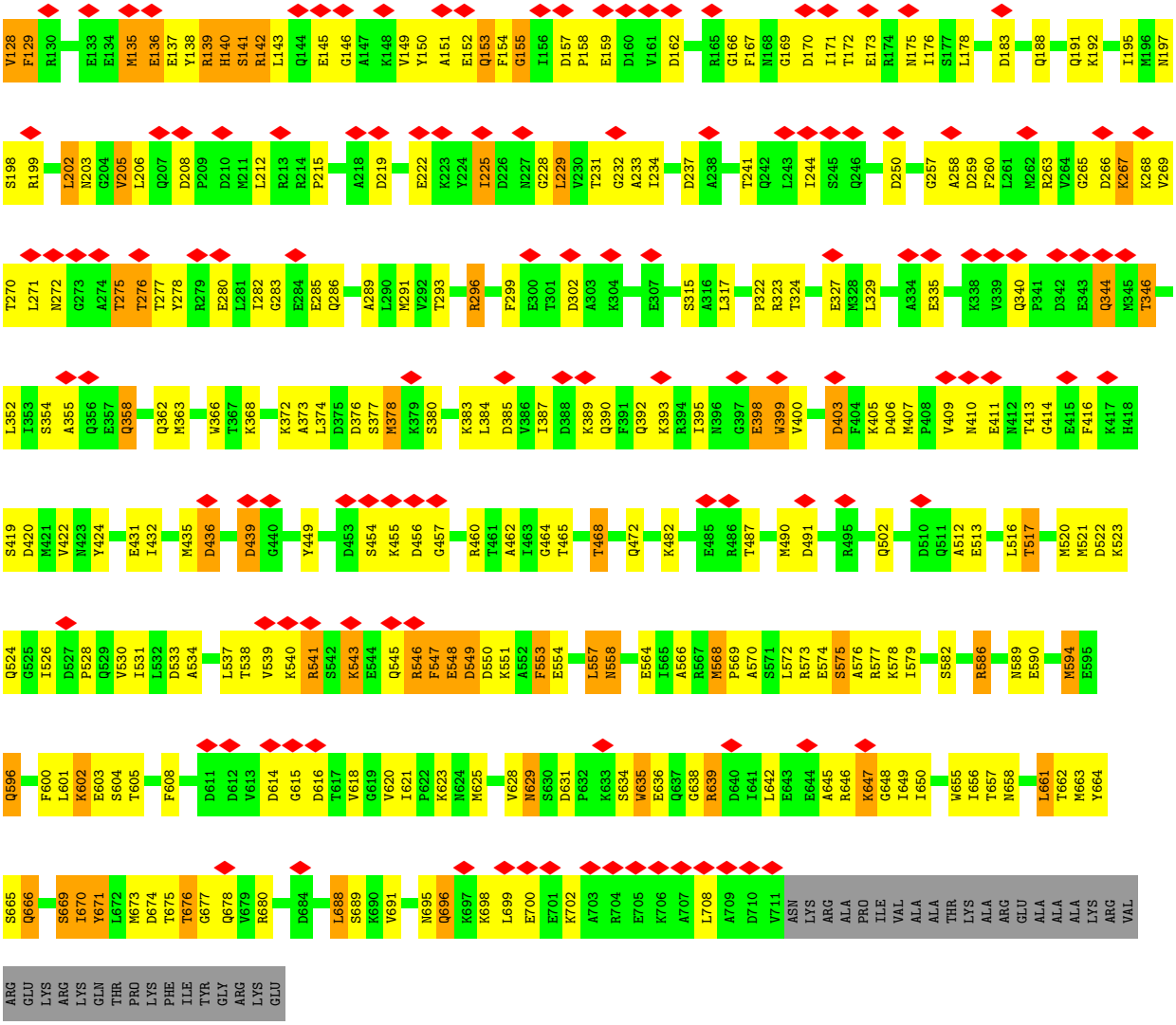
Chain C:



• Molecule 2: Internal virion protein gp15

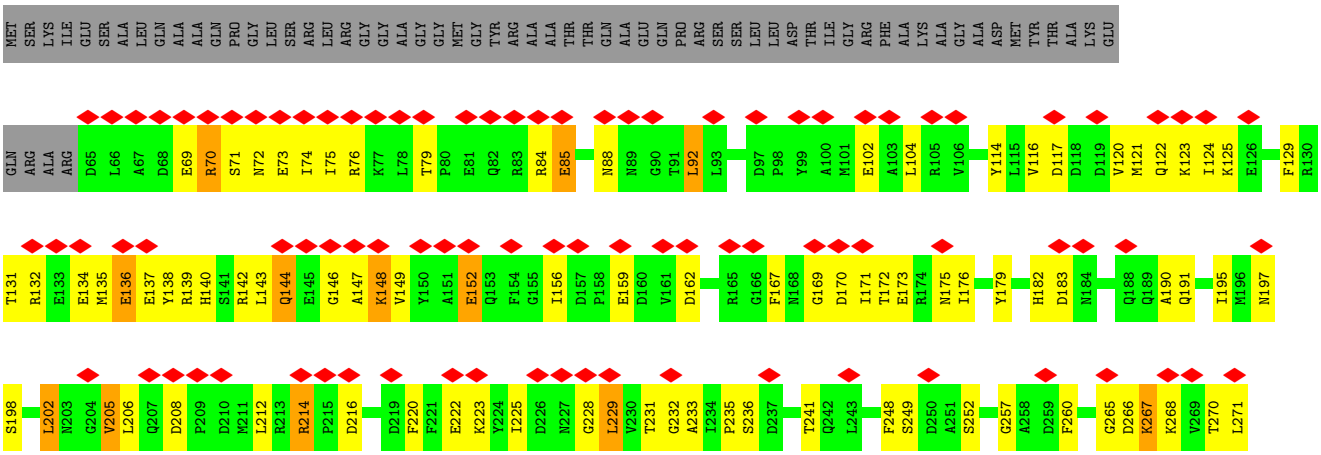
Chain D:

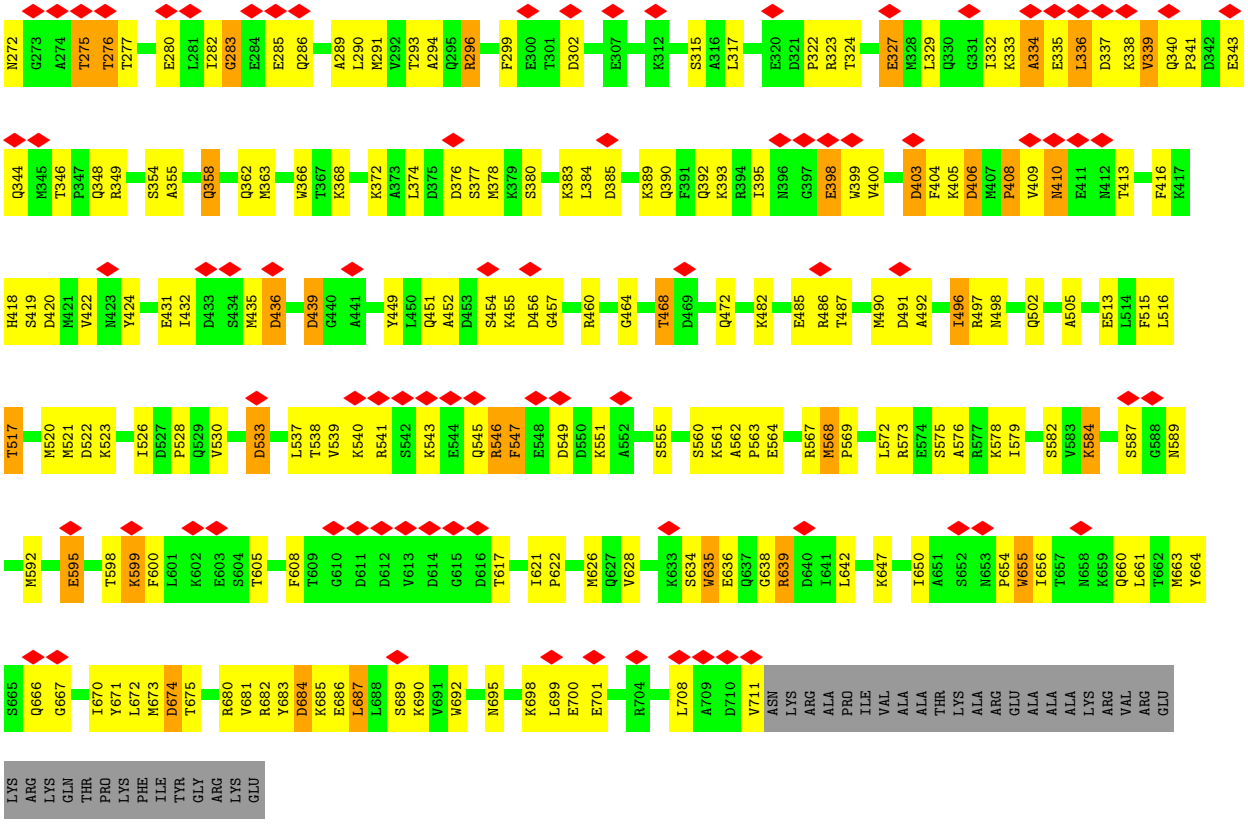




• Molecule 2: Internal virion protein gp15

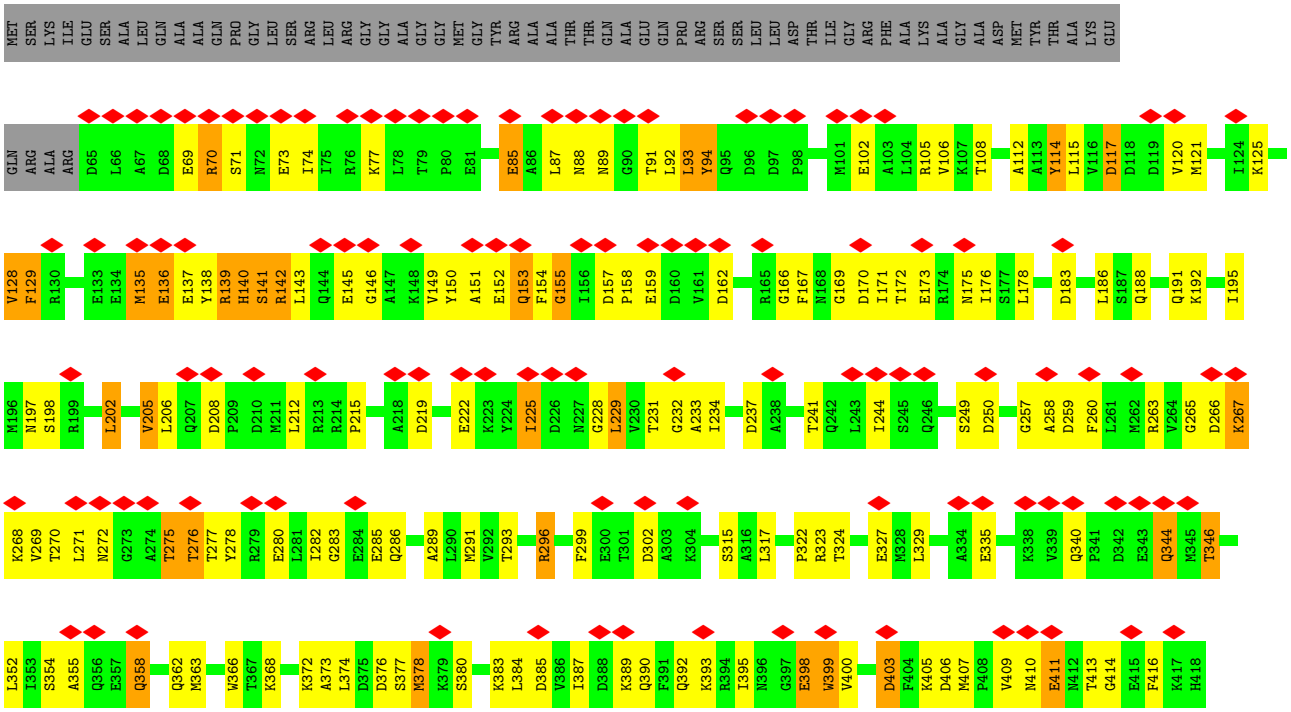
Chain E:

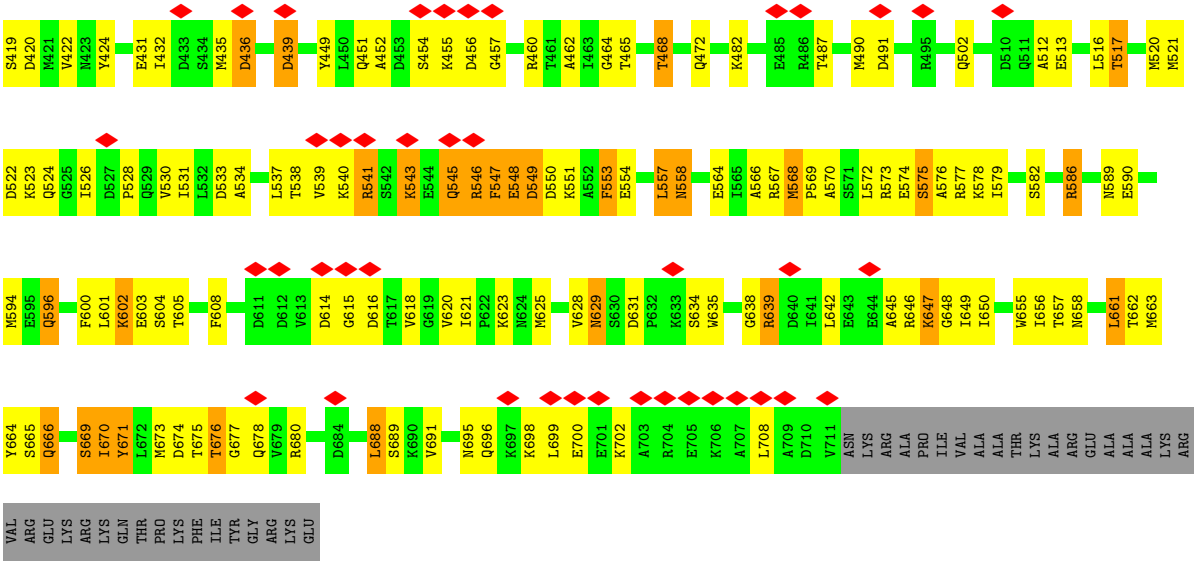




• Molecule 2: Internal virion protein gp15

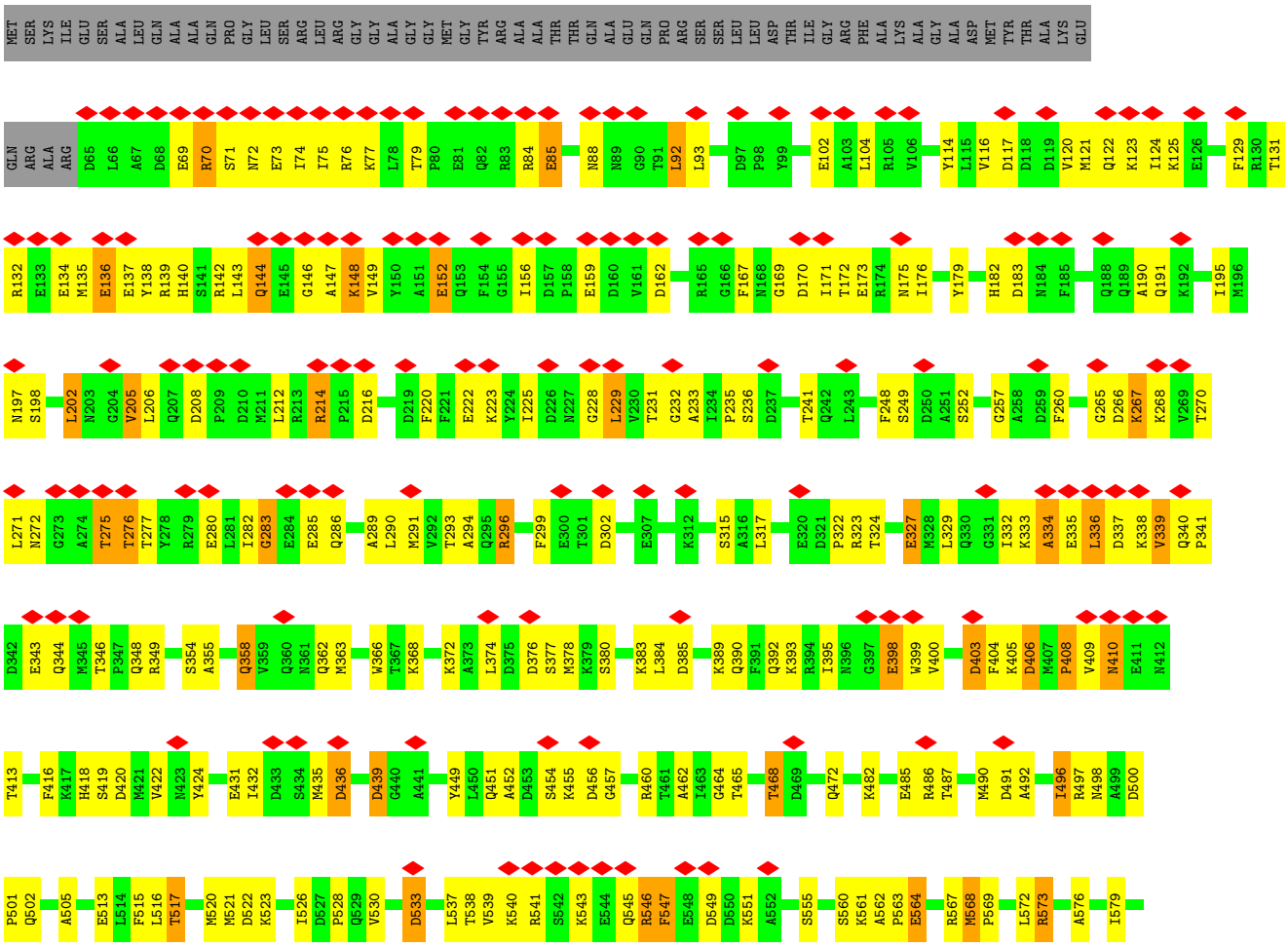
Chain F:

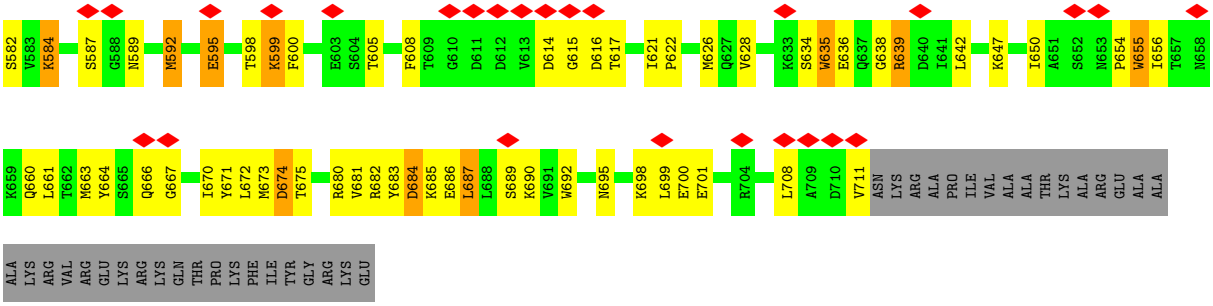




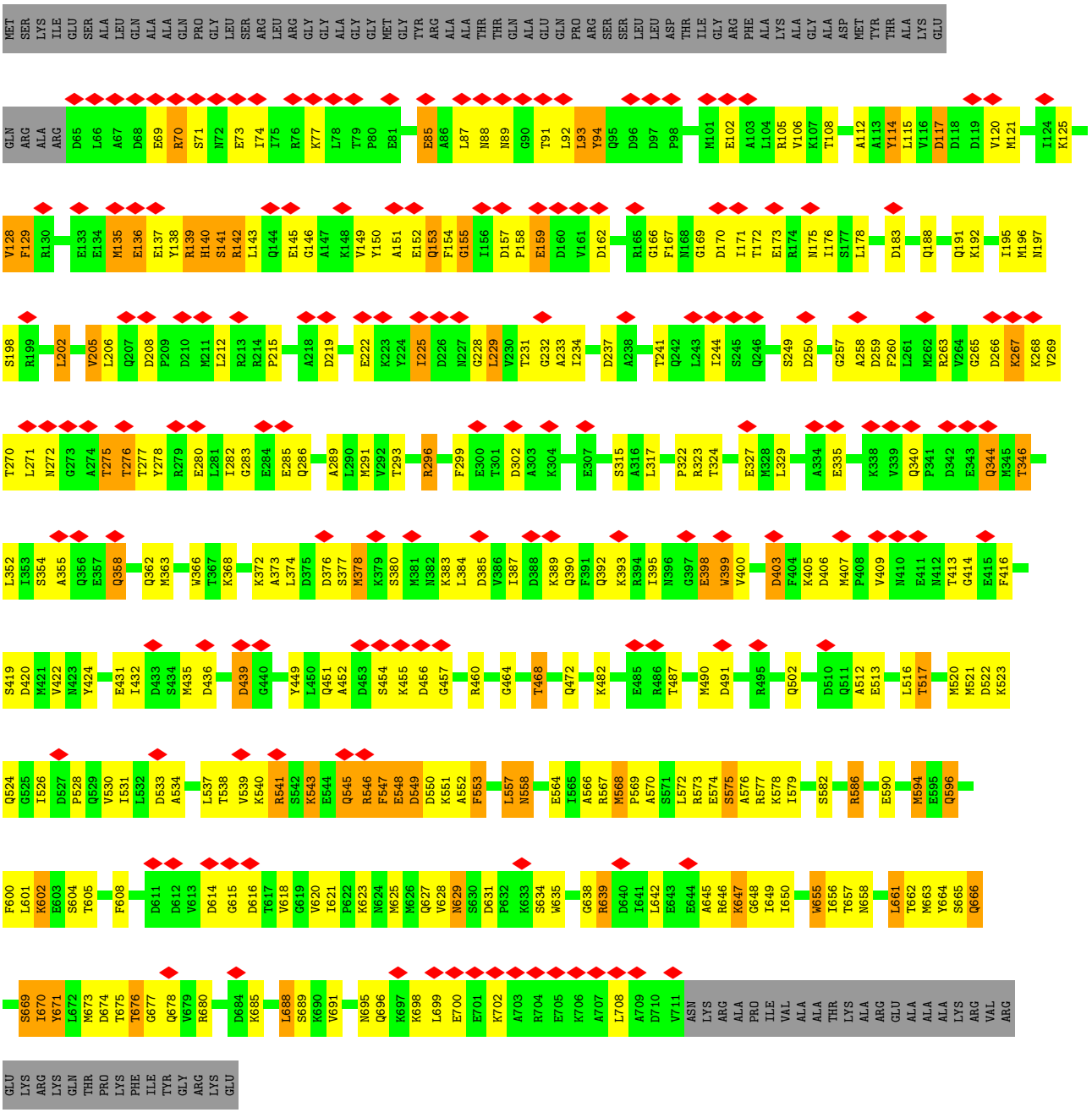
• Molecule 2: Internal virion protein gp15

Chain G:



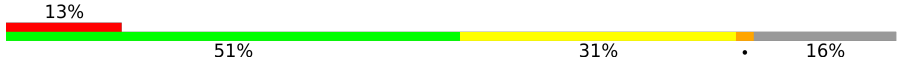


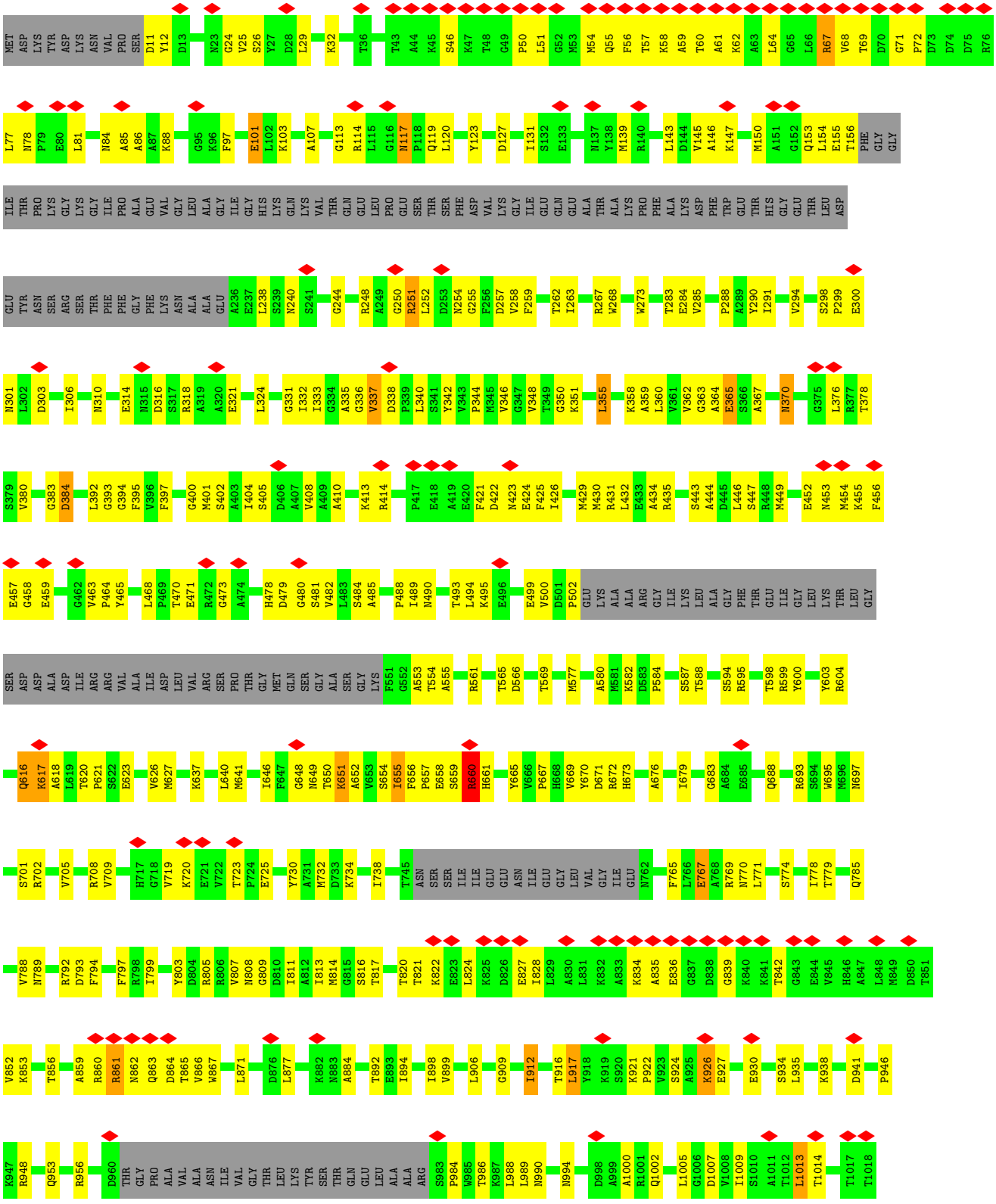
• Molecule 2: Internal virion protein gp15

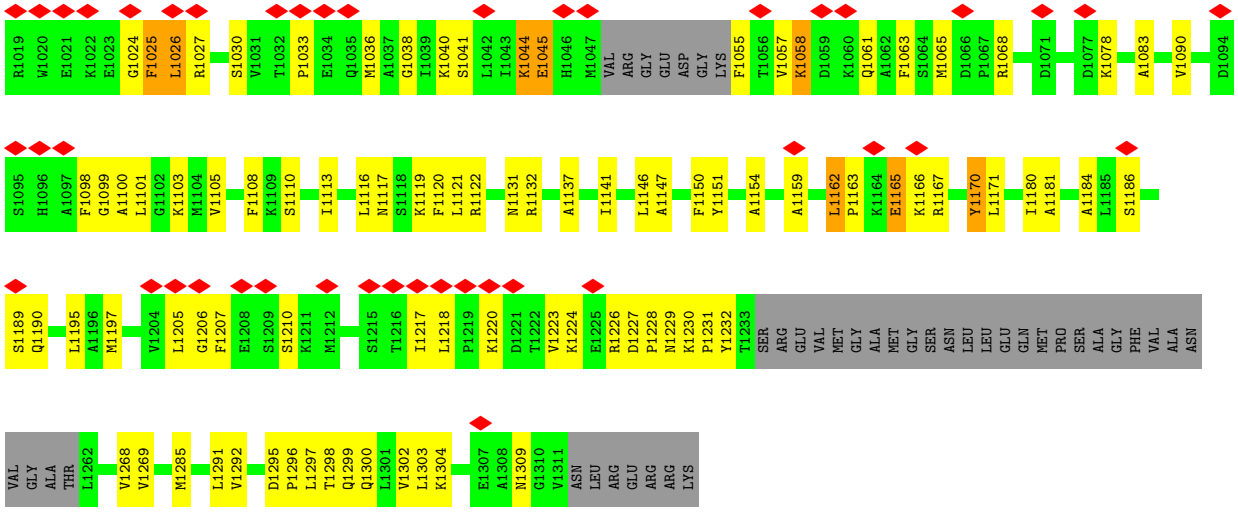


• Molecule 3: Peptidoglycan transglycosylase gp16

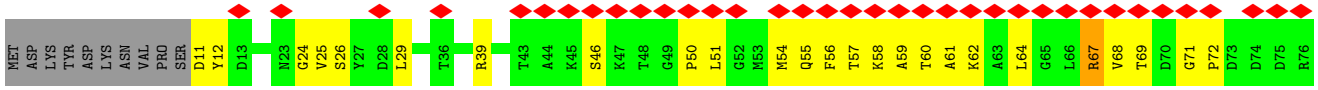
Chain I:

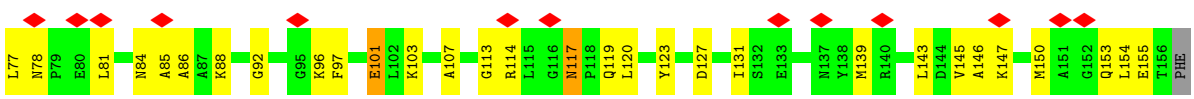


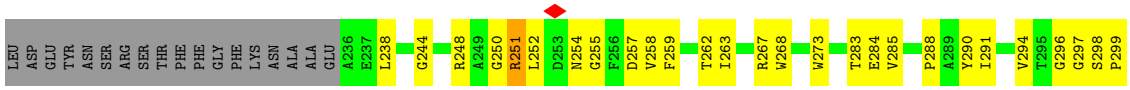


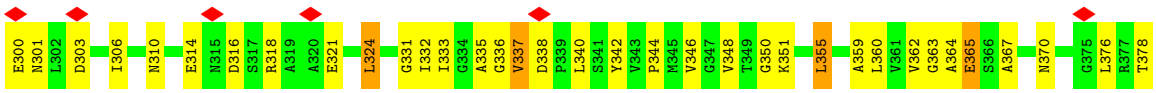


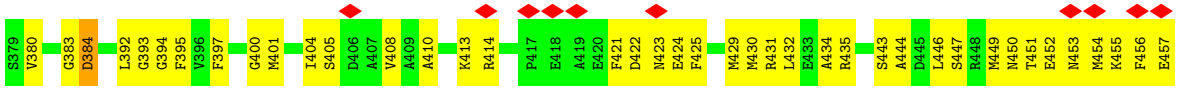
• Molecule 3: Peptidoglycan transglycosylase gp16

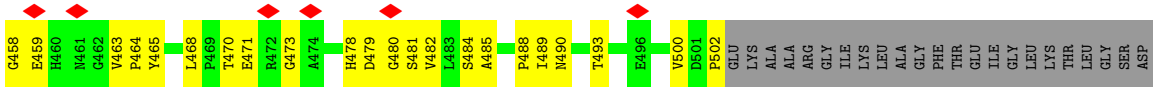


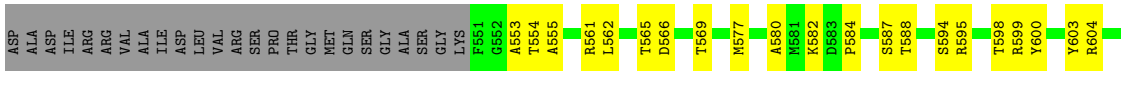


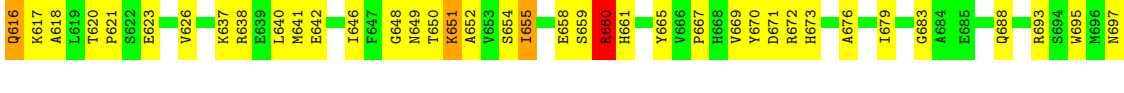


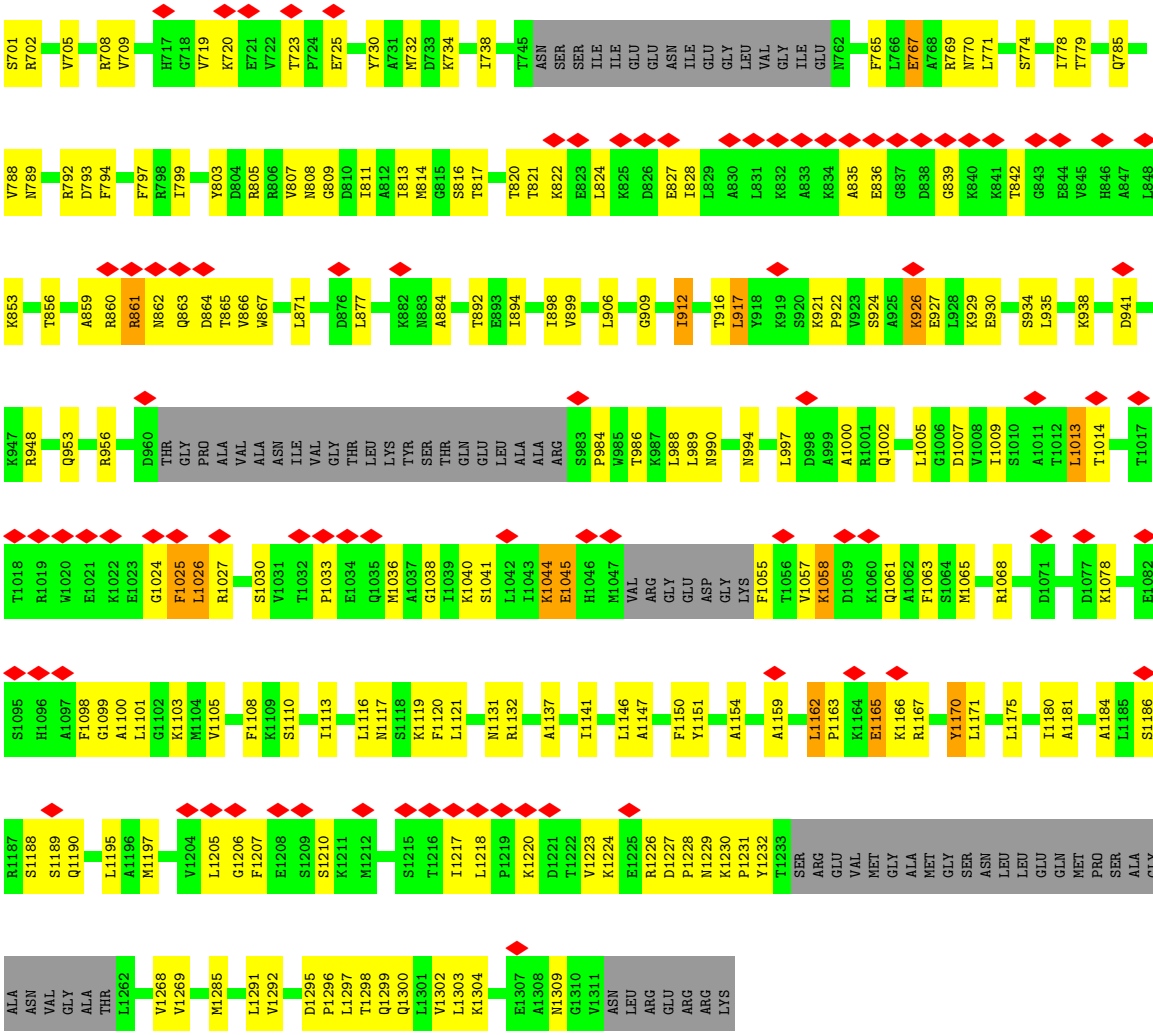






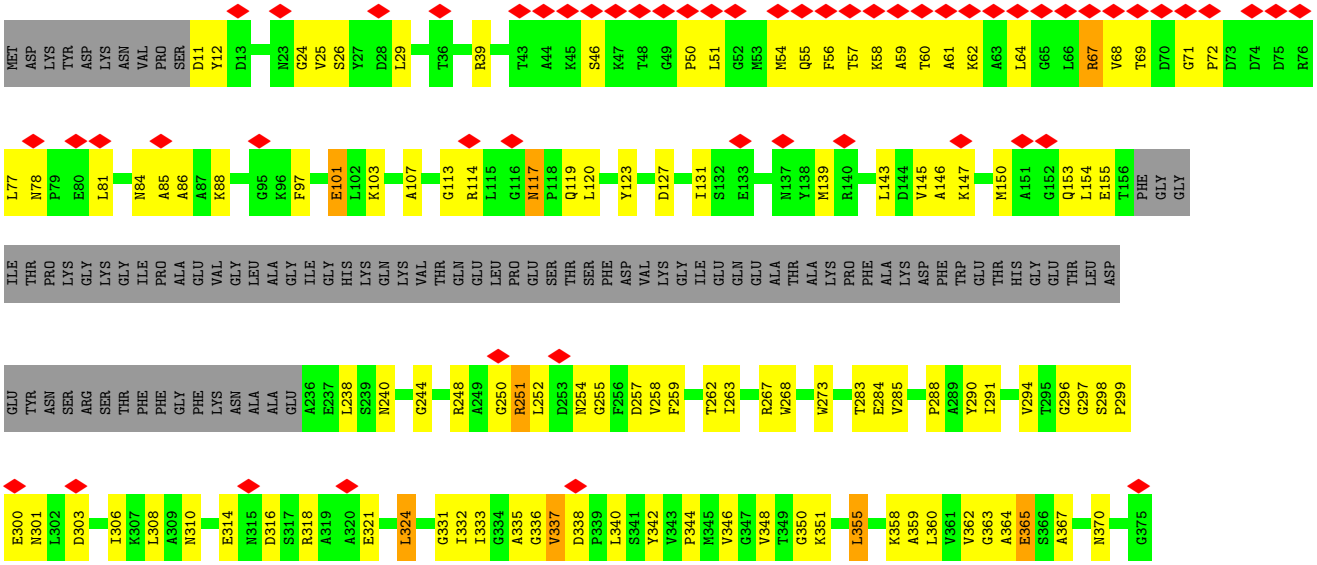


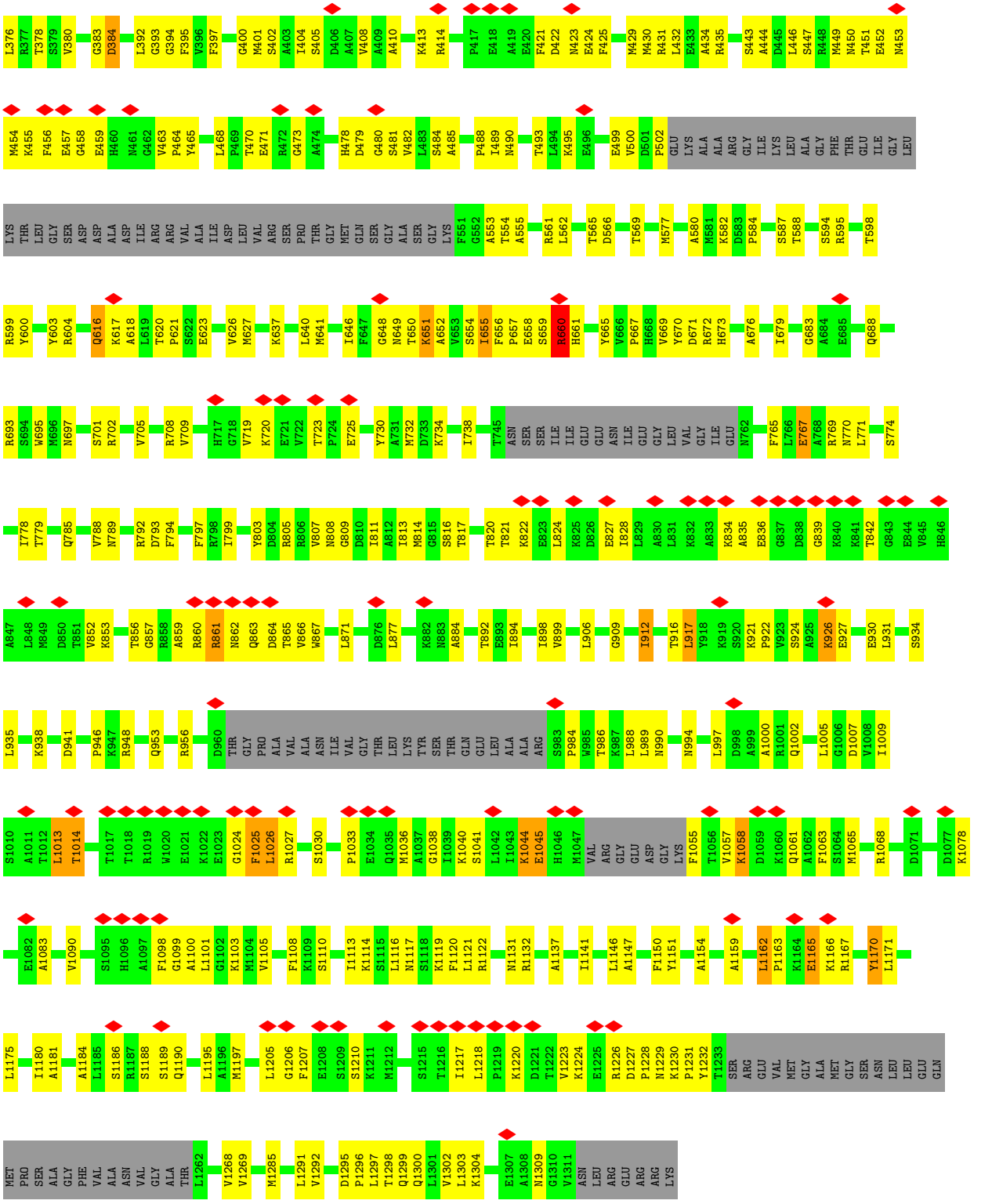




• Molecule 3: Peptidoglycan transglycosylase gp16

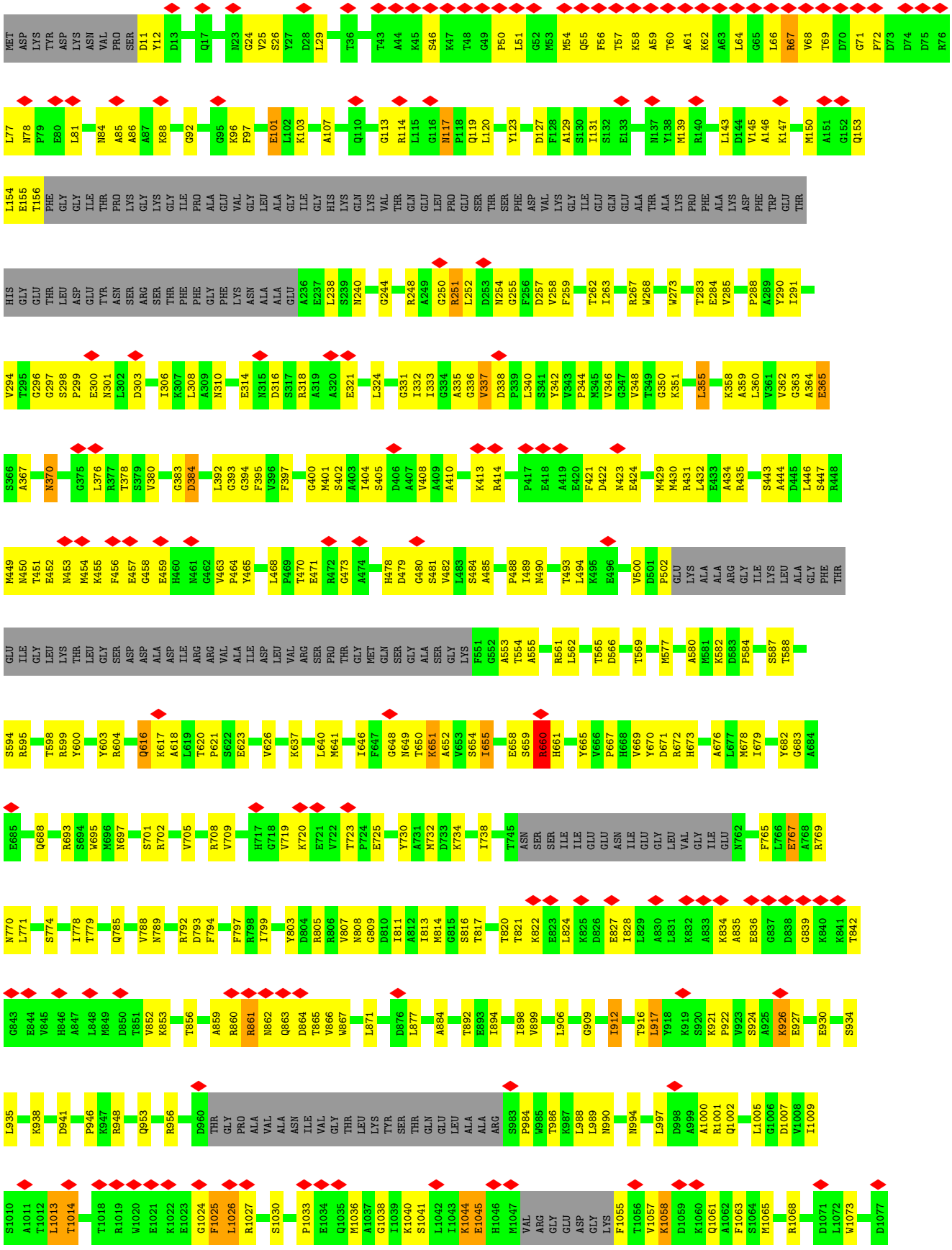
Chain K:

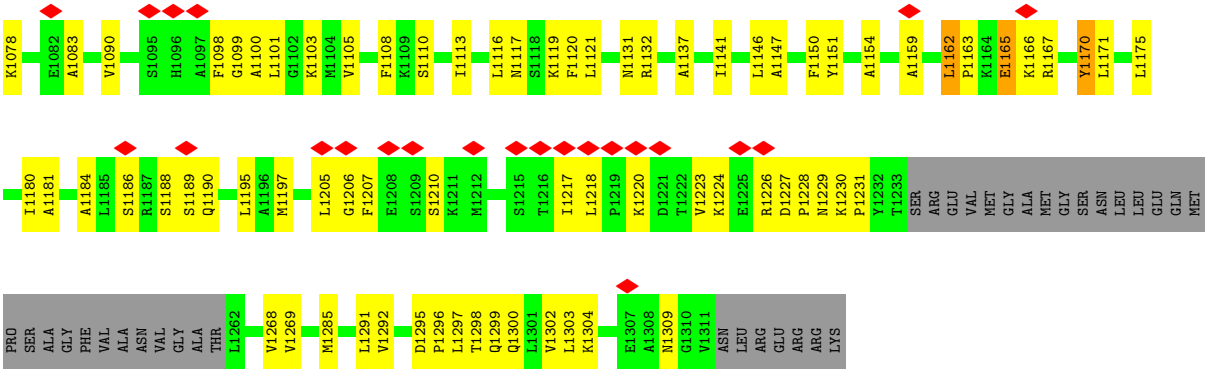




• Molecule 3: Peptidoglycan transglycosylase gp16

Chain L:


MET ASP LYS TYR ASP LYS ASN VAL PRO SER D11 Y12 D13 Q17 N23 G24 V25 S26 Y27 D28 L29 T36 T43 A44 K45 S46 K47 T48 G49 P50 L51 G52 M53 M54 Q55 F56 T57 K58 A59 T60 A61 K62 A63 L64 G65 L66 R67 V68 T69 D70 G71 P72 D73 D74 D75 R76
L77 N78 P79 E80 L81 N84 A85 A86 A87 K88 G92 G95 K96 F97 E101 L102 K103 A107 Q110 G113 R114 L115 G116 N117 P118 Q119 L120 Y123 D127 F128 A129 S130 I131 S132 E133 N137 Y138 M139 R140 L143 D144 V145 A146 K147 M150 A151 G152 Q153
L154 E155 T156 PHE GLY GLY ILE THR PRO LYS GLY LYS GLY ILE PRO ALA GLU VAL GLY LEU ALA GLY ILE GLY HIS LYS GLN LYS VAL THR GLN GLU LEU PRO GLU SER THR SER PHE ASP VAL LYS GLY ILE GLU GLN GLU ALA THR ALA LYS PRO PHE ALA LYS ASP PHE TRP GLU THR
HIS GLY GLU THR LEU ASP GLU TYR ASN SER ARG SER THR PHE PHE GLY PHE LYS ASN ALA ALA GLU A236 F237 L238 S239 N240 G244 R248 A249 G250 R251 L252 D253 N254 G255 F256 D257 V258 F259 T262 I263 R267 W268 W273 T283 E284 V285 P288 A289 Y290 I291
V294 T295 G296 G297 S298 P299 E300 N301 L302 D303 I306 K307 L308 A309 N310 E314 N315 D316 S317 R318 A319 A320 E321 L324 G331 I332 I333 G334 A335 G336 V337 D338 P339 L340 S341 Y342 V343 P344 M345 V346 G347 V348 T349 G350 K351 L355 K358 A359 L360 V361 V362 G363 A364 E365
S366 A367 N370 G375 L376 R377 T378 S379 V380 G383 D384 L392 G393 G394 F395 V396 F397 G400 M401 S402 A403 I404 S405 D406 A407 V408 A409 A410 K413 R414 P417 E418 A419 E420 F421 D422 N423 E424 M429 M430 R431 L432 E433 A434 R435 S443 A444 D445 L446 S447 R448
M449 N450 T451 E452 N453 M454 K455 F456 E457 G458 E459 H460 M461 G462 V463 P464 Y465 L468 P469 T470 E471 R472 G473 A474 H478 D479 G480 S481 V482 L483 S484 A485 P488 I489 N490 T493 L494 K495 E496 V500 D501 P502 GLU LYS ALA ALA ARG GLY ILE LYS LEU ALA GLY PHE THR
GLU ILE GLY LEU LYS THR LEU GLY SER ASP ASP ALA ASP ILE ARG ARG VAL VAL ALA ILE ASP LEU VAL ARG SER PRO THR GLY MET GLN SER GLY ALA SER GLY LYS F551 G552 A553 T554 A555 R561 L562 T565 D566 T569 M577 A580 M581 K582 D583 P584 S587 T588
S594 R595 T598 R599 Y600 Y603 R604 Q616 K617 A618 L619 T620 P621 S622 E623 V626 K637 L640 M641 I646 F647 G648 N649 T650 K651 A652 V653 S654 I655 E658 S659 R660 H661 Y665 V666 P667 H668 V669 Y670 D671 R672 H673 A676 L677 M678 I679 Y682 G683 A684
E685 Q688 R693 S694 W695 M696 N697 S701 R702 V705 R708 V709 H717 G718 V719 K720 E721 V722 T723 P724 E725 Y730 A731 M732 D733 K734 I738 T745 ASN SER SER ILE ILE GLU GLU ASN ILE GLU GLY LEU VAL GLY ILE GLU N762 F765 L766 E767 A768 R769
N770 L771 S774 I778 T779 Q785 V788 N789 R792 D793 F794 F797 R798 I799 Y803 D804 R805 R806 V807 N808 G809 D810 I811 A812 I813 M814 G815 S816 T817 T820 T821 K822 E823 L824 K825 D826 E827 I828 L829 A830 L831 K832 A833 K834 A835 E836 G837 D838 G839 K840 K841 T842
G843 E844 V845 H846 A847 L848 M849 D850 T851 V852 K853 T856 A859 R860 R861 N862 Q863 D864 T865 V866 W867 L871 D876 L877 A884 T892 E893 I894 I898 V899 L906 G909 I912 T916 L917 Y918 K919 S920 K921 P922 V923 S924 A925 K926 E927 E930 S934
L935 K938 D941 P946 K947 R948 Q953 R956 D960 THR GLY PRO ALA VAL ALA ASN ILE VAL GLY THR LEU LYS TYR SER THR GLN GLU LEU ALA ALA ARG S983 P984 W985 T986 K987 L988 L989 N990 N994 L997 D998 A999 A1000 R1001 Q1002 L1005 G1006 D1007 V1008 I1009
S1010 A1011 T1012 L1013 T1014 T1018 R1019 W1020 E1021 K1022 E1023 G1024 F1025 L1026 R1027 S1030 P1033 E1034 Q1035 M1036 A1037 G1038 I1039 K1040 S1041 L1042 I1043 K1044 E1045 H1046 M1047 VAL ARG GLY GLU ASP GLY LYS F1055 T1056 V1057 K1058 D1059 K1060 Q1061 A1062 F1063 S1064 M1065 R1068 D1071 L1072 W1073 D1077


K1078 E1082 A1083 V1090 S1095 H1096 A1097 F1098 G1099 A1100 L1101 G1102 K1103 M1104 V1105 F1108 K1109 S1110 I1113 L1116 N1117 S1118 K1119 F1120 L1121 N1131 R1132 A1137 I1141 L1146 A1147 F1150 Y1151 A1154 A1159 L1162 P1163 K1164 E1165 K1166 R1167 Y1170 L1171 L1175
I1180 A1181 A1184 L1185 S1186 R1187 S1188 S1189 Q1190 L1195 A1196 M1197 L1205 G1206 F1207 E1208 S1209 S1210 K1211 M1212 S1215 T1216 I1217 L1218 P1219 K1220 D1221 T1222 V1223 K1224 E1225 R1226 D1227 P1228 N1229 K1230 P1231 Y1232 T1233 SER ARG GLU VAL MET GLY ALA MET GLY SER ASN LEU LEU GLU GLN MET
PRO SER ALA GLY PHE VAL ALA ASN VAL GLY ALA THR L1262 V1268 V1269 M1285 L1291 V1292 D1295 P1296 L1297 T1298 Q1299 Q1300 L1301 V1302 L1303 K1304 E1307 A1308 N1309 G1310 V1311 ASN LEU ARG GLU ARG ARG LYS

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	74984	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TECNAI ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	25	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	72.374	Depositor
Minimum map value	-46.971	Depositor
Average map value	0.038	Depositor
Map value standard deviation	2.961	Depositor
Recommended contour level	11.0	Depositor
Map size (Å)	406.4, 406.4, 406.4	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.27, 1.27, 1.27	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	0.84	0/386	1.03	1/537 (0.2%)
1	b	0.84	0/386	1.02	1/537 (0.2%)
1	c	0.84	0/386	1.03	1/537 (0.2%)
1	d	0.84	0/386	1.02	1/537 (0.2%)
1	e	0.84	0/386	1.03	1/537 (0.2%)
1	f	0.84	0/386	1.02	1/537 (0.2%)
1	g	0.85	0/386	1.03	1/537 (0.2%)
1	h	0.84	0/386	1.03	1/537 (0.2%)
2	A	0.52	0/5226	0.73	0/7039
2	B	0.60	0/5226	0.74	0/7039
2	C	0.52	0/5226	0.73	0/7039
2	D	0.60	0/5226	0.74	0/7039
2	E	0.52	0/5226	0.73	0/7039
2	F	0.60	0/5226	0.74	0/7039
2	G	0.52	0/5226	0.73	0/7039
2	H	0.60	0/5226	0.74	0/7039
3	I	0.46	0/8620	0.70	3/11617 (0.0%)
3	J	0.46	0/8620	0.70	3/11617 (0.0%)
3	K	0.46	0/8620	0.70	3/11617 (0.0%)
3	L	0.46	0/8620	0.70	3/11617 (0.0%)
All	All	0.54	0/79376	0.73	20/107076 (0.0%)

There are no bond length outliers.

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	J	1165	GLU	N-CA-C	-7.01	92.06	111.00
3	I	1165	GLU	N-CA-C	-7.01	92.07	111.00
3	J	355	LEU	CA-CB-CG	7.01	131.42	115.30
3	L	355	LEU	CA-CB-CG	7.01	131.42	115.30
3	K	1165	GLU	N-CA-C	-7.00	92.09	111.00
3	L	1165	GLU	N-CA-C	-7.00	92.09	111.00
3	I	355	LEU	CA-CB-CG	7.00	131.39	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	K	355	LEU	CA-CB-CG	7.00	131.39	115.30
3	I	1167	ARG	N-CA-C	-6.54	93.35	111.00
3	J	1167	ARG	N-CA-C	-6.54	93.35	111.00
3	K	1167	ARG	N-CA-C	-6.54	93.35	111.00
3	L	1167	ARG	N-CA-C	-6.54	93.35	111.00
1	a	8	PRO	N-CA-CB	6.27	110.83	103.30
1	c	8	PRO	N-CA-CB	6.27	110.83	103.30
1	f	8	PRO	N-CA-CB	6.25	110.80	103.30
1	h	8	PRO	N-CA-CB	6.25	110.80	103.30
1	e	8	PRO	N-CA-CB	6.23	110.78	103.30
1	b	8	PRO	N-CA-CB	6.23	110.77	103.30
1	d	8	PRO	N-CA-CB	6.20	110.74	103.30
1	g	8	PRO	N-CA-CB	6.19	110.73	103.30

There are no chirality outliers.

There are no planarity outliers.

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	387	0	214	0	0
1	b	387	0	214	0	0
1	c	387	0	214	0	0
1	d	387	0	214	0	0
1	e	387	0	214	0	0
1	f	387	0	214	0	0
1	g	387	0	214	0	0
1	h	387	0	214	0	0
2	A	5148	0	5040	213	0
2	B	5148	0	5040	311	0
2	C	5148	0	5040	190	0
2	D	5148	0	5040	303	0
2	E	5148	0	5040	206	0
2	F	5148	0	5040	311	0
2	G	5148	0	5040	212	0
2	H	5148	0	5040	308	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	I	8476	0	8466	376	0
3	J	8476	0	8466	364	0
3	K	8476	0	8466	380	0
3	L	8476	0	8466	368	0
All	All	78184	0	75896	3275	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 22.

All (3275) 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)
3:L:146:ALA:HB1	3:L:147:LYS:CG	1.42	1.49
3:J:146:ALA:HB1	3:J:147:LYS:CG	1.42	1.47
3:I:146:ALA:HB1	3:I:147:LYS:CG	1.42	1.47
3:K:146:ALA:HB1	3:K:147:LYS:CG	1.42	1.43
2:F:541:ARG:CG	2:F:546:ARG:HB3	1.61	1.31
2:H:541:ARG:CG	2:H:546:ARG:HB3	1.61	1.31
2:D:541:ARG:CG	2:D:546:ARG:HB3	1.61	1.30
2:B:541:ARG:CG	2:B:546:ARG:HB3	1.61	1.27
3:I:146:ALA:CB	3:I:147:LYS:HG3	1.68	1.23
3:J:146:ALA:CB	3:J:147:LYS:HG3	1.68	1.22
3:J:1120:PHE:CD2	3:J:1304:LYS:HG3	1.75	1.22
3:L:146:ALA:CB	3:L:147:LYS:HG3	1.68	1.22
3:I:1120:PHE:CD2	3:I:1304:LYS:HG3	1.75	1.22
3:K:146:ALA:CB	3:K:147:LYS:HG3	1.68	1.21
3:K:1120:PHE:CD2	3:K:1304:LYS:HG3	1.75	1.21
3:L:1120:PHE:CD2	3:L:1304:LYS:HG3	1.75	1.19
3:I:333:ILE:HD11	3:I:429:MET:HG3	1.24	1.17
2:D:646:ARG:NH2	2:D:647:LYS:HE3	1.60	1.16
3:L:813:ILE:CG2	3:L:824:LEU:HD22	1.76	1.15
2:H:646:ARG:NH2	2:H:647:LYS:HE3	1.60	1.15
3:J:333:ILE:HD11	3:J:429:MET:HG3	1.24	1.15
2:F:646:ARG:NH2	2:F:647:LYS:HE3	1.60	1.14
3:I:813:ILE:CG2	3:I:824:LEU:HD22	1.76	1.14
2:B:646:ARG:NH2	2:B:647:LYS:CE	2.11	1.14
2:B:646:ARG:NH2	2:B:647:LYS:HE3	1.60	1.14
2:F:646:ARG:NH2	2:F:647:LYS:CE	2.11	1.14
3:K:813:ILE:CG2	3:K:824:LEU:HD22	1.76	1.14
2:H:646:ARG:NH2	2:H:647:LYS:CE	2.11	1.14
3:L:333:ILE:HD11	3:L:429:MET:HG3	1.24	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:813:ILE:CG2	3:J:824:LEU:HD22	1.76	1.13
2:D:646:ARG:NH2	2:D:647:LYS:CE	2.11	1.13
3:I:813:ILE:HG23	3:I:824:LEU:HD22	1.33	1.10
2:F:323:ARG:HH11	2:G:249:SER:HB3	1.16	1.10
3:J:335:ALA:HB3	3:J:336:GLY:HA2	1.25	1.10
3:I:600:TYR:HE1	3:I:604:ARG:NH2	1.50	1.09
3:I:1027:ARG:HB2	3:I:1078:LYS:HE2	1.31	1.09
3:L:335:ALA:HB3	3:L:336:GLY:HA2	1.25	1.09
3:J:600:TYR:HE1	3:J:604:ARG:NH2	1.50	1.09
3:J:813:ILE:HG23	3:J:824:LEU:HD22	1.33	1.09
3:L:600:TYR:HE1	3:L:604:ARG:NH2	1.51	1.09
3:L:813:ILE:HG23	3:L:824:LEU:HD22	1.33	1.09
3:I:335:ALA:HB3	3:I:336:GLY:HA2	1.25	1.09
3:K:333:ILE:HD11	3:K:429:MET:HG3	1.23	1.08
2:D:646:ARG:HH22	2:D:647:LYS:CE	1.67	1.08
3:K:335:ALA:HB3	3:K:336:GLY:HA2	1.25	1.08
2:A:249:SER:HB3	2:H:323:ARG:HH11	1.14	1.08
2:B:646:ARG:HH22	2:B:647:LYS:CE	1.67	1.07
3:K:600:TYR:HE1	3:K:604:ARG:NH2	1.51	1.07
3:J:1027:ARG:HB2	3:J:1078:LYS:HE2	1.31	1.07
2:B:646:ARG:HH22	2:B:647:LYS:HE2	1.17	1.07
2:D:646:ARG:HH22	2:D:647:LYS:HE2	1.17	1.06
2:A:485:GLU:O	2:A:486:ARG:HG2	1.55	1.06
3:K:1027:ARG:HB2	3:K:1078:LYS:HE2	1.31	1.06
2:D:323:ARG:HH11	2:E:249:SER:HB3	1.15	1.06
2:E:485:GLU:O	2:E:486:ARG:HG2	1.55	1.06
3:L:1120:PHE:CE2	3:L:1304:LYS:HG3	1.90	1.06
2:C:485:GLU:O	2:C:486:ARG:HG2	1.55	1.05
2:D:553:PHE:CE2	2:D:577:ARG:HG3	1.91	1.05
2:H:646:ARG:HH22	2:H:647:LYS:CE	1.67	1.05
2:G:485:GLU:O	2:G:486:ARG:HG2	1.55	1.05
3:I:1120:PHE:CE2	3:I:1304:LYS:HG3	1.90	1.05
2:F:646:ARG:HH22	2:F:647:LYS:HE2	1.17	1.05
3:K:1120:PHE:CE2	3:K:1304:LYS:HG3	1.90	1.04
3:J:1120:PHE:CE2	3:J:1304:LYS:HG3	1.90	1.04
3:L:1027:ARG:HB2	3:L:1078:LYS:HE2	1.31	1.04
2:B:553:PHE:CE2	2:B:577:ARG:HG3	1.91	1.04
2:H:646:ARG:HH22	2:H:647:LYS:HE2	1.17	1.04
3:J:146:ALA:HB1	3:J:147:LYS:HG2	1.40	1.04
3:J:337:VAL:HG22	3:J:338:ASP:H	1.21	1.04
3:I:146:ALA:HB1	3:I:147:LYS:HG2	1.40	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:333:ILE:CD1	3:I:429:MET:HG3	1.88	1.04
2:F:541:ARG:HG3	2:F:546:ARG:CB	1.88	1.03
3:J:333:ILE:CD1	3:J:429:MET:HG3	1.88	1.03
2:H:553:PHE:CE2	2:H:577:ARG:HG3	1.91	1.03
3:K:813:ILE:HG23	3:K:824:LEU:HD22	1.33	1.03
2:F:142:ARG:HA	2:F:142:ARG:HE	1.21	1.03
2:F:553:PHE:CE2	2:F:577:ARG:HG3	1.91	1.03
2:H:541:ARG:HG3	2:H:546:ARG:CB	1.88	1.03
3:I:337:VAL:HG22	3:I:338:ASP:H	1.21	1.03
2:D:142:ARG:HA	2:D:142:ARG:HE	1.21	1.02
2:D:541:ARG:HG3	2:D:546:ARG:CB	1.88	1.02
3:L:333:ILE:CD1	3:L:429:MET:HG3	1.88	1.02
2:D:541:ARG:HG3	2:D:546:ARG:HB3	1.03	1.02
2:F:646:ARG:HH22	2:F:647:LYS:CE	1.67	1.02
2:H:142:ARG:HA	2:H:142:ARG:HE	1.21	1.02
2:B:541:ARG:HG3	2:B:546:ARG:CB	1.88	1.02
2:B:541:ARG:HG3	2:B:546:ARG:HB3	1.03	1.02
2:D:323:ARG:HD2	2:E:249:SER:OG	1.59	1.02
2:A:249:SER:OG	2:H:323:ARG:HD2	1.58	1.02
2:F:516:LEU:CD2	2:F:579:ILE:HG23	1.90	1.02
2:H:516:LEU:CD2	2:H:579:ILE:HG23	1.90	1.02
2:G:282:ILE:HG23	2:G:286:GLN:HG3	1.42	1.01
3:L:337:VAL:HG22	3:L:338:ASP:H	1.21	1.01
2:E:282:ILE:HG23	2:E:286:GLN:HG3	1.42	1.01
3:K:333:ILE:CD1	3:K:429:MET:HG3	1.88	1.01
3:L:146:ALA:HB1	3:L:147:LYS:HG2	1.40	1.01
2:B:323:ARG:HH11	2:C:249:SER:HB3	1.21	1.01
2:B:516:LEU:CD2	2:B:579:ILE:HG23	1.90	1.01
2:D:516:LEU:CD2	2:D:579:ILE:HG23	1.90	1.01
2:B:142:ARG:HA	2:B:142:ARG:HE	1.20	1.00
2:C:282:ILE:HG23	2:C:286:GLN:HG3	1.42	1.00
2:F:323:ARG:HD2	2:G:249:SER:OG	1.60	1.00
3:K:337:VAL:HG22	3:K:338:ASP:H	1.21	1.00
3:J:600:TYR:HE1	3:J:604:ARG:HH21	1.01	1.00
2:H:541:ARG:HG3	2:H:546:ARG:HB3	1.03	1.00
3:K:146:ALA:HB1	3:K:147:LYS:HG2	1.40	1.00
2:F:541:ARG:HG3	2:F:546:ARG:HB3	1.03	0.99
2:A:282:ILE:HG23	2:A:286:GLN:HG3	1.42	0.99
3:I:600:TYR:HE1	3:I:604:ARG:HH21	1.01	0.99
2:B:516:LEU:HD22	2:B:579:ILE:HG23	1.43	0.98
2:D:516:LEU:HD22	2:D:579:ILE:HG23	1.43	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:516:LEU:HD22	2:F:579:ILE:HG23	1.43	0.98
2:F:661:LEU:HD12	2:F:662:THR:N	1.78	0.98
2:H:661:LEU:HD12	2:H:662:THR:N	1.78	0.98
2:H:516:LEU:HD22	2:H:579:ILE:HG23	1.44	0.98
2:D:661:LEU:HD12	2:D:662:THR:N	1.78	0.97
2:B:661:LEU:HD12	2:B:662:THR:N	1.78	0.97
3:K:337:VAL:HG22	3:K:338:ASP:N	1.80	0.97
2:A:372:LYS:HB2	2:H:700:GLU:HG3	1.47	0.97
3:L:337:VAL:HG22	3:L:338:ASP:N	1.80	0.96
2:B:323:ARG:HD2	2:C:249:SER:OG	1.66	0.95
2:B:678:GLN:NE2	3:I:449:MET:SD	2.40	0.94
3:K:600:TYR:HE1	3:K:604:ARG:HH21	1.01	0.94
3:I:337:VAL:HG22	3:I:338:ASP:N	1.80	0.94
3:L:600:TYR:HE1	3:L:604:ARG:HH21	1.01	0.94
2:D:121:MET:HG3	2:D:139:ARG:HD3	1.49	0.94
3:I:600:TYR:CE1	3:I:604:ARG:NH2	2.35	0.94
2:F:700:GLU:HG3	2:G:372:LYS:HB2	1.47	0.94
2:F:139:ARG:HH22	2:F:175:ASN:ND2	1.65	0.94
2:F:688:LEU:HD23	2:F:689:SER:N	1.81	0.94
3:I:1120:PHE:CD2	3:I:1304:LYS:CG	2.51	0.94
2:H:688:LEU:HD23	2:H:689:SER:N	1.82	0.94
2:B:688:LEU:HD23	2:B:689:SER:N	1.82	0.94
3:J:600:TYR:CE1	3:J:604:ARG:NH2	2.35	0.94
3:L:67:ARG:HD3	3:L:85:ALA:HA	1.50	0.93
2:D:688:LEU:HD23	2:D:689:SER:N	1.82	0.93
2:A:249:SER:HB3	2:H:323:ARG:NH1	1.83	0.93
2:D:323:ARG:NH1	2:E:249:SER:HB3	1.83	0.93
2:B:121:MET:HG3	2:B:139:ARG:HD3	1.49	0.93
3:J:1120:PHE:CD2	3:J:1304:LYS:CG	2.51	0.93
2:D:700:GLU:HG3	2:E:372:LYS:HB2	1.49	0.93
3:I:67:ARG:HD3	3:I:85:ALA:HA	1.50	0.93
3:J:67:ARG:HD3	3:J:85:ALA:HA	1.50	0.93
2:D:139:ARG:HH22	2:D:175:ASN:ND2	1.65	0.93
3:K:67:ARG:HD3	3:K:85:ALA:HA	1.50	0.93
3:K:1120:PHE:CD2	3:K:1304:LYS:CG	2.51	0.93
3:K:600:TYR:CE1	3:K:604:ARG:NH2	2.35	0.92
2:B:676:THR:CG2	3:I:449:MET:CE	2.47	0.92
2:H:139:ARG:HH22	2:H:175:ASN:ND2	1.66	0.92
2:B:541:ARG:HD2	2:B:546:ARG:HB2	1.52	0.92
2:D:541:ARG:HD2	2:D:546:ARG:CB	2.00	0.92
2:F:541:ARG:HD2	2:F:546:ARG:CB	2.00	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1120:PHE:CD2	3:L:1304:LYS:CG	2.51	0.92
2:F:121:MET:HG3	2:F:139:ARG:HD3	1.49	0.92
2:B:139:ARG:HH22	2:B:175:ASN:ND2	1.66	0.92
2:C:222:GLU:OE1	2:C:223:LYS:HD2	1.70	0.92
2:D:541:ARG:HD2	2:D:546:ARG:HB2	1.52	0.92
3:L:146:ALA:CB	3:L:147:LYS:CG	2.38	0.92
2:G:222:GLU:OE1	2:G:223:LYS:HD2	1.70	0.91
3:I:146:ALA:CB	3:I:147:LYS:CG	2.38	0.91
2:H:579:ILE:HG13	2:H:600:PHE:CD2	2.06	0.91
3:J:337:VAL:HG22	3:J:338:ASP:N	1.80	0.91
2:F:136:GLU:OE2	2:F:137:GLU:N	2.04	0.91
2:H:541:ARG:HD2	2:H:546:ARG:HB2	1.52	0.91
2:F:579:ILE:HG13	2:F:600:PHE:CD2	2.06	0.91
2:B:136:GLU:OE2	2:B:137:GLU:N	2.04	0.91
2:D:579:ILE:HG13	2:D:600:PHE:CD2	2.06	0.91
3:L:600:TYR:CE1	3:L:604:ARG:NH2	2.35	0.91
2:B:541:ARG:HD2	2:B:546:ARG:CB	2.00	0.91
3:L:1120:PHE:HD2	3:L:1304:LYS:CB	1.84	0.91
2:F:541:ARG:HD2	2:F:546:ARG:HB2	1.52	0.90
2:H:541:ARG:HD2	2:H:546:ARG:CB	2.00	0.90
2:A:222:GLU:OE1	2:A:223:LYS:HD2	1.70	0.90
2:H:136:GLU:OE2	2:H:137:GLU:N	2.04	0.90
2:H:121:MET:HG3	2:H:139:ARG:HD3	1.49	0.90
2:E:222:GLU:OE1	2:E:223:LYS:HD2	1.70	0.90
3:K:1120:PHE:HD2	3:K:1304:LYS:CB	1.84	0.90
2:F:323:ARG:NH1	2:G:249:SER:HB3	1.85	0.90
2:B:579:ILE:HG13	2:B:600:PHE:CD2	2.06	0.90
3:I:1120:PHE:HD2	3:I:1304:LYS:CB	1.84	0.90
3:I:146:ALA:HB1	3:I:147:LYS:HG3	0.91	0.89
3:L:146:ALA:HB1	3:L:147:LYS:HG3	0.91	0.89
2:D:136:GLU:OE2	2:D:137:GLU:N	2.04	0.89
3:J:146:ALA:HB1	3:J:147:LYS:HG3	0.90	0.89
3:K:146:ALA:HB1	3:K:147:LYS:HG3	0.91	0.89
2:D:678:GLN:NE2	3:J:449:MET:SD	2.46	0.89
2:B:151:ALA:HB1	2:B:158:PRO:HG3	1.54	0.89
2:H:676:THR:HG22	2:H:677:GLY:H	1.37	0.89
2:B:139:ARG:NH2	2:B:175:ASN:ND2	2.20	0.89
2:F:139:ARG:NH2	2:F:175:ASN:ND2	2.20	0.88
2:F:678:GLN:NE2	3:K:449:MET:SD	2.45	0.88
2:H:151:ALA:HB1	2:H:158:PRO:HG3	1.54	0.88
2:H:139:ARG:NH2	2:H:175:ASN:ND2	2.20	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:676:THR:HG22	2:B:677:GLY:H	1.37	0.88
3:I:452:GLU:HB2	3:I:453:ASN:HB2	1.56	0.88
2:H:678:GLN:NE2	3:L:449:MET:SD	2.46	0.88
3:K:331:GLY:O	3:K:335:ALA:HB2	1.74	0.88
2:D:139:ARG:NH2	2:D:175:ASN:ND2	2.20	0.88
3:J:1120:PHE:HD2	3:J:1304:LYS:CB	1.84	0.88
3:L:452:GLU:HB2	3:L:453:ASN:HB2	1.56	0.88
2:D:676:THR:HG22	2:D:677:GLY:H	1.37	0.88
2:B:323:ARG:NH1	2:C:249:SER:HB3	1.89	0.88
3:J:331:GLY:O	3:J:335:ALA:HB2	1.74	0.87
2:F:676:THR:HG22	2:F:677:GLY:H	1.37	0.87
2:B:700:GLU:HG3	2:C:372:LYS:HB2	1.56	0.87
3:J:452:GLU:HB2	3:J:453:ASN:HB2	1.56	0.86
2:F:151:ALA:HB1	2:F:158:PRO:HG3	1.54	0.86
3:L:331:GLY:O	3:L:335:ALA:HB2	1.74	0.86
3:L:604:ARG:HH22	3:L:948:ARG:HH21	1.21	0.86
2:H:675:THR:O	2:H:676:THR:OG1	1.94	0.86
3:I:331:GLY:O	3:I:335:ALA:HB2	1.74	0.86
2:D:151:ALA:HB1	2:D:158:PRO:HG3	1.54	0.86
3:K:452:GLU:HB2	3:K:453:ASN:HB2	1.56	0.86
2:H:151:ALA:CB	2:H:158:PRO:HG3	2.06	0.86
2:F:135:MET:CE	2:F:136:GLU:HA	2.06	0.85
2:B:151:ALA:CB	2:B:158:PRO:HG3	2.06	0.85
3:J:146:ALA:CB	3:J:147:LYS:CG	2.38	0.85
2:H:541:ARG:CG	2:H:546:ARG:CB	2.52	0.85
3:K:146:ALA:CB	3:K:147:LYS:CG	2.38	0.85
2:D:666:GLN:HA	2:D:666:GLN:NE2	1.90	0.85
2:F:675:THR:O	2:F:676:THR:OG1	1.94	0.85
3:L:337:VAL:CG2	3:L:338:ASP:H	1.89	0.85
2:D:135:MET:CE	2:D:136:GLU:HA	2.06	0.85
2:H:666:GLN:NE2	2:H:666:GLN:HA	1.90	0.85
3:J:337:VAL:CG2	3:J:338:ASP:H	1.89	0.85
3:K:337:VAL:CG2	3:K:338:ASP:H	1.89	0.85
3:K:604:ARG:HH22	3:K:948:ARG:HH21	1.21	0.85
2:B:675:THR:O	2:B:676:THR:OG1	1.94	0.85
3:I:604:ARG:HH22	3:I:948:ARG:HH21	1.21	0.85
2:B:676:THR:HG21	3:I:449:MET:SD	2.16	0.84
2:F:151:ALA:CB	2:F:158:PRO:HG3	2.06	0.84
2:H:135:MET:CE	2:H:136:GLU:HA	2.06	0.84
3:I:337:VAL:CG2	3:I:338:ASP:H	1.89	0.84
2:D:557:LEU:HD23	2:D:558:ASN:N	1.92	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:557:LEU:HD23	2:B:558:ASN:N	1.92	0.84
2:D:675:THR:O	2:D:676:THR:OG1	1.94	0.84
2:B:666:GLN:NE2	2:B:666:GLN:HA	1.90	0.84
2:A:700:GLU:HG3	2:B:372:LYS:HB2	1.59	0.84
2:F:666:GLN:HA	2:F:666:GLN:NE2	1.90	0.84
2:B:135:MET:CE	2:B:136:GLU:HA	2.06	0.84
2:D:151:ALA:CB	2:D:158:PRO:HG3	2.06	0.84
2:F:541:ARG:CG	2:F:546:ARG:CB	2.52	0.84
2:B:553:PHE:HE2	2:B:577:ARG:CG	1.91	0.83
2:F:557:LEU:HD23	2:F:558:ASN:N	1.92	0.83
2:H:557:LEU:HD23	2:H:558:ASN:N	1.92	0.83
3:J:604:ARG:HH22	3:J:948:ARG:HH21	1.21	0.83
2:D:553:PHE:HE2	2:D:577:ARG:CG	1.91	0.83
2:B:676:THR:HG23	3:I:449:MET:HE2	1.60	0.83
3:K:1206:GLY:HA2	3:K:1207:PHE:HB2	1.60	0.83
2:B:646:ARG:HD3	2:B:663:MET:HE3	1.59	0.83
3:I:813:ILE:HG21	3:I:824:LEU:HD22	1.60	0.83
2:B:548:GLU:HA	2:B:548:GLU:OE2	1.78	0.83
2:D:646:ARG:NH2	2:D:647:LYS:HE2	1.85	0.83
2:H:553:PHE:HE2	2:H:577:ARG:CG	1.91	0.83
2:H:646:ARG:HD3	2:H:663:MET:CE	2.09	0.83
3:K:64:LEU:HD13	3:K:71:GLY:HA3	1.61	0.83
3:L:333:ILE:HD11	3:L:429:MET:CG	2.09	0.83
2:F:646:ARG:HD3	2:F:663:MET:CE	2.09	0.82
3:J:1206:GLY:HA2	3:J:1207:PHE:HB2	1.60	0.82
2:F:553:PHE:HE2	2:F:577:ARG:CG	1.91	0.82
2:B:646:ARG:HD3	2:B:663:MET:CE	2.09	0.82
2:H:548:GLU:HA	2:H:548:GLU:OE2	1.79	0.82
2:B:541:ARG:CG	2:B:546:ARG:CB	2.52	0.82
2:H:676:THR:CG2	3:L:449:MET:CE	2.58	0.82
3:J:333:ILE:HD11	3:J:429:MET:CG	2.09	0.82
3:J:813:ILE:HG21	3:J:824:LEU:HD22	1.60	0.82
3:L:64:LEU:HD13	3:L:71:GLY:HA3	1.61	0.82
2:A:699:LEU:HG	2:B:372:LYS:HZ3	1.44	0.82
2:D:646:ARG:HD3	2:D:663:MET:CE	2.09	0.82
3:L:1206:GLY:HA2	3:L:1207:PHE:HB2	1.60	0.82
2:F:548:GLU:HA	2:F:548:GLU:OE2	1.78	0.81
2:F:676:THR:CG2	3:K:449:MET:CE	2.57	0.81
3:I:1206:GLY:HA2	3:I:1207:PHE:HB2	1.60	0.81
3:K:813:ILE:HG21	3:K:824:LEU:HD22	1.60	0.81
3:I:64:LEU:HD13	3:I:71:GLY:HA3	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:333:ILE:HD11	3:I:429:MET:CG	2.09	0.81
2:D:676:THR:CG2	3:J:449:MET:CE	2.58	0.81
2:C:700:GLU:HG3	2:D:372:LYS:HB2	1.62	0.81
2:D:548:GLU:OE2	2:D:548:GLU:HA	1.78	0.81
2:E:700:GLU:HG3	2:F:372:LYS:HB2	1.62	0.81
2:F:646:ARG:NH2	2:F:647:LYS:HE2	1.85	0.81
2:D:516:LEU:HD22	2:D:579:ILE:CD1	2.11	0.81
3:K:333:ILE:O	3:K:336:GLY:HA3	1.81	0.81
2:B:139:ARG:HE	2:B:178:LEU:HD22	1.46	0.81
2:D:541:ARG:CG	2:D:546:ARG:CB	2.52	0.81
2:G:700:GLU:HG2	2:H:368:LYS:HG2	1.62	0.81
2:B:516:LEU:HD22	2:B:579:ILE:CD1	2.11	0.80
2:H:139:ARG:HE	2:H:178:LEU:HD22	1.47	0.80
3:J:64:LEU:HD13	3:J:71:GLY:HA3	1.61	0.80
3:J:333:ILE:O	3:J:336:GLY:HA3	1.81	0.80
3:K:333:ILE:HD11	3:K:429:MET:CG	2.09	0.80
2:B:553:PHE:HE2	2:B:577:ARG:HG3	1.45	0.80
3:L:813:ILE:HG21	3:L:824:LEU:HD22	1.60	0.80
2:F:151:ALA:HB1	2:F:158:PRO:CG	2.12	0.80
3:L:333:ILE:O	3:L:336:GLY:HA3	1.81	0.80
2:B:553:PHE:CE2	2:B:577:ARG:CG	2.65	0.80
2:H:541:ARG:CD	2:H:546:ARG:HB3	2.12	0.80
3:L:1120:PHE:HD2	3:L:1304:LYS:HB2	1.46	0.80
2:D:139:ARG:HE	2:D:178:LEU:HD22	1.46	0.80
2:H:139:ARG:NH2	2:H:175:ASN:HD22	1.80	0.80
2:H:553:PHE:HE2	2:H:577:ARG:HG3	1.45	0.80
3:J:1120:PHE:HD2	3:J:1304:LYS:HB2	1.46	0.80
2:A:700:GLU:HG2	2:B:368:LYS:HG2	1.63	0.79
2:B:151:ALA:HB1	2:B:158:PRO:CG	2.12	0.79
2:D:151:ALA:HB1	2:D:158:PRO:CG	2.12	0.79
2:F:516:LEU:HD22	2:F:579:ILE:CD1	2.11	0.79
2:F:676:THR:HG23	3:K:449:MET:HE2	1.64	0.79
2:H:516:LEU:HD22	2:H:579:ILE:CD1	2.11	0.79
2:B:541:ARG:CD	2:B:546:ARG:HB3	2.12	0.79
2:B:628:VAL:HA	2:B:689:SER:HB3	1.65	0.79
2:H:628:VAL:HA	2:H:689:SER:HB3	1.65	0.79
3:I:333:ILE:O	3:I:336:GLY:HA3	1.81	0.79
2:B:139:ARG:NH2	2:B:175:ASN:HD22	1.80	0.79
2:F:139:ARG:HE	2:F:178:LEU:HD22	1.46	0.79
2:H:646:ARG:NH2	2:H:647:LYS:HE2	1.85	0.79
2:F:139:ARG:NH2	2:F:175:ASN:HD22	1.80	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:541:ARG:CD	2:F:546:ARG:HB3	2.12	0.79
3:I:1120:PHE:HD2	3:I:1304:LYS:HB2	1.46	0.79
3:K:553:ALA:HB1	3:K:554:THR:HG22	1.65	0.79
2:H:676:THR:HG21	3:L:449:MET:SD	2.23	0.79
2:A:124:ILE:HG22	2:A:129:PHE:HB2	1.65	0.79
2:D:541:ARG:CD	2:D:546:ARG:HB3	2.12	0.79
2:F:676:THR:HG21	3:K:449:MET:SD	2.23	0.79
3:L:335:ALA:CB	3:L:336:GLY:HA2	2.07	0.79
2:C:699:LEU:HG	2:D:372:LYS:HZ3	1.48	0.78
2:E:291:MET:HA	2:E:291:MET:HE2	1.63	0.78
3:I:655:ILE:HD12	3:I:655:ILE:O	1.83	0.78
2:C:700:GLU:HG2	2:D:368:LYS:HG2	1.64	0.78
2:E:700:GLU:HG2	2:F:368:LYS:HG2	1.63	0.78
2:G:700:GLU:HG3	2:H:372:LYS:HB2	1.64	0.78
3:J:553:ALA:HB1	3:J:554:THR:HG22	1.65	0.78
2:G:124:ILE:HG22	2:G:129:PHE:HB2	1.65	0.78
3:J:1120:PHE:CD2	3:J:1304:LYS:CB	2.67	0.78
2:C:124:ILE:HG22	2:C:129:PHE:HB2	1.65	0.78
2:D:139:ARG:HH22	2:D:175:ASN:HD21	1.29	0.78
3:L:723:THR:HG22	3:L:725:GLU:H	1.49	0.78
3:K:655:ILE:O	3:K:655:ILE:HD12	1.83	0.78
2:D:142:ARG:HA	2:D:142:ARG:NE	1.99	0.78
2:D:676:THR:HG21	3:J:449:MET:SD	2.24	0.78
3:I:1120:PHE:CD2	3:I:1304:LYS:CB	2.67	0.78
3:I:1189:SER:HA	3:I:1190:GLN:HB3	1.66	0.78
3:L:655:ILE:HD12	3:L:655:ILE:O	1.83	0.78
3:K:723:THR:HG22	3:K:725:GLU:H	1.49	0.78
3:K:1120:PHE:HD2	3:K:1304:LYS:HB2	1.46	0.78
3:L:1189:SER:HA	3:L:1190:GLN:HB3	1.66	0.78
2:B:139:ARG:HH22	2:B:175:ASN:HD21	1.29	0.78
2:H:151:ALA:HB1	2:H:158:PRO:CG	2.12	0.78
3:J:655:ILE:HD12	3:J:655:ILE:O	1.83	0.78
3:J:1189:SER:HA	3:J:1190:GLN:HB3	1.66	0.78
2:B:317:LEU:HD11	2:B:358:GLN:HB3	1.66	0.77
2:D:317:LEU:HD11	2:D:358:GLN:HB3	1.66	0.77
2:F:646:ARG:HD3	2:F:663:MET:HE3	1.66	0.77
2:D:628:VAL:HA	2:D:689:SER:HB3	1.64	0.77
2:F:317:LEU:HD11	2:F:358:GLN:HB3	1.66	0.77
2:H:317:LEU:HD11	2:H:358:GLN:HB3	1.66	0.77
3:K:1120:PHE:CD2	3:K:1304:LYS:CB	2.67	0.77
2:C:317:LEU:HD11	2:C:358:GLN:HB3	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:139:ARG:NH2	2:D:175:ASN:HD22	1.80	0.77
3:J:813:ILE:HG23	3:J:824:LEU:CD2	2.14	0.77
3:K:1189:SER:HA	3:K:1190:GLN:HB3	1.66	0.77
2:B:323:ARG:HD3	2:C:290:LEU:HD21	1.65	0.77
3:I:723:THR:HG22	3:I:725:GLU:H	1.49	0.77
3:J:555:ALA:HB3	3:J:1230:LYS:HA	1.67	0.77
2:F:628:VAL:HA	2:F:689:SER:HB3	1.64	0.77
2:G:317:LEU:HD11	2:G:358:GLN:HB3	1.67	0.77
3:J:1044:LYS:HG3	3:J:1058:LYS:HE2	1.67	0.77
2:A:317:LEU:HD11	2:A:358:GLN:HB3	1.67	0.77
2:H:553:PHE:CE2	2:H:577:ARG:CG	2.65	0.77
3:L:553:ALA:HB1	3:L:554:THR:HG22	1.65	0.77
3:I:553:ALA:HB1	3:I:554:THR:HG22	1.65	0.77
3:J:723:THR:HG22	3:J:725:GLU:H	1.49	0.77
3:K:1044:LYS:HG3	3:K:1058:LYS:HE2	1.67	0.77
3:I:1044:LYS:HG3	3:I:1058:LYS:HE2	1.67	0.77
3:K:1217:ILE:HG21	3:K:1223:VAL:HB	1.67	0.77
2:B:700:GLU:HG2	2:C:368:LYS:HG2	1.67	0.76
2:A:392:GLN:HA	2:A:395:ILE:HD12	1.67	0.76
2:D:541:ARG:CD	2:D:546:ARG:CB	2.63	0.76
2:G:392:GLN:HA	2:G:395:ILE:HD12	1.67	0.76
2:E:124:ILE:HG22	2:E:129:PHE:HB2	1.65	0.76
2:E:317:LEU:HD11	2:E:358:GLN:HB3	1.67	0.76
2:H:392:GLN:HA	2:H:395:ILE:HD12	1.68	0.76
2:H:541:ARG:CD	2:H:546:ARG:CB	2.64	0.76
2:B:135:MET:HE3	2:B:136:GLU:HA	1.67	0.76
2:D:553:PHE:CE2	2:D:577:ARG:CG	2.65	0.76
2:F:541:ARG:CD	2:F:546:ARG:CB	2.64	0.76
3:I:555:ALA:HB3	3:I:1230:LYS:HA	1.67	0.76
2:C:392:GLN:HA	2:C:395:ILE:HD12	1.67	0.76
2:F:135:MET:HE2	2:F:136:GLU:HA	1.65	0.76
2:H:646:ARG:HD3	2:H:663:MET:HE3	1.67	0.76
3:L:1044:LYS:HG3	3:L:1058:LYS:HE2	1.67	0.76
2:A:249:SER:CB	2:H:323:ARG:HH11	1.95	0.76
2:F:553:PHE:HE2	2:F:577:ARG:HG3	1.45	0.76
2:B:392:GLN:HA	2:B:395:ILE:HD12	1.68	0.76
2:B:541:ARG:CD	2:B:546:ARG:CB	2.64	0.76
2:C:205:VAL:HG11	2:C:220:PHE:HE2	1.51	0.76
2:H:676:THR:HG22	2:H:677:GLY:N	2.01	0.76
2:B:403:ASP:OD1	2:B:403:ASP:N	2.19	0.76
2:B:676:THR:HG22	2:B:677:GLY:N	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:569:PRO:HG3	2:B:605:THR:HG21	1.68	0.76
2:H:516:LEU:HD22	2:H:579:ILE:HA	1.68	0.76
3:K:555:ALA:HB3	3:K:1230:LYS:HA	1.67	0.76
2:A:403:ASP:OD1	2:A:403:ASP:N	2.19	0.76
2:D:323:ARG:HD3	2:E:290:LEU:HD21	1.68	0.76
2:F:139:ARG:HH22	2:F:175:ASN:HD21	1.29	0.76
2:F:676:THR:HG22	2:F:677:GLY:N	2.01	0.76
2:H:139:ARG:HH22	2:H:175:ASN:HD21	1.29	0.76
2:H:403:ASP:OD1	2:H:403:ASP:N	2.19	0.76
3:L:1120:PHE:CD2	3:L:1304:LYS:CB	2.67	0.76
3:K:337:VAL:CG2	3:K:338:ASP:N	2.49	0.75
2:D:569:PRO:HG3	2:D:605:THR:HG21	1.68	0.75
2:D:646:ARG:HD3	2:D:663:MET:HE3	1.66	0.75
3:L:1217:ILE:HG21	3:L:1223:VAL:HB	1.67	0.75
2:B:676:THR:HG23	3:I:449:MET:CE	2.14	0.75
2:F:569:PRO:HG3	2:F:605:THR:HG21	1.69	0.75
2:F:392:GLN:HA	2:F:395:ILE:HD12	1.68	0.75
3:L:555:ALA:HB3	3:L:1230:LYS:HA	1.67	0.75
2:B:516:LEU:HD22	2:B:579:ILE:HA	1.68	0.75
2:D:700:GLU:HG2	2:E:368:LYS:HG2	1.67	0.75
2:E:485:GLU:O	2:E:486:ARG:CG	2.34	0.75
2:F:553:PHE:CE2	2:F:577:ARG:CG	2.65	0.75
2:D:392:GLN:HA	2:D:395:ILE:HD12	1.68	0.75
2:E:205:VAL:HG11	2:E:220:PHE:HE2	1.51	0.75
2:H:569:PRO:HG3	2:H:605:THR:HG21	1.68	0.75
2:A:291:MET:HE2	2:A:291:MET:HA	1.68	0.75
2:H:676:THR:HG23	3:L:449:MET:HE2	1.68	0.75
3:I:1217:ILE:HG21	3:I:1223:VAL:HB	1.67	0.75
2:E:392:GLN:HA	2:E:395:ILE:HD12	1.67	0.74
2:G:403:ASP:OD1	2:G:403:ASP:N	2.19	0.74
3:J:813:ILE:CG2	3:J:824:LEU:CD2	2.63	0.74
2:D:676:THR:HG22	2:D:677:GLY:N	2.01	0.74
2:F:403:ASP:OD1	2:F:403:ASP:N	2.19	0.74
2:G:291:MET:HE2	2:G:291:MET:HA	1.67	0.74
2:D:323:ARG:HH11	2:E:249:SER:CB	1.95	0.74
2:F:516:LEU:HD22	2:F:579:ILE:HA	1.69	0.74
3:L:400:GLY:HA3	3:L:1303:LEU:HD11	1.69	0.74
2:A:290:LEU:HD21	2:H:323:ARG:HD3	1.70	0.74
2:A:368:LYS:HG2	2:H:700:GLU:HG2	1.68	0.74
3:L:813:ILE:HG23	3:L:824:LEU:CD2	2.14	0.74
2:D:135:MET:HE2	2:D:136:GLU:HA	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:485:GLU:O	2:G:486:ARG:CG	2.34	0.74
2:H:409:VAL:HA	2:H:413:THR:HG22	1.70	0.74
3:J:400:GLY:HA3	3:J:1303:LEU:HD11	1.69	0.74
3:L:1224:LYS:O	3:L:1227:ASP:N	2.20	0.74
2:B:676:THR:CG2	3:I:449:MET:HE1	2.17	0.74
3:K:1224:LYS:O	3:K:1227:ASP:N	2.20	0.74
2:A:605:THR:HG22	2:A:622:PRO:HA	1.69	0.74
2:G:205:VAL:HG11	2:G:220:PHE:HE2	1.51	0.74
3:I:813:ILE:HG23	3:I:824:LEU:CD2	2.14	0.74
3:J:1217:ILE:HG21	3:J:1223:VAL:HB	1.67	0.74
2:A:249:SER:HG	2:H:323:ARG:HD2	1.50	0.73
2:B:409:VAL:HA	2:B:413:THR:HG22	1.70	0.73
2:D:516:LEU:HD22	2:D:579:ILE:HA	1.68	0.73
2:F:323:ARG:HH11	2:G:249:SER:CB	1.97	0.73
3:J:938:LYS:HA	3:J:1002:GLN:HG2	1.70	0.73
3:L:813:ILE:CG2	3:L:824:LEU:CD2	2.63	0.73
2:C:291:MET:HE2	2:C:291:MET:HA	1.71	0.73
2:G:605:THR:HG22	2:G:622:PRO:HA	1.69	0.73
2:E:605:THR:HG22	2:E:622:PRO:HA	1.69	0.73
2:B:323:ARG:HD3	2:C:290:LEU:CD2	2.17	0.73
2:A:296:ARG:HA	2:H:374:LEU:HD13	1.70	0.73
2:C:605:THR:HG22	2:C:622:PRO:HA	1.69	0.73
2:F:374:LEU:HD13	2:G:296:ARG:HA	1.71	0.73
2:F:700:GLU:HG2	2:G:368:LYS:HG2	1.69	0.73
3:J:1224:LYS:O	3:J:1227:ASP:N	2.20	0.73
2:A:205:VAL:HG11	2:A:220:PHE:HE2	1.51	0.73
2:C:485:GLU:O	2:C:486:ARG:CG	2.34	0.73
3:I:400:GLY:HA3	3:I:1303:LEU:HD11	1.69	0.73
3:I:938:LYS:HA	3:I:1002:GLN:HG2	1.70	0.73
3:K:400:GLY:HA3	3:K:1303:LEU:HD11	1.69	0.73
2:B:646:ARG:NH2	2:B:647:LYS:HE2	1.85	0.73
2:D:409:VAL:HA	2:D:413:THR:HG22	1.70	0.73
2:E:699:LEU:HG	2:F:372:LYS:HZ3	1.53	0.73
3:J:150:MET:HA	3:J:153:GLN:HB3	1.71	0.73
3:K:24:GLY:HA3	3:K:25:VAL:HB	1.71	0.73
3:I:1224:LYS:O	3:I:1227:ASP:N	2.20	0.73
2:D:403:ASP:OD1	2:D:403:ASP:N	2.19	0.72
3:I:470:THR:HG22	3:I:471:GLU:H	1.54	0.72
3:K:150:MET:HA	3:K:153:GLN:HB3	1.71	0.72
3:L:470:THR:HG22	3:L:471:GLU:H	1.55	0.72
3:J:24:GLY:HA3	3:J:25:VAL:HB	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:409:VAL:HA	2:F:413:THR:HG22	1.70	0.72
2:F:516:LEU:HD22	2:F:579:ILE:CG2	2.20	0.72
2:H:135:MET:HE3	2:H:136:GLU:HA	1.70	0.72
3:J:470:THR:HG22	3:J:471:GLU:H	1.55	0.72
3:K:470:THR:HG22	3:K:471:GLU:H	1.55	0.72
3:J:1061:GLN:HG3	3:J:1065:MET:HE3	1.72	0.72
3:K:813:ILE:HG23	3:K:824:LEU:CD2	2.14	0.72
2:D:374:LEU:HD13	2:E:296:ARG:HA	1.71	0.72
3:L:938:LYS:HA	3:L:1002:GLN:HG2	1.70	0.72
2:C:520:MET:HB3	2:C:526:ILE:HD11	1.72	0.72
2:G:520:MET:HB3	2:G:526:ILE:HD11	1.72	0.72
3:I:813:ILE:CG2	3:I:824:LEU:CD2	2.63	0.72
2:E:520:MET:HB3	2:E:526:ILE:HD11	1.72	0.72
2:H:135:MET:HE2	2:H:136:GLU:HA	1.71	0.72
3:I:150:MET:HA	3:I:153:GLN:HB3	1.71	0.72
3:J:705:VAL:HA	3:J:708:ARG:HG2	1.70	0.72
3:L:150:MET:HA	3:L:153:GLN:HB3	1.71	0.72
2:A:485:GLU:O	2:A:486:ARG:CG	2.34	0.71
2:F:520:MET:HB3	2:F:526:ILE:HD11	1.73	0.71
3:I:705:VAL:HA	3:I:708:ARG:HG2	1.71	0.71
3:K:705:VAL:HA	3:K:708:ARG:HG2	1.71	0.71
2:D:520:MET:HB3	2:D:526:ILE:HD11	1.73	0.71
2:G:129:PHE:CZ	2:G:135:MET:HB2	2.26	0.71
2:D:323:ARG:HD3	2:E:290:LEU:CD2	2.21	0.71
3:I:24:GLY:HA3	3:I:25:VAL:HB	1.71	0.71
2:A:129:PHE:CZ	2:A:135:MET:HB2	2.26	0.71
2:A:139:ARG:O	2:A:143:LEU:HB2	1.91	0.71
2:F:323:ARG:HD3	2:G:290:LEU:HD21	1.72	0.71
2:F:516:LEU:CD2	2:F:579:ILE:HA	2.21	0.71
2:H:516:LEU:CD2	2:H:579:ILE:HA	2.21	0.71
3:L:24:GLY:HA3	3:L:25:VAL:HB	1.71	0.71
2:G:139:ARG:O	2:G:143:LEU:HB2	1.91	0.71
3:L:705:VAL:HA	3:L:708:ARG:HG2	1.71	0.71
2:A:520:MET:HB3	2:A:526:ILE:HD11	1.72	0.71
2:C:139:ARG:O	2:C:143:LEU:HB2	1.91	0.71
2:D:135:MET:HE3	2:D:136:GLU:HA	1.72	0.71
2:D:516:LEU:CD2	2:D:579:ILE:HA	2.21	0.71
2:D:688:LEU:HD23	2:D:688:LEU:C	2.11	0.71
3:J:835:ALA:HA	3:J:836:GLU:HB3	1.73	0.71
3:K:813:ILE:CG2	3:K:824:LEU:CD2	2.63	0.71
3:L:1061:GLN:HG3	3:L:1065:MET:HE3	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:516:LEU:CD2	2:B:579:ILE:HA	2.21	0.71
3:K:938:LYS:HA	3:K:1002:GLN:HG2	1.70	0.71
3:I:835:ALA:HA	3:I:836:GLU:HB3	1.73	0.70
3:J:912:ILE:HG13	3:J:1103:LYS:HG3	1.72	0.70
2:C:129:PHE:CZ	2:C:135:MET:HB2	2.26	0.70
2:E:129:PHE:CZ	2:E:135:MET:HB2	2.26	0.70
2:F:688:LEU:HD23	2:F:688:LEU:C	2.11	0.70
3:L:835:ALA:HA	3:L:836:GLU:HB3	1.73	0.70
3:L:1090:VAL:HG21	3:L:1110:SER:HA	1.74	0.70
2:B:520:MET:HB3	2:B:526:ILE:HD11	1.73	0.70
2:B:553:PHE:CD2	2:B:577:ARG:HG3	2.27	0.70
2:H:520:MET:HB3	2:H:526:ILE:HD11	1.73	0.70
3:K:835:ALA:HA	3:K:836:GLU:HB3	1.73	0.70
3:K:1090:VAL:HG21	3:K:1110:SER:HA	1.74	0.70
3:K:362:VAL:HG23	3:K:446:LEU:HD11	1.73	0.70
3:L:362:VAL:HG23	3:L:446:LEU:HD11	1.73	0.70
2:E:139:ARG:O	2:E:143:LEU:HB2	1.91	0.70
2:E:291:MET:HA	2:E:291:MET:CE	2.22	0.70
3:J:813:ILE:HD13	3:J:824:LEU:HD23	1.74	0.70
2:B:688:LEU:HD23	2:B:688:LEU:C	2.12	0.70
3:I:912:ILE:HG13	3:I:1103:LYS:HG3	1.72	0.70
3:L:912:ILE:HG13	3:L:1103:LYS:HG3	1.72	0.70
2:F:229:LEU:HD23	2:G:84:ARG:NE	2.07	0.70
2:A:569:PRO:HG3	2:A:605:THR:HG21	1.74	0.69
2:D:516:LEU:HD22	2:D:579:ILE:HD12	1.73	0.69
2:D:553:PHE:CD2	2:D:577:ARG:HG3	2.27	0.69
2:D:676:THR:HG23	3:J:449:MET:HE2	1.75	0.69
2:F:516:LEU:HD22	2:F:579:ILE:HD12	1.73	0.69
2:H:142:ARG:HA	2:H:142:ARG:NE	1.98	0.69
3:J:362:VAL:HG23	3:J:446:LEU:HD11	1.73	0.69
2:H:553:PHE:CD2	2:H:577:ARG:HG3	2.27	0.69
3:K:335:ALA:HB3	3:K:336:GLY:CA	2.15	0.69
3:I:669:VAL:HG11	3:I:799:ILE:HD12	1.75	0.69
3:K:669:VAL:HG11	3:K:799:ILE:HD12	1.75	0.69
3:K:912:ILE:HG13	3:K:1103:LYS:HG3	1.72	0.69
2:B:135:MET:HE2	2:B:136:GLU:HA	1.74	0.69
3:J:669:VAL:HG11	3:J:799:ILE:HD12	1.75	0.69
3:J:1090:VAL:HG21	3:J:1110:SER:HA	1.74	0.69
3:K:688:GLN:HE22	3:K:732:MET:HG3	1.58	0.69
2:B:142:ARG:HA	2:B:142:ARG:NE	1.98	0.69
2:C:569:PRO:HG3	2:C:605:THR:HG21	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:362:VAL:HG23	3:I:446:LEU:HD11	1.73	0.69
3:I:1061:GLN:HG3	3:I:1065:MET:HE3	1.73	0.69
3:L:813:ILE:HD13	3:L:824:LEU:HD23	1.74	0.69
2:B:323:ARG:HH11	2:C:249:SER:CB	2.01	0.69
2:E:403:ASP:OD1	2:E:403:ASP:N	2.19	0.69
2:H:516:LEU:HD22	2:H:579:ILE:HD12	1.73	0.69
2:H:688:LEU:HD23	2:H:688:LEU:C	2.11	0.69
2:D:142:ARG:HE	2:D:142:ARG:CA	2.02	0.69
3:L:669:VAL:HG11	3:L:799:ILE:HD12	1.75	0.69
3:I:813:ILE:HD13	3:I:824:LEU:HD23	1.74	0.69
3:I:1090:VAL:HG21	3:I:1110:SER:HA	1.74	0.69
3:J:688:GLN:HE22	3:J:732:MET:HG3	1.58	0.69
3:K:813:ILE:HD13	3:K:824:LEU:HD23	1.74	0.69
3:K:1061:GLN:HG3	3:K:1065:MET:HE3	1.74	0.69
3:L:688:GLN:HE22	3:L:732:MET:HG3	1.58	0.69
2:B:676:THR:HG21	3:I:449:MET:CE	2.21	0.68
3:I:688:GLN:HE22	3:I:732:MET:HG3	1.58	0.68
3:J:58:LYS:O	3:J:62:LYS:NZ	2.27	0.68
3:L:1230:LYS:HB2	3:L:1231:PRO:HD3	1.75	0.68
2:B:516:LEU:HD22	2:B:579:ILE:CG2	2.20	0.68
2:B:516:LEU:HD22	2:B:579:ILE:HD12	1.73	0.68
2:E:569:PRO:HG3	2:E:605:THR:HG21	1.75	0.68
2:F:553:PHE:CD2	2:F:577:ARG:HG3	2.27	0.68
2:G:291:MET:HA	2:G:291:MET:CE	2.22	0.68
3:L:561:ARG:NH1	3:L:1269:VAL:O	2.26	0.68
2:A:290:LEU:CD2	2:H:323:ARG:HD3	2.23	0.68
2:G:569:PRO:HG3	2:G:605:THR:HG21	1.74	0.68
2:B:142:ARG:HE	2:B:142:ARG:CA	2.02	0.68
2:C:291:MET:HA	2:C:291:MET:CE	2.22	0.68
3:J:561:ARG:NH1	3:J:1269:VAL:O	2.26	0.68
2:A:84:ARG:NE	2:H:229:LEU:HD23	2.09	0.68
2:D:676:THR:HG23	3:J:449:MET:CE	2.23	0.68
2:H:676:THR:HG23	3:L:449:MET:CE	2.22	0.68
3:K:1230:LYS:HB2	3:K:1231:PRO:HD3	1.75	0.68
2:F:149:VAL:HG13	2:F:150:TYR:N	2.09	0.68
2:F:323:ARG:HD2	2:G:249:SER:HG	1.59	0.68
2:F:323:ARG:HD3	2:G:290:LEU:CD2	2.24	0.68
2:D:149:VAL:HG13	2:D:150:TYR:N	2.09	0.68
2:D:516:LEU:HD22	2:D:579:ILE:CG2	2.20	0.68
2:F:661:LEU:HD12	2:F:661:LEU:C	2.14	0.68
2:H:661:LEU:HD12	2:H:661:LEU:C	2.14	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:561:ARG:NH1	3:K:1269:VAL:O	2.26	0.68
3:K:899:VAL:HG13	3:K:1181:ALA:HB1	1.76	0.68
2:A:146:GLY:HA2	2:A:149:VAL:HG12	1.76	0.67
2:H:154:PHE:O	2:H:155:GLY:C	2.32	0.67
3:I:899:VAL:HG13	3:I:1181:ALA:HB1	1.76	0.67
3:J:899:VAL:HG13	3:J:1181:ALA:HB1	1.76	0.67
3:K:58:LYS:O	3:K:62:LYS:NZ	2.27	0.67
2:C:146:GLY:HA2	2:C:149:VAL:HG12	1.76	0.67
2:D:676:THR:CG2	3:J:449:MET:HE1	2.23	0.67
3:K:652:ALA:HB1	3:K:814:MET:HG3	1.77	0.67
2:C:383:LYS:HB3	2:C:413:THR:HG23	1.76	0.67
3:L:584:PRO:HA	3:L:588:THR:HG23	1.76	0.67
2:B:661:LEU:HD12	2:B:661:LEU:C	2.14	0.67
2:G:383:LYS:HB3	2:G:413:THR:HG23	1.76	0.67
3:J:67:ARG:HE	3:J:69:THR:H	1.43	0.67
2:D:661:LEU:HD12	2:D:661:LEU:C	2.14	0.67
2:F:645:ALA:O	2:F:648:GLY:N	2.28	0.67
3:J:139:MET:HE2	3:J:154:LEU:HD12	1.77	0.67
3:J:337:VAL:CG2	3:J:338:ASP:N	2.49	0.67
3:J:1230:LYS:HB2	3:J:1231:PRO:HD3	1.76	0.67
2:A:249:SER:OG	2:H:323:ARG:CD	2.40	0.67
3:I:561:ARG:NH1	3:I:1269:VAL:O	2.26	0.67
3:I:1230:LYS:HB2	3:I:1231:PRO:HD3	1.75	0.67
2:A:291:MET:HA	2:A:291:MET:CE	2.22	0.67
2:A:546:ARG:HG3	2:A:547:PHE:N	2.10	0.67
2:B:645:ALA:O	2:B:648:GLY:N	2.28	0.67
2:F:676:THR:HG23	3:K:449:MET:CE	2.22	0.67
2:G:420:ASP:O	2:G:424:TYR:N	2.26	0.67
3:I:584:PRO:HA	3:I:588:THR:HG23	1.76	0.67
3:L:652:ALA:HB1	3:L:814:MET:HG3	1.77	0.67
3:L:899:VAL:HG13	3:L:1181:ALA:HB1	1.76	0.67
2:B:149:VAL:HG13	2:B:150:TYR:N	2.09	0.66
2:C:546:ARG:HG3	2:C:547:PHE:N	2.09	0.66
3:I:67:ARG:HE	3:I:69:THR:H	1.43	0.66
2:D:645:ALA:O	2:D:648:GLY:N	2.28	0.66
2:F:135:MET:HE3	2:F:136:GLU:HA	1.76	0.66
3:J:335:ALA:HB3	3:J:336:GLY:CA	2.15	0.66
2:E:420:ASP:O	2:E:424:TYR:N	2.26	0.66
2:F:142:ARG:HE	2:F:142:ARG:CA	2.02	0.66
2:G:146:GLY:HA2	2:G:149:VAL:HG12	1.76	0.66
2:G:546:ARG:HG3	2:G:547:PHE:N	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:516:LEU:HD22	2:H:579:ILE:CG2	2.20	0.66
3:K:67:ARG:HE	3:K:69:THR:H	1.43	0.66
2:H:656:ILE:HD11	2:H:658:ASN:HD21	1.61	0.66
2:F:420:ASP:O	2:F:424:TYR:N	2.26	0.66
2:H:149:VAL:HG13	2:H:150:TYR:N	2.09	0.66
3:J:584:PRO:HA	3:J:588:THR:HG23	1.77	0.66
2:B:656:ILE:HD11	2:B:658:ASN:HD21	1.61	0.66
2:D:579:ILE:HG13	2:D:600:PHE:CE2	2.31	0.66
3:K:1044:LYS:HG2	3:K:1063:PHE:HD2	1.61	0.66
3:L:67:ARG:HE	3:L:69:THR:H	1.43	0.66
2:H:645:ALA:O	2:H:648:GLY:N	2.28	0.66
3:I:139:MET:HE2	3:I:154:LEU:HD12	1.78	0.66
2:D:151:ALA:HB1	2:D:158:PRO:CD	2.26	0.66
2:E:146:GLY:HA2	2:E:149:VAL:HG12	1.76	0.66
3:I:941:ASP:OD2	3:I:1002:GLN:NE2	2.28	0.66
3:K:139:MET:HE2	3:K:154:LEU:HD12	1.78	0.66
3:K:584:PRO:HA	3:K:588:THR:HG23	1.76	0.66
2:E:383:LYS:HB3	2:E:413:THR:HG23	1.77	0.66
2:H:142:ARG:HE	2:H:142:ARG:CA	2.02	0.66
3:L:58:LYS:O	3:L:62:LYS:NZ	2.27	0.66
2:B:154:PHE:O	2:B:155:GLY:C	2.32	0.65
2:B:557:LEU:HD23	2:B:557:LEU:C	2.16	0.65
2:F:656:ILE:HD11	2:F:658:ASN:HD21	1.61	0.65
2:H:579:ILE:HG13	2:H:600:PHE:CE2	2.30	0.65
3:L:1044:LYS:HG2	3:L:1063:PHE:HD2	1.61	0.65
2:D:229:LEU:HD23	2:E:84:ARG:NE	2.11	0.65
2:D:656:ILE:HD11	2:D:658:ASN:HD21	1.61	0.65
2:H:557:LEU:HD23	2:H:557:LEU:C	2.16	0.65
3:L:139:MET:HE2	3:L:154:LEU:HD12	1.77	0.65
3:L:941:ASP:OD2	3:L:1002:GLN:NE2	2.28	0.65
2:F:151:ALA:HB1	2:F:158:PRO:CD	2.26	0.65
3:I:652:ALA:HB1	3:I:814:MET:HG3	1.77	0.65
2:D:420:ASP:O	2:D:424:TYR:N	2.26	0.65
2:E:546:ARG:HG3	2:E:547:PHE:N	2.10	0.65
3:I:335:ALA:HB3	3:I:336:GLY:CA	2.15	0.65
3:I:1044:LYS:HG2	3:I:1063:PHE:HD2	1.61	0.65
3:I:58:LYS:O	3:I:62:LYS:NZ	2.27	0.65
3:J:335:ALA:CB	3:J:336:GLY:HA2	2.07	0.65
3:J:652:ALA:HB1	3:J:814:MET:HG3	1.76	0.65
2:A:383:LYS:HB3	2:A:413:THR:HG23	1.76	0.65
2:D:153:GLN:OE1	2:D:153:GLN:HA	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:420:ASP:O	2:H:424:TYR:N	2.26	0.65
2:B:151:ALA:HB1	2:B:158:PRO:CD	2.26	0.65
2:B:579:ILE:HG13	2:B:600:PHE:CE2	2.31	0.65
2:D:323:ARG:CD	2:E:249:SER:OG	2.42	0.65
2:F:557:LEU:HD23	2:F:557:LEU:C	2.16	0.65
2:F:579:ILE:HG13	2:F:600:PHE:CE2	2.31	0.65
3:I:604:ARG:HH22	3:I:948:ARG:NH2	1.95	0.64
3:J:1044:LYS:HG2	3:J:1063:PHE:HD2	1.61	0.64
3:L:335:ALA:HB3	3:L:336:GLY:CA	2.15	0.64
3:J:646:ILE:HG12	3:K:701:SER:HB2	1.79	0.64
2:B:145:GLU:HA	2:B:145:GLU:OE2	1.98	0.64
2:G:125:LYS:HD2	2:G:182:HIS:HA	1.79	0.64
2:G:699:LEU:HG	2:H:372:LYS:HZ3	1.62	0.64
2:D:154:PHE:O	2:D:155:GLY:C	2.32	0.64
2:D:646:ARG:HD3	2:D:663:MET:HE1	1.79	0.64
2:D:145:GLU:OE2	2:D:145:GLU:HA	1.98	0.64
2:E:436:ASP:HB2	2:F:315:SER:OG	1.98	0.64
2:D:557:LEU:HD23	2:D:557:LEU:C	2.16	0.64
2:G:628:VAL:HG13	2:G:689:SER:HA	1.80	0.64
2:H:151:ALA:HB1	2:H:158:PRO:CD	2.26	0.64
3:I:1217:ILE:HG23	3:I:1220:LYS:HB2	1.79	0.64
3:K:1162:LEU:HG	3:K:1170:TYR:CD2	2.33	0.64
2:H:153:GLN:OE1	2:H:153:GLN:HA	1.97	0.64
3:I:335:ALA:CB	3:I:336:GLY:HA2	2.07	0.64
3:L:363:GLY:O	3:L:443:SER:HB3	1.97	0.64
3:L:1217:ILE:HG23	3:L:1220:LYS:HB2	1.79	0.64
2:B:678:GLN:CD	3:I:449:MET:SD	2.76	0.64
2:D:219:ASP:OD1	2:D:267:LYS:NZ	2.25	0.64
3:K:363:GLY:O	3:K:443:SER:HB3	1.97	0.64
2:C:125:LYS:HD2	2:C:182:HIS:HA	1.79	0.64
2:F:154:PHE:O	2:F:155:GLY:C	2.32	0.64
2:H:646:ARG:HD3	2:H:663:MET:HE1	1.78	0.64
3:J:604:ARG:HH22	3:J:948:ARG:NH2	1.95	0.64
3:K:259:PHE:HE1	3:K:984:PRO:HD2	1.63	0.64
3:K:1217:ILE:HG23	3:K:1220:LYS:HB2	1.79	0.64
3:L:259:PHE:HE1	3:L:984:PRO:HD2	1.63	0.64
2:H:676:THR:CG2	3:L:449:MET:HE1	2.28	0.64
3:K:145:VAL:HB	3:K:255:GLY:HA3	1.80	0.64
2:C:485:GLU:C	2:C:486:ARG:HG2	2.19	0.63
2:E:125:LYS:HD2	2:E:182:HIS:HA	1.79	0.63
3:I:250:GLY:O	3:I:251:ARG:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:1162:LEU:HG	3:I:1170:TYR:CD2	2.33	0.63
3:J:1162:LEU:HG	3:J:1170:TYR:CD2	2.33	0.63
3:L:1162:LEU:HG	3:L:1170:TYR:CD2	2.33	0.63
2:A:699:LEU:HG	2:B:372:LYS:NZ	2.13	0.63
2:G:404:PHE:HE1	2:G:418:HIS:ND1	1.97	0.63
3:I:145:VAL:HB	3:I:255:GLY:HA3	1.80	0.63
3:I:259:PHE:HE1	3:I:984:PRO:HD2	1.63	0.63
3:I:363:GLY:O	3:I:443:SER:HB3	1.97	0.63
3:J:363:GLY:O	3:J:443:SER:HB3	1.97	0.63
3:J:941:ASP:OD2	3:J:1002:GLN:NE2	2.28	0.63
3:L:145:VAL:HB	3:L:255:GLY:HA3	1.80	0.63
3:L:953:GLN:OE1	3:L:956:ARG:NH1	2.31	0.63
2:A:125:LYS:HD2	2:A:182:HIS:HA	1.79	0.63
3:I:701:SER:HB2	3:L:646:ILE:HG12	1.79	0.63
3:J:953:GLN:OE1	3:J:956:ARG:NH1	2.31	0.63
3:L:250:GLY:O	3:L:251:ARG:HB2	1.98	0.63
3:L:828:ILE:CD1	3:L:852:VAL:HG21	2.29	0.63
2:E:485:GLU:C	2:E:486:ARG:HG2	2.19	0.63
2:F:145:GLU:HA	2:F:145:GLU:OE2	1.98	0.63
3:I:640:LEU:HD22	3:I:811:ILE:HD13	1.81	0.63
2:B:153:GLN:HA	2:B:153:GLN:OE1	1.97	0.63
3:I:953:GLN:OE1	3:I:956:ARG:NH1	2.31	0.63
3:J:828:ILE:CD1	3:J:852:VAL:HG21	2.29	0.63
3:K:836:GLU:H	3:K:842:THR:HG21	1.64	0.63
3:K:941:ASP:OD2	3:K:1002:GLN:NE2	2.28	0.63
3:L:774:SER:HB2	3:L:788:VAL:HB	1.81	0.63
2:A:485:GLU:C	2:A:486:ARG:HG2	2.19	0.63
2:C:420:ASP:O	2:C:424:TYR:N	2.26	0.63
2:F:153:GLN:OE1	2:F:153:GLN:HA	1.97	0.63
2:G:485:GLU:C	2:G:486:ARG:HG2	2.19	0.63
3:J:1217:ILE:HG23	3:J:1220:LYS:HB2	1.79	0.63
2:E:628:VAL:HG13	2:E:689:SER:HA	1.80	0.63
2:F:142:ARG:HA	2:F:142:ARG:NE	1.98	0.63
2:F:352:LEU:O	2:F:355:ALA:HB3	1.99	0.63
2:F:646:ARG:HD3	2:F:663:MET:HE1	1.79	0.63
3:J:259:PHE:HE1	3:J:984:PRO:HD2	1.63	0.63
3:J:774:SER:HB2	3:J:788:VAL:HB	1.81	0.63
2:B:219:ASP:OD1	2:B:267:LYS:NZ	2.25	0.63
2:C:228:GLY:O	2:C:233:ALA:N	2.32	0.63
2:E:404:PHE:HE1	2:E:418:HIS:ND1	1.97	0.63
2:F:323:ARG:CD	2:G:249:SER:OG	2.41	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:705:VAL:HG23	3:I:708:ARG:HE	1.64	0.63
2:C:628:VAL:HG13	2:C:689:SER:HA	1.80	0.62
2:D:516:LEU:HD21	2:D:579:ILE:HG23	1.80	0.62
3:J:836:GLU:H	3:J:842:THR:HG21	1.64	0.62
3:K:250:GLY:O	3:K:251:ARG:HB2	1.98	0.62
3:K:705:VAL:HG23	3:K:708:ARG:HE	1.64	0.62
2:A:404:PHE:HE1	2:A:418:HIS:ND1	1.97	0.62
2:G:436:ASP:HB2	2:H:315:SER:OG	1.99	0.62
3:J:378:THR:HG21	3:J:383:GLY:HA3	1.81	0.62
3:J:817:THR:HG23	3:J:1229:ASN:HD21	1.64	0.62
3:K:953:GLN:OE1	3:K:956:ARG:NH1	2.31	0.62
2:D:352:LEU:O	2:D:355:ALA:HB3	2.00	0.62
3:I:378:THR:HG21	3:I:383:GLY:HA3	1.80	0.62
3:K:774:SER:HB2	3:K:788:VAL:HB	1.81	0.62
3:L:640:LEU:HD22	3:L:811:ILE:HD13	1.81	0.62
2:E:439:ASP:OD1	2:E:439:ASP:N	2.26	0.62
2:E:595:GLU:O	2:E:598:THR:HG22	2.00	0.62
2:H:145:GLU:HA	2:H:145:GLU:OE2	1.98	0.62
3:I:774:SER:HB2	3:I:788:VAL:HB	1.81	0.62
3:I:828:ILE:CD1	3:I:852:VAL:HG21	2.29	0.62
2:A:228:GLY:O	2:A:233:ALA:N	2.32	0.62
2:A:599:LYS:HE3	2:A:600:PHE:N	2.15	0.62
3:I:836:GLU:H	3:I:842:THR:HG21	1.64	0.62
3:J:145:VAL:HB	3:J:255:GLY:HA3	1.80	0.62
3:K:817:THR:HG23	3:K:1229:ASN:HD21	1.65	0.62
2:A:628:VAL:HG13	2:A:689:SER:HA	1.80	0.62
2:C:404:PHE:HE1	2:C:418:HIS:HD1	1.47	0.62
2:G:595:GLU:O	2:G:598:THR:HG22	2.00	0.62
2:H:219:ASP:OD1	2:H:267:LYS:NZ	2.25	0.62
3:K:150:MET:O	3:K:154:LEU:N	2.32	0.62
3:K:378:THR:HG21	3:K:383:GLY:HA3	1.80	0.62
3:K:828:ILE:CD1	3:K:852:VAL:HG21	2.29	0.62
2:A:595:GLU:O	2:A:598:THR:HG22	2.00	0.62
2:B:212:LEU:HB3	2:B:260:PHE:HB2	1.82	0.62
2:B:374:LEU:HD13	2:C:296:ARG:HA	1.80	0.62
3:I:817:THR:HG23	3:I:1229:ASN:HD21	1.64	0.62
3:L:378:THR:HG21	3:L:383:GLY:HA3	1.81	0.62
3:L:836:GLU:H	3:L:842:THR:HG21	1.64	0.62
2:D:212:LEU:HB3	2:D:260:PHE:HB2	1.82	0.62
2:F:212:LEU:HB3	2:F:260:PHE:HB2	1.82	0.62
2:F:219:ASP:OD1	2:F:267:LYS:NZ	2.25	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:212:LEU:HB3	2:H:260:PHE:HB2	1.82	0.62
3:K:646:ILE:HG12	3:L:701:SER:HB2	1.82	0.62
2:A:420:ASP:O	2:A:424:TYR:N	2.26	0.62
2:H:352:LEU:O	2:H:355:ALA:HB3	2.00	0.62
3:I:300:GLU:HB3	3:I:301:ASN:HB3	1.82	0.62
3:J:705:VAL:HG23	3:J:708:ARG:HE	1.64	0.62
3:L:150:MET:O	3:L:154:LEU:N	2.32	0.62
3:L:705:VAL:HG23	3:L:708:ARG:HE	1.64	0.62
2:H:516:LEU:HD21	2:H:579:ILE:HG23	1.80	0.62
3:J:250:GLY:O	3:J:251:ARG:HB2	1.98	0.62
3:L:337:VAL:CG2	3:L:338:ASP:N	2.49	0.62
2:B:352:LEU:O	2:B:355:ALA:HB3	1.99	0.61
2:G:228:GLY:O	2:G:233:ALA:N	2.32	0.61
3:I:288:PRO:HB2	3:I:588:THR:CG2	2.30	0.61
3:J:640:LEU:HD22	3:J:811:ILE:HD13	1.81	0.61
3:L:817:THR:HG23	3:L:1229:ASN:HD21	1.65	0.61
2:A:231:THR:N	2:A:232:GLY:HA2	2.15	0.61
2:C:436:ASP:HB2	2:D:315:SER:OG	2.01	0.61
2:F:143:LEU:HG	2:F:167:PHE:HZ	1.65	0.61
2:H:439:ASP:OD1	2:H:439:ASP:N	2.26	0.61
3:I:150:MET:O	3:I:154:LEU:N	2.33	0.61
3:I:785:GLN:HB3	3:L:561:ARG:HH22	1.65	0.61
3:J:288:PRO:HB2	3:J:588:THR:CG2	2.30	0.61
3:J:649:ASN:OD1	3:J:650:THR:N	2.34	0.61
3:K:649:ASN:OD1	3:K:650:THR:N	2.34	0.61
2:A:699:LEU:CG	2:B:372:LYS:HZ3	2.13	0.61
2:B:549:ASP:OD1	2:B:550:ASP:N	2.34	0.61
2:D:143:LEU:HG	2:D:167:PHE:HZ	1.65	0.61
2:E:599:LYS:HE3	2:E:600:PHE:N	2.15	0.61
2:B:231:THR:N	2:B:232:GLY:HA2	2.16	0.61
2:C:231:THR:N	2:C:232:GLY:HA2	2.15	0.61
2:C:595:GLU:O	2:C:598:THR:HG22	2.00	0.61
2:E:228:GLY:O	2:E:233:ALA:N	2.32	0.61
3:K:640:LEU:HD22	3:K:811:ILE:HD13	1.81	0.61
2:B:322:PRO:HG2	2:B:366:TRP:HB2	1.83	0.61
2:B:420:ASP:O	2:B:424:TYR:N	2.26	0.61
2:F:139:ARG:HG2	2:F:139:ARG:NH1	2.15	0.61
2:F:549:ASP:OD1	2:F:550:ASP:N	2.34	0.61
3:I:646:ILE:HG12	3:J:701:SER:HB2	1.81	0.61
3:K:300:GLU:HB3	3:K:301:ASN:HB3	1.82	0.61
2:A:322:PRO:HG2	2:A:366:TRP:HB2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:322:PRO:HG2	2:D:366:TRP:HB2	1.83	0.61
2:D:516:LEU:CD2	2:D:579:ILE:CG2	2.74	0.61
2:F:322:PRO:HG2	2:F:366:TRP:HB2	1.83	0.61
2:G:599:LYS:HE3	2:G:600:PHE:N	2.15	0.61
2:C:322:PRO:HG2	2:C:366:TRP:HB2	1.83	0.61
2:C:599:LYS:HE3	2:C:600:PHE:N	2.15	0.61
2:F:699:LEU:HB3	2:G:372:LYS:HZ2	1.64	0.61
3:K:288:PRO:HB2	3:K:588:THR:CG2	2.30	0.61
3:K:561:ARG:HH22	3:L:785:GLN:HB3	1.66	0.61
3:L:300:GLU:HB3	3:L:301:ASN:HB3	1.82	0.61
2:B:143:LEU:HG	2:B:167:PHE:HZ	1.65	0.61
2:B:516:LEU:HD21	2:B:579:ILE:HG23	1.80	0.61
2:H:139:ARG:NH1	2:H:139:ARG:HG2	2.15	0.61
2:H:143:LEU:HG	2:H:167:PHE:HZ	1.65	0.61
3:J:300:GLU:HB3	3:J:301:ASN:HB3	1.82	0.61
3:K:490:ASN:ND2	3:K:493:THR:OG1	2.34	0.61
2:G:322:PRO:HG2	2:G:366:TRP:HB2	1.83	0.61
2:H:549:ASP:OD1	2:H:550:ASP:N	2.33	0.61
3:I:649:ASN:OD1	3:I:650:THR:N	2.34	0.61
3:L:490:ASN:ND2	3:L:493:THR:OG1	2.34	0.61
2:A:404:PHE:HE1	2:A:418:HIS:HD1	1.47	0.61
2:D:549:ASP:OD1	2:D:550:ASP:N	2.34	0.61
2:E:231:THR:N	2:E:232:GLY:HA2	2.15	0.61
2:G:404:PHE:HE1	2:G:418:HIS:HD1	1.47	0.61
3:L:288:PRO:HB2	3:L:588:THR:CG2	2.30	0.61
3:L:649:ASN:OD1	3:L:650:THR:N	2.34	0.61
2:H:322:PRO:HG2	2:H:366:TRP:HB2	1.83	0.60
3:J:561:ARG:HH22	3:K:785:GLN:HB3	1.66	0.60
3:J:1116:LEU:HA	3:J:1121:LEU:HD22	1.83	0.60
3:L:623:GLU:O	3:L:626:VAL:HG12	2.01	0.60
2:C:404:PHE:HE1	2:C:418:HIS:ND1	1.97	0.60
2:E:322:PRO:HG2	2:E:366:TRP:HB2	1.83	0.60
3:K:604:ARG:HH22	3:K:948:ARG:NH2	1.95	0.60
3:L:410:ALA:HA	3:L:413:LYS:HG3	1.83	0.60
2:D:231:THR:N	2:D:232:GLY:HA2	2.15	0.60
3:I:490:ASN:ND2	3:I:493:THR:OG1	2.34	0.60
3:I:1116:LEU:HA	3:I:1121:LEU:HD22	1.83	0.60
3:L:1116:LEU:HA	3:L:1121:LEU:HD22	1.83	0.60
2:F:231:THR:N	2:F:232:GLY:HA2	2.16	0.60
2:F:676:THR:HG21	3:K:449:MET:CE	2.32	0.60
3:I:337:VAL:CG2	3:I:338:ASP:N	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:1116:LEU:HA	3:K:1121:LEU:HD22	1.83	0.60
3:L:909:GLY:HA3	3:L:1309:ASN:HD21	1.67	0.60
2:D:139:ARG:HG2	2:D:139:ARG:NH1	2.15	0.60
3:J:986:THR:OG1	3:J:990:ASN:ND2	2.35	0.60
3:K:479:ASP:N	3:K:480:GLY:HA2	2.16	0.60
2:B:541:ARG:CB	2:B:546:ARG:HB3	2.31	0.60
2:F:516:LEU:HD21	2:F:579:ILE:HG23	1.80	0.60
2:F:676:THR:CG2	3:K:449:MET:HE1	2.31	0.60
3:I:623:GLU:O	3:I:626:VAL:HG12	2.01	0.60
3:J:490:ASN:ND2	3:J:493:THR:OG1	2.34	0.60
3:K:410:ALA:HA	3:K:413:LYS:HG3	1.84	0.60
3:K:986:THR:OG1	3:K:990:ASN:ND2	2.35	0.60
2:D:541:ARG:CB	2:D:546:ARG:HB3	2.31	0.60
2:D:625:MET:HE1	2:D:669:SER:N	2.16	0.60
3:J:410:ALA:HA	3:J:413:LYS:HG3	1.83	0.60
3:J:909:GLY:HA3	3:J:1309:ASN:HD21	1.67	0.60
3:L:553:ALA:HB1	3:L:554:THR:CG2	2.32	0.60
3:L:986:THR:OG1	3:L:990:ASN:ND2	2.35	0.60
2:E:205:VAL:HG11	2:E:220:PHE:CE2	2.37	0.60
2:G:439:ASP:OD1	2:G:439:ASP:N	2.26	0.60
3:I:410:ALA:HA	3:I:413:LYS:HG3	1.84	0.60
3:K:909:GLY:HA3	3:K:1309:ASN:HD21	1.67	0.60
2:D:699:LEU:HB3	2:E:372:LYS:HZ2	1.67	0.60
2:E:404:PHE:HE1	2:E:418:HIS:HD1	1.47	0.60
3:J:553:ALA:HB1	3:J:554:THR:CG2	2.32	0.60
3:K:813:ILE:HG21	3:K:824:LEU:CD2	2.30	0.60
2:D:650:ILE:HG12	2:D:657:THR:HG21	1.84	0.59
3:I:553:ALA:HB1	3:I:554:THR:CG2	2.32	0.59
3:J:344:PRO:O	3:J:1300:GLN:NE2	2.35	0.59
3:K:553:ALA:HB1	3:K:554:THR:CG2	2.32	0.59
2:A:621:ILE:HD12	2:A:670:ILE:HG23	1.84	0.59
2:B:516:LEU:CD2	2:B:579:ILE:CG2	2.74	0.59
2:B:547:PHE:CZ	3:I:318:ARG:O	2.54	0.59
2:F:650:ILE:HG12	2:F:657:THR:HG21	1.84	0.59
3:I:909:GLY:HA3	3:I:1309:ASN:HD21	1.67	0.59
3:I:986:THR:OG1	3:I:990:ASN:ND2	2.35	0.59
3:K:344:PRO:O	3:K:1300:GLN:NE2	2.35	0.59
3:L:479:ASP:N	3:L:480:GLY:HA2	2.16	0.59
2:D:666:GLN:HA	2:D:666:GLN:HE21	1.66	0.59
2:B:513:GLU:HG3	2:B:578:LYS:HD3	1.85	0.59
3:J:26:SER:HB2	3:J:29:LEU:HD12	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:623:GLU:O	3:J:626:VAL:HG12	2.01	0.59
3:J:986:THR:O	3:J:990:ASN:ND2	2.36	0.59
3:L:26:SER:HB2	3:L:29:LEU:HD12	1.85	0.59
2:B:229:LEU:HD23	2:C:84:ARG:NE	2.17	0.59
2:B:625:MET:HE1	2:B:669:SER:N	2.17	0.59
2:G:231:THR:N	2:G:232:GLY:HA2	2.15	0.59
3:I:986:THR:O	3:I:990:ASN:ND2	2.36	0.59
3:K:101:GLU:HB2	3:K:146:ALA:O	2.03	0.59
3:K:623:GLU:O	3:K:626:VAL:HG12	2.01	0.59
2:H:231:THR:N	2:H:232:GLY:HA2	2.16	0.59
2:B:139:ARG:NH1	2:B:139:ARG:HG2	2.15	0.59
2:E:377:SER:HG	2:F:299:PHE:HE2	1.51	0.59
2:F:569:PRO:HG2	2:F:572:LEU:HB2	1.85	0.59
2:G:621:ILE:HD12	2:G:670:ILE:HG23	1.84	0.59
2:H:513:GLU:HG3	2:H:578:LYS:HD3	1.85	0.59
3:I:561:ARG:HH22	3:J:785:GLN:HB3	1.66	0.59
3:J:150:MET:O	3:J:154:LEU:N	2.32	0.59
2:F:135:MET:HE2	2:F:136:GLU:CA	2.33	0.59
2:H:135:MET:SD	2:H:178:LEU:HD21	2.43	0.59
3:K:793:ASP:OD1	3:K:794:PHE:N	2.33	0.59
2:C:621:ILE:HD12	2:C:670:ILE:HG23	1.84	0.59
3:I:26:SER:HB2	3:I:29:LEU:HD12	1.85	0.59
2:D:676:THR:HG21	3:J:449:MET:CE	2.33	0.59
2:F:516:LEU:CD2	2:F:579:ILE:CG2	2.74	0.59
2:G:699:LEU:CD2	2:H:372:LYS:HZ3	2.15	0.59
2:H:650:ILE:HG12	2:H:657:THR:HG21	1.84	0.59
3:I:101:GLU:HB2	3:I:146:ALA:O	2.03	0.59
3:I:479:ASP:N	3:I:480:GLY:HA2	2.16	0.59
3:K:986:THR:O	3:K:990:ASN:ND2	2.36	0.59
2:B:569:PRO:HG2	2:B:572:LEU:HB2	1.85	0.58
2:C:403:ASP:OD1	2:C:403:ASP:N	2.19	0.58
2:D:569:PRO:HG2	2:D:572:LEU:HB2	1.85	0.58
2:G:516:LEU:HD22	2:G:579:ILE:HG12	1.85	0.58
2:H:569:PRO:HG2	2:H:572:LEU:HB2	1.85	0.58
3:I:344:PRO:O	3:I:1300:GLN:NE2	2.35	0.58
3:J:479:ASP:N	3:J:480:GLY:HA2	2.16	0.58
3:K:26:SER:HB2	3:K:29:LEU:HD12	1.85	0.58
3:L:813:ILE:HG21	3:L:824:LEU:CD2	2.30	0.58
3:L:986:THR:O	3:L:990:ASN:ND2	2.36	0.58
2:A:374:LEU:HD13	2:B:296:ARG:HA	1.85	0.58
2:A:505:ALA:HA	2:A:515:PHE:CE2	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:135:MET:SD	2:B:178:LEU:HD21	2.43	0.58
2:B:650:ILE:HG12	2:B:657:THR:HG21	1.84	0.58
2:C:505:ALA:HA	2:C:515:PHE:CE2	2.38	0.58
2:C:568:MET:HG2	2:C:573:ARG:HB2	1.85	0.58
2:F:135:MET:SD	2:F:178:LEU:HD21	2.43	0.58
2:H:541:ARG:CB	2:H:546:ARG:HB3	2.31	0.58
3:L:344:PRO:O	3:L:1300:GLN:NE2	2.35	0.58
2:A:136:GLU:OE2	2:A:137:GLU:N	2.37	0.58
2:A:568:MET:HG2	2:A:573:ARG:HB2	1.86	0.58
2:C:628:VAL:HG11	2:C:692:TRP:HB3	1.86	0.58
2:E:136:GLU:OE2	2:E:137:GLU:N	2.36	0.58
3:L:101:GLU:HB2	3:L:146:ALA:O	2.03	0.58
2:A:205:VAL:HG11	2:A:220:PHE:CE2	2.37	0.58
2:A:567:ARG:HD3	3:I:1119:LYS:HE3	1.85	0.58
2:F:541:ARG:CB	2:F:546:ARG:HB3	2.31	0.58
2:G:136:GLU:OE2	2:G:137:GLU:N	2.36	0.58
2:G:666:GLN:HG3	2:G:667:GLY:H	1.69	0.58
2:A:439:ASP:OD1	2:A:439:ASP:N	2.26	0.58
2:C:136:GLU:OE2	2:C:137:GLU:N	2.37	0.58
3:J:990:ASN:OD1	3:J:994:ASN:ND2	2.36	0.58
2:A:516:LEU:HD22	2:A:579:ILE:HG12	1.85	0.58
2:C:567:ARG:HD3	3:J:1119:LYS:HE3	1.86	0.58
2:G:404:PHE:HE1	2:G:418:HIS:CE1	2.21	0.58
2:G:505:ALA:HA	2:G:515:PHE:CE2	2.39	0.58
3:K:1141:ILE:HD11	3:K:1302:VAL:HG13	1.85	0.58
2:B:666:GLN:HA	2:B:666:GLN:HE21	1.66	0.58
2:D:579:ILE:HG13	2:D:600:PHE:HD2	1.66	0.58
2:E:516:LEU:HD22	2:E:579:ILE:HG12	1.85	0.58
2:E:567:ARG:HD3	3:K:1119:LYS:HE3	1.85	0.58
2:E:621:ILE:HD12	2:E:670:ILE:HG23	1.84	0.58
3:I:816:SER:OG	3:I:817:THR:N	2.37	0.58
3:I:990:ASN:OD1	3:I:994:ASN:ND2	2.36	0.58
2:G:567:ARG:HD3	3:L:1119:LYS:HE3	1.85	0.58
3:J:101:GLU:HB2	3:J:146:ALA:O	2.03	0.58
3:L:816:SER:OG	3:L:817:THR:N	2.37	0.58
2:A:404:PHE:HE1	2:A:418:HIS:CE1	2.22	0.58
2:C:584:LYS:HG2	2:C:589:ASN:HB2	1.86	0.58
2:D:135:MET:SD	2:D:178:LEU:HD21	2.43	0.58
2:E:568:MET:HG2	2:E:573:ARG:HB2	1.85	0.58
2:E:505:ALA:HA	2:E:515:PHE:CE2	2.39	0.58
3:I:449:MET:HG2	3:I:468:LEU:HD11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:1141:ILE:HD11	3:I:1302:VAL:HG13	1.85	0.58
3:K:862:ASN:O	3:K:863:GLN:C	2.42	0.58
3:K:1189:SER:HA	3:K:1190:GLN:CB	2.34	0.58
2:C:516:LEU:HD22	2:C:579:ILE:HG12	1.85	0.57
2:F:188:GLN:O	2:F:192:LYS:HG2	2.04	0.57
2:G:628:VAL:HG11	2:G:692:TRP:HB3	1.86	0.57
3:K:816:SER:OG	3:K:817:THR:N	2.37	0.57
3:L:502:PRO:HD2	3:L:1151:TYR:HE1	1.69	0.57
3:L:990:ASN:OD1	3:L:994:ASN:ND2	2.36	0.57
2:C:404:PHE:HE1	2:C:418:HIS:CE1	2.21	0.57
2:D:516:LEU:HB2	2:D:579:ILE:CD1	2.34	0.57
2:F:513:GLU:HG3	2:F:578:LYS:HD3	1.85	0.57
3:J:502:PRO:HD2	3:J:1151:TYR:HE1	1.69	0.57
2:B:188:GLN:O	2:B:192:LYS:HG2	2.04	0.57
2:E:404:PHE:HE1	2:E:418:HIS:CE1	2.21	0.57
2:H:139:ARG:CG	2:H:139:ARG:HH11	2.17	0.57
2:H:188:GLN:O	2:H:192:LYS:HG2	2.04	0.57
3:I:502:PRO:HD2	3:I:1151:TYR:HE1	1.69	0.57
3:L:449:MET:HG2	3:L:468:LEU:HD11	1.86	0.57
3:L:604:ARG:HH22	3:L:948:ARG:NH2	1.95	0.57
2:B:579:ILE:HG13	2:B:600:PHE:HD2	1.66	0.57
2:D:513:GLU:HG3	2:D:578:LYS:HD3	1.85	0.57
3:K:458:GLY:HA2	3:K:465:TYR:CE2	2.40	0.57
3:L:458:GLY:HA2	3:L:465:TYR:CE2	2.40	0.57
2:A:505:ALA:HA	2:A:515:PHE:HE2	1.70	0.57
2:D:380:SER:HA	2:D:383:LYS:HE2	1.87	0.57
2:F:625:MET:HE1	2:F:669:SER:N	2.19	0.57
2:G:505:ALA:HA	2:G:515:PHE:HE2	1.70	0.57
3:I:671:ASP:OD1	3:I:673:HIS:N	2.38	0.57
3:J:29:LEU:HD11	3:J:101:GLU:HG2	1.86	0.57
3:J:708:ARG:HG3	3:J:771:LEU:HD21	1.86	0.57
3:J:1141:ILE:HD11	3:J:1302:VAL:HG13	1.85	0.57
3:K:29:LEU:HD11	3:K:101:GLU:HG2	1.86	0.57
3:L:1005:LEU:O	3:L:1009:ILE:HG13	2.05	0.57
2:B:516:LEU:HB2	2:B:579:ILE:CD1	2.34	0.57
2:D:188:GLN:O	2:D:192:LYS:HG2	2.04	0.57
2:E:666:GLN:HG3	2:E:667:GLY:H	1.69	0.57
2:F:628:VAL:HB	2:F:634:SER:HB3	1.86	0.57
3:I:1030:SER:HB3	3:I:1033:PRO:HD2	1.87	0.57
3:J:434:ALA:HB3	3:J:447:SER:HB2	1.87	0.57
3:J:702:ARG:HB2	3:J:705:VAL:HG12	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:646:ARG:HD3	2:B:663:MET:HE1	1.86	0.57
2:F:380:SER:HA	2:F:383:LYS:HE2	1.87	0.57
2:F:516:LEU:HB2	2:F:579:ILE:CD1	2.34	0.57
2:F:666:GLN:HA	2:F:666:GLN:HE21	1.66	0.57
3:J:449:MET:HG2	3:J:468:LEU:HD11	1.86	0.57
3:J:1030:SER:HB3	3:J:1033:PRO:HD2	1.87	0.57
3:L:1141:ILE:HD11	3:L:1302:VAL:HG13	1.85	0.57
3:L:1224:LYS:O	3:L:1228:PRO:HD2	2.04	0.57
2:A:666:GLN:HG3	2:A:667:GLY:H	1.69	0.57
2:B:380:SER:HA	2:B:383:LYS:HE2	1.87	0.57
2:E:628:VAL:HG11	2:E:692:TRP:HB3	1.86	0.57
2:F:579:ILE:HG13	2:F:600:PHE:HD2	1.66	0.57
2:G:584:LYS:HG2	2:G:589:ASN:HB2	1.86	0.57
2:H:516:LEU:HB2	2:H:579:ILE:CD1	2.34	0.57
3:K:708:ARG:HG3	3:K:771:LEU:HD21	1.86	0.57
2:F:169:GLY:HA3	2:F:170:ASP:C	2.26	0.57
3:K:284:GLU:HB2	3:K:306:ILE:HD13	1.87	0.57
2:B:344:GLN:HG3	2:B:346:THR:HG22	1.87	0.57
2:B:439:ASP:OD1	2:B:439:ASP:N	2.26	0.57
2:H:344:GLN:HG3	2:H:346:THR:HG22	1.87	0.57
3:I:434:ALA:HB3	3:I:447:SER:HB2	1.86	0.57
3:K:990:ASN:OD1	3:K:994:ASN:ND2	2.36	0.57
3:K:1224:LYS:O	3:K:1228:PRO:HD2	2.04	0.57
3:L:862:ASN:O	3:L:863:GLN:C	2.42	0.57
3:L:1189:SER:HA	3:L:1190:GLN:CB	2.34	0.57
2:C:380:SER:HA	2:C:383:LYS:HE2	1.86	0.56
2:E:380:SER:HA	2:E:383:LYS:HE2	1.87	0.56
2:G:568:MET:HG2	2:G:573:ARG:HB2	1.86	0.56
3:J:862:ASN:O	3:J:863:GLN:C	2.42	0.56
3:K:434:ALA:HB3	3:K:447:SER:HB2	1.87	0.56
3:K:616:GLN:O	3:K:618:ALA:N	2.38	0.56
3:L:793:ASP:OD1	3:L:794:PHE:N	2.33	0.56
2:B:628:VAL:HB	2:B:634:SER:HB3	1.86	0.56
2:C:666:GLN:HG3	2:C:667:GLY:H	1.69	0.56
2:D:439:ASP:OD1	2:D:439:ASP:N	2.26	0.56
2:F:139:ARG:HH11	2:F:139:ARG:CG	2.17	0.56
3:I:78:ASN:HB2	3:I:81:LEU:HB2	1.87	0.56
3:I:702:ARG:HB2	3:I:705:VAL:HG12	1.87	0.56
3:I:1224:LYS:O	3:I:1228:PRO:HD2	2.04	0.56
3:K:331:GLY:O	3:K:335:ALA:CB	2.52	0.56
3:K:449:MET:HG2	3:K:468:LEU:HD11	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:671:ASP:OD1	3:L:673:HIS:N	2.38	0.56
2:A:380:SER:HA	2:A:383:LYS:HE2	1.87	0.56
2:A:584:LYS:HG2	2:A:589:ASN:HB2	1.86	0.56
2:D:344:GLN:HG3	2:D:346:THR:HG22	1.87	0.56
2:D:557:LEU:HD23	2:D:558:ASN:CA	2.36	0.56
2:D:628:VAL:HB	2:D:634:SER:HB3	1.86	0.56
2:F:344:GLN:HG3	2:F:346:THR:HG22	1.87	0.56
2:G:380:SER:HA	2:G:383:LYS:HE2	1.87	0.56
2:H:380:SER:HA	2:H:383:LYS:HE2	1.87	0.56
3:I:458:GLY:HA2	3:I:465:TYR:CE2	2.40	0.56
3:I:708:ARG:HG3	3:I:771:LEU:HD21	1.86	0.56
3:J:50:PRO:HA	3:J:57:THR:OG1	2.05	0.56
3:J:458:GLY:HA2	3:J:465:TYR:CE2	2.40	0.56
3:J:604:ARG:NH2	3:J:948:ARG:HH21	1.99	0.56
3:J:1224:LYS:O	3:J:1228:PRO:HD2	2.04	0.56
3:K:50:PRO:HA	3:K:57:THR:OG1	2.05	0.56
3:K:1030:SER:HB3	3:K:1033:PRO:HD2	1.87	0.56
3:L:78:ASN:HB2	3:L:81:LEU:HB2	1.87	0.56
3:L:708:ARG:HG3	3:L:771:LEU:HD21	1.86	0.56
2:B:139:ARG:HH11	2:B:139:ARG:CG	2.17	0.56
2:D:169:GLY:HA3	2:D:170:ASP:C	2.26	0.56
2:E:231:THR:OG1	2:E:233:ALA:N	2.38	0.56
2:H:579:ILE:HG13	2:H:600:PHE:HD2	1.66	0.56
3:I:793:ASP:OD1	3:I:794:PHE:N	2.33	0.56
3:I:813:ILE:HG21	3:I:824:LEU:CD2	2.30	0.56
3:J:816:SER:OG	3:J:817:THR:N	2.37	0.56
3:K:502:PRO:HD2	3:K:1151:TYR:HE1	1.69	0.56
3:K:702:ARG:HB2	3:K:705:VAL:HG12	1.87	0.56
3:K:1005:LEU:O	3:K:1009:ILE:HG13	2.05	0.56
2:B:656:ILE:HD11	2:B:658:ASN:ND2	2.21	0.56
2:C:699:LEU:HG	2:D:372:LYS:NZ	2.18	0.56
2:E:584:LYS:HG2	2:E:589:ASN:HB2	1.86	0.56
2:H:516:LEU:CD2	2:H:579:ILE:CG2	2.74	0.56
2:H:656:ILE:HD11	2:H:658:ASN:ND2	2.21	0.56
3:J:284:GLU:HB2	3:J:306:ILE:HD13	1.87	0.56
3:L:29:LEU:HD11	3:L:101:GLU:HG2	1.86	0.56
2:B:557:LEU:HD23	2:B:558:ASN:CA	2.36	0.56
2:E:505:ALA:HA	2:E:515:PHE:HE2	1.70	0.56
2:G:169:GLY:HA3	2:G:170:ASP:C	2.26	0.56
3:I:616:GLN:O	3:I:618:ALA:N	2.38	0.56
3:I:862:ASN:O	3:I:863:GLN:C	2.42	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:1189:SER:HA	3:I:1190:GLN:CB	2.34	0.56
3:J:78:ASN:HB2	3:J:81:LEU:HB2	1.87	0.56
3:J:616:GLN:O	3:J:618:ALA:N	2.38	0.56
3:L:331:GLY:O	3:L:335:ALA:CB	2.52	0.56
3:L:1030:SER:HB3	3:L:1033:PRO:HD2	1.87	0.56
2:A:372:LYS:NZ	2:H:699:LEU:HB3	2.21	0.56
2:F:678:GLN:CD	3:K:449:MET:SD	2.84	0.56
3:J:1189:SER:HA	3:J:1190:GLN:CB	2.34	0.56
3:L:434:ALA:HB3	3:L:447:SER:HB2	1.86	0.56
3:L:616:GLN:O	3:L:618:ALA:N	2.38	0.56
2:A:628:VAL:HG11	2:A:692:TRP:HB3	1.86	0.56
2:A:699:LEU:CD2	2:B:372:LYS:HZ3	2.19	0.56
2:C:125:LYS:HZ2	2:C:182:HIS:HB2	1.71	0.56
2:F:439:ASP:OD1	2:F:439:ASP:N	2.26	0.56
2:F:557:LEU:HD23	2:F:558:ASN:CA	2.36	0.56
2:H:169:GLY:HA3	2:H:170:ASP:C	2.25	0.56
3:I:824:LEU:HD21	3:I:1230:LYS:NZ	2.21	0.56
3:I:1005:LEU:O	3:I:1009:ILE:HG13	2.05	0.56
3:L:284:GLU:HB2	3:L:306:ILE:HD13	1.87	0.56
2:B:282:ILE:HG23	2:B:286:GLN:HG2	1.88	0.56
2:C:205:VAL:HG11	2:C:220:PHE:CE2	2.36	0.56
2:D:282:ILE:HG23	2:D:286:GLN:HG2	1.88	0.56
3:K:362:VAL:CG2	3:K:446:LEU:HD11	2.36	0.56
2:A:169:GLY:HA3	2:A:170:ASP:C	2.26	0.56
2:B:169:GLY:HA3	2:B:170:ASP:C	2.26	0.56
2:E:139:ARG:O	2:E:143:LEU:CB	2.54	0.56
2:E:169:GLY:HA3	2:E:170:ASP:C	2.26	0.56
2:F:661:LEU:HD12	2:F:662:THR:H	1.68	0.56
2:F:699:LEU:HB3	2:G:372:LYS:NZ	2.21	0.56
2:H:85:GLU:HA	2:H:88:ASN:ND2	2.21	0.56
2:H:628:VAL:HB	2:H:634:SER:HB3	1.86	0.56
3:I:50:PRO:HA	3:I:57:THR:OG1	2.05	0.56
3:I:1120:PHE:CD2	3:I:1304:LYS:HB2	2.36	0.56
3:L:50:PRO:HA	3:L:57:THR:OG1	2.05	0.56
3:L:1120:PHE:CE2	3:L:1304:LYS:CG	2.80	0.56
2:B:676:THR:HA	3:I:431:ARG:HG2	1.88	0.55
2:F:282:ILE:HG23	2:F:286:GLN:HG2	1.88	0.55
3:I:29:LEU:HD11	3:I:101:GLU:HG2	1.86	0.55
3:K:78:ASN:HB2	3:K:81:LEU:HB2	1.87	0.55
3:K:432:LEU:HD11	3:K:894:ILE:HG13	1.89	0.55
2:A:139:ARG:O	2:A:143:LEU:CB	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:125:LYS:HZ2	2:G:182:HIS:HB2	1.70	0.55
2:H:282:ILE:HG23	2:H:286:GLN:HG2	1.88	0.55
2:H:666:GLN:HA	2:H:666:GLN:HE21	1.66	0.55
3:J:1218:LEU:HA	3:J:1224:LYS:HD3	1.89	0.55
3:K:924:SER:HB3	3:K:927:GLU:HB2	1.88	0.55
3:L:702:ARG:HB2	3:L:705:VAL:HG12	1.87	0.55
2:H:557:LEU:HD23	2:H:558:ASN:CA	2.36	0.55
2:H:676:THR:HG21	3:L:449:MET:CE	2.33	0.55
3:I:921:LYS:HB2	3:I:922:PRO:HA	1.89	0.55
3:J:1005:LEU:O	3:J:1009:ILE:HG13	2.05	0.55
3:L:924:SER:HB3	3:L:927:GLU:HB2	1.88	0.55
2:C:505:ALA:HA	2:C:515:PHE:HE2	1.70	0.55
2:G:231:THR:OG1	2:G:233:ALA:N	2.38	0.55
3:K:604:ARG:NH2	3:K:948:ARG:HH21	1.99	0.55
3:K:671:ASP:OD1	3:K:673:HIS:N	2.38	0.55
3:L:432:LEU:HD11	3:L:894:ILE:HG13	1.89	0.55
3:L:824:LEU:HD21	3:L:1230:LYS:NZ	2.21	0.55
2:A:562:ALA:O	2:A:563:PRO:C	2.43	0.55
2:B:85:GLU:HA	2:B:88:ASN:ND2	2.21	0.55
2:H:541:ARG:HG3	2:H:546:ARG:CG	2.36	0.55
3:K:824:LEU:HD21	3:K:1230:LYS:NZ	2.21	0.55
2:E:324:THR:HA	2:E:327:GLU:OE1	2.07	0.55
2:G:699:LEU:HG	2:H:372:LYS:NZ	2.21	0.55
2:H:678:GLN:CD	3:L:449:MET:SD	2.85	0.55
3:J:824:LEU:HD21	3:J:1230:LYS:NZ	2.21	0.55
3:L:362:VAL:CG2	3:L:446:LEU:HD11	2.36	0.55
2:A:125:LYS:HZ2	2:A:182:HIS:HB2	1.71	0.55
2:A:599:LYS:HE3	2:A:599:LYS:C	2.27	0.55
2:B:323:ARG:HD2	2:C:249:SER:HG	1.71	0.55
2:D:139:ARG:HH11	2:D:139:ARG:CG	2.17	0.55
3:I:284:GLU:HB2	3:I:306:ILE:HD13	1.87	0.55
2:C:324:THR:HA	2:C:327:GLU:OE1	2.07	0.55
2:D:656:ILE:HD11	2:D:658:ASN:ND2	2.21	0.55
2:F:541:ARG:HG3	2:F:546:ARG:CG	2.37	0.55
2:H:661:LEU:HD12	2:H:662:THR:H	1.68	0.55
3:I:362:VAL:CG2	3:I:446:LEU:HD11	2.36	0.55
3:J:362:VAL:CG2	3:J:446:LEU:HD11	2.36	0.55
3:J:671:ASP:OD1	3:J:673:HIS:N	2.37	0.55
3:L:651:LYS:O	3:L:652:ALA:HB3	2.07	0.55
2:A:372:LYS:HZ2	2:H:699:LEU:HB3	1.71	0.55
2:C:562:ALA:O	2:C:563:PRO:C	2.43	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:85:GLU:HA	2:D:88:ASN:ND2	2.21	0.55
2:E:562:ALA:O	2:E:563:PRO:C	2.43	0.55
3:I:432:LEU:HD11	3:I:894:ILE:HG13	1.89	0.55
3:I:587:SER:HA	3:I:1132:ARG:HH12	1.72	0.55
3:I:835:ALA:HA	3:I:836:GLU:CB	2.37	0.55
3:J:333:ILE:HD12	3:J:430:MET:HA	1.89	0.55
3:J:432:LEU:HD11	3:J:894:ILE:HG13	1.89	0.55
3:J:921:LYS:HB2	3:J:922:PRO:HA	1.89	0.55
3:K:651:LYS:O	3:K:652:ALA:HB3	2.07	0.55
2:E:699:LEU:HG	2:F:372:LYS:NZ	2.21	0.55
2:H:464:GLY:O	2:H:468:THR:HG23	2.07	0.55
3:I:1218:LEU:HA	3:I:1224:LYS:HD3	1.89	0.55
3:L:1218:LEU:HA	3:L:1224:LYS:HD3	1.89	0.55
2:A:464:GLY:O	2:A:468:THR:HG23	2.07	0.54
2:F:85:GLU:HA	2:F:88:ASN:ND2	2.21	0.54
2:F:380:SER:O	2:F:384:LEU:HB2	2.07	0.54
3:J:587:SER:HA	3:J:1132:ARG:HH12	1.72	0.54
3:J:924:SER:HB3	3:J:927:GLU:HB2	1.88	0.54
3:K:673:HIS:CD2	3:K:946:PRO:HG3	2.43	0.54
2:A:323:ARG:O	2:A:327:GLU:HG3	2.07	0.54
2:C:380:SER:O	2:C:384:LEU:HB2	2.07	0.54
2:C:599:LYS:HE3	2:C:599:LYS:C	2.28	0.54
2:E:599:LYS:HE3	2:E:599:LYS:C	2.28	0.54
3:J:673:HIS:CD2	3:J:946:PRO:HG3	2.43	0.54
3:J:813:ILE:HG21	3:J:824:LEU:CD2	2.30	0.54
3:K:587:SER:HA	3:K:1132:ARG:HH12	1.72	0.54
3:L:921:LYS:HB2	3:L:922:PRO:HA	1.89	0.54
2:A:338:LYS:O	2:A:339:VAL:C	2.46	0.54
2:A:380:SER:O	2:A:384:LEU:HB2	2.07	0.54
2:B:231:THR:OG1	2:B:233:ALA:N	2.39	0.54
2:C:139:ARG:O	2:C:143:LEU:CB	2.54	0.54
2:E:380:SER:O	2:E:384:LEU:HB2	2.07	0.54
2:F:656:ILE:HD11	2:F:658:ASN:ND2	2.21	0.54
2:G:205:VAL:HG11	2:G:220:PHE:CE2	2.37	0.54
3:L:587:SER:HA	3:L:1132:ARG:HH12	1.72	0.54
2:A:436:ASP:HB2	2:B:315:SER:OG	2.07	0.54
2:C:169:GLY:HA3	2:C:170:ASP:C	2.26	0.54
2:E:125:LYS:HZ2	2:E:182:HIS:HB2	1.71	0.54
2:E:323:ARG:O	2:E:327:GLU:HG3	2.07	0.54
2:F:112:ALA:HB2	2:F:150:TYR:HD2	1.72	0.54
2:B:541:ARG:HG3	2:B:546:ARG:CG	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:231:THR:OG1	2:C:233:ALA:N	2.38	0.54
2:E:338:LYS:O	2:E:339:VAL:C	2.46	0.54
2:G:323:ARG:O	2:G:327:GLU:HG3	2.07	0.54
2:G:464:GLY:O	2:G:468:THR:HG23	2.07	0.54
3:K:1218:LEU:HA	3:K:1224:LYS:HD3	1.89	0.54
2:B:112:ALA:HB2	2:B:150:TYR:HD2	1.72	0.54
2:B:225:ILE:O	2:B:229:LEU:HD12	2.08	0.54
2:B:380:SER:O	2:B:384:LEU:HB2	2.07	0.54
2:D:656:ILE:HD11	2:D:658:ASN:OD1	2.08	0.54
2:D:678:GLN:CD	3:J:449:MET:SD	2.85	0.54
2:G:338:LYS:O	2:G:339:VAL:C	2.46	0.54
2:H:231:THR:OG1	2:H:233:ALA:N	2.39	0.54
3:I:333:ILE:HD12	3:I:430:MET:HA	1.89	0.54
3:I:906:LEU:HD11	3:I:1141:ILE:HG22	1.90	0.54
3:I:924:SER:HB3	3:I:927:GLU:HB2	1.88	0.54
2:A:672:LEU:O	2:A:680:ARG:HA	2.08	0.54
2:B:656:ILE:HD11	2:B:658:ASN:OD1	2.08	0.54
2:C:323:ARG:O	2:C:327:GLU:HG3	2.07	0.54
2:D:358:GLN:OE1	2:D:358:GLN:HA	2.08	0.54
2:D:661:LEU:HD12	2:D:662:THR:H	1.68	0.54
2:F:225:ILE:O	2:F:229:LEU:HD12	2.08	0.54
2:F:358:GLN:OE1	2:F:358:GLN:HA	2.08	0.54
2:G:672:LEU:O	2:G:680:ARG:HA	2.08	0.54
2:H:329:LEU:HD11	2:H:355:ALA:HB1	1.90	0.54
2:H:564:GLU:HG3	2:H:602:LYS:HG2	1.90	0.54
3:J:69:THR:HB	3:J:81:LEU:HD22	1.90	0.54
3:L:835:ALA:HA	3:L:836:GLU:CB	2.37	0.54
3:K:69:THR:HB	3:K:81:LEU:HD22	1.90	0.54
3:K:934:SER:OG	3:K:1101:LEU:HB2	2.08	0.54
3:L:69:THR:HB	3:L:81:LEU:HD22	1.90	0.54
3:L:604:ARG:NH2	3:L:948:ARG:HH21	1.99	0.54
3:L:673:HIS:CD2	3:L:946:PRO:HG3	2.43	0.54
2:A:675:THR:HG22	3:I:1117:ASN:HB3	1.89	0.54
2:B:564:GLU:HG3	2:B:602:LYS:HG2	1.90	0.54
2:B:625:MET:HE1	2:B:669:SER:CA	2.38	0.54
2:D:112:ALA:HB2	2:D:150:TYR:HD2	1.72	0.54
2:D:464:GLY:O	2:D:468:THR:HG23	2.07	0.54
2:D:625:MET:HE1	2:D:669:SER:CA	2.38	0.54
2:E:358:GLN:OE1	2:E:358:GLN:HA	2.08	0.54
2:F:323:ARG:HG3	2:F:363:MET:HE1	1.89	0.54
2:G:139:ARG:O	2:G:143:LEU:CB	2.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:225:ILE:O	2:H:229:LEU:HD12	2.08	0.54
3:I:651:LYS:O	3:I:652:ALA:HB3	2.07	0.54
3:I:659:SER:O	3:I:660:ARG:HB3	2.08	0.54
3:I:673:HIS:CD2	3:I:946:PRO:HG3	2.43	0.54
3:J:906:LEU:HD11	3:J:1141:ILE:HG22	1.90	0.54
3:K:906:LEU:HD11	3:K:1141:ILE:HG22	1.90	0.54
2:A:277:THR:OG1	2:A:280:GLU:HB2	2.08	0.54
2:D:699:LEU:HB3	2:E:372:LYS:NZ	2.23	0.54
2:F:277:THR:OG1	2:F:280:GLU:HB2	2.08	0.54
2:F:543:LYS:O	2:F:546:ARG:HG3	2.08	0.54
2:G:85:GLU:O	2:G:88:ASN:ND2	2.41	0.54
2:G:358:GLN:OE1	2:G:358:GLN:HA	2.08	0.54
2:H:112:ALA:HB2	2:H:150:TYR:HD2	1.72	0.54
2:H:662:THR:HG22	2:H:663:MET:N	2.23	0.54
3:I:604:ARG:NH2	3:I:948:ARG:HH21	1.99	0.54
3:J:934:SER:OG	3:J:1101:LEU:HB2	2.08	0.54
3:K:145:VAL:HA	3:K:146:ALA:HB2	1.90	0.54
2:A:324:THR:HA	2:A:327:GLU:OE1	2.07	0.53
2:A:358:GLN:OE1	2:A:358:GLN:HA	2.08	0.53
2:B:215:PRO:C	2:B:263:ARG:HH22	2.12	0.53
2:B:464:GLY:O	2:B:468:THR:HG23	2.07	0.53
2:E:85:GLU:O	2:E:88:ASN:ND2	2.41	0.53
2:F:575:SER:O	2:F:576:ALA:C	2.46	0.53
2:G:322:PRO:HB2	2:G:363:MET:SD	2.48	0.53
2:G:329:LEU:HD11	2:G:355:ALA:HB1	1.90	0.53
2:G:599:LYS:HE3	2:G:599:LYS:C	2.28	0.53
2:H:322:PRO:HB2	2:H:363:MET:SD	2.49	0.53
3:I:69:THR:HB	3:I:81:LEU:HD22	1.90	0.53
3:L:906:LEU:HD11	3:L:1141:ILE:HG22	1.90	0.53
2:A:322:PRO:HB2	2:A:363:MET:SD	2.49	0.53
2:B:277:THR:OG1	2:B:280:GLU:HB2	2.08	0.53
2:B:322:PRO:HB2	2:B:363:MET:SD	2.49	0.53
2:B:358:GLN:OE1	2:B:358:GLN:HA	2.08	0.53
2:C:85:GLU:O	2:C:88:ASN:ND2	2.41	0.53
2:C:672:LEU:O	2:C:680:ARG:HA	2.08	0.53
2:D:543:LYS:O	2:D:546:ARG:HG3	2.08	0.53
2:D:662:THR:HG22	2:D:663:MET:N	2.24	0.53
2:F:377:SER:HG	2:G:299:PHE:HE2	1.56	0.53
2:G:324:THR:HA	2:G:327:GLU:OE1	2.07	0.53
2:G:380:SER:O	2:G:384:LEU:HB2	2.07	0.53
2:G:675:THR:HG22	3:L:1117:ASN:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:103:LYS:HD3	3:I:123:TYR:CD1	2.43	0.53
3:J:659:SER:O	3:J:660:ARG:HB3	2.08	0.53
3:J:793:ASP:OD1	3:J:794:PHE:N	2.33	0.53
3:J:835:ALA:HA	3:J:836:GLU:CB	2.37	0.53
3:K:376:LEU:HD21	3:K:1285:MET:HE3	1.90	0.53
3:L:103:LYS:HD3	3:L:123:TYR:CD1	2.43	0.53
3:L:934:SER:OG	3:L:1101:LEU:HB2	2.08	0.53
2:B:700:GLU:C	2:B:702:LYS:N	2.62	0.53
2:C:464:GLY:O	2:C:468:THR:HG23	2.07	0.53
2:E:277:THR:OG1	2:E:280:GLU:HB2	2.08	0.53
2:F:656:ILE:HD11	2:F:658:ASN:OD1	2.08	0.53
2:H:656:ILE:HD11	2:H:658:ASN:OD1	2.08	0.53
3:J:649:ASN:OD1	3:J:651:LYS:HD3	2.09	0.53
3:K:257:ASP:C	3:K:259:PHE:H	2.11	0.53
3:K:921:LYS:HB2	3:K:922:PRO:HA	1.89	0.53
2:A:329:LEU:HD11	2:A:355:ALA:HB1	1.90	0.53
2:F:215:PRO:C	2:F:263:ARG:HH22	2.12	0.53
2:F:329:LEU:HD11	2:F:355:ALA:HB1	1.90	0.53
2:H:277:THR:OG1	2:H:280:GLU:HB2	2.08	0.53
3:I:145:VAL:HA	3:I:146:ALA:HB2	1.91	0.53
3:J:145:VAL:HA	3:J:146:ALA:HB2	1.91	0.53
3:K:659:SER:O	3:K:660:ARG:HB3	2.08	0.53
3:L:46:SER:OG	3:L:55:GLN:OE1	2.27	0.53
3:L:67:ARG:CZ	3:L:84:ASN:HB3	2.39	0.53
3:L:1027:ARG:CB	3:L:1078:LYS:HE2	2.22	0.53
2:C:277:THR:OG1	2:C:280:GLU:HB2	2.08	0.53
2:E:672:LEU:O	2:E:680:ARG:HA	2.08	0.53
2:G:277:THR:OG1	2:G:280:GLU:HB2	2.08	0.53
3:I:67:ARG:CZ	3:I:84:ASN:HB3	2.39	0.53
3:I:331:GLY:O	3:I:335:ALA:CB	2.52	0.53
3:J:651:LYS:O	3:J:652:ALA:HB3	2.07	0.53
2:B:543:LYS:O	2:B:546:ARG:HG3	2.08	0.53
2:D:380:SER:O	2:D:384:LEU:HB2	2.07	0.53
2:E:322:PRO:HB2	2:E:363:MET:SD	2.48	0.53
2:F:139:ARG:HH21	2:F:175:ASN:HD22	1.57	0.53
2:F:464:GLY:O	2:F:468:THR:HG23	2.08	0.53
2:H:323:ARG:HG3	2:H:363:MET:HE1	1.89	0.53
2:H:380:SER:O	2:H:384:LEU:HB2	2.07	0.53
3:I:934:SER:OG	3:I:1101:LEU:HB2	2.08	0.53
2:C:322:PRO:HB2	2:C:363:MET:SD	2.49	0.53
2:D:129:PHE:CZ	2:D:138:TYR:HD2	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:322:PRO:HB2	2:D:363:MET:SD	2.49	0.53
2:F:322:PRO:HB2	2:F:363:MET:SD	2.49	0.53
2:F:564:GLU:HG3	2:F:602:LYS:HG2	1.90	0.53
2:H:215:PRO:C	2:H:263:ARG:HH22	2.12	0.53
2:H:543:LYS:O	2:H:546:ARG:HG3	2.08	0.53
3:J:46:SER:OG	3:J:55:GLN:OE1	2.27	0.53
3:K:335:ALA:CB	3:K:336:GLY:HA2	2.07	0.53
2:A:231:THR:OG1	2:A:233:ALA:N	2.38	0.53
2:A:617:THR:OG1	3:I:1119:LYS:NZ	2.29	0.53
2:B:323:ARG:HG3	2:B:363:MET:HE1	1.89	0.53
2:C:329:LEU:HD11	2:C:355:ALA:HB1	1.90	0.53
2:C:338:LYS:O	2:C:339:VAL:C	2.46	0.53
2:D:215:PRO:C	2:D:263:ARG:HH22	2.12	0.53
2:D:564:GLU:HG3	2:D:602:LYS:HG2	1.90	0.53
3:I:346:VAL:HA	3:I:1297:LEU:HD22	1.91	0.53
3:I:566:ASP:HA	3:I:569:THR:HG22	1.91	0.53
3:J:288:PRO:HB2	3:J:588:THR:HG21	1.91	0.53
3:J:665:TYR:HB2	3:J:769:ARG:HE	1.74	0.53
3:J:824:LEU:HD21	3:J:1230:LYS:HZ1	1.74	0.53
3:J:828:ILE:HD11	3:J:852:VAL:HG21	1.91	0.53
3:K:46:SER:OG	3:K:55:GLN:OE1	2.27	0.53
3:L:145:VAL:HA	3:L:146:ALA:HB2	1.91	0.53
3:L:288:PRO:HB2	3:L:588:THR:HG21	1.91	0.53
2:C:358:GLN:OE1	2:C:358:GLN:HA	2.08	0.53
2:D:329:LEU:HD11	2:D:355:ALA:HB1	1.90	0.53
2:F:625:MET:HE1	2:F:669:SER:CA	2.39	0.53
2:H:358:GLN:HA	2:H:358:GLN:OE1	2.08	0.53
2:H:524:GLN:OE1	2:H:596:GLN:OE1	2.27	0.53
3:J:565:THR:HG21	3:J:1268:VAL:HG13	1.91	0.53
3:J:648:GLY:HA2	3:K:778:ILE:HD11	1.91	0.53
3:K:67:ARG:CZ	3:K:84:ASN:HB3	2.39	0.53
2:B:329:LEU:HD11	2:B:355:ALA:HB1	1.90	0.53
2:D:225:ILE:O	2:D:229:LEU:HD12	2.08	0.53
2:D:231:THR:OG1	2:D:233:ALA:N	2.39	0.53
2:F:676:THR:HA	3:K:431:ARG:HG2	1.90	0.53
2:G:291:MET:CE	2:G:291:MET:CA	2.85	0.53
3:K:649:ASN:OD1	3:K:651:LYS:HD3	2.09	0.53
3:K:835:ALA:HA	3:K:836:GLU:CB	2.37	0.53
2:A:214:ARG:HG3	2:A:216:ASP:H	1.74	0.52
2:C:214:ARG:HG3	2:C:216:ASP:H	1.75	0.52
2:D:323:ARG:HG3	2:D:363:MET:HE1	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:464:GLY:O	2:E:468:THR:HG23	2.07	0.52
2:F:129:PHE:CZ	2:F:138:TYR:HD2	2.27	0.52
2:G:377:SER:HG	2:H:299:PHE:HE2	1.56	0.52
3:I:649:ASN:OD1	3:I:651:LYS:HD3	2.09	0.52
3:I:828:ILE:HD11	3:I:852:VAL:HG21	1.91	0.52
3:K:333:ILE:HD12	3:K:430:MET:HA	1.89	0.52
3:K:566:ASP:HA	3:K:569:THR:HG22	1.91	0.52
3:L:659:SER:O	3:L:660:ARG:HB3	2.08	0.52
2:B:647:LYS:CD	2:B:647:LYS:N	2.73	0.52
2:C:533:ASP:O	2:C:537:LEU:N	2.42	0.52
2:C:675:THR:HG22	3:J:1117:ASN:HB3	1.90	0.52
2:D:541:ARG:HG3	2:D:546:ARG:CG	2.36	0.52
3:I:665:TYR:HB2	3:I:769:ARG:HE	1.74	0.52
3:L:333:ILE:HD12	3:L:430:MET:HA	1.89	0.52
2:B:524:GLN:OE1	2:B:596:GLN:OE1	2.27	0.52
2:B:699:LEU:HB3	2:C:372:LYS:HZ2	1.74	0.52
2:D:277:THR:OG1	2:D:280:GLU:HB2	2.08	0.52
2:D:676:THR:HA	3:J:431:ARG:HG2	1.91	0.52
2:E:675:THR:HG22	3:K:1117:ASN:HB3	1.90	0.52
2:G:562:ALA:O	2:G:563:PRO:C	2.43	0.52
2:H:135:MET:CE	2:H:136:GLU:CA	2.85	0.52
3:I:257:ASP:C	3:I:259:PHE:H	2.12	0.52
3:I:719:VAL:HG12	3:I:720:LYS:H	1.74	0.52
3:J:103:LYS:HD3	3:J:123:TYR:CD1	2.43	0.52
3:J:719:VAL:HG12	3:J:720:LYS:H	1.74	0.52
3:K:288:PRO:HB2	3:K:588:THR:HG21	1.91	0.52
3:K:431:ARG:NH2	3:K:484:SER:HB3	2.25	0.52
3:L:789:ASN:HD22	3:L:792:ARG:HD3	1.75	0.52
2:B:135:MET:HE3	2:B:135:MET:O	2.10	0.52
2:B:662:THR:HG22	2:B:663:MET:N	2.23	0.52
2:C:439:ASP:OD1	2:C:439:ASP:N	2.26	0.52
2:C:617:THR:OG1	3:J:1119:LYS:NZ	2.30	0.52
2:D:143:LEU:HG	2:D:167:PHE:CZ	2.44	0.52
2:H:146:GLY:O	2:H:149:VAL:HG12	2.10	0.52
2:H:575:SER:O	2:H:578:LYS:N	2.43	0.52
3:I:778:ILE:HD11	3:L:648:GLY:HA2	1.90	0.52
3:L:565:THR:HG21	3:L:1268:VAL:HG13	1.91	0.52
3:L:665:TYR:HB2	3:L:769:ARG:HE	1.73	0.52
2:B:129:PHE:CZ	2:B:138:TYR:HD2	2.27	0.52
2:B:228:GLY:O	2:B:233:ALA:N	2.43	0.52
2:D:212:LEU:HD23	2:D:260:PHE:CB	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:575:SER:O	2:D:578:LYS:N	2.43	0.52
2:E:214:ARG:HG3	2:E:216:ASP:H	1.75	0.52
2:E:329:LEU:HD11	2:E:355:ALA:HB1	1.90	0.52
3:I:866:VAL:HG21	3:I:1197:MET:HG2	1.92	0.52
3:J:67:ARG:CZ	3:J:84:ASN:HB3	2.39	0.52
3:J:866:VAL:HG21	3:J:1197:MET:HG2	1.92	0.52
3:K:103:LYS:HD3	3:K:123:TYR:CD1	2.43	0.52
3:L:1162:LEU:HG	3:L:1170:TYR:CE2	2.45	0.52
2:A:85:GLU:O	2:A:88:ASN:ND2	2.41	0.52
2:A:699:LEU:CD2	2:B:372:LYS:NZ	2.72	0.52
2:B:149:VAL:CG1	2:B:150:TYR:N	2.73	0.52
2:F:645:ALA:O	2:F:648:GLY:CA	2.58	0.52
2:H:575:SER:O	2:H:576:ALA:C	2.46	0.52
2:H:656:ILE:CG1	2:H:658:ASN:OD1	2.58	0.52
3:J:346:VAL:HA	3:J:1297:LEU:HD22	1.91	0.52
3:K:789:ASN:HD22	3:K:792:ARG:HD3	1.75	0.52
3:L:285:VAL:HG21	3:L:291:ILE:HD11	1.91	0.52
2:B:212:LEU:HD23	2:B:260:PHE:CB	2.40	0.52
2:B:646:ARG:CZ	2:B:647:LYS:CE	2.87	0.52
2:D:228:GLY:O	2:D:233:ALA:N	2.43	0.52
2:D:656:ILE:HG13	2:D:658:ASN:OD1	2.10	0.52
2:F:228:GLY:O	2:F:233:ALA:N	2.43	0.52
2:F:547:PHE:CZ	3:K:318:ARG:O	2.63	0.52
2:F:575:SER:O	2:F:578:LYS:N	2.43	0.52
2:H:149:VAL:CG1	2:H:150:TYR:N	2.73	0.52
2:H:625:MET:HE1	2:H:669:SER:N	2.24	0.52
3:I:288:PRO:HB2	3:I:588:THR:HG21	1.91	0.52
3:K:709:VAL:HG22	3:K:771:LEU:HD22	1.92	0.52
3:K:805:ARG:NH2	3:K:859:ALA:HB3	2.24	0.52
3:L:709:VAL:HG22	3:L:771:LEU:HD22	1.92	0.52
2:B:647:LYS:N	2:B:647:LYS:HD3	2.25	0.52
2:B:661:LEU:HD12	2:B:662:THR:H	1.68	0.52
2:C:341:PRO:HB3	2:C:346:THR:HG21	1.92	0.52
2:G:70:ARG:O	2:G:74:ILE:HG12	2.10	0.52
2:G:522:ASP:OD1	2:G:523:LYS:N	2.43	0.52
2:H:647:LYS:N	2:H:647:LYS:HD3	2.25	0.52
2:H:700:GLU:C	2:H:702:LYS:N	2.62	0.52
3:J:257:ASP:C	3:J:259:PHE:H	2.12	0.52
3:K:565:THR:HG21	3:K:1268:VAL:HG13	1.91	0.52
3:L:697:ASN:HD21	3:L:778:ILE:HB	1.75	0.52
2:B:139:ARG:NH1	2:B:139:ARG:CG	2.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:645:ALA:O	2:B:648:GLY:CA	2.58	0.52
2:C:374:LEU:HD13	2:D:296:ARG:HA	1.92	0.52
2:C:660:GLN:O	2:C:675:THR:HG23	2.10	0.52
2:D:700:GLU:C	2:D:702:LYS:N	2.62	0.52
2:E:291:MET:CE	2:E:291:MET:CA	2.86	0.52
2:G:214:ARG:HG3	2:G:216:ASP:H	1.75	0.52
2:H:522:ASP:OD1	2:H:523:LYS:N	2.43	0.52
2:H:645:ALA:O	2:H:648:GLY:CA	2.58	0.52
3:I:46:SER:OG	3:I:55:GLN:OE1	2.27	0.52
3:I:258:VAL:HG13	3:I:259:PHE:CD1	2.45	0.52
3:J:709:VAL:HG22	3:J:771:LEU:HD22	1.92	0.52
3:J:789:ASN:HD22	3:J:792:ARG:HD3	1.75	0.52
3:J:1162:LEU:HG	3:J:1170:TYR:CE2	2.45	0.52
3:K:719:VAL:HG12	3:K:720:LYS:H	1.74	0.52
3:L:346:VAL:HA	3:L:1297:LEU:HD22	1.91	0.52
3:L:649:ASN:OD1	3:L:651:LYS:HD3	2.09	0.52
3:L:828:ILE:HD11	3:L:852:VAL:HG21	1.91	0.52
2:B:146:GLY:O	2:B:149:VAL:HG12	2.10	0.52
2:B:656:ILE:HG13	2:B:658:ASN:OD1	2.10	0.52
2:C:608:PHE:CZ	2:C:642:LEU:HD23	2.46	0.52
2:D:647:LYS:CD	2:D:647:LYS:N	2.73	0.52
2:E:432:ILE:HA	2:E:435:MET:HG3	1.92	0.52
2:F:149:VAL:CG1	2:F:150:TYR:N	2.73	0.52
2:F:522:ASP:OD1	2:F:523:LYS:N	2.43	0.52
2:F:646:ARG:CZ	2:F:647:LYS:CE	2.87	0.52
3:I:285:VAL:HG21	3:I:291:ILE:HD11	1.91	0.52
3:I:431:ARG:NH2	3:I:484:SER:HB3	2.25	0.52
3:I:1027:ARG:CB	3:I:1078:LYS:HE2	2.22	0.52
3:J:566:ASP:HA	3:J:569:THR:HG22	1.91	0.52
3:K:679:ILE:HA	3:K:683:GLY:HA2	1.92	0.52
3:L:397:PHE:HA	3:L:1303:LEU:HD12	1.92	0.52
2:B:575:SER:O	2:B:578:LYS:N	2.43	0.51
2:B:621:ILE:HD11	2:B:663:MET:HG3	1.92	0.51
2:D:139:ARG:HG2	2:D:139:ARG:HH11	1.75	0.51
2:D:146:GLY:O	2:D:149:VAL:HG12	2.10	0.51
2:D:533:ASP:O	2:D:537:LEU:N	2.43	0.51
2:D:656:ILE:CG1	2:D:658:ASN:OD1	2.58	0.51
2:E:522:ASP:OD1	2:E:523:LYS:N	2.43	0.51
2:F:143:LEU:HG	2:F:167:PHE:CZ	2.44	0.51
2:F:146:GLY:O	2:F:149:VAL:HG12	2.10	0.51
2:F:524:GLN:OE1	2:F:596:GLN:OE1	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:656:ILE:CG1	2:F:658:ASN:OD1	2.58	0.51
2:H:70:ARG:O	2:H:74:ILE:HG12	2.10	0.51
2:H:129:PHE:CZ	2:H:138:TYR:HD2	2.27	0.51
2:H:228:GLY:O	2:H:233:ALA:N	2.43	0.51
3:I:697:ASN:HD21	3:I:778:ILE:HB	1.75	0.51
3:I:805:ARG:NH2	3:I:859:ALA:HB3	2.25	0.51
3:K:693:ARG:HB3	3:K:778:ILE:HD13	1.92	0.51
3:L:719:VAL:HG12	3:L:720:LYS:H	1.74	0.51
2:D:516:LEU:HB2	2:D:579:ILE:HD12	1.92	0.51
2:F:516:LEU:HD22	2:F:579:ILE:CA	2.40	0.51
2:F:656:ILE:HG13	2:F:658:ASN:OD1	2.10	0.51
3:I:1162:LEU:HG	3:I:1170:TYR:CE2	2.45	0.51
3:J:697:ASN:HD21	3:J:778:ILE:HB	1.75	0.51
3:K:665:TYR:HB2	3:K:769:ARG:HE	1.74	0.51
3:K:730:TYR:CZ	3:K:734:LYS:HD2	2.46	0.51
3:L:805:ARG:NH2	3:L:859:ALA:HB3	2.25	0.51
2:A:225:ILE:O	2:A:229:LEU:HD12	2.11	0.51
2:A:432:ILE:HA	2:A:435:MET:HG3	1.93	0.51
2:A:522:ASP:OD1	2:A:523:LYS:N	2.43	0.51
2:A:608:PHE:CZ	2:A:642:LEU:HD23	2.46	0.51
2:A:660:GLN:O	2:A:675:THR:HG23	2.10	0.51
2:D:524:GLN:OE1	2:D:596:GLN:OE1	2.27	0.51
2:D:547:PHE:CZ	3:J:318:ARG:O	2.64	0.51
2:F:516:LEU:HD22	2:F:579:ILE:HD13	1.91	0.51
2:H:129:PHE:CZ	2:H:135:MET:HA	2.46	0.51
3:I:709:VAL:HG22	3:I:771:LEU:HD22	1.92	0.51
3:I:789:ASN:HD22	3:I:792:ARG:HD3	1.75	0.51
3:J:285:VAL:HG21	3:J:291:ILE:HD11	1.91	0.51
3:L:283:THR:HG23	3:L:284:GLU:HG3	1.92	0.51
2:B:533:ASP:O	2:B:537:LEU:N	2.43	0.51
2:B:656:ILE:CG1	2:B:658:ASN:OD1	2.58	0.51
2:D:139:ARG:NH1	2:D:139:ARG:CG	2.73	0.51
2:D:647:LYS:N	2:D:647:LYS:HD3	2.25	0.51
2:F:212:LEU:HD23	2:F:260:PHE:CB	2.40	0.51
2:F:662:THR:HG22	2:F:663:MET:N	2.23	0.51
2:H:647:LYS:N	2:H:647:LYS:CD	2.73	0.51
2:H:656:ILE:HG13	2:H:658:ASN:OD1	2.10	0.51
3:I:397:PHE:HA	3:I:1303:LEU:HD12	1.92	0.51
3:I:693:ARG:HB3	3:I:778:ILE:HD13	1.92	0.51
3:J:258:VAL:HG13	3:J:259:PHE:CD1	2.45	0.51
3:J:805:ARG:NH2	3:J:859:ALA:HB3	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:866:VAL:HG21	3:K:1197:MET:HG2	1.92	0.51
3:L:693:ARG:HB3	3:L:778:ILE:HD13	1.92	0.51
2:A:120:VAL:O	2:A:121:MET:C	2.49	0.51
2:B:143:LEU:HG	2:B:167:PHE:CZ	2.44	0.51
2:B:575:SER:O	2:B:576:ALA:C	2.46	0.51
2:C:432:ILE:HA	2:C:435:MET:HG3	1.93	0.51
2:D:129:PHE:CZ	2:D:135:MET:HA	2.46	0.51
2:E:661:LEU:HD12	2:E:674:ASP:HA	1.93	0.51
2:F:129:PHE:CZ	2:F:135:MET:HA	2.46	0.51
2:F:676:THR:CG2	2:F:677:GLY:N	2.73	0.51
2:G:432:ILE:HA	2:G:435:MET:HG3	1.93	0.51
2:G:660:GLN:O	2:G:675:THR:HG23	2.10	0.51
3:I:827:GLU:HB2	3:I:1226:ARG:HH12	1.76	0.51
3:J:431:ARG:NH2	3:J:484:SER:HB3	2.25	0.51
3:J:827:GLU:HB2	3:J:1226:ARG:HH12	1.76	0.51
3:K:283:THR:HG23	3:K:284:GLU:HG3	1.92	0.51
3:L:431:ARG:NH2	3:L:484:SER:HB3	2.25	0.51
3:L:827:GLU:HB2	3:L:1226:ARG:HH12	1.76	0.51
2:C:225:ILE:O	2:C:229:LEU:HD12	2.11	0.51
2:C:661:LEU:HD12	2:C:674:ASP:HA	1.93	0.51
2:D:645:ALA:O	2:D:648:GLY:CA	2.58	0.51
2:E:374:LEU:HD13	2:F:296:ARG:HA	1.93	0.51
2:E:660:GLN:O	2:E:675:THR:HG23	2.10	0.51
2:F:70:ARG:O	2:F:74:ILE:HG12	2.10	0.51
2:F:647:LYS:CD	2:F:647:LYS:N	2.73	0.51
2:G:225:ILE:O	2:G:229:LEU:HD12	2.11	0.51
3:J:397:PHE:HA	3:J:1303:LEU:HD12	1.92	0.51
3:K:397:PHE:HA	3:K:1303:LEU:HD12	1.92	0.51
3:K:648:GLY:HA2	3:L:778:ILE:HD11	1.92	0.51
3:K:697:ASN:HD21	3:K:778:ILE:HB	1.75	0.51
2:A:661:LEU:HD12	2:A:674:ASP:HA	1.93	0.51
2:B:139:ARG:HG2	2:B:139:ARG:HH11	1.75	0.51
2:B:399:TRP:CZ2	3:I:414:ARG:HA	2.46	0.51
2:D:522:ASP:OD1	2:D:523:LYS:N	2.43	0.51
2:E:70:ARG:O	2:E:74:ILE:HG12	2.10	0.51
2:F:547:PHE:CD1	2:F:547:PHE:C	2.84	0.51
2:G:212:LEU:HD23	2:G:260:PHE:CB	2.40	0.51
2:G:608:PHE:CZ	2:G:642:LEU:HD23	2.45	0.51
2:G:682:ARG:O	3:L:250:GLY:HA2	2.11	0.51
2:H:154:PHE:O	2:H:155:GLY:O	2.29	0.51
2:H:547:PHE:CZ	3:L:318:ARG:O	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:625:MET:HE1	2:H:669:SER:CA	2.40	0.51
3:I:565:THR:HG21	3:I:1268:VAL:HG13	1.91	0.51
3:I:648:GLY:HA2	3:J:778:ILE:HD11	1.92	0.51
3:I:730:TYR:CZ	3:I:734:LYS:HD2	2.46	0.51
3:J:679:ILE:HA	3:J:683:GLY:HA2	1.92	0.51
3:K:258:VAL:HG13	3:K:259:PHE:CD1	2.45	0.51
3:K:346:VAL:HA	3:K:1297:LEU:HD22	1.91	0.51
3:K:1162:LEU:HG	3:K:1170:TYR:CE2	2.45	0.51
3:L:257:ASP:C	3:L:259:PHE:H	2.11	0.51
3:L:258:VAL:HG13	3:L:259:PHE:CD1	2.45	0.51
3:L:566:ASP:HA	3:L:569:THR:HG22	1.91	0.51
2:A:212:LEU:HD23	2:A:260:PHE:CB	2.40	0.51
2:C:212:LEU:HD23	2:C:260:PHE:CB	2.40	0.51
2:C:628:VAL:HG11	2:C:692:TRP:CD2	2.46	0.51
2:D:363:MET:HB3	2:E:285:GLU:O	2.11	0.51
2:E:212:LEU:HD23	2:E:260:PHE:CB	2.40	0.51
2:F:647:LYS:N	2:F:647:LYS:HD3	2.25	0.51
2:G:661:LEU:HD12	2:G:674:ASP:HA	1.93	0.51
2:H:621:ILE:HD11	2:H:663:MET:HG3	1.92	0.51
3:J:463:VAL:HG11	3:J:871:LEU:HD11	1.93	0.51
3:J:730:TYR:CZ	3:J:734:LYS:HD2	2.46	0.51
3:L:730:TYR:CZ	3:L:734:LYS:HD2	2.46	0.51
2:A:70:ARG:O	2:A:74:ILE:HG12	2.10	0.51
2:D:149:VAL:CG1	2:D:150:TYR:N	2.73	0.51
2:D:289:ALA:O	2:D:293:THR:HG22	2.11	0.51
2:E:608:PHE:CZ	2:E:642:LEU:HD23	2.45	0.51
2:E:628:VAL:HG11	2:E:692:TRP:CD2	2.46	0.51
2:F:154:PHE:O	2:F:155:GLY:O	2.29	0.51
2:H:212:LEU:HD23	2:H:260:PHE:CB	2.40	0.51
2:H:676:THR:HA	3:L:431:ARG:HG2	1.92	0.51
3:J:46:SER:OG	3:J:50:PRO:O	2.29	0.51
3:K:285:VAL:HG21	3:K:291:ILE:HD11	1.91	0.51
3:L:866:VAL:HG21	3:L:1197:MET:HG2	1.92	0.51
2:A:341:PRO:HB3	2:A:346:THR:HG21	1.92	0.51
2:E:225:ILE:O	2:E:229:LEU:HD12	2.11	0.51
2:E:642:LEU:HD21	2:E:670:ILE:HG21	1.93	0.51
2:F:432:ILE:HA	2:F:435:MET:HG3	1.93	0.51
2:H:516:LEU:HD22	2:H:579:ILE:HD13	1.91	0.51
3:I:463:VAL:HG11	3:I:871:LEU:HD11	1.93	0.51
3:K:463:VAL:HG11	3:K:871:LEU:HD11	1.93	0.51
2:B:70:ARG:O	2:B:74:ILE:HG12	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:522:ASP:OD1	2:B:523:LYS:N	2.43	0.50
2:C:70:ARG:O	2:C:74:ILE:HG12	2.10	0.50
2:D:621:ILE:HD11	2:D:663:MET:HG3	1.92	0.50
2:D:646:ARG:CZ	2:D:647:LYS:CE	2.87	0.50
2:D:664:TYR:CD1	2:D:664:TYR:C	2.85	0.50
2:E:533:ASP:O	2:E:537:LEU:N	2.42	0.50
2:F:289:ALA:O	2:F:293:THR:HG22	2.11	0.50
2:H:516:LEU:HD22	2:H:579:ILE:CA	2.40	0.50
3:K:827:GLU:HB2	3:K:1226:ARG:HH12	1.76	0.50
3:L:67:ARG:NH2	3:L:68:VAL:HB	2.26	0.50
2:A:628:VAL:HG11	2:A:692:TRP:CD2	2.46	0.50
2:B:516:LEU:HD22	2:B:579:ILE:CA	2.40	0.50
2:E:341:PRO:HB3	2:E:346:THR:HG21	1.92	0.50
3:I:67:ARG:NH2	3:I:68:VAL:HB	2.26	0.50
3:K:67:ARG:HB3	3:K:88:LYS:HD2	1.93	0.50
3:K:828:ILE:HD11	3:K:852:VAL:HG21	1.91	0.50
3:L:463:VAL:HG11	3:L:871:LEU:HD11	1.93	0.50
3:L:990:ASN:O	3:L:994:ASN:ND2	2.45	0.50
3:L:1295:ASP:O	3:L:1298:THR:HG22	2.12	0.50
2:D:516:LEU:HD22	2:D:579:ILE:CA	2.40	0.50
2:E:497:ARG:O	2:E:498:ASN:C	2.49	0.50
2:G:628:VAL:HG11	2:G:692:TRP:CD2	2.46	0.50
2:H:135:MET:HE2	2:H:136:GLU:CA	2.40	0.50
3:I:1024:GLY:C	3:I:1026:LEU:H	2.15	0.50
3:J:331:GLY:O	3:J:335:ALA:CB	2.52	0.50
3:J:1295:ASP:O	3:J:1298:THR:HG22	2.12	0.50
3:K:46:SER:OG	3:K:50:PRO:O	2.29	0.50
2:A:285:GLU:O	2:H:363:MET:HB3	2.12	0.50
2:B:432:ILE:HA	2:B:435:MET:HG3	1.93	0.50
2:B:516:LEU:HB2	2:B:579:ILE:HD12	1.92	0.50
2:B:521:MET:HG3	2:B:528:PRO:HB3	1.94	0.50
2:B:628:VAL:H	2:B:634:SER:HB3	1.77	0.50
2:D:135:MET:CE	2:D:136:GLU:CA	2.85	0.50
2:F:533:ASP:O	2:F:537:LEU:N	2.42	0.50
2:G:341:PRO:HB3	2:G:346:THR:HG21	1.92	0.50
2:H:516:LEU:HB2	2:H:579:ILE:HD12	1.92	0.50
3:I:283:THR:HG23	3:I:284:GLU:HG3	1.92	0.50
3:I:298:SER:N	3:I:299:PRO:HD3	2.27	0.50
3:I:340:LEU:HD23	3:I:1303:LEU:HD21	1.93	0.50
3:I:1295:ASP:O	3:I:1298:THR:HG22	2.12	0.50
3:J:1120:PHE:CD2	3:J:1304:LYS:HB2	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:72:ASN:O	2:A:76:ARG:HG2	2.12	0.50
2:A:642:LEU:HD21	2:A:670:ILE:HG21	1.93	0.50
2:B:664:TYR:CD1	2:B:664:TYR:C	2.85	0.50
2:E:682:ARG:O	3:K:250:GLY:HA2	2.12	0.50
2:H:143:LEU:HG	2:H:167:PHE:CZ	2.44	0.50
2:H:289:ALA:O	2:H:293:THR:HG22	2.11	0.50
3:I:262:THR:OG1	3:I:263:ILE:N	2.45	0.50
3:I:679:ILE:HA	3:I:683:GLY:HA2	1.92	0.50
3:J:67:ARG:NH2	3:J:68:VAL:HB	2.26	0.50
3:J:693:ARG:HB3	3:J:778:ILE:HD13	1.92	0.50
3:K:262:THR:OG1	3:K:263:ILE:N	2.45	0.50
2:B:129:PHE:CZ	2:B:135:MET:HA	2.46	0.50
2:B:289:ALA:O	2:B:293:THR:HG22	2.11	0.50
2:C:522:ASP:OD1	2:C:523:LYS:N	2.43	0.50
2:C:642:LEU:HD21	2:C:670:ILE:HG21	1.93	0.50
2:D:70:ARG:O	2:D:74:ILE:HG12	2.10	0.50
2:D:456:ASP:N	2:D:457:GLY:HA2	2.27	0.50
3:I:67:ARG:HB3	3:I:88:LYS:HD2	1.93	0.50
3:J:290:TYR:OH	3:J:316:ASP:OD2	2.25	0.50
3:J:364:ALA:O	3:J:365:GLU:C	2.50	0.50
3:L:679:ILE:HA	3:L:683:GLY:HA2	1.92	0.50
2:A:533:ASP:O	2:A:537:LEU:N	2.42	0.50
2:B:456:ASP:N	2:B:457:GLY:HA2	2.27	0.50
2:B:625:MET:SD	2:B:665:SER:HB2	2.52	0.50
2:D:154:PHE:O	2:D:155:GLY:O	2.29	0.50
2:D:575:SER:O	2:D:576:ALA:C	2.46	0.50
2:H:628:VAL:H	2:H:634:SER:HB3	1.77	0.50
3:I:376:LEU:HD11	3:I:1285:MET:HE3	1.94	0.50
3:J:283:THR:HG23	3:J:284:GLU:HG3	1.92	0.50
3:K:67:ARG:NH2	3:K:68:VAL:HB	2.26	0.50
3:K:298:SER:N	3:K:299:PRO:HD3	2.27	0.50
3:K:1295:ASP:O	3:K:1298:THR:HG22	2.12	0.50
2:B:233:ALA:O	2:B:234:ILE:C	2.50	0.50
2:C:72:ASN:O	2:C:76:ARG:HG2	2.12	0.50
2:C:276:THR:HG23	2:C:280:GLU:HB3	1.94	0.50
2:D:628:VAL:H	2:D:634:SER:HB3	1.77	0.50
2:F:553:PHE:C	2:F:553:PHE:CD1	2.85	0.50
2:F:621:ILE:HD11	2:F:663:MET:HG3	1.92	0.50
2:G:374:LEU:HD13	2:H:296:ARG:HA	1.93	0.50
2:G:642:LEU:HD21	2:G:670:ILE:HG21	1.93	0.50
2:H:625:MET:SD	2:H:665:SER:HB2	2.52	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:257:ASP:C	3:J:259:PHE:N	2.66	0.50
3:J:298:SER:N	3:J:299:PRO:HD3	2.27	0.50
3:K:990:ASN:O	3:K:994:ASN:ND2	2.45	0.50
3:L:46:SER:OG	3:L:50:PRO:O	2.29	0.50
3:L:298:SER:N	3:L:299:PRO:HD3	2.27	0.50
3:L:340:LEU:HD23	3:L:1303:LEU:HD21	1.93	0.50
3:L:695:TRP:HE1	3:L:774:SER:HB3	1.77	0.50
2:D:553:PHE:CD1	2:D:553:PHE:C	2.85	0.50
2:G:72:ASN:O	2:G:76:ARG:HG2	2.12	0.50
2:H:432:ILE:HA	2:H:435:MET:HG3	1.93	0.50
2:H:664:TYR:CD1	2:H:664:TYR:C	2.85	0.50
2:H:676:THR:CG2	2:H:677:GLY:H	2.18	0.50
3:J:695:TRP:HE1	3:J:774:SER:HB3	1.77	0.50
3:J:1027:ARG:CB	3:J:1078:LYS:HE2	2.22	0.50
3:K:364:ALA:O	3:K:365:GLU:C	2.50	0.50
3:L:580:ALA:C	3:L:582:LYS:H	2.15	0.50
2:B:516:LEU:HD22	2:B:579:ILE:HD13	1.91	0.49
2:D:377:SER:HG	2:E:299:PHE:HE2	1.59	0.49
2:D:521:MET:HG3	2:D:528:PRO:HB3	1.94	0.49
2:D:600:PHE:C	2:D:600:PHE:CD1	2.85	0.49
2:F:191:GLN:O	2:F:195:ILE:HG12	2.12	0.49
2:F:516:LEU:HB2	2:F:579:ILE:HD12	1.92	0.49
2:G:456:ASP:N	2:G:457:GLY:HA2	2.27	0.49
3:I:595:ARG:O	3:I:598:THR:HG22	2.12	0.49
3:I:1159:ALA:HA	3:I:1170:TYR:HE2	1.77	0.49
3:J:67:ARG:HB3	3:J:88:LYS:HD2	1.93	0.49
3:L:67:ARG:HB3	3:L:88:LYS:HD2	1.93	0.49
2:A:682:ARG:O	3:I:250:GLY:HA2	2.12	0.49
2:B:642:LEU:HD21	2:B:670:ILE:HG21	1.94	0.49
2:C:628:VAL:HG11	2:C:692:TRP:CG	2.47	0.49
2:E:456:ASP:N	2:E:457:GLY:HA2	2.27	0.49
3:I:695:TRP:HE1	3:I:774:SER:HB3	1.77	0.49
3:J:595:ARG:O	3:J:598:THR:HG22	2.12	0.49
3:J:1188:SER:O	3:J:1188:SER:OG	2.30	0.49
3:L:364:ALA:O	3:L:365:GLU:C	2.50	0.49
3:L:595:ARG:O	3:L:598:THR:HG22	2.12	0.49
2:C:120:VAL:O	2:C:121:MET:C	2.49	0.49
2:C:699:LEU:CG	2:D:372:LYS:HZ3	2.20	0.49
2:E:72:ASN:O	2:E:76:ARG:HG2	2.12	0.49
2:F:139:ARG:HG2	2:F:139:ARG:HH11	1.75	0.49
2:H:533:ASP:O	2:H:537:LEU:N	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:46:SER:OG	3:I:50:PRO:O	2.29	0.49
3:I:779:THR:HG22	3:L:561:ARG:HH21	1.78	0.49
3:I:990:ASN:O	3:I:994:ASN:ND2	2.45	0.49
3:K:695:TRP:HE1	3:K:774:SER:HB3	1.77	0.49
3:L:661:HIS:HD2	3:L:771:LEU:HG	1.78	0.49
3:L:665:TYR:CZ	3:L:667:PRO:HA	2.47	0.49
2:B:154:PHE:O	2:B:155:GLY:O	2.29	0.49
2:B:513:GLU:O	2:B:517:THR:OG1	2.30	0.49
2:D:276:THR:HG23	2:D:280:GLU:HB3	1.94	0.49
2:E:628:VAL:HG11	2:E:692:TRP:CG	2.47	0.49
2:F:231:THR:OG1	2:F:233:ALA:N	2.39	0.49
2:G:191:GLN:O	2:G:195:ILE:HG12	2.12	0.49
2:H:276:THR:HG23	2:H:280:GLU:HB3	1.94	0.49
3:I:665:TYR:CZ	3:I:667:PRO:HA	2.47	0.49
3:J:821:THR:O	3:J:822:LYS:C	2.50	0.49
3:J:1024:GLY:C	3:J:1026:LEU:H	2.15	0.49
3:L:864:ASP:OD1	3:L:865:THR:N	2.46	0.49
2:C:682:ARG:O	3:J:250:GLY:HA2	2.13	0.49
2:D:135:MET:HE2	2:D:136:GLU:CA	2.38	0.49
2:D:642:LEU:HD21	2:D:670:ILE:HG21	1.94	0.49
2:F:521:MET:HG3	2:F:528:PRO:HB3	1.94	0.49
2:G:276:THR:HG23	2:G:280:GLU:HB3	1.94	0.49
2:H:547:PHE:CD1	2:H:547:PHE:C	2.84	0.49
3:I:864:ASP:OD1	3:I:865:THR:N	2.46	0.49
3:J:376:LEU:HD21	3:J:1285:MET:HE3	1.94	0.49
3:J:860:ARG:O	3:J:861:ARG:C	2.51	0.49
3:J:864:ASP:OD1	3:J:865:THR:N	2.46	0.49
3:K:595:ARG:O	3:K:598:THR:HG22	2.12	0.49
3:K:734:LYS:HB3	3:K:770:ASN:ND2	2.28	0.49
3:K:1159:ALA:HA	3:K:1170:TYR:HE2	1.77	0.49
2:B:323:ARG:CD	2:C:249:SER:OG	2.50	0.49
2:B:676:THR:CG2	3:I:449:MET:HE2	2.25	0.49
2:C:456:ASP:N	2:C:457:GLY:HA2	2.27	0.49
2:C:513:GLU:O	2:C:517:THR:OG1	2.30	0.49
2:F:105:ARG:HG2	2:F:157:ASP:OD2	2.12	0.49
2:F:628:VAL:H	2:F:634:SER:HB3	1.77	0.49
2:F:700:GLU:C	2:F:702:LYS:N	2.62	0.49
2:H:233:ALA:O	2:H:234:ILE:C	2.50	0.49
3:K:290:TYR:OH	3:K:316:ASP:OD2	2.25	0.49
3:K:455:LYS:HZ2	3:K:478:HIS:HA	1.77	0.49
3:K:821:THR:O	3:K:822:LYS:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:257:ASP:C	3:L:259:PHE:N	2.65	0.49
2:A:497:ARG:O	2:A:498:ASN:C	2.49	0.49
2:B:276:THR:HG23	2:B:280:GLU:HB3	1.94	0.49
2:D:432:ILE:HA	2:D:435:MET:HG3	1.93	0.49
2:F:513:GLU:O	2:F:517:THR:OG1	2.30	0.49
2:F:639:ARG:NE	2:G:418:HIS:CD2	2.81	0.49
2:F:664:TYR:C	2:F:664:TYR:CD1	2.85	0.49
3:I:364:ALA:O	3:I:365:GLU:C	2.50	0.49
3:I:734:LYS:HB3	3:I:770:ASN:ND2	2.28	0.49
3:J:405:SER:HA	3:J:408:VAL:HG12	1.95	0.49
3:J:1159:ALA:HA	3:J:1170:TYR:HE2	1.77	0.49
2:C:521:MET:HG3	2:C:528:PRO:HB3	1.95	0.49
2:D:135:MET:HE3	2:D:135:MET:O	2.13	0.49
2:D:605:THR:HB	2:D:620:VAL:HG12	1.95	0.49
2:D:625:MET:SD	2:D:665:SER:HB2	2.52	0.49
2:E:191:GLN:O	2:E:195:ILE:HG12	2.13	0.49
2:F:605:THR:HB	2:F:620:VAL:HG12	1.95	0.49
2:F:625:MET:SD	2:F:665:SER:HB2	2.52	0.49
2:G:513:GLU:O	2:G:517:THR:OG1	2.30	0.49
2:G:686:GLU:OE2	3:L:153:GLN:OE1	2.31	0.49
2:H:105:ARG:HG2	2:H:157:ASP:OD2	2.12	0.49
2:H:605:THR:HB	2:H:620:VAL:HG12	1.95	0.49
3:I:1025:PHE:HE2	3:I:1083:ALA:HB2	1.78	0.49
3:J:990:ASN:O	3:J:994:ASN:ND2	2.45	0.49
3:K:405:SER:HA	3:K:408:VAL:HG12	1.95	0.49
3:K:580:ALA:C	3:K:582:LYS:H	2.16	0.49
3:L:262:THR:OG1	3:L:263:ILE:N	2.45	0.49
3:L:376:LEU:HD11	3:L:1285:MET:HE3	1.94	0.49
2:A:513:GLU:O	2:A:517:THR:OG1	2.30	0.49
2:B:524:GLN:NE2	2:B:596:GLN:OE1	2.46	0.49
2:C:140:HIS:O	2:C:144:GLN:HG3	2.13	0.49
2:C:686:GLU:OE2	3:J:153:GLN:OE1	2.31	0.49
2:D:233:ALA:O	2:D:234:ILE:C	2.50	0.49
2:H:191:GLN:O	2:H:195:ILE:HG12	2.12	0.49
3:J:1025:PHE:HE2	3:J:1083:ALA:HB2	1.78	0.49
3:K:273:TRP:HA	3:K:273:TRP:CE3	2.48	0.49
3:K:864:ASP:OD1	3:K:865:THR:N	2.46	0.49
3:K:1007:ASP:OD2	3:K:1098:PHE:HB3	2.13	0.49
3:K:1027:ARG:CB	3:K:1078:LYS:HE2	2.22	0.49
3:L:817:THR:HG23	3:L:1229:ASN:ND2	2.28	0.49
3:L:1007:ASP:OD2	3:L:1098:PHE:HB3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1090:VAL:HG23	3:L:1113:ILE:HD12	1.95	0.49
2:B:436:ASP:HB2	2:C:315:SER:OG	2.12	0.49
2:B:605:THR:HB	2:B:620:VAL:HG12	1.95	0.49
2:D:105:ARG:HG2	2:D:157:ASP:OD2	2.12	0.49
2:E:699:LEU:CD2	2:F:372:LYS:HZ3	2.26	0.49
2:F:524:GLN:NE2	2:F:596:GLN:OE1	2.46	0.49
2:G:140:HIS:O	2:G:144:GLN:HG3	2.13	0.49
2:H:524:GLN:NE2	2:H:596:GLN:OE1	2.46	0.49
3:J:262:THR:OG1	3:J:263:ILE:N	2.45	0.49
3:J:340:LEU:HD23	3:J:1303:LEU:HD21	1.93	0.49
3:J:665:TYR:CZ	3:J:667:PRO:HA	2.47	0.49
3:K:1025:PHE:HE2	3:K:1083:ALA:HB2	1.78	0.49
3:L:1159:ALA:HA	3:L:1170:TYR:HE2	1.77	0.49
2:A:140:HIS:O	2:A:144:GLN:HG3	2.13	0.48
2:A:456:ASP:N	2:A:457:GLY:HA2	2.27	0.48
2:B:512:ALA:CB	2:B:575:SER:OG	2.61	0.48
2:D:512:ALA:CB	2:D:575:SER:OG	2.61	0.48
2:F:512:ALA:CB	2:F:575:SER:OG	2.61	0.48
2:H:135:MET:HE3	2:H:135:MET:O	2.12	0.48
3:J:273:TRP:HA	3:J:273:TRP:CE3	2.48	0.48
3:J:561:ARG:HH21	3:K:779:THR:HG22	1.78	0.48
3:J:580:ALA:C	3:J:582:LYS:H	2.16	0.48
3:J:734:LYS:HB3	3:J:770:ASN:ND2	2.28	0.48
3:L:290:TYR:OH	3:L:316:ASP:OD2	2.25	0.48
2:A:191:GLN:O	2:A:195:ILE:HG12	2.12	0.48
2:A:377:SER:HG	2:B:299:PHE:HE2	1.62	0.48
2:A:628:VAL:HG11	2:A:692:TRP:CG	2.47	0.48
2:B:363:MET:HB3	2:C:285:GLU:O	2.13	0.48
2:B:553:PHE:CD1	2:B:553:PHE:C	2.85	0.48
2:E:140:HIS:O	2:E:144:GLN:HG3	2.13	0.48
2:E:276:THR:HG23	2:E:280:GLU:HB3	1.94	0.48
2:F:276:THR:HG23	2:F:280:GLU:HB3	1.94	0.48
2:F:553:PHE:HE2	2:F:577:ARG:CD	2.27	0.48
2:G:363:MET:HB3	2:H:285:GLU:HB3	1.93	0.48
2:H:513:GLU:O	2:H:517:THR:OG1	2.30	0.48
3:I:651:LYS:HD3	3:I:651:LYS:N	2.29	0.48
3:J:376:LEU:HD11	3:J:1285:MET:HE3	1.95	0.48
3:K:836:GLU:OE2	3:K:839:GLY:N	2.46	0.48
3:L:821:THR:O	3:L:822:LYS:C	2.50	0.48
3:L:1024:GLY:C	3:L:1026:LEU:H	2.15	0.48
3:L:1162:LEU:O	3:L:1163:PRO:C	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:377:SER:HG	2:D:299:PHE:HE2	1.61	0.48
2:D:524:GLN:NE2	2:D:596:GLN:OE1	2.46	0.48
2:E:152:GLU:HA	2:E:152:GLU:OE2	2.13	0.48
2:E:513:GLU:O	2:E:517:THR:OG1	2.30	0.48
2:G:533:ASP:O	2:G:537:LEU:N	2.42	0.48
3:I:1090:VAL:HG23	3:I:1113:ILE:HD12	1.96	0.48
3:J:661:HIS:HD2	3:J:771:LEU:HG	1.77	0.48
3:K:340:LEU:HD23	3:K:1303:LEU:HD21	1.93	0.48
3:K:860:ARG:O	3:K:861:ARG:C	2.51	0.48
2:D:191:GLN:O	2:D:195:ILE:HG12	2.12	0.48
2:D:521:MET:CG	2:D:528:PRO:HB3	2.44	0.48
2:F:456:ASP:N	2:F:457:GLY:HA2	2.27	0.48
2:G:152:GLU:HA	2:G:152:GLU:OE2	2.13	0.48
2:G:628:VAL:HG11	2:G:692:TRP:CG	2.47	0.48
2:H:642:LEU:HD21	2:H:670:ILE:HG21	1.94	0.48
3:I:119:GLN:HG2	3:I:131:ILE:HA	1.96	0.48
3:I:860:ARG:O	3:I:861:ARG:C	2.51	0.48
3:J:310:ASN:O	3:J:314:GLU:HG2	2.14	0.48
3:J:422:ASP:HA	3:J:423:ASN:C	2.34	0.48
3:L:51:LEU:O	3:L:77:LEU:HD12	2.13	0.48
3:L:113:GLY:HA2	3:L:117:ASN:HB2	1.95	0.48
3:L:672:ARG:HH12	3:L:676:ALA:HB2	1.79	0.48
2:C:152:GLU:OE2	2:C:152:GLU:HA	2.13	0.48
2:C:191:GLN:O	2:C:195:ILE:HG12	2.12	0.48
2:D:553:PHE:HE2	2:D:577:ARG:CD	2.26	0.48
2:F:642:LEU:HD21	2:F:670:ILE:HG21	1.94	0.48
3:J:651:LYS:HD3	3:J:651:LYS:N	2.29	0.48
3:J:672:ARG:HH12	3:J:676:ALA:HB2	1.79	0.48
3:K:600:TYR:HE1	3:K:604:ARG:CZ	2.20	0.48
3:L:422:ASP:HA	3:L:423:ASN:C	2.34	0.48
3:L:734:LYS:HB3	3:L:770:ASN:ND2	2.28	0.48
3:L:813:ILE:HD13	3:L:824:LEU:CD2	2.43	0.48
3:L:860:ARG:O	3:L:861:ARG:C	2.51	0.48
3:L:1120:PHE:CD2	3:L:1304:LYS:HB2	2.36	0.48
2:A:249:SER:CB	2:H:323:ARG:HD2	2.42	0.48
2:C:497:ARG:O	2:C:498:ASN:C	2.49	0.48
2:D:547:PHE:C	2:D:547:PHE:CD1	2.84	0.48
2:E:291:MET:HE2	2:E:291:MET:CA	2.40	0.48
2:F:265:GLY:HA2	2:F:266:ASP:HA	1.50	0.48
2:F:628:VAL:HG13	2:F:689:SER:CB	2.44	0.48
2:G:521:MET:HG3	2:G:528:PRO:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:456:ASP:N	2:H:457:GLY:HA2	2.27	0.48
3:I:458:GLY:HA3	3:I:459:GLU:HB3	1.96	0.48
3:I:1007:ASP:OD2	3:I:1098:PHE:HB3	2.13	0.48
3:I:1120:PHE:CE2	3:I:1304:LYS:CG	2.80	0.48
3:J:836:GLU:OE2	3:J:839:GLY:N	2.46	0.48
3:K:422:ASP:HA	3:K:423:ASN:C	2.34	0.48
3:L:119:GLN:HG2	3:L:131:ILE:HA	1.96	0.48
2:A:521:MET:HG3	2:A:528:PRO:HB3	1.95	0.48
2:B:191:GLN:O	2:B:195:ILE:HG12	2.12	0.48
2:D:628:VAL:HG13	2:D:689:SER:CB	2.44	0.48
2:G:497:ARG:O	2:G:498:ASN:C	2.49	0.48
2:G:635:TRP:CG	2:G:636:GLU:N	2.81	0.48
3:I:113:GLY:HA2	3:I:117:ASN:HB2	1.94	0.48
3:I:422:ASP:HA	3:I:423:ASN:C	2.34	0.48
3:K:257:ASP:C	3:K:259:PHE:N	2.65	0.48
3:K:661:HIS:HD2	3:K:771:LEU:HG	1.77	0.48
2:B:105:ARG:HG2	2:B:157:ASP:OD2	2.12	0.48
2:D:513:GLU:O	2:D:517:THR:OG1	2.30	0.48
2:E:363:MET:HB3	2:F:285:GLU:HB3	1.94	0.48
2:H:628:VAL:HG13	2:H:689:SER:CB	2.44	0.48
3:J:1090:VAL:HG23	3:J:1113:ILE:HD12	1.95	0.48
3:K:672:ARG:NH1	3:K:676:ALA:HB2	2.29	0.48
3:K:1090:VAL:HG23	3:K:1113:ILE:HD12	1.95	0.48
3:L:836:GLU:OE2	3:L:839:GLY:N	2.46	0.48
3:L:1025:PHE:HE2	3:L:1083:ALA:HB2	1.78	0.48
2:B:135:MET:CE	2:B:136:GLU:CA	2.85	0.48
2:F:553:PHE:CE1	2:F:557:LEU:HD13	2.49	0.48
2:H:512:ALA:CB	2:H:575:SER:OG	2.61	0.48
2:H:521:MET:HG3	2:H:528:PRO:HB3	1.94	0.48
2:H:553:PHE:HE2	2:H:577:ARG:CD	2.27	0.48
3:I:405:SER:HA	3:I:408:VAL:HG12	1.95	0.48
3:I:824:LEU:HD11	3:I:1230:LYS:HZ1	1.79	0.48
3:I:824:LEU:HD12	3:I:824:LEU:HA	1.59	0.48
3:J:1120:PHE:CE2	3:J:1304:LYS:CG	2.80	0.48
3:K:51:LEU:O	3:K:77:LEU:HD12	2.13	0.48
3:K:651:LYS:HD3	3:K:651:LYS:N	2.29	0.48
3:K:672:ARG:HH12	3:K:676:ALA:HB2	1.79	0.48
3:K:1036:MET:C	3:K:1038:GLY:N	2.67	0.48
3:L:273:TRP:HA	3:L:273:TRP:CE3	2.48	0.48
3:L:405:SER:HA	3:L:408:VAL:HG12	1.95	0.48
3:L:458:GLY:HA3	3:L:459:GLU:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:547:PHE:CD1	2:B:547:PHE:C	2.84	0.48
2:B:553:PHE:CE1	2:B:557:LEU:HD13	2.49	0.48
2:C:333:LYS:O	2:C:334:ALA:C	2.53	0.48
2:F:521:MET:CG	2:F:528:PRO:HB3	2.44	0.48
2:G:699:LEU:CG	2:H:372:LYS:HZ3	2.25	0.48
3:I:51:LEU:O	3:I:77:LEU:HD12	2.13	0.48
3:I:310:ASN:O	3:I:314:GLU:HG2	2.14	0.48
3:I:672:ARG:NH1	3:I:676:ALA:HB2	2.29	0.48
3:I:813:ILE:HD13	3:I:824:LEU:CD2	2.43	0.48
3:I:836:GLU:OE2	3:I:839:GLY:N	2.46	0.48
3:I:917:LEU:HD13	3:I:917:LEU:HA	1.59	0.48
3:J:600:TYR:HE1	3:J:604:ARG:CZ	2.20	0.48
3:J:1007:ASP:OD2	3:J:1098:PHE:HB3	2.13	0.48
3:K:665:TYR:CZ	3:K:667:PRO:HA	2.47	0.48
3:K:1024:GLY:C	3:K:1026:LEU:H	2.15	0.48
3:L:672:ARG:NH1	3:L:676:ALA:HB2	2.29	0.48
2:A:152:GLU:HA	2:A:152:GLU:OE2	2.13	0.47
2:A:291:MET:CE	2:A:291:MET:CA	2.85	0.47
2:A:418:HIS:CD2	2:H:639:ARG:NE	2.82	0.47
2:C:291:MET:CE	2:C:291:MET:CA	2.86	0.47
2:C:684:ASP:OD1	2:C:686:GLU:N	2.47	0.47
2:E:120:VAL:O	2:E:121:MET:C	2.49	0.47
2:E:212:LEU:H	2:E:212:LEU:HD12	1.79	0.47
2:E:521:MET:CG	2:E:528:PRO:HB3	2.44	0.47
2:F:135:MET:CE	2:F:136:GLU:CA	2.85	0.47
2:F:233:ALA:O	2:F:234:ILE:C	2.50	0.47
3:I:580:ALA:C	3:I:582:LYS:H	2.16	0.47
3:I:853:LYS:O	3:I:856:THR:HG22	2.14	0.47
3:K:113:GLY:HA2	3:K:117:ASN:HB2	1.95	0.47
3:K:119:GLN:HG2	3:K:131:ILE:HA	1.96	0.47
3:L:1291:LEU:HD12	3:L:1292:VAL:HG23	1.96	0.47
2:C:521:MET:CG	2:C:528:PRO:HB3	2.45	0.47
2:C:663:MET:HG2	2:C:672:LEU:HD13	1.96	0.47
2:D:534:ALA:HB1	2:D:586:ARG:HA	1.96	0.47
2:D:553:PHE:CE1	2:D:557:LEU:HD13	2.49	0.47
2:D:608:PHE:CZ	2:D:642:LEU:HD23	2.49	0.47
2:E:663:MET:HG2	2:E:672:LEU:HD13	1.96	0.47
2:F:608:PHE:CZ	2:F:642:LEU:HD23	2.49	0.47
2:H:600:PHE:CD1	2:H:600:PHE:C	2.85	0.47
3:I:273:TRP:HA	3:I:273:TRP:CE3	2.48	0.47
3:I:1098:PHE:HA	3:I:1099:GLY:HA2	1.59	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:113:GLY:HA2	3:J:117:ASN:HB2	1.94	0.47
3:J:119:GLN:HG2	3:J:131:ILE:HA	1.96	0.47
3:K:54:MET:HG3	3:K:86:ALA:CB	2.45	0.47
3:K:1162:LEU:O	3:K:1163:PRO:C	2.51	0.47
3:L:1036:MET:C	3:L:1038:GLY:N	2.67	0.47
2:A:383:LYS:HB2	2:A:416:PHE:CE2	2.49	0.47
2:A:398:GLU:OE1	2:A:398:GLU:HA	2.14	0.47
2:E:521:MET:HG3	2:E:528:PRO:HB3	1.95	0.47
2:E:686:GLU:OE2	3:K:153:GLN:OE1	2.32	0.47
2:H:139:ARG:HG2	2:H:139:ARG:HH11	1.75	0.47
3:I:1291:LEU:HD12	3:I:1292:VAL:HG23	1.95	0.47
3:J:51:LEU:O	3:J:77:LEU:HD12	2.13	0.47
3:L:621:PRO:C	3:L:623:GLU:H	2.17	0.47
2:A:291:MET:HG2	2:G:711:VAL:HG11	1.97	0.47
2:C:383:LYS:HB2	2:C:416:PHE:CE2	2.50	0.47
2:G:212:LEU:H	2:G:212:LEU:HD12	1.80	0.47
2:H:608:PHE:CZ	2:H:642:LEU:HD23	2.50	0.47
3:I:257:ASP:C	3:I:259:PHE:N	2.66	0.47
3:I:654:SER:O	3:I:654:SER:OG	2.27	0.47
3:I:661:HIS:HD2	3:I:771:LEU:HG	1.78	0.47
3:I:672:ARG:HH12	3:I:676:ALA:HB2	1.79	0.47
3:I:1040:LYS:HB2	3:I:1068:ARG:HD2	1.97	0.47
3:J:1291:LEU:HD12	3:J:1292:VAL:HG23	1.95	0.47
3:K:310:ASN:O	3:K:314:GLU:HG2	2.14	0.47
3:K:594:SER:HA	3:K:595:ARG:HA	1.56	0.47
3:K:853:LYS:O	3:K:856:THR:HG22	2.14	0.47
2:B:377:SER:HG	2:C:299:PHE:HE2	1.62	0.47
2:B:553:PHE:HE2	2:B:577:ARG:CD	2.26	0.47
2:B:608:PHE:CZ	2:B:642:LEU:HD23	2.50	0.47
2:B:628:VAL:HG13	2:B:689:SER:CB	2.44	0.47
2:C:343:GLU:HA	2:C:349:ARG:HH12	1.80	0.47
2:E:383:LYS:HB2	2:E:416:PHE:CE2	2.50	0.47
2:E:650:ILE:HG23	2:E:656:ILE:O	2.15	0.47
2:E:699:LEU:CG	2:F:372:LYS:HZ3	2.23	0.47
2:F:212:LEU:HD12	2:F:212:LEU:H	1.80	0.47
2:F:600:PHE:CD1	2:F:600:PHE:C	2.85	0.47
2:G:120:VAL:O	2:G:121:MET:C	2.49	0.47
3:K:455:LYS:NZ	3:K:478:HIS:HA	2.30	0.47
3:L:853:LYS:O	3:L:856:THR:HG22	2.14	0.47
2:A:276:THR:HG23	2:A:280:GLU:HB3	1.94	0.47
2:B:521:MET:CG	2:B:528:PRO:HB3	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:383:LYS:HB2	2:G:416:PHE:CE2	2.49	0.47
2:G:398:GLU:OE1	2:G:398:GLU:HA	2.14	0.47
2:G:684:ASP:OD1	2:G:686:GLU:N	2.47	0.47
3:J:54:MET:HG3	3:J:86:ALA:CB	2.45	0.47
3:J:672:ARG:NH1	3:J:676:ALA:HB2	2.29	0.47
3:J:853:LYS:O	3:J:856:THR:HG22	2.14	0.47
3:K:824:LEU:HD11	3:K:1230:LYS:HZ1	1.78	0.47
3:L:376:LEU:HD21	3:L:1285:MET:HE3	1.97	0.47
3:L:824:LEU:HD11	3:L:1230:LYS:HZ1	1.79	0.47
2:A:684:ASP:OD1	2:A:686:GLU:N	2.47	0.47
2:B:398:GLU:HA	2:B:398:GLU:OE1	2.15	0.47
2:B:594:MET:HE2	2:B:594:MET:HB3	1.88	0.47
2:B:600:PHE:CD1	2:B:600:PHE:C	2.85	0.47
2:C:212:LEU:H	2:C:212:LEU:HD12	1.80	0.47
2:C:650:ILE:HG23	2:C:656:ILE:O	2.15	0.47
2:D:212:LEU:H	2:D:212:LEU:HD12	1.80	0.47
2:D:516:LEU:HD22	2:D:579:ILE:HD13	1.91	0.47
2:E:398:GLU:HA	2:E:398:GLU:OE1	2.14	0.47
2:F:451:GLN:HA	2:F:452:ALA:HA	1.62	0.47
2:H:553:PHE:C	2:H:553:PHE:CD1	2.85	0.47
2:H:553:PHE:CE1	2:H:557:LEU:HD13	2.49	0.47
3:I:54:MET:HG3	3:I:86:ALA:CB	2.45	0.47
3:J:455:LYS:NZ	3:J:478:HIS:HA	2.30	0.47
3:J:1027:ARG:HB2	3:J:1078:LYS:CE	2.23	0.47
3:J:1040:LYS:HB2	3:J:1068:ARG:HD2	1.97	0.47
3:K:458:GLY:HA3	3:K:459:GLU:HB3	1.96	0.47
3:K:561:ARG:HH21	3:L:779:THR:HG22	1.80	0.47
3:K:676:ALA:HA	3:K:679:ILE:HG12	1.97	0.47
3:L:310:ASN:O	3:L:314:GLU:HG2	2.14	0.47
3:L:651:LYS:HD3	3:L:651:LYS:N	2.29	0.47
3:L:676:ALA:HA	3:L:679:ILE:HG12	1.97	0.47
3:L:1040:LYS:HB2	3:L:1068:ARG:HD2	1.97	0.47
2:A:333:LYS:O	2:A:334:ALA:C	2.53	0.47
2:B:645:ALA:O	2:B:649:ILE:N	2.47	0.47
2:C:363:MET:HB3	2:D:285:GLU:HB3	1.96	0.47
2:C:699:LEU:CD2	2:D:372:LYS:HZ3	2.28	0.47
2:D:265:GLY:HA2	2:D:266:ASP:HA	1.50	0.47
2:D:639:ARG:NE	2:E:418:HIS:CD2	2.83	0.47
2:E:323:ARG:HA	2:E:363:MET:HE2	1.96	0.47
2:G:265:GLY:HA2	2:G:266:ASP:HA	1.51	0.47
2:G:343:GLU:HA	2:G:349:ARG:HH12	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:663:MET:HG2	2:G:672:LEU:HD13	1.96	0.47
2:H:265:GLY:HA2	2:H:266:ASP:HA	1.50	0.47
2:H:387:ILE:HG12	2:H:416:PHE:HE1	1.80	0.47
3:I:376:LEU:HD21	3:I:1285:MET:HE3	1.97	0.47
3:I:930:GLU:HB3	3:I:1100:ALA:HB2	1.97	0.47
3:J:143:LEU:HD23	3:J:143:LEU:HA	1.79	0.47
3:J:813:ILE:HD13	3:J:824:LEU:CD2	2.43	0.47
3:J:1036:MET:C	3:J:1038:GLY:N	2.67	0.47
3:K:813:ILE:HD13	3:K:824:LEU:CD2	2.43	0.47
3:K:817:THR:HG23	3:K:1229:ASN:ND2	2.28	0.47
2:B:257:GLY:O	2:B:258:ALA:C	2.53	0.47
2:B:387:ILE:HG12	2:B:416:PHE:HE1	1.80	0.47
2:D:387:ILE:HG12	2:D:416:PHE:HE1	1.80	0.47
2:E:171:ILE:HG13	2:E:175:ASN:OD1	2.15	0.47
2:F:135:MET:SD	2:F:135:MET:C	2.94	0.47
2:F:363:MET:HB3	2:G:285:GLU:O	2.14	0.47
2:H:645:ALA:C	2:H:648:GLY:H	2.19	0.47
3:I:290:TYR:OH	3:I:316:ASP:OD2	2.25	0.47
3:J:458:GLY:HA3	3:J:459:GLU:HB3	1.96	0.47
3:J:1195:LEU:HD23	3:J:1195:LEU:HA	1.59	0.47
3:L:54:MET:HG3	3:L:86:ALA:CB	2.45	0.47
2:A:343:GLU:HA	2:A:349:ARG:HH12	1.80	0.47
2:A:650:ILE:HG23	2:A:656:ILE:O	2.15	0.47
2:A:686:GLU:OE2	3:I:153:GLN:OE1	2.32	0.47
2:D:323:ARG:HD2	2:E:249:SER:CB	2.43	0.47
2:E:343:GLU:HA	2:E:349:ARG:HH12	1.80	0.47
2:F:676:THR:CG2	2:F:677:GLY:H	2.18	0.47
2:H:398:GLU:OE1	2:H:398:GLU:HA	2.15	0.47
3:K:621:PRO:C	3:K:623:GLU:H	2.17	0.47
3:K:1159:ALA:HB2	3:K:1171:LEU:HD13	1.97	0.47
3:K:1291:LEU:HD12	3:K:1292:VAL:HG23	1.95	0.47
3:L:600:TYR:HE1	3:L:604:ARG:CZ	2.20	0.47
3:L:654:SER:O	3:L:654:SER:OG	2.27	0.47
3:L:670:TYR:CE2	3:L:738:ILE:HG12	2.50	0.47
2:A:635:TRP:CG	2:A:636:GLU:N	2.81	0.46
2:B:661:LEU:HA	2:B:674:ASP:HA	1.97	0.46
2:D:135:MET:SD	2:D:135:MET:C	2.94	0.46
2:E:333:LYS:O	2:E:334:ALA:C	2.53	0.46
2:E:383:LYS:HE3	2:E:420:ASP:HB3	1.97	0.46
2:F:171:ILE:HG13	2:F:175:ASN:OD1	2.15	0.46
2:H:135:MET:SD	2:H:135:MET:C	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:212:LEU:H	2:H:212:LEU:HD12	1.80	0.46
2:H:534:ALA:HB1	2:H:586:ARG:HA	1.96	0.46
3:I:1162:LEU:O	3:I:1163:PRO:C	2.51	0.46
3:J:670:TYR:CE2	3:J:738:ILE:HG12	2.50	0.46
3:K:11:ASP:HA	3:K:12:TYR:HA	1.61	0.46
3:K:670:TYR:CE2	3:K:738:ILE:HG12	2.50	0.46
2:A:212:LEU:HD12	2:A:212:LEU:H	1.80	0.46
2:A:252:SER:HB2	2:A:294:ALA:HB2	1.98	0.46
2:B:74:ILE:HA	2:B:77:LYS:HE2	1.97	0.46
2:B:645:ALA:C	2:B:648:GLY:H	2.19	0.46
2:C:398:GLU:OE1	2:C:398:GLU:HA	2.14	0.46
2:D:139:ARG:HH21	2:D:175:ASN:HD22	1.57	0.46
2:D:645:ALA:C	2:D:648:GLY:H	2.19	0.46
2:G:567:ARG:O	2:G:568:MET:C	2.54	0.46
2:H:257:GLY:O	2:H:258:ALA:C	2.53	0.46
2:H:646:ARG:CZ	2:H:647:LYS:CE	2.87	0.46
3:I:821:THR:O	3:I:822:LYS:C	2.50	0.46
3:I:1045:GLU:HA	3:I:1057:VAL:HB	1.98	0.46
3:I:1195:LEU:HD23	3:I:1195:LEU:HA	1.59	0.46
3:K:143:LEU:HA	3:K:143:LEU:HD23	1.79	0.46
3:K:1206:GLY:HA2	3:K:1207:PHE:CB	2.39	0.46
2:A:296:ARG:NH2	2:H:373:ALA:HB1	2.31	0.46
2:A:521:MET:CG	2:A:528:PRO:HB3	2.45	0.46
2:B:212:LEU:H	2:B:212:LEU:HD12	1.80	0.46
2:B:572:LEU:O	2:B:573:ARG:C	2.54	0.46
2:C:711:VAL:HG11	2:E:291:MET:HG2	1.97	0.46
2:D:171:ILE:HG13	2:D:175:ASN:OD1	2.15	0.46
2:D:398:GLU:OE1	2:D:398:GLU:HA	2.15	0.46
2:E:711:VAL:HG11	2:G:291:MET:HG2	1.97	0.46
2:F:74:ILE:HA	2:F:77:LYS:HE2	1.97	0.46
2:F:323:ARG:HD2	2:G:249:SER:CB	2.42	0.46
2:G:383:LYS:HE3	2:G:420:ASP:HB3	1.97	0.46
2:G:521:MET:CG	2:G:528:PRO:HB3	2.44	0.46
2:H:521:MET:CG	2:H:528:PRO:HB3	2.44	0.46
2:H:645:ALA:O	2:H:649:ILE:N	2.47	0.46
3:I:51:LEU:O	3:I:51:LEU:HD12	2.16	0.46
3:I:561:ARG:HH21	3:J:779:THR:HG22	1.81	0.46
3:I:600:TYR:HE1	3:I:604:ARG:CZ	2.20	0.46
3:I:621:PRO:C	3:I:623:GLU:H	2.17	0.46
2:A:323:ARG:HH11	2:B:249:SER:HB3	1.80	0.46
2:B:534:ALA:HB1	2:B:586:ARG:HA	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:557:LEU:CD2	2:D:558:ASN:N	2.73	0.46
2:E:684:ASP:OD1	2:E:686:GLU:N	2.47	0.46
2:F:398:GLU:OE1	2:F:398:GLU:HA	2.15	0.46
2:G:333:LYS:O	2:G:334:ALA:C	2.53	0.46
2:G:410:ASN:HD22	2:G:410:ASN:HA	1.53	0.46
2:H:666:GLN:NE2	2:H:666:GLN:CA	2.72	0.46
3:I:1036:MET:C	3:I:1038:GLY:N	2.67	0.46
3:I:1090:VAL:HG11	3:I:1110:SER:HB2	1.98	0.46
3:J:621:PRO:C	3:J:623:GLU:H	2.18	0.46
3:J:1210:SER:HB2	3:J:1231:PRO:HG3	1.97	0.46
3:L:431:ARG:HH22	3:L:484:SER:HB3	1.81	0.46
2:D:257:GLY:O	2:D:258:ALA:C	2.53	0.46
2:D:553:PHE:CE1	2:D:557:LEU:CD1	2.99	0.46
2:F:225:ILE:HD12	2:F:225:ILE:HA	1.75	0.46
2:F:383:LYS:HE3	2:F:420:ASP:HB3	1.98	0.46
2:F:513:GLU:CG	2:F:578:LYS:HD3	2.46	0.46
2:G:451:GLN:HA	2:G:452:ALA:HA	1.62	0.46
2:H:572:LEU:O	2:H:573:ARG:C	2.54	0.46
3:J:97:PHE:CD2	3:J:103:LYS:HG2	2.51	0.46
3:J:1159:ALA:HB2	3:J:1171:LEU:HD13	1.97	0.46
3:K:1040:LYS:HB2	3:K:1068:ARG:HD2	1.97	0.46
3:K:1210:SER:HB2	3:K:1231:PRO:HG3	1.97	0.46
3:L:1159:ALA:HB2	3:L:1171:LEU:HD13	1.97	0.46
3:L:1188:SER:O	3:L:1188:SER:OG	2.30	0.46
2:A:406:ASP:O	2:A:408:PRO:HD3	2.16	0.46
2:A:663:MET:HG2	2:A:672:LEU:HD13	1.96	0.46
2:D:383:LYS:HE3	2:D:420:ASP:HB3	1.98	0.46
2:D:513:GLU:CG	2:D:578:LYS:HD3	2.46	0.46
2:D:628:VAL:HG13	2:D:689:SER:HB2	1.97	0.46
2:E:567:ARG:O	2:E:568:MET:C	2.54	0.46
2:F:661:LEU:HA	2:F:674:ASP:HA	1.97	0.46
2:G:650:ILE:HG23	2:G:656:ILE:O	2.15	0.46
2:H:628:VAL:HG13	2:H:689:SER:HB2	1.97	0.46
3:I:155:GLU:HA	3:I:156:THR:HA	1.73	0.46
3:I:594:SER:HA	3:I:595:ARG:HA	1.56	0.46
3:I:824:LEU:HD21	3:I:1230:LYS:HZ3	1.81	0.46
3:J:250:GLY:O	3:J:251:ARG:CB	2.61	0.46
3:J:817:THR:HG23	3:J:1229:ASN:ND2	2.28	0.46
3:J:1045:GLU:HA	3:J:1057:VAL:HB	1.98	0.46
3:K:824:LEU:HD12	3:K:824:LEU:HA	1.59	0.46
3:K:930:GLU:HB3	3:K:1100:ALA:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:1027:ARG:HB2	3:K:1078:LYS:CE	2.23	0.46
2:A:171:ILE:HG13	2:A:175:ASN:OD1	2.15	0.46
2:A:418:HIS:HD2	2:H:639:ARG:NE	2.14	0.46
2:B:666:GLN:NE2	2:B:666:GLN:CA	2.72	0.46
2:C:699:LEU:CD2	2:D:372:LYS:NZ	2.79	0.46
2:E:346:THR:C	2:E:348:GLN:H	2.19	0.46
2:F:645:ALA:C	2:F:648:GLY:H	2.19	0.46
2:G:572:LEU:HA	2:G:572:LEU:HD23	1.62	0.46
2:H:114:TYR:O	2:H:115:LEU:C	2.54	0.46
2:H:661:LEU:HA	2:H:674:ASP:HA	1.97	0.46
3:I:455:LYS:NZ	3:I:478:HIS:HA	2.30	0.46
3:K:376:LEU:HD11	3:K:1285:MET:HE3	1.96	0.46
3:K:1151:TYR:CE2	3:K:1180:ILE:HD13	2.51	0.46
3:K:1195:LEU:HD23	3:K:1195:LEU:HA	1.59	0.46
3:L:455:LYS:HB3	3:L:464:PRO:HB2	1.98	0.46
3:L:455:LYS:NZ	3:L:478:HIS:HA	2.30	0.46
3:L:930:GLU:HB3	3:L:1100:ALA:HB2	1.97	0.46
2:A:93:LEU:HD13	2:A:93:LEU:HA	1.73	0.46
2:A:346:THR:C	2:A:348:GLN:H	2.20	0.46
2:B:135:MET:SD	2:B:135:MET:C	2.94	0.46
2:B:513:GLU:CG	2:B:578:LYS:HD3	2.46	0.46
2:B:639:ARG:NE	2:C:418:HIS:CD2	2.84	0.46
2:D:638:GLY:O	2:D:639:ARG:C	2.54	0.46
2:E:235:PRO:HA	2:E:236:SER:HA	1.48	0.46
2:F:534:ALA:HB1	2:F:586:ARG:HA	1.96	0.46
2:G:323:ARG:HA	2:G:363:MET:HE2	1.97	0.46
2:G:346:THR:C	2:G:348:GLN:H	2.19	0.46
3:I:670:TYR:CE2	3:I:738:ILE:HG12	2.50	0.46
3:I:817:THR:HG23	3:I:1229:ASN:ND2	2.28	0.46
3:J:1090:VAL:HG11	3:J:1110:SER:HB2	1.98	0.46
3:J:1162:LEU:O	3:J:1163:PRO:C	2.51	0.46
3:K:401:MET:HA	3:K:404:ILE:HG22	1.98	0.46
3:K:455:LYS:HB3	3:K:464:PRO:HB2	1.98	0.46
3:K:627:MET:HE3	3:K:627:MET:HB3	1.81	0.46
3:K:1120:PHE:CE2	3:K:1304:LYS:CG	2.80	0.46
3:L:97:PHE:CD2	3:L:103:LYS:HG2	2.51	0.46
3:L:421:PHE:C	3:L:423:ASN:HB2	2.36	0.46
3:L:1151:TYR:CE2	3:L:1180:ILE:HD13	2.51	0.46
2:B:699:LEU:HB3	2:C:372:LYS:NZ	2.30	0.46
2:C:406:ASP:O	2:C:408:PRO:HD3	2.16	0.46
2:D:661:LEU:HA	2:D:674:ASP:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:390:GLN:NE2	2:F:400:VAL:HG12	2.31	0.46
2:F:399:TRP:CZ2	3:K:414:ARG:HA	2.50	0.46
2:F:553:PHE:CE1	2:F:557:LEU:CD1	2.99	0.46
2:G:346:THR:C	2:G:348:GLN:N	2.69	0.46
2:H:513:GLU:CG	2:H:578:LYS:HD3	2.46	0.46
3:I:676:ALA:HA	3:I:679:ILE:HG12	1.97	0.46
3:K:431:ARG:HH22	3:K:484:SER:HB3	1.80	0.46
3:L:1045:GLU:HA	3:L:1057:VAL:HB	1.98	0.46
2:A:299:PHE:HE1	2:H:378:MET:CE	2.28	0.46
2:A:711:VAL:HG11	2:C:291:MET:HG2	1.98	0.46
2:B:139:ARG:HH21	2:B:175:ASN:HD22	1.57	0.46
2:B:265:GLY:HA2	2:B:266:ASP:HA	1.50	0.46
2:C:75:ILE:CD1	2:C:92:LEU:HG	2.46	0.46
2:C:252:SER:HB2	2:C:294:ALA:HB2	1.98	0.46
2:C:346:THR:C	2:C:348:GLN:H	2.20	0.46
2:D:74:ILE:HA	2:D:77:LYS:HE2	1.97	0.46
2:F:373:ALA:HB1	2:G:296:ARG:NH2	2.31	0.46
2:F:409:VAL:HG22	2:F:414:GLY:H	1.81	0.46
2:F:628:VAL:HG13	2:F:689:SER:HB2	1.97	0.46
2:G:171:ILE:HG13	2:G:175:ASN:OD1	2.15	0.46
2:H:383:LYS:HE3	2:H:420:ASP:HB3	1.98	0.46
3:I:29:LEU:HD11	3:I:101:GLU:HB3	1.98	0.46
3:I:459:GLU:O	3:I:459:GLU:HG3	2.16	0.46
3:I:906:LEU:HD13	3:I:1108:PHE:HE1	1.81	0.46
3:J:421:PHE:C	3:J:423:ASN:HB2	2.36	0.46
3:J:489:ILE:HD11	3:J:892:THR:HG21	1.98	0.46
3:K:51:LEU:O	3:K:51:LEU:HD12	2.16	0.46
3:K:97:PHE:CD2	3:K:103:LYS:HG2	2.51	0.46
3:K:1090:VAL:HG11	3:K:1110:SER:HB2	1.98	0.46
3:L:348:VAL:HG13	3:L:1296:PRO:HG2	1.98	0.46
3:L:1013:LEU:HD12	3:L:1013:LEU:HA	1.64	0.46
2:A:75:ILE:CD1	2:A:92:LEU:HG	2.47	0.45
2:A:567:ARG:O	2:A:568:MET:C	2.54	0.45
2:B:628:VAL:HG13	2:B:689:SER:HB2	1.97	0.45
2:G:406:ASP:O	2:G:408:PRO:HD3	2.16	0.45
2:H:74:ILE:HA	2:H:77:LYS:HE2	1.97	0.45
3:J:459:GLU:HG3	3:J:459:GLU:O	2.16	0.45
3:J:654:SER:O	3:J:654:SER:OG	2.27	0.45
3:K:906:LEU:HD13	3:K:1108:PHE:HE1	1.81	0.45
3:L:489:ILE:HD11	3:L:892:THR:HG21	1.98	0.45
2:A:291:MET:HG3	2:G:711:VAL:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:390:GLN:NE2	2:B:400:VAL:HG12	2.31	0.45
2:C:171:ILE:HG13	2:C:175:ASN:OD1	2.15	0.45
2:D:114:TYR:O	2:D:115:LEU:C	2.54	0.45
2:D:603:GLU:O	2:D:623:LYS:NZ	2.42	0.45
2:E:406:ASP:O	2:E:408:PRO:HD3	2.15	0.45
2:F:639:ARG:NE	2:G:418:HIS:HD2	2.13	0.45
2:G:638:GLY:O	2:G:639:ARG:C	2.54	0.45
2:H:409:VAL:HG22	2:H:414:GLY:H	1.81	0.45
3:I:421:PHE:C	3:I:423:ASN:HB2	2.36	0.45
3:I:1162:LEU:HD22	3:I:1162:LEU:HA	1.83	0.45
3:J:29:LEU:HD11	3:J:101:GLU:HB3	1.98	0.45
3:J:324:LEU:HD22	3:J:324:LEU:HA	1.72	0.45
3:J:906:LEU:HD13	3:J:1108:PHE:HE1	1.82	0.45
3:K:422:ASP:OD1	3:K:422:ASP:N	2.49	0.45
3:K:1009:ILE:HG23	3:K:1041:SER:OG	2.17	0.45
3:L:51:LEU:O	3:L:51:LEU:HD12	2.16	0.45
3:L:479:ASP:HB2	3:L:481:SER:H	1.81	0.45
3:L:1090:VAL:HG11	3:L:1110:SER:HB2	1.98	0.45
2:A:138:TYR:HE1	2:A:142:ARG:HH11	1.65	0.45
2:A:299:PHE:HE2	2:H:377:SER:HG	1.64	0.45
2:B:553:PHE:CE1	2:B:557:LEU:CD1	2.99	0.45
2:C:383:LYS:HE3	2:C:420:ASP:HB3	1.97	0.45
2:C:451:GLN:HA	2:C:452:ALA:HA	1.62	0.45
2:C:567:ARG:O	2:C:568:MET:C	2.54	0.45
2:C:628:VAL:CG1	2:C:692:TRP:HB3	2.46	0.45
2:D:700:GLU:C	2:D:702:LYS:H	2.20	0.45
2:E:628:VAL:CG1	2:E:692:TRP:HB3	2.46	0.45
2:F:114:TYR:O	2:F:115:LEU:C	2.54	0.45
2:F:257:GLY:O	2:F:258:ALA:C	2.53	0.45
2:F:545:GLN:HE21	2:F:545:GLN:HB2	1.60	0.45
2:F:669:SER:O	2:F:671:TYR:N	2.50	0.45
2:H:171:ILE:HG13	2:H:175:ASN:OD1	2.15	0.45
3:J:917:LEU:HD13	3:J:917:LEU:HA	1.59	0.45
3:L:250:GLY:O	3:L:251:ARG:CB	2.61	0.45
3:L:1098:PHE:HA	3:L:1099:GLY:HA2	1.59	0.45
2:A:390:GLN:NE2	2:A:400:VAL:HG12	2.31	0.45
2:C:138:TYR:HE1	2:C:142:ARG:HH11	1.65	0.45
2:C:270:THR:HG22	2:C:275:THR:HG22	1.98	0.45
2:D:323:ARG:HD2	2:E:249:SER:HG	1.75	0.45
2:D:390:GLN:NE2	2:D:400:VAL:HG12	2.31	0.45
2:D:409:VAL:HG22	2:D:414:GLY:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:75:ILE:CD1	2:E:92:LEU:HG	2.46	0.45
2:E:563:PRO:HB3	2:E:617:THR:HG21	1.99	0.45
2:F:387:ILE:HG12	2:F:416:PHE:HE1	1.80	0.45
2:G:390:GLN:NE2	2:G:400:VAL:HG12	2.31	0.45
2:H:390:GLN:NE2	2:H:400:VAL:HG12	2.31	0.45
2:H:553:PHE:CE1	2:H:557:LEU:CD1	2.99	0.45
3:I:348:VAL:HG13	3:I:1296:PRO:HG2	1.98	0.45
3:I:422:ASP:N	3:I:422:ASP:OD1	2.49	0.45
3:I:1159:ALA:HB2	3:I:1171:LEU:HD13	1.97	0.45
3:K:421:PHE:C	3:K:423:ASN:HB2	2.36	0.45
3:K:1045:GLU:HA	3:K:1057:VAL:HB	1.98	0.45
2:A:383:LYS:HE3	2:A:420:ASP:HB3	1.98	0.45
2:A:563:PRO:HB3	2:A:617:THR:HG21	1.99	0.45
2:D:553:PHE:HE1	2:D:557:LEU:CD1	2.30	0.45
2:F:553:PHE:HE1	2:F:557:LEU:CD1	2.29	0.45
2:G:75:ILE:CD1	2:G:92:LEU:HG	2.46	0.45
2:G:252:SER:HB2	2:G:294:ALA:HB2	1.98	0.45
3:I:350:GLY:HA3	3:I:351:LYS:HA	1.61	0.45
3:I:1165:GLU:O	3:I:1166:LYS:C	2.54	0.45
3:J:11:ASP:HA	3:J:12:TYR:HA	1.61	0.45
3:J:435:ARG:NH2	3:J:482:VAL:O	2.50	0.45
3:J:676:ALA:HA	3:J:679:ILE:HG12	1.97	0.45
3:J:930:GLU:HB3	3:J:1100:ALA:HB2	1.97	0.45
3:J:1151:TYR:CE2	3:J:1180:ILE:HD13	2.51	0.45
3:K:29:LEU:HD11	3:K:101:GLU:HB3	1.98	0.45
3:K:333:ILE:HD13	3:K:429:MET:HG3	1.92	0.45
3:L:401:MET:HA	3:L:404:ILE:HG22	1.98	0.45
2:E:121:MET:O	2:E:122:GLN:C	2.55	0.45
2:E:265:GLY:HA2	2:E:266:ASP:HA	1.50	0.45
2:F:135:MET:HE3	2:F:135:MET:O	2.17	0.45
2:F:378:MET:CE	2:G:299:PHE:HE1	2.29	0.45
2:F:548:GLU:HG3	2:G:543:LYS:HG2	1.97	0.45
2:H:322:PRO:HG3	2:H:362:GLN:HG2	1.99	0.45
3:I:97:PHE:CD2	3:I:103:LYS:HG2	2.51	0.45
3:I:146:ALA:HB3	3:I:147:LYS:HG3	1.85	0.45
3:I:456:PHE:HB2	3:I:457:GLU:HA	1.98	0.45
3:I:489:ILE:HD11	3:I:892:THR:HG21	1.98	0.45
3:I:616:GLN:HB3	3:I:617:LYS:H	1.54	0.45
3:I:1013:LEU:HD12	3:I:1013:LEU:HA	1.64	0.45
3:I:1210:SER:HB2	3:I:1231:PRO:HG3	1.97	0.45
3:J:422:ASP:N	3:J:422:ASP:OD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:459:GLU:HG3	3:K:459:GLU:O	2.16	0.45
3:L:29:LEU:HD11	3:L:101:GLU:HB3	1.99	0.45
3:L:338:ASP:HB2	3:L:340:LEU:H	1.81	0.45
3:L:1009:ILE:HG23	3:L:1041:SER:OG	2.17	0.45
2:A:451:GLN:HA	2:A:452:ALA:HA	1.62	0.45
2:A:546:ARG:O	2:A:549:ASP:N	2.50	0.45
2:B:135:MET:HE2	2:B:136:GLU:CA	2.44	0.45
2:B:171:ILE:HG13	2:B:175:ASN:OD1	2.15	0.45
2:C:546:ARG:O	2:C:549:ASP:N	2.50	0.45
2:D:639:ARG:NE	2:E:418:HIS:HD2	2.15	0.45
2:E:617:THR:OG1	3:K:1119:LYS:NZ	2.30	0.45
2:G:270:THR:HG22	2:G:275:THR:HG22	1.98	0.45
2:G:322:PRO:HG3	2:G:362:GLN:HG2	1.99	0.45
2:H:399:TRP:CZ2	3:L:414:ARG:HA	2.52	0.45
2:H:451:GLN:HA	2:H:452:ALA:HA	1.62	0.45
2:H:669:SER:O	2:H:671:TYR:N	2.50	0.45
3:I:1009:ILE:HG23	3:I:1041:SER:OG	2.17	0.45
3:I:1151:TYR:CE2	3:I:1180:ILE:HD13	2.51	0.45
3:J:51:LEU:O	3:J:51:LEU:HD12	2.16	0.45
3:J:1009:ILE:HG23	3:J:1041:SER:OG	2.17	0.45
3:K:146:ALA:HB3	3:K:147:LYS:HG3	1.85	0.45
3:K:324:LEU:HD22	3:K:324:LEU:HA	1.72	0.45
3:K:435:ARG:NH2	3:K:482:VAL:O	2.50	0.45
3:L:155:GLU:HA	3:L:156:THR:HA	1.73	0.45
3:L:435:ARG:NH2	3:L:482:VAL:O	2.50	0.45
2:B:547:PHE:CD1	2:B:547:PHE:O	2.70	0.45
2:B:676:THR:HG21	2:B:678:GLN:HG3	1.99	0.45
2:C:122:GLN:O	2:C:123:LYS:C	2.55	0.45
2:D:645:ALA:O	2:D:649:ILE:N	2.47	0.45
2:E:132:ARG:HE	2:E:182:HIS:CD2	2.35	0.45
2:E:252:SER:HB2	2:E:294:ALA:HB2	1.97	0.45
2:G:138:TYR:HE1	2:G:142:ARG:HH11	1.65	0.45
2:H:139:ARG:HH21	2:H:175:ASN:HD22	1.57	0.45
3:I:11:ASP:HA	3:I:12:TYR:HA	1.61	0.45
3:I:455:LYS:HB3	3:I:464:PRO:HB2	1.98	0.45
3:I:479:ASP:HB2	3:I:481:SER:H	1.81	0.45
3:J:296:GLY:HA3	3:J:297:GLY:HA3	1.60	0.45
3:J:479:ASP:HB2	3:J:481:SER:H	1.81	0.45
3:J:929:LYS:HA	3:J:929:LYS:HD3	1.87	0.45
3:K:338:ASP:HB2	3:K:340:LEU:H	1.81	0.45
3:K:479:ASP:HB2	3:K:481:SER:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:1013:LEU:HB3	3:K:1014:THR:H	1.56	0.45
3:L:1210:SER:HB2	3:L:1231:PRO:HG3	1.97	0.45
2:B:135:MET:HE3	2:B:136:GLU:CA	2.41	0.45
2:B:383:LYS:HE3	2:B:420:ASP:HB3	1.98	0.45
2:D:399:TRP:CZ2	3:J:414:ARG:HA	2.51	0.45
2:E:138:TYR:HE1	2:E:142:ARG:HH11	1.65	0.45
2:E:346:THR:C	2:E:348:GLN:N	2.69	0.45
2:H:676:THR:HG21	2:H:678:GLN:HG3	1.99	0.45
3:I:435:ARG:NH2	3:I:482:VAL:O	2.50	0.45
3:J:456:PHE:HB2	3:J:457:GLU:HA	1.98	0.45
3:K:348:VAL:HG13	3:K:1296:PRO:HG2	1.99	0.45
2:B:384:LEU:HD11	2:B:424:TYR:HA	1.99	0.45
2:B:409:VAL:HG22	2:B:414:GLY:H	1.81	0.45
2:B:553:PHE:HE1	2:B:557:LEU:CD1	2.30	0.45
2:B:557:LEU:C	2:B:557:LEU:CD2	2.85	0.45
2:B:557:LEU:CD2	2:B:558:ASN:N	2.73	0.45
2:C:147:ALA:HB2	2:C:167:PHE:CZ	2.52	0.45
2:C:547:PHE:HD1	2:C:547:PHE:HA	1.65	0.45
2:F:516:LEU:CD1	2:F:579:ILE:HG23	2.47	0.45
2:G:132:ARG:HE	2:G:182:HIS:CD2	2.35	0.45
3:I:553:ALA:O	3:J:779:THR:OG1	2.27	0.45
3:K:39:ARG:HD3	3:K:39:ARG:HA	1.78	0.45
3:K:489:ILE:HD11	3:K:892:THR:HG21	1.98	0.45
3:L:1120:PHE:CD1	3:L:1120:PHE:O	2.70	0.45
2:A:122:GLN:O	2:A:123:LYS:C	2.55	0.44
2:A:322:PRO:HG3	2:A:362:GLN:HG2	1.99	0.44
2:B:700:GLU:C	2:B:702:LYS:H	2.20	0.44
2:C:322:PRO:HG3	2:C:362:GLN:HG2	1.99	0.44
2:C:563:PRO:HB3	2:C:617:THR:HG21	1.99	0.44
2:C:638:GLY:O	2:C:639:ARG:C	2.54	0.44
2:D:547:PHE:CD1	2:D:547:PHE:O	2.70	0.44
2:D:669:SER:O	2:D:671:TYR:N	2.50	0.44
2:E:699:LEU:CD2	2:F:372:LYS:NZ	2.80	0.44
2:F:547:PHE:CD1	2:F:547:PHE:O	2.70	0.44
2:G:563:PRO:HB3	2:G:617:THR:HG21	1.99	0.44
2:H:384:LEU:HD11	2:H:424:TYR:HA	1.99	0.44
2:H:516:LEU:CD1	2:H:579:ILE:HG23	2.47	0.44
3:I:401:MET:HA	3:I:404:ILE:HG22	1.98	0.44
3:K:1165:GLU:O	3:K:1166:LYS:C	2.54	0.44
3:L:906:LEU:HD13	3:L:1108:PHE:HE1	1.81	0.44
2:A:147:ALA:HB2	2:A:167:PHE:CZ	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:270:THR:HG22	2:B:275:THR:HG22	1.99	0.44
2:B:516:LEU:CD1	2:B:579:ILE:HG23	2.47	0.44
2:C:132:ARG:HE	2:C:182:HIS:CD2	2.35	0.44
2:D:270:THR:HG22	2:D:275:THR:HG22	1.99	0.44
2:D:322:PRO:HG3	2:D:362:GLN:HG2	1.99	0.44
2:E:390:GLN:NE2	2:E:400:VAL:HG12	2.31	0.44
2:F:603:GLU:O	2:F:623:LYS:NZ	2.42	0.44
2:F:645:ALA:O	2:F:649:ILE:N	2.47	0.44
2:G:628:VAL:CG1	2:G:692:TRP:HB3	2.46	0.44
2:H:138:TYR:O	2:H:138:TYR:CD1	2.70	0.44
2:H:553:PHE:HE1	2:H:557:LEU:CD1	2.29	0.44
3:J:401:MET:HA	3:J:404:ILE:HG22	1.98	0.44
3:J:553:ALA:O	3:K:779:THR:OG1	2.26	0.44
3:K:456:PHE:HB2	3:K:457:GLU:HA	1.98	0.44
3:L:422:ASP:N	3:L:422:ASP:OD1	2.49	0.44
2:A:132:ARG:HE	2:A:182:HIS:CD2	2.35	0.44
2:A:598:THR:HG23	2:A:599:LYS:N	2.32	0.44
2:C:390:GLN:NE2	2:C:400:VAL:HG12	2.31	0.44
2:C:598:THR:HG23	2:C:599:LYS:N	2.33	0.44
2:D:572:LEU:O	2:D:573:ARG:C	2.54	0.44
2:F:322:PRO:HG3	2:F:362:GLN:HG2	1.99	0.44
2:G:551:LYS:HA	2:G:551:LYS:HD2	1.82	0.44
3:I:431:ARG:HH22	3:I:484:SER:HB3	1.81	0.44
3:I:935:LEU:HD11	3:I:1154:ALA:HA	2.00	0.44
3:J:348:VAL:HG13	3:J:1296:PRO:HG2	1.98	0.44
3:J:431:ARG:HH22	3:J:484:SER:HB3	1.81	0.44
3:J:455:LYS:HZ2	3:J:478:HIS:HA	1.82	0.44
3:J:935:LEU:HD11	3:J:1154:ALA:HA	2.00	0.44
3:J:1120:PHE:CD1	3:J:1120:PHE:O	2.70	0.44
3:J:1205:LEU:HD23	3:J:1205:LEU:H	1.82	0.44
3:K:1120:PHE:O	3:K:1120:PHE:CD1	2.70	0.44
2:A:270:THR:HG22	2:A:275:THR:HG22	1.98	0.44
2:C:121:MET:O	2:C:122:GLN:C	2.55	0.44
2:E:147:ALA:HB2	2:E:167:PHE:CZ	2.52	0.44
2:E:270:THR:HG22	2:E:275:THR:HG22	1.98	0.44
2:E:451:GLN:HA	2:E:452:ALA:HA	1.62	0.44
2:E:546:ARG:O	2:E:549:ASP:N	2.50	0.44
2:G:598:THR:HG23	2:G:599:LYS:N	2.33	0.44
3:I:627:MET:HE3	3:I:627:MET:HB3	1.80	0.44
3:I:912:ILE:HG23	3:I:917:LEU:HD23	2.00	0.44
3:J:455:LYS:HB3	3:J:464:PRO:HB2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:655:ILE:HD12	3:J:655:ILE:C	2.36	0.44
3:J:1098:PHE:HA	3:J:1099:GLY:HA2	1.59	0.44
3:L:456:PHE:HB2	3:L:457:GLU:HA	1.98	0.44
3:L:824:LEU:HA	3:L:824:LEU:HD12	1.59	0.44
3:L:1165:GLU:O	3:L:1166:LYS:C	2.54	0.44
2:C:635:TRP:CG	2:C:636:GLU:N	2.81	0.44
2:D:138:TYR:CD1	2:D:138:TYR:O	2.70	0.44
2:F:666:GLN:NE2	2:F:666:GLN:CA	2.72	0.44
2:G:125:LYS:HD3	2:G:125:LYS:HA	1.74	0.44
2:G:147:ALA:HB2	2:G:167:PHE:CZ	2.52	0.44
2:H:547:PHE:CD1	2:H:547:PHE:O	2.70	0.44
2:H:579:ILE:CG1	2:H:600:PHE:CE2	3.01	0.44
3:I:1151:TYR:HE2	3:I:1180:ILE:HD13	1.83	0.44
3:J:997:LEU:HD23	3:J:997:LEU:HA	1.82	0.44
3:J:1165:GLU:O	3:J:1166:LYS:C	2.54	0.44
3:K:1188:SER:O	3:K:1188:SER:OG	2.30	0.44
3:L:1151:TYR:HE2	3:L:1180:ILE:HD13	1.83	0.44
2:A:265:GLY:HA2	2:A:266:ASP:HA	1.51	0.44
2:A:410:ASN:HD22	2:A:410:ASN:HA	1.54	0.44
2:B:673:MET:SD	3:I:426:ILE:HG22	2.58	0.44
2:C:116:VAL:HG21	2:C:143:LEU:HA	2.00	0.44
2:D:516:LEU:CD1	2:D:579:ILE:HG23	2.47	0.44
2:F:143:LEU:HD12	2:F:143:LEU:HA	1.80	0.44
2:F:676:THR:HG21	2:F:678:GLN:HG3	1.99	0.44
3:I:1120:PHE:O	3:I:1120:PHE:CD1	2.70	0.44
3:J:338:ASP:HB2	3:J:340:LEU:H	1.81	0.44
3:K:637:LYS:NZ	3:K:808:ASN:HD21	2.16	0.44
2:A:384:LEU:HD11	2:A:424:TYR:HA	1.99	0.44
2:B:547:PHE:CE2	3:I:318:ARG:HB3	2.52	0.44
2:D:676:THR:HG21	2:D:678:GLN:HG3	1.99	0.44
2:E:575:SER:O	2:E:578:LYS:N	2.50	0.44
2:E:598:THR:HG23	2:E:599:LYS:N	2.33	0.44
2:G:121:MET:O	2:G:122:GLN:C	2.55	0.44
2:G:122:GLN:O	2:G:123:LYS:C	2.55	0.44
3:I:340:LEU:HD23	3:I:340:LEU:HA	1.85	0.44
3:J:1013:LEU:HD12	3:J:1013:LEU:HA	1.64	0.44
3:K:621:PRO:C	3:K:623:GLU:N	2.71	0.44
3:K:655:ILE:HD12	3:K:655:ILE:C	2.37	0.44
3:K:912:ILE:HG23	3:K:917:LEU:HD23	2.00	0.44
3:K:1120:PHE:CD2	3:K:1304:LYS:HB2	2.36	0.44
2:A:628:VAL:CG1	2:A:692:TRP:HB3	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:548:GLU:HG3	2:C:543:LYS:HG2	1.98	0.44
2:B:676:THR:HA	3:I:431:ARG:CG	2.48	0.44
2:D:373:ALA:HB1	2:E:296:ARG:NH2	2.33	0.44
2:E:628:VAL:HG11	2:E:692:TRP:CE3	2.53	0.44
2:E:670:ILE:O	2:E:683:TYR:N	2.50	0.44
2:F:138:TYR:O	2:F:138:TYR:CD1	2.70	0.44
2:F:638:GLY:O	2:F:639:ARG:C	2.54	0.44
2:G:148:LYS:HE3	2:G:148:LYS:HB2	1.64	0.44
2:G:547:PHE:HD1	2:G:547:PHE:HA	1.65	0.44
2:G:628:VAL:HG11	2:G:692:TRP:CE3	2.53	0.44
2:G:670:ILE:O	2:G:683:TYR:N	2.51	0.44
2:H:557:LEU:CD2	2:H:558:ASN:N	2.73	0.44
3:I:453:ASN:CG	3:I:454:MET:HA	2.38	0.44
3:I:621:PRO:C	3:I:623:GLU:N	2.71	0.44
3:J:450:ASN:HA	3:J:451:THR:HA	1.62	0.44
3:J:453:ASN:CG	3:J:454:MET:HA	2.38	0.44
3:J:577:MET:HG3	3:J:603:TYR:OH	2.18	0.44
3:L:358:LYS:HA	3:L:358:LYS:HD3	1.60	0.44
2:A:346:THR:C	2:A:348:GLN:N	2.69	0.44
2:A:670:ILE:O	2:A:683:TYR:N	2.51	0.44
2:A:711:VAL:HG21	2:C:291:MET:HG3	2.00	0.44
2:B:114:TYR:O	2:B:115:LEU:C	2.54	0.44
2:B:324:THR:HA	2:B:327:GLU:HG2	2.00	0.44
2:B:579:ILE:CG1	2:B:600:PHE:CE2	3.01	0.44
2:E:322:PRO:HG3	2:E:362:GLN:HG2	1.99	0.44
2:E:711:VAL:HG21	2:G:291:MET:HG3	2.00	0.44
3:I:473:GLY:HA3	3:I:485:ALA:HB2	2.00	0.44
3:I:926:LYS:NZ	3:I:930:GLU:OE2	2.51	0.44
3:I:1205:LEU:HD23	3:I:1205:LEU:H	1.82	0.44
3:J:926:LYS:NZ	3:J:930:GLU:OE2	2.51	0.44
3:J:1227:ASP:O	3:J:1231:PRO:HD2	2.18	0.44
3:L:1195:LEU:HA	3:L:1195:LEU:HD23	1.59	0.44
3:L:1205:LEU:HD23	3:L:1205:LEU:H	1.82	0.44
2:A:104:LEU:HD12	2:H:197:ASN:HD22	1.83	0.43
2:B:669:SER:O	2:B:671:TYR:N	2.50	0.43
2:C:711:VAL:HG21	2:E:291:MET:HG3	1.99	0.43
2:E:116:VAL:HG21	2:E:143:LEU:HA	2.00	0.43
2:F:557:LEU:HD23	2:F:558:ASN:HA	1.99	0.43
2:G:546:ARG:O	2:G:549:ASP:N	2.50	0.43
3:I:338:ASP:HB2	3:I:340:LEU:H	1.81	0.43
3:J:473:GLY:HA3	3:J:485:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:308:LEU:HD23	3:K:308:LEU:HA	1.84	0.43
3:K:473:GLY:HA3	3:K:485:ALA:HB2	2.00	0.43
3:K:935:LEU:HD11	3:K:1154:ALA:HA	2.00	0.43
3:K:988:LEU:C	3:K:989:LEU:HD23	2.39	0.43
3:L:143:LEU:HD23	3:L:143:LEU:HA	1.79	0.43
3:L:459:GLU:HG3	3:L:459:GLU:O	2.16	0.43
3:L:577:MET:HG3	3:L:603:TYR:OH	2.18	0.43
3:L:1227:ASP:O	3:L:1231:PRO:HD2	2.18	0.43
2:A:572:LEU:HD23	2:A:572:LEU:HA	1.62	0.43
2:B:138:TYR:O	2:B:138:TYR:CD1	2.70	0.43
2:C:323:ARG:HA	2:C:363:MET:HE2	2.00	0.43
2:C:670:ILE:O	2:C:683:TYR:N	2.50	0.43
2:E:384:LEU:HD11	2:E:424:TYR:HA	1.99	0.43
2:F:410:ASN:OD1	2:F:411:GLU:N	2.46	0.43
2:H:270:THR:HG22	2:H:275:THR:HG22	1.99	0.43
3:J:294:VAL:O	3:J:294:VAL:HG23	2.18	0.43
3:J:824:LEU:HD11	3:J:1230:LYS:HZ1	1.81	0.43
3:K:358:LYS:HD3	3:K:358:LYS:HA	1.60	0.43
3:K:600:TYR:OH	3:K:948:ARG:NE	2.51	0.43
3:L:621:PRO:C	3:L:623:GLU:N	2.71	0.43
2:A:543:LYS:HG2	2:H:548:GLU:HG3	1.99	0.43
2:A:567:ARG:CD	3:I:1119:LYS:HE3	2.48	0.43
2:B:322:PRO:HG3	2:B:362:GLN:HG2	1.99	0.43
2:B:676:THR:CG2	2:B:677:GLY:N	2.73	0.43
2:C:125:LYS:HZ1	2:C:135:MET:HG2	1.83	0.43
2:C:450:LEU:HD12	2:C:450:LEU:HA	1.86	0.43
2:D:378:MET:CE	2:E:299:PHE:HE1	2.30	0.43
2:E:546:ARG:O	2:E:547:PHE:C	2.57	0.43
2:F:516:LEU:HD22	2:F:579:ILE:CB	2.49	0.43
2:G:384:LEU:HD11	2:G:424:TYR:HA	1.99	0.43
2:H:516:LEU:HD22	2:H:579:ILE:CB	2.49	0.43
2:H:700:GLU:C	2:H:702:LYS:H	2.20	0.43
3:I:359:ALA:O	3:I:360:LEU:HB2	2.19	0.43
3:I:637:LYS:NZ	3:I:808:ASN:HD21	2.16	0.43
3:K:294:VAL:HG23	3:K:294:VAL:O	2.18	0.43
3:K:359:ALA:O	3:K:360:LEU:HB2	2.19	0.43
3:L:637:LYS:NZ	3:L:808:ASN:HD21	2.16	0.43
2:A:116:VAL:HG21	2:A:143:LEU:HA	2.00	0.43
2:A:148:LYS:HE3	2:A:148:LYS:HB2	1.65	0.43
2:A:363:MET:HB3	2:B:285:GLU:HB3	1.99	0.43
2:C:567:ARG:CD	3:J:1119:LYS:HE3	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:384:LEU:HD11	2:D:424:TYR:HA	1.99	0.43
2:F:106:VAL:HA	2:F:166:GLY:HA3	2.01	0.43
2:F:384:LEU:HD11	2:F:424:TYR:HA	1.99	0.43
2:G:395:ILE:HD13	2:G:449:TYR:CE1	2.54	0.43
3:J:719:VAL:HG12	3:J:720:LYS:N	2.34	0.43
3:K:296:GLY:HA3	3:K:297:GLY:HA3	1.60	0.43
3:L:453:ASN:CG	3:L:454:MET:HA	2.38	0.43
3:L:594:SER:HA	3:L:595:ARG:HA	1.56	0.43
3:L:926:LYS:NZ	3:L:930:GLU:OE2	2.51	0.43
2:A:283:GLY:N	2:A:286:GLN:HB3	2.33	0.43
2:B:451:GLN:HA	2:B:452:ALA:HA	1.62	0.43
2:B:638:GLY:O	2:B:639:ARG:C	2.54	0.43
2:C:384:LEU:HD11	2:C:424:TYR:HA	1.99	0.43
2:C:628:VAL:HG11	2:C:692:TRP:CE3	2.53	0.43
2:D:140:HIS:ND1	2:D:141:SER:N	2.67	0.43
2:D:324:THR:HA	2:D:327:GLU:HG2	2.00	0.43
2:D:548:GLU:HG3	2:E:543:LYS:HG2	1.99	0.43
2:D:557:LEU:HD23	2:D:558:ASN:HA	1.99	0.43
2:D:594:MET:HE2	2:D:594:MET:HB3	1.91	0.43
2:E:635:TRP:CG	2:E:636:GLU:N	2.81	0.43
2:F:197:ASN:HD22	2:G:104:LEU:HD12	1.83	0.43
2:F:557:LEU:CD2	2:F:558:ASN:N	2.73	0.43
2:G:699:LEU:CD2	2:H:372:LYS:NZ	2.80	0.43
3:L:1030:SER:HB3	3:L:1033:PRO:CD	2.48	0.43
2:B:553:PHE:HE2	2:B:577:ARG:CB	2.31	0.43
2:D:106:VAL:HA	2:D:166:GLY:HA3	2.01	0.43
2:D:516:LEU:HD22	2:D:579:ILE:CB	2.49	0.43
2:E:289:ALA:O	2:E:293:THR:HG22	2.19	0.43
2:E:687:LEU:CD1	3:K:155:GLU:O	2.67	0.43
2:F:616:ASP:OD1	2:F:616:ASP:N	2.52	0.43
3:I:1170:TYR:O	3:I:1171:LEU:C	2.56	0.43
3:J:244:GLY:O	3:J:248:ARG:HG2	2.19	0.43
3:K:1151:TYR:HE2	3:K:1180:ILE:HD13	1.83	0.43
2:A:121:MET:O	2:A:122:GLN:C	2.55	0.43
2:A:395:ILE:HD13	2:A:449:TYR:CE1	2.54	0.43
2:B:557:LEU:HD23	2:B:558:ASN:HA	1.99	0.43
2:C:395:ILE:HD13	2:C:449:TYR:CE1	2.54	0.43
2:D:676:THR:CG2	2:D:677:GLY:H	2.18	0.43
2:F:324:THR:HA	2:F:327:GLU:HG2	2.00	0.43
2:F:579:ILE:CG1	2:F:600:PHE:CE2	3.01	0.43
2:F:589:ASN:HD22	2:F:589:ASN:HA	1.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:656:ILE:CD1	2:F:658:ASN:OD1	2.67	0.43
2:G:616:ASP:OD1	2:G:616:ASP:N	2.52	0.43
3:J:912:ILE:HG23	3:J:917:LEU:HD23	2.00	0.43
3:K:394:GLY:HA3	3:K:894:ILE:HD13	2.01	0.43
3:K:488:PRO:HB2	3:K:867:TRP:CD2	2.54	0.43
3:K:809:GLY:O	3:K:813:ILE:HG13	2.19	0.43
3:K:1205:LEU:HD23	3:K:1205:LEU:H	1.82	0.43
2:B:106:VAL:HA	2:B:166:GLY:HA3	2.01	0.43
2:C:235:PRO:HA	2:C:236:SER:HA	1.47	0.43
2:D:656:ILE:CD1	2:D:658:ASN:OD1	2.67	0.43
2:E:567:ARG:CD	3:K:1119:LYS:HE3	2.48	0.43
3:I:397:PHE:CE2	3:I:898:ILE:HA	2.54	0.43
3:I:1030:SER:HB3	3:I:1033:PRO:CD	2.48	0.43
3:J:340:LEU:HD23	3:J:340:LEU:HA	1.85	0.43
3:J:422:ASP:HA	3:J:423:ASN:O	2.19	0.43
3:K:244:GLY:O	3:K:248:ARG:HG2	2.19	0.43
3:K:453:ASN:CG	3:K:454:MET:HA	2.38	0.43
3:K:719:VAL:HG12	3:K:720:LYS:N	2.34	0.43
3:K:926:LYS:NZ	3:K:930:GLU:OE2	2.51	0.43
3:K:1098:PHE:HA	3:K:1099:GLY:HA2	1.59	0.43
3:L:294:VAL:HG23	3:L:294:VAL:O	2.18	0.43
3:L:350:GLY:HA3	3:L:351:LYS:HA	1.61	0.43
3:L:719:VAL:HG12	3:L:720:LYS:N	2.34	0.43
3:L:935:LEU:HD11	3:L:1154:ALA:HA	2.00	0.43
3:L:1170:TYR:O	3:L:1171:LEU:C	2.56	0.43
2:A:628:VAL:HG11	2:A:692:TRP:CE3	2.53	0.43
2:A:638:GLY:O	2:A:639:ARG:C	2.54	0.43
2:B:92:LEU:O	2:B:93:LEU:HB2	2.19	0.43
2:B:269:VAL:HG21	2:B:278:TYR:CZ	2.54	0.43
2:B:512:ALA:HB1	2:B:575:SER:OG	2.19	0.43
2:D:616:ASP:OD1	2:D:616:ASP:N	2.52	0.43
2:F:700:GLU:C	2:F:702:LYS:H	2.20	0.43
2:H:106:VAL:HA	2:H:166:GLY:HA3	2.01	0.43
3:I:422:ASP:HA	3:I:423:ASN:O	2.19	0.43
3:J:394:GLY:HA3	3:J:894:ILE:HD13	2.01	0.43
3:J:637:LYS:NZ	3:J:808:ASN:HD21	2.16	0.43
3:J:803:TYR:O	3:J:807:VAL:HG23	2.19	0.43
3:J:988:LEU:C	3:J:989:LEU:HD23	2.39	0.43
3:K:146:ALA:CB	3:K:147:LYS:HG2	2.29	0.43
3:L:422:ASP:HA	3:L:423:ASN:O	2.19	0.43
2:A:235:PRO:HA	2:A:236:SER:HA	1.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:687:LEU:CD1	3:I:155:GLU:O	2.67	0.43
2:B:120:VAL:HG12	2:B:121:MET:SD	2.59	0.43
2:B:140:HIS:ND1	2:B:141:SER:N	2.67	0.43
2:C:283:GLY:N	2:C:286:GLN:HB3	2.33	0.43
2:C:616:ASP:OD1	2:C:616:ASP:N	2.52	0.43
2:D:92:LEU:O	2:D:93:LEU:HB2	2.19	0.43
2:D:197:ASN:HD22	2:E:104:LEU:HD12	1.84	0.43
2:D:395:ILE:HD13	2:D:449:TYR:CE1	2.54	0.43
2:E:197:ASN:HD21	2:F:108:THR:CA	2.32	0.43
2:G:289:ALA:O	2:G:293:THR:HG22	2.19	0.43
3:I:294:VAL:HG23	3:I:294:VAL:O	2.18	0.43
3:I:394:GLY:HA3	3:I:894:ILE:HD13	2.01	0.43
3:I:488:PRO:HB2	3:I:867:TRP:CD2	2.54	0.43
3:J:397:PHE:CE2	3:J:898:ILE:HA	2.54	0.43
3:J:824:LEU:HD12	3:J:824:LEU:HA	1.59	0.43
3:J:1151:TYR:HE2	3:J:1180:ILE:HD13	1.83	0.43
3:L:473:GLY:HA3	3:L:485:ALA:HB2	2.00	0.43
3:L:912:ILE:HG23	3:L:917:LEU:HD23	2.00	0.43
2:A:323:ARG:HG3	2:A:363:MET:HE1	2.01	0.42
2:B:130:ARG:HB3	2:B:131:THR:H	1.58	0.42
2:B:158:PRO:HA	2:B:159:GLU:HA	1.73	0.42
2:D:579:ILE:CG1	2:D:600:PHE:CE2	3.01	0.42
2:E:125:LYS:HZ1	2:E:135:MET:HG2	1.84	0.42
2:E:551:LYS:HD2	2:E:551:LYS:HA	1.82	0.42
2:F:186:LEU:HD23	2:F:186:LEU:HA	1.81	0.42
2:F:572:LEU:O	2:F:573:ARG:C	2.54	0.42
2:G:283:GLY:N	2:G:286:GLN:HB3	2.33	0.42
2:H:158:PRO:HA	2:H:159:GLU:HA	1.73	0.42
2:H:545:GLN:HE21	2:H:545:GLN:HB2	1.60	0.42
2:H:557:LEU:HD23	2:H:558:ASN:HA	1.99	0.42
2:H:616:ASP:OD1	2:H:616:ASP:N	2.52	0.42
3:I:244:GLY:O	3:I:248:ARG:HG2	2.19	0.42
3:I:554:THR:HB	3:I:1229:ASN:O	2.19	0.42
3:I:577:MET:HG3	3:I:603:TYR:OH	2.18	0.42
3:I:809:GLY:O	3:I:813:ILE:HG13	2.19	0.42
3:I:1227:ASP:O	3:I:1231:PRO:HD2	2.18	0.42
3:J:60:THR:HG23	3:J:61:ALA:H	1.84	0.42
3:J:146:ALA:CB	3:J:147:LYS:HG2	2.29	0.42
3:J:554:THR:HB	3:J:1229:ASN:O	2.19	0.42
3:J:1030:SER:HB3	3:J:1033:PRO:CD	2.48	0.42
3:K:393:GLY:HA3	3:K:1299:GLN:HG3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:397:PHE:CE2	3:K:898:ILE:HA	2.54	0.42
3:K:424:GLU:HB2	3:K:425:PHE:H	1.61	0.42
3:L:244:GLY:O	3:L:248:ARG:HG2	2.19	0.42
3:L:359:ALA:O	3:L:360:LEU:HB2	2.19	0.42
3:L:488:PRO:HB2	3:L:867:TRP:CD2	2.54	0.42
2:C:346:THR:C	2:C:348:GLN:N	2.69	0.42
2:D:604:SER:O	2:D:623:LYS:CB	2.67	0.42
2:E:122:GLN:O	2:E:123:LYS:C	2.55	0.42
2:E:283:GLY:N	2:E:286:GLN:HB3	2.33	0.42
2:E:395:ILE:HD13	2:E:449:TYR:CE1	2.54	0.42
2:F:270:THR:HG22	2:F:275:THR:HG22	1.99	0.42
2:G:116:VAL:HG21	2:G:143:LEU:HA	2.00	0.42
3:I:56:PHE:HB2	3:I:59:ALA:HB3	2.01	0.42
3:J:488:PRO:HB2	3:J:867:TRP:CD2	2.54	0.42
3:J:599:ARG:HH12	3:J:797:PHE:HB2	1.85	0.42
3:J:809:GLY:O	3:J:813:ILE:HG13	2.19	0.42
3:J:852:VAL:HG22	3:J:1230:LYS:HZ3	1.83	0.42
3:K:60:THR:HG23	3:K:61:ALA:H	1.84	0.42
3:K:1000:ALA:HB2	3:K:1105:VAL:HG21	2.01	0.42
3:K:1013:LEU:HD12	3:K:1013:LEU:HA	1.64	0.42
3:L:397:PHE:CE2	3:L:898:ILE:HA	2.54	0.42
3:L:600:TYR:OH	3:L:948:ARG:NE	2.51	0.42
3:L:803:TYR:O	3:L:807:VAL:HG23	2.19	0.42
2:A:289:ALA:O	2:A:293:THR:HG22	2.19	0.42
2:B:140:HIS:ND1	2:B:140:HIS:C	2.73	0.42
2:B:516:LEU:HD22	2:B:579:ILE:CB	2.49	0.42
2:B:604:SER:O	2:B:623:LYS:CB	2.68	0.42
2:B:656:ILE:CD1	2:B:658:ASN:OD1	2.67	0.42
2:D:140:HIS:ND1	2:D:140:HIS:C	2.73	0.42
2:E:132:ARG:HD2	2:E:179:TYR:CE2	2.55	0.42
2:F:512:ALA:HB1	2:F:575:SER:OG	2.19	0.42
2:G:687:LEU:CD1	3:L:155:GLU:O	2.68	0.42
2:H:566:ALA:O	2:H:567:ARG:HB2	2.20	0.42
2:H:629:ASN:H	2:H:634:SER:HB3	1.85	0.42
3:I:877:LEU:HD21	3:I:884:ALA:HB3	2.01	0.42
3:J:393:GLY:HA3	3:J:1299:GLN:HG3	2.02	0.42
3:K:577:MET:HG3	3:K:603:TYR:OH	2.18	0.42
3:K:877:LEU:HD21	3:K:884:ALA:HB3	2.01	0.42
3:L:56:PHE:HB2	3:L:59:ALA:HB3	2.01	0.42
3:L:92:GLY:O	3:L:96:LYS:N	2.35	0.42
3:L:877:LEU:HD21	3:L:884:ALA:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1137:ALA:O	3:L:1141:ILE:HG12	2.19	0.42
3:L:1206:GLY:HA2	3:L:1207:PHE:CB	2.39	0.42
2:A:418:HIS:CD2	2:H:639:ARG:CD	3.02	0.42
2:A:575:SER:O	2:A:578:LYS:N	2.50	0.42
2:D:550:ASP:O	2:D:551:LYS:C	2.55	0.42
2:F:140:HIS:ND1	2:F:141:SER:N	2.67	0.42
2:G:235:PRO:HA	2:G:236:SER:HA	1.47	0.42
2:H:269:VAL:HG21	2:H:278:TYR:CZ	2.54	0.42
2:H:324:THR:HA	2:H:327:GLU:HG2	2.00	0.42
2:H:550:ASP:O	2:H:551:LYS:C	2.55	0.42
2:H:604:SER:O	2:H:623:LYS:CB	2.68	0.42
3:I:803:TYR:O	3:I:807:VAL:HG23	2.19	0.42
3:J:600:TYR:OH	3:J:948:ARG:NE	2.51	0.42
3:L:393:GLY:HA3	3:L:1299:GLN:HG3	2.02	0.42
3:L:988:LEU:C	3:L:989:LEU:HD23	2.39	0.42
2:A:125:LYS:HA	2:A:125:LYS:HD3	1.74	0.42
2:D:143:LEU:HA	2:D:143:LEU:HD12	1.79	0.42
2:D:269:VAL:HG21	2:D:278:TYR:CZ	2.54	0.42
2:E:572:LEU:HD12	2:E:605:THR:HG23	2.02	0.42
2:F:269:VAL:HG21	2:F:278:TYR:CZ	2.54	0.42
2:F:629:ASN:H	2:F:634:SER:HB3	1.84	0.42
2:G:190:ALA:HB1	2:H:94:TYR:HD2	1.84	0.42
3:I:656:PHE:HA	3:I:657:PRO:HD3	1.95	0.42
3:I:988:LEU:C	3:I:989:LEU:HD23	2.39	0.42
3:I:1000:ALA:HB2	3:I:1105:VAL:HG21	2.01	0.42
3:I:1137:ALA:O	3:I:1141:ILE:HG12	2.19	0.42
3:J:362:VAL:H	3:J:444:ALA:CB	2.33	0.42
3:J:877:LEU:HD21	3:J:884:ALA:HB3	2.01	0.42
3:K:997:LEU:HD23	3:K:997:LEU:HA	1.82	0.42
3:L:107:ALA:HA	3:L:120:LEU:HD11	2.02	0.42
3:L:577:MET:SD	3:L:626:VAL:HG21	2.59	0.42
3:L:580:ALA:C	3:L:582:LYS:N	2.73	0.42
3:L:641:MET:SD	3:L:807:VAL:HG13	2.60	0.42
3:L:1000:ALA:HB2	3:L:1105:VAL:HG21	2.01	0.42
2:B:395:ILE:HD13	2:B:449:TYR:CE1	2.54	0.42
2:B:678:GLN:CG	3:I:449:MET:SD	3.07	0.42
2:C:132:ARG:HD2	2:C:179:TYR:CE2	2.55	0.42
2:E:628:VAL:HG11	2:E:692:TRP:CB	2.50	0.42
2:F:604:SER:O	2:F:623:LYS:CB	2.67	0.42
2:H:553:PHE:HE2	2:H:577:ARG:CB	2.31	0.42
3:I:577:MET:SD	3:I:626:VAL:HG21	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:809:GLY:HA3	3:I:856:THR:HA	2.02	0.42
3:J:332:ILE:HG21	3:J:395:PHE:CD1	2.55	0.42
3:J:594:SER:HA	3:J:595:ARG:HA	1.56	0.42
3:K:803:TYR:O	3:K:807:VAL:HG23	2.19	0.42
3:K:809:GLY:HA3	3:K:856:THR:HA	2.02	0.42
3:K:1137:ALA:O	3:K:1141:ILE:HG12	2.19	0.42
3:K:1227:ASP:O	3:K:1231:PRO:HD2	2.18	0.42
2:A:572:LEU:HD12	2:A:605:THR:HG23	2.01	0.42
2:A:616:ASP:OD1	2:A:616:ASP:N	2.52	0.42
2:B:604:SER:O	2:B:623:LYS:HB2	2.19	0.42
2:B:639:ARG:NE	2:C:418:HIS:HD2	2.18	0.42
2:C:687:LEU:CD1	3:J:155:GLU:O	2.67	0.42
2:D:120:VAL:HG12	2:D:121:MET:SD	2.59	0.42
2:D:698:LYS:HE3	2:D:698:LYS:HB3	1.80	0.42
2:E:572:LEU:HA	2:E:572:LEU:HD23	1.62	0.42
2:F:120:VAL:HG12	2:F:121:MET:SD	2.59	0.42
2:F:395:ILE:HD13	2:F:449:TYR:CE1	2.54	0.42
2:F:639:ARG:CD	2:G:418:HIS:CD2	3.02	0.42
2:G:572:LEU:HD12	2:G:605:THR:HG23	2.02	0.42
2:H:120:VAL:HG12	2:H:121:MET:SD	2.59	0.42
2:H:680:ARG:HH21	3:L:422:ASP:HB2	1.85	0.42
3:J:809:GLY:HA3	3:J:856:THR:HA	2.02	0.42
3:J:1000:ALA:HB2	3:J:1105:VAL:HG21	2.01	0.42
3:K:350:GLY:HA3	3:K:351:LYS:HA	1.61	0.42
3:K:422:ASP:HA	3:K:423:ASN:O	2.19	0.42
3:K:554:THR:HB	3:K:1229:ASN:O	2.19	0.42
3:K:917:LEU:HA	3:K:917:LEU:HD13	1.59	0.42
2:C:289:ALA:O	2:C:293:THR:HG22	2.19	0.42
2:C:572:LEU:HD12	2:C:605:THR:HG23	2.01	0.42
2:D:436:ASP:HB2	2:E:315:SER:OG	2.20	0.42
2:D:512:ALA:HB1	2:D:575:SER:OG	2.19	0.42
2:E:584:LYS:O	2:E:589:ASN:ND2	2.53	0.42
2:E:654:PRO:O	2:E:655:TRP:CG	2.73	0.42
2:F:92:LEU:O	2:F:93:LEU:HB2	2.19	0.42
2:F:604:SER:O	2:F:623:LYS:HB2	2.19	0.42
2:H:117:ASP:O	2:H:121:MET:HG2	2.20	0.42
2:H:140:HIS:ND1	2:H:140:HIS:C	2.73	0.42
2:H:271:LEU:HG	2:H:272:ASN:H	1.85	0.42
2:H:656:ILE:CD1	2:H:658:ASN:OD1	2.67	0.42
3:I:60:THR:HG23	3:I:61:ALA:H	1.84	0.42
3:I:145:VAL:HG23	3:I:146:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:332:ILE:HG21	3:I:395:PHE:CD1	2.55	0.42
3:I:655:ILE:HD12	3:I:655:ILE:C	2.37	0.42
3:J:145:VAL:HG23	3:J:146:ALA:HB2	2.01	0.42
3:K:332:ILE:HG21	3:K:395:PHE:CD1	2.55	0.42
3:K:362:VAL:H	3:K:444:ALA:CB	2.33	0.42
3:K:580:ALA:C	3:K:582:LYS:N	2.73	0.42
3:K:599:ARG:HH12	3:K:797:PHE:HB2	1.85	0.42
3:L:599:ARG:HH12	3:L:797:PHE:HB2	1.84	0.42
3:L:705:VAL:O	3:L:709:VAL:HG23	2.20	0.42
2:B:614:ASP:HB2	2:B:615:GLY:HA2	2.02	0.42
2:B:629:ASN:H	2:B:634:SER:HB3	1.85	0.42
2:B:670:ILE:H	2:B:670:ILE:HG13	1.63	0.42
2:C:628:VAL:HG11	2:C:692:TRP:CB	2.49	0.42
2:D:410:ASN:OD1	2:D:411:GLU:N	2.46	0.42
2:D:604:SER:O	2:D:623:LYS:HB2	2.19	0.42
2:F:140:HIS:ND1	2:F:140:HIS:C	2.73	0.42
2:H:140:HIS:ND1	2:H:141:SER:N	2.67	0.42
2:H:205:VAL:HG12	2:H:206:LEU:HG	2.02	0.42
2:H:512:ALA:HB1	2:H:575:SER:OG	2.19	0.42
3:I:641:MET:SD	3:I:807:VAL:HG13	2.60	0.42
3:K:1162:LEU:HD22	3:K:1162:LEU:HA	1.83	0.42
3:L:332:ILE:HG21	3:L:395:PHE:CD1	2.55	0.42
2:D:271:LEU:HG	2:D:272:ASN:H	1.85	0.42
2:D:576:ALA:HB2	2:D:601:LEU:HD21	2.02	0.42
2:E:197:ASN:HD21	2:F:108:THR:HA	1.84	0.42
2:G:584:LYS:O	2:G:589:ASN:ND2	2.53	0.42
2:H:395:ILE:HD13	2:H:449:TYR:CE1	2.54	0.42
3:I:333:ILE:HD13	3:I:429:MET:HG3	1.92	0.42
3:I:580:ALA:C	3:I:582:LYS:N	2.73	0.42
3:I:599:ARG:HH12	3:I:797:PHE:HB2	1.84	0.42
3:I:719:VAL:HG12	3:I:720:LYS:N	2.34	0.42
3:I:938:LYS:HD3	3:I:1150:PHE:CD1	2.55	0.42
3:J:359:ALA:O	3:J:360:LEU:HB2	2.19	0.42
3:J:424:GLU:HB2	3:J:425:PHE:H	1.61	0.42
3:J:621:PRO:C	3:J:623:GLU:N	2.71	0.42
3:K:705:VAL:O	3:K:709:VAL:HG23	2.20	0.42
3:K:1217:ILE:O	3:K:1218:LEU:C	2.57	0.42
3:L:301:ASN:ND2	3:L:303:ASP:OD2	2.52	0.42
3:L:554:THR:HB	3:L:1229:ASN:O	2.19	0.42
3:L:655:ILE:HD12	3:L:655:ILE:C	2.37	0.42
3:L:938:LYS:HD3	3:L:1150:PHE:CD1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1013:LEU:HB3	3:L:1014:THR:H	1.56	0.42
2:A:132:ARG:HD2	2:A:179:TYR:CE2	2.54	0.41
2:A:626:MET:HE3	2:A:635:TRP:CD1	2.54	0.41
2:B:589:ASN:HD22	2:B:589:ASN:HA	1.70	0.41
2:D:117:ASP:O	2:D:121:MET:HG2	2.20	0.41
2:E:148:LYS:HE3	2:E:148:LYS:HB2	1.64	0.41
2:G:132:ARG:HD2	2:G:179:TYR:CE2	2.54	0.41
2:G:197:ASN:HD21	2:H:108:THR:CA	2.33	0.41
2:H:92:LEU:O	2:H:93:LEU:HB2	2.19	0.41
2:H:285:GLU:O	2:H:286:GLN:C	2.58	0.41
2:H:614:ASP:HB2	2:H:615:GLY:HA2	2.02	0.41
3:I:393:GLY:HA3	3:I:1299:GLN:HG3	2.02	0.41
3:I:495:LYS:O	3:I:499:GLU:N	2.52	0.41
3:J:56:PHE:HB2	3:J:59:ALA:HB3	2.02	0.41
3:J:301:ASN:ND2	3:J:303:ASP:OD2	2.52	0.41
3:K:1030:SER:HB3	3:K:1033:PRO:CD	2.48	0.41
3:K:1147:ALA:HB1	3:K:1184:ALA:HA	2.02	0.41
3:L:129:ALA:C	3:L:131:ILE:N	2.74	0.41
3:L:145:VAL:HG23	3:L:146:ALA:HB2	2.01	0.41
3:L:296:GLY:HA3	3:L:297:GLY:HA3	1.60	0.41
3:L:394:GLY:HA3	3:L:894:ILE:HD13	2.01	0.41
3:L:809:GLY:HA3	3:L:856:THR:HA	2.02	0.41
2:A:614:ASP:HB2	2:A:615:GLY:HA2	2.02	0.41
2:B:117:ASP:O	2:B:121:MET:HG2	2.20	0.41
2:B:143:LEU:HA	2:B:143:LEU:HD12	1.80	0.41
2:B:673:MET:HE2	2:B:673:MET:HB2	1.48	0.41
2:D:614:ASP:HB2	2:D:615:GLY:HA2	2.02	0.41
2:D:629:ASN:H	2:D:634:SER:HB3	1.85	0.41
2:E:323:ARG:HH11	2:F:249:SER:HB3	1.85	0.41
2:E:673:MET:HB3	2:E:680:ARG:HG3	2.02	0.41
2:F:117:ASP:O	2:F:121:MET:HG2	2.20	0.41
2:H:642:LEU:HD12	2:H:642:LEU:HA	1.95	0.41
3:I:358:LYS:HD3	3:I:358:LYS:HA	1.60	0.41
3:I:502:PRO:HD2	3:I:1151:TYR:CE1	2.54	0.41
3:J:820:THR:HG23	3:J:821:THR:N	2.35	0.41
3:K:56:PHE:HB2	3:K:59:ALA:HB3	2.01	0.41
3:K:107:ALA:HA	3:K:120:LEU:HD11	2.02	0.41
3:K:145:VAL:HG23	3:K:146:ALA:HB2	2.01	0.41
3:K:450:ASN:HA	3:K:451:THR:HA	1.62	0.41
3:K:641:MET:SD	3:K:807:VAL:HG13	2.60	0.41
3:L:997:LEU:HA	3:L:997:LEU:HD23	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:197:ASN:HD21	2:B:108:THR:CA	2.33	0.41
2:A:299:PHE:CE1	2:H:378:MET:SD	3.13	0.41
2:A:567:ARG:HH12	3:I:1122:ARG:NH1	2.18	0.41
2:B:616:ASP:N	2:B:616:ASP:OD1	2.52	0.41
2:C:271:LEU:HG	2:C:272:ASN:H	1.85	0.41
2:G:222:GLU:HG3	2:G:267:LYS:HB3	2.03	0.41
2:H:142:ARG:NE	2:H:142:ARG:CA	2.72	0.41
2:H:487:THR:HB	2:H:490:MET:HB2	2.03	0.41
2:H:604:SER:O	2:H:623:LYS:HB2	2.19	0.41
3:I:370:ASN:HD22	3:I:370:ASN:HA	1.64	0.41
3:I:1217:ILE:O	3:I:1218:LEU:C	2.57	0.41
3:J:107:ALA:HA	3:J:120:LEU:HD11	2.02	0.41
3:J:577:MET:SD	3:J:626:VAL:HG21	2.60	0.41
3:J:580:ALA:C	3:J:582:LYS:N	2.73	0.41
3:J:705:VAL:O	3:J:709:VAL:HG23	2.20	0.41
3:J:797:PHE:HE1	3:J:1195:LEU:O	2.04	0.41
3:J:865:THR:HG22	3:J:1186:SER:OG	2.21	0.41
3:J:1137:ALA:O	3:J:1141:ILE:HG12	2.19	0.41
3:L:797:PHE:HE1	3:L:1195:LEU:O	2.04	0.41
3:L:820:THR:HG23	3:L:821:THR:N	2.35	0.41
3:L:1001:ARG:NH2	3:L:1073:TRP:CE2	2.88	0.41
2:A:654:PRO:O	2:A:655:TRP:CG	2.73	0.41
2:B:680:ARG:HH21	3:I:422:ASP:HB2	1.85	0.41
2:C:654:PRO:O	2:C:655:TRP:CG	2.73	0.41
2:D:202:LEU:HD21	2:D:206:LEU:HD12	2.02	0.41
2:E:638:GLY:O	2:E:639:ARG:C	2.54	0.41
2:F:271:LEU:HG	2:F:272:ASN:H	1.85	0.41
2:F:553:PHE:HE2	2:F:577:ARG:CB	2.31	0.41
2:F:557:LEU:C	2:F:557:LEU:CD2	2.85	0.41
2:G:271:LEU:HG	2:G:272:ASN:H	1.85	0.41
2:G:569:PRO:CG	2:G:605:THR:HG21	2.47	0.41
2:G:614:ASP:HB2	2:G:615:GLY:HA2	2.02	0.41
2:H:638:GLY:O	2:H:639:ARG:C	2.54	0.41
3:I:865:THR:HG22	3:I:1186:SER:OG	2.21	0.41
3:K:797:PHE:HE1	3:K:1195:LEU:O	2.04	0.41
3:K:1044:LYS:HG2	3:K:1063:PHE:CD2	2.49	0.41
3:L:502:PRO:HD2	3:L:1151:TYR:CE1	2.54	0.41
3:L:809:GLY:O	3:L:813:ILE:HG13	2.19	0.41
2:A:271:LEU:HG	2:A:272:ASN:H	1.85	0.41
2:B:135:MET:SD	2:B:135:MET:O	2.79	0.41
2:B:271:LEU:HG	2:B:272:ASN:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:566:ALA:O	2:B:567:ARG:HB2	2.20	0.41
2:B:699:LEU:HD23	2:B:699:LEU:HA	1.90	0.41
2:D:135:MET:SD	2:D:135:MET:O	2.79	0.41
2:D:229:LEU:HG	2:D:234:ILE:HD11	2.02	0.41
2:D:462:ALA:O	2:D:465:THR:HG22	2.21	0.41
2:F:202:LEU:HD21	2:F:206:LEU:HD12	2.02	0.41
2:F:576:ALA:HB2	2:F:601:LEU:HD21	2.02	0.41
2:G:564:GLU:H	2:G:564:GLU:HG3	1.45	0.41
2:G:673:MET:HB3	2:G:680:ARG:HG3	2.03	0.41
2:H:202:LEU:HD21	2:H:206:LEU:HD12	2.02	0.41
3:I:362:VAL:H	3:I:444:ALA:CB	2.33	0.41
3:I:600:TYR:OH	3:I:948:ARG:NE	2.51	0.41
3:I:705:VAL:O	3:I:709:VAL:HG23	2.20	0.41
3:I:820:THR:HG23	3:I:821:THR:N	2.35	0.41
3:J:641:MET:SD	3:J:807:VAL:HG13	2.60	0.41
3:K:921:LYS:CB	3:K:922:PRO:HA	2.51	0.41
3:L:898:ILE:HD12	3:L:1292:VAL:HG22	2.03	0.41
2:A:202:LEU:HD21	2:A:206:LEU:HD12	2.02	0.41
2:B:576:ALA:HB2	2:B:601:LEU:HD21	2.02	0.41
2:C:614:ASP:HB2	2:C:615:GLY:HA2	2.02	0.41
2:C:673:MET:HB3	2:C:680:ARG:HG3	2.03	0.41
2:D:205:VAL:HG12	2:D:206:LEU:HG	2.02	0.41
2:D:566:ALA:O	2:D:568:MET:N	2.53	0.41
2:D:639:ARG:CD	2:E:418:HIS:CD2	3.04	0.41
2:D:670:ILE:H	2:D:670:ILE:HG13	1.63	0.41
2:E:626:MET:HE3	2:E:635:TRP:CD1	2.56	0.41
2:G:77:LYS:H	2:G:77:LYS:HG3	1.65	0.41
2:G:592:MET:HE2	2:G:592:MET:HB3	1.89	0.41
3:I:143:LEU:HD23	3:I:143:LEU:HA	1.79	0.41
3:I:146:ALA:CB	3:I:147:LYS:HG2	2.29	0.41
3:I:898:ILE:HD12	3:I:1292:VAL:HG22	2.03	0.41
3:I:1147:ALA:HB1	3:I:1184:ALA:HA	2.02	0.41
3:J:921:LYS:CB	3:J:922:PRO:HA	2.51	0.41
3:K:478:HIS:HD2	3:L:66:LEU:HA	1.86	0.41
3:K:577:MET:SD	3:K:626:VAL:HG21	2.60	0.41
2:B:202:LEU:HD21	2:B:206:LEU:HD12	2.02	0.41
2:B:487:THR:HB	2:B:490:MET:HB2	2.03	0.41
2:B:516:LEU:HD21	2:B:579:ILE:CG2	2.48	0.41
2:B:531:ILE:HG23	2:B:586:ARG:NE	2.36	0.41
2:C:546:ARG:O	2:C:547:PHE:C	2.57	0.41
2:C:584:LYS:O	2:C:589:ASN:ND2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:152:GLU:OE2	2:E:156:ILE:HG12	2.21	0.41
2:E:202:LEU:HD21	2:E:206:LEU:HD12	2.02	0.41
2:F:139:ARG:O	2:F:140:HIS:C	2.58	0.41
2:F:378:MET:SD	2:G:299:PHE:CE1	3.13	0.41
2:G:202:LEU:HD21	2:G:206:LEU:HD12	2.02	0.41
2:G:205:VAL:HG12	2:G:206:LEU:HG	2.02	0.41
2:H:229:LEU:HG	2:H:234:ILE:HD11	2.02	0.41
2:H:531:ILE:HG23	2:H:586:ARG:NE	2.36	0.41
3:K:938:LYS:HD3	3:K:1150:PHE:CD1	2.55	0.41
3:L:11:ASP:HA	3:L:12:TYR:HA	1.61	0.41
3:L:1146:LEU:HD12	3:L:1150:PHE:CE2	2.56	0.41
3:L:1147:ALA:HB1	3:L:1184:ALA:HA	2.02	0.41
2:A:91:THR:HA	2:A:92:LEU:HA	1.90	0.41
2:A:613:VAL:HG13	3:I:414:ARG:NH1	2.36	0.41
2:B:462:ALA:O	2:B:465:THR:HG22	2.21	0.41
2:C:152:GLU:OE2	2:C:156:ILE:HG12	2.21	0.41
2:D:680:ARG:HH21	3:J:422:ASP:HB2	1.85	0.41
2:F:551:LYS:O	2:F:554:GLU:N	2.54	0.41
2:F:614:ASP:HB2	2:F:615:GLY:HA2	2.02	0.41
2:G:546:ARG:O	2:G:547:PHE:C	2.57	0.41
2:H:121:MET:HB3	2:H:178:LEU:HD11	2.03	0.41
2:H:594:MET:HE2	2:H:594:MET:HB3	1.91	0.41
3:I:107:ALA:HA	3:I:120:LEU:HD11	2.02	0.41
3:I:797:PHE:HE1	3:I:1195:LEU:O	2.04	0.41
3:I:921:LYS:CB	3:I:922:PRO:HA	2.51	0.41
3:I:1146:LEU:HD12	3:I:1150:PHE:CE2	2.56	0.41
3:J:350:GLY:HA3	3:J:351:LYS:HA	1.61	0.41
2:A:158:PRO:HA	2:A:159:GLU:HA	1.74	0.41
2:A:205:VAL:HG12	2:A:206:LEU:HG	2.02	0.41
2:A:500:ASP:O	2:A:501:PRO:C	2.59	0.41
2:A:584:LYS:O	2:A:589:ASN:ND2	2.53	0.41
2:A:621:ILE:HA	2:A:622:PRO:HD3	1.87	0.41
2:C:125:LYS:HA	2:C:125:LYS:HD3	1.74	0.41
2:D:531:ILE:HG23	2:D:586:ARG:NE	2.36	0.41
2:D:551:LYS:O	2:D:554:GLU:N	2.54	0.41
2:D:635:TRP:CG	2:D:636:GLU:N	2.88	0.41
2:E:222:GLU:HG3	2:E:267:LYS:HB3	2.03	0.41
2:E:271:LEU:HG	2:E:272:ASN:H	1.85	0.41
2:E:327:GLU:HG3	2:E:327:GLU:H	1.67	0.41
2:F:206:LEU:HD23	2:F:206:LEU:HA	1.93	0.41
2:F:229:LEU:HG	2:F:234:ILE:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:244:ILE:HD11	2:F:278:TYR:CE1	2.56	0.41
2:F:462:ALA:O	2:F:465:THR:HG22	2.20	0.41
2:F:487:THR:HB	2:F:490:MET:HB2	2.03	0.41
2:F:566:ALA:O	2:F:567:ARG:HB2	2.20	0.41
2:F:566:ALA:O	2:F:568:MET:N	2.53	0.41
2:G:462:ALA:O	2:G:465:THR:HG22	2.21	0.41
2:G:487:THR:HB	2:G:490:MET:HB2	2.03	0.41
2:G:567:ARG:CD	3:L:1119:LYS:HE3	2.49	0.41
2:H:516:LEU:HD21	2:H:579:ILE:CG2	2.48	0.41
2:H:566:ALA:O	2:H:568:MET:N	2.53	0.41
3:I:268:TRP:CE3	3:I:268:TRP:HA	2.56	0.41
3:I:554:THR:HG23	3:I:1232:TYR:CE1	2.56	0.41
3:I:834:LYS:HD2	3:I:835:ALA:HB2	2.03	0.41
3:J:500:VAL:HB	3:J:1170:TYR:CE1	2.56	0.41
3:J:554:THR:HG23	3:J:1232:TYR:CE1	2.56	0.41
3:J:562:LEU:HD13	3:J:808:ASN:ND2	2.36	0.41
3:J:898:ILE:HD12	3:J:1292:VAL:HG22	2.03	0.41
3:J:938:LYS:HD3	3:J:1150:PHE:CD1	2.55	0.41
3:J:1217:ILE:O	3:J:1218:LEU:C	2.57	0.41
3:K:268:TRP:CE3	3:K:268:TRP:HA	2.55	0.41
3:K:500:VAL:HB	3:K:1170:TYR:CE1	2.56	0.41
3:K:554:THR:HG23	3:K:1232:TYR:CE1	2.56	0.41
3:K:820:THR:HG23	3:K:821:THR:N	2.35	0.41
3:K:834:LYS:HD2	3:K:835:ALA:HB2	2.03	0.41
3:K:852:VAL:HG22	3:K:1230:LYS:HZ3	1.86	0.41
3:K:865:THR:HG22	3:K:1186:SER:OG	2.21	0.41
3:K:1146:LEU:HD12	3:K:1150:PHE:CE2	2.56	0.41
3:K:1170:TYR:O	3:K:1171:LEU:C	2.56	0.41
3:L:60:THR:HG23	3:L:61:ALA:H	1.84	0.41
3:L:268:TRP:CE3	3:L:268:TRP:HA	2.56	0.41
3:L:450:ASN:HA	3:L:451:THR:HA	1.62	0.41
3:L:494:LEU:HD23	3:L:494:LEU:HA	1.81	0.41
3:L:678:MET:HE3	3:L:682:TYR:HE2	1.86	0.41
3:L:917:LEU:HA	3:L:917:LEU:HD13	1.59	0.41
2:A:190:ALA:HB1	2:B:94:TYR:HD2	1.85	0.41
2:A:695:ASN:ND2	3:I:240:ASN:HA	2.35	0.41
2:B:139:ARG:O	2:B:140:HIS:C	2.58	0.41
2:C:202:LEU:HD21	2:C:206:LEU:HD12	2.02	0.41
2:D:85:GLU:H	2:D:85:GLU:HG3	1.67	0.41
2:E:75:ILE:HD11	2:E:92:LEU:HG	2.03	0.41
2:E:492:ALA:O	2:E:496:ILE:HG22	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:695:ASN:ND2	3:K:240:ASN:HA	2.36	0.41
2:F:121:MET:HB3	2:F:178:LEU:HD11	2.03	0.41
2:F:135:MET:SD	2:F:135:MET:O	2.79	0.41
2:F:680:ARG:HH21	3:K:422:ASP:HB2	1.86	0.41
2:G:75:ILE:HD11	2:G:92:LEU:HG	2.03	0.41
2:G:654:PRO:O	2:G:655:TRP:CG	2.73	0.41
2:H:135:MET:SD	2:H:135:MET:O	2.79	0.41
3:I:1044:LYS:HG2	3:I:1063:PHE:CD2	2.49	0.41
3:J:405:SER:OG	3:J:424:GLU:OE1	2.31	0.41
3:L:308:LEU:HA	3:L:308:LEU:HD23	1.84	0.41
3:L:358:LYS:O	3:L:359:ALA:HB3	2.21	0.41
3:L:402:SER:HA	3:L:424:GLU:HG3	2.03	0.41
3:L:852:VAL:HG22	3:L:1230:LYS:HZ3	1.86	0.41
3:L:865:THR:HG22	3:L:1186:SER:OG	2.20	0.41
2:A:327:GLU:HG3	2:A:327:GLU:H	1.67	0.40
2:A:628:VAL:HG11	2:A:692:TRP:CB	2.50	0.40
2:A:642:LEU:HD12	2:A:642:LEU:HA	1.95	0.40
2:B:229:LEU:HG	2:B:234:ILE:HD11	2.02	0.40
2:B:642:LEU:HD12	2:B:642:LEU:HA	1.95	0.40
2:B:698:LYS:HB3	2:B:698:LYS:HE3	1.80	0.40
2:C:158:PRO:HA	2:C:159:GLU:HA	1.74	0.40
2:D:139:ARG:O	2:D:140:HIS:C	2.58	0.40
2:F:531:ILE:HG23	2:F:586:ARG:NE	2.36	0.40
2:G:197:ASN:HD21	2:H:108:THR:HA	1.86	0.40
2:H:576:ALA:HB2	2:H:601:LEU:HD21	2.02	0.40
3:I:424:GLU:HB2	3:I:425:PHE:H	1.61	0.40
3:I:494:LEU:HD23	3:I:494:LEU:HA	1.81	0.40
3:I:500:VAL:HB	3:I:1170:TYR:CE1	2.56	0.40
3:I:1027:ARG:HB2	3:I:1078:LYS:CE	2.23	0.40
3:J:92:GLY:O	3:J:96:LYS:N	2.35	0.40
3:J:1146:LEU:HD12	3:J:1150:PHE:CE2	2.56	0.40
3:K:654:SER:O	3:K:654:SER:OG	2.27	0.40
3:L:299:PRO:HA	3:L:300:GLU:HA	1.82	0.40
3:L:362:VAL:H	3:L:444:ALA:CB	2.33	0.40
2:B:205:VAL:HG12	2:B:206:LEU:HG	2.02	0.40
2:B:516:LEU:HD13	2:B:579:ILE:HD12	2.04	0.40
2:B:551:LYS:O	2:B:554:GLU:N	2.54	0.40
2:B:678:GLN:HG3	3:I:449:MET:SD	2.61	0.40
2:D:487:THR:HB	2:D:490:MET:HB2	2.03	0.40
2:D:696:GLN:HE21	2:D:696:GLN:HB2	1.63	0.40
2:E:190:ALA:HB1	2:F:94:TYR:HD2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:410:ASN:HD22	2:E:410:ASN:HA	1.53	0.40
2:F:272:ASN:OD1	2:F:272:ASN:N	2.54	0.40
2:F:436:ASP:HB2	2:G:315:SER:OG	2.21	0.40
2:G:332:ILE:O	2:G:336:LEU:HB2	2.22	0.40
2:G:626:MET:HE3	2:G:635:TRP:CD1	2.56	0.40
2:H:143:LEU:HD12	2:H:143:LEU:HA	1.79	0.40
2:H:192:LYS:O	2:H:196:MET:HG2	2.21	0.40
2:H:675:THR:O	2:H:676:THR:CB	2.69	0.40
3:J:268:TRP:CE3	3:J:268:TRP:HA	2.56	0.40
3:J:587:SER:CA	3:J:1132:ARG:HH12	2.34	0.40
3:J:1147:ALA:HB1	3:J:1184:ALA:HA	2.02	0.40
3:J:1175:LEU:HD23	3:J:1180:ILE:HD11	2.04	0.40
3:K:805:ARG:NH2	3:K:857:GLY:O	2.54	0.40
3:K:827:GLU:HG3	3:K:1226:ARG:HH22	1.86	0.40
3:K:898:ILE:HD12	3:K:1292:VAL:HG22	2.03	0.40
3:L:500:VAL:HB	3:L:1170:TYR:CE1	2.56	0.40
3:L:834:LYS:HD2	3:L:835:ALA:HB2	2.03	0.40
3:L:864:ASP:OD1	3:L:865:THR:OG1	2.34	0.40
2:A:278:TYR:HD1	2:A:278:TYR:HA	1.77	0.40
2:A:462:ALA:O	2:A:465:THR:HG22	2.20	0.40
2:B:549:ASP:O	2:B:552:ALA:HB3	2.22	0.40
2:B:696:GLN:HE21	2:B:696:GLN:HB2	1.63	0.40
2:C:205:VAL:HG12	2:C:206:LEU:HG	2.02	0.40
2:D:121:MET:HB3	2:D:178:LEU:HD11	2.03	0.40
2:D:553:PHE:HE2	2:D:577:ARG:CB	2.31	0.40
2:D:589:ASN:HD22	2:D:589:ASN:HA	1.70	0.40
2:F:205:VAL:HG12	2:F:206:LEU:HG	2.02	0.40
2:F:285:GLU:O	2:F:286:GLN:C	2.58	0.40
2:F:551:LYS:HG3	2:G:543:LYS:HD3	2.03	0.40
2:G:152:GLU:OE2	2:G:156:ILE:HG12	2.21	0.40
2:G:492:ALA:O	2:G:496:ILE:HG22	2.22	0.40
2:G:500:ASP:O	2:G:501:PRO:C	2.59	0.40
2:H:244:ILE:HD11	2:H:278:TYR:CE1	2.56	0.40
2:H:698:LYS:HB3	2:H:698:LYS:HE3	1.80	0.40
3:I:67:ARG:CZ	3:I:68:VAL:HB	2.51	0.40
3:K:301:ASN:ND2	3:K:303:ASP:OD2	2.52	0.40
3:K:340:LEU:HD23	3:K:340:LEU:HA	1.86	0.40
3:K:402:SER:HA	3:K:424:GLU:HG3	2.03	0.40
3:K:495:LYS:O	3:K:499:GLU:N	2.52	0.40
3:K:656:PHE:HA	3:K:657:PRO:HD3	1.94	0.40
3:L:370:ASN:HD22	3:L:370:ASN:HA	1.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:562:LEU:HD13	3:L:808:ASN:ND2	2.36	0.40
3:L:1217:ILE:O	3:L:1218:LEU:C	2.57	0.40
2:A:75:ILE:HD11	2:A:92:LEU:HG	2.03	0.40
2:A:212:LEU:HB3	2:A:260:PHE:HB2	2.04	0.40
2:A:222:GLU:HG3	2:A:267:LYS:HB3	2.03	0.40
2:A:534:ALA:O	2:A:538:THR:HG22	2.22	0.40
2:A:673:MET:HB3	2:A:680:ARG:HG3	2.03	0.40
2:A:684:ASP:OD2	2:A:687:LEU:HB2	2.22	0.40
2:C:75:ILE:HD11	2:C:92:LEU:HG	2.03	0.40
2:C:197:ASN:HD21	2:D:108:THR:CA	2.35	0.40
2:C:462:ALA:O	2:C:465:THR:HG22	2.20	0.40
2:C:500:ASP:O	2:C:501:PRO:C	2.59	0.40
2:D:199:ARG:O	2:D:203:ASN:HB2	2.22	0.40
2:D:244:ILE:HD11	2:D:278:TYR:CE1	2.56	0.40
2:E:125:LYS:HD3	2:E:125:LYS:HA	1.74	0.40
2:E:272:ASN:OD1	2:E:272:ASN:N	2.55	0.40
2:E:332:ILE:O	2:E:336:LEU:HB2	2.21	0.40
2:F:698:LYS:HE3	2:F:698:LYS:HB3	1.80	0.40
2:G:323:ARG:HH11	2:H:249:SER:HB3	1.86	0.40
2:G:695:ASN:ND2	3:L:240:ASN:HA	2.36	0.40
3:I:32:LYS:HD2	3:I:32:LYS:HA	1.97	0.40
3:I:301:ASN:ND2	3:I:303:ASP:OD2	2.52	0.40
3:I:402:SER:HA	3:I:424:GLU:HG3	2.03	0.40
3:K:562:LEU:HD13	3:K:808:ASN:ND2	2.36	0.40
3:K:1175:LEU:HD23	3:K:1180:ILE:HD11	2.04	0.40
3:L:67:ARG:CZ	3:L:68:VAL:HB	2.51	0.40
2:A:332:ILE:O	2:A:336:LEU:HB2	2.21	0.40
2:A:546:ARG:O	2:A:547:PHE:C	2.57	0.40
2:B:655:TRP:CZ2	2:B:678:GLN:HB3	2.57	0.40
2:D:119:ASP:O	2:D:120:VAL:C	2.60	0.40
2:E:487:THR:HB	2:E:490:MET:HB2	2.03	0.40
2:E:567:ARG:HH12	3:K:1122:ARG:NH1	2.19	0.40
2:G:93:LEU:HA	2:G:93:LEU:HD13	1.74	0.40
2:G:635:TRP:O	2:G:636:GLU:C	2.59	0.40
2:H:549:ASP:O	2:H:552:ALA:HB3	2.22	0.40
2:H:627:GLN:HB3	2:H:685:LYS:HE3	2.04	0.40
2:H:655:TRP:CZ2	2:H:678:GLN:HB3	2.57	0.40
3:I:665:TYR:CE1	3:I:769:ARG:HG3	2.57	0.40
3:I:1025:PHE:N	3:I:1025:PHE:CD1	2.90	0.40
3:J:39:ARG:HA	3:J:39:ARG:HD3	1.78	0.40
3:J:638:ARG:NE	3:J:642:GLU:OE2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:358:LYS:O	3:K:359:ALA:HB3	2.21	0.40
3:K:502:PRO:HD2	3:K:1151:TYR:CE1	2.54	0.40
3:K:587:SER:CA	3:K:1132:ARG:HH12	2.34	0.40
3:K:931:LEU:HD23	3:K:931:LEU:HA	1.90	0.40
3:K:1114:LYS:HB2	3:K:1114:LYS:HE3	1.89	0.40
3:L:827:GLU:HG3	3:L:1226:ARG:HH22	1.86	0.40
3:L:1175:LEU:HD23	3:L:1180:ILE:HD11	2.04	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 PDB entries followed by that with respect to all EM entries.

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	76/196 (39%)	65 (86%)	10 (13%)	1 (1%)	12 47
1	b	76/196 (39%)	66 (87%)	8 (10%)	2 (3%)	5 34
1	c	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	12 47
1	d	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	12 47
1	e	76/196 (39%)	65 (86%)	10 (13%)	1 (1%)	12 47
1	f	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	12 47
1	g	76/196 (39%)	66 (87%)	8 (10%)	2 (3%)	5 34
1	h	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	12 47
2	A	645/747 (86%)	582 (90%)	56 (9%)	7 (1%)	14 50
2	B	645/747 (86%)	576 (89%)	56 (9%)	13 (2%)	7 39
2	C	645/747 (86%)	583 (90%)	55 (8%)	7 (1%)	14 50
2	D	645/747 (86%)	577 (90%)	55 (8%)	13 (2%)	7 39
2	E	645/747 (86%)	583 (90%)	55 (8%)	7 (1%)	14 50
2	F	645/747 (86%)	577 (90%)	55 (8%)	13 (2%)	7 39

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	G	645/747 (86%)	583 (90%)	55 (8%)	7 (1%)	14 50
2	H	645/747 (86%)	576 (89%)	56 (9%)	13 (2%)	7 39
3	I	1087/1318 (82%)	940 (86%)	133 (12%)	14 (1%)	12 47
3	J	1087/1318 (82%)	940 (86%)	133 (12%)	14 (1%)	12 47
3	K	1087/1318 (82%)	938 (86%)	135 (12%)	14 (1%)	12 47
3	L	1087/1318 (82%)	938 (86%)	135 (12%)	14 (1%)	12 47
All	All	10116/12816 (79%)	8919 (88%)	1051 (10%)	146 (1%)	15 45

All (146) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	A	334	ALA
2	A	339	VAL
2	B	570	ALA
2	B	676	THR
2	C	334	ALA
2	C	339	VAL
2	D	570	ALA
2	D	676	THR
2	E	334	ALA
2	E	339	VAL
2	F	570	ALA
2	F	676	THR
2	G	334	ALA
2	G	339	VAL
2	H	570	ALA
2	H	676	THR
3	I	72	PRO
3	I	384	ASP
3	I	616	GLN
3	I	617	LYS
3	I	1013	LEU
3	I	1058	LYS
3	J	72	PRO
3	J	384	ASP
3	J	616	GLN
3	J	617	LYS
3	J	1013	LEU
3	J	1058	LYS
3	K	72	PRO

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Mol	Chain	Res	Type
3	K	384	ASP
3	K	616	GLN
3	K	617	LYS
3	K	1013	LEU
3	K	1058	LYS
3	L	72	PRO
3	L	384	ASP
3	L	616	GLN
3	L	617	LYS
3	L	1013	LEU
3	L	1058	LYS
2	B	128	VAL
2	B	155	GLY
2	D	128	VAL
2	D	155	GLY
2	F	128	VAL
2	F	155	GLY
2	H	128	VAL
2	H	155	GLY
3	I	367	ALA
3	I	767	GLU
3	I	1131	ASN
3	J	367	ALA
3	J	767	GLU
3	J	1131	ASN
3	K	367	ALA
3	K	767	GLU
3	K	1131	ASN
3	L	367	ALA
3	L	767	GLU
3	L	1131	ASN
1	a	77	ALA
1	b	77	ALA
1	c	77	ALA
1	d	77	ALA
1	e	77	ALA
1	f	77	ALA
1	g	17	ILE
1	g	77	ALA
1	h	77	ALA
2	A	283	GLY
2	B	237	ASP

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Mol	Chain	Res	Type
2	B	283	GLY
2	B	344	GLN
2	C	283	GLY
2	D	237	ASP
2	D	283	GLY
2	D	344	GLN
2	E	283	GLY
2	F	237	ASP
2	F	283	GLY
2	F	344	GLN
2	G	283	GLY
2	H	237	ASP
2	H	283	GLY
2	H	344	GLN
3	I	252	LEU
3	J	252	LEU
3	K	252	LEU
3	L	252	LEU
1	b	14	ALA
2	B	586	ARG
2	D	586	ARG
2	F	586	ARG
2	H	586	ARG
3	I	365	GLU
3	I	861	ARG
3	J	365	GLU
3	J	861	ARG
3	K	365	GLU
3	K	861	ARG
3	L	365	GLU
3	L	861	ARG
2	A	257	GLY
2	A	568	MET
2	B	291	MET
2	C	257	GLY
2	C	568	MET
2	D	291	MET
2	E	257	GLY
2	E	568	MET
2	F	291	MET
2	G	257	GLY
2	G	568	MET

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Mol	Chain	Res	Type
2	H	291	MET
3	L	660	ARG
2	A	576	ALA
2	B	89	ASN
2	B	114	TYR
2	C	576	ALA
2	D	89	ASN
2	D	114	TYR
2	E	576	ALA
2	F	89	ASN
2	F	114	TYR
2	G	576	ALA
2	H	89	ASN
2	H	114	TYR
3	I	660	ARG
3	J	660	ARG
3	K	660	ARG
2	B	670	ILE
2	D	670	ILE
2	F	670	ILE
2	H	670	ILE
2	A	408	PRO
2	C	408	PRO
2	E	408	PRO
2	G	408	PRO
3	I	337	VAL
3	J	337	VAL
3	K	337	VAL
3	L	337	VAL
2	B	568	MET
2	D	568	MET
2	F	568	MET
2	H	568	MET

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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	A	552/624 (88%)	446 (81%)	106 (19%)	1 9
2	B	552/624 (88%)	440 (80%)	112 (20%)	1 8
2	C	552/624 (88%)	446 (81%)	106 (19%)	1 9
2	D	552/624 (88%)	440 (80%)	112 (20%)	1 8
2	E	552/624 (88%)	446 (81%)	106 (19%)	1 9
2	F	552/624 (88%)	439 (80%)	113 (20%)	1 7
2	G	552/624 (88%)	445 (81%)	107 (19%)	1 9
2	H	552/624 (88%)	440 (80%)	112 (20%)	1 8
3	I	890/1059 (84%)	854 (96%)	36 (4%)	31 60
3	J	890/1059 (84%)	854 (96%)	36 (4%)	31 60
3	K	890/1059 (84%)	854 (96%)	36 (4%)	31 60
3	L	890/1059 (84%)	854 (96%)	36 (4%)	31 60
All	All	7976/9228 (86%)	6958 (87%)	1018 (13%)	7 23

All (1018) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	A	69	GLU
2	A	70	ARG
2	A	71	SER
2	A	73	GLU
2	A	79	THR
2	A	85	GLU
2	A	92	LEU
2	A	102	GLU
2	A	114	TYR
2	A	117	ASP
2	A	131	THR
2	A	134	GLU
2	A	136	GLU
2	A	144	GLN
2	A	148	LYS
2	A	152	GLU
2	A	159	GLU
2	A	162	ASP
2	A	172	THR
2	A	173	GLU
2	A	176	ILE
2	A	183	ASP

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Mol	Chain	Res	Type
2	A	198	SER
2	A	202	LEU
2	A	205	VAL
2	A	208	ASP
2	A	214	ARG
2	A	229	LEU
2	A	241	THR
2	A	248	PHE
2	A	267	LYS
2	A	268	LYS
2	A	275	THR
2	A	276	THR
2	A	296	ARG
2	A	302	ASP
2	A	327	GLU
2	A	335	GLU
2	A	336	LEU
2	A	337	ASP
2	A	340	GLN
2	A	344	GLN
2	A	354	SER
2	A	358	GLN
2	A	376	ASP
2	A	378	MET
2	A	385	ASP
2	A	389	LYS
2	A	393	LYS
2	A	398	GLU
2	A	399	TRP
2	A	403	ASP
2	A	405	LYS
2	A	406	ASP
2	A	409	VAL
2	A	410	ASN
2	A	419	SER
2	A	422	VAL
2	A	431	GLU
2	A	436	ASP
2	A	439	ASP
2	A	454	SER
2	A	455	LYS
2	A	460	ARG

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Mol	Chain	Res	Type
2	A	468	THR
2	A	472	GLN
2	A	482	LYS
2	A	491	ASP
2	A	496	ILE
2	A	502	GLN
2	A	517	THR
2	A	530	VAL
2	A	533	ASP
2	A	538	THR
2	A	539	VAL
2	A	540	LYS
2	A	541	ARG
2	A	545	GLN
2	A	546	ARG
2	A	547	PHE
2	A	555	SER
2	A	560	SER
2	A	561	LYS
2	A	564	GLU
2	A	582	SER
2	A	584	LYS
2	A	587	SER
2	A	592	MET
2	A	595	GLU
2	A	599	LYS
2	A	634	SER
2	A	635	TRP
2	A	639	ARG
2	A	647	LYS
2	A	655	TRP
2	A	664	TYR
2	A	671	TYR
2	A	674	ASP
2	A	681	VAL
2	A	684	ASP
2	A	685	LYS
2	A	687	LEU
2	A	690	LYS
2	A	698	LYS
2	A	701	GLU
2	A	708	LEU

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Mol	Chain	Res	Type
2	B	69	GLU
2	B	70	ARG
2	B	71	SER
2	B	73	GLU
2	B	85	GLU
2	B	87	LEU
2	B	91	THR
2	B	93	LEU
2	B	94	TYR
2	B	102	GLU
2	B	117	ASP
2	B	125	LYS
2	B	128	VAL
2	B	129	PHE
2	B	135	MET
2	B	136	GLU
2	B	139	ARG
2	B	140	HIS
2	B	141	SER
2	B	142	ARG
2	B	152	GLU
2	B	153	GLN
2	B	159	GLU
2	B	162	ASP
2	B	172	THR
2	B	173	GLU
2	B	176	ILE
2	B	183	ASP
2	B	198	SER
2	B	202	LEU
2	B	205	VAL
2	B	208	ASP
2	B	222	GLU
2	B	225	ILE
2	B	229	LEU
2	B	241	THR
2	B	250	ASP
2	B	259	ASP
2	B	267	LYS
2	B	268	LYS
2	B	275	THR
2	B	276	THR

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Mol	Chain	Res	Type
2	B	296	ARG
2	B	302	ASP
2	B	335	GLU
2	B	340	GLN
2	B	346	THR
2	B	354	SER
2	B	358	GLN
2	B	376	ASP
2	B	378	MET
2	B	385	ASP
2	B	389	LYS
2	B	393	LYS
2	B	398	GLU
2	B	399	TRP
2	B	403	ASP
2	B	405	LYS
2	B	406	ASP
2	B	407	MET
2	B	419	SER
2	B	422	VAL
2	B	431	GLU
2	B	436	ASP
2	B	439	ASP
2	B	454	SER
2	B	455	LYS
2	B	460	ARG
2	B	468	THR
2	B	472	GLN
2	B	482	LYS
2	B	491	ASP
2	B	502	GLN
2	B	517	THR
2	B	530	VAL
2	B	538	THR
2	B	539	VAL
2	B	540	LYS
2	B	541	ARG
2	B	543	LYS
2	B	545	GLN
2	B	546	ARG
2	B	547	PHE
2	B	548	GLU

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Mol	Chain	Res	Type
2	B	549	ASP
2	B	553	PHE
2	B	557	LEU
2	B	558	ASN
2	B	574	GLU
2	B	575	SER
2	B	582	SER
2	B	590	GLU
2	B	594	MET
2	B	596	GLN
2	B	602	LYS
2	B	618	VAL
2	B	629	ASN
2	B	631	ASP
2	B	635	TRP
2	B	639	ARG
2	B	647	LYS
2	B	655	TRP
2	B	661	LEU
2	B	666	GLN
2	B	669	SER
2	B	671	TYR
2	B	673	MET
2	B	688	LEU
2	B	691	VAL
2	B	695	ASN
2	B	696	GLN
2	B	708	LEU
2	C	69	GLU
2	C	70	ARG
2	C	71	SER
2	C	73	GLU
2	C	79	THR
2	C	85	GLU
2	C	92	LEU
2	C	102	GLU
2	C	114	TYR
2	C	117	ASP
2	C	131	THR
2	C	134	GLU
2	C	136	GLU
2	C	144	GLN

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Mol	Chain	Res	Type
2	C	148	LYS
2	C	152	GLU
2	C	159	GLU
2	C	162	ASP
2	C	172	THR
2	C	173	GLU
2	C	176	ILE
2	C	183	ASP
2	C	198	SER
2	C	202	LEU
2	C	205	VAL
2	C	208	ASP
2	C	214	ARG
2	C	229	LEU
2	C	241	THR
2	C	248	PHE
2	C	267	LYS
2	C	268	LYS
2	C	275	THR
2	C	276	THR
2	C	296	ARG
2	C	302	ASP
2	C	327	GLU
2	C	335	GLU
2	C	336	LEU
2	C	337	ASP
2	C	340	GLN
2	C	344	GLN
2	C	354	SER
2	C	358	GLN
2	C	376	ASP
2	C	378	MET
2	C	385	ASP
2	C	389	LYS
2	C	393	LYS
2	C	398	GLU
2	C	399	TRP
2	C	403	ASP
2	C	405	LYS
2	C	406	ASP
2	C	409	VAL
2	C	410	ASN

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Mol	Chain	Res	Type
2	C	419	SER
2	C	422	VAL
2	C	431	GLU
2	C	436	ASP
2	C	439	ASP
2	C	454	SER
2	C	455	LYS
2	C	460	ARG
2	C	468	THR
2	C	472	GLN
2	C	482	LYS
2	C	491	ASP
2	C	496	ILE
2	C	502	GLN
2	C	517	THR
2	C	530	VAL
2	C	533	ASP
2	C	538	THR
2	C	539	VAL
2	C	540	LYS
2	C	541	ARG
2	C	545	GLN
2	C	546	ARG
2	C	547	PHE
2	C	555	SER
2	C	560	SER
2	C	561	LYS
2	C	564	GLU
2	C	582	SER
2	C	584	LYS
2	C	587	SER
2	C	592	MET
2	C	595	GLU
2	C	599	LYS
2	C	634	SER
2	C	635	TRP
2	C	639	ARG
2	C	647	LYS
2	C	655	TRP
2	C	664	TYR
2	C	671	TYR
2	C	674	ASP

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Mol	Chain	Res	Type
2	C	681	VAL
2	C	684	ASP
2	C	685	LYS
2	C	687	LEU
2	C	690	LYS
2	C	698	LYS
2	C	701	GLU
2	C	708	LEU
2	D	69	GLU
2	D	70	ARG
2	D	71	SER
2	D	73	GLU
2	D	85	GLU
2	D	87	LEU
2	D	91	THR
2	D	93	LEU
2	D	94	TYR
2	D	102	GLU
2	D	117	ASP
2	D	125	LYS
2	D	128	VAL
2	D	129	PHE
2	D	135	MET
2	D	136	GLU
2	D	139	ARG
2	D	140	HIS
2	D	141	SER
2	D	142	ARG
2	D	152	GLU
2	D	153	GLN
2	D	159	GLU
2	D	162	ASP
2	D	172	THR
2	D	173	GLU
2	D	176	ILE
2	D	183	ASP
2	D	198	SER
2	D	202	LEU
2	D	205	VAL
2	D	208	ASP
2	D	222	GLU
2	D	225	ILE

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Mol	Chain	Res	Type
2	D	229	LEU
2	D	241	THR
2	D	250	ASP
2	D	259	ASP
2	D	267	LYS
2	D	268	LYS
2	D	275	THR
2	D	276	THR
2	D	296	ARG
2	D	302	ASP
2	D	335	GLU
2	D	340	GLN
2	D	346	THR
2	D	354	SER
2	D	358	GLN
2	D	376	ASP
2	D	378	MET
2	D	385	ASP
2	D	389	LYS
2	D	393	LYS
2	D	398	GLU
2	D	399	TRP
2	D	403	ASP
2	D	405	LYS
2	D	406	ASP
2	D	407	MET
2	D	419	SER
2	D	422	VAL
2	D	431	GLU
2	D	436	ASP
2	D	439	ASP
2	D	454	SER
2	D	455	LYS
2	D	460	ARG
2	D	468	THR
2	D	472	GLN
2	D	482	LYS
2	D	491	ASP
2	D	502	GLN
2	D	517	THR
2	D	530	VAL
2	D	538	THR

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Mol	Chain	Res	Type
2	D	539	VAL
2	D	540	LYS
2	D	541	ARG
2	D	543	LYS
2	D	545	GLN
2	D	546	ARG
2	D	547	PHE
2	D	548	GLU
2	D	549	ASP
2	D	553	PHE
2	D	557	LEU
2	D	558	ASN
2	D	574	GLU
2	D	575	SER
2	D	582	SER
2	D	590	GLU
2	D	594	MET
2	D	596	GLN
2	D	602	LYS
2	D	618	VAL
2	D	629	ASN
2	D	631	ASP
2	D	635	TRP
2	D	639	ARG
2	D	647	LYS
2	D	655	TRP
2	D	661	LEU
2	D	666	GLN
2	D	669	SER
2	D	671	TYR
2	D	673	MET
2	D	688	LEU
2	D	691	VAL
2	D	695	ASN
2	D	696	GLN
2	D	708	LEU
2	E	69	GLU
2	E	70	ARG
2	E	71	SER
2	E	73	GLU
2	E	79	THR
2	E	85	GLU

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Mol	Chain	Res	Type
2	E	92	LEU
2	E	102	GLU
2	E	114	TYR
2	E	117	ASP
2	E	131	THR
2	E	134	GLU
2	E	136	GLU
2	E	144	GLN
2	E	148	LYS
2	E	152	GLU
2	E	159	GLU
2	E	162	ASP
2	E	172	THR
2	E	173	GLU
2	E	176	ILE
2	E	183	ASP
2	E	198	SER
2	E	202	LEU
2	E	205	VAL
2	E	208	ASP
2	E	214	ARG
2	E	229	LEU
2	E	241	THR
2	E	248	PHE
2	E	267	LYS
2	E	268	LYS
2	E	275	THR
2	E	276	THR
2	E	296	ARG
2	E	302	ASP
2	E	327	GLU
2	E	335	GLU
2	E	336	LEU
2	E	337	ASP
2	E	340	GLN
2	E	344	GLN
2	E	354	SER
2	E	358	GLN
2	E	376	ASP
2	E	378	MET
2	E	385	ASP
2	E	389	LYS

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Mol	Chain	Res	Type
2	E	393	LYS
2	E	398	GLU
2	E	399	TRP
2	E	403	ASP
2	E	405	LYS
2	E	406	ASP
2	E	409	VAL
2	E	410	ASN
2	E	419	SER
2	E	422	VAL
2	E	431	GLU
2	E	436	ASP
2	E	439	ASP
2	E	454	SER
2	E	455	LYS
2	E	460	ARG
2	E	468	THR
2	E	472	GLN
2	E	482	LYS
2	E	491	ASP
2	E	496	ILE
2	E	502	GLN
2	E	517	THR
2	E	530	VAL
2	E	533	ASP
2	E	538	THR
2	E	539	VAL
2	E	540	LYS
2	E	541	ARG
2	E	545	GLN
2	E	546	ARG
2	E	547	PHE
2	E	555	SER
2	E	560	SER
2	E	561	LYS
2	E	564	GLU
2	E	582	SER
2	E	584	LYS
2	E	587	SER
2	E	592	MET
2	E	595	GLU
2	E	599	LYS

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Mol	Chain	Res	Type
2	E	634	SER
2	E	635	TRP
2	E	639	ARG
2	E	647	LYS
2	E	655	TRP
2	E	664	TYR
2	E	671	TYR
2	E	674	ASP
2	E	681	VAL
2	E	684	ASP
2	E	685	LYS
2	E	687	LEU
2	E	690	LYS
2	E	698	LYS
2	E	701	GLU
2	E	708	LEU
2	F	69	GLU
2	F	70	ARG
2	F	71	SER
2	F	73	GLU
2	F	85	GLU
2	F	87	LEU
2	F	91	THR
2	F	93	LEU
2	F	94	TYR
2	F	102	GLU
2	F	117	ASP
2	F	125	LYS
2	F	128	VAL
2	F	129	PHE
2	F	135	MET
2	F	136	GLU
2	F	139	ARG
2	F	140	HIS
2	F	141	SER
2	F	142	ARG
2	F	152	GLU
2	F	153	GLN
2	F	159	GLU
2	F	162	ASP
2	F	172	THR
2	F	173	GLU

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Mol	Chain	Res	Type
2	F	176	ILE
2	F	183	ASP
2	F	198	SER
2	F	202	LEU
2	F	205	VAL
2	F	208	ASP
2	F	222	GLU
2	F	225	ILE
2	F	229	LEU
2	F	241	THR
2	F	250	ASP
2	F	259	ASP
2	F	267	LYS
2	F	268	LYS
2	F	275	THR
2	F	276	THR
2	F	296	ARG
2	F	302	ASP
2	F	335	GLU
2	F	340	GLN
2	F	346	THR
2	F	354	SER
2	F	358	GLN
2	F	376	ASP
2	F	378	MET
2	F	385	ASP
2	F	389	LYS
2	F	393	LYS
2	F	398	GLU
2	F	399	TRP
2	F	403	ASP
2	F	405	LYS
2	F	406	ASP
2	F	407	MET
2	F	411	GLU
2	F	419	SER
2	F	422	VAL
2	F	431	GLU
2	F	436	ASP
2	F	439	ASP
2	F	454	SER
2	F	455	LYS

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Mol	Chain	Res	Type
2	F	460	ARG
2	F	468	THR
2	F	472	GLN
2	F	482	LYS
2	F	491	ASP
2	F	502	GLN
2	F	517	THR
2	F	530	VAL
2	F	538	THR
2	F	539	VAL
2	F	540	LYS
2	F	541	ARG
2	F	543	LYS
2	F	545	GLN
2	F	546	ARG
2	F	547	PHE
2	F	548	GLU
2	F	549	ASP
2	F	553	PHE
2	F	557	LEU
2	F	558	ASN
2	F	574	GLU
2	F	575	SER
2	F	582	SER
2	F	590	GLU
2	F	594	MET
2	F	596	GLN
2	F	602	LYS
2	F	618	VAL
2	F	629	ASN
2	F	631	ASP
2	F	635	TRP
2	F	639	ARG
2	F	647	LYS
2	F	655	TRP
2	F	661	LEU
2	F	666	GLN
2	F	669	SER
2	F	671	TYR
2	F	673	MET
2	F	688	LEU
2	F	691	VAL

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Mol	Chain	Res	Type
2	F	695	ASN
2	F	696	GLN
2	F	708	LEU
2	G	69	GLU
2	G	70	ARG
2	G	71	SER
2	G	73	GLU
2	G	79	THR
2	G	85	GLU
2	G	92	LEU
2	G	102	GLU
2	G	114	TYR
2	G	117	ASP
2	G	131	THR
2	G	134	GLU
2	G	136	GLU
2	G	144	GLN
2	G	148	LYS
2	G	152	GLU
2	G	159	GLU
2	G	162	ASP
2	G	172	THR
2	G	173	GLU
2	G	176	ILE
2	G	183	ASP
2	G	198	SER
2	G	202	LEU
2	G	205	VAL
2	G	208	ASP
2	G	214	ARG
2	G	229	LEU
2	G	241	THR
2	G	248	PHE
2	G	267	LYS
2	G	268	LYS
2	G	275	THR
2	G	276	THR
2	G	296	ARG
2	G	302	ASP
2	G	327	GLU
2	G	335	GLU
2	G	336	LEU

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Mol	Chain	Res	Type
2	G	337	ASP
2	G	340	GLN
2	G	344	GLN
2	G	354	SER
2	G	358	GLN
2	G	376	ASP
2	G	378	MET
2	G	385	ASP
2	G	389	LYS
2	G	393	LYS
2	G	398	GLU
2	G	399	TRP
2	G	403	ASP
2	G	405	LYS
2	G	406	ASP
2	G	409	VAL
2	G	410	ASN
2	G	419	SER
2	G	422	VAL
2	G	431	GLU
2	G	436	ASP
2	G	439	ASP
2	G	454	SER
2	G	455	LYS
2	G	460	ARG
2	G	468	THR
2	G	472	GLN
2	G	482	LYS
2	G	491	ASP
2	G	496	ILE
2	G	502	GLN
2	G	517	THR
2	G	530	VAL
2	G	533	ASP
2	G	538	THR
2	G	539	VAL
2	G	540	LYS
2	G	541	ARG
2	G	545	GLN
2	G	546	ARG
2	G	547	PHE
2	G	555	SER

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Mol	Chain	Res	Type
2	G	560	SER
2	G	561	LYS
2	G	564	GLU
2	G	573	ARG
2	G	582	SER
2	G	584	LYS
2	G	587	SER
2	G	592	MET
2	G	595	GLU
2	G	599	LYS
2	G	634	SER
2	G	635	TRP
2	G	639	ARG
2	G	647	LYS
2	G	655	TRP
2	G	664	TYR
2	G	671	TYR
2	G	674	ASP
2	G	681	VAL
2	G	684	ASP
2	G	685	LYS
2	G	687	LEU
2	G	690	LYS
2	G	698	LYS
2	G	701	GLU
2	G	708	LEU
2	H	69	GLU
2	H	70	ARG
2	H	71	SER
2	H	73	GLU
2	H	85	GLU
2	H	87	LEU
2	H	91	THR
2	H	93	LEU
2	H	94	TYR
2	H	102	GLU
2	H	117	ASP
2	H	125	LYS
2	H	128	VAL
2	H	129	PHE
2	H	135	MET
2	H	136	GLU

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Mol	Chain	Res	Type
2	H	139	ARG
2	H	140	HIS
2	H	141	SER
2	H	142	ARG
2	H	152	GLU
2	H	153	GLN
2	H	159	GLU
2	H	162	ASP
2	H	172	THR
2	H	173	GLU
2	H	176	ILE
2	H	183	ASP
2	H	198	SER
2	H	202	LEU
2	H	205	VAL
2	H	208	ASP
2	H	222	GLU
2	H	225	ILE
2	H	229	LEU
2	H	241	THR
2	H	250	ASP
2	H	259	ASP
2	H	267	LYS
2	H	268	LYS
2	H	275	THR
2	H	276	THR
2	H	296	ARG
2	H	302	ASP
2	H	335	GLU
2	H	340	GLN
2	H	346	THR
2	H	354	SER
2	H	358	GLN
2	H	376	ASP
2	H	378	MET
2	H	385	ASP
2	H	389	LYS
2	H	393	LYS
2	H	398	GLU
2	H	399	TRP
2	H	403	ASP
2	H	405	LYS

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Mol	Chain	Res	Type
2	H	406	ASP
2	H	407	MET
2	H	419	SER
2	H	422	VAL
2	H	431	GLU
2	H	436	ASP
2	H	439	ASP
2	H	454	SER
2	H	455	LYS
2	H	460	ARG
2	H	468	THR
2	H	472	GLN
2	H	482	LYS
2	H	491	ASP
2	H	502	GLN
2	H	517	THR
2	H	530	VAL
2	H	538	THR
2	H	539	VAL
2	H	540	LYS
2	H	541	ARG
2	H	543	LYS
2	H	545	GLN
2	H	546	ARG
2	H	547	PHE
2	H	548	GLU
2	H	549	ASP
2	H	553	PHE
2	H	557	LEU
2	H	558	ASN
2	H	574	GLU
2	H	575	SER
2	H	582	SER
2	H	590	GLU
2	H	594	MET
2	H	596	GLN
2	H	602	LYS
2	H	618	VAL
2	H	629	ASN
2	H	631	ASP
2	H	635	TRP
2	H	639	ARG

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Mol	Chain	Res	Type
2	H	647	LYS
2	H	655	TRP
2	H	661	LEU
2	H	666	GLN
2	H	669	SER
2	H	671	TYR
2	H	673	MET
2	H	688	LEU
2	H	691	VAL
2	H	695	ASN
2	H	696	GLN
2	H	708	LEU
3	I	67	ARG
3	I	101	GLU
3	I	114	ARG
3	I	117	ASN
3	I	127	ASP
3	I	238	LEU
3	I	251	ARG
3	I	254	ASN
3	I	267	ARG
3	I	321	GLU
3	I	324	LEU
3	I	342	TYR
3	I	355	LEU
3	I	370	ASN
3	I	380	VAL
3	I	384	ASP
3	I	392	LEU
3	I	620	THR
3	I	651	LYS
3	I	655	ILE
3	I	658	GLU
3	I	660	ARG
3	I	765	PHE
3	I	767	GLU
3	I	912	ILE
3	I	916	THR
3	I	917	LEU
3	I	926	LYS
3	I	1014	THR
3	I	1025	PHE

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Mol	Chain	Res	Type
3	I	1026	LEU
3	I	1044	LYS
3	I	1045	GLU
3	I	1055	PHE
3	I	1162	LEU
3	I	1170	TYR
3	J	67	ARG
3	J	101	GLU
3	J	114	ARG
3	J	117	ASN
3	J	127	ASP
3	J	238	LEU
3	J	251	ARG
3	J	254	ASN
3	J	267	ARG
3	J	321	GLU
3	J	324	LEU
3	J	342	TYR
3	J	355	LEU
3	J	370	ASN
3	J	380	VAL
3	J	384	ASP
3	J	392	LEU
3	J	620	THR
3	J	651	LYS
3	J	655	ILE
3	J	658	GLU
3	J	660	ARG
3	J	765	PHE
3	J	767	GLU
3	J	912	ILE
3	J	916	THR
3	J	917	LEU
3	J	926	LYS
3	J	1014	THR
3	J	1025	PHE
3	J	1026	LEU
3	J	1044	LYS
3	J	1045	GLU
3	J	1055	PHE
3	J	1162	LEU
3	J	1170	TYR

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Mol	Chain	Res	Type
3	K	67	ARG
3	K	101	GLU
3	K	114	ARG
3	K	117	ASN
3	K	127	ASP
3	K	238	LEU
3	K	251	ARG
3	K	254	ASN
3	K	267	ARG
3	K	321	GLU
3	K	324	LEU
3	K	342	TYR
3	K	355	LEU
3	K	370	ASN
3	K	380	VAL
3	K	384	ASP
3	K	392	LEU
3	K	620	THR
3	K	651	LYS
3	K	655	ILE
3	K	658	GLU
3	K	660	ARG
3	K	765	PHE
3	K	767	GLU
3	K	912	ILE
3	K	916	THR
3	K	917	LEU
3	K	926	LYS
3	K	1014	THR
3	K	1025	PHE
3	K	1026	LEU
3	K	1044	LYS
3	K	1045	GLU
3	K	1055	PHE
3	K	1162	LEU
3	K	1170	TYR
3	L	67	ARG
3	L	101	GLU
3	L	114	ARG
3	L	117	ASN
3	L	127	ASP
3	L	238	LEU

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Mol	Chain	Res	Type
3	L	251	ARG
3	L	254	ASN
3	L	267	ARG
3	L	321	GLU
3	L	324	LEU
3	L	342	TYR
3	L	355	LEU
3	L	370	ASN
3	L	380	VAL
3	L	384	ASP
3	L	392	LEU
3	L	620	THR
3	L	651	LYS
3	L	655	ILE
3	L	658	GLU
3	L	660	ARG
3	L	765	PHE
3	L	767	GLU
3	L	912	ILE
3	L	916	THR
3	L	917	LEU
3	L	926	LYS
3	L	1014	THR
3	L	1025	PHE
3	L	1026	LEU
3	L	1044	LYS
3	L	1045	GLU
3	L	1055	PHE
3	L	1162	LEU
3	L	1170	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (137) such sidechains are listed below:

Mol	Chain	Res	Type
2	A	182	HIS
2	A	197	ASN
2	A	410	ASN
2	A	596	GLN
2	A	627	GLN
2	A	637	GLN
2	B	111	ASN
2	B	175	ASN

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Mol	Chain	Res	Type
2	B	182	HIS
2	B	524	GLN
2	B	545	GLN
2	B	589	ASN
2	B	660	GLN
2	B	666	GLN
2	B	695	ASN
2	B	696	GLN
2	C	182	HIS
2	C	197	ASN
2	C	410	ASN
2	C	596	GLN
2	C	627	GLN
2	C	637	GLN
2	D	111	ASN
2	D	175	ASN
2	D	182	HIS
2	D	524	GLN
2	D	545	GLN
2	D	589	ASN
2	D	660	GLN
2	D	666	GLN
2	D	695	ASN
2	D	696	GLN
2	E	182	HIS
2	E	197	ASN
2	E	410	ASN
2	E	596	GLN
2	E	627	GLN
2	E	637	GLN
2	F	111	ASN
2	F	175	ASN
2	F	182	HIS
2	F	524	GLN
2	F	545	GLN
2	F	589	ASN
2	F	660	GLN
2	F	666	GLN
2	F	678	GLN
2	F	695	ASN
2	F	696	GLN
2	G	182	HIS

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Mol	Chain	Res	Type
2	G	197	ASN
2	G	410	ASN
2	G	596	GLN
2	G	627	GLN
2	G	637	GLN
2	H	111	ASN
2	H	175	ASN
2	H	182	HIS
2	H	524	GLN
2	H	545	GLN
2	H	589	ASN
2	H	660	GLN
2	H	666	GLN
2	H	695	ASN
2	H	696	GLN
3	I	78	ASN
3	I	254	ASN
3	I	269	ASN
3	I	370	ASN
3	I	440	ASN
3	I	633	HIS
3	I	688	GLN
3	I	697	ASN
3	I	789	ASN
3	I	808	ASN
3	I	990	ASN
3	I	994	ASN
3	I	1061	GLN
3	I	1093	GLN
3	I	1131	ASN
3	I	1182	HIS
3	I	1229	ASN
3	I	1309	ASN
3	J	78	ASN
3	J	254	ASN
3	J	269	ASN
3	J	370	ASN
3	J	440	ASN
3	J	633	HIS
3	J	688	GLN
3	J	697	ASN
3	J	789	ASN

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Mol	Chain	Res	Type
3	J	808	ASN
3	J	990	ASN
3	J	994	ASN
3	J	1061	GLN
3	J	1093	GLN
3	J	1131	ASN
3	J	1182	HIS
3	J	1229	ASN
3	J	1309	ASN
3	K	78	ASN
3	K	254	ASN
3	K	269	ASN
3	K	370	ASN
3	K	440	ASN
3	K	633	HIS
3	K	688	GLN
3	K	697	ASN
3	K	789	ASN
3	K	808	ASN
3	K	990	ASN
3	K	994	ASN
3	K	1061	GLN
3	K	1093	GLN
3	K	1131	ASN
3	K	1182	HIS
3	K	1229	ASN
3	K	1309	ASN
3	L	78	ASN
3	L	254	ASN
3	L	269	ASN
3	L	370	ASN
3	L	440	ASN
3	L	633	HIS
3	L	688	GLN
3	L	697	ASN
3	L	789	ASN
3	L	808	ASN
3	L	990	ASN
3	L	994	ASN
3	L	1061	GLN
3	L	1093	GLN
3	L	1131	ASN

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Mol	Chain	Res	Type
3	L	1182	HIS
3	L	1229	ASN
3	L	1309	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

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.

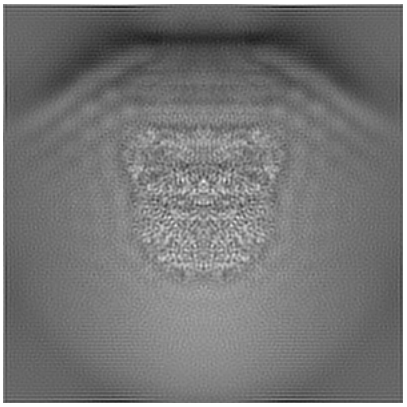
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-31317. These allow visual inspection of the internal detail of the map and identification of artifacts.

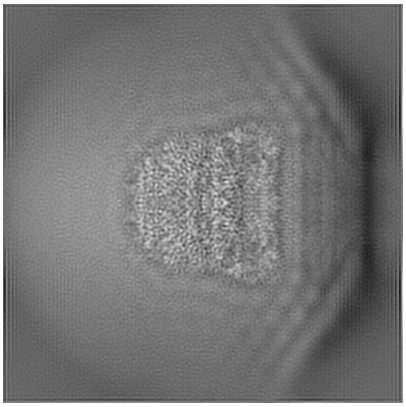
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

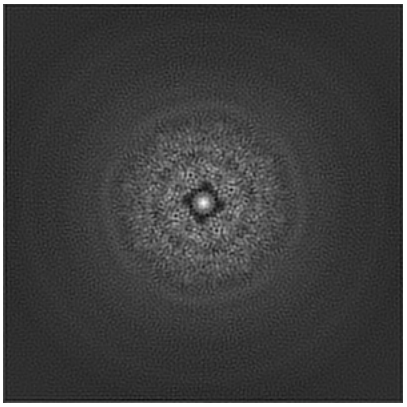
6.1.1 Primary map



X



Y

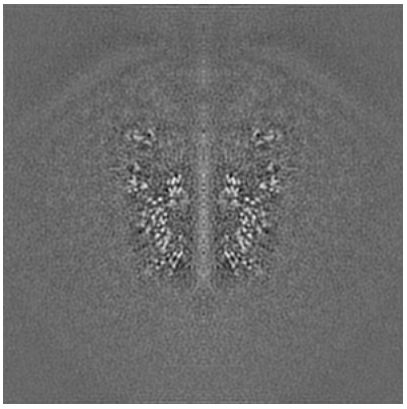


Z

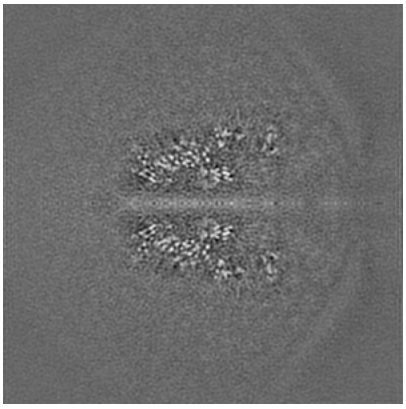
The images above show the map projected in three orthogonal directions.

6.2 Central slices

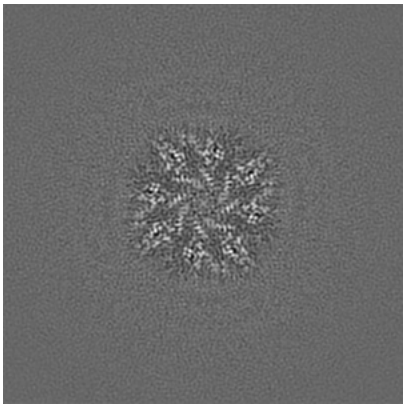
6.2.1 Primary map



X Index: 160



Y Index: 160

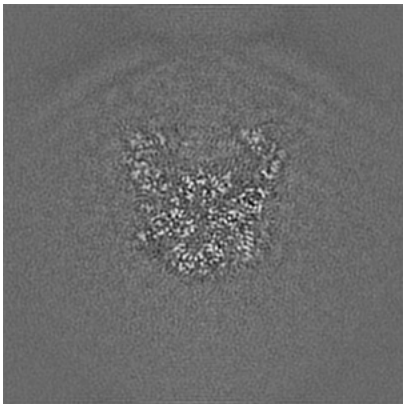


Z Index: 160

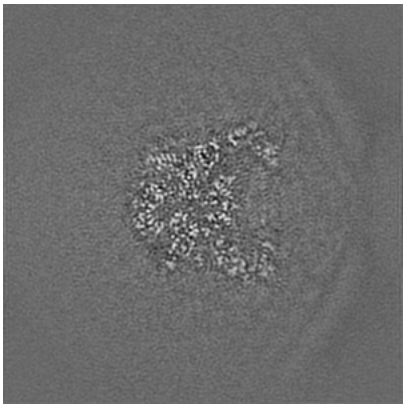
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

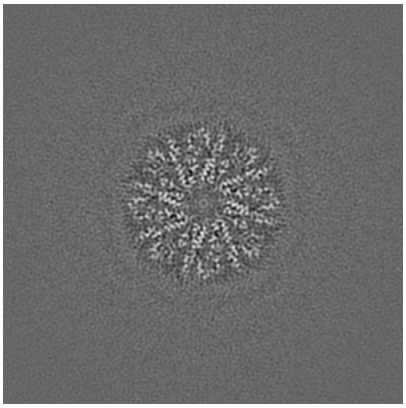
6.3.1 Primary map



X Index: 135



Y Index: 185

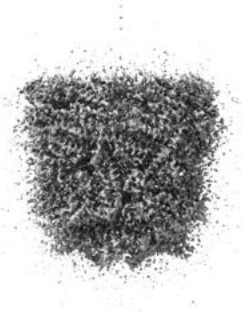


Z Index: 170

The images above show the largest variance slices of the map in three orthogonal directions.

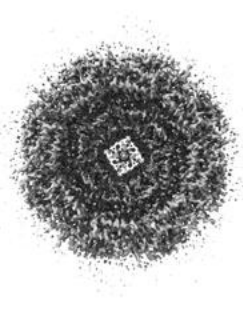
6.4 Orthogonal surface views (i)

6.4.1 Primary map



X

Y



Z

The images above show the 3D surface view of the map at the recommended contour level 11.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

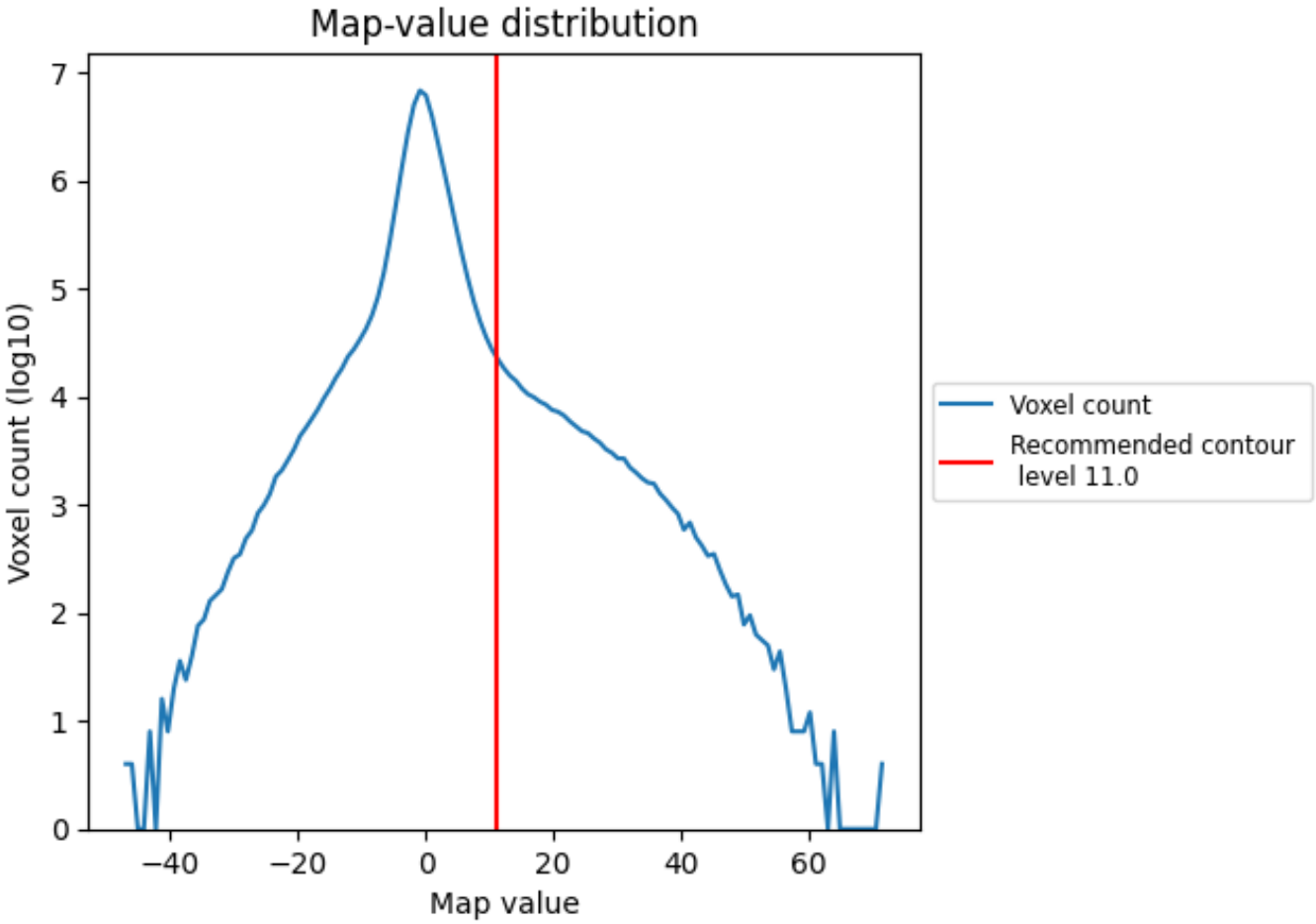
6.5 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

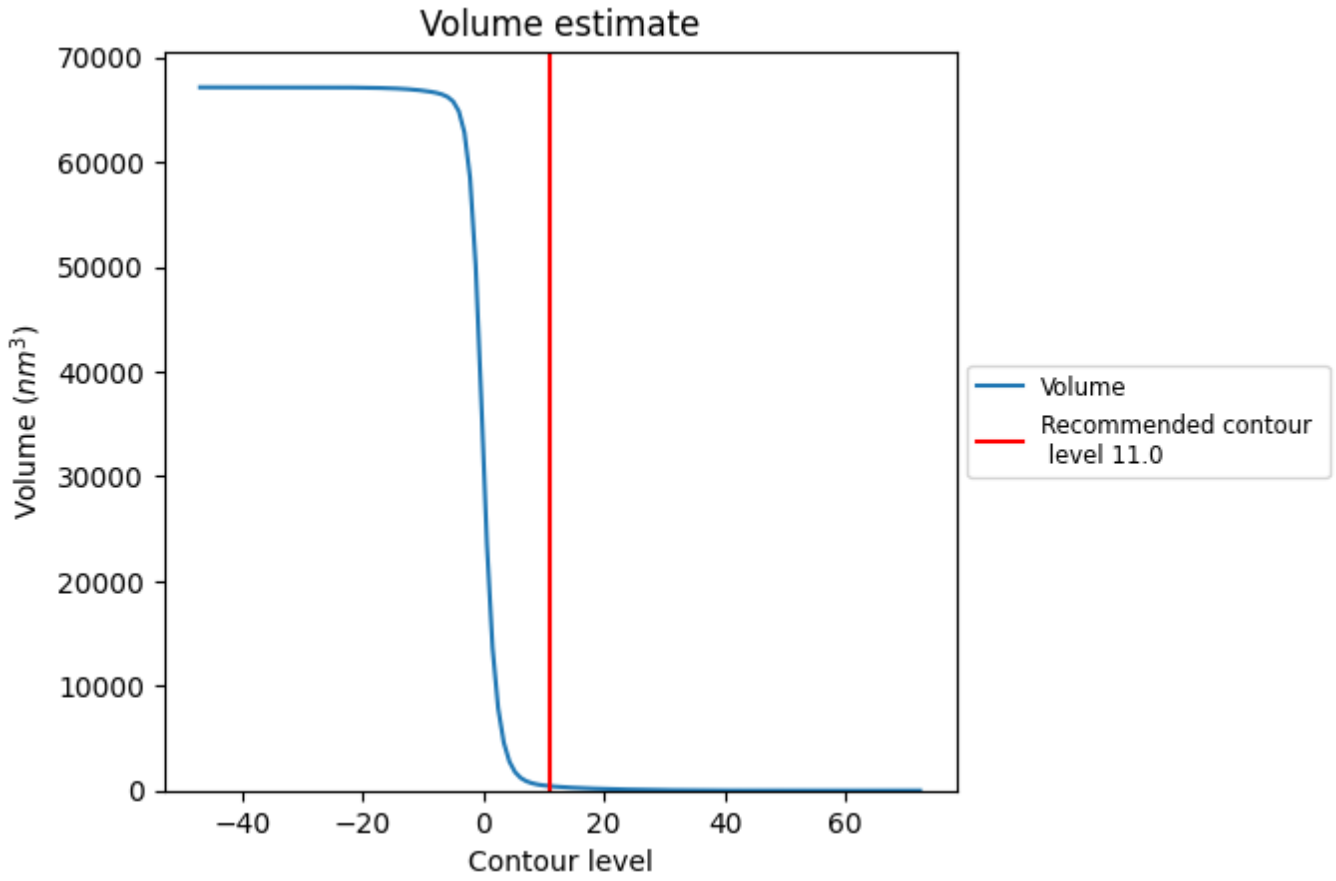
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

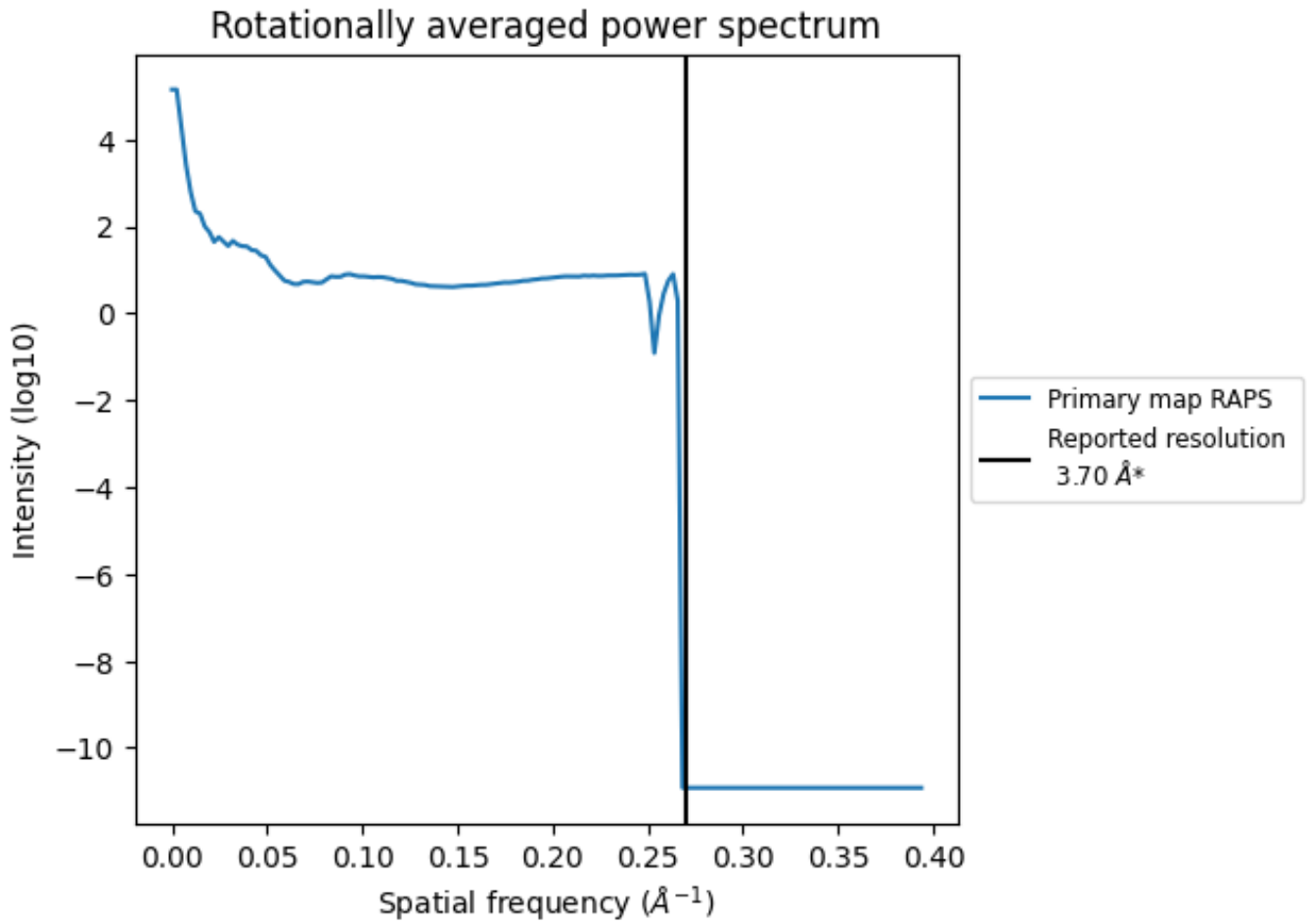
7.2 Volume estimate



The volume at the recommended contour level is 425 nm^3; this corresponds to an approximate mass of 384 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.270 Å^{-1}

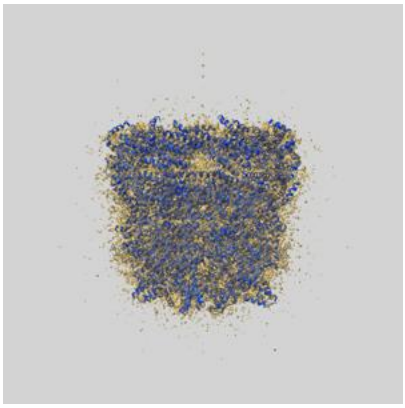
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

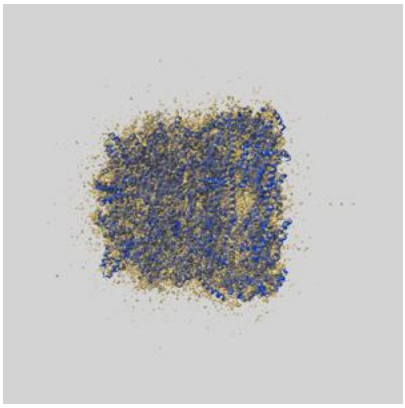
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-31317 and PDB model 7EYB. Per-residue inclusion information can be found in section 3 on page 6.

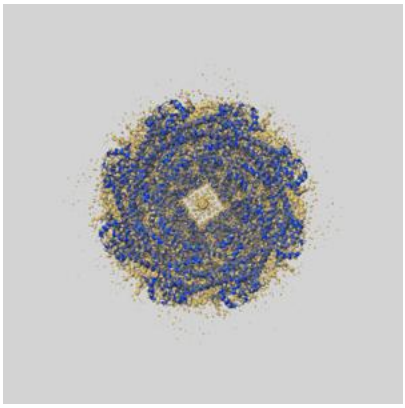
9.1 Map-model overlay



X



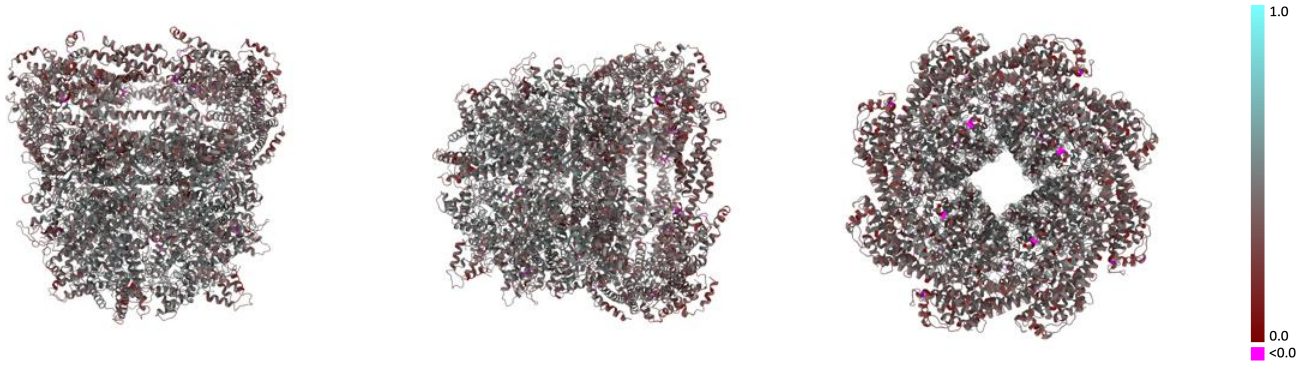
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 11.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

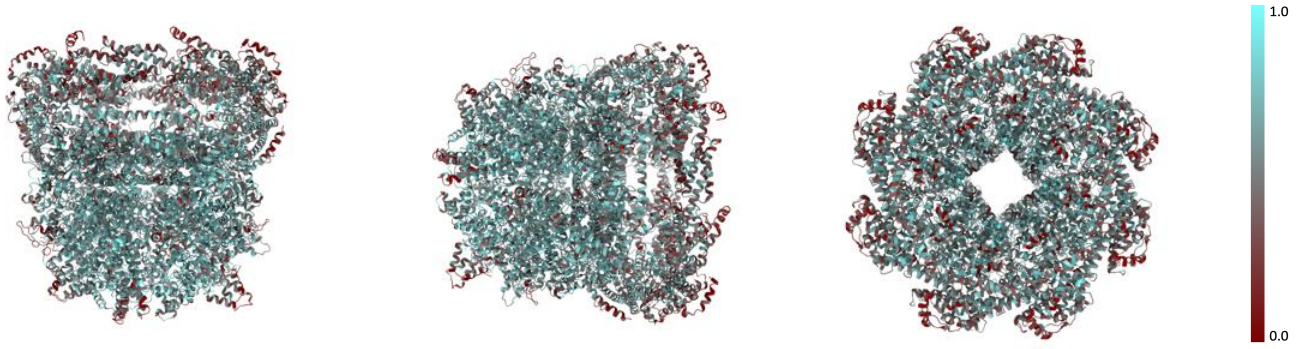
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

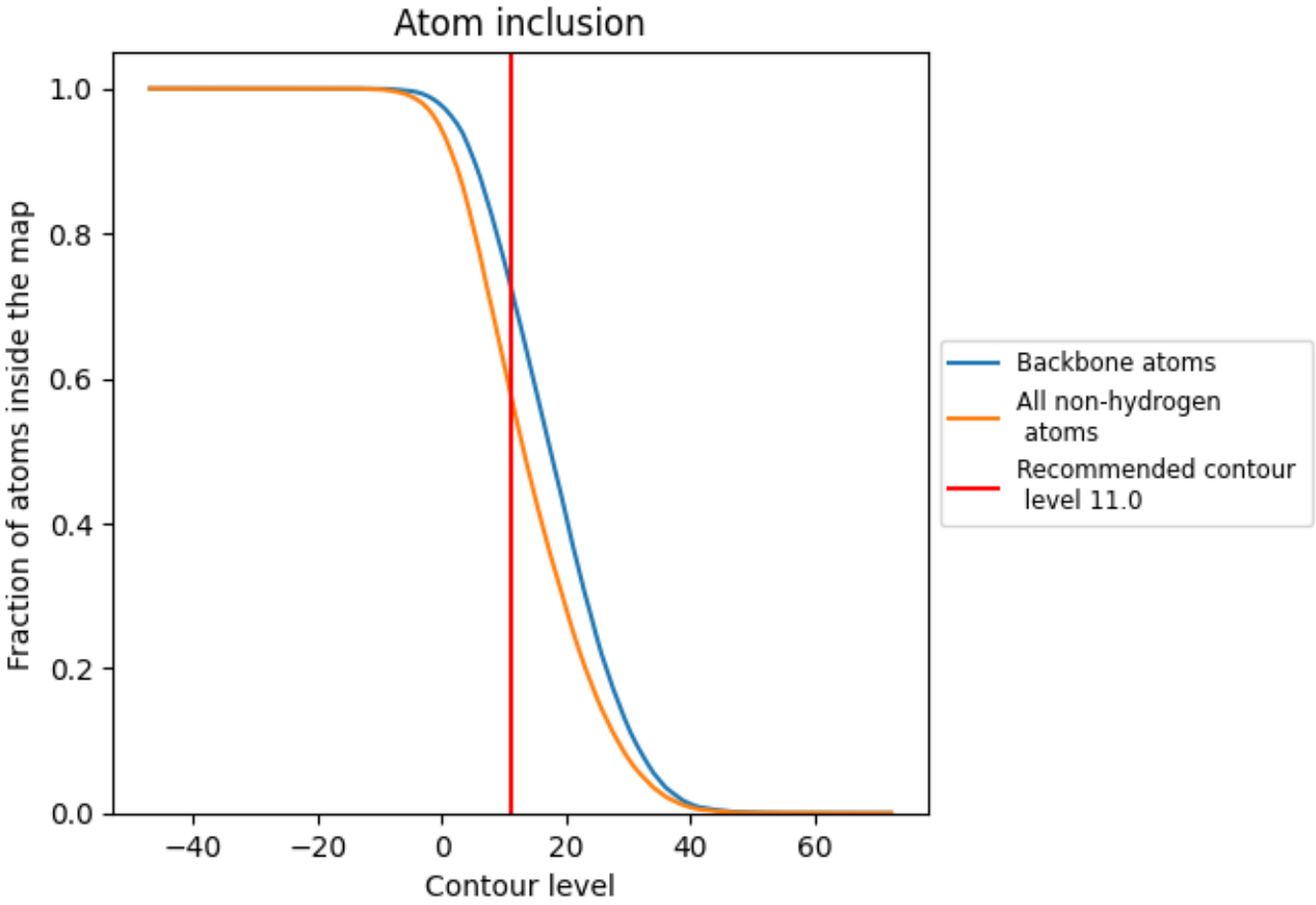
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (11.0).

9.4 Atom inclusion (i)



At the recommended contour level, 73% of all backbone atoms, 58% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (11.0) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5813	0.4160
A	0.5482	0.3970
B	0.5560	0.4040
C	0.5498	0.3990
D	0.5542	0.4050
E	0.5482	0.3990
F	0.5536	0.4050
G	0.5490	0.3980
H	0.5512	0.4050
I	0.6272	0.4420
J	0.6290	0.4410
K	0.6290	0.4400
L	0.6297	0.4410
a	0.4444	0.3700
b	0.4832	0.3200
c	0.4470	0.3680
d	0.4780	0.3170
e	0.4496	0.3660
f	0.4729	0.3210
g	0.4470	0.3650
h	0.4780	0.3210