



# Full wwPDB EM Validation Report ⓘ

Nov 6, 2024 – 03:52 am GMT

PDB ID : 8RTS  
EMDB ID : EMD-19495  
Title : Structure of a homomeric human LRRC8C Volume-Regulated Anion Channel  
Authors : Rutz, S.; Quinodoz, M.; Peter, V.; Garavelli, L.; Innes, M.; Kellenberger, S.; Barone, A.; Campos-Xavier, B.; Unger, S.; Rivolta, C.; Dutzler, R.; Superti-Furga, A.  
Deposited on : 2024-01-29  
Resolution : 3.73 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](mailto: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>.

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

EMDB validation analysis : 0.0.1.dev113  
MolProbity : 4.02b-467  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

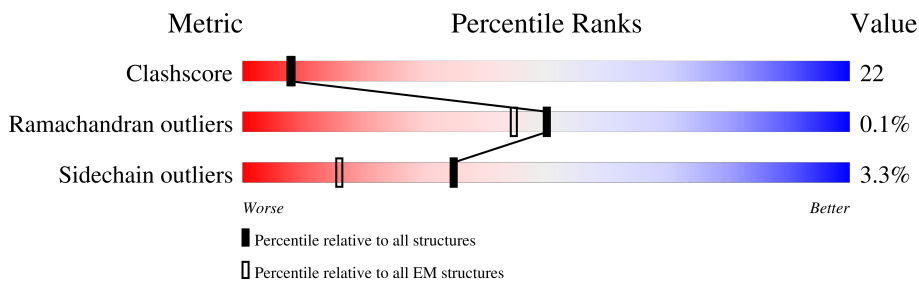
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.73 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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  $\geq 3$ , 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  $\leq 5\%$ . 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	811	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">26%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey); position: relative;"> <div style="position: absolute; top: -10px; left: 0; width: 26%;"></div> <div style="position: absolute; top: 10px; left: 26%;"></div> <div style="position: absolute; top: 10px; left: 45%;"></div> <div style="position: absolute; top: 10px; left: 64%;"></div> <div style="position: absolute; top: 10px; left: 80%;"></div> </div> <div style="text-align: right;">15%</div> </div>
1	B	811	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">27%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey); position: relative;"> <div style="position: absolute; top: -10px; left: 0; width: 27%;"></div> <div style="position: absolute; top: 10px; left: 43%;"></div> <div style="position: absolute; top: 10px; left: 64%;"></div> <div style="position: absolute; top: 10px; left: 80%;"></div> </div> <div style="text-align: right;">15%</div> </div>
1	C	811	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">74%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey); position: relative;"> <div style="position: absolute; top: -10px; left: 0; width: 74%;"></div> <div style="position: absolute; top: 10px; left: 49%;"></div> <div style="position: absolute; top: 10px; left: 64%;"></div> <div style="position: absolute; top: 10px; left: 80%;"></div> </div> <div style="text-align: right;">15%</div> </div>
1	D	811	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">77%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey); position: relative;"> <div style="position: absolute; top: -10px; left: 0; width: 77%;"></div> <div style="position: absolute; top: 10px; left: 57%;"></div> <div style="position: absolute; top: 10px; left: 64%;"></div> <div style="position: absolute; top: 10px; left: 80%;"></div> </div> <div style="text-align: right;">15%</div> </div>
1	E	811	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">72%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey); position: relative;"> <div style="position: absolute; top: -10px; left: 0; width: 72%;"></div> <div style="position: absolute; top: 10px; left: 47%;"></div> <div style="position: absolute; top: 10px; left: 64%;"></div> <div style="position: absolute; top: 10px; left: 80%;"></div> </div> <div style="text-align: right;">15%</div> </div>
1	F	811	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">67%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey); position: relative;"> <div style="position: absolute; top: -10px; left: 0; width: 67%;"></div> <div style="position: absolute; top: 10px; left: 48%;"></div> <div style="position: absolute; top: 10px; left: 64%;"></div> <div style="position: absolute; top: 10px; left: 80%;"></div> </div> <div style="text-align: right;">15%</div> </div>
1	G	811	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">16%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey); position: relative;"> <div style="position: absolute; top: -10px; left: 0; width: 16%;"></div> <div style="position: absolute; top: 10px; left: 17%;"></div> <div style="position: absolute; top: 10px; left: 23%;"></div> <div style="position: absolute; top: 10px; left: 76%;"></div> </div> <div style="text-align: right;">15%</div> </div>

## 2 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 35445 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 Volume-regulated anion channel subunit LRRC8C.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	692	5641	3675	926	1004	36	0	0
1	B	692	5641	3675	926	1004	36	0	0
1	C	692	5641	3675	926	1004	36	0	0
1	D	692	5641	3675	926	1004	36	0	0
1	E	692	5641	3675	926	1004	36	0	0
1	F	692	5641	3675	926	1004	36	0	0
1	G	192	1599	1070	246	265	18	0	0

There are 91 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	0	MET	-	initiating methionine	UNP Q8TDW0
A	1	SER	-	expression tag	UNP Q8TDW0
A	205	GLY	ASP	variant	UNP Q8TDW0
A	781	ARG	GLY	conflict	UNP Q8TDW0
A	802	ALA	-	expression tag	UNP Q8TDW0
A	803	ASP	-	expression tag	UNP Q8TDW0
A	804	ALA	-	expression tag	UNP Q8TDW0
A	805	LEU	-	expression tag	UNP Q8TDW0
A	806	GLU	-	expression tag	UNP Q8TDW0
A	807	VAL	-	expression tag	UNP Q8TDW0
A	808	LEU	-	expression tag	UNP Q8TDW0
A	809	PHE	-	expression tag	UNP Q8TDW0
A	810	GLN	-	expression tag	UNP Q8TDW0
B	0	MET	-	initiating methionine	UNP Q8TDW0
B	1	SER	-	expression tag	UNP Q8TDW0
B	205	GLY	ASP	variant	UNP Q8TDW0

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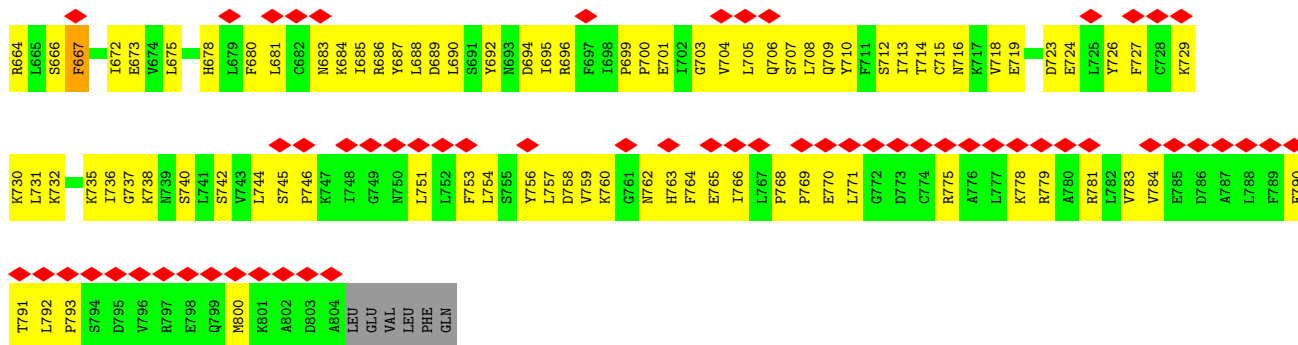
Chain	Residue	Modelled	Actual	Comment	Reference
B	781	ARG	GLY	conflict	UNP Q8TDW0
B	802	ALA	-	expression tag	UNP Q8TDW0
B	803	ASP	-	expression tag	UNP Q8TDW0
B	804	ALA	-	expression tag	UNP Q8TDW0
B	805	LEU	-	expression tag	UNP Q8TDW0
B	806	GLU	-	expression tag	UNP Q8TDW0
B	807	VAL	-	expression tag	UNP Q8TDW0
B	808	LEU	-	expression tag	UNP Q8TDW0
B	809	PHE	-	expression tag	UNP Q8TDW0
B	810	GLN	-	expression tag	UNP Q8TDW0
C	0	MET	-	initiating methionine	UNP Q8TDW0
C	1	SER	-	expression tag	UNP Q8TDW0
C	205	GLY	ASP	variant	UNP Q8TDW0
C	781	ARG	GLY	conflict	UNP Q8TDW0
C	802	ALA	-	expression tag	UNP Q8TDW0
C	803	ASP	-	expression tag	UNP Q8TDW0
C	804	ALA	-	expression tag	UNP Q8TDW0
C	805	LEU	-	expression tag	UNP Q8TDW0
C	806	GLU	-	expression tag	UNP Q8TDW0
C	807	VAL	-	expression tag	UNP Q8TDW0
C	808	LEU	-	expression tag	UNP Q8TDW0
C	809	PHE	-	expression tag	UNP Q8TDW0
C	810	GLN	-	expression tag	UNP Q8TDW0
D	0	MET	-	initiating methionine	UNP Q8TDW0
D	1	SER	-	expression tag	UNP Q8TDW0
D	205	GLY	ASP	variant	UNP Q8TDW0
D	781	ARG	GLY	conflict	UNP Q8TDW0
D	802	ALA	-	expression tag	UNP Q8TDW0
D	803	ASP	-	expression tag	UNP Q8TDW0
D	804	ALA	-	expression tag	UNP Q8TDW0
D	805	LEU	-	expression tag	UNP Q8TDW0
D	806	GLU	-	expression tag	UNP Q8TDW0
D	807	VAL	-	expression tag	UNP Q8TDW0
D	808	LEU	-	expression tag	UNP Q8TDW0
D	809	PHE	-	expression tag	UNP Q8TDW0
D	810	GLN	-	expression tag	UNP Q8TDW0
E	0	MET	-	initiating methionine	UNP Q8TDW0
E	1	SER	-	expression tag	UNP Q8TDW0
E	205	GLY	ASP	variant	UNP Q8TDW0
E	781	ARG	GLY	conflict	UNP Q8TDW0
E	802	ALA	-	expression tag	UNP Q8TDW0
E	803	ASP	-	expression tag	UNP Q8TDW0

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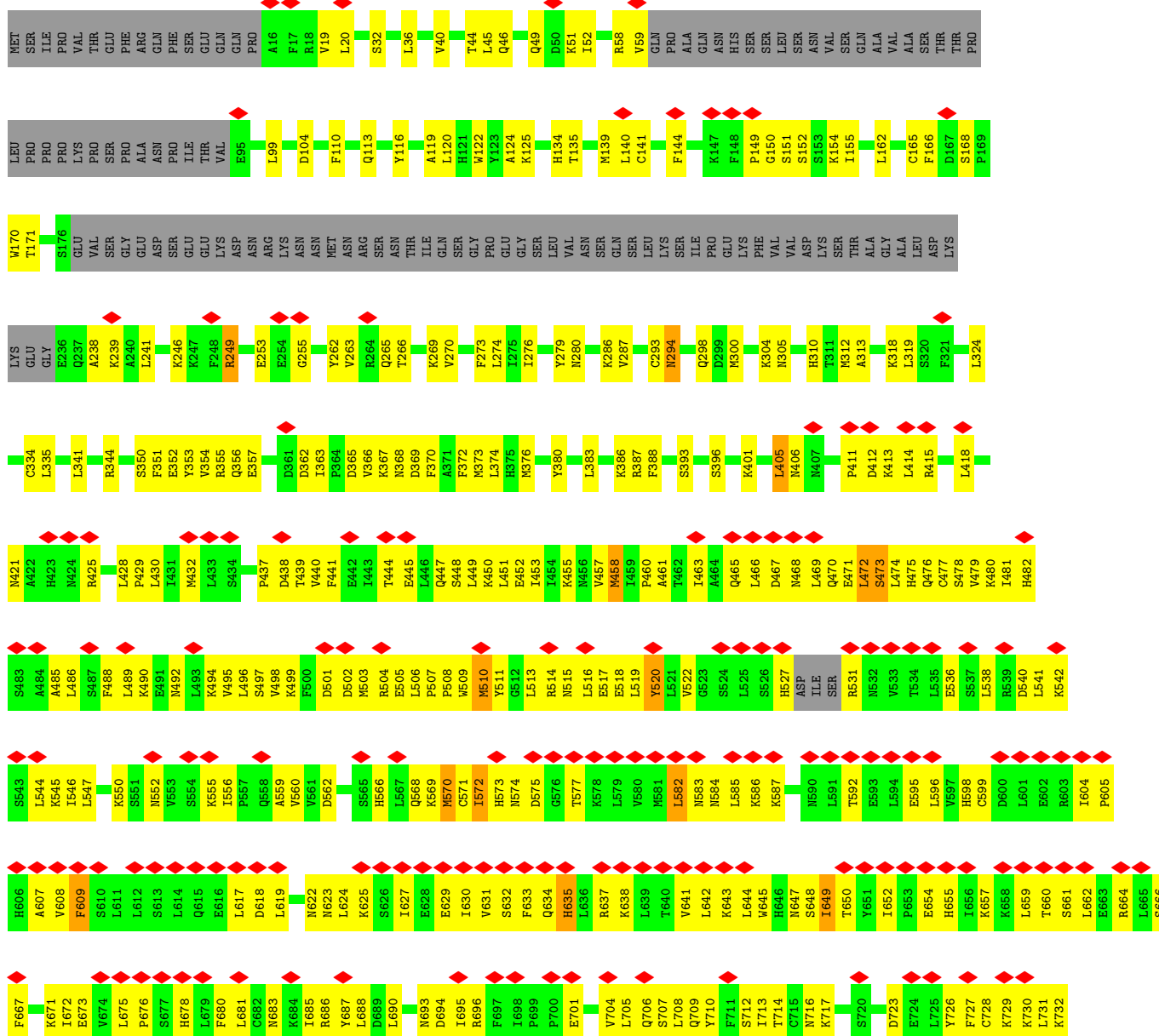
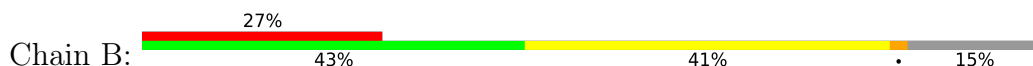
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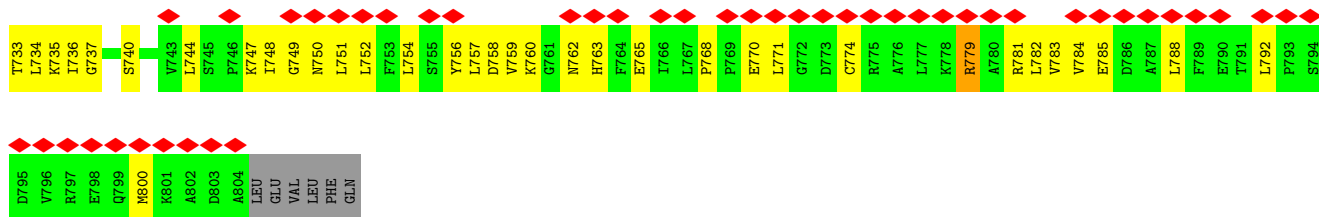
Chain	Residue	Modelled	Actual	Comment	Reference
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E	805	LEU	-	expression tag	UNP Q8TDW0
E	806	GLU	-	expression tag	UNP Q8TDW0
E	807	VAL	-	expression tag	UNP Q8TDW0
E	808	LEU	-	expression tag	UNP Q8TDW0
E	809	PHE	-	expression tag	UNP Q8TDW0
E	810	GLN	-	expression tag	UNP Q8TDW0
F	0	MET	-	initiating methionine	UNP Q8TDW0
F	1	SER	-	expression tag	UNP Q8TDW0
F	205	GLY	ASP	variant	UNP Q8TDW0
F	781	ARG	GLY	conflict	UNP Q8TDW0
F	802	ALA	-	expression tag	UNP Q8TDW0
F	803	ASP	-	expression tag	UNP Q8TDW0
F	804	ALA	-	expression tag	UNP Q8TDW0
F	805	LEU	-	expression tag	UNP Q8TDW0
F	806	GLU	-	expression tag	UNP Q8TDW0
F	807	VAL	-	expression tag	UNP Q8TDW0
F	808	LEU	-	expression tag	UNP Q8TDW0
F	809	PHE	-	expression tag	UNP Q8TDW0
F	810	GLN	-	expression tag	UNP Q8TDW0
G	0	MET	-	initiating methionine	UNP Q8TDW0
G	1	SER	-	expression tag	UNP Q8TDW0
G	205	GLY	ASP	variant	UNP Q8TDW0
G	781	ARG	GLY	conflict	UNP Q8TDW0
G	802	ALA	-	expression tag	UNP Q8TDW0
G	803	ASP	-	expression tag	UNP Q8TDW0
G	804	ALA	-	expression tag	UNP Q8TDW0
G	805	LEU	-	expression tag	UNP Q8TDW0
G	806	GLU	-	expression tag	UNP Q8TDW0
G	807	VAL	-	expression tag	UNP Q8TDW0
G	808	LEU	-	expression tag	UNP Q8TDW0
G	809	PHE	-	expression tag	UNP Q8TDW0
G	810	GLN	-	expression tag	UNP Q8TDW0



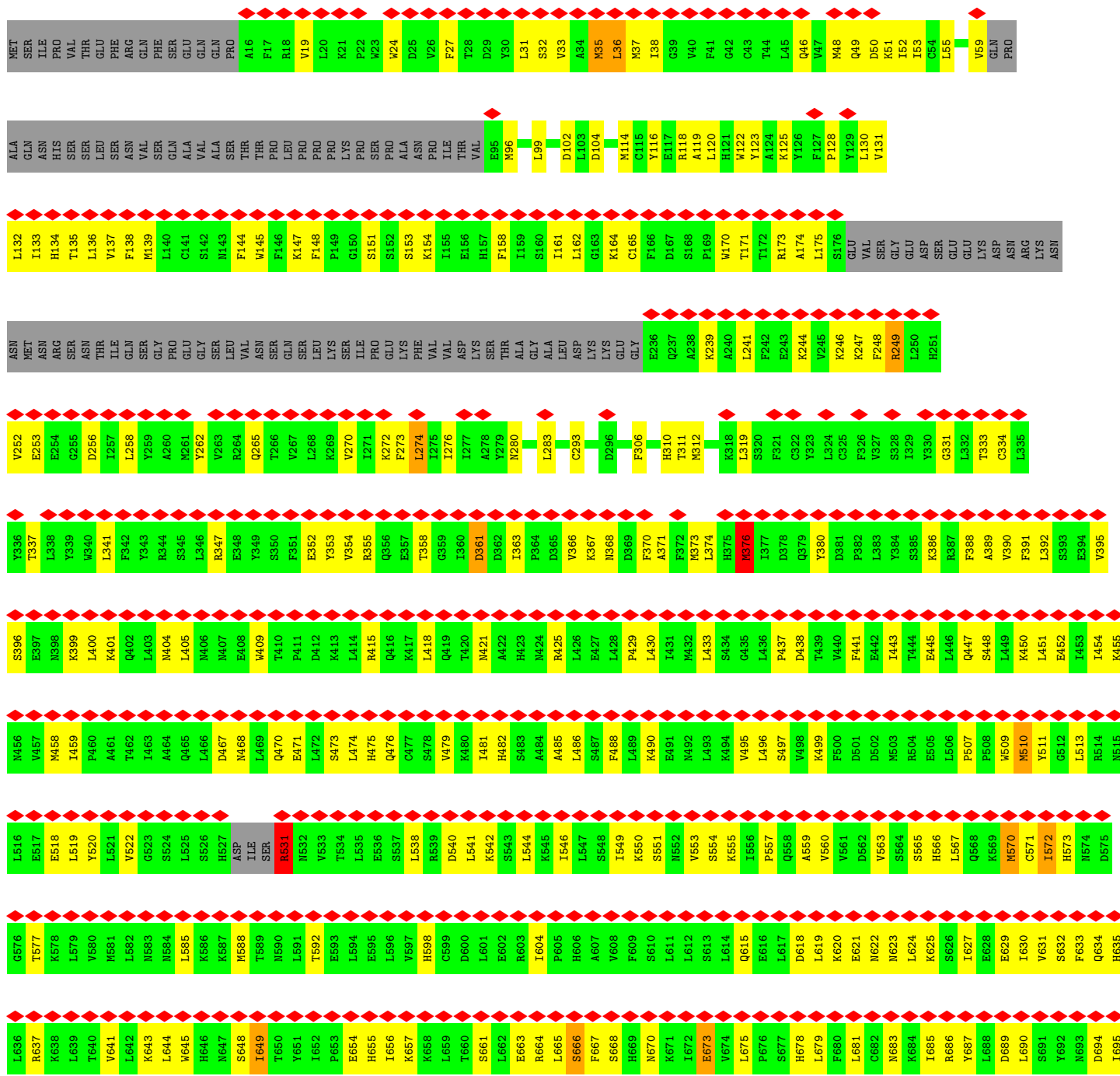
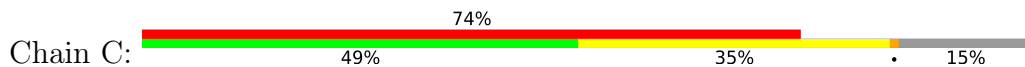


● Molecule 1: Volume-regulated anion channel subunit LRRC8C

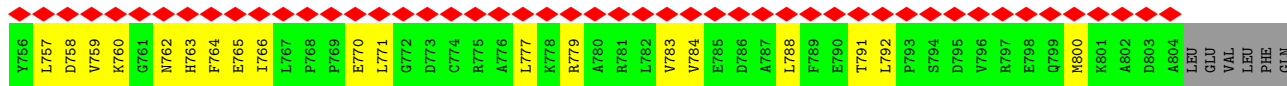




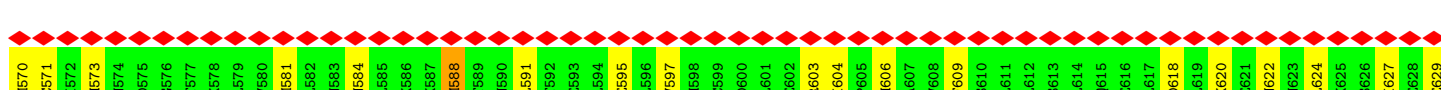
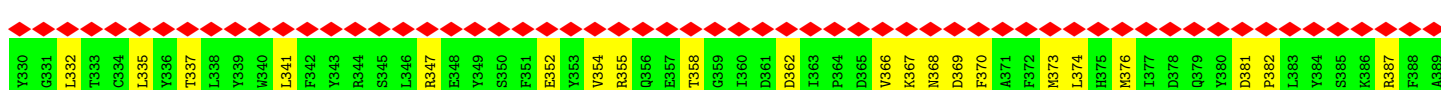
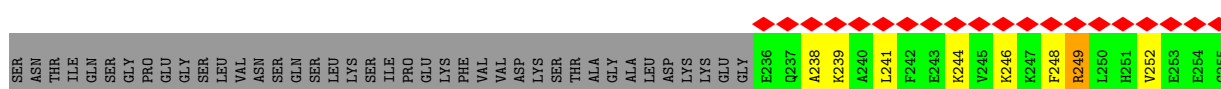
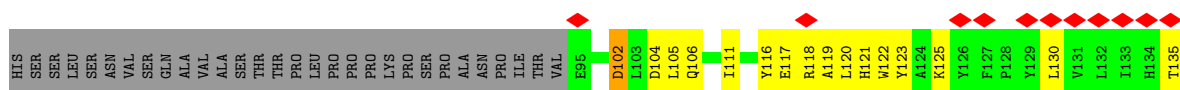
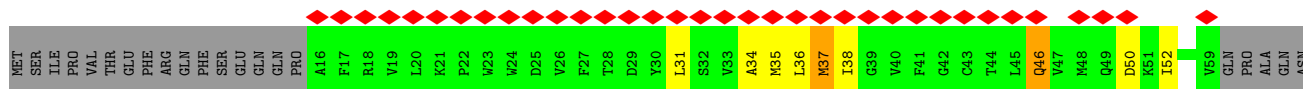
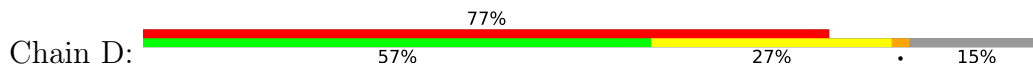
• Molecule 1: Volume-regulated anion channel subunit LRRC8C

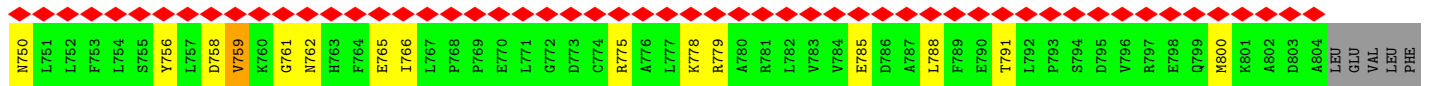






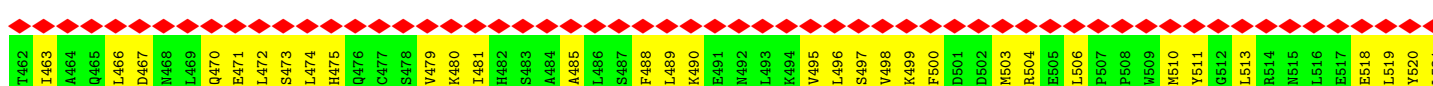
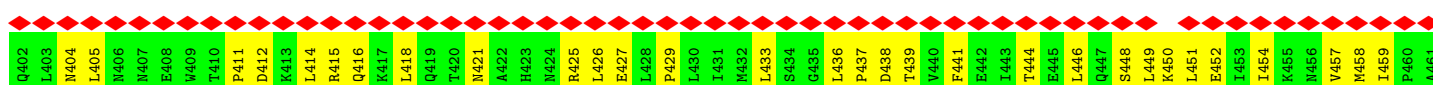
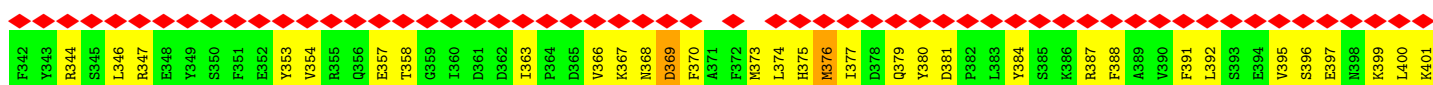
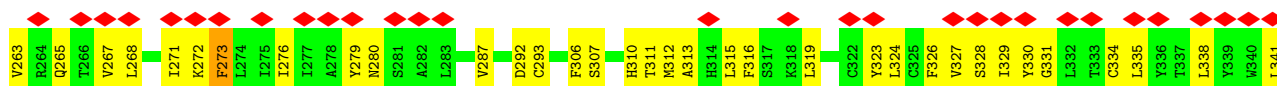
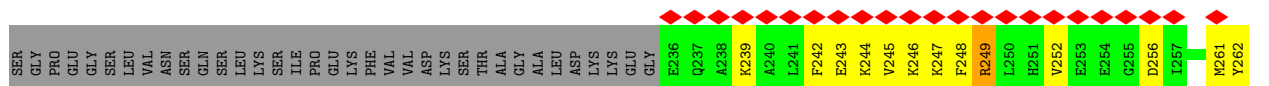
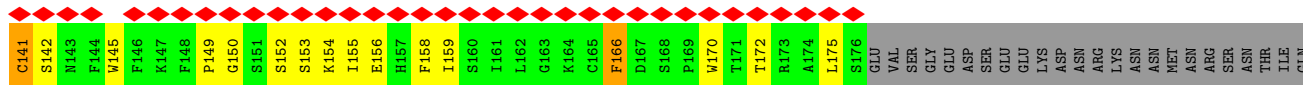
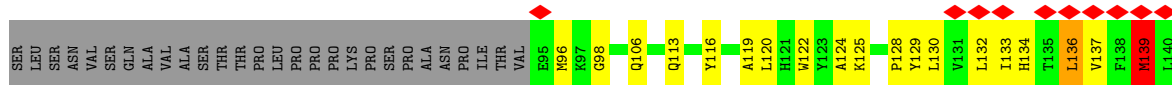
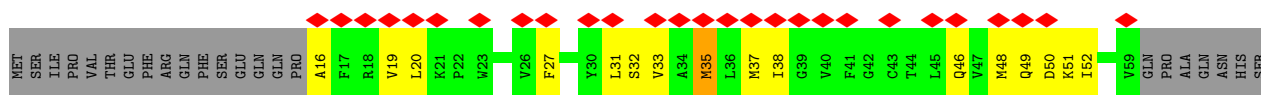
● Molecule 1: Volume-regulated anion channel subunit LRRC8C





GLN

• Molecule 1: Volume-regulated anion channel subunit LRRC8C



L642 K643 L644 W645 H646 N647 S648 I649 T650 Y651 I652 P653 E654 H655 I656 K657 K658 T660 S661 L662 E663 R664 L665 S666 F667 S668 H669 M670 K671 I672 E673 V674 L675 P676 S677 H678 L679 F680 C681 C682 M683 K684 I685 R686 Y687 L688 D689 L690 Y691 Y692 N693 D694 I695 R696 F697 I698 P699 P700 E701

I702 G703 V704 L705 Q706 S707 L708 Q709 Y710 Y711 S712 I713 P714 T715 H716 K717 V718 E719 S720 L721 P722 E723 R724 L725 Y726 F727 C728 H729 K730 L731 K732 T733 L734 K735 I736 G737 H738 N739 S740 L741 S742 M743 L744 I745 P746 Y747 I748 G749 N750 L751 L752 F753 L754 Y755 Y756 L757 D758 P759 K760 G761

N762 H763 F764 E765 I766 L767 P768 Q769 P770 L771 G772 D773 C774 R775 A776 L777 K778 R779 A780 R781 L782 V783 W784 E785 D786 A787 L788 F789 E790 T791 L792 P793 S794 S795 V796 R797 Q798 M800 A801 D802 D803 A804 L805 VAL L806 VAL L807 LEU L808 PHE L809 GLN

● Molecule 1: Volume-regulated anion channel subunit LRRC8C



MET SER ILE PRO THR VAL PHE ARG GLN PHE SER LEU GLN ASP PRO LYS SER THR VAL ASP PRO LYS ASP THR ALA ALA ASN PRO ILE THR VAL D25 V26 F27 Y30 L31 S32 M35 L36 M37 V40 F41 L45 Q46 V47 M48 Q49 D50 R51 I52 R56 V59 PRO ALA GLN ASN HIS SER LEU SER ASN

VAL SER GLN VAL ALA VAL THR PRO PRO PRO LYS SER ALA ASN PRO ILE THR VAL E96 L99 L105 Q106 Y108 Q113 Y116 A119 L120 H121 W122 K125 Y129 L130 V131 L132 H133 H134 V137 M139 L140 I143 I144 W145 F146

K147 F149 P149 G150 S151 S152 S153 K154 I155 E156 H157 H158 I159 S160 I161 L162 G163 K164 C165 F166 D167 S168 P169 W170 R173 A174 L175 S176 VAL SER GLY GLU ASP L250 H251 E252 V252 K246 K247 F248 R249 L250 H251 E252 E253 C254 D256 I257 Y259 A260 M261 Y262 R264 Q265 T266 V267

VAL ASN SER GLN LEU LYS SER ILE PRO GLU PHE VAL ASP LYS THR ALA ALA LEU ASP LYS GLY E236 Q237 A238 K239 A240 L241 F242 E243 K244 V245 K246 K247 F248 R249 L250 H251 E252 E253 C254 D256 I257 Y259 A260 M261 Y262 R264 Q265 T266 V267

L268 K269 V270 I271 K272 F273 L274 I275 I276 I277 A278 Y279 K286 D292 C293 N305 F306 H310 T311 M312 A313 K318 F321 C322 Y323 S328 I329 Y330 G331 L332 T333 L335 Y336 W340 L341 Y342 R344 S345 L346 R347 E348 Y349 S350 F351 F352 Y353 V354 R355 E357

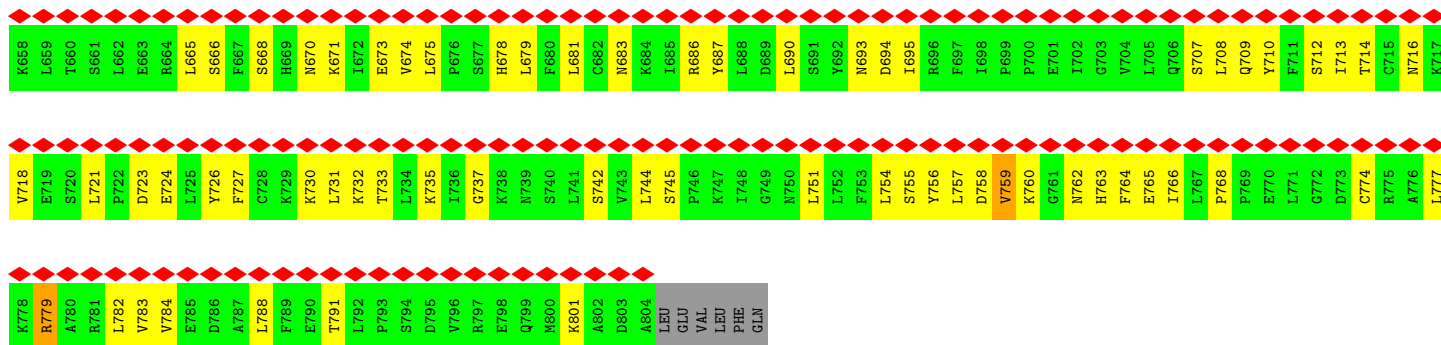
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L418 Q419 T420 M421 A422 H423 M424 R425 L426 E427 L428 P429 L430 I431 M432 L433 S434 G435 L436 P437 D438 T439 Y440 F441 E442 I443 I444 T444 E445 L446 Q447 S448 L449 K450 L451 E452 I453 L454 K455 M456 V457 M458 I459 P460 A461 T462 L463 A464 Q465 L466 D467 M468 Q470 E471 L472 S473 L474 H475 Q476 C477

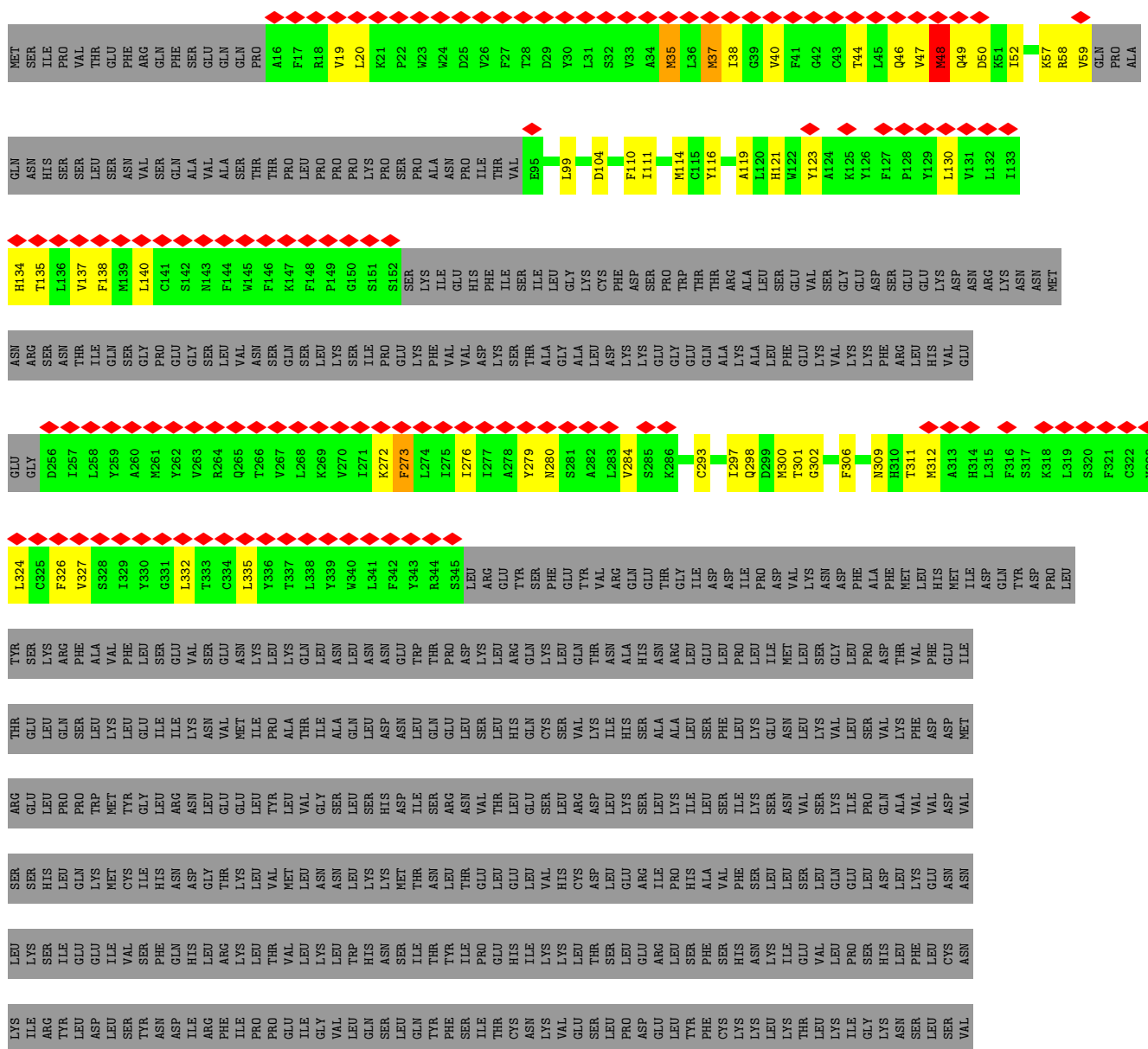
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L538 R539 D540 L541 K542 S543 S544 K545 L546 L547 S548 L549 K550 S551 N552 V553 S554 K555 L556 P557 Q558 A559 V560 V561 D562 V563 S564 S565 H566 L567 Q568 K569 M570 C571 L572 H573 N574 D575 G576 T577 K578 L579 L580 M581 L582 N583 N584 L585 K586 K587 M588 T589 N590 L591 Y592 V593 L594 H595 L596 G597

H598 C599 D600 L601 E602 S603 I604 P605 H606 A607 V608 F609 S610 L611 N612 S613 L614 Q615 E616 L617 D618 L619 K620 E621 N622 M623 L624 K625 S626 I627 E628 W629 M630 V631 S632 F633 Q634 H635 L636 R637 K638 L639 T640 V641 L642 K643 N644 L645 W646 H647 S648 I649 T650 Y651 L652 P653 L654 H655 L656 K657



● Molecule 1: Volume-regulated anion channel subunit LRRC8C



LEU SER  
PRO PRO  
LYS LYS  
ILE ILE  
GLY GLY  
ASN ASN  
LEU LEU  
LEU PHE  
LEU PHE  
SER SER  
TYR TYR  
LEU LEU  
ASP ASP  
VAL VAL  
LYS LYS  
GLY GLY  
ASN ASN  
HIS HIS  
PHE PHE  
GLU GLU  
ILE ILE  
LEU LEU  
PRO PRO  
PRO PRO  
GLU GLU  
LEU LEU  
GLY GLY  
ASP ASP  
CYS CYS  
ARG ARG  
ALA ALA  
LEU LEU  
LYS LYS  
ARG ARG  
ALA ALA  
ARG ARG  
LEU LEU  
VAL VAL  
VAL VAL  
GLU GLU  
ASP ASP  
ALA ALA  
LEU LEU  
PHE PHE  
GLU GLU  
THR THR  
LEU LEU  
PRO PRO  
SER SER  
ASP ASP  
VAL VAL  
ARG ARG  
GLU GLU  
GLN GLN  
MET MET  
LYS LYS  
ALA ALA  
ASP ASP

ALA  
LEU  
GLU  
VAL  
LEU  
PHE  
GLN

## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	216564	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	65	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2400	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.756	Depositor
Minimum map value	-0.261	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.016	Depositor
Recommended contour level	0.175	Depositor
Map size ( $\text{\AA}$ )	437.47202, 437.47202, 437.47202	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.302, 1.302, 1.302	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	0.36	0/5764	0.51	0/7790
1	B	0.37	0/5764	0.53	1/7790 (0.0%)
1	C	0.31	0/5764	0.52	3/7790 (0.0%)
1	D	0.30	0/5764	0.47	0/7790
1	E	0.31	0/5764	0.51	2/7790 (0.0%)
1	F	0.32	0/5764	0.50	0/7790
1	G	0.34	0/1645	0.52	1/2227 (0.0%)
All	All	0.33	0/36229	0.51	7/48967 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
1	C	0	1
1	D	0	1
1	E	0	1
1	F	0	1
All	All	0	6

There are no bond length outliers.

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	36	LEU	CA-CB-CG	9.60	137.39	115.30
1	G	48	MET	CA-CB-CG	6.25	123.92	113.30
1	C	274	LEU	CA-CB-CG	5.71	128.44	115.30
1	B	405	LEU	CA-CB-CG	5.49	127.93	115.30
1	E	136	LEU	CA-CB-CG	5.47	127.89	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed( $^{\circ}$ )	Ideal( $^{\circ}$ )
1	C	376	MET	CA-CB-CG	5.31	122.33	113.30
1	E	139	MET	CA-CB-CG	5.03	121.86	113.30

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	531	ARG	Sidechain
1	B	531	ARG	Sidechain
1	C	531	ARG	Sidechain
1	D	531	ARG	Sidechain
1	E	531	ARG	Sidechain
1	F	531	ARG	Sidechain

## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5641	0	5764	295	0
1	B	5641	0	5764	297	0
1	C	5641	0	5764	220	0
1	D	5641	0	5764	173	0
1	E	5641	0	5764	283	0
1	F	5641	0	5764	276	0
1	G	1599	0	1601	41	0
All	All	35445	0	36185	1575	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 (1575) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:531:ARG:HH22	1:F:552:ASN:ND2	1.22	1.33
1:E:766:ILE:HD13	1:E:791:THR:CG2	1.67	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:673:GLU:OE1	1:E:674:VAL:CG2	1.83	1.25
1:A:507:PRO:O	1:A:510:MET:SD	1.99	1.19
1:C:763:HIS:O	1:C:765:GLU:OE2	1.62	1.18
1:A:766:ILE:CD1	1:A:791:THR:HB	1.73	1.18
1:B:673:GLU:HG3	1:B:694:ASP:CB	1.74	1.17
1:F:531:ARG:NH1	1:F:552:ASN:HB2	1.60	1.16
1:B:673:GLU:OE2	1:B:694:ASP:OD2	1.63	1.14
1:B:673:GLU:HG3	1:B:694:ASP:HB2	1.15	1.13
1:E:673:GLU:CD	1:E:674:VAL:HG23	1.65	1.13
1:D:370:PHE:HA	1:D:373:MET:HE3	1.31	1.10
1:C:35:MET:HE2	1:C:135:THR:HG23	1.21	1.08
1:E:370:PHE:HA	1:E:373:MET:HE3	1.36	1.07
1:A:766:ILE:HD13	1:A:791:THR:CB	1.85	1.06
1:E:673:GLU:OE1	1:E:674:VAL:HG23	0.89	1.06
1:C:35:MET:CE	1:C:135:THR:HG23	1.86	1.05
1:D:672:ILE:HD12	1:D:695:ILE:HD11	1.33	1.05
1:F:531:ARG:NH2	1:F:552:ASN:ND2	2.06	1.02
1:B:473:SER:C	1:B:474:LEU:HD23	1.78	1.02
1:F:531:ARG:HH12	1:F:552:ASN:HB2	1.10	1.02
1:B:473:SER:O	1:B:474:LEU:HD23	1.59	1.02
1:F:742:SER:O	1:F:765:GLU:OE2	1.79	0.98
1:B:673:GLU:CG	1:B:694:ASP:HB2	1.94	0.97
1:E:766:ILE:HD13	1:E:791:THR:HG21	1.41	0.97
1:F:671:LYS:HE3	1:F:671:LYS:HA	1.46	0.96
1:A:507:PRO:O	1:A:510:MET:CE	2.14	0.94
1:A:766:ILE:HD13	1:A:791:THR:HB	1.37	0.94
1:F:763:HIS:O	1:F:765:GLU:OE1	1.83	0.94
1:E:766:ILE:HD13	1:E:791:THR:CB	1.98	0.92
1:A:481:ILE:HD13	1:A:486:LEU:HB2	1.50	0.92
1:B:671:LYS:O	1:B:673:GLU:OE1	1.88	0.91
1:A:766:ILE:HD13	1:A:791:THR:CG2	2.02	0.90
1:A:507:PRO:O	1:A:510:MET:HE1	1.72	0.89
1:C:35:MET:HE3	1:C:135:THR:HA	1.53	0.89
1:A:765:GLU:OE2	1:A:765:GLU:N	2.07	0.88
1:E:475:HIS:HA	1:E:499:LYS:HB2	1.55	0.87
1:C:765:GLU:HB2	1:C:766:ILE:HD12	1.57	0.85
1:F:52:ILE:HG21	1:F:116:TYR:HB2	1.55	0.85
1:D:311:THR:OG1	1:D:312:MET:SD	2.35	0.85
1:A:673:GLU:OE2	1:A:673:GLU:N	2.10	0.85
1:D:671:LYS:HD3	1:D:671:LYS:N	1.89	0.85
1:F:531:ARG:HH22	1:F:552:ASN:CG	1.80	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:588:MET:HE2	1:E:591:LEU:HB2	1.59	0.84
1:E:766:ILE:CD1	1:E:791:THR:CG2	2.56	0.84
1:A:766:ILE:HD12	1:A:791:THR:HB	1.59	0.83
1:E:496:LEU:HD11	1:E:498:VAL:HG23	1.60	0.83
1:B:475:HIS:HA	1:B:499:LYS:HB2	1.58	0.83
1:B:571:CYS:SG	1:B:595:GLU:OE1	2.37	0.83
1:F:531:ARG:HH12	1:F:552:ASN:CB	1.92	0.82
1:B:32:SER:HB3	1:B:139:MET:HE2	1.61	0.82
1:B:547:LEU:HD23	1:B:570:MET:HG2	1.61	0.82
1:C:452:GLU:HA	1:C:475:HIS:HB2	1.62	0.81
1:B:630:ILE:HB	1:B:655:HIS:HB2	1.63	0.81
1:F:671:LYS:O	1:F:673:GLU:OE2	1.98	0.81
1:F:574:ASN:ND2	1:F:577:THR:O	2.13	0.80
1:F:119:ALA:HB2	1:F:293:CYS:HB3	1.61	0.80
1:A:630:ILE:HB	1:A:655:HIS:HB2	1.60	0.80
1:E:766:ILE:HD13	1:E:791:THR:HB	1.64	0.80
1:B:571:CYS:HG	1:B:595:GLU:CD	1.83	0.80
1:A:363:ILE:HG23	1:A:392:LEU:HD23	1.64	0.80
1:A:574:ASN:ND2	1:A:577:THR:O	2.16	0.79
1:E:766:ILE:CD1	1:E:791:THR:HB	2.12	0.79
1:E:625:LYS:HE2	1:E:650:THR:HB	1.65	0.79
1:B:643:LYS:HA	1:B:666:SER:OG	1.83	0.79
1:E:496:LEU:HD12	1:E:497:SER:N	1.98	0.79
1:B:119:ALA:HB2	1:B:293:CYS:HB3	1.65	0.78
1:E:370:PHE:HA	1:E:373:MET:CE	2.12	0.78
1:B:571:CYS:SG	1:B:595:GLU:CD	2.62	0.77
1:E:433:LEU:HB2	1:E:454:ILE:HD13	1.66	0.77
1:A:766:ILE:CD1	1:A:791:THR:CB	2.51	0.77
1:B:671:LYS:O	1:B:673:GLU:CD	2.23	0.77
1:E:588:MET:HE2	1:E:591:LEU:CB	2.15	0.77
1:B:657:LYS:HD2	1:B:681:LEU:HD12	1.67	0.77
1:E:119:ALA:HB2	1:E:293:CYS:HB3	1.66	0.77
1:F:531:ARG:NH1	1:F:552:ASN:CB	2.46	0.77
1:F:311:THR:OG1	1:F:312:MET:SD	2.42	0.77
1:F:531:ARG:NH2	1:F:552:ASN:CG	2.34	0.76
1:A:758:ASP:HA	1:A:783:VAL:HB	1.67	0.76
1:G:59:VAL:HG21	1:G:99:LEU:HD21	1.68	0.76
1:B:758:ASP:HA	1:B:783:VAL:HB	1.67	0.75
1:F:429:PRO:HA	1:F:450:LYS:HB3	1.69	0.75
1:C:475:HIS:HA	1:C:499:LYS:HB2	1.66	0.75
1:E:33:VAL:HG13	1:E:37:MET:HE3	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:712:SER:HA	1:E:735:LYS:HB2	1.69	0.75
1:F:541:LEU:O	1:F:566:HIS:NE2	2.20	0.74
1:B:541:LEU:O	1:B:566:HIS:NE2	2.19	0.74
1:D:672:ILE:HD11	1:D:693:ASN:HD22	1.52	0.74
1:F:475:HIS:HA	1:F:499:LYS:HB2	1.67	0.74
1:F:758:ASP:HA	1:F:783:VAL:HB	1.68	0.74
1:F:570:MET:HE3	1:F:588:MET:CE	2.17	0.74
1:C:467:ASP:HA	1:C:488:PHE:HZ	1.53	0.74
1:F:238:ALA:HB1	1:F:391:PHE:HZ	1.53	0.74
1:E:311:THR:OG1	1:E:312:MET:SD	2.46	0.73
1:F:425:ARG:HD3	1:F:447:GLN:HB3	1.70	0.73
1:B:239:LYS:HE3	1:B:401:LYS:HG2	1.71	0.73
1:C:119:ALA:HB2	1:C:293:CYS:HB3	1.70	0.73
1:A:684:LYS:O	1:A:686:ARG:NH1	2.21	0.73
1:A:766:ILE:HD13	1:A:791:THR:HG21	1.69	0.73
1:B:363:ILE:HD11	1:B:393:SER:HB2	1.71	0.73
1:D:119:ALA:HB2	1:D:293:CYS:HB3	1.71	0.73
1:F:474:LEU:HD12	1:F:498:VAL:HG22	1.70	0.73
1:C:757:LEU:HG	1:C:759:VAL:HG13	1.70	0.72
1:E:459:ILE:HB	1:E:481:ILE:HG22	1.71	0.72
1:E:541:LEU:O	1:E:566:HIS:NE2	2.21	0.72
1:F:580:VAL:HG23	1:F:581:MET:CE	2.18	0.72
1:E:474:LEU:HD12	1:E:498:VAL:HG22	1.71	0.72
1:E:588:MET:HG3	1:E:591:LEU:HB2	1.71	0.72
1:A:666:SER:HA	1:A:689:ASP:HB3	1.70	0.72
1:B:36:LEU:HB2	1:B:135:THR:HG21	1.72	0.72
1:A:474:LEU:HD23	1:A:496:LEU:HD11	1.70	0.72
1:B:445:GLU:O	1:B:468:ASN:ND2	2.23	0.72
1:E:52:ILE:HG12	1:E:310:HIS:HB3	1.72	0.72
1:B:696:ARG:HH21	1:B:717:LYS:HD3	1.54	0.72
1:E:452:GLU:HA	1:E:475:HIS:HB2	1.71	0.72
1:B:673:GLU:HG3	1:B:694:ASP:HB3	1.70	0.72
1:D:481:ILE:HD13	1:D:486:LEU:HB2	1.71	0.72
1:F:650:THR:HG22	1:F:671:LYS:CB	2.20	0.72
1:C:531:ARG:N	1:C:554:SER:HG	1.86	0.71
1:D:370:PHE:CA	1:D:373:MET:HE3	2.15	0.71
1:B:32:SER:HB3	1:B:139:MET:CE	2.19	0.71
1:B:495:VAL:HG13	1:B:518:GLU:HB2	1.72	0.71
1:D:595:GLU:HA	1:D:618:ASP:HB3	1.71	0.71
1:A:686:ARG:HA	1:A:708:LEU:HA	1.71	0.71
1:E:779:ARG:HA	1:E:800:MET:HE3	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:452:GLU:HA	1:F:475:HIS:HB2	1.71	0.71
1:B:632:SER:O	1:B:635:HIS:HB3	1.89	0.71
1:E:497:SER:HA	1:E:520:TYR:HB2	1.73	0.71
1:A:588:MET:HB3	1:A:591:LEU:HB2	1.73	0.71
1:E:496:LEU:HD11	1:E:498:VAL:CG2	2.20	0.71
1:E:759:VAL:HG23	1:E:784:VAL:HG12	1.72	0.71
1:E:473:SER:HA	1:E:497:SER:HB2	1.73	0.70
1:C:311:THR:OG1	1:C:312:MET:SD	2.49	0.70
1:B:683:ASN:HA	1:B:705:LEU:HD23	1.73	0.70
1:A:425:ARG:HD3	1:A:447:GLN:HG2	1.73	0.70
1:F:671:LYS:HA	1:F:671:LYS:CE	2.21	0.70
1:B:760:LYS:HB2	1:B:783:VAL:HG12	1.73	0.70
1:C:459:ILE:HB	1:C:481:ILE:HG22	1.72	0.70
1:E:758:ASP:HA	1:E:783:VAL:HB	1.74	0.70
1:A:541:LEU:O	1:A:566:HIS:NE2	2.24	0.69
1:F:686:ARG:HA	1:F:708:LEU:HA	1.74	0.69
1:A:475:HIS:HA	1:A:499:LYS:HB2	1.73	0.69
1:B:707:SER:HA	1:B:730:LYS:HD2	1.72	0.69
1:A:707:SER:HA	1:A:730:LYS:HD2	1.74	0.69
1:A:709:GLN:HA	1:A:731:LEU:HA	1.73	0.69
1:A:604:ILE:HD12	1:A:629:GLU:HB2	1.73	0.69
1:F:490:LYS:HD3	1:F:514:ARG:HH12	1.57	0.69
1:F:760:LYS:CG	1:F:783:VAL:HG12	2.23	0.69
1:E:673:GLU:CD	1:E:674:VAL:CG2	2.49	0.69
1:A:354:VAL:HA	1:A:357:GLU:HB3	1.75	0.69
1:D:672:ILE:HD11	1:D:693:ASN:ND2	2.07	0.69
1:E:312:MET:SD	1:E:312:MET:N	2.66	0.69
1:D:657:LYS:HE3	1:D:681:LEU:HD12	1.75	0.69
1:F:363:ILE:HG12	1:F:392:LEU:HB3	1.75	0.69
1:C:429:PRO:HA	1:C:450:LYS:HB3	1.74	0.69
1:D:52:ILE:HD11	1:D:120:LEU:HD22	1.75	0.69
1:C:270:VAL:O	1:C:274:LEU:HD22	1.93	0.68
1:F:497:SER:HA	1:F:520:TYR:HB2	1.75	0.68
1:B:485:ALA:O	1:B:489:LEU:HG	1.93	0.68
1:A:520:TYR:HA	1:A:548:SER:HB3	1.74	0.68
1:B:574:ASN:ND2	1:B:577:THR:O	2.25	0.68
1:F:618:ASP:HA	1:F:643:LYS:HB2	1.74	0.68
1:A:684:LYS:HG2	1:A:686:ARG:HH12	1.58	0.68
1:B:263:VAL:HG22	1:B:341:LEU:HD13	1.76	0.68
1:F:652:ILE:HG21	1:F:679:LEU:HD13	1.73	0.68
1:C:759:VAL:HG22	1:C:784:VAL:HG12	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:312:MET:SD	1:D:312:MET:N	2.67	0.68
1:F:31:LEU:O	1:F:35:MET:HG2	1.93	0.68
1:F:650:THR:HG22	1:F:671:LYS:HB2	1.75	0.68
1:E:149:PRO:HA	1:E:152:SER:HB3	1.74	0.68
1:C:531:ARG:HH12	1:C:577:THR:CG2	2.06	0.67
1:D:122:TRP:HA	1:D:125:LYS:HE2	1.76	0.67
1:D:145:TRP:HD1	1:D:261:MET:HE1	1.59	0.67
1:E:667:PHE:HB3	1:E:672:ILE:HD11	1.76	0.67
1:A:556:ILE:O	1:A:584:ASN:ND2	2.26	0.67
1:A:735:LYS:HA	1:A:758:ASP:HB3	1.75	0.67
1:B:556:ILE:O	1:B:584:ASN:ND2	2.26	0.67
1:B:671:LYS:O	1:B:673:GLU:OE2	2.12	0.67
1:F:481:ILE:HD13	1:F:486:LEU:HB2	1.73	0.67
1:C:522:VAL:HA	1:C:550:LYS:HB2	1.75	0.67
1:C:686:ARG:HA	1:C:708:LEU:HA	1.76	0.67
1:E:766:ILE:HD13	1:E:791:THR:HG22	1.74	0.67
1:F:271:ILE:HA	1:F:274:LEU:HD12	1.77	0.67
1:B:713:ILE:HG13	1:B:736:ILE:HA	1.76	0.67
1:B:522:VAL:HA	1:B:550:LYS:HB2	1.77	0.67
1:E:421:ASN:OD1	1:E:425:ARG:N	2.28	0.67
1:E:438:ASP:HA	1:E:441:PHE:HD2	1.59	0.67
1:C:737:GLY:O	1:C:762:ASN:ND2	2.28	0.67
1:E:618:ASP:HA	1:E:643:LYS:HB2	1.76	0.67
1:C:122:TRP:HA	1:C:125:LYS:HE2	1.77	0.67
1:E:760:LYS:HB2	1:E:783:VAL:HG12	1.77	0.67
1:C:366:VAL:HB	1:C:370:PHE:HB3	1.77	0.66
1:C:544:LEU:HD23	1:C:563:VAL:HG21	1.76	0.66
1:E:32:SER:OG	1:E:330:TYR:OH	2.10	0.66
1:C:46:GLN:NE2	1:C:125:LYS:O	2.26	0.66
1:F:245:VAL:HG11	1:F:391:PHE:HB3	1.78	0.66
1:G:48:MET:SD	1:G:49:GLN:HG2	2.35	0.66
1:B:701:GLU:O	1:B:704:VAL:HG12	1.96	0.66
1:B:150:GLY:O	1:B:154:LYS:NZ	2.25	0.66
1:F:473:SER:HA	1:F:497:SER:HB2	1.77	0.66
1:C:495:VAL:HG13	1:C:518:GLU:HB2	1.77	0.66
1:F:150:GLY:O	1:F:154:LYS:NZ	2.28	0.66
1:B:759:VAL:CG2	1:B:784:VAL:HG12	2.26	0.66
1:B:507:PRO:HB2	1:B:509:TRP:NE1	2.10	0.65
1:C:170:TRP:CD1	1:C:173:ARG:HD2	2.31	0.65
1:A:732:LYS:HA	1:A:754:LEU:HA	1.77	0.65
1:C:151:SER:HB2	1:C:258:LEU:HD13	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:643:LYS:HA	1:D:666:SER:HB2	1.76	0.65
1:E:738:LYS:HG2	1:E:761:GLY:HA3	1.77	0.65
1:F:591:LEU:HD21	1:F:594:LEU:HB2	1.78	0.65
1:G:40:VAL:O	1:G:44:THR:HG23	1.95	0.65
1:A:712:SER:HA	1:A:735:LYS:HB2	1.77	0.65
1:C:758:ASP:HA	1:C:783:VAL:HB	1.77	0.65
1:D:475:HIS:HA	1:D:499:LYS:HB2	1.78	0.65
1:A:256:ASP:H	1:A:369:ASP:HB2	1.61	0.65
1:B:134:HIS:CD2	1:B:276:ILE:HD11	2.32	0.65
1:E:48:MET:HG3	1:E:49:GLN:HG2	1.77	0.65
1:F:363:ILE:HA	1:F:392:LEU:HD22	1.79	0.65
1:F:765:GLU:CD	1:F:765:GLU:N	2.50	0.65
1:D:713:ILE:HD12	1:D:718:VAL:HG21	1.79	0.65
1:G:48:MET:HE3	1:G:48:MET:H	1.60	0.65
1:B:519:LEU:HD12	1:B:520:TYR:N	2.12	0.65
1:D:279:TYR:HD1	1:D:283:LEU:HD23	1.61	0.64
1:E:49:GLN:O	1:E:51:LYS:NZ	2.29	0.64
1:F:712:SER:HA	1:F:735:LYS:HB2	1.78	0.64
1:E:150:GLY:O	1:E:154:LYS:NZ	2.25	0.64
1:A:40:VAL:O	1:A:44:THR:HG23	1.97	0.64
1:F:570:MET:HE3	1:F:588:MET:HG2	1.79	0.64
1:A:452:GLU:HA	1:A:475:HIS:HB2	1.78	0.64
1:A:490:LYS:HG2	1:A:513:LEU:HA	1.78	0.64
1:E:604:ILE:HD12	1:E:629:GLU:HB2	1.80	0.64
1:E:686:ARG:HA	1:E:708:LEU:HA	1.78	0.64
1:B:686:ARG:HA	1:B:708:LEU:HA	1.79	0.64
1:D:654:GLU:O	1:D:657:LYS:NZ	2.27	0.64
1:F:153:SER:OG	1:F:154:LYS:NZ	2.31	0.64
1:A:447:GLN:HA	1:A:469:LEU:HA	1.79	0.64
1:B:40:VAL:O	1:B:44:THR:HG23	1.98	0.64
1:B:134:HIS:CG	1:B:276:ILE:HD11	2.33	0.64
1:B:490:LYS:HG2	1:B:513:LEU:HA	1.80	0.64
1:F:744:LEU:HD23	1:F:768:PRO:HD2	1.79	0.64
1:A:538:LEU:HG	1:A:559:ALA:HB1	1.80	0.64
1:C:35:MET:HE2	1:C:135:THR:CG2	2.13	0.63
1:C:134:HIS:CG	1:C:276:ILE:HD11	2.34	0.63
1:E:52:ILE:HD11	1:E:120:LEU:HD22	1.80	0.63
1:A:701:GLU:O	1:A:704:VAL:HG12	1.99	0.63
1:A:457:VAL:HB	1:A:479:VAL:HG22	1.81	0.63
1:E:145:TRP:HD1	1:E:261:MET:SD	2.21	0.63
1:E:153:SER:OG	1:E:154:LYS:NZ	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:119:ALA:HB2	1:G:293:CYS:HB3	1.81	0.63
1:B:541:LEU:HB3	1:B:544:LEU:HD23	1.79	0.63
1:F:673:GLU:HG2	1:F:674:VAL:H	1.63	0.63
1:G:312:MET:SD	1:G:312:MET:N	2.72	0.63
1:F:574:ASN:HD21	1:F:599:CYS:HA	1.64	0.63
1:F:760:LYS:HG2	1:F:783:VAL:HG12	1.81	0.63
1:E:256:ASP:HB2	1:E:367:LYS:HZ1	1.62	0.63
1:F:122:TRP:HA	1:F:125:LYS:HE2	1.81	0.63
1:A:405:LEU:O	1:A:409:TRP:N	2.29	0.62
1:E:490:LYS:HG2	1:E:513:LEU:HA	1.80	0.62
1:E:665:LEU:HB2	1:E:685:ILE:HD13	1.80	0.62
1:B:444:THR:HA	1:B:466:LEU:HG	1.80	0.62
1:B:538:LEU:HG	1:B:559:ALA:HB1	1.79	0.62
1:D:429:PRO:HA	1:D:450:LYS:HB3	1.81	0.62
1:F:438:ASP:HA	1:F:441:PHE:HD2	1.63	0.62
1:A:455:LYS:HD3	1:A:478:SER:H	1.63	0.62
1:A:737:GLY:O	1:A:762:ASN:ND2	2.32	0.62
1:C:373:MET:HA	1:C:376:MET:SD	2.40	0.62
1:B:517:GLU:HA	1:B:544:LEU:HA	1.80	0.62
1:B:641:VAL:HG13	1:B:664:ARG:HB2	1.80	0.62
1:A:675:LEU:HD23	1:A:675:LEU:H	1.65	0.62
1:B:52:ILE:HG21	1:B:116:TYR:HB2	1.80	0.62
1:A:766:ILE:CD1	1:A:791:THR:CG2	2.76	0.62
1:C:732:LYS:HA	1:C:754:LEU:HA	1.82	0.62
1:B:49:GLN:O	1:B:51:LYS:NZ	2.30	0.62
1:A:486:LEU:HD12	1:A:489:LEU:HD12	1.82	0.62
1:B:430:LEU:HD12	1:B:451:LEU:HG	1.81	0.62
1:C:405:LEU:HD21	1:C:437:PRO:HG3	1.82	0.62
1:E:588:MET:HE2	1:E:591:LEU:CD1	2.29	0.62
1:F:687:TYR:HA	1:F:710:TYR:HB3	1.81	0.62
1:E:474:LEU:O	1:E:499:LYS:N	2.30	0.61
1:B:421:ASN:OD1	1:B:425:ARG:N	2.31	0.61
1:B:490:LYS:HD3	1:B:514:ARG:HH12	1.63	0.61
1:E:707:SER:HA	1:E:730:LYS:HD2	1.82	0.61
1:C:135:THR:O	1:C:139:MET:HE3	1.99	0.61
1:E:366:VAL:HB	1:E:370:PHE:HB3	1.81	0.61
1:A:632:SER:O	1:A:635:HIS:HB3	2.00	0.61
1:D:421:ASN:HB3	1:D:427:GLU:HB2	1.81	0.61
1:E:759:VAL:CG2	1:E:784:VAL:HG12	2.31	0.61
1:A:352:GLU:OE1	1:A:355:ARG:NH2	2.32	0.61
1:B:516:LEU:HD12	1:B:517:GLU:N	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:683:ASN:O	1:C:707:SER:OG	2.19	0.61
1:F:149:PRO:HA	1:F:152:SER:HB3	1.83	0.61
1:D:447:GLN:NE2	1:D:468:ASN:OD1	2.34	0.61
1:C:618:ASP:HA	1:C:643:LYS:HB2	1.83	0.61
1:D:426:LEU:HB3	1:D:447:GLN:H	1.65	0.61
1:A:254:GLU:N	1:A:254:GLU:OE1	2.32	0.61
1:A:597:VAL:HG22	1:A:620:LYS:HB3	1.83	0.61
1:D:631:VAL:HA	1:D:655:HIS:CE1	2.35	0.61
1:E:175:LEU:HD22	1:E:358:THR:HG21	1.82	0.61
1:F:134:HIS:CE1	1:F:276:ILE:HD11	2.35	0.61
1:C:355:ARG:HG3	1:C:361:ASP:HA	1.81	0.60
1:E:733:THR:HG23	1:E:756:TYR:HD2	1.66	0.60
1:A:393:SER:O	1:A:396:SER:OG	2.17	0.60
1:A:447:GLN:OE1	1:A:447:GLN:N	2.31	0.60
1:A:760:LYS:HB2	1:A:783:VAL:HG12	1.82	0.60
1:C:354:VAL:O	1:C:358:THR:OG1	2.16	0.60
1:E:405:LEU:HD21	1:E:437:PRO:HG3	1.84	0.60
1:F:16:ALA:HA	1:F:159:ILE:HD13	1.83	0.60
1:B:470:GLN:O	1:B:495:VAL:N	2.31	0.60
1:B:706:GLN:NE2	1:B:727:PHE:O	2.30	0.60
1:C:630:ILE:HB	1:C:655:HIS:HB2	1.82	0.60
1:C:139:MET:N	1:C:139:MET:HE2	2.17	0.60
1:D:52:ILE:HG12	1:D:310:HIS:HB3	1.82	0.60
1:F:480:LYS:HE3	1:F:504:ARG:HH22	1.67	0.60
1:A:473:SER:O	1:A:474:LEU:HD13	2.02	0.60
1:E:457:VAL:HB	1:E:479:VAL:HG22	1.83	0.60
1:G:48:MET:HG2	1:G:49:GLN:NE2	2.16	0.60
1:G:111:ILE:HD11	1:G:301:THR:HG21	1.84	0.60
1:A:353:TYR:O	1:A:357:GLU:N	2.32	0.60
1:A:778:LYS:HA	1:A:800:MET:HG2	1.84	0.60
1:E:425:ARG:NH1	1:E:471:GLU:OE1	2.34	0.60
1:F:425:ARG:NH1	1:F:471:GLU:OE1	2.27	0.60
1:B:270:VAL:O	1:B:274:LEU:HD22	2.01	0.60
1:C:170:TRP:CE2	1:C:400:LEU:HD13	2.37	0.60
1:A:120:LEU:HD21	1:A:310:HIS:CD2	2.37	0.60
1:A:497:SER:HA	1:A:520:TYR:HB2	1.84	0.60
1:F:630:ILE:HB	1:F:655:HIS:HB2	1.84	0.60
1:B:457:VAL:HB	1:B:479:VAL:HG22	1.83	0.60
1:E:276:ILE:HD13	1:E:279:TYR:HE2	1.67	0.60
1:F:433:LEU:HB2	1:F:454:ILE:HD13	1.84	0.60
1:B:516:LEU:HD12	1:B:517:GLU:H	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:630:ILE:O	1:D:633:PHE:HB2	2.01	0.59
1:E:166:PHE:HD1	1:E:387:ARG:HD2	1.67	0.59
1:B:46:GLN:NE2	1:B:125:LYS:O	2.35	0.59
1:B:732:LYS:HA	1:B:754:LEU:HA	1.85	0.59
1:C:709:GLN:HA	1:C:731:LEU:HA	1.83	0.59
1:C:760:LYS:HB2	1:C:783:VAL:HG12	1.83	0.59
1:A:568:GLN:O	1:A:592:THR:N	2.36	0.59
1:C:367:LYS:O	1:C:371:ALA:N	2.28	0.59
1:E:472:LEU:HD12	1:E:473:SER:N	2.17	0.59
1:E:675:LEU:HD23	1:E:675:LEU:H	1.66	0.59
1:A:273:PHE:CE2	1:A:274:LEU:HD23	2.37	0.59
1:A:706:GLN:HG3	1:A:730:LYS:HE3	1.83	0.59
1:B:170:TRP:HH2	1:B:396:SER:HB2	1.66	0.59
1:B:448:SER:HB2	1:B:471:GLU:HB3	1.84	0.59
1:G:44:THR:O	1:G:47:VAL:N	2.36	0.59
1:B:759:VAL:HG22	1:B:784:VAL:HG12	1.84	0.59
1:B:771:LEU:HD12	1:B:792:LEU:HD11	1.84	0.59
1:C:363:ILE:HA	1:C:392:LEU:HD12	1.83	0.59
1:E:427:GLU:HG2	1:E:450:LYS:HD2	1.83	0.59
1:E:597:VAL:HG22	1:E:620:LYS:HB3	1.83	0.59
1:E:673:GLU:OE1	1:E:674:VAL:N	2.35	0.59
1:E:778:LYS:C	1:E:800:MET:CE	2.71	0.59
1:F:683:ASN:O	1:F:707:SER:OG	2.20	0.59
1:C:144:PHE:HA	1:C:147:LYS:HB2	1.85	0.59
1:C:531:ARG:HH12	1:C:577:THR:HG23	1.68	0.59
1:F:59:VAL:HG21	1:F:99:LEU:HD21	1.84	0.59
1:B:496:LEU:HD23	1:B:497:SER:N	2.18	0.59
1:D:354:VAL:O	1:D:358:THR:OG1	2.21	0.59
1:A:539:ARG:HH12	1:A:566:HIS:HE1	1.50	0.59
1:C:48:MET:HG2	1:C:49:GLN:HG2	1.84	0.59
1:C:312:MET:SD	1:C:312:MET:N	2.75	0.59
1:D:366:VAL:HB	1:D:370:PHE:HB3	1.84	0.59
1:D:436:LEU:HD21	1:D:451:LEU:HD21	1.85	0.59
1:D:556:ILE:O	1:D:584:ASN:ND2	2.33	0.59
1:G:44:THR:O	1:G:48:MET:HE3	2.01	0.59
1:A:394:GLU:HA	1:A:397:GLU:HG3	1.84	0.58
1:B:425:ARG:NH1	1:B:471:GLU:OE1	2.30	0.58
1:C:59:VAL:HG11	1:C:99:LEU:HD11	1.85	0.58
1:F:474:LEU:O	1:F:499:LYS:N	2.36	0.58
1:F:707:SER:HA	1:F:730:LYS:HD2	1.85	0.58
1:D:426:LEU:H	1:D:447:GLN:HB3	1.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:641:VAL:HG13	1:E:664:ARG:HB2	1.84	0.58
1:F:732:LYS:HA	1:F:754:LEU:HA	1.83	0.58
1:A:161:ILE:HD11	1:A:245:VAL:HA	1.86	0.58
1:A:421:ASN:OD1	1:A:425:ARG:N	2.36	0.58
1:B:538:LEU:HB3	1:B:541:LEU:HD12	1.85	0.58
1:A:735:LYS:HG2	1:A:756:TYR:HE2	1.68	0.58
1:E:16:ALA:HA	1:E:159:ILE:HD12	1.86	0.58
1:F:273:PHE:O	1:F:277:ILE:HG22	2.03	0.58
1:F:560:VAL:HA	1:F:563:VAL:HG12	1.85	0.58
1:B:444:THR:HG22	1:B:466:LEU:HD12	1.86	0.58
1:E:709:GLN:HA	1:E:731:LEU:HA	1.85	0.58
1:E:522:VAL:HA	1:E:550:LYS:HB3	1.85	0.58
1:A:114:MET:HG2	1:A:297:ILE:HD11	1.84	0.58
1:A:495:VAL:HG13	1:A:518:GLU:HB2	1.85	0.58
1:A:641:VAL:HG13	1:A:664:ARG:HB2	1.86	0.58
1:C:148:PHE:HD2	1:C:151:SER:H	1.49	0.58
1:E:588:MET:HE2	1:E:591:LEU:HD13	1.84	0.58
1:F:570:MET:HE3	1:F:588:MET:HE3	1.84	0.58
1:F:588:MET:SD	1:F:591:LEU:HB2	2.44	0.58
1:F:673:GLU:HA	1:F:694:ASP:HB2	1.84	0.58
1:E:588:MET:HG3	1:E:588:MET:O	2.03	0.58
1:F:650:THR:HG22	1:F:671:LYS:HB3	1.86	0.58
1:A:744:LEU:HD23	1:A:768:PRO:HD2	1.85	0.58
1:B:735:LYS:HA	1:B:758:ASP:HB3	1.84	0.58
1:E:145:TRP:CD1	1:E:262:TYR:HD1	2.22	0.58
1:F:363:ILE:HG23	1:F:392:LEU:HD13	1.85	0.58
1:F:675:LEU:HD23	1:F:675:LEU:H	1.69	0.58
1:B:673:GLU:OE1	1:B:673:GLU:N	2.37	0.57
1:D:111:ILE:HD13	1:D:306:PHE:HE2	1.69	0.57
1:F:531:ARG:HH22	1:F:552:ASN:HD21	1.39	0.57
1:F:538:LEU:H	1:F:559:ALA:HB1	1.69	0.57
1:D:645:TRP:CD1	1:D:666:SER:HB3	2.40	0.57
1:F:352:GLU:OE1	1:F:355:ARG:NH2	2.37	0.57
1:F:567:LEU:HD23	1:F:570:MET:HE2	1.85	0.57
1:F:617:LEU:HB2	1:F:639:LEU:HD11	1.86	0.57
1:A:124:ALA:HB2	1:A:287:VAL:HG12	1.85	0.57
1:A:459:ILE:HD12	1:A:481:ILE:HG22	1.85	0.57
1:F:474:LEU:N	1:F:497:SER:O	2.34	0.57
1:A:624:LEU:HD23	1:A:627:ILE:HG22	1.85	0.57
1:A:687:TYR:HA	1:A:710:TYR:HB3	1.85	0.57
1:A:715:CYS:SG	1:A:738:LYS:NZ	2.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:709:GLN:HA	1:B:731:LEU:HA	1.87	0.57
1:B:712:SER:HA	1:B:735:LYS:HB2	1.86	0.57
1:A:509:TRP:CZ3	1:A:510:MET:HG3	2.39	0.57
1:A:663:GLU:HA	1:A:685:ILE:HA	1.85	0.57
1:A:714:THR:HA	1:A:737:GLY:HA3	1.87	0.57
1:B:124:ALA:HB2	1:B:287:VAL:HG12	1.86	0.57
1:B:604:ILE:HD12	1:B:629:GLU:HB2	1.85	0.57
1:B:662:LEU:HB3	1:B:685:ILE:HG12	1.85	0.57
1:C:470:GLN:O	1:C:495:VAL:N	2.31	0.57
1:E:436:LEU:HD11	1:E:459:ILE:HG12	1.86	0.57
1:E:449:LEU:O	1:E:473:SER:N	2.25	0.57
1:C:52:ILE:HG21	1:C:116:TYR:HB2	1.87	0.57
1:F:381:ASP:OD2	1:F:384:TYR:N	2.37	0.57
1:A:472:LEU:CD2	1:A:474:LEU:HD21	2.35	0.57
1:D:499:LYS:HG2	1:D:522:VAL:HB	1.87	0.57
1:F:764:PHE:HB2	1:F:788:LEU:HD21	1.86	0.57
1:B:353:TYR:O	1:B:357:GLU:N	2.34	0.57
1:B:490:LYS:HB3	1:B:514:ARG:HH12	1.70	0.57
1:C:625:LYS:HG2	1:C:648:SER:HB2	1.85	0.57
1:D:145:TRP:CD1	1:D:261:MET:SD	2.98	0.57
1:E:625:LYS:O	1:E:625:LYS:NZ	2.33	0.57
1:F:539:ARG:NH1	1:F:540:ASP:OD1	2.38	0.57
1:A:485:ALA:O	1:A:489:LEU:HG	2.05	0.57
1:E:412:ASP:OD2	1:E:416:GLN:NE2	2.37	0.57
1:B:59:VAL:HG21	1:B:99:LEU:HD21	1.87	0.56
1:A:430:LEU:HD12	1:A:451:LEU:HG	1.85	0.56
1:F:650:THR:CG2	1:F:671:LYS:HB2	2.35	0.56
1:A:625:LYS:HB2	1:A:648:SER:HB2	1.86	0.56
1:B:166:PHE:HA	1:B:387:ARG:HD2	1.87	0.56
1:B:294:ASN:ND2	1:B:305:ASN:OD1	2.38	0.56
1:B:687:TYR:HA	1:B:710:TYR:HB3	1.87	0.56
1:C:771:LEU:HD12	1:C:792:LEU:HD21	1.88	0.56
1:D:624:LEU:HD23	1:D:627:ILE:HG22	1.87	0.56
1:E:31:LEU:HB2	1:E:330:TYR:HE1	1.70	0.56
1:F:737:GLY:O	1:F:762:ASN:ND2	2.36	0.56
1:A:474:LEU:CD2	1:A:496:LEU:HD11	2.35	0.56
1:B:678:HIS:HA	1:B:681:LEU:HG	1.86	0.56
1:E:52:ILE:HD12	1:E:116:TYR:HA	1.87	0.56
1:F:170:TRP:CZ2	1:F:400:LEU:HB2	2.40	0.56
1:F:450:LYS:HA	1:F:473:SER:HB3	1.86	0.56
1:A:618:ASP:HB2	1:A:643:LYS:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:642:LEU:HD22	1:A:662:LEU:HD22	1.87	0.56
1:C:455:LYS:NZ	1:C:476:GLN:O	2.28	0.56
1:C:620:LYS:HG2	1:C:621:GLU:HG3	1.88	0.56
1:A:31:LEU:HD11	1:A:329:ILE:HG22	1.88	0.56
1:B:499:LYS:HG2	1:B:522:VAL:HB	1.87	0.56
1:C:631:VAL:O	1:C:634:GLN:HB3	2.06	0.56
1:D:683:ASN:O	1:D:707:SER:OG	2.20	0.56
1:E:451:LEU:HD11	1:E:454:ILE:HB	1.88	0.56
1:E:733:THR:HG23	1:E:756:TYR:CD2	2.40	0.56
1:D:738:LYS:HG2	1:D:761:GLY:HA3	1.86	0.56
1:E:172:THR:OG1	1:E:387:ARG:NH1	2.38	0.56
1:A:273:PHE:CD2	1:A:274:LEU:HD23	2.41	0.56
1:A:423:HIS:NE2	1:A:520:TYR:OH	2.38	0.56
1:B:757:LEU:HG	1:B:759:VAL:HG13	1.87	0.56
1:C:759:VAL:CG2	1:C:784:VAL:HG12	2.36	0.56
1:E:426:LEU:HB3	1:E:446:LEU:HA	1.87	0.56
1:E:444:THR:HG22	1:E:466:LEU:HD23	1.87	0.56
1:C:354:VAL:HG12	1:C:386:LYS:HD3	1.88	0.56
1:C:510:MET:HA	1:C:513:LEU:HG	1.87	0.56
1:E:366:VAL:HG11	1:E:374:LEU:HD11	1.86	0.56
1:E:766:ILE:HD12	1:E:791:THR:HB	1.86	0.56
1:D:670:ASN:C	1:D:671:LYS:HD3	2.26	0.55
1:A:134:HIS:CE1	1:A:276:ILE:HD11	2.41	0.55
1:A:161:ILE:HD11	1:A:245:VAL:HG22	1.88	0.55
1:B:568:GLN:O	1:B:592:THR:OG1	2.20	0.55
1:A:249:ARG:HE	1:A:253:GLU:CD	2.09	0.55
1:D:714:THR:HA	1:D:737:GLY:HA3	1.88	0.55
1:E:133:ILE:HA	1:E:136:LEU:HG	1.87	0.55
1:F:765:GLU:OE2	1:F:765:GLU:N	2.39	0.55
1:A:165:CYS:SG	1:A:388:PHE:HA	2.47	0.55
1:A:726:TYR:HA	1:A:751:LEU:HD11	1.89	0.55
1:E:136:LEU:HD12	1:E:137:VAL:N	2.22	0.55
1:B:455:LYS:NZ	1:B:476:GLN:O	2.31	0.55
1:B:694:ASP:O	1:B:696:ARG:NH2	2.40	0.55
1:D:672:ILE:CD1	1:D:695:ILE:HD11	2.23	0.55
1:F:714:THR:HA	1:F:737:GLY:HA3	1.86	0.55
1:C:619:LEU:HD22	1:C:622:ASN:HD22	1.71	0.55
1:E:267:VAL:O	1:E:271:ILE:HG12	2.05	0.55
1:E:732:LYS:HA	1:E:754:LEU:HA	1.88	0.55
1:F:472:LEU:HD12	1:F:473:SER:N	2.21	0.55
1:B:599:CYS:N	1:B:622:ASN:OD1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:652:ILE:HD12	1:B:676:PRO:HD2	1.88	0.55
1:D:352:GLU:OE1	1:D:355:ARG:NH2	2.40	0.55
1:A:719:GLU:HG2	1:A:740:SER:HB3	1.89	0.55
1:E:427:GLU:OE2	1:E:448:SER:OG	2.16	0.55
1:E:470:GLN:O	1:E:495:VAL:N	2.40	0.55
1:E:495:VAL:HG13	1:E:518:GLU:HB2	1.89	0.55
1:E:551:SER:HB2	1:E:553:VAL:HG23	1.88	0.55
1:C:474:LEU:O	1:C:499:LYS:N	2.37	0.55
1:E:450:LYS:HA	1:E:473:SER:HB3	1.89	0.55
1:G:57:LYS:NZ	1:G:58:ARG:HH21	2.05	0.55
1:A:510:MET:SD	1:A:510:MET:N	2.73	0.55
1:B:673:GLU:O	1:B:695:ILE:HA	2.07	0.55
1:D:604:ILE:HD12	1:D:629:GLU:HB2	1.89	0.55
1:F:621:GLU:HA	1:F:646:HIS:HB3	1.88	0.55
1:C:114:MET:HA	1:C:114:MET:HE2	1.88	0.54
1:C:701:GLU:O	1:C:704:VAL:HG22	2.07	0.54
1:D:367:LYS:HG3	1:D:368:ASN:H	1.72	0.54
1:D:522:VAL:HA	1:D:550:LYS:HB2	1.88	0.54
1:D:672:ILE:HG13	1:D:693:ASN:HB3	1.88	0.54
1:E:441:PHE:HA	1:E:466:LEU:HD21	1.88	0.54
1:E:737:GLY:O	1:E:762:ASN:ND2	2.33	0.54
1:G:276:ILE:O	1:G:280:ASN:ND2	2.34	0.54
1:A:141:CYS:HB2	1:A:268:LEU:HD11	1.89	0.54
1:A:470:GLN:HA	1:A:493:LEU:HA	1.88	0.54
1:D:145:TRP:CD1	1:D:261:MET:HE1	2.41	0.54
1:D:369:ASP:O	1:D:373:MET:HE2	2.07	0.54
1:E:687:TYR:HA	1:E:710:TYR:HB3	1.89	0.54
1:A:449:LEU:HD12	1:A:450:LYS:H	1.73	0.54
1:E:499:LYS:HG3	1:E:522:VAL:HB	1.88	0.54
1:E:547:LEU:HD23	1:E:570:MET:HG2	1.88	0.54
1:E:778:LYS:C	1:E:800:MET:HE1	2.27	0.54
1:F:156:GLU:HA	1:F:159:ILE:HD12	1.88	0.54
1:F:253:GLU:HG2	1:F:367:LYS:HB2	1.89	0.54
1:F:405:LEU:HG	1:F:409:TRP:HD1	1.72	0.54
1:F:526:SER:CB	1:F:531:ARG:HE	2.20	0.54
1:A:119:ALA:HB2	1:A:293:CYS:HB3	1.89	0.54
1:A:574:ASN:HD21	1:A:599:CYS:HA	1.72	0.54
1:E:598:HIS:ND1	1:E:621:GLU:OE1	2.36	0.54
1:B:425:ARG:HD3	1:B:447:GLN:HB2	1.88	0.54
1:B:516:LEU:HG	1:B:544:LEU:HD11	1.90	0.54
1:D:620:LYS:HZ3	1:D:643:LYS:HB3	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:312:MET:O	1:E:316:PHE:N	2.28	0.54
1:F:449:LEU:O	1:F:473:SER:N	2.30	0.54
1:A:463:ILE:HD11	1:A:485:ALA:HA	1.89	0.54
1:A:506:LEU:HG	1:A:510:MET:HE1	1.89	0.54
1:E:766:ILE:CD1	1:E:791:THR:CB	2.73	0.54
1:F:360:ILE:HD12	1:F:393:SER:HB2	1.90	0.54
1:F:580:VAL:HG23	1:F:581:MET:SD	2.48	0.54
1:C:352:GLU:HA	1:C:355:ARG:HH21	1.73	0.54
1:C:687:TYR:HA	1:C:710:TYR:HB3	1.89	0.54
1:D:490:LYS:HG2	1:D:513:LEU:HA	1.90	0.54
1:D:673:GLU:HA	1:D:694:ASP:HB2	1.90	0.54
1:D:686:ARG:HA	1:D:708:LEU:HA	1.89	0.54
1:F:421:ASN:OD1	1:F:425:ARG:N	2.40	0.54
1:F:592:THR:O	1:F:615:GLN:N	2.37	0.54
1:B:471:GLU:HA	1:B:495:VAL:O	2.07	0.54
1:C:735:LYS:HA	1:C:758:ASP:HB3	1.90	0.54
1:E:485:ALA:O	1:E:489:LEU:HG	2.08	0.54
1:E:591:LEU:HD21	1:E:594:LEU:HB2	1.90	0.54
1:C:128:PRO:O	1:C:132:LEU:HD22	2.07	0.54
1:E:310:HIS:NE2	1:E:313:ALA:HB2	2.23	0.54
1:C:153:SER:OG	1:C:154:LYS:NZ	2.35	0.53
1:E:170:TRP:CZ2	1:E:400:LEU:HB2	2.44	0.53
1:C:366:VAL:HG21	1:C:374:LEU:HD22	1.90	0.53
1:D:675:LEU:HD22	1:D:695:ILE:HD12	1.90	0.53
1:F:671:LYS:HE3	1:F:671:LYS:CA	2.26	0.53
1:B:113:GLN:HG3	1:C:53:ILE:HD12	1.89	0.53
1:B:624:LEU:HD23	1:B:627:ILE:HG22	1.89	0.53
1:B:643:LYS:CA	1:B:666:SER:OG	2.56	0.53
1:B:659:LEU:HB2	1:B:662:LEU:HG	1.91	0.53
1:F:788:LEU:O	1:F:791:THR:OG1	2.26	0.53
1:A:430:LEU:O	1:A:452:GLU:N	2.39	0.53
1:A:452:GLU:HG3	1:A:475:HIS:HB2	1.89	0.53
1:B:449:LEU:HD12	1:B:450:LYS:H	1.73	0.53
1:B:637:ARG:NH1	1:B:660:THR:H	2.06	0.53
1:A:145:TRP:O	1:A:151:SER:OG	2.23	0.53
1:A:790:GLU:OE2	1:B:732:LYS:NZ	2.31	0.53
1:E:624:LEU:HD23	1:E:627:ILE:HG22	1.89	0.53
1:F:531:ARG:N	1:F:554:SER:HG	2.06	0.53
1:C:499:LYS:HA	1:C:522:VAL:HB	1.91	0.53
1:C:541:LEU:O	1:C:566:HIS:NE2	2.42	0.53
1:D:347:ARG:O	1:D:368:ASN:HA	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:526:SER:HA	1:E:533:VAL:HA	1.89	0.53
1:G:46:GLN:O	1:G:50:ASP:HB3	2.08	0.53
1:D:467:ASP:HA	1:D:488:PHE:HZ	1.73	0.53
1:E:766:ILE:CD1	1:E:791:THR:HG22	2.35	0.53
1:F:511:TYR:O	1:F:540:ASP:HB2	2.07	0.53
1:B:757:LEU:HD23	1:B:782:LEU:HD12	1.89	0.53
1:C:675:LEU:HD22	1:C:695:ILE:HD12	1.89	0.53
1:E:503:MET:HE3	1:E:506:LEU:HB3	1.89	0.53
1:F:480:LYS:HA	1:F:509:TRP:HZ2	1.74	0.53
1:F:557:PRO:HG2	1:F:560:VAL:HG23	1.90	0.53
1:D:766:ILE:HG23	1:D:791:THR:HB	1.91	0.53
1:E:673:GLU:OE2	1:E:674:VAL:CG2	2.57	0.53
1:F:131:VAL:HG22	1:F:323:TYR:CZ	2.44	0.53
1:B:546:ILE:HG12	1:B:569:LYS:HB3	1.91	0.53
1:D:671:LYS:N	1:D:671:LYS:CD	2.66	0.53
1:D:735:LYS:HA	1:D:758:ASP:HB3	1.89	0.53
1:A:430:LEU:HB2	1:A:451:LEU:HA	1.90	0.52
1:A:558:GLN:NE2	1:A:562:ASP:OD1	2.43	0.52
1:F:393:SER:O	1:F:396:SER:OG	2.20	0.52
1:F:466:LEU:HB3	1:F:469:LEU:HD23	1.90	0.52
1:B:104:ASP:OD1	1:B:104:ASP:N	2.42	0.52
1:B:170:TRP:CH2	1:B:396:SER:HB2	2.44	0.52
1:C:249:ARG:HA	1:C:370:PHE:CZ	2.44	0.52
1:D:455:LYS:HD2	1:D:504:ARG:HH12	1.74	0.52
1:A:678:HIS:HA	1:A:681:LEU:HG	1.92	0.52
1:C:788:LEU:O	1:C:791:THR:OG1	2.24	0.52
1:D:155:ILE:HD11	1:D:258:LEU:HD11	1.91	0.52
1:D:474:LEU:HD12	1:D:498:VAL:HG22	1.91	0.52
1:B:519:LEU:HD12	1:B:520:TYR:H	1.72	0.52
1:C:239:LYS:HE3	1:C:401:LYS:HG2	1.91	0.52
1:D:104:ASP:N	1:D:104:ASP:OD1	2.36	0.52
1:E:276:ILE:HD13	1:E:279:TYR:CE2	2.44	0.52
1:E:683:ASN:O	1:E:707:SER:OG	2.20	0.52
1:A:630:ILE:O	1:A:633:PHE:HB2	2.09	0.52
1:B:352:GLU:OE1	1:B:355:ARG:NE	2.42	0.52
1:B:596:LEU:HB2	1:B:619:LEU:HD23	1.92	0.52
1:C:690:LEU:O	1:C:716:ASN:ND2	2.29	0.52
1:E:427:GLU:HB2	1:E:448:SER:HB3	1.91	0.52
1:E:663:GLU:HA	1:E:685:ILE:HA	1.91	0.52
1:F:632:SER:O	1:F:635:HIS:HB3	2.10	0.52
1:D:507:PRO:O	1:D:510:MET:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:370:PHE:CG	1:E:373:MET:HE3	2.45	0.52
1:F:567:LEU:HD23	1:F:588:MET:HE3	1.90	0.52
1:A:449:LEU:HG	1:A:451:LEU:HD11	1.91	0.52
1:B:246:LYS:O	1:B:249:ARG:HG3	2.10	0.52
1:B:351:PHE:C	1:B:353:TYR:H	2.13	0.52
1:B:538:LEU:HD12	1:B:560:VAL:HA	1.91	0.52
1:C:712:SER:HA	1:C:735:LYS:HB2	1.92	0.52
1:D:121:HIS:CD2	1:D:286:LYS:HG2	2.44	0.52
1:D:474:LEU:HB2	1:D:498:VAL:HA	1.91	0.52
1:D:618:ASP:HA	1:D:643:LYS:HB2	1.92	0.52
1:F:421:ASN:HB3	1:F:427:GLU:HB2	1.92	0.52
1:A:104:ASP:OD1	1:A:104:ASP:N	2.34	0.52
1:B:168:SER:O	1:B:171:THR:OG1	2.19	0.52
1:C:531:ARG:HH12	1:C:577:THR:HG21	1.72	0.52
1:C:643:LYS:HA	1:C:666:SER:HB3	1.91	0.52
1:E:673:GLU:CD	1:E:673:GLU:C	2.67	0.52
1:F:779:ARG:HG3	1:F:801:LYS:HG2	1.92	0.52
1:B:448:SER:HA	1:B:471:GLU:O	2.10	0.52
1:E:312:MET:O	1:E:315:LEU:HB3	2.10	0.52
1:E:346:LEU:HB3	1:E:375:HIS:CD2	2.45	0.52
1:G:332:LEU:HD23	1:G:335:LEU:HD12	1.92	0.52
1:B:714:THR:HA	1:B:737:GLY:HA3	1.92	0.51
1:E:106:GLN:NE2	1:F:108:TYR:HB3	2.25	0.51
1:E:588:MET:CE	1:E:591:LEU:HD13	2.39	0.51
1:F:19:VAL:HA	1:F:380:TYR:CE1	2.45	0.51
1:A:451:LEU:HB3	1:A:454:ILE:HD13	1.91	0.51
1:C:695:ILE:HB	1:C:716:ASN:HD22	1.75	0.51
1:D:121:HIS:CE1	1:D:123:TYR:HB3	2.46	0.51
1:D:455:LYS:HD2	1:D:504:ARG:HH22	1.75	0.51
1:F:622:ASN:HB3	1:F:624:LEU:HD13	1.92	0.51
1:A:249:ARG:NE	1:A:253:GLU:OE2	2.38	0.51
1:B:165:CYS:SG	1:B:388:PHE:HA	2.50	0.51
1:C:120:LEU:HD21	1:C:310:HIS:CD2	2.45	0.51
1:B:734:LEU:HB2	1:B:754:LEU:HD11	1.93	0.51
1:D:145:TRP:HD1	1:D:261:MET:CE	2.21	0.51
1:E:556:ILE:O	1:E:584:ASN:ND2	2.40	0.51
1:E:703:GLY:HA3	1:E:724:GLU:HB3	1.91	0.51
1:G:104:ASP:OD1	1:G:104:ASP:N	2.43	0.51
1:B:238:ALA:HA	1:B:241:LEU:HG	1.93	0.51
1:B:504:ARG:NE	1:B:504:ARG:O	2.44	0.51
1:B:518:GLU:HG2	1:B:546:ILE:HB	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:131:VAL:O	1:C:135:THR:OG1	2.18	0.51
1:C:352:GLU:OE1	1:C:355:ARG:NH2	2.44	0.51
1:E:521:LEU:HD23	1:E:549:ILE:HG12	1.93	0.51
1:A:36:LEU:HB2	1:A:135:THR:HG21	1.91	0.51
1:A:352:GLU:HA	1:A:355:ARG:HH21	1.75	0.51
1:B:510:MET:HA	1:B:513:LEU:HG	1.91	0.51
1:B:545:LYS:O	1:B:569:LYS:N	2.43	0.51
1:B:650:THR:O	1:B:672:ILE:HA	2.10	0.51
1:B:733:THR:HA	1:B:756:TYR:HB3	1.91	0.51
1:D:571:CYS:HB3	1:D:573:HIS:CE1	2.45	0.51
1:D:709:GLN:HA	1:D:731:LEU:HA	1.91	0.51
1:F:724:GLU:HA	1:F:727:PHE:CD2	2.46	0.51
1:D:438:ASP:HA	1:D:441:PHE:HD2	1.76	0.51
1:D:726:TYR:O	1:D:729:LYS:NZ	2.40	0.51
1:E:33:VAL:CG1	1:E:37:MET:HE3	2.39	0.51
1:E:451:LEU:O	1:E:475:HIS:N	2.38	0.51
1:G:111:ILE:HD13	1:G:306:PHE:HE2	1.75	0.51
1:A:242:PHE:HE1	1:A:391:PHE:HA	1.75	0.51
1:A:276:ILE:HG21	1:A:327:VAL:HG21	1.93	0.51
1:A:683:ASN:OD1	1:A:683:ASN:N	2.41	0.51
1:E:363:ILE:HG23	1:E:392:LEU:HD13	1.93	0.51
1:C:395:VAL:HG12	1:C:399:LYS:HE3	1.93	0.51
1:D:145:TRP:HD1	1:D:261:MET:SD	2.34	0.51
1:D:373:MET:O	1:D:376:MET:HG3	2.11	0.51
1:F:516:LEU:HD21	1:F:519:LEU:HD13	1.93	0.51
1:A:455:LYS:O	1:A:457:VAL:HG23	2.11	0.50
1:C:644:LEU:HD13	1:C:649:ILE:HD13	1.91	0.50
1:E:366:VAL:HG21	1:E:374:LEU:HD12	1.93	0.50
1:A:117:GLU:OE1	1:A:118:ARG:NE	2.44	0.50
1:A:423:HIS:HE2	1:A:520:TYR:HH	1.51	0.50
1:C:585:LEU:HD12	1:C:588:MET:HG2	1.93	0.50
1:C:630:ILE:HA	1:C:633:PHE:HB2	1.93	0.50
1:F:759:VAL:HG22	1:F:784:VAL:HG12	1.92	0.50
1:A:449:LEU:O	1:A:473:SER:N	2.43	0.50
1:C:158:PHE:HA	1:C:161:ILE:HG22	1.92	0.50
1:D:123:TYR:CD2	1:D:283:LEU:HB3	2.47	0.50
1:D:276:ILE:HA	1:D:279:TYR:CE2	2.46	0.50
1:E:246:LYS:O	1:E:249:ARG:HG3	2.10	0.50
1:F:405:LEU:O	1:F:409:TRP:N	2.35	0.50
1:F:415:ARG:HA	1:F:418:LEU:HD12	1.91	0.50
1:F:614:LEU:HD21	1:F:617:LEU:HD13	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:539:ARG:NH2	1:A:562:ASP:O	2.44	0.50
1:C:415:ARG:HA	1:C:418:LEU:HD12	1.94	0.50
1:C:604:ILE:HD12	1:C:629:GLU:HB2	1.92	0.50
1:D:655:HIS:CE1	1:D:658:LYS:HD2	2.47	0.50
1:D:703:GLY:HA3	1:D:724:GLU:HB3	1.93	0.50
1:E:129:TYR:O	1:E:133:ILE:HG23	2.11	0.50
1:E:673:GLU:OE1	1:E:674:VAL:CB	2.58	0.50
1:F:467:ASP:HA	1:F:488:PHE:CZ	2.46	0.50
1:F:631:VAL:HA	1:F:634:GLN:HG2	1.92	0.50
1:B:467:ASP:OD1	1:B:492:ASN:ND2	2.45	0.50
1:B:630:ILE:O	1:B:633:PHE:HB2	2.12	0.50
1:B:723:ASP:HB3	1:B:747:LYS:HD2	1.93	0.50
1:E:714:THR:HA	1:E:737:GLY:HA3	1.92	0.50
1:F:507:PRO:HG2	1:F:510:MET:HE3	1.92	0.50
1:F:709:GLN:HA	1:F:731:LEU:HA	1.94	0.50
1:B:735:LYS:HG2	1:B:756:TYR:HE2	1.76	0.50
1:E:395:VAL:HG12	1:E:399:LYS:HE3	1.93	0.50
1:A:347:ARG:O	1:A:368:ASN:HA	2.12	0.50
1:A:449:LEU:HD12	1:A:450:LYS:N	2.27	0.50
1:B:280:ASN:HB3	1:B:324:LEU:HD21	1.94	0.50
1:B:644:LEU:HD13	1:B:649:ILE:HD13	1.93	0.50
1:B:723:ASP:HA	1:B:726:TYR:CD2	2.47	0.50
1:C:624:LEU:HD23	1:C:627:ILE:HG22	1.94	0.50
1:C:675:LEU:HD23	1:C:675:LEU:H	1.76	0.50
1:F:433:LEU:H	1:F:454:ILE:HG12	1.77	0.50
1:F:451:LEU:HD11	1:F:454:ILE:HB	1.94	0.50
1:A:486:LEU:HG	1:A:490:LYS:HE3	1.94	0.50
1:A:579:LEU:HB3	1:A:601:LEU:HD21	1.93	0.50
1:B:693:ASN:N	1:B:716:ASN:OD1	2.37	0.50
1:E:496:LEU:HD12	1:E:497:SER:H	1.72	0.50
1:C:519:LEU:HD12	1:C:520:TYR:N	2.27	0.50
1:D:603:ARG:NH1	1:D:629:GLU:OE2	2.45	0.50
1:F:133:ILE:O	1:F:137:VAL:HG23	2.11	0.50
1:F:360:ILE:O	1:F:360:ILE:HG13	2.11	0.50
1:A:22:PRO:HG3	1:A:376:MET:HE1	1.94	0.49
1:B:496:LEU:CD2	1:B:498:VAL:HG23	2.42	0.49
1:C:246:LYS:O	1:C:249:ARG:HG3	2.11	0.49
1:C:253:GLU:HG2	1:C:367:LYS:HB2	1.94	0.49
1:D:144:PHE:HA	1:D:147:LYS:HB2	1.93	0.49
1:E:627:ILE:O	1:E:630:ILE:HG12	2.12	0.49
1:F:444:THR:HG22	1:F:466:LEU:HD23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:350:SER:HB3	1:A:352:GLU:HG2	1.93	0.49
1:A:564:SER:HA	1:A:567:LEU:HB3	1.93	0.49
1:B:623:ASN:HA	1:B:647:ASN:HA	1.93	0.49
1:E:145:TRP:CD1	1:E:261:MET:SD	3.05	0.49
1:E:326:PHE:HA	1:E:329:ILE:HD12	1.94	0.49
1:F:766:ILE:HG13	1:F:766:ILE:O	2.12	0.49
1:A:619:LEU:HB2	1:A:644:LEU:HD23	1.93	0.49
1:A:759:VAL:HB	1:A:764:PHE:HE2	1.77	0.49
1:B:362:ASP:OD1	1:B:362:ASP:N	2.43	0.49
1:B:441:PHE:HB3	1:B:465:GLN:OE1	2.13	0.49
1:B:654:GLU:HA	1:B:678:HIS:CD2	2.47	0.49
1:C:136:LEU:O	1:C:136:LEU:HD23	2.12	0.49
1:F:113:GLN:HB3	1:G:309:ASN:HD21	1.78	0.49
1:B:570:MET:CE	1:B:572:ILE:HG22	2.43	0.49
1:B:749:GLY:HA3	1:B:770:GLU:HB3	1.93	0.49
1:B:751:LEU:HB3	1:B:754:LEU:HB2	1.94	0.49
1:F:570:MET:CE	1:F:588:MET:CE	2.90	0.49
1:C:347:ARG:O	1:C:368:ASN:HA	2.11	0.49
1:D:421:ASN:OD1	1:D:425:ARG:N	2.44	0.49
1:D:518:GLU:HG2	1:D:546:ILE:HB	1.94	0.49
1:D:551:SER:HB2	1:D:553:VAL:HG23	1.95	0.49
1:E:327:VAL:O	1:E:330:TYR:HB2	2.12	0.49
1:E:347:ARG:O	1:E:368:ASN:HA	2.13	0.49
1:E:498:VAL:HG12	1:E:500:PHE:HD1	1.77	0.49
1:F:525:LEU:H	1:F:551:SER:HB3	1.78	0.49
1:A:134:HIS:CD2	1:A:276:ILE:HD11	2.48	0.49
1:A:535:LEU:HD21	1:A:538:LEU:HD11	1.93	0.49
1:B:729:LYS:NZ	1:B:750:ASN:O	2.40	0.49
1:B:744:LEU:HD21	1:B:748:ILE:HG21	1.94	0.49
1:C:622:ASN:HB3	1:C:624:LEU:HD13	1.94	0.49
1:C:764:PHE:HB2	1:C:788:LEU:HD21	1.93	0.49
1:F:441:PHE:HA	1:F:466:LEU:HD21	1.95	0.49
1:F:588:MET:HG3	1:F:591:LEU:HB2	1.95	0.49
1:A:265:GLN:O	1:A:268:LEU:HG	2.12	0.49
1:B:369:ASP:O	1:B:373:MET:HG2	2.13	0.49
1:B:631:VAL:O	1:B:634:GLN:HG2	2.12	0.49
1:C:649:ILE:HG21	1:C:667:PHE:HE1	1.78	0.49
1:E:405:LEU:HD11	1:E:433:LEU:HD22	1.94	0.49
1:E:411:PRO:HA	1:E:414:LEU:HD12	1.93	0.49
1:F:151:SER:HB2	1:F:258:LEU:HD13	1.95	0.49
1:A:170:TRP:NE1	1:A:400:LEU:HD13	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:441:PHE:HA	1:A:466:LEU:HD11	1.94	0.49
1:B:262:TYR:O	1:B:266:THR:HG23	2.13	0.49
1:B:735:LYS:HG2	1:B:756:TYR:CE2	2.48	0.49
1:C:46:GLN:O	1:C:50:ASP:HB3	2.13	0.49
1:F:405:LEU:HG	1:F:409:TRP:CD1	2.47	0.49
1:A:246:LYS:O	1:A:249:ARG:HG3	2.13	0.49
1:A:574:ASN:OD1	1:A:574:ASN:N	2.46	0.49
1:B:452:GLU:HA	1:B:475:HIS:HB2	1.95	0.49
1:F:643:LYS:HA	1:F:666:SER:HB2	1.95	0.49
1:A:759:VAL:HG22	1:A:784:VAL:HG12	1.95	0.48
1:B:415:ARG:HG2	1:B:418:LEU:HD12	1.95	0.48
1:B:496:LEU:HD21	1:B:498:VAL:HG23	1.96	0.48
1:C:668:SER:O	1:C:670:ASN:ND2	2.46	0.48
1:C:705:LEU:HB3	1:C:708:LEU:HB2	1.95	0.48
1:D:249:ARG:HA	1:D:370:PHE:CZ	2.47	0.48
1:E:639:LEU:HD21	1:E:642:LEU:HD13	1.95	0.48
1:E:591:LEU:HD23	1:E:611:LEU:HD13	1.96	0.48
1:F:353:TYR:O	1:F:357:GLU:N	2.47	0.48
1:F:556:ILE:O	1:F:584:ASN:ND2	2.44	0.48
1:A:723:ASP:HA	1:A:726:TYR:HD2	1.77	0.48
1:C:675:LEU:HD12	1:C:679:LEU:HD23	1.95	0.48
1:E:449:LEU:HG	1:E:472:LEU:HD13	1.94	0.48
1:E:778:LYS:O	1:E:800:MET:HE1	2.13	0.48
1:F:248:PHE:CZ	1:F:252:VAL:HG21	2.49	0.48
1:B:494:LYS:NZ	1:B:515:ASN:HB3	2.28	0.48
1:D:497:SER:HA	1:D:520:TYR:HB2	1.95	0.48
1:D:719:GLU:HG2	1:D:740:SER:HB3	1.95	0.48
1:A:726:TYR:CZ	1:A:745:SER:HB3	2.48	0.48
1:B:428:LEU:HD12	1:B:429:PRO:HD2	1.95	0.48
1:A:450:LYS:HA	1:A:473:SER:HB3	1.95	0.48
1:B:387:ARG:HG3	1:B:387:ARG:HH11	1.78	0.48
1:B:511:TYR:HA	1:B:541:LEU:HD21	1.96	0.48
1:B:149:PRO:HA	1:B:152:SER:HB3	1.94	0.48
1:C:551:SER:HB2	1:C:553:VAL:HG23	1.96	0.48
1:C:766:ILE:HD12	1:C:766:ILE:N	2.29	0.48
1:D:248:PHE:CE2	1:D:252:VAL:HG21	2.48	0.48
1:E:244:LYS:HA	1:E:247:LYS:HG2	1.95	0.48
1:E:256:ASP:N	1:E:369:ASP:OD2	2.44	0.48
1:E:436:LEU:HD12	1:E:459:ILE:HA	1.96	0.48
1:F:620:LYS:HG2	1:F:621:GLU:HG3	1.95	0.48
1:F:757:LEU:HB3	1:F:782:LEU:HD12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:311:THR:OG1	1:G:312:MET:SD	2.69	0.48
1:A:713:ILE:HG13	1:A:736:ILE:HA	1.94	0.48
1:B:460:PRO:O	1:B:463:ILE:HG22	2.14	0.48
1:C:641:VAL:HG13	1:C:664:ARG:HB2	1.95	0.48
1:F:526:SER:CB	1:F:531:ARG:NE	2.76	0.48
1:A:248:PHE:O	1:A:252:VAL:HG22	2.13	0.48
1:A:441:PHE:HB3	1:A:465:GLN:OE1	2.13	0.48
1:A:445:GLU:OE1	1:A:445:GLU:N	2.42	0.48
1:A:458:MET:HE2	1:A:458:MET:HA	1.94	0.48
1:A:494:LYS:NZ	1:A:515:ASN:HB3	2.29	0.48
1:B:740:SER:HA	1:B:763:HIS:CE1	2.49	0.48
1:C:405:LEU:HG	1:C:409:TRP:HD1	1.79	0.48
1:C:707:SER:HA	1:C:730:LYS:HD2	1.96	0.48
1:E:276:ILE:HA	1:E:279:TYR:CE2	2.49	0.48
1:E:576:GLY:HA2	1:E:598:HIS:HD2	1.78	0.48
1:E:640:THR:O	1:E:663:GLU:N	2.40	0.48
1:F:170:TRP:HH2	1:F:396:SER:HB2	1.79	0.48
1:A:96:MET:SD	1:A:96:MET:N	2.87	0.48
1:B:45:LEU:HB3	1:B:312:MET:HE1	1.95	0.48
1:C:145:TRP:NE1	1:C:262:TYR:HB2	2.29	0.48
1:C:765:GLU:N	1:C:765:GLU:CD	2.67	0.48
1:D:765:GLU:OE1	1:D:765:GLU:HA	2.13	0.48
1:A:134:HIS:CG	1:A:276:ILE:HD11	2.49	0.47
1:A:654:GLU:HG2	1:A:657:LYS:HD3	1.94	0.47
1:A:771:LEU:HD12	1:A:792:LEU:HD11	1.95	0.47
1:B:372:PHE:CE1	1:B:376:MET:HE2	2.48	0.47
1:C:170:TRP:HZ3	1:C:396:SER:HB2	1.79	0.47
1:C:272:LYS:HB3	1:C:272:LYS:HE2	1.59	0.47
1:C:273:PHE:CD2	1:C:274:LEU:HD13	2.50	0.47
1:D:117:GLU:OE1	1:D:118:ARG:HG2	2.14	0.47
1:E:265:GLN:O	1:E:268:LEU:HG	2.13	0.47
1:F:265:GLN:O	1:F:268:LEU:HG	2.14	0.47
1:F:455:LYS:HD3	1:F:477:CYS:HA	1.96	0.47
1:B:625:LYS:HB2	1:B:648:SER:HB2	1.96	0.47
1:B:675:LEU:H	1:B:675:LEU:HD23	1.78	0.47
1:D:539:ARG:O	1:D:539:ARG:NH1	2.37	0.47
1:D:707:SER:HA	1:D:730:LYS:HD2	1.95	0.47
1:G:37:MET:SD	1:G:38:ILE:N	2.87	0.47
1:B:643:LYS:HB3	1:B:645:TRP:CD1	2.49	0.47
1:B:757:LEU:N	1:B:781:ARG:O	2.46	0.47
1:C:657:LYS:HD2	1:C:681:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:52:ILE:HG13	1:D:116:TYR:HD2	1.78	0.47
1:D:172:THR:OG1	1:D:387:ARG:NH1	2.41	0.47
1:D:294:ASN:ND2	1:D:305:ASN:OD1	2.47	0.47
1:E:243:GLU:O	1:E:246:LYS:HG2	2.14	0.47
1:F:544:LEU:HG	1:F:567:LEU:HD13	1.96	0.47
1:A:453:ILE:N	1:A:477:CYS:SG	2.87	0.47
1:A:680:PHE:HA	1:A:705:LEU:HD21	1.96	0.47
1:B:583:ASN:OD1	1:B:584:ASN:N	2.47	0.47
1:B:667:PHE:HB2	1:B:690:LEU:HD23	1.97	0.47
1:C:476:GLN:N	1:C:499:LYS:O	2.37	0.47
1:D:161:ILE:HD13	1:D:244:LYS:HG2	1.96	0.47
1:D:241:LEU:HD23	1:D:391:PHE:HE2	1.80	0.47
1:E:37:MET:SD	1:E:37:MET:N	2.88	0.47
1:E:496:LEU:CD1	1:E:498:VAL:HG23	2.40	0.47
1:E:630:ILE:HG21	1:E:656:ILE:HA	1.97	0.47
1:E:663:GLU:O	1:E:686:ARG:N	2.37	0.47
1:G:298:GLN:HG3	1:G:302:GLY:HA2	1.97	0.47
1:A:654:GLU:OE2	1:A:657:LYS:NZ	2.37	0.47
1:A:724:GLU:HA	1:A:727:PHE:CD2	2.49	0.47
1:B:45:LEU:C	1:B:312:MET:HE2	2.35	0.47
1:B:286:LYS:HD2	1:B:286:LYS:HA	1.68	0.47
1:B:609:PHE:O	1:B:635:HIS:NE2	2.39	0.47
1:C:145:TRP:N	1:C:265:GLN:HE22	2.11	0.47
1:D:452:GLU:HG2	1:D:475:HIS:HB2	1.95	0.47
1:F:531:ARG:CZ	1:F:552:ASN:O	2.62	0.47
1:A:425:ARG:CD	1:A:447:GLN:HG2	2.41	0.47
1:A:663:GLU:O	1:A:686:ARG:N	2.35	0.47
1:B:571:CYS:HB3	1:B:573:HIS:CE1	2.49	0.47
1:C:170:TRP:CD2	1:C:400:LEU:HD13	2.50	0.47
1:D:300:MET:SD	1:E:307:SER:HB2	2.55	0.47
1:E:732:LYS:O	1:E:755:SER:OG	2.27	0.47
1:F:452:GLU:O	1:F:454:ILE:HG13	2.14	0.47
1:A:273:PHE:O	1:A:277:ILE:HG22	2.15	0.47
1:A:605:PRO:HG2	1:A:608:VAL:HG23	1.96	0.47
1:B:122:TRP:HA	1:B:125:LYS:HE2	1.96	0.47
1:B:511:TYR:O	1:B:540:ASP:HB2	2.15	0.47
1:B:514:ARG:HG2	1:B:542:LYS:HG2	1.97	0.47
1:B:559:ALA:HA	1:B:562:ASP:OD2	2.15	0.47
1:C:165:CYS:HB3	1:C:388:PHE:HD1	1.79	0.47
1:C:430:LEU:HD22	1:C:433:LEU:HD11	1.97	0.47
1:C:557:PRO:HG2	1:C:560:VAL:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:474:LEU:O	1:D:499:LYS:N	2.42	0.47
1:D:675:LEU:H	1:D:675:LEU:HD23	1.79	0.47
1:D:759:VAL:O	1:D:762:ASN:ND2	2.45	0.47
1:E:130:LEU:HD21	1:E:279:TYR:OH	2.14	0.47
1:E:136:LEU:HA	1:E:139:MET:SD	2.54	0.47
1:E:411:PRO:HG3	1:E:439:THR:HB	1.96	0.47
1:F:360:ILE:HD11	1:F:363:ILE:HD12	1.95	0.47
1:F:418:LEU:HB3	1:F:426:LEU:HD11	1.96	0.47
1:G:46:GLN:HA	1:G:50:ASP:HB2	1.96	0.47
1:A:683:ASN:O	1:A:707:SER:OG	2.22	0.47
1:A:688:LEU:HB2	1:A:708:LEU:HD11	1.96	0.47
1:B:36:LEU:O	1:B:36:LEU:HD12	2.15	0.47
1:D:171:THR:HB	1:D:390:VAL:HG21	1.97	0.47
1:D:588:MET:SD	1:D:591:LEU:HB2	2.55	0.47
1:F:134:HIS:CG	1:F:276:ILE:HD11	2.50	0.47
1:F:495:VAL:HG13	1:F:518:GLU:HB2	1.96	0.47
1:F:533:VAL:H	1:F:555:LYS:HE3	1.80	0.47
1:F:604:ILE:HD12	1:F:629:GLU:HB2	1.97	0.47
1:A:256:ASP:N	1:A:369:ASP:HB2	2.29	0.47
1:B:501:ASP:H	1:B:505:GLU:CD	2.18	0.47
1:B:680:PHE:CD2	1:B:701:GLU:HB2	2.50	0.47
1:D:170:TRP:NE1	1:D:400:LEU:HD13	2.30	0.47
1:D:735:LYS:HG2	1:D:756:TYR:HE2	1.78	0.47
1:A:411:PRO:HA	1:A:414:LEU:HD12	1.96	0.47
1:A:703:GLY:HA3	1:A:724:GLU:HB3	1.97	0.47
1:B:457:VAL:O	1:B:479:VAL:HA	2.14	0.47
1:B:631:VAL:HA	1:B:634:GLN:NE2	2.30	0.47
1:B:765:GLU:O	1:B:788:LEU:HD22	2.15	0.47
1:C:170:TRP:CZ3	1:C:396:SER:HB2	2.50	0.47
1:D:687:TYR:HA	1:D:710:TYR:HB3	1.96	0.47
1:E:128:PRO:O	1:E:132:LEU:HD23	2.15	0.47
1:F:723:ASP:HA	1:F:726:TYR:HD2	1.80	0.47
1:G:134:HIS:CE1	1:G:276:ILE:HD11	2.50	0.47
1:A:479:VAL:O	1:A:507:PRO:HG3	2.14	0.46
1:A:556:ILE:HG23	1:A:584:ASN:HB2	1.97	0.46
1:A:757:LEU:N	1:A:781:ARG:O	2.33	0.46
1:B:489:LEU:HB2	1:B:513:LEU:HD22	1.97	0.46
1:B:740:SER:HA	1:B:763:HIS:HE1	1.80	0.46
1:E:124:ALA:HB2	1:E:287:VAL:HG12	1.97	0.46
1:E:571:CYS:HB3	1:E:573:HIS:CE1	2.50	0.46
1:F:471:GLU:HA	1:F:495:VAL:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:499:LYS:HA	1:A:522:VAL:HB	1.96	0.46
1:B:503:MET:SD	1:B:506:LEU:HD22	2.55	0.46
1:C:270:VAL:HG22	1:C:334:CYS:HB3	1.96	0.46
1:C:415:ARG:NH2	1:C:445:GLU:OE2	2.48	0.46
1:E:796:VAL:O	1:E:800:MET:HB2	2.15	0.46
1:F:344:ARG:HA	1:F:344:ARG:NE	2.30	0.46
1:F:591:LEU:HD23	1:F:611:LEU:HD13	1.96	0.46
1:F:643:LYS:HB3	1:F:645:TRP:CD1	2.50	0.46
1:A:493:LEU:HD21	1:A:496:LEU:HB2	1.96	0.46
1:B:450:LYS:HA	1:B:473:SER:HB3	1.97	0.46
1:D:622:ASN:HB3	1:D:624:LEU:HD13	1.97	0.46
1:E:141:CYS:O	1:E:265:GLN:NE2	2.49	0.46
1:E:498:VAL:HG11	1:E:506:LEU:HD12	1.97	0.46
1:F:580:VAL:HG23	1:F:581:MET:HE3	1.94	0.46
1:A:729:LYS:HA	1:A:751:LEU:HD22	1.98	0.46
1:A:746:PRO:HB3	1:A:770:GLU:HG3	1.97	0.46
1:F:570:MET:CE	1:F:588:MET:HE3	2.45	0.46
1:F:673:GLU:OE2	1:F:673:GLU:N	2.48	0.46
1:A:425:ARG:HD2	1:A:471:GLU:OE1	2.16	0.46
1:A:584:ASN:O	1:A:588:MET:HE2	2.16	0.46
1:A:634:GLN:HB2	1:A:637:ARG:NH2	2.31	0.46
1:B:414:LEU:HD11	1:B:439:THR:OG1	2.16	0.46
1:B:473:SER:O	1:B:474:LEU:CD2	2.48	0.46
1:C:703:GLY:HA3	1:C:724:GLU:HB3	1.98	0.46
1:D:130:LEU:HD11	1:D:279:TYR:OH	2.15	0.46
1:E:521:LEU:O	1:E:550:LYS:N	2.39	0.46
1:F:352:GLU:HA	1:F:355:ARG:HH21	1.81	0.46
1:A:272:LYS:HE2	1:A:272:LYS:HB3	1.69	0.46
1:A:535:LEU:HD11	1:A:538:LEU:HD21	1.98	0.46
1:A:769:PRO:HB3	1:A:793:PRO:HG2	1.97	0.46
1:B:362:ASP:C	1:B:363:ILE:HD12	2.35	0.46
1:B:490:LYS:HB3	1:B:514:ARG:HH22	1.81	0.46
1:B:627:ILE:O	1:B:630:ILE:HG12	2.16	0.46
1:C:363:ILE:HG21	1:C:389:ALA:HB1	1.97	0.46
1:C:702:ILE:HG13	1:C:705:LEU:HD12	1.97	0.46
1:E:38:ILE:HG12	1:E:319:LEU:HD21	1.97	0.46
1:F:242:PHE:CD2	1:F:400:LEU:HD23	2.51	0.46
1:F:735:LYS:HG2	1:F:756:TYR:HE2	1.81	0.46
1:A:273:PHE:CZ	1:A:331:GLY:HA3	2.50	0.46
1:A:489:LEU:HB2	1:A:513:LEU:HD22	1.98	0.46
1:A:673:GLU:O	1:A:695:ILE:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:742:SER:O	1:A:765:GLU:OE2	2.34	0.46
1:B:351:PHE:O	1:B:353:TYR:N	2.49	0.46
1:B:688:LEU:HB2	1:B:708:LEU:HD11	1.98	0.46
1:D:430:LEU:HD12	1:D:451:LEU:HG	1.97	0.46
1:E:276:ILE:O	1:E:280:ASN:ND2	2.42	0.46
1:F:249:ARG:HE	1:F:250:LEU:HG	1.80	0.46
1:A:436:LEU:HD12	1:A:460:PRO:HD3	1.97	0.46
1:E:480:LYS:NZ	1:E:504:ARG:HH22	2.14	0.46
1:F:678:HIS:HA	1:F:681:LEU:HG	1.98	0.46
1:A:708:LEU:HD23	1:A:731:LEU:HD21	1.98	0.46
1:B:541:LEU:HB3	1:B:544:LEU:CD2	2.46	0.46
1:C:663:GLU:HA	1:C:685:ILE:HA	1.98	0.46
1:C:713:ILE:HG13	1:C:736:ILE:HA	1.97	0.46
1:D:34:ALA:O	1:D:37:MET:HG3	2.16	0.46
1:D:499:LYS:HE2	1:D:522:VAL:HG21	1.96	0.46
1:E:35:MET:O	1:E:38:ILE:HG22	2.16	0.46
1:E:273:PHE:CZ	1:E:331:GLY:HA3	2.50	0.46
1:E:760:LYS:HB3	1:E:760:LYS:HE3	1.48	0.46
1:F:474:LEU:HB2	1:F:498:VAL:HA	1.98	0.46
1:A:723:ASP:HA	1:A:726:TYR:CD2	2.50	0.46
1:B:575:ASP:OD1	1:B:575:ASP:N	2.41	0.46
1:B:672:ILE:HG13	1:B:695:ILE:HD11	1.98	0.46
1:C:673:GLU:HA	1:C:694:ASP:HB2	1.98	0.46
1:E:33:VAL:O	1:E:37:MET:HG2	2.15	0.46
1:A:471:GLU:HA	1:A:495:VAL:O	2.15	0.45
1:A:759:VAL:CG2	1:A:784:VAL:HG12	2.46	0.45
1:C:164:LYS:HE2	1:C:241:LEU:HD13	1.98	0.45
1:C:405:LEU:HG	1:C:409:TRP:CD1	2.52	0.45
1:D:31:LEU:O	1:D:35:MET:HG2	2.16	0.45
1:E:152:SER:HA	1:E:155:ILE:HG12	1.98	0.45
1:E:538:LEU:HG	1:E:559:ALA:HB1	1.98	0.45
1:F:358:THR:HB	1:F:360:ILE:HG23	1.99	0.45
1:F:490:LYS:HD3	1:F:514:ARG:NH1	2.28	0.45
1:F:526:SER:CB	1:F:531:ARG:NH2	2.79	0.45
1:A:640:THR:O	1:A:663:GLU:N	2.37	0.45
1:A:735:LYS:HG2	1:A:756:TYR:CE2	2.49	0.45
1:B:486:LEU:HD11	1:B:490:LYS:HE3	1.97	0.45
1:B:688:LEU:H	1:B:710:TYR:HD1	1.64	0.45
1:C:337:THR:O	1:C:341:LEU:N	2.48	0.45
1:E:467:ASP:HA	1:E:488:PHE:CZ	2.51	0.45
1:F:354:VAL:HG22	1:F:386:LYS:HE2	1.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:382:PRO:O	1:F:385:SER:OG	2.21	0.45
1:F:578:LYS:NZ	1:F:601:LEU:HA	2.30	0.45
1:A:657:LYS:HD2	1:A:681:LEU:HD12	1.98	0.45
1:B:45:LEU:O	1:B:312:MET:HE2	2.15	0.45
1:C:293:CYS:SG	1:C:306:PHE:HB2	2.56	0.45
1:C:665:LEU:HB2	1:C:685:ILE:HD13	1.98	0.45
1:F:624:LEU:HD23	1:F:627:ILE:HG22	1.98	0.45
1:F:759:VAL:O	1:F:762:ASN:ND2	2.43	0.45
1:A:292:ASP:OD1	1:A:293:CYS:N	2.50	0.45
1:B:672:ILE:HG13	1:B:695:ILE:CD1	2.47	0.45
1:B:696:ARG:HG3	1:B:717:LYS:O	2.15	0.45
1:C:36:LEU:HD12	1:C:135:THR:CG2	2.46	0.45
1:C:400:LEU:HA	1:C:400:LEU:HD12	1.72	0.45
1:C:654:GLU:OE2	1:C:657:LYS:NZ	2.42	0.45
1:D:785:GLU:HB2	1:D:788:LEU:HD13	1.98	0.45
1:E:757:LEU:N	1:E:781:ARG:O	2.36	0.45
1:F:551:SER:HB2	1:F:553:VAL:HG23	1.97	0.45
1:G:273:PHE:HD1	1:G:327:VAL:HG12	1.80	0.45
1:E:19:VAL:HG22	1:E:380:TYR:CE2	2.52	0.45
1:F:493:LEU:HD23	1:F:516:LEU:HD13	1.97	0.45
1:F:510:MET:SD	1:F:510:MET:N	2.89	0.45
1:A:247:LYS:HB3	1:A:247:LYS:HE3	1.72	0.45
1:A:410:THR:O	1:A:414:LEU:HG	2.17	0.45
1:A:538:LEU:HB3	1:A:541:LEU:HD12	1.99	0.45
1:A:673:GLU:HA	1:A:694:ASP:HB2	1.99	0.45
1:B:350:SER:HB3	1:B:352:GLU:HG2	1.97	0.45
1:B:617:LEU:HB3	1:B:642:LEU:HD23	1.99	0.45
1:C:746:PRO:HB3	1:C:770:GLU:HG3	1.98	0.45
1:C:777:LEU:HG	1:C:800:MET:HE1	1.98	0.45
1:E:764:PHE:HB2	1:E:788:LEU:HD21	1.97	0.45
1:F:693:ASN:N	1:F:716:ASN:OD1	2.38	0.45
1:A:24:TRP:HB2	1:A:333:THR:HG23	1.99	0.45
1:A:444:THR:OG1	1:A:466:LEU:HA	2.17	0.45
1:A:559:ALA:O	1:A:562:ASP:HB2	2.16	0.45
1:B:354:VAL:HG13	1:B:386:LYS:HD3	1.97	0.45
1:B:366:VAL:HB	1:B:370:PHE:HB3	1.98	0.45
1:C:35:MET:HE3	1:C:135:THR:HG23	1.88	0.45
1:E:370:PHE:CA	1:E:373:MET:HE3	2.26	0.45
1:A:415:ARG:NH2	1:A:445:GLU:OE2	2.33	0.45
1:B:350:SER:HA	1:B:365:ASP:OD1	2.16	0.45
1:C:170:TRP:HE3	1:C:391:PHE:HE1	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:239:LYS:HB2	1:D:400:LEU:HG	1.99	0.45
1:E:122:TRP:HA	1:E:125:LYS:HE2	1.99	0.45
1:E:737:GLY:N	1:E:758:ASP:O	2.42	0.45
1:F:293:CYS:SG	1:F:306:PHE:HB2	2.57	0.45
1:A:596:LEU:HB2	1:A:619:LEU:HD23	1.99	0.45
1:B:474:LEU:HD23	1:B:474:LEU:N	2.23	0.45
1:C:134:HIS:CD2	1:C:276:ILE:HD11	2.52	0.45
1:C:137:VAL:HB	1:C:272:LYS:HZ1	1.82	0.45
1:C:373:MET:O	1:C:376:MET:SD	2.75	0.45
1:D:481:ILE:CD1	1:D:486:LEU:HB2	2.45	0.45
1:E:245:VAL:HG21	1:E:391:PHE:HB3	1.99	0.45
1:E:474:LEU:N	1:E:497:SER:O	2.47	0.45
1:F:170:TRP:CH2	1:F:396:SER:HB2	2.52	0.45
1:F:268:LEU:HA	1:F:271:ILE:HG12	1.99	0.45
1:F:426:LEU:HB3	1:F:446:LEU:HA	1.98	0.45
1:F:499:LYS:HA	1:F:522:VAL:HB	1.99	0.45
1:G:49:GLN:O	1:G:311:THR:OG1	2.35	0.45
1:A:160:SER:O	1:A:164:LYS:HG2	2.17	0.45
1:A:427:GLU:HB2	1:A:448:SER:HB3	1.98	0.45
1:B:683:ASN:OD1	1:B:683:ASN:N	2.50	0.45
1:C:175:LEU:HD22	1:C:358:THR:HG21	1.98	0.45
1:C:714:THR:HA	1:C:737:GLY:HA3	1.99	0.45
1:D:105:LEU:HD12	1:D:105:LEU:HA	1.80	0.45
1:D:645:TRP:HD1	1:D:666:SER:HB3	1.81	0.45
1:F:425:ARG:HH12	1:F:495:VAL:HG21	1.82	0.45
1:B:120:LEU:HD21	1:B:310:HIS:CE1	2.51	0.44
1:B:638:LYS:HA	1:B:638:LYS:HD3	1.79	0.44
1:B:649:ILE:HG21	1:B:667:PHE:HE1	1.83	0.44
1:B:759:VAL:O	1:B:762:ASN:ND2	2.48	0.44
1:D:258:LEU:HD12	1:D:261:MET:CE	2.47	0.44
1:E:19:VAL:HG12	1:E:20:LEU:HD22	1.99	0.44
1:F:46:GLN:HG3	1:F:50:ASP:HB2	1.99	0.44
1:F:510:MET:O	1:F:513:LEU:HG	2.17	0.44
1:G:276:ILE:HD13	1:G:279:TYR:CE2	2.52	0.44
1:B:367:LYS:HD3	1:B:368:ASN:N	2.32	0.44
1:B:461:ALA:HB2	1:B:482:HIS:ND1	2.32	0.44
1:C:35:MET:CE	1:C:135:THR:CG2	2.77	0.44
1:C:433:LEU:HB2	1:C:454:ILE:HD13	1.99	0.44
1:E:158:PHE:CZ	1:E:373:MET:HG3	2.53	0.44
1:E:376:MET:SD	1:E:377:ILE:N	2.91	0.44
1:E:719:GLU:HG2	1:E:740:SER:HB3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:467:ASP:HA	1:A:488:PHE:CE2	2.52	0.44
1:A:649:ILE:HD13	1:A:667:PHE:HE1	1.82	0.44
1:B:461:ALA:HB2	1:B:482:HIS:CE1	2.51	0.44
1:B:696:ARG:HB2	1:B:696:ARG:CZ	2.47	0.44
1:C:518:GLU:HG2	1:C:546:ILE:HD12	1.99	0.44
1:C:567:LEU:HD21	1:C:570:MET:HB3	1.98	0.44
1:D:620:LYS:HD2	1:D:645:TRP:HB2	1.99	0.44
1:E:463:ILE:HD12	1:E:466:LEU:HB2	1.99	0.44
1:A:276:ILE:HD13	1:A:279:TYR:HE1	1.82	0.44
1:B:367:LYS:HD3	1:B:368:ASN:H	1.81	0.44
1:C:637:ARG:O	1:C:661:SER:OG	2.32	0.44
1:D:148:PHE:HD2	1:D:151:SER:H	1.65	0.44
1:D:158:PHE:HA	1:D:161:ILE:HG22	1.99	0.44
1:D:246:LYS:O	1:D:249:ARG:HG3	2.17	0.44
1:D:310:HIS:NE2	1:D:313:ALA:HB2	2.33	0.44
1:D:597:VAL:HA	1:D:620:LYS:HB2	2.00	0.44
1:D:627:ILE:O	1:D:630:ILE:HG12	2.18	0.44
1:G:52:ILE:HG21	1:G:116:TYR:HB2	1.99	0.44
1:G:121:HIS:ND1	1:G:123:TYR:HB3	2.33	0.44
1:A:273:PHE:CE1	1:A:331:GLY:HA3	2.52	0.44
1:B:527:HIS:HA	1:B:552:ASN:HD21	1.82	0.44
1:B:605:PRO:HG2	1:B:608:VAL:HG23	1.98	0.44
1:B:752:LEU:HA	1:B:774:CYS:HA	1.99	0.44
1:C:33:VAL:HA	1:C:36:LEU:HD13	2.00	0.44
1:D:277:ILE:O	1:D:281:SER:OG	2.30	0.44
1:D:294:ASN:OD1	1:D:294:ASN:N	2.50	0.44
1:E:654:GLU:HA	1:E:678:HIS:CD2	2.53	0.44
1:F:52:ILE:CG2	1:F:116:TYR:HB2	2.38	0.44
1:F:120:LEU:HD21	1:F:310:HIS:CE1	2.52	0.44
1:F:158:PHE:HA	1:F:161:ILE:HG22	1.99	0.44
1:F:452:GLU:HG2	1:F:475:HIS:ND1	2.33	0.44
1:F:713:ILE:HD12	1:F:718:VAL:HG21	1.99	0.44
1:A:425:ARG:HB3	1:A:448:SER:HB2	1.98	0.44
1:B:411:PRO:HG3	1:B:439:THR:HB	1.99	0.44
1:B:744:LEU:HD23	1:B:768:PRO:HD2	2.00	0.44
1:C:161:ILE:HD13	1:C:244:LYS:HG2	1.99	0.44
1:C:353:TYR:HD2	1:C:386:LYS:HE2	1.83	0.44
1:C:550:LYS:HD2	1:C:573:HIS:HB2	1.98	0.44
1:E:133:ILE:HG13	1:E:134:HIS:N	2.32	0.44
1:E:331:GLY:O	1:E:335:LEU:HG	2.17	0.44
1:F:630:ILE:HG22	1:F:634:GLN:NE2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:157:HIS:O	1:A:161:ILE:HG22	2.17	0.44
1:A:614:LEU:HD21	1:A:617:LEU:HB2	2.00	0.44
1:B:49:GLN:O	1:B:51:LYS:N	2.51	0.44
1:B:481:ILE:HD12	1:B:486:LEU:HB2	1.99	0.44
1:C:450:LYS:HA	1:C:473:SER:HB3	1.99	0.44
1:C:565:SER:OG	1:C:566:HIS:ND1	2.49	0.44
1:C:630:ILE:HG21	1:C:656:ILE:HA	2.00	0.44
1:C:735:LYS:HB3	1:C:735:LYS:HE2	1.85	0.44
1:D:654:GLU:HG3	1:D:678:HIS:CE1	2.52	0.44
1:E:31:LEU:CB	1:E:330:TYR:HE1	2.31	0.44
1:E:367:LYS:HZ3	1:E:368:ASN:HB2	1.83	0.44
1:E:496:LEU:HD23	1:E:519:LEU:HD13	1.99	0.44
1:E:630:ILE:O	1:E:633:PHE:HB2	2.18	0.44
1:A:346:LEU:HD22	1:A:375:HIS:CD2	2.53	0.44
1:A:740:SER:HA	1:A:763:HIS:CE1	2.53	0.44
1:B:634:GLN:HB2	1:B:637:ARG:CZ	2.47	0.44
1:B:744:LEU:HD21	1:B:771:LEU:HD21	1.99	0.44
1:C:24:TRP:HB2	1:C:333:THR:HG23	1.99	0.44
1:D:352:GLU:HA	1:D:355:ARG:HH21	1.83	0.44
1:D:430:LEU:HD13	1:D:433:LEU:HD12	2.00	0.44
1:E:156:GLU:O	1:E:159:ILE:HG12	2.17	0.44
1:E:244:LYS:HG3	1:E:247:LYS:NZ	2.33	0.44
1:F:482:HIS:H	1:F:485:ALA:HB3	1.82	0.44
1:G:130:LEU:HD11	1:G:279:TYR:OH	2.17	0.44
1:A:511:TYR:CD2	1:A:536:GLU:HB2	2.53	0.44
1:A:631:VAL:O	1:A:634:GLN:HG2	2.17	0.44
1:A:631:VAL:HG13	1:A:655:HIS:CG	2.52	0.44
1:B:467:ASP:HA	1:B:488:PHE:CE2	2.53	0.44
1:B:723:ASP:HA	1:B:726:TYR:HD2	1.82	0.44
1:C:171:THR:HA	1:C:390:VAL:HG11	2.00	0.44
1:E:740:SER:HA	1:E:763:HIS:CE1	2.52	0.44
1:F:470:GLN:HA	1:F:493:LEU:HA	1.99	0.44
1:F:564:SER:HA	1:F:588:MET:HE1	1.98	0.44
1:F:575:ASP:N	1:F:575:ASP:OD1	2.48	0.44
1:F:673:GLU:HG2	1:F:674:VAL:N	2.32	0.44
1:F:675:LEU:HD22	1:F:695:ILE:HG23	1.99	0.44
1:F:735:LYS:HG2	1:F:756:TYR:CE2	2.52	0.44
1:A:268:LEU:O	1:A:271:ILE:HG22	2.18	0.43
1:A:427:GLU:HA	1:A:448:SER:O	2.18	0.43
1:E:113:GLN:NE2	1:F:311:THR:HG22	2.33	0.43
1:F:318:LYS:HA	1:F:318:LYS:HD3	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:774:CYS:HB3	1:F:777:LEU:HB3	2.00	0.43
1:G:37:MET:HA	1:G:40:VAL:HG12	2.00	0.43
1:G:272:LYS:HE2	1:G:272:LYS:HB3	1.73	0.43
1:A:270:VAL:HG23	1:A:334:CYS:HB3	1.99	0.43
1:A:425:ARG:NH1	1:A:471:GLU:OE1	2.42	0.43
1:A:522:VAL:HA	1:A:550:LYS:HB2	2.00	0.43
1:A:637:ARG:NH1	1:A:658:LYS:O	2.46	0.43
1:B:141:CYS:SG	1:B:269:LYS:HG3	2.58	0.43
1:B:490:LYS:HB3	1:B:514:ARG:NH1	2.32	0.43
1:B:502:ASP:C	1:B:504:ARG:H	2.21	0.43
1:C:135:THR:O	1:C:139:MET:CE	2.64	0.43
1:C:683:ASN:N	1:C:683:ASN:OD1	2.52	0.43
1:E:427:GLU:HG3	1:E:449:LEU:CA	2.48	0.43
1:E:624:LEU:O	1:E:649:ILE:HG13	2.18	0.43
1:F:656:ILE:HD11	1:F:665:LEU:HD11	2.00	0.43
1:G:52:ILE:HA	1:G:52:ILE:HD12	1.83	0.43
1:A:121:HIS:CG	1:A:286:LYS:HG2	2.53	0.43
1:E:242:PHE:CE2	1:E:400:LEU:HD23	2.52	0.43
1:E:592:THR:O	1:E:615:GLN:N	2.40	0.43
1:A:351:PHE:O	1:A:353:TYR:N	2.51	0.43
1:A:414:LEU:HD13	1:A:440:VAL:HG12	2.00	0.43
1:A:441:PHE:HA	1:A:466:LEU:HD21	2.00	0.43
1:A:759:VAL:HB	1:A:764:PHE:CE2	2.53	0.43
1:B:134:HIS:CE1	1:B:276:ILE:HD11	2.53	0.43
1:B:609:PHE:HB3	1:B:635:HIS:HD2	1.83	0.43
1:D:38:ILE:HG23	1:D:319:LEU:HD21	2.01	0.43
1:D:425:ARG:HD3	1:D:447:GLN:HG3	2.01	0.43
1:E:642:LEU:HD12	1:E:642:LEU:HA	1.81	0.43
1:F:249:ARG:HD2	1:F:253:GLU:OE1	2.19	0.43
1:A:390:VAL:HG13	1:A:391:PHE:CD1	2.54	0.43
1:A:452:GLU:HG3	1:A:475:HIS:CB	2.49	0.43
1:A:578:LYS:HA	1:A:599:CYS:O	2.18	0.43
1:B:120:LEU:HD21	1:B:310:HIS:CG	2.54	0.43
1:B:294:ASN:HD22	1:B:304:LYS:NZ	2.17	0.43
1:B:458:MET:HA	1:B:480:LYS:O	2.18	0.43
1:C:702:ILE:HD13	1:C:725:LEU:HD13	2.00	0.43
1:D:401:LYS:O	1:D:405:LEU:HG	2.19	0.43
1:D:726:TYR:HB2	1:D:747:LYS:HE3	2.01	0.43
1:E:650:THR:OG1	1:E:671:LYS:HB2	2.18	0.43
1:F:140:LEU:HD12	1:F:140:LEU:HA	1.78	0.43
1:F:459:ILE:HG12	1:F:480:LYS:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:351:PHE:C	1:A:353:TYR:H	2.22	0.43
1:A:539:ARG:HH12	1:A:566:HIS:CE1	2.32	0.43
1:A:620:LYS:HG3	1:A:646:HIS:CD2	2.54	0.43
1:A:729:LYS:HB3	1:A:753:PHE:HD2	1.84	0.43
1:B:45:LEU:HB3	1:B:312:MET:CE	2.49	0.43
1:B:162:LEU:HD12	1:B:162:LEU:O	2.18	0.43
1:B:374:LEU:HD23	1:B:374:LEU:HA	1.76	0.43
1:C:713:ILE:HD11	1:C:736:ILE:HD12	2.01	0.43
1:D:151:SER:HB2	1:D:258:LEU:HD13	2.01	0.43
1:D:705:LEU:HB3	1:D:708:LEU:HB2	1.99	0.43
1:D:736:ILE:O	1:D:739:ASN:ND2	2.52	0.43
1:E:373:MET:HA	1:E:376:MET:HG3	2.00	0.43
1:E:798:GLU:HB3	1:E:804:ALA:HB2	2.00	0.43
1:F:560:VAL:O	1:F:564:SER:N	2.52	0.43
1:A:437:PRO:O	1:A:440:VAL:HG22	2.18	0.43
1:B:511:TYR:CE2	1:B:536:GLU:HB2	2.53	0.43
1:C:35:MET:HE3	1:C:135:THR:CA	2.36	0.43
1:C:496:LEU:HD12	1:C:497:SER:N	2.34	0.43
1:C:511:TYR:O	1:C:540:ASP:HB3	2.19	0.43
1:C:644:LEU:HD22	1:C:649:ILE:HD11	2.00	0.43
1:D:369:ASP:C	1:D:373:MET:HE2	2.39	0.43
1:D:370:PHE:O	1:D:374:LEU:HG	2.18	0.43
1:E:248:PHE:O	1:E:252:VAL:HG23	2.19	0.43
1:E:427:GLU:HA	1:E:448:SER:O	2.18	0.43
1:A:272:LYS:O	1:A:275:ILE:HG22	2.19	0.43
1:A:732:LYS:HE2	1:A:732:LYS:HB3	1.90	0.43
1:B:414:LEU:HB3	1:B:428:LEU:HD22	2.01	0.43
1:C:538:LEU:HG	1:C:559:ALA:HB1	2.01	0.43
1:E:263:VAL:HG22	1:E:341:LEU:HD13	1.99	0.43
1:F:503:MET:HE1	1:F:524:SER:O	2.18	0.43
1:F:782:LEU:HG	1:F:784:VAL:HG13	2.01	0.43
1:A:243:GLU:O	1:A:246:LYS:HG2	2.19	0.43
1:A:550:LYS:NZ	1:A:573:HIS:HB2	2.34	0.43
1:E:170:TRP:HH2	1:E:396:SER:HB2	1.84	0.43
1:F:58:ARG:HH12	1:F:305:ASN:HD22	1.66	0.43
1:F:263:VAL:O	1:F:266:THR:OG1	2.29	0.43
1:F:470:GLN:O	1:F:495:VAL:N	2.40	0.43
1:F:517:GLU:HA	1:F:543:SER:O	2.19	0.43
1:A:621:GLU:HG3	1:A:646:HIS:HD2	1.84	0.43
1:A:667:PHE:HB2	1:A:690:LEU:HD23	2.01	0.43
1:B:406:ASN:ND2	1:B:438:ASP:H	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:502:ASP:H	1:B:505:GLU:CD	2.23	0.43
1:B:713:ILE:HD11	1:B:736:ILE:HD12	2.01	0.43
1:C:138:PHE:CB	1:C:139:MET:HE2	2.49	0.43
1:D:273:PHE:HE1	1:D:328:SER:HA	1.83	0.43
1:D:421:ASN:ND2	1:D:471:GLU:OE1	2.51	0.43
1:E:759:VAL:O	1:E:762:ASN:ND2	2.52	0.43
1:F:292:ASP:OD1	1:F:293:CYS:N	2.52	0.43
1:F:418:LEU:HD22	1:F:426:LEU:HG	2.01	0.43
1:F:723:ASP:HA	1:F:726:TYR:CD2	2.53	0.43
1:A:594:LEU:HB3	1:A:614:LEU:HD13	2.01	0.42
1:B:151:SER:O	1:B:155:ILE:HG12	2.19	0.42
1:B:547:LEU:O	1:B:571:CYS:N	2.52	0.42
1:C:482:HIS:H	1:C:485:ALA:HB3	1.84	0.42
1:E:511:TYR:O	1:E:540:ASP:HB2	2.19	0.42
1:E:713:ILE:HG13	1:E:736:ILE:HA	2.01	0.42
1:F:145:TRP:HA	1:F:261:MET:HE1	2.01	0.42
1:F:527:HIS:N	1:F:531:ARG:HH21	2.17	0.42
1:A:706:GLN:NE2	1:A:727:PHE:O	2.40	0.42
1:B:110:PHE:CD2	1:C:55:LEU:HD12	2.54	0.42
1:B:447:GLN:HA	1:B:469:LEU:HA	2.00	0.42
1:B:624:LEU:O	1:B:648:SER:N	2.52	0.42
1:F:709:GLN:HG2	1:F:730:LYS:HB3	2.01	0.42
1:A:692:TYR:N	1:A:716:ASN:OD1	2.52	0.42
1:A:712:SER:HB2	1:A:735:LYS:HD3	2.01	0.42
1:A:736:ILE:HB	1:A:759:VAL:HA	2.01	0.42
1:B:19:VAL:HA	1:B:380:TYR:CD2	2.54	0.42
1:B:489:LEU:HD13	1:B:509:TRP:CZ3	2.54	0.42
1:B:583:ASN:O	1:B:587:LYS:HE2	2.20	0.42
1:B:729:LYS:HA	1:B:751:LEU:HD23	2.01	0.42
1:C:273:PHE:CZ	1:C:331:GLY:HA3	2.54	0.42
1:C:549:ILE:HB	1:C:572:ILE:HA	2.00	0.42
1:D:36:LEU:HB2	1:D:135:THR:HG21	2.01	0.42
1:D:567:LEU:HD23	1:D:588:MET:CE	2.50	0.42
1:E:436:LEU:HG	1:E:457:VAL:HG13	2.01	0.42
1:E:496:LEU:HD23	1:E:519:LEU:CD1	2.50	0.42
1:E:518:GLU:HG2	1:E:546:ILE:HB	2.00	0.42
1:E:588:MET:HE2	1:E:591:LEU:CA	2.47	0.42
1:F:531:ARG:CZ	1:F:552:ASN:CG	2.87	0.42
1:F:570:MET:HE3	1:F:588:MET:CG	2.49	0.42
1:A:425:ARG:HH12	1:A:495:VAL:HG21	1.84	0.42
1:A:586:LYS:HG2	1:A:607:ALA:HA	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:120:LEU:HA	1:B:120:LEU:HD12	1.79	0.42
1:B:246:LYS:HE2	1:B:246:LYS:HB3	1.76	0.42
1:B:657:LYS:HD3	1:B:678:HIS:HB2	2.00	0.42
1:C:447:GLN:HA	1:C:468:ASN:O	2.18	0.42
1:C:507:PRO:HB2	1:C:509:TRP:NE1	2.34	0.42
1:E:480:LYS:HZ3	1:E:504:ARG:HH22	1.68	0.42
1:E:588:MET:CG	1:E:591:LEU:HB2	2.45	0.42
1:F:347:ARG:O	1:F:368:ASN:HA	2.20	0.42
1:G:35:MET:HE2	1:G:135:THR:HA	2.00	0.42
1:A:250:LEU:HD12	1:A:250:LEU:O	2.20	0.42
1:B:449:LEU:HD12	1:B:450:LYS:N	2.33	0.42
1:B:469:LEU:HD11	1:B:472:LEU:HD22	2.01	0.42
1:C:138:PHE:HB2	1:C:139:MET:HE2	2.01	0.42
1:C:421:ASN:OD1	1:C:425:ARG:N	2.47	0.42
1:D:310:HIS:CE1	1:D:313:ALA:HB2	2.53	0.42
1:E:353:TYR:CE1	1:E:354:VAL:HG23	2.54	0.42
1:E:693:ASN:N	1:E:716:ASN:OD1	2.39	0.42
1:E:736:ILE:O	1:E:739:ASN:ND2	2.52	0.42
1:A:696:ARG:O	1:A:718:VAL:HA	2.20	0.42
1:B:32:SER:CB	1:B:139:MET:CE	2.95	0.42
1:B:140:LEU:HD12	1:B:140:LEU:HA	1.79	0.42
1:C:130:LEU:HA	1:C:133:ILE:HG22	2.02	0.42
1:D:662:LEU:HG	1:D:685:ILE:HG12	2.02	0.42
1:E:20:LEU:HD12	1:E:145:TRP:CH2	2.55	0.42
1:E:141:CYS:SG	1:E:268:LEU:HD11	2.59	0.42
1:F:31:LEU:HD11	1:F:329:ILE:HG22	2.02	0.42
1:F:634:GLN:HB3	1:F:637:ARG:NH2	2.34	0.42
1:G:19:VAL:HG23	1:G:20:LEU:HD22	2.02	0.42
1:G:37:MET:SD	1:G:38:ILE:HG13	2.59	0.42
1:A:546:ILE:HA	1:A:569:LYS:O	2.20	0.42
1:B:708:LEU:HD23	1:B:731:LEU:HD21	2.00	0.42
1:C:248:PHE:CE1	1:C:252:VAL:HG21	2.55	0.42
1:C:448:SER:HB2	1:C:471:GLU:HB3	2.02	0.42
1:D:675:LEU:HD22	1:D:695:ILE:HG23	2.02	0.42
1:E:141:CYS:SG	1:E:142:SER:N	2.93	0.42
1:E:158:PHE:CE1	1:E:373:MET:SD	3.12	0.42
1:E:239:LYS:HB2	1:E:400:LEU:HG	2.02	0.42
1:E:576:GLY:HA2	1:E:598:HIS:CD2	2.55	0.42
1:E:650:THR:O	1:E:672:ILE:HA	2.20	0.42
1:F:134:HIS:ND1	1:F:276:ILE:HD11	2.35	0.42
1:F:500:PHE:HE1	1:F:521:LEU:HD12	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:608:VAL:HG11	1:F:617:LEU:HD21	2.02	0.42
1:G:137:VAL:HG12	1:G:272:LYS:NZ	2.33	0.42
1:A:511:TYR:CE2	1:A:536:GLU:HB2	2.54	0.42
1:B:505:GLU:CD	1:B:505:GLU:H	2.23	0.42
1:C:592:THR:O	1:C:615:GLN:N	2.45	0.42
1:D:493:LEU:HD21	1:D:496:LEU:HD13	2.01	0.42
1:E:363:ILE:HA	1:E:392:LEU:HD22	2.01	0.42
1:E:713:ILE:HD12	1:E:718:VAL:HG21	2.01	0.42
1:F:441:PHE:CZ	1:F:460:PRO:HD2	2.55	0.42
1:A:141:CYS:CB	1:A:268:LEU:HD11	2.49	0.42
1:B:383:LEU:HD11	1:B:387:ARG:NH2	2.34	0.42
1:B:662:LEU:HD13	1:B:685:ILE:HD11	2.01	0.42
1:B:728:CYS:HB2	1:B:731:LEU:HD12	2.01	0.42
1:C:170:TRP:CH2	1:C:174:ALA:HB2	2.55	0.42
1:F:469:LEU:HD13	1:F:469:LEU:HA	1.91	0.42
1:A:516:LEU:HD21	1:A:519:LEU:HB2	2.02	0.42
1:A:599:CYS:N	1:A:622:ASN:OD1	2.53	0.42
1:B:412:ASP:OD1	1:B:413:LYS:N	2.53	0.42
1:B:582:LEU:O	1:B:585:LEU:HB3	2.20	0.42
1:C:247:LYS:O	1:C:247:LYS:HD3	2.20	0.42
1:C:571:CYS:HB3	1:C:573:HIS:CE1	2.54	0.42
1:E:451:LEU:HD12	1:E:452:GLU:N	2.34	0.42
1:E:578:LYS:HA	1:E:599:CYS:O	2.20	0.42
1:E:643:LYS:HB3	1:E:645:TRP:HD1	1.85	0.42
1:F:145:TRP:N	1:F:265:GLN:HE22	2.18	0.42
1:F:347:ARG:HB3	1:F:368:ASN:OD1	2.20	0.42
1:F:436:LEU:HD23	1:F:436:LEU:HA	1.81	0.42
1:F:490:LYS:HB3	1:F:514:ARG:HH12	1.85	0.42
1:F:616:GLU:HA	1:F:641:VAL:HB	2.02	0.42
1:A:768:PRO:HA	1:A:769:PRO:HD3	1.95	0.41
1:B:437:PRO:O	1:B:440:VAL:HG13	2.20	0.41
1:B:453:ILE:N	1:B:477:CYS:SG	2.93	0.41
1:D:547:LEU:HD23	1:D:570:MET:SD	2.60	0.41
1:E:46:GLN:O	1:E:50:ASP:HB3	2.19	0.41
1:E:381:ASP:OD2	1:E:384:TYR:N	2.49	0.41
1:E:723:ASP:HA	1:E:726:TYR:CD2	2.55	0.41
1:F:263:VAL:HG22	1:F:341:LEU:HD13	2.01	0.41
1:F:690:LEU:O	1:F:716:ASN:ND2	2.37	0.41
1:A:433:LEU:C	1:A:454:ILE:HG23	2.41	0.41
1:B:455:LYS:HD3	1:B:478:SER:H	1.84	0.41
1:C:32:SER:O	1:C:36:LEU:HD13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:158:PHE:HB2	1:C:248:PHE:CZ	2.55	0.41
1:D:765:GLU:HG3	1:D:766:ILE:HD12	2.02	0.41
1:E:293:CYS:SG	1:E:306:PHE:HB2	2.60	0.41
1:F:105:LEU:HD23	1:F:105:LEU:HA	1.74	0.41
1:F:243:GLU:O	1:F:246:LYS:HG2	2.20	0.41
1:F:724:GLU:HA	1:F:727:PHE:CE2	2.54	0.41
1:F:732:LYS:O	1:F:755:SER:OG	2.26	0.41
1:F:735:LYS:HE2	1:F:735:LYS:HB3	1.80	0.41
1:F:759:VAL:HB	1:F:764:PHE:HE2	1.85	0.41
1:G:284:VAL:HG21	1:G:324:LEU:HD21	2.00	0.41
1:A:246:LYS:HB3	1:A:246:LYS:HE2	1.72	0.41
1:A:726:TYR:OH	1:A:745:SER:HB3	2.20	0.41
1:A:775:ARG:H	1:A:775:ARG:HG3	1.72	0.41
1:B:319:LEU:HD23	1:B:319:LEU:HA	1.75	0.41
1:C:724:GLU:HA	1:C:727:PHE:CD2	2.55	0.41
1:D:606:HIS:HA	1:D:609:PHE:CE2	2.55	0.41
1:E:120:LEU:HD21	1:E:310:HIS:CE1	2.54	0.41
1:E:573:HIS:ND1	1:E:597:VAL:HB	2.35	0.41
1:E:652:ILE:HD11	1:E:672:ILE:HD13	2.02	0.41
1:E:654:GLU:HG3	1:E:678:HIS:CG	2.55	0.41
1:E:779:ARG:CA	1:E:800:MET:HE3	2.44	0.41
1:F:526:SER:HA	1:F:533:VAL:HA	2.02	0.41
1:F:668:SER:O	1:F:670:ASN:ND2	2.53	0.41
1:F:735:LYS:HA	1:F:758:ASP:HB3	2.02	0.41
1:A:634:GLN:NE2	1:A:658:LYS:HD3	2.35	0.41
1:B:637:ARG:HA	1:B:637:ARG:HD3	1.80	0.41
1:B:785:GLU:H	1:B:785:GLU:HG2	1.68	0.41
1:C:438:ASP:HA	1:C:441:PHE:HD2	1.85	0.41
1:C:643:LYS:HB3	1:C:645:TRP:HD1	1.86	0.41
1:C:759:VAL:O	1:C:762:ASN:ND2	2.53	0.41
1:D:46:GLN:HA	1:D:50:ASP:HB2	2.03	0.41
1:E:334:CYS:O	1:E:338:LEU:N	2.34	0.41
1:E:375:HIS:O	1:E:379:GLN:HG2	2.20	0.41
1:F:457:VAL:HB	1:F:479:VAL:HG13	2.02	0.41
1:A:58:ARG:NH1	1:A:305:ASN:HD22	2.19	0.41
1:A:121:HIS:CD2	1:A:286:LYS:HG2	2.55	0.41
1:A:157:HIS:CE1	1:A:248:PHE:HD1	2.37	0.41
1:A:502:ASP:C	1:A:504:ARG:H	2.23	0.41
1:C:451:LEU:O	1:C:475:HIS:N	2.52	0.41
1:C:479:VAL:O	1:C:507:PRO:HB3	2.21	0.41
1:C:481:ILE:HD12	1:C:486:LEU:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:666:SER:HA	1:C:689:ASP:HB3	2.02	0.41
1:C:696:ARG:HH21	1:C:717:LYS:NZ	2.18	0.41
1:D:409:TRP:CZ2	1:D:433:LEU:HD21	2.55	0.41
1:E:448:SER:HA	1:E:471:GLU:O	2.21	0.41
1:E:499:LYS:HA	1:E:522:VAL:HB	2.03	0.41
1:F:454:ILE:HG22	1:F:457:VAL:CG2	2.51	0.41
1:A:242:PHE:CE1	1:A:391:PHE:HA	2.54	0.41
1:A:672:ILE:HG13	1:A:695:ILE:HD11	2.02	0.41
1:A:765:GLU:HG2	1:A:766:ILE:H	1.86	0.41
1:B:270:VAL:HG23	1:B:334:CYS:HB3	2.02	0.41
1:B:630:ILE:HG22	1:B:659:LEU:HD21	2.02	0.41
1:B:779:ARG:N	1:B:800:MET:HB3	2.36	0.41
1:F:121:HIS:CG	1:F:286:LYS:HG2	2.56	0.41
1:F:310:HIS:NE2	1:F:313:ALA:HB2	2.35	0.41
1:F:392:LEU:HD23	1:F:392:LEU:O	2.21	0.41
1:F:523:GLY:O	1:F:551:SER:OG	2.26	0.41
1:A:346:LEU:HD22	1:A:375:HIS:CG	2.56	0.41
1:A:430:LEU:N	1:A:450:LYS:HZ2	2.19	0.41
1:B:144:PHE:HB3	1:B:265:GLN:HE21	1.86	0.41
1:B:318:LYS:H	1:B:318:LYS:HG2	1.57	0.41
1:D:418:LEU:HB3	1:D:426:LEU:HD11	2.03	0.41
1:D:496:LEU:O	1:D:520:TYR:N	2.49	0.41
1:F:46:GLN:HG3	1:F:50:ASP:CB	2.51	0.41
1:A:273:PHE:CE2	1:A:274:LEU:CD2	3.03	0.41
1:A:307:SER:CB	1:G:300:MET:CE	2.99	0.41
1:A:729:LYS:HB3	1:A:753:PHE:CD2	2.55	0.41
1:B:255:GLY:O	1:B:367:LYS:NZ	2.53	0.41
1:B:516:LEU:O	1:B:544:LEU:HD22	2.19	0.41
1:B:637:ARG:O	1:B:661:SER:OG	2.22	0.41
1:D:252:VAL:HB	1:D:370:PHE:HE1	1.85	0.41
1:D:778:LYS:NZ	1:D:800:MET:HA	2.36	0.41
1:E:683:ASN:OD1	1:E:683:ASN:N	2.53	0.41
1:F:733:THR:HG23	1:F:756:TYR:HD2	1.86	0.41
1:A:309:ASN:HB3	1:G:110:PHE:HE1	1.86	0.41
1:A:520:TYR:O	1:A:521:LEU:HD13	2.21	0.41
1:A:603:ARG:HD3	1:A:603:ARG:HA	1.92	0.41
1:A:634:GLN:HE22	1:A:658:LYS:HD3	1.85	0.41
1:A:680:PHE:CD1	1:A:701:GLU:HB2	2.56	0.41
1:C:27:PHE:O	1:C:31:LEU:HG	2.21	0.41
1:C:49:GLN:O	1:C:51:LYS:NZ	2.53	0.41
1:C:104:ASP:OD1	1:C:104:ASP:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:123:TYR:HB2	1:C:283:LEU:HD13	2.03	0.41
1:C:499:LYS:HG2	1:C:522:VAL:HB	2.02	0.41
1:C:632:SER:HA	1:C:635:HIS:CD2	2.56	0.41
1:C:654:GLU:HG3	1:C:678:HIS:CG	2.56	0.41
1:C:656:ILE:HD11	1:C:665:LEU:HD11	2.02	0.41
1:C:723:ASP:HA	1:C:726:TYR:HD2	1.85	0.41
1:D:102:ASP:OD1	1:E:98:GLY:HA3	2.19	0.41
1:D:147:LYS:HD3	1:D:147:LYS:HA	1.95	0.41
1:D:323:TYR:O	1:D:327:VAL:HG23	2.21	0.41
1:D:332:LEU:O	1:D:335:LEU:HB2	2.21	0.41
1:E:134:HIS:O	1:E:272:LYS:NZ	2.54	0.41
1:E:353:TYR:O	1:E:357:GLU:N	2.46	0.41
1:E:397:GLU:HG2	1:E:401:LYS:NZ	2.36	0.41
1:E:496:LEU:O	1:E:520:TYR:N	2.54	0.41
1:F:449:LEU:HD23	1:F:472:LEU:HD13	2.03	0.41
1:F:550:LYS:NZ	1:F:573:HIS:HB2	2.36	0.41
1:F:751:LEU:HB3	1:F:754:LEU:HB2	2.03	0.41
1:A:510:MET:HA	1:A:513:LEU:HG	2.02	0.41
1:A:563:VAL:HG13	1:A:567:LEU:HB2	2.03	0.41
1:A:638:LYS:HA	1:A:638:LYS:HD3	1.92	0.41
1:A:699:PRO:HA	1:A:700:PRO:HD3	1.96	0.41
1:A:759:VAL:O	1:A:762:ASN:ND2	2.52	0.41
1:B:383:LEU:HD11	1:B:387:ARG:HH21	1.85	0.41
1:C:99:LEU:HD12	1:C:99:LEU:HA	1.84	0.41
1:D:172:THR:HG1	1:D:387:ARG:HH12	1.67	0.41
1:D:337:THR:O	1:D:341:LEU:N	2.53	0.41
1:D:649:ILE:HG21	1:D:667:PHE:HE1	1.86	0.41
1:E:273:PHE:HE1	1:E:328:SER:HA	1.87	0.41
1:E:280:ASN:HB2	1:E:324:LEU:HD11	2.03	0.41
1:E:415:ARG:HA	1:E:418:LEU:HD12	2.03	0.41
1:E:675:LEU:HD22	1:E:695:ILE:HD12	2.02	0.41
1:A:659:LEU:HB3	1:A:662:LEU:HG	2.03	0.40
1:B:508:PRO:O	1:B:511:TYR:HD1	2.04	0.40
1:B:586:LYS:HG2	1:B:607:ALA:HA	2.03	0.40
1:B:712:SER:HB2	1:B:735:LYS:HD3	2.02	0.40
1:C:38:ILE:HG13	1:C:319:LEU:HD21	2.03	0.40
1:C:55:LEU:HA	1:C:55:LEU:HD23	1.73	0.40
1:D:171:THR:HA	1:D:390:VAL:HG11	2.02	0.40
1:E:397:GLU:HG2	1:E:401:LYS:HZ3	1.85	0.40
1:F:252:VAL:HB	1:F:370:PHE:CZ	2.56	0.40
1:F:427:GLU:HA	1:F:448:SER:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:480:LYS:HA	1:F:509:TRP:CZ2	2.56	0.40
1:F:721:LEU:HD23	1:F:721:LEU:HA	1.89	0.40
1:A:555:LYS:HB2	1:A:581:MET:CE	2.51	0.40
1:A:713:ILE:HD11	1:A:736:ILE:HD12	2.03	0.40
1:B:249:ARG:HE	1:B:253:GLU:CD	2.23	0.40
1:B:335:LEU:HD23	1:B:335:LEU:HA	1.77	0.40
1:B:405:LEU:HD12	1:B:406:ASN:N	2.36	0.40
1:C:418:LEU:HD11	1:C:443:ILE:HG21	2.04	0.40
1:D:300:MET:HE3	1:D:300:MET:HB3	1.98	0.40
1:E:497:SER:HB3	1:E:499:LYS:HZ2	1.86	0.40
1:E:735:LYS:HE2	1:E:735:LYS:HB3	1.85	0.40
1:F:500:PHE:CE1	1:F:521:LEU:HD12	2.55	0.40
1:F:665:LEU:HD21	1:F:679:LEU:HD11	2.03	0.40
1:A:377:ILE:HA	1:A:377:ILE:HD13	1.82	0.40
1:A:620:LYS:HG3	1:A:646:HIS:HD2	1.86	0.40
1:B:32:SER:HB3	1:B:139:MET:SD	2.61	0.40
1:B:355:ARG:HH22	1:B:356:GLN:HE21	1.69	0.40
1:B:556:ILE:HG23	1:B:584:ASN:HB2	2.02	0.40
1:B:595:GLU:HA	1:B:618:ASP:HB3	2.03	0.40
1:C:276:ILE:O	1:C:280:ASN:HB2	2.22	0.40
1:D:238:ALA:HB1	1:D:391:PHE:CZ	2.56	0.40
1:D:504:ARG:HD3	1:D:505:GLU:HG3	2.02	0.40
1:D:648:SER:HA	1:D:671:LYS:NZ	2.36	0.40
1:E:38:ILE:HD13	1:E:323:TYR:HB2	2.03	0.40
1:E:429:PRO:HA	1:E:450:LYS:HG2	2.02	0.40
1:F:120:LEU:HA	1:F:120:LEU:HD12	1.81	0.40
1:F:478:SER:HB3	1:F:504:ARG:CZ	2.52	0.40
1:F:490:LYS:HG2	1:F:513:LEU:HA	2.03	0.40
1:G:114:MET:HG3	1:G:297:ILE:HD11	2.02	0.40
1:G:140:LEU:HD12	1:G:140:LEU:HA	1.97	0.40
1:A:447:GLN:CA	1:A:469:LEU:HA	2.47	0.40
1:A:683:ASN:HA	1:A:705:LEU:HD23	2.04	0.40
1:C:490:LYS:HG2	1:C:513:LEU:HA	2.02	0.40
1:D:381:ASP:HA	1:D:382:PRO:HD3	1.98	0.40
1:D:495:VAL:HG22	1:D:518:GLU:HB2	2.04	0.40
1:E:120:LEU:HA	1:E:120:LEU:HD12	1.81	0.40
1:E:418:LEU:HD22	1:E:426:LEU:HG	2.03	0.40
1:E:475:HIS:N	1:E:475:HIS:CD2	2.89	0.40
1:F:415:ARG:HG3	1:F:443:ILE:HD13	2.04	0.40
1:F:726:TYR:CZ	1:F:745:SER:HB3	2.56	0.40
1:G:44:THR:O	1:G:48:MET:CE	2.67	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:248:PHE:HE2	1:A:370:PHE:HE1	1.69	0.40
1:A:744:LEU:HD21	1:A:771:LEU:HD21	2.03	0.40
1:B:294:ASN:OD1	1:B:294:ASN:N	2.53	0.40
1:B:298:GLN:C	1:B:300:MET:H	2.25	0.40
1:B:312:MET:O	1:B:313:ALA:C	2.60	0.40
1:B:518:GLU:HA	1:B:546:ILE:O	2.22	0.40
1:C:19:VAL:HA	1:C:380:TYR:CE1	2.57	0.40
1:C:162:LEU:HA	1:C:388:PHE:CD1	2.56	0.40
1:C:538:LEU:HD12	1:C:560:VAL:HA	2.04	0.40
1:C:540:ASP:O	1:C:542:LYS:N	2.54	0.40
1:D:735:LYS:HE2	1:D:735:LYS:HB3	1.94	0.40
1:E:292:ASP:OD1	1:E:293:CYS:N	2.55	0.40
1:E:418:LEU:HB3	1:E:426:LEU:HD11	2.03	0.40
1:F:458:MET:SD	1:F:459:ILE:N	2.95	0.40
1:F:637:ARG:HD3	1:F:637:ARG:HA	1.90	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	684/811 (84%)	631 (92%)	53 (8%)	0	100	100
1	B	684/811 (84%)	630 (92%)	53 (8%)	1 (0%)	48	78
1	C	684/811 (84%)	648 (95%)	35 (5%)	1 (0%)	48	78
1	D	684/811 (84%)	647 (95%)	36 (5%)	1 (0%)	48	78
1	E	684/811 (84%)	646 (94%)	37 (5%)	1 (0%)	48	78
1	F	684/811 (84%)	641 (94%)	43 (6%)	0	100	100
1	G	186/811 (23%)	177 (95%)	9 (5%)	0	100	100
All	All	4290/5677 (76%)	4020 (94%)	266 (6%)	4 (0%)	50	78



All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	E	649	ILE
1	B	649	ILE
1	C	649	ILE
1	D	649	ILE

### 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	
1	A	642/757 (85%)	622 (97%)	20 (3%)	35	58
1	B	642/757 (85%)	621 (97%)	21 (3%)	33	57
1	C	642/757 (85%)	621 (97%)	21 (3%)	33	57
1	D	642/757 (85%)	617 (96%)	25 (4%)	27	53
1	E	642/757 (85%)	618 (96%)	24 (4%)	29	54
1	F	642/757 (85%)	624 (97%)	18 (3%)	38	60
1	G	178/757 (24%)	172 (97%)	6 (3%)	32	56
All	All	4030/5299 (76%)	3895 (97%)	135 (3%)	35	57

All (135) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	17	PHE
1	A	29	ASP
1	A	58	ARG
1	A	138	PHE
1	A	247	LYS
1	A	249	ARG
1	A	256	ASP
1	A	273	PHE
1	A	322	CYS
1	A	362	ASP
1	A	378	ASP
1	A	473	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	510	MET
1	A	531	ARG
1	A	555	LYS
1	A	572	ILE
1	A	581	MET
1	A	651	TYR
1	A	667	PHE
1	A	779	ARG
1	B	20	LEU
1	B	58	ARG
1	B	249	ARG
1	B	273	PHE
1	B	279	TYR
1	B	294	ASN
1	B	344	ARG
1	B	432	MET
1	B	458	MET
1	B	472	LEU
1	B	473	SER
1	B	510	MET
1	B	520	TYR
1	B	555	LYS
1	B	570	MET
1	B	572	ILE
1	B	582	LEU
1	B	598	HIS
1	B	609	PHE
1	B	635	HIS
1	B	779	ARG
1	C	35	MET
1	C	37	MET
1	C	96	MET
1	C	102	ASP
1	C	118	ARG
1	C	249	ARG
1	C	256	ASP
1	C	361	ASP
1	C	376	MET
1	C	404	ASN
1	C	458	MET
1	C	510	MET
1	C	531	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	555	LYS
1	C	570	MET
1	C	572	ILE
1	C	598	HIS
1	C	623	ASN
1	C	666	SER
1	C	673	GLU
1	C	779	ARG
1	D	37	MET
1	D	46	GLN
1	D	102	ASP
1	D	106	GLN
1	D	145	TRP
1	D	166	PHE
1	D	249	ARG
1	D	273	PHE
1	D	294	ASN
1	D	362	ASP
1	D	473	SER
1	D	475	HIS
1	D	503	MET
1	D	504	ARG
1	D	531	ARG
1	D	555	LYS
1	D	581	MET
1	D	588	MET
1	D	650	THR
1	D	657	LYS
1	D	671	LYS
1	D	750	ASN
1	D	759	VAL
1	D	775	ARG
1	D	779	ARG
1	E	27	PHE
1	E	35	MET
1	E	96	MET
1	E	139	MET
1	E	141	CYS
1	E	166	PHE
1	E	249	ARG
1	E	273	PHE
1	E	344	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	369	ASP
1	E	376	MET
1	E	388	PHE
1	E	404	ASN
1	E	458	MET
1	E	510	MET
1	E	531	ARG
1	E	555	LYS
1	E	574	ASN
1	E	666	SER
1	E	672	ILE
1	E	756	TYR
1	E	760	LYS
1	E	779	ARG
1	E	800	MET
1	F	48	MET
1	F	106	GLN
1	F	145	TRP
1	F	157	HIS
1	F	242	PHE
1	F	251	HIS
1	F	273	PHE
1	F	279	TYR
1	F	404	ASN
1	F	482	HIS
1	F	511	TYR
1	F	531	ARG
1	F	555	LYS
1	F	572	ILE
1	F	581	MET
1	F	651	TYR
1	F	759	VAL
1	F	779	ARG
1	G	35	MET
1	G	37	MET
1	G	48	MET
1	G	138	PHE
1	G	273	PHE
1	G	326	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (16) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	310	HIS
1	A	646	HIS
1	B	265	GLN
1	B	294	ASN
1	B	305	ASN
1	B	406	ASN
1	C	265	GLN
1	C	310	HIS
1	C	375	HIS
1	C	402	GLN
1	D	49	GLN
1	D	655	HIS
1	E	375	HIS
1	E	406	ASN
1	F	305	ASN
1	G	134	HIS

### 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 oligosaccharides 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.

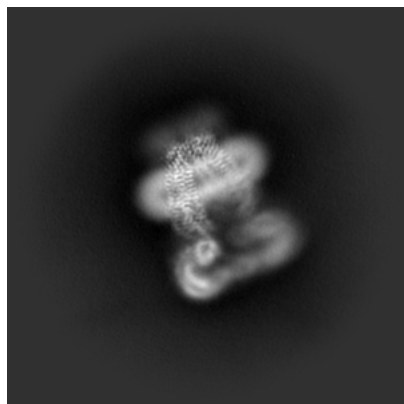
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-19495. These allow visual inspection of the internal detail of the map and identification of artifacts.

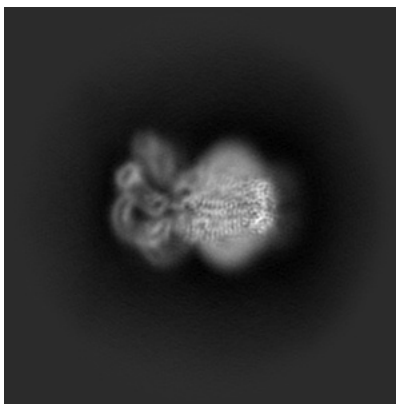
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

### 6.1 Orthogonal projections [i](#)

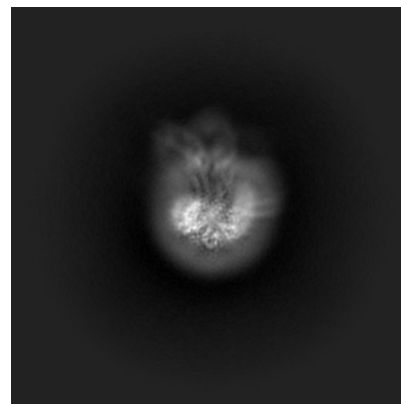
#### 6.1.1 Primary map



X

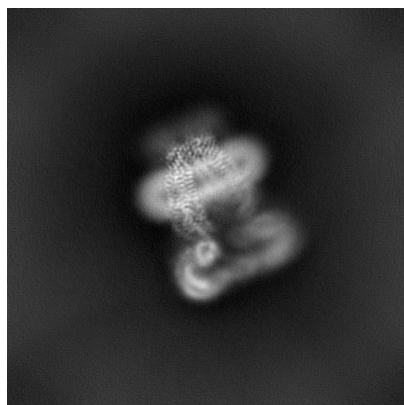


Y

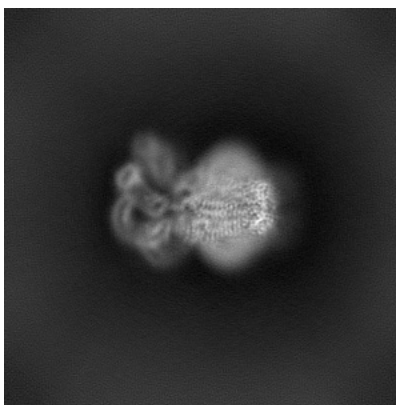


Z

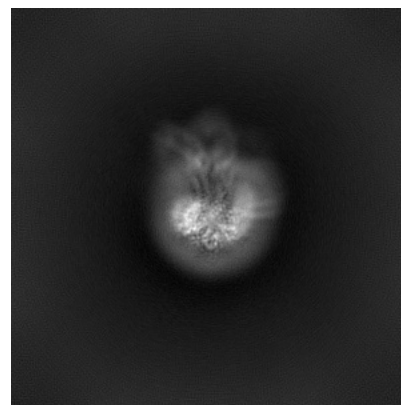
#### 6.1.2 Raw map



X



Y

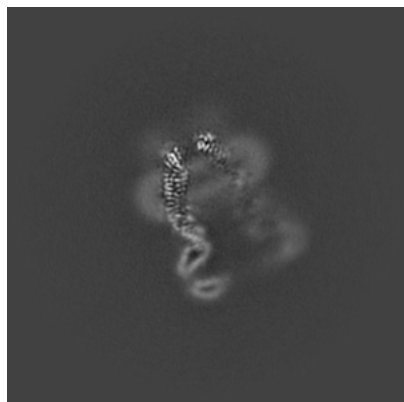


Z

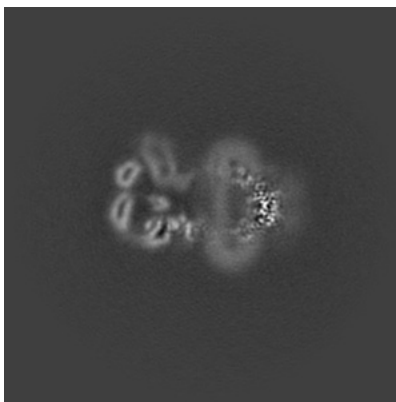
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

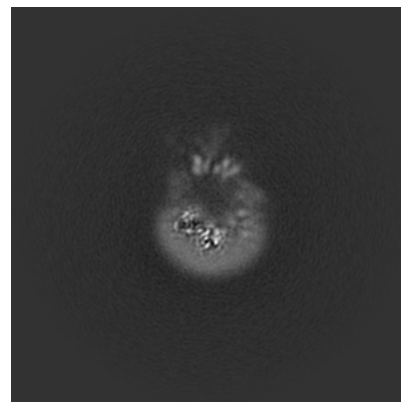
### 6.2.1 Primary map



X Index: 168

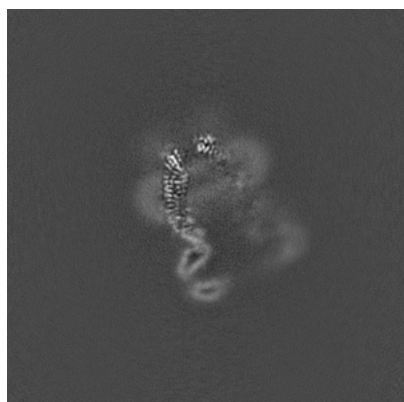


Y Index: 168

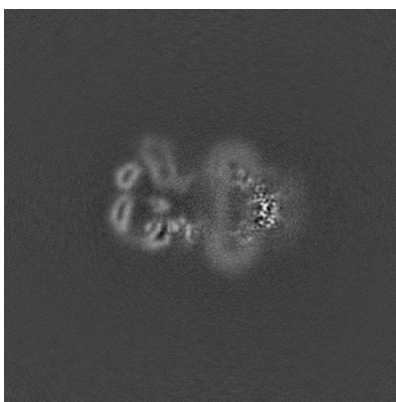


Z Index: 168

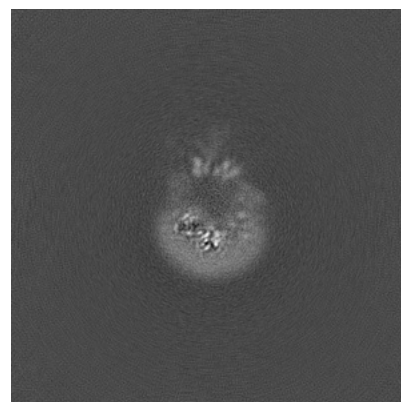
### 6.2.2 Raw map



X Index: 168



Y Index: 168



Z Index: 168

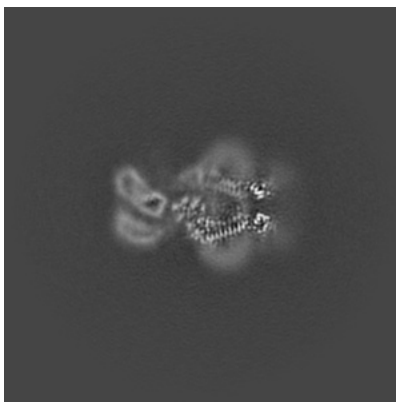
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

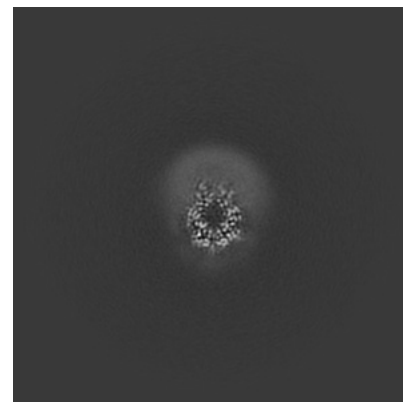
### 6.3.1 Primary map



X Index: 154

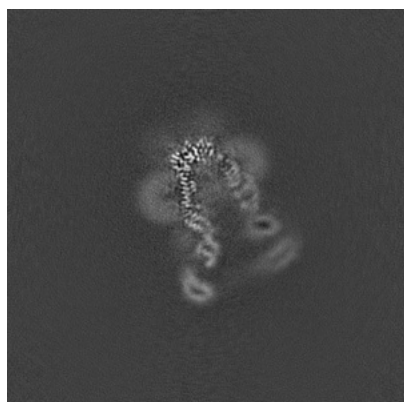


Y Index: 152

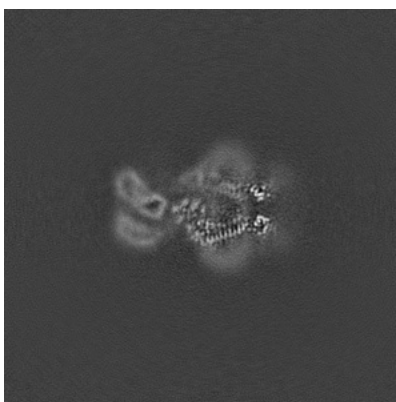


Z Index: 213

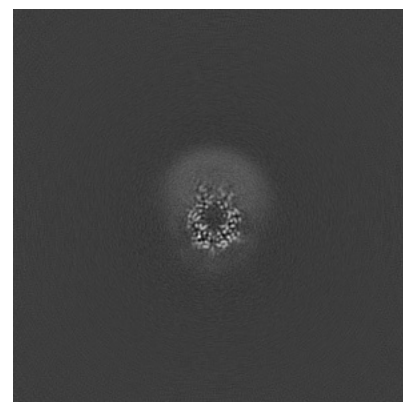
### 6.3.2 Raw map



X Index: 154



Y Index: 152

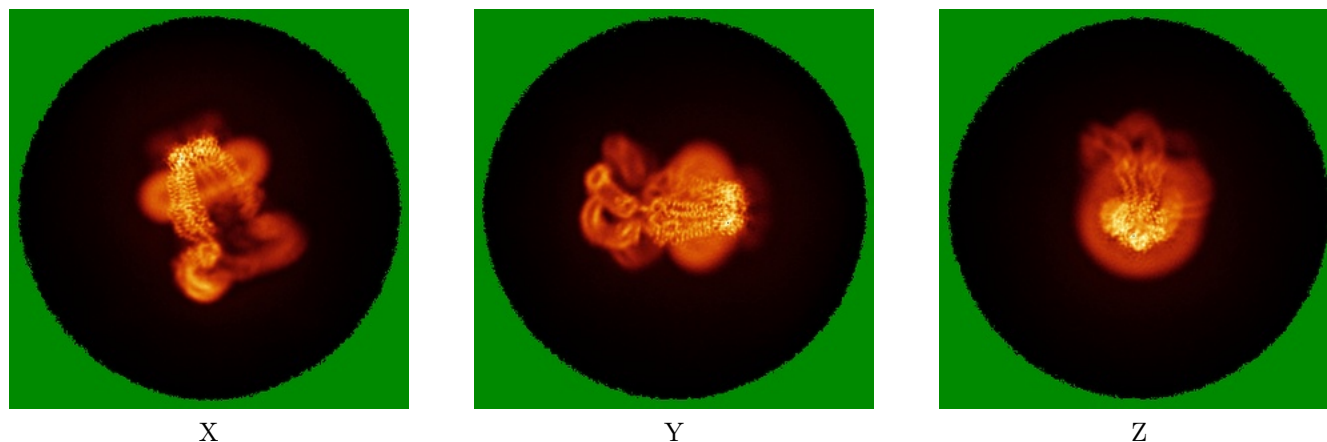


Z Index: 213

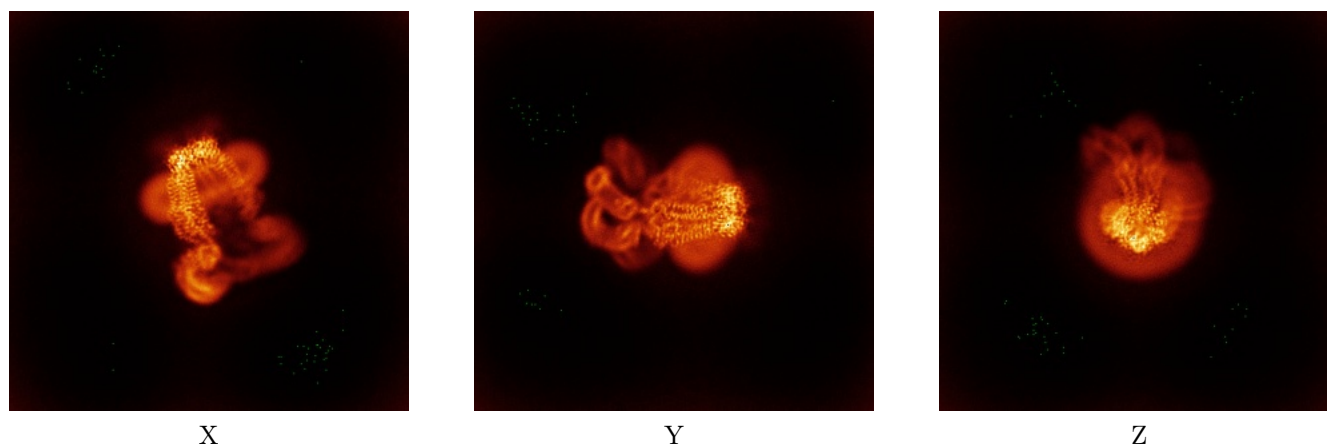
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal standard-deviation projections (False-color) [i](#)

### 6.4.1 Primary map



### 6.4.2 Raw map

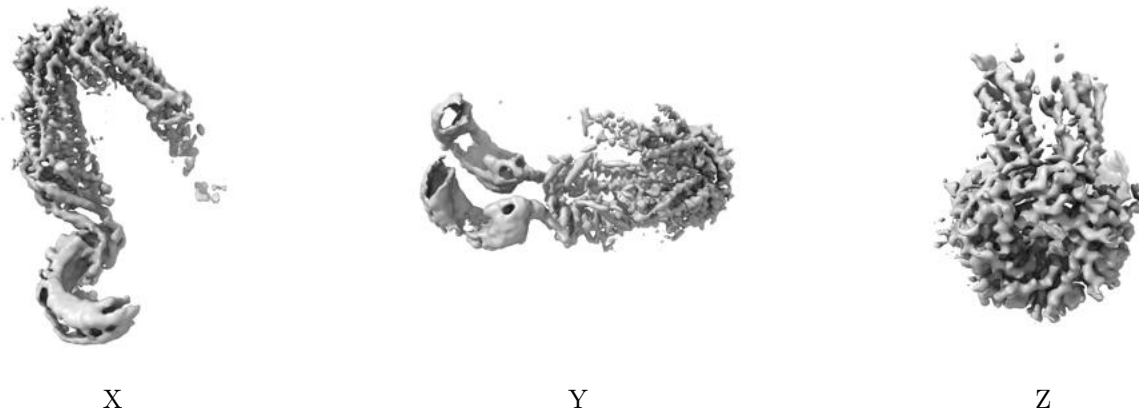


The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.



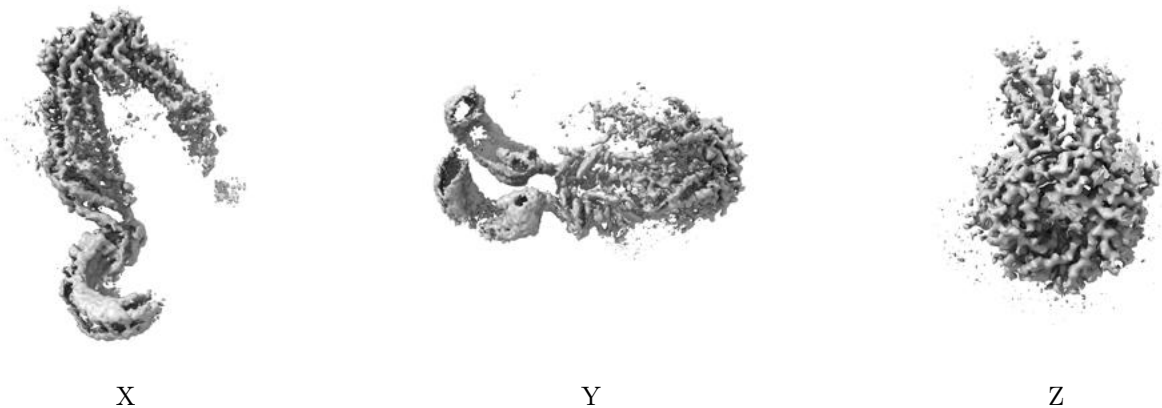
## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.175. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

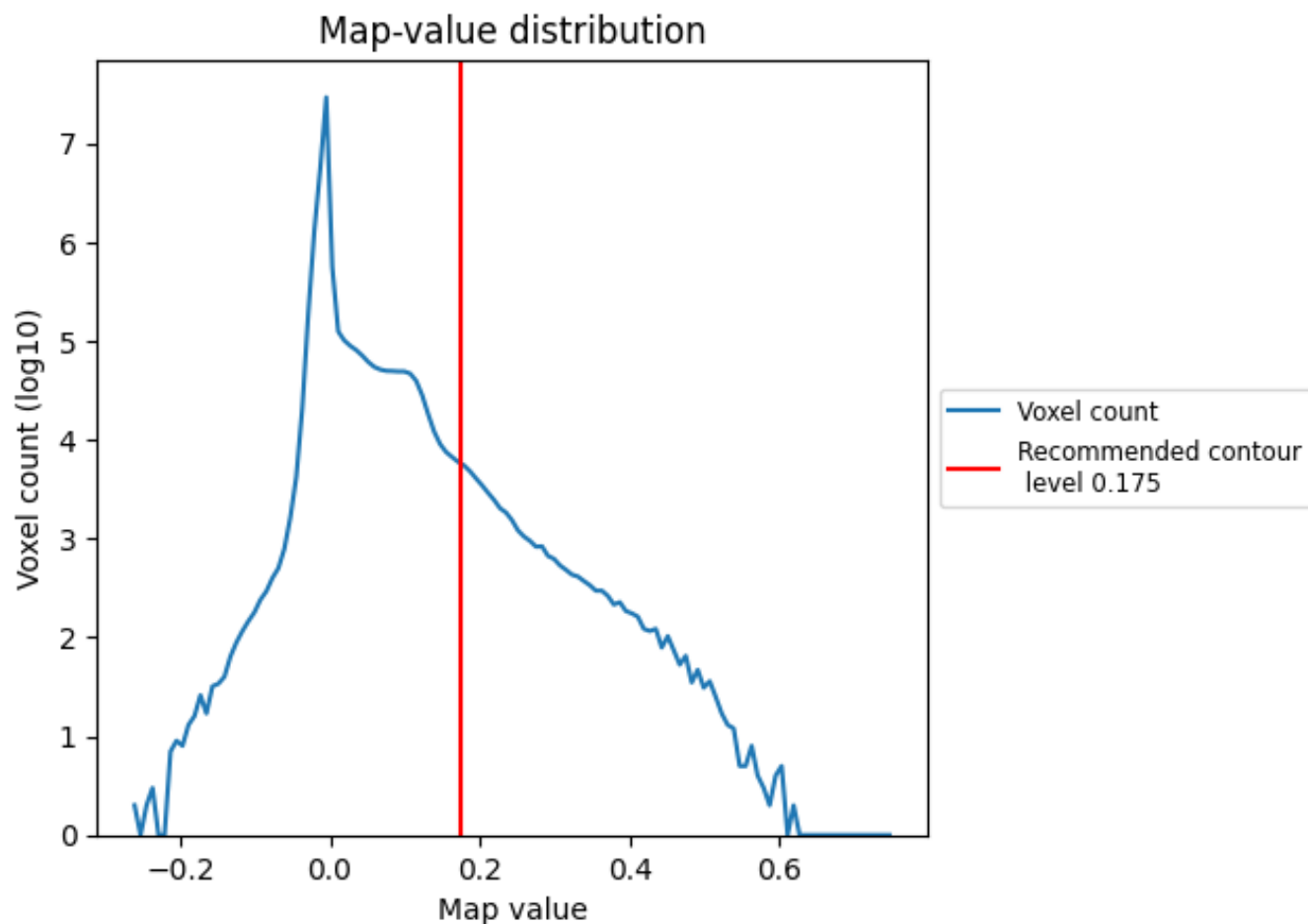
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

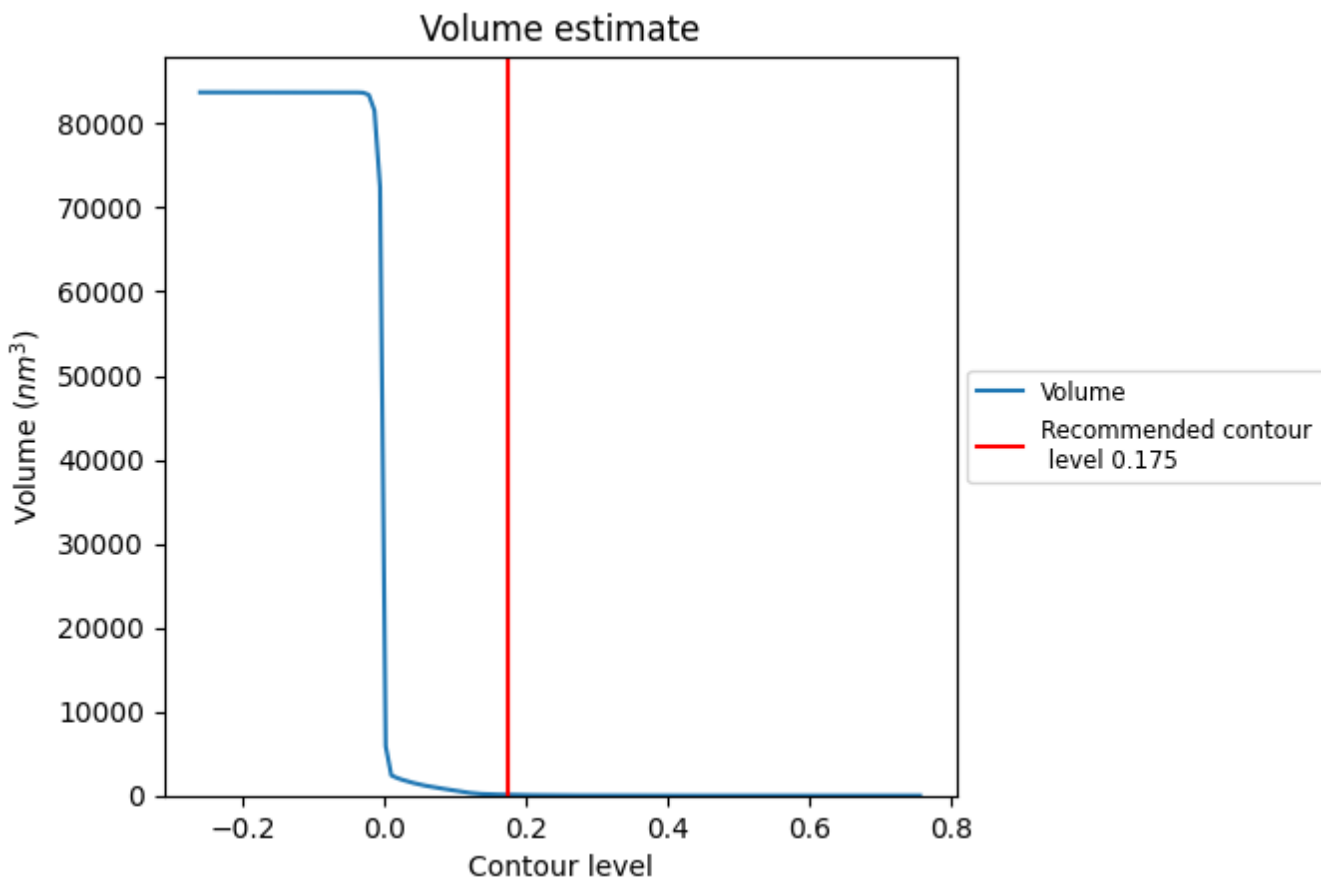
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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.

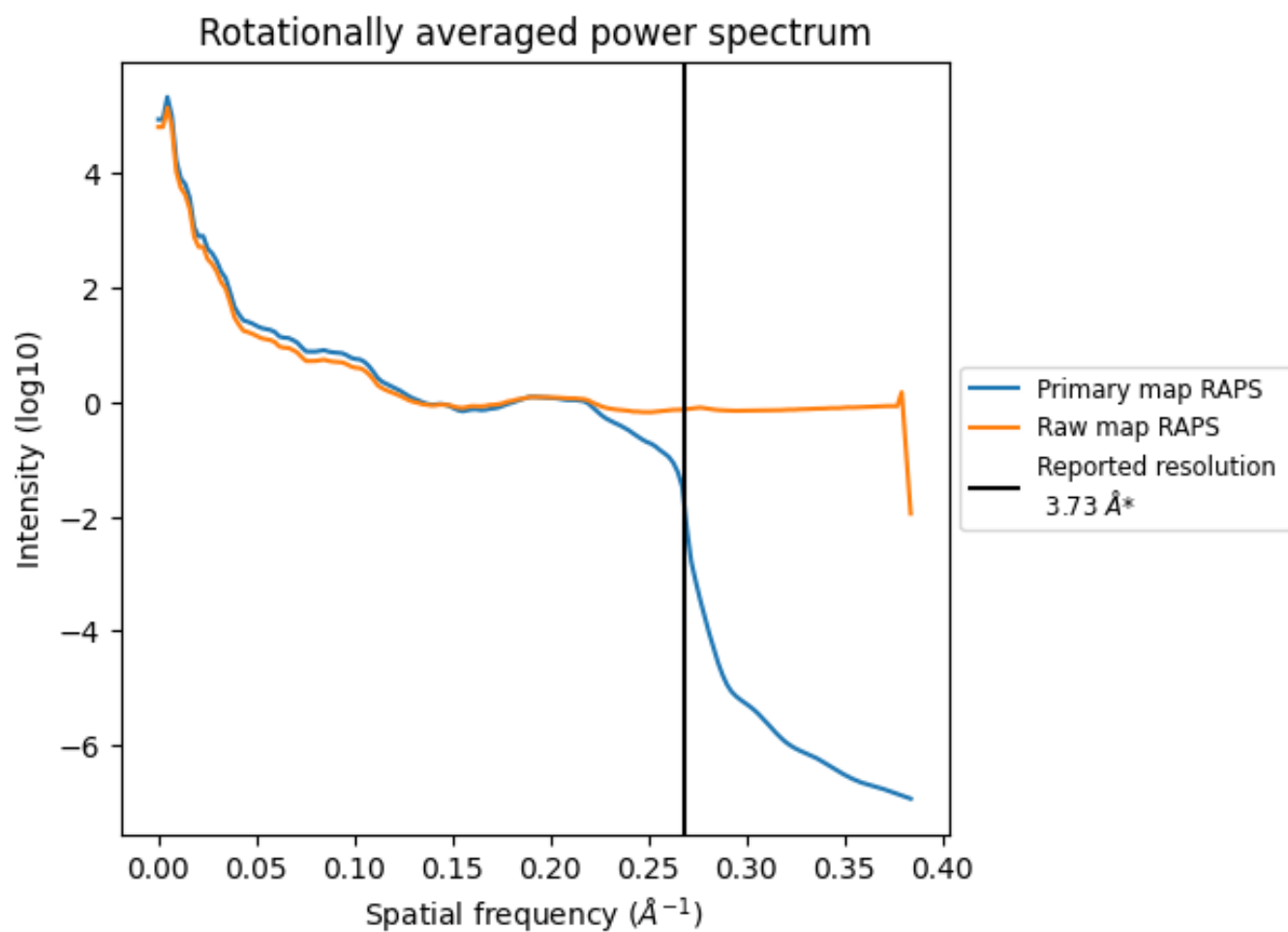
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 96 nm<sup>3</sup>; this corresponds to an approximate mass of 86 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

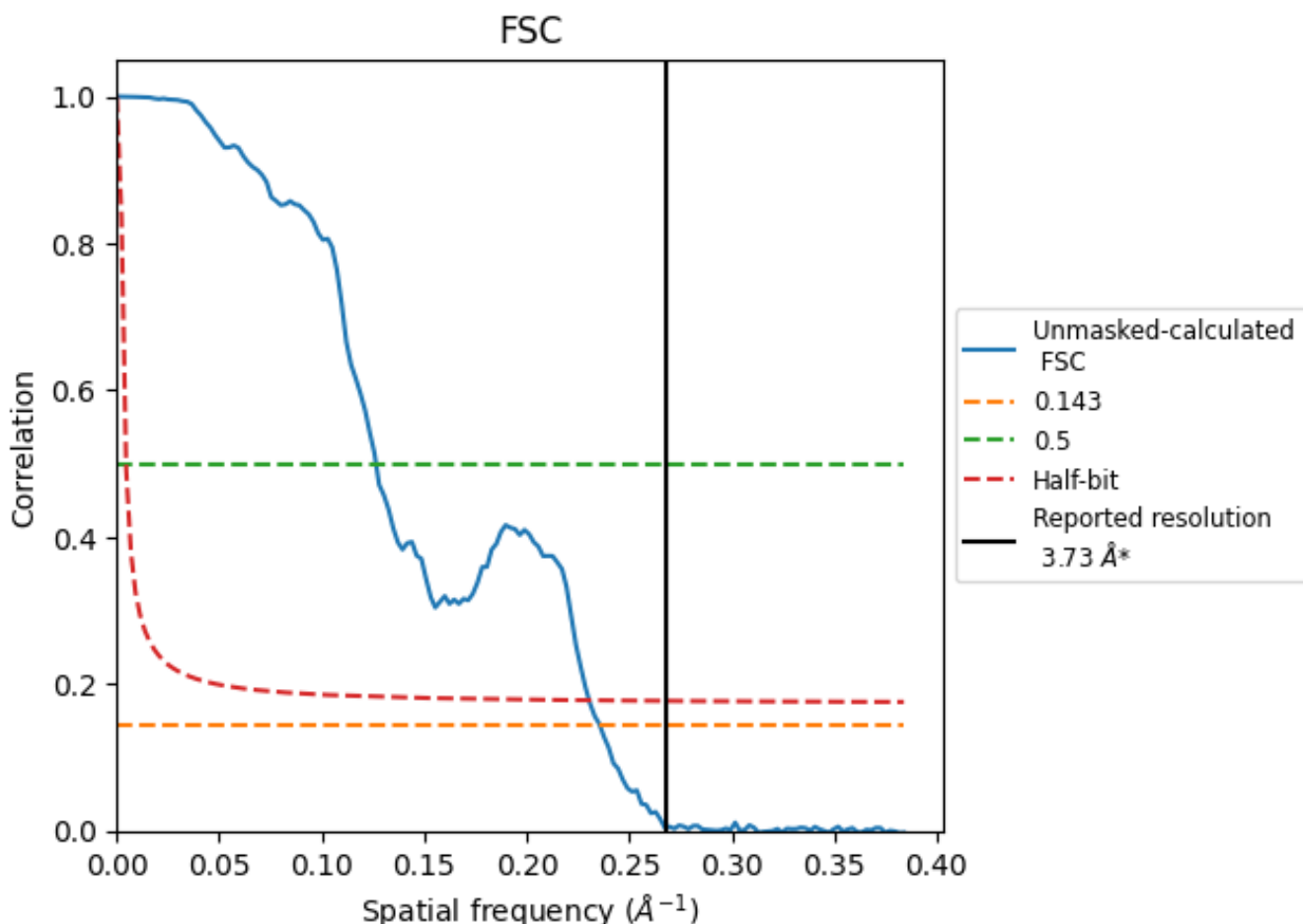


\*Reported resolution corresponds to spatial frequency of 0.268 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.268 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

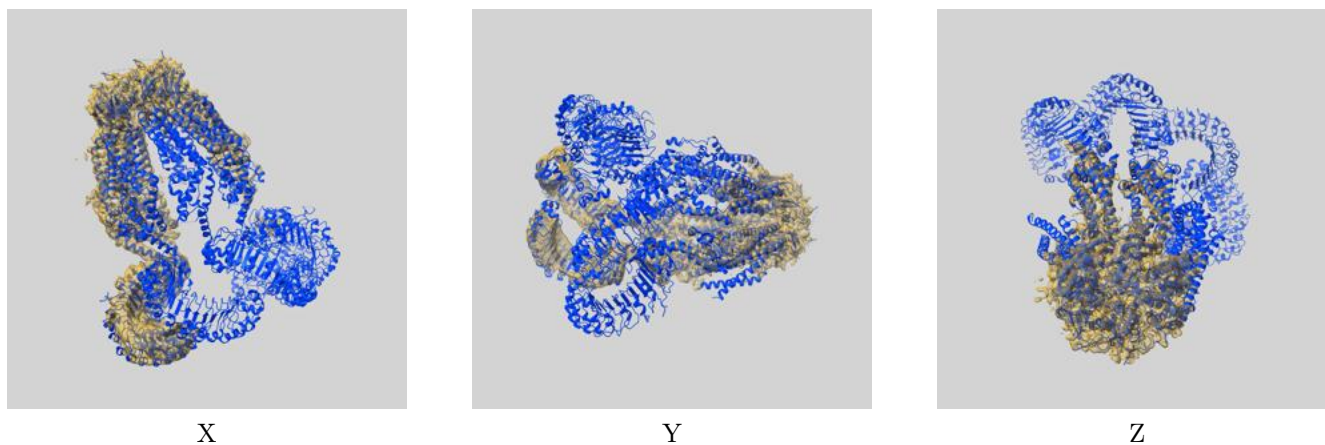
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.73	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.24	7.91	4.34

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.24 differs from the reported value 3.73 by more than 10 %

## 9 Map-model fit [i](#)

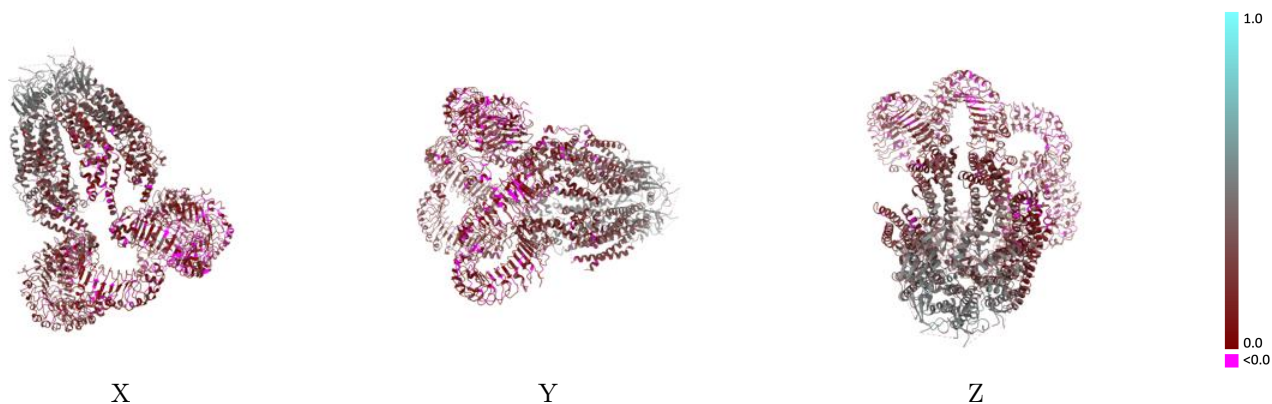
This section contains information regarding the fit between EMDB map EMD-19495 and PDB model 8RTS. Per-residue inclusion information can be found in section 3 on page 6.

### 9.1 Map-model overlay [i](#)



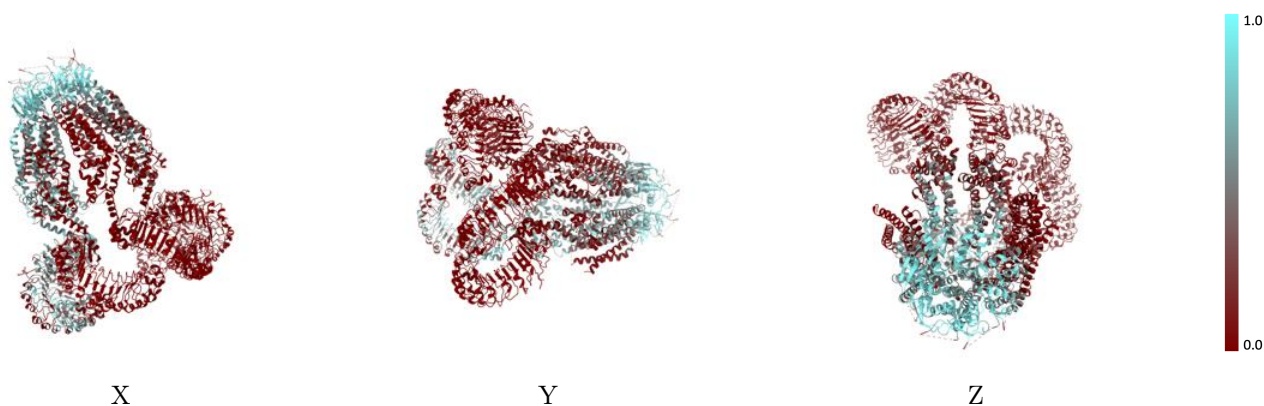
The images above show the 3D surface view of the map at the recommended contour level 0.175 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 9.2 Q-score mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to 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.

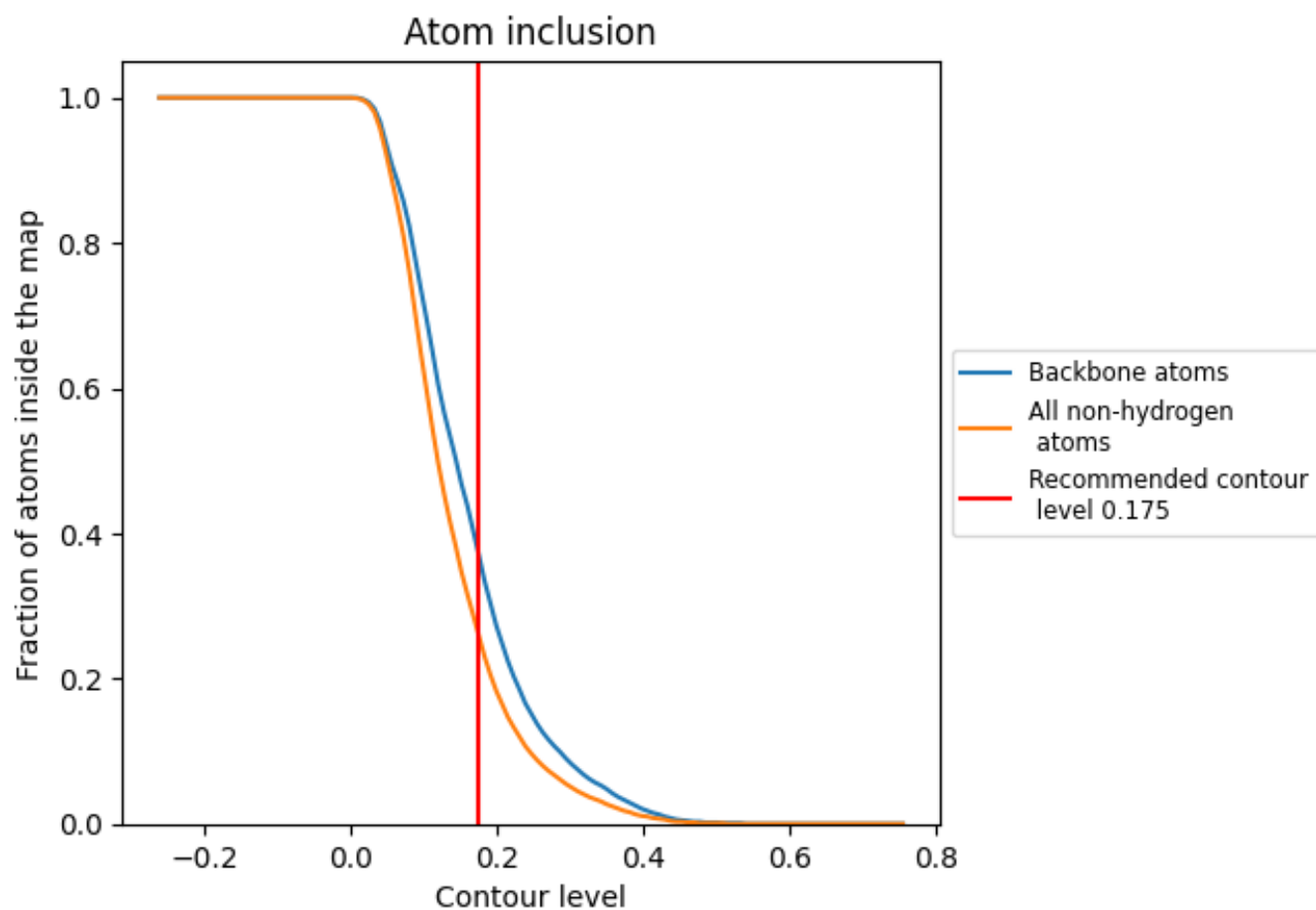
## 9.3 Atom inclusion mapped to coordinate model [i](#)



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 (0.175).



















## 9.4 Atom inclusion [i](#)



At the recommended contour level, 37% of all backbone atoms, 26% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.175) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.2620	 0.2250
A	 0.5320	 0.2850
B	 0.5110	 0.2810
C	 0.1200	 0.1990
D	 0.0810	 0.1600
E	 0.1410	 0.1940
F	 0.1800	 0.2150
G	 0.2770	 0.2860

