



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 12:43 AM UTC

PDB ID : 8ZJL / pdb_00008zjl
EMDB ID : EMD-60149
Title : Structure of DOCK5/ELMO1/Rac1 core (RhoG/DOCK5/ELMO1/Rac1 dataset, class 4)
Authors : Kukimoto-Niino, M.; Katsura, K.; Ishizuka-Katsura, Y.; Mishima-Tsumagari, C.; Yonemochi, M.; Inoue, M.; Nakagawa, R.; Kaushik, R.; Zhang, K.Y.J.; Shirouzu, M.
Deposited on : 2024-05-15
Resolution : 4.31 Å(reported)
Based on initial model : 7DPA

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

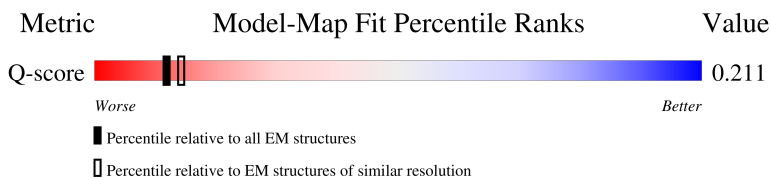
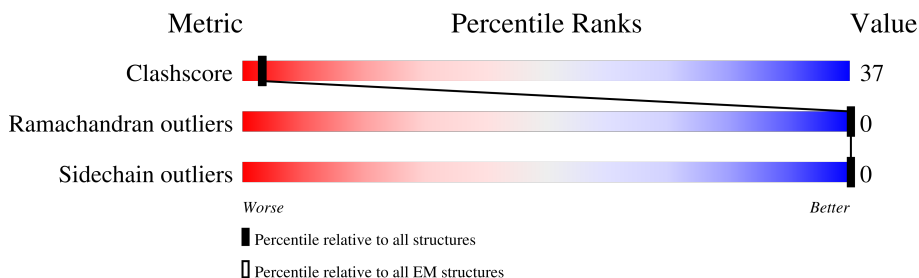
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.31 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	3904 (3.81 - 4.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	733	
1	D	733	
2	B	1648	
2	E	1648	

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Mol	Chain	Length	Quality of chain
3	C	184	 38% 58% .
3	F	184	 37% 59% .

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 32858 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 Engulfment and cell motility protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	198	Total	C	N	O	S	0	0
			1608	1018	277	303	10		
1	D	198	Total	C	N	O	S	0	0
			1608	1018	277	303	10		

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-5	GLY	-	expression tag	UNP Q92556
A	-4	GLY	-	expression tag	UNP Q92556
A	-3	SER	-	expression tag	UNP Q92556
A	-2	GLY	-	expression tag	UNP Q92556
A	-1	GLY	-	expression tag	UNP Q92556
A	0	SER	-	expression tag	UNP Q92556
D	-5	GLY	-	expression tag	UNP Q92556
D	-4	GLY	-	expression tag	UNP Q92556
D	-3	SER	-	expression tag	UNP Q92556
D	-2	GLY	-	expression tag	UNP Q92556
D	-1	GLY	-	expression tag	UNP Q92556
D	0	SER	-	expression tag	UNP Q92556

- Molecule 2 is a protein called Deducator of cytokinesis protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	1642	Total	C	N	O	S	0	0
			13436	8618	2264	2484	70		
2	E	1642	Total	C	N	O	S	0	0
			13436	8618	2264	2484	70		

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	-5	GLY	-	expression tag	UNP Q9H7D0

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Chain	Residue	Modelled	Actual	Comment	Reference
B	-4	GLY	-	expression tag	UNP Q9H7D0
B	-3	SER	-	expression tag	UNP Q9H7D0
B	-2	GLY	-	expression tag	UNP Q9H7D0
B	-1	GLY	-	expression tag	UNP Q9H7D0
B	0	SER	-	expression tag	UNP Q9H7D0
B	1285	ARG	LYS	variant	UNP Q9H7D0
E	-5	GLY	-	expression tag	UNP Q9H7D0
E	-4	GLY	-	expression tag	UNP Q9H7D0
E	-3	SER	-	expression tag	UNP Q9H7D0
E	-2	GLY	-	expression tag	UNP Q9H7D0
E	-1	GLY	-	expression tag	UNP Q9H7D0
E	0	SER	-	expression tag	UNP Q9H7D0
E	1285	ARG	LYS	variant	UNP Q9H7D0

- Molecule 3 is a protein called Ras-related C3 botulinum toxin substrate 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	177	Total	C	N	O	S	0	0
			1385	890	228	259	8		
3	F	177	Total	C	N	O	S	0	0
			1385	890	228	259	8		

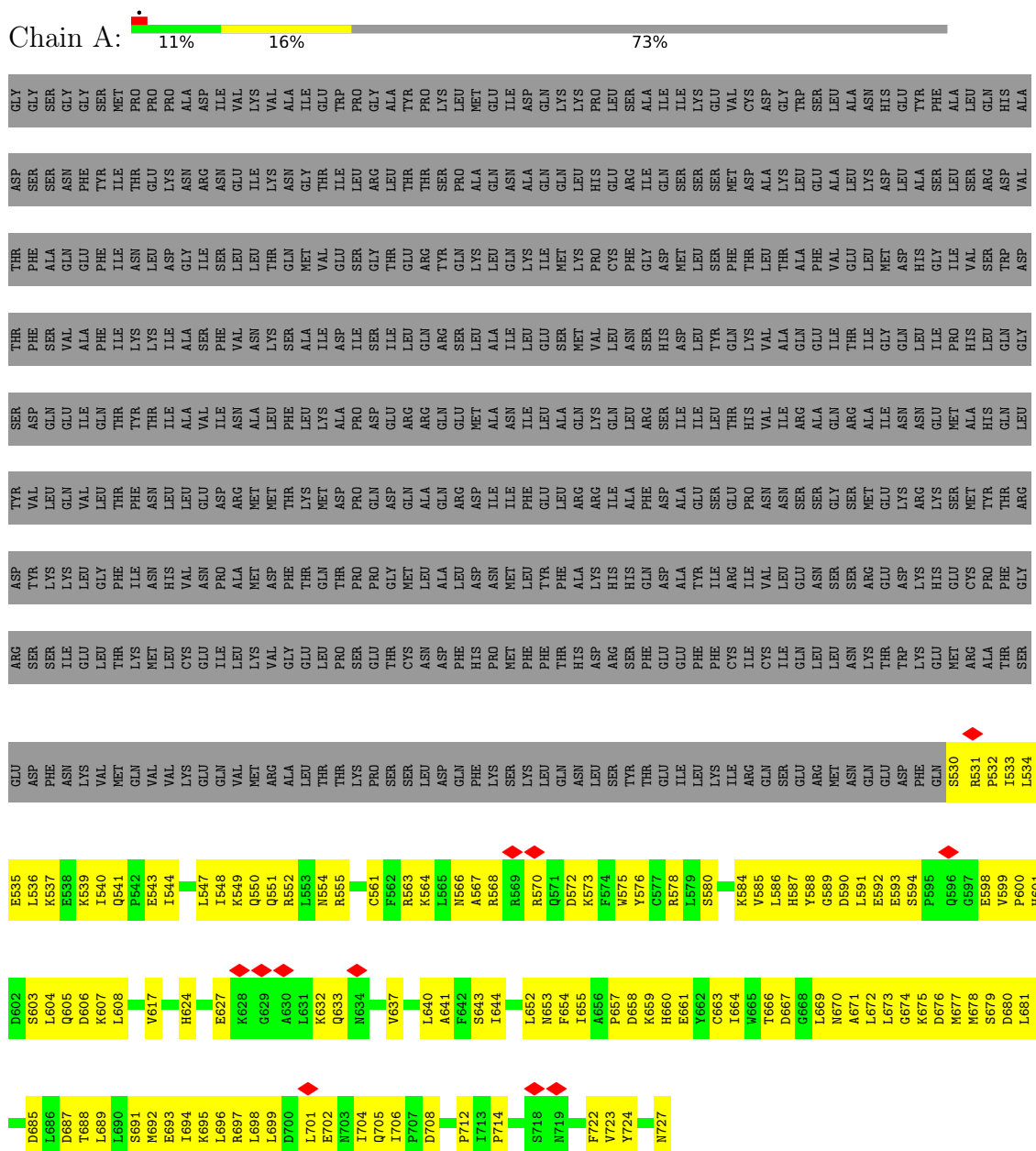
There are 16 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	-6	GLY	-	expression tag	UNP P63000
C	-5	SER	-	expression tag	UNP P63000
C	-4	SER	-	expression tag	UNP P63000
C	-3	GLY	-	expression tag	UNP P63000
C	-2	SER	-	expression tag	UNP P63000
C	-1	SER	-	expression tag	UNP P63000
C	0	GLY	-	expression tag	UNP P63000
C	15	ALA	GLY	engineered mutation	UNP P63000
F	-6	GLY	-	expression tag	UNP P63000
F	-5	SER	-	expression tag	UNP P63000
F	-4	SER	-	expression tag	UNP P63000
F	-3	GLY	-	expression tag	UNP P63000
F	-2	SER	-	expression tag	UNP P63000
F	-1	SER	-	expression tag	UNP P63000
F	0	GLY	-	expression tag	UNP P63000
F	15	ALA	GLY	engineered mutation	UNP P63000

3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Engulfment and cell motility protein 1



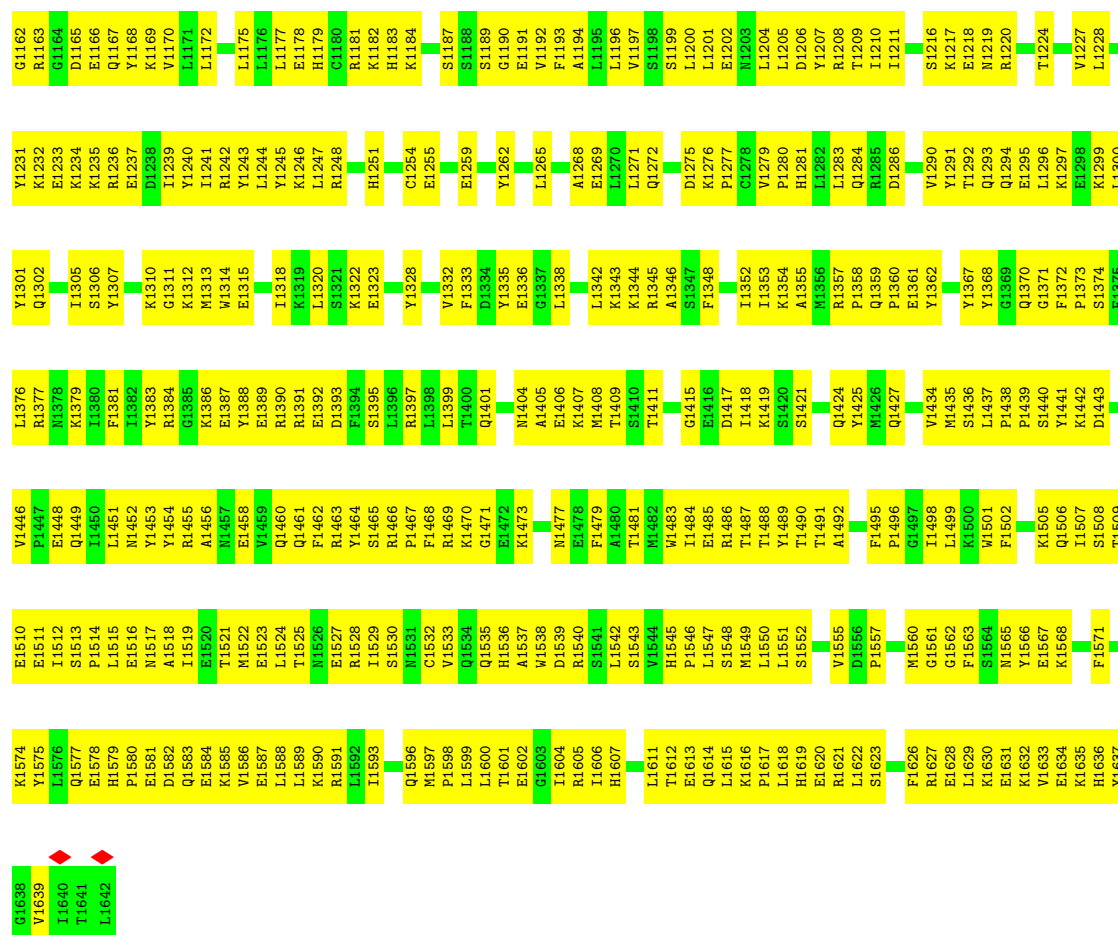
Chain D: 11% 16% 73%

Node	Parent	Weight	Color
D687	S603	E536	Yellow
T688	L536	P536	Yellow
L689	K537	P537	Yellow
L690	L538	E538	Green
S691	K607	L539	Green
M692	L540	VAL	Yellow
E693	Q541	MET	Yellow
L694	P542	GLN	Green
K695	E543	VAL	Yellow
L696	I544	VAL	Yellow
L697	L545	LYS	Yellow
L698	E527	GLU	Yellow
L699	K628	GLN	Yellow
D700	G629	VAL	Yellow
L701	Q551	MET	Yellow
E702	A630	ARG	Yellow
L703	L631	ALA	Green
L704	K632	ALA	Yellow
Q705	N554	LEU	Yellow
L706	R555	THR	Yellow
L707	C561	THR	Yellow
D708	F562	PRO	Green
L711	R563	SER	Yellow
P712	A641	SER	Yellow
L713	F642	LEU	Green
P714	S664	ASP	Yellow
L715	L565	GLN	Yellow
L716	A567	PHE	Yellow
L717	R568	PHE	Yellow
L718	R569	PRO	Yellow
L719	R570	MET	Yellow
L720	G571	PHE	Yellow
L723	D572	THR	Yellow
L724	K573	ASN	Yellow
L725	F574	LEU	Yellow
L726	W575	SER	Yellow
L727	W576	TYR	Yellow
L728	E661	THR	Yellow
L729	Y662	THR	Yellow
L730	C663	ILE	Yellow
L731	L579	ILE	Yellow
L732	S580	LEU	Yellow
L733	L581	LYS	Yellow
L734	K584	ILE	Yellow
L735	V585	ARG	Yellow
L736	L586	GLN	Yellow
L737	H587	SER	Yellow
L738	Y588	ILE	Yellow
L739	G589	GLU	Yellow
L740	D590	ARG	Yellow
L741	L591	MET	Yellow
L742	G674	ASN	Yellow
L743	K675	LYS	Yellow
L744	D676	THR	Yellow
L745	E593	GLU	Yellow
L746	S594	ASP	Yellow
L747	P595	TRP	Yellow
L748	Q596	LYS	Yellow
L749	G597	GLU	Yellow
L750	E598	GLN	Yellow
L751	L599	MET	Yellow
L752	V599	ARG	Yellow
L753	P600	ALA	Yellow
L754	H601	THR	Yellow
L755	D685	SER	Yellow

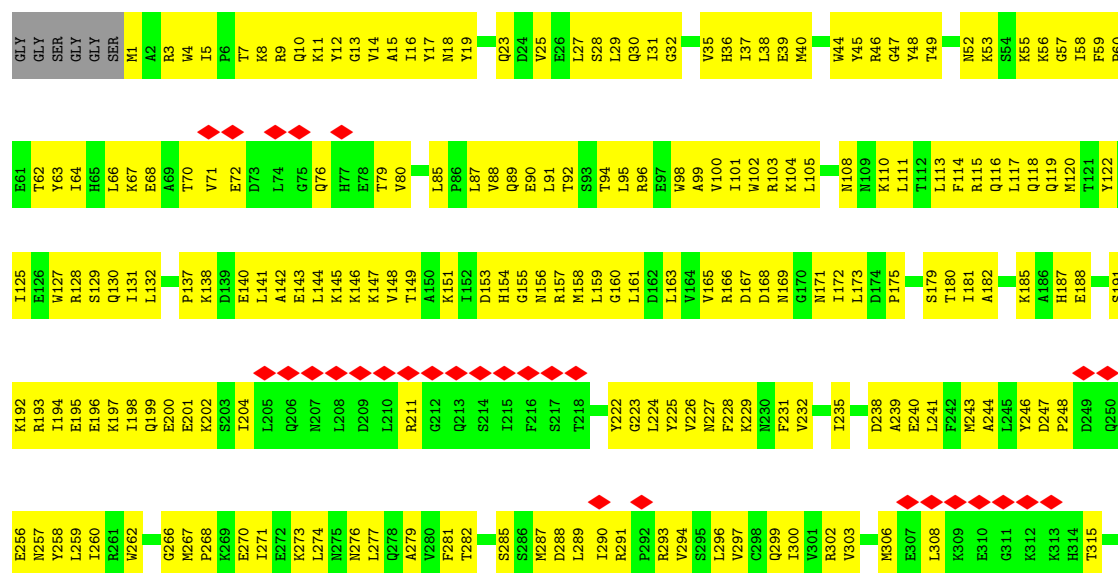
Chain B:

Amino Acid	Percentage
T62	
Y63	
I64	
H65	
L66	
K67	
E68	
A69	
T70	
V71	
E72	
D73	
L74	
G75	
W76	
H77	
E78	
T79	
V80	
L85	
P86	
L87	
V88	
S89	
E90	
L91	
T92	
S93	
T94	
L95	
R96	
E97	
W98	
A99	
V100	
I101	
W102	
R103	
L104	
L105	
Y106	
V107	
M108	
M109	
K110	
K111	
T112	
L113	
F114	
R115	
Q116	
L117	
Q118	
G119	
M120	
T121	
Y122	
S123	
L124	





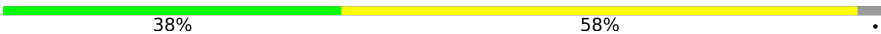
● Molecule 2: Dedicator of cytokinesis protein 5





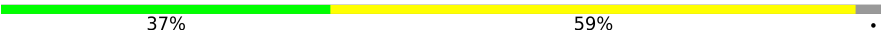
F1372 P1373 S1374 F1375 L1376 R1377 N1378 K1379 I1380 F1382 Y1383 R1384 G1385 K1386 E1387 Y1388 E1389 R1390 R1391 R1463 Y1464 E1465 R1466 Q1467 F1468 R1469 K1470 L1398 G1471 E1472 Q1401	D1443 V1446 P1447 E1448 Q1449 I1450 L1451 N1452 Y1453 F1454 R1455 R1456 N1457 E1458 V1459 Q1460 Y1388 Q1461 F1462 R1463 Y1464 E1465 R1466 Q1467 F1468 R1469 K1470 L1398 G1471 E1472 Q1401	I1512 S1513 P1514 L1515 E1516 N1517 A1518 E1520 T1521 M1522 E1523 L1524 T1525 N1526 E1527 R1528 Y1388 I1529 S1530 N1531 C1532 V1533 Q1534 Q1535 L1536 A1537 W1538 D1539 E1540 S1541 L1542 S1543 V1544 E1545 P1546 L1547 S1548 M1549 L1550 L1551 S1552 G1553 I1554 V1555 D1556 P1557 A1558 V1559 M1560 G1561 G1562 F1563 S1564 N1565 K1566 Y1567 F1571 K1574	Y1575 L1576 E1577 E1578 H1579 P1580 E1581 D1582 E1583 E1584 L1585 V1586 E1587 L1588 L1589 K1590 R1591 L1592 I1593 Q1596 M1597 P1598 L1599 L1600 T1601 E1602 G1603 I1604 R1605 L1606 H1607 G1608 E1609 K1610 L1611 T1612 E1613 K1614 L1615 K1616 P1617 L1618 H1619 E1620 L1621 L1622 S1623 F1626 E1627 E1628 L1629 K1630 E1631 V1632 V1633 E1634 K1635 H1636	Y1637 G1638 I1639 I1640 T1641 L1642
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• Molecule 3: Ras-related C3 botulinum toxin substrate 1

Chain C:  38% 58%

GLY SER SER GLY SER SER GLY M1 Q2 A3 I4 K5 C6 V7 V8 V9 G10 D11 V14 A15 K16 L19 L20 I21 S22 Y23 A27 F28 P29 T35 V36 N39 Y40 S41 V44 M45 K49 P50 V51 N52 L53 G54 L55 W56 D57 T58 Q61 D63 F64 D65 R66	L67 R68 P69 Y72 P73 Q74 T75 D76 V77 F78 L79 I80 G81 F82 S83 L84 P87 P90 E91 N92 R94 A95 K96 W97 Y98 P99 E100 H104 P109 I110 I111 L112 V113 L119 R120 D121 D122 K123 D124 T125 I126 E127 K128 L129 E131 K132 K133 L134 T135 P136 I137 T138	Y139 P140 SER G142 A146 I149 G150 A151 V152 K153 Y154 L155 E156 L160 T161 D162 R163 G164 K166 T167 V168 F169 D170 E171 R174 A175 V176 L177
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• Molecule 3: Ras-related C3 botulinum toxin substrate 1

Chain F:  37% 59%

GLY SER SER GLY SER SER GLY M1 Q2 A3 I4 K5 C6 V7 V8 V9 G10 D11 V14 A15 K16 L19 L20 I21 S22 Y23 N26 A27 F28 P29 I33 P34 T35 V36 F37 N39 Y40 S41 M45 K49 P50 V51 N52 L53 G54 L55 W56 D57 T58 Q61 D63	Y64 D65 R66 L67 R68 P69 L70 S71 Y72 P73 Q74 T75 D76 V77 F78 L79 I80 G81 F82 S83 L84 P87 F90 E91 N92 R93 R94 A95 K96 W97 Y98 P99 E100 H104 P109 I110 I111 L112 V113 L119 R120 D121 D122 K123 D124 T125 I126 E127 K128 L129 E131 K132 K133 L134	T135 P136 I137 T138 Y139 P140 Q141 G142 A146 I149 G150 A151 V152 K153 Y154 L155 E156 L160 T161 D162 R163 G164 K166 T167 V168 F169 D170 E171 R174 A175 V176 L177
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4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	123816	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	64000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.058	Depositor
Minimum map value	-0.017	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.002	Depositor
Recommended contour level	0.01	Depositor
Map size (Å)	452.2, 452.2, 452.2	wwPDB
Map dimensions	340, 340, 340	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.33, 1.33, 1.33	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	0.21	0/1641	0.45	0/2218
1	D	0.21	0/1641	0.46	0/2218
2	B	0.27	0/13722	0.47	0/18514
2	E	0.27	0/13722	0.47	0/18514
3	C	0.24	0/1415	0.43	0/1924
3	F	0.24	0/1415	0.43	0/1924
All	All	0.26	0/33556	0.47	0/45312

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [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	1608	0	1617	131	0
1	D	1608	0	1617	128	0
2	B	13436	0	13516	1014	0
2	E	13436	0	13516	1027	0
3	C	1385	0	1407	110	0
3	F	1385	0	1407	117	0
All	All	32858	0	33080	2447	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 37.

All (2447) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1217:LYS:HA	2:E:1220:ARG:HE	1.30	0.96
2:B:1217:LYS:HA	2:B:1220:ARG:HE	1.30	0.95
2:B:46:ARG:HB3	2:B:58:ILE:HG13	1.54	0.89
2:E:4:TRP:HB3	2:E:39:GLU:HB3	1.55	0.88
3:F:9:VAL:HG22	3:F:78:PHE:HZ	1.39	0.88
3:C:9:VAL:HG22	3:C:78:PHE:HZ	1.38	0.87
2:E:157:ARG:HH12	2:E:197:LYS:HD3	1.39	0.87
2:E:46:ARG:HB3	2:E:58:ILE:HG13	1.54	0.87
2:B:157:ARG:HH12	2:B:197:LYS:HD3	1.39	0.87
2:E:23:GLN:HG2	2:E:58:ILE:HB	1.58	0.86
2:B:4:TRP:HB3	2:B:39:GLU:HB3	1.55	0.86
2:E:1390:ARG:NH2	3:F:23:TYR:O	2.09	0.86
2:B:890:LEU:HD22	2:B:935:ARG:HG3	1.58	0.86
1:D:551:GLN:HA	1:D:554:ASN:HD22	1.41	0.86
2:E:890:LEU:HD22	2:E:935:ARG:HG3	1.57	0.85
1:D:535:GLU:O	1:D:539:LYS:HB3	1.76	0.85
1:A:535:GLU:O	1:A:539:LYS:HB3	1.76	0.85
2:B:1080:ARG:HA	2:B:1083:ILE:HD12	1.58	0.85
2:B:23:GLN:HG2	2:B:58:ILE:HB	1.58	0.85
1:A:551:GLN:HA	1:A:554:ASN:HD22	1.41	0.85
2:E:1438:PRO:HB2	2:E:1441:TYR:HB2	1.56	0.85
2:B:1438:PRO:HB2	2:B:1441:TYR:HB2	1.56	0.84
2:E:1391:ARG:HH22	3:F:29:PRO:HD3	1.40	0.84
2:E:1080:ARG:HA	2:E:1083:ILE:HD12	1.58	0.84
2:E:10:GLN:HG3	2:E:37:ILE:HB	1.58	0.83
2:B:197:LYS:HA	2:B:200:GLU:HG2	1.59	0.83
1:A:670:ASN:ND2	1:A:676:ASP:O	2.12	0.83
2:B:10:GLN:HG3	2:B:37:ILE:HB	1.58	0.83
1:A:724:TYR:HB3	2:B:4:TRP:HB2	1.57	0.83
2:E:197:LYS:HA	2:E:200:GLU:HG2	1.59	0.82
1:D:670:ASN:ND2	1:D:676:ASP:O	2.12	0.82
2:E:809:ALA:HB1	2:E:812:ILE:HB	1.61	0.82
2:E:1028:LEU:O	2:E:1032:PHE:HB2	1.80	0.82
2:E:1393:ASP:OD1	3:F:166:LYS:NZ	2.13	0.82
2:B:95:LEU:HA	2:B:98:TRP:HD1	1.46	0.80
2:B:809:ALA:HB1	2:B:812:ILE:HB	1.61	0.80
2:E:904:GLN:O	2:E:908:ASN:ND2	2.14	0.80
2:B:904:GLN:O	2:B:908:ASN:ND2	2.14	0.80
2:E:1435:MET:HE1	2:E:1455:ARG:HG2	1.64	0.80
2:B:1028:LEU:O	2:B:1032:PHE:HB2	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1536:HIS:O	2:B:1540:ARG:NH2	2.15	0.80
2:E:1536:HIS:O	2:E:1540:ARG:NH2	2.15	0.80
2:B:241:LEU:HB2	2:B:260:ILE:HB	1.64	0.79
2:E:1144:PHE:HB2	2:E:1147:PHE:HB3	1.63	0.79
2:B:1144:PHE:HB2	2:B:1147:PHE:HB3	1.63	0.79
2:E:95:LEU:HA	2:E:98:TRP:HD1	1.46	0.79
2:E:879:LEU:HD12	2:E:882:LEU:HB2	1.65	0.79
2:E:1156:ASP:OD2	2:E:1242:ARG:NH2	2.16	0.79
2:B:1156:ASP:OD2	2:B:1242:ARG:NH2	2.16	0.79
2:B:879:LEU:HD12	2:B:882:LEU:HB2	1.65	0.79
2:E:883:THR:HG21	2:E:931:ARG:HB3	1.65	0.78
2:B:837:SER:HB3	2:B:878:LEU:HD21	1.66	0.78
2:B:1435:MET:HE1	2:B:1455:ARG:HG2	1.64	0.78
2:E:939:THR:O	2:E:943:MET:N	2.17	0.78
1:A:532:PRO:HG3	1:A:708:ASP:HA	1.66	0.78
2:B:18:ASN:HB3	2:B:28:SER:HB2	1.66	0.78
2:B:104:LYS:O	2:B:108:ASN:ND2	2.16	0.78
2:E:837:SER:HB3	2:E:878:LEU:HD21	1.66	0.78
2:B:1277:PRO:HG3	2:B:1292:THR:HA	1.66	0.78
3:F:49:LYS:HZ2	3:F:51:VAL:HG12	1.49	0.78
2:B:939:THR:O	2:B:943:MET:N	2.17	0.77
1:D:701:LEU:HD11	2:E:16:ILE:HA	1.65	0.77
3:F:87:PRO:HA	3:F:90:PHE:HD2	1.49	0.77
1:A:563:ARG:HB3	1:A:573:LYS:HE3	1.66	0.77
3:C:87:PRO:HA	3:C:90:PHE:HD2	1.49	0.77
2:E:241:LEU:HB2	2:E:260:ILE:HB	1.64	0.77
2:E:1277:PRO:HG3	2:E:1292:THR:HA	1.66	0.77
3:C:39:ASN:H	3:C:57:ASP:HB3	1.50	0.77
2:E:18:ASN:HB3	2:E:28:SER:HB2	1.66	0.77
2:B:25:VAL:HG11	2:B:56:LYS:HE2	1.65	0.77
2:E:104:LYS:O	2:E:108:ASN:ND2	2.16	0.77
1:D:532:PRO:HG3	1:D:708:ASP:HA	1.66	0.77
2:E:25:VAL:HG11	2:E:56:LYS:HE2	1.65	0.76
2:B:883:THR:HG21	2:B:931:ARG:HB3	1.65	0.76
3:C:49:LYS:HZ2	3:C:51:VAL:HG12	1.49	0.76
1:D:563:ARG:HB3	1:D:573:LYS:HE3	1.66	0.76
2:E:1328:TYR:HA	2:E:1332:VAL:HG12	1.68	0.76
2:B:924:HIS:HA	2:B:927:LEU:HD12	1.68	0.76
3:F:39:ASN:H	3:F:57:ASP:HB3	1.50	0.76
2:B:1233:GLU:O	2:B:1235:LYS:NZ	2.19	0.76
2:B:166:ARG:NH1	2:B:167:ASP:OD1	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1233:GLU:O	2:E:1235:LYS:NZ	2.19	0.75
3:F:100:GLU:O	3:F:104:HIS:ND1	2.18	0.75
2:E:1032:PHE:HB3	2:E:1043:TRP:HH2	1.51	0.75
2:E:1276:LYS:NZ	2:E:1277:PRO:O	2.19	0.75
2:B:883:THR:OG1	2:B:931:ARG:NH1	2.20	0.75
2:B:1032:PHE:HB3	2:B:1043:TRP:HH2	1.51	0.75
2:E:883:THR:OG1	2:E:931:ARG:NH1	2.20	0.75
2:E:166:ARG:NH1	2:E:167:ASP:OD1	2.19	0.75
3:F:61:GLN:O	3:F:68:ARG:NH2	2.20	0.75
3:C:100:GLU:O	3:C:104:HIS:ND1	2.18	0.74
2:E:924:HIS:HA	2:E:927:LEU:HD12	1.68	0.74
2:B:1328:TYR:HA	2:B:1332:VAL:HG12	1.68	0.74
2:B:1276:LYS:NZ	2:B:1277:PRO:O	2.19	0.74
3:C:61:GLN:O	3:C:68:ARG:NH2	2.20	0.74
2:E:9:ARG:HB3	2:E:68:GLU:HG3	1.69	0.74
2:E:749:LYS:HG2	2:E:753:LEU:HD23	1.70	0.74
2:B:1574:LYS:O	2:B:1577:GLN:NE2	2.21	0.74
2:B:9:ARG:HB3	2:B:68:GLU:HG3	1.69	0.74
2:E:934:ARG:NH2	2:E:988:GLU:OE1	2.21	0.74
2:E:1466:ARG:NH1	2:E:1467:PRO:O	2.20	0.74
2:B:80:VAL:HG22	2:B:85:LEU:HD11	1.70	0.74
2:B:1466:ARG:NH1	2:B:1467:PRO:O	2.20	0.74
2:B:1632:LYS:O	2:B:1637:TYR:N	2.18	0.73
2:E:95:LEU:HA	2:E:98:TRP:CD1	2.23	0.73
1:A:723:VAL:HB	2:B:3:ARG:H	1.53	0.73
2:B:749:LYS:HG2	2:B:753:LEU:HD23	1.70	0.73
1:D:584:LYS:O	1:D:607:LYS:NZ	2.21	0.73
2:E:772:VAL:HA	2:E:775:LEU:HD12	1.71	0.73
2:B:467:GLU:HB2	2:B:500:VAL:HG22	1.71	0.73
2:B:730:TYR:HB3	2:B:770:SER:HB3	1.71	0.73
2:B:1602:GLU:HG3	2:B:1605:ARG:HH12	1.54	0.73
2:B:1111:GLU:N	2:B:1111:GLU:OE1	2.22	0.72
2:E:842:LYS:O	2:E:845:GLN:NE2	2.22	0.72
2:B:934:ARG:NH2	2:B:988:GLU:OE1	2.21	0.72
2:B:377:GLU:OE1	2:B:385:LYS:NZ	2.23	0.72
2:E:945:ARG:HH11	2:E:946:GLN:H	1.36	0.72
2:E:1056:HIS:ND1	2:E:1057:GLU:OE2	2.22	0.72
2:E:1469:ARG:HB3	2:E:1473:LYS:HD2	1.71	0.72
2:E:1574:LYS:O	2:E:1577:GLN:NE2	2.21	0.72
2:E:1602:GLU:HG3	2:E:1605:ARG:HH12	1.54	0.72
2:B:95:LEU:HA	2:B:98:TRP:CD1	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1307:TYR:O	2:B:1311:GLY:N	2.22	0.72
2:E:1307:TYR:O	2:E:1311:GLY:N	2.22	0.72
1:A:555:ARG:NH1	2:B:109:ASN:OD1	2.23	0.72
2:B:1469:ARG:HB3	2:B:1473:LYS:HD2	1.71	0.72
2:E:239:ALA:HB3	2:E:262:TRP:HB3	1.71	0.72
2:E:1463:ARG:HA	2:E:1488:THR:HA	1.71	0.72
2:E:1465:SER:HA	2:E:1486:ARG:HE	1.55	0.72
2:B:239:ALA:HB3	2:B:262:TRP:HB3	1.71	0.72
2:E:904:GLN:OE1	2:E:908:ASN:ND2	2.22	0.72
2:E:1121:ARG:HG2	2:E:1125:ILE:HD11	1.71	0.72
2:B:1056:HIS:ND1	2:B:1057:GLU:OE2	2.23	0.72
2:B:1216:SER:OG	2:B:1401:GLN:NE2	2.23	0.72
2:E:12:TYR:HB2	2:E:67:LYS:HB2	1.70	0.72
2:E:377:GLU:OE1	2:E:385:LYS:NZ	2.23	0.72
2:E:80:VAL:HG22	2:E:85:LEU:HD11	1.70	0.71
2:B:842:LYS:O	2:B:845:GLN:NE2	2.22	0.71
1:D:536:LEU:HD21	2:E:18:ASN:H	1.53	0.71
2:B:12:TYR:HB2	2:B:67:LYS:HB2	1.71	0.71
2:E:730:TYR:HB3	2:E:770:SER:HB3	1.71	0.71
3:F:84:LEU:HD11	3:F:156:GLU:HB2	1.71	0.71
1:A:584:LYS:O	1:A:607:LYS:NZ	2.21	0.71
2:E:1111:GLU:N	2:E:1111:GLU:OE1	2.22	0.71
2:E:1623:SER:HB3	2:E:1627:ARG:HH22	1.55	0.71
2:E:1632:LYS:O	2:E:1637:TYR:N	2.18	0.71
2:B:945:ARG:HH11	2:B:946:GLN:H	1.36	0.71
2:B:1463:ARG:HA	2:B:1488:THR:HA	1.71	0.71
2:B:1623:SER:HB3	2:B:1627:ARG:HH22	1.55	0.71
2:E:1115:THR:O	2:E:1121:ARG:NH2	2.21	0.71
2:E:1216:SER:OG	2:E:1401:GLN:NE2	2.23	0.71
2:B:1465:SER:HA	2:B:1486:ARG:HE	1.55	0.71
2:B:1613:GLU:OE2	2:B:1614:GLN:NE2	2.23	0.71
2:B:772:VAL:HA	2:B:775:LEU:HD12	1.71	0.71
2:E:467:GLU:HB2	2:E:500:VAL:HG22	1.71	0.71
2:B:1165:ASP:OD2	2:B:1168:TYR:N	2.24	0.71
2:E:1633:VAL:HA	2:E:1637:TYR:HB2	1.73	0.71
1:A:551:GLN:OE1	1:A:552:ARG:NH2	2.24	0.70
2:B:1121:ARG:HG2	2:B:1125:ILE:HD11	1.71	0.70
2:B:806:LEU:HG	2:B:810:VAL:HG22	1.73	0.70
1:D:551:GLN:OE1	1:D:552:ARG:NH2	2.24	0.70
2:E:561:THR:HG21	2:E:631:LEU:HB3	1.72	0.70
3:C:87:PRO:HD2	3:C:134:LEU:HD13	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:84:LEU:HD11	3:C:156:GLU:HB2	1.71	0.70
2:E:817:LEU:HB3	2:E:859:CYS:HB2	1.74	0.70
2:E:1613:GLU:OE2	2:E:1614:GLN:NE2	2.23	0.70
2:E:1318:ILE:HD11	2:E:1348:PHE:HB2	1.73	0.70
2:B:373:ILE:HG23	2:B:376:ASN:HB2	1.74	0.70
2:B:1231:TYR:O	2:B:1235:LYS:N	2.25	0.70
2:E:373:ILE:HG23	2:E:376:ASN:HB2	1.74	0.70
2:E:860:MET:SD	2:E:885:GLN:NE2	2.65	0.70
2:B:1314:TRP:HB2	2:B:1352:ILE:HD11	1.73	0.70
2:E:1284:GLN:HE21	2:E:1286:ASP:HB2	1.57	0.70
2:E:1391:ARG:NH2	3:F:27:ALA:O	2.25	0.70
2:B:817:LEU:HB3	2:B:859:CYS:HB2	1.74	0.70
2:B:1314:TRP:HZ3	2:B:1357:ARG:HD3	1.57	0.70
2:B:1318:ILE:HD11	2:B:1348:PHE:HB2	1.73	0.70
2:B:1575:TYR:O	2:B:1579:HIS:N	2.21	0.70
2:E:1314:TRP:HB2	2:E:1352:ILE:HD11	1.73	0.70
2:B:589:PRO:HB3	2:B:594:GLU:HB3	1.74	0.69
2:B:828:LYS:HE2	2:B:833:PRO:HG3	1.73	0.69
2:B:1284:GLN:HE21	2:B:1286:ASP:HB2	1.57	0.69
2:E:165:VAL:HG23	2:E:175:PRO:HD3	1.74	0.69
2:E:589:PRO:HB2	2:E:595:MET:HE2	1.74	0.69
2:B:165:VAL:HG23	2:B:175:PRO:HD3	1.74	0.69
2:B:463:PRO:O	2:B:503:GLN:NE2	2.25	0.69
2:B:589:PRO:HB2	2:B:595:MET:HE2	1.74	0.69
2:B:893:ASN:O	2:B:896:LYS:NZ	2.25	0.69
2:B:1633:VAL:HA	2:B:1637:TYR:HB2	1.73	0.69
3:F:87:PRO:HD2	3:F:134:LEU:HD13	1.74	0.69
2:B:860:MET:SD	2:B:885:GLN:NE2	2.65	0.69
2:B:1359:GLN:HE22	2:B:1456:ALA:HA	1.58	0.69
2:E:1044:ASN:OD1	2:E:1048:HIS:NE2	2.25	0.69
2:B:1552:SER:HB3	3:C:39:ASN:HD22	1.57	0.69
2:E:828:LYS:HE2	2:E:833:PRO:HG3	1.73	0.69
2:E:1359:GLN:HE22	2:E:1456:ALA:HA	1.58	0.69
2:B:1044:ASN:OD1	2:B:1048:HIS:NE2	2.25	0.69
2:E:893:ASN:O	2:E:896:LYS:NZ	2.25	0.69
2:E:1067:ALA:O	2:E:1071:LYS:N	2.16	0.69
2:B:1408:MET:HB2	2:B:1427:GLN:HB3	1.75	0.69
3:C:120:ARG:HH12	3:C:139:TYR:HB2	1.57	0.69
2:E:806:LEU:HG	2:E:810:VAL:HG22	1.73	0.69
2:B:561:THR:HG21	2:B:631:LEU:HB3	1.72	0.69
2:B:1067:ALA:O	2:B:1071:LYS:N	2.16	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1336:GLU:N	2:E:1336:GLU:OE1	2.23	0.69
3:F:93:VAL:HA	3:F:97:TRP:HB2	1.75	0.69
2:B:730:TYR:HB2	2:B:767:ILE:HG23	1.75	0.69
3:C:9:VAL:HG22	3:C:78:PHE:CZ	2.27	0.69
2:B:226:VAL:HB	2:B:279:ALA:HB3	1.74	0.68
2:B:1543:SER:OG	2:B:1545:HIS:ND1	2.21	0.68
1:D:714:PRO:HG2	2:E:44:TRP:CE2	2.28	0.68
2:E:589:PRO:HB3	2:E:594:GLU:HB3	1.74	0.68
2:E:771:ARG:NH2	2:E:781:SER:OG	2.26	0.68
2:B:641:LEU:O	2:B:644:ARG:NH1	2.26	0.68
2:B:1011:MET:HA	2:B:1014:ASN:HD22	1.58	0.68
2:E:226:VAL:HB	2:E:279:ALA:HB3	1.73	0.68
2:E:979:ARG:NH1	2:E:1031:PHE:O	2.26	0.68
1:A:544:ILE:HD11	1:A:689:LEU:HB2	1.75	0.68
2:B:1007:MET:SD	2:B:1011:MET:HE1	2.33	0.68
3:C:93:VAL:HA	3:C:97:TRP:HB2	1.75	0.68
2:E:1011:MET:HA	2:E:1014:ASN:HD22	1.58	0.68
3:F:120:ARG:HH12	3:F:139:TYR:HB2	1.57	0.68
2:E:730:TYR:HB2	2:E:767:ILE:HG23	1.75	0.68
2:B:244:ALA:HB2	2:B:257:ASN:HA	1.76	0.68
2:B:1305:ILE:HD11	2:B:1320:LEU:HB2	1.76	0.68
1:D:544:ILE:HD11	1:D:689:LEU:HB2	1.75	0.68
2:E:463:PRO:O	2:E:503:GLN:NE2	2.25	0.68
2:E:129:SER:HA	2:E:132:LEU:HD12	1.74	0.68
2:E:244:ALA:HB2	2:E:257:ASN:HA	1.76	0.68
2:E:485:HIS:HB2	2:E:514:LYS:HB3	1.76	0.68
1:A:692:MET:HA	1:A:695:LYS:HE2	1.74	0.68
2:B:771:ARG:NH2	2:B:781:SER:OG	2.26	0.68
2:B:1018:LEU:HD21	2:B:1083:ILE:HG12	1.76	0.68
2:E:1177:LEU:O	2:E:1181:ARG:NH1	2.27	0.68
2:B:1392:GLU:HB2	3:C:166:LYS:NZ	2.08	0.68
2:E:1313:MET:HE1	2:E:1496:PRO:HG3	1.76	0.68
2:B:904:GLN:OE1	2:B:908:ASN:ND2	2.22	0.68
2:E:349:GLN:NE2	2:E:350:GLN:O	2.27	0.68
2:E:641:LEU:O	2:E:644:ARG:NH1	2.26	0.68
2:E:1007:MET:SD	2:E:1011:MET:HE1	2.33	0.68
1:A:573:LYS:N	1:A:593:GLU:OE2	2.27	0.68
2:B:834:VAL:HB	2:B:873:GLU:HG2	1.76	0.68
2:E:181:ILE:HG22	2:E:185:LYS:HZ1	1.59	0.68
2:E:1159:VAL:O	2:E:1208:ARG:NH1	2.27	0.68
2:E:1305:ILE:HD11	2:E:1320:LEU:HB2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1314:TRP:HZ3	2:E:1357:ARG:HD3	1.57	0.68
2:E:1408:MET:HB2	2:E:1427:GLN:HB3	1.75	0.68
3:F:9:VAL:HG22	3:F:78:PHE:CZ	2.27	0.68
2:B:979:ARG:NH1	2:B:1031:PHE:O	2.26	0.67
1:D:692:MET:HA	1:D:695:LYS:HE2	1.74	0.67
2:E:25:VAL:HG23	2:E:57:GLY:HA2	1.77	0.67
2:B:1032:PHE:HB3	2:B:1043:TRP:CH2	2.29	0.67
2:B:1284:GLN:HG2	2:B:1286:ASP:H	1.59	0.67
1:D:573:LYS:N	1:D:593:GLU:OE2	2.27	0.67
2:E:1231:TYR:O	2:E:1235:LYS:N	2.25	0.67
2:E:1473:LYS:HD3	2:E:1481:THR:HG21	1.77	0.67
2:B:485:HIS:HB2	2:B:514:LYS:HB3	1.76	0.67
2:B:1159:VAL:O	2:B:1208:ARG:NH1	2.27	0.67
2:B:1336:GLU:OE1	2:B:1336:GLU:N	2.23	0.67
2:B:1579:HIS:HB3	2:B:1582:ASP:HB2	1.76	0.67
2:E:819:TYR:O	2:E:822:SER:OG	2.10	0.67
2:E:1575:TYR:HA	2:E:1578:GLU:HB3	1.77	0.67
2:B:349:GLN:NE2	2:B:350:GLN:O	2.27	0.67
1:A:722:PHE:HA	2:B:2:ALA:HA	1.74	0.67
1:A:723:VAL:HG23	2:B:2:ALA:HB1	1.77	0.67
2:B:72:GLU:O	2:B:76:GLN:NE2	2.27	0.67
2:B:129:SER:HA	2:B:132:LEU:HD12	1.75	0.67
2:B:1024:PHE:HA	2:B:1027:VAL:HG22	1.76	0.67
2:B:1487:THR:HA	2:B:1509:THR:HA	1.77	0.67
2:E:1018:LEU:HD21	2:E:1083:ILE:HG12	1.76	0.67
2:B:1177:LEU:O	2:B:1181:ARG:NH1	2.27	0.67
2:B:1529:ILE:HD13	2:B:1550:LEU:HD23	1.75	0.67
3:C:77:VAL:HG12	3:C:109:PRO:HG2	1.77	0.67
2:B:1607:HIS:HE1	2:B:1615:LEU:HD22	1.60	0.67
1:D:587:HIS:HA	1:D:606:ASP:HA	1.77	0.67
2:E:1486:ARG:HB3	2:E:1510:GLU:HB2	1.77	0.67
2:B:965:ASP:OD1	2:B:966:ASP:N	2.28	0.67
2:B:1313:MET:HE1	2:B:1496:PRO:HG3	1.76	0.67
1:D:561:CYS:SG	1:D:594:SER:OG	2.52	0.67
2:E:1284:GLN:HG2	2:E:1286:ASP:H	1.59	0.67
2:E:1575:TYR:O	2:E:1579:HIS:N	2.21	0.67
1:A:561:CYS:SG	1:A:594:SER:OG	2.52	0.67
2:B:1473:LYS:HD3	2:B:1481:THR:HG21	1.77	0.67
2:E:965:ASP:OD1	2:E:966:ASP:N	2.28	0.67
2:B:181:ILE:HG22	2:B:185:LYS:HZ1	1.60	0.66
1:D:670:ASN:OD1	1:D:675:LYS:HB2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:72:GLU:O	2:E:76:GLN:NE2	2.27	0.66
1:A:587:HIS:HA	1:A:606:ASP:HA	1.77	0.66
2:E:1024:PHE:HA	2:E:1027:VAL:HG22	1.76	0.66
1:A:670:ASN:OD1	1:A:675:LYS:HB2	1.95	0.66
1:A:696:LEU:HB2	2:B:96:ARG:HH12	1.60	0.66
2:B:25:VAL:HG23	2:B:57:GLY:HA2	1.77	0.66
2:E:792:ARG:NE	2:E:835:GLU:OE1	2.26	0.66
2:E:1487:THR:HA	2:E:1509:THR:HA	1.77	0.66
2:E:1579:HIS:HB3	2:E:1582:ASP:HB2	1.76	0.66
2:B:1283:LEU:HD11	2:B:1291:TYR:HB2	1.77	0.66
1:D:724:TYR:HB3	2:E:4:TRP:HB2	1.78	0.66
2:E:1032:PHE:HB3	2:E:1043:TRP:CH2	2.29	0.66
2:E:1607:HIS:HE1	2:E:1615:LEU:HD22	1.60	0.66
3:F:77:VAL:HG12	3:F:109:PRO:HG2	1.77	0.66
2:B:319:ARG:NH2	2:B:511:GLU:OE2	2.28	0.66
2:B:1343:LYS:HE2	2:E:1343:LYS:HE2	1.77	0.66
2:E:892:ASP:OD1	2:E:895:ASN:ND2	2.29	0.66
2:E:1484:ILE:HB	2:E:1512:ILE:HB	1.78	0.66
2:B:85:LEU:O	2:B:88:VAL:HG22	1.96	0.66
2:E:166:ARG:O	2:E:171:ASN:HA	1.96	0.66
2:E:754:PHE:HA	2:E:757:LEU:HD12	1.78	0.66
2:E:1283:LEU:HD11	2:E:1291:TYR:HB2	1.77	0.66
2:B:1117:GLU:OE1	2:B:1119:GLU:N	2.29	0.66
2:B:1272:GLN:OE1	2:B:1293:GLN:NE2	2.29	0.66
2:E:191:SER:HA	2:E:194:ILE:HD12	1.77	0.66
2:B:59:PHE:HD2	2:B:64:ILE:HG12	1.61	0.66
2:B:640:LEU:HG	2:B:653:ASN:HB3	1.78	0.66
2:B:1484:ILE:HB	2:B:1512:ILE:HB	1.78	0.66
3:C:65:ASP:HA	3:C:68:ARG:HG2	1.78	0.66
3:C:153:LYS:NZ	3:C:154:TYR:O	2.29	0.66
2:B:1575:TYR:HA	2:B:1578:GLU:HB3	1.77	0.65
2:E:1272:GLN:OE1	2:E:1293:GLN:NE2	2.29	0.65
2:E:1529:ILE:HD13	2:E:1550:LEU:HD23	1.75	0.65
2:B:191:SER:HA	2:B:194:ILE:HD12	1.77	0.65
2:B:754:PHE:HA	2:B:757:LEU:HD12	1.78	0.65
2:E:834:VAL:HB	2:E:873:GLU:HG2	1.77	0.65
2:E:1623:SER:HB3	2:E:1627:ARG:NH2	2.11	0.65
3:C:8:VAL:O	3:C:58:THR:OG1	2.12	0.65
2:E:85:LEU:O	2:E:88:VAL:HG22	1.96	0.65
2:E:839:LEU:HA	2:E:842:LYS:HE3	1.78	0.65
2:E:59:PHE:HD2	2:E:64:ILE:HG12	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1115:THR:O	2:B:1121:ARG:NH2	2.21	0.65
2:B:166:ARG:O	2:B:171:ASN:HA	1.96	0.65
2:B:1537:ALA:O	2:B:1540:ARG:NH1	2.30	0.65
2:E:1392:GLU:HA	2:E:1395:SER:HB3	1.79	0.65
3:F:8:VAL:O	3:F:58:THR:OG1	2.13	0.65
2:B:195:GLU:HA	2:B:198:ILE:HG12	1.79	0.65
2:B:1587:GLU:HA	2:B:1590:LYS:HD2	1.79	0.65
2:B:757:LEU:HA	2:B:760:LEU:HG	1.79	0.65
2:E:1165:ASP:OD2	2:E:1168:TYR:N	2.24	0.65
2:B:473:HIS:ND1	2:B:477:GLY:O	2.29	0.65
2:B:1216:SER:OG	2:B:1219:ASN:OD1	2.15	0.65
2:E:1216:SER:OG	2:E:1219:ASN:OD1	2.14	0.65
2:B:843:PHE:O	2:B:846:SER:OG	2.15	0.64
2:B:853:VAL:HA	2:B:856:LYS:HZ3	1.61	0.64
2:B:892:ASP:OD1	2:B:895:ASN:ND2	2.29	0.64
2:B:1623:SER:HB3	2:B:1627:ARG:NH2	2.11	0.64
2:E:228:PHE:HA	2:E:401:VAL:HG12	1.79	0.64
2:E:1117:GLU:OE1	2:E:1119:GLU:N	2.29	0.64
2:B:64:ILE:HG22	2:B:66:LEU:HD22	1.79	0.64
2:B:819:TYR:O	2:B:822:SER:OG	2.10	0.64
2:B:1358:PRO:HB2	2:B:1387:GLU:HB2	1.79	0.64
2:E:319:ARG:NH2	2:E:511:GLU:OE2	2.28	0.64
2:B:153:ASP:HA	2:B:156:ASN:HD22	1.61	0.64
2:B:792:ARG:NE	2:B:835:GLU:OE1	2.26	0.64
2:E:64:ILE:HG22	2:E:66:LEU:HD22	1.79	0.64
2:E:860:MET:HA	2:E:863:ILE:HD12	1.80	0.64
2:E:153:ASP:HA	2:E:156:ASN:HD22	1.61	0.64
3:F:153:LYS:NZ	3:F:154:TYR:O	2.29	0.64
2:B:302:ARG:HD3	2:B:322:PHE:HD1	1.63	0.64
2:B:474:ASP:OD1	2:B:478:LYS:N	2.31	0.64
2:B:508:CYS:HB3	2:B:510:TYR:HE2	1.63	0.64
2:B:855:GLN:OE1	2:B:855:GLN:N	2.30	0.64
2:B:1486:ARG:HB3	2:B:1510:GLU:HB2	1.77	0.64
2:E:640:LEU:HG	2:E:653:ASN:HB3	1.78	0.64
1:A:551:GLN:HG2	2:B:107:VAL:HA	1.80	0.64
2:B:860:MET:HA	2:B:863:ILE:HD12	1.80	0.64
2:E:843:PHE:O	2:E:846:SER:OG	2.15	0.64
2:E:857:LEU:O	2:E:861:THR:OG1	2.15	0.64
2:E:925:ILE:HA	2:E:928:ILE:HD12	1.80	0.64
2:E:1091:TRP:HA	2:E:1094:LEU:HD23	1.79	0.64
2:E:1358:PRO:HB2	2:E:1387:GLU:HB2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:65:ASP:HA	3:F:68:ARG:HG2	1.78	0.64
2:E:302:ARG:HD3	2:E:322:PHE:HD1	1.63	0.64
2:E:964:MET:O	2:E:1019:ARG:NH2	2.28	0.64
3:F:2:GLN:O	3:F:52:ASN:N	2.31	0.64
2:B:1392:GLU:HA	2:B:1395:SER:HB3	1.78	0.64
3:C:2:GLN:O	3:C:52:ASN:N	2.31	0.64
2:E:1006:TRP:HB3	2:E:1009:MET:HE3	1.80	0.64
2:E:1537:ALA:O	2:E:1540:ARG:NH1	2.30	0.64
2:E:1545:HIS:O	2:E:1548:SER:OG	2.16	0.64
2:E:1615:LEU:O	2:E:1619:HIS:N	2.26	0.64
2:B:1006:TRP:HB3	2:B:1009:MET:HE3	1.80	0.64
2:E:757:LEU:HA	2:E:760:LEU:HG	1.79	0.64
2:E:1335:TYR:HA	2:E:1338:LEU:HD23	1.80	0.64
2:E:1368:TYR:O	2:E:1425:TYR:N	2.25	0.64
1:D:563:ARG:HB2	1:D:655:ILE:HB	1.80	0.64
2:E:870:ARG:HH12	2:E:874:CYS:N	1.96	0.64
2:B:870:ARG:HH12	2:B:874:CYS:N	1.96	0.63
2:B:925:ILE:HA	2:B:928:ILE:HD12	1.80	0.63
2:B:1091:TRP:HA	2:B:1094:LEU:HD23	1.79	0.63
2:B:1495:PHE:HE1	2:B:1502:PHE:HD2	1.45	0.63
2:E:474:ASP:OD1	2:E:478:LYS:N	2.31	0.63
2:B:839:LEU:HA	2:B:842:LYS:HE3	1.78	0.63
2:E:508:CYS:HB3	2:E:510:TYR:HE2	1.63	0.63
2:E:855:GLN:OE1	2:E:855:GLN:N	2.30	0.63
2:E:1488:THR:N	2:E:1508:SER:O	2.29	0.63
2:E:195:GLU:HA	2:E:198:ILE:HG12	1.79	0.63
2:B:181:ILE:HG21	2:B:907:SER:HB2	1.81	0.63
2:B:254:ILE:HD12	2:B:294:VAL:HG13	1.81	0.63
2:E:256:GLU:HG2	2:E:429:ARG:H	1.63	0.63
2:E:1612:THR:H	2:E:1615:LEU:HB2	1.64	0.63
2:E:1587:GLU:HA	2:E:1590:LYS:HD2	1.79	0.63
2:E:1618:LEU:O	2:E:1622:LEU:HG	1.99	0.63
2:B:1043:TRP:H	2:B:1043:TRP:HE3	1.45	0.63
2:B:1506:GLN:NE2	2:B:1507:ILE:O	2.32	0.63
3:C:129:LEU:O	3:C:134:LEU:N	2.31	0.63
1:D:530:SER:HA	1:D:533:ILE:HD12	1.81	0.63
2:E:36:HIS:O	2:E:48:TYR:N	2.32	0.63
2:B:962:GLN:O	2:B:1019:ARG:NH1	2.32	0.63
2:B:1545:HIS:O	2:B:1548:SER:OG	2.16	0.63
2:E:1495:PHE:HE1	2:E:1502:PHE:HD2	1.45	0.63
2:B:964:MET:O	2:B:1019:ARG:NH2	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1335:TYR:HA	2:B:1338:LEU:HD23	1.80	0.63
2:E:473:HIS:ND1	2:E:477:GLY:O	2.29	0.63
2:E:962:GLN:O	2:E:1019:ARG:NH1	2.32	0.63
2:B:1390:ARG:HH11	3:C:44:VAL:HG21	1.63	0.62
2:E:180:THR:OG1	2:E:962:GLN:OE1	2.12	0.62
2:B:111:LEU:HA	2:B:114:PHE:HB3	1.80	0.62
2:B:481:GLU:HA	2:B:494:SER:HA	1.81	0.62
3:C:5:LYS:N	3:C:76:ASP:OD2	2.33	0.62
2:E:481:GLU:HA	2:E:494:SER:HA	1.81	0.62
2:B:228:PHE:HA	2:B:401:VAL:HG12	1.79	0.62
2:E:1135:GLU:O	2:E:1139:SER:N	2.32	0.62
1:A:530:SER:HA	1:A:533:ILE:HD12	1.80	0.62
2:B:36:HIS:O	2:B:48:TYR:N	2.32	0.62
2:E:1543:SER:OG	2:E:1545:HIS:ND1	2.21	0.62
2:B:1399:LEU:HD22	2:B:1405:ALA:HB1	1.82	0.62
2:B:1612:THR:H	2:B:1615:LEU:HB2	1.64	0.62
2:E:111:LEU:HA	2:E:114:PHE:HB3	1.80	0.62
2:E:445:ASP:HB2	2:E:627:CYS:HB2	1.82	0.62
2:E:1628:GLU:O	2:E:1632:LYS:HG2	2.00	0.62
3:F:129:LEU:O	3:F:134:LEU:N	2.31	0.62
2:B:267:MET:HE1	2:B:271:ILE:HG22	1.81	0.62
2:B:446:ILE:HB	2:B:515:VAL:HB	1.81	0.62
2:B:1135:GLU:O	2:B:1139:SER:N	2.32	0.62
2:B:1618:LEU:O	2:B:1622:LEU:HG	1.99	0.62
2:E:254:ILE:HD12	2:E:294:VAL:HG13	1.81	0.62
2:E:530:THR:HA	2:E:549:VAL:HG22	1.82	0.62
2:E:1506:GLN:NE2	2:E:1507:ILE:O	2.32	0.62
1:A:550:GLN:OE1	1:A:554:ASN:ND2	2.24	0.62
2:B:1391:ARG:NH2	3:C:27:ALA:O	2.33	0.62
2:B:1488:THR:N	2:B:1508:SER:O	2.29	0.62
2:E:163:LEU:HD23	2:E:1005:ASP:HB3	1.82	0.62
2:E:1043:TRP:H	2:E:1043:TRP:HE3	1.45	0.62
2:E:1399:LEU:HD22	2:E:1405:ALA:HB1	1.82	0.62
3:F:5:LYS:N	3:F:76:ASP:OD2	2.33	0.62
2:B:1628:GLU:O	2:B:1632:LYS:HG2	2.00	0.62
1:A:727:ASN:H	2:B:46:ARG:HH22	1.47	0.62
1:D:544:ILE:O	1:D:548:ILE:HG12	2.00	0.62
2:E:1418:ILE:HG21	2:E:1425:TYR:HB2	1.82	0.62
2:B:62:THR:HG23	2:B:63:TYR:HD1	1.65	0.62
2:B:163:LEU:HD23	2:B:1005:ASP:HB3	1.82	0.61
2:B:256:GLU:HG2	2:B:429:ARG:H	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:62:THR:HG23	2:E:63:TYR:HD1	1.65	0.61
2:E:240:GLU:HB3	2:E:259:LEU:HD11	1.82	0.61
2:B:285:SER:OG	2:B:288:ASP:OD2	2.15	0.61
2:B:1460:GLN:NE2	2:B:1491:THR:O	2.24	0.61
2:E:248:PRO:HD2	2:E:293:ARG:HG3	1.82	0.61
2:E:1315:GLU:OE1	2:E:1315:GLU:N	2.28	0.61
2:B:591:THR:N	2:B:594:GLU:OE2	2.33	0.61
1:D:661:GLU:HA	1:D:664:ILE:HB	1.83	0.61
2:B:157:ARG:NH1	2:B:197:LYS:HD3	2.13	0.61
2:B:1315:GLU:OE1	2:B:1315:GLU:N	2.28	0.61
2:E:1117:GLU:OE2	2:E:1121:ARG:N	2.27	0.61
2:B:928:ILE:HG23	2:B:932:LEU:HD12	1.81	0.61
2:B:1615:LEU:O	2:B:1619:HIS:N	2.26	0.61
2:E:638:LEU:HD13	2:E:641:LEU:HD12	1.82	0.61
2:E:950:ILE:HA	2:E:953:PHE:HD2	1.66	0.61
1:A:549:LYS:HE2	1:A:671:ALA:HA	1.83	0.61
1:A:563:ARG:HB2	1:A:655:ILE:HB	1.80	0.61
1:A:589:GLY:HA3	1:A:604:LEU:HB2	1.82	0.61
2:B:1404:ASN:OD1	2:B:1424:GLN:HB2	2.00	0.61
2:E:446:ILE:HB	2:E:515:VAL:HB	1.81	0.61
2:E:1177:LEU:HD22	2:E:1181:ARG:HH22	1.66	0.61
2:E:1552:SER:HB3	3:F:39:ASN:HD22	1.66	0.61
2:B:1418:ILE:HG21	2:B:1425:TYR:HB2	1.82	0.61
2:E:144:LEU:HD13	2:E:147:LYS:HD2	1.83	0.61
2:E:166:ARG:NH2	2:E:168:ASP:HB2	2.16	0.61
2:E:166:ARG:HH21	2:E:169:ASN:HD21	1.48	0.61
2:E:181:ILE:HG21	2:E:907:SER:HB2	1.81	0.61
2:E:1251:HIS:O	2:E:1255:GLU:N	2.34	0.61
2:E:1404:ASN:OD1	2:E:1424:GLN:HB2	2.00	0.61
2:E:1491:THR:HA	2:E:1505:LYS:H	1.65	0.61
2:B:530:THR:HA	2:B:549:VAL:HG22	1.82	0.61
1:A:697:ARG:HB3	2:B:31:ILE:HB	1.81	0.61
2:B:1251:HIS:O	2:B:1255:GLU:N	2.34	0.61
2:B:1368:TYR:O	2:B:1425:TYR:N	2.25	0.61
1:D:549:LYS:HE2	1:D:671:ALA:HA	1.83	0.61
2:B:441:ASP:O	2:B:629:THR:OG1	2.19	0.60
3:C:5:LYS:NZ	3:C:73:PRO:O	2.33	0.60
1:D:578:ARG:NH2	1:D:601:HIS:O	2.34	0.60
1:D:589:GLY:HA3	1:D:604:LEU:HB2	1.82	0.60
1:A:544:ILE:O	1:A:548:ILE:HG12	2.00	0.60
2:B:154:HIS:HA	2:B:157:ARG:HG2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:248:PRO:HD2	2:B:293:ARG:HG3	1.82	0.60
2:B:640:LEU:HD12	2:B:657:LEU:HD13	1.83	0.60
2:B:1051:VAL:O	2:B:1055:THR:OG1	2.18	0.60
2:E:1460:GLN:NE2	2:E:1491:THR:O	2.24	0.60
2:B:144:LEU:HD13	2:B:147:LYS:HD2	1.83	0.60
2:B:1259:GLU:HG3	2:B:1498:ILE:HA	1.83	0.60
2:B:1362:TYR:CE1	2:B:1384:ARG:HG3	2.36	0.60
2:B:1491:THR:HA	2:B:1505:LYS:H	1.65	0.60
2:E:640:LEU:HD12	2:E:657:LEU:HD13	1.83	0.60
2:B:638:LEU:HD13	2:B:641:LEU:HD12	1.82	0.60
2:B:965:ASP:HB3	2:B:968:HIS:CG	2.37	0.60
3:C:23:TYR:HB2	3:C:165:LEU:HD21	1.82	0.60
2:E:154:HIS:HA	2:E:157:ARG:HG2	1.83	0.60
2:E:1111:GLU:O	2:E:1163:ARG:NH1	2.34	0.60
2:E:1259:GLU:HG3	2:E:1498:ILE:HA	1.83	0.60
2:B:240:GLU:HB3	2:B:259:LEU:HD11	1.82	0.60
2:B:445:ASP:HB2	2:B:627:CYS:HB2	1.82	0.60
2:E:730:TYR:OH	2:E:771:ARG:NH1	2.35	0.60
1:A:727:ASN:N	2:B:46:ARG:HH22	1.98	0.60
2:B:166:ARG:HH21	2:B:169:ASN:HD21	1.48	0.60
2:B:1312:LYS:HD2	2:B:1314:TRP:CH2	2.37	0.60
2:B:1607:HIS:NE2	2:B:1619:HIS:HB2	2.17	0.60
2:E:267:MET:HE1	2:E:271:ILE:HG22	1.81	0.60
2:E:928:ILE:HG23	2:E:932:LEU:HD12	1.81	0.60
2:E:1312:LYS:HD2	2:E:1314:TRP:CH2	2.37	0.60
2:E:1362:TYR:CE1	2:E:1384:ARG:HG3	2.36	0.60
2:E:910:LEU:HA	2:E:913:LEU:HD12	1.84	0.60
2:E:1167:GLN:CD	2:E:1167:GLN:H	2.10	0.60
3:F:7:VAL:HA	3:F:56:TRP:HB2	1.83	0.60
1:A:536:LEU:HD11	2:B:17:TYR:HB2	1.83	0.60
2:B:943:MET:HG3	2:B:950:ILE:HD13	1.84	0.60
2:B:1470:LYS:HB3	2:B:1483:TRP:CD1	2.37	0.60
2:E:257:ASN:O	2:E:488:ALA:N	2.33	0.60
2:E:1470:LYS:HB3	2:E:1483:TRP:CD1	2.37	0.60
2:E:1607:HIS:NE2	2:E:1619:HIS:HB2	2.17	0.60
1:A:575:TRP:HZ3	1:A:588:TYR:HB2	1.67	0.60
1:A:661:GLU:HA	1:A:664:ILE:HB	1.83	0.60
2:B:166:ARG:NH2	2:B:168:ASP:HB2	2.16	0.60
2:B:680:MET:HE3	2:B:693:VAL:HG21	1.84	0.60
2:B:1525:THR:O	2:B:1529:ILE:HG12	2.01	0.60
3:C:8:VAL:HG22	3:C:79:LEU:HB2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:518:ALA:HB3	2:E:521:GLU:HB2	1.84	0.60
2:E:1525:THR:O	2:E:1529:ILE:HG12	2.01	0.60
1:A:578:ARG:NH2	1:A:601:HIS:O	2.34	0.59
2:B:273:LYS:NZ	2:B:489:GLY:O	2.32	0.59
2:B:852:LEU:HB3	2:B:855:GLN:HB2	1.84	0.59
2:B:857:LEU:O	2:B:861:THR:OG1	2.15	0.59
2:E:441:ASP:O	2:E:629:THR:OG1	2.19	0.59
2:E:889:GLN:O	2:E:895:ASN:ND2	2.35	0.59
2:B:889:GLN:O	2:B:895:ASN:ND2	2.35	0.59
2:B:1167:GLN:CD	2:B:1167:GLN:H	2.10	0.59
2:B:1471:GLY:O	2:B:1473:LYS:NZ	2.25	0.59
2:E:973:ILE:HA	2:E:976:PHE:CE1	2.37	0.59
2:E:1217:LYS:HB3	2:E:1220:ARG:HH21	1.67	0.59
3:F:8:VAL:HG22	3:F:79:LEU:HB2	1.82	0.59
3:F:23:TYR:HB2	3:F:165:LEU:HD21	1.83	0.59
2:B:950:ILE:HA	2:B:953:PHE:HD2	1.66	0.59
2:B:1177:LEU:HD22	2:B:1181:ARG:HH22	1.66	0.59
2:E:680:MET:HE3	2:E:693:VAL:HG21	1.84	0.59
2:E:879:LEU:HA	2:E:882:LEU:HD12	1.83	0.59
2:B:910:LEU:HA	2:B:913:LEU:HD12	1.84	0.59
2:E:852:LEU:HB3	2:E:855:GLN:HB2	1.84	0.59
1:D:550:GLN:OE1	1:D:554:ASN:ND2	2.24	0.59
1:D:575:TRP:HZ3	1:D:588:TYR:HB2	1.67	0.59
2:E:102:TRP:HA	2:E:105:LEU:HD12	1.84	0.59
2:B:115:ARG:HA	2:B:118:GLN:HG3	1.85	0.59
3:C:7:VAL:HA	3:C:56:TRP:HB2	1.83	0.59
2:E:115:ARG:HA	2:E:118:GLN:HG3	1.85	0.59
2:E:1166:GLU:CD	2:E:1166:GLU:H	2.10	0.59
2:E:1362:TYR:HE1	2:E:1384:ARG:HG3	1.68	0.59
2:B:122:TYR:HA	2:B:125:ILE:HG12	1.85	0.59
2:B:757:LEU:HD23	2:B:760:LEU:HD11	1.84	0.59
2:B:1388:TYR:CD2	3:C:45:MET:HE1	2.38	0.59
2:E:13:GLY:HA3	2:E:35:VAL:HG22	1.85	0.59
2:E:932:LEU:N	2:E:935:ARG:HH21	2.01	0.59
2:B:13:GLY:HA3	2:B:35:VAL:HG22	1.85	0.59
2:B:180:THR:OG1	2:B:962:GLN:OE1	2.12	0.59
2:B:1217:LYS:HB3	2:B:1220:ARG:HH21	1.67	0.59
2:E:879:LEU:HD23	2:E:931:ARG:HH22	1.68	0.59
2:E:965:ASP:HB3	2:E:968:HIS:CG	2.37	0.59
2:E:1532:CYS:O	2:E:1535:GLN:NE2	2.35	0.59
2:B:730:TYR:OH	2:B:771:ARG:NH1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:122:TYR:HA	2:E:125:ILE:HG12	1.85	0.59
2:E:534:ARG:NE	2:E:541:ASP:OD1	2.23	0.59
2:E:757:LEU:HD23	2:E:760:LEU:HD11	1.84	0.59
2:E:943:MET:HG3	2:E:950:ILE:HD13	1.84	0.59
2:B:740:TYR:HA	2:B:749:LYS:HD3	1.84	0.59
2:B:879:LEU:HA	2:B:882:LEU:HD12	1.83	0.59
2:B:1057:GLU:HA	2:B:1061:LEU:HD23	1.84	0.59
2:B:1166:GLU:CD	2:B:1166:GLU:H	2.10	0.59
2:E:131:ILE:HD11	2:E:144:LEU:HG	1.85	0.59
2:E:923:VAL:HA	2:E:926:GLN:OE1	2.03	0.59
2:E:1057:GLU:HA	2:E:1061:LEU:HD23	1.84	0.59
3:C:129:LEU:HA	3:C:132:LYS:HG2	1.85	0.58
2:E:157:ARG:NH1	2:E:197:LYS:HD3	2.13	0.58
2:E:569:LEU:HD12	2:E:620:PHE:HD2	1.68	0.58
2:E:1582:ASP:HA	2:E:1585:LYS:HZ3	1.68	0.58
2:B:155:GLY:HA2	2:B:158:MET:SD	2.42	0.58
2:B:1117:GLU:OE2	2:B:1121:ARG:N	2.27	0.58
2:B:1370:GLN:OE1	2:B:1377:ARG:HD3	2.03	0.58
2:B:1390:ARG:NH2	3:C:23:TYR:O	2.36	0.58
2:E:1471:GLY:O	2:E:1473:LYS:NZ	2.25	0.58
2:B:138:LYS:HA	2:B:141:LEU:HD13	1.85	0.58
3:C:87:PRO:HA	3:C:90:PHE:CD2	2.37	0.58
2:E:155:GLY:HA2	2:E:158:MET:SD	2.42	0.58
3:F:5:LYS:NZ	3:F:73:PRO:O	2.33	0.58
3:F:138:THR:H	3:F:141:GLN:NE2	2.02	0.58
1:A:659:LYS:NZ	1:A:680:ASP:OD2	2.36	0.58
2:B:879:LEU:HD23	2:B:931:ARG:HH22	1.68	0.58
1:D:548:ILE:O	1:D:552:ARG:HG2	2.03	0.58
2:E:15:ALA:HA	2:E:59:PHE:CE2	2.38	0.58
2:E:789:ASN:OD1	2:E:792:ARG:NH1	2.36	0.58
2:E:1251:HIS:NE2	2:E:1259:GLU:HG2	2.19	0.58
1:A:536:LEU:HD21	2:B:17:TYR:HB2	1.84	0.58
2:B:973:ILE:HA	2:B:976:PHE:CE1	2.37	0.58
2:B:1524:LEU:HA	2:B:1527:GLU:HG3	1.86	0.58
2:B:1627:ARG:HA	2:B:1630:LYS:HB2	1.85	0.58
2:E:681:MET:HE1	2:E:725:SER:O	2.03	0.58
2:E:1290:VAL:HG23	2:E:1291:TYR:H	1.68	0.58
2:E:1360:PRO:HA	2:E:1387:GLU:HA	1.86	0.58
2:E:1627:ARG:HA	2:E:1630:LYS:HB2	1.85	0.58
2:B:37:ILE:HA	2:B:47:GLY:HA3	1.85	0.58
2:B:1241:ILE:HA	2:B:1244:LEU:HD12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1464:TYR:N	2:B:1487:THR:O	2.33	0.58
1:D:696:LEU:HD12	1:D:697:ARG:HE	1.68	0.58
2:E:450:LEU:HD11	2:E:470:MET:HE1	1.86	0.58
3:F:129:LEU:HA	3:F:132:LYS:HG2	1.85	0.58
1:A:548:ILE:O	1:A:552:ARG:HG2	2.03	0.58
2:B:518:ALA:HB3	2:B:521:GLU:HB2	1.84	0.58
2:B:903:SER:HB3	2:B:953:PHE:CE1	2.39	0.58
2:B:1183:HIS:HB3	2:B:1187:SER:OG	2.03	0.58
2:B:1251:HIS:NE2	2:B:1259:GLU:HG2	2.19	0.58
2:E:37:ILE:HA	2:E:47:GLY:HA3	1.85	0.58
2:E:273:LYS:NZ	2:E:489:GLY:O	2.32	0.58
2:B:450:LEU:HD11	2:B:470:MET:HE1	1.86	0.58
2:B:569:LEU:HD12	2:B:620:PHE:HD2	1.68	0.58
2:B:883:THR:CG2	2:B:931:ARG:HB3	2.33	0.58
2:B:923:VAL:HA	2:B:926:GLN:OE1	2.03	0.58
1:D:550:GLN:O	1:D:554:ASN:ND2	2.37	0.58
2:E:740:TYR:HA	2:E:749:LYS:HD3	1.84	0.58
2:E:1022:ASN:HB3	2:E:1086:ARG:HH12	1.68	0.58
2:E:1183:HIS:HB3	2:E:1187:SER:OG	2.03	0.58
2:E:1585:LYS:HG3	2:E:1588:LEU:HD12	1.86	0.58
2:B:131:ILE:HD11	2:B:144:LEU:HG	1.85	0.58
2:B:789:ASN:OD1	2:B:792:ARG:NH1	2.36	0.58
2:B:791:ILE:HG22	2:B:795:PHE:CE2	2.39	0.58
1:D:659:LYS:NZ	1:D:680:ASP:OD2	2.36	0.58
2:E:732:LYS:HA	2:E:735:LYS:HD3	1.86	0.58
2:E:793:GLN:HA	2:E:796:LEU:HG	1.85	0.58
2:E:903:SER:HB3	2:E:953:PHE:CE1	2.39	0.58
2:E:1232:LYS:HB2	2:E:1240:TYR:CE2	2.39	0.58
2:B:257:ASN:O	2:B:488:ALA:N	2.33	0.58
2:B:904:GLN:O	2:B:907:SER:OG	2.21	0.58
2:B:960:LEU:O	2:B:964:MET:HG2	2.04	0.58
2:B:1022:ASN:HB3	2:B:1086:ARG:HH12	1.68	0.58
2:B:1532:CYS:O	2:B:1535:GLN:NE2	2.35	0.58
2:E:142:ALA:O	2:E:146:LYS:HG2	2.04	0.58
2:E:716:LEU:O	2:E:720:ILE:HG13	2.04	0.58
2:B:853:VAL:O	2:B:857:LEU:HG	2.04	0.57
2:B:945:ARG:HH11	2:B:946:GLN:N	2.02	0.57
3:C:6:CYS:C	3:C:56:TRP:HD1	2.12	0.57
3:C:138:THR:H	3:C:141:GLN:NE2	2.02	0.57
2:E:853:VAL:O	2:E:857:LEU:HG	2.04	0.57
2:E:1241:ILE:HA	2:E:1244:LEU:HD12	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1524:LEU:HA	2:E:1527:GLU:HG3	1.86	0.57
1:A:696:LEU:HD12	1:A:697:ARG:HE	1.68	0.57
2:B:102:TRP:HA	2:B:105:LEU:HD12	1.84	0.57
2:B:1034:ASP:OD1	2:B:1097:HIS:NE2	2.37	0.57
2:B:1111:GLU:O	2:B:1163:ARG:NH1	2.34	0.57
2:E:883:THR:CG2	2:E:931:ARG:HB3	2.33	0.57
2:E:961:LEU:O	2:E:1019:ARG:NH1	2.37	0.57
2:E:1051:VAL:O	2:E:1055:THR:OG1	2.18	0.57
3:F:6:CYS:C	3:F:56:TRP:HD1	2.12	0.57
1:A:550:GLN:O	1:A:554:ASN:ND2	2.37	0.57
2:B:15:ALA:HA	2:B:59:PHE:CE2	2.38	0.57
2:B:409:ASP:H	2:B:412:GLN:NE2	2.03	0.57
2:B:793:GLN:HA	2:B:796:LEU:HG	1.85	0.57
2:B:1232:LYS:HB2	2:B:1240:TYR:CE2	2.39	0.57
1:D:585:VAL:HG12	1:D:607:LYS:HD2	1.85	0.57
2:E:791:ILE:HG22	2:E:795:PHE:CE2	2.39	0.57
2:E:945:ARG:HH11	2:E:946:GLN:N	2.02	0.57
2:B:681:MET:HE1	2:B:725:SER:O	2.03	0.57
2:B:932:LEU:N	2:B:935:ARG:HH21	2.01	0.57
2:B:1196:LEU:O	2:B:1199:SER:OG	2.23	0.57
2:E:138:LYS:HA	2:E:141:LEU:HD13	1.85	0.57
2:E:569:LEU:HB2	2:E:620:PHE:HB3	1.86	0.57
2:B:534:ARG:NE	2:B:541:ASP:OD1	2.23	0.57
2:B:1032:PHE:HA	2:B:1036:ALA:HB3	1.86	0.57
2:E:38:LEU:H	2:E:47:GLY:HA3	1.70	0.57
2:E:876:GLU:OE1	2:E:876:GLU:N	2.38	0.57
1:A:652:LEU:HB3	1:A:654:PHE:CE2	2.40	0.57
2:B:1135:GLU:OE1	2:B:1139:SER:OG	2.22	0.57
2:B:1361:GLU:OE2	2:B:1388:TYR:HA	2.04	0.57
2:E:1370:GLN:OE1	2:E:1377:ARG:HD3	2.03	0.57
2:B:87:LEU:HD23	2:B:91:LEU:HD23	1.87	0.57
2:B:287:MET:HG3	2:B:435:GLU:OE2	2.05	0.57
2:B:560:THR:HG22	2:B:638:LEU:HG	1.87	0.57
2:B:569:LEU:HB2	2:B:620:PHE:HB3	1.86	0.57
2:B:732:LYS:HA	2:B:735:LYS:HD3	1.86	0.57
2:B:961:LEU:O	2:B:1019:ARG:NH1	2.37	0.57
2:B:1063:THR:HA	2:B:1069:ARG:CD	2.35	0.57
2:B:1290:VAL:HG23	2:B:1291:TYR:H	1.68	0.57
2:E:1388:TYR:CD2	3:F:45:MET:HE1	2.40	0.57
2:E:1555:VAL:HG21	2:E:1622:LEU:HA	1.86	0.57
2:B:45:TYR:O	2:B:59:PHE:N	2.31	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1555:VAL:HG21	2:B:1622:LEU:HA	1.86	0.57
2:E:285:SER:HB2	2:E:435:GLU:OE1	2.04	0.57
1:A:643:SER:HA	1:A:652:LEU:O	2.04	0.57
2:B:38:LEU:H	2:B:47:GLY:HA3	1.70	0.57
2:B:142:ALA:O	2:B:146:LYS:HG2	2.04	0.57
2:B:876:GLU:N	2:B:876:GLU:OE1	2.38	0.57
2:B:879:LEU:O	2:B:882:LEU:N	2.38	0.57
2:B:1019:ARG:O	2:B:1023:GLN:NE2	2.34	0.57
2:B:1466:ARG:O	2:B:1484:ILE:HA	2.05	0.57
1:D:643:SER:HA	1:D:652:LEU:O	2.04	0.57
2:E:467:GLU:OE2	2:E:534:ARG:NH1	2.38	0.57
2:E:1466:ARG:O	2:E:1484:ILE:HA	2.05	0.57
2:B:853:VAL:HG23	2:B:854:ARG:HD3	1.87	0.57
1:D:711:PRO:HD2	2:E:17:TYR:HE1	1.70	0.57
2:E:556:ASN:N	2:E:560:THR:O	2.36	0.57
2:E:1361:GLU:OE2	2:E:1388:TYR:HA	2.04	0.57
2:E:1557:PRO:HB2	2:E:1562:GLY:H	1.70	0.57
2:B:285:SER:HB2	2:B:435:GLU:OE1	2.04	0.56
2:B:730:TYR:HA	2:B:733:LEU:HD12	1.87	0.56
2:B:917:ASP:N	2:B:917:ASP:OD1	2.38	0.56
2:E:787:PHE:O	2:E:791:ILE:HG12	2.05	0.56
2:E:879:LEU:O	2:E:882:LEU:N	2.38	0.56
2:E:1034:ASP:OD1	2:E:1097:HIS:NE2	2.37	0.56
2:B:59:PHE:CE2	2:B:63:TYR:HB3	2.41	0.56
2:B:1585:LYS:HG3	2:B:1588:LEU:HD12	1.86	0.56
2:E:87:LEU:HD23	2:E:91:LEU:HD23	1.87	0.56
2:E:288:ASP:OD1	2:E:291:ARG:NH2	2.32	0.56
1:A:585:VAL:HG12	1:A:607:LYS:HD2	1.85	0.56
1:A:670:ASN:O	1:A:674:GLY:N	2.37	0.56
2:B:467:GLU:OE2	2:B:534:ARG:NH1	2.38	0.56
2:B:716:LEU:O	2:B:720:ILE:HG13	2.04	0.56
2:B:866:SER:C	2:B:868:LEU:H	2.13	0.56
2:B:1360:PRO:HA	2:B:1387:GLU:HA	1.86	0.56
2:B:1362:TYR:HE1	2:B:1384:ARG:HG3	1.68	0.56
2:B:1516:GLU:O	2:B:1519:ILE:N	2.39	0.56
2:B:1536:HIS:CD2	2:B:1542:LEU:HB3	2.41	0.56
3:C:14:VAL:HB	3:C:16:LYS:HZ2	1.70	0.56
1:D:652:LEU:HB3	1:D:654:PHE:CE2	2.40	0.56
2:E:14:VAL:HG21	2:E:67:LYS:HD2	1.87	0.56
2:E:591:THR:N	2:E:594:GLU:OE2	2.33	0.56
2:E:730:TYR:HA	2:E:733:LEU:HD12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:871:GLN:HB3	2:E:875:ARG:HB2	1.88	0.56
2:E:1063:THR:HA	2:E:1069:ARG:CD	2.35	0.56
2:E:1280:PRO:HA	2:E:1283:LEU:HD23	1.87	0.56
2:E:1536:HIS:CD2	2:E:1542:LEU:HB3	2.41	0.56
2:B:79:THR:HA	2:B:85:LEU:HD22	1.87	0.56
2:B:875:ARG:HE	2:B:924:HIS:CD2	2.23	0.56
2:B:1280:PRO:HA	2:B:1283:LEU:HD23	1.87	0.56
2:B:1466:ARG:H	2:B:1484:ILE:HG23	1.71	0.56
1:D:670:ASN:O	1:D:674:GLY:N	2.37	0.56
1:D:701:LEU:HD23	2:E:31:ILE:O	2.05	0.56
2:E:560:THR:HG22	2:E:638:LEU:HG	1.87	0.56
2:E:875:ARG:HE	2:E:924:HIS:CD2	2.23	0.56
2:E:1392:GLU:OE1	2:E:1392:GLU:N	2.38	0.56
2:E:1395:SER:O	2:E:1399:LEU:HG	2.05	0.56
2:E:1632:LYS:HA	2:E:1636:HIS:HB3	1.88	0.56
1:A:643:SER:OG	1:A:653:ASN:ND2	2.38	0.56
2:E:79:THR:HA	2:E:85:LEU:HD22	1.87	0.56
2:E:287:MET:HG3	2:E:435:GLU:OE2	2.05	0.56
2:E:904:GLN:O	2:E:907:SER:OG	2.21	0.56
3:F:87:PRO:HA	3:F:90:PHE:CD2	2.37	0.56
3:F:141:GLN:OE1	3:F:141:GLN:N	2.31	0.56
2:B:787:PHE:O	2:B:791:ILE:HG12	2.05	0.56
2:B:1168:TYR:O	2:B:1172:LEU:HD23	2.06	0.56
2:B:1232:LYS:HB2	2:B:1240:TYR:HE2	1.71	0.56
2:E:59:PHE:CE2	2:E:63:TYR:HB3	2.40	0.56
2:B:1117:GLU:CD	2:B:1120:LEU:HG	2.31	0.56
2:B:1443:ASP:OD1	2:B:1443:ASP:N	2.38	0.56
2:E:809:ALA:HB3	2:E:813:LYS:NZ	2.21	0.56
1:A:536:LEU:CD2	2:B:31:ILE:HD11	2.36	0.56
1:A:637:VAL:HG12	1:A:640:LEU:HD12	1.88	0.56
2:B:871:GLN:HB3	2:B:875:ARG:HB2	1.88	0.56
2:E:45:TYR:O	2:E:59:PHE:N	2.32	0.56
2:E:204:ILE:HG13	2:E:211:ARG:HB3	1.87	0.56
2:E:772:VAL:HG13	2:E:776:ARG:HH21	1.71	0.56
2:E:853:VAL:HG23	2:E:854:ARG:HD3	1.87	0.56
2:E:1405:ALA:O	2:E:1407:LYS:NZ	2.37	0.56
2:E:1630:LYS:O	2:E:1634:GLU:HG2	2.06	0.56
3:F:87:PRO:HG2	3:F:134:LEU:HD22	1.87	0.56
2:B:297:VAL:HG22	2:B:326:VAL:HG22	1.88	0.56
2:B:1189:SER:O	2:B:1192:VAL:HG22	2.06	0.56
2:B:1557:PRO:HB2	2:B:1562:GLY:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:960:LEU:O	2:E:964:MET:HG2	2.04	0.56
2:E:1135:GLU:OE1	2:E:1139:SER:OG	2.22	0.56
2:E:1516:GLU:O	2:E:1519:ILE:N	2.39	0.56
2:B:1448:GLU:OE1	2:B:1452:ASN:ND2	2.39	0.56
2:E:258:TYR:CE1	2:E:489:GLY:HA3	2.41	0.56
2:E:319:ARG:HB2	2:E:499:VAL:HA	1.88	0.56
2:E:1371:GLY:C	2:E:1424:GLN:HE21	2.14	0.56
1:A:722:PHE:CE1	2:B:1:MET:HB2	2.42	0.55
2:B:1536:HIS:CG	2:B:1542:LEU:HD22	2.41	0.55
2:E:917:ASP:N	2:E:917:ASP:OD1	2.38	0.55
2:E:1466:ARG:H	2:E:1484:ILE:HG23	1.71	0.55
2:B:1417:ASP:O	2:B:1421:SER:N	2.40	0.55
1:D:693:GLU:OE1	2:E:103:ARG:NH2	2.34	0.55
2:E:409:ASP:H	2:E:412:GLN:NE2	2.03	0.55
2:E:738:ASN:HD21	2:E:793:GLN:HG3	1.71	0.55
2:E:1032:PHE:HA	2:E:1036:ALA:HB3	1.86	0.55
2:E:1602:GLU:O	2:E:1606:ILE:HG12	2.07	0.55
2:B:204:ILE:HG13	2:B:211:ARG:HB3	1.87	0.55
2:B:450:LEU:O	2:B:510:TYR:N	2.38	0.55
2:B:1153:THR:HG22	2:B:1157:GLN:HE22	1.71	0.55
3:C:87:PRO:HG2	3:C:134:LEU:HD22	1.87	0.55
2:E:411:THR:OG1	2:E:412:GLN:OE1	2.24	0.55
2:E:1117:GLU:CD	2:E:1120:LEU:HG	2.31	0.55
2:E:1168:TYR:O	2:E:1172:LEU:HD23	2.05	0.55
2:E:1189:SER:O	2:E:1192:VAL:HG22	2.06	0.55
2:B:258:TYR:CE1	2:B:489:GLY:HA3	2.41	0.55
2:B:730:TYR:CE1	2:B:771:ARG:HD3	2.42	0.55
2:B:1395:SER:O	2:B:1399:LEU:HG	2.05	0.55
2:B:1440:SER:H	2:B:1442:LYS:HZ1	1.54	0.55
2:B:1632:LYS:HA	2:B:1636:HIS:HB3	1.88	0.55
2:E:1536:HIS:CG	2:E:1542:LEU:HD22	2.41	0.55
2:B:246:TYR:HA	2:B:253:PHE:HA	1.88	0.55
3:C:98:TYR:CE1	3:C:149:ILE:HB	2.42	0.55
2:E:46:ARG:HA	2:E:57:GLY:O	2.07	0.55
2:E:297:VAL:HG22	2:E:326:VAL:HG22	1.88	0.55
2:E:1196:LEU:O	2:E:1199:SER:OG	2.22	0.55
2:B:225:TYR:N	2:B:404:LYS:O	2.38	0.55
2:B:231:PHE:HB3	2:B:262:TRP:NE1	2.22	0.55
2:B:411:THR:OG1	2:B:412:GLN:OE1	2.24	0.55
2:B:879:LEU:HG	2:B:931:ARG:HH12	1.72	0.55
3:C:91:GLU:O	3:C:95:ALA:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:637:VAL:HG12	1:D:640:LEU:HD12	1.88	0.55
2:E:1232:LYS:HB2	2:E:1240:TYR:HE2	1.71	0.55
2:B:319:ARG:HB2	2:B:499:VAL:HA	1.88	0.55
2:B:1371:GLY:C	2:B:1424:GLN:HE21	2.14	0.55
2:B:1533:VAL:O	2:B:1537:ALA:HB2	2.07	0.55
2:E:1448:GLU:OE1	2:E:1452:ASN:ND2	2.39	0.55
2:E:1545:HIS:HD2	3:F:5:LYS:HE3	1.72	0.55
2:B:144:LEU:HA	2:B:147:LYS:HG2	1.88	0.55
2:B:1373:PRO:HD2	2:B:1376:LEU:HD12	1.89	0.55
2:E:166:ARG:HG2	2:E:173:LEU:H	1.71	0.55
2:E:1533:VAL:O	2:E:1537:ALA:HB2	2.07	0.55
3:F:98:TYR:CE1	3:F:149:ILE:HB	2.42	0.55
2:B:37:ILE:HG21	2:B:45:TYR:HB3	1.89	0.55
2:B:46:ARG:HA	2:B:57:GLY:O	2.07	0.55
2:B:772:VAL:HG13	2:B:776:ARG:HH21	1.71	0.55
2:B:1149:ASN:HA	2:B:1236:ARG:HH12	1.72	0.55
2:E:730:TYR:CE1	2:E:771:ARG:HD3	2.42	0.55
2:E:744:ALA:HA	2:E:753:LEU:HD22	1.89	0.55
2:E:922:ALA:HA	2:E:925:ILE:HD12	1.89	0.55
2:E:1370:GLN:N	2:E:1421:SER:O	2.39	0.55
2:E:1389:GLU:OE2	2:E:1397:ARG:NH2	2.40	0.55
2:E:1549:MET:HA	3:F:39:ASN:ND2	2.21	0.55
2:B:738:ASN:HD21	2:B:793:GLN:HG3	1.71	0.54
2:B:1630:LYS:O	2:B:1634:GLU:HG2	2.06	0.54
2:E:144:LEU:HA	2:E:147:LYS:HG2	1.88	0.54
2:E:1019:ARG:O	2:E:1023:GLN:NE2	2.34	0.54
2:B:14:VAL:HG21	2:B:67:LYS:HD2	1.88	0.54
2:B:809:ALA:HB3	2:B:813:LYS:NZ	2.21	0.54
2:B:1121:ARG:O	2:B:1125:ILE:HD12	2.07	0.54
2:B:1605:ARG:HH21	2:B:1606:ILE:HD11	1.72	0.54
2:E:91:LEU:HD11	2:E:128:ARG:HG3	1.89	0.54
2:E:970:SER:O	2:E:974:SER:OG	2.23	0.54
2:E:1149:ASN:HA	2:E:1236:ARG:HH12	1.72	0.54
2:E:1153:THR:HG22	2:E:1157:GLN:HE22	1.71	0.54
2:E:1373:PRO:HD2	2:E:1376:LEU:HD12	1.89	0.54
2:E:1440:SER:H	2:E:1442:LYS:NZ	2.06	0.54
2:B:1370:GLN:N	2:B:1421:SER:O	2.39	0.54
1:D:541:GLN:O	1:D:544:ILE:HG22	2.07	0.54
1:D:551:GLN:O	1:D:555:ARG:HG2	2.08	0.54
1:D:695:LYS:O	1:D:698:LEU:HG	2.07	0.54
2:E:231:PHE:HB3	2:E:262:TRP:NE1	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:299:GLN:HA	2:E:324:VAL:HG22	1.89	0.54
2:E:344:HIS:N	2:E:401:VAL:O	2.40	0.54
2:E:879:LEU:HG	2:E:931:ARG:HH12	1.72	0.54
2:E:979:ARG:HH11	2:E:1036:ALA:HB2	1.72	0.54
2:E:1439:PRO:HA	2:E:1442:LYS:HZ3	1.71	0.54
3:F:91:GLU:O	3:F:95:ALA:HB3	2.07	0.54
2:E:19:TYR:O	2:E:28:SER:HA	2.08	0.54
2:E:225:TYR:N	2:E:404:LYS:O	2.37	0.54
2:E:246:TYR:HA	2:E:253:PHE:HA	1.88	0.54
2:E:866:SER:C	2:E:868:LEU:H	2.14	0.54
2:E:1443:ASP:OD1	2:E:1443:ASP:N	2.38	0.54
1:A:541:GLN:O	1:A:544:ILE:HG22	2.07	0.54
2:B:19:TYR:O	2:B:28:SER:HA	2.08	0.54
2:B:91:LEU:HD11	2:B:128:ARG:HG3	1.89	0.54
2:B:166:ARG:HG2	2:B:173:LEU:H	1.71	0.54
2:B:979:ARG:HH11	2:B:1036:ALA:HB2	1.72	0.54
2:B:1439:PRO:HA	2:B:1442:LYS:HZ3	1.72	0.54
2:E:1515:LEU:HD11	2:E:1575:TYR:HE2	1.72	0.54
1:A:722:PHE:HE1	2:B:1:MET:HB2	1.72	0.54
2:B:1012:THR:HG22	2:B:1015:ARG:HH21	1.72	0.54
2:B:1038:PHE:O	2:B:1039:GLU:HG2	2.08	0.54
2:E:8:LYS:HA	2:E:10:GLN:HE22	1.73	0.54
2:E:1109:ILE:HG23	2:E:1128:PHE:HE1	1.73	0.54
2:E:1121:ARG:O	2:E:1125:ILE:HD12	2.07	0.54
3:F:167:THR:O	3:F:170:ASP:N	2.41	0.54
2:B:874:CYS:O	2:B:878:LEU:N	2.29	0.54
2:B:926:GLN:HE21	2:B:968:HIS:CE1	2.26	0.54
2:B:1314:TRP:HB3	2:B:1348:PHE:HB3	1.90	0.54
2:B:1389:GLU:OE2	2:B:1397:ARG:NH2	2.40	0.54
2:B:1483:TRP:NE1	2:B:1514:PRO:HD3	2.23	0.54
2:E:1015:ARG:HD3	2:E:1076:TYR:HD1	1.72	0.54
2:E:1167:GLN:OE1	2:E:1167:GLN:N	2.39	0.54
2:E:1552:SER:O	2:E:1555:VAL:HG12	2.08	0.54
3:C:141:GLN:OE1	3:C:141:GLN:N	2.31	0.54
2:E:37:ILE:HG21	2:E:45:TYR:HB3	1.89	0.54
2:E:926:GLN:HE21	2:E:968:HIS:CE1	2.26	0.54
2:E:1417:ASP:O	2:E:1421:SER:N	2.40	0.54
2:B:299:GLN:HA	2:B:324:VAL:HG22	1.89	0.54
2:B:970:SER:O	2:B:974:SER:OG	2.23	0.54
2:B:1059:LEU:CD2	2:B:1080:ARG:HH22	2.21	0.54
2:B:1109:ILE:HG23	2:B:1128:PHE:HE1	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1292:THR:HG23	2:B:1295:GLU:HB2	1.89	0.54
2:B:1470:LYS:HD3	2:B:1483:TRP:CD2	2.43	0.54
2:B:1015:ARG:HD3	2:B:1076:TYR:HD1	1.73	0.54
2:B:1602:GLU:O	2:B:1606:ILE:HG12	2.07	0.54
2:E:1127:ILE:HA	2:E:1130:ASP:OD2	2.08	0.54
2:E:1292:THR:HG23	2:E:1295:GLU:HB2	1.89	0.54
2:B:744:ALA:HA	2:B:753:LEU:HD22	1.89	0.53
2:B:1483:TRP:HA	2:B:1512:ILE:O	2.09	0.53
2:B:1515:LEU:HD11	2:B:1575:TYR:HE2	1.72	0.53
2:E:231:PHE:CZ	2:E:300:ILE:HG12	2.43	0.53
2:E:1012:THR:HG22	2:E:1015:ARG:HH21	1.72	0.53
2:E:1038:PHE:O	2:E:1039:GLU:HG2	2.08	0.53
2:E:1059:LEU:CD2	2:E:1080:ARG:HH22	2.21	0.53
1:A:688:THR:O	1:A:691:SER:OG	2.16	0.53
2:B:70:THR:HG23	2:B:72:GLU:H	1.73	0.53
2:B:156:ASN:HA	2:B:161:LEU:HD12	1.91	0.53
3:C:167:THR:O	3:C:170:ASP:N	2.41	0.53
2:E:1240:TYR:O	2:E:1244:LEU:HG	2.09	0.53
2:E:1483:TRP:HA	2:E:1512:ILE:O	2.09	0.53
2:E:1561:GLY:C	2:E:1565:ASN:HD22	2.16	0.53
2:B:192:LYS:O	2:B:195:GLU:HG3	2.08	0.53
2:B:922:ALA:HA	2:B:925:ILE:HD12	1.90	0.53
2:B:1563:PHE:O	2:B:1567:GLU:HG2	2.08	0.53
2:E:436:ILE:HG22	2:E:438:LEU:HD22	1.90	0.53
2:E:1434:VAL:HB	2:E:1461:GLN:HB2	1.90	0.53
2:E:1483:TRP:NE1	2:E:1514:PRO:HD3	2.23	0.53
1:A:551:GLN:O	1:A:555:ARG:HG2	2.08	0.53
1:A:723:VAL:HB	2:B:3:ARG:N	2.22	0.53
2:B:1582:ASP:HA	2:B:1585:LYS:HZ3	1.73	0.53
2:E:330:THR:O	2:E:334:HIS:N	2.38	0.53
2:E:331:ASP:HA	2:E:334:HIS:HB2	1.91	0.53
1:A:712:PRO:O	2:B:62:THR:HG21	2.07	0.53
2:B:222:TYR:CG	2:B:289:LEU:HD11	2.43	0.53
2:B:287:MET:HA	2:B:290:ILE:HG12	1.90	0.53
2:B:643:TRP:HB2	2:B:650:ILE:HD11	1.90	0.53
2:B:1127:ILE:HA	2:B:1130:ASP:OD2	2.08	0.53
1:D:607:LYS:NZ	1:D:608:LEU:O	2.42	0.53
2:E:222:TYR:CG	2:E:289:LEU:HD11	2.43	0.53
2:E:870:ARG:HH22	2:E:874:CYS:HB3	1.73	0.53
2:B:1240:TYR:O	2:B:1244:LEU:HG	2.09	0.53
2:B:1392:GLU:OE1	2:B:1392:GLU:N	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1611:LEU:HD12	2:B:1615:LEU:HB3	1.90	0.53
2:E:4:TRP:CZ3	2:E:46:ARG:HG2	2.44	0.53
2:E:46:ARG:CZ	2:E:56:LYS:HD3	2.39	0.53
2:E:70:THR:HG23	2:E:72:GLU:H	1.73	0.53
2:B:1440:SER:H	2:B:1442:LYS:NZ	2.06	0.53
1:D:667:ASP:OD1	1:D:678:MET:N	2.41	0.53
2:E:486:PRO:HB3	2:E:496:TYR:HE1	1.74	0.53
2:E:853:VAL:HA	2:E:856:LYS:HZ2	1.74	0.53
1:A:696:LEU:HB2	2:B:96:ARG:NH1	2.24	0.53
2:B:231:PHE:CZ	2:B:300:ILE:HG12	2.43	0.53
2:B:344:HIS:N	2:B:401:VAL:O	2.40	0.53
2:B:821:PRO:HA	2:B:824:ILE:HG23	1.90	0.53
3:C:69:PRO:HA	3:C:72:TYR:CG	2.44	0.53
2:E:1265:LEU:O	2:E:1269:GLU:N	2.40	0.53
2:E:1469:ARG:HD2	2:E:1473:LYS:HG3	1.90	0.53
2:E:1490:THR:OG1	2:E:1506:GLN:HB3	2.08	0.53
2:E:1563:PHE:O	2:E:1567:GLU:HG2	2.08	0.53
1:A:570:ARG:O	1:A:570:ARG:HD3	2.09	0.53
1:A:695:LYS:HD2	2:B:125:ILE:HD12	1.90	0.53
2:B:192:LYS:HG3	2:B:196:GLU:OE2	2.09	0.53
2:B:486:PRO:HB3	2:B:496:TYR:HE1	1.74	0.53
2:B:1415:GLY:O	2:B:1419:LYS:N	2.42	0.53
2:B:1513:SER:N	2:B:1516:GLU:OE1	2.26	0.53
2:E:192:LYS:HG3	2:E:196:GLU:OE2	2.09	0.53
2:E:1206:ASP:O	2:E:1210:ILE:HG12	2.09	0.53
2:E:1605:ARG:HH21	2:E:1606:ILE:HD11	1.72	0.53
3:F:149:ILE:HG23	3:F:151:ALA:H	1.74	0.53
2:B:46:ARG:CZ	2:B:56:LYS:HD3	2.39	0.53
2:B:768:ILE:HG12	2:B:830:VAL:HG21	1.91	0.53
2:B:1224:THR:HA	2:B:1227:VAL:HG12	1.91	0.53
2:B:1469:ARG:HD2	2:B:1473:LYS:HG3	1.90	0.53
3:C:5:LYS:HB3	3:C:75:THR:HG23	1.90	0.53
3:C:94:ARG:HH22	3:C:142:GLY:HA2	1.74	0.53
1:D:570:ARG:O	1:D:570:ARG:HD3	2.09	0.53
2:E:181:ILE:HG22	2:E:185:LYS:NZ	2.24	0.53
2:E:821:PRO:HA	2:E:824:ILE:HG23	1.90	0.53
2:E:1165:ASP:O	2:E:1168:TYR:HB3	2.09	0.53
2:E:1275:ASP:O	2:E:1292:THR:OG1	2.17	0.53
2:E:1314:TRP:HB3	2:E:1348:PHE:HB3	1.90	0.53
2:E:1470:LYS:HD3	2:E:1483:TRP:CD2	2.43	0.53
1:A:695:LYS:O	1:A:698:LEU:HG	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:175:PRO:O	2:B:1075:LYS:NZ	2.40	0.52
2:B:1200:LEU:O	2:B:1204:LEU:HG	2.08	0.52
2:B:1552:SER:O	2:B:1555:VAL:HG12	2.08	0.52
1:D:643:SER:OG	1:D:653:ASN:ND2	2.38	0.52
1:D:708:ASP:OD1	1:D:708:ASP:N	2.41	0.52
3:F:69:PRO:HA	3:F:72:TYR:CG	2.44	0.52
1:A:693:GLU:O	1:A:697:ARG:HG2	2.09	0.52
2:B:870:ARG:HH22	2:B:874:CYS:HB3	1.73	0.52
2:B:1434:VAL:HB	2:B:1461:GLN:HB2	1.90	0.52
2:E:127:TRP:HD1	2:E:130:GLN:NE2	2.08	0.52
2:E:1029:THR:HA	2:E:1033:MET:HE3	1.91	0.52
1:A:605:GLN:HG2	1:A:605:GLN:O	2.09	0.52
2:B:1:MET:HA	2:B:1:MET:HE3	1.91	0.52
2:B:1391:ARG:HH22	3:C:29:PRO:HD3	1.75	0.52
2:B:1490:THR:OG1	2:B:1506:GLN:HB3	2.08	0.52
1:D:669:LEU:HA	1:D:672:LEU:HD12	1.91	0.52
2:E:156:ASN:HA	2:E:161:LEU:HD12	1.91	0.52
2:E:179:SER:OG	2:E:182:ALA:HB3	2.10	0.52
2:E:287:MET:HA	2:E:290:ILE:HG12	1.90	0.52
2:E:450:LEU:O	2:E:510:TYR:N	2.38	0.52
2:E:1224:THR:HA	2:E:1227:VAL:HG12	1.91	0.52
1:A:708:ASP:N	1:A:708:ASP:OD1	2.41	0.52
2:B:4:TRP:CZ3	2:B:46:ARG:HG2	2.44	0.52
2:B:19:TYR:HB2	2:B:59:PHE:HE1	1.74	0.52
2:B:874:CYS:SG	2:B:875:ARG:N	2.83	0.52
2:E:199:GLN:HA	2:E:202:LYS:HE3	1.91	0.52
2:E:255:SER:HA	2:E:430:LYS:HA	1.92	0.52
2:E:258:TYR:HE1	2:E:489:GLY:HA3	1.75	0.52
2:E:643:TRP:HB2	2:E:650:ILE:HD11	1.90	0.52
2:E:1166:GLU:O	2:E:1169:LYS:HG2	2.10	0.52
2:E:1200:LEU:O	2:E:1204:LEU:HG	2.08	0.52
2:E:1464:TYR:N	2:E:1487:THR:O	2.33	0.52
2:B:1166:GLU:O	2:B:1169:LYS:HG2	2.10	0.52
2:E:718:THR:O	2:E:722:LYS:HB2	2.09	0.52
2:E:1611:LEU:HD12	2:E:1615:LEU:HB3	1.90	0.52
3:F:94:ARG:HH22	3:F:142:GLY:HA2	1.74	0.52
1:A:667:ASP:OD1	1:A:678:MET:N	2.41	0.52
2:B:8:LYS:HA	2:B:10:GLN:HE22	1.73	0.52
2:B:327:MET:HB2	2:B:346:ILE:HG23	1.92	0.52
2:B:436:ILE:HG22	2:B:438:LEU:HD22	1.90	0.52
2:B:718:THR:O	2:B:722:LYS:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:113:VAL:HA	3:C:155:LEU:O	2.09	0.52
3:C:149:ILE:HG23	3:C:151:ALA:H	1.74	0.52
2:E:1:MET:HA	2:E:1:MET:HE3	1.91	0.52
2:E:192:LYS:O	2:E:195:GLU:HG3	2.08	0.52
2:E:1040:LEU:HA	2:E:1043:TRP:CZ3	2.45	0.52
1:A:531:ARG:HB2	1:A:532:PRO:HD3	1.92	0.52
1:A:607:LYS:NZ	1:A:608:LEU:O	2.42	0.52
2:B:1613:GLU:HA	2:B:1616:LYS:HE2	1.91	0.52
1:D:693:GLU:O	1:D:697:ARG:HG2	2.09	0.52
2:E:444:ASN:ND2	2:E:517:ILE:O	2.43	0.52
2:E:768:ILE:HG12	2:E:830:VAL:HG21	1.91	0.52
2:E:1597:MET:HG3	2:E:1633:VAL:HG21	1.91	0.52
3:F:146:ALA:O	3:F:150:GLY:N	2.43	0.52
2:B:5:ILE:O	2:B:40:MET:HG2	2.09	0.52
2:B:199:GLN:HA	2:B:202:LYS:HE3	1.91	0.52
2:B:444:ASN:ND2	2:B:517:ILE:O	2.43	0.52
2:B:1633:VAL:O	2:B:1639:VAL:HG22	2.09	0.52
2:B:1029:THR:HA	2:B:1033:MET:HE3	1.91	0.52
2:B:1109:ILE:HG21	2:B:1131:MET:HE1	1.92	0.52
2:B:1206:ASP:O	2:B:1210:ILE:HG12	2.09	0.52
2:B:1272:GLN:H	2:B:1293:GLN:NE2	2.08	0.52
2:B:1446:VAL:HG12	2:E:1333:PHE:CZ	2.45	0.52
1:D:531:ARG:HB2	1:D:532:PRO:HD3	1.92	0.52
1:D:688:THR:O	1:D:691:SER:OG	2.16	0.52
2:E:1066:GLN:HA	2:E:1069:ARG:NH1	2.25	0.52
2:E:1533:VAL:HG13	2:E:1606:ILE:HG13	1.92	0.52
3:F:113:VAL:HA	3:F:155:LEU:O	2.09	0.52
2:B:268:PRO:HD2	2:B:274:LEU:HD13	1.91	0.52
3:C:146:ALA:O	3:C:150:GLY:N	2.43	0.52
2:E:1072:ILE:O	2:E:1076:TYR:N	2.37	0.52
2:B:331:ASP:HA	2:B:334:HIS:HB2	1.91	0.51
2:E:3:ARG:O	2:E:3:ARG:HD2	2.10	0.51
2:E:175:PRO:O	2:E:1075:LYS:NZ	2.40	0.51
2:E:1633:VAL:O	2:E:1639:VAL:HG22	2.09	0.51
3:F:5:LYS:HB3	3:F:75:THR:HG23	1.90	0.51
2:B:1165:ASP:O	2:B:1168:TYR:HB3	2.09	0.51
2:B:1405:ALA:O	2:B:1407:LYS:NZ	2.37	0.51
2:B:1561:GLY:C	2:B:1565:ASN:HD22	2.16	0.51
2:E:5:ILE:O	2:E:40:MET:HG2	2.09	0.51
2:E:1109:ILE:HG21	2:E:1131:MET:HE1	1.92	0.51
1:A:580:SER:HB2	1:A:585:VAL:HG22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:590:ASP:H	1:A:604:LEU:HD22	1.76	0.51
2:B:11:LYS:HE2	2:B:71:VAL:HG13	1.92	0.51
2:B:308:LEU:HG	2:B:320:ARG:HH12	1.76	0.51
2:B:1040:LEU:HA	2:B:1043:TRP:CZ3	2.45	0.51
1:D:605:GLN:HG2	1:D:605:GLN:O	2.10	0.51
2:E:19:TYR:HB2	2:E:59:PHE:HE1	1.75	0.51
2:E:113:LEU:O	2:E:116:GLN:HG2	2.10	0.51
2:E:1145:HIS:O	2:E:1149:ASN:ND2	2.44	0.51
2:E:1242:ARG:O	2:E:1246:LYS:HG2	2.10	0.51
2:E:1279:VAL:HB	2:E:1281:HIS:ND1	2.26	0.51
2:E:1617:PRO:HB2	3:F:70:LEU:HD13	1.92	0.51
1:D:712:PRO:O	2:E:62:THR:HG21	2.11	0.51
2:E:11:LYS:HE2	2:E:71:VAL:HG13	1.92	0.51
2:E:1468:PHE:HB3	2:E:1483:TRP:O	2.10	0.51
3:F:45:MET:SD	3:F:45:MET:N	2.82	0.51
2:B:258:TYR:HE1	2:B:489:GLY:HA3	1.75	0.51
2:B:879:LEU:O	2:B:880:PRO:C	2.54	0.51
2:B:1392:GLU:HB2	3:C:166:LYS:HZ3	1.75	0.51
2:B:1479:PHE:CZ	3:C:36:VAL:HG12	2.46	0.51
2:B:1533:VAL:HG13	2:B:1606:ILE:HG13	1.92	0.51
2:E:145:LYS:O	2:E:149:THR:OG1	2.23	0.51
2:E:282:THR:HG21	2:E:410:LEU:HB2	1.92	0.51
2:E:564:ASP:OD1	2:E:633:GLN:NE2	2.43	0.51
2:E:1098:LYS:O	2:E:1102:ILE:HG13	2.11	0.51
2:E:1613:GLU:HA	2:E:1616:LYS:HE2	1.91	0.51
3:F:80:ILE:HD11	3:F:97:TRP:HB3	1.93	0.51
3:F:137:ILE:HG23	3:F:141:GLN:HG3	1.93	0.51
1:A:663:CYS:HB3	1:A:679:SER:HA	1.91	0.51
2:B:232:VAL:HB	2:B:398:GLY:H	1.75	0.51
2:B:282:THR:HG21	2:B:410:LEU:HB2	1.92	0.51
2:B:1066:GLN:HA	2:B:1069:ARG:NH1	2.25	0.51
2:B:1242:ARG:O	2:B:1246:LYS:HG2	2.10	0.51
2:B:1409:THR:HA	3:C:28:PHE:HZ	1.76	0.51
2:B:1468:PHE:HB3	2:B:1483:TRP:O	2.10	0.51
1:D:536:LEU:HD21	2:E:18:ASN:N	2.24	0.51
1:D:723:VAL:HB	2:E:3:ARG:H	1.75	0.51
2:E:12:TYR:O	2:E:14:VAL:HG23	2.11	0.51
2:E:268:PRO:HD2	2:E:274:LEU:HD13	1.91	0.51
2:E:1561:GLY:O	2:E:1565:ASN:ND2	2.32	0.51
1:A:669:LEU:HA	1:A:672:LEU:HD12	1.91	0.51
2:B:1243:TYR:HD2	2:B:1246:LYS:HG3	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1279:VAL:HB	2:B:1281:HIS:ND1	2.26	0.51
1:D:590:ASP:H	1:D:604:LEU:HD22	1.76	0.51
1:D:663:CYS:HB3	1:D:679:SER:HA	1.91	0.51
2:E:874:CYS:SG	2:E:875:ARG:N	2.82	0.51
2:E:1272:GLN:H	2:E:1293:GLN:NE2	2.08	0.51
2:E:1545:HIS:CD2	3:F:5:LYS:HE3	2.45	0.51
3:F:14:VAL:HB	3:F:16:LYS:HZ2	1.75	0.51
1:A:563:ARG:HA	1:A:573:LYS:O	2.11	0.51
2:B:719:TYR:CD1	2:B:723:HIS:HB2	2.46	0.51
2:B:1207:TYR:O	2:B:1211:ILE:HG12	2.11	0.51
2:E:36:HIS:HB3	2:E:48:TYR:HB2	1.93	0.51
2:E:166:ARG:HH22	2:E:168:ASP:HB2	1.75	0.51
2:E:721:TYR:HA	2:E:769:GLN:NE2	2.26	0.51
2:E:1470:LYS:HD3	2:E:1483:TRP:CG	2.46	0.51
2:B:3:ARG:HD2	2:B:3:ARG:O	2.10	0.51
2:B:113:LEU:O	2:B:116:GLN:HG2	2.10	0.51
2:B:127:TRP:HD1	2:B:130:GLN:NE2	2.08	0.51
2:B:179:SER:OG	2:B:182:ALA:HB3	2.10	0.51
2:B:471:SER:HB2	2:B:479:LEU:HD13	1.92	0.51
2:B:1307:TYR:HD1	2:B:1310:LYS:HZ3	1.58	0.51
2:B:1418:ILE:HA	2:B:1421:SER:HB3	1.93	0.51
2:B:1597:MET:HG3	2:B:1633:VAL:HG21	1.91	0.51
2:E:308:LEU:HG	2:E:320:ARG:HH12	1.76	0.51
2:E:327:MET:HB2	2:E:346:ILE:HG23	1.92	0.51
2:B:957:MET:O	2:B:961:LEU:HG	2.11	0.51
2:B:1098:LYS:O	2:B:1102:ILE:HG13	2.11	0.51
2:B:1145:HIS:O	2:B:1149:ASN:ND2	2.43	0.51
2:B:1268:ALA:HA	2:B:1271:LEU:HD13	1.93	0.51
2:B:1468:PHE:CE2	2:B:1470:LYS:HB2	2.45	0.51
2:E:44:TRP:CE3	2:E:58:ILE:HG22	2.46	0.51
2:E:642:ASN:HA	2:E:644:ARG:NH1	2.26	0.51
2:E:826:ASP:OD1	2:E:827:VAL:N	2.44	0.51
2:E:921:THR:O	2:E:925:ILE:N	2.37	0.51
2:E:1063:THR:HA	2:E:1069:ARG:HD3	1.93	0.51
2:B:46:ARG:NH2	2:B:56:LYS:HD3	2.25	0.50
2:B:255:SER:HA	2:B:430:LYS:HA	1.92	0.50
2:B:642:ASN:HA	2:B:644:ARG:NH1	2.26	0.50
2:B:746:ASP:CG	2:B:748:SER:HG	2.19	0.50
2:B:875:ARG:HE	2:B:924:HIS:CG	2.29	0.50
2:E:46:ARG:NH2	2:E:56:LYS:HD3	2.26	0.50
2:E:719:TYR:CD1	2:E:723:HIS:HB2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:181:ILE:HG22	2:B:185:LYS:NZ	2.24	0.50
2:B:1079:MET:N	2:B:1079:MET:SD	2.84	0.50
2:B:1417:ASP:N	2:B:1417:ASP:OD1	2.44	0.50
2:B:1470:LYS:HD3	2:B:1483:TRP:CG	2.46	0.50
2:E:718:THR:O	2:E:722:LYS:HE2	2.12	0.50
2:E:1418:ILE:HA	2:E:1421:SER:HB3	1.93	0.50
2:E:1468:PHE:CE2	2:E:1470:LYS:HB2	2.45	0.50
1:A:566:ASN:HD22	1:A:568:ARG:NH1	2.10	0.50
2:B:36:HIS:HB3	2:B:48:TYR:HB2	1.93	0.50
2:B:328:ASP:OD1	2:B:328:ASP:N	2.44	0.50
2:B:1275:ASP:O	2:B:1292:THR:OG1	2.17	0.50
2:B:1320:LEU:HA	2:B:1323:GLU:OE2	2.10	0.50
2:B:1346:ALA:HB1	2:E:1339:GLY:HA2	1.93	0.50
2:B:1631:GLU:O	2:B:1635:LYS:HG3	2.11	0.50
1:D:578:ARG:HB3	1:D:587:HIS:HB2	1.94	0.50
2:E:87:LEU:HA	2:E:90:GLU:OE2	2.12	0.50
2:E:302:ARG:HG3	2:E:320:ARG:HB2	1.93	0.50
2:E:728:LEU:HA	2:E:730:TYR:CE2	2.47	0.50
2:E:1106:VAL:O	2:E:1109:ILE:HG22	2.12	0.50
2:E:1320:LEU:HA	2:E:1323:GLU:OE2	2.10	0.50
2:E:1415:GLY:O	2:E:1419:LYS:N	2.42	0.50
2:E:1452:ASN:OD1	2:E:1453:TYR:N	2.44	0.50
2:E:1577:GLN:HA	2:E:1580:PRO:HG3	1.93	0.50
2:E:1631:GLU:O	2:E:1635:LYS:HG3	2.12	0.50
2:B:44:TRP:CE3	2:B:58:ILE:HG22	2.46	0.50
2:B:718:THR:O	2:B:722:LYS:HE2	2.12	0.50
2:B:1010:ASN:O	2:B:1014:ASN:ND2	2.45	0.50
2:B:1452:ASN:OD1	2:B:1453:TYR:N	2.44	0.50
2:B:1530:SER:HB2	2:B:1599:LEU:HD21	1.94	0.50
2:E:232:VAL:HB	2:E:398:GLY:H	1.75	0.50
2:E:972:TYR:HA	2:E:975:THR:OG1	2.12	0.50
2:E:1063:THR:O	2:E:1069:ARG:NH1	2.45	0.50
3:F:63:ASP:C	3:F:66:ARG:HH11	2.20	0.50
2:B:36:HIS:N	2:B:48:TYR:O	2.45	0.50
2:B:87:LEU:HA	2:B:90:GLU:OE2	2.11	0.50
2:B:330:THR:O	2:B:334:HIS:N	2.38	0.50
2:B:435:GLU:O	2:B:708:LYS:HD3	2.12	0.50
2:B:826:ASP:OD1	2:B:827:VAL:N	2.44	0.50
2:B:965:ASP:HB3	2:B:968:HIS:CD2	2.46	0.50
2:B:979:ARG:HH22	2:B:1035:GLN:HE22	1.58	0.50
2:E:1207:TYR:O	2:E:1211:ILE:HG12	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1307:TYR:HD1	2:E:1310:LYS:HZ3	1.58	0.50
1:A:531:ARG:HH21	1:A:534:LEU:HD12	1.77	0.50
2:B:945:ARG:HD3	2:B:947:SER:H	1.77	0.50
2:B:1063:THR:HA	2:B:1069:ARG:HD3	1.93	0.50
2:B:1063:THR:O	2:B:1069:ARG:NH1	2.45	0.50
2:B:1106:VAL:O	2:B:1109:ILE:HG22	2.12	0.50
2:B:1265:LEU:O	2:B:1269:GLU:N	2.40	0.50
3:C:80:ILE:HD11	3:C:97:TRP:HB3	1.93	0.50
1:D:563:ARG:HA	1:D:573:LYS:O	2.11	0.50
1:D:580:SER:HB2	1:D:585:VAL:HG22	1.92	0.50
1:D:658:ASP:CG	1:D:660:HIS:HD1	2.20	0.50
2:E:1066:GLN:HA	2:E:1069:ARG:CZ	2.42	0.50
2:E:1463:ARG:HB2	2:E:1486:ARG:HD2	1.94	0.50
2:B:166:ARG:HH22	2:B:168:ASP:HB2	1.75	0.50
2:B:707:ILE:HA	2:B:710:GLN:CD	2.37	0.50
2:B:1167:GLN:OE1	2:B:1167:GLN:N	2.39	0.50
2:B:1551:LEU:O	2:B:1555:VAL:HB	2.12	0.50
3:C:63:ASP:C	3:C:66:ARG:HH11	2.20	0.50
3:C:69:PRO:HA	3:C:72:TYR:CD2	2.47	0.50
1:D:693:GLU:O	1:D:696:LEU:HG	2.11	0.50
2:E:435:GLU:O	2:E:708:LYS:HD3	2.12	0.50
2:E:957:MET:O	2:E:961:LEU:HG	2.11	0.50
2:E:965:ASP:HB3	2:E:968:HIS:CD2	2.46	0.50
2:E:979:ARG:HH22	2:E:1035:GLN:HE22	1.58	0.50
2:E:1490:THR:O	2:E:1505:LYS:N	2.45	0.50
2:E:1599:LEU:HA	2:E:1602:GLU:OE1	2.12	0.50
3:F:11:ASP:N	3:F:11:ASP:OD1	2.43	0.50
2:B:258:TYR:HA	2:B:488:ALA:HB3	1.94	0.50
2:B:728:LEU:HA	2:B:730:TYR:CE2	2.47	0.50
2:B:997:ILE:HG21	2:B:1053:PHE:HA	1.94	0.50
2:B:1066:GLN:HA	2:B:1069:ARG:CZ	2.42	0.50
2:B:1072:ILE:O	2:B:1076:TYR:N	2.37	0.50
2:B:1578:GLU:HG3	2:B:1579:HIS:ND1	2.27	0.50
2:E:414:GLN:HG2	2:E:421:VAL:HG12	1.94	0.50
2:E:471:SER:HB2	2:E:479:LEU:HD13	1.92	0.50
2:E:473:HIS:HB2	2:E:526:HIS:CE1	2.47	0.50
2:E:1105:MET:HA	2:E:1108:PRO:HG2	1.94	0.50
2:E:1268:ALA:HA	2:E:1271:LEU:HD13	1.93	0.50
1:A:578:ARG:HB3	1:A:587:HIS:HB2	1.94	0.50
1:A:658:ASP:CG	1:A:660:HIS:HD1	2.20	0.50
2:B:556:ASN:N	2:B:560:THR:O	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:676:LEU:HD22	2:B:693:VAL:HG13	1.93	0.50
2:B:1577:GLN:HA	2:B:1580:PRO:HG3	1.93	0.50
3:C:40:TYR:O	3:C:55:LEU:N	2.43	0.50
3:C:161:THR:HB	3:C:163:ARG:HG3	1.94	0.50
1:D:531:ARG:HH21	1:D:534:LEU:HD12	1.77	0.50
1:A:680:ASP:OD1	1:A:680:ASP:N	2.44	0.49
2:B:473:HIS:HB2	2:B:526:HIS:CE1	2.47	0.49
2:B:646:ASN:O	2:B:650:ILE:HG13	2.12	0.49
2:B:721:TYR:HA	2:B:769:GLN:NE2	2.26	0.49
2:B:972:TYR:HA	2:B:975:THR:OG1	2.12	0.49
2:E:36:HIS:N	2:E:48:TYR:O	2.45	0.49
2:E:730:TYR:CZ	2:E:771:ARG:HD3	2.47	0.49
2:E:1010:ASN:O	2:E:1014:ASN:ND2	2.45	0.49
2:E:1243:TYR:HD2	2:E:1246:LYS:HG3	1.76	0.49
2:E:1530:SER:HB2	2:E:1599:LEU:HD21	1.93	0.49
2:E:1536:HIS:ND1	2:E:1547:LEU:HD11	2.27	0.49
2:E:1551:LEU:O	2:E:1555:VAL:HB	2.12	0.49
2:B:181:ILE:O	2:B:185:LYS:NZ	2.44	0.49
2:B:564:ASP:OD1	2:B:633:GLN:NE2	2.43	0.49
2:B:820:LEU:O	2:B:823:ILE:HG12	2.12	0.49
2:B:1262:TYR:OH	2:B:1496:PRO:HG2	2.12	0.49
1:D:566:ASN:HD22	1:D:568:ARG:NH1	2.10	0.49
2:E:422:ASP:OD1	2:E:422:ASP:N	2.44	0.49
2:E:754:PHE:CD1	2:E:812:ILE:HG13	2.47	0.49
2:E:1059:LEU:HD21	2:E:1080:ARG:HH22	1.78	0.49
2:E:1079:MET:N	2:E:1079:MET:SD	2.84	0.49
2:E:1390:ARG:NE	3:F:26:ASN:OD1	2.44	0.49
2:B:238:ASP:O	2:B:303:VAL:N	2.37	0.49
2:B:1549:MET:HE1	3:C:56:TRP:CE2	2.47	0.49
3:C:96:LYS:C	3:C:99:PRO:HD2	2.37	0.49
3:C:137:ILE:HG23	3:C:141:GLN:HG3	1.93	0.49
2:E:509:TRP:HB3	2:E:511:GLU:HG3	1.94	0.49
2:E:761:LYS:HA	2:E:823:ILE:HG22	1.94	0.49
2:E:1109:ILE:HD13	2:E:1131:MET:HE1	1.94	0.49
2:E:1262:TYR:OH	2:E:1496:PRO:HG2	2.12	0.49
2:E:1328:TYR:O	2:E:1333:PHE:N	2.33	0.49
1:A:693:GLU:O	1:A:696:LEU:HG	2.11	0.49
2:B:12:TYR:O	2:B:14:VAL:HG23	2.11	0.49
2:B:1105:MET:HA	2:B:1108:PRO:HG2	1.94	0.49
3:C:11:ASP:N	3:C:11:ASP:OD1	2.43	0.49
2:E:163:LEU:HD11	2:E:194:ILE:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:630:LYS:HG2	2:E:668:PHE:CZ	2.48	0.49
2:E:707:ILE:HA	2:E:710:GLN:CD	2.37	0.49
2:E:875:ARG:HE	2:E:924:HIS:CG	2.29	0.49
2:E:1448:GLU:HA	2:E:1451:LEU:HD12	1.95	0.49
2:E:1466:ARG:HG2	2:E:1485:GLU:HB2	1.94	0.49
3:F:63:ASP:OD1	3:F:63:ASP:N	2.45	0.49
1:A:644:ILE:HB	1:A:652:LEU:HB2	1.94	0.49
2:B:49:THR:OG1	2:B:52:ASN:OD1	2.25	0.49
2:B:302:ARG:HG3	2:B:320:ARG:HB2	1.93	0.49
2:B:761:LYS:HA	2:B:823:ILE:HG22	1.94	0.49
2:B:1386:LYS:HG3	2:B:1387:GLU:H	1.77	0.49
3:C:96:LYS:NZ	3:C:100:GLU:HG2	2.27	0.49
1:D:564:LYS:O	1:D:573:LYS:NZ	2.29	0.49
2:E:447:TYR:HB2	2:E:625:LEU:HB3	1.95	0.49
2:E:746:ASP:CG	2:E:748:SER:HG	2.20	0.49
2:E:764:PHE:CD2	2:E:823:ILE:HG21	2.48	0.49
2:E:874:CYS:O	2:E:878:LEU:N	2.29	0.49
2:E:957:MET:O	2:E:960:LEU:HB3	2.13	0.49
2:E:1451:LEU:O	2:E:1455:ARG:HG3	2.13	0.49
3:F:64:TYR:HB2	3:F:68:ARG:NH2	2.28	0.49
2:B:38:LEU:HD21	2:B:48:TYR:CD2	2.48	0.49
2:B:553:LYS:HE3	2:B:555:MET:HG2	1.94	0.49
2:B:630:LYS:HG2	2:B:668:PHE:CZ	2.48	0.49
2:B:1166:GLU:O	2:B:1170:VAL:HG23	2.13	0.49
2:B:1463:ARG:HB2	2:B:1486:ARG:HD2	1.94	0.49
2:B:1536:HIS:ND1	2:B:1547:LEU:HD11	2.27	0.49
2:E:1006:TRP:CB	2:E:1009:MET:HE3	2.42	0.49
2:E:1113:THR:O	2:E:1121:ARG:HG3	2.12	0.49
2:E:1386:LYS:HG3	2:E:1387:GLU:H	1.77	0.49
2:E:1513:SER:N	2:E:1516:GLU:OE1	2.26	0.49
3:F:69:PRO:HA	3:F:72:TYR:CD2	2.47	0.49
3:F:96:LYS:C	3:F:99:PRO:HD2	2.37	0.49
2:B:730:TYR:CZ	2:B:771:ARG:HD3	2.47	0.49
2:B:761:LYS:HE2	2:B:765:ARG:NE	2.28	0.49
2:B:1109:ILE:HD13	2:B:1131:MET:HE1	1.94	0.49
2:B:1466:ARG:HG2	2:B:1485:GLU:HB2	1.94	0.49
3:C:64:TYR:HB2	3:C:68:ARG:NH2	2.28	0.49
3:C:90:PHE:CD2	3:C:137:ILE:HD12	2.47	0.49
1:D:578:ARG:NH1	1:D:600:PRO:HA	2.28	0.49
2:E:519:ILE:HG22	2:E:630:LYS:HE3	1.95	0.49
2:E:646:ASN:O	2:E:650:ILE:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:879:LEU:O	2:E:880:PRO:C	2.54	0.49
2:E:1328:TYR:HA	2:E:1332:VAL:CG1	2.41	0.49
3:F:96:LYS:NZ	3:F:100:GLU:HG2	2.27	0.49
2:B:791:ILE:HG22	2:B:795:PHE:HE2	1.76	0.49
2:B:1006:TRP:CB	2:B:1009:MET:HE3	2.42	0.49
2:E:11:LYS:HD2	2:E:36:HIS:ND1	2.28	0.49
2:E:193:ARG:HA	2:E:196:GLU:CD	2.38	0.49
2:E:676:LEU:HD22	2:E:693:VAL:HG13	1.93	0.49
2:E:809:ALA:HB3	2:E:813:LYS:HZ2	1.78	0.49
2:B:11:LYS:HD2	2:B:36:HIS:ND1	2.28	0.49
2:B:1296:LEU:O	2:B:1300:LEU:HG	2.13	0.49
2:B:1448:GLU:HA	2:B:1451:LEU:HD12	1.94	0.49
2:E:38:LEU:HD21	2:E:48:TYR:CD2	2.48	0.49
2:E:229:LYS:HE3	2:E:343:GLN:HG2	1.95	0.49
2:B:193:ARG:HA	2:B:196:GLU:CD	2.38	0.49
2:B:229:LYS:HE3	2:B:343:GLN:HG2	1.95	0.49
2:B:256:GLU:HA	2:B:431:MET:HE2	1.95	0.49
2:B:351:ILE:HG12	2:B:382:VAL:HG21	1.95	0.49
2:B:414:GLN:HG2	2:B:421:VAL:HG12	1.94	0.49
2:B:447:TYR:HB2	2:B:625:LEU:HB3	1.95	0.49
2:B:1458:GLU:N	2:B:1495:PHE:O	2.46	0.49
2:B:1599:LEU:HA	2:B:1602:GLU:OE1	2.12	0.49
1:D:680:ASP:N	1:D:680:ASP:OD1	2.45	0.49
2:E:228:PHE:HZ	2:E:231:PHE:HB2	1.78	0.49
2:E:256:GLU:HA	2:E:431:MET:HE2	1.95	0.49
2:E:820:LEU:O	2:E:823:ILE:HG12	2.12	0.49
2:E:1034:ASP:HA	2:E:1037:SER:HA	1.95	0.49
2:E:1063:THR:HA	2:E:1069:ARG:HD2	1.95	0.49
2:E:1128:PHE:HA	2:E:1131:MET:HE3	1.95	0.49
2:E:1166:GLU:O	2:E:1170:VAL:HG23	2.13	0.49
2:E:1458:GLU:N	2:E:1495:PHE:O	2.46	0.49
2:E:1578:GLU:HG3	2:E:1579:HIS:ND1	2.27	0.49
2:B:1113:THR:O	2:B:1121:ARG:HG3	2.12	0.48
1:D:644:ILE:HB	1:D:652:LEU:HB2	1.95	0.48
1:A:576:TYR:CD1	1:A:591:LEU:HG	2.48	0.48
2:B:727:THR:O	2:B:774:TYR:HB2	2.13	0.48
2:B:754:PHE:CD1	2:B:812:ILE:HG13	2.47	0.48
2:B:869:PHE:HA	2:B:918:VAL:HG23	1.95	0.48
2:B:892:ASP:OD1	2:B:892:ASP:N	2.45	0.48
2:B:992:MET:O	2:B:996:LEU:HD23	2.13	0.48
2:B:1121:ARG:O	2:B:1124:THR:N	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1342:LEU:HD12	2:E:1342:LEU:HD12	1.96	0.48
3:C:63:ASP:N	3:C:63:ASP:OD1	2.45	0.48
2:E:328:ASP:N	2:E:328:ASP:OD1	2.44	0.48
2:E:997:ILE:HG21	2:E:1053:PHE:HA	1.94	0.48
2:B:562:LEU:HD23	2:B:624:THR:HG21	1.95	0.48
1:D:564:LYS:HZ3	1:D:575:TRP:CG	2.31	0.48
2:E:258:TYR:HA	2:E:488:ALA:HB3	1.94	0.48
2:E:731:VAL:O	2:E:734:SER:OG	2.27	0.48
2:E:1368:TYR:H	2:E:1372:PHE:HE2	1.61	0.48
2:B:764:PHE:CD2	2:B:823:ILE:HG21	2.48	0.48
2:B:809:ALA:HB3	2:B:813:LYS:HZ2	1.76	0.48
2:B:957:MET:O	2:B:960:LEU:HB3	2.13	0.48
2:B:1393:ASP:OD1	3:C:166:LYS:NZ	2.46	0.48
2:E:94:THR:HG22	2:E:98:TRP:CE2	2.49	0.48
2:E:1003:ALA:C	2:E:1005:ASP:H	2.21	0.48
2:E:1296:LEU:O	2:E:1300:LEU:HG	2.13	0.48
3:F:90:PHE:CD2	3:F:137:ILE:HD12	2.47	0.48
1:A:679:SER:HB2	1:A:682:THR:OG1	2.13	0.48
2:B:153:ASP:HA	2:B:156:ASN:ND2	2.28	0.48
2:B:163:LEU:HD11	2:B:194:ILE:HD11	1.95	0.48
2:B:227:ASN:HB3	2:B:402:SER:OG	2.13	0.48
2:B:851:GLN:O	2:B:856:LYS:NZ	2.47	0.48
2:B:1059:LEU:HD12	2:B:1116:PRO:HB2	1.95	0.48
1:D:576:TYR:CD1	1:D:591:LEU:HG	2.48	0.48
2:E:569:LEU:HD23	2:E:591:THR:HG22	1.95	0.48
1:A:561:CYS:HA	1:A:576:TYR:HA	1.95	0.48
2:B:302:ARG:HD3	2:B:322:PHE:CD1	2.47	0.48
2:B:1003:ALA:C	2:B:1005:ASP:H	2.21	0.48
2:B:1175:LEU:HB3	2:B:1179:HIS:CE1	2.49	0.48
2:B:1583:GLN:O	2:B:1586:VAL:HG12	2.14	0.48
2:E:101:ILE:O	2:E:105:LEU:HG	2.14	0.48
2:E:172:ILE:HD12	2:E:175:PRO:HG2	1.96	0.48
2:E:553:LYS:HE3	2:E:555:MET:HG2	1.94	0.48
2:E:1059:LEU:HD12	2:E:1116:PRO:HB2	1.96	0.48
1:A:578:ARG:NH1	1:A:600:PRO:HA	2.28	0.48
2:B:94:THR:HG22	2:B:98:TRP:CE2	2.49	0.48
2:B:172:ILE:HD12	2:B:175:PRO:HG2	1.96	0.48
2:B:569:LEU:HD23	2:B:591:THR:HG22	1.95	0.48
2:B:973:ILE:HA	2:B:976:PHE:CZ	2.48	0.48
2:B:1059:LEU:HD21	2:B:1080:ARG:HH22	1.78	0.48
2:B:1374:SER:HA	2:B:1377:ARG:HH11	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:171:GLU:HA	3:C:174:ARG:HE	1.79	0.48
2:E:592:LYS:HA	2:E:595:MET:HG2	1.96	0.48
2:E:992:MET:O	2:E:996:LEU:HD23	2.13	0.48
2:E:1245:TYR:HD2	2:E:1248:ARG:HH21	1.62	0.48
1:A:714:PRO:HD3	2:B:62:THR:CG2	2.44	0.48
2:B:228:PHE:HZ	2:B:231:PHE:HB2	1.78	0.48
2:B:288:ASP:OD1	2:B:291:ARG:NH2	2.32	0.48
2:B:637:LEU:HD12	2:B:665:ILE:HD13	1.96	0.48
2:B:731:VAL:O	2:B:734:SER:OG	2.27	0.48
2:B:1451:LEU:O	2:B:1455:ARG:HG3	2.13	0.48
1:D:561:CYS:HA	1:D:576:TYR:HA	1.95	0.48
1:D:679:SER:HB2	1:D:682:THR:OG1	2.13	0.48
2:E:294:VAL:N	2:E:330:THR:OG1	2.24	0.48
2:E:637:LEU:HD12	2:E:665:ILE:HD13	1.96	0.48
2:E:870:ARG:HH12	2:E:874:CYS:H	1.60	0.48
2:E:932:LEU:CA	2:E:935:ARG:HE	2.27	0.48
3:F:119:LEU:HA	3:F:122:ASP:HB2	1.96	0.48
2:B:196:GLU:O	2:B:199:GLN:HG3	2.14	0.48
2:B:1034:ASP:HA	2:B:1037:SER:HA	1.95	0.48
2:B:1128:PHE:HA	2:B:1131:MET:HE3	1.95	0.48
3:C:119:LEU:HA	3:C:122:ASP:HB2	1.96	0.48
1:D:700:ASP:HB3	2:E:31:ILE:O	2.14	0.48
2:E:589:PRO:HB2	2:E:595:MET:CE	2.43	0.48
2:E:1233:GLU:HG3	2:E:1234:LYS:HE3	1.96	0.48
3:F:165:LEU:O	3:F:169:PHE:HD1	1.97	0.48
2:B:113:LEU:HA	2:B:116:GLN:CD	2.39	0.48
2:B:197:LYS:HA	2:B:200:GLU:CG	2.39	0.48
2:B:1586:VAL:HG23	2:B:1589:LEU:HD12	1.96	0.48
3:C:39:ASN:OD1	3:C:56:TRP:HA	2.14	0.48
2:E:700:ILE:O	2:E:703:LEU:HG	2.14	0.48
2:E:727:THR:O	2:E:774:TYR:HB2	2.13	0.48
2:E:761:LYS:HE2	2:E:765:ARG:NE	2.28	0.48
2:E:1417:ASP:N	2:E:1417:ASP:OD1	2.44	0.48
2:B:592:LYS:HA	2:B:595:MET:HG2	1.96	0.47
2:B:630:LYS:HG2	2:B:668:PHE:HZ	1.79	0.47
2:B:700:ILE:O	2:B:703:LEU:HG	2.14	0.47
2:B:877:VAL:C	2:B:880:PRO:HD2	2.39	0.47
2:B:1129:PHE:HA	2:B:1132:MET:HG3	1.96	0.47
2:E:704:ILE:HA	2:E:709:PHE:HB2	1.96	0.47
2:E:869:PHE:HA	2:E:918:VAL:HG23	1.95	0.47
2:E:973:ILE:HA	2:E:976:PHE:CZ	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1095:GLY:H	2:E:1098:LYS:HE3	1.79	0.47
2:E:1175:LEU:HB3	2:E:1179:HIS:CE1	2.49	0.47
3:F:39:ASN:OD1	3:F:56:TRP:HA	2.14	0.47
3:F:161:THR:HB	3:F:163:ARG:HG3	1.94	0.47
2:B:821:PRO:O	2:B:824:ILE:HG12	2.14	0.47
2:B:1233:GLU:HG3	2:B:1234:LYS:HE3	1.96	0.47
2:B:1490:THR:O	2:B:1505:LYS:N	2.45	0.47
2:B:1584:GLU:O	2:B:1588:LEU:HG	2.14	0.47
2:E:113:LEU:HA	2:E:116:GLN:CD	2.39	0.47
2:E:181:ILE:O	2:E:185:LYS:NZ	2.44	0.47
2:E:227:ASN:HB3	2:E:402:SER:OG	2.13	0.47
2:E:232:VAL:O	2:E:398:GLY:N	2.46	0.47
2:E:945:ARG:HD3	2:E:947:SER:H	1.77	0.47
2:E:1584:GLU:O	2:E:1588:LEU:HG	2.14	0.47
2:B:932:LEU:HA	2:B:935:ARG:HE	1.79	0.47
2:B:1243:TYR:HA	2:B:1246:LYS:CG	2.45	0.47
2:E:571:VAL:HB	2:E:618:ASP:HB3	1.96	0.47
2:E:1583:GLN:O	2:E:1586:VAL:HG12	2.14	0.47
1:A:537:LYS:HG3	1:A:694:ILE:HG13	1.95	0.47
2:B:154:HIS:NE2	2:B:201:GLU:OE2	2.42	0.47
2:B:302:ARG:NH2	2:B:321:PRO:O	2.48	0.47
2:B:721:TYR:HB2	2:B:722:LYS:NZ	2.29	0.47
2:B:921:THR:O	2:B:925:ILE:N	2.37	0.47
3:C:165:LEU:O	3:C:169:PHE:HD1	1.97	0.47
2:E:114:PHE:O	2:E:118:GLN:HG3	2.15	0.47
2:E:142:ALA:HA	2:E:145:LYS:HD2	1.96	0.47
2:E:351:ILE:HG12	2:E:382:VAL:HG21	1.95	0.47
2:E:721:TYR:HB2	2:E:722:LYS:NZ	2.29	0.47
2:E:1440:SER:H	2:E:1442:LYS:HZ1	1.62	0.47
3:F:5:LYS:HD2	3:F:75:THR:HA	1.96	0.47
1:A:536:LEU:HD21	2:B:17:TYR:HA	1.96	0.47
2:B:882:LEU:HA	2:B:885:GLN:HE21	1.80	0.47
2:B:1063:THR:HA	2:B:1069:ARG:HD2	1.95	0.47
2:B:1095:GLY:H	2:B:1098:LYS:HE3	1.79	0.47
2:B:1588:LEU:O	2:B:1591:ARG:HG2	2.15	0.47
2:E:302:ARG:NH2	2:E:321:PRO:O	2.48	0.47
2:E:562:LEU:HD23	2:E:624:THR:HG21	1.95	0.47
2:E:791:ILE:HG22	2:E:795:PHE:HE2	1.76	0.47
2:E:851:GLN:O	2:E:856:LYS:NZ	2.47	0.47
2:B:5:ILE:H	2:B:40:MET:H	1.63	0.47
2:B:508:CYS:HB3	2:B:510:TYR:CE2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:509:TRP:HB3	2:B:511:GLU:HG3	1.94	0.47
2:B:704:ILE:HA	2:B:709:PHE:HB2	1.96	0.47
2:B:1314:TRP:O	2:B:1318:ILE:HG12	2.15	0.47
2:B:1578:GLU:HG3	2:B:1579:HIS:HD1	1.80	0.47
1:D:700:ASP:HB2	2:E:32:GLY:HA2	1.97	0.47
2:E:197:LYS:HA	2:E:200:GLU:CG	2.39	0.47
2:E:1129:PHE:HA	2:E:1132:MET:HG3	1.96	0.47
3:F:171:GLU:HA	3:F:174:ARG:HE	1.79	0.47
1:A:603:SER:N	1:A:606:ASP:OD1	2.47	0.47
1:A:676:ASP:O	1:A:677:MET:HE2	2.15	0.47
2:B:127:TRP:O	2:B:131:ILE:HG12	2.15	0.47
2:B:273:LYS:O	2:B:277:LEU:HG	2.15	0.47
2:B:519:ILE:HG22	2:B:630:LYS:HE3	1.95	0.47
2:B:576:ASN:ND2	2:B:579:MET:SD	2.88	0.47
2:B:932:LEU:CA	2:B:935:ARG:HE	2.27	0.47
2:B:1043:TRP:N	2:B:1043:TRP:CE3	2.83	0.47
2:B:1477:ASN:HB3	2:B:1568:LYS:HZ1	1.79	0.47
3:C:129:LEU:O	3:C:133:LYS:N	2.48	0.47
1:D:537:LYS:HG3	1:D:694:ILE:HG13	1.95	0.47
1:D:697:ARG:NH1	2:E:30:GLN:OE1	2.48	0.47
2:E:197:LYS:HG2	2:E:200:GLU:OE2	2.15	0.47
2:E:630:LYS:HG2	2:E:668:PHE:HZ	1.79	0.47
2:E:882:LEU:HA	2:E:885:GLN:NE2	2.29	0.47
2:E:892:ASP:OD1	2:E:892:ASP:N	2.45	0.47
2:E:1011:MET:HE2	2:E:1011:MET:HB2	1.74	0.47
2:E:1463:ARG:HH11	2:E:1486:ARG:HG2	1.80	0.47
2:E:1628:GLU:HG2	2:E:1629:LEU:HD22	1.97	0.47
2:B:142:ALA:HA	2:B:145:LYS:HD2	1.96	0.47
2:B:882:LEU:HA	2:B:885:GLN:NE2	2.29	0.47
2:B:1245:TYR:HD2	2:B:1248:ARG:HH21	1.62	0.47
2:B:1462:PHE:O	2:B:1489:TYR:N	2.48	0.47
2:E:49:THR:OG1	2:E:52:ASN:OD1	2.25	0.47
2:E:877:VAL:C	2:E:880:PRO:HD2	2.39	0.47
2:E:1596:GLN:O	2:E:1600:LEU:HG	2.15	0.47
2:B:101:ILE:O	2:B:105:LEU:HG	2.14	0.47
2:B:697:LEU:O	2:B:701:ILE:HG12	2.15	0.47
2:B:1218:GLU:OE1	2:B:1218:GLU:N	2.37	0.47
2:B:1596:GLN:O	2:B:1600:LEU:HG	2.15	0.47
3:C:5:LYS:HD2	3:C:75:THR:HA	1.96	0.47
3:C:7:VAL:HG23	3:C:75:THR:HG21	1.97	0.47
1:D:641:ALA:O	1:D:662:TYR:OH	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:7:THR:HB	2:E:40:MET:HE3	1.97	0.47
2:E:382:VAL:O	2:E:386:VAL:HG23	2.15	0.47
2:E:1314:TRP:O	2:E:1318:ILE:HG12	2.15	0.47
2:E:1586:VAL:HG23	2:E:1589:LEU:HD12	1.96	0.47
3:F:153:LYS:HD2	3:F:153:LYS:HA	1.73	0.47
1:A:552:ARG:NH2	2:B:106:TYR:OH	2.48	0.47
2:B:15:ALA:HA	2:B:59:PHE:HE2	1.80	0.47
2:B:589:PRO:HB2	2:B:595:MET:CE	2.43	0.47
2:B:1119:GLU:O	2:B:1122:LYS:HB2	2.14	0.47
1:D:564:LYS:HE3	1:D:590:ASP:CG	2.40	0.47
1:D:633:GLN:OE1	1:D:637:VAL:HG21	2.16	0.47
2:E:60:PRO:HD2	2:E:63:TYR:HB2	1.97	0.47
2:E:92:THR:HA	2:E:95:LEU:HD12	1.97	0.47
2:E:127:TRP:O	2:E:131:ILE:HG12	2.14	0.47
2:E:196:GLU:O	2:E:199:GLN:HG3	2.14	0.47
2:E:720:ILE:HG12	2:E:766:PHE:CZ	2.50	0.47
1:A:564:LYS:HG3	1:A:575:TRP:CD1	2.50	0.46
1:A:564:LYS:HZ3	1:A:575:TRP:CG	2.32	0.46
1:A:670:ASN:HA	1:A:673:LEU:HB2	1.97	0.46
2:B:463:PRO:HD2	2:B:503:GLN:HB3	1.97	0.46
2:B:550:ALA:HB1	2:B:569:LEU:HB3	1.97	0.46
2:B:1368:TYR:H	2:B:1372:PHE:HE2	1.61	0.46
1:D:603:SER:N	1:D:606:ASP:OD1	2.47	0.46
2:E:5:ILE:H	2:E:40:MET:H	1.63	0.46
2:E:259:LEU:HD22	2:E:486:PRO:HB2	1.97	0.46
2:E:318:LEU:HD22	2:E:500:VAL:HG21	1.97	0.46
2:E:1299:LYS:HA	2:E:1302:GLN:OE1	2.15	0.46
2:E:1387:GLU:HG2	2:E:1388:TYR:N	2.30	0.46
3:F:5:LYS:NZ	3:F:74:GLN:HG2	2.31	0.46
3:F:95:ALA:O	3:F:99:PRO:HG2	2.16	0.46
1:A:564:LYS:HE3	1:A:590:ASP:CG	2.40	0.46
2:B:720:ILE:HG12	2:B:766:PHE:CZ	2.50	0.46
2:B:1328:TYR:HA	2:B:1332:VAL:CG1	2.41	0.46
2:B:1473:LYS:CD	2:B:1481:THR:HG21	2.44	0.46
3:C:93:VAL:HG13	3:C:94:ARG:HD2	1.98	0.46
2:E:932:LEU:HA	2:E:935:ARG:HE	1.79	0.46
2:E:1243:TYR:HA	2:E:1246:LYS:CG	2.45	0.46
2:B:7:THR:HB	2:B:40:MET:HE3	1.97	0.46
2:B:94:THR:HG22	2:B:98:TRP:NE1	2.31	0.46
2:B:129:SER:O	2:B:132:LEU:HB2	2.15	0.46
2:B:147:LYS:O	2:B:151:LYS:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:156:ASN:HB3	2:B:161:LEU:HB2	1.98	0.46
2:B:306:MET:HA	2:B:320:ARG:HD3	1.98	0.46
1:D:564:LYS:HG3	1:D:575:TRP:CD1	2.50	0.46
1:D:599:VAL:HG23	1:D:601:HIS:CD2	2.50	0.46
2:E:273:LYS:O	2:E:277:LEU:HG	2.15	0.46
2:E:761:LYS:O	2:E:765:ARG:HG3	2.15	0.46
2:E:933:LEU:H	2:E:935:ARG:NH2	2.14	0.46
2:E:1374:SER:HA	2:E:1377:ARG:HH11	1.79	0.46
3:F:80:ILE:HG23	3:F:112:LEU:HD12	1.97	0.46
2:B:60:PRO:HD2	2:B:63:TYR:HB2	1.97	0.46
2:B:232:VAL:O	2:B:398:GLY:N	2.46	0.46
2:B:827:VAL:HG23	2:B:836:LEU:HD11	1.97	0.46
2:B:908:ASN:O	2:B:912:VAL:HG23	2.16	0.46
3:C:95:ALA:O	3:C:99:PRO:HG2	2.16	0.46
2:E:116:GLN:HA	2:E:119:GLN:HG3	1.97	0.46
2:E:813:LYS:O	2:E:817:LEU:HG	2.15	0.46
2:E:882:LEU:HA	2:E:885:GLN:HE21	1.80	0.46
2:E:1177:LEU:O	2:E:1181:ARG:HG2	2.16	0.46
1:A:547:LEU:HD11	2:B:103:ARG:HG3	1.98	0.46
1:A:599:VAL:HG23	1:A:601:HIS:CD2	2.50	0.46
1:A:701:LEU:HD11	2:B:16:ILE:HA	1.96	0.46
2:B:382:VAL:O	2:B:386:VAL:HG23	2.15	0.46
2:B:443:ARG:HG3	2:B:628:SER:HA	1.98	0.46
2:B:792:ARG:HA	2:B:795:PHE:HD2	1.80	0.46
2:B:813:LYS:O	2:B:817:LEU:HG	2.16	0.46
2:B:870:ARG:NH1	2:B:873:GLU:H	2.14	0.46
1:D:698:LEU:HA	2:E:31:ILE:CG2	2.46	0.46
2:E:821:PRO:O	2:E:824:ILE:HG12	2.14	0.46
2:E:1146:MET:N	2:E:1146:MET:SD	2.89	0.46
2:E:1353:ILE:O	2:E:1449:GLN:NE2	2.40	0.46
2:E:1391:ARG:NH2	3:F:29:PRO:HD3	2.19	0.46
2:E:1600:LEU:O	2:E:1604:ILE:HG12	2.16	0.46
1:A:575:TRP:HB2	1:A:589:GLY:O	2.15	0.46
1:A:685:ASP:HA	1:A:688:THR:HG22	1.98	0.46
1:A:701:LEU:HA	1:A:704:ILE:HD12	1.98	0.46
2:B:14:VAL:O	2:B:64:ILE:HA	2.16	0.46
1:D:575:TRP:HB2	1:D:589:GLY:O	2.15	0.46
2:E:697:LEU:O	2:E:701:ILE:HG12	2.15	0.46
2:E:1043:TRP:CE3	2:E:1043:TRP:N	2.83	0.46
2:E:1352:ILE:O	2:E:1449:GLN:HG2	2.16	0.46
2:E:1521:THR:O	2:E:1524:LEU:HG	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1588:LEU:O	2:E:1591:ARG:HG2	2.15	0.46
2:E:1614:GLN:HG2	3:F:73:PRO:HB2	1.97	0.46
2:E:1630:LYS:HE3	2:E:1630:LYS:HB3	1.71	0.46
3:F:129:LEU:O	3:F:133:LYS:N	2.48	0.46
2:B:154:HIS:HD2	2:B:157:ARG:HH11	1.64	0.46
2:B:927:LEU:CB	2:B:931:ARG:HH21	2.29	0.46
2:B:1035:GLN:OE1	2:B:1036:ALA:N	2.49	0.46
2:B:1239:ILE:HB	2:B:1242:ARG:HH21	1.80	0.46
2:B:1299:LYS:HA	2:B:1302:GLN:OE1	2.15	0.46
2:B:1352:ILE:O	2:B:1449:GLN:HG2	2.16	0.46
2:B:1612:THR:HG22	2:B:1615:LEU:HG	1.97	0.46
3:C:64:TYR:HD2	3:C:67:LEU:HD12	1.81	0.46
1:D:701:LEU:HA	1:D:704:ILE:HD12	1.98	0.46
2:E:147:LYS:O	2:E:151:LYS:HG2	2.15	0.46
2:E:270:GLU:HB2	2:E:273:LYS:HB2	1.98	0.46
2:E:306:MET:HA	2:E:320:ARG:HD3	1.98	0.46
2:E:927:LEU:CB	2:E:931:ARG:HH21	2.29	0.46
2:E:1035:GLN:OE1	2:E:1036:ALA:N	2.49	0.46
2:E:1473:LYS:CD	2:E:1481:THR:HG21	2.44	0.46
3:F:156:GLU:N	3:F:156:GLU:OE2	2.49	0.46
2:B:571:VAL:HB	2:B:618:ASP:HB3	1.96	0.46
2:B:1276:LYS:HZ2	2:B:1277:PRO:C	2.24	0.46
2:B:1370:GLN:O	2:B:1377:ARG:NE	2.47	0.46
3:C:5:LYS:NZ	3:C:74:GLN:HG2	2.31	0.46
1:D:670:ASN:HA	1:D:673:LEU:HB2	1.97	0.46
2:E:157:ARG:NH2	2:E:194:ILE:HA	2.31	0.46
2:E:1197:VAL:O	2:E:1201:LEU:HD23	2.16	0.46
2:E:1578:GLU:HG3	2:E:1579:HIS:HD1	1.80	0.46
1:A:576:TYR:HB2	1:A:598:GLU:HA	1.98	0.46
2:B:166:ARG:NH1	2:B:168:ASP:H	2.14	0.46
3:C:80:ILE:HG23	3:C:112:LEU:HD12	1.97	0.46
3:C:87:PRO:O	3:C:91:GLU:HG2	2.16	0.46
1:D:685:ASP:HA	1:D:688:THR:HG22	1.98	0.46
2:E:14:VAL:O	2:E:64:ILE:HA	2.15	0.46
2:E:302:ARG:HH12	2:E:353:MET:HE1	1.81	0.46
2:E:792:ARG:HA	2:E:795:PHE:HD2	1.80	0.46
2:E:933:LEU:H	2:E:935:ARG:HH21	1.64	0.46
2:E:990:PHE:HB3	2:E:1045:ASN:OD1	2.16	0.46
2:E:1028:LEU:HA	2:E:1032:PHE:HD1	1.81	0.46
2:E:1119:GLU:O	2:E:1122:LYS:HB2	2.14	0.46
2:B:114:PHE:O	2:B:118:GLN:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:116:GLN:HA	2:B:119:GLN:HG3	1.97	0.46
2:B:116:GLN:O	2:B:120:MET:HE3	2.16	0.46
2:B:156:ASN:O	2:B:160:GLY:N	2.49	0.46
2:B:157:ARG:NH2	2:B:194:ILE:HA	2.31	0.46
2:B:764:PHE:HD2	2:B:823:ILE:HG21	1.80	0.46
2:B:1231:TYR:CZ	2:B:1239:ILE:HD12	2.51	0.46
2:B:1276:LYS:HD2	2:B:1276:LYS:HA	1.80	0.46
2:B:1466:ARG:HH11	2:B:1467:PRO:HD2	1.81	0.46
1:D:543:GLU:H	1:D:543:GLU:CD	2.23	0.46
1:D:624:HIS:CE1	1:D:641:ALA:HB1	2.51	0.46
1:D:714:PRO:HG2	2:E:44:TRP:CZ2	2.51	0.46
2:E:15:ALA:HA	2:E:59:PHE:HE2	1.80	0.46
2:E:116:GLN:O	2:E:120:MET:HE3	2.16	0.46
2:E:129:SER:O	2:E:132:LEU:HB2	2.15	0.46
2:E:156:ASN:O	2:E:160:GLY:N	2.49	0.46
2:E:550:ALA:HB1	2:E:569:LEU:HB3	1.97	0.46
2:E:764:PHE:HD2	2:E:823:ILE:HG21	1.79	0.46
2:E:827:VAL:HG23	2:E:836:LEU:HD11	1.98	0.46
2:E:1239:ILE:HB	2:E:1242:ARG:HH21	1.80	0.46
3:F:129:LEU:HA	3:F:132:LYS:HE3	1.97	0.46
1:A:624:HIS:CE1	1:A:641:ALA:HB1	2.51	0.45
1:A:679:SER:HB3	1:A:681:LEU:HG	1.98	0.45
1:A:705:GLN:NE2	1:A:706:ILE:O	2.48	0.45
2:B:259:LEU:HD22	2:B:486:PRO:HB2	1.97	0.45
2:B:470:MET:HE2	2:B:470:MET:HB3	1.90	0.45
2:B:678:ASN:O	2:B:682:GLU:HG2	2.16	0.45
2:B:1437:LEU:HD12	2:B:1437:LEU:O	2.17	0.45
2:B:1463:ARG:HH11	2:B:1486:ARG:HG2	1.80	0.45
2:B:1600:LEU:O	2:B:1604:ILE:HG12	2.16	0.45
3:C:156:GLU:N	3:C:156:GLU:OE2	2.49	0.45
2:E:443:ARG:HG3	2:E:628:SER:HA	1.98	0.45
2:E:555:MET:HA	2:E:561:THR:HA	1.98	0.45
2:E:678:ASN:O	2:E:682:GLU:HG2	2.16	0.45
2:E:1013:GLN:HA	2:E:1016:VAL:HG22	1.98	0.45
2:E:1453:TYR:OH	2:E:1458:GLU:OE1	2.25	0.45
2:E:1466:ARG:HH11	2:E:1467:PRO:HD2	1.80	0.45
3:F:93:VAL:HG13	3:F:94:ARG:HD2	1.98	0.45
2:B:19:TYR:HB3	2:B:27:LEU:O	2.16	0.45
2:B:318:LEU:HD22	2:B:500:VAL:HG21	1.97	0.45
2:B:761:LYS:O	2:B:765:ARG:HG3	2.15	0.45
2:B:932:LEU:O	2:B:935:ARG:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1461:GLN:OE1	2:B:1490:THR:HG22	2.16	0.45
2:B:1463:ARG:HD3	2:B:1486:ARG:HH11	1.81	0.45
2:B:1561:GLY:O	2:B:1565:ASN:ND2	2.32	0.45
2:B:1628:GLU:HG2	2:B:1629:LEU:HD22	1.97	0.45
2:E:19:TYR:HB3	2:E:27:LEU:O	2.16	0.45
2:E:156:ASN:HB3	2:E:161:LEU:HB2	1.98	0.45
2:E:166:ARG:HD2	2:E:166:ARG:HA	1.74	0.45
2:E:1117:GLU:OE2	2:E:1120:LEU:HG	2.16	0.45
2:E:1372:PHE:HA	2:E:1424:GLN:NE2	2.31	0.45
3:F:6:CYS:SG	3:F:79:LEU:HD23	2.57	0.45
1:A:543:GLU:H	1:A:543:GLU:CD	2.23	0.45
2:B:294:VAL:N	2:B:330:THR:OG1	2.24	0.45
2:B:346:ILE:HB	2:B:399:LEU:HD21	1.99	0.45
2:B:745:ASP:H	2:B:804:ARG:NH1	2.15	0.45
2:B:954:VAL:O	2:B:958:ILE:HG12	2.16	0.45
2:B:990:PHE:HB3	2:B:1045:ASN:OD1	2.16	0.45
2:B:1177:LEU:O	2:B:1181:ARG:HG2	2.16	0.45
3:C:21:ILE:HD11	3:C:35:THR:HG23	1.99	0.45
2:E:166:ARG:HB3	2:E:171:ASN:HA	1.98	0.45
2:E:346:ILE:HB	2:E:399:LEU:HD21	1.99	0.45
2:E:908:ASN:O	2:E:912:VAL:HG23	2.16	0.45
2:E:927:LEU:HB2	2:E:931:ARG:HH21	1.81	0.45
2:E:1462:PHE:O	2:E:1489:TYR:N	2.48	0.45
2:E:1463:ARG:HD3	2:E:1486:ARG:HH11	1.81	0.45
2:E:1612:THR:HG22	2:E:1615:LEU:HG	1.97	0.45
3:F:7:VAL:HG23	3:F:75:THR:HG21	1.97	0.45
3:F:87:PRO:O	3:F:91:GLU:HG2	2.16	0.45
2:B:270:GLU:HB2	2:B:273:LYS:HB2	1.98	0.45
2:B:922:ALA:O	2:B:925:ILE:HB	2.17	0.45
2:B:933:LEU:H	2:B:935:ARG:HH21	1.64	0.45
2:B:1521:THR:O	2:B:1524:LEU:HG	2.16	0.45
1:D:576:TYR:HB2	1:D:598:GLU:HA	1.98	0.45
2:E:463:PRO:HD2	2:E:503:GLN:HB3	1.97	0.45
2:E:508:CYS:HB3	2:E:510:TYR:CE2	2.48	0.45
2:E:576:ASN:ND2	2:E:579:MET:SD	2.88	0.45
2:E:717:GLU:OE1	2:E:765:ARG:NH1	2.49	0.45
2:E:745:ASP:H	2:E:804:ARG:NH1	2.14	0.45
2:E:870:ARG:NH1	2:E:873:GLU:H	2.14	0.45
2:E:1237:GLU:O	2:E:1240:TYR:HB3	2.16	0.45
2:E:1461:GLN:OE1	2:E:1490:THR:HG22	2.16	0.45
3:F:64:TYR:HD2	3:F:67:LEU:HD12	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:633:GLN:OE1	1:A:637:VAL:HG21	2.15	0.45
1:A:687:ASP:OD1	1:A:688:THR:N	2.50	0.45
2:B:222:TYR:CD2	2:B:289:LEU:HD11	2.52	0.45
2:B:293:ARG:CZ	2:B:328:ASP:HB3	2.47	0.45
2:B:1306:SER:O	2:B:1310:LYS:HG2	2.17	0.45
2:B:1372:PHE:HA	2:B:1424:GLN:NE2	2.31	0.45
2:B:1630:LYS:HE3	2:B:1630:LYS:HB3	1.71	0.45
3:C:129:LEU:HA	3:C:132:LYS:HE3	1.97	0.45
1:D:711:PRO:HB2	2:E:63:TYR:CE1	2.52	0.45
2:E:198:ILE:HA	2:E:201:GLU:OE1	2.17	0.45
2:E:439:PRO:HB3	2:E:715:VAL:HG21	1.98	0.45
2:B:805:PRO:O	2:B:808:GLU:HG2	2.17	0.45
2:B:921:THR:OG1	2:B:924:HIS:HB3	2.17	0.45
2:B:927:LEU:HB2	2:B:931:ARG:HH21	1.81	0.45
2:B:1117:GLU:OE2	2:B:1120:LEU:HG	2.17	0.45
2:B:1197:VAL:O	2:B:1201:LEU:HD23	2.16	0.45
2:B:1387:GLU:HG2	2:B:1388:TYR:N	2.30	0.45
1:D:532:PRO:O	1:D:536:LEU:HD13	2.17	0.45
2:E:166:ARG:NH1	2:E:168:ASP:H	2.14	0.45
2:E:167:ASP:OD1	2:E:167:ASP:N	2.50	0.45
2:E:463:PRO:HB2	2:E:503:GLN:C	2.41	0.45
2:E:805:PRO:O	2:E:808:GLU:HG2	2.17	0.45
2:E:1205:LEU:HA	2:E:1208:ARG:HD3	1.99	0.45
2:E:1306:SER:O	2:E:1310:LYS:HG2	2.17	0.45
2:E:1437:LEU:HD12	2:E:1437:LEU:O	2.17	0.45
2:E:1588:LEU:HA	2:E:1591:ARG:CD	2.47	0.45
1:A:536:LEU:HD21	2:B:17:TYR:CA	2.46	0.45
1:A:564:LYS:H	1:A:573:LYS:HD2	1.82	0.45
2:B:306:MET:HE2	2:B:502:TYR:HD1	1.82	0.45
2:B:933:LEU:H	2:B:935:ARG:NH2	2.14	0.45
2:B:1013:GLN:HA	2:B:1016:VAL:HG22	1.99	0.45
2:E:1:MET:HE1	2:E:44:TRP:CD1	2.52	0.45
2:E:222:TYR:CD2	2:E:289:LEU:HD11	2.52	0.45
2:E:1607:HIS:CE1	2:E:1615:LEU:HD22	2.46	0.45
2:B:92:THR:HA	2:B:95:LEU:HD12	1.97	0.45
2:B:197:LYS:HG2	2:B:200:GLU:OE2	2.15	0.45
2:B:463:PRO:HB2	2:B:503:GLN:C	2.41	0.45
2:B:717:GLU:OE1	2:B:765:ARG:NH1	2.49	0.45
2:B:1011:MET:HA	2:B:1014:ASN:ND2	2.30	0.45
2:B:1028:LEU:HA	2:B:1032:PHE:HD1	1.81	0.45
2:B:1146:MET:N	2:B:1146:MET:SD	2.89	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1206:ASP:HA	2:B:1209:THR:HG22	1.99	0.45
2:B:1237:GLU:O	2:B:1240:TYR:HB3	2.16	0.45
1:D:687:ASP:OD1	1:D:688:THR:N	2.50	0.45
2:E:94:THR:HG22	2:E:98:TRP:NE1	2.31	0.45
2:E:153:ASP:HA	2:E:156:ASN:ND2	2.28	0.45
2:E:771:ARG:HH21	2:E:784:GLY:HA2	1.82	0.45
3:F:128:LYS:O	3:F:131:GLU:HG2	2.17	0.45
3:F:167:THR:O	3:F:168:VAL:C	2.60	0.45
2:B:39:GLU:HB2	2:B:46:ARG:HG3	1.99	0.45
2:B:166:ARG:HB3	2:B:171:ASN:HA	1.98	0.45
2:B:438:LEU:N	2:B:441:ASP:OD2	2.50	0.45
2:B:501:TYR:CD2	2:B:507:PRO:HB3	2.52	0.45
2:B:1322:LYS:HG2	2:B:1345:ARG:NH1	2.32	0.45
2:B:1517:ASN:O	2:B:1521:THR:HG23	2.17	0.45
2:B:1598:PRO:O	2:B:1601:THR:HB	2.17	0.45
1:D:617:VAL:CG2	1:D:643:SER:HB2	2.47	0.45
1:D:676:ASP:O	1:D:677:MET:HE2	2.15	0.45
1:D:705:GLN:NE2	1:D:706:ILE:O	2.48	0.45
2:E:501:TYR:CD2	2:E:507:PRO:HB3	2.52	0.45
2:E:879:LEU:HD23	2:E:924:HIS:CE1	2.52	0.45
2:E:932:LEU:O	2:E:935:ARG:HB2	2.16	0.45
3:F:21:ILE:HD11	3:F:35:THR:HG23	1.99	0.45
1:A:696:LEU:HA	1:A:699:LEU:HD23	1.99	0.45
2:B:302:ARG:HH12	2:B:353:MET:HE1	1.81	0.45
3:C:4:ILE:HD12	3:C:176:VAL:HG11	1.99	0.45
1:D:586:LEU:O	1:D:588:TYR:HD1	2.00	0.45
1:D:698:LEU:HA	2:E:31:ILE:HG21	1.99	0.45
2:E:315:THR:OG1	2:E:538:GLU:HG3	2.17	0.45
2:E:876:GLU:HG2	2:E:877:VAL:HG13	1.98	0.45
2:E:922:ALA:O	2:E:925:ILE:HB	2.17	0.45
2:E:954:VAL:O	2:E:958:ILE:HG12	2.16	0.45
2:E:1066:GLN:OE1	2:E:1069:ARG:NH2	2.43	0.45
2:E:1178:GLU:HG2	2:E:1182:LYS:NZ	2.32	0.45
2:E:1344:LYS:HA	2:E:1344:LYS:HD2	1.77	0.45
3:F:170:ASP:HB3	3:F:174:ARG:NH2	2.32	0.45
2:B:786:GLU:HA	2:B:789:ASN:HD22	1.82	0.44
2:B:870:ARG:HH12	2:B:874:CYS:H	1.60	0.44
2:B:879:LEU:HD23	2:B:924:HIS:CE1	2.52	0.44
2:B:1178:GLU:HG2	2:B:1182:LYS:NZ	2.32	0.44
2:B:1189:SER:HB3	2:B:1193:PHE:CZ	2.52	0.44
2:B:1585:LYS:O	2:B:1588:LEU:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1593:ILE:O	2:B:1597:MET:HG2	2.18	0.44
3:C:167:THR:O	3:C:168:VAL:C	2.60	0.44
3:C:170:ASP:HB3	3:C:174:ARG:NH2	2.32	0.44
2:E:19:TYR:CG	2:E:59:PHE:HE1	2.35	0.44
2:E:1121:ARG:O	2:E:1124:THR:N	2.42	0.44
2:E:1189:SER:HB3	2:E:1193:PHE:CZ	2.52	0.44
2:E:1505:LYS:HD3	2:E:1505:LYS:HA	1.80	0.44
2:E:1581:GLU:OE1	2:E:1581:GLU:N	2.49	0.44
2:B:1018:LEU:HD23	2:B:1018:LEU:HA	1.79	0.44
2:B:1449:GLN:HA	2:B:1452:ASN:ND2	2.32	0.44
2:B:1588:LEU:HA	2:B:1591:ARG:CD	2.47	0.44
1:D:679:SER:HB3	1:D:681:LEU:HG	1.99	0.44
2:E:786:GLU:HA	2:E:789:ASN:HD22	1.82	0.44
2:E:1033:MET:O	2:E:1036:ALA:N	2.51	0.44
2:E:1186:LEU:HD12	2:E:1186:LEU:HA	1.82	0.44
2:E:1231:TYR:CZ	2:E:1239:ILE:HD12	2.51	0.44
2:B:19:TYR:CG	2:B:59:PHE:HE1	2.35	0.44
2:B:37:ILE:HD13	2:B:45:TYR:HB3	2.00	0.44
2:B:771:ARG:HH21	2:B:784:GLY:HA2	1.82	0.44
2:B:848:PRO:HD2	2:B:851:GLN:OE1	2.18	0.44
2:B:1066:GLN:OE1	2:B:1069:ARG:NH2	2.43	0.44
2:B:1205:LEU:HA	2:B:1208:ARG:HD3	1.99	0.44
2:B:1518:ALA:HB1	2:B:1566:TYR:CE1	2.53	0.44
3:C:6:CYS:SG	3:C:79:LEU:HD23	2.57	0.44
3:C:91:GLU:O	3:C:95:ALA:CB	2.66	0.44
3:C:128:LYS:O	3:C:131:GLU:HG2	2.17	0.44
3:C:153:LYS:HD2	3:C:153:LYS:HA	1.73	0.44
1:D:578:ARG:HH22	1:D:601:HIS:H	1.66	0.44
2:E:238:ASP:O	2:E:303:VAL:N	2.37	0.44
2:E:293:ARG:CZ	2:E:328:ASP:HB3	2.47	0.44
2:E:438:LEU:N	2:E:441:ASP:OD2	2.50	0.44
2:E:943:MET:HE2	2:E:953:PHE:HE2	1.83	0.44
2:E:988:GLU:O	2:E:992:MET:HG3	2.17	0.44
2:E:1322:LYS:HG2	2:E:1345:ARG:NH1	2.32	0.44
2:E:1593:ILE:O	2:E:1597:MET:HG2	2.17	0.44
1:A:586:LEU:O	1:A:588:TYR:HD1	2.00	0.44
2:B:1353:ILE:O	2:B:1449:GLN:NE2	2.40	0.44
2:B:1367:TYR:N	2:B:1379:LYS:O	2.48	0.44
2:B:1557:PRO:HB2	2:B:1560:MET:O	2.18	0.44
2:E:1102:ILE:O	2:E:1106:VAL:HG23	2.17	0.44
2:E:1517:ASN:O	2:E:1521:THR:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:40:TYR:O	3:F:55:LEU:N	2.43	0.44
2:B:1:MET:HE1	2:B:44:TRP:CD1	2.52	0.44
2:B:166:ARG:HB3	2:B:171:ASN:C	2.42	0.44
2:B:198:ILE:HA	2:B:201:GLU:OE1	2.17	0.44
2:B:555:MET:HA	2:B:561:THR:HA	1.98	0.44
2:E:60:PRO:O	2:E:64:ILE:N	2.42	0.44
2:E:871:GLN:CB	2:E:875:ARG:HB2	2.47	0.44
2:E:926:GLN:HE21	2:E:968:HIS:CG	2.36	0.44
2:E:1598:PRO:O	2:E:1601:THR:HB	2.17	0.44
2:B:48:TYR:HA	2:B:55:LYS:O	2.18	0.44
2:B:300:ILE:HD13	2:B:348:PHE:CD1	2.53	0.44
2:B:422:ASP:N	2:B:422:ASP:OD1	2.44	0.44
1:D:564:LYS:H	1:D:573:LYS:HD2	1.82	0.44
2:E:1169:LYS:HE3	2:E:1202:GLU:HB3	2.00	0.44
2:E:1277:PRO:CG	2:E:1292:THR:HA	2.44	0.44
2:E:1467:PRO:HG3	3:F:33:ILE:HD11	2.00	0.44
1:A:617:VAL:CG2	1:A:643:SER:HB2	2.47	0.44
1:A:652:LEU:HD22	1:A:654:PHE:CZ	2.53	0.44
2:B:262:TRP:CZ2	2:B:266:GLY:HA2	2.53	0.44
2:B:680:MET:HE3	2:B:693:VAL:CG2	2.48	0.44
2:B:1118:VAL:O	2:B:1122:LYS:HG2	2.17	0.44
2:B:1354:LYS:NZ	2:B:1355:ALA:HB2	2.33	0.44
2:B:1535:GLN:OE1	2:B:1542:LEU:HD11	2.17	0.44
2:E:166:ARG:HB3	2:E:171:ASN:C	2.42	0.44
2:E:1406:GLU:CD	2:E:1423:LYS:HZ2	2.26	0.44
2:E:1593:ILE:HA	2:E:1596:GLN:HB3	2.00	0.44
3:F:4:ILE:HD12	3:F:176:VAL:HG11	1.99	0.44
2:B:235:ILE:HB	2:B:262:TRP:HZ3	1.82	0.44
2:B:936:ILE:HD12	2:B:939:THR:HB	1.99	0.44
2:B:1078:ASP:OD1	2:B:1081:LYS:N	2.50	0.44
2:B:1102:ILE:O	2:B:1106:VAL:HG23	2.17	0.44
2:B:1532:CYS:HA	2:B:1535:GLN:HG3	2.00	0.44
3:C:137:ILE:HG23	3:C:141:GLN:CG	2.48	0.44
2:E:154:HIS:HD2	2:E:157:ARG:HH11	1.64	0.44
2:E:235:ILE:HB	2:E:262:TRP:HZ3	1.82	0.44
2:E:262:TRP:CZ2	2:E:266:GLY:HA2	2.53	0.44
2:E:457:LYS:HG2	2:E:463:PRO:HA	2.00	0.44
2:E:1535:GLN:OE1	2:E:1542:LEU:HD11	2.17	0.44
1:A:657:PRO:HB2	1:A:661:GLU:OE2	2.18	0.44
2:B:259:LEU:HD23	2:B:490:TYR:CG	2.53	0.44
2:B:1061:LEU:HA	2:B:1064:PHE:CZ	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1567:GLU:HA	2:B:1571:PHE:CD1	2.53	0.44
2:B:1617:PRO:O	2:B:1620:GLU:HG3	2.18	0.44
3:C:126:ILE:HG22	3:C:136:PRO:HB3	2.00	0.44
2:E:187:HIS:CE1	2:E:1006:TRP:HA	2.53	0.44
2:E:302:ARG:HD3	2:E:322:PHE:CD1	2.47	0.44
2:E:972:TYR:O	2:E:975:THR:N	2.50	0.44
2:E:1018:LEU:HD23	2:E:1018:LEU:HA	1.79	0.44
2:E:1099:ILE:HD13	2:E:1138:PHE:HB2	2.00	0.44
2:E:1449:GLN:HA	2:E:1452:ASN:ND2	2.32	0.44
1:A:624:HIS:HA	1:A:627:GLU:HG2	2.00	0.43
2:B:48:TYR:HB3	2:B:53:LYS:HA	2.00	0.43
2:B:187:HIS:CE1	2:B:1006:TRP:HA	2.53	0.43
2:B:876:GLU:HG2	2:B:877:VAL:HG13	1.98	0.43
2:B:1237:GLU:H	2:B:1237:GLU:HG2	1.61	0.43
2:B:1386:LYS:HD3	2:B:1386:LYS:HA	1.85	0.43
3:C:129:LEU:HB3	3:C:134:LEU:O	2.19	0.43
2:E:98:TRP:HZ3	2:E:159:LEU:HD12	1.83	0.43
2:E:300:ILE:HD13	2:E:348:PHE:CD1	2.53	0.43
2:E:468:VAL:HB	2:E:498:SER:HB3	1.99	0.43
2:E:921:THR:OG1	2:E:924:HIS:HB3	2.17	0.43
2:E:970:SER:HA	2:E:974:SER:HB3	2.00	0.43
2:E:994:LYS:NZ	2:E:1048:HIS:HB3	2.33	0.43
2:E:1061:LEU:HA	2:E:1064:PHE:CZ	2.53	0.43
2:E:1206:ASP:HA	2:E:1209:THR:HG22	1.99	0.43
2:E:1557:PRO:HB2	2:E:1560:MET:O	2.18	0.43
2:E:1617:PRO:O	2:E:1620:GLU:HG3	2.18	0.43
3:F:5:LYS:HE2	3:F:56:TRP:CZ2	2.53	0.43
3:F:137:ILE:HG23	3:F:141:GLN:CG	2.48	0.43
2:B:144:LEU:HA	2:B:147:LYS:HZ2	1.82	0.43
2:B:439:PRO:HB3	2:B:715:VAL:HG21	1.98	0.43
2:B:926:GLN:HE21	2:B:968:HIS:CG	2.36	0.43
2:B:1156:ASP:O	2:B:1160:GLU:HG3	2.18	0.43
2:B:1169:LYS:HE3	2:B:1202:GLU:HB3	2.00	0.43
2:B:1446:VAL:HG23	2:B:1451:LEU:HD21	2.00	0.43
3:C:130:LYS:HE2	3:C:130:LYS:HA	2.00	0.43
2:E:39:GLU:HB2	2:E:46:ARG:HG3	1.98	0.43
2:E:48:TYR:HB3	2:E:53:LYS:HA	2.00	0.43
2:E:745:ASP:H	2:E:804:ARG:HH12	1.65	0.43
2:E:848:PRO:HD2	2:E:851:GLN:OE1	2.18	0.43
2:E:871:GLN:HA	2:E:874:CYS:SG	2.59	0.43
2:E:1121:ARG:HG2	2:E:1125:ILE:CD1	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1367:TYR:N	2:E:1379:LYS:O	2.48	0.43
2:E:1518:ALA:HB1	2:E:1566:TYR:CE1	2.53	0.43
1:A:532:PRO:O	1:A:536:LEU:HD13	2.17	0.43
2:B:98:TRP:HZ3	2:B:159:LEU:HD12	1.83	0.43
2:B:315:THR:OG1	2:B:538:GLU:HG3	2.17	0.43
2:B:994:LYS:NZ	2:B:1048:HIS:HB3	2.33	0.43
2:B:1318:ILE:HD12	2:B:1345:ARG:HG3	2.01	0.43
2:B:1557:PRO:HB2	2:B:1561:GLY:HA2	2.00	0.43
2:B:1593:ILE:HA	2:B:1596:GLN:HB3	2.00	0.43
1:D:536:LEU:CD2	2:E:18:ASN:H	2.26	0.43
1:D:564:LYS:HE3	1:D:590:ASP:OD1	2.18	0.43
2:E:256:GLU:HA	2:E:431:MET:CE	2.49	0.43
2:E:526:HIS:CD2	2:E:586:LEU:HD21	2.53	0.43
2:E:1354:LYS:NZ	2:E:1355:ALA:HB2	2.33	0.43
2:E:1435:MET:HG3	2:E:1436:SER:O	2.18	0.43
3:F:171:GLU:HA	3:F:174:ARG:HG2	2.00	0.43
1:A:564:LYS:HE3	1:A:590:ASP:OD1	2.18	0.43
2:B:60:PRO:O	2:B:64:ILE:N	2.42	0.43
2:B:457:LYS:HG2	2:B:463:PRO:HA	2.00	0.43
2:B:468:VAL:HB	2:B:498:SER:HB3	1.99	0.43
2:B:871:GLN:HA	2:B:874:CYS:SG	2.59	0.43
2:B:871:GLN:CB	2:B:875:ARG:HB2	2.48	0.43
2:B:943:MET:HE2	2:B:953:PHE:HE2	1.83	0.43
2:B:988:GLU:O	2:B:992:MET:HG3	2.18	0.43
1:D:696:LEU:HA	1:D:699:LEU:HD23	1.99	0.43
2:E:37:ILE:HD13	2:E:45:TYR:HB3	2.00	0.43
2:E:95:LEU:HD21	2:E:124:LEU:HD23	2.00	0.43
2:E:306:MET:HE2	2:E:502:TYR:HD1	1.82	0.43
2:E:853:VAL:HA	2:E:856:LYS:NZ	2.33	0.43
2:E:1446:VAL:HG23	2:E:1451:LEU:HD21	2.00	0.43
2:B:224:LEU:HD23	2:B:281:PHE:CD2	2.53	0.43
2:B:472:VAL:O	2:B:480:LEU:N	2.32	0.43
2:B:1033:MET:O	2:B:1036:ALA:N	2.51	0.43
3:C:160:LEU:HD12	3:C:160:LEU:HA	1.81	0.43
1:D:561:CYS:HG	1:D:594:SER:HG	1.58	0.43
2:E:89:GLN:O	2:E:92:THR:OG1	2.31	0.43
2:E:502:TYR:CD2	2:E:503:GLN:HG2	2.54	0.43
2:E:1118:VAL:O	2:E:1122:LYS:HG2	2.17	0.43
2:E:1156:ASP:O	2:E:1160:GLU:HG3	2.18	0.43
2:E:1386:LYS:HD3	2:E:1386:LYS:HA	1.85	0.43
2:E:1525:THR:HA	2:E:1528:ARG:NH1	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:91:GLU:O	3:F:95:ALA:CB	2.65	0.43
3:F:120:ARG:NH2	3:F:139:TYR:H	2.16	0.43
2:B:526:HIS:CD2	2:B:586:LEU:HD21	2.53	0.43
2:B:879:LEU:CD2	2:B:931:ARG:HH22	2.30	0.43
2:B:1275:ASP:OD2	2:B:1275:ASP:N	2.52	0.43
2:B:1545:HIS:N	2:B:1546:PRO:HD2	2.34	0.43
1:D:657:PRO:HB2	1:D:661:GLU:OE2	2.18	0.43
2:E:29:LEU:HD12	2:E:59:PHE:CE1	2.54	0.43
2:E:429:ARG:NH2	2:E:445:ASP:OD2	2.39	0.43
2:E:528:ARG:NH1	2:E:580:GLU:HG2	2.34	0.43
2:E:927:LEU:HB3	2:E:931:ARG:HE	1.83	0.43
2:E:1194:ALA:HA	2:E:1197:VAL:HB	2.01	0.43
2:E:1328:TYR:HB3	2:E:1338:LEU:CD2	2.48	0.43
2:E:1381:PHE:HB3	2:E:1383:TYR:HE2	1.84	0.43
2:B:95:LEU:HD21	2:B:124:LEU:HD23	2.00	0.43
2:B:167:ASP:OD1	2:B:167:ASP:N	2.50	0.43
2:B:589:PRO:CB	2:B:594:GLU:HB3	2.44	0.43
2:B:1381:PHE:HB3	2:B:1383:TYR:CE2	2.54	0.43
2:E:144:LEU:HA	2:E:147:LYS:HZ2	1.83	0.43
2:E:936:ILE:HD12	2:E:939:THR:HB	1.99	0.43
2:E:1240:TYR:CE1	2:E:1244:LEU:HD11	2.54	0.43
2:E:1275:ASP:OD2	2:E:1275:ASP:N	2.51	0.43
2:E:1438:PRO:HA	2:E:1454:TYR:CE2	2.53	0.43
2:E:1567:GLU:HA	2:E:1571:PHE:CD1	2.53	0.43
2:E:1585:LYS:O	2:E:1588:LEU:HB2	2.17	0.43
3:F:126:ILE:HG22	3:F:136:PRO:HB3	2.00	0.43
3:F:171:GLU:HA	3:F:174:ARG:NE	2.34	0.43
2:B:708:LYS:HB3	2:B:709:PHE:CD2	2.54	0.43
2:B:970:SER:HA	2:B:974:SER:HB3	2.00	0.43
2:B:1099:ILE:HD13	2:B:1138:PHE:HB2	2.00	0.43
2:B:1251:HIS:CD2	2:B:1259:GLU:HG2	2.54	0.43
2:B:1277:PRO:HG3	2:B:1292:THR:CA	2.43	0.43
2:B:1381:PHE:HB3	2:B:1383:TYR:HE2	1.84	0.43
2:B:1411:THR:HB	3:C:28:PHE:CE1	2.54	0.43
2:B:1538:TRP:CE3	2:B:1539:ASP:HB2	2.54	0.43
2:B:1618:LEU:HD22	2:B:1621:ARG:NH2	2.34	0.43
3:C:5:LYS:HE2	3:C:56:TRP:CZ2	2.53	0.43
3:C:98:TYR:HB3	3:C:99:PRO:HD3	2.01	0.43
3:C:124:ASP:HA	3:C:127:GLU:HG2	2.00	0.43
3:C:171:GLU:HA	3:C:174:ARG:NE	2.34	0.43
3:C:171:GLU:HA	3:C:174:ARG:HG2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:652:LEU:HD22	1:D:654:PHE:CZ	2.53	0.43
2:E:48:TYR:HA	2:E:55:LYS:O	2.18	0.43
2:E:259:LEU:HD23	2:E:490:TYR:CG	2.53	0.43
2:E:783:ASP:HB3	2:E:786:GLU:HB2	2.01	0.43
2:E:853:VAL:HA	2:E:856:LYS:HG2	2.01	0.43
2:E:1557:PRO:HB2	2:E:1561:GLY:HA2	2.00	0.43
3:F:96:LYS:HZ2	3:F:100:GLU:HG2	1.83	0.43
3:F:130:LYS:HE2	3:F:130:LYS:HA	2.00	0.43
2:B:62:THR:HG23	2:B:63:TYR:CD1	2.50	0.43
2:B:202:LYS:H	2:B:202:LYS:HG2	1.56	0.43
2:B:228:PHE:HB3	2:B:277:LEU:HB3	2.00	0.43
2:B:465:ASN:OD1	2:B:503:GLN:N	2.29	0.43
2:B:1524:LEU:HA	2:B:1527:GLU:CG	2.49	0.43
1:D:699:LEU:O	1:D:702:GLU:HG2	2.19	0.43
2:E:10:GLN:NE2	2:E:37:ILE:O	2.52	0.43
2:E:154:HIS:NE2	2:E:201:GLU:OE2	2.42	0.43
2:E:1218:GLU:OE1	2:E:1218:GLU:N	2.37	0.43
2:E:1264:LEU:HD12	2:E:1264:LEU:HA	1.78	0.43
2:E:1532:CYS:SG	2:E:1550:LEU:HD22	2.59	0.43
2:E:1545:HIS:N	2:E:1546:PRO:HD2	2.34	0.43
3:F:132:LYS:HD2	3:F:134:LEU:HD12	2.00	0.43
1:A:586:LEU:HB2	1:A:608:LEU:HB3	2.01	0.43
1:A:591:LEU:HD11	1:A:601:HIS:CE1	2.54	0.43
2:B:1519:ILE:O	2:B:1523:GLU:HG3	2.19	0.43
2:B:1525:THR:HA	2:B:1528:ARG:NH1	2.34	0.43
3:C:80:ILE:HG23	3:C:112:LEU:HA	2.01	0.43
3:C:132:LYS:HD2	3:C:134:LEU:HD12	2.00	0.43
2:E:762:TYR:CD1	2:E:765:ARG:HD2	2.54	0.43
2:E:1522:MET:SD	2:E:1523:GLU:N	2.92	0.43
2:E:1598:PRO:O	2:E:1602:GLU:OE1	2.37	0.43
1:A:578:ARG:HH22	1:A:601:HIS:H	1.66	0.42
2:B:256:GLU:HA	2:B:431:MET:CE	2.49	0.42
2:B:526:HIS:CE1	2:B:586:LEU:HD21	2.54	0.42
2:B:1022:ASN:HB2	2:B:1023:GLN:NE2	2.34	0.42
2:B:1290:VAL:HG23	2:B:1291:TYR:N	2.34	0.42
2:B:1435:MET:HG3	2:B:1436:SER:O	2.18	0.42
2:B:1438:PRO:HA	2:B:1454:TYR:CE2	2.53	0.42
2:B:1532:CYS:SG	2:B:1550:LEU:HD22	2.59	0.42
2:B:1581:GLU:OE1	2:B:1581:GLU:N	2.49	0.42
1:D:624:HIS:HA	1:D:627:GLU:HG2	2.00	0.42
2:E:154:HIS:HA	2:E:157:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:187:HIS:HD1	2:E:1006:TRP:CD1	2.37	0.42
2:E:224:LEU:HD23	2:E:281:PHE:CD2	2.53	0.42
2:E:727:THR:O	2:E:730:TYR:HE2	2.02	0.42
2:E:1125:ILE:HD12	2:E:1125:ILE:H	1.84	0.42
2:E:1277:PRO:HG3	2:E:1292:THR:CA	2.43	0.42
2:E:1318:ILE:HD12	2:E:1345:ARG:HG3	2.00	0.42
2:E:1370:GLN:O	2:E:1377:ARG:NE	2.47	0.42
2:B:695:ASP:OD1	2:B:740:TYR:OH	2.29	0.42
2:B:1127:ILE:HG22	2:B:1131:MET:HE2	2.01	0.42
2:B:1344:LYS:HA	2:B:1344:LYS:HD2	1.77	0.42
2:E:144:LEU:O	2:E:148:VAL:HG22	2.19	0.42
2:E:680:MET:O	2:E:684:SER:HB3	2.19	0.42
3:F:16:LYS:O	3:F:19:LEU:HB2	2.20	0.42
3:F:124:ASP:O	3:F:127:GLU:HG2	2.20	0.42
1:A:699:LEU:O	1:A:702:GLU:HG2	2.19	0.42
2:B:166:ARG:HA	2:B:166:ARG:HD2	1.74	0.42
2:B:528:ARG:NH1	2:B:580:GLU:HG2	2.34	0.42
2:B:789:ASN:HA	2:B:792:ARG:HD2	2.01	0.42
2:B:927:LEU:HB3	2:B:931:ARG:HE	1.83	0.42
2:B:1177:LEU:HD22	2:B:1191:GLU:HG2	2.02	0.42
2:B:1354:LYS:HB3	2:B:1354:LYS:HE3	1.83	0.42
2:B:1546:PRO:O	2:B:1549:MET:HB2	2.19	0.42
1:D:567:ALA:HB3	1:D:573:LYS:HD3	2.01	0.42
2:E:11:LYS:HG3	2:E:70:THR:OG1	2.19	0.42
2:E:1127:ILE:HG22	2:E:1131:MET:HE2	2.02	0.42
2:E:1546:PRO:O	2:E:1549:MET:HB2	2.19	0.42
3:F:124:ASP:HA	3:F:127:GLU:HG2	2.00	0.42
1:A:543:GLU:HG2	1:A:544:ILE:N	2.35	0.42
2:B:44:TRP:CZ3	2:B:60:PRO:HG3	2.55	0.42
2:B:98:TRP:O	2:B:102:TRP:HB2	2.19	0.42
2:B:1156:ASP:O	2:B:1157:GLN:C	2.62	0.42
2:B:1522:MET:SD	2:B:1523:GLU:N	2.92	0.42
2:B:1598:PRO:O	2:B:1602:GLU:OE1	2.37	0.42
1:D:586:LEU:HB2	1:D:608:LEU:HB3	2.01	0.42
1:D:591:LEU:HD11	1:D:601:HIS:CE1	2.54	0.42
1:D:658:ASP:OD1	1:D:661:GLU:HG2	2.18	0.42
2:E:102:TRP:CH2	2:E:118:GLN:HA	2.55	0.42
2:E:169:ASN:OD1	2:E:173:LEU:HD13	2.18	0.42
2:E:228:PHE:HB3	2:E:277:LEU:HB3	2.00	0.42
2:E:526:HIS:CE1	2:E:586:LEU:HD21	2.54	0.42
2:E:708:LYS:HB3	2:E:709:PHE:CD2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1022:ASN:HB2	2:E:1023:GLN:NE2	2.34	0.42
2:E:1029:THR:HA	2:E:1033:MET:HG2	2.01	0.42
1:A:658:ASP:OD1	1:A:661:GLU:HG2	2.18	0.42
2:B:98:TRP:HA	2:B:101:ILE:HG22	2.02	0.42
2:B:137:PRO:HB2	2:B:140:GLU:OE1	2.19	0.42
2:B:502:TYR:CD2	2:B:503:GLN:HG2	2.54	0.42
2:B:853:VAL:HA	2:B:856:LYS:HG2	2.01	0.42
2:B:899:HIS:HB3	2:B:953:PHE:HZ	1.84	0.42
2:B:1121:ARG:HG2	2:B:1125:ILE:CD1	2.45	0.42
2:B:1149:ASN:HA	2:B:1236:ARG:NH1	2.34	0.42
2:B:1194:ALA:HA	2:B:1197:VAL:HB	2.01	0.42
2:B:1228:LEU:HD11	2:B:1247:LEU:HD12	2.01	0.42
2:E:98:TRP:HA	2:E:101:ILE:HG22	2.02	0.42
2:E:98:TRP:O	2:E:102:TRP:HB2	2.19	0.42
2:E:1065:SER:OG	2:E:1068:LYS:N	2.53	0.42
2:E:1381:PHE:CD2	2:E:1501:TRP:HD1	2.38	0.42
2:E:1532:CYS:HA	2:E:1535:GLN:HG3	2.00	0.42
2:E:1579:HIS:HD2	2:E:1582:ASP:OD2	2.02	0.42
1:A:567:ALA:HB3	1:A:573:LYS:HD3	2.01	0.42
2:B:10:GLN:NE2	2:B:37:ILE:O	2.52	0.42
2:B:762:TYR:CD1	2:B:765:ARG:HD2	2.54	0.42
2:B:853:VAL:HA	2:B:856:LYS:NZ	2.34	0.42
2:B:1362:TYR:HD2	2:B:1462:PHE:HE2	1.68	0.42
2:B:1381:PHE:CD2	2:B:1501:TRP:HD1	2.38	0.42
2:B:1492:ALA:HB2	2:B:1505:LYS:HE3	2.01	0.42
1:D:543:GLU:HG2	1:D:544:ILE:N	2.35	0.42
2:E:285:SER:OG	2:E:288:ASP:OD2	2.15	0.42
2:E:654:LEU:HB3	2:E:692:LEU:HB3	2.01	0.42
2:E:879:LEU:CD2	2:E:931:ARG:HH22	2.30	0.42
2:E:1362:TYR:CD2	2:E:1462:PHE:HE2	2.37	0.42
2:E:1524:LEU:HA	2:E:1527:GLU:CG	2.49	0.42
2:B:169:ASN:OD1	2:B:173:LEU:HD13	2.18	0.42
2:B:187:HIS:HD1	2:B:1006:TRP:CD1	2.37	0.42
2:B:226:VAL:O	2:B:279:ALA:N	2.49	0.42
2:B:296:LEU:HB2	2:B:329:ILE:HD13	2.02	0.42
2:B:680:MET:O	2:B:684:SER:HB3	2.19	0.42
2:B:721:TYR:HB2	2:B:722:LYS:HZ3	1.84	0.42
2:B:743:ASN:HB3	2:B:749:LYS:HD2	2.02	0.42
2:B:809:ALA:HA	2:B:812:ILE:HD13	2.02	0.42
2:B:1054:LEU:HD13	2:B:1083:ILE:HB	2.02	0.42
2:B:1328:TYR:HB3	2:B:1338:LEU:CD2	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1483:TRP:CE2	2:B:1514:PRO:HD3	2.55	0.42
2:B:1516:GLU:O	2:B:1519:ILE:HB	2.20	0.42
2:E:70:THR:H	2:E:76:GLN:NE2	2.18	0.42
2:E:655:LYS:C	2:E:656:LYS:HD2	2.45	0.42
2:E:1011:MET:HA	2:E:1014:ASN:ND2	2.30	0.42
2:E:1381:PHE:HB3	2:E:1383:TYR:CE2	2.54	0.42
2:E:1618:LEU:HD22	2:E:1621:ARG:NH2	2.34	0.42
3:F:160:LEU:HD12	3:F:160:LEU:HA	1.81	0.42
2:B:223:GLY:O	2:B:406:LEU:N	2.47	0.42
2:B:228:PHE:HE2	2:B:399:LEU:HD12	1.85	0.42
2:B:654:LEU:HB3	2:B:692:LEU:HB3	2.02	0.42
2:B:771:ARG:NH2	2:B:781:SER:HG	2.17	0.42
2:B:950:ILE:HA	2:B:953:PHE:CD2	2.51	0.42
2:B:979:ARG:NH1	2:B:1036:ALA:HB2	2.34	0.42
2:B:1008:VAL:O	2:B:1012:THR:HG23	2.20	0.42
2:B:1125:ILE:N	2:B:1126:PRO:HD2	2.35	0.42
2:B:1181:ARG:NH1	2:B:1191:GLU:OE2	2.53	0.42
2:B:1240:TYR:CE1	2:B:1244:LEU:HD11	2.54	0.42
2:B:1299:LYS:HB3	2:B:1299:LYS:HE2	1.76	0.42
2:B:1348:PHE:O	2:B:1352:ILE:HG12	2.20	0.42
2:B:1362:TYR:CD2	2:B:1462:PHE:HE2	2.37	0.42
2:B:1607:HIS:CE1	2:B:1615:LEU:HD22	2.46	0.42
3:C:61:GLN:HB2	3:C:64:TYR:CD1	2.55	0.42
3:C:124:ASP:O	3:C:127:GLU:HG2	2.20	0.42
1:D:644:ILE:HB	1:D:652:LEU:HD12	2.02	0.42
2:E:899:HIS:HB3	2:E:953:PHE:HZ	1.85	0.42
2:E:1251:HIS:CD2	2:E:1259:GLU:HG2	2.54	0.42
2:E:1538:TRP:CE3	2:E:1539:ASP:HB2	2.54	0.42
3:F:129:LEU:HB3	3:F:134:LEU:O	2.19	0.42
2:B:144:LEU:O	2:B:148:VAL:HG22	2.19	0.42
2:B:529:PHE:HD2	2:B:551:PHE:HA	1.84	0.42
2:B:1343:LYS:HB2	2:B:1343:LYS:HE3	1.86	0.42
2:E:44:TRP:CZ3	2:E:60:PRO:HG3	2.55	0.42
2:E:137:PRO:HB2	2:E:140:GLU:OE1	2.19	0.42
2:E:556:ASN:HD21	2:E:563:GLN:HG2	1.85	0.42
2:E:1054:LEU:HD13	2:E:1083:ILE:HB	2.02	0.42
2:E:1149:ASN:HA	2:E:1236:ARG:NH1	2.34	0.42
2:E:1181:ARG:NH1	2:E:1191:GLU:OE2	2.53	0.42
2:E:1217:LYS:HD3	2:E:1254:CYS:SG	2.60	0.42
2:E:1516:GLU:O	2:E:1519:ILE:HB	2.20	0.42
2:E:1519:ILE:O	2:E:1523:GLU:HG3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:49:LYS:NZ	3:F:51:VAL:HG12	2.29	0.42
3:F:80:ILE:HG23	3:F:112:LEU:HA	2.01	0.42
2:B:88:VAL:O	2:B:91:LEU:HG	2.20	0.42
2:B:117:LEU:O	2:B:121:THR:OG1	2.32	0.42
2:B:243:MET:SD	2:B:258:TYR:HB3	2.60	0.42
2:B:531:PHE:CE2	2:B:571:VAL:HG22	2.55	0.42
2:B:824:ILE:HG22	2:B:840:PHE:CZ	2.55	0.42
2:B:875:ARG:HG2	2:B:924:HIS:CE1	2.55	0.42
2:B:972:TYR:O	2:B:975:THR:N	2.50	0.42
2:B:1078:ASP:O	2:B:1081:LYS:HB3	2.19	0.42
2:B:1110:LEU:HD21	2:B:1151:LEU:HD12	2.02	0.42
2:B:1125:ILE:HD12	2:B:1125:ILE:H	1.84	0.42
2:B:1217:LYS:HD3	2:B:1254:CYS:SG	2.60	0.42
3:C:120:ARG:NH2	3:C:139:TYR:H	2.16	0.42
2:E:456:ASP:H	2:E:618:ASP:CG	2.27	0.42
2:E:959:ALA:O	2:E:963:GLN:HG3	2.19	0.42
2:E:1078:ASP:O	2:E:1081:LYS:HB3	2.20	0.42
2:E:1348:PHE:O	2:E:1352:ILE:HG12	2.20	0.42
2:E:1406:GLU:HG3	2:E:1425:TYR:CE1	2.55	0.42
2:E:1483:TRP:HB3	2:E:1511:GLU:OE2	2.20	0.42
1:A:536:LEU:HD21	2:B:17:TYR:CB	2.49	0.41
2:B:102:TRP:CH2	2:B:118:GLN:HA	2.55	0.41
2:B:1277:PRO:CG	2:B:1292:THR:HA	2.43	0.41
2:B:1563:PHE:HA	2:B:1566:TYR:HD2	1.85	0.41
3:C:41:SER:OG	3:C:53:LEU:O	2.30	0.41
2:E:529:PHE:HD2	2:E:551:PHE:HA	1.84	0.41
2:E:721:TYR:C	2:E:722:LYS:HD3	2.45	0.41
2:E:809:ALA:HA	2:E:812:ILE:HD13	2.02	0.41
2:E:900:GLU:O	2:E:903:SER:OG	2.31	0.41
2:E:1283:LEU:HD13	2:E:1283:LEU:HA	1.87	0.41
2:E:1386:LYS:HB3	2:E:1389:GLU:HG3	2.02	0.41
2:E:1483:TRP:CE2	2:E:1514:PRO:HD3	2.55	0.41
3:F:1:MET:SD	3:F:1:MET:N	2.92	0.41
3:F:78:PHE:C	3:F:79:LEU:HD22	2.45	0.41
3:F:78:PHE:HD1	3:F:110:ILE:HD13	1.85	0.41
3:F:98:TYR:HB3	3:F:99:PRO:HD3	2.01	0.41
1:A:540:ILE:HG22	1:A:543:GLU:OE2	2.20	0.41
2:B:29:LEU:HD12	2:B:59:PHE:CE1	2.54	0.41
2:B:154:HIS:HA	2:B:157:ARG:NH1	2.34	0.41
2:B:783:ASP:HB3	2:B:786:GLU:HB2	2.01	0.41
2:B:1065:SER:OG	2:B:1068:LYS:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:16:LYS:O	3:C:19:LEU:HB2	2.19	0.41
1:D:644:ILE:H	1:D:652:LEU:HB2	1.85	0.41
2:E:110:LYS:HB3	2:E:113:LEU:HD11	2.02	0.41
2:E:228:PHE:HE2	2:E:399:LEU:HD12	1.85	0.41
2:E:637:LEU:HD13	2:E:664:GLU:HG3	2.03	0.41
2:E:743:ASN:HB3	2:E:749:LYS:HD2	2.02	0.41
2:E:761:LYS:HE2	2:E:765:ARG:HE	1.85	0.41
2:E:768:ILE:HG23	2:E:830:VAL:HG11	2.02	0.41
2:E:826:ASP:HA	2:E:829:LEU:HB2	2.01	0.41
2:E:1125:ILE:N	2:E:1126:PRO:HD2	2.35	0.41
2:E:1297:LYS:HG2	2:E:1301:TYR:HE1	1.85	0.41
2:E:1602:GLU:HA	2:E:1605:ARG:NH1	2.35	0.41
2:E:1614:GLN:CD	3:F:74:GLN:HE22	2.28	0.41
2:B:265:ASN:OD1	2:B:265:ASN:N	2.51	0.41
2:B:456:ASP:H	2:B:618:ASP:CG	2.27	0.41
2:B:669:LEU:O	2:B:673:LEU:HG	2.21	0.41
2:B:745:ASP:H	2:B:804:ARG:HH12	1.66	0.41
2:B:959:ALA:O	2:B:963:GLN:HG3	2.19	0.41
2:B:1219:ASN:OD1	2:B:1401:GLN:NE2	2.53	0.41
2:E:472:VAL:HG22	2:E:527:ILE:HG12	2.02	0.41
2:E:531:PHE:CE2	2:E:571:VAL:HG22	2.55	0.41
2:E:789:ASN:HA	2:E:792:ARG:HD2	2.01	0.41
2:E:1011:MET:N	2:E:1011:MET:SD	2.94	0.41
2:E:1029:THR:O	2:E:1033:MET:HG2	2.20	0.41
2:E:1301:TYR:O	2:E:1305:ILE:HG12	2.21	0.41
2:E:1492:ALA:HB2	2:E:1505:LYS:HE3	2.01	0.41
2:E:1610:LYS:HA	2:E:1610:LYS:HD3	1.93	0.41
2:E:1611:LEU:HD12	2:E:1615:LEU:CB	2.50	0.41
1:A:572:ASP:CG	1:A:592:GLU:HA	2.45	0.41
2:B:11:LYS:HG3	2:B:70:THR:OG1	2.19	0.41
2:B:472:VAL:HG22	2:B:527:ILE:HG12	2.02	0.41
2:B:655:LYS:C	2:B:656:LYS:HD2	2.45	0.41
2:B:790:SER:HA	2:B:793:GLN:HG2	2.02	0.41
2:B:826:ASP:HA	2:B:829:LEU:HB2	2.01	0.41
2:B:1154:LYS:HA	2:B:1157:GLN:OE1	2.20	0.41
2:B:1259:GLU:OE2	2:B:1499:LEU:HA	2.20	0.41
2:B:1579:HIS:HD2	2:B:1582:ASP:OD2	2.02	0.41
2:B:1588:LEU:HD23	2:B:1591:ARG:HD3	2.03	0.41
2:B:1611:LEU:HD12	2:B:1615:LEU:CB	2.50	0.41
3:C:78:PHE:HD1	3:C:110:ILE:HD13	1.85	0.41
1:D:540:ILE:HG22	1:D:543:GLU:OE2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:99:ALA:O	2:E:103:ARG:HD3	2.20	0.41
2:E:179:SER:HG	2:E:182:ALA:HB3	1.85	0.41
2:E:419:HIS:CD2	2:E:420:LEU:HG	2.56	0.41
2:E:824:ILE:HG22	2:E:840:PHE:CZ	2.55	0.41
2:E:875:ARG:HG2	2:E:924:HIS:CE1	2.55	0.41
2:E:1110:LEU:HD21	2:E:1151:LEU:HD12	2.02	0.41
2:E:1200:LEU:HD11	2:E:1204:LEU:HD11	2.02	0.41
1:A:576:TYR:HB2	1:A:598:GLU:HG2	2.02	0.41
2:B:70:THR:H	2:B:76:GLN:NE2	2.18	0.41
2:B:247:ASP:O	2:B:251:SER:N	2.54	0.41
2:B:1102:ILE:O	2:B:1105:MET:HG3	2.20	0.41
2:B:1483:TRP:HB3	2:B:1511:GLU:OE2	2.20	0.41
1:D:572:ASP:CG	1:D:592:GLU:HA	2.45	0.41
2:E:127:TRP:HA	2:E:130:GLN:HG2	2.02	0.41
2:E:483:ALA:HB1	2:E:517:ILE:HG12	2.02	0.41
2:E:700:ILE:O	2:E:704:ILE:HG13	2.20	0.41
2:E:1177:LEU:HD22	2:E:1191:GLU:HG2	2.02	0.41
2:E:1299:LYS:HB3	2:E:1299:LYS:HE2	1.76	0.41
2:E:1556:ASP:O	2:E:1558:ALA:N	2.54	0.41
3:F:2:GLN:HE22	3:F:4:ILE:HD11	1.85	0.41
2:B:99:ALA:O	2:B:103:ARG:HD3	2.21	0.41
2:B:185:LYS:HA	2:B:188:GLU:HB3	2.03	0.41
2:B:195:GLU:HA	2:B:198:ILE:CG1	2.49	0.41
2:B:727:THR:O	2:B:730:TYR:HE2	2.02	0.41
2:B:922:ALA:O	2:B:926:GLN:NE2	2.54	0.41
2:B:1022:ASN:O	2:B:1026:GLU:OE1	2.39	0.41
2:B:1066:GLN:HA	2:B:1069:ARG:NH2	2.36	0.41
2:B:1183:HIS:CG	2:B:1184:LYS:H	2.39	0.41
2:B:1275:ASP:HA	2:B:1294:GLN:HG2	2.02	0.41
2:B:1613:GLU:HA	2:B:1616:LYS:HZ1	1.86	0.41
2:E:243:MET:SD	2:E:258:TYR:HB3	2.60	0.41
2:E:589:PRO:CB	2:E:594:GLU:HB3	2.44	0.41
2:E:669:LEU:O	2:E:673:LEU:HG	2.21	0.41
2:E:743:ASN:O	2:E:749:LYS:HD2	2.21	0.41
2:E:968:HIS:CD2	2:E:968:HIS:N	2.87	0.41
2:E:1022:ASN:O	2:E:1026:GLU:OE1	2.39	0.41
2:E:1078:ASP:OD1	2:E:1081:LYS:N	2.50	0.41
2:E:1275:ASP:HA	2:E:1294:GLN:HG2	2.02	0.41
1:A:644:ILE:H	1:A:652:LEU:HB2	1.85	0.41
2:B:287:MET:HE1	2:B:291:ARG:NH2	2.36	0.41
2:B:700:ILE:O	2:B:704:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:839:LEU:O	2:B:842:LYS:HG2	2.21	0.41
2:B:1029:THR:O	2:B:1033:MET:HG2	2.20	0.41
2:B:1078:ASP:OD1	2:B:1081:LYS:HB2	2.21	0.41
2:B:1162:GLY:HA2	2:B:1208:ARG:CZ	2.51	0.41
2:E:296:LEU:HB2	2:E:329:ILE:HD13	2.01	0.41
2:E:680:MET:HE3	2:E:693:VAL:CG2	2.48	0.41
2:E:790:SER:HA	2:E:793:GLN:HG2	2.02	0.41
2:E:802:MET:HE1	2:E:846:SER:C	2.46	0.41
2:E:988:GLU:O	2:E:991:ILE:HG22	2.20	0.41
2:E:1008:VAL:O	2:E:1012:THR:HG23	2.20	0.41
2:E:1102:ILE:O	2:E:1105:MET:HG3	2.20	0.41
2:E:1154:LYS:HA	2:E:1157:GLN:OE1	2.21	0.41
2:E:1228:LEU:HD11	2:E:1247:LEU:HD12	2.01	0.41
2:E:1243:TYR:HA	2:E:1246:LYS:HG2	2.02	0.41
2:E:1290:VAL:HG23	2:E:1291:TYR:N	2.34	0.41
2:E:1633:VAL:O	2:E:1639:VAL:N	2.52	0.41
3:F:61:GLN:HB2	3:F:64:TYR:CD1	2.55	0.41
1:A:552:ARG:NH1	1:A:664:ILE:HG12	2.36	0.41
2:B:127:TRP:HA	2:B:130:GLN:HG2	2.02	0.41
2:B:339:ASP:C	2:B:404:LYS:HD2	2.46	0.41
2:B:743:ASN:O	2:B:749:LYS:HD2	2.21	0.41
2:B:768:ILE:HG23	2:B:830:VAL:HG11	2.02	0.41
2:B:1406:GLU:HG3	2:B:1425:TYR:CE1	2.55	0.41
3:C:163:ARG:C	3:C:165:LEU:H	2.29	0.41
1:D:576:TYR:HB2	1:D:598:GLU:HG2	2.02	0.41
1:D:591:LEU:HD13	1:D:591:LEU:HA	1.91	0.41
2:E:9:ARG:N	2:E:10:GLN:OE1	2.54	0.41
2:E:204:ILE:CG1	2:E:211:ARG:HB3	2.51	0.41
2:E:247:ASP:O	2:E:251:SER:N	2.54	0.41
2:E:333:ILE:O	2:E:405:LEU:HD22	2.21	0.41
2:E:499:VAL:O	2:E:509:TRP:NE1	2.41	0.41
2:E:1033:MET:HE1	2:E:1043:TRP:HE1	1.86	0.41
2:E:1056:HIS:HD1	2:E:1057:GLU:CD	2.25	0.41
2:E:1156:ASP:O	2:E:1157:GLN:C	2.62	0.41
2:E:1276:LYS:HD2	2:E:1276:LYS:HA	1.80	0.41
2:E:1495:PHE:CE1	2:E:1502:PHE:HD2	2.32	0.41
2:E:1563:PHE:HA	2:E:1566:TYR:HD2	1.85	0.41
1:A:644:ILE:HB	1:A:652:LEU:HD12	2.02	0.41
2:B:333:ILE:O	2:B:405:LEU:HD22	2.21	0.41
2:B:419:HIS:CD2	2:B:420:LEU:HG	2.56	0.41
2:B:796:LEU:HA	2:B:799:ASN:ND2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:988:GLU:O	2:B:991:ILE:HG22	2.20	0.41
2:B:1353:ILE:HD12	2:B:1353:ILE:HA	1.93	0.41
2:B:1567:GLU:HA	2:B:1571:PHE:HB2	2.03	0.41
3:C:2:GLN:HE22	3:C:4:ILE:HD11	1.86	0.41
3:C:82:PHE:HD2	3:C:83:SER:C	2.29	0.41
1:D:696:LEU:HB2	2:E:96:ARG:HH12	1.86	0.41
2:E:88:VAL:O	2:E:91:LEU:HG	2.20	0.41
2:E:143:GLU:HA	2:E:146:LYS:HE2	2.03	0.41
2:E:185:LYS:HA	2:E:188:GLU:HB3	2.03	0.41
2:E:422:ASP:OD1	2:E:425:THR:OG1	2.26	0.41
2:E:569:LEU:HA	2:E:591:THR:HA	2.03	0.41
2:E:678:ASN:HA	2:E:681:MET:HG2	2.03	0.41
2:E:724:PHE:CZ	2:E:726:ALA:HB3	2.56	0.41
2:E:796:LEU:HA	2:E:799:ASN:ND2	2.35	0.41
2:E:866:SER:C	2:E:868:LEU:N	2.79	0.41
2:E:1516:GLU:O	2:E:1517:ASN:C	2.64	0.41
2:E:1588:LEU:HD23	2:E:1591:ARG:HD3	2.03	0.41
3:F:41:SER:OG	3:F:53:LEU:O	2.30	0.41
3:F:82:PHE:HD2	3:F:83:SER:C	2.29	0.41
1:A:666:THR:O	1:A:669:LEU:HG	2.20	0.41
2:B:276:ASN:HD21	2:B:424:SER:HB2	1.86	0.41
2:B:564:ASP:OD1	2:B:626:ILE:HB	2.21	0.41
2:B:634:ASN:HD21	2:B:660:VAL:HG22	1.86	0.41
2:B:637:LEU:HD13	2:B:664:GLU:HG3	2.02	0.41
2:B:1011:MET:HE2	2:B:1011:MET:HB2	1.74	0.41
2:B:1328:TYR:O	2:B:1333:PHE:N	2.33	0.41
1:D:536:LEU:HG	2:E:18:ASN:HB2	2.03	0.41
1:D:563:ARG:C	1:D:575:TRP:HE1	2.29	0.41
1:D:628:LYS:HD3	1:D:632:LYS:HE3	2.03	0.41
2:E:634:ASN:HD21	2:E:660:VAL:HG22	1.86	0.41
2:E:1416:GLU:HA	2:E:1419:LYS:HB2	2.03	0.41
3:F:79:LEU:HD13	3:F:79:LEU:HA	1.90	0.41
2:B:96:ARG:O	2:B:100:VAL:HG23	2.22	0.40
2:B:522:VAL:HG23	2:B:554:LEU:HD13	2.04	0.40
2:B:1011:MET:N	2:B:1011:MET:SD	2.94	0.40
2:B:1029:THR:HA	2:B:1033:MET:HG2	2.01	0.40
2:B:1484:ILE:HG21	2:B:1486:ARG:HH21	1.86	0.40
1:D:552:ARG:NH1	1:D:664:ILE:HG12	2.36	0.40
2:E:223:GLY:O	2:E:406:LEU:N	2.47	0.40
2:E:922:ALA:O	2:E:926:GLN:NE2	2.54	0.40
2:E:979:ARG:NH1	2:E:1036:ALA:HB2	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1183:HIS:CG	2:E:1184:LYS:H	2.39	0.40
2:E:1457:ASN:O	2:E:1459:VAL:HG13	2.21	0.40
2:E:1484:ILE:HG21	2:E:1486:ARG:HH21	1.86	0.40
2:B:110:LYS:HB3	2:B:113:LEU:HD11	2.02	0.40
2:B:721:TYR:C	2:B:722:LYS:HD3	2.45	0.40
2:B:870:ARG:HD2	2:B:871:GLN:N	2.36	0.40
2:B:1451:LEU:H	2:B:1451:LEU:HG	1.66	0.40
3:C:134:LEU:HD23	3:C:134:LEU:HA	1.86	0.40
1:D:580:SER:HB2	1:D:585:VAL:CG2	2.52	0.40
2:E:287:MET:HE1	2:E:291:ARG:NH2	2.36	0.40
2:E:839:LEU:O	2:E:842:LYS:HG2	2.21	0.40
2:E:1516:GLU:HA	2:E:1519:ILE:HD12	2.02	0.40
2:E:1567:GLU:HA	2:E:1571:PHE:HB2	2.03	0.40
2:E:1601:THR:OG1	2:E:1626:PHE:HZ	2.04	0.40
2:E:1605:ARG:O	2:E:1609:GLU:HG3	2.21	0.40
1:A:627:GLU:O	1:A:632:LYS:HD3	2.22	0.40
1:A:695:LYS:HE2	1:A:695:LYS:HB3	1.85	0.40
2:B:4:TRP:CE3	2:B:46:ARG:HG2	2.57	0.40
2:B:204:ILE:CG1	2:B:211:ARG:HB3	2.51	0.40
2:B:215:ILE:O	2:B:218:THR:OG1	2.38	0.40
2:B:535:SER:OG	2:B:536:SER:N	2.54	0.40
2:B:664:GLU:HA	2:B:667:LYS:HE3	2.02	0.40
2:B:738:ASN:HA	2:B:741:VAL:HG12	2.03	0.40
2:B:968:HIS:CD2	2:B:968:HIS:N	2.87	0.40
2:B:1601:THR:OG1	2:B:1626:PHE:HZ	2.04	0.40
2:B:1602:GLU:HA	2:B:1605:ARG:NH1	2.35	0.40
3:C:78:PHE:C	3:C:79:LEU:HD22	2.45	0.40
2:E:154:HIS:CD2	2:E:157:ARG:HH11	2.40	0.40
2:E:276:ASN:HD21	2:E:424:SER:HB2	1.86	0.40
2:E:1066:GLN:HA	2:E:1069:ARG:NH2	2.36	0.40
2:E:1078:ASP:OD1	2:E:1081:LYS:HB2	2.21	0.40
2:E:1259:GLU:OE2	2:E:1499:LEU:HA	2.20	0.40
1:A:563:ARG:C	1:A:575:TRP:HE1	2.29	0.40
1:A:564:LYS:O	1:A:573:LYS:NZ	2.29	0.40
1:A:671:ALA:C	1:A:674:GLY:H	2.30	0.40
2:B:113:LEU:O	2:B:117:LEU:HG	2.21	0.40
2:B:154:HIS:CD2	2:B:157:ARG:HH11	2.40	0.40
2:B:483:ALA:HB1	2:B:517:ILE:HG12	2.02	0.40
2:B:1042:LEU:HD12	2:B:1042:LEU:HA	1.88	0.40
2:B:1056:HIS:HD1	2:B:1057:GLU:CD	2.25	0.40
2:B:1190:GLY:HA2	2:B:1193:PHE:CD2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1297:LYS:HG2	2:B:1301:TYR:HE1	1.85	0.40
2:B:1479:PHE:HZ	2:B:1560:MET:HG3	1.86	0.40
2:B:1516:GLU:HA	2:B:1519:ILE:HD12	2.02	0.40
3:C:138:THR:OG1	3:C:140:PRO:HD2	2.22	0.40
2:E:62:THR:HG23	2:E:63:TYR:CD1	2.50	0.40
2:E:273:LYS:O	2:E:277:LEU:N	2.55	0.40
2:E:436:ILE:HG23	2:E:711:HIS:ND1	2.36	0.40
2:E:664:GLU:HA	2:E:667:LYS:HE3	2.02	0.40
2:E:1028:LEU:HA	2:E:1032:PHE:CD1	2.57	0.40
2:E:1162:GLY:HA2	2:E:1208:ARG:CZ	2.51	0.40
2:E:1190:GLY:HA2	2:E:1193:PHE:CD2	2.56	0.40
2:E:1219:ASN:OD1	2:E:1401:GLN:NE2	2.53	0.40
2:E:1324:LEU:O	2:E:1327:THR:OG1	2.35	0.40
2:E:1379:LYS:O	2:E:1380:ILE:HD13	2.22	0.40
2:E:1391:ARG:CZ	3:F:28:PHE:HA	2.52	0.40
2:B:761:LYS:HE2	2:B:765:ARG:HE	1.85	0.40
1:D:532:PRO:HA	1:D:535:GLU:OE1	2.22	0.40
1:D:640:LEU:O	1:D:655:ILE:HA	2.22	0.40
2:E:96:ARG:O	2:E:100:VAL:HG23	2.21	0.40
2:E:113:LEU:O	2:E:117:LEU:HG	2.21	0.40
2:E:460:LYS:HZ1	2:E:464:LYS:HE2	1.86	0.40
2:E:860:MET:HA	2:E:863:ILE:HB	2.04	0.40
2:E:870:ARG:HD2	2:E:871:GLN:N	2.36	0.40
2:E:1086:ARG:HA	2:E:1089:ASP:OD2	2.21	0.40
2:E:1372:PHE:HB2	2:E:1377:ARG:HA	2.04	0.40
2:E:1451:LEU:H	2:E:1451:LEU:HG	1.66	0.40
2:E:1536:HIS:HA	2:E:1542:LEU:HD13	2.04	0.40
2:E:1554:ILE:HA	3:F:37:PHE:CD1	2.56	0.40
3:F:163:ARG:C	3:F:165:LEU:H	2.29	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	196/733 (27%)	174 (89%)	22 (11%)	0	100	100
1	D	196/733 (27%)	174 (89%)	22 (11%)	0	100	100
2	B	1640/1648 (100%)	1493 (91%)	147 (9%)	0	100	100
2	E	1640/1648 (100%)	1493 (91%)	147 (9%)	0	100	100
3	C	175/184 (95%)	164 (94%)	11 (6%)	0	100	100
3	F	175/184 (95%)	164 (94%)	11 (6%)	0	100	100
All	All	4022/5130 (78%)	3662 (91%)	360 (9%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

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	183/664 (28%)	183 (100%)	0	100	100
1	D	183/664 (28%)	183 (100%)	0	100	100
2	B	1495/1497 (100%)	1495 (100%)	0	100	100
2	E	1495/1497 (100%)	1495 (100%)	0	100	100
3	C	153/157 (98%)	153 (100%)	0	100	100
3	F	153/157 (98%)	153 (100%)	0	100	100
All	All	3662/4636 (79%)	3662 (100%)	0	100	100

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (45) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	554	ASN
1	A	727	ASN
2	B	20	ASN
2	B	65	HIS
2	B	130	GLN

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Mol	Chain	Res	Type
2	B	414	GLN
2	B	444	ASN
2	B	526	HIS
2	B	885	GLN
2	B	926	GLN
2	B	968	HIS
2	B	1014	ASN
2	B	1060	GLN
2	B	1093	ASN
2	B	1203	ASN
2	B	1359	GLN
2	B	1401	GLN
2	B	1424	GLN
2	B	1536	HIS
2	B	1619	HIS
3	C	2	GLN
3	C	39	ASN
1	D	554	ASN
1	D	649	ASN
2	E	20	ASN
2	E	130	GLN
2	E	276	ASN
2	E	444	ASN
2	E	526	HIS
2	E	556	ASN
2	E	738	ASN
2	E	885	GLN
2	E	926	GLN
2	E	968	HIS
2	E	980	GLN
2	E	1014	ASN
2	E	1060	GLN
2	E	1093	ASN
2	E	1203	ASN
2	E	1359	GLN
2	E	1401	GLN
2	E	1424	GLN
2	E	1536	HIS
2	E	1607	HIS
3	F	2	GLN

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.

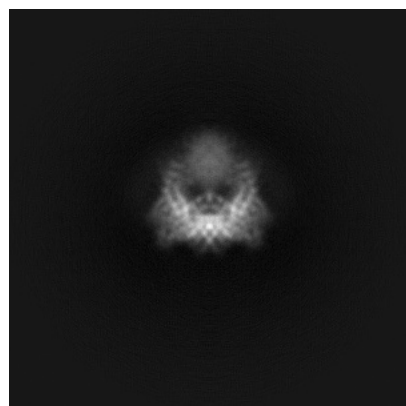
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-60149. These allow visual inspection of the internal detail of the map and identification of artifacts.

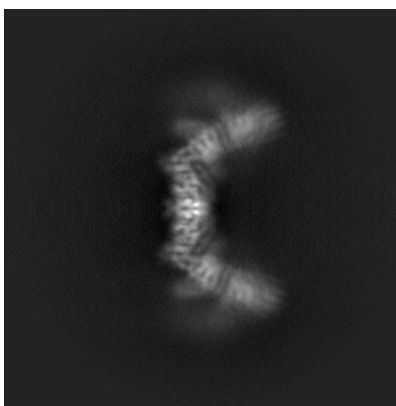
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

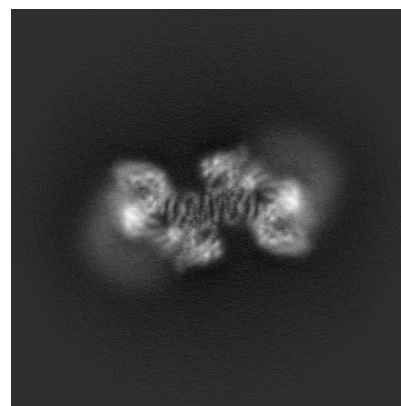
6.1.1 Primary map



X

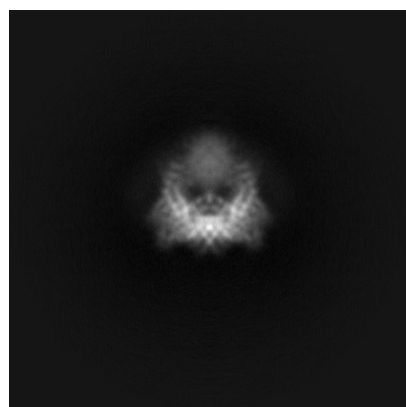


Y

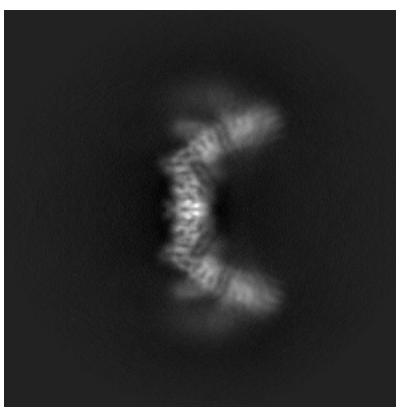


Z

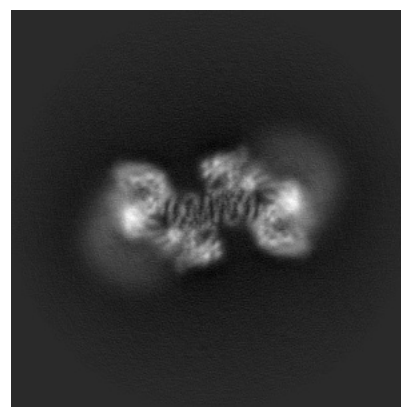
6.1.2 Raw map



X



Y

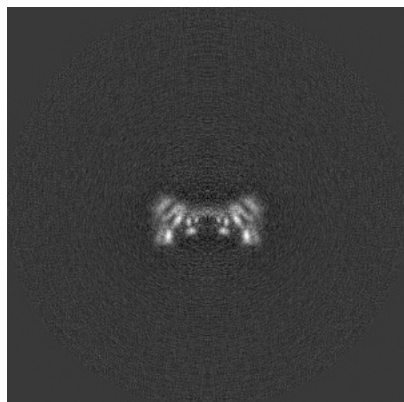


Z

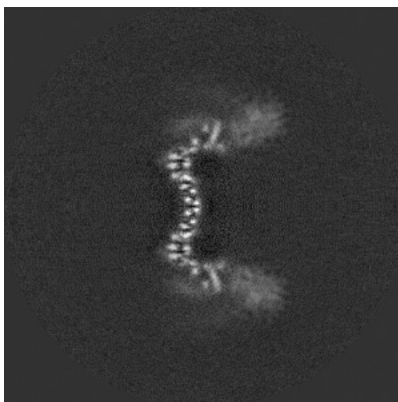
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

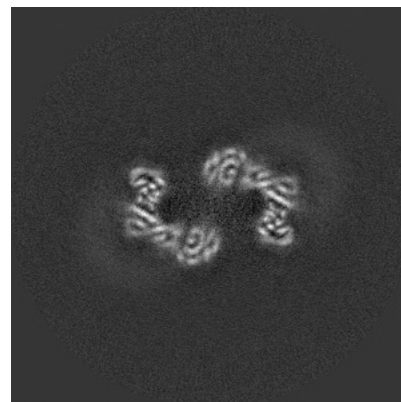
6.2.1 Primary map



X Index: 170

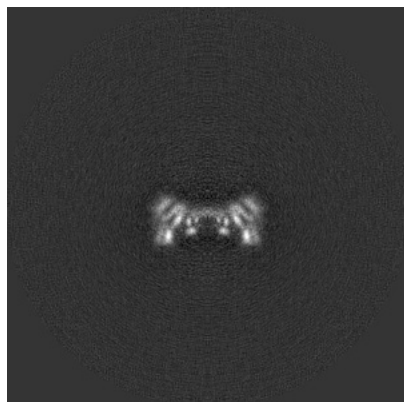


Y Index: 170

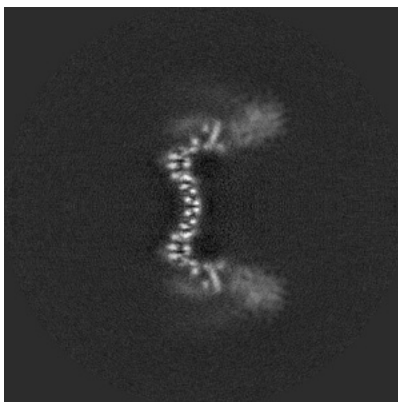


Z Index: 170

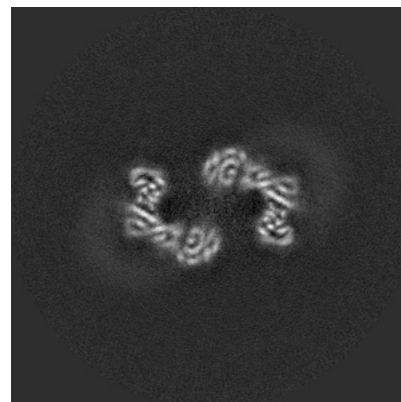
6.2.2 Raw map



X Index: 170



Y Index: 170

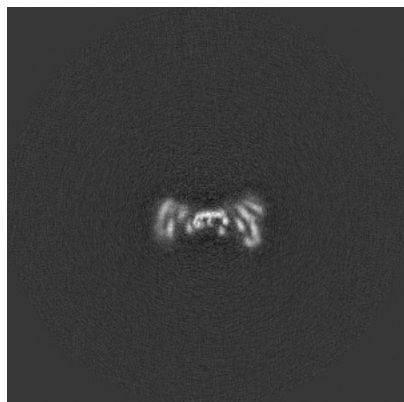


Z Index: 170

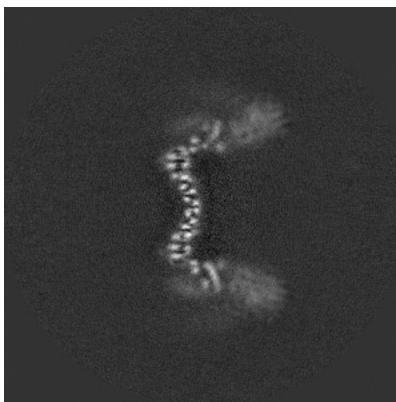
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

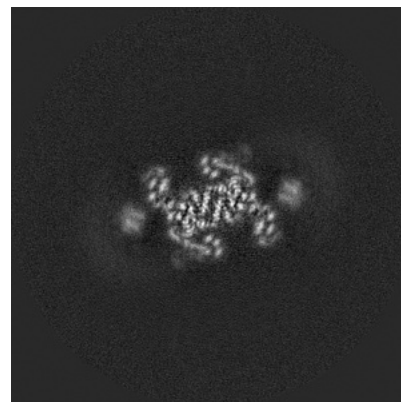
6.3.1 Primary map



X Index: 173

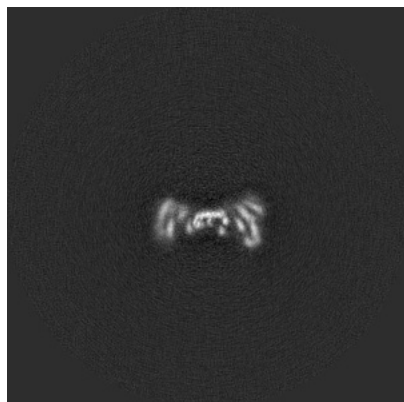


Y Index: 169

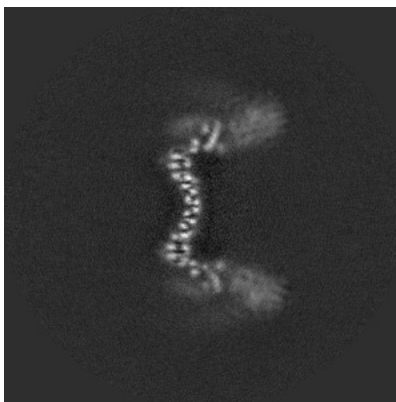


Z Index: 155

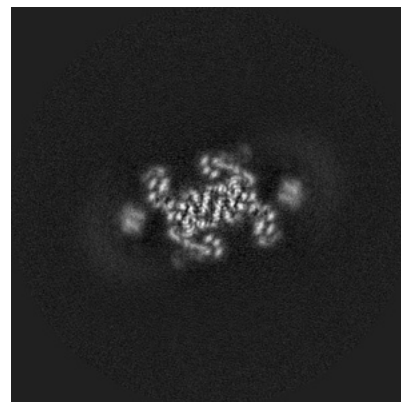
6.3.2 Raw map



X Index: 173



Y Index: 171

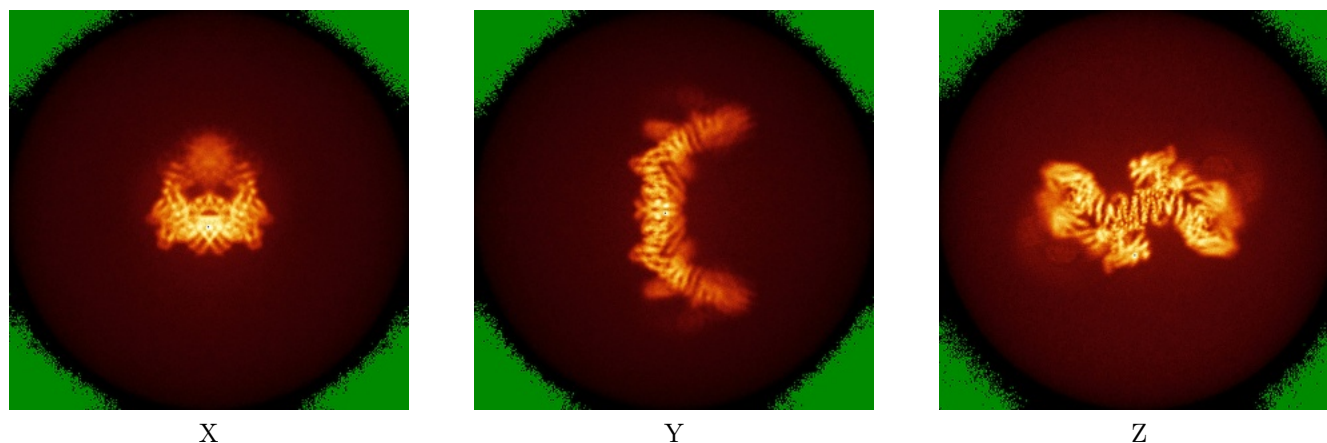


Z Index: 155

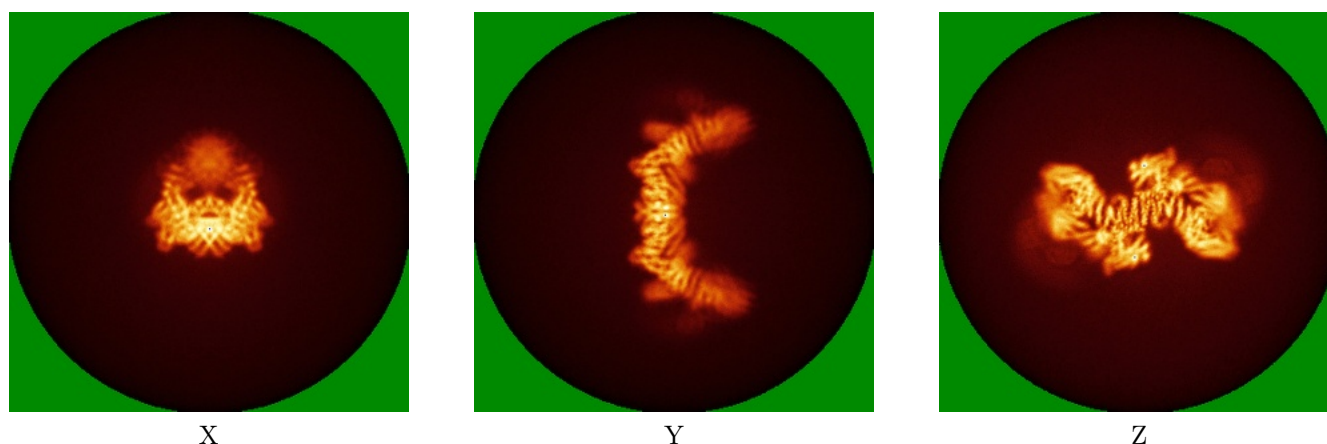
The images above show the largest variance slices of the map in three orthogonal directions.

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](#)

This section was not generated.

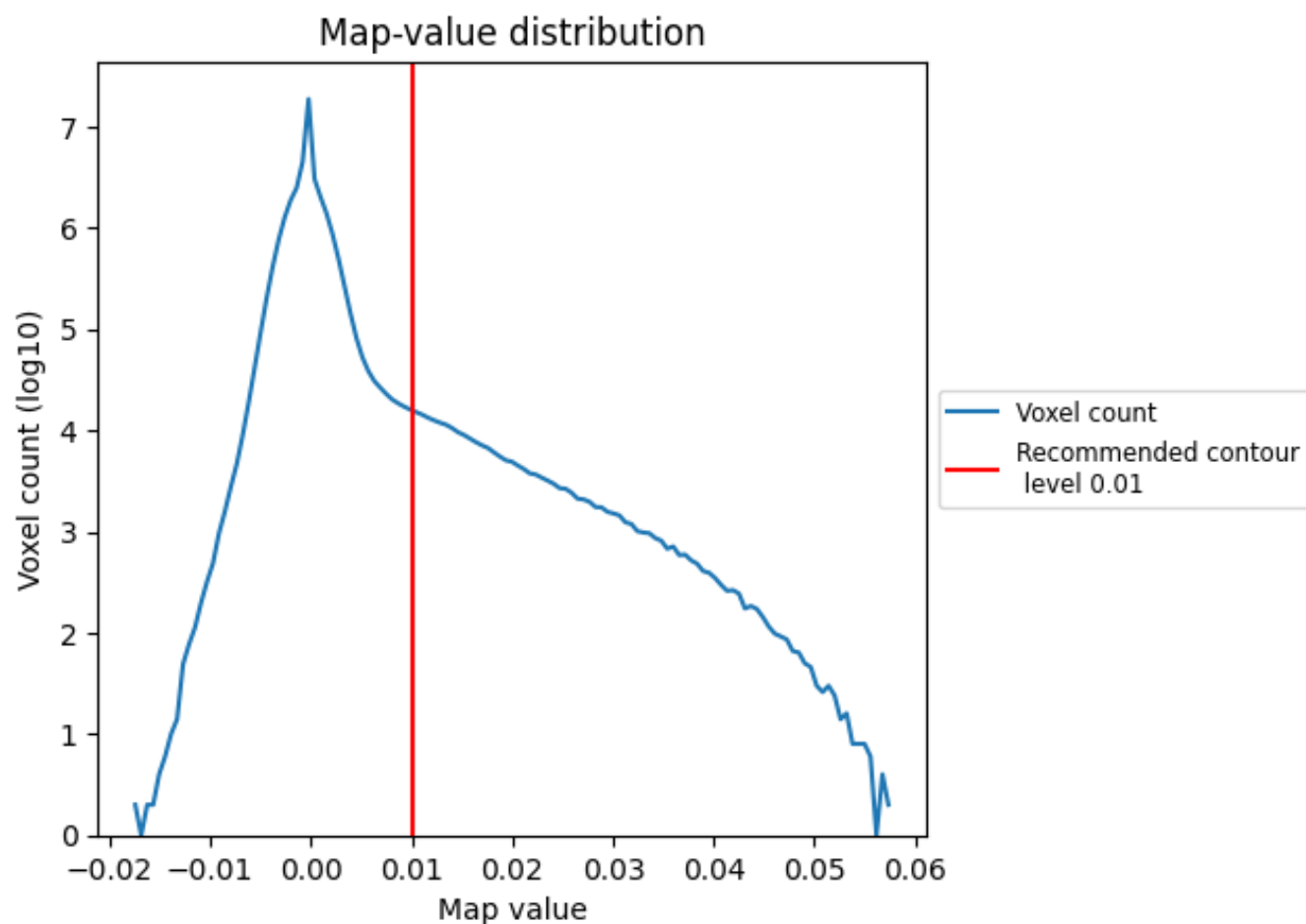
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

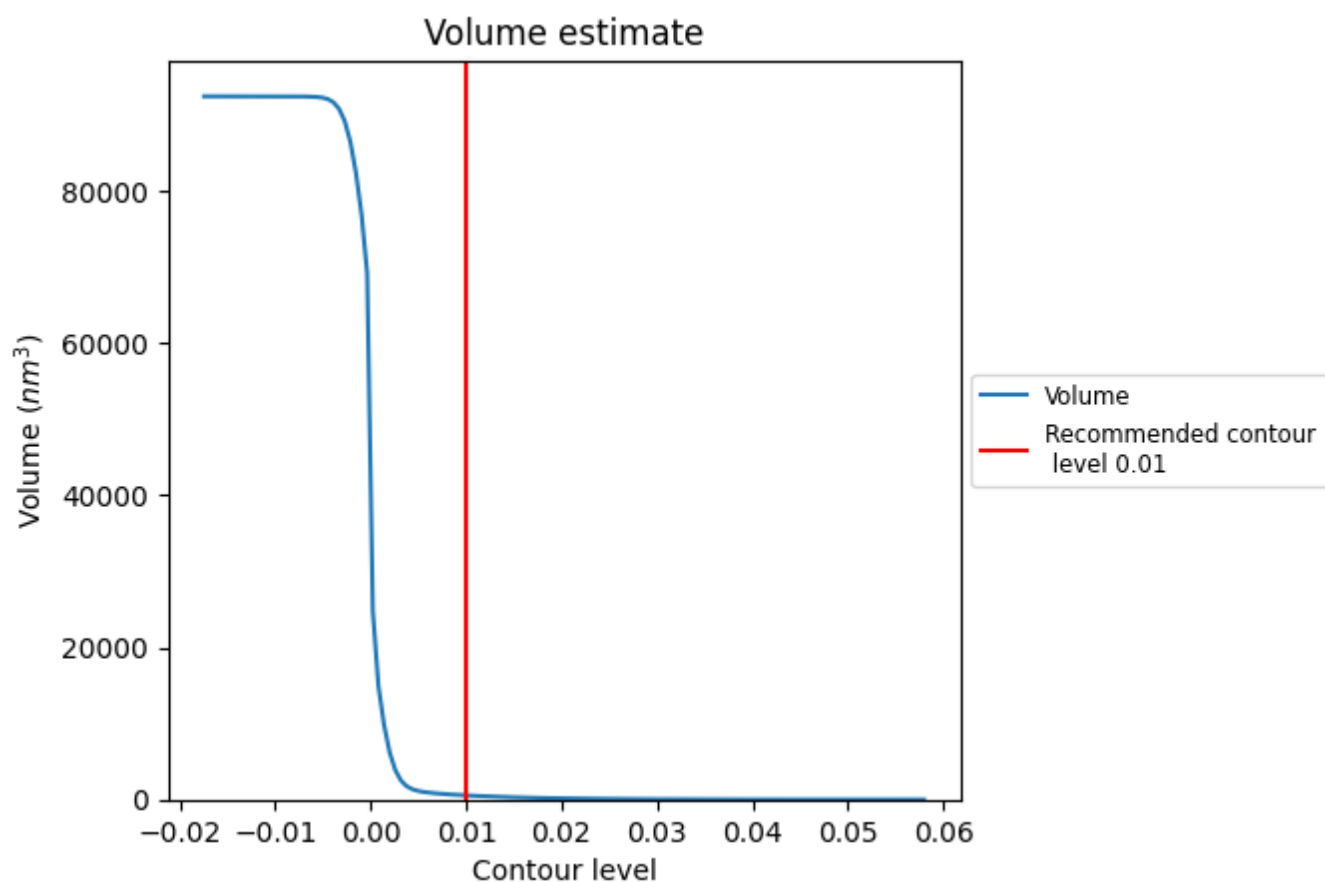
This section contains the results of statistical analysis of the map.

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.

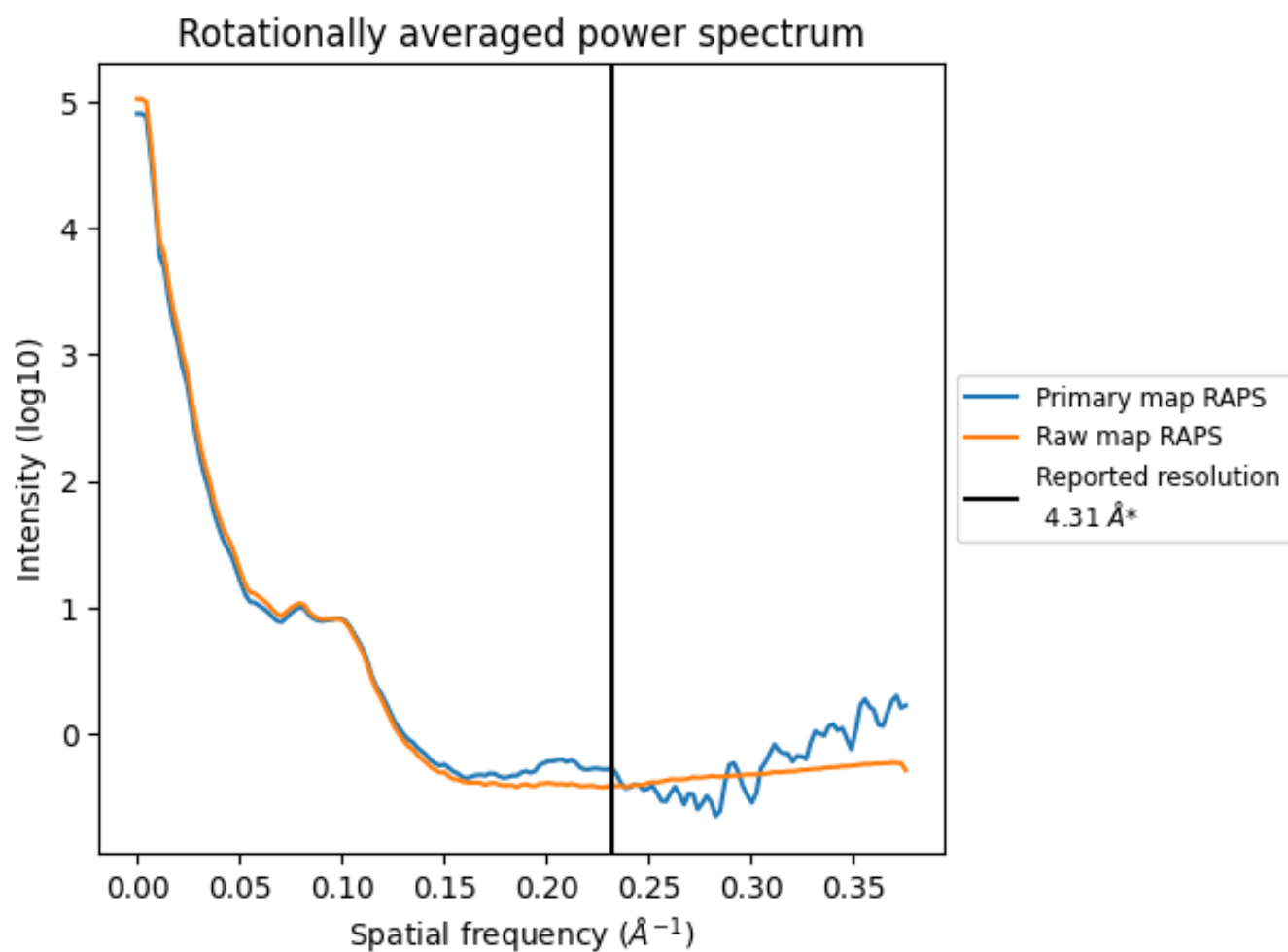
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 550 nm^3 ; this corresponds to an approximate mass of 497 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 ⓘ

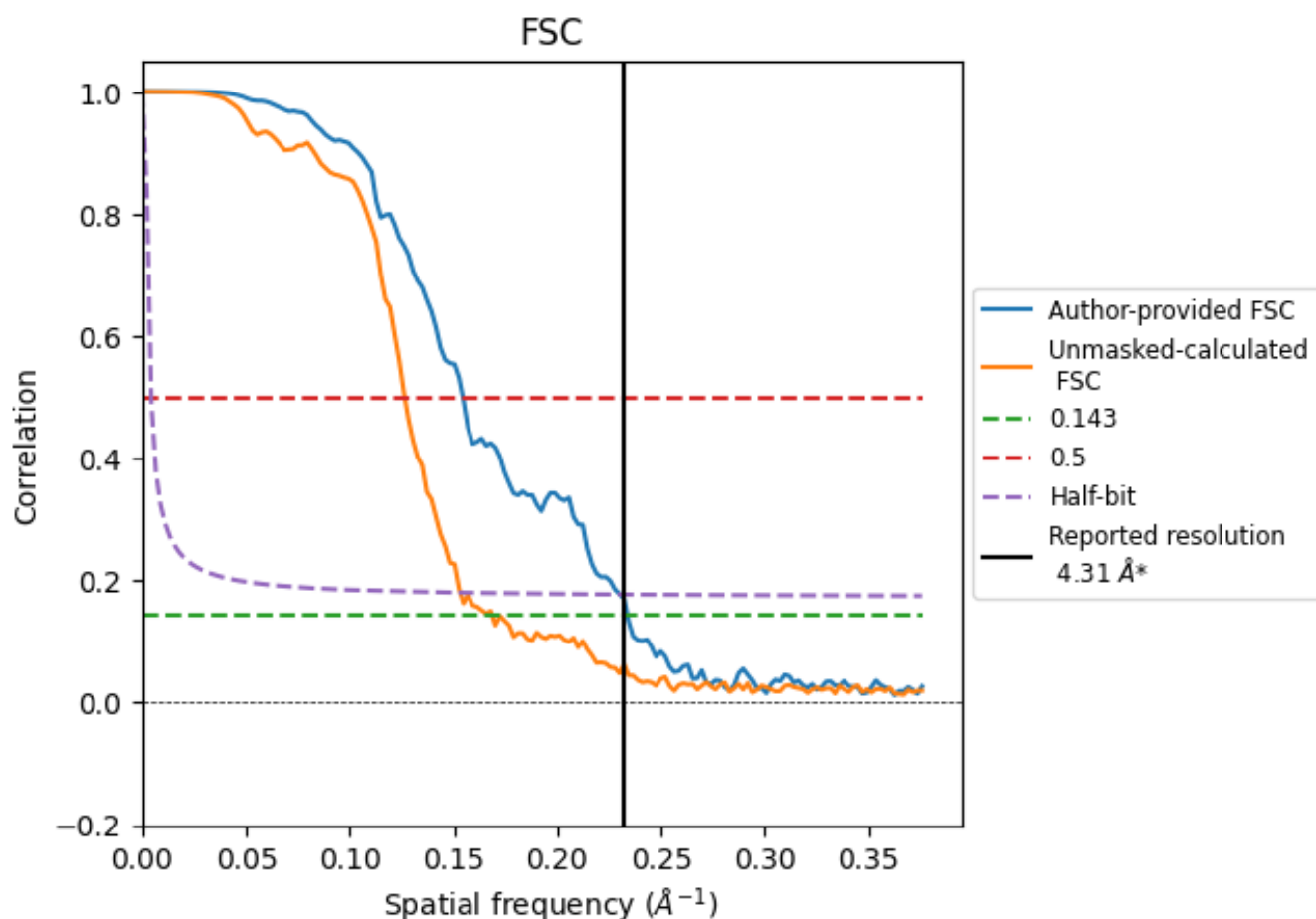


*Reported resolution corresponds to spatial frequency of 0.232 Å⁻¹

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 0.232 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

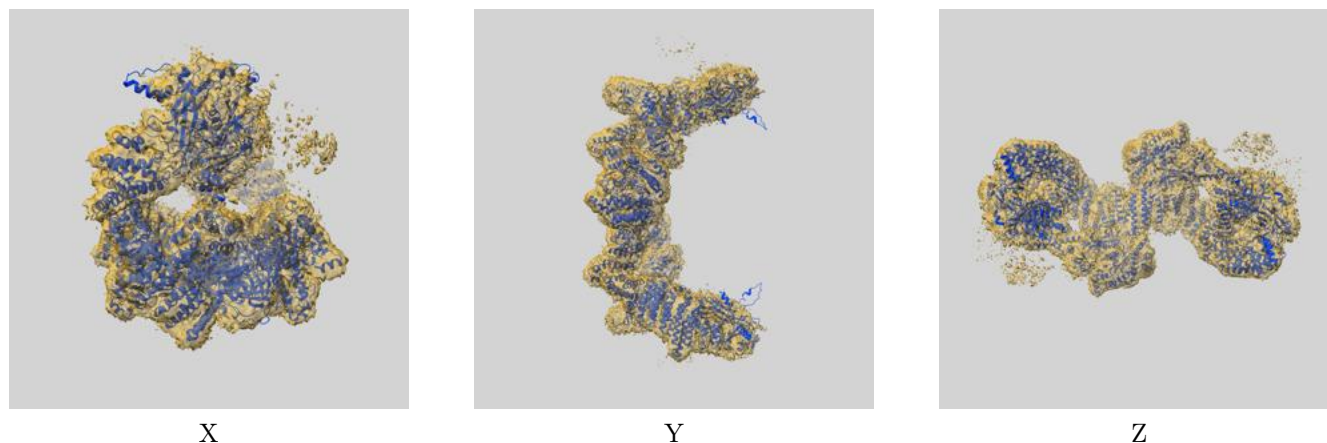
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.31	-	-
Author-provided FSC curve	4.28	6.47	4.34
Unmasked-calculated*	5.93	7.91	6.53

*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 5.93 differs from the reported value 4.31 by more than 10 %

9 Map-model fit [i](#)

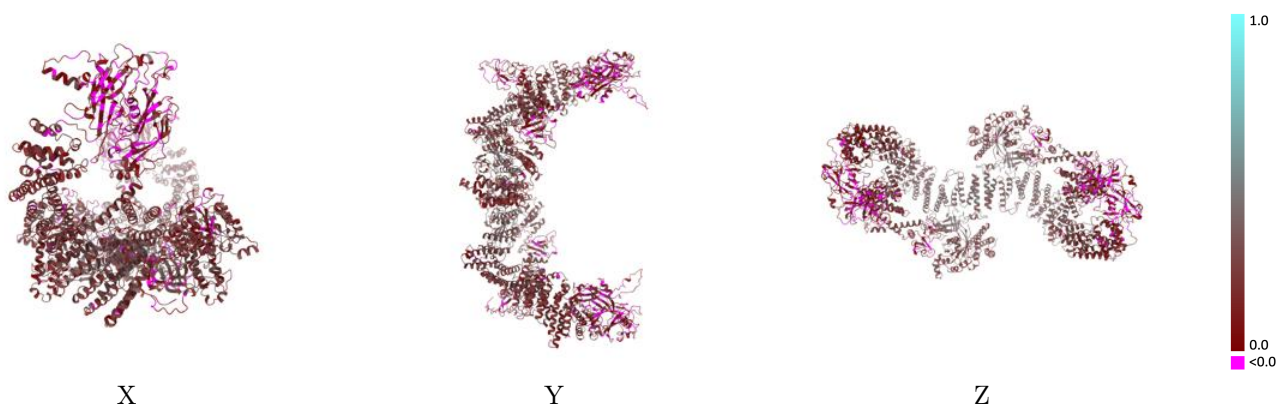
This section contains information regarding the fit between EMDB map EMD-60149 and PDB model 8ZJL. Per-residue inclusion information can be found in [section 3](#) on [page 6](#).

9.1 Map-model overlay [i](#)



The images above show the 3D surface view of the map at the recommended contour level 0.01 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](#)

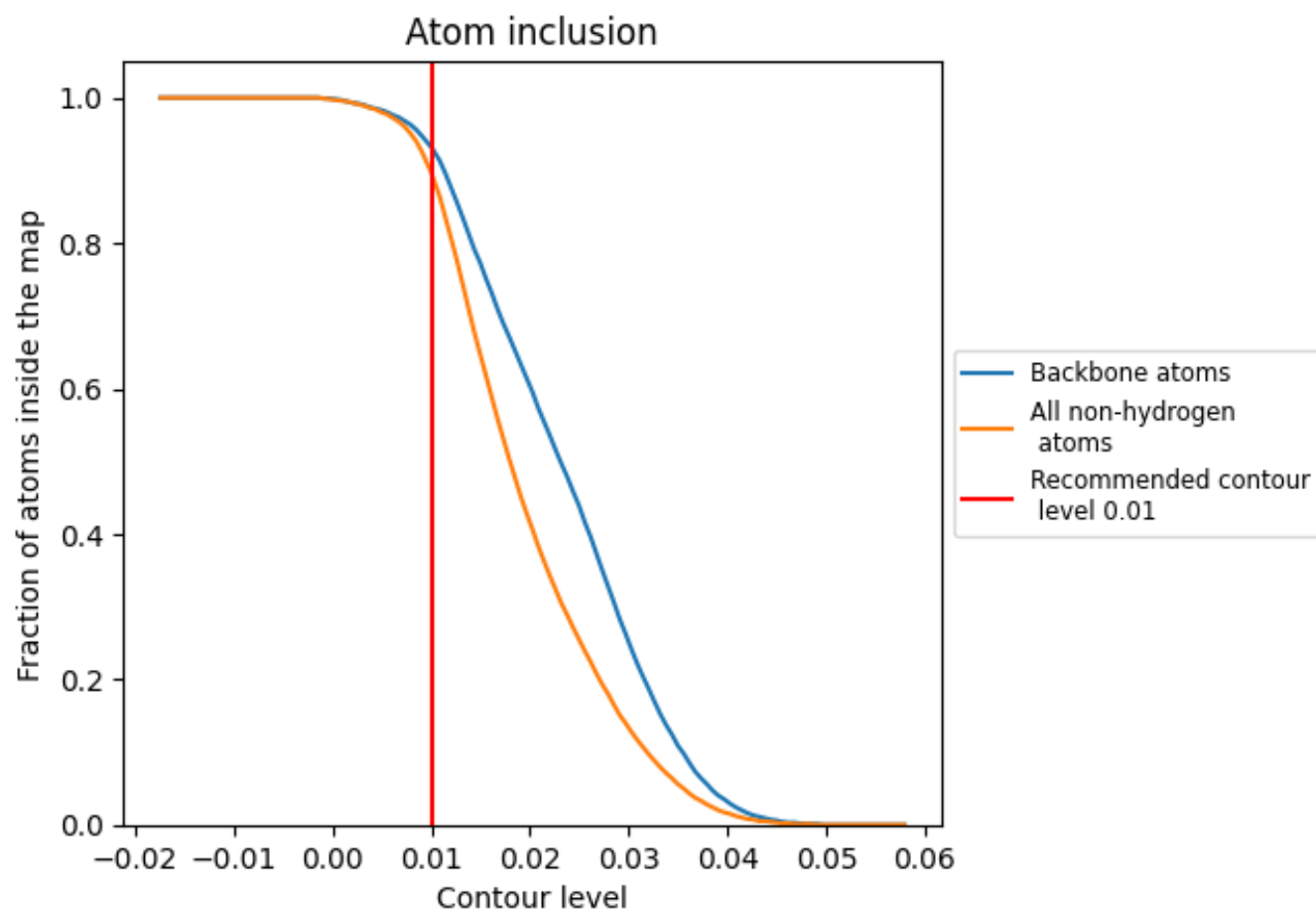


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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](#)

This section was not generated.

9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 90% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8970	0.2110
A	0.9040	0.1550
B	0.8860	0.2130
C	0.9740	0.2670
D	0.9080	0.1620
E	0.8890	0.2090
F	0.9750	0.2690

1.0

0.0

<0.0