Full wwPDB EM Validation Report

Oct 13, 2024 – 05:48 am BST

PDB ID	:	6RZU
EMDB ID	:	EMD-10063
Title	:	Structure of s-Mgm1 decorating the outer surface of tubulated lipid membranes in the GTPgammaS bound state
Authors	:	Faelber, K.; Dietrich, L.; Noel, J.K.; Sanchez, R.; Kudryashev, M.; Kuelbrandt, W.; Daumke, O.
Deposited on	:	2019-06-13
Resolution	:	14.70 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) 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 (i)) were used in the production of this report:

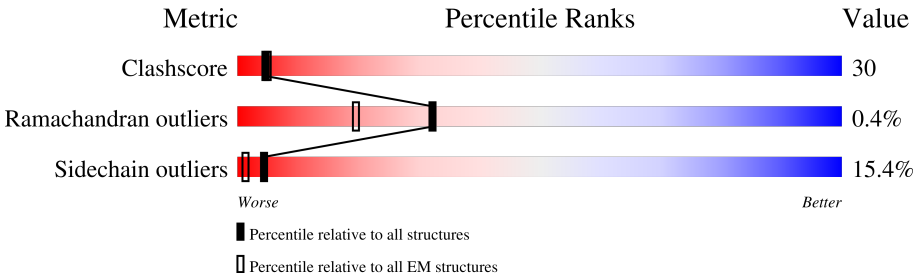
EMDB validation analysis	:	0.0.1.dev113
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	: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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 14.70 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	695	33% 48% 33% 12% • 5%
1	B	695	22% 56% 32% 7% • 5%
1	C	695	19% 54% 34% 6% • 5%
1	D	695	34% 49% 32% 13% • 5%
1	E	695	26% 48% 35% 11% • 5%
1	F	695	31% 57% 31% 6% • 5%
1	G	695	25% 53% 35% 6% • 5%
1	H	695	55% 49% 32% 12% • 5%

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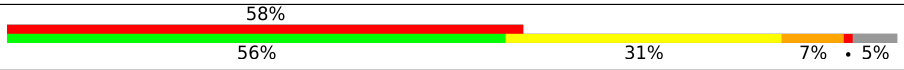
Mol	Chain	Length	Quality of chain
1	I	695	
1	J	695	
1	K	695	
1	L	695	

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 61824 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 Putative mitochondrial dynamin protein.

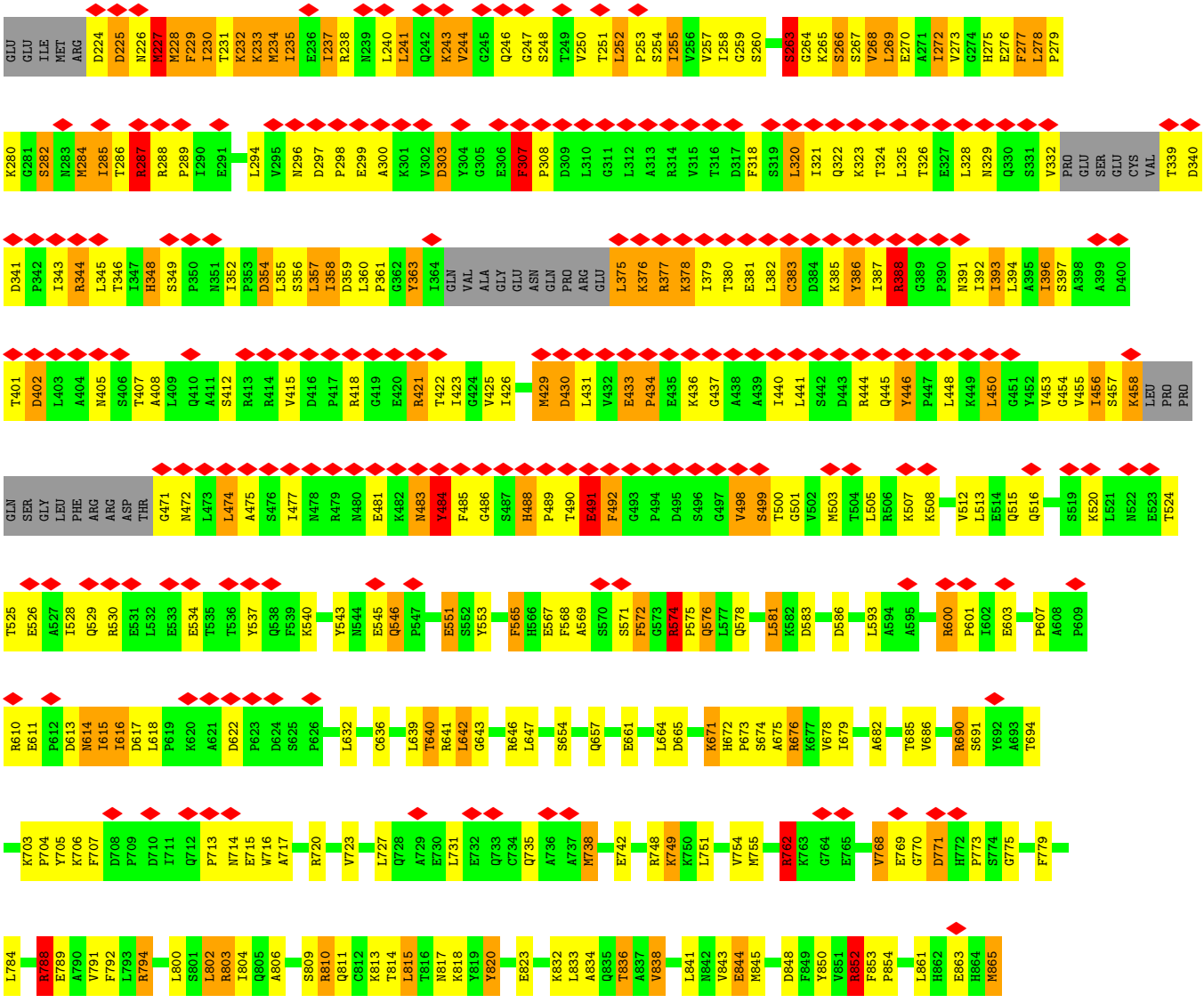
Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	B	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	C	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	D	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	E	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	F	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	G	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	H	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	I	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	J	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	K	659	Total 5152	C 3243	N 910	O 982	S 17	0	0
1	L	659	Total 5152	C 3243	N 910	O 982	S 17	0	0

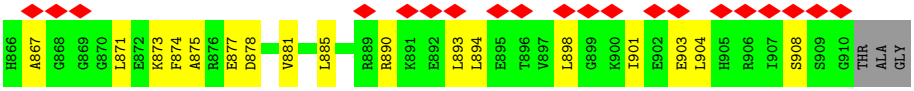
3 Residue-property plots (i)

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

- Molecule 1: Putative mitochondrial dynamin protein

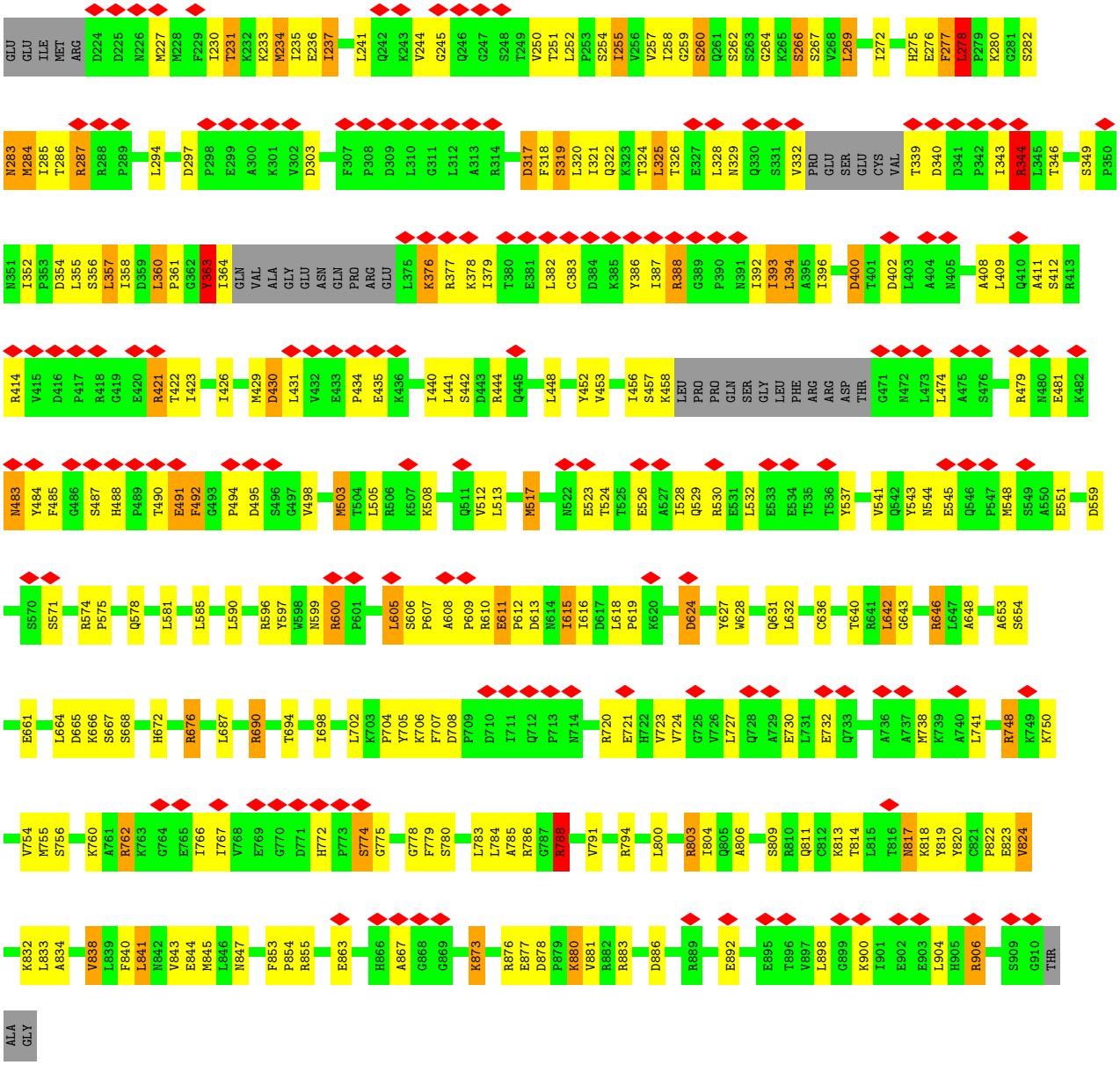
Chain A:





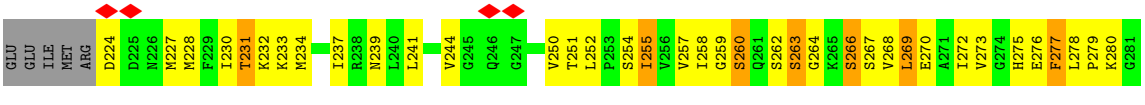
• Molecule 1: Putative mitochondrial dynamin protein

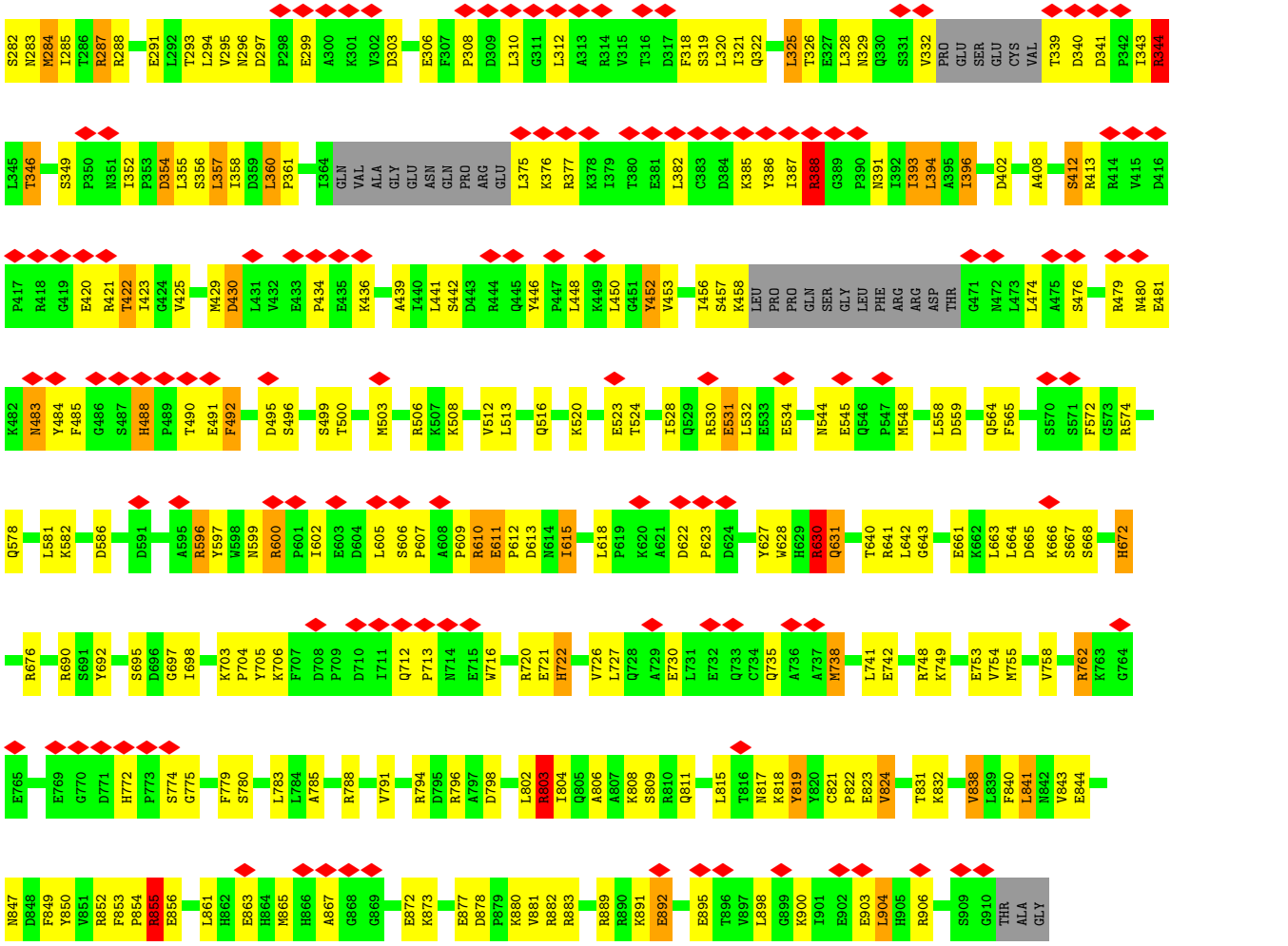
Chain B:



• Molecule 1: Putative mitochondrial dynamin protein

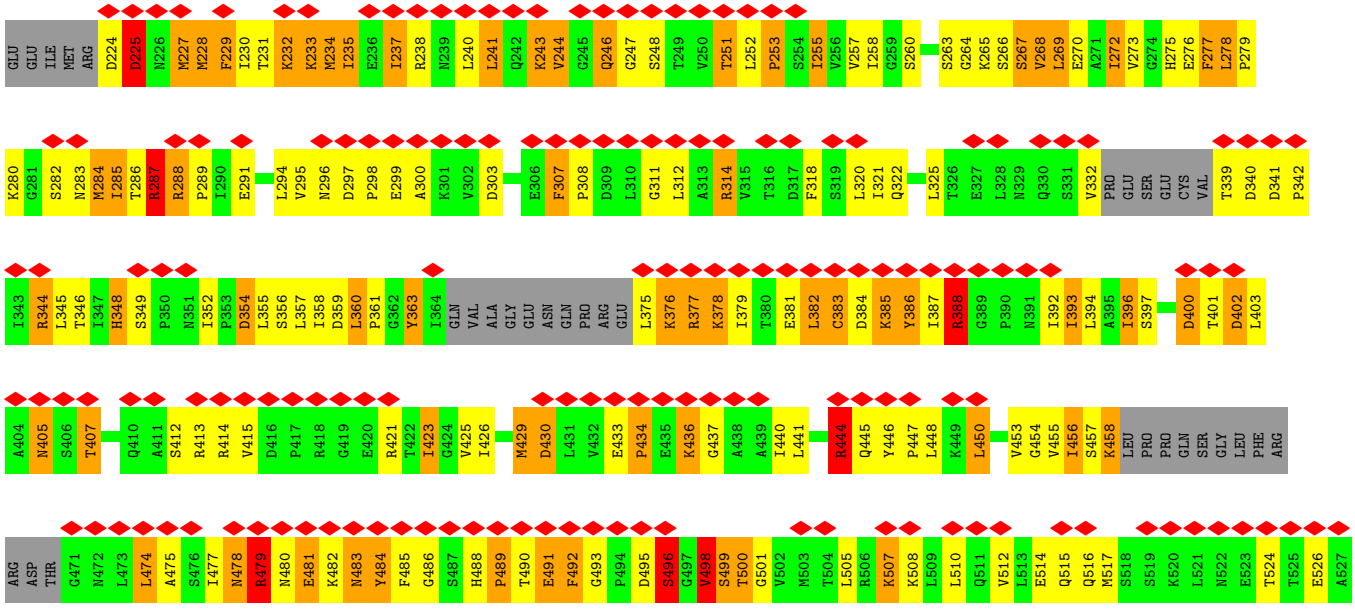
Chain C:

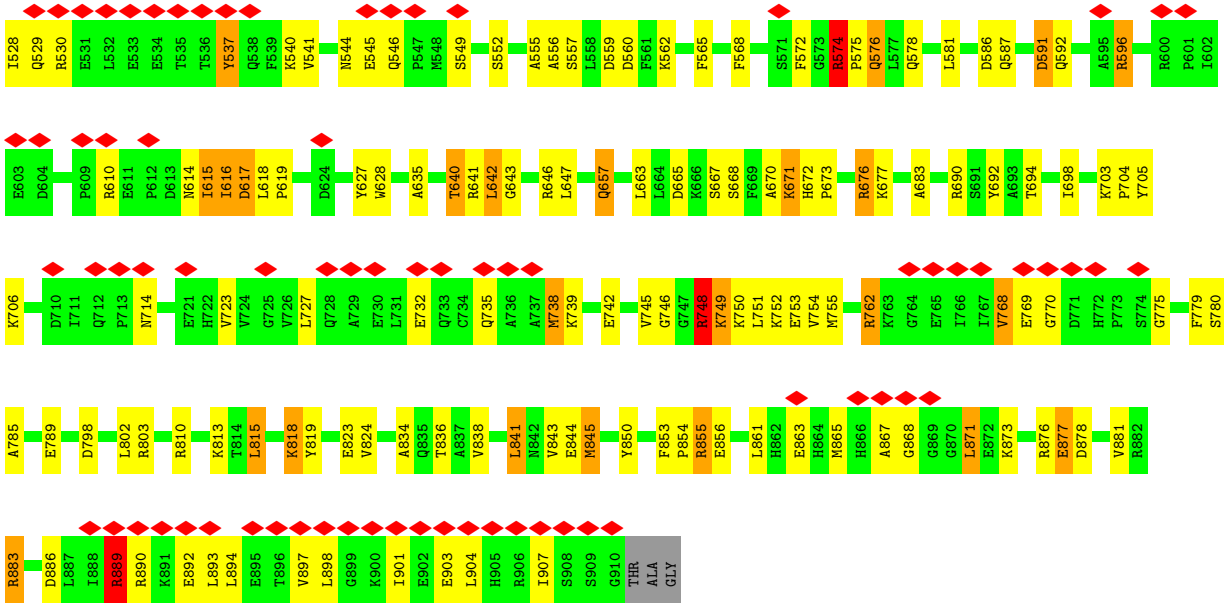




• Molecule 1: Putative mitochondrial dynamin protein

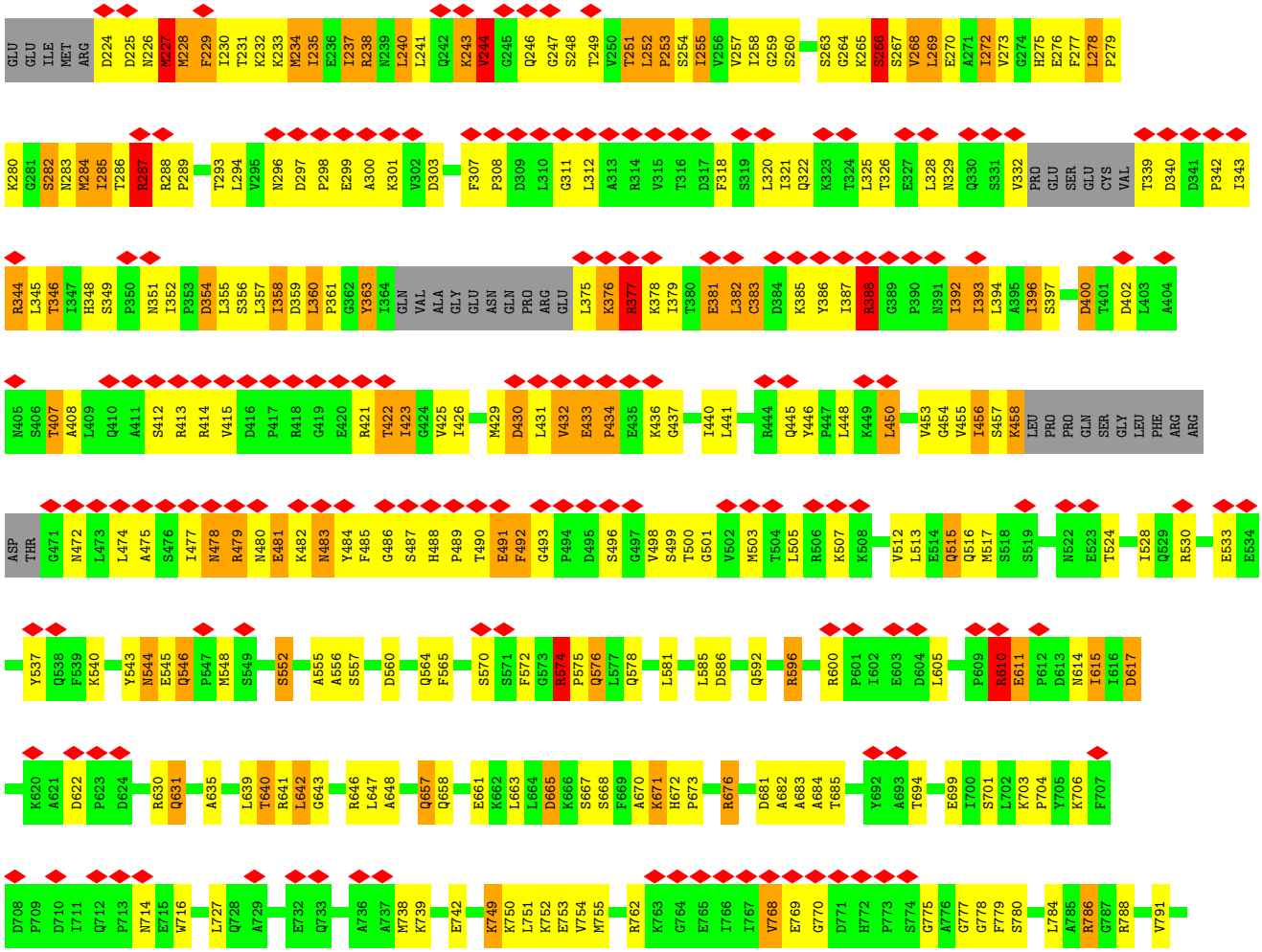
Chain D:

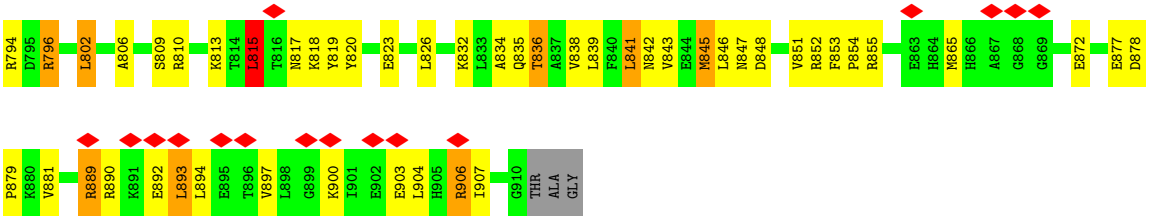




• Molecule 1: Putative mitochondrial dynamin protein

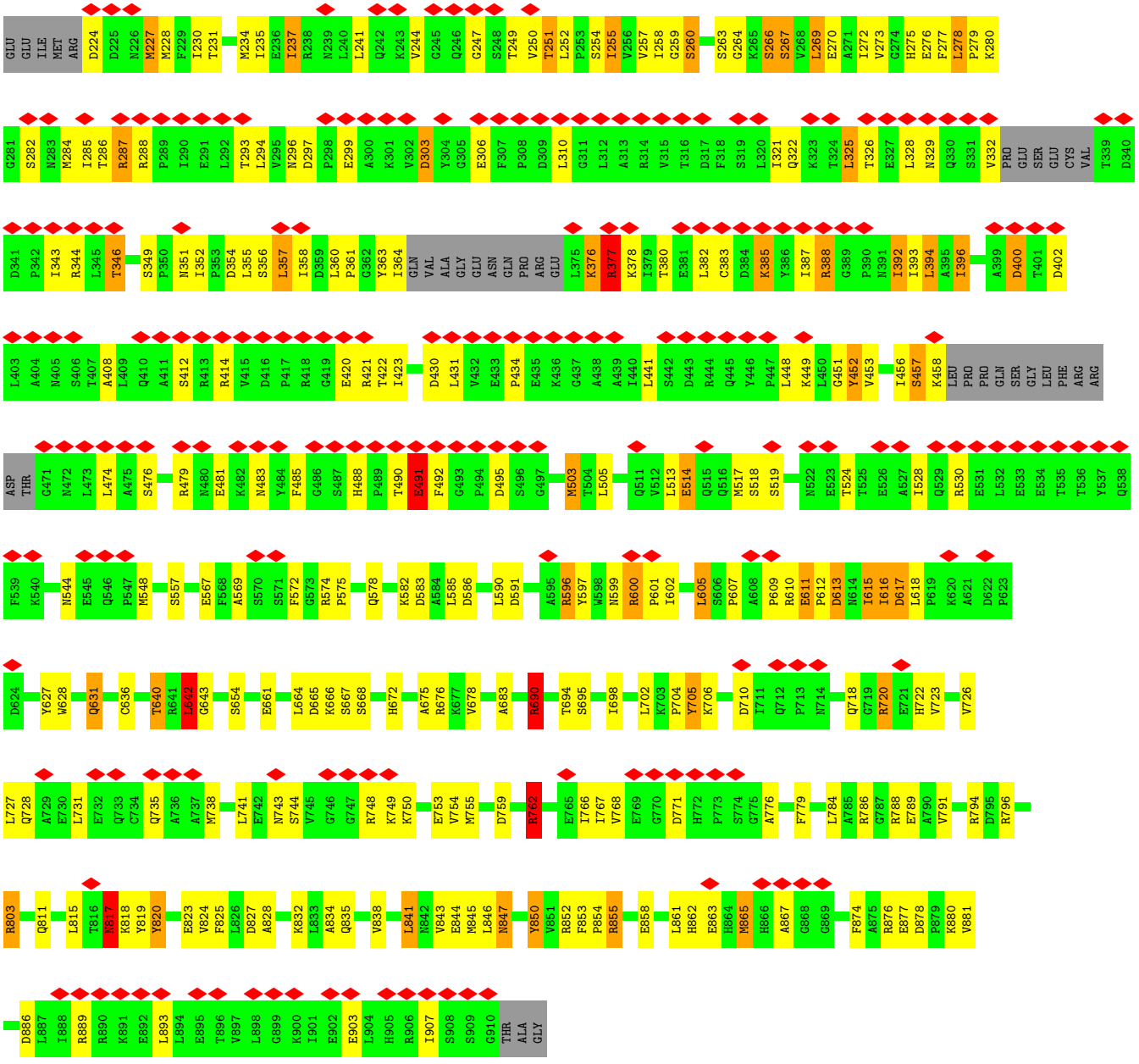
Chain E:





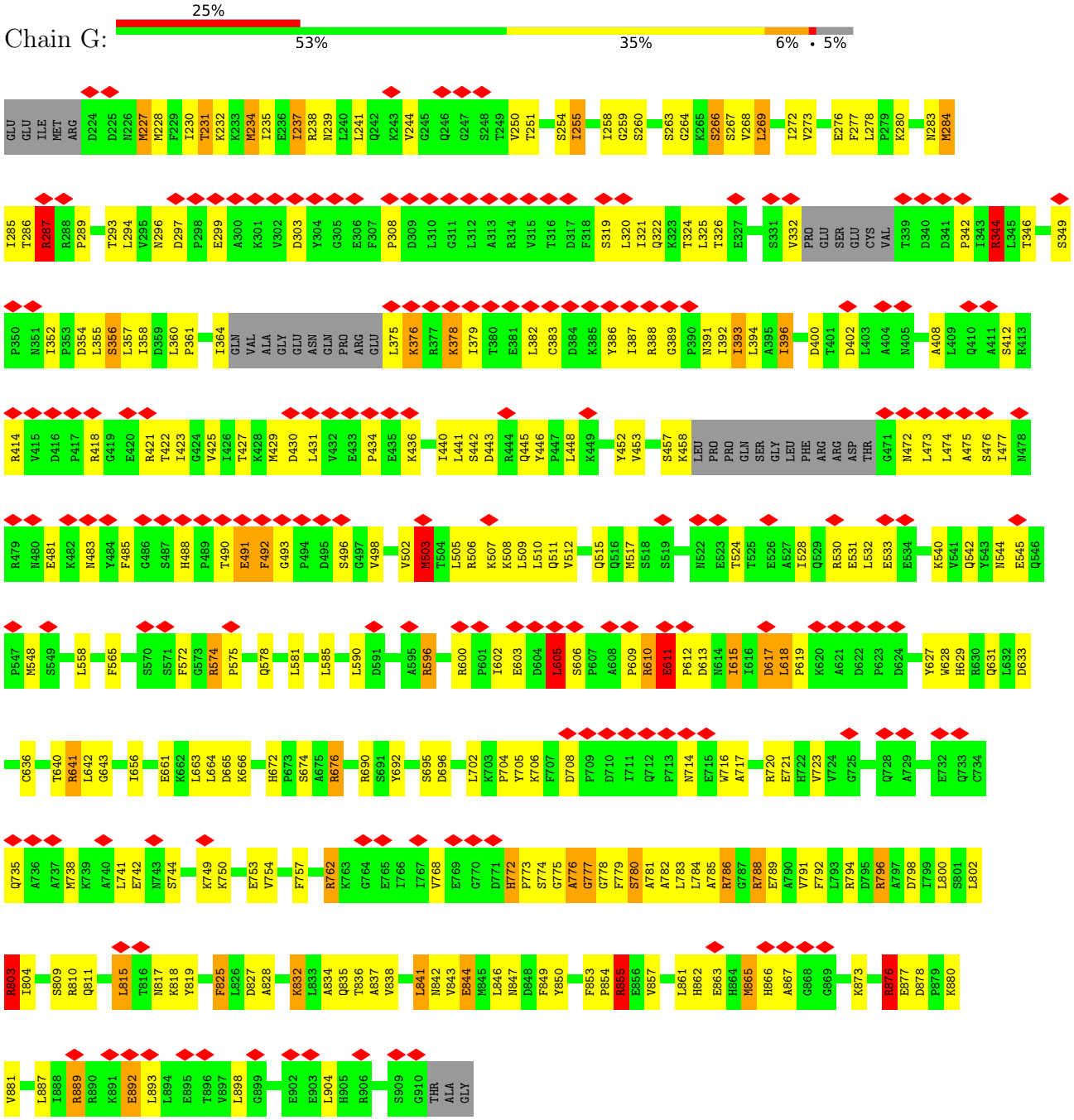
• Molecule 1: Putative mitochondrial dynamin protein

Chain F:



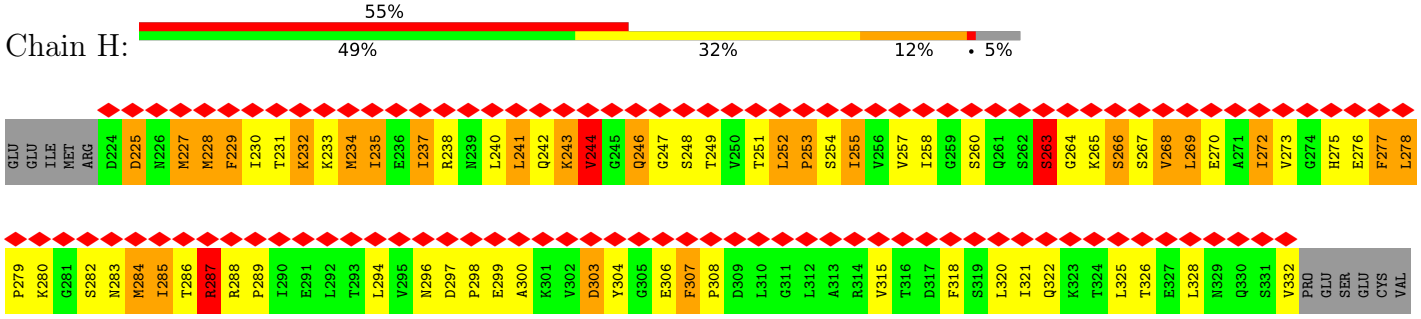
• Molecule 1: Putative mitochondrial dynamin protein

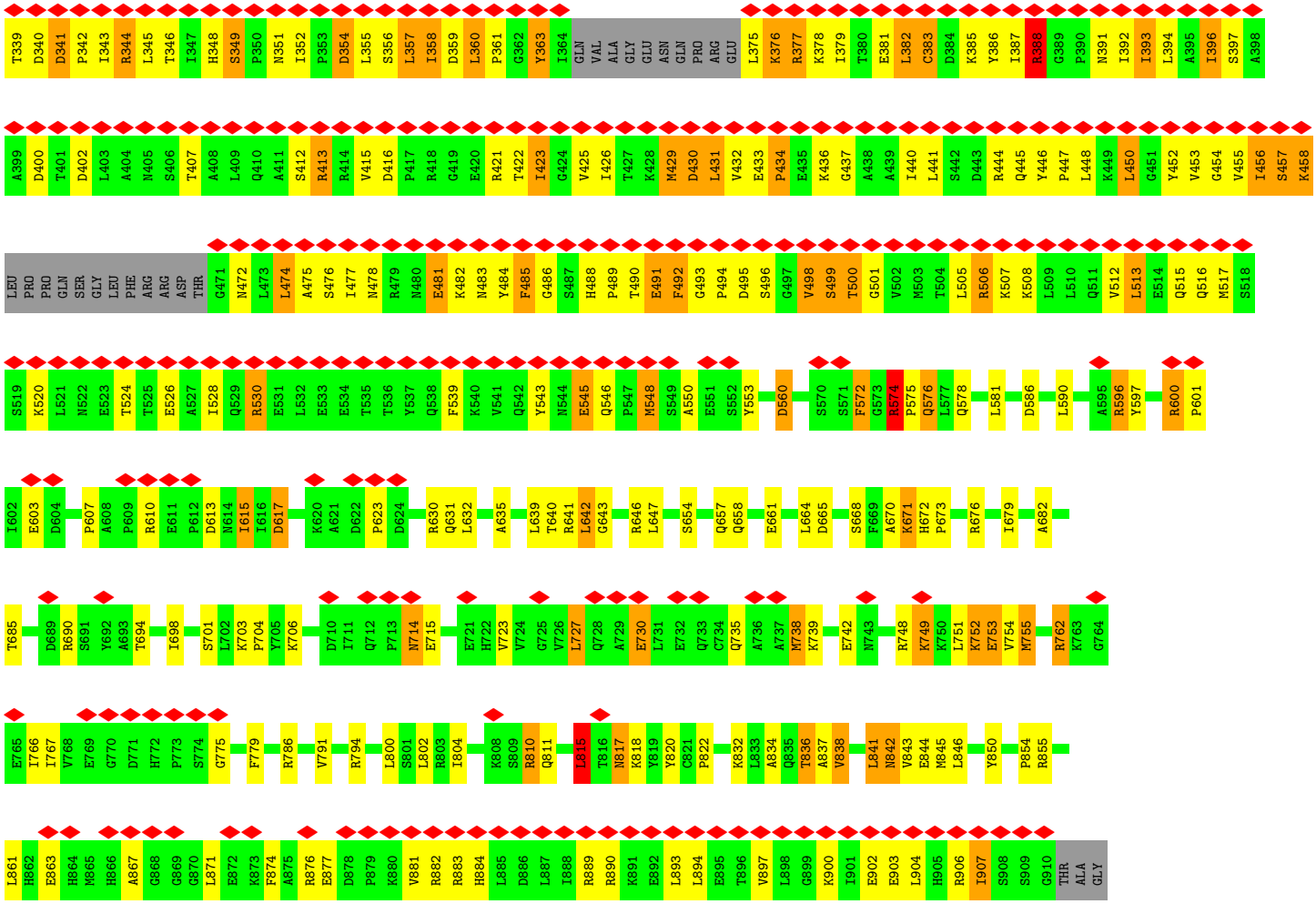
Chain G:



• Molecule 1: Putative mitochondrial dynamin protein

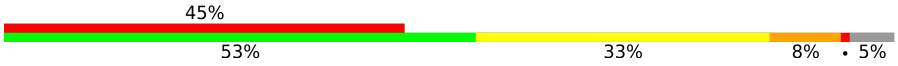
Chain H:

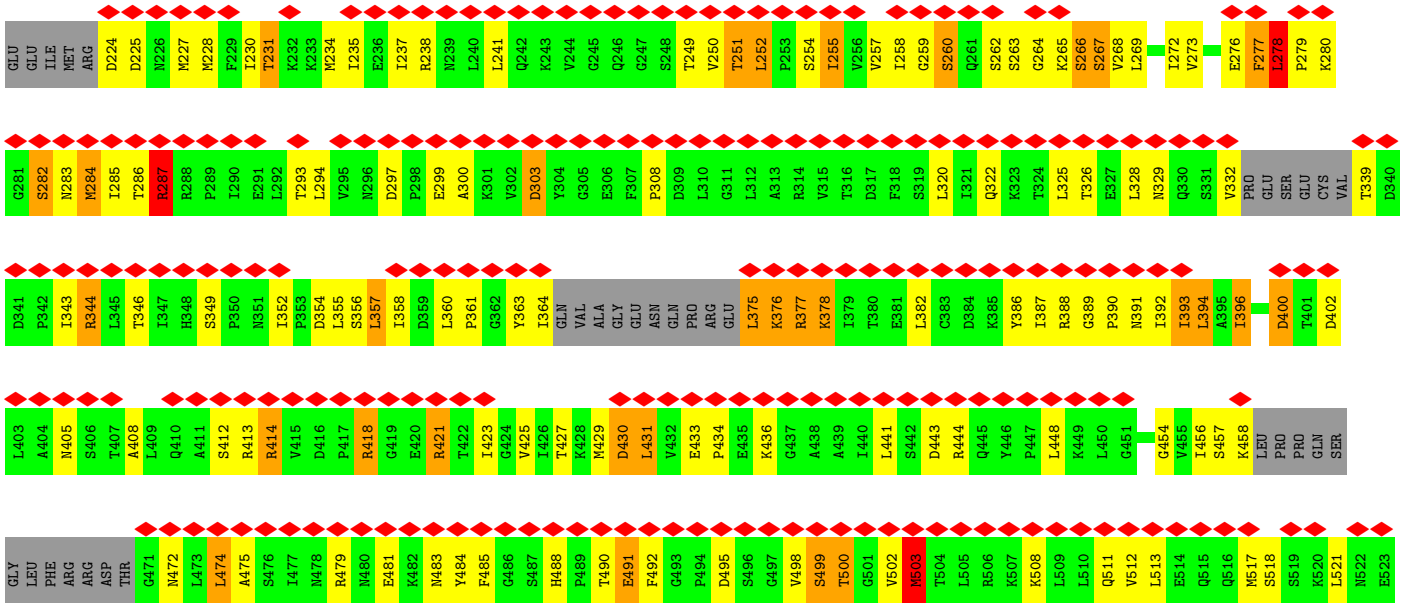


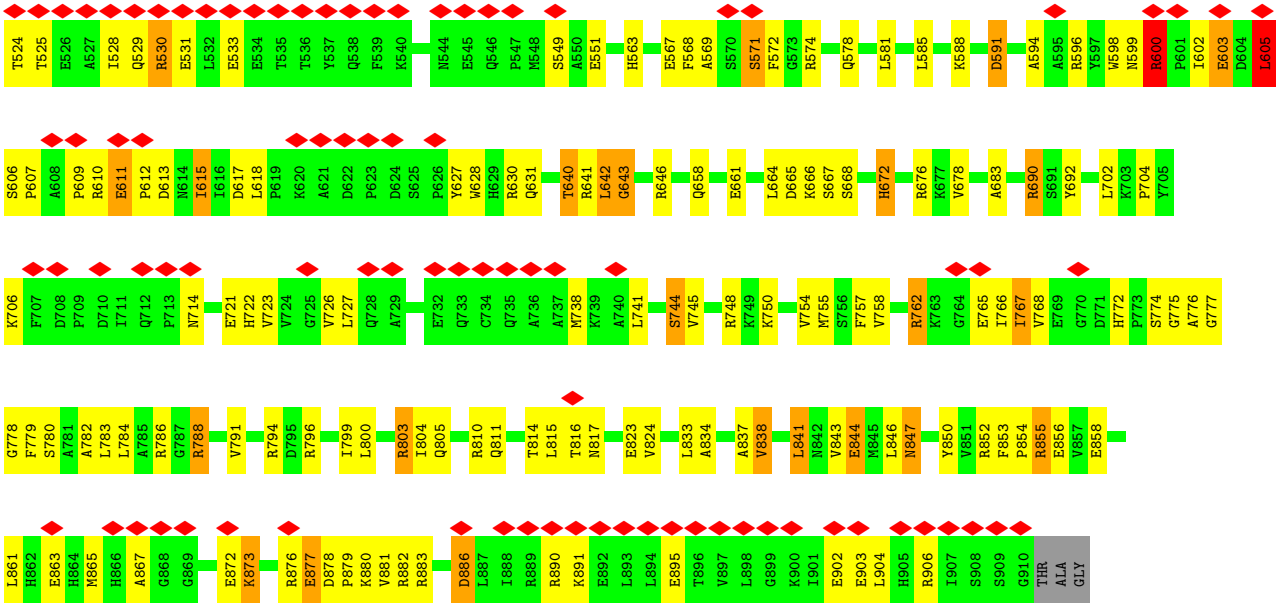


• Molecule 1: Putative mitochondrial dynamin protein

Chain I:

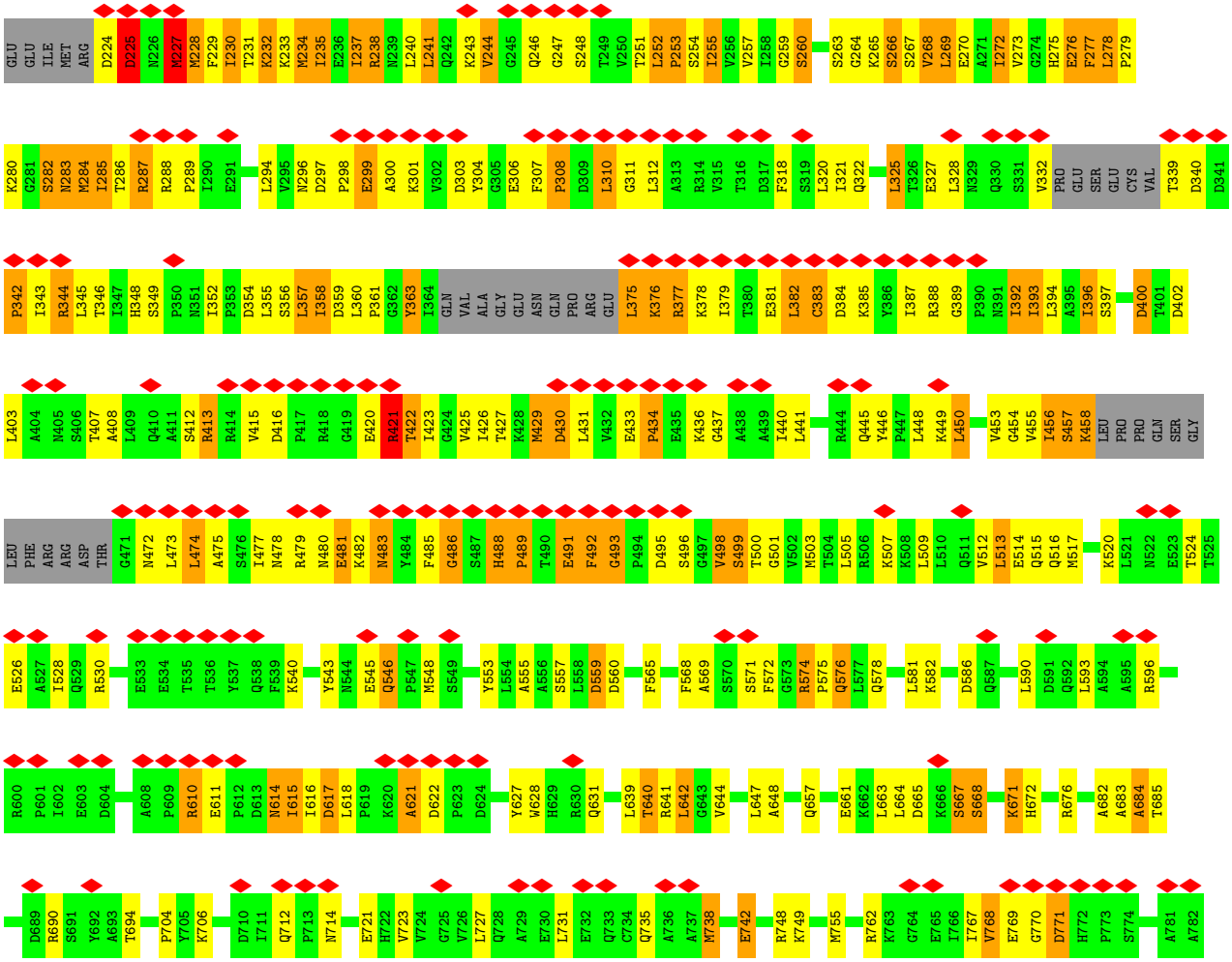


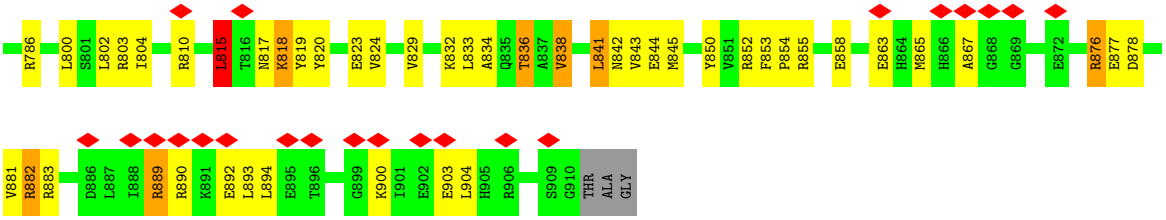




• Molecule 1: Putative mitochondrial dynamin protein

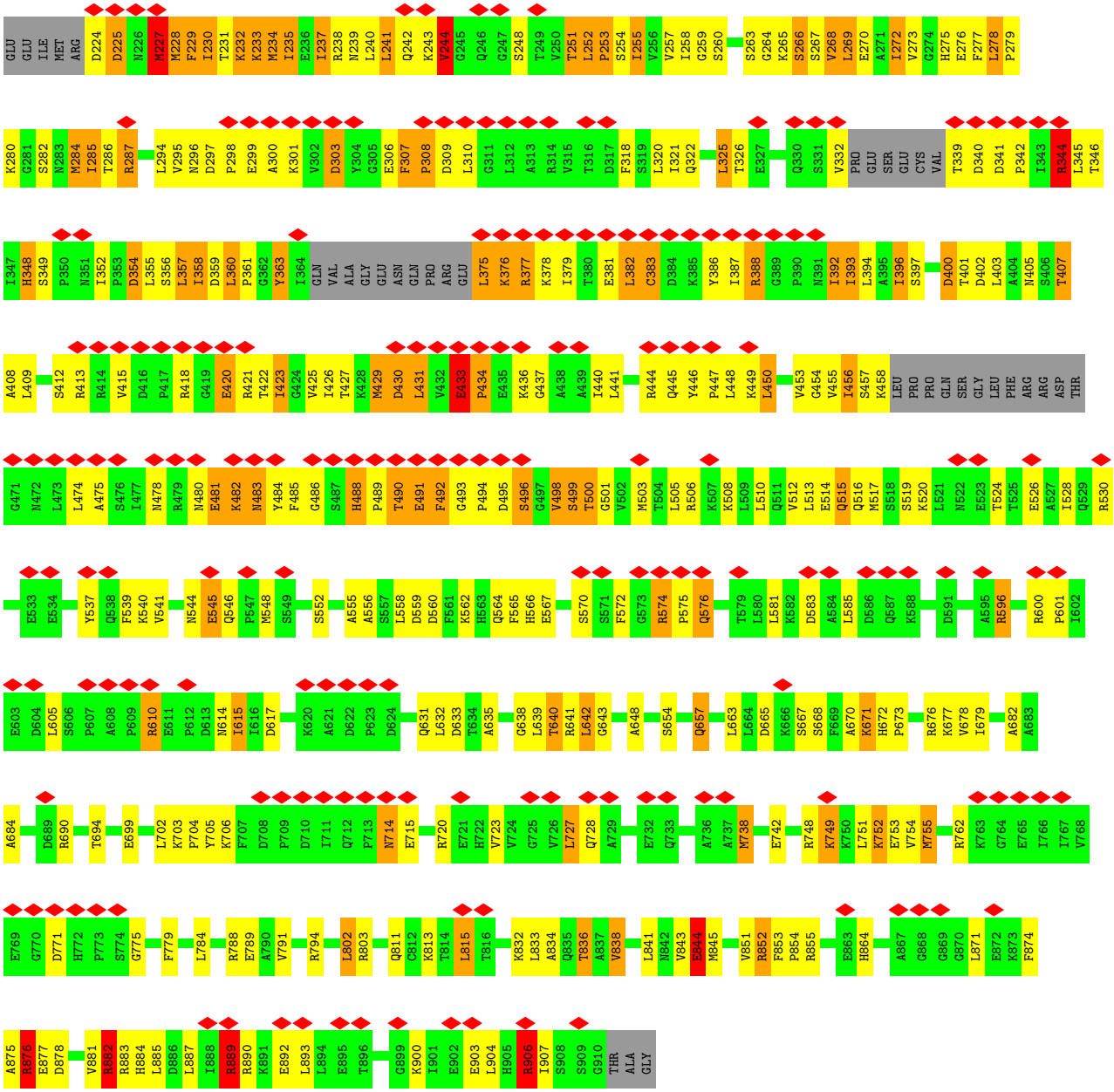
Chain J:





• Molecule 1: Putative mitochondrial dynamin protein

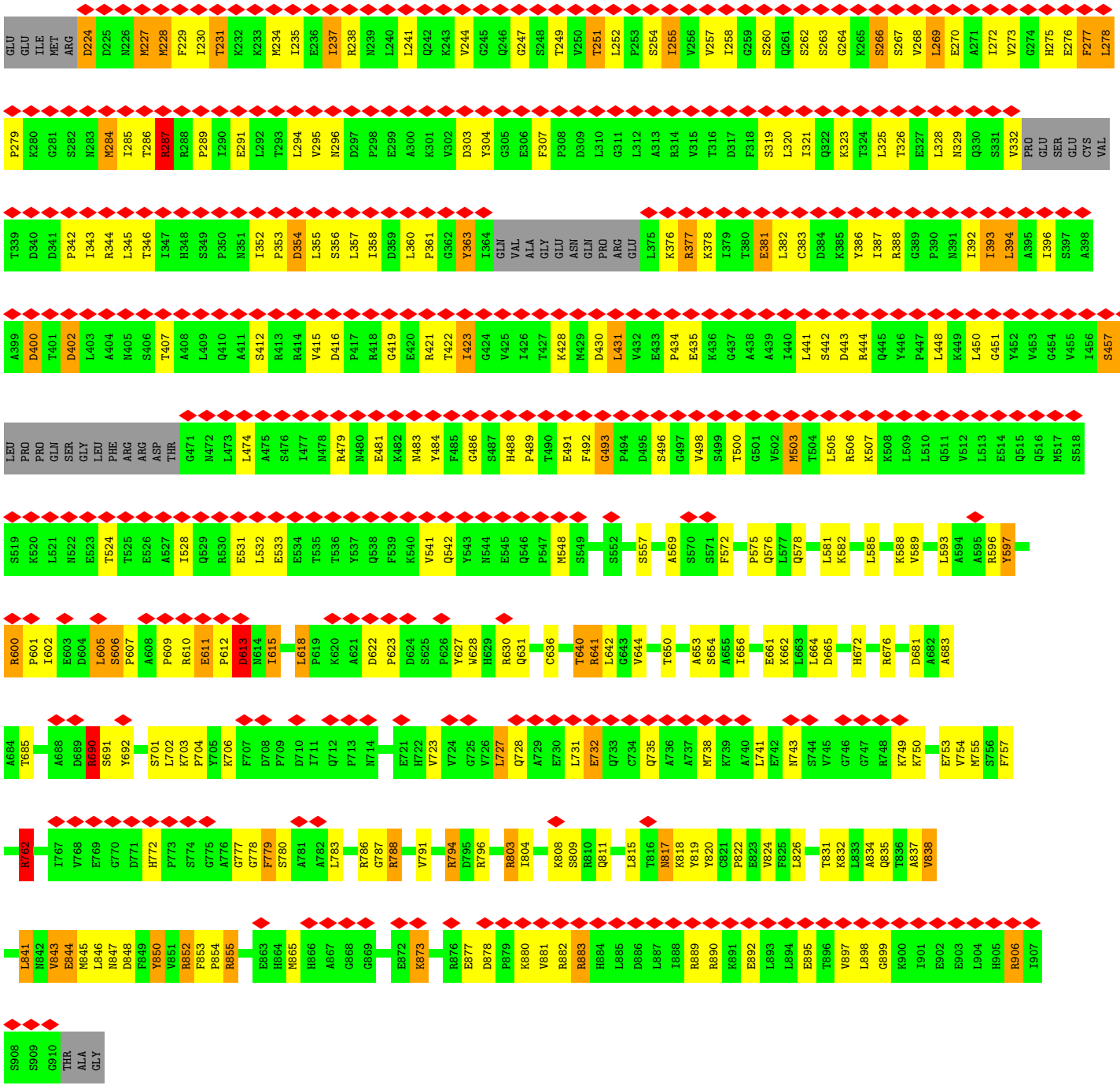
Chain K:



• Molecule 1: Putative mitochondrial dynamin protein

Chain L:


58%
56%
31%
7%
5%


GLU GLU ILE MET ARG D224 D225 N226 M227 M228 F229 I230 T231 K232 K233 M234 I235 E236 I237 R238 N239 L240 L241 Q242 K243 V244 G245 Q246 G247 S248 T249 V250 T251 L252 P253 S254 I255 V256 V257 I258 G259 S260 Q261 S262 S263 G264 K265 S266 S267 V268 L269 E270 A271 I272 V273 G274 H275 E276 F277 L278
P279 K280 G281 S282 N283 M284 I285 T286 R287 R288 P289 I290 E291 L292 T293 L294 V295 N296 D297 P298 E299 A300 K301 V302 D303 Y304 G305 E306 F307 P308 D309 L310 G311 L312 A313 R314 V315 T316 D317 P318 S319 L320 I321 Q322 K323 T324 L325 T326 E327 L328 N329 Q330 S331 V332 PRO GLU SER GLU CYS VAL
T339 D340 D341 P342 I343 R344 L345 T346 I347 H348 S349 P350 N351 I352 P353 D354 L355 S356 L357 I358 D359 L360 P361 G362 Y363 I364 GLN VAL ALA GLY GLU ASN GLN PRO ARG GLU L375 K376 R377 K378 I379 T380 E381 L382 C383 D384 K385 Y386 I387 R388 G389 P390 N391 I392 I393 L394 A395 I396 S397 A398
A399 D400 T401 D402 L403 A404 N405 S406 T407 A408 L409 Q410 A411 S412 R413 R414 V415 D416 P417 R418 G419 E420 R421 T422 I423 G424 V425 I426 T427 K428 M429 D430 L431 V432 E433 P434 E435 K436 G437 A438 A439 I440 L441 S442 D443 R444 Q445 Y446 P447 L448 K449 L450 G451 Y452 V453 G454 V455 I456 S457 K458
LEU PRO PRO GLN SER GLY LEU PHE ARG ARG ASP THR G471 N472 L473 L474 A475 S476 I477 N478 R479 N480 E481 K482 N483 Y484 F485 G486 S487 H488 P489 T490 E491 F492 G493 P494 D495 S496 G497 V498 S499 T500 G501 V502 M503 T504 L505 R506 K507 K508 L509 L510 Q511 V512 L513 E514 Q515 Q516 M517 S518
S519 K520 L521 N522 E523 T524 T525 E526 A527 I528 Q529 R530 E531 L532 E533 E534 T535 T536 Y537 Q538 F539 K540 V541 Q542 Y543 N544 E545 Q546 P547 M548 S549 S552 S557 A569 S570 S571 F572 P575 Q576 L577 Q578 L581 K582 L585 K588 V589 L593 A594 A595 R596 Y597
R600 P601 I602 E603 D604 L605 S606 P607 A608 P609 R610 E611 P612 D613 N614 I615 L618 P619 K620 A621 D622 P623 D624 S625 P626 Y627 W628 H629 R630 Q631 C636 T640 R641 L642 G643 V644 T650 A653 S654 A655 I656 E661 K662 L663 L664 D665 H672 R676 D681 A682 A683
A684 T685 A688 D689 R690 S691 Y692 S701 L702 K703 P704 Y705 K706 F707 D708 P709 D710 I711 Q712 P713 N714 E721 H722 V723 V724 G725 V726 L727 Q728 A729 E730 L731 E732 Q733 C734 Q735 A736 A737 M738 K739 A740 L741 E742 N743 S744 V745 G746 G747 R748 K749 K750 E753 V754 M755 S756 F757
R762 L767 V768 E769 G770 D771 H772 P773 S774 G775 A776 G777 G778 F779 S780 A781 A782 L783 R786 G787 R788 V791 R794 D795 R796 R803 I804 K808 S809 R810 Q811 L815 T816 N817 K818 Y819 Y820 C821 P822 E823 V824 F825 L826 T831 K832 L833 A834 Q835 T836 A837 V838
L841 N842 V843 E844 M845 L846 N847 D848 F849 Y850 Y851 R852 F853 P854 R855 E863 H864 M865 H866 A867 G868 G869 E872 K873 R876 E877 D878 P879 K880 V881 R882 R883 H884 L885 D886 L887 I888 R889 R890 K891 E892 L893 L894 E895 T896 V897 L898 G899 K900 I901 E902 E903 L904 H905 R906 I907
S908 S909 G910 THR ALA GLY

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	9471	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY; CTF determination was done by Gctf and correction was performed by ctfphaseflip from Imod	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	2	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	53000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	7.692	Depositor
Minimum map value	-4.498	Depositor
Average map value	0.207	Depositor
Map value standard deviation	1.019	Depositor
Recommended contour level	2	Depositor
Map size (Å)	324.0, 324.0, 324.0	wwPDB
Map dimensions	120, 120, 120	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.7, 2.7, 2.7	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	1.52	34/5238 (0.6%)	1.12	20/7075 (0.3%)
1	B	1.50	29/5238 (0.6%)	1.05	13/7075 (0.2%)
1	C	1.48	25/5238 (0.5%)	1.08	15/7075 (0.2%)
1	D	1.52	29/5238 (0.6%)	1.11	23/7075 (0.3%)
1	E	1.52	30/5238 (0.6%)	1.12	16/7075 (0.2%)
1	F	1.50	22/5238 (0.4%)	1.07	19/7075 (0.3%)
1	G	1.59	23/5238 (0.4%)	1.06	20/7075 (0.3%)
1	H	1.53	26/5238 (0.5%)	1.13	17/7075 (0.2%)
1	I	1.47	18/5238 (0.3%)	1.09	21/7075 (0.3%)
1	J	1.53	27/5238 (0.5%)	1.11	14/7075 (0.2%)
1	K	1.53	29/5238 (0.6%)	1.12	20/7075 (0.3%)
1	L	1.57	33/5238 (0.6%)	1.07	15/7075 (0.2%)
All	All	1.52	325/62856 (0.5%)	1.09	213/84900 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	12
1	B	0	11
1	C	0	12
1	D	0	18
1	E	0	15
1	F	0	16
1	G	0	14
1	H	0	13
1	I	0	19
1	J	0	12
1	K	0	18
1	L	0	12
All	All	0	172

All (325) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	777	GLY	CA-C	40.10	2.16	1.51
1	L	779	PHE	CG-CD2	15.07	1.61	1.38
1	L	779	PHE	CG-CD1	14.74	1.60	1.38
1	L	779	PHE	CE1-CZ	14.55	1.65	1.37
1	L	779	PHE	CD2-CE2	13.13	1.65	1.39
1	L	779	PHE	CE2-CZ	12.39	1.60	1.37
1	L	779	PHE	CD1-CE1	11.55	1.62	1.39
1	H	253	PRO	C-N	-9.57	1.12	1.34
1	G	227	MET	CG-SD	9.31	2.05	1.81
1	K	253	PRO	C-N	-9.26	1.12	1.34
1	K	514	GLU	CD-OE2	-9.13	1.15	1.25
1	D	253	PRO	C-N	-8.86	1.13	1.34
1	H	603	GLU	CD-OE2	-8.67	1.16	1.25
1	G	789	GLU	CD-OE2	8.53	1.35	1.25
1	J	253	PRO	C-N	-8.52	1.14	1.34
1	D	856	GLU	CD-OE2	-8.42	1.16	1.25
1	B	234	MET	CG-SD	8.35	2.02	1.81
1	B	435	GLU	CD-OE1	-8.07	1.16	1.25
1	E	253	PRO	C-N	-8.06	1.15	1.34
1	F	491	GLU	CD-OE2	-7.86	1.17	1.25
1	L	732	GLU	CD-OE2	7.84	1.34	1.25
1	L	377	ARG	CZ-NH2	7.84	1.43	1.33
1	I	865	MET	CG-SD	7.78	2.01	1.81
1	K	566	HIS	CB-CG	-7.66	1.36	1.50
1	B	845	MET	CG-SD	7.59	2.00	1.81
1	A	253	PRO	C-N	-7.59	1.16	1.34
1	G	234	MET	CG-SD	7.58	2.00	1.81
1	J	299	GLU	CD-OE1	-7.58	1.17	1.25
1	A	534	GLU	CD-OE2	7.56	1.33	1.25
1	B	906	ARG	NE-CZ	-7.55	1.23	1.33
1	L	503	MET	CG-SD	7.54	2.00	1.81
1	J	308	PRO	N-CD	7.51	1.58	1.47
1	K	308	PRO	N-CD	7.49	1.58	1.47
1	J	227	MET	CG-SD	7.47	2.00	1.81
1	F	306	GLU	CD-OE2	-7.46	1.17	1.25
1	B	755	MET	CG-SD	7.37	2.00	1.81
1	H	228	MET	CG-SD	7.32	2.00	1.81
1	A	755	MET	CG-SD	7.26	2.00	1.81
1	D	381	GLU	CD-OE2	-7.22	1.17	1.25
1	D	738	MET	CG-SD	7.20	1.99	1.81
1	D	496	SER	CB-OG	-7.17	1.32	1.42
1	A	567	GLU	CD-OE2	-7.14	1.17	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	517	MET	CG-SD	7.10	1.99	1.81
1	C	531	GLU	CD-OE2	7.08	1.33	1.25
1	H	845	MET	CG-SD	7.07	1.99	1.81
1	K	755	MET	CG-SD	7.06	1.99	1.81
1	A	611	GLU	CD-OE2	-7.04	1.18	1.25
1	E	533	GLU	CD-OE2	-7.04	1.18	1.25
1	I	234	MET	CG-SD	6.92	1.99	1.81
1	C	429	MET	CG-SD	6.90	1.99	1.81
1	B	503	MET	CG-SD	6.89	1.99	1.81
1	E	503	MET	CG-SD	6.86	1.99	1.81
1	F	228	MET	CG-SD	6.84	1.99	1.81
1	J	493	GLY	C-O	-6.84	1.12	1.23
1	E	548	MET	CG-SD	6.82	1.98	1.81
1	E	865	MET	CG-SD	6.82	1.98	1.81
1	C	496	SER	CA-CB	6.81	1.63	1.52
1	J	865	MET	CG-SD	6.71	1.98	1.81
1	B	517	MET	CG-SD	6.71	1.98	1.81
1	D	845	MET	CG-SD	6.71	1.98	1.81
1	K	234	MET	CG-SD	6.63	1.98	1.81
1	E	574	ARG	CZ-NH1	-6.61	1.24	1.33
1	K	738	MET	CG-SD	6.60	1.98	1.81
1	H	227	MET	CG-SD	6.58	1.98	1.81
1	A	446	TYR	CE1-CZ	-6.57	1.30	1.38
1	B	738	MET	CG-SD	6.57	1.98	1.81
1	K	228	MET	CG-SD	6.57	1.98	1.81
1	L	548	MET	CG-SD	6.54	1.98	1.81
1	A	715	GLU	CD-OE1	6.54	1.32	1.25
1	C	892	GLU	CD-OE2	-6.54	1.18	1.25
1	L	899	GLY	N-CA	6.49	1.55	1.46
1	H	494	PRO	N-CD	6.48	1.56	1.47
1	F	260	SER	CB-OG	6.47	1.50	1.42
1	E	381	GLU	CD-OE2	-6.46	1.18	1.25
1	H	623	PRO	N-CD	6.40	1.56	1.47
1	E	228	MET	CG-SD	6.40	1.97	1.81
1	L	353	PRO	N-CD	6.39	1.56	1.47
1	I	517	MET	CG-SD	6.38	1.97	1.81
1	J	548	MET	CG-SD	6.38	1.97	1.81
1	A	789	GLU	CD-OE2	-6.37	1.18	1.25
1	J	489	PRO	N-CD	6.33	1.56	1.47
1	F	762	ARG	CZ-NH2	6.32	1.41	1.33
1	C	548	MET	CG-SD	6.32	1.97	1.81
1	F	503	MET	CG-SD	6.31	1.97	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	252	LEU	C-N	6.28	1.46	1.34
1	A	503	MET	CG-SD	6.28	1.97	1.81
1	F	845	MET	CG-SD	6.27	1.97	1.81
1	D	234	MET	CG-SD	6.26	1.97	1.81
1	J	503	MET	CG-SD	6.26	1.97	1.81
1	J	742	GLU	CD-OE1	-6.23	1.18	1.25
1	L	809	SER	CA-CB	6.23	1.62	1.52
1	E	755	MET	CG-SD	6.23	1.97	1.81
1	B	548	MET	CG-SD	6.21	1.97	1.81
1	D	514	GLU	CD-OE1	-6.20	1.18	1.25
1	L	883	ARG	CZ-NH1	6.19	1.41	1.33
1	E	552	SER	CB-OG	6.18	1.50	1.42
1	C	420	GLU	CD-OE1	6.17	1.32	1.25
1	J	228	MET	CG-SD	6.17	1.97	1.81
1	B	756	SER	CB-OG	-6.16	1.34	1.42
1	L	228	MET	CG-SD	6.14	1.97	1.81
1	C	856	GLU	CD-OE1	-6.14	1.18	1.25
1	K	227	MET	CG-SD	6.14	1.97	1.81
1	J	429	MET	CG-SD	6.14	1.97	1.81
1	J	238	ARG	NE-CZ	6.13	1.41	1.33
1	A	844	GLU	CD-OE2	-6.12	1.19	1.25
1	C	341	ASP	N-CA	-6.12	1.34	1.46
1	B	823	GLU	CD-OE1	-6.12	1.19	1.25
1	B	730	GLU	CD-OE2	-6.12	1.19	1.25
1	D	227	MET	CG-SD	6.11	1.97	1.81
1	A	865	MET	CG-SD	6.10	1.97	1.81
1	D	746	GLY	C-O	6.09	1.33	1.23
1	D	549	SER	CA-CB	6.09	1.62	1.52
1	A	227	MET	CG-SD	6.08	1.97	1.81
1	F	227	MET	CG-SD	6.07	1.97	1.81
1	D	517	MET	CG-SD	6.06	1.97	1.81
1	D	484	TYR	CB-CG	6.05	1.60	1.51
1	H	890	ARG	NE-CZ	6.05	1.41	1.33
1	H	753	GLU	CD-OE1	6.03	1.32	1.25
1	I	549	SER	CB-OG	-6.03	1.34	1.42
1	F	567	GLU	CD-OE2	-6.01	1.19	1.25
1	J	858	GLU	CD-OE2	-6.00	1.19	1.25
1	K	715	GLU	CD-OE1	-5.99	1.19	1.25
1	I	877	GLU	CD-OE2	-5.99	1.19	1.25
1	C	738	MET	CG-SD	5.98	1.96	1.81
1	H	786	ARG	CZ-NH2	-5.94	1.25	1.33
1	L	227	MET	CG-SD	5.93	1.96	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	526	GLU	CD-OE1	-5.93	1.19	1.25
1	K	484	TYR	CZ-OH	-5.93	1.27	1.37
1	K	906	ARG	NE-CZ	-5.92	1.25	1.33
1	L	506	ARG	CZ-NH1	5.92	1.40	1.33
1	E	738	MET	CG-SD	5.91	1.96	1.81
1	D	386	TYR	CE1-CZ	-5.91	1.30	1.38
1	J	892	GLU	CD-OE2	-5.89	1.19	1.25
1	D	489	PRO	N-CD	5.89	1.56	1.47
1	I	642	LEU	C-N	5.89	1.43	1.33
1	A	646	ARG	CZ-NH1	5.88	1.40	1.33
1	E	252	LEU	C-N	5.87	1.45	1.34
1	K	844	GLU	CD-OE2	5.86	1.32	1.25
1	L	493	GLY	N-CA	-5.86	1.37	1.46
1	D	429	MET	CG-SD	5.85	1.96	1.81
1	J	234	MET	CG-SD	5.85	1.96	1.81
1	D	342	PRO	N-CD	5.84	1.56	1.47
1	J	738	MET	CG-SD	5.82	1.96	1.81
1	E	238	ARG	NE-CZ	5.79	1.40	1.33
1	E	611	GLU	CG-CD	5.79	1.60	1.51
1	F	514	GLU	CG-CD	5.79	1.60	1.51
1	L	788	ARG	CZ-NH1	-5.78	1.25	1.33
1	A	661	GLU	CD-OE2	-5.77	1.19	1.25
1	B	245	GLY	C-O	5.77	1.32	1.23
1	F	452	TYR	CE1-CZ	5.77	1.46	1.38
1	G	674	SER	CB-OG	5.75	1.49	1.42
1	B	774	SER	CA-CB	5.75	1.61	1.52
1	G	865	MET	CG-SD	5.74	1.96	1.81
1	B	363	TYR	CZ-OH	5.74	1.47	1.37
1	G	548	MET	CG-SD	5.74	1.96	1.81
1	J	486	GLY	N-CA	5.74	1.54	1.46
1	E	517	MET	CG-SD	5.73	1.96	1.81
1	A	263	SER	CB-OG	5.73	1.49	1.42
1	C	306	GLU	CD-OE2	5.70	1.31	1.25
1	D	444	ARG	NE-CZ	-5.70	1.25	1.33
1	A	676	ARG	NE-CZ	-5.69	1.25	1.33
1	G	810	ARG	CZ-NH1	-5.67	1.25	1.33
1	L	755	MET	CG-SD	5.67	1.95	1.81
1	J	514	GLU	CD-OE1	-5.67	1.19	1.25
1	F	865	MET	CG-SD	5.66	1.95	1.81
1	H	252	LEU	C-N	5.65	1.45	1.34
1	L	484	TYR	CG-CD2	5.64	1.46	1.39
1	A	537	TYR	CE1-CZ	5.63	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	603	GLU	CG-CD	5.61	1.60	1.51
1	D	253	PRO	N-CD	5.60	1.55	1.47
1	E	487	SER	CB-OG	-5.58	1.34	1.42
1	K	420	GLU	CD-OE1	5.56	1.31	1.25
1	E	892	GLU	CD-OE2	5.56	1.31	1.25
1	K	545	GLU	CD-OE2	-5.56	1.19	1.25
1	B	429	MET	CG-SD	5.55	1.95	1.81
1	J	876	ARG	CZ-NH1	5.55	1.40	1.33
1	E	234	MET	CG-SD	5.55	1.95	1.81
1	H	386	TYR	CG-CD2	-5.55	1.31	1.39
1	B	627	TYR	CD2-CE2	-5.55	1.31	1.39
1	I	755	MET	CG-SD	5.53	1.95	1.81
1	J	755	MET	CG-SD	5.53	1.95	1.81
1	K	548	MET	CG-SD	5.52	1.95	1.81
1	D	498	VAL	C-O	-5.51	1.12	1.23
1	H	738	MET	CG-SD	5.51	1.95	1.81
1	E	699	GLU	CD-OE1	-5.51	1.19	1.25
1	I	788	ARG	NE-CZ	5.50	1.40	1.33
1	J	421	ARG	CD-NE	5.50	1.55	1.46
1	I	252	LEU	N-CA	5.49	1.57	1.46
1	I	511	GLN	C-O	5.49	1.33	1.23
1	H	388	ARG	C-N	-5.49	1.23	1.33
1	A	537	TYR	CG-CD1	5.47	1.46	1.39
1	L	533	GLU	CG-CD	5.47	1.60	1.51
1	C	446	TYR	CG-CD1	5.47	1.46	1.39
1	C	755	MET	CG-SD	5.47	1.95	1.81
1	I	503	MET	CG-SD	5.47	1.95	1.81
1	B	892	GLU	CD-OE1	-5.46	1.19	1.25
1	H	850	TYR	CD2-CE2	-5.46	1.31	1.39
1	G	892	GLU	CD-OE2	-5.45	1.19	1.25
1	D	877	GLU	CD-OE1	-5.45	1.19	1.25
1	L	895	GLU	CD-OE2	5.44	1.31	1.25
1	C	488	HIS	C-N	5.44	1.44	1.34
1	B	732	GLU	CD-OE1	-5.43	1.19	1.25
1	F	820	TYR	CB-CG	5.43	1.59	1.51
1	K	342	PRO	N-CD	5.43	1.55	1.47
1	A	707	PHE	CG-CD1	5.42	1.46	1.38
1	J	553	TYR	CG-CD1	-5.42	1.32	1.39
1	E	796	ARG	CZ-NH1	-5.42	1.26	1.33
1	H	545	GLU	CD-OE1	-5.42	1.19	1.25
1	B	487	SER	CA-CB	5.41	1.61	1.52
1	L	606	SER	CA-CB	5.41	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	611	GLU	CB-CG	5.41	1.62	1.52
1	B	236	GLU	CD-OE1	-5.40	1.19	1.25
1	E	481	GLU	CD-OE2	5.40	1.31	1.25
1	E	574	ARG	NE-CZ	5.40	1.40	1.33
1	A	908	SER	CB-OG	-5.40	1.35	1.42
1	B	774	SER	CB-OG	-5.38	1.35	1.42
1	G	892	GLU	CD-OE1	-5.38	1.19	1.25
1	G	503	MET	CG-SD	5.38	1.95	1.81
1	J	571	SER	CB-OG	5.37	1.49	1.42
1	I	429	MET	CG-SD	5.37	1.95	1.81
1	C	263	SER	CB-OG	-5.37	1.35	1.42
1	H	263	SER	CB-OG	-5.37	1.35	1.42
1	F	596	ARG	CZ-NH1	5.37	1.40	1.33
1	I	228	MET	CG-SD	5.37	1.95	1.81
1	H	548	MET	CG-SD	5.36	1.95	1.81
1	A	282	SER	CB-OG	-5.36	1.35	1.42
1	K	517	MET	CG-SD	5.36	1.95	1.81
1	C	534	GLU	CD-OE2	5.36	1.31	1.25
1	A	253	PRO	N-CD	5.36	1.55	1.47
1	D	291	GLU	CD-OE1	-5.36	1.19	1.25
1	E	266	SER	CB-OG	5.35	1.49	1.42
1	J	667	SER	CB-OG	5.34	1.49	1.42
1	C	865	MET	CG-SD	5.34	1.95	1.81
1	C	228	MET	CG-SD	5.34	1.95	1.81
1	K	510	LEU	CA-C	-5.33	1.39	1.52
1	C	774	SER	N-CA	5.33	1.57	1.46
1	C	442	SER	CB-OG	5.32	1.49	1.42
1	G	506	ARG	NE-CZ	5.32	1.40	1.33
1	F	755	MET	CG-SD	5.32	1.95	1.81
1	A	429	MET	CG-SD	5.32	1.95	1.81
1	I	551	GLU	CD-OE2	-5.32	1.19	1.25
1	C	730	GLU	CD-OE1	-5.31	1.19	1.25
1	B	545	GLU	CD-OE2	5.31	1.31	1.25
1	H	900	LYS	C-O	5.31	1.33	1.23
1	L	845	MET	CG-SD	5.31	1.95	1.81
1	E	872	GLU	CD-OE2	5.30	1.31	1.25
1	I	903	GLU	CD-OE2	-5.30	1.19	1.25
1	A	748	ARG	NE-CZ	-5.29	1.26	1.33
1	H	574	ARG	CZ-NH1	5.29	1.40	1.33
1	E	845	MET	CG-SD	5.29	1.94	1.81
1	F	738	MET	CG-SD	5.29	1.94	1.81
1	F	267	SER	CB-OG	5.28	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	494	PRO	N-CD	5.28	1.55	1.47
1	H	349	SER	C-O	5.27	1.33	1.23
1	F	247	GLY	N-CA	-5.26	1.38	1.46
1	H	755	MET	CG-SD	5.26	1.94	1.81
1	A	803	ARG	NE-CZ	-5.26	1.26	1.33
1	K	225	ASP	CB-CG	5.26	1.62	1.51
1	F	388	ARG	NE-CZ	-5.25	1.26	1.33
1	C	344	ARG	CD-NE	5.25	1.55	1.46
1	C	695	SER	CB-OG	5.25	1.49	1.42
1	D	868	GLY	C-N	-5.25	1.23	1.33
1	H	429	MET	CG-SD	5.25	1.94	1.81
1	E	227	MET	CG-SD	5.24	1.94	1.81
1	F	517	MET	CG-SD	5.24	1.94	1.81
1	A	616	ILE	N-CA	-5.24	1.35	1.46
1	A	551	GLU	CD-OE1	5.24	1.31	1.25
1	G	533	GLU	CD-OE1	5.24	1.31	1.25
1	D	692	TYR	CE2-CZ	5.23	1.45	1.38
1	E	600	ARG	CZ-NH1	-5.23	1.26	1.33
1	F	695	SER	CB-OG	5.23	1.49	1.42
1	L	363	TYR	CB-CG	5.22	1.59	1.51
1	L	381	GLU	CD-OE2	5.22	1.31	1.25
1	K	570	SER	CB-OG	-5.21	1.35	1.42
1	C	523	GLU	CD-OE2	-5.21	1.20	1.25
1	E	479	ARG	CZ-NH2	-5.21	1.26	1.33
1	G	695	SER	CA-CB	-5.21	1.45	1.52
1	L	865	MET	CG-SD	5.20	1.94	1.81
1	J	517	MET	CG-SD	5.19	1.94	1.81
1	A	228	MET	CG-SD	5.19	1.94	1.81
1	K	638	GLY	C-O	-5.18	1.15	1.23
1	B	820	TYR	CD2-CE2	-5.18	1.31	1.39
1	F	548	MET	CG-SD	5.18	1.94	1.81
1	A	252	LEU	C-N	5.17	1.44	1.34
1	G	832	LYS	C-O	5.17	1.33	1.23
1	D	314	ARG	C-O	5.16	1.33	1.23
1	A	738	MET	CG-SD	5.15	1.94	1.81
1	D	228	MET	CG-SD	5.15	1.94	1.81
1	C	291	GLU	CD-OE1	-5.14	1.20	1.25
1	K	503	MET	CG-SD	5.14	1.94	1.81
1	B	494	PRO	N-CD	-5.13	1.40	1.47
1	I	596	ARG	NE-CZ	5.13	1.39	1.33
1	B	551	GLU	CD-OE2	5.12	1.31	1.25
1	H	452	TYR	CE1-CZ	-5.11	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	228	MET	CG-SD	5.11	1.94	1.81
1	K	789	GLU	CG-CD	5.10	1.59	1.51
1	L	597	TYR	CE2-CZ	-5.10	1.31	1.38
1	A	810	ARG	CZ-NH1	5.10	1.39	1.33
1	B	442	SER	CB-OG	5.09	1.48	1.42
1	I	603	GLU	C-O	5.09	1.33	1.23
1	G	825	PHE	CE2-CZ	5.09	1.47	1.37
1	C	872	GLU	CD-OE2	-5.08	1.20	1.25
1	H	572	PHE	C-N	-5.08	1.24	1.33
1	K	429	MET	CG-SD	5.08	1.94	1.81
1	K	884	HIS	C-O	5.08	1.33	1.23
1	D	386	TYR	CE2-CZ	-5.08	1.31	1.38
1	L	304	TYR	CG-CD2	5.07	1.45	1.39
1	E	630	ARG	CZ-NH1	5.07	1.39	1.33
1	L	691	SER	CA-CB	-5.07	1.45	1.52
1	A	471	GLY	CA-C	5.06	1.59	1.51
1	G	828	ALA	C-O	5.05	1.32	1.23
1	G	429	MET	CG-SD	5.04	1.94	1.81
1	A	773	PRO	N-CD	5.03	1.54	1.47
1	B	435	GLU	C-O	-5.03	1.13	1.23
1	K	852	ARG	CZ-NH1	5.03	1.39	1.33
1	L	690	ARG	C-O	-5.03	1.13	1.23
1	D	386	TYR	CG-CD2	-5.03	1.32	1.39
1	L	234	MET	CG-SD	5.03	1.94	1.81
1	I	738	MET	CG-SD	5.03	1.94	1.81
1	H	283	ASN	N-CA	-5.01	1.36	1.46
1	J	684	ALA	CA-CB	5.01	1.62	1.52
1	A	484	TYR	CE1-CZ	-5.00	1.32	1.38
1	D	388	ARG	C-O	-5.00	1.13	1.23
1	E	478	ASN	C-O	5.00	1.32	1.23
1	G	574	ARG	CZ-NH1	-5.00	1.26	1.33

All (213) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	K	882	ARG	NE-CZ-NH1	-12.81	113.89	120.30
1	H	413	ARG	NE-CZ-NH2	-11.49	114.55	120.30
1	L	287	ARG	NE-CZ-NH2	-10.13	115.23	120.30
1	H	506	ARG	NE-CZ-NH2	-9.78	115.41	120.30
1	L	238	ARG	NE-CZ-NH2	9.63	125.12	120.30
1	C	852	ARG	NE-CZ-NH2	-9.45	115.58	120.30
1	C	855	ARG	NE-CZ-NH1	-9.16	115.72	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	574	ARG	NE-CZ-NH1	9.09	124.84	120.30
1	I	890	ARG	NE-CZ-NH1	-8.78	115.91	120.30
1	E	574	ARG	NE-CZ-NH1	-8.78	115.91	120.30
1	F	720	ARG	NE-CZ-NH1	-8.69	115.96	120.30
1	I	413	ARG	NE-CZ-NH2	-8.68	115.96	120.30
1	I	418	ARG	NE-CZ-NH2	-8.58	116.01	120.30
1	H	646	ARG	NE-CZ-NH2	8.46	124.53	120.30
1	I	413	ARG	NE-CZ-NH1	8.44	124.52	120.30
1	D	444	ARG	NE-CZ-NH2	-8.37	116.11	120.30
1	A	574	ARG	NE-CZ-NH2	-8.34	116.13	120.30
1	F	796	ARG	NE-CZ-NH1	-8.34	116.13	120.30
1	E	890	ARG	NE-CZ-NH1	-8.29	116.16	120.30
1	E	596	ARG	NE-CZ-NH1	-8.26	116.17	120.30
1	E	786	ARG	NE-CZ-NH2	-8.13	116.24	120.30
1	D	889	ARG	NE-CZ-NH1	-8.07	116.26	120.30
1	F	876	ARG	NE-CZ-NH2	8.00	124.30	120.30
1	A	794	ARG	NE-CZ-NH1	-7.89	116.36	120.30
1	B	344	ARG	NE-CZ-NH2	-7.86	116.37	120.30
1	H	287	ARG	NE-CZ-NH2	-7.70	116.45	120.30
1	E	596	ARG	NE-CZ-NH2	7.64	124.12	120.30
1	J	225	ASP	CB-CG-OD1	-7.52	111.53	118.30
1	F	288	ARG	NE-CZ-NH2	-7.50	116.55	120.30
1	E	414	ARG	NE-CZ-NH1	-7.46	116.57	120.30
1	B	748	ARG	NE-CZ-NH2	-7.45	116.58	120.30
1	D	388	ARG	NE-CZ-NH1	-7.38	116.61	120.30
1	J	852	ARG	NE-CZ-NH2	-7.37	116.61	120.30
1	A	553	TYR	CB-CG-CD2	-7.29	116.63	121.00
1	H	234	MET	CB-CG-SD	-7.26	90.62	112.40
1	K	788	ARG	NE-CZ-NH1	7.26	123.93	120.30
1	I	748	ARG	NE-CZ-NH1	-7.22	116.69	120.30
1	C	388	ARG	NE-CZ-NH1	-7.19	116.70	120.30
1	A	553	TYR	CB-CG-CD1	7.19	125.31	121.00
1	D	414	ARG	NE-CZ-NH2	-7.18	116.71	120.30
1	I	630	ARG	NE-CZ-NH2	-7.17	116.71	120.30
1	K	906	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	K	788	ARG	NE-CZ-NH2	-7.08	116.76	120.30
1	I	574	ARG	NE-CZ-NH2	7.06	123.83	120.30
1	E	600	ARG	NE-CZ-NH1	7.02	123.81	120.30
1	E	479	ARG	NE-CZ-NH1	-7.00	116.80	120.30
1	G	344	ARG	NE-CZ-NH1	-6.99	116.80	120.30
1	I	414	ARG	NE-CZ-NH2	-6.96	116.82	120.30
1	C	344	ARG	NE-CZ-NH2	-6.95	116.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	J	810	ARG	NE-CZ-NH2	-6.93	116.84	120.30
1	E	796	ARG	NE-CZ-NH2	-6.88	116.86	120.30
1	I	882	ARG	NE-CZ-NH1	-6.88	116.86	120.30
1	G	287	ARG	NE-CZ-NH2	-6.86	116.87	120.30
1	G	641	ARG	NE-CZ-NH2	6.83	123.72	120.30
1	A	794	ARG	NE-CZ-NH2	6.82	123.71	120.30
1	C	796	ARG	NE-CZ-NH1	-6.80	116.90	120.30
1	D	414	ARG	NE-CZ-NH1	6.80	123.70	120.30
1	K	488	HIS	C-N-CD	6.75	142.57	128.40
1	A	852	ARG	NE-CZ-NH1	-6.74	116.93	120.30
1	B	786	ARG	NE-CZ-NH2	-6.73	116.94	120.30
1	I	855	ARG	NE-CZ-NH1	6.69	123.64	120.30
1	J	234	MET	CB-CG-SD	-6.68	92.35	112.40
1	J	621	ALA	N-CA-CB	6.67	119.44	110.10
1	F	876	ARG	NE-CZ-NH1	-6.65	116.97	120.30
1	C	882	ARG	NE-CZ-NH1	-6.59	117.00	120.30
1	L	641	ARG	NE-CZ-NH1	6.58	123.59	120.30
1	A	234	MET	CB-CG-SD	-6.54	92.79	112.40
1	A	565	PHE	CB-CG-CD1	-6.53	116.23	120.80
1	I	757	PHE	CB-CG-CD1	-6.52	116.23	120.80
1	E	244	VAL	CB-CA-C	-6.46	99.13	111.40
1	L	906	ARG	NE-CZ-NH1	-6.46	117.07	120.30
1	H	815	LEU	CA-CB-CG	6.42	130.07	115.30
1	B	596	ARG	NE-CZ-NH1	-6.39	117.10	120.30
1	J	748	ARG	NE-CZ-NH1	-6.38	117.11	120.30
1	B	788	ARG	NE-CZ-NH1	-6.33	117.13	120.30
1	E	646	ARG	NE-CZ-NH2	-6.33	117.14	120.30
1	C	796	ARG	NE-CZ-NH2	6.32	123.46	120.30
1	K	815	LEU	CA-CB-CG	6.31	129.82	115.30
1	G	777	GLY	O-C-N	-6.28	112.52	123.20
1	B	543	TYR	CB-CG-CD1	-6.20	117.28	121.00
1	D	500	THR	N-CA-C	6.19	127.72	111.00
1	K	876	ARG	NE-CZ-NH2	-6.17	117.22	120.30
1	A	792	PHE	CB-CG-CD2	-6.16	116.49	120.80
1	K	244	VAL	CB-CA-C	-6.16	99.70	111.40
1	L	794	ARG	NE-CZ-NH2	-6.15	117.22	120.30
1	I	642	LEU	CA-CB-CG	6.15	129.45	115.30
1	C	720	ARG	NE-CZ-NH1	-6.14	117.23	120.30
1	D	430	ASP	CB-CG-OD1	-6.12	112.79	118.30
1	G	810	ARG	NE-CZ-NH1	6.08	123.34	120.30
1	I	421	ARG	NE-CZ-NH2	-6.08	117.26	120.30
1	D	225	ASP	CB-CG-OD1	-6.05	112.86	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	605	LEU	CA-CB-CG	6.02	129.15	115.30
1	H	889	ARG	NE-CZ-NH2	-6.00	117.30	120.30
1	A	386	TYR	CB-CG-CD2	5.99	124.59	121.00
1	L	596	ARG	NE-CZ-NH1	-5.97	117.31	120.30
1	H	600	ARG	NE-CZ-NH1	-5.97	117.31	120.30
1	G	855	ARG	NE-CZ-NH2	-5.93	117.33	120.30
1	I	278	LEU	CA-CB-CG	5.91	128.90	115.30
1	C	630	ARG	NE-CZ-NH1	-5.88	117.36	120.30
1	I	530	ARG	NE-CZ-NH2	-5.87	117.36	120.30
1	F	852	ARG	NE-CZ-NH2	-5.86	117.37	120.30
1	D	850	TYR	CB-CG-CD2	-5.83	117.50	121.00
1	E	574	ARG	NE-CZ-NH2	-5.81	117.40	120.30
1	H	244	VAL	CB-CA-C	-5.79	100.39	111.40
1	F	690	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	H	530	ARG	NE-CZ-NH2	-5.77	117.41	120.30
1	J	325	LEU	CA-CB-CG	5.76	128.56	115.30
1	D	883	ARG	NE-CZ-NH2	-5.76	117.42	120.30
1	J	488	HIS	C-N-CD	5.76	140.50	128.40
1	J	889	ARG	NE-CZ-NH2	-5.76	117.42	120.30
1	K	325	LEU	CA-CB-CG	5.76	128.54	115.30
1	G	325	LEU	CA-CB-CG	5.75	128.52	115.30
1	F	278	LEU	CA-CB-CG	5.74	128.50	115.30
1	A	820	TYR	CB-CG-CD2	-5.73	117.56	121.00
1	L	882	ARG	NE-CZ-NH1	-5.71	117.44	120.30
1	C	340	ASP	CB-CG-OD1	5.70	123.43	118.30
1	I	443	ASP	CB-CG-OD2	-5.70	113.17	118.30
1	J	413	ARG	NE-CZ-NH2	-5.68	117.46	120.30
1	J	252	LEU	C-N-CD	5.68	140.33	128.40
1	D	244	VAL	CB-CA-C	-5.67	100.63	111.40
1	G	530	ARG	NE-CZ-NH1	-5.66	117.47	120.30
1	B	278	LEU	CA-CB-CG	5.66	128.31	115.30
1	B	624	ASP	CB-CG-OD2	-5.64	113.22	118.30
1	F	479	ARG	NE-CZ-NH1	5.63	123.12	120.30
1	K	771	ASP	CB-CG-OD1	-5.62	113.24	118.30
1	H	304	TYR	CB-CG-CD1	5.62	124.37	121.00
1	I	794	ARG	NE-CZ-NH2	-5.61	117.49	120.30
1	L	788	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	L	852	ARG	NE-CZ-NH1	-5.60	117.50	120.30
1	F	574	ARG	NE-CZ-NH1	-5.60	117.50	120.30
1	L	238	ARG	NE-CZ-NH1	-5.59	117.50	120.30
1	A	421	ARG	NE-CZ-NH2	-5.57	117.52	120.30
1	H	341	ASP	C-N-CD	5.56	140.08	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	L	890	ARG	NE-CZ-NH1	-5.56	117.52	120.30
1	C	452	TYR	CB-CG-CD2	-5.54	117.67	121.00
1	J	244	VAL	CB-CA-C	-5.54	100.88	111.40
1	F	325	LEU	CA-CB-CG	5.54	128.03	115.30
1	E	610	ARG	NE-CZ-NH2	-5.53	117.53	120.30
1	I	886	ASP	CB-CG-OD1	-5.51	113.34	118.30
1	L	278	LEU	CA-CB-CG	5.51	127.97	115.30
1	K	433	GLU	C-N-CD	-5.50	108.49	120.60
1	G	849	PHE	CB-CG-CD2	5.50	124.65	120.80
1	E	815	LEU	CA-CB-CG	5.50	127.95	115.30
1	D	748	ARG	NE-CZ-NH1	-5.50	117.55	120.30
1	F	414	ARG	NE-CZ-NH1	-5.50	117.55	120.30
1	F	705	TYR	CB-CG-CD1	-5.50	117.70	121.00
1	D	705	TYR	CB-CG-CD2	-5.49	117.70	121.00
1	H	500	THR	N-CA-C	5.49	125.82	111.00
1	K	537	TYR	CB-CG-CD1	-5.49	117.71	121.00
1	D	479	ARG	NE-CZ-NH2	-5.48	117.56	120.30
1	D	815	LEU	CA-CB-CG	5.43	127.80	115.30
1	K	341	ASP	C-N-CD	5.43	139.80	128.40
1	H	386	TYR	CB-CG-CD1	-5.42	117.75	121.00
1	F	485	PHE	CB-CG-CD2	-5.40	117.02	120.80
1	G	796	ARG	NE-CZ-NH2	-5.40	117.60	120.30
1	H	388	ARG	NE-CZ-NH1	-5.40	117.60	120.30
1	G	565	PHE	CB-CG-CD1	-5.39	117.03	120.80
1	A	690	ARG	NE-CZ-NH1	-5.39	117.61	120.30
1	B	325	LEU	CA-CB-CG	5.39	127.69	115.30
1	J	559	ASP	CB-CG-OD2	-5.38	113.46	118.30
1	D	341	ASP	C-N-CD	5.37	139.69	128.40
1	F	874	PHE	CB-CG-CD2	-5.36	117.05	120.80
1	G	641	ARG	NH1-CZ-NH2	-5.36	113.51	119.40
1	A	307	PHE	C-N-CD	5.33	139.59	128.40
1	D	479	ARG	NE-CZ-NH1	5.32	122.96	120.30
1	C	610	ARG	NE-CZ-NH1	-5.31	117.64	120.30
1	K	234	MET	CB-CG-SD	-5.30	96.51	112.40
1	I	605	LEU	CA-CB-CG	5.29	127.48	115.30
1	A	788	ARG	NE-CZ-NH1	-5.29	117.66	120.30
1	D	803	ARG	NE-CZ-NH2	5.29	122.94	120.30
1	L	641	ARG	NE-CZ-NH2	-5.28	117.66	120.30
1	G	792	PHE	CB-CG-CD1	5.27	124.49	120.80
1	D	234	MET	CB-CG-SD	-5.27	96.60	112.40
1	G	876	ARG	NE-CZ-NH2	-5.26	117.67	120.30
1	F	850	TYR	CG-CD1-CE1	-5.26	117.09	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	418	ARG	NE-CZ-NH1	-5.26	117.67	120.30
1	G	605	LEU	CA-CB-CG	5.25	127.38	115.30
1	C	596	ARG	NE-CZ-NH1	-5.24	117.68	120.30
1	D	225	ASP	CB-CG-OD2	5.24	123.01	118.30
1	G	596	ARG	NE-CZ-NH2	-5.24	117.68	120.30
1	E	234	MET	CB-CG-SD	-5.23	96.71	112.40
1	I	692	TYR	CB-CG-CD2	5.21	124.12	121.00
1	L	229	PHE	CB-CG-CD2	5.20	124.44	120.80
1	D	307	PHE	C-N-CD	5.19	139.30	128.40
1	B	421	ARG	NE-CZ-NH1	5.18	122.89	120.30
1	E	906	ARG	NE-CZ-NH2	-5.17	117.71	120.30
1	F	642	LEU	CA-CB-CG	5.16	127.17	115.30
1	G	414	ARG	NE-CZ-NH1	-5.16	117.72	120.30
1	J	815	LEU	CA-CB-CG	5.15	127.15	115.30
1	K	500	THR	N-CA-C	5.13	124.86	111.00
1	K	496	SER	N-CA-C	-5.13	97.14	111.00
1	D	537	TYR	CG-CD2-CE2	-5.13	117.20	121.30
1	G	418	ARG	NE-CZ-NH1	-5.10	117.75	120.30
1	K	506	ARG	NE-CZ-NH2	-5.09	117.75	120.30
1	G	446	TYR	CZ-CE2-CD2	-5.09	115.22	119.80
1	A	287	ARG	NE-CZ-NH2	-5.08	117.76	120.30
1	B	646	ARG	NE-CZ-NH1	-5.08	117.76	120.30
1	C	506	ARG	NE-CZ-NH1	-5.08	117.76	120.30
1	B	906	ARG	NE-CZ-NH2	-5.07	117.77	120.30
1	K	307	PHE	C-N-CD	5.06	139.03	128.40
1	F	705	TYR	CB-CG-CD2	5.05	124.03	121.00
1	K	803	ARG	NE-CZ-NH2	-5.05	117.77	120.30
1	L	850	TYR	CB-CG-CD1	5.05	124.03	121.00
1	H	560	ASP	CB-CG-OD2	-5.04	113.76	118.30
1	G	803	ARG	NE-CZ-NH1	-5.04	117.78	120.30
1	A	488	HIS	C-N-CD	5.04	138.99	128.40
1	H	810	ARG	NE-CZ-NH1	-5.03	117.79	120.30
1	C	819	TYR	CG-CD2-CE2	5.03	125.32	121.30
1	B	605	LEU	CA-CB-CG	5.01	126.83	115.30
1	D	574	ARG	NE-CZ-NH1	-5.01	117.80	120.30
1	I	646	ARG	NE-CZ-NH2	5.01	122.80	120.30
1	A	810	ARG	NE-CZ-NH1	-5.00	117.80	120.30
1	K	413	ARG	NE-CZ-NH2	-5.00	117.80	120.30

There are no chirality outliers.

All (172) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	388	ARG	Sidechain
1	A	444	ARG	Sidechain
1	A	491	GLU	Sidechain
1	A	583	ASP	Sidechain
1	A	600	ARG	Sidechain
1	A	603	GLU	Sidechain
1	A	613	ASP	Sidechain
1	A	614	ASN	Sidechain
1	A	762	ARG	Sidechain
1	A	788	ARG	Sidechain
1	A	810	ARG	Sidechain
1	A	852	ARG	Sidechain
1	B	283	ASN	Sidechain
1	B	287	ARG	Sidechain
1	B	317	ASP	Sidechain
1	B	388	ARG	Sidechain
1	B	444	ARG	Sidechain
1	B	624	ASP	Sidechain
1	B	646	ARG	Sidechain
1	B	721	GLU	Sidechain
1	B	748	ARG	Sidechain
1	B	788	ARG	Sidechain
1	B	906	ARG	Sidechain
1	C	288	ARG	Sidechain
1	C	299	GLU	Sidechain
1	C	344	ARG	Sidechain
1	C	388	ARG	Sidechain
1	C	413	ARG	Sidechain
1	C	516	GLN	Sidechain
1	C	545	GLU	Sidechain
1	C	586	ASP	Sidechain
1	C	630	ARG	Sidechain
1	C	803	ARG	Sidechain
1	C	855	ARG	Sidechain
1	C	883	ARG	Sidechain
1	D	246	GLN	Sidechain
1	D	253	PRO	Mainchain
1	D	287	ARG	Sidechain
1	D	288	ARG	Sidechain
1	D	314	ARG	Sidechain
1	D	444	ARG	Sidechain
1	D	478	ASN	Sidechain
1	D	479	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	D	574	ARG	Sidechain
1	D	596	ARG	Sidechain
1	D	646	ARG	Sidechain
1	D	676	ARG	Sidechain
1	D	732	GLU	Sidechain
1	D	748	ARG	Sidechain
1	D	762	ARG	Sidechain
1	D	798	ASP	Sidechain
1	D	883	ARG	Sidechain
1	D	892	GLU	Sidechain
1	E	253	PRO	Mainchain
1	E	287	ARG	Sidechain
1	E	377	ARG	Sidechain
1	E	388	ARG	Sidechain
1	E	515	GLN	Sidechain
1	E	530	ARG	Sidechain
1	E	544	ASN	Sidechain
1	E	574	ARG	Sidechain
1	E	658	GLN	Sidechain
1	E	665	ASP	Sidechain
1	E	676	ARG	Sidechain
1	E	681	ASP	Sidechain
1	E	786	ARG	Sidechain
1	E	788	ARG	Sidechain
1	E	796	ARG	Sidechain
1	F	297	ASP	Sidechain
1	F	299	GLU	Sidechain
1	F	377	ARG	Sidechain
1	F	710	ASP	Sidechain
1	F	718	GLN	Sidechain
1	F	720	ARG	Sidechain
1	F	728	GLN	Sidechain
1	F	743	ASN	Sidechain
1	F	748	ARG	Sidechain
1	F	759	ASP	Sidechain
1	F	762	ARG	Sidechain
1	F	789	GLU	Sidechain
1	F	817	ASN	Sidechain
1	F	847	ASN	Sidechain
1	F	855	ARG	Sidechain
1	F	886	ASP	Sidechain
1	G	283	ASN	Sidechain

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Mol	Chain	Res	Type	Group
1	G	287	ARG	Sidechain
1	G	515	GLN	Sidechain
1	G	542	GLN	Sidechain
1	G	610	ARG	Sidechain
1	G	633	ASP	Sidechain
1	G	708	ASP	Sidechain
1	G	735	GLN	Sidechain
1	G	762	ARG	Sidechain
1	G	786	ARG	Sidechain
1	G	788	ARG	Sidechain
1	G	796	ARG	Sidechain
1	G	855	ARG	Sidechain
1	G	876	ARG	Sidechain
1	H	246	GLN	Sidechain
1	H	253	PRO	Mainchain
1	H	388	ARG	Sidechain
1	H	413	ARG	Sidechain
1	H	506	ARG	Sidechain
1	H	574	ARG	Sidechain
1	H	630	ARG	Sidechain
1	H	658	GLN	Sidechain
1	H	661	GLU	Sidechain
1	H	730	GLU	Sidechain
1	H	810	ARG	Sidechain
1	H	817	ASN	Sidechain
1	H	883	ARG	Sidechain
1	I	225	ASP	Sidechain
1	I	287	ARG	Sidechain
1	I	299	GLU	Sidechain
1	I	414	ARG	Sidechain
1	I	418	ARG	Sidechain
1	I	444	ARG	Sidechain
1	I	530	ARG	Sidechain
1	I	600	ARG	Sidechain
1	I	603	GLU	Sidechain
1	I	658	GLN	Sidechain
1	I	765	GLU	Sidechain
1	I	796	ARG	Sidechain
1	I	805	GLN	Sidechain
1	I	847	ASN	Sidechain
1	I	852	ARG	Sidechain
1	I	856	GLU	Sidechain

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Mol	Chain	Res	Type	Group
1	I	872	GLU	Sidechain
1	I	886	ASP	Sidechain
1	I	902	GLU	Sidechain
1	J	253	PRO	Mainchain
1	J	276	GLU	Sidechain
1	J	283	ASN	Sidechain
1	J	306	GLU	Sidechain
1	J	384	ASP	Sidechain
1	J	421	ARG	Sidechain
1	J	445	GLN	Sidechain
1	J	559	ASP	Sidechain
1	J	614	ASN	Sidechain
1	J	712	GLN	Sidechain
1	J	882	ARG	Sidechain
1	J	883	ARG	Sidechain
1	K	253	PRO	Mainchain
1	K	309	ASP	Sidechain
1	K	344	ARG	Sidechain
1	K	405	ASN	Sidechain
1	K	418	ARG	Sidechain
1	K	430	ASP	Sidechain
1	K	515	GLN	Sidechain
1	K	583	ASP	Sidechain
1	K	633	ASP	Sidechain
1	K	699	GLU	Sidechain
1	K	714	ASN	Sidechain
1	K	728	GLN	Sidechain
1	K	748	ARG	Sidechain
1	K	844	GLU	Sidechain
1	K	876	ARG	Sidechain
1	K	882	ARG	Sidechain
1	K	889	ARG	Sidechain
1	K	906	ARG	Sidechain
1	L	287	ARG	Sidechain
1	L	291	GLU	Sidechain
1	L	402	ASP	Sidechain
1	L	443	ASP	Sidechain
1	L	613	ASP	Sidechain
1	L	743	ASN	Sidechain
1	L	762	ARG	Sidechain
1	L	786	ARG	Sidechain
1	L	796	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	L	855	ARG	Sidechain
1	L	883	ARG	Sidechain
1	L	906	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5152	0	5221	412	0
1	B	5152	0	5223	199	0
1	C	5152	0	5223	195	0
1	D	5152	0	5222	498	0
1	E	5152	0	5221	462	0
1	F	5152	0	5223	167	0
1	G	5152	0	5223	242	0
1	H	5152	0	5222	440	0
1	I	5152	0	5223	214	0
1	J	5152	0	5222	402	0
1	K	5152	0	5222	454	0
1	L	5152	0	5223	214	0
All	All	61824	0	62668	3743	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 30.

All (3743) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:441:LEU:HD23	1:E:498:VAL:CB	1.21	1.67
1:D:441:LEU:HD23	1:D:498:VAL:CB	1.25	1.64
1:K:441:LEU:CD2	1:K:498:VAL:HB	1.27	1.64
1:H:426:ILE:CD1	1:H:440:ILE:HG22	1.17	1.61
1:D:426:ILE:CD1	1:D:440:ILE:HG22	1.28	1.60
1:A:426:ILE:CD1	1:A:440:ILE:HG22	1.28	1.59
1:J:426:ILE:CD1	1:J:440:ILE:HG22	1.29	1.59
1:A:441:LEU:HD23	1:A:498:VAL:CB	1.22	1.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:441:LEU:CD2	1:H:498:VAL:HB	1.21	1.58
1:E:441:LEU:CD2	1:E:498:VAL:HB	1.26	1.58
1:E:426:ILE:CD1	1:E:440:ILE:HG22	1.19	1.57
1:G:777:GLY:CA	1:L:779:PHE:CD1	1.87	1.57
1:H:441:LEU:HD23	1:H:498:VAL:CB	1.09	1.56
1:K:426:ILE:CD1	1:K:440:ILE:HG22	1.23	1.56
1:E:426:ILE:HD13	1:E:440:ILE:CG2	1.34	1.55
1:D:441:LEU:CD2	1:D:498:VAL:HB	1.33	1.53
1:G:777:GLY:CA	1:L:779:PHE:CE1	1.91	1.53
1:G:777:GLY:CA	1:L:779:PHE:CG	1.92	1.53
1:K:441:LEU:HD23	1:K:498:VAL:CB	1.29	1.52
1:J:441:LEU:CD2	1:J:498:VAL:HB	1.40	1.51
1:H:426:ILE:HD13	1:H:440:ILE:CG2	1.32	1.51
1:A:426:ILE:HD13	1:A:440:ILE:CG2	1.40	1.50
1:G:777:GLY:CA	1:L:779:PHE:CD2	1.91	1.49
1:A:441:LEU:HD23	1:A:498:VAL:CG1	1.42	1.49
1:E:426:ILE:CD1	1:E:440:ILE:CG2	1.88	1.49
1:A:441:LEU:CD2	1:A:498:VAL:HB	1.43	1.48
1:K:426:ILE:HD13	1:K:440:ILE:CG2	1.41	1.48
1:E:234:MET:CE	1:E:234:MET:SD	2.02	1.47
1:D:865:MET:CE	1:D:865:MET:SD	2.02	1.47
1:B:234:MET:SD	1:B:234:MET:CG	2.02	1.46
1:J:738:MET:CE	1:J:738:MET:SD	2.03	1.46
1:G:777:GLY:CA	1:L:779:PHE:CZ	1.98	1.46
1:G:777:GLY:CA	1:L:779:PHE:CE2	1.99	1.46
1:G:227:MET:CG	1:G:227:MET:SD	2.05	1.45
1:J:227:MET:CE	1:J:227:MET:SD	2.03	1.45
1:G:777:GLY:C	1:L:779:PHE:CE1	1.90	1.45
1:I:227:MET:CE	1:I:227:MET:SD	2.03	1.45
1:L:228:MET:CE	1:L:228:MET:SD	2.05	1.44
1:J:441:LEU:HD23	1:J:498:VAL:CB	1.45	1.44
1:D:426:ILE:CD1	1:D:440:ILE:CG2	1.97	1.43
1:G:777:GLY:C	1:L:779:PHE:CZ	1.91	1.43
1:D:478:ASN:ND2	1:D:482:LYS:HZ1	1.18	1.42
1:J:426:ILE:CD1	1:J:440:ILE:CG2	1.99	1.40
1:G:777:GLY:C	1:L:779:PHE:CE2	1.94	1.40
1:G:780:SER:HB3	1:L:778:GLY:CA	1.52	1.39
1:H:426:ILE:CD1	1:H:440:ILE:CG2	1.94	1.37
1:G:777:GLY:C	1:L:779:PHE:CD1	1.97	1.36
1:H:272:ILE:HG23	1:H:278:LEU:CD1	1.55	1.36
1:D:426:ILE:HD13	1:D:440:ILE:CG2	1.51	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:272:ILE:HG23	1:A:278:LEU:CD1	1.56	1.35
1:A:260:SER:O	1:A:264:GLY:N	1.59	1.34
1:G:777:GLY:C	1:L:779:PHE:CD2	2.01	1.34
1:D:285:ILE:HD13	1:D:286:THR:N	1.41	1.33
1:H:276:GLU:OE2	1:H:318:PHE:HE2	1.03	1.33
1:H:276:GLU:OE2	1:H:318:PHE:CE2	1.82	1.31
1:K:269:LEU:HD21	1:K:457:SER:OG	1.24	1.31
1:D:276:GLU:OE2	1:D:318:PHE:CE2	1.84	1.30
1:G:777:GLY:C	1:L:779:PHE:CG	2.05	1.30
1:H:269:LEU:CD1	1:H:457:SER:O	1.80	1.30
1:J:426:ILE:HD13	1:J:440:ILE:CG2	1.58	1.29
1:D:260:SER:O	1:D:264:GLY:N	1.64	1.29
1:D:272:ILE:HG23	1:D:278:LEU:CD1	1.63	1.28
1:D:307:PHE:CE1	1:D:345:LEU:HD21	1.66	1.28
1:J:854:PRO:HB2	1:J:855:ARG:NH1	1.45	1.28
1:G:777:GLY:N	1:L:779:PHE:CZ	2.02	1.28
1:D:276:GLU:OE2	1:D:318:PHE:HE2	1.03	1.28
1:G:777:GLY:HA3	1:L:779:PHE:CG	1.59	1.27
1:K:426:ILE:CD1	1:K:440:ILE:CG2	2.02	1.27
1:G:777:GLY:HA3	1:L:779:PHE:CD2	1.56	1.27
1:H:441:LEU:HD23	1:H:498:VAL:CG1	1.62	1.27
1:D:855:ARG:HD2	1:K:555:ALA:CB	1.62	1.27
1:J:272:ILE:HG23	1:J:278:LEU:CD1	1.64	1.27
1:E:269:LEU:HD21	1:E:457:SER:CB	1.63	1.26
1:C:609:PRO:CB	1:C:611:GLU:HB2	1.63	1.26
1:E:269:LEU:HD11	1:E:457:SER:O	1.19	1.25
1:J:260:SER:O	1:J:264:GLY:N	1.70	1.24
1:G:777:GLY:HA2	1:L:779:PHE:CD1	1.52	1.24
1:B:783:LEU:HD12	1:I:777:GLY:CA	1.65	1.24
1:G:778:GLY:N	1:L:779:PHE:CG	2.06	1.24
1:A:441:LEU:CD2	1:A:498:VAL:CB	2.06	1.23
1:K:269:LEU:CD1	1:K:457:SER:O	1.86	1.23
1:J:269:LEU:HD11	1:J:457:SER:O	1.05	1.22
1:J:478:ASN:ND2	1:J:482:LYS:HZ1	1.35	1.22
1:E:441:LEU:HD23	1:E:498:VAL:CG1	1.68	1.22
1:K:269:LEU:CD2	1:K:457:SER:OG	1.89	1.21
1:E:478:ASN:ND2	1:E:482:LYS:HZ1	1.39	1.20
1:K:260:SER:O	1:K:264:GLY:N	1.71	1.20
1:D:441:LEU:HD23	1:D:498:VAL:CG1	1.72	1.20
1:E:272:ILE:HG23	1:E:278:LEU:CD1	1.71	1.20
1:A:426:ILE:CD1	1:A:440:ILE:CG2	2.06	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:269:LEU:HD21	1:D:457:SER:OG	1.38	1.19
1:H:260:SER:O	1:H:264:GLY:N	1.72	1.18
1:D:441:LEU:HG	1:D:498:VAL:HG12	1.23	1.18
1:D:269:LEU:CD1	1:D:457:SER:O	1.90	1.18
1:G:778:GLY:N	1:L:779:PHE:CD2	2.10	1.17
1:H:225:ASP:HB3	1:H:229:PHE:CZ	1.78	1.17
1:H:269:LEU:HD21	1:H:457:SER:CB	1.74	1.17
1:D:269:LEU:CD2	1:D:457:SER:OG	1.92	1.17
1:D:269:LEU:HD11	1:D:457:SER:O	1.01	1.17
1:A:269:LEU:CD1	1:A:457:SER:O	1.93	1.17
1:A:269:LEU:HD11	1:A:457:SER:O	1.01	1.17
1:E:269:LEU:CD2	1:E:457:SER:OG	1.91	1.17
1:J:269:LEU:CD1	1:J:457:SER:O	1.92	1.17
1:K:791:VAL:HG13	1:K:794:ARG:NH2	1.58	1.16
1:J:269:LEU:HD21	1:J:457:SER:CB	1.72	1.16
1:E:426:ILE:HD11	1:E:440:ILE:HG22	1.28	1.16
1:G:777:GLY:O	1:L:779:PHE:CZ	1.98	1.15
1:K:441:LEU:HG	1:K:498:VAL:HG12	1.25	1.15
1:C:609:PRO:HB2	1:C:611:GLU:HB2	1.29	1.14
1:E:285:ILE:HD13	1:E:286:THR:N	1.62	1.14
1:D:441:LEU:CD2	1:D:498:VAL:CB	2.05	1.14
1:H:426:ILE:HD13	1:H:440:ILE:HG21	1.21	1.14
1:K:285:ILE:HD13	1:K:286:THR:H	1.04	1.14
1:K:441:LEU:HD23	1:K:498:VAL:CG1	1.77	1.14
1:G:777:GLY:N	1:L:779:PHE:CE2	2.11	1.13
1:H:488:HIS:HB3	1:H:491:GLU:CG	1.76	1.13
1:G:780:SER:HB3	1:L:778:GLY:HA2	1.19	1.13
1:G:777:GLY:CA	1:G:777:GLY:C	2.16	1.13
1:J:273:VAL:HG11	1:J:457:SER:HB2	1.13	1.12
1:K:272:ILE:HG23	1:K:278:LEU:CD1	1.79	1.13
1:A:273:VAL:HG11	1:A:457:SER:HB2	1.22	1.12
1:J:269:LEU:CD2	1:J:457:SER:OG	1.97	1.12
1:D:478:ASN:ND2	1:D:482:LYS:NZ	1.97	1.12
1:H:285:ILE:HD13	1:H:286:THR:H	1.14	1.12
1:K:269:LEU:HD21	1:K:457:SER:CB	1.78	1.12
1:A:441:LEU:CD2	1:A:498:VAL:CG1	2.23	1.12
1:K:426:ILE:HD13	1:K:440:ILE:HG21	1.23	1.12
1:A:441:LEU:HD21	1:A:499:SER:H	1.15	1.11
1:B:783:LEU:HD12	1:I:777:GLY:HA3	1.24	1.11
1:G:777:GLY:HA2	1:L:779:PHE:CE1	1.71	1.11
1:J:426:ILE:HD11	1:J:440:ILE:CG2	1.69	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:426:ILE:HD11	1:A:440:ILE:HG22	1.28	1.11
1:A:272:ILE:CG2	1:A:278:LEU:HD12	1.81	1.10
1:D:441:LEU:CG	1:D:498:VAL:HG12	1.81	1.10
1:H:426:ILE:HD11	1:H:440:ILE:HG22	1.20	1.10
1:J:285:ILE:HD13	1:J:286:THR:H	1.15	1.10
1:D:426:ILE:HD13	1:D:440:ILE:HG21	1.17	1.10
1:B:609:PRO:HB2	1:B:611:GLU:HB2	1.33	1.10
1:A:441:LEU:HG	1:A:498:VAL:HG12	1.33	1.09
1:D:426:ILE:HD12	1:D:440:ILE:HG22	1.25	1.09
1:E:426:ILE:HD12	1:E:440:ILE:HG22	1.26	1.09
1:J:441:LEU:HG	1:J:498:VAL:HG12	1.16	1.09
1:K:269:LEU:HD11	1:K:457:SER:O	0.94	1.09
1:A:285:ILE:HD13	1:A:286:THR:N	1.67	1.09
1:G:777:GLY:O	1:L:779:PHE:CE1	2.05	1.09
1:H:272:ILE:HG23	1:H:278:LEU:HD13	1.24	1.09
1:E:269:LEU:CD2	1:E:457:SER:CB	2.31	1.09
1:D:855:ARG:HD2	1:K:555:ALA:HB1	1.27	1.09
1:A:269:LEU:CD2	1:A:457:SER:OG	2.01	1.08
1:J:269:LEU:HA	1:J:272:ILE:HD12	1.31	1.08
1:E:441:LEU:HG	1:E:498:VAL:HG12	1.12	1.08
1:K:269:LEU:HA	1:K:272:ILE:HD12	1.34	1.08
1:L:609:PRO:HB2	1:L:611:GLU:HB2	1.32	1.08
1:A:269:LEU:HD21	1:A:457:SER:CB	1.82	1.08
1:A:278:LEU:HD21	1:A:280:LYS:HD3	1.36	1.07
1:E:272:ILE:HG23	1:E:278:LEU:HD12	1.30	1.07
1:H:441:LEU:HG	1:H:498:VAL:HG12	1.30	1.07
1:K:278:LEU:HD21	1:K:280:LYS:HD3	1.35	1.07
1:E:273:VAL:HG11	1:E:457:SER:HB2	1.32	1.07
1:A:426:ILE:HD13	1:A:440:ILE:HG21	1.21	1.07
1:D:285:ILE:HD13	1:D:286:THR:H	0.95	1.07
1:K:279:PRO:HG2	1:K:325:LEU:HD21	1.33	1.06
1:K:426:ILE:HD12	1:K:440:ILE:HG22	1.38	1.06
1:H:434:PRO:HB3	1:H:491:GLU:HG3	1.38	1.05
1:A:269:LEU:HD21	1:A:457:SER:OG	1.53	1.05
1:H:272:ILE:HG23	1:H:278:LEU:HD12	1.37	1.05
1:K:307:PHE:CE1	1:K:345:LEU:HD21	1.91	1.05
1:K:426:ILE:HD11	1:K:440:ILE:HG22	1.36	1.05
1:J:426:ILE:HD13	1:J:440:ILE:HG21	1.26	1.05
1:H:269:LEU:HD21	1:H:457:SER:OG	1.55	1.05
1:K:488:HIS:HB3	1:K:491:GLU:HG2	1.36	1.05
1:D:273:VAL:HG11	1:D:457:SER:HB2	1.38	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:269:LEU:HD11	1:H:457:SER:O	0.87	1.04
1:A:441:LEU:CG	1:A:498:VAL:HG12	1.86	1.04
1:C:285:ILE:HD12	1:C:287:ARG:H	1.20	1.04
1:G:780:SER:CB	1:L:778:GLY:CA	2.36	1.04
1:H:251:THR:HG22	1:H:252:LEU:N	1.70	1.04
1:K:273:VAL:HG11	1:K:457:SER:HB2	1.10	1.04
1:E:478:ASN:ND2	1:E:482:LYS:NZ	2.06	1.04
1:L:609:PRO:CB	1:L:611:GLU:HB2	1.88	1.04
1:B:791:VAL:HG13	1:B:794:ARG:NH2	1.73	1.04
1:D:272:ILE:HG23	1:D:278:LEU:HD12	1.05	1.04
1:E:279:PRO:HG2	1:E:325:LEU:HD21	1.39	1.04
1:E:363:TYR:HE1	1:E:383:CYS:SG	1.81	1.04
1:H:441:LEU:HD21	1:H:499:SER:H	1.18	1.04
1:J:478:ASN:ND2	1:J:482:LYS:NZ	2.05	1.03
1:G:780:SER:OG	1:G:783:LEU:HB2	1.57	1.03
1:J:441:LEU:CG	1:J:498:VAL:HG12	1.89	1.03
1:E:286:THR:HB	1:E:361:PRO:HB3	1.36	1.03
1:A:284:MET:HG2	1:A:286:THR:CG2	1.88	1.03
1:A:285:ILE:HD13	1:A:286:THR:H	0.89	1.03
1:D:855:ARG:HD2	1:K:555:ALA:HB3	1.39	1.03
1:H:234:MET:O	1:H:237:ILE:HG22	1.57	1.03
1:K:272:ILE:HG23	1:K:278:LEU:HD12	1.05	1.03
1:H:478:ASN:ND2	1:H:482:LYS:NZ	2.07	1.02
1:E:269:LEU:CD1	1:E:457:SER:O	2.07	1.02
1:E:485:PHE:CD2	1:E:492:PHE:CD1	2.46	1.02
1:H:478:ASN:ND2	1:H:482:LYS:HZ1	1.55	1.02
1:I:776:ALA:C	1:I:783:LEU:HD12	1.80	1.02
1:K:878:ASP:HB3	1:K:881:VAL:HG22	1.36	1.02
1:E:441:LEU:CG	1:E:498:VAL:HG12	1.88	1.02
1:D:426:ILE:HD11	1:D:440:ILE:HG22	1.35	1.02
1:K:251:THR:HG22	1:K:252:LEU:H	1.23	1.01
1:C:609:PRO:HB2	1:C:611:GLU:CB	1.91	1.01
1:J:272:ILE:HG23	1:J:278:LEU:HD13	1.35	1.01
1:H:232:LYS:HA	1:H:235:ILE:HG22	1.42	1.01
1:J:273:VAL:HG11	1:J:457:SER:CB	1.90	1.01
1:K:376:LYS:NZ	1:K:376:LYS:HA	1.76	1.01
1:E:307:PHE:CE1	1:E:345:LEU:HD21	1.96	1.01
1:E:426:ILE:HD13	1:E:440:ILE:HG21	1.02	1.01
1:E:441:LEU:CD2	1:E:498:VAL:CG1	2.33	1.00
1:D:486:GLY:O	1:D:489:PRO:HD3	1.60	1.00
1:E:285:ILE:HD13	1:E:286:THR:H	0.89	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:441:LEU:CD2	1:H:498:VAL:CB	1.96	1.00
1:H:441:LEU:CG	1:H:498:VAL:HG12	1.90	1.00
1:I:615:ILE:HD11	1:I:803:ARG:HE	1.23	1.00
1:J:307:PHE:CE1	1:J:345:LEU:HD21	1.95	1.00
1:H:441:LEU:HD21	1:H:499:SER:N	1.76	1.00
1:K:878:ASP:HB3	1:K:881:VAL:CG2	1.92	1.00
1:H:441:LEU:CD2	1:H:498:VAL:CG1	2.34	0.99
1:A:237:ILE:O	1:A:237:ILE:HD13	1.63	0.99
1:K:285:ILE:HD13	1:K:286:THR:N	1.77	0.99
1:E:269:LEU:HD21	1:E:457:SER:HB2	1.44	0.99
1:L:627:TYR:HE2	1:L:628:TRP:CZ3	1.80	0.99
1:C:609:PRO:HB3	1:C:611:GLU:HB2	1.42	0.99
1:J:297:ASP:OD2	1:J:300:ALA:HB3	1.63	0.99
1:A:251:THR:HG22	1:A:252:LEU:H	1.23	0.98
1:B:783:LEU:CD1	1:I:777:GLY:CA	2.41	0.98
1:C:609:PRO:HB2	1:C:611:GLU:N	1.78	0.98
1:G:772:HIS:CE1	1:L:780:SER:HB3	1.99	0.98
1:D:269:LEU:HD21	1:D:457:SER:CB	1.93	0.98
1:D:270:GLU:O	1:D:273:VAL:HG22	1.63	0.98
1:J:273:VAL:HG21	1:J:457:SER:HB3	1.41	0.98
1:B:609:PRO:CB	1:B:611:GLU:HB2	1.93	0.98
1:E:279:PRO:CB	1:E:322:GLN:HA	1.94	0.98
1:D:278:LEU:CD2	1:D:280:LYS:HD3	1.94	0.98
1:D:441:LEU:CD2	1:D:498:VAL:CG1	2.40	0.98
1:E:434:PRO:HG2	1:E:488:HIS:ND1	1.79	0.98
1:H:285:ILE:HG12	1:H:287:ARG:H	1.26	0.97
1:B:880:LYS:HG3	1:B:883:ARG:NH2	1.78	0.97
1:D:383:CYS:O	1:D:387:ILE:HG13	1.64	0.97
1:A:286:THR:HB	1:A:361:PRO:HB3	1.44	0.97
1:K:269:LEU:O	1:K:273:VAL:HG13	1.63	0.97
1:J:285:ILE:HG12	1:J:287:ARG:H	1.29	0.97
1:G:774:SER:HB2	1:L:777:GLY:O	1.62	0.97
1:K:276:GLU:OE2	1:K:318:PHE:CE2	2.18	0.97
1:K:752:LYS:HG3	1:K:755:MET:HE3	1.45	0.97
1:E:453:VAL:HG11	1:E:505:LEU:HB2	1.46	0.97
1:K:441:LEU:CD2	1:K:498:VAL:CB	2.09	0.97
1:J:363:TYR:HE1	1:J:383:CYS:SG	1.87	0.97
1:J:854:PRO:HB2	1:J:855:ARG:HH12	1.21	0.97
1:B:780:SER:HB2	1:I:774:SER:OG	1.63	0.96
1:E:434:PRO:CB	1:E:491:GLU:HG3	1.93	0.96
1:K:272:ILE:CG2	1:K:278:LEU:HD12	1.95	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:854:PRO:HB3	1:K:559:ASP:OD2	1.65	0.96
1:H:434:PRO:CB	1:H:491:GLU:HG3	1.94	0.96
1:J:441:LEU:HD23	1:J:498:VAL:CG1	1.94	0.96
1:K:284:MET:HG2	1:K:286:THR:CG2	1.95	0.96
1:E:441:LEU:HG	1:E:498:VAL:CG1	1.95	0.96
1:J:472:ASN:HD21	1:J:475:ALA:HB3	1.30	0.96
1:E:478:ASN:HD21	1:E:482:LYS:NZ	1.61	0.96
1:D:855:ARG:HD3	1:D:855:ARG:N	1.79	0.96
1:K:376:LYS:NZ	1:K:379:ILE:HD12	1.81	0.96
1:B:783:LEU:CD1	1:I:777:GLY:HA2	1.96	0.96
1:J:297:ASP:CG	1:J:300:ALA:HB3	1.85	0.96
1:K:854:PRO:HB2	1:K:855:ARG:NH1	1.81	0.96
1:K:278:LEU:CD2	1:K:280:LYS:HD3	1.96	0.95
1:D:287:ARG:HH11	1:D:287:ARG:HG3	1.28	0.95
1:E:272:ILE:HG22	1:E:277:PHE:HA	1.46	0.95
1:K:284:MET:HG2	1:K:286:THR:HG22	1.49	0.95
1:D:478:ASN:HD21	1:D:482:LYS:HZ1	1.03	0.95
1:K:453:VAL:HG11	1:K:505:LEU:HB2	1.47	0.95
1:A:269:LEU:HA	1:A:272:ILE:HD12	1.43	0.95
1:G:772:HIS:ND1	1:L:780:SER:HB3	1.81	0.95
1:E:279:PRO:HB3	1:E:322:GLN:HA	1.49	0.95
1:E:556:ALA:HB2	1:J:855:ARG:HH21	1.31	0.95
1:A:441:LEU:CD2	1:A:498:VAL:HG12	1.95	0.95
1:D:269:LEU:O	1:D:273:VAL:HG13	1.65	0.95
1:D:493:GLY:O	1:D:496:SER:HB3	1.66	0.95
1:H:488:HIS:HB3	1:H:491:GLU:HG2	1.46	0.95
1:J:453:VAL:HG11	1:J:505:LEU:HB2	1.47	0.95
1:B:774:SER:O	1:I:774:SER:HB2	1.67	0.95
1:E:441:LEU:CD2	1:E:498:VAL:CB	2.02	0.95
1:E:441:LEU:HD21	1:E:498:VAL:HB	1.49	0.95
1:E:472:ASN:ND2	1:E:475:ALA:HB3	1.82	0.95
1:H:232:LYS:HA	1:H:235:ILE:CG2	1.96	0.94
1:D:485:PHE:CE2	1:D:500:THR:OG1	2.20	0.94
1:J:272:ILE:HG23	1:J:278:LEU:HD12	1.46	0.94
1:A:441:LEU:HD21	1:A:499:SER:N	1.83	0.94
1:A:285:ILE:CD1	1:A:286:THR:H	1.81	0.94
1:J:278:LEU:HB2	1:J:279:PRO:HD2	1.50	0.94
1:G:776:ALA:O	1:L:777:GLY:HA3	1.68	0.94
1:A:878:ASP:HB3	1:A:881:VAL:HG22	1.50	0.93
1:A:376:LYS:HA	1:A:376:LYS:NZ	1.84	0.93
1:D:279:PRO:HG2	1:D:325:LEU:HD21	1.50	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:234:MET:O	1:E:237:ILE:HG22	1.69	0.93
1:H:453:VAL:HG11	1:H:505:LEU:HB2	1.50	0.93
1:J:488:HIS:HB3	1:J:491:GLU:HG2	1.50	0.93
1:K:383:CYS:O	1:K:387:ILE:HG13	1.68	0.93
1:F:642:LEU:HD22	1:F:643:GLY:H	1.33	0.93
1:G:780:SER:CB	1:L:778:GLY:HA2	1.99	0.93
1:J:269:LEU:HD21	1:J:457:SER:OG	1.58	0.93
1:D:363:TYR:HE1	1:D:383:CYS:SG	1.90	0.93
1:H:269:LEU:CD2	1:H:457:SER:OG	2.16	0.93
1:H:273:VAL:HG11	1:H:457:SER:CB	1.99	0.93
1:K:269:LEU:HD23	1:K:270:GLU:N	1.84	0.93
1:E:377:ARG:HH21	1:E:377:ARG:CG	1.82	0.93
1:G:773:PRO:CA	1:G:781:ALA:HB3	1.97	0.92
1:H:441:LEU:HD21	1:H:498:VAL:HB	1.51	0.92
1:K:376:LYS:HZ1	1:K:379:ILE:HD12	1.33	0.92
1:J:272:ILE:HG22	1:J:277:PHE:HA	1.50	0.92
1:D:627:TYR:HE2	1:D:628:TRP:CZ3	1.87	0.92
1:J:276:GLU:CD	1:J:318:PHE:HE2	1.70	0.92
1:D:855:ARG:HH21	1:K:556:ALA:HA	1.34	0.92
1:B:609:PRO:HB2	1:B:611:GLU:CB	1.99	0.92
1:E:441:LEU:CG	1:E:498:VAL:CG1	2.48	0.92
1:A:441:LEU:HD23	1:A:498:VAL:HB	0.93	0.92
1:D:235:ILE:HD12	1:D:235:ILE:O	1.71	0.91
1:J:269:LEU:CD2	1:J:457:SER:CB	2.46	0.91
1:A:278:LEU:CD2	1:A:280:LYS:HD3	1.98	0.91
1:B:318:PHE:CD1	1:B:321:ILE:HD12	2.05	0.91
1:D:286:THR:CB	1:D:361:PRO:HB3	1.99	0.91
1:H:478:ASN:HD21	1:H:482:LYS:NZ	1.67	0.91
1:H:279:PRO:HB3	1:H:322:GLN:HB2	1.52	0.91
1:J:485:PHE:CD2	1:J:492:PHE:CD1	2.58	0.91
1:B:791:VAL:HG13	1:B:794:ARG:HH21	1.31	0.91
1:J:286:THR:HB	1:J:361:PRO:HB3	1.52	0.91
1:A:279:PRO:HG2	1:A:325:LEU:HD21	1.50	0.91
1:E:434:PRO:HB3	1:E:491:GLU:HG3	1.51	0.91
1:K:441:LEU:HD21	1:K:498:VAL:HB	1.46	0.91
1:D:441:LEU:HD21	1:D:499:SER:H	1.35	0.91
1:A:273:VAL:HG11	1:A:457:SER:CB	2.01	0.91
1:K:273:VAL:CG1	1:K:457:SER:HB2	1.99	0.91
1:E:287:ARG:HH11	1:E:287:ARG:HG3	1.33	0.91
1:H:272:ILE:CG2	1:H:278:LEU:CD1	2.48	0.91
1:A:363:TYR:HE1	1:A:383:CYS:SG	1.94	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:441:LEU:CG	1:K:498:VAL:HG12	1.99	0.91
1:A:272:ILE:HG23	1:A:278:LEU:HD12	0.91	0.90
1:A:285:ILE:HG12	1:A:287:ARG:H	1.35	0.90
1:H:279:PRO:HB3	1:H:322:GLN:CB	2.01	0.90
1:J:485:PHE:HD2	1:J:492:PHE:O	1.53	0.90
1:D:441:LEU:HD21	1:D:499:SER:N	1.86	0.90
1:J:854:PRO:HB2	1:J:855:ARG:HH11	1.32	0.90
1:H:270:GLU:O	1:H:273:VAL:HG22	1.70	0.90
1:H:269:LEU:CD2	1:H:457:SER:CB	2.49	0.90
1:L:615:ILE:HD11	1:L:803:ARG:HE	1.36	0.90
1:D:307:PHE:CD1	1:D:345:LEU:HD21	2.05	0.90
1:I:264:GLY:HA2	1:I:267:SER:HB3	1.54	0.90
1:E:269:LEU:CD2	1:E:457:SER:HB2	1.98	0.90
1:E:552:SER:HA	1:J:855:ARG:HD2	1.54	0.90
1:H:251:THR:HG22	1:H:252:LEU:H	1.27	0.90
1:H:279:PRO:HG2	1:H:325:LEU:HD21	1.54	0.90
1:H:286:THR:CB	1:H:361:PRO:HB3	2.01	0.90
1:K:285:ILE:HG12	1:K:287:ARG:H	1.35	0.90
1:E:854:PRO:HB2	1:E:855:ARG:NH1	1.86	0.89
1:D:285:ILE:CD1	1:D:286:THR:N	2.34	0.89
1:H:273:VAL:HG11	1:H:457:SER:HB2	1.52	0.89
1:K:375:LEU:HD23	1:K:375:LEU:N	1.86	0.89
1:L:791:VAL:HG13	1:L:794:ARG:HH21	1.34	0.89
1:J:234:MET:O	1:J:237:ILE:HG22	1.73	0.89
1:H:434:PRO:HG2	1:H:488:HIS:CG	2.08	0.89
1:G:773:PRO:HA	1:G:781:ALA:HB3	1.55	0.89
1:B:260:SER:O	1:B:264:GLY:N	2.05	0.89
1:J:286:THR:CB	1:J:361:PRO:HB3	2.02	0.89
1:A:485:PHE:CE2	1:A:500:THR:OG1	2.24	0.89
1:D:752:LYS:HG3	1:D:755:MET:HE3	1.53	0.89
1:A:284:MET:HG2	1:A:286:THR:HG23	1.51	0.89
1:A:455:VAL:HG12	1:A:501:GLY:H	1.37	0.89
1:J:273:VAL:CG1	1:J:457:SER:HB2	2.03	0.89
1:E:285:ILE:HG12	1:E:287:ARG:H	1.37	0.89
1:D:279:PRO:HB3	1:D:322:GLN:CB	2.02	0.88
1:D:285:ILE:HG12	1:D:287:ARG:H	1.38	0.88
1:H:363:TYR:HE1	1:H:383:CYS:SG	1.95	0.88
1:J:233:LYS:HE2	1:J:233:LYS:N	1.87	0.88
1:A:273:VAL:CG1	1:A:457:SER:HB2	2.03	0.88
1:E:363:TYR:CE1	1:E:383:CYS:SG	2.61	0.88
1:E:273:VAL:HG11	1:E:457:SER:CB	2.03	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:609:PRO:HB2	1:F:611:GLU:HB2	1.54	0.88
1:K:270:GLU:O	1:K:273:VAL:HG22	1.74	0.88
1:D:272:ILE:CG2	1:D:278:LEU:HD12	1.98	0.87
1:E:272:ILE:HG23	1:E:278:LEU:HD13	1.55	0.87
1:K:363:TYR:HE1	1:K:383:CYS:SG	1.97	0.87
1:G:780:SER:HB3	1:L:778:GLY:C	1.94	0.87
1:K:273:VAL:HG11	1:K:457:SER:CB	2.01	0.87
1:E:455:VAL:HG12	1:E:501:GLY:H	1.39	0.87
1:H:339:THR:HG23	1:H:340:ASP:N	1.88	0.87
1:L:791:VAL:HG13	1:L:794:ARG:NH2	1.89	0.87
1:D:441:LEU:CG	1:D:498:VAL:CG1	2.51	0.87
1:D:614:ASN:OD1	1:D:616:ILE:HG22	1.74	0.87
1:J:285:ILE:HD13	1:J:286:THR:N	1.89	0.87
1:D:555:ALA:HB3	1:K:855:ARG:CD	2.04	0.87
1:H:284:MET:HG2	1:H:286:THR:HG22	1.57	0.87
1:J:565:PHE:O	1:J:568:PHE:HB3	1.73	0.87
1:A:234:MET:O	1:A:237:ILE:HG22	1.74	0.86
1:B:772:HIS:HD2	1:B:775:GLY:O	1.58	0.86
1:D:284:MET:N	1:D:284:MET:SD	2.48	0.86
1:G:862:HIS:CD2	1:G:866:HIS:CD2	2.63	0.86
1:J:244:VAL:HB	1:J:248:SER:OG	1.74	0.86
1:J:639:LEU:O	1:J:642:LEU:HD23	1.75	0.86
1:K:276:GLU:OE2	1:K:318:PHE:HE2	1.57	0.86
1:K:441:LEU:CD2	1:K:498:VAL:CG1	2.47	0.86
1:K:376:LYS:HA	1:K:376:LYS:HZ3	1.36	0.86
1:D:454:GLY:O	1:D:500:THR:HB	1.76	0.86
1:H:441:LEU:CG	1:H:498:VAL:CG1	2.52	0.86
1:I:776:ALA:O	1:I:783:LEU:HD12	1.72	0.86
1:K:791:VAL:HG13	1:K:794:ARG:HH21	1.36	0.86
1:H:383:CYS:O	1:H:387:ILE:HG13	1.75	0.86
1:H:478:ASN:HD21	1:H:482:LYS:HZ1	0.92	0.86
1:G:260:SER:O	1:G:264:GLY:N	2.07	0.86
1:D:855:ARG:NH2	1:K:556:ALA:HA	1.91	0.86
1:D:544:ASN:HD22	1:L:641:ARG:HH11	1.21	0.86
1:A:572:PHE:O	1:A:576:GLN:NE2	2.07	0.85
1:D:286:THR:HB	1:D:361:PRO:HB3	1.56	0.85
1:J:278:LEU:HD21	1:J:280:LYS:HD3	1.58	0.85
1:J:486:GLY:O	1:J:489:PRO:HD3	1.75	0.85
1:D:441:LEU:HD21	1:D:498:VAL:HB	1.54	0.85
1:H:434:PRO:HB3	1:H:491:GLU:CG	2.05	0.85
1:D:278:LEU:HB2	1:D:279:PRO:HD2	1.55	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:485:PHE:HD2	1:A:492:PHE:O	1.60	0.85
1:E:285:ILE:CD1	1:E:286:THR:H	1.84	0.85
1:B:780:SER:HB3	1:I:776:ALA:C	1.97	0.85
1:E:441:LEU:HD21	1:E:499:SER:H	1.39	0.85
1:H:269:LEU:O	1:H:273:VAL:HG13	1.75	0.85
1:H:269:LEU:HA	1:H:272:ILE:HD12	1.58	0.85
1:D:307:PHE:HE1	1:D:345:LEU:HD21	1.38	0.85
1:D:855:ARG:HH21	1:K:556:ALA:CA	1.89	0.85
1:E:279:PRO:HB3	1:E:322:GLN:CA	2.07	0.85
1:E:576:GLN:H	1:E:576:GLN:HE21	1.23	0.85
1:H:225:ASP:HB3	1:H:229:PHE:HZ	1.33	0.85
1:D:376:LYS:HA	1:D:376:LYS:NZ	1.92	0.85
1:J:854:PRO:CB	1:J:855:ARG:HH12	1.90	0.85
1:D:279:PRO:HB3	1:D:322:GLN:HB2	1.56	0.85
1:D:485:PHE:CD2	1:D:492:PHE:CD1	2.64	0.84
1:D:572:PHE:O	1:D:576:GLN:NE2	2.10	0.84
1:E:257:VAL:CG2	1:E:359:ASP:HA	2.07	0.84
1:K:485:PHE:CD2	1:K:492:PHE:CD1	2.65	0.84
1:D:285:ILE:HG12	1:D:287:ARG:HB2	1.57	0.84
1:F:791:VAL:HG13	1:F:794:ARG:NH2	1.92	0.84
1:K:287:ARG:HG3	1:K:287:ARG:HH11	1.42	0.84
1:J:257:VAL:CG2	1:J:359:ASP:HA	2.07	0.84
1:K:455:VAL:HG12	1:K:501:GLY:H	1.43	0.84
1:A:273:VAL:HG21	1:A:457:SER:HB3	1.59	0.84
1:J:854:PRO:CB	1:J:855:ARG:NH1	2.36	0.84
1:K:752:LYS:HG3	1:K:755:MET:CE	2.07	0.84
1:G:308:PRO:HG3	1:G:344:ARG:HB2	1.58	0.84
1:A:279:PRO:CB	1:A:322:GLN:HA	2.08	0.84
1:D:278:LEU:HD21	1:D:280:LYS:HD3	1.59	0.84
1:E:308:PRO:HG3	1:E:344:ARG:HB2	1.60	0.84
1:A:251:THR:HG22	1:A:252:LEU:N	1.93	0.84
1:A:272:ILE:CG2	1:A:278:LEU:CD1	2.48	0.84
1:H:269:LEU:CD2	1:H:457:SER:HB2	2.08	0.84
1:J:426:ILE:HD11	1:J:440:ILE:HG22	0.84	0.84
1:E:273:VAL:CG1	1:E:457:SER:HB2	2.08	0.83
1:K:279:PRO:HG2	1:K:325:LEU:CD2	2.08	0.83
1:D:855:ARG:HH21	1:K:556:ALA:CB	1.90	0.83
1:H:454:GLY:O	1:H:500:THR:HB	1.77	0.83
1:D:229:PHE:HA	1:D:232:LYS:HG2	1.57	0.83
1:D:272:ILE:CG2	1:D:278:LEU:CD1	2.55	0.83
1:A:279:PRO:HB3	1:A:322:GLN:CB	2.08	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:284:MET:N	1:G:284:MET:SD	2.48	0.83
1:H:441:LEU:HB3	1:H:498:VAL:HG11	1.61	0.83
1:J:478:ASN:HD21	1:J:482:LYS:HZ1	1.22	0.83
1:K:269:LEU:HD23	1:K:269:LEU:C	1.98	0.83
1:H:272:ILE:CG2	1:H:278:LEU:HD13	2.08	0.83
1:J:278:LEU:CD2	1:J:280:LYS:HD3	2.07	0.83
1:B:488:HIS:HB3	1:B:491:GLU:HG3	1.61	0.83
1:B:779:PHE:C	1:I:776:ALA:HB3	1.98	0.83
1:I:611:GLU:N	1:I:612:PRO:HD2	1.94	0.83
1:H:287:ARG:HH11	1:H:287:ARG:HG3	1.43	0.83
1:A:453:VAL:HG11	1:A:505:LEU:HB2	1.61	0.83
1:E:576:GLN:H	1:E:576:GLN:NE2	1.76	0.83
1:J:284:MET:N	1:J:284:MET:SD	2.50	0.83
1:L:260:SER:O	1:L:264:GLY:N	2.11	0.83
1:E:377:ARG:HH21	1:E:377:ARG:HG2	1.42	0.83
1:J:251:THR:HG22	1:J:252:LEU:H	1.42	0.83
1:K:485:PHE:HD2	1:K:492:PHE:O	1.60	0.83
1:A:749:LYS:H	1:A:749:LYS:HD2	1.42	0.82
1:E:260:SER:N	1:E:263:SER:HB3	1.94	0.82
1:G:642:LEU:HD22	1:G:643:GLY:H	1.43	0.82
1:H:272:ILE:HG22	1:H:277:PHE:HA	1.59	0.82
1:H:458:LYS:HD2	1:H:458:LYS:C	1.98	0.82
1:I:609:PRO:HB2	1:I:611:GLU:N	1.93	0.82
1:A:434:PRO:HB3	1:A:491:GLU:HG3	1.60	0.82
1:C:854:PRO:HB2	1:C:855:ARG:CZ	2.09	0.82
1:J:279:PRO:CB	1:J:322:GLN:HA	2.10	0.82
1:K:488:HIS:HB3	1:K:491:GLU:CG	2.09	0.82
1:E:279:PRO:HB3	1:E:322:GLN:CB	2.09	0.82
1:J:441:LEU:CG	1:J:498:VAL:CG1	2.57	0.82
1:L:778:GLY:C	1:L:779:PHE:HD2	1.82	0.82
1:I:843:VAL:O	1:I:847:ASN:HB2	1.80	0.82
1:E:269:LEU:HD22	1:E:457:SER:OG	1.78	0.82
1:J:441:LEU:HG	1:J:498:VAL:CG1	2.05	0.82
1:K:376:LYS:HE2	1:K:376:LYS:N	1.95	0.82
1:D:284:MET:HG2	1:D:286:THR:CG2	2.10	0.82
1:G:258:ILE:HG22	1:G:360:LEU:HD11	1.59	0.82
1:H:286:THR:OG1	1:H:361:PRO:HB3	1.80	0.82
1:A:286:THR:CB	1:A:361:PRO:HB3	2.09	0.82
1:H:237:ILE:O	1:H:237:ILE:HD13	1.80	0.82
1:H:286:THR:O	1:H:361:PRO:CG	2.28	0.82
1:H:572:PHE:O	1:H:576:GLN:NE2	2.12	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:492:PHE:O	1:A:492:PHE:HD1	1.62	0.81
1:B:615:ILE:HD11	1:B:803:ARG:HE	1.43	0.81
1:A:455:VAL:HG12	1:A:501:GLY:N	1.94	0.81
1:G:285:ILE:HD12	1:G:287:ARG:H	1.46	0.81
1:H:488:HIS:HB3	1:H:491:GLU:HG3	1.61	0.81
1:J:272:ILE:HG21	1:J:277:PHE:CD1	2.15	0.81
1:E:294:LEU:HB3	1:E:352:ILE:HD13	1.62	0.81
1:B:318:PHE:HD1	1:B:321:ILE:HD12	1.43	0.81
1:A:426:ILE:HD12	1:A:440:ILE:HG22	1.60	0.81
1:H:257:VAL:CG2	1:H:359:ASP:HA	2.09	0.81
1:J:441:LEU:CD2	1:J:498:VAL:CB	2.23	0.81
1:A:284:MET:HG2	1:A:286:THR:HG22	1.63	0.81
1:C:609:PRO:CB	1:C:611:GLU:CB	2.52	0.81
1:D:279:PRO:CB	1:D:322:GLN:HA	2.11	0.81
1:E:276:GLU:OE2	1:E:318:PHE:HE2	1.63	0.81
1:K:279:PRO:CB	1:K:322:GLN:HA	2.10	0.81
1:B:843:VAL:O	1:B:847:ASN:HB2	1.80	0.81
1:K:251:THR:HG22	1:K:252:LEU:N	1.94	0.81
1:K:285:ILE:HG13	1:K:332:VAL:HG22	1.63	0.81
1:H:278:LEU:HD22	1:H:280:LYS:HG2	1.62	0.81
1:G:773:PRO:O	1:G:782:ALA:HB2	1.81	0.81
1:H:485:PHE:CE2	1:H:500:THR:OG1	2.34	0.81
1:J:269:LEU:O	1:J:273:VAL:HG13	1.81	0.81
1:L:434:PRO:HG2	1:L:488:HIS:CG	2.15	0.81
1:D:753:GLU:CD	1:E:750:LYS:HE2	2.02	0.80
1:H:286:THR:O	1:H:361:PRO:HG3	1.81	0.80
1:E:286:THR:CB	1:E:361:PRO:HB3	2.10	0.80
1:H:252:LEU:HD23	1:H:524:THR:HG21	1.64	0.80
1:J:267:SER:HB2	1:J:396:ILE:CD1	2.11	0.80
1:D:480:ASN:HA	1:D:483:ASN:OD1	1.80	0.80
1:E:339:THR:HG23	1:E:340:ASP:H	1.46	0.80
1:J:269:LEU:HD21	1:J:457:SER:HB2	1.62	0.80
1:J:376:LYS:HA	1:J:376:LYS:NZ	1.96	0.80
1:A:275:HIS:CD2	1:A:275:HIS:H	2.00	0.80
1:E:376:LYS:NZ	1:E:379:ILE:HD12	1.96	0.80
1:I:260:SER:O	1:I:264:GLY:N	2.14	0.80
1:D:627:TYR:CE2	1:D:628:TRP:CZ3	2.70	0.80
1:F:285:ILE:HD13	1:F:332:VAL:HG22	1.64	0.80
1:L:627:TYR:CE2	1:L:628:TRP:CZ3	2.69	0.80
1:H:285:ILE:HD13	1:H:286:THR:N	1.94	0.80
1:J:456:ILE:HD12	1:J:457:SER:N	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:855:ARG:CD	1:K:555:ALA:HB3	2.11	0.79
1:E:285:ILE:HG12	1:E:287:ARG:HB2	1.64	0.79
1:J:229:PHE:O	1:J:233:LYS:HG2	1.83	0.79
1:G:862:HIS:CD2	1:G:866:HIS:HD2	1.99	0.79
1:H:434:PRO:HG2	1:H:488:HIS:CD2	2.17	0.79
1:A:257:VAL:CG2	1:A:359:ASP:HA	2.12	0.79
1:B:434:PRO:HG2	1:B:488:HIS:CG	2.18	0.79
1:I:863:GLU:O	1:I:867:ALA:HB3	1.81	0.79
1:K:322:GLN:O	1:K:326:THR:OG1	1.98	0.79
1:K:485:PHE:CE2	1:K:500:THR:OG1	2.35	0.79
1:A:485:PHE:CD2	1:A:492:PHE:CD1	2.70	0.79
1:D:434:PRO:HG2	1:D:488:HIS:CG	2.18	0.79
1:E:854:PRO:HD2	1:E:855:ARG:HH12	1.46	0.79
1:A:376:LYS:HA	1:A:376:LYS:HZ3	1.46	0.79
1:A:576:GLN:NE2	1:A:576:GLN:H	1.80	0.79
1:D:752:LYS:HG3	1:D:755:MET:CE	2.11	0.79
1:E:854:PRO:CD	1:E:855:ARG:HH12	1.96	0.79
1:H:488:HIS:CB	1:H:491:GLU:CG	2.60	0.79
1:E:278:LEU:HB2	1:E:279:PRO:HD2	1.65	0.79
1:B:880:LYS:HG3	1:B:883:ARG:HH21	1.48	0.79
1:C:818:LYS:NZ	1:C:819:TYR:CZ	2.50	0.79
1:J:878:ASP:HB3	1:J:881:VAL:HG22	1.63	0.79
1:L:754:VAL:HG22	1:L:779:PHE:CD1	2.17	0.79
1:A:265:LYS:O	1:A:268:VAL:HG23	1.82	0.79
1:A:383:CYS:O	1:A:387:ILE:HG13	1.81	0.79
1:D:284:MET:HG2	1:D:286:THR:HG22	1.64	0.79
1:E:556:ALA:HB2	1:J:855:ARG:NH2	1.98	0.79
1:G:443:ASP:OD1	1:G:445:GLN:HG3	1.83	0.79
1:H:269:LEU:HD23	1:H:270:GLU:N	1.97	0.79
1:E:854:PRO:CG	1:E:855:ARG:HH12	1.96	0.79
1:H:235:ILE:HD12	1:H:235:ILE:O	1.81	0.79
1:D:269:LEU:HD23	1:D:457:SER:OG	1.82	0.78
1:D:376:LYS:NZ	1:D:379:ILE:HD12	1.98	0.78
1:D:854:PRO:CB	1:K:559:ASP:OD2	2.30	0.78
1:D:627:TYR:HE2	1:D:628:TRP:CH2	2.01	0.78
1:K:297:ASP:CG	1:K:300:ALA:HB3	2.04	0.78
1:E:328:LEU:HD13	1:E:343:ILE:HD13	1.63	0.78
1:H:426:ILE:HD12	1:H:440:ILE:HG22	1.55	0.78
1:A:238:ARG:NH2	1:A:356:SER:OG	2.16	0.78
1:D:286:THR:O	1:D:361:PRO:CG	2.31	0.78
1:D:294:LEU:HB3	1:D:352:ILE:HD13	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:377:ARG:HH21	1:H:377:ARG:CG	1.96	0.78
1:K:279:PRO:HB3	1:K:322:GLN:CB	2.13	0.78
1:A:388:ARG:O	1:A:421:ARG:NH2	2.15	0.78
1:D:307:PHE:CD1	1:D:345:LEU:CD2	2.66	0.78
1:H:485:PHE:CD2	1:H:492:PHE:CD1	2.70	0.78
1:J:310:LEU:N	1:J:310:LEU:HD23	1.97	0.78
1:E:376:LYS:HZ1	1:E:379:ILE:HD12	1.49	0.78
1:E:485:PHE:CE2	1:E:500:THR:OG1	2.37	0.78
1:E:749:LYS:H	1:E:749:LYS:HD2	1.48	0.78
1:K:441:LEU:HD21	1:K:499:SER:H	1.49	0.78
1:E:388:ARG:O	1:E:421:ARG:NH2	2.17	0.78
1:F:642:LEU:HD22	1:F:643:GLY:N	1.99	0.78
1:K:441:LEU:HD21	1:K:499:SER:N	1.98	0.78
1:D:565:PHE:O	1:D:568:PHE:HB3	1.84	0.78
1:H:445:GLN:O	1:H:446:TYR:CD1	2.36	0.78
1:L:843:VAL:O	1:L:847:ASN:HB2	1.82	0.78
1:A:297:ASP:CG	1:A:300:ALA:HB3	2.04	0.78
1:A:307:PHE:CE1	1:A:345:LEU:HD21	2.19	0.78
1:A:749:LYS:HD2	1:A:749:LYS:N	1.99	0.78
1:D:269:LEU:HA	1:D:272:ILE:HD12	1.65	0.78
1:D:363:TYR:CE1	1:D:383:CYS:SG	2.70	0.78
1:H:339:THR:CG2	1:H:340:ASP:H	1.96	0.78
1:D:278:LEU:HD22	1:D:280:LYS:HD3	1.66	0.78
1:H:307:PHE:CE1	1:H:345:LEU:HD21	2.18	0.78
1:H:273:VAL:HG21	1:H:457:SER:HB3	1.66	0.77
1:A:434:PRO:HG2	1:A:488:HIS:CG	2.18	0.77
1:C:627:TYR:HE2	1:C:628:TRP:CZ3	2.02	0.77
1:D:445:GLN:O	1:D:446:TYR:CD1	2.37	0.77
1:K:269:LEU:HD11	1:K:457:SER:C	2.02	0.77
1:E:383:CYS:O	1:E:387:ILE:HG13	1.83	0.77
1:I:772:HIS:HB2	1:I:780:SER:HA	1.66	0.77
1:I:777:GLY:O	1:I:783:LEU:CD1	2.32	0.77
1:J:383:CYS:O	1:J:387:ILE:HG13	1.85	0.77
1:K:284:MET:N	1:K:284:MET:SD	2.56	0.77
1:D:544:ASN:HD22	1:L:641:ARG:NH1	1.82	0.77
1:I:772:HIS:O	1:I:780:SER:HA	1.84	0.77
1:D:878:ASP:HB3	1:D:881:VAL:HG22	1.66	0.77
1:E:441:LEU:HD21	1:E:499:SER:N	1.98	0.77
1:J:269:LEU:CA	1:J:272:ILE:HD12	2.12	0.77
1:J:441:LEU:HD21	1:J:498:VAL:HB	1.60	0.77
1:K:234:MET:O	1:K:237:ILE:HG22	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:276:GLU:OE2	1:E:318:PHE:CE2	2.38	0.77
1:E:455:VAL:HG12	1:E:501:GLY:N	1.98	0.77
1:A:269:LEU:CD2	1:A:457:SER:CB	2.58	0.77
1:G:780:SER:HB3	1:L:778:GLY:HA3	1.65	0.77
1:H:251:THR:CG2	1:H:252:LEU:N	2.47	0.77
1:H:257:VAL:HG22	1:H:359:ASP:HA	1.66	0.77
1:A:434:PRO:CB	1:A:491:GLU:HG3	2.14	0.77
1:J:454:GLY:O	1:J:500:THR:HG22	1.84	0.77
1:K:454:GLY:O	1:K:455:VAL:HG13	1.84	0.77
1:D:243:LYS:O	1:D:243:LYS:HG2	1.84	0.77
1:I:772:HIS:CB	1:I:780:SER:HA	2.15	0.77
1:J:485:PHE:CE2	1:J:500:THR:OG1	2.37	0.77
1:D:307:PHE:CE1	1:D:345:LEU:CD2	2.59	0.76
1:F:285:ILE:HD12	1:F:287:ARG:H	1.48	0.76
1:H:486:GLY:O	1:H:489:PRO:HD3	1.86	0.76
1:K:441:LEU:CG	1:K:498:VAL:CG1	2.62	0.76
1:A:278:LEU:O	1:A:278:LEU:HD13	1.85	0.76
1:D:297:ASP:OD2	1:D:300:ALA:HB3	1.85	0.76
1:G:780:SER:CB	1:L:778:GLY:HA3	2.14	0.76
1:A:241:LEU:O	1:A:244:VAL:HG23	1.86	0.76
1:C:260:SER:O	1:C:264:GLY:N	2.19	0.76
1:C:843:VAL:O	1:C:847:ASN:HB2	1.84	0.76
1:F:578:GLN:HA	1:F:838:VAL:HG21	1.67	0.76
1:K:854:PRO:HB2	1:K:855:ARG:HH12	1.49	0.76
1:D:855:ARG:HE	1:K:556:ALA:N	1.84	0.76
1:E:339:THR:HG23	1:E:340:ASP:N	1.97	0.76
1:H:269:LEU:HD21	1:H:457:SER:HB2	1.61	0.76
1:K:279:PRO:O	1:K:280:LYS:HD2	1.86	0.76
1:F:260:SER:O	1:F:264:GLY:N	2.18	0.76
1:A:486:GLY:O	1:A:489:PRO:HD3	1.85	0.76
1:J:377:ARG:HH21	1:J:377:ARG:HG2	1.51	0.76
1:A:238:ARG:HH21	1:A:356:SER:HG	1.31	0.76
1:E:272:ILE:HG23	1:E:278:LEU:H	1.50	0.76
1:H:285:ILE:CD1	1:H:286:THR:H	1.96	0.76
1:A:441:LEU:HD21	1:A:498:VAL:HB	1.63	0.76
1:A:445:GLN:O	1:A:446:TYR:CD1	2.38	0.76
1:E:376:LYS:NZ	1:E:376:LYS:HA	2.00	0.76
1:E:854:PRO:CB	1:E:855:ARG:NH1	2.49	0.76
1:J:441:LEU:CD2	1:J:498:VAL:CG1	2.58	0.76
1:G:615:ILE:HD11	1:G:803:ARG:HE	1.50	0.76
1:K:382:LEU:C	1:K:382:LEU:HD12	2.06	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:791:VAL:HG13	1:F:794:ARG:HH21	1.50	0.76
1:H:434:PRO:HB3	1:H:491:GLU:CB	2.16	0.76
1:J:272:ILE:CG2	1:J:277:PHE:HA	2.16	0.76
1:K:272:ILE:HG21	1:K:277:PHE:HD1	1.50	0.76
1:K:279:PRO:HB3	1:K:322:GLN:HA	1.68	0.76
1:A:433:GLU:O	1:A:436:LYS:HB2	1.86	0.75
1:D:270:GLU:HA	1:D:273:VAL:HG22	1.66	0.75
1:F:843:VAL:O	1:F:847:ASN:HB2	1.84	0.75
1:H:339:THR:CG2	1:H:340:ASP:N	2.49	0.75
1:A:260:SER:O	1:A:264:GLY:CA	2.34	0.75
1:J:276:GLU:CD	1:J:318:PHE:CE2	2.60	0.75
1:B:780:SER:HB3	1:I:776:ALA:O	1.86	0.75
1:C:578:GLN:HA	1:C:838:VAL:HG21	1.69	0.75
1:K:275:HIS:H	1:K:275:HIS:CD2	2.03	0.75
1:E:854:PRO:HD2	1:E:855:ARG:NH1	2.01	0.75
1:H:285:ILE:HG13	1:H:332:VAL:HG22	1.68	0.75
1:J:441:LEU:HD21	1:J:499:SER:N	2.01	0.75
1:L:575:PRO:O	1:L:578:GLN:HB3	1.87	0.75
1:E:454:GLY:O	1:E:500:THR:HB	1.86	0.75
1:H:640:THR:HG21	1:H:706:LYS:HA	1.67	0.75
1:J:273:VAL:HG21	1:J:457:SER:CB	2.16	0.75
1:K:441:LEU:HG	1:K:498:VAL:CG1	2.10	0.75
1:F:878:ASP:HB3	1:F:881:VAL:HG12	1.69	0.75
1:H:363:TYR:CE1	1:H:383:CYS:SG	2.77	0.75
1:K:267:SER:HB3	1:K:396:ILE:HG13	1.69	0.75
1:K:434:PRO:CB	1:K:491:GLU:HG3	2.16	0.75
1:A:269:LEU:HA	1:A:272:ILE:CD1	2.17	0.74
1:D:273:VAL:HG21	1:D:457:SER:HB3	1.67	0.74
1:F:524:THR:O	1:F:528:ILE:HG13	1.87	0.74
1:K:279:PRO:HB3	1:K:322:GLN:CA	2.17	0.74
1:A:284:MET:SD	1:A:284:MET:N	2.59	0.74
1:B:665:ASP:OD1	1:B:676:ARG:NH1	2.20	0.74
1:B:772:HIS:CD2	1:B:775:GLY:O	2.40	0.74
1:C:609:PRO:HB2	1:C:611:GLU:CA	2.16	0.74
1:J:279:PRO:HB3	1:J:322:GLN:CB	2.17	0.74
1:J:279:PRO:HB3	1:J:322:GLN:HA	1.69	0.74
1:J:434:PRO:CB	1:J:491:GLU:HG3	2.16	0.74
1:J:433:GLU:O	1:J:436:LYS:HB2	1.87	0.74
1:D:562:LYS:HE3	1:K:562:LYS:HE2	1.69	0.74
1:D:768:VAL:HG23	1:D:770:GLY:H	1.52	0.74
1:E:272:ILE:CG2	1:E:278:LEU:H	1.99	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:485:PHE:CD2	1:E:492:PHE:CE1	2.76	0.74
1:D:749:LYS:H	1:D:749:LYS:HD2	1.52	0.74
1:E:285:ILE:CD1	1:E:286:THR:N	2.47	0.74
1:J:251:THR:HG22	1:J:252:LEU:N	2.01	0.74
1:B:605:LEU:HD13	1:B:606:SER:O	1.87	0.74
1:G:791:VAL:HG13	1:G:794:ARG:HH21	1.53	0.74
1:H:251:THR:CG2	1:H:252:LEU:H	1.98	0.74
1:K:273:VAL:HG21	1:K:457:SER:HB3	1.70	0.74
1:C:259:GLY:HA2	1:C:408:ALA:HB2	1.70	0.74
1:D:376:LYS:HE2	1:D:376:LYS:N	2.03	0.74
1:F:615:ILE:HD11	1:F:803:ARG:HE	1.51	0.74
1:K:272:ILE:HG22	1:K:277:PHE:HA	1.68	0.74
1:D:244:VAL:HB	1:D:248:SER:OG	1.86	0.74
1:I:775:GLY:HA2	1:I:782:ALA:HB3	1.68	0.74
1:D:555:ALA:HB3	1:K:855:ARG:HD2	1.69	0.74
1:H:749:LYS:H	1:H:749:LYS:HD2	1.52	0.74
1:I:772:HIS:HB2	1:I:779:PHE:C	2.07	0.74
1:E:229:PHE:O	1:E:233:LYS:HG2	1.88	0.74
1:J:276:GLU:OE2	1:J:318:PHE:CE2	2.41	0.74
1:K:257:VAL:CG2	1:K:359:ASP:HA	2.17	0.74
1:K:444:ARG:O	1:K:447:PRO:HD3	1.88	0.74
1:D:434:PRO:CB	1:D:491:GLU:HG3	2.18	0.73
1:E:269:LEU:HD21	1:E:457:SER:CA	2.17	0.73
1:I:776:ALA:C	1:I:783:LEU:CD1	2.56	0.73
1:J:269:LEU:HD23	1:J:457:SER:OG	1.88	0.73
1:H:426:ILE:HD11	1:H:440:ILE:CG2	1.89	0.73
1:K:269:LEU:HA	1:K:272:ILE:CD1	2.15	0.73
1:A:272:ILE:HG22	1:A:277:PHE:HA	1.68	0.73
1:A:279:PRO:O	1:A:280:LYS:HD2	1.87	0.73
1:D:886:ASP:HA	1:D:889:ARG:HG2	1.69	0.73
1:E:434:PRO:HB3	1:E:491:GLU:CG	2.19	0.73
1:H:455:VAL:HG12	1:H:501:GLY:H	1.53	0.73
1:J:308:PRO:HG3	1:J:344:ARG:HB2	1.70	0.73
1:D:455:VAL:HG12	1:D:501:GLY:H	1.51	0.73
1:E:472:ASN:HD21	1:E:475:ALA:HB3	1.54	0.73
1:I:472:ASN:OD1	1:I:475:ALA:HB3	1.88	0.73
1:K:657:GLN:HE22	1:K:684:ALA:HA	1.54	0.73
1:A:297:ASP:OD2	1:A:300:ALA:HB3	1.88	0.73
1:A:811:GLN:O	1:A:814:THR:HG22	1.89	0.73
1:D:251:THR:HG22	1:D:252:LEU:H	1.52	0.73
1:E:279:PRO:O	1:E:280:LYS:HD2	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:286:THR:O	1:E:361:PRO:HG3	1.89	0.73
1:H:229:PHE:O	1:H:233:LYS:HG2	1.87	0.73
1:K:276:GLU:CD	1:K:318:PHE:HE2	1.91	0.73
1:L:609:PRO:HB2	1:L:611:GLU:CB	2.14	0.73
1:D:240:LEU:N	1:D:240:LEU:HD23	2.04	0.73
1:F:609:PRO:CB	1:F:611:GLU:HB2	2.18	0.73
1:H:278:LEU:CD2	1:H:280:LYS:HG2	2.19	0.73
1:I:328:LEU:HD13	1:I:343:ILE:HD13	1.71	0.73
1:J:657:GLN:HE22	1:J:684:ALA:HA	1.53	0.73
1:A:273:VAL:HG21	1:A:457:SER:CB	2.18	0.73
1:J:363:TYR:HD2	1:J:407:THR:HB	1.54	0.73
1:K:572:PHE:O	1:K:576:GLN:NE2	2.21	0.73
1:B:863:GLU:O	1:B:867:ALA:HB3	1.88	0.73
1:E:272:ILE:HG21	1:E:277:PHE:HD1	1.54	0.73
1:E:478:ASN:HD21	1:E:482:LYS:HZ1	0.75	0.73
1:F:328:LEU:HD13	1:F:343:ILE:HD13	1.69	0.73
1:H:456:ILE:O	1:H:481:GLU:OE2	2.07	0.73
1:A:671:LYS:N	1:A:671:LYS:HD2	2.04	0.73
1:B:264:GLY:HA2	1:B:267:SER:HB3	1.71	0.73
1:A:485:PHE:HE2	1:A:500:THR:OG1	1.68	0.73
1:D:285:ILE:HG13	1:D:332:VAL:HG22	1.70	0.73
1:K:377:ARG:HG2	1:K:377:ARG:HH21	1.53	0.73
1:K:434:PRO:HG2	1:K:488:HIS:CG	2.23	0.73
1:L:360:LEU:HB2	1:L:361:PRO:HD2	1.71	0.73
1:A:279:PRO:HB3	1:A:322:GLN:CA	2.19	0.72
1:A:272:ILE:CG2	1:A:278:LEU:H	2.02	0.72
1:C:615:ILE:HD11	1:C:803:ARG:HE	1.53	0.72
1:H:237:ILE:HD12	1:H:241:LEU:HD11	1.71	0.72
1:D:267:SER:HB2	1:D:396:ILE:CD1	2.20	0.72
1:D:273:VAL:HG11	1:D:457:SER:CB	2.16	0.72
1:K:843:VAL:HG21	1:L:704:PRO:HA	1.71	0.72
1:D:286:THR:O	1:D:361:PRO:HG3	1.88	0.72
1:K:526:GLU:OE1	1:K:530:ARG:NH1	2.22	0.72
1:H:284:MET:N	1:H:284:MET:SD	2.62	0.72
1:H:671:LYS:H	1:H:671:LYS:HD2	1.53	0.72
1:E:269:LEU:HD21	1:E:457:SER:C	2.08	0.72
1:H:275:HIS:CG	1:H:276:GLU:H	2.08	0.72
1:I:609:PRO:HB2	1:I:610:ARG:C	2.10	0.72
1:K:363:TYR:CE1	1:K:383:CYS:SG	2.77	0.72
1:C:853:PHE:HB3	1:C:854:PRO:HD3	1.70	0.72
1:D:276:GLU:HG2	1:D:277:PHE:N	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:297:ASP:CG	1:D:300:ALA:HB3	2.10	0.72
1:H:240:LEU:HD23	1:H:240:LEU:N	2.05	0.72
1:I:609:PRO:CB	1:I:611:GLU:HB2	2.20	0.72
1:K:639:LEU:O	1:K:642:LEU:HD23	1.90	0.72
1:A:349:SER:HB3	1:A:352:ILE:HG23	1.70	0.72
1:A:441:LEU:CG	1:A:498:VAL:CG1	2.60	0.72
1:A:488:HIS:HB3	1:A:491:GLU:CG	2.19	0.72
1:D:339:THR:HG23	1:D:340:ASP:N	2.03	0.72
1:E:287:ARG:HH11	1:E:287:ARG:CG	2.03	0.72
1:H:339:THR:HG23	1:H:340:ASP:H	1.51	0.72
1:A:246:GLN:HG2	1:A:247:GLY:N	2.04	0.72
1:F:854:PRO:HB2	1:F:855:ARG:CZ	2.19	0.72
1:H:286:THR:HB	1:H:361:PRO:HB3	1.70	0.72
1:E:267:SER:HB2	1:E:396:ILE:CD1	2.20	0.72
1:E:485:PHE:HD2	1:E:492:PHE:O	1.72	0.72
1:G:773:PRO:O	1:G:782:ALA:CB	2.38	0.72
1:E:269:LEU:HD23	1:E:269:LEU:C	2.10	0.71
1:E:434:PRO:HB2	1:E:491:GLU:HG3	1.72	0.71
1:E:791:VAL:HG13	1:E:794:ARG:HH21	1.55	0.71
1:K:878:ASP:CB	1:K:881:VAL:HG22	2.19	0.71
1:C:806:ALA:O	1:C:809:SER:HB3	1.89	0.71
1:D:269:LEU:CD2	1:D:457:SER:CB	2.62	0.71
1:H:230:ILE:O	1:H:234:MET:HG3	1.90	0.71
1:J:285:ILE:HG12	1:J:287:ARG:HB2	1.72	0.71
1:J:499:SER:O	1:J:500:THR:HG23	1.90	0.71
1:K:285:ILE:HG12	1:K:287:ARG:HB2	1.72	0.71
1:H:278:LEU:HD21	1:H:280:LYS:HD3	1.70	0.71
1:D:237:ILE:HD11	1:D:897:VAL:HG13	1.73	0.71
1:D:286:THR:O	1:D:361:PRO:HB3	1.91	0.71
1:K:229:PHE:O	1:K:233:LYS:HG2	1.91	0.71
1:K:235:ILE:HD12	1:K:235:ILE:O	1.89	0.71
1:K:478:ASN:ND2	1:K:482:LYS:HZ1	1.89	0.71
1:D:855:ARG:CD	1:K:555:ALA:CB	2.56	0.71
1:H:238:ARG:HA	1:H:241:LEU:HD12	1.72	0.71
1:H:456:ILE:HD12	1:H:457:SER:N	2.04	0.71
1:C:878:ASP:HB3	1:C:881:VAL:HG12	1.72	0.71
1:J:270:GLU:HA	1:J:273:VAL:HG22	1.71	0.71
1:B:383:CYS:O	1:B:387:ILE:HG13	1.90	0.71
1:B:780:SER:OG	1:B:783:LEU:HB2	1.91	0.71
1:C:284:MET:N	1:C:284:MET:SD	2.63	0.71
1:D:453:VAL:HG11	1:D:505:LEU:HB2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:279:PRO:CB	1:H:322:GLN:HA	2.20	0.71
1:K:230:ILE:O	1:K:234:MET:HG3	1.90	0.71
1:B:863:GLU:O	1:B:867:ALA:CB	2.39	0.71
1:H:286:THR:O	1:H:361:PRO:HB3	1.90	0.71
1:H:508:LYS:O	1:H:512:VAL:HG23	1.90	0.71
1:K:286:THR:O	1:K:361:PRO:CG	2.38	0.71
1:K:574:ARG:H	1:K:575:PRO:HD2	1.56	0.71
1:C:326:THR:O	1:C:329:ASN:HB2	1.91	0.71
1:D:871:LEU:O	1:D:871:LEU:HD22	1.91	0.71
1:H:488:HIS:CB	1:H:491:GLU:HG2	2.18	0.71
1:K:229:PHE:CD1	1:K:232:LYS:HD2	2.26	0.71
1:L:285:ILE:HD13	1:L:332:VAL:HG22	1.73	0.71
1:D:229:PHE:O	1:D:233:LYS:HG2	1.90	0.71
1:D:272:ILE:CG2	1:D:278:LEU:H	2.04	0.71
1:D:556:ALA:HB2	1:K:855:ARG:HH21	1.56	0.71
1:J:272:ILE:HG21	1:J:277:PHE:HD1	1.56	0.71
1:B:609:PRO:N	1:B:610:ARG:HA	2.06	0.70
1:D:441:LEU:HB3	1:D:498:VAL:HG11	1.73	0.70
1:E:272:ILE:HG21	1:E:277:PHE:CD1	2.26	0.70
1:G:889:ARG:HH22	1:G:893:LEU:HD12	1.55	0.70
1:B:783:LEU:HD13	1:I:777:GLY:HA2	1.71	0.70
1:D:285:ILE:CD1	1:D:286:THR:H	1.90	0.70
1:K:286:THR:O	1:K:361:PRO:HB3	1.92	0.70
1:D:396:ILE:HG22	1:D:425:VAL:HB	1.73	0.70
1:I:257:VAL:HG12	1:I:394:LEU:HB3	1.71	0.70
1:I:285:ILE:HD13	1:I:332:VAL:HG22	1.73	0.70
1:J:441:LEU:HD21	1:J:499:SER:H	1.56	0.70
1:E:229:PHE:HA	1:E:232:LYS:HG2	1.74	0.70
1:D:434:PRO:HB3	1:D:491:GLU:HG3	1.71	0.70
1:D:750:LYS:NZ	1:E:779:PHE:CE2	2.60	0.70
1:E:260:SER:H	1:E:263:SER:HB3	1.57	0.70
1:J:252:LEU:HD23	1:J:524:THR:HG21	1.74	0.70
1:K:485:PHE:CZ	1:K:500:THR:OG1	2.42	0.70
1:C:903:GLU:HG3	1:C:906:ARG:NH2	2.07	0.70
1:F:611:GLU:N	1:F:612:PRO:HD2	2.07	0.70
1:H:308:PRO:HG3	1:H:344:ARG:HG3	1.73	0.70
1:A:615:ILE:H	1:A:615:ILE:HD12	1.55	0.70
1:H:263:SER:HA	1:H:266:SER:OG	1.90	0.70
1:H:284:MET:HG2	1:H:286:THR:CG2	2.20	0.70
1:D:339:THR:HG23	1:D:340:ASP:H	1.57	0.70
1:D:855:ARG:HG3	1:K:552:SER:HA	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:269:LEU:O	1:E:273:VAL:HG13	1.91	0.70
1:E:396:ILE:HG22	1:E:425:VAL:HB	1.74	0.70
1:J:269:LEU:HA	1:J:272:ILE:CD1	2.17	0.70
1:J:382:LEU:C	1:J:382:LEU:HD12	2.12	0.70
1:K:269:LEU:CD2	1:K:457:SER:CB	2.62	0.70
1:K:486:GLY:O	1:K:489:PRO:HD3	1.91	0.70
1:D:234:MET:O	1:D:237:ILE:HG22	1.92	0.70
1:E:265:LYS:O	1:E:268:VAL:HG23	1.92	0.70
1:E:267:SER:HB3	1:E:396:ILE:HG13	1.74	0.70
1:K:255:ILE:HD11	1:K:355:LEU:HG	1.74	0.70
1:A:285:ILE:HG13	1:A:332:VAL:HG22	1.72	0.69
1:A:363:TYR:N	1:A:363:TYR:CD1	2.60	0.69
1:D:268:VAL:O	1:D:272:ILE:HG13	1.91	0.69
1:E:286:THR:O	1:E:361:PRO:CG	2.40	0.69
1:E:485:PHE:HD2	1:E:492:PHE:CD1	2.10	0.69
1:E:642:LEU:HD12	1:E:643:GLY:N	2.07	0.69
1:H:863:GLU:O	1:H:867:ALA:HB3	1.92	0.69
1:A:375:LEU:N	1:A:375:LEU:HD23	2.06	0.69
1:B:780:SER:N	1:I:777:GLY:N	2.39	0.69
1:D:441:LEU:HD23	1:D:498:VAL:HB	0.70	0.69
1:E:286:THR:HB	1:E:361:PRO:CB	2.20	0.69
1:E:454:GLY:O	1:E:500:THR:CG2	2.40	0.69
1:H:276:GLU:HG2	1:H:277:PHE:N	2.06	0.69
1:I:665:ASP:OD1	1:I:676:ARG:NH1	2.25	0.69
1:K:272:ILE:CG2	1:K:278:LEU:CD1	2.65	0.69
1:L:627:TYR:OH	1:L:631:GLN:NE2	2.25	0.69
1:C:854:PRO:HB2	1:C:855:ARG:NH2	2.07	0.69
1:E:574:ARG:H	1:E:575:PRO:HD2	1.56	0.69
1:E:854:PRO:CD	1:E:855:ARG:NH1	2.56	0.69
1:I:578:GLN:HA	1:I:838:VAL:HG21	1.74	0.69
1:J:472:ASN:ND2	1:J:475:ALA:HB3	2.05	0.69
1:J:576:GLN:NE2	1:J:576:GLN:H	1.90	0.69
1:K:454:GLY:O	1:K:500:THR:HG22	1.92	0.69
1:A:255:ILE:HA	1:A:392:ILE:O	1.92	0.69
1:C:863:GLU:O	1:C:867:ALA:CB	2.41	0.69
1:D:246:GLN:OE1	1:D:246:GLN:N	2.25	0.69
1:E:272:ILE:CG2	1:E:278:LEU:HD12	2.17	0.69
1:E:878:ASP:HB3	1:E:881:VAL:HG22	1.74	0.69
1:H:287:ARG:HH11	1:H:287:ARG:CG	2.05	0.69
1:K:308:PRO:HG3	1:K:344:ARG:HB2	1.72	0.69
1:B:285:ILE:HD12	1:B:287:ARG:H	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:279:PRO:HB3	1:D:322:GLN:CA	2.23	0.69
1:I:772:HIS:CD2	1:I:779:PHE:H	2.10	0.69
1:J:272:ILE:CG2	1:J:278:LEU:CD1	2.59	0.69
1:J:297:ASP:OD1	1:J:300:ALA:CB	2.40	0.69
1:L:387:ILE:O	1:L:421:ARG:NH2	2.24	0.69
1:E:278:LEU:HD21	1:E:280:LYS:HD3	1.75	0.69
1:G:780:SER:OG	1:L:778:GLY:HA3	1.93	0.69
1:H:225:ASP:CB	1:H:229:PHE:CZ	2.68	0.69
1:H:242:GLN:HE22	1:H:344:ARG:HD2	1.58	0.69
1:H:363:TYR:N	1:H:363:TYR:HD1	1.90	0.69
1:K:272:ILE:HG12	1:K:280:LYS:HG3	1.72	0.69
1:K:704:PRO:HA	1:L:843:VAL:HG21	1.75	0.69
1:B:575:PRO:O	1:B:578:GLN:HB3	1.93	0.69
1:E:269:LEU:HA	1:E:272:ILE:HD12	1.74	0.69
1:E:486:GLY:O	1:E:489:PRO:HD3	1.93	0.69
1:G:775:GLY:O	1:G:776:ALA:CB	2.41	0.69
1:H:294:LEU:HB2	1:H:355:LEU:H	1.56	0.69
1:J:267:SER:HB3	1:J:396:ILE:HG13	1.73	0.69
1:K:257:VAL:HG22	1:K:359:ASP:HA	1.75	0.69
1:L:664:LEU:HD23	1:L:676:ARG:HG3	1.74	0.69
1:L:665:ASP:OD1	1:L:676:ARG:NH1	2.26	0.69
1:A:441:LEU:HD23	1:A:498:VAL:HG11	1.69	0.69
1:C:360:LEU:HB2	1:C:361:PRO:HD2	1.74	0.69
1:E:230:ILE:O	1:E:234:MET:HG3	1.93	0.69
1:E:299:GLU:O	1:E:299:GLU:HG3	1.92	0.69
1:I:777:GLY:O	1:I:783:LEU:HD11	1.92	0.69
1:A:279:PRO:HB3	1:A:322:GLN:HA	1.73	0.68
1:A:456:ILE:HD12	1:A:457:SER:N	2.08	0.68
1:C:609:PRO:HD2	1:C:610:ARG:O	1.93	0.68
1:C:863:GLU:O	1:C:867:ALA:HB3	1.94	0.68
1:D:555:ALA:CB	1:K:855:ARG:HD3	2.24	0.68
1:E:499:SER:O	1:E:500:THR:HG23	1.93	0.68
1:I:569:ALA:HB1	1:I:850:TYR:CE2	2.27	0.68
1:K:310:LEU:N	1:K:310:LEU:HD23	2.07	0.68
1:A:455:VAL:HG12	1:A:501:GLY:CA	2.22	0.68
1:E:268:VAL:O	1:E:272:ILE:HG13	1.93	0.68
1:E:279:PRO:CG	1:E:325:LEU:HD21	2.20	0.68
1:A:269:LEU:O	1:A:273:VAL:HG13	1.93	0.68
1:D:363:TYR:N	1:D:363:TYR:CD1	2.61	0.68
1:D:434:PRO:HG2	1:D:488:HIS:ND1	2.08	0.68
1:E:278:LEU:CD2	1:E:280:LYS:HD3	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:272:ILE:CG2	1:H:278:LEU:H	2.06	0.68
1:I:776:ALA:CA	1:I:783:LEU:HD12	2.23	0.68
1:D:272:ILE:HG23	1:D:278:LEU:HD13	1.70	0.68
1:E:224:ASP:OD2	1:E:227:MET:HB2	1.93	0.68
1:E:279:PRO:O	1:E:280:LYS:CD	2.41	0.68
1:E:854:PRO:CG	1:E:855:ARG:NH1	2.57	0.68
1:I:772:HIS:HB2	1:I:779:PHE:O	1.94	0.68
1:J:269:LEU:HD21	1:J:457:SER:CA	2.23	0.68
1:J:456:ILE:O	1:J:481:GLU:OE2	2.11	0.68
1:K:260:SER:N	1:K:263:SER:HB3	2.08	0.68
1:K:286:THR:CB	1:K:361:PRO:HB3	2.23	0.68
1:H:903:GLU:HG2	1:H:906:ARG:HH21	1.58	0.68
1:J:434:PRO:HB2	1:J:491:GLU:HG3	1.75	0.68
1:J:485:PHE:CD2	1:J:492:PHE:O	2.42	0.68
1:K:255:ILE:HG12	1:K:513:LEU:HD21	1.75	0.68
1:K:287:ARG:HH11	1:K:287:ARG:CG	2.07	0.68
1:K:454:GLY:O	1:K:500:THR:CG2	2.41	0.68
1:A:694:THR:HG21	1:A:845:MET:HB2	1.73	0.68
1:A:878:ASP:HB3	1:A:881:VAL:CG2	2.21	0.68
1:B:319:SER:O	1:B:322:GLN:HB3	1.94	0.68
1:C:285:ILE:HD12	1:C:287:ARG:N	2.02	0.68
1:D:485:PHE:HA	1:D:492:PHE:HE1	1.58	0.68
1:E:257:VAL:HG22	1:E:359:ASP:HA	1.76	0.68
1:E:434:PRO:HG2	1:E:488:HIS:CG	2.28	0.68
1:J:267:SER:HB2	1:J:396:ILE:HD12	1.74	0.68
1:J:279:PRO:HB3	1:J:322:GLN:CA	2.24	0.68
1:D:508:LYS:O	1:D:512:VAL:HG23	1.92	0.68
1:E:272:ILE:CG2	1:E:278:LEU:CD1	2.63	0.68
1:E:273:VAL:HG21	1:E:457:SER:HB3	1.76	0.68
1:H:376:LYS:NZ	1:H:379:ILE:HD12	2.08	0.68
1:J:272:ILE:HG23	1:J:278:LEU:H	1.59	0.68
1:C:665:ASP:OD1	1:C:676:ARG:NH1	2.26	0.68
1:D:265:LYS:O	1:D:268:VAL:HG23	1.93	0.68
1:G:434:PRO:HG2	1:G:488:HIS:CG	2.29	0.68
1:G:773:PRO:CB	1:G:781:ALA:HB3	2.23	0.68
1:J:269:LEU:CD2	1:J:457:SER:HB2	2.18	0.68
1:A:363:TYR:CE1	1:A:383:CYS:SG	2.78	0.68
1:H:363:TYR:N	1:H:363:TYR:CD1	2.60	0.68
1:J:229:PHE:HA	1:J:232:LYS:HG2	1.75	0.68
1:J:420:GLU:HG3	1:J:449:LYS:HE2	1.76	0.68
1:K:485:PHE:CD2	1:K:492:PHE:O	2.46	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:237:ILE:HD12	1:A:241:LEU:HD11	1.74	0.68
1:E:454:GLY:O	1:E:500:THR:CB	2.42	0.68
1:J:260:SER:O	1:J:264:GLY:CA	2.42	0.68
1:J:818:LYS:HE3	1:J:819:TYR:CZ	2.29	0.68
1:G:775:GLY:O	1:G:776:ALA:HB3	1.93	0.67
1:D:260:SER:O	1:D:264:GLY:CA	2.41	0.67
1:D:556:ALA:HA	1:K:855:ARG:NH2	2.09	0.67
1:E:791:VAL:HG13	1:E:794:ARG:NH2	2.08	0.67
1:J:263:SER:HA	1:J:266:SER:OG	1.94	0.67
1:J:276:GLU:HG2	1:J:277:PHE:N	2.10	0.67
1:D:252:LEU:HD23	1:D:524:THR:HG21	1.76	0.67
1:D:278:LEU:HB2	1:D:279:PRO:CD	2.24	0.67
1:D:753:GLU:CG	1:E:750:LYS:HE2	2.24	0.67
1:F:665:ASP:OD1	1:F:676:ARG:NH1	2.27	0.67
1:J:230:ILE:O	1:J:234:MET:HG3	1.94	0.67
1:J:278:LEU:HB2	1:J:279:PRO:CD	2.24	0.67
1:J:381:GLU:OE1	1:J:381:GLU:HA	1.94	0.67
1:K:286:THR:O	1:K:361:PRO:HG3	1.94	0.67
1:K:434:PRO:HB2	1:K:491:GLU:HG3	1.75	0.67
1:K:508:LYS:O	1:K:512:VAL:HG23	1.94	0.67
1:D:499:SER:O	1:D:500:THR:CG2	2.42	0.67
1:F:434:PRO:HG2	1:F:488:HIS:CG	2.30	0.67
1:J:441:LEU:HB3	1:J:498:VAL:HG11	1.77	0.67
1:L:272:ILE:HG23	1:L:277:PHE:HA	1.76	0.67
1:G:383:CYS:O	1:G:387:ILE:HG13	1.95	0.67
1:H:387:ILE:CG2	1:H:415:VAL:HG21	2.24	0.67
1:J:485:PHE:CD2	1:J:492:PHE:HD1	2.11	0.67
1:K:276:GLU:OE2	1:K:318:PHE:CD2	2.47	0.67
1:D:492:PHE:O	1:D:492:PHE:HD1	1.78	0.67
1:A:272:ILE:HG23	1:A:278:LEU:H	1.60	0.67
1:A:339:THR:HG23	1:A:340:ASP:N	2.09	0.67
1:D:225:ASP:OD1	1:D:225:ASP:N	2.28	0.67
1:I:704:PRO:HA	1:J:843:VAL:HG21	1.77	0.67
1:J:363:TYR:CE1	1:J:383:CYS:SG	2.74	0.67
1:K:268:VAL:O	1:K:272:ILE:HG13	1.95	0.67
1:K:272:ILE:HG21	1:K:277:PHE:CD1	2.30	0.67
1:L:854:PRO:HB2	1:L:855:ARG:CZ	2.25	0.67
1:A:308:PRO:HG3	1:A:344:ARG:HB2	1.78	0.66
1:D:854:PRO:HD2	1:D:855:ARG:NH1	2.10	0.66
1:E:269:LEU:HD21	1:E:457:SER:O	1.95	0.66
1:E:472:ASN:HD21	1:E:475:ALA:CB	2.07	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:265:LYS:O	1:H:268:VAL:HG23	1.94	0.66
1:H:434:PRO:CG	1:H:488:HIS:CD2	2.78	0.66
1:E:441:LEU:HD21	1:E:498:VAL:CB	2.16	0.66
1:E:455:VAL:HG12	1:E:501:GLY:CA	2.24	0.66
1:H:307:PHE:N	1:H:307:PHE:HD1	1.93	0.66
1:I:284:MET:SD	1:I:284:MET:N	2.66	0.66
1:I:843:VAL:HG21	1:J:704:PRO:HA	1.78	0.66
1:J:270:GLU:O	1:J:273:VAL:HG22	1.94	0.66
1:K:270:GLU:HA	1:K:273:VAL:HG22	1.75	0.66
1:A:488:HIS:HB3	1:A:491:GLU:HG2	1.78	0.66
1:E:307:PHE:CE1	1:E:345:LEU:CD2	2.78	0.66
1:E:472:ASN:ND2	1:E:475:ALA:CB	2.57	0.66
1:F:863:GLU:O	1:F:867:ALA:HB3	1.94	0.66
1:J:363:TYR:CD2	1:J:407:THR:HB	2.30	0.66
1:J:441:LEU:HD23	1:J:498:VAL:HB	0.69	0.66
1:K:278:LEU:O	1:K:278:LEU:HD13	1.96	0.66
1:B:642:LEU:HD22	1:B:643:GLY:H	1.61	0.66
1:D:750:LYS:HE2	1:E:753:GLU:OE1	1.94	0.66
1:H:499:SER:O	1:H:500:THR:CG2	2.43	0.66
1:B:355:LEU:HD23	1:B:357:LEU:HD22	1.78	0.66
1:B:723:VAL:HG21	1:B:824:VAL:HA	1.77	0.66
1:D:562:LYS:CE	1:K:562:LYS:HE2	2.24	0.66
1:K:231:THR:O	1:K:235:ILE:HG22	1.95	0.66
1:D:285:ILE:CG1	1:D:287:ARG:H	2.09	0.66
1:D:287:ARG:HH11	1:D:287:ARG:CG	2.05	0.66
1:E:284:MET:HG2	1:E:286:THR:HG22	1.76	0.66
1:H:876:ARG:HB3	1:H:882:ARG:HH21	1.61	0.66
1:J:230:ILE:HG13	1:J:904:LEU:HD11	1.78	0.66
1:E:259:GLY:HA2	1:E:408:ALA:HB2	1.77	0.66
1:E:272:ILE:CG2	1:E:277:PHE:HA	2.24	0.66
1:G:672:HIS:HD2	1:G:877:GLU:HB2	1.61	0.66
1:K:307:PHE:CD1	1:K:345:LEU:HD21	2.30	0.66
1:K:480:ASN:HA	1:K:483:ASN:OD1	1.94	0.66
1:A:269:LEU:HD21	1:A:457:SER:CA	2.26	0.66
1:D:441:LEU:HD21	1:D:498:VAL:CB	2.19	0.66
1:E:393:ILE:HG23	1:E:422:THR:HB	1.78	0.66
1:G:780:SER:CA	1:L:778:GLY:O	2.44	0.66
1:G:863:GLU:O	1:G:867:ALA:HB3	1.96	0.66
1:J:543:TYR:O	1:J:546:GLN:HG2	1.95	0.66
1:L:257:VAL:HG12	1:L:394:LEU:HB3	1.76	0.66
1:A:485:PHE:CD2	1:A:492:PHE:O	2.46	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:363:TYR:N	1:D:363:TYR:HD1	1.94	0.66
1:J:388:ARG:O	1:J:421:ARG:NH2	2.29	0.66
1:K:396:ILE:HG22	1:K:425:VAL:HB	1.78	0.66
1:A:267:SER:HB3	1:A:396:ILE:HG13	1.77	0.66
1:C:664:LEU:HD23	1:C:676:ARG:HG3	1.77	0.66
1:E:276:GLU:OE1	1:E:303:ASP:CG	2.35	0.66
1:E:454:GLY:O	1:E:500:THR:HG22	1.96	0.66
1:D:270:GLU:O	1:D:273:VAL:CG2	2.42	0.65
1:D:270:GLU:C	1:D:273:VAL:HG22	2.16	0.65
1:E:441:LEU:CD2	1:E:498:VAL:HG12	2.15	0.65
1:G:528:ILE:O	1:G:531:GLU:HG2	1.97	0.65
1:H:268:VAL:O	1:H:272:ILE:HG13	1.96	0.65
1:K:433:GLU:O	1:K:436:LYS:HB2	1.95	0.65
1:D:272:ILE:HG22	1:D:277:PHE:HA	1.77	0.65
1:D:441:LEU:CD2	1:D:498:VAL:HG12	2.19	0.65
1:D:478:ASN:HD21	1:D:482:LYS:NZ	1.78	0.65
1:E:818:LYS:HE3	1:E:819:TYR:CZ	2.31	0.65
1:G:322:GLN:O	1:G:326:THR:OG1	2.05	0.65
1:K:275:HIS:CD2	1:K:275:HIS:N	2.63	0.65
1:A:363:TYR:CD2	1:A:407:THR:HB	2.31	0.65
1:E:230:ILE:HG13	1:E:904:LEU:HD11	1.77	0.65
1:H:272:ILE:HG21	1:H:277:PHE:HD1	1.61	0.65
1:K:269:LEU:CA	1:K:272:ILE:HD12	2.20	0.65
1:K:285:ILE:CD1	1:K:286:THR:N	2.59	0.65
1:A:243:LYS:O	1:A:243:LYS:HG2	1.96	0.65
1:B:360:LEU:HB2	1:B:361:PRO:HD2	1.77	0.65
1:E:299:GLU:O	1:E:299:GLU:CG	2.44	0.65
1:H:322:GLN:O	1:H:326:THR:OG1	2.05	0.65
1:H:434:PRO:CG	1:H:488:HIS:CG	2.79	0.65
1:K:238:ARG:NH2	1:K:356:SER:OG	2.30	0.65
1:A:285:ILE:CD1	1:A:286:THR:N	2.48	0.65
1:D:257:VAL:CG2	1:D:359:ASP:HA	2.26	0.65
1:D:267:SER:HB2	1:D:396:ILE:HD11	1.78	0.65
1:D:434:PRO:CG	1:D:488:HIS:CG	2.80	0.65
1:H:376:LYS:HZ2	1:H:379:ILE:HD12	1.60	0.65
1:J:233:LYS:HE2	1:J:233:LYS:CA	2.26	0.65
1:J:272:ILE:CG2	1:J:278:LEU:H	2.10	0.65
1:A:275:HIS:CG	1:A:276:GLU:H	2.15	0.65
1:B:453:VAL:HG11	1:B:505:LEU:HB2	1.78	0.65
1:G:773:PRO:HB3	1:G:781:ALA:HB3	1.79	0.65
1:K:229:PHE:HA	1:K:232:LYS:HG2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:832:LYS:O	1:L:835:GLN:HG2	1.97	0.65
1:A:492:PHE:O	1:A:492:PHE:CD1	2.48	0.65
1:C:227:MET:O	1:C:230:ILE:HG22	1.97	0.65
1:D:270:GLU:CA	1:D:273:VAL:HG22	2.27	0.65
1:D:436:LYS:O	1:D:440:ILE:HG13	1.96	0.65
1:H:286:THR:O	1:H:361:PRO:CB	2.44	0.65
1:H:485:PHE:HE2	1:H:500:THR:OG1	1.80	0.65
1:I:611:GLU:N	1:I:612:PRO:CD	2.60	0.65
1:J:237:ILE:HD13	1:J:237:ILE:O	1.96	0.65
1:K:265:LYS:O	1:K:268:VAL:HG23	1.96	0.65
1:G:227:MET:HA	1:G:230:ILE:HG22	1.78	0.65
1:J:735:GLN:O	1:J:738:MET:HB3	1.97	0.65
1:K:339:THR:HG23	1:K:340:ASP:N	2.12	0.65
1:K:456:ILE:O	1:K:481:GLU:OE2	2.14	0.65
1:A:230:ILE:HG13	1:A:904:LEU:HD11	1.79	0.65
1:A:270:GLU:HA	1:A:273:VAL:HG22	1.79	0.65
1:B:585:LEU:HD12	1:B:834:ALA:HB2	1.79	0.65
1:D:683:ALA:HB2	1:D:853:PHE:CE1	2.31	0.65
1:J:269:LEU:HD11	1:J:458:LYS:HB2	1.78	0.65
1:B:254:SER:HB2	1:B:356:SER:O	1.97	0.64
1:D:855:ARG:HD3	1:D:855:ARG:H	1.58	0.64
1:E:492:PHE:O	1:E:492:PHE:HD1	1.80	0.64
1:E:574:ARG:HD2	1:E:839:LEU:HD12	1.78	0.64
1:H:454:GLY:O	1:H:500:THR:CB	2.44	0.64
1:I:611:GLU:H	1:I:612:PRO:HD2	1.62	0.64
1:A:275:HIS:CD2	1:A:275:HIS:N	2.65	0.64
1:D:388:ARG:O	1:D:421:ARG:NH2	2.31	0.64
1:E:284:MET:N	1:E:284:MET:SD	2.69	0.64
1:H:423:ILE:HG22	1:H:450:LEU:HD13	1.77	0.64
1:L:254:SER:HB2	1:L:356:SER:O	1.96	0.64
1:H:455:VAL:HG12	1:H:501:GLY:N	2.12	0.64
1:J:572:PHE:O	1:J:576:GLN:NE2	2.30	0.64
1:K:279:PRO:O	1:K:280:LYS:CD	2.45	0.64
1:K:388:ARG:O	1:K:421:ARG:NH2	2.29	0.64
1:A:565:PHE:O	1:A:568:PHE:HB3	1.97	0.64
1:E:276:GLU:CD	1:E:318:PHE:HE2	2.01	0.64
1:H:273:VAL:CG1	1:H:457:SER:HB2	2.26	0.64
1:K:671:LYS:N	1:K:671:LYS:HE3	2.13	0.64
1:A:233:LYS:N	1:A:233:LYS:HE3	2.12	0.64
1:A:269:LEU:HD23	1:A:457:SER:OG	1.95	0.64
1:A:363:TYR:HD2	1:A:407:THR:HB	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:269:LEU:HD21	1:J:457:SER:O	1.96	0.64
1:K:232:LYS:HG3	1:K:233:LYS:HE3	1.79	0.64
1:E:272:ILE:HG12	1:E:280:LYS:HG3	1.78	0.64
1:H:376:LYS:NZ	1:H:376:LYS:HA	2.12	0.64
1:J:308:PRO:HG3	1:J:344:ARG:HG3	1.79	0.64
1:K:272:ILE:CG2	1:K:277:PHE:HD1	2.11	0.64
1:L:285:ILE:HD12	1:L:287:ARG:H	1.61	0.64
1:E:727:LEU:HD21	1:E:823:GLU:HG2	1.80	0.64
1:E:739:LYS:O	1:E:742:GLU:HB2	1.97	0.64
1:G:627:TYR:OH	1:G:631:GLN:NE2	2.30	0.64
1:G:863:GLU:O	1:G:867:ALA:CB	2.46	0.64
1:H:272:ILE:HG21	1:H:277:PHE:CD1	2.33	0.64
1:H:665:ASP:OD1	1:H:676:ARG:NH2	2.31	0.64
1:D:272:ILE:HG21	1:D:277:PHE:HD1	1.62	0.64
1:D:363:TYR:CD2	1:D:407:THR:HB	2.32	0.64
1:E:441:LEU:HD23	1:E:498:VAL:HB	0.68	0.64
1:F:227:MET:HA	1:F:230:ILE:HG22	1.80	0.64
1:H:881:VAL:O	1:H:884:HIS:HB3	1.97	0.64
1:L:611:GLU:H	1:L:612:PRO:HD2	1.61	0.64
1:A:235:ILE:O	1:A:235:ILE:HD12	1.97	0.64
1:A:363:TYR:N	1:A:363:TYR:HD1	1.95	0.64
1:B:259:GLY:HA2	1:B:408:ALA:HB2	1.78	0.64
1:C:266:SER:HA	1:C:269:LEU:HD22	1.79	0.64
1:C:627:TYR:OH	1:C:631:GLN:NE2	2.30	0.64
1:G:862:HIS:NE2	1:G:866:HIS:CD2	2.66	0.64
1:H:269:LEU:HD23	1:H:269:LEU:C	2.18	0.64
1:J:307:PHE:CE1	1:J:345:LEU:CD2	2.79	0.64
1:K:307:PHE:CD1	1:K:345:LEU:CD2	2.80	0.64
1:A:376:LYS:N	1:A:376:LYS:HE2	2.13	0.64
1:D:555:ALA:CB	1:K:855:ARG:CD	2.76	0.64
1:G:627:TYR:HE2	1:G:628:TRP:CZ3	2.15	0.64
1:H:493:GLY:O	1:H:496:SER:HB3	1.97	0.64
1:A:252:LEU:HD23	1:A:524:THR:HG21	1.79	0.63
1:D:224:ASP:N	1:D:225:ASP:OD1	2.32	0.63
1:F:754:VAL:HG22	1:F:779:PHE:CD2	2.33	0.63
1:H:298:PRO:O	1:H:299:GLU:HB3	1.97	0.63
1:H:307:PHE:N	1:H:307:PHE:CD1	2.66	0.63
1:A:749:LYS:H	1:A:749:LYS:CD	2.11	0.63
1:C:224:ASP:CG	1:C:227:MET:HG3	2.18	0.63
1:E:285:ILE:O	1:E:286:THR:OG1	2.14	0.63
1:E:308:PRO:HG3	1:E:344:ARG:HG3	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:279:PRO:HB3	1:F:322:GLN:HA	1.80	0.63
1:J:455:VAL:HG12	1:J:501:GLY:N	2.13	0.63
1:J:665:ASP:OD1	1:J:676:ARG:NH2	2.31	0.63
1:D:286:THR:OG1	1:D:361:PRO:HB3	1.98	0.63
1:D:478:ASN:CG	1:D:482:LYS:NZ	2.51	0.63
1:I:772:HIS:HB2	1:I:780:SER:CA	2.29	0.63
1:A:375:LEU:HB2	1:A:376:LYS:HE2	1.80	0.63
1:G:585:LEU:HD12	1:G:834:ALA:HB2	1.79	0.63
1:D:454:GLY:H	1:D:500:THR:HG22	1.62	0.63
1:H:672:HIS:HA	1:H:877:GLU:OE2	1.98	0.63
1:K:241:LEU:O	1:K:244:VAL:HG23	1.97	0.63
1:C:627:TYR:CE2	1:C:628:TRP:CZ3	2.86	0.63
1:D:376:LYS:HZ1	1:D:379:ILE:HD12	1.62	0.63
1:E:308:PRO:HG3	1:E:344:ARG:CB	2.29	0.63
1:H:671:LYS:HD2	1:H:671:LYS:N	2.12	0.63
1:H:762:ARG:HG2	1:H:762:ARG:HH11	1.64	0.63
1:K:376:LYS:CA	1:K:376:LYS:CE	2.76	0.63
1:A:269:LEU:CA	1:A:272:ILE:HD12	2.26	0.63
1:B:272:ILE:HG23	1:B:277:PHE:HA	1.80	0.63
1:B:791:VAL:CG1	1:B:794:ARG:HH21	2.08	0.63
1:C:843:VAL:HG21	1:D:704:PRO:HA	1.80	0.63
1:D:286:THR:O	1:D:361:PRO:CB	2.46	0.63
1:F:607:PRO:HD3	1:F:762:ARG:HG3	1.80	0.63
1:J:455:VAL:HG12	1:J:501:GLY:H	1.60	0.63
1:K:308:PRO:HG3	1:K:344:ARG:HG3	1.81	0.63
1:A:672:HIS:HA	1:A:877:GLU:OE2	1.99	0.63
1:D:537:TYR:CE1	1:D:540:LYS:HE3	2.34	0.63
1:J:492:PHE:O	1:J:492:PHE:HD1	1.81	0.63
1:C:524:THR:O	1:C:528:ILE:HG13	1.99	0.63
1:F:569:ALA:HB1	1:F:850:TYR:CE2	2.34	0.63
1:K:299:GLU:HG3	1:K:299:GLU:O	1.97	0.63
1:L:381:GLU:HA	1:L:381:GLU:OE1	1.99	0.63
1:B:783:LEU:HD12	1:I:777:GLY:HA2	1.53	0.62
1:D:273:VAL:CG1	1:D:457:SER:HB2	2.22	0.62
1:E:556:ALA:CB	1:J:855:ARG:HH21	2.10	0.62
1:J:413:ARG:NH1	1:J:446:TYR:CE1	2.67	0.62
1:C:224:ASP:HB3	1:C:227:MET:HG3	1.80	0.62
1:E:240:LEU:N	1:E:240:LEU:HD23	2.13	0.62
1:E:818:LYS:HE3	1:E:819:TYR:CE2	2.34	0.62
1:G:360:LEU:HB2	1:G:361:PRO:HD2	1.81	0.62
1:I:800:LEU:O	1:I:804:ILE:HG13	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:286:THR:HB	1:D:361:PRO:CB	2.29	0.62
1:E:300:ALA:C	1:E:301:LYS:HD3	2.20	0.62
1:I:387:ILE:O	1:I:421:ARG:NH2	2.32	0.62
1:J:269:LEU:HD23	1:J:270:GLU:N	2.13	0.62
1:J:284:MET:HG2	1:J:286:THR:HG22	1.81	0.62
1:J:297:ASP:OD1	1:J:300:ALA:HB3	1.97	0.62
1:J:574:ARG:H	1:J:575:PRO:HD2	1.64	0.62
1:A:640:THR:HG21	1:A:706:LYS:HA	1.79	0.62
1:A:259:GLY:HA2	1:A:408:ALA:HB2	1.81	0.62
1:E:276:GLU:OE1	1:E:303:ASP:OD1	2.18	0.62
1:H:377:ARG:HH21	1:H:377:ARG:HG2	1.60	0.62
1:D:488:HIS:HB3	1:D:491:GLU:HG2	1.82	0.62
1:E:441:LEU:HB3	1:E:498:VAL:HG11	1.81	0.62
1:E:855:ARG:HD2	1:J:555:ALA:HB3	1.82	0.62
1:F:260:SER:H	1:F:263:SER:HB3	1.64	0.62
1:G:776:ALA:O	1:L:777:GLY:CA	2.47	0.62
1:L:611:GLU:N	1:L:612:PRO:HD2	2.14	0.62
1:G:255:ILE:HD11	1:G:355:LEU:HG	1.81	0.62
1:K:454:GLY:O	1:K:455:VAL:CG1	2.47	0.62
1:K:454:GLY:O	1:K:500:THR:HB	1.99	0.62
1:D:455:VAL:HG12	1:D:501:GLY:N	2.15	0.62
1:F:569:ALA:HB1	1:F:850:TYR:CD2	2.34	0.62
1:G:665:ASP:OD1	1:G:676:ARG:NH1	2.33	0.62
1:H:488:HIS:CB	1:H:491:GLU:HG3	2.25	0.62
1:J:307:PHE:CD1	1:J:345:LEU:HD21	2.34	0.62
1:J:376:LYS:HZ2	1:J:379:ILE:HD12	1.65	0.62
1:J:569:ALA:HA	1:J:850:TYR:CZ	2.35	0.62
1:B:284:MET:N	1:B:284:MET:SD	2.72	0.62
1:B:780:SER:HB2	1:I:774:SER:HG	1.63	0.62
1:J:377:ARG:HH21	1:J:377:ARG:CG	2.12	0.62
1:K:670:ALA:HB3	1:K:671:LYS:NZ	2.14	0.62
1:D:272:ILE:HG23	1:D:278:LEU:H	1.65	0.62
1:E:376:LYS:HA	1:E:376:LYS:HZ3	1.64	0.62
1:G:472:ASN:OD1	1:G:475:ALA:HB3	2.00	0.62
1:K:349:SER:O	1:K:352:ILE:HG13	2.00	0.62
1:K:387:ILE:CG2	1:K:393:ILE:HD12	2.30	0.62
1:A:441:LEU:HB3	1:A:498:VAL:HG11	1.82	0.61
1:A:703:LYS:HE3	1:C:544:ASN:HD22	1.65	0.61
1:E:749:LYS:HD2	1:E:749:LYS:N	2.13	0.61
1:E:832:LYS:O	1:E:836:THR:HG22	2.00	0.61
1:I:690:ARG:NH1	1:I:844:GLU:OE2	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:863:GLU:O	1:I:867:ALA:CB	2.47	0.61
1:K:272:ILE:CG2	1:K:278:LEU:H	2.13	0.61
1:K:278:LEU:HB2	1:K:279:PRO:HD2	1.81	0.61
1:K:298:PRO:O	1:K:299:GLU:HB3	2.00	0.61
1:A:272:ILE:HG21	1:A:277:PHE:HD1	1.65	0.61
1:B:608:ALA:C	1:B:610:ARG:HA	2.20	0.61
1:D:478:ASN:O	1:D:482:LYS:HG2	2.01	0.61
1:E:640:THR:HG21	1:E:706:LYS:HA	1.82	0.61
1:K:906:ARG:HH22	1:K:907:ILE:HD13	1.64	0.61
1:B:766:ILE:HD12	1:B:767:ILE:H	1.65	0.61
1:D:640:THR:HG21	1:D:706:LYS:HA	1.80	0.61
1:H:429:MET:CE	1:H:437:GLY:HA2	2.31	0.61
1:H:673:PRO:HD2	1:H:877:GLU:OE1	1.99	0.61
1:J:286:THR:HB	1:J:361:PRO:CB	2.28	0.61
1:J:286:THR:O	1:J:361:PRO:CG	2.48	0.61
1:J:434:PRO:HB3	1:J:491:GLU:HG3	1.80	0.61
1:K:339:THR:HG23	1:K:340:ASP:H	1.64	0.61
1:A:263:SER:OG	1:A:397:SER:HA	1.99	0.61
1:A:349:SER:HB3	1:A:352:ILE:CG2	2.30	0.61
1:D:229:PHE:O	1:D:232:LYS:HG3	2.00	0.61
1:E:665:ASP:OD1	1:E:676:ARG:NH2	2.33	0.61
1:F:683:ALA:HB2	1:F:853:PHE:CE1	2.36	0.61
1:G:791:VAL:HG13	1:G:794:ARG:NH2	2.14	0.61
1:H:238:ARG:NH2	1:H:356:SER:OG	2.34	0.61
1:H:396:ILE:HG22	1:H:425:VAL:HB	1.83	0.61
1:J:225:ASP:N	1:J:225:ASP:OD1	2.32	0.61
1:J:382:LEU:HD12	1:J:382:LEU:O	2.00	0.61
1:A:260:SER:N	1:A:263:SER:HB3	2.15	0.61
1:A:328:LEU:HD13	1:A:343:ILE:HD13	1.82	0.61
1:J:478:ASN:CG	1:J:482:LYS:NZ	2.53	0.61
1:K:279:PRO:HG3	1:K:321:ILE:HG22	1.83	0.61
1:A:279:PRO:HG2	1:A:325:LEU:CD2	2.27	0.61
1:A:349:SER:O	1:A:352:ILE:HG13	1.99	0.61
1:A:593:LEU:HD21	1:A:823:GLU:HG3	1.82	0.61
1:B:441:LEU:HD23	1:B:498:VAL:HB	1.82	0.61
1:D:672:HIS:HA	1:D:877:GLU:CD	2.21	0.61
1:E:258:ILE:HG22	1:E:360:LEU:HD11	1.82	0.61
1:E:377:ARG:CG	1:E:377:ARG:NH2	2.51	0.61
1:H:454:GLY:O	1:H:500:THR:CG2	2.49	0.61
1:I:627:TYR:OH	1:I:631:GLN:NE2	2.34	0.61
1:J:286:THR:OG1	1:J:361:PRO:HB3	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:269:LEU:HD23	1:E:457:SER:HB2	1.83	0.61
1:G:780:SER:HA	1:L:778:GLY:O	2.00	0.61
1:J:240:LEU:N	1:J:240:LEU:HD23	2.16	0.61
1:J:241:LEU:O	1:J:244:VAL:HG23	2.00	0.61
1:J:430:ASP:C	1:J:430:ASP:OD1	2.37	0.61
1:J:434:PRO:HG2	1:J:488:HIS:CG	2.35	0.61
1:K:244:VAL:HB	1:K:248:SER:OG	2.00	0.61
1:K:272:ILE:HG23	1:K:278:LEU:H	1.65	0.61
1:K:276:GLU:OE1	1:K:303:ASP:CG	2.39	0.61
1:K:403:LEU:N	1:K:403:LEU:HD23	2.14	0.61
1:K:441:LEU:HD23	1:K:498:VAL:HB	0.67	0.61
1:D:423:ILE:HG22	1:D:450:LEU:HD13	1.83	0.61
1:J:278:LEU:HD22	1:J:280:LYS:HG2	1.83	0.61
1:D:260:SER:N	1:D:263:SER:HB3	2.15	0.61
1:G:772:HIS:CD2	1:G:779:PHE:O	2.54	0.61
1:G:773:PRO:HA	1:G:781:ALA:CB	2.29	0.61
1:H:267:SER:HB2	1:H:396:ILE:CD1	2.31	0.61
1:L:400:ASP:N	1:L:400:ASP:OD1	2.34	0.61
1:D:276:GLU:HG2	1:D:277:PHE:H	1.66	0.61
1:G:617:ASP:OD1	1:G:617:ASP:N	2.29	0.61
1:A:429:MET:CE	1:A:437:GLY:HA2	2.31	0.60
1:G:889:ARG:HA	1:G:892:GLU:HG3	1.83	0.60
1:J:376:LYS:NZ	1:J:379:ILE:HD12	2.16	0.60
1:J:690:ARG:NH1	1:J:844:GLU:OE2	2.34	0.60
1:A:286:THR:O	1:A:361:PRO:CG	2.49	0.60
1:D:413:ARG:NH1	1:D:446:TYR:CE1	2.69	0.60
1:D:901:ILE:O	1:D:904:LEU:HB3	2.00	0.60
1:G:768:VAL:HG11	1:G:784:LEU:HD13	1.83	0.60
1:G:772:HIS:C	1:G:781:ALA:H	2.03	0.60
1:H:278:LEU:HB2	1:H:279:PRO:HD2	1.83	0.60
1:H:445:GLN:O	1:H:446:TYR:HD1	1.84	0.60
1:H:499:SER:O	1:H:500:THR:HG23	2.01	0.60
1:L:255:ILE:HG23	1:L:392:ILE:HG23	1.83	0.60
1:A:690:ARG:NH1	1:A:844:GLU:OE2	2.33	0.60
1:H:232:LYS:CA	1:H:235:ILE:HG22	2.25	0.60
1:I:262:SER:O	1:I:266:SER:OG	2.19	0.60
1:J:272:ILE:CG2	1:J:278:LEU:HD13	2.20	0.60
1:J:565:PHE:HA	1:J:663:LEU:HD21	1.81	0.60
1:K:401:THR:HG22	1:K:402:ASP:O	2.00	0.60
1:A:244:VAL:HB	1:A:248:SER:OG	2.01	0.60
1:C:640:THR:HG22	1:C:706:LYS:HG2	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:772:HIS:O	1:G:781:ALA:N	2.30	0.60
1:H:276:GLU:OE2	1:H:318:PHE:CD2	2.52	0.60
1:K:286:THR:O	1:K:361:PRO:CB	2.50	0.60
1:K:376:LYS:NZ	1:K:376:LYS:CA	2.60	0.60
1:B:285:ILE:HG12	1:B:329:ASN:O	2.01	0.60
1:D:544:ASN:ND2	1:L:641:ARG:HH11	1.96	0.60
1:E:229:PHE:HA	1:E:232:LYS:CG	2.31	0.60
1:F:617:ASP:N	1:F:617:ASP:OD1	2.34	0.60
1:G:364:ILE:HD12	1:G:376:LYS:HZ2	1.66	0.60
1:H:472:ASN:ND2	1:H:475:ALA:HB3	2.17	0.60
1:J:434:PRO:HB3	1:J:491:GLU:CG	2.31	0.60
1:L:295:VAL:HG12	1:L:296:ASN:O	2.00	0.60
1:C:262:SER:O	1:C:266:SER:OG	2.18	0.60
1:E:232:LYS:O	1:E:235:ILE:HG23	2.01	0.60
1:G:578:GLN:HA	1:G:838:VAL:HG21	1.83	0.60
1:J:279:PRO:HG3	1:J:321:ILE:HG22	1.82	0.60
1:J:287:ARG:HH11	1:J:287:ARG:HG3	1.66	0.60
1:J:727:LEU:HD21	1:J:823:GLU:HG2	1.82	0.60
1:L:607:PRO:HD3	1:L:762:ARG:HG3	1.83	0.60
1:B:661:GLU:OE2	1:B:676:ARG:NH2	2.35	0.60
1:D:750:LYS:CE	1:E:779:PHE:CE2	2.84	0.60
1:K:564:GLN:O	1:K:567:GLU:HB2	2.01	0.60
1:A:286:THR:O	1:A:361:PRO:HG3	2.02	0.60
1:F:818:LYS:HE3	1:F:819:TYR:CE2	2.36	0.60
1:K:524:THR:O	1:K:528:ILE:HG13	2.01	0.60
1:L:602:ILE:HB	1:L:788:ARG:HB3	1.83	0.60
1:L:778:GLY:C	1:L:779:PHE:CD2	2.71	0.60
1:D:246:GLN:CD	1:D:247:GLY:H	2.05	0.60
1:D:276:GLU:CD	1:D:318:PHE:HE2	1.99	0.60
1:D:445:GLN:O	1:D:446:TYR:CG	2.54	0.60
1:G:818:LYS:HE3	1:G:819:TYR:CE2	2.36	0.60
1:K:640:THR:HG21	1:K:706:LYS:HA	1.82	0.60
1:A:775:GLY:HA2	1:A:779:PHE:O	2.01	0.60
1:D:627:TYR:CE2	1:D:628:TRP:CE3	2.90	0.60
1:E:363:TYR:CD2	1:E:407:THR:HB	2.37	0.60
1:J:276:GLU:OE2	1:J:318:PHE:HE2	1.83	0.60
1:J:307:PHE:CD1	1:J:345:LEU:CD2	2.84	0.60
1:K:363:TYR:N	1:K:363:TYR:HD1	1.99	0.60
1:D:454:GLY:O	1:D:500:THR:CB	2.49	0.59
1:E:251:THR:HG22	1:E:252:LEU:H	1.66	0.59
1:F:224:ASP:HB3	1:F:227:MET:HG3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:817:ASN:HB3	1:H:820:TYR:HB2	1.84	0.59
1:K:363:TYR:N	1:K:363:TYR:CD1	2.69	0.59
1:K:690:ARG:O	1:K:690:ARG:HD3	2.02	0.59
1:A:434:PRO:HB3	1:A:491:GLU:CG	2.31	0.59
1:D:275:HIS:H	1:D:275:HIS:CD2	2.20	0.59
1:G:441:LEU:HD23	1:G:498:VAL:HB	1.83	0.59
1:K:276:GLU:OE1	1:K:303:ASP:OD1	2.21	0.59
1:K:376:LYS:HA	1:K:376:LYS:CE	2.32	0.59
1:A:457:SER:O	1:A:458:LYS:HB2	2.03	0.59
1:A:800:LEU:O	1:A:804:ILE:HG13	2.02	0.59
1:F:285:ILE:HG12	1:F:329:ASN:O	2.02	0.59
1:H:246:GLN:HG2	1:H:247:GLY:N	2.15	0.59
1:K:307:PHE:CE1	1:K:345:LEU:CD2	2.76	0.59
1:K:455:VAL:CG1	1:K:501:GLY:H	2.15	0.59
1:D:229:PHE:HA	1:D:232:LYS:CG	2.32	0.59
1:D:260:SER:H	1:D:263:SER:HB3	1.66	0.59
1:E:485:PHE:CD2	1:E:492:PHE:HD1	2.18	0.59
1:E:565:PHE:HA	1:E:663:LEU:HD21	1.83	0.59
1:G:254:SER:HB2	1:G:356:SER:O	2.02	0.59
1:G:609:PRO:HB2	1:G:610:ARG:C	2.23	0.59
1:H:272:ILE:CG2	1:H:277:PHE:HD1	2.15	0.59
1:H:279:PRO:HB3	1:H:322:GLN:CA	2.31	0.59
1:A:832:LYS:O	1:A:836:THR:HG22	2.02	0.59
1:C:227:MET:HA	1:C:230:ILE:HG22	1.84	0.59
1:D:574:ARG:H	1:D:575:PRO:HD2	1.68	0.59
1:E:484:TYR:HE1	1:E:492:PHE:HZ	1.51	0.59
1:H:278:LEU:HD22	1:H:279:PRO:O	2.03	0.59
1:H:441:LEU:HB3	1:H:498:VAL:CG1	2.33	0.59
1:A:392:ILE:HD12	1:A:421:ARG:O	2.02	0.59
1:D:297:ASP:OD1	1:D:348:HIS:HB3	2.02	0.59
1:D:382:LEU:C	1:D:382:LEU:HD12	2.22	0.59
1:D:575:PRO:O	1:D:578:GLN:HB3	2.02	0.59
1:H:387:ILE:HG22	1:H:415:VAL:HG21	1.83	0.59
1:J:298:PRO:O	1:J:299:GLU:HB3	2.02	0.59
1:J:387:ILE:CG2	1:J:415:VAL:HG21	2.32	0.59
1:K:610:ARG:HA	1:K:610:ARG:HE	1.67	0.59
1:A:456:ILE:O	1:A:481:GLU:OE2	2.20	0.59
1:J:255:ILE:HD12	1:J:357:LEU:HB3	1.84	0.59
1:K:260:SER:H	1:K:263:SER:HB3	1.67	0.59
1:D:745:VAL:O	1:E:778:GLY:CA	2.51	0.59
1:E:499:SER:O	1:E:500:THR:CG2	2.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:297:ASP:HB3	1:G:349:SER:C	2.23	0.59
1:I:569:ALA:HB1	1:I:850:TYR:CD2	2.38	0.59
1:B:272:ILE:HD11	1:B:280:LYS:HB2	1.85	0.59
1:C:294:LEU:HB3	1:C:352:ILE:HD13	1.85	0.59
1:E:671:LYS:N	1:E:671:LYS:HE3	2.17	0.59
1:H:275:HIS:CG	1:H:276:GLU:N	2.70	0.59
1:H:458:LYS:C	1:H:458:LYS:CD	2.70	0.59
1:K:878:ASP:HB3	1:K:881:VAL:HG21	1.84	0.59
1:A:279:PRO:CG	1:A:322:GLN:HA	2.33	0.59
1:B:791:VAL:CG1	1:B:794:ARG:NH2	2.60	0.59
1:E:673:PRO:HD2	1:E:877:GLU:OE1	2.02	0.59
1:F:863:GLU:O	1:F:867:ALA:CB	2.50	0.59
1:G:508:LYS:O	1:G:512:VAL:HG23	2.03	0.59
1:G:878:ASP:HB3	1:G:881:VAL:HG12	1.84	0.59
1:H:505:LEU:O	1:H:505:LEU:HD22	2.02	0.59
1:J:275:HIS:H	1:J:275:HIS:CD2	2.19	0.59
1:A:269:LEU:HD21	1:A:457:SER:HB2	1.83	0.58
1:A:278:LEU:CD2	1:A:280:LYS:CD	2.79	0.58
1:A:279:PRO:HB3	1:A:322:GLN:CG	2.32	0.58
1:C:627:TYR:CZ	1:C:631:GLN:NE2	2.71	0.58
1:D:537:TYR:CD1	1:D:540:LYS:CE	2.86	0.58
1:G:815:LEU:O	1:G:815:LEU:HD12	2.03	0.58
1:K:294:LEU:HB2	1:K:355:LEU:H	1.68	0.58
1:B:488:HIS:HB3	1:B:491:GLU:CG	2.31	0.58
1:D:279:PRO:O	1:D:280:LYS:CD	2.51	0.58
1:G:772:HIS:ND1	1:L:780:SER:CB	2.61	0.58
1:H:255:ILE:HG23	1:H:392:ILE:HG23	1.85	0.58
1:I:355:LEU:HD23	1:I:357:LEU:HD22	1.83	0.58
1:K:381:GLU:OE1	1:K:381:GLU:HA	2.03	0.58
1:K:455:VAL:HG12	1:K:501:GLY:N	2.15	0.58
1:B:611:GLU:H	1:B:612:PRO:HD2	1.69	0.58
1:E:272:ILE:CG2	1:E:277:PHE:HD1	2.17	0.58
1:F:279:PRO:CB	1:F:322:GLN:HA	2.33	0.58
1:H:269:LEU:CG	1:H:457:SER:O	2.49	0.58
1:I:588:LYS:O	1:I:591:ASP:HB2	2.03	0.58
1:D:272:ILE:HG21	1:D:277:PHE:CD1	2.39	0.58
1:E:657:GLN:HE22	1:E:684:ALA:HA	1.69	0.58
1:H:441:LEU:CD2	1:H:498:VAL:HG12	2.18	0.58
1:J:279:PRO:HG2	1:J:325:LEU:HD21	1.85	0.58
1:K:387:ILE:CG2	1:K:415:VAL:HG21	2.33	0.58
1:K:672:HIS:HA	1:K:877:GLU:OE2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:269:LEU:HD23	1:A:270:GLU:N	2.18	0.58
1:E:484:TYR:HE1	1:E:492:PHE:CZ	2.22	0.58
1:E:672:HIS:HA	1:E:877:GLU:OE2	2.03	0.58
1:H:279:PRO:HB3	1:H:322:GLN:HA	1.83	0.58
1:H:436:LYS:O	1:H:440:ILE:HG13	2.02	0.58
1:J:569:ALA:HB1	1:J:850:TYR:CD2	2.38	0.58
1:J:683:ALA:HB2	1:J:853:PHE:CE1	2.37	0.58
1:K:279:PRO:HB3	1:K:322:GLN:HB2	1.84	0.58
1:C:254:SER:HB2	1:C:356:SER:O	2.03	0.58
1:F:575:PRO:HA	1:F:578:GLN:HB3	1.85	0.58
1:J:277:PHE:HD1	1:J:278:LEU:N	2.01	0.58
1:K:230:ILE:HG13	1:K:904:LEU:HD11	1.84	0.58
1:K:294:LEU:HB3	1:K:352:ILE:HD13	1.85	0.58
1:A:232:LYS:HD3	1:A:233:LYS:NZ	2.19	0.58
1:C:611:GLU:N	1:C:612:PRO:HD2	2.18	0.58
1:C:780:SER:OG	1:C:783:LEU:HB2	2.03	0.58
1:D:562:LYS:CD	1:K:559:ASP:OD1	2.51	0.58
1:E:265:LYS:HA	1:E:268:VAL:CG2	2.34	0.58
1:E:377:ARG:HH21	1:E:377:ARG:HG3	1.65	0.58
1:J:255:ILE:HG12	1:J:513:LEU:HD21	1.85	0.58
1:J:285:ILE:HG12	1:J:287:ARG:N	2.12	0.58
1:J:349:SER:O	1:J:352:ILE:HG13	2.03	0.58
1:K:252:LEU:HD23	1:K:524:THR:HG21	1.86	0.58
1:L:428:LYS:HB3	1:L:431:LEU:HD21	1.85	0.58
1:D:287:ARG:HG3	1:D:287:ARG:NH1	2.06	0.58
1:D:426:ILE:HD12	1:D:440:ILE:CG2	2.01	0.58
1:E:286:THR:O	1:E:361:PRO:HB3	2.02	0.58
1:J:232:LYS:HD2	1:J:233:LYS:HE3	1.84	0.58
1:J:254:SER:HB2	1:J:356:SER:O	2.02	0.58
1:J:278:LEU:CD1	1:J:278:LEU:N	2.66	0.58
1:J:286:THR:O	1:J:361:PRO:HB3	2.04	0.58
1:J:296:ASN:O	1:J:298:PRO:HD3	2.04	0.58
1:K:375:LEU:N	1:K:375:LEU:CD2	2.59	0.58
1:K:434:PRO:HB3	1:K:491:GLU:HG3	1.86	0.58
1:L:640:THR:HG21	1:L:706:LYS:HA	1.84	0.58
1:A:233:LYS:HE3	1:A:233:LYS:CA	2.34	0.58
1:C:224:ASP:HB3	1:C:227:MET:HB2	1.86	0.58
1:E:488:HIS:HB3	1:E:491:GLU:HG2	1.84	0.58
1:H:377:ARG:CG	1:H:377:ARG:NH2	2.60	0.58
1:I:259:GLY:HA2	1:I:408:ALA:HB2	1.84	0.58
1:J:575:PRO:O	1:J:578:GLN:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:308:PRO:HD2	1:E:344:ARG:O	2.04	0.58
1:H:297:ASP:CG	1:H:300:ALA:HB3	2.24	0.58
1:K:269:LEU:HD21	1:K:457:SER:HB2	1.82	0.58
1:K:499:SER:O	1:K:500:THR:HG23	2.04	0.58
1:L:609:PRO:HB3	1:L:611:GLU:HB2	1.83	0.58
1:A:269:LEU:HD11	1:A:457:SER:C	2.09	0.57
1:D:257:VAL:HG22	1:D:359:ASP:HA	1.86	0.57
1:E:263:SER:OG	1:E:397:SER:HA	2.04	0.57
1:H:751:LEU:HA	1:H:754:VAL:HG12	1.86	0.57
1:I:430:ASP:HB3	1:I:456:ILE:HG12	1.85	0.57
1:I:642:LEU:HD13	1:I:643:GLY:N	2.19	0.57
1:J:307:PHE:HE1	1:J:345:LEU:HD21	1.60	0.57
1:J:682:ALA:O	1:J:685:THR:HG22	2.03	0.57
1:A:255:ILE:HG13	1:A:357:LEU:HA	1.86	0.57
1:A:270:GLU:O	1:A:273:VAL:HG22	2.04	0.57
1:A:279:PRO:O	1:A:280:LYS:CD	2.51	0.57
1:E:284:MET:HG2	1:E:286:THR:CG2	2.33	0.57
1:H:279:PRO:HG2	1:H:325:LEU:CD2	2.31	0.57
1:H:775:GLY:HA2	1:H:779:PHE:O	2.03	0.57
1:J:275:HIS:CG	1:J:276:GLU:H	2.22	0.57
1:A:387:ILE:CG2	1:A:393:ILE:HD12	2.35	0.57
1:C:255:ILE:HD11	1:C:355:LEU:HG	1.85	0.57
1:C:322:GLN:O	1:C:326:THR:OG1	2.10	0.57
1:E:241:LEU:O	1:E:244:VAL:HG23	2.04	0.57
1:E:298:PRO:O	1:E:299:GLU:HB3	2.04	0.57
1:E:339:THR:CG2	1:E:340:ASP:H	2.17	0.57
1:H:429:MET:HE2	1:H:437:GLY:HA2	1.86	0.57
1:H:441:LEU:HD21	1:H:498:VAL:CB	2.20	0.57
1:K:296:ASN:HB2	1:K:354:ASP:OD2	2.04	0.57
1:K:600:ARG:HB3	1:K:601:PRO:HD2	1.85	0.57
1:A:263:SER:HA	1:A:266:SER:OG	2.05	0.57
1:D:873:LYS:HA	1:D:876:ARG:HB2	1.86	0.57
1:G:779:PHE:CD1	1:L:750:LYS:NZ	2.73	0.57
1:H:485:PHE:HD2	1:H:492:PHE:O	1.87	0.57
1:J:267:SER:CB	1:J:396:ILE:HG13	2.34	0.57
1:L:662:LYS:O	1:L:665:ASP:HB2	2.04	0.57
1:A:434:PRO:HG2	1:A:488:HIS:ND1	2.18	0.57
1:E:237:ILE:HD12	1:E:241:LEU:HD11	1.86	0.57
1:E:480:ASN:HA	1:E:483:ASN:OD1	2.04	0.57
1:H:670:ALA:HB1	1:H:671:LYS:HZ2	1.69	0.57
1:J:266:SER:HB2	1:J:427:THR:OG1	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:474:LEU:HG	1:A:475:ALA:H	1.70	0.57
1:D:270:GLU:HA	1:D:273:VAL:CG2	2.33	0.57
1:E:363:TYR:N	1:E:363:TYR:CD1	2.70	0.57
1:F:611:GLU:H	1:F:612:PRO:HD2	1.69	0.57
1:J:263:SER:OG	1:J:397:SER:HA	2.05	0.57
1:K:286:THR:OG1	1:K:361:PRO:HB3	2.05	0.57
1:L:627:TYR:CZ	1:L:631:GLN:NE2	2.72	0.57
1:C:224:ASP:CB	1:C:227:MET:HG3	2.34	0.57
1:C:268:VAL:O	1:C:272:ILE:HG13	2.05	0.57
1:D:278:LEU:HD22	1:D:280:LYS:CD	2.34	0.57
1:G:618:LEU:N	1:G:619:PRO:HD2	2.19	0.57
1:H:381:GLU:OE1	1:H:381:GLU:HA	2.05	0.57
1:J:232:LYS:CD	1:J:233:LYS:HE3	2.35	0.57
1:K:454:GLY:N	1:K:500:THR:HG22	2.19	0.57
1:K:751:LEU:O	1:K:754:VAL:HG12	2.05	0.57
1:D:285:ILE:HG12	1:D:287:ARG:N	2.16	0.57
1:D:889:ARG:HG3	1:D:890:ARG:N	2.20	0.57
1:F:258:ILE:HG22	1:F:360:LEU:HD11	1.87	0.57
1:A:863:GLU:O	1:A:867:ALA:HB3	2.05	0.57
1:D:488:HIS:HB3	1:D:491:GLU:CG	2.35	0.57
1:E:255:ILE:HD11	1:E:355:LEU:HG	1.84	0.57
1:G:473:LEU:HD12	1:G:476:SER:OG	2.05	0.57
1:H:272:ILE:HG23	1:H:278:LEU:H	1.70	0.57
1:H:433:GLU:O	1:H:436:LYS:HB2	2.04	0.57
1:J:387:ILE:HG22	1:J:415:VAL:HG21	1.86	0.57
1:A:387:ILE:HG21	1:A:393:ILE:HD12	1.86	0.57
1:D:308:PRO:HG3	1:D:344:ARG:HG3	1.85	0.57
1:E:279:PRO:HB3	1:E:322:GLN:HB2	1.85	0.57
1:E:704:PRO:HA	1:F:843:VAL:HG21	1.85	0.57
1:J:294:LEU:HB2	1:J:355:LEU:H	1.69	0.57
1:J:455:VAL:HG12	1:J:501:GLY:CA	2.35	0.57
1:K:382:LEU:HD12	1:K:382:LEU:O	2.05	0.57
1:L:275:HIS:HB2	1:L:352:ILE:HG21	1.87	0.57
1:A:240:LEU:N	1:A:240:LEU:HD23	2.20	0.56
1:E:477:ILE:O	1:E:477:ILE:HG22	2.05	0.56
1:G:259:GLY:HA2	1:G:408:ALA:HB2	1.87	0.56
1:H:272:ILE:CG2	1:H:278:LEU:HD12	2.22	0.56
1:I:609:PRO:HB2	1:I:611:GLU:HB2	1.85	0.56
1:K:272:ILE:HG12	1:K:278:LEU:CD1	2.34	0.56
1:K:273:VAL:HG21	1:K:457:SER:CB	2.34	0.56
1:A:278:LEU:HD13	1:A:278:LEU:C	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:241:LEU:HD13	1:C:250:VAL:O	2.06	0.56
1:E:363:TYR:N	1:E:363:TYR:HD1	2.02	0.56
1:E:556:ALA:CB	1:J:855:ARG:NH2	2.65	0.56
1:I:772:HIS:HB2	1:I:780:SER:N	2.20	0.56
1:J:259:GLY:HA2	1:J:408:ALA:HB2	1.87	0.56
1:J:485:PHE:CE2	1:J:492:PHE:CD1	2.93	0.56
1:L:255:ILE:HD11	1:L:355:LEU:HG	1.87	0.56
1:A:543:TYR:O	1:A:546:GLN:HG3	2.06	0.56
1:A:574:ARG:H	1:A:575:PRO:HD2	1.70	0.56
1:C:279:PRO:CB	1:C:322:GLN:HA	2.35	0.56
1:C:640:THR:HG21	1:C:706:LYS:HA	1.87	0.56
1:D:392:ILE:HD12	1:D:421:ARG:O	2.05	0.56
1:D:750:LYS:CE	1:E:753:GLU:OE1	2.52	0.56
1:G:611:GLU:N	1:G:612:PRO:HD2	2.19	0.56
1:I:776:ALA:O	1:I:780:SER:HB3	2.05	0.56
1:J:278:LEU:HD13	1:J:278:LEU:H	1.69	0.56
1:J:308:PRO:HG3	1:J:344:ARG:CB	2.35	0.56
1:J:478:ASN:HD21	1:J:482:LYS:NZ	1.88	0.56
1:K:307:PHE:HB2	1:K:310:LEU:HB2	1.86	0.56
1:K:400:ASP:OD1	1:K:400:ASP:N	2.38	0.56
1:K:431:LEU:HD23	1:K:431:LEU:H	1.70	0.56
1:K:694:THR:HG21	1:K:845:MET:HB2	1.86	0.56
1:L:661:GLU:OE2	1:L:676:ARG:NH2	2.39	0.56
1:A:229:PHE:O	1:A:233:LYS:HG2	2.04	0.56
1:B:233:LYS:HE3	1:B:900:LYS:HD2	1.86	0.56
1:C:508:LYS:O	1:C:512:VAL:HG23	2.06	0.56
1:D:855:ARG:N	1:D:855:ARG:CD	2.55	0.56
1:E:246:GLN:HG2	1:E:247:GLY:N	2.20	0.56
1:F:858:GLU:O	1:F:862:HIS:ND1	2.38	0.56
1:G:749:LYS:O	1:G:753:GLU:HG3	2.05	0.56
1:J:526:GLU:OE1	1:J:530:ARG:NH1	2.39	0.56
1:K:454:GLY:O	1:K:500:THR:CB	2.53	0.56
1:A:454:GLY:O	1:A:500:THR:HB	2.06	0.56
1:A:817:ASN:HB3	1:A:820:TYR:HB2	1.87	0.56
1:C:312:LEU:N	1:C:312:LEU:HD23	2.20	0.56
1:D:246:GLN:CG	1:D:247:GLY:N	2.69	0.56
1:D:263:SER:OG	1:D:397:SER:HA	2.04	0.56
1:D:556:ALA:CB	1:K:855:ARG:HH21	2.19	0.56
1:D:617:ASP:OD1	1:D:617:ASP:N	2.38	0.56
1:E:275:HIS:H	1:E:275:HIS:CD2	2.22	0.56
1:G:276:GLU:HG2	1:G:277:PHE:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:683:ALA:HB2	1:I:853:PHE:CE1	2.41	0.56
1:L:683:ALA:HB2	1:L:853:PHE:CE1	2.40	0.56
1:B:559:ASP:OD2	1:C:855:ARG:NH2	2.37	0.56
1:D:526:GLU:OE1	1:D:530:ARG:NH1	2.39	0.56
1:E:312:LEU:N	1:E:312:LEU:HD23	2.20	0.56
1:E:524:THR:O	1:E:528:ILE:HG13	2.04	0.56
1:H:260:SER:N	1:H:263:SER:HB3	2.21	0.56
1:H:377:ARG:NH2	1:H:377:ARG:HG3	2.21	0.56
1:D:694:THR:HG21	1:D:845:MET:HB2	1.86	0.56
1:G:772:HIS:HB3	1:L:780:SER:HA	1.88	0.56
1:I:524:THR:O	1:I:528:ILE:HG13	2.05	0.56
1:K:434:PRO:HG2	1:K:488:HIS:ND1	2.20	0.56
1:K:889:ARG:HG3	1:K:890:ARG:N	2.21	0.56
1:A:834:ALA:O	1:A:838:VAL:HB	2.06	0.56
1:C:257:VAL:HG12	1:C:394:LEU:HB3	1.88	0.56
1:C:690:ARG:NH1	1:C:844:GLU:OE2	2.38	0.56
1:D:231:THR:O	1:D:235:ILE:HG22	2.06	0.56
1:D:492:PHE:CD1	1:D:492:PHE:O	2.58	0.56
1:D:524:THR:O	1:D:528:ILE:HG13	2.06	0.56
1:H:269:LEU:HD21	1:H:457:SER:CA	2.35	0.56
1:H:457:SER:O	1:H:458:LYS:HB2	2.06	0.56
1:J:436:LYS:O	1:J:440:ILE:HG13	2.06	0.56
1:J:863:GLU:O	1:J:867:ALA:HB3	2.04	0.56
1:K:474:LEU:HG	1:K:475:ALA:H	1.71	0.56
1:A:600:ARG:HB3	1:A:601:PRO:HD2	1.88	0.56
1:C:480:ASN:HA	1:C:483:ASN:OD1	2.06	0.56
1:C:609:PRO:HB2	1:C:610:ARG:C	2.26	0.56
1:C:798:ASP:O	1:C:802:LEU:HG	2.05	0.56
1:F:255:ILE:HG12	1:F:513:LEU:HD12	1.87	0.56
1:J:493:GLY:O	1:J:496:SER:HB3	2.05	0.56
1:J:572:PHE:O	1:J:576:GLN:CD	2.44	0.56
1:K:279:PRO:CG	1:K:325:LEU:HD21	2.24	0.56
1:K:286:THR:HB	1:K:361:PRO:HB3	1.88	0.56
1:A:682:ALA:O	1:A:685:THR:HG22	2.06	0.56
1:D:321:ILE:O	1:D:325:LEU:HG	2.06	0.56
1:E:269:LEU:HD23	1:E:457:SER:CB	2.31	0.56
1:H:349:SER:O	1:H:352:ILE:HG13	2.05	0.56
1:H:455:VAL:HG12	1:H:501:GLY:CA	2.35	0.56
1:K:269:LEU:HD23	1:K:270:GLU:CA	2.36	0.56
1:A:454:GLY:O	1:A:500:THR:HG22	2.06	0.55
1:A:713:PRO:O	1:A:716:TRP:HB3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:607:PRO:HD3	1:C:762:ARG:HG3	1.87	0.55
1:D:529:GLN:HG2	1:D:898:LEU:HD21	1.88	0.55
1:E:671:LYS:HE3	1:E:671:LYS:CA	2.36	0.55
1:F:585:LEU:HD12	1:F:834:ALA:HB2	1.87	0.55
1:H:441:LEU:CB	1:H:498:VAL:CG1	2.84	0.55
1:B:328:LEU:HD13	1:B:343:ILE:HD13	1.88	0.55
1:C:878:ASP:HB3	1:C:881:VAL:CG1	2.34	0.55
1:D:377:ARG:HG2	1:D:377:ARG:HH21	1.70	0.55
1:D:441:LEU:HB3	1:D:498:VAL:CG1	2.36	0.55
1:D:556:ALA:CA	1:K:855:ARG:NH2	2.69	0.55
1:E:854:PRO:HG2	1:E:855:ARG:HH12	1.70	0.55
1:E:855:ARG:HD3	1:E:855:ARG:N	2.21	0.55
1:F:269:LEU:O	1:F:273:VAL:HG13	2.06	0.55
1:F:572:PHE:HB3	1:F:850:TYR:OH	2.06	0.55
1:J:834:ALA:O	1:J:838:VAL:HB	2.05	0.55
1:K:239:ASN:O	1:K:242:GLN:HB3	2.07	0.55
1:K:278:LEU:HD13	1:K:280:LYS:HG2	1.88	0.55
1:E:264:GLY:O	1:E:268:VAL:HG22	2.05	0.55
1:E:903:GLU:O	1:E:906:ARG:HB3	2.06	0.55
1:H:229:PHE:O	1:H:232:LYS:HG3	2.06	0.55
1:H:375:LEU:HD23	1:H:375:LEU:N	2.21	0.55
1:H:477:ILE:O	1:H:477:ILE:HG22	2.06	0.55
1:I:441:LEU:HD23	1:I:498:VAL:HB	1.89	0.55
1:K:376:LYS:NZ	1:K:379:ILE:CD1	2.64	0.55
1:A:257:VAL:HG22	1:A:359:ASP:HA	1.86	0.55
1:A:441:LEU:HD21	1:A:498:VAL:CB	2.24	0.55
1:A:806:ALA:O	1:A:809:SER:HB3	2.07	0.55
1:B:321:ILE:HA	1:B:324:THR:OG1	2.07	0.55
1:D:296:ASN:HB2	1:D:354:ASP:OD2	2.07	0.55
1:D:339:THR:CG2	1:D:340:ASP:H	2.20	0.55
1:D:453:VAL:HG21	1:D:505:LEU:HD23	1.88	0.55
1:D:485:PHE:HE2	1:D:500:THR:OG1	1.85	0.55
1:D:667:SER:OG	1:D:668:SER:N	2.39	0.55
1:F:611:GLU:N	1:F:612:PRO:CD	2.70	0.55
1:H:762:ARG:HG2	1:H:762:ARG:NH1	2.18	0.55
1:I:615:ILE:HD11	1:I:803:ARG:NE	2.07	0.55
1:J:241:LEU:HD21	1:J:528:ILE:HD11	1.89	0.55
1:K:259:GLY:HA2	1:K:408:ALA:HB2	1.87	0.55
1:K:690:ARG:NH1	1:K:844:GLU:OE2	2.40	0.55
1:A:269:LEU:HD11	1:A:458:LYS:HB2	1.88	0.55
1:A:526:GLU:OE1	1:A:530:ARG:NH1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:276:GLU:OE2	1:D:318:PHE:CD2	2.53	0.55
1:D:382:LEU:HG	1:D:383:CYS:N	2.22	0.55
1:F:449:LYS:C	1:F:451:GLY:H	2.10	0.55
1:H:485:PHE:CZ	1:H:500:THR:OG1	2.52	0.55
1:I:611:GLU:H	1:I:612:PRO:CD	2.18	0.55
1:K:377:ARG:HG2	1:K:377:ARG:NH2	2.21	0.55
1:K:665:ASP:OD1	1:K:676:ARG:NH2	2.40	0.55
1:A:272:ILE:HG21	1:A:277:PHE:CD1	2.41	0.55
1:A:376:LYS:NZ	1:A:379:ILE:HD12	2.22	0.55
1:D:363:TYR:HD2	1:D:407:THR:HB	1.72	0.55
1:G:321:ILE:HA	1:G:324:THR:OG1	2.07	0.55
1:H:263:SER:CA	1:H:266:SER:OG	2.55	0.55
1:I:279:PRO:HG2	1:I:325:LEU:HD21	1.89	0.55
1:I:598:TRP:CD1	1:I:799:ILE:HG21	2.42	0.55
1:J:377:ARG:CG	1:J:377:ARG:NH2	2.70	0.55
1:J:403:LEU:HD23	1:J:403:LEU:N	2.21	0.55
1:J:474:LEU:HG	1:J:475:ALA:H	1.71	0.55
1:K:237:ILE:HD13	1:K:241:LEU:HG	1.88	0.55
1:K:429:MET:CE	1:K:437:GLY:HA2	2.37	0.55
1:A:456:ILE:HD12	1:A:456:ILE:C	2.27	0.55
1:C:713:PRO:O	1:C:716:TRP:HB3	2.07	0.55
1:E:454:GLY:N	1:E:500:THR:HG22	2.22	0.55
1:F:266:SER:HA	1:F:269:LEU:HD22	1.87	0.55
1:H:286:THR:HB	1:H:361:PRO:CB	2.37	0.55
1:J:285:ILE:CG1	1:J:287:ARG:HB2	2.36	0.55
1:A:814:THR:HG21	1:A:817:ASN:ND2	2.21	0.55
1:C:791:VAL:HG13	1:C:794:ARG:NH2	2.22	0.55
1:E:434:PRO:CG	1:E:488:HIS:CG	2.89	0.55
1:F:349:SER:O	1:F:352:ILE:HG13	2.06	0.55
1:H:275:HIS:CD2	1:H:275:HIS:N	2.74	0.55
1:H:842:ASN:O	1:H:846:LEU:HB3	2.06	0.55
1:I:227:MET:O	1:I:231:THR:OG1	2.24	0.55
1:J:255:ILE:HD11	1:J:355:LEU:HG	1.89	0.55
1:J:376:LYS:HA	1:J:376:LYS:HZ1	1.71	0.55
1:J:499:SER:O	1:J:500:THR:CG2	2.54	0.55
1:K:264:GLY:O	1:K:268:VAL:HG22	2.07	0.55
1:K:284:MET:SD	1:K:284:MET:O	2.65	0.55
1:B:387:ILE:O	1:B:421:ARG:NH2	2.40	0.55
1:B:672:HIS:HD2	1:B:877:GLU:HB2	1.72	0.55
1:D:255:ILE:HG13	1:D:357:LEU:HA	1.89	0.55
1:D:454:GLY:O	1:D:500:THR:CG2	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:727:LEU:HD21	1:D:823:GLU:HG2	1.88	0.55
1:E:615:ILE:H	1:E:615:ILE:HD12	1.72	0.55
1:E:848:ASP:HA	1:E:851:VAL:HG22	1.89	0.55
1:F:889:ARG:NH2	1:F:893:LEU:CD1	2.70	0.55
1:G:780:SER:HB3	1:L:778:GLY:O	2.06	0.55
1:H:230:ILE:HG13	1:H:904:LEU:HD11	1.87	0.55
1:H:485:PHE:HA	1:H:492:PHE:HE1	1.72	0.55
1:I:772:HIS:CB	1:I:780:SER:CA	2.85	0.55
1:A:297:ASP:OD2	1:A:300:ALA:CB	2.55	0.55
1:A:387:ILE:HG22	1:A:415:VAL:HG21	1.89	0.55
1:A:543:TYR:O	1:A:546:GLN:CG	2.55	0.55
1:E:423:ILE:HG22	1:E:450:LEU:HD13	1.89	0.55
1:G:690:ARG:NH1	1:G:844:GLU:OE2	2.40	0.55
1:K:387:ILE:HG22	1:K:415:VAL:HG21	1.89	0.55
1:A:279:PRO:HB3	1:A:322:GLN:HB2	1.87	0.54
1:A:279:PRO:HG3	1:A:322:GLN:HA	1.88	0.54
1:C:532:LEU:HD22	1:C:898:LEU:HD22	1.89	0.54
1:D:279:PRO:O	1:D:280:LYS:HD2	2.07	0.54
1:E:485:PHE:CE2	1:E:492:PHE:CD1	2.93	0.54
1:E:815:LEU:O	1:E:815:LEU:HD22	2.07	0.54
1:G:266:SER:HA	1:G:269:LEU:HD22	1.87	0.54
1:G:289:PRO:HB2	1:G:342:PRO:HB3	1.89	0.54
1:H:229:PHE:HA	1:H:232:LYS:CG	2.37	0.54
1:K:284:MET:O	1:K:286:THR:HG23	2.07	0.54
1:B:272:ILE:HG12	1:B:278:LEU:HD13	1.89	0.54
1:C:492:PHE:O	1:C:492:PHE:HD1	1.91	0.54
1:G:640:THR:HG21	1:G:706:LYS:HA	1.89	0.54
1:H:472:ASN:HD21	1:H:475:ALA:HB3	1.71	0.54
1:H:735:GLN:O	1:H:738:MET:HB3	2.07	0.54
1:A:671:LYS:HD2	1:A:671:LYS:H	1.71	0.54
1:A:673:PRO:HD2	1:A:877:GLU:OE1	2.07	0.54
1:B:234:MET:SD	1:B:234:MET:CB	2.92	0.54
1:D:456:ILE:HD12	1:D:457:SER:N	2.22	0.54
1:D:485:PHE:CD2	1:D:492:PHE:CE1	2.95	0.54
1:E:326:THR:HG22	1:E:329:ASN:HD22	1.72	0.54
1:E:339:THR:CG2	1:E:340:ASP:N	2.68	0.54
1:E:376:LYS:HE2	1:E:376:LYS:N	2.22	0.54
1:G:524:THR:O	1:G:528:ILE:HG13	2.06	0.54
1:I:286:THR:HB	1:I:361:PRO:HB3	1.89	0.54
1:I:777:GLY:O	1:I:783:LEU:HD13	2.06	0.54
1:J:269:LEU:CD1	1:J:458:LYS:HB2	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:478:ASN:ND2	1:K:482:LYS:NZ	2.55	0.54
1:K:496:SER:OG	1:K:498:VAL:HG22	2.08	0.54
1:L:597:TYR:CE2	1:L:822:PRO:HG3	2.42	0.54
1:L:664:LEU:HB3	1:L:676:ARG:NH1	2.23	0.54
1:A:230:ILE:O	1:A:234:MET:HG3	2.07	0.54
1:A:499:SER:O	1:A:500:THR:CG2	2.55	0.54
1:A:754:VAL:HA	1:A:779:PHE:CE1	2.42	0.54
1:B:705:TYR:CE1	1:B:832:LYS:HD3	2.42	0.54
1:C:667:SER:OG	1:C:668:SER:N	2.39	0.54
1:D:496:SER:OG	1:D:498:VAL:HG22	2.07	0.54
1:E:297:ASP:OD1	1:E:348:HIS:HB3	2.08	0.54
1:E:429:MET:CE	1:E:437:GLY:HA2	2.37	0.54
1:E:434:PRO:HG2	1:E:488:HIS:CE1	2.41	0.54
1:E:441:LEU:HD23	1:E:498:VAL:HG11	1.82	0.54
1:F:544:ASN:ND2	1:H:703:LYS:HE3	2.22	0.54
1:G:672:HIS:CD2	1:G:877:GLU:HB2	2.42	0.54
1:K:387:ILE:O	1:K:421:ARG:NH2	2.40	0.54
1:K:720:ARG:CZ	1:K:813:LYS:HG3	2.38	0.54
1:A:614:ASN:OD1	1:A:616:ILE:HG22	2.07	0.54
1:E:254:SER:HB2	1:E:356:SER:O	2.07	0.54
1:F:627:TYR:HE2	1:F:628:TRP:CZ3	2.25	0.54
1:H:276:GLU:CD	1:H:318:PHE:HE2	1.97	0.54
1:H:752:LYS:HA	1:H:755:MET:HE2	1.90	0.54
1:J:363:TYR:CD1	1:J:363:TYR:N	2.75	0.54
1:K:387:ILE:HG23	1:K:393:ILE:HD12	1.88	0.54
1:L:434:PRO:HG2	1:L:488:HIS:CD2	2.43	0.54
1:L:569:ALA:HB1	1:L:850:TYR:CE2	2.43	0.54
1:L:681:ASP:O	1:L:685:THR:HG23	2.08	0.54
1:A:477:ILE:HG22	1:A:477:ILE:O	2.08	0.54
1:A:488:HIS:HB3	1:A:491:GLU:HG3	1.89	0.54
1:B:783:LEU:HG	1:I:772:HIS:CE1	2.43	0.54
1:D:441:LEU:CB	1:D:498:VAL:CG1	2.86	0.54
1:D:444:ARG:O	1:D:447:PRO:HD3	2.08	0.54
1:D:496:SER:OG	1:D:498:VAL:CG2	2.56	0.54
1:I:251:THR:HG22	1:I:252:LEU:H	1.73	0.54
1:K:648:ALA:HB1	1:K:841:LEU:HD12	1.89	0.54
1:B:393:ILE:HG23	1:B:422:THR:HB	1.89	0.54
1:B:523:GLU:OE1	1:B:523:GLU:HA	2.07	0.54
1:D:339:THR:CG2	1:D:340:ASP:N	2.70	0.54
1:D:484:TYR:CE1	1:D:492:PHE:HZ	2.26	0.54
1:D:780:SER:OG	1:E:780:SER:HB3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:289:PRO:HB2	1:E:342:PRO:HB3	1.88	0.54
1:G:284:MET:HG2	1:G:286:THR:HG23	1.88	0.54
1:H:286:THR:HB	1:H:361:PRO:HA	1.89	0.54
1:H:294:LEU:HB2	1:H:355:LEU:N	2.22	0.54
1:J:277:PHE:HD1	1:J:278:LEU:H	1.55	0.54
1:J:279:PRO:HB3	1:J:322:GLN:HB2	1.88	0.54
1:K:441:LEU:HB3	1:K:498:VAL:HG11	1.90	0.54
1:L:249:THR:OG1	1:L:531:GLU:OE1	2.20	0.54
1:L:524:THR:O	1:L:528:ILE:HG13	2.06	0.54
1:A:376:LYS:CA	1:A:376:LYS:CE	2.86	0.54
1:A:441:LEU:CD2	1:A:498:VAL:CA	2.84	0.54
1:A:454:GLY:O	1:A:500:THR:CG2	2.56	0.54
1:B:779:PHE:O	1:I:776:ALA:HB3	2.08	0.54
1:D:376:LYS:CA	1:D:376:LYS:CE	2.86	0.54
1:D:484:TYR:CE1	1:D:492:PHE:CZ	2.96	0.54
1:D:499:SER:O	1:D:500:THR:HG23	2.08	0.54
1:E:445:GLN:O	1:E:446:TYR:CD1	2.61	0.54
1:G:269:LEU:HD11	1:G:457:SER:O	2.08	0.54
1:G:387:ILE:O	1:G:421:ARG:NH2	2.41	0.54
1:G:488:HIS:HB3	1:G:491:GLU:HG3	1.89	0.54
1:G:575:PRO:O	1:G:578:GLN:HB3	2.08	0.54
1:H:376:LYS:HA	1:H:376:LYS:HZ3	1.70	0.54
1:H:543:TYR:CE1	1:H:884:HIS:HB2	2.42	0.54
1:J:257:VAL:HG22	1:J:358:ILE:O	2.06	0.54
1:J:311:GLY:O	1:J:312:LEU:HB2	2.07	0.54
1:J:454:GLY:O	1:J:500:THR:CG2	2.54	0.54
1:A:485:PHE:CD2	1:A:492:PHE:HD1	2.23	0.54
1:C:258:ILE:HG22	1:C:360:LEU:HD11	1.89	0.54
1:E:275:HIS:CG	1:E:276:GLU:H	2.26	0.54
1:H:441:LEU:HD23	1:H:498:VAL:HB	0.62	0.54
1:K:672:HIS:CD2	1:K:874:PHE:CE2	2.95	0.54
1:K:673:PRO:HD2	1:K:877:GLU:OE1	2.07	0.54
1:L:837:ALA:O	1:L:841:LEU:HB2	2.08	0.54
1:A:499:SER:O	1:A:500:THR:HG23	2.08	0.54
1:B:294:LEU:HB3	1:B:352:ILE:HD13	1.89	0.54
1:D:238:ARG:HA	1:D:241:LEU:HD12	1.90	0.54
1:D:499:SER:O	1:D:500:THR:HG22	2.08	0.54
1:E:387:ILE:O	1:E:421:ARG:NH2	2.40	0.54
1:G:453:VAL:HG11	1:G:505:LEU:HB2	1.90	0.54
1:H:278:LEU:HD21	1:H:280:LYS:CD	2.37	0.54
1:J:285:ILE:CD1	1:J:286:THR:N	2.68	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:376:LYS:HZ3	1:K:379:ILE:HD12	1.69	0.54
1:A:674:SER:O	1:A:678:VAL:HG23	2.07	0.53
1:C:297:ASP:HB3	1:C:349:SER:C	2.28	0.53
1:C:610:ARG:N	1:C:611:GLU:HA	2.23	0.53
1:D:752:LYS:HA	1:D:755:MET:CE	2.38	0.53
1:E:610:ARG:HA	1:E:610:ARG:HE	1.73	0.53
1:G:442:SER:HB2	1:G:498:VAL:HG12	1.89	0.53
1:H:225:ASP:N	1:H:225:ASP:OD1	2.40	0.53
1:I:607:PRO:HG3	1:I:762:ARG:HG3	1.91	0.53
1:J:382:LEU:HG	1:J:383:CYS:N	2.23	0.53
1:L:804:ILE:O	1:L:808:LYS:HG3	2.07	0.53
1:A:387:ILE:CG2	1:A:415:VAL:HG21	2.38	0.53
1:C:224:ASP:O	1:C:227:MET:HB2	2.09	0.53
1:C:279:PRO:HG2	1:C:325:LEU:HD21	1.91	0.53
1:D:433:GLU:O	1:D:436:LYS:HB2	2.08	0.53
1:D:485:PHE:HD2	1:D:492:PHE:O	1.91	0.53
1:D:562:LYS:HE2	1:K:562:LYS:CE	2.38	0.53
1:E:456:ILE:O	1:E:481:GLU:OE2	2.27	0.53
1:G:230:ILE:HG13	1:G:904:LEU:HD11	1.91	0.53
1:G:508:LYS:HD2	1:G:511:GLN:NE2	2.23	0.53
1:G:540:LYS:HA	1:G:545:GLU:HG3	1.90	0.53
1:I:268:VAL:HG12	1:I:280:LYS:HE3	1.89	0.53
1:J:269:LEU:CG	1:J:457:SER:O	2.54	0.53
1:K:775:GLY:HA2	1:K:779:PHE:O	2.07	0.53
1:C:387:ILE:O	1:C:421:ARG:NH2	2.42	0.53
1:D:268:VAL:O	1:D:272:ILE:CD1	2.57	0.53
1:D:376:LYS:HA	1:D:376:LYS:HZ2	1.69	0.53
1:D:672:HIS:HA	1:D:877:GLU:OE2	2.08	0.53
1:F:255:ILE:HA	1:F:392:ILE:O	2.09	0.53
1:J:269:LEU:CD2	1:J:457:SER:O	2.55	0.53
1:J:277:PHE:CD1	1:J:278:LEU:N	2.76	0.53
1:J:543:TYR:O	1:J:546:GLN:CG	2.56	0.53
1:A:278:LEU:HD22	1:A:279:PRO:O	2.08	0.53
1:A:297:ASP:CG	1:A:300:ALA:CB	2.74	0.53
1:A:378:LYS:O	1:A:381:GLU:HB3	2.09	0.53
1:B:642:LEU:HD22	1:B:643:GLY:N	2.23	0.53
1:C:434:PRO:HG2	1:C:488:HIS:CG	2.42	0.53
1:D:671:LYS:HD2	1:D:671:LYS:N	2.24	0.53
1:E:454:GLY:H	1:E:500:THR:HG22	1.74	0.53
1:E:610:ARG:HA	1:E:610:ARG:NE	2.22	0.53
1:J:818:LYS:HE3	1:J:819:TYR:CE2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:225:ASP:OD1	1:A:225:ASP:N	2.42	0.53
1:A:429:MET:HE1	1:A:437:GLY:HA2	1.90	0.53
1:A:434:PRO:CG	1:A:488:HIS:CG	2.90	0.53
1:A:901:ILE:O	1:A:904:LEU:HB3	2.07	0.53
1:C:375:LEU:HD23	1:C:375:LEU:N	2.23	0.53
1:C:642:LEU:HD22	1:C:643:GLY:H	1.72	0.53
1:D:456:ILE:O	1:D:481:GLU:OE2	2.26	0.53
1:D:676:ARG:HG2	1:D:677:LYS:N	2.22	0.53
1:E:269:LEU:HD21	1:E:457:SER:OG	1.70	0.53
1:G:629:HIS:HA	1:G:819:TYR:CD1	2.44	0.53
1:K:295:VAL:HG12	1:K:296:ASN:O	2.08	0.53
1:A:489:PRO:HG2	1:A:490:THR:H	1.74	0.53
1:B:599:ASN:N	1:B:599:ASN:OD1	2.42	0.53
1:D:264:GLY:O	1:D:268:VAL:HG22	2.09	0.53
1:D:559:ASP:HA	1:K:562:LYS:HE3	1.89	0.53
1:D:745:VAL:O	1:E:778:GLY:HA2	2.09	0.53
1:E:308:PRO:HG3	1:E:344:ARG:CG	2.38	0.53
1:F:273:VAL:HG21	1:F:457:SER:HB3	1.90	0.53
1:G:349:SER:HB3	1:G:352:ILE:HG23	1.90	0.53
1:G:532:LEU:HD22	1:G:898:LEU:HD22	1.91	0.53
1:H:258:ILE:HG22	1:H:360:LEU:HD11	1.91	0.53
1:H:263:SER:OG	1:H:397:SER:HA	2.08	0.53
1:H:278:LEU:CD2	1:H:280:LYS:CG	2.85	0.53
1:J:339:THR:O	1:J:340:ASP:HB3	2.08	0.53
1:K:431:LEU:HD23	1:K:431:LEU:N	2.23	0.53
1:L:780:SER:OG	1:L:783:LEU:HB2	2.09	0.53
1:A:231:THR:O	1:A:235:ILE:HG22	2.09	0.53
1:A:269:LEU:CD2	1:A:457:SER:HB2	2.37	0.53
1:B:855:ARG:NH2	1:C:559:ASP:OD2	2.41	0.53
1:E:285:ILE:HG13	1:E:332:VAL:HG22	1.90	0.53
1:E:287:ARG:HG3	1:E:287:ARG:NH1	2.13	0.53
1:H:232:LYS:O	1:H:235:ILE:HG23	2.08	0.53
1:J:456:ILE:O	1:J:456:ILE:HG23	2.09	0.53
1:J:478:ASN:HD21	1:J:482:LYS:CE	2.21	0.53
1:J:485:PHE:CD2	1:J:492:PHE:CE1	2.97	0.53
1:A:286:THR:HB	1:A:361:PRO:CB	2.28	0.53
1:B:322:GLN:O	1:B:326:THR:OG1	2.12	0.53
1:B:873:LYS:O	1:B:877:GLU:HG3	2.09	0.53
1:D:555:ALA:HB1	1:K:855:ARG:HD3	1.90	0.53
1:F:611:GLU:H	1:F:612:PRO:CD	2.22	0.53
1:H:243:LYS:HG2	1:H:243:LYS:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:478:ASN:CG	1:H:482:LYS:NZ	2.62	0.53
1:H:485:PHE:N	1:H:485:PHE:CD1	2.77	0.53
1:H:528:ILE:HG23	1:H:894:LEU:HD22	1.91	0.53
1:I:803:ARG:HD2	1:I:823:GLU:CD	2.29	0.53
1:K:456:ILE:HD12	1:K:457:SER:N	2.24	0.53
1:A:257:VAL:HG22	1:A:358:ILE:O	2.09	0.53
1:C:296:ASN:HB2	1:C:354:ASP:OD2	2.09	0.53
1:E:436:LYS:O	1:E:440:ILE:HG13	2.09	0.53
1:E:671:LYS:HE3	1:E:671:LYS:HA	1.90	0.53
1:H:632:LEU:HD22	1:H:632:LEU:O	2.08	0.53
1:J:456:ILE:HD12	1:J:456:ILE:C	2.28	0.53
1:A:298:PRO:O	1:A:299:GLU:HB3	2.08	0.53
1:A:355:LEU:HD23	1:A:357:LEU:HD22	1.91	0.53
1:C:268:VAL:HB	1:C:280:LYS:HB3	1.91	0.53
1:C:705:TYR:CE1	1:C:832:LYS:HD3	2.44	0.53
1:D:400:ASP:N	1:D:400:ASP:OD1	2.42	0.53
1:D:753:GLU:HB3	1:E:750:LYS:NZ	2.24	0.53
1:E:237:ILE:HD11	1:E:897:VAL:HG13	1.90	0.53
1:E:275:HIS:HB2	1:E:352:ILE:CG2	2.38	0.53
1:F:259:GLY:HA2	1:F:408:ALA:HB2	1.91	0.53
1:F:722:HIS:O	1:F:726:VAL:HG23	2.08	0.53
1:G:285:ILE:HD13	1:G:332:VAL:HG22	1.90	0.53
1:H:441:LEU:CB	1:H:498:VAL:HG11	2.36	0.53
1:J:540:LYS:HA	1:J:545:GLU:HG3	1.91	0.53
1:K:270:GLU:CA	1:K:273:VAL:HG22	2.38	0.53
1:K:278:LEU:HD22	1:K:280:LYS:HD3	1.88	0.53
1:A:717:ALA:O	1:A:720:ARG:HB3	2.09	0.52
1:A:754:VAL:HA	1:A:779:PHE:HE1	1.74	0.52
1:D:694:THR:O	1:D:698:ILE:HG13	2.08	0.52
1:E:237:ILE:O	1:E:237:ILE:HD13	2.09	0.52
1:F:260:SER:N	1:F:263:SER:HB3	2.24	0.52
1:F:667:SER:OG	1:F:668:SER:N	2.42	0.52
1:H:308:PRO:HG3	1:H:344:ARG:CG	2.40	0.52
1:I:285:ILE:HD12	1:I:287:ARG:H	1.75	0.52
1:J:257:VAL:HG22	1:J:359:ASP:HA	1.88	0.52
1:K:610:ARG:HA	1:K:610:ARG:NE	2.24	0.52
1:K:906:ARG:NH2	1:K:907:ILE:HD13	2.23	0.52
1:L:873:LYS:O	1:L:877:GLU:HG3	2.09	0.52
1:C:393:ILE:HD11	1:C:412:SER:HB2	1.90	0.52
1:D:246:GLN:HG2	1:D:247:GLY:N	2.24	0.52
1:E:229:PHE:CD1	1:E:232:LYS:HD2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:478:ASN:O	1:E:482:LYS:HG2	2.08	0.52
1:E:485:PHE:HD2	1:E:492:PHE:HD1	1.53	0.52
1:E:701:SER:O	1:E:704:PRO:HD2	2.08	0.52
1:E:843:VAL:HG21	1:F:704:PRO:HA	1.90	0.52
1:F:766:ILE:HD12	1:F:767:ILE:H	1.74	0.52
1:H:902:GLU:OE1	1:H:902:GLU:HA	2.08	0.52
1:I:454:GLY:O	1:I:500:THR:HG22	2.09	0.52
1:B:284:MET:HG2	1:B:286:THR:CG2	2.39	0.52
1:B:640:THR:HG22	1:B:706:LYS:HG2	1.92	0.52
1:B:783:LEU:HG	1:I:772:HIS:HE1	1.74	0.52
1:D:251:THR:HG22	1:D:252:LEU:N	2.22	0.52
1:D:269:LEU:CG	1:D:457:SER:O	2.54	0.52
1:F:257:VAL:HG12	1:F:394:LEU:HB3	1.91	0.52
1:F:723:VAL:HG23	1:F:827:ASP:HB2	1.91	0.52
1:H:279:PRO:CG	1:H:322:GLN:HA	2.39	0.52
1:H:349:SER:HB3	1:H:352:ILE:HG23	1.90	0.52
1:J:450:LEU:HD22	1:J:512:VAL:HG21	1.91	0.52
1:K:738:MET:O	1:K:742:GLU:HG3	2.09	0.52
1:A:568:PHE:O	1:A:571:SER:N	2.40	0.52
1:D:578:GLN:HA	1:D:838:VAL:HG21	1.90	0.52
1:D:854:PRO:HB2	1:D:855:ARG:NH1	2.24	0.52
1:E:232:LYS:HA	1:E:235:ILE:CG2	2.39	0.52
1:H:441:LEU:CD2	1:H:498:VAL:CA	2.82	0.52
1:I:279:PRO:CB	1:I:322:GLN:HA	2.40	0.52
1:I:508:LYS:O	1:I:512:VAL:HG23	2.10	0.52
1:J:375:LEU:N	1:J:375:LEU:HD23	2.24	0.52
1:K:270:GLU:C	1:K:273:VAL:HG22	2.30	0.52
1:A:294:LEU:HB2	1:A:355:LEU:H	1.74	0.52
1:C:260:SER:N	1:C:263:SER:HB3	2.25	0.52
1:D:308:PRO:HD2	1:D:344:ARG:O	2.09	0.52
1:D:434:PRO:HB3	1:D:491:GLU:CG	2.39	0.52
1:E:243:LYS:HG2	1:E:243:LYS:O	2.10	0.52
1:E:400:ASP:N	1:E:400:ASP:OD1	2.41	0.52
1:H:607:PRO:HA	1:H:762:ARG:O	2.10	0.52
1:J:270:GLU:CA	1:J:273:VAL:HG22	2.37	0.52
1:J:278:LEU:CD2	1:J:280:LYS:CD	2.86	0.52
1:K:229:PHE:HA	1:K:232:LYS:CG	2.39	0.52
1:K:499:SER:O	1:K:500:THR:CG2	2.58	0.52
1:K:670:ALA:C	1:K:671:LYS:HE3	2.30	0.52
1:A:238:ARG:HA	1:A:241:LEU:HD12	1.91	0.52
1:A:272:ILE:CG2	1:A:277:PHE:HD1	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:319:SER:O	1:C:322:GLN:HB3	2.09	0.52
1:E:387:ILE:CG2	1:E:415:VAL:HG21	2.39	0.52
1:F:596:ARG:HB3	1:F:597:TYR:HD1	1.75	0.52
1:H:229:PHE:HA	1:H:232:LYS:HG2	1.91	0.52
1:H:307:PHE:CE1	1:H:345:LEU:CD2	2.91	0.52
1:H:664:LEU:HD23	1:H:676:ARG:HG3	1.92	0.52
1:I:349:SER:O	1:I:352:ILE:HG13	2.09	0.52
1:L:690:ARG:NH1	1:L:844:GLU:OE2	2.42	0.52
1:A:257:VAL:HG23	1:A:359:ASP:HA	1.88	0.52
1:A:276:GLU:HG2	1:A:277:PHE:H	1.75	0.52
1:A:484:TYR:HE1	1:A:492:PHE:HZ	1.58	0.52
1:A:569:ALA:HA	1:A:850:TYR:CZ	2.44	0.52
1:A:704:PRO:HA	1:B:843:VAL:HG21	1.92	0.52
1:B:524:THR:O	1:B:528:ILE:HG13	2.10	0.52
1:C:269:LEU:O	1:C:272:ILE:HB	2.10	0.52
1:D:673:PRO:HD2	1:D:877:GLU:OE1	2.10	0.52
1:E:682:ALA:O	1:E:685:THR:HG22	2.10	0.52
1:G:255:ILE:HA	1:G:392:ILE:O	2.09	0.52
1:G:269:LEU:CD2	1:G:457:SER:HB2	2.40	0.52
1:G:609:PRO:HB2	1:G:611:GLU:N	2.25	0.52
1:H:267:SER:HB2	1:H:396:ILE:HD11	1.92	0.52
1:H:714:ASN:ND2	1:H:715:GLU:H	2.07	0.52
1:J:232:LYS:O	1:J:235:ILE:HG23	2.10	0.52
1:B:484:TYR:HD1	1:B:485:PHE:CD1	2.27	0.52
1:D:273:VAL:HG21	1:D:457:SER:CB	2.39	0.52
1:D:298:PRO:O	1:D:299:GLU:HB3	2.09	0.52
1:E:301:LYS:HD3	1:E:301:LYS:N	2.25	0.52
1:E:834:ALA:O	1:E:838:VAL:HB	2.10	0.52
1:G:235:ILE:HD13	1:G:356:SER:HB2	1.92	0.52
1:H:276:GLU:OE1	1:H:303:ASP:OD1	2.28	0.52
1:I:572:PHE:HD2	1:I:846:LEU:HD11	1.75	0.52
1:I:854:PRO:HB2	1:I:855:ARG:NH2	2.25	0.52
1:J:264:GLY:O	1:J:268:VAL:HG22	2.10	0.52
1:J:272:ILE:CG2	1:J:277:PHE:HD1	2.22	0.52
1:J:524:THR:O	1:J:528:ILE:HG13	2.10	0.52
1:K:240:LEU:HD23	1:K:240:LEU:N	2.25	0.52
1:K:308:PRO:HD2	1:K:344:ARG:O	2.09	0.52
1:K:791:VAL:HG13	1:K:794:ARG:HH22	1.62	0.52
1:L:285:ILE:HG12	1:L:329:ASN:O	2.08	0.52
1:B:255:ILE:HD11	1:B:355:LEU:HG	1.91	0.52
1:B:779:PHE:HA	1:I:777:GLY:H	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:376:LYS:HA	1:D:376:LYS:HZ3	1.70	0.52
1:D:562:LYS:CE	1:K:562:LYS:CE	2.87	0.52
1:D:818:LYS:HE3	1:D:819:TYR:CE2	2.45	0.52
1:E:269:LEU:CD2	1:E:457:SER:O	2.58	0.52
1:H:279:PRO:HG3	1:H:322:GLN:HA	1.90	0.52
1:H:478:ASN:CG	1:H:482:LYS:HZ2	2.13	0.52
1:K:299:GLU:O	1:K:299:GLU:CG	2.57	0.52
1:C:430:ASP:HB3	1:C:456:ILE:HG12	1.91	0.52
1:D:269:LEU:HD11	1:D:457:SER:C	2.09	0.52
1:H:815:LEU:O	1:H:815:LEU:HD22	2.10	0.52
1:I:238:ARG:NH1	1:I:252:LEU:O	2.39	0.52
1:K:269:LEU:CD2	1:K:269:LEU:C	2.71	0.52
1:K:278:LEU:O	1:K:280:LYS:HG2	2.10	0.52
1:L:224:ASP:HB3	1:L:227:MET:HB2	1.91	0.52
1:A:307:PHE:N	1:A:307:PHE:HD1	2.08	0.51
1:D:269:LEU:HD21	1:D:457:SER:O	2.10	0.51
1:D:269:LEU:CA	1:D:272:ILE:HD12	2.38	0.51
1:D:723:VAL:O	1:D:727:LEU:HB2	2.10	0.51
1:F:596:ARG:HD2	1:F:631:GLN:HG3	1.91	0.51
1:F:854:PRO:HB2	1:F:855:ARG:NH2	2.25	0.51
1:H:363:TYR:CD2	1:H:407:THR:HB	2.45	0.51
1:I:276:GLU:HG2	1:I:277:PHE:H	1.74	0.51
1:I:322:GLN:O	1:I:326:THR:OG1	2.08	0.51
1:J:278:LEU:CD1	1:J:278:LEU:H	2.24	0.51
1:J:423:ILE:HG22	1:J:450:LEU:HD13	1.93	0.51
1:J:723:VAL:HG11	1:J:823:GLU:HB3	1.92	0.51
1:K:238:ARG:NH2	1:K:356:SER:HG	2.07	0.51
1:L:627:TYR:CE2	1:L:628:TRP:CE3	2.98	0.51
1:C:272:ILE:HG23	1:C:277:PHE:HA	1.92	0.51
1:C:630:ARG:HG2	1:C:630:ARG:HH11	1.74	0.51
1:C:903:GLU:HG3	1:C:906:ARG:HH22	1.74	0.51
1:D:257:VAL:O	1:D:257:VAL:HG23	2.09	0.51
1:D:269:LEU:HD21	1:D:457:SER:CA	2.41	0.51
1:D:537:TYR:CE2	1:D:541:VAL:HG23	2.45	0.51
1:D:671:LYS:HD2	1:D:671:LYS:H	1.75	0.51
1:E:225:ASP:N	1:E:225:ASP:OD1	2.43	0.51
1:E:267:SER:HB2	1:E:396:ILE:HD11	1.91	0.51
1:H:578:GLN:HA	1:H:838:VAL:HG21	1.91	0.51
1:H:791:VAL:HG13	1:H:794:ARG:NH2	2.25	0.51
1:I:599:ASN:C	1:I:600:ARG:HD2	2.30	0.51
1:J:276:GLU:HG2	1:J:277:PHE:H	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:455:VAL:CG1	1:A:501:GLY:H	2.16	0.51
1:A:485:PHE:CE2	1:A:492:PHE:CD1	2.98	0.51
1:C:232:LYS:HG3	1:C:354:ASP:OD2	2.09	0.51
1:E:251:THR:HG22	1:E:252:LEU:N	2.26	0.51
1:G:705:TYR:CE1	1:G:832:LYS:HD3	2.46	0.51
1:H:275:HIS:CD2	1:H:275:HIS:H	2.27	0.51
1:I:268:VAL:O	1:I:272:ILE:HG13	2.09	0.51
1:I:776:ALA:HA	1:I:783:LEU:CD1	2.40	0.51
1:J:615:ILE:H	1:J:615:ILE:HD12	1.75	0.51
1:B:600:ARG:HB3	1:B:600:ARG:CZ	2.40	0.51
1:B:690:ARG:NH1	1:B:844:GLU:OE2	2.43	0.51
1:D:426:ILE:CD1	1:D:440:ILE:HG21	1.99	0.51
1:E:260:SER:O	1:E:263:SER:N	2.43	0.51
1:E:267:SER:CB	1:E:396:ILE:HG13	2.39	0.51
1:F:255:ILE:HD11	1:F:355:LEU:HG	1.92	0.51
1:F:572:PHE:HD2	1:F:846:LEU:HD11	1.76	0.51
1:F:616:ILE:HD12	1:F:616:ILE:O	2.11	0.51
1:G:376:LYS:HZ3	1:G:379:ILE:HD12	1.76	0.51
1:G:780:SER:CB	1:L:778:GLY:O	2.58	0.51
1:H:600:ARG:HB3	1:H:601:PRO:HD2	1.93	0.51
1:H:723:VAL:O	1:H:727:LEU:HB2	2.11	0.51
1:I:775:GLY:CA	1:I:782:ALA:HB3	2.39	0.51
1:K:445:GLN:O	1:K:446:TYR:CD1	2.63	0.51
1:K:454:GLY:C	1:K:455:VAL:HG13	2.30	0.51
1:A:339:THR:HG23	1:A:340:ASP:H	1.74	0.51
1:C:318:PHE:CD1	1:C:321:ILE:HD12	2.46	0.51
1:C:564:GLN:HG2	1:C:663:LEU:HG	1.92	0.51
1:E:285:ILE:HG12	1:E:287:ARG:N	2.18	0.51
1:E:683:ALA:HB2	1:E:853:PHE:CE1	2.46	0.51
1:E:775:GLY:HA2	1:E:779:PHE:O	2.10	0.51
1:E:855:ARG:HH11	1:E:855:ARG:H	1.58	0.51
1:F:272:ILE:HD11	1:F:280:LYS:HB2	1.92	0.51
1:F:698:ILE:HD11	1:F:841:LEU:HG	1.93	0.51
1:H:308:PRO:HG3	1:H:344:ARG:HB2	1.93	0.51
1:H:642:LEU:HD12	1:H:643:GLY:N	2.25	0.51
1:J:286:THR:O	1:J:361:PRO:HD3	2.10	0.51
1:L:576:GLN:N	1:L:576:GLN:OE1	2.42	0.51
1:L:703:LYS:N	1:L:704:PRO:HD2	2.25	0.51
1:A:272:ILE:HG23	1:A:278:LEU:HD13	1.72	0.51
1:B:611:GLU:HG3	1:B:611:GLU:O	2.10	0.51
1:D:339:THR:O	1:D:340:ASP:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:562:LYS:HZ1	1:K:558:LEU:CD2	2.23	0.51
1:D:739:LYS:O	1:D:742:GLU:HB2	2.11	0.51
1:E:279:PRO:HG3	1:E:321:ILE:HG22	1.91	0.51
1:E:326:THR:HA	1:E:329:ASN:ND2	2.25	0.51
1:F:453:VAL:HG11	1:F:505:LEU:HB2	1.93	0.51
1:G:230:ILE:O	1:G:234:MET:HG3	2.11	0.51
1:G:496:SER:OG	1:G:498:VAL:HG22	2.10	0.51
1:H:752:LYS:HG3	1:H:755:MET:HE3	1.92	0.51
1:I:276:GLU:HG2	1:I:277:PHE:N	2.25	0.51
1:K:434:PRO:CG	1:K:488:HIS:CG	2.94	0.51
1:A:255:ILE:HD11	1:A:355:LEU:HG	1.91	0.51
1:B:780:SER:OG	1:I:777:GLY:HA3	2.10	0.51
1:C:275:HIS:HB2	1:C:352:ILE:HG21	1.91	0.51
1:C:360:LEU:HB2	1:C:361:PRO:CD	2.41	0.51
1:D:458:LYS:HD2	1:D:458:LYS:C	2.31	0.51
1:D:750:LYS:HD2	1:E:779:PHE:HE2	1.76	0.51
1:D:768:VAL:O	1:D:770:GLY:N	2.44	0.51
1:E:842:ASN:O	1:E:846:LEU:HB3	2.11	0.51
1:F:387:ILE:O	1:F:421:ARG:NH2	2.43	0.51
1:H:276:GLU:CG	1:H:277:PHE:N	2.74	0.51
1:H:278:LEU:HD21	1:H:280:LYS:CG	2.40	0.51
1:J:376:LYS:HA	1:J:376:LYS:HZ3	1.74	0.51
1:K:285:ILE:O	1:K:286:THR:OG1	2.24	0.51
1:K:485:PHE:HD2	1:K:492:PHE:CD1	2.26	0.51
1:A:251:THR:CG2	1:A:252:LEU:H	2.09	0.51
1:A:665:ASP:OD1	1:A:676:ARG:NH2	2.44	0.51
1:C:600:ARG:HB3	1:C:600:ARG:CZ	2.41	0.51
1:D:615:ILE:H	1:D:615:ILE:HD12	1.76	0.51
1:D:698:ILE:HD11	1:D:841:LEU:HG	1.91	0.51
1:D:723:VAL:HG21	1:D:824:VAL:HA	1.90	0.51
1:D:753:GLU:HG2	1:E:750:LYS:HE2	1.92	0.51
1:E:279:PRO:CG	1:E:322:GLN:HA	2.38	0.51
1:E:297:ASP:HB3	1:E:349:SER:C	2.31	0.51
1:E:377:ARG:NH2	1:E:377:ARG:HG3	2.24	0.51
1:G:269:LEU:O	1:G:273:VAL:HG13	2.11	0.51
1:J:270:GLU:HA	1:J:273:VAL:CG2	2.38	0.51
1:J:286:THR:O	1:J:361:PRO:HG3	2.10	0.51
1:J:363:TYR:HE1	1:J:383:CYS:HG	0.71	0.51
1:K:429:MET:HE1	1:K:437:GLY:HA2	1.92	0.51
1:K:670:ALA:HB3	1:K:671:LYS:HZ2	1.75	0.51
1:L:227:MET:HA	1:L:230:ILE:HG22	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:576:GLN:H	1:A:576:GLN:HE21	1.58	0.51
1:A:861:LEU:O	1:A:865:MET:HG2	2.11	0.51
1:E:278:LEU:HB2	1:E:279:PRO:CD	2.37	0.51
1:E:279:PRO:HB3	1:E:322:GLN:CG	2.41	0.51
1:E:492:PHE:CD1	1:E:492:PHE:O	2.63	0.51
1:F:269:LEU:HA	1:F:272:ILE:HD12	1.93	0.51
1:G:493:GLY:O	1:G:496:SER:HB3	2.11	0.51
1:H:269:LEU:HD11	1:H:458:LYS:HB2	1.93	0.51
1:H:285:ILE:HG12	1:H:287:ARG:HB2	1.92	0.51
1:K:393:ILE:HG23	1:K:422:THR:HB	1.93	0.51
1:K:436:LYS:O	1:K:440:ILE:HG13	2.11	0.51
1:K:876:ARG:HB3	1:K:882:ARG:HH21	1.76	0.51
1:L:258:ILE:HG21	1:L:387:ILE:HD11	1.92	0.51
1:A:815:LEU:HD22	1:A:815:LEU:O	2.11	0.51
1:D:275:HIS:CG	1:D:276:GLU:H	2.29	0.51
1:E:806:ALA:O	1:E:809:SER:HB3	2.11	0.51
1:G:364:ILE:HD12	1:G:376:LYS:NZ	2.25	0.51
1:H:276:GLU:OE1	1:H:303:ASP:CG	2.49	0.51
1:H:307:PHE:CD1	1:H:345:LEU:CD2	2.94	0.51
1:I:434:PRO:HG2	1:I:488:HIS:ND1	2.26	0.51
1:J:308:PRO:HG3	1:J:344:ARG:CG	2.40	0.51
1:K:377:ARG:HH21	1:K:377:ARG:CG	2.19	0.51
1:K:657:GLN:HE22	1:K:684:ALA:CA	2.22	0.51
1:C:722:HIS:O	1:C:726:VAL:HG23	2.10	0.50
1:D:272:ILE:HG12	1:D:278:LEU:CD1	2.40	0.50
1:E:544:ASN:HD22	1:I:641:ARG:NH1	2.09	0.50
1:E:749:LYS:H	1:E:749:LYS:CD	2.19	0.50
1:H:241:LEU:HD21	1:H:528:ILE:HD11	1.92	0.50
1:K:339:THR:CG2	1:K:340:ASP:H	2.24	0.50
1:L:289:PRO:HB2	1:L:342:PRO:HB3	1.93	0.50
1:E:275:HIS:CG	1:E:276:GLU:N	2.79	0.50
1:E:454:GLY:O	1:E:455:VAL:HG13	2.11	0.50
1:E:485:PHE:HE2	1:E:500:THR:OG1	1.93	0.50
1:H:254:SER:HB2	1:H:356:SER:O	2.11	0.50
1:I:230:ILE:HG13	1:I:904:LEU:HD11	1.93	0.50
1:I:276:GLU:HG3	1:I:474:LEU:HD23	1.93	0.50
1:I:627:TYR:HE2	1:I:628:TRP:CZ3	2.29	0.50
1:I:672:HIS:HA	1:I:877:GLU:OE1	2.12	0.50
1:J:454:GLY:O	1:J:455:VAL:HG13	2.10	0.50
1:K:423:ILE:HG22	1:K:450:LEU:HD13	1.93	0.50
1:A:430:ASP:HB3	1:A:456:ILE:HG12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:318:PHE:HD1	1:B:321:ILE:CD1	2.19	0.50
1:E:246:GLN:CD	1:E:246:GLN:H	2.13	0.50
1:E:325:LEU:HA	1:E:328:LEU:HD12	1.93	0.50
1:G:485:PHE:CD2	1:G:492:PHE:CD1	2.98	0.50
1:G:798:ASP:O	1:G:802:LEU:HG	2.11	0.50
1:H:484:TYR:C	1:H:484:TYR:CD1	2.84	0.50
1:I:585:LEU:HD12	1:I:834:ALA:HB2	1.93	0.50
1:J:413:ARG:CZ	1:J:446:TYR:CE1	2.95	0.50
1:K:614:ASN:OD1	1:K:615:ILE:HD12	2.11	0.50
1:L:702:LEU:C	1:L:704:PRO:HD2	2.31	0.50
1:A:276:GLU:HG2	1:A:277:PHE:N	2.25	0.50
1:A:285:ILE:HG12	1:A:287:ARG:HB2	1.93	0.50
1:E:382:LEU:HD12	1:E:382:LEU:C	2.31	0.50
1:G:528:ILE:HA	1:G:531:GLU:CD	2.32	0.50
1:I:231:THR:O	1:I:235:ILE:HG22	2.11	0.50
1:I:258:ILE:HG22	1:I:360:LEU:HD11	1.92	0.50
1:J:569:ALA:HB1	1:J:850:TYR:CE2	2.46	0.50
1:K:278:LEU:HD22	1:K:279:PRO:O	2.11	0.50
1:B:376:LYS:HZ3	1:B:376:LYS:HA	1.77	0.50
1:D:854:PRO:HB2	1:D:855:ARG:HH11	1.76	0.50
1:E:575:PRO:O	1:E:578:GLN:HB3	2.12	0.50
1:F:817:ASN:HB2	1:F:820:TYR:HB2	1.93	0.50
1:G:704:PRO:HA	1:H:843:VAL:HG21	1.92	0.50
1:G:800:LEU:O	1:G:804:ILE:HG13	2.12	0.50
1:H:306:GLU:C	1:H:307:PHE:HD1	2.14	0.50
1:H:694:THR:O	1:H:698:ILE:HG13	2.10	0.50
1:B:784:LEU:O	1:B:788:ARG:HG3	2.11	0.50
1:C:581:LEU:HD12	1:C:838:VAL:HG23	1.93	0.50
1:D:544:ASN:HB2	1:L:641:ARG:HD3	1.94	0.50
1:H:339:THR:O	1:H:340:ASP:HB3	2.10	0.50
1:H:456:ILE:HD12	1:H:456:ILE:C	2.31	0.50
1:I:272:ILE:HA	1:I:278:LEU:HD12	1.92	0.50
1:J:393:ILE:HG23	1:J:422:THR:HB	1.93	0.50
1:A:275:HIS:CG	1:A:276:GLU:N	2.79	0.50
1:A:720:ARG:CZ	1:A:813:LYS:HG3	2.41	0.50
1:A:784:LEU:O	1:A:788:ARG:HG3	2.11	0.50
1:B:257:VAL:HG12	1:B:394:LEU:HB3	1.93	0.50
1:B:610:ARG:N	1:B:611:GLU:HA	2.27	0.50
1:D:272:ILE:HG12	1:D:280:LYS:HG3	1.93	0.50
1:D:441:LEU:CB	1:D:498:VAL:HG12	2.41	0.50
1:D:745:VAL:O	1:E:778:GLY:HA3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:457:SER:O	1:E:458:LYS:HB2	2.11	0.50
1:E:810:ARG:O	1:E:813:LYS:HB2	2.12	0.50
1:E:818:LYS:CE	1:E:819:TYR:CE2	2.94	0.50
1:H:387:ILE:HG23	1:H:393:ILE:HD12	1.94	0.50
1:I:249:THR:OG1	1:I:531:GLU:OE1	2.23	0.50
1:I:255:ILE:HG13	1:I:357:LEU:HA	1.94	0.50
1:L:627:TYR:HE2	1:L:628:TRP:CH2	2.26	0.50
1:B:800:LEU:O	1:B:804:ILE:HG13	2.12	0.50
1:E:544:ASN:HD22	1:I:641:ARG:HH11	1.58	0.50
1:F:227:MET:HA	1:F:230:ILE:CG2	2.42	0.50
1:F:251:THR:HG22	1:F:252:LEU:H	1.77	0.50
1:F:514:GLU:O	1:F:518:SER:HB3	2.12	0.50
1:F:575:PRO:O	1:F:578:GLN:HB3	2.11	0.50
1:I:325:LEU:HA	1:I:328:LEU:HD12	1.93	0.50
1:J:768:VAL:HG23	1:J:770:GLY:H	1.76	0.50
1:K:496:SER:OG	1:K:498:VAL:CG2	2.60	0.50
1:A:363:TYR:HE1	1:A:383:CYS:HG	0.76	0.50
1:A:508:LYS:O	1:A:512:VAL:HG23	2.11	0.50
1:D:279:PRO:HG3	1:D:321:ILE:HG22	1.93	0.50
1:D:352:ILE:HD12	1:D:352:ILE:O	2.12	0.50
1:D:376:LYS:HA	1:D:376:LYS:CE	2.41	0.50
1:E:267:SER:HB2	1:E:396:ILE:HD12	1.94	0.50
1:E:474:LEU:HG	1:E:475:ALA:H	1.77	0.50
1:F:279:PRO:HG2	1:F:325:LEU:HD21	1.93	0.50
1:J:441:LEU:HB3	1:J:498:VAL:CG1	2.41	0.50
1:J:640:THR:HG21	1:J:706:LYS:HA	1.93	0.50
1:C:285:ILE:HD13	1:C:332:VAL:HG22	1.93	0.49
1:C:285:ILE:HG12	1:C:329:ASN:O	2.12	0.49
1:C:328:LEU:HD13	1:C:343:ILE:HD13	1.94	0.49
1:E:768:VAL:HG23	1:E:770:GLY:H	1.76	0.49
1:H:255:ILE:HA	1:H:392:ILE:O	2.12	0.49
1:H:278:LEU:CD2	1:H:280:LYS:HD3	2.40	0.49
1:H:454:GLY:O	1:H:500:THR:HG22	2.11	0.49
1:H:670:ALA:CB	1:H:671:LYS:HZ2	2.25	0.49
1:I:581:LEU:HD12	1:I:838:VAL:HG23	1.94	0.49
1:J:477:ILE:O	1:J:477:ILE:HG22	2.11	0.49
1:B:255:ILE:HA	1:B:392:ILE:O	2.13	0.49
1:D:278:LEU:CD2	1:D:280:LYS:CD	2.78	0.49
1:H:339:THR:HG23	1:H:341:ASP:H	1.76	0.49
1:H:714:ASN:HD22	1:H:715:GLU:N	2.10	0.49
1:K:272:ILE:CG2	1:K:277:PHE:HA	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:268:VAL:O	1:L:272:ILE:HG13	2.12	0.49
1:A:269:LEU:HD23	1:A:269:LEU:C	2.32	0.49
1:A:270:GLU:HA	1:A:273:VAL:CG2	2.41	0.49
1:A:294:LEU:HB3	1:A:352:ILE:HD13	1.94	0.49
1:A:441:LEU:HB3	1:A:498:VAL:CG1	2.41	0.49
1:C:355:LEU:HD23	1:C:357:LEU:HD22	1.94	0.49
1:C:565:PHE:CE2	1:C:853:PHE:HD2	2.30	0.49
1:D:886:ASP:O	1:D:889:ARG:HG3	2.12	0.49
1:E:355:LEU:HD23	1:E:357:LEU:HD22	1.93	0.49
1:J:275:HIS:CG	1:J:276:GLU:N	2.80	0.49
1:K:297:ASP:OD2	1:K:300:ALA:HB3	2.11	0.49
1:C:712:GLN:HB3	1:C:713:PRO:HD2	1.94	0.49
1:D:307:PHE:CD1	1:D:345:LEU:HD23	2.47	0.49
1:E:455:VAL:CG1	1:E:501:GLY:H	2.16	0.49
1:E:572:PHE:O	1:E:576:GLN:NE2	2.46	0.49
1:F:599:ASN:C	1:F:600:ARG:HD2	2.33	0.49
1:H:682:ALA:O	1:H:685:THR:HG22	2.12	0.49
1:I:297:ASP:OD2	1:I:300:ALA:HB3	2.12	0.49
1:J:269:LEU:HD21	1:J:457:SER:C	2.32	0.49
1:J:363:TYR:N	1:J:363:TYR:HD1	2.10	0.49
1:J:441:LEU:CB	1:J:498:VAL:CG1	2.89	0.49
1:K:377:ARG:NH2	1:K:377:ARG:CG	2.73	0.49
1:K:834:ALA:O	1:K:838:VAL:HB	2.12	0.49
1:A:232:LYS:HD3	1:A:233:LYS:HZ1	1.76	0.49
1:A:551:GLU:OE1	1:A:551:GLU:N	2.45	0.49
1:D:478:ASN:CG	1:D:482:LYS:HZ2	2.16	0.49
1:D:854:PRO:CD	1:D:855:ARG:NH1	2.76	0.49
1:F:224:ASP:HB3	1:F:227:MET:CG	2.41	0.49
1:F:661:GLU:OE2	1:F:676:ARG:NH2	2.45	0.49
1:G:774:SER:O	1:G:780:SER:HB2	2.12	0.49
1:I:528:ILE:HA	1:I:531:GLU:HG2	1.95	0.49
1:I:609:PRO:HB2	1:I:611:GLU:CB	2.43	0.49
1:A:264:GLY:O	1:A:268:VAL:HG22	2.12	0.49
1:A:484:TYR:HE1	1:A:492:PHE:CZ	2.29	0.49
1:A:768:VAL:HG23	1:A:770:GLY:H	1.78	0.49
1:B:780:SER:N	1:I:777:GLY:H	2.09	0.49
1:D:474:LEU:HG	1:D:475:ALA:H	1.78	0.49
1:D:854:PRO:CG	1:D:855:ARG:NH1	2.75	0.49
1:E:605:LEU:HD21	1:E:784:LEU:HD12	1.94	0.49
1:F:610:ARG:HD2	1:F:613:ASP:OD1	2.12	0.49
1:H:854:PRO:HB2	1:H:855:ARG:NH1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:360:LEU:HB2	1:I:361:PRO:HD2	1.95	0.49
1:J:275:HIS:H	1:J:275:HIS:HD2	1.61	0.49
1:A:237:ILE:HD13	1:A:237:ILE:C	2.32	0.49
1:A:307:PHE:N	1:A:307:PHE:CD1	2.80	0.49
1:D:387:ILE:CG2	1:D:415:VAL:HG21	2.42	0.49
1:F:903:GLU:O	1:F:907:ILE:HG13	2.12	0.49
1:G:376:LYS:NZ	1:G:379:ILE:HD12	2.26	0.49
1:H:237:ILE:O	1:H:237:ILE:CD1	2.58	0.49
1:H:454:GLY:H	1:H:500:THR:HG22	1.78	0.49
1:J:434:PRO:HB3	1:J:491:GLU:CB	2.43	0.49
1:J:832:LYS:O	1:J:836:THR:HG22	2.11	0.49
1:K:267:SER:HB3	1:K:396:ILE:CG1	2.42	0.49
1:A:258:ILE:HD13	1:A:387:ILE:HD13	1.95	0.49
1:B:241:LEU:HD13	1:B:250:VAL:O	2.12	0.49
1:E:270:GLU:O	1:E:273:VAL:HG22	2.12	0.49
1:G:227:MET:O	1:G:231:THR:OG1	2.28	0.49
1:G:272:ILE:HG23	1:G:277:PHE:HA	1.95	0.49
1:H:474:LEU:HG	1:H:475:ALA:H	1.78	0.49
1:J:738:MET:O	1:J:742:GLU:HG3	2.12	0.49
1:L:393:ILE:HG23	1:L:422:THR:HB	1.94	0.49
1:A:246:GLN:CG	1:A:247:GLY:N	2.74	0.49
1:A:339:THR:CG2	1:A:340:ASP:N	2.76	0.49
1:B:667:SER:OG	1:B:668:SER:N	2.45	0.49
1:B:702:LEU:HD13	1:B:833:LEU:HD22	1.93	0.49
1:B:780:SER:H	1:I:777:GLY:N	2.09	0.49
1:C:233:LYS:HE3	1:C:900:LYS:HD2	1.95	0.49
1:C:294:LEU:HB3	1:C:352:ILE:CD1	2.42	0.49
1:C:749:LYS:O	1:C:753:GLU:HG3	2.13	0.49
1:C:754:VAL:HG21	1:C:783:LEU:HD22	1.94	0.49
1:D:272:ILE:CG2	1:D:277:PHE:HD1	2.25	0.49
1:E:286:THR:O	1:E:361:PRO:CB	2.59	0.49
1:E:307:PHE:CD1	1:E:345:LEU:HD21	2.44	0.49
1:E:564:GLN:HG2	1:E:663:LEU:HD11	1.95	0.49
1:E:817:ASN:HB3	1:E:820:TYR:HB2	1.94	0.49
1:F:275:HIS:CG	1:F:276:GLU:H	2.31	0.49
1:F:275:HIS:HB2	1:F:352:ILE:HG21	1.93	0.49
1:G:441:LEU:HD12	1:G:452:TYR:HB2	1.94	0.49
1:H:225:ASP:O	1:H:229:PHE:CG	2.66	0.49
1:J:284:MET:HG2	1:J:286:THR:CG2	2.42	0.49
1:K:258:ILE:HG22	1:K:360:LEU:HD11	1.95	0.49
1:B:235:ILE:HD13	1:B:356:SER:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:436:LYS:O	1:C:439:ALA:HB3	2.12	0.49
1:E:450:LEU:HD22	1:E:512:VAL:CG2	2.43	0.49
1:E:485:PHE:CZ	1:E:500:THR:OG1	2.53	0.49
1:F:227:MET:O	1:F:230:ILE:HG22	2.13	0.49
1:F:422:THR:HG23	1:F:422:THR:O	2.13	0.49
1:F:835:GLN:O	1:F:838:VAL:HB	2.12	0.49
1:H:392:ILE:HD12	1:H:421:ARG:O	2.13	0.49
1:H:871:LEU:O	1:H:874:PHE:HB3	2.13	0.49
1:I:255:ILE:HD11	1:I:355:LEU:HG	1.95	0.49
1:I:326:THR:HA	1:I:329:ASN:ND2	2.28	0.49
1:J:304:TYR:CE1	1:J:348:HIS:HB2	2.48	0.49
1:J:672:HIS:HA	1:J:877:GLU:OE2	2.13	0.49
1:J:771:ASP:N	1:J:771:ASP:OD1	2.46	0.49
1:K:376:LYS:HE2	1:K:376:LYS:CA	2.42	0.49
1:L:444:ARG:NE	1:L:444:ARG:HA	2.27	0.49
1:A:279:PRO:CG	1:A:325:LEU:HD21	2.33	0.48
1:A:457:SER:O	1:A:458:LYS:CB	2.60	0.48
1:A:703:LYS:HE3	1:C:544:ASN:ND2	2.28	0.48
1:B:707:PHE:CD2	1:B:708:ASP:HB2	2.48	0.48
1:C:599:ASN:OD1	1:C:599:ASN:N	2.43	0.48
1:C:609:PRO:N	1:C:610:ARG:HA	2.28	0.48
1:G:375:LEU:O	1:G:378:LYS:HB2	2.13	0.48
1:I:396:ILE:HG22	1:I:425:VAL:HB	1.94	0.48
1:I:434:PRO:HG2	1:I:488:HIS:CG	2.48	0.48
1:K:254:SER:HB2	1:K:356:SER:O	2.13	0.48
1:K:270:GLU:HA	1:K:273:VAL:CG2	2.42	0.48
1:K:308:PRO:HG3	1:K:344:ARG:CB	2.42	0.48
1:K:485:PHE:HZ	1:K:500:THR:HG1	1.48	0.48
1:L:383:CYS:O	1:L:387:ILE:HG13	2.12	0.48
1:L:610:ARG:N	1:L:611:GLU:HA	2.28	0.48
1:D:285:ILE:CD1	1:D:287:ARG:H	2.26	0.48
1:E:667:SER:OG	1:E:668:SER:N	2.47	0.48
1:H:834:ALA:O	1:H:838:VAL:HB	2.12	0.48
1:I:272:ILE:HG23	1:I:277:PHE:HA	1.94	0.48
1:I:609:PRO:N	1:I:610:ARG:HA	2.28	0.48
1:J:297:ASP:OD2	1:J:300:ALA:CB	2.50	0.48
1:J:480:ASN:C	1:J:480:ASN:OD1	2.51	0.48
1:K:363:TYR:CD2	1:K:407:THR:HB	2.47	0.48
1:A:237:ILE:CD1	1:A:241:LEU:HD11	2.43	0.48
1:B:227:MET:O	1:B:230:ILE:HG22	2.12	0.48
1:D:297:ASP:HB3	1:D:349:SER:C	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:352:ILE:HD12	1:D:352:ILE:C	2.33	0.48
1:E:232:LYS:HA	1:E:235:ILE:HG22	1.95	0.48
1:E:257:VAL:HG22	1:E:358:ILE:O	2.14	0.48
1:F:224:ASP:HB3	1:F:227:MET:HB2	1.95	0.48
1:H:377:ARG:HH21	1:H:377:ARG:HG3	1.74	0.48
1:J:286:THR:O	1:J:361:PRO:CB	2.61	0.48
1:J:328:LEU:HD13	1:J:343:ILE:HD13	1.95	0.48
1:J:610:ARG:HD3	1:J:611:GLU:O	2.12	0.48
1:K:257:VAL:HG22	1:K:358:ILE:O	2.14	0.48
1:K:275:HIS:CG	1:K:276:GLU:H	2.31	0.48
1:L:749:LYS:O	1:L:753:GLU:HG3	2.14	0.48
1:L:754:VAL:HG12	1:L:787:GLY:HA3	1.94	0.48
1:L:878:ASP:HB3	1:L:881:VAL:HG12	1.94	0.48
1:A:528:ILE:HG23	1:A:894:LEU:HD22	1.96	0.48
1:D:268:VAL:O	1:D:272:ILE:CG1	2.59	0.48
1:D:387:ILE:CG2	1:D:393:ILE:HD12	2.44	0.48
1:D:458:LYS:C	1:D:458:LYS:CD	2.81	0.48
1:D:574:ARG:N	1:D:575:PRO:HD2	2.29	0.48
1:E:240:LEU:N	1:E:240:LEU:CD2	2.77	0.48
1:E:307:PHE:CD1	1:E:345:LEU:CD2	2.96	0.48
1:H:430:ASP:OD1	1:H:431:LEU:HD23	2.13	0.48
1:K:263:SER:HA	1:K:266:SER:OG	2.13	0.48
1:K:392:ILE:HD12	1:K:421:ARG:O	2.12	0.48
1:A:392:ILE:HG21	1:A:513:LEU:HD22	1.96	0.48
1:A:485:PHE:CD2	1:A:492:PHE:CE1	3.00	0.48
1:D:285:ILE:CG1	1:D:287:ARG:HB2	2.38	0.48
1:D:690:ARG:NH1	1:D:844:GLU:OE2	2.47	0.48
1:E:232:LYS:HG3	1:E:233:LYS:HE3	1.94	0.48
1:G:837:ALA:O	1:G:841:LEU:HB2	2.12	0.48
1:H:257:VAL:HG22	1:H:358:ILE:O	2.13	0.48
1:H:270:GLU:HA	1:H:273:VAL:HG22	1.95	0.48
1:H:307:PHE:CZ	1:H:345:LEU:HD21	2.49	0.48
1:H:574:ARG:H	1:H:575:PRO:HD2	1.79	0.48
1:L:672:HIS:HD2	1:L:877:GLU:HB2	1.78	0.48
1:L:701:SER:O	1:L:704:PRO:HD2	2.13	0.48
1:D:349:SER:HB3	1:D:352:ILE:HG23	1.95	0.48
1:D:441:LEU:CD2	1:D:498:VAL:CA	2.86	0.48
1:D:556:ALA:CB	1:K:855:ARG:NH2	2.76	0.48
1:D:627:TYR:CD2	1:D:628:TRP:CD2	3.02	0.48
1:D:871:LEU:HD22	1:D:871:LEU:C	2.34	0.48
1:E:243:LYS:O	1:E:243:LYS:CG	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:889:ARG:NH2	1:F:893:LEU:HD12	2.29	0.48
1:G:843:VAL:O	1:G:847:ASN:HB2	2.13	0.48
1:J:441:LEU:CB	1:J:498:VAL:HG12	2.44	0.48
1:J:661:GLU:OE2	1:J:676:ARG:NH1	2.46	0.48
1:K:670:ALA:HB3	1:K:671:LYS:CE	2.44	0.48
1:L:611:GLU:H	1:L:612:PRO:CD	2.27	0.48
1:L:723:VAL:HG21	1:L:824:VAL:HA	1.94	0.48
1:A:286:THR:O	1:A:361:PRO:HB3	2.14	0.48
1:B:252:LEU:HD23	1:B:524:THR:HG21	1.96	0.48
1:C:285:ILE:HD12	1:C:287:ARG:HB2	1.95	0.48
1:H:276:GLU:HG2	1:H:277:PHE:H	1.75	0.48
1:H:714:ASN:ND2	1:H:715:GLU:N	2.61	0.48
1:I:254:SER:HB2	1:I:356:SER:O	2.13	0.48
1:J:426:ILE:CD1	1:J:440:ILE:HG21	2.00	0.48
1:L:779:PHE:CD2	1:L:779:PHE:N	2.81	0.48
1:B:269:LEU:HD21	1:B:457:SER:HB2	1.95	0.48
1:B:297:ASP:HB3	1:B:349:SER:C	2.34	0.48
1:B:318:PHE:CE1	1:B:321:ILE:HD12	2.47	0.48
1:B:628:TRP:CE3	1:B:628:TRP:HA	2.48	0.48
1:C:273:VAL:HG11	1:C:457:SER:HB3	1.95	0.48
1:D:265:LYS:HA	1:D:268:VAL:CG2	2.44	0.48
1:E:574:ARG:N	1:E:575:PRO:HD2	2.28	0.48
1:E:818:LYS:CE	1:E:819:TYR:CZ	2.96	0.48
1:F:572:PHE:CD2	1:F:846:LEU:HD11	2.49	0.48
1:G:296:ASN:H	1:G:354:ASP:HB3	1.77	0.48
1:G:889:ARG:HH22	1:G:893:LEU:CD1	2.26	0.48
1:H:751:LEU:O	1:H:755:MET:HG3	2.14	0.48
1:I:255:ILE:HA	1:I:392:ILE:O	2.14	0.48
1:I:267:SER:OG	1:I:268:VAL:N	2.45	0.48
1:I:672:HIS:HD2	1:I:877:GLU:HB2	1.79	0.48
1:I:723:VAL:HG21	1:I:824:VAL:HA	1.95	0.48
1:I:766:ILE:HG13	1:I:767:ILE:N	2.28	0.48
1:J:492:PHE:CD1	1:J:492:PHE:O	2.64	0.48
1:J:876:ARG:HB3	1:J:882:ARG:HH21	1.78	0.48
1:K:702:LEU:HD13	1:K:833:LEU:HD22	1.96	0.48
1:K:705:TYR:CE1	1:K:832:LYS:HD3	2.49	0.48
1:L:307:PHE:CE1	1:L:345:LEU:HD21	2.49	0.48
1:A:258:ILE:HG21	1:A:387:ILE:HD11	1.96	0.48
1:G:785:ALA:HA	1:G:788:ARG:NH1	2.29	0.48
1:H:308:PRO:CG	1:H:344:ARG:HG3	2.43	0.48
1:A:429:MET:HE2	1:A:437:GLY:HA2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:434:PRO:HB3	1:A:491:GLU:CB	2.44	0.48
1:A:474:LEU:HG	1:A:475:ALA:N	2.29	0.48
1:A:723:VAL:O	1:A:727:LEU:HB2	2.13	0.48
1:B:269:LEU:CD2	1:B:457:SER:HB2	2.44	0.48
1:B:803:ARG:HA	1:B:803:ARG:HD3	1.44	0.48
1:C:268:VAL:HG12	1:C:280:LYS:HE3	1.95	0.48
1:D:477:ILE:HG22	1:D:477:ILE:O	2.13	0.48
1:E:308:PRO:CG	1:E:344:ARG:HG3	2.44	0.48
1:F:273:VAL:HG11	1:F:457:SER:HB3	1.96	0.48
1:G:393:ILE:HG23	1:G:422:THR:HB	1.95	0.48
1:G:605:LEU:HD22	1:G:606:SER:N	2.29	0.48
1:H:297:ASP:OD1	1:H:300:ALA:HB3	2.13	0.48
1:I:599:ASN:OD1	1:I:599:ASN:N	2.40	0.48
1:J:237:ILE:HD12	1:J:241:LEU:HD11	1.96	0.48
1:J:285:ILE:HG13	1:J:332:VAL:HG22	1.95	0.48
1:J:485:PHE:HA	1:J:492:PHE:HE1	1.79	0.48
1:K:539:PHE:CD2	1:K:545:GLU:HG2	2.49	0.48
1:D:376:LYS:HZ3	1:D:379:ILE:HD12	1.75	0.47
1:E:426:ILE:HD11	1:E:440:ILE:CG2	2.04	0.47
1:F:270:GLU:O	1:F:273:VAL:HG22	2.13	0.47
1:H:285:ILE:CD1	1:H:286:THR:N	2.65	0.47
1:I:529:GLN:O	1:I:533:GLU:HG3	2.14	0.47
1:J:478:ASN:ND2	1:J:482:LYS:CE	2.76	0.47
1:J:817:ASN:HB3	1:J:820:TYR:HB2	1.96	0.47
1:K:749:LYS:H	1:K:749:LYS:HD2	1.79	0.47
1:L:231:THR:O	1:L:235:ILE:HG22	2.14	0.47
1:A:376:LYS:HA	1:A:376:LYS:CE	2.42	0.47
1:B:760:LYS:HB3	1:B:766:ILE:HG22	1.96	0.47
1:D:240:LEU:N	1:D:240:LEU:CD2	2.74	0.47
1:D:286:THR:O	1:D:361:PRO:CD	2.62	0.47
1:D:752:LYS:HA	1:D:755:MET:HE2	1.96	0.47
1:F:286:THR:HB	1:F:361:PRO:HB3	1.97	0.47
1:H:237:ILE:HD11	1:H:897:VAL:HG13	1.94	0.47
1:H:294:LEU:HB3	1:H:352:ILE:HD13	1.96	0.47
1:H:392:ILE:HG21	1:H:513:LEU:HD22	1.96	0.47
1:H:488:HIS:O	1:H:491:GLU:HG2	2.14	0.47
1:H:639:LEU:O	1:H:642:LEU:HD23	2.15	0.47
1:I:364:ILE:HD12	1:I:376:LYS:NZ	2.29	0.47
1:I:878:ASP:HB3	1:I:881:VAL:HG12	1.96	0.47
1:K:229:PHE:O	1:K:232:LYS:HG3	2.14	0.47
1:L:262:SER:O	1:L:266:SER:OG	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:735:GLN:O	1:L:738:MET:HB3	2.14	0.47
1:A:246:GLN:HE22	1:A:890:ARG:NH1	2.12	0.47
1:A:278:LEU:HB2	1:A:279:PRO:HD2	1.95	0.47
1:A:339:THR:HG23	1:A:341:ASP:H	1.79	0.47
1:B:616:ILE:O	1:B:619:PRO:HD2	2.14	0.47
1:B:878:ASP:HB3	1:B:881:VAL:HG12	1.96	0.47
1:C:849:PHE:O	1:C:853:PHE:HB2	2.13	0.47
1:D:454:GLY:N	1:D:500:THR:HG22	2.29	0.47
1:D:565:PHE:HA	1:D:663:LEU:HD21	1.95	0.47
1:E:275:HIS:CD2	1:E:275:HIS:N	2.82	0.47
1:E:491:GLU:H	1:E:491:GLU:CD	2.17	0.47
1:H:488:HIS:HB3	1:H:491:GLU:CD	2.34	0.47
1:J:642:LEU:O	1:J:644:VAL:N	2.47	0.47
1:K:255:ILE:HD12	1:K:357:LEU:HB3	1.96	0.47
1:A:278:LEU:CD1	1:A:278:LEU:N	2.77	0.47
1:A:401:THR:HG22	1:A:402:ASP:O	2.15	0.47
1:A:664:LEU:HB3	1:A:676:ARG:NH2	2.29	0.47
1:B:774:SER:O	1:I:774:SER:CB	2.52	0.47
1:C:704:PRO:HA	1:D:843:VAL:HG21	1.96	0.47
1:D:540:LYS:HA	1:D:545:GLU:HG3	1.96	0.47
1:D:665:ASP:OD1	1:D:676:ARG:NH2	2.47	0.47
1:E:296:ASN:HB2	1:E:354:ASP:OD2	2.13	0.47
1:E:441:LEU:CB	1:E:498:VAL:HG11	2.44	0.47
1:E:694:THR:HG21	1:E:845:MET:HB2	1.95	0.47
1:E:847:ASN:O	1:E:851:VAL:HG22	2.13	0.47
1:G:842:ASN:O	1:G:846:LEU:HB3	2.14	0.47
1:H:325:LEU:HA	1:H:328:LEU:HD12	1.96	0.47
1:H:387:ILE:CG2	1:H:393:ILE:HD12	2.44	0.47
1:H:432:VAL:HG12	1:H:436:LYS:NZ	2.28	0.47
1:H:615:ILE:H	1:H:615:ILE:HD12	1.79	0.47
1:L:640:THR:HG22	1:L:706:LYS:HG2	1.96	0.47
1:A:376:LYS:NZ	1:A:376:LYS:CA	2.69	0.47
1:A:525:THR:HA	1:A:528:ILE:HD12	1.96	0.47
1:F:252:LEU:HD23	1:F:524:THR:HG21	1.96	0.47
1:H:270:GLU:C	1:H:273:VAL:HG22	2.30	0.47
1:H:285:ILE:HD13	1:H:285:ILE:N	2.29	0.47
1:H:387:ILE:HG21	1:H:415:VAL:HG21	1.96	0.47
1:H:492:PHE:O	1:H:492:PHE:HD1	1.97	0.47
1:I:375:LEU:N	1:I:375:LEU:HD23	2.30	0.47
1:I:610:ARG:N	1:I:611:GLU:HA	2.28	0.47
1:J:480:ASN:HA	1:J:483:ASN:OD1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:815:LEU:O	1:J:815:LEU:HD22	2.15	0.47
1:K:478:ASN:CG	1:K:482:LYS:NZ	2.68	0.47
1:L:578:GLN:HA	1:L:838:VAL:HG21	1.95	0.47
1:A:853:PHE:HB3	1:A:854:PRO:HD3	1.96	0.47
1:B:505:LEU:O	1:B:505:LEU:HD22	2.15	0.47
1:B:720:ARG:NH1	1:B:813:LYS:HA	2.29	0.47
1:D:235:ILE:HD12	1:D:235:ILE:C	2.31	0.47
1:H:325:LEU:HD12	1:H:326:THR:N	2.30	0.47
1:H:679:ILE:O	1:H:682:ALA:HB3	2.15	0.47
1:J:294:LEU:HB3	1:J:352:ILE:HD13	1.96	0.47
1:J:376:LYS:HE2	1:J:376:LYS:N	2.29	0.47
1:J:400:ASP:N	1:J:400:ASP:OD1	2.48	0.47
1:J:429:MET:HE2	1:J:437:GLY:HA2	1.96	0.47
1:K:279:PRO:CG	1:K:321:ILE:HG22	2.45	0.47
1:K:883:ARG:O	1:K:887:LEU:HB2	2.14	0.47
1:L:854:PRO:HB2	1:L:855:ARG:NH2	2.30	0.47
1:A:285:ILE:CG1	1:A:286:THR:N	2.77	0.47
1:A:618:LEU:HD23	1:A:803:ARG:HH12	1.79	0.47
1:A:771:ASP:OD1	1:A:771:ASP:N	2.48	0.47
1:B:876:ARG:NH1	1:B:886:ASP:OD1	2.45	0.47
1:D:237:ILE:O	1:D:237:ILE:HD13	2.15	0.47
1:D:286:THR:O	1:D:361:PRO:HD3	2.14	0.47
1:D:537:TYR:CE1	1:D:540:LYS:CE	2.98	0.47
1:D:559:ASP:OD2	1:K:562:LYS:CD	2.62	0.47
1:E:231:THR:O	1:E:235:ILE:HG22	2.15	0.47
1:E:279:PRO:HG2	1:E:325:LEU:CD2	2.27	0.47
1:E:754:VAL:HA	1:E:779:PHE:CE1	2.49	0.47
1:F:360:LEU:HB2	1:F:361:PRO:HD2	1.95	0.47
1:G:231:THR:O	1:G:235:ILE:HG22	2.14	0.47
1:G:269:LEU:HD21	1:G:457:SER:HB2	1.97	0.47
1:G:873:LYS:HA	1:G:876:ARG:HB2	1.96	0.47
1:H:238:ARG:CZ	1:H:356:SER:OG	2.63	0.47
1:H:252:LEU:CD2	1:H:524:THR:HG21	2.40	0.47
1:H:273:VAL:HG11	1:H:457:SER:HB3	1.91	0.47
1:H:800:LEU:O	1:H:804:ILE:HG13	2.14	0.47
1:H:871:LEU:HD13	1:H:871:LEU:C	2.35	0.47
1:K:376:LYS:HA	1:K:376:LYS:HZ2	1.72	0.47
1:K:749:LYS:O	1:K:753:GLU:HG3	2.15	0.47
1:D:237:ILE:HD12	1:D:241:LEU:HD11	1.97	0.47
1:D:275:HIS:CD2	1:D:275:HIS:N	2.82	0.47
1:D:361:PRO:HD2	1:D:382:LEU:HD21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:278:LEU:CD1	1:E:278:LEU:N	2.78	0.47
1:F:303:ASP:OD1	1:F:349:SER:HB2	2.14	0.47
1:F:723:VAL:HG23	1:F:827:ASP:CB	2.45	0.47
1:H:286:THR:HB	1:H:361:PRO:CA	2.45	0.47
1:I:502:VAL:HG13	1:I:503:MET:SD	2.54	0.47
1:I:568:PHE:O	1:I:571:SER:N	2.48	0.47
1:K:355:LEU:HD23	1:K:357:LEU:HD22	1.94	0.47
1:L:585:LEU:HD12	1:L:834:ALA:HB2	1.97	0.47
1:A:484:TYR:HD1	1:A:485:PHE:CD1	2.33	0.47
1:A:640:THR:HG23	1:A:833:LEU:HD11	1.96	0.47
1:B:609:PRO:C	1:B:611:GLU:HB2	2.34	0.47
1:B:853:PHE:HB3	1:B:854:PRO:HD3	1.97	0.47
1:C:602:ILE:HB	1:C:788:ARG:HB3	1.95	0.47
1:D:785:ALA:O	1:D:789:GLU:HG3	2.15	0.47
1:E:537:TYR:HE1	1:E:540:LYS:HZ3	1.56	0.47
1:G:389:GLY:O	1:G:391:ASN:N	2.42	0.47
1:G:602:ILE:HB	1:G:788:ARG:HB3	1.97	0.47
1:H:260:SER:H	1:H:263:SER:HB3	1.80	0.47
1:H:307:PHE:CD1	1:H:345:LEU:HD21	2.50	0.47
1:H:520:LYS:HD3	1:H:520:LYS:HA	1.56	0.47
1:I:263:SER:OG	1:I:396:ILE:O	2.32	0.47
1:K:297:ASP:OD1	1:K:300:ALA:CB	2.63	0.47
1:A:254:SER:HB2	1:A:356:SER:O	2.15	0.47
1:A:483:ASN:C	1:A:483:ASN:ND2	2.68	0.47
1:B:266:SER:HA	1:B:269:LEU:HD22	1.97	0.47
1:B:873:LYS:HB2	1:B:873:LYS:HE3	1.70	0.47
1:D:230:ILE:O	1:D:234:MET:HG3	2.15	0.47
1:D:279:PRO:HG2	1:D:325:LEU:CD2	2.31	0.47
1:D:298:PRO:O	1:D:299:GLU:CB	2.63	0.47
1:D:457:SER:O	1:D:458:LYS:HB2	2.14	0.47
1:D:507:LYS:O	1:D:510:LEU:HB3	2.14	0.47
1:F:294:LEU:HB3	1:F:352:ILE:HD13	1.97	0.47
1:G:285:ILE:HD12	1:G:287:ARG:N	2.24	0.47
1:G:772:HIS:O	1:G:780:SER:HA	2.15	0.47
1:H:670:ALA:CB	1:H:671:LYS:NZ	2.78	0.47
1:I:750:LYS:O	1:I:754:VAL:HG23	2.15	0.47
1:J:648:ALA:HB1	1:J:841:LEU:HD12	1.98	0.47
1:K:310:LEU:N	1:K:310:LEU:CD2	2.78	0.47
1:K:485:PHE:HA	1:K:492:PHE:HE1	1.79	0.47
1:L:605:LEU:HD22	1:L:606:SER:O	2.14	0.47
1:A:593:LEU:CD2	1:A:823:GLU:HG3	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:751:LEU:HA	1:A:754:VAL:HG12	1.97	0.46
1:B:275:HIS:HB2	1:B:352:ILE:HG21	1.97	0.46
1:D:230:ILE:HG13	1:D:904:LEU:HD11	1.97	0.46
1:D:294:LEU:HB2	1:D:355:LEU:H	1.81	0.46
1:E:499:SER:C	1:E:500:THR:HG23	2.36	0.46
1:E:848:ASP:HA	1:E:851:VAL:CG2	2.46	0.46
1:F:241:LEU:HD13	1:F:250:VAL:O	2.15	0.46
1:F:383:CYS:O	1:F:387:ILE:HG13	2.14	0.46
1:F:441:LEU:HD12	1:F:452:TYR:HB2	1.96	0.46
1:G:230:ILE:HG13	1:G:904:LEU:CD1	2.45	0.46
1:H:242:GLN:HE22	1:H:344:ARG:CD	2.27	0.46
1:I:393:ILE:HD11	1:I:412:SER:HB2	1.97	0.46
1:I:434:PRO:HB2	1:I:491:GLU:HG3	1.97	0.46
1:J:321:ILE:O	1:J:325:LEU:HG	2.15	0.46
1:J:429:MET:CE	1:J:437:GLY:HA2	2.45	0.46
1:K:285:ILE:HG21	1:K:332:VAL:CG2	2.45	0.46
1:K:690:ARG:O	1:K:694:THR:HG23	2.14	0.46
1:L:754:VAL:HG21	1:L:783:LEU:HD22	1.97	0.46
1:A:320:LEU:O	1:A:324:THR:HG23	2.15	0.46
1:A:456:ILE:O	1:A:456:ILE:HG23	2.14	0.46
1:E:246:GLN:CG	1:E:247:GLY:N	2.78	0.46
1:E:285:ILE:CG1	1:E:287:ARG:HB2	2.42	0.46
1:E:430:ASP:OD1	1:E:430:ASP:C	2.53	0.46
1:F:227:MET:CA	1:F:230:ILE:HG22	2.45	0.46
1:G:254:SER:O	1:G:391:ASN:HB3	2.15	0.46
1:G:272:ILE:HD11	1:G:280:LYS:HB2	1.97	0.46
1:G:502:VAL:HG13	1:G:503:MET:N	2.30	0.46
1:H:752:LYS:HG3	1:H:755:MET:CE	2.45	0.46
1:C:622:ASP:OD1	1:C:623:PRO:HD2	2.15	0.46
1:C:904:LEU:C	1:C:904:LEU:HD12	2.36	0.46
1:E:238:ARG:NH2	1:E:356:SER:OG	2.48	0.46
1:G:772:HIS:O	1:G:780:SER:CA	2.64	0.46
1:I:294:LEU:HB3	1:I:352:ILE:HD13	1.96	0.46
1:I:876:ARG:HD3	1:I:876:ARG:HA	1.70	0.46
1:K:229:PHE:CD2	1:K:233:LYS:HD2	2.50	0.46
1:A:224:ASP:CG	1:A:227:MET:HB2	2.36	0.46
1:B:234:MET:HE2	1:B:517:MET:HB3	1.97	0.46
1:B:400:ASP:N	1:B:400:ASP:OD1	2.46	0.46
1:D:670:ALA:HB1	1:D:671:LYS:HZ1	1.80	0.46
1:E:232:LYS:O	1:E:235:ILE:CG2	2.64	0.46
1:E:433:GLU:O	1:E:436:LYS:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:279:PRO:HG3	1:F:321:ILE:HG22	1.97	0.46
1:F:749:LYS:O	1:F:753:GLU:HG3	2.15	0.46
1:H:474:LEU:HG	1:H:475:ALA:N	2.31	0.46
1:I:303:ASP:OD1	1:I:349:SER:HB2	2.14	0.46
1:I:377:ARG:HG3	1:I:378:LYS:N	2.26	0.46
1:I:776:ALA:CA	1:I:783:LEU:CD1	2.90	0.46
1:I:784:LEU:O	1:I:788:ARG:HG3	2.16	0.46
1:J:231:THR:O	1:J:235:ILE:HG22	2.15	0.46
1:J:667:SER:OG	1:J:668:SER:N	2.49	0.46
1:A:278:LEU:HD13	1:A:280:LYS:HG2	1.96	0.46
1:C:269:LEU:HD23	1:C:270:GLU:N	2.30	0.46
1:E:429:MET:HE2	1:E:437:GLY:HA2	1.98	0.46
1:H:255:ILE:HD12	1:H:357:LEU:HB3	1.97	0.46
1:H:285:ILE:CD1	1:H:285:ILE:H	2.28	0.46
1:H:444:ARG:O	1:H:447:PRO:HD3	2.16	0.46
1:J:565:PHE:CE1	1:J:568:PHE:HD2	2.33	0.46
1:K:224:ASP:O	1:K:227:MET:CB	2.63	0.46
1:A:272:ILE:HG23	1:A:278:LEU:N	2.27	0.46
1:B:863:GLU:O	1:B:867:ALA:HB2	2.15	0.46
1:D:618:LEU:HB3	1:D:619:PRO:HD3	1.97	0.46
1:F:224:ASP:O	1:F:227:MET:HB2	2.16	0.46
1:F:434:PRO:HG2	1:F:488:HIS:CD2	2.50	0.46
1:G:716:TRP:HZ3	1:G:825:PHE:HB2	1.80	0.46
1:G:803:ARG:HD3	1:G:803:ARG:HA	1.48	0.46
1:H:289:PRO:HB2	1:H:342:PRO:HB3	1.98	0.46
1:I:308:PRO:HG3	1:I:344:ARG:HB2	1.96	0.46
1:I:326:THR:O	1:I:329:ASN:HB2	2.16	0.46
1:I:661:GLU:OE2	1:I:676:ARG:NH2	2.49	0.46
1:J:485:PHE:HE2	1:J:500:THR:OG1	1.93	0.46
1:K:853:PHE:HB3	1:K:854:PRO:HD3	1.96	0.46
1:L:541:VAL:HG13	1:L:542:GLN:HG3	1.96	0.46
1:A:843:VAL:HG21	1:B:704:PRO:HA	1.98	0.46
1:C:582:LYS:HE2	1:C:831:THR:HG23	1.97	0.46
1:C:672:HIS:HD2	1:C:877:GLU:HB2	1.79	0.46
1:C:821:CYS:O	1:C:824:VAL:HG13	2.15	0.46
1:E:450:LEU:HD22	1:E:512:VAL:HG22	1.97	0.46
1:F:690:ARG:NH1	1:F:844:GLU:OE2	2.48	0.46
1:G:387:ILE:HG21	1:G:393:ILE:HD12	1.98	0.46
1:H:485:PHE:N	1:H:485:PHE:HD1	2.13	0.46
1:I:433:GLU:O	1:I:436:LYS:HB2	2.16	0.46
1:J:478:ASN:CG	1:J:482:LYS:HZ2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:297:ASP:OD1	1:K:300:ALA:HB3	2.14	0.46
1:K:308:PRO:CG	1:K:344:ARG:HG3	2.45	0.46
1:K:339:THR:CG2	1:K:340:ASP:N	2.77	0.46
1:K:454:GLY:H	1:K:500:THR:HG22	1.81	0.46
1:L:363:TYR:CD2	1:L:407:THR:HB	2.50	0.46
1:A:285:ILE:O	1:A:286:THR:OG1	2.32	0.46
1:B:227:MET:HA	1:B:230:ILE:HG22	1.97	0.46
1:B:275:HIS:CG	1:B:276:GLU:H	2.34	0.46
1:D:441:LEU:HD21	1:D:498:VAL:CA	2.46	0.46
1:E:540:LYS:HA	1:E:545:GLU:HG3	1.98	0.46
1:G:772:HIS:HD2	1:G:779:PHE:O	1.98	0.46
1:G:889:ARG:O	1:G:892:GLU:HG3	2.15	0.46
1:H:429:MET:HE1	1:H:437:GLY:HA2	1.97	0.46
1:I:778:GLY:O	1:I:783:LEU:HD13	2.15	0.46
1:J:289:PRO:HB2	1:J:342:PRO:HB3	1.96	0.46
1:J:614:ASN:OD1	1:J:616:ILE:HG22	2.15	0.46
1:L:326:THR:HA	1:L:329:ASN:ND2	2.31	0.46
1:A:286:THR:O	1:A:361:PRO:HD3	2.15	0.46
1:C:425:VAL:HA	1:C:453:VAL:O	2.16	0.46
1:C:873:LYS:O	1:C:877:GLU:HG3	2.16	0.46
1:D:311:GLY:O	1:D:312:LEU:HB2	2.16	0.46
1:E:252:LEU:HD23	1:E:524:THR:HG21	1.97	0.46
1:E:269:LEU:HD23	1:E:457:SER:OG	2.02	0.46
1:E:272:ILE:HG23	1:E:278:LEU:N	2.23	0.46
1:E:477:ILE:O	1:E:481:GLU:OE1	2.34	0.46
1:E:670:ALA:C	1:E:671:LYS:HE3	2.36	0.46
1:F:254:SER:HB2	1:F:356:SER:O	2.15	0.46
1:G:321:ILE:HA	1:G:324:THR:HG1	1.79	0.46
1:J:257:VAL:HG23	1:J:257:VAL:O	2.16	0.46
1:K:230:ILE:CG2	1:K:231:THR:N	2.79	0.46
1:K:871:LEU:O	1:K:874:PHE:HB3	2.16	0.46
1:B:766:ILE:HD12	1:B:767:ILE:N	2.31	0.46
1:E:311:GLY:O	1:E:312:LEU:HB2	2.16	0.46
1:G:832:LYS:O	1:G:835:GLN:HG2	2.16	0.46
1:H:267:SER:CB	1:H:396:ILE:CD1	2.93	0.46
1:I:273:VAL:HG11	1:I:457:SER:HB3	1.98	0.46
1:J:279:PRO:O	1:J:280:LYS:HD2	2.15	0.46
1:J:434:PRO:CG	1:J:488:HIS:CG	2.98	0.46
1:J:889:ARG:HG3	1:J:890:ARG:N	2.29	0.46
1:L:458:LYS:HZ2	1:L:458:LYS:HB3	1.80	0.46
1:L:486:GLY:O	1:L:489:PRO:HD3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:483:ASN:ND2	1:B:483:ASN:C	2.69	0.45
1:B:727:LEU:HB3	1:B:804:ILE:HG12	1.97	0.45
1:B:727:LEU:HD12	1:B:727:LEU:HA	1.82	0.45
1:D:401:THR:HG23	1:D:405:ASN:HB3	1.97	0.45
1:D:723:VAL:HG11	1:D:823:GLU:HB3	1.98	0.45
1:D:855:ARG:CZ	1:K:556:ALA:HA	2.46	0.45
1:E:426:ILE:HD12	1:E:440:ILE:CG2	2.05	0.45
1:E:555:ALA:HB3	1:J:855:ARG:CD	2.46	0.45
1:F:488:HIS:HB3	1:F:491:GLU:CG	2.46	0.45
1:H:339:THR:HG22	1:H:340:ASP:H	1.80	0.45
1:I:569:ALA:HB1	1:I:850:TYR:CZ	2.51	0.45
1:I:678:VAL:HG11	1:I:861:LEU:HD23	1.99	0.45
1:I:776:ALA:HA	1:I:783:LEU:HD12	1.95	0.45
1:K:375:LEU:HB2	1:K:376:LYS:HE2	1.98	0.45
1:K:907:ILE:HD12	1:K:907:ILE:HA	1.87	0.45
1:L:605:LEU:HD22	1:L:606:SER:N	2.31	0.45
1:L:656:ILE:HD11	1:L:846:LEU:HD12	1.98	0.45
1:A:875:ALA:HB1	1:A:885:LEU:CD1	2.47	0.45
1:B:339:THR:HG23	1:B:340:ASP:N	2.32	0.45
1:B:530:ARG:HD3	1:B:530:ARG:HA	1.54	0.45
1:C:863:GLU:O	1:C:867:ALA:HB2	2.15	0.45
1:D:357:LEU:HD23	1:D:357:LEU:H	1.81	0.45
1:G:235:ILE:HD12	1:G:238:ARG:HD3	1.98	0.45
1:G:319:SER:O	1:G:322:GLN:HB3	2.16	0.45
1:G:776:ALA:O	1:L:757:PHE:CE1	2.69	0.45
1:H:754:VAL:HA	1:H:779:PHE:CE1	2.51	0.45
1:J:246:GLN:HG2	1:J:247:GLY:N	2.30	0.45
1:J:268:VAL:O	1:J:272:ILE:HG13	2.16	0.45
1:J:621:ALA:O	1:J:820:TYR:OH	2.28	0.45
1:K:229:PHE:HA	1:K:232:LYS:HD2	1.97	0.45
1:K:263:SER:OG	1:K:397:SER:HA	2.15	0.45
1:K:275:HIS:CG	1:K:276:GLU:N	2.85	0.45
1:K:376:LYS:HZ2	1:K:376:LYS:HG3	1.33	0.45
1:K:381:GLU:OE1	1:K:381:GLU:CA	2.63	0.45
1:B:750:LYS:O	1:B:754:VAL:HG23	2.16	0.45
1:C:272:ILE:HD11	1:C:280:LYS:HB2	1.98	0.45
1:C:803:ARG:HD2	1:C:823:GLU:CD	2.37	0.45
1:D:238:ARG:NH2	1:D:356:SER:OG	2.49	0.45
1:D:269:LEU:HD11	1:D:458:LYS:HB2	1.98	0.45
1:D:318:PHE:CD1	1:D:321:ILE:HD12	2.51	0.45
1:D:384:ASP:O	1:D:385:LYS:C	2.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:282:SER:HB2	1:E:283:ASN:H	1.65	0.45
1:E:375:LEU:N	1:E:375:LEU:HD23	2.31	0.45
1:E:377:ARG:HG2	1:E:377:ARG:NH2	2.21	0.45
1:G:656:ILE:HD11	1:G:846:LEU:HD12	1.98	0.45
1:H:285:ILE:CD1	1:H:285:ILE:N	2.79	0.45
1:H:360:LEU:HB2	1:H:361:PRO:HD2	1.99	0.45
1:H:550:ALA:O	1:H:553:TYR:HB3	2.17	0.45
1:H:690:ARG:O	1:H:694:THR:HG23	2.17	0.45
1:I:572:PHE:HB3	1:I:850:TYR:OH	2.16	0.45
1:J:279:PRO:O	1:J:280:LYS:CD	2.64	0.45
1:K:387:ILE:HG21	1:K:393:ILE:HD12	1.97	0.45
1:K:670:ALA:CB	1:K:671:LYS:NZ	2.79	0.45
1:L:692:TYR:CD2	1:L:692:TYR:C	2.90	0.45
1:A:278:LEU:HD12	1:A:278:LEU:N	2.31	0.45
1:A:540:LYS:HA	1:A:545:GLU:HG3	1.98	0.45
1:B:258:ILE:HG22	1:B:360:LEU:HD11	1.98	0.45
1:D:285:ILE:HD13	1:D:285:ILE:C	2.15	0.45
1:E:483:ASN:ND2	1:E:483:ASN:C	2.70	0.45
1:G:611:GLU:N	1:G:612:PRO:CD	2.79	0.45
1:H:268:VAL:O	1:H:272:ILE:CD1	2.65	0.45
1:I:258:ILE:HG21	1:I:387:ILE:HD11	1.98	0.45
1:L:227:MET:O	1:L:231:THR:OG1	2.31	0.45
1:A:581:LEU:HD12	1:A:838:VAL:HG23	1.98	0.45
1:C:492:PHE:O	1:C:492:PHE:CD1	2.69	0.45
1:C:758:VAL:HB	1:C:791:VAL:HG21	1.97	0.45
1:D:434:PRO:HG2	1:D:488:HIS:CE1	2.51	0.45
1:D:863:GLU:O	1:D:867:ALA:HB3	2.16	0.45
1:E:639:LEU:O	1:E:642:LEU:HD23	2.16	0.45
1:F:269:LEU:O	1:F:272:ILE:HB	2.16	0.45
1:H:703:LYS:N	1:H:704:PRO:HD2	2.31	0.45
1:H:751:LEU:O	1:H:754:VAL:HG12	2.16	0.45
1:I:766:ILE:HG13	1:I:767:ILE:H	1.81	0.45
1:J:232:LYS:HA	1:J:235:ILE:CG2	2.47	0.45
1:J:235:ILE:HD12	1:J:235:ILE:O	2.16	0.45
1:K:272:ILE:HG23	1:K:278:LEU:N	2.30	0.45
1:K:485:PHE:HE2	1:K:500:THR:OG1	1.90	0.45
1:A:376:LYS:HA	1:A:376:LYS:HZ1	1.75	0.45
1:A:861:LEU:HA	1:A:861:LEU:HD23	1.80	0.45
1:B:529:GLN:HG2	1:B:898:LEU:HD21	1.99	0.45
1:C:698:ILE:HD11	1:C:841:LEU:HG	1.99	0.45
1:C:804:ILE:O	1:C:808:LYS:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:903:GLU:HG3	1:C:906:ARG:CZ	2.46	0.45
1:D:278:LEU:HD21	1:D:280:LYS:CD	2.40	0.45
1:D:855:ARG:HE	1:K:556:ALA:CA	2.29	0.45
1:E:294:LEU:HB2	1:E:355:LEU:H	1.82	0.45
1:E:392:ILE:HD11	1:E:423:ILE:HG23	1.97	0.45
1:E:855:ARG:N	1:E:855:ARG:HH11	2.14	0.45
1:F:293:THR:OG1	1:F:346:THR:HG23	2.17	0.45
1:G:294:LEU:HB2	1:G:355:LEU:H	1.81	0.45
1:G:425:VAL:HG12	1:G:427:THR:HG23	1.99	0.45
1:I:349:SER:HB3	1:I:352:ILE:HG12	1.98	0.45
1:K:278:LEU:CD2	1:K:280:LYS:CD	2.83	0.45
1:K:485:PHE:O	1:K:489:PRO:HA	2.17	0.45
1:A:276:GLU:OE1	1:A:303:ASP:OD1	2.35	0.45
1:A:791:VAL:HG13	1:A:794:ARG:NH2	2.30	0.45
1:B:607:PRO:HD3	1:B:762:ARG:HG3	1.98	0.45
1:D:284:MET:O	1:D:286:THR:HG23	2.17	0.45
1:E:275:HIS:HB2	1:E:352:ILE:HG21	1.99	0.45
1:E:889:ARG:HH21	1:E:893:LEU:HG	1.81	0.45
1:H:485:PHE:O	1:H:489:PRO:N	2.50	0.45
1:J:671:LYS:HD2	1:J:671:LYS:N	2.31	0.45
1:A:287:ARG:HH11	1:A:287:ARG:HG3	1.82	0.45
1:A:377:ARG:HG2	1:A:377:ARG:HH21	1.82	0.45
1:A:441:LEU:CB	1:A:498:VAL:CG1	2.95	0.45
1:D:276:GLU:CG	1:D:277:PHE:N	2.78	0.45
1:D:288:ARG:HA	1:D:289:PRO:HD3	1.64	0.45
1:D:775:GLY:HA2	1:D:779:PHE:O	2.17	0.45
1:E:429:MET:HE1	1:E:437:GLY:HA2	1.97	0.45
1:E:585:LEU:HD12	1:E:834:ALA:HB2	1.98	0.45
1:F:640:THR:HG22	1:F:706:LYS:HG2	1.98	0.45
1:G:750:LYS:O	1:G:754:VAL:HG23	2.17	0.45
1:H:246:GLN:CG	1:H:247:GLY:N	2.80	0.45
1:I:255:ILE:HG12	1:I:513:LEU:HD12	1.99	0.45
1:K:670:ALA:CB	1:K:671:LYS:HE3	2.47	0.45
1:L:326:THR:O	1:L:329:ASN:HB2	2.17	0.45
1:L:728:GLN:O	1:L:732:GLU:HG3	2.16	0.45
1:A:270:GLU:CA	1:A:273:VAL:HG22	2.46	0.45
1:A:285:ILE:CD1	1:A:285:ILE:N	2.79	0.45
1:A:321:ILE:HA	1:A:324:THR:OG1	2.16	0.45
1:A:671:LYS:N	1:A:671:LYS:CD	2.77	0.45
1:B:609:PRO:N	1:B:610:ARG:CA	2.79	0.45
1:C:276:GLU:HG2	1:C:277:PHE:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:640:THR:C	1:D:642:LEU:H	2.20	0.45
1:F:272:ILE:HG23	1:F:277:PHE:HA	1.97	0.45
1:G:258:ILE:HG21	1:G:387:ILE:HD11	1.99	0.45
1:H:752:LYS:HA	1:H:755:MET:CE	2.46	0.45
1:H:832:LYS:O	1:H:836:THR:HG22	2.17	0.45
1:J:311:GLY:O	1:J:312:LEU:CB	2.65	0.45
1:K:642:LEU:HD12	1:K:643:GLY:N	2.31	0.45
1:L:582:LYS:HE2	1:L:831:THR:HG23	1.98	0.45
1:A:277:PHE:O	1:A:318:PHE:CD2	2.70	0.45
1:A:376:LYS:HZ2	1:A:379:ILE:HD12	1.81	0.45
1:B:578:GLN:HA	1:B:838:VAL:HG21	1.98	0.45
1:C:772:HIS:HD2	1:C:775:GLY:O	2.00	0.45
1:C:818:LYS:NZ	1:C:819:TYR:CE2	2.83	0.45
1:E:326:THR:HG22	1:E:329:ASN:ND2	2.32	0.45
1:E:425:VAL:HA	1:E:453:VAL:O	2.16	0.45
1:G:260:SER:H	1:G:263:SER:HB3	1.81	0.45
1:G:505:LEU:HD22	1:G:505:LEU:O	2.16	0.45
1:G:627:TYR:CZ	1:G:631:GLN:NE2	2.83	0.45
1:H:285:ILE:CG1	1:H:286:THR:N	2.79	0.45
1:I:754:VAL:O	1:I:758:VAL:HG23	2.16	0.45
1:I:854:PRO:O	1:I:858:GLU:HG3	2.17	0.45
1:J:267:SER:CB	1:J:396:ILE:CD1	2.89	0.45
1:J:278:LEU:HD22	1:J:279:PRO:O	2.17	0.45
1:J:396:ILE:HG22	1:J:425:VAL:HB	1.99	0.45
1:J:690:ARG:O	1:J:694:THR:HG23	2.17	0.45
1:K:376:LYS:N	1:K:376:LYS:CE	2.74	0.45
1:K:493:GLY:O	1:K:496:SER:HB3	2.16	0.45
1:A:233:LYS:CA	1:A:233:LYS:CE	2.96	0.44
1:B:806:ALA:O	1:B:809:SER:HB3	2.17	0.44
1:C:239:ASN:HD21	1:C:293:THR:HG21	1.82	0.44
1:D:232:LYS:HA	1:D:235:ILE:HG22	1.99	0.44
1:E:269:LEU:HD23	1:E:270:GLU:N	2.31	0.44
1:E:484:TYR:CE1	1:E:492:PHE:HZ	2.33	0.44
1:E:592:GLN:HG2	1:E:635:ALA:O	2.17	0.44
1:E:617:ASP:N	1:E:617:ASP:OD1	2.50	0.44
1:F:279:PRO:HB3	1:F:322:GLN:CA	2.47	0.44
1:H:296:ASN:C	1:H:298:PRO:HD3	2.37	0.44
1:I:602:ILE:HB	1:I:788:ARG:HB3	1.99	0.44
1:J:265:LYS:HA	1:J:268:VAL:CG2	2.47	0.44
1:J:453:VAL:HG21	1:J:505:LEU:HD23	1.99	0.44
1:J:593:LEU:HD21	1:J:823:GLU:HG3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:275:HIS:HB2	1:K:352:ILE:HG21	1.99	0.44
1:L:702:LEU:HA	1:L:702:LEU:HD23	1.72	0.44
1:A:607:PRO:HA	1:A:762:ARG:O	2.17	0.44
1:B:720:ARG:O	1:B:724:VAL:HG23	2.17	0.44
1:C:252:LEU:HD23	1:C:524:THR:HG21	1.98	0.44
1:D:275:HIS:CG	1:D:276:GLU:N	2.85	0.44
1:E:345:LEU:HA	1:E:345:LEU:HD23	1.74	0.44
1:G:510:LEU:HD23	1:G:510:LEU:C	2.38	0.44
1:J:450:LEU:HD22	1:J:512:VAL:CG2	2.46	0.44
1:A:738:MET:O	1:A:742:GLU:HG3	2.16	0.44
1:D:528:ILE:HG23	1:D:894:LEU:HD22	1.98	0.44
1:E:777:GLY:O	1:E:779:PHE:CE2	2.71	0.44
1:F:227:MET:O	1:F:231:THR:OG1	2.28	0.44
1:F:664:LEU:HB3	1:F:676:ARG:NH1	2.33	0.44
1:G:505:LEU:C	1:G:505:LEU:HD13	2.38	0.44
1:H:285:ILE:HG12	1:H:287:ARG:N	2.11	0.44
1:H:454:GLY:N	1:H:500:THR:HG22	2.32	0.44
1:I:664:LEU:HD23	1:I:676:ARG:HG3	2.00	0.44
1:J:260:SER:N	1:J:263:SER:HB3	2.32	0.44
1:K:237:ILE:HD12	1:K:241:LEU:HD11	1.99	0.44
1:K:300:ALA:C	1:K:301:LYS:HD3	2.37	0.44
1:K:441:LEU:HD21	1:K:498:VAL:CB	2.20	0.44
1:L:442:SER:HB2	1:L:498:VAL:HG12	1.97	0.44
1:D:491:GLU:N	1:D:491:GLU:OE2	2.50	0.44
1:D:907:ILE:HD12	1:D:907:ILE:HA	1.87	0.44
1:E:229:PHE:O	1:E:232:LYS:HG3	2.16	0.44
1:F:420:GLU:HG3	1:F:449:LYS:HE2	2.00	0.44
1:F:832:LYS:O	1:F:835:GLN:HG2	2.16	0.44
1:G:241:LEU:HD13	1:G:250:VAL:O	2.17	0.44
1:H:308:PRO:HD2	1:H:344:ARG:O	2.17	0.44
1:H:513:LEU:O	1:H:517:MET:HB2	2.18	0.44
1:H:539:PHE:CD2	1:H:545:GLU:HG2	2.53	0.44
1:J:267:SER:HB2	1:J:396:ILE:HD11	1.97	0.44
1:L:423:ILE:HG22	1:L:450:LEU:HD13	1.98	0.44
1:L:622:ASP:OD1	1:L:623:PRO:HD2	2.18	0.44
1:A:257:VAL:HG21	1:A:359:ASP:HB2	1.99	0.44
1:A:287:ARG:HD2	1:A:332:VAL:CG1	2.48	0.44
1:A:791:VAL:HG13	1:A:794:ARG:HH21	1.83	0.44
1:C:285:ILE:CD1	1:C:287:ARG:HB2	2.47	0.44
1:D:486:GLY:C	1:D:489:PRO:HD3	2.35	0.44
1:D:614:ASN:OD1	1:D:616:ILE:CG2	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:690:ARG:O	1:D:694:THR:HG23	2.17	0.44
1:E:269:LEU:CG	1:E:457:SER:O	2.64	0.44
1:E:441:LEU:CD2	1:E:498:VAL:CA	2.89	0.44
1:G:264:GLY:HA2	1:G:267:SER:HB3	1.99	0.44
1:G:642:LEU:HD22	1:G:643:GLY:N	2.22	0.44
1:H:286:THR:O	1:H:361:PRO:CD	2.65	0.44
1:H:701:SER:O	1:H:704:PRO:HD2	2.16	0.44
1:I:879:PRO:HB2	1:I:883:ARG:HH21	1.81	0.44
1:J:286:THR:O	1:J:361:PRO:CD	2.65	0.44
1:L:609:PRO:HB2	1:L:611:GLU:N	2.33	0.44
1:L:650:THR:O	1:L:653:ALA:HB3	2.17	0.44
1:A:272:ILE:H	1:A:272:ILE:HG13	1.61	0.44
1:A:278:LEU:HD21	1:A:280:LYS:CD	2.25	0.44
1:A:454:GLY:O	1:A:500:THR:CB	2.65	0.44
1:A:576:GLN:NE2	1:A:576:GLN:N	2.59	0.44
1:C:572:PHE:HB3	1:C:850:TYR:OH	2.18	0.44
1:D:269:LEU:HD23	1:D:270:GLU:N	2.33	0.44
1:D:278:LEU:HD22	1:D:280:LYS:HG2	1.98	0.44
1:E:233:LYS:HE2	1:E:233:LYS:HA	2.00	0.44
1:E:272:ILE:HG12	1:E:280:LYS:CG	2.47	0.44
1:G:778:GLY:H	1:L:779:PHE:CB	2.27	0.44
1:G:832:LYS:O	1:G:836:THR:HG22	2.17	0.44
1:K:434:PRO:HB3	1:K:491:GLU:CG	2.46	0.44
1:K:875:ALA:HB1	1:K:885:LEU:HD13	1.99	0.44
1:A:224:ASP:O	1:A:227:MET:CB	2.66	0.44
1:A:575:PRO:O	1:A:578:GLN:HB3	2.18	0.44
1:B:814:THR:HG23	1:B:817:ASN:OD1	2.17	0.44
1:C:484:TYR:HD1	1:C:485:PHE:CD1	2.35	0.44
1:C:600:ARG:HB3	1:C:600:ARG:NH1	2.33	0.44
1:D:429:MET:CE	1:D:437:GLY:HA2	2.47	0.44
1:E:441:LEU:HD21	1:E:498:VAL:CA	2.47	0.44
1:F:364:ILE:HD12	1:F:376:LYS:NZ	2.32	0.44
1:I:605:LEU:HD13	1:I:606:SER:O	2.17	0.44
1:J:232:LYS:HG3	1:J:233:LYS:CE	2.48	0.44
1:J:491:GLU:CD	1:J:491:GLU:N	2.71	0.44
1:J:617:ASP:OD1	1:J:617:ASP:N	2.50	0.44
1:L:588:LYS:HD3	1:L:588:LYS:HA	1.74	0.44
1:A:705:TYR:CE1	1:A:832:LYS:HD3	2.53	0.44
1:C:735:GLN:O	1:C:738:MET:HB3	2.18	0.44
1:D:241:LEU:O	1:D:244:VAL:HG23	2.18	0.44
1:D:295:VAL:O	1:D:352:ILE:HD11	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:392:ILE:HD12	1:E:421:ARG:O	2.18	0.44
1:F:275:HIS:CG	1:F:276:GLU:N	2.85	0.44
1:F:431:LEU:HD23	1:F:431:LEU:H	1.83	0.44
1:G:473:LEU:O	1:G:477:ILE:HG13	2.18	0.44
1:H:265:LYS:HA	1:H:268:VAL:CG2	2.48	0.44
1:H:416:ASP:OD2	1:H:422:THR:HG22	2.18	0.44
1:J:664:LEU:HB3	1:J:676:ARG:NH2	2.32	0.44
1:K:307:PHE:CD1	1:K:345:LEU:HD23	2.52	0.44
1:L:237:ILE:HD11	1:L:897:VAL:HG13	2.00	0.44
1:A:472:ASN:CG	1:A:472:ASN:O	2.56	0.44
1:A:682:ALA:O	1:A:686:VAL:HG23	2.18	0.44
1:B:640:THR:HG21	1:B:706:LYS:HA	2.00	0.44
1:C:357:LEU:HD23	1:C:357:LEU:H	1.83	0.44
1:C:692:TYR:C	1:C:692:TYR:CD2	2.89	0.44
1:D:458:LYS:HE2	1:D:458:LYS:O	2.17	0.44
1:D:810:ARG:O	1:D:813:LYS:HB2	2.18	0.44
1:E:244:VAL:HB	1:E:248:SER:OG	2.18	0.44
1:E:387:ILE:HG22	1:E:415:VAL:HG21	1.98	0.44
1:F:596:ARG:HB3	1:F:597:TYR:CD1	2.52	0.44
1:G:609:PRO:HB2	1:G:611:GLU:HB2	2.00	0.44
1:H:296:ASN:HB2	1:H:354:ASP:OD2	2.18	0.44
1:H:749:LYS:O	1:H:753:GLU:HG3	2.18	0.44
1:I:272:ILE:HD11	1:I:280:LYS:HB2	1.99	0.44
1:I:640:THR:HG21	1:I:706:LYS:HA	1.99	0.44
1:J:478:ASN:OD1	1:J:482:LYS:HE3	2.17	0.44
1:J:618:LEU:HD23	1:J:803:ARG:NH1	2.33	0.44
1:J:818:LYS:HG2	1:J:819:TYR:N	2.33	0.44
1:K:266:SER:CB	1:K:427:THR:OG1	2.65	0.44
1:B:285:ILE:HD13	1:B:332:VAL:HG22	2.00	0.43
1:C:293:THR:O	1:C:346:THR:HA	2.18	0.43
1:C:642:LEU:HD13	1:C:643:GLY:N	2.33	0.43
1:C:904:LEU:HD12	1:C:904:LEU:O	2.17	0.43
1:D:272:ILE:HG13	1:D:272:ILE:H	1.55	0.43
1:D:483:ASN:C	1:D:483:ASN:ND2	2.72	0.43
1:E:244:VAL:HG11	1:E:894:LEU:HD21	2.00	0.43
1:G:507:LYS:HE3	1:G:507:LYS:HB2	1.90	0.43
1:H:318:PHE:HD1	1:H:321:ILE:HD12	1.83	0.43
1:J:520:LYS:HA	1:J:520:LYS:HD3	1.64	0.43
1:B:664:LEU:HD23	1:B:676:ARG:HG3	1.99	0.43
1:C:450:LEU:O	1:C:508:LYS:NZ	2.51	0.43
1:D:278:LEU:CD1	1:D:278:LEU:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:279:PRO:HB2	1:D:322:GLN:HA	1.97	0.43
1:D:559:ASP:OD1	1:K:562:LYS:NZ	2.47	0.43
1:D:754:VAL:HA	1:D:779:PHE:CE1	2.53	0.43
1:E:381:GLU:OE1	1:E:381:GLU:HA	2.18	0.43
1:F:355:LEU:HD23	1:F:357:LEU:HD22	1.98	0.43
1:F:599:ASN:OD1	1:F:599:ASN:N	2.43	0.43
1:G:661:GLU:OE2	1:G:676:ARG:NH2	2.51	0.43
1:H:640:THR:HG22	1:H:706:LYS:HG2	2.00	0.43
1:J:454:GLY:H	1:J:500:THR:HG22	1.83	0.43
1:L:441:LEU:HD12	1:L:441:LEU:HA	1.69	0.43
1:A:268:VAL:O	1:A:272:ILE:HG13	2.18	0.43
1:A:484:TYR:CD1	1:A:484:TYR:C	2.92	0.43
1:C:279:PRO:HG3	1:C:322:GLN:HA	2.00	0.43
1:D:278:LEU:HD22	1:D:279:PRO:O	2.18	0.43
1:D:559:ASP:OD2	1:K:562:LYS:HD3	2.18	0.43
1:D:735:GLN:O	1:D:738:MET:HB3	2.17	0.43
1:E:832:LYS:O	1:E:835:GLN:HG2	2.19	0.43
1:G:640:THR:HG22	1:G:706:LYS:HG2	2.00	0.43
1:I:400:ASP:OD1	1:I:400:ASP:N	2.51	0.43
1:I:594:ALA:HA	1:I:598:TRP:CE3	2.54	0.43
1:K:269:LEU:CG	1:K:457:SER:O	2.61	0.43
1:K:851:VAL:HG23	1:K:852:ARG:N	2.33	0.43
1:K:875:ALA:HB1	1:K:885:LEU:CD1	2.48	0.43
1:L:585:LEU:O	1:L:589:VAL:HG23	2.18	0.43
1:L:618:LEU:CD2	1:L:628:TRP:CE2	3.01	0.43
1:L:630:ARG:HG2	1:L:630:ARG:HH11	1.82	0.43
1:B:609:PRO:HD2	1:B:610:ARG:O	2.18	0.43
1:C:393:ILE:HG23	1:C:422:THR:HB	2.01	0.43
1:D:297:ASP:OD1	1:D:300:ALA:HB3	2.17	0.43
1:D:627:TYR:CE2	1:D:628:TRP:CH2	2.92	0.43
1:E:441:LEU:CB	1:E:498:VAL:CG1	2.96	0.43
1:J:457:SER:O	1:J:458:LYS:CB	2.67	0.43
1:K:230:ILE:HG13	1:K:904:LEU:CD1	2.48	0.43
1:K:420:GLU:HG3	1:K:449:LYS:HE2	1.99	0.43
1:L:387:ILE:HG22	1:L:415:VAL:HG21	2.00	0.43
1:A:276:GLU:OE1	1:A:303:ASP:CG	2.57	0.43
1:A:326:THR:O	1:A:329:ASN:HB2	2.18	0.43
1:B:318:PHE:CD1	1:B:321:ILE:CD1	2.91	0.43
1:D:232:LYS:HA	1:D:235:ILE:CG2	2.48	0.43
1:E:576:GLN:NE2	1:E:576:GLN:N	2.57	0.43
1:G:255:ILE:HG23	1:G:392:ILE:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:267:SER:CB	1:G:396:ILE:HG13	2.49	0.43
1:G:861:LEU:HD23	1:G:861:LEU:HA	1.81	0.43
1:G:861:LEU:O	1:G:865:MET:HG2	2.19	0.43
1:H:328:LEU:HD13	1:H:343:ILE:HD13	2.00	0.43
1:H:382:LEU:C	1:H:382:LEU:HD12	2.39	0.43
1:I:873:LYS:O	1:I:877:GLU:HG3	2.18	0.43
1:L:532:LEU:HD22	1:L:898:LEU:HD22	2.00	0.43
1:A:376:LYS:N	1:A:376:LYS:CE	2.81	0.43
1:A:675:ALA:O	1:A:679:ILE:HG13	2.19	0.43
1:A:735:GLN:O	1:A:738:MET:HB3	2.19	0.43
1:C:754:VAL:HG22	1:C:779:PHE:CD2	2.53	0.43
1:D:269:LEU:CD2	1:D:457:SER:HB2	2.48	0.43
1:F:530:ARG:HA	1:F:530:ARG:HD3	1.75	0.43
1:H:477:ILE:O	1:H:477:ILE:CG2	2.66	0.43
1:H:490:THR:OG1	1:H:491:GLU:OE2	2.27	0.43
1:H:673:PRO:HA	1:H:676:ARG:HB3	1.99	0.43
1:I:389:GLY:O	1:I:391:ASN:N	2.49	0.43
1:I:758:VAL:HB	1:I:791:VAL:HG21	1.99	0.43
1:J:610:ARG:HA	1:J:610:ARG:NE	2.33	0.43
1:L:264:GLY:HA2	1:L:267:SER:HB3	2.00	0.43
1:A:349:SER:HB3	1:A:352:ILE:HG12	2.00	0.43
1:A:441:LEU:HD21	1:A:498:VAL:CA	2.48	0.43
1:B:344:ARG:H	1:B:344:ARG:HG2	1.63	0.43
1:B:544:ASN:HD22	1:D:703:LYS:HE3	1.83	0.43
1:C:269:LEU:HA	1:C:272:ILE:HD12	2.00	0.43
1:D:387:ILE:HG22	1:D:415:VAL:HG21	1.99	0.43
1:D:396:ILE:HA	1:D:425:VAL:O	2.19	0.43
1:D:484:TYR:C	1:D:486:GLY:N	2.71	0.43
1:D:861:LEU:HA	1:D:861:LEU:HD23	1.83	0.43
1:E:278:LEU:HD22	1:E:280:LYS:HD3	1.98	0.43
1:E:376:LYS:CA	1:E:376:LYS:CE	2.97	0.43
1:F:363:TYR:N	1:F:363:TYR:CD1	2.86	0.43
1:F:705:TYR:CE1	1:F:832:LYS:HD3	2.53	0.43
1:F:731:LEU:O	1:F:735:GLN:HG3	2.18	0.43
1:G:436:LYS:O	1:G:440:ILE:HG13	2.17	0.43
1:G:744:SER:OG	1:G:786:ARG:NH2	2.51	0.43
1:J:272:ILE:CG2	1:J:277:PHE:CD1	2.96	0.43
1:J:300:ALA:C	1:J:301:LYS:HD3	2.38	0.43
1:L:252:LEU:HD23	1:L:524:THR:HG21	2.01	0.43
1:A:272:ILE:CG2	1:A:278:LEU:N	2.77	0.43
1:A:639:LEU:O	1:A:642:LEU:HD23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:285:ILE:HD12	1:B:286:THR:N	2.34	0.43
1:B:653:ALA:HA	1:B:687:LEU:HD13	2.01	0.43
1:C:227:MET:O	1:C:231:THR:OG1	2.36	0.43
1:C:661:GLU:OE2	1:C:676:ARG:NH2	2.52	0.43
1:C:664:LEU:CD2	1:C:676:ARG:HG3	2.47	0.43
1:D:272:ILE:HG12	1:D:278:LEU:HD11	2.01	0.43
1:D:308:PRO:HG3	1:D:344:ARG:HB2	2.00	0.43
1:D:484:TYR:HE1	1:D:492:PHE:CZ	2.35	0.43
1:D:552:SER:HA	1:K:855:ARG:HD2	2.00	0.43
1:D:587:GLN:NE2	1:D:591:ASP:OD1	2.51	0.43
1:D:690:ARG:O	1:D:690:ARG:HD3	2.18	0.43
1:F:803:ARG:HD3	1:F:803:ARG:HA	1.62	0.43
1:G:558:LEU:HD12	1:G:861:LEU:HD12	2.00	0.43
1:H:742:GLU:CD	1:H:748:ARG:HE	2.22	0.43
1:H:861:LEU:HD23	1:H:861:LEU:HA	1.77	0.43
1:J:900:LYS:HD3	1:J:900:LYS:HA	1.81	0.43
1:K:267:SER:HB2	1:K:396:ILE:CD1	2.49	0.43
1:K:444:ARG:HD2	1:K:444:ARG:HA	1.86	0.43
1:A:225:ASP:O	1:A:226:ASN:C	2.56	0.43
1:A:233:LYS:HE3	1:A:233:LYS:HA	2.00	0.43
1:A:252:LEU:HD23	1:A:252:LEU:HA	1.79	0.43
1:A:297:ASP:OD1	1:A:348:HIS:HB3	2.19	0.43
1:A:529:GLN:HG2	1:A:898:LEU:HD21	2.01	0.43
1:B:264:GLY:HA2	1:B:267:SER:CB	2.46	0.43
1:B:492:PHE:HD1	1:B:492:PHE:O	2.01	0.43
1:C:230:ILE:O	1:C:234:MET:HG3	2.19	0.43
1:C:267:SER:CB	1:C:396:ILE:HG13	2.49	0.43
1:C:605:LEU:HD13	1:C:606:SER:O	2.19	0.43
1:C:891:LYS:HG2	1:C:895:GLU:OE2	2.19	0.43
1:D:246:GLN:CD	1:D:247:GLY:N	2.70	0.43
1:D:345:LEU:HD23	1:D:345:LEU:HA	1.86	0.43
1:D:425:VAL:HA	1:D:453:VAL:O	2.19	0.43
1:E:255:ILE:HD12	1:E:357:LEU:HB3	2.01	0.43
1:E:263:SER:HA	1:E:266:SER:OG	2.19	0.43
1:E:272:ILE:CG2	1:E:278:LEU:HD13	2.39	0.43
1:E:631:GLN:OE1	1:E:631:GLN:HA	2.18	0.43
1:F:279:PRO:O	1:F:280:LYS:HD2	2.19	0.43
1:F:723:VAL:HG11	1:F:823:GLU:HB3	2.01	0.43
1:G:723:VAL:HG23	1:G:827:ASP:CB	2.48	0.43
1:G:853:PHE:O	1:G:857:VAL:HG23	2.18	0.43
1:H:231:THR:O	1:H:235:ILE:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:267:SER:CB	1:H:396:ILE:HD11	2.48	0.43
1:H:315:VAL:HG11	1:H:321:ILE:HG13	1.99	0.43
1:I:224:ASP:HB3	1:I:227:MET:HB2	2.00	0.43
1:K:900:LYS:HD3	1:K:900:LYS:HA	1.84	0.43
1:L:279:PRO:HG2	1:L:325:LEU:HD21	2.00	0.43
1:D:278:LEU:CB	1:D:279:PRO:CD	2.93	0.43
1:D:339:THR:O	1:D:340:ASP:CB	2.66	0.43
1:D:562:LYS:NZ	1:K:558:LEU:CD2	2.82	0.43
1:D:727:LEU:CD2	1:D:823:GLU:HG2	2.48	0.43
1:E:225:ASP:O	1:E:226:ASN:C	2.56	0.43
1:E:238:ARG:NE	1:E:356:SER:OG	2.52	0.43
1:E:376:LYS:HZ2	1:E:376:LYS:HG3	1.51	0.43
1:E:484:TYR:CD1	1:E:484:TYR:C	2.92	0.43
1:E:854:PRO:HB2	1:E:855:ARG:HH11	1.75	0.43
1:F:385:LYS:HE2	1:F:385:LYS:HB3	1.82	0.43
1:F:664:LEU:HD12	1:F:664:LEU:HA	1.84	0.43
1:H:260:SER:O	1:H:263:SER:N	2.51	0.43
1:I:479:ARG:HH11	1:I:479:ARG:HD2	1.66	0.43
1:I:518:SER:O	1:I:521:LEU:HB3	2.19	0.43
1:I:803:ARG:HD3	1:I:803:ARG:HA	1.66	0.43
1:I:891:LYS:O	1:I:895:GLU:HG3	2.19	0.43
1:J:268:VAL:O	1:J:272:ILE:CD1	2.67	0.43
1:K:269:LEU:HD21	1:K:457:SER:O	2.19	0.43
1:K:269:LEU:CD2	1:K:270:GLU:N	2.69	0.43
1:K:308:PRO:HG3	1:K:344:ARG:CG	2.46	0.43
1:A:450:LEU:HD22	1:A:512:VAL:CG2	2.48	0.42
1:C:263:SER:OG	1:C:396:ILE:O	2.36	0.42
1:D:834:ALA:O	1:D:838:VAL:HB	2.19	0.42
1:G:234:MET:O	1:G:237:ILE:HG22	2.19	0.42
1:H:244:VAL:HB	1:H:248:SER:OG	2.19	0.42
1:H:267:SER:HB3	1:H:396:ILE:HG13	2.00	0.42
1:H:288:ARG:HA	1:H:289:PRO:HD3	1.82	0.42
1:H:318:PHE:CD1	1:H:321:ILE:HD12	2.54	0.42
1:H:400:ASP:OD1	1:H:400:ASP:N	2.51	0.42
1:H:543:TYR:CD1	1:H:884:HIS:HB2	2.54	0.42
1:I:702:LEU:HD13	1:I:833:LEU:HD22	2.01	0.42
1:J:282:SER:HB2	1:J:283:ASN:H	1.67	0.42
1:J:288:ARG:HA	1:J:289:PRO:HD3	1.79	0.42
1:J:387:ILE:O	1:J:421:ARG:NH2	2.51	0.42
1:J:392:ILE:HG21	1:J:513:LEU:HD22	2.01	0.42
1:J:582:LYS:O	1:J:586:ASP:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:478:ASN:CG	1:K:482:LYS:HZ2	2.21	0.42
1:K:670:ALA:HB3	1:K:671:LYS:HE3	2.01	0.42
1:L:260:SER:N	1:L:263:SER:HB3	2.34	0.42
1:L:642:LEU:O	1:L:644:VAL:N	2.49	0.42
1:A:285:ILE:HD13	1:A:285:ILE:N	2.35	0.42
1:A:499:SER:C	1:A:500:THR:HG23	2.39	0.42
1:B:227:MET:O	1:B:231:THR:OG1	2.34	0.42
1:B:251:THR:HG22	1:B:252:LEU:H	1.83	0.42
1:B:597:TYR:CE2	1:B:822:PRO:HG3	2.55	0.42
1:B:648:ALA:HB1	1:B:841:LEU:HD12	2.00	0.42
1:C:706:LYS:HD2	1:K:544:ASN:HD21	1.84	0.42
1:C:785:ALA:HA	1:C:788:ARG:CZ	2.49	0.42
1:D:244:VAL:HG11	1:D:894:LEU:HD21	2.01	0.42
1:D:269:LEU:CD2	1:D:457:SER:O	2.66	0.42
1:D:375:LEU:O	1:D:378:LYS:N	2.52	0.42
1:E:455:VAL:CG1	1:E:501:GLY:N	2.78	0.42
1:E:851:VAL:HG23	1:E:852:ARG:N	2.34	0.42
1:F:263:SER:O	1:F:267:SER:HB3	2.19	0.42
1:F:276:GLU:HG2	1:F:277:PHE:N	2.33	0.42
1:G:664:LEU:HB3	1:G:676:ARG:NH1	2.34	0.42
1:G:690:ARG:HA	1:G:690:ARG:HD3	1.69	0.42
1:I:722:HIS:O	1:I:726:VAL:HG23	2.19	0.42
1:K:492:PHE:O	1:K:492:PHE:HD1	2.02	0.42
1:L:258:ILE:HG22	1:L:360:LEU:HD11	2.00	0.42
1:A:233:LYS:CE	1:A:233:LYS:HA	2.49	0.42
1:B:234:MET:CG	1:B:234:MET:CE	2.96	0.42
1:C:224:ASP:HB3	1:C:227:MET:CG	2.48	0.42
1:D:723:VAL:CG1	1:D:823:GLU:HB3	2.50	0.42
1:D:886:ASP:O	1:D:889:ARG:CG	2.67	0.42
1:E:349:SER:HB3	1:E:352:ILE:HG23	2.01	0.42
1:E:413:ARG:NH1	1:E:446:TYR:CE1	2.88	0.42
1:E:493:GLY:O	1:E:496:SER:HB3	2.19	0.42
1:G:287:ARG:HH11	1:G:287:ARG:HG3	1.85	0.42
1:H:272:ILE:CG2	1:H:277:PHE:HA	2.41	0.42
1:H:907:ILE:HD12	1:H:907:ILE:HA	1.79	0.42
1:I:528:ILE:HA	1:I:531:GLU:CG	2.49	0.42
1:J:269:LEU:HD23	1:J:269:LEU:C	2.40	0.42
1:J:618:LEU:HD23	1:J:803:ARG:HH12	1.83	0.42
1:K:258:ILE:HD13	1:K:387:ILE:HD13	2.01	0.42
1:K:434:PRO:HG2	1:K:488:HIS:CE1	2.54	0.42
1:K:453:VAL:HG21	1:K:505:LEU:HD23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:507:LYS:HB2	1:L:507:LYS:HE3	1.83	0.42
1:A:874:PHE:CD1	1:A:874:PHE:C	2.92	0.42
1:B:411:ALA:HA	1:B:414:ARG:HB3	2.01	0.42
1:B:581:LEU:HD23	1:B:581:LEU:HA	1.87	0.42
1:B:615:ILE:HD11	1:B:803:ARG:NE	2.23	0.42
1:B:778:GLY:O	1:I:776:ALA:HB1	2.19	0.42
1:B:783:LEU:CD1	1:I:778:GLY:N	2.82	0.42
1:D:478:ASN:O	1:D:482:LYS:CG	2.66	0.42
1:D:627:TYR:HD2	1:D:628:TRP:CD2	2.37	0.42
1:E:276:GLU:HG2	1:E:277:PHE:H	1.85	0.42
1:F:231:THR:O	1:F:235:ILE:HG22	2.18	0.42
1:H:243:LYS:O	1:H:243:LYS:CG	2.67	0.42
1:H:247:GLY:O	1:H:249:THR:N	2.48	0.42
1:H:270:GLU:CA	1:H:273:VAL:HG22	2.50	0.42
1:H:297:ASP:OD2	1:H:300:ALA:HB3	2.19	0.42
1:I:235:ILE:HD11	1:I:293:THR:HG22	2.00	0.42
1:I:667:SER:OG	1:I:668:SER:N	2.53	0.42
1:J:278:LEU:CB	1:J:279:PRO:HD2	2.36	0.42
1:K:237:ILE:HD13	1:K:237:ILE:O	2.18	0.42
1:K:276:GLU:HG2	1:K:277:PHE:N	2.34	0.42
1:K:596:ARG:HG3	1:K:635:ALA:HB2	2.02	0.42
1:L:296:ASN:HB2	1:L:354:ASP:OD2	2.19	0.42
1:A:288:ARG:HA	1:A:289:PRO:HD3	1.78	0.42
1:A:691:SER:O	1:A:694:THR:OG1	2.34	0.42
1:B:607:PRO:HG3	1:B:762:ARG:HG3	2.01	0.42
1:B:694:THR:O	1:B:698:ILE:HG13	2.19	0.42
1:F:488:HIS:HB3	1:F:491:GLU:HG3	2.02	0.42
1:F:694:THR:O	1:F:698:ILE:HG13	2.20	0.42
1:G:232:LYS:HE2	1:G:232:LYS:HB3	1.49	0.42
1:H:269:LEU:HD21	1:H:457:SER:O	2.20	0.42
1:H:631:GLN:OE1	1:H:631:GLN:HA	2.18	0.42
1:I:297:ASP:HB3	1:I:349:SER:C	2.40	0.42
1:J:238:ARG:HA	1:J:241:LEU:HD12	2.01	0.42
1:J:355:LEU:HD12	1:J:355:LEU:HA	1.85	0.42
1:K:751:LEU:O	1:K:755:MET:HG3	2.19	0.42
1:A:731:LEU:HA	1:A:800:LEU:HD13	2.02	0.42
1:B:241:LEU:HD21	1:B:528:ILE:HD13	2.02	0.42
1:B:690:ARG:HA	1:B:690:ARG:HD3	1.83	0.42
1:C:627:TYR:HE2	1:C:628:TRP:CH2	2.37	0.42
1:E:285:ILE:CD1	1:E:285:ILE:N	2.82	0.42
1:E:543:TYR:O	1:E:546:GLN:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:611:GLU:H	1:E:611:GLU:HG2	1.49	0.42
1:G:260:SER:N	1:G:263:SER:HB3	2.34	0.42
1:G:596:ARG:HD2	1:G:631:GLN:HG3	2.00	0.42
1:G:611:GLU:H	1:G:612:PRO:HD2	1.85	0.42
1:I:744:SER:OG	1:I:786:ARG:NH2	2.45	0.42
1:K:272:ILE:HG12	1:K:278:LEU:HD11	2.02	0.42
1:K:297:ASP:OD1	1:K:348:HIS:HB3	2.20	0.42
1:K:673:PRO:O	1:K:677:LYS:HB2	2.20	0.42
1:L:251:THR:HG22	1:L:252:LEU:H	1.84	0.42
1:A:229:PHE:HA	1:A:232:LYS:HG2	2.01	0.42
1:A:450:LEU:HD22	1:A:512:VAL:HG21	2.02	0.42
1:B:363:TYR:CD1	1:B:363:TYR:N	2.87	0.42
1:B:532:LEU:HD22	1:B:898:LEU:HD22	2.01	0.42
1:C:308:PRO:HG3	1:C:344:ARG:HB2	2.01	0.42
1:C:889:ARG:O	1:C:892:GLU:HB2	2.20	0.42
1:D:657:GLN:HE21	1:D:657:GLN:HB2	1.62	0.42
1:E:778:GLY:C	1:E:779:PHE:HD2	2.23	0.42
1:E:878:ASP:HA	1:E:879:PRO:HD3	1.93	0.42
1:H:388:ARG:O	1:H:421:ARG:NH2	2.52	0.42
1:I:837:ALA:O	1:I:841:LEU:HB2	2.20	0.42
1:J:270:GLU:C	1:J:273:VAL:HG22	2.39	0.42
1:J:376:LYS:CA	1:J:376:LYS:CE	2.97	0.42
1:K:278:LEU:HD13	1:K:278:LEU:C	2.40	0.42
1:K:889:ARG:O	1:K:892:GLU:HB3	2.20	0.42
1:A:396:ILE:HD13	1:A:396:ILE:N	2.35	0.42
1:B:904:LEU:HD12	1:B:904:LEU:O	2.19	0.42
1:C:484:TYR:HD1	1:C:485:PHE:CE1	2.37	0.42
1:C:530:ARG:HD3	1:C:530:ARG:HA	1.89	0.42
1:D:278:LEU:HD22	1:D:280:LYS:CG	2.49	0.42
1:D:376:LYS:HE2	1:D:376:LYS:CA	2.48	0.42
1:E:272:ILE:HG13	1:E:272:ILE:H	1.55	0.42
1:E:661:GLU:OE2	1:E:676:ARG:NH1	2.53	0.42
1:F:602:ILE:HB	1:F:788:ARG:HB3	2.00	0.42
1:I:508:LYS:HD2	1:I:508:LYS:HA	1.83	0.42
1:I:803:ARG:HD2	1:I:823:GLU:OE1	2.20	0.42
1:K:260:SER:OG	1:K:407:THR:OG1	2.24	0.42
1:K:275:HIS:H	1:K:275:HIS:HD2	1.60	0.42
1:K:667:SER:OG	1:K:668:SER:N	2.53	0.42
1:L:321:ILE:O	1:L:325:LEU:HG	2.20	0.42
1:A:232:LYS:CD	1:A:233:LYS:HZ2	2.33	0.42
1:A:308:PRO:HD2	1:A:344:ARG:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:875:ALA:O	1:A:881:VAL:HG23	2.19	0.42
1:B:262:SER:O	1:B:266:SER:OG	2.37	0.42
1:B:611:GLU:N	1:B:612:PRO:HD2	2.32	0.42
1:C:861:LEU:HD23	1:C:861:LEU:HA	1.77	0.42
1:E:716:TRP:CE3	1:E:815:LEU:HD23	2.55	0.42
1:F:585:LEU:HA	1:F:585:LEU:HD23	1.76	0.42
1:F:727:LEU:HD12	1:F:727:LEU:HA	1.93	0.42
1:G:702:LEU:HD23	1:G:702:LEU:HA	1.76	0.42
1:J:627:TYR:HE2	1:J:628:TRP:CZ3	2.38	0.42
1:K:387:ILE:O	1:K:388:ARG:C	2.58	0.42
1:K:540:LYS:HA	1:K:545:GLU:HG3	2.01	0.42
1:K:565:PHE:HA	1:K:663:LEU:HD21	2.02	0.42
1:L:266:SER:HA	1:L:269:LEU:HD22	2.01	0.42
1:L:275:HIS:CG	1:L:276:GLU:H	2.38	0.42
1:L:582:LYS:HB2	1:L:582:LYS:HE3	1.86	0.42
1:A:232:LYS:HA	1:A:235:ILE:CG2	2.50	0.42
1:A:234:MET:HA	1:A:237:ILE:HG22	2.01	0.42
1:B:325:LEU:HD12	1:B:326:THR:HG23	2.01	0.42
1:B:426:ILE:HG12	1:B:440:ILE:HG22	2.02	0.42
1:D:258:ILE:HG22	1:D:360:LEU:HD11	2.01	0.42
1:D:401:THR:HG22	1:D:402:ASP:O	2.19	0.42
1:D:703:LYS:N	1:D:704:PRO:HD2	2.35	0.42
1:E:754:VAL:HA	1:E:779:PHE:HE1	1.84	0.42
1:F:267:SER:CB	1:F:396:ILE:HG13	2.50	0.42
1:F:690:ARG:HA	1:F:690:ARG:HD3	1.88	0.42
1:G:887:LEU:HD12	1:G:887:LEU:HA	1.79	0.42
1:H:238:ARG:HG3	1:H:252:LEU:HB2	2.02	0.42
1:I:441:LEU:HD21	1:I:499:SER:O	2.19	0.42
1:J:576:GLN:H	1:J:576:GLN:HE21	1.66	0.42
1:J:616:ILE:HG23	1:J:617:ASP:OD1	2.20	0.42
1:K:279:PRO:HG3	1:K:321:ILE:C	2.40	0.42
1:L:605:LEU:HD22	1:L:605:LEU:C	2.41	0.42
1:A:224:ASP:O	1:A:227:MET:HB2	2.20	0.41
1:A:441:LEU:CB	1:A:498:VAL:HG12	2.48	0.41
1:A:814:THR:CG2	1:A:817:ASN:ND2	2.82	0.41
1:B:818:LYS:HE3	1:B:819:TYR:CE2	2.55	0.41
1:C:255:ILE:HG12	1:C:513:LEU:HD12	2.01	0.41
1:C:441:LEU:HD12	1:C:452:TYR:HB2	2.02	0.41
1:D:855:ARG:HH21	1:K:556:ALA:HB2	1.78	0.41
1:E:749:LYS:O	1:E:753:GLU:HG3	2.19	0.41
1:E:802:LEU:HD22	1:E:802:LEU:HA	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:234:MET:HA	1:F:237:ILE:HG22	2.02	0.41
1:F:861:LEU:HD23	1:F:861:LEU:HA	1.80	0.41
1:G:779:PHE:HD1	1:L:750:LYS:NZ	2.17	0.41
1:H:232:LYS:O	1:H:235:ILE:CG2	2.68	0.41
1:H:268:VAL:O	1:H:272:ILE:CG1	2.67	0.41
1:H:664:LEU:HD12	1:H:664:LEU:HA	1.89	0.41
1:I:265:LYS:HD2	1:I:265:LYS:HA	1.79	0.41
1:I:814:THR:OG1	1:I:816:THR:HG23	2.19	0.41
1:K:258:ILE:HG21	1:K:387:ILE:HD11	2.01	0.41
1:L:357:LEU:HD23	1:L:357:LEU:H	1.84	0.41
1:L:593:LEU:CD2	1:L:826:LEU:HD12	2.50	0.41
1:A:297:ASP:HB3	1:A:349:SER:C	2.40	0.41
1:A:873:LYS:O	1:A:873:LYS:HD2	2.19	0.41
1:B:840:PHE:CE1	1:B:844:GLU:HG3	2.55	0.41
1:C:232:LYS:HB3	1:C:232:LYS:HE2	1.68	0.41
1:D:286:THR:HB	1:D:361:PRO:HA	2.02	0.41
1:D:537:TYR:CD1	1:D:540:LYS:HE3	2.54	0.41
1:E:275:HIS:HB2	1:E:352:ILE:HG22	2.02	0.41
1:F:825:PHE:O	1:F:828:ALA:HB3	2.20	0.41
1:G:294:LEU:HB3	1:G:352:ILE:HD13	2.02	0.41
1:G:488:HIS:HB3	1:G:491:GLU:CG	2.50	0.41
1:H:277:PHE:HD1	1:H:278:LEU:H	1.68	0.41
1:H:766:ILE:HD12	1:H:766:ILE:HA	1.88	0.41
1:I:241:LEU:HD13	1:I:250:VAL:O	2.20	0.41
1:I:525:THR:O	1:I:529:GLN:HG3	2.21	0.41
1:J:345:LEU:HD23	1:J:345:LEU:HA	1.85	0.41
1:J:593:LEU:CD2	1:J:823:GLU:HG3	2.50	0.41
1:L:284:MET:HG2	1:L:286:THR:CG2	2.50	0.41
1:L:581:LEU:HD23	1:L:581:LEU:HA	1.89	0.41
1:B:508:LYS:O	1:B:512:VAL:HG23	2.20	0.41
1:B:537:TYR:O	1:B:541:VAL:HG12	2.20	0.41
1:C:565:PHE:CZ	1:C:853:PHE:CD2	3.09	0.41
1:D:278:LEU:CB	1:D:279:PRO:HD2	2.37	0.41
1:D:279:PRO:CG	1:D:322:GLN:HA	2.49	0.41
1:D:285:ILE:CD1	1:D:285:ILE:N	2.83	0.41
1:D:344:ARG:H	1:D:344:ARG:HG2	1.58	0.41
1:E:907:ILE:HD12	1:E:907:ILE:HA	1.93	0.41
1:F:377:ARG:HH21	1:F:377:ARG:CG	2.33	0.41
1:G:873:LYS:O	1:G:877:GLU:HG3	2.19	0.41
1:H:229:PHE:CD2	1:H:229:PHE:N	2.87	0.41
1:H:257:VAL:HG23	1:H:257:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:731:LEU:HA	1:J:800:LEU:HD13	2.01	0.41
1:K:703:LYS:N	1:K:704:PRO:HD2	2.35	0.41
1:K:742:GLU:HA	1:K:751:LEU:HD13	2.02	0.41
1:L:241:LEU:HD11	1:L:528:ILE:HD11	2.01	0.41
1:L:416:ASP:OD1	1:L:419:GLY:N	2.54	0.41
1:L:572:PHE:HD2	1:L:846:LEU:HD11	1.84	0.41
1:L:808:LYS:HE2	1:L:808:LYS:HB3	1.84	0.41
1:A:254:SER:O	1:A:391:ASN:HB3	2.21	0.41
1:A:393:ILE:HG23	1:A:422:THR:HB	2.01	0.41
1:A:426:ILE:HD11	1:A:440:ILE:CG2	2.12	0.41
1:B:234:MET:HA	1:B:237:ILE:HG22	2.02	0.41
1:B:441:LEU:HD12	1:B:452:TYR:HB2	2.02	0.41
1:C:360:LEU:CB	1:C:361:PRO:HD2	2.47	0.41
1:C:738:MET:O	1:C:742:GLU:HG3	2.20	0.41
1:D:267:SER:CB	1:D:396:ILE:HG13	2.51	0.41
1:D:382:LEU:CG	1:D:383:CYS:N	2.83	0.41
1:E:458:LYS:HA	1:E:458:LYS:HD2	1.88	0.41
1:F:322:GLN:O	1:F:326:THR:OG1	2.32	0.41
1:F:776:ALA:HB3	1:F:784:LEU:HD11	2.02	0.41
1:G:717:ALA:O	1:G:720:ARG:HB3	2.20	0.41
1:G:778:GLY:N	1:L:779:PHE:CD1	2.66	0.41
1:H:393:ILE:HG23	1:H:422:THR:HB	2.02	0.41
1:H:485:PHE:HD1	1:H:485:PHE:H	1.67	0.41
1:H:837:ALA:O	1:H:841:LEU:HB2	2.21	0.41
1:J:224:ASP:N	1:J:225:ASP:OD1	2.53	0.41
1:K:605:LEU:HD21	1:K:784:LEU:HD12	2.00	0.41
1:L:889:ARG:O	1:L:892:GLU:HB2	2.21	0.41
1:A:296:ASN:C	1:A:298:PRO:HD3	2.40	0.41
1:A:377:ARG:HH21	1:A:377:ARG:CG	2.33	0.41
1:B:376:LYS:NZ	1:B:379:ILE:HD12	2.35	0.41
1:B:409:LEU:HA	1:B:412:SER:HB3	2.03	0.41
1:C:241:LEU:HD23	1:C:241:LEU:HA	1.91	0.41
1:C:748:ARG:O	1:C:749:LYS:C	2.59	0.41
1:F:377:ARG:HA	1:F:380:THR:OG1	2.20	0.41
1:F:675:ALA:O	1:F:678:VAL:HB	2.20	0.41
1:G:692:TYR:CE2	1:G:696:ASP:HB2	2.56	0.41
1:G:854:PRO:HB2	1:G:855:ARG:CZ	2.50	0.41
1:H:617:ASP:OD1	1:H:617:ASP:N	2.54	0.41
1:I:285:ILE:HG12	1:I:329:ASN:O	2.20	0.41
1:K:279:PRO:HB3	1:K:322:GLN:CG	2.50	0.41
1:K:376:LYS:HZ1	1:K:379:ILE:CD1	2.17	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:490:THR:OG1	1:K:491:GLU:N	2.53	0.41
1:K:723:VAL:O	1:K:727:LEU:HB2	2.20	0.41
1:K:802:LEU:HA	1:K:802:LEU:HD22	1.72	0.41
1:L:269:LEU:HD11	1:L:457:SER:O	2.21	0.41
1:L:457:SER:O	1:L:458:LYS:HB2	2.20	0.41
1:L:458:LYS:C	1:L:458:LYS:HD2	2.41	0.41
1:L:848:ASP:OD2	1:L:852:ARG:HD3	2.20	0.41
1:A:269:LEU:HD21	1:A:457:SER:C	2.41	0.41
1:A:279:PRO:CB	1:A:322:GLN:HG3	2.51	0.41
1:B:269:LEU:HD11	1:B:457:SER:O	2.20	0.41
1:C:241:LEU:HD11	1:C:528:ILE:HD11	2.03	0.41
1:C:703:LYS:N	1:C:704:PRO:HD2	2.35	0.41
1:D:434:PRO:HB3	1:D:491:GLU:CB	2.51	0.41
1:G:509:LEU:HD23	1:G:509:LEU:HA	1.87	0.41
1:G:889:ARG:HA	1:G:892:GLU:CG	2.49	0.41
1:G:889:ARG:CA	1:G:892:GLU:HG3	2.47	0.41
1:H:270:GLU:O	1:H:273:VAL:CG2	2.55	0.41
1:H:455:VAL:CG1	1:H:501:GLY:H	2.28	0.41
1:K:492:PHE:CD1	1:K:492:PHE:O	2.74	0.41
1:K:576:GLN:NE2	1:K:576:GLN:H	2.18	0.41
1:L:613:ASP:HB3	1:L:627:TYR:OH	2.20	0.41
1:A:574:ARG:N	1:A:575:PRO:HD2	2.35	0.41
1:A:802:LEU:HD22	1:A:802:LEU:HA	1.95	0.41
1:A:848:ASP:O	1:A:852:ARG:HB2	2.20	0.41
1:B:784:LEU:HD23	1:B:784:LEU:HA	1.77	0.41
1:C:528:ILE:O	1:C:531:GLU:HG2	2.20	0.41
1:D:387:ILE:HG23	1:D:393:ILE:HD12	2.03	0.41
1:D:751:LEU:HA	1:D:754:VAL:HG12	2.03	0.41
1:E:269:LEU:CD2	1:E:269:LEU:C	2.82	0.41
1:E:288:ARG:HA	1:E:289:PRO:HD3	1.90	0.41
1:E:453:VAL:HG21	1:E:505:LEU:HD23	2.02	0.41
1:E:672:HIS:HA	1:E:877:GLU:CD	2.41	0.41
1:F:258:ILE:HG21	1:F:387:ILE:HD11	2.03	0.41
1:F:357:LEU:HD23	1:F:357:LEU:H	1.85	0.41
1:F:640:THR:HG21	1:F:706:LYS:HA	2.03	0.41
1:G:473:LEU:HD12	1:G:473:LEU:HA	1.76	0.41
1:H:441:LEU:CB	1:H:498:VAL:HG12	2.49	0.41
1:H:526:GLU:OE1	1:H:530:ARG:NH1	2.52	0.41
1:J:287:ARG:HD2	1:J:332:VAL:CG1	2.50	0.41
1:K:229:PHE:CG	1:K:232:LYS:HD2	2.54	0.41
1:K:678:VAL:HG21	1:K:864:HIS:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:832:LYS:O	1:K:836:THR:HG22	2.21	0.41
1:L:266:SER:O	1:L:270:GLU:HB2	2.21	0.41
1:A:823:GLU:H	1:A:823:GLU:CD	2.22	0.41
1:B:611:GLU:H	1:B:612:PRO:CD	2.34	0.41
1:C:697:GLY:HA3	1:C:840:PHE:CZ	2.56	0.41
1:D:286:THR:HB	1:D:361:PRO:CA	2.51	0.41
1:D:616:ILE:HG22	1:D:616:ILE:H	1.54	0.41
1:D:854:PRO:HD2	1:D:855:ARG:HH12	1.82	0.41
1:G:738:MET:O	1:G:742:GLU:HG3	2.20	0.41
1:H:279:PRO:HG3	1:H:321:ILE:HG22	2.02	0.41
1:H:730:GLU:O	1:H:730:GLU:HG3	2.21	0.41
1:I:279:PRO:HB3	1:I:322:GLN:CB	2.51	0.41
1:J:244:VAL:HG11	1:J:894:LEU:HD21	2.02	0.41
1:J:278:LEU:HD21	1:J:280:LYS:CD	2.39	0.41
1:J:416:ASP:OD2	1:J:422:THR:HG22	2.21	0.41
1:J:528:ILE:HG21	1:J:528:ILE:HD13	1.86	0.41
1:K:409:LEU:HD23	1:K:409:LEU:HA	1.90	0.41
1:A:339:THR:CG2	1:A:340:ASP:H	2.34	0.41
1:A:396:ILE:HG22	1:A:425:VAL:HB	2.03	0.41
1:A:543:TYR:O	1:A:546:GLN:HG2	2.20	0.41
1:B:317:ASP:N	1:B:317:ASP:OD1	2.53	0.41
1:B:760:LYS:HB3	1:B:766:ILE:CG2	2.50	0.41
1:B:785:ALA:HA	1:B:788:ARG:CZ	2.51	0.41
1:C:279:PRO:HB3	1:C:322:GLN:HA	2.03	0.41
1:D:444:ARG:NE	1:D:444:ARG:HA	2.35	0.41
1:D:475:ALA:O	1:D:478:ASN:N	2.43	0.41
1:D:562:LYS:HD3	1:K:559:ASP:OD1	2.21	0.41
1:D:754:VAL:HG23	1:D:779:PHE:CD1	2.55	0.41
1:E:294:LEU:HB3	1:E:352:ILE:CD1	2.40	0.41
1:E:751:LEU:HA	1:E:754:VAL:HG12	2.03	0.41
1:E:900:LYS:HD3	1:E:900:LYS:HA	1.84	0.41
1:F:286:THR:O	1:F:361:PRO:HD3	2.21	0.41
1:F:702:LEU:HD23	1:F:702:LEU:HA	1.80	0.41
1:G:239:ASN:HD21	1:G:293:THR:HG21	1.85	0.41
1:G:528:ILE:HA	1:G:531:GLU:HG2	2.02	0.41
1:H:225:ASP:O	1:H:229:PHE:CD2	2.73	0.41
1:H:272:ILE:HG23	1:H:278:LEU:N	2.35	0.41
1:H:321:ILE:O	1:H:325:LEU:HG	2.21	0.41
1:H:694:THR:HG22	1:H:844:GLU:CG	2.51	0.41
1:H:846:LEU:HD12	1:H:846:LEU:HA	1.92	0.41
1:I:431:LEU:HD23	1:I:431:LEU:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:702:LEU:HD23	1:I:702:LEU:HA	1.76	0.41
1:J:509:LEU:HA	1:J:509:LEU:HD23	1.85	0.41
1:J:723:VAL:CG1	1:J:823:GLU:HB3	2.51	0.41
1:J:800:LEU:O	1:J:804:ILE:HG13	2.20	0.41
1:K:434:PRO:HG2	1:K:488:HIS:CD2	2.56	0.41
1:L:319:SER:O	1:L:323:LYS:HG2	2.21	0.41
1:L:727:LEU:HA	1:L:727:LEU:HD12	1.84	0.41
1:A:520:LYS:HA	1:A:520:LYS:HD3	1.80	0.41
1:B:364:ILE:HD12	1:B:376:LYS:NZ	2.36	0.41
1:C:611:GLU:H	1:C:612:PRO:HD2	1.86	0.41
1:C:754:VAL:O	1:C:758:VAL:HG23	2.21	0.41
1:D:246:GLN:C	1:D:248:SER:H	2.23	0.41
1:D:382:LEU:C	1:D:382:LEU:CD1	2.88	0.41
1:D:455:VAL:HG12	1:D:501:GLY:CA	2.51	0.41
1:D:592:GLN:HG2	1:D:635:ALA:O	2.21	0.41
1:D:752:LYS:HA	1:D:755:MET:HE3	2.03	0.41
1:E:826:LEU:HD23	1:E:826:LEU:HA	1.93	0.41
1:F:249:THR:HG23	1:F:250:VAL:O	2.20	0.41
1:F:296:ASN:H	1:F:354:ASP:HB3	1.85	0.41
1:F:363:TYR:N	1:F:363:TYR:HD1	2.19	0.41
1:F:583:ASP:O	1:F:586:ASP:HB2	2.21	0.41
1:H:237:ILE:HD13	1:H:237:ILE:C	2.37	0.41
1:H:492:PHE:CD1	1:H:492:PHE:O	2.74	0.41
1:I:268:VAL:HB	1:I:280:LYS:HB3	2.03	0.41
1:I:727:LEU:HD12	1:I:727:LEU:HA	1.95	0.41
1:J:287:ARG:HH11	1:J:287:ARG:CG	2.33	0.41
1:J:308:PRO:HD2	1:J:344:ARG:O	2.21	0.41
1:K:454:GLY:CA	1:K:500:THR:HG22	2.50	0.41
1:K:488:HIS:CB	1:K:491:GLU:HG2	2.26	0.41
1:L:392:ILE:HD12	1:L:421:ARG:O	2.21	0.41
1:L:585:LEU:HD23	1:L:585:LEU:HA	1.82	0.41
1:L:611:GLU:N	1:L:612:PRO:CD	2.81	0.41
1:L:817:ASN:HB2	1:L:820:TYR:HB2	2.02	0.41
1:A:664:LEU:HA	1:A:664:LEU:HD12	1.73	0.40
1:C:326:THR:HA	1:C:329:ASN:ND2	2.36	0.40
1:C:641:ARG:O	1:K:541:VAL:HG13	2.21	0.40
1:D:255:ILE:HA	1:D:392:ILE:O	2.21	0.40
1:D:361:PRO:CG	1:D:382:LEU:HD21	2.50	0.40
1:E:279:PRO:HG3	1:E:322:GLN:HA	2.03	0.40
1:E:285:ILE:HG21	1:E:332:VAL:CG2	2.51	0.40
1:E:303:ASP:OD1	1:E:349:SER:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:861:LEU:O	1:F:865:MET:HG2	2.21	0.40
1:H:254:SER:O	1:H:391:ASN:HB3	2.22	0.40
1:H:276:GLU:CG	1:H:277:PHE:H	2.33	0.40
1:H:597:TYR:CE2	1:H:822:PRO:HG3	2.56	0.40
1:I:364:ILE:HD12	1:I:376:LYS:HZ2	1.86	0.40
1:J:388:ARG:O	1:J:389:GLY:C	2.59	0.40
1:K:363:TYR:HE1	1:K:383:CYS:HG	0.77	0.40
1:K:520:LYS:HA	1:K:520:LYS:HD3	1.80	0.40
1:K:585:LEU:HD23	1:K:585:LEU:HA	1.84	0.40
1:K:679:ILE:O	1:K:682:ALA:HB3	2.21	0.40
1:A:298:PRO:O	1:A:299:GLU:CB	2.69	0.40
1:A:339:THR:O	1:A:340:ASP:HB3	2.21	0.40
1:B:363:TYR:N	1:B:363:TYR:HD1	2.19	0.40
1:C:260:SER:H	1:C:263:SER:HB3	1.85	0.40
1:C:520:LYS:O	1:C:524:THR:HG23	2.21	0.40
1:C:597:TYR:CE2	1:C:822:PRO:HG3	2.57	0.40
1:E:235:ILE:HG22	1:E:235:ILE:H	1.60	0.40
1:E:432:VAL:HG12	1:E:436:LYS:NZ	2.36	0.40
1:E:648:ALA:HB1	1:E:841:LEU:HD12	2.03	0.40
1:F:672:HIS:HD2	1:F:877:GLU:HB2	1.87	0.40
1:G:572:PHE:HB3	1:G:850:TYR:OH	2.21	0.40
1:G:768:VAL:HG11	1:G:784:LEU:CD1	2.50	0.40
1:H:671:LYS:N	1:H:671:LYS:CD	2.84	0.40
1:I:279:PRO:HB3	1:I:322:GLN:HB2	2.02	0.40
1:I:363:TYR:N	1:I:363:TYR:CD1	2.89	0.40
1:I:484:TYR:HD1	1:I:485:PHE:CD1	2.38	0.40
1:K:875:ALA:O	1:K:881:VAL:HG23	2.21	0.40
1:L:294:LEU:HB2	1:L:355:LEU:H	1.85	0.40
1:L:328:LEU:HD13	1:L:343:ILE:HD13	2.03	0.40
1:A:296:ASN:HB2	1:A:354:ASP:OD2	2.20	0.40
1:A:485:PHE:O	1:A:489:PRO:HA	2.22	0.40
1:B:491:GLU:H	1:B:491:GLU:HG2	1.56	0.40
1:C:596:ARG:HD2	1:C:631:GLN:HG3	2.01	0.40
1:D:403:LEU:N	1:D:403:LEU:HD23	2.36	0.40
1:E:277:PHE:CD1	1:E:278:LEU:N	2.90	0.40
1:E:528:ILE:HG23	1:E:894:LEU:HD22	2.03	0.40
1:F:400:ASP:OD1	1:F:400:ASP:N	2.54	0.40
1:G:299:GLU:O	1:G:299:GLU:HG2	2.21	0.40
1:G:663:LEU:HD12	1:G:663:LEU:HA	1.86	0.40
1:G:774:SER:O	1:G:780:SER:CB	2.69	0.40
1:H:284:MET:SD	1:H:284:MET:O	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:287:ARG:CG	1:H:287:ARG:NH1	2.74	0.40
1:I:563:HIS:CE1	1:I:567:GLU:OE2	2.74	0.40
1:J:829:VAL:O	1:J:833:LEU:HG	2.21	0.40
1:K:267:SER:CB	1:K:396:ILE:CD1	2.99	0.40
1:K:269:LEU:HD21	1:K:457:SER:CA	2.46	0.40
1:L:294:LEU:HB3	1:L:352:ILE:HD13	2.03	0.40
1:L:600:ARG:CB	1:L:601:PRO:CD	2.98	0.40
1:B:275:HIS:CG	1:B:276:GLU:N	2.90	0.40
1:B:430:ASP:HB3	1:B:456:ILE:HG12	2.03	0.40
1:B:615:ILE:O	1:B:615:ILE:HD13	2.22	0.40
1:E:278:LEU:CB	1:E:279:PRO:HD2	2.45	0.40
1:E:285:ILE:HD13	1:E:285:ILE:N	2.36	0.40
1:E:703:LYS:HE3	1:G:544:ASN:ND2	2.36	0.40
1:F:744:SER:OG	1:F:786:ARG:NH2	2.55	0.40
1:F:750:LYS:O	1:F:753:GLU:HB2	2.21	0.40
1:G:268:VAL:HB	1:G:280:LYS:HB3	2.03	0.40
1:G:773:PRO:HA	1:G:781:ALA:CA	2.52	0.40
1:G:778:GLY:HA3	1:L:783:LEU:HD13	2.02	0.40
1:H:279:PRO:HB3	1:H:322:GLN:CG	2.49	0.40
1:H:596:ARG:HG3	1:H:635:ALA:HB2	2.03	0.40
1:I:268:VAL:CG1	1:I:280:LYS:HE3	2.52	0.40
1:J:582:LYS:HA	1:J:582:LYS:HD2	1.91	0.40
1:J:723:VAL:HG21	1:J:824:VAL:HA	2.02	0.40
1:L:387:ILE:O	1:L:387:ILE:HG22	2.21	0.40
1:L:818:LYS:HE3	1:L:819:TYR:CE2	2.56	0.40
1:A:250:VAL:H	1:A:250:VAL:HG23	1.64	0.40
1:A:267:SER:CB	1:A:396:ILE:HG13	2.50	0.40
1:C:254:SER:O	1:C:391:ASN:HB3	2.21	0.40
1:C:295:VAL:HG12	1:C:296:ASN:O	2.22	0.40
1:D:855:ARG:NH2	1:K:556:ALA:CA	2.65	0.40
1:E:293:THR:OG1	1:E:346:THR:HG23	2.21	0.40
1:E:596:ARG:HG3	1:E:635:ALA:HB2	2.03	0.40
1:F:582:LYS:HE3	1:F:582:LYS:HB2	1.90	0.40
1:H:286:THR:O	1:H:361:PRO:HD3	2.22	0.40
1:H:361:PRO:CG	1:H:382:LEU:HD21	2.51	0.40
1:H:670:ALA:HB3	1:H:671:LYS:NZ	2.36	0.40
1:I:441:LEU:CD2	1:I:498:VAL:HB	2.51	0.40
1:I:745:VAL:HG13	1:I:783:LEU:HD21	2.04	0.40
1:J:392:ILE:HD11	1:J:423:ILE:HG23	2.03	0.40
1:J:473:LEU:O	1:J:474:LEU:C	2.60	0.40
1:J:694:THR:HG21	1:J:845:MET:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:224:ASP:CG	1:L:227:MET:HG3	2.42	0.40
1:L:493:GLY:O	1:L:496:SER:HB3	2.22	0.40
1:L:703:LYS:N	1:L:704:PRO:CD	2.85	0.40
1:L:731:LEU:O	1:L:735:GLN:HG3	2.20	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	651/695 (94%)	623 (96%)	26 (4%)	2 (0%)	37	73
1	B	651/695 (94%)	618 (95%)	30 (5%)	3 (0%)	25	64
1	C	651/695 (94%)	619 (95%)	29 (4%)	3 (0%)	25	64
1	D	651/695 (94%)	620 (95%)	29 (4%)	2 (0%)	37	73
1	E	651/695 (94%)	621 (95%)	28 (4%)	2 (0%)	37	73
1	F	651/695 (94%)	624 (96%)	25 (4%)	2 (0%)	37	73
1	G	651/695 (94%)	616 (95%)	31 (5%)	4 (1%)	22	60
1	H	651/695 (94%)	620 (95%)	30 (5%)	1 (0%)	44	78
1	I	651/695 (94%)	608 (93%)	37 (6%)	6 (1%)	14	52
1	J	651/695 (94%)	621 (95%)	27 (4%)	3 (0%)	25	64
1	K	651/695 (94%)	619 (95%)	31 (5%)	1 (0%)	44	78
1	L	651/695 (94%)	614 (94%)	33 (5%)	4 (1%)	22	60
All	All	7812/8340 (94%)	7423 (95%)	356 (5%)	33 (0%)	32	68

All (33) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	G	776	ALA
1	E	388	ARG
1	J	260	SER
1	B	260	SER
1	B	611	GLU
1	D	769	GLU
1	K	574	ARG
1	C	260	SER
1	D	643	GLY
1	F	611	GLU
1	G	356	SER
1	I	260	SER
1	I	282	SER
1	L	611	GLU
1	B	574	ARG
1	E	574	ARG
1	G	611	GLU
1	I	611	GLU
1	J	574	ARG
1	L	843	VAL
1	I	768	VAL
1	A	643	GLY
1	C	574	ARG
1	C	611	GLU
1	I	390	PRO
1	J	342	PRO
1	A	574	ARG
1	F	601	PRO
1	G	574	ARG
1	H	574	ARG
1	I	643	GLY
1	L	247	GLY
1	L	451	GLY

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	563/594 (95%)	459 (82%)	104 (18%)	1 8
1	B	563/594 (95%)	492 (87%)	71 (13%)	3 14
1	C	563/594 (95%)	489 (87%)	74 (13%)	3 14
1	D	563/594 (95%)	459 (82%)	104 (18%)	1 8
1	E	563/594 (95%)	468 (83%)	95 (17%)	1 9
1	F	563/594 (95%)	489 (87%)	74 (13%)	3 14
1	G	563/594 (95%)	497 (88%)	66 (12%)	4 16
1	H	563/594 (95%)	458 (81%)	105 (19%)	1 7
1	I	563/594 (95%)	484 (86%)	79 (14%)	3 12
1	J	563/594 (95%)	460 (82%)	103 (18%)	1 8
1	K	563/594 (95%)	464 (82%)	99 (18%)	1 8
1	L	563/594 (95%)	494 (88%)	69 (12%)	4 15
All	All	6756/7128 (95%)	5713 (85%)	1043 (15%)	4 11

All (1043) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	225	ASP
1	A	227	MET
1	A	228	MET
1	A	229	PHE
1	A	230	ILE
1	A	232	LYS
1	A	233	LYS
1	A	235	ILE
1	A	237	ILE
1	A	241	LEU
1	A	243	LYS
1	A	244	VAL
1	A	255	ILE
1	A	263	SER
1	A	266	SER
1	A	268	VAL
1	A	269	LEU
1	A	272	ILE
1	A	277	PHE
1	A	278	LEU
1	A	282	SER
1	A	284	MET

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Mol	Chain	Res	Type
1	A	285	ILE
1	A	287	ARG
1	A	303	ASP
1	A	307	PHE
1	A	320	LEU
1	A	323	LYS
1	A	344	ARG
1	A	346	THR
1	A	348	HIS
1	A	354	ASP
1	A	357	LEU
1	A	358	ILE
1	A	360	LEU
1	A	363	TYR
1	A	375	LEU
1	A	376	LYS
1	A	377	ARG
1	A	378	LYS
1	A	380	THR
1	A	382	LEU
1	A	383	CYS
1	A	385	LYS
1	A	386	TYR
1	A	388	ARG
1	A	393	ILE
1	A	394	LEU
1	A	396	ILE
1	A	402	ASP
1	A	405	ASN
1	A	412	SER
1	A	423	ILE
1	A	430	ASP
1	A	431	LEU
1	A	433	GLU
1	A	434	PRO
1	A	448	LEU
1	A	450	LEU
1	A	456	ILE
1	A	458	LYS
1	A	474	LEU
1	A	483	ASN
1	A	484	TYR

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Mol	Chain	Res	Type
1	A	491	GLU
1	A	492	PHE
1	A	498	VAL
1	A	499	SER
1	A	507	LYS
1	A	515	GLN
1	A	516	GLN
1	A	546	GLN
1	A	572	PHE
1	A	576	GLN
1	A	581	LEU
1	A	586	ASP
1	A	610	ARG
1	A	615	ILE
1	A	617	ASP
1	A	622	ASP
1	A	632	LEU
1	A	636	CYS
1	A	640	THR
1	A	641	ARG
1	A	642	LEU
1	A	647	LEU
1	A	654	SER
1	A	657	GLN
1	A	671	LYS
1	A	714	ASN
1	A	749	LYS
1	A	762	ARG
1	A	768	VAL
1	A	769	GLU
1	A	771	ASP
1	A	802	LEU
1	A	815	LEU
1	A	818	LYS
1	A	836	THR
1	A	838	VAL
1	A	841	LEU
1	A	871	LEU
1	A	893	LEU
1	A	903	GLU
1	B	231	THR
1	B	237	ILE

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Mol	Chain	Res	Type
1	B	244	VAL
1	B	255	ILE
1	B	266	SER
1	B	269	LEU
1	B	277	PHE
1	B	278	LEU
1	B	282	SER
1	B	283	ASN
1	B	284	MET
1	B	303	ASP
1	B	319	SER
1	B	320	LEU
1	B	344	ARG
1	B	346	THR
1	B	354	ASP
1	B	357	LEU
1	B	358	ILE
1	B	360	LEU
1	B	363	TYR
1	B	376	LYS
1	B	377	ARG
1	B	378	LYS
1	B	382	LEU
1	B	386	TYR
1	B	388	ARG
1	B	393	ILE
1	B	394	LEU
1	B	396	ILE
1	B	400	ASP
1	B	402	ASP
1	B	423	ILE
1	B	430	ASP
1	B	431	LEU
1	B	448	LEU
1	B	458	LYS
1	B	474	LEU
1	B	479	ARG
1	B	481	GLU
1	B	483	ASN
1	B	490	THR
1	B	491	GLU
1	B	492	PHE

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Mol	Chain	Res	Type
1	B	495	ASP
1	B	503	MET
1	B	513	LEU
1	B	571	SER
1	B	590	LEU
1	B	600	ARG
1	B	613	ASP
1	B	615	ILE
1	B	618	LEU
1	B	631	GLN
1	B	632	LEU
1	B	636	CYS
1	B	642	LEU
1	B	654	SER
1	B	666	LYS
1	B	676	ARG
1	B	690	ARG
1	B	741	LEU
1	B	762	ARG
1	B	803	ARG
1	B	811	GLN
1	B	817	ASN
1	B	824	VAL
1	B	838	VAL
1	B	841	LEU
1	B	873	LYS
1	B	880	LYS
1	C	231	THR
1	C	237	ILE
1	C	244	VAL
1	C	251	THR
1	C	255	ILE
1	C	266	SER
1	C	269	LEU
1	C	277	PHE
1	C	278	LEU
1	C	282	SER
1	C	283	ASN
1	C	284	MET
1	C	287	ARG
1	C	303	ASP
1	C	310	LEU

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Mol	Chain	Res	Type
1	C	320	LEU
1	C	325	LEU
1	C	339	THR
1	C	344	ARG
1	C	346	THR
1	C	354	ASP
1	C	357	LEU
1	C	358	ILE
1	C	360	LEU
1	C	376	LYS
1	C	377	ARG
1	C	382	LEU
1	C	385	LYS
1	C	386	TYR
1	C	388	ARG
1	C	393	ILE
1	C	394	LEU
1	C	396	ILE
1	C	402	ASP
1	C	412	SER
1	C	422	THR
1	C	423	ILE
1	C	430	ASP
1	C	448	LEU
1	C	458	LYS
1	C	474	LEU
1	C	476	SER
1	C	479	ARG
1	C	481	GLU
1	C	483	ASN
1	C	490	THR
1	C	491	GLU
1	C	492	PHE
1	C	495	ASP
1	C	499	SER
1	C	500	THR
1	C	503	MET
1	C	558	LEU
1	C	600	ARG
1	C	613	ASP
1	C	615	ILE
1	C	618	LEU

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Mol	Chain	Res	Type
1	C	631	GLN
1	C	666	LYS
1	C	672	HIS
1	C	721	GLU
1	C	722	HIS
1	C	727	LEU
1	C	741	LEU
1	C	762	ARG
1	C	803	ARG
1	C	811	GLN
1	C	815	LEU
1	C	817	ASN
1	C	824	VAL
1	C	838	VAL
1	C	841	LEU
1	C	880	LYS
1	C	904	LEU
1	D	225	ASP
1	D	227	MET
1	D	228	MET
1	D	229	PHE
1	D	232	LYS
1	D	233	LYS
1	D	235	ILE
1	D	237	ILE
1	D	241	LEU
1	D	243	LYS
1	D	251	THR
1	D	255	ILE
1	D	266	SER
1	D	267	SER
1	D	268	VAL
1	D	269	LEU
1	D	272	ILE
1	D	277	PHE
1	D	278	LEU
1	D	282	SER
1	D	283	ASN
1	D	284	MET
1	D	285	ILE
1	D	287	ARG
1	D	303	ASP

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Mol	Chain	Res	Type
1	D	320	LEU
1	D	344	ARG
1	D	346	THR
1	D	348	HIS
1	D	354	ASP
1	D	358	ILE
1	D	360	LEU
1	D	363	TYR
1	D	376	LYS
1	D	377	ARG
1	D	378	LYS
1	D	382	LEU
1	D	383	CYS
1	D	385	LYS
1	D	386	TYR
1	D	388	ARG
1	D	393	ILE
1	D	394	LEU
1	D	396	ILE
1	D	400	ASP
1	D	402	ASP
1	D	405	ASN
1	D	407	THR
1	D	412	SER
1	D	423	ILE
1	D	430	ASP
1	D	434	PRO
1	D	436	LYS
1	D	448	LEU
1	D	450	LEU
1	D	456	ILE
1	D	458	LYS
1	D	474	LEU
1	D	479	ARG
1	D	481	GLU
1	D	483	ASN
1	D	490	THR
1	D	491	GLU
1	D	492	PHE
1	D	495	ASP
1	D	496	SER
1	D	498	VAL

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Mol	Chain	Res	Type
1	D	499	SER
1	D	507	LYS
1	D	515	GLN
1	D	516	GLN
1	D	546	GLN
1	D	557	SER
1	D	560	ASP
1	D	576	GLN
1	D	581	LEU
1	D	586	ASP
1	D	591	ASP
1	D	596	ARG
1	D	610	ARG
1	D	615	ILE
1	D	616	ILE
1	D	617	ASP
1	D	640	THR
1	D	641	ARG
1	D	642	LEU
1	D	647	LEU
1	D	657	GLN
1	D	671	LYS
1	D	714	ASN
1	D	748	ARG
1	D	749	LYS
1	D	762	ARG
1	D	768	VAL
1	D	802	LEU
1	D	815	LEU
1	D	818	LYS
1	D	836	THR
1	D	841	LEU
1	D	855	ARG
1	D	871	LEU
1	D	889	ARG
1	D	893	LEU
1	D	903	GLU
1	E	227	MET
1	E	228	MET
1	E	229	PHE
1	E	235	ILE
1	E	237	ILE

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Mol	Chain	Res	Type
1	E	240	LEU
1	E	243	LYS
1	E	244	VAL
1	E	249	THR
1	E	251	THR
1	E	255	ILE
1	E	266	SER
1	E	268	VAL
1	E	269	LEU
1	E	272	ILE
1	E	278	LEU
1	E	282	SER
1	E	284	MET
1	E	285	ILE
1	E	287	ARG
1	E	320	LEU
1	E	344	ARG
1	E	346	THR
1	E	351	ASN
1	E	354	ASP
1	E	358	ILE
1	E	360	LEU
1	E	363	TYR
1	E	376	LYS
1	E	377	ARG
1	E	378	LYS
1	E	382	LEU
1	E	383	CYS
1	E	385	LYS
1	E	386	TYR
1	E	388	ARG
1	E	392	ILE
1	E	393	ILE
1	E	394	LEU
1	E	396	ILE
1	E	400	ASP
1	E	402	ASP
1	E	407	THR
1	E	412	SER
1	E	422	THR
1	E	423	ILE
1	E	430	ASP

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Mol	Chain	Res	Type
1	E	431	LEU
1	E	432	VAL
1	E	433	GLU
1	E	434	PRO
1	E	448	LEU
1	E	450	LEU
1	E	456	ILE
1	E	458	LYS
1	E	479	ARG
1	E	483	ASN
1	E	490	THR
1	E	491	GLU
1	E	492	PHE
1	E	507	LYS
1	E	513	LEU
1	E	515	GLN
1	E	516	GLN
1	E	546	GLN
1	E	557	SER
1	E	560	ASP
1	E	570	SER
1	E	576	GLN
1	E	581	LEU
1	E	586	ASP
1	E	610	ARG
1	E	614	ASN
1	E	615	ILE
1	E	617	ASP
1	E	622	ASP
1	E	631	GLN
1	E	640	THR
1	E	641	ARG
1	E	642	LEU
1	E	647	LEU
1	E	657	GLN
1	E	671	LYS
1	E	714	ASN
1	E	749	LYS
1	E	752	LYS
1	E	762	ARG
1	E	768	VAL
1	E	769	GLU

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Mol	Chain	Res	Type
1	E	802	LEU
1	E	815	LEU
1	E	836	THR
1	E	841	LEU
1	E	889	ARG
1	E	893	LEU
1	F	237	ILE
1	F	244	VAL
1	F	251	THR
1	F	255	ILE
1	F	266	SER
1	F	269	LEU
1	F	278	LEU
1	F	282	SER
1	F	284	MET
1	F	287	ARG
1	F	303	ASP
1	F	310	LEU
1	F	344	ARG
1	F	346	THR
1	F	351	ASN
1	F	357	LEU
1	F	358	ILE
1	F	376	LYS
1	F	377	ARG
1	F	378	LYS
1	F	382	LEU
1	F	385	LYS
1	F	388	ARG
1	F	392	ILE
1	F	393	ILE
1	F	394	LEU
1	F	396	ILE
1	F	400	ASP
1	F	402	ASP
1	F	412	SER
1	F	423	ILE
1	F	430	ASP
1	F	448	LEU
1	F	456	ILE
1	F	457	SER
1	F	458	LYS

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Mol	Chain	Res	Type
1	F	474	LEU
1	F	476	SER
1	F	481	GLU
1	F	483	ASN
1	F	490	THR
1	F	491	GLU
1	F	492	PHE
1	F	495	ASP
1	F	503	MET
1	F	519	SER
1	F	557	SER
1	F	590	LEU
1	F	591	ASP
1	F	600	ARG
1	F	605	LEU
1	F	613	ASP
1	F	615	ILE
1	F	616	ILE
1	F	617	ASP
1	F	618	LEU
1	F	631	GLN
1	F	636	CYS
1	F	640	THR
1	F	642	LEU
1	F	654	SER
1	F	666	LYS
1	F	690	ARG
1	F	741	LEU
1	F	762	ARG
1	F	768	VAL
1	F	771	ASP
1	F	803	ARG
1	F	811	GLN
1	F	815	LEU
1	F	817	ASN
1	F	824	VAL
1	F	841	LEU
1	F	880	LYS
1	G	231	THR
1	G	237	ILE
1	G	244	VAL
1	G	251	THR

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Mol	Chain	Res	Type
1	G	255	ILE
1	G	266	SER
1	G	269	LEU
1	G	278	LEU
1	G	284	MET
1	G	303	ASP
1	G	320	LEU
1	G	344	ARG
1	G	346	THR
1	G	357	LEU
1	G	358	ILE
1	G	376	LYS
1	G	378	LYS
1	G	382	LEU
1	G	386	TYR
1	G	388	ARG
1	G	393	ILE
1	G	394	LEU
1	G	396	ILE
1	G	400	ASP
1	G	402	ASP
1	G	412	SER
1	G	423	ILE
1	G	430	ASP
1	G	431	LEU
1	G	448	LEU
1	G	458	LYS
1	G	474	LEU
1	G	481	GLU
1	G	483	ASN
1	G	490	THR
1	G	491	GLU
1	G	492	PHE
1	G	503	MET
1	G	581	LEU
1	G	590	LEU
1	G	600	ARG
1	G	605	LEU
1	G	613	ASP
1	G	615	ILE
1	G	617	ASP
1	G	618	LEU

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Mol	Chain	Res	Type
1	G	636	CYS
1	G	641	ARG
1	G	666	LYS
1	G	676	ARG
1	G	714	ASN
1	G	721	GLU
1	G	741	LEU
1	G	757	PHE
1	G	762	ARG
1	G	772	HIS
1	G	780	SER
1	G	803	ARG
1	G	809	SER
1	G	811	GLN
1	G	815	LEU
1	G	817	ASN
1	G	841	LEU
1	G	844	GLU
1	G	880	LYS
1	G	889	ARG
1	H	225	ASP
1	H	227	MET
1	H	228	MET
1	H	229	PHE
1	H	232	LYS
1	H	235	ILE
1	H	237	ILE
1	H	241	LEU
1	H	243	LYS
1	H	244	VAL
1	H	255	ILE
1	H	263	SER
1	H	266	SER
1	H	268	VAL
1	H	269	LEU
1	H	272	ILE
1	H	277	PHE
1	H	278	LEU
1	H	282	SER
1	H	284	MET
1	H	285	ILE
1	H	287	ARG

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Mol	Chain	Res	Type
1	H	303	ASP
1	H	307	PHE
1	H	320	LEU
1	H	344	ARG
1	H	346	THR
1	H	348	HIS
1	H	351	ASN
1	H	354	ASP
1	H	357	LEU
1	H	358	ILE
1	H	360	LEU
1	H	363	TYR
1	H	376	LYS
1	H	377	ARG
1	H	378	LYS
1	H	382	LEU
1	H	383	CYS
1	H	385	LYS
1	H	388	ARG
1	H	393	ILE
1	H	394	LEU
1	H	396	ILE
1	H	402	ASP
1	H	412	SER
1	H	423	ILE
1	H	430	ASP
1	H	431	LEU
1	H	434	PRO
1	H	448	LEU
1	H	450	LEU
1	H	456	ILE
1	H	457	SER
1	H	458	LYS
1	H	474	LEU
1	H	476	SER
1	H	481	GLU
1	H	483	ASN
1	H	485	PHE
1	H	491	GLU
1	H	492	PHE
1	H	495	ASP
1	H	498	VAL

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Mol	Chain	Res	Type
1	H	499	SER
1	H	507	LYS
1	H	513	LEU
1	H	515	GLN
1	H	516	GLN
1	H	546	GLN
1	H	548	MET
1	H	560	ASP
1	H	576	GLN
1	H	581	LEU
1	H	586	ASP
1	H	590	LEU
1	H	596	ARG
1	H	610	ARG
1	H	613	ASP
1	H	615	ILE
1	H	617	ASP
1	H	641	ARG
1	H	642	LEU
1	H	647	LEU
1	H	654	SER
1	H	657	GLN
1	H	668	SER
1	H	671	LYS
1	H	714	ASN
1	H	727	LEU
1	H	739	LYS
1	H	749	LYS
1	H	752	LYS
1	H	762	ARG
1	H	767	ILE
1	H	802	LEU
1	H	811	GLN
1	H	815	LEU
1	H	818	LYS
1	H	836	THR
1	H	838	VAL
1	H	841	LEU
1	H	842	ASN
1	H	893	LEU
1	H	907	ILE
1	I	231	THR

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Mol	Chain	Res	Type
1	I	237	ILE
1	I	251	THR
1	I	255	ILE
1	I	266	SER
1	I	267	SER
1	I	269	LEU
1	I	277	PHE
1	I	278	LEU
1	I	282	SER
1	I	283	ASN
1	I	284	MET
1	I	287	ARG
1	I	303	ASP
1	I	320	LEU
1	I	339	THR
1	I	344	ARG
1	I	346	THR
1	I	354	ASP
1	I	357	LEU
1	I	358	ILE
1	I	375	LEU
1	I	376	LYS
1	I	377	ARG
1	I	378	LYS
1	I	382	LEU
1	I	386	TYR
1	I	388	ARG
1	I	393	ILE
1	I	394	LEU
1	I	396	ILE
1	I	400	ASP
1	I	402	ASP
1	I	405	ASN
1	I	423	ILE
1	I	427	THR
1	I	430	ASP
1	I	431	LEU
1	I	448	LEU
1	I	458	LYS
1	I	474	LEU
1	I	481	GLU
1	I	483	ASN

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Mol	Chain	Res	Type
1	I	490	THR
1	I	491	GLU
1	I	492	PHE
1	I	495	ASP
1	I	499	SER
1	I	500	THR
1	I	503	MET
1	I	571	SER
1	I	591	ASP
1	I	600	ARG
1	I	605	LEU
1	I	613	ASP
1	I	615	ILE
1	I	617	ASP
1	I	618	LEU
1	I	640	THR
1	I	666	LYS
1	I	672	HIS
1	I	690	ARG
1	I	714	ASN
1	I	721	GLU
1	I	741	LEU
1	I	744	SER
1	I	762	ARG
1	I	767	ILE
1	I	803	ARG
1	I	810	ARG
1	I	811	GLN
1	I	815	LEU
1	I	817	ASN
1	I	838	VAL
1	I	841	LEU
1	I	844	GLU
1	I	873	LYS
1	I	880	LYS
1	I	906	ARG
1	J	225	ASP
1	J	227	MET
1	J	228	MET
1	J	230	ILE
1	J	232	LYS
1	J	235	ILE

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Mol	Chain	Res	Type
1	J	237	ILE
1	J	241	LEU
1	J	243	LYS
1	J	255	ILE
1	J	266	SER
1	J	268	VAL
1	J	269	LEU
1	J	272	ILE
1	J	277	PHE
1	J	278	LEU
1	J	282	SER
1	J	284	MET
1	J	285	ILE
1	J	287	ARG
1	J	303	ASP
1	J	310	LEU
1	J	320	LEU
1	J	327	GLU
1	J	344	ARG
1	J	346	THR
1	J	354	ASP
1	J	357	LEU
1	J	358	ILE
1	J	360	LEU
1	J	363	TYR
1	J	375	LEU
1	J	376	LYS
1	J	377	ARG
1	J	378	LYS
1	J	382	LEU
1	J	383	CYS
1	J	385	LYS
1	J	392	ILE
1	J	393	ILE
1	J	394	LEU
1	J	396	ILE
1	J	400	ASP
1	J	402	ASP
1	J	412	SER
1	J	422	THR
1	J	430	ASP
1	J	431	LEU

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Mol	Chain	Res	Type
1	J	434	PRO
1	J	448	LEU
1	J	450	LEU
1	J	456	ILE
1	J	457	SER
1	J	458	LYS
1	J	474	LEU
1	J	479	ARG
1	J	481	GLU
1	J	483	ASN
1	J	491	GLU
1	J	492	PHE
1	J	495	ASP
1	J	498	VAL
1	J	499	SER
1	J	507	LYS
1	J	513	LEU
1	J	515	GLN
1	J	516	GLN
1	J	546	GLN
1	J	557	SER
1	J	560	ASP
1	J	576	GLN
1	J	581	LEU
1	J	590	LEU
1	J	596	ARG
1	J	610	ARG
1	J	615	ILE
1	J	617	ASP
1	J	622	ASP
1	J	631	GLN
1	J	640	THR
1	J	641	ARG
1	J	642	LEU
1	J	647	LEU
1	J	668	SER
1	J	671	LYS
1	J	714	ASN
1	J	721	GLU
1	J	749	LYS
1	J	762	ARG
1	J	767	ILE

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Mol	Chain	Res	Type
1	J	768	VAL
1	J	769	GLU
1	J	771	ASP
1	J	786	ARG
1	J	802	LEU
1	J	815	LEU
1	J	818	LYS
1	J	836	THR
1	J	838	VAL
1	J	841	LEU
1	J	842	ASN
1	J	893	LEU
1	J	903	GLU
1	K	225	ASP
1	K	227	MET
1	K	228	MET
1	K	229	PHE
1	K	230	ILE
1	K	232	LYS
1	K	233	LYS
1	K	235	ILE
1	K	237	ILE
1	K	241	LEU
1	K	243	LYS
1	K	244	VAL
1	K	251	THR
1	K	255	ILE
1	K	266	SER
1	K	268	VAL
1	K	269	LEU
1	K	272	ILE
1	K	278	LEU
1	K	282	SER
1	K	284	MET
1	K	285	ILE
1	K	287	ARG
1	K	303	ASP
1	K	306	GLU
1	K	320	LEU
1	K	344	ARG
1	K	346	THR
1	K	348	HIS

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Mol	Chain	Res	Type
1	K	354	ASP
1	K	357	LEU
1	K	358	ILE
1	K	360	LEU
1	K	363	TYR
1	K	375	LEU
1	K	376	LYS
1	K	377	ARG
1	K	378	LYS
1	K	382	LEU
1	K	383	CYS
1	K	386	TYR
1	K	388	ARG
1	K	392	ILE
1	K	393	ILE
1	K	394	LEU
1	K	396	ILE
1	K	400	ASP
1	K	407	THR
1	K	412	SER
1	K	423	ILE
1	K	430	ASP
1	K	431	LEU
1	K	433	GLU
1	K	434	PRO
1	K	448	LEU
1	K	450	LEU
1	K	456	ILE
1	K	458	LYS
1	K	481	GLU
1	K	482	LYS
1	K	483	ASN
1	K	490	THR
1	K	491	GLU
1	K	492	PHE
1	K	495	ASP
1	K	498	VAL
1	K	499	SER
1	K	515	GLN
1	K	516	GLN
1	K	519	SER
1	K	546	GLN

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Mol	Chain	Res	Type
1	K	560	ASP
1	K	576	GLN
1	K	581	LEU
1	K	596	ARG
1	K	610	ARG
1	K	615	ILE
1	K	617	ASP
1	K	631	GLN
1	K	632	LEU
1	K	640	THR
1	K	641	ARG
1	K	642	LEU
1	K	654	SER
1	K	657	GLN
1	K	671	LYS
1	K	714	ASN
1	K	727	LEU
1	K	749	LYS
1	K	752	LYS
1	K	762	ARG
1	K	802	LEU
1	K	811	GLN
1	K	815	LEU
1	K	836	THR
1	K	838	VAL
1	K	889	ARG
1	K	893	LEU
1	K	903	GLU
1	L	224	ASP
1	L	231	THR
1	L	237	ILE
1	L	244	VAL
1	L	251	THR
1	L	255	ILE
1	L	266	SER
1	L	269	LEU
1	L	273	VAL
1	L	277	PHE
1	L	278	LEU
1	L	284	MET
1	L	303	ASP
1	L	320	LEU

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Mol	Chain	Res	Type
1	L	344	ARG
1	L	346	THR
1	L	354	ASP
1	L	358	ILE
1	L	376	LYS
1	L	377	ARG
1	L	378	LYS
1	L	382	LEU
1	L	386	TYR
1	L	388	ARG
1	L	393	ILE
1	L	394	LEU
1	L	396	ILE
1	L	400	ASP
1	L	402	ASP
1	L	412	SER
1	L	423	ILE
1	L	430	ASP
1	L	431	LEU
1	L	435	GLU
1	L	448	LEU
1	L	457	SER
1	L	458	LYS
1	L	474	LEU
1	L	479	ARG
1	L	481	GLU
1	L	483	ASN
1	L	491	GLU
1	L	492	PHE
1	L	500	THR
1	L	503	MET
1	L	505	LEU
1	L	557	SER
1	L	600	ARG
1	L	605	LEU
1	L	613	ASP
1	L	615	ILE
1	L	618	LEU
1	L	636	CYS
1	L	640	THR
1	L	654	SER
1	L	690	ARG

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Mol	Chain	Res	Type
1	L	727	LEU
1	L	741	LEU
1	L	762	ARG
1	L	772	HIS
1	L	803	ARG
1	L	811	GLN
1	L	815	LEU
1	L	817	ASN
1	L	838	VAL
1	L	841	LEU
1	L	844	GLU
1	L	873	LYS
1	L	880	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (78) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	275	HIS
1	A	488	HIS
1	A	576	GLN
1	A	712	GLN
1	A	722	HIS
1	A	866	HIS
1	B	483	ASN
1	B	511	GLN
1	B	578	GLN
1	B	631	GLN
1	B	672	HIS
1	B	772	HIS
1	B	866	HIS
1	C	283	ASN
1	C	478	ASN
1	C	563	HIS
1	C	631	GLN
1	D	242	GLN
1	D	275	HIS
1	D	472	ASN
1	D	478	ASN
1	D	544	ASN
1	D	576	GLN
1	D	659	HIS
1	D	722	HIS

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Mol	Chain	Res	Type
1	D	811	GLN
1	E	242	GLN
1	E	275	HIS
1	E	329	ASN
1	E	348	HIS
1	E	472	ASN
1	E	478	ASN
1	E	488	HIS
1	E	544	ASN
1	E	576	GLN
1	E	614	ASN
1	E	657	GLN
1	E	722	HIS
1	F	239	ASN
1	F	672	HIS
1	G	329	ASN
1	G	511	GLN
1	G	614	ASN
1	G	631	GLN
1	G	672	HIS
1	G	862	HIS
1	G	866	HIS
1	H	242	GLN
1	H	275	HIS
1	H	472	ASN
1	H	478	ASN
1	H	488	HIS
1	H	576	GLN
1	H	714	ASN
1	H	811	GLN
1	H	866	HIS
1	H	884	HIS
1	I	563	HIS
1	I	631	GLN
1	I	657	GLN
1	I	772	HIS
1	J	275	HIS
1	J	472	ASN
1	J	478	ASN
1	J	576	GLN
1	J	657	GLN
1	K	242	GLN

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Mol	Chain	Res	Type
1	K	275	HIS
1	K	478	ASN
1	K	544	ASN
1	K	576	GLN
1	K	657	GLN
1	K	811	GLN
1	K	866	HIS
1	L	511	GLN
1	L	563	HIS
1	L	631	GLN
1	L	672	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	1

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Mol	Chain	Number of breaks
1	E	1
1	J	1
1	D	1
1	H	1
1	K	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	253:PRO	C	254:SER	N	1.16
1	E	253:PRO	C	254:SER	N	1.15
1	J	253:PRO	C	254:SER	N	1.14
1	D	253:PRO	C	254:SER	N	1.13
1	H	253:PRO	C	254:SER	N	1.12
1	K	253:PRO	C	254:SER	N	1.12

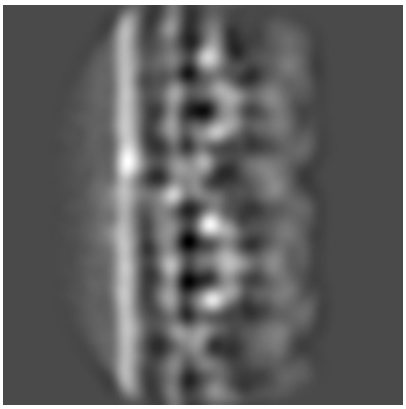
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-10063. These allow visual inspection of the internal detail of the map and identification of artifacts.

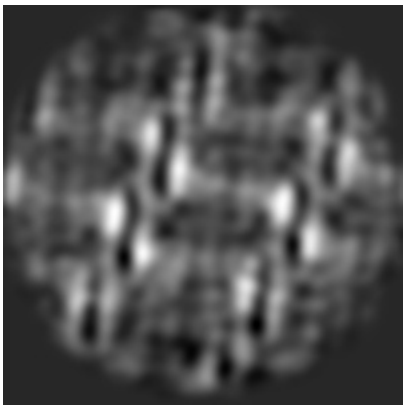
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

6.1.1 Primary map



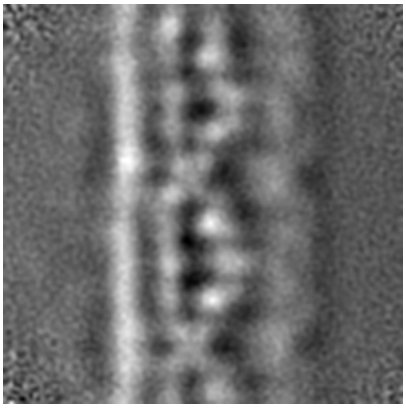
X



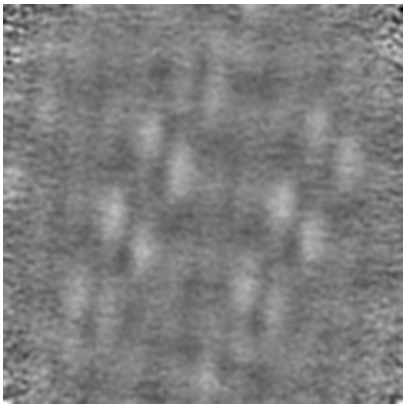
Y

Z

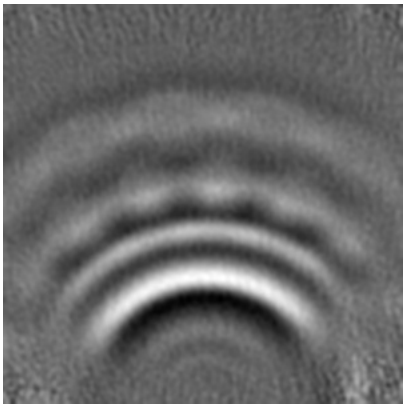
6.1.2 Raw map



X



Y



Z

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

6.2 Central slices (i)

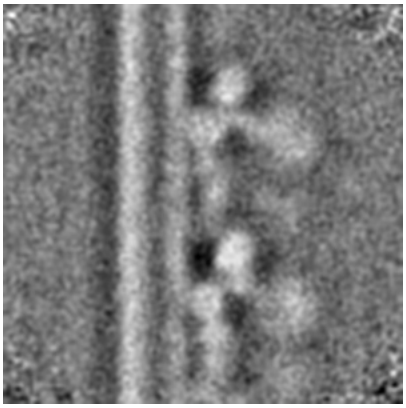
6.2.1 Primary map

X Index: 60

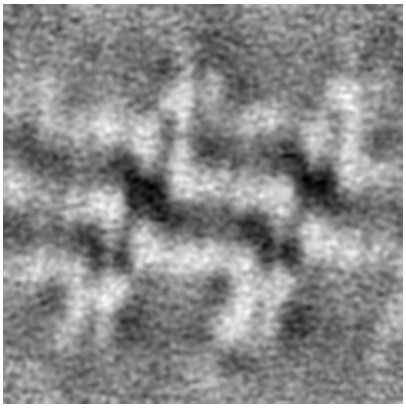
Y Index: 60

Z Index: 60

6.2.2 Raw map



X Index: 60



Y Index: 60

Z Index: 60

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

6.3 Largest variance slices (i)

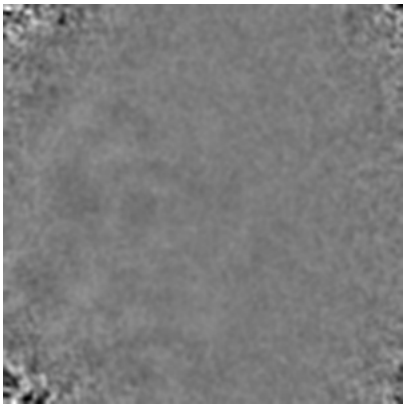
6.3.1 Primary map

X Index: 63

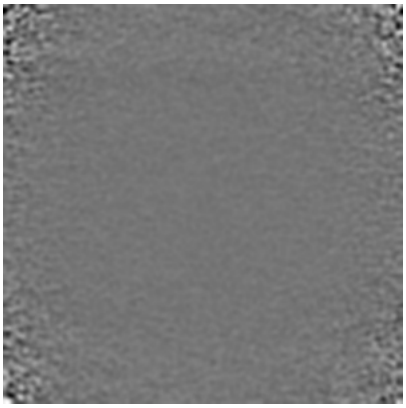
Y Index: 37

Z Index: 42

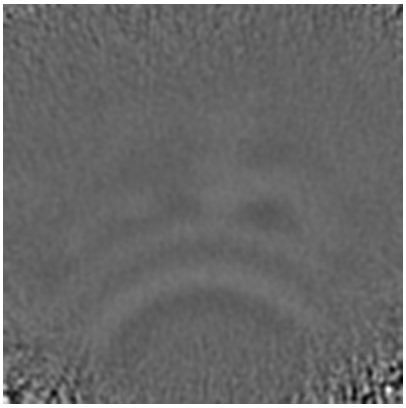
6.3.2 Raw map



X Index: 119



Y Index: 1

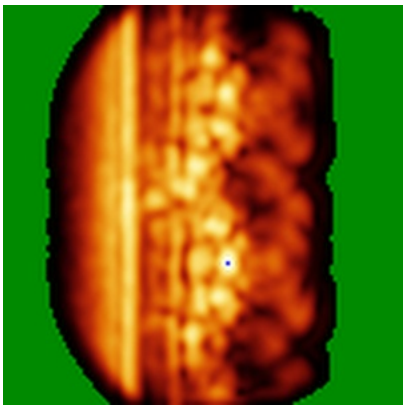


Z Index: 1

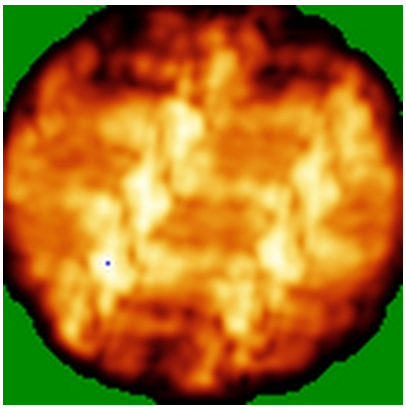
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

6.4.1 Primary map



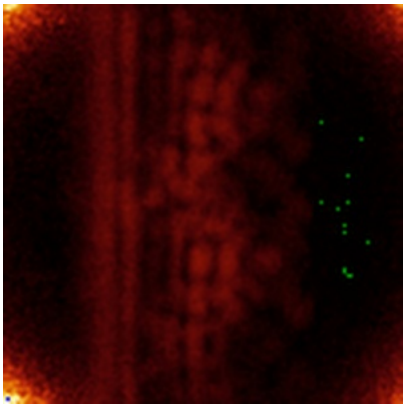
X



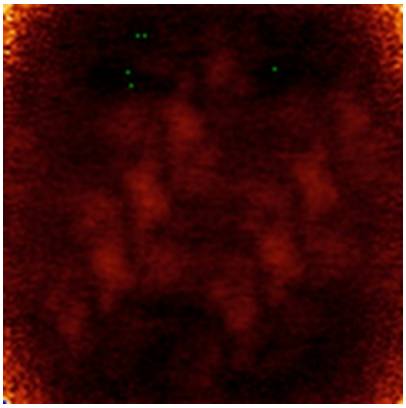
Y

Z

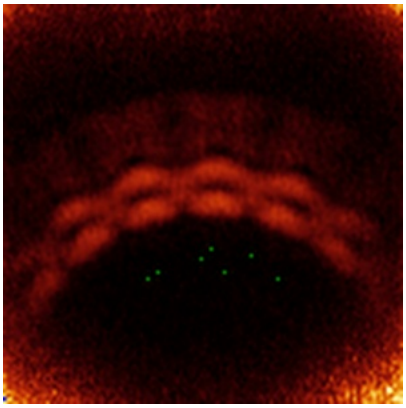
6.4.2 Raw map



X



Y

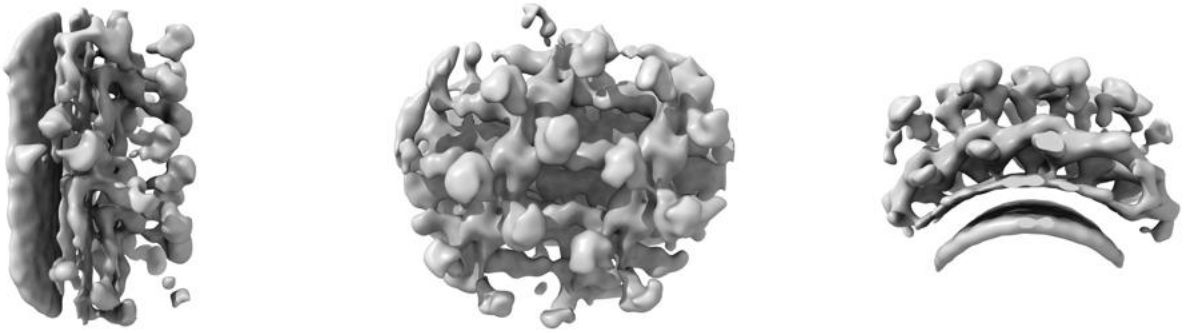


Z

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

6.5 Orthogonal surface views (i)

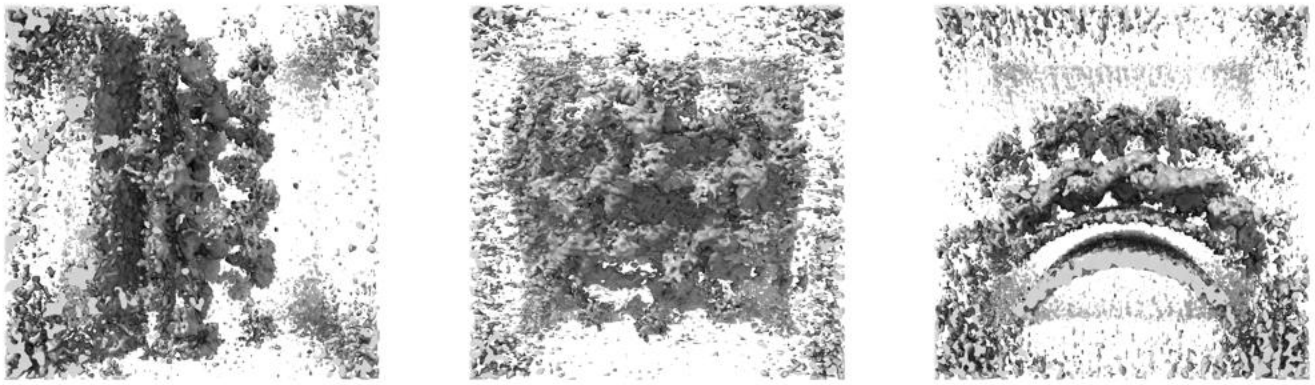
6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 2.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X Y Z

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

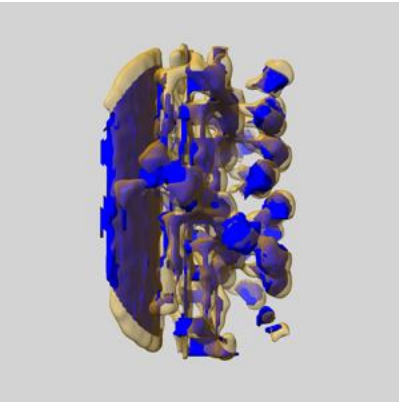
6.6 Mask visualisation (i)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

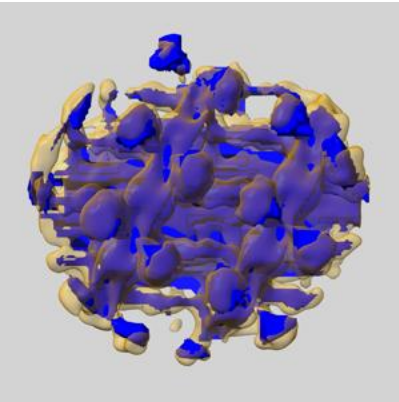
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

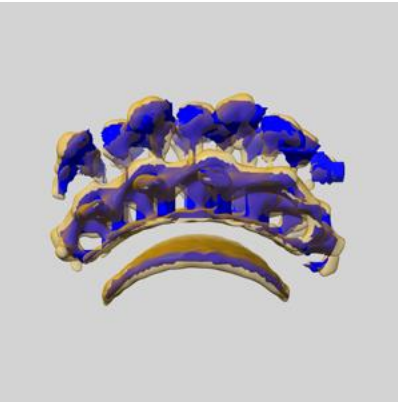
6.6.1 emd_10063_msk_1.map (i)



X



Y

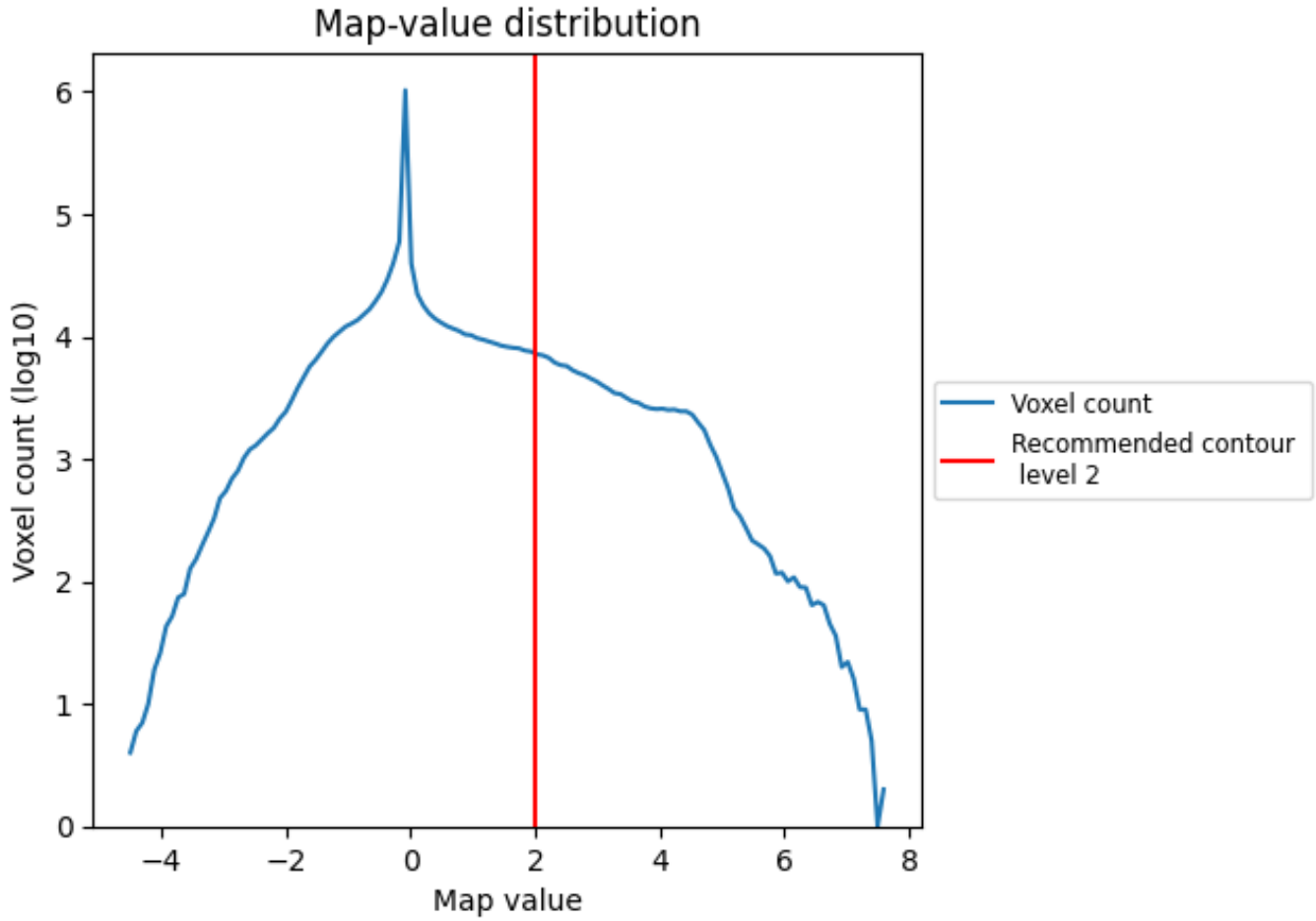


Z

7 Map analysis

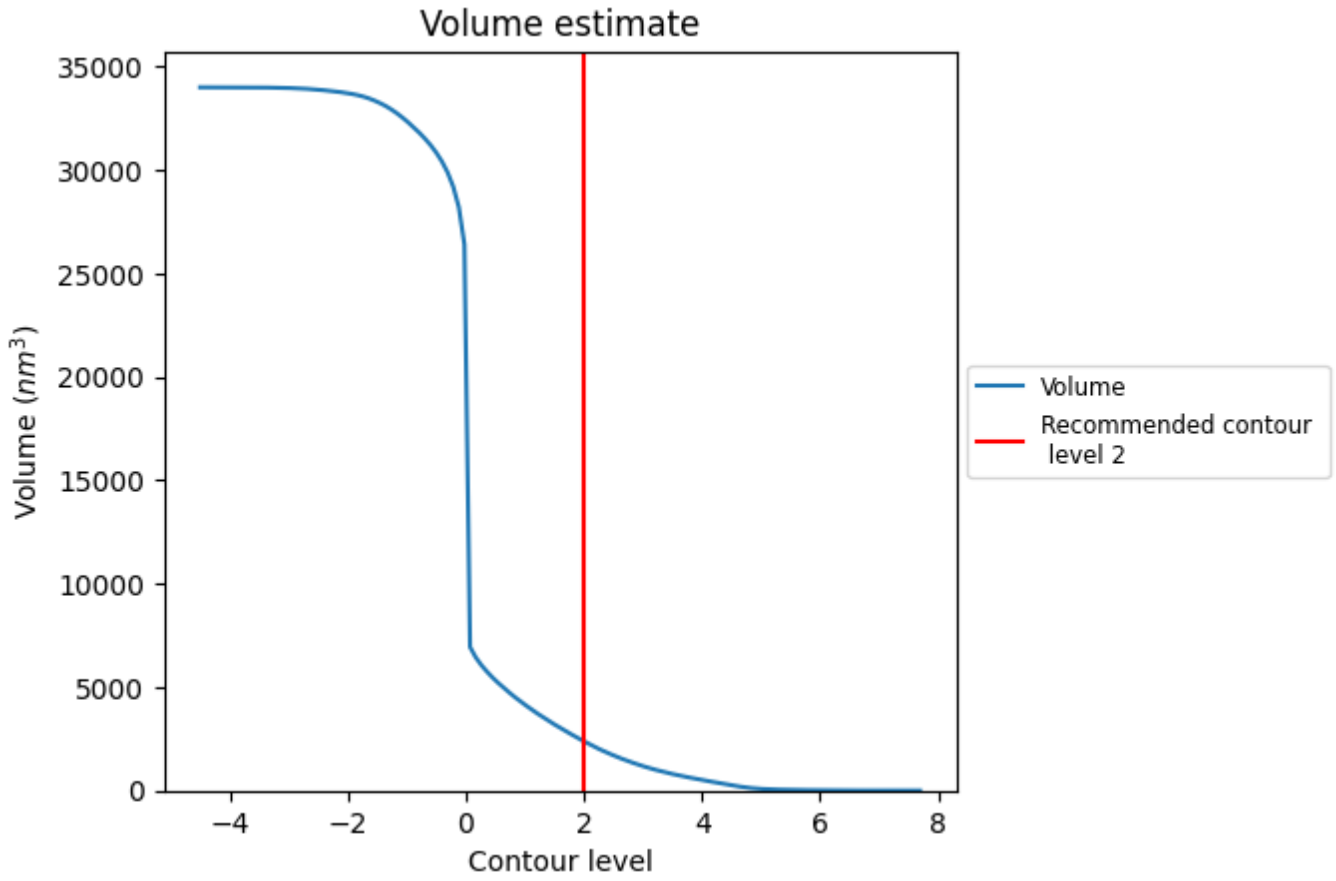
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

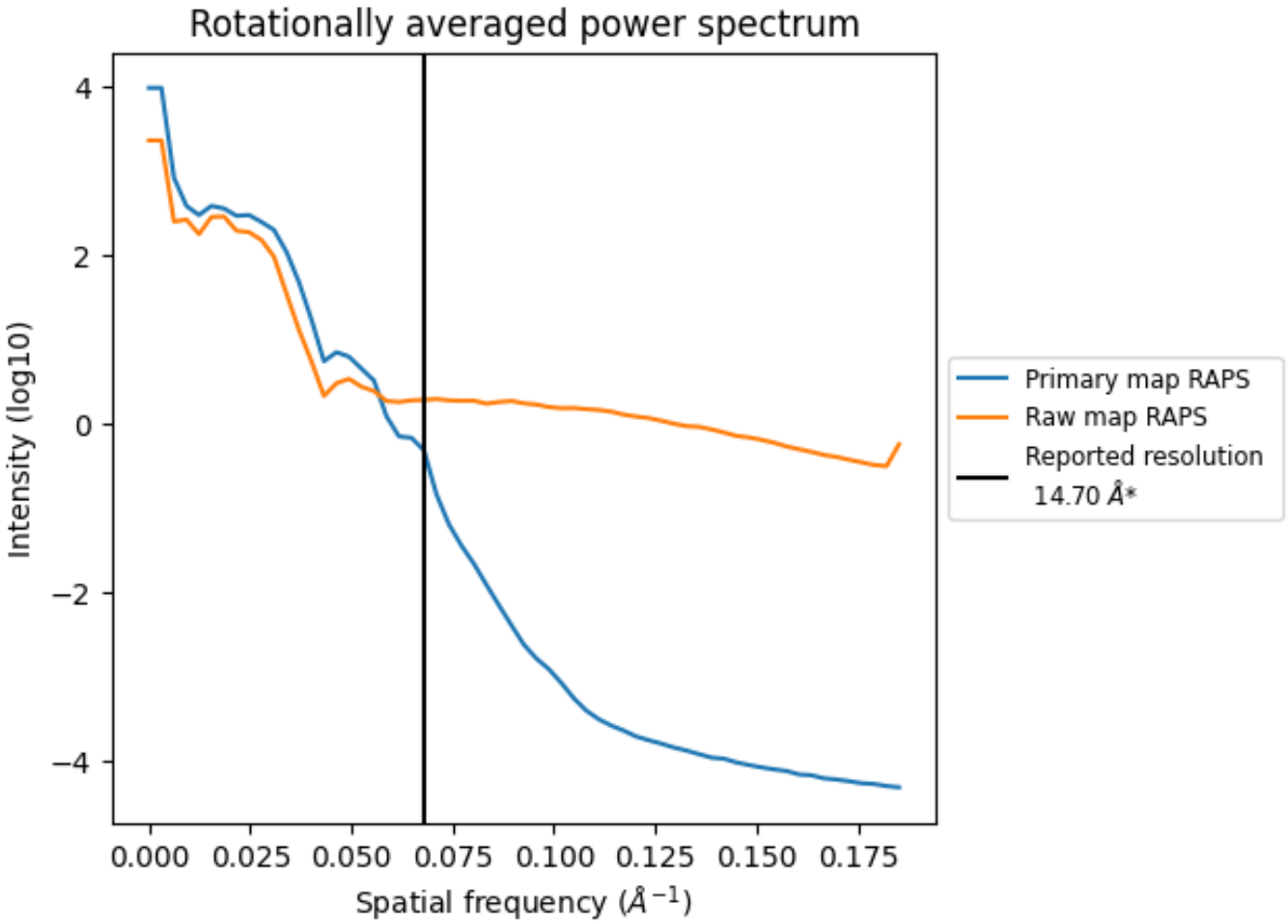
7.2 Volume estimate



The volume at the recommended contour level is 2386 nm^3; this corresponds to an approximate mass of 2155 kDa.

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

7.3 Rotationally averaged power spectrum (i)

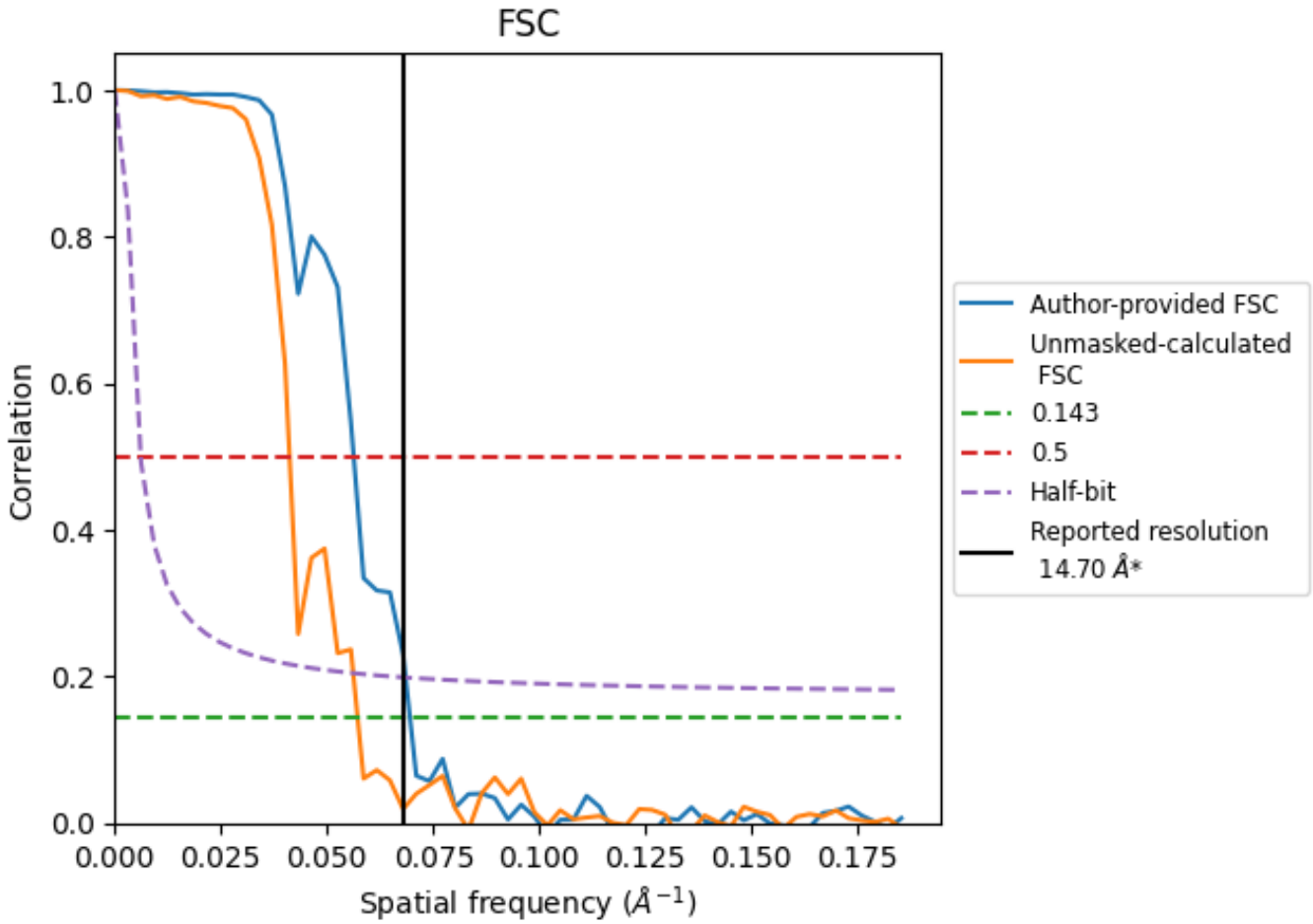


*Reported resolution corresponds to spatial frequency of 0.068 Å^{-1}

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.068 Å^{-1}

8.2 Resolution estimates (i)

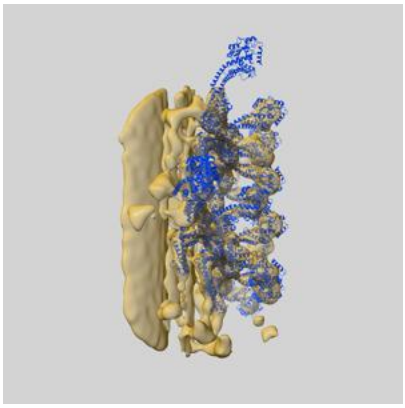
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	14.70	-	-
Author-provided FSC curve	14.39	17.79	14.60
Unmasked-calculated*	17.48	24.27	17.83

*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 17.48 differs from the reported value 14.7 by more than 10 %

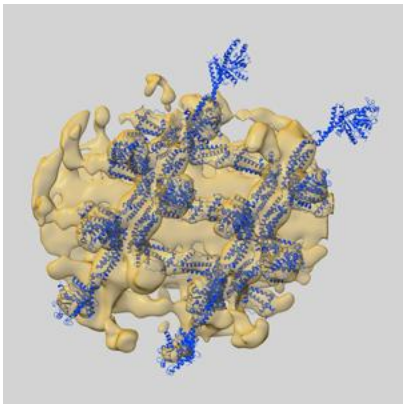
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-10063 and PDB model 6RZU. Per-residue inclusion information can be found in section 3 on page 5.

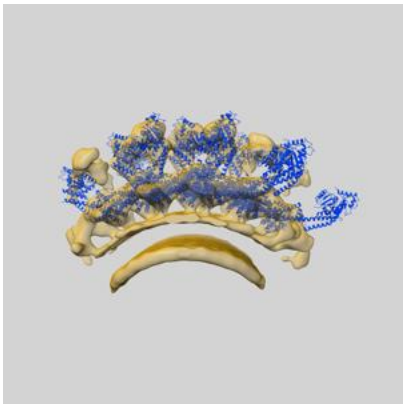
9.1 Map-model overlay



X



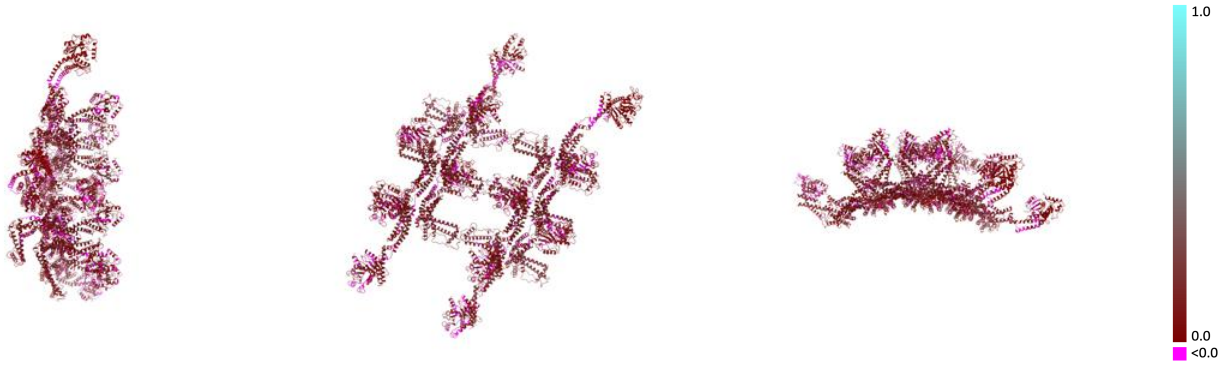
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 2.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

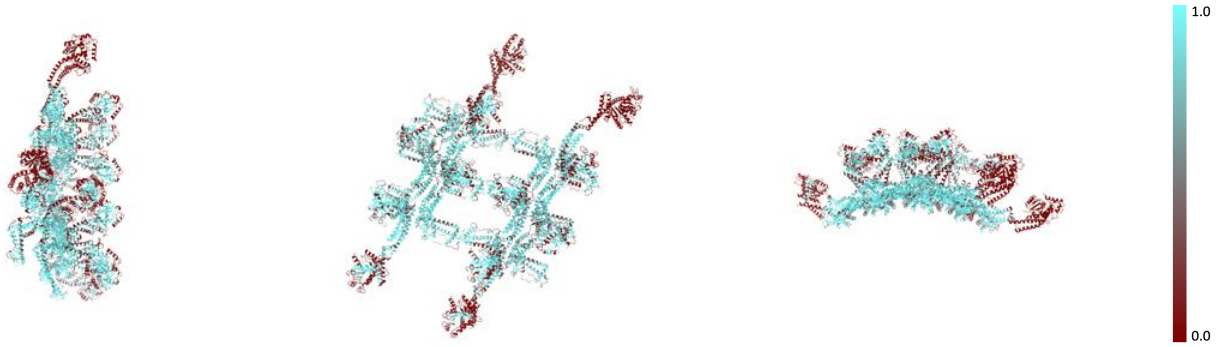
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

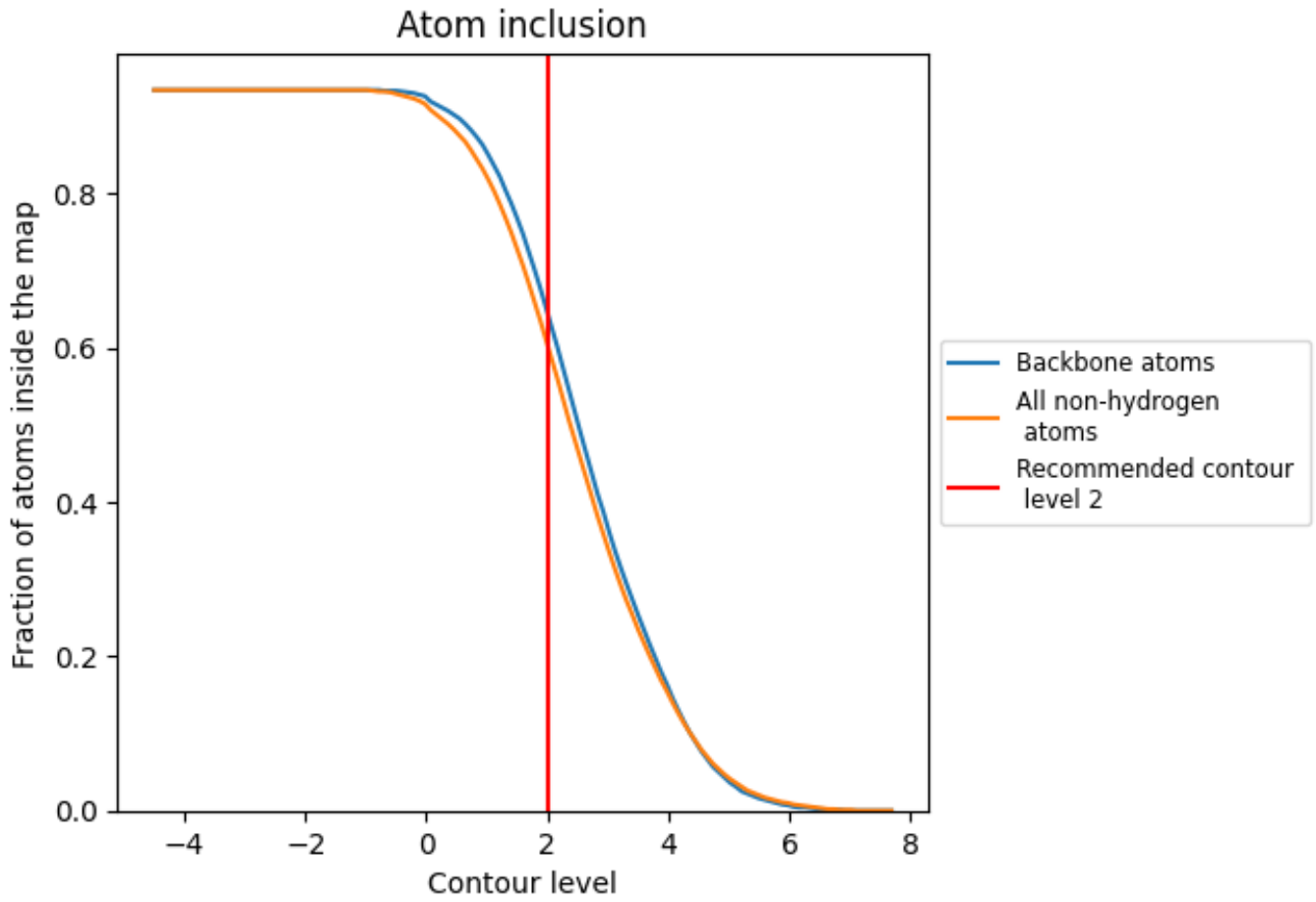
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2).

9.4 Atom inclusion (i)



At the recommended contour level, 65% of all backbone atoms, 60% 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 (2) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6050	0.0680
A	0.6140	0.0690
B	0.7150	0.0760
C	0.7580	0.0750
D	0.5960	0.0770
E	0.6790	0.0720
F	0.6290	0.0760
G	0.6890	0.0760
H	0.3900	0.0390
I	0.4900	0.0680
J	0.6780	0.0750
K	0.6570	0.0710
L	0.3680	0.0430