Full wwPDB EM Validation Report ⓘ

Nov 7, 2022 – 01:47 PM JST

PDB ID	:	5WVE
EMDB ID	:	EMD-6690
Title	:	Apaf-1-Caspase-9 holoenzyme
Authors	:	Li, Y.; Zhou, M.; Hu, Q.; Shi, Y.
Deposited on	:	2016-12-24
Resolution	:	4.40 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

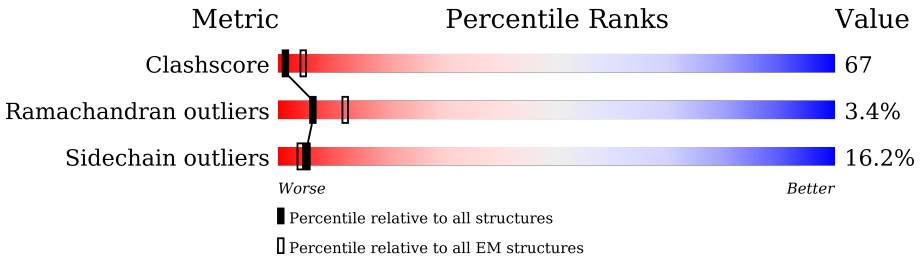
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

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 4.40 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	1248	33% 32% 46% 13% • 8%
1	C	1248	37% 32% 46% 13% • 8%
1	E	1248	43% 31% 46% 13% • 8%
1	G	1248	41% 31% 46% 14% • 8%
1	I	1248	39% 32% 46% 13% • 8%
1	K	1248	43% 32% 46% 13% • 8%
1	M	1248	43% 32% 46% 13% • 8%
2	B	105	49% 82% 15% ••

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Mol	Chain	Length	Quality of chain
2	D	105	41% 83% 14%
2	F	105	42% 82% 15%
2	H	105	47% 83% 14%
2	J	105	54% 82% 15%
2	L	105	62% 83% 14%
2	N	105	60% 83% 14%
3	O	102	80% 50% 37% 11%
3	P	102	74% 52% 34% 11%
3	Q	102	74% 42% 44% 11%
3	R	102	76% 47% 39% 11%
3	W	102	93% 80% 13% 7%
3	X	102	90% 74% 16% 10%
4	S	100	70% 51% 35% 10%
4	T	100	85% 48% 45%
4	U	100	93% 45% 46% 5%
4	V	100	94% 57% 33% 6%
4	Y	100	95% 71% 19% 5% 5%

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 78605 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 Apoptotic protease-activating factor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1144	Total	C	N	O	S	0	0
			9139	5789	1569	1720	61		
1	C	1144	Total	C	N	O	S	0	0
			9139	5789	1569	1720	61		
1	E	1144	Total	C	N	O	S	0	0
			9139	5789	1569	1720	61		
1	G	1144	Total	C	N	O	S	0	0
			9139	5789	1569	1720	61		
1	I	1144	Total	C	N	O	S	0	0
			9139	5789	1569	1720	61		
1	K	1144	Total	C	N	O	S	0	0
			9139	5789	1569	1720	61		
1	M	1144	Total	C	N	O	S	0	0
			9139	5789	1569	1720	61		

- Molecule 2 is a protein called Cytochrome c.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	104	Total	C	N	O	S	0	0
			823	524	144	151	4		
2	D	104	Total	C	N	O	S	0	0
			823	524	144	151	4		
2	F	104	Total	C	N	O	S	0	0
			823	524	144	151	4		
2	H	104	Total	C	N	O	S	0	0
			823	524	144	151	4		
2	J	104	Total	C	N	O	S	0	0
			823	524	144	151	4		
2	L	104	Total	C	N	O	S	0	0
			823	524	144	151	4		
2	N	104	Total	C	N	O	S	0	0
			823	524	144	151	4		

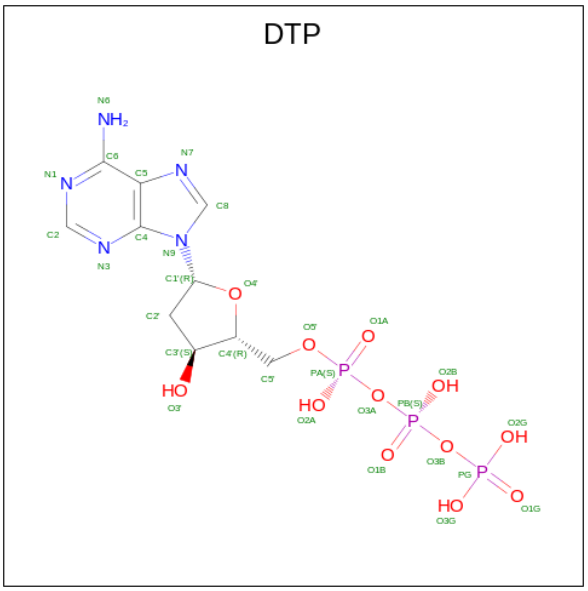
- Molecule 3 is a protein called Apoptotic protease-activating factor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	O	91	Total	C	N	O	S	0	0
			735	461	127	141	6		
3	P	91	Total	C	N	O	S	0	0
			735	461	127	141	6		
3	Q	91	Total	C	N	O	S	0	0
			735	461	127	141	6		
3	R	91	Total	C	N	O	S	0	0
			735	461	127	141	6		
3	W	95	Total	C	N	O	S	0	0
			762	479	131	146	6		
3	X	92	Total	C	N	O	S	0	0
			742	466	128	142	6		

- Molecule 4 is a protein called Caspase.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	S	96	Total	C	N	O	S	0	0
			783	479	153	146	5		
4	T	96	Total	C	N	O	S	0	0
			783	479	153	146	5		
4	U	96	Total	C	N	O	S	0	0
			783	479	153	146	5		
4	V	96	Total	C	N	O	S	0	0
			783	479	153	146	5		
4	Y	95	Total	C	N	O	S	0	0
			777	475	152	145	5		

- Molecule 5 is 2'-DEOXYADENOSINE 5'-TRIPHOSPHATE (three-letter code: DTP) (formula: $C_{10}H_{16}N_5O_{12}P_3$).



Mol	Chain	Residues	Atoms					AltConf
5	A	1	Total	C	N	O	P	0
			30	10	5	12	3	
5	C	1	Total	C	N	O	P	0
			30	10	5	12	3	
5	E	1	Total	C	N	O	P	0
			30	10	5	12	3	
5	G	1	Total	C	N	O	P	0
			30	10	5	12	3	
5	I	1	Total	C	N	O	P	0
			30	10	5	12	3	
5	K	1	Total	C	N	O	P	0
			30	10	5	12	3	
5	M	1	Total	C	N	O	P	0
			30	10	5	12	3	

- Molecule 6 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
6	A	1	Total	Mg	0
			1	1	
6	C	1	Total	Mg	0
			1	1	
6	E	1	Total	Mg	0
			1	1	
6	G	1	Total	Mg	0
			1	1	
6	I	1	Total	Mg	0
			1	1	

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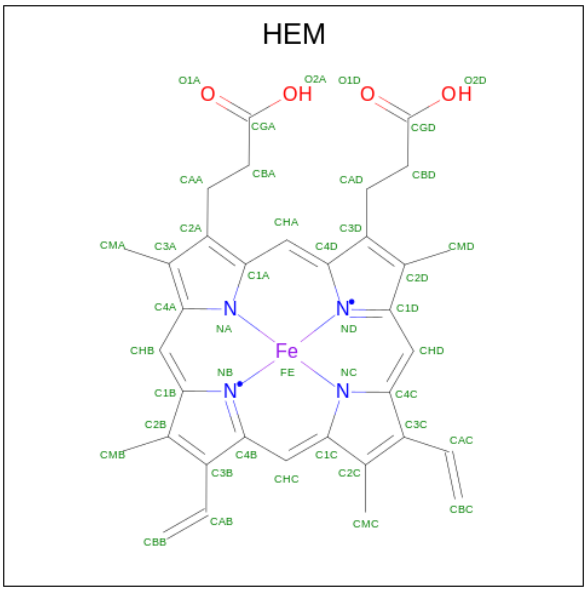
Mol	Chain	Residues	Atoms	AltConf
6	K	1	Total Mg 1 1	0
6	M	1	Total Mg 1 1	0

- Molecule 7 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).

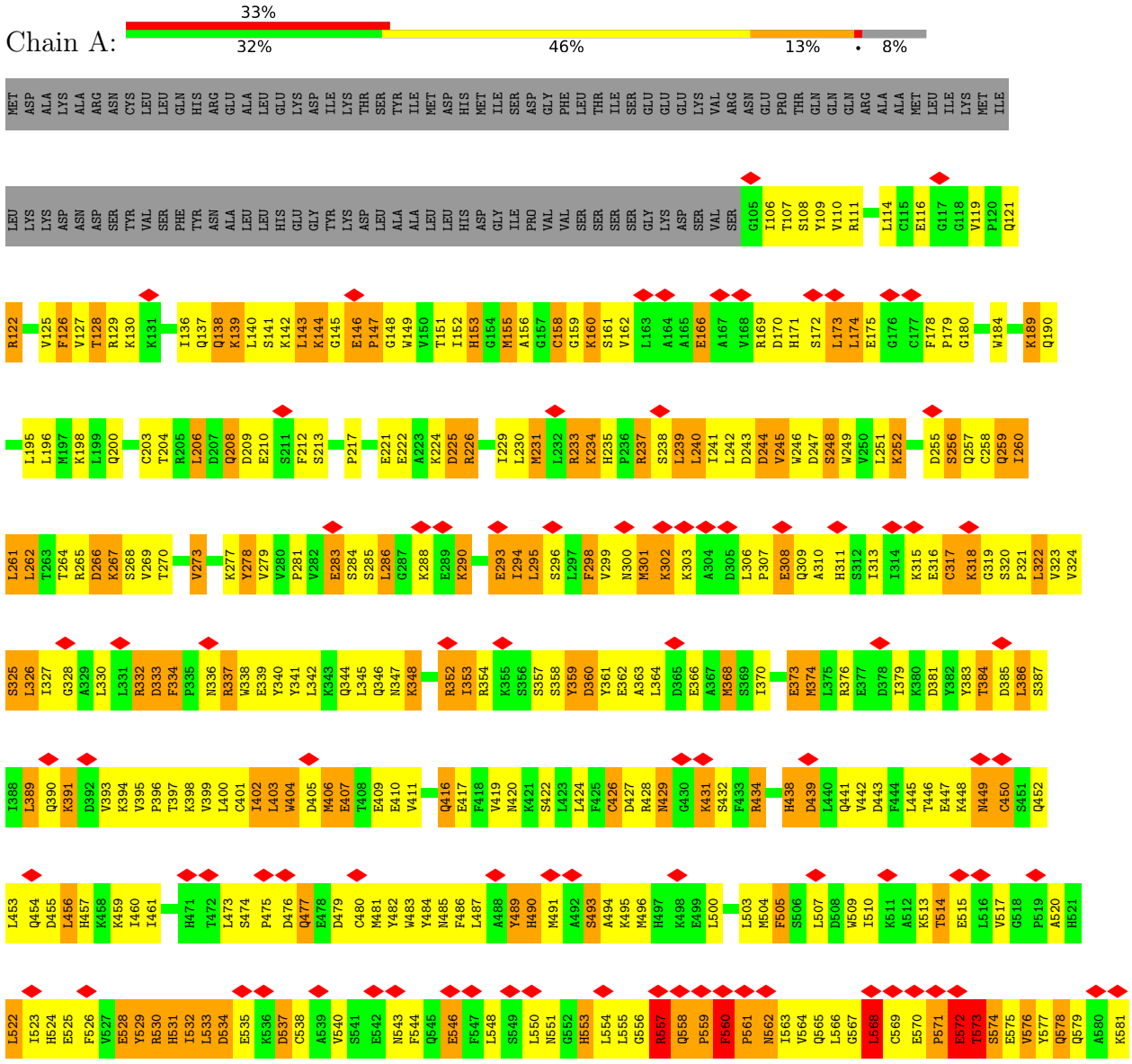


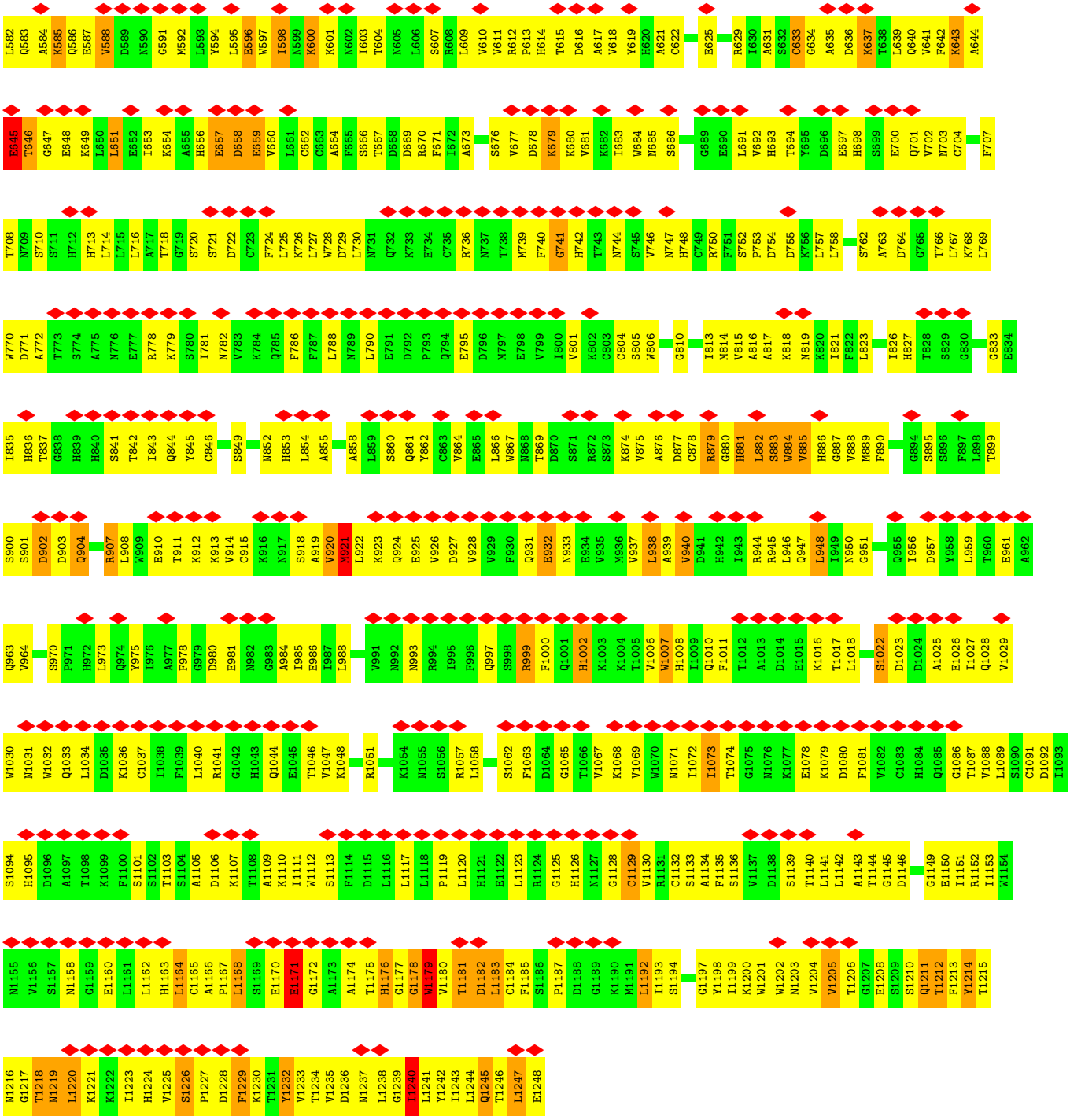
Mol	Chain	Residues	Atoms	AltConf
7	B	1	Total C Fe N O 43 34 1 4 4	0
7	D	1	Total C Fe N O 43 34 1 4 4	0
7	F	1	Total C Fe N O 43 34 1 4 4	0
7	H	1	Total C Fe N O 43 34 1 4 4	0
7	J	1	Total C Fe N O 43 34 1 4 4	0
7	L	1	Total C Fe N O 43 34 1 4 4	0
7	N	1	Total C Fe N O 43 34 1 4 4	0

3 Residue-property plots (i)

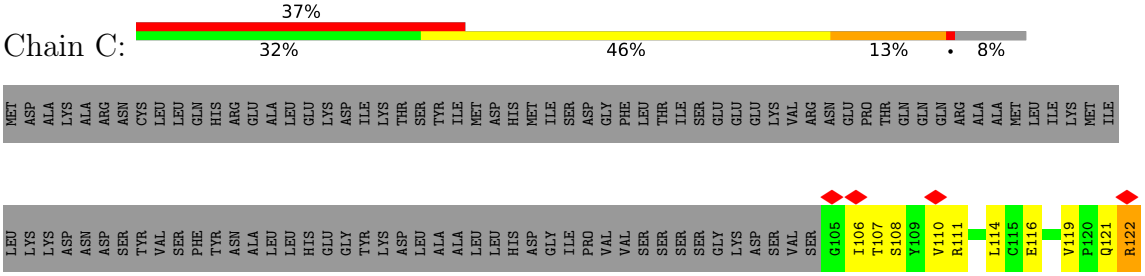
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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.

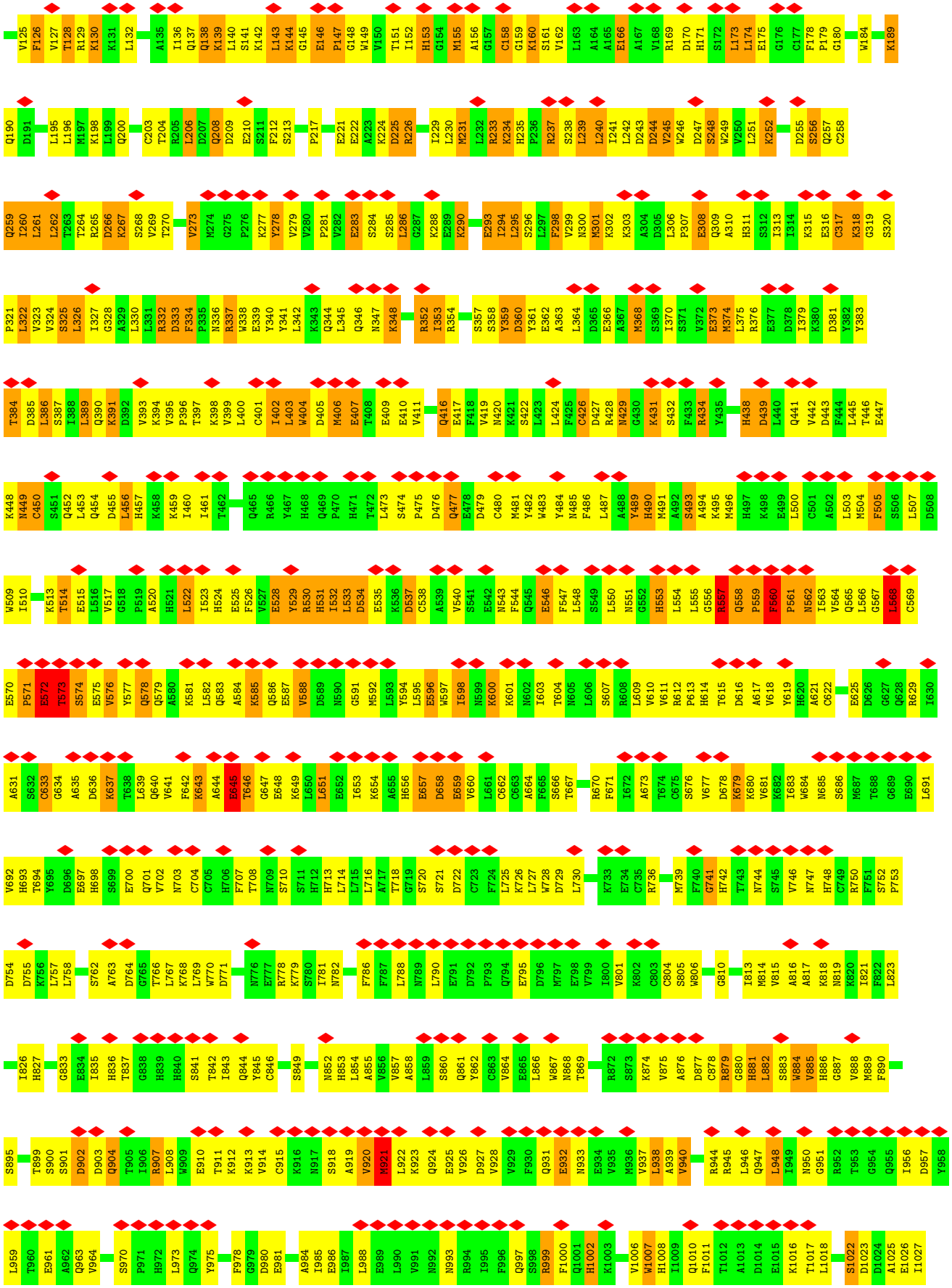
- Molecule 1: Apoptotic protease-activating factor 1





• Molecule 1: Apoptotic protease-activating factor 1

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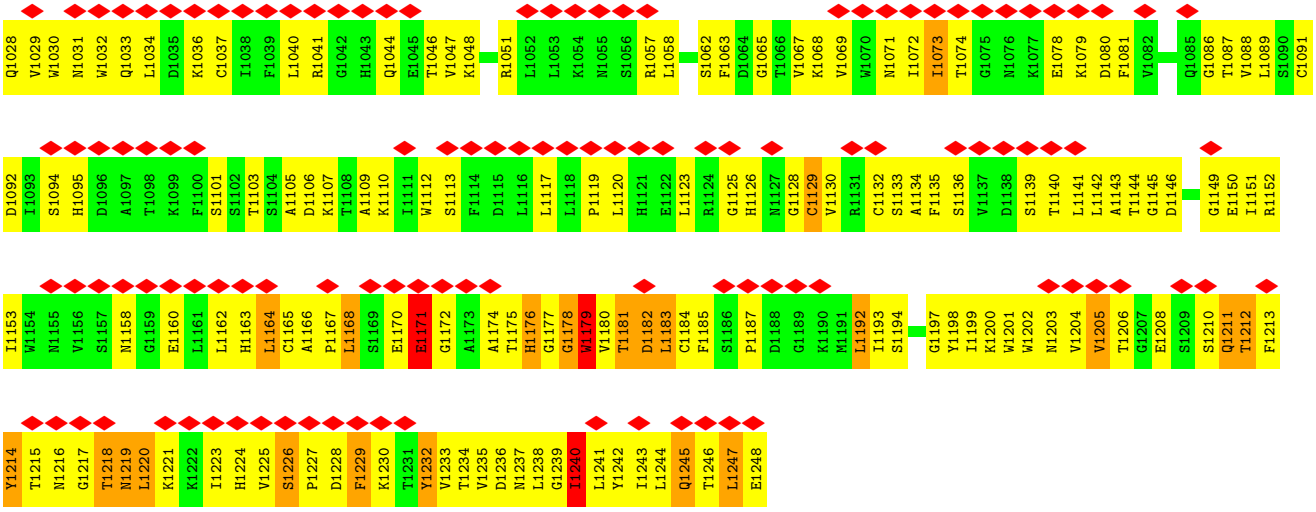
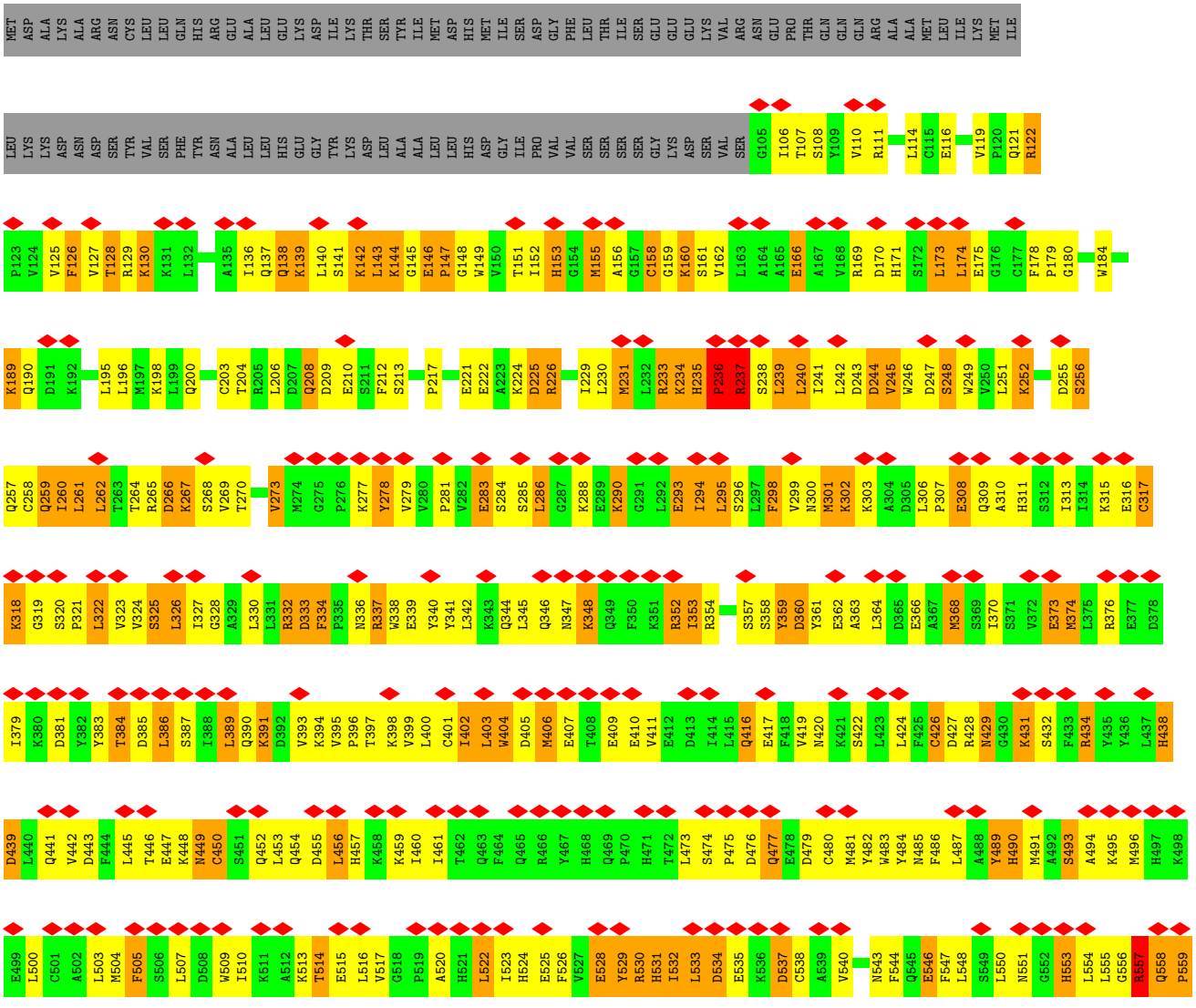
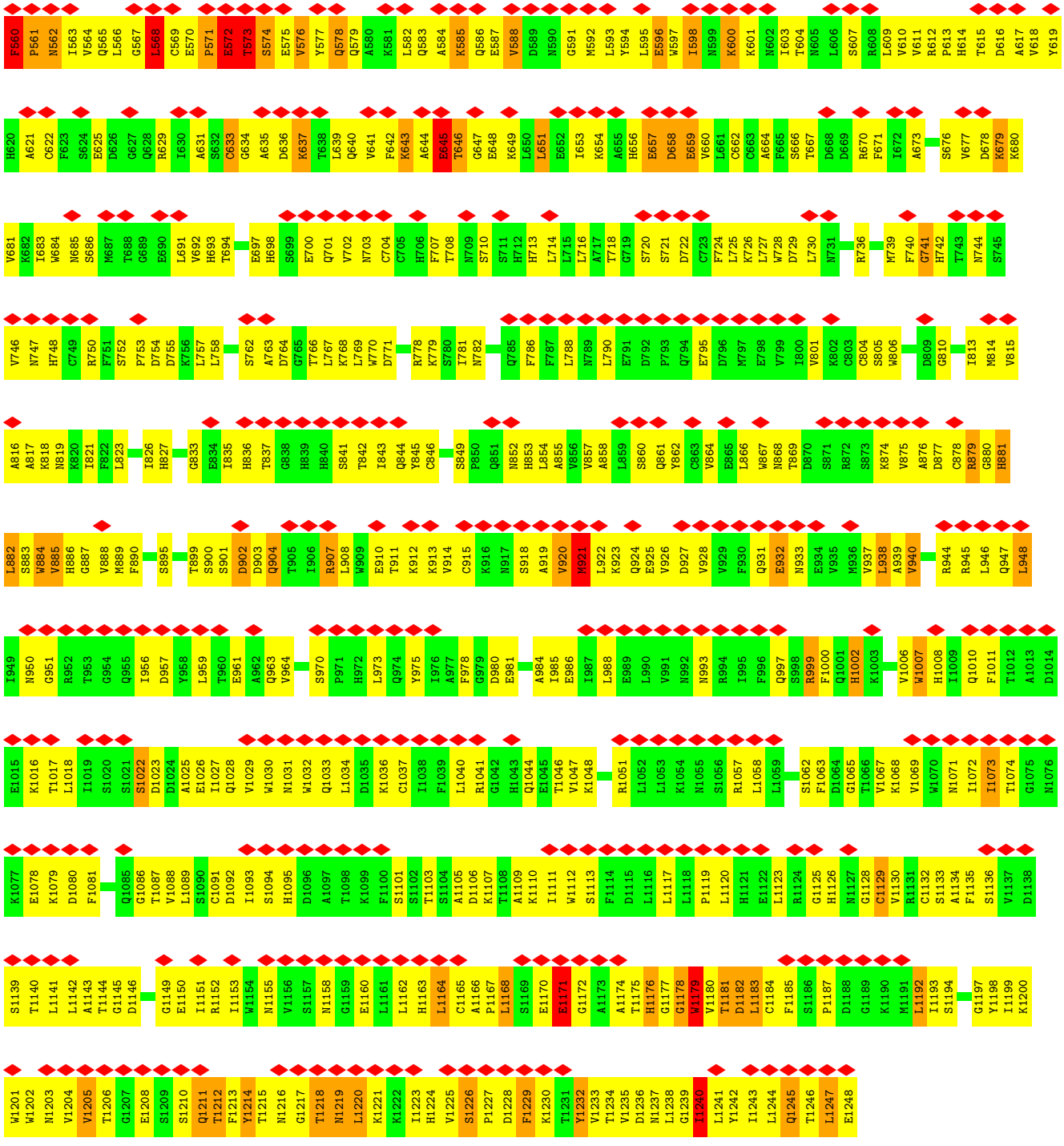
Q190 D191 L195 L196 M197 K198 L199 Q200 C203 T204 R205 L206 D207 Q208 D209 E210 S211 F212 S213 P217 E221 E222 A223 K224 D225 R226 I229 L230 W231 L232 R233 K234 H235 P236 R237 S238 L239 L240 I241 L242 D243 D244 V245 W246 D247 S248 W249 V250 L251 K252 D255 S256 Q257 C258
Q259 I260 L261 L262 T263 T264 R265 D266 K267 S268 V269 T270 V273 M274 G275 P276 K277 Y278 V279 W280 P281 V282 E283 S284 S285 L286 G287 K288 E289 K290 E293 I294 L295 S296 L297 F298 V299 N300 M301 K302 K303 A304 D305 L306 P307 E308 Q309 A310 H311 S312 I313 I314 K315 E316 C317 K318 G319 S320
P321 L322 V323 V324 S325 L326 I327 G328 A329 L330 L331 R332 D333 F334 P335 N336 R337 W338 E339 Y340 Y341 L342 K343 Q344 L345 Q346 N347 K348 R352 I353 R354 S357 S358 Y359 D360 Y361 E362 A363 L364 D365 E366 A367 M368 S369 I370 S371 V372 E373 M374 L375 R376 E377 D378 I379 K380 D381 Y382 Y383
T384 D385 L386 S387 I388 L389 Q390 K391 D392 V393 K394 V395 P396 T397 K398 V399 L400 C401 I402 L403 W404 D405 M406 E407 T408 E409 E410 V411 Q416 E417 F418 V419 N420 K421 S422 L423 L424 F425 C426 D427 R428 N429 G430 K431 S432 F433 R434 Y435 H438 D439 L440 Q441 V442 D443 F444 L445 T446 E447
K448 N449 C450 S451 Q452 L453 Q454 D455 L456 H457 K458 K459 I460 I461 T462 Q465 R466 Y467 H468 Q469 P470 H471 T472 L473 S474 P475 D476 Q477 E478 D479 C480 M481 Y482 W483 Y484 N485 F486 L487 A488 Y489 H490 M491 A492 S493 A494 K495 M496 H497 K498 E499 L500 C501 A502 L503 M504 F505 S506 L507 D508
W509 I510 K513 T514 E515 L516 V517 G518 P519 A520 H521 L522 I523 H524 E525 F526 V527 E528 Y529 R530 H531 I532 L533 D534 E535 K536 D537 C538 A539 V540 S541 E542 N543 F544 Q545 E546 F547 L548 S549 L550 N551 G552 H553 L554 L555 G556 R557 Q558 P559 F560 P561 N562 I563 V564 Q565 L566 G567 L568 C569
E570 P571 E572 T573 S574 E575 V576 Y577 Q578 Q579 A580 K581 L582 Q583 A584 K585 Q586 E587 V588 D589 N590 G591 M592 L593 Y594 L595 E596 W597 I598 N599 K600 K601 N602 I603 T604 N605 L606 S607 R608 L609 V610 V611 R612 P613 H614 T615 D616 A617 V618 Y619 H620 A621 C622 E625 D626 G627 G628 R629 I630
A631 S632 C633 G634 A635 D636 K637 T638 L639 Q640 V641 F642 K643 A644 E645 T646 G647 E648 K649 L650 L651 E652 I653 K654 A655 H656 E657 D658 E659 V660 L661 C662 C663 A664 F665 S666 T667 R670 F671 I672 A673 T674 C675 S676 V677 D678 K679 K680 V681 K682 I683 W684 N685 S686 M687 T688 G689 E690 L691
V692 H693 T694 Y695 D696 E697 H698 S699 E700 Q701 V702 N703 C704 C705 H706 F707 T708 N709 S710 S711 H712 H713 L714 L715 L716 A717 T718 G719 S720 S721 D722 C723 F724 L725 K726 L727 W728 D729 L730 K733 E734 C735 R736 M739 F740 G741 H742 T743 N744 S745 V746 N747 H748 C749 R750 F751 S752 P753
D754 D755 K756 L757 L758 S762 A763 D764 G765 T766 L767 K768 L769 W770 D771 N776 E777 R778 K779 S780 I781 N782 F786 F787 L788 N789 L790 E791 D792 P793 Q794 E795 D796 M797 E798 V799 I800 V801 K802 C803 C804 S805 W806 G810 I813 M814 V815 A816 A817 K818 N819 K820 I821 F822 L823
I826 H827 G833 E834 I835 H836 T837 G838 H839 H840 S841 T842 I843 Q844 Y845 C846 S849 N852 H853 L854 A855 V856 V857 A858 L859 S860 Q861 Y862 C863 V864 E865 L866 W867 N868 T869 R872 S873 K874 V875 A876 D877 C878 R879 G880 H881 L882 S883 W884 V885 H886 G887 V888 M889 F890
S895 T899 S900 S901 D902 D903 Q904 T905 I906 R907 L908 W909 E910 T911 K912 K913 V914 C915 K916 N917 S918 A919 V920 M921 L922 K923 Q924 E925 V926 D927 V928 V929 F930 Q931 E932 N933 E934 V935 M936 V937 L938 A939 V940 R944 R945 L946 Q947 L948 I949 N950 G951 R952 T953 G954 Q955 I956 D957 Y958
L959 T960 E961 A962 Q963 V964 S970 P971 H972 L973 Q974 Y975 F978 G979 D980 E981 A984 I985 E986 I987 L988 E989 L990 V991 N992 N993 R994 I995 F996 Q997 S998 R999 F1000 Q1001 H1002 K1003 V1006 W1007 H1008 I1009 Q1010 F1011 T1012 A1013 D1014 E1015 K1016 T1017 L1018 S1022 D1023 D1024 A1025 E1026 I1027



• Molecule 1: Apoptotic protease-activating factor 1





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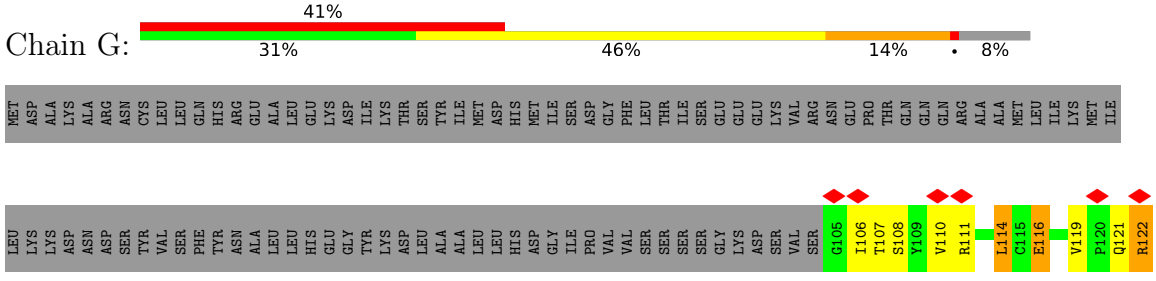

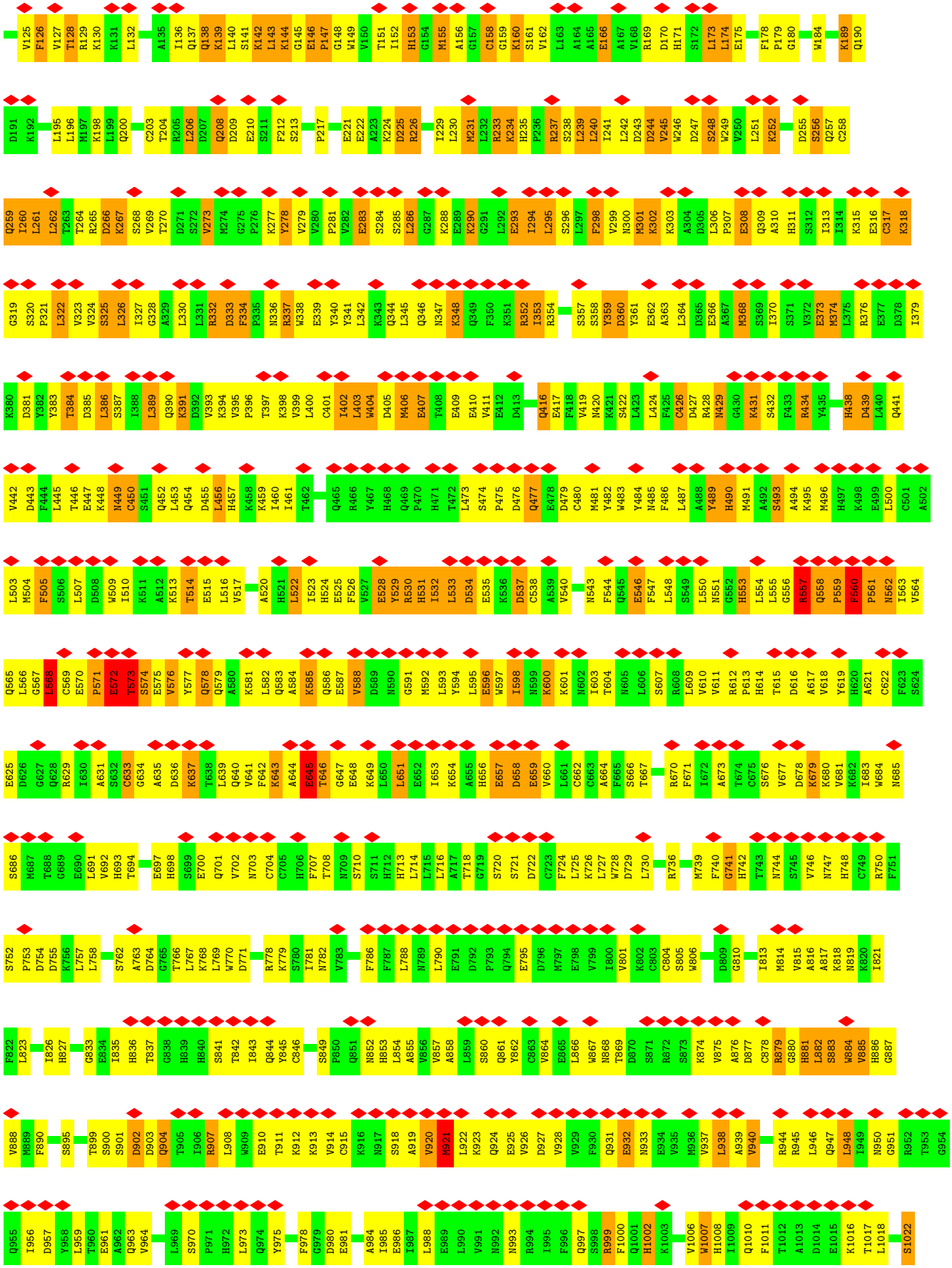
V125 F126 V127 T128 R129 K130 K131 L132 A135 I136 Q137 Q138 K139 L140 S141 K142 L143 K144 G145 E146 P147 G148 W149 V150 T151 I152 H153 G154 M155 A156 G157 C158 G159 K160 S161 V162 L163 A164 A165 E166 A167 V168 R169 D170 H171 S172 L173 L174 E175 F178 P179 G180 W184 K189 Q190
D191 K192 L195 L196 M197 K198 L199 Q200 C203 T204 R205 L206 D207 Q208 D209 E210 S211 F212 S213 P217 E221 E222 A223 K224 D225 R226 I229 L230 M231 L232 R233 K234 H235 F236 R237 S238 L239 L240 I241 L242 D243 D244 V245 W246 D247 S248 W249 V250 L251 K252 D255 S256 Q257 C258
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K380 D381 Y382 Y383 T384 D385 L386 S387 I388 L389 Q390 K391 D392 V393 K394 V395 P396 T397 K398 V399 L400 C401 I402 L403 W404 D405 M406 E407 T408 E409 E410 V411 E412 D413 Q416 E417 F418 V419 N420 K421 S422 L423 L424 F425 C426 D427 R428 N429 G430 K431 S432 F433 R434 Y435 H438 D439 L440 Q441
V442 D443 F444 L445 T446 E447 K448 N449 C450 S451 Q452 L453 Q454 D455 L456 H457 K458 K459 I460 I461 T462 Q465 R466 Y467 H468 Q469 P470 H471 T472 L473 S474 P475 D476 Q477 E478 D479 C480 M481 Y482 W483 Y484 N485 F486 L487 A488 Y489 H490 M491 A492 S493 A494 K495 M496 K497 K498 E499 L500 C501 A502
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S686 M687 T688 G689 E690 L691 V692 H693 T694 E697 H698 S699 E700 Q701 V702 N703 C704 C705 H706 F707 T708 N709 S710 S711 H712 H713 L714 L715 L716 A717 T718 G719 S720 S721 D722 C723 F724 L725 K726 L727 W728 D729 L730 R736 M739 F740 G741 H742 T743 N744 S745 V746 N747 H748 C749 R750 F751
S752 P753 D754 D755 K756 L757 L758 S762 A763 D764 G765 T766 L767 K768 L769 W770 D771 R778 K779 S780 I781 N782 V783 F786 F787 L788 N789 L790 E791 D792 P793 Q794 E795 D796 M797 E798 V799 I800 V801 K802 C803 C804 S805 W806 D809 G810 I813 M814 V815 A816 A817 K818 N819 K820 I821
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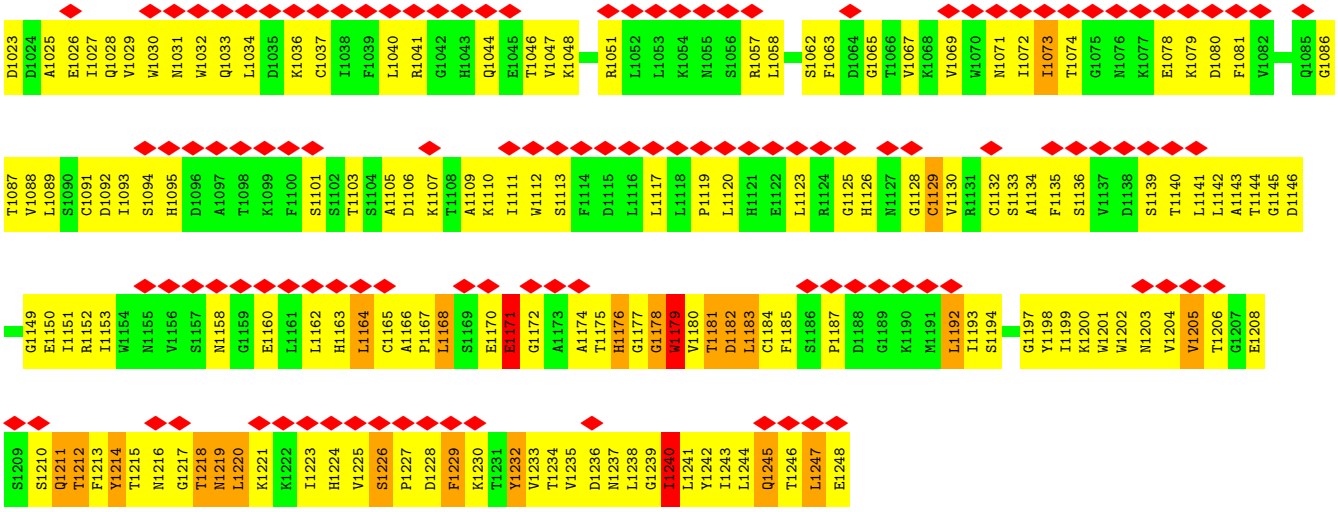
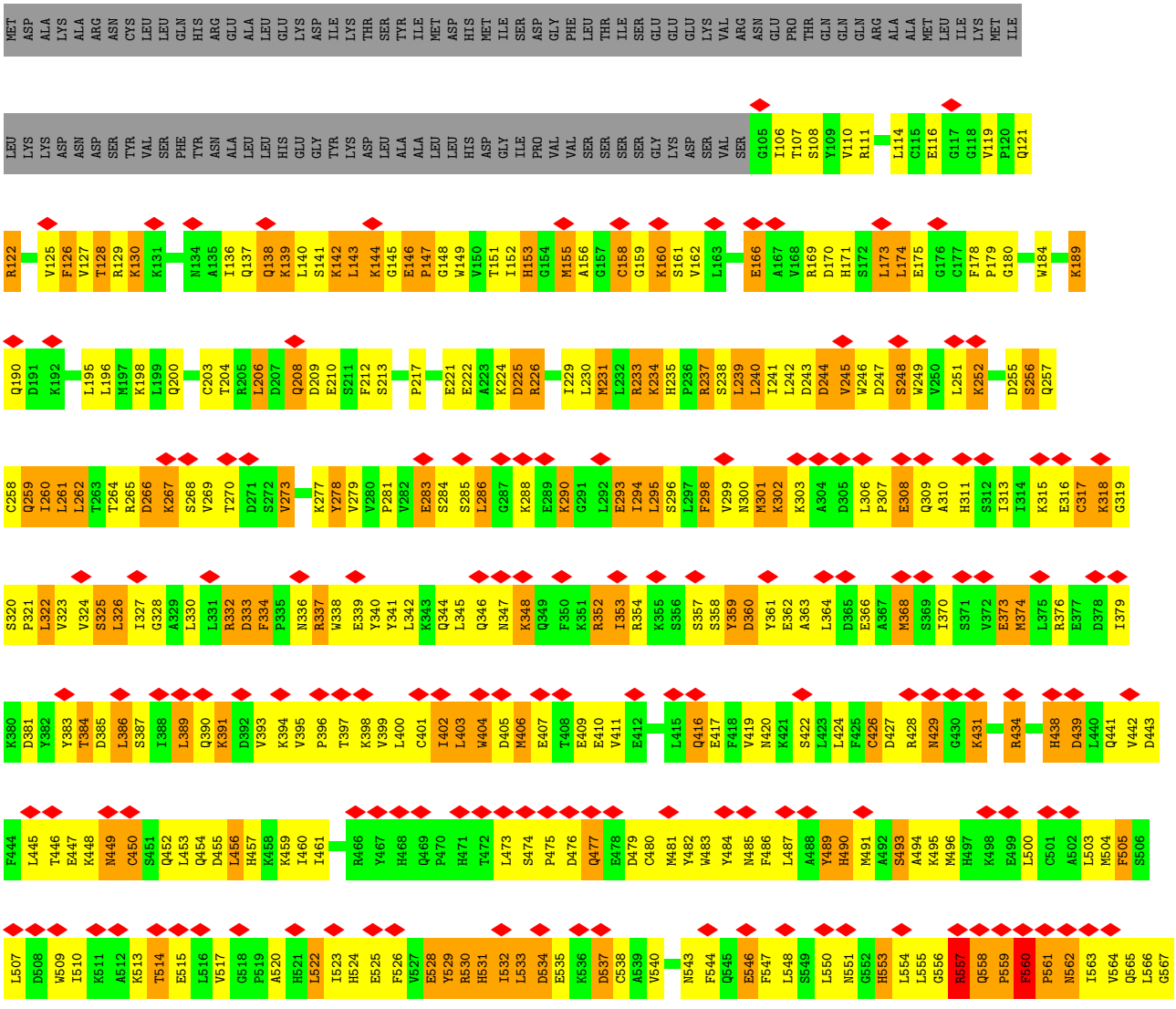
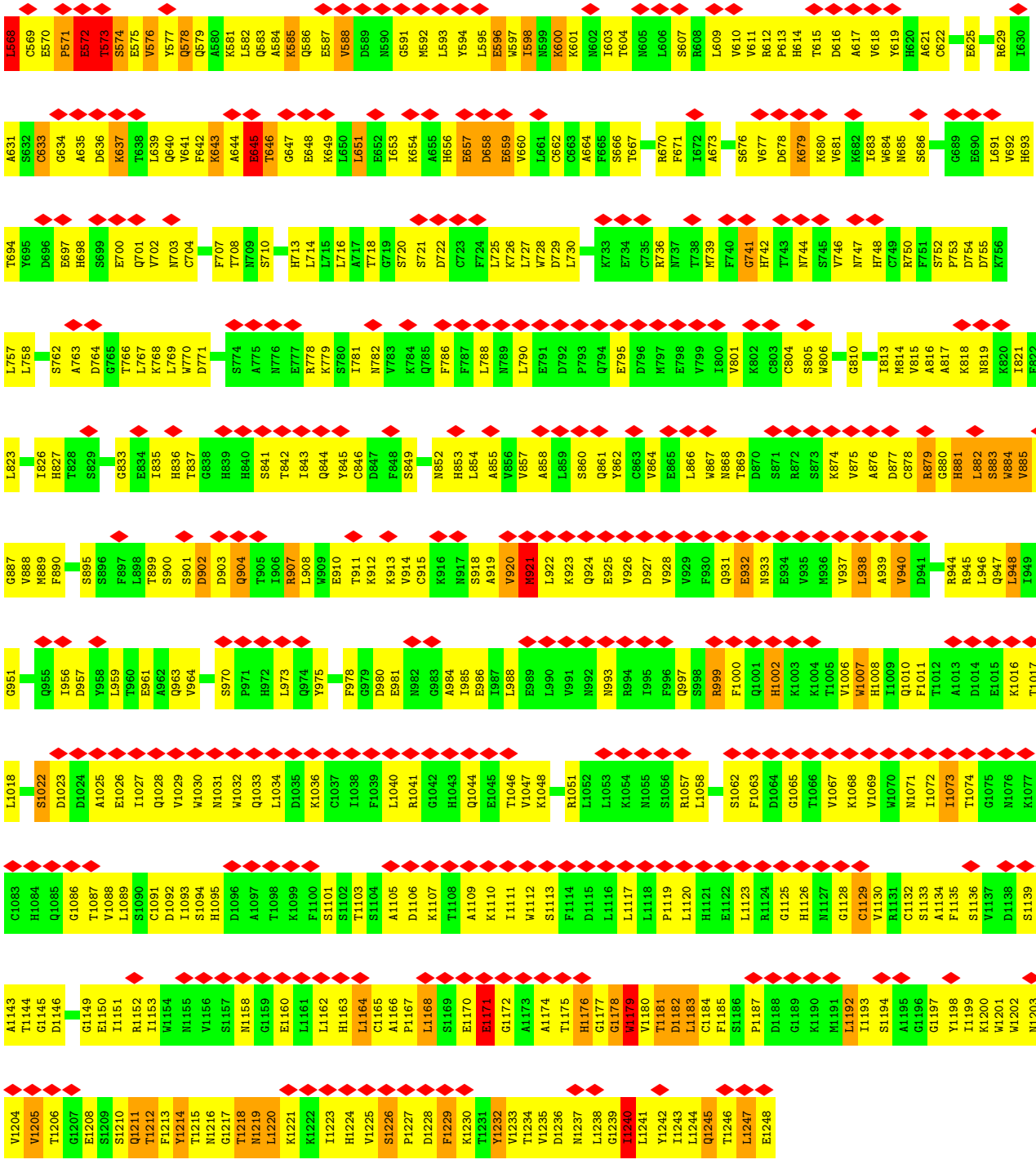
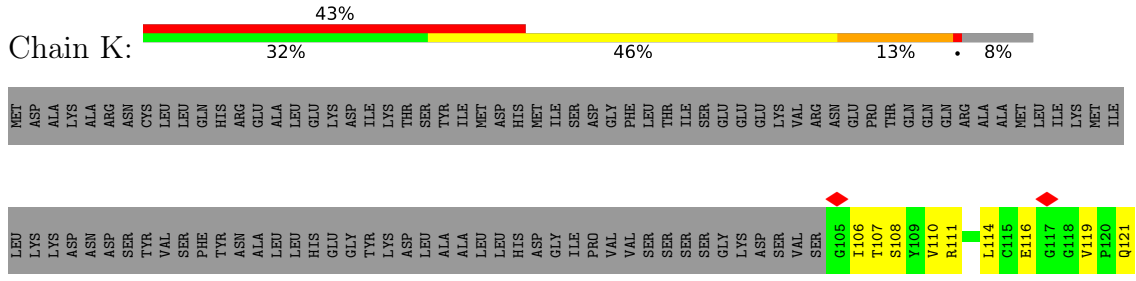


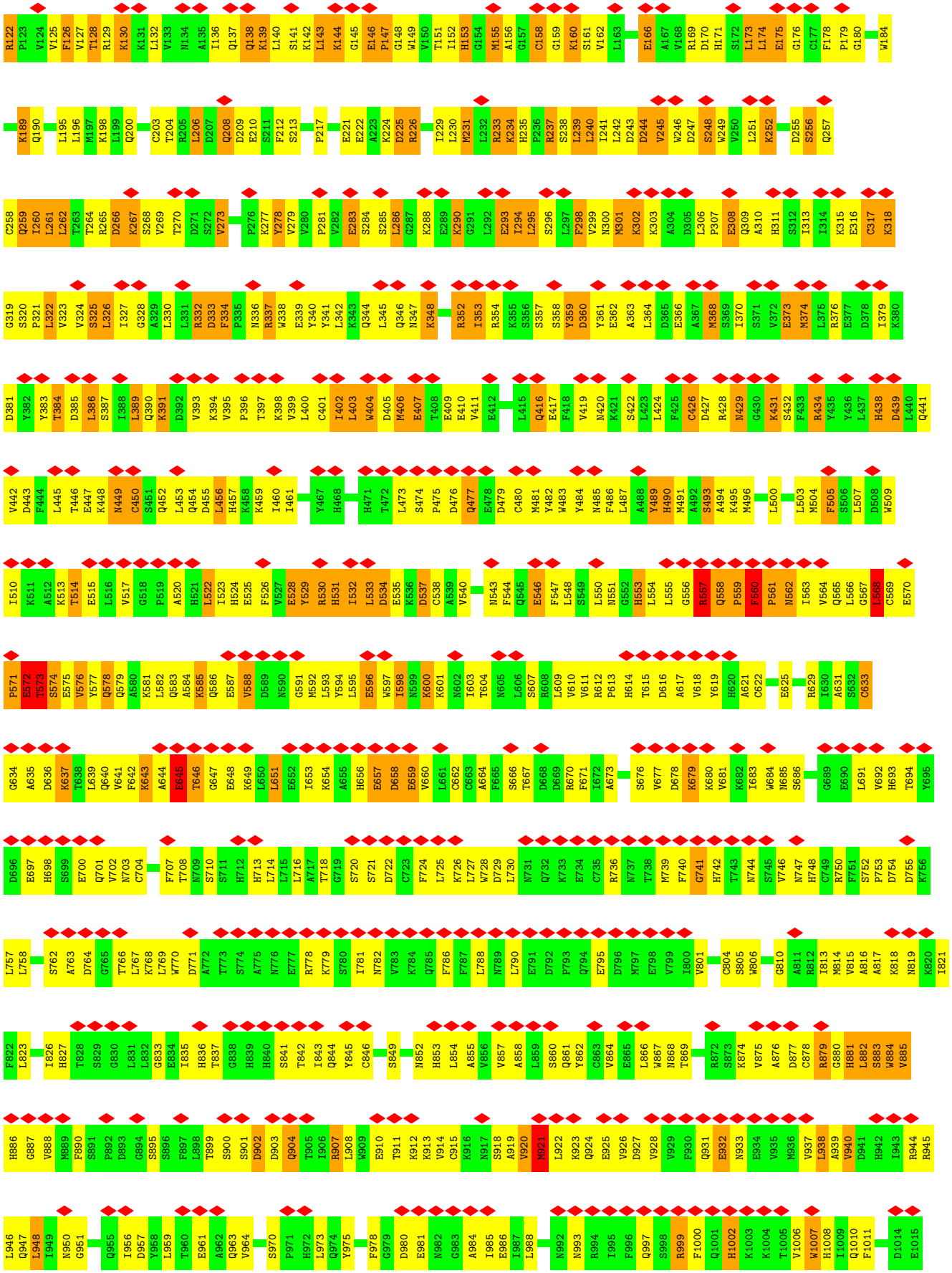
• Molecule 1: Apoptotic protease-activating factor 1





• Molecule 1: Apoptotic protease-activating factor 1

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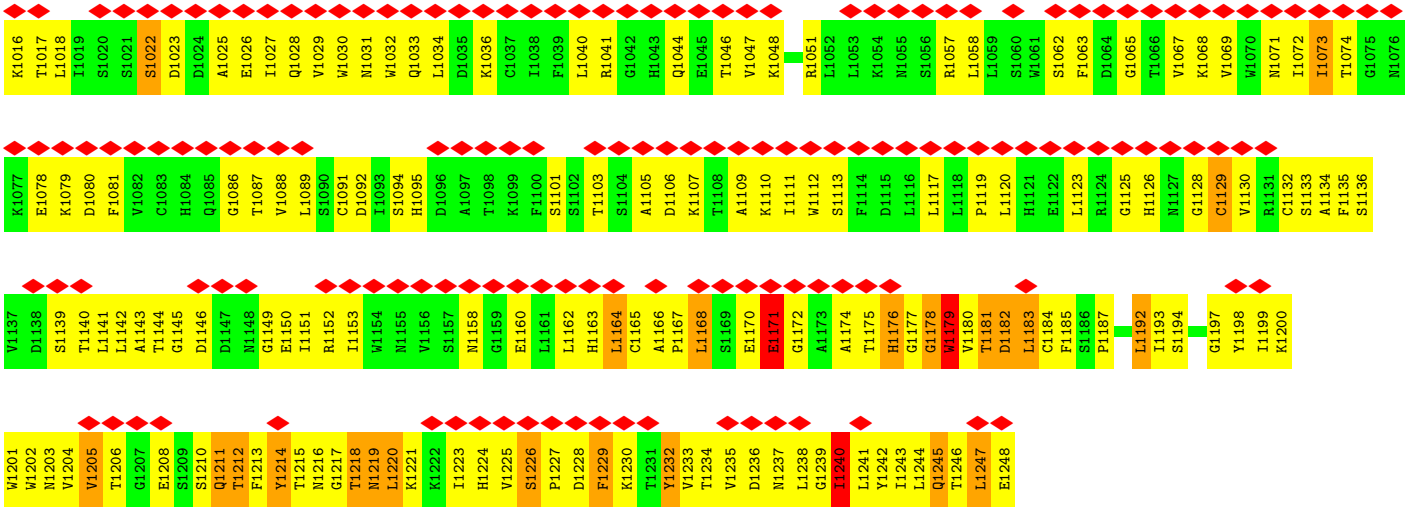
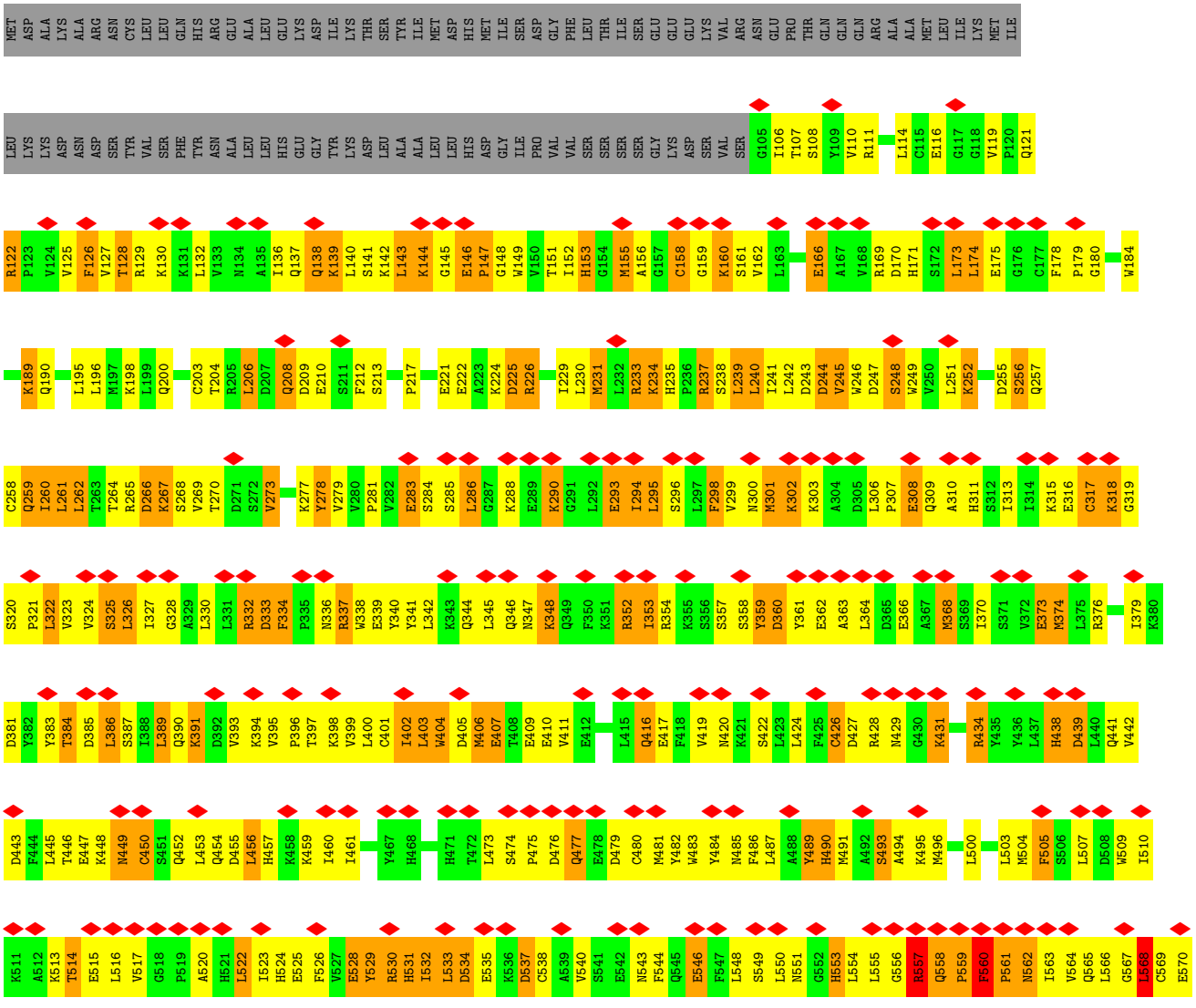
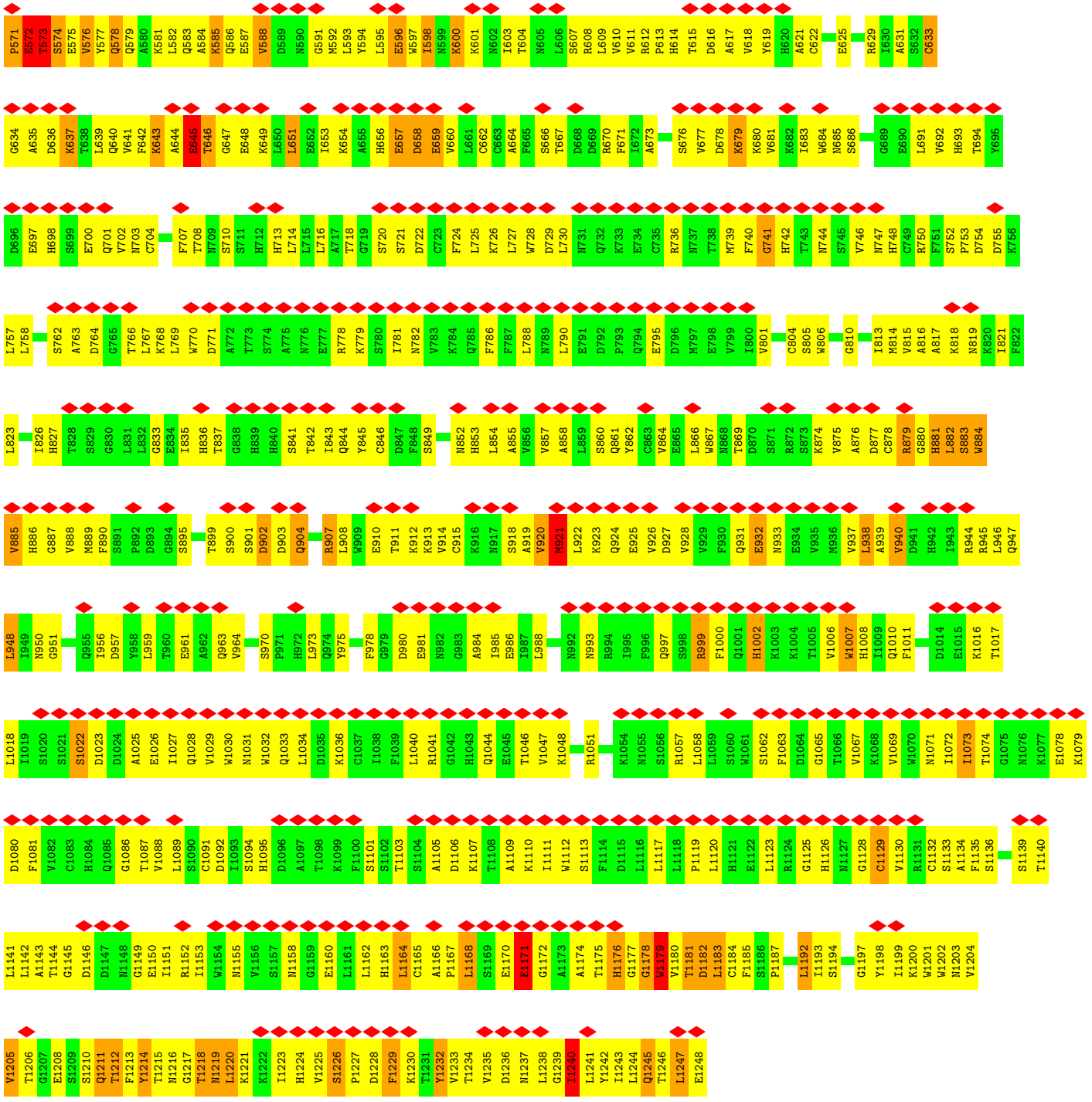
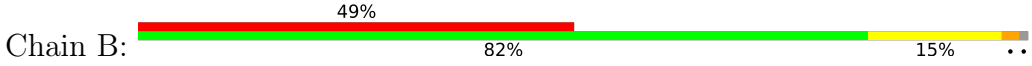


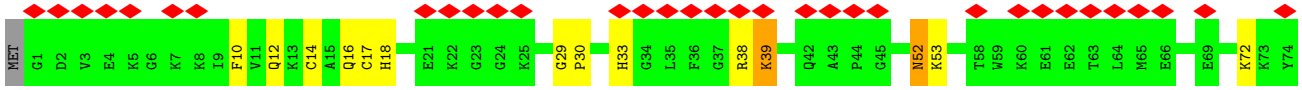
• Molecule 1: Apoptotic protease-activating factor 1

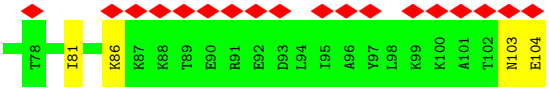




• Molecule 2: Cytochrome c

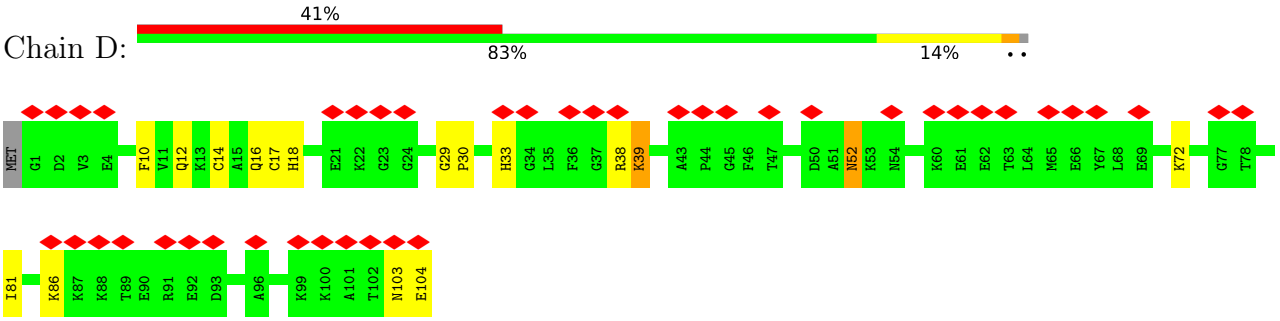






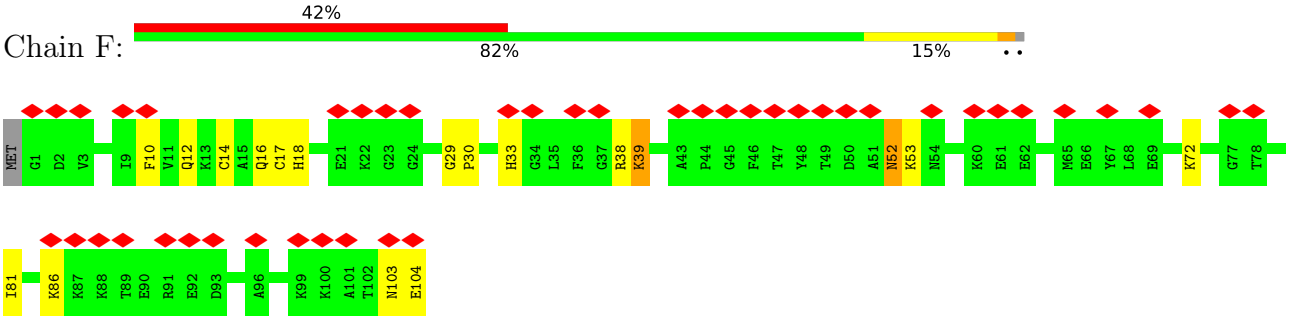
• Molecule 2: Cytochrome c

Chain D:



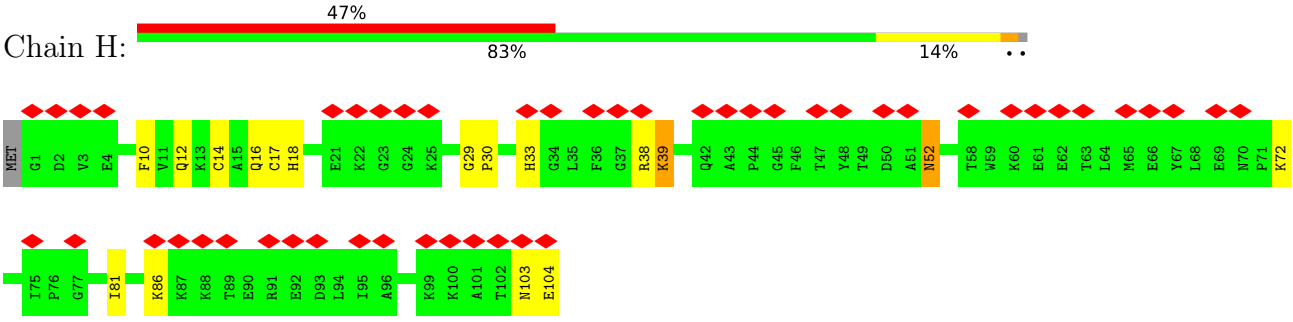
• Molecule 2: Cytochrome c

Chain F:



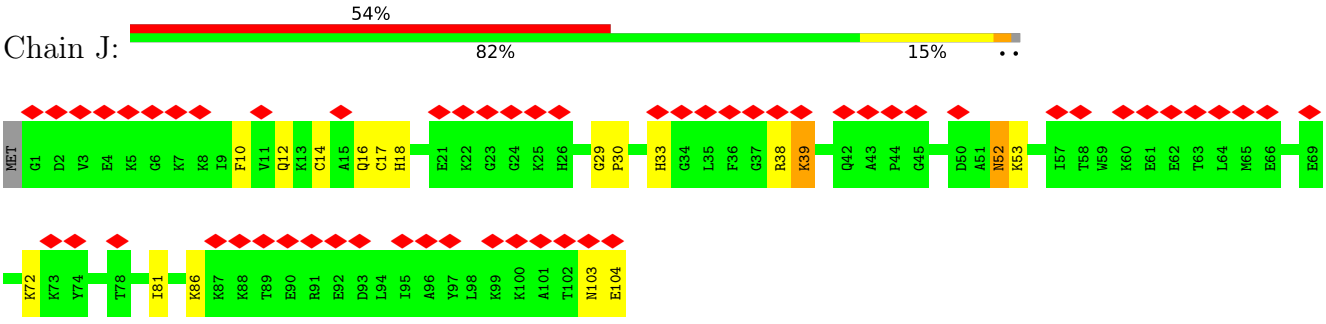
• Molecule 2: Cytochrome c

Chain H:



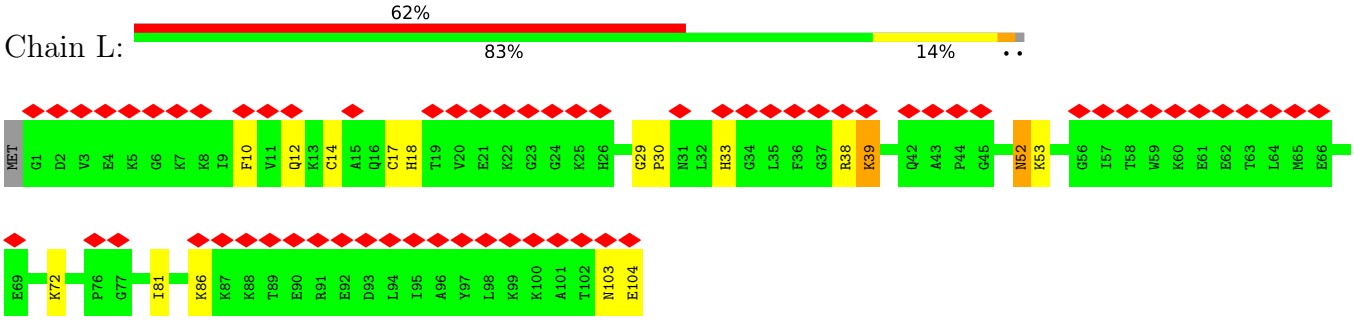
• Molecule 2: Cytochrome c

Chain J:



• Molecule 2: Cytochrome c

Chain L:



• Molecule 2: Cytochrome c

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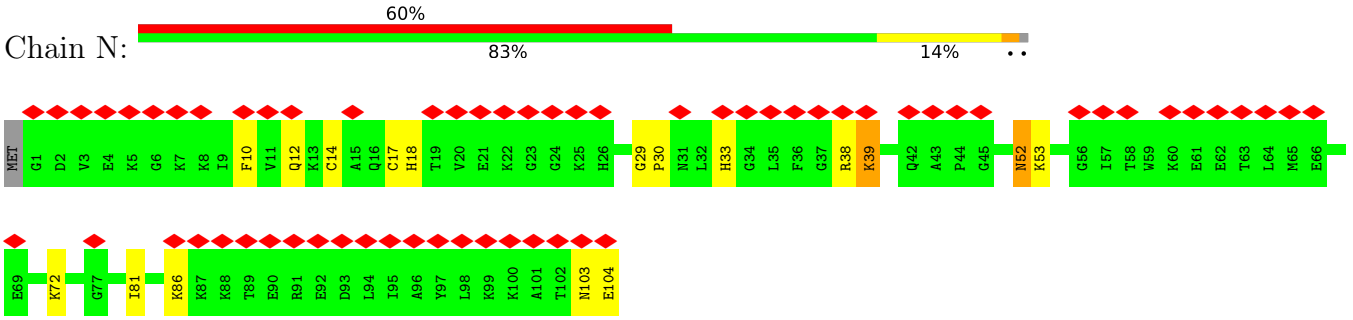
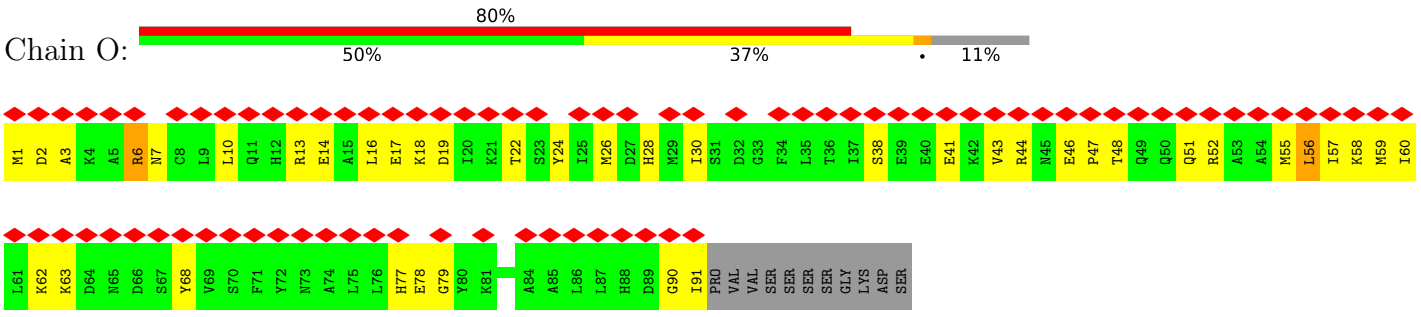


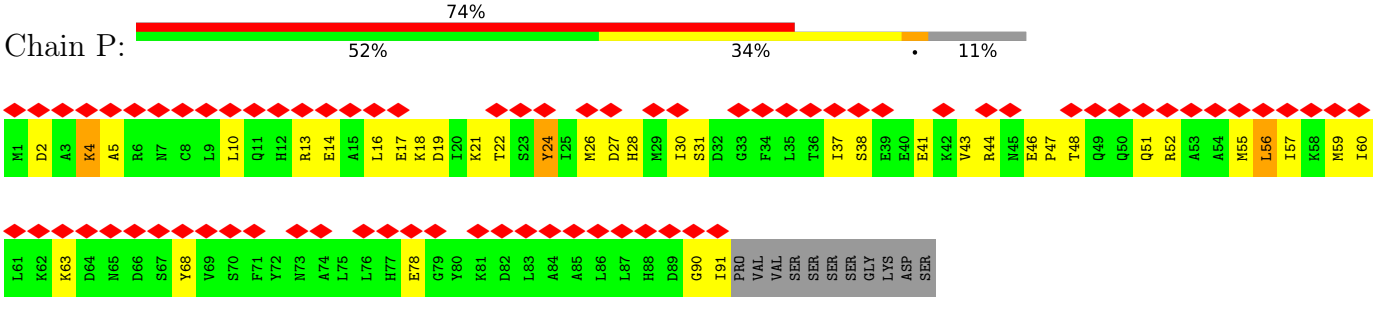
• Molecule 3: Apoptotic protease-activating factor 1

Chain O:



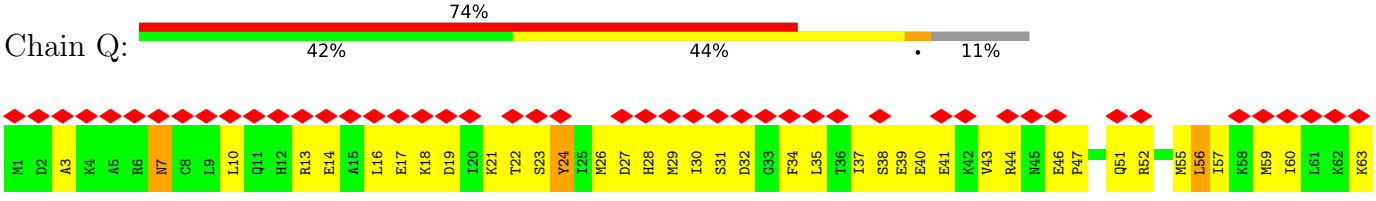
• Molecule 3: Apoptotic protease-activating factor 1

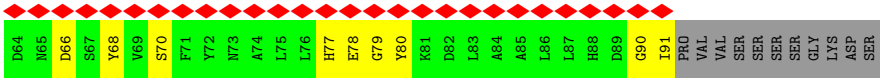
Chain P:



• Molecule 3: Apoptotic protease-activating factor 1

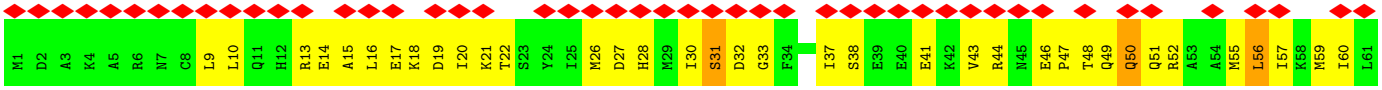
Chain Q:

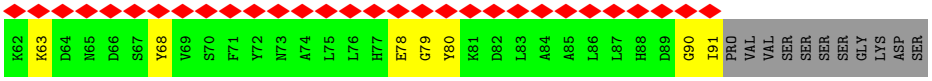




• Molecule 3: Apoptotic protease-activating factor 1

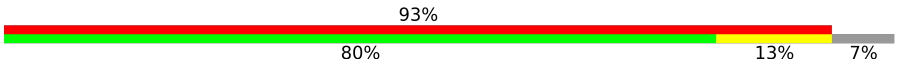
Chain R:

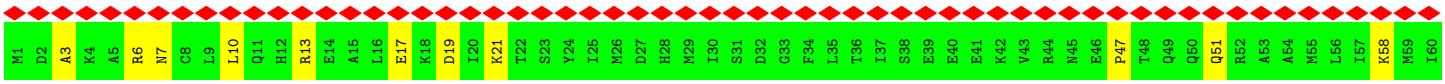


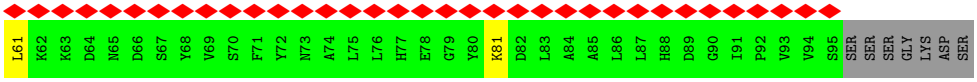


• Molecule 3: Apoptotic protease-activating factor 1

Chain W:

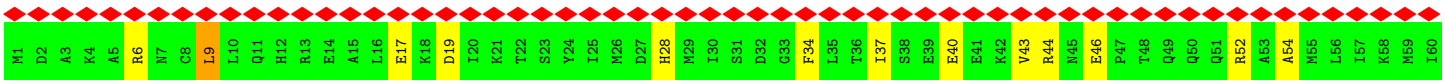


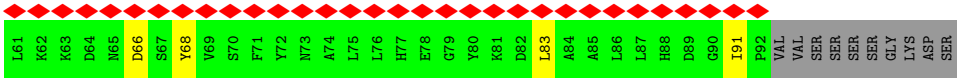




• Molecule 3: Apoptotic protease-activating factor 1

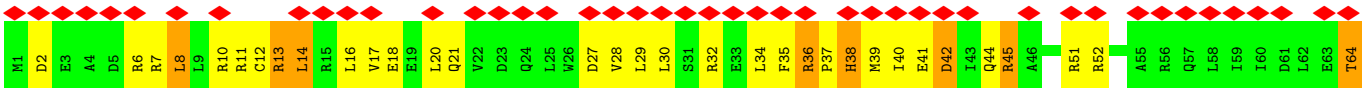
Chain X:

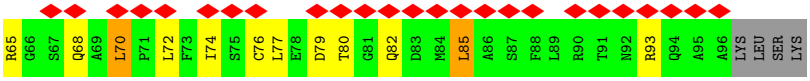




• Molecule 4: Caspase

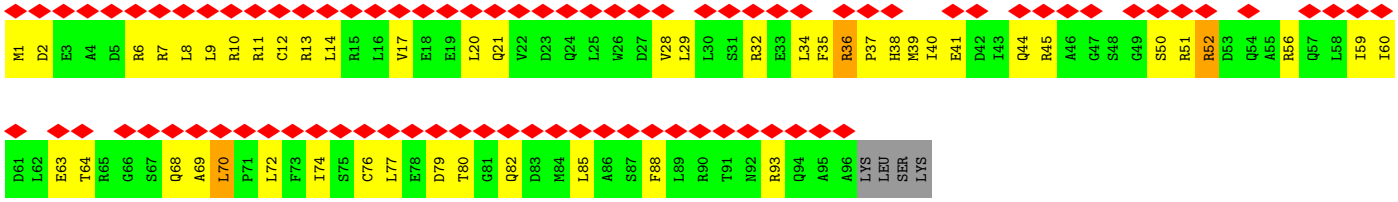
Chain S:





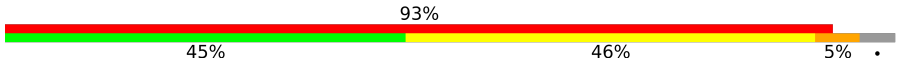
• Molecule 4: Caspase

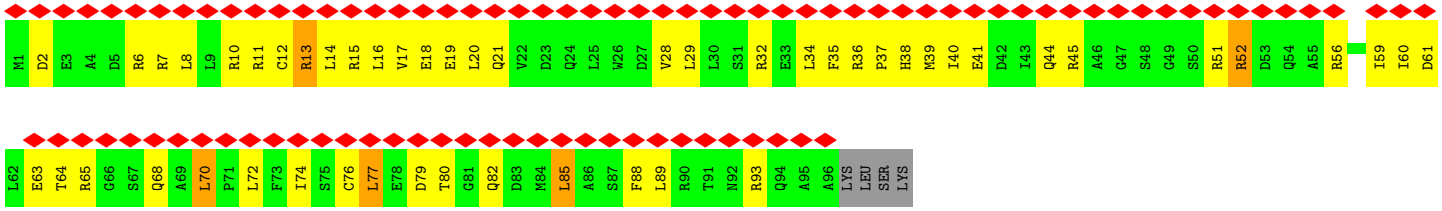
Chain T:



- Molecule 4: Caspase

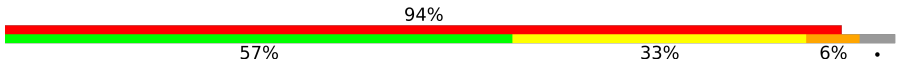
Chain U:





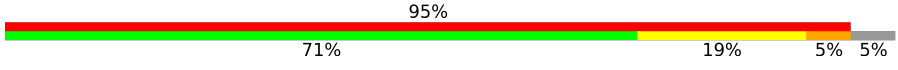
- Molecule 4: Caspase

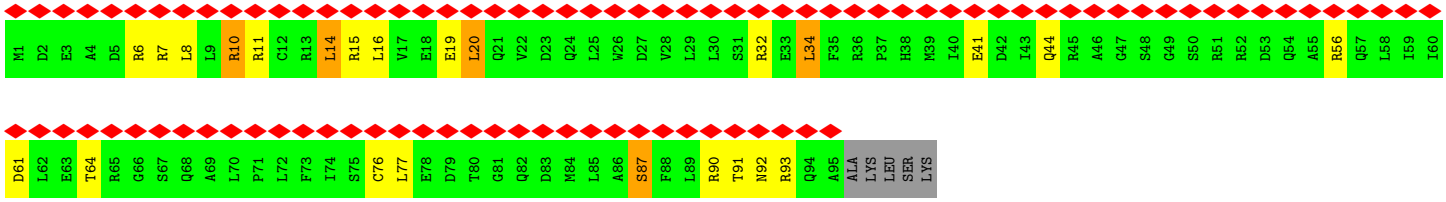
Chain V:



- Molecule 4: Caspase

Chain Y:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	240130	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	32	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.325	Depositor
Minimum map value	-0.097	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.011	Depositor
Recommended contour level	0.06	Depositor
Map size (Å)	428.80002, 428.80002, 428.80002	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.34, 1.34, 1.34	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.31	0/9337	0.52	2/12636 (0.0%)
1	C	0.30	0/9337	0.52	2/12636 (0.0%)
1	E	0.31	1/9337 (0.0%)	0.53	3/12636 (0.0%)
1	G	0.31	0/9337	0.52	2/12636 (0.0%)
1	I	0.31	0/9337	0.52	2/12636 (0.0%)
1	K	0.31	1/9337 (0.0%)	0.52	2/12636 (0.0%)
1	M	0.31	0/9337	0.52	2/12636 (0.0%)
2	B	0.65	0/839	0.73	0/1118
2	D	0.65	0/839	0.73	0/1118
2	F	0.65	0/839	0.73	0/1118
2	H	0.65	0/839	0.73	0/1118
2	J	0.65	0/839	0.73	0/1118
2	L	0.65	0/839	0.73	0/1118
2	N	0.65	0/839	0.73	0/1118
3	O	0.41	0/745	0.64	0/998
3	P	0.42	0/745	0.64	0/998
3	Q	0.40	0/745	0.62	0/998
3	R	0.41	0/745	0.64	0/998
3	W	0.66	0/773	0.58	0/1038
3	X	0.74	0/753	0.61	0/1010
4	S	0.42	0/790	0.66	0/1059
4	T	0.42	0/790	0.64	0/1059
4	U	0.40	0/790	0.62	0/1059
4	V	0.43	0/790	0.67	0/1059
4	Y	0.60	0/784	0.61	0/1051
All	All	0.37	2/79682 (0.0%)	0.55	15/107605 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
4	T	0	1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	1179	TRP	C-N	-6.36	1.19	1.34
1	E	236	PRO	N-CD	5.21	1.55	1.47

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	M	560	PHE	C-N-CD	-6.44	106.43	120.60
1	K	560	PHE	C-N-CD	-6.43	106.45	120.60
1	A	560	PHE	C-N-CD	-6.42	106.48	120.60
1	C	560	PHE	C-N-CD	-6.39	106.54	120.60
1	E	560	PHE	C-N-CD	-6.39	106.54	120.60
1	I	560	PHE	C-N-CD	-6.37	106.58	120.60
1	G	560	PHE	C-N-CD	-6.37	106.59	120.60
1	E	235	HIS	C-N-CD	5.79	140.56	128.40
1	C	880	GLY	N-CA-C	5.74	127.44	113.10
1	M	880	GLY	N-CA-C	5.73	127.43	113.10
1	I	880	GLY	N-CA-C	5.72	127.41	113.10
1	G	880	GLY	N-CA-C	5.72	127.40	113.10
1	K	880	GLY	N-CA-C	5.72	127.40	113.10
1	A	880	GLY	N-CA-C	5.71	127.38	113.10
1	E	880	GLY	N-CA-C	5.70	127.34	113.10

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	T	52	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.

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	9139	0	9004	1450	0
1	C	9139	0	9005	1398	0
1	E	9139	0	9005	1439	0
1	G	9139	0	9005	1410	0
1	I	9139	0	9005	1405	0
1	K	9139	0	9005	1410	0
1	M	9139	0	9005	1400	0
2	B	823	0	849	33	0
2	D	823	0	849	33	0
2	F	823	0	849	32	0
2	H	823	0	849	31	0
2	J	823	0	849	33	0
2	L	823	0	849	33	0
2	N	823	0	849	35	0
3	O	735	0	738	82	0
3	P	735	0	738	98	0
3	Q	735	0	738	124	0
3	R	735	0	738	101	0
3	W	762	0	768	36	0
3	X	742	0	745	17	0
4	S	783	0	792	109	0
4	T	783	0	792	115	0
4	U	783	0	792	119	0
4	V	783	0	792	67	0
4	Y	777	0	784	26	0
5	A	30	0	12	6	0
5	C	30	0	12	6	0
5	E	30	0	12	6	0
5	G	30	0	12	6	0
5	I	30	0	12	6	0
5	K	30	0	12	6	0
5	M	30	0	12	6	0
6	A	1	0	0	0	0
6	C	1	0	0	0	0
6	E	1	0	0	0	0
6	G	1	0	0	0	0
6	I	1	0	0	0	0
6	K	1	0	0	0	0
6	M	1	0	0	0	0
7	B	43	0	30	15	0
7	D	43	0	30	18	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	F	43	0	30	14	0
7	H	43	0	30	14	0
7	J	43	0	30	15	0
7	L	43	0	30	14	0
7	N	43	0	30	16	0
All	All	78605	0	77688	10505	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 67.

All (10505) 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:C:862:TYR:CD1	1:C:885:VAL:HG12	1.35	1.62
1:M:862:TYR:CD1	1:M:885:VAL:HG12	1.35	1.60
1:K:862:TYR:CD1	1:K:885:VAL:HG12	1.35	1.60
1:C:862:TYR:CZ	1:C:881:HIS:HB2	1.06	1.59
1:I:862:TYR:CD1	1:I:885:VAL:HG12	1.35	1.59
1:G:862:TYR:CZ	1:G:881:HIS:HB2	1.06	1.58
1:I:862:TYR:CZ	1:I:881:HIS:HB2	1.06	1.58
1:A:862:TYR:CZ	1:A:881:HIS:HB2	1.06	1.58
1:E:862:TYR:CZ	1:E:881:HIS:HB2	1.06	1.58
1:A:1200:LYS:HE3	1:A:1211:GLN:CB	1.34	1.57
1:K:862:TYR:CZ	1:K:881:HIS:HB2	1.06	1.56
1:A:862:TYR:CD1	1:A:885:VAL:HG12	1.35	1.56
1:M:862:TYR:CZ	1:M:881:HIS:HB2	1.06	1.56
3:Q:28:HIS:CG	4:T:14:LEU:HD11	1.33	1.56
1:G:1200:LYS:HE3	1:G:1211:GLN:CB	1.33	1.56
1:K:1200:LYS:HE3	1:K:1211:GLN:CB	1.34	1.56
1:G:862:TYR:CD1	1:G:885:VAL:HG12	1.35	1.55
1:E:862:TYR:CD1	1:E:885:VAL:HG12	1.35	1.55
1:E:1200:LYS:HE3	1:E:1211:GLN:CB	1.34	1.54
1:M:1200:LYS:HE3	1:M:1211:GLN:CB	1.34	1.53
1:I:1200:LYS:HE3	1:I:1211:GLN:CB	1.33	1.51
1:K:595:LEU:HD11	1:K:1201:TRP:CZ2	1.46	1.51
1:A:595:LEU:HD11	1:A:1201:TRP:CZ2	1.46	1.51
1:C:1200:LYS:HE3	1:C:1211:GLN:CB	1.34	1.51
1:K:862:TYR:CZ	1:K:881:HIS:CB	1.96	1.49
1:M:595:LEU:HD11	1:M:1201:TRP:CZ2	1.46	1.49
1:C:595:LEU:HD11	1:C:1201:TRP:CZ2	1.46	1.48
1:G:595:LEU:HD11	1:G:1201:TRP:CZ2	1.46	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:862:TYR:CZ	1:M:881:HIS:CB	1.96	1.48
3:Q:28:HIS:CD2	4:T:14:LEU:HD11	1.46	1.47
1:I:595:LEU:HD11	1:I:1201:TRP:CZ2	1.46	1.47
1:E:595:LEU:HD11	1:E:1201:TRP:CZ2	1.46	1.47
1:I:862:TYR:CZ	1:I:881:HIS:CB	1.95	1.47
3:R:47:PRO:CB	4:S:45:ARG:HG2	1.45	1.47
1:A:862:TYR:CZ	1:A:881:HIS:CB	1.96	1.46
1:G:862:TYR:CZ	1:G:881:HIS:CB	1.96	1.46
1:C:862:TYR:CZ	1:C:881:HIS:CB	1.96	1.45
3:R:48:THR:HG21	4:S:41:GLU:CB	1.46	1.45
1:E:862:TYR:CZ	1:E:881:HIS:CB	1.96	1.44
1:I:1185:PHE:HE1	1:I:1192:LEU:CD1	1.32	1.43
1:K:1185:PHE:HE1	1:K:1192:LEU:CD1	1.31	1.43
1:I:322:LEU:CD1	1:I:364:LEU:HD23	1.50	1.42
1:E:322:LEU:CD1	1:E:364:LEU:HD23	1.50	1.42
1:E:1185:PHE:HE1	1:E:1192:LEU:CD1	1.31	1.42
1:G:544:PHE:CE1	1:G:576:VAL:HG13	1.55	1.41
1:G:1185:PHE:HE1	1:G:1192:LEU:CD1	1.31	1.41
1:E:544:PHE:CE1	1:E:576:VAL:HG13	1.55	1.41
1:M:1185:PHE:HE1	1:M:1192:LEU:CD1	1.32	1.41
2:D:14:CYS:SG	7:D:201:HEM:CAB	2.09	1.40
1:A:1185:PHE:HE1	1:A:1192:LEU:CD1	1.32	1.40
2:L:14:CYS:SG	7:L:201:HEM:CAB	2.09	1.40
2:B:14:CYS:SG	7:B:201:HEM:CAB	2.09	1.40
1:I:544:PHE:CE1	1:I:576:VAL:HG13	1.55	1.40
2:J:14:CYS:SG	7:J:201:HEM:CAB	2.09	1.40
1:M:322:LEU:CD1	1:M:364:LEU:HD23	1.50	1.40
1:G:322:LEU:CD1	1:G:364:LEU:HD23	1.50	1.40
1:C:544:PHE:CE1	1:C:576:VAL:HG13	1.55	1.40
1:C:1185:PHE:HE1	1:C:1192:LEU:CD1	1.32	1.39
2:H:14:CYS:SG	7:H:201:HEM:CAB	2.09	1.39
1:M:544:PHE:CE1	1:M:576:VAL:HG13	1.55	1.39
1:A:322:LEU:CD1	1:A:364:LEU:HD23	1.50	1.39
1:A:158:CYS:SG	1:A:284:SER:HB2	1.63	1.39
1:G:158:CYS:SG	1:G:284:SER:HB2	1.63	1.39
1:K:862:TYR:CE1	1:K:881:HIS:HB2	1.56	1.39
1:M:862:TYR:CE1	1:M:881:HIS:HB2	1.56	1.39
3:O:24:TYR:CE2	4:S:38:HIS:HB3	1.58	1.39
1:A:544:PHE:CE1	1:A:576:VAL:HG13	1.55	1.39
1:A:862:TYR:CE1	1:A:881:HIS:HB2	1.56	1.39
1:I:1200:LYS:CE	1:I:1211:GLN:HB3	1.53	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:544:PHE:CE1	1:K:576:VAL:HG13	1.55	1.39
1:M:1200:LYS:CE	1:M:1211:GLN:HB3	1.53	1.39
2:N:14:CYS:SG	7:N:201:HEM:CAB	2.09	1.39
1:E:158:CYS:SG	1:E:284:SER:HB2	1.63	1.38
1:K:322:LEU:CD1	1:K:364:LEU:HD23	1.50	1.38
1:C:1200:LYS:CE	1:C:1211:GLN:HB3	1.53	1.38
2:F:14:CYS:SG	7:F:201:HEM:CAB	2.09	1.38
1:K:158:CYS:SG	1:K:284:SER:HB2	1.63	1.38
1:C:862:TYR:CE1	1:C:881:HIS:HB2	1.56	1.38
1:G:862:TYR:CE1	1:G:881:HIS:HB2	1.56	1.38
1:I:862:TYR:CE1	1:I:881:HIS:HB2	1.56	1.38
3:R:48:THR:CG2	4:S:41:GLU:HB2	1.54	1.38
1:C:158:CYS:SG	1:C:284:SER:HB2	1.63	1.37
1:E:862:TYR:CE1	1:E:881:HIS:HB2	1.56	1.37
1:E:1200:LYS:CE	1:E:1211:GLN:HB3	1.53	1.37
1:I:158:CYS:SG	1:I:284:SER:HB2	1.63	1.37
1:C:322:LEU:CD1	1:C:364:LEU:HD23	1.50	1.37
1:K:1200:LYS:CE	1:K:1211:GLN:HB3	1.53	1.37
1:M:158:CYS:SG	1:M:284:SER:HB2	1.63	1.37
1:G:1200:LYS:CE	1:G:1211:GLN:HB3	1.53	1.36
1:K:1146:ASP:O	1:K:1180:VAL:HG21	1.25	1.36
1:A:1200:LYS:CE	1:A:1211:GLN:HB3	1.53	1.35
1:G:1146:ASP:O	1:G:1180:VAL:HG21	1.23	1.34
1:I:595:LEU:HD22	1:I:1244:LEU:CD1	1.57	1.34
1:I:639:LEU:O	1:I:653:ILE:HG22	1.28	1.34
1:K:595:LEU:HD22	1:K:1244:LEU:CD1	1.57	1.33
1:M:595:LEU:HD22	1:M:1244:LEU:CD1	1.57	1.32
1:A:595:LEU:HD22	1:A:1244:LEU:CD1	1.57	1.32
1:G:595:LEU:HD22	1:G:1244:LEU:CD1	1.57	1.32
1:C:639:LEU:O	1:C:653:ILE:HG22	1.28	1.32
1:C:927:ASP:O	1:C:938:LEU:HB2	1.29	1.32
1:E:595:LEU:HD22	1:E:1244:LEU:CD1	1.57	1.32
3:Q:31:SER:HB3	4:T:11:ARG:O	1.17	1.32
1:C:595:LEU:HD22	1:C:1244:LEU:CD1	1.57	1.31
1:G:639:LEU:O	1:G:653:ILE:HG22	1.28	1.30
1:E:1146:ASP:O	1:E:1180:VAL:HG21	1.23	1.30
3:R:47:PRO:CA	4:S:45:ARG:HG2	1.62	1.30
1:I:1220:LEU:HD23	1:I:1234:THR:OG1	1.18	1.29
1:G:595:LEU:CD1	1:G:1201:TRP:CZ2	2.16	1.29
1:K:639:LEU:O	1:K:653:ILE:HG22	1.28	1.29
1:A:595:LEU:CD1	1:A:1201:TRP:CZ2	2.16	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:639:LEU:O	1:A:653:ILE:HG22	1.28	1.29
1:G:209:ASP:OD1	3:O:62:LYS:HE3	1.20	1.29
1:I:1146:ASP:O	1:I:1180:VAL:HG21	1.23	1.29
1:G:322:LEU:HD12	1:G:364:LEU:CD2	1.63	1.28
1:A:483:TRP:O	1:A:487:LEU:HB2	1.31	1.28
1:A:927:ASP:O	1:A:938:LEU:HB2	1.29	1.28
1:E:322:LEU:HD12	1:E:364:LEU:CD2	1.63	1.28
1:E:927:ASP:O	1:E:938:LEU:HB2	1.29	1.28
1:I:322:LEU:HD12	1:I:364:LEU:CD2	1.63	1.28
1:K:483:TRP:O	1:K:487:LEU:HB2	1.31	1.28
1:M:322:LEU:HD12	1:M:364:LEU:CD2	1.63	1.28
1:K:483:TRP:O	1:K:487:LEU:CB	1.82	1.28
1:A:1220:LEU:HD23	1:A:1234:THR:OG1	1.18	1.28
1:C:322:LEU:HD12	1:C:364:LEU:CD2	1.63	1.28
1:C:1220:LEU:HD23	1:C:1234:THR:OG1	1.18	1.28
1:K:927:ASP:O	1:K:938:LEU:HB2	1.29	1.28
1:M:595:LEU:CD1	1:M:1201:TRP:CZ2	2.16	1.28
1:G:483:TRP:O	1:G:487:LEU:CB	1.82	1.27
1:I:483:TRP:O	1:I:487:LEU:CB	1.82	1.27
1:I:595:LEU:CD1	1:I:1201:TRP:CZ2	2.16	1.27
1:I:927:ASP:O	1:I:938:LEU:HB2	1.29	1.27
1:C:483:TRP:O	1:C:487:LEU:CB	1.82	1.27
1:G:483:TRP:O	1:G:487:LEU:HB2	1.31	1.27
1:K:1220:LEU:HD23	1:K:1234:THR:OG1	1.18	1.27
1:E:595:LEU:CD1	1:E:1201:TRP:CZ2	2.16	1.27
1:K:595:LEU:CD1	1:K:1201:TRP:HZ2	1.48	1.27
1:A:138:GLN:HA	3:W:6:ARG:NE	1.46	1.26
1:G:1220:LEU:HD23	1:G:1234:THR:OG1	1.18	1.26
1:I:595:LEU:CD2	1:I:1244:LEU:HD13	1.64	1.26
1:K:322:LEU:HD12	1:K:364:LEU:CD2	1.63	1.26
1:K:595:LEU:CD1	1:K:1201:TRP:CZ2	2.16	1.26
1:M:639:LEU:O	1:M:653:ILE:HG22	1.28	1.26
1:E:483:TRP:O	1:E:487:LEU:CB	1.82	1.26
1:M:483:TRP:O	1:M:487:LEU:CB	1.82	1.26
1:M:595:LEU:CD1	1:M:1201:TRP:HZ2	1.48	1.26
1:A:322:LEU:HD12	1:A:364:LEU:CD2	1.63	1.26
1:A:1146:ASP:O	1:A:1180:VAL:HG21	1.15	1.26
1:C:595:LEU:CD1	1:C:1201:TRP:CZ2	2.16	1.26
1:K:595:LEU:CD2	1:K:1244:LEU:HD13	1.64	1.26
1:G:927:ASP:O	1:G:938:LEU:HB2	1.29	1.26
1:A:483:TRP:O	1:A:487:LEU:CB	1.82	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:595:LEU:CD1	1:A:1201:TRP:HZ2	1.48	1.25
1:E:639:LEU:O	1:E:653:ILE:HG22	1.28	1.25
1:C:483:TRP:O	1:C:487:LEU:HB2	1.31	1.25
2:J:17:CYS:SG	7:J:201:HEM:CAC	2.25	1.25
1:A:595:LEU:CD2	1:A:1244:LEU:HD13	1.65	1.25
1:C:595:LEU:CD1	1:C:1201:TRP:HZ2	1.48	1.25
1:C:595:LEU:CD2	1:C:1244:LEU:HD13	1.64	1.25
1:C:1146:ASP:O	1:C:1180:VAL:HG21	1.15	1.25
1:G:595:LEU:CD2	1:G:1244:LEU:HD13	1.64	1.25
1:I:595:LEU:CD1	1:I:1201:TRP:HZ2	1.48	1.25
2:D:17:CYS:SG	7:D:201:HEM:CAC	2.25	1.25
1:M:595:LEU:CD2	1:M:1244:LEU:HD13	1.64	1.25
1:M:927:ASP:O	1:M:938:LEU:HB2	1.29	1.25
1:G:1185:PHE:CD1	1:G:1192:LEU:HG	1.72	1.25
2:H:17:CYS:SG	7:H:201:HEM:CAC	2.25	1.25
1:M:1220:LEU:HD23	1:M:1234:THR:OG1	1.18	1.25
2:B:17:CYS:SG	7:B:201:HEM:CAC	2.25	1.24
1:E:595:LEU:CD1	1:E:1201:TRP:HZ2	1.48	1.24
1:M:1146:ASP:O	1:M:1180:VAL:HG21	1.22	1.24
1:E:595:LEU:CD2	1:E:1244:LEU:HD13	1.64	1.24
1:E:1220:LEU:HD23	1:E:1234:THR:OG1	1.18	1.24
1:M:1200:LYS:HB3	1:M:1202:TRP:CH2	1.73	1.24
2:N:17:CYS:SG	7:N:201:HEM:CAC	2.25	1.24
1:A:1185:PHE:CD1	1:A:1192:LEU:HG	1.72	1.24
1:G:595:LEU:CD1	1:G:1201:TRP:HZ2	1.48	1.24
1:K:1185:PHE:CD1	1:K:1192:LEU:HG	1.72	1.24
1:G:1200:LYS:HB3	1:G:1202:TRP:CH2	1.73	1.24
1:I:573:THR:O	1:I:577:TYR:HB3	1.38	1.24
2:L:17:CYS:SG	7:L:201:HEM:CAC	2.25	1.24
1:M:483:TRP:O	1:M:487:LEU:HB2	1.31	1.24
1:E:1200:LYS:HB3	1:E:1202:TRP:CH2	1.73	1.23
1:C:1167:PRO:HA	1:C:1202:TRP:CD1	1.74	1.23
1:E:483:TRP:O	1:E:487:LEU:HB2	1.31	1.23
1:E:1167:PRO:HA	1:E:1202:TRP:CD1	1.74	1.23
1:I:1200:LYS:HB3	1:I:1202:TRP:CH2	1.73	1.23
1:M:1185:PHE:CD1	1:M:1192:LEU:HG	1.72	1.23
1:M:1200:LYS:CE	1:M:1211:GLN:CB	2.14	1.23
3:R:31:SER:O	4:U:11:ARG:HA	1.37	1.23
1:E:637:LYS:HG2	1:E:659:GLU:CA	1.69	1.23
1:I:1167:PRO:HA	1:I:1202:TRP:CD1	1.74	1.23
4:S:27:ASP:OD2	4:V:13:ARG:HB3	1.10	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:637:LYS:CG	1:A:659:GLU:HA	1.69	1.23
2:F:17:CYS:SG	7:F:201:HEM:CAC	2.24	1.23
1:G:285:SER:O	1:G:319:GLY:HA3	1.37	1.23
1:E:1185:PHE:CD1	1:E:1192:LEU:HG	1.72	1.23
1:G:573:THR:O	1:G:577:TYR:HB3	1.38	1.23
1:G:1167:PRO:HA	1:G:1202:TRP:CD1	1.74	1.23
1:I:637:LYS:CG	1:I:659:GLU:HA	1.69	1.23
1:C:1185:PHE:CD1	1:C:1192:LEU:HG	1.72	1.22
1:G:1200:LYS:HB3	1:G:1202:TRP:CZ3	1.74	1.22
3:Q:24:TYR:CD1	4:T:52:ARG:NH2	2.06	1.22
2:D:14:CYS:SG	7:D:201:HEM:HAB	1.76	1.22
1:G:637:LYS:HG2	1:G:659:GLU:CA	1.69	1.22
1:I:1194:SER:HB2	1:I:1202:TRP:CZ3	1.73	1.22
1:M:1167:PRO:HA	1:M:1202:TRP:CD1	1.74	1.22
1:C:862:TYR:OH	1:C:881:HIS:HB2	1.40	1.22
1:C:1194:SER:HB2	1:C:1202:TRP:CZ3	1.73	1.22
1:I:1200:LYS:HB3	1:I:1202:TRP:CZ3	1.74	1.22
1:K:637:LYS:HG2	1:K:659:GLU:CA	1.69	1.22
1:K:1200:LYS:HB3	1:K:1202:TRP:CZ3	1.74	1.22
1:M:1194:SER:HB2	1:M:1202:TRP:CZ3	1.73	1.22
1:A:862:TYR:OH	1:A:881:HIS:HB2	1.40	1.22
1:A:1200:LYS:HB3	1:A:1202:TRP:CH2	1.73	1.22
1:I:1185:PHE:CD1	1:I:1192:LEU:HG	1.72	1.22
1:K:1194:SER:HB2	1:K:1202:TRP:CZ3	1.73	1.22
1:M:1200:LYS:HB3	1:M:1202:TRP:CZ3	1.74	1.22
1:E:637:LYS:CG	1:E:659:GLU:HA	1.69	1.22
1:K:573:THR:O	1:K:577:TYR:HB3	1.38	1.22
1:A:285:SER:O	1:A:319:GLY:HA3	1.37	1.21
1:A:1185:PHE:CE1	1:A:1192:LEU:CD1	2.24	1.21
1:C:1200:LYS:CE	1:C:1211:GLN:CB	2.14	1.21
1:C:1200:LYS:HB3	1:C:1202:TRP:CH2	1.73	1.21
1:E:179:PRO:CD	1:E:237:ARG:HH11	1.52	1.21
1:G:1194:SER:HB2	1:G:1202:TRP:CZ3	1.73	1.21
1:K:1200:LYS:HB3	1:K:1202:TRP:CH2	1.73	1.21
1:E:1194:SER:HB2	1:E:1202:TRP:CZ3	1.73	1.21
1:E:1200:LYS:HB3	1:E:1202:TRP:CZ3	1.75	1.21
2:F:14:CYS:SG	7:F:201:HEM:HAB	1.76	1.21
1:I:637:LYS:HG2	1:I:659:GLU:CA	1.69	1.21
1:M:637:LYS:HG2	1:M:659:GLU:CA	1.69	1.21
1:M:637:LYS:CG	1:M:659:GLU:HA	1.69	1.21
1:M:862:TYR:OH	1:M:881:HIS:HB2	1.40	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:14:CYS:SG	7:B:201:HEM:HAB	1.76	1.21
1:C:637:LYS:HG2	1:C:659:GLU:CA	1.69	1.21
1:K:1167:PRO:HA	1:K:1202:TRP:CD1	1.74	1.21
1:A:1194:SER:HB2	1:A:1202:TRP:CZ3	1.73	1.21
3:R:47:PRO:CB	4:S:45:ARG:CG	2.18	1.21
1:A:637:LYS:HG2	1:A:659:GLU:CA	1.69	1.21
1:A:1167:PRO:HA	1:A:1202:TRP:CD1	1.74	1.21
1:A:1200:LYS:HB3	1:A:1202:TRP:CZ3	1.74	1.21
1:G:1185:PHE:CE1	1:G:1192:LEU:CD1	2.24	1.21
1:M:285:SER:O	1:M:319:GLY:HA3	1.37	1.21
1:C:637:LYS:CG	1:C:659:GLU:HA	1.69	1.20
1:I:285:SER:O	1:I:319:GLY:HA3	1.37	1.20
1:K:637:LYS:CG	1:K:659:GLU:HA	1.69	1.20
1:C:285:SER:O	1:C:319:GLY:HA3	1.37	1.20
1:C:1185:PHE:CE1	1:C:1192:LEU:CD1	2.24	1.20
1:M:658:ASP:OD2	1:M:677:VAL:HB	1.42	1.20
1:K:285:SER:O	1:K:319:GLY:HA3	1.37	1.20
1:K:1200:LYS:CE	1:K:1211:GLN:CB	2.14	1.20
1:A:595:LEU:HD13	1:A:1244:LEU:HD22	1.21	1.20
1:A:1200:LYS:CE	1:A:1211:GLN:CB	2.14	1.20
1:C:1200:LYS:HB3	1:C:1202:TRP:CZ3	1.74	1.20
1:E:1185:PHE:CE1	1:E:1192:LEU:CD1	2.24	1.20
1:K:595:LEU:HD13	1:K:1244:LEU:HD22	1.22	1.20
1:K:1185:PHE:CE1	1:K:1192:LEU:CD1	2.24	1.20
1:G:637:LYS:CG	1:G:659:GLU:HA	1.69	1.20
1:C:573:THR:O	1:C:577:TYR:HB3	1.38	1.19
1:G:862:TYR:OH	1:G:881:HIS:HB2	1.40	1.19
1:I:1185:PHE:CE1	1:I:1192:LEU:CD1	2.24	1.19
1:E:862:TYR:OH	1:E:881:HIS:HB2	1.40	1.19
1:I:862:TYR:HD1	1:I:885:VAL:CG1	1.55	1.19
3:O:19:ASP:O	4:S:64:THR:HB	1.41	1.19
1:G:453:LEU:HA	1:G:456:LEU:HD12	1.24	1.19
1:C:658:ASP:OD2	1:C:677:VAL:HB	1.42	1.19
2:N:14:CYS:SG	7:N:201:HEM:HAB	1.76	1.19
1:A:862:TYR:HD1	1:A:885:VAL:CG1	1.55	1.18
1:E:862:TYR:HD1	1:E:885:VAL:CG1	1.55	1.18
1:K:862:TYR:HD1	1:K:885:VAL:CG1	1.55	1.18
3:Q:28:HIS:CD2	4:T:14:LEU:CD1	2.25	1.18
1:A:573:THR:O	1:A:577:TYR:HB3	1.38	1.18
1:E:285:SER:O	1:E:319:GLY:HA3	1.37	1.18
2:J:18:HIS:CE1	2:J:29:GLY:HA3	1.79	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:658:ASP:OD2	1:K:677:VAL:HB	1.42	1.18
1:M:520:ALA:HB1	1:M:648:GLU:CB	1.74	1.18
2:H:18:HIS:CE1	2:H:29:GLY:HA3	1.79	1.18
1:I:1200:LYS:CE	1:I:1211:GLN:CB	2.14	1.18
1:K:862:TYR:OH	1:K:881:HIS:HB2	1.40	1.18
1:M:1185:PHE:CE1	1:M:1192:LEU:CD1	2.24	1.18
1:G:862:TYR:CE1	1:G:881:HIS:CB	2.22	1.18
2:J:14:CYS:SG	7:J:201:HEM:HAB	1.76	1.18
1:M:862:TYR:HD1	1:M:885:VAL:CG1	1.55	1.18
4:V:36:ARG:HD2	4:V:37:PRO:HD2	1.25	1.18
1:E:520:ALA:HB1	1:E:648:GLU:CB	1.74	1.18
1:E:573:THR:O	1:E:577:TYR:HB3	1.38	1.18
1:E:862:TYR:CE1	1:E:881:HIS:CB	2.22	1.18
1:G:520:ALA:HB1	1:G:648:GLU:CB	1.74	1.18
1:G:862:TYR:HD1	1:G:885:VAL:CG1	1.55	1.18
1:A:520:ALA:HB1	1:A:648:GLU:CB	1.74	1.17
1:E:234:LYS:HA	3:O:10:LEU:CD1	1.74	1.17
1:K:881:HIS:ND1	1:K:901:SER:HB3	1.60	1.17
2:N:18:HIS:CE1	2:N:29:GLY:HA3	1.79	1.17
2:B:18:HIS:CE1	2:B:29:GLY:HA3	1.79	1.17
1:I:473:LEU:HD11	1:I:480:CYS:HB2	1.18	1.17
1:I:658:ASP:OD2	1:I:677:VAL:HB	1.41	1.17
1:K:520:ALA:HB1	1:K:648:GLU:CB	1.74	1.17
2:L:14:CYS:SG	7:L:201:HEM:HAB	1.76	1.17
1:C:862:TYR:HD1	1:C:885:VAL:CG1	1.55	1.17
1:I:595:LEU:HD13	1:I:1244:LEU:HD22	1.22	1.17
1:M:573:THR:O	1:M:577:TYR:HB3	1.38	1.17
3:Q:28:HIS:CG	4:T:14:LEU:CD1	2.27	1.17
2:D:18:HIS:CE1	2:D:29:GLY:HA3	1.79	1.17
3:R:47:PRO:O	4:S:45:ARG:HD3	1.42	1.17
1:E:179:PRO:CD	1:E:237:ARG:NH1	2.08	1.17
1:I:483:TRP:O	1:I:487:LEU:HB2	1.31	1.17
1:I:520:ALA:HB1	1:I:648:GLU:CB	1.74	1.17
3:R:47:PRO:HB2	4:S:45:ARG:CG	1.75	1.17
1:A:658:ASP:OD2	1:A:677:VAL:HB	1.42	1.16
1:C:881:HIS:ND1	1:C:901:SER:HB3	1.60	1.16
1:E:453:LEU:HA	1:E:456:LEU:HD12	1.24	1.16
1:M:881:HIS:ND1	1:M:901:SER:HB3	1.60	1.16
3:R:47:PRO:HB2	4:S:45:ARG:HG2	1.18	1.16
1:E:1167:PRO:C	1:E:1202:TRP:HE1	1.48	1.16
2:F:18:HIS:CE1	2:F:29:GLY:HA3	1.79	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1218:THR:O	1:G:1236:ASP:HB2	1.46	1.16
1:M:1218:THR:O	1:M:1236:ASP:HB2	1.46	1.16
1:C:1185:PHE:HE1	1:C:1192:LEU:HD11	1.10	1.16
1:G:473:LEU:HD11	1:G:480:CYS:HB2	1.18	1.16
1:G:658:ASP:OD2	1:G:677:VAL:HB	1.41	1.16
1:G:1167:PRO:C	1:G:1202:TRP:HE1	1.49	1.16
1:G:1200:LYS:CE	1:G:1211:GLN:CB	2.14	1.16
1:K:230:LEU:HD22	1:K:234:LYS:HG3	1.24	1.16
1:K:1218:THR:O	1:K:1236:ASP:HB2	1.46	1.16
1:A:1167:PRO:CA	1:A:1202:TRP:NE1	2.09	1.16
1:E:658:ASP:OD2	1:E:677:VAL:HB	1.42	1.16
1:E:1185:PHE:HE1	1:E:1192:LEU:HD11	1.10	1.16
1:I:862:TYR:OH	1:I:881:HIS:HB2	1.40	1.16
1:I:1167:PRO:C	1:I:1202:TRP:HE1	1.48	1.16
2:L:18:HIS:CE1	2:L:29:GLY:HA3	1.79	1.16
1:C:179:PRO:HD2	1:C:237:ARG:HH11	1.08	1.16
1:C:1218:THR:O	1:C:1236:ASP:HB2	1.46	1.16
1:E:1185:PHE:CE1	1:E:1192:LEU:HD11	1.81	1.16
1:I:1218:THR:O	1:I:1236:ASP:HB2	1.46	1.16
1:M:179:PRO:HD2	1:M:237:ARG:HH11	1.08	1.16
1:C:520:ALA:HB1	1:C:648:GLU:CB	1.74	1.15
1:C:1185:PHE:CE1	1:C:1192:LEU:HD11	1.81	1.15
1:E:1167:PRO:CA	1:E:1202:TRP:NE1	2.09	1.15
1:I:453:LEU:HA	1:I:456:LEU:HD12	1.24	1.15
1:K:1167:PRO:C	1:K:1202:TRP:HE1	1.48	1.15
1:M:1200:LYS:HE3	1:M:1211:GLN:HB2	1.25	1.15
3:O:79:GLY:HA3	4:S:65:ARG:NH2	1.61	1.15
1:G:1167:PRO:CA	1:G:1202:TRP:NE1	2.09	1.15
1:E:881:HIS:ND1	1:E:901:SER:HB3	1.59	1.15
3:R:37:ILE:HG21	4:U:60:ILE:HG23	1.22	1.15
1:A:881:HIS:ND1	1:A:901:SER:HB3	1.60	1.15
1:C:1185:PHE:CE1	1:C:1192:LEU:HG	1.81	1.15
1:G:881:HIS:ND1	1:G:901:SER:HB3	1.60	1.15
1:M:1167:PRO:CA	1:M:1202:TRP:NE1	2.09	1.15
1:I:1185:PHE:CE1	1:I:1192:LEU:HG	1.82	1.15
1:I:1185:PHE:CE1	1:I:1192:LEU:HD11	1.81	1.15
1:K:1185:PHE:CE1	1:K:1192:LEU:HD11	1.81	1.15
1:M:453:LEU:HA	1:M:456:LEU:HD12	1.24	1.15
1:M:595:LEU:HD13	1:M:1244:LEU:HD22	1.22	1.15
1:M:1167:PRO:C	1:M:1202:TRP:HE1	1.48	1.15
1:A:1087:THR:HG23	2:B:39:LYS:HD3	1.26	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1185:PHE:CE1	1:A:1192:LEU:HD11	1.81	1.14
1:C:882:LEU:HD22	1:C:882:LEU:H	0.99	1.14
1:C:1167:PRO:CA	1:C:1202:TRP:NE1	2.09	1.14
1:G:1185:PHE:CE1	1:G:1192:LEU:HG	1.82	1.14
1:I:881:HIS:ND1	1:I:901:SER:HB3	1.59	1.14
1:I:1167:PRO:CA	1:I:1202:TRP:NE1	2.09	1.14
1:M:1087:THR:HG23	2:N:39:LYS:HD3	1.26	1.14
1:C:1200:LYS:HE3	1:C:1211:GLN:HB2	1.25	1.14
1:E:473:LEU:HD11	1:E:480:CYS:HB2	1.18	1.14
2:H:14:CYS:SG	7:H:201:HEM:HAB	1.76	1.14
1:K:882:LEU:HB3	1:K:1237:ASN:HD21	1.10	1.14
1:K:1167:PRO:CA	1:K:1202:TRP:NE1	2.09	1.14
1:A:1167:PRO:C	1:A:1202:TRP:HE1	1.48	1.14
1:C:230:LEU:HD22	1:C:234:LYS:HG3	1.24	1.14
1:E:1185:PHE:CE1	1:E:1192:LEU:HG	1.82	1.14
1:G:882:LEU:H	1:G:882:LEU:HD22	0.99	1.14
1:K:179:PRO:HD2	1:K:237:ARG:HH11	1.08	1.14
1:K:394:LYS:HB3	1:K:434:ARG:HB2	1.18	1.14
1:K:1185:PHE:CE1	1:K:1192:LEU:HG	1.82	1.14
1:A:1185:PHE:CE1	1:A:1192:LEU:HG	1.82	1.14
1:A:1218:THR:O	1:A:1236:ASP:HB2	1.46	1.14
1:C:1167:PRO:C	1:C:1202:TRP:HE1	1.49	1.14
1:E:1218:THR:O	1:E:1236:ASP:HB2	1.46	1.14
1:M:862:TYR:CE1	1:M:881:HIS:CB	2.22	1.14
4:S:27:ASP:OD2	4:V:13:ARG:CB	1.93	1.14
1:C:1149:GLY:HA2	1:C:1180:VAL:HG22	1.29	1.14
1:K:473:LEU:HD11	1:K:480:CYS:HB2	1.18	1.14
1:A:1146:ASP:O	1:A:1180:VAL:CG2	1.95	1.13
1:I:1149:GLY:HA2	1:I:1180:VAL:HG22	1.26	1.13
3:P:19:ASP:CA	4:T:64:THR:HG22	1.78	1.13
1:C:1146:ASP:O	1:C:1180:VAL:CG2	1.95	1.13
1:G:209:ASP:OD1	3:O:62:LYS:CE	1.94	1.13
1:E:1176:HIS:HB2	1:E:1218:THR:CG2	1.78	1.13
1:M:394:LYS:HB3	1:M:434:ARG:HB2	1.18	1.13
1:A:122:ARG:NH2	1:A:126:PHE:HZ	1.47	1.13
1:A:1149:GLY:HA2	1:A:1180:VAL:HG22	1.29	1.13
1:A:1176:HIS:HB2	1:A:1218:THR:CG2	1.77	1.13
1:C:595:LEU:HD13	1:C:1244:LEU:HD22	1.22	1.13
1:M:1185:PHE:CE1	1:M:1192:LEU:HD11	1.81	1.13
3:O:48:THR:HG22	3:P:41:GLU:OE1	1.45	1.13
1:A:173:LEU:CA	3:W:7:ASN:HD21	1.62	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1200:LYS:HE3	1:A:1211:GLN:HB2	1.25	1.12
1:G:122:ARG:NH2	1:G:126:PHE:HZ	1.47	1.12
1:G:614:HIS:HE1	1:G:640:GLN:HG2	1.14	1.12
1:K:1087:THR:HG23	2:L:39:LYS:HD3	1.26	1.12
1:A:862:TYR:CE1	1:A:881:HIS:CB	2.22	1.12
1:I:862:TYR:CE1	1:I:881:HIS:CB	2.22	1.12
1:I:1176:HIS:HB2	1:I:1218:THR:CG2	1.79	1.12
1:K:453:LEU:HD11	1:K:454:GLN:HE21	1.14	1.12
1:K:1200:LYS:HE3	1:K:1211:GLN:HB2	1.24	1.12
1:M:1149:GLY:HA2	1:M:1180:VAL:HG22	1.24	1.12
1:M:1176:HIS:HB2	1:M:1218:THR:CG2	1.78	1.12
1:M:1185:PHE:CE1	1:M:1192:LEU:HG	1.82	1.12
1:E:394:LYS:HB3	1:E:434:ARG:HB2	1.18	1.12
1:I:122:ARG:NH2	1:I:126:PHE:HZ	1.47	1.12
1:K:1149:GLY:HA2	1:K:1180:VAL:HG22	1.26	1.12
1:K:1167:PRO:CB	1:K:1202:TRP:NE1	2.12	1.12
1:A:230:LEU:HD22	1:A:234:LYS:HG3	1.24	1.12
1:G:1167:PRO:CA	1:G:1202:TRP:CD1	2.33	1.12
1:I:230:LEU:HD22	1:I:234:LYS:HG3	1.24	1.12
1:M:122:ARG:NH2	1:M:126:PHE:HZ	1.47	1.12
1:M:1167:PRO:CB	1:M:1202:TRP:NE1	2.12	1.12
1:A:1167:PRO:CB	1:A:1202:TRP:NE1	2.12	1.12
1:G:1149:GLY:HA2	1:G:1180:VAL:HG22	1.25	1.12
1:A:862:TYR:CD1	1:A:885:VAL:CG1	2.31	1.11
1:C:862:TYR:CE1	1:C:881:HIS:CB	2.22	1.11
1:E:122:ARG:NH2	1:E:126:PHE:HZ	1.47	1.11
1:E:1087:THR:HG23	2:F:39:LYS:HD3	1.26	1.11
1:G:1167:PRO:CB	1:G:1202:TRP:NE1	2.12	1.11
1:G:1185:PHE:CE1	1:G:1192:LEU:HD11	1.81	1.11
1:I:1167:PRO:CB	1:I:1202:TRP:NE1	2.12	1.11
1:K:614:HIS:HE1	1:K:640:GLN:HG2	1.14	1.11
1:K:1176:HIS:HB2	1:K:1218:THR:CG2	1.79	1.11
1:M:862:TYR:CD1	1:M:885:VAL:CG1	2.31	1.11
1:A:473:LEU:HD11	1:A:480:CYS:HB2	1.18	1.11
1:C:122:ARG:NH2	1:C:126:PHE:HZ	1.47	1.11
1:C:882:LEU:HB3	1:C:1237:ASN:HD21	1.10	1.11
1:C:1176:HIS:HB2	1:C:1218:THR:CG2	1.79	1.11
1:G:1176:HIS:HB2	1:G:1218:THR:CG2	1.79	1.11
1:A:1185:PHE:CE1	1:A:1192:LEU:CG	2.34	1.11
1:C:453:LEU:HA	1:C:456:LEU:HD12	1.24	1.11
1:C:1167:PRO:CB	1:C:1202:TRP:NE1	2.13	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1185:PHE:CE1	1:C:1192:LEU:CG	2.34	1.11
1:E:1167:PRO:CB	1:E:1202:TRP:NE1	2.13	1.11
1:E:1185:PHE:CE1	1:E:1192:LEU:CG	2.34	1.11
1:I:1167:PRO:CA	1:I:1202:TRP:CD1	2.33	1.11
1:K:431:LYS:NZ	1:M:336:ASN:HB3	1.66	1.11
1:C:1167:PRO:CA	1:C:1202:TRP:CD1	2.33	1.11
1:E:1200:LYS:HE3	1:E:1211:GLN:HB2	1.25	1.11
1:G:573:THR:O	1:G:577:TYR:CB	1.99	1.11
1:G:394:LYS:HB3	1:G:434:ARG:HB2	1.18	1.11
1:I:862:TYR:CD1	1:I:885:VAL:CG1	2.31	1.11
1:I:1185:PHE:CE1	1:I:1192:LEU:CG	2.34	1.11
1:M:473:LEU:HD11	1:M:480:CYS:HB2	1.18	1.11
3:R:19:ASP:HB3	4:V:64:THR:HA	1.33	1.11
1:A:394:LYS:HB3	1:A:434:ARG:HB2	1.18	1.10
1:A:453:LEU:HA	1:A:456:LEU:HD12	1.24	1.10
1:A:879:ARG:HB3	1:A:921:MET:CE	1.81	1.10
1:A:1167:PRO:CA	1:A:1202:TRP:CD1	2.33	1.10
1:G:431:LYS:NZ	1:I:336:ASN:HB3	1.66	1.10
1:G:862:TYR:CD1	1:G:885:VAL:CG1	2.31	1.10
1:I:882:LEU:HB3	1:I:1237:ASN:HD21	1.10	1.10
1:K:879:ARG:HB3	1:K:921:MET:CE	1.81	1.10
1:M:1185:PHE:CE1	1:M:1192:LEU:CG	2.34	1.10
1:A:431:LYS:NZ	1:C:336:ASN:HB3	1.66	1.10
1:A:882:LEU:H	1:A:882:LEU:HD22	0.99	1.10
1:C:431:LYS:NZ	1:E:336:ASN:HB3	1.66	1.10
1:E:179:PRO:CG	1:E:237:ARG:HH11	1.64	1.10
1:E:573:THR:O	1:E:577:TYR:CB	1.99	1.10
1:E:1200:LYS:CE	1:E:1211:GLN:CB	2.14	1.10
1:G:212:PHE:HB3	1:G:226:ARG:HH12	0.94	1.10
1:I:453:LEU:HD11	1:I:454:GLN:HE21	1.14	1.10
1:K:1167:PRO:CA	1:K:1202:TRP:CD1	2.33	1.10
1:M:453:LEU:HD11	1:M:454:GLN:HE21	1.14	1.10
1:M:879:ARG:HB3	1:M:921:MET:CE	1.81	1.10
1:A:179:PRO:HD2	1:A:237:ARG:HH11	1.08	1.10
1:A:614:HIS:HE1	1:A:640:GLN:HG2	1.14	1.10
1:A:923:LYS:HB2	1:A:940:VAL:HG23	1.10	1.10
1:E:230:LEU:HD22	1:E:234:LYS:HG3	1.24	1.10
1:E:595:LEU:HD13	1:E:1244:LEU:HD22	1.22	1.10
1:E:882:LEU:H	1:E:882:LEU:CD2	1.65	1.10
1:E:1167:PRO:CA	1:E:1202:TRP:CD1	2.33	1.10
1:G:595:LEU:HD13	1:G:1244:LEU:HD22	1.22	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1087:THR:HG23	2:H:39:LYS:HD3	1.26	1.10
1:G:1200:LYS:HE3	1:G:1211:GLN:HB2	1.25	1.10
1:I:394:LYS:HB3	1:I:434:ARG:HB2	1.18	1.10
1:I:573:THR:O	1:I:577:TYR:CB	1.99	1.10
1:I:1200:LYS:HE3	1:I:1211:GLN:HB2	1.24	1.10
1:K:1185:PHE:CE1	1:K:1192:LEU:CG	2.34	1.10
1:M:1167:PRO:CA	1:M:1202:TRP:CD1	2.33	1.10
1:C:999:ARG:HD3	1:C:1030:TRP:CD1	1.87	1.10
1:E:882:LEU:HB3	1:E:1237:ASN:HD21	1.10	1.10
1:G:879:ARG:HB3	1:G:921:MET:CE	1.81	1.10
1:I:381:ASP:O	1:I:384:THR:HG23	1.52	1.10
1:M:573:THR:O	1:M:577:TYR:CB	1.99	1.10
1:A:336:ASN:HB3	1:M:431:LYS:NZ	1.66	1.10
1:C:473:LEU:HD11	1:C:480:CYS:HB2	1.18	1.10
1:E:298:PHE:HE2	1:E:325:SER:HA	1.16	1.10
1:K:999:ARG:HD3	1:K:1030:TRP:CD1	1.87	1.10
3:Q:31:SER:HA	4:T:11:ARG:HA	1.26	1.10
1:C:639:LEU:HG	1:C:653:ILE:HG21	1.34	1.09
1:E:179:PRO:CG	1:E:237:ARG:NH1	2.15	1.09
1:G:1185:PHE:CE1	1:G:1192:LEU:CG	2.34	1.09
1:I:212:PHE:HB3	1:I:226:ARG:HH12	0.94	1.09
1:K:381:ASP:O	1:K:384:THR:HG23	1.52	1.09
1:K:453:LEU:HA	1:K:456:LEU:HD12	1.24	1.09
1:M:614:HIS:HE1	1:M:640:GLN:HG2	1.14	1.09
1:M:639:LEU:HG	1:M:653:ILE:HG21	1.34	1.09
1:A:639:LEU:HG	1:A:653:ILE:HG21	1.34	1.09
1:C:573:THR:O	1:C:577:TYR:CB	1.99	1.09
1:C:879:ARG:HB3	1:C:921:MET:CE	1.81	1.09
1:G:230:LEU:HD22	1:G:234:LYS:HG3	1.24	1.09
1:I:882:LEU:HD22	1:I:882:LEU:H	0.98	1.09
1:K:122:ARG:NH2	1:K:126:PHE:HZ	1.47	1.09
3:O:24:TYR:CD2	4:S:38:HIS:HB3	1.87	1.09
3:R:37:ILE:HD12	4:U:60:ILE:HG12	1.30	1.09
1:A:882:LEU:H	1:A:882:LEU:CD2	1.65	1.09
1:C:1200:LYS:O	1:C:1202:TRP:CE3	2.05	1.09
1:E:862:TYR:CD1	1:E:885:VAL:CG1	2.31	1.09
1:E:879:ARG:HB3	1:E:921:MET:CE	1.81	1.09
1:G:179:PRO:HD2	1:G:237:ARG:HH11	1.08	1.09
1:G:882:LEU:HB3	1:G:1237:ASN:HD21	1.10	1.09
1:I:431:LYS:NZ	1:K:336:ASN:HB3	1.66	1.09
1:K:573:THR:O	1:K:577:TYR:CB	1.99	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:882:LEU:H	1:K:882:LEU:CD2	1.64	1.09
1:M:882:LEU:H	1:M:882:LEU:HD22	0.99	1.09
1:M:923:LYS:HB2	1:M:940:VAL:HG23	1.10	1.09
1:M:1167:PRO:HB3	1:M:1202:TRP:NE1	1.68	1.09
1:A:573:THR:O	1:A:577:TYR:CB	1.99	1.09
1:C:1087:THR:CG2	2:D:39:LYS:HD3	1.83	1.09
1:E:431:LYS:NZ	1:G:336:ASN:HB3	1.66	1.09
1:E:1200:LYS:O	1:E:1202:TRP:CE3	2.05	1.09
1:I:882:LEU:H	1:I:882:LEU:CD2	1.64	1.09
1:I:1167:PRO:HB3	1:I:1202:TRP:NE1	1.68	1.09
1:A:999:ARG:HD3	1:A:1030:TRP:CD1	1.87	1.09
1:A:1200:LYS:O	1:A:1202:TRP:CE3	2.05	1.09
1:E:212:PHE:HB3	1:E:226:ARG:HH12	0.94	1.09
1:E:1149:GLY:HA2	1:E:1180:VAL:HG22	1.25	1.09
1:E:1177:GLY:HA2	1:E:1197:GLY:CA	1.83	1.09
1:G:923:LYS:HB2	1:G:940:VAL:HG23	1.10	1.09
1:I:923:LYS:HB2	1:I:940:VAL:HG23	1.10	1.09
1:I:1200:LYS:O	1:I:1202:TRP:CE3	2.05	1.09
1:K:882:LEU:H	1:K:882:LEU:HD22	0.98	1.09
1:K:1177:GLY:HA2	1:K:1197:GLY:CA	1.83	1.09
1:M:999:ARG:HD3	1:M:1030:TRP:CD1	1.87	1.09
1:M:1200:LYS:O	1:M:1202:TRP:CE3	2.05	1.09
3:O:1:MET:HG3	3:O:6:ARG:HG2	1.12	1.09
1:A:882:LEU:HB3	1:A:1237:ASN:HD21	1.10	1.08
1:E:882:LEU:H	1:E:882:LEU:HD22	0.99	1.08
1:G:381:ASP:O	1:G:384:THR:HG23	1.52	1.08
1:G:999:ARG:HD3	1:G:1030:TRP:CD1	1.87	1.08
1:G:1167:PRO:HB3	1:G:1202:TRP:NE1	1.67	1.08
1:I:879:ARG:HB3	1:I:921:MET:CE	1.81	1.08
1:I:1087:THR:CG2	2:J:39:LYS:HD3	1.83	1.08
1:K:1200:LYS:O	1:K:1202:TRP:CE3	2.05	1.08
1:M:298:PHE:HE2	1:M:325:SER:HA	1.16	1.08
3:P:19:ASP:HA	4:T:64:THR:CG2	1.83	1.08
1:C:394:LYS:HB3	1:C:434:ARG:HB2	1.18	1.08
1:C:614:HIS:HE1	1:C:640:GLN:HG2	1.14	1.08
1:E:234:LYS:HA	3:O:10:LEU:HD13	1.24	1.08
1:G:1177:GLY:HA2	1:G:1197:GLY:CA	1.83	1.08
1:M:639:LEU:O	1:M:653:ILE:CG2	2.01	1.08
1:M:1146:ASP:O	1:M:1180:VAL:CG2	1.99	1.08
1:A:639:LEU:O	1:A:653:ILE:CG2	2.01	1.08
1:A:1087:THR:CG2	2:B:39:LYS:HD3	1.83	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:882:LEU:H	1:C:882:LEU:CD2	1.65	1.08
1:C:923:LYS:HB2	1:C:940:VAL:HG23	1.10	1.08
1:E:179:PRO:HG2	1:E:237:ARG:NH1	1.67	1.08
1:E:298:PHE:CE2	1:E:325:SER:HA	1.89	1.08
1:E:999:ARG:HD3	1:E:1030:TRP:CD1	1.87	1.08
1:G:1200:LYS:O	1:G:1202:TRP:CE3	2.05	1.08
1:I:179:PRO:HD2	1:I:237:ARG:HH11	1.08	1.08
1:K:1087:THR:CG2	2:L:39:LYS:HD3	1.83	1.08
1:M:1177:GLY:HA2	1:M:1197:GLY:CA	1.83	1.08
1:C:298:PHE:HE2	1:C:325:SER:HA	1.16	1.08
1:C:1087:THR:HG23	2:D:39:LYS:HD3	1.26	1.08
1:E:1167:PRO:HB3	1:E:1202:TRP:CE2	1.89	1.08
1:I:1185:PHE:HE1	1:I:1192:LEU:HD11	1.10	1.08
1:K:1220:LEU:H	1:K:1220:LEU:HD12	1.18	1.08
1:M:230:LEU:HD22	1:M:234:LYS:HG3	1.24	1.08
1:A:1167:PRO:HB3	1:A:1202:TRP:NE1	1.68	1.08
1:A:1167:PRO:HB3	1:A:1202:TRP:CE2	1.89	1.08
1:C:1167:PRO:HB3	1:C:1202:TRP:CE2	1.89	1.08
1:G:882:LEU:H	1:G:882:LEU:CD2	1.65	1.08
1:I:179:PRO:CD	1:I:237:ARG:NH1	2.17	1.08
1:I:1177:GLY:HA2	1:I:1197:GLY:CA	1.83	1.08
1:K:923:LYS:HB2	1:K:940:VAL:HG23	1.10	1.08
1:M:171:HIS:CD2	1:M:175:GLU:HB2	1.89	1.08
1:M:381:ASP:O	1:M:384:THR:HG23	1.52	1.08
1:M:1087:THR:CG2	2:N:39:LYS:HD3	1.83	1.08
4:S:52:ARG:HD3	4:T:38:HIS:CE1	1.89	1.08
1:A:381:ASP:O	1:A:384:THR:HG23	1.52	1.07
1:E:381:ASP:O	1:E:384:THR:HG23	1.52	1.07
1:I:298:PHE:CE2	1:I:325:SER:HA	1.89	1.07
1:I:1220:LEU:H	1:I:1220:LEU:HD12	1.18	1.07
1:K:171:HIS:CD2	1:K:175:GLU:HB2	1.89	1.07
1:K:639:LEU:HG	1:K:653:ILE:HG21	1.34	1.07
1:A:179:PRO:CD	1:A:237:ARG:NH1	2.17	1.07
1:A:298:PHE:CE2	1:A:325:SER:HA	1.89	1.07
1:C:862:TYR:CE2	1:C:881:HIS:N	2.22	1.07
1:E:453:LEU:HD11	1:E:454:GLN:HE21	1.14	1.07
1:E:1087:THR:CG2	2:F:39:LYS:HD3	1.83	1.07
1:G:179:PRO:CD	1:G:237:ARG:NH1	2.17	1.07
1:G:298:PHE:HE2	1:G:325:SER:HA	1.16	1.07
1:K:1185:PHE:HE1	1:K:1192:LEU:HD11	1.10	1.07
1:A:171:HIS:CD2	1:A:175:GLU:HB2	1.89	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:381:ASP:O	1:C:384:THR:HG23	1.52	1.07
1:E:923:LYS:HB2	1:E:940:VAL:HG23	1.10	1.07
1:G:298:PHE:CE2	1:G:325:SER:HA	1.89	1.07
1:I:520:ALA:HB1	1:I:648:GLU:HB2	1.09	1.07
1:I:639:LEU:CD2	1:I:653:ILE:HD12	1.84	1.07
1:I:1220:LEU:HD23	1:I:1234:THR:CB	1.84	1.07
1:K:520:ALA:HB1	1:K:648:GLU:HB2	1.08	1.07
1:K:639:LEU:CD2	1:K:653:ILE:HD12	1.84	1.07
1:K:1220:LEU:HD23	1:K:1234:THR:CB	1.84	1.07
1:M:179:PRO:CD	1:M:237:ARG:NH1	2.17	1.07
1:M:882:LEU:HB3	1:M:1237:ASN:HD21	1.10	1.07
1:M:1167:PRO:HB3	1:M:1202:TRP:CE2	1.89	1.07
1:M:1220:LEU:HD23	1:M:1234:THR:CB	1.85	1.07
4:S:36:ARG:HD2	4:S:37:PRO:CD	1.83	1.07
1:A:173:LEU:HA	3:W:7:ASN:HD21	0.93	1.07
1:A:1167:PRO:HB3	1:A:1202:TRP:CD1	1.90	1.07
1:C:473:LEU:HD21	1:C:484:TYR:CZ	1.90	1.07
1:E:473:LEU:HD21	1:E:484:TYR:CZ	1.90	1.07
1:E:529:TYR:O	1:E:532:ILE:HG23	1.54	1.07
1:G:473:LEU:HD21	1:G:484:TYR:CZ	1.90	1.07
1:I:1167:PRO:HB3	1:I:1202:TRP:CD1	1.90	1.07
1:A:138:GLN:HB2	3:W:6:ARG:HH11	1.12	1.07
1:A:1220:LEU:HD23	1:A:1234:THR:CB	1.85	1.07
1:C:1177:GLY:HA2	1:C:1197:GLY:CA	1.83	1.07
1:G:1087:THR:CG2	2:H:39:LYS:HD3	1.83	1.07
1:G:1167:PRO:HB3	1:G:1202:TRP:CE2	1.89	1.07
1:I:999:ARG:HD3	1:I:1030:TRP:CD1	1.87	1.07
1:I:1087:THR:HG23	2:J:39:LYS:HD3	1.26	1.07
1:K:179:PRO:CD	1:K:237:ARG:NH1	2.17	1.07
1:K:212:PHE:HB3	1:K:226:ARG:HH12	0.93	1.07
1:K:639:LEU:O	1:K:653:ILE:CG2	2.01	1.07
1:K:862:TYR:CD1	1:K:885:VAL:CG1	2.31	1.07
1:M:1185:PHE:HE1	1:M:1192:LEU:HD11	1.10	1.07
1:E:614:HIS:HE1	1:E:640:GLN:HG2	1.14	1.06
1:E:639:LEU:O	1:E:653:ILE:CG2	2.01	1.06
1:G:158:CYS:SG	1:G:284:SER:CB	2.43	1.06
1:G:171:HIS:CD2	1:G:175:GLU:HB2	1.89	1.06
1:G:453:LEU:HD11	1:G:454:GLN:HE21	1.14	1.06
1:G:639:LEU:O	1:G:653:ILE:CG2	2.01	1.06
1:I:473:LEU:HD21	1:I:484:TYR:CZ	1.90	1.06
1:K:298:PHE:CE2	1:K:325:SER:HA	1.89	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:639:LEU:CD2	1:M:653:ILE:HD12	1.85	1.06
1:M:862:TYR:CE2	1:M:881:HIS:N	2.22	1.06
4:S:36:ARG:CD	4:S:37:PRO:HD2	1.85	1.06
4:T:13:ARG:CD	4:T:59:ILE:HD11	1.84	1.06
1:A:453:LEU:HD11	1:A:454:GLN:HE21	1.14	1.06
1:A:639:LEU:CD2	1:A:653:ILE:HD12	1.85	1.06
1:C:171:HIS:CD2	1:C:175:GLU:HB2	1.89	1.06
1:C:639:LEU:O	1:C:653:ILE:CG2	2.01	1.06
1:C:639:LEU:CD2	1:C:653:ILE:HD12	1.84	1.06
1:E:862:TYR:CE2	1:E:881:HIS:N	2.22	1.06
1:G:1200:LYS:HG3	1:G:1211:GLN:CA	1.85	1.06
1:I:529:TYR:O	1:I:532:ILE:HG23	1.54	1.06
1:I:1167:PRO:HB3	1:I:1202:TRP:CE2	1.89	1.06
1:A:179:PRO:HB3	3:P:2:ASP:CG	1.75	1.06
1:A:473:LEU:HD21	1:A:484:TYR:CZ	1.90	1.06
1:E:158:CYS:SG	1:E:284:SER:CB	2.44	1.06
1:E:179:PRO:HD2	1:E:237:ARG:HG2	1.11	1.06
1:E:1167:PRO:HB3	1:E:1202:TRP:NE1	1.68	1.06
1:E:1200:LYS:HG3	1:E:1211:GLN:CA	1.86	1.06
1:E:1220:LEU:HD12	1:E:1220:LEU:H	1.17	1.06
1:G:862:TYR:CE2	1:G:881:HIS:N	2.22	1.06
1:I:639:LEU:O	1:I:653:ILE:CG2	2.01	1.06
1:M:529:TYR:O	1:M:532:ILE:HG23	1.54	1.06
1:A:862:TYR:CE2	1:A:881:HIS:N	2.22	1.06
1:C:158:CYS:SG	1:C:284:SER:CB	2.43	1.06
1:C:298:PHE:CE2	1:C:325:SER:HA	1.89	1.06
1:C:453:LEU:HD11	1:C:454:GLN:HE21	1.14	1.06
1:E:171:HIS:CD2	1:E:175:GLU:HB2	1.89	1.06
1:E:1220:LEU:HD23	1:E:1234:THR:CB	1.84	1.06
1:I:171:HIS:CD2	1:I:175:GLU:HB2	1.89	1.06
1:I:614:HIS:HE1	1:I:640:GLN:HG2	1.14	1.06
1:K:158:CYS:SG	1:K:284:SER:CB	2.43	1.06
1:K:862:TYR:CE2	1:K:881:HIS:N	2.22	1.06
1:M:212:PHE:HB3	1:M:226:ARG:HH12	0.94	1.06
1:M:298:PHE:CE2	1:M:325:SER:HA	1.89	1.06
1:M:1200:LYS:HG3	1:M:1211:GLN:CA	1.86	1.06
1:A:529:TYR:O	1:A:532:ILE:HG23	1.54	1.06
1:C:212:PHE:HB3	1:C:226:ARG:HH12	0.94	1.06
1:C:529:TYR:O	1:C:532:ILE:HG23	1.54	1.06
1:E:639:LEU:HG	1:E:653:ILE:HG21	1.34	1.06
1:E:1167:PRO:HB3	1:E:1202:TRP:CD1	1.90	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:639:LEU:CD2	1:G:653:ILE:HD12	1.84	1.06
1:I:862:TYR:CE2	1:I:881:HIS:N	2.22	1.06
1:K:862:TYR:CE1	1:K:881:HIS:CB	2.22	1.06
1:M:1167:PRO:HB3	1:M:1202:TRP:CD1	1.90	1.06
1:M:1220:LEU:HD12	1:M:1220:LEU:H	1.18	1.06
1:C:1167:PRO:HB3	1:C:1202:TRP:NE1	1.68	1.05
1:G:1167:PRO:HB3	1:G:1202:TRP:CD1	1.90	1.05
1:K:529:TYR:O	1:K:532:ILE:HG23	1.54	1.05
1:M:158:CYS:SG	1:M:284:SER:CB	2.43	1.05
3:Q:19:ASP:HA	4:U:64:THR:HG22	1.07	1.05
1:C:179:PRO:CD	1:C:237:ARG:NH1	2.17	1.05
1:C:862:TYR:CD1	1:C:885:VAL:CG1	2.31	1.05
1:C:1220:LEU:HD23	1:C:1234:THR:CB	1.84	1.05
1:E:597:TRP:CH2	1:E:603:ILE:HD11	1.92	1.05
1:E:639:LEU:CD2	1:E:653:ILE:HD12	1.84	1.05
1:G:520:ALA:HB1	1:G:648:GLU:HB2	1.09	1.05
1:K:1167:PRO:HB3	1:K:1202:TRP:CE2	1.89	1.05
1:M:473:LEU:HD21	1:M:484:TYR:CZ	1.90	1.05
1:M:882:LEU:H	1:M:882:LEU:CD2	1.65	1.05
1:A:212:PHE:HB3	1:A:226:ARG:HH12	0.94	1.05
1:A:212:PHE:HB3	1:A:226:ARG:NH1	1.72	1.05
1:K:1200:LYS:HG3	1:K:1211:GLN:CA	1.86	1.05
1:A:138:GLN:HA	3:W:6:ARG:CD	1.86	1.05
1:A:520:ALA:HB1	1:A:648:GLU:HB2	1.08	1.05
1:K:1167:PRO:HB3	1:K:1202:TRP:CD1	1.90	1.05
1:A:158:CYS:SG	1:A:284:SER:CB	2.43	1.05
1:A:298:PHE:HE2	1:A:325:SER:HA	1.16	1.05
1:C:520:ALA:HB1	1:C:648:GLU:HB2	1.08	1.05
1:C:1167:PRO:HB3	1:C:1202:TRP:CD1	1.90	1.05
1:C:1200:LYS:HG3	1:C:1211:GLN:CA	1.85	1.05
1:G:529:TYR:O	1:G:532:ILE:HG23	1.54	1.05
1:G:597:TRP:CH2	1:G:603:ILE:HD11	1.92	1.05
1:G:1220:LEU:HD23	1:G:1234:THR:CB	1.85	1.05
1:I:1200:LYS:HG3	1:I:1211:GLN:CA	1.86	1.05
1:K:473:LEU:HD21	1:K:484:TYR:CZ	1.90	1.05
1:A:948:LEU:HD12	1:A:957:ASP:OD2	1.57	1.04
1:C:923:LYS:CB	1:C:940:VAL:HG23	1.87	1.04
1:I:158:CYS:SG	1:I:284:SER:CB	2.44	1.04
1:I:639:LEU:HG	1:I:653:ILE:HG21	1.34	1.04
3:Q:28:HIS:HA	4:T:14:LEU:HG	1.37	1.04
3:Q:34:PHE:CZ	3:Q:66:ASP:HB3	1.91	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1200:LYS:HG3	1:A:1211:GLN:CA	1.86	1.04
1:C:597:TRP:CH2	1:C:603:ILE:HD11	1.92	1.04
1:I:948:LEU:HD12	1:I:957:ASP:OD2	1.57	1.04
1:K:597:TRP:CH2	1:K:603:ILE:HD11	1.92	1.04
1:A:923:LYS:CB	1:A:940:VAL:HG23	1.87	1.04
1:A:1200:LYS:HE3	1:A:1211:GLN:HB3	1.11	1.04
1:E:923:LYS:CB	1:E:940:VAL:HG23	1.87	1.04
1:M:520:ALA:HB1	1:M:648:GLU:HB2	1.08	1.04
1:E:212:PHE:HB3	1:E:226:ARG:NH1	1.72	1.04
1:I:212:PHE:HB3	1:I:226:ARG:NH1	1.72	1.04
1:I:298:PHE:HE2	1:I:325:SER:HA	1.16	1.04
3:Q:79:GLY:HA2	4:U:36:ARG:HH21	1.13	1.04
1:A:155:MET:HE3	1:A:441:GLN:NE2	1.72	1.04
1:E:948:LEU:HD12	1:E:957:ASP:OD2	1.57	1.04
1:K:179:PRO:CD	1:K:237:ARG:HH11	1.71	1.04
1:M:212:PHE:HB3	1:M:226:ARG:NH1	1.72	1.04
1:M:597:TRP:CH2	1:M:603:ILE:HD11	1.92	1.04
1:A:179:PRO:CD	1:A:237:ARG:HH11	1.71	1.03
1:A:1185:PHE:HE1	1:A:1192:LEU:HD11	1.10	1.03
1:G:639:LEU:HG	1:G:653:ILE:HG21	1.34	1.03
1:G:948:LEU:HD12	1:G:957:ASP:OD2	1.57	1.03
1:G:1220:LEU:H	1:G:1220:LEU:HD12	1.18	1.03
1:I:597:TRP:CH2	1:I:603:ILE:HD11	1.92	1.03
1:A:597:TRP:CH2	1:A:603:ILE:HD11	1.92	1.03
1:G:212:PHE:HB3	1:G:226:ARG:NH1	1.72	1.03
1:G:1185:PHE:HE1	1:G:1192:LEU:HD11	1.10	1.03
1:I:155:MET:HE3	1:I:441:GLN:NE2	1.73	1.03
1:K:212:PHE:HB3	1:K:226:ARG:NH1	1.72	1.03
1:K:584:ALA:O	1:K:588:VAL:CG2	2.07	1.03
1:M:122:ARG:NH2	1:M:126:PHE:CZ	2.27	1.03
1:E:1200:LYS:HE3	1:E:1211:GLN:HB3	1.11	1.03
1:G:419:VAL:HG11	1:G:426:CYS:SG	1.99	1.03
1:I:656:HIS:CE1	1:I:676:SER:HB3	1.94	1.03
1:M:419:VAL:HG11	1:M:426:CYS:SG	1.99	1.03
3:O:79:GLY:CA	4:S:65:ARG:HH22	1.70	1.03
1:C:212:PHE:HB3	1:C:226:ARG:NH1	1.72	1.03
1:C:419:VAL:HG11	1:C:426:CYS:SG	1.99	1.03
1:C:948:LEU:HD12	1:C:957:ASP:OD2	1.57	1.03
1:E:544:PHE:CD1	1:E:576:VAL:HG13	1.94	1.03
1:G:923:LYS:CB	1:G:940:VAL:HG23	1.87	1.03
1:I:881:HIS:CE1	1:I:901:SER:HB3	1.93	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:656:HIS:CE1	1:M:676:SER:HB3	1.94	1.03
4:V:36:ARG:HH11	4:V:37:PRO:HD2	1.21	1.03
1:C:881:HIS:CE1	1:C:901:SER:HB3	1.93	1.03
1:C:931:GLN:O	1:C:932:GLU:HB2	1.58	1.03
1:E:520:ALA:HB1	1:E:648:GLU:HB2	1.09	1.03
1:E:881:HIS:CE1	1:E:901:SER:HB3	1.93	1.03
1:G:122:ARG:NH2	1:G:126:PHE:CZ	2.27	1.03
1:I:419:VAL:HG11	1:I:426:CYS:SG	1.99	1.03
1:K:122:ARG:NH2	1:K:126:PHE:CZ	2.27	1.03
1:K:656:HIS:CE1	1:K:676:SER:HB3	1.94	1.03
1:K:923:LYS:CB	1:K:940:VAL:HG23	1.87	1.03
1:K:1167:PRO:HB3	1:K:1202:TRP:NE1	1.67	1.03
1:M:155:MET:HE3	1:M:441:GLN:NE2	1.73	1.03
1:M:315:LYS:O	1:M:318:LYS:HE3	1.59	1.03
1:M:584:ALA:O	1:M:588:VAL:CG2	2.07	1.03
1:M:948:LEU:HD12	1:M:957:ASP:OD2	1.57	1.03
1:A:419:VAL:HG11	1:A:426:CYS:SG	1.99	1.02
1:A:584:ALA:O	1:A:588:VAL:CG2	2.07	1.02
1:A:1176:HIS:CB	1:A:1218:THR:OG1	2.07	1.02
1:A:1220:LEU:H	1:A:1220:LEU:HD12	1.18	1.02
1:C:544:PHE:CD1	1:C:576:VAL:HG13	1.94	1.02
1:C:1220:LEU:H	1:C:1220:LEU:HD12	1.18	1.02
1:G:584:ALA:O	1:G:588:VAL:CG2	2.07	1.02
1:I:584:ALA:O	1:I:588:VAL:CG2	2.07	1.02
1:I:1177:GLY:HA2	1:I:1197:GLY:HA3	1.41	1.02
3:R:28:HIS:CD2	4:U:14:LEU:HD11	1.94	1.02
1:A:138:GLN:HB2	3:W:6:ARG:NH1	1.72	1.02
1:A:173:LEU:HA	3:W:7:ASN:ND2	1.73	1.02
1:E:155:MET:HE3	1:E:441:GLN:NE2	1.71	1.02
1:G:544:PHE:CD1	1:G:576:VAL:HG13	1.94	1.02
1:I:923:LYS:CB	1:I:940:VAL:HG23	1.87	1.02
1:K:948:LEU:HD12	1:K:957:ASP:OD2	1.57	1.02
1:M:544:PHE:CD1	1:M:576:VAL:HG13	1.93	1.02
1:M:923:LYS:CB	1:M:940:VAL:HG23	1.87	1.02
1:A:656:HIS:CE1	1:A:676:SER:HB3	1.94	1.02
1:A:862:TYR:HB2	1:A:884:TRP:HA	1.42	1.02
1:A:881:HIS:CE1	1:A:901:SER:HB3	1.93	1.02
1:E:1146:ASP:O	1:E:1180:VAL:CG2	2.06	1.02
1:G:1146:ASP:O	1:G:1180:VAL:CG2	2.06	1.02
1:K:1177:GLY:HA2	1:K:1197:GLY:HA3	1.41	1.02
1:M:862:TYR:HB2	1:M:884:TRP:HA	1.42	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:R:79:GLY:HA3	4:V:65:ARG:HH22	1.25	1.02
1:A:544:PHE:CD1	1:A:576:VAL:HG13	1.94	1.02
1:A:1177:GLY:HA2	1:A:1197:GLY:CA	1.90	1.02
1:C:137:GLN:HG2	1:C:173:LEU:HD22	1.42	1.02
1:I:137:GLN:HG2	1:I:173:LEU:HD22	1.41	1.02
1:K:171:HIS:HD2	1:K:175:GLU:HB2	1.25	1.02
3:Q:31:SER:CB	4:T:11:ARG:O	2.08	1.02
3:R:19:ASP:O	4:V:64:THR:CB	2.08	1.02
1:C:584:ALA:O	1:C:588:VAL:CG2	2.07	1.02
1:E:584:ALA:O	1:E:588:VAL:HG23	1.60	1.02
1:E:656:HIS:CE1	1:E:676:SER:HB3	1.94	1.02
1:E:931:GLN:O	1:E:932:GLU:HB2	1.58	1.02
1:I:122:ARG:NH2	1:I:126:PHE:CZ	2.27	1.02
1:I:179:PRO:CD	1:I:237:ARG:HH11	1.71	1.02
1:K:544:PHE:CD1	1:K:576:VAL:HG13	1.94	1.02
1:M:881:HIS:CE1	1:M:901:SER:HB3	1.94	1.02
3:R:31:SER:HA	4:U:10:ARG:O	1.59	1.02
1:A:122:ARG:NH2	1:A:126:PHE:CZ	2.27	1.01
1:C:315:LYS:O	1:C:318:LYS:HE3	1.59	1.01
1:C:656:HIS:CE1	1:C:676:SER:HB3	1.94	1.01
1:G:229:ILE:HG22	1:G:233:ARG:HD3	1.42	1.01
1:G:1177:GLY:HA2	1:G:1197:GLY:HA3	1.41	1.01
1:I:544:PHE:CD1	1:I:576:VAL:HG13	1.94	1.01
1:I:931:GLN:O	1:I:932:GLU:HB2	1.58	1.01
1:K:315:LYS:O	1:K:318:LYS:HE3	1.59	1.01
1:K:419:VAL:HG11	1:K:426:CYS:SG	1.99	1.01
1:M:171:HIS:HD2	1:M:175:GLU:HB2	1.25	1.01
1:M:1177:GLY:HA2	1:M:1197:GLY:HA3	1.41	1.01
2:N:17:CYS:HG	7:N:201:HEM:CBC	1.73	1.01
4:T:6:ARG:O	4:T:10:ARG:HG3	1.60	1.01
1:A:584:ALA:O	1:A:588:VAL:HG23	1.60	1.01
1:E:419:VAL:HG11	1:E:426:CYS:SG	1.99	1.01
1:E:584:ALA:O	1:E:588:VAL:CG2	2.07	1.01
1:G:656:HIS:CE1	1:G:676:SER:HB3	1.94	1.01
1:M:179:PRO:CD	1:M:237:ARG:HH11	1.71	1.01
1:M:584:ALA:O	1:M:588:VAL:HG23	1.60	1.01
3:Q:24:TYR:CE2	4:U:38:HIS:HB3	1.94	1.01
1:A:315:LYS:O	1:A:318:LYS:HE3	1.59	1.01
1:C:122:ARG:NH2	1:C:126:PHE:CZ	2.27	1.01
1:C:558:GLN:HB3	1:C:559:PRO:HD3	1.43	1.01
1:I:882:LEU:HB3	1:I:1237:ASN:ND2	1.76	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:17:CYS:SG	7:J:201:HEM:CBC	2.49	1.01
1:K:137:GLN:HG2	1:K:173:LEU:HD22	1.42	1.01
1:K:881:HIS:CE1	1:K:901:SER:HB3	1.94	1.01
3:R:47:PRO:HB2	4:S:45:ARG:CB	1.90	1.01
1:A:137:GLN:HG2	1:A:173:LEU:HD22	1.42	1.01
1:C:862:TYR:HB2	1:C:884:TRP:HA	1.42	1.01
1:E:122:ARG:NH2	1:E:126:PHE:CZ	2.27	1.01
1:E:879:ARG:HB3	1:E:921:MET:HE1	1.39	1.01
1:K:862:TYR:HB2	1:K:884:TRP:HA	1.42	1.01
2:N:17:CYS:SG	7:N:201:HEM:CBC	2.49	1.01
1:A:138:GLN:HA	3:W:6:ARG:CZ	1.90	1.01
1:A:931:GLN:O	1:A:932:GLU:HB2	1.58	1.01
1:C:155:MET:HE3	1:C:441:GLN:NE2	1.75	1.01
1:E:558:GLN:HB3	1:E:559:PRO:HD3	1.43	1.01
1:E:1176:HIS:CB	1:E:1218:THR:OG1	2.09	1.01
1:I:315:LYS:O	1:I:318:LYS:HE3	1.59	1.01
1:K:155:MET:HE3	1:K:441:GLN:NE2	1.76	1.01
1:K:298:PHE:HE2	1:K:325:SER:HA	1.16	1.01
1:K:882:LEU:HB3	1:K:1237:ASN:ND2	1.76	1.01
1:K:931:GLN:O	1:K:932:GLU:HB2	1.58	1.01
1:M:882:LEU:HB3	1:M:1237:ASN:ND2	1.76	1.01
3:P:19:ASP:HA	4:T:64:THR:HG22	1.04	1.01
4:S:36:ARG:HD2	4:S:37:PRO:HD2	1.07	1.01
4:S:52:ARG:HD3	4:T:38:HIS:NE2	1.75	1.01
1:A:1177:GLY:HA2	1:A:1197:GLY:HA3	1.43	1.00
1:C:225:ASP:O	1:C:229:ILE:HG13	1.61	1.00
1:E:315:LYS:O	1:E:318:LYS:HE3	1.59	1.00
1:G:179:PRO:CD	1:G:237:ARG:HH11	1.71	1.00
1:I:225:ASP:O	1:I:229:ILE:HG13	1.61	1.00
1:I:1146:ASP:O	1:I:1180:VAL:CG2	2.08	1.00
1:K:364:LEU:HD11	1:K:368:MET:HE1	1.41	1.00
4:T:52:ARG:CD	4:U:38:HIS:CE1	2.44	1.00
1:C:584:ALA:O	1:C:588:VAL:HG23	1.60	1.00
1:C:1185:PHE:HE1	1:C:1192:LEU:CG	1.73	1.00
1:E:225:ASP:O	1:E:229:ILE:HG13	1.61	1.00
1:E:597:TRP:HH2	1:E:603:ILE:HD11	1.22	1.00
2:F:17:CYS:SG	7:F:201:HEM:CBC	2.49	1.00
1:G:155:MET:HE3	1:G:441:GLN:NE2	1.75	1.00
1:G:881:HIS:CE1	1:G:901:SER:HB3	1.94	1.00
1:I:473:LEU:HD11	1:I:480:CYS:CB	1.92	1.00
3:R:19:ASP:O	4:V:64:THR:CG2	2.09	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:294:ILE:HG21	1:A:324:VAL:HG11	1.44	1.00
2:B:17:CYS:SG	7:B:201:HEM:CBC	2.49	1.00
2:D:17:CYS:SG	7:D:201:HEM:CBC	2.49	1.00
1:E:882:LEU:HB3	1:E:1237:ASN:ND2	1.76	1.00
1:G:882:LEU:HB3	1:G:1237:ASN:ND2	1.75	1.00
1:G:1167:PRO:CB	1:G:1202:TRP:CD1	2.45	1.00
1:K:1220:LEU:CD2	1:K:1234:THR:OG1	2.10	1.00
3:Q:19:ASP:CA	4:U:64:THR:HG22	1.91	1.00
1:A:1167:PRO:CB	1:A:1202:TRP:CD1	2.45	1.00
1:C:294:ILE:HG21	1:C:324:VAL:HG11	1.43	1.00
1:C:1167:PRO:CB	1:C:1202:TRP:CD1	2.45	1.00
1:G:584:ALA:O	1:G:588:VAL:HG23	1.60	1.00
1:G:862:TYR:HB2	1:G:884:TRP:HA	1.42	1.00
1:G:931:GLN:O	1:G:932:GLU:HB2	1.58	1.00
1:M:229:ILE:HG22	1:M:233:ARG:HD3	1.42	1.00
1:M:1176:HIS:CB	1:M:1218:THR:OG1	2.10	1.00
1:E:137:GLN:HG2	1:E:173:LEU:HD22	1.42	1.00
1:K:473:LEU:HD11	1:K:480:CYS:CB	1.91	1.00
2:L:17:CYS:SG	7:L:201:HEM:CBC	2.49	1.00
7:L:201:HEM:HBC2	7:L:201:HEM:HMC1	1.44	1.00
1:M:1220:LEU:CD2	1:M:1234:THR:OG1	2.10	1.00
1:G:225:ASP:O	1:G:229:ILE:HG13	1.61	1.00
1:G:473:LEU:HD11	1:G:480:CYS:CB	1.92	1.00
1:K:1146:ASP:O	1:K:1180:VAL:CG2	2.08	1.00
1:C:179:PRO:CD	1:C:237:ARG:HH11	1.71	1.00
1:C:229:ILE:HG22	1:C:233:ARG:HD3	1.42	1.00
1:G:315:LYS:O	1:G:318:LYS:HE3	1.59	1.00
1:C:882:LEU:HB3	1:C:1237:ASN:ND2	1.76	0.99
1:E:1167:PRO:CB	1:E:1202:TRP:CD1	2.45	0.99
3:P:24:TYR:N	3:P:24:TYR:HD1	1.60	0.99
1:C:540:VAL:HG13	1:C:575:GLU:CB	1.92	0.99
1:K:540:VAL:HG13	1:K:575:GLU:CB	1.92	0.99
1:K:1185:PHE:HE1	1:K:1192:LEU:CG	1.73	0.99
1:E:229:ILE:HG22	1:E:233:ARG:HD3	1.42	0.99
1:E:540:VAL:HG13	1:E:575:GLU:CB	1.92	0.99
1:I:584:ALA:O	1:I:588:VAL:HG23	1.60	0.99
1:I:1167:PRO:CB	1:I:1202:TRP:CD1	2.45	0.99
1:K:1167:PRO:CB	1:K:1202:TRP:CD1	2.45	0.99
1:M:294:ILE:HG21	1:M:324:VAL:HG11	1.44	0.99
1:C:1220:LEU:CD2	1:C:1234:THR:OG1	2.10	0.99
2:H:17:CYS:SG	7:H:201:HEM:CBC	2.49	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1185:PHE:HE1	1:M:1192:LEU:CG	1.73	0.99
1:C:1177:GLY:HA2	1:C:1197:GLY:HA3	1.41	0.99
1:E:1220:LEU:CD2	1:E:1234:THR:OG1	2.10	0.99
1:G:137:GLN:HG2	1:G:173:LEU:HD22	1.42	0.99
1:I:364:LEU:HD11	1:I:368:MET:HE1	1.44	0.99
1:A:473:LEU:HD11	1:A:480:CYS:CB	1.92	0.99
1:E:179:PRO:HD2	1:E:237:ARG:HH11	1.24	0.99
1:M:931:GLN:O	1:M:932:GLU:HB2	1.58	0.99
1:C:1176:HIS:CB	1:C:1218:THR:OG1	2.11	0.99
1:M:239:LEU:HD12	1:M:240:LEU:N	1.78	0.99
7:N:201:HEM:HBC2	7:N:201:HEM:HMC1	1.44	0.99
1:I:1220:LEU:CD2	1:I:1234:THR:OG1	2.10	0.99
1:A:225:ASP:O	1:A:229:ILE:HG13	1.61	0.99
1:A:431:LYS:HZ3	1:C:336:ASN:HB3	1.28	0.99
1:A:882:LEU:HB3	1:A:1237:ASN:ND2	1.75	0.99
1:I:558:GLN:HB3	1:I:559:PRO:HD3	1.43	0.99
7:J:201:HEM:HBC2	7:J:201:HEM:HMC1	1.44	0.99
1:K:584:ALA:O	1:K:588:VAL:HG23	1.60	0.99
1:M:540:VAL:HG13	1:M:575:GLU:CB	1.92	0.99
1:A:1220:LEU:CD2	1:A:1234:THR:OG1	2.10	0.99
1:C:473:LEU:HD11	1:C:480:CYS:CB	1.92	0.99
1:G:171:HIS:HD2	1:G:175:GLU:HB2	1.25	0.99
1:G:540:VAL:HG13	1:G:575:GLU:CB	1.92	0.99
1:G:1220:LEU:CD2	1:G:1234:THR:OG1	2.10	0.99
1:K:225:ASP:O	1:K:229:ILE:HG13	1.61	0.99
1:M:1167:PRO:CB	1:M:1202:TRP:CD1	2.45	0.99
3:R:80:TYR:HE1	4:V:64:THR:OG1	1.44	0.99
7:B:201:HEM:HBC2	7:B:201:HEM:HMC1	1.44	0.98
1:C:364:LEU:HD11	1:C:368:MET:HE1	1.45	0.98
1:I:1176:HIS:CB	1:I:1218:THR:OG1	2.11	0.98
1:K:239:LEU:HD12	1:K:240:LEU:N	1.78	0.98
1:K:1176:HIS:CB	1:K:1218:THR:OG1	2.11	0.98
1:M:473:LEU:HD11	1:M:480:CYS:CB	1.92	0.98
1:A:229:ILE:HG22	1:A:233:ARG:HD3	1.43	0.98
1:E:473:LEU:HD11	1:E:480:CYS:CB	1.92	0.98
1:E:1177:GLY:HA2	1:E:1197:GLY:HA3	1.41	0.98
1:G:239:LEU:HD12	1:G:240:LEU:N	1.78	0.98
1:I:1200:LYS:O	1:I:1202:TRP:CZ3	2.16	0.98
1:A:520:ALA:CB	1:A:648:GLU:HB2	1.93	0.98
1:A:1200:LYS:O	1:A:1202:TRP:CZ3	2.16	0.98
1:C:520:ALA:CB	1:C:648:GLU:HB2	1.93	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1233:VAL:HG11	1:C:1243:ILE:HG12	1.46	0.98
1:E:614:HIS:CE1	1:E:640:GLN:CG	2.47	0.98
1:E:882:LEU:HD22	1:E:882:LEU:N	1.78	0.98
1:I:862:TYR:HB2	1:I:884:TRP:HA	1.42	0.98
1:K:558:GLN:HB3	1:K:559:PRO:HD3	1.43	0.98
3:R:19:ASP:O	4:V:64:THR:HB	1.60	0.98
1:I:239:LEU:HD12	1:I:240:LEU:N	1.78	0.98
1:K:520:ALA:CB	1:K:648:GLU:HB2	1.93	0.98
1:A:540:VAL:HG13	1:A:575:GLU:CB	1.92	0.98
1:I:294:ILE:HG21	1:I:324:VAL:HG11	1.44	0.98
1:I:520:ALA:CB	1:I:648:GLU:HB2	1.94	0.98
1:K:597:TRP:HH2	1:K:603:ILE:HD11	1.22	0.98
3:Q:19:ASP:HA	4:U:64:THR:CG2	1.91	0.98
1:A:171:HIS:HD2	1:A:175:GLU:HB2	1.25	0.98
1:A:239:LEU:HD12	1:A:240:LEU:N	1.78	0.98
1:C:614:HIS:CE1	1:C:640:GLN:CG	2.47	0.98
1:C:882:LEU:HD22	1:C:882:LEU:N	1.78	0.98
7:D:201:HEM:HBC2	7:D:201:HEM:HMC1	1.44	0.98
1:G:1176:HIS:CB	1:G:1218:THR:OG1	2.11	0.98
1:M:597:TRP:HH2	1:M:603:ILE:HD11	1.22	0.98
1:A:923:LYS:HB2	1:A:940:VAL:CG2	1.94	0.98
1:E:862:TYR:HB2	1:E:884:TRP:HA	1.42	0.98
2:N:17:CYS:HG	7:N:201:HEM:CAC	1.71	0.98
3:X:37:ILE:HG13	4:Y:10:ARG:NH1	1.79	0.98
1:A:558:GLN:HB3	1:A:559:PRO:HD3	1.43	0.98
1:I:540:VAL:HG13	1:I:575:GLU:HB2	1.46	0.98
1:K:614:HIS:CE1	1:K:640:GLN:CG	2.47	0.98
1:M:225:ASP:O	1:M:229:ILE:HG13	1.61	0.98
4:T:52:ARG:HD3	4:U:38:HIS:CE1	1.99	0.98
1:A:1233:VAL:HG11	1:A:1243:ILE:HG12	1.46	0.97
1:G:520:ALA:CB	1:G:648:GLU:HB2	1.94	0.97
1:G:540:VAL:HG13	1:G:575:GLU:HB2	1.46	0.97
1:I:229:ILE:HG22	1:I:233:ARG:HD3	1.42	0.97
1:I:540:VAL:HG13	1:I:575:GLU:CB	1.92	0.97
1:A:614:HIS:CE1	1:A:640:GLN:CG	2.47	0.97
1:C:923:LYS:HB2	1:C:940:VAL:CG2	1.94	0.97
1:G:294:ILE:HG21	1:G:324:VAL:HG11	1.44	0.97
4:V:2:ASP:O	4:V:6:ARG:HG3	1.64	0.97
1:A:1185:PHE:HE1	1:A:1192:LEU:CG	1.73	0.97
1:E:1200:LYS:O	1:E:1202:TRP:CZ3	2.16	0.97
1:G:614:HIS:CE1	1:G:640:GLN:CG	2.47	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:229:ILE:HG22	1:K:233:ARG:HD3	1.43	0.97
1:C:212:PHE:CB	1:C:226:ARG:HH12	1.78	0.97
1:K:923:LYS:HB2	1:K:940:VAL:CG2	1.94	0.97
3:O:1:MET:CG	3:O:6:ARG:HG2	1.95	0.97
1:C:1200:LYS:O	1:C:1202:TRP:CZ3	2.16	0.97
1:K:294:ILE:HG21	1:K:324:VAL:HG11	1.43	0.97
1:M:1200:LYS:HE2	1:M:1211:GLN:HB3	1.47	0.97
1:C:879:ARG:HB3	1:C:921:MET:HE1	1.42	0.97
1:C:984:ALA:HA	1:C:999:ARG:O	1.65	0.97
1:E:1201:TRP:CE3	1:E:1210:SER:HB3	2.00	0.97
1:E:1233:VAL:HG11	1:E:1243:ILE:HG12	1.46	0.97
1:G:483:TRP:O	1:G:487:LEU:HB3	1.64	0.97
1:G:882:LEU:HD22	1:G:882:LEU:N	1.78	0.97
1:G:984:ALA:HA	1:G:999:ARG:O	1.64	0.97
1:I:427:ASP:OD2	1:I:434:ARG:CG	2.13	0.97
1:M:137:GLN:HG2	1:M:173:LEU:HD22	1.42	0.97
1:M:520:ALA:CB	1:M:648:GLU:HB2	1.93	0.97
1:M:1233:VAL:HG11	1:M:1243:ILE:HG12	1.46	0.97
1:C:1201:TRP:CE3	1:C:1210:SER:HB3	2.00	0.97
1:E:427:ASP:OD2	1:E:434:ARG:CG	2.13	0.97
1:G:923:LYS:HB2	1:G:940:VAL:CG2	1.94	0.97
1:A:212:PHE:CB	1:A:226:ARG:HH12	1.78	0.97
1:C:597:TRP:HH2	1:C:603:ILE:HD11	1.22	0.97
1:K:984:ALA:HA	1:K:999:ARG:O	1.65	0.97
1:M:212:PHE:CB	1:M:226:ARG:HH12	1.78	0.97
1:M:1200:LYS:O	1:M:1202:TRP:CZ3	2.16	0.97
1:C:483:TRP:O	1:C:487:LEU:HB3	1.64	0.97
1:G:558:GLN:HB3	1:G:559:PRO:HD3	1.42	0.97
1:M:558:GLN:HB3	1:M:559:PRO:HD3	1.43	0.97
1:M:614:HIS:CE1	1:M:640:GLN:CG	2.47	0.97
1:E:520:ALA:CB	1:E:648:GLU:HB2	1.93	0.97
1:E:923:LYS:HB2	1:E:940:VAL:CG2	1.94	0.97
7:F:201:HEM:HBC2	7:F:201:HEM:HMC1	1.44	0.97
1:G:614:HIS:CE1	1:G:640:GLN:HG2	2.00	0.97
1:G:1200:LYS:O	1:G:1202:TRP:CZ3	2.16	0.97
1:K:540:VAL:HG13	1:K:575:GLU:HB2	1.46	0.97
1:K:1200:LYS:O	1:K:1202:TRP:CZ3	2.17	0.97
1:C:239:LEU:HD12	1:C:240:LEU:N	1.78	0.96
1:E:294:ILE:HG21	1:E:324:VAL:HG11	1.43	0.96
1:E:984:ALA:HA	1:E:999:ARG:O	1.65	0.96
1:G:597:TRP:HH2	1:G:603:ILE:HD11	1.22	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:984:ALA:HA	1:I:999:ARG:O	1.65	0.96
1:I:171:HIS:HD2	1:I:175:GLU:HB2	1.25	0.96
1:I:614:HIS:CE1	1:I:640:GLN:CG	2.47	0.96
1:M:923:LYS:HB2	1:M:940:VAL:CG2	1.94	0.96
3:O:2:ASP:O	3:O:6:ARG:HG3	1.63	0.96
1:A:882:LEU:HD22	1:A:882:LEU:N	1.78	0.96
1:E:180:GLY:H	1:E:237:ARG:HB3	1.26	0.96
1:E:540:VAL:HG13	1:E:575:GLU:HB2	1.46	0.96
1:G:1201:TRP:CE3	1:G:1210:SER:HB3	2.00	0.96
7:H:201:HEM:HBC2	7:H:201:HEM:HMC1	1.44	0.96
1:I:614:HIS:CE1	1:I:640:GLN:HG2	2.00	0.96
1:I:1176:HIS:HB2	1:I:1218:THR:HG21	1.47	0.96
1:I:1201:TRP:CE3	1:I:1210:SER:HB3	2.00	0.96
1:A:984:ALA:HA	1:A:999:ARG:O	1.65	0.96
1:E:1213:PHE:O	1:E:1214:TYR:HB2	1.65	0.96
1:I:923:LYS:HB2	1:I:940:VAL:CG2	1.94	0.96
1:E:212:PHE:CB	1:E:226:ARG:HH12	1.78	0.96
1:E:614:HIS:CE1	1:E:640:GLN:HG2	2.00	0.96
1:E:1200:LYS:HE2	1:E:1211:GLN:HB3	1.47	0.96
1:I:212:PHE:CB	1:I:226:ARG:HH12	1.78	0.96
1:K:1176:HIS:HB2	1:K:1218:THR:HG21	1.47	0.96
1:A:1201:TRP:CE3	1:A:1210:SER:HB3	2.00	0.96
1:C:561:PRO:HB3	1:C:1214:TYR:CD2	2.01	0.96
1:E:158:CYS:HG	1:E:284:SER:HB2	1.13	0.96
1:G:359:TYR:HD1	1:G:360:ASP:N	1.63	0.96
1:A:1213:PHE:O	1:A:1214:TYR:HB2	1.64	0.96
1:G:137:GLN:CG	1:G:173:LEU:HD22	1.96	0.96
1:G:1213:PHE:O	1:G:1214:TYR:HB2	1.64	0.96
1:I:146:GLU:HG3	1:K:111:ARG:NH1	1.81	0.96
1:I:879:ARG:HB3	1:I:921:MET:HE1	1.48	0.96
1:I:1213:PHE:O	1:I:1214:TYR:HB2	1.64	0.96
1:K:359:TYR:HD1	1:K:360:ASP:N	1.64	0.96
1:K:1201:TRP:CE3	1:K:1210:SER:HB3	2.00	0.96
1:M:1176:HIS:HB2	1:M:1218:THR:HG21	1.47	0.96
1:A:427:ASP:OD2	1:A:434:ARG:CG	2.13	0.96
1:A:879:ARG:HB3	1:A:921:MET:HE1	1.48	0.96
1:E:137:GLN:CG	1:E:173:LEU:HD22	1.96	0.96
1:E:612:ARG:HH12	1:E:1174:ALA:HB1	1.31	0.96
1:I:597:TRP:HH2	1:I:603:ILE:HD11	1.22	0.96
1:K:212:PHE:CB	1:K:226:ARG:HH12	1.78	0.96
1:K:427:ASP:OD2	1:K:434:ARG:CG	2.13	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:409:GLU:HG3	1:E:340:TYR:OH	1.65	0.96
1:C:477:GLN:HA	1:C:477:GLN:HE21	1.31	0.96
1:E:431:LYS:HZ3	1:G:336:ASN:HB3	1.29	0.96
1:G:364:LEU:HD11	1:G:368:MET:HE1	1.47	0.96
1:I:359:TYR:HD1	1:I:360:ASP:N	1.64	0.96
1:I:876:ALA:HB3	1:I:914:VAL:O	1.66	0.96
1:K:1233:VAL:HG11	1:K:1243:ILE:HG12	1.46	0.96
1:M:875:VAL:HG11	1:M:915:CYS:SG	2.06	0.96
1:A:137:GLN:CG	1:A:173:LEU:HD22	1.96	0.96
1:C:137:GLN:CG	1:C:173:LEU:HD22	1.96	0.96
1:C:146:GLU:HG3	1:E:111:ARG:NH1	1.81	0.96
1:E:179:PRO:CD	1:E:237:ARG:HG2	1.94	0.96
1:E:561:PRO:HB3	1:E:1214:TYR:CD2	2.01	0.96
1:G:427:ASP:OD2	1:G:434:ARG:CG	2.13	0.96
1:K:431:LYS:HZ3	1:M:336:ASN:HB3	1.26	0.96
1:K:614:HIS:CE1	1:K:640:GLN:HG2	2.00	0.96
1:M:1213:PHE:O	1:M:1214:TYR:HB2	1.64	0.96
1:A:612:ARG:HH12	1:A:1174:ALA:HB1	1.31	0.95
1:E:364:LEU:HD11	1:E:368:MET:HE1	1.48	0.95
1:G:477:GLN:HA	1:G:477:GLN:HE21	1.31	0.95
1:G:1200:LYS:HE3	1:G:1211:GLN:HB3	1.11	0.95
1:I:928:VAL:HG12	1:I:937:VAL:HA	1.48	0.95
1:K:561:PRO:HB3	1:K:1214:TYR:CD2	2.01	0.95
1:K:876:ALA:HB3	1:K:914:VAL:O	1.66	0.95
1:K:1171:GLU:HG3	1:K:1172:GLY:H	1.30	0.95
1:M:1171:GLU:HG3	1:M:1172:GLY:H	1.30	0.95
1:M:1201:TRP:CE3	1:M:1210:SER:HB3	2.00	0.95
1:C:427:ASP:OD2	1:C:434:ARG:CG	2.13	0.95
1:C:614:HIS:CE1	1:C:640:GLN:HG2	2.00	0.95
1:G:212:PHE:CB	1:G:226:ARG:HH12	1.78	0.95
1:M:614:HIS:CE1	1:M:640:GLN:HG2	2.00	0.95
1:M:984:ALA:HA	1:M:999:ARG:O	1.65	0.95
1:A:561:PRO:HB3	1:A:1214:TYR:CD2	2.01	0.95
1:A:597:TRP:HH2	1:A:603:ILE:HD11	1.22	0.95
1:A:614:HIS:CE1	1:A:640:GLN:HG2	2.00	0.95
1:C:862:TYR:HE2	1:C:881:HIS:H	0.97	0.95
1:G:1185:PHE:HE1	1:G:1192:LEU:CG	1.73	0.95
1:A:1176:HIS:HB2	1:A:1218:THR:HG21	1.48	0.95
1:E:239:LEU:HD12	1:E:240:LEU:N	1.78	0.95
1:E:483:TRP:O	1:E:487:LEU:HB3	1.64	0.95
1:G:1171:GLU:HG3	1:G:1172:GLY:H	1.30	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:862:TYR:HE2	1:K:881:HIS:H	0.97	0.95
1:K:1200:LYS:HE2	1:K:1211:GLN:HB3	1.47	0.95
1:M:427:ASP:OD2	1:M:434:ARG:CG	2.13	0.95
4:T:7:ARG:O	4:T:11:ARG:HG3	1.66	0.95
1:I:561:PRO:HB3	1:I:1214:TYR:CD2	2.01	0.95
1:M:359:TYR:HD1	1:M:360:ASP:N	1.64	0.95
1:M:559:PRO:O	1:M:561:PRO:N	2.00	0.95
1:M:561:PRO:HB3	1:M:1214:TYR:CD2	2.01	0.95
1:M:612:ARG:HH12	1:M:1174:ALA:HB1	1.31	0.95
1:A:340:TYR:OH	1:M:409:GLU:HG3	1.65	0.95
1:E:146:GLU:HG3	1:G:111:ARG:HH12	1.32	0.95
1:E:409:GLU:HG3	1:G:340:TYR:OH	1.65	0.95
1:E:559:PRO:O	1:E:561:PRO:N	2.00	0.95
1:G:561:PRO:HB3	1:G:1214:TYR:CD2	2.01	0.95
1:K:882:LEU:HD22	1:K:882:LEU:N	1.78	0.95
1:A:1200:LYS:HE2	1:A:1211:GLN:HB3	1.47	0.95
1:G:1233:VAL:HG11	1:G:1243:ILE:HG12	1.46	0.95
1:I:137:GLN:CG	1:I:173:LEU:HD22	1.96	0.95
1:I:483:TRP:O	1:I:487:LEU:HB3	1.64	0.95
1:I:882:LEU:HD22	1:I:882:LEU:N	1.78	0.95
1:K:146:GLU:HG3	1:M:111:ARG:HH12	1.32	0.95
1:M:137:GLN:CG	1:M:173:LEU:HD22	1.96	0.95
1:M:1200:LYS:HE3	1:M:1211:GLN:HB3	1.11	0.95
3:Q:28:HIS:ND1	4:T:14:LEU:HD21	1.81	0.95
1:A:409:GLU:HG3	1:C:340:TYR:OH	1.65	0.95
1:G:875:VAL:HG11	1:G:915:CYS:SG	2.06	0.95
1:I:1233:VAL:HG11	1:I:1243:ILE:HG12	1.46	0.95
1:K:928:VAL:HG12	1:K:937:VAL:HA	1.48	0.95
1:C:559:PRO:O	1:C:561:PRO:N	2.00	0.95
1:C:876:ALA:HB3	1:C:914:VAL:O	1.66	0.95
1:E:359:TYR:HD1	1:E:360:ASP:N	1.64	0.95
1:E:999:ARG:HD3	1:E:1030:TRP:NE1	1.82	0.95
1:I:409:GLU:HG3	1:K:340:TYR:OH	1.65	0.95
1:I:875:VAL:HG11	1:I:915:CYS:SG	2.06	0.95
1:I:1185:PHE:HE1	1:I:1192:LEU:CG	1.73	0.95
3:R:47:PRO:O	4:S:45:ARG:CD	2.15	0.95
1:A:146:GLU:HG3	1:C:111:ARG:NH1	1.81	0.94
1:C:359:TYR:HD1	1:C:360:ASP:N	1.64	0.94
1:C:1213:PHE:O	1:C:1214:TYR:HB2	1.64	0.94
1:E:146:GLU:HG3	1:G:111:ARG:NH1	1.81	0.94
1:E:1171:GLU:HG3	1:E:1172:GLY:H	1.30	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1185:PHE:HE1	1:E:1192:LEU:CG	1.73	0.94
1:G:146:GLU:HG3	1:I:111:ARG:NH1	1.81	0.94
1:K:146:GLU:HG3	1:M:111:ARG:NH1	1.81	0.94
3:R:19:ASP:O	4:V:64:THR:HG22	1.67	0.94
1:C:540:VAL:HG13	1:C:575:GLU:HB2	1.46	0.94
1:E:876:ALA:HB3	1:E:914:VAL:O	1.66	0.94
1:G:409:GLU:HG3	1:I:340:TYR:OH	1.65	0.94
1:G:862:TYR:HE2	1:G:881:HIS:H	0.97	0.94
1:I:559:PRO:O	1:I:561:PRO:N	2.00	0.94
3:R:79:GLY:CA	4:V:65:ARG:HH22	1.78	0.94
1:A:525:GLU:O	1:A:528:GLU:HG3	1.67	0.94
1:A:540:VAL:HG13	1:A:575:GLU:HB2	1.46	0.94
1:E:171:HIS:HD2	1:E:175:GLU:HB2	1.25	0.94
1:G:230:LEU:CD2	1:G:234:LYS:HG3	1.97	0.94
1:G:544:PHE:HE1	1:G:576:VAL:HG13	1.30	0.94
1:K:137:GLN:CG	1:K:173:LEU:HD22	1.96	0.94
1:K:394:LYS:HB3	1:K:434:ARG:CB	1.98	0.94
1:K:483:TRP:O	1:K:487:LEU:HB3	1.65	0.94
1:C:230:LEU:CD2	1:C:234:LYS:HG3	1.97	0.94
1:E:525:GLU:O	1:E:528:GLU:HG3	1.67	0.94
1:E:544:PHE:HE1	1:E:576:VAL:HG13	1.30	0.94
1:E:928:VAL:HG12	1:E:937:VAL:HA	1.48	0.94
1:K:409:GLU:HG3	1:M:340:TYR:OH	1.66	0.94
1:A:111:ARG:HH12	1:M:146:GLU:HG3	1.32	0.94
1:A:146:GLU:HG3	1:C:111:ARG:HH12	1.32	0.94
1:A:862:TYR:HE2	1:A:881:HIS:H	0.97	0.94
1:G:1176:HIS:HB2	1:G:1218:THR:HG21	1.46	0.94
1:K:875:VAL:HG11	1:K:915:CYS:SG	2.06	0.94
1:A:483:TRP:O	1:A:487:LEU:HB3	1.64	0.94
1:C:875:VAL:HG11	1:C:915:CYS:SG	2.06	0.94
1:C:999:ARG:HD3	1:C:1030:TRP:NE1	1.82	0.94
1:G:928:VAL:HG12	1:G:937:VAL:HA	1.48	0.94
1:G:999:ARG:HD3	1:G:1030:TRP:NE1	1.82	0.94
1:M:876:ALA:HB3	1:M:914:VAL:O	1.66	0.94
3:R:37:ILE:CG2	4:U:60:ILE:HG23	1.97	0.94
4:V:36:ARG:HH11	4:V:37:PRO:CD	1.79	0.94
4:V:36:ARG:NH1	4:V:37:PRO:HB2	1.82	0.94
1:A:559:PRO:O	1:A:561:PRO:N	2.00	0.94
1:A:928:VAL:HG12	1:A:937:VAL:HA	1.48	0.94
1:C:525:GLU:O	1:C:528:GLU:HG3	1.67	0.94
1:C:612:ARG:HH12	1:C:1174:ALA:HB1	1.31	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:559:PRO:O	1:G:561:PRO:N	2.00	0.94
1:K:179:PRO:HD2	1:K:237:ARG:NH1	1.81	0.94
1:A:999:ARG:HD3	1:A:1030:TRP:NE1	1.82	0.94
1:C:902:ASP:CG	2:D:72:LYS:HZ2	1.70	0.94
1:C:1171:GLU:HG3	1:C:1172:GLY:H	1.30	0.94
2:H:14:CYS:SG	7:H:201:HEM:CBB	2.56	0.94
1:I:477:GLN:HA	1:I:477:GLN:HE21	1.31	0.94
1:K:657:GLU:HG2	1:K:680:LYS:NZ	1.83	0.94
1:K:999:ARG:HD3	1:K:1030:TRP:NE1	1.82	0.94
1:M:394:LYS:HB3	1:M:434:ARG:CB	1.98	0.94
1:M:882:LEU:HD22	1:M:882:LEU:N	1.78	0.94
1:A:544:PHE:HE1	1:A:576:VAL:HG13	1.30	0.94
1:A:875:VAL:HG11	1:A:915:CYS:SG	2.06	0.94
1:C:158:CYS:HG	1:C:284:SER:HB2	0.86	0.94
2:D:14:CYS:SG	7:D:201:HEM:CBB	2.56	0.94
2:D:17:CYS:HG	7:D:201:HEM:CBC	1.79	0.94
1:E:902:ASP:CG	2:F:72:LYS:HZ2	1.71	0.94
1:K:559:PRO:O	1:K:561:PRO:N	2.00	0.94
1:M:999:ARG:HD3	1:M:1030:TRP:NE1	1.82	0.94
1:C:553:HIS:HB2	1:C:610:VAL:HG11	1.50	0.94
1:C:1200:LYS:HE2	1:C:1211:GLN:HB3	1.47	0.94
1:E:230:LEU:CD2	1:E:234:LYS:HG3	1.98	0.94
1:G:657:GLU:HG2	1:G:680:LYS:NZ	1.83	0.94
1:I:612:ARG:HH12	1:I:1174:ALA:HB1	1.30	0.94
1:I:657:GLU:HG2	1:I:680:LYS:NZ	1.83	0.94
1:I:1200:LYS:HE2	1:I:1211:GLN:HB3	1.47	0.94
1:K:525:GLU:O	1:K:528:GLU:HG3	1.67	0.94
1:M:230:LEU:CD2	1:M:234:LYS:HG3	1.97	0.94
1:A:876:ALA:HB3	1:A:914:VAL:O	1.66	0.93
1:A:1171:GLU:HG3	1:A:1172:GLY:H	1.30	0.93
1:E:359:TYR:CD1	1:E:360:ASP:N	2.36	0.93
1:I:678:ASP:OD2	1:I:680:LYS:HE3	1.69	0.93
1:M:359:TYR:CD1	1:M:360:ASP:N	2.36	0.93
1:C:146:GLU:HG3	1:E:111:ARG:HH12	1.32	0.93
1:E:657:GLU:HG2	1:E:680:LYS:NZ	1.83	0.93
1:I:394:LYS:HB3	1:I:434:ARG:CB	1.98	0.93
1:I:999:ARG:HD3	1:I:1030:TRP:NE1	1.82	0.93
1:K:553:HIS:HB2	1:K:610:VAL:HG11	1.50	0.93
1:M:483:TRP:O	1:M:487:LEU:HB3	1.65	0.93
1:M:657:GLU:HG2	1:M:680:LYS:NZ	1.83	0.93
1:C:928:VAL:HG12	1:C:937:VAL:HA	1.48	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:879:ARG:HB3	1:G:921:MET:HE1	1.45	0.93
1:I:525:GLU:O	1:I:528:GLU:HG3	1.67	0.93
1:K:230:LEU:CD2	1:K:234:LYS:HG3	1.98	0.93
3:Q:79:GLY:CA	4:U:36:ARG:HH21	1.80	0.93
1:A:359:TYR:HD1	1:A:360:ASP:N	1.63	0.93
1:A:394:LYS:HB3	1:A:434:ARG:CB	1.98	0.93
1:A:678:ASP:OD2	1:A:680:LYS:HE3	1.68	0.93
1:C:544:PHE:HE1	1:C:576:VAL:HG13	1.30	0.93
1:E:875:VAL:HG11	1:E:915:CYS:SG	2.06	0.93
2:F:14:CYS:SG	7:F:201:HEM:CBB	2.56	0.93
1:G:146:GLU:HG3	1:I:111:ARG:HH12	1.32	0.93
1:G:359:TYR:CD1	1:G:360:ASP:N	2.36	0.93
2:J:14:CYS:SG	7:J:201:HEM:CBB	2.56	0.93
1:M:525:GLU:O	1:M:528:GLU:HG3	1.67	0.93
1:M:540:VAL:HG13	1:M:575:GLU:HB2	1.46	0.93
1:M:678:ASP:OD2	1:M:680:LYS:HE3	1.69	0.93
3:O:24:TYR:HE2	4:S:38:HIS:HB3	1.12	0.93
3:Q:19:ASP:OD1	4:U:64:THR:HA	1.67	0.93
1:A:359:TYR:CD1	1:A:360:ASP:N	2.36	0.93
2:B:14:CYS:SG	7:B:201:HEM:CBB	2.56	0.93
1:I:146:GLU:HG3	1:K:111:ARG:HH12	1.32	0.93
1:K:678:ASP:OD2	1:K:680:LYS:HE3	1.69	0.93
1:A:553:HIS:HB2	1:A:610:VAL:HG11	1.51	0.93
1:G:394:LYS:HB3	1:G:434:ARG:CB	1.98	0.93
1:I:230:LEU:CD2	1:I:234:LYS:HG3	1.97	0.93
1:K:477:GLN:HA	1:K:477:GLN:HE21	1.31	0.93
1:K:1213:PHE:O	1:K:1214:TYR:HB2	1.64	0.93
1:M:553:HIS:HB2	1:M:610:VAL:HG11	1.50	0.93
1:A:111:ARG:NH1	1:M:146:GLU:HG3	1.81	0.93
1:C:1176:HIS:HB2	1:C:1218:THR:HG21	1.46	0.93
1:I:1220:LEU:HG	1:I:1236:ASP:HB3	1.51	0.93
2:N:14:CYS:SG	7:N:201:HEM:CBB	2.56	0.93
1:C:1220:LEU:HG	1:C:1236:ASP:HB3	1.51	0.93
1:E:477:GLN:HE21	1:E:477:GLN:HA	1.31	0.93
1:E:1176:HIS:HB2	1:E:1218:THR:HG21	1.47	0.93
1:G:520:ALA:CB	1:G:648:GLU:HA	1.99	0.93
1:G:678:ASP:OD2	1:G:680:LYS:HE3	1.69	0.93
1:M:477:GLN:HE21	1:M:477:GLN:HA	1.31	0.93
1:C:394:LYS:HB3	1:C:434:ARG:CB	1.98	0.93
1:I:658:ASP:OD2	1:I:677:VAL:CB	2.17	0.93
1:I:902:ASP:CG	2:J:72:LYS:HZ2	1.72	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:31:SER:HA	4:T:11:ARG:CA	1.99	0.93
1:A:230:LEU:CD2	1:A:234:LYS:HG3	1.98	0.92
1:C:359:TYR:CD1	1:C:360:ASP:N	2.36	0.92
1:M:544:PHE:HE1	1:M:576:VAL:HG13	1.30	0.92
1:M:879:ARG:HB3	1:M:921:MET:HE1	1.48	0.92
1:E:520:ALA:CB	1:E:648:GLU:HA	2.00	0.92
1:G:902:ASP:CG	2:H:72:LYS:HZ2	1.70	0.92
1:I:1171:GLU:HG3	1:I:1172:GLY:H	1.30	0.92
2:L:14:CYS:SG	7:L:201:HEM:CBB	2.56	0.92
1:M:179:PRO:HD2	1:M:237:ARG:NH1	1.81	0.92
1:E:394:LYS:HB3	1:E:434:ARG:CB	1.98	0.92
1:E:1220:LEU:HG	1:E:1236:ASP:HB3	1.51	0.92
1:G:658:ASP:OD2	1:G:677:VAL:CB	2.17	0.92
3:Q:24:TYR:CE2	4:U:38:HIS:CB	2.51	0.92
4:U:13:ARG:CD	4:U:59:ILE:HD11	1.99	0.92
1:C:597:TRP:HD1	1:C:1243:ILE:O	1.53	0.92
1:G:876:ALA:HB3	1:G:914:VAL:O	1.66	0.92
1:I:614:HIS:HE1	1:I:640:GLN:CG	1.83	0.92
3:R:47:PRO:C	4:S:45:ARG:HG2	1.89	0.92
1:I:595:LEU:HD11	1:I:1201:TRP:HZ2	0.76	0.92
1:K:612:ARG:HH12	1:K:1174:ALA:HB1	1.31	0.92
1:M:862:TYR:HE2	1:M:881:HIS:H	0.96	0.92
1:A:146:GLU:CG	1:C:111:ARG:NH1	2.33	0.92
1:C:657:GLU:HG2	1:C:680:LYS:NZ	1.83	0.92
1:C:678:ASP:OD2	1:C:680:LYS:HE3	1.69	0.92
1:E:597:TRP:HD1	1:E:1243:ILE:O	1.53	0.92
2:F:18:HIS:HE1	2:F:30:PRO:HD2	1.34	0.92
1:G:1200:LYS:HE2	1:G:1211:GLN:HB3	1.47	0.92
1:I:179:PRO:HD2	1:I:237:ARG:NH1	1.81	0.92
1:K:146:GLU:CG	1:M:111:ARG:NH1	2.33	0.92
1:M:1228:ASP:HB3	1:M:1230:LYS:HG2	1.52	0.92
1:A:477:GLN:HA	1:A:477:GLN:HE21	1.31	0.92
1:G:1220:LEU:HG	1:G:1236:ASP:HB3	1.51	0.92
4:S:52:ARG:CD	4:T:38:HIS:CE1	2.53	0.92
1:A:658:ASP:OD2	1:A:677:VAL:CB	2.17	0.92
1:C:146:GLU:CG	1:E:111:ARG:NH1	2.33	0.92
1:E:553:HIS:HB2	1:E:610:VAL:HG11	1.50	0.92
1:E:658:ASP:OD2	1:E:677:VAL:CB	2.17	0.92
1:I:520:ALA:CB	1:I:648:GLU:HA	1.99	0.92
1:M:928:VAL:HG12	1:M:937:VAL:HA	1.48	0.92
1:A:450:CYS:HA	1:A:453:LEU:HD23	1.52	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:18:HIS:HE1	2:H:30:PRO:HD2	1.34	0.92
1:K:1228:ASP:HB3	1:K:1230:LYS:HG2	1.52	0.92
1:E:450:CYS:HA	1:E:453:LEU:HD23	1.52	0.91
1:K:614:HIS:HE1	1:K:640:GLN:CG	1.83	0.91
1:M:928:VAL:HG11	1:M:937:VAL:HG12	1.52	0.91
3:O:48:THR:HG22	3:P:41:GLU:CD	1.90	0.91
1:C:453:LEU:HA	1:C:456:LEU:CD1	2.01	0.91
2:D:18:HIS:HE1	2:D:30:PRO:HD2	1.34	0.91
1:E:595:LEU:HD11	1:E:1201:TRP:HZ2	0.76	0.91
1:E:678:ASP:OD2	1:E:680:LYS:HE3	1.69	0.91
1:G:146:GLU:CG	1:I:111:ARG:NH1	2.33	0.91
1:I:1228:ASP:HB3	1:I:1230:LYS:HG2	1.52	0.91
1:K:127:VAL:H	5:K:1301:DTP:HN61	1.17	0.91
1:M:520:ALA:CB	1:M:648:GLU:HA	1.99	0.91
1:E:146:GLU:CG	1:G:111:ARG:NH1	2.33	0.91
1:E:928:VAL:HG11	1:E:937:VAL:HG12	1.52	0.91
1:I:146:GLU:CG	1:K:111:ARG:NH1	2.33	0.91
1:I:553:HIS:HB2	1:I:610:VAL:HG11	1.50	0.91
1:K:1220:LEU:HG	1:K:1236:ASP:HB3	1.51	0.91
2:L:18:HIS:HE1	2:L:30:PRO:HD2	1.34	0.91
1:A:427:ASP:OD2	1:A:434:ARG:HG2	1.71	0.91
1:A:520:ALA:CB	1:A:648:GLU:HA	2.00	0.91
1:A:1220:LEU:HG	1:A:1236:ASP:HB3	1.51	0.91
1:C:595:LEU:HD13	1:C:1244:LEU:CD2	2.01	0.91
1:G:1228:ASP:HB3	1:G:1230:LYS:HG2	1.52	0.91
1:K:1185:PHE:O	1:K:1229:PHE:CZ	2.24	0.91
3:Q:28:HIS:CA	4:T:14:LEU:HG	1.99	0.91
3:R:37:ILE:HG21	4:U:60:ILE:CG2	2.00	0.91
1:A:657:GLU:HG2	1:A:680:LYS:NZ	1.83	0.91
1:C:450:CYS:HA	1:C:453:LEU:HD23	1.52	0.91
1:C:658:ASP:OD2	1:C:677:VAL:CB	2.17	0.91
1:E:595:LEU:HD13	1:E:1244:LEU:CD2	2.01	0.91
1:G:431:LYS:HZ2	1:I:336:ASN:HB3	1.28	0.91
1:G:525:GLU:O	1:G:528:GLU:HG3	1.67	0.91
1:I:359:TYR:CD1	1:I:360:ASP:N	2.36	0.91
1:K:520:ALA:CB	1:K:648:GLU:HA	2.00	0.91
1:K:879:ARG:HB3	1:K:921:MET:HE1	1.51	0.91
1:M:1185:PHE:O	1:M:1229:PHE:CZ	2.24	0.91
2:N:18:HIS:HE1	2:N:30:PRO:HD2	1.34	0.91
1:A:179:PRO:HB3	3:P:2:ASP:OD1	1.69	0.91
1:C:1185:PHE:O	1:C:1229:PHE:CZ	2.24	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1187:PRO:HG3	1:E:1229:PHE:CG	2.06	0.91
1:G:612:ARG:HH12	1:G:1174:ALA:HB1	1.31	0.91
1:K:359:TYR:CD1	1:K:360:ASP:N	2.36	0.91
1:K:902:ASP:CG	2:L:72:LYS:HZ2	1.74	0.91
3:P:19:ASP:OD1	4:T:64:THR:HA	1.71	0.91
1:A:453:LEU:HA	1:A:456:LEU:CD1	2.01	0.91
1:A:597:TRP:HD1	1:A:1243:ILE:O	1.53	0.91
1:C:127:VAL:H	5:C:1301:DTP:HN61	1.17	0.91
1:G:595:LEU:HD13	1:G:1244:LEU:CD2	2.01	0.91
1:G:928:VAL:HG11	1:G:937:VAL:HG12	1.52	0.91
1:M:127:VAL:H	5:M:1301:DTP:HN61	1.17	0.91
1:M:658:ASP:OD2	1:M:677:VAL:CB	2.17	0.91
1:A:111:ARG:NH1	1:M:146:GLU:CG	2.33	0.91
1:E:453:LEU:HA	1:E:456:LEU:CD1	2.01	0.91
1:K:359:TYR:HD1	1:K:360:ASP:H	0.91	0.91
1:M:450:CYS:HA	1:M:453:LEU:HD23	1.52	0.91
1:A:1176:HIS:HB2	1:A:1218:THR:OG1	1.70	0.91
1:C:179:PRO:HD2	1:C:237:ARG:NH1	1.81	0.91
1:G:179:PRO:HD2	1:G:237:ARG:NH1	1.81	0.91
1:G:595:LEU:HD11	1:G:1201:TRP:HZ2	0.76	0.91
1:I:453:LEU:HA	1:I:456:LEU:CD1	2.00	0.91
3:P:31:SER:HA	4:S:11:ARG:HA	1.53	0.91
4:U:18:GLU:HG3	4:U:52:ARG:NH1	1.85	0.91
1:A:639:LEU:H	1:A:653:ILE:CG2	1.84	0.91
1:C:171:HIS:HD2	1:C:175:GLU:HB2	1.25	0.91
1:G:639:LEU:H	1:G:653:ILE:CG2	1.84	0.91
1:I:1187:PRO:HG3	1:I:1229:PHE:CG	2.06	0.91
1:K:658:ASP:OD2	1:K:677:VAL:CB	2.17	0.91
1:K:928:VAL:HG11	1:K:937:VAL:HG12	1.52	0.91
1:M:639:LEU:H	1:M:653:ILE:CG2	1.84	0.91
1:A:595:LEU:HD13	1:A:1244:LEU:CD2	2.01	0.90
1:A:1185:PHE:O	1:A:1229:PHE:CZ	2.24	0.90
1:C:881:HIS:HD1	1:C:901:SER:HB3	1.34	0.90
1:G:450:CYS:HA	1:G:453:LEU:HD23	1.52	0.90
1:G:453:LEU:HA	1:G:456:LEU:CD1	2.01	0.90
1:G:597:TRP:HD1	1:G:1243:ILE:O	1.53	0.90
1:G:1187:PRO:HG3	1:G:1229:PHE:CG	2.06	0.90
3:R:47:PRO:CB	4:S:45:ARG:CB	2.48	0.90
1:A:158:CYS:HG	1:A:284:SER:HB2	0.96	0.90
1:A:928:VAL:HG11	1:A:937:VAL:HG12	1.52	0.90
1:C:928:VAL:HG11	1:C:937:VAL:HG12	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:158:CYS:HG	1:G:284:SER:HB2	0.89	0.90
2:B:18:HIS:HE1	2:B:30:PRO:HD2	1.34	0.90
1:C:520:ALA:CB	1:C:648:GLU:HA	2.00	0.90
1:C:595:LEU:HD11	1:C:1201:TRP:CH2	2.07	0.90
1:E:127:VAL:H	5:E:1301:DTP:HN61	1.17	0.90
1:E:860:SER:O	1:E:861:GLN:HG3	1.72	0.90
1:M:597:TRP:HD1	1:M:1243:ILE:O	1.53	0.90
1:M:928:VAL:HG22	1:M:1224:HIS:ND1	1.87	0.90
1:M:1187:PRO:HG3	1:M:1229:PHE:CG	2.06	0.90
3:O:1:MET:HG3	3:O:6:ARG:CG	2.00	0.90
3:R:31:SER:O	4:U:11:ARG:CA	2.18	0.90
1:C:1176:HIS:HB2	1:C:1218:THR:OG1	1.70	0.90
1:C:427:ASP:OD2	1:C:434:ARG:HG2	1.71	0.90
1:G:928:VAL:HG22	1:G:1224:HIS:ND1	1.87	0.90
1:I:862:TYR:HE2	1:I:881:HIS:H	0.97	0.90
1:M:614:HIS:HE1	1:M:640:GLN:CG	1.83	0.90
1:M:902:ASP:CG	2:N:72:LYS:HZ2	1.74	0.90
1:A:109:TYR:OH	3:P:4:LYS:HB3	1.72	0.90
1:C:1187:PRO:HG3	1:C:1229:PHE:CG	2.06	0.90
1:E:595:LEU:HD11	1:E:1201:TRP:CH2	2.07	0.90
1:E:1185:PHE:O	1:E:1229:PHE:CZ	2.24	0.90
1:G:595:LEU:HD11	1:G:1201:TRP:CH2	2.07	0.90
1:I:427:ASP:OD2	1:I:434:ARG:HG2	1.71	0.90
1:I:595:LEU:HD13	1:I:1244:LEU:CD2	2.01	0.90
1:K:639:LEU:H	1:K:653:ILE:CG2	1.85	0.90
2:D:17:CYS:HG	7:D:201:HEM:CAC	1.81	0.90
1:G:359:TYR:HD1	1:G:360:ASP:H	0.91	0.90
1:G:1247:LEU:HD12	1:G:1248:GLU:H	1.37	0.90
1:I:595:LEU:HD11	1:I:1201:TRP:CH2	2.06	0.90
1:I:1185:PHE:O	1:I:1229:PHE:CZ	2.24	0.90
1:A:127:VAL:CG2	1:A:294:ILE:HG13	2.02	0.90
1:A:138:GLN:CA	3:W:6:ARG:CZ	2.49	0.90
1:C:1201:TRP:HE3	1:C:1210:SER:HB3	1.37	0.90
1:G:573:THR:HA	1:G:577:TYR:HD2	1.37	0.90
1:K:597:TRP:HD1	1:K:1243:ILE:O	1.53	0.90
1:M:1200:LYS:HG3	1:M:1211:GLN:HA	1.54	0.90
1:M:1220:LEU:HG	1:M:1236:ASP:HB3	1.51	0.90
1:C:639:LEU:H	1:C:653:ILE:CG2	1.84	0.90
1:E:333:ASP:HB2	1:E:334:PHE:CE1	2.07	0.90
1:G:1176:HIS:HB2	1:G:1218:THR:OG1	1.71	0.90
1:I:359:TYR:HD1	1:I:360:ASP:H	0.92	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1187:PRO:HG3	1:K:1229:PHE:CG	2.06	0.90
1:M:127:VAL:CG2	1:M:294:ILE:HG13	2.02	0.90
1:M:453:LEU:HA	1:M:456:LEU:CD1	2.01	0.90
1:M:860:SER:O	1:M:861:GLN:HG3	1.72	0.90
1:A:595:LEU:HD11	1:A:1201:TRP:CH2	2.07	0.90
1:A:928:VAL:HG22	1:A:1224:HIS:ND1	1.87	0.90
1:A:1228:ASP:HB3	1:A:1230:LYS:HG2	1.52	0.90
1:C:860:SER:O	1:C:861:GLN:HG3	1.72	0.90
1:C:1200:LYS:HG3	1:C:1211:GLN:HA	1.53	0.90
1:E:231:MET:O	1:E:236:PRO:HA	1.72	0.90
1:E:614:HIS:HE1	1:E:640:GLN:CG	1.83	0.90
1:I:639:LEU:H	1:I:653:ILE:CG2	1.84	0.90
1:K:333:ASP:HB2	1:K:334:PHE:CE1	2.07	0.90
1:A:1200:LYS:HG3	1:A:1211:GLN:HA	1.54	0.89
1:C:127:VAL:CG2	1:C:294:ILE:HG13	2.02	0.89
1:C:614:HIS:HE1	1:C:640:GLN:CG	1.83	0.89
1:I:127:VAL:H	5:I:1301:DTP:HN61	1.17	0.89
1:K:127:VAL:CG2	1:K:294:ILE:HG13	2.02	0.89
1:K:924:GLN:HB3	1:K:1238:LEU:HG	1.54	0.89
4:U:13:ARG:HD3	4:U:59:ILE:HD11	1.54	0.89
1:A:1187:PRO:HG3	1:A:1229:PHE:CG	2.06	0.89
1:C:520:ALA:HB1	1:C:648:GLU:CA	2.03	0.89
1:G:427:ASP:OD2	1:G:434:ARG:HG2	1.71	0.89
1:G:553:HIS:HB2	1:G:610:VAL:HG11	1.50	0.89
1:I:597:TRP:HD1	1:I:1243:ILE:O	1.53	0.89
2:J:18:HIS:HE1	2:J:30:PRO:HD2	1.34	0.89
1:K:573:THR:HA	1:K:577:TYR:HD2	1.37	0.89
1:K:860:SER:O	1:K:861:GLN:HG3	1.72	0.89
1:A:333:ASP:HB2	1:A:334:PHE:CE1	2.07	0.89
1:E:234:LYS:O	1:E:235:HIS:ND1	2.05	0.89
1:I:544:PHE:CE1	1:I:576:VAL:CG1	2.51	0.89
1:K:453:LEU:HA	1:K:456:LEU:CD1	2.01	0.89
1:A:520:ALA:HB1	1:A:648:GLU:CA	2.03	0.89
1:E:928:VAL:HG22	1:E:1224:HIS:ND1	1.87	0.89
1:I:928:VAL:HG11	1:I:937:VAL:HG12	1.52	0.89
1:K:500:LEU:HD22	1:K:532:ILE:HG12	1.55	0.89
1:M:316:GLU:O	1:M:318:LYS:HG2	1.73	0.89
1:C:500:LEU:HD22	1:C:532:ILE:HG12	1.55	0.89
1:G:595:LEU:HB3	1:G:1244:LEU:HB2	1.55	0.89
1:G:1185:PHE:O	1:G:1229:PHE:CZ	2.24	0.89
1:K:928:VAL:HG22	1:K:1224:HIS:ND1	1.87	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:31:SER:CA	4:T:11:ARG:HA	2.02	0.89
4:V:36:ARG:CD	4:V:37:PRO:HD2	2.03	0.89
1:C:431:LYS:HZ3	1:E:336:ASN:HB3	1.33	0.89
1:E:427:ASP:OD2	1:E:434:ARG:HG2	1.71	0.89
1:E:473:LEU:CD1	1:E:480:CYS:HB2	2.03	0.89
1:I:431:LYS:HZ3	1:K:336:ASN:HB3	1.31	0.89
1:I:450:CYS:HA	1:I:453:LEU:HD23	1.52	0.89
1:I:473:LEU:CD1	1:I:480:CYS:HB2	2.03	0.89
1:I:928:VAL:HG22	1:I:1224:HIS:ND1	1.87	0.89
1:K:450:CYS:HA	1:K:453:LEU:HD23	1.52	0.89
1:K:520:ALA:HB1	1:K:648:GLU:CA	2.03	0.89
1:K:1200:LYS:HG3	1:K:1211:GLN:HA	1.54	0.89
1:M:520:ALA:HB1	1:M:648:GLU:CA	2.02	0.89
4:T:52:ARG:HD2	4:U:38:HIS:CE1	2.04	0.89
1:C:333:ASP:HB2	1:C:334:PHE:CE1	2.08	0.89
1:C:1228:ASP:HB3	1:C:1230:LYS:HG2	1.52	0.89
1:E:595:LEU:HB3	1:E:1244:LEU:HB2	1.55	0.89
1:E:1149:GLY:CA	1:E:1180:VAL:HG22	2.03	0.89
1:E:1228:ASP:HB3	1:E:1230:LYS:HG2	1.52	0.89
1:G:333:ASP:HB2	1:G:334:PHE:CE1	2.07	0.89
1:G:1149:GLY:CA	1:G:1180:VAL:HG22	2.03	0.89
1:I:924:GLN:HB3	1:I:1238:LEU:HG	1.54	0.89
1:K:316:GLU:O	1:K:318:LYS:HG2	1.73	0.89
1:A:364:LEU:HD11	1:A:368:MET:HE1	1.54	0.89
1:G:860:SER:O	1:G:861:GLN:HG3	1.72	0.89
1:I:860:SER:O	1:I:861:GLN:HG3	1.72	0.89
1:K:158:CYS:HG	1:K:284:SER:HB2	0.98	0.89
1:M:427:ASP:OD2	1:M:434:ARG:HG2	1.71	0.89
1:C:595:LEU:HD11	1:C:1201:TRP:HZ2	0.76	0.89
1:C:924:GLN:HB3	1:C:1238:LEU:HG	1.54	0.89
1:E:924:GLN:HB3	1:E:1238:LEU:HG	1.54	0.89
1:M:595:LEU:HD13	1:M:1244:LEU:CD2	2.01	0.89
1:A:1201:TRP:HE3	1:A:1210:SER:HB3	1.37	0.89
1:E:1247:LEU:HD12	1:E:1248:GLU:H	1.37	0.89
1:M:359:TYR:HD1	1:M:360:ASP:H	0.92	0.89
1:M:1200:LYS:CB	1:M:1202:TRP:CZ3	2.56	0.89
1:A:860:SER:O	1:A:861:GLN:HG3	1.72	0.88
1:C:1247:LEU:HD12	1:C:1248:GLU:H	1.37	0.88
1:E:236:PRO:CB	3:O:3:ALA:HB1	2.03	0.88
1:E:595:LEU:HD22	1:E:1244:LEU:HD13	0.89	0.88
1:G:595:LEU:HD22	1:G:1244:LEU:HD13	0.88	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:544:PHE:CE1	1:K:576:VAL:CG1	2.52	0.88
1:K:1200:LYS:CB	1:K:1202:TRP:CZ3	2.56	0.88
1:M:573:THR:HA	1:M:577:TYR:HD2	1.38	0.88
1:M:595:LEU:HD11	1:M:1201:TRP:CH2	2.07	0.88
1:M:924:GLN:HB3	1:M:1238:LEU:HG	1.54	0.88
1:A:316:GLU:O	1:A:318:LYS:HG2	1.73	0.88
1:G:127:VAL:H	5:G:1301:DTP:HN61	1.17	0.88
1:G:520:ALA:HB1	1:G:648:GLU:CA	2.02	0.88
1:I:573:THR:HA	1:I:577:TYR:HD2	1.38	0.88
1:K:427:ASP:OD2	1:K:434:ARG:HG2	1.71	0.88
1:K:595:LEU:HD13	1:K:1244:LEU:CD2	2.01	0.88
1:A:500:LEU:HD22	1:A:532:ILE:HG12	1.55	0.88
1:E:316:GLU:O	1:E:318:LYS:HG2	1.73	0.88
1:G:544:PHE:CE1	1:G:576:VAL:CG1	2.52	0.88
1:I:1176:HIS:HB2	1:I:1218:THR:OG1	1.71	0.88
1:C:595:LEU:HB3	1:C:1244:LEU:HB2	1.55	0.88
1:G:127:VAL:CG2	1:G:294:ILE:HG13	2.02	0.88
1:G:316:GLU:O	1:G:318:LYS:HG2	1.73	0.88
1:G:1200:LYS:HG3	1:G:1211:GLN:HA	1.53	0.88
1:K:595:LEU:HD11	1:K:1201:TRP:CH2	2.07	0.88
1:M:500:LEU:HD22	1:M:532:ILE:HG12	1.55	0.88
1:M:1176:HIS:HB2	1:M:1218:THR:OG1	1.73	0.88
3:Q:27:ASP:CG	4:T:17:VAL:HG21	1.93	0.88
3:Q:34:PHE:HZ	3:Q:66:ASP:HB3	1.31	0.88
1:E:127:VAL:CG2	1:E:294:ILE:HG13	2.02	0.88
1:E:573:THR:HA	1:E:577:TYR:HD2	1.37	0.88
1:I:1200:LYS:CB	1:I:1202:TRP:CZ3	2.56	0.88
1:M:333:ASP:HB2	1:M:334:PHE:CE1	2.07	0.88
1:E:394:LYS:CB	1:E:434:ARG:HB2	2.04	0.88
1:E:639:LEU:H	1:E:653:ILE:CG2	1.84	0.88
1:I:544:PHE:HE1	1:I:576:VAL:HG13	1.30	0.88
1:I:595:LEU:HD22	1:I:1244:LEU:HD13	0.88	0.88
1:I:1240:ILE:HG23	1:I:1241:LEU:N	1.89	0.88
1:M:1187:PRO:HG3	1:M:1229:PHE:CD2	2.09	0.88
1:C:595:LEU:HD22	1:C:1244:LEU:HD13	0.88	0.88
1:C:595:LEU:HG	1:C:1201:TRP:CH2	2.09	0.88
1:I:500:LEU:HD22	1:I:532:ILE:HG12	1.55	0.88
1:I:1187:PRO:HG3	1:I:1229:PHE:CD2	2.09	0.88
1:K:544:PHE:HE1	1:K:576:VAL:HG13	1.30	0.88
2:L:103:ASN:O	2:L:104:GLU:O	1.92	0.88
3:X:37:ILE:HG13	4:Y:10:ARG:HH11	1.31	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1167:PRO:C	1:A:1202:TRP:NE1	2.27	0.88
1:C:284:SER:O	1:C:438:HIS:CE1	2.27	0.88
1:E:500:LEU:HD22	1:E:532:ILE:HG12	1.55	0.88
1:E:1240:ILE:HG23	1:E:1241:LEU:N	1.89	0.88
2:F:103:ASN:O	2:F:104:GLU:O	1.92	0.88
1:G:1185:PHE:HD1	1:G:1192:LEU:HG	1.36	0.88
1:G:1200:LYS:CB	1:G:1202:TRP:CZ3	2.56	0.88
1:I:333:ASP:HB2	1:I:334:PHE:CE1	2.07	0.88
1:I:520:ALA:HB1	1:I:648:GLU:CA	2.02	0.88
1:M:595:LEU:HG	1:M:1201:TRP:CH2	2.09	0.88
1:M:595:LEU:HB3	1:M:1244:LEU:HB2	1.55	0.88
1:M:1247:LEU:HD12	1:M:1248:GLU:H	1.37	0.88
1:A:179:PRO:HD2	1:A:237:ARG:NH1	1.81	0.88
1:A:544:PHE:CE1	1:A:576:VAL:CG1	2.52	0.88
1:C:394:LYS:CB	1:C:434:ARG:HB2	2.04	0.88
1:C:1240:ILE:HG23	1:C:1241:LEU:N	1.89	0.88
2:J:103:ASN:O	2:J:104:GLU:O	1.92	0.88
1:K:1176:HIS:HB2	1:K:1218:THR:OG1	1.71	0.88
1:K:1247:LEU:HD12	1:K:1248:GLU:H	1.37	0.88
1:M:158:CYS:HG	1:M:284:SER:HB2	1.05	0.88
1:A:127:VAL:H	5:A:1301:DTP:HN61	1.17	0.88
1:A:284:SER:O	1:A:438:HIS:CE1	2.27	0.88
1:A:336:ASN:HB3	1:M:431:LYS:HZ3	1.34	0.88
1:C:316:GLU:O	1:C:318:LYS:HG2	1.73	0.88
2:D:103:ASN:O	2:D:104:GLU:O	1.92	0.88
2:H:103:ASN:O	2:H:104:GLU:O	1.92	0.88
1:I:922:LEU:CD1	1:I:1241:LEU:HD23	2.04	0.88
1:K:1187:PRO:HG3	1:K:1229:PHE:CD2	2.09	0.88
1:M:716:LEU:HB3	1:M:728:TRP:HB2	1.56	0.88
1:A:716:LEU:HB3	1:A:728:TRP:HB2	1.56	0.87
1:C:544:PHE:CE1	1:C:576:VAL:CG1	2.52	0.87
1:C:922:LEU:CD1	1:C:1241:LEU:HD23	2.04	0.87
1:E:359:TYR:HD1	1:E:360:ASP:H	0.92	0.87
1:E:1185:PHE:HD1	1:E:1192:LEU:HG	1.36	0.87
1:G:394:LYS:CB	1:G:434:ARG:HB2	2.04	0.87
1:G:924:GLN:HB3	1:G:1238:LEU:HG	1.54	0.87
1:I:127:VAL:CG2	1:I:294:ILE:HG13	2.02	0.87
1:I:1200:LYS:HG3	1:I:1211:GLN:HA	1.54	0.87
1:K:595:LEU:HB3	1:K:1244:LEU:HB2	1.55	0.87
1:M:595:LEU:HD22	1:M:1244:LEU:HD13	0.88	0.87
1:A:922:LEU:CD1	1:A:1241:LEU:HD23	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:284:SER:O	1:I:438:HIS:CE1	2.27	0.87
1:I:316:GLU:O	1:I:318:LYS:HG2	1.73	0.87
1:I:595:LEU:HB3	1:I:1244:LEU:HB2	1.55	0.87
1:M:1149:GLY:CA	1:M:1180:VAL:HG22	2.03	0.87
1:G:1187:PRO:HG3	1:G:1229:PHE:CD2	2.09	0.87
1:K:595:LEU:HD22	1:K:1244:LEU:HD13	0.89	0.87
1:A:359:TYR:HD1	1:A:360:ASP:H	0.91	0.87
1:A:456:LEU:O	1:A:459:LYS:N	2.08	0.87
1:A:924:GLN:HB3	1:A:1238:LEU:HG	1.54	0.87
1:C:928:VAL:HG22	1:C:1224:HIS:ND1	1.87	0.87
1:C:1185:PHE:HD1	1:C:1192:LEU:HG	1.36	0.87
1:I:456:LEU:O	1:I:459:LYS:N	2.08	0.87
1:I:1201:TRP:HE3	1:I:1210:SER:HB3	1.37	0.87
1:K:716:LEU:HB3	1:K:728:TRP:HB2	1.56	0.87
3:Q:28:HIS:ND1	4:T:14:LEU:HD11	1.90	0.87
1:E:544:PHE:CE1	1:E:576:VAL:CG1	2.51	0.87
1:G:284:SER:O	1:G:438:HIS:CE1	2.27	0.87
1:I:237:ARG:HH11	1:I:237:ARG:HG2	1.40	0.87
1:K:473:LEU:CD1	1:K:480:CYS:HB2	2.03	0.87
1:K:922:LEU:CD1	1:K:1241:LEU:HD23	2.04	0.87
4:V:36:ARG:HD2	4:V:37:PRO:CD	2.04	0.87
1:C:456:LEU:O	1:C:459:LYS:N	2.08	0.87
1:C:639:LEU:HD21	1:C:653:ILE:HD12	1.57	0.87
1:E:284:SER:O	1:E:438:HIS:CE1	2.27	0.87
1:E:1200:LYS:HG3	1:E:1211:GLN:HA	1.53	0.87
1:G:456:LEU:O	1:G:459:LYS:N	2.08	0.87
1:I:473:LEU:HD21	1:I:484:TYR:CE1	2.10	0.87
1:A:1187:PRO:HG3	1:A:1229:PHE:CD2	2.09	0.87
1:C:431:LYS:NZ	1:E:336:ASN:CB	2.38	0.87
1:C:500:LEU:HD23	1:C:533:LEU:HD13	1.57	0.87
1:C:573:THR:HA	1:C:577:TYR:HD2	1.37	0.87
1:E:520:ALA:HB1	1:E:648:GLU:CA	2.03	0.87
1:E:595:LEU:HG	1:E:1201:TRP:CH2	2.09	0.87
1:E:1200:LYS:CB	1:E:1202:TRP:CZ3	2.56	0.87
1:G:922:LEU:CD1	1:G:1241:LEU:HD23	2.04	0.87
1:G:1164:LEU:HD12	1:G:1164:LEU:H	1.40	0.87
1:K:1149:GLY:CA	1:K:1180:VAL:HG22	2.04	0.87
1:M:882:LEU:CB	1:M:1237:ASN:HD21	1.88	0.87
4:U:18:GLU:HG3	4:U:52:ARG:HH12	1.36	0.87
1:A:595:LEU:HD22	1:A:1244:LEU:HD13	0.89	0.87
1:E:500:LEU:HD23	1:E:533:LEU:HD13	1.57	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:882:LEU:CB	1:G:1237:ASN:HD21	1.88	0.87
1:K:882:LEU:CB	1:K:1237:ASN:HD21	1.88	0.87
1:C:579:GLN:NE2	1:C:579:GLN:O	2.08	0.87
1:E:922:LEU:CD1	1:E:1241:LEU:HD23	2.04	0.87
1:G:500:LEU:HD22	1:G:532:ILE:HG12	1.55	0.87
1:I:882:LEU:CB	1:I:1237:ASN:HD21	1.88	0.87
1:K:456:LEU:O	1:K:459:LYS:N	2.08	0.87
1:K:500:LEU:HD23	1:K:533:LEU:HD13	1.57	0.87
1:M:544:PHE:CE1	1:M:576:VAL:CG1	2.51	0.87
2:N:103:ASN:O	2:N:104:GLU:O	1.92	0.87
1:A:137:GLN:HB3	3:W:6:ARG:HH22	1.40	0.86
1:A:431:LYS:NZ	1:C:336:ASN:CB	2.38	0.86
1:A:882:LEU:CB	1:A:1237:ASN:HD21	1.88	0.86
1:I:579:GLN:O	1:I:579:GLN:NE2	2.08	0.86
1:K:1164:LEU:H	1:K:1164:LEU:HD12	1.40	0.86
1:M:284:SER:O	1:M:438:HIS:CE1	2.27	0.86
1:A:902:ASP:CG	2:B:72:LYS:HZ2	1.78	0.86
1:E:1176:HIS:HB2	1:E:1218:THR:OG1	1.73	0.86
1:G:579:GLN:O	1:G:579:GLN:NE2	2.08	0.86
1:G:595:LEU:HG	1:G:1201:TRP:CH2	2.09	0.86
1:G:614:HIS:HE1	1:G:640:GLN:CG	1.83	0.86
1:K:284:SER:O	1:K:438:HIS:CE1	2.27	0.86
1:K:639:LEU:HD21	1:K:653:ILE:HD12	1.57	0.86
3:Q:79:GLY:HA2	4:U:36:ARG:NH2	1.88	0.86
1:A:595:LEU:HG	1:A:1201:TRP:CH2	2.09	0.86
1:A:639:LEU:HD21	1:A:653:ILE:HD12	1.57	0.86
1:A:1167:PRO:CA	1:A:1202:TRP:HE1	1.81	0.86
1:C:237:ARG:HH11	1:C:237:ARG:HG2	1.40	0.86
1:C:294:ILE:HG21	1:C:324:VAL:CG1	2.06	0.86
1:C:359:TYR:HD1	1:C:360:ASP:H	0.92	0.86
1:C:1167:PRO:CA	1:C:1202:TRP:HE1	1.81	0.86
1:E:431:LYS:NZ	1:G:336:ASN:CB	2.38	0.86
1:I:595:LEU:HG	1:I:1201:TRP:CH2	2.09	0.86
1:K:477:GLN:HA	1:K:477:GLN:NE2	1.90	0.86
1:M:500:LEU:HD23	1:M:533:LEU:HD13	1.57	0.86
1:M:922:LEU:CD1	1:M:1241:LEU:HD23	2.04	0.86
1:A:294:ILE:HG21	1:A:324:VAL:CG1	2.06	0.86
1:C:716:LEU:HB3	1:C:728:TRP:HB2	1.56	0.86
1:C:1164:LEU:H	1:C:1164:LEU:HD12	1.40	0.86
1:C:1187:PRO:HG3	1:C:1229:PHE:CD2	2.09	0.86
1:E:1187:PRO:HG3	1:E:1229:PHE:CD2	2.09	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:473:LEU:HD21	1:G:484:TYR:CE1	2.10	0.86
1:G:922:LEU:HD12	1:G:1241:LEU:HD23	1.58	0.86
1:K:505:PHE:HZ	1:K:540:VAL:HG11	1.40	0.86
1:A:333:ASP:HB2	1:A:334:PHE:CD1	2.11	0.86
1:A:573:THR:HA	1:A:577:TYR:HD2	1.38	0.86
1:C:473:LEU:HD21	1:C:484:TYR:CE1	2.10	0.86
1:E:1200:LYS:HG3	1:E:1211:GLN:CB	2.05	0.86
1:G:716:LEU:HB3	1:G:728:TRP:HB2	1.57	0.86
1:G:1201:TRP:HE3	1:G:1210:SER:HB3	1.37	0.86
1:I:394:LYS:CB	1:I:434:ARG:HB2	2.04	0.86
1:K:473:LEU:HD21	1:K:484:TYR:CE1	2.10	0.86
1:K:579:GLN:NE2	1:K:579:GLN:O	2.08	0.86
1:K:1167:PRO:C	1:K:1202:TRP:NE1	2.27	0.86
1:A:394:LYS:CB	1:A:434:ARG:HB2	2.04	0.86
1:A:1240:ILE:HG23	1:A:1241:LEU:N	1.89	0.86
1:G:122:ARG:HH21	1:G:126:PHE:HZ	1.24	0.86
1:I:1149:GLY:CA	1:I:1180:VAL:HG22	2.05	0.86
1:I:1167:PRO:HA	1:I:1202:TRP:HD1	1.41	0.86
1:K:595:LEU:HG	1:K:1201:TRP:CH2	2.09	0.86
1:K:1200:LYS:HG3	1:K:1211:GLN:CB	2.05	0.86
1:M:1185:PHE:HD1	1:M:1192:LEU:HG	1.36	0.86
3:R:47:PRO:CA	4:S:45:ARG:CG	2.48	0.86
4:T:52:ARG:HD3	4:U:38:HIS:NE2	1.89	0.86
1:A:922:LEU:HD12	1:A:1241:LEU:HD23	1.57	0.86
2:B:103:ASN:O	2:B:104:GLU:O	1.92	0.86
1:C:1200:LYS:HG3	1:C:1211:GLN:CB	2.05	0.86
1:G:332:ARG:CB	1:G:332:ARG:HH11	1.88	0.86
1:M:639:LEU:HD21	1:M:653:ILE:HD12	1.57	0.86
1:A:473:LEU:CD1	1:A:480:CYS:HB2	2.03	0.86
1:A:595:LEU:CD1	1:A:1201:TRP:CH2	2.59	0.86
1:A:881:HIS:HD1	1:A:901:SER:HB3	1.34	0.86
1:A:1200:LYS:CB	1:A:1202:TRP:CZ3	2.56	0.86
1:C:922:LEU:HD12	1:C:1241:LEU:HD23	1.58	0.86
1:C:1200:LYS:CB	1:C:1202:TRP:CZ3	2.56	0.86
1:E:639:LEU:HD21	1:E:653:ILE:HD12	1.57	0.86
1:E:922:LEU:HD12	1:E:1241:LEU:HD23	1.58	0.86
1:G:473:LEU:CD1	1:G:480:CYS:HB2	2.03	0.86
1:I:158:CYS:HG	1:I:284:SER:HB2	1.06	0.86
1:I:639:LEU:HD21	1:I:653:ILE:HD12	1.57	0.86
1:I:922:LEU:HD12	1:I:1241:LEU:HD23	1.58	0.86
1:I:1247:LEU:HD12	1:I:1248:GLU:H	1.37	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:332:ARG:CB	1:K:332:ARG:HH11	1.88	0.86
1:K:1240:ILE:HG23	1:K:1241:LEU:N	1.89	0.86
1:M:477:GLN:HA	1:M:477:GLN:NE2	1.90	0.86
1:M:1240:ILE:HG23	1:M:1241:LEU:N	1.89	0.86
1:C:332:ARG:CB	1:C:332:ARG:HH11	1.88	0.86
1:C:595:LEU:CD1	1:C:1201:TRP:CH2	2.59	0.86
1:E:473:LEU:HD21	1:E:484:TYR:CE1	2.10	0.86
1:E:477:GLN:HA	1:E:477:GLN:NE2	1.90	0.86
1:G:333:ASP:HB2	1:G:334:PHE:CD1	2.11	0.86
1:K:108:SER:O	1:K:111:ARG:HG3	1.76	0.86
1:M:1200:LYS:HG3	1:M:1211:GLN:CB	2.05	0.86
1:A:595:LEU:HB3	1:A:1244:LEU:HB2	1.55	0.86
1:A:1164:LEU:H	1:A:1164:LEU:HD12	1.40	0.86
1:C:108:SER:O	1:C:111:ARG:HG3	1.76	0.86
1:E:231:MET:O	1:E:236:PRO:CA	2.24	0.86
1:E:1164:LEU:H	1:E:1164:LEU:HD12	1.40	0.86
1:K:1200:LYS:HE3	1:K:1211:GLN:HB3	1.11	0.86
1:M:595:LEU:CD1	1:M:1201:TRP:CH2	2.59	0.86
1:M:1164:LEU:H	1:M:1164:LEU:HD12	1.40	0.86
1:A:579:GLN:O	1:A:579:GLN:NE2	2.08	0.85
1:A:1247:LEU:HD12	1:A:1248:GLU:H	1.37	0.85
1:C:520:ALA:CB	1:C:648:GLU:CB	2.53	0.85
1:C:597:TRP:HH2	1:C:603:ILE:CD1	1.89	0.85
1:E:294:ILE:HG21	1:E:324:VAL:CG1	2.06	0.85
1:E:333:ASP:HB2	1:E:334:PHE:CD1	2.11	0.85
1:E:403:LEU:HD12	1:E:403:LEU:O	1.76	0.85
1:E:1167:PRO:HA	1:E:1202:TRP:HD1	1.40	0.85
1:G:1200:LYS:HG3	1:G:1211:GLN:CB	2.05	0.85
1:I:1164:LEU:H	1:I:1164:LEU:HD12	1.40	0.85
1:I:1200:LYS:HG3	1:I:1211:GLN:CB	2.05	0.85
1:K:431:LYS:NZ	1:M:336:ASN:CB	2.38	0.85
1:K:862:TYR:CE1	1:K:881:HIS:HB3	2.11	0.85
1:A:453:LEU:CA	1:A:456:LEU:HD12	2.06	0.85
1:A:473:LEU:HD21	1:A:484:TYR:CE1	2.10	0.85
1:C:477:GLN:HA	1:C:477:GLN:NE2	1.90	0.85
1:I:122:ARG:HH21	1:I:126:PHE:HZ	1.23	0.85
1:I:171:HIS:NE2	1:I:175:GLU:HG3	1.91	0.85
1:I:500:LEU:HD23	1:I:533:LEU:HD13	1.57	0.85
1:I:597:TRP:HH2	1:I:603:ILE:CD1	1.89	0.85
1:K:171:HIS:NE2	1:K:175:GLU:HG3	1.91	0.85
1:K:237:ARG:HH11	1:K:237:ARG:HG2	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:597:TRP:HH2	1:K:603:ILE:CD1	1.89	0.85
1:M:862:TYR:CE1	1:M:881:HIS:HB3	2.11	0.85
1:A:108:SER:O	1:A:111:ARG:HG3	1.76	0.85
1:A:923:LYS:CB	1:A:940:VAL:CG2	2.54	0.85
1:A:1176:HIS:CB	1:A:1218:THR:HG21	2.05	0.85
1:A:1185:PHE:HD1	1:A:1192:LEU:HG	1.36	0.85
1:C:333:ASP:HB2	1:C:334:PHE:CD1	2.11	0.85
1:E:332:ARG:CB	1:E:332:ARG:HH11	1.89	0.85
1:E:595:LEU:CD1	1:E:1201:TRP:CH2	2.59	0.85
1:E:597:TRP:HH2	1:E:603:ILE:CD1	1.89	0.85
1:E:1201:TRP:HE3	1:E:1210:SER:HB3	1.37	0.85
1:G:595:LEU:CD1	1:G:1201:TRP:CH2	2.59	0.85
1:M:456:LEU:O	1:M:459:LYS:N	2.08	0.85
1:A:477:GLN:HA	1:A:477:GLN:NE2	1.90	0.85
1:A:862:TYR:CE1	1:A:881:HIS:HB3	2.11	0.85
1:C:473:LEU:CD1	1:C:480:CYS:HB2	2.03	0.85
1:E:923:LYS:CB	1:E:940:VAL:CG2	2.53	0.85
1:G:1240:ILE:HG23	1:G:1241:LEU:N	1.89	0.85
1:K:595:LEU:CD1	1:K:1201:TRP:CH2	2.59	0.85
1:M:108:SER:O	1:M:111:ARG:HG3	1.76	0.85
1:M:294:ILE:HG21	1:M:324:VAL:CG1	2.06	0.85
1:E:456:LEU:O	1:E:459:LYS:N	2.08	0.85
1:E:579:GLN:NE2	1:E:579:GLN:O	2.08	0.85
1:G:500:LEU:HD23	1:G:533:LEU:HD13	1.57	0.85
1:I:431:LYS:NZ	1:K:336:ASN:CB	2.38	0.85
1:M:597:TRP:HH2	1:M:603:ILE:CD1	1.89	0.85
3:R:79:GLY:HA3	4:V:65:ARG:NH2	1.90	0.85
1:A:597:TRP:HH2	1:A:603:ILE:CD1	1.89	0.85
2:D:17:CYS:SG	7:D:201:HEM:C3C	2.70	0.85
1:G:403:LEU:HD12	1:G:403:LEU:O	1.77	0.85
1:I:294:ILE:HG21	1:I:324:VAL:CG1	2.06	0.85
1:M:333:ASP:HB2	1:M:334:PHE:CD1	2.11	0.85
1:M:473:LEU:HD21	1:M:484:TYR:CE1	2.10	0.85
1:M:579:GLN:NE2	1:M:579:GLN:O	2.08	0.85
1:M:1176:HIS:CB	1:M:1218:THR:HG21	2.06	0.85
1:C:862:TYR:CE1	1:C:881:HIS:HB3	2.11	0.85
1:G:237:ARG:HH11	1:G:237:ARG:HG2	1.40	0.85
1:G:294:ILE:HG21	1:G:324:VAL:CG1	2.06	0.85
1:G:639:LEU:HD21	1:G:653:ILE:HD12	1.57	0.85
1:K:639:LEU:HD23	1:K:653:ILE:CD1	2.07	0.85
1:M:171:HIS:NE2	1:M:175:GLU:HG3	1.91	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:332:ARG:CB	1:M:332:ARG:HH11	1.88	0.85
1:M:364:LEU:HD11	1:M:368:MET:HE1	1.58	0.85
1:M:473:LEU:CD1	1:M:480:CYS:HB2	2.03	0.85
1:A:1200:LYS:HG3	1:A:1211:GLN:CB	2.05	0.85
1:C:923:LYS:CB	1:C:940:VAL:CG2	2.54	0.85
2:L:17:CYS:SG	7:L:201:HEM:C3C	2.70	0.85
1:M:639:LEU:HD23	1:M:653:ILE:CD1	2.07	0.85
1:A:332:ARG:CB	1:A:332:ARG:HH11	1.88	0.85
1:A:500:LEU:HD23	1:A:533:LEU:HD13	1.57	0.85
1:A:639:LEU:HD23	1:A:653:ILE:CD1	2.07	0.85
2:B:17:CYS:SG	7:B:201:HEM:C3C	2.70	0.85
1:C:505:PHE:HZ	1:C:540:VAL:HG11	1.41	0.85
1:E:108:SER:O	1:E:111:ARG:HG3	1.76	0.85
1:E:505:PHE:HZ	1:E:540:VAL:HG11	1.40	0.85
1:I:332:ARG:CB	1:I:332:ARG:HH11	1.89	0.85
1:I:520:ALA:CB	1:I:648:GLU:CB	2.53	0.85
1:K:333:ASP:HB2	1:K:334:PHE:CD1	2.11	0.85
1:M:1167:PRO:C	1:M:1202:TRP:NE1	2.27	0.85
1:M:1201:TRP:HE3	1:M:1210:SER:HB3	1.37	0.85
1:A:336:ASN:CB	1:M:431:LYS:NZ	2.38	0.85
1:C:171:HIS:NE2	1:C:175:GLU:HG3	1.91	0.85
1:C:639:LEU:HD23	1:C:653:ILE:CD1	2.07	0.85
1:E:236:PRO:CG	3:O:3:ALA:HB1	2.05	0.85
1:E:1176:HIS:CB	1:E:1218:THR:HG21	2.06	0.85
1:G:597:TRP:HH2	1:G:603:ILE:CD1	1.89	0.85
1:G:862:TYR:CE1	1:G:881:HIS:HB3	2.11	0.85
1:K:294:ILE:HG21	1:K:324:VAL:CG1	2.05	0.85
1:M:453:LEU:CA	1:M:456:LEU:HD12	2.06	0.85
1:A:520:ALA:CB	1:A:648:GLU:CB	2.53	0.84
1:A:844:GLN:OE1	1:A:884:TRP:NE1	2.10	0.84
1:C:403:LEU:HD12	1:C:403:LEU:O	1.76	0.84
1:G:1200:LYS:O	1:G:1202:TRP:HE3	1.60	0.84
2:N:17:CYS:SG	7:N:201:HEM:C3C	2.70	0.84
3:O:48:THR:CG2	3:P:41:GLU:OE2	2.25	0.84
1:A:137:GLN:HB3	3:W:6:ARG:NH2	1.92	0.84
1:A:237:ARG:HH11	1:A:237:ARG:HG2	1.40	0.84
3:Q:27:ASP:OD2	4:T:17:VAL:HG21	1.76	0.84
1:C:1167:PRO:HA	1:C:1202:TRP:HD1	1.41	0.84
1:E:1149:GLY:HA2	1:E:1180:VAL:CG2	2.07	0.84
1:G:431:LYS:NZ	1:I:336:ASN:CB	2.38	0.84
1:G:1200:LYS:HE3	1:G:1211:GLN:CG	2.07	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:17:CYS:SG	7:H:201:HEM:C3C	2.70	0.84
1:I:333:ASP:HB2	1:I:334:PHE:CD1	2.11	0.84
1:I:403:LEU:HD12	1:I:403:LEU:O	1.77	0.84
1:I:595:LEU:HG	1:I:1201:TRP:HH2	1.42	0.84
1:I:844:GLN:OE1	1:I:884:TRP:NE1	2.11	0.84
1:K:403:LEU:HD12	1:K:403:LEU:O	1.76	0.84
1:M:237:ARG:HH11	1:M:237:ARG:HG2	1.40	0.84
3:O:79:GLY:HA3	4:S:65:ARG:HH22	0.77	0.84
1:E:716:LEU:HB3	1:E:728:TRP:HB2	1.56	0.84
1:E:862:TYR:CE1	1:E:881:HIS:HB3	2.11	0.84
1:E:1200:LYS:O	1:E:1202:TRP:HE3	1.60	0.84
1:G:595:LEU:HG	1:G:1201:TRP:HH2	1.42	0.84
1:K:453:LEU:CA	1:K:456:LEU:HD12	2.06	0.84
1:K:1201:TRP:HE3	1:K:1210:SER:HB3	1.37	0.84
1:M:394:LYS:CB	1:M:434:ARG:HB2	2.04	0.84
1:M:505:PHE:HZ	1:M:540:VAL:HG11	1.40	0.84
1:M:595:LEU:HD11	1:M:1201:TRP:HZ2	0.76	0.84
1:G:844:GLN:OE1	1:G:884:TRP:NE1	2.10	0.84
1:I:505:PHE:HZ	1:I:540:VAL:HG11	1.40	0.84
1:I:558:GLN:O	1:I:560:PHE:N	2.11	0.84
1:I:1200:LYS:O	1:I:1202:TRP:HE3	1.60	0.84
1:M:614:HIS:CE1	1:M:640:GLN:HG3	2.12	0.84
1:M:922:LEU:HD12	1:M:1241:LEU:HD23	1.57	0.84
1:A:171:HIS:NE2	1:A:175:GLU:HG3	1.91	0.84
1:C:1149:GLY:CA	1:C:1180:VAL:HG22	2.08	0.84
1:G:477:GLN:HA	1:G:477:GLN:NE2	1.90	0.84
1:G:1167:PRO:HA	1:G:1202:TRP:HD1	1.40	0.84
1:I:322:LEU:O	1:I:322:LEU:HD22	1.77	0.84
1:I:639:LEU:HD23	1:I:653:ILE:CD1	2.07	0.84
1:I:716:LEU:HB3	1:I:728:TRP:HB2	1.57	0.84
1:K:394:LYS:CB	1:K:434:ARG:HB2	2.04	0.84
1:K:923:LYS:CB	1:K:940:VAL:CG2	2.54	0.84
3:O:24:TYR:CE2	4:S:38:HIS:CB	2.54	0.84
1:A:1200:LYS:HE3	1:A:1211:GLN:CG	2.07	0.84
1:C:844:GLN:OE1	1:C:884:TRP:NE1	2.10	0.84
1:E:171:HIS:NE2	1:E:175:GLU:HG3	1.91	0.84
1:E:882:LEU:CB	1:E:1237:ASN:HD21	1.88	0.84
1:G:108:SER:O	1:G:111:ARG:HG3	1.76	0.84
1:G:171:HIS:NE2	1:G:175:GLU:HG3	1.91	0.84
1:I:284:SER:O	1:I:438:HIS:HE1	1.61	0.84
1:K:122:ARG:HH21	1:K:126:PHE:HZ	1.23	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:322:LEU:O	1:M:322:LEU:HD22	1.77	0.84
1:M:844:GLN:OE1	1:M:884:TRP:NE1	2.10	0.84
1:A:558:GLN:O	1:A:560:PHE:N	2.11	0.84
1:C:284:SER:O	1:C:438:HIS:HE1	1.61	0.84
1:C:322:LEU:O	1:C:322:LEU:HD22	1.77	0.84
1:I:108:SER:O	1:I:111:ARG:HG3	1.76	0.84
1:I:595:LEU:CD1	1:I:1201:TRP:CH2	2.59	0.84
1:K:322:LEU:O	1:K:322:LEU:HD22	1.77	0.84
1:K:614:HIS:CE1	1:K:640:GLN:HG3	2.12	0.84
1:A:505:PHE:HZ	1:A:540:VAL:HG11	1.41	0.84
1:C:525:GLU:O	1:C:528:GLU:CG	2.26	0.84
1:E:614:HIS:CE1	1:E:640:GLN:HG3	2.12	0.84
1:G:453:LEU:CA	1:G:456:LEU:HD12	2.06	0.84
1:G:1176:HIS:CB	1:G:1218:THR:HG21	2.08	0.84
1:E:639:LEU:HD23	1:E:653:ILE:CD1	2.07	0.84
1:E:1200:LYS:HE3	1:E:1211:GLN:CG	2.08	0.84
2:F:17:CYS:SG	7:F:201:HEM:C3C	2.70	0.84
1:G:505:PHE:HZ	1:G:540:VAL:HG11	1.40	0.84
1:I:1167:PRO:CA	1:I:1202:TRP:HE1	1.81	0.84
1:K:510:ILE:O	1:K:514:THR:OG1	1.96	0.84
1:K:844:GLN:OE1	1:K:884:TRP:NE1	2.10	0.84
1:K:922:LEU:HD12	1:K:1241:LEU:HD23	1.58	0.84
1:K:1167:PRO:CA	1:K:1202:TRP:HE1	1.81	0.84
1:M:284:SER:O	1:M:438:HIS:HE1	1.61	0.84
3:O:19:ASP:O	4:S:64:THR:CB	2.25	0.84
1:A:525:GLU:O	1:A:528:GLU:CG	2.26	0.83
1:E:453:LEU:CA	1:E:456:LEU:HD12	2.06	0.83
1:E:862:TYR:HE2	1:E:881:HIS:H	0.97	0.83
1:G:1203:ASN:H	1:G:1208:GLU:HA	1.43	0.83
2:J:17:CYS:SG	7:J:201:HEM:C3C	2.70	0.83
1:K:500:LEU:CD2	1:K:532:ILE:HG12	2.08	0.83
1:A:403:LEU:HD12	1:A:403:LEU:O	1.77	0.83
1:E:1179:TRP:HA	1:E:1179:TRP:CE3	2.13	0.83
1:G:883:SER:OG	1:G:902:ASP:CB	2.26	0.83
1:I:604:THR:H	1:I:1240:ILE:HD13	1.43	0.83
1:K:284:SER:O	1:K:438:HIS:HE1	1.61	0.83
1:M:403:LEU:O	1:M:403:LEU:HD12	1.77	0.83
1:M:883:SER:OG	1:M:902:ASP:CB	2.26	0.83
4:T:13:ARG:HD2	4:T:59:ILE:HD11	1.58	0.83
1:A:614:HIS:CE1	1:A:640:GLN:HG3	2.13	0.83
1:C:614:HIS:CE1	1:C:640:GLN:HG3	2.13	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:882:LEU:CB	1:C:1237:ASN:HD21	1.88	0.83
1:C:883:SER:OG	1:C:902:ASP:CB	2.26	0.83
1:E:284:SER:O	1:E:438:HIS:HE1	1.61	0.83
1:E:322:LEU:O	1:E:322:LEU:HD22	1.78	0.83
1:G:284:SER:O	1:G:438:HIS:HE1	1.61	0.83
1:G:505:PHE:CZ	1:G:540:VAL:HG11	2.14	0.83
1:I:364:LEU:HD13	1:I:364:LEU:O	1.78	0.83
1:I:614:HIS:CE1	1:I:640:GLN:HG3	2.12	0.83
1:K:558:GLN:O	1:K:560:PHE:N	2.11	0.83
1:E:525:GLU:O	1:E:528:GLU:CG	2.26	0.83
1:E:1203:ASN:H	1:E:1208:GLU:HA	1.43	0.83
1:G:453:LEU:HD12	1:G:454:GLN:N	1.94	0.83
1:I:862:TYR:CE1	1:I:881:HIS:HB3	2.11	0.83
1:K:1176:HIS:CB	1:K:1218:THR:HG21	2.08	0.83
1:K:1200:LYS:HE3	1:K:1211:GLN:CG	2.08	0.83
2:N:33:HIS:HE1	2:N:104:GLU:O	1.62	0.83
1:A:595:LEU:HG	1:A:1201:TRP:HH2	1.41	0.83
1:C:1200:LYS:HE3	1:C:1211:GLN:CG	2.07	0.83
1:G:639:LEU:HD23	1:G:653:ILE:CD1	2.07	0.83
1:G:1149:GLY:HA2	1:G:1180:VAL:CG2	2.07	0.83
1:I:500:LEU:CD2	1:I:532:ILE:HG12	2.08	0.83
1:I:505:PHE:CZ	1:I:540:VAL:HG11	2.14	0.83
1:M:500:LEU:CD2	1:M:532:ILE:HG12	2.08	0.83
1:M:1200:LYS:HE3	1:M:1211:GLN:CG	2.08	0.83
1:A:364:LEU:HD13	1:A:364:LEU:O	1.78	0.83
1:A:883:SER:OG	1:A:902:ASP:CB	2.26	0.83
1:C:453:LEU:HD12	1:C:454:GLN:N	1.94	0.83
1:C:505:PHE:CZ	1:C:540:VAL:HG11	2.14	0.83
1:E:565:GLN:NE2	1:E:568:LEU:HD11	1.94	0.83
1:G:209:ASP:CG	3:O:62:LYS:HE3	1.99	0.83
2:H:33:HIS:HE1	2:H:104:GLU:O	1.62	0.83
1:I:923:LYS:CB	1:I:940:VAL:CG2	2.54	0.83
2:J:33:HIS:HE1	2:J:104:GLU:O	1.61	0.83
2:L:33:HIS:HE1	2:L:104:GLU:O	1.62	0.83
1:A:845:TYR:OH	1:A:888:VAL:O	1.97	0.83
1:A:1203:ASN:H	1:A:1208:GLU:HA	1.43	0.83
1:G:520:ALA:CB	1:G:648:GLU:CB	2.53	0.83
1:G:1176:HIS:HB2	1:G:1218:THR:CB	2.09	0.83
1:K:525:GLU:O	1:K:528:GLU:CG	2.26	0.83
1:K:565:GLN:NE2	1:K:568:LEU:HD11	1.94	0.83
1:M:845:TYR:OH	1:M:888:VAL:O	1.97	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1181:THR:HG21	1:M:1221:LYS:HA	1.61	0.83
1:A:322:LEU:O	1:A:322:LEU:HD22	1.77	0.83
1:A:505:PHE:CZ	1:A:540:VAL:HG11	2.14	0.83
1:A:1176:HIS:HB2	1:A:1218:THR:CB	2.08	0.83
1:C:948:LEU:HD12	1:C:957:ASP:CG	1.99	0.83
1:E:364:LEU:O	1:E:364:LEU:HD13	1.78	0.83
1:E:453:LEU:HD12	1:E:454:GLN:N	1.94	0.83
1:E:505:PHE:CZ	1:E:540:VAL:HG11	2.14	0.83
1:E:510:ILE:O	1:E:514:THR:OG1	1.96	0.83
1:E:883:SER:OG	1:E:902:ASP:CB	2.26	0.83
1:I:883:SER:OG	1:I:902:ASP:CB	2.26	0.83
1:I:1176:HIS:CB	1:I:1218:THR:HG21	2.08	0.83
1:K:591:GLY:O	1:K:592:MET:HB2	1.79	0.83
1:K:604:THR:H	1:K:1240:ILE:HD13	1.44	0.83
1:K:883:SER:OG	1:K:902:ASP:CB	2.26	0.83
1:A:1200:LYS:O	1:A:1202:TRP:HE3	1.60	0.83
1:C:1176:HIS:HB2	1:C:1218:THR:CB	2.08	0.83
2:D:33:HIS:HE1	2:D:104:GLU:O	1.61	0.83
1:E:558:GLN:O	1:E:560:PHE:N	2.11	0.83
1:E:604:THR:H	1:E:1240:ILE:HD13	1.43	0.83
2:F:33:HIS:HE1	2:F:104:GLU:O	1.61	0.83
1:G:604:THR:H	1:G:1240:ILE:HD13	1.44	0.83
1:I:636:ASP:O	1:I:637:LYS:HD2	1.79	0.83
1:I:1200:LYS:HE3	1:I:1211:GLN:CG	2.08	0.83
1:M:999:ARG:NH2	1:M:1000:PHE:O	2.12	0.83
1:M:1179:TRP:HA	1:M:1179:TRP:CE3	2.14	0.83
1:A:1149:GLY:CA	1:A:1180:VAL:HG22	2.08	0.83
1:A:1181:THR:HG21	1:A:1221:LYS:HA	1.61	0.83
2:B:33:HIS:HE1	2:B:104:GLU:O	1.62	0.83
1:G:500:LEU:CD2	1:G:532:ILE:HG12	2.09	0.83
1:K:636:ASP:O	1:K:637:LYS:HD2	1.79	0.83
1:K:639:LEU:HG	1:K:653:ILE:CG2	2.09	0.83
1:M:558:GLN:O	1:M:560:PHE:N	2.11	0.83
1:M:636:ASP:O	1:M:637:LYS:HD2	1.79	0.83
1:M:923:LYS:CB	1:M:940:VAL:CG2	2.54	0.83
1:M:1200:LYS:O	1:M:1202:TRP:HE3	1.60	0.83
1:E:999:ARG:NH2	1:E:1000:PHE:O	2.12	0.82
1:G:510:ILE:O	1:G:514:THR:OG1	1.96	0.82
1:G:639:LEU:HG	1:G:653:ILE:CG2	2.09	0.82
1:I:603:ILE:HD13	1:I:1242:TYR:HE1	1.44	0.82
1:K:505:PHE:CZ	1:K:540:VAL:HG11	2.14	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:28:HIS:HA	4:T:14:LEU:CG	2.06	0.82
1:A:453:LEU:HD12	1:A:454:GLN:N	1.94	0.82
1:A:604:THR:H	1:A:1240:ILE:HD13	1.44	0.82
1:C:510:ILE:O	1:C:514:THR:OG1	1.96	0.82
1:E:500:LEU:CD2	1:E:532:ILE:HG12	2.09	0.82
1:E:591:GLY:O	1:E:592:MET:HB2	1.79	0.82
1:E:844:GLN:OE1	1:E:884:TRP:NE1	2.11	0.82
1:K:520:ALA:CB	1:K:648:GLU:CB	2.53	0.82
1:K:1185:PHE:HD1	1:K:1192:LEU:HG	1.36	0.82
1:K:1200:LYS:O	1:K:1202:TRP:HE3	1.60	0.82
1:M:639:LEU:HG	1:M:653:ILE:CG2	2.09	0.82
1:C:122:ARG:HH21	1:C:126:PHE:HZ	1.23	0.82
1:C:1203:ASN:H	1:C:1208:GLU:HA	1.43	0.82
1:G:298:PHE:CD2	1:G:328:GLY:HA3	2.15	0.82
1:G:322:LEU:O	1:G:322:LEU:HD22	1.77	0.82
1:G:636:ASP:O	1:G:637:LYS:HD2	1.79	0.82
1:M:505:PHE:CZ	1:M:540:VAL:HG11	2.14	0.82
1:M:565:GLN:NE2	1:M:568:LEU:HD11	1.94	0.82
3:O:24:TYR:HE2	4:S:38:HIS:CB	1.92	0.82
1:A:298:PHE:CD2	1:A:328:GLY:HA3	2.15	0.82
1:A:565:GLN:NE2	1:A:568:LEU:HD11	1.94	0.82
1:C:364:LEU:O	1:C:364:LEU:HD13	1.78	0.82
1:C:999:ARG:NH2	1:C:1000:PHE:O	2.12	0.82
1:G:558:GLN:O	1:G:560:PHE:N	2.11	0.82
1:G:591:GLY:O	1:G:592:MET:HB2	1.79	0.82
1:G:614:HIS:CE1	1:G:640:GLN:HG3	2.12	0.82
1:G:845:TYR:OH	1:G:888:VAL:O	1.97	0.82
1:I:453:LEU:HD12	1:I:454:GLN:N	1.94	0.82
1:K:948:LEU:HD12	1:K:957:ASP:CG	1.99	0.82
1:K:1203:ASN:H	1:K:1208:GLU:HA	1.43	0.82
1:G:565:GLN:NE2	1:G:568:LEU:HD11	1.94	0.82
1:I:525:GLU:O	1:I:528:GLU:CG	2.26	0.82
1:I:948:LEU:HD12	1:I:957:ASP:CG	1.99	0.82
1:I:1185:PHE:HD1	1:I:1192:LEU:HG	1.36	0.82
1:K:1181:THR:HG21	1:K:1221:LYS:HA	1.61	0.82
1:M:364:LEU:O	1:M:364:LEU:HD13	1.78	0.82
1:M:948:LEU:HD12	1:M:957:ASP:CG	2.00	0.82
1:A:510:ILE:O	1:A:514:THR:OG1	1.96	0.82
1:A:999:ARG:NH2	1:A:1000:PHE:O	2.12	0.82
1:C:558:GLN:O	1:C:560:PHE:N	2.11	0.82
1:C:639:LEU:HG	1:C:653:ILE:CG2	2.09	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:999:ARG:NH2	1:I:1000:PHE:O	2.12	0.82
1:K:595:LEU:HG	1:K:1201:TRP:HH2	1.42	0.82
1:M:298:PHE:CD2	1:M:328:GLY:HA3	2.15	0.82
1:M:1203:ASN:H	1:M:1208:GLU:HA	1.43	0.82
1:A:1232:TYR:OH	1:A:1234:THR:HB	1.80	0.82
1:C:1176:HIS:CB	1:C:1218:THR:HG21	2.08	0.82
1:E:298:PHE:CD2	1:E:328:GLY:HA3	2.14	0.82
1:E:592:MET:HB3	1:E:594:TYR:CE1	2.15	0.82
1:E:639:LEU:HG	1:E:653:ILE:CG2	2.09	0.82
1:I:453:LEU:CA	1:I:456:LEU:HD12	2.06	0.82
1:I:592:MET:HB3	1:I:594:TYR:CE1	2.15	0.82
1:I:639:LEU:HG	1:I:653:ILE:CG2	2.09	0.82
1:K:999:ARG:NH2	1:K:1000:PHE:O	2.12	0.82
1:A:500:LEU:CD2	1:A:532:ILE:HG12	2.09	0.82
1:A:639:LEU:HG	1:A:653:ILE:CG2	2.09	0.82
1:E:729:ASP:HB2	1:E:736:ARG:HB2	1.62	0.82
1:G:592:MET:HB3	1:G:594:TYR:CE1	2.15	0.82
1:G:603:ILE:HD13	1:G:1242:TYR:HE1	1.44	0.82
1:G:1179:TRP:HA	1:G:1179:TRP:CE3	2.13	0.82
1:I:565:GLN:NE2	1:I:568:LEU:HD11	1.94	0.82
1:K:298:PHE:CD2	1:K:328:GLY:HA3	2.15	0.82
1:K:364:LEU:O	1:K:364:LEU:HD13	1.78	0.82
1:K:592:MET:HB3	1:K:594:TYR:CE1	2.15	0.82
1:K:845:TYR:OH	1:K:888:VAL:O	1.97	0.82
1:K:1167:PRO:HA	1:K:1202:TRP:HD1	1.41	0.82
1:M:525:GLU:O	1:M:528:GLU:CG	2.26	0.82
1:A:174:LEU:HD23	1:A:175:GLU:N	1.95	0.82
1:C:592:MET:HB3	1:C:594:TYR:CE1	2.15	0.82
1:C:1181:THR:HG21	1:C:1221:LYS:HA	1.61	0.82
1:M:174:LEU:HD23	1:M:175:GLU:N	1.95	0.82
1:M:603:ILE:HD13	1:M:1242:TYR:HE1	1.44	0.82
1:C:595:LEU:HG	1:C:1201:TRP:HH2	1.41	0.82
1:C:1200:LYS:HE3	1:C:1211:GLN:HB3	1.11	0.82
1:E:122:ARG:CZ	1:E:126:PHE:CZ	2.63	0.82
1:I:510:ILE:O	1:I:514:THR:OG1	1.96	0.82
1:I:639:LEU:HD23	1:I:653:ILE:HD12	1.62	0.82
1:I:845:TYR:OH	1:I:888:VAL:O	1.97	0.82
3:Q:24:TYR:HA	4:T:52:ARG:HH21	1.44	0.82
1:A:948:LEU:HD12	1:A:957:ASP:CG	1.99	0.81
1:C:171:HIS:CD2	1:C:175:GLU:CB	2.63	0.81
1:C:298:PHE:CD2	1:C:328:GLY:HA3	2.14	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:636:ASP:O	1:E:637:LYS:HD2	1.79	0.81
1:E:948:LEU:HD12	1:E:957:ASP:CG	1.99	0.81
1:G:1181:THR:HG21	1:G:1221:LYS:HA	1.61	0.81
1:I:171:HIS:CD2	1:I:175:GLU:CB	2.63	0.81
1:I:174:LEU:HD23	1:I:175:GLU:N	1.95	0.81
1:K:595:LEU:HD11	1:K:1201:TRP:HZ2	0.76	0.81
1:K:1232:TYR:OH	1:K:1234:THR:HB	1.80	0.81
1:C:565:GLN:NE2	1:C:568:LEU:HD11	1.94	0.81
1:G:174:LEU:HD23	1:G:175:GLU:N	1.95	0.81
1:G:525:GLU:O	1:G:528:GLU:CG	2.26	0.81
1:G:729:ASP:HB2	1:G:736:ARG:HB2	1.62	0.81
1:G:1233:VAL:CG1	1:G:1243:ILE:HG12	2.10	0.81
1:K:174:LEU:HD23	1:K:175:GLU:N	1.95	0.81
1:M:1232:TYR:OH	1:M:1234:THR:HB	1.80	0.81
1:A:361:TYR:HE2	1:A:370:ILE:HG13	1.46	0.81
1:A:603:ILE:HD13	1:A:1242:TYR:HE1	1.44	0.81
1:C:122:ARG:CZ	1:C:126:PHE:CZ	2.64	0.81
1:C:174:LEU:HD23	1:C:175:GLU:N	1.95	0.81
1:C:374:MET:HA	1:C:374:MET:CE	2.10	0.81
1:C:500:LEU:CD2	1:C:532:ILE:HG12	2.09	0.81
1:C:591:GLY:O	1:C:592:MET:HB2	1.79	0.81
1:C:636:ASP:O	1:C:637:LYS:HD2	1.79	0.81
1:C:729:ASP:HB2	1:C:736:ARG:HB2	1.62	0.81
1:E:174:LEU:HD23	1:E:175:GLU:N	1.95	0.81
1:E:639:LEU:HD23	1:E:653:ILE:HD12	1.62	0.81
1:E:1176:HIS:HB2	1:E:1218:THR:CB	2.11	0.81
1:I:298:PHE:CD2	1:I:328:GLY:HA3	2.15	0.81
1:I:1233:VAL:CG1	1:I:1243:ILE:HG12	2.10	0.81
1:K:374:MET:HA	1:K:374:MET:CE	2.10	0.81
1:K:453:LEU:HD12	1:K:454:GLN:N	1.94	0.81
1:K:500:LEU:HD23	1:K:533:LEU:CD1	2.10	0.81
1:K:639:LEU:HD23	1:K:653:ILE:HD12	1.62	0.81
1:M:1167:PRO:CA	1:M:1202:TRP:HE1	1.81	0.81
1:E:374:MET:HA	1:E:374:MET:CE	2.10	0.81
1:G:999:ARG:NH2	1:G:1000:PHE:O	2.12	0.81
1:G:1167:PRO:CA	1:G:1202:TRP:HE1	1.81	0.81
1:I:374:MET:HA	1:I:374:MET:CE	2.10	0.81
1:I:1149:GLY:HA2	1:I:1180:VAL:CG2	2.09	0.81
1:M:595:LEU:HG	1:M:1201:TRP:HH2	1.42	0.81
1:E:171:HIS:CD2	1:E:175:GLU:CB	2.63	0.81
1:E:595:LEU:HG	1:E:1201:TRP:HH2	1.41	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:122:ARG:CZ	1:G:126:PHE:CZ	2.64	0.81
1:G:171:HIS:CD2	1:G:175:GLU:CB	2.63	0.81
1:K:729:ASP:HB2	1:K:736:ARG:HB2	1.62	0.81
1:M:500:LEU:HD23	1:M:533:LEU:CD1	2.10	0.81
1:A:284:SER:O	1:A:438:HIS:HE1	1.61	0.81
1:A:1199:ILE:CD1	1:A:1232:TYR:HE2	1.94	0.81
1:C:159:GLY:HA2	5:C:1301:DTP:O1A	1.81	0.81
1:C:453:LEU:CA	1:C:456:LEU:HD12	2.06	0.81
1:C:604:THR:H	1:C:1240:ILE:HD13	1.43	0.81
1:C:657:GLU:HG2	1:C:680:LYS:HZ2	1.46	0.81
1:G:364:LEU:O	1:G:364:LEU:HD13	1.78	0.81
1:I:1179:TRP:HA	1:I:1179:TRP:CE3	2.14	0.81
7:L:201:HEM:HBC2	7:L:201:HEM:CMC	2.11	0.81
1:M:510:ILE:O	1:M:514:THR:OG1	1.96	0.81
1:C:845:TYR:OH	1:C:888:VAL:O	1.97	0.81
1:C:1199:ILE:CD1	1:C:1232:TYR:HE2	1.94	0.81
1:E:236:PRO:HB2	3:O:3:ALA:HB1	1.62	0.81
1:E:500:LEU:HD23	1:E:533:LEU:CD1	2.10	0.81
1:E:603:ILE:HD13	1:E:1242:TYR:HE1	1.44	0.81
1:I:477:GLN:HA	1:I:477:GLN:NE2	1.90	0.81
1:I:1151:ILE:H	1:I:1167:PRO:HD2	1.46	0.81
1:I:1176:HIS:HB2	1:I:1218:THR:CB	2.09	0.81
1:I:1232:TYR:OH	1:I:1234:THR:HB	1.80	0.81
1:M:591:GLY:O	1:M:592:MET:HB2	1.79	0.81
1:M:1017:THR:HA	1:M:1031:ASN:HA	1.63	0.81
1:E:845:TYR:OH	1:E:888:VAL:O	1.97	0.81
1:G:374:MET:HA	1:G:374:MET:CE	2.10	0.81
1:G:883:SER:HB2	1:G:902:ASP:HB3	1.63	0.81
1:K:1176:HIS:HB2	1:K:1218:THR:CB	2.09	0.81
1:M:171:HIS:CD2	1:M:175:GLU:CB	2.63	0.81
1:M:453:LEU:HD12	1:M:454:GLN:N	1.94	0.81
1:M:592:MET:HB3	1:M:594:TYR:CE1	2.15	0.81
1:A:374:MET:HA	1:A:374:MET:CE	2.11	0.81
1:A:500:LEU:HD23	1:A:533:LEU:CD1	2.10	0.81
7:B:201:HEM:HBC2	7:B:201:HEM:CMC	2.11	0.81
1:C:1151:ILE:H	1:C:1167:PRO:HD2	1.46	0.81
1:E:361:TYR:HE2	1:E:370:ILE:HG13	1.46	0.81
1:E:595:LEU:CG	1:E:1201:TRP:CH2	2.64	0.81
1:E:1199:ILE:CD1	1:E:1232:TYR:HE2	1.94	0.81
1:G:923:LYS:CB	1:G:940:VAL:CG2	2.54	0.81
1:G:948:LEU:HD12	1:G:957:ASP:CG	1.99	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1232:TYR:OH	1:G:1234:THR:HB	1.80	0.81
1:K:361:TYR:HE2	1:K:370:ILE:HG13	1.46	0.81
1:M:122:ARG:CZ	1:M:126:PHE:CZ	2.64	0.81
1:M:361:TYR:CE2	1:M:370:ILE:HG13	2.16	0.81
1:M:1233:VAL:CG1	1:M:1243:ILE:HG12	2.10	0.81
1:I:862:TYR:CZ	1:I:881:HIS:CA	2.64	0.81
1:K:860:SER:O	1:K:861:GLN:CG	2.29	0.81
1:A:171:HIS:CD2	1:A:175:GLU:CB	2.63	0.80
1:A:592:MET:HB3	1:A:594:TYR:CE1	2.15	0.80
1:A:636:ASP:O	1:A:637:LYS:HD2	1.79	0.80
1:A:729:ASP:HB2	1:A:736:ARG:HB2	1.62	0.80
1:A:1233:VAL:CG1	1:A:1243:ILE:HG12	2.11	0.80
1:C:1240:ILE:CG2	1:C:1241:LEU:N	2.44	0.80
1:E:1201:TRP:HB2	1:E:1210:SER:O	1.81	0.80
7:F:201:HEM:HBC2	7:F:201:HEM:CMC	2.11	0.80
1:G:1218:THR:CG2	1:G:1219:ASN:N	2.45	0.80
1:I:520:ALA:CB	1:I:648:GLU:CA	2.60	0.80
1:I:595:LEU:CG	1:I:1201:TRP:CH2	2.64	0.80
1:I:1203:ASN:H	1:I:1208:GLU:HA	1.43	0.80
1:K:122:ARG:CZ	1:K:126:PHE:CZ	2.64	0.80
1:K:146:GLU:OE1	1:K:147:PRO:CD	2.29	0.80
1:K:171:HIS:CD2	1:K:175:GLU:CB	2.63	0.80
1:K:1212:THR:HG23	1:K:1213:PHE:H	1.47	0.80
1:M:604:THR:H	1:M:1240:ILE:HD13	1.43	0.80
1:M:729:ASP:HB2	1:M:736:ARG:HB2	1.62	0.80
1:M:860:SER:O	1:M:861:GLN:CG	2.29	0.80
3:Q:34:PHE:CZ	3:Q:66:ASP:CB	2.64	0.80
4:V:36:ARG:NH1	4:V:37:PRO:HD2	1.96	0.80
4:V:36:ARG:HH12	4:V:37:PRO:HB2	1.46	0.80
1:A:591:GLY:O	1:A:592:MET:HB2	1.79	0.80
1:A:1176:HIS:CG	1:A:1218:THR:OG1	2.34	0.80
1:E:1181:THR:HG21	1:E:1221:LYS:HA	1.61	0.80
1:E:1233:VAL:CG1	1:E:1243:ILE:HG12	2.10	0.80
1:G:159:GLY:HA2	5:G:1301:DTP:O1A	1.81	0.80
1:G:860:SER:O	1:G:861:GLN:CG	2.29	0.80
1:G:1201:TRP:HB2	1:G:1210:SER:O	1.82	0.80
1:I:361:TYR:HE2	1:I:370:ILE:HG13	1.46	0.80
1:I:860:SER:O	1:I:861:GLN:CG	2.29	0.80
1:K:1201:TRP:HB2	1:K:1210:SER:O	1.82	0.80
1:C:500:LEU:HD23	1:C:533:LEU:CD1	2.10	0.80
1:E:159:GLY:HA2	5:E:1301:DTP:O1A	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:862:TYR:CZ	1:G:881:HIS:CA	2.64	0.80
1:G:1167:PRO:O	1:G:1202:TRP:NE1	2.15	0.80
1:I:500:LEU:HD23	1:I:533:LEU:CD1	2.11	0.80
1:K:883:SER:HB2	1:K:902:ASP:HB3	1.63	0.80
1:K:1199:ILE:CD1	1:K:1232:TYR:HE2	1.94	0.80
1:K:1233:VAL:CG1	1:K:1243:ILE:HG12	2.11	0.80
1:M:146:GLU:OE1	1:M:147:PRO:CD	2.30	0.80
3:Q:32:ASP:OD2	3:Q:70:SER:OG	1.97	0.80
1:A:595:LEU:CG	1:A:1201:TRP:CH2	2.65	0.80
1:C:1232:TYR:OH	1:C:1234:THR:HB	1.80	0.80
1:E:633:CYS:SG	1:E:660:VAL:HG11	2.22	0.80
1:E:1240:ILE:CG2	1:E:1241:LEU:N	2.45	0.80
1:G:500:LEU:HD23	1:G:533:LEU:CD1	2.10	0.80
1:I:1181:THR:HG21	1:I:1221:LYS:HA	1.61	0.80
1:K:361:TYR:CE2	1:K:370:ILE:HG13	2.16	0.80
1:K:597:TRP:CH2	1:K:603:ILE:CD1	2.65	0.80
4:U:15:ARG:O	4:U:19:GLU:HB2	1.81	0.80
1:A:361:TYR:CE2	1:A:370:ILE:HG13	2.16	0.80
1:E:862:TYR:CZ	1:E:881:HIS:CA	2.64	0.80
1:I:999:ARG:HG2	1:I:1030:TRP:CG	2.17	0.80
1:I:1212:THR:HG23	1:I:1213:PHE:H	1.46	0.80
1:M:595:LEU:CG	1:M:1201:TRP:CH2	2.65	0.80
1:M:1176:HIS:HB2	1:M:1218:THR:CB	2.10	0.80
1:M:1218:THR:CG2	1:M:1219:ASN:N	2.45	0.80
1:A:122:ARG:CZ	1:A:126:PHE:CZ	2.64	0.80
1:A:657:GLU:HG2	1:A:680:LYS:HZ2	1.47	0.80
1:A:1017:THR:HA	1:A:1031:ASN:HA	1.63	0.80
1:G:361:TYR:HE2	1:G:370:ILE:HG13	1.46	0.80
1:G:520:ALA:CB	1:G:648:GLU:CA	2.60	0.80
1:G:595:LEU:CG	1:G:1201:TRP:CH2	2.64	0.80
1:G:1199:ILE:CD1	1:G:1232:TYR:HE2	1.94	0.80
1:G:1212:THR:HG23	1:G:1213:PHE:H	1.47	0.80
1:I:146:GLU:OE1	1:I:147:PRO:CD	2.29	0.80
1:I:591:GLY:O	1:I:592:MET:HB2	1.79	0.80
1:I:633:CYS:SG	1:I:660:VAL:HG11	2.22	0.80
1:K:1017:THR:HA	1:K:1031:ASN:HA	1.63	0.80
1:M:361:TYR:HE2	1:M:370:ILE:HG13	1.46	0.80
1:M:520:ALA:CB	1:M:648:GLU:CA	2.60	0.80
1:M:633:CYS:SG	1:M:660:VAL:HG11	2.22	0.80
1:A:597:TRP:CH2	1:A:603:ILE:CD1	2.65	0.80
1:A:633:CYS:SG	1:A:660:VAL:HG11	2.22	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1167:PRO:HA	1:A:1202:TRP:HD1	1.41	0.80
1:C:639:LEU:HD23	1:C:653:ILE:HD12	1.62	0.80
1:C:1233:VAL:CG1	1:C:1243:ILE:HG12	2.10	0.80
1:E:456:LEU:O	1:E:459:LYS:HB3	1.82	0.80
1:E:883:SER:HB2	1:E:902:ASP:HB3	1.64	0.80
1:E:1232:TYR:OH	1:E:1234:THR:HB	1.80	0.80
1:G:639:LEU:HD23	1:G:653:ILE:HD12	1.62	0.80
1:M:374:MET:HA	1:M:374:MET:CE	2.10	0.80
1:M:883:SER:HB2	1:M:902:ASP:HB3	1.63	0.80
1:C:603:ILE:HD12	1:C:604:THR:OG1	1.82	0.80
1:E:860:SER:O	1:E:861:GLN:CG	2.29	0.80
1:G:146:GLU:OE1	1:G:147:PRO:CD	2.29	0.80
1:G:603:ILE:HD12	1:G:604:THR:OG1	1.82	0.80
1:I:1201:TRP:HB2	1:I:1210:SER:O	1.82	0.80
1:I:1218:THR:CG2	1:I:1219:ASN:N	2.45	0.80
1:K:639:LEU:CD2	1:K:653:ILE:CD1	2.60	0.80
1:K:1149:GLY:HA2	1:K:1180:VAL:CG2	2.08	0.80
1:M:603:ILE:HD12	1:M:604:THR:OG1	1.82	0.80
4:T:13:ARG:HH22	4:T:60:ILE:CG1	1.95	0.80
1:A:639:LEU:CD2	1:A:653:ILE:CD1	2.60	0.80
1:C:146:GLU:OE1	1:C:147:PRO:CD	2.29	0.80
1:C:241:ILE:C	1:C:242:LEU:HD12	2.02	0.80
1:G:208:GLN:HE22	3:O:62:LYS:HD3	1.46	0.80
1:G:361:TYR:CE2	1:G:370:ILE:HG13	2.16	0.80
1:G:999:ARG:HG2	1:G:1030:TRP:CG	2.17	0.80
7:H:201:HEM:HBC2	7:H:201:HEM:CMC	2.11	0.80
1:I:603:ILE:HD12	1:I:604:THR:OG1	1.82	0.80
1:K:159:GLY:HA2	5:K:1301:DTP:O1A	1.81	0.80
1:K:999:ARG:HG2	1:K:1030:TRP:CG	2.17	0.80
1:M:241:ILE:C	1:M:242:LEU:HD12	2.02	0.80
1:A:456:LEU:O	1:A:459:LYS:HB3	1.82	0.80
1:C:603:ILE:HD13	1:C:1242:TYR:HE1	1.44	0.80
1:C:633:CYS:SG	1:C:660:VAL:HG11	2.22	0.80
1:C:1179:TRP:CE3	1:C:1179:TRP:HA	2.17	0.80
1:E:657:GLU:HG2	1:E:680:LYS:HZ2	1.47	0.80
1:I:122:ARG:CZ	1:I:126:PHE:CZ	2.64	0.80
1:I:1183:LEU:HB3	1:I:1192:LEU:HD21	1.64	0.80
1:I:1240:ILE:CG2	1:I:1241:LEU:N	2.44	0.80
1:K:603:ILE:HD13	1:K:1242:TYR:HE1	1.44	0.80
1:K:633:CYS:SG	1:K:660:VAL:HG11	2.22	0.80
1:M:122:ARG:HH21	1:M:126:PHE:HZ	1.24	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:153:HIS:CD2	1:M:267:LYS:HB3	2.17	0.80
1:M:217:PRO:HB3	1:M:222:GLU:HG2	1.64	0.80
1:M:456:LEU:O	1:M:459:LYS:HB3	1.82	0.80
1:M:639:LEU:HD23	1:M:653:ILE:HD12	1.62	0.80
1:M:1212:THR:HG23	1:M:1213:PHE:H	1.47	0.80
4:T:13:ARG:CD	4:T:59:ILE:CD1	2.59	0.80
1:A:862:TYR:CZ	1:A:881:HIS:CA	2.65	0.79
1:A:883:SER:HB2	1:A:902:ASP:HB3	1.63	0.79
1:A:1240:ILE:CG2	1:A:1241:LEU:N	2.45	0.79
1:E:361:TYR:CE2	1:E:370:ILE:HG13	2.16	0.79
1:E:520:ALA:CB	1:E:648:GLU:CB	2.53	0.79
1:E:1017:THR:HA	1:E:1031:ASN:HA	1.63	0.79
1:E:1183:LEU:HB3	1:E:1192:LEU:HD21	1.64	0.79
1:G:456:LEU:O	1:G:459:LYS:HB3	1.81	0.79
1:G:633:CYS:SG	1:G:660:VAL:HG11	2.22	0.79
1:G:639:LEU:CD2	1:G:653:ILE:CD1	2.60	0.79
1:I:595:LEU:CD1	1:I:1244:LEU:HD22	2.10	0.79
1:I:729:ASP:HB2	1:I:736:ARG:HB2	1.62	0.79
1:I:883:SER:HB2	1:I:902:ASP:HB3	1.63	0.79
1:I:1199:ILE:CD1	1:I:1232:TYR:HE2	1.94	0.79
1:K:595:LEU:CG	1:K:1201:TRP:CH2	2.65	0.79
1:K:603:ILE:HD12	1:K:604:THR:OG1	1.82	0.79
1:K:862:TYR:OH	1:K:881:HIS:CB	2.16	0.79
1:K:1240:ILE:CG2	1:K:1241:LEU:N	2.45	0.79
1:M:159:GLY:HA2	5:M:1301:DTP:O1A	1.81	0.79
1:M:862:TYR:CZ	1:M:881:HIS:CA	2.64	0.79
1:M:1201:TRP:HB2	1:M:1210:SER:O	1.81	0.79
4:Y:15:ARG:CD	4:Y:19:GLU:OE2	2.30	0.79
1:A:138:GLN:CB	3:W:6:ARG:NH1	2.44	0.79
1:A:146:GLU:OE1	1:A:147:PRO:CD	2.30	0.79
1:A:159:GLY:HA2	5:A:1301:DTP:O1A	1.81	0.79
1:C:361:TYR:CE2	1:C:370:ILE:HG13	2.16	0.79
1:C:1017:THR:HA	1:C:1031:ASN:HA	1.63	0.79
1:C:1183:LEU:HB3	1:C:1192:LEU:HD21	1.64	0.79
1:E:180:GLY:N	1:E:237:ARG:HB3	1.96	0.79
1:G:1183:LEU:HB3	1:G:1192:LEU:HD21	1.64	0.79
1:K:862:TYR:CZ	1:K:881:HIS:CA	2.64	0.79
1:M:595:LEU:CG	1:M:1201:TRP:HH2	1.96	0.79
1:C:595:LEU:CG	1:C:1201:TRP:CH2	2.65	0.79
1:C:860:SER:O	1:C:861:GLN:CG	2.29	0.79
1:E:146:GLU:OE1	1:E:147:PRO:CD	2.29	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:179:PRO:HD2	1:E:237:ARG:NH1	1.87	0.79
1:E:1151:ILE:H	1:E:1167:PRO:HD2	1.46	0.79
1:K:153:HIS:CD2	1:K:267:LYS:HB3	2.17	0.79
1:M:1199:ILE:CD1	1:M:1232:TYR:HE2	1.94	0.79
1:A:217:PRO:HB3	1:A:222:GLU:HG2	1.64	0.79
1:C:595:LEU:CG	1:C:1201:TRP:HH2	1.96	0.79
1:C:862:TYR:CZ	1:C:881:HIS:CA	2.64	0.79
1:I:1167:PRO:O	1:I:1202:TRP:NE1	2.15	0.79
1:K:1218:THR:CG2	1:K:1219:ASN:N	2.45	0.79
1:A:146:GLU:O	1:A:147:PRO:O	2.01	0.79
1:A:860:SER:O	1:A:861:GLN:CG	2.29	0.79
1:C:361:TYR:HE2	1:C:370:ILE:HG13	1.46	0.79
1:C:597:TRP:CH2	1:C:603:ILE:CD1	2.65	0.79
1:C:1201:TRP:HB2	1:C:1210:SER:O	1.81	0.79
1:E:237:ARG:HH11	1:E:237:ARG:HG2	1.48	0.79
1:E:1212:THR:HG23	1:E:1213:PHE:H	1.47	0.79
1:G:153:HIS:CD2	1:G:267:LYS:HB3	2.17	0.79
1:G:1240:ILE:CG2	1:G:1241:LEU:N	2.45	0.79
1:I:159:GLY:HA2	5:I:1301:DTP:O1A	1.81	0.79
1:K:903:ASP:O	1:K:904:GLN:HB2	1.83	0.79
1:A:482:TYR:CD1	1:A:486:PHE:CD1	2.71	0.79
1:C:146:GLU:O	1:C:147:PRO:O	2.01	0.79
1:C:456:LEU:O	1:C:459:LYS:HB3	1.82	0.79
1:C:1218:THR:CG2	1:C:1219:ASN:N	2.45	0.79
1:E:146:GLU:O	1:E:147:PRO:O	2.01	0.79
1:E:241:ILE:C	1:E:242:LEU:HD12	2.02	0.79
1:G:241:ILE:C	1:G:242:LEU:HD12	2.02	0.79
1:G:597:TRP:CH2	1:G:603:ILE:CD1	2.65	0.79
1:I:482:TYR:CD1	1:I:486:PHE:CD1	2.71	0.79
1:K:241:ILE:C	1:K:242:LEU:HD12	2.02	0.79
1:K:513:LYS:O	1:K:517:VAL:HB	1.83	0.79
1:K:1151:ILE:H	1:K:1167:PRO:HD2	1.46	0.79
1:M:195:LEU:HD12	1:M:195:LEU:O	1.83	0.79
3:P:27:ASP:HA	4:S:13:ARG:HG2	1.63	0.79
1:A:153:HIS:CD2	1:A:267:LYS:HB3	2.17	0.79
1:A:520:ALA:CB	1:A:648:GLU:CA	2.60	0.79
1:A:1151:ILE:H	1:A:1167:PRO:HD2	1.46	0.79
1:C:883:SER:HB2	1:C:902:ASP:HB3	1.64	0.79
1:E:513:LYS:O	1:E:517:VAL:HB	1.83	0.79
1:I:513:LYS:O	1:I:517:VAL:HB	1.82	0.79
7:J:201:HEM:HBC2	7:J:201:HEM:CMC	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:456:LEU:O	1:K:459:LYS:HB3	1.82	0.79
1:K:1233:VAL:HB	1:K:1242:TYR:O	1.83	0.79
1:M:520:ALA:CB	1:M:648:GLU:CB	2.53	0.79
1:M:1240:ILE:CG2	1:M:1241:LEU:N	2.45	0.79
3:O:48:THR:HG21	3:P:41:GLU:OE2	1.82	0.79
1:A:1167:PRO:O	1:A:1202:TRP:NE1	2.15	0.79
1:C:419:VAL:CG1	1:C:426:CYS:SG	2.71	0.79
1:E:217:PRO:HB3	1:E:222:GLU:HG2	1.64	0.79
1:E:520:ALA:CB	1:E:648:GLU:CA	2.60	0.79
1:E:639:LEU:CD2	1:E:653:ILE:CD1	2.60	0.79
1:I:361:TYR:CE2	1:I:370:ILE:HG13	2.16	0.79
1:I:419:VAL:CG1	1:I:426:CYS:SG	2.71	0.79
1:K:175:GLU:OE2	1:K:175:GLU:C	2.20	0.79
1:K:482:TYR:CD1	1:K:486:PHE:CD1	2.71	0.79
1:M:419:VAL:CG1	1:M:426:CYS:SG	2.71	0.79
1:A:195:LEU:HD12	1:A:195:LEU:O	1.83	0.79
1:C:866:LEU:HD22	1:C:914:VAL:HB	1.65	0.79
1:C:999:ARG:HG2	1:C:1030:TRP:CG	2.17	0.79
1:E:153:HIS:CD2	1:E:267:LYS:HB3	2.17	0.79
1:E:195:LEU:HD12	1:E:195:LEU:O	1.83	0.79
1:I:903:ASP:O	1:I:904:GLN:HB2	1.83	0.79
1:K:195:LEU:O	1:K:195:LEU:HD12	1.83	0.79
1:K:1176:HIS:CG	1:K:1218:THR:OG1	2.36	0.79
1:K:1183:LEU:HB3	1:K:1192:LEU:HD21	1.64	0.79
1:M:264:THR:OG1	1:M:265:ARG:N	2.16	0.79
1:A:603:ILE:HD12	1:A:604:THR:OG1	1.82	0.79
1:A:999:ARG:HG2	1:A:1030:TRP:CG	2.17	0.79
1:A:1218:THR:CG2	1:A:1219:ASN:N	2.45	0.79
1:A:1220:LEU:HG	1:A:1236:ASP:CB	2.13	0.79
2:B:18:HIS:CE1	2:B:29:GLY:CA	2.66	0.79
1:C:520:ALA:CB	1:C:648:GLU:CA	2.60	0.79
1:E:179:PRO:HD2	1:E:237:ARG:CG	2.04	0.79
1:E:603:ILE:HD12	1:E:604:THR:OG1	1.82	0.79
1:I:153:HIS:CD2	1:I:267:LYS:HB3	2.17	0.79
1:I:1200:LYS:CG	1:I:1211:GLN:CB	2.61	0.79
1:K:1167:PRO:CB	1:K:1202:TRP:CE2	2.64	0.79
1:M:482:TYR:CD1	1:M:486:PHE:CD1	2.71	0.79
1:M:558:GLN:CB	1:M:559:PRO:HD3	2.14	0.79
1:M:903:ASP:O	1:M:904:GLN:HB2	1.83	0.79
1:M:1167:PRO:HA	1:M:1202:TRP:HD1	1.41	0.79
1:M:1233:VAL:HB	1:M:1242:TYR:O	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:31:SER:HB3	4:S:11:ARG:O	1.83	0.79
1:A:108:SER:O	1:A:111:ARG:CG	2.31	0.78
1:C:153:HIS:CD2	1:C:267:LYS:HB3	2.17	0.78
1:C:595:LEU:CD1	1:C:1244:LEU:HD22	2.10	0.78
1:C:639:LEU:CD2	1:C:653:ILE:CD1	2.60	0.78
1:C:1212:THR:HG23	1:C:1213:PHE:H	1.47	0.78
1:E:482:TYR:CD1	1:E:486:PHE:CD1	2.71	0.78
1:E:529:TYR:O	1:E:532:ILE:CG2	2.31	0.78
1:E:999:ARG:HG2	1:E:1030:TRP:CG	2.17	0.78
1:G:595:LEU:CG	1:G:1201:TRP:HH2	1.95	0.78
1:G:866:LEU:HD22	1:G:914:VAL:HB	1.65	0.78
1:G:1017:THR:HA	1:G:1031:ASN:HA	1.63	0.78
1:I:108:SER:O	1:I:111:ARG:CG	2.31	0.78
1:I:597:TRP:CH2	1:I:603:ILE:CD1	2.65	0.78
1:I:883:SER:OG	1:I:902:ASP:HB2	1.83	0.78
1:K:264:THR:OG1	1:K:265:ARG:N	2.16	0.78
1:M:771:ASP:HB2	1:M:778:ARG:HB2	1.65	0.78
1:M:1167:PRO:O	1:M:1202:TRP:NE1	2.15	0.78
4:U:13:ARG:HD3	4:U:59:ILE:CD1	2.13	0.78
1:A:241:ILE:C	1:A:242:LEU:HD12	2.03	0.78
1:A:1212:THR:HG23	1:A:1213:PHE:H	1.47	0.78
1:C:1167:PRO:C	1:C:1202:TRP:NE1	2.27	0.78
1:E:883:SER:OG	1:E:902:ASP:HB2	1.83	0.78
1:E:1167:PRO:CA	1:E:1202:TRP:HE1	1.81	0.78
1:E:1218:THR:CG2	1:E:1219:ASN:N	2.45	0.78
1:G:1183:LEU:HB3	1:G:1192:LEU:CD2	2.14	0.78
1:I:771:ASP:HB2	1:I:778:ARG:HB2	1.65	0.78
1:I:1017:THR:HA	1:I:1031:ASN:HA	1.63	0.78
1:K:558:GLN:CB	1:K:559:PRO:HD3	2.13	0.78
1:M:513:LYS:O	1:M:517:VAL:HB	1.83	0.78
1:A:140:LEU:HD13	1:A:140:LEU:O	1.84	0.78
1:E:866:LEU:HD22	1:E:914:VAL:HB	1.65	0.78
1:E:1183:LEU:HB3	1:E:1192:LEU:CD2	2.14	0.78
1:G:513:LYS:O	1:G:517:VAL:HB	1.83	0.78
1:G:529:TYR:O	1:G:532:ILE:CG2	2.32	0.78
1:I:217:PRO:HB3	1:I:222:GLU:HG2	1.64	0.78
1:I:1183:LEU:HB3	1:I:1192:LEU:CD2	2.14	0.78
1:K:771:ASP:HB2	1:K:778:ARG:HB2	1.66	0.78
1:K:1200:LYS:CG	1:K:1211:GLN:CB	2.61	0.78
1:M:1151:ILE:H	1:M:1167:PRO:HD2	1.46	0.78
1:M:1220:LEU:HG	1:M:1236:ASP:CB	2.13	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:584:ALA:O	1:A:588:VAL:HG22	1.84	0.78
1:E:1167:PRO:O	1:E:1202:TRP:NE1	2.15	0.78
1:E:1200:LYS:CG	1:E:1211:GLN:CB	2.62	0.78
1:G:195:LEU:HD12	1:G:195:LEU:O	1.83	0.78
1:G:558:GLN:CB	1:G:559:PRO:HD3	2.13	0.78
1:I:558:GLN:CB	1:I:559:PRO:HD3	2.14	0.78
1:A:513:LYS:O	1:A:517:VAL:HB	1.83	0.78
1:A:1183:LEU:HB3	1:A:1192:LEU:HD21	1.64	0.78
1:A:1201:TRP:HB2	1:A:1210:SER:O	1.81	0.78
1:C:195:LEU:HD12	1:C:195:LEU:O	1.83	0.78
1:E:233:ARG:O	3:O:10:LEU:HD12	1.83	0.78
1:E:234:LYS:CA	3:O:10:LEU:HD13	2.11	0.78
1:E:1176:HIS:CG	1:E:1218:THR:OG1	2.36	0.78
1:G:419:VAL:CG1	1:G:426:CYS:SG	2.71	0.78
1:G:1233:VAL:HB	1:G:1242:TYR:O	1.83	0.78
1:K:217:PRO:HB3	1:K:222:GLU:HG2	1.64	0.78
1:K:419:VAL:CG1	1:K:426:CYS:SG	2.71	0.78
1:A:558:GLN:CB	1:A:559:PRO:HD3	2.13	0.78
1:E:1233:VAL:HB	1:E:1242:TYR:O	1.83	0.78
1:G:1167:PRO:CB	1:G:1202:TRP:CE2	2.64	0.78
1:I:195:LEU:HD12	1:I:195:LEU:O	1.83	0.78
1:I:334:PHE:CB	1:I:337:ARG:HD2	2.14	0.78
1:I:1176:HIS:CG	1:I:1218:THR:OG1	2.37	0.78
1:K:1167:PRO:O	1:K:1202:TRP:NE1	2.15	0.78
7:N:201:HEM:HBC2	7:N:201:HEM:CMC	2.11	0.78
1:C:140:LEU:O	1:C:140:LEU:HD13	1.84	0.78
1:C:482:TYR:CD1	1:C:486:PHE:CD1	2.71	0.78
1:C:513:LYS:O	1:C:517:VAL:HB	1.83	0.78
1:C:595:LEU:HD12	1:C:1201:TRP:CZ2	2.19	0.78
1:C:1183:LEU:HB3	1:C:1192:LEU:CD2	2.14	0.78
1:C:1200:LYS:CG	1:C:1211:GLN:CB	2.62	0.78
1:E:234:LYS:CA	3:O:10:LEU:CD1	2.60	0.78
1:G:108:SER:O	1:G:111:ARG:CG	2.31	0.78
1:G:480:CYS:O	1:G:483:TRP:HB2	1.84	0.78
1:I:456:LEU:O	1:I:459:LYS:HB3	1.82	0.78
1:M:140:LEU:O	1:M:140:LEU:HD13	1.84	0.78
1:M:1200:LYS:CG	1:M:1211:GLN:CB	2.61	0.78
1:A:480:CYS:O	1:A:483:TRP:HB2	1.84	0.78
1:A:595:LEU:CG	1:A:1201:TRP:HH2	1.96	0.78
1:A:1183:LEU:HB3	1:A:1192:LEU:CD2	2.13	0.78
1:A:1233:VAL:HB	1:A:1242:TYR:O	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:217:PRO:HB3	1:C:222:GLU:HG2	1.64	0.78
1:C:862:TYR:OH	1:C:881:HIS:CB	2.16	0.78
1:C:883:SER:OG	1:C:902:ASP:HB2	1.83	0.78
1:G:482:TYR:CD1	1:G:486:PHE:CD1	2.71	0.78
1:I:262:LEU:HD21	1:I:270:THR:HG21	1.66	0.78
1:I:364:LEU:HD11	1:I:368:MET:CE	2.14	0.78
1:I:1220:LEU:HG	1:I:1236:ASP:CB	2.13	0.78
1:K:480:CYS:O	1:K:483:TRP:HB2	1.84	0.78
1:K:866:LEU:HD22	1:K:914:VAL:HB	1.65	0.78
1:M:999:ARG:HG2	1:M:1030:TRP:CG	2.17	0.78
1:M:1183:LEU:HB3	1:M:1192:LEU:CD2	2.14	0.78
3:P:37:ILE:HG12	4:S:10:ARG:HD3	1.66	0.78
1:A:122:ARG:HH21	1:A:126:PHE:HZ	1.24	0.78
1:A:138:GLN:HB2	3:W:6:ARG:HD3	1.64	0.78
1:A:364:LEU:HD11	1:A:368:MET:CE	2.14	0.78
1:A:771:ASP:HB2	1:A:778:ARG:HB2	1.66	0.78
1:A:1200:LYS:CG	1:A:1211:GLN:CB	2.62	0.78
1:C:584:ALA:O	1:C:588:VAL:HG22	1.84	0.78
1:C:1200:LYS:O	1:C:1202:TRP:HE3	1.60	0.78
1:C:1233:VAL:HB	1:C:1242:TYR:O	1.83	0.78
1:E:264:THR:OG1	1:E:265:ARG:N	2.16	0.78
1:G:217:PRO:HB3	1:G:222:GLU:HG2	1.64	0.78
1:G:1151:ILE:H	1:G:1167:PRO:HD2	1.46	0.78
1:G:1200:LYS:CG	1:G:1211:GLN:CB	2.61	0.78
1:I:241:ILE:C	1:I:242:LEU:HD12	2.02	0.78
1:I:639:LEU:CD2	1:I:653:ILE:CD1	2.60	0.78
1:I:1233:VAL:HB	1:I:1242:TYR:O	1.83	0.78
1:K:108:SER:O	1:K:111:ARG:CG	2.31	0.78
1:K:1179:TRP:CE3	1:K:1179:TRP:HA	2.19	0.78
1:K:1183:LEU:HB3	1:K:1192:LEU:CD2	2.13	0.78
2:L:18:HIS:CE1	2:L:29:GLY:CA	2.66	0.78
1:M:595:LEU:HD12	1:M:1201:TRP:CZ2	2.19	0.78
1:M:597:TRP:CH2	1:M:603:ILE:CD1	2.65	0.78
4:T:13:ARG:NH2	4:T:60:ILE:CG1	2.47	0.78
1:E:334:PHE:CB	1:E:337:ARG:HD2	2.14	0.78
1:E:1220:LEU:HG	1:E:1236:ASP:CB	2.13	0.78
1:I:595:LEU:CG	1:I:1201:TRP:HH2	1.95	0.78
1:K:149:TRP:CH2	1:K:273:VAL:HG11	2.19	0.78
1:K:595:LEU:CG	1:K:1201:TRP:HH2	1.96	0.78
1:M:146:GLU:O	1:M:147:PRO:O	2.01	0.78
1:M:1176:HIS:CG	1:M:1218:THR:OG1	2.36	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1220:LEU:H	1:A:1220:LEU:CD1	1.97	0.77
1:C:480:CYS:O	1:C:483:TRP:HB2	1.84	0.77
1:C:903:ASP:O	1:C:904:GLN:HB2	1.83	0.77
1:E:480:CYS:O	1:E:483:TRP:HB2	1.84	0.77
1:G:595:LEU:CD1	1:G:1244:LEU:HD22	2.10	0.77
1:I:932:GLU:OE1	1:I:933:ASN:ND2	2.17	0.77
1:K:520:ALA:CB	1:K:648:GLU:CA	2.60	0.77
1:K:932:GLU:OE1	1:K:933:ASN:ND2	2.18	0.77
1:M:932:GLU:OE1	1:M:933:ASN:ND2	2.17	0.77
3:R:47:PRO:HB3	4:S:45:ARG:HB3	1.65	0.77
1:A:595:LEU:CD1	1:A:1244:LEU:HD22	2.10	0.77
1:E:108:SER:O	1:E:111:ARG:CG	2.32	0.77
1:E:584:ALA:O	1:E:588:VAL:HG22	1.84	0.77
1:G:262:LEU:HD21	1:G:270:THR:HG21	1.66	0.77
1:G:540:VAL:HG13	1:G:575:GLU:HB3	1.66	0.77
1:I:140:LEU:HD13	1:I:140:LEU:O	1.84	0.77
1:K:334:PHE:CB	1:K:337:ARG:HD2	2.14	0.77
1:M:386:LEU:HD11	1:M:424:LEU:HD22	1.66	0.77
3:P:31:SER:CB	4:S:11:ARG:O	2.33	0.77
4:U:6:ARG:O	4:U:10:ARG:HG3	1.83	0.77
1:A:558:GLN:HB3	1:A:559:PRO:CD	2.15	0.77
1:A:866:LEU:HD22	1:A:914:VAL:HB	1.65	0.77
1:A:883:SER:OG	1:A:902:ASP:HB2	1.83	0.77
1:C:1176:HIS:CG	1:C:1218:THR:OG1	2.36	0.77
1:E:364:LEU:HD11	1:E:368:MET:CE	2.14	0.77
1:E:558:GLN:CB	1:E:559:PRO:HD3	2.13	0.77
1:G:149:TRP:CH2	1:G:273:VAL:HG11	2.20	0.77
1:G:883:SER:OG	1:G:902:ASP:HB2	1.83	0.77
1:G:1176:HIS:CG	1:G:1218:THR:OG1	2.36	0.77
1:I:149:TRP:CH2	1:I:273:VAL:HG11	2.20	0.77
1:K:595:LEU:HD12	1:K:1201:TRP:CZ2	2.19	0.77
1:C:108:SER:O	1:C:111:ARG:CG	2.31	0.77
1:C:364:LEU:HD11	1:C:368:MET:CE	2.14	0.77
1:E:149:TRP:CH2	1:E:273:VAL:HG11	2.20	0.77
1:E:419:VAL:CG1	1:E:426:CYS:SG	2.71	0.77
1:E:595:LEU:CG	1:E:1201:TRP:HH2	1.95	0.77
1:G:146:GLU:O	1:G:147:PRO:O	2.01	0.77
1:G:334:PHE:CB	1:G:337:ARG:HD2	2.14	0.77
1:G:1194:SER:HB2	1:G:1202:TRP:CE3	2.19	0.77
1:I:862:TYR:CZ	1:I:881:HIS:N	2.53	0.77
1:K:262:LEU:HD21	1:K:270:THR:HG21	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1220:LEU:HG	1:K:1236:ASP:CB	2.13	0.77
1:M:364:LEU:HD11	1:M:368:MET:CE	2.14	0.77
1:M:1194:SER:HB2	1:M:1202:TRP:CE3	2.19	0.77
3:O:1:MET:N	3:O:6:ARG:HH21	1.81	0.77
1:A:138:GLN:CA	3:W:6:ARG:CD	2.62	0.77
1:A:419:VAL:CG1	1:A:426:CYS:SG	2.71	0.77
1:A:529:TYR:O	1:A:532:ILE:CG2	2.31	0.77
1:C:558:GLN:CB	1:C:559:PRO:HD3	2.13	0.77
1:C:1220:LEU:HG	1:C:1236:ASP:CB	2.14	0.77
1:E:558:GLN:HB3	1:E:559:PRO:CD	2.15	0.77
1:G:140:LEU:O	1:G:140:LEU:HD13	1.84	0.77
1:G:558:GLN:HB3	1:G:559:PRO:CD	2.14	0.77
1:K:146:GLU:O	1:K:147:PRO:O	2.01	0.77
1:M:529:TYR:O	1:M:532:ILE:CG2	2.31	0.77
1:M:1149:GLY:HA2	1:M:1180:VAL:CG2	2.10	0.77
1:M:1183:LEU:HB3	1:M:1192:LEU:HD21	1.64	0.77
3:P:19:ASP:O	4:T:64:THR:HG21	1.84	0.77
4:S:7:ARG:O	4:S:11:ARG:HG2	1.84	0.77
1:A:334:PHE:CB	1:A:337:ARG:HD2	2.14	0.77
1:A:1179:TRP:HA	1:A:1179:TRP:CE3	2.17	0.77
1:C:262:LEU:HD21	1:C:270:THR:HG21	1.66	0.77
1:G:450:CYS:O	1:G:453:LEU:HG	1.85	0.77
1:K:364:LEU:HD11	1:K:368:MET:CE	2.14	0.77
1:K:595:LEU:CD1	1:K:1244:LEU:HD22	2.10	0.77
1:K:1218:THR:O	1:K:1236:ASP:CB	2.32	0.77
1:A:138:GLN:CB	3:W:6:ARG:HD3	2.14	0.77
1:C:386:LEU:HD11	1:C:424:LEU:HD22	1.67	0.77
1:C:932:GLU:OE1	1:C:933:ASN:ND2	2.17	0.77
1:I:146:GLU:O	1:I:147:PRO:O	2.01	0.77
1:I:480:CYS:O	1:I:483:TRP:HB2	1.84	0.77
1:I:1167:PRO:C	1:I:1202:TRP:NE1	2.27	0.77
1:M:108:SER:O	1:M:111:ARG:CG	2.31	0.77
1:A:639:LEU:HD23	1:A:653:ILE:HD12	1.62	0.77
1:C:473:LEU:CD2	1:C:484:TYR:CE1	2.68	0.77
1:G:771:ASP:HB2	1:G:778:ARG:HB2	1.66	0.77
1:I:540:VAL:HG13	1:I:575:GLU:HB3	1.66	0.77
1:K:438:HIS:O	1:K:442:VAL:HG23	1.85	0.77
1:M:237:ARG:NH1	1:M:237:ARG:HG2	1.98	0.77
1:M:480:CYS:O	1:M:483:TRP:HB2	1.84	0.77
1:M:584:ALA:O	1:M:588:VAL:HG22	1.84	0.77
1:C:438:HIS:O	1:C:442:VAL:HG23	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:932:GLU:OE1	1:E:933:ASN:ND2	2.17	0.77
1:E:1194:SER:HB2	1:E:1202:TRP:CE3	2.20	0.77
1:G:932:GLU:OE1	1:G:933:ASN:ND2	2.18	0.77
1:G:1220:LEU:HG	1:G:1236:ASP:CB	2.13	0.77
1:K:140:LEU:O	1:K:140:LEU:HD13	1.84	0.77
1:K:584:ALA:O	1:K:588:VAL:HG22	1.84	0.77
1:M:866:LEU:HD22	1:M:914:VAL:HB	1.65	0.77
1:M:884:TRP:CE3	1:M:885:VAL:O	2.38	0.77
1:A:438:HIS:O	1:A:442:VAL:HG23	1.85	0.77
1:A:540:VAL:HG13	1:A:575:GLU:HB3	1.66	0.77
1:A:637:LYS:HA	1:A:660:VAL:HG23	1.67	0.77
1:C:540:VAL:HG13	1:C:575:GLU:HB3	1.66	0.77
1:E:473:LEU:CD2	1:E:484:TYR:CE1	2.68	0.77
1:E:862:TYR:CZ	1:E:881:HIS:N	2.53	0.77
1:E:884:TRP:CE3	1:E:885:VAL:O	2.38	0.77
1:E:1176:HIS:CB	1:E:1218:THR:CG2	2.62	0.77
1:G:264:THR:OG1	1:G:265:ARG:N	2.16	0.77
1:K:884:TRP:CE3	1:K:885:VAL:O	2.38	0.77
1:M:161:SER:HB2	5:M:1301:DTP:O2A	1.85	0.77
1:M:334:PHE:CB	1:M:337:ARG:HD2	2.14	0.77
1:A:903:ASP:O	1:A:904:GLN:HB2	1.83	0.76
1:E:595:LEU:HD12	1:E:1201:TRP:CZ2	2.19	0.76
1:G:884:TRP:CE3	1:G:885:VAL:O	2.38	0.76
1:G:903:ASP:O	1:G:904:GLN:HB2	1.83	0.76
1:I:237:ARG:NH1	1:I:237:ARG:HG2	1.98	0.76
1:I:866:LEU:HD22	1:I:914:VAL:HB	1.65	0.76
1:K:386:LEU:HD11	1:K:424:LEU:HD22	1.67	0.76
1:K:473:LEU:CD2	1:K:484:TYR:CE1	2.68	0.76
1:M:149:TRP:CH2	1:M:273:VAL:HG11	2.19	0.76
4:T:13:ARG:HH22	4:T:60:ILE:HG12	1.49	0.76
1:A:595:LEU:HD11	1:A:1201:TRP:HZ2	0.76	0.76
1:A:1200:LYS:CG	1:A:1211:GLN:HA	2.15	0.76
1:C:639:LEU:H	1:C:653:ILE:HG21	1.51	0.76
1:E:438:HIS:O	1:E:442:VAL:HG23	1.85	0.76
1:I:179:PRO:CG	1:I:237:ARG:NH1	2.48	0.76
1:I:473:LEU:CD2	1:I:484:TYR:CE1	2.68	0.76
1:K:237:ARG:NH1	1:K:237:ARG:HG2	1.98	0.76
1:K:529:TYR:O	1:K:532:ILE:CG2	2.31	0.76
1:C:334:PHE:CB	1:C:337:ARG:HD2	2.14	0.76
1:E:122:ARG:HH21	1:E:126:PHE:HZ	1.24	0.76
1:E:540:VAL:HG13	1:E:575:GLU:HB3	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:883:SER:OG	1:K:902:ASP:HB2	1.83	0.76
1:K:1194:SER:HB2	1:K:1202:TRP:CE3	2.19	0.76
1:M:639:LEU:CD2	1:M:653:ILE:CD1	2.60	0.76
3:W:47:PRO:HG2	3:W:51:GLN:HE22	1.51	0.76
1:A:386:LEU:HD11	1:A:424:LEU:HD22	1.67	0.76
1:A:505:PHE:HE2	1:A:575:GLU:OE1	1.69	0.76
1:C:264:THR:OG1	1:C:265:ARG:N	2.16	0.76
1:I:438:HIS:O	1:I:442:VAL:HG23	1.85	0.76
1:I:1194:SER:HB2	1:I:1202:TRP:CE3	2.19	0.76
1:A:884:TRP:CE3	1:A:885:VAL:O	2.38	0.76
1:C:1194:SER:HB2	1:C:1202:TRP:CE3	2.19	0.76
2:F:18:HIS:CE1	2:F:29:GLY:CA	2.66	0.76
1:G:179:PRO:CG	1:G:237:ARG:NH1	2.48	0.76
1:I:450:CYS:O	1:I:453:LEU:HG	1.85	0.76
1:I:461:ILE:CD1	1:I:491:MET:HG2	2.16	0.76
1:I:529:TYR:O	1:I:532:ILE:CG2	2.31	0.76
1:I:1220:LEU:H	1:I:1220:LEU:CD1	1.97	0.76
1:K:554:LEU:HD11	1:K:1214:TYR:CE1	2.21	0.76
1:K:558:GLN:HB3	1:K:559:PRO:CD	2.15	0.76
1:M:1200:LYS:CG	1:M:1211:GLN:HA	2.15	0.76
3:Q:35:LEU:HD12	3:Q:39:GLU:OE1	1.86	0.76
1:C:862:TYR:CZ	1:C:881:HIS:N	2.53	0.76
1:E:1167:PRO:CB	1:E:1202:TRP:CE2	2.64	0.76
1:G:364:LEU:HD11	1:G:368:MET:CE	2.14	0.76
1:G:473:LEU:CD2	1:G:484:TYR:CE1	2.68	0.76
1:G:1200:LYS:CG	1:G:1211:GLN:HA	2.15	0.76
1:I:161:SER:HB2	5:I:1301:DTP:O2A	1.85	0.76
1:I:264:THR:OG1	1:I:265:ARG:N	2.16	0.76
1:I:558:GLN:HB3	1:I:559:PRO:CD	2.15	0.76
1:K:461:ILE:CD1	1:K:491:MET:HG2	2.16	0.76
1:K:482:TYR:O	1:K:486:PHE:HD1	1.69	0.76
1:K:505:PHE:HE2	1:K:575:GLU:OE1	1.69	0.76
1:M:883:SER:OG	1:M:902:ASP:HB2	1.83	0.76
3:Q:21:LYS:HD2	4:U:39:MET:HE2	1.68	0.76
1:A:932:GLU:OE1	1:A:933:ASN:ND2	2.18	0.76
1:A:1194:SER:HB2	1:A:1202:TRP:CE3	2.19	0.76
1:C:771:ASP:HB2	1:C:778:ARG:HB2	1.66	0.76
1:E:461:ILE:CD1	1:E:491:MET:HG2	2.16	0.76
1:G:119:VAL:HG12	1:G:184:TRP:CE3	2.21	0.76
1:G:637:LYS:HA	1:G:660:VAL:HG23	1.67	0.76
1:I:119:VAL:HG12	1:I:184:TRP:CE3	2.21	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:386:LEU:HD11	1:I:424:LEU:HD22	1.67	0.76
1:I:554:LEU:HD11	1:I:1214:TYR:CE1	2.21	0.76
1:I:1167:PRO:HB3	1:I:1202:TRP:CD2	2.21	0.76
1:A:450:CYS:O	1:A:453:LEU:HG	1.85	0.76
1:A:920:VAL:HG12	1:A:921:MET:H	1.51	0.76
1:C:149:TRP:CH2	1:C:273:VAL:HG11	2.20	0.76
1:C:482:TYR:O	1:C:486:PHE:HD1	1.69	0.76
1:E:140:LEU:O	1:E:140:LEU:HD13	1.84	0.76
1:E:482:TYR:O	1:E:486:PHE:HD1	1.69	0.76
1:E:597:TRP:CH2	1:E:603:ILE:CD1	2.65	0.76
1:E:903:ASP:O	1:E:904:GLN:HB2	1.83	0.76
1:I:1218:THR:O	1:I:1236:ASP:CB	2.32	0.76
1:M:461:ILE:CD1	1:M:491:MET:HG2	2.16	0.76
1:M:473:LEU:CD2	1:M:484:TYR:CE1	2.68	0.76
1:M:554:LEU:HD11	1:M:1214:TYR:CE1	2.21	0.76
1:M:595:LEU:CD1	1:M:1244:LEU:HD22	2.10	0.76
1:M:639:LEU:H	1:M:653:ILE:HG21	1.51	0.76
1:A:161:SER:HB2	5:A:1301:DTP:O2A	1.85	0.76
1:A:482:TYR:O	1:A:486:PHE:HD1	1.69	0.76
1:C:374:MET:HA	1:C:374:MET:HE2	1.67	0.76
1:C:884:TRP:CE3	1:C:885:VAL:O	2.38	0.76
1:I:657:GLU:HG2	1:I:680:LYS:HZ1	1.51	0.76
1:K:179:PRO:CG	1:K:237:ARG:NH1	2.48	0.76
1:K:948:LEU:CD1	1:K:957:ASP:OD2	2.34	0.76
1:A:179:PRO:CG	1:A:237:ARG:NH1	2.48	0.76
1:A:453:LEU:CD1	1:A:454:GLN:HE21	1.97	0.76
1:C:161:SER:HB2	5:C:1301:DTP:O2A	1.85	0.76
1:C:179:PRO:CG	1:C:237:ARG:NH1	2.48	0.76
1:C:450:CYS:O	1:C:453:LEU:HG	1.85	0.76
1:C:948:LEU:CD1	1:C:957:ASP:OD2	2.34	0.76
1:C:1048:LYS:H	1:C:1062:SER:HA	1.51	0.76
1:E:771:ASP:HB2	1:E:778:ARG:HB2	1.66	0.76
1:G:159:GLY:CA	5:G:1301:DTP:O1A	2.34	0.76
1:G:161:SER:HB2	5:G:1301:DTP:O2A	1.85	0.76
1:G:1048:LYS:H	1:G:1062:SER:HA	1.51	0.76
1:G:1167:PRO:HB3	1:G:1202:TRP:CD2	2.21	0.76
1:K:862:TYR:CZ	1:K:881:HIS:N	2.53	0.76
1:M:262:LEU:HD21	1:M:270:THR:HG21	1.66	0.76
3:R:80:TYR:CE1	4:V:64:THR:OG1	2.24	0.76
1:A:109:TYR:CE1	3:P:4:LYS:CB	2.69	0.75
1:A:473:LEU:CD2	1:A:484:TYR:CE1	2.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:262:LEU:HD21	1:E:270:THR:HG21	1.66	0.75
1:E:561:PRO:O	1:E:563:ILE:HD13	1.86	0.75
1:E:920:VAL:HG12	1:E:921:MET:H	1.51	0.75
1:I:884:TRP:CE3	1:I:885:VAL:O	2.38	0.75
1:K:283:GLU:OE2	1:K:284:SER:N	2.19	0.75
1:K:1200:LYS:CG	1:K:1211:GLN:HA	2.15	0.75
1:A:554:LEU:HD11	1:A:1214:TYR:CE1	2.21	0.75
1:A:1048:LYS:H	1:A:1062:SER:HA	1.51	0.75
1:C:159:GLY:CA	5:C:1301:DTP:O1A	2.34	0.75
1:C:554:LEU:HD11	1:C:1214:TYR:CE1	2.21	0.75
1:E:161:SER:HB2	5:E:1301:DTP:O2A	1.85	0.75
1:E:1200:LYS:CG	1:E:1211:GLN:HA	2.15	0.75
1:G:584:ALA:O	1:G:588:VAL:HG22	1.84	0.75
1:I:505:PHE:HE2	1:I:575:GLU:OE1	1.69	0.75
1:I:584:ALA:O	1:I:588:VAL:HG22	1.84	0.75
1:I:1200:LYS:CG	1:I:1211:GLN:HA	2.15	0.75
1:K:161:SER:HB2	5:K:1301:DTP:O2A	1.85	0.75
1:K:1167:PRO:HB3	1:K:1202:TRP:CD2	2.21	0.75
1:M:450:CYS:O	1:M:453:LEU:HG	1.85	0.75
1:M:505:PHE:HE2	1:M:575:GLU:OE1	1.69	0.75
1:M:558:GLN:HB3	1:M:559:PRO:CD	2.15	0.75
1:M:862:TYR:CZ	1:M:881:HIS:N	2.53	0.75
2:N:18:HIS:CE1	2:N:29:GLY:CA	2.66	0.75
3:Q:30:ILE:HD13	3:Q:35:LEU:HB3	1.67	0.75
1:A:461:ILE:CD1	1:A:491:MET:HG2	2.16	0.75
1:A:902:ASP:CB	2:B:72:LYS:HZ2	1.97	0.75
1:C:637:LYS:HA	1:C:660:VAL:HG23	1.67	0.75
1:C:1167:PRO:O	1:C:1202:TRP:NE1	2.15	0.75
1:G:554:LEU:HD11	1:G:1214:TYR:CE1	2.21	0.75
1:I:637:LYS:HA	1:I:660:VAL:HG23	1.67	0.75
1:I:875:VAL:HG12	1:I:915:CYS:HA	1.69	0.75
1:K:159:GLY:CA	5:K:1301:DTP:O1A	2.35	0.75
1:M:285:SER:O	1:M:319:GLY:CA	2.29	0.75
1:M:637:LYS:HA	1:M:660:VAL:HG23	1.68	0.75
1:A:149:TRP:CH2	1:A:273:VAL:HG11	2.20	0.75
1:C:561:PRO:O	1:C:563:ILE:HD13	1.86	0.75
1:G:283:GLU:OE2	1:G:284:SER:N	2.19	0.75
1:G:639:LEU:H	1:G:653:ILE:HG21	1.50	0.75
1:I:482:TYR:O	1:I:486:PHE:HD1	1.69	0.75
1:K:119:VAL:HG12	1:K:184:TRP:CE3	2.21	0.75
1:K:450:CYS:O	1:K:453:LEU:HG	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:119:VAL:HG12	1:A:184:TRP:CE3	2.21	0.75
1:A:262:LEU:HD21	1:A:270:THR:HG21	1.66	0.75
1:C:283:GLU:OE2	1:C:284:SER:N	2.19	0.75
1:E:146:GLU:OE1	1:E:147:PRO:HD3	1.87	0.75
1:E:450:CYS:O	1:E:453:LEU:HG	1.85	0.75
1:E:453:LEU:CD1	1:E:454:GLN:HE21	1.97	0.75
1:G:438:HIS:O	1:G:442:VAL:HG23	1.85	0.75
1:I:146:GLU:OE1	1:I:147:PRO:HD3	1.87	0.75
2:J:18:HIS:CE1	2:J:29:GLY:CA	2.66	0.75
1:M:179:PRO:CG	1:M:237:ARG:NH1	2.48	0.75
1:A:614:HIS:HE1	1:A:640:GLN:CG	1.83	0.75
1:C:529:TYR:O	1:C:532:ILE:CG2	2.32	0.75
1:C:1247:LEU:HD12	1:C:1248:GLU:N	2.02	0.75
1:E:386:LEU:HD11	1:E:424:LEU:HD22	1.67	0.75
1:G:928:VAL:HG12	1:G:937:VAL:CA	2.17	0.75
1:I:283:GLU:OE2	1:I:284:SER:N	2.19	0.75
1:K:317:CYS:SG	1:K:323:VAL:HG12	2.27	0.75
1:K:540:VAL:HG13	1:K:575:GLU:HB3	1.66	0.75
1:K:924:GLN:HB3	1:K:1238:LEU:CG	2.17	0.75
1:M:438:HIS:O	1:M:442:VAL:HG23	1.85	0.75
1:M:482:TYR:O	1:M:486:PHE:HD1	1.69	0.75
1:M:948:LEU:CD1	1:M:957:ASP:OD2	2.34	0.75
1:M:1220:LEU:H	1:M:1220:LEU:CD1	1.97	0.75
1:A:317:CYS:SG	1:A:323:VAL:HG12	2.27	0.75
1:C:558:GLN:HB3	1:C:559:PRO:CD	2.15	0.75
2:D:18:HIS:CE1	2:D:29:GLY:CA	2.66	0.75
1:G:317:CYS:SG	1:G:323:VAL:HG12	2.27	0.75
1:I:924:GLN:HB3	1:I:1238:LEU:CG	2.17	0.75
1:I:1171:GLU:CG	1:I:1172:GLY:H	2.00	0.75
1:M:146:GLU:OE1	1:M:147:PRO:HD3	1.87	0.75
1:M:159:GLY:CA	5:M:1301:DTP:O1A	2.34	0.75
3:P:28:HIS:NE2	4:S:14:LEU:HD11	2.01	0.75
1:C:317:CYS:SG	1:C:323:VAL:HG12	2.27	0.75
1:C:461:ILE:CD1	1:C:491:MET:HG2	2.16	0.75
1:C:1220:LEU:H	1:C:1220:LEU:CD1	1.97	0.75
1:E:409:GLU:HG3	1:G:340:TYR:CZ	2.22	0.75
1:E:1048:LYS:H	1:E:1062:SER:HA	1.51	0.75
1:G:461:ILE:CD1	1:G:491:MET:HG2	2.16	0.75
1:G:875:VAL:HG12	1:G:915:CYS:HA	1.68	0.75
1:I:597:TRP:CZ2	1:I:603:ILE:HG12	2.22	0.75
1:K:473:LEU:CD1	1:K:480:CYS:CB	2.63	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1171:GLU:CG	1:K:1172:GLY:H	2.00	0.75
1:K:1199:ILE:HD11	1:K:1232:TYR:CE2	2.22	0.75
1:K:1247:LEU:HD12	1:K:1248:GLU:N	2.02	0.75
1:M:920:VAL:HG12	1:M:921:MET:H	1.51	0.75
1:M:1048:LYS:H	1:M:1062:SER:HA	1.51	0.75
1:A:639:LEU:H	1:A:653:ILE:HG21	1.50	0.75
1:A:1167:PRO:CB	1:A:1202:TRP:CE2	2.64	0.75
1:A:1183:LEU:HD12	1:A:1183:LEU:N	2.02	0.75
1:C:520:ALA:HB2	1:C:648:GLU:HA	1.69	0.75
1:C:881:HIS:CE1	1:C:901:SER:CB	2.70	0.75
1:C:1183:LEU:HD12	1:C:1183:LEU:N	2.02	0.75
1:C:1220:LEU:HD23	1:C:1234:THR:HG1	1.52	0.75
1:E:283:GLU:OE2	1:E:284:SER:N	2.19	0.75
1:E:639:LEU:H	1:E:653:ILE:HG21	1.51	0.75
1:G:482:TYR:O	1:G:486:PHE:HD1	1.69	0.75
1:G:924:GLN:HB3	1:G:1238:LEU:CG	2.17	0.75
1:G:948:LEU:CD1	1:G:957:ASP:OD2	2.34	0.75
1:I:317:CYS:SG	1:I:323:VAL:HG12	2.27	0.75
1:I:920:VAL:HG12	1:I:921:MET:H	1.51	0.75
1:K:597:TRP:CZ2	1:K:603:ILE:HG12	2.22	0.75
1:A:146:GLU:OE1	1:A:147:PRO:HD3	1.87	0.74
1:C:505:PHE:HE2	1:C:575:GLU:OE1	1.69	0.74
1:C:551:ASN:O	1:C:555:LEU:HB2	1.87	0.74
1:C:1167:PRO:HB3	1:C:1202:TRP:CD2	2.21	0.74
1:E:931:GLN:O	1:E:932:GLU:CB	2.35	0.74
1:G:920:VAL:HG12	1:G:921:MET:H	1.51	0.74
1:I:159:GLY:CA	5:I:1301:DTP:O1A	2.34	0.74
1:I:1200:LYS:CE	1:I:1211:GLN:HB2	2.02	0.74
1:I:1247:LEU:HD12	1:I:1248:GLU:N	2.02	0.74
1:K:875:VAL:HG12	1:K:915:CYS:HA	1.68	0.74
1:M:127:VAL:HG21	1:M:294:ILE:HG13	1.69	0.74
1:M:283:GLU:OE2	1:M:284:SER:N	2.19	0.74
1:M:551:ASN:O	1:M:555:LEU:HB2	1.87	0.74
1:M:561:PRO:O	1:M:563:ILE:HD13	1.86	0.74
1:M:1167:PRO:HB3	1:M:1202:TRP:CD2	2.21	0.74
1:A:264:THR:OG1	1:A:265:ARG:N	2.16	0.74
1:A:561:PRO:O	1:A:563:ILE:HD13	1.86	0.74
1:A:1167:PRO:HB3	1:A:1202:TRP:CD2	2.21	0.74
1:C:119:VAL:HG12	1:C:184:TRP:CE3	2.21	0.74
1:C:513:LYS:HD3	1:C:522:LEU:HG	1.69	0.74
1:C:1200:LYS:CG	1:C:1211:GLN:HA	2.15	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:317:CYS:SG	1:E:323:VAL:HG12	2.27	0.74
1:E:554:LEU:HD11	1:E:1214:TYR:CE1	2.21	0.74
1:E:637:LYS:HA	1:E:660:VAL:HG23	1.68	0.74
1:E:1183:LEU:HD12	1:E:1183:LEU:N	2.02	0.74
1:G:1167:PRO:C	1:G:1202:TRP:NE1	2.27	0.74
1:I:513:LYS:HD3	1:I:522:LEU:HG	1.69	0.74
1:I:866:LEU:HD22	1:I:914:VAL:CG1	2.18	0.74
1:I:928:VAL:HG12	1:I:937:VAL:CA	2.17	0.74
1:K:639:LEU:CG	1:K:653:ILE:HG21	2.16	0.74
1:K:927:ASP:O	1:K:938:LEU:CB	2.24	0.74
1:M:924:GLN:HB3	1:M:1238:LEU:CG	2.17	0.74
1:A:875:VAL:HG12	1:A:915:CYS:HA	1.68	0.74
1:A:1247:LEU:HD12	1:A:1248:GLU:N	2.02	0.74
1:C:237:ARG:NH1	1:C:237:ARG:HG2	1.98	0.74
1:C:1199:ILE:HD11	1:C:1232:TYR:CE2	2.22	0.74
1:E:359:TYR:CE1	1:E:361:TYR:HD1	2.06	0.74
1:E:513:LYS:HD3	1:E:522:LEU:HG	1.69	0.74
1:G:561:PRO:O	1:G:563:ILE:HD13	1.86	0.74
1:G:862:TYR:CZ	1:G:881:HIS:N	2.53	0.74
1:K:146:GLU:OE1	1:K:147:PRO:HD3	1.87	0.74
1:M:540:VAL:HG13	1:M:575:GLU:HB3	1.66	0.74
1:A:1199:ILE:HD11	1:A:1232:TYR:CE2	2.22	0.74
1:E:119:VAL:HG12	1:E:184:TRP:CE3	2.21	0.74
1:E:573:THR:HA	1:E:577:TYR:CD2	2.23	0.74
1:E:1247:LEU:HD12	1:E:1248:GLU:N	2.02	0.74
1:G:127:VAL:HG21	1:G:294:ILE:HG13	1.69	0.74
1:G:866:LEU:HD22	1:G:914:VAL:CG1	2.18	0.74
1:I:453:LEU:CD1	1:I:454:GLN:HE21	1.97	0.74
1:I:551:ASN:O	1:I:555:LEU:HB2	1.87	0.74
1:I:595:LEU:HD12	1:I:1201:TRP:CZ2	2.19	0.74
1:I:1199:ILE:HD11	1:I:1232:TYR:CE2	2.22	0.74
1:K:513:LYS:HD3	1:K:522:LEU:HG	1.69	0.74
1:K:551:ASN:O	1:K:555:LEU:HB2	1.87	0.74
1:K:881:HIS:CE1	1:K:901:SER:CB	2.70	0.74
1:M:875:VAL:HG12	1:M:915:CYS:HA	1.68	0.74
1:M:1247:LEU:HD12	1:M:1248:GLU:N	2.02	0.74
1:A:159:GLY:CA	5:A:1301:DTP:O1A	2.35	0.74
1:A:237:ARG:NH1	1:A:237:ARG:HG2	1.98	0.74
1:C:1167:PRO:HB3	1:C:1202:TRP:CG	2.23	0.74
1:E:561:PRO:HB3	1:E:1214:TYR:CE2	2.23	0.74
1:E:597:TRP:CZ2	1:E:603:ILE:HG12	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:551:ASN:O	1:G:555:LEU:HB2	1.87	0.74
1:G:573:THR:HA	1:G:577:TYR:CD2	2.23	0.74
1:G:881:HIS:ND1	1:G:901:SER:CB	2.48	0.74
1:G:1167:PRO:HB3	1:G:1202:TRP:CG	2.23	0.74
1:K:561:PRO:O	1:K:563:ILE:HD13	1.86	0.74
1:M:119:VAL:HG12	1:M:184:TRP:CE3	2.21	0.74
1:M:881:HIS:CE1	1:M:901:SER:CB	2.70	0.74
1:M:1179:TRP:HA	1:M:1179:TRP:HE3	1.52	0.74
1:M:1199:ILE:HD11	1:M:1232:TYR:CE2	2.22	0.74
3:R:19:ASP:CB	4:V:64:THR:HA	2.14	0.74
1:A:520:ALA:HB2	1:A:648:GLU:HA	1.69	0.74
1:C:597:TRP:CZ2	1:C:603:ILE:HG12	2.22	0.74
1:E:866:LEU:HD22	1:E:914:VAL:CG1	2.18	0.74
1:E:1167:PRO:HB3	1:E:1202:TRP:CD2	2.21	0.74
1:G:386:LEU:HD11	1:G:424:LEU:HD22	1.67	0.74
1:G:505:PHE:HE2	1:G:575:GLU:OE1	1.69	0.74
1:I:409:GLU:HG3	1:K:340:TYR:CZ	2.22	0.74
1:I:948:LEU:CD1	1:I:957:ASP:OD2	2.34	0.74
1:K:453:LEU:CD1	1:K:454:GLN:HE21	1.97	0.74
1:M:317:CYS:SG	1:M:323:VAL:HG12	2.27	0.74
1:M:535:GLU:HA	1:M:538:CYS:SG	2.28	0.74
1:A:513:LYS:HD3	1:A:522:LEU:HG	1.69	0.74
1:C:146:GLU:OE1	1:C:147:PRO:HD3	1.87	0.74
1:C:409:GLU:HG3	1:E:340:TYR:CZ	2.22	0.74
1:C:924:GLN:HB3	1:C:1238:LEU:CG	2.17	0.74
1:C:931:GLN:O	1:C:932:GLU:CB	2.35	0.74
1:E:234:LYS:HA	3:O:10:LEU:HD11	1.69	0.74
1:E:948:LEU:CD1	1:E:957:ASP:OD2	2.34	0.74
1:G:237:ARG:NH1	1:G:237:ARG:HG2	1.98	0.74
1:G:453:LEU:CD1	1:G:454:GLN:HE21	1.97	0.74
1:G:513:LYS:HD3	1:G:522:LEU:HG	1.69	0.74
1:G:1199:ILE:HD11	1:G:1232:TYR:CE2	2.22	0.74
1:I:473:LEU:CD1	1:I:480:CYS:CB	2.63	0.74
1:K:1183:LEU:HD12	1:K:1183:LEU:N	2.02	0.74
1:M:597:TRP:CZ2	1:M:603:ILE:HG12	2.22	0.74
1:A:924:GLN:HB3	1:A:1238:LEU:CG	2.17	0.74
1:C:603:ILE:HD13	1:C:1242:TYR:CE1	2.23	0.74
1:E:159:GLY:CA	5:E:1301:DTP:O1A	2.35	0.74
1:G:359:TYR:CE1	1:G:361:TYR:HD1	2.05	0.74
1:G:597:TRP:CZ2	1:G:603:ILE:HG12	2.22	0.74
1:G:862:TYR:OH	1:G:881:HIS:CB	2.16	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1183:LEU:N	1:G:1183:LEU:HD12	2.02	0.74
1:I:137:GLN:HE21	1:I:173:LEU:HB3	1.53	0.74
1:I:639:LEU:CG	1:I:653:ILE:HG21	2.16	0.74
1:I:881:HIS:CE1	1:I:901:SER:CB	2.70	0.74
1:K:409:GLU:HG3	1:M:340:TYR:CZ	2.22	0.74
1:K:520:ALA:HB2	1:K:648:GLU:HA	1.69	0.74
1:K:657:GLU:HG2	1:K:680:LYS:HZ1	1.49	0.74
1:K:866:LEU:HD22	1:K:914:VAL:CG1	2.18	0.74
1:K:1048:LYS:H	1:K:1062:SER:HA	1.51	0.74
1:M:1183:LEU:N	1:M:1183:LEU:HD12	2.02	0.74
4:Y:7:ARG:O	4:Y:11:ARG:HG3	1.87	0.74
1:A:283:GLU:OE2	1:A:284:SER:N	2.19	0.74
1:A:931:GLN:O	1:A:932:GLU:CB	2.35	0.74
1:C:561:PRO:HB3	1:C:1214:TYR:CE2	2.23	0.74
1:E:1199:ILE:HD11	1:E:1232:TYR:CE2	2.22	0.74
1:G:657:GLU:HG2	1:G:680:LYS:HZ2	1.51	0.74
2:H:18:HIS:CE1	2:H:30:PRO:HD2	2.22	0.74
1:I:535:GLU:HA	1:I:538:CYS:SG	2.28	0.74
1:I:603:ILE:HD13	1:I:1242:TYR:CE1	2.23	0.74
1:I:1183:LEU:HD12	1:I:1183:LEU:N	2.02	0.74
3:P:19:ASP:CA	4:T:64:THR:CG2	2.53	0.74
1:A:597:TRP:CZ2	1:A:603:ILE:HG12	2.22	0.74
1:A:862:TYR:CZ	1:A:881:HIS:N	2.53	0.74
1:A:866:LEU:HD22	1:A:914:VAL:CG1	2.18	0.74
1:C:359:TYR:CE1	1:C:361:TYR:HD1	2.06	0.74
1:C:535:GLU:HA	1:C:538:CYS:SG	2.28	0.74
1:C:573:THR:HA	1:C:577:TYR:CD2	2.23	0.74
1:C:866:LEU:HD22	1:C:914:VAL:CG1	2.18	0.74
1:E:127:VAL:HG21	1:E:294:ILE:HG13	1.69	0.74
1:E:924:GLN:HB3	1:E:1238:LEU:CG	2.17	0.74
1:E:1167:PRO:C	1:E:1202:TRP:NE1	2.27	0.74
1:G:146:GLU:OE1	1:G:147:PRO:HD3	1.87	0.74
1:G:535:GLU:HA	1:G:538:CYS:SG	2.28	0.74
1:G:561:PRO:HB3	1:G:1214:TYR:CE2	2.23	0.74
1:G:927:ASP:O	1:G:938:LEU:CB	2.24	0.74
1:I:461:ILE:HD13	1:I:491:MET:HG2	1.70	0.74
1:I:561:PRO:O	1:I:563:ILE:HD13	1.86	0.74
1:M:513:LYS:HD3	1:M:522:LEU:HG	1.69	0.74
1:M:657:GLU:HG2	1:M:680:LYS:HZ2	1.53	0.74
3:Q:24:TYR:HE2	4:U:38:HIS:HB3	1.51	0.74
1:A:535:GLU:HA	1:A:538:CYS:SG	2.28	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:862:TYR:OH	1:A:881:HIS:CB	2.16	0.73
1:A:928:VAL:HG12	1:A:937:VAL:CA	2.17	0.73
1:C:137:GLN:HE21	1:C:173:LEU:HB3	1.53	0.73
1:C:920:VAL:HG12	1:C:921:MET:H	1.51	0.73
1:C:1218:THR:O	1:C:1236:ASP:CB	2.32	0.73
7:D:201:HEM:HBC2	7:D:201:HEM:CMC	2.11	0.73
1:E:540:VAL:CG1	1:E:575:GLU:CB	2.66	0.73
1:G:409:GLU:HG3	1:I:340:TYR:CZ	2.23	0.73
1:G:595:LEU:HD12	1:G:1201:TRP:CZ2	2.19	0.73
1:I:127:VAL:HG21	1:I:294:ILE:HG13	1.69	0.73
1:I:639:LEU:H	1:I:653:ILE:HG21	1.51	0.73
1:I:928:VAL:HG22	1:I:1224:HIS:CE1	2.23	0.73
1:M:359:TYR:CE1	1:M:361:TYR:HD1	2.06	0.73
1:M:657:GLU:HG2	1:M:680:LYS:HZ1	1.51	0.73
1:M:988:LEU:HD11	1:M:993:ASN:HA	1.70	0.73
1:A:109:TYR:HE1	3:P:4:LYS:HA	1.53	0.73
1:A:340:TYR:CZ	1:M:409:GLU:HG3	2.22	0.73
1:A:948:LEU:CD1	1:A:957:ASP:OD2	2.34	0.73
1:C:875:VAL:HG12	1:C:915:CYS:HA	1.69	0.73
1:E:137:GLN:HE21	1:E:173:LEU:HB3	1.53	0.73
1:E:551:ASN:O	1:E:555:LEU:HB2	1.87	0.73
1:K:639:LEU:H	1:K:653:ILE:HG21	1.51	0.73
1:K:928:VAL:HG12	1:K:937:VAL:CA	2.17	0.73
1:M:603:ILE:HD13	1:M:1242:TYR:CE1	2.23	0.73
1:M:639:LEU:CG	1:M:653:ILE:HG21	2.16	0.73
1:A:127:VAL:HG21	1:A:294:ILE:HG13	1.69	0.73
1:A:175:GLU:CG	3:P:4:LYS:HZ1	2.01	0.73
1:A:359:TYR:CE1	1:A:361:TYR:HD1	2.06	0.73
1:A:1167:PRO:HB3	1:A:1202:TRP:CG	2.23	0.73
1:A:1220:LEU:HD12	1:A:1220:LEU:N	2.01	0.73
1:E:285:SER:O	1:E:319:GLY:CA	2.29	0.73
1:E:505:PHE:HE2	1:E:575:GLU:OE1	1.69	0.73
1:E:875:VAL:HG12	1:E:915:CYS:HA	1.68	0.73
1:E:881:HIS:CE1	1:E:901:SER:CB	2.70	0.73
1:E:1171:GLU:CG	1:E:1172:GLY:H	2.00	0.73
1:G:603:ILE:HD13	1:G:1242:TYR:CE1	2.23	0.73
1:K:540:VAL:CG1	1:K:575:GLU:CB	2.66	0.73
1:K:637:LYS:HA	1:K:660:VAL:HG23	1.68	0.73
1:K:931:GLN:O	1:K:932:GLU:CB	2.36	0.73
1:M:928:VAL:HG22	1:M:1224:HIS:CE1	2.23	0.73
1:M:1176:HIS:CB	1:M:1218:THR:CG2	2.62	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:573:THR:HA	1:A:577:TYR:CD2	2.23	0.73
1:E:457:HIS:O	1:E:460:ILE:HG22	1.89	0.73
1:G:137:GLN:HE21	1:G:173:LEU:HB3	1.53	0.73
1:G:393:VAL:HG11	1:G:486:PHE:CE2	2.24	0.73
1:G:457:HIS:O	1:G:460:ILE:HG22	1.89	0.73
1:G:461:ILE:HD13	1:G:491:MET:HG2	1.70	0.73
1:I:457:HIS:O	1:I:460:ILE:HG22	1.89	0.73
1:I:1048:LYS:H	1:I:1062:SER:HA	1.51	0.73
1:I:1167:PRO:HB3	1:I:1202:TRP:CG	2.23	0.73
1:K:359:TYR:CE1	1:K:361:TYR:HD1	2.06	0.73
1:K:582:LEU:O	1:K:582:LEU:HD23	1.89	0.73
1:K:920:VAL:HG12	1:K:921:MET:H	1.51	0.73
1:M:520:ALA:HB2	1:M:648:GLU:HA	1.69	0.73
1:M:540:VAL:CG1	1:M:575:GLU:CB	2.66	0.73
1:M:561:PRO:HB3	1:M:1214:TYR:CE2	2.23	0.73
1:M:928:VAL:HG12	1:M:937:VAL:CA	2.17	0.73
1:A:409:GLU:HG3	1:C:340:TYR:CZ	2.22	0.73
1:A:988:LEU:HD11	1:A:993:ASN:HA	1.70	0.73
1:C:928:VAL:HG12	1:C:937:VAL:CA	2.17	0.73
1:E:322:LEU:CD1	1:E:364:LEU:CD2	2.41	0.73
1:E:520:ALA:HB2	1:E:648:GLU:HA	1.69	0.73
1:E:582:LEU:HD23	1:E:582:LEU:O	1.89	0.73
1:E:643:LYS:HD3	1:E:646:THR:HG22	1.71	0.73
1:G:540:VAL:CG1	1:G:575:GLU:CB	2.66	0.73
1:G:988:LEU:HD11	1:G:993:ASN:HA	1.70	0.73
1:I:988:LEU:HD11	1:I:993:ASN:HA	1.70	0.73
1:K:322:LEU:CD1	1:K:364:LEU:CD2	2.42	0.73
1:M:866:LEU:HD22	1:M:914:VAL:CG1	2.18	0.73
3:P:24:TYR:N	3:P:24:TYR:CD1	2.33	0.73
1:E:393:VAL:HG11	1:E:486:PHE:CE2	2.24	0.73
1:E:643:LYS:HD3	1:E:646:THR:CG2	2.19	0.73
1:K:535:GLU:HA	1:K:538:CYS:SG	2.28	0.73
1:A:551:ASN:O	1:A:555:LEU:HB2	1.87	0.73
1:A:595:LEU:CG	1:A:1244:LEU:HD13	2.18	0.73
1:A:595:LEU:HD12	1:A:1201:TRP:CZ2	2.19	0.73
1:C:393:VAL:HG11	1:C:486:PHE:CE2	2.24	0.73
1:C:928:VAL:HG22	1:C:1224:HIS:CE1	2.23	0.73
1:C:1171:GLU:CG	1:C:1172:GLY:H	2.00	0.73
1:E:334:PHE:HB2	1:E:337:ARG:HD2	1.71	0.73
1:E:1218:THR:O	1:E:1236:ASP:CB	2.32	0.73
1:G:582:LEU:HD23	1:G:582:LEU:O	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:359:TYR:CE1	1:I:361:TYR:HD1	2.06	0.73
1:I:582:LEU:O	1:I:582:LEU:HD23	1.89	0.73
1:I:643:LYS:HD3	1:I:646:THR:HG22	1.71	0.73
1:I:881:HIS:CE1	1:I:899:THR:O	2.42	0.73
1:M:596:GLU:O	1:M:1244:LEU:HA	1.89	0.73
1:M:1171:GLU:CG	1:M:1172:GLY:H	2.00	0.73
1:A:643:LYS:HD3	1:A:646:THR:CG2	2.19	0.73
1:A:1171:GLU:CG	1:A:1172:GLY:H	2.00	0.73
1:C:461:ILE:HD13	1:C:491:MET:HG2	1.70	0.73
1:C:540:VAL:CG1	1:C:575:GLU:CB	2.66	0.73
1:C:988:LEU:HD11	1:C:993:ASN:HA	1.70	0.73
1:E:473:LEU:CD1	1:E:480:CYS:CB	2.63	0.73
1:G:595:LEU:CG	1:G:1244:LEU:HD13	2.18	0.73
1:G:596:GLU:O	1:G:1244:LEU:HA	1.89	0.73
1:I:931:GLN:O	1:I:932:GLU:CB	2.35	0.73
2:J:18:HIS:CE1	2:J:30:PRO:HD2	2.22	0.73
1:K:561:PRO:HB3	1:K:1214:TYR:CE2	2.23	0.73
1:K:603:ILE:HD13	1:K:1242:TYR:CE1	2.23	0.73
1:M:494:ALA:O	1:M:495:LYS:HB2	1.89	0.73
3:Q:34:PHE:O	3:Q:63:LYS:NZ	2.19	0.73
4:S:36:ARG:CD	4:S:37:PRO:CD	2.55	0.73
1:A:881:HIS:ND1	1:A:901:SER:CB	2.48	0.73
1:C:473:LEU:CD1	1:C:480:CYS:CB	2.63	0.73
1:C:582:LEU:O	1:C:582:LEU:HD23	1.89	0.73
1:C:881:HIS:CE1	1:C:899:THR:O	2.42	0.73
1:E:461:ILE:HD13	1:E:491:MET:HG2	1.70	0.73
1:E:551:ASN:O	1:E:555:LEU:CB	2.37	0.73
1:G:1200:LYS:CE	1:G:1211:GLN:HB2	2.02	0.73
1:I:147:PRO:CG	1:K:121:GLN:OE1	2.37	0.73
1:I:520:ALA:HB2	1:I:648:GLU:HA	1.69	0.73
1:I:561:PRO:HB3	1:I:1214:TYR:CE2	2.23	0.73
1:I:595:LEU:CG	1:I:1244:LEU:HD13	2.18	0.73
1:I:902:ASP:CG	2:J:72:LYS:NZ	2.42	0.73
1:K:494:ALA:O	1:K:495:LYS:HB2	1.89	0.73
1:M:473:LEU:CD1	1:M:480:CYS:CB	2.63	0.73
1:M:881:HIS:CE1	1:M:899:THR:O	2.42	0.73
4:S:38:HIS:O	4:S:41:GLU:CG	2.37	0.73
1:A:561:PRO:HB3	1:A:1214:TYR:CE2	2.23	0.73
1:A:582:LEU:O	1:A:582:LEU:HD23	1.89	0.73
1:A:881:HIS:CE1	1:A:901:SER:CB	2.70	0.73
1:C:596:GLU:O	1:C:1244:LEU:HA	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:603:ILE:HD13	1:E:1242:TYR:CE1	2.23	0.73
1:E:928:VAL:HG12	1:E:937:VAL:CA	2.17	0.73
1:G:551:ASN:O	1:G:555:LEU:CB	2.37	0.73
1:G:1247:LEU:HD12	1:G:1248:GLU:N	2.02	0.73
1:I:540:VAL:CG1	1:I:575:GLU:CB	2.66	0.73
2:N:18:HIS:CE1	2:N:30:PRO:HD2	2.22	0.73
1:A:551:ASN:O	1:A:555:LEU:CB	2.37	0.72
1:A:1225:VAL:HG11	1:A:1229:PHE:CE1	2.24	0.72
1:C:457:HIS:O	1:C:460:ILE:HG22	1.89	0.72
1:C:595:LEU:CG	1:C:1244:LEU:HD13	2.18	0.72
1:E:535:GLU:HA	1:E:538:CYS:SG	2.28	0.72
1:E:1225:VAL:HG11	1:E:1229:PHE:CE1	2.24	0.72
1:I:334:PHE:HB2	1:I:337:ARG:HD2	1.71	0.72
1:I:596:GLU:O	1:I:1244:LEU:HA	1.89	0.72
1:K:127:VAL:HG21	1:K:294:ILE:HG13	1.69	0.72
1:K:147:PRO:CG	1:M:121:GLN:OE1	2.37	0.72
1:K:334:PHE:HB2	1:K:337:ARG:HD2	1.71	0.72
1:K:596:GLU:O	1:K:1244:LEU:HA	1.89	0.72
1:M:881:HIS:ND1	1:M:901:SER:CB	2.48	0.72
1:A:461:ILE:HD13	1:A:491:MET:HG2	1.70	0.72
1:C:902:ASP:CG	2:D:72:LYS:NZ	2.42	0.72
1:C:1225:VAL:HG11	1:C:1229:PHE:CE1	2.24	0.72
1:E:881:HIS:ND1	1:E:901:SER:CB	2.48	0.72
1:G:1171:GLU:CG	1:G:1172:GLY:H	2.00	0.72
1:I:537:ASP:O	1:I:540:VAL:N	2.22	0.72
1:K:461:ILE:HD13	1:K:491:MET:HG2	1.70	0.72
1:K:881:HIS:ND1	1:K:901:SER:CB	2.48	0.72
1:K:928:VAL:CG1	1:K:937:VAL:HG12	2.19	0.72
1:K:1167:PRO:HB3	1:K:1202:TRP:CG	2.23	0.72
1:M:928:VAL:CG1	1:M:937:VAL:HG12	2.19	0.72
4:Y:87:SER:O	4:Y:91:THR:HG23	1.89	0.72
1:A:393:VAL:HG11	1:A:486:PHE:CE2	2.24	0.72
1:A:540:VAL:CG1	1:A:575:GLU:CB	2.66	0.72
1:A:928:VAL:HG22	1:A:1224:HIS:CE1	2.24	0.72
1:C:553:HIS:HB2	1:C:610:VAL:CG1	2.20	0.72
1:G:928:VAL:HG22	1:G:1224:HIS:CE1	2.24	0.72
1:I:1027:ILE:HB	1:I:1040:LEU:HB2	1.72	0.72
1:I:1200:LYS:CG	1:I:1211:GLN:CA	2.67	0.72
1:K:393:VAL:HG11	1:K:486:PHE:CE2	2.24	0.72
1:K:928:VAL:HG22	1:K:1224:HIS:CE1	2.23	0.72
1:M:551:ASN:O	1:M:555:LEU:CB	2.37	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:881:HIS:CE1	1:A:899:THR:O	2.42	0.72
1:C:494:ALA:O	1:C:495:LYS:HB2	1.89	0.72
1:G:639:LEU:CG	1:G:653:ILE:HG21	2.16	0.72
1:G:643:LYS:HD3	1:G:646:THR:CG2	2.19	0.72
1:G:1225:VAL:HG11	1:G:1229:PHE:CE1	2.24	0.72
1:I:1225:VAL:HG11	1:I:1229:PHE:CE1	2.24	0.72
1:K:537:ASP:O	1:K:540:VAL:N	2.22	0.72
1:M:137:GLN:HE21	1:M:173:LEU:HB3	1.53	0.72
1:M:457:HIS:O	1:M:460:ILE:HG22	1.89	0.72
1:M:537:ASP:O	1:M:540:VAL:N	2.22	0.72
1:A:553:HIS:HB2	1:A:610:VAL:CG1	2.20	0.72
1:C:334:PHE:HB2	1:C:337:ARG:HD2	1.71	0.72
1:E:881:HIS:CE1	1:E:899:THR:O	2.42	0.72
1:E:928:VAL:HG22	1:E:1224:HIS:CE1	2.23	0.72
1:E:1167:PRO:HB3	1:E:1202:TRP:CG	2.23	0.72
1:G:1027:ILE:HB	1:G:1040:LEU:HB2	1.71	0.72
1:K:285:SER:O	1:K:319:GLY:CA	2.29	0.72
1:K:881:HIS:CE1	1:K:899:THR:O	2.42	0.72
1:K:1027:ILE:HB	1:K:1040:LEU:HB2	1.72	0.72
1:K:1200:LYS:CG	1:K:1211:GLN:CA	2.67	0.72
1:M:1167:PRO:HB3	1:M:1202:TRP:CG	2.23	0.72
3:R:19:ASP:C	4:V:64:THR:HB	2.10	0.72
1:A:109:TYR:CZ	3:P:4:LYS:HB3	2.24	0.72
1:A:137:GLN:HE21	1:A:173:LEU:HB3	1.53	0.72
1:A:381:ASP:O	1:A:384:THR:CG2	2.36	0.72
1:A:882:LEU:CD2	1:A:882:LEU:N	2.39	0.72
1:A:1218:THR:O	1:A:1236:ASP:CB	2.32	0.72
1:C:551:ASN:O	1:C:555:LEU:CB	2.37	0.72
1:E:559:PRO:O	1:E:561:PRO:CD	2.38	0.72
1:E:1176:HIS:HD2	1:E:1197:GLY:HA3	1.55	0.72
1:G:494:ALA:O	1:G:495:LYS:HB2	1.89	0.72
1:I:551:ASN:O	1:I:555:LEU:CB	2.37	0.72
1:I:862:TYR:OH	1:I:881:HIS:CB	2.16	0.72
1:K:137:GLN:HE21	1:K:173:LEU:HB3	1.53	0.72
1:K:364:LEU:CD1	1:K:368:MET:HE1	2.20	0.72
2:L:18:HIS:CE1	2:L:30:PRO:HD2	2.22	0.72
1:M:1233:VAL:HG12	1:M:1243:ILE:HA	1.71	0.72
1:A:147:PRO:CG	1:C:121:GLN:OE1	2.37	0.72
1:A:149:TRP:CZ3	1:A:273:VAL:HG11	2.25	0.72
1:A:1176:HIS:HD2	1:A:1197:GLY:HA3	1.54	0.72
1:C:643:LYS:HD3	1:C:646:THR:CG2	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:573:THR:O	1:E:577:TYR:HB2	1.90	0.72
1:E:595:LEU:CG	1:E:1244:LEU:HD13	2.18	0.72
1:E:927:ASP:O	1:E:938:LEU:CB	2.24	0.72
1:G:147:PRO:CG	1:I:121:GLN:OE1	2.37	0.72
1:G:537:ASP:O	1:G:540:VAL:N	2.22	0.72
1:G:928:VAL:CG1	1:G:937:VAL:HG12	2.19	0.72
1:K:902:ASP:CG	2:L:72:LYS:NZ	2.42	0.72
1:K:1220:LEU:HD12	1:K:1220:LEU:N	2.01	0.72
1:M:149:TRP:CZ3	1:M:273:VAL:HG11	2.25	0.72
1:M:461:ILE:HD13	1:M:491:MET:HG2	1.70	0.72
1:M:553:HIS:HB2	1:M:610:VAL:CG1	2.20	0.72
1:M:573:THR:O	1:M:577:TYR:HB2	1.90	0.72
1:M:595:LEU:CG	1:M:1244:LEU:HD13	2.18	0.72
1:M:1027:ILE:HB	1:M:1040:LEU:HB2	1.72	0.72
1:A:121:GLN:OE1	1:M:147:PRO:CG	2.37	0.72
1:C:147:PRO:CG	1:E:121:GLN:OE1	2.37	0.72
1:C:285:SER:O	1:C:319:GLY:CA	2.29	0.72
1:G:520:ALA:HB2	1:G:648:GLU:HA	1.69	0.72
1:G:902:ASP:CG	2:H:72:LYS:NZ	2.42	0.72
1:K:457:HIS:O	1:K:460:ILE:HG22	1.89	0.72
1:K:595:LEU:CG	1:K:1244:LEU:HD13	2.18	0.72
1:M:559:PRO:O	1:M:561:PRO:CD	2.38	0.72
1:M:643:LYS:HD3	1:M:646:THR:CG2	2.19	0.72
1:M:816:ALA:HB3	1:M:846:CYS:SG	2.30	0.72
1:A:334:PHE:HB2	1:A:337:ARG:HD2	1.70	0.72
1:A:473:LEU:CD1	1:A:480:CYS:CB	2.63	0.72
1:A:596:GLU:O	1:A:1244:LEU:HA	1.89	0.72
1:A:902:ASP:CG	2:B:72:LYS:NZ	2.42	0.72
1:E:553:HIS:HB2	1:E:610:VAL:CG1	2.20	0.72
1:E:595:LEU:CD1	1:E:1244:LEU:HD22	2.10	0.72
1:G:473:LEU:CD1	1:G:480:CYS:CB	2.63	0.72
1:M:1109:ALA:HB3	1:M:1123:LEU:HB2	1.72	0.72
1:M:1220:LEU:HD12	1:M:1220:LEU:N	2.01	0.72
3:Q:28:HIS:N	4:T:14:LEU:HG	2.03	0.72
1:A:494:ALA:O	1:A:495:LYS:HB2	1.89	0.72
1:E:147:PRO:CG	1:G:121:GLN:OE1	2.37	0.72
1:E:1218:THR:HG22	1:E:1219:ASN:HB2	1.72	0.72
1:I:494:ALA:O	1:I:495:LYS:HB2	1.89	0.72
1:I:1167:PRO:CB	1:I:1202:TRP:CE2	2.64	0.72
1:K:551:ASN:O	1:K:555:LEU:CB	2.37	0.72
1:K:643:LYS:HD3	1:K:646:THR:CG2	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:643:LYS:HD3	1:K:646:THR:HG22	1.71	0.72
1:M:1176:HIS:HD2	1:M:1197:GLY:HA3	1.55	0.72
3:P:28:HIS:CE1	4:S:14:LEU:HD11	2.24	0.72
1:A:816:ALA:HB3	1:A:846:CYS:SG	2.30	0.71
1:A:1109:ALA:HB3	1:A:1123:LEU:HB2	1.72	0.71
1:C:816:ALA:HB3	1:C:846:CYS:SG	2.30	0.71
1:E:988:LEU:HD11	1:E:993:ASN:HA	1.70	0.71
1:G:720:SER:OG	1:G:722:ASP:OD1	2.08	0.71
1:G:881:HIS:CE1	1:G:899:THR:O	2.42	0.71
1:G:1233:VAL:HG12	1:G:1243:ILE:HA	1.71	0.71
1:I:559:PRO:O	1:I:561:PRO:CD	2.38	0.71
1:I:643:LYS:HD3	1:I:646:THR:CG2	2.19	0.71
1:K:816:ALA:HB3	1:K:846:CYS:SG	2.30	0.71
1:K:988:LEU:HD11	1:K:993:ASN:HA	1.70	0.71
1:K:1200:LYS:CE	1:K:1211:GLN:HB2	2.02	0.71
1:K:1218:THR:HG22	1:K:1219:ASN:HB2	1.72	0.71
1:M:453:LEU:CD1	1:M:454:GLN:HE21	1.97	0.71
1:M:1200:LYS:CG	1:M:1211:GLN:CA	2.67	0.71
1:C:127:VAL:HG21	1:C:294:ILE:HG13	1.69	0.71
1:C:537:ASP:O	1:C:540:VAL:N	2.23	0.71
1:C:1109:ALA:HB3	1:C:1123:LEU:HB2	1.72	0.71
1:E:149:TRP:CZ3	1:E:273:VAL:HG11	2.25	0.71
1:E:596:GLU:O	1:E:1244:LEU:HA	1.89	0.71
2:F:18:HIS:CE1	2:F:30:PRO:HD2	2.22	0.71
1:G:334:PHE:HB2	1:G:337:ARG:HD2	1.71	0.71
1:G:816:ALA:HB3	1:G:846:CYS:SG	2.30	0.71
1:I:393:VAL:HG11	1:I:486:PHE:CE2	2.24	0.71
1:K:559:PRO:O	1:K:561:PRO:CD	2.38	0.71
1:K:1109:ALA:HB3	1:K:1123:LEU:HB2	1.72	0.71
1:K:1233:VAL:HG12	1:K:1243:ILE:HA	1.71	0.71
3:Q:24:TYR:CG	4:T:52:ARG:NH2	2.57	0.71
1:A:457:HIS:O	1:A:460:ILE:HG22	1.89	0.71
1:A:603:ILE:HD13	1:A:1242:TYR:CE1	2.23	0.71
1:A:928:VAL:CG1	1:A:937:VAL:HG12	2.19	0.71
1:C:149:TRP:CZ3	1:C:273:VAL:HG11	2.25	0.71
1:C:381:ASP:O	1:C:384:THR:CG2	2.36	0.71
1:C:419:VAL:HG11	1:C:426:CYS:HG	1.54	0.71
1:C:1218:THR:HG22	1:C:1219:ASN:HB2	1.72	0.71
1:E:610:VAL:HG22	1:E:907:ARG:HG3	1.73	0.71
1:I:285:SER:O	1:I:319:GLY:CA	2.29	0.71
1:I:332:ARG:HH11	1:I:332:ARG:HB2	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:720:SER:OG	1:I:722:ASP:OD1	2.08	0.71
1:M:317:CYS:C	1:M:318:LYS:HG2	2.11	0.71
1:M:582:LEU:HD23	1:M:582:LEU:O	1.89	0.71
1:M:902:ASP:CG	2:N:72:LYS:NZ	2.42	0.71
1:M:1225:VAL:HG11	1:M:1229:PHE:CE1	2.24	0.71
1:C:453:LEU:CD1	1:C:454:GLN:HE21	1.97	0.71
1:C:559:PRO:O	1:C:561:PRO:CD	2.38	0.71
1:C:1149:GLY:HA2	1:C:1180:VAL:CG2	2.17	0.71
1:G:610:VAL:HG22	1:G:907:ARG:HG3	1.73	0.71
1:K:553:HIS:HB2	1:K:610:VAL:CG1	2.20	0.71
1:K:902:ASP:CB	2:L:72:LYS:HZ2	2.03	0.71
1:K:1220:LEU:H	1:K:1220:LEU:CD1	1.97	0.71
1:K:1225:VAL:HG11	1:K:1229:PHE:CE1	2.24	0.71
1:M:266:ASP:OD1	1:M:266:ASP:N	2.24	0.71
1:M:393:VAL:HG11	1:M:486:PHE:CE2	2.24	0.71
3:Q:19:ASP:O	4:U:64:THR:CG2	2.38	0.71
1:A:172:SER:O	3:W:7:ASN:ND2	2.23	0.71
1:A:179:PRO:HB3	3:P:2:ASP:OD2	1.90	0.71
1:A:537:ASP:O	1:A:540:VAL:N	2.22	0.71
1:A:559:PRO:O	1:A:561:PRO:CD	2.38	0.71
1:A:1027:ILE:HB	1:A:1040:LEU:HB2	1.72	0.71
1:C:643:LYS:HD3	1:C:646:THR:HG22	1.71	0.71
1:C:862:TYR:H	1:C:884:TRP:HD1	1.39	0.71
1:E:155:MET:HE3	1:E:441:GLN:HE21	1.55	0.71
1:I:266:ASP:N	1:I:266:ASP:OD1	2.24	0.71
1:M:322:LEU:HD12	1:M:364:LEU:HD23	0.74	0.71
1:M:374:MET:HA	1:M:374:MET:HE2	1.73	0.71
1:M:920:VAL:C	1:M:921:MET:HG2	2.11	0.71
3:X:37:ILE:CG1	4:Y:10:ARG:HH11	2.03	0.71
1:C:927:ASP:O	1:C:938:LEU:CB	2.24	0.71
1:E:902:ASP:CG	2:F:72:LYS:NZ	2.42	0.71
1:E:928:VAL:CG1	1:E:937:VAL:HG12	2.19	0.71
1:G:149:TRP:CZ3	1:G:273:VAL:HG11	2.25	0.71
1:G:657:GLU:HG2	1:G:680:LYS:HZ1	1.52	0.71
1:I:928:VAL:CG1	1:I:937:VAL:HG12	2.20	0.71
1:M:334:PHE:HB2	1:M:337:ARG:HD2	1.71	0.71
1:M:720:SER:OG	1:M:722:ASP:OD1	2.08	0.71
1:A:427:ASP:OD2	1:A:434:ARG:HG3	1.91	0.71
1:E:137:GLN:HG2	1:E:173:LEU:CD2	2.20	0.71
1:E:494:ALA:O	1:E:495:LYS:HB2	1.89	0.71
1:E:639:LEU:CG	1:E:653:ILE:HG21	2.16	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:931:GLN:O	1:G:932:GLU:CB	2.35	0.71
1:I:146:GLU:OE1	1:I:147:PRO:HD2	1.91	0.71
1:K:149:TRP:CZ3	1:K:273:VAL:HG11	2.25	0.71
1:M:381:ASP:O	1:M:384:THR:CG2	2.36	0.71
3:P:31:SER:HA	4:S:11:ARG:CA	2.18	0.71
1:E:1027:ILE:HB	1:E:1040:LEU:HB2	1.71	0.71
1:E:1187:PRO:CG	1:E:1229:PHE:CG	2.74	0.71
1:G:137:GLN:HG2	1:G:173:LEU:CD2	2.20	0.71
1:I:540:VAL:CG1	1:I:575:GLU:HB2	2.21	0.71
1:I:610:VAL:HG22	1:I:907:ARG:HG3	1.73	0.71
1:I:1218:THR:HG22	1:I:1219:ASN:HB2	1.72	0.71
1:A:862:TYR:H	1:A:884:TRP:HD1	1.39	0.71
1:C:1027:ILE:HB	1:C:1040:LEU:HB2	1.71	0.71
1:E:537:ASP:O	1:E:540:VAL:N	2.22	0.71
1:E:1109:ALA:HB3	1:E:1123:LEU:HB2	1.72	0.71
1:E:1233:VAL:HG12	1:E:1243:ILE:HA	1.71	0.71
1:G:881:HIS:CE1	1:G:901:SER:CB	2.70	0.71
1:I:924:GLN:OE1	1:I:924:GLN:N	2.24	0.71
1:I:1187:PRO:CG	1:I:1229:PHE:CG	2.74	0.71
1:M:427:ASP:OD2	1:M:434:ARG:HG3	1.91	0.71
1:M:862:TYR:OH	1:M:881:HIS:CB	2.16	0.71
1:M:1218:THR:HG22	1:M:1219:ASN:HB2	1.72	0.71
1:A:179:PRO:HG2	1:A:237:ARG:NH1	2.06	0.71
1:A:1233:VAL:HG12	1:A:1243:ILE:HA	1.71	0.71
1:C:317:CYS:C	1:C:318:LYS:HG2	2.11	0.71
1:G:427:ASP:OD2	1:G:434:ARG:HG3	1.90	0.71
1:G:540:VAL:CG1	1:G:575:GLU:HB2	2.21	0.71
1:G:643:LYS:HD3	1:G:646:THR:HG22	1.71	0.71
1:I:816:ALA:HB3	1:I:846:CYS:SG	2.30	0.71
1:I:1171:GLU:HG3	1:I:1172:GLY:N	2.06	0.71
1:I:1187:PRO:HG3	1:I:1229:PHE:CB	2.21	0.71
1:K:1187:PRO:HG3	1:K:1229:PHE:CB	2.21	0.71
1:M:179:PRO:HG2	1:M:237:ARG:NH1	2.06	0.71
1:M:902:ASP:CB	2:N:72:LYS:HZ2	2.03	0.71
3:O:24:TYR:OH	4:S:39:MET:HA	1.91	0.71
1:A:146:GLU:OE1	1:A:147:PRO:HD2	1.91	0.70
1:A:641:VAL:HB	1:A:651:LEU:CB	2.21	0.70
1:C:928:VAL:CG1	1:C:937:VAL:HG12	2.19	0.70
1:E:604:THR:H	1:E:1240:ILE:CD1	2.04	0.70
1:G:920:VAL:C	1:G:921:MET:HG2	2.11	0.70
2:H:18:HIS:CE1	2:H:29:GLY:CA	2.66	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:332:ARG:HH11	1:K:332:ARG:HB2	1.55	0.70
1:M:617:ALA:O	1:M:635:ALA:N	2.24	0.70
3:Q:19:ASP:O	4:U:64:THR:HG21	1.91	0.70
1:A:540:VAL:CG1	1:A:575:GLU:HB2	2.21	0.70
1:A:720:SER:OG	1:A:722:ASP:OD1	2.08	0.70
1:C:573:THR:O	1:C:577:TYR:HB2	1.90	0.70
1:E:862:TYR:OH	1:E:881:HIS:CB	2.16	0.70
1:G:146:GLU:OE1	1:G:147:PRO:HD2	1.91	0.70
1:G:553:HIS:CB	1:G:610:VAL:HG11	2.22	0.70
1:G:604:THR:H	1:G:1240:ILE:CD1	2.04	0.70
1:G:1218:THR:HG22	1:G:1219:ASN:HB2	1.72	0.70
1:I:149:TRP:CZ3	1:I:273:VAL:HG11	2.25	0.70
1:I:179:PRO:HG2	1:I:237:ARG:NH1	2.06	0.70
1:I:427:ASP:OD2	1:I:434:ARG:HG3	1.90	0.70
1:K:344:GLN:O	1:K:347:ASN:HB2	1.91	0.70
1:K:540:VAL:CG1	1:K:575:GLU:HB2	2.21	0.70
1:K:720:SER:OG	1:K:722:ASP:OD1	2.08	0.70
1:K:1187:PRO:CG	1:K:1229:PHE:CG	2.74	0.70
1:K:1240:ILE:HG23	1:K:1241:LEU:H	1.56	0.70
1:M:332:ARG:HH11	1:M:332:ARG:HB2	1.55	0.70
1:M:1213:PHE:CE2	1:M:1215:THR:HG22	2.27	0.70
1:A:927:ASP:O	1:A:938:LEU:CB	2.24	0.70
1:A:1143:ALA:CB	1:A:1183:LEU:HD22	2.22	0.70
1:A:1218:THR:HG22	1:A:1219:ASN:HB2	1.72	0.70
1:C:137:GLN:HG2	1:C:173:LEU:CD2	2.20	0.70
1:C:595:LEU:HD23	1:C:1246:THR:HB	1.74	0.70
1:E:317:CYS:C	1:E:318:LYS:HG2	2.11	0.70
1:G:285:SER:O	1:G:319:GLY:CA	2.29	0.70
1:G:559:PRO:O	1:G:561:PRO:CD	2.38	0.70
1:G:1218:THR:O	1:G:1236:ASP:CB	2.32	0.70
1:I:553:HIS:CB	1:I:610:VAL:HG11	2.21	0.70
1:I:597:TRP:CH2	1:I:603:ILE:CG1	2.74	0.70
1:I:1179:TRP:HA	1:I:1179:TRP:HE3	1.56	0.70
1:I:1233:VAL:HG12	1:I:1243:ILE:HA	1.71	0.70
1:K:597:TRP:CH2	1:K:603:ILE:CG1	2.74	0.70
1:M:127:VAL:HG23	1:M:294:ILE:HG13	1.73	0.70
1:A:155:MET:HE3	1:A:441:GLN:HE21	1.56	0.70
1:A:920:VAL:C	1:A:921:MET:HG2	2.11	0.70
1:C:1187:PRO:CG	1:C:1229:PHE:CG	2.74	0.70
1:E:720:SER:OG	1:E:722:ASP:OD1	2.08	0.70
1:E:816:ALA:HB3	1:E:846:CYS:SG	2.30	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1187:PRO:HG3	1:E:1229:PHE:CB	2.21	0.70
1:E:1220:LEU:CD2	1:E:1234:THR:HG21	2.22	0.70
1:G:553:HIS:HB2	1:G:610:VAL:CG1	2.20	0.70
1:G:1171:GLU:HG3	1:G:1172:GLY:N	2.06	0.70
1:G:1187:PRO:HG3	1:G:1229:PHE:CB	2.21	0.70
1:I:641:VAL:HB	1:I:651:LEU:CB	2.21	0.70
1:I:881:HIS:ND1	1:I:901:SER:CB	2.48	0.70
1:M:146:GLU:OE1	1:M:147:PRO:HD2	1.91	0.70
1:M:1167:PRO:CB	1:M:1202:TRP:CE2	2.64	0.70
1:A:461:ILE:CD1	1:A:491:MET:CG	2.70	0.70
1:C:1176:HIS:HD2	1:C:1197:GLY:HA3	1.56	0.70
1:C:1187:PRO:HG3	1:C:1229:PHE:CB	2.21	0.70
1:G:322:LEU:HD12	1:G:364:LEU:HD23	0.74	0.70
1:I:137:GLN:HG2	1:I:173:LEU:CD2	2.20	0.70
1:I:578:GLN:O	1:I:578:GLN:NE2	2.25	0.70
1:I:920:VAL:C	1:I:921:MET:HG2	2.11	0.70
1:I:1176:HIS:HD2	1:I:1197:GLY:HA3	1.55	0.70
1:K:317:CYS:C	1:K:318:LYS:HG2	2.11	0.70
1:M:553:HIS:CB	1:M:610:VAL:HG11	2.21	0.70
1:M:924:GLN:N	1:M:924:GLN:OE1	2.24	0.70
1:M:1187:PRO:HG3	1:M:1229:PHE:CB	2.21	0.70
1:A:285:SER:O	1:A:319:GLY:CA	2.29	0.70
1:A:573:THR:O	1:A:577:TYR:HB2	1.90	0.70
1:A:1220:LEU:CD2	1:A:1234:THR:HG21	2.22	0.70
1:C:146:GLU:OE1	1:C:147:PRO:HD2	1.90	0.70
1:C:720:SER:OG	1:C:722:ASP:OD1	2.08	0.70
1:C:920:VAL:C	1:C:921:MET:HG2	2.11	0.70
1:G:461:ILE:CD1	1:G:491:MET:CG	2.70	0.70
1:I:1213:PHE:CE2	1:I:1215:THR:HG22	2.27	0.70
1:I:1240:ILE:HG23	1:I:1241:LEU:H	1.56	0.70
1:K:146:GLU:OE1	1:K:147:PRO:HD2	1.91	0.70
1:K:657:GLU:HG2	1:K:680:LYS:HZ2	1.54	0.70
1:M:610:VAL:HG22	1:M:907:ARG:HG3	1.73	0.70
1:M:1143:ALA:CB	1:M:1183:LEU:HD22	2.22	0.70
1:A:332:ARG:HH11	1:A:332:ARG:HB2	1.55	0.70
1:A:553:HIS:CB	1:A:610:VAL:HG11	2.22	0.70
1:A:643:LYS:HD3	1:A:646:THR:HG22	1.71	0.70
1:A:1171:GLU:HG3	1:A:1172:GLY:N	2.06	0.70
1:C:344:GLN:O	1:C:347:ASN:HB2	1.91	0.70
1:C:604:THR:H	1:C:1240:ILE:CD1	2.04	0.70
1:C:610:VAL:HG22	1:C:907:ARG:HG3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1220:LEU:CD2	1:C:1234:THR:HG21	2.22	0.70
1:E:332:ARG:HH11	1:E:332:ARG:HB2	1.55	0.70
1:E:553:HIS:CB	1:E:610:VAL:HG11	2.22	0.70
1:G:1187:PRO:CG	1:G:1229:PHE:CG	2.74	0.70
1:K:578:GLN:NE2	1:K:578:GLN:O	2.25	0.70
1:K:1143:ALA:CB	1:K:1183:LEU:HD22	2.22	0.70
1:K:1176:HIS:HD2	1:K:1197:GLY:HA3	1.55	0.70
4:U:13:ARG:NE	4:U:59:ILE:HD11	2.05	0.70
3:W:47:PRO:HG2	3:W:51:GLN:NE2	2.07	0.70
1:A:595:LEU:HD23	1:A:1246:THR:HB	1.74	0.70
1:A:610:VAL:HG22	1:A:907:ARG:HG3	1.72	0.70
1:A:881:HIS:HE1	1:A:899:THR:O	1.75	0.70
1:A:1187:PRO:CG	1:A:1229:PHE:CG	2.74	0.70
1:C:431:LYS:HZ2	1:E:336:ASN:HB3	1.56	0.70
1:C:1175:THR:O	1:C:1177:GLY:N	2.22	0.70
1:E:427:ASP:OD2	1:E:434:ARG:HG3	1.91	0.70
1:E:862:TYR:H	1:E:884:TRP:HD1	1.39	0.70
1:E:881:HIS:HE1	1:E:899:THR:O	1.75	0.70
1:E:1213:PHE:CE2	1:E:1215:THR:HG22	2.27	0.70
1:G:127:VAL:HG23	1:G:294:ILE:HG13	1.74	0.70
1:G:344:GLN:O	1:G:347:ASN:HB2	1.91	0.70
1:G:924:GLN:OE1	1:G:924:GLN:N	2.24	0.70
1:G:1213:PHE:CE2	1:G:1215:THR:HG22	2.27	0.70
1:I:1109:ALA:HB3	1:I:1123:LEU:HB2	1.72	0.70
1:K:409:GLU:HG2	1:K:410:GLU:N	2.07	0.70
1:K:617:ALA:O	1:K:635:ALA:N	2.24	0.70
1:K:641:VAL:HB	1:K:651:LEU:CB	2.21	0.70
1:M:409:GLU:HG2	1:M:410:GLU:N	2.07	0.70
1:M:643:LYS:HD3	1:M:646:THR:HG22	1.71	0.70
3:R:32:ASP:C	4:U:11:ARG:HE	1.94	0.70
4:V:36:ARG:NH1	4:V:37:PRO:CB	2.54	0.70
1:A:1176:HIS:CB	1:A:1218:THR:CG2	2.60	0.70
1:C:597:TRP:CH2	1:C:603:ILE:CG1	2.75	0.70
1:C:641:VAL:HB	1:C:651:LEU:CB	2.21	0.70
1:C:641:VAL:HB	1:C:651:LEU:HB3	1.74	0.70
1:E:344:GLN:O	1:E:347:ASN:HB2	1.91	0.70
1:G:1109:ALA:HB3	1:G:1123:LEU:HB2	1.72	0.70
1:I:322:LEU:HD12	1:I:364:LEU:HD23	0.74	0.70
1:I:574:SER:OG	1:I:576:VAL:HG23	1.92	0.70
1:I:604:THR:H	1:I:1240:ILE:CD1	2.04	0.70
1:I:641:VAL:HB	1:I:651:LEU:HB3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:127:VAL:HG23	1:K:294:ILE:HG13	1.74	0.70
1:K:573:THR:HA	1:K:577:TYR:CD2	2.23	0.70
1:K:595:LEU:HD23	1:K:1246:THR:HB	1.74	0.70
1:K:1171:GLU:HG3	1:K:1172:GLY:N	2.06	0.70
1:M:578:GLN:NE2	1:M:578:GLN:O	2.25	0.70
1:M:862:TYR:N	1:M:884:TRP:CD1	2.60	0.70
1:M:1187:PRO:CG	1:M:1229:PHE:CG	2.74	0.70
4:T:13:ARG:HD3	4:T:59:ILE:CD1	2.22	0.70
1:A:317:CYS:C	1:A:318:LYS:HG2	2.11	0.70
1:A:597:TRP:CH2	1:A:603:ILE:CG1	2.75	0.70
1:A:1184:CYS:HB3	1:A:1193:ILE:HB	1.74	0.70
1:C:1143:ALA:CB	1:C:1183:LEU:HD22	2.22	0.70
1:E:641:VAL:HB	1:E:651:LEU:CB	2.21	0.70
1:E:641:VAL:HB	1:E:651:LEU:HB3	1.74	0.70
1:G:633:CYS:CB	1:G:660:VAL:HG11	2.22	0.70
1:I:461:ILE:CD1	1:I:491:MET:CG	2.70	0.70
1:I:553:HIS:HB2	1:I:610:VAL:CG1	2.20	0.70
1:I:657:GLU:HG2	1:I:680:LYS:HZ2	1.53	0.70
1:I:1176:HIS:CB	1:I:1218:THR:CG2	2.64	0.70
1:M:597:TRP:CH2	1:M:603:ILE:CG1	2.74	0.70
1:M:1240:ILE:HG23	1:M:1241:LEU:H	1.57	0.70
3:Q:28:HIS:CE1	4:T:14:LEU:HD11	2.26	0.70
3:Q:28:HIS:NE2	4:T:14:LEU:HD11	2.05	0.70
1:A:266:ASP:N	1:A:266:ASP:OD1	2.24	0.69
1:A:1167:PRO:HA	1:A:1202:TRP:NE1	1.93	0.69
1:A:1187:PRO:HG3	1:A:1229:PHE:CB	2.21	0.69
1:E:127:VAL:HG23	1:E:294:ILE:HG13	1.73	0.69
1:E:409:GLU:HG2	1:E:410:GLU:N	2.07	0.69
1:E:633:CYS:CB	1:E:660:VAL:HG11	2.22	0.69
1:E:1200:LYS:CE	1:E:1211:GLN:HB2	2.02	0.69
1:G:862:TYR:N	1:G:884:TRP:CD1	2.60	0.69
1:G:1143:ALA:HB3	1:G:1183:LEU:HD22	1.75	0.69
1:M:461:ILE:CD1	1:M:491:MET:CG	2.70	0.69
1:M:574:SER:OG	1:M:576:VAL:HG23	1.92	0.69
1:M:595:LEU:HD23	1:M:1246:THR:HB	1.73	0.69
1:M:1218:THR:O	1:M:1236:ASP:CB	2.32	0.69
1:A:127:VAL:HG23	1:A:294:ILE:HG13	1.74	0.69
1:A:604:THR:H	1:A:1240:ILE:CD1	2.04	0.69
1:A:1212:THR:HG23	1:A:1213:PHE:N	2.07	0.69
1:C:179:PRO:HG2	1:C:237:ARG:NH1	2.06	0.69
1:C:881:HIS:ND1	1:C:901:SER:CB	2.48	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1233:VAL:HG12	1:C:1243:ILE:HA	1.71	0.69
1:E:862:TYR:CE2	1:E:881:HIS:CA	2.76	0.69
1:E:924:GLN:N	1:E:924:GLN:OE1	2.24	0.69
1:E:1212:THR:HG23	1:E:1213:PHE:N	2.07	0.69
1:G:317:CYS:C	1:G:318:LYS:HG2	2.11	0.69
1:G:862:TYR:CE2	1:G:881:HIS:CA	2.76	0.69
1:G:1184:CYS:HB3	1:G:1193:ILE:HB	1.74	0.69
1:I:344:GLN:O	1:I:347:ASN:HB2	1.91	0.69
1:I:862:TYR:N	1:I:884:TRP:CD1	2.60	0.69
1:I:1143:ALA:HB3	1:I:1183:LEU:HD22	1.75	0.69
1:K:294:ILE:CG2	1:K:324:VAL:HG11	2.21	0.69
1:K:1212:THR:HG23	1:K:1213:PHE:N	2.07	0.69
1:M:641:VAL:HB	1:M:651:LEU:CB	2.21	0.69
1:M:862:TYR:CE2	1:M:881:HIS:CA	2.76	0.69
3:Q:28:HIS:HA	4:T:14:LEU:CD1	2.23	0.69
1:A:597:TRP:CD1	1:A:1243:ILE:O	2.43	0.69
1:C:332:ARG:HH11	1:C:332:ARG:HB2	1.55	0.69
1:C:427:ASP:OD2	1:C:434:ARG:HG3	1.91	0.69
1:E:597:TRP:CH2	1:E:603:ILE:CG1	2.74	0.69
1:E:1187:PRO:HD3	1:E:1229:PHE:CD1	2.27	0.69
1:G:1176:HIS:HD2	1:G:1197:GLY:HA3	1.55	0.69
1:K:574:SER:OG	1:K:576:VAL:HG23	1.92	0.69
1:K:610:VAL:HG22	1:K:907:ARG:HG3	1.73	0.69
1:K:862:TYR:CE2	1:K:881:HIS:CA	2.76	0.69
1:M:540:VAL:CG1	1:M:575:GLU:HB2	2.21	0.69
1:A:137:GLN:HG2	1:A:173:LEU:CD2	2.20	0.69
1:C:1187:PRO:HD3	1:C:1229:PHE:CD1	2.28	0.69
1:C:1213:PHE:CE2	1:C:1215:THR:HG22	2.27	0.69
1:E:862:TYR:N	1:E:884:TRP:CD1	2.60	0.69
1:G:578:GLN:NE2	1:G:578:GLN:O	2.25	0.69
1:G:641:VAL:HB	1:G:651:LEU:CB	2.21	0.69
1:G:1220:LEU:CD2	1:G:1234:THR:HG21	2.22	0.69
1:K:553:HIS:NE2	1:K:554:LEU:HB2	2.08	0.69
1:K:641:VAL:HB	1:K:651:LEU:HB3	1.74	0.69
1:K:920:VAL:C	1:K:921:MET:HG2	2.11	0.69
1:M:553:HIS:NE2	1:M:554:LEU:HB2	2.08	0.69
1:M:604:THR:H	1:M:1240:ILE:CD1	2.04	0.69
1:A:294:ILE:CG2	1:A:324:VAL:HG11	2.22	0.69
1:A:1179:TRP:HA	1:A:1179:TRP:HE3	1.55	0.69
1:C:461:ILE:CD1	1:C:491:MET:CG	2.70	0.69
1:C:633:CYS:CB	1:C:660:VAL:HG11	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:639:LEU:CG	1:C:653:ILE:HG21	2.16	0.69
1:C:1179:TRP:HA	1:C:1179:TRP:HE3	1.55	0.69
1:G:554:LEU:O	1:G:554:LEU:HD13	1.93	0.69
1:G:595:LEU:HD23	1:G:1246:THR:HB	1.73	0.69
1:G:641:VAL:HB	1:G:651:LEU:HB3	1.74	0.69
1:G:1175:THR:O	1:G:1177:GLY:N	2.22	0.69
1:G:1179:TRP:HA	1:G:1179:TRP:HE3	1.57	0.69
1:I:317:CYS:C	1:I:318:LYS:HG2	2.11	0.69
1:I:1166:ALA:N	1:I:1167:PRO:HD3	2.08	0.69
1:I:1184:CYS:HB3	1:I:1193:ILE:HB	1.74	0.69
1:K:409:GLU:O	1:M:337:ARG:NH2	2.25	0.69
1:K:553:HIS:CB	1:K:610:VAL:HG11	2.21	0.69
1:K:604:THR:H	1:K:1240:ILE:CD1	2.04	0.69
1:K:633:CYS:CB	1:K:660:VAL:HG11	2.22	0.69
1:M:344:GLN:O	1:M:347:ASN:HB2	1.91	0.69
1:M:573:THR:HA	1:M:577:TYR:CD2	2.23	0.69
1:M:633:CYS:CB	1:M:660:VAL:HG11	2.22	0.69
1:M:1184:CYS:HB3	1:M:1193:ILE:HB	1.74	0.69
1:M:1187:PRO:CG	1:M:1229:PHE:CB	2.71	0.69
1:M:1212:THR:HG23	1:M:1213:PHE:N	2.07	0.69
1:M:1220:LEU:CD2	1:M:1234:THR:HG21	2.22	0.69
1:A:574:SER:OG	1:A:576:VAL:HG23	1.92	0.69
1:C:394:LYS:HD3	1:C:434:ARG:HG3	1.74	0.69
1:C:409:GLU:HG2	1:C:410:GLU:N	2.07	0.69
1:C:427:ASP:CB	1:C:434:ARG:HG2	2.23	0.69
1:C:554:LEU:O	1:C:554:LEU:HD13	1.93	0.69
1:C:1167:PRO:CB	1:C:1202:TRP:CE2	2.64	0.69
1:C:1240:ILE:HG23	1:C:1241:LEU:H	1.56	0.69
2:D:18:HIS:CE1	2:D:30:PRO:HD2	2.22	0.69
1:E:146:GLU:OE1	1:E:147:PRO:HD2	1.91	0.69
1:E:381:ASP:O	1:E:384:THR:CG2	2.36	0.69
1:E:553:HIS:NE2	1:E:554:LEU:HB2	2.07	0.69
1:E:578:GLN:NE2	1:E:578:GLN:O	2.25	0.69
1:E:920:VAL:C	1:E:921:MET:HG2	2.11	0.69
1:G:597:TRP:CH2	1:G:603:ILE:CG1	2.75	0.69
1:G:881:HIS:HE1	1:G:899:THR:O	1.75	0.69
1:G:1166:ALA:N	1:G:1167:PRO:HD3	2.08	0.69
1:G:1187:PRO:CG	1:G:1229:PHE:CB	2.71	0.69
1:I:554:LEU:O	1:I:554:LEU:HD22	1.93	0.69
1:I:633:CYS:CB	1:I:660:VAL:HG11	2.22	0.69
1:K:175:GLU:OE2	1:K:175:GLU:O	2.11	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:381:ASP:O	1:K:384:THR:CG2	2.36	0.69
1:K:881:HIS:HE1	1:K:899:THR:O	1.75	0.69
1:M:554:LEU:O	1:M:554:LEU:HD13	1.93	0.69
1:M:862:TYR:H	1:M:884:TRP:HD1	1.39	0.69
1:M:1199:ILE:HD13	1:M:1232:TYR:HE2	1.58	0.69
1:A:578:GLN:O	1:A:578:GLN:NE2	2.25	0.69
1:A:924:GLN:OE1	1:A:924:GLN:N	2.24	0.69
1:A:1187:PRO:CG	1:A:1229:PHE:CB	2.71	0.69
1:E:1166:ALA:N	1:E:1167:PRO:HD3	2.08	0.69
1:I:597:TRP:CD1	1:I:1243:ILE:O	2.43	0.69
1:I:1002:HIS:NE2	1:I:1028:GLN:OE1	2.26	0.69
1:K:137:GLN:HG2	1:K:173:LEU:CD2	2.20	0.69
1:K:374:MET:HA	1:K:374:MET:HE2	1.74	0.69
1:K:461:ILE:CD1	1:K:491:MET:CG	2.70	0.69
1:K:1213:PHE:CE2	1:K:1215:THR:HG22	2.27	0.69
1:A:554:LEU:O	1:A:554:LEU:HD22	1.93	0.69
1:A:862:TYR:CE2	1:A:881:HIS:CA	2.76	0.69
1:C:266:ASP:OD1	1:C:266:ASP:N	2.24	0.69
1:C:553:HIS:CB	1:C:610:VAL:HG11	2.21	0.69
1:C:578:GLN:O	1:C:578:GLN:NE2	2.25	0.69
1:C:862:TYR:CE2	1:C:881:HIS:CA	2.76	0.69
1:E:236:PRO:HD3	3:O:7:ASN:HB2	1.74	0.69
1:E:461:ILE:CD1	1:E:491:MET:CG	2.70	0.69
1:E:1143:ALA:HB3	1:E:1183:LEU:HD22	1.74	0.69
1:E:1143:ALA:CB	1:E:1183:LEU:HD22	2.22	0.69
1:E:1184:CYS:HB3	1:E:1193:ILE:HB	1.74	0.69
1:G:179:PRO:HG2	1:G:237:ARG:NH1	2.06	0.69
1:G:332:ARG:HH11	1:G:332:ARG:HB2	1.55	0.69
1:G:554:LEU:O	1:G:554:LEU:HD22	1.93	0.69
1:G:617:ALA:O	1:G:635:ALA:N	2.24	0.69
1:G:867:TRP:HA	1:G:874:LYS:HA	1.75	0.69
1:I:554:LEU:O	1:I:554:LEU:HD13	1.93	0.69
1:I:557:ARG:NH2	1:I:1174:ALA:HB2	2.08	0.69
1:K:266:ASP:OD1	1:K:266:ASP:N	2.23	0.69
1:K:554:LEU:O	1:K:554:LEU:HD13	1.93	0.69
1:K:924:GLN:OE1	1:K:924:GLN:N	2.24	0.69
1:M:881:HIS:HE1	1:M:899:THR:O	1.75	0.69
3:O:24:TYR:OH	4:S:42:ASP:HB2	1.92	0.69
3:Q:24:TYR:CE2	4:U:38:HIS:HB2	2.27	0.69
3:Q:79:GLY:C	4:U:65:ARG:HH22	1.96	0.69
3:R:79:GLY:HA3	4:V:65:ARG:HH12	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Y:15:ARG:HD3	4:Y:19:GLU:OE2	1.92	0.69
1:A:633:CYS:CB	1:A:660:VAL:HG11	2.22	0.69
2:B:33:HIS:CE1	2:B:104:GLU:O	2.46	0.69
1:C:1184:CYS:HB3	1:C:1193:ILE:HB	1.74	0.69
1:E:554:LEU:O	1:E:554:LEU:HD22	1.93	0.69
1:E:574:SER:OG	1:E:576:VAL:HG23	1.92	0.69
1:E:1187:PRO:CG	1:E:1229:PHE:CB	2.71	0.69
1:G:409:GLU:HG2	1:G:410:GLU:N	2.07	0.69
1:G:553:HIS:NE2	1:G:554:LEU:HB2	2.07	0.69
1:G:1143:ALA:CB	1:G:1183:LEU:HD22	2.22	0.69
1:G:1187:PRO:HD3	1:G:1229:PHE:CD1	2.28	0.69
1:I:155:MET:HE3	1:I:441:GLN:HE21	1.58	0.69
1:I:381:ASP:O	1:I:384:THR:CG2	2.36	0.69
1:I:1187:PRO:CG	1:I:1229:PHE:CB	2.71	0.69
1:I:1187:PRO:HD3	1:I:1229:PHE:CD1	2.28	0.69
1:K:1143:ALA:HB3	1:K:1183:LEU:HD22	1.74	0.69
4:T:13:ARG:NH2	4:T:60:ILE:HG13	2.08	0.69
1:A:867:TRP:HA	1:A:874:LYS:HA	1.75	0.69
1:A:1187:PRO:HD3	1:A:1229:PHE:CD1	2.28	0.69
1:A:1213:PHE:CE2	1:A:1215:THR:HG22	2.27	0.69
2:B:18:HIS:CE1	2:B:30:PRO:HD2	2.22	0.69
1:C:574:SER:OG	1:C:576:VAL:HG23	1.92	0.69
1:E:540:VAL:CG1	1:E:575:GLU:HB2	2.21	0.69
1:G:574:SER:OG	1:G:576:VAL:HG23	1.93	0.69
1:G:1212:THR:HG23	1:G:1213:PHE:N	2.07	0.69
1:I:374:MET:HA	1:I:374:MET:HE2	1.74	0.69
1:I:553:HIS:NE2	1:I:554:LEU:HB2	2.07	0.69
4:T:17:VAL:O	4:T:51:ARG:NH2	2.26	0.69
1:A:344:GLN:O	1:A:347:ASN:HB2	1.91	0.68
1:C:881:HIS:HE1	1:C:899:THR:O	1.75	0.68
1:E:236:PRO:CD	3:O:7:ASN:HB2	2.22	0.68
1:E:427:ASP:CB	1:E:434:ARG:HG2	2.23	0.68
1:E:554:LEU:O	1:E:554:LEU:HD13	1.93	0.68
1:E:867:TRP:HA	1:E:874:LYS:HA	1.75	0.68
1:I:573:THR:HA	1:I:577:TYR:CD2	2.23	0.68
1:I:860:SER:C	1:I:861:GLN:CG	2.62	0.68
1:I:862:TYR:CE2	1:I:881:HIS:CA	2.76	0.68
1:I:1143:ALA:CB	1:I:1183:LEU:HD22	2.22	0.68
1:K:427:ASP:CB	1:K:434:ARG:HG2	2.23	0.68
1:K:860:SER:C	1:K:861:GLN:HG2	2.14	0.68
1:K:1184:CYS:HB3	1:K:1193:ILE:HB	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S:17:VAL:O	4:S:51:ARG:NH2	2.26	0.68
1:A:641:VAL:HB	1:A:651:LEU:HB3	1.74	0.68
1:A:860:SER:C	1:A:861:GLN:CG	2.62	0.68
1:C:153:HIS:HA	1:C:160:LYS:HD2	1.76	0.68
1:C:359:TYR:CE1	1:C:361:TYR:CD1	2.82	0.68
1:C:862:TYR:N	1:C:884:TRP:CD1	2.60	0.68
1:C:1166:ALA:N	1:C:1167:PRO:HD3	2.08	0.68
1:C:1212:THR:HG23	1:C:1213:PHE:N	2.07	0.68
1:E:266:ASP:OD1	1:E:266:ASP:N	2.24	0.68
1:G:1240:ILE:HG23	1:G:1241:LEU:H	1.56	0.68
1:I:409:GLU:HG2	1:I:410:GLU:N	2.07	0.68
1:I:595:LEU:HD23	1:I:1246:THR:HB	1.74	0.68
1:I:1199:ILE:HD13	1:I:1232:TYR:HE2	1.58	0.68
1:K:153:HIS:HA	1:K:160:LYS:HD2	1.76	0.68
1:K:862:TYR:N	1:K:884:TRP:CD1	2.60	0.68
1:M:155:MET:CE	1:M:441:GLN:NE2	2.55	0.68
1:M:641:VAL:HB	1:M:651:LEU:HB3	1.74	0.68
3:O:48:THR:CG2	3:P:41:GLU:CD	2.62	0.68
1:A:155:MET:CE	1:A:441:GLN:NE2	2.55	0.68
1:A:359:TYR:CE1	1:A:361:TYR:CD1	2.82	0.68
1:A:394:LYS:HD3	1:A:434:ARG:HG3	1.75	0.68
1:A:409:GLU:HG2	1:A:410:GLU:N	2.07	0.68
1:A:557:ARG:HG3	1:A:559:PRO:HD2	1.76	0.68
1:C:127:VAL:HG23	1:C:294:ILE:HG13	1.73	0.68
1:C:155:MET:CE	1:C:441:GLN:NE2	2.55	0.68
1:C:1200:LYS:CG	1:C:1211:GLN:CA	2.67	0.68
1:E:359:TYR:CE1	1:E:361:TYR:CD1	2.82	0.68
1:G:860:SER:C	1:G:861:GLN:HG2	2.14	0.68
1:I:127:VAL:HG23	1:I:294:ILE:HG13	1.74	0.68
1:M:427:ASP:CB	1:M:434:ARG:HG2	2.23	0.68
1:M:557:ARG:HG3	1:M:559:PRO:HD2	1.76	0.68
1:M:636:ASP:O	1:M:637:LYS:CG	2.42	0.68
1:M:1166:ALA:N	1:M:1167:PRO:HD3	2.08	0.68
1:M:1187:PRO:HD3	1:M:1229:PHE:CD1	2.28	0.68
3:R:47:PRO:CB	4:S:45:ARG:HB3	2.18	0.68
1:A:336:ASN:HB3	1:M:431:LYS:HZ2	1.55	0.68
1:A:902:ASP:HB3	2:B:72:LYS:HZ2	1.56	0.68
1:E:394:LYS:HD3	1:E:434:ARG:HG3	1.74	0.68
1:E:617:ALA:O	1:E:635:ALA:N	2.24	0.68
1:E:1002:HIS:NE2	1:E:1028:GLN:OE1	2.26	0.68
1:E:1171:GLU:HG3	1:E:1172:GLY:N	2.06	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:266:ASP:N	1:G:266:ASP:OD1	2.24	0.68
1:G:427:ASP:CB	1:G:434:ARG:HG2	2.23	0.68
1:K:179:PRO:HG2	1:K:237:ARG:NH1	2.06	0.68
1:K:573:THR:O	1:K:577:TYR:HB2	1.90	0.68
1:M:1002:HIS:NE2	1:M:1028:GLN:OE1	2.26	0.68
4:U:16:LEU:HD23	4:U:85:LEU:HD21	1.74	0.68
1:A:427:ASP:CB	1:A:434:ARG:HG2	2.23	0.68
1:A:553:HIS:NE2	1:A:554:LEU:HB2	2.07	0.68
1:A:636:ASP:O	1:A:637:LYS:CG	2.42	0.68
1:A:1166:ALA:N	1:A:1167:PRO:HD3	2.08	0.68
1:C:867:TRP:HA	1:C:874:LYS:HA	1.75	0.68
1:C:1187:PRO:CG	1:C:1229:PHE:CB	2.71	0.68
1:C:1199:ILE:CD1	1:C:1232:TYR:CE2	2.77	0.68
1:K:557:ARG:NH2	1:K:1174:ALA:HB2	2.08	0.68
1:K:636:ASP:O	1:K:637:LYS:CG	2.42	0.68
1:K:1002:HIS:NE2	1:K:1028:GLN:OE1	2.26	0.68
1:K:1187:PRO:CG	1:K:1229:PHE:CB	2.71	0.68
1:K:1220:LEU:CD2	1:K:1234:THR:HG21	2.22	0.68
1:M:554:LEU:O	1:M:554:LEU:HD22	1.93	0.68
1:M:600:LYS:HD3	1:M:600:LYS:H	1.59	0.68
3:Q:21:LYS:NZ	4:U:61:ASP:OD1	2.26	0.68
1:C:294:ILE:CG2	1:C:324:VAL:HG11	2.22	0.68
1:C:617:ALA:O	1:C:635:ALA:N	2.24	0.68
1:E:1240:ILE:HG23	1:E:1241:LEU:H	1.56	0.68
1:G:557:ARG:NH2	1:G:1174:ALA:HB2	2.09	0.68
1:G:860:SER:C	1:G:861:GLN:CG	2.62	0.68
1:G:875:VAL:CG1	1:G:915:CYS:HA	2.23	0.68
1:K:554:LEU:O	1:K:554:LEU:HD22	1.93	0.68
1:K:875:VAL:CG1	1:K:915:CYS:HA	2.24	0.68
1:K:1199:ILE:CD1	1:K:1232:TYR:CE2	2.77	0.68
1:M:137:GLN:HG2	1:M:173:LEU:CD2	2.20	0.68
1:A:153:HIS:HA	1:A:160:LYS:HD2	1.76	0.68
1:A:179:PRO:HD2	1:A:237:ARG:HG2	1.76	0.68
1:A:554:LEU:O	1:A:554:LEU:HD13	1.93	0.68
1:A:657:GLU:HG2	1:A:680:LYS:HZ1	1.56	0.68
1:A:1143:ALA:HB3	1:A:1183:LEU:HD22	1.74	0.68
1:C:119:VAL:HG12	1:C:184:TRP:HE3	1.59	0.68
1:C:1002:HIS:NE2	1:C:1028:GLN:OE1	2.26	0.68
1:E:557:ARG:NH2	1:E:1174:ALA:HB2	2.09	0.68
1:E:1199:ILE:CD1	1:E:1232:TYR:CE2	2.77	0.68
1:G:409:GLU:O	1:I:337:ARG:NH2	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1002:HIS:NE2	1:G:1028:GLN:OE1	2.26	0.68
1:I:881:HIS:HE1	1:I:899:THR:O	1.75	0.68
1:I:1212:THR:HG23	1:I:1213:PHE:N	2.07	0.68
1:I:1220:LEU:CD2	1:I:1234:THR:HG21	2.22	0.68
1:K:394:LYS:HD3	1:K:434:ARG:HG3	1.74	0.68
1:K:1094:SER:O	1:K:1095:HIS:HB2	1.94	0.68
1:K:1166:ALA:N	1:K:1167:PRO:HD3	2.08	0.68
1:K:1187:PRO:HD3	1:K:1229:PHE:CD1	2.28	0.68
1:M:153:HIS:HA	1:M:160:LYS:HD2	1.76	0.68
1:M:239:LEU:HD12	1:M:239:LEU:C	2.14	0.68
1:M:860:SER:C	1:M:861:GLN:CG	2.62	0.68
1:M:1171:GLU:HG3	1:M:1172:GLY:N	2.06	0.68
1:A:860:SER:C	1:A:861:GLN:HG2	2.14	0.68
1:A:1002:HIS:NE2	1:A:1028:GLN:OE1	2.26	0.68
1:C:322:LEU:CD1	1:C:364:LEU:CD2	2.41	0.68
1:C:409:GLU:O	1:E:337:ARG:NH2	2.25	0.68
1:C:636:ASP:O	1:C:637:LYS:CD	2.42	0.68
1:I:427:ASP:CB	1:I:434:ARG:HG2	2.23	0.68
1:I:860:SER:C	1:I:861:GLN:HG2	2.14	0.68
1:K:860:SER:C	1:K:861:GLN:CG	2.62	0.68
1:M:155:MET:HE3	1:M:441:GLN:HE21	1.58	0.68
1:M:927:ASP:O	1:M:938:LEU:CB	2.24	0.68
3:Q:19:ASP:O	4:U:64:THR:HB	1.93	0.68
1:A:119:VAL:HG12	1:A:184:TRP:HE3	1.59	0.68
1:A:1199:ILE:HD13	1:A:1232:TYR:HE2	1.58	0.68
1:A:1240:ILE:HG23	1:A:1241:LEU:H	1.56	0.68
1:C:427:ASP:CG	1:C:434:ARG:HG2	2.14	0.68
1:C:557:ARG:NH2	1:C:1174:ALA:HB2	2.08	0.68
1:C:600:LYS:H	1:C:600:LYS:HD3	1.59	0.68
1:C:860:SER:C	1:C:861:GLN:CG	2.62	0.68
1:E:153:HIS:HA	1:E:160:LYS:HD2	1.76	0.68
1:E:595:LEU:HD23	1:E:1246:THR:HB	1.74	0.68
1:E:860:SER:C	1:E:861:GLN:CG	2.62	0.68
1:G:636:ASP:O	1:G:637:LYS:CG	2.42	0.68
1:I:409:GLU:O	1:K:337:ARG:NH2	2.25	0.68
1:I:427:ASP:CG	1:I:434:ARG:HG2	2.14	0.68
1:I:617:ALA:O	1:I:635:ALA:N	2.24	0.68
1:I:1199:ILE:CD1	1:I:1232:TYR:CE2	2.77	0.68
1:K:359:TYR:CE1	1:K:361:TYR:CD1	2.82	0.68
1:K:427:ASP:OD2	1:K:434:ARG:HG3	1.90	0.68
1:K:636:ASP:O	1:K:637:LYS:CD	2.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:394:LYS:HD3	1:M:434:ARG:HG3	1.74	0.68
1:M:636:ASP:O	1:M:637:LYS:CD	2.42	0.68
1:M:875:VAL:CG1	1:M:915:CYS:HA	2.24	0.68
3:Q:28:HIS:HD1	4:T:14:LEU:HD21	1.59	0.68
4:U:12:CYS:HG	4:U:88:PHE:HE2	1.40	0.68
1:C:158:CYS:HG	1:C:284:SER:CB	1.83	0.68
1:C:1218:THR:HG23	1:C:1219:ASN:N	2.09	0.68
1:E:322:LEU:HD12	1:E:364:LEU:HD23	0.74	0.68
1:E:636:ASP:O	1:E:637:LYS:CG	2.42	0.68
1:E:1200:LYS:CG	1:E:1211:GLN:CA	2.67	0.68
1:I:394:LYS:HD3	1:I:434:ARG:HG3	1.74	0.68
1:I:1185:PHE:HE1	1:I:1192:LEU:HD12	1.53	0.68
1:K:1179:TRP:HA	1:K:1179:TRP:HE3	1.58	0.68
1:M:604:THR:N	1:M:1240:ILE:HD13	2.09	0.68
3:R:79:GLY:CA	4:V:65:ARG:HH12	2.07	0.68
1:A:600:LYS:H	1:A:600:LYS:HD3	1.59	0.67
1:A:1199:ILE:CD1	1:A:1232:TYR:CE2	2.77	0.67
1:A:1218:THR:HG23	1:A:1219:ASN:N	2.09	0.67
1:C:143:LEU:H	1:C:143:LEU:HD22	1.60	0.67
1:C:553:HIS:NE2	1:C:554:LEU:HB2	2.07	0.67
1:E:875:VAL:CG1	1:E:915:CYS:HA	2.23	0.67
1:E:1218:THR:HG23	1:E:1219:ASN:N	2.09	0.67
1:G:561:PRO:HB3	1:G:1214:TYR:HD2	1.59	0.67
1:G:862:TYR:CE2	1:G:881:HIS:CB	2.75	0.67
1:I:239:LEU:HD12	1:I:239:LEU:C	2.15	0.67
1:I:867:TRP:HA	1:I:874:LYS:HA	1.75	0.67
1:K:155:MET:CE	1:K:441:GLN:NE2	2.55	0.67
1:K:427:ASP:CG	1:K:434:ARG:HG2	2.14	0.67
3:O:24:TYR:CD2	4:S:38:HIS:CB	2.72	0.67
3:R:37:ILE:CG2	4:U:60:ILE:CG2	2.66	0.67
1:A:143:LEU:H	1:A:143:LEU:HD22	1.60	0.67
1:A:322:LEU:HD12	1:A:364:LEU:HD23	0.74	0.67
1:C:544:PHE:CD1	1:C:576:VAL:CG1	2.77	0.67
1:C:554:LEU:O	1:C:554:LEU:HD22	1.93	0.67
1:C:570:GLU:CD	1:C:571:PRO:HD2	2.15	0.67
1:C:604:THR:N	1:C:1240:ILE:HD13	2.09	0.67
1:E:860:SER:C	1:E:861:GLN:HG2	2.14	0.67
1:G:862:TYR:H	1:G:884:TRP:HD1	1.39	0.67
1:I:573:THR:O	1:I:577:TYR:HB2	1.90	0.67
1:I:600:LYS:H	1:I:600:LYS:HD3	1.59	0.67
1:I:1175:THR:O	1:I:1177:GLY:N	2.22	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:33:HIS:CE1	2:J:104:GLU:O	2.46	0.67
1:K:179:PRO:HD2	1:K:237:ARG:HG2	1.76	0.67
1:M:359:TYR:CE1	1:M:361:TYR:CD1	2.82	0.67
2:N:33:HIS:CE1	2:N:104:GLU:O	2.46	0.67
1:C:860:SER:C	1:C:861:GLN:HG2	2.14	0.67
1:E:239:LEU:HD12	1:E:239:LEU:C	2.15	0.67
1:E:597:TRP:CH2	1:E:600:LYS:HA	2.30	0.67
1:G:359:TYR:CE1	1:G:361:TYR:CD1	2.82	0.67
1:G:381:ASP:O	1:G:384:THR:CG2	2.36	0.67
1:G:597:TRP:CD1	1:G:1243:ILE:O	2.43	0.67
1:G:1218:THR:HG23	1:G:1219:ASN:N	2.09	0.67
1:I:322:LEU:CD1	1:I:364:LEU:CD2	2.41	0.67
1:I:427:ASP:HB3	1:I:434:ARG:HG2	1.77	0.67
1:I:636:ASP:C	1:I:637:LYS:HG3	2.15	0.67
1:I:862:TYR:HD1	1:I:885:VAL:H	1.43	0.67
1:K:427:ASP:HB3	1:K:434:ARG:HG2	1.77	0.67
1:K:1199:ILE:HD13	1:K:1232:TYR:HE2	1.58	0.67
1:M:597:TRP:CH2	1:M:600:LYS:HA	2.30	0.67
4:V:17:VAL:O	4:V:51:ARG:NH2	2.27	0.67
1:A:427:ASP:CG	1:A:434:ARG:HG2	2.14	0.67
1:A:597:TRP:CH2	1:A:600:LYS:HA	2.30	0.67
1:C:179:PRO:HD2	1:C:237:ARG:HG2	1.76	0.67
1:C:928:VAL:CG2	1:C:1224:HIS:ND1	2.58	0.67
1:C:1143:ALA:HB3	1:C:1183:LEU:HD22	1.75	0.67
1:E:600:LYS:HD3	1:E:600:LYS:H	1.59	0.67
1:E:636:ASP:O	1:E:637:LYS:CD	2.42	0.67
1:G:387:SER:HA	1:G:445:LEU:HD13	1.77	0.67
1:G:394:LYS:HD3	1:G:434:ARG:HG3	1.74	0.67
1:I:862:TYR:CE1	1:I:885:VAL:HG12	2.21	0.67
1:K:387:SER:HA	1:K:445:LEU:HD13	1.77	0.67
1:K:862:TYR:H	1:K:884:TRP:HD1	1.39	0.67
1:K:867:TRP:HA	1:K:874:LYS:HA	1.75	0.67
1:M:179:PRO:HD2	1:M:237:ARG:HG2	1.76	0.67
1:M:557:ARG:NH2	1:M:1174:ALA:HB2	2.09	0.67
1:M:867:TRP:HA	1:M:874:LYS:HA	1.75	0.67
1:M:1199:ILE:CD1	1:M:1232:TYR:CE2	2.77	0.67
4:T:13:ARG:NE	4:T:59:ILE:HD11	2.08	0.67
1:A:557:ARG:NH2	1:A:1174:ALA:HB2	2.08	0.67
1:A:570:GLU:CD	1:A:571:PRO:HD2	2.15	0.67
1:A:617:ALA:O	1:A:635:ALA:N	2.24	0.67
1:A:1094:SER:O	1:A:1095:HIS:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:322:LEU:HD12	1:C:364:LEU:HD23	0.74	0.67
1:C:636:ASP:O	1:C:637:LYS:CG	2.42	0.67
1:G:604:THR:N	1:G:1240:ILE:HD13	2.10	0.67
1:I:153:HIS:HA	1:I:160:LYS:HD2	1.76	0.67
1:I:636:ASP:O	1:I:637:LYS:CD	2.42	0.67
1:I:927:ASP:O	1:I:938:LEU:CB	2.24	0.67
1:M:143:LEU:HD22	1:M:143:LEU:H	1.60	0.67
1:M:364:LEU:CD1	1:M:368:MET:HE2	2.24	0.67
1:M:597:TRP:CD1	1:M:1243:ILE:O	2.43	0.67
1:A:1200:LYS:CE	1:A:1211:GLN:HB2	2.02	0.67
1:C:1094:SER:O	1:C:1095:HIS:HB2	1.94	0.67
1:C:1199:ILE:HD13	1:C:1232:TYR:HE2	1.57	0.67
1:G:427:ASP:CG	1:G:434:ARG:HG2	2.14	0.67
1:G:557:ARG:HG3	1:G:559:PRO:HD2	1.75	0.67
1:G:862:TYR:HD1	1:G:885:VAL:H	1.42	0.67
1:I:359:TYR:CE1	1:I:361:TYR:CD1	2.82	0.67
1:I:636:ASP:O	1:I:637:LYS:CG	2.42	0.67
1:K:597:TRP:CH2	1:K:600:LYS:HA	2.30	0.67
1:M:427:ASP:CG	1:M:434:ARG:HG2	2.14	0.67
1:M:564:VAL:HG13	1:M:583:GLN:HG2	1.77	0.67
1:M:860:SER:C	1:M:861:GLN:HG2	2.14	0.67
1:M:1094:SER:O	1:M:1095:HIS:HB2	1.94	0.67
3:X:37:ILE:CG1	4:Y:10:ARG:NH1	2.57	0.67
1:A:409:GLU:O	1:C:337:ARG:NH2	2.25	0.67
1:C:261:LEU:C	1:C:261:LEU:HD12	2.15	0.67
1:C:557:ARG:HG3	1:C:559:PRO:HD2	1.75	0.67
1:C:1185:PHE:O	1:C:1229:PHE:HZ	1.78	0.67
1:G:294:ILE:CG2	1:G:324:VAL:HG11	2.22	0.67
1:G:1199:ILE:HD13	1:G:1232:TYR:HE2	1.58	0.67
1:I:875:VAL:CG1	1:I:915:CYS:HA	2.24	0.67
1:I:1220:LEU:CG	1:I:1236:ASP:HB3	2.24	0.67
1:K:928:VAL:CG2	1:K:1224:HIS:ND1	2.58	0.67
1:K:1218:THR:HG23	1:K:1219:ASN:N	2.09	0.67
1:A:875:VAL:CG1	1:A:915:CYS:HA	2.24	0.67
1:C:597:TRP:CH2	1:C:600:LYS:HA	2.30	0.67
1:C:866:LEU:HD22	1:C:914:VAL:CB	2.25	0.67
1:E:570:GLU:CD	1:E:571:PRO:HD2	2.15	0.67
1:G:322:LEU:CD1	1:G:364:LEU:CD2	2.42	0.67
1:G:573:THR:O	1:G:577:TYR:HB2	1.90	0.67
1:G:600:LYS:HD3	1:G:600:LYS:H	1.59	0.67
1:G:636:ASP:C	1:G:637:LYS:HG3	2.15	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1200:LYS:CG	1:G:1211:GLN:CA	2.67	0.67
1:I:535:GLU:O	1:I:538:CYS:HB2	1.95	0.67
1:K:322:LEU:HD12	1:K:364:LEU:HD23	0.74	0.67
1:K:557:ARG:HG3	1:K:559:PRO:HD2	1.75	0.67
1:M:427:ASP:HB3	1:M:434:ARG:HG2	1.77	0.67
1:M:1143:ALA:HB3	1:M:1183:LEU:HD22	1.75	0.67
1:M:1176:HIS:HD2	1:M:1197:GLY:CA	2.08	0.67
3:P:19:ASP:O	4:T:64:THR:CG2	2.43	0.67
1:A:639:LEU:CG	1:A:653:ILE:HG21	2.16	0.67
1:A:928:VAL:CG2	1:A:1224:HIS:ND1	2.58	0.67
1:A:1220:LEU:CA	1:A:1236:ASP:HB3	2.25	0.67
1:C:403:LEU:HD12	1:C:403:LEU:C	2.15	0.67
1:C:657:GLU:HG2	1:C:680:LYS:HZ1	1.58	0.67
2:D:33:HIS:CE1	2:D:104:GLU:O	2.46	0.67
1:E:174:LEU:HD23	1:E:174:LEU:C	2.16	0.67
1:E:604:THR:N	1:E:1240:ILE:HD13	2.09	0.67
1:G:535:GLU:O	1:G:538:CYS:HB2	1.95	0.67
1:G:597:TRP:CH2	1:G:600:LYS:HA	2.30	0.67
1:G:636:ASP:O	1:G:637:LYS:CD	2.42	0.67
1:G:1220:LEU:H	1:G:1220:LEU:CD1	1.97	0.67
1:K:143:LEU:HD22	1:K:143:LEU:H	1.60	0.67
1:M:261:LEU:C	1:M:261:LEU:HD12	2.15	0.67
1:M:387:SER:HA	1:M:445:LEU:HD13	1.77	0.67
1:M:928:VAL:CG2	1:M:1224:HIS:ND1	2.58	0.67
1:A:261:LEU:C	1:A:261:LEU:HD12	2.15	0.67
1:A:564:VAL:HG13	1:A:583:GLN:HG2	1.77	0.67
1:C:260:ILE:CG1	1:C:260:ILE:O	2.43	0.67
1:E:427:ASP:CG	1:E:434:ARG:HG2	2.14	0.67
1:E:1220:LEU:HD21	1:E:1234:THR:HG21	1.78	0.67
1:G:174:LEU:HD23	1:G:174:LEU:C	2.15	0.67
1:I:294:ILE:CG2	1:I:324:VAL:HG11	2.22	0.67
1:I:597:TRP:CH2	1:I:600:LYS:HA	2.30	0.67
1:K:597:TRP:CD1	1:K:1243:ILE:O	2.43	0.67
1:K:600:LYS:H	1:K:600:LYS:HD3	1.59	0.67
1:K:1220:LEU:CG	1:K:1236:ASP:HB3	2.24	0.67
1:K:1220:LEU:CA	1:K:1236:ASP:HB3	2.25	0.67
1:A:174:LEU:HD23	1:A:174:LEU:C	2.15	0.66
1:A:862:TYR:CE2	1:A:881:HIS:CB	2.75	0.66
1:G:1220:LEU:HD12	1:G:1220:LEU:N	2.01	0.66
1:G:1220:LEU:CA	1:G:1236:ASP:HB3	2.25	0.66
2:H:33:HIS:CE1	2:H:104:GLU:O	2.46	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:557:ARG:HG3	1:I:559:PRO:HD2	1.76	0.66
1:I:1176:HIS:HD2	1:I:1197:GLY:CA	2.08	0.66
1:I:1218:THR:HG23	1:I:1219:ASN:N	2.09	0.66
1:K:294:ILE:CG2	1:K:324:VAL:CG1	2.74	0.66
1:K:866:LEU:HD22	1:K:914:VAL:CB	2.25	0.66
1:M:127:VAL:N	5:M:1301:DTP:HN61	1.93	0.66
1:M:1218:THR:HG23	1:M:1219:ASN:N	2.09	0.66
3:P:37:ILE:HD11	4:S:10:ARG:HG2	1.78	0.66
3:R:90:GLY:O	3:R:91:ILE:HB	1.95	0.66
4:U:18:GLU:CG	4:U:52:ARG:HH12	2.07	0.66
1:A:179:PRO:CB	3:P:2:ASP:OD1	2.43	0.66
1:A:403:LEU:HD12	1:A:403:LEU:C	2.15	0.66
1:C:307:PRO:HG2	1:C:338:TRP:CZ3	2.31	0.66
1:C:924:GLN:OE1	1:C:924:GLN:N	2.24	0.66
1:C:1220:LEU:CA	1:C:1236:ASP:HB3	2.25	0.66
1:E:119:VAL:HG12	1:E:184:TRP:HE3	1.59	0.66
1:E:155:MET:CE	1:E:441:GLN:NE2	2.55	0.66
1:E:179:PRO:HG2	1:E:237:ARG:HH11	1.32	0.66
1:E:307:PRO:HG2	1:E:338:TRP:CZ3	2.31	0.66
1:E:387:SER:HA	1:E:445:LEU:HD13	1.77	0.66
1:E:862:TYR:HD1	1:E:885:VAL:H	1.42	0.66
1:E:1199:ILE:HD13	1:E:1232:TYR:HE2	1.58	0.66
1:G:143:LEU:HD22	1:G:143:LEU:H	1.60	0.66
1:G:155:MET:CE	1:G:441:GLN:NE2	2.55	0.66
1:I:387:SER:HA	1:I:445:LEU:HD13	1.77	0.66
1:I:1220:LEU:CA	1:I:1236:ASP:HB3	2.25	0.66
1:K:999:ARG:CZ	1:K:1000:PHE:H	2.08	0.66
3:R:47:PRO:HB3	4:S:45:ARG:CG	2.23	0.66
4:S:38:HIS:O	4:S:41:GLU:HG3	1.95	0.66
1:C:239:LEU:HD12	1:C:239:LEU:C	2.15	0.66
1:E:143:LEU:HD22	1:E:143:LEU:H	1.60	0.66
1:E:261:LEU:C	1:E:261:LEU:HD12	2.15	0.66
1:E:427:ASP:HB3	1:E:434:ARG:HG2	1.77	0.66
1:E:657:GLU:HG2	1:E:680:LYS:HZ1	1.56	0.66
1:E:1094:SER:O	1:E:1095:HIS:HB2	1.94	0.66
1:G:403:LEU:HD12	1:G:403:LEU:C	2.15	0.66
1:G:1094:SER:O	1:G:1095:HIS:HB2	1.94	0.66
1:I:570:GLU:CD	1:I:571:PRO:HD2	2.15	0.66
1:I:1094:SER:O	1:I:1095:HIS:HB2	1.94	0.66
1:C:294:ILE:CG2	1:C:324:VAL:CG1	2.74	0.66
1:C:540:VAL:CG1	1:C:575:GLU:HB2	2.21	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:153:HIS:HA	1:G:160:LYS:HD2	1.75	0.66
1:G:179:PRO:HD2	1:G:237:ARG:HG2	1.76	0.66
1:G:239:LEU:HD12	1:G:239:LEU:C	2.15	0.66
1:I:174:LEU:HD23	1:I:174:LEU:C	2.15	0.66
1:I:301:MET:HG3	1:I:306:LEU:HD21	1.77	0.66
1:I:902:ASP:CB	2:J:72:LYS:HZ2	2.06	0.66
1:K:307:PRO:HG2	1:K:338:TRP:CZ3	2.31	0.66
1:A:636:ASP:O	1:A:637:LYS:CD	2.42	0.66
1:A:999:ARG:CZ	1:A:1000:PHE:H	2.09	0.66
1:C:174:LEU:HD23	1:C:174:LEU:C	2.15	0.66
1:C:875:VAL:CG1	1:C:915:CYS:HA	2.24	0.66
1:C:1217:GLY:O	1:C:1218:THR:HB	1.96	0.66
1:G:140:LEU:HD13	1:G:140:LEU:C	2.16	0.66
1:G:301:MET:HG3	1:G:306:LEU:HD21	1.77	0.66
1:G:866:LEU:HD22	1:G:914:VAL:CB	2.25	0.66
1:G:1176:HIS:HD2	1:G:1197:GLY:CA	2.09	0.66
1:G:1199:ILE:CD1	1:G:1232:TYR:CE2	2.77	0.66
1:K:260:ILE:CG1	1:K:260:ILE:O	2.43	0.66
1:K:636:ASP:C	1:K:637:LYS:HG3	2.15	0.66
1:A:294:ILE:CG2	1:A:324:VAL:CG1	2.74	0.66
1:A:307:PRO:HG2	1:A:338:TRP:CZ3	2.31	0.66
1:A:535:GLU:O	1:A:538:CYS:HB2	1.95	0.66
1:E:1179:TRP:HA	1:E:1179:TRP:HE3	1.57	0.66
1:G:427:ASP:HB3	1:G:434:ARG:HG2	1.77	0.66
1:G:570:GLU:CD	1:G:571:PRO:HD2	2.15	0.66
1:G:1112:TRP:HB3	1:G:1119:PRO:HA	1.78	0.66
1:I:261:LEU:C	1:I:261:LEU:HD12	2.16	0.66
1:I:564:VAL:HG13	1:I:583:GLN:HG2	1.77	0.66
1:I:862:TYR:H	1:I:884:TRP:HD1	1.39	0.66
1:K:535:GLU:O	1:K:538:CYS:HB2	1.95	0.66
1:K:564:VAL:HG13	1:K:583:GLN:HG2	1.77	0.66
1:K:1226:SER:O	1:K:1229:PHE:N	2.29	0.66
3:Q:24:TYR:HA	4:T:52:ARG:NH2	2.11	0.66
1:A:604:THR:N	1:A:1240:ILE:HD13	2.09	0.66
1:C:364:LEU:CD1	1:C:368:MET:HE1	2.25	0.66
1:C:427:ASP:HB3	1:C:434:ARG:HG2	1.77	0.66
1:C:1226:SER:O	1:C:1229:PHE:N	2.29	0.66
1:E:678:ASP:O	1:E:679:LYS:HB2	1.96	0.66
1:E:999:ARG:CZ	1:E:1000:PHE:H	2.09	0.66
1:G:928:VAL:CG2	1:G:1224:HIS:ND1	2.58	0.66
1:G:1220:LEU:HD21	1:G:1234:THR:HG21	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:119:VAL:HG12	1:I:184:TRP:HE3	1.59	0.66
1:I:155:MET:CE	1:I:441:GLN:NE2	2.55	0.66
1:K:261:LEU:C	1:K:261:LEU:HD12	2.15	0.66
1:K:604:THR:N	1:K:1240:ILE:HD13	2.09	0.66
2:L:33:HIS:CE1	2:L:104:GLU:O	2.46	0.66
1:M:1175:THR:O	1:M:1177:GLY:N	2.22	0.66
3:R:60:ILE:HA	3:R:63:LYS:HD2	1.77	0.66
1:A:239:LEU:HD12	1:A:239:LEU:C	2.15	0.66
1:C:999:ARG:CZ	1:C:1000:PHE:H	2.09	0.66
1:C:1171:GLU:HG3	1:C:1172:GLY:N	2.06	0.66
1:E:557:ARG:HG3	1:E:559:PRO:HD2	1.75	0.66
1:E:928:VAL:CG2	1:E:1224:HIS:ND1	2.58	0.66
1:E:1226:SER:O	1:E:1229:PHE:N	2.29	0.66
1:G:1220:LEU:CG	1:G:1236:ASP:HB3	2.25	0.66
1:I:179:PRO:HD2	1:I:237:ARG:HG2	1.76	0.66
1:I:561:PRO:HB3	1:I:1214:TYR:HD2	1.59	0.66
1:K:1176:HIS:HD2	1:K:1197:GLY:CA	2.09	0.66
1:K:1217:GLY:O	1:K:1218:THR:HB	1.96	0.66
1:M:119:VAL:HG12	1:M:184:TRP:HE3	1.59	0.66
1:M:403:LEU:HD12	1:M:403:LEU:C	2.16	0.66
1:M:453:LEU:HD12	1:M:453:LEU:C	2.16	0.66
3:P:60:ILE:HA	3:P:63:LYS:HD2	1.77	0.66
1:A:140:LEU:HD13	1:A:140:LEU:C	2.16	0.66
1:A:301:MET:HG3	1:A:306:LEU:HD21	1.77	0.66
1:A:416:GLN:NE2	1:A:416:GLN:HA	2.11	0.66
1:A:427:ASP:HB3	1:A:434:ARG:O	1.96	0.66
1:A:1176:HIS:HD2	1:A:1197:GLY:CA	2.08	0.66
1:C:427:ASP:HB3	1:C:434:ARG:O	1.96	0.66
1:E:597:TRP:CD1	1:E:1243:ILE:O	2.43	0.66
1:E:636:ASP:C	1:E:637:LYS:HG3	2.15	0.66
1:E:862:TYR:CE2	1:E:881:HIS:CB	2.75	0.66
1:G:999:ARG:CZ	1:G:1000:PHE:H	2.09	0.66
1:I:140:LEU:HD13	1:I:140:LEU:C	2.16	0.66
1:I:147:PRO:HG2	1:K:121:GLN:OE1	1.96	0.66
1:I:307:PRO:HG2	1:I:338:TRP:CZ3	2.31	0.66
1:I:1220:LEU:HD12	1:I:1220:LEU:N	2.01	0.66
1:K:862:TYR:HD1	1:K:885:VAL:H	1.42	0.66
1:K:862:TYR:CE2	1:K:881:HIS:CB	2.75	0.66
1:M:140:LEU:HD13	1:M:140:LEU:C	2.16	0.66
1:M:174:LEU:HD23	1:M:174:LEU:C	2.15	0.66
1:M:427:ASP:HB3	1:M:434:ARG:O	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:535:GLU:O	1:M:538:CYS:HB2	1.95	0.66
1:M:862:TYR:HD1	1:M:885:VAL:H	1.42	0.66
1:M:866:LEU:HD22	1:M:914:VAL:CB	2.25	0.66
1:M:999:ARG:CZ	1:M:1000:PHE:H	2.08	0.66
1:A:337:ARG:NH2	1:M:409:GLU:O	2.25	0.66
1:C:301:MET:HG3	1:C:306:LEU:HD21	1.77	0.66
1:C:636:ASP:C	1:C:637:LYS:HG3	2.15	0.66
1:C:862:TYR:CE1	1:C:885:VAL:HG12	2.21	0.66
1:E:140:LEU:HD13	1:E:140:LEU:C	2.16	0.66
1:E:427:ASP:HB3	1:E:434:ARG:O	1.96	0.66
1:E:1112:TRP:HB3	1:E:1119:PRO:HA	1.78	0.66
1:E:1220:LEU:CG	1:E:1236:ASP:HB3	2.25	0.66
1:G:147:PRO:HG2	1:I:121:GLN:OE1	1.96	0.66
1:I:143:LEU:H	1:I:143:LEU:HD22	1.60	0.66
1:I:334:PHE:CG	1:I:337:ARG:HD2	2.31	0.66
1:K:334:PHE:CG	1:K:337:ARG:HD2	2.31	0.66
1:K:416:GLN:HA	1:K:416:GLN:NE2	2.11	0.66
1:K:678:ASP:O	1:K:679:LYS:HB2	1.96	0.66
1:M:570:GLU:CD	1:M:571:PRO:HD2	2.15	0.66
1:M:904:GLN:NE2	1:M:1174:ALA:O	2.29	0.66
1:M:1220:LEU:CA	1:M:1236:ASP:HB3	2.25	0.66
3:O:47:PRO:HG2	3:O:51:GLN:NE2	2.11	0.66
3:O:60:ILE:HA	3:O:63:LYS:HD2	1.77	0.66
3:P:47:PRO:HG2	3:P:51:GLN:NE2	2.11	0.66
1:A:172:SER:C	3:W:7:ASN:ND2	2.50	0.65
1:A:387:SER:HA	1:A:445:LEU:HD13	1.77	0.65
1:A:489:TYR:O	1:A:489:TYR:HD1	1.79	0.65
1:A:636:ASP:C	1:A:637:LYS:HG3	2.15	0.65
1:A:862:TYR:N	1:A:884:TRP:CD1	2.60	0.65
1:C:387:SER:HA	1:C:445:LEU:HD13	1.77	0.65
1:C:513:LYS:HD3	1:C:522:LEU:CG	2.27	0.65
1:C:1220:LEU:HD21	1:C:1234:THR:HG21	1.78	0.65
1:E:294:ILE:CG2	1:E:324:VAL:HG11	2.22	0.65
1:E:403:LEU:HD12	1:E:403:LEU:C	2.15	0.65
1:E:489:TYR:O	1:E:489:TYR:HD1	1.80	0.65
1:E:535:GLU:O	1:E:538:CYS:HB2	1.95	0.65
1:E:1176:HIS:HD2	1:E:1197:GLY:CA	2.08	0.65
1:E:1220:LEU:HD12	1:E:1220:LEU:N	2.01	0.65
1:E:1220:LEU:CA	1:E:1236:ASP:HB3	2.25	0.65
1:G:307:PRO:HG2	1:G:338:TRP:CZ3	2.31	0.65
1:I:866:LEU:HD22	1:I:914:VAL:CB	2.25	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:174:LEU:HD23	1:K:174:LEU:C	2.15	0.65
1:K:427:ASP:HB3	1:K:434:ARG:O	1.96	0.65
1:K:999:ARG:CD	1:K:1030:TRP:NE1	2.59	0.65
1:M:294:ILE:CG2	1:M:324:VAL:CG1	2.74	0.65
1:M:1226:SER:O	1:M:1229:PHE:N	2.29	0.65
3:Q:60:ILE:HA	3:Q:63:LYS:HD2	1.77	0.65
4:Y:6:ARG:O	4:Y:10:ARG:HG2	1.95	0.65
1:A:158:CYS:SG	1:A:284:SER:CA	2.84	0.65
1:A:866:LEU:HD22	1:A:914:VAL:CB	2.25	0.65
1:A:904:GLN:NE2	1:A:1174:ALA:O	2.29	0.65
1:A:1217:GLY:O	1:A:1218:THR:HB	1.96	0.65
1:C:535:GLU:O	1:C:538:CYS:HB2	1.95	0.65
1:C:597:TRP:CD1	1:C:1243:ILE:O	2.43	0.65
1:C:1220:LEU:CG	1:C:1236:ASP:HB3	2.25	0.65
1:E:416:GLN:HA	1:E:416:GLN:NE2	2.11	0.65
1:E:513:LYS:HD3	1:E:522:LEU:CG	2.27	0.65
1:G:261:LEU:C	1:G:261:LEU:HD12	2.15	0.65
1:G:564:VAL:HG13	1:G:583:GLN:HG2	1.77	0.65
1:G:999:ARG:CD	1:G:1030:TRP:NE1	2.59	0.65
1:G:1226:SER:O	1:G:1229:PHE:N	2.29	0.65
1:I:427:ASP:HB3	1:I:434:ARG:O	1.96	0.65
1:I:1217:GLY:O	1:I:1218:THR:HB	1.96	0.65
1:K:570:GLU:CD	1:K:571:PRO:HD2	2.15	0.65
1:K:1220:LEU:HD21	1:K:1234:THR:HG21	1.78	0.65
1:M:1220:LEU:CG	1:M:1236:ASP:HB3	2.25	0.65
1:A:260:ILE:O	1:A:260:ILE:CG1	2.43	0.65
1:A:453:LEU:HD12	1:A:453:LEU:C	2.16	0.65
1:A:922:LEU:HD11	1:A:1241:LEU:HD23	1.78	0.65
1:A:1226:SER:O	1:A:1229:PHE:N	2.29	0.65
1:C:334:PHE:CG	1:C:337:ARG:HD2	2.31	0.65
1:C:862:TYR:HD1	1:C:885:VAL:H	1.42	0.65
1:C:883:SER:CB	1:C:902:ASP:HB3	2.27	0.65
1:E:883:SER:CB	1:E:902:ASP:HB3	2.27	0.65
1:E:985:ILE:HD11	1:E:1006:VAL:HG21	1.78	0.65
1:G:364:LEU:CD1	1:G:368:MET:CE	2.74	0.65
1:I:158:CYS:SG	1:I:284:SER:CA	2.84	0.65
1:I:489:TYR:O	1:I:489:TYR:HD1	1.79	0.65
1:K:752:SER:OG	1:K:754:ASP:O	2.15	0.65
1:M:307:PRO:HG2	1:M:338:TRP:CZ3	2.31	0.65
1:M:1200:LYS:CE	1:M:1211:GLN:HB2	2.02	0.65
3:O:48:THR:CG2	3:P:41:GLU:OE1	2.34	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:47:PRO:HG2	3:Q:51:GLN:NE2	2.11	0.65
3:Q:90:GLY:O	3:Q:91:ILE:HB	1.95	0.65
1:A:121:GLN:OE1	1:M:147:PRO:HG2	1.96	0.65
1:A:322:LEU:CD1	1:A:364:LEU:CD2	2.41	0.65
1:C:147:PRO:HG2	1:E:121:GLN:OE1	1.96	0.65
1:C:212:PHE:CD2	1:C:230:LEU:HD21	2.32	0.65
1:C:1176:HIS:HD2	1:C:1197:GLY:CA	2.09	0.65
1:E:544:PHE:CD1	1:E:576:VAL:CG1	2.77	0.65
1:E:1185:PHE:O	1:E:1229:PHE:HZ	1.78	0.65
1:G:334:PHE:CG	1:G:337:ARG:HD2	2.31	0.65
1:G:513:LYS:HD3	1:G:522:LEU:CG	2.27	0.65
1:I:212:PHE:CD2	1:I:230:LEU:HD21	2.32	0.65
1:I:639:LEU:N	1:I:653:ILE:CG2	2.60	0.65
1:I:1112:TRP:HB3	1:I:1119:PRO:HA	1.78	0.65
1:I:1226:SER:O	1:I:1229:PHE:N	2.29	0.65
1:M:301:MET:HG3	1:M:306:LEU:HD21	1.77	0.65
1:M:416:GLN:HA	1:M:416:GLN:NE2	2.11	0.65
3:R:80:TYR:HE1	4:V:64:THR:CB	2.09	0.65
1:A:147:PRO:HG2	1:C:121:GLN:OE1	1.96	0.65
1:A:334:PHE:CG	1:A:337:ARG:HD2	2.31	0.65
1:A:364:LEU:CD1	1:A:368:MET:CE	2.74	0.65
1:A:427:ASP:HB3	1:A:434:ARG:HG2	1.77	0.65
1:A:597:TRP:HH2	1:A:603:ILE:CG1	2.10	0.65
1:A:1220:LEU:CG	1:A:1236:ASP:HB3	2.25	0.65
1:C:140:LEU:HD13	1:C:140:LEU:C	2.16	0.65
1:E:564:VAL:HG13	1:E:583:GLN:HG2	1.77	0.65
1:E:752:SER:OG	1:E:754:ASP:O	2.15	0.65
1:E:862:TYR:CE1	1:E:885:VAL:HG12	2.21	0.65
1:E:1220:LEU:HG	1:E:1236:ASP:CG	2.17	0.65
1:I:364:LEU:CD1	1:I:368:MET:CE	2.74	0.65
1:I:597:TRP:HH2	1:I:603:ILE:CG1	2.10	0.65
1:I:904:GLN:NE2	1:I:1174:ALA:O	2.29	0.65
1:K:140:LEU:HD13	1:K:140:LEU:C	2.16	0.65
1:K:239:LEU:HD12	1:K:239:LEU:C	2.15	0.65
1:K:403:LEU:HD12	1:K:403:LEU:C	2.15	0.65
1:K:1200:LYS:CD	1:K:1211:GLN:CB	2.75	0.65
1:M:922:LEU:HD11	1:M:1241:LEU:HD23	1.78	0.65
1:M:931:GLN:O	1:M:932:GLU:CB	2.35	0.65
1:M:1200:LYS:CD	1:M:1211:GLN:CB	2.75	0.65
3:R:47:PRO:O	4:S:45:ARG:CG	2.44	0.65
1:A:212:PHE:CD2	1:A:230:LEU:HD21	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:489:TYR:O	1:C:489:TYR:HD1	1.79	0.65
1:E:147:PRO:HG2	1:G:121:GLN:OE1	1.96	0.65
1:E:409:GLU:O	1:G:337:ARG:NH2	2.25	0.65
1:E:1185:PHE:HE1	1:E:1192:LEU:HD12	1.53	0.65
1:G:294:ILE:CG2	1:G:324:VAL:CG1	2.74	0.65
1:G:752:SER:OG	1:G:754:ASP:O	2.14	0.65
1:I:678:ASP:O	1:I:679:LYS:HB2	1.96	0.65
1:I:928:VAL:CG2	1:I:1224:HIS:ND1	2.58	0.65
1:I:999:ARG:CZ	1:I:1000:PHE:H	2.09	0.65
1:I:1151:ILE:HG12	1:I:1167:PRO:HG2	1.79	0.65
1:K:453:LEU:HD12	1:K:453:LEU:C	2.16	0.65
1:K:883:SER:CB	1:K:902:ASP:HB3	2.26	0.65
1:M:294:ILE:CG2	1:M:324:VAL:HG11	2.22	0.65
1:M:636:ASP:C	1:M:637:LYS:HG3	2.15	0.65
1:M:1151:ILE:HG12	1:M:1167:PRO:HG2	1.79	0.65
3:R:47:PRO:HG2	3:R:51:GLN:NE2	2.11	0.65
1:A:883:SER:CB	1:A:902:ASP:HB3	2.26	0.65
1:C:904:GLN:NE2	1:C:1174:ALA:O	2.29	0.65
1:E:364:LEU:CD1	1:E:368:MET:CE	2.74	0.65
1:E:1220:LEU:H	1:E:1220:LEU:CD1	1.97	0.65
1:G:256:SER:O	1:G:257:GLN:HB2	1.97	0.65
1:G:678:ASP:O	1:G:679:LYS:HB2	1.96	0.65
1:G:904:GLN:NE2	1:G:1174:ALA:O	2.29	0.65
1:I:1220:LEU:HG	1:I:1236:ASP:CG	2.17	0.65
1:K:364:LEU:CD1	1:K:368:MET:CE	2.74	0.65
1:K:1151:ILE:HG12	1:K:1167:PRO:HG2	1.79	0.65
1:M:334:PHE:CG	1:M:337:ARG:HD2	2.31	0.65
1:A:564:VAL:HG11	1:A:583:GLN:HG3	1.79	0.65
1:A:1220:LEU:HG	1:A:1236:ASP:CG	2.17	0.65
1:A:1220:LEU:HD21	1:A:1234:THR:HG21	1.78	0.65
1:C:364:LEU:CD1	1:C:368:MET:CE	2.74	0.65
1:C:564:VAL:HG13	1:C:583:GLN:HG2	1.77	0.65
1:C:678:ASP:O	1:C:679:LYS:HB2	1.96	0.65
1:C:1220:LEU:HG	1:C:1236:ASP:CG	2.17	0.65
1:C:1235:VAL:O	1:C:1235:VAL:HG22	1.97	0.65
1:E:236:PRO:C	1:E:238:SER:H	2.00	0.65
1:E:294:ILE:CG2	1:E:324:VAL:CG1	2.74	0.65
1:E:564:VAL:HG11	1:E:583:GLN:HG3	1.79	0.65
1:G:119:VAL:HG12	1:G:184:TRP:HE3	1.59	0.65
1:G:883:SER:CB	1:G:902:ASP:HB3	2.26	0.65
1:I:1110:LYS:HD3	1:I:1119:PRO:HG3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:1185:PHE:O	1:I:1229:PHE:HZ	1.78	0.65
1:K:658:ASP:OD2	1:K:677:VAL:CG1	2.45	0.65
1:K:904:GLN:NE2	1:K:1174:ALA:O	2.29	0.65
1:M:212:PHE:CD2	1:M:230:LEU:HD21	2.32	0.65
1:M:364:LEU:CD1	1:M:368:MET:CE	2.74	0.65
1:M:489:TYR:O	1:M:489:TYR:HD1	1.80	0.65
1:M:678:ASP:O	1:M:679:LYS:HB2	1.96	0.65
4:T:12:CYS:HG	4:T:88:PHE:HE2	1.45	0.65
1:A:262:LEU:HD21	1:A:270:THR:CG2	2.27	0.65
1:A:678:ASP:O	1:A:679:LYS:HB2	1.96	0.65
1:A:862:TYR:HD1	1:A:885:VAL:H	1.42	0.65
1:C:1200:LYS:CE	1:C:1211:GLN:HB2	2.02	0.65
1:E:212:PHE:CD2	1:E:230:LEU:HD21	2.32	0.65
1:E:301:MET:HG3	1:E:306:LEU:HD21	1.77	0.65
1:E:334:PHE:CG	1:E:337:ARG:HD2	2.31	0.65
1:G:1185:PHE:O	1:G:1229:PHE:HZ	1.78	0.65
1:K:212:PHE:CD2	1:K:230:LEU:HD21	2.32	0.65
1:K:985:ILE:HD11	1:K:1006:VAL:HG21	1.78	0.65
1:A:1201:TRP:CE3	1:A:1210:SER:CB	2.80	0.65
1:C:127:VAL:N	5:C:1301:DTP:HN61	1.93	0.65
1:C:862:TYR:N	1:C:884:TRP:HD1	1.95	0.65
1:C:985:ILE:HD11	1:C:1006:VAL:HG21	1.78	0.65
1:E:262:LEU:HD21	1:E:270:THR:CG2	2.27	0.65
1:G:985:ILE:HD11	1:G:1006:VAL:HG21	1.78	0.65
1:G:1110:LYS:HD3	1:G:1119:PRO:HG3	1.79	0.65
1:I:262:LEU:HD11	1:I:270:THR:CG2	2.27	0.65
1:I:290:LYS:O	1:I:293:GLU:HB3	1.97	0.65
1:I:403:LEU:HD12	1:I:403:LEU:C	2.15	0.65
1:I:416:GLN:NE2	1:I:416:GLN:HA	2.11	0.65
1:I:461:ILE:HD13	1:I:491:MET:CG	2.27	0.65
1:I:604:THR:N	1:I:1240:ILE:HD13	2.09	0.65
1:K:158:CYS:SG	1:K:284:SER:CA	2.84	0.65
1:K:262:LEU:HD11	1:K:270:THR:CG2	2.27	0.65
1:K:301:MET:HG3	1:K:306:LEU:HD21	1.77	0.65
1:M:597:TRP:HH2	1:M:603:ILE:CG1	2.10	0.65
3:Q:28:HIS:CE1	4:T:14:LEU:HD21	2.32	0.65
3:Q:79:GLY:O	4:U:65:ARG:NH2	2.30	0.65
1:C:639:LEU:N	1:C:653:ILE:CG2	2.60	0.64
1:E:453:LEU:HD12	1:E:453:LEU:C	2.16	0.64
1:E:658:ASP:OD2	1:E:677:VAL:CG1	2.45	0.64
1:E:866:LEU:HD22	1:E:914:VAL:CB	2.25	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:904:GLN:NE2	1:E:1174:ALA:O	2.29	0.64
1:E:922:LEU:HD11	1:E:1241:LEU:HD23	1.78	0.64
1:G:158:CYS:SG	1:G:284:SER:CA	2.84	0.64
1:G:427:ASP:HB3	1:G:434:ARG:O	1.96	0.64
1:G:489:TYR:HD1	1:G:489:TYR:O	1.79	0.64
1:I:260:ILE:O	1:I:260:ILE:CG1	2.43	0.64
1:I:658:ASP:OD2	1:I:677:VAL:CG1	2.45	0.64
1:I:999:ARG:CD	1:I:1030:TRP:NE1	2.59	0.64
1:K:1110:LYS:HD3	1:K:1119:PRO:HG3	1.79	0.64
1:M:158:CYS:SG	1:M:284:SER:CA	2.84	0.64
1:M:256:SER:O	1:M:257:GLN:HB2	1.97	0.64
1:M:658:ASP:OD2	1:M:677:VAL:CG1	2.45	0.64
1:M:752:SER:OG	1:M:754:ASP:O	2.14	0.64
1:M:862:TYR:N	1:M:884:TRP:HD1	1.95	0.64
1:M:985:ILE:HD11	1:M:1006:VAL:HG21	1.78	0.64
1:M:1220:LEU:HD21	1:M:1234:THR:HG21	1.78	0.64
1:A:1151:ILE:HG12	1:A:1167:PRO:HG2	1.79	0.64
1:C:158:CYS:SG	1:C:284:SER:CA	2.84	0.64
1:E:158:CYS:SG	1:E:284:SER:CA	2.84	0.64
1:G:260:ILE:O	1:G:260:ILE:CG1	2.43	0.64
1:G:1217:GLY:O	1:G:1218:THR:HB	1.96	0.64
1:I:256:SER:O	1:I:257:GLN:HB2	1.97	0.64
1:I:752:SER:OG	1:I:754:ASP:O	2.15	0.64
1:K:262:LEU:HD21	1:K:270:THR:CG2	2.27	0.64
1:K:544:PHE:CD1	1:K:576:VAL:CG1	2.76	0.64
1:K:639:LEU:N	1:K:653:ILE:CG2	2.60	0.64
1:M:883:SER:CB	1:M:902:ASP:HB3	2.27	0.64
1:A:513:LYS:HD3	1:A:522:LEU:CG	2.27	0.64
1:E:283:GLU:CD	1:E:284:SER:N	2.51	0.64
1:E:902:ASP:CB	2:F:72:LYS:HZ2	2.10	0.64
1:G:283:GLU:CD	1:G:284:SER:N	2.51	0.64
1:G:416:GLN:HA	1:G:416:GLN:NE2	2.11	0.64
1:G:1235:VAL:HG22	1:G:1235:VAL:O	1.97	0.64
1:I:283:GLU:CD	1:I:284:SER:N	2.51	0.64
1:I:883:SER:CB	1:I:902:ASP:HB3	2.26	0.64
1:I:1220:LEU:HD21	1:I:1234:THR:HG21	1.78	0.64
1:K:489:TYR:O	1:K:489:TYR:HD1	1.80	0.64
1:M:262:LEU:HD21	1:M:270:THR:CG2	2.27	0.64
1:M:1220:LEU:HG	1:M:1236:ASP:CG	2.17	0.64
1:C:262:LEU:HD11	1:C:270:THR:CG2	2.27	0.64
1:C:453:LEU:HD11	1:C:454:GLN:NE2	2.00	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:453:LEU:HD12	1:C:453:LEU:C	2.16	0.64
1:C:1220:LEU:HD12	1:C:1220:LEU:N	2.01	0.64
1:E:179:PRO:HD3	1:E:237:ARG:NH1	2.10	0.64
1:E:290:LYS:O	1:E:293:GLU:HB3	1.97	0.64
1:G:290:LYS:O	1:G:293:GLU:HB3	1.97	0.64
1:I:513:LYS:HD3	1:I:522:LEU:CG	2.27	0.64
1:I:1218:THR:HG23	1:I:1219:ASN:H	1.63	0.64
1:I:1235:VAL:O	1:I:1235:VAL:HG22	1.97	0.64
1:K:147:PRO:HG2	1:M:121:GLN:OE1	1.96	0.64
1:K:256:SER:O	1:K:257:GLN:HB2	1.97	0.64
1:K:290:LYS:O	1:K:293:GLU:HB3	1.97	0.64
3:O:90:GLY:O	3:O:91:ILE:HB	1.95	0.64
3:P:27:ASP:HB3	4:S:14:LEU:HD23	1.79	0.64
3:R:47:PRO:HB3	4:S:45:ARG:CB	2.24	0.64
1:A:461:ILE:HD13	1:A:491:MET:CG	2.27	0.64
1:A:561:PRO:HB3	1:A:1214:TYR:HD2	1.60	0.64
1:C:416:GLN:HA	1:C:416:GLN:NE2	2.11	0.64
1:E:1110:LYS:HD3	1:E:1119:PRO:HG3	1.79	0.64
1:G:658:ASP:OD2	1:G:677:VAL:CG1	2.45	0.64
1:G:1220:LEU:HG	1:G:1236:ASP:CG	2.17	0.64
1:K:283:GLU:CD	1:K:284:SER:N	2.51	0.64
1:M:290:LYS:O	1:M:293:GLU:HB3	1.97	0.64
1:M:1143:ALA:HB1	1:M:1183:LEU:CD2	2.28	0.64
3:P:90:GLY:O	3:P:91:ILE:HB	1.95	0.64
1:A:127:VAL:N	5:A:1301:DTP:HN61	1.93	0.64
1:A:1143:ALA:HB1	1:A:1183:LEU:CD2	2.28	0.64
1:C:553:HIS:C	1:C:553:HIS:CD2	2.71	0.64
1:C:1151:ILE:HG12	1:C:1167:PRO:HG2	1.79	0.64
1:E:233:ARG:O	3:O:10:LEU:CD1	2.45	0.64
1:E:262:LEU:HD11	1:E:270:THR:CG2	2.27	0.64
1:E:597:TRP:HH2	1:E:603:ILE:CG1	2.10	0.64
1:E:639:LEU:N	1:E:653:ILE:CG2	2.60	0.64
1:E:948:LEU:HD12	1:E:957:ASP:CB	2.28	0.64
1:G:262:LEU:HD11	1:G:270:THR:CG2	2.27	0.64
1:G:453:LEU:HD12	1:G:453:LEU:C	2.16	0.64
1:G:1200:LYS:CD	1:G:1211:GLN:CB	2.75	0.64
1:G:1232:TYR:CZ	1:G:1234:THR:HB	2.33	0.64
1:I:453:LEU:HD12	1:I:453:LEU:C	2.16	0.64
1:I:544:PHE:CD1	1:I:576:VAL:CG1	2.77	0.64
1:I:1200:LYS:CD	1:I:1211:GLN:CB	2.75	0.64
1:K:461:ILE:HD13	1:K:491:MET:CG	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1232:TYR:CZ	1:M:1234:THR:HB	2.33	0.64
1:A:283:GLU:CD	1:A:284:SER:N	2.51	0.64
1:A:1112:TRP:HB3	1:A:1119:PRO:HA	1.78	0.64
1:A:1149:GLY:HA2	1:A:1180:VAL:CG2	2.17	0.64
1:C:262:LEU:HD21	1:C:270:THR:CG2	2.27	0.64
1:C:461:ILE:HD13	1:C:491:MET:CG	2.27	0.64
1:C:1143:ALA:HB1	1:C:1183:LEU:CD2	2.28	0.64
1:E:1200:LYS:CD	1:E:1211:GLN:CB	2.75	0.64
1:E:1217:GLY:O	1:E:1218:THR:HB	1.96	0.64
1:G:212:PHE:CD2	1:G:230:LEU:HD21	2.32	0.64
1:G:461:ILE:HD13	1:G:491:MET:CG	2.27	0.64
1:K:1112:TRP:HB3	1:K:1119:PRO:HA	1.78	0.64
1:K:1143:ALA:HB1	1:K:1183:LEU:CD2	2.28	0.64
1:M:513:LYS:HD3	1:M:522:LEU:CG	2.27	0.64
1:M:862:TYR:CE2	1:M:881:HIS:CB	2.75	0.64
1:A:256:SER:O	1:A:257:GLN:HB2	1.97	0.64
1:C:283:GLU:CD	1:C:284:SER:N	2.51	0.64
1:C:752:SER:OG	1:C:754:ASP:O	2.14	0.64
1:C:1200:LYS:CD	1:C:1211:GLN:CB	2.75	0.64
1:E:235:HIS:HA	3:O:7:ASN:OD1	1.97	0.64
1:E:1151:ILE:HG12	1:E:1167:PRO:HG2	1.79	0.64
1:K:1199:ILE:HD11	1:K:1232:TYR:HE2	1.61	0.64
1:K:1218:THR:HG23	1:K:1219:ASN:H	1.63	0.64
1:M:561:PRO:HB3	1:M:1214:TYR:HD2	1.60	0.64
1:M:1217:GLY:O	1:M:1218:THR:HB	1.96	0.64
3:Q:79:GLY:C	4:U:65:ARG:NH2	2.51	0.64
1:A:290:LYS:O	1:A:293:GLU:HB3	1.97	0.64
1:C:948:LEU:HD12	1:C:957:ASP:CB	2.28	0.64
1:E:553:HIS:C	1:E:553:HIS:CD2	2.71	0.64
1:E:1175:THR:O	1:E:1177:GLY:N	2.22	0.64
1:E:1232:TYR:CZ	1:E:1234:THR:HB	2.33	0.64
1:G:212:PHE:CE2	1:G:230:LEU:HD21	2.33	0.64
1:G:948:LEU:HD12	1:G:957:ASP:CB	2.28	0.64
1:I:146:GLU:HB3	1:I:147:PRO:HD2	1.80	0.64
1:I:876:ALA:CB	1:I:914:VAL:O	2.45	0.64
1:K:561:PRO:HB3	1:K:1214:TYR:HD2	1.60	0.64
1:K:922:LEU:HD11	1:K:1241:LEU:HD23	1.79	0.64
1:K:948:LEU:HD12	1:K:957:ASP:CB	2.28	0.64
1:M:260:ILE:O	1:M:260:ILE:CG1	2.43	0.64
1:M:262:LEU:HD11	1:M:270:THR:CG2	2.27	0.64
1:M:1112:TRP:HB3	1:M:1119:PRO:HA	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:19:ASP:O	4:U:64:THR:CB	2.45	0.64
1:A:301:MET:HG3	1:A:306:LEU:CD2	2.29	0.64
1:A:558:GLN:CB	1:A:559:PRO:CD	2.75	0.64
1:A:862:TYR:N	1:A:884:TRP:HD1	1.95	0.64
1:A:985:ILE:HD11	1:A:1006:VAL:HG21	1.78	0.64
1:C:1112:TRP:HB3	1:C:1119:PRO:HA	1.78	0.64
1:C:1218:THR:HG23	1:C:1219:ASN:H	1.63	0.64
1:E:999:ARG:CD	1:E:1030:TRP:NE1	2.59	0.64
1:G:862:TYR:N	1:G:884:TRP:HD1	1.95	0.64
1:I:364:LEU:CD1	1:I:368:MET:HE1	2.24	0.64
1:I:553:HIS:C	1:I:553:HIS:CD2	2.71	0.64
1:I:985:ILE:HD11	1:I:1006:VAL:HG21	1.78	0.64
1:K:334:PHE:HB2	1:K:337:ARG:CD	2.28	0.64
1:M:725:LEU:HB2	1:M:739:MET:HB2	1.80	0.64
1:M:876:ALA:CB	1:M:914:VAL:O	2.45	0.64
1:M:948:LEU:HD12	1:M:957:ASP:CB	2.28	0.64
1:M:999:ARG:CD	1:M:1030:TRP:NE1	2.59	0.64
1:A:212:PHE:CE2	1:A:230:LEU:HD21	2.33	0.63
1:A:752:SER:OG	1:A:754:ASP:O	2.14	0.63
1:C:290:LYS:O	1:C:293:GLU:HB3	1.97	0.63
1:C:658:ASP:OD2	1:C:677:VAL:CG1	2.45	0.63
1:C:1232:TYR:CZ	1:C:1234:THR:HB	2.33	0.63
1:E:256:SER:O	1:E:257:GLN:HB2	1.97	0.63
1:E:999:ARG:CD	1:E:1030:TRP:CD1	2.76	0.63
1:E:1235:VAL:O	1:E:1235:VAL:HG22	1.97	0.63
1:G:1151:ILE:HG12	1:G:1167:PRO:HG2	1.79	0.63
1:I:212:PHE:CE2	1:I:230:LEU:HD21	2.34	0.63
1:I:294:ILE:CG2	1:I:324:VAL:CG1	2.74	0.63
1:I:637:LYS:HD3	1:I:658:ASP:O	1.98	0.63
1:I:1201:TRP:CE3	1:I:1210:SER:CB	2.80	0.63
1:K:1220:LEU:HD23	1:K:1234:THR:CG2	2.28	0.63
1:K:1220:LEU:HG	1:K:1236:ASP:CG	2.17	0.63
1:K:1232:TYR:CZ	1:K:1234:THR:HB	2.33	0.63
1:K:1235:VAL:O	1:K:1235:VAL:HG22	1.97	0.63
1:A:173:LEU:CA	3:W:7:ASN:ND2	2.47	0.63
1:A:658:ASP:OD2	1:A:677:VAL:CG1	2.45	0.63
1:A:1235:VAL:HG22	1:A:1235:VAL:O	1.97	0.63
1:C:301:MET:HG3	1:C:306:LEU:CD2	2.29	0.63
1:E:461:ILE:HD13	1:E:491:MET:CG	2.27	0.63
1:E:924:GLN:CB	1:E:1238:LEU:HG	2.28	0.63
1:E:1143:ALA:HB1	1:E:1183:LEU:CD2	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1218:THR:HG23	1:E:1219:ASN:H	1.63	0.63
1:E:1225:VAL:HG11	1:E:1229:PHE:CZ	2.34	0.63
1:G:334:PHE:HB2	1:G:337:ARG:CD	2.29	0.63
1:G:1220:LEU:HD23	1:G:1234:THR:CG2	2.28	0.63
1:I:922:LEU:HD11	1:I:1241:LEU:HD23	1.78	0.63
1:I:1232:TYR:CZ	1:I:1234:THR:HB	2.33	0.63
1:K:553:HIS:C	1:K:553:HIS:CD2	2.71	0.63
1:M:666:SER:HB3	1:M:671:PHE:HB2	1.80	0.63
1:A:544:PHE:CD1	1:A:576:VAL:CG1	2.77	0.63
1:A:666:SER:HB3	1:A:671:PHE:HB2	1.80	0.63
1:A:948:LEU:HD12	1:A:957:ASP:CB	2.28	0.63
1:A:1110:LYS:HD3	1:A:1119:PRO:HG3	1.79	0.63
1:A:1200:LYS:CD	1:A:1211:GLN:CB	2.75	0.63
1:A:1218:THR:HG23	1:A:1219:ASN:H	1.63	0.63
1:A:1225:VAL:HG11	1:A:1229:PHE:CZ	2.34	0.63
1:C:564:VAL:HG11	1:C:583:GLN:HG3	1.79	0.63
1:G:209:ASP:OD1	3:O:62:LYS:NZ	2.31	0.63
1:G:301:MET:HG3	1:G:306:LEU:CD2	2.28	0.63
1:G:597:TRP:HH2	1:G:603:ILE:CG1	2.10	0.63
1:I:683:ILE:HB	1:I:693:HIS:HB2	1.80	0.63
1:I:1220:LEU:HD23	1:I:1234:THR:CG2	2.29	0.63
1:K:127:VAL:N	5:K:1301:DTP:HN61	1.93	0.63
1:M:146:GLU:HB3	1:M:147:PRO:HD2	1.80	0.63
1:M:461:ILE:HD13	1:M:491:MET:CG	2.27	0.63
1:M:544:PHE:CD1	1:M:576:VAL:CG1	2.76	0.63
1:M:564:VAL:HG11	1:M:583:GLN:HG3	1.79	0.63
1:M:637:LYS:HD3	1:M:658:ASP:O	1.98	0.63
1:A:262:LEU:HD11	1:A:270:THR:CG2	2.27	0.63
1:A:862:TYR:CE1	1:A:885:VAL:HG12	2.21	0.63
1:A:924:GLN:CB	1:A:1238:LEU:HG	2.28	0.63
1:C:558:GLN:CB	1:C:559:PRO:CD	2.75	0.63
1:C:924:GLN:CB	1:C:1238:LEU:HG	2.28	0.63
1:E:212:PHE:CE2	1:E:230:LEU:HD21	2.33	0.63
1:E:725:LEU:HB2	1:E:739:MET:HB2	1.80	0.63
1:E:862:TYR:N	1:E:884:TRP:HD1	1.95	0.63
1:G:146:GLU:HB3	1:G:147:PRO:HD2	1.80	0.63
1:G:922:LEU:HD11	1:G:1241:LEU:HD23	1.79	0.63
1:G:1218:THR:HG23	1:G:1219:ASN:H	1.63	0.63
1:G:1225:VAL:HG11	1:G:1229:PHE:CZ	2.34	0.63
1:I:301:MET:HG3	1:I:306:LEU:CD2	2.28	0.63
1:I:1143:ALA:HB1	1:I:1183:LEU:CD2	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:252:LYS:HA	1:K:252:LYS:HE3	1.81	0.63
1:K:637:LYS:HD3	1:K:658:ASP:O	1.98	0.63
1:M:322:LEU:CD1	1:M:364:LEU:CD2	2.42	0.63
1:C:212:PHE:CE2	1:C:230:LEU:HD21	2.33	0.63
1:C:597:TRP:HH2	1:C:603:ILE:CG1	2.10	0.63
1:E:597:TRP:HE1	1:E:1243:ILE:H	1.47	0.63
1:G:666:SER:HB3	1:G:671:PHE:HB2	1.80	0.63
1:G:862:TYR:CE1	1:G:885:VAL:HG12	2.21	0.63
1:K:543:ASN:CB	1:K:574:SER:HB2	2.29	0.63
1:M:283:GLU:CD	1:M:284:SER:N	2.51	0.63
1:M:553:HIS:C	1:M:553:HIS:CD2	2.71	0.63
1:A:173:LEU:N	3:W:7:ASN:HD21	1.96	0.63
1:A:683:ILE:HB	1:A:693:HIS:HB2	1.80	0.63
1:A:725:LEU:HB2	1:A:739:MET:HB2	1.80	0.63
1:A:1132:CYS:O	1:A:1145:GLY:N	2.32	0.63
1:A:1232:TYR:CZ	1:A:1234:THR:HB	2.33	0.63
1:C:252:LYS:HA	1:C:252:LYS:HE3	1.81	0.63
1:C:922:LEU:HD11	1:C:1241:LEU:HD23	1.78	0.63
1:E:155:MET:CE	1:E:441:GLN:HE21	2.12	0.63
1:E:431:LYS:HZ2	1:G:336:ASN:HB3	1.61	0.63
1:G:564:VAL:HG11	1:G:583:GLN:HG3	1.79	0.63
1:G:684:TRP:HA	1:G:691:LEU:HA	1.81	0.63
1:I:262:LEU:HD21	1:I:270:THR:CG2	2.27	0.63
1:K:301:MET:HG3	1:K:306:LEU:CD2	2.28	0.63
1:A:553:HIS:C	1:A:553:HIS:CD2	2.71	0.63
1:C:637:LYS:HD3	1:C:658:ASP:O	1.98	0.63
2:F:33:HIS:CE1	2:F:104:GLU:O	2.46	0.63
1:G:637:LYS:HD3	1:G:658:ASP:O	1.98	0.63
1:G:882:LEU:CD2	1:G:882:LEU:N	2.39	0.63
1:I:862:TYR:N	1:I:884:TRP:HD1	1.95	0.63
1:K:513:LYS:HD3	1:K:522:LEU:CG	2.27	0.63
1:K:683:ILE:HB	1:K:693:HIS:HB2	1.80	0.63
1:K:725:LEU:HB2	1:K:739:MET:HB2	1.80	0.63
1:K:876:ALA:CB	1:K:914:VAL:O	2.45	0.63
1:M:1110:LYS:HD3	1:M:1119:PRO:HG3	1.79	0.63
1:A:678:ASP:OD2	1:A:680:LYS:CE	2.46	0.63
1:C:1110:LYS:HD3	1:C:1119:PRO:HG3	1.79	0.63
1:C:1220:LEU:HD23	1:C:1234:THR:CG2	2.28	0.63
1:G:544:PHE:CD1	1:G:576:VAL:CG1	2.77	0.63
1:G:683:ILE:HB	1:G:693:HIS:HB2	1.80	0.63
1:G:1201:TRP:CE3	1:G:1210:SER:CB	2.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:155:MET:CE	1:I:441:GLN:HE21	2.12	0.63
1:I:948:LEU:HD12	1:I:957:ASP:CB	2.28	0.63
1:I:999:ARG:CD	1:I:1030:TRP:CD1	2.76	0.63
1:K:212:PHE:CE2	1:K:230:LEU:HD21	2.33	0.63
1:M:252:LYS:HA	1:M:252:LYS:HE3	1.81	0.63
1:M:639:LEU:N	1:M:653:ILE:CG2	2.60	0.63
1:M:1235:VAL:O	1:M:1235:VAL:HG22	1.97	0.63
3:R:27:ASP:O	3:R:31:SER:OG	2.17	0.63
1:A:374:MET:HA	1:A:374:MET:HE3	1.80	0.63
1:E:637:LYS:HD3	1:E:658:ASP:O	1.98	0.63
1:G:553:HIS:CD2	1:G:553:HIS:C	2.71	0.63
1:I:666:SER:HB3	1:I:671:PHE:HB2	1.80	0.63
1:I:862:TYR:HA	1:I:885:VAL:HG13	1.81	0.63
1:K:137:GLN:HG2	1:K:173:LEU:HD13	1.80	0.63
1:K:666:SER:HB3	1:K:671:PHE:HB2	1.80	0.63
1:K:862:TYR:CE1	1:K:885:VAL:HG12	2.21	0.63
1:M:301:MET:HG3	1:M:306:LEU:CD2	2.28	0.63
4:T:52:ARG:CD	4:U:38:HIS:NE2	2.55	0.63
1:A:137:GLN:HG2	1:A:173:LEU:HD13	1.80	0.62
1:C:1167:PRO:HA	1:C:1202:TRP:NE1	1.94	0.62
1:E:260:ILE:O	1:E:260:ILE:CG1	2.43	0.62
1:E:301:MET:HG3	1:E:306:LEU:CD2	2.28	0.62
1:G:262:LEU:HD21	1:G:270:THR:CG2	2.27	0.62
1:I:543:ASN:CB	1:I:574:SER:HB2	2.29	0.62
1:K:1225:VAL:HG11	1:K:1229:PHE:CZ	2.34	0.62
1:M:683:ILE:HB	1:M:693:HIS:HB2	1.80	0.62
1:M:1199:ILE:HD11	1:M:1232:TYR:OH	1.99	0.62
3:O:1:MET:N	3:O:6:ARG:HE	1.96	0.62
3:R:80:TYR:CD1	4:V:64:THR:O	2.52	0.62
1:A:252:LYS:HA	1:A:252:LYS:HE3	1.81	0.62
1:C:256:SER:O	1:C:257:GLN:HB2	1.97	0.62
1:C:1185:PHE:HE1	1:C:1192:LEU:HD12	1.53	0.62
1:E:543:ASN:CB	1:E:574:SER:HB2	2.29	0.62
1:K:597:TRP:HE1	1:K:1243:ILE:H	1.47	0.62
1:K:862:TYR:HA	1:K:885:VAL:HG13	1.81	0.62
1:M:1220:LEU:HD23	1:M:1234:THR:CG2	2.28	0.62
3:R:79:GLY:HA3	4:V:65:ARG:NH1	2.13	0.62
1:A:1199:ILE:HD11	1:A:1232:TYR:OH	1.99	0.62
1:A:1220:LEU:HD23	1:A:1234:THR:CG2	2.28	0.62
1:C:137:GLN:HG2	1:C:173:LEU:HD13	1.80	0.62
1:C:1178:GLY:O	1:C:1179:TRP:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:725:LEU:HB2	1:G:739:MET:HB2	1.80	0.62
1:G:1143:ALA:HB1	1:G:1183:LEU:CD2	2.28	0.62
1:I:1008:HIS:HE1	1:I:1010:GLN:HB2	1.64	0.62
1:M:212:PHE:CE2	1:M:230:LEU:HD21	2.33	0.62
3:Q:26:MET:O	3:Q:30:ILE:HG12	1.99	0.62
1:E:374:MET:HA	1:E:374:MET:HE2	1.80	0.62
1:E:666:SER:HB3	1:E:671:PHE:HB2	1.80	0.62
1:E:684:TRP:HA	1:E:691:LEU:HA	1.81	0.62
1:M:334:PHE:HB2	1:M:337:ARG:CD	2.28	0.62
1:M:1225:VAL:HG11	1:M:1229:PHE:CZ	2.34	0.62
3:R:79:GLY:CA	4:V:65:ARG:NH2	2.54	0.62
4:S:38:HIS:O	4:S:41:GLU:HG2	1.98	0.62
1:A:146:GLU:HB3	1:A:147:PRO:HD2	1.80	0.62
1:A:597:TRP:HE1	1:A:1243:ILE:H	1.47	0.62
1:A:637:LYS:HD3	1:A:658:ASP:O	1.99	0.62
1:C:1008:HIS:HE1	1:C:1010:GLN:HB2	1.65	0.62
1:C:1094:SER:HB3	1:C:1135:PHE:CD1	2.35	0.62
1:E:252:LYS:HA	1:E:252:LYS:HE3	1.81	0.62
1:E:597:TRP:CZ3	1:E:600:LYS:HB3	2.35	0.62
1:E:801:VAL:HA	1:E:817:ALA:HB2	1.81	0.62
1:G:543:ASN:CB	1:G:574:SER:HB2	2.29	0.62
1:I:252:LYS:HA	1:I:252:LYS:HE3	1.81	0.62
1:I:566:LEU:HG	1:I:566:LEU:O	2.00	0.62
1:I:1225:VAL:HG11	1:I:1229:PHE:CZ	2.34	0.62
1:K:119:VAL:HG12	1:K:184:TRP:HE3	1.59	0.62
1:K:146:GLU:HB3	1:K:147:PRO:HD2	1.80	0.62
1:M:1008:HIS:HE1	1:M:1010:GLN:HB2	1.65	0.62
1:M:1132:CYS:O	1:M:1145:GLY:N	2.32	0.62
1:C:146:GLU:HB3	1:C:147:PRO:HD2	1.81	0.62
1:C:1201:TRP:CE3	1:C:1210:SER:CB	2.80	0.62
1:E:334:PHE:HB2	1:E:337:ARG:CD	2.29	0.62
1:E:1200:LYS:C	1:E:1202:TRP:CZ3	2.73	0.62
1:G:137:GLN:HG2	1:G:173:LEU:HD13	1.80	0.62
1:G:767:LEU:HD21	1:G:815:VAL:HG11	1.82	0.62
1:G:801:VAL:HA	1:G:817:ALA:HB2	1.81	0.62
1:I:564:VAL:HG11	1:I:583:GLN:HG3	1.79	0.62
1:I:725:LEU:HB2	1:I:739:MET:HB2	1.80	0.62
1:K:339:GLU:O	1:K:342:LEU:HB3	2.00	0.62
1:K:1175:THR:O	1:K:1177:GLY:N	2.22	0.62
1:M:363:ALA:O	1:M:366:GLU:HB3	2.00	0.62
1:M:543:ASN:CB	1:M:574:SER:HB2	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:862:TYR:HA	1:M:885:VAL:HG13	1.82	0.62
1:M:1218:THR:HG23	1:M:1219:ASN:H	1.63	0.62
3:Q:24:TYR:CD2	4:U:38:HIS:HB3	2.34	0.62
1:A:639:LEU:N	1:A:653:ILE:CG2	2.60	0.62
1:C:999:ARG:CD	1:C:1030:TRP:CD1	2.76	0.62
1:C:1182:ASP:HB3	1:C:1223:ILE:CG2	2.30	0.62
1:E:1130:VAL:HG11	1:E:1144:THR:HB	1.82	0.62
1:G:924:GLN:CB	1:G:1238:LEU:HG	2.28	0.62
1:G:1130:VAL:HG11	1:G:1144:THR:HB	1.82	0.62
1:I:363:ALA:O	1:I:366:GLU:HB3	2.00	0.62
1:I:1094:SER:HB3	1:I:1135:PHE:CD1	2.35	0.62
1:K:564:VAL:HG11	1:K:583:GLN:HG3	1.79	0.62
1:K:698:HIS:CD2	1:K:702:VAL:HG22	2.35	0.62
1:K:767:LEU:HD21	1:K:815:VAL:HG11	1.82	0.62
1:K:801:VAL:HA	1:K:817:ALA:HB2	1.81	0.62
1:M:155:MET:CE	1:M:441:GLN:HE21	2.12	0.62
1:A:1008:HIS:HE1	1:A:1010:GLN:HB2	1.64	0.62
1:C:543:ASN:CB	1:C:574:SER:HB2	2.29	0.62
1:C:559:PRO:O	1:C:561:PRO:HD3	2.00	0.62
1:C:666:SER:HB3	1:C:671:PHE:HB2	1.80	0.62
1:C:725:LEU:HB2	1:C:739:MET:HB2	1.80	0.62
1:C:862:TYR:CE2	1:C:881:HIS:CB	2.75	0.62
1:E:339:GLU:O	1:E:342:LEU:HB3	2.00	0.62
1:G:566:LEU:HG	1:G:566:LEU:O	2.00	0.62
1:G:1094:SER:HB3	1:G:1135:PHE:CD1	2.35	0.62
1:I:334:PHE:HB2	1:I:337:ARG:CD	2.29	0.62
1:I:431:LYS:HZ2	1:K:336:ASN:HB3	1.59	0.62
1:K:363:ALA:O	1:K:366:GLU:HB3	2.00	0.62
1:K:528:GLU:HG3	1:K:529:TYR:N	2.15	0.62
1:K:597:TRP:HH2	1:K:603:ILE:CG1	2.10	0.62
1:K:1094:SER:HB3	1:K:1135:PHE:CD1	2.35	0.62
1:K:1200:LYS:C	1:K:1202:TRP:CZ3	2.73	0.62
1:M:137:GLN:HG2	1:M:173:LEU:HD13	1.80	0.62
1:M:339:GLU:O	1:M:342:LEU:HB3	2.00	0.62
1:M:801:VAL:HA	1:M:817:ALA:HB2	1.81	0.62
1:M:1094:SER:HB3	1:M:1135:PHE:CD1	2.35	0.62
3:R:28:HIS:CD2	4:U:14:LEU:CD1	2.78	0.62
1:A:1094:SER:HB3	1:A:1135:PHE:CD1	2.35	0.62
1:C:698:HIS:CD2	1:C:702:VAL:HG22	2.35	0.62
1:E:127:VAL:N	5:E:1301:DTP:HN61	1.93	0.62
1:E:558:GLN:CB	1:E:559:PRO:CD	2.75	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1178:GLY:O	1:E:1179:TRP:HB2	2.00	0.62
1:E:1220:LEU:HD23	1:E:1234:THR:CG2	2.28	0.62
1:G:155:MET:CE	1:G:441:GLN:HE21	2.12	0.62
1:G:1199:ILE:HD11	1:G:1232:TYR:OH	1.99	0.62
1:I:928:VAL:CG1	1:I:937:VAL:HA	2.28	0.62
1:K:155:MET:CE	1:K:441:GLN:HE21	2.12	0.62
1:M:684:TRP:HA	1:M:691:LEU:HA	1.81	0.62
4:U:36:ARG:HG3	4:U:37:PRO:HD2	1.81	0.62
1:C:683:ILE:HB	1:C:693:HIS:HB2	1.81	0.62
1:C:1130:VAL:HG11	1:C:1144:THR:HB	1.82	0.62
1:E:683:ILE:HB	1:E:693:HIS:HB2	1.80	0.62
1:E:862:TYR:HA	1:E:885:VAL:HG13	1.81	0.62
1:G:453:LEU:HD11	1:G:454:GLN:NE2	2.00	0.62
1:I:611:VAL:HG12	1:I:613:PRO:HD3	1.82	0.62
1:I:684:TRP:HA	1:I:691:LEU:HA	1.81	0.62
1:I:879:ARG:HB3	1:I:921:MET:HE2	1.81	0.62
1:I:1178:GLY:O	1:I:1179:TRP:HB2	1.99	0.62
1:K:1199:ILE:HD11	1:K:1232:TYR:OH	1.99	0.62
1:M:597:TRP:CZ3	1:M:600:LYS:HB3	2.35	0.62
1:A:364:LEU:CD1	1:A:368:MET:HE2	2.29	0.61
1:A:1225:VAL:HG11	1:A:1229:PHE:CD1	2.35	0.61
1:C:334:PHE:HB2	1:C:337:ARG:CD	2.29	0.61
1:C:1225:VAL:HG11	1:C:1229:PHE:CD1	2.35	0.61
1:E:453:LEU:HD11	1:E:454:GLN:NE2	2.00	0.61
1:E:1199:ILE:HD11	1:E:1232:TYR:OH	1.99	0.61
1:G:529:TYR:HA	1:G:532:ILE:CG2	2.30	0.61
1:G:597:TRP:HE1	1:G:1243:ILE:H	1.47	0.61
1:G:862:TYR:HA	1:G:885:VAL:HG13	1.81	0.61
1:I:322:LEU:HD22	1:I:322:LEU:C	2.20	0.61
1:I:1132:CYS:O	1:I:1145:GLY:N	2.32	0.61
1:I:1199:ILE:HD11	1:I:1232:TYR:OH	2.00	0.61
1:K:678:ASP:OD2	1:K:680:LYS:CE	2.46	0.61
1:K:1182:ASP:HB3	1:K:1223:ILE:CG2	2.30	0.61
1:M:565:GLN:HE22	1:M:568:LEU:HD11	1.65	0.61
1:M:597:TRP:HE1	1:M:1243:ILE:H	1.47	0.61
1:M:1185:PHE:O	1:M:1229:PHE:HZ	1.78	0.61
1:A:334:PHE:HB2	1:A:337:ARG:CD	2.28	0.61
1:A:431:LYS:HZ2	1:C:336:ASN:HB3	1.64	0.61
1:A:496:MET:CE	1:A:496:MET:HA	2.30	0.61
1:A:528:GLU:HG3	1:A:529:TYR:N	2.15	0.61
1:A:543:ASN:CB	1:A:574:SER:HB2	2.29	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:597:TRP:CZ3	1:A:600:LYS:HB3	2.35	0.61
1:A:1200:LYS:C	1:A:1202:TRP:CZ3	2.73	0.61
1:E:137:GLN:HG2	1:E:173:LEU:HD13	1.80	0.61
1:E:146:GLU:HB3	1:E:147:PRO:HD2	1.80	0.61
1:E:1089:LEU:HB2	1:E:1105:ALA:HA	1.83	0.61
1:G:136:ILE:O	1:G:140:LEU:N	2.33	0.61
1:G:1225:VAL:HG11	1:G:1229:PHE:CD1	2.35	0.61
1:I:1200:LYS:C	1:I:1202:TRP:CZ3	2.73	0.61
1:K:1008:HIS:HE1	1:K:1010:GLN:HB2	1.65	0.61
1:K:1132:CYS:O	1:K:1145:GLY:N	2.32	0.61
4:V:35:PHE:HB2	4:V:40:ILE:HD11	1.83	0.61
1:A:566:LEU:HG	1:A:566:LEU:O	1.99	0.61
1:C:339:GLU:O	1:C:342:LEU:HB3	2.00	0.61
1:C:1200:LYS:C	1:C:1202:TRP:CZ3	2.73	0.61
1:E:698:HIS:CD2	1:E:702:VAL:HG22	2.35	0.61
1:E:1182:ASP:HB3	1:E:1223:ILE:CG2	2.30	0.61
1:E:1225:VAL:HG11	1:E:1229:PHE:CD1	2.35	0.61
1:G:374:MET:HA	1:G:374:MET:HE2	1.82	0.61
1:G:496:MET:HA	1:G:496:MET:CE	2.31	0.61
1:G:565:GLN:HE22	1:G:568:LEU:HD11	1.64	0.61
1:I:339:GLU:O	1:I:342:LEU:HB3	2.00	0.61
1:I:698:HIS:CD2	1:I:702:VAL:HG22	2.35	0.61
1:I:1130:VAL:HG11	1:I:1144:THR:HB	1.82	0.61
1:K:252:LYS:HA	1:K:252:LYS:CE	2.30	0.61
1:K:529:TYR:HA	1:K:532:ILE:CG2	2.30	0.61
1:M:767:LEU:HD21	1:M:815:VAL:HG11	1.82	0.61
3:R:31:SER:CA	4:U:10:ARG:O	2.42	0.61
1:A:496:MET:HA	1:A:496:MET:HE3	1.81	0.61
1:A:801:VAL:HA	1:A:817:ALA:HB2	1.81	0.61
1:C:252:LYS:HA	1:C:252:LYS:CE	2.31	0.61
1:C:529:TYR:HA	1:C:532:ILE:CG2	2.30	0.61
1:C:678:ASP:OD2	1:C:680:LYS:CE	2.46	0.61
1:C:801:VAL:HA	1:C:817:ALA:HB2	1.81	0.61
1:C:1199:ILE:HD11	1:C:1232:TYR:OH	1.99	0.61
1:E:496:MET:HA	1:E:496:MET:CE	2.30	0.61
1:E:767:LEU:HD21	1:E:815:VAL:HG11	1.82	0.61
1:G:143:LEU:O	1:G:143:LEU:HD23	2.01	0.61
1:G:456:LEU:O	1:G:459:LYS:CB	2.49	0.61
1:G:1089:LEU:HB2	1:G:1105:ALA:HA	1.82	0.61
1:G:1185:PHE:CD1	1:G:1192:LEU:CG	2.63	0.61
1:I:143:LEU:HD23	1:I:143:LEU:O	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:1225:VAL:HG11	1:I:1229:PHE:CD1	2.35	0.61
1:A:363:ALA:O	1:A:366:GLU:HB3	2.00	0.61
1:A:1182:ASP:HB3	1:A:1223:ILE:CG2	2.30	0.61
1:C:496:MET:HA	1:C:496:MET:CE	2.31	0.61
1:C:564:VAL:CG1	1:C:583:GLN:CG	2.79	0.61
1:C:566:LEU:O	1:C:566:LEU:HG	2.00	0.61
1:C:597:TRP:CZ3	1:C:600:LYS:HB3	2.35	0.61
1:C:684:TRP:HA	1:C:691:LEU:HA	1.81	0.61
1:C:1200:LYS:O	1:C:1202:TRP:HZ3	1.81	0.61
1:C:1225:VAL:HG11	1:C:1229:PHE:CZ	2.34	0.61
1:E:566:LEU:HG	1:E:566:LEU:O	2.00	0.61
1:I:597:TRP:CZ3	1:I:600:LYS:HB3	2.35	0.61
1:I:801:VAL:HA	1:I:817:ALA:HB2	1.81	0.61
1:K:611:VAL:HG12	1:K:613:PRO:HD3	1.83	0.61
1:K:684:TRP:HA	1:K:691:LEU:HA	1.81	0.61
1:M:999:ARG:CD	1:M:1030:TRP:CD1	2.76	0.61
1:M:1200:LYS:C	1:M:1202:TRP:CZ3	2.73	0.61
1:M:1233:VAL:CG1	1:M:1243:ILE:HA	2.31	0.61
4:S:45:ARG:HA	4:S:45:ARG:HE	1.65	0.61
1:A:138:GLN:CB	3:W:6:ARG:CD	2.78	0.61
1:A:155:MET:CE	1:A:441:GLN:HE21	2.12	0.61
1:A:252:LYS:HA	1:A:252:LYS:CE	2.30	0.61
1:E:565:GLN:HE22	1:E:568:LEU:HD11	1.64	0.61
1:E:1201:TRP:CE3	1:E:1210:SER:CB	2.80	0.61
1:G:127:VAL:N	5:G:1301:DTP:HN61	1.93	0.61
1:G:363:ALA:O	1:G:366:GLU:HB3	2.00	0.61
1:G:611:VAL:HG12	1:G:613:PRO:HD3	1.83	0.61
1:G:1167:PRO:HA	1:G:1202:TRP:NE1	1.94	0.61
1:G:1178:GLY:O	1:G:1179:TRP:HB2	2.00	0.61
1:I:137:GLN:HG2	1:I:173:LEU:HD13	1.81	0.61
1:I:308:GLU:HA	1:I:308:GLU:OE2	2.00	0.61
1:I:529:TYR:HA	1:I:532:ILE:CG2	2.30	0.61
1:K:565:GLN:HE22	1:K:568:LEU:HD11	1.65	0.61
1:K:1089:LEU:HB2	1:K:1105:ALA:HA	1.83	0.61
1:M:698:HIS:CD2	1:M:702:VAL:HG22	2.35	0.61
1:M:924:GLN:CB	1:M:1238:LEU:HG	2.28	0.61
1:M:1182:ASP:HB3	1:M:1223:ILE:CG2	2.30	0.61
1:A:143:LEU:HD23	1:A:143:LEU:O	2.01	0.61
1:A:559:PRO:O	1:A:561:PRO:HD3	2.00	0.61
1:A:1233:VAL:CG1	1:A:1243:ILE:HA	2.31	0.61
1:C:999:ARG:CD	1:C:1030:TRP:NE1	2.59	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1235:VAL:O	1:C:1235:VAL:CG2	2.49	0.61
1:E:322:LEU:HD22	1:E:322:LEU:C	2.20	0.61
1:E:883:SER:CB	1:E:902:ASP:CB	2.79	0.61
1:G:1132:CYS:O	1:G:1145:GLY:N	2.32	0.61
1:G:1182:ASP:HB3	1:G:1223:ILE:CG2	2.30	0.61
1:G:1208:GLU:HG3	1:G:1211:GLN:HG2	1.83	0.61
1:G:1233:VAL:CG1	1:G:1243:ILE:HA	2.31	0.61
1:I:1089:LEU:HB2	1:I:1105:ALA:HA	1.83	0.61
1:I:1182:ASP:HB3	1:I:1223:ILE:CG2	2.30	0.61
1:K:1185:PHE:O	1:K:1229:PHE:HZ	1.78	0.61
1:M:528:GLU:HG3	1:M:529:TYR:N	2.15	0.61
1:M:611:VAL:HG12	1:M:613:PRO:HD3	1.82	0.61
1:M:862:TYR:HE2	1:M:881:HIS:N	1.82	0.61
3:Q:21:LYS:HD2	4:U:39:MET:CE	2.30	0.61
3:Q:24:TYR:CD2	3:Q:78:GLU:CD	2.74	0.61
1:C:155:MET:CE	1:C:441:GLN:HE21	2.12	0.61
1:C:334:PHE:HB2	1:C:337:ARG:CG	2.31	0.61
1:C:597:TRP:HE1	1:C:1243:ILE:H	1.47	0.61
1:C:862:TYR:HA	1:C:885:VAL:HG13	1.81	0.61
1:E:559:PRO:O	1:E:561:PRO:HD3	2.00	0.61
1:E:876:ALA:CB	1:E:914:VAL:O	2.45	0.61
1:E:1094:SER:HB3	1:E:1135:PHE:CD1	2.35	0.61
1:G:252:LYS:HA	1:G:252:LYS:HE3	1.81	0.61
1:G:1008:HIS:HE1	1:G:1010:GLN:HB2	1.64	0.61
1:I:666:SER:OG	1:I:670:ARG:N	2.34	0.61
1:K:496:MET:HA	1:K:496:MET:CE	2.31	0.61
1:K:564:VAL:CG1	1:K:583:GLN:CG	2.79	0.61
1:K:666:SER:OG	1:K:670:ARG:N	2.34	0.61
1:K:1235:VAL:O	1:K:1235:VAL:CG2	2.49	0.61
1:M:237:ARG:HH11	1:M:237:ARG:CG	2.14	0.61
1:M:496:MET:HA	1:M:496:MET:CE	2.30	0.61
1:M:1225:VAL:HG11	1:M:1229:PHE:CD1	2.35	0.61
4:S:35:PHE:HB2	4:S:40:ILE:HD11	1.83	0.61
1:A:564:VAL:CG1	1:A:583:GLN:CG	2.79	0.61
1:A:698:HIS:CD2	1:A:702:VAL:HG22	2.35	0.61
1:A:883:SER:CB	1:A:902:ASP:CB	2.79	0.61
1:A:999:ARG:CD	1:A:1030:TRP:NE1	2.59	0.61
1:C:174:LEU:HD23	1:C:175:GLU:CA	2.31	0.61
1:C:876:ALA:CB	1:C:914:VAL:O	2.45	0.61
1:E:928:VAL:CG1	1:E:937:VAL:HA	2.28	0.61
1:E:1208:GLU:HG3	1:E:1211:GLN:HG2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:334:PHE:HB2	1:G:337:ARG:CG	2.31	0.61
1:G:528:GLU:HG3	1:G:529:TYR:N	2.15	0.61
1:K:1185:PHE:HE1	1:K:1192:LEU:HD12	1.53	0.61
1:K:1233:VAL:CG1	1:K:1243:ILE:HA	2.31	0.61
1:M:143:LEU:O	1:M:143:LEU:HD23	2.01	0.61
1:M:212:PHE:HE2	1:M:230:LEU:CD2	2.14	0.61
1:M:252:LYS:HA	1:M:252:LYS:CE	2.30	0.61
1:M:529:TYR:HA	1:M:532:ILE:CG2	2.30	0.61
1:M:657:GLU:CB	1:M:680:LYS:HD2	2.31	0.61
3:R:32:ASP:O	4:U:11:ARG:NE	2.33	0.61
3:R:80:TYR:HD1	4:V:64:THR:O	1.83	0.61
4:T:35:PHE:HB2	4:T:40:ILE:HD11	1.83	0.61
4:U:35:PHE:HB2	4:U:40:ILE:HD11	1.83	0.61
4:V:28:VAL:HG11	4:V:79:ASP:OD1	2.01	0.61
1:A:334:PHE:HB2	1:A:337:ARG:CG	2.31	0.61
1:A:635:ALA:O	1:A:637:LYS:HG3	2.01	0.61
1:A:1178:GLY:O	1:A:1179:TRP:HB2	1.99	0.61
1:C:143:LEU:HD23	1:C:143:LEU:O	2.01	0.61
1:C:149:TRP:CZ3	1:C:251:LEU:HD22	2.36	0.61
1:C:308:GLU:HA	1:C:308:GLU:OE2	2.00	0.61
1:C:883:SER:CB	1:C:902:ASP:CB	2.79	0.61
1:E:143:LEU:O	1:E:143:LEU:HD23	2.01	0.61
1:E:456:LEU:O	1:E:459:LYS:CB	2.49	0.61
1:E:635:ALA:O	1:E:637:LYS:HG3	2.01	0.61
1:E:821:ILE:HB	1:E:835:ILE:HB	1.83	0.61
1:E:1008:HIS:HE1	1:E:1010:GLN:HB2	1.64	0.61
1:G:597:TRP:CZ3	1:G:600:LYS:HB3	2.35	0.61
1:I:149:TRP:CZ3	1:I:251:LEU:HD22	2.36	0.61
1:I:252:LYS:HA	1:I:252:LYS:CE	2.31	0.61
1:I:883:SER:CB	1:I:902:ASP:CB	2.79	0.61
1:I:1233:VAL:CG1	1:I:1243:ILE:HA	2.31	0.61
1:K:212:PHE:HE2	1:K:230:LEU:CD2	2.14	0.61
1:K:1200:LYS:HG3	1:K:1211:GLN:C	2.22	0.61
1:M:149:TRP:CZ3	1:M:251:LEU:HD22	2.36	0.61
3:X:44:ARG:HH12	4:Y:56:ARG:HD3	1.65	0.61
1:A:339:GLU:O	1:A:342:LEU:HB3	2.00	0.60
1:A:565:GLN:HE22	1:A:568:LEU:HD11	1.64	0.60
1:A:666:SER:OG	1:A:670:ARG:N	2.34	0.60
1:C:363:ALA:O	1:C:366:GLU:HB3	2.00	0.60
1:C:456:LEU:O	1:C:459:LYS:CB	2.49	0.60
1:C:1089:LEU:HB2	1:C:1105:ALA:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:174:LEU:HD23	1:E:175:GLU:CA	2.31	0.60
1:E:285:SER:OG	1:E:286:LEU:N	2.34	0.60
1:E:564:VAL:CG1	1:E:583:GLN:CG	2.79	0.60
1:G:332:ARG:HH11	1:G:332:ARG:CG	2.14	0.60
1:G:698:HIS:CD2	1:G:702:VAL:HG22	2.35	0.60
1:K:174:LEU:HD23	1:K:175:GLU:CA	2.31	0.60
1:K:924:GLN:CB	1:K:1238:LEU:HG	2.28	0.60
1:K:1225:VAL:HG11	1:K:1229:PHE:CD1	2.35	0.60
1:M:559:PRO:O	1:M:561:PRO:HD3	2.00	0.60
1:M:666:SER:OG	1:M:670:ARG:N	2.34	0.60
1:M:902:ASP:HB3	2:N:72:LYS:HZ2	1.66	0.60
1:M:1167:PRO:HA	1:M:1202:TRP:NE1	1.93	0.60
4:S:28:VAL:HG11	4:S:79:ASP:OD1	2.01	0.60
1:A:107:THR:HB	1:A:110:VAL:HG23	1.84	0.60
1:A:862:TYR:HA	1:A:885:VAL:HG13	1.81	0.60
1:A:1067:VAL:HB	1:A:1081:PHE:HB2	1.84	0.60
1:C:322:LEU:HD22	1:C:322:LEU:C	2.20	0.60
1:C:528:GLU:HG3	1:C:529:TYR:N	2.15	0.60
1:E:308:GLU:HA	1:E:308:GLU:OE2	2.00	0.60
1:E:678:ASP:OD2	1:E:680:LYS:CE	2.46	0.60
1:G:149:TRP:CZ3	1:G:251:LEU:HD22	2.36	0.60
1:G:308:GLU:HA	1:G:308:GLU:OE2	2.01	0.60
1:G:507:LEU:HD21	1:G:544:PHE:CZ	2.36	0.60
1:G:639:LEU:N	1:G:653:ILE:CG2	2.60	0.60
1:I:528:GLU:HG3	1:I:529:TYR:N	2.15	0.60
1:I:565:GLN:HE22	1:I:568:LEU:HD11	1.65	0.60
1:I:862:TYR:CE2	1:I:881:HIS:CB	2.75	0.60
1:K:143:LEU:O	1:K:143:LEU:HD23	2.01	0.60
1:M:107:THR:HB	1:M:110:VAL:HG23	1.84	0.60
1:M:136:ILE:O	1:M:140:LEU:N	2.33	0.60
1:M:174:LEU:HD23	1:M:175:GLU:CA	2.31	0.60
1:M:564:VAL:CG1	1:M:583:GLN:CG	2.79	0.60
1:A:684:TRP:HA	1:A:691:LEU:HA	1.81	0.60
1:A:767:LEU:HD21	1:A:815:VAL:HG11	1.82	0.60
1:A:884:TRP:O	1:A:885:VAL:O	2.20	0.60
1:C:332:ARG:HH11	1:C:332:ARG:CG	2.14	0.60
1:C:657:GLU:CB	1:C:680:LYS:HD2	2.31	0.60
1:C:939:ALA:HB3	1:C:947:GLN:O	2.02	0.60
1:C:1067:VAL:HB	1:C:1081:PHE:HB2	1.83	0.60
1:E:149:TRP:CZ3	1:E:251:LEU:HD22	2.36	0.60
1:E:529:TYR:HA	1:E:532:ILE:CG2	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1212:THR:CG2	1:E:1213:PHE:H	2.12	0.60
1:G:322:LEU:HD22	1:G:322:LEU:C	2.20	0.60
1:G:821:ILE:HB	1:G:835:ILE:HB	1.84	0.60
1:G:884:TRP:O	1:G:885:VAL:O	2.20	0.60
1:G:1247:LEU:CD1	1:G:1248:GLU:H	2.14	0.60
1:I:127:VAL:N	5:I:1301:DTP:HN61	1.93	0.60
1:I:597:TRP:HE1	1:I:1243:ILE:H	1.47	0.60
1:I:678:ASP:OD2	1:I:680:LYS:CE	2.46	0.60
1:I:924:GLN:CB	1:I:1238:LEU:HG	2.28	0.60
1:I:1208:GLU:HG3	1:I:1211:GLN:HG2	1.83	0.60
1:K:453:LEU:HD11	1:K:454:GLN:NE2	2.00	0.60
1:K:635:ALA:O	1:K:637:LYS:HG3	2.02	0.60
1:M:179:PRO:HD3	1:M:237:ARG:NH1	2.14	0.60
1:M:678:ASP:OD2	1:M:680:LYS:CE	2.46	0.60
1:M:1178:GLY:O	1:M:1179:TRP:HB2	2.00	0.60
1:M:1200:LYS:O	1:M:1202:TRP:HZ3	1.81	0.60
1:A:529:TYR:HA	1:A:532:ILE:CG2	2.30	0.60
1:A:864:VAL:CG2	1:A:885:VAL:HG11	2.32	0.60
1:C:635:ALA:O	1:C:637:LYS:HG3	2.02	0.60
1:C:767:LEU:HD21	1:C:815:VAL:HG11	1.81	0.60
1:C:879:ARG:HB3	1:C:921:MET:SD	2.42	0.60
1:E:496:MET:HA	1:E:496:MET:HE3	1.83	0.60
1:E:528:GLU:HG3	1:E:529:TYR:N	2.16	0.60
1:G:179:PRO:HD3	1:G:237:ARG:NH1	2.14	0.60
1:G:252:LYS:HA	1:G:252:LYS:CE	2.31	0.60
1:G:285:SER:OG	1:G:286:LEU:N	2.34	0.60
1:G:1200:LYS:C	1:G:1202:TRP:CZ3	2.73	0.60
1:I:507:LEU:HD21	1:I:544:PHE:CZ	2.37	0.60
1:I:564:VAL:CG1	1:I:583:GLN:CG	2.79	0.60
1:I:821:ILE:HB	1:I:835:ILE:HB	1.83	0.60
1:I:884:TRP:O	1:I:885:VAL:O	2.19	0.60
1:K:559:PRO:O	1:K:561:PRO:HD3	2.00	0.60
1:K:862:TYR:N	1:K:884:TRP:HD1	1.95	0.60
1:K:883:SER:CB	1:K:902:ASP:CB	2.79	0.60
1:K:1130:VAL:HG11	1:K:1144:THR:HB	1.82	0.60
1:K:1178:GLY:O	1:K:1179:TRP:HB2	2.01	0.60
1:K:1185:PHE:CD1	1:K:1192:LEU:CG	2.63	0.60
1:K:1185:PHE:CZ	1:K:1192:LEU:HD11	2.35	0.60
1:K:1201:TRP:CE3	1:K:1210:SER:CB	2.80	0.60
4:U:28:VAL:HG11	4:U:79:ASP:OD1	2.01	0.60
1:A:1175:THR:O	1:A:1177:GLY:N	2.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:122:ARG:CZ	1:C:126:PHE:CE2	2.85	0.60
1:E:212:PHE:HE2	1:E:230:LEU:CD2	2.14	0.60
1:E:363:ALA:O	1:E:366:GLU:HB3	2.00	0.60
1:I:285:SER:OG	1:I:286:LEU:N	2.34	0.60
1:I:1235:VAL:O	1:I:1235:VAL:CG2	2.49	0.60
1:K:122:ARG:CZ	1:K:126:PHE:CE2	2.85	0.60
1:K:149:TRP:CZ3	1:K:251:LEU:HD22	2.36	0.60
1:K:657:GLU:CB	1:K:680:LYS:HD2	2.31	0.60
1:K:939:ALA:HB3	1:K:947:GLN:O	2.02	0.60
1:M:939:ALA:HB3	1:M:947:GLN:O	2.02	0.60
1:A:265:ARG:NH1	5:A:1301:DTP:O1G	2.35	0.60
1:C:611:VAL:HG12	1:C:613:PRO:HD3	1.83	0.60
1:C:884:TRP:O	1:C:885:VAL:O	2.19	0.60
1:C:1176:HIS:CB	1:C:1218:THR:CG2	2.65	0.60
1:E:122:ARG:CZ	1:E:126:PHE:CE2	2.85	0.60
1:G:339:GLU:O	1:G:342:LEU:HB3	2.00	0.60
1:G:635:ALA:O	1:G:637:LYS:HG3	2.02	0.60
1:G:678:ASP:OD2	1:G:680:LYS:CE	2.46	0.60
1:G:861:GLN:CA	1:G:884:TRP:HD1	2.15	0.60
1:G:1235:VAL:O	1:G:1235:VAL:CG2	2.49	0.60
1:I:122:ARG:CZ	1:I:126:PHE:CE2	2.85	0.60
1:I:332:ARG:HH11	1:I:332:ARG:CG	2.14	0.60
1:I:334:PHE:HB2	1:I:337:ARG:CG	2.31	0.60
1:I:716:LEU:HB2	1:I:730:LEU:HD21	1.84	0.60
1:I:1200:LYS:HG3	1:I:1211:GLN:C	2.22	0.60
1:K:212:PHE:HE2	1:K:230:LEU:HD23	1.67	0.60
1:K:507:LEU:HD21	1:K:544:PHE:CZ	2.37	0.60
1:K:597:TRP:CZ3	1:K:600:LYS:HB3	2.35	0.60
1:K:902:ASP:HB3	2:L:72:LYS:HZ2	1.66	0.60
1:K:1143:ALA:CB	1:K:1183:LEU:CD2	2.80	0.60
1:M:322:LEU:HD22	1:M:322:LEU:C	2.20	0.60
1:M:334:PHE:HB2	1:M:337:ARG:CG	2.31	0.60
1:M:883:SER:CB	1:M:902:ASP:CB	2.79	0.60
1:M:884:TRP:O	1:M:885:VAL:O	2.19	0.60
1:M:1067:VAL:HB	1:M:1081:PHE:HB2	1.84	0.60
1:M:1089:LEU:HB2	1:M:1105:ALA:HA	1.82	0.60
1:A:1143:ALA:CB	1:A:1183:LEU:CD2	2.80	0.60
1:A:1235:VAL:O	1:A:1235:VAL:CG2	2.49	0.60
1:C:1132:CYS:O	1:C:1145:GLY:N	2.32	0.60
1:E:252:LYS:HA	1:E:252:LYS:CE	2.31	0.60
1:E:265:ARG:NH1	5:E:1301:DTP:O1G	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:334:PHE:HB2	1:E:337:ARG:CG	2.31	0.60
1:E:1132:CYS:O	1:E:1145:GLY:N	2.32	0.60
1:G:212:PHE:HE2	1:G:230:LEU:CD2	2.14	0.60
1:G:564:VAL:CG1	1:G:583:GLN:CG	2.79	0.60
1:G:1143:ALA:CB	1:G:1183:LEU:CD2	2.80	0.60
1:I:496:MET:CE	1:I:496:MET:HA	2.31	0.60
1:K:136:ILE:O	1:K:140:LEU:N	2.33	0.60
1:K:566:LEU:O	1:K:566:LEU:HG	2.00	0.60
1:M:308:GLU:HA	1:M:308:GLU:OE2	2.01	0.60
1:M:864:VAL:CG2	1:M:885:VAL:HG11	2.32	0.60
1:M:1201:TRP:CE3	1:M:1210:SER:CB	2.80	0.60
1:A:212:PHE:HE2	1:A:230:LEU:CD2	2.14	0.60
1:A:308:GLU:HA	1:A:308:GLU:OE2	2.00	0.60
1:A:507:LEU:HD21	1:A:544:PHE:CZ	2.36	0.60
1:C:861:GLN:CA	1:C:884:TRP:HD1	2.15	0.60
1:C:1233:VAL:HG11	1:C:1243:ILE:CG1	2.28	0.60
1:G:999:ARG:HG2	1:G:1030:TRP:CD2	2.37	0.60
1:G:1176:HIS:CB	1:G:1218:THR:CB	2.79	0.60
1:G:1200:LYS:HG3	1:G:1211:GLN:C	2.22	0.60
1:I:657:GLU:CB	1:I:680:LYS:HD2	2.31	0.60
1:K:265:ARG:NH1	5:K:1301:DTP:O1G	2.35	0.60
1:K:864:VAL:CG2	1:K:885:VAL:HG11	2.32	0.60
1:K:879:ARG:HB3	1:K:921:MET:SD	2.42	0.60
1:M:716:LEU:HB2	1:M:730:LEU:HD21	1.84	0.60
3:P:19:ASP:HB3	4:T:64:THR:HB	1.83	0.60
3:P:48:THR:HG22	3:Q:41:GLU:OE1	2.02	0.60
4:T:28:VAL:HG11	4:T:79:ASP:OD1	2.01	0.60
1:A:174:LEU:HD23	1:A:175:GLU:CA	2.31	0.60
1:A:1130:VAL:HG11	1:A:1144:THR:HB	1.82	0.60
1:C:507:LEU:HD21	1:C:544:PHE:CZ	2.36	0.60
1:E:861:GLN:CA	1:E:884:TRP:HD1	2.15	0.60
1:E:1067:VAL:HB	1:E:1081:PHE:HB2	1.83	0.60
1:G:559:PRO:O	1:G:561:PRO:HD3	2.00	0.60
1:G:883:SER:CB	1:G:902:ASP:CB	2.79	0.60
1:I:559:PRO:O	1:I:561:PRO:HD3	2.00	0.60
1:I:658:ASP:HB2	1:I:678:ASP:HB2	1.84	0.60
1:I:1143:ALA:CB	1:I:1183:LEU:CD2	2.80	0.60
1:I:1185:PHE:CZ	1:I:1192:LEU:HD11	2.35	0.60
1:K:456:LEU:O	1:K:459:LYS:CB	2.49	0.60
1:K:658:ASP:HB2	1:K:678:ASP:HB2	1.84	0.60
1:K:862:TYR:HE2	1:K:881:HIS:N	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:999:ARG:HG2	1:K:1030:TRP:CD2	2.37	0.60
1:M:849:SER:HB3	1:M:854:LEU:HB2	1.84	0.60
1:M:879:ARG:HB3	1:M:921:MET:SD	2.42	0.60
1:A:109:TYR:HE1	3:P:4:LYS:CA	2.14	0.60
1:A:322:LEU:HD22	1:A:322:LEU:C	2.20	0.60
1:A:716:LEU:HB2	1:A:730:LEU:HD21	1.84	0.60
1:C:666:SER:OG	1:C:670:ARG:N	2.34	0.60
1:C:864:VAL:CG2	1:C:885:VAL:HG11	2.32	0.60
1:C:1233:VAL:CG1	1:C:1243:ILE:HA	2.31	0.60
1:E:146:GLU:CG	1:G:111:ARG:HH11	2.15	0.60
1:E:332:ARG:HH11	1:E:332:ARG:CG	2.15	0.60
1:E:657:GLU:CB	1:E:680:LYS:HD2	2.31	0.60
1:E:1233:VAL:CG1	1:E:1243:ILE:HA	2.31	0.60
1:G:146:GLU:CG	1:I:111:ARG:HH11	2.15	0.60
1:K:212:PHE:CE2	1:K:230:LEU:CD2	2.85	0.60
1:K:821:ILE:HB	1:K:835:ILE:HB	1.83	0.60
1:M:122:ARG:CZ	1:M:126:PHE:CE2	2.85	0.60
1:M:212:PHE:CE2	1:M:230:LEU:CD2	2.85	0.60
1:M:456:LEU:O	1:M:459:LYS:CB	2.49	0.60
1:M:507:LEU:HD21	1:M:544:PHE:CZ	2.36	0.60
1:M:1177:GLY:HA2	1:M:1197:GLY:HA2	1.81	0.60
1:A:657:GLU:CB	1:A:680:LYS:HD2	2.31	0.59
1:A:861:GLN:CA	1:A:884:TRP:HD1	2.15	0.59
1:A:1089:LEU:HB2	1:A:1105:ALA:HA	1.83	0.59
1:C:107:THR:HB	1:C:110:VAL:HG23	1.84	0.59
1:E:611:VAL:HG12	1:E:613:PRO:HD3	1.83	0.59
1:E:939:ALA:HB3	1:E:947:GLN:O	2.02	0.59
1:G:265:ARG:NH1	5:G:1301:DTP:O1G	2.35	0.59
1:G:716:LEU:HB2	1:G:730:LEU:HD21	1.84	0.59
1:I:767:LEU:HD21	1:I:815:VAL:HG11	1.82	0.59
1:I:861:GLN:CA	1:I:884:TRP:HD1	2.15	0.59
1:I:939:ALA:HB3	1:I:947:GLN:O	2.02	0.59
1:K:107:THR:HB	1:K:110:VAL:HG23	1.84	0.59
1:K:308:GLU:HA	1:K:308:GLU:OE2	2.01	0.59
1:M:212:PHE:HE2	1:M:230:LEU:HD23	1.67	0.59
3:X:43:VAL:O	3:X:52:ARG:HG3	2.01	0.59
1:A:136:ILE:O	1:A:140:LEU:N	2.33	0.59
1:A:456:LEU:O	1:A:459:LYS:CB	2.49	0.59
1:A:611:VAL:HG12	1:A:613:PRO:HD3	1.83	0.59
1:C:658:ASP:HB2	1:C:678:ASP:HB2	1.84	0.59
1:C:1176:HIS:CB	1:C:1218:THR:CB	2.79	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:507:LEU:HD21	1:E:544:PHE:CZ	2.36	0.59
1:E:879:ARG:HB3	1:E:921:MET:SD	2.42	0.59
1:E:1176:HIS:CB	1:E:1218:THR:CB	2.77	0.59
1:G:208:GLN:OE1	3:O:62:LYS:HB3	2.02	0.59
1:I:635:ALA:O	1:I:637:LYS:HG3	2.02	0.59
1:I:849:SER:HB3	1:I:854:LEU:HB2	1.84	0.59
1:M:285:SER:OG	1:M:286:LEU:N	2.34	0.59
1:M:1130:VAL:HG11	1:M:1144:THR:HB	1.82	0.59
1:A:266:ASP:HB2	1:A:269:VAL:HG23	1.85	0.59
1:A:1200:LYS:O	1:A:1202:TRP:HZ3	1.81	0.59
1:C:212:PHE:CE2	1:C:230:LEU:CD2	2.86	0.59
1:E:212:PHE:CE2	1:E:230:LEU:CD2	2.86	0.59
1:E:553:HIS:CD2	1:E:554:LEU:HB2	2.38	0.59
1:E:884:TRP:O	1:E:885:VAL:O	2.20	0.59
1:E:1200:LYS:HG3	1:E:1211:GLN:C	2.22	0.59
1:E:1235:VAL:O	1:E:1235:VAL:CG2	2.49	0.59
1:E:1247:LEU:CD1	1:E:1248:GLU:H	2.13	0.59
1:G:107:THR:HB	1:G:110:VAL:HG23	1.84	0.59
1:G:558:GLN:CB	1:G:559:PRO:CD	2.75	0.59
1:G:657:GLU:CB	1:G:680:LYS:HD2	2.31	0.59
1:G:928:VAL:CG1	1:G:937:VAL:HA	2.28	0.59
1:I:456:LEU:O	1:I:459:LYS:CB	2.49	0.59
1:I:553:HIS:CD2	1:I:554:LEU:HB2	2.38	0.59
1:K:334:PHE:HB2	1:K:337:ARG:CG	2.31	0.59
1:K:884:TRP:O	1:K:885:VAL:O	2.20	0.59
1:M:566:LEU:HG	1:M:566:LEU:O	2.00	0.59
1:M:861:GLN:CA	1:M:884:TRP:HD1	2.15	0.59
3:Q:19:ASP:CA	4:U:64:THR:CG2	2.65	0.59
1:A:121:GLN:NE2	1:M:147:PRO:HG3	2.18	0.59
1:A:1233:VAL:HG11	1:A:1243:ILE:CG1	2.28	0.59
1:C:146:GLU:HG2	1:E:111:ARG:HH11	1.68	0.59
1:C:285:SER:OG	1:C:286:LEU:N	2.35	0.59
1:C:553:HIS:CD2	1:C:554:LEU:HB2	2.37	0.59
1:C:556:GLY:O	1:C:557:ARG:C	2.41	0.59
1:C:1237:ASN:O	1:C:1238:LEU:HB2	2.02	0.59
1:E:107:THR:HB	1:E:110:VAL:HG23	1.83	0.59
1:E:666:SER:OG	1:E:670:ARG:N	2.34	0.59
1:E:1143:ALA:CB	1:E:1183:LEU:CD2	2.80	0.59
1:G:939:ALA:HB3	1:G:947:GLN:O	2.02	0.59
1:G:1212:THR:CG2	1:G:1213:PHE:H	2.12	0.59
1:I:147:PRO:HG3	1:K:121:GLN:NE2	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:212:PHE:HE2	1:I:230:LEU:HD23	1.67	0.59
1:K:553:HIS:CD2	1:K:554:LEU:HB2	2.38	0.59
1:K:1237:ASN:O	1:K:1238:LEU:HB2	2.02	0.59
1:M:635:ALA:O	1:M:637:LYS:HG3	2.02	0.59
1:M:1185:PHE:CZ	1:M:1192:LEU:HD11	2.35	0.59
3:R:79:GLY:HA3	4:V:65:ARG:CZ	2.32	0.59
1:A:111:ARG:HH11	1:M:146:GLU:HG2	1.68	0.59
1:A:122:ARG:CZ	1:A:126:PHE:CE2	2.85	0.59
1:A:813:ILE:HD12	1:A:826:ILE:HG21	1.85	0.59
1:C:821:ILE:HB	1:C:835:ILE:HB	1.84	0.59
1:E:885:VAL:HG23	1:E:886:HIS:N	2.18	0.59
1:G:212:PHE:CE2	1:G:230:LEU:CD2	2.86	0.59
1:G:431:LYS:HZ1	1:I:336:ASN:HB3	1.64	0.59
1:G:553:HIS:CD2	1:G:554:LEU:HB2	2.38	0.59
1:G:666:SER:OG	1:G:670:ARG:N	2.34	0.59
1:I:266:ASP:HB2	1:I:269:VAL:HG23	1.85	0.59
1:K:332:ARG:HH11	1:K:332:ARG:CG	2.14	0.59
1:K:556:GLY:O	1:K:557:ARG:C	2.41	0.59
1:K:716:LEU:HB2	1:K:730:LEU:HD21	1.84	0.59
1:K:861:GLN:CA	1:K:884:TRP:HD1	2.15	0.59
1:M:266:ASP:HB2	1:M:269:VAL:HG23	1.84	0.59
1:M:813:ILE:HD12	1:M:826:ILE:HG21	1.85	0.59
1:M:1143:ALA:CB	1:M:1183:LEU:CD2	2.80	0.59
1:M:1208:GLU:HG3	1:M:1211:GLN:HG2	1.83	0.59
3:P:19:ASP:CB	4:T:64:THR:HG22	2.32	0.59
1:A:149:TRP:CZ3	1:A:251:LEU:HD22	2.36	0.59
1:A:939:ALA:HB3	1:A:947:GLN:O	2.02	0.59
1:A:1208:GLU:HG3	1:A:1211:GLN:HG2	1.83	0.59
1:C:212:PHE:HE2	1:C:230:LEU:HD23	1.67	0.59
1:C:212:PHE:HE2	1:C:230:LEU:CD2	2.14	0.59
1:E:212:PHE:HE2	1:E:230:LEU:HD23	1.67	0.59
1:G:122:ARG:CZ	1:G:126:PHE:CE2	2.85	0.59
1:G:147:PRO:HG3	1:I:121:GLN:NE2	2.18	0.59
1:G:174:LEU:HD23	1:G:175:GLU:CA	2.31	0.59
1:G:879:ARG:HB3	1:G:921:MET:SD	2.42	0.59
1:G:1185:PHE:HE1	1:G:1192:LEU:HD12	1.53	0.59
1:I:265:ARG:NH1	5:I:1301:DTP:O1G	2.35	0.59
1:I:864:VAL:CG2	1:I:885:VAL:HG11	2.32	0.59
1:K:345:LEU:HD11	1:K:353:ILE:HD13	1.85	0.59
1:K:849:SER:HB3	1:K:854:LEU:HB2	1.84	0.59
1:K:879:ARG:HB3	1:K:921:MET:HE2	1.78	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1208:GLU:HG3	1:K:1211:GLN:HG2	1.83	0.59
1:M:879:ARG:HB3	1:M:921:MET:HE2	1.81	0.59
1:M:1200:LYS:HG3	1:M:1211:GLN:C	2.22	0.59
1:A:138:GLN:N	3:W:6:ARG:CZ	2.65	0.59
1:A:146:GLU:HG2	1:C:111:ARG:HH11	1.68	0.59
1:A:849:SER:HB3	1:A:854:LEU:HB2	1.84	0.59
1:A:1199:ILE:HD11	1:A:1232:TYR:HE2	1.62	0.59
1:C:885:VAL:HG23	1:C:886:HIS:N	2.18	0.59
1:C:1208:GLU:HG3	1:C:1211:GLN:HG2	1.83	0.59
1:E:333:ASP:CB	1:E:334:PHE:CE1	2.85	0.59
1:G:400:LEU:HB3	1:G:404:TRP:HZ3	1.68	0.59
1:G:556:GLY:O	1:G:557:ARG:C	2.41	0.59
1:G:658:ASP:HB2	1:G:678:ASP:HB2	1.84	0.59
1:I:212:PHE:CE2	1:I:230:LEU:CD2	2.86	0.59
1:I:345:LEU:HD11	1:I:353:ILE:HD13	1.85	0.59
1:K:266:ASP:HB2	1:K:269:VAL:HG23	1.85	0.59
1:K:400:LEU:HB3	1:K:404:TRP:HZ3	1.68	0.59
1:M:553:HIS:CD2	1:M:554:LEU:HB2	2.38	0.59
1:M:1237:ASN:O	1:M:1238:LEU:HB2	2.02	0.59
1:A:285:SER:OG	1:A:286:LEU:N	2.35	0.59
1:A:317:CYS:SG	1:A:324:VAL:HG23	2.43	0.59
1:A:553:HIS:CD2	1:A:554:LEU:HB2	2.38	0.59
1:A:879:ARG:HB3	1:A:921:MET:HE2	1.81	0.59
1:A:1028:GLN:HE21	1:A:1030:TRP:HB2	1.68	0.59
1:A:1200:LYS:HG3	1:A:1211:GLN:C	2.22	0.59
1:C:147:PRO:HG3	1:E:121:GLN:NE2	2.18	0.59
1:C:317:CYS:SG	1:C:324:VAL:HG23	2.43	0.59
1:C:565:GLN:HE22	1:C:568:LEU:HD11	1.65	0.59
1:E:122:ARG:NE	1:E:126:PHE:CZ	2.71	0.59
1:E:1028:GLN:HE21	1:E:1030:TRP:HB2	1.68	0.59
1:G:266:ASP:HB2	1:G:269:VAL:HG23	1.85	0.59
1:G:345:LEU:HD11	1:G:353:ILE:HD13	1.85	0.59
1:G:921:MET:HA	1:G:1240:ILE:HG13	1.85	0.59
1:I:212:PHE:HE2	1:I:230:LEU:CD2	2.14	0.59
1:I:879:ARG:HB3	1:I:921:MET:SD	2.42	0.59
1:K:147:PRO:HG3	1:M:121:GLN:NE2	2.18	0.59
1:K:179:PRO:HD3	1:K:237:ARG:NH1	2.14	0.59
1:K:390:GLN:HB3	1:K:393:VAL:HG13	1.85	0.59
1:M:332:ARG:HH11	1:M:332:ARG:CG	2.15	0.59
1:M:345:LEU:HD11	1:M:353:ILE:HD13	1.85	0.59
1:M:658:ASP:HB2	1:M:678:ASP:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:147:PRO:HG3	1:C:121:GLN:NE2	2.17	0.59
1:A:879:ARG:HB3	1:A:921:MET:SD	2.42	0.59
1:C:155:MET:HE3	1:C:441:GLN:HE21	1.61	0.59
1:C:1185:PHE:CZ	1:C:1192:LEU:HD11	2.35	0.59
1:E:556:GLY:O	1:E:557:ARG:C	2.41	0.59
1:E:864:VAL:CG2	1:E:885:VAL:HG11	2.32	0.59
1:G:317:CYS:SG	1:G:324:VAL:HG23	2.43	0.59
1:G:1176:HIS:CB	1:G:1218:THR:CG2	2.65	0.59
1:I:174:LEU:HD23	1:I:175:GLU:CA	2.31	0.59
1:I:229:ILE:HG22	1:I:233:ARG:CD	2.28	0.59
1:I:317:CYS:SG	1:I:324:VAL:HG23	2.43	0.59
1:I:748:HIS:HD2	1:I:804:CYS:HB2	1.68	0.59
1:I:921:MET:HA	1:I:1240:ILE:HG13	1.85	0.59
1:I:999:ARG:HG2	1:I:1030:TRP:CD2	2.37	0.59
1:I:1067:VAL:HB	1:I:1081:PHE:HB2	1.84	0.59
1:M:1235:VAL:O	1:M:1235:VAL:CG2	2.49	0.59
1:A:212:PHE:CE2	1:A:230:LEU:CD2	2.85	0.59
1:A:984:ALA:CA	1:A:999:ARG:O	2.47	0.59
1:C:122:ARG:NE	1:C:126:PHE:CZ	2.71	0.59
1:C:251:LEU:HD12	1:C:269:VAL:HG12	1.85	0.59
1:C:265:ARG:NH1	5:C:1301:DTP:O1G	2.35	0.59
1:C:482:TYR:O	1:C:486:PHE:CD1	2.55	0.59
1:C:554:LEU:HD11	1:C:1214:TYR:CZ	2.38	0.59
1:C:1143:ALA:CB	1:C:1183:LEU:CD2	2.80	0.59
1:E:921:MET:HA	1:E:1240:ILE:HG13	1.85	0.59
1:G:864:VAL:CG2	1:G:885:VAL:HG11	2.32	0.59
1:K:122:ARG:NE	1:K:126:PHE:CZ	2.71	0.59
1:K:285:SER:OG	1:K:286:LEU:N	2.34	0.59
1:K:1177:GLY:HA2	1:K:1197:GLY:HA2	1.81	0.59
1:A:554:LEU:HD11	1:A:1214:TYR:CZ	2.38	0.58
1:C:716:LEU:HB2	1:C:730:LEU:HD21	1.84	0.58
1:C:921:MET:HA	1:C:1240:ILE:HG13	1.85	0.58
1:C:1200:LYS:HG3	1:C:1211:GLN:C	2.22	0.58
1:E:317:CYS:SG	1:E:324:VAL:HG23	2.43	0.58
1:E:658:ASP:HB2	1:E:678:ASP:HB2	1.84	0.58
1:E:748:HIS:HD2	1:E:804:CYS:HB2	1.68	0.58
1:E:999:ARG:HG2	1:E:1030:TRP:CD2	2.37	0.58
1:G:138:GLN:HE21	1:G:139:LYS:N	2.01	0.58
1:G:212:PHE:HE2	1:G:230:LEU:HD23	1.67	0.58
1:G:390:GLN:HB3	1:G:393:VAL:HG13	1.85	0.58
1:G:849:SER:HB3	1:G:854:LEU:HB2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:999:ARG:CD	1:G:1030:TRP:CD1	2.76	0.58
1:I:390:GLN:HB3	1:I:393:VAL:HG13	1.85	0.58
1:K:196:LEU:O	1:K:196:LEU:HD12	2.03	0.58
1:M:138:GLN:HE21	1:M:139:LYS:N	2.01	0.58
1:M:231:MET:SD	1:M:258:CYS:SG	2.97	0.58
1:M:265:ARG:NH1	5:M:1301:DTP:O1G	2.35	0.58
1:M:482:TYR:O	1:M:486:PHE:CD1	2.55	0.58
3:R:21:LYS:HD3	3:R:49:GLN:NE2	2.17	0.58
1:A:138:GLN:HG3	3:W:61:LEU:O	2.04	0.58
1:A:251:LEU:HD12	1:A:269:VAL:HG12	1.85	0.58
1:A:332:ARG:HH11	1:A:332:ARG:CG	2.14	0.58
1:A:1185:PHE:HE1	1:A:1192:LEU:HD12	1.53	0.58
1:A:1201:TRP:HB2	1:A:1210:SER:C	2.23	0.58
1:C:266:ASP:HB2	1:C:269:VAL:HG23	1.85	0.58
1:E:1237:ASN:O	1:E:1238:LEU:HB2	2.02	0.58
1:G:251:LEU:HD12	1:G:269:VAL:HG12	1.85	0.58
1:I:882:LEU:O	1:I:882:LEU:HD23	2.04	0.58
1:I:1028:GLN:HE21	1:I:1030:TRP:HB2	1.68	0.58
1:I:1201:TRP:HE3	1:I:1210:SER:CB	2.14	0.58
1:K:146:GLU:HG2	1:M:111:ARG:HH11	1.68	0.58
1:K:317:CYS:SG	1:K:324:VAL:HG23	2.43	0.58
1:M:556:GLY:O	1:M:557:ARG:C	2.41	0.58
1:M:1201:TRP:HB2	1:M:1210:SER:C	2.23	0.58
3:Q:19:ASP:CG	4:U:64:THR:HA	2.24	0.58
1:A:109:TYR:CE1	3:P:4:LYS:HB2	2.36	0.58
1:A:556:GLY:O	1:A:557:ARG:C	2.41	0.58
1:A:658:ASP:HB2	1:A:678:ASP:HB2	1.84	0.58
1:A:1220:LEU:CD2	1:A:1234:THR:CB	2.74	0.58
1:E:146:GLU:HG2	1:G:111:ARG:HH11	1.68	0.58
1:E:364:LEU:HD13	1:E:364:LEU:C	2.24	0.58
1:G:122:ARG:NE	1:G:126:PHE:CZ	2.71	0.58
1:G:1237:ASN:O	1:G:1238:LEU:HB2	2.02	0.58
1:I:122:ARG:NE	1:I:126:PHE:CZ	2.71	0.58
1:I:400:LEU:HB3	1:I:404:TRP:HZ3	1.68	0.58
1:I:505:PHE:CE2	1:I:575:GLU:HG2	2.39	0.58
1:I:556:GLY:O	1:I:557:ARG:C	2.41	0.58
1:K:813:ILE:HD12	1:K:826:ILE:HG21	1.85	0.58
1:K:1028:GLN:HE21	1:K:1030:TRP:HB2	1.68	0.58
1:M:390:GLN:HB3	1:M:393:VAL:HG13	1.85	0.58
1:M:999:ARG:HG2	1:M:1030:TRP:CD2	2.37	0.58
1:M:1201:TRP:HE3	1:M:1210:SER:CB	2.14	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S:21:GLN:H	4:S:82:GLN:HE22	1.51	0.58
1:A:111:ARG:NH1	1:M:146:GLU:HG2	2.18	0.58
1:A:400:LEU:HB3	1:A:404:TRP:HZ3	1.68	0.58
1:C:400:LEU:HB3	1:C:404:TRP:HZ3	1.68	0.58
1:C:505:PHE:CE2	1:C:575:GLU:HG2	2.38	0.58
1:C:1028:GLN:HE21	1:C:1030:TRP:HB2	1.68	0.58
7:D:201:HEM:CBC	7:D:201:HEM:HMC1	2.28	0.58
1:E:147:PRO:HG3	1:G:121:GLN:NE2	2.18	0.58
1:E:196:LEU:HD12	1:E:196:LEU:O	2.03	0.58
1:E:505:PHE:CE2	1:E:575:GLU:HG2	2.39	0.58
1:G:1067:VAL:HB	1:G:1081:PHE:HB2	1.84	0.58
1:I:107:THR:HB	1:I:110:VAL:HG23	1.83	0.58
1:I:1200:LYS:CD	1:I:1211:GLN:HB2	2.34	0.58
1:I:1237:ASN:O	1:I:1238:LEU:HB2	2.02	0.58
1:K:322:LEU:HD22	1:K:322:LEU:C	2.20	0.58
1:K:505:PHE:CE2	1:K:575:GLU:HG2	2.39	0.58
1:K:748:HIS:HD2	1:K:804:CYS:HB2	1.68	0.58
1:M:122:ARG:NE	1:M:126:PHE:CZ	2.71	0.58
1:M:821:ILE:HB	1:M:835:ILE:HB	1.83	0.58
1:M:882:LEU:O	1:M:882:LEU:HD23	2.04	0.58
4:S:40:ILE:O	4:S:44:GLN:HG3	2.04	0.58
1:A:146:GLU:HG2	1:C:111:ARG:NH1	2.19	0.58
1:A:333:ASP:CB	1:A:334:PHE:CE1	2.85	0.58
1:A:748:HIS:HD2	1:A:804:CYS:HB2	1.68	0.58
1:A:1176:HIS:CB	1:A:1218:THR:CB	2.74	0.58
1:C:1201:TRP:HB2	1:C:1210:SER:C	2.23	0.58
1:E:345:LEU:HD11	1:E:353:ILE:HD13	1.85	0.58
1:E:1027:ILE:HD11	1:E:1047:VAL:HG11	1.86	0.58
1:G:748:HIS:HD2	1:G:804:CYS:HB2	1.68	0.58
1:G:1201:TRP:HB2	1:G:1210:SER:C	2.23	0.58
3:R:47:PRO:C	4:S:45:ARG:CG	2.66	0.58
4:U:12:CYS:SG	4:U:88:PHE:HE2	2.25	0.58
1:A:345:LEU:HD11	1:A:353:ILE:HD13	1.85	0.58
1:A:821:ILE:HB	1:A:835:ILE:HB	1.84	0.58
1:C:999:ARG:HG2	1:C:1030:TRP:CD2	2.37	0.58
1:C:1027:ILE:HD11	1:C:1047:VAL:HG11	1.86	0.58
1:E:138:GLN:HE21	1:E:139:LYS:N	2.01	0.58
1:E:236:PRO:HG3	3:O:3:ALA:O	2.03	0.58
1:E:251:LEU:HD12	1:E:269:VAL:HG12	1.85	0.58
1:E:561:PRO:HB3	1:E:1214:TYR:HD2	1.59	0.58
1:E:716:LEU:HB2	1:E:730:LEU:HD21	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1201:TRP:HB2	1:E:1210:SER:C	2.23	0.58
1:G:196:LEU:HD12	1:G:196:LEU:O	2.04	0.58
1:G:885:VAL:HG23	1:G:886:HIS:N	2.18	0.58
1:G:1028:GLN:HE21	1:G:1030:TRP:HB2	1.68	0.58
1:G:1185:PHE:CZ	1:G:1192:LEU:HD11	2.35	0.58
1:I:146:GLU:HG2	1:K:111:ARG:HH11	1.68	0.58
1:K:1067:VAL:HB	1:K:1081:PHE:HB2	1.84	0.58
1:K:1200:LYS:CD	1:K:1211:GLN:HB2	2.34	0.58
1:M:1094:SER:HB3	1:M:1135:PHE:CG	2.39	0.58
4:U:13:ARG:CZ	4:U:59:ILE:HD11	2.34	0.58
4:U:40:ILE:O	4:U:44:GLN:HG3	2.04	0.58
1:A:122:ARG:NE	1:A:126:PHE:CZ	2.71	0.58
1:A:212:PHE:HE2	1:A:230:LEU:HD23	1.67	0.58
1:A:237:ARG:HH11	1:A:237:ARG:CG	2.14	0.58
1:A:1136:SER:HA	1:A:1185:PHE:CD2	2.39	0.58
1:A:1185:PHE:O	1:A:1229:PHE:HZ	1.78	0.58
1:A:1220:LEU:CD2	1:A:1234:THR:CG2	2.81	0.58
1:C:138:GLN:HE21	1:C:139:LYS:N	2.02	0.58
1:C:813:ILE:HD12	1:C:826:ILE:HG21	1.85	0.58
1:C:882:LEU:O	1:C:882:LEU:HD23	2.04	0.58
1:C:902:ASP:CB	2:D:72:LYS:HZ2	2.16	0.58
1:C:1094:SER:HB3	1:C:1135:PHE:CG	2.39	0.58
1:C:1136:SER:HA	1:C:1185:PHE:CD2	2.38	0.58
1:E:390:GLN:HB3	1:E:393:VAL:HG13	1.85	0.58
1:E:882:LEU:CD2	1:E:882:LEU:N	2.39	0.58
1:E:882:LEU:O	1:E:882:LEU:HD23	2.03	0.58
1:K:138:GLN:HE21	1:K:139:LYS:N	2.01	0.58
1:M:505:PHE:CE2	1:M:575:GLU:HG2	2.39	0.58
1:M:554:LEU:HD11	1:M:1214:TYR:CZ	2.38	0.58
3:O:58:LYS:O	3:O:62:LYS:HE2	2.04	0.58
3:P:24:TYR:CE2	4:T:38:HIS:HD2	2.22	0.58
3:P:28:HIS:NE2	4:S:14:LEU:CD1	2.66	0.58
4:U:21:GLN:H	4:U:82:GLN:HE22	1.51	0.58
1:A:482:TYR:O	1:A:486:PHE:CD1	2.55	0.58
1:A:1237:ASN:O	1:A:1238:LEU:HB2	2.02	0.58
1:C:849:SER:HB3	1:C:854:LEU:HB2	1.84	0.58
1:C:948:LEU:HD12	1:C:957:ASP:HB3	1.86	0.58
1:C:1233:VAL:HG12	1:C:1243:ILE:HG23	1.86	0.58
1:E:554:LEU:HD11	1:E:1214:TYR:CZ	2.38	0.58
1:G:1220:LEU:CD2	1:G:1234:THR:CG2	2.81	0.58
1:I:138:GLN:HE21	1:I:139:LYS:N	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:189:LYS:O	1:I:190:GLN:OE1	2.22	0.58
1:I:251:LEU:HD12	1:I:269:VAL:HG12	1.85	0.58
1:I:1094:SER:HB3	1:I:1135:PHE:CG	2.39	0.58
1:I:1136:SER:HA	1:I:1185:PHE:CD2	2.39	0.58
1:I:1220:LEU:CD2	1:I:1234:THR:CB	2.74	0.58
1:K:882:LEU:O	1:K:882:LEU:HD23	2.03	0.58
1:K:948:LEU:HD12	1:K:957:ASP:HB3	1.86	0.58
1:M:189:LYS:O	1:M:190:GLN:OE1	2.22	0.58
1:A:1027:ILE:HD11	1:A:1047:VAL:HG11	1.86	0.58
1:A:1094:SER:HB3	1:A:1135:PHE:CG	2.39	0.58
1:C:561:PRO:HB3	1:C:1214:TYR:HD2	1.59	0.58
1:C:1220:LEU:CD2	1:C:1234:THR:CG2	2.81	0.58
1:E:849:SER:HB3	1:E:854:LEU:HB2	1.84	0.58
1:E:946:LEU:HD11	1:E:959:LEU:HD12	1.86	0.58
1:G:146:GLU:HG2	1:I:111:ARG:HH11	1.68	0.58
1:G:364:LEU:HD13	1:G:364:LEU:C	2.24	0.58
1:G:505:PHE:CE2	1:G:575:GLU:HG2	2.39	0.58
1:G:882:LEU:HD23	1:G:882:LEU:O	2.03	0.58
1:I:554:LEU:HD11	1:I:1214:TYR:CZ	2.38	0.58
1:K:189:LYS:O	1:K:190:GLN:OE1	2.22	0.58
1:K:708:THR:HG22	1:K:710:SER:H	1.69	0.58
1:K:1113:SER:H	1:K:1120:LEU:HD13	1.69	0.58
1:K:1136:SER:HA	1:K:1185:PHE:CD2	2.38	0.58
3:Q:14:GLU:O	3:Q:18:LYS:HE2	2.04	0.58
4:V:38:HIS:O	4:V:41:GLU:HG2	2.04	0.58
1:A:364:LEU:HD13	1:A:364:LEU:C	2.23	0.58
1:A:540:VAL:CG1	1:A:575:GLU:HB3	2.33	0.58
1:A:999:ARG:HG2	1:A:1030:TRP:CD2	2.37	0.58
1:C:364:LEU:HD13	1:C:364:LEU:C	2.24	0.58
1:E:1136:SER:HA	1:E:1185:PHE:CD2	2.38	0.58
1:G:876:ALA:CB	1:G:914:VAL:O	2.45	0.58
1:K:984:ALA:CA	1:K:999:ARG:O	2.47	0.58
1:K:1094:SER:HB3	1:K:1135:PHE:CG	2.39	0.58
1:K:1200:LYS:O	1:K:1202:TRP:HZ3	1.81	0.58
1:M:196:LEU:HD12	1:M:196:LEU:O	2.04	0.58
1:M:862:TYR:CE1	1:M:885:VAL:HG12	2.21	0.58
1:M:997:GLN:HG3	1:M:1033:GLN:H	1.69	0.58
1:M:1027:ILE:HD11	1:M:1047:VAL:HG11	1.86	0.58
3:R:21:LYS:HE3	3:R:49:GLN:HE21	1.69	0.58
3:R:32:ASP:C	4:U:11:ARG:NE	2.56	0.58
4:T:40:ILE:O	4:T:44:GLN:HG3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:505:PHE:CE2	1:A:575:GLU:HG2	2.39	0.57
1:A:1233:VAL:HG12	1:A:1243:ILE:HG23	1.86	0.57
1:C:196:LEU:O	1:C:196:LEU:HD12	2.03	0.57
1:E:266:ASP:HB2	1:E:269:VAL:HG23	1.85	0.57
1:E:1213:PHE:CD2	1:E:1214:TYR:N	2.72	0.57
1:G:189:LYS:O	1:G:190:GLN:OE1	2.22	0.57
1:G:813:ILE:HD12	1:G:826:ILE:HG21	1.85	0.57
1:G:1094:SER:HB3	1:G:1135:PHE:CG	2.39	0.57
1:I:179:PRO:CD	1:I:237:ARG:HH12	2.15	0.57
1:I:196:LEU:HD12	1:I:196:LEU:O	2.03	0.57
1:I:885:VAL:HG23	1:I:886:HIS:N	2.18	0.57
1:I:1233:VAL:HG12	1:I:1243:ILE:HG23	1.86	0.57
1:K:251:LEU:HD12	1:K:269:VAL:HG12	1.85	0.57
1:K:360:ASP:C	1:K:361:TYR:CD1	2.78	0.57
1:K:1201:TRP:HB2	1:K:1210:SER:C	2.23	0.57
1:K:1220:LEU:CD2	1:K:1234:THR:CG2	2.81	0.57
1:M:364:LEU:HD13	1:M:364:LEU:C	2.24	0.57
1:M:520:ALA:HB2	1:M:647:GLY:O	2.04	0.57
1:M:882:LEU:CD2	1:M:882:LEU:N	2.39	0.57
1:M:1220:LEU:CD2	1:M:1234:THR:CG2	2.81	0.57
1:A:138:GLN:HE21	1:A:139:LYS:N	2.01	0.57
1:A:882:LEU:O	1:A:882:LEU:HD23	2.04	0.57
1:A:921:MET:HA	1:A:1240:ILE:HG13	1.85	0.57
1:C:540:VAL:CG1	1:C:575:GLU:HB3	2.34	0.57
1:C:657:GLU:O	1:C:658:ASP:HB2	2.04	0.57
1:C:748:HIS:HD2	1:C:804:CYS:HB2	1.68	0.57
1:E:229:ILE:HG22	1:E:233:ARG:CD	2.28	0.57
1:G:360:ASP:C	1:G:361:TYR:CD1	2.78	0.57
1:G:948:LEU:HD12	1:G:957:ASP:HB3	1.86	0.57
1:I:904:GLN:HE22	1:I:1174:ALA:HA	1.69	0.57
1:I:948:LEU:HD12	1:I:957:ASP:HB3	1.86	0.57
1:K:554:LEU:HD11	1:K:1214:TYR:CZ	2.38	0.57
1:K:921:MET:HA	1:K:1240:ILE:HG13	1.85	0.57
1:M:206:LEU:HD21	1:M:235:HIS:CD2	2.39	0.57
1:A:657:GLU:O	1:A:658:ASP:HB2	2.04	0.57
1:C:333:ASP:CB	1:C:334:PHE:CE1	2.85	0.57
1:C:334:PHE:CD1	1:C:334:PHE:N	2.73	0.57
1:C:334:PHE:HB3	1:C:337:ARG:HG2	1.86	0.57
1:C:345:LEU:HD11	1:C:353:ILE:HD13	1.85	0.57
1:C:902:ASP:CB	2:D:72:LYS:NZ	2.67	0.57
1:E:360:ASP:C	1:E:361:TYR:CD1	2.78	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:904:GLN:HE22	1:E:1174:ALA:HA	1.69	0.57
1:E:1094:SER:HB3	1:E:1135:PHE:CG	2.39	0.57
1:E:1220:LEU:CD2	1:E:1234:THR:CG2	2.81	0.57
1:G:596:GLU:HB2	1:G:1245:GLN:O	2.05	0.57
1:G:997:GLN:HG3	1:G:1033:GLN:H	1.69	0.57
1:G:1027:ILE:HD11	1:G:1047:VAL:HG11	1.86	0.57
1:G:1136:SER:HA	1:G:1185:PHE:CD2	2.39	0.57
1:I:596:GLU:HB2	1:I:1245:GLN:O	2.04	0.57
1:K:603:ILE:HD13	1:K:1240:ILE:HG21	1.87	0.57
1:K:885:VAL:HG23	1:K:886:HIS:N	2.18	0.57
1:K:1213:PHE:CD2	1:K:1214:TYR:N	2.73	0.57
1:M:317:CYS:SG	1:M:324:VAL:HG23	2.43	0.57
1:A:316:GLU:O	1:A:318:LYS:CG	2.50	0.57
1:A:708:THR:HG22	1:A:710:SER:H	1.69	0.57
1:C:140:LEU:O	1:C:143:LEU:CD2	2.53	0.57
1:C:146:GLU:HG2	1:E:111:ARG:NH1	2.19	0.57
1:C:360:ASP:C	1:C:361:TYR:CD1	2.78	0.57
1:C:1008:HIS:CE1	1:C:1010:GLN:HB2	2.40	0.57
1:C:1113:SER:H	1:C:1120:LEU:HD13	1.69	0.57
1:E:136:ILE:O	1:E:140:LEU:N	2.33	0.57
1:E:678:ASP:OD2	1:E:680:LYS:HG3	2.05	0.57
1:E:1113:SER:H	1:E:1120:LEU:HD13	1.69	0.57
1:G:206:LEU:HD21	1:G:235:HIS:CD2	2.40	0.57
1:G:902:ASP:CB	2:H:72:LYS:HZ2	2.17	0.57
1:G:904:GLN:HE22	1:G:1174:ALA:HA	1.69	0.57
1:G:1177:GLY:CA	1:G:1197:GLY:HA3	2.27	0.57
1:I:813:ILE:HD12	1:I:826:ILE:HG21	1.85	0.57
1:I:1181:THR:HG22	1:I:1182:ASP:HB2	1.86	0.57
1:I:1213:PHE:HE2	1:I:1215:THR:HG22	1.69	0.57
1:K:364:LEU:HD13	1:K:364:LEU:C	2.24	0.57
1:K:1149:GLY:CA	1:K:1180:VAL:CG2	2.78	0.57
1:M:904:GLN:HE22	1:M:1174:ALA:HA	1.69	0.57
1:M:931:GLN:O	1:M:931:GLN:HG3	2.04	0.57
1:M:1136:SER:HA	1:M:1185:PHE:CD2	2.38	0.57
1:M:1200:LYS:CA	1:M:1202:TRP:CZ3	2.88	0.57
1:A:278:TYR:N	1:A:278:TYR:CD1	2.73	0.57
1:A:596:GLU:HB2	1:A:1245:GLN:O	2.05	0.57
1:A:904:GLN:HE22	1:A:1174:ALA:HA	1.69	0.57
1:C:946:LEU:HD11	1:C:959:LEU:HD12	1.86	0.57
1:C:1218:THR:HG22	1:C:1219:ASN:N	2.19	0.57
1:G:554:LEU:HD11	1:G:1214:TYR:CZ	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:946:LEU:HD11	1:G:959:LEU:HD12	1.86	0.57
1:G:1213:PHE:HE2	1:G:1215:THR:HG22	1.69	0.57
1:G:1233:VAL:HG12	1:G:1243:ILE:HG23	1.86	0.57
1:I:364:LEU:HD13	1:I:364:LEU:C	2.24	0.57
1:I:708:THR:HG22	1:I:710:SER:H	1.69	0.57
1:K:206:LEU:HD21	1:K:235:HIS:CD2	2.39	0.57
1:K:997:GLN:HG3	1:K:1033:GLN:H	1.70	0.57
1:K:1181:THR:HG22	1:K:1182:ASP:HB2	1.87	0.57
1:M:251:LEU:HD12	1:M:269:VAL:HG12	1.85	0.57
1:M:360:ASP:C	1:M:361:TYR:CD1	2.78	0.57
3:P:4:LYS:HB3	3:P:4:LYS:HZ2	1.69	0.57
3:R:14:GLU:O	3:R:18:LYS:HE2	2.04	0.57
3:R:79:GLY:O	4:V:65:ARG:NH2	2.37	0.57
4:V:40:ILE:O	4:V:44:GLN:HG3	2.04	0.57
1:A:171:HIS:NE2	1:A:175:GLU:CG	2.66	0.57
1:A:334:PHE:HB3	1:A:337:ARG:HG2	1.87	0.57
1:A:390:GLN:HB3	1:A:393:VAL:HG13	1.85	0.57
1:A:603:ILE:HB	1:A:1240:ILE:HG21	1.87	0.57
1:A:876:ALA:CB	1:A:914:VAL:O	2.45	0.57
1:A:885:VAL:HG23	1:A:886:HIS:N	2.18	0.57
1:A:931:GLN:O	1:A:931:GLN:HG3	2.05	0.57
1:A:948:LEU:HD12	1:A:957:ASP:HB3	1.86	0.57
1:C:146:GLU:CG	1:E:111:ARG:HH11	2.15	0.57
1:C:189:LYS:O	1:C:190:GLN:OE1	2.22	0.57
1:E:278:TYR:N	1:E:278:TYR:CD1	2.73	0.57
1:E:813:ILE:HD12	1:E:826:ILE:HG21	1.85	0.57
1:E:948:LEU:HD12	1:E:957:ASP:HB3	1.86	0.57
1:E:1181:THR:HG22	1:E:1182:ASP:HB2	1.86	0.57
1:G:208:GLN:NE2	3:O:62:LYS:HD3	2.16	0.57
1:G:1200:LYS:CA	1:G:1202:TRP:CZ3	2.88	0.57
1:I:360:ASP:C	1:I:361:TYR:CD1	2.78	0.57
1:I:902:ASP:CB	2:J:72:LYS:NZ	2.67	0.57
1:I:1220:LEU:CD2	1:I:1234:THR:CG2	2.81	0.57
1:K:278:TYR:N	1:K:278:TYR:CD1	2.73	0.57
1:M:316:GLU:O	1:M:318:LYS:CG	2.50	0.57
1:M:1028:GLN:HE21	1:M:1030:TRP:HB2	1.68	0.57
1:M:1200:LYS:CD	1:M:1211:GLN:HB2	2.34	0.57
3:O:14:GLU:O	3:O:18:LYS:HE2	2.04	0.57
1:A:196:LEU:HD12	1:A:196:LEU:O	2.04	0.57
1:A:997:GLN:HG3	1:A:1033:GLN:H	1.69	0.57
1:A:1113:SER:H	1:A:1120:LEU:HD13	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1213:PHE:CD2	1:A:1214:TYR:N	2.73	0.57
1:C:136:ILE:O	1:C:140:LEU:N	2.33	0.57
1:C:151:THR:HB	1:C:279:VAL:HG12	1.87	0.57
1:E:334:PHE:HB3	1:E:337:ARG:HG2	1.86	0.57
1:E:400:LEU:HB3	1:E:404:TRP:HZ3	1.68	0.57
1:G:1181:THR:HG22	1:G:1182:ASP:HB2	1.87	0.57
1:I:334:PHE:HB3	1:I:337:ARG:HG2	1.87	0.57
1:I:1008:HIS:CE1	1:I:1010:GLN:HB2	2.40	0.57
1:I:1201:TRP:HB2	1:I:1210:SER:C	2.24	0.57
1:K:596:GLU:HB2	1:K:1245:GLN:O	2.05	0.57
1:K:1200:LYS:CA	1:K:1202:TRP:CZ3	2.88	0.57
1:M:140:LEU:O	1:M:143:LEU:CD2	2.53	0.57
1:M:603:ILE:HB	1:M:1240:ILE:HG21	1.87	0.57
3:Q:80:TYR:CE1	4:U:65:ARG:NH1	2.73	0.57
1:A:231:MET:SD	1:A:258:CYS:SG	2.97	0.57
1:A:360:ASP:C	1:A:361:TYR:CD1	2.78	0.57
1:A:400:LEU:HB3	1:A:404:TRP:CZ3	2.40	0.57
1:A:520:ALA:HB2	1:A:647:GLY:O	2.05	0.57
1:C:609:LEU:HB3	1:C:908:LEU:HB3	1.87	0.57
1:E:140:LEU:O	1:E:143:LEU:CD2	2.53	0.57
1:E:151:THR:HB	1:E:279:VAL:HG12	1.87	0.57
1:E:233:ARG:NH1	3:O:6:ARG:HH12	2.02	0.57
1:E:1200:LYS:CA	1:E:1202:TRP:CZ3	2.88	0.57
1:G:140:LEU:O	1:G:143:LEU:CD2	2.53	0.57
1:G:902:ASP:CB	2:H:72:LYS:NZ	2.68	0.57
1:I:997:GLN:HG3	1:I:1033:GLN:H	1.69	0.57
1:I:1213:PHE:CD2	1:I:1214:TYR:N	2.73	0.57
1:K:883:SER:OG	1:K:902:ASP:CA	2.53	0.57
1:K:1176:HIS:CB	1:K:1218:THR:CB	2.79	0.57
1:M:603:ILE:HD13	1:M:1240:ILE:HG21	1.87	0.57
1:M:883:SER:OG	1:M:902:ASP:CA	2.53	0.57
1:M:921:MET:HA	1:M:1240:ILE:HG13	1.85	0.57
1:M:1113:SER:H	1:M:1120:LEU:HD13	1.69	0.57
1:M:1247:LEU:CD1	1:M:1248:GLU:H	2.14	0.57
3:P:27:ASP:HA	4:S:13:ARG:CG	2.33	0.57
4:V:36:ARG:HH11	4:V:37:PRO:CB	2.18	0.57
1:A:206:LEU:HD21	1:A:235:HIS:CD2	2.39	0.57
1:A:1220:LEU:HA	1:A:1236:ASP:HB3	1.87	0.57
1:C:171:HIS:NE2	1:C:175:GLU:CG	2.66	0.57
1:C:206:LEU:HD21	1:C:235:HIS:CD2	2.39	0.57
1:C:708:THR:HG22	1:C:710:SER:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1187:PRO:HG2	1:C:1229:PHE:HB3	1.87	0.57
1:E:295:LEU:O	1:E:299:VAL:HG22	2.05	0.57
1:E:334:PHE:CD1	1:E:334:PHE:N	2.73	0.57
1:E:520:ALA:HB2	1:E:647:GLY:O	2.05	0.57
1:E:657:GLU:O	1:E:658:ASP:HB2	2.04	0.57
1:E:997:GLN:HG3	1:E:1033:GLN:H	1.70	0.57
1:G:334:PHE:CD1	1:G:334:PHE:N	2.73	0.57
1:G:1213:PHE:CD2	1:G:1214:TYR:N	2.73	0.57
1:I:295:LEU:O	1:I:299:VAL:HG22	2.05	0.57
1:I:883:SER:OG	1:I:902:ASP:CA	2.53	0.57
1:K:146:GLU:HG2	1:M:111:ARG:NH1	2.19	0.57
1:K:176:GLY:HA3	3:Q:3:ALA:HB1	1.87	0.57
1:K:334:PHE:HB3	1:K:337:ARG:HG2	1.87	0.57
1:K:520:ALA:HB2	1:K:647:GLY:O	2.05	0.57
1:K:1233:VAL:HG12	1:K:1243:ILE:HG23	1.86	0.57
1:M:902:ASP:CB	2:N:72:LYS:NZ	2.67	0.57
3:O:24:TYR:HE2	4:S:38:HIS:C	2.07	0.57
3:P:14:GLU:O	3:P:18:LYS:HE2	2.04	0.57
3:Q:7:ASN:C	3:Q:7:ASN:HD22	2.07	0.57
1:A:179:PRO:CD	1:A:237:ARG:HH12	2.15	0.57
1:A:525:GLU:O	1:A:528:GLU:HG2	2.05	0.57
1:A:639:LEU:H	1:A:653:ILE:HG23	1.70	0.57
1:C:241:ILE:O	1:C:242:LEU:HD12	2.05	0.57
1:C:603:ILE:HB	1:C:1240:ILE:HG21	1.87	0.57
1:E:189:LYS:O	1:E:190:GLN:OE1	2.22	0.57
1:E:596:GLU:HB2	1:E:1245:GLN:O	2.05	0.57
1:E:603:ILE:HD13	1:E:1240:ILE:HG21	1.87	0.57
1:E:609:LEU:HB3	1:E:908:LEU:HB3	1.87	0.57
1:G:525:GLU:O	1:G:528:GLU:HG2	2.05	0.57
1:G:657:GLU:O	1:G:658:ASP:HB2	2.04	0.57
1:G:678:ASP:OD2	1:G:680:LYS:HG3	2.05	0.57
1:G:708:THR:HG22	1:G:710:SER:H	1.69	0.57
1:I:1200:LYS:CA	1:I:1202:TRP:CZ3	2.88	0.57
1:K:1008:HIS:CE1	1:K:1010:GLN:HB2	2.40	0.57
1:M:151:THR:HB	1:M:279:VAL:HG12	1.87	0.57
1:M:928:VAL:CG1	1:M:937:VAL:HA	2.28	0.57
4:T:21:GLN:H	4:T:82:GLN:HE22	1.51	0.57
4:V:21:GLN:H	4:V:82:GLN:HE22	1.51	0.57
1:A:151:THR:HB	1:A:279:VAL:HG12	1.87	0.56
1:A:172:SER:OG	3:W:3:ALA:HB3	2.04	0.56
1:A:946:LEU:HD11	1:A:959:LEU:HD12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1185:PHE:CZ	1:A:1192:LEU:HD11	2.35	0.56
1:A:1187:PRO:HG2	1:A:1229:PHE:HB3	1.87	0.56
1:A:1218:THR:HG22	1:A:1219:ASN:N	2.19	0.56
1:C:390:GLN:HB3	1:C:393:VAL:HG13	1.85	0.56
1:C:997:GLN:HG3	1:C:1033:GLN:H	1.70	0.56
1:C:1213:PHE:CD2	1:C:1214:TYR:N	2.72	0.56
1:C:1220:LEU:HA	1:C:1236:ASP:HB3	1.87	0.56
1:E:708:THR:HG22	1:E:710:SER:H	1.69	0.56
1:E:902:ASP:CB	2:F:72:LYS:NZ	2.67	0.56
1:E:1218:THR:HG22	1:E:1219:ASN:N	2.19	0.56
1:E:1233:VAL:HG12	1:E:1243:ILE:HG23	1.86	0.56
1:G:1113:SER:H	1:G:1120:LEU:HD13	1.69	0.56
1:G:1200:LYS:CD	1:G:1211:GLN:HB2	2.33	0.56
1:I:333:ASP:CB	1:I:334:PHE:CE1	2.85	0.56
1:I:603:ILE:HD13	1:I:1240:ILE:HG21	1.87	0.56
1:I:639:LEU:N	1:I:653:ILE:HG21	2.18	0.56
1:I:678:ASP:OD2	1:I:680:LYS:HG3	2.05	0.56
1:K:1027:ILE:HD11	1:K:1047:VAL:HG11	1.86	0.56
1:K:1201:TRP:HE3	1:K:1210:SER:CB	2.14	0.56
1:M:748:HIS:HD2	1:M:804:CYS:HB2	1.68	0.56
1:M:1213:PHE:CD2	1:M:1214:TYR:N	2.72	0.56
3:Q:19:ASP:HB3	4:U:64:THR:HB	1.87	0.56
1:A:241:ILE:O	1:A:242:LEU:HD12	2.05	0.56
1:C:179:PRO:HD3	1:C:237:ARG:NH1	2.15	0.56
1:C:564:VAL:CG1	1:C:583:GLN:HG2	2.35	0.56
1:C:603:ILE:HD13	1:C:1240:ILE:HG21	1.87	0.56
1:C:904:GLN:HE22	1:C:1174:ALA:HA	1.69	0.56
1:C:1092:ASP:HB2	1:C:1133:SER:O	2.05	0.56
1:E:597:TRP:HZ2	1:E:603:ILE:HG12	1.71	0.56
1:I:140:LEU:O	1:I:143:LEU:CD2	2.53	0.56
1:I:984:ALA:CA	1:I:999:ARG:O	2.47	0.56
1:I:1182:ASP:C	1:I:1183:LEU:HD12	2.26	0.56
7:J:201:HEM:CBC	7:J:201:HEM:HMC1	2.28	0.56
1:K:140:LEU:O	1:K:143:LEU:CD2	2.53	0.56
1:K:237:ARG:HH11	1:K:237:ARG:CG	2.14	0.56
1:K:931:GLN:O	1:K:931:GLN:HG3	2.05	0.56
1:K:946:LEU:HD11	1:K:959:LEU:HD12	1.86	0.56
1:K:1187:PRO:HG2	1:K:1229:PHE:HB3	1.87	0.56
1:K:1213:PHE:CE2	1:K:1215:THR:HA	2.40	0.56
1:K:1213:PHE:HE2	1:K:1215:THR:HG22	1.69	0.56
1:M:885:VAL:HG23	1:M:886:HIS:N	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:946:LEU:HD11	1:M:959:LEU:HD12	1.86	0.56
1:M:1182:ASP:C	1:M:1183:LEU:HD12	2.26	0.56
1:M:1233:VAL:HG12	1:M:1243:ILE:HG23	1.86	0.56
1:A:189:LYS:O	1:A:190:GLN:OE1	2.22	0.56
1:A:295:LEU:O	1:A:299:VAL:HG22	2.05	0.56
1:A:334:PHE:CD1	1:A:334:PHE:N	2.73	0.56
1:A:1092:ASP:HB2	1:A:1133:SER:O	2.05	0.56
1:C:564:VAL:CG1	1:C:583:GLN:HG3	2.35	0.56
1:C:678:ASP:OD2	1:C:680:LYS:HG3	2.05	0.56
1:C:931:GLN:O	1:C:931:GLN:HG3	2.05	0.56
1:C:970:SER:OG	1:C:973:LEU:O	2.24	0.56
1:C:984:ALA:CA	1:C:999:ARG:O	2.47	0.56
1:C:1213:PHE:CE2	1:C:1215:THR:HA	2.41	0.56
1:E:237:ARG:NH1	1:E:237:ARG:HG2	2.19	0.56
1:E:1008:HIS:CE1	1:E:1010:GLN:HB2	2.40	0.56
1:E:1092:ASP:HB2	1:E:1133:SER:O	2.05	0.56
1:G:400:LEU:HB3	1:G:404:TRP:CZ3	2.40	0.56
1:G:597:TRP:HZ2	1:G:603:ILE:HG12	1.71	0.56
1:G:1008:HIS:CE1	1:G:1010:GLN:HB2	2.40	0.56
1:G:1046:THR:O	1:G:1062:SER:HB2	2.05	0.56
1:I:278:TYR:N	1:I:278:TYR:CD1	2.73	0.56
1:I:615:THR:O	1:I:904:GLN:OE1	2.23	0.56
1:I:970:SER:OG	1:I:973:LEU:O	2.24	0.56
1:I:1027:ILE:HD11	1:I:1047:VAL:HG11	1.86	0.56
1:I:1113:SER:H	1:I:1120:LEU:HD13	1.69	0.56
1:K:595:LEU:CD2	1:K:1244:LEU:CD1	2.48	0.56
1:K:639:LEU:H	1:K:653:ILE:HG23	1.70	0.56
1:K:657:GLU:O	1:K:658:ASP:HB2	2.04	0.56
1:K:678:ASP:OD2	1:K:680:LYS:HG3	2.05	0.56
1:K:902:ASP:CB	2:L:72:LYS:NZ	2.67	0.56
1:K:1046:THR:O	1:K:1062:SER:HB2	2.05	0.56
1:K:1216:ASN:HB3	1:K:1242:TYR:OH	2.05	0.56
1:M:400:LEU:HB3	1:M:404:TRP:HZ3	1.68	0.56
1:M:525:GLU:O	1:M:528:GLU:HG2	2.05	0.56
1:M:540:VAL:CG1	1:M:575:GLU:HB3	2.34	0.56
1:M:596:GLU:HB2	1:M:1245:GLN:O	2.05	0.56
1:M:948:LEU:HD12	1:M:957:ASP:HB3	1.86	0.56
1:A:140:LEU:O	1:A:143:LEU:CD2	2.53	0.56
1:A:1030:TRP:HD1	1:A:1037:CYS:HG	1.54	0.56
1:A:1200:LYS:CA	1:A:1202:TRP:CZ3	2.88	0.56
1:A:1213:PHE:CE2	1:A:1215:THR:HA	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:596:GLU:HB2	1:C:1245:GLN:O	2.04	0.56
1:C:1030:TRP:HD1	1:C:1037:CYS:HG	1.54	0.56
1:E:788:LEU:HG	1:E:790:LEU:HG	1.88	0.56
1:G:278:TYR:N	1:G:278:TYR:CD1	2.73	0.56
1:G:520:ALA:HB2	1:G:647:GLY:O	2.05	0.56
1:G:609:LEU:HB3	1:G:908:LEU:HB3	1.87	0.56
1:G:639:LEU:N	1:G:653:ILE:HG21	2.18	0.56
1:I:946:LEU:HD11	1:I:959:LEU:HD12	1.86	0.56
1:I:1218:THR:HG22	1:I:1219:ASN:N	2.20	0.56
1:K:241:ILE:O	1:K:242:LEU:HD12	2.05	0.56
1:K:603:ILE:HB	1:K:1240:ILE:HG21	1.87	0.56
1:M:278:TYR:N	1:M:278:TYR:CD1	2.73	0.56
1:M:1187:PRO:HG2	1:M:1229:PHE:HB3	1.87	0.56
4:U:15:ARG:CD	4:U:88:PHE:CD2	2.89	0.56
1:A:639:LEU:N	1:A:653:ILE:HG21	2.18	0.56
1:A:1151:ILE:CG1	1:A:1167:PRO:HG2	2.36	0.56
1:A:1182:ASP:C	1:A:1183:LEU:HD12	2.26	0.56
1:A:1201:TRP:HE3	1:A:1210:SER:CB	2.14	0.56
1:A:1233:VAL:CB	1:A:1242:TYR:O	2.54	0.56
1:C:1216:ASN:HB3	1:C:1242:TYR:OH	2.05	0.56
1:E:241:ILE:O	1:E:242:LEU:HD12	2.05	0.56
1:E:540:VAL:CG1	1:E:575:GLU:HB3	2.34	0.56
1:E:564:VAL:CG1	1:E:583:GLN:HG2	2.36	0.56
1:E:1213:PHE:O	1:E:1214:TYR:CB	2.49	0.56
1:G:1182:ASP:C	1:G:1183:LEU:HD12	2.26	0.56
1:I:136:ILE:O	1:I:140:LEU:N	2.33	0.56
1:I:597:TRP:HZ2	1:I:603:ILE:HG12	1.70	0.56
1:I:1176:HIS:CB	1:I:1218:THR:CB	2.78	0.56
1:K:333:ASP:CB	1:K:334:PHE:CE1	2.85	0.56
1:M:241:ILE:O	1:M:242:LEU:HD12	2.05	0.56
1:M:295:LEU:O	1:M:299:VAL:HG22	2.05	0.56
1:M:543:ASN:CG	1:M:574:SER:HB2	2.26	0.56
1:M:636:ASP:C	1:M:637:LYS:CG	2.74	0.56
1:M:708:THR:HG22	1:M:710:SER:H	1.69	0.56
1:M:788:LEU:HG	1:M:790:LEU:HG	1.88	0.56
1:M:1213:PHE:HE2	1:M:1215:THR:HG22	1.69	0.56
1:M:1218:THR:HG22	1:M:1219:ASN:N	2.20	0.56
1:A:149:TRP:HZ3	1:A:251:LEU:HD22	1.70	0.56
1:A:636:ASP:C	1:A:637:LYS:CG	2.74	0.56
1:A:999:ARG:CD	1:A:1030:TRP:CD1	2.76	0.56
1:A:1008:HIS:CE1	1:A:1010:GLN:HB2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1200:LYS:CD	1:A:1211:GLN:HB2	2.34	0.56
1:A:1216:ASN:HB3	1:A:1242:TYR:OH	2.06	0.56
1:A:1240:ILE:HG22	1:A:1242:TYR:CE1	2.41	0.56
1:C:278:TYR:N	1:C:278:TYR:CD1	2.73	0.56
1:C:316:GLU:O	1:C:318:LYS:CG	2.50	0.56
1:C:520:ALA:HB2	1:C:647:GLY:O	2.05	0.56
1:E:564:VAL:CG1	1:E:583:GLN:HG3	2.35	0.56
1:E:1177:GLY:O	1:E:1178:GLY:C	2.44	0.56
1:E:1213:PHE:CE2	1:E:1215:THR:HA	2.40	0.56
1:E:1220:LEU:HA	1:E:1236:ASP:HB3	1.88	0.56
1:G:149:TRP:HZ3	1:G:251:LEU:HD22	1.70	0.56
1:G:1213:PHE:CE2	1:G:1215:THR:HA	2.40	0.56
1:I:121:GLN:HA	1:I:169:ARG:HH22	1.71	0.56
1:I:206:LEU:HD21	1:I:235:HIS:CD2	2.40	0.56
1:I:241:ILE:O	1:I:242:LEU:HD12	2.05	0.56
1:I:334:PHE:CD1	1:I:334:PHE:N	2.73	0.56
1:I:657:GLU:O	1:I:658:ASP:HB2	2.05	0.56
1:I:931:GLN:O	1:I:931:GLN:HG3	2.05	0.56
1:M:1046:THR:O	1:M:1062:SER:HB2	2.05	0.56
1:M:1181:THR:HG22	1:M:1182:ASP:HB2	1.86	0.56
3:P:4:LYS:CB	3:P:4:LYS:HZ2	2.19	0.56
4:V:2:ASP:O	4:V:6:ARG:CG	2.47	0.56
1:A:249:TRP:O	1:A:252:LYS:HB2	2.06	0.56
1:A:1046:THR:O	1:A:1062:SER:HB2	2.05	0.56
1:A:1181:THR:HG22	1:A:1182:ASP:HB2	1.87	0.56
1:C:862:TYR:HA	1:C:885:VAL:CG1	2.36	0.56
1:C:1151:ILE:CG1	1:C:1167:PRO:HG2	2.36	0.56
1:C:1182:ASP:C	1:C:1183:LEU:HD12	2.26	0.56
1:C:1200:LYS:CA	1:C:1202:TRP:CZ3	2.88	0.56
1:C:1240:ILE:HG22	1:C:1242:TYR:CE1	2.41	0.56
1:E:603:ILE:HB	1:E:1240:ILE:HG21	1.87	0.56
1:E:944:ARG:NE	1:E:961:GLU:O	2.39	0.56
1:E:984:ALA:CA	1:E:999:ARG:O	2.47	0.56
1:G:231:MET:SD	1:G:258:CYS:SG	2.97	0.56
1:I:400:LEU:HB3	1:I:404:TRP:CZ3	2.40	0.56
1:I:1213:PHE:CE2	1:I:1215:THR:HA	2.40	0.56
1:I:1240:ILE:HG22	1:I:1242:TYR:CE1	2.41	0.56
1:K:143:LEU:HG	1:K:259:GLN:NE2	2.21	0.56
1:K:151:THR:HB	1:K:279:VAL:HG12	1.87	0.56
1:K:419:VAL:HG22	1:K:424:LEU:O	2.06	0.56
1:K:615:THR:O	1:K:904:GLN:OE1	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:639:LEU:N	1:K:653:ILE:HG21	2.18	0.56
1:M:609:LEU:HB3	1:M:908:LEU:HB3	1.87	0.56
1:M:1008:HIS:CE1	1:M:1010:GLN:HB2	2.40	0.56
1:M:1213:PHE:CE2	1:M:1215:THR:HA	2.40	0.56
3:Q:24:TYR:CD2	3:Q:78:GLU:OE1	2.59	0.56
1:A:121:GLN:OE1	1:M:147:PRO:HG3	2.06	0.56
1:A:543:ASN:CG	1:A:574:SER:HB2	2.26	0.56
1:A:564:VAL:CG1	1:A:583:GLN:HG3	2.35	0.56
1:A:788:LEU:HG	1:A:790:LEU:HG	1.88	0.56
1:A:883:SER:OG	1:A:902:ASP:CA	2.53	0.56
1:A:1177:GLY:O	1:A:1178:GLY:C	2.44	0.56
1:C:149:TRP:HZ3	1:C:251:LEU:HD22	1.70	0.56
1:C:295:LEU:O	1:C:299:VAL:HG22	2.05	0.56
1:C:400:LEU:HB3	1:C:404:TRP:CZ3	2.40	0.56
1:C:419:VAL:HG22	1:C:424:LEU:O	2.06	0.56
1:C:883:SER:OG	1:C:902:ASP:CA	2.53	0.56
1:C:1046:THR:O	1:C:1062:SER:HB2	2.05	0.56
1:C:1181:THR:HG22	1:C:1182:ASP:HB2	1.86	0.56
1:E:249:TRP:O	1:E:252:LYS:HB2	2.06	0.56
1:E:1046:THR:O	1:E:1062:SER:HB2	2.05	0.56
1:G:121:GLN:HA	1:G:169:ARG:HH22	1.71	0.56
1:G:170:ASP:OD1	1:G:171:HIS:N	2.39	0.56
1:G:482:TYR:O	1:G:486:PHE:CD1	2.55	0.56
1:G:564:VAL:CG1	1:G:583:GLN:HG3	2.35	0.56
1:G:603:ILE:HB	1:G:1240:ILE:HG21	1.87	0.56
1:G:788:LEU:HG	1:G:790:LEU:HG	1.88	0.56
1:G:1092:ASP:HB2	1:G:1133:SER:O	2.05	0.56
1:I:1233:VAL:HG11	1:I:1243:ILE:CG1	2.29	0.56
1:K:316:GLU:O	1:K:318:LYS:CG	2.50	0.56
1:K:904:GLN:HE22	1:K:1174:ALA:HA	1.69	0.56
1:K:1182:ASP:C	1:K:1183:LEU:HD12	2.26	0.56
1:M:334:PHE:CD1	1:M:334:PHE:N	2.73	0.56
1:M:678:ASP:OD2	1:M:680:LYS:HG3	2.05	0.56
3:P:30:ILE:HG22	4:S:10:ARG:O	2.06	0.56
1:C:121:GLN:HA	1:C:169:ARG:HH22	1.71	0.56
1:C:639:LEU:N	1:C:653:ILE:HG21	2.18	0.56
1:E:147:PRO:HG3	1:G:121:GLN:OE1	2.06	0.56
1:E:345:LEU:HD11	1:E:353:ILE:CD1	2.36	0.56
1:E:400:LEU:HB3	1:E:404:TRP:CZ3	2.40	0.56
1:E:862:TYR:HA	1:E:885:VAL:CG1	2.36	0.56
1:E:1182:ASP:C	1:E:1183:LEU:HD12	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1213:PHE:HE2	1:E:1215:THR:HG22	1.69	0.56
1:G:249:TRP:O	1:G:252:LYS:HB2	2.06	0.56
1:G:334:PHE:HB3	1:G:337:ARG:HG2	1.87	0.56
1:G:883:SER:OG	1:G:902:ASP:CA	2.53	0.56
1:G:1233:VAL:HG11	1:G:1243:ILE:CG1	2.28	0.56
1:I:170:ASP:OD1	1:I:171:HIS:N	2.39	0.56
1:I:171:HIS:NE2	1:I:175:GLU:CG	2.66	0.56
1:I:482:TYR:O	1:I:486:PHE:CD1	2.55	0.56
1:K:231:MET:SD	1:K:258:CYS:SG	2.97	0.56
1:K:1092:ASP:HB2	1:K:1133:SER:O	2.05	0.56
4:S:27:ASP:OD2	4:V:13:ARG:CG	2.53	0.56
4:V:36:ARG:HH11	4:V:37:PRO:CG	2.19	0.56
1:A:564:VAL:CG1	1:A:583:GLN:HG2	2.35	0.56
1:A:595:LEU:CD1	1:A:1244:LEU:HD13	2.36	0.56
1:A:1046:THR:CG2	1:A:1063:PHE:CE2	2.89	0.56
1:G:564:VAL:CG1	1:G:583:GLN:HG2	2.36	0.56
1:G:931:GLN:O	1:G:931:GLN:HG3	2.05	0.56
1:G:1017:THR:HG21	1:G:1073:ILE:HG12	1.88	0.56
1:I:525:GLU:O	1:I:528:GLU:HG2	2.05	0.56
1:I:603:ILE:HB	1:I:1240:ILE:HG21	1.87	0.56
1:I:609:LEU:HB3	1:I:908:LEU:HB3	1.87	0.56
1:I:1017:THR:HG21	1:I:1073:ILE:HG12	1.88	0.56
1:K:400:LEU:HB3	1:K:404:TRP:CZ3	2.40	0.56
1:K:543:ASN:CG	1:K:574:SER:HB2	2.26	0.56
1:K:788:LEU:HG	1:K:790:LEU:HG	1.88	0.56
1:K:970:SER:OG	1:K:973:LEU:O	2.24	0.56
1:K:1046:THR:CG2	1:K:1063:PHE:CE2	2.89	0.56
1:K:1218:THR:HG22	1:K:1219:ASN:N	2.20	0.56
1:K:1240:ILE:HG22	1:K:1242:TYR:CE1	2.40	0.56
1:M:143:LEU:HG	1:M:259:GLN:NE2	2.21	0.56
1:M:149:TRP:HZ3	1:M:251:LEU:HD22	1.70	0.56
1:M:170:ASP:OD1	1:M:171:HIS:N	2.39	0.56
1:M:1125:GLY:O	1:M:1152:ARG:NH1	2.39	0.56
1:M:1213:PHE:HE2	1:M:1215:THR:HA	1.71	0.56
1:M:1216:ASN:HB3	1:M:1242:TYR:OH	2.05	0.56
1:M:1240:ILE:HG22	1:M:1242:TYR:CE1	2.41	0.56
4:S:45:ARG:HE	4:S:45:ARG:CA	2.19	0.56
4:T:41:GLU:HB2	4:T:45:ARG:HH21	1.71	0.56
1:A:513:LYS:CD	1:A:522:LEU:HG	2.36	0.55
1:A:609:LEU:HB3	1:A:908:LEU:HB3	1.87	0.55
1:C:147:PRO:HG3	1:E:121:GLN:OE1	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:636:ASP:C	1:C:637:LYS:CG	2.74	0.55
1:C:1177:GLY:HA2	1:C:1197:GLY:HA2	1.81	0.55
1:E:543:ASN:CG	1:E:574:SER:HB2	2.26	0.55
1:E:1151:ILE:CG1	1:E:1167:PRO:HG2	2.36	0.55
1:E:1185:PHE:CZ	1:E:1192:LEU:HD11	2.35	0.55
1:E:1213:PHE:HE2	1:E:1215:THR:HA	1.72	0.55
1:G:615:THR:O	1:G:904:GLN:OE1	2.23	0.55
1:G:637:LYS:CA	1:G:660:VAL:HG23	2.36	0.55
1:G:1200:LYS:C	1:G:1202:TRP:CE3	2.80	0.55
1:G:1220:LEU:HA	1:G:1236:ASP:HB3	1.87	0.55
1:I:419:VAL:HG22	1:I:424:LEU:O	2.06	0.55
1:I:564:VAL:CG1	1:I:583:GLN:HG2	2.36	0.55
1:I:595:LEU:CD1	1:I:1244:LEU:HD13	2.36	0.55
1:I:1182:ASP:HB3	1:I:1223:ILE:HG21	1.88	0.55
1:I:1187:PRO:HG2	1:I:1229:PHE:HB3	1.87	0.55
1:K:170:ASP:OD1	1:K:171:HIS:N	2.39	0.55
1:K:344:GLN:HA	1:K:347:ASN:HD22	1.71	0.55
1:K:1182:ASP:HB3	1:K:1223:ILE:HG21	1.88	0.55
1:K:1225:VAL:CG1	1:K:1229:PHE:CD1	2.89	0.55
1:M:344:GLN:HA	1:M:347:ASN:HD22	1.71	0.55
1:M:657:GLU:O	1:M:658:ASP:HB2	2.05	0.55
1:M:1220:LEU:HA	1:M:1236:ASP:HB3	1.88	0.55
3:O:24:TYR:CE2	4:S:38:HIS:C	2.79	0.55
4:S:2:ASP:O	4:S:6:ARG:HG3	2.07	0.55
1:A:340:TYR:HH	1:M:409:GLU:HG3	1.69	0.55
1:A:902:ASP:CB	2:B:72:LYS:NZ	2.67	0.55
1:A:928:VAL:CG1	1:A:937:VAL:HA	2.28	0.55
1:C:615:THR:O	1:C:904:GLN:OE1	2.24	0.55
1:C:788:LEU:HG	1:C:790:LEU:HG	1.88	0.55
1:C:944:ARG:NE	1:C:961:GLU:O	2.39	0.55
1:C:1177:GLY:O	1:C:1178:GLY:C	2.44	0.55
1:E:883:SER:OG	1:E:902:ASP:CA	2.53	0.55
1:E:1125:GLY:O	1:E:1152:ARG:NH1	2.39	0.55
1:E:1187:PRO:HG2	1:E:1229:PHE:HB3	1.87	0.55
1:G:1046:THR:CG2	1:G:1063:PHE:CE2	2.89	0.55
1:G:1177:GLY:O	1:G:1178:GLY:C	2.44	0.55
1:G:1200:LYS:O	1:G:1202:TRP:HZ3	1.81	0.55
1:G:1216:ASN:HB3	1:G:1242:TYR:OH	2.05	0.55
1:I:231:MET:SD	1:I:258:CYS:SG	2.97	0.55
1:I:419:VAL:HG11	1:I:426:CYS:HG	1.71	0.55
1:I:520:ALA:HB2	1:I:647:GLY:O	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:862:TYR:HA	1:I:885:VAL:CG1	2.36	0.55
1:I:1046:THR:O	1:I:1062:SER:HB2	2.05	0.55
1:K:295:LEU:O	1:K:299:VAL:HG22	2.05	0.55
1:K:862:TYR:HA	1:K:885:VAL:CG1	2.36	0.55
1:M:249:TRP:O	1:M:252:LYS:HB2	2.06	0.55
1:M:400:LEU:HB3	1:M:404:TRP:CZ3	2.40	0.55
1:M:1092:ASP:HB2	1:M:1133:SER:O	2.05	0.55
3:R:28:HIS:CG	4:U:14:LEU:HD11	2.41	0.55
1:A:138:GLN:HA	3:W:6:ARG:HD2	1.86	0.55
1:A:147:PRO:HG3	1:C:121:GLN:OE1	2.06	0.55
1:A:175:GLU:CG	3:P:4:LYS:NZ	2.69	0.55
1:A:419:VAL:HG22	1:A:424:LEU:O	2.06	0.55
1:A:1136:SER:HB3	1:A:1141:LEU:HB2	1.89	0.55
1:C:636:ASP:O	1:C:637:LYS:CB	2.55	0.55
1:E:171:HIS:NE2	1:E:175:GLU:CG	2.67	0.55
1:E:1200:LYS:CD	1:E:1211:GLN:HB2	2.34	0.55
1:E:1240:ILE:HG22	1:E:1242:TYR:CE1	2.41	0.55
1:G:108:SER:O	1:G:111:ARG:HG2	2.07	0.55
1:G:171:HIS:NE2	1:G:175:GLU:CG	2.66	0.55
1:G:241:ILE:O	1:G:242:LEU:HD12	2.05	0.55
1:G:295:LEU:O	1:G:299:VAL:HG22	2.05	0.55
1:I:179:PRO:HD3	1:I:237:ARG:NH1	2.15	0.55
1:I:564:VAL:CG1	1:I:583:GLN:HG3	2.35	0.55
1:I:636:ASP:C	1:I:637:LYS:CG	2.74	0.55
1:I:1092:ASP:HB2	1:I:1133:SER:O	2.05	0.55
1:K:146:GLU:CG	1:M:111:ARG:HH11	2.15	0.55
1:K:334:PHE:CD1	1:K:334:PHE:N	2.73	0.55
1:K:345:LEU:HD11	1:K:353:ILE:CD1	2.36	0.55
1:K:950:ASN:OD1	1:K:951:GLY:N	2.40	0.55
1:M:121:GLN:HA	1:M:169:ARG:HH22	1.71	0.55
1:M:334:PHE:HB3	1:M:337:ARG:HG2	1.87	0.55
1:M:636:ASP:O	1:M:637:LYS:CB	2.55	0.55
1:M:1136:SER:HB3	1:M:1141:LEU:HB2	1.89	0.55
3:Q:27:ASP:HB3	4:T:14:LEU:HD23	1.88	0.55
4:S:30:LEU:HD13	4:V:10:ARG:HD2	1.88	0.55
1:A:111:ARG:HH11	1:M:146:GLU:CG	2.15	0.55
1:A:603:ILE:HD13	1:A:1240:ILE:HG21	1.87	0.55
1:A:615:THR:O	1:A:904:GLN:OE1	2.24	0.55
1:A:678:ASP:OD2	1:A:680:LYS:HG3	2.05	0.55
1:A:862:TYR:HA	1:A:885:VAL:CG1	2.36	0.55
1:A:1125:GLY:O	1:A:1152:ARG:NH1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:249:TRP:O	1:C:252:LYS:HB2	2.06	0.55
1:C:1200:LYS:CD	1:C:1211:GLN:HB2	2.34	0.55
1:E:513:LYS:CD	1:E:522:LEU:HG	2.36	0.55
1:E:1171:GLU:CG	1:E:1172:GLY:N	2.68	0.55
1:E:1216:ASN:HB3	1:E:1242:TYR:OH	2.05	0.55
1:G:151:THR:HB	1:G:279:VAL:HG12	1.87	0.55
1:G:1136:SER:HB3	1:G:1141:LEU:HB2	1.88	0.55
1:I:143:LEU:HG	1:I:259:GLN:NE2	2.21	0.55
1:I:149:TRP:HZ3	1:I:251:LEU:HD22	1.70	0.55
1:I:316:GLU:O	1:I:318:LYS:CG	2.50	0.55
1:I:409:GLU:HG3	1:K:340:TYR:HH	1.69	0.55
1:I:637:LYS:CA	1:I:660:VAL:HG23	2.36	0.55
1:I:1213:PHE:HE2	1:I:1215:THR:HA	1.71	0.55
1:M:615:THR:O	1:M:904:GLN:OE1	2.23	0.55
1:M:950:ASN:OD1	1:M:951:GLY:N	2.40	0.55
1:M:1046:THR:CG2	1:M:1063:PHE:CE2	2.89	0.55
3:P:4:LYS:HG3	3:P:5:ALA:N	2.19	0.55
4:T:2:ASP:O	4:T:6:ARG:HG3	2.07	0.55
1:C:229:ILE:HG22	1:C:233:ARG:CD	2.28	0.55
1:C:345:LEU:HD11	1:C:353:ILE:CD1	2.36	0.55
1:C:950:ASN:OD1	1:C:951:GLY:N	2.40	0.55
1:C:1177:GLY:CA	1:C:1197:GLY:HA3	2.27	0.55
1:E:419:VAL:HG22	1:E:424:LEU:O	2.06	0.55
1:E:505:PHE:HZ	1:E:540:VAL:CG1	2.17	0.55
1:E:615:THR:O	1:E:904:GLN:OE1	2.23	0.55
1:G:333:ASP:CB	1:G:334:PHE:CE1	2.85	0.55
1:G:603:ILE:HD13	1:G:1240:ILE:HG21	1.87	0.55
1:G:1125:GLY:O	1:G:1152:ARG:NH1	2.39	0.55
1:G:1240:ILE:HG22	1:G:1242:TYR:CE1	2.41	0.55
1:I:1136:SER:HB3	1:I:1141:LEU:HB2	1.89	0.55
1:I:1177:GLY:HA2	1:I:1197:GLY:HA2	1.81	0.55
1:I:1220:LEU:HA	1:I:1236:ASP:HB3	1.88	0.55
1:K:121:GLN:HA	1:K:169:ARG:HH22	1.71	0.55
1:K:564:VAL:CG1	1:K:583:GLN:HG3	2.35	0.55
1:K:609:LEU:HB3	1:K:908:LEU:HB3	1.87	0.55
1:M:333:ASP:CB	1:M:334:PHE:CE1	2.85	0.55
1:M:419:VAL:HG22	1:M:424:LEU:O	2.06	0.55
1:A:950:ASN:OD1	1:A:951:GLY:N	2.40	0.55
1:A:1094:SER:HA	1:A:1135:PHE:HB2	1.89	0.55
1:A:1200:LYS:C	1:A:1202:TRP:CE3	2.80	0.55
1:A:1213:PHE:HE2	1:A:1215:THR:HA	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1247:LEU:CD1	1:A:1248:GLU:H	2.14	0.55
1:C:1017:THR:HG21	1:C:1073:ILE:HG12	1.88	0.55
1:C:1046:THR:CG2	1:C:1063:PHE:CE2	2.89	0.55
1:C:1200:LYS:C	1:C:1202:TRP:CE3	2.80	0.55
1:E:931:GLN:O	1:E:931:GLN:HG3	2.05	0.55
1:I:595:LEU:HD22	1:I:1244:LEU:HD12	1.78	0.55
1:I:862:TYR:HE2	1:I:881:HIS:N	1.82	0.55
1:I:1046:THR:CG2	1:I:1063:PHE:CE2	2.89	0.55
1:I:1151:ILE:H	1:I:1167:PRO:CD	2.19	0.55
1:I:1216:ASN:HB3	1:I:1242:TYR:OH	2.06	0.55
1:K:944:ARG:NE	1:K:961:GLU:O	2.39	0.55
1:K:1151:ILE:CG1	1:K:1167:PRO:HG2	2.36	0.55
1:K:1220:LEU:HA	1:K:1236:ASP:HB3	1.88	0.55
1:K:1247:LEU:CD1	1:K:1248:GLU:H	2.14	0.55
1:M:345:LEU:HD11	1:M:353:ILE:CD1	2.36	0.55
1:M:513:LYS:CD	1:M:522:LEU:HG	2.36	0.55
1:A:970:SER:OG	1:A:973:LEU:O	2.24	0.55
1:A:980:ASP:OD1	1:A:981:GLU:N	2.40	0.55
1:A:1017:THR:HG21	1:A:1073:ILE:HG12	1.88	0.55
1:A:1213:PHE:HE2	1:A:1215:THR:HG22	1.69	0.55
1:C:363:ALA:O	1:C:366:GLU:CB	2.55	0.55
1:E:950:ASN:OD1	1:E:951:GLY:N	2.40	0.55
1:E:1225:VAL:CG1	1:E:1229:PHE:CD1	2.89	0.55
1:G:950:ASN:OD1	1:G:951:GLY:N	2.40	0.55
1:G:970:SER:OG	1:G:973:LEU:O	2.24	0.55
1:G:1092:ASP:OD2	1:G:1134:ALA:HA	2.07	0.55
1:G:1094:SER:HA	1:G:1135:PHE:HB2	1.89	0.55
1:G:1151:ILE:CG1	1:G:1167:PRO:HG2	2.36	0.55
1:G:1182:ASP:HB3	1:G:1223:ILE:HG21	1.88	0.55
1:I:543:ASN:CG	1:I:574:SER:HB2	2.26	0.55
1:I:1125:GLY:O	1:I:1152:ARG:NH1	2.39	0.55
1:K:379:ILE:HD11	1:K:417:GLU:OE1	2.07	0.55
1:K:482:TYR:O	1:K:486:PHE:CD1	2.55	0.55
1:K:1233:VAL:CB	1:K:1242:TYR:O	2.54	0.55
1:M:639:LEU:N	1:M:653:ILE:HG21	2.18	0.55
1:M:1092:ASP:OD2	1:M:1134:ALA:HA	2.07	0.55
1:M:1151:ILE:CG1	1:M:1167:PRO:HG2	2.36	0.55
1:M:1185:PHE:HE1	1:M:1192:LEU:HD12	1.53	0.55
1:M:1225:VAL:CG1	1:M:1229:PHE:CD1	2.89	0.55
1:A:108:SER:O	1:A:111:ARG:HG2	2.07	0.55
1:A:138:GLN:CA	3:W:6:ARG:NH1	2.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:146:GLU:CB	1:A:147:PRO:HD2	2.37	0.55
1:A:322:LEU:O	1:A:326:LEU:HB2	2.07	0.55
1:A:1225:VAL:CG1	1:A:1229:PHE:CD1	2.89	0.55
7:B:201:HEM:CBC	7:B:201:HEM:HMC1	2.28	0.55
1:C:143:LEU:HD23	1:C:143:LEU:C	2.27	0.55
1:C:543:ASN:CG	1:C:574:SER:HB2	2.26	0.55
1:C:980:ASP:OD1	1:C:981:GLU:N	2.40	0.55
1:C:1213:PHE:HE2	1:C:1215:THR:HA	1.72	0.55
1:E:143:LEU:HD23	1:E:143:LEU:C	2.27	0.55
1:E:344:GLN:HA	1:E:347:ASN:HD22	1.72	0.55
1:E:639:LEU:N	1:E:653:ILE:HG21	2.18	0.55
1:G:179:PRO:CD	1:G:237:ARG:HH12	2.15	0.55
1:G:513:LYS:CD	1:G:522:LEU:HG	2.36	0.55
1:G:595:LEU:CD1	1:G:1244:LEU:HD13	2.36	0.55
1:G:1225:VAL:CG1	1:G:1229:PHE:CD1	2.89	0.55
1:I:143:LEU:HD23	1:I:143:LEU:C	2.27	0.55
1:I:249:TRP:O	1:I:252:LYS:HB2	2.06	0.55
1:I:379:ILE:HD11	1:I:417:GLU:OE1	2.07	0.55
1:I:788:LEU:HG	1:I:790:LEU:HG	1.88	0.55
1:I:950:ASN:OD1	1:I:951:GLY:N	2.39	0.55
1:I:1225:VAL:CG1	1:I:1229:PHE:CD1	2.89	0.55
1:K:249:TRP:O	1:K:252:LYS:HB2	2.06	0.55
1:K:564:VAL:CG1	1:K:583:GLN:HG2	2.36	0.55
1:K:999:ARG:CD	1:K:1030:TRP:CD1	2.76	0.55
1:K:1136:SER:HB3	1:K:1141:LEU:HB2	1.89	0.55
1:K:1200:LYS:CG	1:K:1211:GLN:HB3	2.33	0.55
1:M:564:VAL:CG1	1:M:583:GLN:HG3	2.35	0.55
1:M:595:LEU:CD1	1:M:1244:LEU:HD13	2.37	0.55
1:C:108:SER:O	1:C:111:ARG:HG2	2.07	0.55
1:C:344:GLN:HA	1:C:347:ASN:HD22	1.71	0.55
1:E:146:GLU:CB	1:E:147:PRO:HD2	2.37	0.55
1:E:149:TRP:HZ3	1:E:251:LEU:HD22	1.70	0.55
1:E:1046:THR:CG2	1:E:1063:PHE:CE2	2.89	0.55
1:E:1092:ASP:OD2	1:E:1134:ALA:HA	2.07	0.55
1:E:1177:GLY:CA	1:E:1197:GLY:HA3	2.27	0.55
1:G:146:GLU:CB	1:G:147:PRO:HD2	2.37	0.55
1:G:862:TYR:HA	1:G:885:VAL:CG1	2.36	0.55
1:G:984:ALA:CA	1:G:999:ARG:O	2.47	0.55
1:G:1218:THR:HG22	1:G:1219:ASN:N	2.19	0.55
1:G:1233:VAL:CB	1:G:1242:TYR:O	2.54	0.55
1:K:143:LEU:HD23	1:K:143:LEU:C	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1125:GLY:O	1:K:1152:ARG:NH1	2.40	0.55
1:M:560:PHE:O	1:M:561:PRO:C	2.45	0.55
1:M:970:SER:OG	1:M:973:LEU:O	2.24	0.55
1:A:143:LEU:HG	1:A:259:GLN:NE2	2.21	0.55
1:A:146:GLU:CG	1:C:111:ARG:HH11	2.15	0.55
1:A:345:LEU:HD11	1:A:353:ILE:CD1	2.37	0.55
1:A:944:ARG:NE	1:A:961:GLU:O	2.39	0.55
1:C:1067:VAL:N	1:C:1081:PHE:O	2.40	0.55
1:C:1125:GLY:O	1:C:1152:ARG:NH1	2.40	0.55
1:C:1225:VAL:CG1	1:C:1229:PHE:CD1	2.90	0.55
1:E:363:ALA:O	1:E:366:GLU:CB	2.55	0.55
1:E:637:LYS:CA	1:E:660:VAL:HG23	2.36	0.55
1:E:678:ASP:O	1:E:679:LYS:CB	2.55	0.55
1:E:769:LEU:HD13	1:E:826:ILE:HD12	1.89	0.55
1:E:1094:SER:HA	1:E:1135:PHE:HB2	1.89	0.55
1:G:246:TRP:O	1:G:247:ASP:OD1	2.26	0.55
1:I:151:THR:HB	1:I:279:VAL:HG12	1.87	0.55
1:I:344:GLN:HA	1:I:347:ASN:HD22	1.71	0.55
1:I:1177:GLY:O	1:I:1178:GLY:C	2.44	0.55
1:K:513:LYS:CD	1:K:522:LEU:HG	2.36	0.55
2:L:103:ASN:O	2:L:104:GLU:C	2.46	0.55
1:M:246:TRP:O	1:M:247:ASP:OD1	2.25	0.55
1:M:363:ALA:O	1:M:366:GLU:CB	2.55	0.55
1:M:823:LEU:HB3	1:M:833:GLY:HA3	1.89	0.55
1:M:944:ARG:NE	1:M:961:GLU:O	2.39	0.55
1:M:1177:GLY:CA	1:M:1197:GLY:HA3	2.27	0.55
3:O:91:ILE:O	3:O:91:ILE:HG12	2.07	0.55
1:A:1177:GLY:O	1:A:1178:GLY:O	2.25	0.54
1:A:1200:LYS:CG	1:A:1211:GLN:HB3	2.33	0.54
1:C:427:ASP:CB	1:C:434:ARG:O	2.55	0.54
1:C:678:ASP:O	1:C:679:LYS:CB	2.55	0.54
1:C:1136:SER:HB3	1:C:1141:LEU:HB2	1.89	0.54
1:E:639:LEU:H	1:E:653:ILE:HG23	1.70	0.54
1:E:1233:VAL:HG11	1:E:1243:ILE:CG1	2.28	0.54
1:G:344:GLN:HA	1:G:347:ASN:HD22	1.71	0.54
1:G:419:VAL:HG22	1:G:424:LEU:O	2.06	0.54
1:G:980:ASP:OD1	1:G:981:GLU:N	2.40	0.54
1:G:1187:PRO:HG2	1:G:1229:PHE:HB3	1.88	0.54
1:I:147:PRO:HG3	1:K:121:GLN:OE1	2.06	0.54
1:I:322:LEU:O	1:I:326:LEU:HB2	2.07	0.54
1:I:363:ALA:O	1:I:366:GLU:CB	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:678:ASP:O	1:K:679:LYS:CB	2.55	0.54
1:K:1017:THR:HG21	1:K:1073:ILE:HG12	1.88	0.54
1:K:1046:THR:CG2	1:K:1063:PHE:CD2	2.91	0.54
1:M:427:ASP:CB	1:M:434:ARG:O	2.55	0.54
1:M:769:LEU:HD13	1:M:826:ILE:HD12	1.89	0.54
1:M:1182:ASP:HB3	1:M:1223:ILE:HG21	1.88	0.54
3:X:68:TYR:CE1	3:X:91:ILE:HD13	2.42	0.54
1:C:1213:PHE:HE2	1:C:1215:THR:HG22	1.69	0.54
1:E:121:GLN:HA	1:E:169:ARG:HH22	1.71	0.54
1:E:170:ASP:OD1	1:E:171:HIS:N	2.39	0.54
1:E:1017:THR:HG21	1:E:1073:ILE:HG12	1.88	0.54
1:G:322:LEU:O	1:G:326:LEU:HB2	2.07	0.54
1:G:597:TRP:HE1	1:G:1242:TYR:HA	1.73	0.54
1:K:560:PHE:O	1:K:561:PRO:C	2.45	0.54
1:K:769:LEU:HD13	1:K:826:ILE:HD12	1.89	0.54
7:L:201:HEM:CBC	7:L:201:HEM:HMC1	2.28	0.54
1:M:862:TYR:HA	1:M:885:VAL:CG1	2.36	0.54
1:M:1151:ILE:H	1:M:1167:PRO:CD	2.19	0.54
1:M:1233:VAL:CB	1:M:1242:TYR:O	2.54	0.54
3:Q:91:ILE:O	3:Q:91:ILE:HG12	2.08	0.54
4:S:52:ARG:HD2	4:T:38:HIS:CE1	2.38	0.54
1:A:1069:VAL:HB	1:A:1079:LYS:HB2	1.89	0.54
1:A:1200:LYS:CG	1:A:1211:GLN:CA	2.67	0.54
1:C:170:ASP:OD1	1:C:171:HIS:N	2.39	0.54
1:C:597:TRP:HE1	1:C:1242:TYR:HA	1.73	0.54
1:C:1094:SER:HA	1:C:1135:PHE:HB2	1.89	0.54
1:C:1233:VAL:CB	1:C:1242:TYR:O	2.54	0.54
1:E:236:PRO:C	1:E:238:SER:N	2.61	0.54
1:E:427:ASP:CB	1:E:434:ARG:O	2.55	0.54
1:E:560:PHE:O	1:E:561:PRO:C	2.45	0.54
1:E:595:LEU:CD1	1:E:1244:LEU:HD13	2.36	0.54
1:E:1046:THR:CG2	1:E:1063:PHE:CD2	2.91	0.54
1:G:363:ALA:O	1:G:366:GLU:CB	2.55	0.54
1:G:769:LEU:HD13	1:G:826:ILE:HD12	1.89	0.54
1:G:1213:PHE:HE2	1:G:1215:THR:HA	1.71	0.54
1:I:317:CYS:SG	1:I:324:VAL:CG2	2.96	0.54
1:I:747:ASN:ND2	1:I:801:VAL:O	2.38	0.54
1:I:1069:VAL:HB	1:I:1079:LYS:HB2	1.89	0.54
1:I:1151:ILE:CG1	1:I:1167:PRO:HG2	2.36	0.54
1:I:1200:LYS:O	1:I:1202:TRP:HZ3	1.81	0.54
1:K:146:GLU:CB	1:K:147:PRO:HD2	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:171:HIS:NE2	1:K:175:GLU:CG	2.66	0.54
1:K:363:ALA:O	1:K:366:GLU:CB	2.55	0.54
1:K:1200:LYS:C	1:K:1202:TRP:CE3	2.80	0.54
1:M:564:VAL:CG1	1:M:583:GLN:HG2	2.36	0.54
1:M:570:GLU:HA	1:M:570:GLU:OE2	2.08	0.54
1:M:1094:SER:HA	1:M:1135:PHE:HB2	1.89	0.54
1:M:1171:GLU:CG	1:M:1172:GLY:N	2.68	0.54
3:P:31:SER:CA	4:S:11:ARG:HA	2.33	0.54
1:A:109:TYR:HH	3:P:4:LYS:HB3	1.71	0.54
1:A:121:GLN:HA	1:A:169:ARG:HH22	1.71	0.54
1:A:143:LEU:HD23	1:A:143:LEU:C	2.27	0.54
1:C:484:TYR:HA	1:C:509:TRP:HZ2	1.73	0.54
1:C:1092:ASP:OD2	1:C:1134:ALA:HA	2.07	0.54
1:E:108:SER:O	1:E:111:ARG:HG2	2.07	0.54
1:E:322:LEU:O	1:E:326:LEU:HB2	2.07	0.54
1:E:364:LEU:CD1	1:E:368:MET:HE2	2.37	0.54
1:E:480:CYS:HA	1:E:483:TRP:HD1	1.73	0.54
1:E:484:TYR:HA	1:E:509:TRP:HZ2	1.73	0.54
1:E:1136:SER:HB3	1:E:1141:LEU:HB2	1.89	0.54
1:G:143:LEU:HG	1:G:259:GLN:NE2	2.21	0.54
1:I:345:LEU:HD11	1:I:353:ILE:CD1	2.36	0.54
1:I:823:LEU:HB3	1:I:833:GLY:HA3	1.90	0.54
1:I:1092:ASP:OD2	1:I:1134:ALA:HA	2.07	0.54
1:K:520:ALA:CB	1:K:647:GLY:O	2.56	0.54
1:K:595:LEU:CD1	1:K:1244:LEU:HD13	2.36	0.54
1:K:597:TRP:HZ2	1:K:603:ILE:HG12	1.71	0.54
1:K:823:LEU:HB3	1:K:833:GLY:HA3	1.90	0.54
1:M:1017:THR:HG21	1:M:1073:ILE:HG12	1.89	0.54
3:P:19:ASP:CG	4:T:64:THR:HA	2.27	0.54
1:A:246:TRP:O	1:A:247:ASP:OD1	2.26	0.54
1:A:573:THR:O	1:A:574:SER:O	2.26	0.54
1:A:636:ASP:O	1:A:637:LYS:CB	2.55	0.54
1:A:823:LEU:HB3	1:A:833:GLY:HA3	1.90	0.54
1:C:143:LEU:HG	1:C:259:GLN:NE2	2.21	0.54
1:C:379:ILE:HD11	1:C:417:GLU:OE1	2.07	0.54
1:C:595:LEU:CD1	1:C:1244:LEU:HD13	2.36	0.54
1:C:1146:ASP:HB2	1:C:1150:GLU:HB3	1.90	0.54
1:C:1182:ASP:HB3	1:C:1223:ILE:HG21	1.88	0.54
1:E:520:ALA:CB	1:E:647:GLY:O	2.56	0.54
1:E:1146:ASP:HB2	1:E:1150:GLU:HB3	1.90	0.54
1:E:1200:LYS:C	1:E:1202:TRP:CE3	2.80	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:379:ILE:HD11	1:G:417:GLU:OE1	2.07	0.54
1:G:1201:TRP:HE3	1:G:1210:SER:CB	2.14	0.54
1:I:146:GLU:CB	1:I:147:PRO:HD2	2.37	0.54
1:I:757:LEU:HB3	1:I:769:LEU:HD11	1.90	0.54
1:I:1046:THR:CG2	1:I:1063:PHE:CD2	2.90	0.54
1:K:525:GLU:O	1:K:528:GLU:HG2	2.05	0.54
1:K:757:LEU:HB3	1:K:769:LEU:HD11	1.90	0.54
1:K:928:VAL:CG1	1:K:937:VAL:HA	2.28	0.54
1:K:1092:ASP:OD2	1:K:1134:ALA:HA	2.07	0.54
1:K:1177:GLY:O	1:K:1178:GLY:C	2.44	0.54
1:M:143:LEU:HD23	1:M:143:LEU:C	2.27	0.54
1:M:520:ALA:CB	1:M:647:GLY:O	2.56	0.54
1:M:714:LEU:HB3	1:M:730:LEU:HB2	1.90	0.54
4:U:14:LEU:O	4:U:18:GLU:HB2	2.08	0.54
4:Y:8:LEU:HD23	4:Y:8:LEU:C	2.27	0.54
4:Y:15:ARG:HD2	4:Y:19:GLU:OE2	2.07	0.54
1:A:143:LEU:H	1:A:143:LEU:CD2	2.21	0.54
1:A:170:ASP:OD1	1:A:171:HIS:N	2.39	0.54
1:A:363:ALA:O	1:A:366:GLU:CB	2.55	0.54
1:A:520:ALA:CB	1:A:647:GLY:O	2.56	0.54
1:A:570:GLU:HA	1:A:570:GLU:OE2	2.08	0.54
1:A:714:LEU:HB3	1:A:730:LEU:HB2	1.90	0.54
1:A:1182:ASP:HB3	1:A:1223:ILE:HG21	1.88	0.54
1:A:1199:ILE:HD11	1:A:1232:TYR:CZ	2.42	0.54
1:C:374:MET:CE	1:C:374:MET:CA	2.85	0.54
1:C:551:ASN:O	1:C:555:LEU:HB3	2.08	0.54
1:C:1046:THR:CG2	1:C:1063:PHE:CD2	2.91	0.54
1:C:1069:VAL:HB	1:C:1079:LYS:HB2	1.89	0.54
1:E:246:TRP:O	1:E:247:ASP:OD1	2.26	0.54
1:E:482:TYR:O	1:E:486:PHE:CD1	2.55	0.54
1:E:505:PHE:CZ	1:E:540:VAL:CG1	2.90	0.54
1:E:570:GLU:HA	1:E:570:GLU:OE2	2.08	0.54
1:E:595:LEU:CD2	1:E:1244:LEU:CD1	2.48	0.54
1:E:636:ASP:C	1:E:637:LYS:CG	2.74	0.54
1:E:1149:GLY:H	1:E:1180:VAL:CG2	2.20	0.54
1:G:526:PHE:O	1:G:529:TYR:HB3	2.08	0.54
1:G:1177:GLY:O	1:G:1178:GLY:O	2.26	0.54
1:I:246:TRP:O	1:I:247:ASP:OD1	2.25	0.54
1:I:636:ASP:O	1:I:637:LYS:CB	2.55	0.54
1:I:678:ASP:O	1:I:679:LYS:CB	2.55	0.54
1:I:1094:SER:HA	1:I:1135:PHE:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:636:ASP:O	1:K:637:LYS:CB	2.55	0.54
1:M:144:LYS:HG2	1:M:145:GLY:N	2.23	0.54
1:M:171:HIS:NE2	1:M:175:GLU:CG	2.66	0.54
1:M:374:MET:CE	1:M:374:MET:CA	2.85	0.54
1:M:984:ALA:CA	1:M:999:ARG:O	2.47	0.54
1:M:1046:THR:CG2	1:M:1063:PHE:CD2	2.91	0.54
1:M:1069:VAL:HB	1:M:1079:LYS:HB2	1.89	0.54
3:Q:28:HIS:ND1	4:T:14:LEU:CD2	2.63	0.54
4:V:41:GLU:O	4:V:45:ARG:HG3	2.07	0.54
1:A:106:ILE:HG22	1:A:107:THR:O	2.08	0.54
1:A:374:MET:CE	1:A:374:MET:CA	2.86	0.54
1:A:379:ILE:HD11	1:A:417:GLU:OE1	2.07	0.54
1:A:427:ASP:CB	1:A:434:ARG:O	2.55	0.54
1:A:484:TYR:HA	1:A:509:TRP:HZ2	1.73	0.54
1:A:526:PHE:O	1:A:529:TYR:HB3	2.08	0.54
1:A:769:LEU:HD13	1:A:826:ILE:HD12	1.89	0.54
1:C:560:PHE:O	1:C:561:PRO:C	2.46	0.54
1:E:143:LEU:HG	1:E:259:GLN:NE2	2.22	0.54
1:E:379:ILE:HD11	1:E:417:GLU:OE1	2.07	0.54
1:E:714:LEU:HB3	1:E:730:LEU:HB2	1.90	0.54
2:F:103:ASN:O	2:F:104:GLU:C	2.46	0.54
1:G:345:LEU:HD11	1:G:353:ILE:CD1	2.37	0.54
1:G:543:ASN:CG	1:G:574:SER:HB2	2.26	0.54
1:G:573:THR:O	1:G:574:SER:O	2.26	0.54
1:G:1069:VAL:HB	1:G:1079:LYS:HB2	1.90	0.54
1:G:1171:GLU:CG	1:G:1172:GLY:N	2.68	0.54
1:I:980:ASP:OD1	1:I:981:GLU:N	2.40	0.54
1:K:246:TRP:O	1:K:247:ASP:OD1	2.25	0.54
1:K:540:VAL:CG1	1:K:575:GLU:HB3	2.34	0.54
1:K:637:LYS:CA	1:K:660:VAL:HG23	2.36	0.54
1:K:1067:VAL:N	1:K:1081:PHE:O	2.40	0.54
1:M:322:LEU:O	1:M:326:LEU:HB2	2.07	0.54
1:M:379:ILE:HD11	1:M:417:GLU:OE1	2.07	0.54
1:A:480:CYS:HA	1:A:483:TRP:HD1	1.73	0.54
1:A:551:ASN:O	1:A:555:LEU:HB3	2.08	0.54
1:C:146:GLU:CB	1:C:147:PRO:HD2	2.37	0.54
1:E:143:LEU:H	1:E:143:LEU:CD2	2.21	0.54
1:E:144:LYS:HG2	1:E:145:GLY:N	2.23	0.54
1:E:757:LEU:HB3	1:E:769:LEU:HD11	1.90	0.54
1:E:1201:TRP:HE3	1:E:1210:SER:CB	2.14	0.54
1:G:1046:THR:CG2	1:G:1063:PHE:CD2	2.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1149:GLY:CA	1:G:1180:VAL:CG2	2.77	0.54
1:I:573:THR:O	1:I:574:SER:O	2.26	0.54
1:K:505:PHE:CZ	1:K:540:VAL:CG1	2.90	0.54
1:K:570:GLU:HA	1:K:570:GLU:OE2	2.08	0.54
1:K:1233:VAL:HG11	1:K:1243:ILE:CG1	2.29	0.54
1:M:496:MET:HA	1:M:496:MET:HE3	1.89	0.54
1:M:505:PHE:CZ	1:M:540:VAL:CG1	2.90	0.54
1:M:678:ASP:O	1:M:679:LYS:CB	2.55	0.54
1:M:747:ASN:ND2	1:M:801:VAL:O	2.38	0.54
4:V:61:ASP:O	4:V:64:THR:HG23	2.08	0.54
1:A:344:GLN:HA	1:A:347:ASN:HD22	1.71	0.54
1:A:1029:VAL:HG11	1:A:1073:ILE:HA	1.90	0.54
1:A:1151:ILE:H	1:A:1167:PRO:CD	2.19	0.54
1:C:513:LYS:CD	1:C:522:LEU:HG	2.36	0.54
1:C:714:LEU:HB3	1:C:730:LEU:HB2	1.90	0.54
1:C:1177:GLY:O	1:C:1178:GLY:O	2.26	0.54
1:C:1200:LYS:CG	1:C:1211:GLN:HB3	2.33	0.54
1:E:106:ILE:HG22	1:E:107:THR:O	2.08	0.54
1:E:567:GLY:O	1:E:569:CYS:N	2.41	0.54
1:E:879:ARG:CB	1:E:921:MET:CE	2.73	0.54
1:E:1182:ASP:HB3	1:E:1223:ILE:HG21	1.88	0.54
1:G:520:ALA:CB	1:G:647:GLY:O	2.56	0.54
1:G:540:VAL:CG1	1:G:575:GLU:HB3	2.34	0.54
1:G:560:PHE:O	1:G:561:PRO:C	2.45	0.54
1:G:570:GLU:OE2	1:G:570:GLU:HA	2.08	0.54
1:G:636:ASP:O	1:G:637:LYS:CB	2.55	0.54
1:G:678:ASP:O	1:G:679:LYS:CB	2.55	0.54
1:G:1146:ASP:HB2	1:G:1150:GLU:HB3	1.90	0.54
1:I:520:ALA:CB	1:I:647:GLY:O	2.56	0.54
1:I:639:LEU:H	1:I:653:ILE:HG23	1.70	0.54
1:I:1018:LEU:HB3	1:I:1030:TRP:O	2.08	0.54
1:I:1200:LYS:CG	1:I:1211:GLN:HB3	2.32	0.54
2:J:103:ASN:O	2:J:104:GLU:C	2.46	0.54
1:K:149:TRP:HZ3	1:K:251:LEU:HD22	1.70	0.54
1:K:526:PHE:O	1:K:529:TYR:HB3	2.08	0.54
1:K:1018:LEU:HB3	1:K:1030:TRP:O	2.08	0.54
1:M:106:ILE:HG22	1:M:107:THR:O	2.08	0.54
1:M:453:LEU:HD11	1:M:454:GLN:NE2	2.00	0.54
1:M:526:PHE:O	1:M:529:TYR:HB3	2.08	0.54
1:M:1200:LYS:C	1:M:1202:TRP:CE3	2.80	0.54
4:V:36:ARG:NH1	4:V:37:PRO:CG	2.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:678:ASP:O	1:A:679:LYS:CB	2.55	0.54
1:A:1046:THR:CG2	1:A:1063:PHE:CD2	2.91	0.54
1:A:1092:ASP:OD2	1:A:1134:ALA:HA	2.07	0.54
1:C:322:LEU:O	1:C:326:LEU:HB2	2.07	0.54
1:C:570:GLU:HA	1:C:570:GLU:OE2	2.08	0.54
1:C:769:LEU:HD13	1:C:826:ILE:HD12	1.89	0.54
1:G:144:LYS:HG2	1:G:145:GLY:N	2.23	0.54
1:G:427:ASP:CB	1:G:434:ARG:O	2.55	0.54
1:G:1149:GLY:H	1:G:1180:VAL:CG2	2.20	0.54
1:I:484:TYR:HA	1:I:509:TRP:HZ2	1.73	0.54
1:K:106:ILE:HG22	1:K:107:THR:O	2.08	0.54
1:K:229:ILE:HG22	1:K:233:ARG:CD	2.28	0.54
1:K:317:CYS:SG	1:K:324:VAL:CG2	2.96	0.54
1:K:322:LEU:O	1:K:326:LEU:HB2	2.07	0.54
1:K:597:TRP:HA	1:K:1243:ILE:O	2.08	0.54
1:K:1094:SER:HA	1:K:1135:PHE:HB2	1.89	0.54
1:M:317:CYS:SG	1:M:324:VAL:CG2	2.96	0.54
1:M:573:THR:O	1:M:574:SER:O	2.26	0.54
3:Q:24:TYR:HE2	4:U:38:HIS:CB	2.10	0.54
4:T:13:ARG:HD3	4:T:59:ILE:HD12	1.86	0.54
1:A:560:PHE:O	1:A:561:PRO:C	2.45	0.53
1:A:1239:GLY:O	1:A:1240:ILE:HB	2.08	0.53
2:B:103:ASN:O	2:B:104:GLU:C	2.46	0.53
1:C:317:CYS:SG	1:C:324:VAL:CG2	2.96	0.53
1:C:520:ALA:CB	1:C:647:GLY:O	2.56	0.53
1:C:526:PHE:O	1:C:529:TYR:HB3	2.08	0.53
1:C:639:LEU:H	1:C:653:ILE:HG23	1.69	0.53
1:E:1177:GLY:O	1:E:1178:GLY:O	2.26	0.53
1:G:143:LEU:HD23	1:G:143:LEU:C	2.27	0.53
1:G:1199:ILE:HD11	1:G:1232:TYR:CZ	2.43	0.53
2:H:18:HIS:CE1	7:H:201:HEM:ND	2.76	0.53
2:H:103:ASN:O	2:H:104:GLU:C	2.46	0.53
1:I:106:ILE:HG22	1:I:107:THR:O	2.08	0.53
1:I:1177:GLY:O	1:I:1178:GLY:O	2.26	0.53
1:M:597:TRP:HE1	1:M:1242:TYR:HA	1.73	0.53
1:M:757:LEU:HB3	1:M:769:LEU:HD11	1.90	0.53
1:M:1199:ILE:HD11	1:M:1232:TYR:CZ	2.42	0.53
1:M:1239:GLY:O	1:M:1240:ILE:HB	2.09	0.53
3:R:91:ILE:HG12	3:R:91:ILE:O	2.07	0.53
1:A:144:LYS:HG2	1:A:145:GLY:N	2.23	0.53
1:A:317:CYS:SG	1:A:324:VAL:CG2	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:778:ARG:HG2	1:A:779:LYS:HG3	1.91	0.53
1:C:1029:VAL:HG11	1:C:1073:ILE:HA	1.90	0.53
1:C:1199:ILE:HD11	1:C:1232:TYR:CZ	2.42	0.53
2:D:103:ASN:O	2:D:104:GLU:C	2.46	0.53
1:E:636:ASP:O	1:E:637:LYS:CB	2.55	0.53
2:F:103:ASN:C	2:F:104:GLU:O	2.46	0.53
1:G:364:LEU:CD1	1:G:368:MET:HE2	2.38	0.53
1:I:496:MET:HA	1:I:496:MET:HE3	1.90	0.53
1:I:560:PHE:O	1:I:561:PRO:C	2.45	0.53
1:I:597:TRP:HE1	1:I:1242:TYR:HA	1.73	0.53
1:K:573:THR:O	1:K:574:SER:O	2.26	0.53
1:M:1029:VAL:HG11	1:M:1073:ILE:HA	1.90	0.53
2:N:103:ASN:O	2:N:104:GLU:C	2.46	0.53
2:N:103:ASN:C	2:N:104:GLU:O	2.46	0.53
1:C:106:ILE:HG22	1:C:107:THR:O	2.08	0.53
1:C:298:PHE:CZ	1:C:325:SER:HA	2.42	0.53
1:C:480:CYS:HA	1:C:483:TRP:HD1	1.73	0.53
1:C:902:ASP:HB3	2:D:72:LYS:NZ	2.24	0.53
1:C:1239:GLY:O	1:C:1240:ILE:HB	2.09	0.53
2:D:18:HIS:CE1	7:D:201:HEM:ND	2.76	0.53
1:E:1069:VAL:HB	1:E:1079:LYS:HB2	1.89	0.53
1:E:1199:ILE:HD11	1:E:1232:TYR:CZ	2.42	0.53
1:G:317:CYS:SG	1:G:324:VAL:CG2	2.96	0.53
1:I:597:TRP:HA	1:I:1243:ILE:O	2.08	0.53
1:K:143:LEU:H	1:K:143:LEU:CD2	2.21	0.53
1:K:427:ASP:CB	1:K:434:ARG:O	2.55	0.53
1:K:1233:VAL:HA	1:K:1242:TYR:O	2.09	0.53
2:L:18:HIS:NE2	7:L:201:HEM:CHD	2.72	0.53
1:M:986:GLU:HA	1:M:997:GLN:O	2.09	0.53
4:U:7:ARG:O	4:U:11:ARG:HG2	2.07	0.53
1:A:928:VAL:CG2	1:A:1224:HIS:CG	2.92	0.53
2:B:18:HIS:NE2	7:B:201:HEM:CHD	2.72	0.53
1:C:231:MET:SD	1:C:258:CYS:SG	2.97	0.53
1:C:757:LEU:HB3	1:C:769:LEU:HD11	1.90	0.53
1:C:1201:TRP:HE3	1:C:1210:SER:CB	2.14	0.53
1:E:526:PHE:O	1:E:529:TYR:HB3	2.08	0.53
1:E:823:LEU:HB3	1:E:833:GLY:HA3	1.90	0.53
1:G:143:LEU:H	1:G:143:LEU:CD2	2.21	0.53
1:G:296:SER:O	1:G:300:ASN:N	2.42	0.53
1:G:597:TRP:HA	1:G:1243:ILE:O	2.08	0.53
1:G:902:ASP:HB3	2:H:72:LYS:NZ	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:513:LYS:CD	1:I:522:LEU:HG	2.36	0.53
1:K:108:SER:O	1:K:111:ARG:HG2	2.07	0.53
1:K:567:GLY:O	1:K:569:CYS:N	2.41	0.53
1:M:146:GLU:CB	1:M:147:PRO:HD2	2.37	0.53
1:M:179:PRO:CD	1:M:237:ARG:HH12	2.15	0.53
1:M:980:ASP:OD1	1:M:981:GLU:N	2.40	0.53
1:M:1200:LYS:CG	1:M:1211:GLN:HB3	2.32	0.53
7:N:201:HEM:CBC	7:N:201:HEM:HMC1	2.28	0.53
3:R:30:ILE:HG22	4:U:13:ARG:HB2	1.90	0.53
3:W:13:ARG:O	3:W:17:GLU:HG3	2.09	0.53
1:A:597:TRP:HE1	1:A:1242:TYR:HA	1.73	0.53
1:A:1146:ASP:HB2	1:A:1150:GLU:HB3	1.90	0.53
1:C:144:LYS:HG2	1:C:145:GLY:N	2.23	0.53
1:C:179:PRO:CD	1:C:237:ARG:HH12	2.15	0.53
1:C:246:TRP:O	1:C:247:ASP:OD1	2.25	0.53
1:C:573:THR:O	1:C:574:SER:O	2.26	0.53
1:C:778:ARG:HG2	1:C:779:LYS:HG3	1.91	0.53
1:G:147:PRO:HG3	1:I:121:GLN:OE1	2.06	0.53
1:G:400:LEU:O	1:G:404:TRP:HE3	1.91	0.53
1:G:778:ARG:HG2	1:G:779:LYS:HG3	1.91	0.53
1:G:823:LEU:HB3	1:G:833:GLY:HA3	1.90	0.53
1:I:944:ARG:NE	1:I:961:GLU:O	2.39	0.53
1:I:1146:ASP:HB2	1:I:1150:GLU:HB3	1.90	0.53
1:I:1233:VAL:CB	1:I:1242:TYR:O	2.54	0.53
1:K:928:VAL:CG2	1:K:1224:HIS:CG	2.92	0.53
1:K:1069:VAL:HB	1:K:1079:LYS:HB2	1.90	0.53
1:M:390:GLN:HB3	1:M:393:VAL:HG22	1.91	0.53
1:M:928:VAL:CG2	1:M:1224:HIS:CG	2.92	0.53
1:M:1018:LEU:HB3	1:M:1030:TRP:O	2.08	0.53
3:Q:46:GLU:HB2	3:Q:52:ARG:HG2	1.91	0.53
1:C:334:PHE:CB	1:C:337:ARG:CD	2.87	0.53
1:C:1212:THR:CG2	1:C:1213:PHE:H	2.12	0.53
1:C:1220:LEU:CD2	1:C:1234:THR:CB	2.74	0.53
1:C:1226:SER:OG	1:C:1227:PRO:HD2	2.09	0.53
1:E:400:LEU:O	1:E:404:TRP:HE3	1.91	0.53
1:E:573:THR:O	1:E:574:SER:O	2.26	0.53
1:E:597:TRP:HE1	1:E:1242:TYR:HA	1.73	0.53
1:E:884:TRP:CH2	2:F:81:ILE:HD11	2.44	0.53
1:E:980:ASP:OD1	1:E:981:GLU:N	2.40	0.53
1:E:1030:TRP:HD1	1:E:1037:CYS:HG	1.57	0.53
1:E:1240:ILE:HG22	1:E:1242:TYR:CD1	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:316:GLU:O	1:G:318:LYS:CG	2.50	0.53
1:G:390:GLN:OE1	1:G:489:TYR:HE2	1.92	0.53
1:G:484:TYR:HA	1:G:509:TRP:HZ2	1.73	0.53
1:G:703:ASN:ND2	1:G:746:VAL:O	2.42	0.53
1:G:1018:LEU:HB3	1:G:1030:TRP:O	2.08	0.53
1:I:427:ASP:CB	1:I:434:ARG:O	2.55	0.53
1:I:902:ASP:HB3	2:J:72:LYS:NZ	2.24	0.53
1:I:1199:ILE:HD11	1:I:1232:TYR:CZ	2.42	0.53
1:I:1240:ILE:HG22	1:I:1242:TYR:CD1	2.44	0.53
2:J:18:HIS:NE2	7:J:201:HEM:CHD	2.72	0.53
1:K:144:LYS:HG2	1:K:145:GLY:N	2.23	0.53
1:K:147:PRO:HG3	1:M:121:GLN:OE1	2.06	0.53
1:K:636:ASP:C	1:K:637:LYS:CG	2.74	0.53
1:K:714:LEU:HB3	1:K:730:LEU:HB2	1.90	0.53
1:K:1240:ILE:HG22	1:K:1242:TYR:CD1	2.44	0.53
2:L:103:ASN:C	2:L:104:GLU:O	2.46	0.53
1:M:108:SER:O	1:M:111:ARG:HG2	2.07	0.53
1:M:390:GLN:OE1	1:M:489:TYR:HE2	1.92	0.53
1:M:1177:GLY:O	1:M:1178:GLY:C	2.44	0.53
1:M:1177:GLY:O	1:M:1178:GLY:O	2.26	0.53
3:R:22:THR:HG22	3:R:56:LEU:HD12	1.91	0.53
4:U:13:ARG:HH22	4:U:60:ILE:CG1	2.21	0.53
4:U:29:LEU:HD22	4:U:34:LEU:HD23	1.91	0.53
1:A:390:GLN:HB3	1:A:393:VAL:HG22	1.91	0.53
1:A:400:LEU:O	1:A:404:TRP:HE3	1.91	0.53
1:A:554:LEU:CD1	1:A:1214:TYR:CE1	2.91	0.53
1:A:1226:SER:OG	1:A:1227:PRO:HD2	2.09	0.53
1:C:1018:LEU:HB3	1:C:1030:TRP:O	2.08	0.53
1:E:986:GLU:HA	1:E:997:GLN:O	2.09	0.53
1:E:1176:HIS:HB3	1:E:1218:THR:OG1	2.04	0.53
1:G:639:LEU:H	1:G:653:ILE:HG23	1.70	0.53
1:G:714:LEU:HB3	1:G:730:LEU:HB2	1.90	0.53
1:G:928:VAL:CG2	1:G:1224:HIS:CG	2.92	0.53
1:I:137:GLN:NE2	1:I:173:LEU:HB3	2.23	0.53
1:I:334:PHE:CB	1:I:337:ARG:CD	2.87	0.53
1:I:570:GLU:HA	1:I:570:GLU:OE2	2.08	0.53
1:I:703:ASN:ND2	1:I:746:VAL:O	2.42	0.53
1:I:769:LEU:HD13	1:I:826:ILE:HD12	1.89	0.53
1:I:1233:VAL:HA	1:I:1242:TYR:O	2.09	0.53
2:J:103:ASN:C	2:J:104:GLU:O	2.47	0.53
1:K:390:GLN:HB3	1:K:393:VAL:HG22	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:452:GLN:HB3	1:K:456:LEU:HD11	1.91	0.53
1:K:882:LEU:CD2	1:K:882:LEU:N	2.39	0.53
1:K:1146:ASP:HB2	1:K:1150:GLU:HB3	1.90	0.53
1:K:1177:GLY:O	1:K:1178:GLY:O	2.26	0.53
1:M:452:GLN:HB3	1:M:456:LEU:HD11	1.91	0.53
1:M:597:TRP:HA	1:M:1243:ILE:O	2.08	0.53
1:M:703:ASN:ND2	1:M:746:VAL:O	2.42	0.53
1:M:1146:ASP:HB2	1:M:1150:GLU:HB3	1.90	0.53
3:O:46:GLU:HB2	3:O:52:ARG:HG2	1.91	0.53
4:U:38:HIS:O	4:U:41:GLU:HG2	2.08	0.53
1:A:1240:ILE:HG22	1:A:1242:TYR:CD1	2.44	0.53
1:C:390:GLN:OE1	1:C:489:TYR:HE2	1.92	0.53
1:C:884:TRP:CH2	2:D:81:ILE:HD11	2.44	0.53
1:E:316:GLU:O	1:E:318:LYS:CG	2.50	0.53
1:E:778:ARG:HG2	1:E:779:LYS:HG3	1.91	0.53
1:E:926:VAL:CG1	1:E:938:LEU:O	2.57	0.53
1:E:928:VAL:CG2	1:E:1224:HIS:CG	2.92	0.53
1:G:757:LEU:HB3	1:G:769:LEU:HD11	1.90	0.53
1:G:1226:SER:OG	1:G:1227:PRO:HD2	2.09	0.53
1:G:1233:VAL:HA	1:G:1242:TYR:O	2.09	0.53
1:G:1239:GLY:O	1:G:1240:ILE:HB	2.08	0.53
1:I:296:SER:O	1:I:300:ASN:N	2.42	0.53
1:I:373:GLU:HA	1:I:373:GLU:OE2	2.09	0.53
1:I:480:CYS:HA	1:I:483:TRP:HD1	1.73	0.53
1:K:400:LEU:O	1:K:404:TRP:HE3	1.91	0.53
1:K:1213:PHE:HE2	1:K:1215:THR:HA	1.72	0.53
1:M:400:LEU:O	1:M:404:TRP:HE3	1.91	0.53
1:M:884:TRP:CH2	2:N:81:ILE:HD11	2.44	0.53
1:M:1240:ILE:HG22	1:M:1242:TYR:CD1	2.44	0.53
3:P:26:MET:O	3:P:30:ILE:HG12	2.09	0.53
3:P:31:SER:HA	4:S:11:ARG:C	2.29	0.53
3:P:91:ILE:O	3:P:91:ILE:HG12	2.08	0.53
3:R:38:SER:O	3:R:41:GLU:HG3	2.09	0.53
1:A:597:TRP:HA	1:A:1243:ILE:O	2.08	0.53
1:A:703:ASN:ND2	1:A:746:VAL:O	2.42	0.53
1:A:884:TRP:CH2	2:B:81:ILE:HD11	2.44	0.53
1:A:1067:VAL:N	1:A:1081:PHE:O	2.40	0.53
1:C:597:TRP:CH2	1:C:603:ILE:HG12	2.43	0.53
1:C:637:LYS:CA	1:C:660:VAL:HG23	2.36	0.53
1:C:1026:GLU:HG2	1:C:1041:ARG:HA	1.91	0.53
1:C:1247:LEU:CD1	1:C:1248:GLU:H	2.13	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:317:CYS:SG	1:E:324:VAL:CG2	2.96	0.53
1:E:390:GLN:HB3	1:E:393:VAL:HG22	1.91	0.53
1:E:551:ASN:O	1:E:555:LEU:HB3	2.08	0.53
1:E:1018:LEU:HB3	1:E:1030:TRP:O	2.08	0.53
1:E:1177:GLY:HA2	1:E:1197:GLY:HA2	1.81	0.53
2:F:18:HIS:CE1	7:F:201:HEM:ND	2.76	0.53
1:G:567:GLY:O	1:G:569:CYS:N	2.41	0.53
1:G:1067:VAL:N	1:G:1081:PHE:O	2.40	0.53
1:G:1177:GLY:HA2	1:G:1197:GLY:HA2	1.81	0.53
1:G:1240:ILE:HG22	1:G:1242:TYR:CD1	2.44	0.53
1:I:298:PHE:CZ	1:I:325:SER:HA	2.42	0.53
1:I:1247:LEU:CD1	1:I:1248:GLU:H	2.13	0.53
1:K:298:PHE:CZ	1:K:325:SER:HA	2.42	0.53
1:K:484:TYR:HA	1:K:509:TRP:HZ2	1.73	0.53
1:K:551:ASN:O	1:K:555:LEU:HB3	2.08	0.53
1:K:597:TRP:HE1	1:K:1242:TYR:HA	1.73	0.53
1:K:1199:ILE:HD11	1:K:1232:TYR:CZ	2.42	0.53
1:K:1239:GLY:O	1:K:1240:ILE:HB	2.08	0.53
1:M:1176:HIS:HB3	1:M:1218:THR:OG1	2.05	0.53
1:M:1233:VAL:HA	1:M:1242:TYR:O	2.09	0.53
3:O:26:MET:O	3:O:30:ILE:HG12	2.09	0.53
3:P:21:LYS:HD2	4:T:39:MET:HE2	1.91	0.53
3:Q:38:SER:O	3:Q:41:GLU:HG3	2.09	0.53
4:T:36:ARG:HD3	4:T:37:PRO:HD2	1.90	0.53
4:T:38:HIS:O	4:T:41:GLU:HG2	2.08	0.53
1:A:1200:LYS:HG3	1:A:1211:GLN:HB2	1.91	0.53
1:C:400:LEU:O	1:C:404:TRP:HE3	1.91	0.53
1:C:554:LEU:CD1	1:C:1214:TYR:CE1	2.91	0.53
1:C:823:LEU:HB3	1:C:833:GLY:HA3	1.90	0.53
1:E:1200:LYS:CG	1:E:1211:GLN:HB3	2.33	0.53
1:G:884:TRP:CH2	2:H:81:ILE:HD11	2.44	0.53
1:I:144:LYS:HG2	1:I:145:GLY:N	2.23	0.53
1:I:400:LEU:O	1:I:404:TRP:HE3	1.91	0.53
1:I:986:GLU:HA	1:I:997:GLN:O	2.09	0.53
1:I:1226:SER:OG	1:I:1227:PRO:HD2	2.09	0.53
1:K:564:VAL:HG11	1:K:583:GLN:CG	2.39	0.53
1:K:902:ASP:HB3	2:L:72:LYS:NZ	2.24	0.53
1:K:926:VAL:CG1	1:K:938:LEU:O	2.57	0.53
1:K:1149:GLY:H	1:K:1180:VAL:CG2	2.22	0.53
1:K:1226:SER:OG	1:K:1227:PRO:HD2	2.09	0.53
2:N:18:HIS:CE1	7:N:201:HEM:ND	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:22:THR:HG22	3:P:56:LEU:HD12	1.91	0.53
3:P:37:ILE:HG12	4:S:10:ARG:CD	2.36	0.53
4:T:13:ARG:HD2	4:T:17:VAL:HG13	1.90	0.53
1:A:179:PRO:HD3	1:A:237:ARG:NH1	2.14	0.52
1:C:1240:ILE:HG22	1:C:1242:TYR:CD1	2.44	0.52
1:E:237:ARG:HH11	1:E:237:ARG:CG	2.21	0.52
1:E:525:GLU:O	1:E:528:GLU:HG2	2.06	0.52
1:E:903:ASP:O	1:E:904:GLN:CB	2.57	0.52
1:E:1226:SER:OG	1:E:1227:PRO:HD2	2.09	0.52
1:G:373:GLU:HA	1:G:373:GLU:OE2	2.09	0.52
1:I:551:ASN:O	1:I:555:LEU:HB3	2.08	0.52
1:I:926:VAL:CG1	1:I:938:LEU:O	2.57	0.52
1:K:473:LEU:CD1	1:K:480:CYS:HB3	2.39	0.52
1:K:537:ASP:HA	1:K:540:VAL:HG23	1.92	0.52
1:M:373:GLU:OE2	1:M:373:GLU:HA	2.09	0.52
1:M:484:TYR:HA	1:M:509:TRP:HZ2	1.73	0.52
1:M:551:ASN:O	1:M:555:LEU:HB3	2.08	0.52
3:P:38:SER:O	3:P:41:GLU:HG3	2.09	0.52
4:U:41:GLU:O	4:U:45:ARG:HG3	2.08	0.52
1:A:296:SER:O	1:A:300:ASN:N	2.42	0.52
1:C:525:GLU:HA	1:C:528:GLU:HG2	1.91	0.52
1:E:231:MET:SD	1:E:258:CYS:SG	2.97	0.52
1:E:525:GLU:HA	1:E:528:GLU:HG2	1.92	0.52
1:E:902:ASP:HB3	2:F:72:LYS:NZ	2.24	0.52
1:E:1167:PRO:HA	1:E:1202:TRP:NE1	1.94	0.52
1:E:1233:VAL:HA	1:E:1242:TYR:O	2.09	0.52
1:G:344:GLN:CD	1:G:352:ARG:HG3	2.30	0.52
1:G:452:GLN:HB3	1:G:456:LEU:HD11	1.91	0.52
1:G:849:SER:HB2	1:G:890:PHE:CZ	2.45	0.52
1:G:986:GLU:HA	1:G:997:GLN:O	2.09	0.52
1:I:526:PHE:O	1:I:529:TYR:HB3	2.08	0.52
1:I:540:VAL:CG1	1:I:575:GLU:HB3	2.34	0.52
1:I:778:ARG:HG2	1:I:779:LYS:HG3	1.91	0.52
1:I:928:VAL:CG2	1:I:1224:HIS:CG	2.92	0.52
1:K:137:GLN:NE2	1:K:173:LEU:HB3	2.23	0.52
1:K:317:CYS:SG	1:K:323:VAL:CG1	2.98	0.52
1:K:703:ASN:ND2	1:K:746:VAL:O	2.42	0.52
1:K:1026:GLU:HG2	1:K:1041:ARG:HA	1.91	0.52
1:K:1177:GLY:CA	1:K:1197:GLY:HA3	2.27	0.52
1:M:639:LEU:H	1:M:653:ILE:HG23	1.70	0.52
1:M:902:ASP:HB3	2:N:72:LYS:NZ	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1176:HIS:CB	1:M:1218:THR:CB	2.77	0.52
1:M:1233:VAL:HG11	1:M:1243:ILE:CG1	2.28	0.52
3:O:38:SER:O	3:O:41:GLU:HG3	2.08	0.52
3:P:46:GLU:HB2	3:P:52:ARG:HG2	1.91	0.52
4:S:29:LEU:HD22	4:S:34:LEU:HD23	1.91	0.52
1:A:986:GLU:HA	1:A:997:GLN:O	2.09	0.52
1:A:1026:GLU:HG2	1:A:1041:ARG:HA	1.92	0.52
1:C:147:PRO:HG3	1:E:121:GLN:CD	2.30	0.52
1:C:525:GLU:O	1:C:528:GLU:HG2	2.05	0.52
1:C:928:VAL:CG2	1:C:1224:HIS:CG	2.92	0.52
1:C:1151:ILE:H	1:C:1167:PRO:CD	2.19	0.52
2:D:18:HIS:NE2	7:D:201:HEM:CHD	2.72	0.52
1:E:160:LYS:CB	1:E:160:LYS:NZ	2.73	0.52
1:E:703:ASN:ND2	1:E:746:VAL:O	2.42	0.52
1:G:390:GLN:HB3	1:G:393:VAL:HG22	1.91	0.52
1:G:551:ASN:O	1:G:555:LEU:HB3	2.08	0.52
1:G:762:SER:OG	1:G:764:ASP:OD1	2.25	0.52
1:G:926:VAL:CG1	1:G:938:LEU:O	2.57	0.52
1:I:143:LEU:H	1:I:143:LEU:CD2	2.21	0.52
1:I:513:LYS:CE	1:I:522:LEU:HG	2.40	0.52
1:I:537:ASP:HA	1:I:540:VAL:HG23	1.92	0.52
1:I:845:TYR:HB3	1:I:858:ALA:HB3	1.92	0.52
1:I:1029:VAL:HG11	1:I:1073:ILE:HA	1.90	0.52
1:M:143:LEU:H	1:M:143:LEU:CD2	2.21	0.52
1:M:480:CYS:HA	1:M:483:TRP:HD1	1.73	0.52
1:M:513:LYS:CE	1:M:522:LEU:HG	2.40	0.52
1:M:597:TRP:HZ2	1:M:603:ILE:HG12	1.71	0.52
1:M:778:ARG:HG2	1:M:779:LYS:HG3	1.91	0.52
3:R:26:MET:O	3:R:30:ILE:HG12	2.09	0.52
1:A:373:GLU:HA	1:A:373:GLU:OE2	2.09	0.52
1:A:390:GLN:OE1	1:A:489:TYR:HE2	1.92	0.52
1:C:246:TRP:CH2	1:C:370:ILE:HG22	2.45	0.52
1:C:473:LEU:CD1	1:C:480:CYS:HB3	2.40	0.52
1:C:564:VAL:HG11	1:C:583:GLN:CG	2.39	0.52
1:C:597:TRP:HA	1:C:1243:ILE:O	2.08	0.52
1:C:703:ASN:ND2	1:C:746:VAL:O	2.42	0.52
1:C:747:ASN:ND2	1:C:801:VAL:O	2.38	0.52
1:E:296:SER:O	1:E:300:ASN:N	2.42	0.52
1:E:849:SER:HB2	1:E:890:PHE:CZ	2.44	0.52
1:G:657:GLU:HB3	1:G:680:LYS:HD2	1.92	0.52
1:G:944:ARG:NE	1:G:961:GLU:O	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1220:LEU:CD2	1:G:1234:THR:CB	2.74	0.52
1:I:246:TRP:CH2	1:I:370:ILE:HG22	2.45	0.52
1:I:344:GLN:CD	1:I:352:ARG:HG3	2.30	0.52
1:I:452:GLN:HB3	1:I:456:LEU:HD11	1.91	0.52
1:I:1200:LYS:C	1:I:1202:TRP:CE3	2.80	0.52
1:K:122:ARG:NE	1:K:126:PHE:CE2	2.78	0.52
1:K:260:ILE:O	1:K:260:ILE:HG13	2.06	0.52
1:K:505:PHE:HZ	1:K:540:VAL:CG1	2.17	0.52
1:M:122:ARG:NE	1:M:126:PHE:CE2	2.78	0.52
1:M:487:LEU:HG	1:M:503:LEU:CD2	2.40	0.52
1:M:1026:GLU:HG2	1:M:1041:ARG:HA	1.91	0.52
1:M:1212:THR:CG2	1:M:1213:PHE:H	2.12	0.52
1:M:1213:PHE:O	1:M:1214:TYR:CB	2.49	0.52
3:P:19:ASP:HB3	4:T:64:THR:CB	2.39	0.52
3:R:46:GLU:HB2	3:R:52:ARG:HG2	1.91	0.52
4:V:36:ARG:NH1	4:V:37:PRO:CD	2.60	0.52
1:A:206:LEU:HD21	1:A:235:HIS:HD2	1.75	0.52
1:A:525:GLU:HA	1:A:528:GLU:HG2	1.91	0.52
1:A:757:LEU:HB3	1:A:769:LEU:HD11	1.90	0.52
1:C:137:GLN:NE2	1:C:173:LEU:HB3	2.24	0.52
1:C:862:TYR:HE2	1:C:881:HIS:N	1.82	0.52
1:C:926:VAL:CG1	1:C:938:LEU:O	2.57	0.52
1:C:928:VAL:CG1	1:C:937:VAL:HA	2.28	0.52
1:E:246:TRP:CH2	1:E:370:ILE:HG22	2.45	0.52
1:E:390:GLN:OE1	1:E:489:TYR:HE2	1.92	0.52
1:E:461:ILE:CD1	1:E:491:MET:HG3	2.40	0.52
1:E:473:LEU:CD1	1:E:480:CYS:HB3	2.40	0.52
1:E:597:TRP:HA	1:E:1243:ILE:O	2.08	0.52
1:E:1233:VAL:CA	1:E:1242:TYR:O	2.58	0.52
1:G:106:ILE:HG22	1:G:107:THR:O	2.08	0.52
1:G:122:ARG:NE	1:G:126:PHE:CE2	2.78	0.52
1:G:1149:GLY:N	1:G:1180:VAL:CG2	2.72	0.52
1:I:849:SER:HB2	1:I:890:PHE:CZ	2.45	0.52
1:I:884:TRP:CH2	2:J:81:ILE:HD11	2.44	0.52
1:I:902:ASP:HB3	2:J:72:LYS:HZ2	1.72	0.52
1:K:1167:PRO:HA	1:K:1202:TRP:NE1	1.94	0.52
1:M:242:LEU:N	1:M:242:LEU:CD1	2.73	0.52
1:M:344:GLN:CD	1:M:352:ARG:HG3	2.30	0.52
1:M:473:LEU:CD1	1:M:480:CYS:HB3	2.39	0.52
1:M:525:GLU:HA	1:M:528:GLU:HG2	1.92	0.52
3:Q:22:THR:HG22	3:Q:56:LEU:HD12	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:121:GLN:CD	1:M:147:PRO:HG3	2.30	0.52
1:A:849:SER:HB2	1:A:890:PHE:CZ	2.45	0.52
1:A:902:ASP:HB3	2:B:72:LYS:NZ	2.24	0.52
1:A:903:ASP:O	1:A:904:GLN:CB	2.57	0.52
1:A:1183:LEU:N	1:A:1183:LEU:CD1	2.73	0.52
1:C:845:TYR:HB3	1:C:858:ALA:HB3	1.92	0.52
1:C:986:GLU:HA	1:C:997:GLN:O	2.09	0.52
2:D:103:ASN:C	2:D:104:GLU:O	2.46	0.52
1:E:1149:GLY:N	1:E:1180:VAL:CG2	2.72	0.52
1:E:1200:LYS:O	1:E:1202:TRP:HZ3	1.81	0.52
1:G:487:LEU:HG	1:G:503:LEU:CD2	2.40	0.52
1:G:564:VAL:HG11	1:G:583:GLN:CG	2.39	0.52
1:I:554:LEU:CD1	1:I:1214:TYR:CE1	2.91	0.52
1:I:597:TRP:CH2	1:I:603:ILE:HG12	2.43	0.52
1:K:296:SER:O	1:K:300:ASN:N	2.42	0.52
1:K:334:PHE:CB	1:K:337:ARG:CG	2.87	0.52
1:K:374:MET:CE	1:K:374:MET:CA	2.85	0.52
1:K:1029:VAL:HG11	1:K:1073:ILE:HA	1.90	0.52
2:L:18:HIS:CE1	7:L:201:HEM:ND	2.76	0.52
1:M:334:PHE:CB	1:M:337:ARG:CG	2.87	0.52
1:M:505:PHE:HZ	1:M:540:VAL:CG1	2.17	0.52
1:M:849:SER:HB2	1:M:890:PHE:CZ	2.44	0.52
1:M:926:VAL:CG1	1:M:938:LEU:O	2.57	0.52
1:M:1226:SER:OG	1:M:1227:PRO:HD2	2.09	0.52
3:R:48:THR:HG21	4:S:41:GLU:CA	2.34	0.52
1:A:779:LYS:NZ	1:A:827:HIS:O	2.43	0.52
1:A:926:VAL:CG1	1:A:938:LEU:O	2.57	0.52
2:B:103:ASN:C	2:B:104:GLU:O	2.46	0.52
1:C:143:LEU:H	1:C:143:LEU:CD2	2.21	0.52
1:C:334:PHE:CB	1:C:337:ARG:CG	2.87	0.52
1:C:505:PHE:HZ	1:C:540:VAL:CG1	2.17	0.52
1:E:364:LEU:CD1	1:E:368:MET:HE1	2.29	0.52
1:E:416:GLN:NE2	1:E:416:GLN:CA	2.73	0.52
1:E:487:LEU:HG	1:E:503:LEU:CD2	2.40	0.52
1:G:298:PHE:CZ	1:G:325:SER:HA	2.42	0.52
1:G:480:CYS:HA	1:G:483:TRP:HD1	1.73	0.52
1:G:1029:VAL:HG11	1:G:1073:ILE:HA	1.90	0.52
1:I:147:PRO:HG3	1:K:121:GLN:CD	2.30	0.52
1:I:260:ILE:O	1:I:260:ILE:HG13	2.05	0.52
1:I:505:PHE:CZ	1:I:540:VAL:CG1	2.90	0.52
1:I:657:GLU:HB3	1:I:680:LYS:HD2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:714:LEU:HB3	1:I:730:LEU:HB2	1.90	0.52
1:I:1239:GLY:O	1:I:1240:ILE:HB	2.09	0.52
1:K:174:LEU:HD23	1:K:175:GLU:HA	1.92	0.52
1:K:373:GLU:HA	1:K:373:GLU:OE2	2.09	0.52
1:K:416:GLN:NE2	1:K:416:GLN:CA	2.73	0.52
1:K:480:CYS:HA	1:K:483:TRP:HD1	1.73	0.52
1:K:837:THR:HG21	1:K:843:ILE:HD11	1.92	0.52
3:O:1:MET:N	3:O:6:ARG:NH2	2.56	0.52
4:U:17:VAL:O	4:U:51:ARG:NH2	2.41	0.52
4:U:68:GLN:O	4:U:72:LEU:HB2	2.10	0.52
1:A:505:PHE:CZ	1:A:540:VAL:CG1	2.90	0.52
1:A:1187:PRO:HD3	1:A:1229:PHE:CG	2.45	0.52
1:C:496:MET:HA	1:C:496:MET:HE3	1.90	0.52
1:E:122:ARG:NE	1:E:126:PHE:CE2	2.78	0.52
1:E:146:GLU:HG2	1:G:111:ARG:NH1	2.19	0.52
1:E:242:LEU:CD1	1:E:242:LEU:N	2.73	0.52
1:E:334:PHE:CB	1:E:337:ARG:CG	2.87	0.52
1:E:1149:GLY:CA	1:E:1180:VAL:CG2	2.77	0.52
1:G:879:ARG:HB3	1:G:921:MET:HE2	1.84	0.52
1:I:317:CYS:SG	1:I:323:VAL:CG1	2.98	0.52
1:I:374:MET:CE	1:I:374:MET:CA	2.85	0.52
1:I:390:GLN:OE1	1:I:489:TYR:HE2	1.92	0.52
1:I:1149:GLY:CA	1:I:1180:VAL:CG2	2.79	0.52
1:K:246:TRP:CH2	1:K:370:ILE:HG22	2.45	0.52
1:K:389:LEU:HD21	1:K:395:VAL:CG2	2.40	0.52
1:K:525:GLU:HA	1:K:528:GLU:HG2	1.91	0.52
1:K:884:TRP:CH2	2:L:81:ILE:HD11	2.44	0.52
1:K:986:GLU:HA	1:K:997:GLN:O	2.09	0.52
1:M:567:GLY:O	1:M:569:CYS:N	2.41	0.52
2:N:18:HIS:NE2	7:N:201:HEM:CHD	2.72	0.52
4:T:29:LEU:HD22	4:T:34:LEU:HD23	1.91	0.52
1:A:334:PHE:CB	1:A:337:ARG:CD	2.87	0.52
1:A:637:LYS:CA	1:A:660:VAL:HG23	2.36	0.52
1:A:1018:LEU:HB3	1:A:1030:TRP:O	2.08	0.52
1:A:1233:VAL:HA	1:A:1242:TYR:O	2.09	0.52
1:C:537:ASP:HA	1:C:540:VAL:HG23	1.92	0.52
1:C:598:ILE:O	1:C:598:ILE:HG13	2.10	0.52
1:E:179:PRO:CD	1:E:237:ARG:HH12	2.13	0.52
1:E:970:SER:OG	1:E:973:LEU:O	2.24	0.52
1:E:1029:VAL:HG11	1:E:1073:ILE:HA	1.90	0.52
1:E:1187:PRO:HD3	1:E:1229:PHE:CG	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:160:LYS:NZ	1:G:160:LYS:CB	2.73	0.52
1:G:334:PHE:CB	1:G:337:ARG:CG	2.87	0.52
1:G:1200:LYS:CG	1:G:1211:GLN:HB3	2.32	0.52
1:I:206:LEU:HD21	1:I:235:HIS:HD2	1.75	0.52
1:I:334:PHE:CB	1:I:337:ARG:CG	2.87	0.52
1:I:779:LYS:NZ	1:I:827:HIS:O	2.43	0.52
1:K:147:PRO:HG3	1:M:121:GLN:CD	2.30	0.52
1:K:206:LEU:HD21	1:K:235:HIS:HD2	1.75	0.52
1:K:390:GLN:OE1	1:K:489:TYR:HE2	1.92	0.52
1:K:513:LYS:CE	1:K:522:LEU:HG	2.40	0.52
1:K:657:GLU:HB3	1:K:680:LYS:HD2	1.92	0.52
1:K:1236:ASP:OD1	1:K:1236:ASP:N	2.43	0.52
1:K:1247:LEU:CD1	1:K:1248:GLU:N	2.73	0.52
1:M:537:ASP:HA	1:M:540:VAL:HG23	1.92	0.52
1:M:1187:PRO:CG	1:M:1229:PHE:HB3	2.40	0.52
1:M:1233:VAL:CA	1:M:1242:TYR:O	2.58	0.52
4:V:68:GLN:O	4:V:72:LEU:HB2	2.10	0.52
1:A:122:ARG:NE	1:A:126:PHE:CE2	2.78	0.52
1:A:318:LYS:HD3	1:A:439:ASP:CB	2.40	0.52
1:A:452:GLN:HB3	1:A:456:LEU:HD11	1.91	0.52
1:A:1031:ASN:HB3	1:A:1036:LYS:HB2	1.92	0.52
2:B:18:HIS:CE1	7:B:201:HEM:ND	2.76	0.52
1:C:373:GLU:HA	1:C:373:GLU:OE2	2.09	0.52
1:C:389:LEU:HD21	1:C:395:VAL:CG2	2.40	0.52
1:C:452:GLN:HB3	1:C:456:LEU:HD11	1.91	0.52
1:E:317:CYS:SG	1:E:323:VAL:CG1	2.98	0.52
1:E:327:ILE:HD13	1:E:353:ILE:CG2	2.40	0.52
1:E:373:GLU:OE2	1:E:373:GLU:HA	2.09	0.52
1:E:554:LEU:CD1	1:E:1214:TYR:CE1	2.91	0.52
1:E:597:TRP:CH2	1:E:603:ILE:HG12	2.43	0.52
1:E:1031:ASN:HB3	1:E:1036:LYS:HB2	1.92	0.52
1:E:1233:VAL:CB	1:E:1242:TYR:O	2.54	0.52
1:G:1187:PRO:HD3	1:G:1229:PHE:CG	2.45	0.52
1:G:1233:VAL:CA	1:G:1242:TYR:O	2.58	0.52
2:H:18:HIS:NE2	7:H:201:HEM:CHD	2.72	0.52
1:I:108:SER:O	1:I:111:ARG:HG2	2.07	0.52
1:I:180:GLY:H	1:I:237:ARG:HB3	1.75	0.52
1:I:487:LEU:HG	1:I:503:LEU:CD2	2.40	0.52
1:I:926:VAL:HB	1:I:938:LEU:O	2.10	0.52
1:I:1067:VAL:N	1:I:1081:PHE:O	2.40	0.52
1:K:778:ARG:HG2	1:K:779:LYS:HG3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1233:VAL:CA	1:K:1242:TYR:O	2.58	0.52
1:M:903:ASP:O	1:M:904:GLN:CB	2.56	0.52
3:R:47:PRO:HA	4:S:45:ARG:CG	2.39	0.52
1:A:242:LEU:N	1:A:242:LEU:CD1	2.73	0.51
1:A:487:LEU:HG	1:A:503:LEU:CD2	2.40	0.51
1:A:513:LYS:CE	1:A:522:LEU:HG	2.40	0.51
1:C:837:THR:HG21	1:C:843:ILE:HD11	1.91	0.51
1:C:1031:ASN:HB3	1:C:1036:LYS:HB2	1.92	0.51
1:E:344:GLN:CD	1:E:352:ARG:HG3	2.30	0.51
1:E:945:ARG:HG2	1:E:946:LEU:HG	1.92	0.51
1:E:1026:GLU:HG2	1:E:1041:ARG:HA	1.91	0.51
1:G:389:LEU:HD21	1:G:395:VAL:CG2	2.40	0.51
1:G:525:GLU:HA	1:G:528:GLU:HG2	1.91	0.51
1:G:554:LEU:CD1	1:G:1214:TYR:CE1	2.91	0.51
1:G:597:TRP:CH2	1:G:603:ILE:HG12	2.43	0.51
1:I:528:GLU:O	1:I:532:ILE:HG22	2.10	0.51
1:I:564:VAL:HG11	1:I:583:GLN:CG	2.39	0.51
1:I:762:SER:OG	1:I:764:ASP:OD1	2.26	0.51
1:I:1187:PRO:HD3	1:I:1229:PHE:CG	2.45	0.51
1:K:1213:PHE:O	1:K:1214:TYR:CB	2.49	0.51
1:M:246:TRP:CH2	1:M:370:ILE:HG22	2.45	0.51
1:M:657:GLU:HB3	1:M:680:LYS:HD2	1.92	0.51
1:M:884:TRP:CZ3	1:M:885:VAL:O	2.64	0.51
1:M:945:ARG:HG2	1:M:946:LEU:HG	1.92	0.51
3:Q:21:LYS:HZ1	4:U:61:ASP:CG	2.14	0.51
4:U:13:ARG:NH2	4:U:60:ILE:HG13	2.25	0.51
1:A:125:VAL:O	1:A:125:VAL:HG12	2.11	0.51
1:A:461:ILE:CD1	1:A:491:MET:HG3	2.40	0.51
1:A:597:TRP:HZ2	1:A:603:ILE:HG12	1.70	0.51
1:C:487:LEU:HG	1:C:503:LEU:CD2	2.40	0.51
1:C:513:LYS:CE	1:C:522:LEU:HG	2.40	0.51
1:C:1187:PRO:CG	1:C:1229:PHE:HB3	2.40	0.51
1:C:1233:VAL:HA	1:C:1242:TYR:O	2.09	0.51
1:E:452:GLN:HB3	1:E:456:LEU:HD11	1.91	0.51
1:E:513:LYS:CE	1:E:522:LEU:HG	2.40	0.51
1:E:537:ASP:HA	1:E:540:VAL:HG23	1.91	0.51
1:G:242:LEU:N	1:G:242:LEU:CD1	2.73	0.51
1:G:513:LYS:CE	1:G:522:LEU:HG	2.40	0.51
1:G:926:VAL:HB	1:G:938:LEU:O	2.10	0.51
1:G:945:ARG:HG2	1:G:946:LEU:HG	1.92	0.51
1:I:122:ARG:NE	1:I:126:PHE:CE2	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:390:GLN:HB3	1:I:393:VAL:HG22	1.91	0.51
1:I:473:LEU:CD1	1:I:480:CYS:HB3	2.39	0.51
1:I:598:ILE:O	1:I:598:ILE:HG13	2.10	0.51
1:K:242:LEU:N	1:K:242:LEU:CD1	2.73	0.51
1:K:461:ILE:CD1	1:K:491:MET:HG3	2.40	0.51
1:K:554:LEU:CD1	1:K:1214:TYR:CE1	2.91	0.51
1:K:598:ILE:O	1:K:598:ILE:HG13	2.10	0.51
1:K:747:ASN:ND2	1:K:801:VAL:O	2.38	0.51
1:K:845:TYR:HB3	1:K:858:ALA:HB3	1.92	0.51
1:K:879:ARG:CB	1:K:921:MET:CE	2.73	0.51
1:K:1151:ILE:H	1:K:1167:PRO:CD	2.20	0.51
1:M:296:SER:O	1:M:300:ASN:N	2.42	0.51
1:M:416:GLN:NE2	1:M:416:GLN:CA	2.73	0.51
1:M:1247:LEU:CD1	1:M:1248:GLU:N	2.73	0.51
3:O:48:THR:HG22	3:P:41:GLU:OE2	1.96	0.51
4:S:70:LEU:O	4:S:74:ILE:HG13	2.10	0.51
1:A:173:LEU:N	3:W:7:ASN:ND2	2.58	0.51
1:A:845:TYR:HB3	1:A:858:ALA:HB3	1.92	0.51
1:C:390:GLN:HB3	1:C:393:VAL:HG22	1.91	0.51
1:C:461:ILE:CD1	1:C:491:MET:HG3	2.40	0.51
1:C:1187:PRO:HD3	1:C:1229:PHE:CG	2.45	0.51
1:E:389:LEU:HD21	1:E:395:VAL:CG2	2.40	0.51
1:E:1151:ILE:H	1:E:1167:PRO:CD	2.20	0.51
1:E:1239:GLY:O	1:E:1240:ILE:HB	2.08	0.51
1:G:206:LEU:HD21	1:G:235:HIS:HD2	1.75	0.51
1:G:332:ARG:CG	1:G:332:ARG:NH1	2.73	0.51
1:G:385:ASP:OD2	1:G:403:LEU:HD11	2.11	0.51
1:G:537:ASP:HA	1:G:540:VAL:HG23	1.92	0.51
1:I:398:LYS:O	1:I:402:ILE:HG12	2.10	0.51
1:I:1026:GLU:HG2	1:I:1041:ARG:HA	1.92	0.51
1:K:160:LYS:NZ	1:K:160:LYS:CB	2.73	0.51
1:K:398:LYS:O	1:K:402:ILE:HG12	2.10	0.51
1:K:487:LEU:HG	1:K:503:LEU:CD2	2.40	0.51
1:M:327:ILE:HD13	1:M:353:ILE:CG2	2.41	0.51
1:M:528:GLU:O	1:M:532:ILE:HG22	2.10	0.51
1:M:554:LEU:CD1	1:M:1214:TYR:CE1	2.91	0.51
1:M:1187:PRO:HD3	1:M:1229:PHE:CG	2.45	0.51
3:O:22:THR:HG22	3:O:56:LEU:HD12	1.91	0.51
4:U:8:LEU:O	4:U:8:LEU:HD22	2.10	0.51
1:A:147:PRO:HG3	1:C:121:GLN:CD	2.30	0.51
1:A:389:LEU:HD21	1:A:395:VAL:CG2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:453:LEU:HD11	1:A:454:GLN:NE2	2.00	0.51
1:C:174:LEU:HD23	1:C:175:GLU:HA	1.92	0.51
1:C:206:LEU:HD21	1:C:235:HIS:HD2	1.75	0.51
1:C:296:SER:O	1:C:300:ASN:N	2.42	0.51
1:C:431:LYS:HZ3	1:E:336:ASN:CB	2.12	0.51
1:E:528:GLU:O	1:E:532:ILE:HG22	2.10	0.51
1:E:597:TRP:CZ2	1:E:603:ILE:CG1	2.94	0.51
1:E:657:GLU:HB3	1:E:680:LYS:HD2	1.92	0.51
1:E:837:THR:HG21	1:E:843:ILE:HD11	1.92	0.51
1:E:926:VAL:HB	1:E:938:LEU:O	2.10	0.51
1:G:327:ILE:HD13	1:G:353:ILE:CG2	2.41	0.51
1:G:496:MET:HA	1:G:496:MET:HE3	1.91	0.51
1:G:1168:LEU:HD11	1:G:1171:GLU:CG	2.41	0.51
1:K:327:ILE:HD13	1:K:353:ILE:CG2	2.41	0.51
1:K:528:GLU:O	1:K:532:ILE:HG22	2.10	0.51
1:K:945:ARG:HG2	1:K:946:LEU:HG	1.92	0.51
1:M:229:ILE:HG22	1:M:233:ARG:CD	2.28	0.51
1:M:385:ASP:OD2	1:M:403:LEU:HD11	2.11	0.51
1:M:529:TYR:HA	1:M:532:ILE:HG21	1.93	0.51
1:M:845:TYR:HB3	1:M:858:ALA:HB3	1.92	0.51
1:M:926:VAL:HB	1:M:938:LEU:O	2.10	0.51
1:M:1164:LEU:H	1:M:1164:LEU:CD1	2.17	0.51
1:M:1200:LYS:HG3	1:M:1211:GLN:HB2	1.91	0.51
3:Q:28:HIS:CE1	4:T:14:LEU:CD1	2.91	0.51
4:T:8:LEU:HD12	4:T:70:LEU:HD11	1.92	0.51
4:U:70:LEU:O	4:U:74:ILE:HG13	2.11	0.51
1:A:137:GLN:NE2	1:A:173:LEU:HB3	2.24	0.51
1:A:229:ILE:HG22	1:A:233:ARG:CD	2.28	0.51
1:A:334:PHE:CB	1:A:337:ARG:CG	2.87	0.51
1:A:920:VAL:HG12	1:A:921:MET:N	2.25	0.51
1:C:416:GLN:NE2	1:C:416:GLN:CA	2.73	0.51
1:C:1200:LYS:CD	1:C:1211:GLN:HB3	2.33	0.51
1:E:327:ILE:HD13	1:E:353:ILE:HG21	1.92	0.51
1:G:180:GLY:H	1:G:237:ARG:HB3	1.76	0.51
1:G:229:ILE:HG22	1:G:233:ARG:CD	2.28	0.51
1:G:246:TRP:CH2	1:G:370:ILE:HG22	2.45	0.51
1:G:505:PHE:HZ	1:G:540:VAL:CG1	2.17	0.51
1:G:625:GLU:HG3	1:G:667:THR:HA	1.93	0.51
1:G:1031:ASN:HB3	1:G:1036:LYS:HB2	1.92	0.51
1:G:1200:LYS:CD	1:G:1211:GLN:HB3	2.33	0.51
1:I:125:VAL:O	1:I:125:VAL:HG12	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:242:LEU:N	1:I:242:LEU:CD1	2.73	0.51
1:I:244:ASP:O	1:I:245:VAL:HB	2.11	0.51
1:I:453:LEU:HD11	1:I:454:GLN:NE2	2.00	0.51
1:I:1187:PRO:CG	1:I:1229:PHE:HB3	2.40	0.51
1:I:1233:VAL:CA	1:I:1242:TYR:O	2.58	0.51
1:M:206:LEU:HD21	1:M:235:HIS:HD2	1.75	0.51
1:M:546:GLU:HB3	1:M:570:GLU:OE1	2.11	0.51
1:M:598:ILE:HG13	1:M:598:ILE:O	2.10	0.51
1:M:637:LYS:CA	1:M:660:VAL:HG23	2.36	0.51
4:S:68:GLN:O	4:S:72:LEU:HB2	2.10	0.51
1:A:180:GLY:H	1:A:237:ARG:HB3	1.75	0.51
1:A:327:ILE:HD13	1:A:353:ILE:CG2	2.40	0.51
1:A:344:GLN:CD	1:A:352:ARG:HG3	2.30	0.51
1:A:621:ALA:HA	1:A:631:ALA:O	2.11	0.51
1:A:1176:HIS:HB3	1:A:1218:THR:OG1	2.03	0.51
1:C:179:PRO:HD3	1:C:237:ARG:HH12	1.75	0.51
1:C:344:GLN:CD	1:C:352:ARG:HG3	2.30	0.51
1:C:364:LEU:CD1	1:C:368:MET:HE2	2.40	0.51
1:C:409:GLU:HG3	1:E:340:TYR:HH	1.70	0.51
1:C:561:PRO:O	1:C:563:ILE:N	2.44	0.51
1:C:667:THR:OG1	1:C:708:THR:O	2.29	0.51
1:C:849:SER:HB2	1:C:890:PHE:CZ	2.45	0.51
1:C:945:ARG:HG2	1:C:946:LEU:HG	1.92	0.51
1:C:1236:ASP:OD1	1:C:1236:ASP:N	2.43	0.51
1:E:374:MET:HA	1:E:374:MET:HE3	1.92	0.51
1:E:546:GLU:HB3	1:E:570:GLU:OE1	2.11	0.51
1:E:845:TYR:HB3	1:E:858:ALA:HB3	1.92	0.51
1:G:147:PRO:HG3	1:I:121:GLN:CD	2.30	0.51
1:G:179:PRO:HD3	1:G:237:ARG:HH12	1.75	0.51
1:G:317:CYS:SG	1:G:323:VAL:CG1	2.98	0.51
1:G:398:LYS:O	1:G:402:ILE:HG12	2.10	0.51
1:G:416:GLN:NE2	1:G:416:GLN:CA	2.73	0.51
1:G:546:GLU:HB3	1:G:570:GLU:OE1	2.11	0.51
1:G:621:ALA:HA	1:G:631:ALA:O	2.11	0.51
1:G:845:TYR:HB3	1:G:858:ALA:HB3	1.92	0.51
1:G:903:ASP:O	1:G:904:GLN:CB	2.56	0.51
1:I:389:LEU:HD21	1:I:395:VAL:CG2	2.40	0.51
1:I:923:LYS:CB	1:I:940:VAL:HG21	2.41	0.51
2:J:18:HIS:CE1	7:J:201:HEM:ND	2.77	0.51
1:K:244:ASP:O	1:K:245:VAL:HB	2.11	0.51
1:K:326:LEU:HD23	1:K:353:ILE:CG2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:431:LYS:HZ2	1:M:336:ASN:HB3	1.67	0.51
1:K:1168:LEU:HD11	1:K:1171:GLU:CG	2.41	0.51
1:M:326:LEU:HD23	1:M:353:ILE:CG2	2.41	0.51
1:M:327:ILE:HD13	1:M:353:ILE:HG21	1.92	0.51
1:M:461:ILE:CD1	1:M:491:MET:HG3	2.40	0.51
1:M:1031:ASN:HB3	1:M:1036:LYS:HB2	1.92	0.51
3:R:68:TYR:CD1	3:R:91:ILE:HG22	2.46	0.51
4:T:70:LEU:O	4:T:74:ILE:HG13	2.10	0.51
4:V:70:LEU:O	4:V:74:ILE:HG13	2.11	0.51
4:Y:32:ARG:HD2	4:Y:76:CYS:SG	2.51	0.51
1:A:528:GLU:O	1:A:532:ILE:HG22	2.10	0.51
1:A:546:GLU:HB3	1:A:570:GLU:OE1	2.11	0.51
1:A:1200:LYS:HE3	1:A:1211:GLN:CD	2.31	0.51
1:C:122:ARG:NE	1:C:126:PHE:CE2	2.78	0.51
1:C:318:LYS:HD3	1:C:439:ASP:CB	2.41	0.51
1:C:333:ASP:OD1	1:C:333:ASP:N	2.44	0.51
1:C:398:LYS:O	1:C:402:ILE:HG12	2.11	0.51
1:E:1168:LEU:HD11	1:E:1171:GLU:CG	2.41	0.51
1:G:461:ILE:CD1	1:G:491:MET:HG3	2.40	0.51
1:G:744:ASN:HB3	1:G:763:ALA:HB3	1.93	0.51
1:G:884:TRP:CZ3	1:G:885:VAL:O	2.64	0.51
1:G:1026:GLU:HG2	1:G:1041:ARG:HA	1.91	0.51
1:I:561:PRO:O	1:I:563:ILE:N	2.44	0.51
1:I:1185:PHE:CD1	1:I:1192:LEU:CG	2.64	0.51
1:K:125:VAL:O	1:K:125:VAL:HG12	2.11	0.51
1:K:849:SER:HB2	1:K:890:PHE:CZ	2.44	0.51
1:K:1212:THR:CG2	1:K:1213:PHE:H	2.12	0.51
1:M:174:LEU:HD23	1:M:175:GLU:HA	1.92	0.51
1:M:318:LYS:HD3	1:M:439:ASP:CB	2.41	0.51
3:P:68:TYR:CD1	3:P:91:ILE:HG22	2.46	0.51
1:A:175:GLU:HG2	3:P:4:LYS:NZ	2.25	0.51
1:A:561:PRO:O	1:A:563:ILE:N	2.44	0.51
1:A:561:PRO:CB	1:A:1214:TYR:CD2	2.87	0.51
1:A:1233:VAL:CA	1:A:1242:TYR:O	2.58	0.51
1:C:180:GLY:H	1:C:237:ARG:HB3	1.75	0.51
1:E:744:ASN:HB3	1:E:763:ALA:HB3	1.93	0.51
1:E:884:TRP:CZ3	1:E:885:VAL:O	2.64	0.51
1:G:244:ASP:O	1:G:245:VAL:CB	2.59	0.51
1:G:528:GLU:O	1:G:532:ILE:HG22	2.11	0.51
1:G:529:TYR:HA	1:G:532:ILE:HG21	1.93	0.51
1:G:597:TRP:CZ2	1:G:603:ILE:CG1	2.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:667:THR:OG1	1:G:708:THR:O	2.29	0.51
1:I:327:ILE:HD13	1:I:353:ILE:CG2	2.41	0.51
1:I:353:ILE:O	1:I:354:ARG:HG2	2.11	0.51
1:I:385:ASP:OD2	1:I:403:LEU:HD11	2.11	0.51
1:I:416:GLN:NE2	1:I:416:GLN:CA	2.73	0.51
1:I:525:GLU:HA	1:I:528:GLU:HG2	1.92	0.51
1:I:667:THR:OG1	1:I:708:THR:O	2.29	0.51
1:I:882:LEU:CD2	1:I:882:LEU:N	2.39	0.51
1:I:1200:LYS:HE3	1:I:1211:GLN:HB3	1.11	0.51
1:K:344:GLN:CD	1:K:352:ARG:HG3	2.30	0.51
1:K:546:GLU:HB3	1:K:570:GLU:OE1	2.11	0.51
1:K:884:TRP:CZ3	1:K:885:VAL:O	2.64	0.51
1:K:1228:ASP:O	1:K:1229:PHE:CB	2.59	0.51
1:M:398:LYS:O	1:M:402:ILE:HG12	2.10	0.51
1:M:564:VAL:HG11	1:M:583:GLN:CG	2.39	0.51
1:M:1149:GLY:CA	1:M:1180:VAL:CG2	2.82	0.51
3:Q:29:MET:O	3:Q:32:ASP:N	2.43	0.51
3:R:47:PRO:HB2	4:S:45:ARG:HB2	1.83	0.51
4:T:10:ARG:O	4:T:13:ARG:HB2	2.10	0.51
4:U:13:ARG:HD2	4:U:17:VAL:CG1	2.41	0.51
1:A:246:TRP:CH2	1:A:370:ILE:HG22	2.45	0.51
1:A:298:PHE:CZ	1:A:325:SER:HA	2.42	0.51
1:A:347:ASN:C	1:A:348:LYS:HG2	2.31	0.51
1:A:416:GLN:NE2	1:A:416:GLN:CA	2.73	0.51
1:A:557:ARG:NH2	1:A:1174:ALA:CB	2.74	0.51
1:C:317:CYS:SG	1:C:323:VAL:CG1	2.98	0.51
1:C:327:ILE:HD13	1:C:353:ILE:HG21	1.92	0.51
1:C:353:ILE:O	1:C:354:ARG:HG2	2.11	0.51
1:C:744:ASN:HB3	1:C:763:ALA:HB3	1.93	0.51
1:C:926:VAL:HB	1:C:938:LEU:O	2.10	0.51
1:C:1233:VAL:CA	1:C:1242:TYR:O	2.58	0.51
1:E:244:ASP:O	1:E:245:VAL:CB	2.59	0.51
1:E:244:ASP:O	1:E:245:VAL:HB	2.11	0.51
1:E:318:LYS:HD3	1:E:439:ASP:CB	2.40	0.51
1:E:334:PHE:CB	1:E:337:ARG:CD	2.87	0.51
1:E:595:LEU:HD13	1:E:1244:LEU:HD13	1.93	0.51
1:E:625:GLU:HG3	1:E:667:THR:HA	1.93	0.51
1:G:244:ASP:O	1:G:245:VAL:HB	2.11	0.51
1:G:333:ASP:N	1:G:333:ASP:OD1	2.44	0.51
1:G:374:MET:CE	1:G:374:MET:CA	2.85	0.51
1:G:595:LEU:HD13	1:G:1244:LEU:HD13	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:160:LYS:NZ	1:I:160:LYS:CB	2.73	0.51
1:I:546:GLU:HB3	1:I:570:GLU:OE1	2.11	0.51
1:K:149:TRP:CZ3	1:K:260:ILE:HD11	2.46	0.51
1:M:561:PRO:O	1:M:563:ILE:N	2.44	0.51
1:M:779:LYS:NZ	1:M:827:HIS:O	2.43	0.51
1:A:172:SER:C	3:W:7:ASN:HD22	2.14	0.51
1:A:537:ASP:HA	1:A:540:VAL:HG23	1.92	0.51
1:A:837:THR:HG21	1:A:843:ILE:HD11	1.92	0.51
1:A:853:HIS:O	1:A:869:THR:N	2.39	0.51
1:A:926:VAL:HB	1:A:938:LEU:O	2.10	0.51
1:E:621:ALA:HA	1:E:631:ALA:O	2.11	0.51
1:E:1228:ASP:O	1:E:1229:PHE:CB	2.59	0.51
1:G:149:TRP:CZ3	1:G:260:ILE:HD11	2.46	0.51
1:G:480:CYS:HA	1:G:483:TRP:CD1	2.46	0.51
1:I:149:TRP:CZ3	1:I:260:ILE:HD11	2.46	0.51
1:K:353:ILE:O	1:K:354:ARG:HG2	2.11	0.51
1:M:389:LEU:HD21	1:M:395:VAL:CG2	2.40	0.51
3:R:28:HIS:HE1	3:R:78:GLU:OE2	1.94	0.51
4:V:29:LEU:HD22	4:V:34:LEU:HD23	1.91	0.51
1:A:244:ASP:O	1:A:245:VAL:HB	2.11	0.50
1:A:326:LEU:HD23	1:A:353:ILE:CG2	2.41	0.50
1:A:398:LYS:O	1:A:402:ILE:HG12	2.10	0.50
1:A:598:ILE:O	1:A:598:ILE:HG13	2.10	0.50
1:A:744:ASN:HB3	1:A:763:ALA:HB3	1.93	0.50
1:C:242:LEU:N	1:C:242:LEU:CD1	2.73	0.50
1:C:246:TRP:C	1:C:247:ASP:OD1	2.50	0.50
1:C:347:ASN:C	1:C:348:LYS:HG2	2.31	0.50
1:C:621:ALA:HA	1:C:631:ALA:O	2.11	0.50
1:E:326:LEU:HD23	1:E:353:ILE:CG2	2.41	0.50
1:E:333:ASP:OD1	1:E:333:ASP:N	2.44	0.50
1:E:557:ARG:NH2	1:E:1174:ALA:CB	2.74	0.50
1:G:137:GLN:NE2	1:G:173:LEU:HB3	2.23	0.50
1:G:174:LEU:HD23	1:G:175:GLU:HA	1.92	0.50
1:G:561:PRO:O	1:G:563:ILE:N	2.44	0.50
1:G:779:LYS:NZ	1:G:827:HIS:O	2.43	0.50
1:G:1151:ILE:H	1:G:1167:PRO:CD	2.19	0.50
1:G:1193:ILE:HG12	1:G:1201:TRP:CD1	2.46	0.50
1:I:174:LEU:HD23	1:I:175:GLU:HA	1.92	0.50
1:I:179:PRO:HD3	1:I:237:ARG:HH12	1.75	0.50
1:I:480:CYS:HA	1:I:483:TRP:CD1	2.46	0.50
1:I:625:GLU:HG3	1:I:667:THR:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:884:TRP:CZ3	1:I:885:VAL:O	2.64	0.50
1:K:327:ILE:HD13	1:K:353:ILE:HG21	1.92	0.50
1:K:347:ASN:C	1:K:348:LYS:HG2	2.31	0.50
1:K:762:SER:OG	1:K:764:ASP:OD1	2.26	0.50
1:K:1187:PRO:HD3	1:K:1229:PHE:CG	2.45	0.50
1:M:179:PRO:HD3	1:M:237:ARG:HH12	1.75	0.50
1:M:781:ILE:HD11	1:M:826:ILE:HA	1.94	0.50
1:M:837:THR:HG21	1:M:843:ILE:HD11	1.92	0.50
1:M:1067:VAL:N	1:M:1081:PHE:O	2.40	0.50
1:M:1200:LYS:HE3	1:M:1211:GLN:CD	2.31	0.50
3:Q:68:TYR:CD1	3:Q:91:ILE:HG22	2.46	0.50
4:T:68:GLN:O	4:T:72:LEU:HB2	2.10	0.50
1:A:639:LEU:O	1:A:653:ILE:HG21	2.07	0.50
1:A:945:ARG:HG2	1:A:946:LEU:HG	1.92	0.50
1:A:1187:PRO:CG	1:A:1229:PHE:HB3	2.40	0.50
1:C:389:LEU:HD21	1:C:395:VAL:CG1	2.42	0.50
1:C:595:LEU:HD13	1:C:1244:LEU:HD13	1.93	0.50
1:C:1200:LYS:HE3	1:C:1211:GLN:CD	2.31	0.50
1:E:147:PRO:HG3	1:G:121:GLN:CD	2.30	0.50
1:E:149:TRP:CZ3	1:E:260:ILE:HD11	2.46	0.50
1:E:229:ILE:O	1:E:233:ARG:HG2	2.11	0.50
1:E:337:ARG:HD3	1:E:341:TYR:HE2	1.76	0.50
1:E:1187:PRO:CG	1:E:1229:PHE:HB3	2.40	0.50
1:E:1236:ASP:OD1	1:E:1236:ASP:N	2.43	0.50
1:G:242:LEU:HD12	1:G:242:LEU:N	2.26	0.50
1:G:326:LEU:HD23	1:G:353:ILE:CG2	2.41	0.50
1:G:1187:PRO:CG	1:G:1229:PHE:HB3	2.41	0.50
1:G:1228:ASP:O	1:G:1229:PHE:CB	2.59	0.50
1:I:244:ASP:O	1:I:245:VAL:CB	2.59	0.50
1:I:318:LYS:HD3	1:I:439:ASP:CB	2.40	0.50
1:K:337:ARG:HD3	1:K:341:TYR:HE2	1.76	0.50
1:K:625:GLU:HG3	1:K:667:THR:HA	1.93	0.50
1:K:1201:TRP:CB	1:K:1210:SER:O	2.58	0.50
1:M:260:ILE:O	1:M:260:ILE:HG13	2.05	0.50
1:M:1183:LEU:N	1:M:1183:LEU:CD1	2.73	0.50
3:Q:28:HIS:NE2	4:T:14:LEU:CD1	2.67	0.50
4:U:6:ARG:O	4:U:10:ARG:NH1	2.44	0.50
4:U:7:ARG:HA	4:U:10:ARG:CZ	2.41	0.50
1:A:160:LYS:NZ	1:A:160:LYS:CB	2.73	0.50
1:A:595:LEU:HD13	1:A:1244:LEU:HD13	1.94	0.50
1:C:244:ASP:O	1:C:245:VAL:HB	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:326:LEU:HD23	1:C:353:ILE:CG2	2.41	0.50
1:C:528:GLU:O	1:C:532:ILE:HG22	2.10	0.50
1:C:884:TRP:CZ3	1:C:885:VAL:O	2.64	0.50
1:E:137:GLN:NE2	1:E:173:LEU:HB3	2.24	0.50
1:E:353:ILE:O	1:E:354:ARG:HG2	2.11	0.50
1:E:398:LYS:O	1:E:402:ILE:HG12	2.11	0.50
1:E:480:CYS:HA	1:E:483:TRP:CD1	2.46	0.50
1:E:853:HIS:O	1:E:869:THR:N	2.39	0.50
1:E:1176:HIS:HB2	1:E:1218:THR:HG23	1.84	0.50
1:G:318:LYS:HD3	1:G:439:ASP:CB	2.41	0.50
1:G:327:ILE:HD13	1:G:353:ILE:HG21	1.92	0.50
1:G:337:ARG:HD3	1:G:341:TYR:HE2	1.77	0.50
1:G:353:ILE:O	1:G:354:ARG:HG2	2.11	0.50
1:G:862:TYR:HE2	1:G:881:HIS:N	1.82	0.50
1:I:146:GLU:CG	1:K:111:ARG:HH11	2.15	0.50
1:I:837:THR:HG21	1:I:843:ILE:HD11	1.92	0.50
1:I:1212:THR:CG2	1:I:1213:PHE:H	2.12	0.50
1:I:1213:PHE:O	1:I:1214:TYR:CB	2.48	0.50
1:I:1247:LEU:CD1	1:I:1248:GLU:N	2.73	0.50
1:K:318:LYS:HD3	1:K:439:ASP:CB	2.41	0.50
1:K:529:TYR:HA	1:K:532:ILE:HG21	1.93	0.50
1:K:561:PRO:O	1:K:563:ILE:N	2.44	0.50
1:K:781:ILE:HD11	1:K:826:ILE:HA	1.94	0.50
1:K:926:VAL:HB	1:K:938:LEU:O	2.10	0.50
1:K:1031:ASN:HB3	1:K:1036:LYS:HB2	1.92	0.50
1:K:1228:ASP:O	1:K:1229:PHE:HB2	2.12	0.50
1:M:246:TRP:C	1:M:247:ASP:OD1	2.50	0.50
1:M:347:ASN:C	1:M:348:LYS:HG2	2.31	0.50
1:M:479:ASP:CG	1:M:483:TRP:HE1	2.15	0.50
1:M:744:ASN:HB3	1:M:763:ALA:HB3	1.93	0.50
1:M:1168:LEU:HD11	1:M:1171:GLU:CG	2.41	0.50
1:A:229:ILE:O	1:A:233:ARG:HG2	2.11	0.50
1:A:353:ILE:O	1:A:354:ARG:HG2	2.11	0.50
1:A:1168:LEU:HD11	1:A:1171:GLU:CG	2.41	0.50
1:A:1212:THR:CG2	1:A:1213:PHE:H	2.12	0.50
1:A:1213:PHE:O	1:A:1214:TYR:CB	2.49	0.50
1:C:229:ILE:O	1:C:233:ARG:HG2	2.12	0.50
1:C:327:ILE:HD13	1:C:353:ILE:CG2	2.40	0.50
1:C:657:GLU:HB3	1:C:680:LYS:HD2	1.92	0.50
1:E:174:LEU:HD23	1:E:175:GLU:HA	1.92	0.50
1:E:246:TRP:C	1:E:247:ASP:OD1	2.50	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:347:ASN:C	1:E:348:LYS:HG2	2.31	0.50
1:E:385:ASP:OD2	1:E:403:LEU:HD11	2.11	0.50
1:E:1200:LYS:HE3	1:E:1211:GLN:CD	2.31	0.50
7:F:201:HEM:CBC	7:F:201:HEM:HMC1	2.28	0.50
1:G:862:TYR:OH	1:G:881:HIS:N	2.45	0.50
1:G:1228:ASP:O	1:G:1229:PHE:HB2	2.12	0.50
1:I:347:ASN:C	1:I:348:LYS:HG2	2.31	0.50
1:I:621:ALA:HA	1:I:631:ALA:O	2.11	0.50
1:I:781:ILE:HD11	1:I:826:ILE:HA	1.94	0.50
1:I:945:ARG:HG2	1:I:946:LEU:HG	1.93	0.50
1:I:1177:GLY:CA	1:I:1197:GLY:HA3	2.27	0.50
1:K:179:PRO:HD3	1:K:237:ARG:HH12	1.75	0.50
1:K:229:ILE:O	1:K:233:ARG:HG2	2.11	0.50
1:K:385:ASP:OD2	1:K:403:LEU:HD11	2.11	0.50
1:K:980:ASP:OD1	1:K:981:GLU:N	2.40	0.50
1:K:1187:PRO:CG	1:K:1229:PHE:HB3	2.40	0.50
1:M:108:SER:HA	1:M:111:ARG:HD2	1.94	0.50
1:M:160:LYS:CB	1:M:160:LYS:NZ	2.73	0.50
1:M:244:ASP:O	1:M:245:VAL:HB	2.11	0.50
1:M:333:ASP:N	1:M:333:ASP:OD1	2.44	0.50
1:A:389:LEU:HD21	1:A:395:VAL:CG1	2.42	0.50
1:A:479:ASP:CG	1:A:483:TRP:HE1	2.15	0.50
1:A:523:ILE:HG12	1:A:548:LEU:HD13	1.94	0.50
1:A:567:GLY:O	1:A:569:CYS:N	2.41	0.50
1:A:595:LEU:HD22	1:A:1244:LEU:HD12	1.78	0.50
1:A:1153:ILE:HD11	1:A:1192:LEU:CD1	2.42	0.50
1:C:337:ARG:HD3	1:C:341:TYR:HE2	1.77	0.50
1:G:473:LEU:CD1	1:G:480:CYS:HB3	2.39	0.50
1:G:557:ARG:NH2	1:G:1174:ALA:CB	2.74	0.50
1:G:837:THR:HG21	1:G:843:ILE:HD11	1.92	0.50
1:G:1200:LYS:HE3	1:G:1211:GLN:CD	2.32	0.50
1:I:246:TRP:C	1:I:247:ASP:OD1	2.50	0.50
1:I:326:LEU:HD23	1:I:353:ILE:CG2	2.41	0.50
1:I:347:ASN:O	1:I:348:LYS:CB	2.59	0.50
1:I:364:LEU:CD1	1:I:368:MET:HE2	2.42	0.50
1:I:879:ARG:CB	1:I:921:MET:CE	2.73	0.50
1:I:903:ASP:O	1:I:904:GLN:CB	2.56	0.50
1:I:1168:LEU:HD11	1:I:1171:GLU:CG	2.41	0.50
1:K:108:SER:HA	1:K:111:ARG:HD2	1.94	0.50
1:K:480:CYS:HA	1:K:483:TRP:CD1	2.46	0.50
1:K:1193:ILE:HG12	1:K:1201:TRP:CD1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:149:TRP:CZ3	1:M:260:ILE:HD11	2.46	0.50
1:M:340:TYR:OH	1:M:352:ARG:HD2	2.12	0.50
1:M:1228:ASP:O	1:M:1229:PHE:HB2	2.12	0.50
3:X:28:HIS:HA	4:Y:14:LEU:CD2	2.42	0.50
1:A:244:ASP:O	1:A:245:VAL:CB	2.59	0.50
1:A:385:ASP:OD2	1:A:403:LEU:HD11	2.10	0.50
1:A:473:LEU:CD1	1:A:480:CYS:HB3	2.39	0.50
1:A:572:GLU:OE1	1:A:572:GLU:HA	2.11	0.50
1:A:1171:GLU:CG	1:A:1172:GLY:N	2.68	0.50
1:A:1236:ASP:OD1	1:A:1236:ASP:N	2.43	0.50
1:C:108:SER:HA	1:C:111:ARG:HD2	1.94	0.50
1:C:149:TRP:CZ3	1:C:260:ILE:HD11	2.46	0.50
1:C:160:LYS:NZ	1:C:160:LYS:CB	2.73	0.50
1:C:385:ASP:OD2	1:C:403:LEU:HD11	2.11	0.50
1:C:572:GLU:OE1	1:C:572:GLU:HA	2.11	0.50
1:E:347:ASN:O	1:E:348:LYS:CB	2.59	0.50
1:E:374:MET:CE	1:E:374:MET:CA	2.85	0.50
1:E:564:VAL:HG11	1:E:583:GLN:CG	2.39	0.50
2:F:18:HIS:NE2	7:F:201:HEM:CHD	2.72	0.50
1:G:229:ILE:O	1:G:233:ARG:HG2	2.11	0.50
1:G:347:ASN:C	1:G:348:LYS:HG2	2.31	0.50
1:G:598:ILE:HG13	1:G:598:ILE:O	2.10	0.50
1:G:639:LEU:HD23	1:G:653:ILE:HD13	1.93	0.50
1:G:781:ILE:HD11	1:G:826:ILE:HA	1.93	0.50
1:I:595:LEU:CD2	1:I:1244:LEU:CD1	2.48	0.50
1:I:1149:GLY:H	1:I:1180:VAL:CG2	2.24	0.50
1:I:1200:LYS:HE3	1:I:1211:GLN:CD	2.31	0.50
1:I:1228:ASP:O	1:I:1229:PHE:HB2	2.12	0.50
1:K:340:TYR:OH	1:K:352:ARG:HD2	2.12	0.50
1:K:572:GLU:OE1	1:K:572:GLU:HA	2.11	0.50
1:K:1149:GLY:N	1:K:1180:VAL:CG2	2.74	0.50
1:M:180:GLY:H	1:M:237:ARG:HB3	1.75	0.50
1:M:244:ASP:O	1:M:245:VAL:CB	2.59	0.50
3:P:55:MET:O	3:P:59:MET:HG3	2.12	0.50
1:A:1136:SER:HB2	1:A:1139:SER:HB3	1.94	0.50
1:C:125:VAL:O	1:C:125:VAL:HG12	2.11	0.50
1:C:244:ASP:O	1:C:245:VAL:CB	2.59	0.50
1:C:391:LYS:HA	1:C:442:VAL:HG21	1.94	0.50
1:C:1168:LEU:HD11	1:C:1171:GLU:CG	2.41	0.50
1:C:1168:LEU:HD11	1:C:1171:GLU:HG2	1.94	0.50
1:E:389:LEU:HD21	1:E:395:VAL:CG1	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:507:LEU:CD1	1:E:579:GLN:HG2	2.42	0.50
1:E:561:PRO:O	1:E:563:ILE:N	2.44	0.50
1:G:347:ASN:O	1:G:348:LYS:CB	2.59	0.50
1:G:364:LEU:CD1	1:G:368:MET:HE1	2.28	0.50
1:G:1236:ASP:N	1:G:1236:ASP:OD1	2.43	0.50
7:H:201:HEM:CBC	7:H:201:HEM:HMC1	2.28	0.50
1:I:327:ILE:HD13	1:I:353:ILE:HG21	1.92	0.50
1:I:333:ASP:N	1:I:333:ASP:OD1	2.44	0.50
1:I:529:TYR:HA	1:I:532:ILE:HG21	1.93	0.50
1:I:1153:ILE:HD11	1:I:1192:LEU:CD1	2.42	0.50
1:I:1193:ILE:HG12	1:I:1201:TRP:CD1	2.47	0.50
1:K:1200:LYS:HE3	1:K:1211:GLN:CD	2.31	0.50
1:K:1200:LYS:HG3	1:K:1211:GLN:HB2	1.91	0.50
1:M:125:VAL:O	1:M:125:VAL:HG12	2.11	0.50
1:M:353:ILE:O	1:M:354:ARG:HG2	2.11	0.50
1:M:572:GLU:OE1	1:M:572:GLU:HA	2.12	0.50
3:O:68:TYR:CD1	3:O:91:ILE:HG22	2.46	0.50
4:U:8:LEU:HD12	4:U:70:LEU:HD11	1.94	0.50
4:Y:16:LEU:O	4:Y:20:LEU:HB2	2.12	0.50
1:A:143:LEU:CD2	1:A:143:LEU:N	2.75	0.50
1:A:179:PRO:HD3	1:A:237:ARG:HH12	1.75	0.50
1:A:317:CYS:SG	1:A:323:VAL:CG1	2.98	0.50
1:A:327:ILE:HD13	1:A:353:ILE:HG21	1.92	0.50
1:A:340:TYR:OH	1:A:352:ARG:HD2	2.12	0.50
1:A:557:ARG:HG3	1:A:558:GLN:N	2.27	0.50
1:A:923:LYS:CG	1:A:940:VAL:HG23	2.42	0.50
1:A:1247:LEU:CD1	1:A:1248:GLU:N	2.73	0.50
1:C:143:LEU:CD2	1:C:143:LEU:N	2.75	0.50
1:C:903:ASP:O	1:C:904:GLN:CB	2.57	0.50
1:E:108:SER:HA	1:E:111:ARG:HD2	1.94	0.50
1:E:298:PHE:CZ	1:E:325:SER:HA	2.42	0.50
1:E:561:PRO:CB	1:E:1214:TYR:CD2	2.86	0.50
1:E:779:LYS:NZ	1:E:827:HIS:O	2.43	0.50
1:E:1067:VAL:N	1:E:1081:PHE:O	2.40	0.50
1:E:1225:VAL:HG12	1:E:1229:PHE:HA	1.94	0.50
1:G:246:TRP:C	1:G:247:ASP:OD1	2.50	0.50
1:G:677:VAL:HG13	1:G:701:GLN:HG2	1.94	0.50
1:G:923:LYS:CB	1:G:940:VAL:HG21	2.41	0.50
1:I:332:ARG:CG	1:I:332:ARG:NH1	2.73	0.50
1:I:607:SER:CB	1:I:907:ARG:HG2	2.42	0.50
1:I:1031:ASN:HB3	1:I:1036:LYS:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:176:GLY:CA	3:Q:3:ALA:HB1	2.41	0.50
1:K:244:ASP:O	1:K:245:VAL:CB	2.59	0.50
1:K:347:ASN:O	1:K:348:LYS:CB	2.59	0.50
1:K:570:GLU:CG	1:K:571:PRO:HD2	2.42	0.50
1:M:229:ILE:O	1:M:233:ARG:HG2	2.11	0.50
1:M:489:TYR:CD1	1:M:489:TYR:C	2.85	0.50
1:M:677:VAL:HG13	1:M:701:GLN:HG2	1.94	0.50
3:P:28:HIS:HE1	3:P:78:GLU:OE2	1.94	0.50
1:A:149:TRP:CZ3	1:A:260:ILE:HD11	2.46	0.50
1:A:246:TRP:C	1:A:247:ASP:OD1	2.50	0.50
1:A:677:VAL:HG13	1:A:701:GLN:HG2	1.94	0.50
1:A:747:ASN:ND2	1:A:801:VAL:O	2.38	0.50
1:A:884:TRP:CZ3	1:A:885:VAL:O	2.64	0.50
1:C:479:ASP:CG	1:C:483:TRP:HE1	2.15	0.50
1:C:779:LYS:NZ	1:C:827:HIS:O	2.43	0.50
1:E:125:VAL:O	1:E:125:VAL:HG12	2.11	0.50
1:E:572:GLU:OE1	1:E:572:GLU:HA	2.11	0.50
1:E:1153:ILE:HD11	1:E:1192:LEU:CD1	2.42	0.50
1:G:116:GLU:OE2	3:O:6:ARG:NH2	2.45	0.50
1:G:607:SER:CB	1:G:907:ARG:HG2	2.42	0.50
1:G:636:ASP:C	1:G:637:LYS:CG	2.74	0.50
1:G:747:ASN:ND2	1:G:801:VAL:O	2.38	0.50
1:I:143:LEU:CD2	1:I:143:LEU:N	2.75	0.50
1:I:862:TYR:OH	1:I:881:HIS:N	2.45	0.50
1:I:1200:LYS:HG3	1:I:1211:GLN:HB2	1.91	0.50
1:K:391:LYS:HA	1:K:442:VAL:HG21	1.94	0.50
1:K:473:LEU:HD21	1:K:484:TYR:OH	2.11	0.50
1:M:389:LEU:HD21	1:M:395:VAL:CG1	2.41	0.50
1:M:557:ARG:NH2	1:M:1174:ALA:CB	2.74	0.50
1:M:1153:ILE:HD11	1:M:1192:LEU:CD1	2.42	0.50
3:P:27:ASP:CB	4:S:14:LEU:HD23	2.42	0.50
1:A:108:SER:HA	1:A:111:ARG:HD2	1.94	0.49
1:A:174:LEU:HD23	1:A:175:GLU:HA	1.93	0.49
1:A:245:VAL:C	1:A:246:TRP:CD1	2.86	0.49
1:A:391:LYS:HA	1:A:442:VAL:HG21	1.94	0.49
1:A:489:TYR:C	1:A:489:TYR:CD1	2.85	0.49
1:A:507:LEU:CD1	1:A:579:GLN:HG2	2.42	0.49
1:A:1181:THR:HG21	1:A:1221:LYS:CA	2.39	0.49
1:A:1187:PRO:HG2	1:A:1229:PHE:CB	2.42	0.49
1:A:1228:ASP:O	1:A:1229:PHE:CB	2.59	0.49
1:C:523:ILE:HG12	1:C:548:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1153:ILE:HD11	1:C:1192:LEU:CD1	2.42	0.49
1:E:598:ILE:HG13	1:E:598:ILE:O	2.10	0.49
1:G:572:GLU:OE1	1:G:572:GLU:HA	2.11	0.49
1:G:1136:SER:HB2	1:G:1139:SER:HB3	1.94	0.49
1:I:389:LEU:HD21	1:I:395:VAL:CG1	2.42	0.49
1:I:391:LYS:HA	1:I:442:VAL:HG21	1.94	0.49
1:I:461:ILE:CD1	1:I:491:MET:HG3	2.40	0.49
1:I:1136:SER:HB2	1:I:1139:SER:HB3	1.94	0.49
1:I:1201:TRP:CB	1:I:1210:SER:O	2.58	0.49
1:K:246:TRP:C	1:K:247:ASP:OD1	2.50	0.49
1:K:389:LEU:HD21	1:K:395:VAL:CG1	2.42	0.49
1:M:347:ASN:O	1:M:348:LYS:CB	2.59	0.49
1:M:607:SER:CB	1:M:907:ARG:HG2	2.42	0.49
3:Q:10:LEU:HD23	3:Q:13:ARG:HD2	1.94	0.49
3:R:55:MET:O	3:R:59:MET:HG3	2.12	0.49
1:A:138:GLN:NE2	1:A:139:LYS:N	2.60	0.49
1:A:480:CYS:HA	1:A:483:TRP:CD1	2.46	0.49
1:C:237:ARG:HH11	1:C:237:ARG:CG	2.14	0.49
1:C:245:VAL:C	1:C:246:TRP:CD1	2.86	0.49
1:C:546:GLU:HB3	1:C:570:GLU:OE1	2.11	0.49
1:C:570:GLU:CG	1:C:571:PRO:HD2	2.42	0.49
1:C:597:TRP:HZ2	1:C:603:ILE:HG12	1.70	0.49
1:C:607:SER:CB	1:C:907:ARG:HG2	2.42	0.49
1:C:1228:ASP:O	1:C:1229:PHE:CB	2.59	0.49
1:E:529:TYR:HA	1:E:532:ILE:HG21	1.93	0.49
1:E:557:ARG:HG3	1:E:558:GLN:N	2.28	0.49
1:E:570:GLU:CG	1:E:571:PRO:HD2	2.42	0.49
1:E:1168:LEU:HD11	1:E:1171:GLU:HG2	1.94	0.49
1:E:1247:LEU:CD1	1:E:1248:GLU:N	2.73	0.49
1:G:143:LEU:CD2	1:G:143:LEU:N	2.75	0.49
1:G:245:VAL:C	1:G:246:TRP:CD1	2.86	0.49
1:G:1187:PRO:HG2	1:G:1229:PHE:CB	2.42	0.49
1:I:138:GLN:NE2	1:I:139:LYS:N	2.60	0.49
1:I:337:ARG:HD3	1:I:341:TYR:HE2	1.76	0.49
1:M:337:ARG:HD3	1:M:341:TYR:HE2	1.76	0.49
1:M:595:LEU:HD13	1:M:1244:LEU:HD13	1.94	0.49
1:M:621:ALA:HA	1:M:631:ALA:O	2.11	0.49
1:M:923:LYS:CB	1:M:940:VAL:HG21	2.41	0.49
1:M:923:LYS:CG	1:M:940:VAL:HG23	2.42	0.49
1:M:1200:LYS:HG3	1:M:1211:GLN:O	2.12	0.49
3:P:10:LEU:HD23	3:P:13:ARG:HD2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S:7:ARG:HH11	4:S:7:ARG:HG3	1.77	0.49
1:A:337:ARG:HD3	1:A:341:TYR:HE2	1.76	0.49
1:A:347:ASN:O	1:A:348:LYS:CB	2.59	0.49
1:A:607:SER:CB	1:A:907:ARG:HG2	2.42	0.49
1:A:862:TYR:HE2	1:A:881:HIS:N	1.82	0.49
1:A:1016:LYS:HA	1:A:1032:TRP:NE1	2.28	0.49
1:A:1193:ILE:HG12	1:A:1201:TRP:CD1	2.47	0.49
1:C:480:CYS:HA	1:C:483:TRP:CD1	2.46	0.49
1:C:557:ARG:HG3	1:C:558:GLN:N	2.28	0.49
1:C:625:GLU:HG3	1:C:667:THR:HA	1.93	0.49
1:C:781:ILE:HD11	1:C:826:ILE:HA	1.94	0.49
1:C:1193:ILE:HG12	1:C:1201:TRP:CD1	2.47	0.49
1:C:1200:LYS:HG3	1:C:1211:GLN:O	2.13	0.49
1:C:1225:VAL:HG12	1:C:1229:PHE:HA	1.94	0.49
1:E:677:VAL:HG13	1:E:701:GLN:HG2	1.94	0.49
1:E:1136:SER:HB2	1:E:1139:SER:HB3	1.94	0.49
1:E:1193:ILE:HG12	1:E:1201:TRP:CD1	2.47	0.49
1:G:457:HIS:CD2	1:G:493:SER:HB2	2.47	0.49
1:G:1153:ILE:HD11	1:G:1192:LEU:CD1	2.42	0.49
1:I:507:LEU:CD1	1:I:579:GLN:HG2	2.42	0.49
1:K:332:ARG:CG	1:K:332:ARG:NH1	2.73	0.49
1:K:479:ASP:CG	1:K:483:TRP:HE1	2.15	0.49
1:K:507:LEU:CD1	1:K:579:GLN:HG2	2.42	0.49
1:K:548:LEU:O	1:K:551:ASN:N	2.45	0.49
1:K:1153:ILE:HD11	1:K:1192:LEU:CD1	2.42	0.49
1:M:143:LEU:CD2	1:M:143:LEU:N	2.75	0.49
1:M:317:CYS:SG	1:M:323:VAL:CG1	2.98	0.49
1:M:570:GLU:CG	1:M:571:PRO:HD2	2.42	0.49
1:M:862:TYR:OH	1:M:881:HIS:N	2.45	0.49
1:M:1201:TRP:CB	1:M:1210:SER:O	2.58	0.49
3:Q:28:HIS:CE1	4:T:14:LEU:CD2	2.95	0.49
3:R:48:THR:HG21	4:S:41:GLU:HB2	0.61	0.49
4:S:8:LEU:O	4:S:8:LEU:HD22	2.12	0.49
1:A:175:GLU:HG2	3:P:4:LYS:HZ1	1.77	0.49
1:A:591:GLY:O	1:A:592:MET:CB	2.56	0.49
1:A:1176:HIS:HB2	1:A:1218:THR:HG23	1.82	0.49
1:C:347:ASN:O	1:C:348:LYS:CB	2.59	0.49
1:C:489:TYR:CD1	1:C:489:TYR:C	2.85	0.49
1:C:557:ARG:NH2	1:C:1174:ALA:CB	2.74	0.49
1:C:862:TYR:OH	1:C:881:HIS:N	2.45	0.49
1:C:879:ARG:CB	1:C:921:MET:CE	2.73	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1136:SER:HB2	1:C:1139:SER:HB3	1.94	0.49
1:E:457:HIS:CD2	1:E:493:SER:HB2	2.48	0.49
1:E:607:SER:CB	1:E:907:ARG:HG2	2.42	0.49
1:E:862:TYR:OH	1:E:881:HIS:N	2.45	0.49
1:G:531:HIS:ND1	1:G:531:HIS:N	2.61	0.49
1:G:557:ARG:HG3	1:G:558:GLN:N	2.27	0.49
1:I:237:ARG:HH11	1:I:237:ARG:CG	2.14	0.49
1:I:523:ILE:HG12	1:I:548:LEU:HD13	1.94	0.49
1:I:572:GLU:OE1	1:I:572:GLU:HA	2.11	0.49
1:I:639:LEU:HD23	1:I:653:ILE:HD13	1.93	0.49
1:I:1228:ASP:O	1:I:1229:PHE:CB	2.59	0.49
1:K:245:VAL:C	1:K:246:TRP:CD1	2.86	0.49
1:K:920:VAL:HG12	1:K:921:MET:N	2.25	0.49
1:M:480:CYS:HA	1:M:483:TRP:CD1	2.46	0.49
1:M:1193:ILE:HG12	1:M:1201:TRP:CD1	2.47	0.49
3:O:10:LEU:HD23	3:O:13:ARG:HD2	1.94	0.49
3:O:28:HIS:HE1	3:O:78:GLU:OE2	1.95	0.49
1:A:332:ARG:CG	1:A:332:ARG:NH1	2.73	0.49
1:A:781:ILE:HD11	1:A:826:ILE:HA	1.93	0.49
1:C:332:ARG:CG	1:C:332:ARG:NH1	2.73	0.49
1:C:529:TYR:HA	1:C:532:ILE:HG21	1.93	0.49
1:C:543:ASN:CG	1:C:574:SER:CB	2.81	0.49
1:C:595:LEU:CD2	1:C:1244:LEU:CD1	2.48	0.49
1:C:1136:SER:HA	1:C:1185:PHE:HD2	1.78	0.49
1:E:138:GLN:NE2	1:E:139:LYS:N	2.60	0.49
1:E:242:LEU:HD12	1:E:242:LEU:N	2.26	0.49
1:E:245:VAL:C	1:E:246:TRP:CD1	2.86	0.49
1:E:479:ASP:CG	1:E:483:TRP:HE1	2.15	0.49
1:E:1228:ASP:O	1:E:1229:PHE:HB2	2.12	0.49
1:G:389:LEU:HD21	1:G:395:VAL:CG1	2.42	0.49
1:G:394:LYS:CB	1:G:434:ARG:CB	2.80	0.49
1:G:570:GLU:CG	1:G:571:PRO:HD2	2.42	0.49
1:G:1225:VAL:HG12	1:G:1229:PHE:HA	1.94	0.49
1:I:489:TYR:C	1:I:489:TYR:CD1	2.85	0.49
1:I:548:LEU:O	1:I:551:ASN:N	2.45	0.49
1:I:567:GLY:O	1:I:569:CYS:N	2.41	0.49
1:I:920:VAL:HG12	1:I:921:MET:N	2.24	0.49
1:I:1171:GLU:CG	1:I:1172:GLY:N	2.68	0.49
1:I:1187:PRO:HG2	1:I:1229:PHE:CB	2.42	0.49
1:I:1200:LYS:CD	1:I:1211:GLN:HB3	2.33	0.49
1:I:1213:PHE:HE2	1:I:1215:THR:CA	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:557:ARG:HG3	1:K:558:GLN:N	2.27	0.49
1:K:607:SER:CB	1:K:907:ARG:HG2	2.42	0.49
1:K:677:VAL:HG13	1:K:701:GLN:HG2	1.94	0.49
4:V:8:LEU:O	4:V:8:LEU:HD22	2.12	0.49
1:A:246:TRP:CD1	1:A:246:TRP:N	2.81	0.49
1:A:489:TYR:HD1	1:A:489:TYR:C	2.16	0.49
1:A:564:VAL:HG11	1:A:583:GLN:CG	2.39	0.49
1:A:625:GLU:HG3	1:A:667:THR:HA	1.93	0.49
1:A:862:TYR:OH	1:A:881:HIS:N	2.45	0.49
1:A:1136:SER:HA	1:A:1185:PHE:HD2	1.78	0.49
1:C:507:LEU:CD1	1:C:579:GLN:HG2	2.42	0.49
1:C:818:LYS:HD3	1:C:842:THR:HG23	1.95	0.49
1:E:340:TYR:OH	1:E:352:ARG:HD2	2.12	0.49
1:E:531:HIS:ND1	1:E:531:HIS:N	2.61	0.49
1:E:923:LYS:CG	1:E:940:VAL:HG23	2.42	0.49
1:G:1016:LYS:HA	1:G:1032:TRP:NE1	2.28	0.49
1:G:1200:LYS:HG3	1:G:1211:GLN:HB2	1.91	0.49
1:I:108:SER:HA	1:I:111:ARG:HD2	1.94	0.49
1:I:473:LEU:HD21	1:I:484:TYR:OH	2.11	0.49
1:I:557:ARG:HG3	1:I:558:GLN:N	2.27	0.49
1:I:1016:LYS:HA	1:I:1032:TRP:NE1	2.28	0.49
1:K:180:GLY:H	1:K:237:ARG:HB3	1.76	0.49
1:K:457:HIS:CD2	1:K:493:SER:HB2	2.47	0.49
1:K:862:TYR:OH	1:K:881:HIS:N	2.45	0.49
1:M:246:TRP:N	1:M:246:TRP:CD1	2.81	0.49
1:M:457:HIS:CD2	1:M:493:SER:HB2	2.47	0.49
3:Q:55:MET:O	3:Q:59:MET:HG3	2.12	0.49
3:R:33:GLY:HA3	4:U:11:ARG:CD	2.43	0.49
3:R:79:GLY:C	4:V:65:ARG:NH1	2.66	0.49
1:A:1006:VAL:HA	1:A:1022:SER:HB2	1.94	0.49
1:A:1213:PHE:HE2	1:A:1215:THR:CA	2.26	0.49
2:B:14:CYS:CB	7:B:201:HEM:HAB	2.43	0.49
1:C:457:HIS:CD2	1:C:493:SER:HB2	2.47	0.49
1:C:489:TYR:HD1	1:C:489:TYR:C	2.16	0.49
1:E:391:LYS:HA	1:E:442:VAL:HG21	1.94	0.49
1:E:1016:LYS:HA	1:E:1032:TRP:NE1	2.28	0.49
1:E:1220:LEU:CD2	1:E:1234:THR:CB	2.74	0.49
1:G:489:TYR:CD1	1:G:489:TYR:C	2.85	0.49
1:G:853:HIS:O	1:G:869:THR:N	2.38	0.49
1:G:1213:PHE:HE2	1:G:1215:THR:CA	2.26	0.49
1:I:744:ASN:HB3	1:I:763:ALA:HB3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:143:LEU:CD2	1:K:143:LEU:N	2.75	0.49
1:M:245:VAL:C	1:M:246:TRP:CD1	2.86	0.49
1:M:283:GLU:OE1	1:M:284:SER:O	2.31	0.49
1:M:332:ARG:CG	1:M:332:ARG:NH1	2.73	0.49
1:M:507:LEU:CD1	1:M:579:GLN:HG2	2.42	0.49
1:M:531:HIS:ND1	1:M:531:HIS:N	2.60	0.49
1:M:1136:SER:HA	1:M:1185:PHE:HD2	1.78	0.49
4:T:8:LEU:C	4:T:8:LEU:HD13	2.32	0.49
1:A:327:ILE:CD1	1:A:353:ILE:HG21	2.43	0.49
1:A:505:PHE:HZ	1:A:540:VAL:CG1	2.17	0.49
1:A:1225:VAL:HG12	1:A:1229:PHE:HA	1.94	0.49
1:C:853:HIS:O	1:C:869:THR:N	2.39	0.49
1:C:864:VAL:HG22	1:C:885:VAL:HG11	1.95	0.49
1:C:1016:LYS:HA	1:C:1032:TRP:NE1	2.28	0.49
1:C:1228:ASP:O	1:C:1229:PHE:HB2	2.12	0.49
1:E:236:PRO:O	1:E:238:SER:N	2.46	0.49
1:E:327:ILE:CD1	1:E:353:ILE:HG21	2.43	0.49
1:G:108:SER:HA	1:G:111:ARG:HD2	1.94	0.49
1:G:138:GLN:NE2	1:G:139:LYS:N	2.60	0.49
1:G:196:LEU:HD11	1:G:200:GLN:HE21	1.78	0.49
1:G:523:ILE:HG12	1:G:548:LEU:HD13	1.94	0.49
1:G:548:LEU:O	1:G:551:ASN:N	2.45	0.49
1:G:1168:LEU:HD11	1:G:1171:GLU:HG2	1.94	0.49
1:I:479:ASP:CG	1:I:483:TRP:HE1	2.15	0.49
2:J:14:CYS:CB	7:J:201:HEM:HAB	2.43	0.49
1:K:138:GLN:NE2	1:K:139:LYS:N	2.60	0.49
1:K:621:ALA:HA	1:K:631:ALA:O	2.11	0.49
1:M:298:PHE:CZ	1:M:325:SER:HA	2.42	0.49
1:M:391:LYS:HA	1:M:442:VAL:HG21	1.94	0.49
1:M:523:ILE:HG12	1:M:548:LEU:HD13	1.94	0.49
1:M:1006:VAL:HA	1:M:1022:SER:HB2	1.94	0.49
1:M:1187:PRO:HG2	1:M:1229:PHE:CB	2.42	0.49
1:M:1200:LYS:CD	1:M:1211:GLN:HB3	2.33	0.49
1:A:140:LEU:O	1:A:143:LEU:HD22	2.13	0.49
1:A:434:ARG:HG3	1:A:434:ARG:NH2	2.28	0.49
1:A:570:GLU:CG	1:A:571:PRO:HD2	2.42	0.49
1:A:657:GLU:HB3	1:A:680:LYS:HD2	1.92	0.49
1:A:667:THR:OG1	1:A:708:THR:O	2.29	0.49
1:A:762:SER:OG	1:A:764:ASP:OD1	2.25	0.49
1:A:864:VAL:HG22	1:A:885:VAL:HG11	1.95	0.49
1:A:1200:LYS:HG3	1:A:1211:GLN:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1006:VAL:HA	1:C:1022:SER:HB2	1.94	0.49
1:E:260:ILE:O	1:E:260:ILE:HG13	2.05	0.49
1:E:781:ILE:HD11	1:E:826:ILE:HA	1.94	0.49
1:E:862:TYR:HE2	1:E:881:HIS:N	1.82	0.49
1:E:1212:THR:CG2	1:E:1213:PHE:N	2.72	0.49
1:G:922:LEU:CD1	1:G:1241:LEU:CD2	2.87	0.49
1:I:196:LEU:HD11	1:I:200:GLN:HE21	1.78	0.49
1:I:229:ILE:O	1:I:233:ARG:HG2	2.12	0.49
1:I:283:GLU:OE1	1:I:284:SER:O	2.31	0.49
1:I:457:HIS:CD2	1:I:493:SER:HB2	2.47	0.49
1:I:818:LYS:HD3	1:I:842:THR:HG23	1.95	0.49
1:I:1168:LEU:HD11	1:I:1171:GLU:HG2	1.94	0.49
1:K:140:LEU:O	1:K:143:LEU:HD22	2.13	0.49
1:K:333:ASP:OD1	1:K:333:ASP:N	2.44	0.49
1:K:610:VAL:HG22	1:K:907:ARG:CG	2.43	0.49
1:K:879:ARG:CB	1:K:921:MET:SD	3.01	0.49
1:K:1168:LEU:HD11	1:K:1171:GLU:HG2	1.94	0.49
1:K:1225:VAL:HG12	1:K:1229:PHE:HA	1.94	0.49
1:M:595:LEU:HD22	1:M:1244:LEU:HD12	1.78	0.49
4:T:8:LEU:O	4:T:8:LEU:HD22	2.13	0.49
1:A:473:LEU:HD21	1:A:484:TYR:OH	2.11	0.49
1:A:494:ALA:HB1	1:A:496:MET:HG2	1.95	0.49
1:A:543:ASN:CG	1:A:574:SER:CB	2.81	0.49
1:A:595:LEU:CD2	1:A:1244:LEU:CD1	2.48	0.49
1:A:879:ARG:CB	1:A:921:MET:SD	3.01	0.49
1:A:1233:VAL:CB	1:A:1243:ILE:HA	2.43	0.49
1:C:171:HIS:NE2	1:C:175:GLU:CB	2.76	0.49
1:C:561:PRO:CB	1:C:1214:TYR:CD2	2.86	0.49
1:C:999:ARG:CD	1:C:1030:TRP:CE2	2.96	0.49
1:C:1152:ARG:NE	1:C:1164:LEU:HD23	2.28	0.49
1:C:1183:LEU:N	1:C:1183:LEU:CD1	2.73	0.49
1:E:143:LEU:CD2	1:E:143:LEU:N	2.75	0.49
1:G:125:VAL:O	1:G:125:VAL:HG12	2.11	0.49
1:G:340:TYR:OH	1:G:352:ARG:HD2	2.12	0.49
1:G:1247:LEU:CD1	1:G:1248:GLU:N	2.73	0.49
1:I:246:TRP:N	1:I:246:TRP:CD1	2.81	0.49
1:I:327:ILE:CD1	1:I:353:ILE:HG21	2.43	0.49
1:I:595:LEU:HD13	1:I:1244:LEU:HD13	1.93	0.49
1:I:1006:VAL:HA	1:I:1022:SER:HB2	1.94	0.49
1:K:553:HIS:CB	1:K:610:VAL:CG1	2.89	0.49
1:K:582:LEU:HD23	1:K:582:LEU:C	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:595:LEU:HD22	1:K:1244:LEU:HD12	1.78	0.49
1:K:595:LEU:HD13	1:K:1244:LEU:HD13	1.93	0.49
1:K:779:LYS:NZ	1:K:827:HIS:O	2.43	0.49
1:K:818:LYS:HD3	1:K:842:THR:HG23	1.95	0.49
1:K:1181:THR:CG2	1:K:1221:LYS:HA	2.40	0.49
1:M:138:GLN:NE2	1:M:139:LYS:N	2.60	0.49
1:M:434:ARG:HG3	1:M:434:ARG:NH2	2.28	0.49
1:M:543:ASN:CG	1:M:574:SER:CB	2.81	0.49
1:M:879:ARG:CB	1:M:921:MET:SD	3.01	0.49
1:M:922:LEU:CD1	1:M:1241:LEU:CD2	2.87	0.49
1:M:1136:SER:HB2	1:M:1139:SER:HB3	1.94	0.49
3:O:55:MET:O	3:O:59:MET:HG3	2.12	0.49
1:A:579:GLN:NE2	1:A:583:GLN:HB2	2.28	0.48
1:A:1232:TYR:OH	1:A:1234:THR:CB	2.58	0.48
1:E:246:TRP:CD1	1:E:246:TRP:N	2.81	0.48
1:E:667:THR:OG1	1:E:708:THR:O	2.29	0.48
1:E:818:LYS:HD3	1:E:842:THR:HG23	1.95	0.48
1:E:879:ARG:CB	1:E:921:MET:SD	3.01	0.48
1:E:1136:SER:HA	1:E:1185:PHE:HD2	1.78	0.48
1:E:1187:PRO:HG2	1:E:1229:PHE:CB	2.42	0.48
1:G:283:GLU:OE1	1:G:284:SER:O	2.31	0.48
1:G:342:LEU:O	1:G:346:GLN:HG2	2.13	0.48
1:G:818:LYS:HD3	1:G:842:THR:HG23	1.95	0.48
1:G:1152:ARG:NE	1:G:1164:LEU:HD23	2.28	0.48
1:G:1233:VAL:CB	1:G:1243:ILE:HA	2.43	0.48
1:I:245:VAL:C	1:I:246:TRP:CD1	2.86	0.48
1:I:340:TYR:OH	1:I:352:ARG:HD2	2.12	0.48
1:I:342:LEU:O	1:I:346:GLN:HG2	2.13	0.48
1:I:879:ARG:CB	1:I:921:MET:SD	3.01	0.48
1:I:923:LYS:CG	1:I:940:VAL:HG23	2.42	0.48
1:I:1149:GLY:N	1:I:1180:VAL:CG2	2.76	0.48
1:K:196:LEU:HD11	1:K:200:GLN:HE21	1.78	0.48
1:K:523:ILE:HG12	1:K:548:LEU:HD13	1.94	0.48
1:K:744:ASN:HB3	1:K:763:ALA:HB3	1.93	0.48
1:K:903:ASP:O	1:K:904:GLN:CB	2.56	0.48
1:K:1136:SER:HB2	1:K:1139:SER:HB3	1.94	0.48
1:K:1200:LYS:HG3	1:K:1211:GLN:O	2.12	0.48
1:M:140:LEU:O	1:M:143:LEU:HD22	2.13	0.48
1:M:489:TYR:HD1	1:M:489:TYR:C	2.16	0.48
1:M:557:ARG:HG3	1:M:558:GLN:N	2.27	0.48
1:M:579:GLN:NE2	1:M:583:GLN:HB2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:582:LEU:HD23	1:M:582:LEU:C	2.33	0.48
1:M:741:GLY:HA3	1:M:770:TRP:HZ2	1.78	0.48
1:M:853:HIS:O	1:M:869:THR:N	2.38	0.48
1:M:864:VAL:HG22	1:M:885:VAL:HG11	1.95	0.48
1:M:879:ARG:CB	1:M:921:MET:CE	2.73	0.48
1:M:1016:LYS:HA	1:M:1032:TRP:NE1	2.28	0.48
1:M:1225:VAL:HG12	1:M:1229:PHE:HA	1.94	0.48
3:Q:19:ASP:OD1	4:U:63:GLU:O	2.30	0.48
3:Q:27:ASP:C	4:T:14:LEU:HG	2.33	0.48
1:C:579:GLN:NE2	1:C:583:GLN:HB2	2.28	0.48
1:C:582:LEU:HD23	1:C:582:LEU:C	2.33	0.48
1:C:595:LEU:HD22	1:C:1244:LEU:HD12	1.78	0.48
1:C:741:GLY:HA3	1:C:770:TRP:HZ2	1.78	0.48
1:E:342:LEU:O	1:E:346:GLN:HG2	2.13	0.48
1:E:434:ARG:HG3	1:E:434:ARG:NH2	2.28	0.48
1:E:579:GLN:NE2	1:E:583:GLN:HB2	2.28	0.48
1:E:1200:LYS:HG3	1:E:1211:GLN:HB2	1.91	0.48
1:G:473:LEU:HD21	1:G:484:TYR:OH	2.11	0.48
1:G:494:ALA:HB1	1:G:496:MET:HG2	1.95	0.48
1:G:507:LEU:CD1	1:G:579:GLN:HG2	2.42	0.48
1:G:543:ASN:CG	1:G:574:SER:CB	2.81	0.48
1:G:1006:VAL:HA	1:G:1022:SER:HB2	1.94	0.48
2:H:14:CYS:CB	7:H:201:HEM:HAB	2.43	0.48
1:I:394:LYS:CB	1:I:434:ARG:CB	2.80	0.48
1:I:543:ASN:CG	1:I:574:SER:CB	2.81	0.48
1:I:557:ARG:NH2	1:I:1174:ALA:CB	2.74	0.48
1:I:1152:ARG:NE	1:I:1164:LEU:HD23	2.29	0.48
1:K:171:HIS:NE2	1:K:175:GLU:CB	2.76	0.48
1:M:667:THR:OG1	1:M:708:THR:O	2.29	0.48
1:M:999:ARG:CD	1:M:1030:TRP:CE2	2.96	0.48
1:C:242:LEU:HD12	1:C:242:LEU:N	2.26	0.48
1:C:283:GLU:OE1	1:C:284:SER:O	2.31	0.48
1:C:340:TYR:OH	1:C:352:ARG:HD2	2.12	0.48
1:C:473:LEU:HD21	1:C:484:TYR:OH	2.11	0.48
1:C:1171:GLU:CG	1:C:1172:GLY:N	2.68	0.48
1:E:196:LEU:HD11	1:E:200:GLN:HE21	1.78	0.48
1:E:359:TYR:HE1	1:E:361:TYR:CD1	2.32	0.48
1:I:677:VAL:HG13	1:I:701:GLN:HG2	1.94	0.48
1:I:1233:VAL:CB	1:I:1243:ILE:HA	2.43	0.48
1:K:334:PHE:CB	1:K:337:ARG:CD	2.87	0.48
1:K:531:HIS:ND1	1:K:531:HIS:N	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:625:GLU:HG3	1:M:667:THR:HA	1.93	0.48
1:M:920:VAL:HG12	1:M:921:MET:N	2.24	0.48
1:M:1181:THR:HG21	1:M:1221:LYS:CA	2.38	0.48
4:U:13:ARG:NH2	4:U:60:ILE:CG1	2.76	0.48
1:A:283:GLU:OE1	1:A:284:SER:O	2.31	0.48
1:A:457:HIS:CD2	1:A:493:SER:HB2	2.47	0.48
1:A:741:GLY:HA3	1:A:770:TRP:HZ2	1.79	0.48
1:A:818:LYS:HD3	1:A:842:THR:HG23	1.95	0.48
1:C:138:GLN:NE2	1:C:139:LYS:N	2.60	0.48
1:C:196:LEU:HD11	1:C:200:GLN:HE21	1.78	0.48
1:E:374:MET:N	1:E:374:MET:SD	2.87	0.48
1:E:494:ALA:HB1	1:E:496:MET:HG2	1.95	0.48
1:E:543:ASN:CG	1:E:574:SER:CB	2.81	0.48
1:E:741:GLY:HA3	1:E:770:TRP:HZ2	1.78	0.48
1:E:1208:GLU:HG3	1:E:1211:GLN:CG	2.44	0.48
1:G:246:TRP:CD1	1:G:246:TRP:N	2.81	0.48
1:G:391:LYS:HA	1:G:442:VAL:HG21	1.94	0.48
1:G:923:LYS:CG	1:G:940:VAL:HG23	2.42	0.48
1:I:1236:ASP:N	1:I:1236:ASP:OD1	2.43	0.48
1:K:543:ASN:CG	1:K:574:SER:CB	2.81	0.48
1:K:597:TRP:CZ2	1:K:603:ILE:CG1	2.94	0.48
1:K:864:VAL:HG22	1:K:885:VAL:HG11	1.95	0.48
1:K:1208:GLU:HG3	1:K:1211:GLN:CG	2.44	0.48
1:M:374:MET:N	1:M:374:MET:SD	2.87	0.48
1:M:585:LYS:CA	1:M:588:VAL:HG23	2.44	0.48
1:M:762:SER:OG	1:M:764:ASP:OD1	2.26	0.48
1:M:1220:LEU:CD2	1:M:1234:THR:CB	2.74	0.48
1:M:1228:ASP:O	1:M:1229:PHE:CB	2.59	0.48
1:A:333:ASP:N	1:A:333:ASP:OD1	2.44	0.48
1:A:461:ILE:HD11	1:A:491:MET:CG	2.44	0.48
1:A:507:LEU:HA	1:A:510:ILE:HD12	1.96	0.48
1:C:585:LYS:CA	1:C:588:VAL:HG23	2.44	0.48
1:C:677:VAL:HG13	1:C:701:GLN:HG2	1.94	0.48
1:C:1200:LYS:HG3	1:C:1211:GLN:HB2	1.91	0.48
1:E:473:LEU:HD21	1:E:484:TYR:OH	2.11	0.48
1:E:489:TYR:CD1	1:E:489:TYR:C	2.85	0.48
1:E:570:GLU:OE2	1:E:571:PRO:HD2	2.14	0.48
1:E:1006:VAL:HA	1:E:1022:SER:HB2	1.94	0.48
1:G:479:ASP:CG	1:G:483:TRP:HE1	2.15	0.48
1:G:505:PHE:CZ	1:G:540:VAL:CG1	2.90	0.48
1:G:564:VAL:HG13	1:G:583:GLN:CG	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:879:ARG:CB	1:G:921:MET:SD	3.01	0.48
1:I:582:LEU:HD23	1:I:582:LEU:C	2.33	0.48
1:I:1167:PRO:HA	1:I:1202:TRP:NE1	1.94	0.48
1:I:1225:VAL:HG12	1:I:1229:PHE:HA	1.94	0.48
1:K:283:GLU:OE1	1:K:284:SER:O	2.31	0.48
1:K:489:TYR:CD1	1:K:489:TYR:C	2.85	0.48
1:K:557:ARG:NH2	1:K:1174:ALA:CB	2.74	0.48
1:K:923:LYS:CG	1:K:940:VAL:HG23	2.42	0.48
1:K:999:ARG:CD	1:K:1030:TRP:CE2	2.97	0.48
1:M:507:LEU:HA	1:M:510:ILE:HD12	1.96	0.48
1:A:109:TYR:CZ	3:P:4:LYS:CB	2.92	0.48
1:A:374:MET:SD	1:A:374:MET:N	2.87	0.48
1:A:999:ARG:CD	1:A:1030:TRP:CE2	2.97	0.48
1:A:1168:LEU:HD11	1:A:1171:GLU:HG2	1.94	0.48
1:A:1228:ASP:O	1:A:1229:PHE:HB2	2.12	0.48
1:C:246:TRP:CD1	1:C:246:TRP:N	2.81	0.48
1:C:327:ILE:CD1	1:C:353:ILE:HG21	2.43	0.48
1:C:505:PHE:CZ	1:C:540:VAL:CG1	2.90	0.48
1:E:489:TYR:HD1	1:E:489:TYR:C	2.16	0.48
1:E:747:ASN:ND2	1:E:801:VAL:O	2.38	0.48
1:E:922:LEU:CD1	1:E:1241:LEU:CD2	2.87	0.48
1:G:171:HIS:NE2	1:G:175:GLU:CB	2.76	0.48
1:G:741:GLY:HA3	1:G:770:TRP:HZ2	1.78	0.48
2:H:103:ASN:C	2:H:104:GLU:O	2.46	0.48
1:I:570:GLU:OE2	1:I:571:PRO:HD2	2.14	0.48
1:K:147:PRO:HG3	1:M:121:GLN:HE22	1.79	0.48
1:K:342:LEU:O	1:K:346:GLN:HG2	2.13	0.48
1:K:453:LEU:CD1	1:K:454:GLN:N	2.73	0.48
1:K:494:ALA:HB1	1:K:496:MET:HG2	1.95	0.48
1:K:741:GLY:HA3	1:K:770:TRP:HZ2	1.78	0.48
1:K:1016:LYS:HA	1:K:1032:TRP:NE1	2.28	0.48
1:K:1200:LYS:CD	1:K:1211:GLN:HB3	2.33	0.48
1:M:1152:ARG:NE	1:M:1164:LEU:HD23	2.28	0.48
1:M:1168:LEU:HD11	1:M:1171:GLU:HG2	1.94	0.48
1:M:1213:PHE:HE2	1:M:1215:THR:CA	2.26	0.48
1:M:1233:VAL:CB	1:M:1243:ILE:HA	2.43	0.48
3:R:10:LEU:HD23	3:R:13:ARG:HD2	1.94	0.48
3:R:21:LYS:CE	3:R:49:GLN:HE21	2.25	0.48
1:C:140:LEU:O	1:C:143:LEU:HD22	2.13	0.48
1:C:374:MET:N	1:C:374:MET:SD	2.87	0.48
1:C:507:LEU:HA	1:C:510:ILE:HD12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:128:THR:HG22	1:E:166:GLU:OE1	2.14	0.48
1:G:1200:LYS:HG3	1:G:1211:GLN:O	2.12	0.48
1:I:489:TYR:HD1	1:I:489:TYR:C	2.16	0.48
1:I:531:HIS:N	1:I:531:HIS:ND1	2.61	0.48
1:K:1136:SER:HA	1:K:1185:PHE:HD2	1.77	0.48
1:K:1181:THR:HG21	1:K:1221:LYS:CA	2.39	0.48
1:K:1213:PHE:HE2	1:K:1215:THR:CA	2.26	0.48
1:M:196:LEU:HD11	1:M:200:GLN:HE21	1.78	0.48
1:M:342:LEU:O	1:M:346:GLN:HG2	2.13	0.48
1:M:597:TRP:CH2	1:M:603:ILE:HG12	2.43	0.48
3:P:27:ASP:OD1	4:S:13:ARG:CG	2.61	0.48
4:T:13:ARG:HD2	4:T:59:ILE:CD1	2.35	0.48
1:A:242:LEU:HD12	1:A:242:LEU:N	2.26	0.48
1:A:529:TYR:HA	1:A:532:ILE:HG21	1.93	0.48
1:A:582:LEU:HD23	1:A:582:LEU:C	2.33	0.48
1:A:1208:GLU:N	1:A:1208:GLU:OE1	2.47	0.48
1:C:342:LEU:O	1:C:346:GLN:HG2	2.13	0.48
1:C:567:GLY:O	1:C:569:CYS:N	2.41	0.48
1:E:236:PRO:HG3	3:O:3:ALA:C	2.33	0.48
1:E:523:ILE:HG12	1:E:548:LEU:HD13	1.94	0.48
1:E:582:LEU:HD23	1:E:582:LEU:C	2.33	0.48
1:E:855:ALA:HB2	1:E:869:THR:HG23	1.96	0.48
1:E:1183:LEU:N	1:E:1183:LEU:CD1	2.73	0.48
1:E:1233:VAL:CB	1:E:1243:ILE:HA	2.43	0.48
1:G:461:ILE:HD11	1:G:491:MET:CG	2.44	0.48
1:G:884:TRP:O	1:G:885:VAL:C	2.52	0.48
1:I:145:GLY:O	1:I:146:GLU:HB2	2.14	0.48
1:I:579:GLN:NE2	1:I:583:GLN:HB2	2.28	0.48
1:I:741:GLY:HA3	1:I:770:TRP:HZ2	1.78	0.48
1:I:855:ALA:HB2	1:I:869:THR:HG23	1.96	0.48
1:K:270:THR:O	1:K:270:THR:OG1	2.32	0.48
1:K:597:TRP:CH2	1:K:603:ILE:HG12	2.43	0.48
1:M:359:TYR:CD1	1:M:359:TYR:C	2.85	0.48
1:M:473:LEU:HD21	1:M:484:TYR:OH	2.11	0.48
1:M:581:LYS:HD2	1:M:581:LYS:HA	1.68	0.48
1:A:244:ASP:HB3	1:A:245:VAL:H	1.51	0.48
1:C:128:THR:HG22	1:C:166:GLU:OE1	2.14	0.48
1:C:494:ALA:HB1	1:C:496:MET:HG2	1.95	0.48
1:C:762:SER:OG	1:C:764:ASP:OD1	2.25	0.48
1:C:879:ARG:HB3	1:C:921:MET:HE2	1.87	0.48
1:C:1094:SER:HA	1:C:1135:PHE:CB	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:283:GLU:OE1	1:E:284:SER:O	2.31	0.48
1:E:700:GLU:HB3	1:E:721:SER:HB2	1.96	0.48
1:E:1213:PHE:HE2	1:E:1215:THR:CA	2.26	0.48
1:G:327:ILE:CD1	1:G:353:ILE:HG21	2.43	0.48
1:G:374:MET:N	1:G:374:MET:SD	2.87	0.48
1:G:561:PRO:CB	1:G:1214:TYR:CD2	2.86	0.48
1:G:855:ALA:HB2	1:G:869:THR:HG23	1.96	0.48
1:G:999:ARG:CD	1:G:1030:TRP:CE2	2.97	0.48
1:I:570:GLU:CG	1:I:571:PRO:HD2	2.42	0.48
1:I:610:VAL:HG22	1:I:907:ARG:CG	2.43	0.48
1:I:1200:LYS:HG3	1:I:1211:GLN:O	2.12	0.48
1:K:1208:GLU:OE1	1:K:1208:GLU:N	2.47	0.48
1:M:548:LEU:O	1:M:551:ASN:N	2.45	0.48
1:A:319:GLY:O	1:A:321:PRO:HD3	2.14	0.48
1:A:533:LEU:HB3	1:A:534:ASP:H	1.59	0.48
1:A:879:ARG:CB	1:A:921:MET:CE	2.73	0.48
1:A:1176:HIS:CD2	1:A:1197:GLY:O	2.67	0.48
1:C:252:LYS:CE	1:C:252:LYS:CA	2.92	0.48
1:C:434:ARG:HG3	1:C:434:ARG:NH2	2.28	0.48
1:C:1208:GLU:OE1	1:C:1208:GLU:N	2.47	0.48
1:E:140:LEU:O	1:E:143:LEU:HD22	2.13	0.48
1:E:548:LEU:O	1:E:551:ASN:N	2.45	0.48
1:E:662:CYS:SG	1:E:704:CYS:HA	2.54	0.48
1:G:147:PRO:HG3	1:I:121:GLN:HE22	1.79	0.48
1:G:489:TYR:HD1	1:G:489:TYR:C	2.16	0.48
1:G:1201:TRP:CB	1:G:1210:SER:O	2.58	0.48
1:I:1208:GLU:N	1:I:1208:GLU:OE1	2.47	0.48
1:K:507:LEU:HA	1:K:510:ILE:HD12	1.96	0.48
1:K:862:TYR:HD1	1:K:885:VAL:N	2.11	0.48
1:M:330:LEU:HD12	1:M:330:LEU:HA	1.74	0.48
1:M:484:TYR:HA	1:M:509:TRP:CZ2	2.49	0.48
1:M:1057:ARG:HA	1:M:1071:ASN:HA	1.96	0.48
1:A:121:GLN:HE22	1:M:147:PRO:HG3	1.79	0.47
1:A:171:HIS:NE2	1:A:175:GLU:CB	2.76	0.47
1:A:342:LEU:O	1:A:346:GLN:HG2	2.13	0.47
1:A:718:THR:OG1	1:A:726:LYS:HB2	2.14	0.47
1:A:1152:ARG:NE	1:A:1164:LEU:HD23	2.29	0.47
1:C:484:TYR:HA	1:C:509:TRP:CZ2	2.49	0.47
1:C:531:HIS:ND1	1:C:531:HIS:N	2.61	0.47
1:C:879:ARG:CB	1:C:921:MET:SD	3.01	0.47
1:C:1232:TYR:OH	1:C:1234:THR:CB	2.59	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:14:CYS:CB	7:D:201:HEM:HAB	2.43	0.47
1:E:564:VAL:HG13	1:E:583:GLN:CG	2.44	0.47
1:E:1200:LYS:HG3	1:E:1211:GLN:O	2.13	0.47
1:G:140:LEU:O	1:G:143:LEU:HD22	2.13	0.47
1:G:145:GLY:O	1:G:146:GLU:HB2	2.14	0.47
1:G:434:ARG:HG3	1:G:434:ARG:NH2	2.28	0.47
1:G:484:TYR:HA	1:G:509:TRP:CZ2	2.49	0.47
1:I:155:MET:HE2	1:I:155:MET:HB2	1.88	0.47
1:I:561:PRO:CB	1:I:1214:TYR:CD2	2.87	0.47
1:I:864:VAL:HG22	1:I:885:VAL:HG11	1.95	0.47
1:I:884:TRP:O	1:I:885:VAL:C	2.53	0.47
1:K:667:THR:OG1	1:K:708:THR:O	2.29	0.47
1:K:1057:ARG:HA	1:K:1071:ASN:HA	1.96	0.47
1:M:137:GLN:NE2	1:M:173:LEU:HB3	2.23	0.47
1:M:494:ALA:HB1	1:M:496:MET:HG2	1.95	0.47
1:M:1236:ASP:OD1	1:M:1236:ASP:N	2.44	0.47
3:Q:78:GLU:OE1	4:U:36:ARG:HG2	2.14	0.47
1:A:484:TYR:HA	1:A:509:TRP:CZ2	2.49	0.47
1:A:923:LYS:CB	1:A:940:VAL:HG21	2.41	0.47
1:A:1057:ARG:HA	1:A:1071:ASN:HA	1.96	0.47
1:C:553:HIS:CB	1:C:610:VAL:CG1	2.89	0.47
1:C:570:GLU:OE2	1:C:571:PRO:HD2	2.14	0.47
1:C:1213:PHE:HE2	1:C:1215:THR:CA	2.26	0.47
1:C:1233:VAL:CB	1:C:1243:ILE:HA	2.43	0.47
1:C:1247:LEU:CD1	1:C:1248:GLU:N	2.73	0.47
1:E:171:HIS:NE2	1:E:175:GLU:CB	2.76	0.47
1:E:568:LEU:H	1:E:568:LEU:HG	1.51	0.47
1:E:999:ARG:CD	1:E:1030:TRP:CE2	2.96	0.47
1:G:579:GLN:NE2	1:G:583:GLN:HB2	2.28	0.47
1:G:662:CYS:SG	1:G:704:CYS:HA	2.54	0.47
1:G:718:THR:OG1	1:G:726:LYS:HB2	2.14	0.47
1:G:1181:THR:HG21	1:G:1221:LYS:CA	2.39	0.47
1:I:171:HIS:NE2	1:I:175:GLU:CB	2.76	0.47
1:I:319:GLY:O	1:I:321:PRO:HD3	2.14	0.47
1:I:662:CYS:SG	1:I:704:CYS:HA	2.54	0.47
1:I:742:HIS:CE1	1:I:768:LYS:HD2	2.50	0.47
1:K:244:ASP:HB3	1:K:245:VAL:H	1.52	0.47
1:K:489:TYR:HD1	1:K:489:TYR:C	2.16	0.47
1:K:568:LEU:H	1:K:568:LEU:HG	1.50	0.47
1:M:171:HIS:NE2	1:M:175:GLU:CB	2.76	0.47
1:M:319:GLY:O	1:M:321:PRO:HD3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:718:THR:OG1	1:M:726:LYS:HB2	2.14	0.47
3:Q:19:ASP:HB3	4:U:64:THR:CB	2.44	0.47
4:S:32:ARG:HD2	4:S:76:CYS:SG	2.55	0.47
1:A:229:ILE:CG2	1:A:233:ARG:HD3	2.31	0.47
1:A:453:LEU:CD1	1:A:454:GLN:N	2.73	0.47
1:A:1094:SER:HA	1:A:1135:PHE:CB	2.44	0.47
1:C:591:GLY:O	1:C:592:MET:CB	2.56	0.47
1:E:330:LEU:HD12	1:E:330:LEU:HA	1.74	0.47
1:E:384:THR:HB	1:E:449:ASN:OD1	2.15	0.47
1:E:742:HIS:CE1	1:E:768:LYS:HD2	2.50	0.47
1:E:1094:SER:HA	1:E:1135:PHE:CB	2.44	0.47
1:E:1201:TRP:CB	1:E:1210:SER:O	2.58	0.47
1:G:226:ARG:O	1:G:230:LEU:HG	2.14	0.47
1:G:319:GLY:O	1:G:321:PRO:HD3	2.14	0.47
1:G:374:MET:HA	1:G:374:MET:HE3	1.91	0.47
1:G:1094:SER:HA	1:G:1135:PHE:CB	2.44	0.47
1:G:1208:GLU:HG3	1:G:1211:GLN:CG	2.44	0.47
1:I:140:LEU:O	1:I:143:LEU:HD22	2.13	0.47
1:I:374:MET:SD	1:I:374:MET:N	2.87	0.47
1:I:999:ARG:CD	1:I:1030:TRP:CE2	2.97	0.47
1:K:579:GLN:NE2	1:K:583:GLN:HB2	2.28	0.47
1:K:639:LEU:HD23	1:K:653:ILE:HD13	1.93	0.47
1:K:1087:THR:CG2	2:L:39:LYS:CD	2.75	0.47
1:M:818:LYS:HD3	1:M:842:THR:HG23	1.95	0.47
2:N:14:CYS:CB	7:N:201:HEM:HAB	2.43	0.47
1:A:570:GLU:OE2	1:A:571:PRO:HD2	2.14	0.47
1:A:657:GLU:HB2	1:A:680:LYS:HD2	1.96	0.47
1:C:226:ARG:O	1:C:230:LEU:HG	2.14	0.47
1:C:379:ILE:CD1	1:C:417:GLU:OE1	2.63	0.47
1:C:662:CYS:SG	1:C:704:CYS:HA	2.54	0.47
1:C:718:THR:OG1	1:C:726:LYS:HB2	2.14	0.47
1:C:923:LYS:CG	1:C:940:VAL:HG23	2.42	0.47
1:E:657:GLU:HB2	1:E:680:LYS:HD2	1.96	0.47
1:E:864:VAL:HG22	1:E:885:VAL:HG11	1.95	0.47
1:E:1208:GLU:OE1	1:E:1208:GLU:N	2.47	0.47
1:G:330:LEU:HD22	1:G:353:ILE:HG22	1.97	0.47
1:G:334:PHE:CB	1:G:337:ARG:CD	2.87	0.47
1:G:384:THR:HB	1:G:449:ASN:OD1	2.15	0.47
1:G:582:LEU:HD23	1:G:582:LEU:C	2.33	0.47
1:G:610:VAL:HG22	1:G:907:ARG:CG	2.43	0.47
1:G:657:GLU:HB2	1:G:680:LYS:HD2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1022:SER:OG	1:G:1023:ASP:N	2.48	0.47
1:G:1135:PHE:CD1	1:G:1142:LEU:HD13	2.50	0.47
1:I:330:LEU:HD22	1:I:353:ILE:HG22	1.97	0.47
1:I:718:THR:OG1	1:I:726:LYS:HB2	2.14	0.47
1:I:1208:GLU:HG3	1:I:1211:GLN:CG	2.44	0.47
1:K:327:ILE:CD1	1:K:353:ILE:HG21	2.43	0.47
1:K:379:ILE:CD1	1:K:417:GLU:OE1	2.63	0.47
1:K:855:ALA:HB2	1:K:869:THR:HG23	1.96	0.47
1:K:1152:ARG:NE	1:K:1164:LEU:HD23	2.28	0.47
1:K:1166:ALA:N	1:K:1167:PRO:CD	2.78	0.47
1:K:1183:LEU:N	1:K:1183:LEU:CD1	2.73	0.47
1:M:327:ILE:CD1	1:M:353:ILE:HG21	2.43	0.47
1:M:1149:GLY:H	1:M:1180:VAL:CG2	2.27	0.47
1:M:1232:TYR:OH	1:M:1234:THR:CB	2.59	0.47
3:R:32:ASP:O	4:U:11:ARG:CZ	2.62	0.47
1:A:226:ARG:O	1:A:230:LEU:HG	2.14	0.47
1:A:585:LYS:CA	1:A:588:VAL:HG23	2.44	0.47
1:A:1022:SER:OG	1:A:1023:ASP:N	2.48	0.47
1:A:1176:HIS:CA	1:A:1218:THR:HG21	2.44	0.47
1:A:1201:TRP:CB	1:A:1210:SER:O	2.58	0.47
1:C:145:GLY:O	1:C:146:GLU:HB2	2.14	0.47
1:C:359:TYR:CD1	1:C:359:TYR:C	2.86	0.47
1:C:585:LYS:HA	1:C:588:VAL:HG23	1.96	0.47
1:C:922:LEU:CD1	1:C:1241:LEU:CD2	2.87	0.47
1:C:1044:GLN:HG2	1:C:1068:LYS:HZ2	1.80	0.47
1:C:1176:HIS:HB2	1:C:1218:THR:HG23	1.89	0.47
1:C:1233:VAL:CG1	1:C:1243:ILE:HG23	2.45	0.47
1:E:145:GLY:O	1:E:146:GLU:HB2	2.14	0.47
1:E:233:ARG:HB3	3:O:6:ARG:HH11	1.80	0.47
1:E:1152:ARG:NE	1:E:1164:LEU:HD23	2.29	0.47
1:E:1185:PHE:CD1	1:E:1192:LEU:CG	2.63	0.47
1:E:1233:VAL:CG1	1:E:1243:ILE:HG23	2.45	0.47
1:G:700:GLU:HB3	1:G:721:SER:HB2	1.96	0.47
1:G:742:HIS:CE1	1:G:768:LYS:HD2	2.50	0.47
1:G:1208:GLU:OE1	1:G:1208:GLU:N	2.47	0.47
1:I:494:ALA:HB1	1:I:496:MET:HG2	1.95	0.47
1:K:434:ARG:HG3	1:K:434:ARG:NH2	2.28	0.47
1:M:570:GLU:OE2	1:M:571:PRO:HD2	2.14	0.47
3:P:31:SER:CA	4:S:11:ARG:O	2.63	0.47
3:Q:30:ILE:CG2	4:T:10:ARG:HB3	2.45	0.47
1:A:137:GLN:HG2	1:A:173:LEU:CD1	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:379:ILE:CD1	1:A:417:GLU:OE1	2.63	0.47
1:A:446:THR:O	1:A:450:CYS:HB3	2.15	0.47
1:A:681:VAL:HG11	1:A:716:LEU:HD21	1.97	0.47
1:A:844:GLN:HB3	1:A:884:TRP:HZ2	1.80	0.47
1:C:700:GLU:HB3	1:C:721:SER:HB2	1.96	0.47
1:C:742:HIS:CE1	1:C:768:LYS:HD2	2.50	0.47
1:C:1101:SER:HB3	1:C:1112:TRP:NE1	2.30	0.47
1:C:1135:PHE:CD1	1:C:1142:LEU:HD13	2.50	0.47
1:E:507:LEU:HA	1:E:510:ILE:HD12	1.95	0.47
1:E:1135:PHE:CD1	1:E:1142:LEU:HD13	2.50	0.47
1:G:128:THR:HG22	1:G:166:GLU:OE1	2.14	0.47
1:I:434:ARG:HG3	1:I:434:ARG:NH2	2.28	0.47
1:I:446:THR:O	1:I:450:CYS:HB3	2.15	0.47
1:I:461:ILE:HD11	1:I:491:MET:CG	2.44	0.47
1:I:657:GLU:HB2	1:I:680:LYS:HD2	1.96	0.47
1:K:330:LEU:HD22	1:K:353:ILE:HG22	1.97	0.47
1:K:461:ILE:HD11	1:K:491:MET:CG	2.44	0.47
1:K:585:LYS:CA	1:K:588:VAL:HG23	2.44	0.47
1:K:742:HIS:CE1	1:K:768:LYS:HD2	2.50	0.47
1:K:861:GLN:N	1:K:884:TRP:CD1	2.83	0.47
1:K:884:TRP:O	1:K:885:VAL:C	2.52	0.47
1:K:1006:VAL:HA	1:K:1022:SER:HB2	1.95	0.47
2:L:14:CYS:CB	7:L:201:HEM:HAB	2.43	0.47
1:M:334:PHE:CB	1:M:337:ARG:CD	2.87	0.47
1:M:379:ILE:CD1	1:M:417:GLU:OE1	2.63	0.47
1:M:585:LYS:HA	1:M:588:VAL:HG23	1.96	0.47
1:M:861:GLN:N	1:M:884:TRP:CD1	2.83	0.47
1:M:1176:HIS:CD2	1:M:1197:GLY:O	2.68	0.47
1:M:1208:GLU:OE1	1:M:1208:GLU:N	2.47	0.47
3:R:79:GLY:CA	4:V:65:ARG:NH1	2.75	0.47
4:V:32:ARG:HD2	4:V:76:CYS:SG	2.54	0.47
1:A:128:THR:HG22	1:A:166:GLU:OE1	2.14	0.47
1:A:147:PRO:HG3	1:C:121:GLN:HE22	1.79	0.47
1:A:200:GLN:O	1:A:203:CYS:HB3	2.15	0.47
1:A:461:ILE:HD11	1:A:491:MET:HG3	1.97	0.47
1:A:999:ARG:HD2	1:A:999:ARG:HA	1.74	0.47
1:C:461:ILE:HD11	1:C:491:MET:HG3	1.97	0.47
1:C:862:TYR:HD1	1:C:885:VAL:N	2.11	0.47
1:C:1208:GLU:HG3	1:C:1211:GLN:CG	2.44	0.47
1:E:209:ASP:O	1:E:210:GLU:CB	2.63	0.47
1:E:330:LEU:HD22	1:E:353:ILE:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:585:LYS:CA	1:E:588:VAL:HG23	2.44	0.47
1:E:923:LYS:CB	1:E:940:VAL:HG21	2.41	0.47
1:E:1044:GLN:HG2	1:E:1068:LYS:HZ2	1.78	0.47
1:G:160:LYS:CB	1:G:160:LYS:HZ2	2.26	0.47
1:G:544:PHE:HE1	1:G:576:VAL:CG1	2.14	0.47
1:G:553:HIS:CB	1:G:610:VAL:CG1	2.89	0.47
1:G:570:GLU:OE2	1:G:571:PRO:HD2	2.14	0.47
1:G:585:LYS:CA	1:G:588:VAL:HG23	2.44	0.47
1:G:1176:HIS:CD2	1:G:1197:GLY:O	2.68	0.47
1:G:1204:VAL:HG12	1:G:1205:VAL:HG23	1.97	0.47
1:I:128:THR:HG22	1:I:166:GLU:OE1	2.14	0.47
1:I:384:THR:HB	1:I:449:ASN:OD1	2.15	0.47
1:I:529:TYR:HE1	1:I:533:LEU:HD13	1.80	0.47
1:I:553:HIS:CB	1:I:610:VAL:CG1	2.89	0.47
1:I:585:LYS:HA	1:I:588:VAL:HG23	1.96	0.47
1:I:844:GLN:HB3	1:I:884:TRP:HZ2	1.80	0.47
1:I:861:GLN:N	1:I:884:TRP:CD1	2.83	0.47
1:I:1101:SER:HB3	1:I:1112:TRP:NE1	2.30	0.47
1:I:1135:PHE:CD1	1:I:1142:LEU:HD13	2.49	0.47
1:K:128:THR:HG22	1:K:166:GLU:OE1	2.14	0.47
1:K:145:GLY:O	1:K:146:GLU:HB2	2.14	0.47
1:K:374:MET:N	1:K:374:MET:SD	2.87	0.47
1:K:496:MET:HA	1:K:496:MET:HE3	1.97	0.47
1:K:570:GLU:OE2	1:K:571:PRO:HD2	2.14	0.47
1:K:662:CYS:SG	1:K:704:CYS:HA	2.54	0.47
1:K:718:THR:OG1	1:K:726:LYS:HB2	2.14	0.47
1:K:844:GLN:HB3	1:K:884:TRP:HZ2	1.80	0.47
1:K:1101:SER:HB3	1:K:1112:TRP:NE1	2.30	0.47
1:K:1171:GLU:CG	1:K:1172:GLY:N	2.68	0.47
1:K:1232:TYR:OH	1:K:1234:THR:CB	2.59	0.47
1:K:1233:VAL:CG1	1:K:1243:ILE:HG23	2.45	0.47
1:K:1233:VAL:CB	1:K:1243:ILE:HA	2.43	0.47
1:M:226:ARG:O	1:M:230:LEU:HG	2.14	0.47
1:M:662:CYS:SG	1:M:704:CYS:HA	2.54	0.47
1:M:681:VAL:HG11	1:M:716:LEU:HD21	1.97	0.47
1:M:844:GLN:HB3	1:M:884:TRP:HZ2	1.80	0.47
1:M:855:ALA:HB2	1:M:869:THR:HG23	1.96	0.47
3:Q:31:SER:HB3	4:T:11:ARG:C	2.18	0.47
3:Q:31:SER:C	4:T:11:ARG:HA	2.34	0.47
3:R:80:TYR:HE1	4:V:64:THR:HG1	0.67	0.47
4:T:32:ARG:HD2	4:T:76:CYS:SG	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:U:18:GLU:CG	4:U:52:ARG:NH1	2.67	0.47
1:A:855:ALA:HB2	1:A:869:THR:HG23	1.96	0.47
1:A:1200:LYS:CD	1:A:1211:GLN:HB3	2.33	0.47
1:C:359:TYR:HE1	1:C:361:TYR:CD1	2.32	0.47
1:E:461:ILE:HD11	1:E:491:MET:HG3	1.97	0.47
1:G:585:LYS:HA	1:G:588:VAL:HG23	1.96	0.47
1:I:1022:SER:OG	1:I:1023:ASP:N	2.48	0.47
1:I:1176:HIS:CD2	1:I:1197:GLY:O	2.68	0.47
1:K:200:GLN:O	1:K:203:CYS:HB3	2.15	0.47
1:K:226:ARG:O	1:K:230:LEU:HG	2.14	0.47
1:K:246:TRP:CD1	1:K:246:TRP:N	2.81	0.47
1:M:128:THR:HG22	1:M:166:GLU:OE1	2.14	0.47
1:M:742:HIS:CE1	1:M:768:LYS:HD2	2.50	0.47
3:Q:79:GLY:HA3	4:U:65:ARG:NH2	2.30	0.47
1:A:336:ASN:CB	1:M:431:LYS:HZ3	2.12	0.47
1:A:585:LYS:HA	1:A:588:VAL:HG23	1.96	0.47
1:A:629:ARG:HB2	1:A:642:PHE:O	2.15	0.47
1:A:742:HIS:CE1	1:A:768:LYS:HD2	2.50	0.47
1:C:306:LEU:HA	1:C:307:PRO:HD3	1.76	0.47
1:C:681:VAL:HG11	1:C:716:LEU:HD21	1.97	0.47
1:E:226:ARG:O	1:E:230:LEU:HG	2.14	0.47
1:E:319:GLY:O	1:E:321:PRO:HD3	2.14	0.47
1:E:484:TYR:HA	1:E:509:TRP:CZ2	2.49	0.47
1:G:534:ASP:O	1:G:538:CYS:SG	2.68	0.47
1:G:861:GLN:N	1:G:884:TRP:CD1	2.83	0.47
1:G:864:VAL:HG22	1:G:885:VAL:HG11	1.95	0.47
1:G:1233:VAL:CG1	1:G:1243:ILE:HG23	2.45	0.47
1:I:1057:ARG:HA	1:I:1071:ASN:HA	1.97	0.47
1:I:1176:HIS:HB2	1:I:1218:THR:HG23	1.87	0.47
1:I:1204:VAL:HG12	1:I:1205:VAL:HG23	1.97	0.47
1:K:209:ASP:O	1:K:210:GLU:CB	2.63	0.47
1:K:1187:PRO:HG2	1:K:1229:PHE:CB	2.42	0.47
1:M:568:LEU:H	1:M:568:LEU:HG	1.51	0.47
1:M:639:LEU:O	1:M:653:ILE:HG21	2.07	0.47
1:M:700:GLU:HB3	1:M:721:SER:HB2	1.96	0.47
1:A:330:LEU:HD22	1:A:353:ILE:HG22	1.97	0.47
1:A:529:TYR:HE1	1:A:533:LEU:HD13	1.80	0.47
1:C:384:THR:HB	1:C:449:ASN:OD1	2.15	0.47
1:C:629:ARG:HB2	1:C:642:PHE:O	2.15	0.47
1:C:884:TRP:O	1:C:885:VAL:C	2.53	0.47
1:E:718:THR:OG1	1:E:726:LYS:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:861:GLN:N	1:E:884:TRP:CD1	2.83	0.47
1:E:1057:ARG:HA	1:E:1071:ASN:HA	1.96	0.47
1:E:1181:THR:HG21	1:E:1221:LYS:CA	2.39	0.47
1:G:681:VAL:HG11	1:G:716:LEU:HD21	1.97	0.47
1:I:1233:VAL:CG1	1:I:1243:ILE:HG23	2.45	0.47
1:K:252:LYS:CE	1:K:252:LYS:CA	2.92	0.47
1:M:384:THR:HB	1:M:449:ASN:OD1	2.15	0.47
1:M:461:ILE:HD11	1:M:491:MET:CG	2.44	0.47
1:M:1204:VAL:HG12	1:M:1205:VAL:HG23	1.97	0.47
3:R:31:SER:O	4:U:11:ARG:C	2.53	0.47
4:T:7:ARG:HA	4:T:10:ARG:CZ	2.44	0.47
1:A:334:PHE:CB	1:A:337:ARG:HG2	2.45	0.46
1:A:398:LYS:O	1:A:401:CYS:HB2	2.15	0.46
1:A:445:LEU:O	1:A:449:ASN:N	2.48	0.46
1:A:531:HIS:N	1:A:531:HIS:ND1	2.61	0.46
1:A:662:CYS:SG	1:A:704:CYS:HA	2.54	0.46
1:A:1065:GLY:HA2	1:A:1088:VAL:HG23	1.97	0.46
1:A:1204:VAL:HG12	1:A:1205:VAL:HG23	1.97	0.46
1:C:529:TYR:HE1	1:C:533:LEU:HD13	1.80	0.46
1:C:861:GLN:N	1:C:884:TRP:CD1	2.83	0.46
1:C:1208:GLU:HG3	1:C:1211:GLN:NE2	2.31	0.46
1:E:610:VAL:HG22	1:E:907:ARG:CG	2.43	0.46
1:E:1204:VAL:HG12	1:E:1205:VAL:HG23	1.97	0.46
1:G:591:GLY:O	1:G:592:MET:CB	2.56	0.46
1:G:879:ARG:CB	1:G:921:MET:CE	2.73	0.46
1:G:1136:SER:HA	1:G:1185:PHE:HD2	1.78	0.46
1:I:379:ILE:CD1	1:I:417:GLU:OE1	2.63	0.46
1:I:585:LYS:CA	1:I:588:VAL:HG23	2.44	0.46
1:I:671:PHE:HE1	1:I:692:VAL:HG11	1.80	0.46
1:K:334:PHE:CB	1:K:337:ARG:HG2	2.45	0.46
1:K:446:THR:O	1:K:450:CYS:HB3	2.15	0.46
1:K:1135:PHE:CD1	1:K:1142:LEU:HD13	2.50	0.46
1:M:561:PRO:CB	1:M:1214:TYR:CD2	2.87	0.46
1:M:1065:GLY:HA2	1:M:1088:VAL:HG23	1.97	0.46
1:M:1135:PHE:CD1	1:M:1142:LEU:HD13	2.49	0.46
1:M:1176:HIS:HB2	1:M:1218:THR:HG23	1.85	0.46
4:U:32:ARG:HD2	4:U:76:CYS:SG	2.54	0.46
1:A:196:LEU:HD11	1:A:200:GLN:HE21	1.78	0.46
1:A:448:LYS:HG2	1:A:448:LYS:O	2.16	0.46
1:A:861:GLN:N	1:A:884:TRP:CD1	2.83	0.46
1:A:924:GLN:HB3	1:A:1238:LEU:CD1	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1145:GLY:HA2	1:A:1151:ILE:HD13	1.98	0.46
1:C:209:ASP:O	1:C:210:GLU:CB	2.63	0.46
1:C:319:GLY:O	1:C:321:PRO:HD3	2.14	0.46
1:C:727:LEU:HD13	1:C:758:LEU:HD22	1.98	0.46
1:C:855:ALA:HB2	1:C:869:THR:HG23	1.96	0.46
1:E:200:GLN:O	1:E:203:CYS:HB3	2.15	0.46
1:G:334:PHE:CB	1:G:337:ARG:HG2	2.46	0.46
1:G:928:VAL:HG12	1:G:937:VAL:CB	2.46	0.46
1:I:226:ARG:O	1:I:230:LEU:HG	2.14	0.46
1:I:507:LEU:HA	1:I:510:ILE:HD12	1.96	0.46
1:I:727:LEU:HD13	1:I:758:LEU:HD22	1.98	0.46
1:I:753:PRO:HG3	1:I:810:GLY:HA3	1.97	0.46
1:K:130:LYS:HE2	1:K:130:LYS:HB2	1.74	0.46
1:K:585:LYS:HA	1:K:588:VAL:HG23	1.96	0.46
1:K:753:PRO:HG3	1:K:810:GLY:HA3	1.97	0.46
1:K:1065:GLY:HA2	1:K:1088:VAL:HG23	1.97	0.46
1:K:1094:SER:HA	1:K:1135:PHE:CB	2.44	0.46
1:M:179:PRO:HD2	1:M:237:ARG:CG	2.45	0.46
1:M:629:ARG:HB2	1:M:642:PHE:O	2.15	0.46
1:M:999:ARG:HA	1:M:999:ARG:HD2	1.73	0.46
1:M:1022:SER:OG	1:M:1023:ASP:N	2.48	0.46
1:M:1166:ALA:N	1:M:1167:PRO:CD	2.78	0.46
1:M:1208:GLU:HG3	1:M:1211:GLN:CG	2.44	0.46
3:R:79:GLY:O	4:V:65:ARG:CZ	2.62	0.46
1:A:359:TYR:CD1	1:A:359:TYR:C	2.86	0.46
1:A:727:LEU:HD13	1:A:758:LEU:HD22	1.97	0.46
1:C:147:PRO:HG3	1:E:121:GLN:HE22	1.79	0.46
1:C:461:ILE:HD11	1:C:491:MET:CG	2.44	0.46
1:E:379:ILE:CD1	1:E:417:GLU:OE1	2.63	0.46
1:E:629:ARG:HB2	1:E:642:PHE:O	2.15	0.46
1:E:861:GLN:N	1:E:884:TRP:HD1	2.14	0.46
1:E:1022:SER:OG	1:E:1023:ASP:N	2.48	0.46
1:E:1182:ASP:CB	1:E:1223:ILE:HG23	2.45	0.46
1:G:461:ILE:HD11	1:G:491:MET:HG3	1.97	0.46
1:G:753:PRO:HG3	1:G:810:GLY:HA3	1.97	0.46
1:G:1057:ARG:HA	1:G:1071:ASN:HA	1.97	0.46
1:I:505:PHE:HZ	1:I:540:VAL:CG1	2.17	0.46
1:K:639:LEU:O	1:K:653:ILE:HG21	2.07	0.46
1:K:700:GLU:HB3	1:K:721:SER:HB2	1.96	0.46
1:K:853:HIS:O	1:K:869:THR:N	2.39	0.46
1:K:922:LEU:CD1	1:K:1241:LEU:CD2	2.87	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:138:GLN:O	1:M:141:SER:HB3	2.16	0.46
1:M:446:THR:O	1:M:450:CYS:HB3	2.15	0.46
1:M:884:TRP:O	1:M:885:VAL:C	2.52	0.46
1:M:1233:VAL:CG1	1:M:1243:ILE:HG23	2.45	0.46
4:T:12:CYS:SG	4:T:88:PHE:HE2	2.38	0.46
3:X:9:LEU:HD23	3:X:68:TYR:CE2	2.50	0.46
1:A:700:GLU:HB3	1:A:721:SER:HB2	1.96	0.46
1:A:1135:PHE:CD1	1:A:1142:LEU:HD13	2.50	0.46
1:A:1208:GLU:HG3	1:A:1211:GLN:CG	2.44	0.46
1:A:1208:GLU:HG3	1:A:1211:GLN:NE2	2.30	0.46
1:C:138:GLN:O	1:C:141:SER:HB3	2.15	0.46
1:C:448:LYS:HG2	1:C:448:LYS:O	2.16	0.46
1:C:651:LEU:HD22	1:C:651:LEU:HA	1.79	0.46
1:C:657:GLU:HB2	1:C:680:LYS:HD2	1.96	0.46
1:C:1057:ARG:HA	1:C:1071:ASN:HA	1.97	0.46
1:C:1201:TRP:CB	1:C:1210:SER:O	2.58	0.46
1:E:231:MET:O	1:E:236:PRO:CB	2.63	0.46
1:E:332:ARG:CG	1:E:332:ARG:NH1	2.73	0.46
1:E:585:LYS:HA	1:E:588:VAL:HG23	1.96	0.46
1:E:762:SER:OG	1:E:764:ASP:OD1	2.25	0.46
1:G:629:ARG:HB2	1:G:642:PHE:O	2.15	0.46
1:G:727:LEU:HD13	1:G:758:LEU:HD22	1.97	0.46
1:G:1213:PHE:HD2	1:G:1214:TYR:H	1.63	0.46
1:I:244:ASP:O	1:I:245:VAL:HG23	2.16	0.46
1:I:252:LYS:CE	1:I:252:LYS:CA	2.92	0.46
1:I:398:LYS:O	1:I:401:CYS:HB2	2.16	0.46
1:I:681:VAL:HG11	1:I:716:LEU:HD21	1.97	0.46
1:K:681:VAL:HG11	1:K:716:LEU:HD21	1.97	0.46
1:M:209:ASP:O	1:M:210:GLU:CB	2.63	0.46
1:M:1181:THR:CG2	1:M:1221:LYS:HA	2.40	0.46
1:M:1182:ASP:CB	1:M:1223:ILE:HG23	2.45	0.46
1:A:671:PHE:HE1	1:A:692:VAL:HG11	1.80	0.46
1:A:884:TRP:O	1:A:885:VAL:C	2.53	0.46
1:C:137:GLN:HG2	1:C:173:LEU:CD1	2.45	0.46
1:C:398:LYS:O	1:C:401:CYS:HB2	2.16	0.46
1:C:861:GLN:N	1:C:884:TRP:HD1	2.14	0.46
1:C:924:GLN:HB3	1:C:1238:LEU:CD1	2.45	0.46
1:C:1176:HIS:CD2	1:C:1197:GLY:O	2.68	0.46
1:C:1213:PHE:HD2	1:C:1214:TYR:H	1.63	0.46
1:E:241:ILE:C	1:E:242:LEU:CD1	2.81	0.46
1:E:310:ALA:O	1:E:313:ILE:HG22	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:445:LEU:O	1:E:449:ASN:N	2.48	0.46
1:E:753:PRO:HG3	1:E:810:GLY:HA3	1.97	0.46
1:E:1166:ALA:N	1:E:1167:PRO:CD	2.78	0.46
1:E:1213:PHE:HD2	1:E:1214:TYR:H	1.63	0.46
1:G:379:ILE:CD1	1:G:417:GLU:OE1	2.63	0.46
1:G:390:GLN:NE2	1:G:489:TYR:HE2	2.14	0.46
1:I:209:ASP:O	1:I:210:GLU:CB	2.63	0.46
1:I:1094:SER:HA	1:I:1135:PHE:CB	2.44	0.46
1:I:1208:GLU:HG3	1:I:1211:GLN:NE2	2.31	0.46
1:K:319:GLY:O	1:K:321:PRO:HD3	2.14	0.46
1:K:384:THR:HB	1:K:449:ASN:OD1	2.15	0.46
1:K:529:TYR:HE1	1:K:533:LEU:HD13	1.80	0.46
1:K:657:GLU:HB2	1:K:680:LYS:HD2	1.96	0.46
1:K:1176:HIS:CD2	1:K:1197:GLY:O	2.68	0.46
1:M:200:GLN:O	1:M:203:CYS:HB3	2.15	0.46
1:M:334:PHE:CB	1:M:337:ARG:HG2	2.45	0.46
1:M:529:TYR:HE1	1:M:533:LEU:HD13	1.80	0.46
1:M:1094:SER:HA	1:M:1135:PHE:CB	2.45	0.46
1:M:1101:SER:HB3	1:M:1112:TRP:NE1	2.30	0.46
3:O:79:GLY:CA	4:S:65:ARG:NH2	2.49	0.46
3:Q:34:PHE:CE1	3:Q:66:ASP:HB2	2.50	0.46
1:A:390:GLN:NE2	1:A:489:TYR:HE2	2.14	0.46
1:A:1051:ARG:O	1:A:1058:LEU:HD12	2.16	0.46
1:A:1101:SER:HB3	1:A:1112:TRP:NE1	2.30	0.46
1:C:310:ALA:O	1:C:313:ILE:HG22	2.16	0.46
1:C:445:LEU:O	1:C:449:ASN:N	2.48	0.46
1:C:446:THR:O	1:C:450:CYS:HB3	2.15	0.46
1:C:481:MET:O	1:C:485:ASN:ND2	2.49	0.46
1:C:1145:GLY:HA2	1:C:1151:ILE:HD13	1.98	0.46
1:C:1204:VAL:HG12	1:C:1205:VAL:HG23	1.96	0.46
1:E:390:GLN:NE2	1:E:489:TYR:HE2	2.14	0.46
1:E:431:LYS:HZ3	1:G:336:ASN:CB	2.12	0.46
1:E:461:ILE:HD11	1:E:491:MET:CG	2.44	0.46
1:E:622:CYS:HA	1:E:889:MET:HE1	1.98	0.46
1:E:727:LEU:HD13	1:E:758:LEU:HD22	1.97	0.46
1:E:1176:HIS:CD2	1:E:1197:GLY:O	2.68	0.46
1:G:179:PRO:HD2	1:G:237:ARG:CG	2.45	0.46
1:G:244:ASP:O	1:G:245:VAL:HG23	2.16	0.46
1:G:310:ALA:O	1:G:313:ILE:HG22	2.16	0.46
1:G:581:LYS:HD2	1:G:581:LYS:HA	1.68	0.46
1:G:1101:SER:HB3	1:G:1112:TRP:NE1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1182:ASP:CB	1:G:1223:ILE:HG23	2.45	0.46
1:I:147:PRO:HG3	1:K:121:GLN:HE22	1.79	0.46
1:I:700:GLU:HB3	1:I:721:SER:HB2	1.96	0.46
1:I:928:VAL:HG12	1:I:937:VAL:CB	2.46	0.46
1:I:1182:ASP:CB	1:I:1223:ILE:HG23	2.45	0.46
1:K:394:LYS:CB	1:K:434:ARG:CB	2.80	0.46
1:K:727:LEU:HD13	1:K:758:LEU:HD22	1.97	0.46
1:K:926:VAL:HG11	1:K:938:LEU:O	2.16	0.46
1:M:448:LYS:O	1:M:448:LYS:HG2	2.15	0.46
1:M:507:LEU:HD23	1:M:510:ILE:HD12	1.98	0.46
1:M:657:GLU:HB2	1:M:680:LYS:HD2	1.96	0.46
1:M:836:HIS:ND1	1:M:837:THR:O	2.49	0.46
1:M:1213:PHE:HD2	1:M:1214:TYR:H	1.63	0.46
3:P:31:SER:HA	4:S:11:ARG:O	2.16	0.46
1:A:145:GLY:O	1:A:146:GLU:HB2	2.14	0.46
1:A:548:LEU:O	1:A:551:ASN:N	2.45	0.46
1:A:836:HIS:ND1	1:A:837:THR:O	2.49	0.46
1:A:866:LEU:HG	1:A:875:VAL:HB	1.98	0.46
1:A:1185:PHE:CD1	1:A:1192:LEU:CG	2.64	0.46
1:A:1202:TRP:HE3	1:A:1202:TRP:H	1.64	0.46
1:C:260:ILE:O	1:C:260:ILE:HG13	2.05	0.46
1:C:641:VAL:HB	1:C:651:LEU:HB2	1.97	0.46
1:C:1022:SER:OG	1:C:1023:ASP:N	2.48	0.46
1:E:179:PRO:HD3	1:E:237:ARG:HH12	1.78	0.46
1:E:534:ASP:O	1:E:538:CYS:SG	2.68	0.46
1:E:844:GLN:HB3	1:E:884:TRP:HZ2	1.80	0.46
1:G:200:GLN:O	1:G:203:CYS:HB3	2.15	0.46
1:G:836:HIS:ND1	1:G:837:THR:O	2.49	0.46
1:G:924:GLN:HB3	1:G:1238:LEU:CD1	2.45	0.46
1:I:359:TYR:CD1	1:I:359:TYR:C	2.86	0.46
1:I:431:LYS:HZ3	1:K:336:ASN:CB	2.12	0.46
1:K:310:ALA:O	1:K:313:ILE:HG22	2.16	0.46
1:K:507:LEU:HD23	1:K:510:ILE:HD12	1.98	0.46
1:K:629:ARG:HB2	1:K:642:PHE:O	2.15	0.46
1:K:836:HIS:ND1	1:K:837:THR:O	2.49	0.46
1:K:866:LEU:HG	1:K:875:VAL:HB	1.98	0.46
1:K:1204:VAL:HG12	1:K:1205:VAL:HG23	1.97	0.46
1:K:1208:GLU:HG3	1:K:1211:GLN:NE2	2.31	0.46
1:M:244:ASP:O	1:M:245:VAL:HG23	2.16	0.46
1:M:505:PHE:CE2	1:M:575:GLU:OE1	2.60	0.46
1:M:866:LEU:HG	1:M:875:VAL:HB	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:13:ARG:HA	3:O:16:LEU:HD12	1.98	0.46
3:O:17:GLU:HG3	3:O:57:ILE:HD12	1.98	0.46
4:S:52:ARG:CD	4:T:38:HIS:NE2	2.61	0.46
3:X:17:GLU:OE2	3:X:54:ALA:HB2	2.16	0.46
3:X:44:ARG:HH12	4:Y:56:ARG:CD	2.28	0.46
1:A:209:ASP:O	1:A:210:GLU:CB	2.63	0.46
1:A:310:ALA:O	1:A:313:ILE:HG22	2.16	0.46
1:A:420:ASN:C	1:A:422:SER:H	2.20	0.46
1:A:922:LEU:CD1	1:A:1241:LEU:CD2	2.87	0.46
1:C:548:LEU:O	1:C:551:ASN:N	2.45	0.46
1:C:920:VAL:HG12	1:C:921:MET:N	2.25	0.46
1:C:920:VAL:CG1	1:C:921:MET:H	2.23	0.46
1:C:1051:ARG:O	1:C:1058:LEU:HD12	2.16	0.46
2:D:16:GLN:OE1	2:D:16:GLN:N	2.47	0.46
1:E:446:THR:O	1:E:450:CYS:HB3	2.15	0.46
1:E:448:LYS:O	1:E:448:LYS:HG2	2.16	0.46
1:E:681:VAL:HG11	1:E:716:LEU:HD21	1.97	0.46
1:E:924:GLN:HB3	1:E:1238:LEU:CD1	2.45	0.46
1:E:1065:GLY:HA2	1:E:1088:VAL:HG23	1.97	0.46
1:E:1101:SER:HB3	1:E:1112:TRP:NE1	2.30	0.46
1:E:1145:GLY:HA2	1:E:1151:ILE:HD13	1.98	0.46
1:G:138:GLN:O	1:G:141:SER:HB3	2.16	0.46
1:G:446:THR:O	1:G:450:CYS:HB3	2.15	0.46
2:H:16:GLN:OE1	2:H:16:GLN:N	2.47	0.46
1:I:310:ALA:O	1:I:313:ILE:HG22	2.16	0.46
1:I:496:MET:SD	1:I:496:MET:N	2.89	0.46
1:I:853:HIS:O	1:I:869:THR:N	2.38	0.46
1:M:145:GLY:O	1:M:146:GLU:HB2	2.14	0.46
1:M:453:LEU:CD1	1:M:454:GLN:N	2.73	0.46
1:M:641:VAL:HB	1:M:651:LEU:HB2	1.97	0.46
1:M:671:PHE:HE1	1:M:692:VAL:HG11	1.80	0.46
3:P:4:LYS:HD3	3:P:90:GLY:HA2	1.97	0.46
3:P:13:ARG:HA	3:P:16:LEU:HD12	1.98	0.46
3:P:37:ILE:CG1	4:S:10:ARG:HD3	2.42	0.46
3:Q:13:ARG:HA	3:Q:16:LEU:HD12	1.98	0.46
1:A:244:ASP:O	1:A:245:VAL:HG23	2.16	0.46
1:A:409:GLU:HG3	1:C:340:TYR:HH	1.76	0.46
1:A:496:MET:SD	1:A:496:MET:N	2.89	0.46
1:C:330:LEU:HD22	1:C:353:ILE:HG22	1.97	0.46
1:C:390:GLN:NE2	1:C:489:TYR:HE2	2.14	0.46
1:E:190:GLN:OE1	1:E:190:GLN:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:252:LYS:CE	1:E:252:LYS:CA	2.92	0.46
1:E:318:LYS:HD3	1:E:439:ASP:HB2	1.98	0.46
1:E:591:GLY:O	1:E:592:MET:CB	2.56	0.46
1:G:507:LEU:HA	1:G:510:ILE:HD12	1.96	0.46
1:I:507:LEU:HD23	1:I:510:ILE:HD12	1.98	0.46
1:I:861:GLN:N	1:I:884:TRP:HD1	2.14	0.46
1:I:1232:TYR:OH	1:I:1234:THR:CB	2.59	0.46
1:K:398:LYS:O	1:K:401:CYS:HB2	2.16	0.46
1:K:461:ILE:HD11	1:K:491:MET:HG3	1.97	0.46
1:K:484:TYR:HA	1:K:509:TRP:CZ2	2.49	0.46
1:K:603:ILE:CB	1:K:1240:ILE:HG21	2.46	0.46
1:K:1182:ASP:CB	1:K:1223:ILE:HG23	2.45	0.46
1:M:252:LYS:CE	1:M:252:LYS:CA	2.92	0.46
1:M:753:PRO:HG3	1:M:810:GLY:HA3	1.97	0.46
1:M:887:GLY:O	1:M:900:SER:N	2.49	0.46
1:M:1202:TRP:HE3	1:M:1202:TRP:H	1.64	0.46
3:Q:17:GLU:HG3	3:Q:57:ILE:HD12	1.98	0.46
1:A:447:GLU:OE1	1:A:447:GLU:HA	2.16	0.46
1:A:1182:ASP:CB	1:A:1223:ILE:HG23	2.45	0.46
1:A:1233:VAL:CG1	1:A:1243:ILE:HG23	2.45	0.46
1:C:844:GLN:HB3	1:C:884:TRP:HZ2	1.80	0.46
1:E:394:LYS:CB	1:E:434:ARG:CB	2.80	0.46
1:E:866:LEU:HD22	1:E:914:VAL:HG12	1.98	0.46
1:E:884:TRP:O	1:E:885:VAL:C	2.53	0.46
1:E:920:VAL:HG12	1:E:921:MET:N	2.25	0.46
1:G:398:LYS:O	1:G:401:CYS:HB2	2.16	0.46
1:G:507:LEU:HD23	1:G:510:ILE:HD12	1.98	0.46
1:G:529:TYR:HE1	1:G:533:LEU:HD13	1.80	0.46
1:G:862:TYR:HD1	1:G:885:VAL:N	2.11	0.46
1:G:926:VAL:HG11	1:G:938:LEU:O	2.16	0.46
1:I:200:GLN:O	1:I:203:CYS:HB3	2.15	0.46
1:I:924:GLN:HB3	1:I:1238:LEU:CD1	2.45	0.46
1:M:229:ILE:CG2	1:M:233:ARG:HD3	2.31	0.46
1:M:330:LEU:HD22	1:M:353:ILE:HG22	1.97	0.46
1:M:928:VAL:HG12	1:M:937:VAL:CB	2.46	0.46
3:R:15:ALA:O	3:R:19:ASP:OD2	2.33	0.46
4:U:2:ASP:O	4:U:6:ARG:HG3	2.14	0.46
1:A:190:GLN:OE1	1:A:190:GLN:HA	2.16	0.45
1:A:256:SER:O	1:A:257:GLN:CB	2.65	0.45
1:C:190:GLN:OE1	1:C:190:GLN:HA	2.16	0.45
1:C:883:SER:OG	1:C:902:ASP:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:641:VAL:HB	1:E:651:LEU:HB2	1.97	0.45
1:E:836:HIS:ND1	1:E:837:THR:O	2.49	0.45
1:E:902:ASP:HB3	2:F:72:LYS:HZ2	1.77	0.45
1:E:926:VAL:HG11	1:E:938:LEU:O	2.16	0.45
1:G:318:LYS:HD3	1:G:439:ASP:HB2	1.98	0.45
1:G:671:PHE:HE1	1:G:692:VAL:HG11	1.81	0.45
1:I:484:TYR:HA	1:I:509:TRP:CZ2	2.49	0.45
1:I:597:TRP:CZ2	1:I:603:ILE:CG1	2.94	0.45
1:I:629:ARG:HB2	1:I:642:PHE:O	2.15	0.45
1:I:1181:THR:HG21	1:I:1221:LYS:CA	2.39	0.45
1:K:445:LEU:O	1:K:449:ASN:N	2.48	0.45
1:K:642:PHE:CE2	1:K:644:ALA:HA	2.51	0.45
1:M:190:GLN:OE1	1:M:190:GLN:HA	2.16	0.45
3:Q:79:GLY:CA	4:U:65:ARG:HH22	2.28	0.45
1:A:507:LEU:HD23	1:A:510:ILE:HD12	1.98	0.45
1:A:753:PRO:HG3	1:A:810:GLY:HA3	1.97	0.45
1:A:861:GLN:N	1:A:884:TRP:HD1	2.14	0.45
1:C:923:LYS:CB	1:C:940:VAL:HG21	2.41	0.45
1:C:926:VAL:HG11	1:C:938:LEU:O	2.16	0.45
1:C:928:VAL:HG12	1:C:937:VAL:CB	2.46	0.45
1:C:1182:ASP:HB3	1:C:1223:ILE:HG23	1.98	0.45
1:E:147:PRO:HG3	1:G:121:GLN:HE22	1.79	0.45
1:E:1182:ASP:HB3	1:E:1223:ILE:HG23	1.98	0.45
1:E:1208:GLU:HG3	1:E:1211:GLN:NE2	2.31	0.45
1:G:209:ASP:O	1:G:210:GLU:CB	2.63	0.45
1:G:359:TYR:HE1	1:G:361:TYR:CD1	2.32	0.45
1:G:448:LYS:O	1:G:448:LYS:HG2	2.16	0.45
1:I:445:LEU:O	1:I:449:ASN:N	2.48	0.45
1:I:448:LYS:HG2	1:I:448:LYS:O	2.15	0.45
1:I:529:TYR:C	1:I:532:ILE:CG2	2.85	0.45
1:I:866:LEU:HG	1:I:875:VAL:HB	1.98	0.45
1:K:496:MET:N	1:K:496:MET:SD	2.89	0.45
1:K:883:SER:OG	1:K:902:ASP:N	2.50	0.45
1:K:924:GLN:HB3	1:K:1238:LEU:CD1	2.45	0.45
1:M:171:HIS:CD2	1:M:171:HIS:O	2.70	0.45
1:M:447:GLU:OE1	1:M:447:GLU:HA	2.17	0.45
1:M:727:LEU:HD13	1:M:758:LEU:HD22	1.98	0.45
3:Q:37:ILE:HG13	4:T:63:GLU:OE2	2.17	0.45
4:S:14:LEU:HD13	4:S:18:GLU:OE2	2.15	0.45
1:A:384:THR:O	1:A:387:SER:CB	2.65	0.45
1:A:384:THR:HB	1:A:449:ASN:OD1	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:434:ARG:CG	1:A:434:ARG:HH21	2.30	0.45
1:A:641:VAL:HB	1:A:651:LEU:HB2	1.97	0.45
1:A:887:GLY:O	1:A:900:SER:N	2.49	0.45
1:A:928:VAL:HG12	1:A:937:VAL:CB	2.46	0.45
1:A:1166:ALA:N	1:A:1167:PRO:CD	2.78	0.45
1:C:160:LYS:CB	1:C:160:LYS:HZ2	2.29	0.45
1:C:384:THR:O	1:C:387:SER:CB	2.65	0.45
1:C:447:GLU:OE1	1:C:447:GLU:HA	2.17	0.45
1:E:130:LYS:HE2	1:E:130:LYS:HB2	1.74	0.45
1:E:137:GLN:HG2	1:E:173:LEU:CD1	2.45	0.45
1:E:244:ASP:O	1:E:245:VAL:HG23	2.16	0.45
1:E:334:PHE:CB	1:E:337:ARG:HG2	2.45	0.45
1:E:398:LYS:O	1:E:401:CYS:HB2	2.16	0.45
1:E:603:ILE:CB	1:E:1240:ILE:HG21	2.46	0.45
1:E:887:GLY:O	1:E:900:SER:N	2.49	0.45
1:G:294:ILE:HG22	1:G:295:LEU:N	2.32	0.45
1:G:330:LEU:HD12	1:G:330:LEU:HA	1.74	0.45
1:G:359:TYR:CD1	1:G:359:TYR:C	2.86	0.45
1:G:1187:PRO:HG3	1:G:1229:PHE:HB2	1.98	0.45
1:I:190:GLN:OE1	1:I:190:GLN:HA	2.17	0.45
1:I:384:THR:O	1:I:387:SER:CB	2.65	0.45
1:I:461:ILE:HD11	1:I:491:MET:HG3	1.97	0.45
1:I:1166:ALA:N	1:I:1167:PRO:CD	2.78	0.45
1:K:671:PHE:HE1	1:K:692:VAL:HG11	1.80	0.45
1:K:1245:GLN:HE21	1:K:1245:GLN:HB3	1.59	0.45
1:M:816:ALA:HB2	1:M:821:ILE:HG12	1.99	0.45
1:M:1051:ARG:O	1:M:1058:LEU:HD12	2.16	0.45
3:P:27:ASP:OD1	4:S:13:ARG:CD	2.65	0.45
3:R:17:GLU:HG3	3:R:57:ILE:HD12	1.98	0.45
1:A:221:GLU:O	1:A:224:LYS:HB3	2.17	0.45
1:A:359:TYR:HE1	1:A:361:TYR:CD1	2.32	0.45
1:A:431:LYS:HZ1	1:C:336:ASN:CB	2.29	0.45
1:A:642:PHE:CE2	1:A:644:ALA:HA	2.51	0.45
1:A:926:VAL:HG11	1:A:938:LEU:O	2.16	0.45
1:C:149:TRP:HZ2	1:C:255:ASP:HA	1.82	0.45
1:C:171:HIS:CD2	1:C:171:HIS:O	2.70	0.45
1:C:200:GLN:O	1:C:203:CYS:HB3	2.15	0.45
1:C:581:LYS:HA	1:C:581:LYS:HD2	1.68	0.45
1:C:1106:ASP:HA	1:C:1129:CYS:HB3	1.99	0.45
1:C:1182:ASP:CB	1:C:1223:ILE:HG23	2.45	0.45
1:E:529:TYR:HE1	1:E:533:LEU:HD13	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1025:ALA:CB	1:E:1044:GLN:O	2.65	0.45
1:E:1051:ARG:O	1:E:1058:LEU:HD12	2.16	0.45
1:E:1232:TYR:OH	1:E:1234:THR:CB	2.59	0.45
1:G:231:MET:HG2	1:G:258:CYS:HB2	1.98	0.45
1:G:393:VAL:CG1	1:G:486:PHE:CE2	2.99	0.45
1:G:496:MET:N	1:G:496:MET:SD	2.89	0.45
1:G:844:GLN:HB3	1:G:884:TRP:HZ2	1.80	0.45
1:G:866:LEU:HD22	1:G:914:VAL:HG12	1.98	0.45
1:G:1051:ARG:O	1:G:1058:LEU:HD12	2.16	0.45
1:G:1183:LEU:N	1:G:1183:LEU:CD1	2.73	0.45
1:G:1202:TRP:HE3	1:G:1202:TRP:H	1.64	0.45
1:I:138:GLN:O	1:I:141:SER:HB3	2.16	0.45
1:I:318:LYS:HD3	1:I:439:ASP:HB2	1.98	0.45
1:I:1136:SER:HA	1:I:1185:PHE:HD2	1.78	0.45
1:K:138:GLN:O	1:K:141:SER:HB3	2.16	0.45
1:K:448:LYS:HG2	1:K:448:LYS:O	2.15	0.45
1:K:573:THR:C	1:K:577:TYR:HB3	2.29	0.45
1:K:862:TYR:OH	1:K:881:HIS:CG	2.69	0.45
1:K:928:VAL:HG12	1:K:937:VAL:CB	2.46	0.45
1:K:1202:TRP:HE3	1:K:1202:TRP:H	1.64	0.45
1:M:244:ASP:HB3	1:M:245:VAL:H	1.51	0.45
1:M:310:ALA:O	1:M:313:ILE:HG22	2.16	0.45
1:M:398:LYS:O	1:M:401:CYS:HB2	2.16	0.45
1:M:1208:GLU:HG3	1:M:1211:GLN:NE2	2.31	0.45
3:Q:27:ASP:CB	4:T:14:LEU:HD23	2.46	0.45
4:S:44:GLN:C	4:S:45:ARG:HE	2.20	0.45
4:T:8:LEU:HD13	4:T:9:LEU:N	2.30	0.45
4:Y:90:ARG:NH2	4:Y:90:ARG:HG2	2.31	0.45
1:A:171:HIS:CD2	1:A:171:HIS:O	2.70	0.45
1:A:456:LEU:O	1:A:459:LYS:CA	2.65	0.45
1:A:597:TRP:CD1	1:A:1243:ILE:N	2.85	0.45
1:C:136:ILE:HD13	1:C:152:ILE:HD13	1.99	0.45
1:C:334:PHE:CB	1:C:337:ARG:HG2	2.45	0.45
1:C:610:VAL:HG22	1:C:907:ARG:CG	2.43	0.45
1:C:642:PHE:CE2	1:C:644:ALA:HA	2.52	0.45
1:C:887:GLY:O	1:C:900:SER:N	2.49	0.45
1:E:236:PRO:CD	1:E:237:ARG:H	2.30	0.45
1:E:671:PHE:HE1	1:E:692:VAL:HG11	1.80	0.45
2:F:14:CYS:CB	7:F:201:HEM:HAB	2.43	0.45
1:G:116:GLU:OE2	3:O:6:ARG:CZ	2.64	0.45
1:G:171:HIS:CD2	1:G:171:HIS:O	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:384:THR:O	1:G:387:SER:CB	2.65	0.45
1:G:456:LEU:O	1:G:459:LYS:CA	2.65	0.45
1:G:1065:GLY:HA2	1:G:1088:VAL:HG23	1.97	0.45
1:G:1145:GLY:HA2	1:G:1151:ILE:HD13	1.98	0.45
1:I:146:GLU:HG2	1:K:111:ARG:NH1	2.19	0.45
1:I:887:GLY:O	1:I:900:SER:N	2.49	0.45
1:K:259:GLN:H	1:K:259:GLN:HG2	1.56	0.45
1:K:420:ASN:C	1:K:422:SER:H	2.20	0.45
1:K:816:ALA:HB2	1:K:821:ILE:HG12	1.99	0.45
1:M:461:ILE:HD11	1:M:491:MET:HG3	1.97	0.45
1:M:642:PHE:CE2	1:M:644:ALA:HA	2.51	0.45
4:Y:10:ARG:HG2	4:Y:10:ARG:H	1.60	0.45
1:A:179:PRO:HD2	1:A:237:ARG:CG	2.45	0.45
1:A:610:VAL:HG22	1:A:907:ARG:CG	2.43	0.45
1:A:1087:THR:CG2	2:B:39:LYS:CD	2.75	0.45
1:C:195:LEU:HD12	1:C:195:LEU:C	2.36	0.45
1:C:673:ALA:H	1:C:707:PHE:HE2	1.65	0.45
1:C:1025:ALA:CB	1:C:1044:GLN:O	2.65	0.45
1:E:149:TRP:HZ2	1:E:255:ASP:HA	1.81	0.45
1:E:294:ILE:HG22	1:E:295:LEU:N	2.32	0.45
1:E:447:GLU:OE1	1:E:447:GLU:HA	2.17	0.45
1:E:481:MET:O	1:E:485:ASN:ND2	2.49	0.45
1:E:673:ALA:H	1:E:707:PHE:HE2	1.65	0.45
1:E:1202:TRP:HE3	1:E:1202:TRP:H	1.64	0.45
1:G:149:TRP:HZ2	1:G:255:ASP:HA	1.81	0.45
1:G:221:GLU:O	1:G:224:LYS:HB3	2.17	0.45
1:G:866:LEU:HG	1:G:875:VAL:HB	1.98	0.45
1:G:1063:PHE:HA	1:G:1087:THR:HG22	1.99	0.45
1:I:171:HIS:CD2	1:I:171:HIS:O	2.70	0.45
1:I:221:GLU:O	1:I:224:LYS:HB3	2.17	0.45
1:I:231:MET:HG2	1:I:258:CYS:HB2	1.98	0.45
1:I:390:GLN:NE2	1:I:489:TYR:HE2	2.14	0.45
1:I:434:ARG:CG	1:I:434:ARG:HH21	2.30	0.45
1:I:487:LEU:HG	1:I:503:LEU:HD21	1.99	0.45
1:K:195:LEU:HD12	1:K:195:LEU:C	2.36	0.45
1:K:242:LEU:HD12	1:K:242:LEU:N	2.26	0.45
1:K:384:THR:O	1:K:387:SER:CB	2.65	0.45
1:K:1176:HIS:HB2	1:K:1218:THR:HG23	1.88	0.45
1:K:1182:ASP:HB3	1:K:1223:ILE:HG23	1.98	0.45
1:M:456:LEU:O	1:M:459:LYS:CA	2.65	0.45
1:M:529:TYR:C	1:M:532:ILE:CG2	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:544:PHE:HE1	1:M:576:VAL:CG1	2.14	0.45
1:M:603:ILE:CB	1:M:1240:ILE:HG21	2.47	0.45
1:M:639:LEU:HD23	1:M:653:ILE:HD13	1.93	0.45
1:M:926:VAL:HG11	1:M:938:LEU:O	2.16	0.45
1:M:1145:GLY:HA2	1:M:1151:ILE:HD13	1.98	0.45
1:A:138:GLN:O	1:A:141:SER:HB3	2.16	0.45
1:A:175:GLU:CD	3:P:4:LYS:NZ	2.70	0.45
1:A:294:ILE:HG22	1:A:295:LEU:N	2.32	0.45
1:A:883:SER:OG	1:A:902:ASP:N	2.50	0.45
1:A:1063:PHE:HA	1:A:1087:THR:HG22	1.99	0.45
1:A:1106:ASP:HA	1:A:1129:CYS:HB3	1.99	0.45
1:A:1185:PHE:CE1	1:A:1192:LEU:HD12	2.39	0.45
1:C:244:ASP:O	1:C:245:VAL:HG23	2.16	0.45
1:C:753:PRO:HG3	1:C:810:GLY:HA3	1.97	0.45
1:C:866:LEU:HG	1:C:875:VAL:HB	1.98	0.45
1:C:1011:PHE:HE1	1:C:1018:LEU:HD13	1.82	0.45
1:C:1032:TRP:O	1:C:1034:LEU:N	2.50	0.45
1:E:138:GLN:O	1:E:141:SER:HB3	2.16	0.45
1:E:171:HIS:CD2	1:E:171:HIS:O	2.70	0.45
1:E:337:ARG:HD3	1:E:341:TYR:CE2	2.52	0.45
1:E:529:TYR:O	1:E:529:TYR:CD1	2.70	0.45
1:E:866:LEU:HG	1:E:875:VAL:HB	1.98	0.45
1:G:136:ILE:HD13	1:G:152:ILE:HD13	1.99	0.45
1:G:190:GLN:OE1	1:G:190:GLN:HA	2.16	0.45
1:G:481:MET:O	1:G:485:ASN:ND2	2.49	0.45
1:G:597:TRP:CD1	1:G:1243:ILE:N	2.85	0.45
1:G:642:PHE:CE2	1:G:644:ALA:HA	2.51	0.45
1:G:861:GLN:N	1:G:884:TRP:HD1	2.14	0.45
1:G:1025:ALA:CB	1:G:1044:GLN:O	2.65	0.45
1:I:557:ARG:CG	1:I:558:GLN:N	2.79	0.45
1:I:603:ILE:CB	1:I:1240:ILE:HG21	2.47	0.45
1:I:883:SER:OG	1:I:902:ASP:N	2.50	0.45
1:I:926:VAL:HG11	1:I:938:LEU:O	2.16	0.45
1:I:1151:ILE:N	1:I:1167:PRO:HD2	2.24	0.45
1:K:529:TYR:C	1:K:532:ILE:CG2	2.85	0.45
1:K:887:GLY:O	1:K:900:SER:N	2.49	0.45
1:K:923:LYS:CB	1:K:940:VAL:HG21	2.41	0.45
1:K:1145:GLY:HA2	1:K:1151:ILE:HD13	1.98	0.45
1:K:1220:LEU:CD2	1:K:1234:THR:CB	2.74	0.45
1:M:256:SER:O	1:M:257:GLN:CB	2.65	0.45
1:M:496:MET:N	1:M:496:MET:SD	2.89	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:553:HIS:CB	1:M:610:VAL:CG1	2.89	0.45
1:M:556:GLY:O	1:M:557:ARG:O	2.35	0.45
1:M:924:GLN:HB3	1:M:1238:LEU:CD1	2.45	0.45
3:P:19:ASP:C	4:T:64:THR:CG2	2.84	0.45
1:A:149:TRP:HZ2	1:A:255:ASP:HA	1.81	0.45
1:A:251:LEU:HD11	1:A:262:LEU:HD13	1.99	0.45
1:A:557:ARG:CG	1:A:558:GLN:N	2.79	0.45
1:A:581:LYS:HA	1:A:581:LYS:HD2	1.68	0.45
1:C:556:GLY:O	1:C:557:ARG:O	2.35	0.45
1:C:603:ILE:CB	1:C:1240:ILE:HG21	2.47	0.45
1:C:671:PHE:HE1	1:C:692:VAL:HG11	1.80	0.45
1:C:875:VAL:CG1	1:C:915:CYS:SG	2.94	0.45
1:E:434:ARG:CG	1:E:434:ARG:HH21	2.30	0.45
1:E:573:THR:C	1:E:577:TYR:HB3	2.28	0.45
1:E:1176:HIS:CA	1:E:1218:THR:HG21	2.47	0.45
1:G:445:LEU:O	1:G:449:ASN:N	2.48	0.45
1:G:1226:SER:CB	1:G:1227:PRO:HD2	2.47	0.45
1:I:642:PHE:CE2	1:I:644:ALA:HA	2.52	0.45
1:I:1025:ALA:CB	1:I:1044:GLN:O	2.65	0.45
1:I:1051:ARG:O	1:I:1058:LEU:HD12	2.16	0.45
1:I:1063:PHE:HA	1:I:1087:THR:HG22	1.99	0.45
1:I:1065:GLY:HA2	1:I:1088:VAL:HG23	1.97	0.45
1:I:1198:TYR:HB2	1:I:1215:THR:H	1.82	0.45
1:K:190:GLN:OE1	1:K:190:GLN:HA	2.16	0.45
1:K:1051:ARG:O	1:K:1058:LEU:HD12	2.16	0.45
1:M:208:GLN:H	1:M:208:GLN:HG3	1.48	0.45
1:M:221:GLU:O	1:M:224:LYS:HB3	2.17	0.45
1:M:242:LEU:HD12	1:M:242:LEU:N	2.26	0.45
1:M:558:GLN:CB	1:M:559:PRO:CD	2.75	0.45
1:M:597:TRP:CD1	1:M:1243:ILE:N	2.85	0.45
1:M:1216:ASN:CB	1:M:1242:TYR:OH	2.65	0.45
3:Q:34:PHE:O	3:Q:63:LYS:CE	2.65	0.45
4:T:1:MET:HE3	4:T:69:ALA:HB3	1.98	0.45
1:A:109:TYR:CE1	3:P:4:LYS:HB3	2.43	0.45
1:A:364:LEU:HD22	1:A:364:LEU:HA	1.81	0.45
1:A:487:LEU:HG	1:A:503:LEU:HD21	1.99	0.45
1:A:556:GLY:O	1:A:557:ARG:O	2.35	0.45
1:A:816:ALA:HB2	1:A:821:ILE:HG12	1.99	0.45
1:C:681:VAL:O	1:C:694:THR:HA	2.17	0.45
1:C:1065:GLY:HA2	1:C:1088:VAL:HG23	1.97	0.45
1:C:1181:THR:CG2	1:C:1221:LYS:HA	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:237:ARG:NH1	1:E:237:ARG:CG	2.79	0.45
1:E:529:TYR:C	1:E:532:ILE:CG2	2.85	0.45
1:E:642:PHE:CE2	1:E:644:ALA:HA	2.51	0.45
1:E:1106:ASP:HA	1:E:1129:CYS:HB3	1.99	0.45
1:G:252:LYS:CE	1:G:252:LYS:CA	2.92	0.45
1:G:460:ILE:HD13	1:G:490:HIS:CD2	2.52	0.45
1:G:560:PHE:HA	1:G:561:PRO:HD2	1.68	0.45
1:G:1208:GLU:HG3	1:G:1211:GLN:NE2	2.30	0.45
1:I:251:LEU:HD11	1:I:262:LEU:HD13	1.99	0.45
1:I:641:VAL:HB	1:I:651:LEU:HB2	1.97	0.45
1:I:816:ALA:HB2	1:I:821:ILE:HG12	1.99	0.45
1:I:836:HIS:ND1	1:I:837:THR:O	2.49	0.45
1:I:1182:ASP:HB3	1:I:1223:ILE:HG23	1.98	0.45
1:I:1183:LEU:N	1:I:1183:LEU:CD1	2.73	0.45
1:I:1202:TRP:HE3	1:I:1202:TRP:H	1.64	0.45
1:K:231:MET:HG2	1:K:258:CYS:HB2	1.98	0.45
1:K:1216:ASN:CB	1:K:1242:TYR:OH	2.65	0.45
1:M:390:GLN:NE2	1:M:489:TYR:HE2	2.14	0.45
1:M:481:MET:O	1:M:485:ASN:ND2	2.49	0.45
1:M:487:LEU:HG	1:M:503:LEU:HD21	1.99	0.45
1:M:673:ALA:H	1:M:707:PHE:HE2	1.65	0.45
1:M:877:ASP:OD1	1:M:878:CYS:N	2.50	0.45
1:M:1063:PHE:HA	1:M:1087:THR:HG22	1.99	0.45
1:M:1178:GLY:O	1:M:1179:TRP:CB	2.65	0.45
3:P:27:ASP:OD2	4:S:17:VAL:HG21	2.17	0.45
3:W:19:ASP:O	4:Y:64:THR:HB	2.17	0.45
1:A:597:TRP:CH2	1:A:603:ILE:HG12	2.43	0.45
1:A:681:VAL:O	1:A:694:THR:HA	2.17	0.45
1:A:1181:THR:CG2	1:A:1221:LYS:HA	2.40	0.45
1:C:140:LEU:C	1:C:140:LEU:CD1	2.86	0.45
1:C:318:LYS:HD3	1:C:439:ASP:HB2	1.99	0.45
1:C:456:LEU:O	1:C:459:LYS:CA	2.65	0.45
1:C:496:MET:N	1:C:496:MET:SD	2.89	0.45
1:C:500:LEU:HD11	1:C:504:MET:SD	2.57	0.45
1:C:505:PHE:CE2	1:C:575:GLU:OE1	2.60	0.45
1:C:1198:TYR:HB2	1:C:1215:THR:H	1.82	0.45
1:E:251:LEU:HD22	1:E:260:ILE:HD11	1.99	0.45
1:E:391:LYS:H	1:E:391:LYS:HG2	1.60	0.45
1:E:877:ASP:OD1	1:E:878:CYS:N	2.50	0.45
1:G:246:TRP:HH2	1:G:370:ILE:HG22	1.82	0.45
1:G:390:GLN:CD	1:G:489:TYR:HE2	2.21	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:487:LEU:HG	1:G:503:LEU:HD21	1.99	0.45
1:G:1030:TRP:HD1	1:G:1037:CYS:HG	1.65	0.45
1:G:1232:TYR:O	1:G:1244:LEU:HD23	2.17	0.45
1:I:390:GLN:CD	1:I:489:TYR:HE2	2.20	0.45
1:I:999:ARG:HD2	1:I:999:ARG:HA	1.73	0.45
1:K:149:TRP:HZ2	1:K:255:ASP:HA	1.81	0.45
1:K:244:ASP:O	1:K:245:VAL:HG23	2.16	0.45
1:K:294:ILE:HG22	1:K:295:LEU:N	2.32	0.45
1:K:390:GLN:HB3	1:K:393:VAL:CG1	2.47	0.45
1:K:487:LEU:HG	1:K:503:LEU:HD21	1.99	0.45
1:K:922:LEU:HD12	1:K:1241:LEU:CD2	2.39	0.45
1:K:999:ARG:HA	1:K:999:ARG:HD2	1.73	0.45
1:K:1011:PHE:HE1	1:K:1018:LEU:HD13	1.82	0.45
1:M:390:GLN:CD	1:M:489:TYR:HE2	2.21	0.45
3:P:17:GLU:HG3	3:P:57:ILE:HD12	1.98	0.45
3:P:24:TYR:CZ	4:T:38:HIS:CD2	3.05	0.45
3:R:31:SER:O	4:U:11:ARG:O	2.33	0.45
1:A:179:PRO:CB	3:P:2:ASP:CG	2.67	0.44
1:A:318:LYS:HD3	1:A:439:ASP:HB2	1.98	0.44
1:A:603:ILE:CB	1:A:1240:ILE:HG21	2.47	0.44
1:A:673:ALA:H	1:A:707:PHE:HE2	1.65	0.44
1:A:877:ASP:OD1	1:A:878:CYS:N	2.50	0.44
1:A:884:TRP:CE3	1:A:884:TRP:O	2.70	0.44
1:A:1182:ASP:HB3	1:A:1223:ILE:HG23	1.98	0.44
1:C:337:ARG:HD3	1:C:341:TYR:CE2	2.52	0.44
1:C:836:HIS:ND1	1:C:837:THR:O	2.49	0.44
1:C:999:ARG:HA	1:C:999:ARG:HD2	1.74	0.44
1:C:1202:TRP:HE3	1:C:1202:TRP:H	1.64	0.44
1:C:1232:TYR:O	1:C:1244:LEU:HD23	2.17	0.44
1:E:231:MET:HG2	1:E:258:CYS:HB2	1.98	0.44
1:E:496:MET:N	1:E:496:MET:SD	2.89	0.44
1:E:507:LEU:HD23	1:E:510:ILE:HD12	1.98	0.44
1:E:928:VAL:HG12	1:E:937:VAL:CB	2.46	0.44
1:E:1232:TYR:O	1:E:1244:LEU:HD23	2.17	0.44
1:G:237:ARG:HH11	1:G:237:ARG:CG	2.13	0.44
1:G:500:LEU:HD11	1:G:504:MET:SD	2.57	0.44
1:G:1011:PHE:HE1	1:G:1018:LEU:HD13	1.82	0.44
1:G:1048:LYS:HD3	1:G:1063:PHE:CZ	2.52	0.44
1:G:1198:TYR:HB2	1:G:1215:THR:H	1.82	0.44
1:G:1198:TYR:HB2	1:G:1215:THR:HG23	2.00	0.44
1:I:149:TRP:HZ2	1:I:255:ASP:HA	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:556:GLY:O	1:I:557:ARG:O	2.35	0.44
1:I:1011:PHE:HE1	1:I:1018:LEU:HD13	1.82	0.44
1:I:1106:ASP:HA	1:I:1129:CYS:HB3	1.99	0.44
1:K:171:HIS:CD2	1:K:171:HIS:O	2.70	0.44
1:K:337:ARG:HD3	1:K:341:TYR:CE2	2.52	0.44
1:K:597:TRP:CD1	1:K:1243:ILE:N	2.85	0.44
1:K:673:ALA:H	1:K:707:PHE:HE2	1.65	0.44
1:K:1046:THR:HG22	1:K:1063:PHE:CD2	2.52	0.44
1:K:1106:ASP:HA	1:K:1129:CYS:HB3	1.99	0.44
1:M:294:ILE:HG22	1:M:295:LEU:N	2.32	0.44
1:M:384:THR:O	1:M:387:SER:CB	2.65	0.44
1:M:618:VAL:HA	1:M:634:GLY:HA2	2.00	0.44
1:M:883:SER:OG	1:M:902:ASP:N	2.50	0.44
1:M:1025:ALA:CB	1:M:1044:GLN:O	2.65	0.44
1:M:1226:SER:CB	1:M:1227:PRO:HD2	2.47	0.44
4:U:13:ARG:HD2	4:U:17:VAL:HG13	1.98	0.44
1:A:231:MET:HG2	1:A:258:CYS:HB2	1.98	0.44
1:A:862:TYR:HD1	1:A:885:VAL:N	2.11	0.44
1:A:875:VAL:CG1	1:A:915:CYS:SG	2.94	0.44
1:A:999:ARG:CG	1:A:1030:TRP:CD2	3.00	0.44
1:A:1226:SER:CB	1:A:1227:PRO:HD2	2.47	0.44
1:A:1235:VAL:HA	1:A:1240:ILE:O	2.18	0.44
1:C:231:MET:HG2	1:C:258:CYS:HB2	1.98	0.44
1:C:1048:LYS:HD3	1:C:1063:PHE:CZ	2.52	0.44
1:C:1216:ASN:CB	1:C:1242:TYR:OH	2.65	0.44
1:E:208:GLN:H	1:E:208:GLN:HG3	1.48	0.44
1:E:420:ASN:C	1:E:422:SER:H	2.20	0.44
1:E:456:LEU:O	1:E:459:LYS:CA	2.65	0.44
1:E:500:LEU:HD11	1:E:504:MET:SD	2.57	0.44
1:E:557:ARG:CG	1:E:558:GLN:N	2.79	0.44
1:E:741:GLY:HA3	1:E:770:TRP:CZ2	2.53	0.44
1:E:999:ARG:CG	1:E:1030:TRP:CD2	3.00	0.44
1:E:1181:THR:CG2	1:E:1221:LYS:HA	2.40	0.44
1:G:529:TYR:O	1:G:529:TYR:CD1	2.70	0.44
1:G:883:SER:OG	1:G:902:ASP:N	2.50	0.44
1:G:1166:ALA:N	1:G:1167:PRO:CD	2.78	0.44
1:G:1216:ASN:CB	1:G:1242:TYR:OH	2.65	0.44
1:I:179:PRO:HD2	1:I:237:ARG:CG	2.45	0.44
1:I:456:LEU:O	1:I:459:LYS:CA	2.65	0.44
1:I:530:ARG:HG2	1:I:538:CYS:SG	2.58	0.44
1:I:681:VAL:O	1:I:694:THR:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:1232:TYR:O	1:I:1244:LEU:HD23	2.17	0.44
1:K:221:GLU:O	1:K:224:LYS:HB3	2.17	0.44
1:K:447:GLU:OE1	1:K:447:GLU:HA	2.16	0.44
1:M:149:TRP:CH2	1:M:273:VAL:CG1	2.98	0.44
1:M:246:TRP:HH2	1:M:370:ILE:HG22	1.82	0.44
1:M:390:GLN:HB3	1:M:393:VAL:CG1	2.47	0.44
1:M:813:ILE:HG22	1:M:815:VAL:HG13	1.99	0.44
1:M:861:GLN:N	1:M:884:TRP:HD1	2.14	0.44
1:M:1011:PHE:HE1	1:M:1018:LEU:HD13	1.82	0.44
3:R:13:ARG:HA	3:R:16:LEU:HD12	1.98	0.44
3:X:40:GLU:HG2	3:X:44:ARG:HD2	1.99	0.44
1:A:553:HIS:CB	1:A:610:VAL:CG1	2.89	0.44
1:A:568:LEU:H	1:A:568:LEU:HG	1.51	0.44
1:A:1216:ASN:CB	1:A:1242:TYR:OH	2.65	0.44
1:C:212:PHE:CB	1:C:226:ARG:NH1	2.57	0.44
1:C:429:ASN:HD22	1:C:429:ASN:HA	1.66	0.44
1:C:507:LEU:HD23	1:C:510:ILE:HD12	1.98	0.44
1:C:513:LYS:O	1:C:517:VAL:CB	2.62	0.44
1:C:741:GLY:HA3	1:C:770:TRP:CZ2	2.53	0.44
1:C:1176:HIS:HB3	1:C:1218:THR:OG1	2.11	0.44
1:E:403:LEU:HD11	1:E:459:LYS:HZ2	1.82	0.44
1:E:429:ASN:HD22	1:E:429:ASN:HA	1.66	0.44
1:E:597:TRP:CD1	1:E:1243:ILE:N	2.85	0.44
1:E:766:THR:HG22	1:E:782:ASN:HA	2.00	0.44
1:E:1048:LYS:HD3	1:E:1063:PHE:CZ	2.52	0.44
1:G:505:PHE:CE2	1:G:575:GLU:OE1	2.60	0.44
1:G:556:GLY:O	1:G:557:ARG:O	2.35	0.44
1:G:681:VAL:O	1:G:694:THR:HA	2.17	0.44
1:G:887:GLY:O	1:G:900:SER:N	2.49	0.44
1:G:1181:THR:CG2	1:G:1221:LYS:HA	2.40	0.44
1:G:1182:ASP:HB3	1:G:1223:ILE:HG23	1.98	0.44
1:I:137:GLN:HG2	1:I:173:LEU:CD1	2.45	0.44
1:I:246:TRP:HH2	1:I:370:ILE:HG22	1.82	0.44
1:I:390:GLN:HB3	1:I:393:VAL:CG1	2.47	0.44
1:I:447:GLU:OE1	1:I:447:GLU:HA	2.16	0.44
1:I:481:MET:O	1:I:485:ASN:ND2	2.49	0.44
1:I:1048:LYS:HD3	1:I:1063:PHE:CZ	2.52	0.44
1:I:1216:ASN:CB	1:I:1242:TYR:OH	2.65	0.44
1:I:1235:VAL:HA	1:I:1240:ILE:O	2.18	0.44
1:K:140:LEU:HD11	1:K:178:PHE:HE2	1.83	0.44
1:K:390:GLN:NE2	1:K:489:TYR:HE2	2.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:456:LEU:O	1:K:459:LYS:CA	2.65	0.44
1:K:530:ARG:HG2	1:K:538:CYS:SG	2.57	0.44
1:K:813:ILE:HG22	1:K:815:VAL:HG13	2.00	0.44
1:K:999:ARG:CG	1:K:1030:TRP:CD2	3.00	0.44
1:K:1044:GLN:HG2	1:K:1068:LYS:HZ2	1.81	0.44
1:K:1063:PHE:HA	1:K:1087:THR:HG22	1.99	0.44
1:M:251:LEU:HD11	1:M:262:LEU:HD13	1.99	0.44
1:M:434:ARG:CG	1:M:434:ARG:HH21	2.30	0.44
1:M:741:GLY:HA3	1:M:770:TRP:CZ2	2.53	0.44
1:M:910:GLU:HG2	1:M:912:LYS:H	1.83	0.44
3:R:43:VAL:HG22	3:R:55:MET:HG3	2.00	0.44
1:A:246:TRP:HH2	1:A:370:ILE:HG22	1.82	0.44
1:A:252:LYS:CE	1:A:252:LYS:CA	2.92	0.44
1:A:1198:TYR:HB2	1:A:1215:THR:H	1.82	0.44
1:A:1232:TYR:O	1:A:1244:LEU:HD23	2.17	0.44
1:C:139:LYS:HD2	1:C:278:TYR:CB	2.48	0.44
1:C:251:LEU:HD11	1:C:262:LEU:HD13	1.99	0.44
1:C:529:TYR:O	1:C:529:TYR:CD1	2.70	0.44
1:C:597:TRP:CD1	1:C:1243:ILE:N	2.85	0.44
1:C:816:ALA:HB2	1:C:821:ILE:HG12	1.99	0.44
1:C:1226:SER:CB	1:C:1227:PRO:HD2	2.47	0.44
1:C:1235:VAL:HA	1:C:1240:ILE:O	2.18	0.44
1:E:460:ILE:HD13	1:E:490:HIS:CD2	2.52	0.44
1:E:556:GLY:O	1:E:557:ARG:O	2.35	0.44
1:E:816:ALA:HB2	1:E:821:ILE:HG12	1.99	0.44
1:E:883:SER:OG	1:E:902:ASP:N	2.50	0.44
1:E:1011:PHE:HE1	1:E:1018:LEU:HD13	1.82	0.44
1:E:1063:PHE:HA	1:E:1087:THR:HG22	1.99	0.44
1:E:1198:TYR:HB2	1:E:1215:THR:HG23	2.00	0.44
1:G:251:LEU:HD11	1:G:262:LEU:HD13	1.99	0.44
1:G:516:LEU:HD12	1:G:516:LEU:HA	1.83	0.44
1:G:557:ARG:CG	1:G:558:GLN:N	2.79	0.44
1:G:641:VAL:HB	1:G:651:LEU:HB2	1.97	0.44
1:G:877:ASP:OD1	1:G:878:CYS:N	2.50	0.44
1:G:999:ARG:CG	1:G:1030:TRP:CD2	3.00	0.44
1:I:139:LYS:HD2	1:I:278:TYR:CB	2.48	0.44
1:I:460:ILE:HD13	1:I:490:HIS:CD2	2.52	0.44
1:I:529:TYR:O	1:I:529:TYR:CD1	2.70	0.44
1:I:766:THR:HG22	1:I:782:ASN:HA	2.00	0.44
1:I:884:TRP:CE3	1:I:884:TRP:O	2.71	0.44
1:I:923:LYS:CG	1:I:940:VAL:CG2	2.96	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:1046:THR:HG22	1:I:1063:PHE:CD2	2.52	0.44
1:I:1213:PHE:HD2	1:I:1214:TYR:H	1.63	0.44
1:K:261:LEU:HD12	1:K:261:LEU:O	2.18	0.44
1:K:460:ILE:HD13	1:K:490:HIS:CD2	2.52	0.44
1:K:529:TYR:O	1:K:529:TYR:CD1	2.70	0.44
1:K:557:ARG:CG	1:K:558:GLN:N	2.79	0.44
1:K:861:GLN:N	1:K:884:TRP:HD1	2.14	0.44
1:K:875:VAL:CG1	1:K:915:CYS:SG	2.94	0.44
1:K:1025:ALA:CB	1:K:1044:GLN:O	2.65	0.44
1:M:337:ARG:HD3	1:M:341:TYR:CE2	2.52	0.44
1:M:885:VAL:HG23	1:M:887:GLY:N	2.33	0.44
1:M:999:ARG:CG	1:M:1030:TRP:CD2	3.00	0.44
3:O:77:HIS:O	4:S:36:ARG:HG3	2.17	0.44
4:S:70:LEU:HD13	4:S:93:ARG:HD2	1.99	0.44
4:U:13:ARG:NH1	4:U:59:ILE:CD1	2.80	0.44
3:X:68:TYR:CD1	3:X:91:ILE:HD13	2.52	0.44
1:A:260:ILE:O	1:A:260:ILE:HG13	2.06	0.44
1:A:390:GLN:CD	1:A:489:TYR:HE2	2.21	0.44
1:A:529:TYR:C	1:A:532:ILE:CG2	2.85	0.44
1:A:741:GLY:HA3	1:A:770:TRP:CZ2	2.53	0.44
1:A:1225:VAL:HG11	1:A:1229:PHE:CE2	2.52	0.44
1:C:221:GLU:O	1:C:224:LYS:HB3	2.17	0.44
1:C:460:ILE:HD13	1:C:490:HIS:CD2	2.52	0.44
1:C:487:LEU:HG	1:C:503:LEU:HD21	1.99	0.44
1:C:530:ARG:HG2	1:C:538:CYS:SG	2.58	0.44
1:C:547:PHE:O	1:C:551:ASN:ND2	2.50	0.44
1:C:1198:TYR:HB2	1:C:1215:THR:HG23	2.00	0.44
1:E:139:LYS:HD2	1:E:278:TYR:CB	2.48	0.44
1:E:140:LEU:HD11	1:E:178:PHE:HE2	1.83	0.44
1:E:221:GLU:O	1:E:224:LYS:HB3	2.17	0.44
1:E:487:LEU:HG	1:E:503:LEU:HD21	1.99	0.44
1:E:681:VAL:O	1:E:694:THR:HA	2.17	0.44
1:G:337:ARG:HD3	1:G:341:TYR:CE2	2.52	0.44
1:G:390:GLN:HB3	1:G:393:VAL:CG1	2.47	0.44
1:G:434:ARG:CG	1:G:434:ARG:HH21	2.30	0.44
1:G:529:TYR:C	1:G:532:ILE:CG2	2.85	0.44
1:G:595:LEU:CD2	1:G:1244:LEU:CD1	2.48	0.44
1:G:673:ALA:H	1:G:707:PHE:HE2	1.65	0.44
1:G:685:ASN:OD1	1:G:686:SER:N	2.51	0.44
1:G:816:ALA:HB2	1:G:821:ILE:HG12	1.99	0.44
1:G:1232:TYR:OH	1:G:1234:THR:CB	2.59	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:685:ASN:OD1	1:I:686:SER:N	2.51	0.44
1:I:813:ILE:HG22	1:I:815:VAL:HG13	2.00	0.44
1:I:1145:GLY:HA2	1:I:1151:ILE:HD13	1.98	0.44
1:K:251:LEU:HD22	1:K:260:ILE:HD11	1.99	0.44
1:K:681:VAL:O	1:K:694:THR:HA	2.17	0.44
1:K:885:VAL:HG23	1:K:887:GLY:N	2.33	0.44
1:K:1198:TYR:HB2	1:K:1215:THR:H	1.82	0.44
1:M:685:ASN:OD1	1:M:686:SER:N	2.51	0.44
1:M:1087:THR:CG2	2:N:39:LYS:CD	2.75	0.44
3:Q:19:ASP:HB3	4:U:64:THR:CA	2.46	0.44
4:U:15:ARG:HD2	4:U:88:PHE:CE2	2.52	0.44
1:A:136:ILE:HD13	1:A:152:ILE:HD13	1.99	0.44
1:A:137:GLN:C	3:W:6:ARG:NH2	2.71	0.44
1:A:642:PHE:HE2	1:A:644:ALA:HA	1.83	0.44
1:C:360:ASP:O	1:C:361:TYR:CD1	2.71	0.44
1:C:434:ARG:CG	1:C:434:ARG:HH21	2.30	0.44
1:C:453:LEU:CD1	1:C:454:GLN:N	2.73	0.44
1:C:529:TYR:C	1:C:532:ILE:CG2	2.85	0.44
1:C:622:CYS:HA	1:C:889:MET:HE1	2.00	0.44
1:C:877:ASP:OD1	1:C:878:CYS:N	2.50	0.44
1:E:261:LEU:HD12	1:E:261:LEU:O	2.18	0.44
1:E:384:THR:O	1:E:387:SER:CB	2.65	0.44
1:E:530:ARG:HG2	1:E:538:CYS:SG	2.58	0.44
1:E:923:LYS:CG	1:E:940:VAL:CG2	2.96	0.44
1:E:1187:PRO:HG3	1:E:1229:PHE:HB2	1.99	0.44
1:E:1220:LEU:CB	1:E:1236:ASP:HB3	2.48	0.44
1:E:1226:SER:CB	1:E:1227:PRO:HD2	2.47	0.44
1:G:132:LEU:HA	1:G:132:LEU:HD23	1.76	0.44
1:G:149:TRP:CH2	1:G:273:VAL:CG1	2.98	0.44
1:G:407:GLU:H	1:G:407:GLU:HG2	1.47	0.44
1:G:447:GLU:OE1	1:G:447:GLU:HA	2.17	0.44
1:G:530:ARG:HG2	1:G:538:CYS:SG	2.58	0.44
1:G:603:ILE:CB	1:G:1240:ILE:HG21	2.47	0.44
1:G:813:ILE:HG22	1:G:815:VAL:HG13	2.00	0.44
1:G:1176:HIS:CA	1:G:1218:THR:HG21	2.48	0.44
1:I:140:LEU:HD11	1:I:178:PHE:HE2	1.83	0.44
1:I:251:LEU:HD22	1:I:260:ILE:HD11	1.99	0.44
1:I:337:ARG:HD3	1:I:341:TYR:CE2	2.52	0.44
1:I:673:ALA:H	1:I:707:PHE:HE2	1.65	0.44
1:I:1200:LYS:CG	1:I:1211:GLN:HB2	2.47	0.44
1:I:1245:GLN:HE21	1:I:1245:GLN:HB3	1.59	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:251:LEU:HD11	1:K:262:LEU:HD13	1.99	0.44
1:K:318:LYS:HD3	1:K:439:ASP:HB2	1.98	0.44
1:K:359:TYR:HE1	1:K:361:TYR:CD1	2.32	0.44
1:K:642:PHE:HE2	1:K:644:ALA:HA	1.83	0.44
1:M:140:LEU:HD11	1:M:178:PHE:HE2	1.83	0.44
1:M:394:LYS:HB3	1:M:434:ARG:CG	2.48	0.44
1:M:460:ILE:HD13	1:M:490:HIS:CD2	2.52	0.44
1:M:681:VAL:O	1:M:694:THR:HA	2.17	0.44
1:M:1046:THR:HG22	1:M:1063:PHE:CD2	2.53	0.44
1:M:1198:TYR:HB2	1:M:1215:THR:H	1.82	0.44
4:V:11:ARG:HG3	4:V:12:CYS:N	2.32	0.44
1:A:500:LEU:HD11	1:A:504:MET:SD	2.57	0.44
1:A:622:CYS:HA	1:A:889:MET:HE1	2.00	0.44
1:A:923:LYS:CG	1:A:940:VAL:CG2	2.96	0.44
1:A:1177:GLY:HA2	1:A:1197:GLY:N	2.32	0.44
1:C:390:GLN:CD	1:C:489:TYR:HE2	2.21	0.44
1:C:568:LEU:H	1:C:568:LEU:HG	1.50	0.44
1:C:885:VAL:HG23	1:C:887:GLY:N	2.33	0.44
1:E:642:PHE:HE2	1:E:644:ALA:HA	1.83	0.44
1:E:947:GLN:HB3	1:E:956:ILE:HG23	2.00	0.44
1:E:1216:ASN:CB	1:E:1242:TYR:OH	2.65	0.44
1:G:139:LYS:HD2	1:G:278:TYR:CB	2.48	0.44
1:G:766:THR:HG22	1:G:782:ASN:HA	2.00	0.44
1:G:885:VAL:HG23	1:G:887:GLY:N	2.33	0.44
1:I:140:LEU:C	1:I:140:LEU:CD1	2.86	0.44
1:I:261:LEU:HD12	1:I:261:LEU:O	2.18	0.44
1:I:534:ASP:O	1:I:538:CYS:SG	2.68	0.44
1:I:560:PHE:HA	1:I:561:PRO:HD2	1.68	0.44
1:I:597:TRP:CD1	1:I:1243:ILE:N	2.85	0.44
1:I:999:ARG:CG	1:I:1030:TRP:CD2	3.00	0.44
1:I:1044:GLN:HG2	1:I:1068:LYS:HZ2	1.82	0.44
1:I:1139:SER:OG	1:I:1140:THR:N	2.51	0.44
1:K:564:VAL:HG13	1:K:583:GLN:CG	2.44	0.44
1:K:685:ASN:OD1	1:K:686:SER:N	2.51	0.44
1:K:766:THR:HG22	1:K:782:ASN:HA	2.00	0.44
1:K:877:ASP:OD1	1:K:878:CYS:N	2.50	0.44
1:K:1213:PHE:HD2	1:K:1214:TYR:H	1.63	0.44
1:M:318:LYS:HD3	1:M:439:ASP:HB2	1.99	0.44
1:M:500:LEU:HD11	1:M:504:MET:SD	2.57	0.44
1:M:947:GLN:HB3	1:M:956:ILE:HG23	2.00	0.44
1:M:1106:ASP:HA	1:M:1129:CYS:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1235:VAL:HA	1:M:1240:ILE:O	2.18	0.44
1:A:337:ARG:HD3	1:A:341:TYR:CE2	2.52	0.44
1:A:360:ASP:O	1:A:361:TYR:CD1	2.71	0.44
1:A:560:PHE:HA	1:A:561:PRO:HD2	1.68	0.44
1:A:639:LEU:HD23	1:A:653:ILE:HD13	1.93	0.44
1:A:885:VAL:HG23	1:A:887:GLY:N	2.33	0.44
1:A:1025:ALA:CB	1:A:1044:GLN:O	2.65	0.44
1:A:1151:ILE:N	1:A:1167:PRO:HD2	2.24	0.44
1:C:251:LEU:HD22	1:C:260:ILE:HD11	1.99	0.44
1:C:534:ASP:O	1:C:538:CYS:SG	2.69	0.44
1:C:1065:GLY:HA3	1:C:1086:GLY:O	2.18	0.44
1:E:251:LEU:HD11	1:E:262:LEU:HD13	1.99	0.44
1:E:390:GLN:HB3	1:E:393:VAL:CG1	2.47	0.44
1:E:390:GLN:CD	1:E:489:TYR:HE2	2.21	0.44
1:E:553:HIS:CB	1:E:610:VAL:CG1	2.89	0.44
1:E:884:TRP:CE3	1:E:884:TRP:O	2.71	0.44
1:E:885:VAL:HG23	1:E:887:GLY:N	2.33	0.44
1:E:910:GLU:HG2	1:E:912:LYS:H	1.82	0.44
1:E:1046:THR:HG22	1:E:1063:PHE:CD2	2.53	0.44
1:E:1225:VAL:HG11	1:E:1229:PHE:CE2	2.53	0.44
1:G:741:GLY:HA3	1:G:770:TRP:CZ2	2.53	0.44
1:G:1007:TRP:HZ3	1:G:1048:LYS:HA	1.83	0.44
1:G:1235:VAL:HA	1:G:1240:ILE:O	2.18	0.44
1:I:363:ALA:O	1:I:366:GLU:N	2.51	0.44
1:I:500:LEU:HD11	1:I:504:MET:SD	2.57	0.44
1:I:1198:TYR:HB2	1:I:1215:THR:HG23	1.99	0.44
1:I:1225:VAL:HG11	1:I:1229:PHE:CE2	2.53	0.44
1:I:1233:VAL:HB	1:I:1243:ILE:HA	2.00	0.44
1:K:132:LEU:HA	1:K:132:LEU:HD23	1.76	0.44
1:K:390:GLN:CD	1:K:489:TYR:HE2	2.21	0.44
1:K:481:MET:O	1:K:485:ASN:ND2	2.49	0.44
1:K:1225:VAL:HG11	1:K:1229:PHE:CE2	2.53	0.44
1:M:136:ILE:HD13	1:M:152:ILE:HD13	1.99	0.44
1:M:610:VAL:HG22	1:M:907:ARG:CG	2.43	0.44
1:M:1176:HIS:CA	1:M:1218:THR:HG21	2.47	0.44
1:M:1220:LEU:CB	1:M:1236:ASP:HB3	2.48	0.44
4:T:70:LEU:HD13	4:T:93:ARG:HD2	1.99	0.44
4:Y:41:GLU:HA	4:Y:44:GLN:HE21	1.83	0.44
1:A:251:LEU:HD22	1:A:260:ILE:HD11	1.99	0.44
1:A:862:TYR:OH	1:A:881:HIS:CG	2.69	0.44
1:A:1213:PHE:HD2	1:A:1214:TYR:H	1.63	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1220:LEU:CB	1:A:1236:ASP:HB3	2.48	0.44
1:C:140:LEU:HD11	1:C:178:PHE:HE2	1.83	0.44
1:C:884:TRP:CE3	1:C:884:TRP:O	2.71	0.44
1:C:1091:CYS:SG	1:C:1103:THR:HB	2.58	0.44
1:C:1220:LEU:CB	1:C:1236:ASP:HB3	2.48	0.44
1:E:136:ILE:HD13	1:E:152:ILE:HD13	1.99	0.44
1:E:360:ASP:O	1:E:361:TYR:CD1	2.71	0.44
1:E:505:PHE:CE2	1:E:575:GLU:OE1	2.60	0.44
1:E:557:ARG:HA	1:E:557:ARG:HD3	1.87	0.44
1:E:622:CYS:SG	1:E:664:ALA:HA	2.58	0.44
1:E:1160:GLU:O	1:E:1162:LEU:N	2.49	0.44
1:E:1168:LEU:HD11	1:E:1171:GLU:HB3	2.00	0.44
1:G:251:LEU:HD22	1:G:260:ILE:HD11	1.99	0.44
1:G:1046:THR:HG22	1:G:1063:PHE:CD2	2.52	0.44
1:G:1080:ASP:O	1:G:1081:PHE:HD1	2.01	0.44
1:G:1106:ASP:HA	1:G:1129:CYS:HB3	1.99	0.44
1:G:1160:GLU:O	1:G:1162:LEU:N	2.49	0.44
1:I:242:LEU:HD12	1:I:242:LEU:N	2.26	0.44
1:I:420:ASN:C	1:I:422:SER:H	2.20	0.44
1:I:453:LEU:CD1	1:I:454:GLN:N	2.73	0.44
1:I:618:VAL:HA	1:I:634:GLY:HA2	2.00	0.44
1:I:885:VAL:HG23	1:I:887:GLY:N	2.33	0.44
1:I:1226:SER:CB	1:I:1227:PRO:HD2	2.47	0.44
1:K:171:HIS:HD2	1:K:171:HIS:O	2.01	0.44
1:K:557:ARG:HA	1:K:557:ARG:HD3	1.87	0.44
1:K:884:TRP:CE3	1:K:884:TRP:O	2.70	0.44
1:K:1220:LEU:CB	1:K:1236:ASP:HB3	2.48	0.44
1:M:149:TRP:HZ2	1:M:255:ASP:HA	1.81	0.44
1:M:529:TYR:O	1:M:529:TYR:CD1	2.70	0.44
1:M:530:ARG:HG2	1:M:538:CYS:SG	2.58	0.44
1:M:557:ARG:HA	1:M:557:ARG:HD3	1.86	0.44
1:M:642:PHE:HE2	1:M:644:ALA:HA	1.83	0.44
1:M:1160:GLU:O	1:M:1162:LEU:N	2.49	0.44
1:M:1194:SER:CB	1:M:1202:TRP:CE3	2.98	0.44
4:U:70:LEU:HD13	4:U:93:ARG:HD2	1.99	0.44
1:A:407:GLU:H	1:A:407:GLU:HG2	1.47	0.43
1:A:736:ARG:NH1	1:A:772:ALA:O	2.39	0.43
1:A:1046:THR:HG22	1:A:1063:PHE:CD2	2.53	0.43
1:A:1198:TYR:HB2	1:A:1215:THR:HG23	2.00	0.43
1:C:947:GLN:HB3	1:C:956:ILE:HG23	2.00	0.43
1:C:999:ARG:CG	1:C:1030:TRP:CD2	3.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1139:SER:OG	1:C:1140:THR:N	2.51	0.43
1:E:256:SER:O	1:E:257:GLN:CB	2.65	0.43
1:E:364:LEU:HD22	1:E:364:LEU:HA	1.81	0.43
1:E:703:ASN:HD22	1:E:746:VAL:HB	1.83	0.43
1:E:813:ILE:HG22	1:E:815:VAL:HG13	2.00	0.43
1:E:862:TYR:CD1	1:E:885:VAL:N	2.84	0.43
1:G:363:ALA:O	1:G:366:GLU:N	2.51	0.43
1:G:420:ASN:C	1:G:422:SER:H	2.20	0.43
1:G:835:ILE:HG12	1:G:869:THR:HA	1.99	0.43
1:G:1187:PRO:CD	1:G:1229:PHE:CG	3.01	0.43
1:I:136:ILE:HD13	1:I:152:ILE:HD13	1.99	0.43
1:I:294:ILE:HG22	1:I:295:LEU:N	2.32	0.43
1:I:547:PHE:O	1:I:551:ASN:ND2	2.50	0.43
1:I:622:CYS:SG	1:I:664:ALA:HA	2.58	0.43
1:I:877:ASP:OD1	1:I:878:CYS:N	2.50	0.43
1:K:137:GLN:HG2	1:K:173:LEU:CD1	2.45	0.43
1:K:306:LEU:HA	1:K:307:PRO:HD3	1.76	0.43
1:K:543:ASN:CB	1:K:574:SER:CB	2.96	0.43
1:K:641:VAL:HB	1:K:651:LEU:HB2	1.97	0.43
1:K:835:ILE:HG12	1:K:869:THR:HA	1.99	0.43
1:K:910:GLU:HG2	1:K:912:LYS:H	1.83	0.43
1:K:1091:CYS:SG	1:K:1103:THR:HB	2.58	0.43
1:M:139:LYS:HD2	1:M:278:TYR:CB	2.48	0.43
1:M:363:ALA:O	1:M:366:GLU:N	2.51	0.43
1:M:393:VAL:CG1	1:M:486:PHE:CE2	2.99	0.43
1:M:407:GLU:H	1:M:407:GLU:HG2	1.47	0.43
1:M:659:GLU:HG3	1:M:659:GLU:O	2.18	0.43
1:M:1232:TYR:O	1:M:1244:LEU:HD23	2.17	0.43
1:A:140:LEU:HD11	1:A:178:PHE:HE2	1.83	0.43
1:A:363:ALA:O	1:A:366:GLU:N	2.51	0.43
1:A:529:TYR:O	1:A:529:TYR:CD1	2.70	0.43
1:A:882:LEU:HD23	1:A:903:ASP:HB2	2.01	0.43
1:A:1011:PHE:HE1	1:A:1018:LEU:HD13	1.82	0.43
1:C:363:ALA:O	1:C:366:GLU:N	2.51	0.43
1:C:543:ASN:HB3	1:C:574:SER:CB	2.49	0.43
1:C:685:ASN:OD1	1:C:686:SER:N	2.51	0.43
1:E:246:TRP:HH2	1:E:370:ILE:HG22	1.82	0.43
1:E:270:THR:O	1:E:270:THR:OG1	2.32	0.43
1:E:320:SER:O	1:E:320:SER:OG	2.36	0.43
1:E:363:ALA:O	1:E:366:GLU:N	2.51	0.43
1:E:1007:TRP:HZ3	1:E:1048:LYS:HA	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1065:GLY:HA3	1:E:1086:GLY:O	2.18	0.43
1:E:1081:PHE:HE1	1:E:1117:LEU:HA	1.84	0.43
1:G:347:ASN:O	1:G:348:LYS:HB2	2.19	0.43
1:G:1091:CYS:SG	1:G:1103:THR:HB	2.58	0.43
1:I:270:THR:O	1:I:270:THR:OG1	2.32	0.43
1:I:327:ILE:HD13	1:I:327:ILE:HA	1.82	0.43
1:I:835:ILE:HG12	1:I:869:THR:HA	2.00	0.43
1:K:359:TYR:CD1	1:K:359:TYR:C	2.86	0.43
1:K:543:ASN:HB3	1:K:574:SER:CB	2.48	0.43
1:K:882:LEU:HD23	1:K:903:ASP:HB2	2.00	0.43
1:K:1226:SER:CB	1:K:1227:PRO:HD2	2.47	0.43
1:M:231:MET:HG2	1:M:258:CYS:HB2	1.98	0.43
1:M:261:LEU:HD12	1:M:261:LEU:O	2.17	0.43
1:M:595:LEU:CD2	1:M:1244:LEU:CD1	2.48	0.43
1:M:882:LEU:HD23	1:M:903:ASP:HB2	2.01	0.43
1:M:884:TRP:CE3	1:M:884:TRP:O	2.71	0.43
1:M:1065:GLY:HA3	1:M:1086:GLY:O	2.18	0.43
1:M:1081:PHE:HE1	1:M:1117:LEU:HA	1.83	0.43
1:M:1225:VAL:HG11	1:M:1229:PHE:CE2	2.53	0.43
1:A:139:LYS:HD2	1:A:278:TYR:CB	2.48	0.43
1:A:835:ILE:HG12	1:A:869:THR:HA	1.99	0.43
1:A:947:GLN:HB3	1:A:956:ILE:HG23	2.00	0.43
1:C:835:ILE:HG12	1:C:869:THR:HA	1.99	0.43
1:C:1168:LEU:HD11	1:C:1171:GLU:HB3	2.00	0.43
1:C:1181:THR:HG22	1:C:1182:ASP:N	2.34	0.43
1:E:543:ASN:HB3	1:E:574:SER:CB	2.49	0.43
1:E:618:VAL:HA	1:E:634:GLY:HA2	2.00	0.43
1:E:835:ILE:HG12	1:E:869:THR:HA	1.99	0.43
1:E:923:LYS:HD3	1:E:923:LYS:HA	1.82	0.43
1:E:1067:VAL:HG11	1:E:1112:TRP:CZ2	2.54	0.43
1:E:1080:ASP:O	1:E:1081:PHE:HD1	2.01	0.43
1:G:114:LEU:HD13	1:G:114:LEU:HA	1.76	0.43
1:G:140:LEU:HD11	1:G:178:PHE:HE2	1.83	0.43
1:G:642:PHE:HE2	1:G:644:ALA:HA	1.83	0.43
1:I:659:GLU:O	1:I:659:GLU:HG3	2.18	0.43
1:I:923:LYS:HA	1:I:923:LYS:HD3	1.82	0.43
1:I:1007:TRP:HZ3	1:I:1048:LYS:HA	1.83	0.43
1:K:494:ALA:O	1:K:495:LYS:CB	2.62	0.43
1:K:500:LEU:HD11	1:K:504:MET:SD	2.57	0.43
1:K:556:GLY:O	1:K:557:ARG:O	2.35	0.43
1:K:923:LYS:CG	1:K:940:VAL:CG2	2.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:360:ASP:O	1:M:361:TYR:CD1	2.71	0.43
1:M:564:VAL:HG13	1:M:583:GLN:CG	2.44	0.43
1:M:622:CYS:SG	1:M:664:ALA:HA	2.58	0.43
1:M:835:ILE:HG12	1:M:869:THR:HA	1.99	0.43
1:M:923:LYS:CG	1:M:940:VAL:CG2	2.96	0.43
3:P:43:VAL:HG22	3:P:55:MET:HG3	2.00	0.43
3:Q:21:LYS:NZ	4:U:61:ASP:CG	2.71	0.43
3:R:48:THR:CG2	4:S:41:GLU:CB	2.43	0.43
1:A:239:LEU:HD12	1:A:240:LEU:H	1.76	0.43
1:A:526:PHE:HA	1:A:529:TYR:HB3	2.01	0.43
1:A:600:LYS:HG2	1:A:601:LYS:N	2.34	0.43
1:A:622:CYS:SG	1:A:664:ALA:HA	2.58	0.43
1:A:910:GLU:HG2	1:A:912:LYS:H	1.82	0.43
1:A:1194:SER:CB	1:A:1202:TRP:CE3	2.98	0.43
1:C:261:LEU:HD12	1:C:261:LEU:O	2.18	0.43
1:C:347:ASN:O	1:C:348:LYS:HB2	2.19	0.43
1:C:391:LYS:H	1:C:391:LYS:HG2	1.61	0.43
1:C:420:ASN:C	1:C:422:SER:H	2.20	0.43
1:C:449:ASN:HD22	1:C:449:ASN:HA	1.65	0.43
1:C:923:LYS:CG	1:C:940:VAL:CG2	2.96	0.43
1:C:1063:PHE:HA	1:C:1087:THR:HG22	1.99	0.43
1:C:1081:PHE:HE1	1:C:1117:LEU:HA	1.83	0.43
1:C:1149:GLY:H	1:C:1180:VAL:CG2	2.30	0.43
1:C:1181:THR:HG21	1:C:1221:LYS:CA	2.39	0.43
1:E:171:HIS:HD2	1:E:171:HIS:O	2.01	0.43
1:E:347:ASN:O	1:E:348:LYS:HB2	2.19	0.43
1:E:685:ASN:OD1	1:E:686:SER:N	2.51	0.43
1:E:805:SER:HB2	1:E:814:MET:HB3	2.00	0.43
1:E:866:LEU:CD2	1:E:914:VAL:HB	2.43	0.43
1:G:137:GLN:HG2	1:G:173:LEU:CD1	2.45	0.43
1:G:261:LEU:HD12	1:G:261:LEU:O	2.18	0.43
1:G:883:SER:HB2	1:G:902:ASP:CB	2.39	0.43
1:G:884:TRP:CE3	1:G:884:TRP:O	2.71	0.43
1:G:920:VAL:HG12	1:G:921:MET:N	2.25	0.43
1:G:999:ARG:HD2	1:G:999:ARG:HA	1.73	0.43
1:G:1067:VAL:HG11	1:G:1112:TRP:CZ2	2.54	0.43
1:G:1225:VAL:HG11	1:G:1229:PHE:CE2	2.53	0.43
1:I:347:ASN:O	1:I:348:LYS:HB2	2.19	0.43
1:I:429:ASN:HD22	1:I:429:ASN:HA	1.66	0.43
1:I:543:ASN:CB	1:I:574:SER:CB	2.97	0.43
1:I:862:TYR:HD1	1:I:885:VAL:N	2.12	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:1091:CYS:SG	1:I:1103:THR:HB	2.58	0.43
1:I:1176:HIS:CA	1:I:1218:THR:HG21	2.48	0.43
1:I:1177:GLY:HA2	1:I:1197:GLY:N	2.32	0.43
1:K:526:PHE:HA	1:K:529:TYR:HB3	2.00	0.43
1:K:750:ARG:HH11	1:K:806:TRP:HD1	1.67	0.43
1:M:1149:GLY:N	1:M:1180:VAL:CG2	2.81	0.43
4:T:29:LEU:CD2	4:T:34:LEU:HD23	2.49	0.43
4:U:29:LEU:CD2	4:U:34:LEU:HD23	2.49	0.43
1:A:390:GLN:HB3	1:A:393:VAL:CG1	2.47	0.43
1:A:460:ILE:HD13	1:A:490:HIS:CD2	2.52	0.43
1:A:530:ARG:HG2	1:A:538:CYS:SG	2.58	0.43
1:A:1139:SER:OG	1:A:1140:THR:N	2.51	0.43
1:A:1149:GLY:H	1:A:1180:VAL:CG2	2.31	0.43
1:C:149:TRP:CH2	1:C:273:VAL:CG1	2.98	0.43
1:C:390:GLN:HB3	1:C:393:VAL:CG1	2.47	0.43
1:C:766:THR:HG22	1:C:782:ASN:HA	2.00	0.43
1:C:1046:THR:HG22	1:C:1063:PHE:CD2	2.52	0.43
1:C:1187:PRO:CD	1:C:1229:PHE:CG	3.01	0.43
1:E:639:LEU:HD23	1:E:653:ILE:HD13	1.93	0.43
1:E:750:ARG:HH11	1:E:806:TRP:HD1	1.67	0.43
1:E:945:ARG:HG3	1:E:964:VAL:HG13	2.01	0.43
1:G:241:ILE:C	1:G:242:LEU:CD1	2.81	0.43
1:G:543:ASN:CB	1:G:574:SER:CB	2.97	0.43
1:G:585:LYS:HA	1:G:588:VAL:CG2	2.49	0.43
1:G:618:VAL:HA	1:G:634:GLY:HA2	2.00	0.43
1:G:945:ARG:HG3	1:G:964:VAL:HG13	2.01	0.43
1:G:1065:GLY:HA3	1:G:1086:GLY:O	2.18	0.43
1:I:171:HIS:HD2	1:I:171:HIS:O	2.02	0.43
1:I:403:LEU:HD11	1:I:459:LYS:HZ2	1.83	0.43
1:I:526:PHE:HA	1:I:529:TYR:HB3	2.01	0.43
1:I:642:PHE:HE2	1:I:644:ALA:HA	1.83	0.43
1:I:1080:ASP:O	1:I:1081:PHE:HD1	2.01	0.43
1:I:1176:HIS:HB3	1:I:1218:THR:OG1	2.09	0.43
1:K:659:GLU:O	1:K:659:GLU:HG3	2.18	0.43
1:K:1048:LYS:HD3	1:K:1063:PHE:CZ	2.52	0.43
1:K:1080:ASP:O	1:K:1081:PHE:HD1	2.01	0.43
1:K:1233:VAL:HB	1:K:1243:ILE:HA	2.01	0.43
1:M:420:ASN:C	1:M:422:SER:H	2.20	0.43
1:M:1032:TRP:O	1:M:1034:LEU:N	2.49	0.43
1:M:1091:CYS:SG	1:M:1103:THR:HB	2.58	0.43
3:Q:79:GLY:CA	4:U:36:ARG:NH2	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S:29:LEU:CD2	4:S:34:LEU:HD23	2.49	0.43
4:V:70:LEU:HD13	4:V:93:ARG:HD2	1.99	0.43
1:A:481:MET:O	1:A:485:ASN:ND2	2.49	0.43
1:A:543:ASN:CB	1:A:574:SER:CB	2.97	0.43
1:A:1233:VAL:HB	1:A:1243:ILE:HA	2.00	0.43
1:C:246:TRP:HH2	1:C:370:ILE:HG22	1.82	0.43
1:C:307:PRO:HD2	1:C:338:TRP:CH2	2.54	0.43
1:C:396:PRO:O	1:C:399:VAL:HG22	2.19	0.43
1:C:526:PHE:HA	1:C:529:TYR:HB3	2.01	0.43
1:C:529:TYR:O	1:C:529:TYR:HD1	2.02	0.43
1:C:597:TRP:CZ3	1:C:600:LYS:CB	3.02	0.43
1:C:622:CYS:SG	1:C:664:ALA:HA	2.58	0.43
1:C:639:LEU:HD23	1:C:653:ILE:HD13	1.93	0.43
1:C:750:ARG:HH11	1:C:806:TRP:HD1	1.67	0.43
1:C:866:LEU:O	1:C:875:VAL:N	2.45	0.43
1:C:1225:VAL:HG11	1:C:1229:PHE:CE2	2.53	0.43
1:E:140:LEU:C	1:E:140:LEU:CD1	2.86	0.43
1:E:230:LEU:CD2	1:E:234:LYS:CG	2.85	0.43
1:E:396:PRO:O	1:E:399:VAL:HG22	2.19	0.43
1:E:895:SER:C	1:E:911:THR:OG1	2.57	0.43
1:E:922:LEU:HD12	1:E:1241:LEU:CD2	2.39	0.43
1:E:1091:CYS:SG	1:E:1103:THR:HB	2.58	0.43
1:E:1235:VAL:HA	1:E:1240:ILE:O	2.18	0.43
1:G:327:ILE:HD13	1:G:327:ILE:HA	1.82	0.43
1:G:480:CYS:HA	1:G:483:TRP:HB2	2.00	0.43
1:G:923:LYS:CG	1:G:940:VAL:CG2	2.96	0.43
1:G:947:GLN:HB3	1:G:956:ILE:HG23	2.00	0.43
1:I:360:ASP:O	1:I:361:TYR:CD1	2.71	0.43
1:I:544:PHE:HE1	1:I:576:VAL:CG1	2.14	0.43
1:I:1168:LEU:HD11	1:I:1171:GLU:HB3	2.00	0.43
1:I:1208:GLU:CG	1:I:1211:GLN:HG2	2.49	0.43
1:K:529:TYR:O	1:K:529:TYR:HD1	2.02	0.43
1:K:618:VAL:HA	1:K:634:GLY:HA2	2.00	0.43
1:K:741:GLY:HA3	1:K:770:TRP:CZ2	2.52	0.43
1:K:1065:GLY:HA3	1:K:1086:GLY:O	2.18	0.43
1:K:1177:GLY:HA2	1:K:1197:GLY:N	2.32	0.43
1:K:1181:THR:HG22	1:K:1182:ASP:N	2.34	0.43
1:K:1232:TYR:O	1:K:1244:LEU:HD23	2.17	0.43
1:M:750:ARG:HH11	1:M:806:TRP:HD1	1.67	0.43
1:M:1067:VAL:HG11	1:M:1112:TRP:CZ2	2.54	0.43
1:M:1181:THR:HG22	1:M:1182:ASP:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:28:HIS:CA	4:T:14:LEU:CD1	2.94	0.43
3:R:50:GLN:HG2	4:S:38:HIS:HE1	1.83	0.43
4:S:36:ARG:HD3	4:S:37:PRO:CD	2.45	0.43
3:X:19:ASP:HB2	3:X:83:LEU:HD11	2.00	0.43
1:A:543:ASN:HB3	1:A:574:SER:CB	2.49	0.43
1:A:945:ARG:HG3	1:A:964:VAL:HG13	2.01	0.43
1:A:1168:LEU:HD11	1:A:1171:GLU:HB3	2.00	0.43
1:A:1181:THR:HG22	1:A:1182:ASP:N	2.34	0.43
1:C:294:ILE:HG22	1:C:295:LEU:N	2.32	0.43
1:C:862:TYR:OH	1:C:881:HIS:CG	2.69	0.43
1:C:1176:HIS:CA	1:C:1218:THR:HG21	2.48	0.43
1:E:516:LEU:HD12	1:E:516:LEU:HA	1.83	0.43
1:E:1228:ASP:CB	1:E:1230:LYS:HG2	2.37	0.43
1:G:171:HIS:HD2	1:G:171:HIS:O	2.01	0.43
1:G:248:SER:O	1:G:249:TRP:C	2.57	0.43
1:G:396:PRO:O	1:G:399:VAL:HG22	2.19	0.43
1:G:622:CYS:SG	1:G:664:ALA:HA	2.58	0.43
1:G:970:SER:HB3	1:G:975:TYR:HB2	2.01	0.43
1:I:359:TYR:HE1	1:I:361:TYR:CD1	2.32	0.43
1:I:600:LYS:HG2	1:I:601:LYS:N	2.33	0.43
1:I:910:GLU:HG2	1:I:912:LYS:H	1.82	0.43
1:I:1181:THR:CG2	1:I:1221:LYS:HA	2.40	0.43
1:K:246:TRP:HH2	1:K:370:ILE:HG22	1.82	0.43
1:K:307:PRO:HD2	1:K:338:TRP:CH2	2.54	0.43
1:K:364:LEU:CD1	1:K:368:MET:HE2	2.47	0.43
1:K:703:ASN:HD22	1:K:746:VAL:HB	1.84	0.43
1:K:947:GLN:HB3	1:K:956:ILE:HG23	2.00	0.43
1:M:543:ASN:HB3	1:M:574:SER:CB	2.49	0.43
1:M:600:LYS:HG2	1:M:601:LYS:N	2.34	0.43
1:M:945:ARG:HG3	1:M:964:VAL:HG13	2.01	0.43
1:M:999:ARG:HB2	1:M:1030:TRP:CE3	2.54	0.43
1:M:1048:LYS:HD3	1:M:1063:PHE:CZ	2.52	0.43
1:M:1187:PRO:CD	1:M:1229:PHE:CG	3.01	0.43
4:S:8:LEU:HD22	4:S:12:CYS:SG	2.58	0.43
4:V:29:LEU:CD2	4:V:34:LEU:HD23	2.49	0.43
1:A:585:LYS:HA	1:A:588:VAL:CG2	2.49	0.43
1:A:618:VAL:HA	1:A:634:GLY:HA2	2.00	0.43
1:A:685:ASN:OD1	1:A:686:SER:N	2.51	0.43
1:A:703:ASN:HD22	1:A:746:VAL:HB	1.84	0.43
1:A:766:THR:HG22	1:A:782:ASN:HA	2.00	0.43
1:A:1065:GLY:HA3	1:A:1086:GLY:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:111:ARG:HG2	1:C:111:ARG:H	1.63	0.43
1:C:618:VAL:HA	1:C:634:GLY:HA2	2.00	0.43
1:C:882:LEU:HD23	1:C:903:ASP:HB2	2.01	0.43
1:C:1007:TRP:HZ3	1:C:1048:LYS:HA	1.83	0.43
1:C:1228:ASP:CB	1:C:1230:LYS:HG2	2.37	0.43
1:E:234:LYS:O	1:E:235:HIS:CG	2.69	0.43
1:G:307:PRO:HD2	1:G:338:TRP:CH2	2.54	0.43
1:G:360:ASP:O	1:G:361:TYR:CD1	2.71	0.43
1:I:307:PRO:HD2	1:I:338:TRP:CH2	2.54	0.43
1:I:320:SER:O	1:I:320:SER:OG	2.36	0.43
1:I:396:PRO:O	1:I:399:VAL:HG22	2.19	0.43
1:I:529:TYR:O	1:I:529:TYR:HD1	2.02	0.43
1:I:557:ARG:HA	1:I:557:ARG:HD3	1.87	0.43
1:I:564:VAL:HG13	1:I:583:GLN:CG	2.44	0.43
1:I:639:LEU:CA	1:I:653:ILE:HG21	2.49	0.43
1:K:360:ASP:O	1:K:361:TYR:CD1	2.71	0.43
1:K:403:LEU:HD11	1:K:459:LYS:HZ2	1.83	0.43
1:K:1007:TRP:HZ3	1:K:1048:LYS:HA	1.83	0.43
1:K:1187:PRO:HG3	1:K:1229:PHE:HB2	1.99	0.43
1:K:1235:VAL:HA	1:K:1240:ILE:O	2.18	0.43
1:M:251:LEU:HD22	1:M:260:ILE:HD11	1.99	0.43
1:M:585:LYS:HA	1:M:588:VAL:CG2	2.49	0.43
1:M:862:TYR:HD1	1:M:885:VAL:HG12	0.72	0.43
3:P:48:THR:CG2	3:Q:41:GLU:OE1	2.66	0.43
3:Q:19:ASP:CB	4:U:64:THR:HA	2.48	0.43
1:A:307:PRO:HD2	1:A:338:TRP:CH2	2.54	0.43
1:A:639:LEU:CA	1:A:653:ILE:HG21	2.49	0.43
1:A:813:ILE:HG22	1:A:815:VAL:HG13	2.00	0.43
1:A:1048:LYS:HD3	1:A:1063:PHE:CZ	2.53	0.43
1:A:1067:VAL:HG11	1:A:1112:TRP:CZ2	2.54	0.43
1:A:1200:LYS:HG2	1:A:1211:GLN:HA	2.00	0.43
1:C:270:THR:O	1:C:270:THR:OG1	2.32	0.43
1:C:813:ILE:HG22	1:C:815:VAL:HG13	2.00	0.43
1:C:1067:VAL:HG11	1:C:1112:TRP:CZ2	2.54	0.43
1:C:1187:PRO:HG2	1:C:1229:PHE:CB	2.42	0.43
1:E:222:GLU:OE2	1:G:204:THR:HG21	2.19	0.43
1:E:307:PRO:HD2	1:E:338:TRP:CH2	2.54	0.43
1:E:597:TRP:CZ3	1:E:600:LYS:CB	3.02	0.43
1:E:970:SER:HB3	1:E:975:TYR:HB2	2.01	0.43
1:E:1187:PRO:CD	1:E:1229:PHE:CG	3.01	0.43
1:G:453:LEU:CD1	1:G:454:GLN:N	2.73	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:482:TYR:CE1	1:G:486:PHE:CD1	3.07	0.43
1:G:750:ARG:HH11	1:G:806:TRP:HD1	1.67	0.43
1:G:805:SER:HB2	1:G:814:MET:HB3	2.00	0.43
1:I:208:GLN:H	1:I:208:GLN:HG3	1.48	0.43
1:I:480:CYS:HA	1:I:483:TRP:HB2	2.01	0.43
1:I:741:GLY:HA3	1:I:770:TRP:CZ2	2.53	0.43
1:I:1067:VAL:HG11	1:I:1112:TRP:CZ2	2.54	0.43
1:I:1220:LEU:CB	1:I:1236:ASP:HB3	2.48	0.43
1:K:179:PRO:CD	1:K:237:ARG:HH12	2.15	0.43
1:K:330:LEU:HD12	1:K:330:LEU:HA	1.74	0.43
1:K:396:PRO:O	1:K:399:VAL:HG22	2.19	0.43
1:K:407:GLU:H	1:K:407:GLU:HG2	1.47	0.43
1:K:505:PHE:CE2	1:K:575:GLU:OE1	2.60	0.43
1:K:547:PHE:O	1:K:551:ASN:ND2	2.50	0.43
1:K:622:CYS:SG	1:K:664:ALA:HA	2.58	0.43
1:K:1067:VAL:HG11	1:K:1112:TRP:CZ2	2.54	0.43
1:K:1168:LEU:HD11	1:K:1171:GLU:HB3	2.00	0.43
1:K:1187:PRO:CD	1:K:1229:PHE:CG	3.01	0.43
1:M:244:ASP:OD1	1:M:246:TRP:NE1	2.50	0.43
1:M:248:SER:O	1:M:249:TRP:C	2.57	0.43
1:M:394:LYS:CB	1:M:434:ARG:CB	2.80	0.43
1:M:639:LEU:CA	1:M:653:ILE:HG21	2.49	0.43
1:M:883:SER:O	1:M:884:TRP:O	2.37	0.43
1:M:938:LEU:HD13	1:M:938:LEU:HA	1.86	0.43
3:Q:14:GLU:C	3:Q:18:LYS:HE2	2.39	0.43
4:V:8:LEU:HD22	4:V:12:CYS:SG	2.58	0.43
1:A:895:SER:C	1:A:911:THR:OG1	2.57	0.43
1:A:1091:CYS:SG	1:A:1103:THR:HB	2.58	0.43
2:B:16:GLN:OE1	2:B:16:GLN:N	2.47	0.43
1:C:603:ILE:CD1	1:C:1242:TYR:CE1	3.00	0.43
1:C:642:PHE:HE2	1:C:644:ALA:HA	1.83	0.43
1:C:703:ASN:HD22	1:C:746:VAL:HB	1.84	0.43
1:C:910:GLU:HG2	1:C:912:LYS:H	1.83	0.43
1:C:945:ARG:HG3	1:C:964:VAL:HG13	2.01	0.43
1:C:1213:PHE:O	1:C:1214:TYR:CB	2.49	0.43
1:E:477:GLN:NE2	1:E:477:GLN:CA	2.73	0.43
1:E:480:CYS:HA	1:E:483:TRP:HB2	2.00	0.43
1:E:585:LYS:HA	1:E:588:VAL:CG2	2.49	0.43
1:E:862:TYR:HD1	1:E:885:VAL:N	2.11	0.43
1:G:222:GLU:OE2	1:I:204:THR:HG21	2.19	0.43
1:G:326:LEU:HD23	1:G:353:ILE:HG22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:543:ASN:HB3	1:G:574:SER:CB	2.49	0.43
1:G:645:GLU:C	1:G:647:GLY:H	2.23	0.43
1:G:862:TYR:OH	1:G:881:HIS:CG	2.69	0.43
1:G:866:LEU:CD2	1:G:914:VAL:HB	2.43	0.43
1:G:1081:PHE:HE1	1:G:1117:LEU:HA	1.84	0.43
1:G:1087:THR:CG2	2:H:39:LYS:CD	2.75	0.43
1:G:1168:LEU:HD11	1:G:1171:GLU:HB3	2.00	0.43
1:G:1185:PHE:CE1	1:G:1192:LEU:HD12	2.39	0.43
1:G:1220:LEU:CB	1:G:1236:ASP:HB3	2.48	0.43
1:G:1233:VAL:CB	1:G:1243:ILE:HG12	2.49	0.43
1:I:393:VAL:CG1	1:I:486:PHE:CE2	2.99	0.43
1:I:505:PHE:CE2	1:I:575:GLU:OE1	2.60	0.43
1:I:862:TYR:OH	1:I:881:HIS:CG	2.69	0.43
1:I:895:SER:C	1:I:911:THR:OG1	2.57	0.43
1:K:136:ILE:HD13	1:K:152:ILE:HD13	1.99	0.43
1:K:347:ASN:O	1:K:348:LYS:HB2	2.19	0.43
1:K:600:LYS:HG2	1:K:601:LYS:N	2.34	0.43
1:K:1139:SER:OG	1:K:1140:THR:N	2.51	0.43
1:K:1160:GLU:O	1:K:1162:LEU:N	2.49	0.43
1:M:140:LEU:C	1:M:140:LEU:CD1	2.86	0.43
1:M:326:LEU:HD23	1:M:353:ILE:HG22	2.01	0.43
1:M:703:ASN:HD22	1:M:746:VAL:HB	1.83	0.43
1:M:766:THR:HG22	1:M:782:ASN:HA	2.00	0.43
1:M:862:TYR:OH	1:M:881:HIS:CG	2.69	0.43
1:M:970:SER:CB	1:M:975:TYR:HB2	2.49	0.43
3:P:14:GLU:C	3:P:18:LYS:HE2	2.39	0.43
3:P:43:VAL:O	3:P:52:ARG:HG2	2.19	0.43
1:A:204:THR:HG21	1:M:222:GLU:OE2	2.19	0.42
1:A:320:SER:HG	1:A:323:VAL:HB	1.84	0.42
1:A:394:LYS:HB3	1:A:434:ARG:CG	2.48	0.42
1:A:480:CYS:HA	1:A:483:TRP:HB2	2.01	0.42
1:A:563:ILE:O	1:A:567:GLY:N	2.51	0.42
1:A:564:VAL:HG13	1:A:583:GLN:CG	2.43	0.42
1:A:1007:TRP:HZ3	1:A:1048:LYS:HA	1.83	0.42
1:A:1072:ILE:O	1:A:1074:THR:N	2.52	0.42
1:A:1080:ASP:O	1:A:1081:PHE:HD1	2.01	0.42
1:C:132:LEU:HD23	1:C:132:LEU:HA	1.76	0.42
1:E:301:MET:O	1:E:302:LYS:C	2.57	0.42
1:E:526:PHE:HA	1:E:529:TYR:HB3	2.00	0.42
1:E:639:LEU:O	1:E:653:ILE:HG21	2.07	0.42
1:E:1198:TYR:HB2	1:E:1215:THR:H	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:529:TYR:O	1:G:529:TYR:HD1	2.02	0.42
1:G:922:LEU:HD12	1:G:1241:LEU:CD2	2.39	0.42
1:G:1072:ILE:O	1:G:1074:THR:N	2.52	0.42
1:I:320:SER:HG	1:I:323:VAL:HB	1.84	0.42
1:I:543:ASN:HB3	1:I:574:SER:CB	2.49	0.42
1:I:703:ASN:HD22	1:I:746:VAL:HB	1.84	0.42
1:I:1065:GLY:HA3	1:I:1086:GLY:O	2.18	0.42
1:I:1187:PRO:CD	1:I:1229:PHE:CG	3.01	0.42
1:K:139:LYS:HD2	1:K:278:TYR:CB	2.48	0.42
1:K:262:LEU:HG	1:K:262:LEU:O	2.19	0.42
1:K:883:SER:HB2	1:K:902:ASP:CB	2.39	0.42
1:K:999:ARG:HB2	1:K:1030:TRP:CE3	2.54	0.42
1:K:1072:ILE:O	1:K:1074:THR:N	2.52	0.42
1:M:295:LEU:HD22	1:M:295:LEU:HA	1.75	0.42
1:M:359:TYR:HE1	1:M:361:TYR:CD1	2.32	0.42
1:M:364:LEU:HD13	1:M:368:MET:HE2	1.98	0.42
3:P:24:TYR:CZ	4:T:38:HIS:HD2	2.36	0.42
3:Q:31:SER:O	4:T:11:ARG:HA	2.19	0.42
1:A:156:ALA:HB2	1:A:265:ARG:NH2	2.34	0.42
1:A:262:LEU:HG	1:A:262:LEU:O	2.19	0.42
1:A:374:MET:HA	1:A:374:MET:HE2	1.93	0.42
1:A:396:PRO:O	1:A:399:VAL:HG22	2.19	0.42
1:A:482:TYR:CE1	1:A:486:PHE:CD1	3.07	0.42
1:A:659:GLU:HG3	1:A:659:GLU:O	2.18	0.42
1:A:713:HIS:ND1	1:A:755:ASP:OD2	2.53	0.42
1:A:920:VAL:C	1:A:921:MET:CG	2.85	0.42
1:A:1032:TRP:O	1:A:1034:LEU:N	2.50	0.42
1:A:1081:PHE:HE1	1:A:1117:LEU:HA	1.84	0.42
1:A:1225:VAL:CG1	1:A:1229:PHE:CE1	3.01	0.42
1:A:1228:ASP:CB	1:A:1230:LYS:HG2	2.37	0.42
1:C:127:VAL:CG1	1:C:293:GLU:HG2	2.49	0.42
1:C:480:CYS:HA	1:C:483:TRP:HB2	2.00	0.42
1:C:600:LYS:HG2	1:C:601:LYS:N	2.34	0.42
1:C:659:GLU:O	1:C:659:GLU:HG3	2.18	0.42
1:C:805:SER:HB2	1:C:814:MET:HB3	2.00	0.42
1:C:895:SER:C	1:C:911:THR:OG1	2.57	0.42
1:C:1178:GLY:O	1:C:1179:TRP:CB	2.67	0.42
1:E:127:VAL:CG1	1:E:293:GLU:HG2	2.50	0.42
1:E:244:ASP:HB3	1:E:245:VAL:H	1.51	0.42
1:E:389:LEU:HD21	1:E:395:VAL:HG21	2.02	0.42
1:E:547:PHE:O	1:E:551:ASN:ND2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1208:GLU:CG	1:E:1211:GLN:HG2	2.49	0.42
1:G:127:VAL:CG1	1:G:293:GLU:HG2	2.49	0.42
1:G:416:GLN:CA	1:G:416:GLN:HE21	2.32	0.42
1:G:482:TYR:CE1	1:G:486:PHE:CG	3.08	0.42
1:G:513:LYS:O	1:G:517:VAL:CB	2.62	0.42
1:G:659:GLU:HG3	1:G:659:GLU:O	2.18	0.42
1:G:895:SER:C	1:G:911:THR:OG1	2.57	0.42
1:G:910:GLU:HG2	1:G:912:LYS:H	1.83	0.42
1:I:334:PHE:CB	1:I:337:ARG:HG2	2.45	0.42
1:I:750:ARG:HH11	1:I:806:TRP:HD1	1.67	0.42
1:I:882:LEU:HD23	1:I:903:ASP:HB2	2.01	0.42
1:I:883:SER:HB2	1:I:902:ASP:CB	2.39	0.42
1:I:947:GLN:HB3	1:I:956:ILE:HG23	2.00	0.42
1:I:970:SER:CB	1:I:975:TYR:HB2	2.49	0.42
1:K:363:ALA:O	1:K:366:GLU:N	2.51	0.42
1:K:651:LEU:HD22	1:K:651:LEU:HA	1.79	0.42
1:K:657:GLU:O	1:K:658:ASP:CB	2.67	0.42
1:K:727:LEU:HB2	1:K:739:MET:HE1	2.01	0.42
1:K:1032:TRP:O	1:K:1034:LEU:N	2.49	0.42
1:K:1185:PHE:CE1	1:K:1192:LEU:HD12	2.39	0.42
2:L:18:HIS:CE1	2:L:30:PRO:CD	3.00	0.42
1:M:137:GLN:HG2	1:M:173:LEU:CD1	2.45	0.42
1:M:262:LEU:O	1:M:262:LEU:HG	2.19	0.42
1:M:391:LYS:H	1:M:391:LYS:HG2	1.60	0.42
1:M:526:PHE:HA	1:M:529:TYR:HB3	2.00	0.42
1:M:895:SER:C	1:M:911:THR:OG1	2.57	0.42
1:M:1072:ILE:O	1:M:1074:THR:N	2.52	0.42
1:M:1080:ASP:O	1:M:1081:PHE:HD1	2.01	0.42
3:P:22:THR:O	3:P:26:MET:HG3	2.19	0.42
3:Q:19:ASP:C	4:U:64:THR:CG2	2.87	0.42
4:U:36:ARG:HD3	4:U:37:PRO:HD2	2.01	0.42
4:Y:90:ARG:HG2	4:Y:90:ARG:HH21	1.85	0.42
1:A:171:HIS:HD2	1:A:171:HIS:O	2.01	0.42
1:A:180:GLY:H	1:A:237:ARG:CB	2.33	0.42
1:A:326:LEU:HD23	1:A:353:ILE:HG22	2.01	0.42
1:A:361:TYR:HB3	1:A:366:GLU:HG2	2.02	0.42
1:A:529:TYR:O	1:A:529:TYR:HD1	2.02	0.42
1:A:678:ASP:OD2	1:A:680:LYS:CD	2.67	0.42
1:A:750:ARG:HH11	1:A:806:TRP:HD1	1.67	0.42
1:A:883:SER:O	1:A:884:TRP:O	2.37	0.42
1:A:1187:PRO:HG3	1:A:1229:PHE:HB2	1.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:155:MET:HE2	1:C:155:MET:HB2	1.84	0.42
1:C:678:ASP:OD2	1:C:680:LYS:CD	2.67	0.42
1:C:866:LEU:CD2	1:C:914:VAL:HB	2.43	0.42
1:C:1080:ASP:O	1:C:1081:PHE:HD1	2.01	0.42
1:E:322:LEU:HG	1:E:359:TYR:HE2	1.85	0.42
1:E:361:TYR:HB3	1:E:366:GLU:HG2	2.02	0.42
1:E:416:GLN:CA	1:E:416:GLN:HE21	2.32	0.42
1:E:713:HIS:ND1	1:E:755:ASP:OD2	2.53	0.42
1:E:862:TYR:OH	1:E:881:HIS:CG	2.69	0.42
1:E:883:SER:HB2	1:E:902:ASP:CB	2.39	0.42
1:E:1139:SER:OG	1:E:1140:THR:N	2.51	0.42
1:G:639:LEU:CA	1:G:653:ILE:HG21	2.49	0.42
1:G:786:PHE:CE1	1:G:819:ASN:HB2	2.55	0.42
1:G:875:VAL:CG1	1:G:915:CYS:SG	2.94	0.42
1:G:1151:ILE:N	1:G:1167:PRO:HD2	2.24	0.42
1:I:162:VAL:O	1:I:166:GLU:HB2	2.20	0.42
1:I:262:LEU:HG	1:I:262:LEU:O	2.19	0.42
1:I:306:LEU:HA	1:I:307:PRO:HD3	1.76	0.42
1:I:330:LEU:HD12	1:I:330:LEU:HA	1.74	0.42
1:I:406:MET:O	1:I:411:VAL:CG2	2.68	0.42
1:I:482:TYR:CE1	1:I:486:PHE:CD1	3.07	0.42
1:I:513:LYS:O	1:I:517:VAL:CB	2.62	0.42
1:I:585:LYS:HA	1:I:588:VAL:CG2	2.49	0.42
1:I:1081:PHE:HE1	1:I:1117:LEU:HA	1.84	0.42
1:K:148:GLY:C	1:K:149:TRP:HD1	2.23	0.42
1:K:241:ILE:C	1:K:242:LEU:CD1	2.81	0.42
1:K:406:MET:O	1:K:411:VAL:CG2	2.68	0.42
1:K:434:ARG:CG	1:K:434:ARG:HH21	2.30	0.42
1:K:585:LYS:HA	1:K:588:VAL:CG2	2.49	0.42
1:K:895:SER:C	1:K:911:THR:OG1	2.57	0.42
1:K:1081:PHE:HE1	1:K:1117:LEU:HA	1.83	0.42
1:M:171:HIS:HD2	1:M:171:HIS:O	2.01	0.42
1:M:235:HIS:HB3	1:M:238:SER:HB3	2.01	0.42
1:M:307:PRO:HD2	1:M:338:TRP:CH2	2.54	0.42
1:M:482:TYR:CE1	1:M:486:PHE:CG	3.07	0.42
1:M:529:TYR:O	1:M:529:TYR:HD1	2.02	0.42
1:M:543:ASN:CB	1:M:574:SER:CB	2.97	0.42
1:M:1182:ASP:HB3	1:M:1223:ILE:HG23	1.98	0.42
3:O:1:MET:H3	3:O:6:ARG:HH21	1.61	0.42
3:O:14:GLU:C	3:O:18:LYS:HE2	2.39	0.42
3:O:24:TYR:CZ	4:S:39:MET:HA	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:43:VAL:HG22	3:O:55:MET:HG3	2.00	0.42
1:A:306:LEU:HA	1:A:307:PRO:HD3	1.76	0.42
1:A:330:LEU:HA	1:A:330:LEU:HD12	1.74	0.42
1:A:403:LEU:C	1:A:403:LEU:CD1	2.86	0.42
1:A:727:LEU:HB2	1:A:739:MET:HE1	2.00	0.42
1:A:999:ARG:HB2	1:A:1030:TRP:CE3	2.54	0.42
1:A:1177:GLY:CA	1:A:1197:GLY:HA3	2.30	0.42
1:A:1212:THR:OG1	1:A:1213:PHE:N	2.53	0.42
1:C:156:ALA:HB2	1:C:265:ARG:NH2	2.34	0.42
1:C:260:ILE:O	1:C:260:ILE:HG12	2.20	0.42
1:C:320:SER:HG	1:C:323:VAL:HB	1.84	0.42
1:C:999:ARG:HB2	1:C:1030:TRP:CE3	2.54	0.42
1:C:1160:GLU:O	1:C:1162:LEU:N	2.49	0.42
1:E:482:TYR:CE1	1:E:486:PHE:CG	3.08	0.42
1:E:999:ARG:HB2	1:E:1030:TRP:CE3	2.54	0.42
1:G:406:MET:O	1:G:411:VAL:CG2	2.68	0.42
1:G:578:GLN:NE2	1:G:578:GLN:C	2.73	0.42
1:G:597:TRP:CZ3	1:G:600:LYS:HA	2.54	0.42
1:G:600:LYS:HG2	1:G:601:LYS:N	2.34	0.42
1:G:882:LEU:HD23	1:G:903:ASP:HB2	2.01	0.42
1:G:1032:TRP:O	1:G:1034:LEU:N	2.49	0.42
1:I:568:LEU:H	1:I:568:LEU:HG	1.50	0.42
1:I:597:TRP:CZ3	1:I:600:LYS:HA	2.55	0.42
1:I:678:ASP:OD2	1:I:680:LYS:CD	2.67	0.42
1:I:862:TYR:CD1	1:I:885:VAL:N	2.84	0.42
2:J:16:GLN:OE1	2:J:16:GLN:N	2.47	0.42
1:K:235:HIS:HB3	1:K:238:SER:HB3	2.01	0.42
1:K:883:SER:O	1:K:884:TRP:O	2.37	0.42
1:K:970:SER:CB	1:K:975:TYR:HB2	2.49	0.42
1:M:156:ALA:HB2	1:M:265:ARG:NH2	2.34	0.42
1:M:230:LEU:CD2	1:M:234:LYS:CG	2.85	0.42
3:Q:43:VAL:HG22	3:Q:55:MET:HG3	2.00	0.42
3:Q:43:VAL:O	3:Q:52:ARG:HG2	2.19	0.42
3:R:22:THR:O	3:R:26:MET:HG3	2.19	0.42
3:R:79:GLY:C	4:V:65:ARG:HH12	2.21	0.42
1:A:146:GLU:C	1:A:147:PRO:O	2.58	0.42
1:A:416:GLN:CA	1:A:416:GLN:HE21	2.33	0.42
1:A:651:LEU:HD22	1:A:651:LEU:HA	1.79	0.42
1:C:171:HIS:HD2	1:C:171:HIS:O	2.01	0.42
1:C:230:LEU:CD2	1:C:234:LYS:CG	2.85	0.42
1:C:259:GLN:H	1:C:259:GLN:HG2	1.56	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:322:LEU:HG	1:C:359:TYR:HE2	1.85	0.42
1:C:585:LYS:HA	1:C:588:VAL:CG2	2.49	0.42
1:C:595:LEU:HD13	1:C:1244:LEU:CG	2.50	0.42
1:C:597:TRP:CZ3	1:C:600:LYS:HA	2.55	0.42
1:C:639:LEU:CA	1:C:653:ILE:HG21	2.49	0.42
1:C:1072:ILE:O	1:C:1074:THR:N	2.52	0.42
2:D:14:CYS:CB	7:D:201:HEM:CAB	2.96	0.42
1:E:156:ALA:HB2	1:E:265:ARG:NH2	2.34	0.42
1:E:231:MET:O	1:E:236:PRO:HB3	2.19	0.42
1:E:326:LEU:HD23	1:E:353:ILE:HG22	2.01	0.42
1:E:409:GLU:CG	1:G:340:TYR:CZ	3.00	0.42
1:E:600:LYS:HG2	1:E:601:LYS:N	2.34	0.42
1:E:645:GLU:C	1:E:647:GLY:N	2.73	0.42
1:E:1233:VAL:HB	1:E:1243:ILE:HA	2.00	0.42
1:G:526:PHE:HA	1:G:529:TYR:HB3	2.01	0.42
1:G:713:HIS:ND1	1:G:755:ASP:OD2	2.53	0.42
1:G:1177:GLY:HA2	1:G:1197:GLY:N	2.32	0.42
1:G:1208:GLU:CG	1:G:1211:GLN:HG2	2.49	0.42
1:G:1212:THR:OG1	1:G:1213:PHE:N	2.53	0.42
1:G:1233:VAL:HB	1:G:1243:ILE:HA	2.01	0.42
1:I:645:GLU:C	1:I:647:GLY:H	2.23	0.42
1:I:713:HIS:ND1	1:I:755:ASP:OD2	2.53	0.42
1:I:805:SER:HB2	1:I:814:MET:HB3	2.01	0.42
1:I:1072:ILE:O	1:I:1074:THR:N	2.52	0.42
1:K:179:PRO:HD2	1:K:237:ARG:CG	2.45	0.42
1:K:394:LYS:HB3	1:K:434:ARG:CG	2.48	0.42
1:K:544:PHE:HE1	1:K:576:VAL:CG1	2.14	0.42
1:K:597:TRP:CZ3	1:K:600:LYS:CB	3.02	0.42
1:M:402:ILE:HG12	1:M:402:ILE:H	1.64	0.42
1:M:403:LEU:CD1	1:M:459:LYS:HZ3	2.32	0.42
1:M:563:ILE:O	1:M:567:GLY:N	2.51	0.42
1:M:713:HIS:ND1	1:M:755:ASP:OD2	2.53	0.42
1:M:970:SER:HB3	1:M:975:TYR:HB2	2.01	0.42
1:M:1198:TYR:HB2	1:M:1215:THR:HG23	2.00	0.42
3:P:46:GLU:HB2	3:P:52:ARG:CG	2.50	0.42
4:Y:34:LEU:HD12	4:Y:34:LEU:HA	1.93	0.42
1:A:259:GLN:H	1:A:259:GLN:HG2	1.55	0.42
1:C:713:HIS:ND1	1:C:755:ASP:OD2	2.53	0.42
1:C:786:PHE:CE1	1:C:819:ASN:HB2	2.55	0.42
1:C:923:LYS:HA	1:C:923:LYS:HD3	1.82	0.42
1:C:1151:ILE:N	1:C:1167:PRO:HD2	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1233:VAL:HB	1:C:1243:ILE:HA	2.00	0.42
1:E:162:VAL:O	1:E:166:GLU:HB2	2.20	0.42
1:E:231:MET:HA	1:E:235:HIS:O	2.19	0.42
1:E:244:ASP:OD1	1:E:246:TRP:NE1	2.50	0.42
1:E:320:SER:HG	1:E:323:VAL:HB	1.85	0.42
1:E:406:MET:O	1:E:411:VAL:CG2	2.68	0.42
1:E:453:LEU:CD1	1:E:454:GLN:N	2.73	0.42
1:E:1072:ILE:O	1:E:1074:THR:N	2.52	0.42
1:G:148:GLY:C	1:G:149:TRP:HD1	2.23	0.42
1:G:322:LEU:HG	1:G:359:TYR:HE2	1.85	0.42
1:G:703:ASN:HD22	1:G:746:VAL:HB	1.84	0.42
1:I:156:ALA:HB2	1:I:265:ARG:NH2	2.34	0.42
1:I:222:GLU:OE2	1:K:204:THR:HG21	2.19	0.42
1:I:245:VAL:C	1:I:246:TRP:HD1	2.23	0.42
1:I:317:CYS:C	1:I:318:LYS:CG	2.85	0.42
1:I:603:ILE:HD12	1:I:604:THR:HG1	1.83	0.42
1:I:883:SER:O	1:I:884:TRP:O	2.37	0.42
1:I:970:SER:HB3	1:I:975:TYR:HB2	2.01	0.42
1:K:180:GLY:H	1:K:237:ARG:CB	2.33	0.42
1:K:389:LEU:HD21	1:K:395:VAL:HG21	2.02	0.42
1:K:393:VAL:CG1	1:K:486:PHE:CE2	2.99	0.42
1:K:431:LYS:HZ1	1:M:336:ASN:CB	2.28	0.42
1:K:482:TYR:CE1	1:K:486:PHE:CG	3.08	0.42
1:K:678:ASP:OD2	1:K:680:LYS:CD	2.68	0.42
1:K:713:HIS:ND1	1:K:755:ASP:OD2	2.53	0.42
1:K:945:ARG:HG3	1:K:964:VAL:HG13	2.01	0.42
1:K:1176:HIS:CA	1:K:1218:THR:HG21	2.48	0.42
1:K:1198:TYR:HB2	1:K:1215:THR:HG23	2.00	0.42
1:M:206:LEU:CD2	1:M:235:HIS:CD2	3.03	0.42
1:M:301:MET:O	1:M:302:LYS:C	2.57	0.42
1:M:482:TYR:CE1	1:M:486:PHE:CD1	3.07	0.42
1:M:573:THR:C	1:M:577:TYR:HB3	2.28	0.42
1:M:786:PHE:CE1	1:M:819:ASN:HB2	2.55	0.42
1:M:1163:HIS:HB3	1:M:1205:VAL:HG13	2.02	0.42
1:M:1233:VAL:HB	1:M:1243:ILE:HA	2.01	0.42
3:O:43:VAL:O	3:O:52:ARG:HG2	2.19	0.42
3:P:19:ASP:OD1	4:T:63:GLU:O	2.38	0.42
3:P:27:ASP:CB	4:S:13:ARG:HG3	2.49	0.42
4:U:13:ARG:HE	4:U:56:ARG:HG3	1.85	0.42
1:A:222:GLU:OE2	1:C:204:THR:HG21	2.20	0.42
1:A:645:GLU:C	1:A:647:GLY:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:657:GLU:O	1:A:658:ASP:CB	2.67	0.42
1:A:1030:TRP:HA	1:A:1036:LYS:O	2.20	0.42
1:A:1187:PRO:CD	1:A:1229:PHE:CG	3.01	0.42
1:C:180:GLY:H	1:C:237:ARG:CB	2.32	0.42
1:C:248:SER:O	1:C:249:TRP:C	2.57	0.42
1:C:262:LEU:HG	1:C:262:LEU:O	2.20	0.42
1:C:295:LEU:HD22	1:C:295:LEU:HA	1.75	0.42
1:C:389:LEU:HD21	1:C:395:VAL:HG21	2.02	0.42
1:C:403:LEU:HD11	1:C:459:LYS:HZ2	1.85	0.42
1:C:482:TYR:CE1	1:C:486:PHE:CD1	3.07	0.42
1:C:573:THR:C	1:C:577:TYR:HB3	2.28	0.42
1:C:578:GLN:NE2	1:C:578:GLN:C	2.73	0.42
1:C:657:GLU:O	1:C:658:ASP:CB	2.67	0.42
1:E:529:TYR:O	1:E:529:TYR:HD1	2.02	0.42
1:E:529:TYR:CA	1:E:532:ILE:CG2	2.98	0.42
1:E:645:GLU:C	1:E:647:GLY:H	2.23	0.42
1:E:659:GLU:HG3	1:E:659:GLU:O	2.18	0.42
1:E:852:ASN:HB2	1:E:854:LEU:HG	2.02	0.42
1:G:162:VAL:O	1:G:166:GLU:HB2	2.20	0.42
1:G:245:VAL:C	1:G:246:TRP:HD1	2.23	0.42
1:G:999:ARG:HB2	1:G:1030:TRP:CE3	2.54	0.42
1:I:127:VAL:CG1	1:I:293:GLU:HG2	2.50	0.42
1:I:235:HIS:HB3	1:I:238:SER:HB3	2.01	0.42
1:I:431:LYS:HZ1	1:K:336:ASN:CB	2.30	0.42
1:I:595:LEU:HD13	1:I:1244:LEU:CD1	2.50	0.42
1:I:945:ARG:HG3	1:I:964:VAL:HG13	2.01	0.42
1:I:999:ARG:HB2	1:I:1030:TRP:CE3	2.54	0.42
2:J:14:CYS:CB	7:J:201:HEM:CAB	2.96	0.42
2:J:18:HIS:NE2	7:J:201:HEM:C4C	2.88	0.42
1:K:162:VAL:O	1:K:166:GLU:HB2	2.20	0.42
1:K:295:LEU:HD22	1:K:295:LEU:HA	1.75	0.42
1:K:320:SER:HG	1:K:323:VAL:HB	1.85	0.42
1:K:639:LEU:CA	1:K:653:ILE:HG21	2.49	0.42
1:K:805:SER:HB2	1:K:814:MET:HB3	2.00	0.42
1:K:1022:SER:OG	1:K:1023:ASP:N	2.48	0.42
1:K:1233:VAL:CB	1:K:1243:ILE:HG12	2.49	0.42
1:M:148:GLY:C	1:M:149:TRP:HD1	2.23	0.42
1:M:396:PRO:O	1:M:399:VAL:HG22	2.19	0.42
1:M:416:GLN:CA	1:M:416:GLN:HE21	2.32	0.42
1:M:480:CYS:HA	1:M:483:TRP:HB2	2.00	0.42
1:M:595:LEU:HD13	1:M:1244:LEU:CD1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1007:TRP:HZ3	1:M:1048:LYS:HA	1.83	0.42
1:M:1168:LEU:HD11	1:M:1171:GLU:HB3	2.00	0.42
3:R:20:ILE:HA	4:V:64:THR:HB	2.01	0.42
4:U:52:ARG:NH1	4:V:38:HIS:CE1	2.87	0.42
4:Y:7:ARG:HA	4:Y:10:ARG:HG3	2.02	0.42
1:A:148:GLY:C	1:A:149:TRP:HD1	2.23	0.42
1:A:172:SER:OG	3:W:3:ALA:CB	2.66	0.42
1:A:261:LEU:HD12	1:A:261:LEU:O	2.18	0.42
1:A:582:LEU:C	1:A:582:LEU:CD2	2.88	0.42
1:A:595:LEU:HD13	1:A:1244:LEU:CD1	2.50	0.42
1:A:970:SER:HB3	1:A:975:TYR:HB2	2.01	0.42
1:C:162:VAL:O	1:C:166:GLU:HB2	2.20	0.42
1:C:235:HIS:HB3	1:C:238:SER:HB3	2.01	0.42
1:C:406:MET:O	1:C:411:VAL:CG2	2.68	0.42
1:C:482:TYR:CE1	1:C:486:PHE:CG	3.08	0.42
1:C:1030:TRP:HA	1:C:1036:LYS:O	2.20	0.42
1:E:482:TYR:CE1	1:E:486:PHE:CD1	3.07	0.42
1:E:543:ASN:CB	1:E:574:SER:CB	2.97	0.42
1:E:786:PHE:CE1	1:E:819:ASN:HB2	2.55	0.42
1:E:970:SER:HA	1:E:1011:PHE:CD2	2.55	0.42
1:G:137:GLN:HG3	1:G:173:LEU:HD22	1.95	0.42
1:G:155:MET:HE2	1:G:155:MET:HB2	1.84	0.42
1:G:301:MET:O	1:G:302:LYS:C	2.57	0.42
1:G:389:LEU:HD21	1:G:395:VAL:HG21	2.02	0.42
1:G:453:LEU:CD1	1:G:453:LEU:C	2.87	0.42
1:G:595:LEU:HD13	1:G:1244:LEU:CD1	2.50	0.42
1:G:883:SER:O	1:G:884:TRP:O	2.37	0.42
1:G:1030:TRP:HA	1:G:1036:LYS:O	2.20	0.42
1:G:1113:SER:N	1:G:1120:LEU:HD13	2.35	0.42
1:G:1139:SER:OG	1:G:1140:THR:N	2.51	0.42
1:G:1181:THR:HG22	1:G:1182:ASP:N	2.34	0.42
2:H:10:PHE:CD1	2:H:14:CYS:HB2	2.55	0.42
1:I:248:SER:O	1:I:249:TRP:C	2.57	0.42
1:I:389:LEU:HD21	1:I:395:VAL:HG21	2.02	0.42
1:I:394:LYS:HB3	1:I:434:ARG:CG	2.48	0.42
1:I:595:LEU:HD13	1:I:1244:LEU:CG	2.50	0.42
1:I:597:TRP:CZ3	1:I:600:LYS:CB	3.02	0.42
1:I:657:GLU:O	1:I:658:ASP:CB	2.67	0.42
1:I:1160:GLU:O	1:I:1162:LEU:N	2.49	0.42
1:I:1164:LEU:H	1:I:1164:LEU:CD1	2.17	0.42
1:I:1225:VAL:HG11	1:I:1229:PHE:CG	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:222:GLU:OE2	1:M:204:THR:HG21	2.20	0.42
1:K:493:SER:O	1:K:495:LYS:HG3	2.20	0.42
1:K:750:ARG:HB2	1:K:806:TRP:HE1	1.85	0.42
1:M:347:ASN:O	1:M:348:LYS:HB2	2.19	0.42
1:M:452:GLN:O	1:M:456:LEU:HG	2.20	0.42
1:M:875:VAL:CG1	1:M:915:CYS:SG	2.94	0.42
3:O:22:THR:O	3:O:26:MET:HG3	2.19	0.42
4:U:16:LEU:HD21	4:U:89:LEU:HD11	2.01	0.42
4:V:16:LEU:HD23	4:V:85:LEU:HD21	2.02	0.42
1:A:174:LEU:O	1:A:178:PHE:HB2	2.20	0.42
1:A:493:SER:O	1:A:495:LYS:HG3	2.20	0.42
1:A:1233:VAL:CB	1:A:1243:ILE:HG12	2.49	0.42
1:C:507:LEU:CD1	1:C:579:GLN:CG	2.98	0.42
1:C:529:TYR:CA	1:C:532:ILE:CG2	2.98	0.42
1:C:883:SER:O	1:C:884:TRP:O	2.37	0.42
1:C:970:SER:CB	1:C:975:TYR:HB2	2.49	0.42
1:E:259:GLN:H	1:E:259:GLN:HG2	1.56	0.42
1:E:394:LYS:HB3	1:E:434:ARG:CG	2.48	0.42
1:E:678:ASP:OD2	1:E:680:LYS:CD	2.67	0.42
1:E:882:LEU:HD23	1:E:903:ASP:HB2	2.01	0.42
1:E:970:SER:CB	1:E:975:TYR:HB2	2.49	0.42
1:E:1030:TRP:HA	1:E:1036:LYS:O	2.20	0.42
1:E:1151:ILE:N	1:E:1167:PRO:HD2	2.24	0.42
1:E:1212:THR:OG1	1:E:1213:PHE:N	2.53	0.42
1:G:862:TYR:CD1	1:G:885:VAL:N	2.84	0.42
1:G:970:SER:CB	1:G:975:TYR:HB2	2.50	0.42
1:G:1225:VAL:HG11	1:G:1229:PHE:CG	2.55	0.42
1:I:148:GLY:C	1:I:149:TRP:HD1	2.23	0.42
1:I:326:LEU:HD23	1:I:353:ILE:HG22	2.01	0.42
1:K:156:ALA:HB2	1:K:265:ARG:NH2	2.35	0.42
1:K:174:LEU:O	1:K:178:PHE:HB2	2.20	0.42
1:K:326:LEU:HD23	1:K:353:ILE:HG22	2.01	0.42
1:K:409:GLU:HG3	1:M:340:TYR:HH	1.81	0.42
1:K:561:PRO:CB	1:K:1214:TYR:CD2	2.87	0.42
1:K:866:LEU:CD2	1:K:914:VAL:HB	2.43	0.42
2:L:18:HIS:NE2	7:L:201:HEM:C4C	2.88	0.42
1:M:127:VAL:CG1	1:M:293:GLU:HG2	2.50	0.42
1:M:449:ASN:HD22	1:M:449:ASN:HA	1.65	0.42
1:M:578:GLN:NE2	1:M:578:GLN:C	2.73	0.42
1:M:645:GLU:C	1:M:647:GLY:H	2.23	0.42
3:Q:29:MET:C	3:Q:31:SER:N	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:R:30:ILE:O	4:U:10:ARG:O	2.37	0.42
3:R:43:VAL:O	3:R:52:ARG:HG2	2.19	0.42
4:T:13:ARG:HH21	4:T:60:ILE:HD11	1.85	0.42
1:A:301:MET:O	1:A:302:LYS:C	2.58	0.42
1:A:529:TYR:CA	1:A:532:ILE:CG2	2.98	0.42
1:A:1044:GLN:HG2	1:A:1068:LYS:HZ2	1.85	0.42
2:B:10:PHE:CD1	2:B:14:CYS:HB2	2.55	0.42
1:C:208:GLN:H	1:C:208:GLN:HG3	1.48	0.42
1:E:195:LEU:HD12	1:E:195:LEU:C	2.36	0.42
1:E:286:LEU:HD13	1:E:286:LEU:HA	1.98	0.42
1:E:639:LEU:CA	1:E:653:ILE:HG21	2.49	0.42
1:E:883:SER:O	1:E:884:TRP:O	2.37	0.42
1:E:938:LEU:HD13	1:E:938:LEU:HA	1.85	0.42
1:E:978:PHE:CZ	1:E:986:GLU:HB2	2.55	0.42
1:E:1181:THR:HG22	1:E:1182:ASP:N	2.34	0.42
1:G:244:ASP:HB3	1:G:245:VAL:H	1.51	0.42
1:G:394:LYS:HB3	1:G:434:ARG:CG	2.48	0.42
1:G:657:GLU:O	1:G:658:ASP:CB	2.67	0.42
1:I:301:MET:O	1:I:302:LYS:C	2.58	0.42
1:I:416:GLN:CA	1:I:416:GLN:HE21	2.32	0.42
2:J:18:HIS:CE1	2:J:30:PRO:CD	3.00	0.42
1:K:208:GLN:H	1:K:208:GLN:HG3	1.48	0.42
1:K:320:SER:OG	1:K:323:VAL:HG23	2.20	0.42
1:K:416:GLN:CA	1:K:416:GLN:HE21	2.32	0.42
1:K:1225:VAL:HG11	1:K:1229:PHE:CG	2.55	0.42
1:M:389:LEU:HD21	1:M:395:VAL:HG21	2.02	0.42
1:M:493:SER:O	1:M:495:LYS:HG3	2.20	0.42
1:M:805:SER:HB2	1:M:814:MET:HB3	2.00	0.42
1:M:862:TYR:HD1	1:M:885:VAL:N	2.12	0.42
1:M:1212:THR:OG1	1:M:1213:PHE:N	2.53	0.42
3:Q:29:MET:O	3:Q:31:SER:N	2.53	0.42
1:A:162:VAL:O	1:A:166:GLU:HB2	2.20	0.41
1:A:406:MET:O	1:A:411:VAL:CG2	2.68	0.41
1:A:786:PHE:CE1	1:A:819:ASN:HB2	2.55	0.41
1:A:805:SER:HB2	1:A:814:MET:HB3	2.01	0.41
1:A:1163:HIS:HB3	1:A:1205:VAL:HG13	2.02	0.41
1:A:1245:GLN:HE21	1:A:1245:GLN:HB3	1.59	0.41
1:C:320:SER:OG	1:C:323:VAL:HG23	2.20	0.41
1:C:326:LEU:HD23	1:C:353:ILE:HG22	2.01	0.41
1:C:582:LEU:C	1:C:582:LEU:CD2	2.88	0.41
1:C:645:GLU:C	1:C:647:GLY:N	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1225:VAL:HG11	1:C:1229:PHE:CG	2.55	0.41
7:D:201:HEM:CBC	7:D:201:HEM:CMC	2.88	0.41
1:E:236:PRO:HG2	3:O:3:ALA:HB1	1.95	0.41
1:E:248:SER:O	1:E:249:TRP:C	2.57	0.41
1:E:359:TYR:CD1	1:E:359:TYR:C	2.85	0.41
1:E:507:LEU:CD1	1:E:579:GLN:CG	2.98	0.41
1:G:156:ALA:HB2	1:G:265:ARG:NH2	2.34	0.41
1:G:160:LYS:HZ2	1:G:160:LYS:HB2	1.85	0.41
1:G:409:GLU:CG	1:I:340:TYR:CZ	3.00	0.41
1:G:678:ASP:OD2	1:G:680:LYS:CD	2.68	0.41
1:G:852:ASN:HB2	1:G:854:LEU:HG	2.02	0.41
2:H:18:HIS:NE2	7:H:201:HEM:C4C	2.88	0.41
1:I:391:LYS:H	1:I:391:LYS:HG2	1.61	0.41
1:I:578:GLN:NE2	1:I:578:GLN:C	2.73	0.41
1:I:786:PHE:CE1	1:I:819:ASN:HB2	2.55	0.41
1:I:1030:TRP:HA	1:I:1036:LYS:O	2.20	0.41
1:I:1233:VAL:CB	1:I:1243:ILE:HG12	2.49	0.41
1:K:452:GLN:O	1:K:456:LEU:HG	2.20	0.41
1:K:482:TYR:CE1	1:K:486:PHE:CD1	3.07	0.41
1:K:507:LEU:CD1	1:K:579:GLN:CG	2.98	0.41
1:K:910:GLU:HB3	1:K:913:LYS:HG3	2.02	0.41
1:K:923:LYS:HD3	1:K:923:LYS:HA	1.82	0.41
2:L:52:ASN:OD1	7:L:201:HEM:HBD1	2.20	0.41
1:M:162:VAL:O	1:M:166:GLU:HB2	2.20	0.41
1:M:320:SER:OG	1:M:323:VAL:HG23	2.20	0.41
1:M:486:PHE:HA	1:M:489:TYR:HB3	2.03	0.41
1:M:597:TRP:CZ3	1:M:600:LYS:HA	2.55	0.41
4:T:50:SER:HB2	4:U:45:ARG:CZ	2.50	0.41
1:A:206:LEU:CD2	1:A:235:HIS:CD2	3.03	0.41
1:A:669:ASP:O	1:A:686:SER:OG	2.27	0.41
1:A:1175:THR:OG1	1:A:1176:HIS:CE1	2.73	0.41
1:C:245:VAL:C	1:C:246:TRP:HD1	2.23	0.41
1:C:493:SER:O	1:C:495:LYS:HG3	2.20	0.41
1:C:500:LEU:HD23	1:C:533:LEU:HD12	2.00	0.41
1:C:553:HIS:CG	1:C:554:LEU:N	2.88	0.41
1:C:645:GLU:C	1:C:647:GLY:H	2.23	0.41
1:C:910:GLU:HB3	1:C:913:LYS:HG3	2.02	0.41
1:C:1126:HIS:CD2	1:C:1128:GLY:H	2.38	0.41
2:D:10:PHE:CD1	2:D:14:CYS:HB2	2.55	0.41
1:E:245:VAL:C	1:E:246:TRP:HD1	2.23	0.41
1:E:326:LEU:CD2	1:E:353:ILE:HB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:452:GLN:O	1:E:456:LEU:HG	2.20	0.41
1:E:563:ILE:O	1:E:567:GLY:N	2.51	0.41
1:E:597:TRP:CZ3	1:E:600:LYS:HA	2.54	0.41
1:E:1126:HIS:CD2	1:E:1128:GLY:H	2.38	0.41
1:E:1233:VAL:CB	1:E:1243:ILE:HG12	2.49	0.41
2:F:10:PHE:CD1	2:F:14:CYS:HB2	2.55	0.41
1:G:256:SER:O	1:G:257:GLN:CB	2.64	0.41
1:G:259:GLN:H	1:G:259:GLN:HG2	1.56	0.41
1:G:361:TYR:HB3	1:G:366:GLU:HG2	2.02	0.41
1:G:419:VAL:HG11	1:G:426:CYS:HG	1.78	0.41
1:G:645:GLU:C	1:G:647:GLY:N	2.73	0.41
1:G:821:ILE:HD11	1:G:857:VAL:HG21	2.03	0.41
1:I:206:LEU:CD2	1:I:235:HIS:CD2	3.03	0.41
1:I:482:TYR:CE1	1:I:486:PHE:CG	3.08	0.41
1:I:821:ILE:HD11	1:I:857:VAL:HG21	2.03	0.41
1:I:1181:THR:HG22	1:I:1182:ASP:N	2.34	0.41
1:K:474:SER:HB2	1:K:475:PRO:HD2	2.02	0.41
1:K:578:GLN:NE2	1:K:578:GLN:C	2.73	0.41
1:K:786:PHE:CE1	1:K:819:ASN:HB2	2.55	0.41
1:K:1163:HIS:HB3	1:K:1205:VAL:HG13	2.02	0.41
1:M:582:LEU:C	1:M:582:LEU:CD2	2.88	0.41
1:M:597:TRP:CZ2	1:M:603:ILE:CG1	2.94	0.41
1:M:750:ARG:HB2	1:M:806:TRP:HE1	1.85	0.41
1:M:970:SER:HA	1:M:1011:PHE:CD2	2.55	0.41
2:N:10:PHE:CD1	2:N:14:CYS:HB2	2.55	0.41
3:O:46:GLU:HB2	3:O:52:ARG:CG	2.50	0.41
3:W:21:LYS:HE2	4:Y:61:ASP:CG	2.40	0.41
1:A:127:VAL:CG1	1:A:293:GLU:HG2	2.49	0.41
1:A:140:LEU:C	1:A:140:LEU:CD1	2.86	0.41
1:A:235:HIS:HB3	1:A:238:SER:HB3	2.01	0.41
1:A:260:ILE:O	1:A:260:ILE:HG12	2.20	0.41
1:A:393:VAL:CG1	1:A:486:PHE:CE2	2.99	0.41
1:A:452:GLN:O	1:A:456:LEU:HG	2.20	0.41
1:A:507:LEU:CD1	1:A:579:GLN:CG	2.98	0.41
1:A:597:TRP:CZ3	1:A:600:LYS:HA	2.54	0.41
1:A:750:ARG:HB2	1:A:806:TRP:HE1	1.85	0.41
1:A:970:SER:HA	1:A:1011:PHE:CD2	2.55	0.41
1:A:970:SER:CB	1:A:975:TYR:HB2	2.49	0.41
1:C:326:LEU:CD2	1:C:353:ILE:HB	2.50	0.41
1:C:474:SER:HB2	1:C:475:PRO:HD2	2.02	0.41
1:C:486:PHE:HA	1:C:489:TYR:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:852:ASN:HB2	1:C:854:LEU:HG	2.02	0.41
1:C:1166:ALA:N	1:C:1167:PRO:CD	2.78	0.41
1:C:1200:LYS:HA	1:C:1211:GLN:O	2.21	0.41
1:C:1233:VAL:O	1:C:1233:VAL:CG2	2.68	0.41
1:E:262:LEU:O	1:E:262:LEU:HG	2.19	0.41
1:E:474:SER:HB2	1:E:475:PRO:HD2	2.03	0.41
1:E:578:GLN:NE2	1:E:578:GLN:C	2.73	0.41
1:E:637:LYS:CG	1:E:658:ASP:O	2.69	0.41
1:E:815:VAL:O	1:E:821:ILE:HG23	2.21	0.41
1:E:821:ILE:HD11	1:E:857:VAL:HG21	2.03	0.41
1:E:1233:VAL:O	1:E:1233:VAL:CG2	2.68	0.41
2:F:18:HIS:NE2	7:F:201:HEM:C4C	2.88	0.41
1:G:452:GLN:O	1:G:456:LEU:HG	2.20	0.41
1:G:493:SER:O	1:G:495:LYS:HG3	2.20	0.41
1:G:547:PHE:O	1:G:551:ASN:ND2	2.50	0.41
1:G:595:LEU:HD13	1:G:1244:LEU:CG	2.50	0.41
1:G:970:SER:HA	1:G:1011:PHE:CD2	2.55	0.41
1:I:279:VAL:O	1:I:279:VAL:HG23	2.21	0.41
1:I:320:SER:OG	1:I:323:VAL:HG23	2.20	0.41
1:I:529:TYR:CA	1:I:532:ILE:CG2	2.98	0.41
1:I:922:LEU:HD12	1:I:1241:LEU:CD2	2.39	0.41
1:K:140:LEU:C	1:K:140:LEU:CD1	2.86	0.41
1:K:245:VAL:C	1:K:246:TRP:HD1	2.23	0.41
1:K:301:MET:O	1:K:302:LYS:C	2.58	0.41
1:K:480:CYS:HA	1:K:483:TRP:HB2	2.00	0.41
1:K:1111:ILE:O	1:K:1120:LEU:N	2.54	0.41
1:M:513:LYS:O	1:M:517:VAL:CB	2.62	0.41
1:M:645:GLU:C	1:M:647:GLY:N	2.73	0.41
1:M:852:ASN:HB2	1:M:854:LEU:HG	2.02	0.41
1:M:978:PHE:CZ	1:M:986:GLU:HB2	2.55	0.41
1:M:1126:HIS:CD2	1:M:1128:GLY:H	2.38	0.41
2:N:18:HIS:NE2	7:N:201:HEM:C4C	2.88	0.41
2:N:52:ASN:OD1	7:N:201:HEM:HBD1	2.20	0.41
3:Q:46:GLU:HB2	3:Q:52:ARG:CG	2.50	0.41
4:U:77:LEU:HD12	4:U:77:LEU:HA	1.96	0.41
3:W:10:LEU:CD2	3:W:13:ARG:NH2	2.83	0.41
1:A:155:MET:HE2	1:A:155:MET:HB2	1.91	0.41
1:A:241:ILE:C	1:A:242:LEU:CD1	2.81	0.41
1:A:389:LEU:HD21	1:A:395:VAL:HG21	2.01	0.41
1:A:1225:VAL:HG11	1:A:1229:PHE:CG	2.55	0.41
1:C:239:LEU:HD12	1:C:240:LEU:H	1.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:403:LEU:HD11	1:C:459:LYS:NZ	2.36	0.41
1:C:858:ALA:HB2	1:C:864:VAL:HG22	2.03	0.41
1:C:882:LEU:CD2	1:C:882:LEU:N	2.39	0.41
1:C:1187:PRO:HG3	1:C:1229:PHE:HB2	1.98	0.41
1:E:146:GLU:C	1:E:147:PRO:O	2.58	0.41
1:E:279:VAL:O	1:E:279:VAL:HG23	2.20	0.41
1:E:320:SER:OG	1:E:323:VAL:HG23	2.20	0.41
1:E:486:PHE:HA	1:E:489:TYR:HB3	2.02	0.41
1:E:1140:THR:OG1	1:E:1155:ASN:OD1	2.31	0.41
1:E:1225:VAL:HG11	1:E:1229:PHE:CG	2.55	0.41
1:G:146:GLU:HG2	1:I:111:ARG:NH1	2.19	0.41
1:G:529:TYR:CA	1:G:532:ILE:CG2	2.98	0.41
1:G:920:VAL:C	1:G:921:MET:CG	2.85	0.41
1:G:978:PHE:CZ	1:G:986:GLU:HB2	2.55	0.41
1:G:1194:SER:CB	1:G:1202:TRP:CE3	2.98	0.41
1:I:137:GLN:HG3	1:I:173:LEU:HD22	1.95	0.41
1:I:409:GLU:CG	1:K:340:TYR:CZ	3.00	0.41
1:I:750:ARG:HB2	1:I:806:TRP:HE1	1.85	0.41
1:I:910:GLU:HB3	1:I:913:LYS:HG3	2.02	0.41
1:I:1233:VAL:O	1:I:1233:VAL:CG2	2.68	0.41
2:J:10:PHE:CD1	2:J:14:CYS:HB2	2.55	0.41
1:K:206:LEU:CD2	1:K:235:HIS:CD2	3.03	0.41
1:K:1164:LEU:H	1:K:1164:LEU:CD1	2.17	0.41
1:K:1247:LEU:HD12	1:K:1248:GLU:OE1	2.21	0.41
1:M:180:GLY:H	1:M:237:ARG:CB	2.33	0.41
1:M:406:MET:O	1:M:411:VAL:CG2	2.68	0.41
1:M:622:CYS:HA	1:M:889:MET:HE1	2.02	0.41
1:M:678:ASP:OD2	1:M:680:LYS:CD	2.67	0.41
1:M:1111:ILE:O	1:M:1120:LEU:N	2.54	0.41
1:M:1247:LEU:HD12	1:M:1248:GLU:OE1	2.21	0.41
3:Q:22:THR:O	3:Q:26:MET:HG3	2.19	0.41
3:Q:23:SER:HB2	4:T:56:ARG:NH2	2.35	0.41
3:R:14:GLU:C	3:R:18:LYS:HE2	2.39	0.41
3:X:68:TYR:HE1	3:X:91:ILE:HD13	1.85	0.41
1:A:322:LEU:HG	1:A:359:TYR:HE2	1.85	0.41
1:A:347:ASN:O	1:A:348:LYS:HB2	2.19	0.41
1:A:403:LEU:HD11	1:A:459:LYS:HZ2	1.85	0.41
1:A:578:GLN:NE2	1:A:578:GLN:C	2.73	0.41
1:A:852:ASN:HB2	1:A:854:LEU:HG	2.02	0.41
1:A:924:GLN:H	1:A:1238:LEU:HD21	1.86	0.41
1:A:978:PHE:CZ	1:A:986:GLU:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1200:LYS:HA	1:A:1211:GLN:O	2.21	0.41
1:C:148:GLY:C	1:C:149:TRP:HD1	2.23	0.41
1:C:361:TYR:HB3	1:C:366:GLU:HG2	2.01	0.41
1:C:416:GLN:CA	1:C:416:GLN:HE21	2.32	0.41
1:C:564:VAL:HG13	1:C:583:GLN:CG	2.44	0.41
1:C:727:LEU:HB2	1:C:739:MET:HE1	2.02	0.41
1:C:970:SER:HB3	1:C:975:TYR:HB2	2.01	0.41
1:C:1247:LEU:HD12	1:C:1248:GLU:OE1	2.21	0.41
2:D:18:HIS:NE2	7:D:201:HEM:C4C	2.88	0.41
1:E:148:GLY:C	1:E:149:TRP:HD1	2.23	0.41
1:E:582:LEU:C	1:E:582:LEU:CD2	2.88	0.41
1:E:595:LEU:HD22	1:E:1244:LEU:HD12	1.78	0.41
1:E:603:ILE:HD12	1:E:604:THR:HG1	1.84	0.41
1:E:657:GLU:O	1:E:658:ASP:CB	2.67	0.41
2:F:16:GLN:OE1	2:F:16:GLN:N	2.47	0.41
1:G:180:GLY:H	1:G:237:ARG:CB	2.33	0.41
1:G:326:LEU:CD2	1:G:353:ILE:HB	2.50	0.41
1:G:496:MET:CE	1:G:496:MET:CA	2.98	0.41
1:G:582:LEU:C	1:G:582:LEU:CD2	2.88	0.41
1:I:130:LYS:HB2	1:I:130:LYS:HE2	1.74	0.41
1:I:322:LEU:HG	1:I:359:TYR:HE2	1.85	0.41
1:I:563:ILE:O	1:I:567:GLY:N	2.51	0.41
1:I:582:LEU:C	1:I:582:LEU:CD2	2.88	0.41
1:I:645:GLU:C	1:I:647:GLY:N	2.73	0.41
1:I:1111:ILE:O	1:I:1120:LEU:N	2.54	0.41
1:I:1225:VAL:CG1	1:I:1229:PHE:CE1	3.01	0.41
1:K:595:LEU:HD13	1:K:1244:LEU:CD1	2.50	0.41
1:K:645:GLU:C	1:K:647:GLY:H	2.23	0.41
1:M:320:SER:HG	1:M:323:VAL:HB	1.85	0.41
1:M:1225:VAL:CG1	1:M:1229:PHE:CE1	3.01	0.41
1:A:1247:LEU:HD12	1:A:1248:GLU:OE1	2.21	0.41
1:C:174:LEU:O	1:C:178:PHE:HB2	2.20	0.41
1:C:206:LEU:CD2	1:C:235:HIS:CD2	3.03	0.41
1:C:375:LEU:H	1:C:375:LEU:HG	1.69	0.41
1:C:639:LEU:CD1	1:C:641:VAL:HG23	2.51	0.41
1:C:1233:VAL:CB	1:C:1243:ILE:HG12	2.49	0.41
1:E:429:ASN:O	1:E:432:SER:O	2.39	0.41
1:E:639:LEU:CD1	1:E:641:VAL:HG23	2.51	0.41
1:E:1200:LYS:HA	1:E:1211:GLN:O	2.21	0.41
1:G:212:PHE:HD1	1:G:212:PHE:HA	1.79	0.41
1:G:235:HIS:HB3	1:G:238:SER:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:260:ILE:O	1:G:260:ILE:HG12	2.20	0.41
1:G:507:LEU:CD1	1:G:579:GLN:CG	2.98	0.41
1:G:1228:ASP:CB	1:G:1230:LYS:HG2	2.37	0.41
1:I:146:GLU:OE1	1:I:146:GLU:HA	2.21	0.41
1:I:261:LEU:C	1:I:261:LEU:CD1	2.85	0.41
1:I:507:LEU:HD11	1:I:579:GLN:HG2	2.03	0.41
1:I:639:LEU:CD1	1:I:641:VAL:HG23	2.51	0.41
1:I:920:VAL:C	1:I:921:MET:CG	2.85	0.41
1:K:127:VAL:CG1	1:K:293:GLU:HG2	2.50	0.41
1:K:374:MET:HA	1:K:374:MET:HE3	1.99	0.41
1:K:403:LEU:HD11	1:K:459:LYS:NZ	2.36	0.41
1:K:637:LYS:CG	1:K:658:ASP:O	2.69	0.41
1:K:637:LYS:CD	1:K:658:ASP:O	2.68	0.41
1:K:645:GLU:C	1:K:647:GLY:N	2.73	0.41
1:K:1126:HIS:CD2	1:K:1128:GLY:H	2.38	0.41
2:L:10:PHE:CD1	2:L:14:CYS:HB2	2.55	0.41
1:M:160:LYS:CB	1:M:160:LYS:HZ2	2.32	0.41
1:M:361:TYR:HB3	1:M:366:GLU:HG2	2.01	0.41
1:M:882:LEU:CB	1:M:1237:ASN:ND2	2.62	0.41
4:T:80:THR:O	4:T:80:THR:HG22	2.20	0.41
1:A:138:GLN:CG	3:W:6:ARG:HD3	2.49	0.41
1:A:429:ASN:O	1:A:432:SER:O	2.39	0.41
1:A:482:TYR:CE1	1:A:486:PHE:CG	3.08	0.41
1:A:818:LYS:O	1:A:843:ILE:HG13	2.21	0.41
1:C:429:ASN:O	1:C:432:SER:O	2.39	0.41
1:C:441:GLN:O	1:C:445:LEU:HG	2.21	0.41
1:C:563:ILE:O	1:C:567:GLY:N	2.51	0.41
1:C:978:PHE:CZ	1:C:986:GLU:HB2	2.55	0.41
1:E:507:LEU:HD11	1:E:579:GLN:HG2	2.03	0.41
1:E:595:LEU:HD13	1:E:1244:LEU:CD1	2.50	0.41
1:G:403:LEU:HD11	1:G:459:LYS:HZ2	1.86	0.41
1:G:441:GLN:O	1:G:445:LEU:HG	2.21	0.41
1:G:637:LYS:CD	1:G:658:ASP:O	2.68	0.41
1:G:639:LEU:CD1	1:G:641:VAL:HG23	2.51	0.41
1:G:815:VAL:O	1:G:821:ILE:HG23	2.21	0.41
1:I:637:LYS:CG	1:I:658:ASP:O	2.69	0.41
1:I:852:ASN:HB2	1:I:854:LEU:HG	2.02	0.41
1:I:1046:THR:CG2	1:I:1063:PHE:HE2	2.34	0.41
1:K:326:LEU:CD2	1:K:353:ILE:HB	2.51	0.41
1:K:486:PHE:HA	1:K:489:TYR:HB3	2.02	0.41
1:K:582:LEU:C	1:K:582:LEU:CD2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:866:LEU:O	1:K:875:VAL:N	2.44	0.41
1:K:939:ALA:O	1:K:946:LEU:HB2	2.21	0.41
1:K:970:SER:HB3	1:K:975:TYR:HB2	2.01	0.41
1:K:1208:GLU:CG	1:K:1211:GLN:HG2	2.49	0.41
1:M:326:LEU:CD2	1:M:353:ILE:HB	2.51	0.41
1:M:445:LEU:O	1:M:449:ASN:N	2.48	0.41
1:M:477:GLN:NE2	1:M:477:GLN:CA	2.73	0.41
1:M:529:TYR:CA	1:M:532:ILE:CG2	2.98	0.41
1:M:924:GLN:H	1:M:1238:LEU:HD21	1.86	0.41
3:R:46:GLU:HB2	3:R:52:ARG:CG	2.50	0.41
1:A:245:VAL:C	1:A:246:TRP:HD1	2.23	0.41
1:A:486:PHE:HA	1:A:489:TYR:HB3	2.03	0.41
1:A:560:PHE:O	1:A:561:PRO:O	2.39	0.41
1:A:639:LEU:CD1	1:A:641:VAL:HG23	2.51	0.41
1:A:1176:HIS:CD2	1:A:1197:GLY:C	2.94	0.41
1:C:543:ASN:OD1	1:C:574:SER:HB2	2.21	0.41
1:E:875:VAL:CG1	1:E:915:CYS:SG	2.94	0.41
1:E:924:GLN:H	1:E:1238:LEU:HD21	1.86	0.41
1:E:1089:LEU:H	1:E:1105:ALA:HB2	1.86	0.41
1:G:320:SER:HG	1:G:323:VAL:HB	1.85	0.41
1:G:320:SER:OG	1:G:323:VAL:HG23	2.20	0.41
1:G:474:SER:HB2	1:G:475:PRO:HD2	2.02	0.41
1:G:485:ASN:ND2	1:G:485:ASN:H	2.19	0.41
1:G:750:ARG:HB2	1:G:806:TRP:HE1	1.85	0.41
1:G:818:LYS:O	1:G:843:ILE:HG13	2.21	0.41
1:G:1149:GLY:N	1:G:1180:VAL:HG22	2.36	0.41
1:G:1200:LYS:HA	1:G:1211:GLN:O	2.21	0.41
1:I:260:ILE:O	1:I:260:ILE:HG12	2.20	0.41
1:I:402:ILE:HG12	1:I:402:ILE:H	1.65	0.41
1:I:493:SER:O	1:I:495:LYS:HG3	2.20	0.41
1:I:553:HIS:CG	1:I:554:LEU:N	2.89	0.41
1:I:622:CYS:HA	1:I:889:MET:HE1	2.03	0.41
1:I:866:LEU:CD2	1:I:914:VAL:HB	2.43	0.41
2:J:52:ASN:OD1	7:J:201:HEM:HBD1	2.20	0.41
1:K:279:VAL:O	1:K:279:VAL:HG23	2.20	0.41
1:K:364:LEU:HD22	1:K:364:LEU:HA	1.82	0.41
1:K:402:ILE:HG12	1:K:402:ILE:H	1.64	0.41
1:K:1030:TRP:HA	1:K:1036:LYS:O	2.20	0.41
1:K:1217:GLY:HA3	1:K:1236:ASP:O	2.21	0.41
1:M:403:LEU:HD11	1:M:459:LYS:NZ	2.36	0.41
3:R:10:LEU:HA	3:R:13:ARG:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S:16:LEU:HD23	4:S:85:LEU:HD21	2.02	0.41
3:X:34:PHE:CZ	3:X:66:ASP:HB3	2.55	0.41
1:A:279:VAL:HG23	1:A:279:VAL:O	2.20	0.41
1:A:320:SER:OG	1:A:323:VAL:HG23	2.20	0.41
1:A:420:ASN:C	1:A:422:SER:N	2.74	0.41
1:A:543:ASN:OD1	1:A:574:SER:HB2	2.21	0.41
1:A:551:ASN:OD1	1:A:555:LEU:HG	2.21	0.41
1:A:597:TRP:CZ2	1:A:603:ILE:CG1	2.94	0.41
1:A:603:ILE:O	1:A:604:THR:HB	2.21	0.41
1:A:922:LEU:HD12	1:A:1241:LEU:CD2	2.39	0.41
1:A:999:ARG:CZ	1:A:1000:PHE:N	2.82	0.41
1:A:1126:HIS:CD2	1:A:1128:GLY:H	2.38	0.41
1:A:1208:GLU:CG	1:A:1211:GLN:HG2	2.49	0.41
2:B:52:ASN:OD1	7:B:201:HEM:HBD1	2.20	0.41
1:C:130:LYS:HB2	1:C:130:LYS:HE2	1.73	0.41
1:C:140:LEU:HD12	1:C:173:LEU:HD11	2.03	0.41
1:C:146:GLU:OE1	1:C:146:GLU:HA	2.21	0.41
1:C:179:PRO:HD2	1:C:237:ARG:CG	2.45	0.41
1:C:246:TRP:HE3	1:C:374:MET:HG2	1.86	0.41
1:C:393:VAL:CG1	1:C:486:PHE:CE2	2.99	0.41
1:C:452:GLN:O	1:C:456:LEU:HG	2.20	0.41
1:C:595:LEU:HD13	1:C:1244:LEU:CD1	2.50	0.41
1:C:597:TRP:NE1	1:C:1242:TYR:HA	2.36	0.41
1:C:750:ARG:HB2	1:C:806:TRP:HE1	1.85	0.41
1:C:924:GLN:H	1:C:1238:LEU:HD21	1.86	0.41
1:E:236:PRO:HD2	1:E:237:ARG:H	1.84	0.41
1:E:246:TRP:HE3	1:E:374:MET:HG2	1.86	0.41
1:E:420:ASN:C	1:E:422:SER:N	2.74	0.41
1:E:551:ASN:OD1	1:E:555:LEU:HG	2.21	0.41
1:E:597:TRP:NE1	1:E:1242:TYR:HA	2.36	0.41
1:E:603:ILE:O	1:E:604:THR:HB	2.21	0.41
1:E:727:LEU:HB2	1:E:739:MET:HE1	2.02	0.41
1:E:868:ASN:HB2	1:E:875:VAL:HG23	2.03	0.41
1:E:920:VAL:C	1:E:921:MET:CG	2.85	0.41
1:E:1087:THR:CG2	2:F:39:LYS:CD	2.75	0.41
1:E:1163:HIS:HB3	1:E:1205:VAL:HG13	2.02	0.41
1:E:1178:GLY:O	1:E:1179:TRP:CB	2.68	0.41
1:G:146:GLU:C	1:G:147:PRO:O	2.58	0.41
1:G:279:VAL:HG23	1:G:279:VAL:O	2.20	0.41
1:G:403:LEU:HD11	1:G:459:LYS:NZ	2.36	0.41
1:G:597:TRP:CZ3	1:G:600:LYS:CB	3.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:612:ARG:HD3	1:G:614:HIS:O	2.21	0.41
1:G:858:ALA:HB2	1:G:864:VAL:HG22	2.03	0.41
1:G:1093:ILE:O	1:G:1093:ILE:HG13	2.21	0.41
1:G:1111:ILE:O	1:G:1120:LEU:N	2.54	0.41
1:G:1239:GLY:O	1:G:1240:ILE:HD12	2.21	0.41
1:I:139:LYS:O	1:I:142:LYS:HB3	2.21	0.41
1:I:174:LEU:O	1:I:178:PHE:HB2	2.20	0.41
1:I:180:GLY:H	1:I:237:ARG:CB	2.33	0.41
1:I:246:TRP:HE3	1:I:374:MET:HG2	1.86	0.41
1:I:400:LEU:O	1:I:404:TRP:CE3	2.74	0.41
1:I:441:GLN:O	1:I:445:LEU:HG	2.21	0.41
1:I:485:ASN:ND2	1:I:485:ASN:H	2.19	0.41
1:I:507:LEU:CD1	1:I:579:GLN:CG	2.98	0.41
1:I:551:ASN:OD1	1:I:555:LEU:HG	2.21	0.41
1:I:560:PHE:O	1:I:561:PRO:O	2.39	0.41
1:I:593:LEU:O	1:I:1201:TRP:CZ3	2.74	0.41
1:I:970:SER:HA	1:I:1011:PHE:CD2	2.55	0.41
1:I:1089:LEU:H	1:I:1105:ALA:HB2	1.86	0.41
1:I:1113:SER:N	1:I:1120:LEU:HD13	2.35	0.41
1:I:1217:GLY:HA3	1:I:1236:ASP:O	2.21	0.41
1:I:1247:LEU:HD12	1:I:1248:GLU:OE1	2.21	0.41
1:K:111:ARG:HG2	1:K:111:ARG:H	1.63	0.41
1:K:137:GLN:HE21	1:K:173:LEU:HD22	1.86	0.41
1:K:146:GLU:OE1	1:K:146:GLU:HA	2.21	0.41
1:K:230:LEU:CD2	1:K:234:LYS:CG	2.85	0.41
1:K:248:SER:O	1:K:249:TRP:C	2.57	0.41
1:K:261:LEU:C	1:K:261:LEU:CD1	2.85	0.41
1:K:441:GLN:O	1:K:445:LEU:HG	2.21	0.41
1:K:485:ASN:ND2	1:K:485:ASN:H	2.19	0.41
1:K:507:LEU:HD12	1:K:579:GLN:HG2	2.03	0.41
1:K:563:ILE:O	1:K:567:GLY:N	2.51	0.41
1:K:593:LEU:O	1:K:1201:TRP:CZ3	2.74	0.41
1:K:597:TRP:CZ3	1:K:600:LYS:HA	2.55	0.41
1:K:724:PHE:CE1	1:K:740:PHE:HB3	2.56	0.41
1:K:821:ILE:HD11	1:K:857:VAL:HG21	2.03	0.41
1:K:852:ASN:HB2	1:K:854:LEU:HG	2.02	0.41
1:K:858:ALA:HB2	1:K:864:VAL:HG22	2.03	0.41
1:K:862:TYR:CD1	1:K:885:VAL:N	2.84	0.41
1:K:970:SER:HA	1:K:1011:PHE:CD2	2.55	0.41
1:K:978:PHE:CZ	1:K:986:GLU:HB2	2.55	0.41
1:K:997:GLN:HB3	1:K:1030:TRP:HH2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1046:THR:CG2	1:K:1063:PHE:HE2	2.34	0.41
1:K:1089:LEU:H	1:K:1105:ALA:HB2	1.86	0.41
1:K:1194:SER:CB	1:K:1202:TRP:CE3	2.98	0.41
1:K:1212:THR:OG1	1:K:1213:PHE:N	2.53	0.41
1:M:174:LEU:O	1:M:178:PHE:HB2	2.20	0.41
1:M:241:ILE:C	1:M:242:LEU:CD1	2.81	0.41
1:M:246:TRP:HE3	1:M:374:MET:HG2	1.86	0.41
1:M:261:LEU:C	1:M:261:LEU:CD1	2.85	0.41
1:M:322:LEU:HG	1:M:359:TYR:HE2	1.85	0.41
1:M:364:LEU:HD22	1:M:364:LEU:HA	1.82	0.41
1:M:420:ASN:C	1:M:422:SER:N	2.74	0.41
1:M:485:ASN:ND2	1:M:485:ASN:H	2.19	0.41
1:M:507:LEU:CD1	1:M:579:GLN:CG	2.98	0.41
1:M:560:PHE:HA	1:M:561:PRO:HD2	1.68	0.41
1:M:724:PHE:CE1	1:M:740:PHE:HB3	2.56	0.41
1:M:818:LYS:O	1:M:843:ILE:HG13	2.21	0.41
1:M:910:GLU:HB3	1:M:913:LYS:HG3	2.02	0.41
1:M:920:VAL:C	1:M:921:MET:CG	2.85	0.41
1:M:1140:THR:OG1	1:M:1155:ASN:OD1	2.31	0.41
1:M:1208:GLU:CG	1:M:1211:GLN:HG2	2.49	0.41
2:N:18:HIS:CE1	2:N:30:PRO:CD	3.00	0.41
3:P:19:ASP:O	4:T:64:THR:CB	2.68	0.41
3:P:56:LEU:HD22	3:P:60:ILE:HD11	2.03	0.41
3:Q:14:GLU:O	3:Q:18:LYS:HG3	2.21	0.41
3:Q:24:TYR:CE1	4:T:52:ARG:NH2	2.65	0.41
3:Q:30:ILE:HD11	3:Q:40:GLU:HB2	2.03	0.41
3:Q:77:HIS:O	4:U:36:ARG:HD2	2.20	0.41
3:R:14:GLU:O	3:R:18:LYS:HG3	2.21	0.41
4:U:40:ILE:HD13	4:U:40:ILE:HA	1.94	0.41
4:U:80:THR:HG22	4:U:80:THR:O	2.20	0.41
3:X:46:GLU:O	3:X:52:ARG:HD3	2.21	0.41
1:A:246:TRP:HE3	1:A:374:MET:HG2	1.86	0.41
1:A:248:SER:O	1:A:249:TRP:C	2.57	0.41
1:A:910:GLU:HB3	1:A:913:LYS:HG3	2.02	0.41
1:A:1233:VAL:O	1:A:1233:VAL:CG2	2.68	0.41
1:C:222:GLU:OE2	1:E:204:THR:HG21	2.20	0.41
1:C:818:LYS:O	1:C:843:ILE:HG13	2.21	0.41
1:C:821:ILE:HD11	1:C:857:VAL:HG21	2.03	0.41
1:C:1163:HIS:HB3	1:C:1205:VAL:HG13	2.02	0.41
2:D:52:ASN:OD1	7:D:201:HEM:HBD1	2.20	0.41
1:E:138:GLN:HE21	1:E:139:LYS:CA	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:146:GLU:OE1	1:E:146:GLU:HA	2.21	0.41
1:E:174:LEU:O	1:E:178:PHE:HB2	2.20	0.41
1:E:441:GLN:O	1:E:445:LEU:HG	2.21	0.41
1:E:493:SER:O	1:E:495:LYS:HG3	2.20	0.41
1:E:612:ARG:HD3	1:E:614:HIS:O	2.21	0.41
1:E:651:LEU:HD22	1:E:651:LEU:HA	1.79	0.41
1:E:866:LEU:O	1:E:875:VAL:N	2.44	0.41
1:E:1182:ASP:CG	1:E:1223:ILE:HD13	2.42	0.41
1:G:139:LYS:O	1:G:142:LYS:HB3	2.21	0.41
1:G:1217:GLY:HA3	1:G:1236:ASP:O	2.21	0.41
1:I:474:SER:HB2	1:I:475:PRO:HD2	2.02	0.41
1:I:658:ASP:OD2	1:I:677:VAL:HG12	2.21	0.41
1:I:818:LYS:O	1:I:843:ILE:HG13	2.21	0.41
1:I:868:ASN:HB2	1:I:875:VAL:HG23	2.03	0.41
1:I:1093:ILE:O	1:I:1093:ILE:HG13	2.21	0.41
1:I:1187:PRO:HG3	1:I:1229:PHE:HB2	1.99	0.41
1:K:209:ASP:O	1:K:210:GLU:HB2	2.21	0.41
1:K:420:ASN:C	1:K:422:SER:N	2.74	0.41
1:K:560:PHE:O	1:K:561:PRO:O	2.39	0.41
1:K:572:GLU:HB3	1:K:573:THR:H	1.70	0.41
1:M:132:LEU:HA	1:M:132:LEU:HD23	1.77	0.41
1:M:209:ASP:O	1:M:210:GLU:HB2	2.21	0.41
1:M:516:LEU:HD12	1:M:516:LEU:HA	1.83	0.41
1:M:557:ARG:CG	1:M:558:GLN:N	2.79	0.41
1:M:591:GLY:O	1:M:592:MET:CB	2.56	0.41
1:M:595:LEU:HD13	1:M:1244:LEU:CG	2.50	0.41
1:M:597:TRP:CZ3	1:M:600:LYS:CB	3.02	0.41
1:M:1177:GLY:HA2	1:M:1197:GLY:N	2.32	0.41
1:M:1217:GLY:HA3	1:M:1236:ASP:O	2.21	0.41
1:M:1225:VAL:HG11	1:M:1229:PHE:CG	2.55	0.41
3:P:14:GLU:O	3:P:18:LYS:HG3	2.21	0.41
3:Q:27:ASP:OD2	4:T:52:ARG:NH2	2.54	0.41
3:R:9:LEU:HD23	3:R:9:LEU:HA	1.91	0.41
4:S:80:THR:O	4:S:80:THR:HG22	2.20	0.41
4:T:13:ARG:NH2	4:T:60:ILE:HD11	2.36	0.41
4:U:15:ARG:HD3	4:U:88:PHE:CD2	2.56	0.41
1:A:140:LEU:HD12	1:A:173:LEU:HD11	2.03	0.40
1:A:394:LYS:CB	1:A:434:ARG:CB	2.80	0.40
1:A:645:GLU:C	1:A:647:GLY:N	2.73	0.40
1:A:658:ASP:OD2	1:A:677:VAL:HG12	2.21	0.40
1:C:149:TRP:CZ3	1:C:251:LEU:HB3	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1212:THR:OG1	1:C:1213:PHE:N	2.53	0.40
1:C:1239:GLY:O	1:C:1240:ILE:HD12	2.21	0.40
1:E:209:ASP:O	1:E:210:GLU:HB2	2.21	0.40
1:E:403:LEU:HD11	1:E:459:LYS:NZ	2.36	0.40
1:E:1111:ILE:O	1:E:1120:LEU:N	2.54	0.40
1:E:1175:THR:OG1	1:E:1176:HIS:CE1	2.74	0.40
1:E:1176:HIS:CD2	1:E:1197:GLY:C	2.95	0.40
1:E:1247:LEU:HD12	1:E:1248:GLU:OE1	2.21	0.40
2:F:52:ASN:OD1	7:F:201:HEM:HBD1	2.20	0.40
1:G:140:LEU:HD12	1:G:173:LEU:HD11	2.03	0.40
1:G:146:GLU:OE1	1:G:146:GLU:HA	2.21	0.40
1:G:149:TRP:CZ3	1:G:251:LEU:HB3	2.57	0.40
1:G:209:ASP:O	1:G:210:GLU:HB2	2.21	0.40
1:G:229:ILE:CG2	1:G:233:ARG:HD3	2.31	0.40
1:G:295:LEU:HD22	1:G:295:LEU:HA	1.75	0.40
1:G:409:GLU:HG3	1:I:340:TYR:HH	1.76	0.40
1:G:431:LYS:HZ3	1:I:336:ASN:CB	2.29	0.40
1:G:595:LEU:HD22	1:G:1244:LEU:HD12	1.78	0.40
1:G:724:PHE:CE1	1:G:740:PHE:HB3	2.56	0.40
1:G:924:GLN:H	1:G:1238:LEU:HD21	1.86	0.40
1:G:1126:HIS:CD2	1:G:1128:GLY:H	2.38	0.40
1:G:1176:HIS:HB3	1:G:1218:THR:OG1	2.10	0.40
1:G:1178:GLY:O	1:G:1179:TRP:CB	2.69	0.40
1:G:1213:PHE:O	1:G:1214:TYR:CB	2.49	0.40
1:G:1225:VAL:CG1	1:G:1229:PHE:CE1	3.01	0.40
1:I:403:LEU:HD11	1:I:459:LYS:NZ	2.36	0.40
1:I:581:LYS:HD2	1:I:581:LYS:HA	1.68	0.40
1:I:1126:HIS:CD2	1:I:1128:GLY:H	2.38	0.40
1:I:1163:HIS:HB3	1:I:1205:VAL:HG13	2.02	0.40
1:I:1212:THR:OG1	1:I:1213:PHE:N	2.53	0.40
1:K:581:LYS:HD2	1:K:581:LYS:HA	1.68	0.40
1:K:815:VAL:O	1:K:821:ILE:HG23	2.21	0.40
1:M:279:VAL:HG23	1:M:279:VAL:O	2.20	0.40
1:M:551:ASN:OD1	1:M:555:LEU:HG	2.21	0.40
1:M:560:PHE:O	1:M:561:PRO:O	2.39	0.40
1:M:603:ILE:O	1:M:604:THR:HB	2.21	0.40
1:M:866:LEU:HD22	1:M:914:VAL:HG12	1.98	0.40
1:M:922:LEU:HD12	1:M:1241:LEU:CD2	2.39	0.40
1:M:1030:TRP:HA	1:M:1036:LYS:O	2.20	0.40
1:M:1139:SER:OG	1:M:1140:THR:N	2.51	0.40
4:S:45:ARG:CA	4:S:45:ARG:NE	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:326:LEU:CD2	1:A:353:ILE:HB	2.50	0.40
1:A:385:ASP:HB3	1:A:403:LEU:HD21	2.03	0.40
1:A:612:ARG:HD3	1:A:614:HIS:O	2.21	0.40
1:A:938:LEU:HD13	1:A:938:LEU:HA	1.85	0.40
1:A:939:ALA:O	1:A:946:LEU:HB2	2.21	0.40
1:A:1178:GLY:O	1:A:1179:TRP:CB	2.67	0.40
1:A:1239:GLY:O	1:A:1240:ILE:HD12	2.22	0.40
1:C:146:GLU:C	1:C:147:PRO:O	2.58	0.40
1:C:209:ASP:O	1:C:210:GLU:HB2	2.21	0.40
1:C:279:VAL:O	1:C:279:VAL:HG23	2.20	0.40
1:C:551:ASN:OD1	1:C:555:LEU:HG	2.21	0.40
1:C:560:PHE:O	1:C:561:PRO:O	2.39	0.40
1:C:815:VAL:O	1:C:821:ILE:HG23	2.21	0.40
1:E:139:LYS:O	1:E:142:LYS:HB3	2.21	0.40
1:G:551:ASN:OD1	1:G:555:LEU:HG	2.21	0.40
1:G:593:LEU:O	1:G:1201:TRP:CZ3	2.74	0.40
1:G:910:GLU:HB3	1:G:913:LYS:HG3	2.02	0.40
1:G:939:ALA:O	1:G:946:LEU:HB2	2.21	0.40
1:I:256:SER:O	1:I:257:GLN:CB	2.65	0.40
1:I:452:GLN:O	1:I:456:LEU:HG	2.20	0.40
1:I:507:LEU:HD12	1:I:579:GLN:HG2	2.03	0.40
1:I:922:LEU:CD1	1:I:1241:LEU:CD2	2.87	0.40
1:I:978:PHE:CZ	1:I:986:GLU:HB2	2.55	0.40
1:I:1032:TRP:O	1:I:1034:LEU:N	2.49	0.40
1:K:327:ILE:HD13	1:K:327:ILE:HA	1.82	0.40
1:K:389:LEU:HD21	1:K:395:VAL:HG11	2.03	0.40
1:K:513:LYS:O	1:K:517:VAL:CB	2.62	0.40
1:K:639:LEU:CD1	1:K:641:VAL:HG23	2.51	0.40
1:M:389:LEU:HD21	1:M:395:VAL:HG11	2.03	0.40
1:M:474:SER:HB2	1:M:475:PRO:HD2	2.02	0.40
1:M:593:LEU:O	1:M:1201:TRP:CZ3	2.74	0.40
1:M:637:LYS:CG	1:M:658:ASP:O	2.69	0.40
1:M:1182:ASP:CG	1:M:1223:ILE:HD13	2.42	0.40
1:M:1239:GLY:O	1:M:1240:ILE:HD12	2.21	0.40
2:N:18:HIS:NE2	2:N:29:GLY:HA3	2.29	0.40
3:O:10:LEU:HA	3:O:13:ARG:HD2	2.03	0.40
3:Q:28:HIS:CA	4:T:14:LEU:CG	2.79	0.40
4:T:21:GLN:H	4:T:82:GLN:NE2	2.18	0.40
1:A:149:TRP:CZ3	1:A:251:LEU:HB3	2.56	0.40
1:A:474:SER:HB2	1:A:475:PRO:HD2	2.03	0.40
1:A:573:THR:C	1:A:577:TYR:HB3	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:595:LEU:HD13	1:A:1244:LEU:CG	2.50	0.40
1:A:637:LYS:CG	1:A:658:ASP:O	2.69	0.40
1:A:858:ALA:HB2	1:A:864:VAL:HG22	2.03	0.40
2:B:18:HIS:NE2	7:B:201:HEM:C4C	2.88	0.40
1:C:385:ASP:HB3	1:C:403:LEU:HD21	2.03	0.40
1:C:507:LEU:HD11	1:C:579:GLN:HG2	2.03	0.40
1:C:557:ARG:CG	1:C:558:GLN:N	2.79	0.40
1:C:637:LYS:CG	1:C:658:ASP:O	2.69	0.40
1:C:645:GLU:HB3	1:C:646:THR:H	1.70	0.40
1:C:1089:LEU:H	1:C:1105:ALA:HB2	1.86	0.40
1:E:507:LEU:HD12	1:E:579:GLN:HG2	2.03	0.40
1:E:724:PHE:CE1	1:E:740:PHE:HB3	2.56	0.40
1:E:818:LYS:O	1:E:843:ILE:HG13	2.21	0.40
1:E:910:GLU:HB3	1:E:913:LYS:HG3	2.02	0.40
1:G:137:GLN:HE21	1:G:173:LEU:HD22	1.87	0.40
1:G:174:LEU:O	1:G:178:PHE:HB2	2.20	0.40
1:G:262:LEU:HG	1:G:262:LEU:O	2.19	0.40
1:G:429:ASN:O	1:G:432:SER:O	2.39	0.40
1:G:553:HIS:CG	1:G:554:LEU:N	2.89	0.40
1:G:868:ASN:HB2	1:G:875:VAL:HG23	2.03	0.40
1:I:137:GLN:HE21	1:I:173:LEU:HD22	1.86	0.40
1:I:603:ILE:O	1:I:604:THR:HB	2.21	0.40
1:I:815:VAL:O	1:I:821:ILE:HG23	2.21	0.40
1:I:1176:HIS:CD2	1:I:1197:GLY:C	2.95	0.40
1:K:155:MET:HE2	1:K:155:MET:HB2	1.83	0.40
1:K:361:TYR:HB3	1:K:366:GLU:HG2	2.01	0.40
1:K:429:ASN:O	1:K:432:SER:O	2.39	0.40
1:K:818:LYS:O	1:K:843:ILE:HG13	2.21	0.40
1:K:868:ASN:HB2	1:K:875:VAL:HG23	2.03	0.40
1:K:999:ARG:CZ	1:K:1000:PHE:N	2.82	0.40
1:K:1176:HIS:HB3	1:K:1218:THR:OG1	2.10	0.40
1:K:1182:ASP:CG	1:K:1223:ILE:HD13	2.42	0.40
1:K:1200:LYS:HA	1:K:1211:GLN:O	2.21	0.40
1:K:1239:GLY:O	1:K:1240:ILE:HD12	2.21	0.40
1:M:127:VAL:HG11	1:M:293:GLU:HG2	2.04	0.40
1:M:146:GLU:OE1	1:M:146:GLU:HA	2.21	0.40
1:M:149:TRP:CZ3	1:M:251:LEU:HB3	2.56	0.40
1:M:245:VAL:C	1:M:246:TRP:HD1	2.23	0.40
1:M:390:GLN:HB3	1:M:393:VAL:CG2	2.51	0.40
1:M:543:ASN:OD1	1:M:574:SER:HB2	2.21	0.40
1:M:549:SER:OG	1:M:608:ARG:O	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:815:VAL:O	1:M:821:ILE:HG23	2.21	0.40
1:M:1233:VAL:O	1:M:1233:VAL:CG2	2.68	0.40
3:Q:10:LEU:HA	3:Q:13:ARG:HD2	2.04	0.40
4:S:7:ARG:HG3	4:S:7:ARG:NH1	2.37	0.40
4:V:13:ARG:HD3	4:V:59:ILE:HD11	2.04	0.40
1:A:1182:ASP:CG	1:A:1223:ILE:HD13	2.42	0.40
1:A:1232:TYR:HD2	1:A:1244:LEU:HD21	1.87	0.40
1:C:137:GLN:HE21	1:C:173:LEU:HD22	1.87	0.40
1:C:138:GLN:HE21	1:C:139:LYS:CA	2.35	0.40
1:C:146:GLU:O	1:C:147:PRO:C	2.60	0.40
1:C:407:GLU:H	1:C:407:GLU:HG2	1.47	0.40
1:C:868:ASN:HB2	1:C:875:VAL:HG23	2.03	0.40
1:C:970:SER:HA	1:C:1011:PHE:CD2	2.55	0.40
1:C:1182:ASP:CG	1:C:1223:ILE:HD13	2.42	0.40
1:C:1194:SER:CB	1:C:1202:TRP:CE3	2.98	0.40
1:E:251:LEU:CD1	1:E:269:VAL:HG12	2.52	0.40
1:E:385:ASP:HB3	1:E:403:LEU:HD21	2.03	0.40
1:E:529:TYR:CD1	1:E:529:TYR:C	2.95	0.40
1:E:543:ASN:OD1	1:E:574:SER:HB2	2.21	0.40
1:E:572:GLU:HB3	1:E:573:THR:H	1.70	0.40
1:E:593:LEU:O	1:E:1201:TRP:CZ3	2.74	0.40
1:E:603:ILE:CD1	1:E:1242:TYR:CE1	3.00	0.40
1:E:999:ARG:HD2	1:E:999:ARG:HA	1.74	0.40
1:E:1232:TYR:HD2	1:E:1244:LEU:HD21	1.87	0.40
1:G:127:VAL:HG11	1:G:293:GLU:HG2	2.04	0.40
1:G:270:THR:O	1:G:270:THR:OG1	2.32	0.40
1:G:393:VAL:O	1:G:393:VAL:HG23	2.22	0.40
1:G:400:LEU:O	1:G:404:TRP:CE3	2.74	0.40
1:G:486:PHE:HA	1:G:489:TYR:HB3	2.03	0.40
1:G:507:LEU:HD12	1:G:579:GLN:HG2	2.03	0.40
1:G:1163:HIS:HB3	1:G:1205:VAL:HG13	2.02	0.40
1:G:1247:LEU:HD12	1:G:1248:GLU:OE1	2.21	0.40
2:H:52:ASN:OD1	7:H:201:HEM:HBD1	2.21	0.40
1:I:360:ASP:O	1:I:361:TYR:CG	2.75	0.40
1:I:364:LEU:CD1	1:I:364:LEU:C	2.90	0.40
1:I:460:ILE:HG23	1:I:461:ILE:N	2.37	0.40
1:K:147:PRO:HB3	1:K:257:GLN:O	2.22	0.40
1:K:149:TRP:CZ3	1:K:251:LEU:HB3	2.57	0.40
1:K:407:GLU:O	1:K:411:VAL:HG23	2.22	0.40
1:K:533:LEU:HB3	1:K:534:ASP:H	1.59	0.40
1:K:603:ILE:O	1:K:604:THR:HB	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1244:LEU:HD12	1:K:1244:LEU:C	2.42	0.40
1:M:137:GLN:HE21	1:M:173:LEU:HD22	1.86	0.40
1:M:286:LEU:HD13	1:M:286:LEU:HA	1.98	0.40
1:M:327:ILE:CD1	1:M:353:ILE:CG2	3.00	0.40
1:M:639:LEU:CD1	1:M:641:VAL:HG23	2.51	0.40
1:M:923:LYS:HA	1:M:923:LYS:HD3	1.82	0.40
1:M:1046:THR:CG2	1:M:1063:PHE:HE2	2.34	0.40
3:Q:19:ASP:C	4:U:64:THR:HB	2.42	0.40
4:S:52:ARG:HD2	4:T:38:HIS:ND1	2.37	0.40
4:V:80:THR:O	4:V:80:THR:HG22	2.20	0.40
4:Y:20:LEU:HD21	4:Y:77:LEU:HD21	2.04	0.40
1:A:127:VAL:HG11	1:A:293:GLU:HG2	2.04	0.40
1:A:138:GLN:HE21	1:A:139:LYS:CA	2.35	0.40
1:A:149:TRP:CH2	1:A:273:VAL:CG1	2.98	0.40
1:A:208:GLN:H	1:A:208:GLN:HG3	1.48	0.40
1:A:230:LEU:CD2	1:A:234:LYS:CG	2.85	0.40
1:A:295:LEU:HD22	1:A:295:LEU:HA	1.76	0.40
1:A:390:GLN:HB3	1:A:393:VAL:CG2	2.52	0.40
1:A:434:ARG:HG3	1:A:434:ARG:HH21	1.86	0.40
1:A:507:LEU:HD11	1:A:579:GLN:HG2	2.03	0.40
1:A:553:HIS:CG	1:A:554:LEU:N	2.88	0.40
1:A:724:PHE:CE1	1:A:740:PHE:HB3	2.56	0.40
1:A:862:TYR:CD1	1:A:885:VAL:N	2.84	0.40
1:A:866:LEU:CD2	1:A:914:VAL:HB	2.43	0.40
1:A:1111:ILE:O	1:A:1120:LEU:N	2.54	0.40
1:A:1160:GLU:O	1:A:1162:LEU:N	2.49	0.40
2:B:14:CYS:CB	7:B:201:HEM:CAB	2.96	0.40
1:C:160:LYS:HZ2	1:C:160:LYS:HB2	1.87	0.40
1:C:251:LEU:CD1	1:C:269:VAL:HG12	2.52	0.40
1:C:364:LEU:CD1	1:C:364:LEU:C	2.90	0.40
1:C:389:LEU:HD21	1:C:395:VAL:HG11	2.03	0.40
1:C:402:ILE:HG12	1:C:402:ILE:H	1.65	0.40
1:E:137:GLN:HE21	1:E:173:LEU:HD22	1.86	0.40
1:E:460:ILE:HG23	1:E:461:ILE:N	2.37	0.40
1:E:750:ARG:HB2	1:E:806:TRP:HE1	1.85	0.40
1:E:1032:TRP:O	1:E:1034:LEU:N	2.50	0.40
1:E:1093:ILE:O	1:E:1093:ILE:HG13	2.21	0.40
1:E:1244:LEU:HD12	1:E:1244:LEU:C	2.42	0.40
1:G:140:LEU:C	1:G:140:LEU:CD1	2.86	0.40
1:G:1244:LEU:HD12	1:G:1244:LEU:C	2.42	0.40
1:I:140:LEU:HD12	1:I:173:LEU:HD11	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:389:LEU:HD21	1:I:395:VAL:HG11	2.03	0.40
1:I:434:ARG:HG3	1:I:434:ARG:HH21	1.87	0.40
1:I:727:LEU:HB2	1:I:739:MET:HE1	2.02	0.40
1:I:882:LEU:O	1:I:883:SER:CB	2.70	0.40
1:I:924:GLN:H	1:I:1238:LEU:HD21	1.86	0.40
1:I:938:LEU:HD13	1:I:938:LEU:HA	1.85	0.40
1:I:997:GLN:HB3	1:I:1030:TRP:HH2	1.86	0.40
1:I:1182:ASP:CG	1:I:1223:ILE:HD13	2.42	0.40
1:I:1200:LYS:HA	1:I:1211:GLN:O	2.21	0.40
1:I:1244:LEU:HD12	1:I:1244:LEU:C	2.42	0.40
1:K:507:LEU:HD11	1:K:579:GLN:HG2	2.03	0.40
1:K:558:GLN:CB	1:K:559:PRO:CD	2.75	0.40
1:K:882:LEU:O	1:K:883:SER:CB	2.70	0.40
1:K:884:TRP:CH2	2:L:81:ILE:CD1	3.05	0.40
1:M:260:ILE:O	1:M:260:ILE:HG12	2.20	0.40
1:M:533:LEU:HB3	1:M:534:ASP:H	1.59	0.40
1:M:821:ILE:HD11	1:M:857:VAL:HG21	2.03	0.40
1:M:866:LEU:CD2	1:M:914:VAL:HB	2.43	0.40
1:M:997:GLN:HB3	1:M:1030:TRP:HH2	1.86	0.40
1:M:1089:LEU:H	1:M:1105:ALA:HB2	1.87	0.40
4:U:72:LEU:HD12	4:U:72:LEU:HA	1.95	0.40
4:Y:8:LEU:HD23	4:Y:8:LEU:O	2.22	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	1142/1248 (92%)	1002 (88%)	93 (8%)	47 (4%)	3 25
1	C	1142/1248 (92%)	1002 (88%)	94 (8%)	46 (4%)	3 26
1	E	1142/1248 (92%)	999 (88%)	95 (8%)	48 (4%)	3 25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	G	1142/1248 (92%)	1002 (88%)	93 (8%)	47 (4%)	3	25
1	I	1142/1248 (92%)	1002 (88%)	93 (8%)	47 (4%)	3	25
1	K	1142/1248 (92%)	1002 (88%)	93 (8%)	47 (4%)	3	25
1	M	1142/1248 (92%)	1002 (88%)	93 (8%)	47 (4%)	3	25
2	B	102/105 (97%)	100 (98%)	2 (2%)	0	100	100
2	D	102/105 (97%)	100 (98%)	2 (2%)	0	100	100
2	F	102/105 (97%)	100 (98%)	2 (2%)	0	100	100
2	H	102/105 (97%)	100 (98%)	2 (2%)	0	100	100
2	J	102/105 (97%)	100 (98%)	2 (2%)	0	100	100
2	L	102/105 (97%)	100 (98%)	2 (2%)	0	100	100
2	N	102/105 (97%)	100 (98%)	2 (2%)	0	100	100
3	O	89/102 (87%)	86 (97%)	3 (3%)	0	100	100
3	P	89/102 (87%)	87 (98%)	2 (2%)	0	100	100
3	Q	89/102 (87%)	86 (97%)	3 (3%)	0	100	100
3	R	89/102 (87%)	87 (98%)	2 (2%)	0	100	100
3	W	93/102 (91%)	93 (100%)	0	0	100	100
3	X	90/102 (88%)	90 (100%)	0	0	100	100
4	S	94/100 (94%)	92 (98%)	2 (2%)	0	100	100
4	T	94/100 (94%)	91 (97%)	3 (3%)	0	100	100
4	U	94/100 (94%)	88 (94%)	6 (6%)	0	100	100
4	V	94/100 (94%)	92 (98%)	2 (2%)	0	100	100
4	Y	93/100 (93%)	92 (99%)	1 (1%)	0	100	100
All	All	9716/10583 (92%)	8695 (90%)	692 (7%)	329 (3%)	6	29

All (329) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	147	PRO
1	A	557	ARG
1	A	560	PHE
1	A	562	ASN
1	A	574	SER
1	A	645	GLU
1	A	795	GLU

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Mol	Chain	Res	Type
1	A	841	SER
1	A	885	VAL
1	A	904	GLN
1	A	932	GLU
1	A	1176	HIS
1	A	1212	THR
1	A	1240	ILE
1	C	147	PRO
1	C	557	ARG
1	C	560	PHE
1	C	562	ASN
1	C	574	SER
1	C	645	GLU
1	C	795	GLU
1	C	841	SER
1	C	885	VAL
1	C	904	GLN
1	C	932	GLU
1	C	1176	HIS
1	C	1212	THR
1	C	1240	ILE
1	E	147	PRO
1	E	557	ARG
1	E	560	PHE
1	E	562	ASN
1	E	574	SER
1	E	645	GLU
1	E	795	GLU
1	E	841	SER
1	E	885	VAL
1	E	904	GLN
1	E	932	GLU
1	E	1176	HIS
1	E	1212	THR
1	E	1240	ILE
1	G	147	PRO
1	G	557	ARG
1	G	560	PHE
1	G	562	ASN
1	G	574	SER
1	G	645	GLU
1	G	795	GLU

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Mol	Chain	Res	Type
1	G	841	SER
1	G	885	VAL
1	G	904	GLN
1	G	932	GLU
1	G	1176	HIS
1	G	1212	THR
1	G	1240	ILE
1	I	147	PRO
1	I	557	ARG
1	I	560	PHE
1	I	562	ASN
1	I	574	SER
1	I	645	GLU
1	I	795	GLU
1	I	841	SER
1	I	885	VAL
1	I	904	GLN
1	I	932	GLU
1	I	1176	HIS
1	I	1212	THR
1	I	1240	ILE
1	K	147	PRO
1	K	557	ARG
1	K	560	PHE
1	K	562	ASN
1	K	574	SER
1	K	645	GLU
1	K	795	GLU
1	K	841	SER
1	K	885	VAL
1	K	904	GLN
1	K	932	GLU
1	K	1176	HIS
1	K	1212	THR
1	K	1240	ILE
1	M	147	PRO
1	M	557	ARG
1	M	560	PHE
1	M	562	ASN
1	M	574	SER
1	M	645	GLU
1	M	795	GLU

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Mol	Chain	Res	Type
1	M	841	SER
1	M	885	VAL
1	M	904	GLN
1	M	932	GLU
1	M	1176	HIS
1	M	1212	THR
1	M	1240	ILE
1	A	245	VAL
1	A	558	GLN
1	A	561	PRO
1	A	573	THR
1	A	884	TRP
1	A	1178	GLY
1	A	1214	TYR
1	C	245	VAL
1	C	558	GLN
1	C	561	PRO
1	C	573	THR
1	C	884	TRP
1	C	1178	GLY
1	C	1214	TYR
1	E	237	ARG
1	E	245	VAL
1	E	558	GLN
1	E	561	PRO
1	E	573	THR
1	E	884	TRP
1	E	1178	GLY
1	E	1214	TYR
1	G	245	VAL
1	G	558	GLN
1	G	561	PRO
1	G	573	THR
1	G	884	TRP
1	G	1178	GLY
1	G	1214	TYR
1	I	245	VAL
1	I	558	GLN
1	I	561	PRO
1	I	573	THR
1	I	884	TRP
1	I	1178	GLY

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Mol	Chain	Res	Type
1	I	1214	TYR
1	K	245	VAL
1	K	558	GLN
1	K	561	PRO
1	K	573	THR
1	K	884	TRP
1	K	1178	GLY
1	K	1214	TYR
1	M	245	VAL
1	M	558	GLN
1	M	561	PRO
1	M	573	THR
1	M	884	TRP
1	M	1178	GLY
1	M	1214	TYR
1	A	281	PRO
1	A	559	PRO
1	A	568	LEU
1	A	572	GLU
1	A	679	LYS
1	A	921	MET
1	A	1158	ASN
1	A	1171	GLU
1	A	1206	THR
1	C	281	PRO
1	C	559	PRO
1	C	568	LEU
1	C	572	GLU
1	C	679	LYS
1	C	921	MET
1	C	1158	ASN
1	C	1171	GLU
1	C	1206	THR
1	E	236	PRO
1	E	281	PRO
1	E	559	PRO
1	E	568	LEU
1	E	572	GLU
1	E	679	LYS
1	E	1158	ASN
1	E	1171	GLU
1	E	1206	THR

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Mol	Chain	Res	Type
1	G	281	PRO
1	G	559	PRO
1	G	568	LEU
1	G	572	GLU
1	G	679	LYS
1	G	921	MET
1	G	1158	ASN
1	G	1171	GLU
1	G	1206	THR
1	I	281	PRO
1	I	559	PRO
1	I	568	LEU
1	I	572	GLU
1	I	679	LYS
1	I	921	MET
1	I	1158	ASN
1	I	1171	GLU
1	I	1206	THR
1	K	281	PRO
1	K	559	PRO
1	K	568	LEU
1	K	572	GLU
1	K	679	LYS
1	K	921	MET
1	K	1158	ASN
1	K	1171	GLU
1	K	1206	THR
1	M	281	PRO
1	M	559	PRO
1	M	568	LEU
1	M	572	GLU
1	M	679	LYS
1	M	921	MET
1	M	1158	ASN
1	M	1171	GLU
1	M	1206	THR
1	A	697	GLU
1	A	963	GLN
1	A	1022	SER
1	A	1129	CYS
1	A	1205	VAL
1	C	697	GLU

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Mol	Chain	Res	Type
1	C	963	GLN
1	C	1022	SER
1	C	1129	CYS
1	C	1205	VAL
1	E	697	GLU
1	E	921	MET
1	E	963	GLN
1	E	1022	SER
1	E	1129	CYS
1	E	1179	TRP
1	E	1205	VAL
1	G	697	GLU
1	G	963	GLN
1	G	1022	SER
1	G	1129	CYS
1	G	1179	TRP
1	G	1205	VAL
1	I	697	GLU
1	I	963	GLN
1	I	1022	SER
1	I	1129	CYS
1	I	1179	TRP
1	I	1205	VAL
1	K	697	GLU
1	K	963	GLN
1	K	1022	SER
1	K	1129	CYS
1	K	1179	TRP
1	K	1205	VAL
1	M	697	GLU
1	M	963	GLN
1	M	1022	SER
1	M	1129	CYS
1	M	1205	VAL
1	A	637	LYS
1	A	919	ALA
1	A	1002	HIS
1	A	1007	TRP
1	A	1073	ILE
1	A	1107	LYS
1	A	1179	TRP
1	C	637	LYS

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Mol	Chain	Res	Type
1	C	919	ALA
1	C	1007	TRP
1	C	1073	ILE
1	C	1107	LYS
1	C	1179	TRP
1	E	637	LYS
1	E	919	ALA
1	E	1007	TRP
1	E	1073	ILE
1	E	1107	LYS
1	G	637	LYS
1	G	919	ALA
1	G	1007	TRP
1	G	1073	ILE
1	G	1107	LYS
1	I	637	LYS
1	I	919	ALA
1	I	1007	TRP
1	I	1073	ILE
1	I	1107	LYS
1	K	637	LYS
1	K	919	ALA
1	K	1007	TRP
1	K	1073	ILE
1	K	1107	LYS
1	M	637	LYS
1	M	919	ALA
1	M	1007	TRP
1	M	1073	ILE
1	M	1107	LYS
1	A	741	GLY
1	A	883	SER
1	C	741	GLY
1	C	1002	HIS
1	E	741	GLY
1	E	1002	HIS
1	G	741	GLY
1	G	883	SER
1	G	1002	HIS
1	I	741	GLY
1	I	883	SER
1	I	1002	HIS

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Mol	Chain	Res	Type
1	K	741	GLY
1	K	883	SER
1	K	1002	HIS
1	M	741	GLY
1	M	883	SER
1	M	1002	HIS
1	M	1179	TRP
1	A	146	GLU
1	A	571	PRO
1	C	146	GLU
1	C	571	PRO
1	E	146	GLU
1	E	571	PRO
1	G	146	GLU
1	G	571	PRO
1	I	146	GLU
1	I	571	PRO
1	K	146	GLU
1	K	571	PRO
1	M	146	GLU
1	M	571	PRO
1	A	920	VAL
1	C	920	VAL
1	E	920	VAL
1	G	920	VAL
1	I	920	VAL
1	K	920	VAL
1	M	920	VAL

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	1027/1119 (92%)	840 (82%)	187 (18%)	1 11
1	C	1027/1119 (92%)	840 (82%)	187 (18%)	1 11
1	E	1027/1119 (92%)	840 (82%)	187 (18%)	1 11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	G	1027/1119 (92%)	840 (82%)	187 (18%)	1	11
1	I	1027/1119 (92%)	840 (82%)	187 (18%)	1	11
1	K	1027/1119 (92%)	839 (82%)	188 (18%)	1	11
1	M	1027/1119 (92%)	840 (82%)	187 (18%)	1	11
2	B	86/87 (99%)	80 (93%)	6 (7%)	15	41
2	D	86/87 (99%)	81 (94%)	5 (6%)	20	47
2	F	86/87 (99%)	80 (93%)	6 (7%)	15	41
2	H	86/87 (99%)	81 (94%)	5 (6%)	20	47
2	J	86/87 (99%)	80 (93%)	6 (7%)	15	41
2	L	86/87 (99%)	80 (93%)	6 (7%)	15	41
2	N	86/87 (99%)	80 (93%)	6 (7%)	15	41
3	O	80/90 (89%)	77 (96%)	3 (4%)	33	58
3	P	80/90 (89%)	76 (95%)	4 (5%)	24	51
3	Q	80/90 (89%)	76 (95%)	4 (5%)	24	51
3	R	80/90 (89%)	76 (95%)	4 (5%)	24	51
3	W	84/90 (93%)	82 (98%)	2 (2%)	49	69
3	X	81/90 (90%)	79 (98%)	2 (2%)	47	68
4	S	85/89 (96%)	73 (86%)	12 (14%)	3	19
4	T	85/89 (96%)	80 (94%)	5 (6%)	19	47
4	U	85/89 (96%)	79 (93%)	6 (7%)	14	41
4	V	85/89 (96%)	77 (91%)	8 (9%)	8	30
4	Y	84/89 (94%)	77 (92%)	7 (8%)	11	37
All	All	8700/9427 (92%)	7293 (84%)	1407 (16%)	5	15

All (1407) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	114	LEU
1	A	116	GLU
1	A	122	ARG
1	A	126	PHE
1	A	128	THR
1	A	129	ARG
1	A	130	LYS

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Mol	Chain	Res	Type
1	A	138	GLN
1	A	139	LYS
1	A	142	LYS
1	A	143	LEU
1	A	144	LYS
1	A	153	HIS
1	A	155	MET
1	A	158	CYS
1	A	160	LYS
1	A	166	GLU
1	A	173	LEU
1	A	174	LEU
1	A	189	LYS
1	A	198	LYS
1	A	206	LEU
1	A	208	GLN
1	A	213	SER
1	A	225	ASP
1	A	226	ARG
1	A	231	MET
1	A	233	ARG
1	A	234	LYS
1	A	237	ARG
1	A	239	LEU
1	A	240	LEU
1	A	243	ASP
1	A	244	ASP
1	A	248	SER
1	A	252	LYS
1	A	256	SER
1	A	259	GLN
1	A	260	ILE
1	A	261	LEU
1	A	262	LEU
1	A	266	ASP
1	A	267	LYS
1	A	268	SER
1	A	273	VAL
1	A	277	LYS
1	A	278	TYR
1	A	283	GLU
1	A	286	LEU

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Mol	Chain	Res	Type
1	A	288	LYS
1	A	290	LYS
1	A	293	GLU
1	A	294	ILE
1	A	295	LEU
1	A	298	PHE
1	A	301	MET
1	A	302	LYS
1	A	303	LYS
1	A	308	GLU
1	A	309	GLN
1	A	311	HIS
1	A	317	CYS
1	A	318	LYS
1	A	322	LEU
1	A	325	SER
1	A	326	LEU
1	A	332	ARG
1	A	333	ASP
1	A	334	PHE
1	A	337	ARG
1	A	348	LYS
1	A	352	ARG
1	A	353	ILE
1	A	357	SER
1	A	358	SER
1	A	359	TYR
1	A	360	ASP
1	A	362	GLU
1	A	368	MET
1	A	373	GLU
1	A	374	MET
1	A	376	ARG
1	A	383	TYR
1	A	384	THR
1	A	386	LEU
1	A	389	LEU
1	A	391	LYS
1	A	397	THR
1	A	402	ILE
1	A	403	LEU
1	A	404	TRP

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Mol	Chain	Res	Type
1	A	405	ASP
1	A	406	MET
1	A	407	GLU
1	A	416	GLN
1	A	426	CYS
1	A	428	ARG
1	A	429	ASN
1	A	431	LYS
1	A	434	ARG
1	A	438	HIS
1	A	439	ASP
1	A	443	ASP
1	A	449	ASN
1	A	450	CYS
1	A	455	ASP
1	A	456	LEU
1	A	476	ASP
1	A	477	GLN
1	A	489	TYR
1	A	490	HIS
1	A	493	SER
1	A	505	PHE
1	A	514	THR
1	A	515	GLU
1	A	522	LEU
1	A	524	HIS
1	A	528	GLU
1	A	529	TYR
1	A	530	ARG
1	A	531	HIS
1	A	532	ILE
1	A	533	LEU
1	A	534	ASP
1	A	537	ASP
1	A	546	GLU
1	A	550	LEU
1	A	553	HIS
1	A	557	ARG
1	A	562	ASN
1	A	568	LEU
1	A	572	GLU
1	A	573	THR

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Mol	Chain	Res	Type
1	A	576	VAL
1	A	578	GLN
1	A	585	LYS
1	A	586	GLN
1	A	587	GLU
1	A	588	VAL
1	A	596	GLU
1	A	598	ILE
1	A	600	LYS
1	A	616	ASP
1	A	619	TYR
1	A	633	CYS
1	A	643	LYS
1	A	645	GLU
1	A	646	THR
1	A	649	LYS
1	A	651	LEU
1	A	654	LYS
1	A	657	GLU
1	A	658	ASP
1	A	659	GLU
1	A	879	ARG
1	A	881	HIS
1	A	882	LEU
1	A	902	ASP
1	A	907	ARG
1	A	918	SER
1	A	921	MET
1	A	925	GLU
1	A	938	LEU
1	A	940	VAL
1	A	948	LEU
1	A	999	ARG
1	A	1078	GLU
1	A	1164	LEU
1	A	1165	CYS
1	A	1168	LEU
1	A	1170	GLU
1	A	1171	GLU
1	A	1179	TRP
1	A	1181	THR
1	A	1182	ASP

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Mol	Chain	Res	Type
1	A	1183	LEU
1	A	1192	LEU
1	A	1211	GLN
1	A	1218	THR
1	A	1219	ASN
1	A	1220	LEU
1	A	1226	SER
1	A	1229	PHE
1	A	1232	TYR
1	A	1240	ILE
1	A	1245	GLN
1	A	1247	LEU
2	B	12	GLN
2	B	38	ARG
2	B	39	LYS
2	B	52	ASN
2	B	53	LYS
2	B	86	LYS
1	C	114	LEU
1	C	116	GLU
1	C	122	ARG
1	C	126	PHE
1	C	128	THR
1	C	129	ARG
1	C	130	LYS
1	C	138	GLN
1	C	139	LYS
1	C	142	LYS
1	C	143	LEU
1	C	144	LYS
1	C	153	HIS
1	C	155	MET
1	C	158	CYS
1	C	160	LYS
1	C	166	GLU
1	C	173	LEU
1	C	174	LEU
1	C	189	LYS
1	C	198	LYS
1	C	206	LEU
1	C	208	GLN
1	C	213	SER

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Mol	Chain	Res	Type
1	C	225	ASP
1	C	226	ARG
1	C	231	MET
1	C	233	ARG
1	C	234	LYS
1	C	237	ARG
1	C	239	LEU
1	C	240	LEU
1	C	243	ASP
1	C	244	ASP
1	C	248	SER
1	C	252	LYS
1	C	256	SER
1	C	259	GLN
1	C	260	ILE
1	C	261	LEU
1	C	262	LEU
1	C	266	ASP
1	C	267	LYS
1	C	268	SER
1	C	273	VAL
1	C	277	LYS
1	C	278	TYR
1	C	283	GLU
1	C	286	LEU
1	C	288	LYS
1	C	290	LYS
1	C	293	GLU
1	C	294	ILE
1	C	295	LEU
1	C	298	PHE
1	C	301	MET
1	C	302	LYS
1	C	303	LYS
1	C	308	GLU
1	C	309	GLN
1	C	311	HIS
1	C	317	CYS
1	C	318	LYS
1	C	322	LEU
1	C	325	SER
1	C	326	LEU

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Mol	Chain	Res	Type
1	C	332	ARG
1	C	333	ASP
1	C	334	PHE
1	C	337	ARG
1	C	348	LYS
1	C	352	ARG
1	C	353	ILE
1	C	357	SER
1	C	358	SER
1	C	359	TYR
1	C	360	ASP
1	C	362	GLU
1	C	368	MET
1	C	373	GLU
1	C	374	MET
1	C	376	ARG
1	C	383	TYR
1	C	384	THR
1	C	386	LEU
1	C	389	LEU
1	C	391	LYS
1	C	397	THR
1	C	402	ILE
1	C	403	LEU
1	C	404	TRP
1	C	405	ASP
1	C	406	MET
1	C	407	GLU
1	C	416	GLN
1	C	426	CYS
1	C	428	ARG
1	C	429	ASN
1	C	431	LYS
1	C	434	ARG
1	C	438	HIS
1	C	439	ASP
1	C	443	ASP
1	C	449	ASN
1	C	450	CYS
1	C	455	ASP
1	C	456	LEU
1	C	476	ASP

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Mol	Chain	Res	Type
1	C	477	GLN
1	C	489	TYR
1	C	490	HIS
1	C	493	SER
1	C	505	PHE
1	C	514	THR
1	C	515	GLU
1	C	522	LEU
1	C	524	HIS
1	C	528	GLU
1	C	529	TYR
1	C	530	ARG
1	C	531	HIS
1	C	532	ILE
1	C	533	LEU
1	C	534	ASP
1	C	537	ASP
1	C	546	GLU
1	C	550	LEU
1	C	553	HIS
1	C	557	ARG
1	C	562	ASN
1	C	568	LEU
1	C	572	GLU
1	C	573	THR
1	C	576	VAL
1	C	578	GLN
1	C	585	LYS
1	C	586	GLN
1	C	587	GLU
1	C	588	VAL
1	C	596	GLU
1	C	598	ILE
1	C	600	LYS
1	C	616	ASP
1	C	619	TYR
1	C	633	CYS
1	C	643	LYS
1	C	645	GLU
1	C	646	THR
1	C	649	LYS
1	C	651	LEU

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Mol	Chain	Res	Type
1	C	654	LYS
1	C	657	GLU
1	C	658	ASP
1	C	659	GLU
1	C	879	ARG
1	C	881	HIS
1	C	882	LEU
1	C	902	ASP
1	C	907	ARG
1	C	918	SER
1	C	921	MET
1	C	925	GLU
1	C	938	LEU
1	C	940	VAL
1	C	948	LEU
1	C	999	ARG
1	C	1078	GLU
1	C	1164	LEU
1	C	1165	CYS
1	C	1168	LEU
1	C	1170	GLU
1	C	1171	GLU
1	C	1179	TRP
1	C	1181	THR
1	C	1182	ASP
1	C	1183	LEU
1	C	1192	LEU
1	C	1211	GLN
1	C	1218	THR
1	C	1219	ASN
1	C	1220	LEU
1	C	1226	SER
1	C	1229	PHE
1	C	1232	TYR
1	C	1240	ILE
1	C	1245	GLN
1	C	1247	LEU
2	D	12	GLN
2	D	38	ARG
2	D	39	LYS
2	D	52	ASN
2	D	86	LYS

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Mol	Chain	Res	Type
1	E	114	LEU
1	E	116	GLU
1	E	122	ARG
1	E	126	PHE
1	E	128	THR
1	E	129	ARG
1	E	130	LYS
1	E	138	GLN
1	E	139	LYS
1	E	142	LYS
1	E	143	LEU
1	E	144	LYS
1	E	153	HIS
1	E	155	MET
1	E	158	CYS
1	E	160	LYS
1	E	166	GLU
1	E	173	LEU
1	E	174	LEU
1	E	189	LYS
1	E	198	LYS
1	E	206	LEU
1	E	208	GLN
1	E	213	SER
1	E	225	ASP
1	E	226	ARG
1	E	231	MET
1	E	233	ARG
1	E	234	LYS
1	E	237	ARG
1	E	239	LEU
1	E	240	LEU
1	E	243	ASP
1	E	244	ASP
1	E	248	SER
1	E	252	LYS
1	E	256	SER
1	E	259	GLN
1	E	260	ILE
1	E	261	LEU
1	E	262	LEU
1	E	266	ASP

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Mol	Chain	Res	Type
1	E	267	LYS
1	E	268	SER
1	E	273	VAL
1	E	277	LYS
1	E	278	TYR
1	E	283	GLU
1	E	286	LEU
1	E	288	LYS
1	E	290	LYS
1	E	293	GLU
1	E	294	ILE
1	E	295	LEU
1	E	298	PHE
1	E	301	MET
1	E	302	LYS
1	E	303	LYS
1	E	308	GLU
1	E	309	GLN
1	E	311	HIS
1	E	317	CYS
1	E	318	LYS
1	E	322	LEU
1	E	325	SER
1	E	326	LEU
1	E	332	ARG
1	E	333	ASP
1	E	334	PHE
1	E	337	ARG
1	E	348	LYS
1	E	352	ARG
1	E	353	ILE
1	E	357	SER
1	E	358	SER
1	E	359	TYR
1	E	360	ASP
1	E	362	GLU
1	E	368	MET
1	E	373	GLU
1	E	374	MET
1	E	376	ARG
1	E	383	TYR
1	E	384	THR

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Mol	Chain	Res	Type
1	E	386	LEU
1	E	389	LEU
1	E	391	LYS
1	E	397	THR
1	E	402	ILE
1	E	403	LEU
1	E	404	TRP
1	E	405	ASP
1	E	406	MET
1	E	407	GLU
1	E	416	GLN
1	E	426	CYS
1	E	428	ARG
1	E	429	ASN
1	E	431	LYS
1	E	434	ARG
1	E	438	HIS
1	E	439	ASP
1	E	443	ASP
1	E	449	ASN
1	E	450	CYS
1	E	455	ASP
1	E	456	LEU
1	E	476	ASP
1	E	477	GLN
1	E	489	TYR
1	E	490	HIS
1	E	493	SER
1	E	505	PHE
1	E	514	THR
1	E	515	GLU
1	E	522	LEU
1	E	524	HIS
1	E	528	GLU
1	E	529	TYR
1	E	530	ARG
1	E	531	HIS
1	E	532	ILE
1	E	533	LEU
1	E	534	ASP
1	E	537	ASP
1	E	546	GLU

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Mol	Chain	Res	Type
1	E	550	LEU
1	E	553	HIS
1	E	557	ARG
1	E	562	ASN
1	E	568	LEU
1	E	572	GLU
1	E	573	THR
1	E	576	VAL
1	E	578	GLN
1	E	585	LYS
1	E	586	GLN
1	E	587	GLU
1	E	588	VAL
1	E	596	GLU
1	E	598	ILE
1	E	600	LYS
1	E	616	ASP
1	E	619	TYR
1	E	633	CYS
1	E	643	LYS
1	E	645	GLU
1	E	646	THR
1	E	649	LYS
1	E	651	LEU
1	E	654	LYS
1	E	657	GLU
1	E	658	ASP
1	E	659	GLU
1	E	879	ARG
1	E	881	HIS
1	E	882	LEU
1	E	902	ASP
1	E	907	ARG
1	E	918	SER
1	E	921	MET
1	E	925	GLU
1	E	938	LEU
1	E	940	VAL
1	E	948	LEU
1	E	999	ARG
1	E	1078	GLU
1	E	1164	LEU

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Mol	Chain	Res	Type
1	E	1165	CYS
1	E	1168	LEU
1	E	1170	GLU
1	E	1171	GLU
1	E	1179	TRP
1	E	1181	THR
1	E	1182	ASP
1	E	1183	LEU
1	E	1192	LEU
1	E	1211	GLN
1	E	1218	THR
1	E	1219	ASN
1	E	1220	LEU
1	E	1226	SER
1	E	1229	PHE
1	E	1232	TYR
1	E	1240	ILE
1	E	1245	GLN
1	E	1247	LEU
2	F	12	GLN
2	F	38	ARG
2	F	39	LYS
2	F	52	ASN
2	F	53	LYS
2	F	86	LYS
1	G	114	LEU
1	G	116	GLU
1	G	122	ARG
1	G	126	PHE
1	G	128	THR
1	G	129	ARG
1	G	130	LYS
1	G	138	GLN
1	G	139	LYS
1	G	142	LYS
1	G	143	LEU
1	G	144	LYS
1	G	153	HIS
1	G	155	MET
1	G	158	CYS
1	G	160	LYS
1	G	166	GLU

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Mol	Chain	Res	Type
1	G	173	LEU
1	G	174	LEU
1	G	189	LYS
1	G	198	LYS
1	G	206	LEU
1	G	208	GLN
1	G	213	SER
1	G	225	ASP
1	G	226	ARG
1	G	231	MET
1	G	233	ARG
1	G	234	LYS
1	G	237	ARG
1	G	239	LEU
1	G	240	LEU
1	G	243	ASP
1	G	244	ASP
1	G	248	SER
1	G	252	LYS
1	G	256	SER
1	G	259	GLN
1	G	260	ILE
1	G	261	LEU
1	G	262	LEU
1	G	266	ASP
1	G	267	LYS
1	G	268	SER
1	G	273	VAL
1	G	277	LYS
1	G	278	TYR
1	G	283	GLU
1	G	286	LEU
1	G	288	LYS
1	G	290	LYS
1	G	293	GLU
1	G	294	ILE
1	G	295	LEU
1	G	298	PHE
1	G	301	MET
1	G	302	LYS
1	G	303	LYS
1	G	308	GLU

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Mol	Chain	Res	Type
1	G	309	GLN
1	G	311	HIS
1	G	317	CYS
1	G	318	LYS
1	G	322	LEU
1	G	325	SER
1	G	326	LEU
1	G	332	ARG
1	G	333	ASP
1	G	334	PHE
1	G	337	ARG
1	G	348	LYS
1	G	352	ARG
1	G	353	ILE
1	G	357	SER
1	G	358	SER
1	G	359	TYR
1	G	360	ASP
1	G	362	GLU
1	G	368	MET
1	G	373	GLU
1	G	374	MET
1	G	376	ARG
1	G	383	TYR
1	G	384	THR
1	G	386	LEU
1	G	389	LEU
1	G	391	LYS
1	G	397	THR
1	G	402	ILE
1	G	403	LEU
1	G	404	TRP
1	G	405	ASP
1	G	406	MET
1	G	407	GLU
1	G	416	GLN
1	G	426	CYS
1	G	428	ARG
1	G	429	ASN
1	G	431	LYS
1	G	434	ARG
1	G	438	HIS

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Mol	Chain	Res	Type
1	G	439	ASP
1	G	443	ASP
1	G	449	ASN
1	G	450	CYS
1	G	455	ASP
1	G	456	LEU
1	G	476	ASP
1	G	477	GLN
1	G	489	TYR
1	G	490	HIS
1	G	493	SER
1	G	505	PHE
1	G	514	THR
1	G	515	GLU
1	G	522	LEU
1	G	524	HIS
1	G	528	GLU
1	G	529	TYR
1	G	530	ARG
1	G	531	HIS
1	G	532	ILE
1	G	533	LEU
1	G	534	ASP
1	G	537	ASP
1	G	546	GLU
1	G	550	LEU
1	G	553	HIS
1	G	557	ARG
1	G	562	ASN
1	G	568	LEU
1	G	572	GLU
1	G	573	THR
1	G	576	VAL
1	G	578	GLN
1	G	585	LYS
1	G	586	GLN
1	G	587	GLU
1	G	588	VAL
1	G	596	GLU
1	G	598	ILE
1	G	600	LYS
1	G	616	ASP

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Mol	Chain	Res	Type
1	G	619	TYR
1	G	633	CYS
1	G	643	LYS
1	G	645	GLU
1	G	646	THR
1	G	649	LYS
1	G	651	LEU
1	G	654	LYS
1	G	657	GLU
1	G	658	ASP
1	G	659	GLU
1	G	879	ARG
1	G	881	HIS
1	G	882	LEU
1	G	902	ASP
1	G	907	ARG
1	G	918	SER
1	G	921	MET
1	G	925	GLU
1	G	938	LEU
1	G	940	VAL
1	G	948	LEU
1	G	999	ARG
1	G	1078	GLU
1	G	1164	LEU
1	G	1165	CYS
1	G	1168	LEU
1	G	1170	GLU
1	G	1171	GLU
1	G	1179	TRP
1	G	1181	THR
1	G	1182	ASP
1	G	1183	LEU
1	G	1192	LEU
1	G	1211	GLN
1	G	1218	THR
1	G	1219	ASN
1	G	1220	LEU
1	G	1226	SER
1	G	1229	PHE
1	G	1232	TYR
1	G	1240	ILE

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Mol	Chain	Res	Type
1	G	1245	GLN
1	G	1247	LEU
2	H	12	GLN
2	H	38	ARG
2	H	39	LYS
2	H	52	ASN
2	H	86	LYS
1	I	114	LEU
1	I	116	GLU
1	I	122	ARG
1	I	126	PHE
1	I	128	THR
1	I	129	ARG
1	I	130	LYS
1	I	138	GLN
1	I	139	LYS
1	I	142	LYS
1	I	143	LEU
1	I	144	LYS
1	I	153	HIS
1	I	155	MET
1	I	158	CYS
1	I	160	LYS
1	I	166	GLU
1	I	173	LEU
1	I	174	LEU
1	I	189	LYS
1	I	198	LYS
1	I	206	LEU
1	I	208	GLN
1	I	213	SER
1	I	225	ASP
1	I	226	ARG
1	I	231	MET
1	I	233	ARG
1	I	234	LYS
1	I	237	ARG
1	I	239	LEU
1	I	240	LEU
1	I	243	ASP
1	I	244	ASP
1	I	248	SER

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Mol	Chain	Res	Type
1	I	252	LYS
1	I	256	SER
1	I	259	GLN
1	I	260	ILE
1	I	261	LEU
1	I	262	LEU
1	I	266	ASP
1	I	267	LYS
1	I	268	SER
1	I	273	VAL
1	I	277	LYS
1	I	278	TYR
1	I	283	GLU
1	I	286	LEU
1	I	288	LYS
1	I	290	LYS
1	I	293	GLU
1	I	294	ILE
1	I	295	LEU
1	I	298	PHE
1	I	301	MET
1	I	302	LYS
1	I	303	LYS
1	I	308	GLU
1	I	309	GLN
1	I	311	HIS
1	I	317	CYS
1	I	318	LYS
1	I	322	LEU
1	I	325	SER
1	I	326	LEU
1	I	332	ARG
1	I	333	ASP
1	I	334	PHE
1	I	337	ARG
1	I	348	LYS
1	I	352	ARG
1	I	353	ILE
1	I	357	SER
1	I	358	SER
1	I	359	TYR
1	I	360	ASP

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Mol	Chain	Res	Type
1	I	362	GLU
1	I	368	MET
1	I	373	GLU
1	I	374	MET
1	I	376	ARG
1	I	383	TYR
1	I	384	THR
1	I	386	LEU
1	I	389	LEU
1	I	391	LYS
1	I	397	THR
1	I	402	ILE
1	I	403	LEU
1	I	404	TRP
1	I	405	ASP
1	I	406	MET
1	I	407	GLU
1	I	416	GLN
1	I	426	CYS
1	I	428	ARG
1	I	429	ASN
1	I	431	LYS
1	I	434	ARG
1	I	438	HIS
1	I	439	ASP
1	I	443	ASP
1	I	449	ASN
1	I	450	CYS
1	I	455	ASP
1	I	456	LEU
1	I	476	ASP
1	I	477	GLN
1	I	489	TYR
1	I	490	HIS
1	I	493	SER
1	I	505	PHE
1	I	514	THR
1	I	515	GLU
1	I	522	LEU
1	I	524	HIS
1	I	528	GLU
1	I	529	TYR

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Mol	Chain	Res	Type
1	I	530	ARG
1	I	531	HIS
1	I	532	ILE
1	I	533	LEU
1	I	534	ASP
1	I	537	ASP
1	I	546	GLU
1	I	550	LEU
1	I	553	HIS
1	I	557	ARG
1	I	562	ASN
1	I	568	LEU
1	I	572	GLU
1	I	573	THR
1	I	576	VAL
1	I	578	GLN
1	I	585	LYS
1	I	586	GLN
1	I	587	GLU
1	I	588	VAL
1	I	596	GLU
1	I	598	ILE
1	I	600	LYS
1	I	616	ASP
1	I	619	TYR
1	I	633	CYS
1	I	643	LYS
1	I	645	GLU
1	I	646	THR
1	I	649	LYS
1	I	651	LEU
1	I	654	LYS
1	I	657	GLU
1	I	658	ASP
1	I	659	GLU
1	I	879	ARG
1	I	881	HIS
1	I	882	LEU
1	I	902	ASP
1	I	907	ARG
1	I	918	SER
1	I	921	MET

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Mol	Chain	Res	Type
1	I	925	GLU
1	I	938	LEU
1	I	940	VAL
1	I	948	LEU
1	I	999	ARG
1	I	1078	GLU
1	I	1164	LEU
1	I	1165	CYS
1	I	1168	LEU
1	I	1170	GLU
1	I	1171	GLU
1	I	1179	TRP
1	I	1181	THR
1	I	1182	ASP
1	I	1183	LEU
1	I	1192	LEU
1	I	1211	GLN
1	I	1218	THR
1	I	1219	ASN
1	I	1220	LEU
1	I	1226	SER
1	I	1229	PHE
1	I	1232	TYR
1	I	1240	ILE
1	I	1245	GLN
1	I	1247	LEU
2	J	12	GLN
2	J	38	ARG
2	J	39	LYS
2	J	52	ASN
2	J	53	LYS
2	J	86	LYS
1	K	114	LEU
1	K	116	GLU
1	K	122	ARG
1	K	126	PHE
1	K	128	THR
1	K	129	ARG
1	K	130	LYS
1	K	138	GLN
1	K	139	LYS
1	K	142	LYS

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Mol	Chain	Res	Type
1	K	143	LEU
1	K	144	LYS
1	K	153	HIS
1	K	155	MET
1	K	158	CYS
1	K	160	LYS
1	K	166	GLU
1	K	173	LEU
1	K	174	LEU
1	K	175	GLU
1	K	189	LYS
1	K	198	LYS
1	K	206	LEU
1	K	208	GLN
1	K	213	SER
1	K	225	ASP
1	K	226	ARG
1	K	231	MET
1	K	233	ARG
1	K	234	LYS
1	K	237	ARG
1	K	239	LEU
1	K	240	LEU
1	K	243	ASP
1	K	244	ASP
1	K	248	SER
1	K	252	LYS
1	K	256	SER
1	K	259	GLN
1	K	260	ILE
1	K	261	LEU
1	K	262	LEU
1	K	266	ASP
1	K	267	LYS
1	K	268	SER
1	K	273	VAL
1	K	277	LYS
1	K	278	TYR
1	K	283	GLU
1	K	286	LEU
1	K	288	LYS
1	K	290	LYS

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Mol	Chain	Res	Type
1	K	293	GLU
1	K	294	ILE
1	K	295	LEU
1	K	298	PHE
1	K	301	MET
1	K	302	LYS
1	K	303	LYS
1	K	308	GLU
1	K	309	GLN
1	K	311	HIS
1	K	317	CYS
1	K	318	LYS
1	K	322	LEU
1	K	325	SER
1	K	326	LEU
1	K	332	ARG
1	K	333	ASP
1	K	334	PHE
1	K	337	ARG
1	K	348	LYS
1	K	352	ARG
1	K	353	ILE
1	K	357	SER
1	K	358	SER
1	K	359	TYR
1	K	360	ASP
1	K	362	GLU
1	K	368	MET
1	K	373	GLU
1	K	374	MET
1	K	376	ARG
1	K	383	TYR
1	K	384	THR
1	K	386	LEU
1	K	389	LEU
1	K	391	LYS
1	K	397	THR
1	K	402	ILE
1	K	403	LEU
1	K	404	TRP
1	K	405	ASP
1	K	406	MET

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Mol	Chain	Res	Type
1	K	407	GLU
1	K	416	GLN
1	K	426	CYS
1	K	428	ARG
1	K	429	ASN
1	K	431	LYS
1	K	434	ARG
1	K	438	HIS
1	K	439	ASP
1	K	443	ASP
1	K	449	ASN
1	K	450	CYS
1	K	455	ASP
1	K	456	LEU
1	K	476	ASP
1	K	477	GLN
1	K	489	TYR
1	K	490	HIS
1	K	493	SER
1	K	505	PHE
1	K	514	THR
1	K	515	GLU
1	K	522	LEU
1	K	524	HIS
1	K	528	GLU
1	K	529	TYR
1	K	530	ARG
1	K	531	HIS
1	K	532	ILE
1	K	533	LEU
1	K	534	ASP
1	K	537	ASP
1	K	546	GLU
1	K	550	LEU
1	K	553	HIS
1	K	557	ARG
1	K	562	ASN
1	K	568	LEU
1	K	572	GLU
1	K	573	THR
1	K	576	VAL
1	K	578	GLN

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Mol	Chain	Res	Type
1	K	585	LYS
1	K	586	GLN
1	K	587	GLU
1	K	588	VAL
1	K	596	GLU
1	K	598	ILE
1	K	600	LYS
1	K	616	ASP
1	K	619	TYR
1	K	633	CYS
1	K	643	LYS
1	K	645	GLU
1	K	646	THR
1	K	649	LYS
1	K	651	LEU
1	K	654	LYS
1	K	657	GLU
1	K	658	ASP
1	K	659	GLU
1	K	879	ARG
1	K	881	HIS
1	K	882	LEU
1	K	902	ASP
1	K	907	ARG
1	K	918	SER
1	K	921	MET
1	K	925	GLU
1	K	938	LEU
1	K	940	VAL
1	K	948	LEU
1	K	999	ARG
1	K	1078	GLU
1	K	1164	LEU
1	K	1165	CYS
1	K	1168	LEU
1	K	1170	GLU
1	K	1171	GLU
1	K	1179	TRP
1	K	1181	THR
1	K	1182	ASP
1	K	1183	LEU
1	K	1192	LEU

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Mol	Chain	Res	Type
1	K	1211	GLN
1	K	1218	THR
1	K	1219	ASN
1	K	1220	LEU
1	K	1226	SER
1	K	1229	PHE
1	K	1232	TYR
1	K	1240	ILE
1	K	1245	GLN
1	K	1247	LEU
2	L	12	GLN
2	L	38	ARG
2	L	39	LYS
2	L	52	ASN
2	L	53	LYS
2	L	86	LYS
1	M	114	LEU
1	M	116	GLU
1	M	122	ARG
1	M	126	PHE
1	M	128	THR
1	M	129	ARG
1	M	130	LYS
1	M	138	GLN
1	M	139	LYS
1	M	142	LYS
1	M	143	LEU
1	M	144	LYS
1	M	153	HIS
1	M	155	MET
1	M	158	CYS
1	M	160	LYS
1	M	166	GLU
1	M	173	LEU
1	M	174	LEU
1	M	189	LYS
1	M	198	LYS
1	M	206	LEU
1	M	208	GLN
1	M	213	SER
1	M	225	ASP
1	M	226	ARG

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Mol	Chain	Res	Type
1	M	231	MET
1	M	233	ARG
1	M	234	LYS
1	M	237	ARG
1	M	239	LEU
1	M	240	LEU
1	M	243	ASP
1	M	244	ASP
1	M	248	SER
1	M	252	LYS
1	M	256	SER
1	M	259	GLN
1	M	260	ILE
1	M	261	LEU
1	M	262	LEU
1	M	266	ASP
1	M	267	LYS
1	M	268	SER
1	M	273	VAL
1	M	277	LYS
1	M	278	TYR
1	M	283	GLU
1	M	286	LEU
1	M	288	LYS
1	M	290	LYS
1	M	293	GLU
1	M	294	ILE
1	M	295	LEU
1	M	298	PHE
1	M	301	MET
1	M	302	LYS
1	M	303	LYS
1	M	308	GLU
1	M	309	GLN
1	M	311	HIS
1	M	317	CYS
1	M	318	LYS
1	M	322	LEU
1	M	325	SER
1	M	326	LEU
1	M	332	ARG
1	M	333	ASP

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Mol	Chain	Res	Type
1	M	334	PHE
1	M	337	ARG
1	M	348	LYS
1	M	352	ARG
1	M	353	ILE
1	M	357	SER
1	M	358	SER
1	M	359	TYR
1	M	360	ASP
1	M	362	GLU
1	M	368	MET
1	M	373	GLU
1	M	374	MET
1	M	376	ARG
1	M	383	TYR
1	M	384	THR
1	M	386	LEU
1	M	389	LEU
1	M	391	LYS
1	M	397	THR
1	M	402	ILE
1	M	403	LEU
1	M	404	TRP
1	M	405	ASP
1	M	406	MET
1	M	407	GLU
1	M	416	GLN
1	M	426	CYS
1	M	428	ARG
1	M	429	ASN
1	M	431	LYS
1	M	434	ARG
1	M	438	HIS
1	M	439	ASP
1	M	443	ASP
1	M	449	ASN
1	M	450	CYS
1	M	455	ASP
1	M	456	LEU
1	M	476	ASP
1	M	477	GLN
1	M	489	TYR

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Mol	Chain	Res	Type
1	M	490	HIS
1	M	493	SER
1	M	505	PHE
1	M	514	THR
1	M	515	GLU
1	M	522	LEU
1	M	524	HIS
1	M	528	GLU
1	M	529	TYR
1	M	530	ARG
1	M	531	HIS
1	M	532	ILE
1	M	533	LEU
1	M	534	ASP
1	M	537	ASP
1	M	546	GLU
1	M	550	LEU
1	M	553	HIS
1	M	557	ARG
1	M	562	ASN
1	M	568	LEU
1	M	572	GLU
1	M	573	THR
1	M	576	VAL
1	M	578	GLN
1	M	585	LYS
1	M	586	GLN
1	M	587	GLU
1	M	588	VAL
1	M	596	GLU
1	M	598	ILE
1	M	600	LYS
1	M	616	ASP
1	M	619	TYR
1	M	633	CYS
1	M	643	LYS
1	M	645	GLU
1	M	646	THR
1	M	649	LYS
1	M	651	LEU
1	M	654	LYS
1	M	657	GLU

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Mol	Chain	Res	Type
1	M	658	ASP
1	M	659	GLU
1	M	879	ARG
1	M	881	HIS
1	M	882	LEU
1	M	902	ASP
1	M	907	ARG
1	M	918	SER
1	M	921	MET
1	M	925	GLU
1	M	938	LEU
1	M	940	VAL
1	M	948	LEU
1	M	999	ARG
1	M	1078	GLU
1	M	1164	LEU
1	M	1165	CYS
1	M	1168	LEU
1	M	1170	GLU
1	M	1171	GLU
1	M	1179	TRP
1	M	1181	THR
1	M	1182	ASP
1	M	1183	LEU
1	M	1192	LEU
1	M	1211	GLN
1	M	1218	THR
1	M	1219	ASN
1	M	1220	LEU
1	M	1226	SER
1	M	1229	PHE
1	M	1232	TYR
1	M	1240	ILE
1	M	1245	GLN
1	M	1247	LEU
2	N	12	GLN
2	N	38	ARG
2	N	39	LYS
2	N	52	ASN
2	N	53	LYS
2	N	86	LYS
3	O	6	ARG

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Mol	Chain	Res	Type
3	O	44	ARG
3	O	56	LEU
3	P	4	LYS
3	P	24	TYR
3	P	44	ARG
3	P	56	LEU
3	Q	7	ASN
3	Q	24	TYR
3	Q	44	ARG
3	Q	56	LEU
3	R	31	SER
3	R	44	ARG
3	R	50	GLN
3	R	56	LEU
4	S	8	LEU
4	S	13	ARG
4	S	14	LEU
4	S	20	LEU
4	S	36	ARG
4	S	38	HIS
4	S	42	ASP
4	S	45	ARG
4	S	64	THR
4	S	70	LEU
4	S	77	LEU
4	S	85	LEU
4	T	20	LEU
4	T	36	ARG
4	T	70	LEU
4	T	77	LEU
4	T	85	LEU
4	U	13	ARG
4	U	20	LEU
4	U	52	ARG
4	U	70	LEU
4	U	77	LEU
4	U	85	LEU
4	V	6	ARG
4	V	8	LEU
4	V	13	ARG
4	V	20	LEU
4	V	64	THR

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Mol	Chain	Res	Type
4	V	70	LEU
4	V	77	LEU
4	V	85	LEU
3	W	58	LYS
3	W	81	LYS
3	X	6	ARG
3	X	9	LEU
4	Y	10	ARG
4	Y	14	LEU
4	Y	20	LEU
4	Y	34	LEU
4	Y	87	SER
4	Y	92	ASN
4	Y	93	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (242) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	134	ASN
1	A	137	GLN
1	A	138	GLN
1	A	183	HIS
1	A	200	GLN
1	A	235	HIS
1	A	259	GLN
1	A	347	ASN
1	A	416	GLN
1	A	420	ASN
1	A	438	HIS
1	A	441	GLN
1	A	454	GLN
1	A	457	HIS
1	A	553	HIS
1	A	562	ASN
1	A	579	GLN
1	A	583	GLN
1	A	614	HIS
1	A	703	ASN
1	A	709	ASN
1	A	840	HIS
1	A	881	HIS
1	A	904	GLN

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Mol	Chain	Res	Type
1	A	1126	HIS
1	A	1176	HIS
1	A	1211	GLN
1	A	1219	ASN
1	A	1237	ASN
1	A	1245	GLN
2	B	33	HIS
1	C	137	GLN
1	C	138	GLN
1	C	183	HIS
1	C	200	GLN
1	C	235	HIS
1	C	259	GLN
1	C	347	ASN
1	C	416	GLN
1	C	420	ASN
1	C	438	HIS
1	C	441	GLN
1	C	454	GLN
1	C	457	HIS
1	C	553	HIS
1	C	562	ASN
1	C	579	GLN
1	C	583	GLN
1	C	614	HIS
1	C	703	ASN
1	C	709	ASN
1	C	840	HIS
1	C	881	HIS
1	C	904	GLN
1	C	1126	HIS
1	C	1176	HIS
1	C	1211	GLN
1	C	1219	ASN
1	C	1237	ASN
1	C	1245	GLN
2	D	33	HIS
1	E	137	GLN
1	E	138	GLN
1	E	183	HIS
1	E	200	GLN
1	E	259	GLN

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Mol	Chain	Res	Type
1	E	347	ASN
1	E	416	GLN
1	E	420	ASN
1	E	438	HIS
1	E	441	GLN
1	E	454	GLN
1	E	457	HIS
1	E	553	HIS
1	E	562	ASN
1	E	579	GLN
1	E	583	GLN
1	E	614	HIS
1	E	703	ASN
1	E	709	ASN
1	E	840	HIS
1	E	881	HIS
1	E	904	GLN
1	E	1126	HIS
1	E	1176	HIS
1	E	1211	GLN
1	E	1219	ASN
1	E	1237	ASN
1	E	1245	GLN
2	F	33	HIS
1	G	137	GLN
1	G	138	GLN
1	G	183	HIS
1	G	200	GLN
1	G	235	HIS
1	G	259	GLN
1	G	347	ASN
1	G	416	GLN
1	G	420	ASN
1	G	438	HIS
1	G	441	GLN
1	G	454	GLN
1	G	457	HIS
1	G	553	HIS
1	G	562	ASN
1	G	579	GLN
1	G	583	GLN
1	G	614	HIS

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Mol	Chain	Res	Type
1	G	703	ASN
1	G	709	ASN
1	G	840	HIS
1	G	881	HIS
1	G	904	GLN
1	G	1126	HIS
1	G	1176	HIS
1	G	1211	GLN
1	G	1219	ASN
1	G	1237	ASN
1	G	1245	GLN
2	H	33	HIS
1	I	137	GLN
1	I	138	GLN
1	I	183	HIS
1	I	200	GLN
1	I	235	HIS
1	I	259	GLN
1	I	347	ASN
1	I	416	GLN
1	I	420	ASN
1	I	438	HIS
1	I	441	GLN
1	I	454	GLN
1	I	457	HIS
1	I	553	HIS
1	I	562	ASN
1	I	579	GLN
1	I	583	GLN
1	I	614	HIS
1	I	703	ASN
1	I	709	ASN
1	I	840	HIS
1	I	881	HIS
1	I	904	GLN
1	I	1126	HIS
1	I	1176	HIS
1	I	1211	GLN
1	I	1219	ASN
1	I	1237	ASN
1	I	1245	GLN
2	J	33	HIS

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Mol	Chain	Res	Type
1	K	137	GLN
1	K	138	GLN
1	K	183	HIS
1	K	200	GLN
1	K	235	HIS
1	K	259	GLN
1	K	347	ASN
1	K	416	GLN
1	K	420	ASN
1	K	438	HIS
1	K	441	GLN
1	K	454	GLN
1	K	457	HIS
1	K	553	HIS
1	K	562	ASN
1	K	579	GLN
1	K	583	GLN
1	K	614	HIS
1	K	703	ASN
1	K	709	ASN
1	K	840	HIS
1	K	881	HIS
1	K	904	GLN
1	K	1126	HIS
1	K	1176	HIS
1	K	1211	GLN
1	K	1219	ASN
1	K	1237	ASN
1	K	1245	GLN
2	L	33	HIS
1	M	137	GLN
1	M	138	GLN
1	M	183	HIS
1	M	200	GLN
1	M	235	HIS
1	M	259	GLN
1	M	347	ASN
1	M	416	GLN
1	M	420	ASN
1	M	438	HIS
1	M	441	GLN
1	M	454	GLN

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Mol	Chain	Res	Type
1	M	457	HIS
1	M	553	HIS
1	M	562	ASN
1	M	579	GLN
1	M	583	GLN
1	M	614	HIS
1	M	703	ASN
1	M	709	ASN
1	M	840	HIS
1	M	881	HIS
1	M	904	GLN
1	M	1126	HIS
1	M	1176	HIS
1	M	1211	GLN
1	M	1219	ASN
1	M	1237	ASN
1	M	1245	GLN
2	N	33	HIS
3	O	28	HIS
3	O	45	ASN
3	O	51	GLN
3	O	65	ASN
3	P	28	HIS
3	P	45	ASN
3	P	51	GLN
3	P	65	ASN
3	Q	45	ASN
3	Q	51	GLN
3	Q	65	ASN
3	R	28	HIS
3	R	45	ASN
3	R	49	GLN
3	R	51	GLN
3	R	65	ASN
4	S	24	GLN
4	S	38	HIS
4	S	44	GLN
4	T	38	HIS
4	T	44	GLN
4	U	44	GLN
4	V	44	GLN
4	V	68	GLN

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Mol	Chain	Res	Type
3	W	7	ASN
3	W	11	GLN
3	W	51	GLN
3	X	7	ASN
3	X	11	GLN
3	X	51	GLN
4	Y	44	GLN
4	Y	92	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 21 ligands modelled in this entry, 7 are monoatomic - leaving 14 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
5	DTP	A	1301	6	26,32,32	0.87	1 (3%)	30,50,50	1.56	4 (13%)
7	HEM	B	201	2	41,50,50	1.31	6 (14%)	45,82,82	1.74	6 (13%)
7	HEM	N	201	2	41,50,50	1.31	5 (12%)	45,82,82	1.73	6 (13%)
5	DTP	I	1301	6	26,32,32	0.86	1 (3%)	30,50,50	1.55	4 (13%)
5	DTP	E	1301	6	26,32,32	0.87	1 (3%)	30,50,50	1.57	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
7	HEM	F	201	2	41,50,50	1.32	5 (12%)	45,82,82	1.73	6 (13%)
5	DTP	G	1301	6	26,32,32	0.86	1 (3%)	30,50,50	1.55	5 (16%)
5	DTP	K	1301	6	26,32,32	0.85	1 (3%)	30,50,50	1.56	4 (13%)
5	DTP	M	1301	6	26,32,32	0.86	1 (3%)	30,50,50	1.56	4 (13%)
7	HEM	H	201	2	41,50,50	1.31	6 (14%)	45,82,82	1.73	6 (13%)
7	HEM	J	201	2	41,50,50	1.32	6 (14%)	45,82,82	1.73	6 (13%)
7	HEM	L	201	2	41,50,50	1.31	6 (14%)	45,82,82	1.72	6 (13%)
7	HEM	D	201	2	41,50,50	1.32	5 (12%)	45,82,82	1.74	6 (13%)
5	DTP	C	1301	6	26,32,32	0.85	1 (3%)	30,50,50	1.56	4 (13%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	DTP	A	1301	6	-	5/18/34/34	0/3/3/3
7	HEM	B	201	2	-	7/12/54/54	-
7	HEM	N	201	2	-	7/12/54/54	-
5	DTP	I	1301	6	-	5/18/34/34	0/3/3/3
5	DTP	E	1301	6	-	5/18/34/34	0/3/3/3
7	HEM	F	201	2	-	7/12/54/54	-
5	DTP	G	1301	6	-	5/18/34/34	0/3/3/3
5	DTP	K	1301	6	-	5/18/34/34	0/3/3/3
5	DTP	M	1301	6	-	5/18/34/34	0/3/3/3
7	HEM	H	201	2	-	7/12/54/54	-
7	HEM	J	201	2	-	7/12/54/54	-
7	HEM	L	201	2	-	7/12/54/54	-
7	HEM	D	201	2	-	7/12/54/54	-
5	DTP	C	1301	6	-	5/18/34/34	0/3/3/3

All (46) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	J	201	HEM	C1B-NB	-3.47	1.34	1.40
7	N	201	HEM	C1B-NB	-3.43	1.34	1.40
7	B	201	HEM	C1B-NB	-3.39	1.34	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	H	201	HEM	C1B-NB	-3.37	1.34	1.40
7	F	201	HEM	C1B-NB	-3.37	1.34	1.40
7	D	201	HEM	C4D-ND	-3.32	1.34	1.40
7	L	201	HEM	C1B-NB	-3.32	1.34	1.40
7	D	201	HEM	C1B-NB	-3.28	1.34	1.40
7	F	201	HEM	C4D-ND	-3.21	1.34	1.40
7	J	201	HEM	C4D-ND	-3.19	1.34	1.40
7	B	201	HEM	C4D-ND	-3.19	1.34	1.40
7	N	201	HEM	C4D-ND	-3.19	1.34	1.40
7	H	201	HEM	C4D-ND	-3.19	1.34	1.40
7	L	201	HEM	C4D-ND	-3.16	1.34	1.40
7	D	201	HEM	FE-NB	2.79	2.10	1.96
7	J	201	HEM	FE-NB	2.78	2.10	1.96
7	L	201	HEM	FE-NB	2.78	2.10	1.96
7	B	201	HEM	FE-NB	2.77	2.10	1.96
7	H	201	HEM	FE-NB	2.77	2.10	1.96
7	F	201	HEM	FE-NB	2.76	2.10	1.96
7	N	201	HEM	FE-NB	2.75	2.10	1.96
5	E	1301	DTP	C5-C4	2.52	1.47	1.40
5	A	1301	DTP	C5-C4	2.50	1.47	1.40
5	G	1301	DTP	C5-C4	2.50	1.47	1.40
5	I	1301	DTP	C5-C4	2.49	1.47	1.40
5	C	1301	DTP	C5-C4	2.49	1.47	1.40
5	K	1301	DTP	C5-C4	2.48	1.47	1.40
5	M	1301	DTP	C5-C4	2.45	1.47	1.40
7	F	201	HEM	CHB-C1B	2.24	1.40	1.35
7	J	201	HEM	CHB-C1B	2.24	1.40	1.35
7	N	201	HEM	CHB-C1B	2.23	1.40	1.35
7	L	201	HEM	CHB-C1B	2.22	1.40	1.35
7	H	201	HEM	CHB-C1B	2.22	1.40	1.35
7	B	201	HEM	CHB-C1B	2.20	1.40	1.35
7	D	201	HEM	CHB-C1B	2.17	1.40	1.35
7	N	201	HEM	C1D-ND	-2.11	1.34	1.38
7	F	201	HEM	C1D-ND	-2.10	1.34	1.38
7	J	201	HEM	C1D-ND	-2.06	1.34	1.38
7	L	201	HEM	FE-ND	-2.04	1.86	1.96
7	L	201	HEM	C1D-ND	-2.04	1.34	1.38
7	H	201	HEM	C1D-ND	-2.04	1.34	1.38
7	D	201	HEM	C1D-ND	-2.03	1.34	1.38
7	B	201	HEM	C1D-ND	-2.02	1.34	1.38
7	J	201	HEM	FE-ND	-2.01	1.86	1.96
7	H	201	HEM	FE-ND	-2.01	1.86	1.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	B	201	HEM	FE-ND	-2.00	1.87	1.96

All (71) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	D	201	HEM	C1B-NB-C4B	4.70	109.93	105.07
7	D	201	HEM	CHC-C4B-NB	4.70	129.54	124.43
7	B	201	HEM	C1B-NB-C4B	4.70	109.93	105.07
7	J	201	HEM	CHC-C4B-NB	4.70	129.53	124.43
7	H	201	HEM	CHC-C4B-NB	4.68	129.52	124.43
7	B	201	HEM	CHC-C4B-NB	4.65	129.48	124.43
7	N	201	HEM	CHC-C4B-NB	4.64	129.47	124.43
7	L	201	HEM	CHC-C4B-NB	4.63	129.46	124.43
7	F	201	HEM	CHC-C4B-NB	4.63	129.46	124.43
7	L	201	HEM	C1B-NB-C4B	4.61	109.84	105.07
7	H	201	HEM	C1B-NB-C4B	4.61	109.83	105.07
7	J	201	HEM	C1B-NB-C4B	4.60	109.83	105.07
7	F	201	HEM	C1B-NB-C4B	4.58	109.81	105.07
7	N	201	HEM	C1B-NB-C4B	4.58	109.80	105.07
5	E	1301	DTP	PB-O3B-PG	-3.62	120.39	132.83
5	A	1301	DTP	PB-O3B-PG	-3.62	120.41	132.83
5	E	1301	DTP	PA-O3A-PB	-3.59	120.49	132.83
5	I	1301	DTP	PB-O3B-PG	-3.59	120.49	132.83
5	C	1301	DTP	PB-O3B-PG	-3.59	120.52	132.83
5	M	1301	DTP	PB-O3B-PG	-3.58	120.53	132.83
5	K	1301	DTP	PA-O3A-PB	-3.58	120.53	132.83
5	A	1301	DTP	PA-O3A-PB	-3.58	120.55	132.83
5	M	1301	DTP	PA-O3A-PB	-3.58	120.55	132.83
5	I	1301	DTP	PA-O3A-PB	-3.58	120.56	132.83
5	G	1301	DTP	PA-O3A-PB	-3.57	120.56	132.83
5	C	1301	DTP	PA-O3A-PB	-3.57	120.58	132.83
5	G	1301	DTP	PB-O3B-PG	-3.56	120.59	132.83
5	K	1301	DTP	PB-O3B-PG	-3.56	120.61	132.83
7	D	201	HEM	CHD-C1D-ND	3.50	128.24	124.43
7	H	201	HEM	CHD-C1D-ND	3.50	128.23	124.43
7	J	201	HEM	CHD-C1D-ND	3.46	128.19	124.43
7	L	201	HEM	CHD-C1D-ND	3.46	128.19	124.43
7	F	201	HEM	CHD-C1D-ND	3.45	128.18	124.43
7	N	201	HEM	CHD-C1D-ND	3.44	128.17	124.43
7	B	201	HEM	CHD-C1D-ND	3.39	128.11	124.43
7	D	201	HEM	CHA-C4D-ND	3.30	128.45	124.38
7	F	201	HEM	CHA-C4D-ND	3.28	128.43	124.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	N	201	HEM	CHA-C4D-ND	3.27	128.43	124.38
7	B	201	HEM	CHA-C4D-ND	3.27	128.42	124.38
7	L	201	HEM	CHA-C4D-ND	3.25	128.39	124.38
7	J	201	HEM	CHA-C4D-ND	3.23	128.37	124.38
5	E	1301	DTP	N3-C2-N1	-3.20	123.68	128.68
5	C	1301	DTP	N3-C2-N1	-3.19	123.69	128.68
7	H	201	HEM	CHA-C4D-ND	3.17	128.30	124.38
5	M	1301	DTP	N3-C2-N1	-3.17	123.72	128.68
5	K	1301	DTP	N3-C2-N1	-3.16	123.74	128.68
7	D	201	HEM	C4D-ND-C1D	3.12	108.30	105.07
5	A	1301	DTP	N3-C2-N1	-3.12	123.80	128.68
5	G	1301	DTP	N3-C2-N1	-3.12	123.80	128.68
5	I	1301	DTP	N3-C2-N1	-3.11	123.82	128.68
7	N	201	HEM	C4D-ND-C1D	3.08	108.26	105.07
7	F	201	HEM	C4D-ND-C1D	3.08	108.25	105.07
7	J	201	HEM	C4D-ND-C1D	3.07	108.25	105.07
7	L	201	HEM	C4D-ND-C1D	3.06	108.24	105.07
7	H	201	HEM	C4D-ND-C1D	3.05	108.22	105.07
7	B	201	HEM	C4D-ND-C1D	3.04	108.21	105.07
5	C	1301	DTP	C4-C5-N7	-2.83	106.45	109.40
5	M	1301	DTP	C4-C5-N7	-2.78	106.50	109.40
5	G	1301	DTP	C4-C5-N7	-2.76	106.52	109.40
5	A	1301	DTP	C4-C5-N7	-2.75	106.53	109.40
5	I	1301	DTP	C4-C5-N7	-2.74	106.54	109.40
7	B	201	HEM	CHB-C1B-NB	2.73	127.76	124.38
5	K	1301	DTP	C4-C5-N7	-2.73	106.56	109.40
5	E	1301	DTP	C4-C5-N7	-2.71	106.57	109.40
7	N	201	HEM	CHB-C1B-NB	2.70	127.72	124.38
7	H	201	HEM	CHB-C1B-NB	2.69	127.70	124.38
7	L	201	HEM	CHB-C1B-NB	2.65	127.65	124.38
7	F	201	HEM	CHB-C1B-NB	2.65	127.65	124.38
7	D	201	HEM	CHB-C1B-NB	2.63	127.63	124.38
7	J	201	HEM	CHB-C1B-NB	2.57	127.56	124.38
5	G	1301	DTP	C2'-C1'-N9	-2.01	109.63	114.27

There are no chirality outliers.

All (84) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	1301	DTP	C5'-O5'-PA-O2A
5	A	1301	DTP	C5'-O5'-PA-O3A
5	C	1301	DTP	C5'-O5'-PA-O2A

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Mol	Chain	Res	Type	Atoms
5	C	1301	DTP	C5'-O5'-PA-O3A
5	E	1301	DTP	C5'-O5'-PA-O2A
5	E	1301	DTP	C5'-O5'-PA-O3A
5	G	1301	DTP	C5'-O5'-PA-O2A
5	G	1301	DTP	C5'-O5'-PA-O3A
5	I	1301	DTP	C5'-O5'-PA-O2A
5	I	1301	DTP	C5'-O5'-PA-O3A
5	K	1301	DTP	C5'-O5'-PA-O2A
5	K	1301	DTP	C5'-O5'-PA-O3A
5	M	1301	DTP	C5'-O5'-PA-O2A
5	M	1301	DTP	C5'-O5'-PA-O3A
5	A	1301	DTP	O4'-C4'-C5'-O5'
5	A	1301	DTP	C3'-C4'-C5'-O5'
5	C	1301	DTP	O4'-C4'-C5'-O5'
5	C	1301	DTP	C3'-C4'-C5'-O5'
5	E	1301	DTP	O4'-C4'-C5'-O5'
5	E	1301	DTP	C3'-C4'-C5'-O5'
5	G	1301	DTP	O4'-C4'-C5'-O5'
5	G	1301	DTP	C3'-C4'-C5'-O5'
5	I	1301	DTP	O4'-C4'-C5'-O5'
5	I	1301	DTP	C3'-C4'-C5'-O5'
5	K	1301	DTP	O4'-C4'-C5'-O5'
5	K	1301	DTP	C3'-C4'-C5'-O5'
5	M	1301	DTP	O4'-C4'-C5'-O5'
5	M	1301	DTP	C3'-C4'-C5'-O5'
7	B	201	HEM	C2B-C3B-CAB-CBB
7	D	201	HEM	C2B-C3B-CAB-CBB
7	F	201	HEM	C2B-C3B-CAB-CBB
7	H	201	HEM	C2B-C3B-CAB-CBB
7	J	201	HEM	C2B-C3B-CAB-CBB
7	L	201	HEM	C2B-C3B-CAB-CBB
7	N	201	HEM	C2B-C3B-CAB-CBB
7	B	201	HEM	C2A-CAA-CBA-CGA
7	D	201	HEM	C2A-CAA-CBA-CGA
7	F	201	HEM	C2A-CAA-CBA-CGA
7	H	201	HEM	C2A-CAA-CBA-CGA
7	J	201	HEM	C2A-CAA-CBA-CGA
7	L	201	HEM	C2A-CAA-CBA-CGA
7	N	201	HEM	C2A-CAA-CBA-CGA
7	B	201	HEM	C1A-C2A-CAA-CBA
7	B	201	HEM	C3A-C2A-CAA-CBA
7	D	201	HEM	C1A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
7	D	201	HEM	C3A-C2A-CAA-CBA
7	F	201	HEM	C1A-C2A-CAA-CBA
7	F	201	HEM	C3A-C2A-CAA-CBA
7	H	201	HEM	C1A-C2A-CAA-CBA
7	H	201	HEM	C3A-C2A-CAA-CBA
7	J	201	HEM	C1A-C2A-CAA-CBA
7	J	201	HEM	C3A-C2A-CAA-CBA
7	L	201	HEM	C1A-C2A-CAA-CBA
7	L	201	HEM	C3A-C2A-CAA-CBA
7	N	201	HEM	C1A-C2A-CAA-CBA
7	N	201	HEM	C3A-C2A-CAA-CBA
7	B	201	HEM	C4B-C3B-CAB-CBB
7	D	201	HEM	C4B-C3B-CAB-CBB
7	F	201	HEM	C4B-C3B-CAB-CBB
7	H	201	HEM	C4B-C3B-CAB-CBB
7	J	201	HEM	C4B-C3B-CAB-CBB
7	L	201	HEM	C4B-C3B-CAB-CBB
7	N	201	HEM	C4B-C3B-CAB-CBB
7	D	201	HEM	CAA-CBA-CGA-O1A
7	F	201	HEM	CAA-CBA-CGA-O1A
7	H	201	HEM	CAA-CBA-CGA-O1A
7	J	201	HEM	CAA-CBA-CGA-O1A
7	L	201	HEM	CAA-CBA-CGA-O1A
7	N	201	HEM	CAA-CBA-CGA-O1A
7	B	201	HEM	CAA-CBA-CGA-O1A
7	J	201	HEM	CAA-CBA-CGA-O2A
7	B	201	HEM	CAA-CBA-CGA-O2A
7	D	201	HEM	CAA-CBA-CGA-O2A
7	F	201	HEM	CAA-CBA-CGA-O2A
7	H	201	HEM	CAA-CBA-CGA-O2A
7	L	201	HEM	CAA-CBA-CGA-O2A
7	N	201	HEM	CAA-CBA-CGA-O2A
5	A	1301	DTP	C5'-O5'-PA-O1A
5	C	1301	DTP	C5'-O5'-PA-O1A
5	E	1301	DTP	C5'-O5'-PA-O1A
5	G	1301	DTP	C5'-O5'-PA-O1A
5	I	1301	DTP	C5'-O5'-PA-O1A
5	K	1301	DTP	C5'-O5'-PA-O1A
5	M	1301	DTP	C5'-O5'-PA-O1A

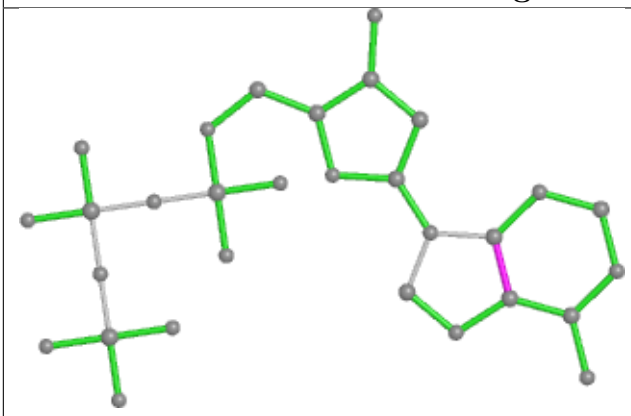
There are no ring outliers.

14 monomers are involved in 148 short contacts:

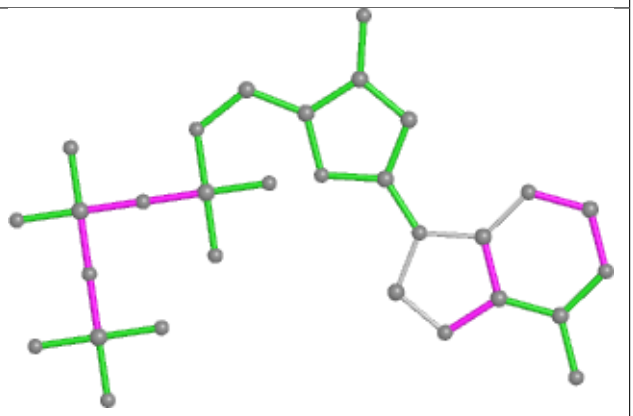
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	A	1301	DTP	6	0
7	B	201	HEM	15	0
7	N	201	HEM	16	0
5	I	1301	DTP	6	0
5	E	1301	DTP	6	0
7	F	201	HEM	14	0
5	G	1301	DTP	6	0
5	K	1301	DTP	6	0
5	M	1301	DTP	6	0
7	H	201	HEM	14	0
7	J	201	HEM	15	0
7	L	201	HEM	14	0
7	D	201	HEM	18	0
5	C	1301	DTP	6	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

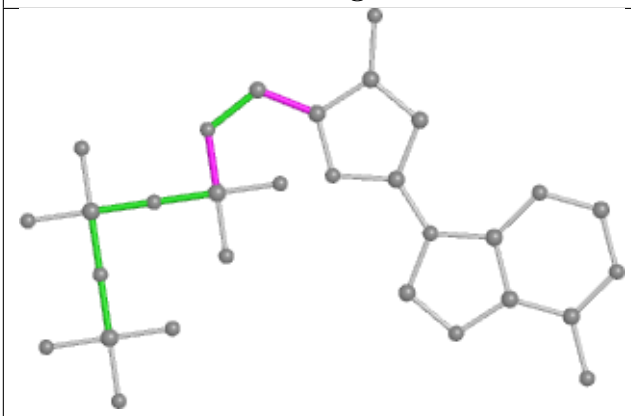
Ligand DTP A 1301



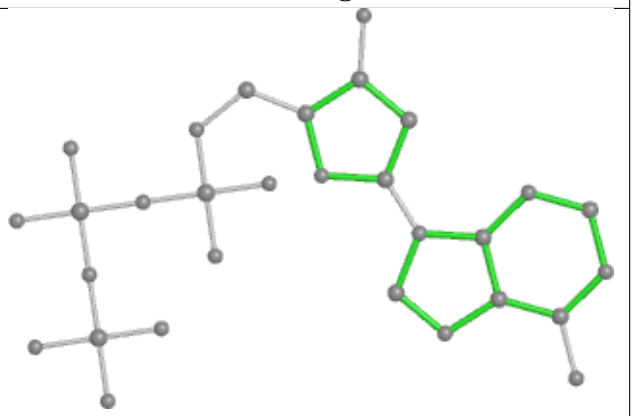
Bond lengths



Bond angles

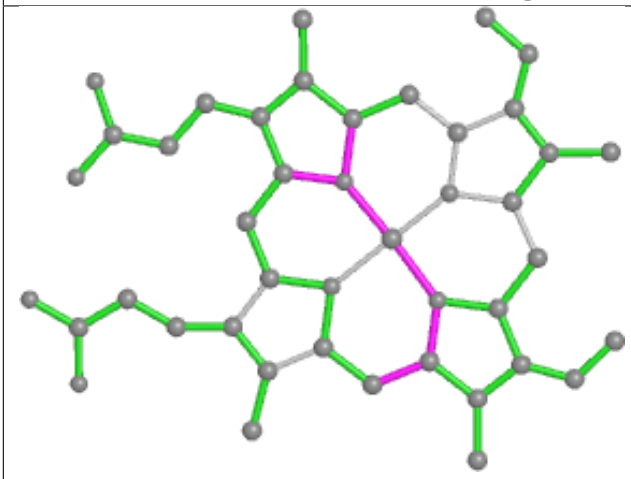


Torsions



Rings

Ligand HEM B 201



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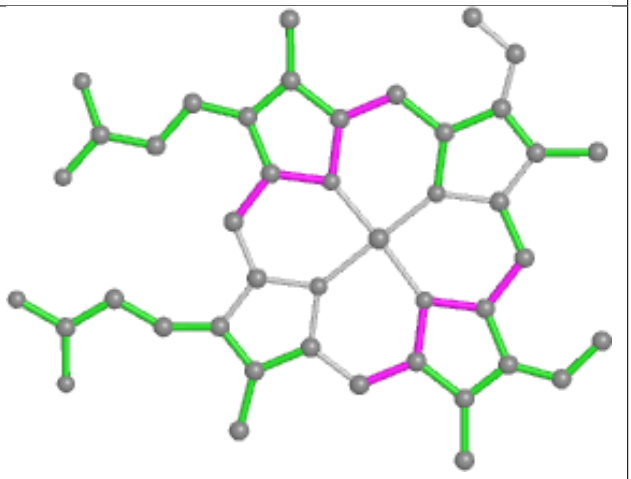
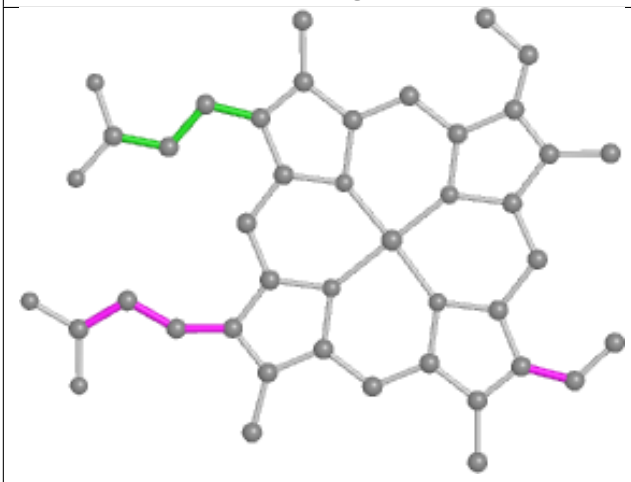
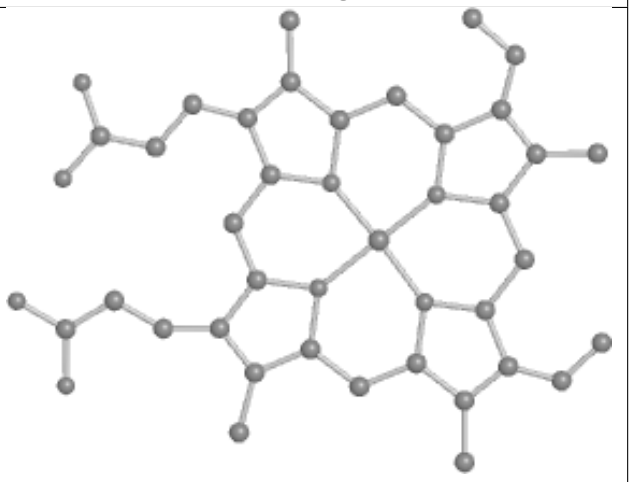


Bond angles



Torsions



Rings

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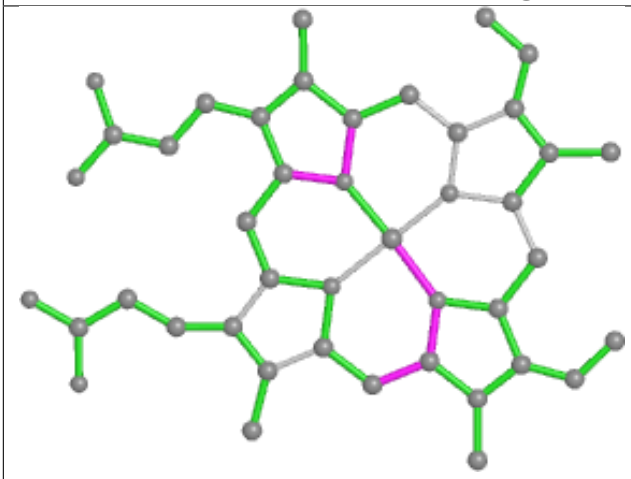

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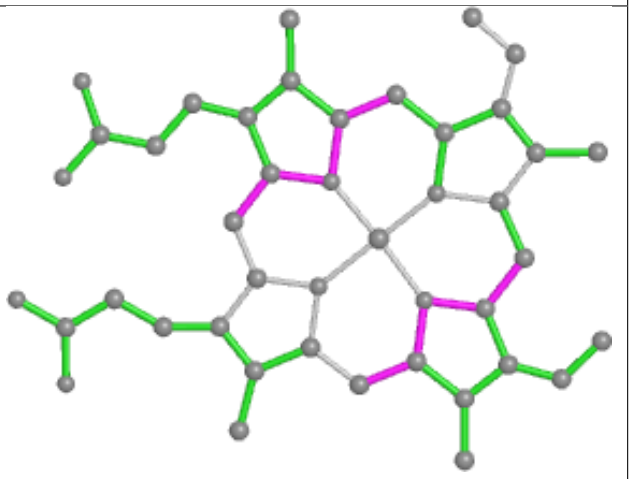
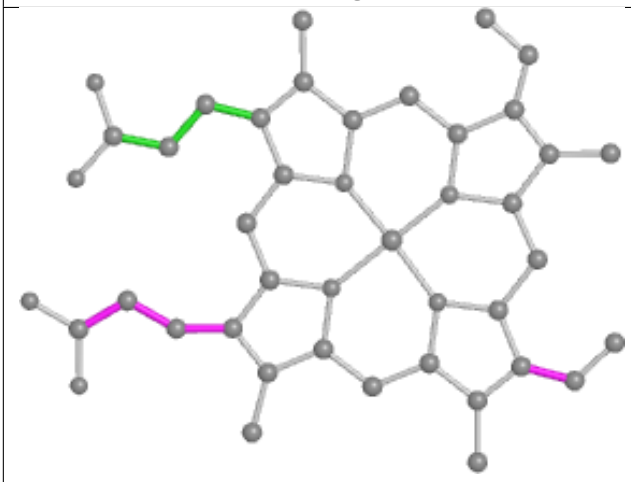


Bond angles



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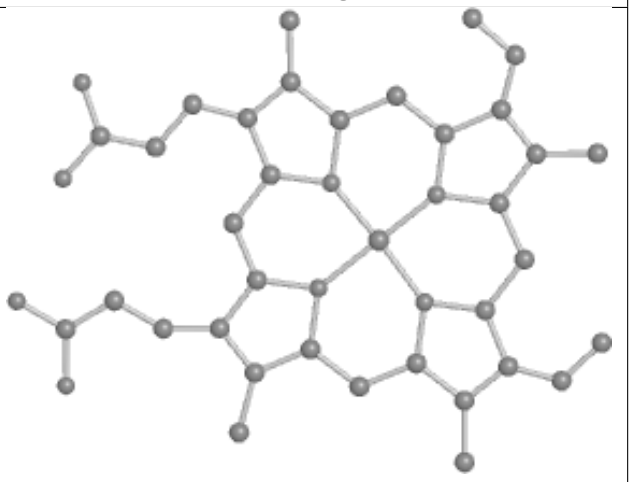
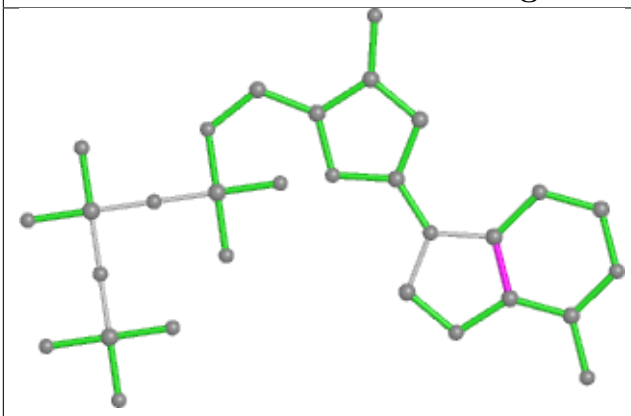


Rings

Ligand DTP I 1301



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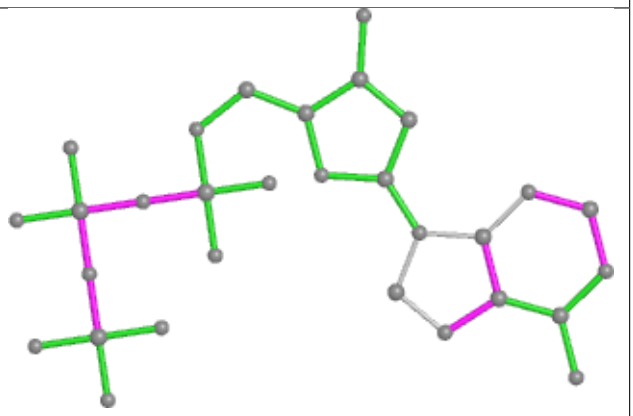
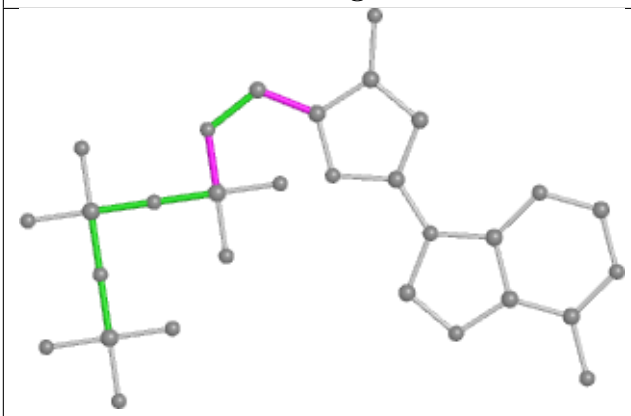


Bond angles



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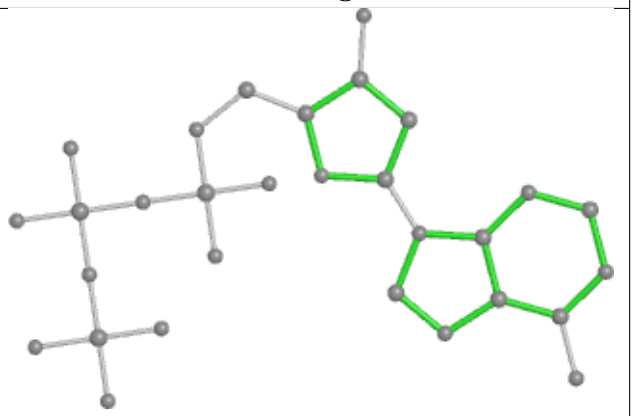

Rings

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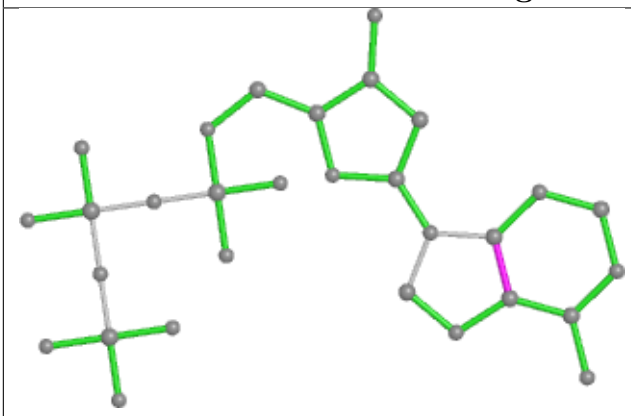

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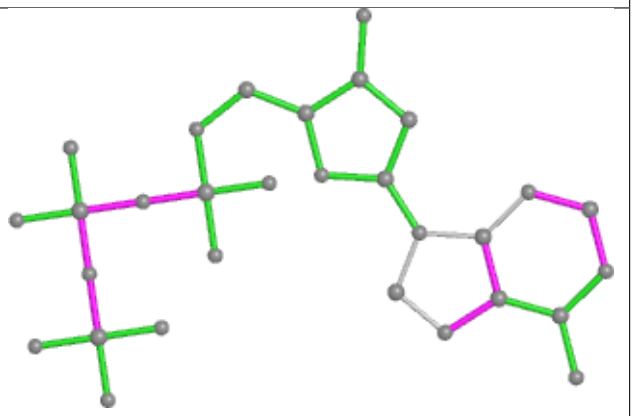

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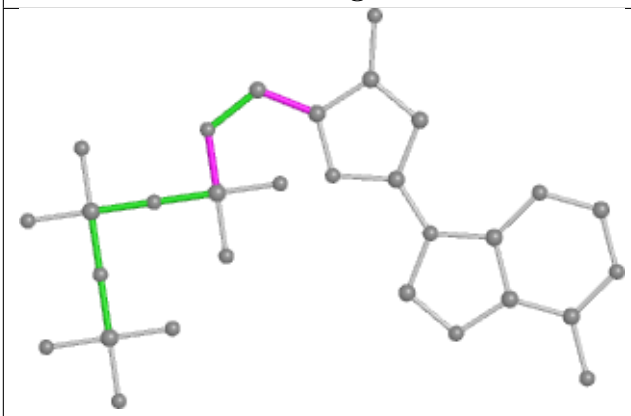

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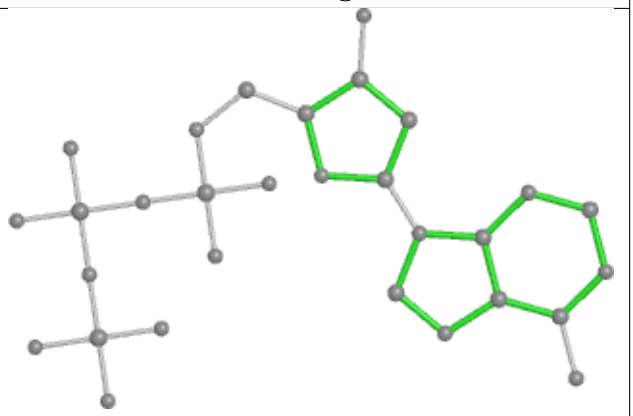
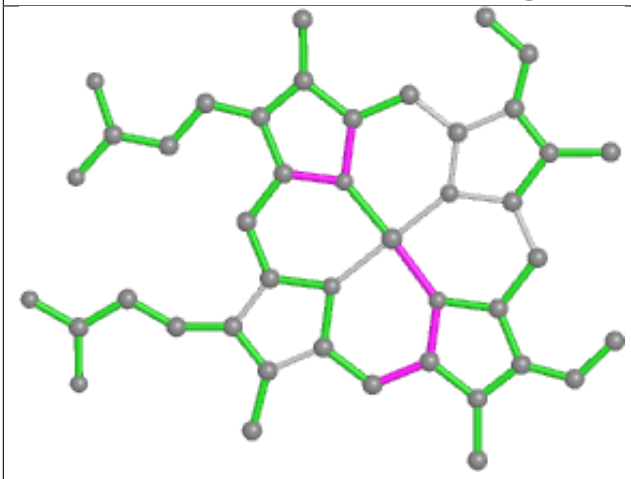


Rings

Ligand HEM F 201



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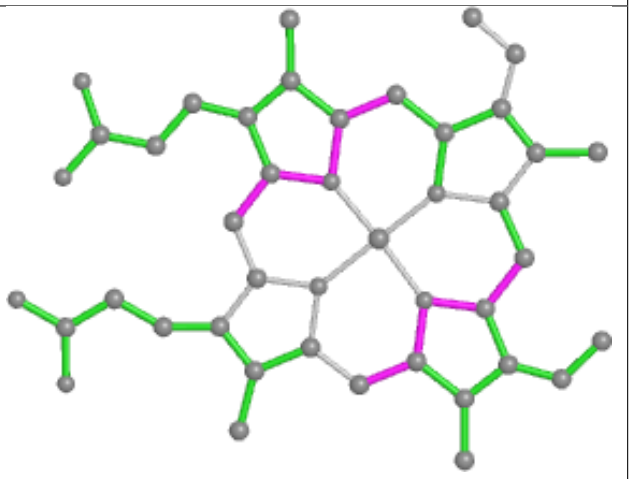

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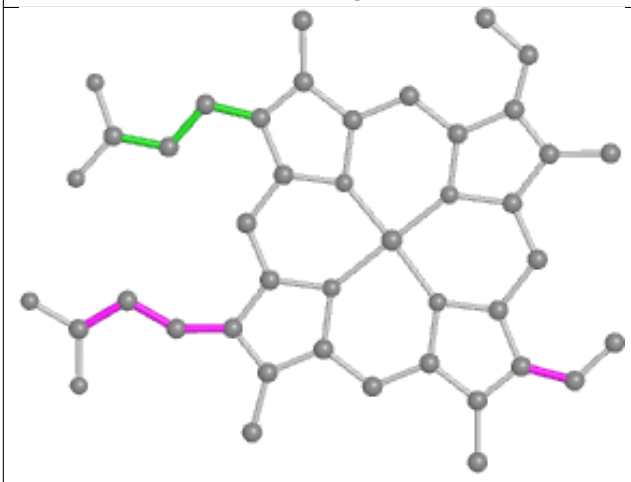

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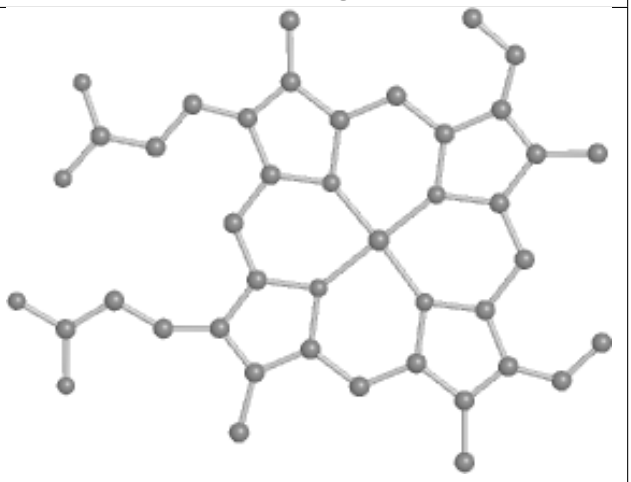
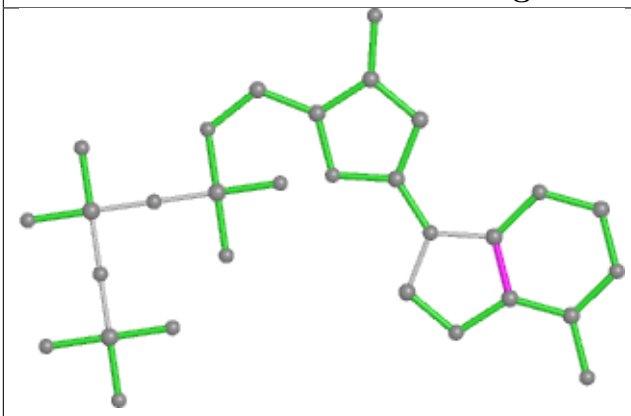


Rings

Ligand DTP G 1301



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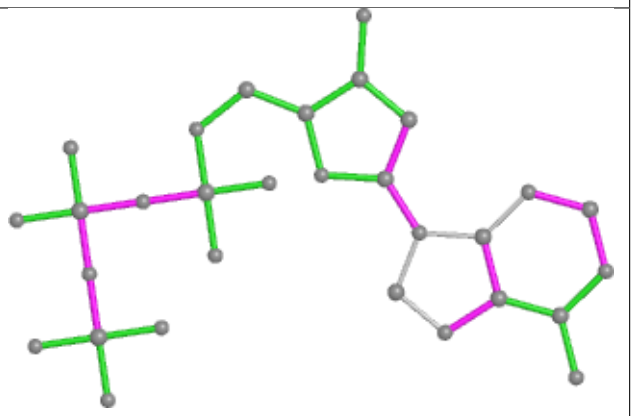

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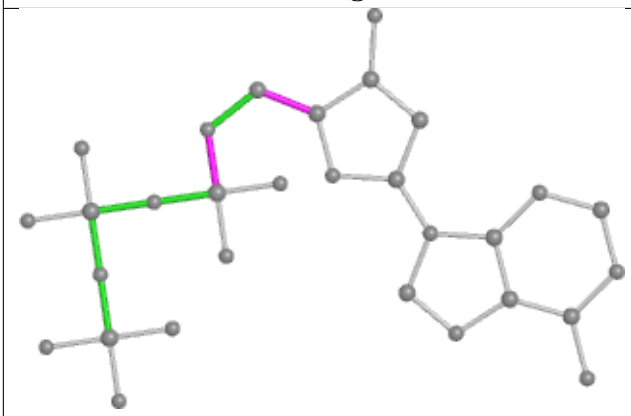
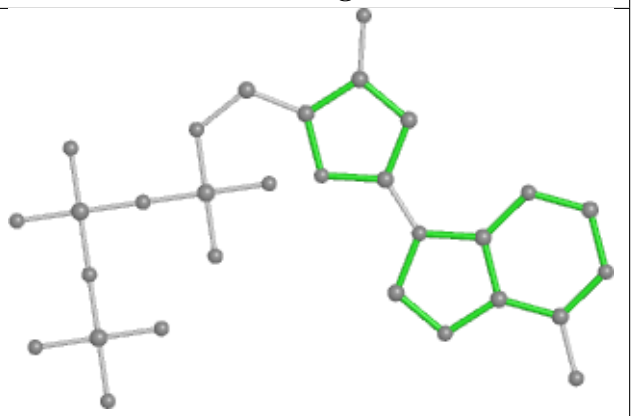
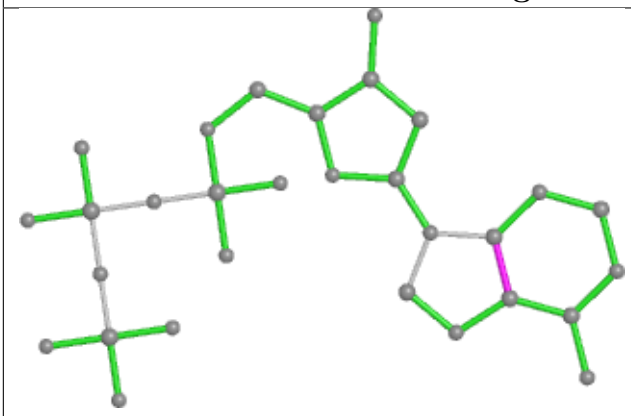


Torsions



Rings

Ligand DTP K 1301



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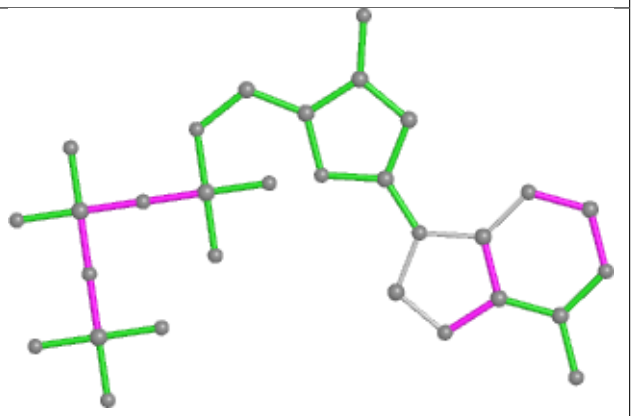
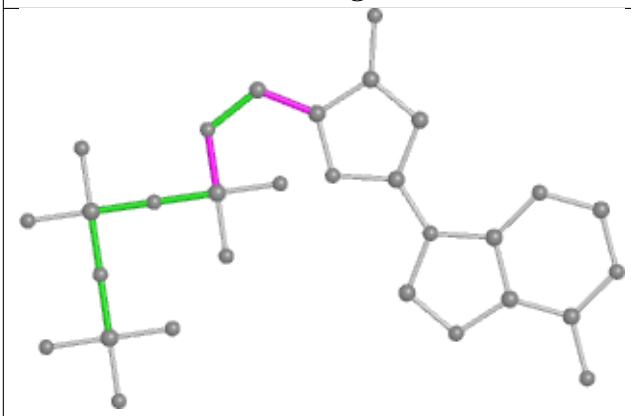
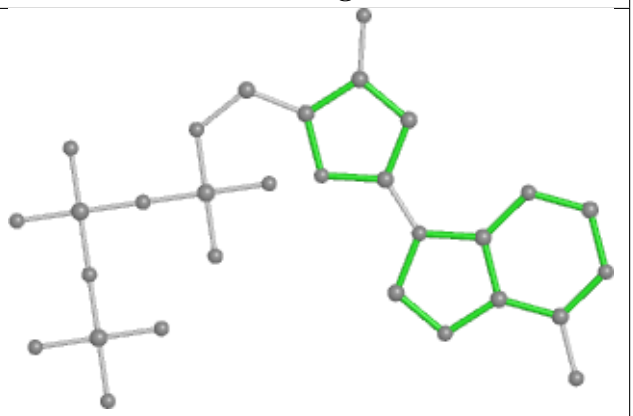


Bond angles



Torsions



Rings

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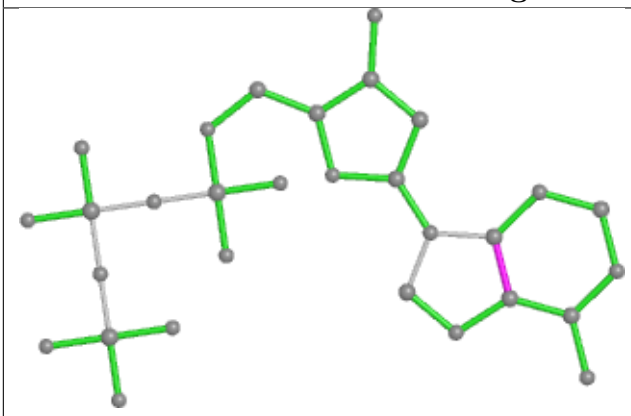

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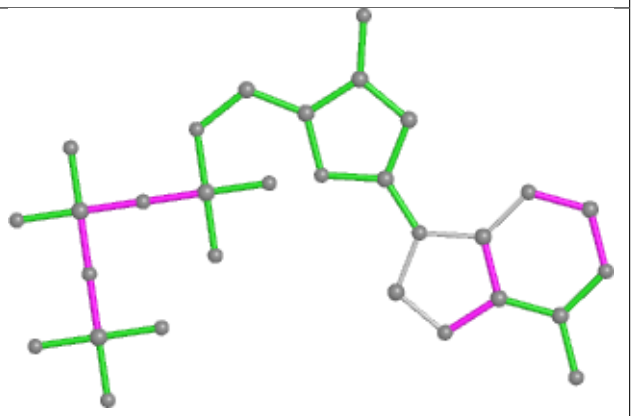

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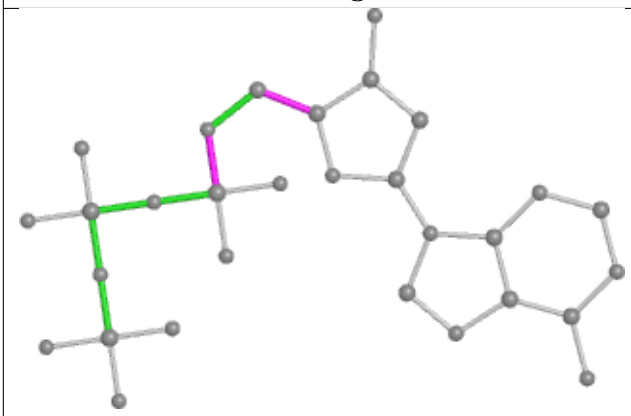
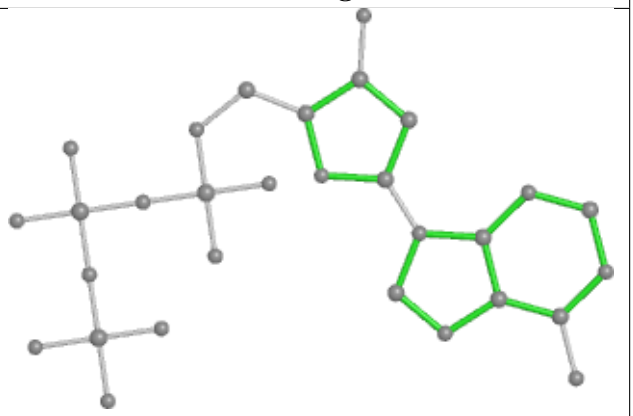
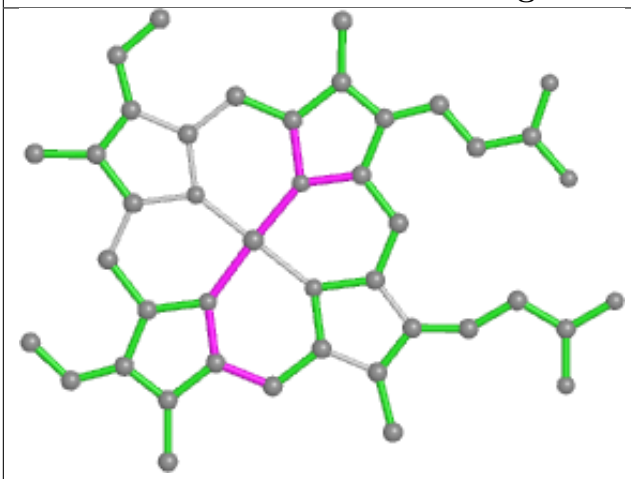


Torsions



Rings

Ligand HEM H 201



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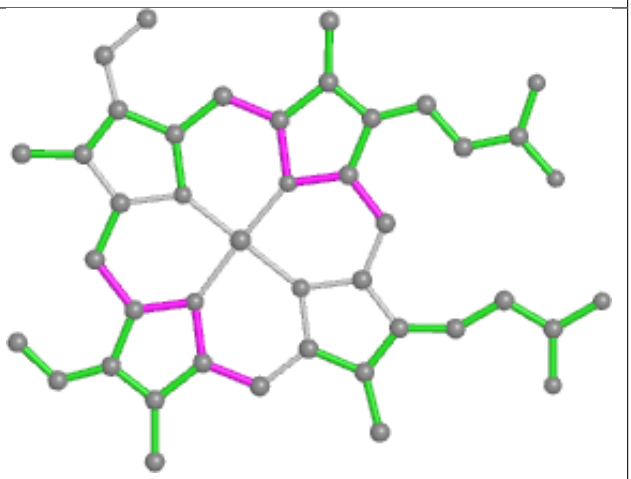
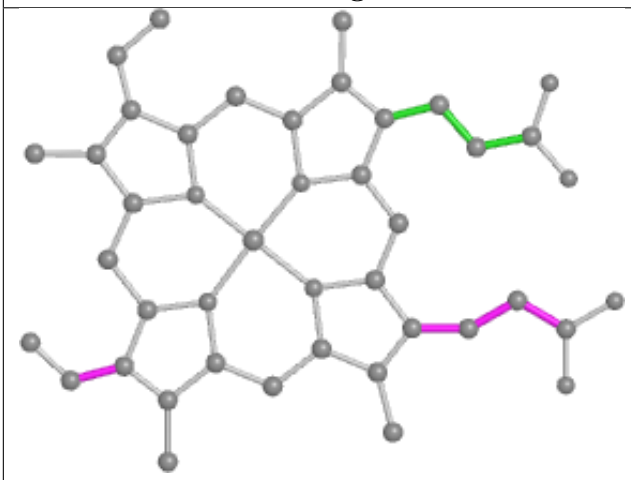
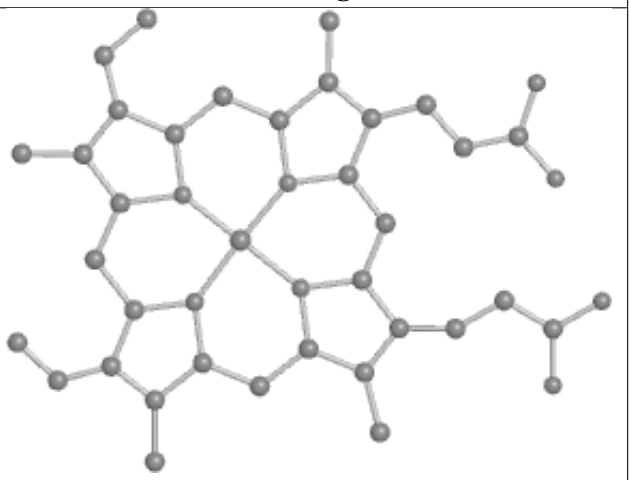


Bond angles

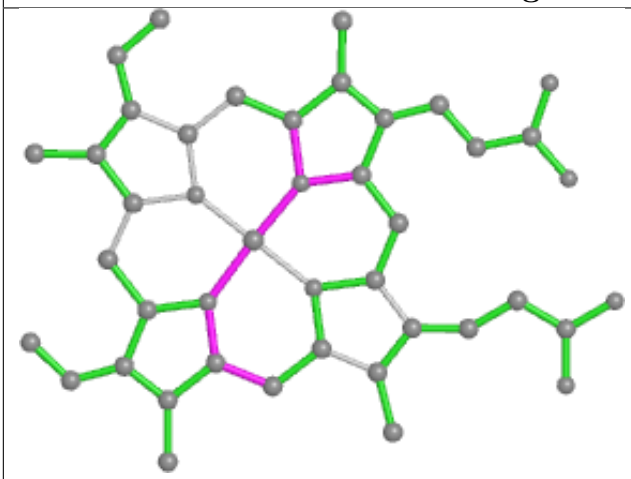


Torsions

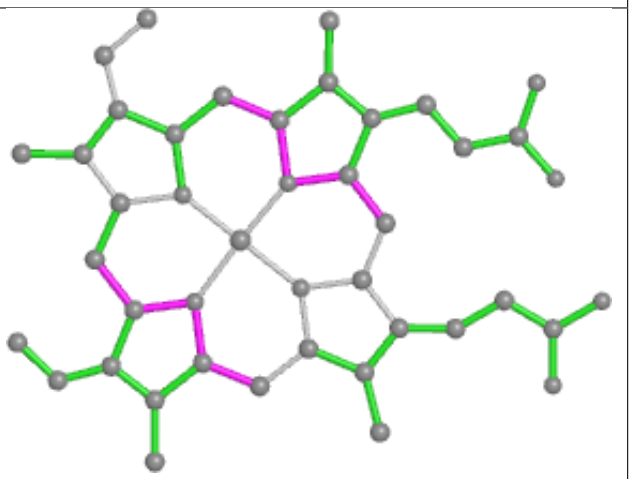


Rings

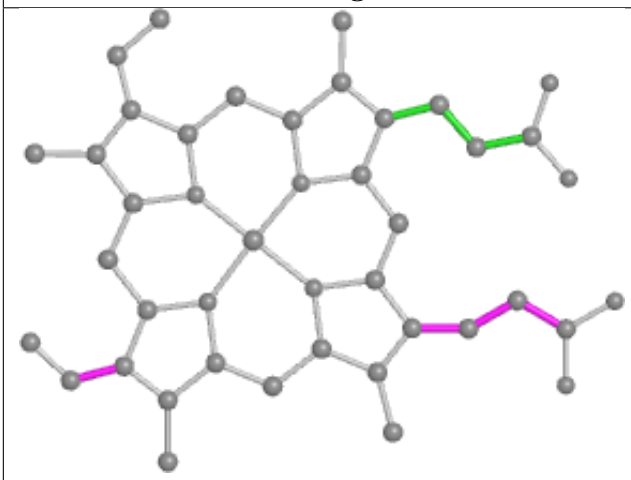
Ligand HEM J 201



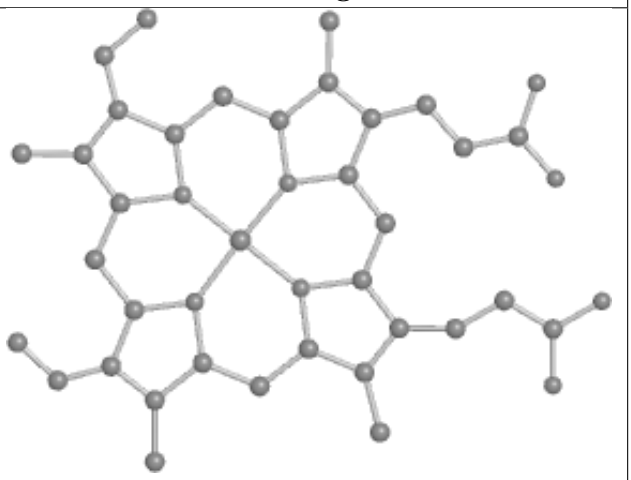
Bond lengths



Bond angles

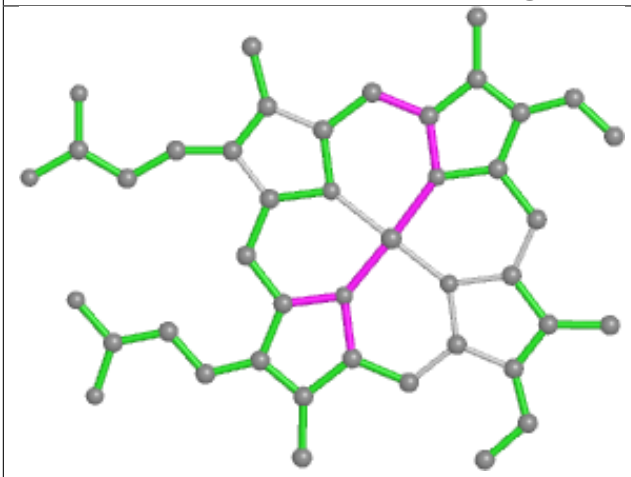


Torsions

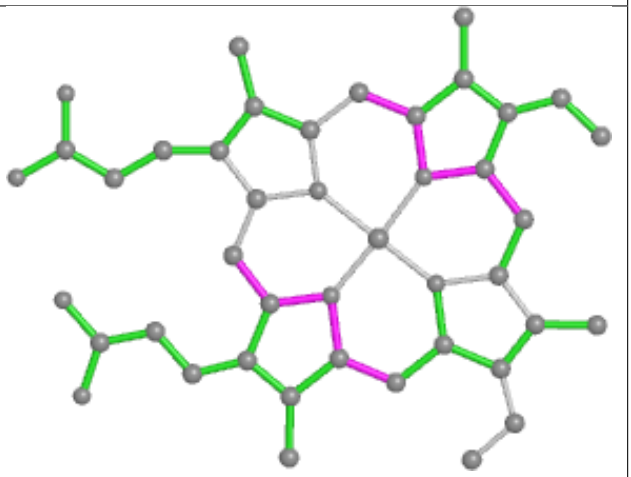


Rings

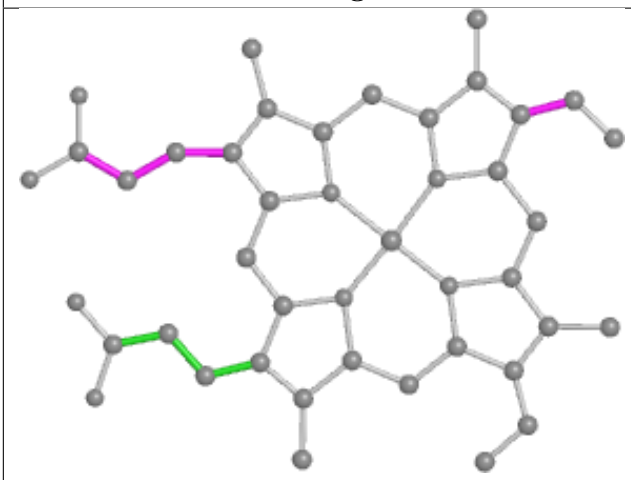
Ligand HEM L 201



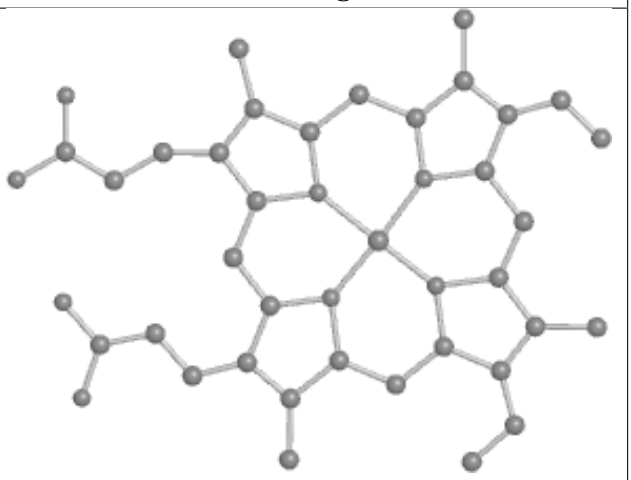
Bond lengths



Bond angles

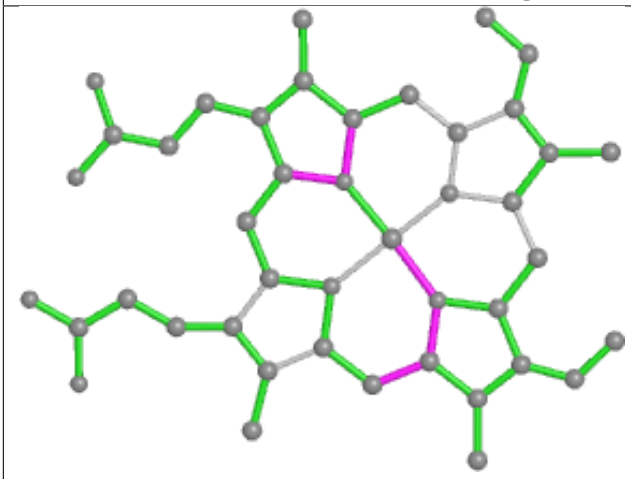


Torsions

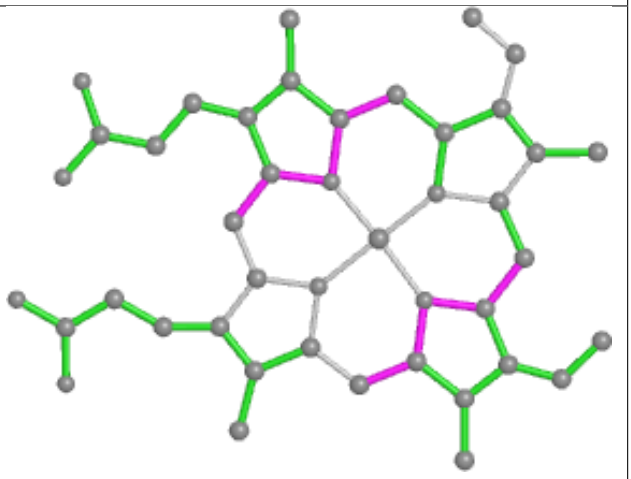


Rings

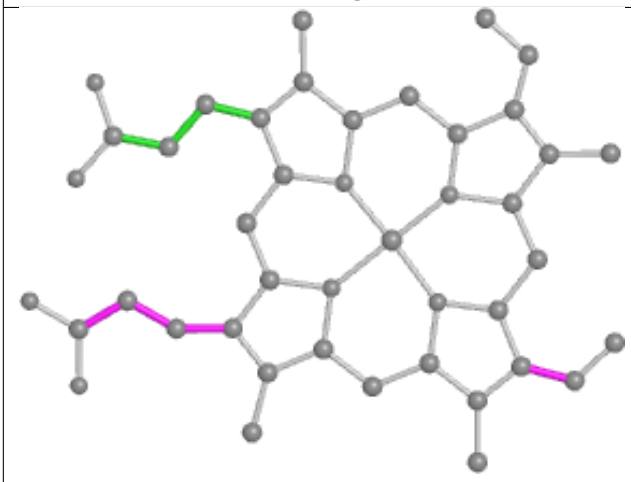
Ligand HEM D 201



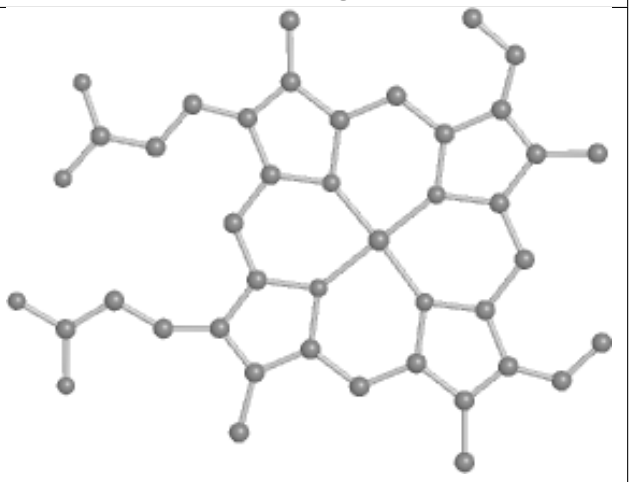
Bond lengths



Bond angles

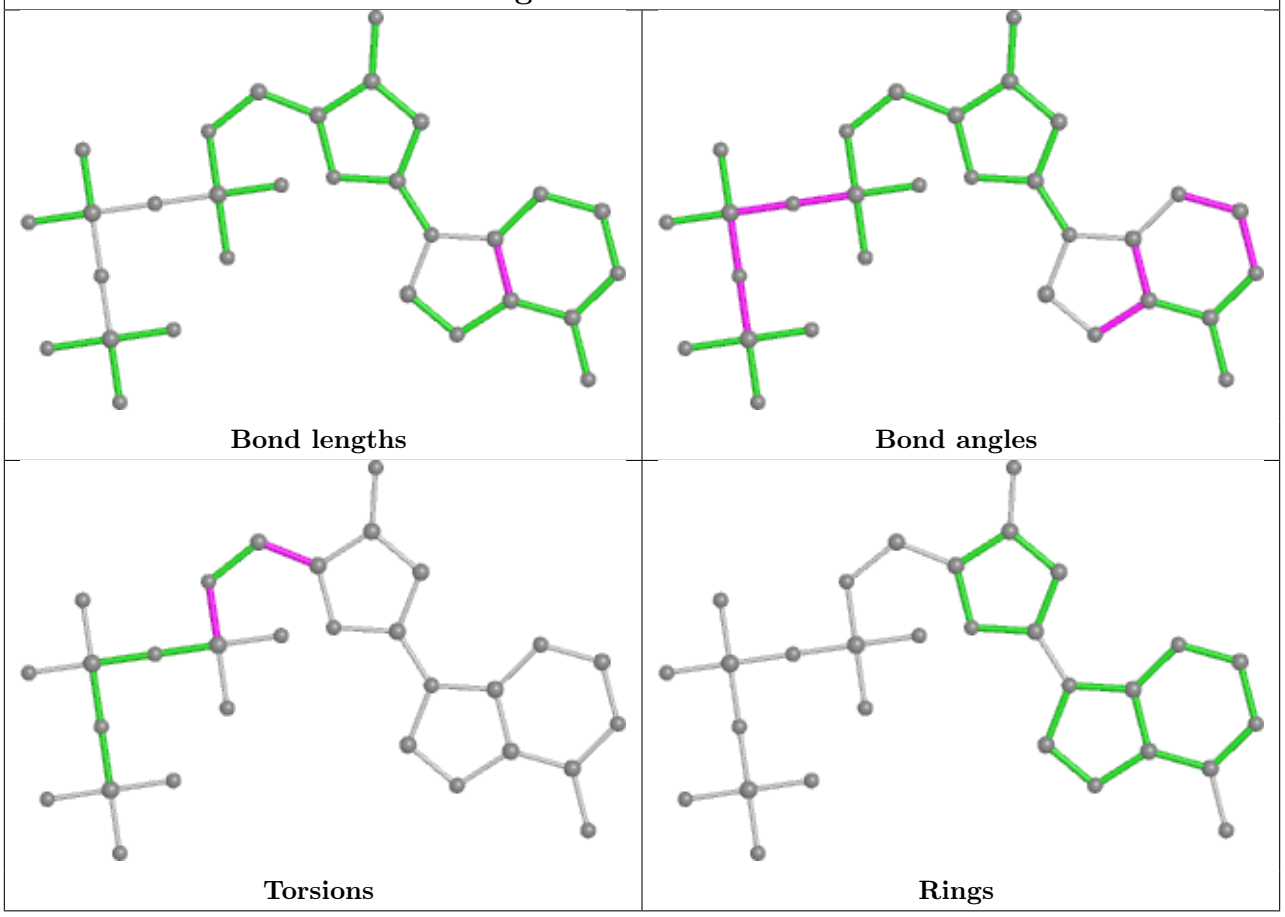


Torsions



Rings

Ligand DTP C 1301



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	K	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	K	1179:TRP	C	1180:VAL	N	1.19

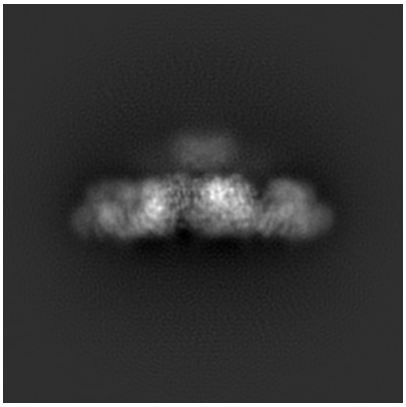
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-6690. These allow visual inspection of the internal detail of the map and identification of artifacts.

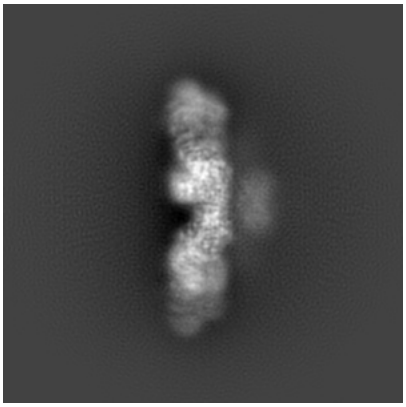
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

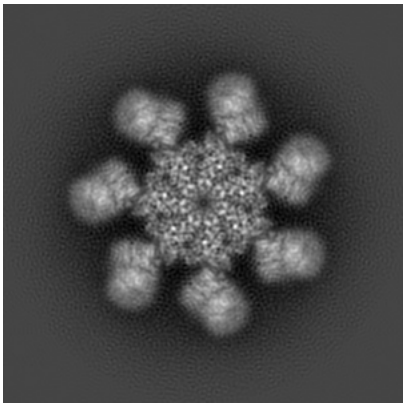
6.1.1 Primary map



X



Y

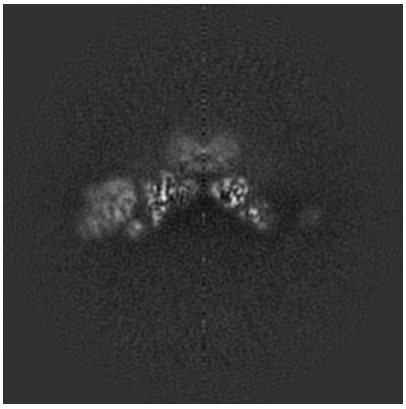


Z

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

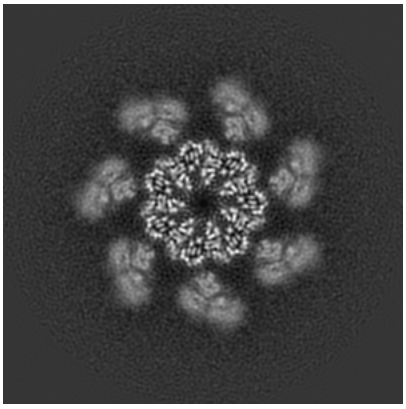
6.2 Central slices

6.2.1 Primary map



X Index: 160

Y Index: 160

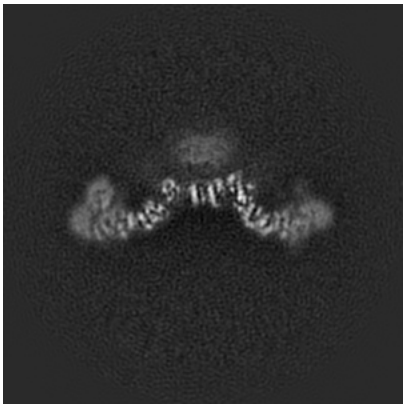


Z Index: 160

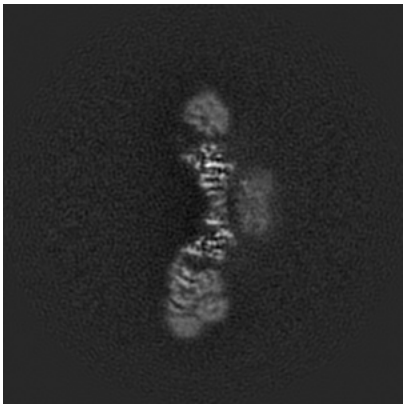
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

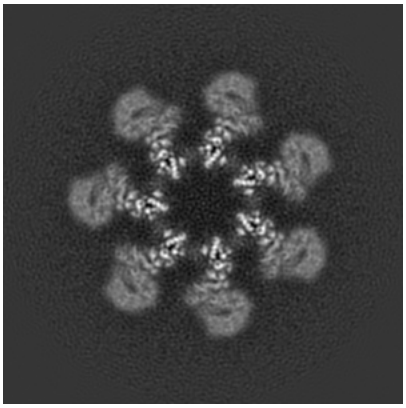
6.3.1 Primary map



X Index: 174



Y Index: 168



Z Index: 149

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map

X

Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.06. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

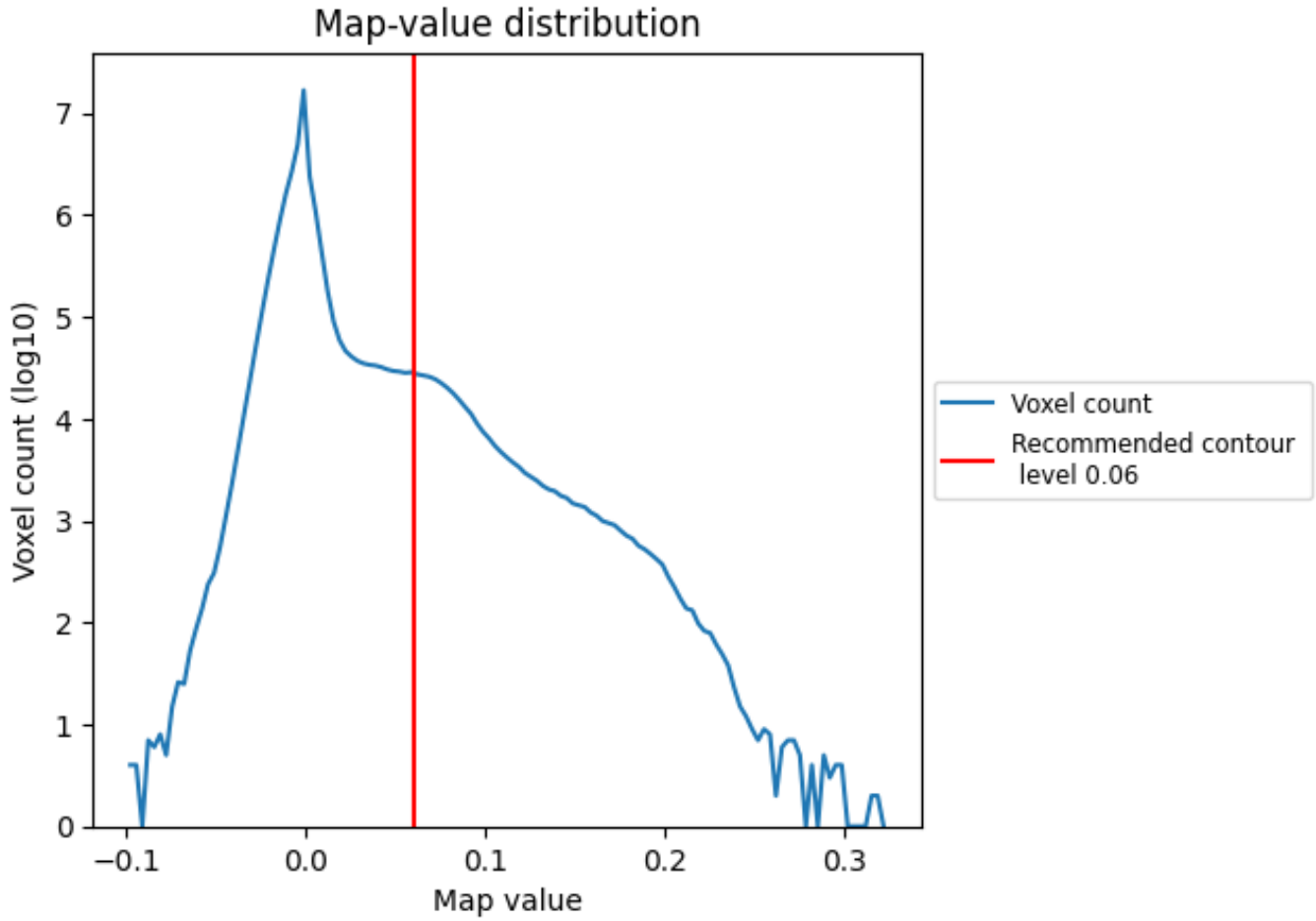
6.5 Mask visualisation (i)

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

7 Map analysis

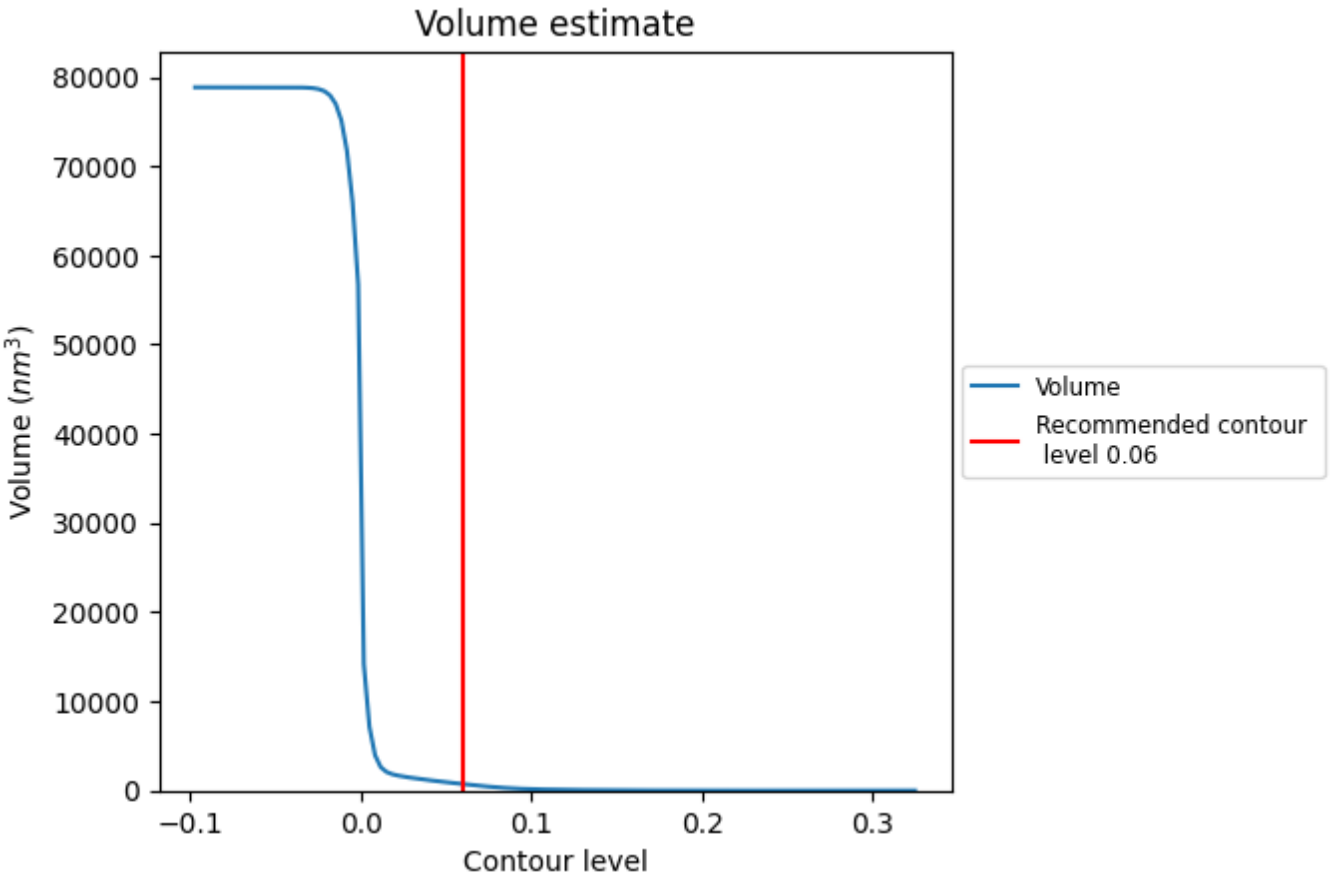
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

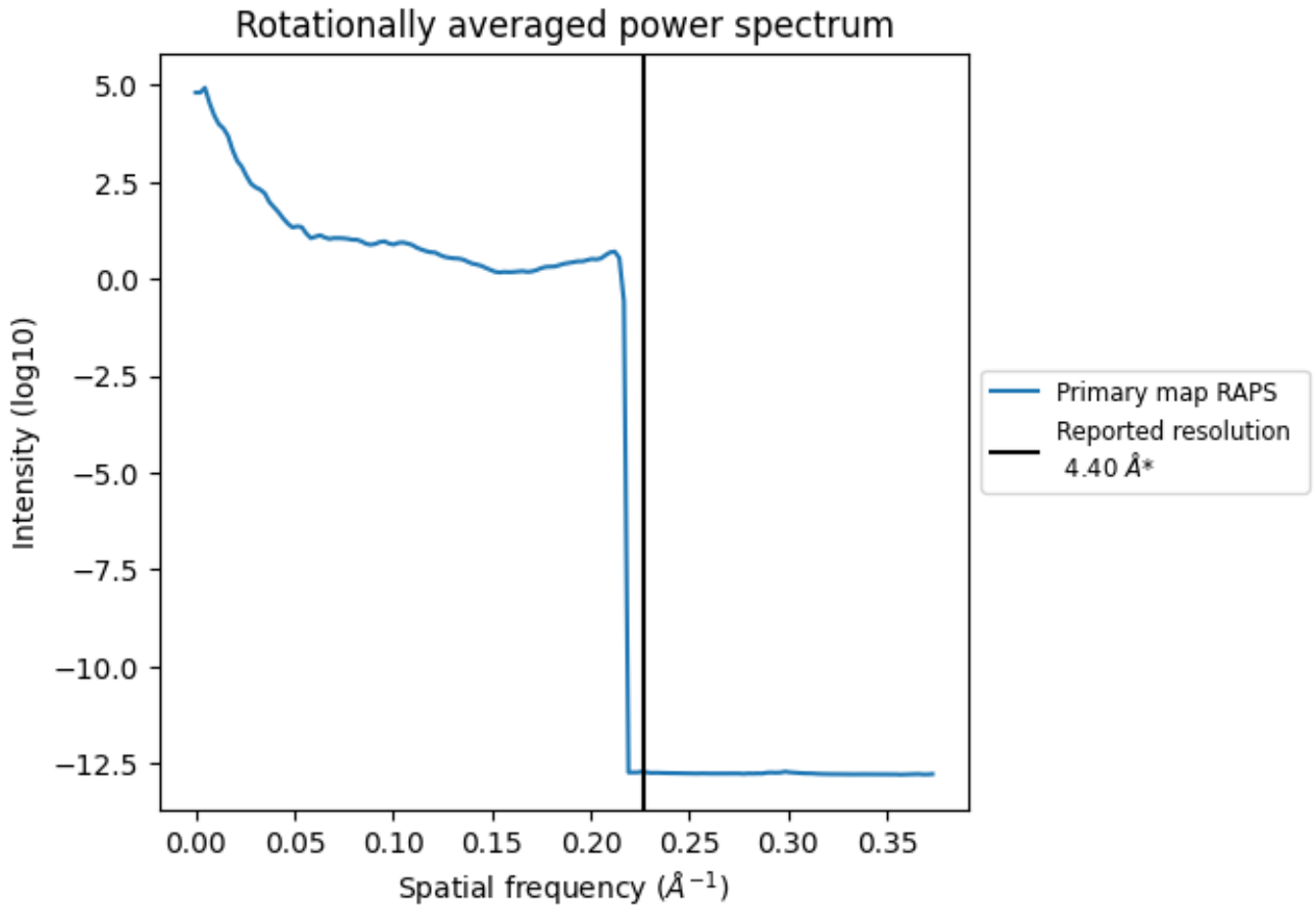
7.2 Volume estimate



The volume at the recommended contour level is 726 nm^3; this corresponds to an approximate mass of 656 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 0.227 Å^{-1}

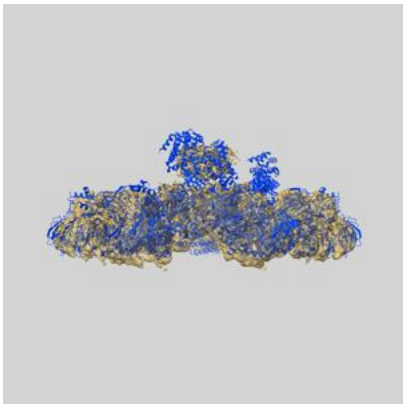
8 Fourier-Shell correlation

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

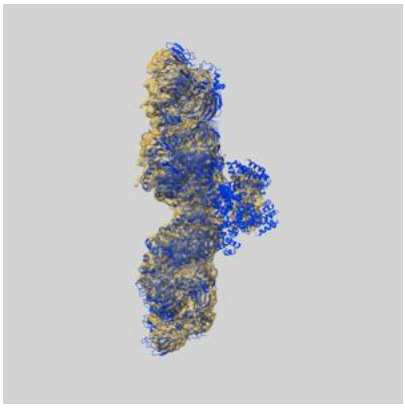
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-6690 and PDB model 5WVE. Per-residue inclusion information can be found in section 3 on page 8.

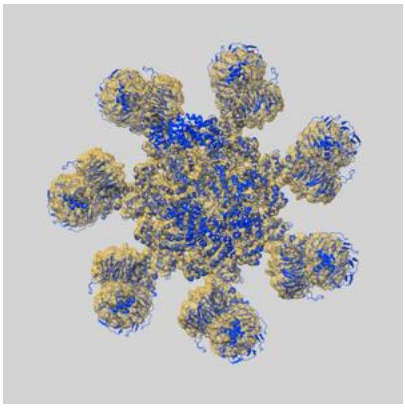
9.1 Map-model overlay



X



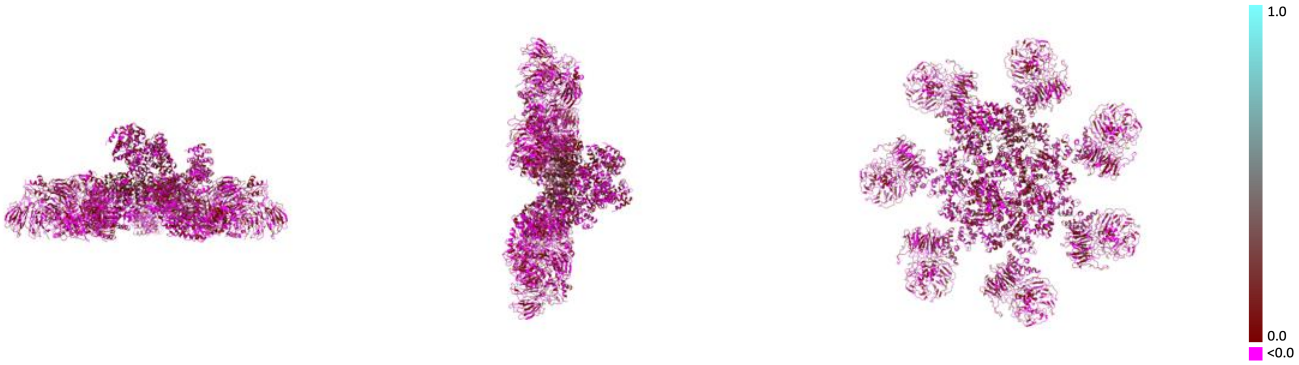
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.06 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

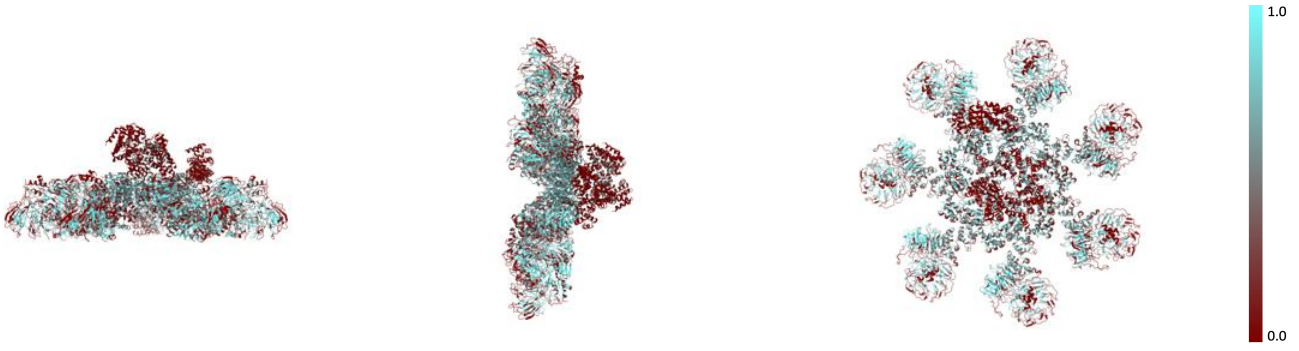
9.2 Q-score mapped to coordinate model



X Y Z

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

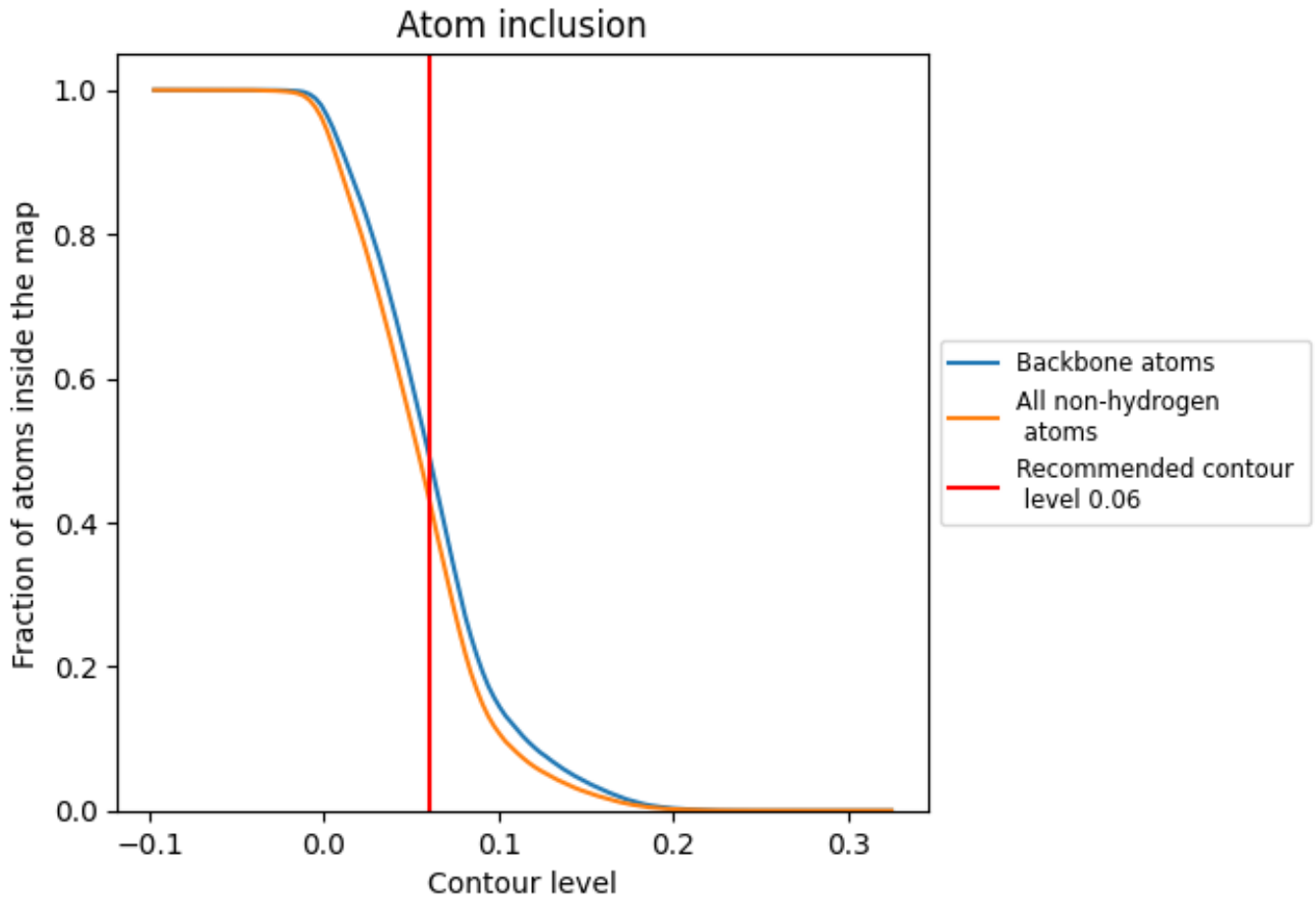
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.06).

9.4 Atom inclusion (i)



At the recommended contour level, 49% of all backbone atoms, 43% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.06) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.4333	0.0380
A	0.5306	0.0810
B	0.4408	0.0420
C	0.5082	0.0470
D	0.5299	0.0170
E	0.4464	0.0150
F	0.5275	0.0380
G	0.4648	0.0260
H	0.4853	-0.0000
I	0.4883	0.0440
J	0.4138	0.0310
K	0.4473	0.0360
L	0.3329	0.0170
M	0.4551	0.0380
N	0.3341	0.0140
O	0.0802	0.0250
P	0.1383	0.0500
Q	0.1452	0.0310
R	0.1286	0.0130
S	0.2819	0.0140
T	0.1303	0.0600
U	0.0359	0.0300
V	0.0279	0.0440
W	0.0000	0.0410
X	0.0000	-0.0170
Y	0.0000	-0.0060