Full wwPDB X-ray Structure Validation Report ⓘ

Oct 27, 2023 – 06:37 AM EDT

PDB ID	:	3HOU
Title	:	Complete RNA polymerase II elongation complex I with a T-U mismatch
Authors	:	Sydow, J.F.; Brueckner, F.; Cheung, A.C.M.; Damsma, G.E.; Dengl, S.; Lehmann, E.; Vassylyev, D.; Cramer, P.
Deposited on	:	2009-06-03
Resolution	:	3.20 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp
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:

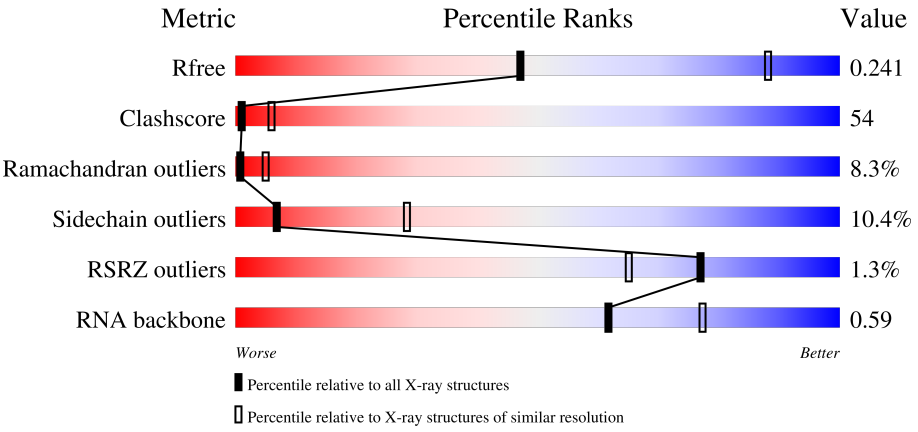
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1133 (3.20-3.20)
Clashscore	141614	1253 (3.20-3.20)
Ramachandran outliers	138981	1234 (3.20-3.20)
Sidechain outliers	138945	1233 (3.20-3.20)
RSRZ outliers	127900	1095 (3.20-3.20)
RNA backbone	3102	1010 (3.50-2.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1733	31% 41% 9% • 18%
1	M	1733	% 31% 40% 9% • 18%
2	B	1224	27% 51% 12% 10%
2	N	1224	% 26% 53% 11% • 10%

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Mol	Chain	Length	Quality of chain
3	C	318	29% 44% 11% 16%
3	O	318	28% 44% 11% 16%
4	D	221	26% 41% 12% 19%
4	P	221	10% 15% 47% 17% 19%
5	E	215	26% 64% 9%
5	Q	215	26% 65% 8%
6	F	155	19% 32% 5% 44%
6	R	155	22% 30% 44%
7	G	171	40% 53% 8%
7	S	171	10% 26% 63% 9%
8	H	146	2% 17% 54% 20% 8%
8	T	146	19% 57% 14% 8%
9	I	122	2% 33% 51% 11%
9	U	122	2% 25% 58% 13%
10	J	70	24% 47% 17% 7%
10	V	70	26% 44% 23% 7%
11	K	120	46% 42% 7% 5%
11	W	120	39% 48% 8% 5%
12	L	70	6% 6% 40% 17% 34%
12	X	70	3% 7% 37% 20% 34%
13	1	26	4% 50% 15% 31%
13	4	26	50% 15% 31%
14	2	13	46% 54%
14	5	13	46% 54%
15	3	17	6% 29% 35% 35%

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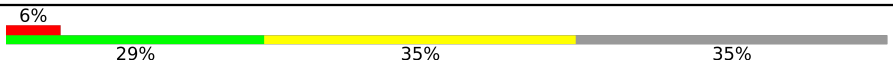
Mol	Chain	Length	Quality of chain
15	6	17	

2 Entry composition (i)

There are 16 unique types of molecules in this entry. The entry contains 63664 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 DNA-directed RNA polymerase II subunit RPB1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			
1	M	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			

- Molecule 2 is a protein called DNA-directed RNA polymerase II subunit RPB2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			
2	N	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			

- Molecule 3 is a protein called DNA-directed RNA polymerase II subunit RPB3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			
3	O	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			

- Molecule 4 is a protein called DNA-directed RNA polymerase II subunit RPB4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			
4	P	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			
5	Q	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			

- Molecule 6 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			
6	R	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			

- Molecule 7 is a protein called DNA-directed RNA polymerase II subunit RPB7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			
7	S	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			
8	T	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			

- Molecule 9 is a protein called DNA-directed RNA polymerase II subunit RPB9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			
9	U	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			

- Molecule 10 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	V	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

- Molecule 11 is a protein called DNA-directed RNA polymerase II subunit RPB11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			
11	W	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			

- Molecule 12 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			
12	X	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			

- Molecule 13 is a DNA chain called 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP *TP*AP*TP*GP*CP*CP*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
13	1	18	Total	Br	C	N	O	P	0	0	0
			368	1	176	66	108	17			
13	4	18	Total	Br	C	N	O	P	0	0	0
			368	1	176	66	108	17			

- Molecule 14 is a DNA chain called 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP *T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	2	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			
14	5	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			

- Molecule 15 is a RNA chain called 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP *AP*GP*GP*CP*U)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	3	11	Total 230	C 104	N 41	O 75	P 10	0	0	0
15	6	11	Total 230	C 104	N 41	O 75	P 10	0	0	0

- Molecule 16 is ZINC ION (three-letter code: ZN) (formula: Zn).

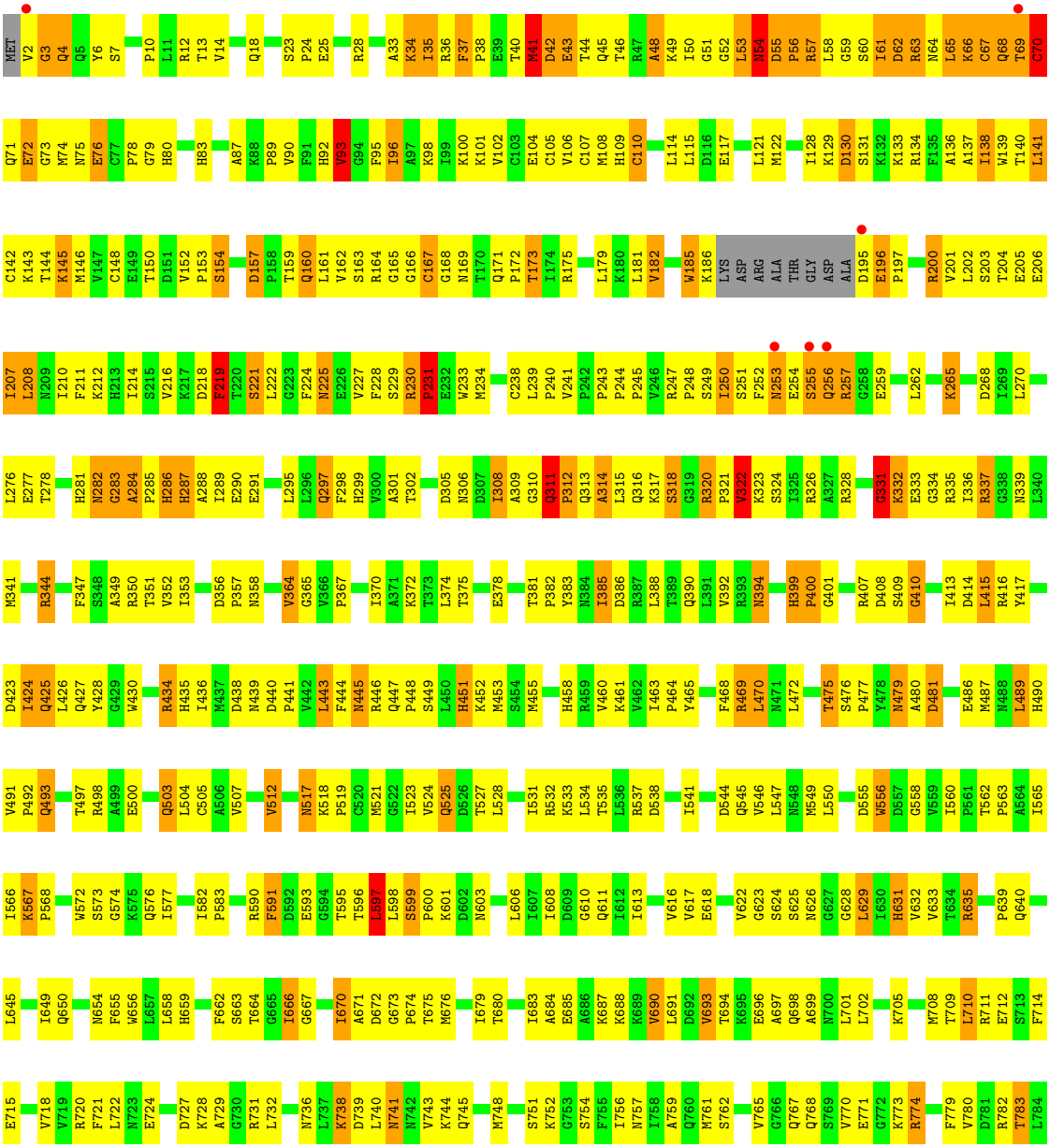
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
16	A	2	Total 2	Zn 2	0	0
16	B	1	Total 1	Zn 1	0	0
16	C	1	Total 1	Zn 1	0	0
16	I	2	Total 2	Zn 2	0	0
16	J	1	Total 1	Zn 1	0	0
16	L	1	Total 1	Zn 1	0	0
16	M	2	Total 2	Zn 2	0	0
16	N	1	Total 1	Zn 1	0	0
16	O	1	Total 1	Zn 1	0	0
16	U	2	Total 2	Zn 2	0	0
16	V	1	Total 1	Zn 1	0	0
16	X	1	Total 1	Zn 1	0	0

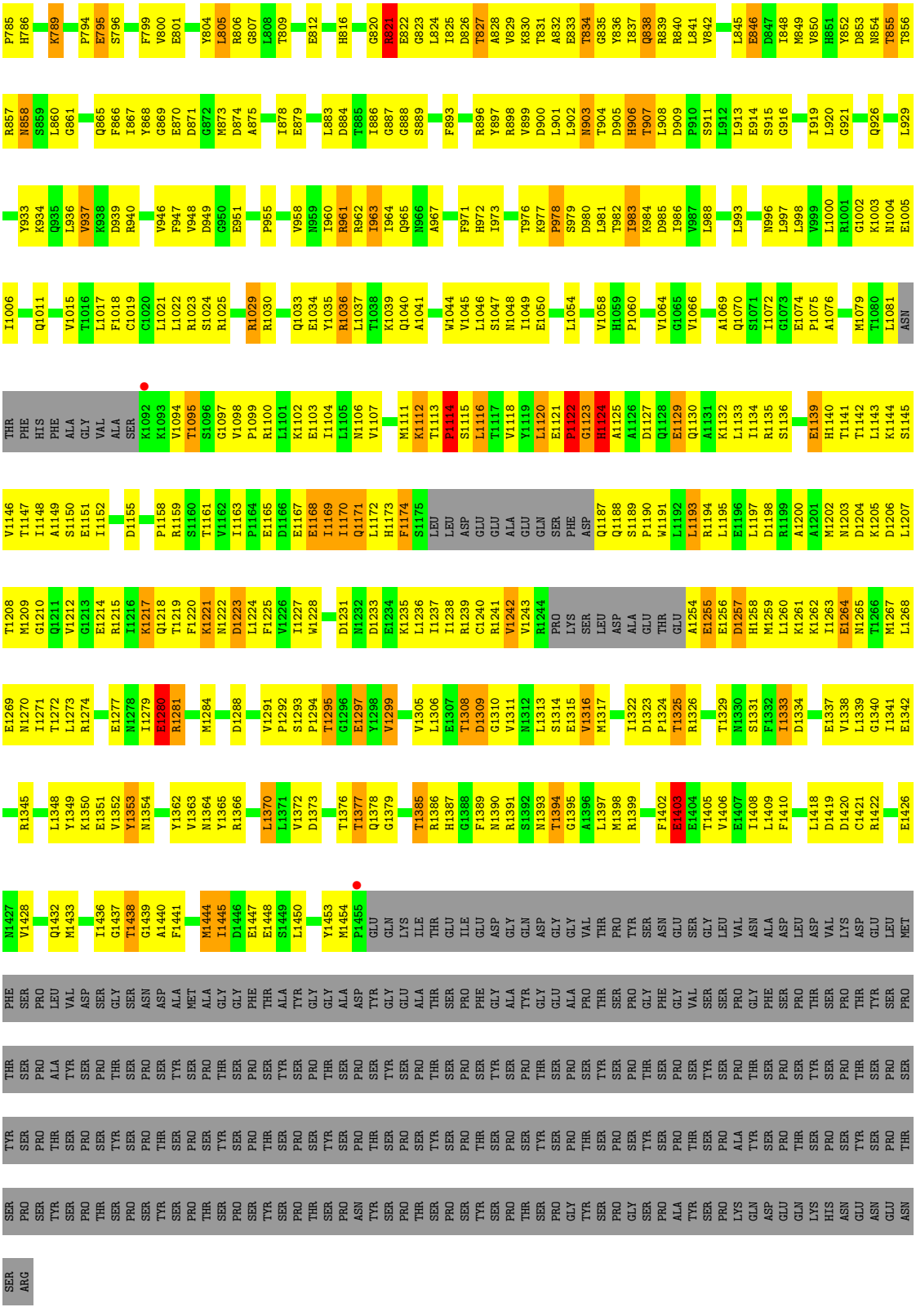
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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: DNA-directed RNA polymerase II subunit RPB1

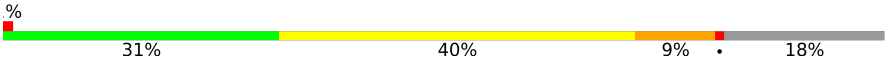
Chain A:

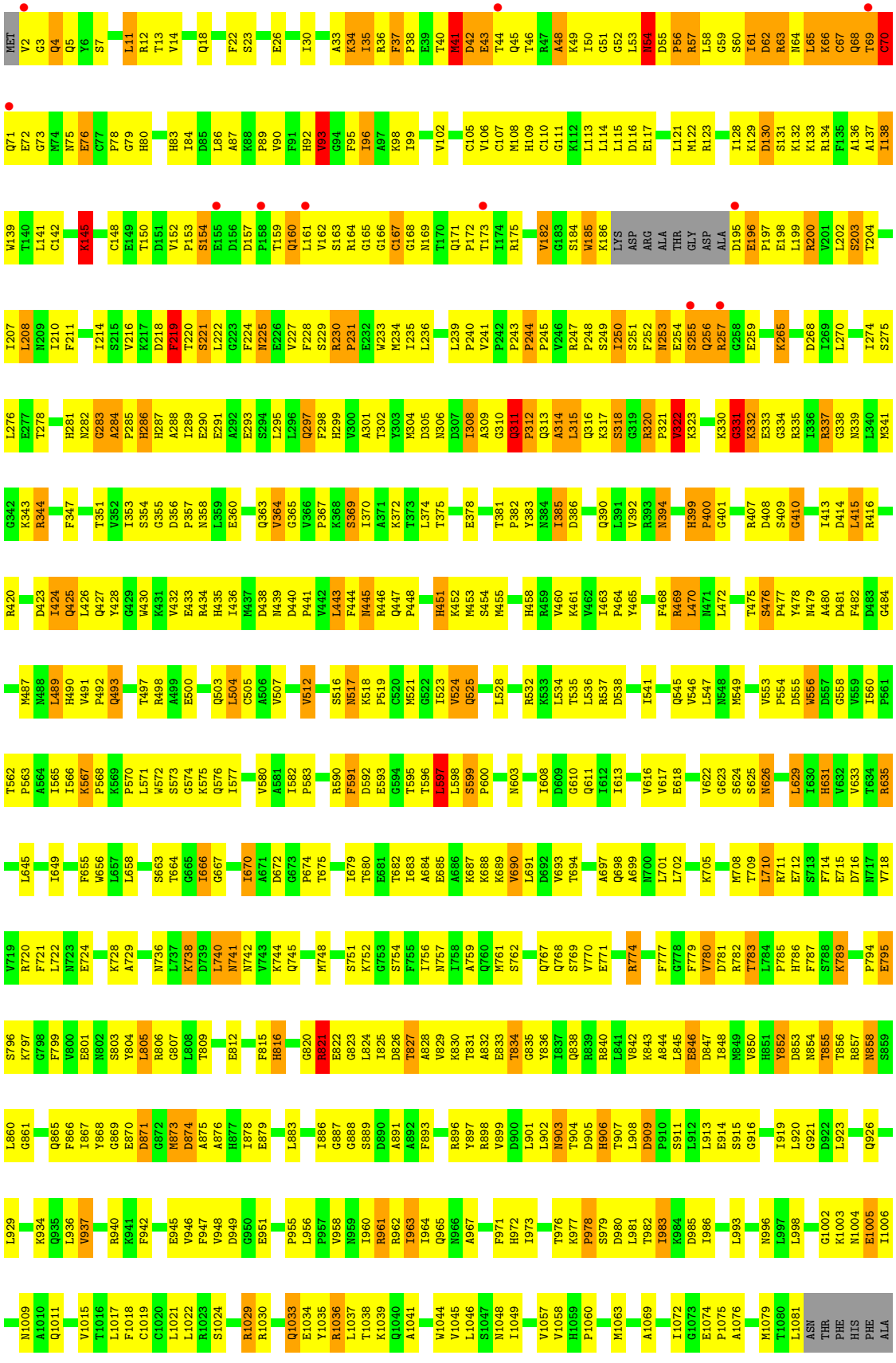




• Molecule 1: DNA-directed RNA polymerase II subunit RPB1

Chain M:

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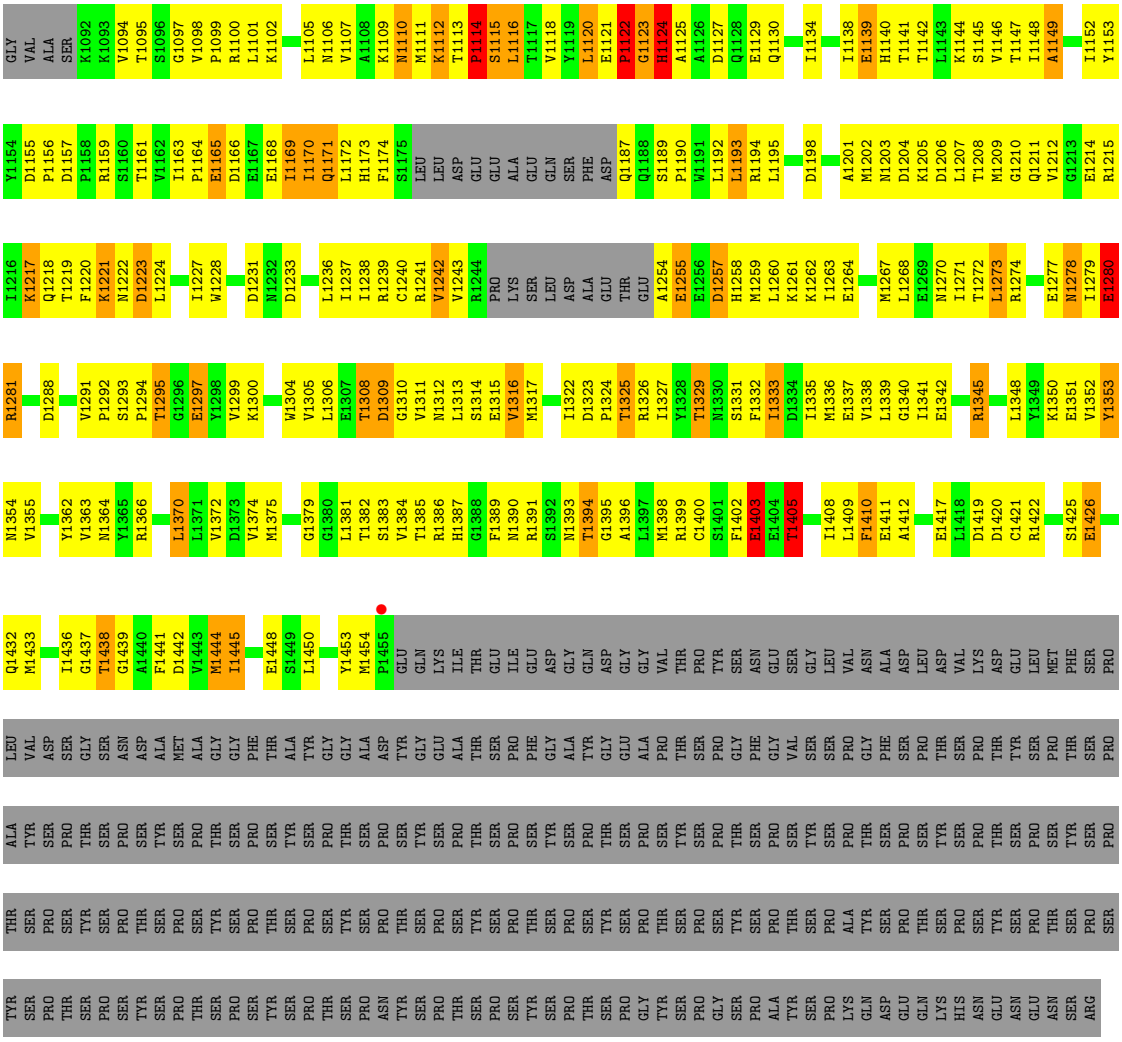
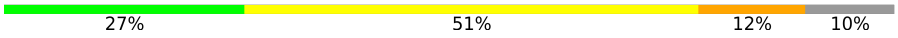
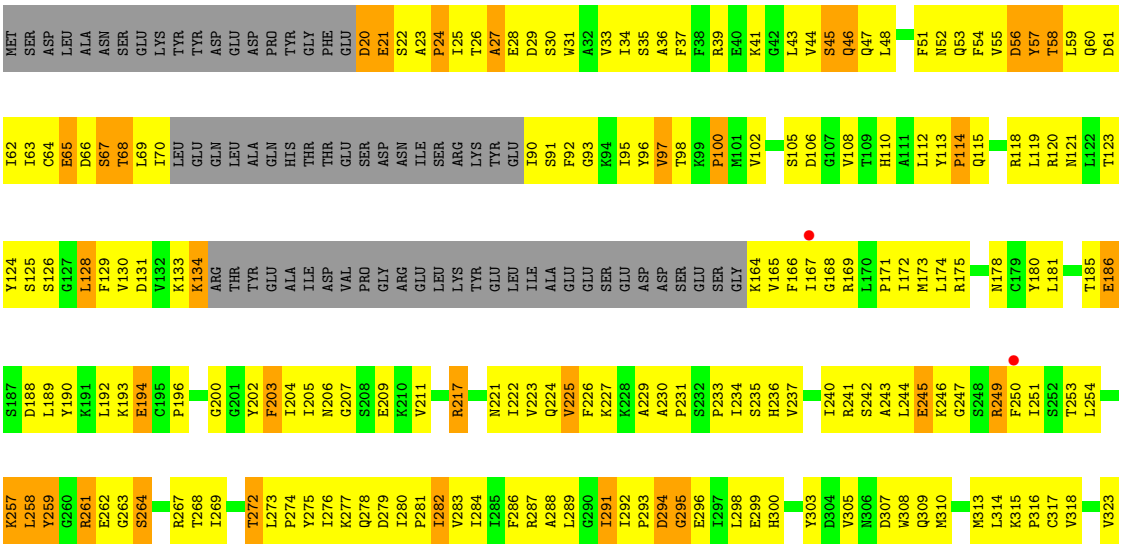
Q71 E72 G73 M74 N75 E76 C77 P78 G79 H80 H83 I84 D85 L86 A87 K88 P89 V90 F91 H92 V93 G94 F95 I96 A97 K98 I99 V102 C105 V106 C107 M108 H109 C110 G111 K112 L113 L114 L115 D116 E117 L121 M122 R123 I128 K129 D130 S131 K132 K133 R134 F135 A136 A137 I138
W139 T140 L141 C142 K145 C148 E149 T150 D151 V152 P153 S154 E155 D156 D157 P158 T159 Q160 L161 V162 S163 R164 G165 G166 C167 G168 N169 T170 Q171 P172 T173 I174 R175 V182 G183 S184 W185 K186 LYS ASP ARG ALA THR GLY ASP ALA D195 E196 P197 E198 L199 R200 V201 L202 S203 T204
I207 L208 N209 I210 F211 I214 S215 V216 K217 D218 F219 T220 S221 L222 G223 F224 N225 E226 V227 F228 S229 R230 P231 E232 W233 M234 I235 L236 L239 P240 V241 P242 P243 P244 P245 V246 R247 P248 S249 I250 S251 F252 N253 E254 S255 Q256 R257 G258 E259 K265 D268 I269 L270 I274 S275
L276 E277 T278 H281 N282 G283 A284 P285 H286 H287 A288 I289 E290 E291 A292 E293 S294 L295 L296 Q297 F298 H299 V300 A301 T302 Y303 M304 D305 N306 D307 I308 A309 G310 Q311 P312 Q313 A314 L315 Q316 K317 S318 G319 R320 P321 V322 K323 K330 Q331 K332 E333 G334 R335 I336 R337 G338 N339 L340 M341
G342 K343 R344 F347 T351 V352 I353 S354 G355 D356 P357 N358 L359 E360 Q363 V364 G365 V366 P367 K368 S369 I370 A371 K372 T373 L374 T375 E378 T381 P382 Y383 N384 I385 D386 Q390 L391 V392 R393 N394 H399 P400 G401 R407 D408 S409 G410 I413 D414 L415 R416
R420 D423 I424 Q425 L426 Q427 Y428 G429 W430 K431 V432 E433 R434 H435 I436 M437 D438 N439 D440 P441 V442 L443 F444 N445 R446 Q447 P448 H451 K452 M453 S454 M455 H458 R459 V460 K461 V462 I463 P464 Y465 F468 R469 L470 N471 L472 T475 S476 P477 Y478 N479 A480 D481 F482 D483 G484
M487 N488 L489 H490 V491 P492 Q493 T497 R498 A499 E500 Q503 L504 C505 A506 V507 V512 S516 N517 K518 P519 C520 M521 G522 I523 V524 Q525 L528 R532 K533 L534 T535 L536 R537 D538 I541 Q545 V546 L547 N548 M549 V553 P554 D555 M556 D557 G558 V559 I560 P561
T562 P563 A564 I565 I566 K567 P568 K569 P570 L571 W572 S573 G574 K575 Q576 I577 V580 A581 I582 P583 R590 F591 D592 E593 G594 T595 T596 L597 L598 S599 P600 N603 I608 D609 G610 Q611 I612 I613 V616 V617 E618 V622 G623 S624 S625 M626 L629 I630 H631 V632 V633 T634 R635
L645 I649 F655 W656 L657 L658 S663 T664 G665 I666 G667 I670 A671 D672 G673 P674 T675 I679 T680 E681 T682 I683 A684 E685 A686 K687 K688 K689 V690 L691 D692 V693 T694 A697 Q698 A699 N700 L701 L702 K705 W708 T709 L710 R711 E712 S713 F714 E715 D716 N717 V718
V719 R720 F721 L722 N723 E724 K728 A729 N736 L737 K738 D739 L740 N741 N742 V743 K744 Q745 M748 S751 K752 G753 S754 F755 I756 N757 I758 A759 Q760 M761 S762 Q767 Q768 S769 V770 E771 R774 F777 G778 F779 V780 D781 R782 T783 L784 P785 H786 F787 S788 K789 P794 E795
S796 K797 G798 E799 V800 E801 N802 S803 Y804 L805 R806 G807 L808 T809 E812 F815 H816 G820 R821 E822 G823 L824 I825 D826 T827 A828 V829 K830 T831 A832 E833 T834 G835 Y836 I837 Q838 R839 R840 L841 V842 K843 A844 L845 E846 D847 I848 M849 V850 H851 Y852 D853 N854 T855 T856 R857 N858 S859
L860 G861 Q865 F866 I867 Y868 G869 E870 D871 G872 M873 D874 A875 A876 H877 I878 E879 L883 I886 G887 G888 S889 D890 A891 A892 F893 R896 Y897 R898 V899 D900 L901 L902 N903 T904 D905 H906 T907 L908 D909 P910 S911 L912 L913 E914 S915 G916 I919 L920 G921 D922 L923 Q926
L929 K934 Q935 L936 V937 R940 K941 F942 E945 V946 F947 V948 D949 G950 E951 P955 L956 P957 V958 N959 I960 R961 R962 I963 I964 Q965 N966 A967 F971 H972 I973 T976 K977 P978 S979 D980 L981 T982 I983 K984 D985 I986 L993 N996 L997 L998 G1002 K1003 N1004 E1005 I1006
N1009 A1010 Q1011 V1015 T1016 L1017 F1018 C1019 C1020 L1021 L1022 R1023 S1024 R1029 R1030 Q1033 E1034 Y1035 R1036 L1037 T1038 K1039 Q1040 A1041 W1044 V1045 L1046 S1047 N1048 I1049 V1057 V1058 H1059 P1060 M1063 A1069 I1072 G1073 E1074 P1075 A1076 M1079 T1080 L1081 ASN THR PHE HIS PHE ALA

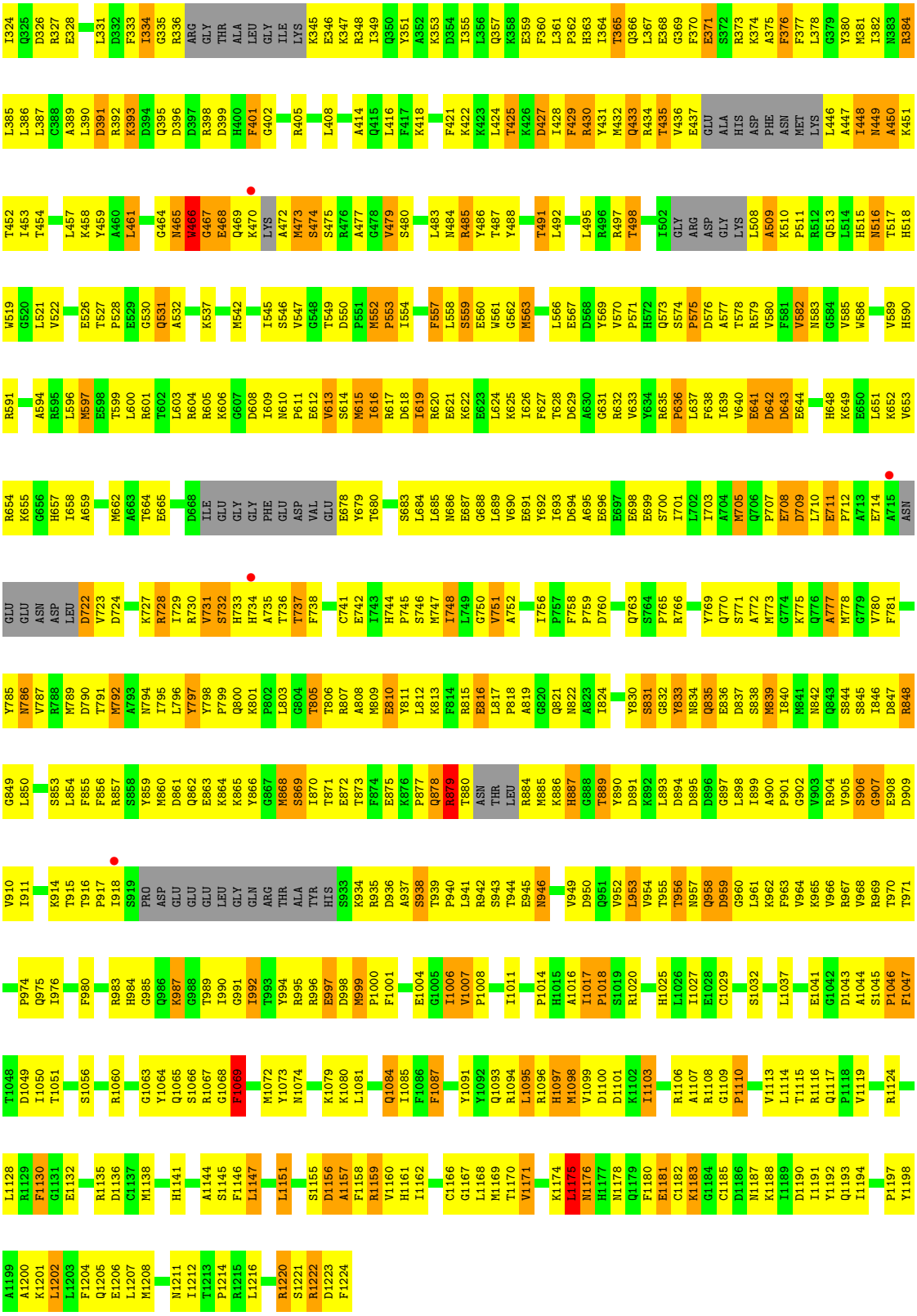


• Molecule 2: DNA-directed RNA polymerase II subunit RPB2

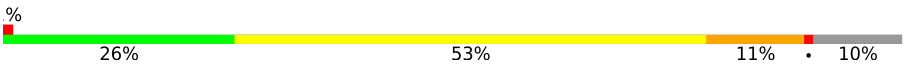
Chain B:

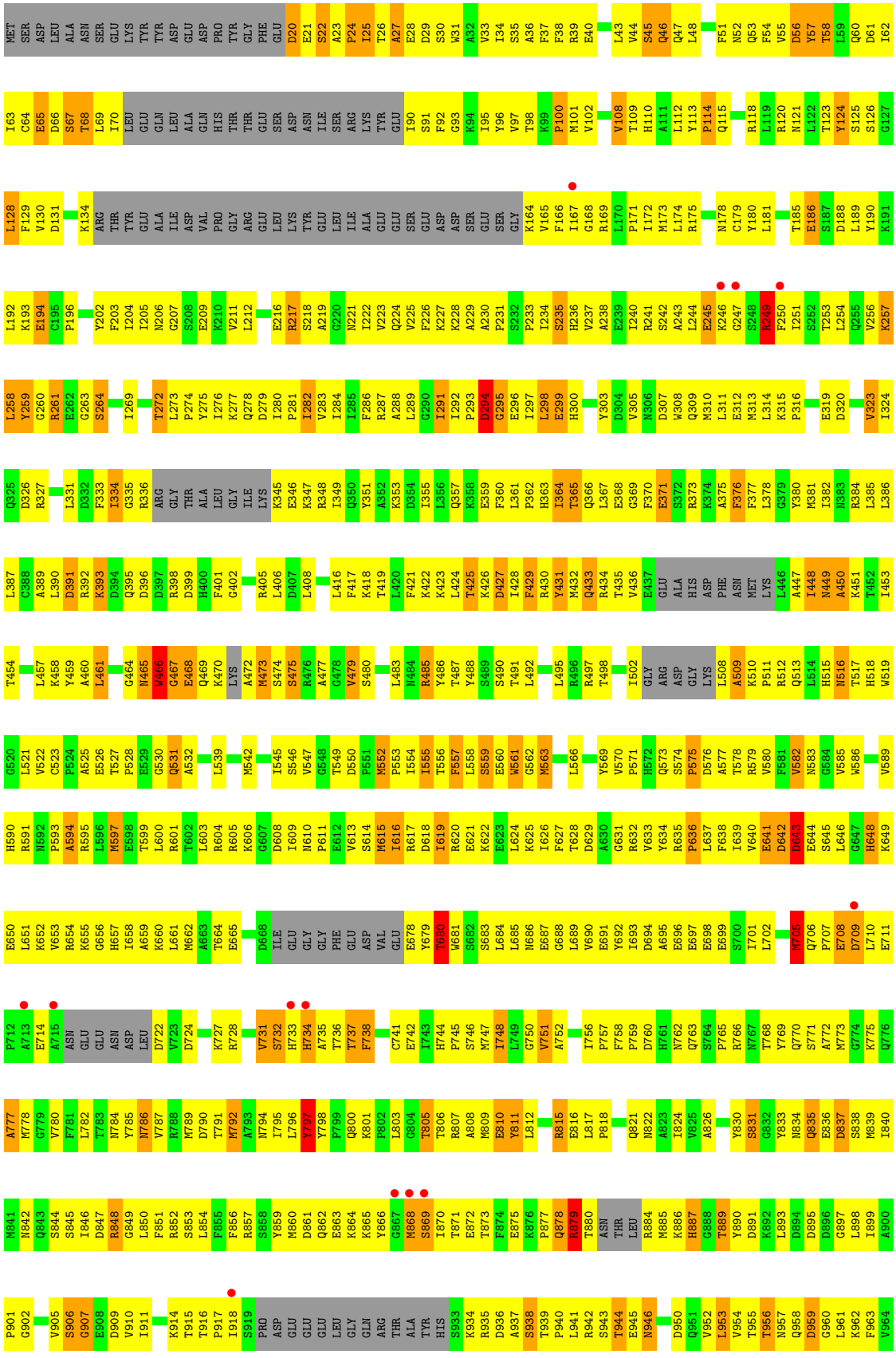


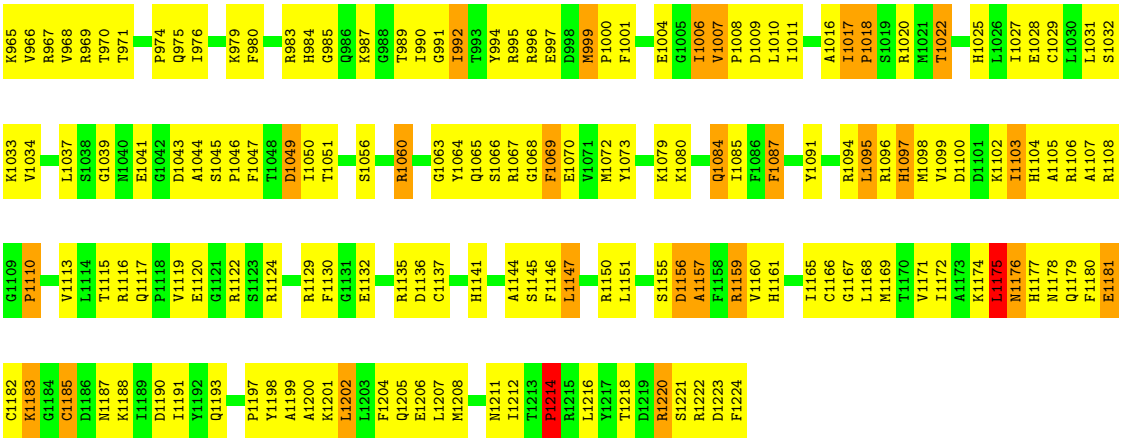




• Molecule 2: DNA-directed RNA polymerase II subunit RPB2

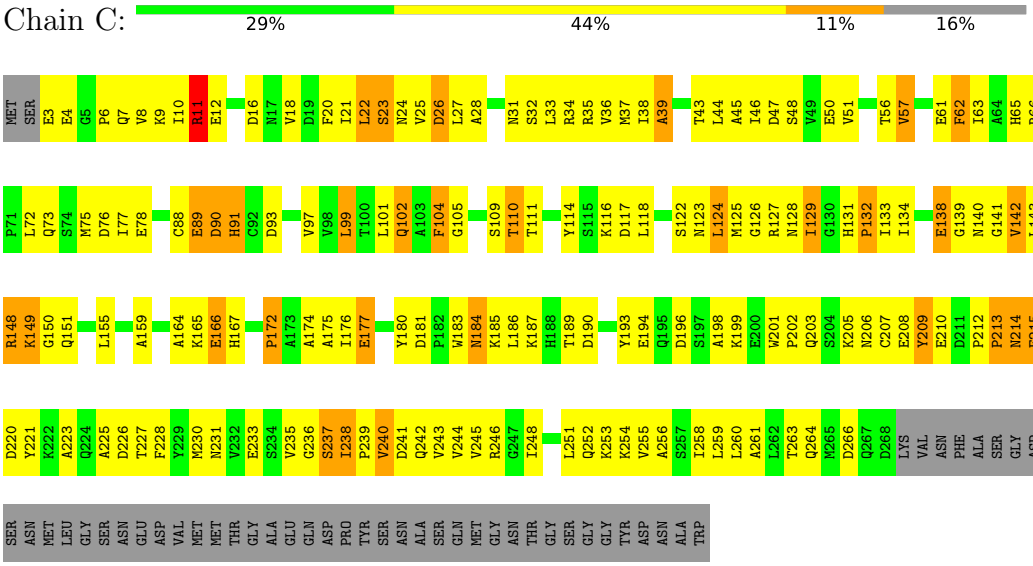






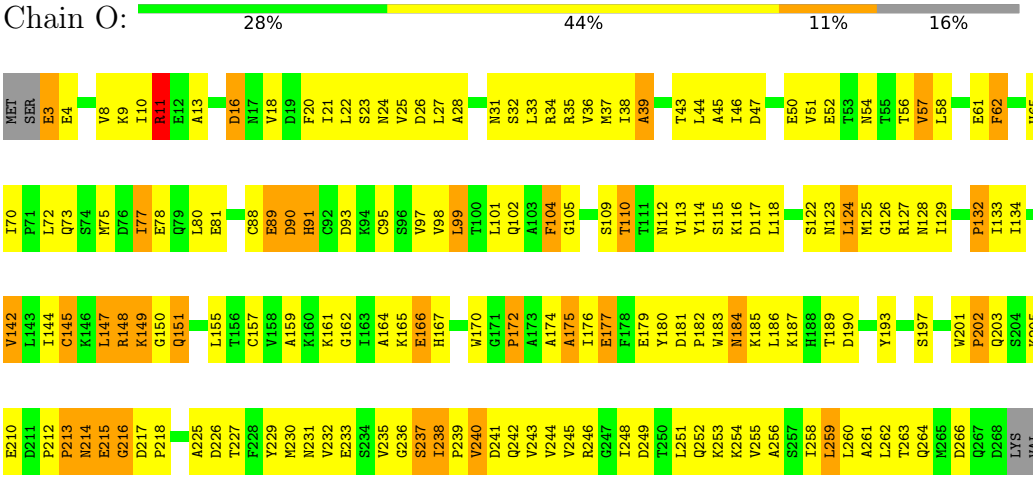
• Molecule 3: DNA-directed RNA polymerase II subunit RPB3

Chain C:



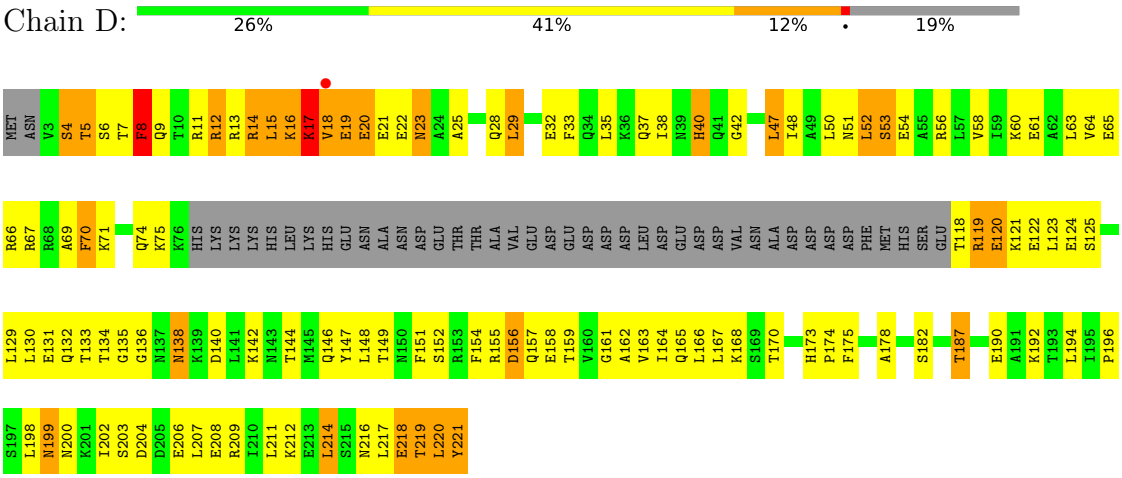
• Molecule 3: DNA-directed RNA polymerase II subunit RPB3

Chain O:



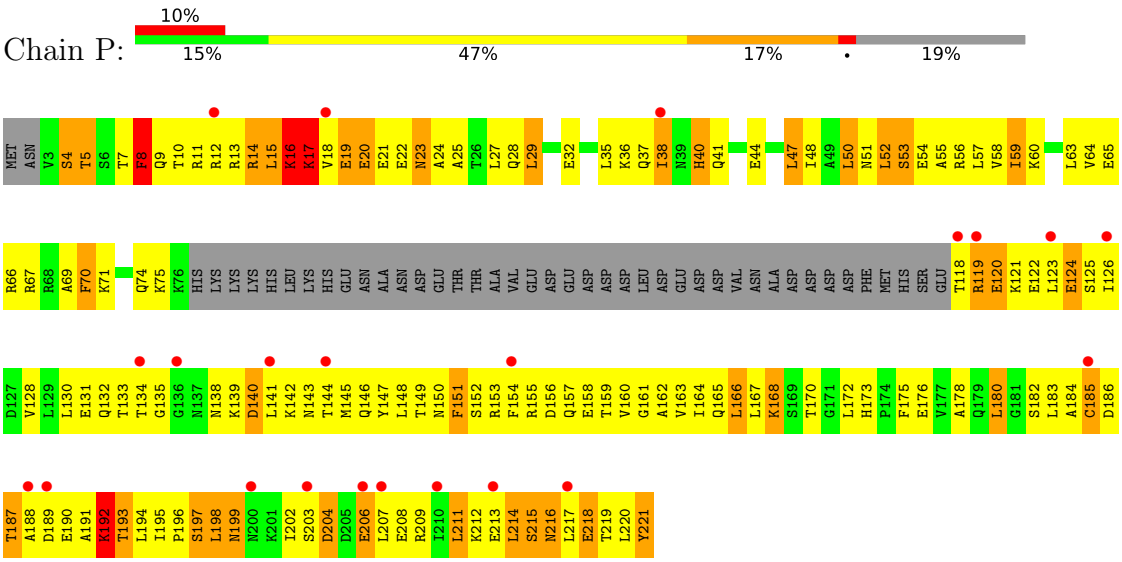
• Molecule 4: DNA-directed RNA polymerase II subunit RPB4

Chain D:



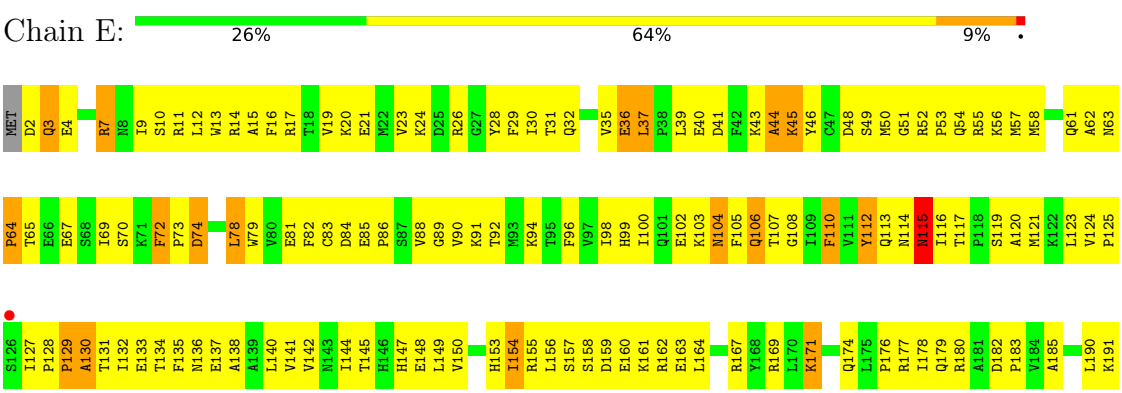
• Molecule 4: DNA-directed RNA polymerase II subunit RPB4

Chain P:



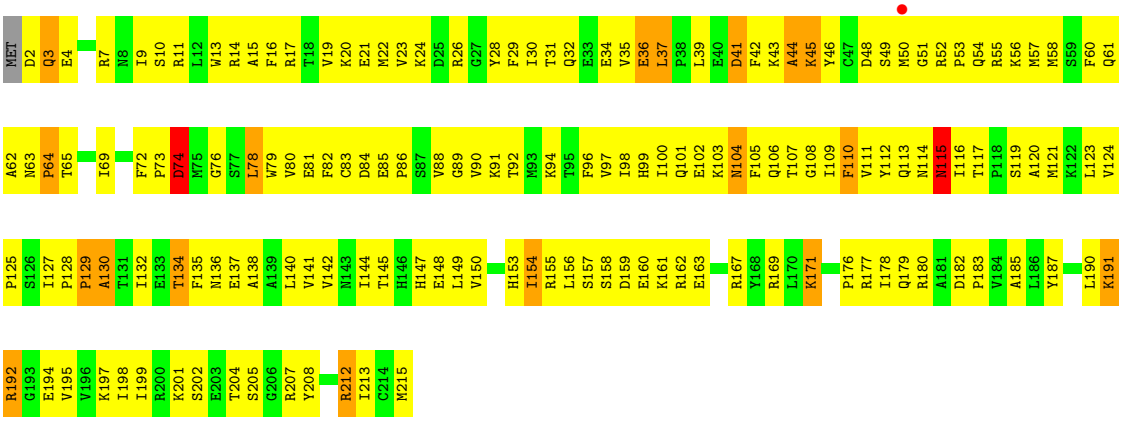
• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1

Chain E:



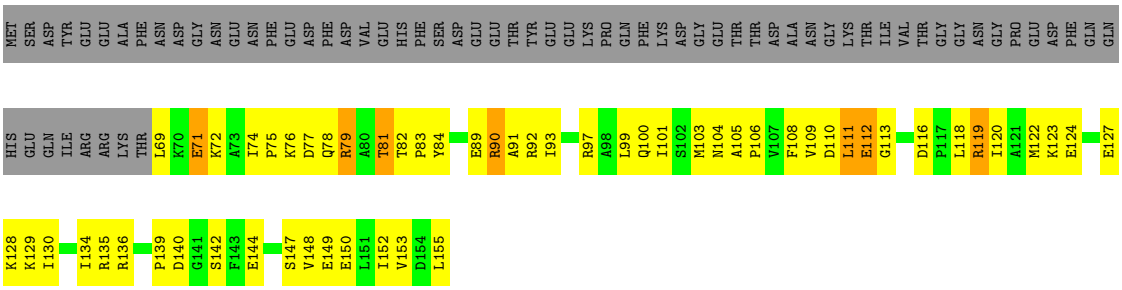
• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1

Chain Q:



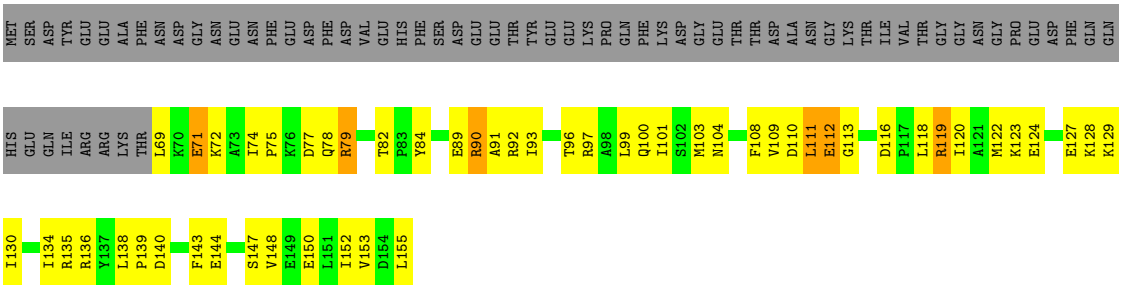
• Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2

Chain F:



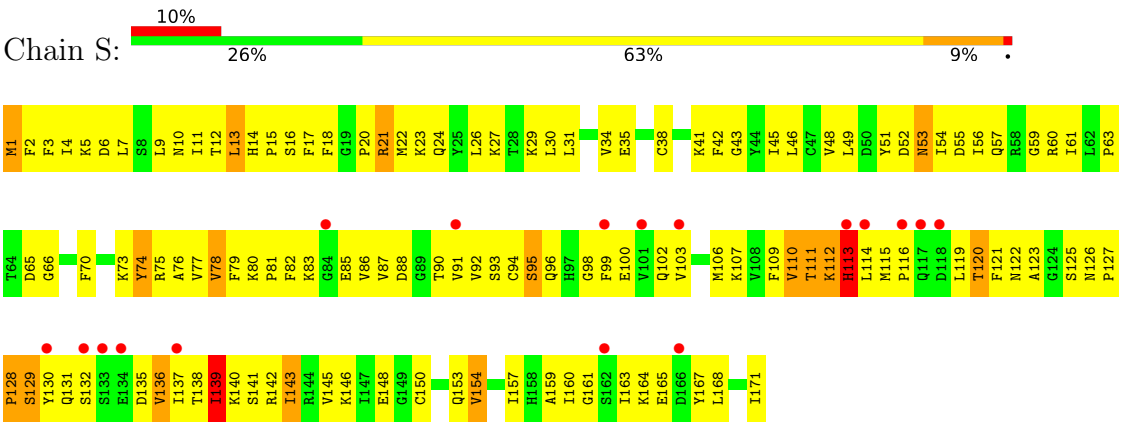
• Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2

Chain R:



• Molecule 7: DNA-directed RNA polymerase II subunit RPB7

Chain G:

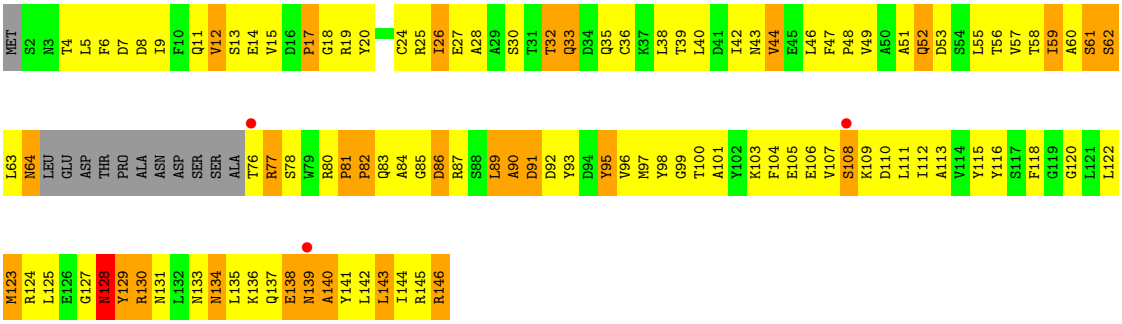


• Molecule 7: DNA-directed RNA polymerase II subunit RPB7

Chain S:

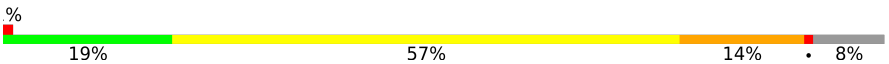
• Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3

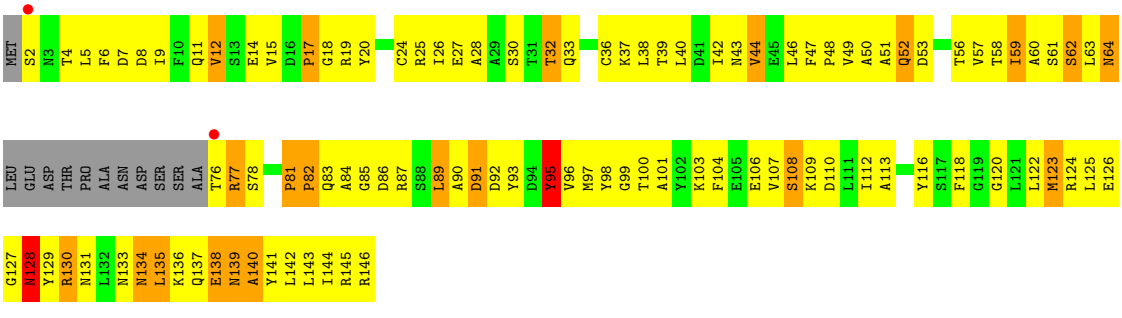
Chain H:



• Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3

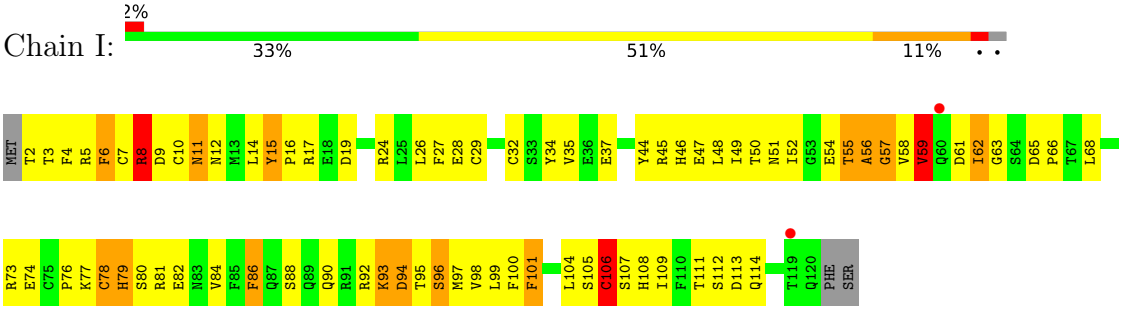
Chain T:





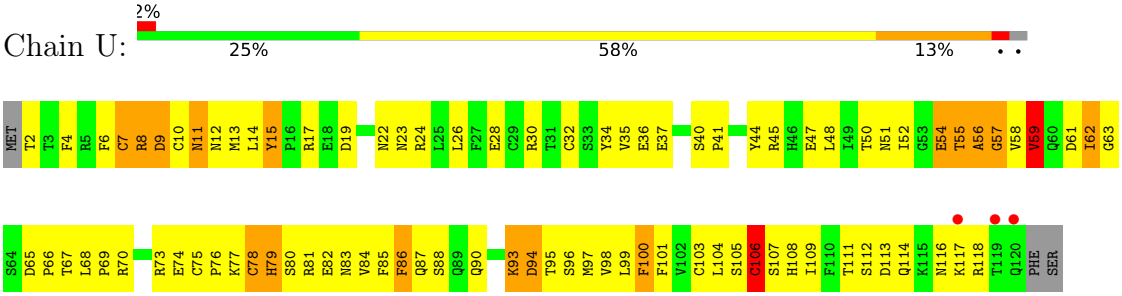
• Molecule 9: DNA-directed RNA polymerase II subunit RPB9

Chain I:



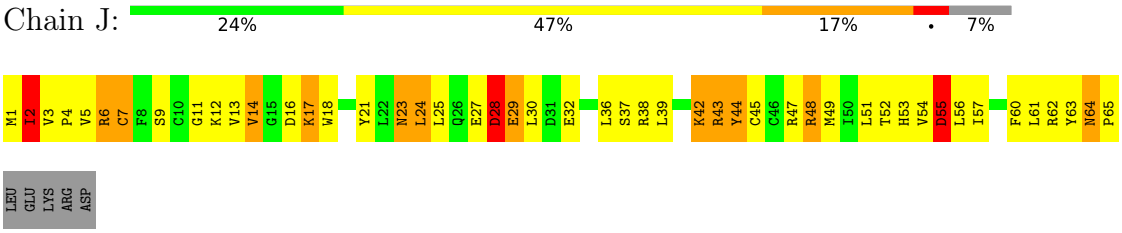
• Molecule 9: DNA-directed RNA polymerase II subunit RPB9

Chain U:



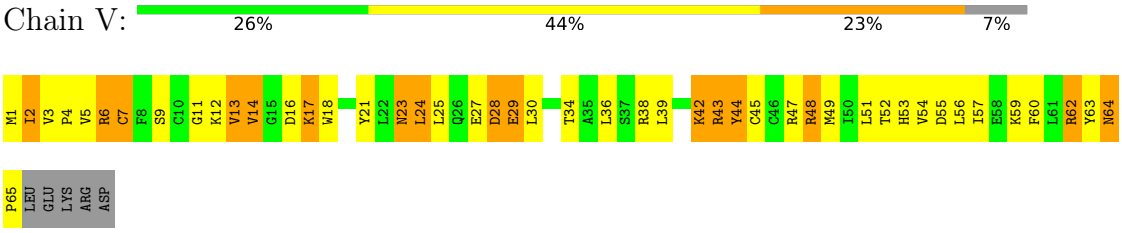
• Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5

Chain J:



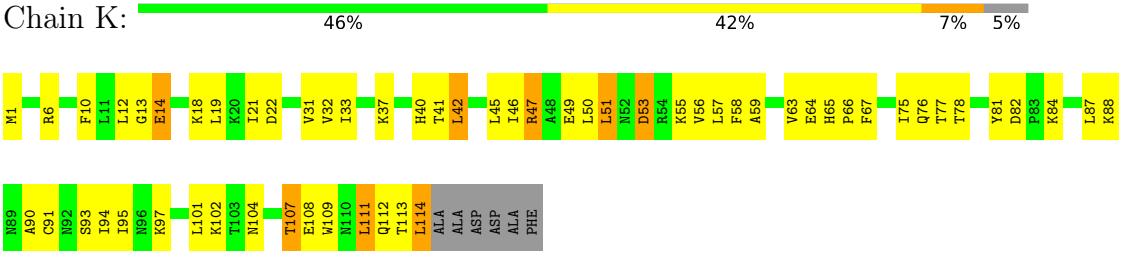
• Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5

Chain V:



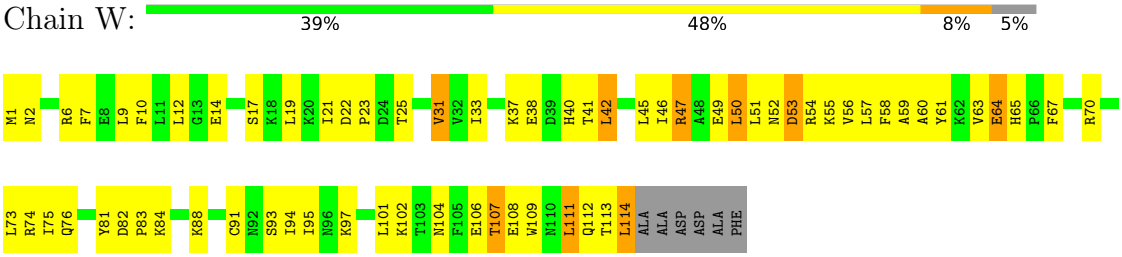
• Molecule 11: DNA-directed RNA polymerase II subunit RPB11

Chain K:



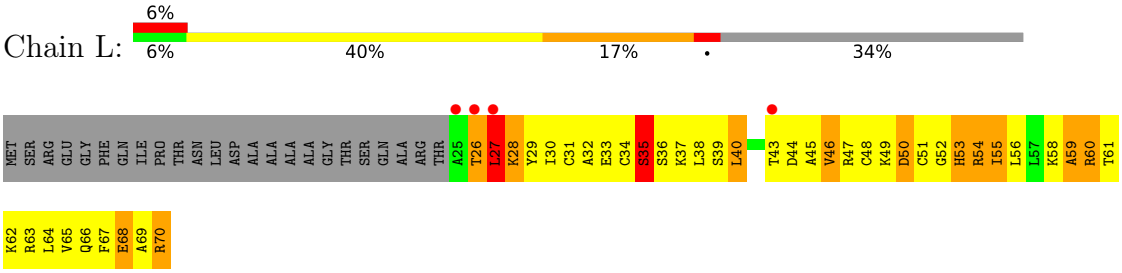
• Molecule 11: DNA-directed RNA polymerase II subunit RPB11

Chain W:



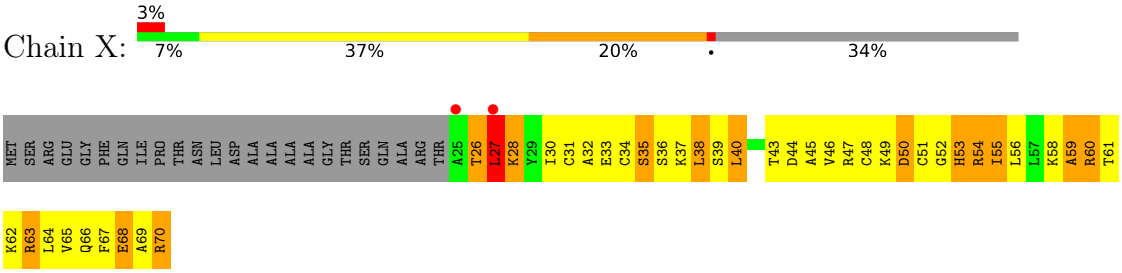
• Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4

Chain L:



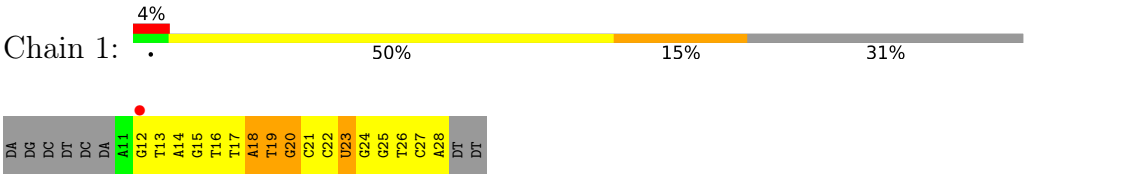
• Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4

Chain X:



• Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*C P*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'

Chain 1:



• Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*C P*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'

Chain 4:

• Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'

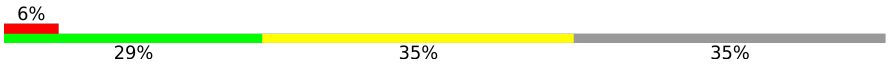
Chain 2:

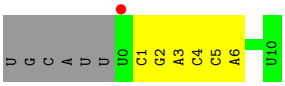
• Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'

Chain 5:

• Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3
'

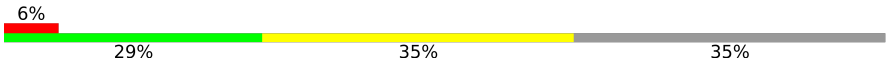
Chain 3:

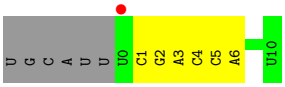




• Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3
'

Chain 6:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	394.26Å 221.61Å 283.45Å 90.00° 90.90° 90.00°	Depositor
Resolution (Å)	40.00 – 3.20 38.25 – 3.02	Depositor EDS
% Data completeness (in resolution range)	95.6 (40.00-3.20) 85.7 (38.25-3.02)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$< I/\sigma(I) >$ [1]	1.97 (at 3.01Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.233 , 0.252 0.235 , 0.241	Depositor DCC
R_{free} test set	20910 reflections (4.95%)	wwPDB-VP
Wilson B-factor (Å^2)	62.6	Xtriage
Anisotropy	0.223	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 40.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	0.017 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.018 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.017 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.017 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.257 for -h,-k,l	Xtriage
F_o,F_c correlation	0.89	EDS
Total number of atoms	63664	wwPDB-VP
Average B, all atoms (Å^2)	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.35% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

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: BRU, ZN

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	0.50	0/11342	0.77	8/15337 (0.1%)
1	M	0.50	0/11342	0.78	8/15337 (0.1%)
2	B	0.48	0/8948	0.74	1/12062 (0.0%)
2	N	0.48	1/8948 (0.0%)	0.74	1/12062 (0.0%)
3	C	0.49	0/2133	0.73	1/2891 (0.0%)
3	O	0.48	0/2133	0.74	1/2891 (0.0%)
4	D	0.44	0/1444	0.72	1/1935 (0.1%)
4	P	0.53	0/1444	0.85	5/1935 (0.3%)
5	E	0.46	0/1788	0.69	1/2406 (0.0%)
5	Q	0.46	0/1788	0.70	1/2406 (0.0%)
6	F	0.57	0/717	0.82	1/967 (0.1%)
6	R	0.56	0/717	0.82	1/967 (0.1%)
7	G	0.46	0/1368	0.75	1/1844 (0.1%)
7	S	0.57	0/1368	0.86	1/1844 (0.1%)
8	H	0.43	0/1094	0.71	0/1481
8	T	0.42	0/1094	0.72	0/1481
9	I	0.42	0/989	0.71	0/1331
9	U	0.45	0/989	0.71	0/1331
10	J	0.51	0/541	0.83	0/727
10	V	0.48	0/541	0.80	0/727
11	K	0.46	0/937	0.67	0/1265
11	W	0.48	0/937	0.68	0/1265
12	L	0.58	0/365	0.84	0/485
12	X	0.57	0/365	0.84	0/485
13	1	0.60	0/389	0.96	0/597
13	4	0.60	0/389	0.94	0/597
14	2	0.61	0/130	0.78	0/198
14	5	0.60	0/130	0.78	0/198
15	3	0.56	0/256	0.74	0/397
15	6	0.54	0/256	0.74	0/397
All	All	0.49	1/64882 (0.0%)	0.76	32/87846 (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
2	B	0	1
2	N	0	2
13	1	0	4
13	4	0	4
All	All	0	11

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	N	1137	CYS	CB-SG	-5.78	1.72	1.81

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	P	180	LEU	CA-CB-CG	-7.93	97.05	115.30
4	P	166	LEU	CA-CB-CG	6.53	130.32	115.30
1	A	56	PRO	N-CA-C	-6.37	95.55	112.10
1	M	56	PRO	N-CA-C	-6.35	95.59	112.10
3	C	39	ALA	N-CA-C	5.97	127.11	111.00
4	P	50	LEU	CA-CB-CG	5.89	128.85	115.30
4	P	172	LEU	CA-CB-CG	5.86	128.77	115.30
7	S	65	ASP	N-CA-C	-5.75	95.48	111.00
7	G	65	ASP	N-CA-C	-5.69	95.64	111.00
1	A	3	GLY	N-CA-C	-5.68	98.89	113.10
1	M	3	GLY	N-CA-C	-5.67	98.93	113.10
3	O	39	ALA	N-CA-C	5.66	126.27	111.00
1	M	311	GLN	N-CA-C	5.65	126.25	111.00
6	F	71	GLU	N-CA-C	-5.59	95.91	111.00
1	A	311	GLN	N-CA-C	5.58	126.07	111.00
5	Q	171	LYS	N-CA-C	-5.54	96.05	111.00
6	R	71	GLU	N-CA-C	-5.52	96.10	111.00
5	E	171	LYS	N-CA-C	-5.52	96.11	111.00
1	M	4	GLN	N-CA-C	5.51	125.89	111.00
4	P	8	PHE	N-CA-C	5.39	125.55	111.00
1	A	4	GLN	N-CA-C	5.27	125.22	111.00
4	D	8	PHE	N-CA-C	5.26	125.20	111.00
2	N	1130	PHE	N-CA-C	-5.22	96.91	111.00
1	A	331	GLY	N-CA-C	5.21	126.13	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	1130	PHE	N-CA-C	-5.19	96.98	111.00
1	A	54	ASN	C-N-CA	5.19	134.67	121.70
1	M	54	ASN	C-N-CA	5.10	134.44	121.70
1	M	629	LEU	CA-CB-CG	5.09	127.02	115.30
1	A	1403	GLU	N-CA-C	5.08	124.71	111.00
1	M	1403	GLU	N-CA-C	5.07	124.69	111.00
1	A	55	ASP	N-CA-CB	5.07	119.72	110.60
1	M	331	GLY	N-CA-C	5.02	125.65	113.10

There are no chirality outliers.

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
13	1	18	DA	Sidechain
13	1	19	DT	Sidechain
13	1	20	DG	Sidechain
13	1	21	DC	Sidechain
13	4	18	DA	Sidechain
13	4	19	DT	Sidechain
13	4	20	DG	Sidechain
13	4	21	DC	Sidechain
2	B	833	TYR	Sidechain
2	N	431	TYR	Sidechain
2	N	797	TYR	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	11143	0	11217	1159	0
1	M	11143	0	11217	1163	0
2	B	8779	0	8808	1066	0
2	N	8779	0	8808	1078	0
3	C	2095	0	2051	226	0
3	O	2095	0	2051	227	0
4	D	1434	0	1460	152	0
4	P	1434	0	1460	273	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	E	1752	0	1776	187	0
5	Q	1752	0	1776	202	0
6	F	705	0	731	85	0
6	R	705	0	731	75	0
7	G	1340	0	1357	145	0
7	S	1340	0	1357	205	0
8	H	1076	0	1046	171	0
8	T	1076	0	1046	154	0
9	I	971	0	929	117	0
9	U	971	0	929	126	0
10	J	532	0	542	97	0
10	V	532	0	542	95	0
11	K	919	0	929	81	0
11	W	919	0	929	84	0
12	L	363	0	387	87	0
12	X	363	0	387	84	0
13	1	368	0	203	27	0
13	4	368	0	203	27	0
14	2	117	0	70	13	0
14	5	117	0	70	11	0
15	3	230	0	121	8	0
15	6	230	0	121	8	0
16	A	2	0	0	0	0
16	B	1	0	0	0	0
16	C	1	0	0	0	0
16	I	2	0	0	0	0
16	J	1	0	0	0	0
16	L	1	0	0	0	0
16	M	2	0	0	0	0
16	N	1	0	0	0	0
16	O	1	0	0	0	0
16	U	2	0	0	0	0
16	V	1	0	0	0	0
16	X	1	0	0	0	0
All	All	63664	0	63254	6846	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 54.

All (6846) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:510:LYS:HG3	2:N:511:PRO:HD3	1.21	1.17
1:A:855:THR:HG21	1:A:857:ARG:HE	1.08	1.16
9:U:111:THR:HG22	9:U:113:ASP:H	1.05	1.15
5:Q:124:VAL:HG13	5:Q:132:ILE:HB	1.28	1.15
8:H:4:THR:HA	8:H:60:ALA:HB2	1.26	1.14
1:M:855:THR:HG21	1:M:857:ARG:HE	1.03	1.14
9:I:111:THR:HG22	9:I:113:ASP:H	1.05	1.14
3:O:57:VAL:HG11	10:V:60:PHE:HB3	1.26	1.14
2:N:102:VAL:HG23	2:N:112:LEU:HB2	1.30	1.14
8:T:4:THR:HA	8:T:60:ALA:HB2	1.27	1.13
1:A:53:LEU:HD23	1:A:54:ASN:H	1.03	1.12
2:B:508:LEU:N	14:2:1:DA:HO5'	1.49	1.10
1:M:1420:ASP:HB3	1:M:1422:ARG:HG3	1.33	1.10
1:A:541:ILE:HD13	1:A:549:MET:HE1	1.33	1.10
2:N:710:LEU:HA	2:N:733:HIS:HB3	1.33	1.09
1:M:351:THR:HG22	2:N:1103:ILE:HA	1.35	1.09
3:C:177:GLU:HG3	3:C:231:ASN:HB3	1.33	1.09
1:A:567:LYS:HB3	8:H:96:VAL:H	1.12	1.08
2:B:559:SER:HA	2:B:563:MET:HB3	1.33	1.08
1:M:1161:THR:HG22	1:M:1163:ILE:H	1.12	1.08
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.35	1.07
1:M:41:MET:HB3	1:M:49:LYS:HA	1.33	1.07
2:B:622:LYS:HE2	9:I:59:VAL:HG22	1.31	1.07
2:N:559:SER:HA	2:N:563:MET:HB3	1.34	1.07
2:B:102:VAL:HG23	2:B:112:LEU:HB2	1.33	1.07
7:G:111:THR:HG23	7:G:114:LEU:HB2	1.35	1.07
3:C:57:VAL:HG11	10:J:60:PHE:HB3	1.33	1.07
1:M:53:LEU:HD23	1:M:54:ASN:N	1.69	1.06
2:N:622:LYS:HE2	9:U:59:VAL:HG22	1.34	1.06
1:A:1161:THR:HG22	1:A:1163:ILE:H	1.12	1.06
5:Q:197:LYS:HE2	5:Q:199:ILE:HD11	1.36	1.06
1:A:41:MET:HB3	1:A:49:LYS:HA	1.33	1.06
1:A:107:CYS:HA	1:A:171:GLN:HE22	1.18	1.06
1:M:53:LEU:CD2	1:M:54:ASN:H	1.68	1.05
1:M:108:MET:HA	1:M:210:ILE:HD13	1.37	1.05
1:M:567:LYS:HB3	8:T:96:VAL:H	1.18	1.05
2:N:521:LEU:HD22	2:N:633:VAL:HG12	1.35	1.05
2:B:710:LEU:HA	2:B:733:HIS:HB3	1.33	1.05
1:A:351:THR:HG22	2:B:1103:ILE:HA	1.36	1.05
5:E:124:VAL:HG13	5:E:132:ILE:HB	1.30	1.04
5:E:197:LYS:HE2	5:E:199:ILE:HD11	1.37	1.04
12:L:26:THR:HG22	12:L:27:LEU:H	1.21	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:353:ILE:HG21	1:A:487:MET:HG3	1.38	1.04
5:E:94:LYS:HE2	5:E:98:ILE:HD11	1.37	1.04
2:B:577:ALA:HB1	2:B:589:VAL:HG11	1.37	1.03
1:M:53:LEU:HD23	1:M:54:ASN:H	0.87	1.03
1:M:353:ILE:HG21	1:M:487:MET:HG3	1.41	1.03
5:E:117:THR:HG22	5:E:119:SER:H	1.23	1.02
2:N:516:ASN:H	2:N:516:ASN:HD22	1.04	1.02
2:N:114:PRO:HG3	2:N:181:LEU:HD11	1.36	1.02
2:N:516:ASN:HD22	2:N:516:ASN:N	1.57	1.02
2:N:583:ASN:HD21	2:N:628:THR:HG22	1.19	1.01
12:X:26:THR:HG22	12:X:27:LEU:H	1.21	1.01
7:S:1:MET:HE1	7:S:79:PHE:HA	1.36	1.01
2:B:583:ASN:HD21	2:B:628:THR:HG22	1.24	1.01
1:M:297:GLN:HA	1:M:297:GLN:HE21	1.23	1.01
2:N:577:ALA:HB1	2:N:589:VAL:HG11	1.39	1.01
3:O:177:GLU:HG3	3:O:231:ASN:HB3	1.43	1.01
2:B:510:LYS:CG	2:B:511:PRO:HD3	1.91	1.01
1:A:53:LEU:CD2	1:A:54:ASN:H	1.73	1.00
1:M:1385:THR:HG22	1:M:1387:HIS:H	1.24	1.00
2:B:579:ARG:HB2	2:B:586:TRP:HE1	1.24	1.00
1:A:297:GLN:HA	1:A:297:GLN:HE21	1.25	1.00
12:L:40:LEU:HD13	12:L:44:ASP:HB3	1.44	1.00
9:U:93:LYS:HD3	9:U:93:LYS:H	1.25	0.99
5:E:56:LYS:HE2	5:E:84:ASP:HB2	1.44	0.99
1:A:524:VAL:HG12	1:A:525:GLN:H	1.28	0.99
8:T:130:ARG:HB2	8:T:130:ARG:HH11	1.26	0.98
8:T:95:TYR:HE2	8:T:97:MET:HG3	1.26	0.98
8:H:59:ILE:HG22	8:H:60:ALA:H	1.28	0.98
1:A:344:ARG:HB3	1:A:344:ARG:HH11	1.25	0.98
1:M:1255:GLU:HG3	1:M:1258:HIS:HD2	1.28	0.98
2:B:516:ASN:HD22	2:B:516:ASN:H	1.12	0.98
2:B:510:LYS:HG3	2:B:511:PRO:CD	1.92	0.98
2:B:744:HIS:HD2	2:B:745:PRO:HD2	1.24	0.97
5:Q:56:LYS:HE2	5:Q:84:ASP:HB2	1.45	0.97
4:P:118:THR:HB	4:P:121:LYS:HB2	1.46	0.97
3:C:101:LEU:HD13	3:C:118:LEU:HD23	1.46	0.97
5:Q:14:ARG:HH21	5:Q:141:VAL:HG12	1.26	0.97
3:C:7:GLN:HE21	11:K:104:ASN:ND2	1.61	0.97
10:V:5:VAL:HG12	10:V:6:ARG:HG3	1.45	0.97
2:B:615:MET:HB3	2:B:626:ILE:HG12	1.45	0.97
8:T:84:ALA:HB2	8:T:87:ARG:HD2	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:957:ASN:HD21	2:B:961:LEU:HB2	1.26	0.97
9:I:6:PHE:HB3	9:I:12:ASN:O	1.64	0.97
1:M:903:ASN:HD22	1:M:904:THR:N	1.62	0.97
4:P:56:ARG:HA	4:P:148:LEU:HD13	1.46	0.97
4:P:159:THR:O	4:P:163:VAL:HG23	1.64	0.96
1:M:1006:ILE:HD11	5:Q:163:GLU:HG3	1.46	0.96
1:A:90:VAL:HB	1:A:297:GLN:NE2	1.81	0.96
1:M:779:PHE:CE1	1:M:785:PRO:HD3	2.01	0.96
8:T:59:ILE:HG22	8:T:60:ALA:H	1.31	0.96
1:A:53:LEU:HD23	1:A:54:ASN:N	1.79	0.96
1:A:1329:THR:HG22	1:A:1331:SER:H	1.28	0.96
1:A:34:LYS:HD2	4:P:187:THR:HG21	1.45	0.95
5:E:153:HIS:O	5:E:154:ILE:HG13	1.64	0.95
7:G:7:LEU:HB2	7:G:74:TYR:CE2	2.01	0.95
2:N:510:LYS:CG	2:N:511:PRO:HD3	1.96	0.95
5:Q:153:HIS:O	5:Q:154:ILE:HG13	1.67	0.95
1:A:1116:LEU:N	1:A:1308:THR:HG22	1.80	0.95
1:M:41:MET:CB	1:M:49:LYS:HA	1.96	0.95
2:N:880:THR:HB	2:N:934:LYS:HD2	1.49	0.95
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.45	0.95
2:B:516:ASN:HD22	2:B:516:ASN:N	1.64	0.95
3:C:238:ILE:HG22	3:C:243:VAL:HG23	1.49	0.95
3:O:47:ASP:HA	12:X:69:ALA:HB3	1.47	0.95
9:U:26:LEU:HD23	9:U:37:GLU:HA	1.45	0.95
9:U:6:PHE:HB3	9:U:12:ASN:O	1.67	0.95
1:A:285:PRO:HG2	1:A:288:ALA:HB3	1.45	0.95
1:M:855:THR:CG2	1:M:857:ARG:HE	1.80	0.95
2:B:114:PRO:HG3	2:B:181:LEU:HD11	1.45	0.94
2:B:510:LYS:HG3	2:B:511:PRO:HD3	0.97	0.94
1:A:472:LEU:O	1:A:475:THR:HB	1.68	0.94
10:J:64:ASN:HB3	10:J:65:PRO:CD	1.97	0.94
2:B:806:THR:HG22	2:B:808:ALA:H	1.31	0.94
10:V:64:ASN:HB3	10:V:65:PRO:CD	1.98	0.94
1:M:541:ILE:HD13	1:M:549:MET:HE1	1.48	0.94
2:N:289:LEU:HD13	2:N:375:ALA:HB2	1.49	0.94
2:N:542:MET:HG2	2:N:747:MET:HE3	1.49	0.94
4:P:14:ARG:HH22	4:P:16:LYS:HD2	1.29	0.94
1:A:308:ILE:HG22	1:A:309:ALA:H	1.33	0.94
1:A:770:VAL:HG12	1:A:771:GLU:HG3	1.49	0.94
2:N:508:LEU:N	14:5:1:DA:HO5'	1.65	0.94
2:N:1007:VAL:HG22	2:N:1008:PRO:HD2	1.50	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:MET:HA	1:A:210:ILE:HD13	1.47	0.93
7:S:91:VAL:HG23	7:S:143:ILE:HD11	1.46	0.93
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.03	0.93
2:N:806:THR:HG22	2:N:808:ALA:H	1.31	0.93
6:R:93:ILE:HD11	6:R:134:ILE:HD11	1.50	0.93
7:G:139:ILE:HG23	7:G:140:LYS:HG3	1.46	0.93
1:M:1364:ASN:OD1	1:M:1366:ARG:HG2	1.69	0.93
2:B:289:LEU:HD13	2:B:375:ALA:HB2	1.48	0.93
5:Q:114:ASN:O	5:Q:115:ASN:HB3	1.65	0.93
6:R:103:MET:CE	7:S:66:GLY:H	1.80	0.93
12:X:40:LEU:HD13	12:X:44:ASP:HB3	1.48	0.93
1:M:14:VAL:H	1:M:1432:GLN:HE22	1.07	0.93
12:X:55:ILE:HG12	12:X:56:LEU:H	1.34	0.93
1:A:903:ASN:ND2	1:A:905:ASP:H	1.66	0.93
3:C:123:ASN:ND2	3:C:125:MET:HG2	1.84	0.93
1:M:344:ARG:HB3	1:M:344:ARG:HH11	1.34	0.93
9:I:93:LYS:H	9:I:93:LYS:HD3	1.29	0.93
12:L:55:ILE:HD13	12:L:55:ILE:H	1.33	0.92
10:V:3:VAL:HG21	10:V:18:TRP:HB2	1.50	0.92
2:B:288:ALA:HB1	2:B:331:LEU:HD12	1.50	0.92
1:M:1036:ARG:HG2	1:M:1036:ARG:HH11	1.34	0.92
6:F:103:MET:CE	7:G:66:GLY:H	1.82	0.92
1:M:855:THR:HG21	1:M:857:ARG:NE	1.83	0.92
7:S:91:VAL:CG2	7:S:143:ILE:HD11	2.00	0.92
1:M:503:GLN:HE21	6:R:90:ARG:HH21	1.17	0.92
1:A:41:MET:CB	1:A:49:LYS:HA	2.00	0.92
1:M:90:VAL:HB	1:M:297:GLN:NE2	1.84	0.92
1:M:563:PRO:HG3	1:M:572:TRP:CZ2	2.04	0.92
2:B:1072:MET:CE	2:B:1085:ILE:HB	2.00	0.91
3:C:47:ASP:HA	12:L:69:ALA:HB3	1.50	0.91
1:A:7:SER:HB3	2:B:1193:GLN:HE22	1.32	0.91
1:A:503:GLN:HE21	6:F:90:ARG:HH21	1.04	0.91
1:M:1116:LEU:N	1:M:1308:THR:HG22	1.84	0.91
1:M:1444:MET:HG3	7:S:60:ARG:HA	1.50	0.91
5:E:9:ILE:HD11	5:E:53:PRO:HD3	1.52	0.91
9:I:26:LEU:HD23	9:I:37:GLU:HA	1.52	0.91
6:R:82:THR:HG22	6:R:84:TYR:H	1.35	0.91
10:J:5:VAL:HG12	10:J:6:ARG:HG3	1.52	0.91
10:J:63:TYR:O	10:J:64:ASN:HB2	1.71	0.91
1:M:961:ARG:HG2	1:M:965:GLN:HE21	1.35	0.91
1:A:567:LYS:HB3	8:H:96:VAL:N	1.86	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1007:VAL:HG22	2:B:1008:PRO:HD2	1.53	0.91
5:E:114:ASN:O	5:E:115:ASN:HB3	1.69	0.91
7:G:97:HIS:CD2	7:S:95:SER:HB3	2.05	0.91
7:G:151:ILE:HG21	7:S:113:HIS:O	1.70	0.90
2:N:217:ARG:HE	2:N:405:ARG:HB2	1.32	0.90
11:W:65:HIS:CD2	11:W:67:PHE:H	1.89	0.90
4:D:118:THR:HB	4:D:121:LYS:HB2	1.52	0.90
3:O:123:ASN:ND2	3:O:125:MET:HG2	1.84	0.90
2:B:737:THR:HG21	9:I:66:PRO:HA	1.53	0.90
4:P:154:PHE:CD1	4:P:163:VAL:HG21	2.06	0.90
2:B:792:MET:HE2	2:B:857:ARG:HH22	1.36	0.90
1:A:54:ASN:HB3	1:A:247:ARG:HH12	1.36	0.90
2:B:579:ARG:HB2	2:B:586:TRP:NE1	1.86	0.90
2:N:863:GLU:OE2	2:N:873:THR:HA	1.71	0.90
2:N:427:ASP:HA	2:N:430:ARG:HD2	1.54	0.89
10:V:48:ARG:HG2	10:V:48:ARG:HH11	1.36	0.89
2:B:217:ARG:HE	2:B:405:ARG:HB2	1.35	0.89
13:1:22:DC:H2"	13:1:23:BRU:H5'	1.52	0.89
1:M:316:GLN:HE21	1:M:317:LYS:HE3	1.36	0.89
1:M:1255:GLU:HG3	1:M:1258:HIS:CD2	2.06	0.89
1:A:14:VAL:H	1:A:1432:GLN:HE22	1.10	0.89
8:T:130:ARG:HB2	8:T:130:ARG:NH1	1.88	0.89
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.08	0.89
1:M:567:LYS:NZ	8:T:46:LEU:HB2	1.87	0.89
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.07	0.89
2:B:890:TYR:O	2:B:893:LEU:HB2	1.73	0.89
7:S:13:LEU:HD21	7:S:17:PHE:HB2	1.54	0.89
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.07	0.88
1:A:687:LYS:O	1:A:690:VAL:HG12	1.72	0.88
1:A:1444:MET:HG3	7:G:60:ARG:HA	1.53	0.88
2:B:805:THR:HG22	2:B:806:THR:H	1.36	0.88
2:N:800:GLN:HB3	10:V:52:THR:CG2	2.02	0.88
13:4:22:DC:H2"	13:4:23:BRU:H5'	1.53	0.88
6:F:93:ILE:HD11	6:F:134:ILE:HD11	1.52	0.88
9:I:111:THR:CG2	9:I:113:ASP:H	1.87	0.88
1:M:1224:LEU:HD11	1:M:1240:CYS:HB3	1.55	0.88
4:P:188:ALA:HB3	4:P:204:ASP:OD1	1.74	0.88
2:B:800:GLN:HB3	10:J:52:THR:CG2	2.02	0.88
2:B:1072:MET:HE2	2:B:1085:ILE:HB	1.52	0.88
13:1:13:DT:H2"	13:1:14:DA:OP2	1.72	0.88
1:M:308:ILE:HG22	1:M:309:ALA:H	1.39	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:156:ASP:HB3	4:P:158:GLU:OE1	1.73	0.88
1:A:629:LEU:O	1:A:633:VAL:HG23	1.74	0.88
1:A:913:LEU:HD12	1:A:914:GLU:H	1.36	0.88
1:A:1398:MET:HB2	1:A:1426:GLU:OE2	1.74	0.88
1:M:687:LYS:O	1:M:690:VAL:HG12	1.72	0.88
1:M:903:ASN:ND2	1:M:905:ASP:H	1.72	0.88
2:N:168:GLY:H	2:N:450:ALA:HB1	1.37	0.87
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.56	0.87
1:A:567:LYS:HB2	1:A:568:PRO:HD2	1.53	0.87
12:L:55:ILE:HG12	12:L:56:LEU:H	1.39	0.87
2:N:273:LEU:HD12	2:N:280:ILE:HD12	1.55	0.87
1:M:902:LEU:HG	1:M:926:GLN:HG3	1.53	0.87
10:V:64:ASN:HD22	10:V:65:PRO:HD3	1.39	0.87
5:Q:117:THR:HG22	5:Q:119:SER:H	1.38	0.87
2:B:168:GLY:H	2:B:450:ALA:HB1	1.37	0.87
2:B:1095:LEU:H	2:B:1095:LEU:HD12	1.37	0.87
8:H:84:ALA:HB2	8:H:87:ARG:HD2	1.55	0.87
2:N:957:ASN:HD21	2:N:961:LEU:HB2	1.38	0.87
1:M:399:HIS:HB3	1:M:400:PRO:HD3	1.54	0.87
5:Q:94:LYS:HE2	5:Q:98:ILE:HD11	1.57	0.87
1:M:288:ALA:HA	1:M:291:GLU:CD	1.96	0.87
1:M:316:GLN:NE2	1:M:317:LYS:HE3	1.90	0.87
4:P:156:ASP:HB2	4:P:159:THR:HG23	1.55	0.87
10:V:63:TYR:O	10:V:64:ASN:HB2	1.75	0.87
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.54	0.86
1:A:1036:ARG:HG2	1:A:1036:ARG:HH11	1.40	0.86
8:H:100:THR:HG23	8:H:138:GLU:HA	1.56	0.86
2:N:226:PHE:HA	2:N:395:GLN:HG3	1.55	0.86
9:U:50:THR:HG22	9:U:51:ASN:H	1.39	0.86
1:M:768:GLN:HG2	1:M:816:HIS:HA	1.56	0.86
1:A:710:LEU:H	1:A:710:LEU:HD12	1.38	0.86
7:G:26:LEU:HD12	7:G:56:ILE:HD11	1.55	0.86
13:4:13:DT:H2"	13:4:14:DA:OP2	1.73	0.86
1:A:563:PRO:HG3	1:A:572:TRP:CZ2	2.11	0.86
3:O:66:ARG:NH1	10:V:2:ILE:HG21	1.91	0.86
2:B:880:THR:HB	2:B:934:LYS:HD2	1.58	0.86
2:N:805:THR:HG22	2:N:806:THR:H	1.39	0.86
2:N:1065:GLN:HE21	2:N:1067:ARG:H	1.17	0.86
11:W:65:HIS:HD2	11:W:67:PHE:H	1.21	0.86
1:A:902:LEU:HG	1:A:926:GLN:HG3	1.58	0.86
1:A:1341:ILE:HD12	1:A:1379:GLY:O	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:381:THR:HG22	1:M:383:TYR:H	1.41	0.86
1:M:853:ASP:OD1	1:M:855:THR:HB	1.76	0.86
1:A:768:GLN:HG2	1:A:816:HIS:HA	1.55	0.85
5:E:117:THR:HB	5:E:120:ALA:HB2	1.57	0.85
8:H:59:ILE:HG22	8:H:60:ALA:N	1.90	0.85
1:M:90:VAL:HB	1:M:297:GLN:HE22	1.41	0.85
1:M:961:ARG:HG2	1:M:965:GLN:NE2	1.90	0.85
2:N:241:ARG:HG2	2:N:253:THR:CG2	2.05	0.85
1:M:265:LYS:CA	1:M:265:LYS:HE3	2.05	0.85
1:M:672:ASP:HB3	1:M:736:ASN:HD21	1.41	0.85
12:X:32:ALA:CB	12:X:55:ILE:HG13	2.06	0.85
1:A:903:ASN:HD22	1:A:904:THR:N	1.71	0.85
1:M:249:SER:O	1:M:250:ILE:HG13	1.74	0.85
1:M:285:PRO:HG2	1:M:288:ALA:HB3	1.58	0.85
9:U:111:THR:HG22	9:U:113:ASP:N	1.90	0.85
1:M:629:LEU:O	1:M:633:VAL:HG23	1.76	0.85
4:P:71:LYS:HA	4:P:74:GLN:HG3	1.59	0.85
2:B:583:ASN:HD21	2:B:628:THR:CG2	1.88	0.85
1:M:54:ASN:HB3	1:M:247:ARG:HH12	1.41	0.85
2:N:510:LYS:HG3	2:N:511:PRO:CD	2.05	0.85
7:S:116:PRO:HD2	7:S:119:LEU:HD23	1.59	0.85
1:A:1364:ASN:OD1	1:A:1366:ARG:HG2	1.77	0.85
2:B:430:ARG:HB3	2:B:430:ARG:HH11	1.39	0.85
1:A:855:THR:HG21	1:A:857:ARG:NE	1.92	0.85
2:B:744:HIS:HD2	2:B:745:PRO:CD	1.89	0.85
9:I:111:THR:HG22	9:I:113:ASP:N	1.91	0.85
1:M:1341:ILE:HD12	1:M:1379:GLY:O	1.76	0.85
4:P:208:GLU:O	4:P:212:LYS:HG3	1.77	0.85
1:A:407:ARG:HD2	1:A:413:ILE:HD11	1.59	0.85
1:M:567:LYS:HB2	1:M:568:PRO:HD2	1.58	0.85
2:N:705:MET:H	2:N:710:LEU:HD12	1.42	0.85
2:N:758:PHE:CE2	2:N:1044:ALA:HA	2.11	0.85
6:R:103:MET:HE2	7:S:66:GLY:H	1.42	0.85
1:M:288:ALA:HA	1:M:291:GLU:OE1	1.77	0.85
1:M:567:LYS:HB3	8:T:96:VAL:N	1.92	0.85
8:T:59:ILE:HG22	8:T:60:ALA:N	1.90	0.85
2:B:824:ILE:HG12	10:J:48:ARG:HH12	1.42	0.84
3:C:50:GLU:OE1	12:L:64:LEU:HD22	1.77	0.84
2:N:241:ARG:HG2	2:N:253:THR:HG22	1.56	0.84
2:N:890:TYR:O	2:N:893:LEU:HB2	1.78	0.84
3:O:56:THR:HG21	3:O:145:CYS:SG	2.17	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:294:ASP:O	2:B:296:GLU:N	2.10	0.84
1:A:667:GLY:HA2	1:A:670:ILE:HD11	1.58	0.84
1:A:754:SER:H	1:A:757:ASN:HD22	1.22	0.84
2:B:65:GLU:OE1	2:B:418:LYS:HE3	1.77	0.84
7:S:115:MET:HB3	7:S:116:PRO:HD2	1.59	0.84
7:S:138:THR:HG22	7:S:139:ILE:HG22	1.57	0.84
6:F:79:ARG:HA	6:F:144:GLU:OE1	1.78	0.84
1:M:754:SER:H	1:M:757:ASN:HD22	1.23	0.84
2:N:261:ARG:HB3	2:N:261:ARG:HH11	1.43	0.84
5:Q:15:ALA:O	5:Q:19:VAL:HG23	1.76	0.84
2:B:295:GLY:H	2:B:298:LEU:HD23	1.42	0.84
1:M:858:ASN:ND2	1:M:860:LEU:H	1.76	0.84
2:N:244:LEU:HD11	2:N:366:GLN:HE22	1.43	0.84
7:S:122:ASN:ND2	7:S:125:SER:HB3	1.93	0.84
8:T:82:PRO:C	8:T:84:ALA:H	1.78	0.84
1:M:145:LYS:HE3	1:M:145:LYS:HA	1.60	0.83
3:O:73:GLN:HE21	3:O:75:MET:H	1.25	0.83
1:A:1385:THR:HG22	1:A:1387:HIS:H	1.42	0.83
2:B:834:ASN:HB3	2:B:840:ILE:HG13	1.60	0.83
6:F:82:THR:HG22	6:F:84:TYR:H	1.42	0.83
8:H:82:PRO:C	8:H:84:ALA:H	1.78	0.83
1:A:107:CYS:HA	1:A:171:GLN:NE2	1.93	0.83
2:B:878:GLN:HB2	2:B:879:ARG:HD2	1.61	0.83
11:K:65:HIS:CD2	11:K:67:PHE:H	1.95	0.83
12:L:30:ILE:O	12:L:56:LEU:HA	1.77	0.83
7:S:34:VAL:HG11	7:S:74:TYR:HE1	1.42	0.83
7:G:97:HIS:HD2	7:S:95:SER:HB3	1.44	0.83
1:M:567:LYS:HD2	1:M:568:PRO:HD2	1.58	0.83
11:W:58:PHE:HB3	11:W:76:GLN:HB3	1.59	0.83
1:A:43:GLU:HG3	1:A:46:THR:HB	1.59	0.83
1:A:451:HIS:CD2	1:A:1074:GLU:HG3	2.13	0.83
2:B:642:ASP:HA	2:B:649:LYS:HA	1.60	0.83
1:M:1110:ASN:HD22	1:M:1110:ASN:N	1.76	0.83
7:S:13:LEU:CD2	7:S:17:PHE:HB2	2.08	0.83
2:N:879:ARG:H	2:N:879:ARG:CZ	1.90	0.83
2:N:1072:MET:HE2	2:N:1085:ILE:HB	1.61	0.83
4:P:14:ARG:NH2	4:P:16:LYS:HD2	1.93	0.83
8:T:100:THR:HG23	8:T:138:GLU:HA	1.59	0.83
2:B:226:PHE:HA	2:B:395:GLN:HG3	1.61	0.83
1:M:43:GLU:HG3	1:M:46:THR:HB	1.61	0.83
1:M:567:LYS:CG	1:M:568:PRO:HD2	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4:12:DG:H4'	13:4:13:DT:OP1	1.78	0.83
1:A:446:ARG:HB2	1:A:487:MET:SD	2.18	0.83
1:M:157:ASP:OD2	1:M:159:THR:HB	1.79	0.83
1:A:1420:ASP:HB3	1:A:1422:ARG:HG3	1.60	0.83
2:B:292:ILE:HD11	2:B:327:ARG:H	1.43	0.83
1:M:591:PHE:HA	1:M:595:THR:HG21	1.60	0.83
2:N:292:ILE:HD11	2:N:327:ARG:H	1.43	0.83
5:Q:117:THR:HB	5:Q:120:ALA:HB2	1.61	0.83
1:A:1445:ILE:H	1:A:1445:ILE:HD12	1.41	0.83
1:M:87:ALA:HB3	1:M:276:LEU:HD23	1.61	0.83
2:N:465:ASN:HD22	2:N:465:ASN:N	1.74	0.83
2:N:999:MET:HG3	2:N:1000:PRO:HD2	1.60	0.83
1:A:265:LYS:CA	1:A:265:LYS:HE3	2.09	0.82
2:B:705:MET:H	2:B:710:LEU:HD12	1.43	0.82
12:L:32:ALA:CB	12:L:55:ILE:HG13	2.09	0.82
2:N:862:GLN:HG2	2:N:963:PHE:HD1	1.42	0.82
6:R:111:LEU:H	6:R:111:LEU:HD12	1.43	0.82
1:A:1158:PRO:O	1:A:1159:ARG:HG3	1.79	0.82
2:N:763:GLN:HG2	2:N:765:PRO:HD2	1.61	0.82
7:S:7:LEU:HB2	7:S:74:TYR:CE2	2.15	0.82
10:V:64:ASN:HB3	10:V:65:PRO:HD3	1.62	0.82
1:A:33:ALA:HA	1:A:57:ARG:HH12	1.43	0.82
1:M:414:ASP:OD1	1:M:416:ARG:HG2	1.79	0.82
2:N:751:VAL:HG13	2:N:812:LEU:HD22	1.60	0.82
1:A:1161:THR:HG22	1:A:1163:ILE:N	1.94	0.82
1:M:710:LEU:H	1:M:710:LEU:HD12	1.45	0.82
5:Q:180:ARG:HH21	5:Q:192:ARG:HB2	1.44	0.82
2:B:745:PRO:O	2:B:748:ILE:HG12	1.79	0.82
1:M:66:LYS:HD3	1:M:67:CYS:N	1.95	0.82
2:N:642:ASP:HA	2:N:649:LYS:HA	1.61	0.82
8:T:109:LYS:HG2	8:T:110:ASP:OD1	1.80	0.82
2:B:515:HIS:H	2:B:518:HIS:HD2	1.27	0.82
2:N:1072:MET:CE	2:N:1085:ILE:HB	2.09	0.82
6:R:90:ARG:HD3	6:R:155:LEU:HD13	1.62	0.82
2:B:295:GLY:N	2:B:298:LEU:HD23	1.94	0.82
4:D:192:LYS:HD2	4:D:199:ASN:HA	1.59	0.82
13:1:12:DG:H4'	13:1:13:DT:OP1	1.79	0.82
2:N:1095:LEU:H	2:N:1095:LEU:HD12	1.45	0.82
2:N:1201:LYS:HE2	2:N:1205:GLN:OE1	1.79	0.82
1:A:93:VAL:HG13	1:A:301:ALA:HB1	1.60	0.82
1:M:265:LYS:HE3	1:M:265:LYS:HA	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:148:ARG:NH1	3:O:149:LYS:HE3	1.93	0.82
1:A:90:VAL:HB	1:A:297:GLN:HE22	1.41	0.82
2:B:469:GLN:O	2:B:472:ALA:HB3	1.80	0.82
2:N:393:LYS:HE3	2:N:393:LYS:HA	1.61	0.82
4:P:56:ARG:HH21	4:P:155:ARG:HG2	1.45	0.82
4:P:119:ARG:HB2	4:P:221:TYR:CE1	2.15	0.82
5:Q:19:VAL:O	5:Q:23:VAL:HG23	1.79	0.81
12:X:30:ILE:O	12:X:56:LEU:HA	1.79	0.81
1:A:157:ASP:OD2	1:A:159:THR:HB	1.81	0.81
1:A:265:LYS:HE3	1:A:265:LYS:N	1.95	0.81
2:B:390:LEU:O	2:B:392:ARG:HG3	1.80	0.81
7:G:13:LEU:CD2	7:G:17:PHE:HB2	2.11	0.81
1:M:244:PRO:HB2	1:M:245:PRO:HD3	1.62	0.81
3:O:128:ASN:O	3:O:129:ILE:HG13	1.80	0.81
3:O:244:VAL:O	3:O:248:ILE:HG13	1.79	0.81
4:P:146:GLN:O	4:P:149:THR:HG22	1.79	0.81
9:U:93:LYS:H	9:U:93:LYS:CD	1.93	0.81
1:A:858:ASN:ND2	1:A:860:LEU:H	1.78	0.81
2:B:879:ARG:H	2:B:879:ARG:CZ	1.93	0.81
2:B:1187:ASN:HD21	2:B:1190:ASP:HB3	1.46	0.81
11:K:57:LEU:HB2	11:K:76:GLN:HG2	1.60	0.81
8:T:40:LEU:HD23	8:T:42:ILE:HD11	1.61	0.81
1:A:470:LEU:HD23	1:A:470:LEU:H	1.45	0.81
1:A:1329:THR:HG22	1:A:1331:SER:N	1.94	0.81
2:B:622:LYS:HE2	9:I:59:VAL:CG2	2.10	0.81
2:B:996:ARG:HH12	3:C:174:ALA:HA	1.44	0.81
5:E:19:VAL:O	5:E:23:VAL:HG23	1.80	0.81
10:V:1:MET:N	10:V:57:ILE:H	1.78	0.81
1:A:392:VAL:HG13	1:A:415:LEU:HD11	1.61	0.81
11:K:58:PHE:HB3	11:K:76:GLN:HB3	1.61	0.81
2:N:65:GLU:OE1	2:N:418:LYS:HE3	1.80	0.81
3:O:238:ILE:HG22	3:O:243:VAL:HG23	1.61	0.81
1:A:683:ILE:HG21	1:A:801:GLU:HG3	1.63	0.81
2:B:911:ILE:HD11	2:B:941:LEU:HD13	1.63	0.81
2:B:1100:ASP:OD2	11:K:1:MET:HB3	1.80	0.81
6:F:103:MET:HE2	7:G:66:GLY:H	1.45	0.81
9:I:50:THR:HG22	9:I:51:ASN:H	1.44	0.81
13:1:23:BRU:H6	13:1:23:BRU:H5"	1.61	0.81
1:M:524:VAL:HG12	1:M:525:GLN:H	1.45	0.81
7:S:126:ASN:HD22	7:S:127:PRO:HA	1.46	0.81
8:T:84:ALA:CB	8:T:87:ARG:HD2	2.11	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:PRO:HA	1:A:270:LEU:HD23	1.63	0.80
3:O:252:GLN:HG3	11:W:95:ILE:HG23	1.63	0.80
2:B:1065:GLN:HE21	2:B:1067:ARG:N	1.79	0.80
7:G:122:ASN:ND2	7:G:125:SER:HB3	1.95	0.80
1:M:567:LYS:HB2	1:M:568:PRO:CD	2.11	0.80
1:M:1161:THR:HG22	1:M:1163:ILE:N	1.94	0.80
1:M:1259:MET:HA	1:M:1262:LYS:HD2	1.63	0.80
9:U:76:PRO:HD2	9:U:108:HIS:HD2	1.46	0.80
13:4:16:DT:H5'	13:4:16:DT:H6	1.46	0.80
2:B:370:PHE:HD2	2:B:373:ARG:HD3	1.46	0.80
5:E:15:ALA:O	5:E:19:VAL:HG23	1.82	0.80
7:G:138:THR:HG22	7:G:139:ILE:N	1.96	0.80
1:M:202:LEU:HB3	1:M:207:ILE:HD11	1.64	0.80
8:H:40:LEU:HD12	8:H:123:MET:HB2	1.63	0.80
1:M:472:LEU:O	1:M:475:THR:HB	1.80	0.80
1:M:1155:ASP:OD2	1:M:1161:THR:HG23	1.80	0.80
2:N:810:GLU:HB2	2:N:815:ARG:HH22	1.45	0.80
5:Q:48:ASP:HB3	5:Q:54:GLN:NE2	1.96	0.80
2:B:583:ASN:ND2	2:B:628:THR:HG22	1.97	0.80
2:N:583:ASN:ND2	2:N:628:THR:HG22	1.97	0.80
2:N:766:ARG:HH21	2:N:1020:ARG:CD	1.94	0.80
1:A:344:ARG:HB3	1:A:344:ARG:NH1	1.96	0.80
2:B:261:ARG:HH11	2:B:261:ARG:HB3	1.45	0.80
1:M:1170:ILE:H	1:M:1170:ILE:HD12	1.47	0.80
2:N:800:GLN:HB3	10:V:52:THR:HG21	1.64	0.80
3:O:147:LEU:HB2	3:O:151:GLN:HB2	1.62	0.80
9:U:105:SER:O	9:U:106:CYS:HB3	1.80	0.80
1:A:855:THR:CG2	1:A:857:ARG:HE	1.93	0.80
1:A:981:LEU:HD21	1:A:1039:LYS:HA	1.63	0.80
3:C:73:GLN:HE21	3:C:75:MET:H	1.30	0.80
13:1:16:DT:H5'	13:1:16:DT:H6	1.46	0.80
1:M:14:VAL:N	1:M:1432:GLN:HE22	1.81	0.80
2:B:955:THR:HG22	2:B:956:THR:O	1.81	0.79
3:C:73:GLN:NE2	3:C:75:MET:HB2	1.97	0.79
10:J:1:MET:N	10:J:57:ILE:H	1.80	0.79
4:P:176:GLU:OE2	4:P:197:SER:HB2	1.80	0.79
4:P:214:LEU:HD13	4:P:214:LEU:O	1.82	0.79
1:M:1387:HIS:O	1:M:1391:ARG:HG3	1.82	0.79
1:M:167:CYS:HB2	1:M:169:ASN:HD21	1.45	0.79
1:M:1214:GLU:O	1:M:1218:GLN:HG2	1.82	0.79
2:N:351:TYR:O	2:N:355:ILE:HG13	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:469:GLN:O	2:N:472:ALA:HB3	1.82	0.79
3:O:50:GLU:OE1	12:X:64:LEU:HD22	1.83	0.79
10:V:57:ILE:HA	10:V:60:PHE:HD2	1.46	0.79
10:J:57:ILE:HA	10:J:60:PHE:HD2	1.46	0.79
1:M:236:LEU:HD11	1:M:304:MET:HE1	1.62	0.79
1:M:534:LEU:O	1:M:574:GLY:HA3	1.82	0.79
9:U:50:THR:HG22	9:U:51:ASN:N	1.98	0.79
6:F:111:LEU:HD12	6:F:111:LEU:N	1.98	0.79
9:I:65:ASP:HB3	9:I:68:LEU:HD12	1.62	0.79
9:I:105:SER:O	9:I:106:CYS:HB3	1.79	0.79
1:M:93:VAL:HG13	1:M:301:ALA:HB1	1.63	0.79
9:U:93:LYS:HD3	9:U:93:LYS:N	1.97	0.79
2:N:583:ASN:HD21	2:N:628:THR:CG2	1.95	0.79
6:R:77:ASP:O	6:R:78:GLN:HB2	1.81	0.79
1:A:7:SER:HB3	2:B:1193:GLN:NE2	1.98	0.79
2:B:309:GLN:HG3	9:I:52:ILE:HD11	1.64	0.79
1:M:535:THR:HG21	1:M:616:VAL:HA	1.63	0.79
1:M:567:LYS:CB	1:M:568:PRO:HD2	2.12	0.79
2:N:778:MET:HE1	2:N:1094:ARG:HD3	1.63	0.79
8:T:89:LEU:C	8:T:91:ASP:H	1.84	0.79
2:B:1224:PHE:CE1	5:E:171:LYS:HG3	2.17	0.79
12:X:61:THR:CG2	12:X:63:ARG:HG3	2.13	0.79
1:A:567:LYS:HB2	1:A:568:PRO:CD	2.12	0.79
3:C:6:PRO:HB2	3:C:25:VAL:HG22	1.65	0.79
4:P:66:ARG:HD2	4:P:133:THR:HB	1.65	0.79
1:A:40:THR:HG22	1:A:41:MET:HG3	1.63	0.79
1:A:722:LEU:H	1:A:722:LEU:HD12	1.48	0.79
4:D:208:GLU:O	4:D:212:LYS:HG3	1.83	0.79
6:F:90:ARG:HD3	6:F:155:LEU:HD13	1.63	0.79
9:I:76:PRO:HD2	9:I:108:HIS:HD2	1.47	0.79
2:N:603:LEU:HD13	2:N:608:ASP:HB2	1.65	0.79
8:T:58:THR:HG22	8:T:59:ILE:H	1.48	0.79
1:A:503:GLN:NE2	6:F:90:ARG:HH21	1.80	0.78
9:I:93:LYS:H	9:I:93:LYS:CD	1.96	0.78
1:M:1308:THR:HG23	1:M:1309:ASP:N	1.97	0.78
7:S:95:SER:OG	7:S:96:GLN:N	2.15	0.78
1:A:407:ARG:HG2	1:A:430:TRP:CZ2	2.16	0.78
1:A:697:ALA:HB2	1:A:702:LEU:HD11	1.65	0.78
7:G:34:VAL:HG11	7:G:74:TYR:HE1	1.48	0.78
1:M:1291:VAL:HG22	1:M:1292:PRO:HD2	1.64	0.78
1:M:1323:ASP:OD1	1:M:1325:THR:HG22	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4:23:BRU:H6	13:4:23:BRU:H5"	1.63	0.78
1:A:14:VAL:N	1:A:1432:GLN:HE22	1.81	0.78
1:A:1308:THR:HG23	1:A:1309:ASP:N	1.98	0.78
1:M:225:ASN:ND2	1:M:228:PHE:H	1.81	0.78
1:A:390:GLN:HE21	1:A:394:ASN:HD22	1.31	0.78
2:B:846:ILE:HG23	2:B:974:PRO:HG2	1.65	0.78
5:E:48:ASP:HB3	5:E:54:GLN:NE2	1.99	0.78
8:H:58:THR:HG22	8:H:59:ILE:H	1.49	0.78
1:M:693:VAL:HG21	1:M:721:PHE:HE1	1.48	0.78
6:R:111:LEU:HD12	6:R:111:LEU:N	1.98	0.78
2:B:862:GLN:HG2	2:B:963:PHE:HD1	1.48	0.78
4:D:159:THR:O	4:D:163:VAL:HG23	1.84	0.78
1:M:1081:LEU:HD11	1:M:1097:GLY:HA3	1.66	0.78
4:P:194:LEU:HD13	7:S:86:VAL:HG11	1.65	0.78
9:U:111:THR:CG2	9:U:113:ASP:H	1.92	0.78
1:A:913:LEU:HD12	1:A:914:GLU:N	1.98	0.78
2:B:603:LEU:HD13	2:B:608:ASP:HB2	1.66	0.78
2:B:800:GLN:HB3	10:J:52:THR:HG21	1.65	0.78
8:H:89:LEU:C	8:H:91:ASP:H	1.85	0.78
11:K:47:ARG:HB3	11:K:47:ARG:HH11	1.46	0.78
2:N:737:THR:HG21	9:U:66:PRO:HA	1.64	0.78
4:P:158:GLU:H	4:P:158:GLU:CD	1.86	0.78
1:M:830:LYS:O	1:M:834:THR:HB	1.84	0.78
1:M:981:LEU:HD21	1:M:1039:LYS:HA	1.66	0.78
4:P:47:LEU:HD13	4:P:48:ILE:N	1.99	0.78
7:S:34:VAL:HG11	7:S:74:TYR:CE1	2.19	0.78
7:S:119:LEU:HD11	7:S:130:TYR:HB3	1.66	0.78
8:T:17:PRO:HB3	8:T:24:CYS:SG	2.23	0.78
1:A:225:ASN:ND2	1:A:228:PHE:H	1.80	0.78
1:A:591:PHE:HA	1:A:595:THR:HG21	1.66	0.78
7:G:15:PRO:HA	7:G:18:PHE:CD1	2.19	0.78
1:M:1094:VAL:HG13	1:M:1113:THR:CG2	2.14	0.78
2:N:516:ASN:H	2:N:516:ASN:ND2	1.81	0.78
2:N:745:PRO:O	2:N:748:ILE:HG12	1.84	0.78
2:N:824:ILE:HG12	10:V:48:ARG:HH12	1.49	0.78
3:O:148:ARG:HD3	3:O:149:LYS:HG3	1.66	0.78
1:A:934:LYS:O	1:A:937:VAL:HG12	1.83	0.78
2:B:751:VAL:HG13	2:B:812:LEU:HD22	1.63	0.78
2:N:865:LYS:HB2	2:N:961:LEU:HD11	1.64	0.78
7:S:129:SER:HB2	7:S:138:THR:OG1	1.84	0.78
2:B:792:MET:HE2	2:B:857:ARG:NH2	1.97	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:857:ARG:HD2	2:B:945:GLU:OE1	1.83	0.78
5:E:84:ASP:O	5:E:86:PRO:HD3	1.84	0.78
1:M:503:GLN:NE2	6:R:90:ARG:HH21	1.81	0.78
1:M:567:LYS:CD	1:M:568:PRO:HD2	2.12	0.78
7:S:115:MET:HB3	7:S:119:LEU:HD23	1.65	0.78
3:C:147:LEU:HB2	3:C:151:GLN:HB2	1.64	0.77
9:U:80:SER:OG	9:U:105:SER:HB2	1.83	0.77
1:M:741:ASN:HD22	1:M:742:ASN:N	1.83	0.77
1:A:458:HIS:CE1	1:A:507:VAL:HG21	2.20	0.77
1:A:565:ILE:HG23	1:A:567:LYS:HG2	1.64	0.77
1:A:567:LYS:NZ	8:H:46:LEU:HB2	2.00	0.77
1:A:567:LYS:CB	1:A:568:PRO:HD2	2.13	0.77
9:I:80:SER:OG	9:I:105:SER:HB2	1.84	0.77
9:U:74:GLU:HB3	9:U:81:ARG:HD2	1.65	0.77
10:V:1:MET:H2	10:V:57:ILE:H	1.30	0.77
10:V:3:VAL:HG21	10:V:18:TRP:CB	2.13	0.77
14:2:5:DC:C2'	14:2:6:DT:H72	2.15	0.77
1:M:855:THR:HG23	1:M:857:ARG:HG3	1.66	0.77
11:W:47:ARG:HB3	11:W:47:ARG:HH11	1.50	0.77
1:A:1323:ASP:OD1	1:A:1325:THR:HG22	1.85	0.77
4:D:146:GLN:O	4:D:149:THR:HG22	1.83	0.77
1:M:93:VAL:HG22	1:M:301:ALA:HA	1.64	0.77
1:M:590:ARG:O	1:M:591:PHE:HB2	1.84	0.77
1:M:899:VAL:HB	1:M:929:LEU:HD12	1.65	0.77
2:N:294:ASP:O	2:N:296:GLU:N	2.16	0.77
2:N:615:MET:HB3	2:N:626:ILE:HG12	1.65	0.77
7:S:53:ASN:HD22	7:S:53:ASN:N	1.81	0.77
7:S:85:GLU:HG2	7:S:87:VAL:HG12	1.66	0.77
1:A:287:HIS:HA	1:A:290:GLU:HG2	1.66	0.77
1:A:855:THR:HG23	1:A:857:ARG:HG3	1.65	0.77
2:B:351:TYR:CE1	2:B:355:ILE:HD11	2.20	0.77
2:B:953:LEU:HD21	2:B:965:LYS:HB2	1.66	0.77
1:M:407:ARG:HD2	1:M:413:ILE:HD11	1.65	0.77
1:M:565:ILE:HG23	1:M:567:LYS:HG2	1.66	0.77
1:M:596:THR:O	1:M:598:LEU:N	2.17	0.77
8:T:127:GLY:O	8:T:128:ASN:HB2	1.82	0.77
1:M:537:ARG:HD2	8:T:20:TYR:CE1	2.20	0.77
14:5:5:DC:C2'	14:5:6:DT:H72	2.15	0.77
4:D:187:THR:HG21	1:M:34:LYS:NZ	2.00	0.77
6:F:111:LEU:HD12	6:F:111:LEU:H	1.50	0.77
1:M:821:ARG:HH11	1:M:821:ARG:HB2	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1094:VAL:HG13	1:M:1113:THR:HG21	1.66	0.77
2:B:100:PRO:HG3	2:B:172:ILE:HD12	1.67	0.77
1:M:1095:THR:HG21	1:M:1112:LYS:HB2	1.66	0.77
1:M:1293:SER:OG	1:M:1295:THR:HG23	1.84	0.77
2:N:579:ARG:HB2	2:N:586:TRP:HE1	1.48	0.77
2:N:766:ARG:HH21	2:N:1020:ARG:HD3	1.48	0.77
5:Q:176:PRO:O	5:Q:212:ARG:HA	1.85	0.77
12:X:32:ALA:HB2	12:X:55:ILE:HG13	1.64	0.77
12:X:47:ARG:HH11	12:X:47:ARG:HB2	1.50	0.77
2:B:273:LEU:HD21	2:B:360:PHE:HD1	1.49	0.76
8:H:40:LEU:HD23	8:H:42:ILE:HD11	1.66	0.76
1:M:172:PRO:HB3	1:M:185:TRP:CE2	2.20	0.76
1:A:1197:LEU:HD11	1:A:1238:ILE:HD11	1.67	0.76
10:J:3:VAL:HG21	10:J:18:TRP:CB	2.13	0.76
1:M:184:SER:HB3	1:M:199:LEU:HD23	1.65	0.76
7:S:106:MET:HG2	7:S:107:LYS:N	1.98	0.76
8:T:15:VAL:HG22	8:T:26:ILE:HG12	1.67	0.76
8:T:130:ARG:HH11	8:T:130:ARG:CB	1.99	0.76
1:A:288:ALA:HA	1:A:291:GLU:CD	2.06	0.76
1:A:1116:LEU:H	1:A:1308:THR:HG22	1.50	0.76
12:L:53:HIS:HB3	12:L:55:ILE:CD1	2.15	0.76
1:M:310:GLY:O	1:M:312:PRO:HD2	1.84	0.76
5:Q:84:ASP:O	5:Q:86:PRO:HD3	1.86	0.76
2:B:863:GLU:OE2	2:B:873:THR:HA	1.84	0.76
5:E:117:THR:HB	5:E:120:ALA:CB	2.15	0.76
1:M:913:LEU:HD12	1:M:914:GLU:H	1.48	0.76
3:O:69:LEU:H	3:O:69:LEU:HD12	1.50	0.76
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.66	0.76
1:A:541:ILE:HD13	1:A:549:MET:CE	2.15	0.76
1:A:889:SER:HB3	1:A:1297:GLU:HG3	1.68	0.76
1:A:1385:THR:CG2	1:A:1387:HIS:H	1.98	0.76
3:O:51:VAL:HG22	3:O:155:LEU:HD22	1.67	0.76
1:A:963:ILE:HD13	1:A:1049:ILE:HG13	1.65	0.76
2:B:542:MET:HE2	2:B:747:MET:HE2	1.67	0.76
2:B:1069:PHE:H	2:B:1069:PHE:HD1	1.30	0.76
1:M:541:ILE:HD13	1:M:549:MET:CE	2.15	0.76
1:M:770:VAL:HG12	1:M:771:GLU:HG3	1.68	0.76
1:M:822:GLU:HG3	2:N:513:GLN:NE2	2.00	0.76
3:O:11:ARG:HE	3:O:21:ILE:HD11	1.51	0.76
1:A:824:LEU:O	1:A:827:THR:HG22	1.85	0.76
2:B:579:ARG:HG2	2:B:579:ARG:HH11	1.48	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:770:GLN:OE1	2:B:983:ARG:HA	1.86	0.76
4:D:154:PHE:HE2	4:D:218:GLU:HA	1.51	0.76
2:N:172:ILE:HD13	2:N:178:ASN:HD22	1.50	0.76
2:N:617:ARG:HE	2:N:619:ILE:HG12	1.50	0.76
1:M:89:PRO:O	1:M:204:THR:HG21	1.85	0.76
1:M:794:PRO:HG2	1:M:795:GLU:OE2	1.86	0.76
1:M:1006:ILE:HD11	5:Q:163:GLU:CG	2.16	0.76
8:T:95:TYR:CE2	8:T:97:MET:HG3	2.16	0.76
1:A:353:ILE:HG21	1:A:487:MET:CG	2.14	0.76
2:B:778:MET:HE1	2:B:1094:ARG:HD3	1.68	0.76
1:M:164:ARG:HG3	1:M:165:GLY:H	1.51	0.76
1:M:535:THR:CG2	1:M:616:VAL:HA	2.14	0.76
11:W:65:HIS:HD2	11:W:67:PHE:N	1.84	0.76
1:A:534:LEU:O	1:A:574:GLY:HA3	1.85	0.76
1:A:1387:HIS:O	1:A:1391:ARG:HG3	1.85	0.76
3:C:93:ASP:OD1	3:C:122:SER:HB2	1.86	0.76
2:N:313:MET:HE2	2:N:390:LEU:HD11	1.68	0.76
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.68	0.75
2:B:737:THR:CG2	9:I:66:PRO:HA	2.15	0.75
5:E:48:ASP:CG	5:E:49:SER:H	1.86	0.75
2:N:792:MET:HE2	2:N:857:ARG:HH22	1.51	0.75
5:Q:9:ILE:HD11	5:Q:53:PRO:HD3	1.66	0.75
1:A:1223:ASP:HA	1:A:1243:VAL:CG2	2.15	0.75
2:B:169:ARG:HB2	2:B:454:THR:HG23	1.66	0.75
2:B:1201:LYS:HE2	2:B:1205:GLN:OE1	1.86	0.75
1:A:858:ASN:C	1:A:858:ASN:HD22	1.88	0.75
1:A:869:GLY:O	5:E:204:THR:HG21	1.87	0.75
7:G:34:VAL:HG12	7:G:45:ILE:HG21	1.68	0.75
1:M:1433:MET:HE3	7:S:63:PRO:HB2	1.67	0.75
7:S:83:LYS:HG3	7:S:148:GLU:O	1.86	0.75
8:T:40:LEU:HD12	8:T:123:MET:HB2	1.67	0.75
1:A:567:LYS:HB2	8:H:95:TYR:HA	1.66	0.75
3:C:56:THR:HG22	3:C:57:VAL:H	1.51	0.75
6:F:109:VAL:HG12	6:F:110:ASP:N	2.02	0.75
1:M:108:MET:CA	1:M:210:ILE:HD13	2.15	0.75
2:N:60:GLN:O	2:N:63:ILE:HG22	1.86	0.75
3:O:56:THR:HG22	3:O:57:VAL:H	1.50	0.75
6:F:130:ILE:HB	6:F:148:VAL:HG21	1.68	0.75
13:1:22:DC:H2"	13:1:23:BRU:C5'	2.14	0.75
1:M:842:VAL:HG11	2:N:1136:ASP:OD2	1.87	0.75
2:N:25:ILE:CG2	2:N:658:ILE:HD12	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:744:HIS:CD2	2:N:745:PRO:HD2	2.22	0.75
5:Q:117:THR:HB	5:Q:120:ALA:CB	2.16	0.75
9:U:50:THR:CG2	9:U:52:ILE:HG12	2.17	0.75
9:U:65:ASP:HB3	9:U:68:LEU:HD12	1.68	0.75
1:A:172:PRO:HB3	1:A:185:TRP:CE2	2.22	0.75
2:B:36:ALA:HA	2:B:39:ARG:HD2	1.69	0.75
5:E:202:SER:OG	5:E:204:THR:HG22	1.87	0.75
6:F:119:ARG:HH11	6:F:119:ARG:HG3	1.51	0.75
1:M:1218:GLN:O	1:M:1221:LYS:HE3	1.86	0.75
4:P:14:ARG:HB3	4:P:14:ARG:HH11	1.50	0.75
2:N:35:SER:HA	2:N:811:TYR:HE2	1.51	0.75
3:O:183:TRP:O	3:O:185:LYS:N	2.19	0.75
7:S:115:MET:O	7:S:164:LYS:HD3	1.87	0.75
1:A:34:LYS:CD	4:P:187:THR:HG21	2.17	0.75
3:C:183:TRP:O	3:C:185:LYS:N	2.19	0.75
1:M:858:ASN:HD22	1:M:858:ASN:C	1.87	0.75
2:N:744:HIS:HD2	2:N:745:PRO:CD	2.00	0.75
1:A:107:CYS:CA	1:A:171:GLN:HE22	1.99	0.75
1:A:1006:ILE:HD11	5:E:163:GLU:HG3	1.68	0.75
2:B:800:GLN:HB3	10:J:52:THR:HG22	1.69	0.75
4:D:66:ARG:HD2	4:D:133:THR:HB	1.68	0.75
2:N:1187:ASN:HD21	2:N:1190:ASP:HB3	1.52	0.75
2:B:361:LEU:HD21	2:B:377:PHE:CD2	2.21	0.74
3:C:143:LEU:HD21	3:C:146:LYS:HE3	1.69	0.74
4:D:71:LYS:HA	4:D:74:GLN:HB2	1.68	0.74
1:M:973:ILE:HD13	1:M:1037:LEU:HA	1.68	0.74
2:N:129:PHE:HE2	2:N:166:PHE:HB2	1.52	0.74
2:N:917:PRO:O	2:N:918:ILE:HG13	1.86	0.74
3:C:238:ILE:CG2	3:C:243:VAL:HG23	2.16	0.74
1:M:167:CYS:HB2	1:M:169:ASN:ND2	2.01	0.74
1:M:869:GLY:O	5:Q:204:THR:HG21	1.87	0.74
1:M:1255:GLU:O	1:M:1255:GLU:HG2	1.87	0.74
2:N:955:THR:HG22	2:N:956:THR:O	1.87	0.74
8:T:130:ARG:HD3	8:T:130:ARG:N	2.01	0.74
9:U:55:THR:HG23	9:U:100:PHE:CD2	2.22	0.74
12:X:61:THR:HG22	12:X:63:ARG:HG3	1.69	0.74
3:C:244:VAL:O	3:C:248:ILE:HG13	1.87	0.74
11:K:45:LEU:HG	11:K:94:ILE:HD13	1.69	0.74
12:L:38:LEU:HD13	12:L:49:LYS:HE2	1.69	0.74
1:M:37:PHE:CD1	1:M:37:PHE:N	2.53	0.74
1:M:446:ARG:HB2	1:M:487:MET:SD	2.26	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:78:PRO:HA	2:N:1201:LYS:HZ2	1.52	0.74
1:M:231:PRO:HA	1:M:234:MET:HE2	1.69	0.74
2:N:345:LYS:O	2:N:347:LYS:HG2	1.87	0.74
2:N:1224:PHE:CZ	5:Q:171:LYS:HG3	2.22	0.74
8:T:8:ASP:OD2	8:T:9:ILE:N	2.19	0.74
2:B:549:THR:HB	2:B:628:THR:OG1	1.87	0.74
12:L:26:THR:HG22	12:L:27:LEU:N	2.01	0.74
1:M:451:HIS:CD2	1:M:1074:GLU:HG3	2.23	0.74
2:N:261:ARG:HB3	2:N:261:ARG:NH1	2.02	0.74
3:O:147:LEU:HD23	3:O:147:LEU:N	2.03	0.74
4:P:12:ARG:HH11	4:P:12:ARG:HG2	1.52	0.74
12:X:55:ILE:HD13	12:X:55:ILE:H	1.53	0.74
13:4:22:DC:H2"	13:4:23:BRU:C5'	2.15	0.74
1:A:537:ARG:HD2	8:H:20:TYR:CE1	2.22	0.74
3:C:7:GLN:HE21	11:K:104:ASN:HD21	1.34	0.74
1:M:1015:VAL:HG12	1:M:1019:CYS:SG	2.27	0.74
4:D:187:THR:HG21	1:M:34:LYS:HZ3	1.51	0.74
1:A:470:LEU:HD23	1:A:470:LEU:N	2.02	0.74
1:A:1293:SER:OG	1:A:1295:THR:HG23	1.88	0.74
2:B:345:LYS:O	2:B:347:LYS:HG2	1.87	0.74
6:F:90:ARG:HD3	6:F:155:LEU:CD1	2.18	0.74
9:I:111:THR:CG2	9:I:112:SER:N	2.50	0.74
1:M:1105:LEU:HD22	1:M:1384:VAL:HG21	1.68	0.74
2:N:309:GLN:HG3	9:U:52:ILE:HD11	1.70	0.74
1:A:69:THR:O	1:A:71:GLN:N	2.21	0.74
4:D:29:LEU:HD22	4:D:29:LEU:N	2.03	0.74
1:M:353:ILE:HG21	1:M:487:MET:CG	2.17	0.74
3:O:183:TRP:CZ2	3:O:207:CYS:HB3	2.23	0.74
4:P:190:GLU:HA	7:S:167:TYR:CD1	2.22	0.74
9:U:50:THR:HG22	9:U:52:ILE:H	1.52	0.74
12:X:49:LYS:O	12:X:50:ASP:HB2	1.86	0.74
1:A:596:THR:O	1:A:598:LEU:N	2.20	0.73
2:B:805:THR:HA	2:B:809:MET:HE1	1.68	0.73
6:F:147:SER:OG	6:F:150:GLU:HG3	1.88	0.73
7:G:26:LEU:HD12	7:G:56:ILE:CD1	2.17	0.73
7:G:34:VAL:CG1	7:G:45:ILE:HG21	2.18	0.73
1:A:567:LYS:HD2	1:A:568:PRO:HD2	1.68	0.73
1:A:590:ARG:O	1:A:591:PHE:HB2	1.88	0.73
2:B:798:TYR:CD1	10:J:4:PRO:HG3	2.23	0.73
2:B:865:LYS:HB2	2:B:961:LEU:HD11	1.69	0.73
1:M:287:HIS:HA	1:M:290:GLU:HG2	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:853:ASP:OD1	1:A:855:THR:HB	1.87	0.73
1:A:901:LEU:H	1:A:926:GLN:NE2	1.85	0.73
1:A:1224:LEU:HD11	1:A:1240:CYS:HB3	1.69	0.73
2:B:241:ARG:HG2	2:B:253:THR:HG22	1.69	0.73
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.70	0.73
7:G:53:ASN:HD22	7:G:53:ASN:N	1.84	0.73
8:H:127:GLY:O	8:H:128:ASN:HB2	1.85	0.73
9:U:74:GLU:HB3	9:U:81:ARG:CD	2.18	0.73
11:W:45:LEU:HG	11:W:94:ILE:HD13	1.70	0.73
2:B:53:GLN:HG2	2:B:547:VAL:HG22	1.70	0.73
2:B:277:LYS:HG2	2:B:336:ARG:HB3	1.70	0.73
6:F:69:LEU:HB3	6:F:71:GLU:OE1	1.88	0.73
2:N:806:THR:HG22	2:N:808:ALA:N	2.04	0.73
12:X:26:THR:HG22	12:X:27:LEU:N	2.02	0.73
1:A:1107:VAL:HG12	1:A:1107:VAL:O	1.87	0.73
3:C:203:GLN:HG2	3:C:207:CYS:SG	2.29	0.73
12:L:60:ARG:HG2	12:L:61:THR:H	1.53	0.73
6:R:109:VAL:HG12	6:R:110:ASP:N	2.02	0.73
12:X:30:ILE:HD11	12:X:59:ALA:HB2	1.68	0.73
1:A:33:ALA:HA	1:A:57:ARG:NH1	2.03	0.73
1:M:590:ARG:HG2	1:M:590:ARG:HH11	1.52	0.73
1:M:896:ARG:HD3	1:M:897:TYR:CE1	2.23	0.73
2:N:364:ILE:HG13	2:N:585:VAL:HG13	1.70	0.73
2:N:613:VAL:HG13	2:N:627:PHE:O	1.89	0.73
2:N:800:GLN:HB3	10:V:52:THR:HG22	1.70	0.73
7:S:51:TYR:O	7:S:54:ILE:HG13	1.88	0.73
12:X:47:ARG:HG3	12:X:52:GLY:O	1.87	0.73
1:A:372:LYS:HA	1:A:435:HIS:ND1	2.02	0.73
1:A:567:LYS:CB	8:H:95:TYR:HA	2.17	0.73
1:A:1015:VAL:HG12	1:A:1019:CYS:SG	2.27	0.73
2:B:516:ASN:N	2:B:516:ASN:ND2	2.35	0.73
3:C:183:TRP:CZ2	3:C:207:CYS:HB3	2.24	0.73
8:H:84:ALA:CB	8:H:87:ARG:HD2	2.17	0.73
2:N:308:TRP:CH2	9:U:45:ARG:HG2	2.24	0.73
2:N:1065:GLN:HE21	2:N:1067:ARG:N	1.86	0.73
4:P:141:LEU:O	4:P:145:MET:HG2	1.89	0.73
2:B:294:ASP:C	2:B:296:GLU:H	1.91	0.73
1:M:66:LYS:NZ	1:M:68:GLN:H	1.87	0.73
1:M:567:LYS:HB2	8:T:95:TYR:HA	1.69	0.73
2:N:333:PHE:O	2:N:334:ILE:HG13	1.89	0.73
7:S:129:SER:HB2	7:S:138:THR:HG1	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:ILE:O	1:A:250:ILE:HG22	1.87	0.73
5:E:147:HIS:HB3	5:E:150:VAL:HG23	1.71	0.73
9:I:50:THR:HG22	9:I:51:ASN:N	2.04	0.73
1:M:69:THR:O	1:M:71:GLN:N	2.22	0.73
1:M:107:CYS:HA	1:M:171:GLN:HE22	1.54	0.73
1:M:321:PRO:O	1:M:322:VAL:HG12	1.89	0.73
1:M:1223:ASP:HA	1:M:1243:VAL:HG22	1.70	0.73
1:A:70:CYS:O	1:A:72:GLU:HG2	1.89	0.73
3:C:66:ARG:NH1	10:J:2:ILE:HG21	2.04	0.73
1:M:225:ASN:ND2	1:M:227:VAL:H	1.86	0.73
1:M:337:ARG:HD3	2:N:1132:GLU:OE1	1.89	0.73
2:N:579:ARG:HB2	2:N:586:TRP:NE1	2.03	0.73
2:N:589:VAL:HG12	2:N:590:HIS:H	1.52	0.73
2:N:879:ARG:H	2:N:879:ARG:NH1	1.86	0.73
4:P:189:ASP:O	4:P:193:THR:HB	1.89	0.73
4:P:207:LEU:O	4:P:211:LEU:HD12	1.89	0.73
1:A:62:ASP:O	1:A:63:ARG:C	2.28	0.72
1:A:62:ASP:O	1:A:64:ASN:HB2	1.89	0.72
1:A:535:THR:HG21	1:A:616:VAL:HA	1.71	0.72
1:A:901:LEU:HA	1:A:907:THR:OG1	1.88	0.72
2:B:313:MET:HE2	2:B:390:LEU:HD11	1.70	0.72
5:E:176:PRO:O	5:E:212:ARG:HA	1.89	0.72
6:F:109:VAL:HG12	6:F:110:ASP:H	1.54	0.72
1:M:11:LEU:O	1:M:11:LEU:HD23	1.89	0.72
2:N:644:GLU:HB3	2:N:648:HIS:O	1.89	0.72
1:A:829:VAL:HG21	2:B:508:LEU:HD13	1.69	0.72
1:A:896:ARG:HD3	1:A:897:TYR:CE1	2.24	0.72
4:D:154:PHE:CE2	4:D:218:GLU:HA	2.24	0.72
1:M:1394:THR:HG21	1:M:1398:MET:SD	2.28	0.72
2:N:911:ILE:HD11	2:N:941:LEU:HD13	1.71	0.72
3:O:263:THR:O	3:O:266:ASP:HB2	1.89	0.72
7:S:116:PRO:HG2	7:S:119:LEU:CB	2.19	0.72
1:A:40:THR:HG23	1:A:54:ASN:HD21	1.54	0.72
1:M:62:ASP:O	1:M:63:ARG:C	2.28	0.72
1:M:66:LYS:HD3	1:M:67:CYS:H	1.52	0.72
1:M:667:GLY:HA2	1:M:670:ILE:HD11	1.70	0.72
1:M:860:LEU:HD11	1:M:1393:ASN:HB2	1.71	0.72
2:N:542:MET:HG2	2:N:747:MET:CE	2.18	0.72
1:A:297:GLN:HE21	1:A:297:GLN:CA	2.02	0.72
2:N:549:THR:HG22	2:N:550:ASP:N	2.05	0.72
2:N:582:VAL:HG23	2:N:626:ILE:HB	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1016:ALA:O	2:N:1020:ARG:HG3	1.89	0.72
7:S:1:MET:SD	7:S:2:PHE:N	2.63	0.72
9:U:111:THR:CG2	9:U:112:SER:N	2.52	0.72
1:A:49:LYS:HE2	1:A:61:ILE:HD12	1.71	0.72
1:A:567:LYS:CG	1:A:568:PRO:HD2	2.18	0.72
2:B:292:ILE:HD11	2:B:327:ARG:N	2.03	0.72
2:B:1095:LEU:HD12	2:B:1095:LEU:N	2.04	0.72
2:N:287:ARG:HG2	2:N:292:ILE:HA	1.72	0.72
1:A:693:VAL:HG21	1:A:721:PHE:HE1	1.55	0.72
2:B:589:VAL:HG12	2:B:590:HIS:H	1.53	0.72
2:B:600:LEU:O	2:B:609:ILE:HD11	1.90	0.72
1:M:445:ASN:HB2	1:M:455:MET:HG2	1.70	0.72
2:B:724:ASP:OD2	2:B:727:LYS:HG3	1.90	0.72
5:E:180:ARG:HH21	5:E:192:ARG:HB2	1.54	0.72
1:M:332:LYS:HG2	1:M:333:GLU:HG2	1.72	0.72
2:N:1183:LYS:N	2:N:1183:LYS:HE3	2.04	0.72
7:S:87:VAL:CG2	7:S:103:VAL:HG21	2.19	0.72
1:A:1118:VAL:CG2	1:A:1306:LEU:HB2	2.20	0.72
5:E:23:VAL:O	5:E:28:TYR:HB2	1.90	0.72
2:N:622:LYS:NZ	9:U:59:VAL:HG13	2.05	0.72
2:N:1096:ARG:O	2:N:1097:HIS:HB2	1.90	0.72
3:O:36:VAL:HG21	3:O:251:LEU:HD13	1.72	0.72
1:A:601:LYS:HB2	1:A:603:ASN:ND2	2.05	0.72
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.05	0.72
1:A:1348:LEU:O	1:A:1352:VAL:HG23	1.89	0.72
5:E:14:ARG:HH21	5:E:141:VAL:HG12	1.54	0.72
1:A:310:GLY:O	1:A:312:PRO:HD2	1.89	0.72
1:A:1094:VAL:HG13	1:A:1113:THR:CG2	2.19	0.72
2:B:278:GLN:HG2	2:B:279:ASP:H	1.54	0.72
2:B:549:THR:HG22	2:B:550:ASP:N	2.04	0.72
1:M:7:SER:OG	2:N:1161:HIS:HE1	1.72	0.72
1:M:517:ASN:HD22	1:M:1364:ASN:HD22	1.38	0.72
1:M:1385:THR:HG22	1:M:1387:HIS:N	2.04	0.72
2:N:56:ASP:HB3	2:N:57:TYR:CD1	2.25	0.72
2:N:294:ASP:C	2:N:296:GLU:H	1.93	0.72
2:N:1224:PHE:CE1	5:Q:171:LYS:HG3	2.25	0.72
3:O:8:VAL:O	3:O:9:LYS:HG3	1.90	0.72
1:M:889:SER:HB3	1:M:1297:GLU:HG3	1.72	0.71
2:N:336:ARG:HH11	2:N:336:ARG:HG3	1.56	0.71
2:N:766:ARG:HH22	2:N:1020:ARG:HH11	1.38	0.71
7:S:153:GLN:HG2	7:S:154:VAL:HG23	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:48:ARG:HG2	10:J:48:ARG:HH11	1.54	0.71
1:M:470:LEU:H	1:M:470:LEU:HD23	1.55	0.71
2:N:56:ASP:HB3	2:N:57:TYR:HD1	1.55	0.71
2:N:289:LEU:HD13	2:N:375:ALA:CB	2.20	0.71
3:O:166:GLU:HG3	11:W:10:PHE:HZ	1.55	0.71
8:T:24:CYS:HB2	8:T:44:VAL:HG21	1.72	0.71
1:A:1121:GLU:CG	1:A:1122:PRO:HD2	2.20	0.71
2:B:542:MET:HG2	2:B:747:MET:HE3	1.72	0.71
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.72	0.71
3:O:165:LYS:O	11:W:6:ARG:NH1	2.22	0.71
1:A:37:PHE:N	1:A:37:PHE:CD1	2.56	0.71
1:A:68:GLN:OE1	1:A:68:GLN:O	2.09	0.71
1:A:517:ASN:HD22	1:A:1364:ASN:HD22	1.37	0.71
1:A:1223:ASP:HA	1:A:1243:VAL:HG22	1.72	0.71
2:B:56:ASP:HB3	2:B:57:TYR:CD1	2.25	0.71
4:D:138:ASN:HD21	7:G:35:GLU:HB3	1.55	0.71
6:F:77:ASP:O	6:F:78:GLN:HB2	1.90	0.71
8:H:130:ARG:HD3	8:H:130:ARG:N	2.06	0.71
1:M:239:LEU:HD12	1:M:240:PRO:HD2	1.71	0.71
1:M:905:ASP:C	1:M:906:HIS:HD1	1.94	0.71
1:M:1116:LEU:H	1:M:1308:THR:HG22	1.55	0.71
2:N:953:LEU:HD21	2:N:965:LYS:HB2	1.71	0.71
5:Q:50:MET:HG2	5:Q:52:ARG:HH21	1.55	0.71
2:B:427:ASP:HA	2:B:430:ARG:HD2	1.73	0.71
2:N:515:HIS:HD2	2:N:517:THR:H	1.37	0.71
5:Q:23:VAL:O	5:Q:28:TYR:HB2	1.90	0.71
1:A:316:GLN:HG2	1:A:317:LYS:HG2	1.71	0.71
1:A:709:THR:HG22	1:A:710:LEU:N	2.04	0.71
4:D:8:PHE:CE1	4:D:37:GLN:HB2	2.26	0.71
12:L:32:ALA:HB2	12:L:55:ILE:HG13	1.72	0.71
1:M:115:LEU:HD12	1:M:142:CYS:HB3	1.71	0.71
1:M:709:THR:HG22	1:M:710:LEU:N	2.05	0.71
2:N:295:GLY:N	2:N:298:LEU:HD23	2.06	0.71
1:A:37:PHE:N	1:A:37:PHE:HD1	1.89	0.71
2:B:1016:ALA:O	2:B:1020:ARG:HG3	1.91	0.71
1:M:1189:SER:O	1:M:1241:ARG:HD3	1.91	0.71
2:N:705:MET:N	2:N:710:LEU:HD12	2.06	0.71
4:P:138:ASN:C	4:P:142:LYS:HE2	2.11	0.71
9:U:34:TYR:CD2	9:U:35:VAL:N	2.59	0.71
2:B:60:GLN:O	2:B:63:ILE:HG22	1.89	0.71
2:B:778:MET:CE	2:B:1094:ARG:HD3	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:13:LEU:HD22	7:G:17:PHE:HB2	1.70	0.71
12:L:47:ARG:HB2	12:L:47:ARG:HH11	1.56	0.71
12:L:47:ARG:HG3	12:L:52:GLY:O	1.91	0.71
1:M:390:GLN:HE21	1:M:394:ASN:HD22	1.39	0.71
1:M:722:LEU:H	1:M:722:LEU:HD12	1.55	0.71
1:M:767:GLN:NE2	1:M:774:ARG:HB3	2.05	0.71
2:N:467:GLY:N	2:N:475:SER:HB3	2.06	0.71
2:N:515:HIS:CD2	2:N:517:THR:HG23	2.26	0.71
1:A:1155:ASP:OD2	1:A:1161:THR:HG23	1.90	0.71
9:I:93:LYS:HD3	9:I:93:LYS:N	2.04	0.71
1:M:1011:GLN:HE22	1:M:1015:VAL:HG21	1.56	0.71
2:N:25:ILE:HG21	2:N:658:ILE:HD12	1.73	0.71
2:N:620:ARG:NH1	9:U:68:LEU:HD21	2.05	0.71
5:Q:16:PHE:CZ	5:Q:20:LYS:HE2	2.26	0.71
1:A:253:ASN:ND2	2:B:884:ARG:HD2	2.05	0.70
1:A:281:HIS:C	1:A:282:ASN:HD22	1.94	0.70
1:A:1207:LEU:HD13	1:A:1273:LEU:HD23	1.73	0.70
2:B:226:PHE:HA	2:B:395:GLN:CG	2.20	0.70
2:B:384:ARG:HH12	2:B:393:LYS:HD3	1.55	0.70
2:B:898:LEU:HD13	2:B:952:VAL:HG11	1.72	0.70
2:B:917:PRO:O	2:B:918:ILE:HG13	1.90	0.70
1:M:157:ASP:OD2	1:M:160:GLN:HG3	1.91	0.70
1:M:1121:GLU:CG	1:M:1122:PRO:HD2	2.20	0.70
2:N:217:ARG:NE	2:N:405:ARG:HB2	2.06	0.70
7:S:99:PHE:O	7:S:110:VAL:HG23	1.90	0.70
1:A:71:GLN:O	1:A:73:GLY:N	2.23	0.70
1:A:225:ASN:HD22	1:A:228:PHE:H	1.37	0.70
1:A:523:ILE:CG1	1:A:622:VAL:HG22	2.21	0.70
1:M:1118:VAL:HG23	1:M:1306:LEU:HB2	1.72	0.70
2:N:756:ILE:O	2:N:759:PRO:HD3	1.91	0.70
4:P:8:PHE:HE1	4:P:37:GLN:HB2	1.55	0.70
2:B:873:THR:O	2:B:914:LYS:HA	1.91	0.70
3:C:147:LEU:N	3:C:147:LEU:HD23	2.07	0.70
1:M:254:GLU:HB2	2:N:935:ARG:NH2	2.06	0.70
1:M:916:GLY:O	1:M:919:ILE:HG22	1.91	0.70
1:M:1293:SER:OG	1:M:1294:PRO:HD2	1.91	0.70
2:N:38:PHE:HD1	2:N:811:TYR:CD2	2.09	0.70
2:N:873:THR:O	2:N:914:LYS:HA	1.91	0.70
1:A:541:ILE:HG22	1:A:546:VAL:HG23	1.73	0.70
1:A:842:VAL:HG11	2:B:1136:ASP:OD2	1.91	0.70
2:B:309:GLN:HG3	9:I:52:ILE:CD1	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1004:GLU:HG3	10:J:42:LYS:NZ	2.05	0.70
8:H:81:PRO:CB	8:H:82:PRO:HD2	2.21	0.70
1:M:216:VAL:O	1:M:219:PHE:HB2	1.91	0.70
2:N:604:ARG:HB2	2:N:609:ILE:HG13	1.73	0.70
4:P:29:LEU:HD12	7:S:82:PHE:CZ	2.26	0.70
10:V:44:TYR:HA	10:V:47:ARG:HB2	1.74	0.70
11:W:60:ALA:O	11:W:73:LEU:HD12	1.90	0.70
1:A:249:SER:O	1:A:250:ILE:HG13	1.90	0.70
1:A:626:ASN:O	1:A:631:HIS:HD2	1.74	0.70
1:A:1121:GLU:HG2	1:A:1122:PRO:HD2	1.74	0.70
1:A:1127:ASP:HB3	1:A:1130:GLN:HB3	1.71	0.70
1:A:1353:TYR:HD2	1:A:1353:TYR:C	1.94	0.70
2:B:168:GLY:HA2	2:B:454:THR:OG1	1.91	0.70
2:B:642:ASP:O	2:B:644:GLU:N	2.21	0.70
3:C:101:LEU:HD13	3:C:118:LEU:CD2	2.20	0.70
4:D:130:LEU:HD13	4:D:142:LYS:HG2	1.72	0.70
5:E:10:SER:O	5:E:13:TRP:HB3	1.92	0.70
7:G:126:ASN:HD22	7:G:127:PRO:CA	2.05	0.70
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.31	0.70
1:M:541:ILE:HG22	1:M:546:VAL:HG23	1.73	0.70
2:N:240:ILE:CG2	2:N:254:LEU:HB3	2.22	0.70
2:N:288:ALA:HB1	2:N:331:LEU:HD12	1.71	0.70
2:N:778:MET:CE	2:N:1094:ARG:HD3	2.21	0.70
6:R:130:ILE:HB	6:R:148:VAL:HG21	1.72	0.70
10:V:53:HIS:CD2	10:V:54:VAL:N	2.59	0.70
1:A:388:LEU:O	1:A:392:VAL:HG23	1.92	0.70
1:A:908:LEU:HD11	1:A:983:ILE:HD11	1.74	0.70
1:M:567:LYS:CB	8:T:95:TYR:HA	2.20	0.70
4:P:70:PHE:O	4:P:74:GLN:HG3	1.91	0.70
4:P:151:PHE:N	4:P:151:PHE:CD1	2.58	0.70
5:Q:180:ARG:NH2	5:Q:192:ARG:HB2	2.05	0.70
1:A:868:TYR:HD2	1:A:1058:VAL:HG21	1.57	0.70
1:M:122:MET:HA	1:M:141:LEU:CD1	2.22	0.70
1:M:1409:LEU:HD13	2:N:1207:LEU:HD11	1.73	0.70
2:N:600:LEU:O	2:N:609:ILE:HD11	1.90	0.70
2:N:846:ILE:HG23	2:N:974:PRO:HG2	1.72	0.70
4:P:120:GLU:O	4:P:124:GLU:OE2	2.09	0.70
2:B:247:GLY:H	2:B:249:ARG:HH21	1.37	0.70
2:B:705:MET:H	2:B:710:LEU:CD1	2.04	0.70
8:H:8:ASP:OD2	8:H:9:ILE:N	2.24	0.70
10:J:53:HIS:CD2	10:J:54:VAL:N	2.60	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:40:THR:HG22	1:M:41:MET:HG3	1.72	0.70
2:N:129:PHE:CE2	2:N:166:PHE:HB2	2.27	0.70
2:N:642:ASP:CA	2:N:649:LYS:HG3	2.22	0.70
7:S:138:THR:HG22	7:S:139:ILE:N	2.06	0.70
1:A:595:THR:O	1:A:596:THR:HG23	1.92	0.70
1:A:1293:SER:OG	1:A:1294:PRO:HD2	1.90	0.70
1:M:768:GLN:CG	1:M:816:HIS:HA	2.22	0.70
1:M:1006:ILE:CD1	5:Q:163:GLU:HG3	2.21	0.70
4:P:134:THR:HG23	4:P:141:LEU:HD23	1.74	0.70
5:Q:202:SER:OG	5:Q:204:THR:HG22	1.92	0.70
2:B:245:GLU:O	2:B:246:LYS:HG3	1.91	0.70
5:E:147:HIS:HD2	5:E:149:LEU:H	1.39	0.70
11:K:65:HIS:HD2	11:K:67:PHE:H	1.38	0.70
1:M:372:LYS:HA	1:M:435:HIS:ND1	2.07	0.70
2:N:345:LYS:CG	2:N:346:GLU:H	2.05	0.70
2:N:705:MET:H	2:N:710:LEU:CD1	2.04	0.70
5:Q:48:ASP:CG	5:Q:49:SER:H	1.93	0.70
1:A:14:VAL:H	1:A:1432:GLN:NE2	1.88	0.69
1:A:794:PRO:HG2	1:A:795:GLU:OE2	1.91	0.69
1:A:852:TYR:CE2	1:A:1060:PRO:HB2	2.27	0.69
1:A:946:VAL:HG22	5:E:201:LYS:HD2	1.73	0.69
1:A:1353:TYR:C	1:A:1353:TYR:CD2	2.65	0.69
2:B:559:SER:CA	2:B:563:MET:HB3	2.19	0.69
4:D:35:LEU:H	4:D:35:LEU:HD12	1.56	0.69
7:G:139:ILE:HG23	7:G:140:LYS:N	2.07	0.69
10:J:64:ASN:HB3	10:J:65:PRO:HD2	1.74	0.69
1:M:672:ASP:HB3	1:M:736:ASN:ND2	2.07	0.69
1:M:722:LEU:HD21	1:M:794:PRO:HB3	1.72	0.69
1:A:225:ASN:ND2	1:A:227:VAL:H	1.90	0.69
1:A:903:ASN:HD22	1:A:903:ASN:C	1.91	0.69
1:A:1210:GLY:O	1:A:1214:GLU:HG2	1.92	0.69
1:M:351:THR:HG22	2:N:1103:ILE:CA	2.20	0.69
3:O:33:LEU:O	3:O:37:MET:HG3	1.92	0.69
9:U:4:PHE:HE1	9:U:13:MET:HG3	1.58	0.69
11:W:57:LEU:HB2	11:W:76:GLN:HG2	1.73	0.69
11:W:101:LEU:HD23	11:W:101:LEU:O	1.92	0.69
1:A:288:ALA:HA	1:A:291:GLU:OE1	1.91	0.69
1:A:535:THR:CG2	1:A:616:VAL:HA	2.23	0.69
2:B:114:PRO:HG2	2:B:115:GLN:H	1.57	0.69
1:M:399:HIS:O	1:M:401:GLY:N	2.25	0.69
5:Q:94:LYS:O	5:Q:98:ILE:HG13	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:94:CYS:SG	7:S:128:PRO:HB2	2.32	0.69
1:A:425:GLN:OE1	1:A:425:GLN:N	2.25	0.69
1:A:866:PHE:C	1:A:867:ILE:HD12	2.12	0.69
1:A:960:ILE:O	1:A:963:ILE:HG22	1.92	0.69
2:B:542:MET:HG2	2:B:747:MET:CE	2.22	0.69
2:B:957:ASN:ND2	2:B:961:LEU:HB2	2.03	0.69
3:O:39:ALA:HA	3:O:164:ALA:HB3	1.74	0.69
5:Q:124:VAL:CG1	5:Q:132:ILE:HB	2.16	0.69
8:T:84:ALA:HB1	8:T:87:ARG:HB2	1.74	0.69
2:B:165:VAL:HG11	2:B:448:ILE:HD13	1.73	0.69
2:B:217:ARG:NE	2:B:405:ARG:HB2	2.08	0.69
3:C:165:LYS:O	11:K:6:ARG:NH1	2.25	0.69
2:N:996:ARG:HH12	3:O:174:ALA:HA	1.58	0.69
3:O:66:ARG:NH2	10:V:3:VAL:O	2.25	0.69
11:W:46:ILE:O	11:W:50:LEU:HB2	1.92	0.69
2:B:96:TYR:HB2	2:B:129:PHE:HB2	1.73	0.69
3:C:66:ARG:NH2	10:J:3:VAL:O	2.26	0.69
1:M:42:ASP:O	1:M:44:THR:N	2.26	0.69
1:M:115:LEU:CD1	1:M:142:CYS:HB3	2.22	0.69
1:M:537:ARG:HD2	8:T:20:TYR:HE1	1.56	0.69
1:M:1011:GLN:HE22	1:M:1015:VAL:CG2	2.06	0.69
2:N:357:GLN:O	2:N:366:GLN:HA	1.91	0.69
2:N:737:THR:CG2	9:U:66:PRO:HA	2.22	0.69
4:P:160:VAL:O	4:P:164:ILE:HG13	1.92	0.69
6:R:89:GLU:O	6:R:93:ILE:HD12	1.92	0.69
2:B:1084:GLN:HG2	3:C:201:TRP:CZ2	2.27	0.69
7:G:14:HIS:CD2	7:G:16:SER:H	2.10	0.69
9:I:50:THR:HG22	9:I:52:ILE:H	1.58	0.69
10:J:1:MET:H1	10:J:57:ILE:H	1.41	0.69
1:M:698:GLN:HA	9:U:97:MET:O	1.92	0.69
1:M:822:GLU:HG3	2:N:513:GLN:HE21	1.57	0.69
7:S:90:THR:HG22	7:S:91:VAL:O	1.92	0.69
7:S:121:PHE:CE2	7:S:123:ALA:HB2	2.28	0.69
1:A:828:ALA:HB1	2:B:530:GLY:HA2	1.73	0.69
2:B:241:ARG:HG2	2:B:253:THR:CG2	2.23	0.69
2:B:824:ILE:HG12	10:J:48:ARG:NH1	2.08	0.69
7:G:125:SER:OG	7:G:128:PRO:HA	1.93	0.69
9:I:111:THR:HG23	9:I:112:SER:H	1.57	0.69
1:M:122:MET:HA	1:M:141:LEU:HD11	1.74	0.69
1:M:1223:ASP:HA	1:M:1243:VAL:CG2	2.22	0.69
2:N:642:ASP:O	2:N:644:GLU:N	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:710:LEU:CA	2:N:733:HIS:HB3	2.17	0.69
4:P:59:ILE:HG21	4:P:145:MET:SD	2.33	0.69
8:T:81:PRO:CB	8:T:82:PRO:HD2	2.22	0.69
11:W:113:THR:O	11:W:114:LEU:HB2	1.93	0.69
2:B:616:ILE:HD12	2:B:616:ILE:N	2.07	0.69
12:L:32:ALA:HB3	12:L:55:ILE:HG13	1.74	0.69
1:M:55:ASP:C	1:M:57:ARG:H	1.94	0.69
2:N:36:ALA:HA	2:N:39:ARG:HD2	1.74	0.69
2:N:834:ASN:HB3	2:N:840:ILE:HG13	1.73	0.69
7:S:95:SER:O	7:S:130:TYR:OH	2.07	0.69
1:A:1112:LYS:O	1:A:1114:PRO:HD3	1.92	0.69
2:B:582:VAL:HG23	2:B:626:ILE:HB	1.73	0.69
3:C:45:ALA:HA	3:C:72:LEU:HD12	1.74	0.69
1:M:381:THR:HG23	1:M:382:PRO:HD2	1.75	0.69
9:U:26:LEU:CD2	9:U:37:GLU:HA	2.19	0.69
1:A:1433:MET:HE3	7:G:63:PRO:HB2	1.74	0.68
2:B:707:PRO:HG2	2:B:708:GLU:H	1.57	0.68
2:B:1181:GLU:HA	2:B:1187:ASN:O	1.92	0.68
2:N:559:SER:CA	2:N:563:MET:HB3	2.20	0.68
9:U:55:THR:HG23	9:U:100:PHE:HD2	1.57	0.68
12:X:47:ARG:HB2	12:X:47:ARG:NH1	2.07	0.68
1:A:709:THR:HG22	1:A:710:LEU:H	1.58	0.68
1:A:1148:ILE:HD11	1:A:1198:ASP:HA	1.75	0.68
1:A:1438:THR:HB	2:B:1144:ALA:HB3	1.75	0.68
2:B:168:GLY:N	2:B:450:ALA:HB1	2.08	0.68
2:B:357:GLN:O	2:B:366:GLN:HA	1.92	0.68
2:B:653:VAL:HG23	2:B:689:LEU:HB3	1.76	0.68
2:B:705:MET:N	2:B:710:LEU:HD12	2.09	0.68
3:C:51:VAL:HG22	3:C:155:LEU:HD22	1.73	0.68
2:N:1113:VAL:CG2	15:6:1:C:H4'	2.23	0.68
7:S:112:LYS:HB3	7:S:113:HIS:CE1	2.28	0.68
11:W:108:GLU:O	11:W:112:GLN:HG2	1.93	0.68
1:A:185:TRP:HE3	1:A:185:TRP:H	1.41	0.68
1:A:1094:VAL:HG13	1:A:1113:THR:HG21	1.74	0.68
1:A:1207:LEU:CD1	1:A:1273:LEU:HD23	2.24	0.68
2:B:254:LEU:HD23	2:B:381:MET:HE1	1.75	0.68
2:B:291:ILE:HD13	2:B:300:HIS:CD2	2.29	0.68
2:B:378:LEU:O	2:B:382:ILE:HG13	1.93	0.68
8:H:130:ARG:NH1	8:H:130:ARG:HB2	2.08	0.68
11:K:63:VAL:HG23	11:K:63:VAL:O	1.94	0.68
12:L:26:THR:CG2	12:L:27:LEU:H	2.02	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:744:HIS:HD2	2:N:745:PRO:HD2	1.55	0.68
2:B:955:THR:OG1	12:L:55:ILE:HA	1.93	0.68
2:B:1183:LYS:N	2:B:1183:LYS:HE3	2.08	0.68
10:J:64:ASN:HB3	10:J:65:PRO:HD3	1.74	0.68
1:M:1036:ARG:HG2	1:M:1036:ARG:NH1	2.05	0.68
1:M:1195:LEU:HD11	1:M:1267:MET:CE	2.23	0.68
2:N:244:LEU:HD11	2:N:366:GLN:NE2	2.08	0.68
7:S:128:PRO:O	7:S:138:THR:HG23	1.94	0.68
8:T:12:VAL:HA	8:T:28:ALA:HB2	1.74	0.68
1:A:503:GLN:HE21	6:F:90:ARG:NH2	1.87	0.68
1:A:524:VAL:HG12	1:A:525:GLN:N	2.06	0.68
1:M:875:ALA:HB2	1:M:1366:ARG:HD2	1.76	0.68
1:A:350:ARG:HB2	2:B:1128:LEU:HD11	1.74	0.68
1:A:1325:THR:O	5:E:148:GLU:HB2	1.94	0.68
3:C:56:THR:HG21	3:C:145:CYS:SG	2.33	0.68
8:H:61:SER:HB3	8:H:139:ASN:HB3	1.74	0.68
1:M:150:THR:HG23	1:M:166:GLY:HA2	1.76	0.68
1:M:913:LEU:HD12	1:M:914:GLU:N	2.09	0.68
2:N:69:LEU:HB3	2:N:429:PHE:CE1	2.28	0.68
2:N:708:GLU:O	2:N:710:LEU:N	2.27	0.68
3:O:3:GLU:HB3	11:W:104:ASN:OD1	1.93	0.68
3:O:93:ASP:OD1	3:O:122:SER:HB2	1.92	0.68
1:A:830:LYS:O	1:A:834:THR:HB	1.94	0.68
3:C:69:LEU:HB3	10:J:6:ARG:HD3	1.76	0.68
10:J:64:ASN:HD22	10:J:65:PRO:HD3	1.58	0.68
1:M:1325:THR:O	5:Q:148:GLU:HB2	1.94	0.68
2:N:309:GLN:OE1	9:U:52:ILE:HD11	1.92	0.68
3:O:16:ASP:C	3:O:240:VAL:HG11	2.14	0.68
4:P:59:ILE:HG22	4:P:60:LYS:N	2.07	0.68
4:P:153:ARG:O	4:P:154:PHE:HD2	1.76	0.68
7:S:111:THR:HG22	7:S:114:LEU:HB2	1.75	0.68
1:A:66:LYS:HD3	1:A:67:CYS:H	1.59	0.68
1:A:337:ARG:HD3	2:B:1132:GLU:OE1	1.94	0.68
1:A:413:ILE:HG21	1:A:424:ILE:HD11	1.76	0.68
4:D:14:ARG:HB3	4:D:14:ARG:HH11	1.58	0.68
8:H:12:VAL:HA	8:H:28:ALA:HB2	1.75	0.68
9:I:8:ARG:HG3	9:I:34:TYR:CE1	2.28	0.68
1:M:1420:ASP:CB	1:M:1422:ARG:HG3	2.19	0.68
2:N:836:GLU:O	2:N:837:ASP:HB2	1.93	0.68
4:P:4:SER:O	4:P:5:THR:HB	1.94	0.68
4:P:138:ASN:HB3	4:P:141:LEU:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:147:HIS:HB3	5:Q:150:VAL:HG23	1.76	0.68
8:T:99:GLY:HA3	8:T:118:PHE:HD2	1.58	0.68
1:A:49:LYS:NZ	1:A:60:SER:HA	2.09	0.68
1:A:55:ASP:C	1:A:57:ARG:H	1.95	0.68
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.75	0.68
5:E:50:MET:HG2	5:E:52:ARG:HH21	1.59	0.68
6:F:116:ASP:HB3	6:F:119:ARG:HB2	1.76	0.68
10:J:16:ASP:OD1	10:J:17:LYS:HD2	1.93	0.68
14:2:5:DC:H2"	14:2:6:DT:C7	2.24	0.68
2:N:226:PHE:HA	2:N:395:GLN:CG	2.24	0.68
2:N:597:MET:HA	2:N:597:MET:CE	2.24	0.68
4:P:35:LEU:HD12	4:P:35:LEU:N	2.09	0.68
9:U:76:PRO:HD2	9:U:108:HIS:CD2	2.28	0.68
1:A:567:LYS:CB	8:H:96:VAL:H	1.98	0.68
4:D:18:VAL:O	4:D:19:GLU:HB2	1.94	0.68
7:G:1:MET:SD	7:G:79:PHE:CD1	2.87	0.68
1:M:89:PRO:C	1:M:204:THR:HG21	2.13	0.68
2:N:100:PRO:HG3	2:N:172:ILE:HD12	1.75	0.68
2:N:857:ARG:HD2	2:N:945:GLU:OE1	1.92	0.68
2:B:345:LYS:HA	2:B:348:ARG:HE	1.59	0.67
2:B:1065:GLN:NE2	2:B:1067:ARG:H	1.86	0.67
4:D:29:LEU:HD22	4:D:29:LEU:H	1.57	0.67
5:E:144:ILE:HG13	5:E:145:THR:N	2.09	0.67
2:N:807:ARG:HG2	2:N:1045:SER:OG	1.94	0.67
2:N:897:GLY:O	2:N:898:LEU:HD23	1.93	0.67
4:P:71:LYS:HA	4:P:74:GLN:HB2	1.75	0.67
1:A:42:ASP:O	1:A:44:THR:N	2.27	0.67
4:D:71:LYS:HG2	4:D:74:GLN:HG3	1.75	0.67
1:M:382:PRO:CA	1:M:428:TYR:HE2	2.07	0.67
1:M:852:TYR:CD2	1:M:1060:PRO:HB2	2.29	0.67
2:N:579:ARG:HG2	2:N:579:ARG:HH11	1.59	0.67
2:B:243:ALA:HA	2:B:250:PHE:O	1.93	0.67
3:C:123:ASN:HD22	3:C:125:MET:HG2	1.56	0.67
3:C:186:LEU:HD21	3:C:225:ALA:HB2	1.76	0.67
4:D:146:GLN:HA	4:D:149:THR:HG22	1.76	0.67
1:M:433:GLU:OE1	2:N:1108:ARG:NH2	2.27	0.67
1:M:866:PHE:C	1:M:867:ILE:HD12	2.15	0.67
1:M:868:TYR:CD2	1:M:1058:VAL:HG21	2.30	0.67
2:N:20:ASP:O	2:N:22:SER:N	2.23	0.67
2:N:657:HIS:CE1	2:N:689:LEU:HD11	2.30	0.67
4:P:144:THR:O	4:P:148:LEU:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:X:53:HIS:HB3	12:X:55:ILE:CD1	2.23	0.67
1:A:244:PRO:HB2	1:A:245:PRO:HD3	1.76	0.67
2:B:589:VAL:HG12	2:B:590:HIS:N	2.09	0.67
4:D:54:GLU:O	4:D:58:VAL:HG23	1.95	0.67
1:M:897:TYR:HB3	1:M:936:LEU:HD12	1.77	0.67
1:M:901:LEU:H	1:M:926:GLN:NE2	1.93	0.67
2:N:291:ILE:HD13	2:N:300:HIS:CD2	2.29	0.67
2:N:309:GLN:HG3	9:U:52:ILE:CD1	2.24	0.67
2:N:622:LYS:HE2	9:U:59:VAL:CG2	2.19	0.67
3:O:186:LEU:HD21	3:O:225:ALA:HB2	1.77	0.67
1:A:768:GLN:CG	1:A:816:HIS:HA	2.22	0.67
2:B:23:ALA:HB1	2:B:24:PRO:HD2	1.77	0.67
2:B:373:ARG:HA	2:B:566:LEU:HD23	1.76	0.67
2:B:868:MET:O	2:B:870:ILE:HG13	1.95	0.67
1:M:903:ASN:ND2	1:M:904:THR:N	2.39	0.67
2:N:168:GLY:N	2:N:450:ALA:HB1	2.10	0.67
2:N:254:LEU:HD12	2:N:272:THR:O	1.94	0.67
2:N:345:LYS:N	2:N:347:LYS:HE2	2.10	0.67
3:O:124:LEU:O	3:O:127:ARG:HG2	1.94	0.67
1:A:265:LYS:HE3	1:A:265:LYS:HA	1.74	0.67
1:A:767:GLN:NE2	1:A:774:ARG:HB3	2.10	0.67
2:B:363:HIS:O	2:B:364:ILE:HB	1.95	0.67
2:B:580:VAL:HG22	2:B:624:LEU:HB3	1.75	0.67
5:E:177:ARG:HD3	5:E:215:MET:SD	2.34	0.67
8:H:15:VAL:HG22	8:H:26:ILE:HD11	1.75	0.67
9:I:111:THR:HG21	9:I:113:ASP:HB2	1.75	0.67
1:M:1141:THR:CG2	1:M:1205:LYS:HD3	2.25	0.67
2:N:165:VAL:HG11	2:N:448:ILE:HD13	1.76	0.67
2:N:562:GLY:HA3	2:N:590:HIS:CE1	2.30	0.67
4:P:18:VAL:O	4:P:19:GLU:HB2	1.95	0.67
4:P:156:ASP:HB2	4:P:159:THR:CG2	2.24	0.67
5:Q:4:GLU:HB3	5:Q:7:ARG:HE	1.59	0.67
9:U:40:SER:OG	9:U:41:PRO:HD2	1.94	0.67
1:A:512:VAL:HA	1:A:519:PRO:HA	1.75	0.67
5:E:98:ILE:HG22	5:E:102:GLU:HG3	1.76	0.67
1:M:34:LYS:NZ	1:M:57:ARG:NH2	2.43	0.67
1:M:492:PRO:CB	1:M:497:THR:HG22	2.25	0.67
1:M:852:TYR:CE2	1:M:1060:PRO:HB2	2.30	0.67
2:N:724:ASP:OD2	2:N:727:LYS:HG3	1.95	0.67
4:P:8:PHE:CE1	4:P:37:GLN:HB2	2.29	0.67
5:Q:94:LYS:HE2	5:Q:98:ILE:CD1	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:116:PRO:HG2	7:S:119:LEU:HB2	1.77	0.67
14:5:5:DC:H2"	14:5:6:DT:C7	2.25	0.67
1:A:635:ARG:HH11	1:A:635:ARG:HA	1.60	0.67
2:B:1202:LEU:O	2:B:1206:GLU:HG3	1.95	0.67
2:B:1224:PHE:CZ	5:E:171:LYS:HG3	2.29	0.67
1:M:595:THR:O	1:M:596:THR:HG23	1.95	0.67
2:N:1124:ARG:NH1	15:6:2:G:OP2	2.28	0.67
12:X:38:LEU:CD1	12:X:49:LYS:HE2	2.25	0.67
1:A:1004:ASN:ND2	5:E:167:ARG:HD2	2.10	0.67
2:B:240:ILE:CG2	2:B:254:LEU:HB3	2.25	0.67
2:B:899:ILE:HG21	2:B:949:VAL:HG21	1.77	0.67
2:B:1017:ILE:HB	2:B:1018:PRO:HD3	1.75	0.67
4:D:4:SER:O	4:D:5:THR:HB	1.95	0.67
6:F:89:GLU:HG2	6:F:134:ILE:HD13	1.77	0.67
8:H:58:THR:HB	8:H:143:LEU:HD13	1.76	0.67
10:J:1:MET:N	10:J:56:LEU:N	2.43	0.67
1:M:185:TRP:H	1:M:185:TRP:HE3	1.42	0.67
1:M:284:ALA:O	1:M:286:HIS:N	2.27	0.67
1:M:1144:LYS:HB2	1:M:1268:LEU:O	1.94	0.67
2:N:34:ILE:HG12	2:N:542:MET:HE1	1.76	0.67
2:N:589:VAL:HG12	2:N:590:HIS:N	2.10	0.67
2:N:593:PRO:HG2	2:N:617:ARG:NH1	2.10	0.67
4:P:48:ILE:O	4:P:48:ILE:HG22	1.94	0.67
5:Q:100:ILE:HG23	5:Q:105:PHE:HB2	1.77	0.67
5:Q:157:SER:OG	5:Q:160:GLU:HG3	1.95	0.67
7:S:34:VAL:HG12	7:S:45:ILE:HG21	1.76	0.67
7:S:45:ILE:HA	7:S:78:VAL:HG12	1.77	0.67
9:U:44:TYR:CD1	9:U:45:ARG:N	2.62	0.67
11:W:63:VAL:O	11:W:63:VAL:HG23	1.95	0.67
1:A:34:LYS:HZ2	1:A:57:ARG:NH2	1.93	0.67
1:A:1147:THR:HB	9:I:48:LEU:HD12	1.77	0.67
2:B:261:ARG:HB3	2:B:261:ARG:NH1	2.09	0.67
2:B:806:THR:HG22	2:B:808:ALA:N	2.06	0.67
10:J:16:ASP:OD1	10:J:17:LYS:N	2.28	0.67
1:M:164:ARG:HG3	1:M:165:GLY:N	2.09	0.67
1:M:407:ARG:HG2	1:M:430:TRP:CZ2	2.29	0.67
1:M:492:PRO:HB2	1:M:497:THR:HG22	1.76	0.67
1:M:688:LYS:HG3	1:M:691:LEU:HD23	1.76	0.67
12:X:47:ARG:HG2	12:X:48:CYS:H	1.59	0.67
1:A:675:THR:O	1:A:679:ILE:HG13	1.95	0.66
7:G:126:ASN:HD22	7:G:127:PRO:HA	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:66:LYS:HZ2	1:M:68:GLN:H	1.42	0.66
2:N:515:HIS:CD2	2:N:517:THR:H	2.12	0.66
1:A:567:LYS:CD	1:A:568:PRO:HD2	2.24	0.66
1:A:1255:GLU:HG3	1:A:1258:HIS:CD2	2.30	0.66
2:B:562:GLY:HA3	2:B:590:HIS:CE1	2.30	0.66
2:B:708:GLU:O	2:B:710:LEU:N	2.28	0.66
2:B:879:ARG:H	2:B:879:ARG:NE	1.93	0.66
2:N:868:MET:O	2:N:870:ILE:HG13	1.95	0.66
6:R:96:THR:O	6:R:100:GLN:HG3	1.95	0.66
1:A:122:MET:HA	1:A:141:LEU:CD1	2.25	0.66
1:A:698:GLN:HA	9:I:97:MET:O	1.95	0.66
1:A:977:LYS:HB3	1:A:978:PRO:HD2	1.77	0.66
2:B:805:THR:HG22	2:B:806:THR:N	2.10	0.66
2:B:955:THR:CG2	2:B:956:THR:N	2.57	0.66
7:G:1:MET:HE1	7:G:79:PHE:HA	1.76	0.66
12:L:40:LEU:HD13	12:L:44:ASP:CB	2.21	0.66
1:M:535:THR:HG21	1:M:617:VAL:H	1.60	0.66
1:M:870:GLU:HG2	5:Q:208:TYR:CG	2.30	0.66
2:N:806:THR:N	2:N:809:MET:HE3	2.10	0.66
1:A:1081:LEU:HD11	1:A:1098:VAL:H	1.60	0.66
1:A:1167:GLU:O	1:A:1170:ILE:HD12	1.95	0.66
2:B:604:ARG:HB2	2:B:609:ILE:HG13	1.77	0.66
2:B:1096:ARG:O	2:B:1097:HIS:HB2	1.96	0.66
7:G:115:MET:HB3	7:G:116:PRO:HD2	1.77	0.66
1:M:55:ASP:N	1:M:56:PRO:HD3	2.09	0.66
1:M:463:ILE:HB	1:M:464:PRO:HD2	1.78	0.66
1:M:828:ALA:HB1	2:N:530:GLY:HA2	1.76	0.66
1:M:1353:TYR:C	1:M:1353:TYR:CD2	2.68	0.66
2:N:1037:LEU:HD21	2:N:1064:TYR:HE1	1.61	0.66
3:O:69:LEU:HB3	10:V:6:ARG:HD3	1.78	0.66
7:S:111:THR:HG22	7:S:114:LEU:HD13	1.77	0.66
9:U:8:ARG:HG3	9:U:34:TYR:HE1	1.60	0.66
1:A:203:SER:O	1:A:207:ILE:HG12	1.96	0.66
1:A:414:ASP:OD1	1:A:416:ARG:HG2	1.96	0.66
1:A:1076:ALA:HA	1:A:1079:MET:HG3	1.77	0.66
1:A:1116:LEU:HB3	1:A:1308:THR:HG21	1.78	0.66
1:A:1130:GLN:O	1:A:1134:ILE:HG13	1.96	0.66
2:B:345:LYS:HG2	2:B:346:GLU:H	1.61	0.66
2:B:553:PRO:O	2:B:557:PHE:HB2	1.95	0.66
2:B:847:ASP:C	2:B:849:GLY:H	1.98	0.66
6:F:111:LEU:O	6:F:113:GLY:N	2.23	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:7:LEU:HB2	7:G:74:TYR:HE2	1.60	0.66
9:I:7:CYS:HB3	9:I:14:LEU:HD21	1.76	0.66
9:I:50:THR:CG2	9:I:52:ILE:HG12	2.26	0.66
14:2:5:DC:H2"	14:2:6:DT:H72	1.78	0.66
1:M:203:SER:O	1:M:207:ILE:HG12	1.96	0.66
2:N:562:GLY:HA3	2:N:590:HIS:ND1	2.11	0.66
2:N:911:ILE:HD11	2:N:941:LEU:CD1	2.24	0.66
8:T:95:TYR:HE2	8:T:97:MET:CG	2.05	0.66
9:U:19:ASP:HB3	9:U:24:ARG:HG2	1.77	0.66
1:A:710:LEU:H	1:A:710:LEU:CD1	2.08	0.66
1:A:828:ALA:CB	2:B:530:GLY:HA2	2.25	0.66
1:A:1258:HIS:O	1:A:1262:LYS:HE3	1.96	0.66
2:B:644:GLU:HB3	2:B:648:HIS:O	1.95	0.66
4:D:134:THR:HG22	4:D:135:GLY:N	2.10	0.66
12:L:38:LEU:CD1	12:L:49:LYS:HE2	2.25	0.66
1:M:66:LYS:O	1:M:67:CYS:HB2	1.93	0.66
5:Q:14:ARG:HH21	5:Q:141:VAL:CG1	2.02	0.66
7:S:111:THR:CG2	7:S:114:LEU:HD13	2.26	0.66
1:A:308:ILE:HG22	1:A:309:ALA:N	2.09	0.66
1:A:710:LEU:HD12	1:A:710:LEU:N	2.11	0.66
2:B:515:HIS:HD2	2:B:517:THR:OG1	1.78	0.66
8:H:14:GLU:HG2	8:H:15:VAL:N	2.11	0.66
11:K:113:THR:O	11:K:114:LEU:HB2	1.96	0.66
7:S:52:ASP:C	7:S:53:ASN:HD22	1.98	0.66
9:U:73:ARG:HH12	9:U:112:SER:HB3	1.59	0.66
2:B:64:CYS:HA	2:B:67:SER:OG	1.95	0.66
1:M:71:GLN:O	1:M:73:GLY:N	2.28	0.66
1:M:268:ASP:HB3	1:M:299:HIS:CE1	2.31	0.66
1:M:463:ILE:HD11	1:M:469:ARG:HG3	1.78	0.66
1:M:1004:ASN:ND2	5:Q:167:ARG:HD2	2.10	0.66
4:P:71:LYS:HA	4:P:74:GLN:CG	2.24	0.66
4:P:118:THR:HB	4:P:121:LYS:CB	2.23	0.66
4:P:124:GLU:O	4:P:128:VAL:HG23	1.96	0.66
1:A:321:PRO:O	1:A:322:VAL:HG12	1.96	0.66
1:A:626:ASN:O	1:A:631:HIS:CD2	2.49	0.66
1:A:897:TYR:HB3	1:A:936:LEU:HD12	1.78	0.66
1:A:1342:GLU:CG	5:E:198:ILE:HD13	2.25	0.66
2:B:819:ALA:O	2:B:1093:GLN:HG2	1.95	0.66
7:G:116:PRO:HG2	7:G:119:LEU:HB2	1.77	0.66
2:N:295:GLY:H	2:N:298:LEU:HD23	1.59	0.66
4:P:139:LYS:HA	4:P:142:LYS:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:111:THR:CG2	9:U:112:SER:H	2.09	0.66
1:A:973:ILE:HD13	1:A:1037:LEU:HA	1.77	0.66
1:A:1036:ARG:HG2	1:A:1036:ARG:NH1	2.10	0.66
1:A:1259:MET:HE3	1:A:1263:ILE:HG13	1.77	0.66
2:B:384:ARG:NH1	2:B:393:LYS:HD3	2.11	0.66
2:B:955:THR:HG22	2:B:956:THR:N	2.11	0.66
4:D:119:ARG:HG3	4:D:221:TYR:CZ	2.30	0.66
1:M:982:THR:O	1:M:985:ASP:HB2	1.96	0.66
7:S:13:LEU:HD21	7:S:17:PHE:CB	2.24	0.66
9:U:7:CYS:SG	9:U:8:ARG:O	2.54	0.66
10:V:1:MET:N	10:V:56:LEU:N	2.44	0.66
12:X:32:ALA:HB3	12:X:55:ILE:HG13	1.77	0.66
1:A:1095:THR:HG21	1:A:1112:LYS:HD2	1.77	0.65
1:A:1259:MET:HA	1:A:1262:LYS:HD2	1.78	0.65
2:B:287:ARG:NH1	2:B:324:ILE:O	2.28	0.65
2:B:418:LYS:HE2	2:B:422:LYS:NZ	2.10	0.65
5:E:2:ASP:O	5:E:3:GLN:HG2	1.96	0.65
10:J:64:ASN:CB	10:J:65:PRO:CD	2.74	0.65
12:L:61:THR:CG2	12:L:63:ARG:HG3	2.26	0.65
5:Q:197:LYS:HE2	5:Q:199:ILE:CD1	2.21	0.65
2:B:560:GLU:O	2:B:561:TRP:CD1	2.50	0.65
2:B:953:LEU:CD2	2:B:965:LYS:HB2	2.26	0.65
1:M:37:PHE:N	1:M:37:PHE:HD1	1.93	0.65
1:M:341:MET:HE3	2:N:1135:ARG:NH1	2.12	0.65
1:M:512:VAL:HA	1:M:519:PRO:HA	1.76	0.65
1:M:1241:ARG:O	1:M:1242:VAL:HB	1.95	0.65
2:N:1073:TYR:CE2	2:N:1080:LYS:HG2	2.31	0.65
4:P:50:LEU:HD13	4:P:55:ALA:HA	1.77	0.65
1:A:399:HIS:O	1:A:401:GLY:N	2.28	0.65
1:A:1170:ILE:HG22	1:A:1174:PHE:CE1	2.32	0.65
2:B:831:SER:HB2	2:B:833:TYR:HD1	1.61	0.65
3:C:16:ASP:C	3:C:240:VAL:HG11	2.16	0.65
3:C:69:LEU:N	3:C:69:LEU:HD12	2.11	0.65
1:M:37:PHE:HD1	1:M:37:PHE:H	1.44	0.65
1:M:567:LYS:HZ2	8:T:46:LEU:HB2	1.60	0.65
1:M:1242:VAL:CG1	1:M:1243:VAL:N	2.59	0.65
2:N:167:ILE:HA	2:N:450:ALA:CB	2.26	0.65
2:N:243:ALA:HA	2:N:250:PHE:O	1.95	0.65
2:N:361:LEU:HD21	2:N:377:PHE:CD2	2.31	0.65
2:N:649:LYS:HD3	2:N:736:THR:O	1.96	0.65
3:O:238:ILE:HD11	3:O:246:ARG:NH1	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:44:ALA:O	5:Q:45:LYS:HB2	1.95	0.65
7:S:139:ILE:HG12	7:S:140:LYS:HG3	1.77	0.65
1:A:1118:VAL:HG23	1:A:1306:LEU:HB2	1.79	0.65
1:A:1120:LEU:HD22	1:A:1125:ALA:HA	1.78	0.65
2:B:842:ASN:HD22	2:B:845:SER:H	1.42	0.65
8:H:84:ALA:HA	8:H:87:ARG:HB2	1.78	0.65
1:M:14:VAL:H	1:M:1432:GLN:NE2	1.89	0.65
2:N:789:MET:CE	2:N:953:LEU:HD22	2.26	0.65
7:S:15:PRO:HA	7:S:18:PHE:CD1	2.31	0.65
8:H:139:ASN:O	8:H:140:ALA:HB2	1.96	0.65
2:N:69:LEU:HB3	2:N:429:PHE:HE1	1.61	0.65
2:N:364:ILE:O	2:N:365:THR:HB	1.96	0.65
2:N:425:THR:HA	2:N:428:ILE:HD12	1.78	0.65
2:N:465:ASN:N	2:N:465:ASN:ND2	2.44	0.65
8:T:139:ASN:O	8:T:140:ALA:HB2	1.96	0.65
10:V:24:LEU:O	10:V:30:LEU:HB2	1.95	0.65
14:5:5:DC:H2"	14:5:6:DT:H72	1.79	0.65
4:D:8:PHE:HE1	4:D:37:GLN:HB2	1.61	0.65
10:J:14:VAL:O	10:J:14:VAL:HG12	1.97	0.65
1:M:265:LYS:HE3	1:M:265:LYS:N	2.12	0.65
2:N:244:LEU:HD21	2:N:366:GLN:NE2	2.11	0.65
2:N:805:THR:HG22	2:N:806:THR:N	2.12	0.65
2:N:969:ARG:NH1	3:O:61:GLU:OE1	2.30	0.65
3:O:58:LEU:N	3:O:58:LEU:HD23	2.11	0.65
7:S:34:VAL:CG1	7:S:45:ILE:HG21	2.26	0.65
9:U:50:THR:CG2	9:U:51:ASN:H	2.10	0.65
10:V:21:TYR:HB2	10:V:39:LEU:HD11	1.77	0.65
2:B:168:GLY:HA2	2:B:454:THR:HG1	1.60	0.65
2:B:613:VAL:HG13	2:B:627:PHE:O	1.97	0.65
2:B:780:VAL:HG21	10:J:56:LEU:HD11	1.78	0.65
2:N:292:ILE:HD11	2:N:327:ARG:N	2.12	0.65
4:P:12:ARG:HG2	4:P:12:ARG:NH1	2.12	0.65
5:E:9:ILE:CD1	5:E:53:PRO:HD3	2.25	0.65
5:E:56:LYS:CE	5:E:84:ASP:HB2	2.22	0.65
12:L:34:CYS:HB3	12:L:51:CYS:SG	2.37	0.65
1:M:129:LYS:O	1:M:130:ASP:HB2	1.95	0.65
2:N:431:TYR:CD1	2:N:447:ALA:HB2	2.32	0.65
2:N:707:PRO:HG2	2:N:708:GLU:H	1.62	0.65
2:N:792:MET:HE2	2:N:857:ARG:NH2	2.11	0.65
4:P:119:ARG:HG3	4:P:221:TYR:CZ	2.32	0.65
4:P:155:ARG:NH1	4:P:155:ARG:HB2	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:111:LEU:H	6:R:111:LEU:CD1	2.10	0.65
2:B:20:ASP:O	2:B:22:SER:N	2.25	0.65
2:B:289:LEU:HD13	2:B:375:ALA:CB	2.23	0.65
9:I:73:ARG:HD2	9:I:101:PHE:CE2	2.32	0.65
10:J:44:TYR:H	10:J:44:TYR:HD2	1.43	0.65
1:M:34:LYS:HZ1	1:M:57:ARG:NH2	1.94	0.65
1:M:134:ARG:HD2	1:M:221:SER:O	1.97	0.65
1:M:250:ILE:O	1:M:250:ILE:HG22	1.96	0.65
1:M:335:ARG:HA	1:M:339:ASN:HD22	1.62	0.65
1:M:1116:LEU:HB3	1:M:1308:THR:HG21	1.79	0.65
1:M:1121:GLU:HG2	1:M:1122:PRO:HD2	1.79	0.65
1:M:1236:LEU:C	1:M:1237:ILE:HD12	2.15	0.65
2:N:770:GLN:HG2	2:N:983:ARG:O	1.96	0.65
1:A:231:PRO:HA	1:A:234:MET:HE2	1.78	0.65
1:A:284:ALA:O	1:A:286:HIS:N	2.28	0.65
2:B:483:LEU:HD11	2:B:491:THR:HG22	1.78	0.65
2:B:497:ARG:NH2	2:B:775:LYS:NZ	2.45	0.65
2:B:1174:LYS:O	2:B:1176:ASN:N	2.30	0.65
8:H:15:VAL:HG22	8:H:26:ILE:CD1	2.26	0.65
1:M:626:ASN:O	1:M:631:HIS:HD2	1.80	0.65
1:M:1242:VAL:HG12	1:M:1243:VAL:N	2.11	0.65
2:N:123:THR:HG21	2:N:458:LYS:HE2	1.78	0.65
4:P:12:ARG:NH1	4:P:14:ARG:HA	2.11	0.65
5:Q:78:LEU:HD12	5:Q:107:THR:HG21	1.78	0.65
2:B:167:ILE:HA	2:B:450:ALA:CB	2.27	0.64
2:N:515:HIS:H	2:N:518:HIS:HD2	1.45	0.64
2:N:521:LEU:CD2	2:N:633:VAL:HG12	2.19	0.64
5:Q:9:ILE:CD1	5:Q:53:PRO:HD3	2.27	0.64
7:S:1:MET:HE1	7:S:79:PHE:CA	2.23	0.64
8:T:139:ASN:O	8:T:140:ALA:CB	2.45	0.64
2:B:309:GLN:CG	9:I:52:ILE:HD11	2.27	0.64
3:C:73:GLN:NE2	3:C:75:MET:H	1.94	0.64
4:D:7:THR:O	4:D:9:GLN:N	2.29	0.64
5:E:117:THR:HG22	5:E:119:SER:N	2.04	0.64
9:I:52:ILE:HG13	9:I:52:ILE:O	1.98	0.64
1:M:106:VAL:HG12	1:M:107:CYS:N	2.12	0.64
2:N:205:ILE:HD12	2:N:205:ILE:N	2.12	0.64
5:Q:98:ILE:O	5:Q:102:GLU:HG3	1.97	0.64
6:R:147:SER:OG	6:R:150:GLU:HG3	1.96	0.64
8:T:123:MET:HE3	8:T:142:LEU:HD22	1.78	0.64
9:U:50:THR:HG21	9:U:52:ILE:HG12	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:107:CYS:SG	1:A:148:CYS:HB2	2.36	0.64
2:B:273:LEU:CB	2:B:276:ILE:HD12	2.27	0.64
2:B:549:THR:HG22	2:B:550:ASP:H	1.60	0.64
2:B:1072:MET:HE3	2:B:1085:ILE:HB	1.80	0.64
8:H:32:THR:HG22	8:H:33:GLN:OE1	1.96	0.64
8:H:84:ALA:CA	8:H:87:ARG:HB2	2.26	0.64
1:M:833:GLU:OE2	1:M:1102:LYS:HE3	1.97	0.64
2:N:309:GLN:CG	9:U:52:ILE:HD11	2.28	0.64
2:N:770:GLN:CD	2:N:983:ARG:HA	2.18	0.64
2:N:957:ASN:ND2	2:N:961:LEU:HB2	2.11	0.64
4:P:56:ARG:CA	4:P:148:LEU:HD13	2.24	0.64
4:P:156:ASP:O	4:P:160:VAL:HG23	1.96	0.64
1:A:741:ASN:ND2	1:A:744:LYS:H	1.95	0.64
1:A:868:TYR:CD2	1:A:1058:VAL:HG21	2.33	0.64
2:B:56:ASP:HB3	2:B:57:TYR:HD1	1.62	0.64
2:B:465:ASN:N	2:B:465:ASN:ND2	2.43	0.64
3:C:69:LEU:HD12	3:C:69:LEU:H	1.62	0.64
1:M:385:ILE:HD11	1:M:426:LEU:HB2	1.80	0.64
1:M:425:GLN:OE1	1:M:425:GLN:N	2.30	0.64
1:M:1258:HIS:O	1:M:1262:LYS:HE3	1.97	0.64
1:A:1208:THR:HG22	1:A:1210:GLY:H	1.61	0.64
1:A:1333:ILE:O	1:A:1337:GLU:HG3	1.97	0.64
2:B:622:LYS:NZ	9:I:59:VAL:HG13	2.12	0.64
5:E:124:VAL:HB	5:E:125:PRO:HD3	1.79	0.64
1:M:172:PRO:HB3	1:M:185:TRP:CD2	2.32	0.64
1:M:332:LYS:C	1:M:334:GLY:H	2.01	0.64
1:M:741:ASN:HD22	1:M:741:ASN:C	1.99	0.64
1:M:1041:ALA:O	1:M:1045:VAL:HG23	1.97	0.64
1:M:1112:LYS:O	1:M:1114:PRO:HD3	1.97	0.64
1:M:1345:ARG:HG2	1:M:1372:VAL:HG12	1.79	0.64
2:N:515:HIS:H	2:N:518:HIS:CD2	2.16	0.64
2:N:916:THR:O	2:N:935:ARG:HG2	1.97	0.64
3:O:11:ARG:HH12	3:O:205:LYS:NZ	1.95	0.64
5:Q:112:TYR:O	5:Q:137:GLU:HG3	1.97	0.64
10:V:48:ARG:HG2	10:V:48:ARG:NH1	2.09	0.64
11:W:49:GLU:HG3	11:W:94:ILE:HG13	1.80	0.64
2:B:272:THR:HG23	2:B:279:ASP:OD1	1.97	0.64
2:B:364:ILE:O	2:B:365:THR:HB	1.95	0.64
4:D:52:LEU:O	4:D:54:GLU:N	2.31	0.64
7:G:137:ILE:HG23	7:G:143:ILE:HD11	1.79	0.64
1:M:577:ILE:O	1:M:580:VAL:HG23	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:934:LYS:O	1:M:937:VAL:HG12	1.97	0.64
2:N:611:PRO:HB3	2:N:685:LEU:HD11	1.80	0.64
3:O:181:ASP:CG	3:O:186:LEU:HD13	2.18	0.64
4:P:162:ALA:HB1	4:P:217:LEU:HD13	1.78	0.64
4:P:163:VAL:O	4:P:167:LEU:HG	1.97	0.64
9:U:61:ASP:C	9:U:63:GLY:H	2.00	0.64
1:A:523:ILE:HG12	1:A:622:VAL:HG22	1.79	0.64
1:A:916:GLY:O	1:A:919:ILE:HG22	1.97	0.64
1:A:1144:LYS:HB2	1:A:1268:LEU:O	1.97	0.64
2:B:225:VAL:HG11	2:B:385:LEU:HA	1.80	0.64
2:B:515:HIS:H	2:B:518:HIS:CD2	2.12	0.64
3:C:238:ILE:HD11	3:C:246:ARG:CZ	2.28	0.64
12:L:53:HIS:HB3	12:L:55:ILE:HD11	1.78	0.64
1:M:1353:TYR:C	1:M:1353:TYR:HD2	2.01	0.64
2:N:115:GLN:HG2	2:N:193:LYS:HB2	1.80	0.64
2:N:582:VAL:CG2	2:N:626:ILE:HB	2.28	0.64
4:P:154:PHE:HD1	4:P:163:VAL:HG21	1.63	0.64
5:Q:69:ILE:HD12	5:Q:69:ILE:N	2.12	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:H	1.62	0.64
9:U:17:ARG:HH21	9:U:30:ARG:NE	1.96	0.64
13:4:25:DG:H2"	13:4:26:DT:C7	2.27	0.64
1:A:351:THR:CG2	2:B:1103:ILE:HA	2.22	0.64
1:A:1011:GLN:HE22	1:A:1015:VAL:CG2	2.11	0.64
2:B:345:LYS:CG	2:B:346:GLU:H	2.11	0.64
3:C:43:THR:CG2	3:C:44:LEU:N	2.60	0.64
4:D:14:ARG:HB3	4:D:14:ARG:NH1	2.12	0.64
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.80	0.64
2:N:23:ALA:HB1	2:N:24:PRO:HD2	1.80	0.64
3:O:73:GLN:NE2	3:O:75:MET:HB2	2.13	0.64
4:P:158:GLU:CD	4:P:158:GLU:N	2.51	0.64
7:S:87:VAL:HG21	7:S:103:VAL:HG11	1.79	0.64
11:W:45:LEU:HG	11:W:94:ILE:CD1	2.27	0.64
1:A:1139:GLU:O	1:A:1139:GLU:HG2	1.96	0.64
2:B:57:TYR:HD1	2:B:57:TYR:N	1.96	0.64
2:B:597:MET:HA	2:B:597:MET:CE	2.27	0.64
2:B:701:ILE:HD11	2:B:703:ILE:HD11	1.80	0.64
2:B:797:TYR:C	2:B:798:TYR:HD2	2.01	0.64
3:C:11:ARG:HH12	3:C:205:LYS:NZ	1.95	0.64
7:G:1:MET:SD	7:G:2:PHE:N	2.70	0.64
8:H:139:ASN:O	8:H:140:ALA:CB	2.46	0.64
11:K:90:ALA:O	11:K:94:ILE:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:47:ARG:HB2	12:L:47:ARG:NH1	2.12	0.64
1:M:22:PHE:HB2	2:N:1211:ASN:ND2	2.13	0.64
1:M:518:LYS:HE2	1:M:624:SER:O	1.98	0.64
1:M:567:LYS:CB	8:T:96:VAL:H	2.02	0.64
1:M:903:ASN:HD22	1:M:903:ASN:C	2.00	0.64
2:N:780:VAL:HG21	10:V:56:LEU:HD11	1.80	0.64
4:P:163:VAL:O	4:P:166:LEU:HB3	1.98	0.64
5:Q:56:LYS:CE	5:Q:84:ASP:HB2	2.24	0.64
7:S:81:PRO:HG3	7:S:106:MET:SD	2.38	0.64
9:U:78:CYS:SG	9:U:106:CYS:HB3	2.38	0.64
1:A:741:ASN:HD22	1:A:744:LYS:H	1.44	0.64
1:A:1029:ARG:HH11	1:A:1029:ARG:HG3	1.63	0.64
2:B:123:THR:HG21	2:B:458:LYS:HE2	1.79	0.64
2:B:1037:LEU:HD21	2:B:1064:TYR:HE1	1.63	0.64
2:B:1115:THR:O	2:B:1116:ARG:HB2	1.98	0.64
8:H:82:PRO:C	8:H:84:ALA:N	2.52	0.64
11:K:21:ILE:CG2	11:K:31:VAL:HG11	2.28	0.64
1:M:79:GLY:HA3	1:M:243:PRO:HG3	1.78	0.64
1:M:331:GLY:O	1:M:332:LYS:O	2.15	0.64
1:M:567:LYS:CB	1:M:568:PRO:CD	2.72	0.64
1:M:1385:THR:CG2	1:M:1387:HIS:H	2.05	0.64
2:N:120:ARG:NH1	12:X:54:ARG:HH11	1.96	0.64
2:N:549:THR:HB	2:N:628:THR:OG1	1.97	0.64
2:N:1100:ASP:OD2	11:W:1:MET:HB3	1.98	0.64
3:O:148:ARG:N	3:O:151:GLN:HG3	2.12	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:N	2.13	0.64
6:R:69:LEU:HB3	6:R:71:GLU:OE1	1.98	0.64
1:A:773:LYS:H	1:A:773:LYS:HD2	1.63	0.63
2:B:577:ALA:CB	2:B:589:VAL:HG11	2.21	0.63
5:E:16:PHE:CZ	5:E:20:LYS:HE2	2.33	0.63
8:H:130:ARG:HB2	8:H:130:ARG:HH11	1.62	0.63
9:I:58:VAL:HG13	9:I:62:ILE:HD13	1.80	0.63
2:N:31:TRP:CZ3	2:N:34:ILE:HD12	2.33	0.63
2:N:186:GLU:HG2	10:V:62:ARG:HH22	1.63	0.63
2:N:553:PRO:O	2:N:557:PHE:HB2	1.97	0.63
2:N:955:THR:HG22	2:N:956:THR:N	2.11	0.63
10:V:64:ASN:ND2	10:V:65:PRO:HD3	2.12	0.63
12:X:34:CYS:HB3	12:X:51:CYS:SG	2.38	0.63
1:A:670:ILE:HG23	1:A:805:LEU:HD21	1.78	0.63
2:B:554:ILE:HD11	2:B:609:ILE:HG22	1.79	0.63
2:B:562:GLY:HA3	2:B:590:HIS:ND1	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:100:ILE:HG23	5:E:105:PHE:HB2	1.80	0.63
13:1:22:DC:C2'	13:1:23:BRU:H5'	2.25	0.63
1:M:596:THR:C	1:M:598:LEU:H	2.01	0.63
1:M:883:LEU:HD23	1:M:1021:LEU:HD13	1.80	0.63
2:N:126:SER:OG	2:N:172:ILE:HD11	1.98	0.63
8:T:14:GLU:HG2	8:T:15:VAL:N	2.13	0.63
8:T:82:PRO:C	8:T:84:ALA:N	2.52	0.63
11:W:21:ILE:HG23	11:W:33:ILE:HG12	1.80	0.63
1:A:252:PHE:HB2	1:A:256:GLN:NE2	2.14	0.63
2:B:102:VAL:HG21	2:B:112:LEU:HD13	1.80	0.63
2:B:484:ASN:O	2:B:491:THR:HG23	1.99	0.63
3:C:124:LEU:O	3:C:127:ARG:HG2	1.99	0.63
8:H:44:VAL:HG13	8:H:48:PRO:HA	1.81	0.63
12:L:38:LEU:HG	12:L:39:SER:H	1.64	0.63
1:M:107:CYS:HA	1:M:171:GLN:NE2	2.13	0.63
4:P:14:ARG:O	4:P:16:LYS:N	2.25	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:N	1.97	0.63
7:S:111:THR:O	7:S:114:LEU:HB2	1.98	0.63
1:A:216:VAL:O	1:A:219:PHE:HB2	1.99	0.63
1:A:489:LEU:HD12	1:A:490:HIS:N	2.13	0.63
1:A:961:ARG:HH11	1:A:961:ARG:HB2	1.63	0.63
2:B:282:ILE:O	2:B:286:PHE:HD1	1.81	0.63
2:B:798:TYR:HD1	10:J:4:PRO:HG3	1.64	0.63
2:B:886:LYS:HE2	2:B:940:PRO:HD3	1.80	0.63
6:F:75:PRO:O	6:F:77:ASP:O	2.16	0.63
6:F:119:ARG:HH11	6:F:119:ARG:CG	2.11	0.63
8:H:100:THR:OG1	8:H:138:GLU:HG2	1.99	0.63
9:I:61:ASP:C	9:I:63:GLY:H	2.00	0.63
11:K:31:VAL:HG12	11:K:32:VAL:N	2.12	0.63
1:M:626:ASN:O	1:M:631:HIS:CD2	2.52	0.63
2:N:370:PHE:HD2	2:N:373:ARG:CD	2.11	0.63
2:N:955:THR:OG1	12:X:55:ILE:HA	1.97	0.63
4:P:219:THR:HG22	4:P:220:LEU:O	1.98	0.63
5:Q:39:LEU:HG	5:Q:43:LYS:HE3	1.79	0.63
5:Q:178:ILE:HG22	5:Q:213:ILE:O	1.98	0.63
5:Q:180:ARG:HB2	5:Q:215:MET:OXT	1.97	0.63
1:A:1410:PHE:HA	2:B:1212:ILE:HD11	1.80	0.63
2:B:284:ILE:HD13	2:B:333:PHE:HD2	1.64	0.63
2:B:465:ASN:N	2:B:465:ASN:HD22	1.94	0.63
2:B:1113:VAL:HG23	15:3:1:C:H4'	1.80	0.63
5:E:157:SER:OG	5:E:160:GLU:HG3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:60:ARG:HG2	12:L:61:THR:N	2.13	0.63
1:M:87:ALA:CB	1:M:276:LEU:HD23	2.28	0.63
1:M:252:PHE:O	1:M:256:GLN:NE2	2.30	0.63
2:N:193:LYS:NZ	12:X:32:ALA:HB1	2.13	0.63
2:N:575:PRO:HG2	2:N:576:ASP:H	1.62	0.63
2:N:1065:GLN:NE2	2:N:1067:ARG:H	1.94	0.63
4:P:155:ARG:HH21	4:P:221:TYR:HD1	1.43	0.63
1:A:1006:ILE:CD1	5:E:163:GLU:HG3	2.29	0.63
1:A:1338:VAL:HG12	1:A:1339:LEU:HD23	1.81	0.63
3:C:261:ALA:HA	3:C:264:GLN:OE1	1.99	0.63
4:D:14:ARG:NH2	4:D:16:LYS:HD2	2.14	0.63
1:M:567:LYS:NZ	8:T:43:ASN:HB3	2.14	0.63
1:M:949:ASP:OD1	1:M:951:GLU:HB2	1.99	0.63
2:N:422:LYS:O	2:N:426:LYS:HG2	1.97	0.63
2:N:1001:PHE:CE1	2:N:1073:TYR:HB2	2.33	0.63
5:Q:46:TYR:CD2	5:Q:58:MET:HG2	2.34	0.63
8:T:38:LEU:HD12	8:T:39:THR:H	1.64	0.63
1:A:332:LYS:C	1:A:334:GLY:H	2.02	0.63
1:A:666:ILE:HD12	1:A:667:GLY:H	1.62	0.63
1:A:1102:LYS:O	1:A:1106:ASN:ND2	2.32	0.63
1:A:1170:ILE:HD12	1:A:1170:ILE:H	1.62	0.63
2:B:293:PRO:HD2	2:B:296:GLU:OE1	1.99	0.63
2:B:370:PHE:HD2	2:B:373:ARG:CD	2.12	0.63
5:E:153:HIS:O	5:E:154:ILE:CG1	2.45	0.63
9:I:76:PRO:HD2	9:I:108:HIS:CD2	2.32	0.63
12:L:28:LYS:HE3	12:L:39:SER:OG	1.97	0.63
13:1:25:DG:H2"	13:1:26:DT:C7	2.28	0.63
1:M:297:GLN:HE21	1:M:297:GLN:CA	2.02	0.63
1:M:903:ASN:HD22	1:M:904:THR:H	1.45	0.63
1:M:993:LEU:HD22	1:M:1046:LEU:HD22	1.81	0.63
2:N:284:ILE:HD13	2:N:333:PHE:HD2	1.63	0.63
3:O:148:ARG:H	3:O:151:GLN:HG3	1.63	0.63
4:P:14:ARG:HB3	4:P:14:ARG:NH1	2.13	0.63
4:P:35:LEU:HD11	4:P:173:HIS:CD2	2.34	0.63
4:P:71:LYS:HG2	4:P:74:GLN:NE2	2.14	0.63
15:6:2:G:O2'	15:6:3:A:H5'	1.99	0.63
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.33	0.63
1:A:596:THR:C	1:A:598:LEU:H	2.02	0.63
2:B:751:VAL:HG13	2:B:812:LEU:CD2	2.27	0.63
2:B:1096:ARG:HB2	2:B:1096:ARG:HH11	1.64	0.63
9:I:34:TYR:CD2	9:I:35:VAL:N	2.67	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:3:2:G:O2'	15:3:3:A:H5'	1.99	0.63
1:M:666:ILE:HD12	1:M:667:GLY:H	1.63	0.63
1:M:697:ALA:HB2	1:M:702:LEU:HD11	1.81	0.63
1:M:977:LYS:HB3	1:M:978:PRO:HD2	1.80	0.63
2:N:1113:VAL:HG23	15:6:1:C:H4'	1.80	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:H	1.47	0.63
7:S:106:MET:HG2	7:S:107:LYS:H	1.64	0.63
8:T:99:GLY:HA3	8:T:118:PHE:CD2	2.33	0.63
1:A:44:THR:O	1:A:45:GLN:HB2	1.98	0.63
1:A:961:ARG:HG2	1:A:965:GLN:HE21	1.63	0.63
3:C:36:VAL:HG21	3:C:251:LEU:HB2	1.81	0.63
8:H:127:GLY:O	8:H:128:ASN:CB	2.47	0.63
12:L:61:THR:HG22	12:L:63:ARG:HG3	1.80	0.63
1:M:1076:ALA:HA	1:M:1079:MET:HG3	1.80	0.63
2:N:1017:ILE:HB	2:N:1018:PRO:HD3	1.81	0.63
8:T:89:LEU:C	8:T:91:ASP:N	2.52	0.63
9:U:111:THR:HG22	9:U:112:SER:N	2.13	0.63
2:B:649:LYS:HD3	2:B:736:THR:O	1.99	0.62
7:G:51:TYR:O	7:G:54:ILE:HG13	1.99	0.62
1:M:50:ILE:C	1:M:52:GLY:H	2.02	0.62
2:N:464:GLY:O	2:N:477:ALA:HA	1.99	0.62
2:N:654:ARG:HG3	2:N:654:ARG:HH11	1.64	0.62
2:N:1095:LEU:HD12	2:N:1095:LEU:N	2.14	0.62
7:S:21:ARG:HD2	7:S:24:GLN:CB	2.29	0.62
10:V:64:ASN:CB	10:V:65:PRO:CD	2.75	0.62
12:X:58:LYS:O	12:X:59:ALA:O	2.17	0.62
1:A:205:GLU:H	1:A:205:GLU:CD	2.01	0.62
2:B:361:LEU:HD21	2:B:377:PHE:HD2	1.62	0.62
2:B:370:PHE:CD2	2:B:373:ARG:HD3	2.33	0.62
2:B:1084:GLN:N	2:B:1084:GLN:NE2	2.47	0.62
1:M:270:LEU:O	1:M:274:ILE:HG13	1.98	0.62
1:M:789:LYS:HE3	9:U:67:THR:OG1	1.97	0.62
2:N:233:PRO:HG2	2:N:234:ILE:HD13	1.80	0.62
2:N:644:GLU:OE2	2:N:646:LEU:HB3	1.98	0.62
2:N:941:LEU:HD21	2:N:946:ASN:HA	1.80	0.62
3:O:66:ARG:HA	3:O:69:LEU:HD13	1.80	0.62
4:P:153:ARG:C	4:P:154:PHE:CD2	2.73	0.62
9:U:111:THR:HG23	9:U:112:SER:H	1.63	0.62
1:A:63:ARG:HA	1:A:74:MET:CE	2.29	0.62
1:A:635:ARG:HA	1:A:635:ARG:NH1	2.14	0.62
2:B:579:ARG:HD2	2:B:586:TRP:CZ2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:822:ASN:ND2	10:J:52:THR:HG21	2.14	0.62
2:B:911:ILE:CG2	2:B:966:VAL:HG11	2.28	0.62
12:L:58:LYS:O	12:L:59:ALA:O	2.17	0.62
1:M:33:ALA:HA	1:M:57:ARG:NH1	2.14	0.62
1:M:335:ARG:O	1:M:339:ASN:HB2	1.98	0.62
1:M:709:THR:HB	1:M:712:GLU:HG3	1.81	0.62
1:M:782:ARG:NH2	2:N:699:GLU:O	2.32	0.62
2:N:102:VAL:HG21	2:N:112:LEU:HD13	1.81	0.62
2:N:815:ARG:HH11	2:N:815:ARG:HB2	1.65	0.62
3:O:241:ASP:O	3:O:245:VAL:HG23	1.98	0.62
6:R:69:LEU:O	6:R:71:GLU:HG3	1.98	0.62
1:A:252:PHE:O	1:A:256:GLN:NE2	2.32	0.62
2:B:57:TYR:CD1	2:B:57:TYR:N	2.67	0.62
2:B:126:SER:OG	2:B:172:ILE:HD11	1.99	0.62
2:B:365:THR:HG21	2:B:370:PHE:CG	2.34	0.62
2:B:398:ARG:CB	2:B:398:ARG:HH11	2.12	0.62
2:B:766:ARG:HH21	2:B:1020:ARG:HD3	1.63	0.62
3:C:73:GLN:HE21	3:C:75:MET:HB2	1.63	0.62
6:F:111:LEU:H	6:F:111:LEU:CD1	2.11	0.62
7:G:126:ASN:HD22	7:G:127:PRO:N	1.97	0.62
9:I:78:CYS:SG	9:I:106:CYS:HB3	2.40	0.62
11:K:49:GLU:HG3	11:K:94:ILE:HG12	1.81	0.62
2:N:64:CYS:HA	2:N:67:SER:OG	1.99	0.62
2:N:516:ASN:N	2:N:516:ASN:ND2	2.30	0.62
2:N:618:ASP:CG	2:N:621:GLU:HB3	2.20	0.62
13:4:22:DC:C2'	13:4:23:BRU:H5'	2.26	0.62
1:A:705:LYS:HB2	1:A:708:MET:HE3	1.81	0.62
2:B:43:LEU:HD11	2:B:811:TYR:O	1.99	0.62
1:M:93:VAL:CG2	1:M:301:ALA:HA	2.28	0.62
1:M:1127:ASP:HB3	1:M:1130:GLN:HB3	1.79	0.62
2:N:309:GLN:CD	9:U:52:ILE:HD11	2.19	0.62
7:S:150:CYS:SG	7:S:159:ALA:HB2	2.39	0.62
1:A:351:THR:HG21	2:B:1103:ILE:HG13	1.80	0.62
2:B:408:LEU:HD11	2:B:545:ILE:HD13	1.82	0.62
2:B:916:THR:O	2:B:935:ARG:HG2	1.99	0.62
5:E:135:PHE:HD2	5:E:140:LEU:HD21	1.64	0.62
2:N:168:GLY:HA2	2:N:454:THR:OG1	1.99	0.62
2:N:427:ASP:HA	2:N:430:ARG:CD	2.29	0.62
3:O:251:LEU:O	3:O:255:VAL:HG23	1.99	0.62
4:P:134:THR:HG22	4:P:135:GLY:N	2.15	0.62
12:X:64:LEU:H	12:X:64:LEU:HD12	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:217:ARG:HD2	2:B:217:ARG:C	2.20	0.62
2:B:345:LYS:CE	2:B:349:ILE:HD11	2.29	0.62
2:B:557:PHE:CE1	2:B:603:LEU:HD11	2.35	0.62
7:G:13:LEU:HD21	7:G:17:PHE:HB2	1.81	0.62
1:M:98:LYS:O	1:M:102:VAL:HG23	2.00	0.62
1:M:1254:ALA:O	1:M:1255:GLU:HB3	2.00	0.62
1:M:1394:THR:CG2	1:M:1398:MET:SD	2.87	0.62
2:N:39:ARG:HH11	2:N:39:ARG:HG2	1.63	0.62
5:Q:98:ILE:HG22	5:Q:102:GLU:HG3	1.82	0.62
7:S:35:GLU:HG2	7:S:48:VAL:HG23	1.82	0.62
7:S:142:ARG:C	7:S:143:ILE:HG12	2.19	0.62
8:T:127:GLY:O	8:T:128:ASN:CB	2.48	0.62
1:A:55:ASP:N	1:A:56:PRO:HD3	2.13	0.62
1:A:1141:THR:CG2	1:A:1205:LYS:HD3	2.30	0.62
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.81	0.62
2:B:1115:THR:CG2	2:B:1117:GLN:HB2	2.29	0.62
3:C:8:VAL:O	3:C:9:LYS:HG3	2.00	0.62
4:D:155:ARG:NH2	4:D:221:TYR:HD1	1.98	0.62
10:J:7:CYS:HB2	10:J:49:MET:HE3	1.82	0.62
1:M:888:GLY:O	1:M:940:ARG:NH2	2.33	0.62
2:N:1174:LYS:O	2:N:1176:ASN:N	2.32	0.62
10:V:16:ASP:OD1	10:V:17:LYS:HD2	1.98	0.62
1:A:49:LYS:CD	1:A:55:ASP:HB3	2.30	0.62
1:A:535:THR:HG21	1:A:617:VAL:H	1.65	0.62
1:A:675:THR:HG21	1:A:736:ASN:CB	2.30	0.62
1:A:690:VAL:CG2	1:A:718:VAL:HG13	2.30	0.62
1:A:901:LEU:HB2	1:A:926:GLN:HG2	1.82	0.62
1:A:1193:LEU:HD12	1:A:1194:ARG:N	2.15	0.62
1:A:1385:THR:HG22	1:A:1387:HIS:N	2.12	0.62
2:B:39:ARG:NH2	2:B:665:GLU:HG2	2.15	0.62
2:B:227:LYS:H	2:B:395:GLN:CD	2.03	0.62
2:B:810:GLU:HB2	2:B:815:ARG:HH22	1.63	0.62
2:B:941:LEU:HD21	2:B:946:ASN:HA	1.82	0.62
3:C:184:ASN:ND2	3:C:189:THR:HB	2.14	0.62
5:E:44:ALA:O	5:E:45:LYS:HB2	2.00	0.62
9:I:111:THR:CG2	9:I:112:SER:H	2.11	0.62
12:L:34:CYS:O	12:L:34:CYS:SG	2.57	0.62
1:M:38:PRO:HA	1:M:270:LEU:HD23	1.81	0.62
1:M:399:HIS:HB3	1:M:400:PRO:CD	2.29	0.62
1:M:497:THR:HG23	2:N:1146:PHE:HD1	1.65	0.62
2:N:811:TYR:N	2:N:811:TYR:CD1	2.68	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:32:GLU:O	7:S:5:LYS:NZ	2.30	0.62
14:5:3:DT:H2"	14:5:4:DA:OP2	2.00	0.62
1:A:49:LYS:HD2	1:A:55:ASP:HB3	1.80	0.62
1:A:857:ARG:HD3	1:A:861:GLY:O	2.00	0.62
1:A:1445:ILE:HD12	1:A:1445:ILE:N	2.14	0.62
2:B:284:ILE:HD13	2:B:333:PHE:CD2	2.34	0.62
2:B:333:PHE:O	2:B:334:ILE:HG13	2.00	0.62
2:B:642:ASP:HB3	2:B:649:LYS:HD2	1.80	0.62
2:B:839:MET:CE	2:B:980:PHE:HB2	2.29	0.62
7:G:115:MET:O	7:G:164:LYS:HD3	2.00	0.62
1:M:49:LYS:HZ3	1:M:61:ILE:HG13	1.64	0.62
1:M:219:PHE:CE2	1:M:231:PRO:HD2	2.33	0.62
1:M:960:ILE:O	1:M:963:ILE:HG22	2.00	0.62
1:M:1118:VAL:CG2	1:M:1306:LEU:HB2	2.30	0.62
2:N:53:GLN:HG2	2:N:547:VAL:CG2	2.30	0.62
2:N:288:ALA:CB	2:N:331:LEU:HD12	2.30	0.62
2:N:652:LYS:HD2	2:N:688:GLY:O	2.00	0.62
4:P:185:CYS:SG	4:P:190:GLU:HG2	2.40	0.62
7:S:87:VAL:CG2	7:S:103:VAL:HG11	2.30	0.62
10:V:1:MET:H1	10:V:56:LEU:N	1.98	0.62
1:A:268:ASP:HB3	1:A:299:HIS:ND1	2.15	0.61
1:A:399:HIS:HB3	1:A:400:PRO:CD	2.29	0.61
2:B:345:LYS:HE3	2:B:349:ILE:HD11	1.81	0.61
2:B:1220:ARG:NH1	2:B:1220:ARG:HB3	2.15	0.61
6:F:97:ARG:NH2	6:F:108:PHE:HE1	1.98	0.61
11:K:65:HIS:HD2	11:K:67:PHE:N	1.97	0.61
1:M:99:ILE:HG23	1:M:211:PHE:HE2	1.64	0.61
1:M:427:GLN:HG3	1:M:430:TRP:CZ2	2.35	0.61
1:M:675:THR:O	1:M:679:ILE:HG13	2.00	0.61
1:M:803:SER:OG	1:M:806:ARG:HG3	1.99	0.61
2:N:847:ASP:C	2:N:849:GLY:H	2.02	0.61
2:N:886:LYS:HE2	2:N:940:PRO:HD3	1.82	0.61
2:N:953:LEU:CD2	2:N:965:LYS:HB2	2.30	0.61
3:O:69:LEU:HD12	3:O:69:LEU:N	2.14	0.61
8:T:130:ARG:HB3	8:T:134:ASN:H	1.66	0.61
1:A:856:THR:HB	1:A:865:GLN:HB2	1.81	0.61
1:A:1200:ALA:HA	1:A:1203:ASN:HD22	1.65	0.61
2:B:326:ASP:OD2	2:B:328:GLU:HB3	2.01	0.61
2:B:334:ILE:HG22	2:B:334:ILE:O	1.98	0.61
2:B:521:LEU:HB3	2:B:633:VAL:HG11	1.81	0.61
2:B:758:PHE:HE1	2:B:1027:ILE:HG22	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:189:THR:HG22	3:C:190:ASP:N	2.15	0.61
4:D:71:LYS:HA	4:D:74:GLN:CB	2.29	0.61
4:D:175:PHE:HZ	7:G:85:GLU:HG3	1.66	0.61
1:M:56:PRO:O	1:M:57:ARG:HG3	2.00	0.61
1:M:78:PRO:HA	2:N:1201:LYS:NZ	2.15	0.61
1:M:364:VAL:HG13	1:M:364:VAL:O	1.99	0.61
1:M:1029:ARG:HG3	1:M:1029:ARG:HH11	1.65	0.61
2:N:129:PHE:HD2	2:N:166:PHE:HA	1.66	0.61
2:N:235:SER:OG	2:N:236:HIS:CD2	2.54	0.61
2:N:241:ARG:HG2	2:N:253:THR:HG21	1.82	0.61
2:N:287:ARG:NH1	2:N:324:ILE:O	2.32	0.61
2:N:549:THR:CG2	2:N:550:ASP:N	2.62	0.61
2:N:862:GLN:HG2	2:N:963:PHE:CD1	2.32	0.61
2:N:953:LEU:O	2:N:953:LEU:HD23	2.00	0.61
4:P:29:LEU:HD22	4:P:29:LEU:N	2.15	0.61
7:S:53:ASN:N	7:S:53:ASN:ND2	2.47	0.61
1:A:852:TYR:CD2	1:A:1060:PRO:HB2	2.35	0.61
1:A:982:THR:O	1:A:985:ASP:HB2	2.00	0.61
2:B:35:SER:HA	2:B:811:TYR:HE2	1.65	0.61
3:C:143:LEU:HD21	3:C:146:LYS:CE	2.29	0.61
6:F:69:LEU:O	6:F:71:GLU:HG3	1.99	0.61
8:H:89:LEU:C	8:H:91:ASP:N	2.54	0.61
10:J:64:ASN:ND2	10:J:65:PRO:HD3	2.14	0.61
1:M:7:SER:OG	2:N:1161:HIS:CE1	2.52	0.61
1:M:70:CYS:O	1:M:72:GLU:HG2	2.00	0.61
1:M:960:ILE:HA	1:M:963:ILE:HG22	1.82	0.61
2:N:29:ASP:HB3	2:N:658:ILE:HD13	1.82	0.61
2:N:57:TYR:HD1	2:N:57:TYR:N	1.98	0.61
2:N:336:ARG:HG3	2:N:336:ARG:NH1	2.15	0.61
4:P:29:LEU:HD12	7:S:82:PHE:CE2	2.35	0.61
1:A:341:MET:HE2	2:B:1135:ARG:NH1	2.15	0.61
1:A:351:THR:CG2	2:B:1103:ILE:HG13	2.30	0.61
1:A:500:GLU:OE2	2:B:1145:SER:HB2	1.99	0.61
1:A:1011:GLN:HE22	1:A:1015:VAL:HG21	1.64	0.61
2:B:68:THR:HA	2:B:90:ILE:O	2.00	0.61
6:F:103:MET:HE1	7:G:66:GLY:H	1.64	0.61
2:N:192:LEU:O	2:N:193:LYS:HB2	2.00	0.61
2:N:418:LYS:HE2	2:N:422:LYS:NZ	2.15	0.61
2:N:577:ALA:CB	2:N:589:VAL:HG11	2.22	0.61
6:R:111:LEU:O	6:R:113:GLY:N	2.28	0.61
12:X:55:ILE:HG12	12:X:56:LEU:N	2.08	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:782:ARG:NH2	2:B:699:GLU:O	2.33	0.61
1:A:1241:ARG:O	1:A:1242:VAL:HG23	2.01	0.61
2:B:277:LYS:HE2	2:B:336:ARG:C	2.20	0.61
2:B:637:LEU:HD21	2:B:742:GLU:OE2	2.01	0.61
4:D:14:ARG:O	4:D:16:LYS:N	2.27	0.61
7:G:55:ASP:OD1	7:G:57:GLN:HG3	2.00	0.61
14:2:3:DT:H2"	14:2:4:DA:OP2	2.00	0.61
2:N:766:ARG:NH2	2:N:1020:ARG:CD	2.62	0.61
2:N:911:ILE:CG2	2:N:966:VAL:HG11	2.30	0.61
5:Q:22:MET:HE1	5:Q:26:ARG:NH2	2.14	0.61
12:X:38:LEU:HD13	12:X:49:LYS:HE2	1.82	0.61
1:A:50:ILE:C	1:A:52:GLY:H	2.03	0.61
1:A:172:PRO:HB3	1:A:185:TRP:CD2	2.34	0.61
1:A:317:LYS:O	1:A:318:SER:CB	2.49	0.61
1:A:684:ALA:O	1:A:687:LYS:HB2	2.01	0.61
1:A:710:LEU:HD22	9:I:96:SER:HA	1.82	0.61
2:B:100:PRO:HB2	2:B:180:TYR:HE1	1.65	0.61
2:B:464:GLY:O	2:B:477:ALA:HA	2.00	0.61
2:B:652:LYS:HB3	2:B:689:LEU:HD23	1.81	0.61
8:H:130:ARG:HH11	8:H:130:ARG:H	1.47	0.61
12:L:49:LYS:O	12:L:50:ASP:HB2	2.00	0.61
1:M:444:PHE:CE2	1:M:487:MET:HE2	2.35	0.61
1:M:1120:LEU:O	1:M:1323:ASP:HB2	2.01	0.61
4:P:52:LEU:O	4:P:54:GLU:N	2.34	0.61
8:T:11:GLN:HA	8:T:53:ASP:O	2.01	0.61
8:T:51:ALA:O	8:T:52:GLN:HB2	2.01	0.61
1:A:38:PRO:CA	1:A:270:LEU:HD23	2.30	0.61
2:B:516:ASN:H	2:B:516:ASN:ND2	1.90	0.61
2:B:787:VAL:O	2:B:787:VAL:HG12	1.98	0.61
2:B:815:ARG:HD3	2:B:1041:GLU:OE2	2.00	0.61
2:B:864:LYS:HG3	2:B:872:GLU:OE1	1.99	0.61
2:B:1096:ARG:HB2	2:B:1096:ARG:NH1	2.15	0.61
3:C:6:PRO:CB	3:C:25:VAL:HG22	2.30	0.61
5:E:29:PHE:O	5:E:30:ILE:HG13	2.00	0.61
5:E:198:ILE:HD11	5:E:212:ARG:HG3	1.82	0.61
7:G:21:ARG:HD2	7:G:24:GLN:CB	2.31	0.61
10:J:23:ASN:C	10:J:25:LEU:H	2.04	0.61
11:K:46:ILE:O	11:K:50:LEU:HB2	2.00	0.61
1:M:40:THR:HG23	1:M:54:ASN:HD21	1.66	0.61
1:M:598:LEU:HD23	1:M:598:LEU:O	2.01	0.61
2:N:68:THR:HA	2:N:90:ILE:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:345:LYS:HE3	2:N:349:ILE:HD11	1.83	0.61
4:P:71:LYS:HA	4:P:74:GLN:CB	2.30	0.61
8:T:44:VAL:HG13	8:T:48:PRO:HA	1.82	0.61
1:A:1255:GLU:HG3	1:A:1258:HIS:HD2	1.62	0.61
2:B:53:GLN:HG2	2:B:547:VAL:CG2	2.31	0.61
2:B:425:THR:HA	2:B:428:ILE:HD12	1.82	0.61
3:C:101:LEU:C	3:C:102:GLN:HG2	2.21	0.61
8:H:24:CYS:HB2	8:H:44:VAL:HG21	1.81	0.61
8:H:128:ASN:ND2	8:H:131:ASN:OD1	2.33	0.61
2:N:167:ILE:HG22	2:N:453:ILE:HD12	1.82	0.61
2:N:221:ASN:OD1	2:N:242:SER:HA	2.01	0.61
2:N:857:ARG:HH21	2:N:942:ARG:CZ	2.13	0.61
2:N:918:ILE:HD12	2:N:935:ARG:NH1	2.16	0.61
2:N:1220:ARG:HB3	2:N:1220:ARG:NH1	2.16	0.61
4:P:7:THR:O	4:P:9:GLN:N	2.33	0.61
2:B:398:ARG:NH1	2:B:398:ARG:HB2	2.15	0.61
2:B:983:ARG:HD2	2:B:1091:TYR:HB3	1.83	0.61
4:D:25:ALA:HB1	4:D:196:PRO:HG2	1.83	0.61
4:D:148:LEU:O	4:D:152:SER:OG	2.16	0.61
5:E:198:ILE:CD1	5:E:212:ARG:HG3	2.31	0.61
8:H:104:PHE:CZ	8:H:136:LYS:HA	2.36	0.61
10:J:24:LEU:N	10:J:24:LEU:HD23	2.15	0.61
2:N:1181:GLU:HA	2:N:1187:ASN:O	2.00	0.61
9:U:111:THR:HG21	9:U:113:ASP:HB2	1.82	0.61
1:A:1116:LEU:HB2	1:A:1329:THR:OG1	2.00	0.61
2:B:192:LEU:O	2:B:193:LYS:HB2	2.01	0.61
2:B:309:GLN:OE1	9:I:52:ILE:HD11	2.01	0.61
2:B:806:THR:CG2	2:B:808:ALA:HB3	2.31	0.61
3:C:148:ARG:NH1	3:C:149:LYS:HE3	2.16	0.61
5:E:65:THR:O	5:E:69:ILE:HD12	2.01	0.61
2:N:902:GLY:O	12:X:65:VAL:HG11	2.00	0.61
2:N:955:THR:CG2	2:N:956:THR:N	2.63	0.61
3:O:8:VAL:HG12	3:O:9:LYS:N	2.16	0.61
2:B:575:PRO:HG2	2:B:576:ASP:H	1.64	0.60
2:B:770:GLN:CD	2:B:983:ARG:HA	2.21	0.60
7:G:34:VAL:HG11	7:G:74:TYR:CE1	2.32	0.60
1:M:821:ARG:HB2	1:M:821:ARG:NH1	2.15	0.60
1:M:866:PHE:O	1:M:867:ILE:HD12	2.00	0.60
1:M:1291:VAL:HG22	1:M:1292:PRO:CD	2.31	0.60
2:N:240:ILE:HG23	2:N:254:LEU:HB3	1.83	0.60
2:N:549:THR:CG2	2:N:550:ASP:H	2.14	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:248:ILE:HD13	11:W:101:LEU:HD22	1.83	0.60
3:O:261:ALA:HA	3:O:264:GLN:OE1	2.00	0.60
5:Q:78:LEU:HB2	5:Q:107:THR:HB	1.83	0.60
1:A:150:THR:HG23	1:A:166:GLY:HA2	1.83	0.60
1:A:598:LEU:CD1	8:H:124:ARG:HB2	2.31	0.60
1:A:939:ASP:OD2	1:A:1023:ARG:NH1	2.34	0.60
2:B:172:ILE:HD13	2:B:178:ASN:HD22	1.66	0.60
2:B:1147:LEU:HD22	2:B:1151:LEU:HD22	1.82	0.60
7:G:138:THR:HG22	7:G:139:ILE:H	1.63	0.60
10:J:1:MET:H1	10:J:56:LEU:N	1.99	0.60
1:M:332:LYS:O	1:M:333:GLU:HB2	2.00	0.60
1:M:705:LYS:HB2	1:M:708:MET:HE3	1.82	0.60
1:M:828:ALA:CB	2:N:530:GLY:HA2	2.31	0.60
1:M:857:ARG:CZ	6:R:139:PRO:HG3	2.31	0.60
2:N:39:ARG:NH2	2:N:665:GLU:HG2	2.16	0.60
2:N:57:TYR:CD1	2:N:57:TYR:N	2.69	0.60
2:N:123:THR:O	2:N:125:SER:N	2.34	0.60
2:N:291:ILE:HD13	2:N:300:HIS:NE2	2.16	0.60
7:S:115:MET:HB3	7:S:116:PRO:CD	2.30	0.60
12:X:34:CYS:HB3	12:X:51:CYS:HG	1.66	0.60
2:B:797:TYR:HE1	2:B:854:LEU:CD2	2.15	0.60
4:D:12:ARG:NH1	4:D:14:ARG:HA	2.17	0.60
9:I:101:PHE:N	9:I:101:PHE:CD1	2.69	0.60
1:M:573:SER:O	1:M:576:GLN:HB2	2.01	0.60
1:M:1206:ASP:O	1:M:1274:ARG:CZ	2.49	0.60
2:N:359:GLU:O	2:N:362:PRO:HD3	2.02	0.60
2:N:653:VAL:CG2	2:N:689:LEU:HB3	2.31	0.60
2:N:865:LYS:HG2	2:N:961:LEU:HD21	1.82	0.60
2:N:983:ARG:NH1	2:N:1028:GLU:OE1	2.35	0.60
10:V:23:ASN:C	10:V:25:LEU:H	2.05	0.60
1:A:79:GLY:HA3	1:A:243:PRO:CG	2.31	0.60
1:A:920:LEU:HD23	1:A:921:GLY:N	2.16	0.60
6:F:89:GLU:O	6:F:93:ILE:HD12	2.02	0.60
1:M:1420:ASP:O	1:M:1421:CYS:HB2	2.00	0.60
2:N:39:ARG:HG2	2:N:39:ARG:NH1	2.17	0.60
2:N:189:LEU:O	2:N:192:LEU:N	2.32	0.60
2:N:334:ILE:O	2:N:334:ILE:HG22	2.02	0.60
2:N:662:MET:HA	2:N:665:GLU:HG3	1.83	0.60
3:O:172:PRO:O	3:O:235:VAL:HG23	2.02	0.60
3:O:189:THR:HG22	3:O:190:ASP:N	2.16	0.60
1:A:1215:ARG:NH1	1:A:1272:THR:O	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:71:LYS:HA	4:D:74:GLN:CG	2.31	0.60
8:H:123:MET:HE3	8:H:142:LEU:HD22	1.82	0.60
1:M:44:THR:O	1:M:45:GLN:HB2	2.01	0.60
1:M:590:ARG:HG2	1:M:590:ARG:NH1	2.16	0.60
1:M:709:THR:HG22	1:M:710:LEU:H	1.66	0.60
1:M:870:GLU:HG2	5:Q:208:TYR:CD2	2.36	0.60
1:M:1208:THR:HG22	1:M:1210:GLY:H	1.66	0.60
2:N:102:VAL:HG22	2:N:112:LEU:HD22	1.83	0.60
4:P:151:PHE:HD1	4:P:151:PHE:H	1.48	0.60
4:P:193:THR:HG22	4:P:194:LEU:N	2.16	0.60
1:A:129:LYS:O	1:A:130:ASP:CB	2.49	0.60
1:A:1441:PHE:CZ	6:F:89:GLU:HA	2.36	0.60
2:B:120:ARG:NH1	12:L:54:ARG:NH1	2.50	0.60
2:B:171:PRO:HD2	2:B:457:LEU:HD12	1.82	0.60
2:B:547:VAL:HG12	2:B:612:GLU:OE2	2.02	0.60
10:J:24:LEU:O	10:J:30:LEU:HB2	2.01	0.60
12:L:47:ARG:HG2	12:L:48:CYS:H	1.65	0.60
1:M:705:LYS:HB2	1:M:708:MET:CE	2.31	0.60
2:N:25:ILE:HG22	2:N:658:ILE:HD12	1.83	0.60
1:A:145:LYS:HA	1:A:145:LYS:HE3	1.82	0.60
1:A:335:ARG:HH12	2:B:1206:GLU:CD	2.04	0.60
1:A:567:LYS:CB	1:A:568:PRO:CD	2.74	0.60
1:A:671:ALA:HB3	1:A:676:MET:CE	2.32	0.60
1:A:1438:THR:HG22	6:F:92:ARG:HD2	1.84	0.60
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.84	0.60
2:B:1116:ARG:HG3	2:B:1198:TYR:CG	2.37	0.60
1:M:675:THR:HG21	1:M:736:ASN:CB	2.32	0.60
1:M:709:THR:HG22	1:M:711:ARG:H	1.66	0.60
1:M:1110:ASN:N	1:M:1110:ASN:ND2	2.49	0.60
4:P:63:LEU:HD22	4:P:133:THR:OG1	2.01	0.60
4:P:154:PHE:CE1	4:P:163:VAL:HG21	2.35	0.60
4:P:162:ALA:CB	4:P:217:LEU:HD13	2.32	0.60
4:P:209:ARG:NH1	4:P:209:ARG:HG2	2.17	0.60
6:R:116:ASP:HB3	6:R:119:ARG:HB2	1.84	0.60
8:T:56:THR:HB	8:T:145:ARG:HG2	1.82	0.60
8:T:123:MET:HE3	8:T:142:LEU:CD2	2.31	0.60
1:A:690:VAL:HG21	1:A:718:VAL:HG13	1.82	0.60
2:B:29:ASP:HB3	2:B:658:ILE:CD1	2.32	0.60
2:B:123:THR:HG23	2:B:205:ILE:HA	1.82	0.60
1:M:79:GLY:HA3	1:M:243:PRO:CG	2.32	0.60
1:M:225:ASN:HD22	1:M:228:PHE:H	1.46	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:831:THR:O	1:M:834:THR:HG22	2.02	0.60
2:N:797:TYR:O	10:V:1:MET:HG2	2.02	0.60
7:S:116:PRO:HG2	7:S:119:LEU:HB3	1.84	0.60
8:T:100:THR:OG1	8:T:138:GLU:HG2	2.00	0.60
1:A:399:HIS:CB	1:A:400:PRO:HD3	2.28	0.60
2:B:34:ILE:HG23	2:B:542:MET:HE1	1.84	0.60
2:B:307:ASP:OD2	2:B:310:MET:HB2	2.01	0.60
2:B:308:TRP:CH2	9:I:45:ARG:HG2	2.36	0.60
2:B:579:ARG:HG2	2:B:579:ARG:NH1	2.17	0.60
5:E:185:ALA:O	5:E:190:LEU:HG	2.02	0.60
9:I:82:GLU:HB3	9:I:104:LEU:HD12	1.83	0.60
11:K:51:LEU:CD1	11:K:59:ALA:HB3	2.31	0.60
1:M:1149:ALA:HB2	9:U:47:GLU:HA	1.83	0.60
2:N:798:TYR:HE2	3:O:62:PHE:CZ	2.19	0.60
3:O:203:GLN:HG2	3:O:207:CYS:SG	2.42	0.60
12:X:61:THR:HG21	12:X:63:ARG:HG3	1.84	0.60
1:A:172:PRO:HD3	1:A:185:TRP:NE1	2.17	0.60
1:A:1308:THR:HG23	1:A:1310:GLY:H	1.67	0.60
1:A:1324:PRO:HB2	5:E:142:VAL:HG11	1.84	0.60
2:B:120:ARG:NH1	12:L:54:ARG:HH11	2.00	0.60
3:C:101:LEU:CD1	3:C:118:LEU:HD23	2.27	0.60
9:I:111:THR:HG22	9:I:112:SER:N	2.17	0.60
1:M:7:SER:HB3	2:N:1193:GLN:HE22	1.67	0.60
1:M:33:ALA:HA	1:M:57:ARG:HH12	1.66	0.60
1:M:35:ILE:O	1:M:35:ILE:HG22	2.00	0.60
2:N:102:VAL:CG2	2:N:112:LEU:HB2	2.18	0.60
2:N:1096:ARG:O	2:N:1097:HIS:CB	2.49	0.60
2:N:1202:LEU:O	2:N:1206:GLU:HG3	2.01	0.60
4:P:188:ALA:O	4:P:192:LYS:HG2	2.02	0.60
4:P:194:LEU:HB3	7:S:86:VAL:HG21	1.83	0.60
1:A:7:SER:OG	2:B:1161:HIS:HE1	1.85	0.59
1:A:1294:PRO:HG2	1:A:1295:THR:HG22	1.83	0.59
2:B:278:GLN:CG	2:B:279:ASP:H	2.15	0.59
3:C:124:LEU:HD21	3:C:129:ILE:O	2.01	0.59
3:C:184:ASN:OD1	3:C:187:LYS:HA	2.01	0.59
7:G:138:THR:CG2	7:G:139:ILE:N	2.63	0.59
8:H:11:GLN:HA	8:H:53:ASP:O	2.02	0.59
12:L:40:LEU:HD22	12:L:44:ASP:CG	2.22	0.59
2:N:96:TYR:N	2:N:129:PHE:O	2.30	0.59
2:N:217:ARG:HD2	2:N:217:ARG:C	2.22	0.59
2:N:236:HIS:CE1	2:N:389:ALA:HA	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:863:GLU:O	2:N:961:LEU:HD13	2.02	0.59
4:P:51:ASN:OD1	4:P:52:LEU:O	2.20	0.59
4:P:118:THR:HG21	4:P:121:LYS:HE3	1.83	0.59
5:Q:32:GLN:HG3	5:Q:36:GLU:OE2	2.02	0.59
1:A:253:ASN:HD22	2:B:884:ARG:HD2	1.66	0.59
1:A:628:GLY:O	1:A:632:VAL:HG23	2.02	0.59
1:A:1130:GLN:HA	1:A:1133:LEU:HD12	1.84	0.59
2:B:863:GLU:O	2:B:961:LEU:HD13	2.02	0.59
2:B:902:GLY:O	12:L:65:VAL:HG11	2.01	0.59
6:F:111:LEU:C	6:F:113:GLY:H	2.05	0.59
8:H:82:PRO:O	8:H:84:ALA:N	2.34	0.59
1:M:1114:PRO:O	1:M:1311:VAL:HG23	2.02	0.59
2:N:29:ASP:HB3	2:N:658:ILE:CD1	2.32	0.59
2:N:34:ILE:HG12	2:N:542:MET:CE	2.33	0.59
4:P:144:THR:HG21	7:S:46:LEU:HD13	1.83	0.59
4:P:173:HIS:CE1	4:P:175:PHE:H	2.21	0.59
6:R:109:VAL:CG1	6:R:110:ASP:N	2.64	0.59
7:S:142:ARG:HB3	7:S:171:ILE:HD11	1.84	0.59
8:T:32:THR:HG22	8:T:33:GLN:OE1	2.01	0.59
1:A:56:PRO:O	1:A:57:ARG:HG3	2.02	0.59
1:A:239:LEU:HD12	1:A:240:PRO:HD2	1.84	0.59
1:A:285:PRO:CG	1:A:288:ALA:HB3	2.27	0.59
1:A:332:LYS:O	1:A:333:GLU:HB2	2.02	0.59
2:B:189:LEU:O	2:B:192:LEU:N	2.33	0.59
2:B:211:VAL:O	2:B:480:SER:HA	2.02	0.59
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.36	0.59
2:B:936:ASP:OD1	2:B:937:ALA:N	2.36	0.59
4:D:5:THR:O	4:D:5:THR:HG23	2.02	0.59
7:G:26:LEU:CD1	7:G:56:ILE:HD11	2.30	0.59
7:G:117:GLN:NE2	7:S:154:VAL:HG22	2.18	0.59
1:M:597:LEU:HD23	8:T:103:LYS:HD2	1.83	0.59
1:M:1210:GLY:O	1:M:1214:GLU:HG2	2.02	0.59
1:M:1259:MET:CE	1:M:1263:ILE:HG13	2.31	0.59
2:N:1181:GLU:HB2	2:N:1188:LYS:HG3	1.84	0.59
4:P:130:LEU:HD13	4:P:142:LYS:HG2	1.84	0.59
4:P:188:ALA:O	4:P:192:LYS:CG	2.51	0.59
7:S:126:ASN:HD22	7:S:127:PRO:CA	2.15	0.59
12:X:49:LYS:O	12:X:50:ASP:CB	2.50	0.59
1:A:283:GLY:O	1:A:285:PRO:HD3	2.02	0.59
1:A:297:GLN:HA	1:A:297:GLN:NE2	2.08	0.59
1:A:568:PRO:HB2	3:C:221:TYR:CZ	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:715:GLU:OE1	1:A:774:ARG:HD3	2.03	0.59
1:A:1171:GLN:OE1	1:A:1172:LEU:N	2.36	0.59
2:B:123:THR:O	2:B:125:SER:N	2.36	0.59
2:B:273:LEU:HD12	2:B:280:ILE:HD12	1.83	0.59
2:B:298:LEU:HD22	2:B:298:LEU:N	2.17	0.59
2:B:766:ARG:NH2	2:B:1020:ARG:CD	2.65	0.59
2:B:770:GLN:HG2	2:B:983:ARG:O	2.02	0.59
4:D:202:ILE:HG23	4:D:207:LEU:HB2	1.84	0.59
5:E:131:THR:HG21	5:E:191:LYS:NZ	2.18	0.59
8:H:130:ARG:HB3	8:H:134:ASN:H	1.68	0.59
1:M:105:CYS:SG	1:M:139:TRP:HA	2.42	0.59
2:N:345:LYS:CG	2:N:346:GLU:N	2.65	0.59
2:N:1187:ASN:OD1	2:N:1188:LYS:N	2.35	0.59
3:O:66:ARG:NH1	10:V:2:ILE:CG2	2.64	0.59
6:R:99:LEU:O	6:R:103:MET:HG2	2.02	0.59
7:S:109:PHE:O	7:S:160:ILE:HG23	2.01	0.59
7:S:111:THR:HG22	7:S:114:LEU:HD22	1.84	0.59
8:T:42:ILE:HG23	8:T:95:TYR:CE1	2.37	0.59
1:A:331:GLY:O	1:A:332:LYS:O	2.20	0.59
2:B:549:THR:CG2	2:B:550:ASP:H	2.15	0.59
2:B:848:ARG:HH22	2:B:996:ARG:HD3	1.66	0.59
2:B:887:HIS:CD2	2:B:887:HIS:N	2.69	0.59
3:C:184:ASN:HD21	3:C:189:THR:HB	1.67	0.59
4:D:13:ARG:O	4:D:15:LEU:N	2.29	0.59
1:M:116:ASP:OD2	1:M:164:ARG:HD2	2.02	0.59
1:M:297:GLN:HA	1:M:297:GLN:NE2	2.06	0.59
1:M:528:LEU:HD23	1:M:751:SER:HA	1.84	0.59
1:M:1241:ARG:O	1:M:1242:VAL:CB	2.50	0.59
2:N:384:ARG:HH12	2:N:393:LYS:HD3	1.68	0.59
2:N:766:ARG:NH2	2:N:1020:ARG:HD2	2.18	0.59
2:N:941:LEU:CD1	2:N:968:VAL:HG21	2.33	0.59
2:N:1115:THR:O	2:N:1116:ARG:HB2	2.02	0.59
3:O:254:LYS:HE2	11:W:42:LEU:HD13	1.85	0.59
5:Q:198:ILE:HD11	5:Q:212:ARG:HG3	1.83	0.59
8:T:84:ALA:CB	8:T:87:ARG:HB2	2.31	0.59
9:U:84:VAL:O	9:U:84:VAL:HG13	2.02	0.59
2:B:244:LEU:HD21	2:B:366:GLN:NE2	2.17	0.59
2:B:615:MET:CB	2:B:626:ILE:HG12	2.26	0.59
2:B:642:ASP:HB3	2:B:649:LYS:CD	2.32	0.59
2:B:999:MET:HE2	2:B:1000:PRO:HD2	1.83	0.59
3:C:114:TYR:CD2	3:C:140:ASN:HB3	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:84:ALA:HB1	8:H:87:ARG:HB2	1.84	0.59
1:M:675:THR:OG1	1:M:736:ASN:ND2	2.34	0.59
2:N:96:TYR:HB2	2:N:129:PHE:HB2	1.82	0.59
2:N:639:ILE:HD11	2:N:691:GLU:HB2	1.84	0.59
2:N:899:ILE:HD11	2:N:911:ILE:HA	1.84	0.59
3:O:39:ALA:O	3:O:164:ALA:HB3	2.02	0.59
9:U:52:ILE:O	9:U:52:ILE:HG13	2.02	0.59
11:W:82:ASP:OD1	11:W:84:LYS:N	2.35	0.59
1:A:63:ARG:HA	1:A:74:MET:HE2	1.85	0.59
1:A:110:CYS:HB3	1:A:167:CYS:SG	2.42	0.59
1:A:671:ALA:HB3	1:A:676:MET:HE2	1.85	0.59
1:A:1208:THR:HG22	1:A:1210:GLY:N	2.18	0.59
2:B:224:GLN:HA	2:B:396:ASP:OD2	2.03	0.59
2:B:637:LEU:HD12	2:B:693:ILE:CD1	2.33	0.59
5:E:4:GLU:HB3	5:E:7:ARG:HE	1.68	0.59
11:K:49:GLU:HG3	11:K:94:ILE:CG1	2.32	0.59
1:M:62:ASP:O	1:M:64:ASN:HB2	2.03	0.59
1:M:68:GLN:OE1	1:M:68:GLN:O	2.20	0.59
1:M:323:LYS:H	1:M:323:LYS:HD2	1.66	0.59
1:M:908:LEU:HD11	1:M:983:ILE:HD11	1.84	0.59
2:N:810:GLU:CB	2:N:815:ARG:HH22	2.14	0.59
9:U:73:ARG:HD2	9:U:101:PHE:CE2	2.37	0.59
1:A:79:GLY:HA3	1:A:243:PRO:HG3	1.84	0.59
1:A:350:ARG:HB2	2:B:1128:LEU:CD1	2.32	0.59
1:A:754:SER:N	1:A:757:ASN:HD22	1.96	0.59
1:A:858:ASN:ND2	1:A:858:ASN:C	2.55	0.59
3:C:8:VAL:CG1	3:C:9:LYS:N	2.66	0.59
3:C:43:THR:HG22	3:C:44:LEU:N	2.17	0.59
1:M:253:ASN:ND2	2:N:884:ARG:HD2	2.18	0.59
1:M:399:HIS:CB	1:M:400:PRO:HD3	2.30	0.59
1:M:718:VAL:O	1:M:722:LEU:HD12	2.03	0.59
1:M:804:TYR:OH	2:N:763:GLN:HA	2.03	0.59
1:M:1340:GLY:HA2	5:Q:183:PRO:HD2	1.84	0.59
2:N:806:THR:CG2	2:N:808:ALA:HB3	2.33	0.59
3:O:243:VAL:O	3:O:243:VAL:HG12	2.01	0.59
5:Q:177:ARG:HD3	5:Q:215:MET:SD	2.42	0.59
8:T:89:LEU:HB2	8:T:91:ASP:OD1	2.02	0.59
12:X:38:LEU:HG	12:X:39:SER:H	1.67	0.59
1:A:24:PRO:HG2	1:A:25:GLU:OE2	2.01	0.59
1:A:66:LYS:O	1:A:67:CYS:HB2	2.00	0.59
1:A:1152:ILE:HD12	1:A:1261:LYS:HE3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1214:GLU:O	1:A:1218:GLN:HG2	2.02	0.59
2:B:327:ARG:NH2	2:B:371:GLU:HG2	2.17	0.59
2:B:418:LYS:HE2	2:B:422:LYS:HZ2	1.67	0.59
2:B:597:MET:SD	2:B:624:LEU:HD11	2.43	0.59
2:B:638:PHE:HD2	2:B:690:VAL:HG12	1.68	0.59
7:G:21:ARG:HD2	7:G:24:GLN:HB2	1.85	0.59
8:H:27:GLU:HG2	8:H:39:THR:HA	1.85	0.59
1:M:335:ARG:HH12	2:N:1206:GLU:CD	2.06	0.59
1:M:1308:THR:HG23	1:M:1310:GLY:H	1.67	0.59
1:M:1441:PHE:CZ	6:R:89:GLU:HA	2.37	0.59
3:O:89:GLU:O	3:O:90:ASP:HB3	2.01	0.59
7:S:88:ASP:O	7:S:88:ASP:OD2	2.21	0.59
11:W:50:LEU:HD11	11:W:75:ILE:CD1	2.33	0.59
2:B:879:ARG:CD	2:B:879:ARG:N	2.65	0.59
5:E:64:PRO:O	5:E:69:ILE:HD11	2.02	0.59
8:H:95:TYR:CE2	8:H:97:MET:HG3	2.38	0.59
9:I:44:TYR:CD1	9:I:45:ARG:N	2.71	0.59
12:L:30:ILE:HG22	12:L:31:CYS:N	2.18	0.59
1:M:427:GLN:HG3	1:M:430:TRP:CE2	2.38	0.59
1:M:903:ASN:ND2	1:M:903:ASN:C	2.56	0.59
1:M:1141:THR:HG23	1:M:1205:LYS:HD3	1.84	0.59
1:M:1450:LEU:HD11	6:R:108:PHE:CZ	2.38	0.59
2:N:766:ARG:HH21	2:N:1020:ARG:HD2	1.67	0.59
7:S:87:VAL:HG21	7:S:103:VAL:HG21	1.83	0.59
10:V:30:LEU:HD11	10:V:38:ARG:NH1	2.18	0.59
12:X:34:CYS:SG	12:X:51:CYS:SG	3.01	0.59
1:A:66:LYS:HD3	1:A:67:CYS:N	2.18	0.58
1:A:718:VAL:O	1:A:722:LEU:HD12	2.03	0.58
1:A:907:THR:HG23	1:A:908:LEU:N	2.18	0.58
1:A:982:THR:HB	1:A:985:ASP:H	1.65	0.58
1:A:1149:ALA:HB2	9:I:47:GLU:HA	1.84	0.58
1:A:1399:ARG:HB3	1:A:1408:ILE:HD13	1.84	0.58
2:B:273:LEU:CD2	2:B:360:PHE:HD1	2.16	0.58
2:B:642:ASP:CA	2:B:649:LYS:HG3	2.32	0.58
2:B:710:LEU:CA	2:B:733:HIS:HB3	2.20	0.58
4:D:25:ALA:HB1	4:D:196:PRO:CG	2.33	0.58
5:E:164:LEU:HD11	5:E:211:TYR:CE1	2.38	0.58
3:O:69:LEU:O	10:V:6:ARG:HD2	2.03	0.58
4:P:164:ILE:O	4:P:168:LYS:HG2	2.03	0.58
9:U:62:ILE:O	9:U:62:ILE:HG12	2.03	0.58
1:A:67:CYS:C	1:A:68:GLN:HG3	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:262:GLU:HA	2:B:267:ARG:NH2	2.18	0.58
2:B:273:LEU:HD21	2:B:360:PHE:CD1	2.35	0.58
2:B:620:ARG:NH1	9:I:68:LEU:HD21	2.17	0.58
2:B:638:PHE:HB3	2:B:651:LEU:CD2	2.33	0.58
2:B:766:ARG:NH2	2:B:1020:ARG:HD2	2.18	0.58
2:B:807:ARG:HG2	2:B:1045:SER:OG	2.02	0.58
2:B:842:ASN:ND2	2:B:845:SER:H	2.00	0.58
1:M:317:LYS:O	1:M:318:SER:CB	2.51	0.58
1:M:444:PHE:CE2	1:M:487:MET:CE	2.86	0.58
2:N:433:GLN:O	2:N:434:ARG:HG3	2.03	0.58
2:N:842:ASN:ND2	2:N:845:SER:OG	2.29	0.58
4:P:13:ARG:O	4:P:15:LEU:N	2.29	0.58
5:Q:29:PHE:O	5:Q:30:ILE:HG13	2.02	0.58
10:V:3:VAL:HG21	10:V:18:TRP:CG	2.38	0.58
1:A:1313:LEU:O	1:A:1315:GLU:N	2.36	0.58
2:B:816:GLU:O	2:B:817:LEU:HD23	2.02	0.58
2:B:999:MET:HA	2:B:999:MET:CE	2.33	0.58
1:M:420:ARG:O	1:M:424:ILE:HG13	2.04	0.58
1:M:684:ALA:O	1:M:687:LYS:HB2	2.04	0.58
2:N:637:LEU:HD22	2:N:741:CYS:O	2.02	0.58
2:N:815:ARG:HD3	2:N:1041:GLU:OE2	2.03	0.58
2:N:847:ASP:OD2	11:W:6:ARG:NH2	2.34	0.58
4:P:153:ARG:O	4:P:154:PHE:CD2	2.56	0.58
5:Q:212:ARG:HG3	5:Q:212:ARG:HH11	1.68	0.58
7:S:1:MET:HG3	7:S:85:GLU:OE2	2.03	0.58
10:V:21:TYR:HB2	10:V:39:LEU:CD1	2.33	0.58
1:A:845:LEU:HD12	1:A:1069:ALA:HB2	1.85	0.58
2:B:69:LEU:HB3	2:B:429:PHE:CE1	2.38	0.58
2:B:96:TYR:N	2:B:129:PHE:O	2.31	0.58
2:B:839:MET:HE2	2:B:980:PHE:CD1	2.37	0.58
3:C:75:MET:HB3	3:C:128:ASN:HB3	1.85	0.58
8:H:84:ALA:CB	8:H:87:ARG:HB2	2.33	0.58
9:I:74:GLU:HB3	9:I:81:ARG:CD	2.33	0.58
11:K:82:ASP:OD1	11:K:84:LYS:N	2.36	0.58
1:M:382:PRO:HA	1:M:428:TYR:HE2	1.68	0.58
1:M:693:VAL:HG21	1:M:721:PHE:CE1	2.35	0.58
1:M:774:ARG:NH2	1:M:797:LYS:HB2	2.19	0.58
1:M:873:MET:C	1:M:1058:VAL:HG23	2.24	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:HG	2.03	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:N	2.37	0.58
2:N:277:LYS:HG2	2:N:336:ARG:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:579:ARG:HA	2:N:589:VAL:HG13	1.85	0.58
3:O:32:SER:O	3:O:36:VAL:HG23	2.04	0.58
5:Q:10:SER:O	5:Q:13:TRP:HB3	2.03	0.58
5:Q:97:VAL:HG13	5:Q:127:ILE:HD13	1.84	0.58
7:S:15:PRO:HA	7:S:18:PHE:CE1	2.38	0.58
7:S:116:PRO:HD2	7:S:119:LEU:CD2	2.31	0.58
8:T:128:ASN:ND2	8:T:131:ASN:OD1	2.37	0.58
1:A:157:ASP:OD2	1:A:160:GLN:HG3	2.03	0.58
1:A:219:PHE:CE2	1:A:231:PRO:HD2	2.39	0.58
1:A:1225:PHE:CE2	1:A:1227:ILE:HD11	2.39	0.58
2:B:527:THR:OG1	2:B:528:PRO:HD2	2.03	0.58
2:B:756:ILE:O	2:B:759:PRO:HD3	2.04	0.58
4:D:161:GLY:O	4:D:165:GLN:HG3	2.03	0.58
1:M:89:PRO:HB2	1:M:204:THR:CG2	2.33	0.58
1:M:308:ILE:HG22	1:M:309:ALA:N	2.16	0.58
1:M:351:THR:CG2	2:N:1103:ILE:HG13	2.33	0.58
1:M:472:LEU:HD11	2:N:835:GLN:NE2	2.18	0.58
1:M:886:ILE:HG23	1:M:887:GLY:N	2.19	0.58
1:M:1118:VAL:O	1:M:1305:VAL:HG13	2.04	0.58
2:N:664:THR:HG23	2:N:678:GLU:N	2.19	0.58
2:N:824:ILE:HG12	10:V:48:ARG:NH1	2.17	0.58
2:N:957:ASN:O	2:N:959:ASP:N	2.36	0.58
2:N:975:GLN:HG2	2:N:976:ILE:H	1.68	0.58
3:O:238:ILE:HG23	3:O:242:GLN:HB2	1.85	0.58
8:T:143:LEU:N	8:T:143:LEU:HD12	2.19	0.58
1:A:886:ILE:HG23	1:A:887:GLY:N	2.19	0.58
2:B:70:ILE:H	2:B:429:PHE:HE1	1.51	0.58
2:B:205:ILE:N	2:B:205:ILE:HD12	2.18	0.58
2:B:313:MET:O	2:B:316:PRO:HD2	2.03	0.58
2:B:865:LYS:HG2	2:B:961:LEU:HD21	1.85	0.58
9:I:92:ARG:HG2	9:I:93:LYS:HE2	1.84	0.58
1:M:344:ARG:HB3	1:M:344:ARG:NH1	2.14	0.58
1:M:1166:ASP:HA	1:M:1169:ILE:HD12	1.85	0.58
10:V:14:VAL:O	10:V:14:VAL:HG12	2.01	0.58
1:A:78:PRO:HA	2:B:1201:LYS:HZ2	1.68	0.58
1:A:567:LYS:NZ	8:H:43:ASN:HB3	2.18	0.58
1:A:883:LEU:HD23	1:A:1021:LEU:HD13	1.86	0.58
2:B:102:VAL:HG22	2:B:112:LEU:HD22	1.86	0.58
2:B:110:HIS:HB3	12:L:54:ARG:HH22	1.69	0.58
2:B:251:ILE:O	2:B:251:ILE:HG22	2.04	0.58
2:B:846:ILE:CG2	2:B:974:PRO:HG2	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:95:TYR:HE2	8:H:97:MET:HG3	1.68	0.58
9:I:55:THR:HG23	9:I:100:PHE:CD2	2.38	0.58
1:M:500:GLU:OE2	2:N:1145:SER:HB2	2.03	0.58
2:N:46:GLN:HG3	2:N:47:GLN:H	1.68	0.58
2:N:120:ARG:NH1	12:X:54:ARG:NH1	2.52	0.58
2:N:244:LEU:HD21	2:N:366:GLN:HE21	1.68	0.58
2:N:361:LEU:HD21	2:N:377:PHE:HD2	1.69	0.58
1:A:1259:MET:CE	1:A:1263:ILE:HG13	2.34	0.58
2:B:613:VAL:HG13	2:B:628:THR:HA	1.85	0.58
2:B:763:GLN:HG2	2:B:765:PRO:HD2	1.84	0.58
2:B:916:THR:HB	2:B:935:ARG:HD2	1.86	0.58
2:B:1161:HIS:NE2	2:B:1175:LEU:HD21	2.19	0.58
5:E:128:PRO:HA	5:E:129:PRO:C	2.23	0.58
7:G:15:PRO:HA	7:G:18:PHE:CE1	2.39	0.58
8:H:15:VAL:HG22	8:H:26:ILE:HG13	1.86	0.58
1:M:689:LYS:HE2	1:M:721:PHE:CE2	2.39	0.58
1:M:1342:GLU:CG	5:Q:198:ILE:HD13	2.33	0.58
4:P:25:ALA:HB1	4:P:196:PRO:HG2	1.86	0.58
4:P:52:LEU:HD21	4:P:147:TYR:CE2	2.38	0.58
4:P:216:ASN:C	4:P:218:GLU:N	2.54	0.58
7:S:94:CYS:SG	7:S:94:CYS:O	2.59	0.58
7:S:138:THR:HG22	7:S:139:ILE:H	1.69	0.58
8:T:82:PRO:O	8:T:84:ALA:N	2.35	0.58
10:V:16:ASP:OD1	10:V:17:LYS:N	2.36	0.58
1:A:71:GLN:C	1:A:73:GLY:H	2.06	0.58
2:B:185:THR:H	2:B:188:ASP:HB2	1.69	0.58
2:B:1096:ARG:O	2:B:1097:HIS:CB	2.51	0.58
5:E:69:ILE:HD12	5:E:69:ILE:H	1.69	0.58
5:E:204:THR:HG23	5:E:205:SER:N	2.19	0.58
5:E:212:ARG:HG3	5:E:212:ARG:HH11	1.69	0.58
10:J:23:ASN:O	10:J:25:LEU:N	2.37	0.58
12:L:27:LEU:HD13	12:L:37:LYS:HD2	1.86	0.58
1:M:67:CYS:C	1:M:68:GLN:HG3	2.24	0.58
1:M:1227:ILE:HG22	1:M:1228:TRP:H	1.69	0.58
2:N:273:LEU:HB2	2:N:276:ILE:HD12	1.86	0.58
6:R:75:PRO:O	6:R:77:ASP:O	2.22	0.58
1:A:492:PRO:HB2	1:A:497:THR:HG22	1.84	0.58
2:B:359:GLU:O	2:B:362:PRO:HD3	2.04	0.58
3:C:241:ASP:O	3:C:245:VAL:HG23	2.04	0.58
5:E:207:ARG:HB3	5:E:207:ARG:HH11	1.69	0.58
2:N:98:THR:O	2:N:126:SER:HB2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:284:ILE:HD13	2:N:333:PHE:CD2	2.39	0.58
2:N:293:PRO:HD2	2:N:296:GLU:OE1	2.03	0.58
2:N:1084:GLN:NE2	2:N:1084:GLN:N	2.52	0.58
2:N:1183:LYS:N	2:N:1183:LYS:CE	2.67	0.58
3:O:43:THR:CG2	3:O:44:LEU:N	2.67	0.58
5:Q:50:MET:HG2	5:Q:52:ARG:NH2	2.19	0.58
12:X:34:CYS:CB	12:X:51:CYS:HG	2.17	0.58
1:A:278:THR:O	1:A:278:THR:HG22	2.04	0.57
1:A:1095:THR:HG21	1:A:1112:LYS:HB2	1.86	0.57
1:A:1173:HIS:ND1	1:A:1173:HIS:O	2.37	0.57
1:A:1437:GLY:O	1:A:1439:GLY:N	2.37	0.57
2:B:638:PHE:HB3	2:B:651:LEU:HD22	1.86	0.57
2:B:1056:SER:HB3	2:B:1066:SER:OG	2.02	0.57
7:G:52:ASP:C	7:G:53:ASN:HD22	2.07	0.57
8:H:40:LEU:HD23	8:H:42:ILE:CD1	2.34	0.57
1:M:34:LYS:HB2	1:M:36:ARG:CZ	2.34	0.57
1:M:493:GLN:CA	1:M:493:GLN:HE21	2.16	0.57
2:N:235:SER:O	2:N:236:HIS:HD2	1.87	0.57
3:O:73:GLN:HE21	3:O:75:MET:N	1.99	0.57
12:X:47:ARG:HD3	12:X:52:GLY:HA2	1.86	0.57
1:A:311:GLN:O	1:A:313:GLN:N	2.36	0.57
1:A:470:LEU:N	1:A:470:LEU:CD2	2.67	0.57
1:A:720:ARG:O	1:A:724:GLU:HB3	2.03	0.57
2:B:129:PHE:HA	2:B:165:VAL:O	2.05	0.57
2:B:508:LEU:N	14:2:1:DA:O5'	2.28	0.57
2:B:604:ARG:NH2	2:B:614:SER:HA	2.19	0.57
2:B:654:ARG:HH11	2:B:654:ARG:HG3	1.67	0.57
3:C:39:ALA:O	3:C:164:ALA:HB3	2.04	0.57
3:C:243:VAL:O	3:C:243:VAL:HG12	2.03	0.57
4:D:50:LEU:HD11	7:G:4:ILE:HD11	1.85	0.57
4:D:202:ILE:CG2	4:D:207:LEU:HB2	2.34	0.57
4:D:209:ARG:HA	4:D:212:LYS:CE	2.34	0.57
5:E:78:LEU:HB2	5:E:107:THR:HB	1.86	0.57
7:G:137:ILE:CG2	7:G:143:ILE:HD11	2.34	0.57
9:I:84:VAL:HG13	9:I:84:VAL:O	2.04	0.57
2:N:880:THR:HG21	2:N:934:LYS:HE3	1.86	0.57
2:N:1172:ILE:O	2:N:1172:ILE:HG22	2.02	0.57
3:O:37:MET:HE1	3:O:232:VAL:HG22	1.86	0.57
4:P:130:LEU:HD11	4:P:142:LYS:HA	1.86	0.57
8:T:44:VAL:O	8:T:44:VAL:HG12	2.03	0.57
12:X:60:ARG:HG2	12:X:61:THR:H	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:523:ILE:HG13	1:A:622:VAL:HG22	1.86	0.57
1:A:1242:VAL:CG1	1:A:1243:VAL:N	2.67	0.57
2:B:911:ILE:HD11	2:B:941:LEU:CD1	2.33	0.57
2:B:1115:THR:HG22	2:B:1117:GLN:HB2	1.85	0.57
5:E:62:ALA:HB3	5:E:78:LEU:HD22	1.86	0.57
8:H:143:LEU:HD12	8:H:143:LEU:N	2.20	0.57
1:M:440:ASP:O	1:M:460:VAL:HG23	2.04	0.57
1:M:549:MET:HE1	1:M:656:TRP:HD1	1.70	0.57
2:N:390:LEU:HD13	2:N:392:ARG:NH2	2.19	0.57
2:N:398:ARG:HB3	2:N:398:ARG:HH11	1.70	0.57
2:N:638:PHE:HD2	2:N:690:VAL:HG12	1.69	0.57
2:N:824:ILE:CG1	10:V:48:ARG:HH12	2.15	0.57
2:N:1008:PRO:HB3	2:N:1087:PHE:HE2	1.69	0.57
3:O:11:ARG:HH12	3:O:205:LYS:HZ3	1.51	0.57
3:O:44:LEU:HD21	3:O:159:ALA:HB1	1.86	0.57
5:Q:153:HIS:O	5:Q:154:ILE:CG1	2.48	0.57
8:T:106:GLU:HA	8:T:112:ILE:HD12	1.84	0.57
1:A:202:LEU:HB3	1:A:207:ILE:HD11	1.85	0.57
1:A:335:ARG:O	1:A:339:ASN:HB2	2.03	0.57
1:A:378:GLU:OE1	1:A:434:ARG:HD3	2.05	0.57
1:A:1340:GLY:HA2	5:E:183:PRO:HD2	1.85	0.57
1:A:1438:THR:HG23	6:F:92:ARG:HB2	1.86	0.57
2:B:470:LYS:C	2:B:472:ALA:N	2.57	0.57
2:B:758:PHE:CE1	2:B:1027:ILE:HG22	2.39	0.57
3:C:11:ARG:HH12	3:C:205:LYS:HZ3	1.52	0.57
9:I:58:VAL:O	9:I:58:VAL:HG12	2.05	0.57
1:M:107:CYS:CA	1:M:171:GLN:HE22	2.17	0.57
1:M:369:SER:HB3	11:W:2:ASN:OD1	2.04	0.57
2:N:276:ILE:HG22	2:N:276:ILE:O	2.02	0.57
2:N:282:ILE:O	2:N:286:PHE:HD1	1.88	0.57
2:N:773:MET:CE	2:N:985:GLY:HA2	2.35	0.57
2:B:31:TRP:CE3	2:B:34:ILE:HD12	2.39	0.57
2:B:58:THR:O	2:B:62:ILE:HG13	2.04	0.57
2:B:998:ASP:OD1	3:C:35:ARG:NH2	2.37	0.57
3:C:32:SER:O	3:C:36:VAL:HG23	2.05	0.57
5:E:158:SER:O	5:E:162:ARG:HD3	2.04	0.57
1:M:993:LEU:HD22	1:M:1046:LEU:CD2	2.34	0.57
1:M:1100:ARG:HH21	1:M:1351:GLU:CG	2.18	0.57
2:N:189:LEU:HA	2:N:192:LEU:HD12	1.87	0.57
2:N:526:GLU:HG3	2:N:771:SER:HB3	1.85	0.57
2:N:797:TYR:HE1	2:N:854:LEU:HD23	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:806:THR:H	2:N:809:MET:HE3	1.68	0.57
3:O:36:VAL:CG2	3:O:251:LEU:HD13	2.35	0.57
4:P:154:PHE:HZ	4:P:214:LEU:HD11	1.69	0.57
5:Q:99:HIS:CE1	5:Q:103:LYS:HG3	2.39	0.57
6:R:111:LEU:C	6:R:113:GLY:H	2.07	0.57
7:S:136:VAL:O	7:S:136:VAL:HG12	2.04	0.57
10:V:23:ASN:O	10:V:25:LEU:N	2.37	0.57
2:B:552:MET:HA	2:B:552:MET:CE	2.34	0.57
2:B:862:GLN:HG2	2:B:963:PHE:CD1	2.36	0.57
4:D:13:ARG:C	4:D:15:LEU:H	2.06	0.57
6:F:119:ARG:CG	6:F:119:ARG:NH1	2.68	0.57
8:H:15:VAL:HG22	8:H:26:ILE:CG1	2.34	0.57
1:M:61:ILE:HG22	1:M:62:ASP:H	1.69	0.57
1:M:973:ILE:CD1	1:M:1037:LEU:HA	2.34	0.57
2:N:120:ARG:HH11	12:X:54:ARG:HH11	1.53	0.57
2:N:211:VAL:O	2:N:480:SER:HA	2.03	0.57
2:N:313:MET:SD	2:N:390:LEU:HD21	2.45	0.57
2:N:470:LYS:C	2:N:472:ALA:N	2.57	0.57
1:A:41:MET:HB2	1:A:48:ALA:O	2.05	0.57
1:A:1118:VAL:O	1:A:1305:VAL:HG13	2.05	0.57
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.87	0.57
2:B:315:LYS:N	2:B:316:PRO:HD2	2.19	0.57
2:B:570:VAL:HG21	2:B:573:GLN:CD	2.25	0.57
1:M:129:LYS:O	1:M:130:ASP:CB	2.52	0.57
1:M:567:LYS:HZ1	8:T:46:LEU:HB2	1.68	0.57
1:M:979:SER:OG	1:M:980:ASP:N	2.37	0.57
1:M:1121:GLU:HB3	1:M:1124:HIS:NE2	2.20	0.57
2:N:100:PRO:HB2	2:N:180:TYR:HE1	1.69	0.57
2:N:408:LEU:N	2:N:408:LEU:HD12	2.20	0.57
2:N:1177:HIS:HB3	2:N:1179:GLN:NE2	2.19	0.57
7:S:125:SER:OG	7:S:128:PRO:HA	2.05	0.57
1:A:427:GLN:HG3	1:A:430:TRP:CE2	2.39	0.57
2:B:980:PHE:CE2	2:B:1094:ARG:HG3	2.39	0.57
4:D:204:ASP:O	4:D:208:GLU:HB2	2.04	0.57
1:M:523:ILE:CG1	1:M:622:VAL:HG22	2.35	0.57
2:N:857:ARG:HH21	2:N:942:ARG:NH2	2.03	0.57
4:P:195:ILE:O	4:P:198:LEU:HG	2.03	0.57
1:A:34:LYS:NZ	1:A:57:ARG:NH2	2.53	0.57
1:A:401:GLY:C	1:A:435:HIS:HD2	2.07	0.57
1:A:709:THR:HB	1:A:712:GLU:HG3	1.87	0.57
1:A:888:GLY:O	1:A:940:ARG:NH2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1268:LEU:O	1:A:1269:GLU:HG3	2.05	0.57
2:B:402:GLY:HA2	2:B:695:ALA:HB3	1.86	0.57
2:B:653:VAL:CG2	2:B:689:LEU:HB3	2.34	0.57
3:C:238:ILE:HD11	3:C:246:ARG:NH1	2.19	0.57
4:D:144:THR:O	4:D:148:LEU:HB2	2.05	0.57
8:H:7:ASP:O	8:H:8:ASP:HB2	2.05	0.57
9:I:111:THR:CG2	9:I:113:ASP:HB2	2.34	0.57
1:M:49:LYS:HE2	1:M:61:ILE:HD12	1.86	0.57
1:M:1294:PRO:HG2	1:M:1295:THR:HG22	1.86	0.57
2:N:39:ARG:NH2	2:N:665:GLU:CG	2.68	0.57
2:N:580:VAL:HG22	2:N:624:LEU:HB3	1.87	0.57
2:N:642:ASP:HA	2:N:649:LYS:HG3	1.86	0.57
2:N:794:ASN:C	2:N:795:ILE:HD12	2.25	0.57
7:S:106:MET:CG	7:S:107:LYS:N	2.67	0.57
1:A:556:TRP:CZ2	1:A:558:GLY:HA2	2.40	0.57
2:B:639:ILE:HD11	2:B:691:GLU:HB2	1.87	0.57
4:D:130:LEU:C	4:D:132:GLN:H	2.08	0.57
6:F:79:ARG:HG3	6:F:144:GLU:OE1	2.04	0.57
6:F:111:LEU:N	6:F:111:LEU:CD1	2.67	0.57
8:H:81:PRO:HB2	8:H:82:PRO:HD2	1.84	0.57
12:L:52:GLY:O	12:L:53:HIS:C	2.43	0.57
1:M:93:VAL:CG1	1:M:301:ALA:HB1	2.35	0.57
1:M:152:VAL:HG13	1:M:153:PRO:HD2	1.87	0.57
3:O:184:ASN:HD21	3:O:189:THR:HB	1.70	0.57
4:P:209:ARG:HG2	4:P:209:ARG:HH11	1.69	0.57
8:T:4:THR:HG22	8:T:5:LEU:N	2.20	0.57
1:A:42:ASP:HA	1:A:46:THR:O	2.05	0.56
2:B:167:ILE:HA	2:B:450:ALA:HB2	1.87	0.56
2:B:618:ASP:CG	2:B:621:GLU:HB3	2.25	0.56
5:E:55:ARG:HG3	5:E:55:ARG:HH11	1.70	0.56
5:E:100:ILE:CG2	5:E:105:PHE:HB2	2.35	0.56
10:J:36:LEU:HB2	10:J:47:ARG:HH12	1.70	0.56
1:M:699:ALA:HB3	1:M:701:LEU:HG	1.87	0.56
2:N:254:LEU:HD23	2:N:381:MET:HE1	1.86	0.56
2:N:313:MET:CE	2:N:386:LEU:HD22	2.35	0.56
1:A:492:PRO:CB	1:A:497:THR:HG22	2.34	0.56
1:A:898:ARG:HD2	1:A:899:VAL:H	1.70	0.56
1:A:1237:ILE:HG22	1:A:1238:ILE:N	2.20	0.56
2:B:508:LEU:O	2:B:509:ALA:HB3	2.05	0.56
3:C:70:ILE:HG12	3:C:142:VAL:HG11	1.86	0.56
7:G:151:ILE:HG12	7:S:114:LEU:HD12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:55:ILE:HG12	12:L:56:LEU:N	2.13	0.56
2:N:810:GLU:HB2	2:N:815:ARG:NH2	2.19	0.56
2:N:1084:GLN:HG2	3:O:201:TRP:CZ2	2.40	0.56
4:P:155:ARG:NH1	4:P:155:ARG:CB	2.68	0.56
7:S:14:HIS:CD2	7:S:16:SER:H	2.23	0.56
8:T:104:PHE:CE2	8:T:136:LYS:HG3	2.40	0.56
1:A:256:GLN:O	1:A:257:ARG:HB2	2.04	0.56
1:A:382:PRO:HA	1:A:428:TYR:HE2	1.69	0.56
1:A:441:PRO:HG3	1:A:498:ARG:HB2	1.88	0.56
1:A:475:THR:CG2	1:A:476:SER:N	2.67	0.56
1:A:541:ILE:CD1	1:A:549:MET:HE1	2.22	0.56
1:A:666:ILE:HD12	1:A:666:ILE:N	2.20	0.56
2:B:336:ARG:HH11	2:B:336:ARG:HG3	1.70	0.56
2:B:957:ASN:O	2:B:959:ASP:N	2.38	0.56
3:C:148:ARG:N	3:C:151:GLN:HG3	2.19	0.56
3:C:177:GLU:CG	3:C:231:ASN:HB3	2.21	0.56
4:D:14:ARG:HH12	4:D:16:LYS:NZ	2.04	0.56
7:G:128:PRO:O	7:G:138:THR:HG23	2.04	0.56
8:H:104:PHE:CE2	8:H:136:LYS:HG3	2.40	0.56
1:M:311:GLN:O	1:M:313:GLN:N	2.38	0.56
1:M:500:GLU:OE2	1:M:1438:THR:HG21	2.05	0.56
1:M:786:HIS:CD2	1:M:786:HIS:N	2.73	0.56
1:M:1259:MET:HE3	1:M:1263:ILE:HG13	1.86	0.56
1:M:1436:ILE:O	1:M:1437:GLY:C	2.43	0.56
2:N:345:LYS:CE	2:N:349:ILE:HD11	2.35	0.56
3:O:259:LEU:HD21	11:W:91:CYS:HB3	1.87	0.56
4:P:13:ARG:C	4:P:15:LEU:H	2.07	0.56
4:P:155:ARG:NE	4:P:221:TYR:HE1	2.04	0.56
5:Q:19:VAL:HG22	5:Q:140:LEU:HD12	1.87	0.56
5:Q:22:MET:HE3	5:Q:26:ARG:NE	2.19	0.56
5:Q:79:TRP:HE1	5:Q:81:GLU:HB2	1.71	0.56
5:Q:145:THR:HG21	5:Q:187:TYR:CD2	2.40	0.56
6:R:69:LEU:HD13	6:R:71:GLU:OE1	2.04	0.56
9:U:50:THR:HG22	9:U:52:ILE:N	2.19	0.56
1:A:830:LYS:HE3	1:A:1081:LEU:HD12	1.86	0.56
1:A:1316:VAL:O	1:A:1316:VAL:HG12	2.05	0.56
2:B:497:ARG:NH2	2:B:775:LYS:HZ3	2.04	0.56
2:B:731:VAL:HG12	2:B:732:SER:N	2.20	0.56
2:B:1007:VAL:CG2	2:B:1008:PRO:HD2	2.33	0.56
3:C:148:ARG:H	3:C:151:GLN:HG3	1.70	0.56
4:D:56:ARG:HA	4:D:148:LEU:HD13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:216:ASN:C	4:D:218:GLU:N	2.57	0.56
5:E:112:TYR:CE1	5:E:136:ASN:HA	2.40	0.56
1:M:99:ILE:HG23	1:M:211:PHE:CE2	2.41	0.56
1:M:853:ASP:OD1	1:M:855:THR:CB	2.52	0.56
2:N:434:ARG:O	2:N:436:VAL:HG23	2.05	0.56
2:N:898:LEU:HD13	2:N:952:VAL:HG11	1.87	0.56
3:O:213:PRO:O	3:O:214:ASN:HB3	2.06	0.56
1:A:43:GLU:CG	1:A:46:THR:HB	2.31	0.56
1:A:268:ASP:HB3	1:A:299:HIS:CE1	2.41	0.56
1:A:744:LYS:HG2	1:A:748:MET:CE	2.36	0.56
1:A:1142:THR:O	1:A:1145:SER:OG	2.19	0.56
2:B:288:ALA:HB1	2:B:331:LEU:CD1	2.32	0.56
2:B:842:ASN:ND2	2:B:845:SER:OG	2.37	0.56
3:C:215:GLU:O	3:C:216:GLY:C	2.44	0.56
4:D:12:ARG:HG2	4:D:12:ARG:HH11	1.71	0.56
1:M:710:LEU:HD22	9:U:96:SER:HA	1.88	0.56
1:M:852:TYR:CD1	6:R:136:ARG:HB3	2.40	0.56
1:M:962:ARG:O	1:M:964:ILE:N	2.39	0.56
1:M:1130:GLN:O	1:M:1134:ILE:HG13	2.05	0.56
2:N:167:ILE:HA	2:N:450:ALA:HB2	1.87	0.56
2:N:313:MET:HE3	2:N:386:LEU:HD22	1.88	0.56
2:N:430:ARG:HB3	2:N:434:ARG:NH2	2.21	0.56
2:N:614:SER:HB2	2:N:697:GLU:OE1	2.05	0.56
2:N:848:ARG:HD3	10:V:11:GLY:HA2	1.86	0.56
3:O:174:ALA:O	3:O:175:ALA:HB3	2.06	0.56
4:P:154:PHE:CE2	4:P:218:GLU:HA	2.40	0.56
1:A:195:ASP:O	1:A:196:GLU:HB3	2.05	0.56
1:A:1255:GLU:HG2	1:A:1258:HIS:HB2	1.86	0.56
2:B:240:ILE:HG21	2:B:381:MET:HE1	1.88	0.56
2:B:594:ALA:HB2	2:B:617:ARG:HH12	1.71	0.56
2:B:805:THR:HG23	2:B:809:MET:SD	2.45	0.56
3:C:181:ASP:CG	3:C:186:LEU:HD13	2.25	0.56
4:D:155:ARG:NE	4:D:221:TYR:CE1	2.74	0.56
1:M:283:GLY:O	1:M:285:PRO:CD	2.53	0.56
1:M:401:GLY:CA	1:M:435:HIS:HD2	2.19	0.56
1:M:883:LEU:HD11	1:M:1017:LEU:HD11	1.86	0.56
1:M:1195:LEU:HD11	1:M:1267:MET:HE3	1.87	0.56
2:N:115:GLN:HG2	2:N:193:LYS:CB	2.36	0.56
2:N:247:GLY:C	2:N:249:ARG:H	2.08	0.56
2:N:361:LEU:O	2:N:363:HIS:O	2.24	0.56
2:N:486:TYR:N	2:N:486:TYR:CD2	2.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:613:VAL:HG13	2:N:628:THR:HA	1.86	0.56
3:O:44:LEU:HD21	3:O:159:ALA:CB	2.36	0.56
5:Q:28:TYR:CE1	5:Q:78:LEU:HD13	2.41	0.56
5:Q:28:TYR:HE1	5:Q:78:LEU:HD13	1.71	0.56
5:Q:124:VAL:HB	5:Q:125:PRO:HD3	1.87	0.56
8:T:59:ILE:CG2	8:T:60:ALA:N	2.64	0.56
11:W:55:LYS:HB2	11:W:81:TYR:CE1	2.41	0.56
1:A:10:PRO:HG2	2:B:1192:TYR:HD2	1.71	0.56
2:B:434:ARG:O	2:B:436:VAL:HG23	2.05	0.56
2:B:640:VAL:O	2:B:640:VAL:HG12	2.04	0.56
2:B:1180:PHE:HB3	2:B:1191:ILE:HD13	1.87	0.56
7:G:45:ILE:HA	7:G:78:VAL:HG12	1.87	0.56
11:K:50:LEU:HD11	11:K:75:ILE:CD1	2.35	0.56
1:M:598:LEU:HD23	8:T:25:ARG:NH1	2.20	0.56
1:M:929:LEU:HD21	1:M:983:ILE:HG21	1.87	0.56
2:N:560:GLU:O	2:N:561:TRP:CD1	2.59	0.56
2:N:638:PHE:HB3	2:N:651:LEU:HD22	1.88	0.56
6:R:69:LEU:HB3	6:R:71:GLU:CD	2.26	0.56
2:B:361:LEU:O	2:B:363:HIS:O	2.24	0.56
2:B:801:LYS:O	10:J:52:THR:HG23	2.05	0.56
2:B:842:ASN:HD22	2:B:845:SER:N	2.03	0.56
2:B:865:LYS:NZ	2:B:869:SER:HA	2.21	0.56
5:E:46:TYR:CD2	5:E:58:MET:HG2	2.41	0.56
8:H:80:ARG:HD2	8:H:87:ARG:HH22	1.71	0.56
1:M:367:PRO:HG2	1:M:370:ILE:HD12	1.88	0.56
1:M:593:GLU:C	1:M:595:THR:H	2.09	0.56
1:M:666:ILE:O	1:M:670:ILE:HD13	2.06	0.56
1:M:993:LEU:HD23	1:M:1022:LEU:HD21	1.88	0.56
1:M:1173:HIS:ND1	1:M:1173:HIS:O	2.39	0.56
2:N:424:LEU:O	2:N:428:ILE:HG13	2.05	0.56
2:N:508:LEU:O	2:N:509:ALA:HB3	2.06	0.56
3:O:179:GLU:HG2	3:O:180:TYR:N	2.21	0.56
1:A:401:GLY:CA	1:A:435:HIS:HD2	2.18	0.56
1:A:608:ILE:HG13	1:A:613:ILE:HD12	1.88	0.56
1:A:1241:ARG:O	1:A:1242:VAL:CB	2.53	0.56
2:B:247:GLY:C	2:B:249:ARG:H	2.09	0.56
2:B:679:TYR:CE1	2:B:683:SER:HB2	2.41	0.56
3:C:99:LEU:N	3:C:99:LEU:CD2	2.68	0.56
5:E:136:ASN:OD1	5:E:138:ALA:N	2.39	0.56
7:G:117:GLN:HE21	7:S:153:GLN:HG3	1.71	0.56
1:M:360:GLU:HB2	1:M:363:GLN:HG3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:535:THR:HG21	1:M:617:VAL:N	2.21	0.56
1:M:672:ASP:CB	1:M:736:ASN:HD21	2.14	0.56
1:M:981:LEU:CD2	1:M:1039:LYS:HA	2.35	0.56
1:M:1207:LEU:HD13	1:M:1273:LEU:HD23	1.88	0.56
2:N:365:THR:HG21	2:N:370:PHE:CG	2.41	0.56
2:N:796:LEU:HD21	2:N:821:GLN:HE21	1.70	0.56
7:S:55:ASP:OD1	7:S:57:GLN:HG3	2.06	0.56
8:T:7:ASP:O	8:T:8:ASP:HB2	2.06	0.56
8:T:101:ALA:HB2	8:T:116:TYR:CE2	2.41	0.56
1:A:427:GLN:O	1:A:428:TYR:C	2.43	0.56
1:A:547:LEU:HD21	1:A:560:ILE:HD13	1.89	0.56
1:A:738:LYS:H	1:A:738:LYS:HD3	1.71	0.56
1:A:834:THR:HG22	1:A:835:GLY:N	2.21	0.56
2:B:1167:GLY:HA3	2:B:1216:LEU:H	1.70	0.56
3:C:166:GLU:CG	11:K:10:PHE:HZ	2.19	0.56
6:F:97:ARG:NH2	6:F:108:PHE:CE1	2.73	0.56
7:G:114:LEU:HG	7:G:162:SER:HB3	1.88	0.56
9:I:74:GLU:HB3	9:I:81:ARG:NE	2.21	0.56
11:K:93:SER:O	11:K:97:LYS:HG3	2.05	0.56
12:L:68:GLU:H	12:L:68:GLU:CD	2.10	0.56
1:M:836:TYR:CE2	1:M:840:ARG:HD2	2.40	0.56
1:M:1277:GLU:C	1:M:1279:ILE:H	2.09	0.56
2:N:227:LYS:H	2:N:395:GLN:CD	2.08	0.56
2:N:278:GLN:HG2	2:N:279:ASP:H	1.70	0.56
2:N:1180:PHE:HB3	2:N:1191:ILE:HD13	1.88	0.56
3:O:215:GLU:O	3:O:216:GLY:C	2.45	0.56
4:P:56:ARG:HG2	4:P:56:ARG:HH11	1.71	0.56
4:P:202:ILE:HD13	4:P:207:LEU:HB2	1.87	0.56
5:Q:79:TRP:HB2	5:Q:105:PHE:CE1	2.41	0.56
1:A:993:LEU:HD21	1:A:1049:ILE:HG21	1.87	0.55
2:B:126:SER:CB	2:B:172:ILE:HD11	2.36	0.55
2:B:240:ILE:HG23	2:B:254:LEU:HB3	1.88	0.55
2:B:300:HIS:O	2:B:303:TYR:HE2	1.88	0.55
2:B:430:ARG:HH11	2:B:430:ARG:CB	2.15	0.55
2:B:899:ILE:CG2	2:B:949:VAL:HG21	2.36	0.55
3:C:248:ILE:CD1	11:K:101:LEU:HD22	2.36	0.55
4:D:12:ARG:NH1	4:D:12:ARG:HG2	2.19	0.55
8:H:40:LEU:HD12	8:H:123:MET:CB	2.35	0.55
8:H:51:ALA:O	8:H:52:GLN:HB2	2.05	0.55
1:M:23:SER:HB3	1:M:233:TRP:CZ2	2.42	0.55
1:M:65:LEU:O	1:M:66:LYS:C	2.43	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:547:LEU:HD22	11:W:58:PHE:CE1	2.42	0.55
1:M:852:TYR:CD2	1:M:1060:PRO:CB	2.89	0.55
1:M:1220:PHE:O	1:M:1221:LYS:HB2	2.05	0.55
2:N:398:ARG:HH11	2:N:398:ARG:CB	2.18	0.55
2:N:766:ARG:NH2	2:N:1020:ARG:HD3	2.20	0.55
4:P:71:LYS:CG	4:P:74:GLN:HE21	2.19	0.55
4:P:154:PHE:HE1	4:P:163:VAL:HG11	1.71	0.55
7:S:21:ARG:HD2	7:S:24:GLN:HB2	1.89	0.55
8:T:81:PRO:HB3	8:T:82:PRO:HD2	1.86	0.55
12:X:52:GLY:O	12:X:53:HIS:C	2.44	0.55
1:A:65:LEU:O	1:A:66:LYS:C	2.44	0.55
1:A:148:CYS:HB3	1:A:167:CYS:O	2.05	0.55
1:A:855:THR:CG2	1:A:857:ARG:HG3	2.36	0.55
2:B:102:VAL:HG13	2:B:958:GLN:HE21	1.71	0.55
2:B:549:THR:CG2	2:B:550:ASP:N	2.68	0.55
2:B:911:ILE:HG21	2:B:966:VAL:HG11	1.88	0.55
2:B:950:ASP:HB3	2:B:967:ARG:O	2.07	0.55
8:H:123:MET:HG2	8:H:124:ARG:N	2.20	0.55
10:J:36:LEU:HD12	10:J:47:ARG:NH1	2.20	0.55
1:M:42:ASP:HB3	1:M:45:GLN:HA	1.87	0.55
1:M:427:GLN:O	1:M:428:TYR:C	2.44	0.55
1:M:768:GLN:HG2	1:M:816:HIS:CA	2.34	0.55
2:N:39:ARG:HH21	2:N:665:GLU:CG	2.19	0.55
2:N:48:LEU:HD23	2:N:173:MET:SD	2.47	0.55
2:N:118:ARG:HH11	2:N:204:ILE:HD11	1.70	0.55
2:N:235:SER:C	2:N:236:HIS:HD2	2.09	0.55
4:P:15:LEU:O	4:P:17:LYS:HG3	2.06	0.55
4:P:130:LEU:C	4:P:132:GLN:H	2.10	0.55
4:P:155:ARG:CB	4:P:155:ARG:HH11	2.19	0.55
5:Q:16:PHE:CE2	5:Q:20:LYS:HE2	2.41	0.55
5:Q:204:THR:HG23	5:Q:205:SER:N	2.22	0.55
7:S:9:LEU:HD12	7:S:10:ASN:H	1.71	0.55
11:W:47:ARG:HD3	11:W:59:ALA:O	2.06	0.55
12:X:30:ILE:HG22	12:X:31:CYS:N	2.21	0.55
15:6:5:C:H2'	15:6:6:A:C8	2.40	0.55
1:A:528:LEU:HD23	1:A:751:SER:HA	1.89	0.55
1:A:666:ILE:O	1:A:670:ILE:HD13	2.06	0.55
1:A:1291:VAL:HG22	1:A:1292:PRO:HD2	1.88	0.55
2:B:235:SER:C	2:B:236:HIS:HD2	2.10	0.55
2:B:327:ARG:HH22	2:B:371:GLU:HG2	1.71	0.55
2:B:789:MET:CE	2:B:953:LEU:HD22	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:22:LEU:HD22	3:C:230:MET:HE1	1.87	0.55
12:L:26:THR:HG23	12:L:62:LYS:NZ	2.20	0.55
1:M:42:ASP:HA	1:M:46:THR:O	2.07	0.55
1:M:61:ILE:HG22	1:M:62:ASP:N	2.21	0.55
1:M:567:LYS:HZ3	8:T:43:ASN:HB3	1.69	0.55
2:N:347:LYS:HG3	2:N:348:ARG:H	1.72	0.55
2:N:637:LEU:CD2	2:N:742:GLU:HA	2.36	0.55
3:O:116:LYS:HD3	3:O:140:ASN:HA	1.89	0.55
5:Q:56:LYS:NZ	5:Q:84:ASP:H	2.04	0.55
5:Q:128:PRO:HA	5:Q:129:PRO:C	2.26	0.55
5:Q:207:ARG:HB3	5:Q:207:ARG:HH11	1.71	0.55
9:U:59:VAL:C	9:U:61:ASP:H	2.10	0.55
10:V:27:GLU:C	10:V:29:GLU:H	2.10	0.55
1:A:89:PRO:O	1:A:204:THR:HG21	2.07	0.55
1:A:115:LEU:HG	1:A:142:CYS:HB3	1.89	0.55
1:A:154:SER:HB3	1:A:162:VAL:HG21	1.88	0.55
1:A:1239:ARG:HH12	1:A:1241:ARG:HH12	1.54	0.55
1:A:1420:ASP:O	1:A:1421:CYS:HB2	2.06	0.55
2:B:258:LEU:HG	2:B:258:LEU:O	2.05	0.55
2:B:531:GLN:HG2	2:B:532:ALA:H	1.69	0.55
2:B:1124:ARG:NH1	15:3:2:G:OP2	2.37	0.55
3:C:174:ALA:O	3:C:175:ALA:HB3	2.07	0.55
4:D:220:LEU:HG	4:D:221:TYR:H	1.71	0.55
8:H:11:GLN:C	8:H:28:ALA:HB1	2.26	0.55
9:I:86:PHE:CE1	9:I:100:PHE:HB2	2.41	0.55
1:M:351:THR:HG21	2:N:1103:ILE:HG13	1.89	0.55
1:M:824:LEU:O	1:M:827:THR:HG22	2.06	0.55
2:N:300:HIS:O	2:N:303:TYR:HE2	1.89	0.55
2:N:378:LEU:O	2:N:382:ILE:HG13	2.06	0.55
3:O:36:VAL:HG21	3:O:251:LEU:HB2	1.89	0.55
3:O:51:VAL:HG22	3:O:155:LEU:CD2	2.35	0.55
4:P:4:SER:O	4:P:5:THR:CB	2.53	0.55
12:X:27:LEU:O	12:X:28:LYS:HB2	2.05	0.55
13:4:15:DG:C2'	13:4:16:DT:H71	2.37	0.55
1:A:903:ASN:HD22	1:A:905:ASP:H	1.48	0.55
1:A:1171:GLN:OE1	1:A:1172:LEU:HG	2.06	0.55
1:A:1191:TRP:CD1	1:A:1256:GLU:HB2	2.42	0.55
2:B:244:LEU:HD11	2:B:366:GLN:HE22	1.70	0.55
2:B:345:LYS:HG2	2:B:346:GLU:N	2.21	0.55
2:B:657:HIS:CE1	2:B:689:LEU:HD11	2.42	0.55
2:B:918:ILE:HG21	2:B:935:ARG:NH2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1001:PHE:CE1	2:B:1073:TYR:HB2	2.40	0.55
1:M:41:MET:HB2	1:M:49:LYS:HA	1.86	0.55
1:M:711:ARG:NH1	9:U:95:THR:HB	2.21	0.55
1:M:858:ASN:ND2	1:M:858:ASN:C	2.54	0.55
1:M:1095:THR:CG2	1:M:1112:LYS:HB2	2.33	0.55
1:M:1111:MET:HE2	1:M:1114:PRO:HA	1.87	0.55
1:M:1454:MET:HG3	1:M:1454:MET:O	2.07	0.55
2:N:174:LEU:HD22	2:N:202:TYR:CE1	2.41	0.55
2:N:308:TRP:HB2	9:U:2:THR:HG22	1.89	0.55
2:N:422:LYS:HA	2:N:425:THR:HB	1.87	0.55
2:N:461:LEU:HD12	2:N:461:LEU:N	2.21	0.55
3:O:75:MET:HB3	3:O:128:ASN:HB3	1.88	0.55
3:O:148:ARG:NH1	10:V:64:ASN:HA	2.22	0.55
4:P:155:ARG:NE	4:P:221:TYR:CE1	2.73	0.55
1:A:28:ARG:HH21	1:A:238:CYS:HB2	1.71	0.55
1:A:699:ALA:HB3	1:A:701:LEU:HG	1.89	0.55
2:B:115:GLN:HG2	2:B:193:LYS:HB2	1.89	0.55
2:B:836:GLU:O	2:B:837:ASP:HB2	2.05	0.55
11:K:12:LEU:HD12	11:K:37:LYS:CG	2.37	0.55
1:M:2:VAL:CG1	2:N:1157:ALA:O	2.54	0.55
1:M:347:PHE:HE2	1:M:375:THR:CG2	2.19	0.55
1:M:512:VAL:O	1:M:512:VAL:HG12	2.07	0.55
1:M:535:THR:O	1:M:575:LYS:HE3	2.05	0.55
1:M:598:LEU:O	1:M:599:SER:C	2.44	0.55
2:N:731:VAL:HG12	2:N:732:SER:N	2.20	0.55
5:Q:192:ARG:HG3	5:Q:192:ARG:NH1	2.22	0.55
9:U:8:ARG:HG3	9:U:34:TYR:CE1	2.42	0.55
11:W:23:PRO:HA	11:W:31:VAL:HG13	1.89	0.55
1:A:60:SER:OG	1:A:61:ILE:N	2.39	0.55
1:A:207:ILE:HG22	1:A:211:PHE:CE2	2.42	0.55
1:A:382:PRO:CA	1:A:428:TYR:HE2	2.20	0.55
1:A:639:PRO:HG2	1:A:640:GLN:NE2	2.22	0.55
1:A:1329:THR:CG2	1:A:1331:SER:H	2.13	0.55
1:A:1444:MET:CG	7:G:60:ARG:HA	2.34	0.55
2:B:165:VAL:HG11	2:B:448:ILE:CD1	2.37	0.55
2:B:860:MET:HG2	2:B:861:ASP:H	1.71	0.55
3:C:73:GLN:HE21	3:C:75:MET:CB	2.19	0.55
8:H:12:VAL:HG13	8:H:26:ILE:HG12	1.87	0.55
8:H:18:GLY:O	8:H:19:ARG:HB2	2.07	0.55
8:H:47:PHE:HB3	8:H:95:TYR:HD1	1.71	0.55
8:H:89:LEU:HB2	8:H:91:ASP:CG	2.26	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:38:LEU:O	12:L:39:SER:HB3	2.06	0.55
1:M:1308:THR:HG21	1:M:1310:GLY:O	2.07	0.55
2:N:364:ILE:CG1	2:N:585:VAL:HG13	2.36	0.55
3:O:22:LEU:HD11	11:W:101:LEU:HD11	1.87	0.55
4:P:56:ARG:HD3	4:P:149:THR:HA	1.89	0.55
1:A:323:LYS:H	1:A:323:LYS:HD2	1.72	0.55
1:A:337:ARG:HD3	2:B:1132:GLU:CD	2.26	0.55
1:A:779:PHE:HE1	1:A:785:PRO:HD3	1.65	0.55
1:A:960:ILE:HA	1:A:963:ILE:HG22	1.88	0.55
1:A:1308:THR:HG21	1:A:1310:GLY:O	2.07	0.55
2:B:66:ASP:OD2	2:B:422:LYS:HG2	2.07	0.55
2:B:579:ARG:HA	2:B:589:VAL:HG13	1.89	0.55
2:B:611:PRO:HB3	2:B:685:LEU:HD11	1.88	0.55
2:B:969:ARG:NH1	3:C:61:GLU:OE1	2.39	0.55
7:G:139:ILE:CG2	7:G:140:LYS:HG3	2.31	0.55
12:L:49:LYS:O	12:L:50:ASP:CB	2.54	0.55
13:1:15:DG:C2'	13:1:16:DT:H71	2.37	0.55
1:M:145:LYS:HA	1:M:145:LYS:CE	2.35	0.55
1:M:836:TYR:CZ	1:M:840:ARG:HD2	2.42	0.55
1:M:1155:ASP:OD2	1:M:1161:THR:HA	2.07	0.55
1:M:1348:LEU:O	1:M:1352:VAL:HG23	2.07	0.55
2:N:770:GLN:OE1	2:N:983:ARG:HA	2.06	0.55
4:P:8:PHE:HD2	7:S:6:ASP:O	1.90	0.55
8:T:11:GLN:C	8:T:28:ALA:HB1	2.26	0.55
1:A:106:VAL:HG12	1:A:107:CYS:N	2.22	0.55
1:A:1313:LEU:HD23	1:A:1338:VAL:HG21	1.88	0.55
2:B:637:LEU:HD11	2:B:703:ILE:HD13	1.89	0.55
2:B:1063:GLY:O	3:C:202:PRO:HG2	2.06	0.55
3:C:114:TYR:CG	3:C:140:ASN:HB3	2.41	0.55
5:E:99:HIS:CE1	5:E:103:LYS:HG3	2.42	0.55
6:F:69:LEU:HB3	6:F:71:GLU:CD	2.27	0.55
7:G:138:THR:CG2	7:G:139:ILE:H	2.19	0.55
9:I:19:ASP:HB3	9:I:24:ARG:HG2	1.88	0.55
9:I:50:THR:HG21	9:I:52:ILE:HG12	1.87	0.55
1:M:7:SER:HB3	2:N:1193:GLN:NE2	2.22	0.55
1:M:1329:THR:HG22	1:M:1335:ILE:HG13	1.88	0.55
1:M:1403:GLU:O	13:4:16:DT:OP1	2.24	0.55
1:M:1438:THR:HB	2:N:1144:ALA:HB3	1.87	0.55
2:N:38:PHE:CD1	2:N:811:TYR:CD2	2.93	0.55
2:N:637:LEU:HD12	2:N:693:ILE:HD12	1.88	0.55
2:N:652:LYS:HB3	2:N:689:LEU:HD23	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1197:PRO:O	2:N:1200:ALA:N	2.37	0.55
3:O:114:TYR:CG	3:O:140:ASN:HB3	2.42	0.55
7:S:34:VAL:HG13	7:S:45:ILE:HD13	1.89	0.55
1:A:555:ASP:O	1:A:556:TRP:C	2.46	0.55
2:B:526:GLU:OE1	2:B:752:ALA:HB3	2.07	0.55
2:B:1162:ILE:HD13	2:B:1194:ILE:HD13	1.88	0.55
4:D:146:GLN:CA	4:D:149:THR:HG22	2.37	0.55
5:E:155:ARG:HG2	5:E:155:ARG:HH11	1.71	0.55
5:E:156:LEU:HA	5:E:160:GLU:OE1	2.07	0.55
7:G:30:LEU:HD22	7:G:72:VAL:HG11	1.89	0.55
10:J:52:THR:HG22	10:J:52:THR:O	2.07	0.55
1:M:850:VAL:HG21	1:M:1058:VAL:HG11	1.88	0.55
1:M:973:ILE:HG22	1:M:973:ILE:O	2.05	0.55
1:M:1263:ILE:O	1:M:1267:MET:HG3	2.07	0.55
2:N:402:GLY:HA2	2:N:695:ALA:HB3	1.88	0.55
3:O:35:ARG:HH12	11:W:41:THR:H	1.55	0.55
5:Q:55:ARG:HA	5:Q:58:MET:HG3	1.88	0.55
5:Q:64:PRO:HB2	5:Q:69:ILE:HD11	1.89	0.55
5:Q:111:VAL:HG12	5:Q:137:GLU:HG2	1.87	0.55
11:W:93:SER:O	11:W:97:LYS:HG3	2.06	0.55
1:A:549:MET:CE	1:A:656:TRP:HD1	2.20	0.54
1:A:556:TRP:CH2	1:A:558:GLY:HA2	2.42	0.54
1:A:1436:ILE:O	1:A:1437:GLY:C	2.45	0.54
2:B:664:THR:HG1	2:B:678:GLU:N	2.04	0.54
5:E:179:GLN:HB2	5:E:182:ASP:HB2	1.89	0.54
7:G:117:GLN:HE22	7:S:154:VAL:HG22	1.69	0.54
8:H:59:ILE:CG2	8:H:60:ALA:N	2.63	0.54
1:M:265:LYS:HE2	1:M:268:ASP:OD2	2.07	0.54
1:M:470:LEU:HD23	1:M:470:LEU:N	2.21	0.54
1:M:475:THR:CG2	1:M:476:SER:N	2.69	0.54
1:M:492:PRO:C	1:M:493:GLN:HE21	2.11	0.54
1:M:503:GLN:HE21	6:R:90:ARG:NH2	1.98	0.54
1:M:1120:LEU:HD22	1:M:1125:ALA:HA	1.89	0.54
1:M:1152:ILE:HD12	1:M:1261:LYS:HE3	1.89	0.54
1:M:1450:LEU:HD11	6:R:108:PHE:HZ	1.71	0.54
2:N:90:ILE:HD12	2:N:432:MET:HE1	1.89	0.54
2:N:185:THR:H	2:N:188:ASP:HB2	1.71	0.54
2:N:273:LEU:CB	2:N:276:ILE:HD12	2.37	0.54
2:N:351:TYR:CE1	2:N:355:ILE:HD11	2.42	0.54
2:N:613:VAL:HG22	2:N:628:THR:HA	1.89	0.54
2:N:640:VAL:O	2:N:640:VAL:HG12	2.05	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:789:MET:HE2	2:N:953:LEU:HD22	1.88	0.54
4:P:207:LEU:O	4:P:207:LEU:HD12	2.06	0.54
9:U:10:CYS:SG	9:U:32:CYS:HB3	2.47	0.54
10:V:52:THR:HG22	10:V:52:THR:O	2.07	0.54
1:A:289:ILE:HG22	1:A:290:GLU:N	2.23	0.54
1:A:353:ILE:HD13	1:A:487:MET:HG3	1.89	0.54
1:A:1116:LEU:HG	1:A:1308:THR:HB	1.89	0.54
1:A:1362:TYR:CD1	1:A:1363:VAL:N	2.75	0.54
2:B:398:ARG:CB	2:B:398:ARG:NH1	2.70	0.54
2:B:848:ARG:HA	3:C:69:LEU:HD21	1.87	0.54
4:D:134:THR:CG2	4:D:135:GLY:N	2.69	0.54
7:G:111:THR:HG22	7:G:114:LEU:HD22	1.88	0.54
12:L:61:THR:HG22	12:L:63:ARG:H	1.72	0.54
1:M:441:PRO:HG3	1:M:498:ARG:HB2	1.89	0.54
1:M:475:THR:HG23	1:M:476:SER:N	2.22	0.54
1:M:1205:LYS:O	1:M:1207:LEU:HG	2.07	0.54
2:N:604:ARG:NH1	2:N:691:GLU:OE2	2.38	0.54
2:N:936:ASP:OD1	2:N:937:ALA:N	2.40	0.54
2:N:1147:LEU:HD22	2:N:1151:LEU:HD22	1.88	0.54
2:N:1167:GLY:HA3	2:N:1216:LEU:H	1.70	0.54
3:O:114:TYR:CD2	3:O:140:ASN:HB3	2.43	0.54
4:P:126:ILE:HD13	4:P:145:MET:HE3	1.89	0.54
5:Q:192:ARG:HG3	5:Q:192:ARG:HH11	1.71	0.54
8:T:15:VAL:HG22	8:T:26:ILE:CG1	2.36	0.54
12:X:26:THR:CG2	12:X:27:LEU:H	2.03	0.54
1:A:385:ILE:HG22	1:A:386:ASP:N	2.21	0.54
11:K:47:ARG:O	11:K:47:ARG:HD2	2.08	0.54
12:L:53:HIS:O	12:L:55:ILE:HD13	2.08	0.54
1:M:41:MET:HB2	1:M:48:ALA:O	2.08	0.54
1:M:1015:VAL:HG12	1:M:1015:VAL:O	2.07	0.54
4:P:193:THR:HG23	4:P:194:LEU:HD23	1.88	0.54
7:S:51:TYR:C	7:S:51:TYR:CD2	2.81	0.54
8:T:58:THR:HG22	8:T:59:ILE:N	2.20	0.54
10:V:9:SER:HB2	10:V:45:CYS:HB2	1.90	0.54
1:A:69:THR:O	1:A:70:CYS:C	2.45	0.54
1:A:351:THR:HG22	2:B:1103:ILE:CA	2.23	0.54
1:A:518:LYS:HE2	1:A:624:SER:O	2.08	0.54
1:A:534:LEU:O	1:A:534:LEU:HG	2.07	0.54
1:A:593:GLU:C	1:A:595:THR:H	2.11	0.54
2:B:34:ILE:HG12	2:B:542:MET:CE	2.37	0.54
4:D:209:ARG:HA	4:D:212:LYS:HE3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:59:VAL:C	9:I:61:ASP:H	2.11	0.54
12:L:66:GLN:HG2	12:L:67:PHE:N	2.22	0.54
1:M:71:GLN:C	1:M:73:GLY:H	2.10	0.54
1:M:153:PRO:HB3	1:M:161:LEU:HD22	1.89	0.54
1:M:289:ILE:HG22	1:M:290:GLU:N	2.23	0.54
1:M:489:LEU:HD12	1:M:490:HIS:N	2.22	0.54
1:M:541:ILE:HG22	1:M:546:VAL:CG2	2.37	0.54
1:M:868:TYR:HD2	1:M:1058:VAL:HG21	1.72	0.54
1:M:1072:ILE:O	1:M:1075:PRO:HG2	2.07	0.54
1:M:1142:THR:O	1:M:1145:SER:OG	2.21	0.54
2:N:114:PRO:HG2	2:N:115:GLN:H	1.73	0.54
2:N:123:THR:HG23	2:N:205:ILE:HA	1.89	0.54
2:N:467:GLY:CA	2:N:475:SER:HB3	2.38	0.54
2:N:766:ARG:NH2	2:N:1020:ARG:HH11	2.03	0.54
2:N:789:MET:HE1	2:N:953:LEU:HD22	1.90	0.54
2:N:950:ASP:HB3	2:N:967:ARG:O	2.08	0.54
7:S:55:ASP:HB3	7:S:73:LYS:HB2	1.89	0.54
12:X:47:ARG:CG	12:X:48:CYS:H	2.20	0.54
1:A:438:ASP:O	1:A:439:ASN:HB2	2.05	0.54
1:A:883:LEU:HD11	1:A:1017:LEU:HD11	1.88	0.54
2:B:797:TYR:O	10:J:1:MET:HG2	2.07	0.54
5:E:79:TRP:HB2	5:E:105:PHE:CE1	2.43	0.54
6:F:110:ASP:O	6:F:123:LYS:HE3	2.07	0.54
7:G:115:MET:HG2	7:G:163:ILE:HD11	1.89	0.54
8:H:76:THR:O	8:H:77:ARG:HB2	2.07	0.54
8:H:130:ARG:HD3	8:H:130:ARG:H	1.70	0.54
10:J:25:LEU:O	10:J:29:GLU:HA	2.08	0.54
12:L:31:CYS:HB2	12:L:48:CYS:SG	2.47	0.54
1:M:549:MET:CE	1:M:656:TRP:HD1	2.21	0.54
1:M:1206:ASP:O	1:M:1274:ARG:NH2	2.40	0.54
1:M:1317:MET:O	1:M:1322:ILE:HD11	2.08	0.54
2:N:129:PHE:HA	2:N:165:VAL:O	2.08	0.54
2:N:315:LYS:N	2:N:316:PRO:HD2	2.23	0.54
2:N:859:TYR:CZ	2:N:941:LEU:HD12	2.43	0.54
4:P:220:LEU:HG	4:P:221:TYR:H	1.73	0.54
5:Q:64:PRO:O	5:Q:69:ILE:HD11	2.07	0.54
5:Q:98:ILE:HG22	5:Q:102:GLU:CG	2.37	0.54
7:S:112:LYS:HB3	7:S:113:HIS:ND1	2.22	0.54
9:U:17:ARG:HH21	9:U:30:ARG:CZ	2.20	0.54
12:X:26:THR:C	12:X:27:LEU:HD23	2.27	0.54
1:A:962:ARG:O	1:A:964:ILE:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1120:LEU:O	1:A:1323:ASP:HB2	2.07	0.54
2:B:211:VAL:HG23	2:B:483:LEU:HB2	1.89	0.54
2:B:866:TYR:CG	2:B:870:ILE:HB	2.42	0.54
2:B:1160:VAL:HG12	2:B:1161:HIS:N	2.23	0.54
3:C:25:VAL:HG12	3:C:26:ASP:N	2.23	0.54
3:C:104:PHE:HE2	3:C:150:GLY:HA2	1.73	0.54
4:D:7:THR:O	4:D:7:THR:HG23	2.08	0.54
6:F:99:LEU:O	6:F:103:MET:HG2	2.08	0.54
11:K:55:LYS:HB2	11:K:81:TYR:CE1	2.43	0.54
1:M:35:ILE:CD1	1:M:241:VAL:HG11	2.37	0.54
1:M:283:GLY:O	1:M:285:PRO:HD3	2.06	0.54
1:M:1121:GLU:HG3	1:M:1122:PRO:HD2	1.90	0.54
2:N:185:THR:O	2:N:188:ASP:HB2	2.07	0.54
2:N:276:ILE:HA	2:N:336:ARG:O	2.07	0.54
2:N:597:MET:HA	2:N:597:MET:HE3	1.88	0.54
5:Q:198:ILE:CD1	5:Q:212:ARG:HG3	2.38	0.54
7:S:129:SER:OG	7:S:130:TYR:N	2.36	0.54
12:X:58:LYS:O	12:X:58:LYS:HG2	2.07	0.54
1:A:34:LYS:HG3	1:A:36:ARG:NH2	2.22	0.54
1:A:105:CYS:SG	1:A:139:TRP:HA	2.48	0.54
1:A:332:LYS:HG2	1:A:333:GLU:HG2	1.90	0.54
5:E:17:ARG:O	5:E:21:GLU:HG3	2.08	0.54
5:E:177:ARG:HB3	5:E:215:MET:HG2	1.90	0.54
8:H:40:LEU:HD11	8:H:142:LEU:CD2	2.38	0.54
8:H:89:LEU:HB2	8:H:91:ASP:OD1	2.08	0.54
11:K:21:ILE:HG23	11:K:31:VAL:HG11	1.89	0.54
1:M:130:ASP:OD2	1:M:133:LYS:HG3	2.08	0.54
1:M:468:PHE:CE2	1:M:489:LEU:HD23	2.43	0.54
1:M:770:VAL:HA	1:M:822:GLU:OE1	2.08	0.54
1:M:779:PHE:HE1	1:M:785:PRO:HD3	1.69	0.54
2:N:616:ILE:HD12	2:N:616:ILE:N	2.21	0.54
2:N:650:GLU:HG3	2:N:654:ARG:HH21	1.73	0.54
2:N:684:LEU:O	2:N:689:LEU:HB2	2.08	0.54
3:O:88:CYS:SG	3:O:91:HIS:HA	2.48	0.54
4:P:50:LEU:HD22	4:P:54:GLU:HG2	1.89	0.54
5:Q:69:ILE:HD12	5:Q:69:ILE:H	1.70	0.54
12:X:38:LEU:O	12:X:39:SER:HB3	2.08	0.54
1:A:115:LEU:CD1	1:A:142:CYS:HB3	2.37	0.54
1:A:535:THR:HG21	1:A:617:VAL:N	2.23	0.54
1:A:598:LEU:O	1:A:599:SER:C	2.46	0.54
1:A:973:ILE:HD11	1:A:1041:ALA:CB	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:979:SER:OG	1:A:980:ASP:N	2.39	0.54
1:A:981:LEU:CD2	1:A:1039:LYS:HA	2.33	0.54
1:A:1155:ASP:OD2	1:A:1161:THR:HA	2.07	0.54
2:B:47:GLN:O	2:B:173:MET:HE1	2.07	0.54
3:C:148:ARG:NH1	10:J:64:ASN:HA	2.22	0.54
5:E:124:VAL:CG1	5:E:132:ILE:HB	2.21	0.54
9:I:55:THR:HG23	9:I:100:PHE:HD2	1.72	0.54
10:J:1:MET:H1	10:J:57:ILE:N	2.05	0.54
10:J:9:SER:HB2	10:J:45:CYS:HB2	1.90	0.54
1:M:95:PHE:O	1:M:96:ILE:C	2.45	0.54
1:M:335:ARG:NH1	2:N:1206:GLU:CD	2.61	0.54
1:M:555:ASP:O	1:M:556:TRP:C	2.46	0.54
1:M:556:TRP:CH2	1:M:558:GLY:HA2	2.43	0.54
1:M:565:ILE:HG23	1:M:567:LYS:CG	2.38	0.54
1:M:710:LEU:H	1:M:710:LEU:CD1	2.18	0.54
1:M:1445:ILE:H	1:M:1445:ILE:HD12	1.73	0.54
2:N:114:PRO:CG	2:N:181:LEU:HD11	2.25	0.54
2:N:205:ILE:N	2:N:205:ILE:CD1	2.71	0.54
2:N:526:GLU:OE1	2:N:752:ALA:HB3	2.08	0.54
3:O:67:LEU:HD11	3:O:155:LEU:HD13	1.89	0.54
4:P:220:LEU:HD23	4:P:221:TYR:C	2.28	0.54
1:A:381:THR:HG22	1:A:383:TYR:H	1.73	0.54
1:A:512:VAL:O	1:A:512:VAL:HG12	2.07	0.54
1:A:1421:CYS:HA	1:A:1426:GLU:HG3	1.89	0.54
2:B:33:VAL:HG21	2:B:638:PHE:HZ	1.71	0.54
2:B:955:THR:HG1	12:L:55:ILE:HA	1.72	0.54
3:C:44:LEU:HD21	3:C:159:ALA:CB	2.38	0.54
9:I:8:ARG:HG3	9:I:34:TYR:HE1	1.71	0.54
9:I:73:ARG:HH12	9:I:112:SER:HB3	1.72	0.54
1:M:385:ILE:CD1	1:M:426:LEU:HB2	2.37	0.54
1:M:610:GLY:O	1:M:611:GLN:NE2	2.41	0.54
1:M:1011:GLN:NE2	1:M:1015:VAL:CG2	2.71	0.54
2:N:531:GLN:CG	2:N:532:ALA:H	2.20	0.54
2:N:995:ARG:HB3	2:N:997:GLU:OE2	2.07	0.54
3:O:56:THR:HG22	3:O:57:VAL:N	2.21	0.54
6:R:119:ARG:HH11	6:R:119:ARG:HG3	1.73	0.54
12:X:43:THR:O	12:X:43:THR:HG22	2.08	0.54
2:B:642:ASP:HA	2:B:649:LYS:HG3	1.90	0.54
2:B:898:LEU:HD13	2:B:952:VAL:CG1	2.38	0.54
3:C:148:ARG:HD3	3:C:149:LYS:HG3	1.89	0.54
5:E:144:ILE:HG13	5:E:145:THR:H	1.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:23:ASN:C	10:J:25:LEU:N	2.60	0.54
12:L:55:ILE:HD13	12:L:55:ILE:N	2.15	0.54
1:M:438:ASP:O	1:M:439:ASN:HB2	2.07	0.54
1:M:565:ILE:HG21	1:M:567:LYS:HE2	1.90	0.54
1:M:697:ALA:HA	1:M:702:LEU:HG	1.90	0.54
1:M:963:ILE:HD11	1:M:1048:ASN:HB2	1.89	0.54
2:N:167:ILE:HG21	2:N:424:LEU:CD2	2.38	0.54
2:N:805:THR:HG23	2:N:809:MET:SD	2.48	0.54
2:N:999:MET:HA	2:N:999:MET:CE	2.38	0.54
3:O:35:ARG:NH1	11:W:41:THR:H	2.06	0.54
3:O:66:ARG:NH2	10:V:5:VAL:HG23	2.23	0.54
4:P:56:ARG:NH2	4:P:155:ARG:HG2	2.21	0.54
11:W:51:LEU:HD13	11:W:59:ALA:HB3	1.90	0.54
1:A:129:LYS:O	1:A:130:ASP:HB2	2.08	0.53
1:A:838:GLN:O	1:A:842:VAL:HG23	2.08	0.53
2:B:859:TYR:CZ	2:B:941:LEU:HD12	2.43	0.53
8:H:4:THR:HG22	8:H:5:LEU:N	2.23	0.53
8:H:15:VAL:HG21	8:H:49:VAL:O	2.07	0.53
12:L:29:TYR:O	12:L:30:ILE:HG13	2.08	0.53
1:M:281:HIS:C	1:M:282:ASN:HD22	2.11	0.53
1:M:537:ARG:NH1	8:T:120:GLY:O	2.41	0.53
1:M:920:LEU:HD23	1:M:921:GLY:N	2.23	0.53
1:M:1141:THR:OG1	1:M:1205:LYS:HD3	2.08	0.53
1:M:1313:LEU:O	1:M:1315:GLU:N	2.41	0.53
2:N:398:ARG:CB	2:N:398:ARG:NH1	2.71	0.53
2:N:642:ASP:HB3	2:N:649:LYS:CD	2.38	0.53
2:N:661:LEU:HD11	2:N:684:LEU:HD11	1.90	0.53
2:N:1115:THR:HG22	2:N:1117:GLN:HG3	1.90	0.53
4:P:35:LEU:N	4:P:35:LEU:CD1	2.70	0.53
1:A:567:LYS:HZ1	8:H:46:LEU:HB2	1.73	0.53
1:A:597:LEU:HD12	1:A:597:LEU:N	2.23	0.53
1:A:714:PHE:O	1:A:718:VAL:HG23	2.08	0.53
2:B:308:TRP:HB2	9:I:2:THR:HG22	1.89	0.53
2:B:1004:GLU:OE1	10:J:42:LYS:HE2	2.08	0.53
3:C:97:VAL:HG21	3:C:129:ILE:HG23	1.91	0.53
4:D:29:LEU:H	4:D:29:LEU:CD2	2.22	0.53
6:F:103:MET:HE2	7:G:66:GLY:N	2.21	0.53
7:G:1:MET:C	7:G:1:MET:HE2	2.29	0.53
7:G:106:MET:HG2	7:G:107:LYS:N	2.23	0.53
1:M:381:THR:CG2	1:M:382:PRO:HD2	2.38	0.53
1:M:598:LEU:HA	8:T:122:LEU:HD13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1215:ARG:NH1	1:M:1272:THR:O	2.40	0.53
1:M:1450:LEU:HG	1:M:1450:LEU:O	2.08	0.53
2:N:273:LEU:O	2:N:276:ILE:HB	2.08	0.53
2:N:473:MET:CE	2:N:474:SER:HA	2.38	0.53
2:N:809:MET:O	2:N:812:LEU:N	2.40	0.53
2:N:1177:HIS:HB3	2:N:1179:GLN:HE21	1.73	0.53
3:O:184:ASN:ND2	3:O:189:THR:HB	2.22	0.53
6:R:103:MET:HE1	7:S:66:GLY:H	1.71	0.53
8:T:76:THR:O	8:T:77:ARG:HB2	2.07	0.53
1:A:573:SER:O	1:A:576:GLN:HB2	2.07	0.53
1:A:687:LYS:HE2	1:A:795:GLU:OE2	2.09	0.53
1:A:907:THR:CG2	1:A:908:LEU:N	2.71	0.53
2:B:705:MET:HA	2:B:705:MET:CE	2.38	0.53
2:B:809:MET:O	2:B:812:LEU:N	2.40	0.53
2:B:885:MET:HA	2:B:936:ASP:HB2	1.91	0.53
2:B:1004:GLU:HG3	10:J:42:LYS:HZ3	1.71	0.53
4:D:4:SER:O	4:D:5:THR:CB	2.55	0.53
5:E:79:TRP:HE1	5:E:81:GLU:HB2	1.73	0.53
5:E:180:ARG:HB2	5:E:215:MET:OXT	2.07	0.53
7:G:102:GLN:HG3	7:G:106:MET:O	2.09	0.53
9:I:74:GLU:HB3	9:I:81:ARG:HD2	1.89	0.53
10:J:48:ARG:HG2	10:J:48:ARG:NH1	2.23	0.53
11:K:107:THR:O	11:K:111:LEU:HG	2.09	0.53
1:M:41:MET:O	1:M:42:ASP:C	2.46	0.53
1:M:337:ARG:CD	2:N:1132:GLU:OE1	2.56	0.53
1:M:1412:ALA:HA	1:M:1417:GLU:OE2	2.09	0.53
2:N:66:ASP:OD2	2:N:422:LYS:HG2	2.08	0.53
2:N:640:VAL:O	2:N:641:GLU:C	2.46	0.53
4:P:146:GLN:O	4:P:147:TYR:C	2.46	0.53
8:T:38:LEU:HD12	8:T:39:THR:N	2.24	0.53
12:X:66:GLN:HG2	12:X:67:PHE:N	2.23	0.53
13:4:25:DG:H2"	13:4:26:DT:H73	1.90	0.53
13:4:25:DG:C2'	13:4:26:DT:H72	2.38	0.53
1:A:353:ILE:HD13	1:A:487:MET:CG	2.39	0.53
1:A:370:ILE:CG2	1:A:374:LEU:HD12	2.38	0.53
1:A:493:GLN:N	1:A:493:GLN:HE21	2.06	0.53
1:A:567:LYS:HZ1	8:H:43:ASN:HB3	1.73	0.53
8:H:58:THR:HG22	8:H:59:ILE:N	2.21	0.53
1:M:756:ILE:O	1:M:759:ALA:HB3	2.08	0.53
1:M:853:ASP:O	1:M:854:ASN:HB2	2.07	0.53
2:N:190:TYR:CZ	2:N:196:PRO:HG3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:277:LYS:HG3	2:N:336:ARG:HG2	1.90	0.53
2:N:313:MET:CE	2:N:390:LEU:HD11	2.38	0.53
2:N:393:LYS:HA	2:N:393:LYS:CE	2.35	0.53
2:N:1001:PHE:CZ	2:N:1073:TYR:HB2	2.43	0.53
6:R:101:ILE:HD13	6:R:120:ILE:CG2	2.39	0.53
8:T:130:ARG:HD3	8:T:130:ARG:H	1.72	0.53
9:U:106:CYS:O	9:U:107:SER:HB2	2.09	0.53
10:V:14:VAL:O	10:V:14:VAL:CG1	2.56	0.53
10:V:53:HIS:HD2	10:V:54:VAL:H	1.55	0.53
1:A:697:ALA:CB	1:A:702:LEU:HD11	2.36	0.53
1:A:1141:THR:HA	1:A:1205:LYS:NZ	2.24	0.53
2:B:39:ARG:HG2	2:B:39:ARG:HH11	1.73	0.53
3:C:104:PHE:HD2	3:C:105:GLY:N	2.06	0.53
7:G:53:ASN:N	7:G:53:ASN:ND2	2.55	0.53
9:I:50:THR:CG2	9:I:51:ASN:H	2.16	0.53
10:J:27:GLU:C	10:J:29:GLU:H	2.12	0.53
1:M:108:MET:CE	1:M:210:ILE:HD12	2.38	0.53
1:M:720:ARG:O	1:M:720:ARG:HG2	2.08	0.53
2:N:398:ARG:NH1	2:N:398:ARG:HB2	2.24	0.53
8:T:15:VAL:HG21	8:T:49:VAL:O	2.08	0.53
1:A:347:PHE:HE2	1:A:375:THR:HG22	1.73	0.53
1:A:597:LEU:HD23	8:H:103:LYS:HD2	1.89	0.53
1:A:679:ILE:HG23	1:A:729:ALA:HB1	1.90	0.53
1:A:868:TYR:CE1	1:A:1064:VAL:CG1	2.92	0.53
1:A:961:ARG:HG2	1:A:965:GLN:NE2	2.24	0.53
1:A:1025:ARG:HG3	1:A:1025:ARG:HH11	1.72	0.53
1:A:1277:GLU:C	1:A:1279:ILE:H	2.12	0.53
2:B:766:ARG:HH21	2:B:1020:ARG:CD	2.19	0.53
3:C:22:LEU:HD22	3:C:230:MET:CE	2.37	0.53
7:G:139:ILE:HG23	7:G:140:LYS:H	1.72	0.53
10:J:30:LEU:HD21	10:J:38:ARG:HH12	1.74	0.53
1:M:35:ILE:HD13	1:M:241:VAL:HG11	1.89	0.53
1:M:198:GLU:O	1:M:198:GLU:HG2	2.07	0.53
1:M:399:HIS:O	1:M:400:PRO:C	2.41	0.53
1:M:913:LEU:HD13	1:M:981:LEU:O	2.09	0.53
1:M:1148:ILE:HD11	1:M:1198:ASP:HA	1.89	0.53
2:N:53:GLN:HG2	2:N:547:VAL:HG22	1.90	0.53
2:N:90:ILE:CD1	2:N:432:MET:SD	2.96	0.53
2:N:696:GLU:O	2:N:699:GLU:HB2	2.09	0.53
2:N:1065:GLN:NE2	2:N:1066:SER:N	2.56	0.53
2:N:1161:HIS:NE2	2:N:1175:LEU:HD21	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:252:PHE:HB2	1:A:256:GLN:CD	2.28	0.53
1:A:901:LEU:H	1:A:926:GLN:CD	2.12	0.53
2:B:427:ASP:HA	2:B:430:ARG:HG3	1.90	0.53
3:C:172:PRO:O	3:C:235:VAL:HG23	2.09	0.53
3:C:193:TYR:C	3:C:193:TYR:CD1	2.81	0.53
3:C:221:TYR:CD2	8:H:46:LEU:HD22	2.44	0.53
6:F:108:PHE:O	6:F:129:LYS:HD3	2.07	0.53
1:M:69:THR:O	1:M:70:CYS:C	2.47	0.53
1:M:186:LYS:NZ	1:M:197:PRO:HD3	2.23	0.53
1:M:323:LYS:HD2	1:M:323:LYS:N	2.23	0.53
1:M:518:LYS:HB2	1:M:519:PRO:HD2	1.91	0.53
1:M:541:ILE:CD1	1:M:549:MET:HE1	2.30	0.53
1:M:1107:VAL:O	1:M:1107:VAL:HG12	2.08	0.53
2:N:798:TYR:HE2	3:O:62:PHE:CE2	2.27	0.53
2:N:1110:PRO:HB2	2:N:1119:VAL:HG11	1.91	0.53
3:O:44:LEU:CD2	3:O:159:ALA:HB1	2.39	0.53
3:O:252:GLN:HE21	11:W:95:ILE:HG22	1.74	0.53
3:O:252:GLN:CG	11:W:95:ILE:HG23	2.35	0.53
4:P:190:GLU:O	4:P:193:THR:HG22	2.09	0.53
10:V:23:ASN:C	10:V:25:LEU:N	2.61	0.53
10:V:51:LEU:HD12	10:V:51:LEU:O	2.09	0.53
1:A:675:THR:HG21	1:A:736:ASN:HB2	1.90	0.53
2:B:100:PRO:HD2	2:B:180:TYR:CE1	2.43	0.53
2:B:171:PRO:HD2	2:B:457:LEU:CD1	2.39	0.53
3:C:181:ASP:OD1	3:C:186:LEU:HD13	2.09	0.53
3:C:251:LEU:O	3:C:255:VAL:HG23	2.08	0.53
7:G:35:GLU:CG	7:G:48:VAL:HG23	2.38	0.53
7:G:126:ASN:HD22	7:G:126:ASN:C	2.12	0.53
1:M:310:GLY:O	1:M:312:PRO:CD	2.56	0.53
1:M:493:GLN:HE21	1:M:493:GLN:N	2.06	0.53
1:M:967:ALA:HA	1:M:1044:TRP:CZ3	2.43	0.53
2:N:801:LYS:O	10:V:52:THR:HG23	2.09	0.53
2:N:807:ARG:HD3	2:N:1043:ASP:OD1	2.09	0.53
2:N:878:GLN:HB2	2:N:879:ARG:NH1	2.24	0.53
2:N:887:HIS:N	2:N:887:HIS:CD2	2.75	0.53
2:N:1004:GLU:HG3	10:V:42:LYS:NZ	2.24	0.53
4:P:12:ARG:HD3	4:P:14:ARG:HG2	1.90	0.53
9:U:34:TYR:HD2	9:U:35:VAL:N	2.05	0.53
1:A:186:LYS:NZ	1:A:197:PRO:HD3	2.24	0.53
1:A:326:ARG:HG3	1:A:1406:VAL:HG21	1.91	0.53
1:A:1394:THR:HG21	1:A:1398:MET:SD	2.49	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:37:PHE:HE2	2:B:542:MET:HA	1.74	0.53
2:B:288:ALA:CB	2:B:331:LEU:HD12	2.32	0.53
2:B:552:MET:HA	2:B:552:MET:HE2	1.91	0.53
2:B:640:VAL:O	2:B:641:GLU:C	2.46	0.53
2:B:806:THR:HG21	2:B:808:ALA:HB3	1.91	0.53
2:B:860:MET:HG2	2:B:861:ASP:N	2.24	0.53
3:C:67:LEU:HA	3:C:70:ILE:HD12	1.91	0.53
3:C:133:ILE:HD12	3:C:237:SER:N	2.24	0.53
3:C:245:VAL:HG13	11:K:102:LYS:HG3	1.91	0.53
9:I:16:PRO:HB3	9:I:27:PHE:CE2	2.44	0.53
10:J:3:VAL:HG21	10:J:18:TRP:CG	2.44	0.53
15:3:5:C:H2'	15:3:6:A:C8	2.42	0.53
1:M:62:ASP:O	1:M:64:ASN:N	2.41	0.53
1:M:524:VAL:HG12	1:M:525:GLN:N	2.22	0.53
2:N:225:VAL:HA	2:N:237:VAL:O	2.08	0.53
2:N:878:GLN:O	2:N:879:ARG:C	2.47	0.53
3:O:45:ALA:HA	3:O:72:LEU:HD12	1.89	0.53
4:P:150:ASN:HB2	4:P:151:PHE:CD1	2.44	0.53
1:A:1403:GLU:O	13:1:16:DT:OP1	2.27	0.53
2:B:269:ILE:HD11	2:B:386:LEU:HD21	1.90	0.53
2:B:291:ILE:HD13	2:B:300:HIS:NE2	2.24	0.53
3:C:166:GLU:HG3	11:K:10:PHE:HZ	1.74	0.53
4:D:155:ARG:HH21	4:D:221:TYR:HD1	1.56	0.53
1:M:313:GLN:O	1:M:314:ALA:C	2.47	0.53
1:M:598:LEU:CD1	8:T:124:ARG:HB2	2.40	0.53
1:M:608:ILE:HG13	1:M:613:ILE:HD12	1.91	0.53
1:M:709:THR:CG2	1:M:710:LEU:N	2.72	0.53
1:M:1018:PHE:O	1:M:1021:LEU:HB3	2.08	0.53
1:M:1139:GLU:HG2	1:M:1139:GLU:O	2.07	0.53
2:N:763:GLN:HG2	2:N:765:PRO:CD	2.34	0.53
3:O:10:ILE:HG22	3:O:11:ARG:O	2.09	0.53
5:Q:112:TYR:OH	5:Q:136:ASN:HB2	2.09	0.53
1:A:1254:ALA:O	1:A:1255:GLU:CB	2.57	0.52
1:A:1345:ARG:HG2	1:A:1372:VAL:HG12	1.91	0.52
1:A:1349:TYR:C	1:A:1349:TYR:CD2	2.82	0.52
2:B:90:ILE:CD1	2:B:432:MET:SD	2.97	0.52
2:B:309:GLN:CD	9:I:52:ILE:HD11	2.30	0.52
2:B:594:ALA:HA	2:B:617:ARG:NH1	2.24	0.52
2:B:1190:ASP:C	2:B:1191:ILE:HG13	2.30	0.52
3:C:51:VAL:HG22	3:C:155:LEU:CD2	2.37	0.52
7:G:7:LEU:HD13	7:G:45:ILE:HD11	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:253:ASN:ND2	2:N:935:ARG:HB2	2.24	0.52
1:M:316:GLN:HE21	1:M:317:LYS:CE	2.17	0.52
1:M:982:THR:HB	1:M:985:ASP:H	1.72	0.52
1:M:1259:MET:HE3	1:M:1259:MET:O	2.10	0.52
2:N:620:ARG:HH12	9:U:68:LEU:HD21	1.73	0.52
2:N:680:THR:OG1	2:N:681:TRP:N	2.40	0.52
2:N:803:LEU:HD13	2:N:1032:SER:O	2.09	0.52
2:N:811:TYR:HD1	2:N:811:TYR:H	1.57	0.52
6:R:100:GLN:NE2	7:S:61:ILE:HD13	2.24	0.52
8:T:84:ALA:C	8:T:86:ASP:N	2.61	0.52
9:U:69:PRO:HB2	9:U:85:PHE:CZ	2.44	0.52
1:A:7:SER:OG	2:B:1161:HIS:CE1	2.62	0.52
1:A:62:ASP:O	1:A:64:ASN:N	2.42	0.52
1:A:537:ARG:NH1	8:H:120:GLY:O	2.42	0.52
1:A:946:VAL:HG12	1:A:947:PHE:CD2	2.44	0.52
1:A:1114:PRO:O	1:A:1311:VAL:HG23	2.09	0.52
1:A:1433:MET:CE	7:G:63:PRO:HB2	2.40	0.52
2:B:193:LYS:NZ	12:L:32:ALA:HB1	2.24	0.52
2:B:427:ASP:HA	2:B:430:ARG:CD	2.39	0.52
3:C:67:LEU:HD11	3:C:155:LEU:HD13	1.91	0.52
8:H:40:LEU:HD12	8:H:123:MET:HG3	1.91	0.52
8:H:135:LEU:HB2	8:H:137:GLN:HE21	1.75	0.52
1:M:523:ILE:HG12	1:M:622:VAL:HG22	1.90	0.52
1:M:556:TRP:CZ2	1:M:558:GLY:HA2	2.44	0.52
1:M:670:ILE:HG23	1:M:805:LEU:HD21	1.91	0.52
2:N:216:GLU:HA	2:N:406:LEU:HD23	1.92	0.52
2:N:546:SER:OG	2:N:631:GLY:N	2.43	0.52
2:N:733:HIS:O	2:N:735:ALA:N	2.41	0.52
3:O:179:GLU:HG2	3:O:180:TYR:H	1.74	0.52
3:O:242:GLN:OE1	3:O:242:GLN:HA	2.08	0.52
4:P:146:GLN:HA	4:P:149:THR:HG22	1.91	0.52
5:Q:156:LEU:HA	5:Q:160:GLU:OE1	2.09	0.52
1:A:1015:VAL:CG1	1:A:1019:CYS:SG	2.97	0.52
2:B:225:VAL:HA	2:B:237:VAL:O	2.09	0.52
2:B:235:SER:OG	2:B:236:HIS:CD2	2.63	0.52
2:B:498:THR:HG22	2:B:537:LYS:H	1.75	0.52
2:B:618:ASP:O	2:B:622:LYS:N	2.42	0.52
2:B:1073:TYR:CE2	2:B:1080:LYS:HG2	2.44	0.52
5:E:178:ILE:HG22	5:E:213:ILE:O	2.09	0.52
6:F:74:ILE:HD12	6:F:144:GLU:HG2	1.90	0.52
8:H:95:TYR:HE2	8:H:97:MET:CG	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:929:LEU:HD21	1:M:983:ILE:CG2	2.40	0.52
1:M:1209:MET:CE	1:M:1236:LEU:HB3	2.38	0.52
2:N:479:VAL:O	2:N:480:SER:HB3	2.08	0.52
2:N:954:VAL:O	12:X:55:ILE:O	2.26	0.52
2:N:1056:SER:HB3	2:N:1066:SER:OG	2.09	0.52
7:S:21:ARG:HD2	7:S:24:GLN:HB3	1.89	0.52
7:S:45:ILE:O	7:S:45:ILE:HG22	2.10	0.52
11:W:21:ILE:HG22	11:W:31:VAL:HG11	1.92	0.52
1:A:993:LEU:HD22	1:A:1046:LEU:HD22	1.91	0.52
1:A:1148:ILE:HG12	1:A:1198:ASP:HB2	1.90	0.52
2:B:278:GLN:HG2	2:B:279:ASP:N	2.22	0.52
2:B:875:GLU:O	2:B:877:PRO:HD3	2.09	0.52
2:B:1079:LYS:HA	3:C:27:LEU:HD21	1.90	0.52
2:B:1187:ASN:OD1	2:B:1188:LYS:N	2.42	0.52
7:G:1:MET:CE	7:G:80:LYS:H	2.22	0.52
7:G:13:LEU:HD21	7:G:17:PHE:CB	2.39	0.52
7:G:88:ASP:HB3	7:G:144:ARG:HA	1.91	0.52
1:M:347:PHE:HE2	1:M:375:THR:HG23	1.74	0.52
1:M:794:PRO:C	1:M:796:SER:H	2.12	0.52
2:N:95:ILE:HG13	2:N:130:VAL:HG22	1.91	0.52
2:N:167:ILE:N	2:N:167:ILE:HD12	2.24	0.52
4:P:27:LEU:HG	4:P:197:SER:HB3	1.90	0.52
5:Q:30:ILE:HG23	5:Q:34:GLU:HG2	1.91	0.52
5:Q:114:ASN:O	5:Q:115:ASN:CB	2.47	0.52
7:S:27:LYS:O	7:S:31:LEU:HG	2.09	0.52
1:A:208:LEU:HD21	1:A:212:LYS:HE3	1.90	0.52
1:A:335:ARG:NH1	2:B:1202:LEU:HD13	2.24	0.52
1:A:497:THR:HG23	2:B:1146:PHE:HD1	1.75	0.52
1:A:549:MET:SD	1:A:577:ILE:HD12	2.49	0.52
1:A:852:TYR:CE1	6:F:136:ARG:HG2	2.45	0.52
2:B:733:HIS:O	2:B:735:ALA:N	2.42	0.52
11:K:51:LEU:HD13	11:K:59:ALA:HB3	1.92	0.52
12:L:58:LYS:O	12:L:58:LYS:HG2	2.10	0.52
1:M:470:LEU:N	1:M:470:LEU:CD2	2.73	0.52
2:N:418:LYS:HE2	2:N:422:LYS:HZ1	1.74	0.52
2:N:521:LEU:HB3	2:N:633:VAL:HG11	1.91	0.52
2:N:801:LYS:O	10:V:52:THR:CG2	2.58	0.52
3:O:18:VAL:HG23	3:O:240:VAL:HB	1.90	0.52
3:O:193:TYR:CD1	3:O:193:TYR:C	2.82	0.52
1:A:964:ILE:O	1:A:967:ALA:HB3	2.09	0.52
1:A:1141:THR:OG1	1:A:1205:LYS:HD3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:95:ILE:HG13	2:B:130:VAL:CG2	2.39	0.52
2:B:203:PHE:N	2:B:203:PHE:CD1	2.78	0.52
2:B:519:TRP:C	2:B:519:TRP:CD1	2.83	0.52
2:B:616:ILE:HD12	2:B:625:LYS:O	2.10	0.52
2:B:684:LEU:O	2:B:689:LEU:HB2	2.10	0.52
2:B:916:THR:HB	2:B:935:ARG:CG	2.38	0.52
8:H:106:GLU:HA	8:H:112:ILE:HD12	1.92	0.52
1:M:458:HIS:NE2	1:M:478:TYR:OH	2.33	0.52
1:M:1081:LEU:CD1	1:M:1097:GLY:HA3	2.36	0.52
2:N:63:ILE:HD12	2:N:421:PHE:CE2	2.45	0.52
2:N:473:MET:HE1	2:N:474:SER:HA	1.92	0.52
2:N:527:THR:OG1	2:N:528:PRO:HD2	2.10	0.52
2:N:911:ILE:HG22	2:N:966:VAL:HG21	1.92	0.52
4:P:14:ARG:NH1	4:P:14:ARG:CB	2.72	0.52
5:Q:121:MET:C	5:Q:123:LEU:H	2.12	0.52
11:W:55:LYS:HB2	11:W:81:TYR:CD1	2.45	0.52
1:A:317:LYS:O	1:A:318:SER:HB3	2.10	0.52
1:A:567:LYS:HB3	8:H:95:TYR:HA	1.90	0.52
2:B:398:ARG:HH11	2:B:398:ARG:HB3	1.74	0.52
2:B:486:TYR:CD2	2:B:486:TYR:N	2.76	0.52
2:B:758:PHE:CE1	2:B:1027:ILE:CG2	2.93	0.52
2:B:837:ASP:OD2	2:B:1020:ARG:NH2	2.43	0.52
2:B:1084:GLN:NE2	2:B:1084:GLN:H	2.07	0.52
9:I:50:THR:HG22	9:I:52:ILE:N	2.24	0.52
1:M:57:ARG:O	1:M:68:GLN:HG2	2.09	0.52
1:M:72:GLU:HB3	1:M:76:GLU:HG2	1.91	0.52
1:M:503:GLN:NE2	6:R:90:ARG:NH2	2.53	0.52
1:M:710:LEU:HD12	1:M:710:LEU:N	2.21	0.52
1:M:820:GLY:O	1:M:822:GLU:N	2.43	0.52
2:N:102:VAL:CG2	2:N:112:LEU:HD13	2.39	0.52
2:N:273:LEU:CD2	2:N:360:PHE:HD1	2.22	0.52
2:N:579:ARG:HG2	2:N:579:ARG:NH1	2.23	0.52
2:N:686:ASN:C	2:N:688:GLY:H	2.13	0.52
2:N:1177:HIS:CB	2:N:1179:GLN:NE2	2.73	0.52
5:Q:190:LEU:C	5:Q:191:LYS:HG2	2.30	0.52
6:R:82:THR:HG22	6:R:84:TYR:N	2.15	0.52
7:S:49:LEU:HD11	7:S:77:VAL:HG23	1.91	0.52
9:U:19:ASP:CB	9:U:24:ARG:HG2	2.38	0.52
13:4:16:DT:H5'	13:4:16:DT:C6	2.37	0.52
15:6:5:C:H2'	15:6:6:A:H8	1.75	0.52
1:A:34:LYS:HZ2	1:A:57:ARG:HH22	1.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:MET:O	1:A:50:ILE:HG13	2.10	0.52
1:A:265:LYS:HA	1:A:265:LYS:CE	2.39	0.52
1:A:399:HIS:CB	1:A:400:PRO:CD	2.87	0.52
1:A:870:GLU:HB2	5:E:204:THR:HG21	1.91	0.52
1:A:1120:LEU:CD2	1:A:1125:ALA:HA	2.40	0.52
1:A:1225:PHE:HE2	1:A:1227:ILE:HD11	1.73	0.52
2:B:39:ARG:HG2	2:B:39:ARG:NH1	2.25	0.52
2:B:526:GLU:HG3	2:B:771:SER:HB3	1.90	0.52
2:B:601:ARG:HD3	2:B:605:ARG:CZ	2.40	0.52
2:B:801:LYS:O	10:J:52:THR:CG2	2.58	0.52
4:D:120:GLU:OE1	4:D:120:GLU:O	2.27	0.52
6:F:97:ARG:HD3	6:F:130:ILE:HG23	1.92	0.52
13:1:23:BRU:H6	13:1:23:BRU:C5'	2.35	0.52
13:1:25:DG:C2'	13:1:26:DT:H72	2.39	0.52
1:M:107:CYS:HB2	1:M:114:LEU:HD21	1.92	0.52
1:M:117:GLU:HA	1:M:123:ARG:HG3	1.90	0.52
1:M:682:THR:HG23	1:M:728:LYS:HE3	1.90	0.52
1:M:1149:ALA:CB	9:U:47:GLU:HA	2.40	0.52
1:M:1237:ILE:HG22	1:M:1238:ILE:N	2.23	0.52
1:M:1437:GLY:O	1:M:1439:GLY:N	2.43	0.52
2:N:357:GLN:CD	2:N:368:GLU:HA	2.30	0.52
2:N:466:TRP:CE3	2:N:466:TRP:HA	2.44	0.52
2:N:552:MET:HA	2:N:552:MET:HE3	1.91	0.52
3:O:35:ARG:NH1	11:W:41:THR:OG1	2.43	0.52
4:P:5:THR:HG23	4:P:5:THR:O	2.09	0.52
4:P:193:THR:CG2	4:P:194:LEU:N	2.72	0.52
5:Q:112:TYR:CE1	5:Q:136:ASN:HA	2.45	0.52
5:Q:195:VAL:HG22	5:Q:213:ILE:HG13	1.91	0.52
7:S:139:ILE:HG12	7:S:140:LYS:CG	2.40	0.52
8:T:4:THR:HG22	8:T:6:PHE:H	1.74	0.52
1:A:873:MET:C	1:A:1058:VAL:HG23	2.30	0.52
2:B:98:THR:O	2:B:126:SER:HB2	2.09	0.52
2:B:126:SER:HB3	2:B:172:ILE:HD11	1.92	0.52
2:B:638:PHE:CD2	2:B:690:VAL:HG12	2.44	0.52
2:B:707:PRO:HG2	2:B:708:GLU:N	2.23	0.52
2:B:807:ARG:NH1	2:B:807:ARG:HB3	2.24	0.52
2:B:911:ILE:HG22	2:B:966:VAL:HG21	1.90	0.52
3:C:66:ARG:CZ	10:J:2:ILE:HG21	2.40	0.52
3:C:70:ILE:HD11	3:C:144:ILE:HG12	1.92	0.52
6:F:101:ILE:HD13	6:F:120:ILE:HG22	1.90	0.52
7:G:153:GLN:HG2	7:G:154:VAL:HG23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:11:GLN:O	8:H:28:ALA:HB1	2.10	0.52
8:H:44:VAL:CG1	8:H:48:PRO:HA	2.40	0.52
8:H:59:ILE:O	8:H:60:ALA:HB3	2.10	0.52
13:1:23:BRU:H2"	13:1:24:DG:O5'	2.09	0.52
1:M:148:CYS:HB3	1:M:167:CYS:O	2.09	0.52
1:M:1202:MET:CE	1:M:1212:VAL:HG21	2.40	0.52
1:M:1299:VAL:HG12	1:M:1300:LYS:N	2.25	0.52
1:M:1315:GLU:C	1:M:1317:MET:H	2.13	0.52
2:N:707:PRO:O	2:N:708:GLU:O	2.27	0.52
3:O:112:ASN:HB3	3:O:114:TYR:CE1	2.45	0.52
4:P:185:CYS:SG	4:P:191:ALA:HA	2.50	0.52
8:T:11:GLN:O	8:T:28:ALA:HB1	2.09	0.52
8:T:26:ILE:HD12	8:T:42:ILE:HD13	1.92	0.52
9:U:17:ARG:HG2	9:U:28:GLU:HG2	1.92	0.52
9:U:111:THR:CG2	9:U:113:ASP:HB2	2.39	0.52
10:V:30:LEU:HD22	10:V:34:THR:HB	1.92	0.52
1:A:41:MET:O	1:A:42:ASP:C	2.48	0.52
1:A:390:GLN:O	1:A:394:ASN:HB2	2.10	0.52
1:A:826:ASP:O	1:A:830:LYS:HB2	2.09	0.52
1:A:898:ARG:HD2	1:A:899:VAL:N	2.24	0.52
1:A:1149:ALA:CB	9:I:47:GLU:HA	2.40	0.52
2:B:31:TRP:CZ3	2:B:34:ILE:HD12	2.44	0.52
2:B:43:LEU:N	2:B:43:LEU:HD23	2.25	0.52
2:B:345:LYS:CG	2:B:346:GLU:N	2.72	0.52
2:B:1098:MET:HE3	2:B:1101:ASP:OD2	2.10	0.52
2:B:1115:THR:HG22	2:B:1117:GLN:CB	2.40	0.52
3:C:220:ASP:OD2	3:C:223:ALA:HB2	2.10	0.52
5:E:48:ASP:CG	5:E:49:SER:N	2.59	0.52
9:I:15:TYR:N	9:I:15:TYR:CD1	2.76	0.52
13:1:16:DT:H5'	13:1:16:DT:C6	2.37	0.52
1:M:222:LEU:O	1:M:224:PHE:HD1	1.92	0.52
1:M:754:SER:N	1:M:757:ASN:HD22	1.98	0.52
2:N:653:VAL:HG23	2:N:689:LEU:HB3	1.92	0.52
13:4:25:DG:H2"	13:4:26:DT:H72	1.92	0.52
1:A:55:ASP:CG	1:A:55:ASP:O	2.46	0.51
1:A:108:MET:CA	1:A:210:ILE:HD13	2.28	0.51
1:A:709:THR:CG2	1:A:710:LEU:N	2.73	0.51
1:A:903:ASN:ND2	1:A:903:ASN:C	2.62	0.51
2:B:102:VAL:CG2	2:B:112:LEU:HD13	2.40	0.51
2:B:604:ARG:HH21	2:B:614:SER:HA	1.75	0.51
2:B:642:ASP:CA	2:B:649:LYS:HA	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:954:VAL:O	12:L:55:ILE:O	2.27	0.51
3:C:73:GLN:HE21	3:C:75:MET:N	2.03	0.51
4:D:29:LEU:N	4:D:29:LEU:CD2	2.73	0.51
4:D:33:PHE:CE1	7:G:80:LYS:HD3	2.46	0.51
8:H:4:THR:HG22	8:H:6:PHE:H	1.73	0.51
2:N:120:ARG:NH1	12:X:54:ARG:HD2	2.24	0.51
2:N:390:LEU:O	2:N:392:ARG:HG3	2.10	0.51
2:N:557:PHE:CZ	2:N:603:LEU:HD11	2.45	0.51
2:N:601:ARG:O	2:N:605:ARG:HG3	2.11	0.51
2:N:837:ASP:OD2	2:N:1020:ARG:NH2	2.44	0.51
2:N:1063:GLY:O	3:O:202:PRO:HG2	2.09	0.51
4:P:29:LEU:N	4:P:29:LEU:CD2	2.73	0.51
4:P:118:THR:HG21	4:P:121:LYS:CD	2.40	0.51
4:P:216:ASN:C	4:P:218:GLU:H	2.13	0.51
8:T:84:ALA:O	8:T:85:GLY:C	2.49	0.51
8:T:84:ALA:CA	8:T:87:ARG:HB2	2.39	0.51
8:T:99:GLY:CA	8:T:118:PHE:HD2	2.23	0.51
10:V:2:ILE:HG12	10:V:57:ILE:HD13	1.91	0.51
1:A:313:GLN:O	1:A:315:LEU:HD23	2.09	0.51
1:A:756:ILE:O	1:A:759:ALA:HB3	2.10	0.51
1:A:899:VAL:CG2	1:A:908:LEU:HD21	2.40	0.51
2:B:69:LEU:HB3	2:B:429:PHE:HE1	1.73	0.51
2:B:299:GLU:OE2	2:B:571:PRO:HG2	2.10	0.51
2:B:546:SER:OG	2:B:631:GLY:N	2.43	0.51
2:B:824:ILE:CG1	10:J:48:ARG:HH12	2.15	0.51
2:B:906:SER:O	2:B:907:GLY:C	2.48	0.51
3:C:91:HIS:C	3:C:91:HIS:CD2	2.82	0.51
3:C:116:LYS:HD3	3:C:140:ASN:HA	1.92	0.51
3:C:184:ASN:OD1	3:C:187:LYS:CA	2.58	0.51
5:E:124:VAL:HB	5:E:125:PRO:CD	2.40	0.51
6:F:109:VAL:HG13	6:F:127:GLU:OE1	2.09	0.51
9:I:82:GLU:OE2	9:I:104:LEU:HB2	2.10	0.51
1:M:38:PRO:CA	1:M:270:LEU:HD23	2.41	0.51
1:M:596:THR:C	1:M:598:LEU:N	2.62	0.51
1:M:761:MET:HA	1:M:804:TYR:HB2	1.93	0.51
1:M:1120:LEU:CD2	1:M:1125:ALA:HA	2.40	0.51
2:N:916:THR:HB	2:N:935:ARG:HG3	1.92	0.51
3:O:212:PRO:HB3	3:O:213:PRO:HD2	1.92	0.51
4:P:202:ILE:HG23	4:P:202:ILE:O	2.09	0.51
4:P:214:LEU:O	4:P:218:GLU:HB2	2.11	0.51
5:Q:61:GLN:HG2	5:Q:62:ALA:N	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:74:ASP:OD1	5:Q:74:ASP:N	2.43	0.51
7:S:91:VAL:CG1	7:S:92:VAL:N	2.72	0.51
8:T:89:LEU:HB2	8:T:91:ASP:CG	2.30	0.51
13:4:23:BRU:H6	13:4:23:BRU:C5'	2.35	0.51
1:A:1241:ARG:O	1:A:1242:VAL:HB	2.09	0.51
1:A:1317:MET:O	1:A:1322:ILE:HD11	2.10	0.51
2:B:90:ILE:HD12	2:B:432:MET:HE1	1.91	0.51
2:B:370:PHE:CD2	2:B:373:ARG:CD	2.93	0.51
2:B:878:GLN:CB	2:B:879:ARG:HH11	2.23	0.51
4:D:20:GLU:O	4:D:20:GLU:HG2	2.11	0.51
6:F:97:ARG:HH21	6:F:108:PHE:HE1	1.54	0.51
6:F:103:MET:O	6:F:104:ASN:HB2	2.10	0.51
7:G:106:MET:CG	7:G:107:LYS:N	2.72	0.51
8:H:30:SER:CB	8:H:36:CYS:HB3	2.41	0.51
8:H:130:ARG:HA	8:H:133:ASN:HB2	1.93	0.51
1:M:313:GLN:O	1:M:315:LEU:HD23	2.11	0.51
1:M:463:ILE:HD12	1:M:469:ARG:HD2	1.91	0.51
1:M:720:ARG:O	1:M:724:GLU:HB3	2.11	0.51
1:M:1325:THR:HG22	1:M:1326:ARG:HG3	1.91	0.51
2:N:345:LYS:HG3	2:N:346:GLU:H	1.75	0.51
2:N:806:THR:HG21	2:N:808:ALA:HB3	1.92	0.51
3:O:186:LEU:CD2	3:O:225:ALA:HB2	2.41	0.51
5:Q:56:LYS:NZ	5:Q:84:ASP:N	2.58	0.51
6:R:75:PRO:HG3	6:R:78:GLN:OE1	2.10	0.51
8:T:59:ILE:O	8:T:60:ALA:HB3	2.10	0.51
8:T:89:LEU:O	8:T:91:ASP:N	2.43	0.51
12:X:47:ARG:CD	12:X:52:GLY:HA2	2.40	0.51
14:5:5:DC:H2'	14:5:6:DT:H72	1.91	0.51
1:A:89:PRO:C	1:A:204:THR:HG21	2.30	0.51
1:A:153:PRO:HB3	1:A:161:LEU:HD22	1.91	0.51
1:A:347:PHE:HE2	1:A:375:THR:CG2	2.23	0.51
1:A:833:GLU:OE2	1:A:1102:LYS:HE3	2.10	0.51
1:A:1170:ILE:HG22	1:A:1174:PHE:HE1	1.75	0.51
2:B:63:ILE:HD12	2:B:421:PHE:CE2	2.46	0.51
2:B:273:LEU:O	2:B:276:ILE:HB	2.10	0.51
2:B:515:HIS:CD2	2:B:517:THR:HG23	2.46	0.51
2:B:603:LEU:HB3	2:B:609:ILE:HD11	1.92	0.51
2:B:984:HIS:NE2	2:B:1025:HIS:HA	2.25	0.51
3:C:10:ILE:HG22	3:C:11:ARG:O	2.10	0.51
3:C:252:GLN:HG3	11:K:95:ILE:HG23	1.93	0.51
1:M:106:VAL:HG21	1:M:214:ILE:CD1	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:567:LYS:CG	1:M:568:PRO:CD	2.85	0.51
1:M:740:LEU:HD12	1:M:741:ASN:N	2.25	0.51
1:M:963:ILE:HD11	1:M:1048:ASN:CB	2.40	0.51
1:M:1035:TYR:O	1:M:1036:ARG:HB2	2.10	0.51
2:N:258:LEU:HG	2:N:258:LEU:O	2.09	0.51
2:N:273:LEU:HD22	2:N:360:PHE:HD1	1.76	0.51
2:N:549:THR:HG22	2:N:550:ASP:H	1.71	0.51
2:N:906:SER:O	2:N:907:GLY:C	2.48	0.51
2:N:1167:GLY:HA3	2:N:1216:LEU:N	2.25	0.51
5:Q:161:LYS:HD2	5:Q:195:VAL:HG23	1.92	0.51
9:U:34:TYR:HE2	9:U:36:GLU:HB3	1.75	0.51
9:U:58:VAL:HG13	9:U:62:ILE:HD13	1.91	0.51
9:U:84:VAL:HG12	9:U:104:LEU:HD21	1.93	0.51
10:V:54:VAL:O	10:V:56:LEU:N	2.42	0.51
11:W:49:GLU:HG3	11:W:94:ILE:CG1	2.40	0.51
12:X:28:LYS:HE3	12:X:39:SER:OG	2.10	0.51
1:A:381:THR:HG23	1:A:382:PRO:HD2	1.93	0.51
1:A:399:HIS:O	1:A:400:PRO:C	2.49	0.51
2:B:37:PHE:HE1	2:B:41:LYS:HD3	1.75	0.51
2:B:558:LEU:O	2:B:561:TRP:N	2.44	0.51
2:B:879:ARG:NE	2:B:879:ARG:N	2.56	0.51
3:C:263:THR:O	3:C:266:ASP:HB2	2.10	0.51
7:G:27:LYS:HE2	7:G:54:ILE:HB	1.93	0.51
11:K:47:ARG:HD3	11:K:59:ALA:O	2.11	0.51
1:M:857:ARG:HD3	1:M:861:GLY:O	2.11	0.51
1:M:901:LEU:HB2	1:M:926:GLN:HG2	1.91	0.51
1:M:1148:ILE:O	1:M:1149:ALA:HB2	2.10	0.51
1:M:1193:LEU:HD12	1:M:1194:ARG:N	2.26	0.51
2:N:39:ARG:HH21	2:N:665:GLU:CD	2.13	0.51
2:N:345:LYS:HG2	2:N:346:GLU:H	1.73	0.51
2:N:594:ALA:N	2:N:617:ARG:HH12	2.08	0.51
5:Q:83:CYS:SG	5:Q:85:GLU:HB2	2.51	0.51
8:T:18:GLY:O	8:T:19:ARG:HB2	2.11	0.51
10:V:25:LEU:O	10:V:29:GLU:HA	2.11	0.51
1:A:1141:THR:HG23	1:A:1205:LYS:HD3	1.92	0.51
1:A:1267:MET:HA	1:A:1271:ILE:HD12	1.91	0.51
2:B:37:PHE:HE1	2:B:41:LYS:CD	2.24	0.51
2:B:999:MET:HB3	2:B:1007:VAL:HG21	1.92	0.51
5:E:94:LYS:O	5:E:98:ILE:HG13	2.10	0.51
5:E:169:ARG:HD3	6:F:140:ASP:CG	2.30	0.51
7:G:97:HIS:HE1	7:S:93:SER:HB2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:26:ILE:CD1	8:H:49:VAL:HG11	2.41	0.51
8:H:89:LEU:O	8:H:91:ASP:N	2.43	0.51
10:J:54:VAL:O	10:J:56:LEU:N	2.42	0.51
1:M:298:PHE:CZ	1:M:314:ALA:HB2	2.46	0.51
1:M:597:LEU:N	1:M:597:LEU:HD12	2.25	0.51
1:M:744:LYS:HD3	1:M:748:MET:HE1	1.93	0.51
2:N:121:ASN:HD22	2:N:207:GLY:HA3	1.75	0.51
2:N:124:TYR:OH	2:N:179:CYS:SG	2.68	0.51
2:N:1037:LEU:HD21	2:N:1064:TYR:CE1	2.43	0.51
3:O:91:HIS:C	3:O:91:HIS:CD2	2.83	0.51
3:O:248:ILE:CD1	11:W:101:LEU:HD22	2.39	0.51
10:V:30:LEU:HD11	10:V:38:ARG:HH11	1.76	0.51
11:W:107:THR:O	11:W:111:LEU:HG	2.11	0.51
13:4:23:BRU:H2"	13:4:24:DG:O5'	2.10	0.51
1:A:49:LYS:HE2	1:A:61:ILE:CD1	2.38	0.51
1:A:224:PHE:HD2	1:A:229:SER:O	1.93	0.51
1:A:277:GLU:HG2	4:P:209:ARG:HH21	1.75	0.51
1:A:537:ARG:HD2	8:H:20:TYR:HE1	1.72	0.51
1:A:860:LEU:HD11	1:A:1393:ASN:HB2	1.92	0.51
1:A:1148:ILE:O	1:A:1149:ALA:HB2	2.10	0.51
1:A:1227:ILE:HG22	1:A:1228:TRP:H	1.76	0.51
2:B:259:TYR:HD1	2:B:259:TYR:H	1.59	0.51
2:B:276:ILE:HA	2:B:336:ARG:O	2.10	0.51
2:B:792:MET:HG2	2:B:855:PHE:HE1	1.76	0.51
2:B:878:GLN:O	2:B:879:ARG:C	2.49	0.51
4:D:130:LEU:O	4:D:132:GLN:N	2.41	0.51
5:E:32:GLN:HG3	5:E:36:GLU:OE2	2.11	0.51
1:M:67:CYS:O	1:M:70:CYS:HB3	2.11	0.51
1:M:154:SER:HB3	1:M:162:VAL:HG21	1.91	0.51
1:M:224:PHE:HD2	1:M:229:SER:O	1.94	0.51
1:M:253:ASN:HB2	2:N:884:ARG:NH1	2.26	0.51
1:M:915:SER:O	1:M:919:ILE:HB	2.11	0.51
2:N:204:ILE:O	2:N:204:ILE:HG22	2.11	0.51
2:N:211:VAL:HG13	2:N:495:LEU:HD23	1.92	0.51
2:N:906:SER:N	2:N:909:ASP:OD2	2.43	0.51
3:O:39:ALA:HA	3:O:164:ALA:CB	2.39	0.51
7:S:91:VAL:HG12	7:S:92:VAL:N	2.24	0.51
7:S:109:PHE:O	7:S:160:ILE:HA	2.11	0.51
9:U:15:TYR:N	9:U:15:TYR:CD1	2.79	0.51
9:U:101:PHE:N	9:U:101:PHE:CD1	2.78	0.51
12:X:26:THR:HG23	12:X:62:LYS:NZ	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:117:GLU:H	1:A:117:GLU:CD	2.14	0.51
1:A:222:LEU:O	1:A:224:PHE:HD1	1.94	0.51
1:A:600:PRO:HA	8:H:25:ARG:NH1	2.25	0.51
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.43	0.51
2:B:422:LYS:HA	2:B:425:THR:HB	1.91	0.51
2:B:686:ASN:C	2:B:688:GLY:H	2.14	0.51
2:B:955:THR:CG2	2:B:956:THR:H	2.22	0.51
3:C:252:GLN:HE21	11:K:95:ILE:HG23	1.75	0.51
5:E:112:TYR:C	5:E:112:TYR:CD1	2.84	0.51
9:I:78:CYS:SG	9:I:105:SER:O	2.69	0.51
10:J:42:LYS:HD3	10:J:43:ARG:HD3	1.92	0.51
13:1:25:DG:H2"	13:1:26:DT:H72	1.92	0.51
1:M:50:ILE:O	1:M:52:GLY:N	2.43	0.51
1:M:132:LYS:HE3	1:M:1411:GLU:HG3	1.93	0.51
1:M:399:HIS:CB	1:M:400:PRO:CD	2.88	0.51
1:M:856:THR:HB	1:M:865:GLN:HB2	1.92	0.51
1:M:886:ILE:CG2	1:M:887:GLY:N	2.74	0.51
2:N:918:ILE:HG21	2:N:935:ARG:NH2	2.25	0.51
2:N:1115:THR:HG22	2:N:1117:GLN:CG	2.40	0.51
4:P:118:THR:HG21	4:P:121:LYS:CE	2.40	0.51
6:R:138:LEU:HB3	6:R:139:PRO:HD2	1.91	0.51
7:S:138:THR:CG2	7:S:139:ILE:N	2.73	0.51
8:T:62:SER:OG	8:T:63:LEU:N	2.44	0.51
10:V:64:ASN:CB	10:V:65:PRO:HD3	2.36	0.51
11:W:50:LEU:HD11	11:W:75:ILE:HD13	1.93	0.51
1:A:67:CYS:O	1:A:68:GLN:C	2.49	0.51
1:A:549:MET:SD	1:A:577:ILE:CD1	2.99	0.51
1:A:598:LEU:HD23	8:H:25:ARG:NH2	2.26	0.51
1:A:1402:PHE:CE2	1:A:1403:GLU:HG3	2.46	0.51
1:A:1445:ILE:HD11	7:G:68:ALA:HB1	1.92	0.51
2:B:273:LEU:HB3	2:B:276:ILE:HD12	1.91	0.51
2:B:616:ILE:HD12	2:B:616:ILE:H	1.74	0.51
2:B:781:PHE:HE2	2:B:795:ILE:HD11	1.76	0.51
2:B:839:MET:HE1	2:B:980:PHE:HB2	1.93	0.51
2:B:847:ASP:C	2:B:849:GLY:N	2.64	0.51
4:D:51:ASN:O	4:D:52:LEU:O	2.29	0.51
5:E:98:ILE:O	5:E:102:GLU:HG3	2.11	0.51
7:G:18:PHE:HA	7:G:22:MET:CE	2.41	0.51
9:I:109:ILE:HG22	9:I:109:ILE:O	2.09	0.51
11:K:47:ARG:HD2	11:K:47:ARG:C	2.32	0.51
11:K:108:GLU:O	11:K:112:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1:25:DG:H2"	13:1:26:DT:H73	1.93	0.51
1:M:335:ARG:NH1	2:N:1206:GLU:OE1	2.44	0.51
1:M:1255:GLU:O	1:M:1255:GLU:CG	2.58	0.51
2:N:185:THR:O	2:N:186:GLU:C	2.49	0.51
2:N:579:ARG:NH1	2:N:622:LYS:O	2.44	0.51
2:N:599:THR:HG22	2:N:600:LEU:N	2.25	0.51
11:W:53:ASP:HB3	11:W:56:VAL:HG23	1.92	0.51
1:A:13:THR:HB	1:A:1432:GLN:NE2	2.26	0.51
1:A:56:PRO:O	1:A:57:ARG:CG	2.59	0.51
1:A:493:GLN:HE21	1:A:493:GLN:CA	2.23	0.51
1:A:598:LEU:HD11	8:H:124:ARG:HB2	1.93	0.51
1:A:866:PHE:O	1:A:867:ILE:HD12	2.10	0.51
2:B:637:LEU:CD2	2:B:742:GLU:HA	2.41	0.51
3:C:11:ARG:NH2	3:C:206:ASN:OD1	2.44	0.51
7:G:111:THR:CG2	7:G:114:LEU:HD22	2.40	0.51
8:H:95:TYR:HE2	8:H:97:MET:SD	2.34	0.51
1:M:114:LEU:HD21	1:M:171:GLN:HE21	1.75	0.51
1:M:200:ARG:HG2	1:M:200:ARG:HH11	1.75	0.51
1:M:443:LEU:HD12	2:N:1146:PHE:CE2	2.46	0.51
1:M:868:TYR:OH	1:M:1366:ARG:HD3	2.11	0.51
1:M:960:ILE:HA	1:M:963:ILE:CG2	2.41	0.51
1:M:967:ALA:O	1:M:971:PHE:HD1	1.92	0.51
2:N:96:TYR:HE1	2:N:131:ASP:OD1	1.94	0.51
2:N:165:VAL:HG11	2:N:448:ILE:CD1	2.41	0.51
2:N:237:VAL:HG22	2:N:257:LYS:HA	1.93	0.51
2:N:807:ARG:HB3	2:N:807:ARG:NH1	2.26	0.51
2:N:840:ILE:CG2	2:N:994:TYR:HD1	2.24	0.51
3:O:229:TYR:CD1	3:O:229:TYR:N	2.78	0.51
3:O:238:ILE:CG2	3:O:243:VAL:HG23	2.37	0.51
3:O:252:GLN:HE21	11:W:95:ILE:CG2	2.23	0.51
6:R:127:GLU:O	6:R:129:LYS:HG3	2.11	0.51
8:T:42:ILE:HG23	8:T:95:TYR:HE1	1.76	0.51
8:T:63:LEU:HD11	8:T:141:TYR:CD2	2.46	0.51
10:V:36:LEU:HD12	10:V:47:ARG:NH1	2.26	0.51
12:X:65:VAL:HG23	12:X:67:PHE:HE1	1.76	0.51
1:A:50:ILE:O	1:A:52:GLY:N	2.43	0.50
1:A:288:ALA:CA	1:A:291:GLU:HG3	2.40	0.50
1:A:562:THR:HB	8:H:98:TYR:CD2	2.46	0.50
1:A:694:THR:O	1:A:698:GLN:HG3	2.11	0.50
2:B:282:ILE:HD12	2:B:382:ILE:HD13	1.92	0.50
2:B:483:LEU:HD11	2:B:491:THR:CG2	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:177:GLU:HG3	3:C:231:ASN:CB	2.24	0.50
4:D:35:LEU:HA	4:D:47:LEU:HB2	1.93	0.50
8:H:84:ALA:C	8:H:86:ASP:N	2.63	0.50
11:K:22:ASP:O	11:K:31:VAL:HG13	2.10	0.50
1:M:560:ILE:HD11	11:W:58:PHE:HD1	1.75	0.50
1:M:898:ARG:O	1:M:1029:ARG:NH1	2.44	0.50
1:M:1138:ILE:HG21	1:M:1316:VAL:HG13	1.92	0.50
2:N:33:VAL:HG21	2:N:638:PHE:HZ	1.76	0.50
2:N:638:PHE:CD2	2:N:690:VAL:HG12	2.46	0.50
2:N:654:ARG:O	2:N:657:HIS:N	2.44	0.50
2:N:791:THR:O	2:N:792:MET:HB2	2.10	0.50
2:N:847:ASP:HB3	3:O:167:HIS:CD2	2.45	0.50
2:N:1037:LEU:CD2	2:N:1064:TYR:HE1	2.23	0.50
2:N:1183:LYS:HE3	2:N:1183:LYS:O	2.12	0.50
4:P:20:GLU:HG2	4:P:20:GLU:O	2.11	0.50
4:P:155:ARG:NH2	4:P:221:TYR:CD1	2.76	0.50
7:S:139:ILE:HD11	7:S:140:LYS:HE3	1.94	0.50
10:V:44:TYR:H	10:V:44:TYR:HD2	1.54	0.50
12:X:59:ALA:O	12:X:60:ARG:O	2.30	0.50
1:A:283:GLY:O	1:A:285:PRO:CD	2.59	0.50
1:A:313:GLN:O	1:A:314:ALA:C	2.49	0.50
1:A:503:GLN:NE2	6:F:90:ARG:NH2	2.53	0.50
1:A:729:ALA:O	1:A:732:LEU:HB2	2.11	0.50
1:A:1168:GLU:O	1:A:1171:GLN:OE1	2.28	0.50
2:B:34:ILE:HG23	2:B:542:MET:CE	2.41	0.50
2:B:707:PRO:O	2:B:708:GLU:O	2.29	0.50
2:B:794:ASN:C	2:B:795:ILE:HD12	2.32	0.50
7:G:74:TYR:H	7:G:74:TYR:HD2	1.59	0.50
7:G:83:LYS:HG3	7:G:148:GLU:O	2.12	0.50
14:2:5:DC:H2'	14:2:6:DT:H72	1.92	0.50
1:M:162:VAL:HG12	1:M:163:SER:N	2.26	0.50
1:M:195:ASP:O	1:M:196:GLU:HB3	2.11	0.50
1:M:207:ILE:HG22	1:M:211:PHE:CE2	2.46	0.50
1:M:322:VAL:O	1:M:322:VAL:CG1	2.59	0.50
1:M:826:ASP:O	1:M:830:LYS:HB2	2.11	0.50
1:M:909:ASP:OD1	1:M:911:SER:N	2.36	0.50
1:M:964:ILE:O	1:M:967:ALA:HB3	2.11	0.50
1:M:1339:LEU:HD13	5:Q:147:HIS:CD2	2.47	0.50
2:N:31:TRP:CD1	2:N:807:ARG:NH2	2.79	0.50
2:N:37:PHE:HE2	2:N:542:MET:HA	1.75	0.50
2:N:90:ILE:HD12	2:N:432:MET:SD	2.51	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:305:VAL:O	2:N:305:VAL:HG12	2.11	0.50
2:N:345:LYS:HG2	2:N:346:GLU:N	2.26	0.50
2:N:758:PHE:HE1	2:N:1027:ILE:HG22	1.76	0.50
3:O:123:ASN:HD22	3:O:125:MET:HG2	1.72	0.50
3:O:235:VAL:HG11	10:V:6:ARG:NH2	2.26	0.50
4:P:217:LEU:O	4:P:219:THR:N	2.43	0.50
5:Q:2:ASP:O	5:Q:3:GLN:HG2	2.10	0.50
5:Q:96:PHE:CE1	5:Q:100:ILE:HD11	2.46	0.50
8:T:84:ALA:HA	8:T:87:ARG:CG	2.41	0.50
9:U:78:CYS:SG	9:U:105:SER:O	2.69	0.50
1:A:101:LYS:HE2	1:A:139:TRP:CZ2	2.46	0.50
1:A:162:VAL:HG12	1:A:163:SER:H	1.76	0.50
1:A:595:THR:O	1:A:596:THR:CG2	2.59	0.50
1:A:596:THR:C	1:A:598:LEU:N	2.63	0.50
1:A:701:LEU:HD21	9:I:114:GLN:HB2	1.94	0.50
1:A:786:HIS:N	1:A:786:HIS:CD2	2.79	0.50
1:A:875:ALA:HB2	1:A:1366:ARG:HD2	1.94	0.50
2:B:368:GLU:O	2:B:370:PHE:N	2.43	0.50
2:B:696:GLU:O	2:B:699:GLU:HB2	2.11	0.50
3:C:243:VAL:O	3:C:243:VAL:CG1	2.59	0.50
4:D:203:SER:OG	4:D:206:GLU:HB2	2.11	0.50
1:M:49:LYS:HD2	1:M:55:ASP:HB3	1.91	0.50
1:M:1148:ILE:CG1	1:M:1198:ASP:HB2	2.42	0.50
2:N:298:LEU:HD22	2:N:298:LEU:N	2.27	0.50
3:O:22:LEU:HD22	3:O:230:MET:CE	2.41	0.50
5:Q:135:PHE:HD2	5:Q:140:LEU:HD21	1.76	0.50
5:Q:182:ASP:HB3	5:Q:185:ALA:HB2	1.93	0.50
7:S:1:MET:CE	7:S:2:PHE:HA	2.41	0.50
9:U:61:ASP:O	9:U:63:GLY:N	2.45	0.50
11:W:64:GLU:HA	11:W:64:GLU:OE2	2.11	0.50
1:A:64:ASN:O	1:A:66:LYS:N	2.44	0.50
1:A:427:GLN:HB2	1:A:430:TRP:CG	2.47	0.50
1:A:1206:ASP:O	1:A:1274:ARG:NH2	2.44	0.50
2:B:39:ARG:HH21	2:B:665:GLU:CG	2.24	0.50
2:B:190:TYR:CZ	2:B:196:PRO:HG3	2.47	0.50
2:B:431:TYR:CD1	2:B:447:ALA:HB2	2.47	0.50
3:C:118:LEU:HB2	3:C:132:PRO:HG2	1.94	0.50
4:D:56:ARG:NH2	4:D:155:ARG:HA	2.26	0.50
4:D:162:ALA:HA	4:D:165:GLN:NE2	2.27	0.50
1:M:252:PHE:HB2	1:M:256:GLN:CD	2.31	0.50
1:M:1036:ARG:NH1	1:M:1036:ARG:CG	2.69	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1410:PHE:HD2	2:N:1212:ILE:CD1	2.24	0.50
2:N:118:ARG:HH22	2:N:194:GLU:CD	2.14	0.50
2:N:259:TYR:H	2:N:259:TYR:HD1	1.60	0.50
2:N:272:THR:HG23	2:N:279:ASP:OD1	2.12	0.50
2:N:797:TYR:HE1	2:N:854:LEU:CD2	2.25	0.50
2:N:863:GLU:OE1	2:N:962:LYS:HB2	2.11	0.50
4:P:167:LEU:O	4:P:170:THR:HG23	2.12	0.50
7:S:92:VAL:HG21	7:S:102:GLN:HB2	1.93	0.50
1:A:493:GLN:CA	1:A:493:GLN:NE2	2.73	0.50
1:A:693:VAL:HG21	1:A:721:PHE:CE1	2.42	0.50
1:A:1124:HIS:HB2	1:A:1130:GLN:HG2	1.94	0.50
2:B:185:THR:O	2:B:188:ASP:HB2	2.11	0.50
2:B:622:LYS:CE	9:I:59:VAL:HG13	2.41	0.50
2:B:798:TYR:CE2	3:C:62:PHE:CZ	3.00	0.50
5:E:13:TRP:O	5:E:16:PHE:HB3	2.11	0.50
5:E:171:LYS:HG2	5:E:174:GLN:OE1	2.10	0.50
7:G:81:PRO:HD2	7:G:157:ILE:HD12	1.93	0.50
9:I:61:ASP:O	9:I:63:GLY:N	2.45	0.50
1:M:200:ARG:HG2	1:M:200:ARG:NH1	2.26	0.50
1:M:285:PRO:O	1:M:287:HIS:N	2.44	0.50
1:M:535:THR:HG21	1:M:616:VAL:CA	2.38	0.50
1:M:789:LYS:HD2	2:N:620:ARG:HH12	1.75	0.50
1:M:1237:ILE:CG2	1:M:1238:ILE:N	2.74	0.50
2:N:63:ILE:HD12	2:N:421:PHE:CZ	2.47	0.50
2:N:209:GLU:OE2	2:N:485:ARG:NE	2.36	0.50
2:N:984:HIS:CD2	2:N:1025:HIS:HA	2.47	0.50
3:O:70:ILE:HG12	3:O:142:VAL:HG11	1.93	0.50
3:O:101:LEU:O	3:O:102:GLN:HG2	2.12	0.50
3:O:177:GLU:HG3	3:O:231:ASN:CB	2.30	0.50
3:O:209:TYR:HD1	3:O:209:TYR:H	1.58	0.50
5:Q:169:ARG:HD3	6:R:140:ASP:CG	2.31	0.50
5:Q:180:ARG:NH2	5:Q:192:ARG:HD2	2.27	0.50
1:A:72:GLU:HB3	1:A:76:GLU:HG2	1.92	0.50
1:A:722:LEU:HD21	1:A:794:PRO:HB3	1.94	0.50
1:A:794:PRO:C	1:A:796:SER:H	2.14	0.50
1:A:1015:VAL:HG12	1:A:1015:VAL:O	2.11	0.50
2:B:185:THR:O	2:B:186:GLU:C	2.50	0.50
2:B:611:PRO:O	2:B:692:TYR:HB2	2.12	0.50
2:B:847:ASP:HB3	3:C:167:HIS:CD2	2.46	0.50
3:C:147:LEU:HD12	3:C:151:GLN:O	2.11	0.50
3:C:186:LEU:CD2	3:C:225:ALA:HB2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:23:ASN:HA	4:D:28:GLN:O	2.12	0.50
4:D:51:ASN:HB3	4:D:178:ALA:O	2.11	0.50
5:E:121:MET:C	5:E:123:LEU:H	2.14	0.50
12:L:47:ARG:HD3	12:L:52:GLY:HA2	1.92	0.50
1:M:196:GLU:HG3	1:M:197:PRO:HD2	1.94	0.50
1:M:1021:LEU:O	1:M:1024:SER:HB3	2.12	0.50
1:M:1362:TYR:CD1	1:M:1363:VAL:N	2.79	0.50
2:N:95:ILE:CG1	2:N:130:VAL:HG22	2.41	0.50
2:N:1117:GLN:HE21	2:N:1199:ALA:HB2	1.77	0.50
3:O:133:ILE:HD12	3:O:237:SER:N	2.26	0.50
4:P:36:LYS:HG2	4:P:44:GLU:OE1	2.12	0.50
4:P:120:GLU:O	4:P:120:GLU:OE1	2.30	0.50
9:U:6:PHE:CB	9:U:12:ASN:O	2.52	0.50
12:X:28:LYS:HB3	12:X:39:SER:HB2	1.93	0.50
1:A:973:ILE:HD11	1:A:1041:ALA:HB2	1.94	0.50
2:B:1001:PHE:CZ	2:B:1073:TYR:HB2	2.47	0.50
2:B:1116:ARG:HG3	2:B:1198:TYR:CD2	2.47	0.50
4:D:8:PHE:HD2	7:G:6:ASP:O	1.94	0.50
7:G:14:HIS:CE1	7:G:15:PRO:HD2	2.46	0.50
8:H:106:GLU:O	8:H:108:SER:N	2.34	0.50
11:K:31:VAL:CG1	11:K:32:VAL:N	2.74	0.50
1:M:171:GLN:OE1	1:M:171:GLN:HA	2.12	0.50
1:M:225:ASN:ND2	1:M:227:VAL:N	2.59	0.50
1:M:337:ARG:HD3	2:N:1132:GLU:CD	2.32	0.50
1:M:1095:THR:HG21	1:M:1112:LYS:HD2	1.94	0.50
1:M:1444:MET:HG3	7:S:60:ARG:CA	2.33	0.50
2:N:599:THR:O	2:N:603:LEU:HB2	2.11	0.50
2:N:611:PRO:O	2:N:692:TYR:HB2	2.12	0.50
2:N:642:ASP:CA	2:N:649:LYS:HA	2.39	0.50
4:P:71:LYS:HG2	4:P:74:GLN:HE21	1.74	0.50
7:S:138:THR:O	7:S:140:LYS:N	2.45	0.50
10:V:1:MET:H1	10:V:56:LEU:HB2	1.77	0.50
14:5:2:DC:C5	14:5:3:DT:H73	2.46	0.50
1:A:306:ASN:ND2	1:A:322:VAL:HG12	2.26	0.50
1:A:645:LEU:HG	1:A:649:ILE:HD12	1.94	0.50
1:A:852:TYR:CD2	1:A:1060:PRO:CB	2.95	0.50
1:A:1255:GLU:HG2	1:A:1255:GLU:O	2.12	0.50
2:B:424:LEU:O	2:B:428:ILE:HG13	2.11	0.50
2:B:766:ARG:NH2	2:B:1020:ARG:HD3	2.26	0.50
1:M:567:LYS:CE	8:T:46:LEU:HB2	2.42	0.50
1:M:722:LEU:HB3	1:M:799:PHE:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:62:ILE:HG23	2:N:418:LYS:HG3	1.93	0.50
2:N:803:LEU:HD12	2:N:1032:SER:HB3	1.94	0.50
2:N:821:GLN:OE1	2:N:850:LEU:HD12	2.12	0.50
2:N:850:LEU:HD12	2:N:851:PHE:N	2.26	0.50
2:N:859:TYR:OH	2:N:941:LEU:HD12	2.12	0.50
3:O:147:LEU:N	3:O:147:LEU:CD2	2.74	0.50
4:P:130:LEU:O	4:P:132:GLN:N	2.41	0.50
10:V:64:ASN:HB3	10:V:65:PRO:HD2	1.89	0.50
13:4:16:DT:N3	13:4:17:DT:C4	2.80	0.50
1:A:1241:ARG:O	1:A:1242:VAL:CG2	2.60	0.50
2:B:893:LEU:HD22	2:B:897:GLY:HA2	1.94	0.50
2:B:1001:PHE:CE2	3:C:34:ARG:CZ	2.95	0.50
4:D:118:THR:HG22	4:D:118:THR:O	2.11	0.50
5:E:127:ILE:O	5:E:127:ILE:HG13	2.12	0.50
6:F:81:THR:HB	6:F:136:ARG:HH11	1.75	0.50
8:H:113:ALA:HA	8:H:125:LEU:O	2.11	0.50
1:M:133:LYS:O	1:M:136:ALA:HB3	2.12	0.50
1:M:567:LYS:HB3	8:T:95:TYR:HA	1.92	0.50
1:M:1324:PRO:HB2	5:Q:142:VAL:HG11	1.93	0.50
1:M:1336:MET:HE2	1:M:1381:LEU:HG	1.94	0.50
1:M:1399:ARG:HB3	1:M:1408:ILE:HD13	1.93	0.50
1:M:1421:CYS:HA	1:M:1426:GLU:HG3	1.93	0.50
2:N:429:PHE:CD1	2:N:432:MET:HE3	2.46	0.50
2:N:618:ASP:O	2:N:622:LYS:N	2.45	0.50
2:N:751:VAL:HG13	2:N:812:LEU:CD2	2.37	0.50
7:S:106:MET:CG	7:S:107:LYS:H	2.25	0.50
7:S:113:HIS:ND1	7:S:113:HIS:N	2.56	0.50
1:A:349:ALA:HB2	1:A:374:LEU:HD11	1.94	0.49
1:A:562:THR:HB	8:H:98:TYR:HD2	1.75	0.49
1:A:807:GLY:HA2	2:B:760:ASP:O	2.11	0.49
1:A:1187:GLN:HG3	1:A:1188:GLN:H	1.76	0.49
1:A:1237:ILE:CG2	1:A:1238:ILE:N	2.75	0.49
1:A:1280:GLU:O	1:A:1281:ARG:O	2.30	0.49
1:A:1315:GLU:C	1:A:1317:MET:H	2.15	0.49
1:A:1342:GLU:HG3	5:E:198:ILE:HD13	1.93	0.49
2:B:758:PHE:CE2	2:B:1044:ALA:CA	2.90	0.49
2:B:956:THR:HA	2:B:961:LEU:O	2.11	0.49
2:B:1103:ILE:HG23	2:B:1103:ILE:O	2.11	0.49
3:C:25:VAL:HG12	3:C:26:ASP:H	1.76	0.49
4:D:47:LEU:HD13	4:D:48:ILE:N	2.27	0.49
4:D:144:THR:HG21	7:G:46:LEU:HD13	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:116:PRO:HG2	7:G:119:LEU:CB	2.42	0.49
7:G:138:THR:O	7:G:140:LYS:N	2.45	0.49
11:K:55:LYS:HD3	11:K:81:TYR:CE1	2.47	0.49
12:L:27:LEU:O	12:L:28:LYS:HB2	2.12	0.49
1:M:41:MET:O	1:M:42:ASP:O	2.29	0.49
1:M:351:THR:CG2	2:N:1103:ILE:HA	2.22	0.49
1:M:874:ASP:C	1:M:874:ASP:OD1	2.49	0.49
1:M:1277:GLU:O	1:M:1279:ILE:N	2.44	0.49
2:N:203:PHE:HB3	2:N:205:ILE:CD1	2.42	0.49
2:N:327:ARG:O	2:N:331:LEU:HD13	2.12	0.49
2:N:916:THR:CG2	2:N:935:ARG:HD2	2.42	0.49
2:N:991:GLY:O	2:N:992:ILE:HB	2.12	0.49
2:N:1147:LEU:CD2	2:N:1151:LEU:HD22	2.42	0.49
4:P:57:LEU:HD13	4:P:157:GLN:OE1	2.12	0.49
7:S:11:ILE:HD13	7:S:29:LYS:HB3	1.93	0.49
7:S:31:LEU:HD23	7:S:48:VAL:HG21	1.93	0.49
9:U:13:MET:HG2	9:U:14:LEU:N	2.27	0.49
9:U:73:ARG:HH12	9:U:112:SER:CB	2.25	0.49
1:A:401:GLY:C	1:A:435:HIS:CD2	2.85	0.49
1:A:445:ASN:CB	1:A:455:MET:HG2	2.35	0.49
1:A:598:LEU:HD23	8:H:25:ARG:CZ	2.42	0.49
1:A:820:GLY:O	1:A:822:GLU:N	2.45	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:CB	2.42	0.49
1:A:1100:ARG:O	1:A:1104:ILE:HG13	2.11	0.49
1:A:1242:VAL:CG1	1:A:1243:VAL:H	2.25	0.49
2:B:167:ILE:HG21	2:B:424:LEU:CD2	2.42	0.49
2:B:282:ILE:HG21	2:B:382:ILE:CD1	2.42	0.49
2:B:1099:VAL:HG13	2:B:1100:ASP:N	2.27	0.49
2:B:1167:GLY:HA3	2:B:1216:LEU:N	2.27	0.49
3:C:22:LEU:HD13	3:C:230:MET:HE1	1.93	0.49
4:D:146:GLN:O	4:D:147:TYR:C	2.50	0.49
8:H:42:ILE:HG23	8:H:95:TYR:CE1	2.47	0.49
8:H:58:THR:O	8:H:59:ILE:HG13	2.12	0.49
8:H:81:PRO:CB	8:H:82:PRO:CD	2.88	0.49
1:M:370:ILE:CG2	1:M:374:LEU:HD12	2.42	0.49
1:M:1254:ALA:O	1:M:1255:GLU:CB	2.60	0.49
1:M:1433:MET:HE3	7:S:63:PRO:CB	2.41	0.49
2:N:168:GLY:HA2	2:N:450:ALA:O	2.12	0.49
2:N:431:TYR:CG	2:N:447:ALA:HB2	2.47	0.49
2:N:653:VAL:HA	2:N:689:LEU:HD22	1.94	0.49
2:N:885:MET:HA	2:N:936:ASP:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:65:HIS:O	3:O:69:LEU:HD12	2.11	0.49
3:O:258:ILE:HG23	11:W:19:LEU:HD11	1.94	0.49
4:P:175:PHE:O	4:P:178:ALA:HB3	2.11	0.49
12:X:48:CYS:HB3	12:X:51:CYS:O	2.12	0.49
1:A:80:HIS:H	1:A:243:PRO:HB3	1.77	0.49
1:A:122:MET:HA	1:A:141:LEU:HD11	1.94	0.49
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.94	0.49
1:A:202:LEU:HA	1:A:206:GLU:OE1	2.13	0.49
1:A:399:HIS:CG	1:A:400:PRO:N	2.79	0.49
1:A:773:LYS:H	1:A:773:LYS:CD	2.23	0.49
1:A:1450:LEU:HD21	7:G:19:GLY:O	2.13	0.49
2:B:728:ARG:HH12	2:B:1047:PHE:HB3	1.78	0.49
2:B:953:LEU:HD23	2:B:953:LEU:O	2.12	0.49
3:C:189:THR:CG2	3:C:190:ASP:N	2.74	0.49
3:C:212:PRO:HB3	3:C:213:PRO:HD2	1.95	0.49
5:E:129:PRO:O	5:E:130:ALA:C	2.51	0.49
7:G:121:PHE:HB2	7:G:130:TYR:CE2	2.48	0.49
8:H:123:MET:HE3	8:H:142:LEU:CD2	2.43	0.49
12:L:38:LEU:HG	12:L:39:SER:N	2.28	0.49
2:N:31:TRP:CE3	2:N:34:ILE:HD12	2.46	0.49
2:N:108:VAL:HG23	2:N:109:THR:N	2.27	0.49
2:N:429:PHE:HA	2:N:432:MET:CE	2.43	0.49
2:N:635:ARG:NH1	2:N:742:GLU:OE2	2.43	0.49
2:N:1072:MET:HE3	2:N:1085:ILE:HB	1.88	0.49
4:P:24:ALA:HA	7:S:83:LYS:O	2.12	0.49
7:S:77:VAL:O	7:S:77:VAL:HG12	2.11	0.49
13:4:25:DG:N9	13:4:26:DT:H72	2.28	0.49
1:A:164:ARG:HG3	1:A:165:GLY:N	2.26	0.49
1:A:489:LEU:HD12	1:A:489:LEU:C	2.32	0.49
1:A:967:ALA:HA	1:A:1044:TRP:CZ3	2.47	0.49
2:B:205:ILE:HD11	2:B:461:LEU:HD23	1.94	0.49
2:B:235:SER:O	2:B:236:HIS:HD2	1.95	0.49
2:B:244:LEU:HD12	2:B:250:PHE:HD1	1.77	0.49
5:E:61:GLN:HG2	5:E:62:ALA:N	2.27	0.49
5:E:114:ASN:O	5:E:115:ASN:CB	2.48	0.49
5:E:180:ARG:NH2	5:E:192:ARG:HB2	2.25	0.49
11:K:64:GLU:HA	11:K:64:GLU:OE2	2.12	0.49
1:M:285:PRO:CG	1:M:288:ALA:HB3	2.38	0.49
1:M:1100:ARG:NH2	1:M:1351:GLU:HG2	2.27	0.49
1:M:1163:ILE:HG22	1:M:1165:GLU:HG3	1.94	0.49
2:N:95:ILE:CB	2:N:130:VAL:HG22	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:110:HIS:HB3	12:X:54:ARG:HH22	1.78	0.49
2:N:449:ASN:C	2:N:451:LYS:H	2.16	0.49
2:N:848:ARG:HH22	2:N:996:ARG:HD3	1.77	0.49
2:N:956:THR:HA	2:N:961:LEU:O	2.12	0.49
3:O:118:LEU:HB2	3:O:132:PRO:HG2	1.94	0.49
1:A:385:ILE:CD1	1:A:426:LEU:HB2	2.42	0.49
1:A:961:ARG:HH11	1:A:961:ARG:CB	2.26	0.49
2:B:95:ILE:HG13	2:B:130:VAL:HG22	1.93	0.49
2:B:466:TRP:HA	2:B:466:TRP:CE3	2.46	0.49
2:B:789:MET:HE2	2:B:953:LEU:HD22	1.94	0.49
5:E:207:ARG:NH1	5:E:207:ARG:CB	2.75	0.49
9:I:7:CYS:HB2	9:I:34:TYR:CG	2.47	0.49
11:K:55:LYS:HB2	11:K:81:TYR:CD1	2.48	0.49
13:1:16:DT:N3	13:1:17:DT:C4	2.81	0.49
1:M:401:GLY:C	1:M:435:HIS:HD2	2.15	0.49
1:M:493:GLN:CA	1:M:493:GLN:NE2	2.75	0.49
1:M:714:PHE:O	1:M:718:VAL:HG23	2.12	0.49
2:N:221:ASN:N	2:N:241:ARG:O	2.40	0.49
2:N:244:LEU:CD1	2:N:366:GLN:HE22	2.18	0.49
2:N:307:ASP:OD2	2:N:310:MET:HB2	2.12	0.49
2:N:368:GLU:O	2:N:370:PHE:N	2.44	0.49
2:N:370:PHE:HD2	2:N:373:ARG:HD3	1.78	0.49
2:N:570:VAL:HG21	2:N:573:GLN:CD	2.33	0.49
2:N:658:ILE:HG22	2:N:662:MET:HE2	1.94	0.49
2:N:975:GLN:HG2	2:N:976:ILE:N	2.27	0.49
3:O:147:LEU:HD12	3:O:151:GLN:O	2.12	0.49
7:S:121:PHE:CZ	7:S:123:ALA:HA	2.48	0.49
9:U:44:TYR:HD1	9:U:45:ARG:H	1.61	0.49
1:A:134:ARG:HD2	1:A:221:SER:O	2.12	0.49
1:A:663:SER:OG	1:A:664:THR:N	2.45	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:HB2	1.93	0.49
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.76	0.49
2:B:282:ILE:HD11	2:B:317:CYS:SG	2.53	0.49
2:B:497:ARG:HH21	2:B:775:LYS:NZ	2.10	0.49
2:B:839:MET:HE2	2:B:980:PHE:HB2	1.93	0.49
3:C:248:ILE:HD13	11:K:101:LEU:HD22	1.94	0.49
7:G:160:ILE:HD11	7:S:111:THR:HG21	1.95	0.49
8:H:106:GLU:C	8:H:108:SER:H	2.15	0.49
1:M:106:VAL:CG1	1:M:107:CYS:N	2.74	0.49
1:M:452:LYS:HB3	2:N:1141:HIS:CE1	2.47	0.49
1:M:679:ILE:HG23	1:M:729:ALA:HB1	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1444:MET:HE2	1:M:1444:MET:N	2.27	0.49
2:N:190:TYR:CE1	2:N:196:PRO:HG3	2.48	0.49
2:N:558:LEU:O	2:N:561:TRP:N	2.45	0.49
2:N:955:THR:CG2	2:N:956:THR:H	2.25	0.49
4:P:155:ARG:NH2	4:P:221:TYR:HD1	2.08	0.49
4:P:220:LEU:HD23	4:P:221:TYR:N	2.28	0.49
9:U:98:VAL:CG1	9:U:111:THR:HG23	2.43	0.49
12:X:34:CYS:SG	12:X:34:CYS:O	2.71	0.49
1:A:2:VAL:CG1	2:B:1157:ALA:O	2.60	0.49
1:A:335:ARG:NH1	2:B:1206:GLU:CD	2.66	0.49
1:A:440:ASP:O	1:A:460:VAL:HG23	2.13	0.49
2:B:351:TYR:O	2:B:355:ILE:HG13	2.11	0.49
3:C:39:ALA:HA	3:C:164:ALA:CB	2.42	0.49
4:D:119:ARG:O	4:D:123:LEU:HD23	2.13	0.49
4:D:155:ARG:NE	4:D:221:TYR:HE1	2.10	0.49
6:F:100:GLN:NE2	7:G:61:ILE:HD13	2.28	0.49
8:H:47:PHE:CB	8:H:95:TYR:HD1	2.26	0.49
9:I:92:ARG:HD2	9:I:94:ASP:OD2	2.12	0.49
14:2:2:DC:C5	14:2:3:DT:H73	2.47	0.49
1:M:145:LYS:HE3	1:M:145:LYS:CA	2.40	0.49
1:M:196:GLU:CG	1:M:197:PRO:HD2	2.43	0.49
1:M:563:PRO:HG3	1:M:572:TRP:CE2	2.44	0.49
1:M:597:LEU:HD23	8:T:103:LYS:CD	2.43	0.49
1:M:945:GLU:OE1	5:Q:201:LYS:NZ	2.45	0.49
1:M:1152:ILE:HD11	1:M:1261:LYS:HG3	1.93	0.49
2:N:294:ASP:C	2:N:296:GLU:N	2.61	0.49
2:N:313:MET:O	2:N:316:PRO:HD2	2.13	0.49
8:T:104:PHE:CZ	8:T:136:LYS:HA	2.47	0.49
1:A:67:CYS:O	1:A:70:CYS:HB3	2.12	0.49
1:A:288:ALA:HA	1:A:291:GLU:CG	2.42	0.49
2:B:294:ASP:C	2:B:296:GLU:N	2.60	0.49
2:B:351:TYR:CZ	2:B:355:ILE:HD11	2.47	0.49
2:B:492:LEU:HB2	2:B:751:VAL:HG11	1.95	0.49
4:D:167:LEU:O	4:D:170:THR:HG23	2.13	0.49
5:E:88:VAL:HB	5:E:116:ILE:HG12	1.94	0.49
5:E:112:TYR:O	5:E:137:GLU:HG3	2.13	0.49
8:H:13:SER:HB3	8:H:27:GLU:O	2.13	0.49
9:I:58:VAL:HG13	9:I:62:ILE:HG21	1.93	0.49
1:M:64:ASN:O	1:M:66:LYS:N	2.46	0.49
1:M:547:LEU:HD22	11:W:58:PHE:CD1	2.47	0.49
1:M:663:SER:OG	1:M:664:THR:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1410:PHE:HD2	2:N:1212:ILE:HD11	1.78	0.49
2:N:373:ARG:HA	2:N:566:LEU:CD2	2.42	0.49
2:N:373:ARG:HA	2:N:566:LEU:HD23	1.94	0.49
2:N:866:TYR:CG	2:N:870:ILE:HB	2.48	0.49
4:P:139:LYS:HG3	4:P:140:ASP:OD1	2.13	0.49
7:S:110:VAL:CG1	7:S:161:GLY:O	2.61	0.49
8:T:106:GLU:C	8:T:108:SER:H	2.15	0.49
1:A:40:THR:HG23	1:A:54:ASN:ND2	2.27	0.49
1:A:106:VAL:HG12	1:A:107:CYS:H	1.76	0.49
1:A:265:LYS:CA	1:A:265:LYS:CE	2.89	0.49
1:A:316:GLN:HG2	1:A:317:LYS:N	2.28	0.49
1:A:460:VAL:HG12	1:A:461:LYS:N	2.27	0.49
1:A:886:ILE:CG2	1:A:887:GLY:N	2.76	0.49
2:B:118:ARG:NH2	2:B:194:GLU:OE1	2.42	0.49
2:B:303:TYR:HH	2:B:586:TRP:HH2	1.59	0.49
2:B:371:GLU:OE1	2:B:371:GLU:N	2.45	0.49
2:B:629:ASP:HB3	2:B:632:ARG:HD3	1.94	0.49
2:B:805:THR:CG2	2:B:806:THR:H	2.16	0.49
5:E:88:VAL:HG21	5:E:110:PHE:CE1	2.47	0.49
6:F:111:LEU:C	6:F:113:GLY:N	2.64	0.49
8:H:44:VAL:O	8:H:44:VAL:HG12	2.13	0.49
8:H:84:ALA:O	8:H:85:GLY:C	2.52	0.49
8:H:130:ARG:HH11	8:H:130:ARG:CB	2.25	0.49
1:M:35:ILE:HA	1:M:52:GLY:O	2.13	0.49
1:M:42:ASP:HB3	1:M:45:GLN:CA	2.43	0.49
1:M:65:LEU:O	1:M:66:LYS:O	2.30	0.49
1:M:75:ASN:O	1:M:76:GLU:HB2	2.13	0.49
1:M:447:GLN:HA	1:M:448:PRO:C	2.33	0.49
1:M:1170:ILE:HG22	1:M:1174:PHE:CE1	2.48	0.49
2:N:429:PHE:HD1	2:N:432:MET:HE3	1.77	0.49
2:N:597:MET:HA	2:N:597:MET:HE2	1.95	0.49
2:N:862:GLN:CG	2:N:963:PHE:HD1	2.19	0.49
2:N:1084:GLN:NE2	2:N:1084:GLN:H	2.09	0.49
2:N:1165:ILE:HG21	4:P:17:LYS:CG	2.43	0.49
3:O:44:LEU:HD13	3:O:129:ILE:HG23	1.94	0.49
5:Q:177:ARG:C	5:Q:212:ARG:HD3	2.33	0.49
8:T:26:ILE:HD13	8:T:49:VAL:HG11	1.94	0.49
10:V:30:LEU:CD1	10:V:38:ARG:HH11	2.26	0.49
1:A:23:SER:HB3	1:A:233:TRP:CZ2	2.48	0.49
1:A:37:PHE:HD1	1:A:37:PHE:H	1.58	0.49
1:A:57:ARG:O	1:A:68:GLN:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:407:ARG:HG2	1:A:430:TRP:CE2	2.48	0.49
1:A:831:THR:HG23	1:A:832:ALA:N	2.27	0.49
1:A:1453:TYR:O	1:A:1454:MET:HB3	2.13	0.49
2:B:334:ILE:O	2:B:334:ILE:CG2	2.60	0.49
2:B:679:TYR:HE1	2:B:687:GLU:OE2	1.96	0.49
4:D:14:ARG:HH12	4:D:16:LYS:HZ2	1.60	0.49
5:E:98:ILE:HG22	5:E:102:GLU:CG	2.42	0.49
8:H:4:THR:HA	8:H:60:ALA:CB	2.19	0.49
8:H:40:LEU:HD23	8:H:42:ILE:CG1	2.43	0.49
1:M:30:ILE:HD11	2:N:1168:LEU:CD1	2.43	0.49
1:M:265:LYS:HA	1:M:265:LYS:CE	2.38	0.49
1:M:901:LEU:H	1:M:926:GLN:CD	2.16	0.49
1:M:1118:VAL:HG12	1:M:1327:ILE:HG13	1.95	0.49
1:M:1147:THR:HB	9:U:48:LEU:HD12	1.94	0.49
1:M:1195:LEU:HD11	1:M:1267:MET:HE1	1.95	0.49
1:M:1280:GLU:O	1:M:1281:ARG:O	2.31	0.49
1:M:1409:LEU:CD1	2:N:1207:LEU:HD11	2.42	0.49
2:N:131:ASP:HA	2:N:164:LYS:HB3	1.95	0.49
4:P:66:ARG:O	4:P:70:PHE:HB2	2.13	0.49
4:P:69:ALA:C	4:P:71:LYS:H	2.15	0.49
5:Q:37:LEU:CD1	5:Q:41:ASP:HB2	2.43	0.49
8:T:30:SER:CB	8:T:36:CYS:HB3	2.43	0.49
8:T:91:ASP:C	8:T:93:TYR:H	2.16	0.49
1:A:820:GLY:O	1:A:823:GLY:N	2.46	0.48
1:A:1018:PHE:O	1:A:1021:LEU:HB3	2.12	0.48
2:B:27:ALA:O	2:B:29:ASP:N	2.46	0.48
2:B:56:ASP:C	2:B:57:TYR:HD1	2.16	0.48
2:B:211:VAL:HG13	2:B:495:LEU:HD23	1.94	0.48
2:B:274:PRO:O	2:B:275:TYR:HB2	2.13	0.48
2:B:453:ILE:O	2:B:457:LEU:HG	2.12	0.48
2:B:531:GLN:CG	2:B:532:ALA:H	2.23	0.48
2:B:916:THR:CG2	2:B:935:ARG:HD2	2.43	0.48
3:C:8:VAL:HG12	3:C:9:LYS:N	2.28	0.48
3:C:35:ARG:NH1	11:K:41:THR:OG1	2.46	0.48
3:C:219:PHE:CE2	3:C:221:TYR:HB3	2.48	0.48
3:C:242:GLN:OE1	3:C:242:GLN:HA	2.13	0.48
6:F:101:ILE:HD13	6:F:120:ILE:CG2	2.43	0.48
7:G:1:MET:O	7:G:2:PHE:C	2.51	0.48
7:G:117:GLN:NE2	7:S:154:VAL:CG2	2.76	0.48
14:2:4:DA:H2"	14:2:5:DC:H6	1.78	0.48
1:M:590:ARG:HH12	1:M:592:ASP:CG	2.16	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:120:ARG:HG2	2:N:955:THR:HG21	1.95	0.48
2:N:331:LEU:O	2:N:334:ILE:HB	2.13	0.48
2:N:387:LEU:N	2:N:387:LEU:HD12	2.28	0.48
2:N:846:ILE:CG2	2:N:974:PRO:HG2	2.42	0.48
3:O:116:LYS:HG3	3:O:117:ASP:OD1	2.13	0.48
3:O:182:PRO:HD2	3:O:210:GLU:OE1	2.13	0.48
4:P:32:GLU:HG3	7:S:5:LYS:HE2	1.94	0.48
4:P:134:THR:CG2	4:P:141:LEU:HD23	2.42	0.48
8:T:106:GLU:O	8:T:108:SER:N	2.35	0.48
8:T:130:ARG:HA	8:T:133:ASN:HB2	1.95	0.48
14:5:4:DA:H2"	14:5:5:DC:H6	1.78	0.48
1:A:87:ALA:CB	1:A:276:LEU:HD23	2.38	0.48
1:A:93:VAL:CG1	1:A:301:ALA:HB1	2.38	0.48
1:A:107:CYS:HB2	1:A:114:LEU:HD21	1.94	0.48
1:A:196:GLU:HG2	1:A:197:PRO:HD2	1.94	0.48
1:A:857:ARG:CZ	6:F:139:PRO:HG3	2.43	0.48
1:A:1402:PHE:CE2	1:A:1403:GLU:CG	2.95	0.48
2:B:244:LEU:HD11	2:B:366:GLN:NE2	2.28	0.48
2:B:487:THR:HG22	2:B:488:TYR:N	2.28	0.48
2:B:557:PHE:CZ	2:B:603:LEU:HD11	2.48	0.48
2:B:785:TYR:CD1	2:B:786:ASN:N	2.81	0.48
2:B:792:MET:HA	2:B:856:PHE:O	2.13	0.48
2:B:878:GLN:HB2	2:B:879:ARG:HH11	1.76	0.48
3:C:99:LEU:HD12	3:C:118:LEU:HB3	1.95	0.48
8:H:62:SER:OG	8:H:64:ASN:ND2	2.47	0.48
8:H:91:ASP:C	8:H:93:TYR:H	2.17	0.48
1:M:168:GLY:O	1:M:169:ASN:C	2.50	0.48
1:M:534:LEU:O	1:M:534:LEU:HG	2.12	0.48
1:M:595:THR:O	1:M:596:THR:CG2	2.61	0.48
1:M:1450:LEU:CD1	6:R:108:PHE:CZ	2.96	0.48
2:N:68:THR:HG22	2:N:91:SER:HA	1.94	0.48
2:N:436:VAL:O	2:N:436:VAL:HG12	2.13	0.48
2:N:594:ALA:N	2:N:617:ARG:NH1	2.61	0.48
2:N:659:ALA:HA	2:N:662:MET:HE2	1.95	0.48
2:N:798:TYR:CD1	10:V:4:PRO:HG3	2.48	0.48
2:N:847:ASP:C	2:N:849:GLY:N	2.66	0.48
2:N:1033:LYS:NZ	2:N:1070:GLU:OE1	2.36	0.48
3:O:35:ARG:NH1	11:W:41:THR:N	2.60	0.48
9:U:88:SER:HB3	9:U:95:THR:HG21	1.95	0.48
11:W:88:LYS:O	11:W:91:CYS:HB2	2.13	0.48
11:W:113:THR:O	11:W:114:LEU:CB	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:53:LEU:CD2	1:A:54:ASN:N	2.55	0.48
1:A:186:LYS:HZ1	1:A:197:PRO:HD3	1.78	0.48
1:A:567:LYS:CE	8:H:46:LEU:HB2	2.43	0.48
1:A:1123:GLY:O	1:A:1125:ALA:N	2.46	0.48
2:B:39:ARG:NH2	2:B:665:GLU:CG	2.75	0.48
2:B:336:ARG:HG3	2:B:336:ARG:NH1	2.28	0.48
2:B:479:VAL:O	2:B:480:SER:HB3	2.12	0.48
2:B:806:THR:HG22	2:B:808:ALA:HB3	1.95	0.48
3:C:33:LEU:O	3:C:37:MET:HG3	2.12	0.48
4:D:12:ARG:HH12	4:D:14:ARG:HA	1.78	0.48
4:D:56:ARG:HD3	4:D:149:THR:HA	1.96	0.48
7:G:126:ASN:C	7:G:126:ASN:ND2	2.67	0.48
7:G:139:ILE:CG2	7:G:140:LYS:N	2.76	0.48
8:H:109:LYS:HG2	8:H:110:ASP:OD1	2.13	0.48
1:M:162:VAL:HG12	1:M:163:SER:H	1.78	0.48
1:M:390:GLN:O	1:M:394:ASN:HB2	2.12	0.48
1:M:946:VAL:HG22	5:Q:201:LYS:HD2	1.94	0.48
1:M:996:ASN:HA	1:M:998:LEU:CD1	2.44	0.48
2:N:97:VAL:HG12	2:N:97:VAL:O	2.13	0.48
3:O:114:TYR:HB2	3:O:116:LYS:HG2	1.94	0.48
3:O:213:PRO:HG2	3:O:214:ASN:H	1.78	0.48
4:P:185:CYS:SG	4:P:191:ALA:N	2.86	0.48
8:T:4:THR:HA	8:T:60:ALA:CB	2.20	0.48
9:U:61:ASP:C	9:U:63:GLY:N	2.66	0.48
1:A:69:THR:C	1:A:71:GLN:N	2.65	0.48
1:A:463:ILE:HD11	1:A:469:ARG:HG3	1.96	0.48
1:A:476:SER:HB2	1:A:477:PRO:HD3	1.95	0.48
1:A:1011:GLN:NE2	1:A:1015:VAL:CG2	2.76	0.48
1:A:1148:ILE:CG1	1:A:1198:ASP:HB2	2.43	0.48
1:A:1313:LEU:HD23	1:A:1338:VAL:CG2	2.43	0.48
2:B:594:ALA:CA	2:B:617:ARG:NH1	2.76	0.48
2:B:889:THR:O	2:B:889:THR:HG22	2.13	0.48
2:B:918:ILE:HD12	2:B:935:ARG:NH1	2.28	0.48
3:C:133:ILE:CD1	3:C:236:GLY:C	2.82	0.48
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.49	0.48
9:I:7:CYS:SG	9:I:8:ARG:O	2.72	0.48
11:K:47:ARG:HH11	11:K:47:ARG:CB	2.21	0.48
12:L:47:ARG:CG	12:L:48:CYS:H	2.26	0.48
12:L:59:ALA:O	12:L:60:ARG:O	2.32	0.48
1:M:370:ILE:HG22	1:M:374:LEU:HD12	1.95	0.48
1:M:738:LYS:HD3	1:M:738:LYS:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:829:VAL:HG21	2:N:508:LEU:HD13	1.95	0.48
1:M:1124:HIS:HB2	1:M:1130:GLN:HG2	1.93	0.48
2:N:212:LEU:HD23	2:N:480:SER:HB2	1.95	0.48
2:N:642:ASP:HB3	2:N:649:LYS:HG3	1.95	0.48
2:N:1116:ARG:HG3	2:N:1198:TYR:CG	2.48	0.48
3:O:177:GLU:CG	3:O:231:ASN:HB3	2.27	0.48
4:P:154:PHE:CE1	4:P:163:VAL:CG2	2.96	0.48
8:T:81:PRO:CB	8:T:82:PRO:CD	2.88	0.48
1:A:332:LYS:O	1:A:333:GLU:CB	2.61	0.48
1:A:967:ALA:O	1:A:971:PHE:HD1	1.97	0.48
2:B:522:VAL:HG11	2:B:537:LYS:HB3	1.95	0.48
2:B:557:PHE:HD2	2:B:557:PHE:O	1.96	0.48
2:B:878:GLN:HA	2:B:885:MET:SD	2.53	0.48
3:C:63:ILE:HA	3:C:66:ARG:HG3	1.95	0.48
3:C:260:LEU:O	3:C:263:THR:HB	2.13	0.48
4:D:71:LYS:CA	4:D:74:GLN:HB2	2.39	0.48
4:D:156:ASP:CB	4:D:159:THR:HG23	2.44	0.48
12:L:26:THR:C	12:L:27:LEU:HD23	2.34	0.48
12:L:30:ILE:CG2	12:L:31:CYS:N	2.76	0.48
1:M:392:VAL:HG13	1:M:415:LEU:HD11	1.95	0.48
1:M:1259:MET:HA	1:M:1262:LYS:CD	2.37	0.48
2:N:1096:ARG:NH1	2:N:1096:ARG:HB2	2.28	0.48
2:N:1099:VAL:HG13	2:N:1100:ASP:N	2.29	0.48
4:P:139:LYS:O	4:P:143:ASN:ND2	2.46	0.48
4:P:189:ASP:OD2	7:S:167:TYR:HE1	1.96	0.48
5:Q:129:PRO:O	5:Q:130:ALA:C	2.52	0.48
7:S:116:PRO:CG	7:S:119:LEU:HB2	2.43	0.48
8:T:61:SER:HB3	8:T:139:ASN:HB3	1.96	0.48
11:W:53:ASP:OD2	11:W:81:TYR:OH	2.28	0.48
12:X:38:LEU:HD11	12:X:49:LYS:HE2	1.96	0.48
1:A:65:LEU:O	1:A:66:LYS:O	2.31	0.48
1:A:95:PHE:O	1:A:96:ILE:C	2.51	0.48
1:A:321:PRO:O	1:A:322:VAL:CB	2.61	0.48
1:A:332:LYS:C	1:A:334:GLY:N	2.66	0.48
1:A:344:ARG:HH11	1:A:344:ARG:CB	2.12	0.48
1:A:523:ILE:HG13	1:A:622:VAL:CG2	2.43	0.48
1:A:870:GLU:HG2	5:E:208:TYR:CG	2.47	0.48
1:A:1410:PHE:HD2	2:B:1212:ILE:HD11	1.79	0.48
2:B:446:LEU:HG	2:B:446:LEU:O	2.13	0.48
2:B:552:MET:C	2:B:554:ILE:H	2.17	0.48
3:C:44:LEU:HD21	3:C:159:ALA:HB1	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:236:GLY:O	3:C:238:ILE:N	2.46	0.48
4:D:56:ARG:CA	4:D:148:LEU:HD13	2.43	0.48
6:F:69:LEU:HB3	6:F:71:GLU:CG	2.44	0.48
7:G:1:MET:HE1	7:G:80:LYS:H	1.78	0.48
8:H:61:SER:O	8:H:62:SER:HB2	2.13	0.48
14:2:4:DA:H2"	14:2:5:DC:C6	2.48	0.48
1:M:316:GLN:HG2	1:M:317:LYS:N	2.28	0.48
1:M:821:ARG:O	1:M:825:ILE:HG13	2.13	0.48
1:M:1109:LYS:HG3	1:M:1110:ASN:ND2	2.28	0.48
1:M:1121:GLU:HB3	1:M:1124:HIS:CD2	2.48	0.48
1:M:1202:MET:HE1	1:M:1212:VAL:CG2	2.44	0.48
2:N:552:MET:C	2:N:554:ILE:H	2.17	0.48
2:N:604:ARG:C	2:N:606:LYS:H	2.16	0.48
2:N:780:VAL:HG11	10:V:56:LEU:HD13	1.96	0.48
2:N:1020:ARG:HB2	2:N:1022:THR:HG22	1.96	0.48
3:O:242:GLN:C	3:O:244:VAL:H	2.16	0.48
4:P:209:ARG:HA	4:P:212:LYS:CD	2.43	0.48
7:S:43:GLY:HA2	7:S:157:ILE:HD11	1.95	0.48
8:T:24:CYS:HB2	8:T:44:VAL:CG2	2.42	0.48
9:U:77:LYS:O	9:U:79:HIS:N	2.46	0.48
11:W:53:ASP:HB3	11:W:56:VAL:CG2	2.44	0.48
1:A:41:MET:O	1:A:42:ASP:O	2.30	0.48
1:A:933:TYR:CD2	1:A:933:TYR:O	2.67	0.48
1:A:963:ILE:HD11	1:A:1049:ILE:N	2.29	0.48
1:A:1268:LEU:CD1	9:I:48:LEU:HD11	2.44	0.48
1:A:1315:GLU:O	1:A:1317:MET:N	2.46	0.48
2:B:110:HIS:CB	12:L:54:ARG:HH22	2.25	0.48
2:B:221:ASN:OD1	2:B:242:SER:HA	2.14	0.48
2:B:659:ALA:HA	2:B:662:MET:HE2	1.96	0.48
2:B:798:TYR:CD2	2:B:798:TYR:N	2.81	0.48
2:B:872:GLU:CD	2:B:914:LYS:HE2	2.34	0.48
4:D:29:LEU:HD12	7:G:82:PHE:CZ	2.49	0.48
5:E:55:ARG:CD	5:E:113:GLN:HE21	2.27	0.48
5:E:69:ILE:HD12	5:E:69:ILE:N	2.29	0.48
9:I:19:ASP:CB	9:I:24:ARG:HG2	2.42	0.48
10:J:44:TYR:CD2	10:J:44:TYR:N	2.74	0.48
11:K:57:LEU:HD11	11:K:78:THR:HA	1.96	0.48
1:M:565:ILE:CG2	1:M:567:LYS:HE2	2.43	0.48
1:M:902:LEU:CG	1:M:926:GLN:HG3	2.34	0.48
1:M:1332:PHE:CE1	1:M:1381:LEU:HD13	2.49	0.48
2:N:110:HIS:CB	12:X:54:ARG:HH22	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:216:GLU:HB2	2:N:406:LEU:CD2	2.43	0.48
2:N:558:LEU:O	2:N:560:GLU:N	2.47	0.48
2:N:629:ASP:HB3	2:N:632:ARG:HD3	1.96	0.48
2:N:944:THR:HG21	2:N:1122:ARG:NH2	2.28	0.48
3:O:97:VAL:HG21	3:O:129:ILE:CG2	2.44	0.48
3:O:98:VAL:HG13	3:O:157:CYS:O	2.14	0.48
3:O:226:ASP:O	3:O:227:THR:HB	2.14	0.48
4:P:209:ARG:HA	4:P:212:LYS:HE3	1.96	0.48
5:Q:94:LYS:HE2	5:Q:98:ILE:CG1	2.43	0.48
6:R:90:ARG:HG3	6:R:91:ALA:N	2.27	0.48
7:S:12:THR:O	7:S:12:THR:HG22	2.13	0.48
12:X:38:LEU:HG	12:X:39:SER:N	2.29	0.48
1:A:709:THR:CG2	1:A:710:LEU:H	2.25	0.48
1:A:728:LYS:HA	1:A:731:ARG:CZ	2.43	0.48
1:A:929:LEU:HD21	1:A:983:ILE:CG2	2.43	0.48
1:A:1025:ARG:HG3	1:A:1025:ARG:NH1	2.28	0.48
1:A:1150:SER:O	1:A:1151:GLU:HG3	2.14	0.48
1:A:1193:LEU:HD12	1:A:1193:LEU:C	2.35	0.48
1:A:1254:ALA:O	1:A:1255:GLU:HB3	2.13	0.48
2:B:579:ARG:CB	2:B:586:TRP:HE1	2.10	0.48
4:D:216:ASN:C	4:D:218:GLU:H	2.16	0.48
5:E:29:PHE:HA	5:E:65:THR:HG22	1.95	0.48
12:L:40:LEU:HD22	12:L:44:ASP:OD2	2.13	0.48
1:M:164:ARG:CG	1:M:165:GLY:N	2.75	0.48
1:M:899:VAL:CG2	1:M:908:LEU:HD21	2.43	0.48
2:N:128:LEU:HB2	2:N:168:GLY:O	2.13	0.48
2:N:448:ILE:O	2:N:450:ALA:N	2.46	0.48
2:N:582:VAL:HG12	2:N:582:VAL:O	2.13	0.48
2:N:822:ASN:ND2	10:V:52:THR:HG21	2.29	0.48
2:N:996:ARG:NH1	3:O:174:ALA:HA	2.27	0.48
2:N:1110:PRO:C	2:N:1119:VAL:HG13	2.34	0.48
4:P:119:ARG:HB2	4:P:221:TYR:CZ	2.48	0.48
7:S:9:LEU:HD12	7:S:10:ASN:N	2.28	0.48
7:S:132:SER:HB3	7:S:135:ASP:H	1.79	0.48
8:T:135:LEU:HD13	8:T:137:GLN:NE2	2.29	0.48
1:A:250:ILE:O	1:A:250:ILE:CG2	2.59	0.48
1:A:598:LEU:O	1:A:598:LEU:HD23	2.13	0.48
2:B:273:LEU:HB2	2:B:276:ILE:HD12	1.95	0.48
2:B:654:ARG:O	2:B:657:HIS:N	2.47	0.48
2:B:848:ARG:HD3	10:J:11:GLY:HA2	1.96	0.48
3:C:3:GLU:CD	3:C:4:GLU:HG3	2.35	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:89:GLU:O	3:C:89:GLU:HG2	2.14	0.48
3:C:253:LYS:O	3:C:256:ALA:HB3	2.14	0.48
7:G:7:LEU:CB	7:G:74:TYR:HE2	2.26	0.48
1:M:399:HIS:CG	1:M:400:PRO:N	2.81	0.48
1:M:477:PRO:CG	1:M:521:MET:HG2	2.43	0.48
1:M:1313:LEU:HD23	1:M:1338:VAL:HG21	1.95	0.48
1:M:1315:GLU:O	1:M:1317:MET:N	2.47	0.48
1:M:1333:ILE:O	1:M:1337:GLU:HG3	2.14	0.48
2:N:853:SER:OG	2:N:1094:ARG:NH1	2.47	0.48
2:N:875:GLU:O	2:N:877:PRO:HD3	2.14	0.48
5:Q:116:ILE:HG22	5:Q:120:ALA:HB3	1.96	0.48
5:Q:177:ARG:HD3	5:Q:215:MET:CG	2.43	0.48
5:Q:207:ARG:CB	5:Q:207:ARG:NH1	2.77	0.48
7:S:7:LEU:HB2	7:S:74:TYR:HE2	1.74	0.48
10:V:6:ARG:HA	10:V:12:LYS:O	2.14	0.48
1:A:42:ASP:HB3	1:A:45:GLN:HA	1.95	0.48
1:A:175:ARG:HG2	1:A:182:VAL:HG12	1.96	0.48
1:A:504:LEU:CD1	6:F:91:ALA:HB2	2.44	0.48
2:B:221:ASN:N	2:B:241:ARG:O	2.40	0.48
2:B:237:VAL:HG22	2:B:257:LYS:HA	1.96	0.48
2:B:240:ILE:HG23	2:B:240:ILE:O	2.14	0.48
2:B:429:PHE:CD1	2:B:432:MET:HE3	2.49	0.48
2:B:999:MET:HE2	2:B:1000:PRO:CD	2.43	0.48
2:B:1182:CYS:O	2:B:1182:CYS:SG	2.72	0.48
5:E:128:PRO:HA	5:E:129:PRO:O	2.14	0.48
6:F:69:LEU:HD22	6:F:71:GLU:OE1	2.14	0.48
10:J:42:LYS:HG2	10:J:43:ARG:N	2.28	0.48
10:J:64:ASN:CB	10:J:65:PRO:HD3	2.42	0.48
11:K:21:ILE:HG12	11:K:33:ILE:HG12	1.94	0.48
11:K:109:TRP:O	11:K:112:GLN:HB2	2.13	0.48
1:M:43:GLU:OE2	1:M:48:ALA:CB	2.62	0.48
1:M:102:VAL:CG1	1:M:211:PHE:HE1	2.27	0.48
1:M:385:ILE:HG22	1:M:386:ASP:N	2.29	0.48
1:M:845:LEU:O	1:M:846:GLU:C	2.52	0.48
1:M:846:GLU:OE1	1:M:1425:SER:OG	2.32	0.48
1:M:1116:LEU:C	1:M:1116:LEU:HD12	2.35	0.48
2:N:27:ALA:O	2:N:29:ASP:N	2.47	0.48
2:N:806:THR:HG22	2:N:808:ALA:HB3	1.96	0.48
3:O:99:LEU:CD2	3:O:99:LEU:N	2.76	0.48
4:P:209:ARG:HA	4:P:212:LYS:CE	2.44	0.48
5:Q:48:ASP:CG	5:Q:49:SER:N	2.64	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:1:MET:O	7:S:3:PHE:CE2	2.67	0.48
7:S:13:LEU:HD22	7:S:17:PHE:HB2	1.90	0.48
7:S:26:LEU:HD12	7:S:56:ILE:CD1	2.43	0.48
1:A:544:ASP:CG	1:A:545:GLN:N	2.67	0.47
1:A:822:GLU:HG3	2:B:513:GLN:HE21	1.79	0.47
1:A:1203:ASN:O	1:A:1204:ASP:C	2.52	0.47
1:A:1313:LEU:C	1:A:1315:GLU:N	2.67	0.47
1:A:1341:ILE:HG23	1:A:1342:GLU:N	2.28	0.47
1:A:1350:LYS:O	1:A:1354:ASN:ND2	2.46	0.47
2:B:433:GLN:O	2:B:434:ARG:HG3	2.14	0.47
2:B:886:LYS:HE2	2:B:940:PRO:CD	2.43	0.47
2:B:1156:ASP:HB3	2:B:1197:PRO:HA	1.96	0.47
4:D:217:LEU:O	4:D:219:THR:N	2.47	0.47
5:E:2:ASP:C	5:E:3:GLN:HG2	2.35	0.47
5:E:182:ASP:HB3	5:E:185:ALA:HB2	1.96	0.47
6:F:81:THR:HB	6:F:136:ARG:NH1	2.29	0.47
10:J:36:LEU:HD11	10:J:51:LEU:HB2	1.96	0.47
1:M:332:LYS:O	1:M:333:GLU:CB	2.59	0.47
1:M:1166:ASP:OD1	1:M:1194:ARG:NH2	2.45	0.47
2:N:244:LEU:CD1	2:N:250:PHE:HD1	2.27	0.47
2:N:519:TRP:CD1	2:N:519:TRP:C	2.87	0.47
2:N:642:ASP:HB3	2:N:649:LYS:HD2	1.96	0.47
2:N:889:THR:O	2:N:889:THR:HG22	2.13	0.47
4:P:122:GLU:HA	4:P:125:SER:OG	2.14	0.47
8:T:87:ARG:O	8:T:89:LEU:HD23	2.14	0.47
1:A:565:ILE:HG23	1:A:567:LYS:CG	2.38	0.47
1:A:688:LYS:HG3	1:A:691:LEU:HD23	1.96	0.47
1:A:845:LEU:O	1:A:846:GLU:C	2.52	0.47
1:A:961:ARG:HH11	1:A:961:ARG:CG	2.27	0.47
1:A:1135:ARG:HG2	1:A:1136:SER:N	2.27	0.47
1:A:1217:LYS:O	1:A:1221:LYS:HA	2.13	0.47
2:B:278:GLN:CG	2:B:279:ASP:N	2.78	0.47
2:B:449:ASN:C	2:B:451:LYS:H	2.17	0.47
2:B:658:ILE:HG22	2:B:659:ALA:N	2.28	0.47
2:B:798:TYR:HE2	3:C:62:PHE:CZ	2.32	0.47
7:G:91:VAL:HG12	7:G:92:VAL:N	2.29	0.47
15:3:5:C:H2'	15:3:6:A:H8	1.80	0.47
1:M:107:CYS:CB	1:M:171:GLN:HE22	2.27	0.47
1:M:690:VAL:CG2	1:M:718:VAL:HG13	2.44	0.47
1:M:902:LEU:CD2	1:M:923:LEU:HD23	2.45	0.47
1:M:946:VAL:HG22	5:Q:201:LYS:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:56:ARG:HH21	4:P:155:ARG:CG	2.21	0.47
4:P:126:ILE:HD13	4:P:145:MET:CE	2.44	0.47
4:P:173:HIS:ND1	4:P:175:PHE:N	2.46	0.47
9:U:7:CYS:HB2	9:U:34:TYR:CG	2.49	0.47
14:5:4:DA:H2"	14:5:5:DC:C6	2.48	0.47
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.42	0.47
1:A:168:GLY:O	1:A:169:ASN:C	2.51	0.47
1:A:463:ILE:HB	1:A:464:PRO:HD2	1.96	0.47
1:A:1006:ILE:HD11	5:E:163:GLU:CG	2.41	0.47
1:A:1397:LEU:HB2	1:A:1426:GLU:OE1	2.14	0.47
2:B:131:ASP:HA	2:B:164:LYS:HB3	1.96	0.47
2:B:1006:ILE:H	2:B:1006:ILE:HG13	1.41	0.47
3:C:226:ASP:O	3:C:227:THR:HB	2.14	0.47
3:C:241:ASP:HB3	11:K:109:TRP:CE2	2.49	0.47
5:E:108:GLY:O	5:E:132:ILE:HG23	2.15	0.47
10:J:7:CYS:CB	10:J:49:MET:HE3	2.43	0.47
12:L:33:GLU:OE1	12:L:55:ILE:HD11	2.15	0.47
14:2:3:DT:C2	14:2:4:DA:N7	2.82	0.47
1:M:407:ARG:HG2	1:M:430:TRP:CH2	2.48	0.47
1:M:1048:ASN:N	1:M:1048:ASN:HD22	2.10	0.47
1:M:1127:ASP:CG	1:M:1130:GLN:HB2	2.34	0.47
2:N:95:ILE:HG13	2:N:130:VAL:CG2	2.43	0.47
2:N:378:LEU:O	2:N:378:LEU:HD12	2.13	0.47
2:N:515:HIS:HD2	2:N:517:THR:HG23	1.76	0.47
3:O:184:ASN:OD1	3:O:187:LYS:HA	2.15	0.47
4:P:190:GLU:HA	7:S:167:TYR:CE1	2.48	0.47
5:Q:162:ARG:HG2	5:Q:162:ARG:HH11	1.78	0.47
7:S:74:TYR:H	7:S:74:TYR:HD2	1.62	0.47
1:A:568:PRO:CB	3:C:221:TYR:OH	2.62	0.47
1:A:761:MET:HA	1:A:804:TYR:HB2	1.96	0.47
1:A:789:LYS:HD2	2:B:620:ARG:HH12	1.79	0.47
2:B:33:VAL:O	2:B:36:ALA:HB3	2.14	0.47
2:B:244:LEU:CD1	2:B:250:PHE:HD1	2.27	0.47
2:B:408:LEU:HD12	2:B:408:LEU:N	2.29	0.47
2:B:1050:ILE:HG22	2:B:1051:THR:N	2.28	0.47
2:B:1197:PRO:O	2:B:1200:ALA:N	2.44	0.47
4:D:209:ARG:HA	4:D:212:LYS:CD	2.43	0.47
5:E:94:LYS:HE2	5:E:98:ILE:CD1	2.27	0.47
7:G:88:ASP:OD2	7:G:88:ASP:N	2.46	0.47
9:I:77:LYS:O	9:I:79:HIS:N	2.47	0.47
12:L:38:LEU:CG	12:L:39:SER:N	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1:25:DG:N9	13:1:26:DT:H72	2.30	0.47
1:M:13:THR:HB	1:M:1432:GLN:NE2	2.29	0.47
1:M:353:ILE:HG22	1:M:468:PHE:HB2	1.96	0.47
1:M:472:LEU:O	1:M:475:THR:CB	2.58	0.47
1:M:1332:PHE:HE1	1:M:1381:LEU:HD13	1.79	0.47
2:N:35:SER:O	2:N:39:ARG:HG3	2.13	0.47
2:N:124:TYR:HH	2:N:179:CYS:HG	1.56	0.47
2:N:244:LEU:HD12	2:N:250:PHE:HD1	1.79	0.47
2:N:251:ILE:HG22	2:N:251:ILE:O	2.15	0.47
2:N:604:ARG:CB	2:N:609:ILE:HG13	2.44	0.47
2:N:1079:LYS:HA	3:O:27:LEU:HD21	1.96	0.47
2:N:1110:PRO:O	2:N:1119:VAL:HG13	2.14	0.47
2:N:1201:LYS:CE	2:N:1205:GLN:OE1	2.59	0.47
4:P:58:VAL:HG11	7:S:4:ILE:HD11	1.95	0.47
5:Q:145:THR:HG21	5:Q:187:TYR:CE2	2.49	0.47
5:Q:153:HIS:C	5:Q:154:ILE:HG13	2.32	0.47
7:S:146:LYS:HD2	7:S:165:GLU:HG3	1.95	0.47
12:X:38:LEU:CG	12:X:39:SER:N	2.77	0.47
1:A:61:ILE:HG22	1:A:62:ASP:H	1.79	0.47
1:A:285:PRO:O	1:A:287:HIS:N	2.47	0.47
1:A:381:THR:CG2	1:A:382:PRO:HD2	2.44	0.47
1:A:709:THR:HG23	9:I:94:ASP:HA	1.97	0.47
1:A:946:VAL:CG2	5:E:201:LYS:HD2	2.42	0.47
1:A:1313:LEU:C	1:A:1315:GLU:H	2.17	0.47
2:B:227:LYS:HE2	2:B:236:HIS:CE1	2.49	0.47
2:B:335:GLY:O	2:B:336:ARG:HG3	2.13	0.47
4:D:122:GLU:HA	4:D:125:SER:OG	2.15	0.47
10:J:30:LEU:HD21	10:J:38:ARG:NH1	2.29	0.47
1:M:335:ARG:NH1	2:N:1202:LEU:HD13	2.29	0.47
1:M:354:SER:HA	1:M:482:PHE:CD2	2.49	0.47
1:M:820:GLY:O	1:M:823:GLY:N	2.48	0.47
2:N:43:LEU:HD11	2:N:811:TYR:O	2.14	0.47
2:N:642:ASP:CB	2:N:649:LYS:HG3	2.44	0.47
2:N:805:THR:CG2	2:N:806:THR:H	2.18	0.47
2:N:831:SER:HB2	2:N:833:TYR:HD1	1.79	0.47
2:N:835:GLN:HE21	2:N:835:GLN:HB2	1.48	0.47
2:N:878:GLN:HA	2:N:885:MET:SD	2.55	0.47
3:O:99:LEU:N	3:O:99:LEU:HD22	2.30	0.47
4:P:7:THR:O	4:P:7:THR:HG23	2.15	0.47
4:P:12:ARG:HD3	4:P:14:ARG:CG	2.43	0.47
4:P:216:ASN:O	4:P:218:GLU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:120:THR:HG23	7:S:131:GLN:O	2.14	0.47
1:A:1041:ALA:O	1:A:1045:VAL:HG23	2.15	0.47
1:A:1100:ARG:NH2	1:A:1351:GLU:HG2	2.30	0.47
2:B:617:ARG:HH22	9:I:61:ASP:CG	2.18	0.47
3:C:196:ASP:OD1	3:C:198:ALA:HB3	2.15	0.47
3:C:196:ASP:CG	3:C:199:LYS:HD3	2.35	0.47
4:D:69:ALA:C	4:D:71:LYS:H	2.17	0.47
6:F:152:ILE:HG22	6:F:153:VAL:N	2.29	0.47
7:G:87:VAL:HG23	7:G:103:VAL:HG21	1.97	0.47
8:H:81:PRO:HB3	8:H:82:PRO:HD2	1.96	0.47
10:J:53:HIS:CD2	10:J:54:VAL:H	2.31	0.47
1:M:12:ARG:HD2	2:N:1218:THR:HB	1.96	0.47
1:M:56:PRO:O	1:M:57:ARG:CG	2.61	0.47
1:M:60:SER:OG	1:M:61:ILE:N	2.48	0.47
1:M:255:SER:OG	2:N:918:ILE:HD13	2.14	0.47
1:M:1389:PHE:C	1:M:1391:ARG:H	2.18	0.47
2:N:121:ASN:ND2	2:N:207:GLY:HA3	2.28	0.47
2:N:211:VAL:HG23	2:N:483:LEU:HB2	1.97	0.47
2:N:247:GLY:H	2:N:249:ARG:HH21	1.63	0.47
2:N:277:LYS:HE2	2:N:336:ARG:C	2.35	0.47
2:N:785:TYR:CD1	2:N:786:ASN:N	2.82	0.47
3:O:254:LYS:O	3:O:258:ILE:HD13	2.15	0.47
4:P:67:ARG:HG2	4:P:67:ARG:O	2.15	0.47
5:Q:60:PHE:CD1	5:Q:60:PHE:C	2.87	0.47
12:X:33:GLU:OE1	12:X:55:ILE:HD11	2.15	0.47
1:A:75:ASN:O	1:A:76:GLU:HB2	2.15	0.47
1:A:305:ASP:OD1	1:A:306:ASN:N	2.47	0.47
1:A:310:GLY:O	1:A:312:PRO:CD	2.60	0.47
1:A:407:ARG:HG2	1:A:430:TRP:CH2	2.49	0.47
1:A:765:VAL:HB	1:A:800:VAL:CG1	2.45	0.47
1:A:899:VAL:HG22	1:A:908:LEU:HD21	1.95	0.47
1:A:949:ASP:OD1	1:A:951:GLU:HB2	2.14	0.47
1:A:1050:GLU:O	1:A:1054:LEU:HD12	2.14	0.47
1:A:1193:LEU:HB2	1:A:1260:LEU:HD11	1.96	0.47
1:A:1280:GLU:HB3	1:A:1281:ARG:H	1.59	0.47
1:A:1450:LEU:O	1:A:1450:LEU:HG	2.15	0.47
2:B:102:VAL:CG2	2:B:112:LEU:HD22	2.44	0.47
2:B:115:GLN:HG2	2:B:193:LYS:CB	2.44	0.47
2:B:118:ARG:HH22	2:B:194:GLU:CD	2.18	0.47
2:B:189:LEU:HA	2:B:192:LEU:HD12	1.96	0.47
2:B:487:THR:CG2	2:B:488:TYR:N	2.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:558:LEU:O	2:B:560:GLU:N	2.48	0.47
2:B:594:ALA:HA	2:B:617:ARG:HH11	1.80	0.47
2:B:597:MET:SD	2:B:617:ARG:HB2	2.55	0.47
2:B:807:ARG:HD3	2:B:1043:ASP:OD1	2.15	0.47
2:B:953:LEU:O	2:B:964:VAL:HG23	2.14	0.47
2:B:996:ARG:NH1	3:C:174:ALA:HA	2.20	0.47
3:C:73:GLN:NE2	3:C:75:MET:N	2.62	0.47
3:C:89:GLU:O	3:C:90:ASP:HB3	2.14	0.47
3:C:213:PRO:HG2	3:C:214:ASN:H	1.80	0.47
4:D:12:ARG:NH1	4:D:14:ARG:CA	2.78	0.47
5:E:191:LYS:O	5:E:192:ARG:C	2.52	0.47
5:E:204:THR:CG2	5:E:205:SER:N	2.77	0.47
7:G:111:THR:CG2	7:G:114:LEU:HB2	2.25	0.47
9:I:10:CYS:SG	9:I:32:CYS:HB3	2.54	0.47
10:J:9:SER:CB	10:J:45:CYS:HB2	2.45	0.47
1:M:69:THR:C	1:M:71:GLN:N	2.67	0.47
1:M:378:GLU:OE1	1:M:434:ARG:HD3	2.14	0.47
1:M:401:GLY:N	1:M:435:HIS:HD2	2.13	0.47
1:M:460:VAL:HG12	1:M:461:LYS:N	2.30	0.47
1:M:675:THR:HG21	1:M:736:ASN:HB2	1.96	0.47
1:M:689:LYS:O	1:M:693:VAL:HG23	2.14	0.47
1:M:963:ILE:HD13	1:M:1049:ILE:HG13	1.96	0.47
1:M:1148:ILE:O	1:M:1148:ILE:HG22	2.15	0.47
1:M:1257:ASP:HA	1:M:1260:LEU:HB3	1.97	0.47
1:M:1342:GLU:OE2	5:Q:212:ARG:NH1	2.46	0.47
1:M:1345:ARG:HG2	1:M:1372:VAL:CG1	2.45	0.47
2:N:417:PHE:HE1	2:N:453:ILE:HG21	1.80	0.47
2:N:483:LEU:HD11	2:N:491:THR:CG2	2.45	0.47
2:N:641:GLU:OE1	2:N:641:GLU:HA	2.15	0.47
2:N:661:LEU:HD23	2:N:679:TYR:O	2.14	0.47
2:N:889:THR:HG23	2:N:891:ASP:HB2	1.97	0.47
4:P:161:GLY:O	4:P:165:GLN:HG3	2.14	0.47
4:P:187:THR:C	4:P:189:ASP:N	2.66	0.47
4:P:191:ALA:C	4:P:193:THR:H	2.18	0.47
6:R:119:ARG:HH11	6:R:119:ARG:CG	2.28	0.47
8:T:113:ALA:HA	8:T:125:LEU:O	2.14	0.47
1:A:71:GLN:C	1:A:73:GLY:N	2.68	0.47
1:A:134:ARG:HG2	1:A:138:ILE:HD11	1.97	0.47
1:A:144:THR:O	1:A:146:MET:HG3	2.14	0.47
1:A:321:PRO:O	1:A:322:VAL:CG1	2.63	0.47
1:A:364:VAL:O	1:A:364:VAL:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:909:ASP:OD1	1:A:911:SER:N	2.41	0.47
2:B:863:GLU:OE1	2:B:962:LYS:HB2	2.15	0.47
3:C:238:ILE:HG23	3:C:242:GLN:HB2	1.96	0.47
3:C:242:GLN:C	3:C:244:VAL:H	2.17	0.47
8:H:99:GLY:HA3	8:H:118:PHE:CD2	2.49	0.47
1:M:305:ASP:OD1	1:M:306:ASN:N	2.48	0.47
1:M:416:ARG:HG3	1:M:416:ARG:HH11	1.79	0.47
1:M:523:ILE:HG13	1:M:622:VAL:HG22	1.97	0.47
1:M:962:ARG:C	1:M:964:ILE:N	2.68	0.47
2:N:20:ASP:C	2:N:22:SER:H	2.12	0.47
2:N:90:ILE:HD11	2:N:432:MET:SD	2.55	0.47
2:N:273:LEU:CD1	2:N:280:ILE:HD12	2.37	0.47
2:N:428:ILE:HG22	2:N:432:MET:HE2	1.97	0.47
2:N:1039:GLY:HA2	10:V:51:LEU:HD22	1.97	0.47
3:O:3:GLU:OE1	3:O:4:GLU:N	2.47	0.47
4:P:194:LEU:C	4:P:195:ILE:HG13	2.34	0.47
6:R:103:MET:O	6:R:104:ASN:HB2	2.13	0.47
6:R:111:LEU:C	6:R:113:GLY:N	2.66	0.47
11:W:12:LEU:HD12	11:W:37:LYS:CG	2.45	0.47
1:A:100:LYS:HE2	1:A:104:GLU:OE2	2.14	0.47
1:A:477:PRO:CG	1:A:521:MET:HG2	2.45	0.47
1:A:675:THR:OG1	1:A:736:ASN:ND2	2.47	0.47
2:B:604:ARG:C	2:B:606:LYS:H	2.18	0.47
5:E:144:ILE:HD13	5:E:183:PRO:HB3	1.97	0.47
5:E:147:HIS:CD2	5:E:148:GLU:N	2.83	0.47
9:I:74:GLU:HA	9:I:80:SER:O	2.15	0.47
1:M:175:ARG:HG2	1:M:182:VAL:HG12	1.97	0.47
1:M:322:VAL:O	1:M:322:VAL:HG13	2.15	0.47
1:M:645:LEU:HD11	1:M:649:ILE:HD11	1.97	0.47
1:M:845:LEU:HD12	1:M:1069:ALA:HB2	1.96	0.47
1:M:1259:MET:HE1	1:M:1262:LYS:HB2	1.97	0.47
2:N:58:THR:O	2:N:62:ILE:HG13	2.15	0.47
2:N:167:ILE:HA	2:N:450:ALA:HB1	1.94	0.47
2:N:224:GLN:HA	2:N:396:ASP:OD2	2.15	0.47
2:N:235:SER:C	2:N:236:HIS:CD2	2.88	0.47
2:N:371:GLU:OE1	2:N:371:GLU:N	2.47	0.47
3:O:186:LEU:HD12	3:O:186:LEU:N	2.29	0.47
3:O:259:LEU:CD2	11:W:91:CYS:HB3	2.45	0.47
4:P:154:PHE:HE1	4:P:163:VAL:CG1	2.26	0.47
5:Q:177:ARG:HB3	5:Q:215:MET:HG2	1.96	0.47
1:A:53:LEU:O	1:A:54:ASN:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:67:CYS:O	1:A:68:GLN:HG3	2.15	0.47
1:A:75:ASN:HD22	2:B:1116:ARG:HH12	1.62	0.47
1:A:472:LEU:HD13	2:B:835:GLN:OE1	2.15	0.47
1:A:868:TYR:CE1	1:A:1064:VAL:HG11	2.50	0.47
1:A:1189:SER:O	1:A:1241:ARG:HD3	2.15	0.47
1:A:1277:GLU:O	1:A:1279:ILE:N	2.47	0.47
1:A:1438:THR:CG2	6:F:92:ARG:HD2	2.43	0.47
2:B:172:ILE:HD13	2:B:178:ASN:ND2	2.30	0.47
2:B:222:ILE:N	2:B:240:ILE:HD12	2.30	0.47
2:B:886:LYS:HB2	2:B:890:TYR:OH	2.15	0.47
2:B:906:SER:O	2:B:941:LEU:HD23	2.15	0.47
3:C:147:LEU:N	3:C:147:LEU:CD2	2.75	0.47
6:F:77:ASP:OD1	6:F:78:GLN:N	2.48	0.47
9:I:106:CYS:O	9:I:107:SER:HB2	2.14	0.47
1:M:444:PHE:HE2	1:M:470:LEU:HD13	1.80	0.47
1:M:879:GLU:O	1:M:955:PRO:HA	2.15	0.47
1:M:1207:LEU:CD1	1:M:1273:LEU:HD23	2.45	0.47
2:N:186:GLU:CG	10:V:62:ARG:HH22	2.28	0.47
2:N:258:LEU:O	2:N:258:LEU:CG	2.63	0.47
2:N:525:ALA:O	2:N:768:THR:HG23	2.15	0.47
2:N:792:MET:HA	2:N:856:PHE:O	2.15	0.47
4:P:60:LYS:O	4:P:64:VAL:HG23	2.15	0.47
7:S:26:LEU:HD12	7:S:56:ILE:HD11	1.97	0.47
8:T:84:ALA:HA	8:T:87:ARG:HB2	1.97	0.47
1:A:35:ILE:HG22	1:A:35:ILE:O	2.16	0.46
1:A:984:LYS:HG2	1:A:988:LEU:HD12	1.97	0.46
1:A:1378:GLN:HG2	5:E:177:ARG:HH12	1.80	0.46
2:B:223:VAL:HG21	2:B:380:TYR:HE2	1.80	0.46
2:B:361:LEU:HD11	2:B:381:MET:HE1	1.96	0.46
2:B:376:PHE:CZ	2:B:569:TYR:HD2	2.33	0.46
2:B:542:MET:HG2	2:B:747:MET:HE2	1.97	0.46
11:K:65:HIS:CD2	11:K:67:PHE:HB2	2.50	0.46
12:L:55:ILE:O	12:L:56:LEU:HB2	2.15	0.46
1:M:1433:MET:CE	7:S:63:PRO:HB2	2.41	0.46
2:N:171:PRO:HD2	2:N:457:LEU:CD1	2.46	0.46
2:N:371:GLU:H	2:N:371:GLU:CD	2.18	0.46
2:N:1156:ASP:HB3	2:N:1197:PRO:HA	1.96	0.46
4:P:139:LYS:N	4:P:142:LYS:HE2	2.29	0.46
4:P:187:THR:HB	4:P:189:ASP:HB3	1.96	0.46
6:R:101:ILE:HD13	6:R:120:ILE:HG22	1.97	0.46
1:A:741:ASN:ND2	1:A:743:VAL:N	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1029:ARG:HH11	1:A:1029:ARG:CG	2.25	0.46
2:B:470:LYS:O	2:B:472:ALA:N	2.48	0.46
2:B:707:PRO:CG	2:B:708:GLU:H	2.24	0.46
2:B:773:MET:HE2	2:B:985:GLY:HA2	1.97	0.46
2:B:980:PHE:CA	2:B:1095:LEU:HD11	2.45	0.46
2:B:996:ARG:NH2	3:C:175:ALA:H	2.12	0.46
3:C:7:GLN:NE2	11:K:104:ASN:HD21	2.09	0.46
4:D:60:LYS:O	4:D:64:VAL:HG23	2.15	0.46
5:E:62:ALA:HB3	5:E:78:LEU:CD2	2.44	0.46
5:E:116:ILE:HG22	5:E:120:ALA:HB3	1.97	0.46
1:M:320:ARG:NE	1:M:323:LYS:NZ	2.64	0.46
1:M:413:ILE:HG21	1:M:424:ILE:HD11	1.98	0.46
1:M:977:LYS:HB3	1:M:978:PRO:CD	2.45	0.46
1:M:1203:ASN:O	1:M:1204:ASP:C	2.53	0.46
1:M:1293:SER:HB3	1:M:1297:GLU:OE1	2.16	0.46
1:M:1375:MET:HG2	1:M:1382:THR:O	2.15	0.46
2:N:274:PRO:CG	2:N:359:GLU:HB3	2.45	0.46
2:N:637:LEU:HD22	2:N:742:GLU:HA	1.98	0.46
3:O:18:VAL:O	3:O:20:PHE:HD2	1.98	0.46
3:O:37:MET:HE3	3:O:176:ILE:HD13	1.98	0.46
3:O:236:GLY:O	3:O:238:ILE:N	2.48	0.46
5:Q:112:TYR:CD1	5:Q:112:TYR:C	2.89	0.46
5:Q:117:THR:HG22	5:Q:119:SER:N	2.19	0.46
7:S:137:ILE:O	7:S:138:THR:OG1	2.32	0.46
8:T:38:LEU:HD12	8:T:124:ARG:O	2.16	0.46
1:A:61:ILE:HG22	1:A:62:ASP:N	2.31	0.46
1:A:78:PRO:HA	2:B:1201:LYS:NZ	2.30	0.46
1:A:157:ASP:C	1:A:159:THR:H	2.18	0.46
1:A:444:PHE:CB	1:A:458:HIS:HD2	2.28	0.46
2:B:96:TYR:HE1	2:B:131:ASP:OD1	1.97	0.46
2:B:617:ARG:HA	2:B:624:LEU:HD12	1.96	0.46
2:B:1116:ARG:HG3	2:B:1198:TYR:CD1	2.50	0.46
3:C:18:VAL:O	3:C:20:PHE:HD2	1.98	0.46
4:D:219:THR:HG22	4:D:220:LEU:O	2.15	0.46
5:E:192:ARG:NH1	5:E:215:MET:O	2.49	0.46
1:M:33:ALA:HB1	1:M:56:PRO:HB2	1.97	0.46
1:M:34:LYS:HG3	1:M:36:ARG:NH2	2.29	0.46
1:M:253:ASN:ND2	2:N:884:ARG:CD	2.78	0.46
1:M:570:PRO:O	1:M:571:LEU:HD12	2.16	0.46
2:N:193:LYS:HD3	2:N:787:VAL:HG11	1.96	0.46
2:N:231:PRO:HG2	2:N:231:PRO:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1068:GLY:O	2:N:1069:PHE:O	2.34	0.46
3:O:133:ILE:CD1	3:O:237:SER:HA	2.45	0.46
3:O:167:HIS:CE1	12:X:70:ARG:HA	2.50	0.46
3:O:258:ILE:HD12	3:O:258:ILE:N	2.30	0.46
5:Q:207:ARG:HB3	5:Q:207:ARG:NH1	2.30	0.46
8:T:123:MET:HG2	8:T:124:ARG:N	2.30	0.46
11:W:55:LYS:CB	11:W:81:TYR:CD1	2.98	0.46
1:A:382:PRO:CA	1:A:428:TYR:CE2	2.99	0.46
1:A:518:LYS:HB2	1:A:519:PRO:HD2	1.97	0.46
1:A:591:PHE:CD2	1:A:595:THR:HB	2.50	0.46
1:A:1121:GLU:HB3	1:A:1124:HIS:CD2	2.51	0.46
1:A:1277:GLU:O	1:A:1279:ILE:HG12	2.15	0.46
1:A:1284:MET:HA	1:A:1306:LEU:HD23	1.98	0.46
2:B:90:ILE:HD12	2:B:432:MET:SD	2.56	0.46
2:B:91:SER:OG	2:B:133:LYS:HB2	2.15	0.46
2:B:105:SER:O	2:B:106:ASP:HB2	2.15	0.46
2:B:168:GLY:HA2	2:B:450:ALA:O	2.15	0.46
2:B:205:ILE:N	2:B:205:ILE:CD1	2.78	0.46
2:B:258:LEU:O	2:B:258:LEU:CG	2.62	0.46
2:B:282:ILE:HG21	2:B:382:ILE:HD13	1.97	0.46
2:B:305:VAL:O	2:B:305:VAL:HG12	2.15	0.46
2:B:429:PHE:HA	2:B:432:MET:HE2	1.98	0.46
2:B:431:TYR:CG	2:B:447:ALA:HB2	2.50	0.46
2:B:621:GLU:HG3	2:B:621:GLU:O	2.14	0.46
2:B:859:TYR:OH	2:B:941:LEU:HD12	2.15	0.46
2:B:1156:ASP:O	2:B:1157:ALA:HB3	2.15	0.46
2:B:1183:LYS:HE3	2:B:1183:LYS:O	2.15	0.46
3:C:252:GLN:HE21	11:K:95:ILE:CG2	2.28	0.46
4:D:40:HIS:NE2	7:G:73:LYS:HG2	2.30	0.46
5:E:50:MET:CG	5:E:52:ARG:HH21	2.26	0.46
10:J:21:TYR:HB2	10:J:39:LEU:CD1	2.45	0.46
1:M:67:CYS:O	1:M:68:GLN:C	2.51	0.46
1:M:254:GLU:HB2	2:N:935:ARG:HH21	1.77	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CD1	2.50	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CG	2.51	0.46
1:M:722:LEU:HD23	1:M:799:PHE:CG	2.51	0.46
1:M:1123:GLY:O	1:M:1125:ALA:N	2.49	0.46
1:M:1255:GLU:HG2	1:M:1258:HIS:HB2	1.98	0.46
1:M:1336:MET:CE	1:M:1381:LEU:HG	2.45	0.46
2:N:245:GLU:O	2:N:246:LYS:HG3	2.16	0.46
3:O:22:LEU:HG	3:O:25:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:12:ARG:NH1	4:P:14:ARG:CA	2.79	0.46
9:U:54:GLU:OE1	9:U:118:ARG:NH2	2.49	0.46
9:U:82:GLU:OE2	9:U:104:LEU:HB2	2.16	0.46
9:U:86:PHE:CE1	9:U:100:PHE:HB2	2.51	0.46
1:A:806:ARG:HH12	2:B:729:ILE:HD11	1.80	0.46
2:B:35:SER:HA	2:B:811:TYR:CE2	2.49	0.46
2:B:599:THR:O	2:B:603:LEU:HB2	2.15	0.46
2:B:773:MET:C	2:B:775:LYS:N	2.69	0.46
2:B:871:THR:HG22	2:B:872:GLU:N	2.30	0.46
4:D:15:LEU:O	4:D:15:LEU:HD12	2.16	0.46
8:H:47:PHE:HB3	8:H:95:TYR:CD1	2.49	0.46
1:M:49:LYS:CD	1:M:55:ASP:HB3	2.46	0.46
1:M:504:LEU:CD1	6:R:91:ALA:HB2	2.45	0.46
1:M:1316:VAL:O	1:M:1316:VAL:HG12	2.14	0.46
2:N:25:ILE:HD11	2:N:653:VAL:O	2.16	0.46
2:N:26:THR:O	2:N:29:ASP:HB2	2.16	0.46
2:N:35:SER:HA	2:N:811:TYR:CE2	2.42	0.46
2:N:390:LEU:O	2:N:391:ASP:C	2.54	0.46
2:N:758:PHE:CE1	2:N:1027:ILE:HG22	2.50	0.46
2:N:871:THR:O	2:N:917:PRO:HG3	2.15	0.46
3:O:104:PHE:HD2	3:O:105:GLY:N	2.14	0.46
4:P:154:PHE:HZ	4:P:214:LEU:CD1	2.27	0.46
9:U:75:CYS:SG	9:U:78:CYS:SG	3.13	0.46
1:A:868:TYR:CZ	1:A:1366:ARG:HD3	2.50	0.46
2:B:129:PHE:HD2	2:B:166:PHE:HA	1.79	0.46
2:B:390:LEU:O	2:B:391:ASP:C	2.54	0.46
2:B:750:GLY:O	2:B:751:VAL:C	2.54	0.46
2:B:1095:LEU:H	2:B:1095:LEU:CD1	2.05	0.46
4:D:208:GLU:HA	4:D:211:LEU:HD12	1.97	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CD1	2.51	0.46
7:G:35:GLU:HG3	7:G:48:VAL:HG23	1.96	0.46
10:J:2:ILE:HG12	10:J:57:ILE:HD13	1.98	0.46
11:K:113:THR:O	11:K:114:LEU:CB	2.64	0.46
12:L:65:VAL:HG23	12:L:67:PHE:HE1	1.80	0.46
1:M:43:GLU:CG	1:M:46:THR:HB	2.39	0.46
1:M:694:THR:O	1:M:698:GLN:HG3	2.15	0.46
2:N:189:LEU:O	2:N:192:LEU:HB2	2.16	0.46
2:N:222:ILE:N	2:N:240:ILE:HD12	2.31	0.46
2:N:497:ARG:NH2	2:N:775:LYS:NZ	2.64	0.46
2:N:616:ILE:HD12	2:N:625:LYS:O	2.16	0.46
2:N:622:LYS:CE	9:U:59:VAL:HG13	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:642:ASP:HB3	2:N:649:LYS:CG	2.45	0.46
2:N:664:THR:CG2	2:N:678:GLU:N	2.78	0.46
2:N:744:HIS:CD2	2:N:745:PRO:CD	2.86	0.46
2:N:773:MET:C	2:N:775:LYS:N	2.69	0.46
2:N:850:LEU:HD12	2:N:851:PHE:H	1.80	0.46
2:N:861:ASP:OD1	2:N:862:GLN:N	2.49	0.46
2:N:871:THR:HG22	2:N:872:GLU:N	2.30	0.46
3:O:65:HIS:O	3:O:69:LEU:CD1	2.63	0.46
3:O:238:ILE:HD11	3:O:246:ARG:CZ	2.45	0.46
5:Q:65:THR:O	5:Q:69:ILE:CD1	2.63	0.46
5:Q:100:ILE:CG2	5:Q:105:PHE:HB2	2.44	0.46
7:S:1:MET:SD	7:S:79:PHE:CD1	3.09	0.46
9:U:116:ASN:C	9:U:117:LYS:HD2	2.36	0.46
1:A:2:VAL:HG22	1:A:3:GLY:H	1.81	0.46
1:A:322:VAL:CG1	1:A:322:VAL:O	2.63	0.46
1:A:1100:ARG:HH21	1:A:1351:GLU:CG	2.29	0.46
1:A:1395:GLY:HA3	1:A:1419:ASP:OD2	2.16	0.46
2:B:39:ARG:CZ	2:B:665:GLU:HG2	2.45	0.46
2:B:303:TYR:CD2	2:B:303:TYR:N	2.83	0.46
2:B:1208:MET:O	2:B:1211:ASN:N	2.43	0.46
3:C:46:ILE:HG13	3:C:72:LEU:HD11	1.98	0.46
3:C:88:CYS:SG	3:C:91:HIS:HA	2.55	0.46
6:F:116:ASP:C	6:F:116:ASP:OD1	2.54	0.46
7:G:7:LEU:CD1	7:G:45:ILE:HD11	2.45	0.46
11:K:22:ASP:C	11:K:31:VAL:HG13	2.36	0.46
1:M:157:ASP:C	1:M:159:THR:H	2.19	0.46
1:M:338:GLY:HA2	2:N:1129:ARG:HH22	1.81	0.46
2:N:679:TYR:CE1	2:N:683:SER:HB2	2.51	0.46
2:N:732:SER:HB2	2:N:734:HIS:CE1	2.51	0.46
2:N:865:LYS:NZ	2:N:869:SER:HA	2.31	0.46
2:N:1068:GLY:O	2:N:1069:PHE:C	2.54	0.46
4:P:7:THR:HB	7:S:42:PHE:HE2	1.79	0.46
5:Q:29:PHE:HA	5:Q:65:THR:HG22	1.98	0.46
5:Q:158:SER:O	5:Q:162:ARG:HD3	2.16	0.46
6:R:90:ARG:HD3	6:R:155:LEU:CD1	2.40	0.46
7:S:96:GLN:H	7:S:96:GLN:HG2	1.51	0.46
8:T:47:PHE:HB3	8:T:95:TYR:HD1	1.80	0.46
10:V:7:CYS:CB	10:V:49:MET:HE3	2.45	0.46
13:4:15:DG:H2"	13:4:16:DT:H71	1.97	0.46
1:A:63:ARG:HA	1:A:74:MET:HE1	1.96	0.46
1:A:245:PRO:O	1:A:248:PRO:HD3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:427:GLN:HB2	1:A:430:TRP:CD2	2.50	0.46
1:A:915:SER:O	1:A:919:ILE:HB	2.16	0.46
1:A:962:ARG:C	1:A:964:ILE:N	2.69	0.46
2:B:497:ARG:HH21	2:B:775:LYS:HZ1	1.64	0.46
2:B:637:LEU:HD22	2:B:742:GLU:HA	1.96	0.46
7:G:21:ARG:HD2	7:G:24:GLN:HB3	1.96	0.46
1:M:134:ARG:CD	1:M:221:SER:O	2.62	0.46
1:M:600:PRO:HA	8:T:25:ARG:NH1	2.31	0.46
1:M:670:ILE:HD13	1:M:670:ILE:N	2.31	0.46
1:M:690:VAL:HG21	1:M:718:VAL:HG13	1.97	0.46
1:M:1444:MET:HE1	6:R:135:ARG:HB2	1.98	0.46
2:N:240:ILE:HG23	2:N:240:ILE:O	2.16	0.46
2:N:619:ILE:HD12	9:U:65:ASP:HB2	1.98	0.46
2:N:758:PHE:CE2	2:N:1044:ALA:CA	2.93	0.46
2:N:1183:LYS:CE	2:N:1183:LYS:H	2.28	0.46
4:P:16:LYS:O	4:P:18:VAL:N	2.41	0.46
4:P:191:ALA:O	4:P:193:THR:N	2.49	0.46
4:P:195:ILE:HB	4:P:198:LEU:HD11	1.97	0.46
10:V:36:LEU:HD11	10:V:51:LEU:HB2	1.98	0.46
1:A:230:ARG:HG3	1:A:233:TRP:CE3	2.51	0.46
1:A:365:GLY:HA3	1:A:463:ILE:HD13	1.97	0.46
1:A:447:GLN:HA	1:A:448:PRO:C	2.36	0.46
1:A:1236:LEU:C	1:A:1237:ILE:HD12	2.36	0.46
1:A:1394:THR:CG2	1:A:1398:MET:SD	3.04	0.46
2:B:90:ILE:HD11	2:B:432:MET:SD	2.55	0.46
2:B:246:LYS:HA	2:B:249:ARG:CZ	2.46	0.46
3:C:239:PRO:O	3:C:242:GLN:N	2.45	0.46
5:E:100:ILE:HG23	5:E:105:PHE:CD1	2.51	0.46
5:E:147:HIS:CD2	5:E:149:LEU:H	2.27	0.46
6:F:93:ILE:CD1	6:F:134:ILE:HD11	2.37	0.46
9:I:15:TYR:N	9:I:15:TYR:HD1	2.13	0.46
11:K:50:LEU:HD11	11:K:75:ILE:HD11	1.97	0.46
1:M:401:GLY:C	1:M:435:HIS:CD2	2.89	0.46
1:M:697:ALA:CB	1:M:702:LEU:HD11	2.45	0.46
1:M:807:GLY:HA2	2:N:760:ASP:O	2.15	0.46
1:M:825:ILE:O	1:M:829:VAL:HG23	2.16	0.46
1:M:946:VAL:CG2	5:Q:201:LYS:HD2	2.45	0.46
2:N:521:LEU:HD22	2:N:633:VAL:CG1	2.26	0.46
3:O:3:GLU:OE1	3:O:4:GLU:HB2	2.16	0.46
3:O:16:ASP:N	3:O:16:ASP:OD1	2.49	0.46
3:O:73:GLN:HE21	3:O:75:MET:HB2	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:156:ASP:CB	4:P:159:THR:HG23	2.36	0.46
4:P:185:CYS:SG	4:P:191:ALA:CA	3.04	0.46
4:P:189:ASP:OD2	7:S:167:TYR:CE1	2.69	0.46
6:R:100:GLN:HE22	7:S:61:ILE:HD13	1.81	0.46
8:T:40:LEU:HD13	8:T:123:MET:CE	2.46	0.46
12:X:60:ARG:HG2	12:X:61:THR:N	2.31	0.46
1:A:35:ILE:HA	1:A:52:GLY:O	2.16	0.46
1:A:181:LEU:HA	1:A:181:LEU:HD23	1.80	0.46
1:A:255:SER:OG	2:B:918:ILE:HD13	2.15	0.46
1:A:878:ILE:HG21	1:A:955:PRO:HB2	1.98	0.46
1:A:929:LEU:HD21	1:A:983:ILE:HG21	1.98	0.46
1:A:1098:VAL:N	1:A:1099:PRO:HD2	2.30	0.46
1:A:1345:ARG:HG2	1:A:1372:VAL:CG1	2.46	0.46
2:B:20:ASP:C	2:B:22:SER:H	2.14	0.46
2:B:331:LEU:HD21	2:B:353:LYS:HG2	1.97	0.46
2:B:331:LEU:O	2:B:334:ILE:HB	2.16	0.46
2:B:558:LEU:CD2	2:B:596:LEU:HD11	2.46	0.46
2:B:620:ARG:CZ	9:I:68:LEU:HD21	2.45	0.46
2:B:857:ARG:HH21	2:B:942:ARG:NH2	2.14	0.46
2:B:1115:THR:HG21	2:B:1117:GLN:HB2	1.98	0.46
3:C:44:LEU:CD2	3:C:159:ALA:HB1	2.46	0.46
4:D:35:LEU:HD12	4:D:35:LEU:N	2.28	0.46
4:D:51:ASN:C	4:D:52:LEU:O	2.51	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CG	2.50	0.46
8:H:77:ARG:HG2	8:H:78:SER:H	1.81	0.46
1:M:53:LEU:O	1:M:54:ASN:C	2.53	0.46
1:M:75:ASN:O	1:M:76:GLU:CB	2.62	0.46
1:M:208:LEU:HA	1:M:235:ILE:HD12	1.97	0.46
1:M:367:PRO:HB3	1:M:465:TYR:O	2.16	0.46
1:M:549:MET:HE1	1:M:656:TRP:CD1	2.51	0.46
1:M:834:THR:CG2	1:M:835:GLY:N	2.79	0.46
2:N:51:PHE:O	2:N:54:PHE:HB3	2.16	0.46
2:N:277:LYS:HG2	2:N:336:ARG:CB	2.46	0.46
2:N:298:LEU:N	2:N:298:LEU:CD2	2.79	0.46
2:N:1169:MET:CE	2:N:1204:PHE:HB2	2.46	0.46
3:O:177:GLU:HG3	3:O:231:ASN:HD22	1.81	0.46
4:P:35:LEU:CD1	4:P:35:LEU:H	2.28	0.46
4:P:67:ARG:HB2	4:P:133:THR:CG2	2.45	0.46
4:P:134:THR:CG2	4:P:135:GLY:N	2.79	0.46
4:P:194:LEU:CB	7:S:86:VAL:HG21	2.46	0.46
1:A:829:VAL:HG11	2:B:508:LEU:HD22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:960:ILE:HA	1:A:963:ILE:CG2	2.46	0.45
1:A:1036:ARG:NH1	1:A:1036:ARG:CG	2.74	0.45
2:B:121:ASN:HA	2:B:207:GLY:CA	2.46	0.45
2:B:233:PRO:HG2	2:B:234:ILE:HD13	1.97	0.45
2:B:613:VAL:HG22	2:B:628:THR:HA	1.98	0.45
2:B:860:MET:HB2	2:B:965:LYS:HG2	1.98	0.45
2:B:1008:PRO:HB3	2:B:1087:PHE:HE2	1.82	0.45
4:D:6:SER:HB3	7:G:8:SER:OG	2.16	0.45
4:D:220:LEU:CG	4:D:221:TYR:H	2.29	0.45
5:E:157:SER:C	5:E:159:ASP:N	2.70	0.45
8:H:40:LEU:HD12	8:H:123:MET:CG	2.46	0.45
8:H:56:THR:HB	8:H:145:ARG:HG2	1.97	0.45
12:L:43:THR:HG22	12:L:43:THR:O	2.16	0.45
1:M:53:LEU:CD2	1:M:54:ASN:N	2.51	0.45
1:M:61:ILE:O	1:M:63:ARG:N	2.49	0.45
1:M:795:GLU:H	1:M:795:GLU:CD	2.19	0.45
2:N:427:ASP:HA	2:N:430:ARG:HG3	1.97	0.45
3:O:80:LEU:HD11	3:O:95:CYS:CA	2.46	0.45
3:O:166:GLU:HG3	11:W:10:PHE:CZ	2.43	0.45
4:P:153:ARG:HB3	4:P:154:PHE:CE2	2.51	0.45
4:P:212:LYS:O	4:P:215:SER:OG	2.33	0.45
11:W:47:ARG:HD2	11:W:47:ARG:O	2.16	0.45
12:X:36:SER:O	12:X:37:LYS:C	2.54	0.45
1:A:185:TRP:CH2	1:A:200:ARG:HG2	2.51	0.45
1:A:596:THR:C	1:A:597:LEU:HD12	2.36	0.45
1:A:1048:ASN:HD22	1:A:1048:ASN:N	2.14	0.45
2:B:619:ILE:HG22	2:B:620:ARG:N	2.30	0.45
2:B:806:THR:HG22	2:B:808:ALA:CB	2.46	0.45
4:D:162:ALA:HA	4:D:165:GLN:HE21	1.80	0.45
11:K:12:LEU:HD12	11:K:37:LYS:HG3	1.98	0.45
1:M:218:ASP:O	1:M:219:PHE:C	2.55	0.45
1:M:315:LEU:HD23	1:M:315:LEU:N	2.31	0.45
1:M:321:PRO:O	1:M:322:VAL:CG1	2.60	0.45
1:M:899:VAL:CB	1:M:929:LEU:HD12	2.43	0.45
1:M:1148:ILE:HG12	1:M:1198:ASP:HB2	1.98	0.45
1:M:1280:GLU:O	1:M:1281:ARG:C	2.54	0.45
1:M:1445:ILE:HD12	1:M:1445:ILE:N	2.30	0.45
2:N:167:ILE:HG21	2:N:424:LEU:HD21	1.99	0.45
3:O:43:THR:HG22	3:O:44:LEU:N	2.31	0.45
5:Q:134:THR:O	5:Q:135:PHE:CD1	2.69	0.45
1:A:133:LYS:O	1:A:136:ALA:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:167:CYS:HB2	1:A:169:ASN:ND2	2.32	0.45
2:B:167:ILE:HA	2:B:450:ALA:HB1	1.95	0.45
2:B:387:LEU:HD12	2:B:387:LEU:N	2.31	0.45
2:B:448:ILE:O	2:B:450:ALA:N	2.49	0.45
2:B:582:VAL:CG2	2:B:626:ILE:HB	2.43	0.45
3:C:183:TRP:O	3:C:185:LYS:HG3	2.16	0.45
5:E:161:LYS:HD2	5:E:195:VAL:HG23	1.98	0.45
6:F:109:VAL:CG1	6:F:110:ASP:N	2.73	0.45
8:H:27:GLU:HA	8:H:38:LEU:O	2.17	0.45
8:H:87:ARG:O	8:H:89:LEU:HD23	2.16	0.45
8:H:95:TYR:CE2	8:H:97:MET:CG	2.99	0.45
13:1:15:DG:H2"	13:1:16:DT:H71	1.98	0.45
1:M:409:SER:O	1:M:410:GLY:C	2.55	0.45
1:M:1400:CYS:O	1:M:1405:THR:HG23	2.16	0.45
2:N:69:LEU:HD13	2:N:429:PHE:HD1	1.82	0.45
2:N:470:LYS:O	2:N:472:ALA:N	2.49	0.45
3:O:67:LEU:HD11	3:O:155:LEU:CD1	2.46	0.45
4:P:193:THR:CG2	4:P:194:LEU:HD23	2.46	0.45
9:U:73:ARG:NH1	9:U:112:SER:HB3	2.29	0.45
15:6:5:C:O2'	15:6:6:A:H5'	2.16	0.45
1:A:335:ARG:HA	1:A:339:ASN:HD22	1.82	0.45
1:A:566:ILE:O	1:A:567:LYS:O	2.34	0.45
1:A:809:THR:OG1	1:A:812:GLU:HG3	2.17	0.45
1:A:898:ARG:HD3	1:A:933:TYR:CD1	2.51	0.45
1:A:1029:ARG:CG	1:A:1029:ARG:NH1	2.79	0.45
1:A:1280:GLU:O	1:A:1281:ARG:C	2.54	0.45
2:B:95:ILE:CB	2:B:130:VAL:HG22	2.47	0.45
2:B:100:PRO:HA	2:B:125:SER:O	2.16	0.45
2:B:222:ILE:N	2:B:240:ILE:CD1	2.79	0.45
2:B:227:LYS:HG3	2:B:395:GLN:OE1	2.17	0.45
2:B:347:LYS:HG3	2:B:348:ARG:H	1.80	0.45
2:B:803:LEU:HD13	2:B:1032:SER:HB3	1.97	0.45
2:B:831:SER:HG	2:B:994:TYR:HE1	1.62	0.45
2:B:990:ILE:HG22	2:B:991:GLY:N	2.30	0.45
2:B:995:ARG:HB3	2:B:997:GLU:OE2	2.16	0.45
2:B:1204:PHE:O	2:B:1208:MET:HG3	2.15	0.45
2:B:1220:ARG:HB3	2:B:1220:ARG:HH11	1.82	0.45
3:C:186:LEU:O	3:C:187:LYS:HB2	2.17	0.45
3:C:258:ILE:HG23	11:K:19:LEU:HD11	1.99	0.45
4:D:134:THR:CG2	4:D:135:GLY:H	2.28	0.45
4:D:216:ASN:O	4:D:218:GLU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:106:GLN:HE22	5:E:129:PRO:HB2	1.82	0.45
8:H:133:ASN:O	8:H:135:LEU:N	2.48	0.45
12:L:36:SER:O	12:L:37:LYS:C	2.54	0.45
1:M:50:ILE:C	1:M:52:GLY:N	2.68	0.45
1:M:251:SER:HA	1:M:257:ARG:O	2.17	0.45
1:M:381:THR:HG21	1:M:383:TYR:CD1	2.52	0.45
1:M:590:ARG:O	1:M:591:PHE:CB	2.59	0.45
1:M:857:ARG:NH2	6:R:139:PRO:HG3	2.30	0.45
1:M:1095:THR:CG2	1:M:1112:LYS:HD2	2.46	0.45
1:M:1198:ASP:O	1:M:1202:MET:HG2	2.16	0.45
1:M:1227:ILE:HG22	1:M:1228:TRP:N	2.30	0.45
1:M:1313:LEU:HD23	1:M:1338:VAL:CG2	2.47	0.45
1:M:1396:ALA:HA	1:M:1399:ARG:NH2	2.31	0.45
1:M:1410:PHE:HA	2:N:1212:ILE:HD11	1.97	0.45
2:N:376:PHE:CZ	2:N:569:TYR:HB3	2.52	0.45
2:N:557:PHE:CE1	2:N:603:LEU:HD11	2.51	0.45
2:N:970:THR:HG22	2:N:971:THR:N	2.31	0.45
3:O:144:ILE:HG22	3:O:145:CYS:HB3	1.98	0.45
3:O:239:PRO:O	3:O:242:GLN:N	2.47	0.45
3:O:243:VAL:O	3:O:243:VAL:CG1	2.64	0.45
4:P:138:ASN:C	4:P:140:ASP:N	2.69	0.45
5:Q:128:PRO:HA	5:Q:129:PRO:O	2.17	0.45
7:S:142:ARG:CB	7:S:171:ILE:HD11	2.47	0.45
9:U:100:PHE:N	9:U:100:PHE:CD1	2.84	0.45
1:A:262:LEU:HD12	1:A:328:ARG:NH2	2.31	0.45
1:A:1291:VAL:CG2	1:A:1292:PRO:HD2	2.47	0.45
2:B:185:THR:O	2:B:188:ASP:N	2.50	0.45
2:B:230:ALA:HB3	2:B:231:PRO:HD3	1.97	0.45
2:B:245:GLU:C	2:B:246:LYS:HG3	2.37	0.45
2:B:401:PHE:HD2	2:B:521:LEU:HD12	1.82	0.45
2:B:637:LEU:HD22	2:B:741:CYS:O	2.17	0.45
2:B:766:ARG:HD3	2:B:766:ARG:HA	1.58	0.45
2:B:871:THR:O	2:B:917:PRO:HG3	2.15	0.45
2:B:1084:GLN:H	2:B:1084:GLN:HE21	1.64	0.45
2:B:1106:ARG:HH12	2:B:1110:PRO:HG2	1.81	0.45
3:C:208:GLU:O	3:C:210:GLU:N	2.49	0.45
4:D:190:GLU:O	4:D:194:LEU:HG	2.16	0.45
7:G:55:ASP:HB3	7:G:73:LYS:HB2	1.98	0.45
1:M:61:ILE:CG2	1:M:62:ASP:H	2.28	0.45
1:M:962:ARG:C	1:M:964:ILE:H	2.20	0.45
1:M:1217:LYS:O	1:M:1221:LYS:HA	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1006:ILE:H	2:N:1006:ILE:HG13	1.33	0.45
2:N:1096:ARG:HB2	2:N:1096:ARG:HH11	1.81	0.45
4:P:23:ASN:HA	4:P:28:GLN:O	2.15	0.45
4:P:195:ILE:N	4:P:196:PRO:CD	2.79	0.45
4:P:202:ILE:HD11	4:P:207:LEU:HA	1.98	0.45
5:Q:179:GLN:HB2	5:Q:182:ASP:HB2	1.99	0.45
6:R:103:MET:HE2	7:S:66:GLY:N	2.21	0.45
9:U:74:GLU:HA	9:U:80:SER:O	2.17	0.45
12:X:40:LEU:HD13	12:X:44:ASP:CB	2.32	0.45
15:6:3:A:H2'	15:6:4:C:C6	2.51	0.45
1:A:44:THR:O	1:A:45:GLN:CB	2.64	0.45
1:A:56:PRO:O	1:A:57:ARG:CZ	2.65	0.45
1:A:66:LYS:O	1:A:67:CYS:CB	2.64	0.45
1:A:150:THR:HG22	1:A:150:THR:O	2.16	0.45
1:A:697:ALA:HA	1:A:702:LEU:HG	1.97	0.45
1:A:977:LYS:HB3	1:A:978:PRO:CD	2.44	0.45
1:A:1116:LEU:HB3	1:A:1308:THR:CG2	2.46	0.45
1:A:1152:ILE:HG23	1:A:1260:LEU:HD23	1.98	0.45
2:B:95:ILE:CG1	2:B:130:VAL:HG22	2.47	0.45
2:B:641:GLU:C	2:B:643:ASP:H	2.19	0.45
2:B:807:ARG:HB3	2:B:807:ARG:HH11	1.82	0.45
5:E:177:ARG:C	5:E:212:ARG:HD3	2.37	0.45
6:F:69:LEU:C	6:F:71:GLU:HG3	2.37	0.45
8:H:57:VAL:HG12	8:H:58:THR:N	2.32	0.45
10:J:14:VAL:O	10:J:14:VAL:CG1	2.63	0.45
12:L:34:CYS:O	12:L:35:SER:C	2.55	0.45
1:M:64:ASN:O	1:M:65:LEU:C	2.55	0.45
1:M:107:CYS:SG	1:M:108:MET:O	2.75	0.45
1:M:683:ILE:HD13	1:M:801:GLU:HG3	1.99	0.45
1:M:878:ILE:HG21	1:M:955:PRO:HB2	1.98	0.45
1:M:1313:LEU:HB3	1:M:1338:VAL:HG21	1.98	0.45
1:M:1438:THR:CG2	6:R:92:ARG:HD2	2.47	0.45
2:N:112:LEU:HD12	2:N:113:TYR:H	1.81	0.45
2:N:223:VAL:HG21	2:N:380:TYR:HE2	1.82	0.45
2:N:744:HIS:HD2	2:N:745:PRO:CG	2.30	0.45
2:N:1031:LEU:O	2:N:1031:LEU:HD12	2.16	0.45
4:P:35:LEU:HD11	4:P:173:HIS:NE2	2.32	0.45
4:P:134:THR:HG22	4:P:135:GLY:H	1.79	0.45
6:R:119:ARG:CG	6:R:119:ARG:NH1	2.80	0.45
10:V:7:CYS:HB2	10:V:49:MET:HE3	1.99	0.45
10:V:42:LYS:HG2	10:V:43:ARG:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:LYS:NZ	1:A:68:GLN:H	2.14	0.45
1:A:72:GLU:HB3	1:A:76:GLU:CG	2.47	0.45
1:A:196:GLU:CG	1:A:197:PRO:HD2	2.46	0.45
1:A:472:LEU:HD11	2:B:835:GLN:NE2	2.32	0.45
1:A:837:ILE:HG12	1:A:840:ARG:NH1	2.31	0.45
1:A:855:THR:HG23	1:A:857:ARG:CG	2.39	0.45
1:A:879:GLU:O	1:A:955:PRO:HA	2.17	0.45
1:A:1447:GLU:OE2	7:G:23:LYS:HB2	2.17	0.45
2:B:174:LEU:HD22	2:B:202:TYR:CE1	2.52	0.45
2:B:975:GLN:HG2	2:B:976:ILE:H	1.82	0.45
2:B:1060:ARG:HA	2:B:1060:ARG:HD2	1.53	0.45
3:C:114:TYR:CD2	3:C:140:ASN:CB	2.99	0.45
3:C:114:TYR:HB2	3:C:116:LYS:HG2	1.99	0.45
5:E:21:GLU:O	5:E:24:LYS:HG2	2.17	0.45
5:E:78:LEU:HD23	5:E:78:LEU:C	2.37	0.45
5:E:89:GLY:C	5:E:91:LYS:H	2.20	0.45
6:F:101:ILE:HD11	6:F:124:GLU:OE1	2.17	0.45
7:G:1:MET:HE2	7:G:1:MET:O	2.17	0.45
7:G:139:ILE:HD13	7:G:140:LYS:HE3	1.98	0.45
8:H:30:SER:HB3	8:H:36:CYS:HB3	1.99	0.45
1:M:106:VAL:CG1	1:M:111:GLY:HA2	2.47	0.45
1:M:256:GLN:O	1:M:257:ARG:HB2	2.16	0.45
1:M:1438:THR:HG23	6:R:92:ARG:HD2	1.98	0.45
2:N:555:ILE:HG22	2:N:556:THR:N	2.32	0.45
2:N:777:ALA:HA	2:N:1095:LEU:HA	1.98	0.45
2:N:796:LEU:HD12	2:N:852:ARG:O	2.17	0.45
3:O:233:GLU:OE1	10:V:12:LYS:HE2	2.16	0.45
3:O:253:LYS:O	3:O:256:ALA:HB3	2.17	0.45
8:T:81:PRO:HB2	8:T:82:PRO:HD2	1.97	0.45
8:T:133:ASN:O	8:T:135:LEU:N	2.49	0.45
1:A:42:ASP:HB3	1:A:45:GLN:CA	2.47	0.45
1:A:182:VAL:HG23	1:A:201:VAL:HA	1.98	0.45
1:A:524:VAL:CG1	1:A:525:GLN:H	2.11	0.45
1:A:568:PRO:HB3	3:C:221:TYR:OH	2.17	0.45
1:A:1222:ASN:O	1:A:1223:ASP:HB3	2.16	0.45
1:A:1268:LEU:HD13	9:I:48:LEU:HD11	1.98	0.45
1:A:1297:GLU:N	1:A:1297:GLU:OE1	2.50	0.45
2:B:44:VAL:O	2:B:45:SER:C	2.54	0.45
2:B:48:LEU:HD23	2:B:173:MET:SD	2.57	0.45
2:B:93:GLY:O	2:B:130:VAL:HG13	2.16	0.45
2:B:189:LEU:O	2:B:192:LEU:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:515:HIS:CD2	2:B:517:THR:OG1	2.65	0.45
2:B:778:MET:HE1	2:B:1094:ARG:CD	2.42	0.45
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.98	0.45
2:B:842:ASN:HD21	2:B:844:SER:HB2	1.82	0.45
4:D:146:GLN:HA	4:D:149:THR:CG2	2.44	0.45
5:E:96:PHE:O	5:E:99:HIS:HB3	2.16	0.45
8:H:63:LEU:HD23	8:H:90:ALA:HB3	1.99	0.45
10:J:53:HIS:HD2	10:J:54:VAL:H	1.63	0.45
1:M:84:ILE:HG22	1:M:86:LEU:HD23	1.99	0.45
1:M:536:LEU:H	1:M:536:LEU:HG	1.54	0.45
1:M:670:ILE:HD13	1:M:670:ILE:H	1.80	0.45
1:M:878:ILE:CG2	1:M:955:PRO:HB2	2.47	0.45
1:M:1115:SER:OG	1:M:1116:LEU:N	2.50	0.45
1:M:1453:TYR:O	1:M:1454:MET:HB3	2.17	0.45
2:N:169:ARG:HB2	2:N:454:THR:HG23	1.99	0.45
3:O:46:ILE:HG13	3:O:72:LEU:HD11	1.98	0.45
4:P:12:ARG:HH12	4:P:14:ARG:HA	1.82	0.45
6:R:69:LEU:HB3	6:R:71:GLU:CG	2.47	0.45
14:5:3:DT:C2	14:5:4:DA:N7	2.85	0.45
1:A:61:ILE:O	1:A:63:ARG:N	2.50	0.45
1:A:64:ASN:O	1:A:65:LEU:C	2.55	0.45
1:A:164:ARG:HG3	1:A:165:GLY:H	1.82	0.45
1:A:225:ASN:ND2	1:A:227:VAL:N	2.63	0.45
1:A:259:GLU:HA	1:A:259:GLU:OE1	2.17	0.45
1:A:316:GLN:HG2	1:A:317:LYS:H	1.81	0.45
1:A:560:ILE:HD11	11:K:58:PHE:HD1	1.82	0.45
1:A:1107:VAL:O	1:A:1107:VAL:CG1	2.59	0.45
1:A:1111:MET:HG3	1:A:1114:PRO:HB3	1.97	0.45
2:B:24:PRO:O	2:B:25:ILE:HG23	2.17	0.45
2:B:69:LEU:HD13	2:B:429:PHE:HD1	1.81	0.45
2:B:205:ILE:HG12	2:B:461:LEU:HB3	1.99	0.45
2:B:582:VAL:O	2:B:582:VAL:HG12	2.16	0.45
2:B:866:TYR:HB2	2:B:870:ILE:HB	1.99	0.45
2:B:899:ILE:HG22	2:B:900:ALA:O	2.16	0.45
9:I:17:ARG:HG3	9:I:28:GLU:OE1	2.16	0.45
9:I:98:VAL:CG1	9:I:111:THR:HG23	2.46	0.45
9:I:100:PHE:N	9:I:100:PHE:CD1	2.85	0.45
12:L:53:HIS:C	12:L:55:ILE:HD13	2.38	0.45
1:M:55:ASP:C	1:M:57:ARG:N	2.64	0.45
1:M:295:LEU:O	1:M:298:PHE:HB3	2.17	0.45
1:M:489:LEU:HD12	1:M:489:LEU:C	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:767:GLN:HA	1:M:799:PHE:HA	1.99	0.45
1:M:1081:LEU:HD11	1:M:1098:VAL:H	1.82	0.45
1:M:1169:ILE:H	1:M:1169:ILE:HG13	1.55	0.45
2:N:345:LYS:HA	2:N:348:ARG:HG2	1.99	0.45
2:N:651:LEU:HD21	2:N:741:CYS:HB3	1.98	0.45
2:N:770:GLN:HG2	2:N:983:ARG:C	2.37	0.45
4:P:40:HIS:CE1	7:S:74:TYR:O	2.70	0.45
4:P:215:SER:HA	4:P:218:GLU:OE2	2.16	0.45
6:R:69:LEU:HD22	6:R:71:GLU:OE1	2.16	0.45
1:A:153:PRO:HB3	1:A:161:LEU:CD2	2.46	0.45
1:A:173:THR:O	1:A:173:THR:CG2	2.65	0.45
1:A:659:HIS:ND1	2:B:1074:ASN:ND2	2.65	0.45
1:A:688:LYS:HA	1:A:691:LEU:HB3	1.99	0.45
1:A:744:LYS:HG2	1:A:748:MET:HE1	1.97	0.45
1:A:868:TYR:CE1	1:A:1064:VAL:HG13	2.51	0.45
1:A:1066:VAL:O	1:A:1070:GLN:HG3	2.16	0.45
2:B:26:THR:O	2:B:29:ASP:HB2	2.17	0.45
2:B:203:PHE:HB3	2:B:205:ILE:CD1	2.47	0.45
2:B:281:PRO:HG2	2:B:284:ILE:HD12	1.99	0.45
2:B:314:LEU:O	2:B:318:VAL:HG23	2.17	0.45
2:B:467:GLY:CA	2:B:475:SER:HB3	2.47	0.45
2:B:473:MET:CE	2:B:474:SER:HA	2.46	0.45
2:B:604:ARG:CB	2:B:609:ILE:HG13	2.46	0.45
2:B:789:MET:HE1	2:B:953:LEU:HD22	1.99	0.45
2:B:976:ILE:HD13	2:B:992:ILE:HA	1.99	0.45
2:B:984:HIS:CD2	2:B:1025:HIS:HA	2.52	0.45
4:D:67:ARG:O	4:D:67:ARG:HG2	2.17	0.45
5:E:61:GLN:HB2	5:E:79:TRP:HE3	1.82	0.45
9:I:82:GLU:CB	9:I:104:LEU:HD12	2.47	0.45
1:M:62:ASP:O	1:M:62:ASP:OD1	2.34	0.45
1:M:117:GLU:CD	1:M:117:GLU:H	2.19	0.45
1:M:392:VAL:HG13	1:M:415:LEU:CD1	2.47	0.45
1:M:720:ARG:O	1:M:724:GLU:CB	2.65	0.45
1:M:1011:GLN:NE2	1:M:1015:VAL:HG23	2.31	0.45
1:M:1202:MET:HE1	1:M:1212:VAL:HG21	1.97	0.45
1:M:1329:THR:HG23	1:M:1331:SER:N	2.31	0.45
2:N:497:ARG:NH2	2:N:775:LYS:HZ3	2.15	0.45
2:N:710:LEU:HA	2:N:733:HIS:CB	2.24	0.45
2:N:787:VAL:O	2:N:787:VAL:HG12	2.17	0.45
2:N:941:LEU:HD11	2:N:968:VAL:HG21	1.98	0.45
3:O:189:THR:CG2	3:O:190:ASP:N	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:56:THR:O	8:T:144:ILE:HA	2.17	0.45
1:A:162:VAL:HG12	1:A:163:SER:N	2.32	0.44
1:A:567:LYS:CG	1:A:568:PRO:CD	2.93	0.44
1:A:1100:ARG:O	1:A:1103:GLU:HB3	2.18	0.44
1:A:1454:MET:O	1:A:1454:MET:HG3	2.17	0.44
2:B:29:ASP:OD1	2:B:658:ILE:HG21	2.17	0.44
2:B:941:LEU:CD1	2:B:968:VAL:HG21	2.46	0.44
2:B:997:GLU:HG2	3:C:39:ALA:HB2	2.00	0.44
3:C:138:GLU:OE1	3:C:138:GLU:N	2.50	0.44
4:D:13:ARG:C	4:D:15:LEU:N	2.69	0.44
4:D:146:GLN:C	4:D:149:THR:HG22	2.38	0.44
6:F:140:ASP:CG	6:F:142:SER:HG	2.20	0.44
7:G:1:MET:SD	7:G:79:PHE:CE1	3.09	0.44
8:H:62:SER:OG	8:H:63:LEU:N	2.50	0.44
1:M:72:GLU:HB3	1:M:76:GLU:CG	2.47	0.44
1:M:547:LEU:HD21	1:M:560:ILE:HD13	1.98	0.44
2:N:361:LEU:HD11	2:N:381:MET:HE1	1.98	0.44
2:N:508:LEU:N	2:N:512:ARG:HE	2.15	0.44
2:N:552:MET:HA	2:N:552:MET:CE	2.45	0.44
2:N:983:ARG:HD2	2:N:1091:TYR:HD2	1.81	0.44
4:P:188:ALA:CB	4:P:204:ASP:OD1	2.57	0.44
5:Q:4:GLU:HB3	5:Q:7:ARG:NE	2.31	0.44
5:Q:42:PHE:HE1	5:Q:58:MET:HE3	1.82	0.44
7:S:98:GLY:HA3	7:S:110:VAL:O	2.16	0.44
8:T:27:GLU:HA	8:T:38:LEU:O	2.18	0.44
8:T:37:LYS:HD2	8:T:126:GLU:OE2	2.17	0.44
9:U:34:TYR:O	9:U:35:VAL:HG23	2.17	0.44
9:U:56:ALA:O	9:U:57:GLY:O	2.35	0.44
10:V:13:VAL:O	10:V:14:VAL:HG23	2.17	0.44
1:A:50:ILE:C	1:A:52:GLY:N	2.69	0.44
1:A:853:ASP:O	1:A:854:ASN:HB2	2.17	0.44
1:A:1255:GLU:CG	1:A:1258:HIS:CD2	3.00	0.44
2:B:432:MET:C	2:B:434:ARG:H	2.20	0.44
2:B:578:THR:C	2:B:589:VAL:HG13	2.38	0.44
2:B:916:THR:HB	2:B:935:ARG:CD	2.46	0.44
3:C:180:TYR:HB3	3:C:228:PHE:HD2	1.82	0.44
5:E:129:PRO:O	5:E:130:ALA:O	2.35	0.44
5:E:171:LYS:HG2	5:E:174:GLN:CD	2.38	0.44
10:J:1:MET:HG3	10:J:1:MET:O	2.17	0.44
12:L:61:THR:HG22	12:L:62:LYS:N	2.33	0.44
1:M:153:PRO:HB3	1:M:161:LEU:CD2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:635:ARG:HA	1:M:635:ARG:HH11	1.82	0.44
1:M:688:LYS:HA	1:M:691:LEU:HB3	1.99	0.44
1:M:902:LEU:HD21	1:M:923:LEU:HD23	1.99	0.44
1:M:904:THR:O	1:M:904:THR:CG2	2.66	0.44
1:M:1030:ARG:HG2	1:M:1034:GLU:OE2	2.17	0.44
1:M:1325:THR:CG2	1:M:1326:ARG:HG3	2.47	0.44
1:M:1370:LEU:O	1:M:1374:VAL:HG23	2.17	0.44
2:N:299:GLU:OE2	2:N:571:PRO:HG2	2.17	0.44
2:N:399:ASP:OD2	2:N:510:LYS:HB2	2.16	0.44
2:N:1004:GLU:HG3	10:V:42:LYS:HZ1	1.79	0.44
3:O:109:SER:O	3:O:110:THR:C	2.55	0.44
4:P:56:ARG:HG2	4:P:56:ARG:NH1	2.32	0.44
4:P:123:LEU:CD1	4:P:149:THR:HG21	2.47	0.44
4:P:155:ARG:HE	4:P:221:TYR:HE1	1.55	0.44
4:P:220:LEU:CG	4:P:221:TYR:H	2.30	0.44
5:Q:157:SER:N	5:Q:160:GLU:OE1	2.47	0.44
8:T:91:ASP:O	8:T:93:TYR:N	2.46	0.44
10:V:48:ARG:NH1	10:V:48:ARG:CG	2.75	0.44
1:A:107:CYS:HB2	1:A:114:LEU:CD2	2.47	0.44
1:A:115:LEU:HD12	1:A:142:CYS:HB3	1.98	0.44
1:A:447:GLN:OE1	13:1:20:DG:H4'	2.17	0.44
1:A:1095:THR:CG2	1:A:1112:LYS:HD2	2.44	0.44
1:A:1445:ILE:HD12	7:G:59:GLY:O	2.17	0.44
2:B:128:LEU:HB2	2:B:168:GLY:O	2.17	0.44
2:B:263:GLY:O	2:B:264:SER:C	2.56	0.44
2:B:597:MET:HA	2:B:597:MET:HE3	1.98	0.44
2:B:1113:VAL:CG2	15:3:1:C:H4'	2.48	0.44
3:C:214:ASN:O	3:C:217:ASP:OD2	2.36	0.44
4:D:15:LEU:O	4:D:17:LYS:HG3	2.18	0.44
5:E:48:ASP:HB3	5:E:54:GLN:CD	2.37	0.44
7:G:81:PRO:HG3	7:G:106:MET:SD	2.57	0.44
10:J:1:MET:H2	10:J:57:ILE:H	1.59	0.44
11:K:55:LYS:CB	11:K:81:TYR:CD1	3.00	0.44
11:K:88:LYS:O	11:K:91:CYS:HB2	2.18	0.44
15:3:3:A:H2'	15:3:4:C:C6	2.52	0.44
1:M:549:MET:SD	1:M:577:ILE:HD12	2.57	0.44
1:M:562:THR:HB	8:T:98:TYR:CD2	2.52	0.44
1:M:963:ILE:HD13	1:M:1049:ILE:CG1	2.48	0.44
1:M:1102:LYS:O	1:M:1106:ASN:ND2	2.50	0.44
1:M:1277:GLU:O	1:M:1279:ILE:HG12	2.18	0.44
2:N:46:GLN:NE2	2:N:539:LEU:HD12	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:469:GLN:HB3	2:N:470:LYS:H	1.44	0.44
3:O:123:ASN:HD21	3:O:125:MET:HG2	1.74	0.44
5:Q:17:ARG:O	5:Q:21:GLU:HG3	2.17	0.44
5:Q:22:MET:CE	5:Q:26:ARG:NH2	2.81	0.44
5:Q:155:ARG:NH1	5:Q:194:GLU:OE2	2.47	0.44
7:S:1:MET:HE2	7:S:2:PHE:HA	1.99	0.44
10:V:9:SER:CB	10:V:45:CYS:HB2	2.47	0.44
12:X:30:ILE:CD1	12:X:59:ALA:HB2	2.44	0.44
1:A:35:ILE:HD13	1:A:241:VAL:HG11	1.99	0.44
1:A:356:ASP:C	1:A:358:ASN:H	2.21	0.44
1:A:451:HIS:O	1:A:452:LYS:C	2.56	0.44
1:A:481:ASP:OD1	1:A:481:ASP:N	2.51	0.44
1:A:800:VAL:HG22	1:A:812:GLU:HB3	1.98	0.44
1:A:982:THR:N	1:A:985:ASP:HB2	2.32	0.44
1:A:1325:THR:HG22	1:A:1326:ARG:HG3	1.98	0.44
2:B:51:PHE:O	2:B:54:PHE:HB3	2.17	0.44
3:C:258:ILE:HD12	3:C:258:ILE:N	2.31	0.44
6:F:83:PRO:HD2	6:F:84:TYR:HD1	1.83	0.44
6:F:110:ASP:O	6:F:123:LYS:CE	2.66	0.44
8:H:40:LEU:CD1	8:H:123:MET:HG3	2.47	0.44
11:K:18:LYS:NZ	11:K:37:LYS:O	2.50	0.44
12:L:47:ARG:CD	12:L:52:GLY:HA2	2.47	0.44
1:M:321:PRO:O	1:M:322:VAL:CB	2.65	0.44
1:M:458:HIS:CE1	1:M:507:VAL:HG21	2.52	0.44
1:M:461:LYS:O	1:M:463:ILE:HG23	2.18	0.44
1:M:1267:MET:HA	1:M:1271:ILE:HD12	2.00	0.44
1:M:1313:LEU:C	1:M:1315:GLU:N	2.71	0.44
1:M:1445:ILE:H	1:M:1445:ILE:CD1	2.27	0.44
2:N:558:LEU:HD21	2:N:600:LEU:HD11	1.98	0.44
2:N:617:ARG:NE	2:N:619:ILE:HG12	2.26	0.44
2:N:707:PRO:HG2	2:N:708:GLU:N	2.31	0.44
2:N:806:THR:HG22	2:N:808:ALA:CB	2.47	0.44
2:N:1039:GLY:HA2	10:V:51:LEU:CD2	2.48	0.44
2:N:1182:CYS:O	2:N:1182:CYS:SG	2.75	0.44
3:O:44:LEU:C	3:O:44:LEU:HD23	2.38	0.44
4:P:51:ASN:C	4:P:52:LEU:O	2.53	0.44
6:R:74:ILE:HD12	6:R:144:GLU:HG2	1.99	0.44
1:A:69:THR:HG21	2:B:1174:LYS:NZ	2.32	0.44
1:A:251:SER:HA	1:A:257:ARG:O	2.18	0.44
1:A:381:THR:HG21	1:A:383:TYR:CD1	2.53	0.44
1:A:962:ARG:C	1:A:964:ILE:H	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:993:LEU:HD23	1:A:1022:LEU:HD21	1.98	0.44
1:A:997:LEU:HD13	1:A:1018:PHE:CE2	2.52	0.44
1:A:1116:LEU:N	1:A:1308:THR:CG2	2.67	0.44
1:A:1148:ILE:HG12	9:I:49:ILE:HD12	1.98	0.44
2:B:235:SER:C	2:B:236:HIS:CD2	2.90	0.44
2:B:244:LEU:O	2:B:246:LYS:N	2.51	0.44
2:B:955:THR:HG23	2:B:956:THR:H	1.83	0.44
3:C:23:SER:O	3:C:24:ASN:HB3	2.18	0.44
7:G:9:LEU:HD12	7:G:10:ASN:H	1.83	0.44
1:M:316:GLN:HG2	1:M:317:LYS:CG	2.47	0.44
1:M:889:SER:OG	1:M:891:ALA:HB3	2.18	0.44
1:M:946:VAL:HG12	1:M:947:PHE:CD2	2.51	0.44
1:M:1259:MET:CE	1:M:1262:LYS:HB2	2.48	0.44
2:N:93:GLY:O	2:N:130:VAL:HG13	2.17	0.44
2:N:185:THR:O	2:N:188:ASP:N	2.51	0.44
2:N:203:PHE:CD1	2:N:203:PHE:N	2.86	0.44
2:N:347:LYS:HG3	2:N:348:ARG:N	2.33	0.44
2:N:458:LYS:O	2:N:459:TYR:C	2.56	0.44
2:N:461:LEU:CD1	2:N:461:LEU:H	2.31	0.44
4:P:60:LYS:HE2	4:P:126:ILE:HG12	1.99	0.44
5:Q:37:LEU:O	5:Q:37:LEU:HG	2.18	0.44
6:R:118:LEU:O	6:R:122:MET:HG3	2.16	0.44
7:S:41:LYS:HD3	7:S:42:PHE:CE1	2.52	0.44
10:V:5:VAL:C	10:V:6:ARG:HG3	2.37	0.44
1:A:55:ASP:C	1:A:57:ARG:N	2.65	0.44
1:A:593:GLU:O	1:A:595:THR:N	2.45	0.44
1:A:768:GLN:HG2	1:A:816:HIS:CA	2.35	0.44
1:A:1081:LEU:HD11	1:A:1097:GLY:HA3	1.99	0.44
1:A:1121:GLU:HG3	1:A:1122:PRO:HD2	1.95	0.44
1:A:1223:ASP:HA	1:A:1243:VAL:HG21	1.96	0.44
2:B:25:ILE:HD13	2:B:653:VAL:HG12	1.99	0.44
2:B:209:GLU:CD	2:B:485:ARG:HE	2.21	0.44
2:B:1004:GLU:HG3	10:J:42:LYS:HZ1	1.81	0.44
3:C:11:ARG:NH1	3:C:205:LYS:NZ	2.63	0.44
3:C:18:VAL:HG23	3:C:240:VAL:HB	1.99	0.44
3:C:134:ILE:HG21	3:C:139:GLY:HA2	1.99	0.44
3:C:167:HIS:CE1	12:L:70:ARG:HA	2.52	0.44
7:G:90:THR:HG22	7:G:91:VAL:N	2.32	0.44
9:I:16:PRO:HB3	9:I:27:PHE:HE2	1.82	0.44
1:M:69:THR:O	1:M:71:GLN:HG2	2.18	0.44
1:M:282:ASN:O	1:M:284:ALA:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:821:ARG:O	1:M:821:ARG:HG3	2.17	0.44
1:M:904:THR:O	1:M:904:THR:HG22	2.17	0.44
1:M:982:THR:N	1:M:985:ASP:HB2	2.33	0.44
2:N:431:TYR:CG	2:N:447:ALA:CB	3.01	0.44
3:O:80:LEU:HD12	3:O:81:GLU:H	1.82	0.44
4:P:153:ARG:NH2	4:P:184:ALA:HA	2.32	0.44
5:Q:127:ILE:HG13	5:Q:127:ILE:O	2.17	0.44
6:R:97:ARG:NH2	6:R:108:PHE:CE1	2.86	0.44
11:W:111:LEU:HD23	11:W:111:LEU:N	2.33	0.44
14:5:4:DA:C4	14:5:5:DC:C5	3.06	0.44
1:A:102:VAL:CG1	1:A:211:PHE:HE1	2.31	0.44
1:A:270:LEU:HD12	1:A:270:LEU:HA	1.82	0.44
1:A:365:GLY:CA	1:A:463:ILE:HD13	2.48	0.44
1:A:444:PHE:CE2	1:A:487:MET:CE	3.01	0.44
1:A:659:HIS:O	2:B:1081:LEU:HD23	2.18	0.44
1:A:1257:ASP:HA	1:A:1260:LEU:HB3	2.00	0.44
2:B:35:SER:O	2:B:39:ARG:HG3	2.17	0.44
2:B:134:LYS:NZ	2:B:164:LYS:HE2	2.32	0.44
2:B:552:MET:O	2:B:554:ILE:N	2.51	0.44
2:B:640:VAL:O	2:B:640:VAL:CG1	2.66	0.44
2:B:840:ILE:CG2	2:B:994:TYR:HD1	2.29	0.44
3:C:66:ARG:NH1	10:J:2:ILE:CG2	2.78	0.44
5:E:112:TYR:OH	5:E:136:ASN:HB2	2.18	0.44
5:E:167:ARG:HD3	5:E:167:ARG:HA	1.83	0.44
8:H:143:LEU:C	8:H:144:ILE:HG13	2.37	0.44
1:M:40:THR:HG22	1:M:41:MET:CG	2.46	0.44
1:M:92:HIS:HD2	1:M:236:LEU:HD21	1.82	0.44
1:M:343:LYS:HB2	2:N:1117:GLN:OE1	2.18	0.44
1:M:716:ASP:C	1:M:716:ASP:OD1	2.56	0.44
1:M:855:THR:HG23	1:M:857:ARG:CG	2.43	0.44
1:M:1101:LEU:HB2	1:M:1355:VAL:HG11	1.99	0.44
1:M:1152:ILE:HG23	1:M:1260:LEU:CD2	2.48	0.44
2:N:125:SER:O	2:N:126:SER:HB3	2.17	0.44
2:N:879:ARG:CZ	2:N:879:ARG:N	2.70	0.44
2:N:1103:ILE:HG23	2:N:1103:ILE:O	2.17	0.44
3:O:23:SER:O	3:O:24:ASN:HB3	2.18	0.44
3:O:113:VAL:HG23	3:O:147:LEU:HD21	1.99	0.44
4:P:208:GLU:HA	4:P:211:LEU:HD12	1.99	0.44
4:P:214:LEU:HD13	4:P:214:LEU:C	2.38	0.44
5:Q:43:LYS:O	5:Q:45:LYS:N	2.50	0.44
6:R:109:VAL:HG11	6:R:123:LYS:HG2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:744:LYS:HG2	1:A:748:MET:HE2	2.00	0.44
1:A:841:LEU:HD23	1:A:841:LEU:HA	1.84	0.44
1:A:868:TYR:OH	1:A:1366:ARG:HD3	2.17	0.44
1:A:893:PHE:CE1	1:A:940:ARG:HD2	2.52	0.44
1:A:1376:THR:O	1:A:1377:THR:C	2.55	0.44
4:D:156:ASP:HB2	4:D:159:THR:HG23	1.99	0.44
5:E:35:VAL:C	5:E:37:LEU:H	2.20	0.44
5:E:55:ARG:C	5:E:57:MET:N	2.71	0.44
5:E:63:ASN:HB3	5:E:64:PRO:HD2	1.99	0.44
5:E:147:HIS:HD2	5:E:149:LEU:N	2.11	0.44
5:E:164:LEU:HD11	5:E:211:TYR:CD1	2.53	0.44
5:E:197:LYS:HE2	5:E:199:ILE:CD1	2.27	0.44
7:G:122:ASN:HB2	7:G:131:GLN:HG3	2.00	0.44
1:M:93:VAL:HG21	1:M:301:ALA:O	2.18	0.44
1:M:599:SER:HA	1:M:600:PRO:HD2	1.80	0.44
1:M:599:SER:HB2	1:M:603:ASN:H	1.82	0.44
1:M:709:THR:CG2	1:M:710:LEU:H	2.29	0.44
1:M:942:PHE:CZ	5:Q:207:ARG:HG3	2.53	0.44
2:N:118:ARG:HH11	2:N:204:ILE:CD1	2.30	0.44
2:N:263:GLY:O	2:N:264:SER:C	2.56	0.44
2:N:816:GLU:O	2:N:817:LEU:HD23	2.18	0.44
2:N:916:THR:HB	2:N:935:ARG:HD2	2.00	0.44
3:O:70:ILE:HD11	3:O:144:ILE:HG12	2.00	0.44
3:O:132:PRO:O	3:O:134:ILE:HG13	2.17	0.44
3:O:147:LEU:HB2	3:O:151:GLN:CB	2.41	0.44
4:P:13:ARG:C	4:P:15:LEU:N	2.70	0.44
4:P:118:THR:HB	4:P:121:LYS:CG	2.48	0.44
5:Q:21:GLU:O	5:Q:24:LYS:HG2	2.18	0.44
5:Q:116:ILE:HG22	5:Q:117:THR:N	2.33	0.44
7:S:22:MET:O	7:S:23:LYS:C	2.56	0.44
13:4:16:DT:H2"	13:4:17:DT:O5'	2.18	0.44
1:A:444:PHE:CE2	1:A:487:MET:HE2	2.53	0.44
1:A:463:ILE:HD12	1:A:469:ARG:HD2	1.99	0.44
1:A:568:PRO:HG3	8:H:46:LEU:O	2.17	0.44
1:A:601:LYS:HB2	1:A:603:ASN:HD21	1.79	0.44
1:A:610:GLY:O	1:A:611:GLN:NE2	2.51	0.44
1:A:774:ARG:H	1:A:774:ARG:HG2	1.38	0.44
1:A:870:GLU:HG2	5:E:208:TYR:CD2	2.52	0.44
1:A:1120:LEU:H	1:A:1120:LEU:HG	1.57	0.44
1:A:1148:ILE:O	1:A:1148:ILE:HG22	2.18	0.44
1:A:1293:SER:HB3	1:A:1297:GLU:OE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1389:PHE:C	1:A:1391:ARG:H	2.22	0.44
2:B:114:PRO:CG	2:B:181:LEU:HD11	2.33	0.44
2:B:707:PRO:CG	2:B:708:GLU:N	2.81	0.44
2:B:773:MET:O	2:B:775:LYS:N	2.50	0.44
2:B:866:TYR:CD2	2:B:870:ILE:HB	2.52	0.44
2:B:942:ARG:HB2	2:B:945:GLU:HB2	1.99	0.44
2:B:970:THR:HG22	2:B:971:THR:N	2.33	0.44
3:C:240:VAL:HG23	3:C:241:ASP:N	2.33	0.44
4:D:123:LEU:CD1	4:D:149:THR:HG21	2.48	0.44
4:D:173:HIS:ND1	4:D:174:PRO:HD2	2.33	0.44
5:E:52:ARG:HA	5:E:53:PRO:HD2	1.85	0.44
11:K:40:HIS:O	11:K:41:THR:C	2.56	0.44
1:M:219:PHE:HE1	1:M:230:ARG:HH21	1.64	0.44
1:M:316:GLN:O	1:M:317:LYS:C	2.56	0.44
1:M:893:PHE:CE1	1:M:940:ARG:HD2	2.52	0.44
1:M:1313:LEU:C	1:M:1315:GLU:H	2.21	0.44
1:M:1315:GLU:C	1:M:1317:MET:N	2.72	0.44
2:N:281:PRO:HB3	2:N:320:ASP:OD2	2.18	0.44
3:O:13:ALA:O	11:W:114:LEU:HD13	2.18	0.44
3:O:47:ASP:CG	3:O:47:ASP:O	2.57	0.44
3:O:133:ILE:HD11	3:O:237:SER:HA	2.00	0.44
3:O:166:GLU:CG	11:W:10:PHE:HZ	2.26	0.44
3:O:235:VAL:HG21	10:V:6:ARG:NH2	2.33	0.44
3:O:242:GLN:C	3:O:244:VAL:N	2.71	0.44
4:P:186:ASP:OD1	4:P:186:ASP:N	2.51	0.44
5:Q:157:SER:C	5:Q:159:ASP:N	2.71	0.44
5:Q:201:LYS:HD3	5:Q:201:LYS:HA	1.82	0.44
6:R:97:ARG:NH2	6:R:108:PHE:HE1	2.16	0.44
12:X:47:ARG:CG	12:X:52:GLY:HA2	2.48	0.44
1:A:528:LEU:O	1:A:531:ILE:HG22	2.18	0.43
1:A:971:PHE:CE2	1:A:1040:GLN:HG2	2.52	0.43
1:A:1167:GLU:O	1:A:1170:ILE:CD1	2.66	0.43
1:A:1207:LEU:HD11	1:A:1273:LEU:HD23	1.99	0.43
1:A:1209:MET:CE	1:A:1236:LEU:HB3	2.48	0.43
1:A:1215:ARG:O	1:A:1219:THR:N	2.47	0.43
1:A:1259:MET:HA	1:A:1262:LYS:CD	2.47	0.43
2:B:97:VAL:O	2:B:97:VAL:CG1	2.66	0.43
2:B:280:ILE:CD1	2:B:334:ILE:HG12	2.47	0.43
2:B:399:ASP:OD2	2:B:510:LYS:HB2	2.18	0.43
2:B:777:ALA:HA	2:B:1095:LEU:HA	1.99	0.43
3:C:248:ILE:HD11	11:K:101:LEU:HD22	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:52:LEU:HD12	4:D:182:SER:HB2	2.00	0.43
8:H:76:THR:HG22	8:H:141:TYR:OH	2.18	0.43
10:J:36:LEU:HB2	10:J:47:ARG:NH1	2.33	0.43
12:L:27:LEU:HD13	12:L:37:LYS:CD	2.47	0.43
15:3:5:C:O2'	15:3:6:A:H5'	2.18	0.43
1:M:593:GLU:C	1:M:595:THR:N	2.71	0.43
1:M:929:LEU:HD21	1:M:983:ILE:HD13	1.99	0.43
2:N:193:LYS:HZ2	12:X:32:ALA:HB1	1.82	0.43
2:N:429:PHE:O	2:N:433:GLN:HG3	2.18	0.43
2:N:432:MET:C	2:N:434:ARG:H	2.21	0.43
2:N:594:ALA:CA	2:N:617:ARG:NH1	2.81	0.43
2:N:757:PRO:HG2	2:N:984:HIS:HE1	1.83	0.43
2:N:1050:ILE:HG22	2:N:1051:THR:N	2.32	0.43
2:N:1214:PRO:HG2	2:N:1214:PRO:O	2.18	0.43
5:Q:55:ARG:C	5:Q:57:MET:N	2.71	0.43
5:Q:63:ASN:HB3	5:Q:64:PRO:HD2	1.99	0.43
7:S:138:THR:CG2	7:S:139:ILE:H	2.29	0.43
9:U:34:TYR:CE2	9:U:36:GLU:HB3	2.53	0.43
1:A:140:THR:HA	1:A:143:LYS:HE2	2.00	0.43
1:A:185:TRP:CE3	1:A:185:TRP:N	2.83	0.43
1:A:590:ARG:HG2	1:A:590:ARG:HH11	1.83	0.43
1:A:718:VAL:O	1:A:721:PHE:HB2	2.18	0.43
2:B:129:PHE:CE2	2:B:166:PHE:HD1	2.36	0.43
2:B:797:TYR:HE1	2:B:854:LEU:HD23	1.82	0.43
2:B:847:ASP:O	2:B:849:GLY:N	2.51	0.43
2:B:999:MET:HB3	2:B:1007:VAL:CG2	2.47	0.43
3:C:69:LEU:O	10:J:6:ARG:HD2	2.17	0.43
4:D:138:ASN:C	4:D:140:ASP:N	2.71	0.43
5:E:135:PHE:HD2	5:E:140:LEU:CD2	2.30	0.43
8:H:145:ARG:O	8:H:146:ARG:CB	2.66	0.43
9:I:56:ALA:O	9:I:57:GLY:O	2.36	0.43
10:J:53:HIS:HE1	10:J:55:ASP:OD1	2.01	0.43
12:L:26:THR:HG23	12:L:62:LYS:HZ1	1.82	0.43
1:M:54:ASN:HB3	1:M:247:ARG:NH1	2.20	0.43
1:M:54:ASN:CB	1:M:247:ARG:HH12	2.22	0.43
2:N:291:ILE:HG22	2:N:297:ILE:HG12	1.99	0.43
2:N:461:LEU:N	2:N:461:LEU:CD1	2.80	0.43
2:N:679:TYR:HE1	2:N:687:GLU:OE2	2.00	0.43
2:N:1004:GLU:OE1	10:V:42:LYS:HE2	2.18	0.43
2:N:1116:ARG:HG3	2:N:1198:TYR:CD2	2.53	0.43
2:N:1197:PRO:HG2	2:N:1200:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:73:GLN:NE2	3:O:75:MET:H	2.04	0.43
3:O:241:ASP:HB3	11:W:109:TRP:CE2	2.52	0.43
5:Q:98:ILE:HA	5:Q:101:GLN:HB3	2.00	0.43
11:W:102:LYS:O	11:W:106:GLU:HG3	2.17	0.43
1:A:856:THR:HG21	1:A:1370:LEU:HD21	2.00	0.43
1:A:1220:PHE:O	1:A:1221:LYS:HB2	2.17	0.43
2:B:629:ASP:HB3	2:B:632:ARG:CD	2.49	0.43
2:B:916:THR:HB	2:B:935:ARG:HG3	1.99	0.43
2:B:918:ILE:HD12	2:B:935:ARG:CZ	2.48	0.43
2:B:957:ASN:O	2:B:960:GLY:N	2.52	0.43
3:C:166:GLU:C	11:K:6:ARG:NH1	2.72	0.43
3:C:233:GLU:OE1	10:J:12:LYS:HE2	2.18	0.43
6:F:76:LYS:O	6:F:79:ARG:HD3	2.18	0.43
8:H:84:ALA:CA	8:H:87:ARG:HD2	2.47	0.43
10:J:37:SER:OG	10:J:47:ARG:NH2	2.51	0.43
12:L:47:ARG:CG	12:L:52:GLY:HA2	2.48	0.43
1:M:80:HIS:H	1:M:243:PRO:HB3	1.83	0.43
1:M:268:ASP:HB3	1:M:299:HIS:ND1	2.32	0.43
1:M:645:LEU:HG	1:M:649:ILE:HD12	1.99	0.43
1:M:718:VAL:O	1:M:721:PHE:HB2	2.17	0.43
1:M:1218:GLN:O	1:M:1221:LYS:HG3	2.18	0.43
1:M:1278:ASN:O	1:M:1310:GLY:HA3	2.18	0.43
2:N:51:PHE:HB2	2:N:173:MET:HE1	2.00	0.43
2:N:100:PRO:HD2	2:N:180:TYR:CE1	2.53	0.43
2:N:114:PRO:O	2:N:115:GLN:C	2.55	0.43
2:N:229:ALA:HB1	2:N:231:PRO:HD2	2.00	0.43
2:N:387:LEU:HD12	2:N:387:LEU:H	1.84	0.43
2:N:942:ARG:HB2	2:N:945:GLU:HB2	2.00	0.43
5:Q:55:ARG:HD2	5:Q:113:GLN:HE21	1.83	0.43
5:Q:78:LEU:HD21	5:Q:80:VAL:HG23	1.99	0.43
7:S:127:PRO:HA	7:S:128:PRO:HD3	1.94	0.43
10:V:27:GLU:O	10:V:29:GLU:N	2.51	0.43
1:A:75:ASN:O	1:A:76:GLU:CB	2.65	0.43
1:A:492:PRO:C	1:A:493:GLN:HE21	2.22	0.43
1:A:832:ALA:O	13:1:18:DA:H5'	2.17	0.43
1:A:1021:LEU:O	1:A:1024:SER:HB3	2.19	0.43
1:A:1112:LYS:O	1:A:1114:PRO:CD	2.63	0.43
1:A:1323:ASP:C	1:A:1325:THR:H	2.21	0.43
2:B:236:HIS:CE1	2:B:389:ALA:HA	2.53	0.43
3:C:31:ASN:O	3:C:35:ARG:HG3	2.17	0.43
3:C:109:SER:O	3:C:110:THR:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:58:THR:O	8:H:142:LEU:HD12	2.18	0.43
11:K:18:LYS:HA	11:K:18:LYS:HD3	1.83	0.43
1:M:571:LEU:HD22	8:T:46:LEU:HD11	2.00	0.43
1:M:709:THR:HB	1:M:712:GLU:H	1.83	0.43
1:M:774:ARG:H	1:M:774:ARG:HG2	1.31	0.43
1:M:1164:PRO:HG2	1:M:1165:GLU:H	1.83	0.43
2:N:351:TYR:CD1	2:N:355:ILE:HD11	2.54	0.43
2:N:622:LYS:HZ1	9:U:59:VAL:HG13	1.79	0.43
2:N:871:THR:HG22	2:N:872:GLU:O	2.18	0.43
4:P:40:HIS:HE1	7:S:74:TYR:O	2.00	0.43
5:Q:28:TYR:C	5:Q:65:THR:HG23	2.39	0.43
5:Q:191:LYS:O	5:Q:192:ARG:C	2.56	0.43
6:R:89:GLU:C	6:R:93:ILE:HD12	2.39	0.43
8:T:77:ARG:HG2	8:T:78:SER:H	1.82	0.43
8:T:108:SER:O	8:T:109:LYS:HB3	2.18	0.43
9:U:58:VAL:HG13	9:U:62:ILE:CD1	2.48	0.43
12:X:34:CYS:O	12:X:35:SER:C	2.56	0.43
1:A:115:LEU:CG	1:A:142:CYS:HB3	2.47	0.43
1:A:173:THR:O	1:A:173:THR:HG22	2.19	0.43
1:A:821:ARG:O	1:A:825:ILE:HG13	2.17	0.43
1:A:839:ARG:NH1	1:A:1402:PHE:HD1	2.17	0.43
1:A:1169:ILE:H	1:A:1169:ILE:HG13	1.49	0.43
1:A:1235:LYS:O	1:A:1237:ILE:HD12	2.18	0.43
1:A:1444:MET:HE1	6:F:135:ARG:HB2	2.00	0.43
2:B:67:SER:HB3	2:B:92:PHE:HD1	1.83	0.43
2:B:614:SER:C	2:B:615:MET:HG3	2.38	0.43
2:B:642:ASP:HB3	2:B:649:LYS:CG	2.48	0.43
2:B:708:GLU:O	2:B:709:ASP:C	2.57	0.43
2:B:798:TYR:HD2	2:B:798:TYR:N	2.16	0.43
2:B:1095:LEU:C	2:B:1096:ARG:O	2.55	0.43
3:C:242:GLN:C	3:C:244:VAL:N	2.72	0.43
4:D:12:ARG:NH1	4:D:14:ARG:N	2.66	0.43
5:E:17:ARG:O	5:E:20:LYS:HB2	2.18	0.43
1:M:40:THR:CG2	1:M:41:MET:HG3	2.47	0.43
1:M:71:GLN:C	1:M:73:GLY:N	2.71	0.43
1:M:245:PRO:O	1:M:248:PRO:HD3	2.19	0.43
1:M:374:LEU:O	1:M:436:ILE:HG12	2.17	0.43
1:M:532:ARG:O	1:M:535:THR:HB	2.18	0.43
1:M:738:LYS:HG3	1:M:740:LEU:HG	1.99	0.43
1:M:856:THR:HG21	1:M:1370:LEU:HD21	2.00	0.43
1:M:1242:VAL:CG1	1:M:1243:VAL:H	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1402:PHE:CE1	1:M:1403:GLU:HG2	2.54	0.43
2:N:662:MET:HA	2:N:665:GLU:CG	2.46	0.43
2:N:792:MET:HE1	13:4:24:DG:P	2.58	0.43
2:N:864:LYS:HG3	2:N:872:GLU:OE1	2.19	0.43
3:O:37:MET:CE	3:O:176:ILE:HD13	2.48	0.43
3:O:260:LEU:O	3:O:263:THR:HB	2.18	0.43
4:P:145:MET:O	4:P:149:THR:HB	2.19	0.43
4:P:191:ALA:C	4:P:193:THR:N	2.72	0.43
4:P:193:THR:HG22	4:P:194:LEU:HG	2.00	0.43
5:Q:48:ASP:HB3	5:Q:54:GLN:CD	2.38	0.43
5:Q:108:GLY:O	5:Q:132:ILE:HG23	2.19	0.43
7:S:1:MET:O	7:S:3:PHE:CZ	2.71	0.43
8:T:57:VAL:HG12	8:T:58:THR:N	2.33	0.43
1:A:253:ASN:ND2	2:B:935:ARG:HB2	2.34	0.43
1:A:295:LEU:O	1:A:298:PHE:HB3	2.19	0.43
1:A:532:ARG:HH22	1:A:745:GLN:HG2	1.84	0.43
1:A:535:THR:HG21	1:A:616:VAL:CA	2.46	0.43
1:A:913:LEU:HD13	1:A:981:LEU:O	2.19	0.43
1:A:1074:GLU:HB3	1:A:1075:PRO:CD	2.49	0.43
1:A:1409:LEU:CD1	2:B:1207:LEU:HD21	2.49	0.43
2:B:129:PHE:HE2	2:B:166:PHE:CD1	2.37	0.43
2:B:231:PRO:O	2:B:231:PRO:HG2	2.19	0.43
2:B:287:ARG:HG2	2:B:292:ILE:HG12	2.00	0.43
2:B:313:MET:HE1	2:B:390:LEU:HG	2.01	0.43
2:B:314:LEU:O	2:B:317:CYS:HB2	2.19	0.43
2:B:570:VAL:CG2	2:B:573:GLN:HB3	2.48	0.43
2:B:664:THR:CG2	2:B:678:GLU:N	2.81	0.43
2:B:821:GLN:OE1	2:B:850:LEU:HD12	2.18	0.43
2:B:1115:THR:HG22	2:B:1117:GLN:CG	2.49	0.43
3:C:65:HIS:CE1	3:C:69:LEU:HD11	2.54	0.43
3:C:123:ASN:HD21	3:C:125:MET:HA	1.82	0.43
5:E:90:VAL:HB	5:E:117:THR:HG21	2.00	0.43
7:G:151:ILE:HG12	7:S:114:LEU:CD1	2.48	0.43
8:H:91:ASP:O	8:H:93:TYR:N	2.47	0.43
9:I:4:PHE:CD1	9:I:4:PHE:C	2.92	0.43
11:K:12:LEU:HD12	11:K:12:LEU:HA	1.80	0.43
1:M:451:HIS:O	1:M:452:LYS:C	2.56	0.43
1:M:826:ASP:C	1:M:826:ASP:OD1	2.56	0.43
1:M:1299:VAL:HG12	1:M:1300:LYS:H	1.84	0.43
1:M:1308:THR:HG23	1:M:1309:ASP:H	1.82	0.43
2:N:110:HIS:HB2	12:X:54:ARG:NH2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:750:GLY:O	2:N:751:VAL:C	2.56	0.43
2:N:830:TYR:CE2	2:N:1000:PRO:HD3	2.52	0.43
2:N:860:MET:SD	2:N:861:ASP:N	2.91	0.43
2:N:916:THR:HB	2:N:935:ARG:CG	2.47	0.43
2:N:1084:GLN:OE1	3:O:189:THR:CG2	2.67	0.43
3:O:186:LEU:O	3:O:187:LYS:HB2	2.19	0.43
3:O:258:ILE:O	3:O:262:LEU:HG	2.18	0.43
5:Q:79:TRP:NE1	5:Q:81:GLU:HB2	2.33	0.43
7:S:80:LYS:O	7:S:82:PHE:CE1	2.71	0.43
8:T:128:ASN:C	8:T:128:ASN:HD22	2.22	0.43
9:U:50:THR:CG2	9:U:51:ASN:N	2.67	0.43
9:U:100:PHE:N	9:U:100:PHE:HD1	2.16	0.43
12:X:44:ASP:O	12:X:45:ALA:HB3	2.18	0.43
13:4:12:DG:H1'	13:4:13:DT:O5'	2.19	0.43
1:A:79:GLY:H	2:B:1205:GLN:HE22	1.65	0.43
1:A:409:SER:O	1:A:410:GLY:C	2.57	0.43
1:A:549:MET:HE1	1:A:656:TRP:HD1	1.83	0.43
1:A:1030:ARG:HG2	1:A:1034:GLU:OE2	2.19	0.43
1:A:1315:GLU:C	1:A:1317:MET:N	2.72	0.43
1:A:1418:LEU:HD23	2:B:1222:ARG:HD2	1.99	0.43
2:B:112:LEU:HD12	2:B:113:TYR:H	1.82	0.43
2:B:254:LEU:HD12	2:B:272:THR:O	2.18	0.43
2:B:567:GLU:OE1	2:B:567:GLU:HA	2.19	0.43
2:B:589:VAL:CG1	2:B:590:HIS:N	2.79	0.43
3:C:56:THR:HG22	3:C:57:VAL:N	2.25	0.43
6:F:97:ARG:O	6:F:101:ILE:HG13	2.18	0.43
7:G:132:SER:HB3	7:G:135:ASP:H	1.83	0.43
10:J:32:GLU:OE2	10:J:32:GLU:N	2.32	0.43
1:M:351:THR:HG21	2:N:1103:ILE:CG1	2.49	0.43
1:M:593:GLU:O	1:M:595:THR:N	2.45	0.43
1:M:722:LEU:HB3	1:M:799:PHE:CD1	2.53	0.43
1:M:853:ASP:OD1	1:M:853:ASP:C	2.57	0.43
1:M:1146:VAL:HG12	1:M:1201:ALA:HB1	2.00	0.43
2:N:44:VAL:O	2:N:45:SER:C	2.56	0.43
2:N:102:VAL:CG2	2:N:112:LEU:HD22	2.49	0.43
2:N:108:VAL:HG23	2:N:109:THR:H	1.82	0.43
2:N:291:ILE:CD1	2:N:300:HIS:NE2	2.82	0.43
2:N:311:LEU:O	2:N:314:LEU:N	2.51	0.43
2:N:363:HIS:O	2:N:364:ILE:CB	2.67	0.43
2:N:657:HIS:O	2:N:660:LYS:HB3	2.18	0.43
2:N:708:GLU:O	2:N:709:ASP:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:878:GLN:HB2	2:N:879:ARG:HH11	1.82	0.43
2:N:999:MET:HB3	2:N:1007:VAL:HG21	2.01	0.43
2:N:1001:PHE:CE2	3:O:34:ARG:CZ	3.01	0.43
4:P:207:LEU:HD11	4:P:211:LEU:HD11	2.00	0.43
4:P:219:THR:CG2	4:P:220:LEU:N	2.82	0.43
5:Q:154:ILE:HG22	5:Q:155:ARG:O	2.19	0.43
6:R:109:VAL:CG1	6:R:110:ASP:H	2.31	0.43
8:T:84:ALA:HA	8:T:87:ARG:HG3	2.00	0.43
10:V:17:LYS:HG2	10:V:39:LEU:HB3	2.01	0.43
1:A:49:LYS:HD3	1:A:55:ASP:HB3	1.99	0.43
1:A:67:CYS:O	1:A:67:CYS:SG	2.77	0.43
1:A:353:ILE:HD11	1:A:480:ALA:HB1	2.00	0.43
1:A:504:LEU:HD11	6:F:91:ALA:HB2	2.01	0.43
1:A:524:VAL:O	1:A:525:GLN:C	2.57	0.43
1:A:662:PHE:HD2	2:B:1014:PRO:HG3	1.84	0.43
1:A:1341:ILE:HD12	1:A:1379:GLY:C	2.36	0.43
2:B:1166:CYS:O	2:B:1168:LEU:N	2.47	0.43
5:E:12:LEU:HD22	5:E:55:ARG:CZ	2.49	0.43
7:G:92:VAL:HG21	7:G:102:GLN:HB2	2.01	0.43
9:I:86:PHE:HE1	9:I:100:PHE:HB2	1.83	0.43
10:J:36:LEU:HD12	10:J:47:ARG:HH11	1.80	0.43
10:J:53:HIS:NE2	10:J:55:ASP:HA	2.34	0.43
12:L:44:ASP:O	12:L:45:ALA:HB3	2.19	0.43
1:M:22:PHE:HE2	1:M:26:GLU:HG2	1.83	0.43
1:M:185:TRP:CE3	1:M:185:TRP:N	2.84	0.43
1:M:698:GLN:NE2	9:U:99:LEU:HD21	2.33	0.43
1:M:825:ILE:HD12	2:N:513:GLN:HG2	2.00	0.43
1:M:1116:LEU:HB3	1:M:1308:THR:CG2	2.47	0.43
2:N:121:ASN:HA	2:N:207:GLY:CA	2.48	0.43
2:N:230:ALA:HB3	2:N:231:PRO:HD3	1.99	0.43
2:N:281:PRO:O	2:N:283:VAL:N	2.52	0.43
2:N:522:VAL:HG12	2:N:523:CYS:N	2.34	0.43
3:O:67:LEU:HA	3:O:70:ILE:HD12	2.01	0.43
3:O:209:TYR:CD1	3:O:209:TYR:N	2.86	0.43
4:P:138:ASN:O	4:P:140:ASP:N	2.52	0.43
5:Q:35:VAL:C	5:Q:37:LEU:H	2.22	0.43
5:Q:96:PHE:CZ	5:Q:100:ILE:HD11	2.54	0.43
5:Q:129:PRO:O	5:Q:130:ALA:O	2.37	0.43
6:R:152:ILE:HG22	6:R:153:VAL:N	2.33	0.43
7:S:21:ARG:HD3	7:S:21:ARG:HA	1.78	0.43
9:U:55:THR:CG2	9:U:100:PHE:HD2	2.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:W:70:ARG:HG3	11:W:70:ARG:O	2.18	0.43
12:X:40:LEU:HD22	12:X:44:ASP:CG	2.38	0.43
1:A:40:THR:CG2	1:A:41:MET:HG3	2.42	0.43
1:A:282:ASN:O	1:A:284:ALA:N	2.52	0.43
1:A:993:LEU:CD2	1:A:1022:LEU:HD21	2.49	0.43
2:B:175:ARG:HD2	2:B:175:ARG:HA	1.87	0.43
2:B:282:ILE:CD1	2:B:382:ILE:HD13	2.48	0.43
2:B:363:HIS:O	2:B:364:ILE:CB	2.63	0.43
2:B:378:LEU:O	2:B:378:LEU:HD12	2.18	0.43
2:B:390:LEU:O	2:B:392:ARG:N	2.52	0.43
2:B:431:TYR:CG	2:B:447:ALA:CB	3.02	0.43
2:B:603:LEU:HD12	2:B:609:ILE:HG12	2.01	0.43
2:B:861:ASP:OD1	2:B:862:GLN:N	2.52	0.43
2:B:935:ARG:HG3	2:B:935:ARG:O	2.19	0.43
6:F:89:GLU:CG	6:F:134:ILE:HD13	2.46	0.43
7:G:18:PHE:HA	7:G:22:MET:HE3	2.00	0.43
7:G:127:PRO:HA	7:G:128:PRO:HD3	1.94	0.43
10:J:24:LEU:HA	10:J:28:ASP:HB2	2.01	0.43
1:M:55:ASP:CG	1:M:55:ASP:O	2.54	0.43
1:M:826:ASP:HA	1:M:829:VAL:HG23	1.99	0.43
1:M:1121:GLU:O	1:M:1122:PRO:C	2.57	0.43
1:M:1308:THR:CG2	1:M:1309:ASP:N	2.68	0.43
2:N:90:ILE:HD12	2:N:432:MET:CE	2.49	0.43
2:N:294:ASP:N	2:N:294:ASP:OD2	2.51	0.43
2:N:618:ASP:OD2	2:N:621:GLU:HB3	2.18	0.43
2:N:778:MET:HE1	2:N:1094:ARG:CD	2.40	0.43
2:N:866:TYR:HB2	2:N:870:ILE:HB	2.01	0.43
2:N:1009:ASP:C	2:N:1010:LEU:HD12	2.39	0.43
2:N:1165:ILE:HG21	4:P:17:LYS:HG3	2.00	0.43
3:O:16:ASP:O	3:O:240:VAL:HG11	2.19	0.43
3:O:189:THR:HG22	3:O:190:ASP:H	1.79	0.43
4:P:15:LEU:O	4:P:17:LYS:N	2.44	0.43
4:P:57:LEU:HD23	4:P:57:LEU:HA	1.75	0.43
4:P:123:LEU:HD13	4:P:149:THR:HG21	2.01	0.43
5:Q:90:VAL:HA	5:Q:120:ALA:HB2	1.99	0.43
5:Q:103:LYS:HB3	5:Q:105:PHE:CE2	2.54	0.43
6:R:97:ARG:HA	6:R:97:ARG:HD2	1.86	0.43
7:S:138:THR:CG2	7:S:139:ILE:HG22	2.39	0.43
8:T:50:ALA:O	8:T:53:ASP:OD2	2.37	0.43
1:A:350:ARG:CB	2:B:1128:LEU:HD11	2.46	0.43
1:A:374:LEU:O	1:A:436:ILE:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:593:GLU:C	1:A:595:THR:N	2.72	0.43
1:A:770:VAL:HA	1:A:822:GLU:OE1	2.19	0.43
1:A:1120:LEU:C	1:A:1120:LEU:HD12	2.39	0.43
1:A:1239:ARG:HH11	1:A:1239:ARG:HB3	1.84	0.43
1:A:1293:SER:HB2	1:A:1299:VAL:CG2	2.49	0.43
2:B:246:LYS:HA	2:B:249:ARG:NH2	2.34	0.43
2:B:257:LYS:HB3	2:B:258:LEU:H	1.55	0.43
2:B:324:ILE:O	2:B:324:ILE:HG22	2.19	0.43
2:B:405:ARG:HA	2:B:631:GLY:O	2.19	0.43
2:B:616:ILE:CG2	2:B:700:SER:OG	2.67	0.43
3:C:147:LEU:HB2	3:C:151:GLN:CB	2.41	0.43
3:C:209:TYR:H	3:C:209:TYR:HD1	1.63	0.43
3:C:254:LYS:HB3	11:K:42:LEU:HD11	2.01	0.43
9:I:4:PHE:HD1	9:I:5:ARG:N	2.16	0.43
9:I:88:SER:C	9:I:90:GLN:H	2.22	0.43
1:M:330:LYS:O	1:M:334:GLY:HA3	2.19	0.43
1:M:701:LEU:HD21	9:U:114:GLN:HB2	2.01	0.43
1:M:1280:GLU:HB3	1:M:1281:ARG:H	1.60	0.43
1:M:1402:PHE:CZ	1:M:1403:GLU:HG2	2.54	0.43
1:M:1410:PHE:HA	2:N:1212:ILE:CD1	2.49	0.43
1:M:1445:ILE:HD13	7:S:70:PHE:CE2	2.54	0.43
2:N:363:HIS:O	2:N:364:ILE:HB	2.18	0.43
2:N:447:ALA:O	2:N:449:ASN:N	2.52	0.43
2:N:487:THR:CG2	2:N:488:TYR:N	2.82	0.43
2:N:594:ALA:HA	2:N:617:ARG:NH1	2.34	0.43
2:N:727:LYS:HE2	2:N:1049:ASP:OD1	2.19	0.43
2:N:840:ILE:HG21	2:N:994:TYR:HD1	1.83	0.43
2:N:957:ASN:O	2:N:960:GLY:N	2.52	0.43
2:N:1017:ILE:H	2:N:1018:PRO:HD2	1.84	0.43
4:P:8:PHE:CD2	7:S:6:ASP:O	2.71	0.43
4:P:60:LYS:HE2	4:P:126:ILE:CG1	2.48	0.43
5:Q:82:PHE:O	5:Q:83:CYS:HB2	2.18	0.43
5:Q:104:ASN:HD22	5:Q:104:ASN:HA	1.52	0.43
5:Q:124:VAL:HB	5:Q:125:PRO:CD	2.49	0.43
7:S:110:VAL:HG12	7:S:161:GLY:O	2.18	0.43
8:T:62:SER:OG	8:T:64:ASN:ND2	2.51	0.43
8:T:135:LEU:HB2	8:T:137:GLN:HE21	1.83	0.43
9:U:82:GLU:HB3	9:U:104:LEU:HD12	1.99	0.43
10:V:24:LEU:HA	10:V:28:ASP:HB2	1.99	0.43
11:W:101:LEU:HD23	11:W:101:LEU:C	2.39	0.43
1:A:33:ALA:HB1	1:A:56:PRO:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:219:PHE:CE1	1:A:230:ARG:HB3	2.54	0.42
1:A:500:GLU:O	1:A:504:LEU:HB2	2.19	0.42
1:A:1100:ARG:NH2	1:A:1351:GLU:CG	2.82	0.42
1:A:1121:GLU:O	1:A:1122:PRO:C	2.57	0.42
1:A:1148:ILE:HD11	1:A:1198:ASP:CA	2.46	0.42
1:A:1173:HIS:CD2	1:A:1227:ILE:HG23	2.54	0.42
1:A:1208:THR:O	1:A:1209:MET:C	2.56	0.42
1:A:1444:MET:CG	7:G:59:GLY:O	2.67	0.42
2:B:51:PHE:CD2	2:B:173:MET:HB3	2.54	0.42
2:B:203:PHE:N	2:B:203:PHE:HD1	2.16	0.42
2:B:521:LEU:HB3	2:B:633:VAL:CG1	2.47	0.42
2:B:557:PHE:HZ	2:B:603:LEU:HD21	1.83	0.42
2:B:654:ARG:HG3	2:B:654:ARG:NH1	2.33	0.42
2:B:910:VAL:HG13	2:B:938:SER:HB3	2.01	0.42
2:B:1017:ILE:H	2:B:1018:PRO:HD2	1.84	0.42
4:D:7:THR:HG21	4:D:32:GLU:CD	2.39	0.42
4:D:166:LEU:HD23	4:D:214:LEU:CD2	2.49	0.42
8:H:26:ILE:O	8:H:27:GLU:HG3	2.19	0.42
8:H:51:ALA:O	8:H:52:GLN:CB	2.67	0.42
12:L:29:TYR:O	12:L:30:ILE:CG1	2.66	0.42
1:M:846:GLU:HB2	1:M:847:ASP:H	1.67	0.42
2:N:384:ARG:HH12	2:N:393:LYS:CD	2.31	0.42
2:N:483:LEU:HD11	2:N:491:THR:HG22	1.99	0.42
2:N:659:ALA:HA	2:N:662:MET:CE	2.49	0.42
2:N:731:VAL:HG12	2:N:734:HIS:NE2	2.34	0.42
3:O:101:LEU:CD1	3:O:118:LEU:HD23	2.49	0.42
3:O:104:PHE:HE2	3:O:150:GLY:HA2	1.84	0.42
4:P:5:THR:HG23	7:S:42:PHE:CE1	2.53	0.42
4:P:185:CYS:O	4:P:211:LEU:HD22	2.19	0.42
4:P:209:ARG:HA	4:P:212:LYS:HD2	1.99	0.42
8:T:58:THR:O	8:T:59:ILE:HG13	2.19	0.42
8:T:128:ASN:ND2	8:T:128:ASN:C	2.72	0.42
11:W:21:ILE:HD13	11:W:84:LYS:HE3	2.00	0.42
11:W:59:ALA:HA	11:W:74:ARG:O	2.19	0.42
1:A:65:LEU:HD13	1:A:71:GLN:OE1	2.19	0.42
1:A:92:HIS:O	1:A:93:VAL:C	2.57	0.42
1:A:98:LYS:O	1:A:102:VAL:HG23	2.19	0.42
1:A:523:ILE:CG2	1:A:527:THR:HG22	2.49	0.42
1:A:883:LEU:HD21	1:A:1021:LEU:HB2	2.00	0.42
1:A:1035:TYR:O	1:A:1036:ARG:HB2	2.19	0.42
1:A:1308:THR:CG2	1:A:1309:ASP:N	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1311:VAL:HG21	1:A:1329:THR:CG2	2.49	0.42
2:B:125:SER:O	2:B:126:SER:HB3	2.19	0.42
4:D:138:ASN:O	4:D:140:ASP:N	2.52	0.42
5:E:43:LYS:O	5:E:45:LYS:N	2.52	0.42
7:G:51:TYR:CD2	7:G:51:TYR:C	2.93	0.42
8:H:56:THR:O	8:H:144:ILE:HA	2.19	0.42
8:H:128:ASN:ND2	8:H:128:ASN:C	2.71	0.42
12:L:70:ARG:HG2	12:L:70:ARG:HH11	1.84	0.42
1:M:69:THR:HB	2:N:1174:LYS:HE2	2.01	0.42
1:M:109:HIS:H	1:M:210:ILE:HD11	1.84	0.42
1:M:469:ARG:NH2	2:N:991:GLY:O	2.52	0.42
1:M:598:LEU:CD2	8:T:25:ARG:NH1	2.82	0.42
1:M:1081:LEU:HD11	1:M:1097:GLY:CA	2.45	0.42
1:M:1156:PRO:HA	1:M:1190:PRO:CB	2.49	0.42
1:M:1215:ARG:O	1:M:1219:THR:N	2.48	0.42
2:N:247:GLY:C	2:N:249:ARG:N	2.71	0.42
2:N:334:ILE:O	2:N:334:ILE:CG2	2.66	0.42
2:N:335:GLY:O	2:N:336:ARG:HB2	2.19	0.42
2:N:899:ILE:CD1	2:N:911:ILE:HA	2.47	0.42
2:N:1106:ARG:HG3	2:N:1107:ALA:N	2.34	0.42
3:O:179:GLU:O	3:O:180:TYR:HB3	2.20	0.42
4:P:52:LEU:H	4:P:182:SER:HB3	1.84	0.42
4:P:183:LEU:HA	4:P:183:LEU:HD23	1.46	0.42
5:Q:182:ASP:HB3	5:Q:185:ALA:CB	2.48	0.42
8:T:61:SER:O	8:T:62:SER:HB2	2.19	0.42
10:V:44:TYR:CD2	10:V:44:TYR:N	2.78	0.42
1:A:443:LEU:HD23	1:A:443:LEU:HA	1.76	0.42
1:A:599:SER:HA	1:A:600:PRO:HD2	1.81	0.42
1:A:608:ILE:HD12	1:A:613:ILE:CD1	2.49	0.42
1:A:645:LEU:HD11	1:A:649:ILE:HD11	2.00	0.42
1:A:741:ASN:HD22	1:A:741:ASN:C	2.22	0.42
1:A:1150:SER:HB3	1:A:1195:LEU:CD2	2.48	0.42
1:A:1239:ARG:HH12	1:A:1241:ARG:NH1	2.18	0.42
1:A:1378:GLN:HG2	5:E:177:ARG:NH1	2.35	0.42
2:B:357:GLN:CD	2:B:368:GLU:HA	2.40	0.42
2:B:364:ILE:HG13	2:B:585:VAL:HG22	2.00	0.42
2:B:447:ALA:O	2:B:449:ASN:N	2.53	0.42
2:B:508:LEU:O	2:B:509:ALA:CB	2.66	0.42
2:B:604:ARG:CA	2:B:609:ILE:HG13	2.49	0.42
2:B:744:HIS:CD2	2:B:745:PRO:CD	2.80	0.42
2:B:769:TYR:C	2:B:771:SER:N	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:773:MET:SD	2:B:987:LYS:HD2	2.58	0.42
2:B:832:GLY:O	2:B:835:GLN:NE2	2.52	0.42
3:C:27:LEU:O	3:C:28:ALA:C	2.58	0.42
3:C:259:LEU:HD21	11:K:91:CYS:HB3	2.01	0.42
5:E:14:ARG:NH2	5:E:141:VAL:HG12	2.28	0.42
5:E:124:VAL:N	5:E:125:PRO:HD2	2.33	0.42
7:G:91:VAL:HG23	7:G:141:SER:O	2.19	0.42
8:H:100:THR:HG22	8:H:101:ALA:N	2.34	0.42
8:H:113:ALA:HB1	8:H:124:ARG:HE	1.84	0.42
9:I:10:CYS:O	9:I:11:ASN:C	2.58	0.42
9:I:62:ILE:O	9:I:62:ILE:HG12	2.19	0.42
9:I:100:PHE:N	9:I:100:PHE:HD1	2.17	0.42
9:I:101:PHE:N	9:I:101:PHE:HD1	2.15	0.42
1:M:219:PHE:CZ	1:M:230:ARG:HB3	2.55	0.42
1:M:320:ARG:NE	1:M:323:LYS:HZ2	2.18	0.42
1:M:353:ILE:HD11	1:M:480:ALA:HB1	2.01	0.42
1:M:666:ILE:HD11	2:N:1067:ARG:O	2.19	0.42
1:M:874:ASP:OD1	1:M:876:ALA:N	2.40	0.42
1:M:908:LEU:CD1	1:M:983:ILE:HD11	2.49	0.42
1:M:942:PHE:HZ	5:Q:207:ARG:HG3	1.83	0.42
1:M:1206:ASP:O	1:M:1274:ARG:NH1	2.51	0.42
1:M:1312:ASN:O	1:M:1316:VAL:HG23	2.18	0.42
2:N:274:PRO:O	2:N:275:TYR:HB2	2.19	0.42
2:N:821:GLN:HE22	2:N:851:PHE:HA	1.84	0.42
2:N:980:PHE:CE2	2:N:1094:ARG:HG3	2.54	0.42
2:N:1166:CYS:O	2:N:1168:LEU:N	2.48	0.42
3:O:77:ILE:HG23	3:O:161:LYS:HE3	2.02	0.42
4:P:190:GLU:HA	7:S:167:TYR:HD1	1.77	0.42
4:P:203:SER:OG	4:P:206:GLU:HB2	2.20	0.42
5:Q:65:THR:O	5:Q:69:ILE:HD12	2.19	0.42
5:Q:124:VAL:N	5:Q:125:PRO:HD2	2.34	0.42
7:S:111:THR:O	7:S:114:LEU:N	2.47	0.42
1:A:41:MET:HB2	1:A:49:LYS:HA	1.94	0.42
1:A:211:PHE:HA	1:A:214:ILE:HG13	2.01	0.42
1:A:532:ARG:O	1:A:535:THR:HB	2.19	0.42
1:A:567:LYS:HE3	8:H:46:LEU:HB2	2.01	0.42
1:A:1444:MET:HE2	1:A:1444:MET:N	2.34	0.42
2:B:427:ASP:HA	2:B:430:ARG:CG	2.49	0.42
2:B:468:GLU:OE1	2:B:470:LYS:HE3	2.19	0.42
2:B:796:LEU:HB3	2:B:799:PRO:HG3	2.02	0.42
2:B:835:GLN:HE21	2:B:835:GLN:HB2	1.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:879:ARG:HB2	2:B:880:THR:H	1.41	0.42
3:C:166:GLU:HG2	11:K:10:PHE:HZ	1.84	0.42
4:D:53:SER:OG	4:D:54:GLU:N	2.52	0.42
6:F:76:LYS:HE3	6:F:150:GLU:OE2	2.18	0.42
6:F:100:GLN:HA	6:F:103:MET:HG3	2.00	0.42
8:H:26:ILE:CD1	8:H:49:VAL:CG1	2.98	0.42
12:L:46:VAL:O	12:L:46:VAL:HG12	2.20	0.42
13:1:16:DT:H2"	13:1:17:DT:O5'	2.19	0.42
13:1:19:DT:H2'	13:1:20:DG:H8	1.84	0.42
1:M:225:ASN:ND2	1:M:225:ASN:C	2.73	0.42
1:M:276:LEU:HD21	1:M:293:GLU:HG3	2.01	0.42
1:M:655:PHE:O	1:M:658:LEU:HB3	2.19	0.42
1:M:711:ARG:NH2	9:U:87:GLN:OE1	2.52	0.42
1:M:722:LEU:HD23	1:M:799:PHE:CD1	2.55	0.42
1:M:897:TYR:CB	1:M:936:LEU:HD12	2.46	0.42
1:M:1033:GLN:O	1:M:1036:ARG:NH1	2.51	0.42
2:N:70:ILE:H	2:N:429:PHE:HE1	1.67	0.42
2:N:640:VAL:O	2:N:640:VAL:CG1	2.67	0.42
2:N:773:MET:O	2:N:775:LYS:N	2.51	0.42
2:N:1132:GLU:O	2:N:1135:ARG:HB3	2.19	0.42
3:O:249:ASP:O	3:O:252:GLN:HB3	2.19	0.42
5:Q:78:LEU:HD11	5:Q:109:ILE:HD12	2.00	0.42
7:S:4:ILE:HA	7:S:76:ALA:O	2.19	0.42
7:S:146:LYS:HB2	7:S:168:LEU:HD11	2.00	0.42
10:V:3:VAL:CG2	10:V:18:TRP:CG	3.02	0.42
11:W:31:VAL:HG23	11:W:83:PRO:HG3	2.02	0.42
1:A:137:ALA:O	1:A:138:ILE:C	2.57	0.42
1:A:139:TRP:O	1:A:140:THR:C	2.58	0.42
1:A:203:SER:O	1:A:206:GLU:HB3	2.19	0.42
1:A:390:GLN:HE21	1:A:394:ASN:ND2	2.09	0.42
1:A:452:LYS:HB3	2:B:1141:HIS:CE1	2.55	0.42
1:A:672:ASP:OD2	1:A:674:PRO:HG2	2.18	0.42
1:A:836:TYR:O	1:A:840:ARG:HD3	2.19	0.42
1:A:1030:ARG:NH1	1:A:1035:TYR:OH	2.53	0.42
1:A:1147:THR:HB	9:I:48:LEU:CD1	2.45	0.42
1:A:1165:GLU:H	1:A:1165:GLU:HG2	1.61	0.42
1:A:1418:LEU:HD23	2:B:1222:ARG:CD	2.49	0.42
2:B:435:THR:C	2:B:437:GLU:H	2.21	0.42
2:B:889:THR:HG23	2:B:891:ASP:H	1.84	0.42
4:D:156:ASP:HB2	4:D:159:THR:CG2	2.50	0.42
4:D:156:ASP:O	4:D:157:GLN:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:81:GLU:HG2	5:E:82:PHE:O	2.19	0.42
5:E:134:THR:O	5:E:135:PHE:CD1	2.73	0.42
6:F:105:ALA:HB1	6:F:106:PRO:CD	2.49	0.42
7:G:62:LEU:HD13	7:G:62:LEU:HA	1.83	0.42
7:G:126:ASN:HA	7:G:127:PRO:C	2.36	0.42
10:J:12:LYS:O	10:J:14:VAL:HG23	2.20	0.42
11:K:33:ILE:HD13	11:K:87:LEU:HD22	2.00	0.42
1:M:353:ILE:HD13	1:M:487:MET:CG	2.50	0.42
1:M:1152:ILE:HG12	1:M:1260:LEU:HD23	2.01	0.42
1:M:1166:ASP:OD2	1:M:1239:ARG:NE	2.52	0.42
2:N:100:PRO:HA	2:N:125:SER:O	2.19	0.42
2:N:257:LYS:HB3	2:N:258:LEU:H	1.57	0.42
2:N:331:LEU:HD21	2:N:353:LYS:HG2	2.01	0.42
2:N:390:LEU:O	2:N:392:ARG:N	2.52	0.42
2:N:428:ILE:HG22	2:N:432:MET:CE	2.49	0.42
2:N:571:PRO:O	2:N:574:SER:O	2.37	0.42
2:N:769:TYR:O	2:N:772:ALA:N	2.50	0.42
2:N:884:ARG:O	2:N:936:ASP:CB	2.67	0.42
2:N:891:ASP:C	2:N:893:LEU:N	2.72	0.42
2:N:1182:CYS:SG	2:N:1185:CYS:HB2	2.60	0.42
2:N:1208:MET:O	2:N:1211:ASN:N	2.47	0.42
3:O:27:LEU:O	3:O:28:ALA:C	2.58	0.42
3:O:77:ILE:HD13	3:O:77:ILE:HA	1.86	0.42
4:P:14:ARG:HH12	4:P:16:LYS:NZ	2.18	0.42
4:P:53:SER:C	4:P:55:ALA:N	2.70	0.42
4:P:190:GLU:HG3	7:S:167:TYR:CD1	2.54	0.42
5:Q:88:VAL:HG21	5:Q:110:PHE:CE1	2.55	0.42
5:Q:89:GLY:C	5:Q:91:LYS:H	2.23	0.42
5:Q:147:HIS:CD2	5:Q:149:LEU:H	2.37	0.42
7:S:1:MET:O	7:S:2:PHE:C	2.57	0.42
7:S:9:LEU:HD23	7:S:30:LEU:HD12	2.01	0.42
7:S:115:MET:CB	7:S:116:PRO:HD2	2.41	0.42
7:S:139:ILE:CG1	7:S:140:LYS:HG3	2.46	0.42
7:S:139:ILE:HG23	7:S:140:LYS:H	1.83	0.42
8:T:135:LEU:HB2	8:T:137:GLN:NE2	2.35	0.42
1:A:34:LYS:HG3	1:A:36:ARG:HH22	1.83	0.42
1:A:973:ILE:O	1:A:973:ILE:HG22	2.19	0.42
1:A:1072:ILE:O	1:A:1075:PRO:HG2	2.19	0.42
1:A:1205:LYS:O	1:A:1207:LEU:HG	2.20	0.42
2:B:229:ALA:HB1	2:B:231:PRO:HD2	2.02	0.42
2:B:399:ASP:O	2:B:515:HIS:CD2	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:603:LEU:HB3	2:B:609:ILE:CD1	2.50	0.42
2:B:999:MET:HE2	2:B:999:MET:HA	2.02	0.42
2:B:1027:ILE:C	2:B:1029:CYS:N	2.73	0.42
2:B:1068:GLY:O	2:B:1069:PHE:C	2.58	0.42
2:B:1079:LYS:CA	3:C:27:LEU:HD21	2.50	0.42
2:B:1084:GLN:OE1	3:C:189:THR:CG2	2.67	0.42
2:B:1181:GLU:HB2	2:B:1188:LYS:HG2	2.02	0.42
2:B:1221:SER:O	2:B:1223:ASP:N	2.53	0.42
3:C:133:ILE:CD1	3:C:237:SER:HA	2.49	0.42
4:D:7:THR:HG21	4:D:32:GLU:OE1	2.20	0.42
4:D:134:THR:HG22	4:D:136:GLY:H	1.84	0.42
1:M:208:LEU:C	1:M:208:LEU:CD2	2.88	0.42
1:M:270:LEU:HA	1:M:270:LEU:HD12	1.71	0.42
1:M:356:ASP:C	1:M:358:ASN:H	2.23	0.42
1:M:545:GLN:O	1:M:546:VAL:C	2.56	0.42
1:M:582:ILE:HA	1:M:583:PRO:HD2	1.88	0.42
1:M:787:PHE:CE1	1:M:796:SER:HA	2.54	0.42
1:M:1100:ARG:NH2	1:M:1351:GLU:CG	2.81	0.42
1:M:1161:THR:OG1	1:M:1239:ARG:NH2	2.53	0.42
2:N:408:LEU:HD11	2:N:545:ILE:HD13	2.02	0.42
2:N:578:THR:C	2:N:589:VAL:HG13	2.40	0.42
2:N:769:TYR:C	2:N:771:SER:N	2.73	0.42
3:O:148:ARG:HB3	3:O:149:LYS:H	1.50	0.42
4:P:71:LYS:CA	4:P:74:GLN:HB2	2.45	0.42
4:P:146:GLN:CA	4:P:149:THR:HG22	2.50	0.42
4:P:195:ILE:HB	4:P:198:LEU:CD1	2.49	0.42
4:P:209:ARG:HH11	4:P:209:ARG:CG	2.33	0.42
5:Q:111:VAL:CG1	5:Q:137:GLU:HG2	2.50	0.42
6:R:110:ASP:O	6:R:123:LYS:HE3	2.19	0.42
7:S:34:VAL:HG13	7:S:45:ILE:CD1	2.49	0.42
7:S:48:VAL:HG13	7:S:74:TYR:HD1	1.84	0.42
9:U:109:ILE:O	9:U:109:ILE:HG22	2.19	0.42
1:A:298:PHE:CZ	1:A:314:ALA:HB2	2.55	0.42
1:A:415:LEU:HD23	1:A:415:LEU:HA	1.78	0.42
1:A:500:GLU:OE2	2:B:1145:SER:CB	2.66	0.42
1:A:590:ARG:O	1:A:591:PHE:CB	2.63	0.42
1:A:598:LEU:HD12	8:H:115:TYR:CD2	2.54	0.42
1:A:608:ILE:HD12	1:A:613:ILE:HD11	2.02	0.42
1:A:767:GLN:HA	1:A:799:PHE:HA	2.02	0.42
1:A:874:ASP:OD1	1:A:874:ASP:C	2.58	0.42
1:A:1003:LYS:O	1:A:1004:ASN:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:189:LEU:CD1	2:B:196:PRO:HA	2.49	0.42
2:B:377:PHE:CE2	2:B:381:MET:HE2	2.54	0.42
2:B:488:TYR:CE2	2:B:813:LYS:HB2	2.54	0.42
2:B:1106:ARG:HG3	2:B:1107:ALA:N	2.35	0.42
3:C:116:LYS:HG3	3:C:117:ASP:OD1	2.19	0.42
4:D:32:GLU:HG3	7:G:5:LYS:HE2	2.01	0.42
4:D:61:GLU:O	4:D:64:VAL:HB	2.20	0.42
5:E:90:VAL:HA	5:E:120:ALA:HB2	2.01	0.42
7:G:14:HIS:HD2	7:G:16:SER:CB	2.32	0.42
14:2:4:DA:C4	14:2:5:DC:C5	3.08	0.42
1:M:49:LYS:HZ1	1:M:61:ILE:H	1.67	0.42
1:M:49:LYS:NZ	1:M:60:SER:HA	2.33	0.42
1:M:65:LEU:HD13	1:M:71:GLN:OE1	2.20	0.42
1:M:783:THR:HG21	1:M:815:PHE:CZ	2.55	0.42
1:M:1003:LYS:O	1:M:1004:ASN:HB3	2.19	0.42
1:M:1312:ASN:ND2	1:M:1315:GLU:HG3	2.35	0.42
1:M:1341:ILE:HD12	1:M:1379:GLY:C	2.37	0.42
2:N:47:GLN:O	2:N:173:MET:HE1	2.19	0.42
2:N:434:ARG:O	2:N:436:VAL:N	2.52	0.42
2:N:603:LEU:HD12	2:N:609:ILE:HG12	2.02	0.42
2:N:634:TYR:CE1	2:N:692:TYR:CD1	3.07	0.42
4:P:29:LEU:HD12	7:S:82:PHE:CE1	2.54	0.42
5:Q:52:ARG:HA	5:Q:53:PRO:HD2	1.86	0.42
5:Q:191:LYS:HG3	5:Q:194:GLU:OE1	2.19	0.42
7:S:129:SER:C	7:S:130:TYR:CD1	2.93	0.42
7:S:163:ILE:HG21	7:S:163:ILE:HD13	1.79	0.42
8:T:30:SER:HB3	8:T:36:CYS:HB3	2.01	0.42
11:W:52:ASN:O	11:W:54:ARG:N	2.53	0.42
12:X:68:GLU:CD	12:X:68:GLU:H	2.11	0.42
1:A:93:VAL:HG21	1:A:301:ALA:O	2.19	0.42
1:A:351:THR:HG21	2:B:1103:ILE:CG1	2.47	0.42
1:A:460:VAL:CG1	1:A:461:LYS:N	2.83	0.42
1:A:468:PHE:CE2	1:A:489:LEU:HD23	2.55	0.42
1:A:563:PRO:HG3	1:A:572:TRP:CE2	2.52	0.42
1:A:722:LEU:HD23	1:A:799:PHE:CG	2.55	0.42
1:A:849:MET:HE1	1:A:1440:ALA:HB2	2.01	0.42
1:A:961:ARG:O	1:A:965:GLN:HG3	2.20	0.42
1:A:1100:ARG:HH21	1:A:1351:GLU:CD	2.23	0.42
1:A:1111:MET:HE2	1:A:1111:MET:HB2	1.80	0.42
1:A:1402:PHE:CE2	1:A:1403:GLU:HG2	2.55	0.42
2:B:134:LYS:NZ	2:B:164:LYS:NZ	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:458:LYS:O	2:B:459:TYR:C	2.58	0.42
2:B:711:GLU:HB2	2:B:712:PRO:CD	2.50	0.42
2:B:745:PRO:O	2:B:747:MET:N	2.52	0.42
3:C:66:ARG:CZ	10:J:2:ILE:CG2	2.98	0.42
5:E:26:ARG:HH12	5:E:133:GLU:CD	2.23	0.42
1:M:69:THR:HG21	2:N:1174:LYS:HZ3	1.85	0.42
1:M:108:MET:O	1:M:109:HIS:HB3	2.20	0.42
1:M:310:GLY:C	1:M:312:PRO:HD2	2.39	0.42
1:M:316:GLN:HG2	1:M:317:LYS:HG2	2.01	0.42
1:M:415:LEU:HD23	1:M:415:LEU:HA	1.70	0.42
1:M:567:LYS:HE3	8:T:46:LEU:HD12	2.00	0.42
1:M:809:THR:H	1:M:812:GLU:HB2	1.85	0.42
1:M:1011:GLN:NE2	1:M:1015:VAL:HG21	2.29	0.42
1:M:1057:VAL:HG12	1:M:1058:VAL:N	2.34	0.42
1:M:1120:LEU:HD23	1:M:1304:TRP:O	2.19	0.42
1:M:1207:LEU:HA	1:M:1211:GLN:OE1	2.20	0.42
2:N:63:ILE:HD12	2:N:63:ILE:HA	1.79	0.42
2:N:219:ALA:HB2	2:N:405:ARG:NH1	2.34	0.42
2:N:425:THR:HG22	2:N:426:LYS:N	2.35	0.42
2:N:486:TYR:N	2:N:486:TYR:HD2	2.16	0.42
2:N:552:MET:O	2:N:554:ILE:N	2.53	0.42
2:N:640:VAL:HG12	2:N:649:LYS:HG2	2.01	0.42
2:N:698:GLU:O	2:N:701:ILE:HG12	2.20	0.42
2:N:976:ILE:O	2:N:990:ILE:HB	2.19	0.42
4:P:207:LEU:HG	4:P:211:LEU:HD12	2.02	0.42
5:Q:17:ARG:O	5:Q:20:LYS:HB2	2.20	0.42
9:U:88:SER:C	9:U:90:GLN:H	2.23	0.42
1:A:904:THR:O	1:A:904:THR:HG22	2.20	0.42
1:A:1011:GLN:HE22	1:A:1015:VAL:HG23	1.83	0.42
2:B:34:ILE:HG12	2:B:542:MET:HE1	2.00	0.42
2:B:39:ARG:HH21	2:B:665:GLU:HG2	1.81	0.42
2:B:123:THR:CB	2:B:458:LYS:HE2	2.49	0.42
2:B:247:GLY:C	2:B:249:ARG:N	2.72	0.42
2:B:434:ARG:O	2:B:436:VAL:N	2.52	0.42
2:B:610:ASN:HA	2:B:611:PRO:HD3	1.93	0.42
2:B:640:VAL:HG12	2:B:649:LYS:HG2	2.02	0.42
2:B:842:ASN:HD22	2:B:845:SER:CB	2.33	0.42
2:B:905:VAL:HG23	2:B:941:LEU:HD22	2.02	0.42
4:D:175:PHE:O	4:D:178:ALA:HB3	2.20	0.42
8:H:55:LEU:HD22	8:H:144:ILE:CG2	2.49	0.42
8:H:98:TYR:C	8:H:118:PHE:HD2	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:53:ASP:HB3	11:K:56:VAL:HG23	2.00	0.42
1:M:108:MET:HE2	1:M:210:ILE:HD12	2.01	0.42
1:M:154:SER:HB3	1:M:162:VAL:CG2	2.50	0.42
1:M:172:PRO:HD3	1:M:185:TRP:NE1	2.34	0.42
1:M:385:ILE:CG2	1:M:386:ASP:N	2.81	0.42
1:M:426:LEU:O	1:M:427:GLN:HG2	2.19	0.42
1:M:577:ILE:HA	1:M:580:VAL:HG23	2.01	0.42
1:M:672:ASP:OD2	1:M:674:PRO:HG2	2.20	0.42
1:M:777:PHE:CD1	1:M:781:ASP:HA	2.55	0.42
1:M:848:ILE:HA	1:M:857:ARG:O	2.19	0.42
2:N:31:TRP:CE3	2:N:31:TRP:HA	2.54	0.42
2:N:225:VAL:HG11	2:N:385:LEU:HA	2.01	0.42
2:N:278:GLN:CG	2:N:279:ASP:H	2.33	0.42
2:N:508:LEU:O	2:N:509:ALA:CB	2.66	0.42
2:N:702:LEU:HG	2:N:738:PHE:HD2	1.85	0.42
2:N:773:MET:HE2	2:N:985:GLY:HA2	2.01	0.42
2:N:838:SER:HA	2:N:989:THR:O	2.19	0.42
2:N:1027:ILE:C	2:N:1029:CYS:N	2.73	0.42
2:N:1060:ARG:HD2	2:N:1060:ARG:HA	1.51	0.42
2:N:1094:ARG:HH21	2:N:1098:MET:HG2	1.85	0.42
3:O:8:VAL:CG1	3:O:9:LYS:N	2.80	0.42
3:O:105:GLY:O	3:O:149:LYS:O	2.37	0.42
4:P:198:LEU:HB2	4:P:199:ASN:H	1.59	0.42
6:R:72:LYS:H	6:R:72:LYS:HG2	1.69	0.42
7:S:121:PHE:CD1	7:S:130:TYR:CE1	3.08	0.42
9:U:17:ARG:HG3	9:U:28:GLU:OE1	2.19	0.42
11:W:47:ARG:HD2	11:W:47:ARG:C	2.39	0.42
1:A:370:ILE:HG23	1:A:374:LEU:HD12	2.02	0.42
1:A:622:VAL:HG22	1:A:622:VAL:O	2.20	0.42
1:A:996:ASN:C	1:A:998:LEU:HD12	2.40	0.42
1:A:1264:GLU:OE2	9:I:46:HIS:CD2	2.72	0.42
1:A:1428:VAL:HG13	2:B:1151:LEU:CD2	2.49	0.42
2:B:695:ALA:O	2:B:698:GLU:HB3	2.19	0.42
4:D:16:LYS:O	4:D:18:VAL:N	2.45	0.42
4:D:123:LEU:HD13	4:D:149:THR:HG21	2.01	0.42
5:E:82:PHE:O	5:E:83:CYS:HB2	2.19	0.42
10:J:61:LEU:O	10:J:63:TYR:N	2.51	0.42
11:K:65:HIS:NE2	11:K:67:PHE:CG	2.85	0.42
1:M:137:ALA:O	1:M:138:ILE:C	2.58	0.42
1:M:252:PHE:HB2	1:M:256:GLN:NE2	2.35	0.42
1:M:583:PRO:O	1:M:610:GLY:HA3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:709:THR:HG23	9:U:94:ASP:HA	2.01	0.42
1:M:973:ILE:HG12	1:M:1038:THR:HG23	2.02	0.42
1:M:1029:ARG:NH1	1:M:1029:ARG:CG	2.83	0.42
2:N:274:PRO:HG2	2:N:359:GLU:HB3	2.02	0.42
2:N:423:LYS:HD2	2:N:470:LYS:HZ1	1.85	0.42
2:N:758:PHE:CE1	2:N:1027:ILE:CG2	3.02	0.42
2:N:778:MET:HE2	2:N:1094:ARG:O	2.20	0.42
2:N:840:ILE:HB	2:N:1011:ILE:HB	2.02	0.42
2:N:880:THR:CB	2:N:934:LYS:HD2	2.35	0.42
2:N:1095:LEU:C	2:N:1096:ARG:O	2.57	0.42
2:N:1160:VAL:HG11	2:N:1169:MET:SD	2.60	0.42
2:N:1185:CYS:HA	4:P:17:LYS:HE3	2.02	0.42
2:N:1197:PRO:O	2:N:1198:TYR:C	2.57	0.42
4:P:159:THR:HG21	4:P:219:THR:OG1	2.20	0.42
5:Q:61:GLN:HG2	5:Q:62:ALA:H	1.84	0.42
8:T:100:THR:HG22	8:T:101:ALA:N	2.35	0.42
10:V:1:MET:H1	10:V:56:LEU:CA	2.32	0.42
1:A:100:LYS:O	1:A:104:GLU:HG3	2.20	0.41
1:A:254:GLU:HB3	1:A:255:SER:H	1.46	0.41
1:A:533:LYS:HE2	1:A:533:LYS:HB3	1.90	0.41
1:A:848:ILE:HA	1:A:857:ARG:O	2.20	0.41
1:A:900:ASP:HB3	1:A:906:HIS:HB2	2.02	0.41
1:A:929:LEU:N	1:A:929:LEU:HD22	2.35	0.41
1:A:1129:GLU:HG2	1:A:1132:LYS:NZ	2.35	0.41
1:A:1161:THR:HG22	1:A:1163:ILE:HG13	2.02	0.41
1:A:1239:ARG:HB3	1:A:1239:ARG:NH1	2.35	0.41
2:B:293:PRO:C	2:B:294:ASP:O	2.56	0.41
2:B:360:PHE:CD2	2:B:361:LEU:HB2	2.55	0.41
2:B:522:VAL:CG1	2:B:537:LYS:HB3	2.50	0.41
2:B:531:GLN:HG2	2:B:532:ALA:N	2.35	0.41
2:B:635:ARG:NH2	2:B:742:GLU:OE2	2.52	0.41
2:B:877:PRO:C	2:B:878:GLN:HG3	2.40	0.41
2:B:891:ASP:C	2:B:893:LEU:N	2.72	0.41
2:B:1114:LEU:HG	2:B:1202:LEU:HD11	2.02	0.41
3:C:31:ASN:O	3:C:34:ARG:HB3	2.20	0.41
3:C:36:VAL:HG21	3:C:251:LEU:HD13	2.02	0.41
3:C:76:ASP:OD2	3:C:128:ASN:N	2.52	0.41
4:D:63:LEU:O	4:D:133:THR:HG21	2.19	0.41
4:D:148:LEU:HD23	4:D:148:LEU:HA	1.92	0.41
5:E:157:SER:O	5:E:159:ASP:N	2.53	0.41
10:J:1:MET:H1	10:J:56:LEU:CA	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:288:ALA:HA	1:M:291:GLU:CG	2.50	0.41
1:M:1074:GLU:HB3	1:M:1075:PRO:CD	2.50	0.41
1:M:1098:VAL:N	1:M:1099:PRO:HD2	2.35	0.41
2:N:241:ARG:CG	2:N:253:THR:HG22	2.39	0.41
2:N:292:ILE:HD13	2:N:326:ASP:HA	2.01	0.41
2:N:768:THR:O	2:N:771:SER:HB2	2.20	0.41
2:N:877:PRO:C	2:N:878:GLN:HG3	2.40	0.41
3:O:101:LEU:HD13	3:O:118:LEU:CD2	2.49	0.41
4:P:27:LEU:HA	4:P:27:LEU:HD23	1.69	0.41
4:P:180:LEU:HD23	4:P:180:LEU:HA	1.53	0.41
5:Q:50:MET:HG2	5:Q:52:ARG:HE	1.85	0.41
5:Q:61:GLN:HB2	5:Q:79:TRP:HE3	1.85	0.41
5:Q:177:ARG:O	5:Q:212:ARG:HD3	2.20	0.41
6:R:120:ILE:O	6:R:124:GLU:HG3	2.20	0.41
7:S:26:LEU:CD1	7:S:56:ILE:HD11	2.50	0.41
12:X:38:LEU:O	12:X:39:SER:CB	2.68	0.41
1:A:134:ARG:HG2	1:A:138:ILE:CD1	2.49	0.41
1:A:310:GLY:C	1:A:312:PRO:HD2	2.40	0.41
1:A:332:LYS:HB2	1:A:332:LYS:HE3	1.80	0.41
1:A:546:VAL:HG21	1:A:572:TRP:HB2	2.01	0.41
1:A:582:ILE:HA	1:A:583:PRO:HD2	1.91	0.41
1:A:722:LEU:H	1:A:722:LEU:CD1	2.26	0.41
1:A:828:ALA:HB2	2:B:530:GLY:HA2	2.02	0.41
1:A:901:LEU:HG	1:A:926:GLN:HE21	1.85	0.41
1:A:1141:THR:HA	1:A:1205:LYS:HZ2	1.86	0.41
1:A:1313:LEU:HB3	1:A:1338:VAL:HG21	2.02	0.41
2:B:56:ASP:HB3	2:B:57:TYR:CE1	2.54	0.41
2:B:558:LEU:O	2:B:559:SER:C	2.58	0.41
2:B:879:ARG:H	2:B:879:ARG:CD	2.31	0.41
2:B:916:THR:CB	2:B:935:ARG:HD2	2.50	0.41
2:B:1069:PHE:CD1	2:B:1069:PHE:N	2.78	0.41
6:F:118:LEU:O	6:F:122:MET:HG3	2.19	0.41
7:G:31:LEU:CD2	7:G:48:VAL:HG21	2.50	0.41
1:M:34:LYS:CG	1:M:36:ARG:NH2	2.82	0.41
1:M:66:LYS:HZ3	1:M:68:GLN:H	1.66	0.41
1:M:436:ILE:HD11	1:M:491:VAL:HG11	2.01	0.41
1:M:623:GLY:C	1:M:625:SER:H	2.24	0.41
1:M:847:ASP:N	1:M:847:ASP:OD1	2.51	0.41
2:N:33:VAL:O	2:N:36:ALA:HB3	2.20	0.41
2:N:371:GLU:N	2:N:371:GLU:CD	2.74	0.41
2:N:459:TYR:CZ	2:N:469:GLN:HG3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:893:LEU:HD22	2:N:897:GLY:HA2	2.02	0.41
2:N:936:ASP:CG	2:N:937:ALA:N	2.74	0.41
2:N:1107:ALA:O	2:N:1108:ARG:CB	2.67	0.41
3:O:69:LEU:H	3:O:69:LEU:CD1	2.28	0.41
3:O:208:GLU:O	3:O:210:GLU:N	2.53	0.41
8:T:93:TYR:N	8:T:93:TYR:CD1	2.88	0.41
11:W:22:ASP:O	11:W:31:VAL:HG12	2.19	0.41
11:W:65:HIS:CD2	11:W:65:HIS:C	2.92	0.41
1:A:230:ARG:HG3	1:A:233:TRP:CZ3	2.55	0.41
1:A:352:VAL:HG12	1:A:353:ILE:N	2.35	0.41
1:A:655:PHE:O	1:A:658:LEU:HB3	2.21	0.41
1:A:828:ALA:C	1:A:831:THR:HG22	2.41	0.41
1:A:1362:TYR:CD1	1:A:1362:TYR:C	2.92	0.41
2:B:853:SER:OG	2:B:1094:ARG:NH1	2.53	0.41
4:D:63:LEU:O	4:D:129:LEU:HD11	2.20	0.41
4:D:151:PHE:CD1	4:D:151:PHE:N	2.87	0.41
5:E:43:LYS:H	5:E:43:LYS:HG3	1.67	0.41
8:H:93:TYR:N	8:H:93:TYR:CD1	2.89	0.41
9:I:8:ARG:HG3	9:I:8:ARG:H	1.67	0.41
10:J:57:ILE:O	10:J:60:PHE:HB2	2.20	0.41
12:L:65:VAL:HG23	12:L:67:PHE:CE1	2.55	0.41
1:M:208:LEU:O	1:M:208:LEU:HD23	2.21	0.41
1:M:220:THR:O	1:M:221:SER:C	2.58	0.41
1:M:278:THR:HG22	1:M:278:THR:O	2.19	0.41
1:M:365:GLY:O	1:M:468:PHE:HA	2.20	0.41
1:M:675:THR:O	1:M:675:THR:HG22	2.20	0.41
1:M:715:GLU:OE1	1:M:774:ARG:HD3	2.19	0.41
2:N:39:ARG:HH21	2:N:665:GLU:HG2	1.82	0.41
2:N:323:VAL:O	2:N:323:VAL:HG12	2.20	0.41
2:N:405:ARG:HA	2:N:631:GLY:O	2.20	0.41
2:N:637:LEU:HD12	2:N:693:ILE:CD1	2.50	0.41
2:N:745:PRO:O	2:N:747:MET:N	2.53	0.41
3:O:162:GLY:HA3	3:O:170:TRP:CE2	2.56	0.41
3:O:217:ASP:HA	3:O:218:PRO:HD3	1.91	0.41
4:P:149:THR:HG23	4:P:150:ASN:N	2.35	0.41
8:T:77:ARG:CG	8:T:78:SER:H	2.33	0.41
9:U:70:ARG:HA	9:U:83:ASN:O	2.20	0.41
13:4:18:DA:H3'	13:4:18:DA:OP1	2.20	0.41
1:A:106:VAL:HG21	1:A:214:ILE:CD1	2.51	0.41
1:A:288:ALA:HA	1:A:291:GLU:HG3	2.00	0.41
1:A:623:GLY:C	1:A:625:SER:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:175:ARG:HB2	2:B:200:GLY:HA3	2.02	0.41
2:B:641:GLU:OE1	2:B:641:GLU:HA	2.20	0.41
2:B:1183:LYS:N	2:B:1183:LYS:CE	2.80	0.41
4:D:70:PHE:O	4:D:74:GLN:HG2	2.20	0.41
5:E:55:ARG:HG3	5:E:55:ARG:NH1	2.34	0.41
5:E:67:GLU:O	5:E:70:SER:HB3	2.20	0.41
7:G:155:SER:O	7:G:156:SER:HB3	2.20	0.41
1:M:5:GLN:O	2:N:1159:ARG:NH2	2.52	0.41
1:M:344:ARG:NE	2:N:1120:GLU:HB2	2.35	0.41
1:M:482:PHE:C	1:M:484:GLY:H	2.24	0.41
1:M:956:LEU:HD21	1:M:1017:LEU:HG	2.01	0.41
1:M:960:ILE:CA	1:M:963:ILE:HG22	2.50	0.41
1:M:1063:MET:SD	1:M:1436:ILE:HB	2.60	0.41
2:N:51:PHE:HB2	2:N:173:MET:CE	2.50	0.41
2:N:129:PHE:CE2	2:N:166:PHE:HD1	2.38	0.41
2:N:129:PHE:CD2	2:N:166:PHE:HA	2.49	0.41
2:N:227:LYS:HG3	2:N:395:GLN:OE1	2.20	0.41
2:N:244:LEU:O	2:N:246:LYS:N	2.53	0.41
2:N:245:GLU:O	2:N:245:GLU:HG2	2.20	0.41
2:N:280:ILE:HG23	2:N:281:PRO:HD2	2.01	0.41
2:N:757:PRO:HG2	2:N:984:HIS:CE1	2.55	0.41
2:N:856:PHE:N	2:N:856:PHE:CD1	2.88	0.41
2:N:910:VAL:CG1	2:N:938:SER:HB3	2.50	0.41
2:N:945:GLU:O	2:N:946:ASN:HB3	2.20	0.41
2:N:1207:LEU:HD23	2:N:1207:LEU:HA	1.81	0.41
3:O:174:ALA:O	3:O:175:ALA:CB	2.67	0.41
5:Q:102:GLU:C	5:Q:104:ASN:N	2.72	0.41
7:S:88:ASP:OD2	7:S:88:ASP:C	2.59	0.41
7:S:122:ASN:HB2	7:S:131:GLN:CG	2.51	0.41
13:4:19:DT:H2'	13:4:20:DG:H8	1.86	0.41
13:4:27:DC:H2"	13:4:28:DA:C8	2.55	0.41
1:A:12:ARG:O	2:B:1194:ILE:HG22	2.21	0.41
1:A:218:ASP:O	1:A:219:PHE:C	2.59	0.41
1:A:224:PHE:HB3	1:A:225:ASN:H	1.78	0.41
1:A:316:GLN:O	1:A:317:LYS:C	2.59	0.41
1:A:705:LYS:HD2	1:A:708:MET:HE1	2.02	0.41
1:A:825:ILE:O	1:A:829:VAL:HG23	2.19	0.41
1:A:908:LEU:CD1	1:A:983:ILE:HD11	2.46	0.41
1:A:1365:TYR:CD2	1:A:1365:TYR:C	2.94	0.41
1:A:1438:THR:HB	2:B:1144:ALA:CB	2.49	0.41
2:B:52:ASN:O	2:B:56:ASP:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:54:PHE:HE1	2:B:414:ALA:HA	1.85	0.41
2:B:64:CYS:HA	2:B:67:SER:HG	1.83	0.41
2:B:126:SER:O	2:B:169:ARG:HA	2.20	0.41
2:B:298:LEU:N	2:B:298:LEU:CD2	2.82	0.41
2:B:769:TYR:O	2:B:772:ALA:N	2.51	0.41
2:B:806:THR:N	2:B:809:MET:HE3	2.35	0.41
2:B:842:ASN:ND2	2:B:845:SER:N	2.66	0.41
2:B:911:ILE:HG22	2:B:911:ILE:O	2.21	0.41
2:B:1130:PHE:HZ	2:B:1138:MET:HG2	1.84	0.41
4:D:50:LEU:HD21	7:G:4:ILE:HD12	2.02	0.41
5:E:83:CYS:SG	5:E:85:GLU:HB2	2.61	0.41
8:H:103:LYS:HG2	8:H:104:PHE:N	2.36	0.41
9:I:14:LEU:HD22	9:I:28:GLU:C	2.40	0.41
11:K:49:GLU:HG3	11:K:94:ILE:HG13	2.02	0.41
11:K:51:LEU:HD12	11:K:51:LEU:HA	1.86	0.41
1:M:34:LYS:HZ2	1:M:57:ARG:NH2	2.18	0.41
1:M:150:THR:HA	1:M:165:GLY:O	2.19	0.41
1:M:219:PHE:O	1:M:222:LEU:HB2	2.21	0.41
1:M:332:LYS:C	1:M:334:GLY:N	2.64	0.41
1:M:844:ALA:O	1:M:845:LEU:HD23	2.21	0.41
1:M:1402:PHE:CZ	1:M:1403:GLU:CG	3.03	0.41
2:N:67:SER:HB3	2:N:92:PHE:HD1	1.86	0.41
2:N:113:TYR:CD2	2:N:192:LEU:HD22	2.55	0.41
2:N:308:TRP:HA	2:N:311:LEU:HD12	2.01	0.41
2:N:427:ASP:HA	2:N:430:ARG:CG	2.50	0.41
6:R:79:ARG:HG3	6:R:144:GLU:HB3	2.02	0.41
7:S:93:SER:OG	7:S:100:GLU:HB3	2.21	0.41
7:S:99:PHE:CE1	7:S:143:ILE:HD12	2.55	0.41
10:V:57:ILE:HA	10:V:60:PHE:CD2	2.37	0.41
13:4:15:DG:C8	13:4:16:DT:C7	3.04	0.41
1:A:6:TYR:CD1	1:A:7:SER:N	2.88	0.41
1:A:172:PRO:HD3	1:A:185:TRP:CD1	2.56	0.41
1:A:667:GLY:CA	1:A:670:ILE:HD11	2.40	0.41
1:A:896:ARG:HB3	1:A:897:TYR:CD1	2.56	0.41
1:A:929:LEU:N	1:A:929:LEU:CD2	2.84	0.41
1:A:1115:SER:OG	1:A:1116:LEU:N	2.54	0.41
1:A:1206:ASP:O	1:A:1274:ARG:CZ	2.68	0.41
2:B:114:PRO:O	2:B:115:GLN:C	2.57	0.41
2:B:436:VAL:O	2:B:436:VAL:HG12	2.20	0.41
2:B:552:MET:C	2:B:554:ILE:N	2.74	0.41
2:B:846:ILE:HG23	2:B:974:PRO:CG	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1169:MET:HE2	2:B:1204:PHE:HB2	2.02	0.41
3:C:209:TYR:CD1	3:C:209:TYR:N	2.88	0.41
3:C:254:LYS:HE2	11:K:42:LEU:HD13	2.02	0.41
4:D:52:LEU:CD1	4:D:182:SER:HB2	2.50	0.41
4:D:156:ASP:O	4:D:158:GLU:N	2.53	0.41
5:E:11:ARG:C	5:E:13:TRP:N	2.74	0.41
5:E:55:ARG:HD2	5:E:84:ASP:HA	2.03	0.41
5:E:55:ARG:NE	5:E:113:GLN:NE2	2.68	0.41
5:E:213:ILE:HG12	5:E:214:CYS:N	2.35	0.41
6:F:69:LEU:HB2	6:F:72:LYS:HD2	2.01	0.41
8:H:4:THR:HG22	8:H:5:LEU:H	1.86	0.41
8:H:38:LEU:HD12	8:H:124:ARG:O	2.20	0.41
10:J:57:ILE:HA	10:J:60:PHE:CD2	2.38	0.41
13:1:12:DG:H1'	13:1:13:DT:O5'	2.21	0.41
1:M:102:VAL:CG1	1:M:211:PHE:CE1	3.03	0.41
1:M:740:LEU:HD12	1:M:740:LEU:C	2.40	0.41
1:M:1155:ASP:O	1:M:1190:PRO:O	2.38	0.41
2:N:186:GLU:CG	10:V:62:ARG:NH2	2.84	0.41
2:N:259:TYR:CD1	2:N:259:TYR:N	2.89	0.41
2:N:653:VAL:HG22	2:N:689:LEU:HB3	1.99	0.41
2:N:705:MET:HB3	2:N:706:GLN:H	1.68	0.41
2:N:797:TYR:CE1	2:N:854:LEU:CD2	3.04	0.41
2:N:886:LYS:HD2	2:N:887:HIS:NE2	2.36	0.41
2:N:898:LEU:HD13	2:N:952:VAL:CG1	2.50	0.41
2:N:1096:ARG:CG	2:N:1097:HIS:N	2.84	0.41
3:O:183:TRP:O	3:O:185:LYS:HG3	2.20	0.41
4:P:173:HIS:CE1	4:P:175:PHE:HB2	2.55	0.41
6:R:136:ARG:O	6:R:143:PHE:HA	2.21	0.41
7:S:34:VAL:HG13	7:S:45:ILE:HG21	2.02	0.41
1:A:55:ASP:OD1	1:A:57:ARG:CA	2.69	0.41
1:A:562:THR:HA	1:A:563:PRO:HD3	1.89	0.41
1:A:738:LYS:HG3	1:A:740:LEU:HG	2.01	0.41
1:A:765:VAL:HB	1:A:800:VAL:HG12	2.02	0.41
1:A:867:ILE:HG12	1:A:1000:LEU:HD11	2.02	0.41
1:A:1081:LEU:HD11	1:A:1098:VAL:N	2.31	0.41
1:A:1311:VAL:HG11	1:A:1334:ASP:OD2	2.21	0.41
2:B:31:TRP:CZ2	2:B:807:ARG:HB2	2.55	0.41
2:B:120:ARG:HH11	12:L:54:ARG:HH11	1.64	0.41
2:B:308:TRP:CZ3	9:I:45:ARG:HG2	2.54	0.41
2:B:791:THR:O	2:B:792:MET:HB2	2.20	0.41
2:B:884:ARG:O	2:B:936:ASP:CB	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:24:ASN:CG	3:C:24:ASN:O	2.59	0.41
4:D:7:THR:HB	7:G:42:PHE:CE2	2.55	0.41
4:D:12:ARG:HH11	4:D:12:ARG:CG	2.34	0.41
5:E:72:PHE:CD1	5:E:72:PHE:N	2.89	0.41
7:G:14:HIS:CD2	7:G:16:SER:HB3	2.56	0.41
9:I:73:ARG:NH1	9:I:112:SER:HB3	2.35	0.41
13:1:18:DA:H3'	13:1:18:DA:OP1	2.20	0.41
1:M:244:PRO:HB2	1:M:245:PRO:CD	2.41	0.41
1:M:317:LYS:O	1:M:318:SER:HB3	2.18	0.41
1:M:401:GLY:H	1:M:435:HIS:HD2	1.68	0.41
1:M:432:VAL:O	1:M:432:VAL:HG12	2.21	0.41
1:M:780:VAL:O	1:M:782:ARG:HG2	2.20	0.41
1:M:1220:PHE:CD1	1:M:1224:LEU:HD23	2.55	0.41
2:N:203:PHE:HB3	2:N:205:ILE:HD11	2.03	0.41
2:N:234:ILE:HG12	2:N:257:LYS:HG2	2.03	0.41
2:N:238:ALA:HB3	2:N:256:VAL:HB	2.02	0.41
2:N:311:LEU:O	2:N:312:GLU:C	2.57	0.41
2:N:639:ILE:HG22	2:N:641:GLU:HG2	2.03	0.41
2:N:642:ASP:N	2:N:649:LYS:HG3	2.35	0.41
2:N:762:ASN:OD1	2:N:1022:THR:HA	2.20	0.41
2:N:999:MET:HE2	2:N:1000:PRO:HD2	2.02	0.41
3:O:186:LEU:N	3:O:186:LEU:CD1	2.83	0.41
3:O:215:GLU:O	3:O:217:ASP:N	2.53	0.41
1:A:108:MET:O	1:A:109:HIS:HB3	2.21	0.41
1:A:108:MET:HB3	1:A:210:ILE:CD1	2.51	0.41
1:A:130:ASP:O	1:A:131:SER:C	2.59	0.41
1:A:416:ARG:NH1	1:A:417:TYR:CE1	2.89	0.41
1:A:709:THR:HG22	1:A:711:ARG:H	1.85	0.41
1:A:722:LEU:HD12	1:A:722:LEU:N	2.25	0.41
1:A:1155:ASP:O	1:A:1190:PRO:O	2.38	0.41
1:A:1198:ASP:O	1:A:1202:MET:HG2	2.20	0.41
2:B:188:ASP:O	2:B:192:LEU:HD12	2.21	0.41
2:B:280:ILE:HD11	2:B:334:ILE:HG12	2.03	0.41
2:B:281:PRO:O	2:B:283:VAL:N	2.54	0.41
2:B:508:LEU:HB3	14:2:1:DA:O3'	2.21	0.41
2:B:571:PRO:O	2:B:574:SER:O	2.38	0.41
2:B:770:GLN:HB2	2:B:985:GLY:H	1.85	0.41
2:B:847:ASP:O	3:C:65:HIS:HE1	2.03	0.41
2:B:859:TYR:CD1	2:B:859:TYR:N	2.89	0.41
2:B:887:HIS:CD2	2:B:887:HIS:H	2.37	0.41
2:B:1170:THR:O	2:B:1171:VAL:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:196:ASP:OD1	3:C:198:ALA:N	2.54	0.41
4:D:32:GLU:O	4:D:33:PHE:CG	2.74	0.41
5:E:13:TRP:CE3	5:E:39:LEU:HD13	2.55	0.41
7:G:14:HIS:HD2	7:G:16:SER:HB3	1.85	0.41
8:H:116:TYR:HE2	8:H:140:ALA:CB	2.33	0.41
11:K:21:ILE:HG12	11:K:33:ILE:HG23	2.02	0.41
1:M:591:PHE:HA	1:M:595:THR:CG2	2.39	0.41
1:M:741:ASN:C	1:M:741:ASN:ND2	2.71	0.41
1:M:1208:THR:HG22	1:M:1210:GLY:N	2.34	0.41
2:N:52:ASN:O	2:N:56:ASP:HB2	2.21	0.41
2:N:460:ALA:HB1	2:N:466:TRP:CE3	2.56	0.41
2:N:492:LEU:HB2	2:N:751:VAL:HG11	2.03	0.41
2:N:552:MET:C	2:N:554:ILE:N	2.74	0.41
2:N:941:LEU:CD2	2:N:946:ASN:HA	2.50	0.41
5:Q:63:ASN:HB3	5:Q:64:PRO:CD	2.51	0.41
7:S:59:GLY:HA3	7:S:70:PHE:CD2	2.56	0.41
7:S:132:SER:HB3	7:S:135:ASP:HB2	2.03	0.41
8:T:95:TYR:C	8:T:95:TYR:CD2	2.94	0.41
11:W:65:HIS:NE2	11:W:67:PHE:CG	2.87	0.41
1:A:145:LYS:HE3	1:A:145:LYS:CA	2.51	0.41
1:A:541:ILE:HG21	1:A:549:MET:HE3	2.03	0.41
1:A:696:GLU:O	1:A:696:GLU:HG2	2.21	0.41
1:A:705:LYS:HB2	1:A:708:MET:CE	2.50	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:CB	2.50	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:HB	2.03	0.41
1:A:1158:PRO:C	1:A:1159:ARG:HG3	2.41	0.41
2:B:63:ILE:HD12	2:B:63:ILE:HA	1.76	0.41
2:B:128:LEU:HD12	2:B:128:LEU:HA	1.93	0.41
2:B:222:ILE:O	2:B:240:ILE:HA	2.21	0.41
2:B:241:ARG:HG2	2:B:253:THR:HG21	2.01	0.41
2:B:360:PHE:HD2	2:B:374:LYS:HD3	1.85	0.41
2:B:466:TRP:O	2:B:468:GLU:N	2.53	0.41
2:B:579:ARG:NH1	2:B:579:ARG:CG	2.82	0.41
2:B:796:LEU:HD12	2:B:796:LEU:HA	1.88	0.41
2:B:1085:ILE:N	2:B:1085:ILE:HD12	2.36	0.41
2:B:1110:PRO:HB2	2:B:1119:VAL:HG11	2.03	0.41
2:B:1159:ARG:O	2:B:1159:ARG:HD2	2.21	0.41
3:C:34:ARG:O	3:C:38:ILE:HG13	2.21	0.41
4:D:52:LEU:H	4:D:182:SER:HB3	1.86	0.41
4:D:166:LEU:HD23	4:D:214:LEU:HD22	2.03	0.41
5:E:65:THR:O	5:E:69:ILE:CD1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:109:VAL:CG1	6:F:110:ASP:H	2.28	0.41
7:G:87:VAL:CG2	7:G:103:VAL:HG21	2.51	0.41
7:G:117:GLN:NE2	7:S:153:GLN:HG3	2.34	0.41
8:H:105:GLU:O	8:H:112:ILE:HD12	2.21	0.41
10:J:6:ARG:HA	10:J:12:LYS:O	2.21	0.41
11:K:13:GLY:O	11:K:14:GLU:C	2.59	0.41
11:K:56:VAL:HA	11:K:77:THR:HG22	2.02	0.41
12:L:27:LEU:HD13	12:L:37:LYS:CG	2.51	0.41
12:L:48:CYS:HB3	12:L:51:CYS:O	2.20	0.41
1:M:40:THR:HG21	1:M:259:GLU:OE2	2.21	0.41
1:M:355:GLY:N	1:M:482:PHE:CZ	2.89	0.41
1:M:445:ASN:HB3	1:M:455:MET:HE2	2.02	0.41
1:M:446:ARG:HD2	1:M:480:ALA:HB2	2.03	0.41
1:M:472:LEU:CD1	2:N:835:GLN:NE2	2.82	0.41
1:M:492:PRO:HB3	1:M:497:THR:HG22	2.02	0.41
1:M:532:ARG:NH2	1:M:745:GLN:HG2	2.36	0.41
1:M:553:VAL:HA	1:M:554:PRO:HD2	1.87	0.41
1:M:562:THR:HA	1:M:563:PRO:HD3	1.89	0.41
1:M:1161:THR:HG22	1:M:1163:ILE:HG13	2.03	0.41
1:M:1208:THR:O	1:M:1209:MET:C	2.58	0.41
1:M:1212:VAL:O	1:M:1215:ARG:HB2	2.21	0.41
1:M:1395:GLY:HA3	1:M:1419:ASP:OD2	2.21	0.41
2:N:101:MET:HB3	2:N:109:THR:HG22	2.03	0.41
2:N:228:LYS:HD3	2:N:228:LYS:HA	1.85	0.41
2:N:449:ASN:O	2:N:451:LYS:N	2.53	0.41
2:N:610:ASN:HA	2:N:611:PRO:HD3	1.97	0.41
2:N:637:LEU:HD21	2:N:742:GLU:HA	2.03	0.41
2:N:654:ARG:HG3	2:N:654:ARG:NH1	2.31	0.41
2:N:886:LYS:HB2	2:N:890:TYR:OH	2.21	0.41
2:N:990:ILE:HG22	2:N:991:GLY:N	2.35	0.41
2:N:1034:VAL:O	2:N:1037:LEU:N	2.53	0.41
2:N:1102:LYS:O	2:N:1103:ILE:C	2.58	0.41
2:N:1104:HIS:ND1	2:N:1105:ALA:N	2.68	0.41
2:N:1106:ARG:HH12	2:N:1110:PRO:HG2	1.86	0.41
3:O:75:MET:O	3:O:246:ARG:NH2	2.53	0.41
4:P:150:ASN:HB2	4:P:151:PHE:CE1	2.56	0.41
4:P:155:ARG:HB2	4:P:155:ARG:CZ	2.50	0.41
4:P:155:ARG:HH11	4:P:155:ARG:HB3	1.83	0.41
7:S:7:LEU:HD13	7:S:45:ILE:HD11	2.03	0.41
7:S:111:THR:HG22	7:S:114:LEU:CB	2.47	0.41
7:S:111:THR:O	7:S:112:LYS:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:145:ARG:O	8:T:146:ARG:CB	2.69	0.41
9:U:6:PHE:CD2	9:U:12:ASN:O	2.73	0.41
9:U:10:CYS:O	9:U:11:ASN:C	2.59	0.41
9:U:22:ASN:O	9:U:23:ASN:HB2	2.21	0.41
11:W:40:HIS:O	11:W:41:THR:C	2.59	0.41
12:X:37:LYS:HE3	12:X:37:LYS:HB2	1.81	0.41
1:A:68:GLN:O	1:A:70:CYS:N	2.51	0.41
1:A:550:LEU:HD23	1:A:550:LEU:HA	1.95	0.41
1:A:606:LEU:HG	1:A:613:ILE:HD12	2.02	0.41
1:A:1017:LEU:HB2	5:E:206:GLY:N	2.36	0.41
1:A:1195:LEU:HD11	1:A:1267:MET:CE	2.51	0.41
2:B:377:PHE:O	2:B:380:TYR:N	2.53	0.41
2:B:469:GLN:HB3	2:B:470:LYS:H	1.53	0.41
2:B:792:MET:CE	2:B:857:ARG:NH2	2.77	0.41
2:B:992:ILE:HD11	11:K:66:PRO:HB2	2.01	0.41
2:B:1109:GLY:O	2:B:1110:PRO:C	2.59	0.41
3:C:11:ARG:HE	3:C:21:ILE:HD11	1.86	0.41
3:C:217:ASP:HA	3:C:218:PRO:HD3	1.92	0.41
4:D:12:ARG:NH1	4:D:14:ARG:HG2	2.36	0.41
4:D:25:ALA:HB1	4:D:196:PRO:HG3	2.03	0.41
5:E:90:VAL:HG23	5:E:120:ALA:HA	2.02	0.41
7:G:1:MET:SD	7:G:79:PHE:HD1	2.42	0.41
8:H:83:GLN:C	8:H:85:GLY:H	2.23	0.41
8:H:129:TYR:CD1	8:H:130:ARG:CD	3.03	0.41
9:I:55:THR:HG22	9:I:86:PHE:HZ	1.86	0.41
13:1:27:DC:H2"	13:1:28:DA:C8	2.56	0.41
1:M:34:LYS:HB2	1:M:36:ARG:NH2	2.36	0.41
1:M:84:ILE:CD1	1:M:270:LEU:HD13	2.51	0.41
1:M:95:PHE:O	1:M:98:LYS:N	2.54	0.41
1:M:113:LEU:HD23	1:M:113:LEU:HA	1.95	0.41
1:M:826:ASP:OD1	1:M:827:THR:N	2.54	0.41
1:M:920:LEU:HD23	1:M:920:LEU:C	2.41	0.41
2:N:276:ILE:HD11	2:N:334:ILE:HG23	2.03	0.41
2:N:558:LEU:O	2:N:559:SER:C	2.59	0.41
2:N:641:GLU:C	2:N:643:ASP:H	2.24	0.41
2:N:658:ILE:HG22	2:N:659:ALA:N	2.35	0.41
2:N:886:LYS:HB2	2:N:890:TYR:CE1	2.56	0.41
2:N:1169:MET:HE1	2:N:1204:PHE:HB2	2.03	0.41
3:O:112:ASN:CB	3:O:114:TYR:CE1	3.03	0.41
4:P:118:THR:HG21	4:P:121:LYS:HD2	2.03	0.41
4:P:119:ARG:CG	4:P:221:TYR:CZ	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:69:ILE:N	5:Q:69:ILE:CD1	2.82	0.41
5:Q:90:VAL:HG23	5:Q:120:ALA:HA	2.02	0.41
6:R:79:ARG:NH2	6:R:150:GLU:OE1	2.47	0.41
7:S:14:HIS:CE1	7:S:15:PRO:HD2	2.55	0.41
8:T:26:ILE:O	8:T:27:GLU:HG3	2.21	0.41
8:T:51:ALA:O	8:T:52:GLN:CB	2.69	0.41
11:W:7:PHE:CD1	11:W:7:PHE:C	2.95	0.41
12:X:27:LEU:HD13	12:X:37:LYS:HG2	2.03	0.41
1:A:55:ASP:OD1	1:A:57:ARG:HA	2.21	0.40
1:A:179:LEU:HD23	1:A:179:LEU:N	2.36	0.40
1:A:335:ARG:NH1	2:B:1206:GLU:OE1	2.55	0.40
1:A:673:GLY:O	1:A:676:MET:HB2	2.21	0.40
1:A:878:ILE:CG2	1:A:955:PRO:HB2	2.51	0.40
1:A:1279:ILE:HG23	1:A:1308:THR:OG1	2.21	0.40
1:A:1345:ARG:HD2	1:A:1373:ASP:OD1	2.21	0.40
2:B:167:ILE:HD12	2:B:167:ILE:N	2.35	0.40
2:B:652:LYS:HD2	2:B:688:GLY:O	2.22	0.40
2:B:910:VAL:CG1	2:B:938:SER:HB3	2.51	0.40
2:B:1160:VAL:CG1	2:B:1161:HIS:N	2.84	0.40
3:C:73:GLN:HB3	3:C:131:HIS:H	1.85	0.40
5:E:3:GLN:NE2	5:E:52:ARG:HH22	2.18	0.40
5:E:89:GLY:C	5:E:91:LYS:N	2.74	0.40
5:E:190:LEU:C	5:E:191:LYS:HG2	2.42	0.40
7:G:132:SER:HB3	7:G:135:ASP:HB2	2.03	0.40
8:H:35:GLN:HB3	8:H:111:LEU:HD21	2.03	0.40
9:I:58:VAL:CG1	9:I:62:ILE:HG21	2.51	0.40
12:L:38:LEU:CG	12:L:39:SER:H	2.27	0.40
1:M:130:ASP:O	1:M:131:SER:C	2.59	0.40
1:M:225:ASN:HD22	1:M:227:VAL:N	2.19	0.40
1:M:341:MET:CE	2:N:1135:ARG:NH1	2.84	0.40
1:M:535:THR:HG22	1:M:616:VAL:HA	2.00	0.40
1:M:565:ILE:O	1:M:570:PRO:HA	2.21	0.40
1:M:828:ALA:C	1:M:831:THR:HG22	2.40	0.40
1:M:1112:LYS:O	1:M:1114:PRO:CD	2.66	0.40
1:M:1127:ASP:CG	1:M:1130:GLN:CB	2.89	0.40
1:M:1383:SER:O	1:M:1385:THR:N	2.54	0.40
2:N:460:ALA:HB1	2:N:466:TRP:CZ3	2.55	0.40
2:N:570:VAL:CG2	2:N:573:GLN:HB3	2.51	0.40
2:N:593:PRO:O	2:N:595:ARG:N	2.53	0.40
2:N:766:ARG:HD3	2:N:766:ARG:HA	1.80	0.40
2:N:1064:TYR:O	2:N:1065:GLN:C	2.59	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:31:ASN:O	3:O:34:ARG:HB3	2.22	0.40
4:P:8:PHE:CD1	4:P:38:ILE:O	2.74	0.40
4:P:14:ARG:NH1	4:P:16:LYS:HG2	2.35	0.40
4:P:41:GLN:N	4:P:41:GLN:NE2	2.69	0.40
5:Q:13:TRP:O	5:Q:16:PHE:HB3	2.21	0.40
5:Q:136:ASN:OD1	5:Q:138:ALA:N	2.54	0.40
9:U:77:LYS:C	9:U:79:HIS:H	2.24	0.40
9:U:80:SER:HB2	9:U:103:CYS:SG	2.61	0.40
11:W:6:ARG:O	11:W:9:LEU:HG	2.21	0.40
12:X:53:HIS:O	12:X:55:ILE:HD13	2.21	0.40
13:4:15:DG:C8	13:4:16:DT:H73	2.56	0.40
1:A:320:ARG:HA	1:A:321:PRO:HD3	1.91	0.40
1:A:598:LEU:HA	8:H:122:LEU:HD13	2.03	0.40
1:A:650:GLN:O	1:A:654:ASN:HB2	2.21	0.40
1:A:996:ASN:HA	1:A:998:LEU:HD12	2.03	0.40
1:A:1081:LEU:CD1	1:A:1097:GLY:HA3	2.51	0.40
1:A:1264:GLU:OE2	9:I:46:HIS:HD2	2.05	0.40
2:B:59:LEU:HG	2:B:95:ILE:HD13	2.03	0.40
2:B:102:VAL:HG23	2:B:112:LEU:CB	2.25	0.40
2:B:1064:TYR:O	2:B:1065:GLN:C	2.59	0.40
3:C:215:GLU:O	3:C:217:ASP:N	2.54	0.40
4:D:40:HIS:C	4:D:42:GLY:H	2.24	0.40
5:E:207:ARG:HB3	5:E:207:ARG:NH1	2.31	0.40
9:I:88:SER:HB3	9:I:95:THR:HG21	2.02	0.40
1:M:320:ARG:HE	1:M:323:LYS:NZ	2.20	0.40
1:M:332:LYS:O	1:M:334:GLY:N	2.54	0.40
1:M:369:SER:HB3	11:W:2:ASN:HD21	1.86	0.40
1:M:871:ASP:OD1	1:M:1366:ARG:NH2	2.54	0.40
1:M:963:ILE:HD11	1:M:1049:ILE:N	2.36	0.40
1:M:1005:GLU:O	1:M:1009:ASN:ND2	2.54	0.40
1:M:1157:ASP:O	1:M:1159:ARG:N	2.49	0.40
1:M:1279:ILE:HG23	1:M:1308:THR:OG1	2.20	0.40
1:M:1323:ASP:C	1:M:1325:THR:H	2.24	0.40
1:M:1402:PHE:CE2	1:M:1403:GLU:CG	3.04	0.40
2:N:466:TRP:O	2:N:468:GLU:N	2.53	0.40
2:N:617:ARG:HA	2:N:624:LEU:HD12	2.03	0.40
2:N:782:LEU:HB3	2:N:784:ASN:OD1	2.21	0.40
2:N:1200:ALA:O	2:N:1201:LYS:C	2.60	0.40
3:O:239:PRO:O	3:O:242:GLN:HB2	2.21	0.40
4:P:121:LYS:HA	4:P:124:GLU:OE2	2.20	0.40
4:P:151:PHE:N	4:P:151:PHE:HD1	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:11:ARG:C	5:Q:13:TRP:N	2.75	0.40
7:S:102:GLN:HG3	7:S:106:MET:O	2.21	0.40
9:U:58:VAL:O	9:U:58:VAL:HG12	2.21	0.40
9:U:73:ARG:NH1	9:U:101:PHE:CZ	2.89	0.40
12:X:38:LEU:CG	12:X:39:SER:H	2.29	0.40
1:A:55:ASP:O	1:A:55:ASP:OD2	2.39	0.40
1:A:196:GLU:HG2	1:A:197:PRO:CD	2.52	0.40
1:A:347:PHE:H	2:B:1107:ALA:HA	1.87	0.40
1:A:698:GLN:NE2	9:I:99:LEU:HD11	2.37	0.40
1:A:752:LYS:HD3	1:A:752:LYS:HA	1.93	0.40
1:A:850:VAL:HG21	1:A:1058:VAL:HG11	2.04	0.40
1:A:1143:LEU:O	1:A:1146:VAL:HG22	2.21	0.40
1:A:1410:PHE:HD2	2:B:1212:ILE:CD1	2.33	0.40
2:B:129:PHE:CE2	2:B:166:PHE:CD1	3.10	0.40
2:B:211:VAL:HG21	2:B:483:LEU:HD13	2.04	0.40
2:B:722:ASP:HB3	2:B:723:VAL:H	1.58	0.40
2:B:780:VAL:HG21	10:J:56:LEU:CD1	2.47	0.40
2:B:838:SER:HA	2:B:989:THR:O	2.21	0.40
2:B:847:ASP:HB3	3:C:167:HIS:NE2	2.37	0.40
2:B:945:GLU:O	2:B:946:ASN:HB3	2.21	0.40
2:B:996:ARG:HH12	3:C:174:ALA:CA	2.24	0.40
2:B:1045:SER:O	2:B:1046:PRO:O	2.39	0.40
3:C:111:THR:O	3:C:147:LEU:HD23	2.20	0.40
3:C:128:ASN:O	3:C:129:ILE:HG13	2.21	0.40
1:M:316:GLN:HG2	1:M:317:LYS:H	1.85	0.40
1:M:843:LYS:HD3	1:M:843:LYS:HA	1.76	0.40
1:M:967:ALA:HB2	1:M:1045:VAL:HG22	2.03	0.40
1:M:1350:LYS:O	1:M:1354:ASN:ND2	2.54	0.40
2:N:222:ILE:N	2:N:240:ILE:CD1	2.85	0.40
2:N:624:LEU:HD12	2:N:624:LEU:HA	1.92	0.40
3:O:34:ARG:O	3:O:38:ILE:HG13	2.22	0.40
3:O:133:ILE:CD1	3:O:236:GLY:C	2.89	0.40
4:P:56:ARG:HB2	4:P:148:LEU:HD22	2.03	0.40
5:Q:90:VAL:HB	5:Q:117:THR:HG21	2.04	0.40
7:S:90:THR:CG2	7:S:91:VAL:N	2.84	0.40
1:A:349:ALA:CB	1:A:374:LEU:HD11	2.52	0.40
1:A:436:ILE:HD11	1:A:491:VAL:HG11	2.03	0.40
1:A:444:PHE:HB2	1:A:458:HIS:HD2	1.86	0.40
1:A:675:THR:O	1:A:675:THR:HG22	2.22	0.40
1:A:996:ASN:HA	1:A:998:LEU:CD1	2.52	0.40
1:A:1291:VAL:HG22	1:A:1292:PRO:CD	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:90:ILE:HD12	2:B:432:MET:CE	2.51	0.40
2:B:189:LEU:HD13	2:B:196:PRO:HA	2.03	0.40
2:B:204:ILE:O	2:B:204:ILE:HG22	2.21	0.40
2:B:211:VAL:CG1	2:B:495:LEU:HD23	2.51	0.40
2:B:345:LYS:HE2	2:B:349:ILE:HD11	2.01	0.40
2:B:654:ARG:O	2:B:657:HIS:HB2	2.22	0.40
2:B:813:LYS:HD2	2:B:816:GLU:OE1	2.21	0.40
2:B:847:ASP:OD2	3:C:167:HIS:HD2	2.03	0.40
2:B:1158:PHE:CE2	2:B:1160:VAL:HG22	2.56	0.40
4:D:54:GLU:OE1	4:D:164:ILE:HD11	2.21	0.40
5:E:102:GLU:C	5:E:104:ASN:N	2.73	0.40
5:E:127:ILE:N	5:E:128:PRO:CD	2.84	0.40
6:F:69:LEU:HB3	6:F:71:GLU:HG3	2.03	0.40
8:H:26:ILE:HD11	8:H:49:VAL:CG1	2.51	0.40
10:J:56:LEU:O	10:J:57:ILE:C	2.60	0.40
1:M:254:GLU:HB3	1:M:255:SER:H	1.49	0.40
1:M:347:PHE:H	2:N:1107:ALA:HA	1.86	0.40
1:M:500:GLU:O	1:M:504:LEU:HB2	2.21	0.40
1:M:566:ILE:O	1:M:567:LYS:O	2.40	0.40
1:M:870:GLU:HB2	5:Q:204:THR:HG21	2.03	0.40
1:M:1153:TYR:HB2	1:M:1192:LEU:HD23	2.03	0.40
1:M:1222:ASN:O	1:M:1223:ASP:HB3	2.21	0.40
1:M:1291:VAL:CG2	1:M:1292:PRO:CD	2.99	0.40
2:N:39:ARG:NH2	2:N:665:GLU:OE1	2.48	0.40
2:N:40:GLU:OE1	2:N:681:TRP:HB3	2.22	0.40
2:N:269:ILE:CG2	2:N:282:ILE:HD13	2.52	0.40
2:N:323:VAL:O	2:N:324:ILE:HG13	2.21	0.40
2:N:364:ILE:HG22	2:N:365:THR:N	2.37	0.40
2:N:905:VAL:HG23	2:N:941:LEU:HD22	2.04	0.40
2:N:979:LYS:HG2	2:N:1095:LEU:CD1	2.51	0.40
2:N:984:HIS:NE2	2:N:1025:HIS:HA	2.37	0.40
3:O:245:VAL:HG13	11:W:102:LYS:HG3	2.04	0.40
6:R:109:VAL:HG12	6:R:110:ASP:H	1.83	0.40
8:T:27:GLU:CG	8:T:39:THR:HG23	2.51	0.40
8:T:83:GLN:C	8:T:85:GLY:H	2.24	0.40
12:X:55:ILE:O	12:X:56:LEU:HB2	2.21	0.40
1:A:33:ALA:CA	1:A:57:ARG:HH12	2.23	0.40
1:A:367:PRO:HB3	1:A:465:TYR:O	2.22	0.40
1:A:783:THR:HG21	1:A:796:SER:O	2.20	0.40
1:A:905:ASP:O	1:A:906:HIS:ND1	2.55	0.40
1:A:1202:MET:CE	1:A:1212:VAL:HG21	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1265:ASN:C	1:A:1267:MET:N	2.73	0.40
1:A:1339:LEU:HD13	5:E:147:HIS:CG	2.56	0.40
1:A:1349:TYR:HA	1:A:1372:VAL:HG21	2.02	0.40
2:B:273:LEU:HA	2:B:274:PRO:HD2	1.93	0.40
2:B:277:LYS:HG2	2:B:336:ARG:CB	2.44	0.40
2:B:601:ARG:HD3	2:B:605:ARG:NH2	2.36	0.40
2:B:811:TYR:CD1	2:B:811:TYR:N	2.89	0.40
2:B:908:GLU:O	2:B:909:ASP:C	2.59	0.40
2:B:976:ILE:O	2:B:990:ILE:HB	2.21	0.40
2:B:1110:PRO:C	2:B:1119:VAL:HG13	2.42	0.40
3:C:46:ILE:HD12	3:C:67:LEU:O	2.22	0.40
3:C:252:GLN:CG	11:K:95:ILE:HG23	2.51	0.40
4:D:156:ASP:C	4:D:158:GLU:N	2.74	0.40
5:E:63:ASN:HB3	5:E:64:PRO:CD	2.52	0.40
6:F:81:THR:HG23	6:F:144:GLU:OE2	2.22	0.40
6:F:148:VAL:O	6:F:149:GLU:C	2.60	0.40
8:H:93:TYR:HB3	8:H:144:ILE:O	2.20	0.40
13:1:15:DG:C8	13:1:16:DT:C7	3.05	0.40
1:M:705:LYS:HB2	1:M:708:MET:HE2	2.03	0.40
1:M:752:LYS:HD3	1:M:752:LYS:HA	1.86	0.40
1:M:831:THR:HG23	1:M:832:ALA:N	2.37	0.40
1:M:896:ARG:HB3	1:M:897:TYR:CD1	2.57	0.40
1:M:1048:ASN:N	1:M:1048:ASN:ND2	2.70	0.40
1:M:1241:ARG:O	1:M:1242:VAL:HG23	2.22	0.40
1:M:1436:ILE:HD13	1:M:1436:ILE:HG21	1.91	0.40
2:N:98:THR:O	2:N:126:SER:CB	2.69	0.40
2:N:212:LEU:HD21	2:N:466:TRP:CH2	2.56	0.40
2:N:377:PHE:O	2:N:380:TYR:N	2.54	0.40
2:N:629:ASP:HB3	2:N:632:ARG:CD	2.51	0.40
2:N:654:ARG:O	2:N:656:GLY:N	2.55	0.40
2:N:810:GLU:CA	2:N:815:ARG:HH22	2.35	0.40
2:N:826:ALA:HB2	2:N:1087:PHE:CE2	2.57	0.40
2:N:911:ILE:HG21	2:N:966:VAL:HG11	2.01	0.40
2:N:1221:SER:O	2:N:1223:ASP:N	2.55	0.40
3:O:184:ASN:OD1	3:O:187:LYS:CA	2.69	0.40
5:Q:48:ASP:OD1	5:Q:52:ARG:HB2	2.22	0.40
8:T:36:CYS:HA	8:T:126:GLU:O	2.22	0.40
11:W:37:LYS:O	11:W:38:GLU:HG2	2.21	0.40
11:W:47:ARG:HB3	11:W:47:ARG:NH1	2.28	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 X-ray entries followed by that with respect to entries of similar resolution.

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	1406/1733 (81%)	1075 (76%)	225 (16%)	106 (8%)	1	7
1	M	1406/1733 (81%)	1073 (76%)	228 (16%)	105 (8%)	1	7
2	B	1082/1224 (88%)	800 (74%)	186 (17%)	96 (9%)	1	4
2	N	1082/1224 (88%)	798 (74%)	186 (17%)	98 (9%)	1	3
3	C	264/318 (83%)	202 (76%)	41 (16%)	21 (8%)	1	6
3	O	264/318 (83%)	203 (77%)	42 (16%)	19 (7%)	1	7
4	D	174/221 (79%)	120 (69%)	37 (21%)	17 (10%)	0	3
4	P	174/221 (79%)	122 (70%)	34 (20%)	18 (10%)	0	3
5	E	212/215 (99%)	155 (73%)	41 (19%)	16 (8%)	1	7
5	Q	212/215 (99%)	159 (75%)	37 (18%)	16 (8%)	1	7
6	F	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	6	34
6	R	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	6	34
7	G	169/171 (99%)	141 (83%)	23 (14%)	5 (3%)	4	28
7	S	169/171 (99%)	139 (82%)	23 (14%)	7 (4%)	3	21
8	H	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
8	T	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
9	I	117/122 (96%)	77 (66%)	28 (24%)	12 (10%)	0	3
9	U	117/122 (96%)	78 (67%)	28 (24%)	11 (9%)	0	3
10	J	63/70 (90%)	43 (68%)	9 (14%)	11 (18%)	0	0
10	V	63/70 (90%)	42 (67%)	10 (16%)	11 (18%)	0	0
11	K	112/120 (93%)	89 (80%)	20 (18%)	3 (3%)	5	30
11	W	112/120 (93%)	89 (80%)	19 (17%)	4 (4%)	3	23
12	L	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
12	X	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
All	All	7716/9130 (84%)	5757 (75%)	1319 (17%)	640 (8%)	1	5

All (640) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	4	GLN
1	A	43	GLU
1	A	57	ARG
1	A	62	ASP
1	A	63	ARG
1	A	67	CYS
1	A	70	CYS
1	A	130	ASP
1	A	250	ILE
1	A	255	SER
1	A	257	ARG
1	A	286	HIS
1	A	311	GLN
1	A	318	SER
1	A	332	LYS
1	A	399	HIS
1	A	410	GLY
1	A	423	ASP
1	A	517	ASN
1	A	567	LYS
1	A	597	LEU
1	A	1112	LYS
1	A	1114	PRO
1	A	1120	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1223	ASP
1	A	1233	ASP
1	A	1242	VAL
1	A	1255	GLU
1	A	1281	ARG
1	A	1403	GLU
1	A	1438	THR
2	B	21	GLU
2	B	67	SER
2	B	68	THR
2	B	108	VAL
2	B	124	TYR
2	B	186	GLU
2	B	291	ILE
2	B	295	GLY
2	B	334	ILE

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Mol	Chain	Res	Type
2	B	365	THR
2	B	367	LEU
2	B	391	ASP
2	B	435	THR
2	B	468	GLU
2	B	509	ALA
2	B	643	ASP
2	B	708	GLU
2	B	709	ASP
2	B	728	ARG
2	B	731	VAL
2	B	734	HIS
2	B	907	GLY
2	B	958	GLN
2	B	1046	PRO
2	B	1156	ASP
2	B	1175	LEU
3	C	110	THR
3	C	141	GLY
3	C	184	ASN
3	C	209	TYR
3	C	215	GLU
4	D	5	THR
4	D	8	PHE
4	D	17	LYS
4	D	19	GLU
4	D	52	LEU
4	D	218	GLU
5	E	45	LYS
5	E	115	ASN
5	E	129	PRO
5	E	130	ALA
7	G	139	ILE
8	H	77	ARG
8	H	82	PRO
8	H	128	ASN
8	H	140	ALA
9	I	11	ASN
9	I	78	CYS
10	J	2	ILE
10	J	55	ASP
10	J	64	ASN

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Mol	Chain	Res	Type
12	L	27	LEU
12	L	50	ASP
12	L	53	HIS
12	L	59	ALA
12	L	60	ARG
1	M	4	GLN
1	M	43	GLU
1	M	57	ARG
1	M	62	ASP
1	M	63	ARG
1	M	67	CYS
1	M	70	CYS
1	M	130	ASP
1	M	250	ILE
1	M	255	SER
1	M	257	ARG
1	M	286	HIS
1	M	311	GLN
1	M	318	SER
1	M	332	LYS
1	M	399	HIS
1	M	410	GLY
1	M	423	ASP
1	M	453	MET
1	M	517	ASN
1	M	567	LYS
1	M	597	LEU
1	M	1112	LYS
1	M	1114	PRO
1	M	1120	LEU
1	M	1122	PRO
1	M	1124	HIS
1	M	1223	ASP
1	M	1233	ASP
1	M	1242	VAL
1	M	1255	GLU
1	M	1281	ARG
1	M	1403	GLU
1	M	1438	THR
2	N	21	GLU
2	N	67	SER
2	N	68	THR

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Mol	Chain	Res	Type
2	N	108	VAL
2	N	124	TYR
2	N	186	GLU
2	N	258	LEU
2	N	334	ILE
2	N	365	THR
2	N	367	LEU
2	N	391	ASP
2	N	435	THR
2	N	468	GLU
2	N	509	ALA
2	N	643	ASP
2	N	708	GLU
2	N	709	ASP
2	N	728	ARG
2	N	731	VAL
2	N	734	HIS
2	N	907	GLY
2	N	958	GLN
2	N	1046	PRO
2	N	1069	PHE
2	N	1097	HIS
2	N	1156	ASP
2	N	1175	LEU
3	O	110	THR
3	O	141	GLY
3	O	184	ASN
3	O	215	GLU
3	O	216	GLY
4	P	5	THR
4	P	8	PHE
4	P	17	LYS
4	P	19	GLU
4	P	218	GLU
5	Q	45	LYS
5	Q	115	ASN
5	Q	129	PRO
5	Q	130	ALA
7	S	139	ILE
8	T	77	ARG
8	T	82	PRO
8	T	107	VAL

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Mol	Chain	Res	Type
8	T	128	ASN
8	T	140	ALA
9	U	11	ASN
9	U	78	CYS
9	U	106	CYS
10	V	2	ILE
10	V	55	ASP
10	V	64	ASN
12	X	27	LEU
12	X	50	ASP
12	X	59	ALA
12	X	60	ARG
1	A	41	MET
1	A	42	ASP
1	A	54	ASN
1	A	59	GLY
1	A	61	ILE
1	A	66	LYS
1	A	76	GLU
1	A	154	SER
1	A	167	CYS
1	A	253	ASN
1	A	314	ALA
1	A	322	VAL
1	A	331	GLY
1	A	424	ILE
1	A	453	MET
1	A	525	GLN
1	A	821	ARG
1	A	958	VAL
1	A	1002	GLY
1	A	1123	GLY
1	A	1139	GLU
1	A	1221	LYS
1	A	1308	THR
1	A	1314	SER
2	B	28	GLU
2	B	65	GLU
2	B	206	ASN
2	B	257	LYS
2	B	258	LEU
2	B	264	SER

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Mol	Chain	Res	Type
2	B	294	ASP
2	B	369	GLY
2	B	448	ILE
2	B	450	ALA
2	B	466	TRP
2	B	467	GLY
2	B	531	GLN
2	B	591	ARG
2	B	619	ILE
2	B	641	GLU
2	B	642	ASP
2	B	751	VAL
2	B	777	ALA
2	B	848	ARG
2	B	869	SER
2	B	879	ARG
2	B	943	SER
2	B	992	ILE
2	B	1069	PHE
2	B	1097	HIS
2	B	1155	SER
2	B	1176	ASN
3	C	126	GLY
3	C	149	LYS
3	C	216	GLY
3	C	237	SER
4	D	14	ARG
4	D	119	ARG
4	D	131	GLU
4	D	198	LEU
4	D	199	ASN
5	E	36	GLU
5	E	74	ASP
5	E	106	GLN
6	F	112	GLU
7	G	154	VAL
8	H	12	VAL
8	H	17	PRO
8	H	32	THR
8	H	59	ILE
8	H	62	SER
8	H	92	ASP

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Mol	Chain	Res	Type
8	H	107	VAL
8	H	108	SER
8	H	134	ASN
9	I	54	GLU
9	I	57	GLY
9	I	59	VAL
9	I	62	ILE
9	I	79	HIS
9	I	106	CYS
10	J	6	ARG
10	J	24	LEU
10	J	28	ASP
10	J	42	LYS
10	J	62	ARG
12	L	28	LYS
12	L	35	SER
1	M	41	MET
1	M	42	ASP
1	M	54	ASN
1	M	61	ILE
1	M	66	LYS
1	M	76	GLU
1	M	167	CYS
1	M	219	PHE
1	M	253	ASN
1	M	314	ALA
1	M	322	VAL
1	M	331	GLY
1	M	424	ILE
1	M	525	GLN
1	M	789	LYS
1	M	821	ARG
1	M	1002	GLY
1	M	1123	GLY
1	M	1169	ILE
1	M	1221	LYS
1	M	1308	THR
1	M	1314	SER
2	N	28	GLU
2	N	46	GLN
2	N	65	GLU
2	N	206	ASN

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Mol	Chain	Res	Type
2	N	257	LYS
2	N	259	TYR
2	N	264	SER
2	N	291	ILE
2	N	294	ASP
2	N	295	GLY
2	N	369	GLY
2	N	448	ILE
2	N	449	ASN
2	N	450	ALA
2	N	466	TRP
2	N	467	GLY
2	N	531	GLN
2	N	591	ARG
2	N	619	ILE
2	N	641	GLU
2	N	642	ASP
2	N	655	LYS
2	N	751	VAL
2	N	777	ALA
2	N	869	SER
2	N	879	ARG
2	N	943	SER
2	N	992	ILE
2	N	1155	SER
2	N	1176	ASN
3	O	126	GLY
3	O	149	LYS
3	O	209	TYR
3	O	237	SER
4	P	14	ARG
4	P	16	LYS
4	P	52	LEU
4	P	119	ARG
4	P	131	GLU
4	P	198	LEU
5	Q	36	GLU
5	Q	74	ASP
5	Q	106	GLN
7	S	154	VAL
8	T	17	PRO
8	T	32	THR

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Mol	Chain	Res	Type
8	T	59	ILE
8	T	62	SER
8	T	92	ASP
8	T	108	SER
8	T	134	ASN
9	U	8	ARG
9	U	54	GLU
9	U	57	GLY
9	U	59	VAL
9	U	62	ILE
9	U	79	HIS
10	V	6	ARG
10	V	24	LEU
10	V	28	ASP
10	V	62	ARG
11	W	53	ASP
12	X	28	LYS
12	X	35	SER
12	X	53	HIS
1	A	48	ALA
1	A	65	LEU
1	A	69	THR
1	A	93	VAL
1	A	128	ILE
1	A	138	ILE
1	A	219	PHE
1	A	400	PRO
1	A	789	LYS
1	A	795	GLU
1	A	846	GLU
1	A	986	ILE
1	A	1140	HIS
1	A	1231	ASP
1	A	1309	ASP
1	A	1405	THR
1	A	1448	GLU
2	B	24	PRO
2	B	27	ALA
2	B	46	GLN
2	B	58	THR
2	B	245	GLU
2	B	259	TYR

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Mol	Chain	Res	Type
2	B	433	GLN
2	B	449	ASN
2	B	559	SER
2	B	711	GLU
2	B	738	PHE
2	B	746	SER
2	B	906	SER
2	B	938	SER
2	B	1103	ILE
2	B	1222	ARG
3	C	90	ASP
3	C	132	PRO
3	C	148	ARG
3	C	213	PRO
4	D	15	LEU
4	D	16	LYS
4	D	21	GLU
4	D	168	LYS
5	E	44	ALA
5	E	92	THR
8	H	139	ASN
9	I	8	ARG
10	J	14	VAL
10	J	29	GLU
11	K	14	GLU
11	K	53	ASP
12	L	26	THR
1	M	48	ALA
1	M	58	LEU
1	M	59	GLY
1	M	65	LEU
1	M	93	VAL
1	M	154	SER
1	M	400	PRO
1	M	415	LEU
1	M	479	ASN
1	M	795	GLU
1	M	846	GLU
1	M	958	VAL
1	M	963	ILE
1	M	986	ILE
1	M	1115	SER

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Mol	Chain	Res	Type
1	M	1139	GLU
1	M	1140	HIS
1	M	1231	ASP
1	M	1309	ASP
1	M	1405	THR
1	M	1448	GLU
2	N	24	PRO
2	N	27	ALA
2	N	58	THR
2	N	245	GLU
2	N	282	ILE
2	N	433	GLN
2	N	559	SER
2	N	711	GLU
2	N	738	PHE
2	N	746	SER
2	N	810	GLU
2	N	848	ARG
2	N	906	SER
2	N	938	SER
2	N	1103	ILE
2	N	1222	ARG
3	O	90	ASP
3	O	132	PRO
3	O	148	ARG
3	O	213	PRO
4	P	15	LEU
4	P	53	SER
4	P	168	LYS
4	P	199	ASN
5	Q	44	ALA
6	R	112	GLU
7	S	136	VAL
8	T	139	ASN
10	V	42	LYS
11	W	14	GLU
12	X	26	THR
1	A	256	GLN
1	A	312	PRO
1	A	415	LEU
1	A	479	ASN
1	A	591	PHE

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Mol	Chain	Res	Type
1	A	1168	GLU
1	A	1169	ILE
1	A	1280	GLU
1	A	1316	VAL
2	B	45	SER
2	B	114	PRO
2	B	282	ILE
2	B	323	VAL
2	B	575	PRO
2	B	636	PRO
2	B	655	LYS
2	B	792	MET
2	B	810	GLU
2	B	818	PRO
2	B	1017	ILE
2	B	1108	ARG
2	B	1171	VAL
2	B	1181	GLU
3	C	12	GLU
3	C	142	VAL
5	E	192	ARG
6	F	128	LYS
8	H	52	GLN
8	H	81	PRO
8	H	90	ALA
8	H	91	ASP
9	I	9	ASP
12	L	40	LEU
1	M	69	THR
1	M	96	ILE
1	M	138	ILE
1	M	256	GLN
1	M	312	PRO
1	M	591	PHE
1	M	1168	GLU
1	M	1280	GLU
1	M	1316	VAL
2	N	114	PRO
2	N	323	VAL
2	N	575	PRO
2	N	636	PRO
2	N	705	MET

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Mol	Chain	Res	Type
2	N	792	MET
2	N	946	ASN
2	N	1017	ILE
2	N	1181	GLU
3	O	142	VAL
4	P	21	GLU
4	P	192	LYS
5	Q	3	GLN
5	Q	92	THR
5	Q	192	ARG
8	T	12	VAL
8	T	52	GLN
8	T	81	PRO
8	T	90	ALA
8	T	91	ASP
8	T	95	TYR
9	U	9	ASP
9	U	56	ALA
10	V	14	VAL
10	V	17	LYS
10	V	29	GLU
12	X	40	LEU
1	A	58	LEU
1	A	72	GLU
1	A	96	ILE
1	A	556	TRP
1	A	780	VAL
1	A	884	ASP
1	A	963	ILE
1	A	1390	ASN
2	B	680	THR
2	B	1157	ALA
3	C	11	ARG
3	C	48	SER
3	C	172	PRO
3	C	214	ASN
4	D	53	SER
4	D	75	LYS
5	E	3	GLN
5	E	73	PRO
7	G	20	PRO
7	G	113	HIS

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Mol	Chain	Res	Type
7	G	136	VAL
8	H	95	TYR
9	I	56	ALA
10	J	17	LYS
11	K	107	THR
1	M	128	ILE
1	M	145	LYS
1	M	556	TRP
1	M	1149	ALA
1	M	1390	ASN
2	N	45	SER
2	N	55	VAL
2	N	56	ASP
2	N	461	LEU
2	N	561	TRP
2	N	1157	ALA
2	N	1171	VAL
3	O	11	ARG
3	O	240	VAL
4	P	75	LYS
5	Q	154	ILE
6	R	128	LYS
7	S	112	LYS
7	S	113	HIS
11	W	64	GLU
11	W	107	THR
1	A	35	ILE
1	A	51	GLY
1	A	357	PRO
1	A	599	SER
1	A	972	HIS
1	A	1174	PHE
2	B	55	VAL
2	B	56	ASP
2	B	461	LEU
2	B	946	ASN
2	B	1214	PRO
5	E	40	GLU
5	E	154	ILE
9	I	3	THR
1	M	35	ILE
1	M	51	GLY

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Mol	Chain	Res	Type
1	M	284	ALA
1	M	599	SER
1	M	972	HIS
1	M	1278	ASN
2	N	249	ARG
2	N	594	ALA
2	N	680	THR
2	N	1214	PRO
3	O	175	ALA
3	O	214	ASN
5	Q	73	PRO
7	S	20	PRO
7	S	128	PRO
2	B	1110	PRO
3	C	240	VAL
5	E	51	GLY
5	E	64	PRO
8	H	44	VAL
1	M	283	GLY
1	M	780	VAL
1	M	948	VAL
3	O	172	PRO
5	Q	51	GLY
8	T	44	VAL
1	A	283	GLY
1	A	284	ALA
1	A	308	ILE
1	A	948	VAL
2	B	1018	PRO
12	L	46	VAL
1	M	308	ILE
1	M	357	PRO
2	N	100	PRO
2	N	818	PRO
5	Q	64	PRO
12	X	46	VAL
1	A	231	PRO
2	B	613	VAL
3	C	176	ILE
1	M	364	VAL
2	N	1018	PRO
2	N	1110	PRO

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Mol	Chain	Res	Type
5	Q	76	GLY
1	A	196	GLU
1	A	336	ILE
1	A	364	VAL
2	B	553	PRO
1	M	196	GLU
2	N	260	GLY
1	A	693	VAL
2	B	100	PRO
1	M	231	PRO

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 X-ray entries followed by that with respect to entries of similar resolution.

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	1239/1520 (82%)	1116 (90%)	123 (10%)	8 30
1	M	1239/1520 (82%)	1107 (89%)	132 (11%)	6 27
2	B	958/1061 (90%)	860 (90%)	98 (10%)	7 29
2	N	958/1061 (90%)	853 (89%)	105 (11%)	6 26
3	C	234/274 (85%)	212 (91%)	22 (9%)	8 33
3	O	234/274 (85%)	207 (88%)	27 (12%)	5 24
4	D	160/200 (80%)	136 (85%)	24 (15%)	3 14
4	P	160/200 (80%)	127 (79%)	33 (21%)	1 6
5	E	196/197 (100%)	183 (93%)	13 (7%)	16 51
5	Q	196/197 (100%)	184 (94%)	12 (6%)	18 54
6	F	77/137 (56%)	71 (92%)	6 (8%)	12 43
6	R	77/137 (56%)	72 (94%)	5 (6%)	17 51
7	G	152/152 (100%)	140 (92%)	12 (8%)	12 43
7	S	152/152 (100%)	134 (88%)	18 (12%)	5 23
8	H	118/128 (92%)	105 (89%)	13 (11%)	6 26
8	T	118/128 (92%)	108 (92%)	10 (8%)	10 38

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
9	I	113/116 (97%)	101 (89%)	12 (11%)	6 27
9	U	113/116 (97%)	103 (91%)	10 (9%)	10 36
10	J	60/65 (92%)	51 (85%)	9 (15%)	3 14
10	V	60/65 (92%)	53 (88%)	7 (12%)	5 23
11	K	99/102 (97%)	94 (95%)	5 (5%)	24 60
11	W	99/102 (97%)	90 (91%)	9 (9%)	9 34
12	L	40/57 (70%)	34 (85%)	6 (15%)	3 14
12	X	40/57 (70%)	33 (82%)	7 (18%)	2 9
All	All	6892/8018 (86%)	6174 (90%)	718 (10%)	7 28

All (718) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18	GLN
1	A	34	LYS
1	A	37	PHE
1	A	41	MET
1	A	53	LEU
1	A	68	GLN
1	A	70	CYS
1	A	83	HIS
1	A	93	VAL
1	A	110	CYS
1	A	121	LEU
1	A	141	LEU
1	A	145	LYS
1	A	157	ASP
1	A	160	GLN
1	A	173	THR
1	A	182	VAL
1	A	185	TRP
1	A	200	ARG
1	A	207	ILE
1	A	208	LEU
1	A	219	PHE
1	A	221	SER
1	A	225	ASN
1	A	230	ARG
1	A	231	PRO

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Mol	Chain	Res	Type
1	A	265	LYS
1	A	282	ASN
1	A	287	HIS
1	A	297	GLN
1	A	302	THR
1	A	320	ARG
1	A	322	VAL
1	A	324	SER
1	A	337	ARG
1	A	344	ARG
1	A	385	ILE
1	A	394	ASN
1	A	408	ASP
1	A	425	GLN
1	A	434	ARG
1	A	443	LEU
1	A	445	ASN
1	A	449	SER
1	A	451	HIS
1	A	469	ARG
1	A	470	LEU
1	A	475	THR
1	A	479	ASN
1	A	481	ASP
1	A	486	GLU
1	A	489	LEU
1	A	493	GLN
1	A	503	GLN
1	A	505	CYS
1	A	512	VAL
1	A	538	ASP
1	A	597	LEU
1	A	618	GLU
1	A	629	LEU
1	A	631	HIS
1	A	635	ARG
1	A	666	ILE
1	A	670	ILE
1	A	680	THR
1	A	685	GLU
1	A	690	VAL
1	A	710	LEU

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Mol	Chain	Res	Type
1	A	727	ASP
1	A	738	LYS
1	A	739	ASP
1	A	741	ASN
1	A	762	SER
1	A	774	ARG
1	A	783	THR
1	A	805	LEU
1	A	821	ARG
1	A	827	THR
1	A	834	THR
1	A	838	GLN
1	A	855	THR
1	A	858	ASN
1	A	903	ASN
1	A	906	HIS
1	A	907	THR
1	A	937	VAL
1	A	961	ARG
1	A	976	THR
1	A	978	PRO
1	A	983	ILE
1	A	1005	GLU
1	A	1029	ARG
1	A	1033	GLN
1	A	1036	ARG
1	A	1047	SER
1	A	1095	THR
1	A	1114	PRO
1	A	1116	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1129	GLU
1	A	1170	ILE
1	A	1171	GLN
1	A	1193	LEU
1	A	1217	LYS
1	A	1257	ASP
1	A	1264	GLU
1	A	1270	ASN
1	A	1280	GLU
1	A	1288	ASP

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Mol	Chain	Res	Type
1	A	1295	THR
1	A	1297	GLU
1	A	1299	VAL
1	A	1325	THR
1	A	1333	ILE
1	A	1353	TYR
1	A	1370	LEU
1	A	1377	THR
1	A	1385	THR
1	A	1386	ARG
1	A	1394	THR
1	A	1444	MET
1	A	1445	ILE
2	B	20	ASP
2	B	21	GLU
2	B	30	SER
2	B	46	GLN
2	B	57	TYR
2	B	61	ASP
2	B	97	VAL
2	B	119	LEU
2	B	128	LEU
2	B	134	LYS
2	B	194	GLU
2	B	203	PHE
2	B	217	ARG
2	B	225	VAL
2	B	249	ARG
2	B	261	ARG
2	B	268	THR
2	B	272	THR
2	B	371	GLU
2	B	376	PHE
2	B	384	ARG
2	B	393	LYS
2	B	401	PHE
2	B	416	LEU
2	B	425	THR
2	B	427	ASP
2	B	429	PHE
2	B	430	ARG
2	B	452	THR

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Mol	Chain	Res	Type
2	B	465	ASN
2	B	466	TRP
2	B	473	MET
2	B	474	SER
2	B	479	VAL
2	B	485	ARG
2	B	491	THR
2	B	498	THR
2	B	516	ASN
2	B	552	MET
2	B	557	PHE
2	B	563	MET
2	B	582	VAL
2	B	597	MET
2	B	615	MET
2	B	616	ILE
2	B	636	PRO
2	B	694	ASP
2	B	705	MET
2	B	714	GLU
2	B	722	ASP
2	B	730	ARG
2	B	732	SER
2	B	737	THR
2	B	748	ILE
2	B	786	ASN
2	B	790	ASP
2	B	797	TYR
2	B	805	THR
2	B	816	GLU
2	B	831	SER
2	B	835	GLN
2	B	839	MET
2	B	868	MET
2	B	878	GLN
2	B	879	ARG
2	B	887	HIS
2	B	889	THR
2	B	894	ASP
2	B	895	ASP
2	B	901	PRO
2	B	904	ARG

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Mol	Chain	Res	Type
2	B	915	THR
2	B	939	THR
2	B	944	THR
2	B	953	LEU
2	B	956	THR
2	B	959	ASP
2	B	987	LYS
2	B	997	GLU
2	B	999	MET
2	B	1006	ILE
2	B	1007	VAL
2	B	1047	PHE
2	B	1049	ASP
2	B	1069	PHE
2	B	1084	GLN
2	B	1087	PHE
2	B	1095	LEU
2	B	1098	MET
2	B	1147	LEU
2	B	1151	LEU
2	B	1159	ARG
2	B	1175	LEU
2	B	1178	ASN
2	B	1183	LYS
2	B	1185	CYS
2	B	1202	LEU
2	B	1220	ARG
3	C	11	ARG
3	C	22	LEU
3	C	23	SER
3	C	26	ASP
3	C	57	VAL
3	C	62	PHE
3	C	77	ILE
3	C	78	GLU
3	C	89	GLU
3	C	91	HIS
3	C	99	LEU
3	C	102	GLN
3	C	104	PHE
3	C	124	LEU
3	C	129	ILE

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Mol	Chain	Res	Type
3	C	138	GLU
3	C	145	CYS
3	C	147	LEU
3	C	166	GLU
3	C	177	GLU
3	C	194	GLU
3	C	238	ILE
4	D	4	SER
4	D	11	ARG
4	D	12	ARG
4	D	17	LYS
4	D	18	VAL
4	D	20	GLU
4	D	22	GLU
4	D	23	ASN
4	D	29	LEU
4	D	38	ILE
4	D	40	HIS
4	D	47	LEU
4	D	65	GLU
4	D	70	PHE
4	D	120	GLU
4	D	124	GLU
4	D	138	ASN
4	D	156	ASP
4	D	187	THR
4	D	200	ASN
4	D	214	LEU
4	D	219	THR
4	D	220	LEU
4	D	221	TYR
5	E	7	ARG
5	E	31	THR
5	E	37	LEU
5	E	41	ASP
5	E	72	PHE
5	E	74	ASP
5	E	78	LEU
5	E	104	ASN
5	E	110	PHE
5	E	112	TYR
5	E	115	ASN

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Mol	Chain	Res	Type
5	E	192	ARG
5	E	212	ARG
6	F	79	ARG
6	F	81	THR
6	F	90	ARG
6	F	111	LEU
6	F	112	GLU
6	F	119	ARG
7	G	1	MET
7	G	13	LEU
7	G	21	ARG
7	G	24	GLN
7	G	45	ILE
7	G	53	ASN
7	G	65	ASP
7	G	74	TYR
7	G	111	THR
7	G	113	HIS
7	G	126	ASN
7	G	171	ILE
8	H	26	ILE
8	H	33	GLN
8	H	61	SER
8	H	64	ASN
8	H	86	ASP
8	H	89	LEU
8	H	123	MET
8	H	128	ASN
8	H	129	TYR
8	H	130	ARG
8	H	138	GLU
8	H	143	LEU
8	H	146	ARG
9	I	6	PHE
9	I	8	ARG
9	I	15	TYR
9	I	29	CYS
9	I	55	THR
9	I	59	VAL
9	I	86	PHE
9	I	93	LYS
9	I	94	ASP

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Mol	Chain	Res	Type
9	I	96	SER
9	I	101	PHE
9	I	106	CYS
10	J	2	ILE
10	J	7	CYS
10	J	13	VAL
10	J	23	ASN
10	J	28	ASP
10	J	43	ARG
10	J	44	TYR
10	J	48	ARG
10	J	55	ASP
11	K	42	LEU
11	K	47	ARG
11	K	51	LEU
11	K	111	LEU
11	K	114	LEU
12	L	27	LEU
12	L	35	SER
12	L	54	ARG
12	L	55	ILE
12	L	68	GLU
12	L	70	ARG
1	M	11	LEU
1	M	18	GLN
1	M	34	LYS
1	M	37	PHE
1	M	41	MET
1	M	54	ASN
1	M	68	GLN
1	M	70	CYS
1	M	83	HIS
1	M	93	VAL
1	M	110	CYS
1	M	121	LEU
1	M	145	LYS
1	M	160	GLN
1	M	173	THR
1	M	182	VAL
1	M	185	TRP
1	M	200	ARG
1	M	203	SER

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Mol	Chain	Res	Type
1	M	208	LEU
1	M	219	PHE
1	M	221	SER
1	M	225	ASN
1	M	230	ARG
1	M	244	PRO
1	M	265	LYS
1	M	275	SER
1	M	297	GLN
1	M	302	THR
1	M	315	LEU
1	M	320	ARG
1	M	322	VAL
1	M	337	ARG
1	M	344	ARG
1	M	369	SER
1	M	385	ILE
1	M	394	ASN
1	M	408	ASP
1	M	425	GLN
1	M	443	LEU
1	M	445	ASN
1	M	451	HIS
1	M	454	SER
1	M	469	ARG
1	M	470	LEU
1	M	476	SER
1	M	481	ASP
1	M	489	LEU
1	M	493	GLN
1	M	504	LEU
1	M	505	CYS
1	M	512	VAL
1	M	516	SER
1	M	524	VAL
1	M	538	ASP
1	M	597	LEU
1	M	618	GLU
1	M	626	ASN
1	M	631	HIS
1	M	635	ARG
1	M	666	ILE

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Mol	Chain	Res	Type
1	M	670	ILE
1	M	680	THR
1	M	685	GLU
1	M	690	VAL
1	M	710	LEU
1	M	738	LYS
1	M	740	LEU
1	M	741	ASN
1	M	762	SER
1	M	769	SER
1	M	774	ARG
1	M	783	THR
1	M	805	LEU
1	M	816	HIS
1	M	821	ARG
1	M	827	THR
1	M	834	THR
1	M	838	GLN
1	M	852	TYR
1	M	855	THR
1	M	858	ASN
1	M	871	ASP
1	M	873	MET
1	M	874	ASP
1	M	903	ASN
1	M	906	HIS
1	M	907	THR
1	M	909	ASP
1	M	937	VAL
1	M	961	ARG
1	M	976	THR
1	M	978	PRO
1	M	983	ILE
1	M	1005	GLU
1	M	1029	ARG
1	M	1033	GLN
1	M	1036	ARG
1	M	1110	ASN
1	M	1114	PRO
1	M	1116	LEU
1	M	1122	PRO
1	M	1124	HIS

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Mol	Chain	Res	Type
1	M	1129	GLU
1	M	1165	GLU
1	M	1170	ILE
1	M	1171	GLN
1	M	1187	GLN
1	M	1193	LEU
1	M	1217	LYS
1	M	1257	ASP
1	M	1264	GLU
1	M	1270	ASN
1	M	1273	LEU
1	M	1280	GLU
1	M	1288	ASP
1	M	1295	THR
1	M	1297	GLU
1	M	1325	THR
1	M	1329	THR
1	M	1333	ILE
1	M	1345	ARG
1	M	1353	TYR
1	M	1370	LEU
1	M	1386	ARG
1	M	1394	THR
1	M	1405	THR
1	M	1410	PHE
1	M	1426	GLU
1	M	1442	ASP
1	M	1444	MET
1	M	1445	ILE
2	N	20	ASP
2	N	22	SER
2	N	25	ILE
2	N	30	SER
2	N	57	TYR
2	N	61	ASP
2	N	128	LEU
2	N	134	LYS
2	N	175	ARG
2	N	194	GLU
2	N	217	ARG
2	N	218	SER
2	N	235	SER

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Mol	Chain	Res	Type
2	N	249	ARG
2	N	261	ARG
2	N	272	THR
2	N	294	ASP
2	N	298	LEU
2	N	299	GLU
2	N	319	GLU
2	N	364	ILE
2	N	371	GLU
2	N	376	PHE
2	N	393	LYS
2	N	401	PHE
2	N	416	LEU
2	N	419	THR
2	N	425	THR
2	N	427	ASP
2	N	429	PHE
2	N	465	ASN
2	N	466	TRP
2	N	473	MET
2	N	475	SER
2	N	479	VAL
2	N	485	ARG
2	N	490	SER
2	N	498	THR
2	N	502	ILE
2	N	516	ASN
2	N	552	MET
2	N	555	ILE
2	N	557	PHE
2	N	563	MET
2	N	582	VAL
2	N	597	MET
2	N	615	MET
2	N	616	ILE
2	N	636	PRO
2	N	643	ASP
2	N	645	SER
2	N	648	HIS
2	N	680	THR
2	N	694	ASP
2	N	705	MET

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Mol	Chain	Res	Type
2	N	714	GLU
2	N	722	ASP
2	N	732	SER
2	N	737	THR
2	N	748	ILE
2	N	786	ASN
2	N	790	ASP
2	N	797	TYR
2	N	805	THR
2	N	811	TYR
2	N	815	ARG
2	N	831	SER
2	N	835	GLN
2	N	837	ASP
2	N	839	MET
2	N	844	SER
2	N	868	MET
2	N	878	GLN
2	N	879	ARG
2	N	887	HIS
2	N	889	THR
2	N	895	ASP
2	N	901	PRO
2	N	915	THR
2	N	939	THR
2	N	944	THR
2	N	953	LEU
2	N	956	THR
2	N	959	ASP
2	N	987	LYS
2	N	999	MET
2	N	1006	ILE
2	N	1007	VAL
2	N	1022	THR
2	N	1047	PHE
2	N	1049	ASP
2	N	1060	ARG
2	N	1084	GLN
2	N	1087	PHE
2	N	1095	LEU
2	N	1147	LEU
2	N	1150	ARG

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Mol	Chain	Res	Type
2	N	1159	ARG
2	N	1175	LEU
2	N	1178	ASN
2	N	1183	LYS
2	N	1185	CYS
2	N	1202	LEU
2	N	1214	PRO
2	N	1220	ARG
3	O	3	GLU
3	O	11	ARG
3	O	16	ASP
3	O	26	ASP
3	O	52	GLU
3	O	54	ASN
3	O	57	VAL
3	O	62	PHE
3	O	69	LEU
3	O	77	ILE
3	O	78	GLU
3	O	89	GLU
3	O	91	HIS
3	O	99	LEU
3	O	104	PHE
3	O	115	SER
3	O	124	LEU
3	O	138	GLU
3	O	145	CYS
3	O	147	LEU
3	O	151	GLN
3	O	166	GLU
3	O	177	GLU
3	O	197	SER
3	O	202	PRO
3	O	238	ILE
3	O	259	LEU
4	P	4	SER
4	P	10	THR
4	P	11	ARG
4	P	16	LYS
4	P	17	LYS
4	P	20	GLU
4	P	22	GLU

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Mol	Chain	Res	Type
4	P	23	ASN
4	P	29	LEU
4	P	38	ILE
4	P	40	HIS
4	P	47	LEU
4	P	59	ILE
4	P	65	GLU
4	P	70	PHE
4	P	120	GLU
4	P	124	GLU
4	P	140	ASP
4	P	151	PHE
4	P	152	SER
4	P	185	CYS
4	P	187	THR
4	P	192	LYS
4	P	193	THR
4	P	197	SER
4	P	204	ASP
4	P	206	GLU
4	P	211	LEU
4	P	213	GLU
4	P	214	LEU
4	P	215	SER
4	P	216	ASN
4	P	221	TYR
5	Q	31	THR
5	Q	37	LEU
5	Q	41	ASP
5	Q	72	PHE
5	Q	74	ASP
5	Q	78	LEU
5	Q	104	ASN
5	Q	110	PHE
5	Q	115	ASN
5	Q	134	THR
5	Q	191	LYS
5	Q	212	ARG
6	R	79	ARG
6	R	90	ARG
6	R	111	LEU
6	R	112	GLU

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Mol	Chain	Res	Type
6	R	119	ARG
7	S	1	MET
7	S	13	LEU
7	S	21	ARG
7	S	38	CYS
7	S	53	ASN
7	S	74	TYR
7	S	75	ARG
7	S	78	VAL
7	S	95	SER
7	S	110	VAL
7	S	111	THR
7	S	113	HIS
7	S	120	THR
7	S	129	SER
7	S	139	ILE
7	S	141	SER
7	S	143	ILE
7	S	145	VAL
8	T	2	SER
8	T	64	ASN
8	T	89	LEU
8	T	95	TYR
8	T	123	MET
8	T	128	ASN
8	T	129	TYR
8	T	130	ARG
8	T	135	LEU
8	T	138	GLU
9	U	7	CYS
9	U	9	ASP
9	U	15	TYR
9	U	55	THR
9	U	59	VAL
9	U	86	PHE
9	U	93	LYS
9	U	94	ASP
9	U	100	PHE
9	U	106	CYS
10	V	7	CYS
10	V	13	VAL
10	V	23	ASN

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Mol	Chain	Res	Type
10	V	43	ARG
10	V	44	TYR
10	V	48	ARG
10	V	59	LYS
11	W	17	SER
11	W	25	THR
11	W	31	VAL
11	W	42	LEU
11	W	47	ARG
11	W	50	LEU
11	W	61	TYR
11	W	111	LEU
11	W	114	LEU
12	X	27	LEU
12	X	38	LEU
12	X	54	ARG
12	X	55	ILE
12	X	63	ARG
12	X	68	GLU
12	X	70	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (226) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
1	A	68	GLN
1	A	75	ASN
1	A	169	ASN
1	A	171	GLN
1	A	225	ASN
1	A	253	ASN
1	A	256	GLN
1	A	282	ASN
1	A	297	GLN
1	A	316	GLN
1	A	339	ASN
1	A	394	ASN
1	A	435	HIS
1	A	451	HIS
1	A	479	ASN
1	A	493	GLN
1	A	503	GLN

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Mol	Chain	Res	Type
1	A	517	ASN
1	A	603	ASN
1	A	611	GLN
1	A	631	HIS
1	A	640	GLN
1	A	723	ASN
1	A	741	ASN
1	A	745	GLN
1	A	757	ASN
1	A	786	HIS
1	A	858	ASN
1	A	903	ASN
1	A	926	GLN
1	A	965	GLN
1	A	969	GLN
1	A	1011	GLN
1	A	1048	ASN
1	A	1078	GLN
1	A	1106	ASN
1	A	1203	ASN
1	A	1218	GLN
1	A	1258	HIS
1	A	1354	ASN
1	A	1387	HIS
1	A	1432	GLN
2	B	46	GLN
2	B	115	GLN
2	B	178	ASN
2	B	224	GLN
2	B	236	HIS
2	B	366	GLN
2	B	465	ASN
2	B	484	ASN
2	B	499	ASN
2	B	513	GLN
2	B	515	HIS
2	B	516	ASN
2	B	518	HIS
2	B	538	ASN
2	B	686	ASN
2	B	744	HIS
2	B	835	GLN

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Mol	Chain	Res	Type
2	B	842	ASN
2	B	862	GLN
2	B	887	HIS
2	B	946	ASN
2	B	957	ASN
2	B	958	GLN
2	B	975	GLN
2	B	986	GLN
2	B	1025	HIS
2	B	1065	GLN
2	B	1074	ASN
2	B	1161	HIS
2	B	1179	GLN
2	B	1193	GLN
3	C	17	ASN
3	C	24	ASN
3	C	65	HIS
3	C	73	GLN
3	C	79	GLN
3	C	91	HIS
3	C	112	ASN
3	C	123	ASN
3	C	167	HIS
3	C	252	GLN
4	D	39	ASN
4	D	40	HIS
4	D	41	GLN
4	D	138	ASN
4	D	165	GLN
5	E	3	GLN
5	E	101	GLN
5	E	104	ASN
5	E	106	GLN
5	E	113	GLN
5	E	147	HIS
6	F	100	GLN
7	G	14	HIS
7	G	53	ASN
7	G	57	GLN
7	G	71	ASN
7	G	97	HIS
7	G	117	GLN

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Mol	Chain	Res	Type
7	G	122	ASN
7	G	126	ASN
7	G	158	HIS
8	H	64	ASN
8	H	128	ASN
8	H	131	ASN
8	H	137	GLN
9	I	12	ASN
9	I	46	HIS
9	I	60	GLN
9	I	83	ASN
9	I	108	HIS
10	J	53	HIS
11	K	65	HIS
11	K	89	ASN
11	K	104	ASN
1	M	75	ASN
1	M	169	ASN
1	M	171	GLN
1	M	225	ASN
1	M	253	ASN
1	M	256	GLN
1	M	282	ASN
1	M	297	GLN
1	M	316	GLN
1	M	339	ASN
1	M	390	GLN
1	M	435	HIS
1	M	451	HIS
1	M	479	ASN
1	M	493	GLN
1	M	503	GLN
1	M	517	ASN
1	M	611	GLN
1	M	631	HIS
1	M	698	GLN
1	M	736	ASN
1	M	741	ASN
1	M	745	GLN
1	M	757	ASN
1	M	786	HIS
1	M	858	ASN

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Mol	Chain	Res	Type
1	M	903	ASN
1	M	926	GLN
1	M	965	GLN
1	M	969	GLN
1	M	1011	GLN
1	M	1048	ASN
1	M	1110	ASN
1	M	1203	ASN
1	M	1218	GLN
1	M	1258	HIS
1	M	1354	ASN
1	M	1432	GLN
2	N	46	GLN
2	N	115	GLN
2	N	121	ASN
2	N	178	ASN
2	N	224	GLN
2	N	236	HIS
2	N	363	HIS
2	N	366	GLN
2	N	465	ASN
2	N	484	ASN
2	N	499	ASN
2	N	513	GLN
2	N	515	HIS
2	N	516	ASN
2	N	518	HIS
2	N	573	GLN
2	N	744	HIS
2	N	842	ASN
2	N	862	GLN
2	N	957	ASN
2	N	975	GLN
2	N	1015	HIS
2	N	1025	HIS
2	N	1040	ASN
2	N	1062	HIS
2	N	1065	GLN
2	N	1076	HIS
2	N	1117	GLN
2	N	1161	HIS
2	N	1179	GLN

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Mol	Chain	Res	Type
2	N	1193	GLN
2	N	1211	ASN
3	O	17	ASN
3	O	65	HIS
3	O	73	GLN
3	O	79	GLN
3	O	91	HIS
3	O	112	ASN
3	O	123	ASN
3	O	167	HIS
3	O	252	GLN
4	P	9	GLN
4	P	40	HIS
4	P	51	ASN
4	P	74	GLN
5	Q	3	GLN
5	Q	99	HIS
5	Q	101	GLN
5	Q	104	ASN
5	Q	106	GLN
5	Q	113	GLN
5	Q	147	HIS
6	R	100	GLN
7	S	14	HIS
7	S	53	ASN
7	S	97	HIS
7	S	122	ASN
7	S	126	ASN
8	T	64	ASN
8	T	128	ASN
8	T	131	ASN
8	T	137	GLN
9	U	46	HIS
9	U	83	ASN
9	U	89	GLN
9	U	108	HIS
10	V	53	HIS
10	V	64	ASN
11	W	65	HIS
11	W	89	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
15	3	10/17 (58%)	0	0
15	6	10/17 (58%)	0	0
All	All	20/34 (58%)	0	0

There are no RNA backbone outliers to report.

There are no RNA pucker outliers to report.

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

2 non-standard protein/DNA/RNA residues are modelled in this entry.

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	$\#\|Z\| > 2$
13	BRU	4	23	13,15	18,21,22	3.89	1 (5%)	26,30,33	0.98	1 (3%)
13	BRU	1	23	13,15	18,21,22	3.87	1 (5%)	26,30,33	0.98	1 (3%)

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
13	BRU	4	23	13,15	-	1/7/21/22	0/2/2/2
13	BRU	1	23	13,15	-	1/7/21/22	0/2/2/2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	4	23	BRU	BR-C5	-16.39	1.50	1.88
13	1	23	BRU	BR-C5	-16.29	1.50	1.88

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	4	23	BRU	C6-C5-C4	-2.99	117.64	120.67
13	1	23	BRU	C6-C5-C4	-2.99	117.64	120.67

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
13	1	23	BRU	O4'-C4'-C5'-O5'
13	4	23	BRU	O4'-C4'-C5'-O5'

There are no ring outliers.

2 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
13	4	23	BRU	6	0
13	1	23	BRU	6	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 16 ligands modelled in this entry, 16 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	1416/1733 (81%)	-0.10	8 (0%) 89 83	12, 52, 93, 119	0
1	M	1416/1733 (81%)	-0.08	12 (0%) 86 78	10, 53, 94, 123	0
2	B	1104/1224 (90%)	-0.04	6 (0%) 91 86	12, 62, 103, 120	0
2	N	1104/1224 (90%)	0.02	13 (1%) 79 67	16, 65, 104, 121	0
3	C	266/318 (83%)	-0.13	0 100 100	24, 52, 83, 100	0
3	O	266/318 (83%)	-0.14	0 100 100	25, 54, 85, 106	0
4	D	178/221 (80%)	-0.07	1 (0%) 89 83	36, 68, 100, 108	0
4	P	178/221 (80%)	0.76	22 (12%) 4 2	55, 85, 105, 113	0
5	E	214/215 (99%)	-0.03	1 (0%) 91 86	35, 80, 106, 114	0
5	Q	214/215 (99%)	0.08	1 (0%) 91 86	35, 82, 107, 119	0
6	F	87/155 (56%)	-0.30	0 100 100	13, 34, 62, 78	0
6	R	87/155 (56%)	-0.23	0 100 100	15, 34, 63, 76	0
7	G	171/171 (100%)	-0.10	0 100 100	37, 55, 85, 99	0
7	S	171/171 (100%)	0.71	17 (9%) 7 4	37, 69, 110, 116	0
8	H	134/146 (91%)	0.18	3 (2%) 62 48	60, 88, 105, 114	0
8	T	134/146 (91%)	0.16	2 (1%) 73 61	66, 89, 104, 116	0
9	I	119/122 (97%)	0.08	2 (1%) 70 57	47, 81, 102, 117	0
9	U	119/122 (97%)	0.08	3 (2%) 57 43	45, 84, 102, 119	0
10	J	65/70 (92%)	-0.18	0 100 100	23, 52, 74, 91	0
10	V	65/70 (92%)	-0.17	0 100 100	28, 53, 78, 91	0
11	K	114/120 (95%)	-0.28	0 100 100	23, 54, 72, 83	0
11	W	114/120 (95%)	-0.22	0 100 100	21, 54, 74, 84	0
12	L	46/70 (65%)	0.25	4 (8%) 10 5	37, 89, 107, 107	0
12	X	46/70 (65%)	0.26	2 (4%) 35 22	42, 93, 107, 108	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1	17/26 (65%)	0.16	1 (5%) 22 13	47, 101, 140, 144	0
13	4	17/26 (65%)	0.21	0 100 100	50, 102, 139, 142	0
14	2	6/13 (46%)	0.27	0 100 100	114, 121, 127, 133	0
14	5	6/13 (46%)	0.30	0 100 100	114, 121, 129, 136	0
15	3	11/17 (64%)	0.14	1 (9%) 9 5	88, 93, 131, 133	0
15	6	11/17 (64%)	0.08	1 (9%) 9 5	88, 96, 130, 133	0
All	All	7896/9242 (85%)	-0.02	100 (1%) 77 65	10, 61, 102, 144	0

All (100) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	734	HIS	5.0
4	P	188	ALA	4.9
7	S	137	ILE	4.8
4	P	185	CYS	4.5
7	S	116	PRO	4.3
9	U	119	THR	4.3
7	S	133	SER	4.0
12	L	26	THR	3.7
9	I	119	THR	3.7
2	B	167	ILE	3.6
1	M	1455	PRO	3.5
1	M	158	PRO	3.5
2	N	867	GLY	3.5
7	S	114	LEU	3.4
4	P	210	ILE	3.3
4	P	123	LEU	3.2
1	M	69	THR	3.2
4	P	134	THR	3.2
1	A	69	THR	3.2
2	N	734	HIS	3.2
1	A	255	SER	3.1
2	N	918	ILE	3.1
2	N	715	ALA	3.1
7	S	130	TYR	3.1
7	S	117	GLN	3.1
1	M	2	VAL	3.0
1	A	2	VAL	3.0
4	P	126	ILE	3.0
2	N	733	HIS	3.0

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Mol	Chain	Res	Type	RSRZ
12	L	25	ALA	3.0
9	U	120	GLN	3.0
4	P	203	SER	2.9
7	S	103	VAL	2.8
2	N	709	ASP	2.8
1	M	155	GLU	2.8
7	S	134	GLU	2.7
2	N	246	LYS	2.7
2	N	250	PHE	2.7
1	M	255	SER	2.7
4	P	144	THR	2.7
2	N	167	ILE	2.7
12	X	27	LEU	2.6
7	S	132	SER	2.6
7	S	84	GLY	2.6
4	P	38	ILE	2.6
2	N	713	ALA	2.6
4	P	136	GLY	2.6
1	A	1455	PRO	2.6
12	X	25	ALA	2.5
1	M	195	ASP	2.5
12	L	43	THR	2.5
4	P	207	LEU	2.5
8	T	76	THR	2.5
2	N	868	MET	2.5
4	P	119	ARG	2.5
7	S	162	SER	2.5
12	L	27	LEU	2.4
2	B	715	ALA	2.4
7	S	101	VAL	2.4
2	N	869	SER	2.4
9	U	117	LYS	2.4
2	N	247	GLY	2.4
8	H	76	THR	2.3
9	I	60	GLN	2.3
8	H	108	SER	2.3
15	3	0	U	2.3
7	S	118	ASP	2.3
5	E	126	SER	2.3
4	P	217	LEU	2.3
8	H	139	ASN	2.3
4	P	200	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
4	P	141	LEU	2.3
7	S	91	VAL	2.3
4	P	213	GLU	2.3
1	M	257	ARG	2.2
7	S	166	ASP	2.2
15	6	0	U	2.2
4	P	12	ARG	2.2
4	P	118	THR	2.2
8	T	2	SER	2.2
4	P	189	ASP	2.2
1	M	44	THR	2.2
1	M	173	THR	2.2
2	B	918	ILE	2.2
7	S	99	PHE	2.1
4	D	18	VAL	2.1
4	P	18	VAL	2.1
1	A	1092	LYS	2.1
2	B	470	LYS	2.1
7	S	113	HIS	2.1
1	A	256	GLN	2.1
4	P	154	PHE	2.1
1	A	253	ASN	2.1
5	Q	50	MET	2.1
1	M	161	LEU	2.1
4	P	206	GLU	2.1
13	1	12	DG	2.1
1	M	71	GLN	2.0
2	B	250	PHE	2.0
1	A	195	ASP	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
13	BRU	1	23	20/21	0.70	0.21	85,89,94,97	0
13	BRU	4	23	20/21	0.75	0.19	83,89,95,98	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
16	ZN	I	9989	1/1	0.90	0.17	117,117,117,117	0
16	ZN	M	9992	1/1	0.95	0.22	74,74,74,74	0
16	ZN	A	9984	1/1	0.96	0.19	70,70,70,70	0
16	ZN	J	9990	1/1	0.97	0.23	52,52,52,52	0
16	ZN	U	9997	1/1	0.97	0.18	119,119,119,119	0
16	ZN	X	9999	1/1	0.97	0.17	103,103,103,103	0
16	ZN	N	9994	1/1	0.98	0.22	38,38,38,38	0
16	ZN	O	9995	1/1	0.98	0.23	43,43,43,43	0
16	ZN	I	9988	1/1	0.98	0.23	65,65,65,65	0
16	ZN	A	9985	1/1	0.98	0.22	40,40,40,40	0
16	ZN	B	9986	1/1	0.99	0.24	33,33,33,33	0
16	ZN	L	9991	1/1	0.99	0.15	90,90,90,90	0
16	ZN	U	9996	1/1	0.99	0.22	71,71,71,71	0
16	ZN	C	9987	1/1	0.99	0.22	28,28,28,28	0
16	ZN	V	9998	1/1	0.99	0.25	52,52,52,52	0
16	ZN	M	9993	1/1	0.99	0.23	37,37,37,37	0

6.5 Other polymers (i)

There are no such residues in this entry.