Full wwPDB X-ray Structure Validation Report (i)

Jun 16, 2024 – 09:57 AM EDT

PDB ID	:	4WQS
Title	:	Thermus thermophilus RNA polymerase backtracked complex
Authors	:	Murayama, Y.; Sekine, S.; Yokoyama, S.
Deposited on	:	2014-10-22
Resolution	:	4.31 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 (i) symbol.

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

The following versions of software and data (see references (1)) were used in the production of this report:

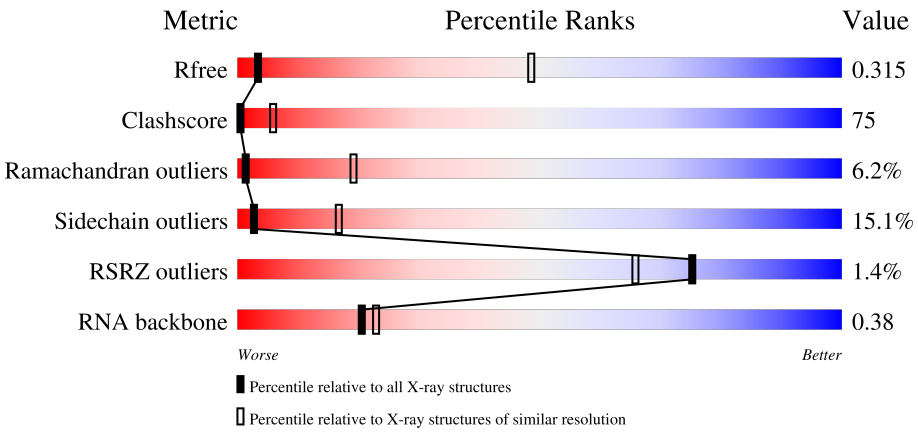
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.37.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

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 4.31 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1014 (4.80-3.80)
Clashscore	141614	1077 (4.80-3.80)
Ramachandran outliers	138981	1029 (4.80-3.80)
Sidechain outliers	138945	1012 (4.80-3.80)
RSRZ outliers	127900	1075 (4.90-3.70)
RNA backbone	3102	1058 (5.60-3.00)

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	315	21% 45% 7% 27%
1	B	315	3% 27% 40% • • 27%
1	K	315	% 27% 41% 5% 27%
1	L	315	% 24% 43% 5% 27%

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Mol	Chain	Length	Quality of chain
2	C	1119	% 23% 62% 14%
2	M	1119	% 23% 62% 14%
3	D	1524	% 18% 45% 11% 24%
3	N	1524	2% 21% 51% 12% 15%
4	E	99	3% 24% 56% 14%
4	O	99	3% 20% 58% 14%
5	G	28	50% 36% 11%
5	X	28	46% 36% 14%
6	H	16	6% 12% 19% 50% 19%
6	Y	16	38% 31% 25% 6%
7	I	21	52% 14% 14% 19%
7	Z	21	57% 24% 19%

2 Entry composition (i)

There are 8 unique types of molecules in this entry. The entry contains 48166 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 subunit alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	229	1806	1153	313	337	3	0	0	0
1	B	229	1806	1153	313	337	3	0	0	0
1	K	229	1806	1153	313	337	3	0	0	0
1	L	229	1806	1153	313	337	3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	C	1119	8829	5581	1577	1647	24	0	0	0
2	M	1119	8829	5581	1577	1647	24	0	0	0

- Molecule 3 is a protein called DNA-directed RNA polymerase subunit beta'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	D	1151	9097	5753	1629	1682	33	0	0	0
3	N	1288	10175	6441	1804	1899	31	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	E	95	770	491	133	142	4	0	0	0
4	O	95	770	491	133	142	4	0	0	0

- Molecule 5 is a DNA chain called DNA (28-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
5	G	27	548	259	104	158	27	0	0	0
5	X	27	548	259	104	158	27	0	0	0

- Molecule 6 is a RNA chain called RNA (5'-R(P*CP*CP*AP*GP*CP*CP*GP*GP*CP*GP *CP*UP*CP*GP*CP*A)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
6	H	16	340	151	61	112	16	0	0	0
6	Y	15	318	141	56	106	15	0	0	0

- Molecule 7 is a DNA chain called DNA (5'-D(P*GP*TP*AP*GP*CP*TP*TP*GP*TP*GP *GP*TP*AP*GP*TP*GP*AP*CP*GP*AP*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
7	I	17	357	169	65	106	17	0	0	0
7	Z	17	357	169	65	106	17	0	0	0

- Molecule 8 is ZINC ION (three-letter code: ZN) (formula: Zn).

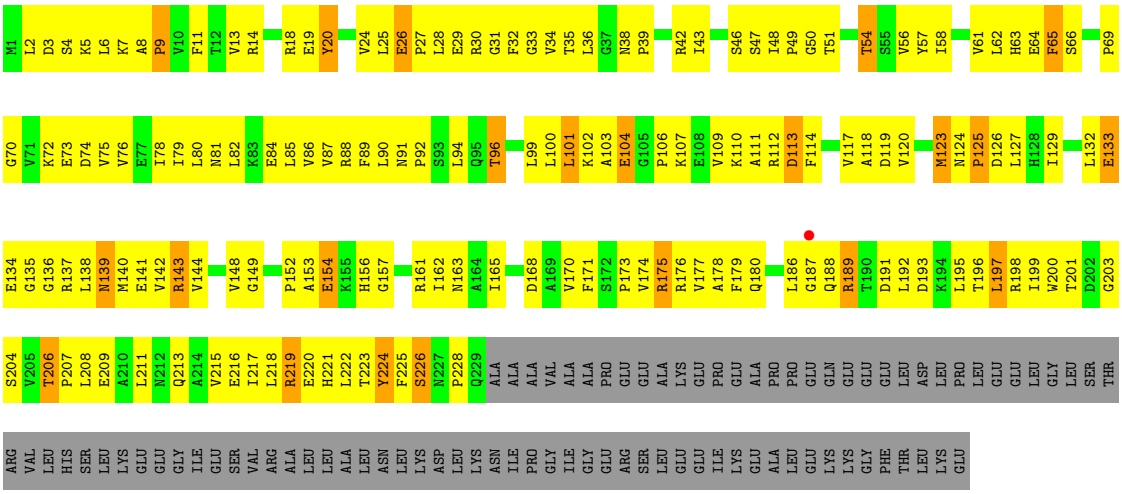
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Zn		
8	D	2	2	2	0	0
8	N	2	2	2	0	0

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.

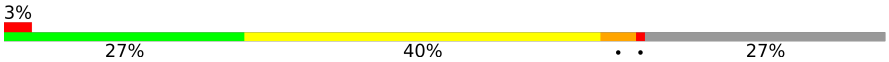
- Molecule 1: DNA-directed RNA polymerase subunit alpha

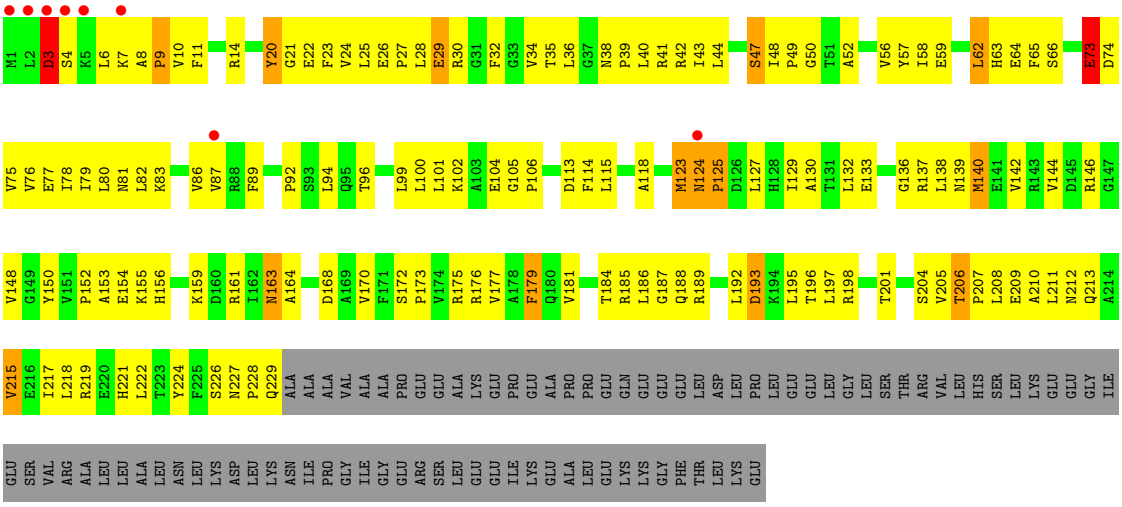
Chain A:



- Molecule 1: DNA-directed RNA polymerase subunit alpha

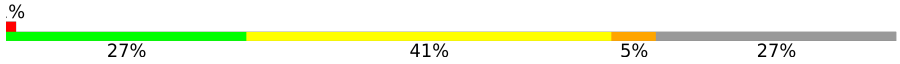
Chain B:

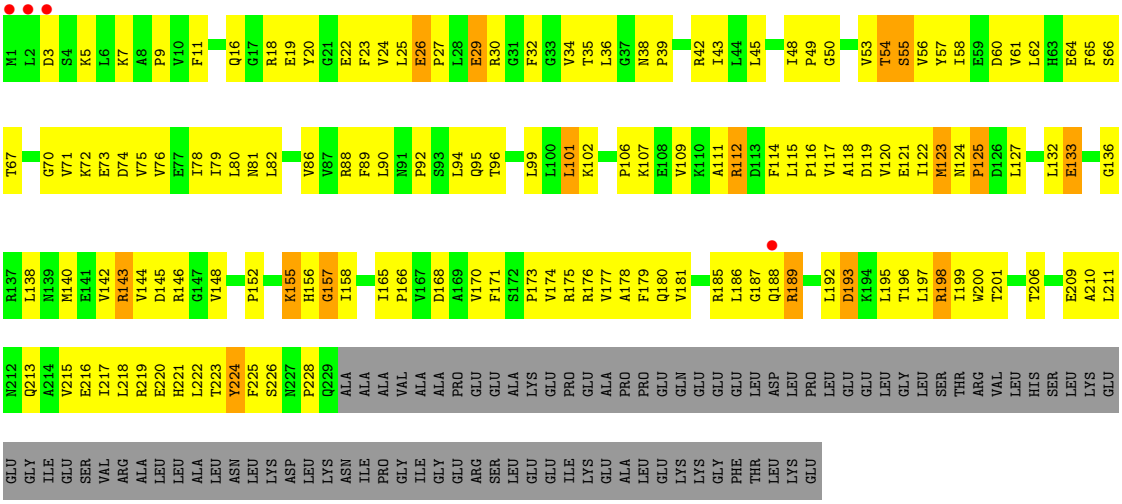




• Molecule 1: DNA-directed RNA polymerase subunit alpha

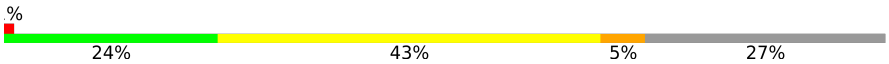
Chain K:

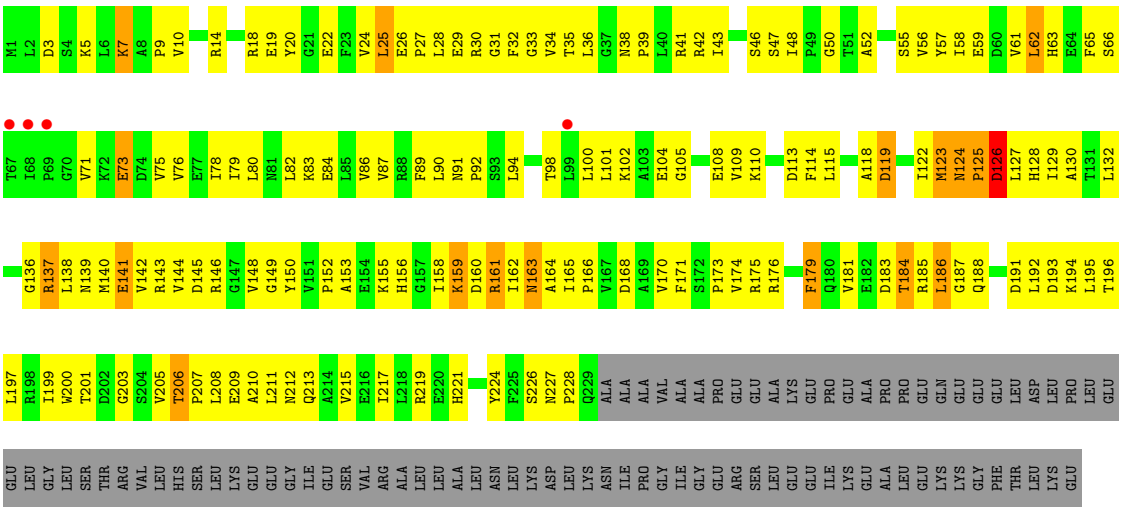




• Molecule 1: DNA-directed RNA polymerase subunit alpha

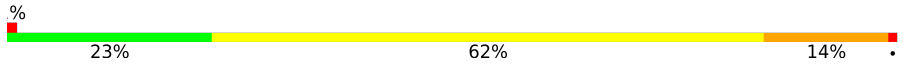
Chain L:

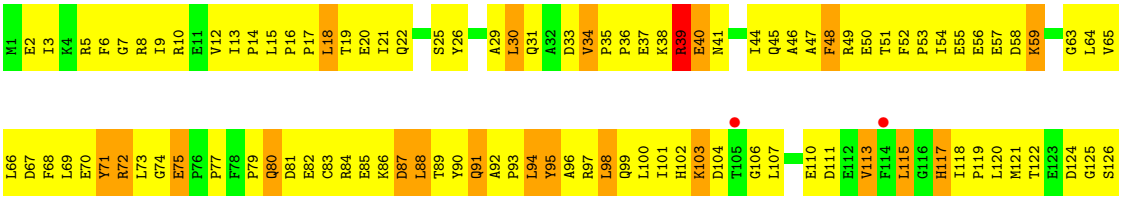


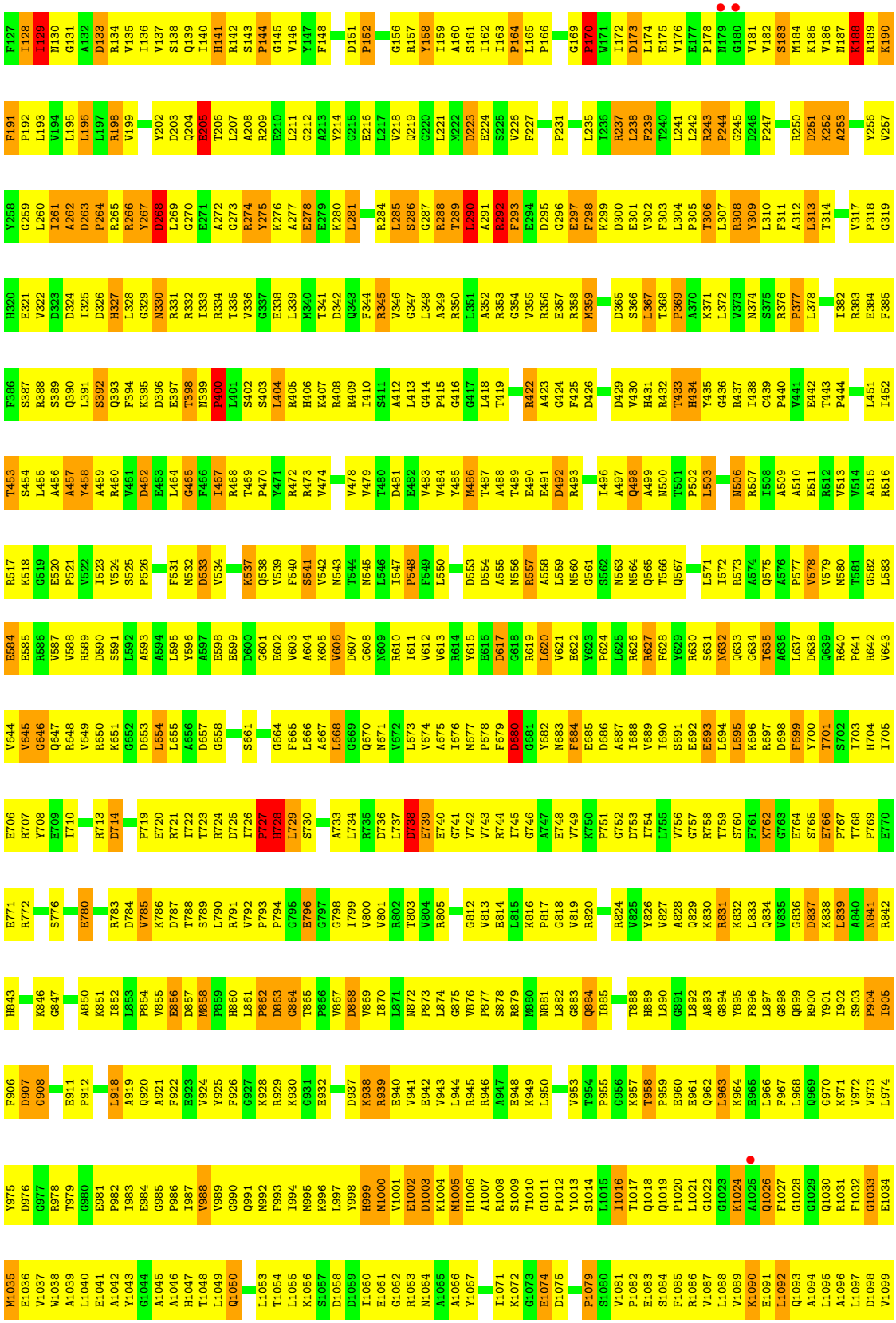


• Molecule 2: DNA-directed RNA polymerase subunit beta

Chain C:



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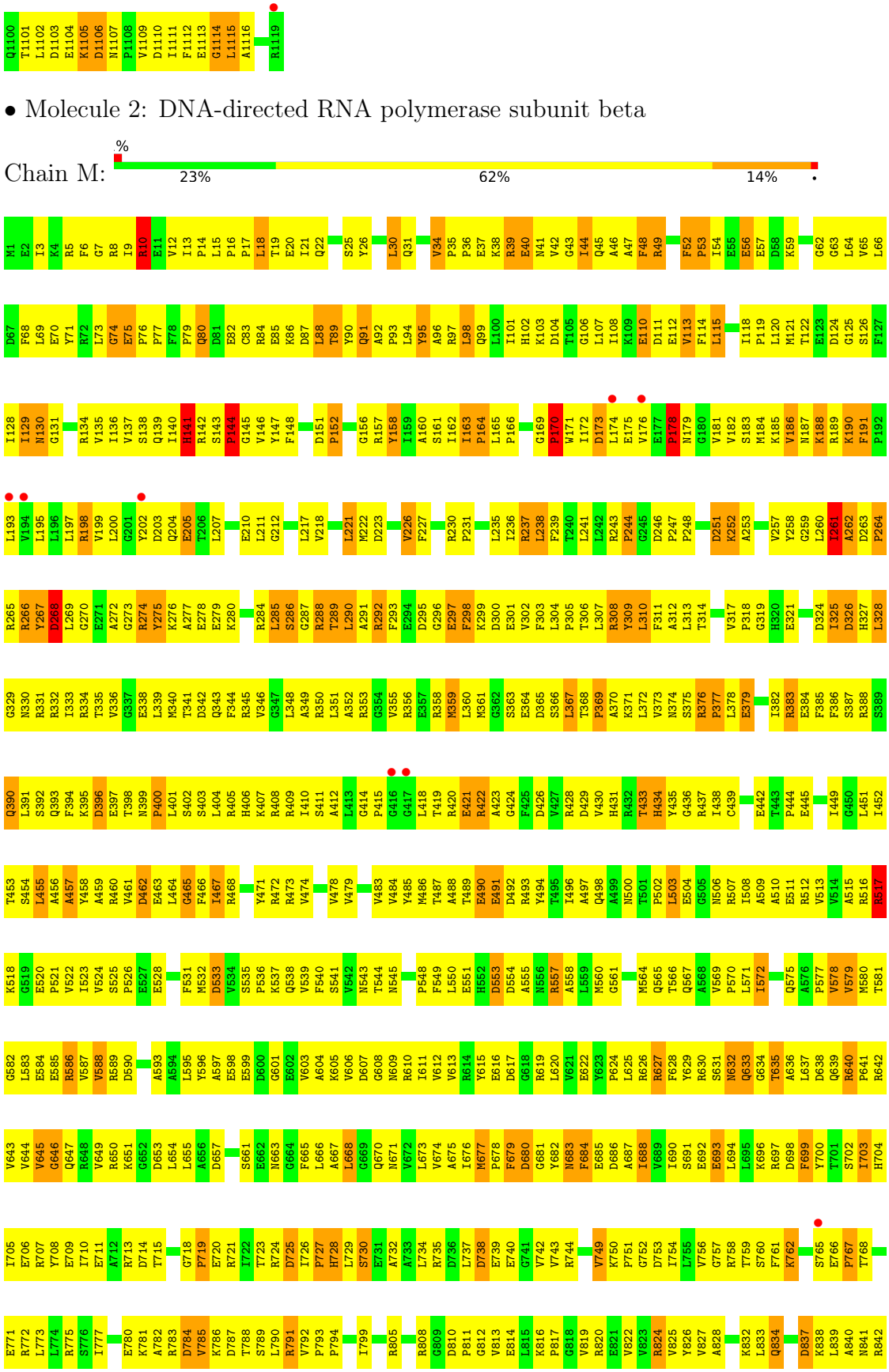
Y975 D976 G977 R978 T979 G980 E981 P982 I983 E984 G985 P986 I987 V988 V989 G990 Q991 M992 F993 I994 M995 K996 L997 Y998 H999 M1000 V1001 E1002 D1003 K1004 M1005 H1006 A1007 R1008 S1009 T1010 G1011 P1012 Y1013 S1014 L1015 I1016 T1017 Q1018 Q1019 P1020 L1021 G1022 G1023 K1024 A1025 Q1026 F1027 G1028 G1029 Q1030 R1031 F1032 G1033 E1034
F906 D907 G908 E911 P912 L918 A919 Q920 A921 F922 E923 V924 Y925 F926 G927 K928 R929 K930 G931 E932 D937 K938 R939 E940 V941 E942 V943 L944 R945 R946 A947 E948 K949 L950 V953 Y954 P955 G956 K957 Y958 P959 E960 E961 Q962 G963 L963 K964 E965 L966 F967 L968 Q969 G970 K971 V972 V973 L974
H843 K846 G847 A850 K851 I852 L853 P854 V855 E856 D857 N858 P859 H860 L861 P862 D863 G864 T865 P866 V867 D868 V869 I870 L871 N872 P873 L874 G875 V876 P877 S878 R879 N880 N881 L882 G883 Q884 I885 T888 H889 L890 G891 L892 A893 G894 Y895 F896 L897 G898 Q899 R900 Y901 I902 S903 P904 I905
E771 R772 S776 E780 R783 D784 V785 K786 D787 T788 S789 L790 R791 V792 P793 P794 G795 E796 G797 G798 I799 V800 V801 R802 T803 V804 R805 G812 V813 E814 L815 K816 P817 G818 V819 R820 R824 V825 Y826 V827 A828 Q829 K830 R831 K832 L833 Q834 V835 G836 D837 K838 L839 A840 N841 R842
E706 R707 Y708 E709 I710 R713 D714 P719 E720 R721 I722 T723 R724 D725 I726 F727 H728 L729 S730 A733 L734 R735 D736 L737 D738 E739 E740 G741 V742 V743 R744 I745 G746 A747 E748 V749 K750 P751 G752 D753 I754 L755 V756 G757 R758 T759 S760 F761 K762 G763 E764 S765 E766 P767 T768 P769 E770
V644 V645 G646 Q647 R648 V649 R650 K651 G652 D653 L654 L655 A656 D657 G658 S661 G664 F665 L666 A667 L668 G669 Q670 N671 V672 L673 V674 A675 I676 M677 P678 F679 D680 G681 Y682 N683 F684 E685 D686 A687 I688 V689 I690 S691 E692 E693 L694 L695 K696 R697 D698 F699 Y700 T701 S702 I703 H704 I705
E584 E585 R586 V587 V588 R589 D590 S591 L592 A593 A594 L595 Y596 A597 E598 E599 D600 G601 E602 V603 A604 K605 V606 D607 G608 N609 R610 I611 V612 V613 R614 Y615 E616 D617 G618 R619 L620 V621 E622 Y623 P624 L625 R626 R627 F628 Y629 R630 S631 N632 Q633 G634 T635 A636 L637 D638 Q639 R640 P641 R642 V643
R517 K518 G519 E520 P521 V522 I523 V524 S525 P526 F531 M532 D533 V534 K537 Q538 V539 F540 S541 V542 N543 T544 N545 L546 I547 P548 F549 L550 D553 D554 A555 N556 R557 A558 L559 M560 G561 S562 N563 M564 Q565 T566 Q567 L571 I572 R573 A574 Q575 A576 P577 V578 V579 M580 T581 G582 L583
T453 S454 L455 A456 A457 Y458 A459 R460 V461 D462 E463 L464 G465 F466 I467 R468 T469 P470 Y471 R472 R473 V474 V478 V479 T480 D481 E482 V483 V484 Y485 M486 T487 A488 T489 E490 E491 D492 R493 I496 A497 Q498 A499 N500 T501 P502 L503 N506 R507 I508 A509 A510 E511 R512 V513 V514 A515 R516
F386 S387 R388 S389 Q390 L391 S392 Q393 F394 K395 D396 E397 T398 N399 P400 L401 S402 S403 L404 R405 H406 K407 R408 R409 I410 S411 A412 L413 G414 P415 G416 G417 L418 T419 R422 A423 G424 F425 D426 D429 V430 H431 R432 T433 H434 Y435 G436 R437 I438 C439 P440 V441 E442 T443 P444 L451 I452
H320 E321 V322 D323 D324 I325 D326 H327 L328 G329 N330 R331 R332 I333 R334 T335 V336 G337 E338 L339 M340 T341 D342 Q343 F344 R345 V346 G347 G348 A349 R350 L351 A352 R353 G354 V355 R356 E357 R358 M359 D365 S366 L367 T368 P369 A370 K371 L372 V373 N374 S375 R376 P377 L378 I382 R383 E384 F385
Y258 G259 L260 I261 A262 D263 P264 R265 R266 Y267 D268 L269 G270 E271 A272 G273 R274 Y275 K276 A277 E278 E279 K280 L281 R284 L285 S286 G287 R288 T289 L290 A291 R292 F293 E294 D295 G296 E297 F298 K299 D300 E301 V302 F303 L304 P305 T306 L307 R308 Y309 L310 F311 A312 L313 T314 V317 P318 G319
F191 P192 L193 V194 L195 L196 L197 R198 V199 Y202 D203 Q204 E205 T206 L207 A208 R209 E210 L211 G212 A213 Y214 G215 E216 L217 V218 Q219 G220 L221 M222 D223 E224 S225 V226 F227 P231 L235 I236 R237 L238 F239 T240 L241 L242 R243 P244 G245 D246 P247 R250 D251 K252 A253 Y256 V257
F127 I128 I129 N130 G131 A132 D133 R134 V135 I136 V137 S138 Q139 I140 H141 R142 S143 P144 G145 V146 Y147 F148 D151 P152 G156 R157 Y158 I159 A160 S161 I162 I163 P164 L165 P166 G169 P170 W171 I172 D173 L174 E175 V176 E177 P178 N179 G180 V181 V182 S183 M184 K185 V186 N187 K188 R189 K190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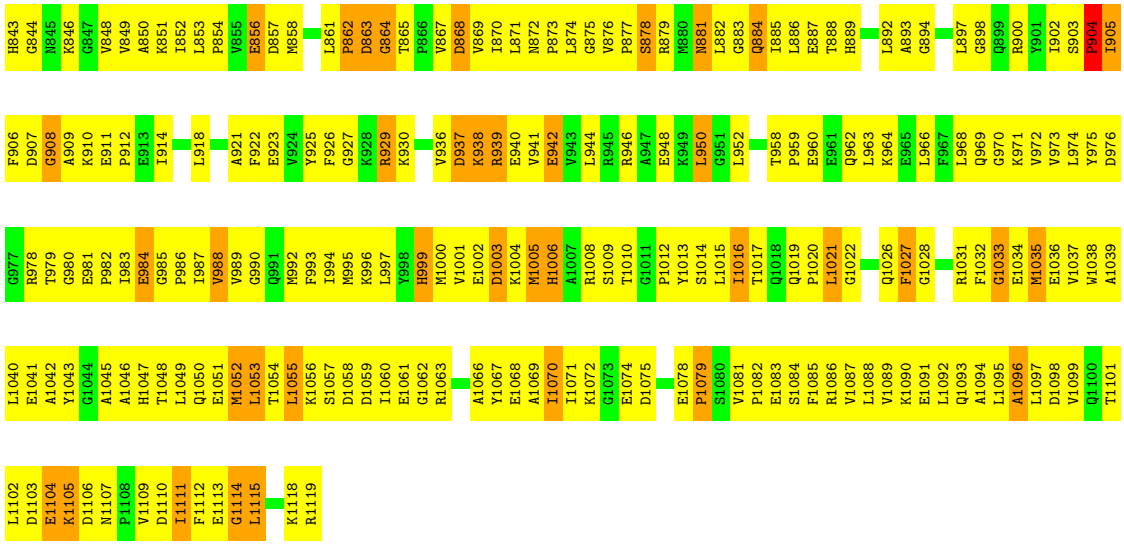
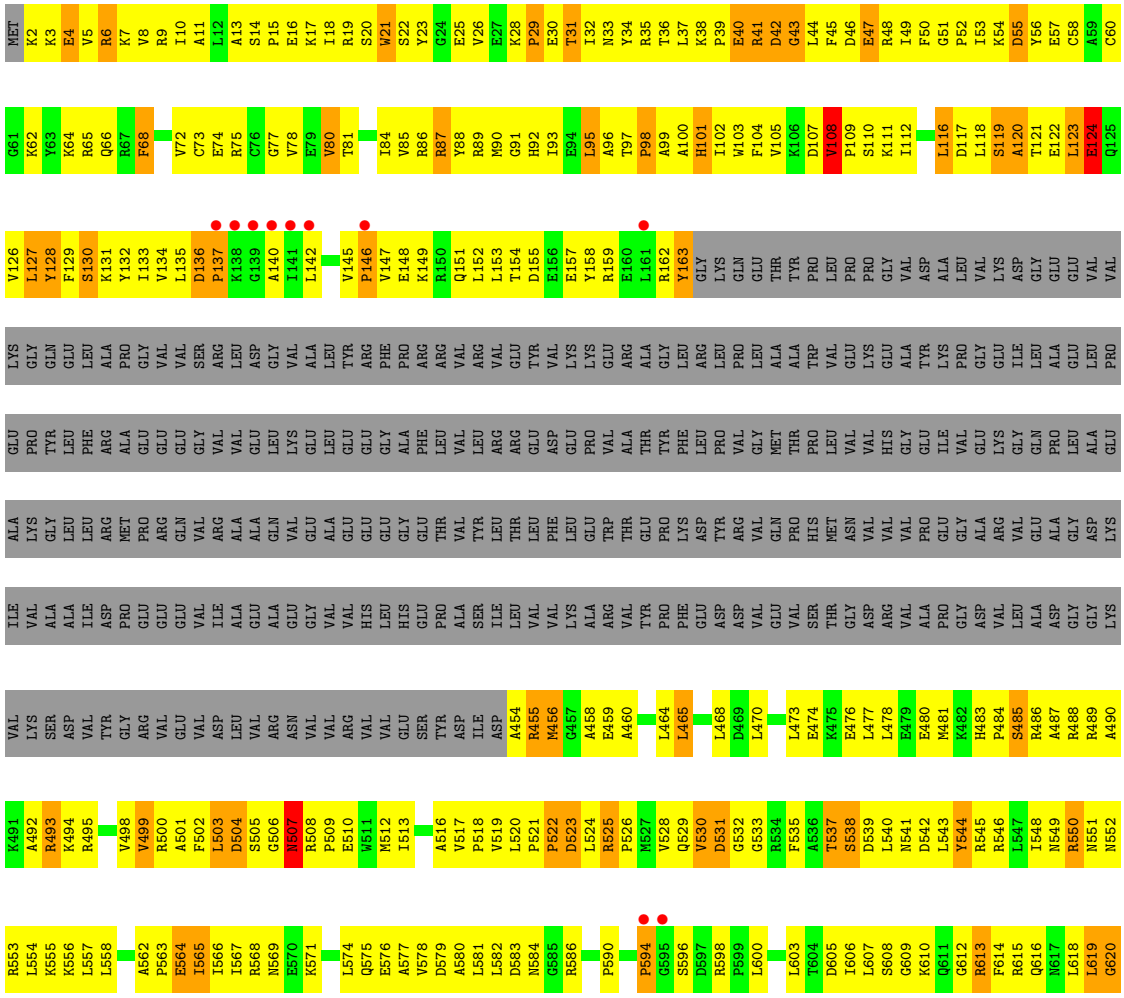
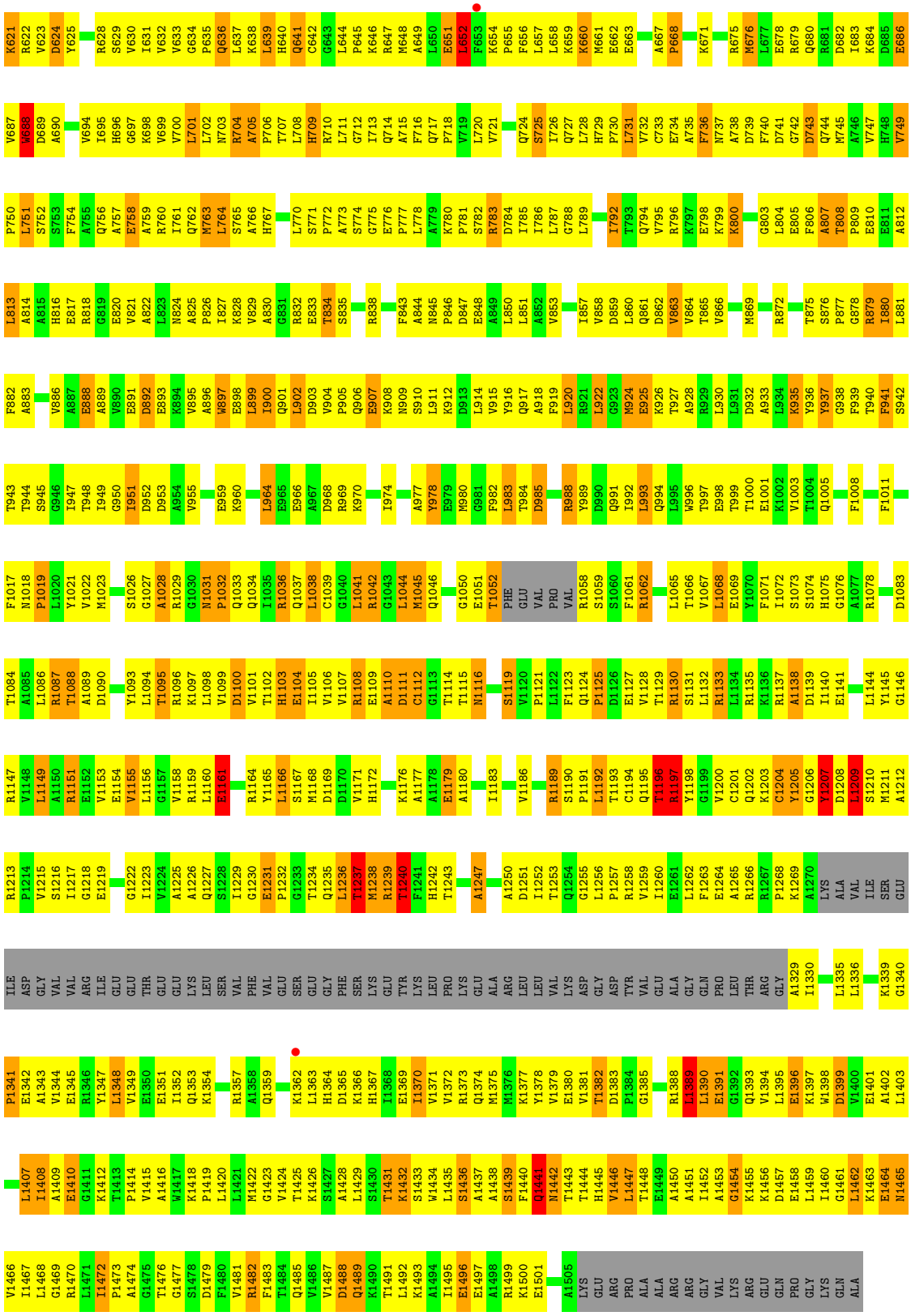
• Molecule 2: DNA-directed RNA polymerase subunit beta
Chain M:
%
23%
62%
14%



- Molecule 3: DNA-directed RNA polymerase subunit beta'

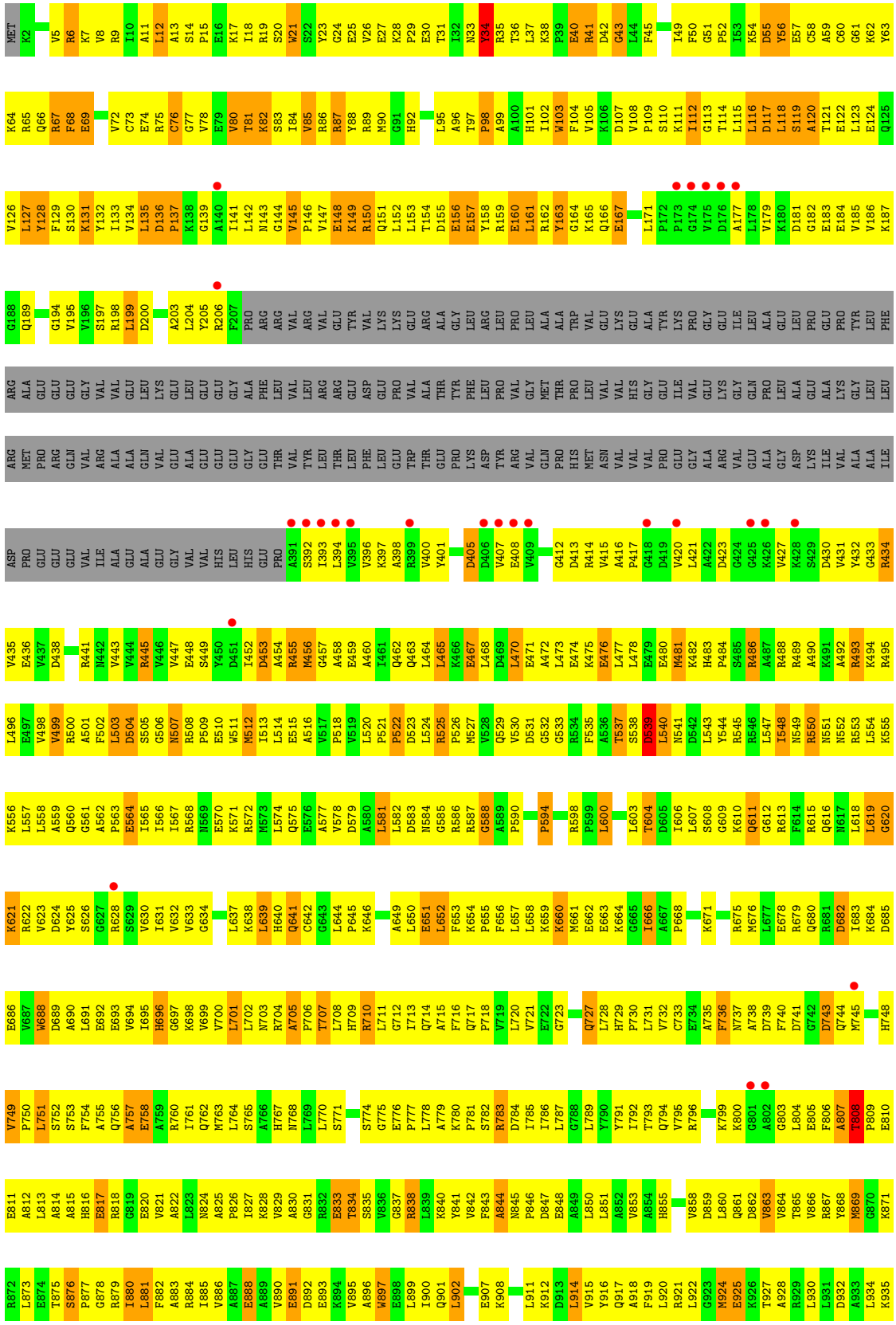
Chain D:





• Molecule 3: DNA-directed RNA polymerase subunit beta'

Chain N: 2% 21% 51% 12% • 15%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K64 R65 Q66 R67 F68 E69 V72 C73 E74 R75 C76 G77 V78 E79 V80 T81 K82 S83 I84 V85 R86 R87 Y88 R89 M90 G91 H92 L95 A96 T97 P98 A99 A100 H101 I102 W103 F104 V105 K106 D107 V108 P109 S110 K111 I112 G113 T114 L115 L116 D117 L118 S119 A120 T121 E122 I123 E124 Q125
V126 L127 Y128 F129 S130 K131 Y132 I133 V134 L135 D136 P137 K138 G139 A140 I141 L142 N143 G144 V145 P146 V147 E148 K149 R150 Q151 L152 L153 T154 D155 E156 E157 Y158 R159 E160 L161 R162 Y163 G164 K165 Q166 E167 L171 P172 P173 G174 V175 D176 A177 L178 V179 K180 D181 G182 E183 E184 V185 V186 K187
G188 Q189 G194 V195 V196 S197 R198 L199 D200 A203 L204 Y205 R206 F207 PRO ARG ARG VAL VAL ARG VAL GLU TYR VAL LYS LYS GLU ARG ALA GLY LEU ARG PRO LEU PRO LEU ALA ALA TRP VAL GLU LYS GLU ALA TYR LYS PRO GLY GLU ILE LEU ALA GLU LEU PRO GLU PRO TYR LEU PHE
ARG ALA GLU GLU GLU GLY VAL VAL GLU LEU LYS GLU LEU LEU VAL LEU ARG ARG GLU THR ASP GLU PRO VAL ALA THR TYR PHE LEU PRO VAL VAL HIS GLY GLU ILE VAL VAL GLY MET THR PRO LEU VAL VAL HIS GLY GLN PRO LEU LYS GLY LEU LEU
ARG MET PRO ARG GLN VAL ARG ALA ALA GLN VAL GLU ALA ALA GLU GLU GLU TYR LEU THR LEU PHE LEU GLU TRP THR GLU PRO LYS ASP TYR ARG VAL GLN PRO HIS MET ASN VAL VAL PRO GLU GLY ALA ARG VAL GLU ALA ALA GLY GLN PRO LYS ILE VAL ALA ALA ILE
ASP PRO GLU GLU GLU VAL ILE ALA GLU ALA ALA GLU GLY VAL VAL HIS GLU PRO A391 S392 I393 L394 V395 V396 K397 A398 R399 V400 Y401 D405 D406 V407 E408 V409 G412 D413 R414 V415 A416 P417 G418 D419 V420 L421 A422 D423 G424 G425 K426 V427 K428 S429 D430 V431 Y432 G433 R434
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L496 E497 V498 V499 R500 A501 F502 L503 D504 S505 G506 N507 R508 P509 E510 W511 M512 I513 L514 E515 A516 V517 P518 V519 L520 P521 P522 D523 L524 R525 P526 M527 V528 Q529 V530 D531 G532 G533 R534 F535 A536 T537 S538 D539 L540 N541 D542 L543 Y544 R545 R546 L547 I548 N549 R550 N551 N552 R553 L554 K555
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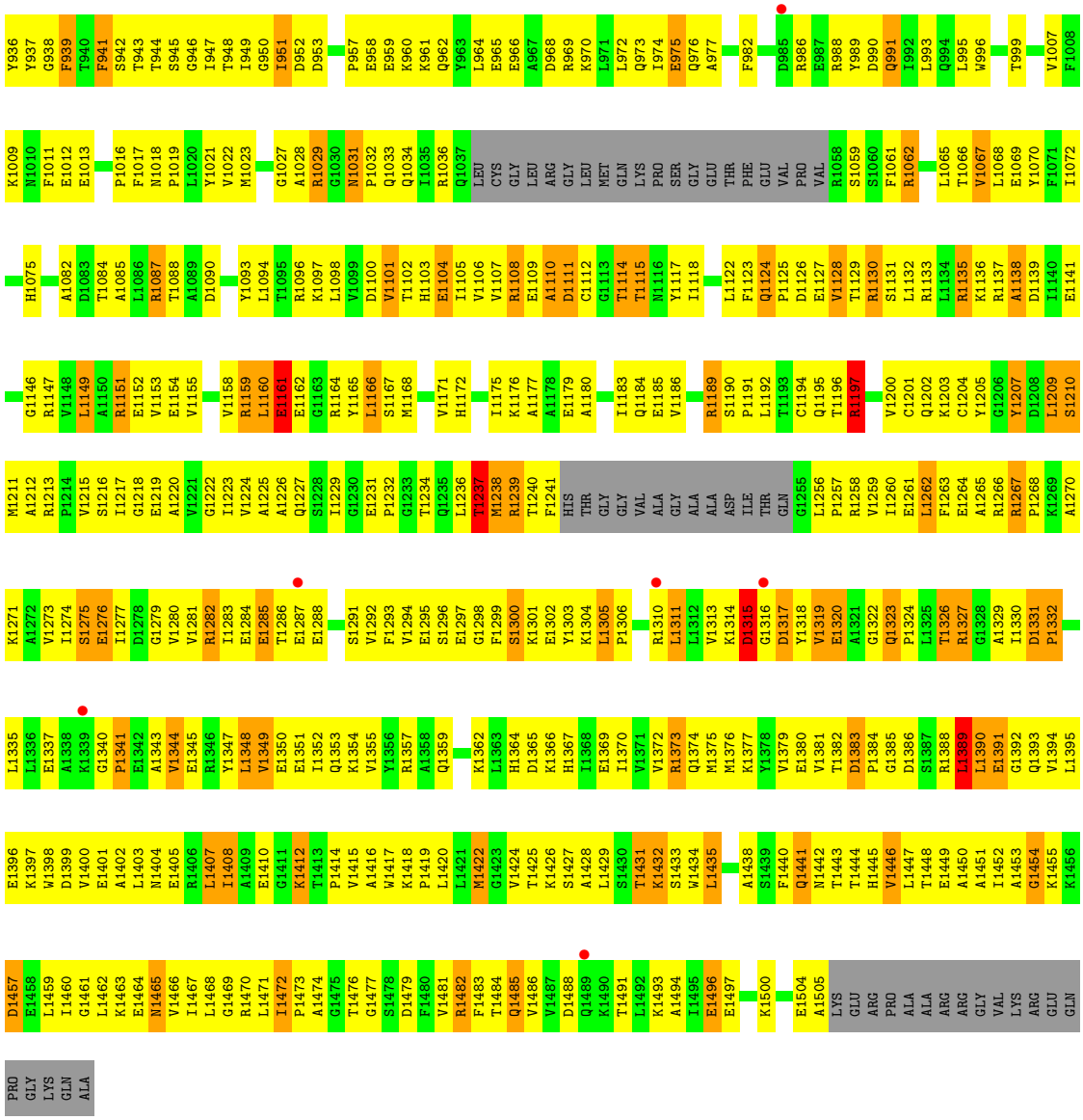
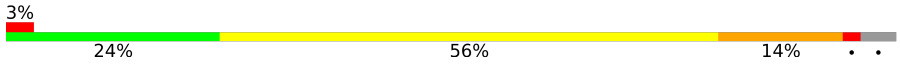
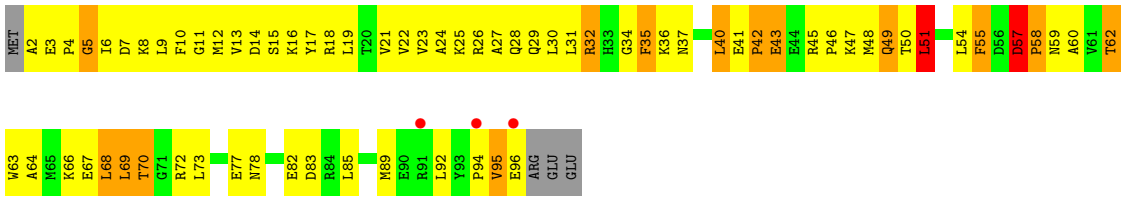
K621 R622 V623 D624 Y625 S626 G627 R628 S629 V630 I631 V632 V633 G634 L637 K638 L639 H640 Q641 C642 G643 L644 P645 K646 A649 L650 E651 L652 F653 K654 P655 F656 L657 L658 K659 K660 M661 E662 E663 K664 G665 I666 A667 P668 K671 R675 M676 L677 E678 R679 Q680 R681 D682 I683 K684 D685
E686 V687 W688 D689 A690 L691 E692 E693 V694 I695 H696 G697 K698 V699 V700 L701 L702 N703 R704 A705 P706 T707 L708 H709 R710 L711 G712 I713 Q714 A715 F716 Q717 P718 V719 L720 V721 E722 G723 Q727 L728 H729 P730 L731 V732 C733 E734 A735 F736 N737 A738 D739 F740 D741 G742 D743 Q744 M745 H748
V749 P750 L751 S752 S753 F754 A755 Q756 A757 E758 A759 R760 I761 Q762 N763 L764 S765 A766 H767 N768 L769 L770 S771 S774 G775 E776 P777 L778 A779 K780 P781 S782 R783 D784 T785 T786 L787 G788 L789 Y790 Y791 T792 T793 Q794 V795 R796 K799 K800 G801 A802 G803 L804 E805 F806 A807 T808 P809 E810
E811 A812 L813 A814 A815 H816 E817 R818 G819 E820 V821 A822 L823 N824 A825 P826 I827 K828 V829 A830 G831 R832 E833 T834 S835 V836 G837 R838 L839 K840 Y841 V842 F843 A844 N845 P846 D847 E848 A849 L850 L851 A852 V853 A854 H855 V858 D859 L860 Q861 D862 V863 V864 T865 V866 R867 Y868 M869 G870 K871
R872 L873 E874 T875 S876 P877 G878 R879 I880 L881 F882 A883 R884 I885 V886 A887 E888 A889 V890 E891 D892 E893 K894 V895 A896 W897 E898 L899 I900 Q901 L902 E907 K908 L911 K912 D913 L914 V915 Y916 Q917 A918 F919 L920 R921 L922 G923 M924 E925 K926 T927 A928 R929 L930 L931 D932 A933 L934 K935



• Molecule 4: DNA-directed RNA polymerase subunit omega

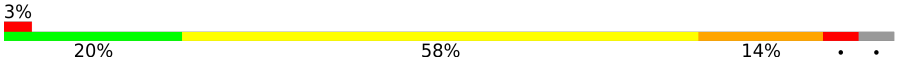
Chain E:

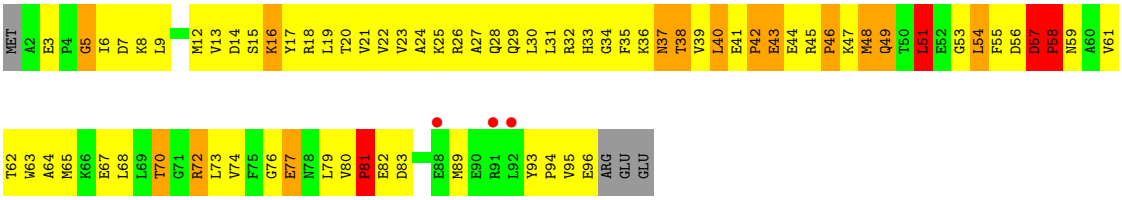




• Molecule 4: DNA-directed RNA polymerase subunit omega

Chain O:





• Molecule 5: DNA (28-MER)

Chain G:

• Molecule 5: DNA (28-MER)

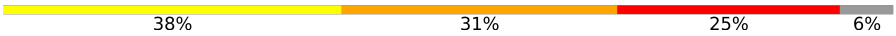
Chain X:

• Molecule 6: RNA (5'-R(P*CP*CP*AP*GP*CP*CP*GP*GP*CP*GP*CP*UP*CP*GP*CP*A)-3')

Chain H:

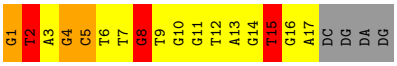
• Molecule 6: RNA (5'-R(P*CP*CP*AP*GP*CP*CP*GP*GP*CP*GP*CP*UP*CP*GP*CP*A)-3')

Chain Y:



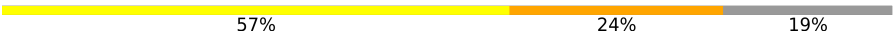
• Molecule 7: DNA (5'-D(P*GP*TP*AP*GP*CP*TP*TP*GP*TP*GP*GP*TP*AP*GP*TP*GP*AP*CP*GP*AP*G)-3')

Chain I:



• Molecule 7: DNA (5'-D(P*GP*TP*AP*GP*CP*TP*TP*GP*TP*GP*GP*TP*AP*GP*TP*GP*AP*CP*GP*AP*G)-3')

Chain Z:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 41	Depositor
Cell constants a, b, c, α, β, γ	155.98Å 155.98Å 495.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	44.15 – 4.31 44.15 – 4.31	Depositor EDS
% Data completeness (in resolution range)	99.9 (44.15-4.31) 99.4 (44.15-4.31)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.17	Depositor
$< I/\sigma(I) >$ [1]	2.82 (at 4.28Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.9_1692)	Depositor
R, R_{free}	0.281 , 0.311 0.285 , 0.315	Depositor DCC
R_{free} test set	3821 reflections (4.82%)	wwPDB-VP
Wilson B-factor (Å^2)	106.1	Xtriage
Anisotropy	0.046	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.15 , 67.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.30$, $< L^2 > = 0.14$	Xtriage
Estimated twinning fraction	0.499 for h,-k,-l	Xtriage
F_o,F_c correlation	0.89	EDS
Total number of atoms	48166	wwPDB-VP
Average B, all atoms (Å^2)	250.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.72% 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: 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	0.38	0/1838	0.69	0/2498
1	B	0.43	0/1838	0.68	0/2498
1	K	0.45	0/1838	0.70	0/2498
1	L	0.42	0/1838	0.67	0/2498
2	C	0.49	0/8997	0.79	3/12164 (0.0%)
2	M	0.48	0/8997	0.78	4/12164 (0.0%)
3	D	0.51	1/9249 (0.0%)	0.83	10/12482 (0.1%)
3	N	0.51	0/10344	0.81	8/13968 (0.1%)
4	E	0.50	0/784	0.87	2/1057 (0.2%)
4	O	0.46	0/784	0.84	2/1057 (0.2%)
5	G	0.99	1/614 (0.2%)	1.41	9/943 (1.0%)
5	X	0.93	0/614	1.43	11/943 (1.2%)
6	H	1.14	3/378 (0.8%)	1.56	6/585 (1.0%)
6	Y	1.15	3/353 (0.8%)	1.45	5/546 (0.9%)
7	I	0.94	1/400 (0.2%)	1.46	7/616 (1.1%)
7	Z	0.90	1/400 (0.2%)	1.28	3/616 (0.5%)
All	All	0.53	10/49266 (0.0%)	0.84	70/67133 (0.1%)

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
5	G	0	10
5	X	0	11
6	H	0	4
6	Y	0	5
7	I	0	6
7	Z	0	4
All	All	0	40

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	Z	1	DG	OP3-P	-7.99	1.51	1.61
7	I	1	DG	OP3-P	-7.84	1.51	1.61
6	Y	11	C	N1-C2	-7.40	1.32	1.40
6	H	11	C	N1-C2	-7.38	1.32	1.40
6	H	1	C	OP3-P	-7.06	1.52	1.61
6	Y	1	C	OP3-P	-6.95	1.52	1.61
6	H	11	C	C2-O2	-6.02	1.19	1.24
6	Y	10	G	N9-C4	-5.89	1.33	1.38
5	G	20	DC	C2-O2	5.61	1.29	1.24
3	D	688	TRP	CD2-CE2	5.17	1.47	1.41

All (70) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	I	1	DG	O5'-P-OP1	-18.71	88.24	110.70
7	Z	1	DG	O5'-P-OP1	-16.85	90.48	110.70
6	H	5	C	N1-C1'-C2'	-15.07	94.41	114.00
6	Y	5	C	N1-C1'-C2'	-9.98	101.02	112.00
7	I	1	DG	O5'-P-OP2	9.33	121.90	110.70
3	N	1209	LEU	N-CA-C	-9.28	85.96	111.00
3	D	1209	LEU	N-CA-C	-9.20	86.17	111.00
3	D	1031	ASN	C-N-CD	-9.05	100.69	120.60
5	G	2	DT	O5'-P-OP1	-9.01	97.59	105.70
6	Y	7	G	N9-C1'-C2'	-9.00	102.11	112.00
3	N	1110	ALA	N-CA-C	-7.75	90.08	111.00
7	I	2	DT	O4'-C1'-N1	7.74	113.42	108.00
5	X	6	DT	OP1-P-O3'	7.70	122.15	105.20
3	D	1110	ALA	N-CA-C	-7.68	90.26	111.00
5	G	17	DA	O5'-P-OP1	-7.65	98.81	105.70
5	X	2	DT	O5'-P-OP1	-7.62	98.84	105.70
2	C	1092	LEU	CA-CB-CG	-7.59	97.84	115.30
7	Z	1	DG	O5'-P-OP2	7.58	119.80	110.70
3	N	1331	ASP	C-N-CD	-7.32	104.49	120.60
3	D	81	THR	N-CA-C	-7.30	91.28	111.00
5	G	2	DT	OP1-P-O3'	7.13	120.88	105.20
3	N	621	LYS	N-CA-C	7.07	130.08	111.00
3	D	621	LYS	N-CA-C	7.06	130.07	111.00
6	Y	12	U	N1-C1'-C2'	-7.04	104.25	112.00
6	Y	5	C	OP1-P-O3'	7.02	120.65	105.20
5	X	7	DA	OP1-P-O3'	7.01	120.62	105.20
6	H	15	C	C5'-C4'-C3'	-7.01	104.79	116.00
6	Y	5	C	OP2-P-O3'	-6.98	89.84	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	G	17	DA	OP1-P-O3'	6.88	120.34	105.20
5	X	2	DT	OP1-P-O3'	6.86	120.30	105.20
2	M	553	ASP	CB-CG-OD2	6.84	124.46	118.30
3	D	1247	ALA	N-CA-C	-6.73	92.82	111.00
7	I	1	DG	OP1-P-OP2	-6.66	109.61	119.60
4	E	49	GLN	N-CA-C	6.63	128.90	111.00
4	O	49	GLN	N-CA-C	6.51	128.57	111.00
2	M	728	HIS	N-CA-C	6.49	128.52	111.00
2	C	728	HIS	N-CA-C	6.44	128.39	111.00
5	X	27	DC	OP1-P-O3'	6.23	118.90	105.20
2	C	729	LEU	N-CA-C	6.13	127.56	111.00
3	D	1192	LEU	CB-CG-CD1	-6.09	100.64	111.00
6	H	16	A	C2'-C3'-O3'	6.07	123.41	113.70
4	O	51	LEU	N-CA-C	-5.98	94.86	111.00
6	H	12	U	OP2-P-O3'	5.87	118.11	105.20
2	M	729	LEU	N-CA-C	5.85	126.80	111.00
7	Z	1	DG	OP1-P-OP2	-5.84	110.84	119.60
3	N	81	THR	N-CA-C	-5.81	95.31	111.00
4	E	51	LEU	N-CA-C	-5.77	95.42	111.00
5	X	21	DG	O4'-C1'-N9	5.77	112.04	108.00
5	G	20	DC	C5'-C4'-C3'	-5.61	103.99	114.10
3	D	993	LEU	CA-CB-CG	5.52	128.00	115.30
6	H	14	G	N9-C1'-C2'	-5.48	105.97	112.00
3	N	1389	LEU	CA-CB-CG	5.41	127.74	115.30
5	G	18	DC	C5'-C4'-C3'	-5.35	104.47	114.10
5	X	18	DC	C4'-C3'-O3'	5.35	123.08	109.70
3	D	731	LEU	CA-CB-CG	-5.33	103.05	115.30
5	X	26	DC	C2'-C3'-O3'	-5.30	95.12	112.60
5	G	19	DG	OP1-P-O3'	5.29	116.83	105.20
3	N	527	MET	N-CA-C	-5.26	96.78	111.00
7	I	2	DT	C5'-C4'-C3'	-5.21	104.72	114.10
5	G	18	DC	OP2-P-O3'	5.21	116.65	105.20
5	G	26	DC	OP2-P-O3'	-5.19	93.78	105.20
5	X	27	DC	OP2-P-O3'	-5.19	93.79	105.20
2	M	178	PRO	N-CA-C	5.14	125.47	112.10
7	I	8	DG	C5'-C4'-C3'	-5.11	104.90	114.10
7	I	15	DT	O4'-C1'-N1	5.11	111.58	108.00
5	X	18	DC	OP2-P-O3'	5.10	116.42	105.20
6	H	14	G	OP2-P-O3'	5.08	116.39	105.20
3	N	131	LYS	N-CA-C	5.05	124.64	111.00
5	X	21	DG	C4-N9-C1'	-5.03	119.97	126.50
3	D	1116	ASN	N-CA-C	-5.01	97.48	111.00

There are no chirality outliers.

All (40) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	G	10	DA	Sidechain
5	G	11	DC	Sidechain
5	G	14	DG	Sidechain
5	G	15	DC	Sidechain
5	G	17	DA	Sidechain
5	G	18	DC	Sidechain
5	G	2	DT	Sidechain
5	G	3	DC	Sidechain
5	G	4	DA	Sidechain
5	G	9	DC	Sidechain
6	H	5	C	Sidechain
6	H	7	G	Sidechain
6	H	8	G	Sidechain
6	H	9	C	Sidechain
7	I	14	DG	Sidechain
7	I	15	DT	Sidechain
7	I	2	DT	Sidechain
7	I	4	DG	Sidechain
7	I	5	DC	Sidechain
7	I	8	DG	Sidechain
5	X	10	DA	Sidechain
5	X	14	DG	Sidechain
5	X	15	DC	Sidechain
5	X	17	DA	Sidechain
5	X	18	DC	Sidechain
5	X	2	DT	Sidechain
5	X	22	DA	Sidechain
5	X	26	DC	Sidechain
5	X	27	DC	Sidechain
5	X	4	DA	Sidechain
5	X	8	DC	Sidechain
6	Y	10	G	Sidechain
6	Y	11	C	Sidechain
6	Y	15	C	Sidechain
6	Y	7	G	Sidechain
6	Y	9	C	Sidechain
7	Z	12	DT	Sidechain
7	Z	14	DG	Sidechain
7	Z	7	DT	Sidechain
7	Z	8	DG	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	1806	0	1861	257	0
1	B	1806	0	1861	180	0
1	K	1806	0	1861	189	0
1	L	1806	0	1861	203	0
2	C	8829	0	8933	1430	0
2	M	8829	0	8933	1425	0
3	D	9097	0	9316	1626	0
3	N	10175	0	10401	1763	0
4	E	770	0	784	124	0
4	O	770	0	784	151	0
5	G	548	0	301	113	0
5	X	548	0	301	93	0
6	H	340	0	176	76	0
6	Y	318	0	165	56	0
7	I	357	0	194	68	0
7	Z	357	0	194	71	0
8	D	2	0	0	0	0
8	N	2	0	0	0	0
All	All	48166	0	47926	7162	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 75.

All (7162) 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:C:52:PHE:CZ	2:C:68:PHE:HB2	1.22	1.67
3:D:897:TRP:HA	3:D:900:ILE:CG1	1.33	1.56
3:D:1041:LEU:HD11	3:D:1045:MET:SD	1.55	1.44
3:D:705:ALA:HB1	6:H:14:G:N2	1.24	1.40
3:D:705:ALA:CB	6:H:14:G:H21	1.40	1.32
2:C:52:PHE:CZ	2:C:68:PHE:CB	2.12	1.31
3:N:610:LYS:O	3:N:615:ARG:HG2	1.18	1.29
3:D:744:GLN:CD	5:G:21:DG:H21	1.34	1.29
2:M:486:MET:SD	2:M:490:GLU:HB2	1.72	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:897:TRP:CA	3:D:900:ILE:HG12	1.62	1.27
3:D:1033:GLN:O	3:D:1037:GLN:CB	1.82	1.26
3:N:1033:GLN:OE1	3:N:1240:THR:HG21	1.31	1.26
2:M:265:ARG:N	2:M:289:THR:HG21	1.49	1.26
1:A:28:LEU:HD22	1:A:32:PHE:CD1	1.70	1.25
3:D:1033:GLN:O	3:D:1037:GLN:HB2	1.29	1.24
3:D:1041:LEU:CD1	3:D:1045:MET:SD	2.24	1.24
3:D:1042:ARG:NH2	3:D:1073:SER:HB2	1.52	1.24
3:N:618:LEU:HD12	3:N:1467:ILE:CG1	1.66	1.24
3:D:989:TYR:OH	3:D:1051:GLU:HG3	1.07	1.24
3:N:610:LYS:C	3:N:615:ARG:HG2	1.58	1.23
2:C:50:GLU:HA	2:C:266:ARG:CZ	1.70	1.21
3:N:625:TYR:OH	3:N:655:PRO:HG2	1.33	1.20
3:N:1129:THR:HB	3:N:1320:GLU:CG	1.73	1.18
3:N:1485:GLN:HG3	4:O:79:LEU:H	1.08	1.18
2:C:336:VAL:HA	2:C:339:LEU:HD12	1.20	1.18
2:M:265:ARG:H	2:M:289:THR:CG2	1.55	1.17
2:M:1109:VAL:HG11	3:N:5:VAL:HG22	1.22	1.17
3:N:705:ALA:HB3	3:N:706:PRO:HD3	1.27	1.16
3:N:1435:LEU:HD23	3:N:1464:GLU:HB2	1.16	1.15
4:E:36:LYS:H	4:E:95:VAL:HG21	1.09	1.15
3:N:19:ARG:HH21	3:N:516:ALA:HB2	1.08	1.15
3:N:477:LEU:HD12	3:N:496:LEU:HD13	1.29	1.15
2:C:52:PHE:CE2	2:C:68:PHE:HB2	1.81	1.15
1:L:185:ARG:NH2	3:N:688:TRP:HB3	1.59	1.15
2:C:48:PHE:O	2:C:52:PHE:HB2	1.46	1.14
3:D:1034:GLN:O	3:D:1038:LEU:HB2	1.46	1.14
1:L:185:ARG:HH22	3:N:688:TRP:CB	1.58	1.14
3:N:833:GLU:O	3:N:834:THR:HG23	1.45	1.14
1:K:178:ALA:HB2	2:M:864:GLY:H	1.11	1.13
2:M:490:GLU:HA	2:M:493:ARG:HD3	1.28	1.13
3:D:897:TRP:HB2	3:D:900:ILE:HD11	1.14	1.13
2:M:1056:LYS:HE3	3:N:751:LEU:HD11	1.31	1.13
3:N:618:LEU:CD1	3:N:1467:ILE:HG12	1.77	1.13
3:D:833:GLU:O	3:D:834:THR:HG23	1.47	1.12
3:N:814:ALA:HB1	3:N:818:ARG:HH21	1.08	1.12
7:I:3:DA:H1'	7:I:4:DG:H5'	1.30	1.12
2:C:266:ARG:HA	2:C:288:ARG:HD3	1.29	1.12
2:M:455:LEU:HD13	2:M:459:ALA:HB3	1.25	1.12
3:N:754:PHE:HA	4:O:24:ALA:HB1	1.22	1.12
3:D:897:TRP:CA	3:D:900:ILE:CG1	2.24	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:156:HIS:HE1	1:K:166:PRO:HB3	1.04	1.12
3:N:98:PRO:HG2	3:N:462:GLN:NE2	1.65	1.11
2:C:423:ALA:HB1	7:I:1:DG:H5"	1.33	1.11
2:C:630:ARG:HD2	2:C:634:GLY:HA2	1.27	1.11
2:C:1024:LYS:HB2	6:H:4:G:H21	1.14	1.11
2:C:409:ARG:HB3	2:C:454:SER:OG	1.51	1.11
3:N:483:HIS:HB2	3:N:484:PRO:HD3	1.21	1.11
3:D:993:LEU:O	3:D:997:THR:HG23	1.51	1.10
1:K:156:HIS:CE1	1:K:166:PRO:HB3	1.87	1.10
3:N:783:ARG:HE	3:N:1029:ARG:CD	1.64	1.10
3:N:1442:ASN:O	3:N:1446:VAL:HG23	1.51	1.10
2:C:692:GLU:HG2	2:C:696:LYS:HE3	1.29	1.10
3:D:126:VAL:O	3:D:130:SER:HB2	1.51	1.10
2:M:490:GLU:HB3	2:M:493:ARG:HH11	1.17	1.10
2:C:1042:ALA:HB2	3:D:1227:GLN:HE22	0.95	1.09
2:C:50:GLU:HG3	2:C:266:ARG:HD2	1.13	1.09
3:D:608:SER:HB3	3:D:1442:ASN:O	1.53	1.09
3:N:957:PRO:HG2	3:N:1007:VAL:HG22	1.34	1.09
3:D:1112:CYS:HB3	3:D:1195:GLN:HG2	1.17	1.09
7:Z:11:DG:H2"	7:Z:12:DT:H71	1.24	1.09
1:A:28:LEU:CD2	1:A:32:PHE:HD1	1.66	1.08
2:C:861:LEU:HD23	2:C:863:ASP:H	0.99	1.08
2:M:89:THR:HG21	2:M:383:ARG:HH22	1.14	1.08
5:X:4:DA:H2"	5:X:5:DC:H5"	1.10	1.08
3:N:925:GLU:HB3	4:O:6:ILE:HG22	1.25	1.08
3:D:989:TYR:OH	3:D:1051:GLU:CG	2.00	1.08
3:D:1112:CYS:H	3:D:1201:CYS:CB	1.66	1.08
2:M:857:ASP:HB2	2:M:978:ARG:HG2	1.34	1.08
3:N:704:ARG:HA	3:N:745:MET:HG2	1.30	1.08
5:G:17:DA:H2"	5:G:18:DC:H5'	1.26	1.08
3:N:1238:MET:O	3:N:1239:ARG:HG2	1.53	1.08
3:D:1042:ARG:HH21	3:D:1073:SER:CB	1.65	1.07
2:M:675:ALA:HA	2:M:989:VAL:HG12	1.11	1.07
2:C:328:LEU:HD13	2:C:433:THR:HB	1.33	1.07
3:N:1238:MET:O	3:N:1239:ARG:CG	2.02	1.07
3:D:1472:ILE:HD13	3:D:1472:ILE:H	1.15	1.07
3:N:697:GLY:HA2	3:N:717:GLN:CD	1.73	1.07
3:N:760:ARG:HH11	4:O:61:VAL:HG23	1.15	1.07
3:D:520:LEU:HD23	3:D:525:ARG:HD2	1.37	1.06
3:D:696:HIS:CD2	4:E:59:ASN:HB2	1.90	1.06
2:C:69:LEU:HD12	2:C:97:ARG:HB3	1.37	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1045:MET:CE	3:D:1076:GLY:HA3	1.85	1.06
2:M:431:HIS:HB3	2:M:434:HIS:CE1	1.91	1.06
3:D:783:ARG:HA	3:D:1028:ALA:HA	1.33	1.05
3:N:957:PRO:CG	3:N:1007:VAL:HG22	1.85	1.05
3:N:1128:VAL:HB	3:N:1133:ARG:HH22	1.21	1.05
3:N:181:ASP:HB3	3:N:441:ARG:HD3	1.35	1.05
3:N:783:ARG:NE	3:N:1029:ARG:HD2	1.70	1.05
2:C:50:GLU:HG3	2:C:266:ARG:CD	1.87	1.05
3:D:899:LEU:HD22	3:D:917:GLN:CG	1.86	1.05
7:Z:3:DA:H1'	7:Z:4:DG:H5'	1.33	1.05
2:C:89:THR:HA	2:C:129:ILE:O	1.57	1.05
3:D:989:TYR:CZ	3:D:1051:GLU:HG3	1.91	1.05
3:D:1481:VAL:HG11	4:E:18:ARG:HA	1.30	1.05
1:L:185:ARG:CZ	3:N:688:TRP:HB3	1.85	1.05
1:A:32:PHE:CE1	1:B:221:HIS:NE2	2.25	1.04
3:N:1274:ILE:HD13	3:N:1276:GLU:HG2	1.36	1.04
3:N:1472:ILE:HD13	3:N:1472:ILE:H	1.16	1.04
2:C:165:LEU:HG	2:C:166:PRO:HA	1.34	1.04
3:N:521:PRO:HB2	3:N:524:LEU:HD13	1.37	1.04
3:N:1109:GLU:HG2	3:N:1201:CYS:HA	1.39	1.04
3:N:157:GLU:HA	3:N:160:GLU:OE1	1.56	1.04
3:D:1262:LEU:HD23	3:D:1352:ILE:HG12	1.39	1.04
3:N:783:ARG:NH2	3:N:1029:ARG:HB3	1.72	1.04
3:D:1410:GLU:HG2	2:M:374:ASN:HA	1.40	1.04
2:M:939:ARG:HA	2:M:939:ARG:HE	1.19	1.04
3:N:171:LEU:HD11	3:N:195:VAL:HG23	1.38	1.04
3:D:704:ARG:HA	3:D:745:MET:HG2	1.37	1.03
3:D:1258:ARG:HH12	3:D:1329:ALA:HB1	1.20	1.03
3:N:62:LYS:HG3	3:N:75:ARG:HD2	1.37	1.03
3:N:610:LYS:O	3:N:615:ARG:CG	2.05	1.03
2:C:987:ILE:HG23	3:D:948:THR:HG21	1.40	1.03
2:M:89:THR:HA	2:M:129:ILE:O	1.57	1.03
5:G:13:DA:H2"	5:G:14:DG:OP2	1.59	1.03
3:D:28:LYS:HG3	3:D:29:PRO:HD2	1.41	1.03
3:N:1216:SER:HB3	4:O:15:SER:CB	1.89	1.03
3:N:171:LEU:CD1	3:N:195:VAL:HG23	1.88	1.02
3:D:1003:VAL:CG1	3:D:1036:ARG:HD2	1.90	1.02
2:M:455:LEU:HD12	2:M:456:ALA:O	1.60	1.02
2:C:739:GLU:HG3	2:C:742:VAL:HB	1.39	1.02
3:D:136:ASP:HB3	3:D:137:PRO:HD3	1.40	1.02
2:M:409:ARG:HA	2:M:454:SER:HA	1.42	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:783:ARG:HH21	3:N:1029:ARG:HB3	0.89	1.02
4:O:54:LEU:HD23	4:O:58:PRO:HD2	1.41	1.02
1:L:185:ARG:NH2	3:N:688:TRP:CB	2.19	1.02
3:N:525:ARG:HB2	3:N:538:SER:HB3	1.41	1.02
3:N:698:LYS:HG2	4:O:59:ASN:ND2	1.74	1.02
3:N:1294:VAL:HG12	3:N:1319:VAL:HG21	1.42	1.01
1:A:28:LEU:HD22	1:A:32:PHE:HD1	0.84	1.01
3:N:603:LEU:O	3:N:606:ILE:HG22	1.60	1.01
3:N:1018:ASN:HB3	3:N:1021:TYR:HB3	1.41	1.01
2:C:1036:GLU:HA	3:D:707:THR:HG21	1.42	1.01
1:L:188:GLN:HG3	3:N:685:ASP:OD2	1.61	1.01
1:A:28:LEU:HD13	1:A:32:PHE:HB3	1.42	1.01
2:C:1097:LEU:HD22	2:C:1097:LEU:H	1.22	1.01
3:D:764:LEU:HD23	3:D:767:HIS:CE1	1.96	1.01
3:D:960:LYS:HE3	3:D:964:LEU:HD12	1.41	1.01
3:N:398:ALA:HB2	3:N:447:VAL:HA	1.43	1.01
7:I:5:DC:H2"	7:I:6:DT:OP2	1.59	1.01
2:C:423:ALA:CB	7:I:1:DG:H5"	1.91	1.00
3:D:860:LEU:HA	3:D:877:PRO:HB2	1.43	1.00
3:N:166:GLN:O	3:N:167:GLU:HB2	1.60	1.00
3:N:1294:VAL:HG12	3:N:1319:VAL:CG2	1.90	1.00
3:D:1087:ARG:HG3	3:D:1236:LEU:HD22	1.03	1.00
2:M:768:THR:HB	2:M:771:GLU:HB3	1.43	1.00
3:D:705:ALA:HB3	3:D:706:PRO:HD3	1.39	1.00
3:N:771:SER:HB3	3:N:778:LEU:HD13	1.43	1.00
3:N:1468:LEU:HD22	3:N:1470:ARG:HB2	1.41	1.00
1:A:39:PRO:HG3	1:B:39:PRO:HG3	1.43	1.00
3:N:1101:VAL:HG13	3:N:1428:ALA:HB2	1.43	1.00
3:D:600:LEU:H	3:D:600:LEU:HD12	1.25	1.00
3:N:711:LEU:HD12	3:N:778:LEU:HD23	1.44	1.00
2:C:675:ALA:HA	2:C:989:VAL:HG12	1.44	0.99
2:C:1115:LEU:HG	3:D:85:VAL:HG12	1.43	0.99
3:D:456:MET:HA	3:D:460:ALA:HB2	1.43	0.99
3:D:1045:MET:HE1	3:D:1076:GLY:HA3	1.40	0.99
2:M:1040:LEU:HD23	2:M:1049:LEU:HD13	1.43	0.99
1:A:63:HIS:HB3	2:C:746:GLY:CA	1.93	0.99
3:N:1216:SER:HB3	4:O:15:SER:OG	1.61	0.99
3:N:1033:GLN:OE1	3:N:1240:THR:CG2	2.09	0.99
7:Z:4:DG:H2"	7:Z:5:DC:OP2	1.59	0.99
2:C:48:PHE:C	2:C:52:PHE:HB2	1.81	0.99
2:C:1036:GLU:HG3	3:D:707:THR:OG1	1.62	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:64:LEU:HD22	2:M:359:MET:HG3	1.43	0.99
2:M:754:ILE:HD13	2:M:791:ARG:HG2	1.44	0.99
2:M:889:HIS:HE1	2:M:988:VAL:HG21	1.24	0.99
3:D:708:LEU:HD22	3:D:1231:GLU:HA	1.41	0.98
2:M:706:GLU:HG2	2:M:708:TYR:CZ	1.97	0.98
3:N:1463:LYS:O	3:N:1467:ILE:HG13	1.63	0.98
7:I:4:DG:H2"	7:I:5:DC:OP2	1.64	0.98
3:D:744:GLN:CD	5:G:21:DG:N2	2.15	0.98
3:N:453:ASP:HB3	3:N:455:ARG:HH21	1.25	0.98
2:C:292:ARG:HG2	2:C:298:PHE:HA	1.42	0.98
1:L:185:ARG:NH1	3:N:688:TRP:HB3	1.78	0.98
3:N:810:GLU:O	3:N:813:LEU:HG	1.63	0.98
3:D:902:LEU:HD23	3:D:902:LEU:H	1.29	0.97
3:D:1087:ARG:CG	3:D:1236:LEU:HD22	1.94	0.97
3:N:18:ILE:HG23	3:N:518:PRO:HG3	1.43	0.97
3:N:1129:THR:HB	3:N:1320:GLU:HG3	1.42	0.97
3:D:539:ASP:HB3	3:D:600:LEU:HB3	1.46	0.97
3:D:522:PRO:HA	3:D:525:ARG:HH11	1.26	0.97
2:C:399:ASN:ND2	2:C:402:SER:HB3	1.78	0.97
2:C:399:ASN:HD21	2:C:402:SER:HB3	1.29	0.97
1:A:63:HIS:HB3	2:C:746:GLY:HA2	1.46	0.97
2:M:422:ARG:HB3	7:Z:1:DG:C2	1.99	0.97
3:N:1129:THR:HG23	3:N:1130:ARG:N	1.79	0.97
2:C:1042:ALA:HB2	3:D:1227:GLN:NE2	1.80	0.96
3:N:618:LEU:HD12	3:N:1467:ILE:HG12	0.97	0.96
2:C:694:LEU:HD21	2:C:868:ASP:HB3	1.47	0.96
3:N:1442:ASN:O	3:N:1446:VAL:CG2	2.12	0.96
3:D:1211:MET:HG2	3:D:1212:ALA:H	1.29	0.96
3:N:783:ARG:HE	3:N:1029:ARG:HD3	1.30	0.96
3:D:1109:GLU:HG2	3:D:1201:CYS:HA	1.46	0.96
3:N:843:PHE:HB2	3:N:866:VAL:HG22	1.48	0.96
3:D:900:ILE:O	3:D:902:LEU:CD2	2.14	0.96
3:D:1096:ARG:HH21	3:D:1440:PHE:HD2	1.01	0.96
3:N:1268:PRO:HG3	3:N:1329:ALA:HB1	1.47	0.96
2:C:50:GLU:HB2	2:C:266:ARG:NH1	1.80	0.96
2:C:336:VAL:CA	2:C:339:LEU:HD12	1.94	0.96
3:D:565:ILE:H	3:D:565:ILE:HD12	1.30	0.96
2:C:630:ARG:CD	2:C:634:GLY:HA2	1.95	0.95
2:M:861:LEU:HD22	2:M:863:ASP:HB3	1.44	0.95
3:N:783:ARG:HH21	3:N:1029:ARG:CB	1.79	0.95
2:C:89:THR:HG21	2:C:383:ARG:HH12	1.29	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1209:LEU:HD23	3:D:1211:MET:H	1.28	0.95
2:C:409:ARG:HA	2:C:454:SER:HA	1.48	0.95
3:N:483:HIS:CB	3:N:484:PRO:HD3	1.97	0.95
3:N:764:LEU:HD23	3:N:767:HIS:CE1	2.01	0.95
3:N:1220:ALA:HB1	3:N:1223:ILE:HD13	1.47	0.95
2:M:395:LYS:HE2	2:M:403:SER:HB2	1.46	0.95
3:D:899:LEU:HD22	3:D:917:GLN:CB	1.97	0.95
1:A:43:ILE:HG23	1:A:47:SER:OG	1.66	0.95
2:M:973:VAL:O	2:M:974:LEU:HD12	1.65	0.95
3:N:646:LYS:HB2	3:N:688:TRP:CZ3	2.02	0.95
3:N:695:ILE:HD11	3:N:718:PRO:HB2	1.44	0.95
2:C:260:LEU:HB3	2:C:291:ALA:HB1	1.46	0.94
2:M:329:GLY:HA3	2:M:489:THR:HG23	1.49	0.94
2:C:861:LEU:HG	2:C:862:PRO:HD2	1.49	0.94
2:M:86:LYS:HD3	2:M:813:VAL:HB	1.46	0.94
3:N:1462:LEU:HD23	3:N:1473:PRO:HD2	1.49	0.94
3:D:814:ALA:HB1	3:D:818:ARG:HH21	1.32	0.94
2:M:7:GLY:H	2:M:904:PRO:HD2	1.31	0.94
2:M:260:LEU:HB3	2:M:291:ALA:HB1	1.50	0.94
2:M:1115:LEU:H	2:M:1115:LEU:HD12	1.29	0.94
3:D:660:LYS:HD2	3:D:694:VAL:HG22	1.48	0.94
2:M:861:LEU:CD2	2:M:863:ASP:H	1.80	0.94
2:M:1016:ILE:HG12	2:M:1017:THR:H	1.31	0.94
7:I:10:DG:H2"	7:I:11:DG:OP2	1.65	0.94
5:G:5:DC:H2"	5:G:6:DT:O5'	1.65	0.94
5:X:12:DA:H2"	5:X:13:DA:OP2	1.62	0.94
3:D:1112:CYS:CB	3:D:1195:GLN:HG2	1.97	0.94
1:L:28:LEU:HB2	1:L:193:ASP:HB2	1.48	0.94
1:K:176:ARG:HH11	2:M:865:THR:HB	1.32	0.94
2:M:1046:ALA:HB1	3:N:1471:LEU:HD11	1.47	0.94
5:X:4:DA:H2"	5:X:5:DC:C5'	1.97	0.94
1:A:32:PHE:HE1	1:B:221:HIS:HE2	1.06	0.94
2:M:36:PRO:HG2	2:M:70:GLU:HB3	1.50	0.94
2:M:971:LYS:HE3	2:M:988:VAL:HG12	1.49	0.94
3:N:1129:THR:HB	3:N:1320:GLU:CD	1.88	0.94
3:N:136:ASP:HB3	3:N:137:PRO:HD3	1.48	0.94
3:N:754:PHE:HA	4:O:24:ALA:CB	1.98	0.94
3:N:1271:LYS:NZ	3:N:1331:ASP:HB2	1.83	0.94
2:C:439:CYS:SG	2:C:541:SER:N	2.41	0.94
3:D:1042:ARG:HH21	3:D:1073:SER:HB2	0.77	0.94
2:M:405:ARG:CZ	2:M:566:THR:HG21	1.98	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:409:ARG:HB3	2:M:454:SER:OG	1.68	0.94
3:D:1042:ARG:HG2	3:D:1061:PHE:HE1	1.33	0.93
3:N:693:GLU:HA	4:O:48:MET:CE	1.98	0.93
2:C:227:PHE:HD2	2:C:237:ARG:HE	1.12	0.93
3:D:960:LYS:HE3	3:D:964:LEU:CD1	1.97	0.93
2:M:1015:LEU:H	6:Y:5:C:N4	1.66	0.93
3:N:521:PRO:HD2	3:N:524:LEU:HD22	1.49	0.93
3:D:899:LEU:HD22	3:D:917:GLN:HB3	1.48	0.93
3:N:1109:GLU:CG	3:N:1201:CYS:HA	1.97	0.93
3:D:603:LEU:O	3:D:606:ILE:HG22	1.67	0.93
3:D:739:ASP:H	6:H:15:C:H5"	1.33	0.93
3:D:1095:THR:HG21	3:D:1230:GLY:HA3	1.49	0.93
3:D:1256:LEU:HG	3:D:1260:ILE:HD11	1.50	0.93
2:M:144:PRO:HG2	2:M:265:ARG:NH1	1.83	0.93
2:M:964:LYS:O	2:M:968:LEU:HG	1.69	0.93
3:N:783:ARG:NE	3:N:1029:ARG:CD	2.29	0.93
2:C:65:VAL:HB	2:C:101:ILE:HB	1.50	0.93
3:D:1101:VAL:HG13	3:D:1428:ALA:HB2	1.47	0.93
2:C:50:GLU:CA	2:C:266:ARG:CZ	2.46	0.92
3:N:157:GLU:HA	3:N:160:GLU:CD	1.89	0.92
3:N:646:LYS:NZ	3:N:688:TRP:NE1	2.17	0.92
3:N:1098:LEU:HD23	3:N:1226:ALA:HA	1.48	0.92
3:N:1277:ILE:HD12	3:N:1301:LYS:HB2	1.51	0.92
2:C:50:GLU:HA	2:C:266:ARG:NH2	1.83	0.92
5:X:27:DC:OP2	5:X:27:DC:H6	1.51	0.92
2:M:762:LYS:HA	2:M:786:LYS:HD2	1.50	0.92
5:G:6:DT:H2"	5:G:7:DA:OP2	1.67	0.92
5:X:4:DA:C2'	5:X:5:DC:H5"	1.98	0.92
1:A:27:PRO:HG2	1:A:186:LEU:HD13	1.49	0.92
2:M:157:ARG:NH1	2:M:314:THR:HB	1.84	0.92
2:M:404:LEU:HA	2:M:407:LYS:CD	1.99	0.92
3:N:455:ARG:HD3	3:N:463:GLN:HG3	1.51	0.92
2:C:1034:GLU:HA	2:C:1037:VAL:HG23	1.51	0.92
3:D:108:VAL:HB	3:D:109:PRO:HD3	1.51	0.92
3:N:600:LEU:HD12	3:N:600:LEU:H	1.33	0.92
3:N:1435:LEU:CD2	3:N:1464:GLU:HB2	2.00	0.92
3:D:1003:VAL:HG11	3:D:1036:ARG:HD2	1.51	0.92
2:M:1090:LYS:HZ3	2:M:1112:PHE:HE1	1.04	0.92
2:M:1097:LEU:H	2:M:1097:LEU:HD22	1.35	0.92
3:D:864:VAL:HG12	3:D:865:THR:H	1.34	0.92
3:N:701:LEU:HD12	3:N:701:LEU:H	1.32	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:753:ASP:O	2:M:792:VAL:HG23	1.69	0.91
3:N:618:LEU:CD1	3:N:1467:ILE:CD1	2.48	0.91
3:N:783:ARG:CZ	3:N:1029:ARG:HD2	2.00	0.91
1:A:176:ARG:NH1	2:C:865:THR:HB	1.85	0.91
1:A:39:PRO:HG3	1:B:39:PRO:CG	2.00	0.91
2:M:157:ARG:CZ	2:M:314:THR:HB	1.99	0.91
2:M:843:HIS:CE1	2:M:884:GLN:HA	2.05	0.91
1:A:222:LEU:HD23	1:B:219:ARG:HB2	1.49	0.91
2:C:674:VAL:HG23	2:C:869:VAL:HG13	1.53	0.91
3:D:882:PHE:O	3:D:886:VAL:HG23	1.70	0.91
3:D:1095:THR:CG2	3:D:1230:GLY:HA3	2.00	0.91
3:D:109:PRO:HB3	3:D:494:LYS:NZ	1.86	0.91
3:D:1087:ARG:HG3	3:D:1236:LEU:CD2	1.97	0.91
2:M:73:LEU:HB2	2:M:93:PRO:O	1.69	0.91
3:N:705:ALA:HB1	6:Y:14:G:H21	1.32	0.91
3:N:882:PHE:O	3:N:886:VAL:HG23	1.70	0.91
2:C:395:LYS:HE2	2:C:403:SER:HB2	1.50	0.91
3:D:654:LYS:HB3	3:D:655:PRO:HD3	1.51	0.91
4:E:54:LEU:HG	4:E:58:PRO:HG2	1.50	0.91
3:N:860:LEU:HA	3:N:877:PRO:HB2	1.50	0.91
3:D:897:TRP:CB	3:D:900:ILE:HD11	1.99	0.91
2:C:861:LEU:HD23	2:C:863:ASP:N	1.85	0.91
2:M:312:ALA:HB1	2:M:318:PRO:HG2	1.52	0.91
3:D:610:LYS:O	3:D:615:ARG:HG2	1.70	0.90
3:D:615:ARG:HH12	3:D:1096:ARG:NE	1.69	0.90
3:D:1195:GLN:HG3	3:D:1196:THR:N	1.85	0.90
4:E:40:LEU:HD21	4:E:67:GLU:HA	1.51	0.90
2:M:490:GLU:HB3	2:M:493:ARG:NH1	1.84	0.90
2:M:492:ASP:HB3	2:M:518:LYS:HD2	1.51	0.90
2:M:490:GLU:HA	2:M:493:ARG:CD	2.00	0.90
3:N:925:GLU:HB3	4:O:6:ILE:CG2	2.01	0.90
3:N:1465:ASN:OD1	3:N:1473:PRO:HG3	1.71	0.90
2:M:631:SER:HB3	2:M:635:THR:H	1.36	0.90
3:N:181:ASP:CB	3:N:441:ARG:HD3	2.01	0.90
3:D:1112:CYS:H	3:D:1201:CYS:HB3	1.36	0.90
2:M:402:SER:HA	2:M:566:THR:HG23	1.52	0.90
2:M:404:LEU:HA	2:M:407:LYS:HD2	1.51	0.90
2:M:675:ALA:CA	2:M:989:VAL:HG12	2.02	0.90
5:G:23:DG:N2	6:H:11:C:O2	2.05	0.90
2:C:162:ILE:HB	2:C:172:ILE:HB	1.54	0.90
3:D:1256:LEU:CG	3:D:1260:ILE:HD11	2.02	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1083:ASP:O	3:D:1087:ARG:HG2	1.70	0.90
2:M:861:LEU:HD23	2:M:863:ASP:H	1.36	0.90
3:D:900:ILE:O	3:D:902:LEU:HD23	1.70	0.90
3:N:522:PRO:HA	3:N:525:ARG:NH1	1.86	0.90
2:C:64:LEU:HD22	2:C:359:MET:HG3	1.51	0.90
2:C:247:PRO:HD2	2:C:250:ARG:HH12	1.36	0.89
1:K:7:LYS:HD2	1:K:186:LEU:HD21	1.51	0.89
2:M:691:SER:OG	2:M:693:GLU:HB3	1.71	0.89
3:N:108:VAL:HB	3:N:109:PRO:HD3	1.54	0.89
2:C:1024:LYS:HB2	6:H:4:G:N2	1.86	0.89
3:D:554:LEU:O	3:D:558:LEU:HG	1.71	0.89
2:M:537:LYS:HD2	2:M:905:ILE:HD13	1.53	0.89
7:Z:11:DG:H2"	7:Z:12:DT:OP2	1.70	0.89
2:C:58:ASP:O	2:C:59:LYS:HB2	1.72	0.89
3:D:1087:ARG:HE	3:D:1236:LEU:CD2	1.84	0.89
3:N:98:PRO:HG2	3:N:462:GLN:CD	1.92	0.89
3:N:1236:LEU:HD12	3:N:1256:LEU:HB2	1.54	0.89
2:C:720:GLU:HG2	2:C:760:SER:HB3	1.54	0.89
3:N:1280:VAL:HA	3:N:1318:TYR:HA	1.54	0.89
1:L:28:LEU:HG	1:L:193:ASP:O	1.72	0.89
1:K:178:ALA:HB2	2:M:864:GLY:N	1.88	0.89
2:M:79:PRO:HG2	2:M:82:GLU:HB2	1.55	0.89
2:M:328:LEU:HD13	2:M:433:THR:HB	1.53	0.89
3:D:705:ALA:CB	3:D:706:PRO:HD3	2.02	0.89
2:M:313:LEU:HD13	2:M:321:GLU:HG2	1.54	0.89
2:M:650:ARG:HG2	2:M:653:ASP:HB2	1.53	0.89
3:D:632:VAL:O	3:D:727:GLN:HA	1.73	0.89
3:D:1109:GLU:CG	3:D:1201:CYS:HA	2.03	0.89
2:C:312:ALA:HB1	2:C:318:PRO:HG2	1.54	0.89
3:D:1438:ALA:N	3:D:1446:VAL:HG11	1.87	0.89
2:M:676:ILE:HG22	2:M:988:VAL:O	1.73	0.89
2:M:687:ALA:O	2:M:688:ILE:HD12	1.73	0.89
2:M:918:LEU:HD23	2:M:968:LEU:HA	1.52	0.89
5:X:14:DG:H2"	5:X:15:DC:OP2	1.72	0.89
2:C:857:ASP:HB2	2:C:978:ARG:HG2	1.55	0.89
3:N:1281:VAL:HG11	3:N:1313:VAL:HG13	1.54	0.89
3:D:26:VAL:HG11	3:D:44:LEU:HD23	1.55	0.88
6:H:9:C:H2'	6:H:10:G:O4'	1.72	0.88
3:N:697:GLY:HA2	3:N:717:GLN:NE2	1.87	0.88
3:N:1305:LEU:HD12	3:N:1311:LEU:HD22	1.54	0.88
3:N:27:GLU:HB3	3:N:41:ARG:HH12	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:483:HIS:HB2	3:D:484:PRO:HD3	1.54	0.88
2:M:688:ILE:HG22	2:M:849:VAL:HA	1.53	0.88
3:D:582:LEU:HA	3:D:603:LEU:HD12	1.55	0.88
2:M:445:GLU:HA	2:M:449:ILE:HD12	1.54	0.88
5:X:19:DG:H2"	5:X:20:DC:H5'	1.56	0.88
3:D:703:ASN:O	3:D:745:MET:HB3	1.74	0.88
2:M:1095:LEU:HD11	3:N:603:LEU:HB3	1.55	0.88
3:N:1128:VAL:HB	3:N:1133:ARG:NH2	1.88	0.88
2:M:431:HIS:HB3	2:M:434:HIS:NE2	1.87	0.88
3:N:98:PRO:HG2	3:N:462:GLN:HE22	1.34	0.88
4:O:54:LEU:HA	4:O:58:PRO:HG2	1.56	0.88
5:X:7:DA:H2"	5:X:8:DC:H5'	1.54	0.88
1:L:185:ARG:HH22	3:N:688:TRP:HB3	1.18	0.88
2:M:273:GLY:HA2	2:M:276:LYS:HD2	1.56	0.88
2:C:1045:ALA:HB1	2:C:1048:THR:HB	1.54	0.88
2:C:1089:VAL:HG13	2:C:1099:VAL:HB	1.54	0.88
3:D:136:ASP:CB	3:D:137:PRO:HD3	2.04	0.88
6:H:7:G:O2'	6:H:8:G:H5'	1.73	0.88
2:C:52:PHE:CE1	2:C:68:PHE:HB2	2.04	0.87
3:D:1379:VAL:HG12	3:D:1419:PRO:HA	1.56	0.87
1:A:42:ARG:HD3	1:B:35:THR:HA	1.54	0.87
3:D:615:ARG:O	3:D:619:LEU:HG	1.74	0.87
3:N:160:GLU:HG2	3:N:165:LYS:HG3	1.56	0.87
3:N:456:MET:HA	3:N:460:ALA:HB2	1.55	0.87
3:N:482:LYS:HE2	3:N:1384:PRO:HD2	1.56	0.87
5:X:15:DC:H1'	5:X:16:DT:H5'	1.56	0.87
3:D:610:LYS:C	3:D:615:ARG:HG2	1.94	0.87
2:M:31:GLN:HB3	2:M:71:TYR:OH	1.72	0.87
2:M:328:LEU:HD22	2:M:433:THR:HG22	1.55	0.87
3:N:132:TYR:HD2	3:N:154:THR:HB	1.39	0.87
3:N:465:LEU:HD22	3:N:510:GLU:HA	1.54	0.87
3:N:897:TRP:HA	3:N:900:ILE:HG12	1.55	0.87
2:M:65:VAL:HB	2:M:101:ILE:HB	1.56	0.87
2:M:211:LEU:HB2	2:M:308:ARG:HD2	1.55	0.87
3:N:520:LEU:HD23	3:N:525:ARG:HD2	1.56	0.87
3:N:952:ASP:HA	3:N:1062:ARG:HH21	1.36	0.87
7:Z:1:DG:H3'	7:Z:1:DG:P	2.15	0.87
3:D:796:ARG:HB2	3:D:828:LYS:HD3	1.57	0.87
3:D:799:LYS:HB3	3:D:826:PRO:HG2	1.57	0.87
3:N:646:LYS:HE3	3:N:688:TRP:CZ2	2.09	0.87
5:G:19:DG:H2"	5:G:20:DC:O5'	1.74	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:796:GLU:HB2	2:C:1004:LYS:HZ3	1.40	0.87
3:D:900:ILE:HD12	3:D:902:LEU:CD2	2.04	0.87
3:N:814:ALA:HB1	3:N:818:ARG:NH2	1.88	0.87
3:N:1295:GLU:HG2	3:N:1300:SER:HB3	1.54	0.87
2:M:143:SER:HB2	2:M:276:LYS:HE2	1.55	0.86
3:N:1486:VAL:HA	4:O:74:VAL:O	1.74	0.86
3:D:1211:MET:HG2	3:D:1212:ALA:N	1.90	0.86
2:C:36:PRO:HG2	2:C:70:GLU:HB3	1.55	0.86
3:D:1434:TRP:CZ3	3:D:1455:LYS:HB3	2.10	0.86
2:M:328:LEU:HD23	2:M:437:ARG:HD3	1.55	0.86
4:O:9:LEU:HA	4:O:12:MET:SD	2.15	0.86
7:Z:1:DG:H3'	7:Z:1:DG:OP3	1.75	0.86
1:A:104:GLU:HA	1:A:136:GLY:O	1.75	0.86
3:D:522:PRO:HA	3:D:525:ARG:NH1	1.90	0.86
2:M:260:LEU:HB3	2:M:291:ALA:CB	2.06	0.86
2:M:479:VAL:HG22	2:M:506:ASN:HA	1.57	0.86
3:N:1129:THR:HG23	3:N:1130:ARG:H	1.39	0.86
2:C:129:ILE:HD12	2:C:129:ILE:N	1.90	0.86
3:N:693:GLU:HA	4:O:48:MET:HE2	1.55	0.86
2:C:90:TYR:O	2:C:119:PRO:HA	1.74	0.86
3:D:1330:ILE:HD13	3:D:1347:TYR:OH	1.74	0.86
2:M:987:ILE:HG23	3:N:948:THR:HG21	1.54	0.86
2:M:1016:ILE:H	2:M:1016:ILE:HD13	1.37	0.86
2:C:270:GLY:O	2:C:274:ARG:HB3	1.76	0.86
3:D:1426:LYS:HA	3:D:1429:LEU:HD22	1.57	0.86
2:M:139:GLN:OE1	2:M:415:PRO:HD3	1.76	0.86
3:N:1209:LEU:HD23	3:N:1210:SER:H	1.41	0.86
5:G:17:DA:H2"	5:G:18:DC:C5'	2.04	0.86
3:D:834:THR:HG22	3:D:838:ARG:HH11	1.39	0.86
4:E:36:LYS:N	4:E:95:VAL:HG21	1.91	0.86
3:N:524:LEU:O	3:N:526:PRO:HD3	1.75	0.86
3:N:632:VAL:O	3:N:727:GLN:HA	1.75	0.86
3:N:899:LEU:CB	3:N:917:GLN:HG2	2.05	0.86
2:C:326:ASP:HB2	2:C:431:HIS:ND1	1.91	0.86
2:C:579:VAL:HG13	2:C:842:ARG:HH22	1.39	0.86
2:C:690:ILE:HG12	2:C:691:SER:N	1.91	0.86
2:M:808:ARG:HH21	2:M:820:ARG:HH21	1.17	0.86
3:N:73:CYS:HB3	3:N:76:CYS:O	1.75	0.86
3:N:522:PRO:HA	3:N:525:ARG:HH11	1.37	0.86
7:Z:11:DG:C2'	7:Z:12:DT:H71	2.06	0.86
2:C:872:ASN:OD1	2:C:874:LEU:HB2	1.76	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1103:HIS:CG	3:D:1104:GLU:H	1.94	0.86
2:C:49:ARG:HA	2:C:52:PHE:HB3	1.57	0.85
3:D:628:ARG:HE	5:G:22:DA:H4'	1.41	0.85
1:A:154:GLU:H	1:A:154:GLU:CD	1.77	0.85
1:B:74:ASP:HB3	3:D:872:ARG:HH22	1.39	0.85
3:D:1066:THR:HG22	3:D:1069:GLU:CD	1.95	0.85
3:N:166:GLN:O	3:N:167:GLU:CB	2.21	0.85
3:N:498:VAL:O	3:N:501:ALA:HB3	1.77	0.85
3:N:660:LYS:HD2	3:N:694:VAL:HG22	1.56	0.85
4:O:40:LEU:HD21	4:O:67:GLU:HA	1.57	0.85
3:D:486:ARG:HA	3:D:489:ARG:HG2	1.57	0.85
3:D:1093:TYR:CE1	5:G:17:DA:H1'	2.10	0.85
3:N:1485:GLN:HG3	4:O:79:LEU:N	1.91	0.85
3:N:618:LEU:HD12	3:N:1467:ILE:CD1	2.07	0.85
2:M:342:ASP:O	2:M:346:VAL:HG23	1.77	0.85
3:N:693:GLU:HG3	4:O:48:MET:SD	2.16	0.85
3:N:1094:LEU:HD12	3:N:1097:LYS:HD2	1.57	0.85
2:C:18:LEU:H	2:C:18:LEU:HD12	1.41	0.85
2:M:270:GLY:O	2:M:274:ARG:HB3	1.76	0.85
3:N:1093:TYR:CE1	5:X:18:DC:H5"	2.11	0.85
7:Z:12:DT:H2"	7:Z:13:DA:C8	2.11	0.85
1:A:178:ALA:HB2	2:C:864:GLY:H	1.38	0.85
2:C:16:PRO:HD3	2:C:458:TYR:CD2	2.12	0.85
3:D:906:GLN:HB3	3:D:911:LEU:HD11	1.56	0.85
1:L:24:VAL:HG13	1:L:196:THR:HG22	1.59	0.85
3:N:1114:THR:HB	3:N:1195:GLN:HB3	1.59	0.85
3:D:1194:CYS:HB2	3:D:1204:CYS:SG	2.17	0.85
3:D:52:PRO:HD2	3:D:85:VAL:HG21	1.59	0.85
1:B:228:PRO:O	1:B:229:GLN:HG3	1.77	0.84
2:C:918:LEU:HB3	2:C:968:LEU:HD23	1.58	0.84
3:D:1438:ALA:CA	3:D:1446:VAL:HG11	2.05	0.84
4:E:54:LEU:HA	4:E:58:PRO:HG2	1.58	0.84
2:M:758:ARG:HB3	2:M:788:THR:O	1.76	0.84
4:O:54:LEU:CD2	4:O:63:TRP:HE1	1.90	0.84
3:N:1128:VAL:HG12	3:N:1129:THR:HG22	1.59	0.84
5:X:24:DC:H2"	5:X:25:DG:H5'	1.59	0.84
2:C:281:LEU:HD12	2:C:309:TYR:HB2	1.58	0.84
2:M:862:PRO:HB3	2:M:929:ARG:HH22	1.40	0.84
3:N:864:VAL:HG12	3:N:865:THR:H	1.40	0.84
2:M:165:LEU:HG	2:M:166:PRO:HA	1.58	0.84
6:Y:6:C:H3'	6:Y:7:G:C8	2.13	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:63:GLY:HA3	2:M:103:LYS:HG3	1.58	0.84
3:N:698:LYS:HG2	4:O:59:ASN:CG	1.96	0.84
3:D:52:PRO:HG2	3:D:80:VAL:HG13	1.58	0.84
3:D:1216:SER:CB	4:E:16:LYS:H	1.89	0.84
2:C:302:VAL:O	2:C:305:PRO:HD2	1.77	0.84
3:D:117:ASP:HB2	3:D:495:ARG:NH1	1.93	0.84
2:M:396:ASP:HB3	2:M:406:HIS:CD2	2.11	0.84
2:M:437:ARG:C	2:M:438:ILE:HD12	1.98	0.84
2:M:936:VAL:HA	2:M:940:GLU:OE2	1.77	0.84
3:N:19:ARG:NH2	3:N:516:ALA:HB2	1.93	0.84
3:N:1274:ILE:HG22	3:N:1301:LYS:HZ1	1.43	0.84
2:C:1081:VAL:HB	2:C:1086:ARG:HE	1.40	0.84
3:D:737:ASN:HB3	6:H:15:C:O2'	1.77	0.84
3:D:743:ASP:OD2	6:H:14:G:H4'	1.76	0.84
2:M:676:ILE:HG12	2:M:873:PRO:HG3	1.59	0.84
3:N:767:HIS:CD2	4:O:6:ILE:HG12	2.11	0.84
2:C:1090:LYS:NZ	3:D:21:TRP:HB3	1.93	0.84
1:B:100:LEU:HD12	1:B:115:LEU:HD21	1.57	0.83
2:C:395:LYS:HE3	2:C:407:LYS:HD2	1.59	0.83
1:K:76:VAL:O	1:K:79:ILE:HG13	1.77	0.83
3:N:477:LEU:CD1	3:N:496:LEU:HD13	2.07	0.83
3:N:483:HIS:HB2	3:N:484:PRO:CD	2.07	0.83
3:D:10:ILE:HG22	3:D:1451:ALA:HA	1.60	0.83
1:K:178:ALA:CB	2:M:864:GLY:H	1.89	0.83
2:M:1083:GLU:OE1	2:M:1086:ARG:HD2	1.78	0.83
3:N:12:LEU:HD22	3:N:511:TRP:HB2	1.61	0.83
3:N:1292:VAL:HG23	3:N:1305:LEU:HG	1.60	0.83
2:M:490:GLU:CA	2:M:493:ARG:HD3	2.06	0.83
1:K:9:PRO:HB3	1:K:25:LEU:HG	1.60	0.83
1:K:176:ARG:NH1	2:M:865:THR:HB	1.92	0.83
1:L:185:ARG:HH22	3:N:688:TRP:HB2	1.43	0.83
2:M:44:ILE:HG22	2:M:45:GLN:N	1.94	0.83
1:A:112:ARG:HH21	1:A:125:PRO:HB2	1.43	0.83
2:C:144:PRO:HG2	2:C:265:ARG:HH11	1.43	0.83
3:D:1033:GLN:O	3:D:1037:GLN:HB3	1.78	0.83
2:M:313:LEU:HB2	2:M:321:GLU:HG3	1.59	0.83
2:M:675:ALA:HA	2:M:989:VAL:CG1	2.04	0.83
2:C:20:GLU:HG2	2:C:21:ILE:HD12	1.58	0.83
2:C:1034:GLU:HA	2:C:1037:VAL:CG2	2.08	0.83
3:D:614:PHE:CE2	3:D:1443:THR:HB	2.14	0.83
2:M:404:LEU:O	2:M:407:LYS:HB2	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:260:LEU:HB3	2:C:291:ALA:CB	2.08	0.83
2:C:388:ARG:HD2	5:G:27:DC:H4'	1.58	0.83
2:C:684:PHE:N	2:C:687:ALA:HB3	1.92	0.83
2:C:861:LEU:HD21	2:C:925:TYR:CE2	2.14	0.83
3:D:65:ARG:HG3	3:D:66:GLN:H	1.44	0.83
3:D:1472:ILE:H	3:D:1472:ILE:CD1	1.83	0.83
2:M:162:ILE:HB	2:M:172:ILE:HB	1.60	0.83
7:Z:1:DG:H2"	7:Z:2:DT:OP2	1.78	0.83
2:C:922:PHE:HB3	2:C:964:LYS:NZ	1.94	0.83
3:D:705:ALA:HB3	3:D:706:PRO:CD	2.08	0.83
4:E:41:GLU:HG2	4:E:42:PRO:HD3	1.61	0.83
2:M:186:VAL:HG23	2:M:187:ASN:H	1.43	0.83
3:D:738:ALA:HA	6:H:15:C:H4'	1.60	0.83
2:M:34:VAL:HB	2:M:38:LYS:HG3	1.58	0.83
3:N:675:ARG:O	3:N:678:GLU:HG2	1.79	0.83
3:N:1128:VAL:HG13	3:N:1320:GLU:OE2	1.79	0.83
3:D:646:LYS:HG3	3:D:647:ARG:H	1.43	0.82
4:E:28:GLN:HB3	4:E:32:ARG:HH12	1.43	0.82
3:N:646:LYS:HD2	3:N:688:TRP:CE2	2.13	0.82
5:X:13:DA:H2"	5:X:14:DG:OP2	1.77	0.82
2:C:300:ASP:CG	2:C:300:ASP:O	2.16	0.82
3:D:728:LEU:HD11	3:D:732:VAL:HG21	1.58	0.82
3:N:1201:CYS:SG	3:N:1204:CYS:N	2.51	0.82
2:C:1016:ILE:HG12	2:C:1017:THR:N	1.95	0.82
3:D:1046:GLN:HA	3:D:1052:THR:HA	1.61	0.82
3:N:625:TYR:CZ	3:N:655:PRO:HG2	2.13	0.82
2:C:199:VAL:HG13	2:C:235:LEU:HG	1.62	0.82
3:D:899:LEU:HD22	3:D:917:GLN:HG3	1.60	0.82
3:N:758:GLU:HB3	4:O:20:THR:HG21	1.61	0.82
5:X:11:DC:H2"	5:X:12:DA:OP2	1.77	0.82
2:C:739:GLU:CG	2:C:742:VAL:HB	2.08	0.82
2:C:861:LEU:CD2	2:C:863:ASP:H	1.89	0.82
3:N:625:TYR:OH	3:N:655:PRO:CG	2.23	0.82
2:C:191:PHE:HB2	2:C:241:LEU:HD11	1.62	0.82
2:C:945:ARG:HG2	2:C:949:LYS:HE3	1.59	0.82
3:D:530:VAL:O	6:H:4:G:H5'	1.80	0.82
3:D:951:ILE:HD12	3:D:1062:ARG:HE	1.43	0.82
2:M:403:SER:O	2:M:407:LYS:HG3	1.79	0.82
3:N:486:ARG:HA	3:N:489:ARG:HG2	1.62	0.82
6:Y:5:C:H2'	6:Y:5:C:O2	1.77	0.82
7:Z:5:DC:H2"	7:Z:6:DT:OP2	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:152:PRO:HB3	1:A:154:GLU:OE1	1.80	0.82
2:C:15:LEU:HD12	2:C:15:LEU:H	1.44	0.82
2:C:724:ARG:HG3	2:C:737:LEU:HD22	1.60	0.82
3:D:54:LYS:NZ	6:H:2:C:OP1	2.12	0.82
3:N:607:LEU:HD23	3:N:613:ARG:HB3	1.61	0.82
2:C:31:GLN:CD	2:C:71:TYR:HH	1.83	0.82
3:D:907:GLU:HG2	3:D:908:LYS:N	1.93	0.82
3:D:1189:ARG:HD2	3:D:1204:CYS:SG	2.20	0.82
2:C:129:ILE:N	2:C:129:ILE:CD1	2.42	0.82
3:D:628:ARG:NE	5:G:22:DA:H4'	1.95	0.82
2:M:1040:LEU:HD23	2:M:1049:LEU:CD1	2.10	0.82
2:C:404:LEU:HA	2:C:407:LYS:HD3	1.62	0.82
3:D:656:PHE:HB3	3:D:694:VAL:HG11	1.62	0.82
2:M:338:GLU:O	2:M:341:THR:HG22	1.79	0.82
2:M:579:VAL:HG13	2:M:842:ARG:HH22	1.44	0.82
2:C:328:LEU:HD11	2:C:434:HIS:CD2	2.15	0.81
3:D:641:GLN:HB3	3:D:717:GLN:O	1.79	0.81
3:N:899:LEU:HB2	3:N:917:GLN:HG2	1.62	0.81
3:N:1059:SER:HB2	3:N:1065:LEU:HD12	1.62	0.81
4:O:54:LEU:HD21	4:O:63:TRP:HE1	1.42	0.81
2:C:265:ARG:HB3	2:C:267:TYR:CD2	2.15	0.81
2:C:674:VAL:HG12	2:C:990:GLY:O	1.80	0.81
3:D:631:ILE:CD1	3:D:743:ASP:HB2	2.09	0.81
3:D:1041:LEU:HD13	3:D:1045:MET:SD	2.18	0.81
1:L:110:LYS:HD3	1:L:126:ASP:HA	1.62	0.81
3:N:609:GLY:O	3:N:615:ARG:HB2	1.79	0.81
5:G:5:DC:H2"	5:G:6:DT:C5'	2.09	0.81
3:D:631:ILE:HD11	3:D:743:ASP:HB2	1.62	0.81
3:D:1410:GLU:CG	2:M:374:ASN:HA	2.10	0.81
3:N:183:GLU:HG2	3:N:184:GLU:N	1.95	0.81
3:N:1389:LEU:CG	3:N:1390:LEU:H	1.93	0.81
3:D:711:LEU:HD12	3:D:778:LEU:HD23	1.61	0.81
3:D:1432:LYS:HB2	3:D:1432:LYS:HZ2	1.44	0.81
7:Z:11:DG:H8	7:Z:11:DG:OP2	1.61	0.81
3:D:744:GLN:NE2	5:G:21:DG:H21	1.79	0.81
2:M:1014:SER:HB3	2:M:1017:THR:O	1.80	0.81
5:G:21:DG:H2"	5:G:22:DA:C5'	2.11	0.81
3:D:1087:ARG:HE	3:D:1236:LEU:HD21	1.43	0.81
3:D:1098:LEU:HD23	3:D:1226:ALA:HA	1.61	0.81
1:L:80:LEU:HG	3:N:844:ALA:HA	1.63	0.81
1:L:185:ARG:HH12	3:N:688:TRP:HB3	1.43	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:X:7:DA:H2'	5:X:8:DC:C6	2.15	0.81
2:C:1041:GLU:HB3	3:D:1223:ILE:HG12	1.61	0.81
2:C:1060:ILE:HG23	2:C:1061:GLU:H	1.43	0.81
3:D:52:PRO:HD2	3:D:85:VAL:CG2	2.11	0.81
3:D:1460:ILE:O	3:D:1460:ILE:HG13	1.78	0.81
2:M:679:PHE:C	3:N:943:THR:HG22	2.00	0.81
1:B:24:VAL:HG13	1:B:196:THR:HG22	1.63	0.81
2:C:49:ARG:HA	2:C:52:PHE:CB	2.11	0.81
2:C:263:ASP:HB2	2:C:264:PRO:HD3	1.60	0.81
3:N:581:LEU:HD23	3:N:581:LEU:H	1.43	0.81
2:C:186:VAL:HG23	2:C:187:ASN:H	1.44	0.81
2:C:928:LYS:NZ	2:C:932:GLU:HG3	1.96	0.81
2:C:1014:SER:HB3	2:C:1017:THR:O	1.80	0.81
3:D:696:HIS:CD2	4:E:59:ASN:N	2.48	0.81
3:D:897:TRP:HA	3:D:900:ILE:CD1	2.11	0.81
2:M:611:ILE:HD11	2:M:641:PRO:HG3	1.63	0.81
2:M:875:GLY:HA2	3:N:1029:ARG:NH2	1.96	0.81
3:N:639:LEU:HD12	3:N:640:HIS:H	1.45	0.81
2:C:918:LEU:HD23	2:C:968:LEU:HA	1.62	0.80
3:D:637:LEU:HD11	3:D:642:CYS:HA	1.61	0.80
3:D:1216:SER:HB3	4:E:16:LYS:H	1.44	0.80
3:D:1472:ILE:HD13	3:D:1472:ILE:N	1.94	0.80
3:N:1435:LEU:HD23	3:N:1464:GLU:CB	2.06	0.80
2:C:141:HIS:NE2	2:C:332:ARG:HB3	1.97	0.80
2:C:328:LEU:HD13	2:C:433:THR:CB	2.09	0.80
2:C:328:LEU:CD1	2:C:433:THR:HB	2.09	0.80
2:C:457:ALA:HB3	2:C:538:GLN:HA	1.64	0.80
2:C:1115:LEU:CG	3:D:85:VAL:HG12	2.10	0.80
3:D:671:LYS:O	3:D:675:ARG:HG3	1.80	0.80
2:M:157:ARG:HD3	2:M:314:THR:CG2	2.11	0.80
2:M:437:ARG:NH2	2:M:488:ALA:HA	1.96	0.80
3:N:638:LYS:HD3	3:N:932:ASP:OD2	1.81	0.80
3:N:728:LEU:HD12	3:N:729:HIS:H	1.46	0.80
5:G:17:DA:C2'	5:G:18:DC:H5'	2.11	0.80
2:C:31:GLN:HB3	2:C:71:TYR:OH	1.82	0.80
3:D:610:LYS:HB2	5:G:18:DC:OP2	1.81	0.80
2:M:304:LEU:HD23	2:M:305:PRO:HD3	1.60	0.80
7:I:3:DA:H1'	7:I:4:DG:C5'	2.10	0.80
2:C:831:ARG:HH12	2:C:1004:LYS:HG2	1.46	0.80
2:C:676:ILE:HG22	2:C:988:VAL:O	1.82	0.80
2:C:697:ARG:O	2:C:699:PHE:N	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:50:PHE:O	3:D:86:ARG:HA	1.81	0.80
3:D:899:LEU:CD2	3:D:917:GLN:HG3	2.10	0.80
3:D:1191:PRO:O	3:D:1373:ARG:NH1	2.14	0.80
2:C:266:ARG:HA	2:C:288:ARG:CD	2.10	0.80
2:C:431:HIS:H	2:C:434:HIS:CE1	2.00	0.80
2:C:683:ASN:O	2:C:872:ASN:HB2	1.80	0.80
3:D:771:SER:HB3	3:D:778:LEU:HD13	1.64	0.80
1:A:42:ARG:NH1	1:B:34:VAL:HB	1.97	0.80
3:D:1088:THR:HG23	3:D:1234:THR:CG2	2.12	0.80
3:D:1242:HIS:HB2	3:D:1251:ASP:HB2	1.64	0.80
3:D:1425:THR:O	3:D:1429:LEU:HD13	1.81	0.80
3:N:181:ASP:HB3	3:N:441:ARG:CD	2.11	0.80
3:N:615:ARG:O	3:N:619:LEU:HG	1.82	0.80
3:N:1213:ARG:HH22	4:O:14:ASP:HA	1.44	0.80
1:B:212:ASN:O	1:B:215:VAL:HG22	1.80	0.80
3:N:693:GLU:O	4:O:48:MET:HE1	1.82	0.80
2:C:52:PHE:HZ	2:C:68:PHE:HB2	1.37	0.79
3:D:565:ILE:HD12	3:D:565:ILE:N	1.97	0.79
3:D:792:ILE:O	3:D:878:GLY:HA3	1.82	0.79
3:D:1088:THR:HG23	3:D:1234:THR:HG23	1.63	0.79
3:N:136:ASP:CB	3:N:137:PRO:HD3	2.11	0.79
3:N:1472:ILE:H	3:N:1472:ILE:CD1	1.85	0.79
4:O:34:GLY:HA3	4:O:95:VAL:HB	1.64	0.79
5:X:8:DC:H2"	5:X:9:DC:OP2	1.82	0.79
1:A:88:ARG:HD2	1:A:204:SER:O	1.82	0.79
2:M:89:THR:HG21	2:M:383:ARG:NH2	1.94	0.79
2:M:1067:TYR:O	2:M:1071:ILE:HG12	1.82	0.79
3:N:493:ARG:CZ	3:N:1391:GLU:HA	2.12	0.79
1:L:92:PRO:HA	1:L:146:ARG:HH12	1.45	0.79
3:D:1096:ARG:NH2	3:D:1440:PHE:HD2	1.77	0.79
1:K:177:VAL:O	2:M:864:GLY:HA2	1.82	0.79
3:N:1166:LEU:H	3:N:1166:LEU:HD23	1.48	0.79
6:H:15:C:OP2	6:H:15:C:H6	1.66	0.79
1:A:106:PRO:HG3	1:A:134:GLU:CD	2.03	0.79
2:C:831:ARG:NH1	2:C:1004:LYS:HG2	1.98	0.79
2:M:693:GLU:CG	2:M:697:ARG:HH21	1.95	0.79
2:M:1000:MET:HB2	2:M:1002:GLU:HG2	1.63	0.79
3:N:646:LYS:CD	3:N:688:TRP:CZ2	2.66	0.79
3:N:1389:LEU:HG	3:N:1390:LEU:H	1.47	0.79
2:C:498:GLN:OE1	3:D:1067:VAL:HB	1.81	0.79
1:L:137:ARG:NH2	1:L:139:ASN:HB3	1.97	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:445:GLU:HA	2:M:449:ILE:CD1	2.11	0.79
3:N:111:LYS:HG2	3:N:1448:THR:HG22	1.63	0.79
3:D:700:VAL:O	3:D:715:ALA:HA	1.82	0.79
1:L:26:GLU:HB2	1:L:27:PRO:HA	1.61	0.79
2:M:398:THR:N	2:M:633:GLN:HG2	1.97	0.79
2:M:939:ARG:HA	2:M:939:ARG:NE	1.97	0.79
3:N:1200:VAL:HG13	3:N:1204:CYS:HB2	1.64	0.79
7:Z:2:DT:H1'	7:Z:3:DA:H5'	1.63	0.79
3:D:960:LYS:CE	3:D:964:LEU:HD12	2.12	0.79
3:N:754:PHE:CA	4:O:24:ALA:HB1	2.08	0.79
3:D:17:LYS:O	3:D:20:SER:HB3	1.81	0.79
4:O:43:GLU:HG3	4:O:44:GLU:H	1.47	0.79
3:D:1096:ARG:NH2	3:D:1440:PHE:CD2	2.50	0.79
3:D:1112:CYS:N	3:D:1201:CYS:HB3	1.98	0.79
2:M:396:ASP:HB3	2:M:406:HIS:CG	2.17	0.79
2:C:332:ARG:CZ	2:C:464:LEU:HG	2.13	0.78
2:C:1016:ILE:HG12	2:C:1017:THR:H	1.48	0.78
3:D:1003:VAL:HG13	3:D:1036:ARG:HD2	1.65	0.78
3:N:27:GLU:HB3	3:N:41:ARG:NH1	1.97	0.78
3:N:760:ARG:NH1	4:O:61:VAL:HG23	1.96	0.78
3:N:1016:PRO:HA	3:N:1021:TYR:HE1	1.48	0.78
6:Y:6:C:O5'	6:Y:6:C:H6	1.66	0.78
2:C:338:GLU:O	2:C:341:THR:HG22	1.84	0.78
3:D:10:ILE:HG22	3:D:1451:ALA:CA	2.13	0.78
3:D:10:ILE:HG13	3:D:1434:TRP:CZ2	2.18	0.78
3:D:1093:TYR:CZ	5:G:17:DA:H1'	2.19	0.78
4:E:70:THR:HB	4:E:72:ARG:HG2	1.63	0.78
1:K:197:LEU:HD23	1:K:197:LEU:H	1.47	0.78
2:M:927:GLY:HA2	2:M:930:LYS:HD3	1.63	0.78
3:N:501:ALA:HB1	3:N:1453:ALA:HB2	1.64	0.78
7:Z:16:DG:H2"	7:Z:17:DA:OP2	1.83	0.78
2:C:52:PHE:CE1	2:C:68:PHE:N	2.51	0.78
2:C:436:GLY:HA2	2:C:539:VAL:HA	1.65	0.78
3:D:902:LEU:HD23	3:D:902:LEU:N	1.98	0.78
3:N:1018:ASN:HB3	3:N:1021:TYR:CB	2.13	0.78
3:N:1277:ILE:HD12	3:N:1301:LYS:N	1.99	0.78
3:N:1383:ASP:HB2	3:N:1416:ALA:HB3	1.65	0.78
5:G:2:DT:H2'	5:G:3:DC:C5	2.18	0.78
3:D:637:LEU:HD11	3:D:642:CYS:CA	2.14	0.78
2:M:1019:GLN:NE2	2:M:1058:ASP:OD1	2.17	0.78
3:N:705:ALA:CB	3:N:706:PRO:HD3	2.10	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1277:ILE:CD1	3:N:1301:LYS:HB2	2.13	0.78
1:A:46:SER:HB3	2:C:856:GLU:OE2	1.84	0.78
2:C:758:ARG:HB3	2:C:788:THR:O	1.82	0.78
3:D:1205:TYR:CE2	3:D:1215:VAL:HG21	2.19	0.78
3:N:796:ARG:HH21	3:N:862:ASP:CG	1.86	0.78
3:N:833:GLU:O	3:N:834:THR:CG2	2.30	0.78
4:E:59:ASN:HB3	4:E:62:THR:OG1	1.83	0.78
2:M:140:ILE:O	2:M:418:LEU:HD23	1.84	0.78
2:M:808:ARG:HH21	2:M:820:ARG:NH2	1.81	0.78
2:M:1074:GLU:HG2	2:M:1075:ASP:H	1.48	0.78
7:I:6:DT:H2"	7:I:7:DT:OP2	1.82	0.78
2:C:48:PHE:O	2:C:52:PHE:CB	2.29	0.78
2:C:367:LEU:HB3	2:C:371:LYS:HE3	1.65	0.78
3:D:1112:CYS:N	3:D:1201:CYS:SG	2.57	0.78
2:M:129:ILE:HG22	2:M:130:ASN:N	1.97	0.78
2:M:683:ASN:O	2:M:872:ASN:HB2	1.84	0.78
2:M:889:HIS:HE1	2:M:988:VAL:CG2	1.96	0.78
3:N:163:TYR:HD1	3:N:165:LYS:H	1.31	0.78
3:N:171:LEU:CD1	3:N:195:VAL:CG2	2.61	0.78
3:N:1098:LEU:O	3:N:1102:THR:HG23	1.84	0.78
3:N:1240:THR:O	3:N:1241:PHE:HB2	1.82	0.78
3:D:1195:GLN:CG	3:D:1196:THR:N	2.47	0.78
2:M:603:VAL:HB	2:M:647:GLN:H	1.49	0.78
3:N:1131:SER:CB	3:N:1133:ARG:HH21	1.96	0.78
3:N:1438:ALA:O	3:N:1443:THR:HG22	1.83	0.78
2:M:300:ASP:OD2	2:M:303:PHE:HB2	1.82	0.78
2:M:705:ILE:HG12	2:M:828:ALA:HB2	1.64	0.78
2:M:707:ARG:HD2	2:M:824:ARG:HD2	1.66	0.78
2:M:1109:VAL:HG11	3:N:5:VAL:CG2	2.10	0.78
2:C:684:PHE:H	2:C:687:ALA:HB3	1.47	0.78
1:L:201:THR:HG21	1:L:205:VAL:O	1.84	0.78
2:M:626:ARG:HG3	2:M:639:GLN:HE21	1.49	0.78
3:N:501:ALA:CB	3:N:1453:ALA:HB2	2.14	0.78
2:M:1095:LEU:CD2	3:N:603:LEU:HD13	2.15	0.77
3:N:646:LYS:CE	3:N:688:TRP:CZ2	2.66	0.77
3:N:1106:VAL:HG11	3:N:1474:ALA:CB	2.14	0.77
2:C:487:THR:HG22	2:C:489:THR:HG23	1.65	0.77
3:D:1018:ASN:HB3	3:D:1021:TYR:HB3	1.66	0.77
3:D:1197:ARG:HA	3:D:1396:GLU:HG3	1.66	0.77
2:M:1045:ALA:HB1	2:M:1048:THR:HB	1.66	0.77
3:N:1425:THR:O	3:N:1429:LEU:HD13	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Z:10:DG:H2"	7:Z:11:DG:OP2	1.85	0.77
2:C:408:ARG:HG3	2:C:454:SER:HB3	1.65	0.77
2:C:796:GLU:HB2	2:C:1004:LYS:NZ	1.99	0.77
3:D:136:ASP:HB3	3:D:137:PRO:CD	2.13	0.77
3:D:498:VAL:O	3:D:501:ALA:HB3	1.84	0.77
1:L:212:ASN:O	1:L:215:VAL:HG22	1.84	0.77
2:M:881:ASN:N	2:M:881:ASN:HD22	1.81	0.77
3:N:457:GLY:O	3:N:460:ALA:N	2.18	0.77
3:N:704:ARG:HE	3:N:706:PRO:HD2	1.50	0.77
3:N:1381:VAL:HG12	3:N:1382:THR:N	1.99	0.77
1:A:43:ILE:HG22	1:A:47:SER:HB2	1.67	0.77
2:C:274:ARG:HG3	2:C:274:ARG:HH11	1.47	0.77
3:N:41:ARG:HD3	3:N:42:ASP:N	1.99	0.77
3:N:481:MET:HE3	3:N:1388:ARG:HB2	1.66	0.77
3:N:1468:LEU:HD23	3:N:1468:LEU:O	1.83	0.77
1:B:218:LEU:O	1:B:222:LEU:HG	1.85	0.77
2:C:688:ILE:CD1	2:C:847:GLY:HA3	2.15	0.77
2:C:861:LEU:CD2	2:C:863:ASP:HB3	2.15	0.77
2:C:966:LEU:HD21	2:C:986:PRO:HG2	1.65	0.77
2:M:697:ARG:O	2:M:699:PHE:N	2.17	0.77
3:N:646:LYS:CE	3:N:688:TRP:CE2	2.68	0.77
5:G:20:DC:H2"	5:G:21:DG:H5'	1.66	0.77
5:G:21:DG:H2"	5:G:22:DA:H5'	1.66	0.77
1:B:34:VAL:HG22	1:B:181:VAL:HG21	1.65	0.77
2:C:265:ARG:H	2:C:289:THR:HG21	1.47	0.77
3:D:1045:MET:HE2	3:D:1076:GLY:HA3	1.63	0.77
2:M:5:ARG:HB3	2:M:902:ILE:HB	1.66	0.77
2:M:334:ARG:HB2	2:M:339:LEU:HD21	1.67	0.77
3:N:1438:ALA:CA	3:N:1446:VAL:HG11	2.15	0.77
3:D:639:LEU:HD12	3:D:640:HIS:H	1.49	0.77
2:M:532:MET:HG2	2:M:533:ASP:N	1.98	0.77
3:N:654:LYS:O	3:N:658:LEU:HG	1.84	0.77
3:N:792:ILE:O	3:N:878:GLY:HA3	1.85	0.77
5:G:28:DG:OP2	5:G:28:DG:H8	1.66	0.77
2:C:559:LEU:HD23	2:C:563:ASN:OD1	1.84	0.77
2:C:693:GLU:HG2	2:C:697:ARG:HH21	1.48	0.77
2:C:185:LYS:CG	2:C:190:LYS:HG3	2.14	0.77
2:C:266:ARG:CA	2:C:288:ARG:HD3	2.14	0.77
2:C:368:THR:HB	2:C:369:PRO:HD3	1.66	0.77
2:C:1095:LEU:HB3	2:C:1097:LEU:HD23	1.65	0.77
2:M:617:ASP:CG	2:M:619:ARG:HE	1.88	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:660:LYS:CD	3:N:694:VAL:HG22	2.14	0.77
7:Z:13:DA:H2"	7:Z:14:DG:OP2	1.82	0.77
2:C:151:ASP:OD1	2:C:152:PRO:HD2	1.84	0.77
2:C:409:ARG:HB3	2:C:454:SER:HG	1.48	0.77
2:C:1042:ALA:CB	3:D:710:ARG:HB3	2.15	0.77
3:D:6:ARG:O	3:D:7:LYS:HG3	1.85	0.77
3:D:1440:PHE:O	3:D:1441:GLN:HB2	1.85	0.77
2:M:1082:PRO:O	2:M:1086:ARG:HG3	1.84	0.77
3:N:98:PRO:HG3	3:N:515:GLU:HB3	1.67	0.77
1:A:103:ALA:O	1:A:138:LEU:HB3	1.85	0.76
1:A:175:ARG:HD3	1:A:176:ARG:HG2	1.67	0.76
3:D:7:LYS:HG2	3:D:1458:GLU:HA	1.67	0.76
1:K:86:VAL:CG1	1:K:124:ASN:HB2	2.14	0.76
1:L:101:LEU:CD1	1:L:113:ASP:HB3	2.16	0.76
2:M:85:GLU:O	2:M:824:ARG:NH2	2.18	0.76
3:N:618:LEU:CD1	3:N:1467:ILE:CG1	2.47	0.76
3:N:1426:LYS:HA	3:N:1429:LEU:HD22	1.68	0.76
7:I:11:DG:H2'	7:I:12:DT:H72	1.65	0.76
2:C:1094:ALA:HA	3:D:518:PRO:HB2	1.65	0.76
1:K:112:ARG:HG2	1:K:112:ARG:HH11	1.50	0.76
3:N:167:GLU:OE1	3:N:198:ARG:NH2	2.18	0.76
2:C:904:PRO:HD2	2:C:908:GLY:HA2	1.67	0.76
2:C:1111:ILE:HG13	2:C:1112:PHE:H	1.49	0.76
3:D:897:TRP:HB2	3:D:900:ILE:CD1	2.07	0.76
3:N:131:LYS:HG3	3:N:568:ARG:HG2	1.68	0.76
2:C:1032:PHE:O	2:C:1036:GLU:HB2	1.84	0.76
3:N:1216:SER:HB3	4:O:15:SER:CA	2.15	0.76
3:D:705:ALA:CB	6:H:14:G:N2	2.15	0.76
3:D:1109:GLU:CD	3:D:1202:GLN:H	1.88	0.76
3:D:1154:GLU:O	3:N:562:ALA:N	2.17	0.76
3:D:1194:CYS:HB3	3:D:1373:ARG:HH12	1.48	0.76
3:N:171:LEU:CG	3:N:195:VAL:HG23	2.15	0.76
3:N:1238:MET:O	3:N:1239:ARG:HG3	1.84	0.76
2:C:304:LEU:CG	2:C:305:PRO:HD3	2.15	0.76
2:C:328:LEU:HD22	2:C:433:THR:O	1.85	0.76
2:C:404:LEU:HD22	2:C:591:SER:HB3	1.68	0.76
3:D:600:LEU:H	3:D:600:LEU:CD1	1.99	0.76
1:A:72:LYS:HE3	2:C:641:PRO:O	1.86	0.76
3:D:615:ARG:HH12	3:D:1096:ARG:CZ	1.99	0.76
3:D:1112:CYS:N	3:D:1201:CYS:CB	2.47	0.76
1:K:181:VAL:N	2:M:937:ASP:OD1	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:703:ILE:H	2:M:703:ILE:HD12	1.51	0.76
2:M:876:VAL:HG11	2:M:885:ILE:HD11	1.67	0.76
3:N:796:ARG:HG3	3:N:861:GLN:O	1.85	0.76
1:A:188:GLN:HG3	1:A:189:ARG:H	1.51	0.76
2:C:939:ARG:HA	2:C:939:ARG:HE	1.49	0.76
3:D:897:TRP:HA	3:D:900:ILE:HG13	1.62	0.76
3:D:1231:GLU:HB3	3:D:1232:PRO:HD3	1.66	0.76
2:C:48:PHE:O	2:C:52:PHE:N	2.19	0.76
2:C:679:PHE:H	2:C:683:ASN:HD21	1.32	0.76
3:D:1380:GLU:HG2	3:D:1381:VAL:H	1.50	0.76
4:E:36:LYS:H	4:E:95:VAL:CG2	1.96	0.76
2:M:735:ARG:HG2	2:M:735:ARG:HH11	1.49	0.76
2:M:1012:PRO:HD3	2:M:1026:GLN:HG2	1.68	0.76
3:N:702:LEU:O	3:N:713:ILE:HA	1.86	0.76
2:C:943:VAL:HG23	2:C:985:GLY:H	1.51	0.75
3:D:522:PRO:CA	3:D:525:ARG:HH11	1.99	0.75
2:M:966:LEU:HD21	2:M:986:PRO:HG2	1.66	0.75
3:N:102:ILE:HD12	3:N:579:ASP:HB3	1.68	0.75
3:D:847:ASP:O	3:D:851:LEU:HG	1.85	0.75
2:M:129:ILE:HD13	2:M:134:ARG:HB2	1.68	0.75
2:M:677:MET:HB3	3:N:948:THR:HG21	1.68	0.75
2:M:684:PHE:CG	2:M:685:GLU:N	2.53	0.75
3:N:166:GLN:HA	3:N:198:ARG:HB3	1.69	0.75
2:C:739:GLU:HG3	2:C:742:VAL:CB	2.16	0.75
3:D:618:LEU:HD13	3:D:1439:SER:HB3	1.67	0.75
2:M:42:VAL:HA	2:M:46:ALA:HB2	1.68	0.75
2:M:52:PHE:HE1	2:M:66:LEU:HG	1.51	0.75
3:N:646:LYS:HD2	3:N:688:TRP:CZ2	2.22	0.75
1:A:43:ILE:HG22	1:A:47:SER:CB	2.16	0.75
3:D:614:PHE:HE2	3:D:1443:THR:HB	1.51	0.75
3:D:1446:VAL:HB	3:D:1447:LEU:HD13	1.67	0.75
2:M:946:ARG:CZ	2:M:984:GLU:HB2	2.17	0.75
3:N:166:GLN:CB	3:N:198:ARG:HB3	2.16	0.75
3:N:646:LYS:HD2	3:N:688:TRP:CD2	2.22	0.75
2:C:285:LEU:HD23	2:C:285:LEU:O	1.86	0.75
3:D:900:ILE:HD12	3:D:902:LEU:HD22	1.68	0.75
3:D:1209:LEU:HD21	4:E:16:LYS:NZ	2.00	0.75
3:N:1274:ILE:HG22	3:N:1301:LYS:NZ	2.01	0.75
5:G:8:DC:H2"	5:G:9:DC:OP2	1.85	0.75
3:D:1190:SER:O	3:D:1204:CYS:SG	2.44	0.75
3:D:1481:VAL:HG12	4:E:21:VAL:HG21	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1054:THR:OG1	2:M:1055:LEU:N	2.19	0.75
2:C:928:LYS:HZ2	2:C:932:GLU:HG3	1.51	0.75
3:D:704:ARG:HA	3:D:745:MET:CG	2.13	0.75
2:M:1021:LEU:HD22	6:Y:5:C:O2	1.86	0.75
3:N:996:TRP:HA	3:N:999:THR:HG22	1.69	0.75
3:D:696:HIS:CD2	4:E:59:ASN:CB	2.69	0.75
2:M:129:ILE:HG22	2:M:130:ASN:H	1.49	0.75
2:M:724:ARG:HG3	2:M:737:LEU:HD22	1.68	0.75
3:N:696:HIS:ND1	3:N:697:GLY:N	2.35	0.75
3:N:1211:MET:HG2	3:N:1212:ALA:H	1.52	0.75
3:D:608:SER:CB	3:D:1442:ASN:O	2.35	0.75
3:D:1042:ARG:HG2	3:D:1061:PHE:CE1	2.19	0.75
1:L:185:ARG:NH2	3:N:688:TRP:HB2	2.00	0.75
2:M:265:ARG:HB3	2:M:267:TYR:CG	2.22	0.75
2:M:732:ALA:HA	2:M:735:ARG:CZ	2.17	0.75
3:N:1239:ARG:NH1	3:N:1239:ARG:HB2	2.02	0.75
2:C:304:LEU:HG	2:C:305:PRO:HD3	1.68	0.74
2:C:976:ASP:CG	2:C:979:THR:HG22	2.06	0.74
1:L:52:ALA:HB1	1:L:170:VAL:H	1.52	0.74
2:M:889:HIS:O	2:M:892:LEU:HB3	1.87	0.74
3:N:1224:VAL:HA	3:N:1227:GLN:OE1	1.87	0.74
3:N:1270:ALA:O	3:N:1329:ALA:HB3	1.86	0.74
7:I:11:DG:H2"	7:I:12:DT:OP2	1.86	0.74
2:C:326:ASP:HB3	2:C:431:HIS:HB2	1.69	0.74
3:D:85:VAL:HB	3:D:89:ARG:CZ	2.17	0.74
3:D:473:LEU:HG	3:D:476:GLU:OE2	1.87	0.74
2:M:57:GLU:O	2:M:62:GLY:HA3	1.87	0.74
2:M:479:VAL:HG11	2:M:503:LEU:HD11	1.70	0.74
2:M:580:MET:HB3	2:M:584:GLU:OE2	1.86	0.74
3:N:1267:ARG:HG3	3:N:1271:LYS:HE2	1.68	0.74
3:N:1465:ASN:OD1	3:N:1473:PRO:CG	2.34	0.74
4:O:5:GLY:HA3	4:O:8:LYS:HD2	1.69	0.74
2:C:52:PHE:CZ	2:C:68:PHE:CA	2.71	0.74
2:C:759:THR:HB	2:C:785:VAL:HG22	1.69	0.74
3:D:7:LYS:HA	3:D:1457:ASP:O	1.87	0.74
1:L:62:LEU:HD12	1:L:63:HIS:H	1.52	0.74
2:M:893:ALA:HB1	2:M:897:LEU:HD12	1.69	0.74
3:N:36:THR:C	3:N:38:LYS:H	1.89	0.74
3:N:695:ILE:CD1	3:N:718:PRO:HB2	2.17	0.74
3:N:1369:GLU:O	3:N:1372:VAL:HG12	1.87	0.74
2:C:165:LEU:HG	2:C:166:PRO:CA	2.15	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1032:PHE:CE2	2:C:1037:VAL:HA	2.22	0.74
2:M:415:PRO:HD2	2:M:418:LEU:HD13	1.70	0.74
3:N:182:GLY:HA2	3:N:203:ALA:O	1.87	0.74
3:N:553:ARG:O	3:N:557:LEU:HG	1.86	0.74
3:N:653:PHE:HB3	3:N:656:PHE:HB2	1.67	0.74
3:N:902:LEU:HD23	3:N:902:LEU:H	1.52	0.74
3:N:1262:LEU:HD23	3:N:1352:ILE:HG12	1.70	0.74
2:C:930:LYS:HD2	2:C:960:GLU:OE1	1.88	0.74
3:D:899:LEU:CD2	3:D:917:GLN:CG	2.64	0.74
1:L:124:ASN:ND2	1:L:127:LEU:HB2	2.00	0.74
3:N:87:ARG:HD3	3:N:524:LEU:HD11	1.68	0.74
1:A:87:VAL:HG21	1:A:144:VAL:HG11	1.70	0.74
2:C:759:THR:HB	2:C:785:VAL:CG2	2.17	0.74
2:C:911:GLU:HB3	2:C:912:PRO:HD3	1.70	0.74
2:M:328:LEU:HD11	2:M:434:HIS:CE1	2.22	0.74
2:M:1054:THR:OG1	2:M:1055:LEU:HG	1.87	0.74
3:N:607:LEU:HA	3:N:613:ARG:CB	2.18	0.74
3:D:907:GLU:O	3:D:911:LEU:HD13	1.88	0.74
2:M:889:HIS:CE1	2:M:988:VAL:HG21	2.16	0.74
2:M:1046:ALA:HB2	3:N:1476:THR:HB	1.69	0.74
4:O:37:ASN:HD22	4:O:37:ASN:N	1.85	0.74
1:A:94:LEU:HD21	1:A:119:ASP:HB2	1.67	0.74
2:C:537:LYS:HD2	2:C:905:ILE:HD13	1.69	0.74
2:C:939:ARG:HD3	2:C:982:PRO:HD3	1.69	0.74
3:D:641:GLN:HG2	3:D:717:GLN:HE21	1.51	0.74
3:D:785:ILE:H	3:D:785:ILE:HD12	1.51	0.74
3:D:1166:LEU:HD23	3:D:1166:LEU:H	1.53	0.74
2:M:110:GLU:HG3	2:M:369:PRO:HG3	1.68	0.74
3:N:675:ARG:HA	3:N:678:GLU:CD	2.08	0.74
2:C:12:VAL:HB	2:C:472:ARG:HH11	1.53	0.74
2:C:292:ARG:CG	2:C:298:PHE:HA	2.15	0.74
2:C:492:ASP:OD2	2:C:518:LYS:HB3	1.88	0.74
2:C:1090:LYS:HZ1	3:D:21:TRP:HB3	1.53	0.74
3:D:764:LEU:CD2	3:D:767:HIS:CE1	2.69	0.74
1:K:188:GLN:HG3	1:K:189:ARG:H	1.52	0.74
2:M:541:SER:O	2:M:545:ASN:ND2	2.21	0.74
2:M:1060:ILE:HG23	2:M:1061:GLU:H	1.52	0.74
3:N:171:LEU:HD11	3:N:195:VAL:CG2	2.18	0.74
3:N:925:GLU:OE1	4:O:7:ASP:OD2	2.06	0.74
5:G:11:DC:H2"	5:G:12:DA:OP2	1.86	0.74
1:A:43:ILE:CG2	1:A:47:SER:CB	2.66	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:26:GLU:HB2	1:B:27:PRO:HA	1.68	0.74
1:B:52:ALA:HB1	1:B:170:VAL:H	1.53	0.74
3:D:531:ASP:OD1	6:H:4:G:H4'	1.88	0.74
2:M:1114:GLY:H	2:M:1115:LEU:HD12	1.53	0.74
3:N:950:GLY:O	3:N:953:ASP:HB2	1.87	0.74
3:N:1461:GLY:O	3:N:1465:ASN:HB2	1.88	0.74
1:A:222:LEU:HD23	1:B:219:ARG:CB	2.18	0.73
1:B:30:ARG:HG2	1:B:30:ARG:HH11	1.52	0.73
2:C:423:ALA:HB1	7:I:1:DG:C5'	2.15	0.73
3:D:102:ILE:HB	3:D:579:ASP:OD1	1.88	0.73
3:D:600:LEU:HD12	3:D:600:LEU:N	2.02	0.73
3:D:743:ASP:CG	6:H:14:G:O2'	2.26	0.73
3:D:864:VAL:HG12	3:D:865:THR:N	2.04	0.73
3:D:1412:LYS:HB2	2:M:376:ARG:NH2	2.03	0.73
2:M:328:LEU:HD11	2:M:434:HIS:ND1	2.03	0.73
2:M:684:PHE:N	2:M:687:ALA:HB3	2.02	0.73
2:M:987:ILE:CG2	3:N:948:THR:HG21	2.17	0.73
3:N:97:THR:CG2	3:N:459:GLU:HB2	2.17	0.73
3:N:149:LYS:HE3	3:N:150:ARG:H	1.52	0.73
3:N:1152:GLU:OE2	3:N:1154:GLU:HG3	1.88	0.73
2:C:588:VAL:HG21	2:C:664:GLY:O	1.89	0.73
3:D:6:ARG:HD2	3:D:1470:ARG:HH12	1.51	0.73
3:D:11:ALA:HB1	3:D:507:ASN:OD1	1.89	0.73
3:D:829:VAL:O	3:D:835:SER:HB3	1.88	0.73
3:D:897:TRP:O	3:D:900:ILE:HG13	1.88	0.73
3:D:996:TRP:HA	3:D:999:THR:HG22	1.69	0.73
1:K:56:VAL:HG22	1:K:142:VAL:HG12	1.70	0.73
2:M:157:ARG:HD3	2:M:314:THR:HG21	1.71	0.73
3:N:1216:SER:CB	4:O:15:SER:OG	2.35	0.73
3:N:1274:ILE:CG2	3:N:1301:LYS:NZ	2.51	0.73
3:N:1294:VAL:HG12	3:N:1319:VAL:HG23	1.70	0.73
2:C:52:PHE:HB3	2:C:53:PRO:HD3	1.69	0.73
2:C:345:ARG:HA	2:C:348:LEU:HD22	1.67	0.73
3:D:729:HIS:O	3:D:732:VAL:HG22	1.88	0.73
4:O:25:LYS:O	4:O:29:GLN:HG3	1.89	0.73
7:Z:9:DT:H2"	7:Z:10:DG:OP2	1.88	0.73
2:C:139:GLN:O	2:C:333:ILE:HA	1.89	0.73
2:C:685:GLU:HG2	3:D:739:ASP:HB2	1.69	0.73
3:D:65:ARG:H	3:D:68:PHE:HE1	1.34	0.73
3:D:1216:SER:HB3	4:E:16:LYS:N	2.01	0.73
3:D:1225:ALA:HA	3:D:1367:HIS:ND1	2.02	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1465:ASN:HD21	3:D:1470:ARG:HB3	1.52	0.73
1:L:56:VAL:HG13	1:L:142:VAL:HG12	1.68	0.73
2:M:603:VAL:HB	2:M:647:GLN:N	2.03	0.73
3:N:87:ARG:CB	3:N:523:ASP:HB2	2.19	0.73
3:N:699:VAL:HG21	3:N:760:ARG:HB3	1.70	0.73
3:N:1200:VAL:CG1	3:N:1204:CYS:HB2	2.17	0.73
2:C:749:VAL:HG22	2:C:798:GLY:O	1.89	0.73
2:C:1097:LEU:H	2:C:1097:LEU:CD2	1.98	0.73
3:D:702:LEU:O	3:D:713:ILE:HA	1.89	0.73
2:M:861:LEU:HD23	2:M:862:PRO:N	2.03	0.73
2:M:1095:LEU:HD21	3:N:603:LEU:CD1	2.17	0.73
3:N:478:LEU:CD2	3:N:1388:ARG:HD3	2.19	0.73
3:N:520:LEU:HD11	3:N:524:LEU:HD23	1.68	0.73
3:N:705:ALA:HB3	3:N:706:PRO:CD	2.14	0.73
1:A:42:ARG:HB2	1:B:35:THR:HG23	1.69	0.73
2:C:16:PRO:O	2:C:18:LEU:HD12	1.89	0.73
2:C:18:LEU:H	2:C:18:LEU:CD1	2.00	0.73
2:C:50:GLU:HB2	2:C:266:ARG:HH11	1.54	0.73
2:M:113:VAL:HG11	2:M:373:VAL:HG11	1.70	0.73
2:M:460:ARG:HG2	2:M:485:TYR:CE2	2.23	0.73
2:M:762:LYS:HE3	2:M:786:LYS:HE2	1.68	0.73
3:N:639:LEU:HA	3:N:729:HIS:CD2	2.24	0.73
2:C:1035:MET:SD	5:G:20:DC:H5'	2.28	0.73
3:D:1034:GLN:O	3:D:1038:LEU:CB	2.34	0.73
2:M:265:ARG:H	2:M:289:THR:HG21	0.64	0.73
2:M:674:VAL:HG23	2:M:869:VAL:HG13	1.69	0.73
3:N:1294:VAL:CG2	3:N:1301:LYS:HB3	2.18	0.73
2:C:352:ALA:O	2:C:355:VAL:HG12	1.89	0.73
2:C:673:LEU:HB3	2:C:868:ASP:OD1	1.88	0.73
3:D:8:VAL:HG21	3:D:1435:LEU:HD21	1.69	0.73
3:D:739:ASP:N	6:H:15:C:H5"	2.04	0.73
3:D:1103:HIS:CG	3:D:1104:GLU:N	2.57	0.73
3:D:1438:ALA:HA	3:D:1446:VAL:HG11	1.68	0.73
4:E:64:ALA:O	4:E:68:LEU:HD22	1.88	0.73
2:M:922:PHE:HB3	2:M:964:LYS:NZ	2.04	0.73
2:M:1016:ILE:HG12	2:M:1017:THR:N	2.03	0.73
3:N:87:ARG:HB2	3:N:523:ASP:HB2	1.71	0.73
3:N:481:MET:SD	3:N:493:ARG:HB2	2.28	0.73
3:N:703:ASN:O	3:N:745:MET:HB3	1.89	0.73
3:N:958:GLU:OE2	3:N:961:LYS:HD3	1.89	0.73
3:N:1111:ASP:HA	3:N:1201:CYS:HB2	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:128:TYR:HE2	3:D:458:ALA:HA	1.52	0.73
3:D:1342:GLU:HA	3:D:1345:GLU:OE1	1.89	0.73
1:L:179:PHE:HB2	1:L:195:LEU:HD11	1.70	0.73
2:M:328:LEU:CD2	2:M:437:ARG:HD3	2.18	0.73
3:N:1107:VAL:HB	3:N:1218:GLY:H	1.53	0.73
1:B:102:LYS:HE2	1:B:139:ASN:HB2	1.70	0.73
3:D:615:ARG:HH22	3:D:1096:ARG:HD2	1.51	0.73
2:M:587:VAL:HG11	2:M:666:LEU:HD22	1.68	0.73
7:I:16:DG:H2"	7:I:17:DA:OP2	1.89	0.73
1:B:28:LEU:HB2	1:B:193:ASP:HB2	1.69	0.72
1:B:58:ILE:HD13	1:B:140:MET:HB3	1.70	0.72
2:C:630:ARG:HH21	2:C:707:ARG:H	1.37	0.72
2:C:688:ILE:HD13	2:C:847:GLY:HA3	1.70	0.72
2:C:692:GLU:O	2:C:696:LYS:HG3	1.89	0.72
2:C:1103:ASP:CG	2:C:1104:GLU:H	1.92	0.72
2:M:90:TYR:HE1	2:M:120:LEU:HD12	1.54	0.72
2:M:139:GLN:O	2:M:333:ILE:HA	1.89	0.72
1:A:43:ILE:HD13	1:B:32:PHE:HE2	1.53	0.72
2:C:460:ARG:HH22	2:C:468:ARG:NH1	1.87	0.72
3:D:1447:LEU:N	3:D:1447:LEU:CD1	2.52	0.72
1:K:86:VAL:HG12	1:K:124:ASN:HB2	1.71	0.72
2:M:626:ARG:HG3	2:M:639:GLN:NE2	2.04	0.72
3:N:23:TYR:O	3:N:49:ILE:HG23	1.89	0.72
3:N:899:LEU:HD23	3:N:921:ARG:HG3	1.72	0.72
3:N:1194:CYS:SG	3:N:1200:VAL:HG13	2.29	0.72
3:N:1484:THR:HA	4:O:76:GLY:O	1.88	0.72
6:H:5:C:O5'	6:H:5:C:C6	2.42	0.72
1:A:48:ILE:O	1:A:148:VAL:HG13	1.87	0.72
1:A:102:LYS:HB3	1:A:139:ASN:CG	2.09	0.72
2:C:64:LEU:HD12	2:C:100:LEU:HD11	1.71	0.72
2:C:281:LEU:HD12	2:C:309:TYR:CB	2.19	0.72
2:C:333:ILE:O	2:C:465:GLY:HA3	1.90	0.72
4:E:54:LEU:HD21	4:E:63:TRP:HE1	1.53	0.72
2:M:106:GLY:O	2:M:107:LEU:HD23	1.89	0.72
3:N:434:ARG:HH11	3:N:434:ARG:HB3	1.54	0.72
1:A:176:ARG:HH11	2:C:865:THR:HB	1.54	0.72
2:C:143:SER:HB2	2:C:276:LYS:HE2	1.70	0.72
2:C:678:PRO:HG3	2:C:873:PRO:HD2	1.71	0.72
3:D:486:ARG:HB2	5:G:8:DC:OP1	1.88	0.72
3:D:714:GLN:HE21	3:D:765:SER:CB	2.02	0.72
2:M:332:ARG:C	2:M:333:ILE:HD12	2.09	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:393:GLN:HG2	6:Y:10:G:H4'	1.72	0.72
2:M:627:ARG:HG3	2:M:628:PHE:H	1.52	0.72
3:N:104:PHE:HD2	3:N:1448:THR:HG23	1.53	0.72
3:N:1097:LYS:O	3:N:1101:VAL:HG22	1.89	0.72
5:G:6:DT:H4'	5:G:6:DT:OP1	1.87	0.72
5:X:3:DC:H2"	5:X:4:DA:OP2	1.89	0.72
2:C:292:ARG:HB2	2:C:299:LYS:HG2	1.71	0.72
2:C:479:VAL:HG22	2:C:506:ASN:HA	1.72	0.72
3:D:1388:ARG:HD2	3:D:1388:ARG:N	2.05	0.72
3:D:1465:ASN:ND2	3:D:1470:ARG:HB3	2.04	0.72
2:M:304:LEU:CD2	2:M:305:PRO:HD3	2.19	0.72
2:M:630:ARG:HD2	2:M:634:GLY:HA2	1.71	0.72
2:M:684:PHE:H	2:M:687:ALA:HB3	1.53	0.72
3:N:1023:MET:O	3:N:1028:ALA:HB3	1.90	0.72
1:A:5:LYS:O	1:A:8:ALA:HB2	1.90	0.72
2:C:274:ARG:HG3	2:C:274:ARG:NH1	2.02	0.72
2:C:395:LYS:NZ	2:C:407:LYS:NZ	2.38	0.72
3:D:645:PRO:HG2	3:D:724:GLN:O	1.90	0.72
3:D:900:ILE:HD12	3:D:902:LEU:HD21	1.70	0.72
2:M:678:PRO:HG3	2:M:873:PRO:HD2	1.70	0.72
2:M:694:LEU:HD11	2:M:868:ASP:HB3	1.70	0.72
2:M:720:GLU:HG2	2:M:760:SER:CB	2.19	0.72
3:N:776:GLU:OE1	3:N:912:LYS:HE2	1.89	0.72
7:I:11:DG:C8	7:I:12:DT:H72	2.24	0.72
2:C:89:THR:CA	2:C:129:ILE:O	2.36	0.72
2:C:183:SER:OG	2:C:190:LYS:HG2	1.89	0.72
2:C:444:PRO:HB3	6:H:12:U:OP1	1.90	0.72
3:D:974:ILE:O	3:D:977:ALA:HB3	1.89	0.72
3:D:1031:ASN:HB3	3:D:1034:GLN:HB2	1.72	0.72
2:M:687:ALA:O	2:M:688:ILE:CD1	2.37	0.72
3:N:134:VAL:HG12	3:N:152:LEU:HB3	1.72	0.72
3:N:477:LEU:HD12	3:N:496:LEU:CD1	2.14	0.72
3:N:806:PHE:CE1	3:N:813:LEU:HB3	2.25	0.72
7:I:2:DT:H2"	7:I:3:DA:OP2	1.90	0.72
5:X:16:DT:H2"	5:X:17:DA:OP2	1.89	0.72
1:B:221:HIS:HA	1:B:224:TYR:CD2	2.25	0.72
2:C:344:PHE:O	2:C:348:LEU:HD13	1.88	0.72
2:C:1040:LEU:HG	2:C:1045:ALA:HB3	1.70	0.72
3:D:95:LEU:HD23	3:D:96:ALA:H	1.54	0.72
3:D:613:ARG:O	3:D:616:GLN:HB3	1.89	0.72
3:D:810:GLU:O	3:D:813:LEU:HG	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1258:ARG:HH12	3:D:1329:ALA:CB	1.98	0.72
1:L:14:ARG:HB2	1:L:22:GLU:HB2	1.71	0.72
2:M:274:ARG:O	2:M:274:ARG:HD3	1.89	0.72
3:N:502:PHE:CE1	3:N:509:PRO:HB3	2.25	0.72
3:N:917:GLN:HA	3:N:920:LEU:HD12	1.70	0.72
3:N:1197:ARG:HA	3:N:1396:GLU:HG3	1.70	0.72
3:N:1330:ILE:HD13	3:N:1347:TYR:CE1	2.25	0.72
4:O:26:ARG:O	4:O:30:LEU:HD13	1.89	0.72
2:C:86:LYS:HB3	2:C:813:VAL:HG23	1.70	0.72
2:C:683:ASN:HA	2:C:687:ALA:C	2.10	0.72
1:L:101:LEU:HD11	1:L:113:ASP:HB3	1.72	0.72
2:M:260:LEU:HD12	2:M:261:ILE:N	2.05	0.72
2:M:887:GLU:OE1	2:M:992:MET:HG3	1.90	0.72
3:N:513:ILE:HD12	3:N:513:ILE:O	1.90	0.72
3:N:1277:ILE:HD12	3:N:1301:LYS:CB	2.19	0.72
2:C:397:GLU:OE2	2:C:632:ASN:HB2	1.90	0.72
2:C:979:THR:HG23	2:C:981:GLU:H	1.53	0.72
2:C:1003:ASP:CG	2:C:1004:LYS:N	2.43	0.72
3:D:708:LEU:HB3	3:D:1231:GLU:HB2	1.72	0.72
3:D:1380:GLU:HG2	3:D:1381:VAL:N	2.05	0.72
3:D:1447:LEU:HD13	3:D:1447:LEU:H	1.55	0.72
1:L:78:ILE:O	1:L:82:LEU:HG	1.89	0.72
2:M:580:MET:SD	2:M:584:GLU:HG3	2.30	0.72
3:N:1322:GLY:O	3:N:1323:GLN:HB2	1.89	0.72
2:C:44:ILE:O	2:C:48:PHE:CD2	2.43	0.71
2:C:252:LYS:HD3	2:C:296:GLY:HA2	1.71	0.71
3:D:153:LEU:HD13	3:D:158:TYR:HB2	1.70	0.71
3:D:1033:GLN:CB	3:D:1037:GLN:OE1	2.38	0.71
3:D:1042:ARG:CZ	3:D:1073:SER:HB2	2.19	0.71
1:L:7:LYS:NZ	1:L:186:LEU:HD13	2.04	0.71
2:M:642:ARG:HG3	2:M:657:ASP:OD2	1.90	0.71
2:M:1002:GLU:HA	5:X:23:DG:H5"	1.72	0.71
2:M:1013:TYR:CE1	2:M:1020:PRO:HG3	2.24	0.71
3:N:83:SER:O	3:N:86:ARG:HB3	1.90	0.71
2:C:110:GLU:HG3	2:C:369:PRO:HG3	1.72	0.71
2:C:1095:LEU:HG	3:D:603:LEU:HD13	1.71	0.71
3:D:554:LEU:HD11	3:D:558:LEU:HD21	1.72	0.71
3:D:744:GLN:OE1	5:G:21:DG:N2	2.23	0.71
3:D:1265:ALA:O	3:D:1266:ARG:HG3	1.89	0.71
3:N:1258:ARG:O	3:N:1262:LEU:HD13	1.89	0.71
1:A:57:TYR:CE2	1:A:161:ARG:HD2	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:410:ILE:HG22	2:C:453:THR:O	1.90	0.71
2:C:541:SER:O	2:C:545:ASN:ND2	2.24	0.71
4:E:68:LEU:HD12	4:E:73:LEU:HD13	1.71	0.71
2:M:598:GLU:O	2:M:651:LYS:HG3	1.90	0.71
2:M:754:ILE:CD1	2:M:791:ARG:HG2	2.17	0.71
3:N:141:ILE:HD11	3:N:448:GLU:HG2	1.72	0.71
3:N:525:ARG:HB3	3:N:540:LEU:HD12	1.71	0.71
3:N:638:LYS:HD3	3:N:932:ASP:CG	2.11	0.71
3:N:645:PRO:HA	3:N:721:VAL:O	1.90	0.71
3:N:1129:THR:CB	3:N:1320:GLU:CG	2.62	0.71
7:I:1:DG:OP3	7:I:1:DG:H3'	1.90	0.71
2:C:861:LEU:HD22	2:C:863:ASP:HB3	1.73	0.71
3:D:524:LEU:N	3:D:524:LEU:HD12	2.05	0.71
2:M:90:TYR:O	2:M:119:PRO:HA	1.89	0.71
2:M:284:ARG:HG2	2:M:301:GLU:OE1	1.90	0.71
2:M:720:GLU:HG2	2:M:760:SER:HB3	1.71	0.71
3:N:809:PRO:HB2	3:N:812:ALA:HB2	1.73	0.71
3:N:1462:LEU:CD2	3:N:1473:PRO:HD2	2.20	0.71
5:G:21:DG:H2"	5:G:22:DA:O5'	1.88	0.71
6:H:8:G:H2'	6:H:9:C:C6	2.25	0.71
2:C:1037:VAL:HG12	2:C:1041:GLU:OE2	1.89	0.71
3:D:799:LYS:O	3:D:829:VAL:HG22	1.90	0.71
2:M:122:THR:HB	2:M:124:ASP:OD1	1.91	0.71
2:M:276:LYS:HA	2:M:280:LYS:HD2	1.71	0.71
2:M:334:ARG:O	2:M:339:LEU:HD11	1.91	0.71
2:M:536:PRO:HB3	2:M:906:PHE:HD1	1.54	0.71
2:M:570:PRO:HD2	2:M:635:THR:HG21	1.72	0.71
3:N:696:HIS:CG	3:N:697:GLY:H	2.07	0.71
3:N:1209:LEU:HD12	3:N:1216:SER:H	1.56	0.71
1:A:86:VAL:HG12	1:A:124:ASN:HB2	1.71	0.71
1:A:86:VAL:CG2	1:A:204:SER:HB2	2.21	0.71
2:C:122:THR:HB	2:C:124:ASP:OD1	1.91	0.71
2:C:415:PRO:HD2	2:C:418:LEU:HD13	1.72	0.71
3:D:122:GLU:O	3:D:126:VAL:HG23	1.91	0.71
2:M:21:ILE:H	2:M:21:ILE:HD12	1.56	0.71
3:N:107:ASP:OD1	3:N:1445:HIS:HB2	1.90	0.71
3:N:133:ILE:HG23	3:N:456:MET:HB3	1.71	0.71
3:N:1109:GLU:HG2	3:N:1201:CYS:CA	2.19	0.71
5:G:19:DG:C2'	5:G:20:DC:O5'	2.38	0.71
2:C:88:LEU:HD13	2:C:89:THR:H	1.56	0.71
3:D:1095:THR:HA	3:D:1098:LEU:HD13	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1256:LEU:HG	3:D:1260:ILE:CD1	2.21	0.71
3:N:646:LYS:CG	3:N:688:TRP:CH2	2.73	0.71
6:Y:8:G:H2'	6:Y:9:C:O4'	1.91	0.71
2:C:409:ARG:HH12	2:C:444:PRO:HG3	1.55	0.71
2:C:674:VAL:CG2	2:C:869:VAL:HG13	2.20	0.71
2:C:687:ALA:C	2:C:688:ILE:HD12	2.10	0.71
3:D:1114:THR:HG23	3:D:1114:THR:O	1.90	0.71
2:M:511:GLU:O	2:M:526:PRO:HD3	1.90	0.71
2:M:578:VAL:HG13	2:M:671:ASN:ND2	2.05	0.71
2:M:1046:ALA:HA	3:N:1472:ILE:HD11	1.73	0.71
3:D:30:GLU:HB3	3:D:40:GLU:HG2	1.73	0.71
3:D:1177:ALA:O	3:D:1180:ALA:HB3	1.91	0.71
3:D:1340:GLY:O	3:D:1344:VAL:HG23	1.90	0.71
2:M:352:ALA:O	2:M:355:VAL:HG12	1.90	0.71
3:N:840:LYS:HD3	3:N:841:TYR:OH	1.90	0.71
3:N:847:ASP:O	3:N:851:LEU:HG	1.90	0.71
2:C:144:PRO:HG2	2:C:265:ARG:NH1	2.05	0.71
2:C:227:PHE:HD2	2:C:237:ARG:NE	1.88	0.71
3:D:586:ARG:NH2	3:D:1442:ASN:OD1	2.24	0.71
2:M:236:ILE:HA	2:M:239:PHE:HD2	1.56	0.71
3:N:57:GLU:HG2	3:N:58:CYS:N	2.05	0.71
3:N:136:ASP:HB3	3:N:137:PRO:CD	2.21	0.71
2:C:244:PRO:HD2	2:C:245:GLY:H	1.56	0.70
2:C:431:HIS:CD2	2:C:433:THR:H	2.08	0.70
3:D:17:LYS:HG2	3:D:21:TRP:NE1	2.05	0.70
3:D:487:ALA:HB2	5:G:7:DA:C2'	2.21	0.70
3:D:633:VAL:HG22	3:D:635:PRO:HD3	1.73	0.70
3:D:1434:TRP:CZ3	3:D:1457:ASP:HB2	2.25	0.70
2:M:677:MET:CB	2:M:987:ILE:HD13	2.21	0.70
2:M:754:ILE:HD12	2:M:789:SER:HB2	1.72	0.70
3:N:478:LEU:HD22	3:N:1388:ARG:HD3	1.73	0.70
1:A:35:THR:O	1:A:39:PRO:HG2	1.90	0.70
2:C:190:LYS:H	2:C:190:LYS:HD2	1.56	0.70
1:K:72:LYS:O	2:M:608:GLY:HA2	1.91	0.70
2:M:140:ILE:HD13	2:M:331:ARG:HH21	1.56	0.70
2:M:455:LEU:CD1	2:M:456:ALA:O	2.37	0.70
2:M:496:ILE:HA	2:M:531:PHE:O	1.92	0.70
2:M:676:ILE:CG2	2:M:988:VAL:HG22	2.21	0.70
2:M:753:ASP:HB2	2:M:792:VAL:HG21	1.72	0.70
2:M:1095:LEU:O	2:M:1096:ALA:C	2.30	0.70
3:N:101:HIS:ND1	3:N:103:TRP:HB2	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:653:PHE:CZ	3:N:749:VAL:CG1	2.73	0.70
3:N:758:GLU:HB3	4:O:20:THR:CG2	2.21	0.70
5:X:23:DG:H2'	5:X:24:DC:C6	2.26	0.70
1:A:18:ARG:O	1:A:201:THR:OG1	2.09	0.70
2:M:676:ILE:HG21	2:M:988:VAL:HG22	1.72	0.70
2:M:1040:LEU:CD2	2:M:1049:LEU:HD13	2.21	0.70
3:N:520:LEU:HD21	3:N:524:LEU:HB3	1.73	0.70
3:N:783:ARG:NH2	3:N:1029:ARG:HD2	2.06	0.70
3:N:1366:LYS:HA	3:N:1369:GLU:OE1	1.91	0.70
2:C:1008:ARG:HD2	2:C:1028:GLY:H	1.56	0.70
3:D:1380:GLU:HB2	3:D:1420:LEU:HD11	1.73	0.70
2:M:903:SER:OG	2:M:908:GLY:HA3	1.91	0.70
3:N:650:LEU:O	3:N:654:LYS:HB2	1.90	0.70
3:N:1109:GLU:CD	3:N:1202:GLN:H	1.95	0.70
2:C:273:GLY:HA2	2:C:276:LYS:HD2	1.72	0.70
2:C:1007:ALA:HB1	3:D:652:LEU:CD1	2.21	0.70
3:D:528:VAL:HG12	3:D:529:GLN:N	2.06	0.70
3:D:1256:LEU:CD2	3:D:1260:ILE:HD11	2.21	0.70
3:N:1084:THR:HG22	3:N:1087:ARG:HH22	1.57	0.70
3:N:1197:ARG:HB3	3:N:1396:GLU:CD	2.11	0.70
3:D:843:PHE:HB2	3:D:866:VAL:HG22	1.73	0.70
3:D:1033:GLN:C	3:D:1037:GLN:HB2	2.09	0.70
2:M:399:ASN:OD1	2:M:401:LEU:HB3	1.92	0.70
2:M:605:LYS:HD3	2:M:610:ARG:NH1	2.07	0.70
2:C:88:LEU:O	2:C:129:ILE:O	2.08	0.70
2:C:336:VAL:HA	2:C:339:LEU:CD1	2.12	0.70
2:C:347:GLY:HA3	2:C:378:LEU:HD12	1.73	0.70
3:D:72:VAL:HG23	3:D:78:VAL:N	2.06	0.70
4:E:27:ALA:O	4:E:31:LEU:HG	1.90	0.70
2:M:52:PHE:HB3	2:M:53:PRO:HD3	1.74	0.70
2:M:959:PRO:HA	2:M:962:GLN:HG3	1.73	0.70
3:N:1093:TYR:CZ	5:X:18:DC:H5"	2.27	0.70
1:A:63:HIS:CB	2:C:746:GLY:HA2	2.21	0.70
3:D:1109:GLU:CB	3:D:1201:CYS:HA	2.22	0.70
4:E:13:VAL:HG21	4:E:19:LEU:HD13	1.74	0.70
2:M:90:TYR:CE1	2:M:120:LEU:HD12	2.26	0.70
3:N:1292:VAL:CG2	3:N:1311:LEU:HD13	2.21	0.70
3:N:1379:VAL:HG12	3:N:1419:PRO:HA	1.72	0.70
6:Y:10:G:H2'	6:Y:11:C:C6	2.26	0.70
2:C:21:ILE:HD12	2:C:21:ILE:H	1.57	0.70
2:C:332:ARG:NH2	2:C:464:LEU:HG	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:103:TRP:CH2	3:D:1444:THR:HA	2.27	0.70
3:D:103:TRP:CZ3	3:D:1444:THR:HA	2.27	0.70
3:D:1003:VAL:HG11	3:D:1036:ARG:HH11	1.56	0.70
3:D:1046:GLN:HG2	3:D:1052:THR:HG22	1.74	0.70
3:D:1100:ASP:HA	3:D:1463:LYS:NZ	2.06	0.70
2:M:861:LEU:HD21	2:M:925:TYR:CE2	2.27	0.70
3:N:206:ARG:HG2	3:N:394:LEU:HD22	1.72	0.70
4:O:54:LEU:HD23	4:O:58:PRO:CD	2.19	0.70
2:C:1092:LEU:HD13	2:C:1099:VAL:HG21	1.74	0.70
4:E:27:ALA:HA	4:E:30:LEU:HD13	1.74	0.70
1:L:137:ARG:HH21	1:L:139:ASN:HB3	1.56	0.70
2:M:290:LEU:HG	2:M:290:LEU:O	1.92	0.70
2:M:328:LEU:HB2	2:M:488:ALA:CB	2.21	0.70
3:N:56:TYR:OH	3:N:69:GLU:HB2	1.91	0.70
5:G:24:DC:OP2	5:G:24:DC:H6	1.74	0.70
3:D:615:ARG:HH22	3:D:1096:ARG:CD	2.04	0.69
3:D:809:PRO:HB2	3:D:812:ALA:HB2	1.74	0.69
1:L:100:LEU:HB2	1:L:115:LEU:HD21	1.73	0.69
2:M:374:ASN:O	2:M:377:PRO:HD2	1.92	0.69
3:N:480:GLU:OE1	3:N:488:ARG:HG3	1.91	0.69
2:C:12:VAL:HB	2:C:472:ARG:NH1	2.07	0.69
3:D:30:GLU:HB3	3:D:40:GLU:CG	2.22	0.69
2:M:685:GLU:OE2	3:N:783:ARG:HD2	1.92	0.69
2:M:1006:HIS:CE1	2:M:1027:PHE:HA	2.26	0.69
2:M:1101:THR:HG21	2:M:1111:ILE:HG23	1.71	0.69
3:N:809:PRO:HB2	3:N:812:ALA:CB	2.22	0.69
2:C:66:LEU:HD13	2:C:100:LEU:HB2	1.74	0.69
2:C:173:ASP:OD1	2:C:185:LYS:HB2	1.92	0.69
2:C:759:THR:HA	2:C:786:LYS:O	1.92	0.69
3:D:9:ARG:NH1	3:D:11:ALA:HB2	2.07	0.69
3:D:1146:GLY:HA3	3:D:1207:TYR:HB2	1.74	0.69
3:N:1129:THR:CG2	3:N:1130:ARG:N	2.49	0.69
5:X:27:DC:P	5:X:27:DC:H3'	2.33	0.69
1:A:65:PHE:CE1	2:C:799:ILE:HB	2.27	0.69
1:B:211:LEU:O	1:B:215:VAL:HG13	1.92	0.69
2:C:328:LEU:HD21	2:C:434:HIS:HA	1.74	0.69
3:D:72:VAL:HG23	3:D:78:VAL:H	1.56	0.69
3:D:525:ARG:HB2	3:D:538:SER:HB3	1.73	0.69
2:M:584:GLU:HB2	2:M:666:LEU:H	1.56	0.69
3:N:465:LEU:CD2	3:N:510:GLU:HA	2.22	0.69
3:N:1353:GLN:O	3:N:1357:ARG:HG3	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1089:ALA:HA	5:G:19:DG:H5'	1.74	0.69
1:L:92:PRO:HA	1:L:146:ARG:NH1	2.06	0.69
2:M:267:TYR:HD2	2:M:267:TYR:O	1.73	0.69
2:M:557:ARG:HD2	2:M:560:MET:HG3	1.73	0.69
3:N:699:VAL:CG2	3:N:760:ARG:HB3	2.22	0.69
3:N:1239:ARG:HB2	3:N:1239:ARG:HH11	1.58	0.69
2:C:274:ARG:NH1	2:C:285:LEU:HD22	2.07	0.69
3:D:678:GLU:HG3	3:D:679:ARG:HG3	1.74	0.69
3:D:696:HIS:NE2	4:E:59:ASN:HB2	2.06	0.69
3:D:1197:ARG:HD3	3:D:1198:TYR:H	1.58	0.69
2:M:969:GLN:OE1	3:N:952:ASP:HB2	1.93	0.69
2:M:1115:LEU:HD12	2:M:1115:LEU:N	2.06	0.69
5:G:7:DA:OP2	5:G:7:DA:H8	1.74	0.69
2:C:554:ASP:OD2	2:C:556:ASN:HB3	1.92	0.69
2:C:776:SER:HA	2:C:780:GLU:HB3	1.75	0.69
2:M:237:ARG:HB2	2:M:237:ARG:HH11	1.56	0.69
3:N:198:ARG:HG3	3:N:198:ARG:O	1.92	0.69
3:N:502:PHE:CE1	3:N:1452:ILE:HG23	2.28	0.69
3:N:715:ALA:HB3	3:N:764:LEU:HA	1.73	0.69
3:N:925:GLU:OE2	4:O:5:GLY:HA2	1.93	0.69
3:N:1031:ASN:OD1	3:N:1033:GLN:HB2	1.91	0.69
1:A:106:PRO:CG	1:A:134:GLU:OE1	2.41	0.69
1:B:57:TYR:HE1	1:B:163:ASN:HB2	1.58	0.69
2:C:399:ASN:OD1	2:C:402:SER:N	2.23	0.69
2:C:922:PHE:HB3	2:C:964:LYS:HZ1	1.58	0.69
2:C:971:LYS:HA	2:C:988:VAL:HA	1.73	0.69
3:D:1041:LEU:O	3:D:1045:MET:HB2	1.93	0.69
4:E:45:ARG:HG2	4:E:46:PRO:HD2	1.74	0.69
4:E:54:LEU:HA	4:E:58:PRO:CG	2.22	0.69
2:M:442:GLU:HG2	2:M:454:SER:HB2	1.73	0.69
2:M:567:GLN:HE22	6:Y:13:C:H5"	1.58	0.69
2:M:888:THR:O	2:M:990:GLY:HA3	1.93	0.69
3:N:957:PRO:HG2	3:N:1007:VAL:CG2	2.18	0.69
3:N:1106:VAL:HG11	3:N:1474:ALA:HB2	1.75	0.69
3:N:1281:VAL:N	3:N:1317:ASP:O	2.26	0.69
2:C:725:ASP:O	2:C:727:PRO:HD3	1.92	0.69
2:C:830:LYS:O	2:C:832:LYS:N	2.26	0.69
3:D:758:GLU:HB3	3:D:762:GLN:HE21	1.57	0.69
3:D:1111:ASP:HA	3:D:1201:CYS:HB2	1.75	0.69
1:L:38:ASN:HB3	1:L:39:PRO:HD3	1.75	0.69
2:M:644:VAL:HG22	2:M:647:GLN:OE1	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:674:VAL:HG12	2:M:990:GLY:O	1.93	0.69
2:C:129:ILE:CD1	2:C:129:ILE:H	2.06	0.69
2:C:723:THR:HG23	2:C:725:ASP:H	1.57	0.69
3:D:1239:ARG:O	3:D:1240:THR:HG23	1.92	0.69
3:N:153:LEU:O	3:N:153:LEU:HD12	1.93	0.69
3:N:179:VAL:HG13	3:N:183:GLU:HB3	1.75	0.69
3:N:567:ILE:O	3:N:571:LYS:HG2	1.93	0.69
3:N:625:TYR:HH	3:N:655:PRO:HG2	1.58	0.69
5:G:5:DC:H2"	5:G:6:DT:C4'	2.23	0.69
7:I:11:DG:C2'	7:I:12:DT:H72	2.22	0.69
1:B:38:ASN:HB3	1:B:39:PRO:HD3	1.73	0.68
2:C:329:GLY:C	2:C:330:ASN:ND2	2.47	0.68
1:K:96:THR:OG1	1:K:143:ARG:HD2	1.92	0.68
1:L:195:LEU:HD12	1:L:196:THR:N	2.08	0.68
2:M:64:LEU:CD2	2:M:359:MET:HG3	2.23	0.68
2:M:1038:TRP:HA	2:M:1041:GLU:OE1	1.93	0.68
3:N:710:ARG:HH12	4:O:16:LYS:NZ	1.91	0.68
3:N:916:TYR:O	3:N:920:LEU:HG	1.93	0.68
3:N:1225:ALA:HA	3:N:1367:HIS:ND1	2.08	0.68
6:Y:9:C:O2'	6:Y:10:G:H5'	1.93	0.68
2:C:50:GLU:CB	2:C:266:ARG:NH1	2.56	0.68
2:C:212:GLY:HA3	2:C:218:VAL:HG21	1.74	0.68
3:D:28:LYS:CG	3:D:29:PRO:HD2	2.23	0.68
3:D:528:VAL:HG12	3:D:529:GLN:H	1.58	0.68
3:D:638:LYS:HB2	3:D:641:GLN:NE2	2.08	0.68
3:D:1335:LEU:HD21	3:D:1344:VAL:HA	1.76	0.68
2:M:86:LYS:HB3	2:M:813:VAL:HG23	1.76	0.68
2:M:332:ARG:HG2	2:M:333:ILE:N	2.07	0.68
2:M:979:THR:HG23	2:M:981:GLU:H	1.58	0.68
3:N:156:GLU:O	3:N:160:GLU:HG3	1.93	0.68
3:N:1216:SER:HB3	4:O:15:SER:HA	1.75	0.68
1:A:162:ILE:HG13	1:A:163:ASN:H	1.57	0.68
1:A:206:THR:HG22	1:A:209:GLU:HG3	1.75	0.68
2:C:274:ARG:HG2	2:C:285:LEU:HD13	1.76	0.68
2:C:598:GLU:O	2:C:651:LYS:HG3	1.94	0.68
2:C:1042:ALA:CB	3:D:1227:GLN:HE22	1.90	0.68
2:M:455:LEU:CD1	2:M:459:ALA:HB3	2.14	0.68
2:M:1062:GLY:O	2:M:1066:ALA:HB2	1.93	0.68
3:N:1129:THR:HB	3:N:1320:GLU:OE1	1.92	0.68
3:N:1129:THR:CB	3:N:1320:GLU:HG3	2.21	0.68
2:C:290:LEU:HB3	2:C:302:VAL:HG11	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:799:LYS:CB	3:D:826:PRO:HG2	2.23	0.68
3:D:1167:SER:O	3:D:1171:VAL:HG23	1.93	0.68
3:N:122:GLU:O	3:N:126:VAL:HG23	1.93	0.68
1:B:87:VAL:HG21	1:B:144:VAL:HG11	1.75	0.68
2:C:679:PHE:C	3:D:943:THR:HG22	2.14	0.68
2:C:690:ILE:HG13	2:C:694:LEU:HD12	1.75	0.68
2:C:1062:GLY:O	2:C:1066:ALA:HB2	1.93	0.68
3:D:133:ILE:O	3:D:152:LEU:HB2	1.92	0.68
3:D:897:TRP:HA	3:D:900:ILE:HG12	0.69	0.68
2:M:266:ARG:HA	2:M:288:ARG:HD3	1.75	0.68
2:M:725:ASP:O	2:M:727:PRO:HD3	1.93	0.68
3:N:1109:GLU:HG2	3:N:1200:VAL:O	1.94	0.68
3:N:1283:ILE:HD11	3:N:1314:LYS:HA	1.75	0.68
3:N:1292:VAL:HG22	3:N:1311:LEU:HD13	1.74	0.68
2:C:185:LYS:HG2	2:C:190:LYS:HG3	1.75	0.68
2:C:1006:HIS:HD1	2:C:1027:PHE:HD1	1.40	0.68
3:D:28:LYS:HB3	3:D:41:ARG:HD2	1.74	0.68
3:D:540:LEU:H	3:D:540:LEU:HD12	1.58	0.68
3:D:1256:LEU:N	3:D:1257:PRO:CD	2.57	0.68
1:B:49:PRO:HA	1:B:148:VAL:HG12	1.75	0.68
2:C:946:ARG:HA	2:C:949:LYS:HD2	1.75	0.68
2:C:1097:LEU:HD22	2:C:1097:LEU:N	2.04	0.68
3:D:704:ARG:CA	3:D:745:MET:HG2	2.21	0.68
2:M:367:LEU:HB3	2:M:371:LYS:HE3	1.76	0.68
3:N:152:LEU:HD23	3:N:152:LEU:H	1.59	0.68
3:N:508:ARG:HB3	3:N:510:GLU:OE2	1.94	0.68
3:N:1394:VAL:HB	3:N:1397:LYS:HE2	1.76	0.68
1:A:42:ARG:CZ	1:B:34:VAL:HB	2.24	0.68
2:C:630:ARG:HD3	2:C:705:ILE:CG2	2.24	0.68
3:D:9:ARG:HA	3:D:1434:TRP:HH2	1.58	0.68
3:D:47:GLU:HG2	3:D:53:ILE:HB	1.74	0.68
2:M:690:ILE:HG12	2:M:691:SER:N	2.08	0.68
2:M:1109:VAL:HG21	3:N:5:VAL:HG13	1.76	0.68
5:G:25:DG:H2'	5:G:26:DC:C6	2.28	0.68
7:I:1:DG:H3'	7:I:1:DG:P	2.33	0.68
1:A:13:VAL:HG12	1:A:14:ARG:N	2.08	0.68
2:C:274:ARG:NE	2:C:278:GLU:OE2	2.27	0.68
2:C:358:ARG:HH22	2:C:374:ASN:HB3	1.59	0.68
2:C:1016:ILE:HG12	2:C:1017:THR:HG23	1.76	0.68
3:D:554:LEU:HA	3:D:557:LEU:HD12	1.76	0.68
1:K:171:PHE:O	1:K:173:PRO:HD3	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:710:ILE:HD11	2:M:758:ARG:HE	1.56	0.68
2:M:710:ILE:HD12	2:M:790:LEU:HB2	1.75	0.68
4:O:25:LYS:HA	4:O:28:GLN:NE2	2.09	0.68
2:C:73:LEU:HB2	2:C:93:PRO:O	1.94	0.68
2:C:396:ASP:HA	2:C:633:GLN:NE2	2.09	0.68
2:C:571:LEU:HD21	2:C:700:TYR:HA	1.75	0.68
2:C:889:HIS:O	2:C:892:LEU:HB3	1.94	0.68
3:D:9:ARG:HA	3:D:1455:LYS:O	1.94	0.68
3:D:642:CYS:SG	3:D:716:PHE:HB2	2.34	0.68
3:D:739:ASP:O	3:D:743:ASP:CG	2.32	0.68
4:E:26:ARG:O	4:E:30:LEU:HD12	1.94	0.68
3:N:646:LYS:NZ	3:N:688:TRP:CE2	2.59	0.68
3:N:720:LEU:H	3:N:720:LEU:HD12	1.57	0.68
3:N:1223:ILE:O	3:N:1227:GLN:HG3	1.94	0.68
3:D:701:LEU:H	3:D:701:LEU:HD12	1.59	0.67
3:D:1109:GLU:HG2	3:D:1201:CYS:CA	2.21	0.67
2:M:7:GLY:HA3	2:M:904:PRO:HG2	1.76	0.67
2:M:274:ARG:HH11	2:M:274:ARG:HG3	1.58	0.67
2:M:971:LYS:HA	2:M:988:VAL:HA	1.76	0.67
7:I:11:DG:H8	7:I:11:DG:O5'	1.77	0.67
1:B:102:LYS:HD2	1:B:139:ASN:OD1	1.94	0.67
2:C:435:TYR:O	2:C:437:ARG:HD2	1.93	0.67
2:M:378:LEU:HG	2:M:382:ILE:HD11	1.76	0.67
3:N:80:VAL:HG12	3:N:81:THR:O	1.94	0.67
3:N:1263:PHE:O	3:N:1424:VAL:HG12	1.94	0.67
2:C:52:PHE:HE1	2:C:68:PHE:N	1.91	0.67
2:C:304:LEU:HD23	2:C:305:PRO:HD3	1.77	0.67
3:D:505:SER:CB	3:D:1453:ALA:HA	2.24	0.67
3:D:619:LEU:HB2	3:D:621:LYS:NZ	2.10	0.67
3:D:827:ILE:H	3:D:827:ILE:HD12	1.60	0.67
3:D:1448:THR:O	3:D:1452:ILE:HD13	1.95	0.67
3:N:104:PHE:CD2	3:N:1448:THR:HG23	2.29	0.67
3:N:1209:LEU:HD23	3:N:1210:SER:N	2.08	0.67
6:H:4:G:H2'	6:H:5:C:C6	2.29	0.67
7:Z:15:DT:H2"	7:Z:16:DG:OP2	1.94	0.67
1:A:31:GLY:O	1:A:34:VAL:CG1	2.42	0.67
2:C:58:ASP:O	2:C:59:LYS:CB	2.42	0.67
2:C:218:VAL:HG13	2:C:221:LEU:HD21	1.77	0.67
3:D:41:ARG:C	3:D:43:GLY:H	1.97	0.67
3:D:785:ILE:HG23	3:D:938:GLY:HA3	1.76	0.67
3:D:1447:LEU:CD1	3:D:1447:LEU:H	2.07	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1457:ASP:O	3:D:1459:LEU:HD12	1.93	0.67
2:M:69:LEU:HB2	2:M:97:ARG:HB2	1.75	0.67
2:M:189:ARG:HD3	2:M:190:LYS:H	1.60	0.67
2:M:289:THR:O	2:M:291:ALA:N	2.28	0.67
2:M:420:ARG:HD2	7:Z:1:DG:C5'	2.24	0.67
2:M:430:VAL:HG11	3:N:1075:HIS:HA	1.75	0.67
2:M:580:MET:HB3	2:M:584:GLU:CD	2.15	0.67
2:M:760:SER:O	2:M:785:VAL:HG22	1.95	0.67
2:M:862:PRO:CB	2:M:929:ARG:HH22	2.05	0.67
2:M:1040:LEU:HG	2:M:1045:ALA:HB3	1.76	0.67
2:M:1053:LEU:HD12	3:N:1469:GLY:HA2	1.76	0.67
3:N:206:ARG:HB2	3:N:392:SER:O	1.94	0.67
3:N:486:ARG:O	3:N:490:ALA:HB2	1.94	0.67
3:N:493:ARG:NH1	3:N:1391:GLU:HG2	2.09	0.67
3:N:732:VAL:HB	3:N:736:PHE:HE1	1.59	0.67
1:A:63:HIS:HB3	2:C:746:GLY:HA3	1.77	0.67
1:A:178:ALA:HB2	2:C:864:GLY:N	2.10	0.67
2:C:151:ASP:HB2	2:C:157:ARG:O	1.95	0.67
2:C:693:GLU:CG	2:C:697:ARG:HH21	2.08	0.67
2:C:939:ARG:HA	2:C:939:ARG:NE	2.10	0.67
2:C:957:LYS:HB3	2:C:962:GLN:HG2	1.77	0.67
3:D:1031:ASN:HB3	3:D:1034:GLN:CB	2.25	0.67
2:M:690:ILE:HG23	2:M:852:ILE:HA	1.77	0.67
3:N:1481:VAL:HG13	4:O:18:ARG:HE	1.58	0.67
2:C:595:LEU:O	2:C:655:LEU:HG	1.95	0.67
2:C:682:TYR:CZ	3:D:635:PRO:HG2	2.29	0.67
2:C:937:ASP:HB3	2:C:940:GLU:HG3	1.76	0.67
3:D:646:LYS:HG3	3:D:647:ARG:N	2.10	0.67
3:D:714:GLN:HE21	3:D:765:SER:HB3	1.60	0.67
2:M:841:ASN:HD21	2:M:884:GLN:HB3	1.60	0.67
3:N:1128:VAL:CB	3:N:1133:ARG:HH22	2.04	0.67
3:N:1293:PHE:HB3	3:N:1295:GLU:HG3	1.74	0.67
3:N:1377:LYS:O	3:N:1377:LYS:HG2	1.93	0.67
2:C:304:LEU:CD2	2:C:305:PRO:HD3	2.25	0.67
2:C:358:ARG:HH12	2:C:374:ASN:CG	1.98	0.67
2:C:690:ILE:HG23	2:C:852:ILE:HA	1.76	0.67
1:L:87:VAL:HG21	1:L:144:VAL:HG11	1.75	0.67
2:M:668:LEU:HD12	2:M:668:LEU:N	2.09	0.67
3:N:166:GLN:CA	3:N:198:ARG:HB3	2.24	0.67
6:H:5:C:C6	6:H:5:C:H3'	2.30	0.67
2:C:89:THR:HG21	2:C:383:ARG:NH1	2.06	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:987:ILE:CG2	3:D:948:THR:HG21	2.23	0.67
3:D:950:GLY:O	3:D:953:ASP:HB2	1.95	0.67
4:E:28:GLN:O	4:E:32:ARG:NH1	2.27	0.67
1:L:80:LEU:HD12	1:L:83:LYS:NZ	2.10	0.67
2:M:163:ILE:HD13	2:M:171:TRP:CH2	2.29	0.67
2:M:195:LEU:CD2	2:M:238:LEU:HG	2.25	0.67
2:M:265:ARG:HB3	2:M:267:TYR:CD1	2.29	0.67
2:M:588:VAL:HG23	2:M:596:TYR:OH	1.95	0.67
3:N:619:LEU:HB2	3:N:621:LYS:HZ3	1.60	0.67
3:N:1061:PHE:HE1	3:N:1065:LEU:HD22	1.60	0.67
2:C:69:LEU:CD1	2:C:97:ARG:HB3	2.20	0.67
2:M:267:TYR:O	2:M:267:TYR:CD2	2.47	0.67
2:M:393:GLN:HE21	6:Y:10:G:H4'	1.58	0.67
2:M:673:LEU:HD22	2:M:867:VAL:HG12	1.77	0.67
3:N:157:GLU:O	3:N:160:GLU:HB2	1.95	0.67
3:N:434:ARG:HD2	3:N:435:VAL:H	1.60	0.67
3:N:646:LYS:HG3	3:N:688:TRP:CH2	2.30	0.67
3:N:1259:VAL:HA	3:N:1262:LEU:HD22	1.77	0.67
3:D:952:ASP:HA	3:D:1062:ARG:NH2	2.10	0.67
2:M:144:PRO:HG2	2:M:265:ARG:HH11	1.59	0.67
2:M:941:VAL:HA	2:M:944:LEU:HB2	1.75	0.67
3:N:639:LEU:HD12	3:N:640:HIS:N	2.09	0.67
2:C:152:PRO:HD3	2:C:159:ILE:HD11	1.77	0.66
2:C:654:LEU:HD23	2:C:654:LEU:H	1.59	0.66
3:D:1381:VAL:HB	3:D:1389:LEU:O	1.93	0.66
1:K:88:ARG:HH22	1:K:90:LEU:HG	1.59	0.66
1:K:177:VAL:O	2:M:864:GLY:CA	2.43	0.66
2:M:703:ILE:HD12	2:M:703:ILE:N	2.09	0.66
3:N:1431:THR:HG23	3:N:1433:SER:O	1.96	0.66
2:C:800:VAL:HA	2:C:827:VAL:HG22	1.78	0.66
3:D:30:GLU:HB2	3:D:41:ARG:HG3	1.75	0.66
3:D:785:ILE:CG2	3:D:938:GLY:HA3	2.25	0.66
3:D:1412:LYS:O	3:D:1414:PRO:HD3	1.95	0.66
2:M:143:SER:CB	2:M:276:LYS:HE2	2.24	0.66
3:N:525:ARG:HB2	3:N:538:SER:CB	2.23	0.66
3:N:1229:ILE:HD11	3:N:1367:HIS:HB3	1.78	0.66
5:X:27:DC:H2'	5:X:28:DG:C8	2.31	0.66
1:A:50:GLY:HA3	1:A:173:PRO:HG3	1.77	0.66
1:B:56:VAL:HG13	1:B:142:VAL:HG12	1.77	0.66
2:C:140:ILE:HG23	2:C:410:ILE:CD1	2.25	0.66
2:C:537:LYS:CD	2:C:905:ILE:HD13	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:919:PHE:HA	3:D:927:THR:OG1	1.95	0.66
3:D:1094:LEU:HD11	3:D:1260:ILE:HD12	1.77	0.66
3:D:1255:GLY:C	3:D:1257:PRO:HD2	2.16	0.66
1:L:19:GLU:HG3	1:L:201:THR:O	1.94	0.66
1:L:38:ASN:O	1:L:41:ARG:HB3	1.95	0.66
2:M:580:MET:O	2:M:902:ILE:HA	1.95	0.66
2:M:905:ILE:HG22	2:M:906:PHE:N	2.10	0.66
3:N:116:LEU:HB3	3:N:118:LEU:HD11	1.76	0.66
3:N:619:LEU:HB2	3:N:621:LYS:NZ	2.10	0.66
3:N:646:LYS:CD	3:N:688:TRP:CE2	2.78	0.66
1:B:123:MET:C	1:B:125:PRO:HD3	2.16	0.66
2:C:148:PHE:HZ	2:C:281:LEU:HD13	1.59	0.66
2:C:939:ARG:HD3	2:C:982:PRO:CD	2.24	0.66
3:D:1213:ARG:HH12	4:E:11:GLY:HA2	1.59	0.66
1:L:102:LYS:HE2	1:L:139:ASN:HB2	1.77	0.66
3:N:166:GLN:HA	3:N:198:ARG:CB	2.26	0.66
3:N:1213:ARG:NH2	4:O:14:ASP:HA	2.11	0.66
2:C:289:THR:O	2:C:291:ALA:N	2.28	0.66
3:D:57:GLU:HG2	3:D:58:CYS:N	2.10	0.66
3:D:750:PRO:HB2	3:D:756:GLN:HA	1.78	0.66
3:N:25:GLU:HB2	3:N:92:HIS:CE1	2.30	0.66
3:N:1476:THR:HG23	4:O:21:VAL:HG22	1.78	0.66
1:B:52:ALA:HB2	1:B:170:VAL:C	2.16	0.66
2:C:326:ASP:HB2	2:C:431:HIS:HD1	1.58	0.66
2:C:433:THR:C	2:C:435:TYR:H	1.99	0.66
2:C:532:MET:HG2	2:C:533:ASP:N	2.09	0.66
2:C:642:ARG:HG3	2:C:657:ASP:OD2	1.95	0.66
2:C:1045:ALA:HB2	3:D:763:MET:CE	2.26	0.66
1:K:9:PRO:HB3	1:K:25:LEU:CG	2.24	0.66
2:M:579:VAL:HG13	2:M:842:ARG:NH2	2.10	0.66
2:M:751:PRO:HB3	2:M:794:PRO:HA	1.78	0.66
2:M:1087:VAL:O	2:M:1091:GLU:HG3	1.96	0.66
3:N:28:LYS:HB2	3:N:41:ARG:HD2	1.77	0.66
3:N:1137:ARG:O	3:N:1141:GLU:HG3	1.95	0.66
3:D:574:LEU:O	3:D:578:VAL:HG23	1.96	0.66
3:D:613:ARG:HH11	3:D:616:GLN:HG2	1.59	0.66
3:D:1097:LYS:O	3:D:1101:VAL:HG22	1.95	0.66
3:D:1481:VAL:CG1	4:E:21:VAL:HG21	2.25	0.66
2:M:676:ILE:O	2:M:676:ILE:HG23	1.95	0.66
2:M:1105:LYS:HD2	2:M:1105:LYS:O	1.95	0.66
1:A:153:ALA:HA	1:A:156:HIS:NE2	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:526:PRO:O	3:D:537:THR:HA	1.94	0.66
3:N:646:LYS:HB2	3:N:688:TRP:CH2	2.29	0.66
3:N:785:ILE:H	3:N:785:ILE:HD12	1.61	0.66
3:N:1292:VAL:O	3:N:1303:TYR:HB2	1.95	0.66
4:O:54:LEU:HA	4:O:58:PRO:CG	2.24	0.66
1:A:43:ILE:CG2	1:A:47:SER:OG	2.44	0.66
1:A:197:LEU:HD23	1:A:197:LEU:H	1.61	0.66
2:C:1013:TYR:HA	2:C:1020:PRO:HA	1.76	0.66
2:C:1089:VAL:O	2:C:1092:LEU:HB2	1.96	0.66
3:D:1084:THR:HA	3:D:1087:ARG:HG2	1.78	0.66
3:D:1111:ASP:HB2	3:D:1203:LYS:HG3	1.78	0.66
1:L:101:LEU:HD23	1:L:101:LEU:C	2.16	0.66
2:M:237:ARG:HH11	2:M:237:ARG:CB	2.09	0.66
3:N:15:PRO:HA	3:N:18:ILE:HG12	1.78	0.66
1:A:18:ARG:O	1:A:207:PRO:HD3	1.95	0.66
2:C:73:LEU:HB3	2:C:94:LEU:HA	1.78	0.66
2:C:939:ARG:HB3	2:C:982:PRO:HG3	1.78	0.66
3:D:1258:ARG:NH1	3:D:1329:ALA:HB1	2.04	0.66
1:L:52:ALA:HB2	1:L:170:VAL:C	2.16	0.66
1:L:80:LEU:HG	3:N:844:ALA:CA	2.25	0.66
2:M:1001:VAL:HG11	5:X:24:DC:OP1	1.96	0.66
3:N:477:LEU:HD13	3:N:496:LEU:HB2	1.77	0.66
3:N:637:LEU:HD11	3:N:642:CYS:N	2.11	0.66
3:N:1268:PRO:HG3	3:N:1329:ALA:CB	2.22	0.66
1:A:42:ARG:HH12	1:B:34:VAL:HB	1.59	0.65
2:C:8:ARG:HH21	2:C:10:ARG:NH2	1.94	0.65
2:C:459:ALA:HB1	2:C:467:ILE:CG2	2.25	0.65
2:C:957:LYS:HG2	2:C:961:GLU:HB2	1.77	0.65
3:D:10:ILE:CD1	3:D:1434:TRP:NE1	2.59	0.65
3:D:108:VAL:CB	3:D:109:PRO:HD3	2.26	0.65
3:D:1194:CYS:HB3	3:D:1373:ARG:NH1	2.09	0.65
3:D:1408:ILE:O	2:M:370:ALA:HB1	1.95	0.65
2:M:1009:SER:HB3	3:N:651:GLU:OE1	1.96	0.65
3:N:646:LYS:HD2	3:N:688:TRP:CH2	2.31	0.65
3:N:752:SER:OG	3:N:754:PHE:HB3	1.96	0.65
3:N:882:PHE:HA	3:N:885:ILE:HD12	1.78	0.65
3:N:1375:MET:HB3	3:N:1422:MET:O	1.96	0.65
3:N:1380:GLU:HA	3:N:1391:GLU:O	1.95	0.65
2:C:134:ARG:NH1	2:C:387:SER:HA	2.11	0.65
3:D:89:ARG:O	3:D:521:PRO:HG3	1.96	0.65
3:D:1380:GLU:HA	3:D:1391:GLU:O	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:79:ILE:HA	1:L:82:LEU:HD12	1.78	0.65
2:M:313:LEU:HB2	2:M:321:GLU:CG	2.25	0.65
2:M:445:GLU:CA	2:M:449:ILE:HD12	2.25	0.65
2:M:732:ALA:HA	2:M:735:ARG:NH2	2.10	0.65
3:N:41:ARG:HD3	3:N:42:ASP:H	1.61	0.65
3:N:544:TYR:O	3:N:548:ILE:HG12	1.96	0.65
3:N:693:GLU:CG	4:O:48:MET:SD	2.84	0.65
5:G:7:DA:H2"	5:G:8:DC:OP2	1.94	0.65
2:C:34:VAL:HB	2:C:38:LYS:HG3	1.78	0.65
2:C:63:GLY:HA3	2:C:103:LYS:HG3	1.78	0.65
2:C:152:PRO:HD3	2:C:159:ILE:CD1	2.27	0.65
2:C:265:ARG:H	2:C:289:THR:CG2	2.09	0.65
2:C:374:ASN:O	2:C:377:PRO:HD2	1.96	0.65
2:C:1081:VAL:HB	2:C:1086:ARG:NE	2.11	0.65
3:D:46:ASP:OD2	3:D:48:ARG:HB3	1.95	0.65
3:D:1237:THR:HG22	3:D:1238:MET:H	1.61	0.65
4:E:23:VAL:HG22	4:E:68:LEU:HD23	1.78	0.65
1:L:188:GLN:CG	3:N:685:ASP:OD2	2.41	0.65
2:M:86:LYS:O	2:M:88:LEU:N	2.28	0.65
2:M:286:SER:HB3	2:M:299:LYS:HE3	1.78	0.65
2:M:1092:LEU:HD13	2:M:1099:VAL:HG21	1.76	0.65
3:N:73:CYS:SG	3:N:75:ARG:HG3	2.35	0.65
3:N:792:ILE:HG12	3:N:878:GLY:CA	2.27	0.65
3:N:1239:ARG:HG3	3:N:1240:THR:H	1.62	0.65
3:N:1448:THR:O	3:N:1452:ILE:HD13	1.96	0.65
2:C:831:ARG:CZ	2:C:1004:LYS:HZ2	2.08	0.65
3:D:86:ARG:HG2	3:D:522:PRO:HG2	1.78	0.65
3:D:715:ALA:HB3	3:D:764:LEU:HA	1.79	0.65
1:L:83:LYS:HD2	3:N:848:GLU:OE1	1.97	0.65
2:M:567:GLN:HE22	6:Y:13:C:C5'	2.10	0.65
2:M:857:ASP:HB2	2:M:978:ARG:CG	2.21	0.65
2:M:1095:LEU:O	2:M:1097:LEU:N	2.29	0.65
3:N:86:ARG:O	3:N:522:PRO:HD2	1.96	0.65
3:N:1129:THR:N	3:N:1320:GLU:HG2	2.10	0.65
3:N:1441:GLN:CG	3:N:1442:ASN:H	2.09	0.65
6:H:5:C:O5'	6:H:5:C:H6	1.80	0.65
5:X:6:DT:H2"	5:X:7:DA:C8	2.30	0.65
2:C:165:LEU:HB3	2:C:265:ARG:NH1	2.12	0.65
2:C:729:LEU:HD13	3:D:675:ARG:NH1	2.11	0.65
2:C:903:SER:OG	2:C:908:GLY:HA3	1.95	0.65
3:D:97:THR:HB	3:D:571:LYS:HE2	1.76	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:645:PRO:HA	3:D:721:VAL:O	1.97	0.65
2:M:653:ASP:OD1	2:M:654:LEU:HD23	1.97	0.65
3:N:784:ASP:HB3	3:N:939:PHE:HE2	1.60	0.65
3:D:95:LEU:HD23	3:D:96:ALA:N	2.11	0.65
3:D:109:PRO:HB3	3:D:494:LYS:HZ3	1.60	0.65
3:D:127:LEU:C	3:D:127:LEU:HD12	2.16	0.65
3:D:728:LEU:HD11	3:D:732:VAL:CG2	2.26	0.65
3:D:1083:ASP:O	3:D:1087:ARG:CG	2.45	0.65
1:L:80:LEU:O	3:N:844:ALA:HB2	1.96	0.65
2:M:486:MET:SD	2:M:490:GLU:CB	2.68	0.65
2:M:1095:LEU:HD21	3:N:603:LEU:HD13	1.74	0.65
3:N:24:GLY:HA3	3:N:49:ILE:HG12	1.78	0.65
3:N:394:LEU:HD23	3:N:394:LEU:H	1.61	0.65
3:N:433:GLY:HA3	3:N:447:VAL:O	1.97	0.65
3:N:1100:ASP:OD2	3:N:1440:PHE:CB	2.44	0.65
3:N:1284:GLU:HG3	3:N:1285:GLU:N	2.12	0.65
3:N:1381:VAL:HG12	3:N:1382:THR:H	1.60	0.65
3:N:1465:ASN:OD1	3:N:1473:PRO:HD3	1.96	0.65
2:C:537:LYS:NZ	2:C:904:PRO:HB3	2.10	0.65
3:D:696:HIS:CG	3:D:697:GLY:H	2.13	0.65
3:D:741:ASP:O	6:H:14:G:H5”	1.96	0.65
3:D:808:THR:OG1	3:D:809:PRO:HD3	1.96	0.65
3:D:1033:GLN:O	3:D:1037:GLN:N	2.30	0.65
2:M:145:GLY:HA3	2:M:276:LYS:HD3	1.77	0.65
2:M:451:LEU:HB2	2:M:452:ILE:HD12	1.78	0.65
2:M:611:ILE:HD11	2:M:641:PRO:CG	2.27	0.65
3:N:462:GLN:HG3	3:N:513:ILE:HG12	1.78	0.65
3:N:607:LEU:HA	3:N:613:ARG:HB2	1.77	0.65
3:N:1264:GLU:O	3:N:1266:ARG:N	2.30	0.65
7:I:5:DC:C6	7:I:6:DT:H72	2.31	0.65
1:A:102:LYS:HA	1:A:138:LEU:O	1.97	0.65
2:C:86:LYS:O	2:C:88:LEU:N	2.29	0.65
2:C:145:GLY:HA3	2:C:276:LYS:HD3	1.78	0.65
2:C:1016:ILE:HG22	3:D:523:ASP:O	1.97	0.65
3:D:52:PRO:CG	3:D:80:VAL:HG13	2.27	0.65
3:D:615:ARG:NH2	3:D:1096:ARG:HD2	2.11	0.65
3:D:862:ASP:O	3:D:876:SER:HA	1.96	0.65
3:D:1496:GLU:O	3:D:1499:ARG:HB2	1.97	0.65
2:M:1038:TRP:O	2:M:1041:GLU:HB2	1.97	0.65
2:M:1056:LYS:HE3	3:N:751:LEU:CD1	2.18	0.65
3:N:1331:ASP:O	3:N:1335:LEU:HB2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1438:ALA:HA	3:N:1446:VAL:HG11	1.77	0.65
2:C:1042:ALA:HB3	3:D:710:ARG:HB3	1.78	0.65
3:D:10:ILE:HG13	3:D:1434:TRP:CE2	2.32	0.65
1:L:101:LEU:HB2	1:L:114:PHE:HA	1.79	0.65
2:M:183:SER:HB2	2:M:190:LYS:HD3	1.78	0.65
3:N:87:ARG:HD3	3:N:524:LEU:CD1	2.26	0.65
3:N:924:MET:N	4:O:7:ASP:OD2	2.29	0.65
3:N:1066:THR:HG22	3:N:1069:GLU:CD	2.17	0.65
3:N:1114:THR:O	3:N:1189:ARG:NH2	2.21	0.65
7:I:12:DT:H2"	7:I:13:DA:OP2	1.97	0.65
1:A:31:GLY:O	1:A:34:VAL:HG12	1.96	0.65
2:C:165:LEU:HA	2:C:166:PRO:O	1.97	0.65
2:C:276:LYS:HA	2:C:280:LYS:HD2	1.78	0.65
2:C:342:ASP:O	2:C:346:VAL:HG23	1.97	0.65
2:C:676:ILE:CG2	2:C:988:VAL:HG13	2.27	0.65
2:C:1093:GLN:HB3	3:D:21:TRP:CE3	2.31	0.65
3:D:1237:THR:HB	3:D:1359:GLN:NE2	2.11	0.65
4:E:54:LEU:HG	4:E:58:PRO:CG	2.24	0.65
1:K:58:ILE:HD13	1:K:140:MET:HB3	1.77	0.65
2:M:1032:PHE:O	2:M:1036:GLU:HB2	1.97	0.65
3:N:87:ARG:HB3	3:N:523:ASP:OD2	1.96	0.65
3:N:501:ALA:CB	3:N:1452:ILE:HG22	2.26	0.65
3:N:693:GLU:O	4:O:48:MET:SD	2.55	0.65
6:H:6:C:N4	6:H:7:G:C6	2.65	0.65
1:A:88:ARG:HG2	1:A:88:ARG:HH11	1.62	0.64
2:C:468:ARG:HD3	2:C:485:TYR:HB3	1.78	0.64
2:C:524:VAL:HG12	2:C:525:SER:H	1.62	0.64
2:C:762:LYS:HD2	2:C:786:LYS:HB2	1.77	0.64
2:C:877:PRO:HG3	3:D:1023:MET:SD	2.37	0.64
3:D:8:VAL:CG2	3:D:1435:LEU:HD21	2.26	0.64
3:D:614:PHE:CZ	3:D:1438:ALA:HB1	2.31	0.64
3:D:716:PHE:O	3:D:718:PRO:HD3	1.97	0.64
3:D:1412:LYS:CB	2:M:376:ARG:HH21	2.09	0.64
1:K:53:VAL:HG21	1:K:82:LEU:HB3	1.78	0.64
2:M:583:LEU:O	2:M:587:VAL:HG23	1.96	0.64
2:M:937:ASP:OD2	2:M:939:ARG:HG2	1.97	0.64
3:N:30:GLU:HB3	3:N:40:GLU:HG2	1.79	0.64
3:N:785:ILE:HD12	3:N:785:ILE:N	2.12	0.64
3:N:862:ASP:O	3:N:877:PRO:HD3	1.96	0.64
1:A:102:LYS:HB3	1:A:139:ASN:OD1	1.97	0.64
2:C:244:PRO:CD	2:C:245:GLY:H	2.09	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:496:ILE:HA	2:C:531:PHE:O	1.97	0.64
2:C:899:GLN:HG3	2:C:901:TYR:OH	1.97	0.64
2:C:1048:THR:OG1	3:D:758:GLU:HG3	1.96	0.64
2:C:1060:ILE:HG23	2:C:1061:GLU:N	2.12	0.64
3:D:7:LYS:CG	3:D:1458:GLU:HA	2.26	0.64
3:D:927:THR:O	3:D:930:LEU:HB3	1.97	0.64
2:M:260:LEU:HD12	2:M:261:ILE:HG13	1.77	0.64
2:M:487:THR:HB	2:M:490:GLU:HG3	1.78	0.64
2:M:861:LEU:HD22	2:M:863:ASP:H	1.60	0.64
2:M:1008:ARG:HD2	2:M:1028:GLY:H	1.61	0.64
3:N:98:PRO:HG2	3:N:462:GLN:OE1	1.97	0.64
1:A:32:PHE:HE1	1:B:221:HIS:NE2	1.80	0.64
2:C:30:LEU:HD12	2:C:30:LEU:O	1.97	0.64
2:C:1036:GLU:N	2:C:1036:GLU:OE1	2.30	0.64
3:D:111:LYS:HE2	3:D:1445:HIS:NE2	2.12	0.64
3:D:809:PRO:HB2	3:D:812:ALA:CB	2.27	0.64
1:K:88:ARG:HH12	1:K:90:LEU:HD11	1.62	0.64
2:M:692:GLU:OE1	2:M:854:PRO:HB3	1.97	0.64
3:N:584:ASN:OD1	3:N:590:PRO:HD2	1.96	0.64
5:G:21:DG:C2'	5:G:22:DA:O5'	2.45	0.64
1:B:38:ASN:O	1:B:41:ARG:HB3	1.97	0.64
2:M:129:ILE:N	2:M:129:ILE:HD12	2.13	0.64
2:M:193:LEU:HD23	2:M:307:LEU:HD11	1.79	0.64
2:M:267:TYR:HB2	2:M:272:ALA:HB1	1.78	0.64
2:M:918:LEU:HD23	2:M:968:LEU:CA	2.25	0.64
3:N:160:GLU:O	3:N:163:TYR:N	2.30	0.64
3:N:653:PHE:CZ	3:N:749:VAL:HG13	2.32	0.64
3:N:840:LYS:HD3	3:N:841:TYR:CZ	2.32	0.64
6:Y:9:C:C2'	6:Y:10:G:H5'	2.28	0.64
1:A:106:PRO:HG2	1:A:134:GLU:OE1	1.98	0.64
2:C:541:SER:OG	2:C:543:ASN:N	2.30	0.64
2:C:1090:LYS:HD2	3:D:90:MET:CG	2.27	0.64
2:M:433:THR:C	2:M:435:TYR:H	2.00	0.64
2:M:462:ASP:HB3	2:M:468:ARG:HD2	1.79	0.64
2:M:486:MET:HG3	2:M:487:THR:O	1.98	0.64
2:M:817:PRO:O	3:N:532:GLY:HA2	1.97	0.64
2:M:1032:PHE:CE2	2:M:1037:VAL:HA	2.33	0.64
3:N:73:CYS:SG	3:N:76:CYS:N	2.70	0.64
3:N:153:LEU:HD13	3:N:158:TYR:HB2	1.78	0.64
3:N:464:LEU:O	3:N:468:LEU:HG	1.97	0.64
3:N:1432:LYS:HZ3	3:N:1432:LYS:HB2	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:75:VAL:O	1:A:79:ILE:HG23	1.98	0.64
2:C:148:PHE:CZ	2:C:281:LEU:HD13	2.33	0.64
2:C:611:ILE:HD11	2:C:641:PRO:HG3	1.78	0.64
2:C:685:GLU:OE1	3:D:739:ASP:HB3	1.97	0.64
2:C:854:PRO:HB2	2:C:856:GLU:HG3	1.79	0.64
2:C:1101:THR:C	2:C:1102:LEU:HD12	2.17	0.64
3:D:639:LEU:HG	3:D:932:ASP:OD1	1.97	0.64
3:D:1229:ILE:HD11	3:D:1367:HIS:HB3	1.79	0.64
1:K:42:ARG:HH12	1:L:34:VAL:CG1	2.11	0.64
1:K:42:ARG:CZ	2:M:857:ASP:HB3	2.27	0.64
1:L:132:LEU:HG	1:L:136:GLY:HA3	1.79	0.64
2:M:41:ASN:HB2	2:M:45:GLN:HG2	1.79	0.64
2:M:626:ARG:O	2:M:638:ASP:HA	1.98	0.64
3:N:714:GLN:HE22	3:N:732:VAL:HG11	1.63	0.64
3:N:813:LEU:O	3:N:817:GLU:HB2	1.97	0.64
5:X:27:DC:OP2	5:X:27:DC:C6	2.43	0.64
3:D:619:LEU:HD12	3:D:621:LYS:HZ1	1.62	0.64
3:D:709:HIS:HA	3:D:1227:GLN:HB3	1.78	0.64
3:D:951:ILE:CD1	3:D:1062:ARG:HE	2.09	0.64
2:M:269:LEU:HG	2:M:288:ARG:HG2	1.79	0.64
2:M:1047:HIS:O	2:M:1051:GLU:HG3	1.98	0.64
2:M:1090:LYS:NZ	2:M:1112:PHE:HE1	1.90	0.64
3:N:116:LEU:HB3	3:N:118:LEU:CD1	2.28	0.64
3:N:628:ARG:HH11	3:N:628:ARG:HG3	1.63	0.64
3:N:1101:VAL:HG13	3:N:1428:ALA:CB	2.24	0.64
7:I:17:DA:H8	7:I:17:DA:O5'	1.80	0.64
3:D:562:ALA:HB1	3:D:567:ILE:HD11	1.80	0.64
3:D:758:GLU:HB3	3:D:762:GLN:NE2	2.13	0.64
3:D:832:ARG:HD2	3:D:832:ARG:O	1.97	0.64
3:D:1033:GLN:HB3	3:D:1037:GLN:OE1	1.98	0.64
3:D:1402:ALA:HB2	3:D:1415:VAL:HG21	1.79	0.64
3:D:1493:LYS:O	3:D:1497:GLU:HG2	1.98	0.64
1:K:70:GLY:N	2:M:607:ASP:OD1	2.28	0.64
2:M:292:ARG:HB2	2:M:299:LYS:HG2	1.80	0.64
2:M:911:GLU:HA	2:M:914:ILE:HD12	1.80	0.64
2:M:1058:ASP:OD1	2:M:1084:SER:HB3	1.98	0.64
3:N:187:LYS:HE2	3:N:199:LEU:HA	1.80	0.64
7:I:15:DT:H2"	7:I:16:DG:OP2	1.98	0.64
1:A:165:ILE:O	1:A:165:ILE:HG13	1.97	0.64
2:C:327:HIS:HA	2:C:431:HIS:NE2	2.13	0.64
3:D:480:GLU:O	3:D:484:PRO:HD2	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:704:ARG:HE	3:D:705:ALA:HB3	1.62	0.64
3:D:1238:MET:O	3:D:1253:THR:HG21	1.98	0.64
3:D:1239:ARG:HA	3:D:1253:THR:HB	1.80	0.64
2:M:396:ASP:CB	2:M:406:HIS:CD2	2.80	0.64
3:N:52:PRO:HB2	3:N:83:SER:HA	1.79	0.64
3:N:696:HIS:CE1	4:O:62:THR:HG21	2.32	0.64
3:N:860:LEU:HD23	3:N:877:PRO:HB2	1.80	0.64
1:A:50:GLY:CA	1:A:173:PRO:HG3	2.28	0.64
2:C:15:LEU:HD12	2:C:15:LEU:N	2.11	0.64
2:C:602:GLU:OE1	2:C:648:ARG:HG2	1.98	0.64
2:C:622:GLU:O	2:C:624:PRO:HD3	1.98	0.64
2:C:888:THR:O	2:C:990:GLY:HA3	1.98	0.64
3:D:133:ILE:HG12	3:D:456:MET:HB3	1.79	0.64
2:M:124:ASP:OD1	2:M:126:SER:OG	2.10	0.64
2:M:263:ASP:O	2:M:264:PRO:O	2.15	0.64
2:M:264:PRO:HB3	2:M:289:THR:HB	1.78	0.64
2:M:1032:PHE:O	2:M:1033:GLY:O	2.16	0.64
2:M:1111:ILE:HG13	2:M:1112:PHE:H	1.62	0.64
3:N:45:PHE:CD1	3:N:522:PRO:HB3	2.33	0.64
3:N:456:MET:O	3:N:459:GLU:HB3	1.98	0.64
3:N:550:ARG:HD3	3:N:570:GLU:OE1	1.97	0.64
3:N:1088:THR:HG21	5:X:19:DG:N2	2.13	0.64
6:H:12:U:O5'	6:H:12:U:H6	1.81	0.64
1:B:179:PHE:HB2	1:B:195:LEU:HD11	1.80	0.63
2:C:85:GLU:O	2:C:824:ARG:NH2	2.31	0.63
2:C:683:ASN:OD1	2:C:872:ASN:HB2	1.98	0.63
2:C:1034:GLU:CD	3:D:619:LEU:HD22	2.17	0.63
3:D:1412:LYS:HB2	2:M:376:ARG:HH21	1.61	0.63
2:M:683:ASN:O	2:M:683:ASN:ND2	2.24	0.63
2:M:854:PRO:HB2	2:M:856:GLU:HG3	1.79	0.63
3:N:484:PRO:HB3	3:N:488:ARG:NH2	2.13	0.63
3:N:862:ASP:O	3:N:876:SER:HA	1.97	0.63
3:N:937:TYR:O	3:N:941:PHE:HB2	1.98	0.63
3:N:1274:ILE:HD12	3:N:1274:ILE:O	1.98	0.63
3:N:1345:GLU:O	3:N:1349:VAL:HG23	1.98	0.63
3:N:1380:GLU:HG3	3:N:1381:VAL:H	1.63	0.63
7:I:11:DG:C2'	7:I:12:DT:C7	2.77	0.63
3:D:54:LYS:O	3:D:55:ASP:O	2.17	0.63
3:D:104:PHE:CD2	3:D:1448:THR:HG23	2.33	0.63
3:D:704:ARG:HG3	3:D:705:ALA:N	2.12	0.63
4:E:46:PRO:HB2	4:E:54:LEU:HD22	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:33:ASN:OD1	3:N:35:ARG:HG3	1.98	0.63
3:N:899:LEU:HB3	3:N:917:GLN:HG2	1.80	0.63
3:N:1389:LEU:HD12	3:N:1390:LEU:N	2.13	0.63
3:N:1472:ILE:HD13	3:N:1472:ILE:N	2.00	0.63
3:N:1485:GLN:HB2	4:O:79:LEU:HB3	1.80	0.63
6:H:11:C:H2'	6:H:12:U:C6	2.33	0.63
1:B:101:LEU:HB2	1:B:114:PHE:HA	1.79	0.63
2:C:12:VAL:HG11	2:C:472:ARG:HD3	1.79	0.63
2:C:157:ARG:NH2	2:C:158:TYR:CE1	2.65	0.63
2:C:460:ARG:HG2	2:C:485:TYR:CE2	2.33	0.63
2:C:1083:GLU:O	2:C:1087:VAL:HG12	1.98	0.63
3:D:1410:GLU:OE2	2:M:373:VAL:HG12	1.98	0.63
3:D:1432:LYS:HB2	3:D:1432:LYS:NZ	2.13	0.63
2:M:630:ARG:HH11	2:M:630:ARG:HG3	1.63	0.63
2:M:884:GLN:O	2:M:992:MET:HE1	1.98	0.63
2:M:906:PHE:CD1	3:N:1067:VAL:HG22	2.32	0.63
3:N:619:LEU:HD12	3:N:621:LYS:HZ1	1.63	0.63
3:N:1149:LEU:HD22	3:N:1151:ARG:O	1.97	0.63
5:G:16:DT:H2"	5:G:17:DA:OP1	1.99	0.63
1:A:154:GLU:CD	1:A:154:GLU:N	2.51	0.63
2:C:129:ILE:HG22	2:C:130:ASN:N	2.13	0.63
2:C:216:GLU:HG2	2:C:219:GLN:OE1	1.98	0.63
2:C:264:PRO:HB3	2:C:289:THR:HB	1.80	0.63
2:C:694:LEU:HD21	2:C:868:ASP:CB	2.27	0.63
2:C:720:GLU:HG2	2:C:760:SER:CB	2.28	0.63
2:C:836:GLY:HA3	3:D:724:GLN:OE1	1.98	0.63
2:C:1115:LEU:CD2	3:D:85:VAL:HG12	2.27	0.63
3:D:1200:VAL:HG22	3:D:1373:ARG:HH12	1.62	0.63
2:M:217:LEU:HD12	2:M:311:PHE:CD2	2.33	0.63
2:M:631:SER:HB3	2:M:635:THR:N	2.11	0.63
3:N:521:PRO:CD	3:N:524:LEU:HD22	2.26	0.63
3:N:565:ILE:H	3:N:565:ILE:HD12	1.64	0.63
3:N:690:ALA:O	3:N:694:VAL:HG23	1.98	0.63
3:N:695:ILE:O	3:N:696:HIS:C	2.37	0.63
3:N:834:THR:HA	3:N:838:ARG:NH1	2.13	0.63
3:N:845:ASN:CG	3:N:846:PRO:HD2	2.18	0.63
3:N:853:VAL:HA	3:N:858:VAL:O	1.99	0.63
5:X:7:DA:H2"	5:X:8:DC:C5'	2.27	0.63
2:C:31:GLN:HB3	2:C:71:TYR:HH	1.64	0.63
2:C:572:ILE:HG13	2:C:573:ARG:H	1.64	0.63
3:D:1442:ASN:O	3:D:1443:THR:HG23	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:694:LEU:HD21	2:M:868:ASP:OD2	1.98	0.63
2:M:1013:TYR:HE1	2:M:1020:PRO:HG3	1.63	0.63
2:M:1032:PHE:HE2	2:M:1037:VAL:HA	1.64	0.63
3:N:97:THR:HG23	3:N:459:GLU:HB2	1.81	0.63
3:N:398:ALA:CB	3:N:447:VAL:HA	2.26	0.63
3:N:457:GLY:C	3:N:459:GLU:N	2.49	0.63
3:N:477:LEU:HD22	3:N:492:ALA:HB1	1.80	0.63
3:N:659:LYS:HE3	3:N:663:GLU:OE2	1.98	0.63
3:D:18:ILE:HD12	3:D:518:PRO:HG3	1.80	0.63
3:D:618:LEU:HD11	3:D:1463:LYS:HG3	1.80	0.63
3:D:638:LYS:HZ3	3:D:932:ASP:HB3	1.64	0.63
3:D:731:LEU:HD21	3:D:782:SER:H	1.63	0.63
2:M:496:ILE:N	2:M:496:ILE:HD12	2.13	0.63
2:M:1013:TYR:HA	2:M:1020:PRO:HA	1.81	0.63
2:M:1085:PHE:O	2:M:1088:LEU:HB3	1.99	0.63
3:N:130:SER:O	3:N:568:ARG:HD3	1.99	0.63
3:N:704:ARG:HG2	3:N:736:PHE:HB3	1.80	0.63
4:O:47:LYS:N	4:O:54:LEU:HD13	2.13	0.63
1:B:9:PRO:HB3	1:B:25:LEU:HD21	1.79	0.63
2:C:50:GLU:CB	2:C:266:ARG:CZ	2.76	0.63
2:C:265:ARG:HG2	2:C:267:TYR:H	1.64	0.63
2:C:300:ASP:OD2	2:C:303:PHE:HB2	1.99	0.63
2:C:1047:HIS:HB2	3:D:758:GLU:OE1	1.99	0.63
3:D:654:LYS:HB3	3:D:655:PRO:CD	2.28	0.63
2:M:77:PRO:HD3	2:M:93:PRO:HD3	1.80	0.63
2:M:473:ARG:HG3	2:M:474:VAL:N	2.11	0.63
2:M:498:GLN:CG	2:M:516:ARG:HH21	2.12	0.63
3:N:115:LEU:C	3:N:115:LEU:HD23	2.19	0.63
3:N:693:GLU:O	4:O:48:MET:CE	2.46	0.63
5:X:3:DC:H6	5:X:3:DC:O5'	1.81	0.63
2:C:580:MET:HE2	2:C:902:ILE:HG12	1.79	0.63
2:C:692:GLU:CG	2:C:696:LYS:HE3	2.20	0.63
2:C:1056:LYS:HZ1	3:D:749:VAL:H	1.44	0.63
3:D:1453:ALA:O	3:D:1455:LYS:N	2.31	0.63
1:K:75:VAL:O	1:K:79:ILE:HG23	1.97	0.63
1:L:123:MET:C	1:L:125:PRO:HD3	2.19	0.63
2:M:422:ARG:HB3	7:Z:1:DG:N2	2.14	0.63
2:M:516:ARG:NH2	3:N:1068:LEU:HB2	2.14	0.63
3:N:12:LEU:HD23	3:N:13:ALA:H	1.64	0.63
3:N:696:HIS:CG	3:N:697:GLY:N	2.67	0.63
3:N:1126:ASP:OD1	3:N:1129:THR:N	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1240:THR:O	3:N:1241:PHE:CB	2.47	0.63
2:C:516:ARG:HE	3:D:1068:LEU:HD13	1.63	0.63
2:C:580:MET:O	2:C:902:ILE:HA	1.98	0.63
3:D:850:LEU:HD12	3:D:850:LEU:H	1.63	0.63
3:D:1083:ASP:O	3:D:1087:ARG:HD3	1.99	0.63
1:K:88:ARG:NH2	1:K:90:LEU:HG	2.13	0.63
2:M:252:LYS:HD3	2:M:296:GLY:HA2	1.81	0.63
2:M:666:LEU:HG	2:M:668:LEU:HD11	1.80	0.63
3:N:23:TYR:CE1	3:N:89:ARG:HG2	2.34	0.63
3:N:607:LEU:HA	3:N:613:ARG:HB3	1.79	0.63
3:N:1111:ASP:OD1	3:N:1203:LYS:HB2	1.99	0.63
2:C:838:LYS:C	2:C:839:LEU:HD23	2.20	0.62
3:D:33:ASN:HB2	3:D:40:GLU:OE1	1.99	0.62
3:D:902:LEU:H	3:D:902:LEU:CD2	2.05	0.62
3:D:1242:HIS:O	3:D:1250:ALA:HA	1.98	0.62
3:N:1093:TYR:CE1	5:X:18:DC:C5'	2.82	0.62
7:I:11:DG:C8	7:I:11:DG:O5'	2.52	0.62
1:A:42:ARG:HB2	1:B:35:THR:CG2	2.29	0.62
2:C:557:ARG:NH2	2:C:879:ARG:HE	1.97	0.62
2:C:682:TYR:CE2	3:D:635:PRO:HG2	2.34	0.62
2:C:831:ARG:NH2	2:C:1004:LYS:HZ2	1.96	0.62
2:C:893:ALA:O	2:C:897:LEU:HG	1.99	0.62
3:D:542:ASP:HB2	3:D:600:LEU:HD23	1.80	0.62
3:D:1003:VAL:HG13	3:D:1036:ARG:CD	2.28	0.62
1:L:89:PHE:HB3	1:L:94:LEU:HD13	1.81	0.62
2:M:987:ILE:HD11	3:N:946:GLY:HA2	1.81	0.62
3:N:703:ASN:OD1	3:N:707:THR:HG23	1.99	0.62
3:N:750:PRO:HB2	3:N:756:GLN:HA	1.81	0.62
3:N:770:LEU:HD22	3:N:775:GLY:O	2.00	0.62
3:N:785:ILE:HG23	3:N:938:GLY:HA3	1.81	0.62
1:A:43:ILE:HD13	1:B:32:PHE:CE2	2.34	0.62
1:B:206:THR:HG23	1:B:208:LEU:H	1.61	0.62
2:C:45:GLN:O	2:C:48:PHE:HB2	1.99	0.62
2:C:263:ASP:O	2:C:264:PRO:O	2.17	0.62
2:C:577:PRO:HG3	2:C:993:PHE:CE1	2.34	0.62
2:C:1046:ALA:C	3:D:1472:ILE:HD11	2.19	0.62
2:C:1102:LEU:O	3:D:5:VAL:HG13	1.99	0.62
3:D:148:GLU:HB3	3:D:151:GLN:CB	2.30	0.62
3:D:615:ARG:NH1	3:D:1096:ARG:CZ	2.61	0.62
3:D:908:LYS:HB2	3:D:1027:GLY:HA3	1.79	0.62
3:D:1112:CYS:HB3	3:D:1195:GLN:CG	2.11	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1463:LYS:O	3:D:1467:ILE:HG13	2.00	0.62
1:L:100:LEU:HB2	1:L:115:LEU:CD2	2.28	0.62
2:M:10:ARG:HH11	2:M:10:ARG:HA	1.64	0.62
2:M:52:PHE:CD2	2:M:68:PHE:HB2	2.34	0.62
2:M:431:HIS:NE2	2:M:433:THR:OG1	2.32	0.62
2:M:524:VAL:HG12	2:M:525:SER:N	2.14	0.62
3:N:98:PRO:O	3:N:458:ALA:HB3	1.99	0.62
1:A:109:VAL:O	1:A:110:LYS:HD3	1.98	0.62
3:D:119:SER:O	3:D:121:THR:N	2.33	0.62
3:D:474:GLU:O	3:D:478:LEU:HG	2.00	0.62
3:D:1033:GLN:HB2	3:D:1037:GLN:OE1	1.99	0.62
2:M:263:ASP:HB2	2:M:264:PRO:HD3	1.81	0.62
2:M:680:ASP:OD1	3:N:943:THR:HG21	1.98	0.62
2:M:683:ASN:HA	2:M:687:ALA:C	2.20	0.62
2:M:887:GLU:CD	2:M:992:MET:HG3	2.19	0.62
3:N:501:ALA:HB1	3:N:1453:ALA:CB	2.29	0.62
3:N:700:VAL:HG22	3:N:718:PRO:CG	2.29	0.62
3:N:1367:HIS:O	3:N:1370:ILE:HG12	1.99	0.62
3:N:1483:PHE:HB2	4:O:77:GLU:OE1	1.99	0.62
6:Y:4:G:H2'	6:Y:5:C:H6	1.63	0.62
6:Y:6:C:H3'	6:Y:7:G:H8	1.64	0.62
1:A:162:ILE:HG13	1:A:163:ASN:N	2.15	0.62
1:B:175:ARG:HB3	3:D:847:ASP:OD2	1.99	0.62
2:C:490:GLU:HA	2:C:493:ARG:HD3	1.82	0.62
2:C:836:GLY:HA2	3:D:725:SER:HB3	1.80	0.62
2:C:897:LEU:HD21	2:C:921:ALA:HA	1.82	0.62
2:C:1000:MET:C	2:C:1002:GLU:H	2.01	0.62
3:D:131:LYS:HG2	3:D:456:MET:HE1	1.82	0.62
3:D:1206:GLY:HA3	3:D:1366:LYS:NZ	2.15	0.62
1:K:101:LEU:HD13	1:K:114:PHE:CE1	2.35	0.62
3:N:132:TYR:HD2	3:N:154:THR:CB	2.10	0.62
3:N:697:GLY:CA	3:N:717:GLN:CD	2.60	0.62
3:N:799:LYS:HB3	3:N:826:PRO:HG2	1.81	0.62
3:N:1459:LEU:HA	3:N:1464:GLU:OE1	1.99	0.62
1:A:11:PHE:HA	1:A:25:LEU:HD12	1.81	0.62
1:A:64:GLU:O	1:A:75:VAL:HB	1.98	0.62
2:C:393:GLN:HG2	6:H:10:G:O2'	1.99	0.62
2:C:470:PRO:HD3	2:C:485:TYR:CE2	2.35	0.62
2:C:729:LEU:HD13	3:D:675:ARG:HD2	1.81	0.62
2:C:1032:PHE:CZ	2:C:1037:VAL:HA	2.35	0.62
2:C:1087:VAL:O	2:C:1091:GLU:HG3	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:56:TYR:O	3:D:80:VAL:HG21	1.99	0.62
3:D:530:VAL:HG13	6:H:5:C:OP1	1.99	0.62
3:D:639:LEU:HD12	3:D:640:HIS:N	2.15	0.62
3:D:704:ARG:HD3	3:D:738:ALA:HB2	1.82	0.62
2:M:15:LEU:HB2	2:M:586:ARG:HH12	1.65	0.62
2:M:274:ARG:NH2	2:M:284:ARG:HA	2.15	0.62
2:M:1058:ASP:OD1	2:M:1084:SER:OG	2.16	0.62
3:N:63:TYR:CE1	3:N:73:CYS:HA	2.35	0.62
3:N:119:SER:HB2	3:N:123:LEU:H	1.65	0.62
3:N:1465:ASN:OD1	3:N:1473:PRO:CD	2.46	0.62
5:G:3:DC:H2"	5:G:4:DA:O5'	2.00	0.62
1:B:99:LEU:HB3	1:B:114:PHE:CD2	2.35	0.62
2:C:90:TYR:HB2	2:C:128:ILE:HB	1.82	0.62
2:C:708:TYR:CE2	2:C:793:PRO:HG2	2.35	0.62
3:D:109:PRO:HB3	3:D:494:LYS:HZ1	1.60	0.62
3:D:464:LEU:O	3:D:468:LEU:HG	1.99	0.62
1:L:25:LEU:O	1:L:28:LEU:HD21	1.99	0.62
1:L:201:THR:HG21	1:L:205:VAL:HG23	1.80	0.62
3:N:62:LYS:CG	3:N:75:ARG:HD2	2.23	0.62
3:N:160:GLU:O	3:N:164:GLY:N	2.32	0.62
3:N:646:LYS:HD2	3:N:688:TRP:CE3	2.34	0.62
3:N:1131:SER:HB2	3:N:1133:ARG:NH2	2.15	0.62
5:G:5:DC:C2'	5:G:6:DT:O5'	2.46	0.62
2:C:139:GLN:CD	2:C:418:LEU:HD22	2.20	0.62
2:C:286:SER:HB3	2:C:299:LYS:HE3	1.80	0.62
2:C:524:VAL:HG12	2:C:525:SER:N	2.15	0.62
3:D:487:ALA:HB2	5:G:7:DA:H2'	1.80	0.62
3:D:1149:LEU:HD22	3:D:1151:ARG:O	2.00	0.62
1:K:35:THR:O	1:K:39:PRO:HG2	1.99	0.62
2:M:163:ILE:HD12	2:M:164:PRO:N	2.13	0.62
2:M:172:ILE:H	2:M:172:ILE:HD12	1.64	0.62
2:C:302:VAL:HG13	2:C:303:PHE:H	1.65	0.62
3:D:619:LEU:HB2	3:D:621:LYS:HZ3	1.65	0.62
3:D:1388:ARG:HD2	3:D:1388:ARG:H	1.65	0.62
2:M:395:LYS:HB3	2:M:397:GLU:OE2	2.00	0.62
2:M:679:PHE:O	2:M:680:ASP:O	2.18	0.62
3:N:143:ASN:HA	3:N:161:LEU:HD12	1.81	0.62
3:N:486:ARG:HG2	3:N:1390:LEU:HD11	1.82	0.62
1:B:24:VAL:HG22	1:B:196:THR:HG22	1.81	0.62
2:C:41:ASN:HB3	2:C:45:GLN:OE1	1.99	0.62
2:C:328:LEU:HB2	2:C:433:THR:HB	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:650:ARG:HG2	2:C:653:ASP:HB2	1.82	0.62
2:C:988:VAL:HG11	3:D:949:ILE:O	1.98	0.62
2:C:1046:ALA:O	3:D:1472:ILE:HD11	1.99	0.62
1:L:58:ILE:HD13	1:L:140:MET:HB3	1.81	0.62
2:M:1058:ASP:OD1	2:M:1084:SER:CB	2.47	0.62
3:N:62:LYS:HG3	3:N:75:ARG:CD	2.23	0.62
3:N:834:THR:HG22	3:N:838:ARG:HH11	1.64	0.62
3:N:1131:SER:HB2	3:N:1133:ARG:HH21	1.65	0.62
3:N:1323:GLN:N	3:N:1324:PRO:CD	2.63	0.62
4:O:70:THR:HG21	4:O:72:ARG:CZ	2.30	0.62
1:A:188:GLN:HG3	1:A:189:ARG:N	2.15	0.61
1:B:57:TYR:HB2	1:B:164:ALA:HB2	1.82	0.61
2:C:634:GLY:HA3	2:C:705:ILE:O	2.00	0.61
2:C:710:ILE:HD12	2:C:790:LEU:HB2	1.82	0.61
2:C:945:ARG:O	2:C:949:LYS:HG3	2.00	0.61
3:D:498:VAL:HG12	3:D:502:PHE:HE1	1.64	0.61
3:D:879:ARG:HH12	3:D:905:PRO:HD3	1.65	0.61
3:D:1103:HIS:HA	3:D:1223:ILE:HD11	1.81	0.61
3:D:1114:THR:HG22	3:D:1195:GLN:HB3	1.80	0.61
1:K:7:LYS:HD2	1:K:186:LEU:CD2	2.29	0.61
1:K:121:GLU:HG2	1:K:122:ILE:N	2.14	0.61
1:K:217:ILE:HG22	1:K:221:HIS:NE2	2.15	0.61
2:M:98:LEU:N	2:M:98:LEU:HD12	2.15	0.61
2:M:110:GLU:CG	2:M:369:PRO:HG3	2.30	0.61
2:M:140:ILE:HG22	2:M:333:ILE:HG13	1.82	0.61
2:M:300:ASP:C	2:M:302:VAL:H	2.02	0.61
2:M:643:VAL:HG13	2:M:647:GLN:CD	2.20	0.61
3:N:95:LEU:HB2	3:N:515:GLU:HA	1.82	0.61
3:N:744:GLN:HG3	3:N:744:GLN:O	1.99	0.61
2:C:335:THR:O	2:C:339:LEU:HG	2.00	0.61
2:C:613:VAL:O	2:C:620:LEU:HA	2.00	0.61
3:D:1183:ILE:HG22	3:N:559:ALA:O	2.00	0.61
4:E:54:LEU:CG	4:E:58:PRO:HG2	2.26	0.61
2:M:211:LEU:HD12	2:M:211:LEU:O	2.00	0.61
2:M:586:ARG:HD2	2:M:590:ASP:OD2	2.00	0.61
2:M:647:GLN:O	2:M:649:VAL:HG13	2.00	0.61
2:M:1088:LEU:HA	2:M:1091:GLU:OE1	2.01	0.61
3:N:764:LEU:HD12	3:N:765:SER:N	2.15	0.61
3:N:939:PHE:O	3:N:942:SER:OG	2.16	0.61
7:I:8:DG:H2"	7:I:9:DT:OP2	1.99	0.61
2:C:172:ILE:H	2:C:172:ILE:HD12	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:265:ARG:HB3	2:C:267:TYR:CE2	2.35	0.61
2:C:492:ASP:HB3	2:C:518:LYS:HD2	1.81	0.61
2:C:714:ASP:OD2	2:C:820:ARG:HB2	2.00	0.61
3:D:774:SER:HB2	3:D:776:GLU:HG2	1.82	0.61
3:D:1195:GLN:CG	3:D:1196:THR:H	2.11	0.61
1:L:7:LYS:HZ2	1:L:186:LEU:HD13	1.65	0.61
2:M:911:GLU:HB3	2:M:912:PRO:HD3	1.82	0.61
2:M:1050:GLN:O	2:M:1054:THR:HG23	2.00	0.61
2:M:1053:LEU:HD23	2:M:1053:LEU:N	2.15	0.61
3:N:132:TYR:HA	3:N:154:THR:HA	1.82	0.61
3:N:171:LEU:HG	3:N:195:VAL:HG23	1.80	0.61
3:N:457:GLY:O	3:N:459:GLU:N	2.34	0.61
3:N:952:ASP:HA	3:N:1062:ARG:NH2	2.14	0.61
3:N:1110:ALA:O	3:N:1111:ASP:C	2.38	0.61
2:C:52:PHE:CE1	2:C:68:PHE:CB	2.74	0.61
2:C:516:ARG:CZ	3:D:1068:LEU:HD22	2.31	0.61
3:D:1109:GLU:OE1	3:D:1201:CYS:HB2	2.00	0.61
2:M:52:PHE:CE1	2:M:66:LEU:HG	2.33	0.61
2:M:170:PRO:HD2	2:M:263:ASP:HB3	1.82	0.61
2:M:350:ARG:O	2:M:353:ARG:HB3	2.01	0.61
3:N:502:PHE:CD1	3:N:1452:ILE:HG23	2.36	0.61
3:N:1379:VAL:HA	3:N:1420:LEU:HB2	1.82	0.61
3:D:524:LEU:N	3:D:524:LEU:CD1	2.62	0.61
3:D:583:ASP:OD1	3:D:586:ARG:HG2	2.01	0.61
3:D:833:GLU:O	3:D:834:THR:CG2	2.36	0.61
3:D:983:LEU:CD1	3:D:988:ARG:HB2	2.30	0.61
1:K:156:HIS:ND1	1:K:157:GLY:N	2.48	0.61
2:M:165:LEU:HA	2:M:166:PRO:O	1.99	0.61
2:M:332:ARG:CZ	2:M:464:LEU:HD11	2.30	0.61
2:M:569:VAL:HG21	2:M:702:SER:OG	2.01	0.61
2:M:1052:MET:N	2:M:1052:MET:SD	2.72	0.61
3:N:625:TYR:CD2	3:N:652:LEU:O	2.54	0.61
1:A:43:ILE:O	1:A:47:SER:N	2.18	0.61
2:C:946:ARG:HB3	2:C:946:ARG:HH11	1.66	0.61
2:C:1032:PHE:O	2:C:1033:GLY:O	2.17	0.61
2:C:1115:LEU:HD23	3:D:85:VAL:HA	1.83	0.61
3:D:87:ARG:HB2	3:D:524:LEU:HD11	1.81	0.61
3:D:93:ILE:HD12	3:D:517:VAL:HB	1.83	0.61
3:D:131:LYS:HG3	3:D:568:ARG:HG2	1.80	0.61
3:D:163:TYR:HD1	3:D:163:TYR:H	1.46	0.61
3:D:743:ASP:OD1	6:H:14:G:O2'	2.18	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:750:PRO:CB	3:D:756:GLN:HA	2.30	0.61
1:K:42:ARG:HH12	1:L:34:VAL:HB	1.64	0.61
1:K:72:LYS:HE3	2:M:641:PRO:HB2	1.81	0.61
2:M:95:TYR:HD2	2:M:114:PHE:HB3	1.65	0.61
2:M:532:MET:CG	2:M:533:ASP:N	2.64	0.61
2:M:1046:ALA:HB1	3:N:1471:LEU:CD1	2.26	0.61
2:M:1056:LYS:HD3	3:N:623:VAL:HG13	1.82	0.61
3:N:619:LEU:N	3:N:619:LEU:HD23	2.16	0.61
3:N:1256:LEU:HG	3:N:1260:ILE:HD11	1.82	0.61
1:B:150:TYR:HE2	1:B:168:ASP:HB3	1.66	0.61
2:C:239:PHE:CZ	2:C:250:ARG:HD2	2.35	0.61
2:C:267:TYR:CG	2:C:272:ALA:HB1	2.36	0.61
2:C:395:LYS:NZ	2:C:407:LYS:HZ3	1.99	0.61
2:C:678:PRO:O	3:D:943:THR:HA	2.01	0.61
3:D:86:ARG:O	3:D:521:PRO:HB3	1.99	0.61
3:D:101:HIS:O	3:D:105:VAL:HG23	2.01	0.61
3:D:1106:VAL:HG11	3:D:1474:ALA:CB	2.30	0.61
3:D:1397:LYS:HZ2	3:D:1432:LYS:HE3	1.66	0.61
1:L:32:PHE:O	1:L:36:LEU:HG	2.00	0.61
2:M:16:PRO:O	2:M:18:LEU:HD12	2.00	0.61
2:M:36:PRO:HB2	2:M:70:GLU:HG2	1.82	0.61
2:M:68:PHE:HE1	2:M:96:ALA:HB1	1.64	0.61
2:M:143:SER:HB2	2:M:276:LYS:CE	2.28	0.61
2:M:394:PHE:CE1	2:M:632:ASN:HB3	2.36	0.61
2:M:418:LEU:N	2:M:418:LEU:HD12	2.16	0.61
2:M:613:VAL:O	2:M:620:LEU:HA	2.01	0.61
3:N:716:PHE:O	3:N:718:PRO:HD3	2.01	0.61
2:C:799:ILE:C	2:C:827:VAL:HG13	2.21	0.61
2:C:897:LEU:HD22	2:C:920:GLN:HE22	1.66	0.61
2:C:1090:LYS:HD2	3:D:90:MET:SD	2.41	0.61
3:D:781:PRO:HB2	3:D:786:ILE:CG1	2.31	0.61
3:D:1110:ALA:O	3:D:1111:ASP:C	2.38	0.61
4:E:64:ALA:O	4:E:68:LEU:HD13	2.01	0.61
1:K:221:HIS:HA	1:K:224:TYR:CD2	2.36	0.61
2:M:20:GLU:HG2	2:M:21:ILE:HD12	1.82	0.61
2:M:30:LEU:O	2:M:30:LEU:HD12	2.00	0.61
2:M:66:LEU:HD12	2:M:99:GLN:O	2.01	0.61
2:M:577:PRO:HG3	2:M:993:PHE:CE2	2.36	0.61
2:M:630:ARG:CD	2:M:634:GLY:HA2	2.30	0.61
3:N:105:VAL:HG22	3:N:112:ILE:HG21	1.82	0.61
3:N:187:LYS:CE	3:N:199:LEU:HA	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:661:MET:O	3:N:664:LYS:O	2.18	0.61
3:N:711:LEU:HD21	3:N:768:ASN:HB3	1.81	0.61
4:O:34:GLY:CA	4:O:95:VAL:HB	2.29	0.61
5:X:13:DA:C2'	5:X:14:DG:OP2	2.44	0.61
1:A:56:VAL:HG13	1:A:142:VAL:HG12	1.83	0.61
1:A:226:SER:O	1:A:228:PRO:HD3	1.99	0.61
2:C:1056:LYS:NZ	3:D:749:VAL:H	1.99	0.61
3:D:32:ILE:HG12	3:D:39:PRO:HA	1.81	0.61
3:D:105:VAL:HA	3:D:112:ILE:CG2	2.31	0.61
3:D:119:SER:HB2	3:D:123:LEU:HB2	1.83	0.61
3:D:521:PRO:HD2	3:D:524:LEU:HD22	1.82	0.61
3:D:542:ASP:HA	3:D:545:ARG:HH21	1.64	0.61
3:D:774:SER:C	3:D:776:GLU:H	2.02	0.61
3:D:937:TYR:O	3:D:941:PHE:HB2	2.01	0.61
3:D:1129:THR:HG23	3:D:1130:ARG:N	2.16	0.61
3:D:1264:GLU:HB3	3:D:1266:ARG:HD2	1.82	0.61
2:M:226:VAL:HG13	2:M:227:PHE:CD1	2.36	0.61
3:N:119:SER:HB2	3:N:123:LEU:CB	2.30	0.61
3:N:1177:ALA:O	3:N:1180:ALA:HB3	1.99	0.61
7:I:4:DG:C2'	7:I:5:DC:OP2	2.44	0.61
1:A:211:LEU:O	1:A:215:VAL:HG23	2.01	0.61
1:B:101:LEU:HD11	1:B:113:ASP:HB3	1.83	0.61
2:C:15:LEU:H	2:C:15:LEU:CD1	2.12	0.61
2:C:98:LEU:HD12	2:C:98:LEU:N	2.16	0.61
2:C:604:ALA:HB3	2:C:612:VAL:O	2.01	0.61
3:D:623:VAL:HG12	3:D:624:ASP:N	2.16	0.61
3:D:1398:TRP:HA	3:D:1398:TRP:CE3	2.36	0.61
1:L:89:PHE:HB3	1:L:94:LEU:CD1	2.31	0.61
2:M:775:ARG:NH1	2:M:782:ALA:HB1	2.16	0.61
3:N:609:GLY:O	3:N:615:ARG:CB	2.49	0.61
3:N:774:SER:C	3:N:776:GLU:H	2.04	0.61
3:N:804:LEU:HD23	3:N:804:LEU:H	1.64	0.61
3:N:1103:HIS:CE1	3:N:1463:LYS:HB3	2.36	0.61
3:N:1220:ALA:O	3:N:1224:VAL:HG23	2.01	0.61
7:Z:12:DT:H2"	7:Z:13:DA:H8	1.63	0.61
2:C:133:ASP:OD2	2:C:133:ASP:N	2.33	0.60
2:C:395:LYS:CE	2:C:407:LYS:HD2	2.31	0.60
2:C:409:ARG:HH12	2:C:444:PRO:CG	2.14	0.60
3:D:490:ALA:O	3:D:493:ARG:HG3	2.01	0.60
3:D:739:ASP:OD1	3:D:741:ASP:OD2	2.19	0.60
3:D:1153:VAL:HG13	3:N:560:GLN:O	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:54:LEU:HD23	4:E:54:LEU:O	2.00	0.60
2:M:604:ALA:HB3	2:M:612:VAL:O	2.02	0.60
2:M:606:VAL:HG22	2:M:645:VAL:HG13	1.83	0.60
2:M:677:MET:HB3	2:M:987:ILE:HG21	1.82	0.60
3:N:9:ARG:HH12	3:N:11:ALA:HB2	1.65	0.60
3:N:111:LYS:CG	3:N:1448:THR:HG22	2.31	0.60
3:N:623:VAL:HG12	3:N:624:ASP:N	2.16	0.60
3:N:690:ALA:O	3:N:693:GLU:HB3	2.01	0.60
5:X:15:DC:O5'	5:X:15:DC:H6	1.84	0.60
1:A:106:PRO:HA	1:A:133:GLU:O	2.01	0.60
3:D:713:ILE:O	3:D:714:GLN:HG3	2.01	0.60
3:D:1161:GLU:HG2	3:D:1164:ARG:HB2	1.83	0.60
2:M:15:LEU:HB2	2:M:586:ARG:NH1	2.15	0.60
2:M:1075:ASP:CB	4:O:32:ARG:NH2	2.64	0.60
3:N:171:LEU:HG	3:N:195:VAL:CG2	2.31	0.60
3:N:845:ASN:O	3:N:848:GLU:HB2	2.00	0.60
2:C:50:GLU:HB2	2:C:266:ARG:CZ	2.31	0.60
2:C:300:ASP:C	2:C:302:VAL:H	2.04	0.60
2:C:409:ARG:NH1	2:C:444:PRO:HG3	2.15	0.60
2:C:690:ILE:CG1	2:C:691:SER:N	2.63	0.60
2:C:757:GLY:HA2	2:C:789:SER:HB3	1.82	0.60
3:D:739:ASP:O	3:D:743:ASP:OD1	2.18	0.60
3:D:994:GLN:HG2	3:D:1243:THR:O	2.01	0.60
3:D:1109:GLU:OE1	3:D:1111:ASP:N	2.35	0.60
3:D:1378:TYR:OH	3:D:1431:THR:HA	2.00	0.60
1:L:176:ARG:NH1	3:N:884:ARG:HD3	2.15	0.60
2:M:44:ILE:CG2	2:M:45:GLN:N	2.64	0.60
3:N:143:ASN:OD1	3:N:145:VAL:O	2.19	0.60
1:A:112:ARG:HH21	1:A:125:PRO:CB	2.13	0.60
3:D:84:ILE:HG13	3:D:85:VAL:N	2.16	0.60
3:D:134:VAL:HG12	3:D:152:LEU:HB3	1.82	0.60
2:M:89:THR:CA	2:M:129:ILE:O	2.43	0.60
2:M:677:MET:HB3	2:M:987:ILE:HD13	1.83	0.60
2:M:1001:VAL:HG21	5:X:24:DC:H5'	1.83	0.60
3:N:87:ARG:HG3	3:N:88:TYR:CD2	2.36	0.60
3:N:166:GLN:HB3	3:N:198:ARG:HB3	1.83	0.60
3:N:919:PHE:HA	3:N:927:THR:OG1	2.02	0.60
3:N:1033:GLN:CD	3:N:1240:THR:CG2	2.68	0.60
3:N:1061:PHE:CE1	3:N:1065:LEU:HD22	2.36	0.60
3:N:1238:MET:C	3:N:1239:ARG:HG2	2.22	0.60
1:A:63:HIS:CE1	1:A:65:PHE:C	2.74	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:123:MET:C	1:A:125:PRO:HD3	2.22	0.60
1:B:78:ILE:O	1:B:82:LEU:HG	2.01	0.60
2:C:395:LYS:HZ1	2:C:407:LYS:NZ	2.00	0.60
2:C:1016:ILE:CG1	2:C:1017:THR:H	2.12	0.60
3:D:520:LEU:HD11	3:D:524:LEU:HD23	1.82	0.60
3:D:770:LEU:HD22	3:D:775:GLY:O	2.01	0.60
1:K:50:GLY:HA3	1:K:173:PRO:HG3	1.83	0.60
2:M:101:ILE:HG23	2:M:107:LEU:HD22	1.81	0.60
2:M:264:PRO:CB	2:M:289:THR:HB	2.32	0.60
2:M:1031:ARG:HB3	5:X:22:DA:OP1	2.01	0.60
2:M:1036:GLU:OE1	2:M:1036:GLU:N	2.35	0.60
3:N:52:PRO:HG2	3:N:85:VAL:CG2	2.31	0.60
3:N:578:VAL:O	3:N:582:LEU:HG	2.00	0.60
3:N:610:LYS:C	3:N:615:ARG:CG	2.52	0.60
3:N:1453:ALA:O	3:N:1455:LYS:N	2.33	0.60
4:O:36:LYS:HG2	4:O:95:VAL:CG2	2.31	0.60
1:B:30:ARG:HG2	1:B:30:ARG:NH1	2.12	0.60
1:B:170:VAL:HG11	3:D:848:GLU:OE2	2.01	0.60
3:D:619:LEU:N	3:D:619:LEU:HD23	2.16	0.60
3:D:641:GLN:HG2	3:D:717:GLN:NE2	2.15	0.60
3:D:804:LEU:HD12	3:D:830:ALA:O	2.01	0.60
3:D:907:GLU:HG2	3:D:908:LYS:H	1.66	0.60
3:D:1044:LEU:O	3:D:1045:MET:C	2.39	0.60
2:M:305:PRO:HA	2:M:308:ARG:HB2	1.83	0.60
2:M:690:ILE:HG22	2:M:851:LYS:O	2.00	0.60
2:M:874:LEU:CD1	3:N:783:ARG:HB2	2.32	0.60
3:N:501:ALA:HB1	3:N:1453:ALA:CA	2.31	0.60
3:N:526:PRO:O	3:N:537:THR:HA	2.00	0.60
3:N:642:CYS:SG	3:N:716:PHE:HB2	2.42	0.60
3:N:712:GLY:O	3:N:713:ILE:HG13	2.00	0.60
3:N:1216:SER:CB	4:O:15:SER:HA	2.31	0.60
3:N:1422:MET:HE1	3:N:1427:SER:HA	1.84	0.60
3:N:1468:LEU:HD22	3:N:1470:ARG:CB	2.23	0.60
5:X:26:DC:C2	5:X:27:DC:C5	2.89	0.60
7:Z:4:DG:C2'	7:Z:5:DC:OP2	2.37	0.60
1:A:206:THR:HG23	1:A:208:LEU:H	1.67	0.60
2:C:850:ALA:HA	3:D:632:VAL:HG13	1.83	0.60
3:D:706:PRO:CG	5:G:19:DG:N2	2.64	0.60
3:D:845:ASN:O	3:D:848:GLU:HB2	2.01	0.60
3:D:853:VAL:HA	3:D:858:VAL:O	2.01	0.60
3:D:1059:SER:HB2	3:D:1065:LEU:HD12	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1116:ASN:O	3:D:1193:THR:HB	2.01	0.60
3:D:1496:GLU:HA	3:D:1499:ARG:NE	2.15	0.60
1:L:7:LYS:O	1:L:7:LYS:HD3	2.01	0.60
2:M:227:PHE:HD2	2:M:237:ARG:HD3	1.66	0.60
2:M:508:ILE:HD13	2:M:508:ILE:N	2.16	0.60
2:M:692:GLU:HB2	2:M:853:LEU:O	2.02	0.60
2:M:861:LEU:CD2	2:M:863:ASP:HB3	2.26	0.60
2:M:875:GLY:HA2	3:N:1029:ARG:HH21	1.67	0.60
2:M:939:ARG:HE	2:M:939:ARG:CA	1.96	0.60
3:N:488:ARG:HG2	3:N:488:ARG:HH11	1.66	0.60
3:N:682:ASP:O	3:N:683:ILE:HG13	2.01	0.60
3:D:522:PRO:CA	3:D:525:ARG:NH1	2.61	0.60
3:D:1003:VAL:HG13	3:D:1036:ARG:HG3	1.84	0.60
3:D:1154:GLU:HB2	3:N:562:ALA:C	2.22	0.60
3:D:1353:GLN:O	3:D:1357:ARG:HG3	2.01	0.60
3:D:1448:THR:O	3:D:1452:ILE:CD1	2.50	0.60
1:L:48:ILE:HD13	1:L:210:ALA:HB1	1.84	0.60
2:M:64:LEU:HD22	2:M:359:MET:CG	2.25	0.60
2:M:147:TYR:CE2	2:M:330:ASN:HB3	2.37	0.60
2:M:457:ALA:HB3	2:M:538:GLN:HA	1.82	0.60
2:M:887:GLU:OE2	2:M:992:MET:HE2	2.01	0.60
2:M:1060:ILE:O	2:M:1063:ARG:HG2	2.01	0.60
3:N:637:LEU:HD11	3:N:642:CYS:CA	2.31	0.60
3:N:730:PRO:HG2	3:N:731:LEU:H	1.67	0.60
3:N:1377:LYS:HE2	3:N:1394:VAL:HG22	1.82	0.60
2:M:22:GLN:OE1	2:M:336:VAL:HG21	2.02	0.60
2:M:397:GLU:CD	2:M:632:ASN:HB2	2.22	0.60
2:M:426:ASP:HA	2:M:429:ASP:OD2	2.02	0.60
2:M:841:ASN:ND2	2:M:884:GLN:HB3	2.16	0.60
3:N:98:PRO:HA	3:N:514:LEU:O	2.01	0.60
3:N:637:LEU:HD21	3:N:642:CYS:HA	1.84	0.60
3:N:646:LYS:CD	3:N:688:TRP:CH2	2.85	0.60
3:N:704:ARG:CG	3:N:736:PHE:HB3	2.31	0.60
3:N:732:VAL:HB	3:N:736:PHE:CE1	2.37	0.60
3:N:1111:ASP:CG	3:N:1203:LYS:HD2	2.22	0.60
3:N:1447:LEU:N	3:N:1447:LEU:HD12	2.17	0.60
4:O:32:ARG:NH1	4:O:32:ARG:HB2	2.17	0.60
2:C:384:GLU:O	2:C:388:ARG:HB2	2.02	0.60
2:C:751:PRO:HB3	2:C:794:PRO:HA	1.83	0.60
3:D:776:GLU:HB3	3:D:912:LYS:HE2	1.84	0.60
3:D:817:GLU:O	3:D:821:VAL:HG23	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1348:LEU:O	3:D:1352:ILE:HG13	2.01	0.60
1:L:115:LEU:HD12	1:L:115:LEU:O	2.01	0.60
2:M:266:ARG:HA	2:M:288:ARG:CD	2.31	0.60
2:M:269:LEU:HG	2:M:288:ARG:HA	1.83	0.60
2:M:334:ARG:HA	2:M:338:GLU:OE2	2.01	0.60
2:M:423:ALA:HB2	7:Z:1:DG:O4'	2.02	0.60
2:M:492:ASP:HB3	2:M:518:LYS:CD	2.29	0.60
2:M:843:HIS:CE1	2:M:884:GLN:CA	2.84	0.60
2:M:1097:LEU:H	2:M:1097:LEU:CD2	2.11	0.60
3:N:704:ARG:CB	3:N:736:PHE:HB3	2.32	0.60
3:N:1301:LYS:HG3	3:N:1303:TYR:CE1	2.37	0.60
3:N:1382:THR:HG21	3:N:1418:LYS:HE3	1.83	0.60
3:N:1462:LEU:HD22	3:N:1472:ILE:HG22	1.83	0.60
1:B:57:TYR:CE1	1:B:163:ASN:HB2	2.35	0.59
2:C:56:GLU:HB3	2:C:359:MET:SD	2.43	0.59
2:C:140:ILE:HG23	2:C:410:ILE:HD11	1.84	0.59
2:C:267:TYR:O	2:C:268:ASP:C	2.39	0.59
2:C:328:LEU:C	2:C:330:ASN:H	2.05	0.59
2:C:1000:MET:C	2:C:1002:GLU:N	2.55	0.59
2:C:1045:ALA:HB2	3:D:763:MET:SD	2.42	0.59
3:D:108:VAL:HB	3:D:109:PRO:CD	2.25	0.59
3:D:577:ALA:O	3:D:580:ALA:HB3	2.01	0.59
3:D:584:ASN:ND2	3:D:590:PRO:HD2	2.17	0.59
3:D:613:ARG:NE	3:D:613:ARG:HA	2.14	0.59
3:D:704:ARG:HH11	3:D:738:ALA:CB	2.13	0.59
3:D:918:ALA:CB	3:D:927:THR:HG23	2.31	0.59
3:D:1252:ILE:HG23	3:D:1252:ILE:O	2.02	0.59
3:D:1442:ASN:C	3:D:1443:THR:HG23	2.22	0.59
4:E:30:LEU:HB3	4:E:35:PHE:CE1	2.37	0.59
1:L:56:VAL:HG12	1:L:57:TYR:N	2.17	0.59
2:M:52:PHE:O	2:M:54:ILE:N	2.35	0.59
2:M:260:LEU:HD12	2:M:261:ILE:H	1.67	0.59
2:M:274:ARG:HG2	2:M:285:LEU:HD13	1.83	0.59
2:M:498:GLN:HG2	2:M:516:ARG:HH21	1.67	0.59
2:M:735:ARG:HG2	2:M:735:ARG:NH1	2.14	0.59
2:M:825:VAL:HG12	2:M:827:VAL:HG23	1.83	0.59
3:N:539:ASP:HB3	3:N:600:LEU:HB3	1.84	0.59
3:N:646:LYS:HD2	3:N:688:TRP:CZ3	2.37	0.59
3:N:1136:LYS:HB2	3:N:1139:ASP:OD2	2.02	0.59
2:C:1012:PRO:HD3	2:C:1026:GLN:HG2	1.82	0.59
2:C:1060:ILE:O	2:C:1063:ARG:HG2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1027:GLY:O	3:D:1028:ALA:O	2.20	0.59
3:D:1168:MET:HG3	3:D:1172:HIS:NE2	2.16	0.59
2:M:950:LEU:HB3	2:M:952:LEU:HD23	1.83	0.59
2:M:1115:LEU:H	2:M:1115:LEU:CD1	2.06	0.59
3:N:1167:SER:O	3:N:1171:VAL:HG23	2.02	0.59
3:N:1496:GLU:O	3:N:1500:LYS:HG3	2.02	0.59
5:G:20:DC:H2"	5:G:21:DG:C5'	2.30	0.59
2:C:296:GLY:O	2:C:298:PHE:CZ	2.55	0.59
2:C:304:LEU:HD23	2:C:304:LEU:H	1.67	0.59
2:C:516:ARG:NE	3:D:1068:LEU:HD13	2.17	0.59
2:C:559:LEU:CD2	2:C:563:ASN:OD1	2.50	0.59
2:C:1092:LEU:O	2:C:1097:LEU:O	2.20	0.59
2:C:1110:ASP:OD2	2:C:1112:PHE:O	2.19	0.59
3:D:879:ARG:NH2	3:D:903:ASP:O	2.35	0.59
4:E:9:LEU:HD11	4:E:69:LEU:HD12	1.84	0.59
1:L:211:LEU:O	1:L:215:VAL:HG13	2.02	0.59
2:M:172:ILE:HD12	2:M:172:ILE:N	2.18	0.59
2:M:474:VAL:HG23	2:M:478:VAL:O	2.02	0.59
2:M:684:PHE:CE2	2:M:685:GLU:HB2	2.37	0.59
3:N:752:SER:HB3	3:N:755:ALA:HB3	1.84	0.59
3:N:800:LYS:HD2	3:N:804:LEU:HD13	1.85	0.59
3:N:1446:VAL:CG1	3:N:1447:LEU:HD12	2.32	0.59
4:O:13:VAL:HG12	4:O:15:SER:H	1.66	0.59
5:X:9:DC:H2"	5:X:10:DA:H8	1.67	0.59
1:A:46:SER:CB	2:C:856:GLU:OE2	2.50	0.59
2:C:50:GLU:CG	2:C:266:ARG:CD	2.73	0.59
2:C:650:ARG:CG	2:C:653:ASP:HB2	2.32	0.59
2:C:881:ASN:O	2:C:884:GLN:HG3	2.02	0.59
2:C:1016:ILE:CG1	2:C:1017:THR:N	2.66	0.59
3:D:33:ASN:HB2	3:D:40:GLU:CD	2.23	0.59
3:D:984:THR:OG1	3:D:985:ASP:N	2.36	0.59
3:D:1041:LEU:HD12	3:D:1042:ARG:CZ	2.33	0.59
3:D:1256:LEU:HD21	3:D:1260:ILE:HD11	1.84	0.59
4:E:4:PRO:HG2	4:E:66:LYS:NZ	2.17	0.59
2:M:69:LEU:HD12	2:M:97:ARG:HB3	1.83	0.59
2:M:211:LEU:HD13	2:M:308:ARG:HA	1.85	0.59
2:M:333:ILE:HD12	2:M:333:ILE:N	2.17	0.59
2:M:584:GLU:CB	2:M:666:LEU:HB3	2.33	0.59
2:M:876:VAL:H	2:M:877:PRO:HD2	1.66	0.59
3:N:166:GLN:HA	3:N:198:ARG:HG2	1.84	0.59
3:N:683:ILE:HG22	3:N:684:LYS:N	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1207:TYR:O	3:N:1215:VAL:HG23	2.02	0.59
1:A:117:VAL:HB	1:A:120:VAL:CG1	2.33	0.59
1:B:58:ILE:CD1	1:B:140:MET:HB3	2.31	0.59
2:C:110:GLU:OE1	2:C:113:VAL:HG22	2.02	0.59
3:D:862:ASP:O	3:D:877:PRO:HD3	2.03	0.59
3:D:1100:ASP:HA	3:D:1463:LYS:HZ1	1.66	0.59
1:K:92:PRO:HG3	1:K:146:ARG:NH2	2.17	0.59
2:M:184:MET:O	2:M:190:LYS:HA	2.01	0.59
2:M:328:LEU:HB2	2:M:488:ALA:HB2	1.83	0.59
2:M:404:LEU:HA	2:M:407:LYS:HD3	1.81	0.59
3:N:792:ILE:HG23	3:N:793:THR:HG23	1.84	0.59
3:N:939:PHE:O	3:N:943:THR:HG23	2.01	0.59
3:N:1189:ARG:HD2	3:N:1204:CYS:HA	1.83	0.59
3:N:1209:LEU:HD21	4:O:16:LYS:HE3	1.84	0.59
5:G:15:DC:H1'	5:G:16:DT:H5'	1.84	0.59
7:I:3:DA:H2"	7:I:4:DG:O5'	2.03	0.59
6:Y:11:C:O5'	6:Y:11:C:H6	1.85	0.59
1:A:110:LYS:O	1:A:111:ALA:C	2.41	0.59
2:C:170:PRO:HD2	2:C:263:ASP:HB3	1.83	0.59
2:C:395:LYS:HZ1	2:C:407:LYS:HZ3	1.48	0.59
2:C:490:GLU:HA	2:C:493:ARG:CD	2.32	0.59
2:C:796:GLU:HB3	2:C:829:GLN:OE1	2.02	0.59
2:C:824:ARG:HD2	2:C:826:TYR:OH	2.03	0.59
2:C:946:ARG:HB3	2:C:946:ARG:NH1	2.18	0.59
3:D:505:SER:HB3	3:D:1454:GLY:H	1.67	0.59
3:D:989:TYR:CZ	3:D:1051:GLU:CG	2.76	0.59
3:D:1045:MET:CE	3:D:1076:GLY:CA	2.74	0.59
3:D:1154:GLU:N	3:N:561:GLY:HA3	2.18	0.59
3:D:1223:ILE:HD12	3:D:1223:ILE:N	2.17	0.59
2:M:715:THR:HG23	2:M:720:GLU:OE2	2.01	0.59
2:M:775:ARG:HD2	2:M:782:ALA:CB	2.33	0.59
3:N:199:LEU:HD23	3:N:200:ASP:N	2.17	0.59
3:N:900:ILE:O	3:N:900:ILE:HG13	2.01	0.59
3:N:1175:ILE:O	3:N:1179:GLU:HG3	2.02	0.59
3:N:1330:ILE:HD13	3:N:1347:TYR:HE1	1.67	0.59
2:C:106:GLY:O	2:C:107:LEU:HD23	2.03	0.59
2:C:630:ARG:NE	2:C:634:GLY:HA2	2.18	0.59
3:D:465:LEU:HD13	3:D:510:GLU:HA	1.83	0.59
3:D:1431:THR:HG23	3:D:1433:SER:O	2.02	0.59
1:K:24:VAL:HG22	1:K:196:THR:HG22	1.84	0.59
2:M:8:ARG:N	2:M:907:ASP:OD2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:10:ARG:HH11	2:M:10:ARG:CA	2.14	0.59
2:M:160:ALA:HB3	2:M:174:LEU:HB2	1.84	0.59
2:M:605:LYS:HD3	2:M:610:ARG:HH12	1.68	0.59
3:N:653:PHE:CZ	3:N:749:VAL:HG11	2.38	0.59
3:N:907:GLU:HG2	3:N:908:LYS:N	2.17	0.59
5:G:2:DT:C2'	5:G:3:DC:C5	2.85	0.59
6:H:9:C:H2'	6:H:10:G:C1'	2.33	0.59
2:C:408:ARG:HH21	2:C:455:LEU:HD12	1.67	0.59
2:C:455:LEU:HD13	2:C:459:ALA:HB3	1.85	0.59
2:C:752:GLY:HA3	3:D:679:ARG:HA	1.85	0.59
3:D:23:TYR:O	3:D:49:ILE:HG23	2.02	0.59
3:D:484:PRO:HB3	3:D:488:ARG:NE	2.18	0.59
3:D:695:ILE:HD11	3:D:718:PRO:HB2	1.85	0.59
2:M:143:SER:O	2:M:145:GLY:N	2.36	0.59
2:M:753:ASP:HB2	2:M:792:VAL:CG2	2.32	0.59
2:M:906:PHE:CG	3:N:1067:VAL:HG22	2.37	0.59
2:M:1082:PRO:O	2:M:1085:PHE:HB3	2.02	0.59
2:M:1089:VAL:O	2:M:1092:LEU:HB2	2.02	0.59
3:N:750:PRO:HB3	3:N:755:ALA:O	2.03	0.59
3:N:1370:ILE:O	3:N:1374:GLN:HG2	2.03	0.59
7:Z:12:DT:H71	7:Z:12:DT:OP2	2.02	0.59
1:A:87:VAL:HG21	1:A:144:VAL:CG1	2.33	0.59
2:C:130:ASN:HD21	2:C:383:ARG:NH2	2.01	0.59
2:C:582:GLY:C	2:C:583:LEU:HD12	2.23	0.59
3:D:564:GLU:HA	3:D:567:ILE:HD12	1.83	0.59
3:D:1146:GLY:CA	3:D:1207:TYR:HB2	2.32	0.59
3:D:1442:ASN:ND2	5:G:16:DT:OP1	2.35	0.59
2:M:267:TYR:O	2:M:268:ASP:C	2.40	0.59
2:M:869:VAL:HG22	2:M:870:ILE:N	2.17	0.59
2:M:1048:THR:OG1	3:N:755:ALA:HB1	2.03	0.59
3:N:112:ILE:HD11	3:N:116:LEU:HD12	1.83	0.59
3:N:135:LEU:HD11	3:N:147:VAL:HG23	1.85	0.59
3:N:137:PRO:HD2	3:N:453:ASP:CG	2.23	0.59
3:N:785:ILE:CD1	3:N:939:PHE:CE2	2.86	0.59
3:N:896:ALA:O	3:N:900:ILE:HG23	2.03	0.59
1:A:179:PHE:HB2	1:A:195:LEU:HD11	1.85	0.59
2:C:679:PHE:O	2:C:680:ASP:O	2.20	0.59
2:C:1008:ARG:HG2	2:C:1008:ARG:HH11	1.66	0.59
2:C:1093:GLN:O	3:D:21:TRP:HZ3	1.86	0.59
3:D:1096:ARG:HH12	5:G:18:DC:P	2.25	0.59
3:D:1106:VAL:HG12	3:D:1107:VAL:N	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1397:LYS:NZ	3:D:1432:LYS:HE3	2.18	0.59
2:M:304:LEU:CG	2:M:305:PRO:HD3	2.33	0.59
2:M:340:MET:O	2:M:340:MET:SD	2.61	0.59
2:M:504:GLU:HB2	2:M:507:ARG:HB3	1.85	0.59
2:M:889:HIS:CE1	2:M:988:VAL:CG2	2.81	0.59
2:M:1092:LEU:HB3	2:M:1099:VAL:HG23	1.85	0.59
3:N:33:ASN:HB2	3:N:40:GLU:OE1	2.02	0.59
3:N:792:ILE:HD11	3:N:881:LEU:HB3	1.85	0.59
3:N:1446:VAL:HG12	3:N:1447:LEU:HD12	1.85	0.59
5:G:17:DA:OP1	5:G:17:DA:O4'	2.21	0.59
2:C:2:GLU:O	2:C:3:ILE:HD13	2.03	0.58
2:C:269:LEU:HD12	2:C:288:ARG:HG3	1.84	0.58
2:C:346:VAL:O	2:C:350:ARG:HG3	2.03	0.58
2:C:541:SER:OG	2:C:542:VAL:N	2.36	0.58
2:C:647:GLN:O	2:C:649:VAL:HG13	2.04	0.58
2:C:753:ASP:O	2:C:792:VAL:HG23	2.02	0.58
3:D:19:ARG:HH11	3:D:19:ARG:HG3	1.67	0.58
3:D:1347:TYR:CE2	3:D:1351:GLU:HG2	2.38	0.58
3:D:1468:LEU:HD22	3:D:1470:ARG:HG3	1.85	0.58
3:D:1492:LEU:HD12	3:D:1493:LYS:HE3	1.85	0.58
1:L:206:THR:HG23	1:L:208:LEU:H	1.67	0.58
2:M:680:ASP:N	3:N:943:THR:HG22	2.18	0.58
3:N:581:LEU:H	3:N:581:LEU:CD2	2.15	0.58
3:N:583:ASP:OD1	3:N:586:ARG:HG2	2.03	0.58
3:N:671:LYS:O	3:N:675:ARG:HG3	2.03	0.58
6:H:6:C:C5	6:H:7:G:N7	2.71	0.58
5:X:12:DA:C2	5:X:13:DA:C4	2.91	0.58
2:C:272:ALA:O	2:C:276:LYS:HE3	2.03	0.58
2:C:290:LEU:HD23	2:C:290:LEU:H	1.67	0.58
2:C:496:ILE:HD12	2:C:496:ILE:N	2.18	0.58
2:C:555:ALA:O	2:C:558:ALA:HB3	2.03	0.58
2:C:999:HIS:ND1	2:C:1003:ASP:HB2	2.18	0.58
3:D:741:ASP:O	6:H:14:G:C5'	2.50	0.58
3:D:1033:GLN:O	3:D:1037:GLN:CA	2.51	0.58
3:D:1236:LEU:HD23	3:D:1236:LEU:O	2.03	0.58
2:M:684:PHE:CZ	2:M:685:GLU:HB2	2.38	0.58
3:N:139:GLY:O	3:N:147:VAL:HB	2.04	0.58
1:A:177:VAL:O	2:C:864:GLY:HA2	2.03	0.58
2:C:682:TYR:O	2:C:850:ALA:HB3	2.02	0.58
2:C:756:VAL:HB	2:C:790:LEU:HB3	1.86	0.58
2:C:1010:THR:HA	3:D:624:ASP:OD1	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1034:GLU:HB3	3:D:619:LEU:HB3	1.86	0.58
2:C:1063:ARG:HG3	2:C:1064:ASN:N	2.17	0.58
3:D:33:ASN:HB2	3:D:40:GLU:OE2	2.04	0.58
3:D:473:LEU:HD12	3:D:473:LEU:N	2.19	0.58
2:M:170:PRO:HG2	2:M:258:TYR:CE2	2.38	0.58
2:M:430:VAL:CG1	3:N:1075:HIS:HA	2.33	0.58
2:M:510:ALA:HB3	2:M:513:VAL:CG2	2.32	0.58
2:M:873:PRO:O	2:M:877:PRO:HD2	2.03	0.58
2:M:1013:TYR:O	6:Y:4:G:O6	2.21	0.58
2:M:1022:GLY:HA3	2:M:1026:GLN:O	2.03	0.58
3:N:465:LEU:HD22	3:N:510:GLU:CA	2.32	0.58
3:N:619:LEU:HD12	3:N:621:LYS:NZ	2.18	0.58
3:N:686:GLU:HA	3:N:689:ASP:OD2	2.02	0.58
3:N:1114:THR:O	3:N:1114:THR:CG2	2.50	0.58
2:C:302:VAL:C	2:C:305:PRO:HD2	2.23	0.58
2:C:345:ARG:HA	2:C:348:LEU:HB2	1.85	0.58
2:C:431:HIS:CG	2:C:432:ARG:N	2.71	0.58
2:C:1039:ALA:HA	3:D:1227:GLN:OE1	2.03	0.58
2:C:1056:LYS:HE2	3:D:625:TYR:HB2	1.86	0.58
3:D:917:GLN:HA	3:D:920:LEU:HD12	1.84	0.58
3:D:1115:THR:HG22	3:D:1151:ARG:HH21	1.67	0.58
3:D:1266:ARG:HH22	7:I:4:DG:H4'	1.68	0.58
4:E:50:THR:HB	4:E:51:LEU:HD23	1.85	0.58
2:M:762:LYS:HD3	2:M:784:ASP:O	2.03	0.58
3:N:618:LEU:CD1	3:N:1467:ILE:HD11	2.32	0.58
3:N:641:GLN:HB3	3:N:717:GLN:O	2.04	0.58
3:N:1293:PHE:CD2	3:N:1300:SER:HB2	2.39	0.58
3:N:1422:MET:CE	3:N:1427:SER:HA	2.34	0.58
3:D:152:LEU:HD23	3:D:152:LEU:H	1.66	0.58
2:M:108:ILE:HD11	2:M:365:ASP:OD1	2.03	0.58
2:M:676:ILE:HG12	2:M:676:ILE:O	2.04	0.58
2:M:1021:LEU:HD22	6:Y:5:C:H2'	1.86	0.58
2:M:1098:ASP:HB2	3:N:21:TRP:HZ2	1.68	0.58
1:A:88:ARG:HG2	1:A:88:ARG:NH1	2.15	0.58
2:C:151:ASP:OD2	2:C:175:GLU:OE2	2.22	0.58
2:C:436:GLY:H	2:C:539:VAL:HG13	1.69	0.58
2:C:944:LEU:O	2:C:948:GLU:HG3	2.03	0.58
2:C:1090:LYS:HE2	2:C:1112:PHE:CE1	2.38	0.58
3:D:619:LEU:HD12	3:D:621:LYS:NZ	2.18	0.58
3:D:1190:SER:OG	3:D:1369:GLU:OE2	2.21	0.58
3:D:1194:CYS:SG	3:D:1200:VAL:HA	2.44	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1465:ASN:ND2	3:D:1470:ARG:CB	2.66	0.58
2:M:479:VAL:CG2	2:M:506:ASN:HA	2.33	0.58
2:M:493:ARG:HB2	2:M:494:TYR:CE1	2.38	0.58
2:M:570:PRO:HD2	2:M:635:THR:CG2	2.33	0.58
2:M:752:GLY:H	2:M:792:VAL:HB	1.68	0.58
2:M:791:ARG:HB3	2:M:791:ARG:HH11	1.68	0.58
3:N:412:GLY:O	3:N:434:ARG:HD3	2.04	0.58
3:N:662:GLU:O	3:N:664:LYS:O	2.21	0.58
3:N:1389:LEU:CD1	3:N:1390:LEU:H	2.15	0.58
1:A:38:ASN:O	1:A:42:ARG:HG3	2.03	0.58
2:C:94:LEU:HD12	2:C:95:TYR:N	2.19	0.58
2:C:328:LEU:HD22	2:C:433:THR:C	2.23	0.58
2:C:423:ALA:HB2	7:I:1:DG:H5”	1.84	0.58
2:C:695:LEU:HD21	2:C:832:LYS:HG2	1.85	0.58
3:D:486:ARG:HA	3:D:489:ARG:CG	2.32	0.58
3:D:701:LEU:HD12	3:D:701:LEU:N	2.17	0.58
3:D:1191:PRO:C	3:D:1373:ARG:HH11	2.07	0.58
3:D:1377:LYS:HE2	3:D:1378:TYR:CZ	2.39	0.58
3:D:1440:PHE:O	3:D:1441:GLN:CB	2.52	0.58
1:L:36:LEU:O	1:L:39:PRO:HD2	2.04	0.58
2:M:18:LEU:HD12	2:M:18:LEU:H	1.68	0.58
2:M:439:CYS:SG	2:M:541:SER:N	2.71	0.58
4:O:54:LEU:HG	4:O:58:PRO:HG2	1.84	0.58
2:C:211:LEU:CD1	2:C:308:ARG:HA	2.32	0.58
2:C:422:ARG:O	7:I:1:DG:C4	2.57	0.58
2:C:502:PRO:HB2	2:C:509:ALA:HB3	1.85	0.58
2:C:1056:LYS:HB3	3:D:623:VAL:HG13	1.86	0.58
3:D:41:ARG:HD3	3:D:43:GLY:N	2.19	0.58
3:D:1213:ARG:NH1	4:E:11:GLY:HA2	2.18	0.58
3:D:1371:VAL:O	3:D:1374:GLN:HB2	2.04	0.58
1:L:153:ALA:HA	1:L:156:HIS:CE1	2.38	0.58
2:M:88:LEU:O	2:M:129:ILE:O	2.20	0.58
2:M:263:ASP:C	2:M:264:PRO:O	2.42	0.58
2:M:493:ARG:NH2	2:M:494:TYR:OH	2.37	0.58
2:M:1075:ASP:HB2	4:O:32:ARG:NH2	2.19	0.58
3:N:412:GLY:HA2	3:N:434:ARG:NE	2.19	0.58
3:N:489:ARG:NH2	3:N:1389:LEU:HD21	2.19	0.58
3:N:1236:LEU:O	3:N:1237:THR:OG1	2.21	0.58
3:N:1440:PHE:O	3:N:1441:GLN:HB3	2.04	0.58
4:O:61:VAL:O	4:O:65:MET:HG3	2.03	0.58
6:Y:5:C:O2	6:Y:5:C:C2’	2.48	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:153:ALA:HA	1:B:156:HIS:CE1	2.38	0.58
1:B:179:PHE:N	1:B:179:PHE:CD2	2.72	0.58
2:C:185:LYS:HD3	2:C:190:LYS:NZ	2.18	0.58
2:C:1022:GLY:HA3	2:C:1026:GLN:O	2.03	0.58
3:D:641:GLN:HA	3:D:717:GLN:H	1.68	0.58
3:D:1147:ARG:NH2	3:D:1369:GLU:OE2	2.36	0.58
2:M:141:HIS:HD2	2:M:332:ARG:O	1.87	0.58
2:M:1101:THR:HB	2:M:1109:VAL:HB	1.86	0.58
3:N:1403:LEU:O	3:N:1407:LEU:HB2	2.03	0.58
1:A:43:ILE:HG23	1:A:47:SER:CB	2.34	0.58
2:C:54:ILE:HG12	2:C:64:LEU:HD23	1.86	0.58
2:C:110:GLU:CG	2:C:369:PRO:HG3	2.33	0.58
2:C:683:ASN:HA	2:C:687:ALA:O	2.03	0.58
2:C:919:ALA:CA	2:C:968:LEU:HD21	2.34	0.58
2:C:922:PHE:HB3	2:C:964:LYS:HZ2	1.68	0.58
2:C:953:VAL:HG11	2:C:962:GLN:HB3	1.86	0.58
3:D:918:ALA:HB1	3:D:927:THR:HG23	1.84	0.58
3:D:1433:SER:HB2	3:D:1457:ASP:OD1	2.04	0.58
1:K:106:PRO:HA	1:K:133:GLU:O	2.04	0.58
1:L:25:LEU:O	1:L:25:LEU:HD23	2.04	0.58
2:M:113:VAL:HG12	2:M:115:LEU:HD23	1.86	0.58
2:M:677:MET:HB3	3:N:948:THR:CG2	2.33	0.58
2:M:871:LEU:O	2:M:873:PRO:HD3	2.04	0.58
2:M:872:ASN:OD1	2:M:874:LEU:HB2	2.03	0.58
3:N:58:CYS:SG	3:N:62:LYS:N	2.77	0.58
3:N:843:PHE:HB2	3:N:866:VAL:CG2	2.29	0.58
6:H:9:C:C2'	6:H:10:G:O4'	2.47	0.58
2:C:688:ILE:HG22	2:C:689:VAL:N	2.19	0.57
2:C:694:LEU:O	2:C:699:PHE:HB2	2.03	0.57
2:C:896:PHE:O	2:C:924:VAL:HG11	2.03	0.57
3:D:524:LEU:O	3:D:526:PRO:HD3	2.04	0.57
3:D:1019:PRO:O	3:D:1023:MET:HB2	2.03	0.57
3:D:1087:ARG:NE	3:D:1236:LEU:CD1	2.67	0.57
2:M:101:ILE:HD12	2:M:107:LEU:HD22	1.84	0.57
2:M:189:ARG:HD3	2:M:190:LYS:N	2.18	0.57
2:M:713:ARG:HB3	2:M:720:GLU:OE2	2.03	0.57
2:M:984:GLU:HG2	3:N:944:THR:O	2.04	0.57
3:N:659:LYS:O	3:N:663:GLU:HG2	2.04	0.57
3:N:695:ILE:O	3:N:698:LYS:N	2.37	0.57
3:N:918:ALA:CB	3:N:927:THR:HG23	2.33	0.57
1:A:70:GLY:H	2:C:607:ASP:CG	2.06	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:86:VAL:HG23	1:A:204:SER:HB2	1.87	0.57
2:C:136:ILE:HD13	2:C:392:SER:OG	2.03	0.57
2:C:498:GLN:HE22	3:D:1067:VAL:HG11	1.69	0.57
2:C:976:ASP:OD1	2:C:978:ARG:HB2	2.04	0.57
2:C:1067:TYR:O	2:C:1071:ILE:HG12	2.03	0.57
3:D:47:GLU:HB3	3:D:51:GLY:O	2.05	0.57
3:D:526:PRO:HD2	3:D:538:SER:HB2	1.85	0.57
1:L:101:LEU:HD12	1:L:113:ASP:C	2.25	0.57
2:M:706:GLU:CG	2:M:708:TYR:CZ	2.82	0.57
2:M:971:LYS:HG2	2:M:988:VAL:HG12	1.86	0.57
2:M:1031:ARG:HG2	5:X:21:DG:H5"	1.85	0.57
3:N:453:ASP:HB3	3:N:455:ARG:NH2	2.08	0.57
3:N:807:ALA:HA	3:N:833:GLU:HG3	1.86	0.57
3:N:814:ALA:CB	3:N:818:ARG:HH21	2.00	0.57
3:N:860:LEU:O	3:N:877:PRO:HD2	2.04	0.57
1:A:42:ARG:NH2	1:B:34:VAL:HB	2.19	0.57
2:C:799:ILE:O	2:C:827:VAL:HG13	2.04	0.57
2:C:1003:ASP:O	3:D:724:GLN:NE2	2.37	0.57
2:C:1046:ALA:CA	3:D:1472:ILE:HD11	2.34	0.57
2:C:1095:LEU:CD2	3:D:603:LEU:HD13	2.34	0.57
3:D:45:PHE:CD1	3:D:522:PRO:HB3	2.39	0.57
3:D:1093:TYR:OH	3:D:1440:PHE:CE2	2.56	0.57
1:L:34:VAL:HG22	1:L:181:VAL:HG21	1.85	0.57
2:M:302:VAL:O	2:M:305:PRO:HD2	2.04	0.57
2:M:328:LEU:CD1	2:M:433:THR:HB	2.28	0.57
2:M:384:GLU:HA	2:M:388:ARG:HD3	1.86	0.57
2:M:683:ASN:HD22	2:M:683:ASN:C	2.05	0.57
2:M:1083:GLU:O	2:M:1087:VAL:HG12	2.04	0.57
3:N:703:ASN:CG	3:N:713:ILE:HD11	2.24	0.57
3:N:850:LEU:H	3:N:850:LEU:HD12	1.69	0.57
1:B:115:LEU:HD12	1:B:115:LEU:O	2.04	0.57
2:C:9:ILE:HD12	2:C:9:ILE:O	2.05	0.57
2:C:12:VAL:CB	2:C:472:ARG:HH11	2.15	0.57
2:C:143:SER:O	2:C:145:GLY:N	2.38	0.57
2:C:460:ARG:NH2	2:C:468:ARG:HH11	2.02	0.57
2:C:487:THR:CG2	2:C:489:THR:HG23	2.35	0.57
3:D:85:VAL:HB	3:D:89:ARG:NH1	2.19	0.57
3:D:87:ARG:HB2	3:D:524:LEU:CD1	2.35	0.57
3:D:549:ASN:HB2	3:D:550:ARG:HH21	1.69	0.57
3:D:575:GLN:O	3:D:578:VAL:HB	2.05	0.57
3:D:774:SER:C	3:D:776:GLU:N	2.57	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1424:VAL:HG13	3:D:1425:THR:N	2.20	0.57
4:E:34:GLY:CA	4:E:95:VAL:HB	2.34	0.57
2:M:816:LYS:HB2	2:M:819:VAL:HG21	1.86	0.57
3:N:6:ARG:O	3:N:7:LYS:HG3	2.05	0.57
3:N:417:PRO:HD2	3:N:432:TYR:CZ	2.40	0.57
3:N:443:VAL:HG13	3:N:445:ARG:NH2	2.20	0.57
3:N:1381:VAL:CG1	3:N:1382:THR:N	2.67	0.57
6:H:6:C:O5'	6:H:6:C:H6	1.87	0.57
6:H:7:G:H2'	6:H:8:G:O4'	2.04	0.57
1:A:153:ALA:HA	1:A:156:HIS:CE1	2.39	0.57
2:C:1092:LEU:HB3	2:C:1099:VAL:HG23	1.87	0.57
3:D:785:ILE:HG22	3:D:789:LEU:HD11	1.87	0.57
3:D:919:PHE:HZ	3:D:1211:MET:HG3	1.67	0.57
1:K:67:THR:HG21	2:M:609:ASN:OD1	2.04	0.57
1:K:73:GLU:H	1:K:73:GLU:CD	2.05	0.57
2:M:137:VAL:O	2:M:391:LEU:HD21	2.04	0.57
2:M:203:ASP:O	2:M:207:LEU:HB2	2.04	0.57
2:M:584:GLU:HB3	2:M:666:LEU:HB3	1.86	0.57
3:N:134:VAL:HG12	3:N:152:LEU:CB	2.34	0.57
3:N:1389:LEU:CG	3:N:1390:LEU:N	2.66	0.57
1:A:171:PHE:O	1:A:173:PRO:HD3	2.04	0.57
2:C:676:ILE:HG23	2:C:676:ILE:O	2.05	0.57
3:D:644:LEU:HD12	3:D:645:PRO:N	2.19	0.57
3:D:649:ALA:HA	3:D:652:LEU:HD22	1.87	0.57
3:D:704:ARG:HG2	3:D:736:PHE:HB3	1.85	0.57
2:M:1091:GLU:OE1	3:N:613:ARG:HG2	2.05	0.57
3:N:927:THR:O	3:N:930:LEU:HB3	2.04	0.57
3:N:1176:LYS:HA	3:N:1179:GLU:OE1	2.05	0.57
3:N:1239:ARG:HG3	3:N:1240:THR:N	2.19	0.57
3:N:1380:GLU:O	3:N:1417:TRP:HB2	2.04	0.57
5:G:28:DG:OP2	5:G:28:DG:C8	2.54	0.57
2:C:183:SER:CB	2:C:190:LYS:HG2	2.35	0.57
2:C:462:ASP:HB3	2:C:468:ARG:NE	2.20	0.57
2:C:489:THR:OG1	2:C:490:GLU:N	2.37	0.57
2:C:676:ILE:O	2:C:676:ILE:HG12	2.03	0.57
2:C:1031:ARG:HE	3:D:621:LYS:HD2	1.70	0.57
2:C:1046:ALA:HB2	3:D:1476:THR:H	1.68	0.57
2:C:1095:LEU:O	2:C:1096:ALA:C	2.43	0.57
3:D:506:GLY:O	3:D:507:ASN:C	2.43	0.57
3:D:936:TYR:O	3:D:939:PHE:HB2	2.03	0.57
3:D:1207:TYR:O	3:D:1215:VAL:HG23	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:30:LEU:O	4:E:35:PHE:HA	2.04	0.57
2:M:221:LEU:HG	2:M:222:MET:HG3	1.86	0.57
2:M:431:HIS:CD2	2:M:433:THR:HG1	2.21	0.57
2:M:839:LEU:HD23	2:M:996:LYS:HA	1.86	0.57
2:M:1115:LEU:HD22	3:N:88:TYR:HD1	1.70	0.57
3:N:456:MET:CA	3:N:460:ALA:HB2	2.30	0.57
3:N:792:ILE:HG12	3:N:878:GLY:HA3	1.85	0.57
3:N:1106:VAL:HG11	3:N:1474:ALA:HB1	1.87	0.57
5:X:13:DA:H2'	5:X:13:DA:O5'	2.04	0.57
5:X:17:DA:H2"	5:X:18:DC:OP2	2.03	0.57
1:B:89:PHE:HB3	1:B:94:LEU:HD12	1.86	0.57
1:B:221:HIS:HA	1:B:224:TYR:HD2	1.66	0.57
2:C:226:VAL:HG13	2:C:227:PHE:CD1	2.39	0.57
2:C:301:GLU:O	2:C:305:PRO:HG2	2.04	0.57
2:C:367:LEU:HB3	2:C:371:LYS:CE	2.35	0.57
2:C:1042:ALA:HB3	3:D:710:ARG:CB	2.35	0.57
2:C:1056:LYS:HD3	3:D:623:VAL:HG13	1.86	0.57
3:D:1192:LEU:HD23	3:D:1373:ARG:HB2	1.86	0.57
3:D:1205:TYR:HE2	3:D:1215:VAL:HG21	1.67	0.57
1:L:73:GLU:HG3	1:L:130:ALA:CB	2.35	0.57
2:M:174:LEU:HD22	2:M:193:LEU:HD21	1.87	0.57
2:M:367:LEU:O	2:M:372:LEU:HD13	2.05	0.57
3:N:109:PRO:HG2	3:N:1445:HIS:CE1	2.40	0.57
3:N:159:ARG:HG2	3:N:163:TYR:CE2	2.40	0.57
3:N:628:ARG:HG3	3:N:628:ARG:NH1	2.18	0.57
3:N:767:HIS:HA	3:N:924:MET:SD	2.45	0.57
3:N:899:LEU:HD22	3:N:917:GLN:CG	2.34	0.57
3:N:1274:ILE:HG21	3:N:1301:LYS:HZ2	1.70	0.57
5:G:22:DA:H2'	5:G:23:DG:C8	2.39	0.57
1:A:107:LYS:O	1:A:132:LEU:HB2	2.05	0.57
2:C:88:LEU:CD1	2:C:89:THR:H	2.17	0.57
3:D:524:LEU:CD1	3:D:524:LEU:H	2.17	0.57
3:D:897:TRP:C	3:D:900:ILE:HG13	2.24	0.57
3:D:1209:LEU:HD21	4:E:16:LYS:CE	2.34	0.57
3:D:1236:LEU:O	3:D:1237:THR:O	2.22	0.57
2:M:285:LEU:HD23	2:M:285:LEU:O	2.03	0.57
2:M:452:ILE:HD12	2:M:452:ILE:N	2.19	0.57
2:M:643:VAL:HG13	2:M:647:GLN:OE1	2.05	0.57
2:M:843:HIS:HE1	2:M:887:GLU:OE2	1.88	0.57
2:M:1105:LYS:NZ	2:M:1107:ASN:HB2	2.20	0.57
3:N:36:THR:C	3:N:38:LYS:N	2.58	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:87:ARG:HB2	3:N:524:LEU:CD1	2.34	0.57
3:N:183:GLU:HG2	3:N:184:GLU:H	1.66	0.57
3:N:563:PRO:CG	3:N:566:ILE:HD12	2.35	0.57
3:N:1017:PHE:HA	3:N:1022:VAL:HG21	1.85	0.57
3:N:1396:GLU:O	3:N:1400:VAL:HG23	2.05	0.57
1:B:41:ARG:HG3	1:B:177:VAL:HG21	1.87	0.57
2:C:274:ARG:HG3	2:C:285:LEU:HD22	1.86	0.57
2:C:304:LEU:HG	2:C:305:PRO:CD	2.33	0.57
2:C:409:ARG:NH2	6:H:11:C:H5"	2.20	0.57
3:D:477:LEU:HD22	3:D:492:ALA:HB1	1.86	0.57
3:D:1403:LEU:O	3:D:1407:LEU:HB2	2.05	0.57
1:L:84:GLU:CD	3:N:845:ASN:HB2	2.25	0.57
2:M:41:ASN:HB2	2:M:45:GLN:CG	2.35	0.57
2:M:312:ALA:CB	2:M:318:PRO:HG2	2.32	0.57
3:N:52:PRO:HG2	3:N:85:VAL:HG23	1.87	0.57
3:N:199:LEU:HD23	3:N:200:ASP:H	1.70	0.57
3:N:697:GLY:HA2	3:N:717:GLN:OE1	2.05	0.57
4:O:57:ASP:H	4:O:58:PRO:HD3	1.69	0.57
7:Z:1:DG:P	7:Z:1:DG:C3'	2.92	0.57
2:C:50:GLU:CA	2:C:266:ARG:NH1	2.68	0.56
2:C:584:GLU:HB3	2:C:666:LEU:HB3	1.87	0.56
2:C:957:LYS:HD3	2:C:961:GLU:HB3	1.85	0.56
2:C:1081:VAL:CB	2:C:1086:ARG:HE	2.15	0.56
3:D:45:PHE:HD1	3:D:522:PRO:HB3	1.69	0.56
3:D:505:SER:OG	3:D:1453:ALA:HA	2.05	0.56
3:D:883:ALA:O	3:D:886:VAL:HB	2.05	0.56
3:D:1044:LEU:O	3:D:1044:LEU:HD23	2.05	0.56
3:D:1135:ARG:HD2	3:D:1140:ILE:HG13	1.86	0.56
1:K:197:LEU:HD23	1:K:197:LEU:N	2.18	0.56
3:N:574:LEU:O	3:N:578:VAL:HG23	2.04	0.56
3:N:625:TYR:CE2	3:N:655:PRO:HG2	2.39	0.56
3:N:700:VAL:HG22	3:N:718:PRO:HG3	1.87	0.56
3:N:701:LEU:H	3:N:701:LEU:CD1	2.12	0.56
3:N:752:SER:HB3	3:N:755:ALA:CB	2.35	0.56
3:N:843:PHE:HD2	3:N:848:GLU:HB3	1.70	0.56
3:N:947:ILE:O	3:N:947:ILE:HD12	2.04	0.56
7:I:11:DG:H2"	7:I:12:DT:C6	2.40	0.56
1:A:65:PHE:CD1	1:A:65:PHE:N	2.73	0.56
2:C:44:ILE:O	2:C:48:PHE:CG	2.57	0.56
2:C:48:PHE:HB3	2:C:52:PHE:CD2	2.40	0.56
2:C:181:VAL:HG12	2:C:182:VAL:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:350:ARG:O	2:C:353:ARG:HB3	2.05	0.56
2:C:757:GLY:HA2	2:C:789:SER:CB	2.35	0.56
2:C:861:LEU:HG	2:C:862:PRO:CD	2.31	0.56
2:C:966:LEU:CD2	2:C:986:PRO:HG2	2.35	0.56
3:D:9:ARG:HA	3:D:1434:TRP:CH2	2.40	0.56
3:D:983:LEU:HD12	3:D:988:ARG:HB2	1.86	0.56
3:D:1041:LEU:HD12	3:D:1042:ARG:NH2	2.20	0.56
3:D:1066:THR:HG22	3:D:1069:GLU:CG	2.35	0.56
3:D:1108:ARG:HD3	3:D:1108:ARG:N	2.20	0.56
3:D:1205:TYR:CD2	3:D:1215:VAL:HG21	2.40	0.56
1:K:107:LYS:O	1:K:132:LEU:HB2	2.05	0.56
1:K:111:ALA:HB3	1:K:124:ASN:O	2.05	0.56
1:K:176:ARG:HG3	1:K:200:TRP:CE3	2.39	0.56
2:M:148:PHE:HE1	2:M:309:TYR:HD2	1.53	0.56
3:N:90:MET:HE1	3:N:520:LEU:HA	1.87	0.56
3:N:495:ARG:O	3:N:499:VAL:HG23	2.04	0.56
3:N:610:LYS:CA	3:N:615:ARG:HG2	2.36	0.56
3:N:666:ILE:HG23	3:N:684:LYS:NZ	2.19	0.56
3:N:1146:GLY:CA	3:N:1207:TYR:HB2	2.35	0.56
5:G:3:DC:O5'	5:G:3:DC:H6	1.88	0.56
1:A:38:ASN:HB3	1:A:39:PRO:HD3	1.86	0.56
1:A:222:LEU:HD22	1:B:219:ARG:HG3	1.86	0.56
1:B:83:LYS:HD3	1:B:168:ASP:O	2.06	0.56
2:C:26:TYR:O	2:C:30:LEU:HG	2.06	0.56
2:C:44:ILE:HG23	2:C:344:PHE:CE1	2.40	0.56
2:C:52:PHE:HZ	2:C:68:PHE:CB	2.00	0.56
2:C:73:LEU:C	2:C:73:LEU:HD12	2.25	0.56
2:C:218:VAL:HG13	2:C:221:LEU:CD2	2.36	0.56
2:C:939:ARG:HE	2:C:939:ARG:CA	2.16	0.56
3:D:30:GLU:HB3	3:D:40:GLU:HB3	1.87	0.56
3:D:41:ARG:C	3:D:43:GLY:N	2.58	0.56
3:D:72:VAL:CG2	3:D:77:GLY:HA2	2.35	0.56
3:D:95:LEU:CD2	3:D:96:ALA:N	2.68	0.56
3:D:897:TRP:CA	3:D:900:ILE:HG13	2.24	0.56
3:D:1330:ILE:CD1	3:D:1347:TYR:OH	2.50	0.56
3:D:1379:VAL:CG1	3:D:1419:PRO:HA	2.33	0.56
3:D:1435:LEU:CD2	3:D:1459:LEU:HD11	2.35	0.56
4:E:25:LYS:HA	4:E:28:GLN:OE1	2.04	0.56
4:E:34:GLY:HA3	4:E:95:VAL:HB	1.86	0.56
1:K:132:LEU:HD23	1:K:136:GLY:O	2.04	0.56
1:L:47:SER:OG	1:L:217:ILE:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:343:GLN:HG2	2:M:385:PHE:CG	2.40	0.56
2:M:627:ARG:O	2:M:638:ASP:HB3	2.05	0.56
2:M:753:ASP:O	2:M:792:VAL:N	2.33	0.56
2:M:1000:MET:O	2:M:1003:ASP:HB3	2.05	0.56
2:M:1035:MET:HA	2:M:1038:TRP:CE3	2.40	0.56
3:N:119:SER:HB2	3:N:123:LEU:HB2	1.88	0.56
3:N:600:LEU:H	3:N:600:LEU:CD1	2.09	0.56
3:N:613:ARG:NE	3:N:613:ARG:HA	2.20	0.56
3:N:752:SER:O	3:N:756:GLN:N	2.37	0.56
3:N:764:LEU:HD23	3:N:767:HIS:HE1	1.66	0.56
3:N:804:LEU:HD23	3:N:804:LEU:N	2.20	0.56
3:N:834:THR:HG22	3:N:838:ARG:NH1	2.18	0.56
3:N:1023:MET:O	3:N:1028:ALA:CB	2.53	0.56
3:N:1124:GLN:OE1	3:N:1135:ARG:HG2	2.06	0.56
7:I:1:DG:H2"	7:I:2:DT:OP2	2.05	0.56
6:Y:8:G:C8	6:Y:8:G:H3'	2.41	0.56
7:Z:7:DT:H2"	7:Z:8:DG:C8	2.40	0.56
1:A:88:ARG:CD	1:A:204:SER:O	2.53	0.56
1:A:222:LEU:CD2	1:B:219:ARG:HG3	2.34	0.56
3:D:32:ILE:HG23	3:D:38:LYS:O	2.06	0.56
3:D:133:ILE:HA	3:D:456:MET:HB2	1.86	0.56
3:D:133:ILE:HG22	3:D:134:VAL:N	2.20	0.56
3:D:455:ARG:HB3	3:D:459:GLU:HG2	1.88	0.56
3:D:1044:LEU:O	3:D:1045:MET:O	2.23	0.56
3:D:1461:GLY:O	3:D:1473:PRO:HG2	2.04	0.56
4:E:45:ARG:HD3	4:E:55:PHE:CD2	2.41	0.56
2:M:36:PRO:CG	2:M:70:GLU:HB3	2.30	0.56
2:M:181:VAL:HG12	2:M:182:VAL:N	2.21	0.56
2:M:420:ARG:HD2	7:Z:1:DG:H5'	1.87	0.56
2:M:848:VAL:HG23	3:N:740:PHE:O	2.04	0.56
3:N:72:VAL:HG23	3:N:78:VAL:H	1.70	0.56
3:N:154:THR:HG21	3:N:157:GLU:OE2	2.06	0.56
3:N:503:LEU:O	3:N:504:ASP:C	2.44	0.56
3:N:1192:LEU:HD13	3:N:1345:GLU:HG2	1.86	0.56
3:N:1274:ILE:CG2	3:N:1301:LYS:HZ2	2.19	0.56
4:O:26:ARG:CZ	4:O:73:LEU:HD21	2.36	0.56
1:B:101:LEU:HD23	1:B:101:LEU:C	2.26	0.56
2:C:184:MET:O	2:C:190:LYS:HA	2.05	0.56
2:C:195:LEU:CD2	2:C:238:LEU:HG	2.36	0.56
2:C:265:ARG:HB3	2:C:267:TYR:CG	2.39	0.56
2:C:356:ARG:NH1	2:C:356:ARG:HB2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:617:ASP:CG	2:C:619:ARG:HE	2.07	0.56
1:K:112:ARG:HG2	1:K:112:ARG:NH1	2.19	0.56
2:M:393:GLN:HE21	6:Y:10:G:C4'	2.18	0.56
2:M:681:GLY:HA3	3:N:939:PHE:CE1	2.40	0.56
2:M:706:GLU:HG2	2:M:708:TYR:CE2	2.38	0.56
2:M:1016:ILE:H	2:M:1016:ILE:CD1	2.09	0.56
2:M:1090:LYS:HA	2:M:1093:GLN:HB2	1.87	0.56
3:N:116:LEU:HD22	3:N:118:LEU:HD21	1.87	0.56
3:N:1016:PRO:HA	3:N:1021:TYR:CE1	2.36	0.56
5:G:2:DT:H2"	5:G:3:DC:C6	2.41	0.56
5:G:6:DT:C2'	5:G:7:DA:OP2	2.41	0.56
7:Z:14:DG:H2"	7:Z:15:DT:OP2	2.05	0.56
1:A:48:ILE:CD1	1:A:174:VAL:HG21	2.36	0.56
1:A:106:PRO:HG3	1:A:134:GLU:OE1	2.04	0.56
1:B:32:PHE:O	1:B:36:LEU:HG	2.04	0.56
2:C:6:PHE:O	2:C:8:ARG:HD2	2.05	0.56
2:C:84:ARG:HA	2:C:131:GLY:HA2	1.87	0.56
2:C:135:VAL:O	2:C:392:SER:HA	2.06	0.56
2:C:144:PRO:HA	2:C:163:ILE:O	2.05	0.56
2:C:627:ARG:HG3	2:C:628:PHE:H	1.70	0.56
2:C:878:SER:CB	3:D:1029:ARG:NH1	2.68	0.56
3:D:9:ARG:HH11	3:D:1454:GLY:CA	2.19	0.56
3:D:658:LEU:HA	3:D:661:MET:HG3	1.87	0.56
3:D:1088:THR:HG23	3:D:1234:THR:HG21	1.88	0.56
3:D:1135:ARG:HB3	3:D:1140:ILE:HD11	1.86	0.56
3:D:1382:THR:OG1	3:D:1418:LYS:HE3	2.06	0.56
3:D:1447:LEU:O	3:D:1448:THR:C	2.44	0.56
2:M:183:SER:HG	2:M:190:LYS:HZ2	1.54	0.56
2:M:328:LEU:HD22	2:M:433:THR:CG2	2.30	0.56
2:M:1051:GLU:OE2	3:N:755:ALA:HB3	2.05	0.56
3:N:443:VAL:HG13	3:N:445:ARG:HH22	1.70	0.56
3:N:1238:MET:C	3:N:1239:ARG:CG	2.74	0.56
6:H:5:C:C6	6:H:5:C:C3'	2.88	0.56
7:I:5:DC:C2'	7:I:6:DT:OP2	2.41	0.56
2:C:79:PRO:HG2	2:C:82:GLU:CG	2.35	0.56
2:C:399:ASN:O	2:C:402:SER:N	2.39	0.56
3:D:752:SER:O	3:D:756:GLN:N	2.38	0.56
3:D:1106:VAL:O	3:D:1108:ARG:HD3	2.06	0.56
3:D:1223:ILE:N	3:D:1223:ILE:CD1	2.69	0.56
4:E:28:GLN:CB	4:E:32:ARG:HH12	2.18	0.56
1:L:102:LYS:CD	1:L:139:ASN:HB2	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:63:GLY:CA	2:M:103:LYS:HG3	2.35	0.56
2:M:191:PHE:HB2	2:M:241:LEU:HD11	1.87	0.56
2:M:200:LEU:HD13	2:M:300:ASP:OD1	2.05	0.56
2:M:261:ILE:CD1	2:M:262:ALA:H	2.18	0.56
2:M:328:LEU:HD13	2:M:433:THR:CB	2.30	0.56
2:M:420:ARG:HD2	7:Z:1:DG:H5"	1.88	0.56
2:M:682:TYR:O	2:M:850:ALA:HB3	2.05	0.56
2:M:700:TYR:HB3	2:M:833:LEU:HD13	1.86	0.56
2:M:723:THR:HG23	2:M:725:ASP:HB2	1.87	0.56
3:N:875:THR:CG2	3:N:876:SER:N	2.69	0.56
7:Z:11:DG:OP2	7:Z:11:DG:H2'	2.06	0.56
1:A:102:LYS:HG3	1:A:102:LYS:O	2.05	0.56
1:B:73:GLU:OE1	1:B:130:ALA:HA	2.06	0.56
2:C:162:ILE:CB	2:C:172:ILE:HB	2.33	0.56
2:C:354:GLY:HA2	2:C:357:GLU:OE2	2.06	0.56
2:C:728:HIS:O	2:C:729:LEU:HG	2.06	0.56
3:D:1138:ALA:HB1	3:D:1362:LYS:HE3	1.87	0.56
1:K:86:VAL:HG13	1:K:124:ASN:HB2	1.88	0.56
1:K:213:GLN:O	1:K:217:ILE:HG13	2.06	0.56
1:L:28:LEU:HD12	1:L:193:ASP:HB3	1.88	0.56
2:M:176:VAL:HG12	2:M:182:VAL:HG13	1.88	0.56
2:M:195:LEU:HD21	2:M:238:LEU:HG	1.87	0.56
2:M:394:PHE:CZ	2:M:632:ASN:OD1	2.58	0.56
2:M:472:ARG:HH21	2:M:532:MET:HE1	1.71	0.56
2:M:754:ILE:HD11	2:M:791:ARG:CZ	2.35	0.56
2:M:1038:TRP:HA	2:M:1041:GLU:CG	2.35	0.56
3:N:551:ASN:O	3:N:554:LEU:HB3	2.05	0.56
3:N:1115:THR:HG21	3:N:1151:ARG:HH21	1.70	0.56
3:N:1280:VAL:HA	3:N:1318:TYR:CA	2.32	0.56
5:G:7:DA:OP2	5:G:7:DA:C8	2.58	0.56
6:Y:6:C:O5'	6:Y:6:C:C6	2.53	0.56
2:C:12:VAL:HG11	2:C:472:ARG:CD	2.36	0.56
2:C:396:ASP:HB2	2:C:406:HIS:CD2	2.41	0.56
3:D:525:ARG:O	3:D:525:ARG:HG2	2.06	0.56
3:D:813:LEU:HD12	3:D:813:LEU:C	2.26	0.56
3:D:828:LYS:HE2	3:D:862:ASP:OD2	2.06	0.56
3:D:1344:VAL:O	3:D:1348:LEU:HD13	2.06	0.56
3:D:1446:VAL:HB	3:D:1447:LEU:CD1	2.36	0.56
1:L:102:LYS:HG3	1:L:138:LEU:O	2.06	0.56
2:M:394:PHE:HE1	2:M:632:ASN:HB3	1.70	0.56
2:M:438:ILE:HD12	2:M:438:ILE:N	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1101:THR:OG1	2:M:1109:VAL:O	2.24	0.56
3:N:501:ALA:HB1	3:N:1452:ILE:HG22	1.86	0.56
3:N:989:TYR:O	3:N:993:LEU:HG	2.06	0.56
3:N:1103:HIS:CG	3:N:1104:GLU:H	2.24	0.56
3:N:1211:MET:HG2	3:N:1212:ALA:N	2.19	0.56
3:N:1274:ILE:CD1	3:N:1276:GLU:HG2	2.22	0.56
3:N:1281:VAL:HG23	3:N:1319:VAL:HG21	1.87	0.56
2:C:49:ARG:N	2:C:52:PHE:HB2	2.21	0.56
2:C:196:LEU:O	2:C:199:VAL:HB	2.06	0.56
2:C:281:LEU:HD11	2:C:306:THR:HA	1.88	0.56
2:C:460:ARG:HH22	2:C:468:ARG:HH11	1.49	0.56
3:D:22:SER:OG	3:D:92:HIS:ND1	2.37	0.56
3:D:128:TYR:CE2	3:D:458:ALA:HB2	2.41	0.56
3:D:1377:LYS:HG2	3:D:1378:TYR:CE1	2.40	0.56
4:E:25:LYS:O	4:E:29:GLN:HG3	2.06	0.56
2:M:141:HIS:O	2:M:331:ARG:HA	2.05	0.56
3:N:87:ARG:HB3	3:N:523:ASP:HB2	1.89	0.56
3:N:525:ARG:O	3:N:525:ARG:HG2	2.06	0.56
3:N:902:LEU:HD23	3:N:902:LEU:N	2.21	0.56
3:N:957:PRO:HG3	3:N:1007:VAL:HG22	1.85	0.56
3:N:1268:PRO:HG2	3:N:1270:ALA:O	2.06	0.56
4:O:80:VAL:HG13	4:O:81:PRO:HD2	1.88	0.56
2:C:876:VAL:HG11	2:C:885:ILE:HD11	1.87	0.55
3:D:54:LYS:HG2	3:D:57:GLU:CD	2.26	0.55
3:D:696:HIS:HD2	4:E:59:ASN:N	2.01	0.55
3:D:899:LEU:HD23	3:D:917:GLN:HG3	1.86	0.55
3:D:925:GLU:HB3	4:E:6:ILE:HG22	1.87	0.55
3:D:1125:PRO:O	3:D:1131:SER:O	2.23	0.55
2:M:74:GLY:O	2:M:76:PRO:HD3	2.06	0.55
2:M:368:THR:HB	2:M:369:PRO:HD3	1.87	0.55
2:M:757:GLY:HA2	2:M:789:SER:HB3	1.88	0.55
3:N:502:PHE:CZ	3:N:509:PRO:HB3	2.41	0.55
3:N:767:HIS:CD2	4:O:6:ILE:CG1	2.87	0.55
3:N:1191:PRO:O	3:N:1373:ARG:NH1	2.39	0.55
2:C:265:ARG:HD3	2:C:267:TYR:HB3	1.88	0.55
2:C:975:TYR:HA	2:C:982:PRO:HA	1.87	0.55
3:D:136:ASP:CG	3:D:137:PRO:HD3	2.26	0.55
3:D:521:PRO:HB2	3:D:524:LEU:HD13	1.87	0.55
3:D:1003:VAL:HG21	3:D:1036:ARG:NH1	2.21	0.55
4:E:54:LEU:HD23	4:E:58:PRO:HD2	1.88	0.55
2:M:584:GLU:O	2:M:588:VAL:HG13	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:465:LEU:HD13	3:N:510:GLU:HA	1.88	0.55
3:N:482:LYS:HE2	3:N:1384:PRO:CD	2.31	0.55
3:N:774:SER:C	3:N:776:GLU:N	2.57	0.55
3:N:1146:GLY:HA3	3:N:1207:TYR:HB2	1.88	0.55
3:N:1484:THR:HG23	4:O:76:GLY:O	2.06	0.55
1:A:110:LYS:O	1:A:112:ARG:N	2.39	0.55
2:C:433:THR:O	2:C:435:TYR:N	2.37	0.55
2:C:688:ILE:CG2	2:C:689:VAL:N	2.70	0.55
2:C:833:LEU:CD1	2:C:996:LYS:HE2	2.36	0.55
2:C:1058:ASP:HB3	2:C:1082:PRO:HB3	1.88	0.55
3:D:62:LYS:HE2	3:D:62:LYS:HA	1.88	0.55
3:D:994:GLN:HA	3:D:997:THR:OG1	2.06	0.55
3:D:1183:ILE:HA	3:N:559:ALA:O	2.06	0.55
3:D:1223:ILE:HD11	3:D:1462:LEU:HD11	1.88	0.55
1:K:38:ASN:ND2	2:M:978:ARG:O	2.40	0.55
3:N:638:LYS:HB2	3:N:641:GLN:OE1	2.06	0.55
3:N:786:ILE:HG21	3:N:1027:GLY:H	1.70	0.55
3:N:1277:ILE:HD12	3:N:1301:LYS:CA	2.37	0.55
2:C:157:ARG:NH2	2:C:158:TYR:HE1	2.05	0.55
2:C:274:ARG:CG	2:C:285:LEU:HD13	2.36	0.55
2:C:395:LYS:NZ	2:C:407:LYS:HZ2	2.04	0.55
2:C:430:VAL:HB	3:D:1078:ARG:CZ	2.36	0.55
2:C:958:THR:OG1	2:C:961:GLU:HG2	2.06	0.55
2:C:1085:PHE:CE2	3:D:1468:LEU:HA	2.42	0.55
3:D:118:LEU:O	3:D:120:ALA:N	2.39	0.55
3:D:826:PRO:HD2	3:D:829:VAL:CG2	2.35	0.55
3:D:1003:VAL:HG13	3:D:1036:ARG:CG	2.36	0.55
3:D:1147:ARG:HH12	3:D:1190:SER:HA	1.71	0.55
3:D:1465:ASN:HD21	3:D:1470:ARG:CB	2.19	0.55
1:L:26:GLU:N	1:L:26:GLU:OE2	2.39	0.55
1:L:174:VAL:HG13	1:L:200:TRP:O	2.06	0.55
2:M:5:ARG:CB	2:M:902:ILE:HB	2.33	0.55
2:M:265:ARG:C	2:M:267:TYR:H	2.10	0.55
2:M:881:ASN:N	2:M:881:ASN:ND2	2.49	0.55
2:M:1046:ALA:CB	3:N:1476:THR:HB	2.36	0.55
2:M:1058:ASP:HB3	2:M:1082:PRO:HB3	1.88	0.55
3:N:163:TYR:CE1	3:N:165:LYS:HA	2.42	0.55
3:N:457:GLY:O	3:N:458:ALA:C	2.44	0.55
3:N:493:ARG:NH2	3:N:1391:GLU:HA	2.21	0.55
3:N:1277:ILE:CG1	3:N:1301:LYS:HB2	2.35	0.55
5:G:12:DA:H2"	5:G:13:DA:OP2	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Z:11:DG:C2'	7:Z:12:DT:OP2	2.49	0.55
1:A:65:PHE:CD1	2:C:801:VAL:HG12	2.40	0.55
1:A:117:VAL:HB	1:A:120:VAL:HG12	1.89	0.55
3:D:684:LYS:O	3:D:687:VAL:HG23	2.07	0.55
3:D:764:LEU:HD23	3:D:767:HIS:HE1	1.60	0.55
4:E:46:PRO:CB	4:E:54:LEU:HD22	2.36	0.55
1:L:102:LYS:HG2	1:L:104:GLU:OE2	2.06	0.55
2:M:45:GLN:O	2:M:48:PHE:HB2	2.06	0.55
2:M:211:LEU:CD1	2:M:308:ARG:HA	2.37	0.55
2:M:269:LEU:CG	2:M:288:ARG:HG2	2.37	0.55
2:M:274:ARG:HH21	2:M:284:ARG:HA	1.72	0.55
2:M:409:ARG:HA	2:M:454:SER:CA	2.26	0.55
2:M:422:ARG:CB	7:Z:1:DG:C2	2.85	0.55
2:M:466:PHE:O	2:M:468:ARG:HG3	2.06	0.55
3:N:584:ASN:ND2	3:N:590:PRO:HD2	2.22	0.55
3:N:625:TYR:HE2	3:N:655:PRO:HD2	1.72	0.55
3:N:1084:THR:CG2	3:N:1087:ARG:HH22	2.18	0.55
3:N:1441:GLN:CD	3:N:1442:ASN:H	2.10	0.55
5:X:16:DT:C2'	5:X:17:DA:OP2	2.51	0.55
1:A:180:GLN:NE2	2:C:937:ASP:HB2	2.21	0.55
2:C:205:GLU:OE2	2:C:206:THR:HG22	2.07	0.55
2:C:243:ARG:HH11	2:C:243:ARG:HG3	1.71	0.55
3:D:18:ILE:O	3:D:22:SER:HB3	2.07	0.55
3:D:781:PRO:HB2	3:D:786:ILE:HG12	1.87	0.55
3:D:1095:THR:HG22	3:D:1098:LEU:HD22	1.89	0.55
3:D:1256:LEU:N	3:D:1257:PRO:HD2	2.21	0.55
1:K:156:HIS:ND1	1:K:158:ILE:HG12	2.21	0.55
1:L:79:ILE:HA	1:L:82:LEU:CD1	2.36	0.55
1:L:102:LYS:CE	1:L:139:ASN:HB2	2.37	0.55
2:M:861:LEU:HD23	2:M:863:ASP:N	2.16	0.55
3:N:133:ILE:HG12	3:N:456:MET:HB3	1.89	0.55
3:N:666:ILE:HG23	3:N:684:LYS:HZ2	1.71	0.55
3:N:703:ASN:CB	3:N:713:ILE:HG12	2.36	0.55
3:N:711:LEU:CD1	3:N:778:LEU:HD23	2.27	0.55
3:N:1271:LYS:HZ1	3:N:1331:ASP:HB2	1.69	0.55
5:X:2:DT:H2'	5:X:3:DC:C5	2.42	0.55
1:A:43:ILE:C	1:A:47:SER:HB2	2.27	0.55
1:A:65:PHE:CZ	2:C:799:ILE:HB	2.41	0.55
1:B:25:LEU:O	1:B:28:LEU:HD21	2.07	0.55
2:C:44:ILE:HG22	2:C:48:PHE:CE2	2.42	0.55
2:C:385:PHE:O	2:C:389:SER:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:431:HIS:N	2:C:434:HIS:ND1	2.55	0.55
2:C:474:VAL:HG23	2:C:478:VAL:O	2.07	0.55
3:D:9:ARG:HH11	3:D:1454:GLY:HA3	1.71	0.55
3:D:925:GLU:HB2	4:E:2:ALA:HB3	1.89	0.55
3:D:1154:GLU:HB2	3:N:562:ALA:N	2.22	0.55
3:D:1340:GLY:O	3:D:1343:ALA:HB3	2.07	0.55
1:L:84:GLU:OE1	3:N:845:ASN:HB2	2.07	0.55
2:M:409:ARG:NH2	6:Y:12:U:OP1	2.40	0.55
2:M:707:ARG:HD2	2:M:824:ARG:CD	2.37	0.55
2:M:739:GLU:HB2	2:M:742:VAL:HB	1.89	0.55
3:N:1372:VAL:HG13	3:N:1373:ARG:N	2.21	0.55
5:X:19:DG:C2'	5:X:20:DC:H5'	2.33	0.55
1:B:101:LEU:HD12	1:B:113:ASP:C	2.27	0.55
2:C:41:ASN:CB	2:C:45:GLN:OE1	2.53	0.55
2:C:673:LEU:HD22	2:C:867:VAL:HG12	1.89	0.55
2:C:679:PHE:O	2:C:680:ASP:C	2.45	0.55
2:C:756:VAL:O	2:C:789:SER:HB3	2.06	0.55
2:C:1090:LYS:HZ2	3:D:21:TRP:HB3	1.71	0.55
3:D:23:TYR:CE1	3:D:89:ARG:HG2	2.42	0.55
3:D:552:ASN:O	3:D:556:LYS:HG3	2.07	0.55
3:D:606:ILE:O	3:D:613:ARG:HB2	2.06	0.55
3:D:704:ARG:NE	3:D:705:ALA:HB3	2.22	0.55
3:D:826:PRO:HD2	3:D:829:VAL:HG22	1.89	0.55
4:E:60:ALA:O	4:E:63:TRP:HB2	2.07	0.55
2:M:163:ILE:HD13	2:M:171:TRP:CZ3	2.42	0.55
2:M:680:ASP:N	3:N:943:THR:CG2	2.70	0.55
2:M:693:GLU:HG2	2:M:697:ARG:HH21	1.69	0.55
2:M:854:PRO:HB2	2:M:856:GLU:CG	2.37	0.55
2:M:936:VAL:CA	2:M:940:GLU:OE2	2.52	0.55
2:M:1101:THR:C	2:M:1102:LEU:HD12	2.26	0.55
3:N:41:ARG:C	3:N:43:GLY:H	2.09	0.55
3:N:81:THR:HB	3:N:85:VAL:HG22	1.88	0.55
3:N:111:LYS:NZ	3:N:1449:GLU:HG3	2.22	0.55
3:N:112:ILE:O	3:N:116:LEU:N	2.33	0.55
3:N:728:LEU:CD1	3:N:729:HIS:H	2.16	0.55
3:N:1059:SER:CB	3:N:1065:LEU:HA	2.36	0.55
5:X:9:DC:O5'	5:X:9:DC:H6	1.90	0.55
1:A:102:LYS:CB	1:A:139:ASN:OD1	2.55	0.55
2:C:52:PHE:HZ	2:C:68:PHE:CA	2.19	0.55
2:C:267:TYR:HB2	2:C:272:ALA:HB1	1.89	0.55
2:C:905:ILE:HG22	2:C:906:PHE:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:976:ASP:CB	2:C:979:THR:HG22	2.37	0.55
3:D:704:ARG:HD2	3:D:745:MET:SD	2.47	0.55
3:D:708:LEU:HB3	3:D:1231:GLU:CB	2.35	0.55
1:K:96:THR:HB	1:K:145:ASP:OD2	2.06	0.55
2:M:145:GLY:CA	2:M:276:LYS:HD3	2.37	0.55
2:M:750:LYS:HD2	2:M:750:LYS:N	2.21	0.55
2:M:799:ILE:C	2:M:827:VAL:HG13	2.25	0.55
2:M:853:LEU:HB2	2:M:858:MET:HE3	1.88	0.55
2:M:905:ILE:N	2:M:905:ILE:CD1	2.70	0.55
3:N:26:VAL:HG13	3:N:43:GLY:O	2.06	0.55
3:N:72:VAL:HG23	3:N:78:VAL:N	2.22	0.55
3:N:135:LEU:HA	3:N:453:ASP:O	2.07	0.55
3:N:171:LEU:HD21	3:N:194:GLY:HA3	1.89	0.55
3:N:618:LEU:CD1	3:N:1467:ILE:HD13	2.36	0.55
3:N:703:ASN:HA	3:N:713:ILE:HG12	1.88	0.55
3:N:827:ILE:N	3:N:827:ILE:HD12	2.22	0.55
3:N:1281:VAL:HG21	3:N:1313:VAL:HG21	1.88	0.55
3:N:1461:GLY:O	3:N:1473:PRO:HG2	2.07	0.55
2:C:141:HIS:O	2:C:331:ARG:HA	2.06	0.55
2:C:394:PHE:CZ	5:G:25:DG:H4'	2.42	0.55
3:D:704:ARG:NH1	3:D:738:ALA:CB	2.70	0.55
3:D:798:GLU:HG2	3:D:799:LYS:N	2.22	0.55
3:D:960:LYS:O	3:D:964:LEU:HB2	2.07	0.55
3:D:1034:GLN:O	3:D:1038:LEU:N	2.39	0.55
3:D:1154:GLU:H	3:N:561:GLY:HA3	1.72	0.55
3:D:1189:ARG:HH11	3:D:1189:ARG:HG3	1.72	0.55
3:N:907:GLU:O	3:N:911:LEU:HD12	2.07	0.55
3:N:1274:ILE:HG21	3:N:1301:LYS:HD2	1.88	0.55
7:I:11:DG:C2'	7:I:12:DT:OP2	2.49	0.55
7:Z:3:DA:C1'	7:Z:4:DG:H5'	2.23	0.55
1:A:13:VAL:CG1	1:A:14:ARG:N	2.70	0.54
1:B:9:PRO:HB3	1:B:25:LEU:CD2	2.36	0.54
1:B:100:LEU:HB2	1:B:115:LEU:CD2	2.37	0.54
2:C:79:PRO:HG2	2:C:82:GLU:HG3	1.89	0.54
2:C:739:GLU:HB2	2:C:742:VAL:HB	1.89	0.54
3:D:30:GLU:CD	3:D:40:GLU:HG2	2.27	0.54
2:M:713:ARG:HG2	2:M:714:ASP:N	2.22	0.54
2:M:1074:GLU:CG	2:M:1075:ASP:H	2.18	0.54
2:M:1092:LEU:O	2:M:1097:LEU:O	2.25	0.54
3:N:98:PRO:CG	3:N:462:GLN:OE1	2.55	0.54
3:N:631:ILE:HG12	3:N:743:ASP:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:845:ASN:ND2	3:N:846:PRO:HD2	2.22	0.54
3:N:1384:PRO:HG3	3:N:1389:LEU:N	2.22	0.54
1:B:92:PRO:HA	1:B:146:ARG:NH1	2.23	0.54
2:C:31:GLN:NE2	2:C:38:LYS:O	2.40	0.54
2:C:141:HIS:CD2	2:C:332:ARG:HB3	2.43	0.54
2:C:160:ALA:HB3	2:C:174:LEU:HD12	1.90	0.54
3:D:9:ARG:HG3	3:D:1455:LYS:O	2.06	0.54
3:D:770:LEU:HB2	3:D:1210:SER:O	2.08	0.54
3:D:1154:GLU:C	3:N:562:ALA:H	2.11	0.54
1:L:152:PRO:HB2	1:L:155:LYS:HB2	1.88	0.54
2:M:393:GLN:CG	6:Y:10:G:H4'	2.37	0.54
2:M:433:THR:O	2:M:435:TYR:N	2.37	0.54
2:M:490:GLU:CB	2:M:493:ARG:HH11	2.04	0.54
3:N:13:ALA:O	3:N:511:TRP:HB3	2.07	0.54
3:N:134:VAL:O	3:N:454:ALA:HA	2.07	0.54
3:N:135:LEU:CD1	3:N:147:VAL:HG23	2.37	0.54
3:N:478:LEU:HD23	3:N:1388:ARG:HD3	1.88	0.54
3:N:1276:GLU:HA	3:N:1301:LYS:HG2	1.88	0.54
3:N:1393:GLN:HB2	3:N:1398:TRP:CZ2	2.42	0.54
3:N:1435:LEU:HD22	3:N:1457:ASP:CG	2.28	0.54
3:N:1447:LEU:O	3:N:1448:THR:C	2.45	0.54
1:A:43:ILE:O	1:A:47:SER:HB2	2.06	0.54
1:A:154:GLU:N	1:A:154:GLU:OE2	2.39	0.54
2:C:49:ARG:HA	2:C:52:PHE:HB2	1.88	0.54
2:C:49:ARG:CA	2:C:52:PHE:HB2	2.37	0.54
2:C:90:TYR:C	2:C:91:GLN:HG3	2.27	0.54
2:C:400:PRO:HA	2:C:403:SER:OG	2.07	0.54
2:C:442:GLU:OE2	2:C:543:ASN:HB3	2.08	0.54
2:C:676:ILE:HG23	3:D:948:THR:HB	1.90	0.54
2:C:1007:ALA:HB1	3:D:652:LEU:HD13	1.88	0.54
3:D:741:ASP:OD2	6:H:14:G:O3'	2.25	0.54
2:M:550:LEU:HG	3:N:1070:TYR:HE1	1.71	0.54
2:M:767:PRO:HB3	2:M:772:ARG:NH2	2.23	0.54
3:N:660:LYS:HD2	3:N:694:VAL:CG2	2.35	0.54
3:N:1281:VAL:HG21	3:N:1313:VAL:HG11	1.89	0.54
6:H:7:G:C2'	6:H:8:G:H5'	2.36	0.54
6:Y:4:G:H8	6:Y:4:G:O5'	1.90	0.54
1:A:50:GLY:HA3	1:A:171:PHE:O	2.06	0.54
2:C:48:PHE:HB3	2:C:52:PHE:HD2	1.72	0.54
2:C:223:ASP:OD2	2:C:224:GLU:HG2	2.07	0.54
2:C:290:LEU:HD23	2:C:290:LEU:N	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:922:PHE:HD2	2:C:964:LYS:HZ2	1.55	0.54
2:C:1013:TYR:HD1	2:C:1020:PRO:HG3	1.72	0.54
3:D:42:ASP:O	3:D:43:GLY:O	2.25	0.54
2:M:183:SER:OG	2:M:190:LYS:HG2	2.08	0.54
2:M:757:GLY:HA2	2:M:789:SER:CB	2.37	0.54
2:M:1000:MET:CB	2:M:1002:GLU:HG2	2.33	0.54
3:N:14:SER:O	3:N:17:LYS:N	2.41	0.54
3:N:136:ASP:CB	3:N:137:PRO:CD	2.81	0.54
3:N:433:GLY:HA2	3:N:449:SER:O	2.08	0.54
7:Z:13:DA:C2'	7:Z:14:DG:OP2	2.53	0.54
1:A:57:TYR:HE1	1:A:163:ASN:HB2	1.72	0.54
2:C:55:GLU:OE2	2:C:57:GLU:HB2	2.08	0.54
2:C:118:ILE:HG22	2:C:382:ILE:HD13	1.89	0.54
2:C:410:ILE:HG22	2:C:453:THR:HG23	1.89	0.54
2:C:458:TYR:HB3	2:C:485:TYR:OH	2.08	0.54
2:C:557:ARG:NH1	2:C:560:MET:HG3	2.23	0.54
2:C:796:GLU:CB	2:C:1004:LYS:HZ3	2.16	0.54
2:C:896:PHE:CE2	2:C:925:TYR:HA	2.42	0.54
3:D:36:THR:C	3:D:38:LYS:H	2.09	0.54
3:D:47:GLU:CG	3:D:53:ILE:HB	2.38	0.54
3:D:1472:ILE:O	3:D:1477:GLY:HA3	2.07	0.54
1:K:89:PHE:HB3	1:K:94:LEU:HD13	1.89	0.54
2:M:243:ARG:N	2:M:244:PRO:HD3	2.21	0.54
2:M:1001:VAL:CG2	5:X:24:DC:H5'	2.38	0.54
2:M:1115:LEU:HD22	3:N:88:TYR:CD1	2.42	0.54
3:N:82:LYS:HA	3:N:82:LYS:CE	2.37	0.54
3:N:631:ILE:HB	3:N:740:PHE:HE2	1.73	0.54
3:N:918:ALA:HB1	3:N:927:THR:HG23	1.88	0.54
5:X:26:DC:C4	5:X:27:DC:N4	2.75	0.54
1:A:4:SER:HA	1:A:7:LYS:HE2	1.90	0.54
2:C:693:GLU:HA	2:C:696:LYS:HD2	1.90	0.54
3:D:502:PHE:CE2	3:D:509:PRO:HB3	2.43	0.54
3:D:690:ALA:O	3:D:694:VAL:HG23	2.07	0.54
1:L:58:ILE:HD11	1:L:140:MET:SD	2.47	0.54
2:M:202:TYR:OH	2:M:304:LEU:HD22	2.08	0.54
2:M:402:SER:HA	2:M:566:THR:CG2	2.33	0.54
2:M:709:GLU:HG3	2:M:824:ARG:HG3	1.90	0.54
3:N:41:ARG:NH1	3:N:42:ASP:HB3	2.23	0.54
3:N:63:TYR:CD1	3:N:73:CYS:HA	2.43	0.54
3:N:181:ASP:HA	3:N:205:TYR:CD1	2.43	0.54
3:N:1031:ASN:O	3:N:1033:GLN:N	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:14:ARG:HB2	1:B:22:GLU:HB2	1.90	0.54
1:B:25:LEU:HD23	1:B:28:LEU:HD21	1.89	0.54
2:C:36:PRO:HB2	2:C:70:GLU:CG	2.38	0.54
2:C:435:TYR:CE1	2:C:539:VAL:HG21	2.42	0.54
2:C:510:ALA:O	2:C:513:VAL:HG23	2.08	0.54
2:C:1087:VAL:HG23	3:D:524:LEU:CD2	2.38	0.54
3:D:704:ARG:HH11	3:D:738:ALA:HB2	1.72	0.54
3:D:1256:LEU:O	3:D:1257:PRO:C	2.46	0.54
2:M:405:ARG:C	2:M:407:LYS:N	2.60	0.54
2:M:512:ARG:HD3	2:M:523:ILE:CD1	2.38	0.54
2:M:622:GLU:O	2:M:624:PRO:HD3	2.08	0.54
2:M:630:ARG:HG3	2:M:630:ARG:O	2.08	0.54
2:M:758:ARG:NH1	2:M:788:THR:HB	2.22	0.54
3:N:154:THR:CG2	3:N:157:GLU:OE2	2.56	0.54
3:N:503:LEU:O	3:N:506:GLY:N	2.40	0.54
3:N:834:THR:HB	3:N:838:ARG:HB2	1.90	0.54
3:N:1096:ARG:NH2	5:X:18:DC:OP1	2.37	0.54
3:N:1109:GLU:CD	3:N:1202:GLN:N	2.61	0.54
4:O:30:LEU:O	4:O:35:PHE:HA	2.08	0.54
5:G:10:DA:H2"	5:G:11:DC:OP2	2.08	0.54
6:Y:5:C:C6	6:Y:5:C:O5'	2.61	0.54
1:A:222:LEU:CD2	1:B:219:ARG:CB	2.86	0.54
2:C:185:LYS:HG3	2:C:190:LYS:HG3	1.90	0.54
2:C:263:ASP:C	2:C:264:PRO:O	2.46	0.54
2:C:897:LEU:O	2:C:899:GLN:HG2	2.08	0.54
3:D:683:ILE:N	3:D:683:ILE:HD12	2.23	0.54
3:D:1066:THR:HG23	3:D:1069:GLU:H	1.72	0.54
3:D:1106:VAL:HG11	3:D:1474:ALA:HB1	1.88	0.54
3:D:1398:TRP:HA	3:D:1398:TRP:HE3	1.73	0.54
1:K:19:GLU:HA	1:K:201:THR:O	2.07	0.54
1:K:185:ARG:HG3	1:K:185:ARG:O	2.08	0.54
1:L:55:SER:OG	1:L:166:PRO:HA	2.07	0.54
2:M:5:ARG:HA	2:M:902:ILE:O	2.08	0.54
2:M:73:LEU:HD12	2:M:74:GLY:N	2.23	0.54
2:M:148:PHE:CE1	2:M:309:TYR:HD2	2.26	0.54
2:M:267:TYR:CE1	2:M:273:GLY:HA3	2.43	0.54
2:M:975:TYR:HA	2:M:982:PRO:HA	1.90	0.54
3:N:65:ARG:HG3	3:N:66:GLN:H	1.72	0.54
3:N:493:ARG:HH22	3:N:1392:GLY:H	1.54	0.54
3:N:1211:MET:CE	3:N:1213:ARG:HB3	2.38	0.54
3:N:1283:ILE:HB	3:N:1315:ASP:OD1	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:2:DT:OP2	5:G:2:DT:H4'	2.07	0.54
1:A:39:PRO:HG3	1:B:39:PRO:HG2	1.87	0.54
1:A:89:PHE:C	1:A:90:LEU:HD12	2.29	0.54
3:D:1492:LEU:HD12	3:D:1493:LYS:CE	2.38	0.54
1:K:193:ASP:HA	2:M:938:LYS:HZ3	1.72	0.54
2:M:157:ARG:HD3	2:M:314:THR:HG22	1.90	0.54
2:M:399:ASN:O	2:M:402:SER:N	2.41	0.54
2:M:503:LEU:HD23	2:M:507:ARG:O	2.07	0.54
2:M:512:ARG:HD3	2:M:523:ILE:HD11	1.89	0.54
2:M:842:ARG:HG3	2:M:995:MET:HE2	1.90	0.54
3:N:964:LEU:O	3:N:968:ASP:HB2	2.08	0.54
3:N:970:LYS:HD3	3:N:995:LEU:HD13	1.89	0.54
3:N:1031:ASN:ND2	3:N:1034:GLN:HG3	2.23	0.54
2:C:18:LEU:HD12	2:C:18:LEU:N	2.15	0.54
2:C:739:GLU:CB	2:C:742:VAL:HB	2.37	0.54
2:C:926:PHE:CD2	2:C:960:GLU:OE2	2.61	0.54
2:C:1081:VAL:HB	2:C:1086:ARG:HH21	1.73	0.54
3:D:117:ASP:HB2	3:D:495:ARG:CZ	2.37	0.54
3:D:487:ALA:N	5:G:8:DC:OP2	2.41	0.54
3:D:1031:ASN:CB	3:D:1034:GLN:HB3	2.38	0.54
3:D:1197:ARG:HB3	3:D:1396:GLU:OE2	2.08	0.54
2:M:471:TYR:CE2	2:M:496:ILE:HG21	2.42	0.54
2:M:754:ILE:HD12	2:M:789:SER:CB	2.37	0.54
3:N:148:GLU:HG2	3:N:151:GLN:HB2	1.90	0.54
3:N:568:ARG:HE	3:N:572:ARG:HG2	1.73	0.54
3:N:683:ILE:CG2	3:N:684:LYS:N	2.71	0.54
3:N:1098:LEU:HD23	3:N:1226:ALA:CA	2.30	0.54
4:O:16:LYS:HG2	4:O:17:TYR:N	2.22	0.54
5:G:16:DT:C2	5:G:17:DA:N7	2.75	0.54
1:A:124:ASN:OD1	1:A:127:LEU:HB2	2.08	0.53
1:B:179:PHE:N	1:B:179:PHE:HD2	2.06	0.53
1:B:184:THR:O	1:B:192:LEU:HB2	2.08	0.53
2:C:433:THR:HG21	2:C:488:ALA:HB1	1.90	0.53
2:C:460:ARG:HH11	2:C:460:ARG:HG3	1.74	0.53
2:C:1018:GLN:HG2	3:D:87:ARG:NH2	2.23	0.53
3:D:41:ARG:HD3	3:D:42:ASP:N	2.23	0.53
3:D:814:ALA:HB1	3:D:818:ARG:NH2	2.13	0.53
3:D:1114:THR:O	3:D:1114:THR:CG2	2.56	0.53
1:K:99:LEU:HB2	1:K:142:VAL:HG23	1.90	0.53
1:L:179:PHE:N	1:L:179:PHE:CD2	2.74	0.53
2:M:198:ARG:HD2	2:M:204:GLN:OE1	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:679:PHE:O	2:M:680:ASP:C	2.46	0.53
2:M:1102:LEU:O	3:N:5:VAL:CG1	2.56	0.53
3:N:36:THR:O	3:N:38:LYS:N	2.39	0.53
3:N:117:ASP:HB2	3:N:495:ARG:HH12	1.73	0.53
4:O:45:ARG:HG2	4:O:46:PRO:HD2	1.90	0.53
1:B:52:ALA:HB2	1:B:170:VAL:O	2.07	0.53
2:C:265:ARG:HG2	2:C:267:TYR:N	2.22	0.53
2:C:274:ARG:HH21	2:C:284:ARG:HA	1.73	0.53
2:C:516:ARG:NE	3:D:1068:LEU:HD22	2.22	0.53
2:C:714:ASP:OD1	2:C:719:PRO:HG3	2.08	0.53
2:C:893:ALA:HB1	2:C:897:LEU:HD12	1.90	0.53
2:C:1006:HIS:HA	2:C:1027:PHE:HD1	1.73	0.53
2:C:1040:LEU:HD23	2:C:1049:LEU:CD1	2.37	0.53
3:D:54:LYS:HG2	3:D:57:GLU:OE1	2.08	0.53
4:E:57:ASP:H	4:E:58:PRO:HD3	1.73	0.53
1:K:42:ARG:HH12	1:L:34:VAL:CB	2.21	0.53
1:K:174:VAL:HG22	1:K:201:THR:HG22	1.89	0.53
1:L:26:GLU:HB3	1:L:194:LYS:HA	1.90	0.53
2:M:143:SER:OG	2:M:147:TYR:OH	2.24	0.53
2:M:1075:ASP:OD2	4:O:31:LEU:HD13	2.07	0.53
3:N:505:SER:OG	3:N:1454:GLY:N	2.41	0.53
3:N:1484:THR:HG23	4:O:76:GLY:C	2.29	0.53
1:A:49:PRO:HB3	1:A:148:VAL:HG22	1.91	0.53
1:B:206:THR:HG22	1:B:209:GLU:H	1.73	0.53
2:C:22:GLN:C	2:C:121:MET:HE1	2.27	0.53
2:C:31:GLN:NE2	2:C:38:LYS:HB2	2.24	0.53
2:C:327:HIS:HA	2:C:431:HIS:CD2	2.44	0.53
2:C:395:LYS:O	2:C:397:GLU:HG3	2.08	0.53
2:C:693:GLU:O	2:C:697:ARG:HG2	2.08	0.53
2:C:1040:LEU:HD23	2:C:1049:LEU:HD13	1.90	0.53
3:D:107:ASP:O	3:D:108:VAL:C	2.46	0.53
3:D:741:ASP:OD2	6:H:14:G:H5"	2.09	0.53
3:D:1107:VAL:HG12	3:D:1217:ILE:HG23	1.90	0.53
3:D:1200:VAL:HG12	3:D:1201:CYS:O	2.09	0.53
4:E:23:VAL:O	4:E:26:ARG:HB3	2.08	0.53
2:M:406:HIS:CD2	2:M:409:ARG:HH21	2.26	0.53
2:M:437:ARG:CZ	2:M:488:ALA:HA	2.38	0.53
2:M:697:ARG:O	2:M:697:ARG:HG3	2.09	0.53
2:M:939:ARG:HD3	2:M:982:PRO:HD3	1.89	0.53
2:M:1034:GLU:HA	2:M:1037:VAL:HG23	1.90	0.53
3:N:1296:SER:C	3:N:1298:GLY:H	2.10	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:O:54:LEU:HD23	4:O:54:LEU:O	2.08	0.53
7:I:11:DG:H2'	7:I:12:DT:C7	2.37	0.53
7:Z:1:DG:H3'	7:Z:1:DG:OP1	2.08	0.53
2:C:172:ILE:HD12	2:C:172:ILE:N	2.23	0.53
2:C:676:ILE:HG21	2:C:988:VAL:HG13	1.88	0.53
2:C:1035:MET:HE1	5:G:19:DG:H4'	1.91	0.53
3:D:701:LEU:O	3:D:747:VAL:HG23	2.08	0.53
3:D:857:ILE:HG22	3:D:858:VAL:HG13	1.91	0.53
3:D:1033:GLN:C	3:D:1037:GLN:CB	2.69	0.53
1:K:34:VAL:HG13	1:K:35:THR:N	2.22	0.53
2:M:17:PRO:O	2:M:20:GLU:HB3	2.08	0.53
2:M:1048:THR:O	2:M:1052:MET:SD	2.66	0.53
3:N:55:ASP:HB3	3:N:82:LYS:NZ	2.24	0.53
3:N:482:LYS:CE	3:N:1384:PRO:HD2	2.34	0.53
3:N:520:LEU:CD1	3:N:521:PRO:HD2	2.38	0.53
3:N:701:LEU:C	3:N:702:LEU:HD12	2.29	0.53
3:N:1122:LEU:HD13	3:N:1184:GLN:O	2.08	0.53
1:A:63:HIS:HE1	1:A:65:PHE:O	1.91	0.53
1:A:223:THR:C	1:A:225:PHE:H	2.11	0.53
1:B:36:LEU:O	1:B:39:PRO:HD2	2.09	0.53
1:B:48:ILE:HD13	1:B:210:ALA:HB1	1.91	0.53
2:C:122:THR:HB	2:C:124:ASP:CG	2.29	0.53
2:C:124:ASP:OD1	2:C:126:SER:N	2.25	0.53
2:C:140:ILE:HG23	2:C:410:ILE:HD13	1.90	0.53
2:C:164:PRO:HD2	2:C:170:PRO:O	2.08	0.53
2:C:336:VAL:N	2:C:339:LEU:HD12	2.23	0.53
2:C:431:HIS:N	2:C:434:HIS:CE1	2.72	0.53
3:D:133:ILE:HA	3:D:456:MET:CB	2.37	0.53
3:D:695:ILE:O	3:D:696:HIS:C	2.46	0.53
3:D:880:ILE:HD13	3:D:880:ILE:O	2.08	0.53
3:D:949:ILE:HD11	3:D:1023:MET:HE3	1.90	0.53
3:D:1197:ARG:CD	3:D:1198:TYR:H	2.21	0.53
1:K:152:PRO:HD2	1:K:155:LYS:HB2	1.90	0.53
1:L:59:GLU:HB2	1:L:137:ARG:HH22	1.73	0.53
2:M:570:PRO:CD	2:M:635:THR:HG21	2.36	0.53
2:M:758:ARG:HG2	2:M:788:THR:OG1	2.08	0.53
2:M:972:VAL:HG23	2:M:974:LEU:HD13	1.90	0.53
3:N:111:LYS:HE2	3:N:1445:HIS:CD2	2.44	0.53
3:N:113:GLY:O	3:N:116:LEU:O	2.26	0.53
3:N:143:ASN:OD1	3:N:145:VAL:HG12	2.08	0.53
3:N:701:LEU:HD12	3:N:701:LEU:N	2.12	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1019:PRO:O	3:N:1023:MET:HB2	2.08	0.53
3:N:1365:ASP:O	3:N:1369:GLU:HG3	2.09	0.53
3:N:1472:ILE:O	3:N:1477:GLY:HA3	2.08	0.53
5:X:26:DC:N3	5:X:27:DC:N4	2.56	0.53
2:C:503:LEU:HD23	2:C:507:ARG:O	2.08	0.53
2:C:537:LYS:HZ1	2:C:904:PRO:HB3	1.74	0.53
2:C:572:ILE:HG23	2:C:703:ILE:HD13	1.89	0.53
2:C:1062:GLY:O	2:C:1066:ALA:CB	2.57	0.53
3:D:493:ARG:HD2	3:D:493:ARG:C	2.29	0.53
3:D:1102:THR:O	3:D:1103:HIS:C	2.46	0.53
2:M:292:ARG:HH11	2:M:299:LYS:HD3	1.74	0.53
2:M:460:ARG:HG2	2:M:485:TYR:CD2	2.43	0.53
2:M:683:ASN:HB2	2:M:872:ASN:HB2	1.89	0.53
2:M:1013:TYR:CD2	2:M:1063:ARG:NH2	2.77	0.53
3:N:400:VAL:HG22	3:N:443:VAL:HG21	1.91	0.53
3:N:688:TRP:CE3	3:N:688:TRP:HA	2.44	0.53
3:N:756:GLN:HG3	4:O:61:VAL:HG21	1.90	0.53
3:N:1441:GLN:HG2	3:N:1442:ASN:H	1.73	0.53
5:G:9:DC:O5'	5:G:9:DC:H6	1.89	0.53
6:Y:1:C:H2'	6:Y:2:C:C6	2.44	0.53
1:A:57:TYR:CZ	1:A:161:ARG:HG2	2.43	0.53
1:A:62:LEU:HD12	1:A:62:LEU:N	2.23	0.53
1:A:199:ILE:HD12	1:A:199:ILE:N	2.24	0.53
1:B:24:VAL:CG1	1:B:196:THR:HG22	2.36	0.53
2:C:195:LEU:O	2:C:199:VAL:HG23	2.08	0.53
2:C:561:GLY:O	2:C:565:GLN:HG3	2.07	0.53
2:C:762:LYS:NZ	2:C:786:LYS:HG3	2.24	0.53
3:D:465:LEU:HA	3:D:468:LEU:HD12	1.91	0.53
3:D:720:LEU:H	3:D:720:LEU:HD12	1.74	0.53
3:D:983:LEU:H	3:D:983:LEU:CD2	2.22	0.53
1:L:105:GLY:O	1:L:132:LEU:HB3	2.08	0.53
2:M:139:GLN:CD	2:M:415:PRO:HD3	2.29	0.53
2:M:251:ASP:C	2:M:252:LYS:HG3	2.28	0.53
2:M:295:ASP:HB2	2:M:297:GLU:OE2	2.09	0.53
2:M:581:THR:C	2:M:902:ILE:HG23	2.29	0.53
2:M:1033:GLY:O	2:M:1037:VAL:HG23	2.08	0.53
2:M:1081:VAL:HB	2:M:1086:ARG:HE	1.74	0.53
3:N:568:ARG:HG3	3:N:572:ARG:HE	1.72	0.53
3:N:871:LYS:CB	3:N:873:LEU:HD21	2.39	0.53
3:N:1118:ILE:HG13	3:N:1192:LEU:HD12	1.90	0.53
3:N:1132:LEU:N	3:N:1132:LEU:HD12	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Y:9:C:H2'	6:Y:10:G:H5'	1.91	0.53
2:C:18:LEU:HD13	2:C:590:ASP:CG	2.29	0.53
2:C:617:ASP:CG	2:C:619:ARG:HH21	2.12	0.53
2:C:1037:VAL:O	2:C:1041:GLU:HG3	2.09	0.53
3:D:6:ARG:C	3:D:7:LYS:HG3	2.29	0.53
3:D:16:GLU:HA	3:D:19:ARG:HG2	1.89	0.53
3:D:483:HIS:HB2	3:D:484:PRO:CD	2.34	0.53
3:D:698:LYS:HD2	4:E:59:ASN:OD1	2.09	0.53
4:E:28:GLN:C	4:E:32:ARG:HH12	2.12	0.53
1:K:223:THR:C	1:K:225:PHE:H	2.11	0.53
2:M:7:GLY:HA2	2:M:907:ASP:O	2.09	0.53
2:M:135:VAL:O	2:M:392:SER:HA	2.08	0.53
2:M:195:LEU:HG	2:M:238:LEU:HG	1.90	0.53
2:M:244:PRO:HG2	2:M:246:ASP:OD2	2.08	0.53
2:M:603:VAL:O	2:M:646:GLY:HA2	2.09	0.53
2:M:714:ASP:OD2	2:M:820:ARG:HB2	2.09	0.53
2:M:878:SER:OG	3:N:1029:ARG:NH2	2.42	0.53
3:N:1093:TYR:HE2	3:N:1440:PHE:HE2	1.57	0.53
3:N:1096:ARG:HH22	5:X:18:DC:P	2.32	0.53
7:I:3:DA:C1'	7:I:4:DG:H5'	2.21	0.53
5:X:13:DA:C2'	5:X:13:DA:O5'	2.55	0.53
1:A:106:PRO:CG	1:A:134:GLU:CD	2.74	0.53
1:A:170:VAL:HG23	1:A:170:VAL:O	2.09	0.53
2:C:145:GLY:CA	2:C:276:LYS:HD3	2.39	0.53
2:C:332:ARG:HG2	2:C:333:ILE:N	2.23	0.53
2:C:688:ILE:HD11	2:C:847:GLY:HA3	1.90	0.53
3:D:52:PRO:HD2	3:D:85:VAL:HG23	1.89	0.53
3:D:907:GLU:OE1	3:D:909:ASN:HB2	2.09	0.53
4:E:54:LEU:CA	4:E:58:PRO:HG2	2.36	0.53
1:K:50:GLY:CA	1:K:173:PRO:HG3	2.38	0.53
1:K:199:ILE:N	1:K:199:ILE:HD12	2.23	0.53
2:M:26:TYR:O	2:M:30:LEU:HG	2.09	0.53
2:M:274:ARG:HG3	2:M:274:ARG:NH1	2.23	0.53
2:M:302:VAL:O	2:M:306:THR:HG23	2.09	0.53
2:M:345:ARG:HA	2:M:348:LEU:HB2	1.90	0.53
3:N:133:ILE:HG22	3:N:134:VAL:H	1.74	0.53
3:N:136:ASP:CG	3:N:137:PRO:HD3	2.29	0.53
3:N:708:LEU:HB3	3:N:1231:GLU:HB2	1.90	0.53
3:N:767:HIS:NE2	4:O:6:ILE:HD13	2.23	0.53
3:N:901:GLN:HG3	3:N:901:GLN:O	2.09	0.53
6:H:6:C:C5	6:H:7:G:C5	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:23:PHE:HZ	1:B:207:PRO:HB2	1.74	0.53
1:B:59:GLU:HG2	1:B:139:ASN:HD22	1.73	0.53
2:C:69:LEU:HD12	2:C:97:ARG:CB	2.24	0.53
2:C:532:MET:CG	2:C:533:ASP:N	2.71	0.53
2:C:683:ASN:O	2:C:872:ASN:CB	2.53	0.53
2:C:850:ALA:HA	3:D:632:VAL:CG1	2.39	0.53
2:C:1105:LYS:O	2:C:1105:LYS:HD2	2.08	0.53
3:D:799:LYS:HE2	3:D:824:ASN:O	2.08	0.53
3:D:875:THR:HG22	3:D:876:SER:N	2.24	0.53
3:D:897:TRP:CA	3:D:900:ILE:CD1	2.81	0.53
3:D:911:LEU:O	3:D:915:VAL:HG23	2.09	0.53
1:K:96:THR:HG23	1:K:96:THR:O	2.07	0.53
2:M:6:PHE:HD1	2:M:903:SER:HA	1.74	0.53
2:M:129:ILE:CD1	2:M:134:ARG:HB2	2.36	0.53
2:M:516:ARG:NH1	3:N:1068:LEU:HD22	2.23	0.53
2:M:791:ARG:O	2:M:793:PRO:HD3	2.09	0.53
2:M:861:LEU:HD23	2:M:862:PRO:CD	2.38	0.53
2:M:976:ASP:OD1	2:M:978:ARG:HB2	2.08	0.53
3:N:19:ARG:HH21	3:N:516:ALA:CB	1.99	0.53
3:N:107:ASP:CG	3:N:109:PRO:HD2	2.28	0.53
3:N:117:ASP:CG	3:N:117:ASP:O	2.48	0.53
3:N:470:LEU:HD12	3:N:503:LEU:CD2	2.39	0.53
3:N:1068:LEU:O	3:N:1072:ILE:HG12	2.09	0.53
3:N:1438:ALA:HA	3:N:1446:VAL:HG21	1.90	0.53
1:A:73:GLU:CD	1:A:73:GLU:H	2.11	0.52
2:C:165:LEU:HB3	2:C:265:ARG:CZ	2.39	0.52
2:C:211:LEU:HD13	2:C:308:ARG:HA	1.91	0.52
2:C:250:ARG:HD3	2:C:253:ALA:HB3	1.89	0.52
2:C:403:SER:O	2:C:407:LYS:HG3	2.09	0.52
2:C:752:GLY:O	3:D:679:ARG:HG2	2.08	0.52
3:D:50:PHE:CD2	3:D:521:PRO:HA	2.44	0.52
3:D:553:ARG:O	3:D:557:LEU:HG	2.09	0.52
3:D:706:PRO:HG2	6:H:15:C:O2	2.08	0.52
3:D:900:ILE:O	3:D:902:LEU:HD22	2.08	0.52
3:D:1045:MET:HG2	3:D:1073:SER:HA	1.91	0.52
1:K:50:GLY:HA3	1:K:171:PHE:O	2.09	0.52
1:L:46:SER:O	1:L:148:VAL:HB	2.09	0.52
2:M:83:CYS:HA	2:M:88:LEU:HB2	1.92	0.52
2:M:230:ARG:HG2	2:M:230:ARG:HH11	1.75	0.52
2:M:405:ARG:NH1	2:M:566:THR:HG21	2.24	0.52
2:M:683:ASN:HA	2:M:687:ALA:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:684:PHE:HD2	3:N:740:PHE:HD1	1.57	0.52
2:M:843:HIS:CE1	2:M:887:GLU:OE2	2.62	0.52
3:N:1280:VAL:HB	3:N:1316:GLY:O	2.09	0.52
3:N:1395:LEU:HD23	3:N:1396:GLU:N	2.24	0.52
6:Y:6:C:N4	6:Y:7:G:C6	2.77	0.52
2:C:71:TYR:H	2:C:71:TYR:HD2	1.54	0.52
2:C:264:PRO:HB3	2:C:289:THR:CB	2.39	0.52
2:C:398:THR:HB	2:C:399:ASN:HD22	1.73	0.52
2:C:644:VAL:HG22	2:C:647:GLN:OE1	2.09	0.52
2:C:1056:LYS:HD3	3:D:623:VAL:CG1	2.39	0.52
3:D:486:ARG:O	3:D:490:ALA:HB2	2.08	0.52
3:D:618:LEU:HD12	3:D:1467:ILE:HD11	1.89	0.52
3:D:637:LEU:HD21	3:D:642:CYS:HA	1.91	0.52
3:D:705:ALA:HB1	6:H:14:G:C2	2.27	0.52
3:D:1103:HIS:CD2	3:D:1104:GLU:H	2.25	0.52
3:D:1380:GLU:CG	3:D:1381:VAL:H	2.20	0.52
1:K:49:PRO:HA	1:K:148:VAL:HG22	1.91	0.52
2:M:211:LEU:HD13	2:M:308:ARG:CG	2.39	0.52
2:M:758:ARG:CZ	2:M:788:THR:HB	2.39	0.52
2:M:878:SER:HB3	3:N:1029:ARG:HG3	1.91	0.52
3:N:539:ASP:OD2	3:N:539:ASP:N	2.36	0.52
2:C:6:PHE:N	2:C:6:PHE:CD1	2.76	0.52
2:C:185:LYS:HD3	2:C:190:LYS:HZ3	1.75	0.52
2:C:260:LEU:HD12	2:C:261:ILE:N	2.24	0.52
2:C:846:LYS:HD3	6:H:14:G:OP1	2.09	0.52
2:C:862:PRO:HA	2:C:975:TYR:CE1	2.45	0.52
2:C:1038:TRP:O	2:C:1041:GLU:HB2	2.08	0.52
3:D:25:GLU:HG3	3:D:92:HIS:O	2.09	0.52
3:D:30:GLU:HB3	3:D:40:GLU:CB	2.39	0.52
3:D:134:VAL:HG22	3:D:455:ARG:O	2.08	0.52
3:D:860:LEU:HB2	3:D:861:GLN:OE1	2.10	0.52
3:D:1045:MET:HE2	3:D:1076:GLY:CA	2.34	0.52
3:D:1094:LEU:HD22	3:D:1256:LEU:HD11	1.90	0.52
3:D:1388:ARG:H	3:D:1388:ARG:CD	2.22	0.52
1:K:189:ARG:HH11	1:K:189:ARG:HG3	1.74	0.52
2:M:7:GLY:N	2:M:904:PRO:HD2	2.13	0.52
2:M:274:ARG:HG3	2:M:285:LEU:HD22	1.91	0.52
2:M:428:ARG:NH1	2:M:449:ILE:HG22	2.24	0.52
2:M:1008:ARG:HA	3:N:651:GLU:OE2	2.09	0.52
3:N:785:ILE:HD11	3:N:939:PHE:CE2	2.45	0.52
4:O:23:VAL:HG22	4:O:68:LEU:HD22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:7:DA:H2"	5:G:8:DC:C6	2.44	0.52
7:I:5:DC:O5'	7:I:5:DC:H6	1.91	0.52
2:C:66:LEU:HD12	2:C:99:GLN:O	2.10	0.52
2:C:305:PRO:HA	2:C:308:ARG:HB2	1.92	0.52
2:C:567:GLN:NE2	6:H:12:U:O2'	2.41	0.52
2:C:635:THR:O	2:C:705:ILE:HD12	2.09	0.52
2:C:1042:ALA:HB1	3:D:710:ARG:HB3	1.89	0.52
3:D:29:PRO:HD3	3:D:548:ILE:HG21	1.92	0.52
3:D:30:GLU:HB2	3:D:41:ARG:CG	2.39	0.52
3:D:630:VAL:HG12	3:D:631:ILE:N	2.23	0.52
3:D:764:LEU:HD11	3:D:766:ALA:HB3	1.91	0.52
3:D:1440:PHE:CG	3:D:1441:GLN:N	2.77	0.52
3:D:1462:LEU:N	3:D:1462:LEU:HD23	2.25	0.52
2:M:6:PHE:CD1	2:M:903:SER:HA	2.45	0.52
2:M:12:VAL:HG22	2:M:13:ILE:HG23	1.90	0.52
2:M:77:PRO:HD2	2:M:91:GLN:O	2.09	0.52
2:M:395:LYS:HE2	2:M:403:SER:CB	2.31	0.52
2:M:436:GLY:HA2	2:M:539:VAL:HA	1.92	0.52
2:M:714:ASP:OD1	2:M:820:ARG:HD2	2.09	0.52
2:M:1062:GLY:O	2:M:1066:ALA:CB	2.57	0.52
3:N:99:ALA:HA	3:N:458:ALA:CB	2.40	0.52
3:N:646:LYS:CB	3:N:688:TRP:CH2	2.93	0.52
3:N:1147:ARG:HH22	3:N:1369:GLU:CD	2.13	0.52
1:A:161:ARG:NH1	1:A:161:ARG:HB2	2.25	0.52
1:A:180:GLN:CD	2:C:937:ASP:HB2	2.29	0.52
2:C:1030:GLN:OE1	3:D:628:ARG:HD3	2.09	0.52
3:D:613:ARG:HH11	3:D:616:GLN:CG	2.20	0.52
3:D:714:GLN:HB3	3:D:765:SER:HB3	1.91	0.52
3:D:1084:THR:CA	3:D:1087:ARG:HG2	2.40	0.52
3:D:1335:LEU:HD12	3:D:1335:LEU:O	2.09	0.52
3:D:1388:ARG:N	3:D:1388:ARG:CD	2.68	0.52
1:K:72:LYS:O	2:M:608:GLY:CA	2.58	0.52
1:K:206:THR:HG23	1:K:209:GLU:H	1.73	0.52
2:M:397:GLU:C	2:M:633:GLN:HG2	2.30	0.52
2:M:422:ARG:HB3	7:Z:1:DG:N3	2.24	0.52
2:M:433:THR:HG22	2:M:437:ARG:NH1	2.24	0.52
2:M:518:LYS:HB3	2:M:518:LYS:NZ	2.23	0.52
2:M:524:VAL:HG12	2:M:525:SER:H	1.74	0.52
2:M:685:GLU:OE2	3:N:783:ARG:NH1	2.43	0.52
2:M:767:PRO:CB	2:M:772:ARG:HH21	2.22	0.52
3:N:405:ASP:HB2	3:N:423:ASP:OD1	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:697:GLY:O	3:N:699:VAL:HG13	2.09	0.52
3:N:804:LEU:HD12	3:N:830:ALA:O	2.10	0.52
3:N:1106:VAL:HG12	3:N:1107:VAL:N	2.24	0.52
3:N:1340:GLY:O	3:N:1344:VAL:HG22	2.10	0.52
5:G:6:DT:OP1	5:G:6:DT:C4'	2.54	0.52
6:Y:6:C:C4	6:Y:7:G:C6	2.98	0.52
1:A:35:THR:HG21	1:B:43:ILE:HG12	1.92	0.52
2:C:92:ALA:HB2	2:C:120:LEU:HD21	1.92	0.52
2:C:405:ARG:C	2:C:407:LYS:N	2.59	0.52
2:C:439:CYS:SG	2:C:541:SER:HB3	2.49	0.52
2:C:957:LYS:CG	2:C:961:GLU:HB2	2.40	0.52
2:C:987:ILE:HG12	3:D:948:THR:CG2	2.39	0.52
3:D:794:GLN:OE1	3:D:905:PRO:HG2	2.09	0.52
2:M:83:CYS:HA	2:M:88:LEU:CB	2.39	0.52
2:M:384:GLU:O	2:M:388:ARG:HB2	2.09	0.52
2:M:387:SER:OG	2:M:388:ARG:HD2	2.10	0.52
2:M:905:ILE:N	2:M:905:ILE:HD12	2.25	0.52
2:M:1014:SER:O	2:M:1017:THR:O	2.27	0.52
2:M:1031:ARG:HA	3:N:621:LYS:O	2.09	0.52
3:N:806:PHE:HE1	3:N:813:LEU:HB3	1.74	0.52
3:N:820:GLU:HA	3:N:825:ALA:O	2.09	0.52
3:N:838:ARG:HH11	3:N:838:ARG:HG2	1.74	0.52
3:N:1102:THR:O	3:N:1103:HIS:C	2.46	0.52
3:N:1441:GLN:CG	3:N:1442:ASN:N	2.73	0.52
5:X:12:DA:C2	5:X:13:DA:C2	2.97	0.52
1:A:54:THR:HB	1:A:143:ARG:CG	2.39	0.52
2:C:532:MET:HE3	2:C:533:ASP:O	2.10	0.52
2:C:724:ARG:O	2:C:724:ARG:HG2	2.09	0.52
2:C:729:LEU:HD13	3:D:675:ARG:HH11	1.74	0.52
2:C:862:PRO:HD2	2:C:925:TYR:OH	2.09	0.52
2:C:1037:VAL:CG1	2:C:1041:GLU:OE2	2.58	0.52
2:C:1043:TYR:HE1	3:D:710:ARG:O	1.92	0.52
3:D:42:ASP:OD2	3:D:48:ARG:NH2	2.33	0.52
3:D:530:VAL:O	3:D:531:ASP:OD1	2.28	0.52
3:D:1200:VAL:CG1	3:D:1201:CYS:N	2.72	0.52
1:K:206:THR:CG2	1:K:209:GLU:H	2.22	0.52
2:M:328:LEU:HD13	2:M:328:LEU:H	1.74	0.52
2:M:405:ARG:NH2	2:M:566:THR:HG21	2.24	0.52
2:M:577:PRO:HG3	2:M:993:PHE:CZ	2.45	0.52
2:M:674:VAL:CG2	2:M:869:VAL:HG13	2.39	0.52
3:N:143:ASN:CG	3:N:145:VAL:H	2.12	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:472:ALA:HA	3:N:475:LYS:HD3	1.91	0.52
3:N:646:LYS:NZ	3:N:688:TRP:CD1	2.70	0.52
3:N:1326:THR:C	3:N:1327:ARG:HG3	2.29	0.52
1:A:7:LYS:O	1:A:7:LYS:HG2	2.08	0.52
1:A:178:ALA:HB3	1:A:198:ARG:HG3	1.92	0.52
1:B:28:LEU:HG	1:B:193:ASP:O	2.10	0.52
2:C:553:ASP:OD1	2:C:843:HIS:ND1	2.41	0.52
2:C:829:GLN:O	2:C:831:ARG:N	2.41	0.52
3:D:50:PHE:O	3:D:89:ARG:HD2	2.10	0.52
3:D:699:VAL:HG22	3:D:756:GLN:OE1	2.09	0.52
3:D:1225:ALA:HA	3:D:1367:HIS:CE1	2.45	0.52
3:D:1435:LEU:HD13	3:D:1457:ASP:OD2	2.09	0.52
1:K:123:MET:C	1:K:125:PRO:HD3	2.30	0.52
2:M:10:ARG:HH11	2:M:10:ARG:N	2.08	0.52
2:M:328:LEU:CD1	2:M:328:LEU:H	2.23	0.52
3:N:107:ASP:OD2	3:N:1445:HIS:HA	2.10	0.52
3:N:520:LEU:HD11	3:N:524:LEU:CD2	2.40	0.52
3:N:563:PRO:HG3	3:N:566:ILE:HD12	1.92	0.52
3:N:821:VAL:HG22	3:N:840:LYS:NZ	2.25	0.52
3:N:1087:ARG:HG2	3:N:1087:ARG:HH11	1.74	0.52
3:N:1088:THR:HG21	5:X:19:DG:C2	2.45	0.52
3:N:1166:LEU:HD12	3:N:1171:VAL:HG22	1.92	0.52
5:G:13:DA:H2'	5:G:13:DA:O5'	2.10	0.52
5:X:17:DA:H2'	5:X:17:DA:O5'	2.09	0.52
2:C:426:ASP:HA	2:C:429:ASP:OD2	2.10	0.52
2:C:634:GLY:O	2:C:705:ILE:HB	2.10	0.52
2:C:729:LEU:CD1	3:D:675:ARG:HD2	2.40	0.52
2:C:902:ILE:O	2:C:904:PRO:HD3	2.10	0.52
3:D:17:LYS:HG2	3:D:21:TRP:HE1	1.75	0.52
3:D:781:PRO:HG2	3:D:911:LEU:HD23	1.92	0.52
3:D:1153:VAL:HA	3:N:561:GLY:HA3	1.92	0.52
1:K:56:VAL:HG12	1:K:57:TYR:N	2.25	0.52
2:M:396:ASP:CG	2:M:396:ASP:O	2.48	0.52
2:M:523:ILE:HG23	2:M:523:ILE:O	2.10	0.52
2:M:841:ASN:ND2	2:M:843:HIS:ND1	2.57	0.52
2:M:1034:GLU:HG2	3:N:619:LEU:HD13	1.92	0.52
2:M:1078:GLU:HA	2:M:1078:GLU:OE1	2.10	0.52
3:N:445:ARG:HH11	3:N:445:ARG:HG2	1.74	0.52
3:N:480:GLU:O	3:N:489:ARG:HB2	2.10	0.52
3:N:1189:ARG:HH11	3:N:1189:ARG:HG3	1.74	0.52
3:N:1267:ARG:HD3	3:N:1268:PRO:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:O:54:LEU:CG	4:O:58:PRO:HG2	2.40	0.52
5:G:10:DA:H2"	5:G:11:DC:C6	2.45	0.52
5:G:16:DT:H1'	5:G:17:DA:OP1	2.09	0.52
1:A:104:GLU:OE1	1:A:137:ARG:HA	2.09	0.52
1:B:43:ILE:HG13	1:B:218:LEU:HD13	1.91	0.52
1:B:101:LEU:HD12	1:B:114:PHE:N	2.25	0.52
1:B:206:THR:HG23	1:B:208:LEU:N	2.25	0.52
2:C:333:ILE:N	2:C:333:ILE:HD12	2.25	0.52
2:C:626:ARG:O	2:C:638:ASP:HA	2.09	0.52
2:C:855:VAL:HA	2:C:858:MET:HG2	1.90	0.52
2:C:957:LYS:CD	2:C:961:GLU:HB2	2.40	0.52
3:D:22:SER:HG	3:D:92:HIS:CG	2.28	0.52
3:D:54:LYS:O	3:D:55:ASP:C	2.48	0.52
3:D:133:ILE:HB	3:D:153:LEU:O	2.08	0.52
3:D:608:SER:HA	3:D:1443:THR:HG21	1.92	0.52
3:D:834:THR:HG22	3:D:838:ARG:NH1	2.17	0.52
3:D:1447:LEU:N	3:D:1447:LEU:HD12	2.24	0.52
1:L:62:LEU:CD1	1:L:63:HIS:H	2.21	0.52
2:M:142:ARG:HE	2:M:325:ILE:HG23	1.74	0.52
2:M:162:ILE:HD12	2:M:172:ILE:HB	1.92	0.52
2:M:265:ARG:HG2	2:M:267:TYR:HB3	1.91	0.52
2:M:328:LEU:CD1	2:M:328:LEU:N	2.73	0.52
2:M:937:ASP:OD2	2:M:939:ARG:CG	2.58	0.52
2:M:939:ARG:HG3	2:M:975:TYR:CE2	2.45	0.52
3:N:87:ARG:HB2	3:N:524:LEU:HD12	1.92	0.52
3:N:123:LEU:O	3:N:126:VAL:HB	2.10	0.52
3:N:415:VAL:HG12	3:N:416:ALA:N	2.25	0.52
3:N:473:LEU:HA	3:N:476:GLU:HB2	1.92	0.52
3:N:626:SER:O	3:N:652:LEU:HD11	2.10	0.52
3:N:703:ASN:CA	3:N:713:ILE:HG12	2.40	0.52
3:N:838:ARG:N	3:N:838:ARG:HD2	2.25	0.52
3:N:899:LEU:HD13	3:N:914:LEU:HD23	1.92	0.52
3:N:1011:PHE:HB3	3:N:1021:TYR:CG	2.45	0.52
3:N:1229:ILE:HD11	3:N:1367:HIS:CB	2.40	0.52
3:N:1445:HIS:CD2	3:N:1449:GLU:HB2	2.45	0.52
3:N:1486:VAL:CG2	4:O:29:GLN:HE22	2.23	0.52
5:G:3:DC:O5'	5:G:3:DC:C6	2.63	0.52
2:C:39:ARG:H	2:C:39:ARG:HD2	1.75	0.51
2:C:124:ASP:OD1	2:C:125:GLY:N	2.43	0.51
2:C:409:ARG:NH1	2:C:444:PRO:CG	2.73	0.51
2:C:460:ARG:HG2	2:C:485:TYR:CD2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:634:GLY:O	2:C:705:ILE:N	2.36	0.51
2:C:1031:ARG:NE	3:D:621:LYS:HD2	2.25	0.51
2:C:1038:TRP:HD1	2:C:1041:GLU:OE2	1.93	0.51
3:D:640:HIS:HE2	3:D:717:GLN:CD	2.13	0.51
3:D:696:HIS:CG	3:D:697:GLY:N	2.79	0.51
3:D:1105:ILE:HG12	3:D:1374:GLN:NE2	2.25	0.51
3:D:1111:ASP:CG	3:D:1203:LYS:HD2	2.31	0.51
3:D:1127:GLU:O	3:D:1128:VAL:HG23	2.10	0.51
3:D:1347:TYR:CZ	3:D:1351:GLU:HG2	2.45	0.51
3:D:1409:ALA:HA	2:M:370:ALA:CB	2.40	0.51
4:E:59:ASN:O	4:E:63:TRP:CD1	2.64	0.51
2:M:442:GLU:OE2	2:M:543:ASN:HB3	2.09	0.51
2:M:494:TYR:N	2:M:494:TYR:CD1	2.77	0.51
2:M:881:ASN:O	2:M:884:GLN:HG3	2.10	0.51
2:M:941:VAL:HA	2:M:944:LEU:HD12	1.91	0.51
3:N:29:PRO:HD3	3:N:548:ILE:HG21	1.92	0.51
3:N:502:PHE:CZ	3:N:1452:ILE:HG13	2.45	0.51
3:N:729:HIS:ND1	3:N:730:PRO:HD2	2.25	0.51
7:Z:12:DT:O5'	7:Z:12:DT:H6	1.93	0.51
2:C:265:ARG:C	2:C:267:TYR:H	2.11	0.51
2:C:328:LEU:CB	2:C:433:THR:HB	2.40	0.51
2:C:395:LYS:HZ2	2:C:407:LYS:NZ	2.06	0.51
2:C:572:ILE:HG13	2:C:573:ARG:N	2.25	0.51
2:C:713:ARG:HB3	2:C:720:GLU:OE2	2.10	0.51
2:C:964:LYS:O	2:C:968:LEU:HG	2.11	0.51
3:D:786:ILE:HA	3:D:789:LEU:HD12	1.92	0.51
3:D:983:LEU:HG	3:D:984:THR:N	2.24	0.51
3:D:1237:THR:HB	3:D:1359:GLN:CD	2.31	0.51
1:K:101:LEU:HB2	1:K:114:PHE:HA	1.91	0.51
2:M:578:VAL:HG13	2:M:671:ASN:CG	2.31	0.51
2:M:905:ILE:CD1	2:M:905:ILE:H	2.23	0.51
2:M:988:VAL:HG11	3:N:949:ILE:O	2.10	0.51
2:M:1092:LEU:HB3	2:M:1099:VAL:CG2	2.40	0.51
2:M:1102:LEU:O	3:N:5:VAL:HG12	2.10	0.51
2:M:1103:ASP:CG	2:M:1104:GLU:H	2.13	0.51
3:N:34:TYR:N	3:N:34:TYR:CD2	2.78	0.51
3:N:115:LEU:HD12	3:N:498:VAL:HG12	1.91	0.51
3:N:434:ARG:HB3	3:N:434:ARG:NH1	2.24	0.51
3:N:584:ASN:CG	3:N:590:PRO:HD2	2.30	0.51
3:N:782:SER:O	3:N:786:ILE:HB	2.10	0.51
3:N:868:TYR:CE1	3:N:869:MET:HG3	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1292:VAL:HG22	3:N:1311:LEU:CD1	2.40	0.51
1:A:33:GLY:O	1:A:195:LEU:HD22	2.10	0.51
1:A:42:ARG:HH12	1:B:34:VAL:CG1	2.23	0.51
1:B:219:ARG:HA	1:B:222:LEU:HD12	1.92	0.51
2:C:21:ILE:HD12	2:C:21:ILE:N	2.23	0.51
2:C:214:TYR:HE1	2:C:311:PHE:HB3	1.75	0.51
2:C:326:ASP:O	2:C:431:HIS:CD2	2.62	0.51
2:C:837:ASP:HA	2:C:999:HIS:CE1	2.45	0.51
2:C:1038:TRP:HA	2:C:1041:GLU:HB2	1.92	0.51
3:D:629:SER:HB3	3:D:726:ILE:CD1	2.40	0.51
3:D:917:GLN:O	3:D:920:LEU:HB2	2.09	0.51
3:D:1211:MET:SD	3:D:1213:ARG:HG2	2.51	0.51
3:D:1330:ILE:HD13	3:D:1347:TYR:CZ	2.46	0.51
1:L:122:ILE:HG22	1:L:124:ASN:H	1.76	0.51
2:M:336:VAL:HA	2:M:339:LEU:HD12	1.92	0.51
2:M:1001:VAL:HG21	5:X:24:DC:C5'	2.39	0.51
2:M:1075:ASP:HB3	4:O:32:ARG:NH2	2.25	0.51
3:N:112:ILE:HD12	3:N:116:LEU:HB2	1.93	0.51
3:N:529:GLN:HB2	3:N:535:PHE:CZ	2.46	0.51
3:N:545:ARG:NH1	3:N:545:ARG:HB3	2.26	0.51
3:N:733:CYS:HB3	3:N:738:ALA:O	2.10	0.51
3:N:1380:GLU:HB2	3:N:1420:LEU:HD11	1.92	0.51
3:N:1466:VAL:O	3:N:1469:GLY:N	2.42	0.51
6:H:12:U:C6	6:H:12:U:H3'	2.45	0.51
5:X:3:DC:C2'	5:X:4:DA:OP2	2.53	0.51
7:Z:17:DA:H8	7:Z:17:DA:O5'	1.94	0.51
1:B:9:PRO:HB3	1:B:25:LEU:CG	2.40	0.51
2:C:52:PHE:CE2	2:C:68:PHE:CB	2.72	0.51
2:C:631:SER:HA	2:C:637:LEU:HD11	1.93	0.51
2:C:668:LEU:O	2:C:993:PHE:CZ	2.64	0.51
3:D:800:LYS:HD2	3:D:804:LEU:HD22	1.92	0.51
4:E:28:GLN:HB3	4:E:32:ARG:NH1	2.20	0.51
1:L:80:LEU:HD12	1:L:83:LYS:HZ1	1.76	0.51
2:M:101:ILE:HG22	2:M:102:HIS:N	2.24	0.51
2:M:767:PRO:HB3	2:M:772:ARG:HH21	1.74	0.51
3:N:114:THR:O	3:N:495:ARG:HG3	2.10	0.51
3:N:160:GLU:HB3	3:N:165:LYS:HB2	1.92	0.51
3:N:1031:ASN:OD1	3:N:1033:GLN:CB	2.57	0.51
3:N:1114:THR:CB	3:N:1195:GLN:HB3	2.36	0.51
3:N:1280:VAL:HG12	3:N:1318:TYR:N	2.26	0.51
5:G:16:DT:C2'	5:G:17:DA:OP1	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:15:C:OP2	6:H:15:C:C6	2.56	0.51
7:I:11:DG:H8	7:I:11:DG:P	2.34	0.51
2:C:17:PRO:O	2:C:20:GLU:HB3	2.10	0.51
2:C:334:ARG:HB2	2:C:339:LEU:HD21	1.93	0.51
2:C:405:ARG:HG3	2:C:442:GLU:OE1	2.09	0.51
2:C:460:ARG:NH1	2:C:462:ASP:HA	2.25	0.51
2:C:603:VAL:HB	2:C:647:GLN:H	1.75	0.51
2:C:726:ILE:HD13	2:C:734:LEU:HG	1.92	0.51
2:C:737:LEU:HD21	2:C:741:GLY:C	2.30	0.51
2:C:1115:LEU:HD22	3:D:88:TYR:CE1	2.46	0.51
3:D:804:LEU:CD1	3:D:830:ALA:O	2.58	0.51
3:D:1153:VAL:HG13	3:N:561:GLY:CA	2.41	0.51
3:D:1263:PHE:HB3	3:D:1424:VAL:CG1	2.40	0.51
1:K:66:SER:O	1:K:75:VAL:HG23	2.11	0.51
2:M:144:PRO:HA	2:M:163:ILE:O	2.11	0.51
2:M:397:GLU:OE2	2:M:632:ASN:HB2	2.10	0.51
2:M:516:ARG:CZ	3:N:1068:LEU:HB2	2.40	0.51
2:M:927:GLY:CA	2:M:930:LYS:HD3	2.36	0.51
3:N:520:LEU:HG	3:N:521:PRO:N	2.24	0.51
3:N:715:ALA:HB3	3:N:764:LEU:CA	2.40	0.51
7:I:11:DG:H2"	7:I:12:DT:C7	2.40	0.51
7:Z:15:DT:C2'	7:Z:16:DG:OP2	2.57	0.51
1:A:197:LEU:HD23	1:A:197:LEU:N	2.26	0.51
2:C:134:ARG:NH2	2:C:392:SER:O	2.44	0.51
2:C:869:VAL:HG22	2:C:870:ILE:N	2.24	0.51
3:D:131:LYS:HG3	3:D:568:ARG:CG	2.41	0.51
3:D:732:VAL:HG23	3:D:736:PHE:HE1	1.76	0.51
3:D:1017:PHE:HA	3:D:1022:VAL:CG2	2.40	0.51
4:E:47:LYS:N	4:E:54:LEU:HD13	2.26	0.51
1:K:92:PRO:HG3	1:K:146:ARG:HH22	1.76	0.51
1:L:71:VAL:HG22	1:L:132:LEU:HD12	1.93	0.51
2:M:71:TYR:HA	2:M:96:ALA:CB	2.41	0.51
2:M:211:LEU:HD13	2:M:308:ARG:HG3	1.92	0.51
2:M:260:LEU:HB3	2:M:291:ALA:HB2	1.90	0.51
2:M:265:ARG:HD3	2:M:267:TYR:HB3	1.92	0.51
2:M:833:LEU:HD12	2:M:996:LYS:HE2	1.92	0.51
3:N:33:ASN:HB2	3:N:40:GLU:CD	2.30	0.51
3:N:107:ASP:O	3:N:108:VAL:C	2.46	0.51
3:N:680:GLN:O	3:N:683:ILE:HD12	2.10	0.51
3:N:1236:LEU:C	3:N:1237:THR:OG1	2.49	0.51
7:Z:2:DT:H2"	7:Z:3:DA:OP2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:26:GLU:HB2	1:A:27:PRO:HA	1.91	0.51
1:A:161:ARG:HB2	1:A:161:ARG:CZ	2.40	0.51
2:C:684:PHE:HB3	3:D:740:PHE:CE1	2.46	0.51
2:C:854:PRO:HB2	2:C:856:GLU:CG	2.40	0.51
2:C:928:LYS:HZ1	2:C:932:GLU:HG3	1.73	0.51
2:C:1103:ASP:CG	2:C:1104:GLU:N	2.63	0.51
3:D:925:GLU:HG2	3:D:926:LYS:N	2.24	0.51
3:D:1011:PHE:HB3	3:D:1021:TYR:CG	2.46	0.51
3:D:1377:LYS:HG3	3:D:1377:LYS:O	2.10	0.51
1:K:54:THR:HB	1:K:143:ARG:CG	2.40	0.51
2:M:140:ILE:CD1	2:M:331:ARG:HH21	2.23	0.51
2:M:430:VAL:HG13	2:M:430:VAL:O	2.10	0.51
2:M:435:TYR:O	2:M:437:ARG:HD2	2.11	0.51
2:M:691:SER:HB3	2:M:868:ASP:O	2.10	0.51
2:M:756:VAL:O	2:M:789:SER:HB3	2.10	0.51
2:M:854:PRO:CB	2:M:856:GLU:HG3	2.41	0.51
2:M:1102:LEU:HA	2:M:1107:ASN:O	2.11	0.51
3:N:136:ASP:OD2	3:N:467:GLU:OE1	2.29	0.51
3:N:166:GLN:HA	3:N:198:ARG:CG	2.40	0.51
3:N:625:TYR:CE2	3:N:652:LEU:O	2.64	0.51
3:N:695:ILE:HD11	3:N:718:PRO:CB	2.31	0.51
3:N:704:ARG:HB3	3:N:736:PHE:HD2	1.76	0.51
1:A:65:PHE:HE1	2:C:799:ILE:HG21	1.76	0.51
1:A:176:ARG:HG3	1:A:200:TRP:CE3	2.45	0.51
2:C:274:ARG:O	2:C:274:ARG:HD3	2.09	0.51
2:C:456:ALA:HB1	2:C:538:GLN:O	2.11	0.51
2:C:1046:ALA:HB1	3:D:1472:ILE:HG12	1.91	0.51
3:D:116:LEU:HD22	3:D:118:LEU:HD11	1.92	0.51
3:D:148:GLU:HB3	3:D:151:GLN:HB3	1.93	0.51
3:D:924:MET:HB3	4:E:6:ILE:CG2	2.41	0.51
3:D:1198:TYR:OH	3:D:1432:LYS:NZ	2.36	0.51
3:D:1266:ARG:NH2	7:I:4:DG:O3'	2.44	0.51
3:D:1383:ASP:CB	3:D:1416:ALA:HB3	2.41	0.51
1:K:56:VAL:CG2	1:K:142:VAL:HG12	2.38	0.51
1:K:115:LEU:HD12	1:K:116:PRO:HD2	1.93	0.51
1:K:195:LEU:HD12	1:K:196:THR:H	1.76	0.51
2:M:129:ILE:N	2:M:129:ILE:CD1	2.73	0.51
2:M:557:ARG:NH1	2:M:560:MET:HG3	2.26	0.51
2:M:584:GLU:HB2	2:M:666:LEU:N	2.24	0.51
3:N:128:TYR:HB3	3:N:129:PHE:CD1	2.46	0.51
3:N:538:SER:O	3:N:540:LEU:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:710:ARG:HG3	3:N:711:LEU:N	2.26	0.51
3:N:1395:LEU:HA	3:N:1398:TRP:HD1	1.75	0.51
3:N:1464:GLU:CG	3:N:1465:ASN:N	2.73	0.51
5:X:12:DA:N3	5:X:13:DA:C5	2.78	0.51
1:A:11:PHE:CA	1:A:25:LEU:HD12	2.40	0.51
1:A:140:MET:SD	1:A:142:VAL:HG13	2.50	0.51
1:B:83:LYS:HE2	1:B:168:ASP:HB2	1.92	0.51
2:C:158:TYR:CD1	2:C:313:LEU:HD21	2.46	0.51
2:C:286:SER:HB3	2:C:299:LYS:CE	2.41	0.51
2:C:612:VAL:HG22	2:C:622:GLU:HA	1.92	0.51
2:C:678:PRO:HG2	3:D:947:ILE:HD11	1.93	0.51
2:C:1095:LEU:CG	3:D:603:LEU:HD13	2.40	0.51
3:D:127:LEU:HB2	3:D:132:TYR:HB2	1.92	0.51
3:D:502:PHE:HB3	3:D:509:PRO:HD3	1.92	0.51
1:K:226:SER:O	1:K:228:PRO:HD3	2.10	0.51
2:M:26:TYR:CD2	2:M:121:MET:HB2	2.46	0.51
2:M:350:ARG:HA	2:M:353:ARG:NH2	2.26	0.51
2:M:532:MET:HG2	2:M:533:ASP:O	2.09	0.51
2:M:553:ASP:HA	2:M:881:ASN:HA	1.93	0.51
2:M:1034:GLU:HA	2:M:1037:VAL:CG2	2.41	0.51
2:M:1059:ASP:O	2:M:1063:ARG:HD3	2.11	0.51
3:N:610:LYS:HA	3:N:615:ARG:NE	2.25	0.51
3:N:868:TYR:CD1	3:N:869:MET:HG3	2.46	0.51
3:N:1399:ASP:O	3:N:1403:LEU:CG	2.59	0.51
3:N:1445:HIS:O	3:N:1446:VAL:C	2.49	0.51
5:X:12:DA:N3	5:X:13:DA:C4	2.78	0.51
1:A:36:LEU:O	1:A:39:PRO:HD2	2.10	0.51
1:B:86:VAL:HG12	1:B:124:ASN:HB2	1.92	0.51
2:C:430:VAL:O	2:C:430:VAL:HG13	2.10	0.51
2:C:483:VAL:HG12	2:C:484:VAL:N	2.25	0.51
2:C:674:VAL:CB	2:C:869:VAL:HG13	2.41	0.51
3:D:91:GLY:O	3:D:518:PRO:HA	2.11	0.51
3:D:806:PHE:O	3:D:808:THR:N	2.44	0.51
1:L:33:GLY:O	1:L:195:LEU:HD22	2.11	0.51
1:L:179:PHE:N	1:L:179:PHE:HD2	2.09	0.51
3:N:82:LYS:HB3	3:N:84:ILE:HG23	1.93	0.51
3:N:126:VAL:O	3:N:130:SER:HB3	2.11	0.51
3:N:473:LEU:HA	3:N:476:GLU:OE2	2.10	0.51
3:N:488:ARG:HG2	3:N:488:ARG:NH1	2.25	0.51
3:N:610:LYS:HE3	5:X:20:DC:OP2	2.11	0.51
3:N:695:ILE:O	3:N:698:LYS:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1274:ILE:HG21	3:N:1301:LYS:NZ	2.24	0.51
5:G:2:DT:C2'	5:G:3:DC:C6	2.94	0.51
7:I:3:DA:N3	7:I:4:DG:O4'	2.44	0.51
5:X:13:DA:C6	5:X:14:DG:C6	2.99	0.51
6:Y:8:G:C8	6:Y:8:G:C3'	2.94	0.51
2:C:39:ARG:O	2:C:41:ASN:N	2.43	0.50
2:C:191:PHE:HB2	2:C:241:LEU:CD1	2.39	0.50
2:C:328:LEU:HD12	2:C:328:LEU:N	2.26	0.50
2:C:690:ILE:HG22	2:C:851:LYS:O	2.11	0.50
2:C:894:GLY:O	2:C:898:GLY:N	2.43	0.50
2:C:1045:ALA:HB2	3:D:763:MET:HE3	1.91	0.50
3:D:93:ILE:O	3:D:516:ALA:HA	2.11	0.50
3:D:799:LYS:HD3	3:D:826:PRO:HG3	1.93	0.50
3:D:897:TRP:C	3:D:900:ILE:CG1	2.80	0.50
3:D:1093:TYR:OH	3:D:1440:PHE:HE2	1.93	0.50
1:K:174:VAL:HG22	1:K:201:THR:CG2	2.41	0.50
2:M:267:TYR:CZ	2:M:273:GLY:HA3	2.45	0.50
2:M:894:GLY:O	2:M:898:GLY:N	2.44	0.50
2:M:1056:LYS:CE	3:N:751:LEU:HD11	2.21	0.50
3:N:127:LEU:HB3	3:N:132:TYR:HD1	1.75	0.50
3:N:160:GLU:HA	3:N:163:TYR:CE1	2.46	0.50
3:N:609:GLY:O	3:N:615:ARG:HD3	2.11	0.50
3:N:754:PHE:HD1	4:O:28:GLN:OE1	1.93	0.50
3:N:1122:LEU:HD13	3:N:1185:GLU:HA	1.94	0.50
3:N:1168:MET:HG3	3:N:1172:HIS:NE2	2.25	0.50
3:N:1348:LEU:HD13	3:N:1348:LEU:H	1.75	0.50
4:O:41:GLU:N	4:O:42:PRO:CD	2.74	0.50
5:G:5:DC:O5'	5:G:5:DC:H6	1.94	0.50
5:X:9:DC:H2"	5:X:10:DA:C8	2.46	0.50
7:Z:1:DG:OP3	7:Z:1:DG:C3'	2.54	0.50
2:C:64:LEU:CD2	2:C:359:MET:HG3	2.34	0.50
2:C:394:PHE:CE2	5:G:25:DG:H4'	2.46	0.50
3:D:2:LYS:HG2	3:D:2:LYS:O	2.10	0.50
3:D:33:ASN:ND2	3:D:35:ARG:HH12	2.08	0.50
3:D:566:ILE:HA	3:D:569:ASN:HB2	1.93	0.50
3:D:728:LEU:HG	3:D:729:HIS:O	2.11	0.50
3:D:730:PRO:HG3	3:D:939:PHE:HZ	1.76	0.50
3:D:744:GLN:NE2	5:G:21:DG:N2	2.51	0.50
3:D:902:LEU:CD2	3:D:902:LEU:N	2.67	0.50
3:D:924:MET:N	4:E:7:ASP:OD2	2.44	0.50
4:E:40:LEU:CD2	4:E:67:GLU:HA	2.31	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:88:ARG:HH12	1:K:90:LEU:CD1	2.24	0.50
1:L:76:VAL:O	1:L:80:LEU:HB2	2.11	0.50
2:M:685:GLU:HG2	3:N:739:ASP:HB2	1.93	0.50
2:M:775:ARG:CZ	2:M:782:ALA:HB1	2.41	0.50
2:M:942:GLU:O	2:M:946:ARG:HG3	2.11	0.50
3:N:34:TYR:N	3:N:34:TYR:HD2	2.10	0.50
3:N:87:ARG:O	3:N:524:LEU:HD11	2.11	0.50
3:N:132:TYR:CD2	3:N:154:THR:CB	2.94	0.50
3:N:583:ASP:CG	3:N:586:ARG:HG2	2.32	0.50
3:N:598:ARG:HD3	6:Y:8:G:H4'	1.92	0.50
3:N:860:LEU:HA	3:N:877:PRO:CB	2.33	0.50
5:G:7:DA:C2'	5:G:8:DC:OP2	2.59	0.50
5:X:27:DC:H2'	5:X:28:DG:H8	1.76	0.50
7:Z:6:DT:C2'	7:Z:7:DT:H72	2.41	0.50
2:C:438:ILE:HD12	2:C:438:ILE:N	2.26	0.50
2:C:831:ARG:CZ	2:C:1004:LYS:NZ	2.73	0.50
2:C:897:LEU:HD21	2:C:921:ALA:CA	2.42	0.50
2:C:939:ARG:HB3	2:C:982:PRO:CG	2.41	0.50
2:C:1030:GLN:OE1	5:G:22:DA:H5"	2.11	0.50
3:D:550:ARG:N	3:D:550:ARG:HE	2.10	0.50
3:D:582:LEU:HD23	3:D:603:LEU:CD1	2.42	0.50
3:D:704:ARG:HG2	3:D:736:PHE:CB	2.42	0.50
3:D:1443:THR:O	3:D:1447:LEU:HD22	2.11	0.50
3:D:1468:LEU:HD22	3:D:1470:ARG:HB2	1.94	0.50
4:E:36:LYS:HB2	4:E:95:VAL:CG2	2.41	0.50
4:E:57:ASP:N	4:E:58:PRO:HD3	2.26	0.50
2:M:1012:PRO:HD3	2:M:1026:GLN:CG	2.40	0.50
3:N:133:ILE:O	3:N:152:LEU:HB2	2.10	0.50
3:N:554:LEU:O	3:N:558:LEU:HG	2.11	0.50
3:N:575:GLN:O	3:N:578:VAL:HB	2.11	0.50
3:N:728:LEU:HG	3:N:729:HIS:N	2.26	0.50
3:N:807:ALA:HA	3:N:833:GLU:CG	2.42	0.50
3:N:1115:THR:CG2	3:N:1151:ARG:NH2	2.75	0.50
6:H:12:U:C6	6:H:12:U:C3'	2.95	0.50
1:B:56:VAL:HG12	1:B:57:TYR:N	2.26	0.50
2:C:182:VAL:CG1	2:C:193:LEU:HD13	2.41	0.50
2:C:312:ALA:CB	2:C:318:PRO:HG2	2.36	0.50
2:C:869:VAL:CG2	2:C:870:ILE:N	2.74	0.50
2:C:996:LYS:C	2:C:997:LEU:HD22	2.32	0.50
2:C:1016:ILE:CG2	3:D:526:PRO:HG3	2.42	0.50
2:C:1081:VAL:CG2	2:C:1086:ARG:HH21	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:820:GLU:HA	3:D:825:ALA:O	2.12	0.50
3:D:1128:VAL:O	3:D:1129:THR:HG22	2.12	0.50
3:D:1399:ASP:O	3:D:1403:LEU:HD12	2.11	0.50
3:D:1433:SER:HB2	3:D:1457:ASP:OD2	2.11	0.50
4:E:41:GLU:HG2	4:E:42:PRO:CD	2.38	0.50
2:M:1008:ARG:HH21	2:M:1012:PRO:N	2.10	0.50
2:M:1053:LEU:HD23	2:M:1053:LEU:H	1.76	0.50
3:N:6:ARG:HG2	3:N:6:ARG:HH11	1.76	0.50
3:N:420:VAL:HG12	3:N:421:LEU:N	2.26	0.50
3:N:513:ILE:HD12	3:N:513:ILE:C	2.31	0.50
3:N:1393:GLN:HB2	3:N:1398:TRP:HZ2	1.76	0.50
7:Z:14:DG:C2'	7:Z:15:DT:OP2	2.59	0.50
1:A:57:TYR:CE1	1:A:163:ASN:HB2	2.45	0.50
2:C:355:VAL:HG13	2:C:356:ARG:N	2.27	0.50
2:C:431:HIS:HD2	2:C:433:THR:H	1.58	0.50
2:C:502:PRO:O	2:C:503:LEU:HG	2.12	0.50
2:C:580:MET:HB3	2:C:584:GLU:CD	2.32	0.50
2:C:1046:ALA:CB	3:D:1476:THR:H	2.25	0.50
3:D:103:TRP:CD2	3:D:1444:THR:HG23	2.46	0.50
3:D:133:ILE:HG12	3:D:456:MET:CB	2.42	0.50
3:D:498:VAL:HG12	3:D:502:PHE:CE1	2.44	0.50
3:D:966:GLU:O	3:D:969:ARG:HG2	2.11	0.50
3:D:1059:SER:CB	3:D:1065:LEU:HA	2.42	0.50
3:D:1197:ARG:CG	3:D:1198:TYR:H	2.25	0.50
2:M:410:ILE:N	2:M:453:THR:O	2.40	0.50
2:M:861:LEU:HD22	2:M:863:ASP:CB	2.29	0.50
3:N:15:PRO:O	3:N:19:ARG:HG2	2.11	0.50
3:N:28:LYS:CB	3:N:41:ARG:HD2	2.42	0.50
3:N:54:LYS:HG3	3:N:55:ASP:N	2.26	0.50
3:N:644:LEU:HD12	3:N:645:PRO:HD2	1.94	0.50
3:N:761:ILE:O	3:N:767:HIS:ND1	2.45	0.50
3:N:840:LYS:HB3	3:N:841:TYR:CZ	2.47	0.50
3:N:867:ARG:HD2	3:N:867:ARG:C	2.31	0.50
1:A:56:VAL:HG12	1:A:57:TYR:N	2.27	0.50
1:A:148:VAL:HG12	1:A:149:GLY:N	2.27	0.50
2:C:121:MET:CE	2:C:125:GLY:HA2	2.42	0.50
2:C:140:ILE:HG22	2:C:333:ILE:HG13	1.93	0.50
2:C:144:PRO:HB2	2:C:267:TYR:CE1	2.47	0.50
2:C:930:LYS:HD2	2:C:960:GLU:CD	2.31	0.50
3:D:550:ARG:O	3:D:554:LEU:N	2.44	0.50
3:D:696:HIS:NE2	4:E:59:ASN:N	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:704:ARG:NH1	3:D:738:ALA:HB2	2.26	0.50
3:D:704:ARG:HH22	6:H:14:G:H2'	1.75	0.50
3:D:953:ASP:O	3:D:955:VAL:HG23	2.12	0.50
3:D:1101:VAL:HG13	3:D:1428:ALA:CB	2.33	0.50
1:K:58:ILE:CD1	1:K:140:MET:HB3	2.42	0.50
1:K:99:LEU:HD12	1:K:99:LEU:N	2.27	0.50
1:L:25:LEU:CD2	1:L:195:LEU:HB3	2.41	0.50
2:M:164:PRO:HD2	2:M:170:PRO:O	2.10	0.50
2:M:944:LEU:O	2:M:948:GLU:HG3	2.12	0.50
2:M:1013:TYR:CG	2:M:1063:ARG:NH2	2.80	0.50
3:N:134:VAL:HG22	3:N:455:ARG:O	2.12	0.50
3:N:470:LEU:N	3:N:470:LEU:HD23	2.27	0.50
3:N:550:ARG:O	3:N:554:LEU:HB2	2.11	0.50
3:N:711:LEU:C	3:N:713:ILE:H	2.14	0.50
3:N:810:GLU:HA	3:N:813:LEU:HD23	1.93	0.50
3:N:1103:HIS:CG	3:N:1104:GLU:N	2.80	0.50
3:N:1153:VAL:O	3:N:1160:LEU:HG	2.12	0.50
4:O:54:LEU:O	4:O:58:PRO:HD2	2.12	0.50
5:G:24:DC:C2'	5:G:25:DG:C8	2.94	0.50
1:B:50:GLY:O	1:B:146:ARG:HA	2.12	0.50
2:C:129:ILE:H	2:C:129:ILE:HD13	1.76	0.50
2:C:298:PHE:CD1	2:C:298:PHE:N	2.77	0.50
2:C:575:GLN:C	2:C:667:ALA:HB1	2.32	0.50
2:C:753:ASP:O	2:C:792:VAL:N	2.38	0.50
3:D:470:LEU:HB2	3:D:503:LEU:HD21	1.93	0.50
3:D:596:SER:O	3:D:598:ARG:N	2.43	0.50
3:D:899:LEU:CD2	3:D:917:GLN:HB3	2.32	0.50
3:D:1017:PHE:HA	3:D:1022:VAL:HG21	1.94	0.50
3:D:1107:VAL:O	3:D:1218:GLY:N	2.45	0.50
3:D:1468:LEU:HD22	3:D:1470:ARG:CB	2.41	0.50
1:L:57:TYR:HB2	1:L:164:ALA:HB2	1.93	0.50
2:M:151:ASP:HB2	2:M:157:ARG:O	2.12	0.50
2:M:199:VAL:CG1	2:M:235:LEU:HG	2.42	0.50
2:M:500:ASN:OD1	3:N:1067:VAL:HG23	2.12	0.50
2:M:706:GLU:HG2	2:M:708:TYR:OH	2.12	0.50
2:M:759:THR:HB	2:M:785:VAL:HG11	1.94	0.50
2:M:861:LEU:HD21	2:M:925:TYR:CZ	2.47	0.50
2:M:987:ILE:HG12	3:N:948:THR:CG2	2.42	0.50
3:N:15:PRO:HA	3:N:18:ILE:CG1	2.41	0.50
3:N:850:LEU:HD22	3:N:884:ARG:NH2	2.27	0.50
3:N:1389:LEU:HD11	3:N:1390:LEU:HG	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:O:62:THR:HA	4:O:65:MET:SD	2.52	0.50
6:H:15:C:H3'	6:H:16:A:C5'	2.41	0.50
6:Y:4:G:O2'	6:Y:5:C:H5'	2.12	0.50
1:A:198:ARG:HH22	2:C:932:GLU:HB3	1.77	0.50
2:C:86:LYS:HD3	2:C:813:VAL:HB	1.93	0.50
2:C:490:GLU:OE1	2:C:493:ARG:NH1	2.45	0.50
2:C:1090:LYS:CE	3:D:90:MET:HG3	2.42	0.50
3:D:679:ARG:HB2	3:D:682:ASP:OD1	2.11	0.50
3:D:774:SER:HB3	3:D:1362:LYS:O	2.11	0.50
3:D:860:LEU:O	3:D:876:SER:OG	2.30	0.50
3:D:919:PHE:CZ	3:D:1211:MET:HG3	2.46	0.50
3:D:1083:ASP:O	3:D:1087:ARG:CD	2.59	0.50
4:E:26:ARG:NH2	4:E:37:ASN:O	2.44	0.50
1:K:178:ALA:HB3	1:K:198:ARG:HG3	1.94	0.50
1:K:180:GLN:OE1	2:M:929:ARG:NE	2.44	0.50
2:M:187:ASN:O	2:M:188:LYS:HG3	2.11	0.50
2:M:437:ARG:NH1	2:M:491:GLU:OE2	2.44	0.50
2:M:690:ILE:CG1	2:M:691:SER:N	2.74	0.50
2:M:1057:SER:HB2	3:N:622:ARG:O	2.11	0.50
3:N:107:ASP:CG	3:N:1445:HIS:HA	2.31	0.50
3:N:394:LEU:HD23	3:N:394:LEU:N	2.27	0.50
3:N:568:ARG:O	3:N:572:ARG:HG3	2.12	0.50
3:N:757:ALA:O	3:N:761:ILE:HG13	2.11	0.50
3:N:877:PRO:O	3:N:880:ILE:HG22	2.12	0.50
3:N:1271:LYS:HZ2	3:N:1331:ASP:HB2	1.75	0.50
3:N:1275:SER:O	3:N:1276:GLU:HB2	2.11	0.50
4:O:37:ASN:HD22	4:O:37:ASN:H	1.54	0.50
1:A:34:VAL:HG13	1:B:42:ARG:HE	1.77	0.50
2:C:146:VAL:HG22	2:C:162:ILE:HG12	1.92	0.50
2:C:455:LEU:HD12	2:C:456:ALA:O	2.12	0.50
2:C:630:ARG:HG2	2:C:826:TYR:HE2	1.74	0.50
2:C:768:THR:O	2:C:772:ARG:HB2	2.10	0.50
2:C:1093:GLN:HA	2:C:1097:LEU:O	2.11	0.50
3:D:502:PHE:CD2	3:D:1452:ILE:HG23	2.47	0.50
3:D:827:ILE:HD12	3:D:827:ILE:N	2.26	0.50
4:E:28:GLN:C	4:E:32:ARG:NH1	2.65	0.50
2:M:119:PRO:HG2	2:M:386:PHE:CE2	2.47	0.50
2:M:456:ALA:HB1	2:M:538:GLN:O	2.12	0.50
2:M:937:ASP:CB	2:M:940:GLU:HG3	2.42	0.50
2:M:1092:LEU:O	2:M:1095:LEU:O	2.30	0.50
3:N:81:THR:HG22	3:N:82:LYS:H	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1033:GLN:CD	3:N:1240:THR:HG22	2.32	0.50
4:O:54:LEU:CD2	4:O:63:TRP:NE1	2.70	0.50
1:A:54:THR:HB	1:A:143:ARG:HG3	1.94	0.49
1:B:59:GLU:HB2	1:B:137:ARG:HH22	1.77	0.49
2:C:66:LEU:HD22	2:C:372:LEU:HD23	1.93	0.49
2:C:98:LEU:HD12	2:C:98:LEU:H	1.77	0.49
2:C:460:ARG:NH2	2:C:468:ARG:NH1	2.58	0.49
2:C:515:ALA:O	2:C:516:ARG:HD3	2.11	0.49
2:C:603:VAL:O	2:C:646:GLY:HA2	2.12	0.49
3:D:134:VAL:HG12	3:D:152:LEU:CB	2.42	0.49
3:D:563:PRO:O	3:D:563:PRO:HG2	2.12	0.49
3:D:581:LEU:HD23	3:D:581:LEU:H	1.77	0.49
2:M:39:ARG:O	2:M:41:ASN:N	2.44	0.49
2:M:129:ILE:CG2	2:M:130:ASN:H	2.21	0.49
2:M:640:ARG:NH1	2:M:640:ARG:HG2	2.26	0.49
2:M:862:PRO:HD3	2:M:973:VAL:O	2.12	0.49
2:M:1104:GLU:OE1	3:N:6:ARG:HD3	2.11	0.49
3:N:101:HIS:CE1	3:N:103:TRP:HB2	2.46	0.49
3:N:564:GLU:HA	3:N:567:ILE:HD12	1.94	0.49
3:N:714:GLN:HB3	3:N:765:SER:HB2	1.94	0.49
3:N:750:PRO:CB	3:N:756:GLN:HA	2.42	0.49
3:N:785:ILE:H	3:N:785:ILE:CD1	2.24	0.49
3:N:843:PHE:O	3:N:866:VAL:HG13	2.12	0.49
7:Z:11:DG:OP2	7:Z:11:DG:C8	2.53	0.49
1:B:21:GLY:O	1:B:23:PHE:CE2	2.64	0.49
1:B:124:ASN:N	1:B:125:PRO:HD3	2.26	0.49
2:C:328:LEU:HB2	2:C:433:THR:CG2	2.42	0.49
2:C:748:GLU:HA	2:C:799:ILE:HD13	1.94	0.49
2:C:758:ARG:HG2	2:C:788:THR:OG1	2.12	0.49
2:C:943:VAL:HG23	2:C:985:GLY:N	2.25	0.49
2:C:1013:TYR:CD1	2:C:1020:PRO:HG3	2.47	0.49
3:D:50:PHE:CG	3:D:522:PRO:HG3	2.46	0.49
3:D:660:LYS:CD	3:D:694:VAL:HG22	2.32	0.49
3:D:743:ASP:HA	6:H:14:G:C1'	2.42	0.49
3:D:1031:ASN:CB	3:D:1034:GLN:CB	2.89	0.49
3:D:1116:ASN:O	3:D:1193:THR:CB	2.60	0.49
3:D:1472:ILE:C	3:D:1474:ALA:H	2.15	0.49
2:M:113:VAL:CG1	2:M:373:VAL:HG11	2.41	0.49
2:M:704:HIS:O	2:M:828:ALA:HA	2.12	0.49
2:M:846:LYS:HE3	6:Y:14:G:OP1	2.12	0.49
3:N:14:SER:HB2	3:N:17:LYS:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:97:THR:HG21	3:N:459:GLU:HB2	1.94	0.49
3:N:133:ILE:HG22	3:N:134:VAL:N	2.27	0.49
3:N:472:ALA:HA	3:N:475:LYS:CD	2.43	0.49
3:N:486:ARG:O	3:N:490:ALA:CB	2.59	0.49
3:N:608:SER:C	3:N:612:GLY:HA3	2.32	0.49
3:N:634:GLY:O	3:N:637:LEU:HB3	2.12	0.49
3:N:1236:LEU:CD2	3:N:1359:GLN:HG3	2.42	0.49
7:I:8:DG:H2"	7:I:9:DT:C6	2.47	0.49
5:X:3:DC:O5'	5:X:3:DC:C6	2.64	0.49
2:C:157:ARG:HD3	2:C:314:THR:HG22	1.94	0.49
2:C:324:ASP:O	2:C:327:HIS:HB2	2.12	0.49
2:C:938:LYS:HB2	2:C:938:LYS:NZ	2.26	0.49
2:C:1016:ILE:HD13	2:C:1016:ILE:H	1.76	0.49
3:D:1438:ALA:CB	3:D:1447:LEU:HD11	2.41	0.49
3:D:1440:PHE:CE2	5:G:17:DA:OP2	2.65	0.49
1:K:29:GLU:HB2	1:K:32:PHE:CE1	2.48	0.49
1:L:52:ALA:HB2	1:L:170:VAL:O	2.12	0.49
2:M:597:ALA:HB2	2:M:655:LEU:HD21	1.95	0.49
2:M:728:HIS:NE2	2:M:775:ARG:NH1	2.59	0.49
2:M:1095:LEU:CD2	3:N:603:LEU:CD1	2.83	0.49
3:N:501:ALA:HB3	3:N:1452:ILE:HG22	1.92	0.49
3:N:630:VAL:HG12	3:N:631:ILE:N	2.27	0.49
3:N:697:GLY:CA	3:N:717:GLN:OE1	2.61	0.49
3:N:821:VAL:HG22	3:N:840:LYS:HZ1	1.77	0.49
3:N:1372:VAL:CG1	3:N:1373:ARG:N	2.75	0.49
3:N:1375:MET:SD	3:N:1424:VAL:N	2.86	0.49
3:N:1399:ASP:O	3:N:1403:LEU:HD12	2.11	0.49
3:N:1465:ASN:HD21	3:N:1470:ARG:NE	2.10	0.49
6:Y:8:G:H2'	6:Y:9:C:O5'	2.13	0.49
6:Y:10:G:O2'	6:Y:11:C:H5'	2.12	0.49
6:Y:11:C:O2'	6:Y:12:U:H5'	2.13	0.49
1:A:2:LEU:O	1:A:6:LEU:HB3	2.11	0.49
1:B:62:LEU:H	1:B:62:LEU:HD12	1.77	0.49
2:C:261:ILE:CD1	2:C:262:ALA:H	2.26	0.49
2:C:926:PHE:HE2	2:C:960:GLU:OE1	1.96	0.49
3:D:10:ILE:CD1	3:D:1447:LEU:HG	2.43	0.49
3:D:711:LEU:C	3:D:713:ILE:H	2.15	0.49
3:D:1380:GLU:CG	3:D:1381:VAL:N	2.75	0.49
3:D:1435:LEU:CB	3:D:1464:GLU:HB3	2.42	0.49
1:L:80:LEU:HD11	3:N:842:VAL:HG12	1.94	0.49
1:L:186:LEU:O	1:L:188:GLN:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:405:ARG:NH2	2:M:409:ARG:NH2	2.61	0.49
2:M:444:PRO:O	2:M:449:ILE:HD12	2.11	0.49
2:M:607:ASP:HB3	2:M:610:ARG:H	1.77	0.49
2:M:1040:LEU:HD23	2:M:1049:LEU:CB	2.42	0.49
2:M:1068:GLU:O	2:M:1071:ILE:HB	2.13	0.49
3:N:62:LYS:HD2	3:N:75:ARG:NH1	2.26	0.49
3:N:95:LEU:HB2	3:N:515:GLU:CA	2.42	0.49
3:N:187:LYS:CE	3:N:199:LEU:HG	2.42	0.49
3:N:731:LEU:HD22	3:N:779:ALA:O	2.12	0.49
3:N:781:PRO:HB2	3:N:786:ILE:HG13	1.95	0.49
3:N:880:ILE:O	3:N:880:ILE:HD13	2.11	0.49
3:N:883:ALA:O	3:N:886:VAL:HB	2.13	0.49
3:N:935:LYS:HG2	3:N:936:TYR:N	2.28	0.49
3:N:1115:THR:HG21	3:N:1151:ARG:NH2	2.27	0.49
2:C:18:LEU:HD22	2:C:590:ASP:HB2	1.95	0.49
2:C:71:TYR:HA	2:C:96:ALA:HB2	1.94	0.49
2:C:101:ILE:HG23	2:C:107:LEU:HD22	1.95	0.49
2:C:412:ALA:HB3	2:C:451:LEU:HB3	1.95	0.49
2:C:583:LEU:O	2:C:587:VAL:HG23	2.11	0.49
2:C:733:ALA:HB2	3:D:679:ARG:NH1	2.26	0.49
2:C:762:LYS:HZ2	2:C:786:LYS:HA	1.78	0.49
3:D:16:GLU:H	3:D:16:GLU:CD	2.16	0.49
3:D:50:PHE:C	3:D:86:ARG:HA	2.32	0.49
3:D:916:TYR:O	3:D:920:LEU:HG	2.13	0.49
3:D:960:LYS:CE	3:D:964:LEU:CD1	2.79	0.49
3:D:1153:VAL:CG1	3:N:560:GLN:O	2.61	0.49
3:D:1209:LEU:HD21	4:E:16:LYS:HE3	1.95	0.49
3:D:1466:VAL:HG12	3:D:1467:ILE:N	2.27	0.49
1:K:102:LYS:HA	1:K:138:LEU:O	2.13	0.49
1:L:24:VAL:HG22	1:L:196:THR:HB	1.93	0.49
1:L:159:LYS:N	1:L:159:LYS:HE3	2.27	0.49
2:M:42:VAL:CA	2:M:46:ALA:HB2	2.41	0.49
2:M:115:LEU:HB3	2:M:375:SER:OG	2.12	0.49
2:M:405:ARG:C	2:M:407:LYS:H	2.16	0.49
3:N:160:GLU:HG2	3:N:165:LYS:CG	2.37	0.49
3:N:1219:GLU:OE1	4:O:17:TYR:HE2	1.95	0.49
3:N:1415:VAL:HG23	3:N:1415:VAL:O	2.11	0.49
3:N:1484:THR:CA	4:O:76:GLY:O	2.60	0.49
3:N:1493:LYS:O	3:N:1497:GLU:HG2	2.13	0.49
7:Z:12:DT:C2'	7:Z:13:DA:C8	2.89	0.49
1:A:28:LEU:O	1:A:192:LEU:HD22	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:48:ILE:HD12	1:A:174:VAL:CG2	2.42	0.49
2:C:352:ALA:C	2:C:355:VAL:HG12	2.32	0.49
2:C:603:VAL:HB	2:C:647:GLN:N	2.27	0.49
2:C:704:HIS:O	2:C:828:ALA:HA	2.11	0.49
2:C:1035:MET:CG	5:G:20:DC:H5'	2.41	0.49
3:D:4:GLU:HG2	3:D:1470:ARG:NE	2.28	0.49
3:D:128:TYR:CE2	3:D:458:ALA:CB	2.96	0.49
3:D:615:ARG:HH22	3:D:1096:ARG:NH1	2.10	0.49
3:D:705:ALA:CB	3:D:706:PRO:CD	2.71	0.49
3:D:1223:ILE:HD11	3:D:1462:LEU:CD1	2.42	0.49
1:K:117:VAL:O	1:K:120:VAL:HG12	2.13	0.49
2:M:561:GLY:O	2:M:565:GLN:HG3	2.13	0.49
2:M:861:LEU:HG	2:M:862:PRO:HD2	1.93	0.49
2:M:973:VAL:O	2:M:974:LEU:CD1	2.50	0.49
2:M:1043:TYR:CZ	3:N:710:ARG:HD3	2.48	0.49
2:M:1053:LEU:CD1	3:N:1469:GLY:HA2	2.40	0.49
3:N:764:LEU:HB3	3:N:767:HIS:ND1	2.28	0.49
3:N:1160:LEU:N	3:N:1160:LEU:HD23	2.27	0.49
3:N:1280:VAL:HG12	3:N:1318:TYR:CA	2.43	0.49
3:N:1462:LEU:HD22	3:N:1472:ILE:CG2	2.42	0.49
4:O:23:VAL:HG22	4:O:68:LEU:CD2	2.43	0.49
5:G:24:DC:H2'	5:G:25:DG:C8	2.48	0.49
6:H:11:C:H2'	6:H:12:U:C5	2.47	0.49
1:A:9:PRO:HB3	1:A:25:LEU:CD2	2.43	0.49
1:A:38:ASN:N	1:A:39:PRO:CD	2.76	0.49
1:B:66:SER:O	1:B:75:VAL:HG23	2.13	0.49
1:B:79:ILE:HA	1:B:82:LEU:CD1	2.43	0.49
2:C:36:PRO:CG	2:C:70:GLU:HB3	2.37	0.49
2:C:47:ALA:HB2	2:C:345:ARG:HH11	1.78	0.49
2:C:422:ARG:HG2	7:I:1:DG:C6	2.47	0.49
2:C:460:ARG:HG3	2:C:460:ARG:O	2.12	0.49
2:C:511:GLU:O	2:C:526:PRO:HD3	2.12	0.49
2:C:532:MET:HG2	2:C:533:ASP:O	2.12	0.49
2:C:941:VAL:HA	2:C:944:LEU:HB2	1.94	0.49
2:C:998:TYR:HE2	2:C:1000:MET:HG3	1.78	0.49
3:D:155:ASP:O	3:D:159:ARG:HB2	2.12	0.49
3:D:683:ILE:HD12	3:D:683:ILE:H	1.77	0.49
3:D:916:TYR:CE2	3:D:920:LEU:HD11	2.47	0.49
3:D:1112:CYS:SG	3:D:1201:CYS:N	2.78	0.49
3:D:1154:GLU:OE2	3:N:563:PRO:HA	2.12	0.49
3:D:1168:MET:HE3	3:D:1171:VAL:HB	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1436:SER:O	3:D:1439:SER:OG	2.27	0.49
1:K:74:ASP:O	1:K:78:ILE:HG13	2.12	0.49
2:M:564:MET:HE1	2:M:840:ALA:O	2.12	0.49
2:M:630:ARG:HD2	2:M:631:SER:O	2.12	0.49
3:N:704:ARG:NE	3:N:706:PRO:HD2	2.25	0.49
3:N:764:LEU:CD2	3:N:767:HIS:CE1	2.88	0.49
3:N:899:LEU:HD22	3:N:917:GLN:HB3	1.95	0.49
3:N:1094:LEU:HD12	3:N:1097:LYS:CD	2.37	0.49
3:N:1283:ILE:HD12	3:N:1315:ASP:OD2	2.13	0.49
1:A:96:THR:OG1	1:A:143:ARG:HD2	2.12	0.49
1:B:102:LYS:HG3	1:B:138:LEU:O	2.13	0.49
1:B:140:MET:O	1:B:140:MET:HG2	2.13	0.49
2:C:12:VAL:HG13	2:C:13:ILE:N	2.27	0.49
2:C:49:ARG:O	2:C:53:PRO:HD2	2.13	0.49
2:C:470:PRO:HD3	2:C:485:TYR:CZ	2.48	0.49
3:D:939:PHE:O	3:D:943:THR:HG23	2.13	0.49
3:D:1098:LEU:HD23	3:D:1226:ALA:CA	2.37	0.49
3:D:1231:GLU:OE1	3:D:1232:PRO:HD3	2.13	0.49
3:D:1495:ILE:O	3:D:1499:ARG:HG3	2.12	0.49
1:K:11:PHE:HD1	1:K:25:LEU:HD13	1.77	0.49
1:K:23:PHE:O	1:K:197:LEU:HD23	2.13	0.49
1:L:50:GLY:O	1:L:146:ARG:HA	2.12	0.49
2:M:141:HIS:NE2	2:M:332:ARG:HB3	2.27	0.49
2:M:162:ILE:CB	2:M:172:ILE:HB	2.37	0.49
2:M:555:ALA:O	2:M:558:ALA:HB3	2.13	0.49
2:M:636:ALA:O	2:M:637:LEU:HD23	2.13	0.49
2:M:969:GLN:HE22	3:N:952:ASP:HB3	1.78	0.49
3:N:9:ARG:HG2	3:N:9:ARG:HH11	1.78	0.49
3:N:478:LEU:O	3:N:1388:ARG:NH2	2.45	0.49
3:N:771:SER:O	3:N:774:SER:O	2.30	0.49
3:N:1200:VAL:CG1	3:N:1201:CYS:N	2.76	0.49
3:N:1481:VAL:HG22	4:O:18:ARG:NH2	2.28	0.49
3:N:1485:GLN:NE2	4:O:80:VAL:O	2.46	0.49
1:B:186:LEU:O	1:B:188:GLN:N	2.46	0.49
2:C:68:PHE:C	2:C:69:LEU:HD23	2.33	0.49
2:C:334:ARG:HA	2:C:338:GLU:OE2	2.12	0.49
2:C:437:ARG:HG2	2:C:467:ILE:O	2.13	0.49
2:C:585:GLU:O	2:C:588:VAL:HG22	2.13	0.49
2:C:739:GLU:HG3	2:C:742:VAL:CG1	2.42	0.49
2:C:854:PRO:HB2	2:C:856:GLU:CD	2.32	0.49
3:D:54:LYS:HG3	3:D:55:ASP:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:128:TYR:CE2	3:D:458:ALA:HA	2.41	0.49
3:D:583:ASP:CG	3:D:586:ARG:HG2	2.34	0.49
3:D:1231:GLU:CB	3:D:1232:PRO:HD3	2.41	0.49
1:K:67:THR:OG1	2:M:609:ASN:ND2	2.46	0.49
2:M:139:GLN:HG2	2:M:418:LEU:HD22	1.93	0.49
2:M:468:ARG:CZ	2:M:485:TYR:O	2.61	0.49
2:M:583:LEU:N	2:M:583:LEU:HD12	2.28	0.49
2:M:603:VAL:HG21	2:M:647:GLN:HB3	1.93	0.49
2:M:611:ILE:HG13	2:M:625:LEU:HD11	1.95	0.49
2:M:732:ALA:O	2:M:735:ARG:HG3	2.13	0.49
2:M:941:VAL:O	2:M:944:LEU:HB2	2.13	0.49
2:M:1001:VAL:HB	5:X:23:DG:O3'	2.12	0.49
3:N:6:ARG:C	3:N:7:LYS:HG3	2.33	0.49
3:N:177:ALA:HB3	3:N:205:TYR:OH	2.13	0.49
3:N:795:VAL:HG13	3:N:863:VAL:HG22	1.95	0.49
3:N:1176:LYS:O	3:N:1179:GLU:HB2	2.13	0.49
3:N:1366:LYS:O	3:N:1370:ILE:HG12	2.12	0.49
3:N:1381:VAL:CG1	3:N:1382:THR:H	2.22	0.49
4:O:36:LYS:HG2	4:O:95:VAL:HG22	1.94	0.49
1:A:36:LEU:C	1:A:39:PRO:HD2	2.34	0.49
1:B:59:GLU:HB2	1:B:137:ARG:HH12	1.78	0.49
2:C:22:GLN:O	2:C:121:MET:HE1	2.13	0.49
2:C:437:ARG:NH1	2:C:488:ALA:HA	2.28	0.49
2:C:685:GLU:OE1	3:D:739:ASP:CB	2.60	0.49
2:C:1008:ARG:NH2	2:C:1012:PRO:N	2.61	0.49
3:D:133:ILE:O	3:D:153:LEU:N	2.46	0.49
3:D:145:VAL:HG13	3:D:148:GLU:OE1	2.12	0.49
3:D:703:ASN:OD1	3:D:704:ARG:O	2.31	0.49
3:D:1472:ILE:C	3:D:1474:ALA:N	2.66	0.49
2:M:483:VAL:HG12	2:M:484:VAL:N	2.28	0.49
2:M:682:TYR:O	2:M:850:ALA:CB	2.61	0.49
2:M:690:ILE:CG2	2:M:852:ILE:HA	2.42	0.49
2:M:1037:VAL:O	2:M:1041:GLU:HG3	2.13	0.49
3:N:701:LEU:HD13	3:N:748:HIS:HB2	1.95	0.49
3:N:792:ILE:HG23	3:N:793:THR:N	2.28	0.49
3:N:814:ALA:O	3:N:818:ARG:HG3	2.13	0.49
3:N:864:VAL:HG12	3:N:865:THR:N	2.18	0.49
3:N:986:ARG:HE	3:N:1310:ARG:HH12	1.60	0.49
3:N:1084:THR:HA	3:N:1087:ARG:NH2	2.28	0.49
3:N:1450:ALA:O	3:N:1453:ALA:O	2.30	0.49
5:G:7:DA:H2"	5:G:8:DC:H6	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:X:19:DG:H2"	5:X:20:DC:C5'	2.37	0.49
1:A:9:PRO:HB3	1:A:25:LEU:HD21	1.93	0.48
1:A:63:HIS:CE1	1:A:65:PHE:O	2.66	0.48
2:C:452:ILE:HD12	2:C:452:ILE:N	2.27	0.48
2:C:510:ALA:HB3	2:C:513:VAL:CG2	2.43	0.48
2:C:578:VAL:O	2:C:900:ARG:HG2	2.13	0.48
2:C:630:ARG:HG2	2:C:826:TYR:CE2	2.47	0.48
2:C:759:THR:HB	2:C:785:VAL:CG1	2.43	0.48
2:C:1014:SER:O	2:C:1017:THR:O	2.30	0.48
2:C:1035:MET:C	3:D:707:THR:HB	2.33	0.48
3:D:739:ASP:H	6:H:15:C:C5'	2.16	0.48
3:D:757:ALA:O	3:D:761:ILE:HG13	2.12	0.48
3:D:796:ARG:HB2	3:D:828:LYS:CD	2.36	0.48
3:D:853:VAL:HG22	3:D:858:VAL:HG23	1.94	0.48
3:D:1087:ARG:NE	3:D:1236:LEU:CD2	2.65	0.48
1:K:26:GLU:HB2	1:K:27:PRO:HA	1.94	0.48
1:L:58:ILE:HG21	1:L:61:VAL:HG23	1.94	0.48
2:M:603:VAL:CB	2:M:647:GLN:H	2.23	0.48
2:M:1022:GLY:CA	2:M:1026:GLN:O	2.61	0.48
3:N:55:ASP:CA	3:N:82:LYS:HE2	2.43	0.48
3:N:414:ARG:HD2	3:N:414:ARG:N	2.28	0.48
3:N:853:VAL:HG22	3:N:858:VAL:HG23	1.95	0.48
3:N:1239:ARG:NH1	3:N:1239:ARG:CB	2.73	0.48
3:N:1496:GLU:CD	3:N:1500:LYS:HE3	2.33	0.48
4:O:37:ASN:N	4:O:37:ASN:ND2	2.56	0.48
5:G:3:DC:H1'	5:G:4:DA:H5'	1.95	0.48
2:C:199:VAL:CG1	2:C:235:LEU:HG	2.40	0.48
2:C:292:ARG:CD	2:C:298:PHE:HA	2.43	0.48
2:C:523:ILE:HG23	2:C:523:ILE:O	2.13	0.48
2:C:572:ILE:HG23	2:C:703:ILE:CD1	2.43	0.48
2:C:737:LEU:HD21	2:C:741:GLY:CA	2.43	0.48
2:C:1031:ARG:HD3	5:G:21:DG:OP1	2.13	0.48
2:C:1088:LEU:HD23	2:C:1088:LEU:O	2.12	0.48
3:D:39:PRO:O	3:D:40:GLU:O	2.31	0.48
3:D:128:TYR:HE2	3:D:458:ALA:CA	2.25	0.48
3:D:134:VAL:O	3:D:454:ALA:HA	2.13	0.48
3:D:743:ASP:HA	6:H:14:G:H1'	1.96	0.48
3:D:877:PRO:O	3:D:880:ILE:HG22	2.13	0.48
3:D:937:TYR:N	3:D:937:TYR:CD1	2.81	0.48
3:D:1394:VAL:HB	3:D:1397:LYS:HE2	1.95	0.48
3:D:1442:ASN:CG	3:D:1444:THR:OG1	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:206:THR:HG22	1:K:209:GLU:HG3	1.95	0.48
1:L:43:ILE:HG23	1:L:47:SER:CB	2.43	0.48
1:L:58:ILE:HG22	1:L:61:VAL:H	1.77	0.48
2:M:195:LEU:CG	2:M:238:LEU:HG	2.43	0.48
2:M:853:LEU:HB2	2:M:858:MET:CE	2.43	0.48
3:N:28:LYS:O	3:N:43:GLY:HA2	2.13	0.48
3:N:159:ARG:HG2	3:N:163:TYR:HE2	1.78	0.48
3:N:584:ASN:HD21	3:N:590:PRO:HD2	1.78	0.48
3:N:631:ILE:HD12	3:N:740:PHE:CE2	2.48	0.48
3:N:728:LEU:CG	3:N:729:HIS:N	2.76	0.48
3:N:813:LEU:HD12	3:N:814:ALA:N	2.28	0.48
3:N:1066:THR:HG23	3:N:1069:GLU:H	1.79	0.48
3:N:1263:PHE:CE1	3:N:1352:ILE:HD13	2.48	0.48
3:N:1281:VAL:HG12	3:N:1314:LYS:O	2.13	0.48
2:C:265:ARG:N	2:C:289:THR:HG21	2.22	0.48
2:C:272:ALA:O	2:C:276:LYS:CE	2.60	0.48
2:C:277:ALA:O	2:C:278:GLU:C	2.51	0.48
2:C:814:GLU:HG3	2:C:814:GLU:O	2.13	0.48
2:C:926:PHE:HD2	2:C:960:GLU:OE2	1.96	0.48
3:D:50:PHE:CD2	3:D:522:PRO:HD3	2.48	0.48
3:D:676:MET:SD	3:D:676:MET:O	2.71	0.48
3:D:1090:ASP:O	3:D:1094:LEU:HB2	2.13	0.48
3:D:1161:GLU:CD	3:D:1161:GLU:H	2.17	0.48
3:D:1378:TYR:CD1	3:D:1422:MET:SD	3.06	0.48
2:M:31:GLN:HG2	2:M:34:VAL:HG23	1.94	0.48
2:M:343:GLN:HG2	2:M:385:PHE:CD1	2.48	0.48
2:M:535:SER:N	2:M:538:GLN:OE1	2.41	0.48
2:M:551:GLU:OE1	2:M:906:PHE:HA	2.14	0.48
2:M:692:GLU:HB2	2:M:854:PRO:HA	1.96	0.48
2:M:854:PRO:HB2	2:M:856:GLU:CD	2.33	0.48
2:M:882:LEU:HD23	2:M:885:ILE:HG13	1.94	0.48
2:M:897:LEU:HD21	2:M:921:ALA:HA	1.96	0.48
3:N:607:LEU:HD23	3:N:613:ARG:CB	2.38	0.48
3:N:693:GLU:HA	4:O:48:MET:SD	2.53	0.48
3:N:838:ARG:NH1	3:N:838:ARG:HG2	2.27	0.48
3:N:1274:ILE:CG2	3:N:1301:LYS:HZ1	2.14	0.48
1:A:19:GLU:HA	1:A:201:THR:O	2.13	0.48
2:C:193:LEU:HD12	2:C:193:LEU:N	2.28	0.48
2:C:650:ARG:HG2	2:C:653:ASP:OD2	2.14	0.48
2:C:1012:PRO:HD3	2:C:1026:GLN:CG	2.43	0.48
2:C:1038:TRP:CE2	3:D:1099:VAL:HG21	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:136:ASP:CB	3:D:137:PRO:CD	2.77	0.48
3:D:704:ARG:CG	3:D:705:ALA:N	2.77	0.48
3:D:1068:LEU:O	3:D:1072:ILE:HG12	2.14	0.48
3:D:1102:THR:O	3:D:1222:GLY:HA3	2.13	0.48
3:D:1154:GLU:N	3:N:561:GLY:CA	2.76	0.48
3:D:1209:LEU:HD21	4:E:16:LYS:HZ2	1.75	0.48
2:M:324:ASP:O	2:M:327:HIS:HB2	2.13	0.48
2:M:571:LEU:HD21	2:M:700:TYR:HA	1.94	0.48
2:M:598:GLU:O	2:M:651:LYS:HE3	2.14	0.48
2:M:630:ARG:HH11	2:M:630:ARG:CG	2.26	0.48
2:M:861:LEU:HD13	2:M:865:THR:CG2	2.43	0.48
3:N:109:PRO:O	3:N:111:LYS:HD2	2.13	0.48
3:N:682:ASP:C	3:N:683:ILE:HG13	2.34	0.48
3:N:806:PHE:O	3:N:808:THR:N	2.46	0.48
3:N:1147:ARG:NH2	3:N:1369:GLU:OE2	2.43	0.48
3:N:1404:ASN:OD1	3:N:1408:ILE:HD12	2.14	0.48
3:N:1442:ASN:OD1	3:N:1444:THR:HB	2.13	0.48
4:O:49:GLN:HA	4:O:51:LEU:O	2.13	0.48
6:H:4:G:C5	6:H:5:C:C4	3.02	0.48
1:A:42:ARG:HH12	1:B:34:VAL:CB	2.23	0.48
1:B:79:ILE:HA	1:B:82:LEU:HD12	1.94	0.48
2:C:846:LYS:HB3	3:D:741:ASP:HB2	1.95	0.48
2:C:1045:ALA:CB	3:D:763:MET:HE3	2.44	0.48
2:C:1063:ARG:CG	2:C:1064:ASN:N	2.75	0.48
3:D:154:THR:O	3:D:158:TYR:HB3	2.13	0.48
3:D:715:ALA:HB3	3:D:764:LEU:CA	2.43	0.48
3:D:744:GLN:C	3:D:745:MET:HG3	2.34	0.48
3:D:1197:ARG:HB3	3:D:1396:GLU:CD	2.33	0.48
3:D:1462:LEU:O	3:D:1466:VAL:N	2.46	0.48
1:L:26:GLU:CB	1:L:27:PRO:HA	2.32	0.48
1:L:101:LEU:HD12	1:L:113:ASP:HB3	1.92	0.48
1:L:184:THR:O	1:L:192:LEU:HB2	2.12	0.48
2:M:163:ILE:HD12	2:M:163:ILE:C	2.34	0.48
2:M:333:ILE:N	2:M:333:ILE:CD1	2.76	0.48
2:M:344:PHE:CE2	2:M:378:LEU:HD11	2.48	0.48
2:M:350:ARG:HA	2:M:353:ARG:HH21	1.78	0.48
2:M:1088:LEU:HD23	2:M:1088:LEU:C	2.33	0.48
3:N:609:GLY:C	3:N:611:GLN:N	2.65	0.48
3:N:1381:VAL:HB	3:N:1389:LEU:O	2.13	0.48
3:N:1395:LEU:O	3:N:1398:TRP:HB2	2.13	0.48
5:G:3:DC:H6	5:G:3:DC:OP2	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:X:20:DC:H2'	5:X:21:DG:C8	2.48	0.48
1:A:51:THR:HB	1:A:87:VAL:HG23	1.94	0.48
2:C:313:LEU:HG	2:C:314:THR:N	2.25	0.48
2:C:861:LEU:HA	2:C:974:LEU:HD12	1.95	0.48
2:C:893:ALA:HB1	2:C:897:LEU:CD1	2.44	0.48
2:C:922:PHE:CZ	2:C:963:LEU:HB3	2.49	0.48
2:C:942:GLU:O	2:C:946:ARG:HG3	2.13	0.48
2:C:957:LYS:HD3	2:C:961:GLU:CB	2.42	0.48
3:D:925:GLU:OE1	4:E:5:GLY:CA	2.62	0.48
3:D:1468:LEU:HD13	3:D:1470:ARG:HD3	1.96	0.48
2:M:49:ARG:HH11	2:M:68:PHE:HD2	1.61	0.48
2:M:91:GLN:HB3	2:M:118:ILE:C	2.33	0.48
2:M:169:GLY:O	2:M:170:PRO:O	2.31	0.48
2:M:211:LEU:CB	2:M:308:ARG:HD2	2.37	0.48
2:M:302:VAL:HG13	2:M:303:PHE:N	2.29	0.48
2:M:455:LEU:HD12	2:M:456:ALA:N	2.28	0.48
2:M:692:GLU:CB	2:M:854:PRO:HA	2.43	0.48
2:M:725:ASP:HB3	2:M:783:ARG:HH22	1.78	0.48
3:N:552:ASN:O	3:N:556:LYS:HG3	2.13	0.48
3:N:1227:GLN:C	3:N:1229:ILE:N	2.66	0.48
3:N:1389:LEU:CD1	3:N:1390:LEU:N	2.76	0.48
3:N:1504:GLU:O	3:N:1505:ALA:C	2.52	0.48
4:O:54:LEU:O	4:O:63:TRP:HZ2	1.97	0.48
7:I:2:DT:OP2	7:I:2:DT:H2'	2.13	0.48
7:I:2:DT:O4	7:I:3:DA:N6	2.47	0.48
7:I:9:DT:H2"	7:I:10:DG:OP2	2.12	0.48
1:A:43:ILE:CG2	1:A:47:SER:HB2	2.34	0.48
1:B:142:VAL:HG23	1:B:142:VAL:O	2.14	0.48
1:B:150:TYR:CE1	1:B:170:VAL:HG12	2.48	0.48
2:C:1090:LYS:HE3	3:D:90:MET:HG3	1.96	0.48
3:D:503:LEU:O	3:D:506:GLY:N	2.47	0.48
3:D:695:ILE:O	3:D:698:LYS:N	2.47	0.48
2:M:164:PRO:CD	2:M:170:PRO:O	2.62	0.48
2:M:236:ILE:HD12	2:M:236:ILE:N	2.28	0.48
2:M:265:ARG:HG2	2:M:267:TYR:H	1.78	0.48
2:M:292:ARG:HD2	2:M:299:LYS:HE2	1.94	0.48
2:M:302:VAL:HG13	2:M:303:PHE:H	1.77	0.48
2:M:428:ARG:NH2	2:M:451:LEU:HD11	2.28	0.48
2:M:603:VAL:CG2	2:M:647:GLN:HB3	2.44	0.48
2:M:724:ARG:O	2:M:724:ARG:HG2	2.13	0.48
2:M:726:ILE:HD12	2:M:726:ILE:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1016:ILE:HD13	2:M:1016:ILE:N	2.18	0.48
3:N:525:ARG:HD3	3:N:525:ARG:H	1.78	0.48
3:N:618:LEU:HD11	3:N:1467:ILE:HD11	1.95	0.48
3:N:631:ILE:HD11	3:N:743:ASP:HB2	1.94	0.48
3:N:1350:GLU:OE2	3:N:1354:LYS:HE3	2.14	0.48
6:Y:8:G:C8	6:Y:8:G:OP2	2.66	0.48
7:Z:3:DA:H1'	7:Z:4:DG:C5'	2.24	0.48
1:A:57:TYR:CE1	1:A:161:ARG:HG2	2.49	0.48
1:B:76:VAL:O	1:B:80:LEU:HB2	2.14	0.48
2:C:244:PRO:CD	2:C:245:GLY:N	2.74	0.48
2:C:722:ILE:O	2:C:722:ILE:HG23	2.13	0.48
2:C:730:SER:O	2:C:734:LEU:HD13	2.13	0.48
2:C:1053:LEU:HD13	3:D:1469:GLY:HA2	1.94	0.48
2:C:1074:GLU:HG2	2:C:1075:ASP:H	1.79	0.48
3:D:104:PHE:CE2	3:D:1448:THR:HG23	2.49	0.48
3:D:155:ASP:HA	3:D:158:TYR:HD2	1.78	0.48
3:D:615:ARG:NH2	3:D:1096:ARG:NH1	2.62	0.48
3:D:618:LEU:CD1	3:D:1463:LYS:HG3	2.43	0.48
3:D:794:GLN:OE1	3:D:905:PRO:CG	2.62	0.48
3:D:1194:CYS:CB	3:D:1204:CYS:SG	2.98	0.48
3:D:1197:ARG:HD3	3:D:1198:TYR:N	2.27	0.48
3:D:1227:GLN:C	3:D:1229:ILE:N	2.67	0.48
1:L:102:LYS:HD2	1:L:139:ASN:HB2	1.96	0.48
1:L:176:ARG:HH22	3:N:884:ARG:HG3	1.78	0.48
2:M:375:SER:HB3	2:M:379:GLU:OE1	2.13	0.48
2:M:713:ARG:HG2	2:M:714:ASP:H	1.78	0.48
2:M:903:SER:O	2:M:904:PRO:O	2.32	0.48
3:N:41:ARG:HH11	3:N:42:ASP:HB3	1.77	0.48
3:N:57:GLU:HG2	3:N:58:CYS:H	1.79	0.48
3:N:95:LEU:HD12	3:N:515:GLU:CA	2.44	0.48
3:N:700:VAL:O	3:N:715:ALA:HA	2.14	0.48
3:N:1223:ILE:O	3:N:1226:ALA:HB3	2.13	0.48
4:O:72:ARG:HB2	4:O:73:LEU:HD12	1.96	0.48
7:Z:1:DG:C2'	7:Z:2:DT:H71	2.43	0.48
7:Z:6:DT:H2"	7:Z:7:DT:C7	2.44	0.48
1:A:30:ARG:NH1	1:A:191:ASP:HB2	2.29	0.48
1:A:42:ARG:NH1	2:C:978:ARG:HA	2.29	0.48
1:A:63:HIS:ND1	1:A:65:PHE:HD1	2.11	0.48
1:A:96:THR:HA	1:A:144:VAL:O	2.14	0.48
2:C:182:VAL:HB	2:C:193:LEU:HD13	1.94	0.48
2:C:394:PHE:CE1	2:C:632:ASN:HB3	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1115:LEU:HD22	3:D:88:TYR:CD1	2.48	0.48
3:D:554:LEU:HG	3:D:558:LEU:HG	1.96	0.48
1:K:9:PRO:HB3	1:K:25:LEU:CD2	2.44	0.48
2:M:94:LEU:HD12	2:M:95:TYR:H	1.79	0.48
2:M:279:GLU:HG3	2:M:280:LYS:N	2.28	0.48
2:M:304:LEU:HG	2:M:305:PRO:HD3	1.95	0.48
2:M:340:MET:SD	2:M:340:MET:C	2.93	0.48
2:M:561:GLY:O	2:M:564:MET:HG2	2.14	0.48
2:M:1009:SER:OG	2:M:1010:THR:N	2.47	0.48
2:M:1074:GLU:HG2	2:M:1075:ASP:N	2.23	0.48
3:N:58:CYS:SG	3:N:61:GLY:CA	3.02	0.48
3:N:206:ARG:HG2	3:N:394:LEU:CD2	2.43	0.48
3:N:525:ARG:CB	3:N:540:LEU:HD12	2.42	0.48
3:N:577:ALA:O	3:N:581:LEU:CD2	2.61	0.48
3:N:585:GLY:C	3:N:587:ARG:N	2.65	0.48
3:N:838:ARG:HD2	3:N:838:ARG:H	1.78	0.48
3:N:970:LYS:O	3:N:974:ILE:HG13	2.13	0.48
3:N:1283:ILE:HG22	3:N:1284:GLU:N	2.28	0.48
4:O:3:GLU:OE1	4:O:3:GLU:HA	2.13	0.48
6:Y:4:G:H2'	6:Y:5:C:O5'	2.14	0.48
1:B:20:TYR:HE2	1:B:198:ARG:HB2	1.78	0.48
2:C:31:GLN:CD	2:C:71:TYR:OH	2.51	0.48
2:C:432:ARG:NH1	2:C:520:GLU:OE1	2.47	0.48
2:C:460:ARG:HH12	2:C:462:ASP:CA	2.27	0.48
2:C:515:ALA:C	2:C:516:ARG:HD3	2.34	0.48
2:C:579:VAL:HG13	2:C:842:ARG:NH2	2.17	0.48
2:C:862:PRO:HB2	2:C:929:ARG:HH12	1.78	0.48
3:D:525:ARG:HG3	3:D:541:ASN:OD1	2.14	0.48
3:D:676:MET:SD	3:D:684:LYS:HE3	2.54	0.48
3:D:698:LYS:CD	4:E:59:ASN:OD1	2.62	0.48
3:D:891:GLU:O	3:D:893:GLU:N	2.46	0.48
3:D:892:ASP:OD2	3:D:895:VAL:HG23	2.14	0.48
3:D:951:ILE:CG2	3:D:952:ASP:N	2.77	0.48
3:D:1102:THR:OG1	3:D:1222:GLY:O	2.27	0.48
3:D:1154:GLU:H	3:N:561:GLY:CA	2.26	0.48
3:D:1266:ARG:NH2	7:I:4:DG:H4'	2.29	0.48
1:K:80:LEU:HD23	1:K:80:LEU:O	2.13	0.48
2:M:86:LYS:HD3	2:M:813:VAL:CB	2.32	0.48
2:M:261:ILE:HD13	2:M:262:ALA:H	1.78	0.48
2:M:512:ARG:HB3	2:M:523:ILE:HD11	1.94	0.48
2:M:759:THR:HB	2:M:785:VAL:CG1	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:877:PRO:HG3	3:N:1023:MET:SD	2.54	0.48
2:M:939:ARG:NE	2:M:939:ARG:CA	2.64	0.48
3:N:51:GLY:HA3	3:N:86:ARG:HA	1.95	0.48
3:N:152:LEU:HD23	3:N:152:LEU:N	2.26	0.48
3:N:710:ARG:HH12	4:O:16:LYS:HZ3	1.62	0.48
3:N:845:ASN:CG	3:N:846:PRO:CD	2.82	0.48
1:B:9:PRO:HB3	1:B:25:LEU:HG	1.95	0.47
2:C:589:ARG:HA	2:C:596:TYR:CZ	2.49	0.47
3:D:456:MET:O	3:D:459:GLU:HB3	2.14	0.47
3:D:651:GLU:O	3:D:654:LYS:HB2	2.14	0.47
3:D:730:PRO:O	3:D:733:CYS:SG	2.72	0.47
3:D:744:GLN:CG	5:G:21:DG:H21	2.19	0.47
3:D:834:THR:HA	3:D:838:ARG:NH1	2.28	0.47
3:D:864:VAL:CG1	3:D:865:THR:H	2.13	0.47
3:D:1094:LEU:CD2	3:D:1256:LEU:HD11	2.44	0.47
1:K:109:VAL:HG23	1:K:132:LEU:HD13	1.96	0.47
1:K:193:ASP:HA	2:M:938:LYS:NZ	2.29	0.47
1:L:89:PHE:HE2	1:L:146:ARG:HB3	1.79	0.47
2:M:837:ASP:HA	2:M:999:HIS:CE1	2.49	0.47
2:M:878:SER:OG	3:N:1029:ARG:NE	2.47	0.47
2:M:988:VAL:HG11	3:N:950:GLY:HA2	1.96	0.47
3:N:486:ARG:HA	3:N:489:ARG:CG	2.39	0.47
3:N:808:THR:OG1	3:N:809:PRO:HD3	2.14	0.47
3:N:829:VAL:O	3:N:835:SER:HB3	2.14	0.47
3:N:871:LYS:HB2	3:N:873:LEU:HD21	1.94	0.47
3:N:996:TRP:HA	3:N:999:THR:CG2	2.42	0.47
1:B:22:GLU:OE2	1:B:198:ARG:HB3	2.14	0.47
1:B:49:PRO:CA	1:B:148:VAL:HG12	2.42	0.47
2:C:66:LEU:HD12	2:C:99:GLN:C	2.35	0.47
2:C:408:ARG:NH2	2:C:456:ALA:O	2.46	0.47
2:C:431:HIS:CD2	2:C:432:ARG:N	2.83	0.47
2:C:701:THR:HG21	2:C:830:LYS:HD2	1.95	0.47
2:C:926:PHE:HA	2:C:929:ARG:HB2	1.96	0.47
3:D:21:TRP:HE3	3:D:90:MET:SD	2.37	0.47
3:D:103:TRP:O	3:D:107:ASP:HB2	2.12	0.47
3:D:645:PRO:HB2	3:D:648:MET:HG3	1.97	0.47
3:D:897:TRP:CB	3:D:900:ILE:CD1	2.79	0.47
3:D:924:MET:HB3	4:E:6:ILE:HG23	1.96	0.47
3:D:1354:LYS:HA	3:D:1357:ARG:HD2	1.96	0.47
1:K:112:ARG:NH1	1:K:112:ARG:CG	2.77	0.47
1:L:137:ARG:O	1:L:137:ARG:HD3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:19:THR:O	2:M:19:THR:HG22	2.15	0.47
2:M:35:PRO:C	2:M:37:GLU:H	2.17	0.47
2:M:433:THR:C	2:M:435:TYR:N	2.67	0.47
2:M:502:PRO:HB2	2:M:509:ALA:HB3	1.96	0.47
2:M:692:GLU:O	2:M:696:LYS:HG3	2.14	0.47
2:M:693:GLU:HG3	2:M:697:ARG:HH21	1.76	0.47
2:M:1069:ALA:O	2:M:1072:LYS:HB3	2.14	0.47
3:N:8:VAL:HG12	3:N:9:ARG:N	2.29	0.47
3:N:1100:ASP:HB3	3:N:1428:ALA:HB1	1.96	0.47
3:N:1303:TYR:O	3:N:1305:LEU:HD23	2.13	0.47
5:X:13:DA:O5'	5:X:13:DA:H8	1.97	0.47
1:A:133:GLU:HG2	1:A:134:GLU:H	1.80	0.47
2:C:287:GLY:O	2:C:288:ARG:C	2.52	0.47
2:C:838:LYS:HZ3	3:D:742:GLY:HA3	1.79	0.47
3:D:1066:THR:HG22	3:D:1069:GLU:HB2	1.95	0.47
3:D:1409:ALA:HA	2:M:370:ALA:HB1	1.95	0.47
2:M:90:TYR:HB2	2:M:128:ILE:HB	1.96	0.47
2:M:259:GLY:HA2	2:M:290:LEU:O	2.13	0.47
2:M:272:ALA:O	2:M:276:LYS:NZ	2.46	0.47
2:M:442:GLU:HG2	2:M:454:SER:CB	2.41	0.47
2:M:966:LEU:HD21	2:M:986:PRO:CG	2.39	0.47
2:M:969:GLN:NE2	3:N:952:ASP:CB	2.77	0.47
3:N:480:GLU:O	3:N:484:PRO:HD2	2.14	0.47
3:N:1017:PHE:HA	3:N:1022:VAL:CG2	2.43	0.47
3:N:1128:VAL:C	3:N:1129:THR:HG22	2.34	0.47
3:N:1293:PHE:CE1	3:N:1302:GLU:HA	2.49	0.47
3:N:1424:VAL:HG13	3:N:1425:THR:N	2.30	0.47
4:O:73:LEU:HD12	4:O:73:LEU:N	2.30	0.47
5:G:5:DC:O5'	5:G:5:DC:C6	2.67	0.47
5:X:2:DT:OP2	5:X:2:DT:H4'	2.14	0.47
1:A:24:VAL:HG22	1:A:196:THR:HG22	1.94	0.47
1:A:82:LEU:O	1:A:85:LEU:HB3	2.13	0.47
2:C:20:GLU:HG2	2:C:21:ILE:CD1	2.39	0.47
2:C:160:ALA:HB3	2:C:174:LEU:HB2	1.97	0.47
2:C:553:ASP:OD2	2:C:883:GLY:HA3	2.15	0.47
2:C:919:ALA:HA	2:C:968:LEU:HD21	1.96	0.47
2:C:1047:HIS:HA	2:C:1050:GLN:HB3	1.97	0.47
3:D:947:ILE:HD12	3:D:947:ILE:O	2.14	0.47
3:D:1087:ARG:HB3	3:D:1236:LEU:HD13	1.96	0.47
3:D:1200:VAL:HG12	3:D:1201:CYS:N	2.29	0.47
3:D:1206:GLY:HA3	3:D:1366:LYS:HZ1	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1211:MET:SD	3:D:1213:ARG:HD3	2.55	0.47
1:L:98:THR:HG22	1:L:100:LEU:HD21	1.96	0.47
1:L:226:SER:O	1:L:228:PRO:HD3	2.14	0.47
2:M:80:GLN:N	2:M:90:TYR:HE2	2.12	0.47
2:M:378:LEU:HG	2:M:382:ILE:CD1	2.43	0.47
2:M:720:GLU:HA	2:M:759:THR:O	2.13	0.47
2:M:876:VAL:O	2:M:879:ARG:O	2.32	0.47
2:M:876:VAL:N	2:M:877:PRO:HD2	2.29	0.47
2:M:902:ILE:O	2:M:902:ILE:HG22	2.13	0.47
3:N:470:LEU:HD12	3:N:503:LEU:HG	1.95	0.47
3:N:549:ASN:O	3:N:553:ARG:HB2	2.14	0.47
3:N:890:VAL:O	3:N:890:VAL:HG23	2.14	0.47
3:N:1109:GLU:CB	3:N:1201:CYS:HA	2.44	0.47
3:N:1479:ASP:CG	3:N:1482:ARG:NH2	2.67	0.47
4:O:13:VAL:HG21	4:O:19:LEU:HB2	1.96	0.47
1:A:58:ILE:HD13	1:A:140:MET:HB3	1.96	0.47
1:A:102:LYS:CA	1:A:138:LEU:O	2.61	0.47
2:C:18:LEU:HD22	2:C:590:ASP:CB	2.44	0.47
2:C:77:PRO:HD2	2:C:91:GLN:O	2.15	0.47
2:C:151:ASP:HA	2:C:159:ILE:HG12	1.95	0.47
2:C:184:MET:SD	2:C:191:PHE:HE1	2.37	0.47
2:C:444:PRO:HB3	6:H:12:U:P	2.54	0.47
2:C:736:ASP:O	2:C:744:ARG:HG2	2.15	0.47
2:C:987:ILE:HG12	3:D:948:THR:HG23	1.96	0.47
2:C:1020:PRO:HD2	3:D:622:ARG:O	2.15	0.47
3:D:543:LEU:HD23	3:D:546:ARG:HD2	1.97	0.47
3:D:576:GLU:C	3:D:576:GLU:CD	2.72	0.47
3:D:606:ILE:O	3:D:613:ARG:N	2.47	0.47
3:D:640:HIS:NE2	3:D:717:GLN:CD	2.68	0.47
3:D:783:ARG:HB3	3:D:1028:ALA:O	2.15	0.47
3:D:932:ASP:HA	3:D:935:LYS:HD3	1.96	0.47
3:D:1112:CYS:CA	3:D:1195:GLN:HG2	2.42	0.47
3:D:1234:THR:O	3:D:1235:GLN:C	2.51	0.47
3:D:1377:LYS:HG2	3:D:1378:TYR:CD1	2.49	0.47
3:D:1379:VAL:HA	3:D:1420:LEU:HB2	1.96	0.47
4:E:68:LEU:N	4:E:68:LEU:CD1	2.77	0.47
1:K:11:PHE:HA	1:K:25:LEU:HD12	1.95	0.47
1:K:165:ILE:HG13	1:K:165:ILE:O	2.15	0.47
1:K:220:GLU:O	1:K:223:THR:HG22	2.14	0.47
1:L:25:LEU:HD23	1:L:195:LEU:HB3	1.95	0.47
1:L:173:PRO:HB2	1:L:205:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:15:LEU:H	2:M:15:LEU:HD12	1.78	0.47
2:M:334:ARG:HB2	2:M:339:LEU:CD2	2.41	0.47
2:M:825:VAL:HG12	2:M:827:VAL:CG2	2.44	0.47
2:M:902:ILE:O	2:M:904:PRO:HD3	2.15	0.47
2:M:971:LYS:CE	2:M:988:VAL:HG12	2.31	0.47
3:N:90:MET:CE	3:N:520:LEU:HA	2.44	0.47
3:N:545:ARG:CB	3:N:545:ARG:CZ	2.92	0.47
3:N:587:ARG:C	3:N:588:GLY:O	2.52	0.47
3:N:688:TRP:HA	3:N:688:TRP:HE3	1.79	0.47
3:N:1100:ASP:OD2	3:N:1440:PHE:CG	2.68	0.47
3:N:1100:ASP:OD2	3:N:1440:PHE:HB3	2.14	0.47
3:N:1161:GLU:H	3:N:1161:GLU:CD	2.17	0.47
3:N:1257:PRO:HA	3:N:1260:ILE:HG12	1.96	0.47
3:N:1322:GLY:O	3:N:1323:GLN:CB	2.59	0.47
7:I:7:DT:H2"	7:I:8:DG:H8	1.79	0.47
2:C:302:VAL:HG13	2:C:303:PHE:N	2.28	0.47
2:C:642:ARG:CG	2:C:657:ASP:OD2	2.63	0.47
2:C:1003:ASP:CG	2:C:1004:LYS:H	2.17	0.47
2:C:1090:LYS:O	2:C:1094:ALA:N	2.47	0.47
3:D:84:ILE:O	3:D:87:ARG:HG3	2.14	0.47
3:D:731:LEU:HD21	3:D:782:SER:N	2.28	0.47
3:D:738:ALA:HA	6:H:15:C:C4'	2.40	0.47
3:D:812:ALA:HB1	3:D:816:HIS:CD2	2.49	0.47
3:D:845:ASN:CG	3:D:846:PRO:HD2	2.35	0.47
3:D:925:GLU:OE2	4:E:5:GLY:N	2.48	0.47
3:D:1138:ALA:O	3:D:1141:GLU:N	2.48	0.47
3:D:1141:GLU:HG2	3:D:1168:MET:HE2	1.97	0.47
3:D:1264:GLU:HA	3:D:1423:GLY:HA3	1.96	0.47
3:D:1424:VAL:HG13	3:D:1425:THR:H	1.78	0.47
1:K:179:PHE:HB2	1:K:195:LEU:HD11	1.96	0.47
2:M:121:MET:HE2	2:M:125:GLY:O	2.14	0.47
2:M:211:LEU:HD13	2:M:308:ARG:CD	2.44	0.47
2:M:355:VAL:HG13	2:M:356:ARG:N	2.28	0.47
2:M:421:GLU:HG3	2:M:421:GLU:O	2.14	0.47
2:M:639:GLN:O	2:M:641:PRO:HD3	2.15	0.47
2:M:685:GLU:HG2	3:N:739:ASP:CB	2.45	0.47
2:M:749:VAL:C	2:M:750:LYS:HD2	2.35	0.47
2:M:1014:SER:CB	2:M:1017:THR:O	2.59	0.47
3:N:17:LYS:O	3:N:20:SER:HB3	2.14	0.47
3:N:117:ASP:HB2	3:N:495:ARG:HH22	1.80	0.47
3:N:988:ARG:HD2	3:N:988:ARG:C	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1227:GLN:C	3:N:1229:ILE:H	2.18	0.47
3:N:1292:VAL:HG11	3:N:1313:VAL:CG1	2.45	0.47
3:N:1330:ILE:CD1	3:N:1347:TYR:CE1	2.97	0.47
1:A:65:PHE:CE1	2:C:799:ILE:CB	2.97	0.47
2:C:31:GLN:HG2	2:C:34:VAL:HG23	1.97	0.47
2:C:83:CYS:SG	2:C:90:TYR:HD2	2.37	0.47
2:C:128:ILE:HG22	2:C:128:ILE:O	2.15	0.47
2:C:206:THR:HG23	2:C:207:LEU:N	2.30	0.47
2:C:578:VAL:HG13	2:C:671:ASN:CG	2.35	0.47
2:C:607:ASP:HB3	2:C:610:ARG:H	1.79	0.47
2:C:786:LYS:HG2	2:C:787:ASP:N	2.29	0.47
2:C:861:LEU:HD21	2:C:925:TYR:CZ	2.49	0.47
2:C:922:PHE:HB2	2:C:967:PHE:CD2	2.50	0.47
2:C:983:ILE:HG23	3:D:944:THR:HA	1.96	0.47
2:C:1056:LYS:HE3	3:D:751:LEU:HG	1.97	0.47
2:C:1101:THR:OG1	2:C:1109:VAL:HB	2.13	0.47
2:C:1112:PHE:CD1	2:C:1116:ALA:HB2	2.50	0.47
3:D:131:LYS:HZ2	3:D:564:GLU:HB3	1.80	0.47
3:D:493:ARG:HG3	3:D:494:LYS:N	2.30	0.47
3:D:550:ARG:HA	3:D:553:ARG:HB3	1.97	0.47
3:D:644:LEU:C	3:D:721:VAL:HG22	2.35	0.47
3:D:712:GLY:C	3:D:713:ILE:HG13	2.35	0.47
3:D:907:GLU:CD	3:D:909:ASN:HB2	2.35	0.47
3:D:1255:GLY:CA	3:D:1257:PRO:HD2	2.45	0.47
3:D:1263:PHE:CE2	3:D:1371:VAL:HG11	2.49	0.47
3:D:1354:LYS:HE3	3:D:1357:ARG:NH1	2.30	0.47
3:D:1381:VAL:HG12	3:D:1382:THR:N	2.29	0.47
3:D:1468:LEU:HD13	3:D:1470:ARG:HB2	1.96	0.47
4:E:48:MET:N	4:E:54:LEU:HB2	2.29	0.47
1:K:42:ARG:NH2	2:M:857:ASP:HB3	2.29	0.47
1:K:64:GLU:HA	1:K:75:VAL:HG11	1.95	0.47
1:K:92:PRO:HA	1:K:146:ARG:NH1	2.28	0.47
1:K:92:PRO:N	1:K:146:ARG:HH12	2.13	0.47
2:M:3:ILE:HD13	2:M:900:ARG:HB3	1.97	0.47
2:M:146:VAL:HG13	2:M:161:SER:O	2.15	0.47
2:M:170:PRO:CG	2:M:258:TYR:HE2	2.27	0.47
2:M:185:LYS:HG2	2:M:188:LYS:O	2.14	0.47
2:M:269:LEU:CB	2:M:288:ARG:HG2	2.44	0.47
2:M:390:GLN:H	2:M:390:GLN:HG3	1.38	0.47
2:M:433:THR:CG2	2:M:488:ALA:HB1	2.44	0.47
2:M:433:THR:HG21	2:M:488:ALA:HB1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:461:VAL:CG1	2:M:465:GLY:HA2	2.45	0.47
2:M:518:LYS:NZ	2:M:518:LYS:CB	2.77	0.47
2:M:557:ARG:HD2	2:M:557:ARG:HA	1.70	0.47
2:M:620:LEU:HD12	2:M:620:LEU:O	2.15	0.47
2:M:629:TYR:HB2	2:M:637:LEU:HB2	1.97	0.47
2:M:694:LEU:HD21	2:M:868:ASP:HB3	1.96	0.47
2:M:730:SER:O	2:M:734:LEU:HD13	2.15	0.47
2:M:757:GLY:HA2	2:M:789:SER:OG	2.14	0.47
2:M:910:LYS:O	2:M:914:ILE:HG13	2.15	0.47
2:M:937:ASP:O	2:M:941:VAL:HG23	2.15	0.47
2:M:969:GLN:NE2	3:N:952:ASP:HB3	2.29	0.47
3:N:112:ILE:O	3:N:112:ILE:HD12	2.15	0.47
3:N:457:GLY:C	3:N:459:GLU:H	2.17	0.47
3:N:465:LEU:CD1	3:N:510:GLU:HA	2.45	0.47
3:N:637:LEU:HD11	3:N:641:GLN:C	2.34	0.47
3:N:641:GLN:HA	3:N:717:GLN:H	1.80	0.47
3:N:752:SER:OG	3:N:754:PHE:CB	2.62	0.47
3:N:771:SER:HA	3:N:778:LEU:HD22	1.96	0.47
3:N:812:ALA:HB1	3:N:816:HIS:CD2	2.50	0.47
3:N:850:LEU:HD22	3:N:884:ARG:HH21	1.80	0.47
3:N:1126:ASP:HB2	3:N:1129:THR:O	2.15	0.47
3:N:1161:GLU:HG2	3:N:1164:ARG:HB2	1.95	0.47
3:N:1166:LEU:HD23	3:N:1166:LEU:N	2.24	0.47
3:N:1389:LEU:CD1	3:N:1390:LEU:HG	2.45	0.47
3:N:1438:ALA:N	3:N:1446:VAL:HG11	2.29	0.47
1:A:28:LEU:HD13	1:A:32:PHE:CB	2.29	0.47
1:A:32:PHE:CD1	1:B:221:HIS:NE2	2.72	0.47
1:A:48:ILE:CD1	1:A:174:VAL:CG2	2.92	0.47
2:C:169:GLY:O	2:C:170:PRO:O	2.33	0.47
2:C:292:ARG:HD3	2:C:298:PHE:HA	1.97	0.47
2:C:395:LYS:HZ2	2:C:407:LYS:HZ2	1.62	0.47
2:C:409:ARG:CA	2:C:454:SER:HA	2.33	0.47
2:C:433:THR:C	2:C:435:TYR:N	2.66	0.47
2:C:967:PHE:HD1	2:C:972:VAL:HG12	1.80	0.47
2:C:1034:GLU:O	2:C:1037:VAL:N	2.48	0.47
3:D:10:ILE:O	3:D:1451:ALA:HA	2.14	0.47
3:D:615:ARG:HD2	3:D:615:ARG:HA	1.74	0.47
3:D:1459:LEU:HD22	3:D:1468:LEU:HD12	1.97	0.47
3:D:1496:GLU:CD	3:D:1500:LYS:HE3	2.35	0.47
1:K:55:SER:H	1:K:143:ARG:HB3	1.80	0.47
1:K:176:ARG:HG3	1:K:200:TRP:HE3	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:188:GLN:HG3	1:K:189:ARG:N	2.25	0.47
2:M:332:ARG:CG	2:M:333:ILE:N	2.77	0.47
2:M:971:LYS:HE3	2:M:988:VAL:CG1	2.32	0.47
2:M:971:LYS:HE2	2:M:986:PRO:O	2.15	0.47
3:N:603:LEU:O	3:N:604:THR:C	2.53	0.47
3:N:658:LEU:HA	3:N:661:MET:HG3	1.96	0.47
3:N:699:VAL:HB	3:N:716:PHE:O	2.15	0.47
3:N:799:LYS:HE2	3:N:824:ASN:O	2.15	0.47
3:N:974:ILE:HG12	3:N:991:GLN:OE1	2.15	0.47
3:N:1236:LEU:O	3:N:1237:THR:CB	2.63	0.47
3:N:1460:ILE:O	3:N:1464:GLU:OE2	2.33	0.47
4:O:57:ASP:N	4:O:58:PRO:HD3	2.29	0.47
2:C:264:PRO:CB	2:C:289:THR:HB	2.45	0.47
2:C:553:ASP:HA	2:C:881:ASN:HA	1.96	0.47
2:C:833:LEU:HD12	2:C:996:LYS:HE2	1.97	0.47
2:C:994:ILE:HG22	2:C:995:MET:N	2.30	0.47
2:C:1012:PRO:CD	2:C:1026:GLN:HG2	2.45	0.47
2:C:1111:ILE:HG13	2:C:1112:PHE:N	2.25	0.47
3:D:603:LEU:O	3:D:607:LEU:HG	2.15	0.47
3:D:813:LEU:O	3:D:817:GLU:HB2	2.14	0.47
3:D:943:THR:OG1	3:D:944:THR:N	2.48	0.47
3:D:1123:PHE:HA	3:D:1133:ARG:O	2.15	0.47
1:K:58:ILE:HB	1:K:61:VAL:HB	1.96	0.47
2:M:170:PRO:HG2	2:M:258:TYR:CD2	2.50	0.47
2:M:393:GLN:HG2	6:Y:10:G:O2'	2.14	0.47
2:M:455:LEU:HD12	2:M:455:LEU:C	2.36	0.47
2:M:700:TYR:O	2:M:833:LEU:HB2	2.15	0.47
2:M:1066:ALA:O	2:M:1070:ILE:HG13	2.15	0.47
3:N:860:LEU:HD23	3:N:877:PRO:CB	2.45	0.47
3:N:1282:ARG:HA	3:N:1315:ASP:HA	1.97	0.47
3:N:1313:VAL:HG21	3:N:1319:VAL:HG11	1.97	0.47
4:O:40:LEU:HD23	4:O:72:ARG:HE	1.79	0.47
7:I:1:DG:OP3	7:I:1:DG:C3'	2.62	0.47
1:A:216:GLU:O	1:A:220:GLU:HB2	2.14	0.47
1:B:47:SER:OG	1:B:217:ILE:HG12	2.14	0.47
2:C:12:VAL:CG1	2:C:472:ARG:HD3	2.45	0.47
2:C:442:GLU:HG2	2:C:454:SER:CB	2.44	0.47
2:C:607:ASP:OD2	2:C:608:GLY:N	2.47	0.47
2:C:607:ASP:HB2	2:C:610:ARG:NH1	2.29	0.47
2:C:903:SER:O	2:C:904:PRO:O	2.33	0.47
3:D:128:TYR:HB3	3:D:129:PHE:CD1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1093:TYR:HE2	3:D:1096:ARG:CZ	2.28	0.47
3:D:1209:LEU:HD23	3:D:1211:MET:N	2.12	0.47
3:D:1219:GLU:HB2	4:E:17:TYR:HE2	1.79	0.47
3:D:1435:LEU:HB2	3:D:1464:GLU:HB3	1.95	0.47
1:K:19:GLU:O	1:K:201:THR:N	2.40	0.47
1:L:176:ARG:O	1:L:200:TRP:HE3	1.98	0.47
2:M:327:HIS:HE1	2:M:489:THR:HA	1.80	0.47
2:M:468:ARG:HA	2:M:486:MET:O	2.14	0.47
2:M:603:VAL:HG12	2:M:646:GLY:H	1.80	0.47
2:M:1054:THR:O	2:M:1056:LYS:N	2.48	0.47
3:N:149:LYS:H	3:N:149:LYS:HG3	1.41	0.47
3:N:187:LYS:HG3	3:N:198:ARG:C	2.35	0.47
3:N:206:ARG:HB2	3:N:392:SER:C	2.35	0.47
3:N:786:ILE:HD13	3:N:1027:GLY:HA3	1.97	0.47
3:N:911:LEU:O	3:N:915:VAL:HG23	2.14	0.47
3:N:925:GLU:O	3:N:928:ALA:HB3	2.15	0.47
3:N:941:PHE:O	3:N:945:SER:HB3	2.15	0.47
3:N:1031:ASN:O	3:N:1032:PRO:C	2.53	0.47
3:N:1223:ILE:N	3:N:1223:ILE:HD12	2.30	0.47
4:O:38:THR:OG1	4:O:39:VAL:N	2.48	0.47
5:X:5:DC:H2”	5:X:6:DT:O5’	2.15	0.47
1:A:9:PRO:HB3	1:A:25:LEU:HG	1.96	0.46
1:B:73:GLU:HB3	1:B:77:GLU:CG	2.45	0.46
2:C:7:GLY:HA3	2:C:907:ASP:OD2	2.14	0.46
2:C:423:ALA:CB	7:I:1:DG:C5’	2.78	0.46
2:C:578:VAL:HG13	2:C:671:ASN:CB	2.45	0.46
2:C:627:ARG:O	2:C:638:ASP:HB3	2.15	0.46
2:C:832:LYS:O	2:C:833:LEU:C	2.53	0.46
2:C:1022:GLY:CA	2:C:1026:GLN:O	2.62	0.46
3:D:41:ARG:HD3	3:D:43:GLY:H	1.80	0.46
3:D:964:LEU:O	3:D:968:ASP:HB2	2.14	0.46
3:D:1102:THR:O	3:D:1103:HIS:O	2.33	0.46
1:L:109:VAL:O	1:L:129:ILE:HG12	2.14	0.46
1:L:162:ILE:HD11	1:L:163:ASN:ND2	2.30	0.46
2:M:35:PRO:C	2:M:37:GLU:N	2.67	0.46
2:M:162:ILE:HD12	2:M:172:ILE:CB	2.45	0.46
2:M:356:ARG:NH1	2:M:356:ARG:HB2	2.30	0.46
2:M:580:MET:SD	2:M:584:GLU:CG	3.00	0.46
2:M:589:ARG:HA	2:M:596:TYR:CE1	2.50	0.46
3:N:704:ARG:CZ	3:N:737:ASN:O	2.62	0.46
3:N:728:LEU:HG	3:N:729:HIS:O	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:736:PHE:CD1	3:N:736:PHE:N	2.79	0.46
3:N:1107:VAL:O	3:N:1218:GLY:N	2.48	0.46
3:N:1381:VAL:HA	3:N:1417:TRP:HA	1.96	0.46
3:N:1443:THR:HA	3:N:1446:VAL:HG21	1.97	0.46
4:O:34:GLY:O	4:O:37:ASN:ND2	2.48	0.46
5:G:2:DT:OP1	5:G:2:DT:H6	1.98	0.46
7:I:7:DT:H2"	7:I:8:DG:OP2	2.14	0.46
1:A:127:LEU:HG	1:A:129:ILE:HD13	1.97	0.46
1:B:184:THR:O	1:B:192:LEU:HD12	2.16	0.46
1:B:185:ARG:HG2	1:B:186:LEU:N	2.29	0.46
2:C:139:GLN:OE1	2:C:418:LEU:HD22	2.14	0.46
2:C:257:VAL:C	2:C:259:GLY:H	2.19	0.46
2:C:328:LEU:HB2	2:C:433:THR:CB	2.44	0.46
2:C:499:ALA:HA	2:C:532:MET:SD	2.55	0.46
2:C:606:VAL:HG21	2:C:645:VAL:HG22	1.96	0.46
2:C:724:ARG:NH2	2:C:734:LEU:O	2.48	0.46
2:C:737:LEU:HA	2:C:743:VAL:HA	1.97	0.46
2:C:1006:HIS:HA	2:C:1027:PHE:CD1	2.50	0.46
2:C:1034:GLU:OE1	3:D:619:LEU:HD22	2.15	0.46
2:C:1039:ALA:HB2	3:D:707:THR:HG22	1.96	0.46
2:C:1087:VAL:HG13	2:C:1088:LEU:N	2.31	0.46
3:D:10:ILE:O	3:D:1450:ALA:O	2.32	0.46
3:D:771:SER:O	3:D:774:SER:O	2.33	0.46
3:D:800:LYS:HG3	3:D:829:VAL:HG12	1.98	0.46
3:D:1445:HIS:O	3:D:1446:VAL:C	2.53	0.46
4:E:41:GLU:N	4:E:42:PRO:CD	2.77	0.46
1:L:43:ILE:HG23	1:L:47:SER:HB3	1.97	0.46
1:L:57:TYR:CE2	1:L:161:ARG:HG2	2.51	0.46
2:M:139:GLN:OE1	2:M:414:GLY:HA3	2.15	0.46
2:M:257:VAL:C	2:M:259:GLY:H	2.19	0.46
2:M:402:SER:HB3	2:M:566:THR:O	2.16	0.46
2:M:437:ARG:O	2:M:438:ILE:HD12	2.14	0.46
2:M:575:GLN:C	2:M:667:ALA:HB1	2.36	0.46
2:M:605:LYS:O	2:M:611:ILE:HA	2.15	0.46
3:N:115:LEU:HD23	3:N:115:LEU:O	2.15	0.46
3:N:693:GLU:CA	4:O:48:MET:CE	2.83	0.46
3:N:1447:LEU:HA	3:N:1450:ALA:HB3	1.97	0.46
5:G:23:DG:C2	6:H:11:C:O2	2.68	0.46
1:B:65:PHE:CD1	1:B:65:PHE:N	2.83	0.46
2:C:304:LEU:N	2:C:305:PRO:CD	2.78	0.46
2:C:1093:GLN:O	3:D:21:TRP:CZ3	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1095:LEU:CB	2:C:1097:LEU:HD23	2.42	0.46
2:C:1101:THR:O	2:C:1102:LEU:HD12	2.16	0.46
3:D:30:GLU:CB	3:D:41:ARG:HG3	2.45	0.46
3:D:1027:GLY:O	3:D:1028:ALA:C	2.54	0.46
3:D:1109:GLU:HG2	3:D:1202:GLN:N	2.29	0.46
3:D:1378:TYR:HH	3:D:1431:THR:HA	1.79	0.46
3:D:1433:SER:CA	3:D:1457:ASP:OD2	2.64	0.46
4:E:95:VAL:O	4:E:96:GLU:HB2	2.15	0.46
1:K:27:PRO:HG2	1:K:186:LEU:HD13	1.97	0.46
1:K:213:GLN:O	1:K:216:GLU:HB2	2.15	0.46
2:M:5:ARG:HB3	2:M:902:ILE:CB	2.43	0.46
2:M:691:SER:HA	2:M:858:MET:CE	2.44	0.46
2:M:874:LEU:HD11	3:N:783:ARG:HB2	1.97	0.46
3:N:55:ASP:O	3:N:81:THR:O	2.33	0.46
3:N:891:GLU:O	3:N:893:GLU:N	2.49	0.46
3:N:1122:LEU:HD11	3:N:1186:VAL:HG23	1.96	0.46
3:N:1200:VAL:HG12	3:N:1201:CYS:O	2.14	0.46
3:N:1292:VAL:HG23	3:N:1305:LEU:CG	2.37	0.46
3:N:1438:ALA:CB	3:N:1446:VAL:HG11	2.45	0.46
2:C:259:GLY:HA2	2:C:290:LEU:O	2.15	0.46
2:C:295:ASP:C	2:C:297:GLU:H	2.18	0.46
2:C:676:ILE:CG2	2:C:988:VAL:HG22	2.44	0.46
2:C:724:ARG:HD2	2:C:737:LEU:O	2.16	0.46
2:C:1012:PRO:HB2	2:C:1021:LEU:O	2.16	0.46
3:D:1042:ARG:NE	3:D:1073:SER:HB2	2.30	0.46
3:D:1206:GLY:HA3	3:D:1366:LYS:HZ2	1.80	0.46
4:E:45:ARG:HG2	4:E:46:PRO:CD	2.45	0.46
4:E:85:LEU:HD23	4:E:85:LEU:C	2.36	0.46
1:L:76:VAL:O	1:L:79:ILE:HG12	2.15	0.46
2:M:95:TYR:CD2	2:M:114:PHE:HB3	2.49	0.46
2:M:287:GLY:O	2:M:288:ARG:C	2.53	0.46
2:M:692:GLU:CD	2:M:854:PRO:HA	2.36	0.46
2:M:869:VAL:CG2	2:M:870:ILE:N	2.78	0.46
2:M:1053:LEU:HD12	3:N:1469:GLY:CA	2.44	0.46
3:N:112:ILE:HD11	3:N:116:LEU:CD1	2.45	0.46
3:N:455:ARG:N	3:N:455:ARG:HD2	2.30	0.46
3:N:675:ARG:HA	3:N:678:GLU:OE2	2.16	0.46
3:N:698:LYS:HE2	4:O:59:ASN:OD1	2.16	0.46
3:N:741:ASP:OD2	3:N:743:ASP:OD2	2.33	0.46
3:N:774:SER:OG	3:N:776:GLU:HB2	2.15	0.46
3:N:840:LYS:HB3	3:N:841:TYR:CE2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1129:THR:CB	3:N:1320:GLU:OE1	2.62	0.46
3:N:1396:GLU:O	3:N:1399:ASP:HB2	2.16	0.46
1:A:34:VAL:HG13	1:A:35:THR:N	2.30	0.46
1:B:59:GLU:CB	1:B:137:ARG:HH22	2.27	0.46
2:C:130:ASN:HD21	2:C:383:ARG:HH21	1.64	0.46
2:C:310:LEU:O	2:C:314:THR:HG23	2.16	0.46
2:C:468:ARG:CB	2:C:485:TYR:HB3	2.45	0.46
2:C:580:MET:CE	2:C:902:ILE:HG12	2.46	0.46
2:C:918:LEU:O	2:C:967:PHE:HE2	1.99	0.46
2:C:1091:GLU:O	2:C:1094:ALA:HB3	2.15	0.46
2:C:1115:LEU:N	2:C:1115:LEU:CD1	2.78	0.46
3:D:949:ILE:HD13	3:D:1019:PRO:HB2	1.97	0.46
3:D:1341:PRO:C	3:D:1343:ALA:N	2.69	0.46
3:D:1433:SER:HA	3:D:1457:ASP:OD2	2.16	0.46
3:D:1468:LEU:O	3:D:1468:LEU:HD23	2.15	0.46
1:K:49:PRO:CA	1:K:148:VAL:HG22	2.46	0.46
1:L:165:ILE:O	1:L:165:ILE:HG13	2.16	0.46
2:M:221:LEU:HG	2:M:222:MET:N	2.30	0.46
2:M:291:ALA:O	2:M:292:ARG:HB2	2.15	0.46
2:M:437:ARG:CZ	2:M:491:GLU:OE2	2.64	0.46
2:M:754:ILE:HA	2:M:791:ARG:HA	1.98	0.46
3:N:623:VAL:CG1	3:N:624:ASP:N	2.79	0.46
3:N:658:LEU:O	3:N:661:MET:HB2	2.14	0.46
3:N:785:ILE:HD12	3:N:939:PHE:CE2	2.51	0.46
3:N:1112:CYS:HB2	3:N:1195:GLN:HG2	1.98	0.46
3:N:1225:ALA:O	3:N:1229:ILE:HG13	2.15	0.46
4:O:23:VAL:O	4:O:26:ARG:HB3	2.15	0.46
5:G:10:DA:H2"	5:G:11:DC:H6	1.80	0.46
6:H:6:C:C4	6:H:7:G:C6	3.03	0.46
6:Y:5:C:H2'	6:Y:6:C:OP1	2.15	0.46
2:C:73:LEU:CB	2:C:93:PRO:O	2.61	0.46
2:C:263:ASP:HB2	2:C:264:PRO:CD	2.39	0.46
2:C:326:ASP:O	2:C:431:HIS:CG	2.69	0.46
2:C:358:ARG:NH1	2:C:374:ASN:OD1	2.46	0.46
2:C:966:LEU:HD12	2:C:966:LEU:HA	1.77	0.46
3:D:33:ASN:HD21	3:D:35:ARG:HH12	1.64	0.46
3:D:704:ARG:HB2	3:D:745:MET:CE	2.46	0.46
3:D:758:GLU:CB	3:D:762:GLN:HE21	2.27	0.46
3:D:1096:ARG:NH2	3:D:1440:PHE:CE2	2.84	0.46
3:D:1127:GLU:O	3:D:1128:VAL:CG2	2.63	0.46
3:D:1164:ARG:HG2	3:D:1165:TYR:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1336:LEU:HD12	3:D:1340:GLY:HA2	1.98	0.46
1:K:11:PHE:CA	1:K:25:LEU:HD12	2.46	0.46
2:M:151:ASP:OD1	2:M:152:PRO:HD2	2.16	0.46
2:M:284:ARG:HG2	2:M:301:GLU:CD	2.36	0.46
2:M:342:ASP:HA	2:M:345:ARG:HD3	1.97	0.46
2:M:428:ARG:NE	2:M:451:LEU:HD21	2.31	0.46
2:M:616:GLU:OE1	2:M:616:GLU:HA	2.16	0.46
2:M:680:ASP:HB2	2:M:682:TYR:CE2	2.51	0.46
2:M:773:LEU:O	2:M:777:ILE:HG13	2.15	0.46
3:N:19:ARG:HE	3:N:516:ALA:HB1	1.80	0.46
3:N:160:GLU:CB	3:N:165:LYS:HB2	2.45	0.46
3:N:1379:VAL:CG1	3:N:1419:PRO:HA	2.41	0.46
4:O:8:LYS:O	4:O:12:MET:HG3	2.14	0.46
7:I:17:DA:O5'	7:I:17:DA:C8	2.66	0.46
1:B:6:LEU:O	1:B:8:ALA:N	2.47	0.46
2:C:157:ARG:NH1	2:C:314:THR:O	2.46	0.46
2:C:212:GLY:HA3	2:C:218:VAL:CG2	2.46	0.46
2:C:560:MET:O	2:C:564:MET:HG2	2.15	0.46
2:C:679:PHE:N	2:C:683:ASN:HD21	2.07	0.46
2:C:1035:MET:O	3:D:707:THR:HB	2.15	0.46
2:C:1093:GLN:HB3	3:D:21:TRP:CZ3	2.50	0.46
3:D:100:ALA:N	3:D:128:TYR:OH	2.49	0.46
3:D:521:PRO:HD2	3:D:524:LEU:CD2	2.45	0.46
1:K:70:GLY:H	2:M:607:ASP:CG	2.17	0.46
1:K:94:LEU:HD11	1:K:119:ASP:CB	2.46	0.46
1:L:73:GLU:OE1	1:L:130:ALA:HA	2.16	0.46
2:M:395:LYS:HG2	2:M:397:GLU:HG3	1.97	0.46
2:M:510:ALA:O	2:M:513:VAL:HG23	2.15	0.46
2:M:839:LEU:CD2	2:M:996:LYS:HA	2.46	0.46
2:M:1021:LEU:HD13	6:Y:5:C:O2	2.16	0.46
3:N:1066:THR:HG22	3:N:1069:GLU:HB2	1.98	0.46
3:N:1277:ILE:HB	3:N:1294:VAL:CG2	2.45	0.46
3:N:1364:HIS:ND1	3:N:1365:ASP:N	2.64	0.46
3:N:1399:ASP:O	3:N:1403:LEU:HG	2.15	0.46
3:N:1462:LEU:O	3:N:1466:VAL:N	2.45	0.46
7:I:10:DG:C2'	7:I:11:DG:OP2	2.44	0.46
5:X:23:DG:H2'	5:X:24:DC:H6	1.78	0.46
1:B:74:ASP:HB3	3:D:872:ARG:NH2	2.21	0.46
2:C:54:ILE:HG12	2:C:64:LEU:CD2	2.45	0.46
2:C:101:ILE:CD1	2:C:107:LEU:HD22	2.46	0.46
2:C:141:HIS:O	2:C:331:ARG:HB3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:726:ILE:HD12	2:C:726:ILE:N	2.31	0.46
2:C:868:ASP:OD1	2:C:868:ASP:N	2.49	0.46
2:C:1010:THR:HG22	2:C:1011:GLY:N	2.31	0.46
2:C:1098:ASP:OD1	3:D:17:LYS:HD3	2.16	0.46
3:D:133:ILE:HG23	3:D:456:MET:HB3	1.97	0.46
3:D:163:TYR:HD1	3:D:163:TYR:N	2.13	0.46
3:D:610:LYS:O	3:D:615:ARG:CG	2.54	0.46
3:D:660:LYS:HB2	3:D:660:LYS:HZ3	1.80	0.46
3:D:711:LEU:C	3:D:713:ILE:N	2.69	0.46
3:D:1087:ARG:NE	3:D:1236:LEU:HD11	2.30	0.46
1:K:220:GLU:O	1:K:224:TYR:CE2	2.69	0.46
1:L:48:ILE:CD1	1:L:210:ALA:HB1	2.45	0.46
1:L:206:THR:HG22	1:L:209:GLU:H	1.79	0.46
2:M:101:ILE:HG23	2:M:107:LEU:CD2	2.45	0.46
2:M:277:ALA:O	2:M:278:GLU:C	2.54	0.46
2:M:549:PHE:CE2	2:M:886:LEU:HB3	2.51	0.46
2:M:650:ARG:CG	2:M:653:ASP:HB2	2.36	0.46
2:M:874:LEU:HD13	3:N:783:ARG:HB2	1.98	0.46
3:N:471:GLU:OE1	3:N:471:GLU:N	2.33	0.46
3:N:484:PRO:HB3	3:N:488:ARG:CZ	2.45	0.46
3:N:711:LEU:C	3:N:713:ILE:N	2.69	0.46
3:N:796:ARG:HB2	3:N:828:LYS:HD2	1.97	0.46
3:N:1117:TYR:HE2	3:N:1151:ARG:NH1	2.13	0.46
3:N:1158:VAL:HG12	3:N:1159:ARG:N	2.31	0.46
3:N:1281:VAL:CG1	3:N:1282:ARG:N	2.79	0.46
4:O:15:SER:O	4:O:18:ARG:HB3	2.16	0.46
1:A:31:GLY:O	1:A:34:VAL:HG13	2.15	0.46
2:C:300:ASP:O	2:C:304:LEU:CD2	2.64	0.46
2:C:329:GLY:O	2:C:330:ASN:ND2	2.39	0.46
3:D:127:LEU:HD12	3:D:127:LEU:O	2.15	0.46
3:D:554:LEU:HG	3:D:558:LEU:HD11	1.98	0.46
3:D:1197:ARG:NH1	3:D:1198:TYR:HD1	2.14	0.46
3:D:1372:VAL:HA	3:D:1375:MET:CE	2.45	0.46
3:D:1397:LYS:CE	3:D:1432:LYS:HZ1	2.29	0.46
3:D:1445:HIS:O	3:D:1448:THR:HB	2.16	0.46
3:D:1487:VAL:HG12	3:D:1488:ASP:N	2.30	0.46
2:M:94:LEU:HD12	2:M:95:TYR:N	2.30	0.46
2:M:140:ILE:HA	2:M:332:ARG:O	2.15	0.46
2:M:266:ARG:CA	2:M:288:ARG:HD3	2.45	0.46
2:M:313:LEU:HA	2:M:321:GLU:OE1	2.15	0.46
2:M:673:LEU:HB3	2:M:868:ASP:OD1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:737:LEU:HA	2:M:743:VAL:HA	1.97	0.46
3:N:136:ASP:OD2	3:N:467:GLU:CD	2.54	0.46
3:N:712:GLY:C	3:N:713:ILE:HG13	2.36	0.46
3:N:917:GLN:O	3:N:920:LEU:HB2	2.16	0.46
3:N:950:GLY:N	3:N:953:ASP:OD1	2.49	0.46
3:N:1259:VAL:O	3:N:1263:PHE:HD1	1.98	0.46
3:N:1341:PRO:C	3:N:1343:ALA:N	2.68	0.46
3:N:1394:VAL:O	3:N:1397:LYS:HB3	2.15	0.46
3:N:1438:ALA:HB2	3:N:1446:VAL:HG11	1.98	0.46
4:O:41:GLU:HG2	4:O:42:PRO:HD3	1.98	0.46
4:O:48:MET:N	4:O:54:LEU:HB2	2.31	0.46
5:X:17:DA:O5'	5:X:17:DA:C2'	2.61	0.46
7:Z:3:DA:H2"	7:Z:4:DG:OP2	2.16	0.46
1:A:30:ARG:HH11	1:A:191:ASP:HB2	1.80	0.46
1:A:117:VAL:O	1:A:120:VAL:HG12	2.16	0.46
2:C:136:ILE:HG21	2:C:336:VAL:HG13	1.98	0.46
2:C:141:HIS:HB3	2:C:418:LEU:HD23	1.98	0.46
2:C:185:LYS:HG2	2:C:188:LYS:O	2.16	0.46
2:C:543:ASN:C	2:C:543:ASN:OD1	2.54	0.46
2:C:1032:PHE:CE2	2:C:1037:VAL:HG22	2.51	0.46
3:D:25:GLU:HB2	3:D:92:HIS:CE1	2.50	0.46
3:D:105:VAL:HA	3:D:112:ILE:HG21	1.98	0.46
3:D:676:MET:SD	3:D:682:ASP:O	2.74	0.46
3:D:925:GLU:OE1	4:E:6:ILE:N	2.45	0.46
3:D:1153:VAL:CA	3:N:561:GLY:HA3	2.45	0.46
3:D:1450:ALA:O	3:D:1453:ALA:O	2.33	0.46
4:E:4:PRO:HG2	4:E:66:LYS:HZ2	1.80	0.46
1:L:59:GLU:HB2	1:L:137:ARG:NH2	2.30	0.46
2:M:683:ASN:ND2	2:M:683:ASN:C	2.68	0.46
3:N:1209:LEU:HD21	4:O:16:LYS:CE	2.45	0.46
3:N:1294:VAL:CG1	3:N:1319:VAL:HG21	2.27	0.46
5:X:10:DA:H2"	5:X:11:DC:O5'	2.16	0.46
5:X:10:DA:H1'	5:X:11:DC:H5'	1.97	0.46
5:X:12:DA:C2	5:X:13:DA:C5	3.04	0.46
7:Z:6:DT:H2"	7:Z:7:DT:OP2	2.16	0.46
1:A:2:LEU:HA	1:A:6:LEU:HD22	1.98	0.45
2:C:136:ILE:CG2	2:C:336:VAL:HG22	2.46	0.45
2:C:301:GLU:HA	2:C:304:LEU:HD21	1.98	0.45
2:C:307:LEU:HD12	2:C:307:LEU:HA	1.74	0.45
2:C:458:TYR:O	2:C:459:ALA:C	2.54	0.45
2:C:589:ARG:HA	2:C:596:TYR:OH	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:937:ASP:OD2	2:C:938:LYS:N	2.49	0.45
3:D:10:ILE:HD11	3:D:1434:TRP:HE1	1.80	0.45
3:D:554:LEU:CD1	3:D:558:LEU:HD21	2.44	0.45
3:D:629:SER:HB3	3:D:726:ILE:HD11	1.98	0.45
3:D:1031:ASN:HA	3:D:1032:PRO:HD3	1.51	0.45
3:D:1154:GLU:HB2	3:N:562:ALA:CA	2.47	0.45
1:K:96:THR:HA	1:K:144:VAL:O	2.16	0.45
2:M:313:LEU:CD1	2:M:321:GLU:HG2	2.36	0.45
2:M:673:LEU:HD23	2:M:674:VAL:N	2.31	0.45
2:M:677:MET:CB	3:N:948:THR:CG2	2.94	0.45
2:M:692:GLU:OE1	2:M:854:PRO:HA	2.16	0.45
2:M:1038:TRP:HA	2:M:1041:GLU:CD	2.36	0.45
2:M:1060:ILE:HG23	2:M:1061:GLU:N	2.26	0.45
3:N:76:CYS:O	3:N:76:CYS:SG	2.74	0.45
3:N:116:LEU:O	3:N:118:LEU:N	2.49	0.45
3:N:121:THR:OG1	7:Z:8:DG:H5"	2.16	0.45
3:N:431:VAL:HG12	3:N:432:TYR:N	2.30	0.45
3:N:613:ARG:O	3:N:616:GLN:HB3	2.16	0.45
3:N:637:LEU:HD11	3:N:642:CYS:HA	1.97	0.45
3:N:762:GLN:HE22	4:O:17:TYR:HD1	1.65	0.45
3:N:1094:LEU:O	3:N:1097:LYS:HB2	2.16	0.45
3:N:1105:ILE:HB	3:N:1222:GLY:HA3	1.98	0.45
3:N:1232:PRO:O	3:N:1234:THR:N	2.40	0.45
3:N:1256:LEU:HB3	3:N:1257:PRO:HD3	1.98	0.45
4:O:64:ALA:O	4:O:68:LEU:HD13	2.16	0.45
2:C:159:ILE:HG21	2:C:175:GLU:OE2	2.16	0.45
2:C:442:GLU:CD	2:C:543:ASN:HD22	2.20	0.45
2:C:547:ILE:HB	2:C:550:LEU:HD13	1.96	0.45
2:C:603:VAL:HB	2:C:646:GLY:N	2.31	0.45
2:C:1054:THR:O	2:C:1056:LYS:N	2.49	0.45
3:D:646:LYS:HD2	3:D:688:TRP:CZ2	2.51	0.45
3:D:773:ALA:HA	3:D:1367:HIS:HE2	1.80	0.45
3:D:807:ALA:HA	3:D:833:GLU:HB2	1.97	0.45
3:D:935:LYS:HE2	3:D:936:TYR:HB2	1.98	0.45
3:D:1058:ARG:HB3	3:D:1058:ARG:CZ	2.45	0.45
3:D:1263:PHE:HE2	3:D:1371:VAL:HG11	1.80	0.45
3:D:1428:ALA:O	3:D:1431:THR:HG22	2.16	0.45
1:L:14:ARG:HH21	1:L:22:GLU:CD	2.19	0.45
2:M:71:TYR:HA	2:M:96:ALA:HB2	1.98	0.45
2:M:84:ARG:HA	2:M:131:GLY:HA2	1.96	0.45
2:M:92:ALA:HB2	2:M:120:LEU:HD11	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:142:ARG:HA	2:M:331:ARG:HA	1.97	0.45
3:N:520:LEU:HD12	3:N:521:PRO:HD2	1.96	0.45
3:N:713:ILE:C	3:N:714:GLN:HG3	2.36	0.45
3:N:796:ARG:NH2	3:N:859:ASP:HB2	2.32	0.45
3:N:895:VAL:HG12	3:N:895:VAL:O	2.16	0.45
3:N:1172:HIS:HA	3:N:1175:ILE:HD12	1.97	0.45
2:C:25:SER:O	2:C:29:ALA:HB2	2.17	0.45
2:C:137:VAL:CG2	2:C:391:LEU:HG	2.46	0.45
2:C:141:HIS:CD2	2:C:332:ARG:O	2.70	0.45
2:C:162:ILE:CG2	2:C:172:ILE:HD13	2.47	0.45
2:C:677:MET:SD	2:C:987:ILE:HD13	2.55	0.45
2:C:720:GLU:OE1	2:C:758:ARG:HD2	2.16	0.45
2:C:854:PRO:HG2	2:C:857:ASP:OD2	2.17	0.45
2:C:889:HIS:NE2	2:C:970:GLY:HA3	2.31	0.45
3:D:6:ARG:HD2	3:D:1470:ARG:NH1	2.27	0.45
3:D:623:VAL:CG1	3:D:624:ASP:N	2.79	0.45
3:D:1115:THR:CG2	3:D:1151:ARG:HH21	2.30	0.45
3:D:1144:LEU:HD22	3:D:1186:VAL:HG11	1.97	0.45
3:D:1189:ARG:HG3	3:D:1189:ARG:NH1	2.31	0.45
3:D:1407:LEU:HD23	2:M:361:MET:SD	2.56	0.45
1:K:38:ASN:O	1:K:42:ARG:HG3	2.16	0.45
1:L:58:ILE:HD13	1:L:139:ASN:O	2.16	0.45
1:L:179:PHE:HB3	1:L:197:LEU:HD12	1.98	0.45
1:L:183:ASP:HA	1:L:192:LEU:O	2.16	0.45
2:M:92:ALA:CB	2:M:120:LEU:HD21	2.47	0.45
2:M:183:SER:CB	2:M:190:LYS:HD3	2.45	0.45
2:M:200:LEU:HD13	2:M:300:ASP:CG	2.36	0.45
2:M:317:VAL:C	2:M:319:GLY:N	2.68	0.45
2:M:378:LEU:O	2:M:382:ILE:HG13	2.16	0.45
2:M:599:GLU:OE2	2:M:619:ARG:NH2	2.49	0.45
2:M:601:GLY:HA3	2:M:615:TYR:HA	1.98	0.45
2:M:984:GLU:HG3	3:N:791:TYR:OH	2.16	0.45
3:N:480:GLU:OE1	3:N:488:ARG:CG	2.60	0.45
3:N:499:VAL:O	3:N:500:ARG:C	2.54	0.45
3:N:703:ASN:ND2	3:N:713:ILE:HD11	2.32	0.45
3:N:799:LYS:CB	3:N:826:PRO:HG2	2.46	0.45
3:N:827:ILE:HD12	3:N:827:ILE:H	1.80	0.45
3:N:1223:ILE:O	3:N:1226:ALA:N	2.49	0.45
3:N:1268:PRO:CG	3:N:1329:ALA:CB	2.93	0.45
3:N:1445:HIS:NE2	3:N:1449:GLU:CD	2.70	0.45
3:N:1481:VAL:O	3:N:1483:PHE:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:43:ILE:CD1	1:B:32:PHE:HE2	2.26	0.45
1:B:22:GLU:O	1:B:23:PHE:CD1	2.69	0.45
1:B:101:LEU:CD1	1:B:113:ASP:HB3	2.45	0.45
1:B:105:GLY:O	1:B:132:LEU:HB3	2.16	0.45
2:C:129:ILE:HG22	2:C:130:ASN:H	1.78	0.45
2:C:267:TYR:CB	2:C:272:ALA:HB1	2.47	0.45
2:C:895:TYR:N	2:C:991:GLN:NE2	2.64	0.45
2:C:1095:LEU:HD23	3:D:582:LEU:HD22	1.98	0.45
3:D:9:ARG:NH1	3:D:1454:GLY:HA3	2.31	0.45
3:D:612:GLY:H	3:D:615:ARG:CB	2.29	0.45
3:D:625:TYR:HB3	3:D:749:VAL:CG2	2.46	0.45
3:D:1041:LEU:HD13	3:D:1045:MET:HB2	1.98	0.45
3:D:1093:TYR:CE2	3:D:1096:ARG:CZ	3.00	0.45
3:D:1189:ARG:HD3	3:D:1189:ARG:HA	1.63	0.45
3:D:1191:PRO:HB3	3:D:1200:VAL:HG21	1.99	0.45
3:D:1227:GLN:C	3:D:1229:ILE:H	2.19	0.45
1:K:56:VAL:HG13	1:K:142:VAL:HG12	1.97	0.45
1:K:111:ALA:O	1:K:122:ILE:HD13	2.17	0.45
2:M:677:MET:HA	3:N:948:THR:HG22	1.98	0.45
2:M:738:ASP:HB2	2:M:744:ARG:HB3	1.98	0.45
2:M:754:ILE:HG12	2:M:791:ARG:NH1	2.31	0.45
3:N:45:PHE:CE1	3:N:522:PRO:HB3	2.51	0.45
3:N:699:VAL:HG21	3:N:760:ARG:CB	2.44	0.45
3:N:760:ARG:HH11	4:O:61:VAL:CG2	2.07	0.45
3:N:1009:LYS:HE3	3:N:1013:GLU:OE2	2.16	0.45
3:N:1031:ASN:C	3:N:1033:GLN:N	2.69	0.45
3:N:1066:THR:HG22	3:N:1069:GLU:CG	2.46	0.45
3:N:1127:GLU:O	3:N:1128:VAL:HG23	2.17	0.45
3:N:1189:ARG:HD3	3:N:1190:SER:H	1.82	0.45
3:N:1486:VAL:HG21	4:O:29:GLN:HE22	1.81	0.45
6:H:9:C:H2'	6:H:10:G:C8	2.52	0.45
7:I:2:DT:P	7:I:2:DT:H3'	2.57	0.45
7:I:5:DC:H1'	7:I:6:DT:O5'	2.16	0.45
6:Y:7:G:N3	6:Y:7:G:H2'	2.32	0.45
7:Z:6:DT:H2'	7:Z:7:DT:H72	1.98	0.45
1:A:35:THR:HG23	1:B:42:ARG:HB2	1.98	0.45
2:C:714:ASP:HB2	2:C:818:GLY:O	2.17	0.45
2:C:838:LYS:HZ3	3:D:742:GLY:CA	2.30	0.45
2:C:875:GLY:O	2:C:879:ARG:HD2	2.15	0.45
3:D:485:SER:O	3:D:489:ARG:HB3	2.17	0.45
3:D:525:ARG:HB2	3:D:538:SER:CB	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:528:VAL:CG1	3:D:529:GLN:H	2.28	0.45
3:D:542:ASP:HB2	3:D:600:LEU:CD2	2.45	0.45
3:D:741:ASP:C	6:H:14:G:H5"	2.37	0.45
3:D:895:VAL:HA	3:D:898:GLU:OE1	2.15	0.45
3:D:1115:THR:HG22	3:D:1151:ARG:NH2	2.32	0.45
4:E:47:LYS:HA	4:E:54:LEU:HB3	1.99	0.45
1:K:34:VAL:HG13	1:K:35:THR:H	1.82	0.45
1:L:86:VAL:HG12	1:L:124:ASN:HB2	1.98	0.45
2:M:119:PRO:HG2	2:M:386:PHE:CD2	2.51	0.45
2:M:691:SER:CB	2:M:868:ASP:O	2.65	0.45
2:M:694:LEU:O	2:M:699:PHE:HB2	2.16	0.45
2:M:700:TYR:HB2	2:M:833:LEU:HD22	1.98	0.45
2:M:832:LYS:O	2:M:834:GLN:N	2.49	0.45
2:M:1098:ASP:HB2	3:N:21:TRP:CZ2	2.50	0.45
3:N:143:ASN:HA	3:N:161:LEU:CD1	2.45	0.45
3:N:650:LEU:O	3:N:654:LYS:CB	2.64	0.45
3:N:860:LEU:HD22	3:N:881:LEU:HD23	1.97	0.45
3:N:1109:GLU:OE2	3:N:1217:ILE:HG12	2.17	0.45
3:N:1330:ILE:HB	3:N:1347:TYR:OH	2.16	0.45
4:O:54:LEU:CA	4:O:58:PRO:HG2	2.38	0.45
5:G:14:DG:H2"	5:G:15:DC:OP2	2.16	0.45
7:I:11:DG:OP2	7:I:11:DG:H8	2.00	0.45
5:X:7:DA:H4'	5:X:7:DA:OP1	2.16	0.45
2:C:459:ALA:HB1	2:C:467:ILE:HG21	1.98	0.45
2:C:588:VAL:HG23	2:C:596:TYR:OH	2.17	0.45
2:C:783:ARG:NH2	2:C:785:VAL:HG11	2.32	0.45
3:D:483:HIS:ND1	3:D:483:HIS:N	2.65	0.45
3:D:1194:CYS:HB2	3:D:1204:CYS:CB	2.46	0.45
3:D:1264:GLU:O	3:D:1265:ALA:C	2.53	0.45
3:D:1389:LEU:HD12	3:D:1390:LEU:H	1.81	0.45
3:D:1442:ASN:HB3	3:D:1444:THR:H	1.82	0.45
1:K:49:PRO:HB3	1:K:148:VAL:HG22	1.97	0.45
1:L:143:ARG:HD2	1:L:160:ASP:OD2	2.17	0.45
2:M:6:PHE:HD1	2:M:902:ILE:O	2.00	0.45
2:M:292:ARG:HG2	2:M:298:PHE:HA	1.97	0.45
2:M:376:ARG:CB	2:M:377:PRO:HD3	2.47	0.45
2:M:564:MET:CE	2:M:840:ALA:HB3	2.46	0.45
2:M:589:ARG:HA	2:M:596:TYR:CZ	2.52	0.45
2:M:684:PHE:HD2	3:N:740:PHE:CD1	2.34	0.45
2:M:810:ASP:HA	2:M:811:PRO:HD3	1.81	0.45
3:N:52:PRO:HG2	3:N:85:VAL:HG21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:186:VAL:HG12	3:N:187:LYS:N	2.32	0.45
3:N:462:GLN:HA	3:N:513:ILE:HG21	1.98	0.45
3:N:577:ALA:O	3:N:581:LEU:HD23	2.17	0.45
3:N:606:ILE:CG2	3:N:607:LEU:N	2.80	0.45
3:N:700:VAL:HG22	3:N:718:PRO:HG2	1.98	0.45
3:N:787:LEU:HD12	3:N:787:LEU:HA	1.73	0.45
3:N:1216:SER:OG	4:O:15:SER:HA	2.16	0.45
3:N:1348:LEU:N	3:N:1348:LEU:CD1	2.79	0.45
3:N:1464:GLU:HG3	3:N:1465:ASN:N	2.31	0.45
5:X:17:DA:H2"	5:X:18:DC:O5'	2.16	0.45
7:Z:5:DC:C2'	7:Z:6:DT:H71	2.46	0.45
2:C:21:ILE:H	2:C:21:ILE:CD1	2.28	0.45
2:C:144:PRO:HB2	2:C:267:TYR:HE1	1.81	0.45
2:C:157:ARG:HD3	2:C:314:THR:CG2	2.46	0.45
2:C:396:ASP:HA	2:C:633:GLN:HE22	1.82	0.45
2:C:405:ARG:C	2:C:407:LYS:H	2.20	0.45
2:C:431:HIS:CG	2:C:432:ARG:H	2.34	0.45
2:C:745:ILE:HD11	2:C:803:THR:OG1	2.16	0.45
2:C:905:ILE:HD12	2:C:905:ILE:N	2.32	0.45
2:C:1053:LEU:HD13	3:D:1466:VAL:O	2.16	0.45
3:D:631:ILE:HG12	3:D:743:ASP:O	2.17	0.45
3:D:634:GLY:HA2	3:D:727:GLN:OE1	2.16	0.45
3:D:804:LEU:HD23	3:D:804:LEU:H	1.81	0.45
4:E:13:VAL:CG2	4:E:19:LEU:HD13	2.45	0.45
1:K:192:LEU:O	2:M:938:LYS:NZ	2.50	0.45
1:L:186:LEU:O	1:L:186:LEU:HD23	2.17	0.45
2:M:73:LEU:HD12	2:M:73:LEU:C	2.37	0.45
2:M:434:HIS:ND1	2:M:434:HIS:N	2.63	0.45
2:M:693:GLU:HA	2:M:696:LYS:HE3	1.98	0.45
2:M:1012:PRO:HB2	2:M:1021:LEU:O	2.17	0.45
2:M:1048:THR:OG1	3:N:755:ALA:CB	2.64	0.45
3:N:117:ASP:HB2	3:N:495:ARG:NH1	2.31	0.45
3:N:143:ASN:CG	3:N:144:GLY:N	2.69	0.45
3:N:568:ARG:HE	3:N:572:ARG:CG	2.29	0.45
3:N:608:SER:O	3:N:612:GLY:HA3	2.16	0.45
3:N:771:SER:HB3	3:N:778:LEU:CD1	2.31	0.45
3:N:789:LEU:HD13	3:N:934:LEU:HD22	1.98	0.45
3:N:847:ASP:O	3:N:848:GLU:C	2.54	0.45
3:N:1138:ALA:O	3:N:1141:GLU:N	2.50	0.45
3:N:1341:PRO:C	3:N:1343:ALA:H	2.19	0.45
3:N:1380:GLU:HG3	3:N:1381:VAL:N	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:2:DT:OP2	5:G:2:DT:C4'	2.64	0.45
6:H:11:C:O2'	6:H:12:U:H5'	2.16	0.45
1:A:221:HIS:HA	1:A:224:TYR:CD2	2.51	0.45
1:B:102:LYS:HG2	1:B:104:GLU:OE2	2.17	0.45
2:C:390:GLN:OE1	2:C:413:LEU:HD13	2.17	0.45
2:C:438:ILE:O	2:C:440:PRO:HD3	2.15	0.45
2:C:473:ARG:HA	2:C:531:PHE:CD1	2.52	0.45
2:C:635:THR:C	2:C:705:ILE:HD12	2.37	0.45
2:C:757:GLY:HA2	2:C:789:SER:OG	2.17	0.45
2:C:834:GLN:HG2	2:C:837:ASP:OD1	2.17	0.45
3:D:11:ALA:HA	3:D:1451:ALA:O	2.15	0.45
3:D:30:GLU:O	3:D:40:GLU:HB3	2.16	0.45
3:D:465:LEU:HD21	3:D:509:PRO:HB2	1.98	0.45
3:D:636:GLN:H	3:D:636:GLN:HG2	1.47	0.45
3:D:799:LYS:HD3	3:D:826:PRO:CG	2.47	0.45
3:D:918:ALA:HA	3:D:922:LEU:CD1	2.47	0.45
3:D:977:ALA:O	3:D:980:MET:O	2.34	0.45
3:D:1468:LEU:HD22	3:D:1470:ARG:CG	2.47	0.45
1:K:42:ARG:NH1	1:L:34:VAL:HB	2.29	0.45
1:K:64:GLU:CG	1:K:76:VAL:HG22	2.47	0.45
1:K:95:GLN:O	1:K:145:ASP:HA	2.17	0.45
1:K:101:LEU:HD13	1:K:114:PHE:CZ	2.51	0.45
2:M:18:LEU:H	2:M:18:LEU:CD1	2.29	0.45
2:M:191:PHE:CE2	2:M:238:LEU:HD21	2.52	0.45
2:M:355:VAL:CG1	2:M:356:ARG:N	2.80	0.45
2:M:706:GLU:HB3	2:M:708:TYR:CE1	2.52	0.45
2:M:808:ARG:NH2	2:M:820:ARG:HH21	2.00	0.45
3:N:54:LYS:HG3	3:N:55:ASP:H	1.82	0.45
3:N:474:GLU:O	3:N:478:LEU:HG	2.16	0.45
3:N:1114:THR:O	3:N:1114:THR:HG23	2.16	0.45
5:X:13:DA:OP2	5:X:13:DA:H8	2.00	0.45
1:A:42:ARG:HE	1:A:42:ARG:HB3	1.49	0.45
1:B:78:ILE:HG23	1:B:129:ILE:HG22	1.97	0.45
1:B:210:ALA:O	1:B:213:GLN:HB2	2.16	0.45
2:C:64:LEU:CD1	2:C:100:LEU:HD11	2.44	0.45
2:C:395:LYS:O	2:C:397:GLU:N	2.49	0.45
2:C:587:VAL:HG11	2:C:666:LEU:HD22	1.99	0.45
2:C:605:LYS:O	2:C:611:ILE:HA	2.17	0.45
2:C:682:TYR:O	2:C:850:ALA:CB	2.65	0.45
2:C:720:GLU:HA	2:C:759:THR:O	2.16	0.45
2:C:831:ARG:NH2	2:C:1004:LYS:HG3	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1036:GLU:HA	3:D:707:THR:CG2	2.31	0.45
2:C:1084:SER:O	2:C:1088:LEU:HB2	2.17	0.45
3:D:34:TYR:CG	3:D:35:ARG:N	2.85	0.45
3:D:107:ASP:O	3:D:110:SER:N	2.50	0.45
3:D:795:VAL:HG13	3:D:863:VAL:HG22	1.99	0.45
3:D:804:LEU:HD23	3:D:804:LEU:N	2.32	0.45
3:D:1071:PHE:O	3:D:1074:SER:HB3	2.16	0.45
4:E:13:VAL:HG12	4:E:15:SER:H	1.80	0.45
1:K:117:VAL:HB	1:K:120:VAL:CG1	2.46	0.45
1:L:124:ASN:N	1:L:125:PRO:HD3	2.30	0.45
2:M:136:ILE:HG21	2:M:336:VAL:HG13	1.98	0.45
2:M:140:ILE:C	2:M:140:ILE:HD12	2.38	0.45
2:M:832:LYS:O	2:M:833:LEU:C	2.54	0.45
3:N:28:LYS:HD2	3:N:41:ARG:CZ	2.47	0.45
3:N:142:LEU:O	3:N:161:LEU:HD11	2.17	0.45
3:N:467:GLU:H	3:N:467:GLU:HG3	1.56	0.45
3:N:481:MET:O	3:N:489:ARG:HD2	2.17	0.45
3:N:666:ILE:CG2	3:N:684:LYS:NZ	2.79	0.45
3:N:935:LYS:HE2	3:N:935:LYS:HB3	1.71	0.45
3:N:1260:ILE:HD13	3:N:1260:ILE:N	2.32	0.45
3:N:1311:LEU:HD23	3:N:1311:LEU:N	2.31	0.45
3:N:1485:GLN:N	4:O:76:GLY:O	2.50	0.45
5:X:6:DT:H2"	5:X:7:DA:H8	1.79	0.45
1:A:61:VAL:HG12	1:A:62:LEU:N	2.32	0.45
2:C:35:PRO:C	2:C:37:GLU:N	2.70	0.45
2:C:630:ARG:HD3	2:C:705:ILE:HG22	1.96	0.45
3:D:8:VAL:HB	3:D:1435:LEU:HD11	1.99	0.45
3:D:10:ILE:HD12	3:D:1434:TRP:NE1	2.31	0.45
3:D:41:ARG:O	3:D:43:GLY:N	2.49	0.45
3:D:493:ARG:HG3	3:D:494:LYS:H	1.82	0.45
3:D:796:ARG:HG3	3:D:861:GLN:O	2.16	0.45
3:D:914:LEU:HD23	3:D:914:LEU:O	2.16	0.45
3:D:1153:VAL:HG12	3:D:1160:LEU:HD12	1.99	0.45
3:D:1256:LEU:O	3:D:1259:VAL:N	2.49	0.45
3:D:1496:GLU:HA	3:D:1499:ARG:HE	1.80	0.45
4:E:36:LYS:HE2	4:E:36:LYS:HA	1.99	0.45
1:K:38:ASN:HD21	2:M:978:ARG:C	2.20	0.45
1:L:30:ARG:HG2	1:L:30:ARG:HH11	1.82	0.45
2:M:310:LEU:HG	2:M:311:PHE:HD2	1.82	0.45
2:M:994:ILE:HG22	2:M:995:MET:N	2.32	0.45
3:N:42:ASP:O	3:N:43:GLY:O	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:401:TYR:O	3:N:443:VAL:HG23	2.17	0.45
3:N:470:LEU:HD12	3:N:503:LEU:HD21	1.98	0.45
3:N:586:ARG:HD3	3:N:586:ARG:HA	1.79	0.45
3:N:792:ILE:O	3:N:792:ILE:HG12	2.17	0.45
3:N:813:LEU:HD12	3:N:813:LEU:C	2.37	0.45
3:N:827:ILE:HG23	3:N:837:GLY:HA2	1.99	0.45
3:N:1151:ARG:HA	3:N:1162:GLU:HG2	1.99	0.45
3:N:1279:GLY:O	3:N:1318:TYR:HA	2.16	0.45
5:X:2:DT:H2"	5:X:3:DC:C6	2.53	0.45
5:X:17:DA:H1'	5:X:18:DC:H5'	1.99	0.45
5:X:26:DC:O2	5:X:26:DC:H2'	2.17	0.45
6:Y:8:G:OP2	6:Y:8:G:H8	2.00	0.45
6:Y:8:G:H8	6:Y:8:G:P	2.40	0.45
1:A:174:VAL:HG22	1:A:201:THR:HG22	1.99	0.44
1:B:7:LYS:O	1:B:7:LYS:HD3	2.16	0.44
1:B:153:ALA:HA	1:B:156:HIS:NE2	2.32	0.44
1:B:173:PRO:HB2	1:B:205:VAL:HG22	1.99	0.44
2:C:20:GLU:CG	2:C:21:ILE:HD12	2.39	0.44
2:C:79:PRO:CG	2:C:82:GLU:HG3	2.46	0.44
2:C:395:LYS:HE3	2:C:407:LYS:CD	2.40	0.44
2:C:680:ASP:N	3:D:943:THR:HG22	2.32	0.44
2:C:733:ALA:HB2	3:D:679:ARG:CZ	2.47	0.44
2:C:816:LYS:HB2	2:C:819:VAL:HG21	1.99	0.44
2:C:907:ASP:O	2:C:907:ASP:CG	2.55	0.44
2:C:957:LYS:CD	2:C:961:GLU:CB	2.95	0.44
2:C:1035:MET:CB	2:C:1036:GLU:OE1	2.65	0.44
3:D:531:ASP:O	3:D:533:GLY:N	2.50	0.44
3:D:952:ASP:HA	3:D:1062:ARG:HH21	1.82	0.44
3:D:1046:GLN:HG2	3:D:1052:THR:CG2	2.44	0.44
3:D:1109:GLU:OE2	3:D:1202:GLN:HB2	2.17	0.44
3:D:1366:LYS:O	3:D:1370:ILE:HG12	2.17	0.44
1:K:48:ILE:HD13	1:K:210:ALA:HB1	1.99	0.44
1:K:54:THR:HG22	1:K:158:ILE:HG13	2.00	0.44
1:L:59:GLU:CG	1:L:137:ARG:HH22	2.30	0.44
1:L:108:GLU:HB3	1:L:128:HIS:HE1	1.82	0.44
2:M:21:ILE:H	2:M:21:ILE:CD1	2.29	0.44
2:M:129:ILE:CG2	2:M:130:ASN:N	2.68	0.44
2:M:553:ASP:OD2	2:M:883:GLY:HA3	2.17	0.44
2:M:685:GLU:OE1	3:N:739:ASP:HB3	2.18	0.44
2:M:873:PRO:O	2:M:877:PRO:CD	2.66	0.44
2:M:893:ALA:HB1	2:M:897:LEU:CD1	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1098:ASP:CG	3:N:17:LYS:HD3	2.37	0.44
3:N:14:SER:O	3:N:15:PRO:C	2.54	0.44
3:N:76:CYS:O	3:N:78:VAL:N	2.51	0.44
3:N:524:LEU:HD12	3:N:524:LEU:N	2.31	0.44
3:N:1108:ARG:O	3:N:1109:GLU:HB3	2.17	0.44
3:N:1468:LEU:HD23	3:N:1468:LEU:C	2.37	0.44
4:O:43:GLU:HG3	4:O:44:GLU:N	2.25	0.44
4:O:94:PRO:O	4:O:96:GLU:HG3	2.17	0.44
7:Z:5:DC:C2'	7:Z:6:DT:OP2	2.53	0.44
1:A:76:VAL:O	1:A:79:ILE:HG13	2.18	0.44
1:B:24:VAL:HG22	1:B:196:THR:CG2	2.46	0.44
2:C:46:ALA:C	2:C:48:PHE:N	2.70	0.44
2:C:134:ARG:HH11	2:C:387:SER:HA	1.80	0.44
2:C:170:PRO:CD	2:C:263:ASP:HB3	2.47	0.44
2:C:183:SER:HA	2:C:190:LYS:HB3	2.00	0.44
2:C:409:ARG:CB	2:C:454:SER:OG	2.43	0.44
2:C:439:CYS:SG	2:C:540:PHE:HA	2.56	0.44
2:C:874:LEU:O	2:C:877:PRO:HD2	2.16	0.44
2:C:971:LYS:HG2	2:C:988:VAL:CB	2.48	0.44
2:C:1054:THR:HG21	2:C:1079:PRO:HB3	2.00	0.44
3:D:14:SER:O	3:D:15:PRO:C	2.55	0.44
3:D:47:GLU:CD	3:D:53:ILE:HB	2.37	0.44
3:D:642:CYS:SG	3:D:716:PHE:CB	3.03	0.44
3:D:654:LYS:CB	3:D:655:PRO:HD3	2.35	0.44
3:D:658:LEU:O	3:D:661:MET:HB2	2.18	0.44
3:D:680:GLN:HA	3:D:683:ILE:CD1	2.47	0.44
3:D:739:ASP:OD1	6:H:15:C:C5'	2.65	0.44
3:D:1042:ARG:HE	3:D:1073:SER:CB	2.30	0.44
3:D:1078:ARG:HA	3:D:1078:ARG:HD3	1.81	0.44
4:E:64:ALA:C	4:E:68:LEU:HD22	2.37	0.44
1:L:179:PHE:HD2	1:L:179:PHE:H	1.64	0.44
2:M:5:ARG:CA	2:M:902:ILE:HB	2.48	0.44
2:M:44:ILE:HG21	2:M:71:TYR:CD1	2.52	0.44
2:M:212:GLY:HA3	2:M:218:VAL:HG21	1.99	0.44
2:M:252:LYS:HB3	2:M:298:PHE:CZ	2.53	0.44
2:M:352:ALA:C	2:M:355:VAL:HG12	2.37	0.44
2:M:586:ARG:NH1	2:M:590:ASP:OD2	2.49	0.44
2:M:838:LYS:HG3	2:M:997:LEU:HB2	1.99	0.44
2:M:1040:LEU:HD12	2:M:1040:LEU:HA	1.84	0.44
2:M:1049:LEU:O	2:M:1053:LEU:HG	2.17	0.44
3:N:84:ILE:O	3:N:87:ARG:N	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:134:VAL:HG22	3:N:460:ALA:HB1	1.99	0.44
3:N:587:ARG:O	3:N:588:GLY:O	2.34	0.44
3:N:885:ILE:O	3:N:888:GLU:HB2	2.16	0.44
3:N:899:LEU:HD22	3:N:917:GLN:CB	2.47	0.44
3:N:900:ILE:CD1	3:N:902:LEU:HD22	2.47	0.44
3:N:1293:PHE:HB3	3:N:1295:GLU:CG	2.44	0.44
2:C:101:ILE:HG23	2:C:107:LEU:CD2	2.48	0.44
2:C:326:ASP:CB	2:C:431:HIS:ND1	2.73	0.44
2:C:334:ARG:HB2	2:C:339:LEU:CD2	2.47	0.44
2:C:355:VAL:CG1	2:C:356:ARG:N	2.80	0.44
2:C:541:SER:OG	2:C:543:ASN:HB3	2.16	0.44
2:C:1081:VAL:HB	2:C:1086:ARG:NH2	2.33	0.44
3:D:84:ILE:HA	3:D:87:ARG:HG2	1.99	0.44
3:D:128:TYR:HB3	3:D:129:PHE:HD1	1.83	0.44
3:D:660:LYS:O	3:D:663:GLU:HB2	2.18	0.44
3:D:696:HIS:HD2	4:E:59:ASN:CB	2.26	0.44
3:D:895:VAL:HA	3:D:898:GLU:CD	2.38	0.44
3:D:930:LEU:O	3:D:933:ALA:HB3	2.18	0.44
3:D:941:PHE:O	3:D:945:SER:HB3	2.17	0.44
3:D:1146:GLY:HA3	3:D:1207:TYR:CB	2.45	0.44
3:D:1395:LEU:O	3:D:1398:TRP:HB2	2.18	0.44
3:D:1461:GLY:O	3:D:1465:ASN:HB2	2.16	0.44
4:E:27:ALA:HB1	4:E:60:ALA:CB	2.46	0.44
1:L:58:ILE:HD13	1:L:58:ILE:HA	1.91	0.44
2:M:302:VAL:C	2:M:305:PRO:HD2	2.38	0.44
2:M:661:SER:HA	2:M:665:PHE:O	2.18	0.44
2:M:676:ILE:O	3:N:948:THR:HB	2.18	0.44
2:M:685:GLU:O	2:M:686:ASP:OD2	2.35	0.44
2:M:1084:SER:O	2:M:1088:LEU:HB2	2.17	0.44
2:M:1095:LEU:HD21	3:N:603:LEU:HD12	1.98	0.44
3:N:400:VAL:CG2	3:N:443:VAL:HG21	2.47	0.44
3:N:833:GLU:OE1	3:N:833:GLU:HA	2.17	0.44
3:N:1164:ARG:HG2	3:N:1165:TYR:N	2.33	0.44
3:N:1484:THR:CG2	4:O:76:GLY:O	2.65	0.44
5:G:14:DG:C2'	5:G:15:DC:OP2	2.65	0.44
6:H:6:C:OP2	6:H:6:C:H5	2.00	0.44
7:I:5:DC:C6	7:I:5:DC:O5'	2.69	0.44
7:I:10:DG:C2	7:I:11:DG:C4	3.06	0.44
7:I:11:DG:C4	7:I:12:DT:C4	3.05	0.44
5:X:2:DT:C2'	5:X:3:DC:C5	3.00	0.44
5:X:8:DC:H2"	5:X:9:DC:C5	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:X:13:DA:O5'	5:X:13:DA:C8	2.70	0.44
1:A:175:ARG:HE	1:A:176:ARG:HB3	1.83	0.44
2:C:45:GLN:HA	2:C:48:PHE:HD2	1.82	0.44
2:C:468:ARG:HB2	2:C:485:TYR:HD2	1.82	0.44
2:C:831:ARG:NH1	2:C:1004:LYS:CG	2.76	0.44
2:C:876:VAL:H	2:C:877:PRO:HD2	1.81	0.44
2:C:959:PRO:HA	2:C:962:GLN:HG3	1.98	0.44
3:D:30:GLU:CB	3:D:40:GLU:HG2	2.46	0.44
3:D:503:LEU:O	3:D:504:ASP:C	2.54	0.44
3:D:1124:GLN:HA	3:D:1125:PRO:HD3	1.78	0.44
3:D:1132:LEU:HD12	3:D:1132:LEU:N	2.32	0.44
3:D:1255:GLY:HA3	3:D:1257:PRO:HD2	1.98	0.44
1:K:123:MET:O	1:K:125:PRO:HD3	2.16	0.44
2:M:275:TYR:OH	2:M:489:THR:HG21	2.17	0.44
2:M:333:ILE:HD13	2:M:465:GLY:O	2.18	0.44
2:M:351:LEU:HD13	2:M:374:ASN:O	2.18	0.44
3:N:104:PHE:HD2	3:N:1448:THR:CG2	2.28	0.44
3:N:183:GLU:CG	3:N:184:GLU:N	2.76	0.44
3:N:551:ASN:O	3:N:555:LYS:HG3	2.18	0.44
3:N:567:ILE:HG22	3:N:571:LYS:HE3	2.00	0.44
3:N:703:ASN:HB2	3:N:713:ILE:HG12	1.99	0.44
3:N:868:TYR:HB2	3:N:873:LEU:HD12	1.97	0.44
3:N:1192:LEU:HD13	3:N:1345:GLU:CG	2.48	0.44
3:N:1281:VAL:HG11	3:N:1313:VAL:CG1	2.36	0.44
3:N:1367:HIS:C	3:N:1370:ILE:HG12	2.38	0.44
1:A:20:TYR:HE2	1:A:198:ARG:HB2	1.82	0.44
1:A:133:GLU:HG2	1:A:134:GLU:N	2.32	0.44
1:B:62:LEU:HD12	1:B:63:HIS:H	1.82	0.44
1:B:179:PHE:HB3	1:B:197:LEU:HD12	1.99	0.44
2:C:48:PHE:O	2:C:52:PHE:CA	2.64	0.44
2:C:101:ILE:HG22	2:C:102:HIS:N	2.32	0.44
2:C:405:ARG:NH2	2:C:409:ARG:CZ	2.80	0.44
2:C:897:LEU:CD2	2:C:920:GLN:HE22	2.30	0.44
2:C:1074:GLU:CG	2:C:1075:ASP:H	2.31	0.44
3:D:28:LYS:HB3	3:D:41:ARG:NH1	2.32	0.44
3:D:473:LEU:HA	3:D:476:GLU:HB2	2.00	0.44
3:D:631:ILE:O	3:D:632:VAL:HG23	2.17	0.44
3:D:698:LYS:HE3	3:D:698:LYS:HB3	1.66	0.44
3:D:853:VAL:HG11	3:D:860:LEU:HD21	1.98	0.44
3:D:1434:TRP:HZ3	3:D:1455:LYS:HB3	1.73	0.44
4:E:54:LEU:O	4:E:63:TRP:HZ2	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:50:GLY:HA3	1:L:171:PHE:O	2.17	0.44
1:L:90:LEU:HG	1:L:91:ASN:HD22	1.82	0.44
1:L:101:LEU:HG	1:L:102:LYS:N	2.33	0.44
1:L:170:VAL:HG11	3:N:848:GLU:OE2	2.18	0.44
2:M:5:ARG:HA	2:M:902:ILE:HB	2.00	0.44
2:M:18:LEU:HD12	2:M:18:LEU:N	2.31	0.44
2:M:79:PRO:HG2	2:M:82:GLU:CB	2.38	0.44
2:M:141:HIS:O	2:M:331:ARG:CB	2.66	0.44
2:M:393:GLN:NE2	6:Y:10:G:H4'	2.31	0.44
2:M:663:ASN:C	2:M:665:PHE:H	2.21	0.44
2:M:768:THR:HB	2:M:771:GLU:CB	2.32	0.44
2:M:946:ARG:NH1	2:M:984:GLU:HB2	2.33	0.44
3:N:111:LYS:HE3	3:N:1449:GLU:N	2.32	0.44
3:N:115:LEU:HB2	3:N:498:VAL:HG11	2.00	0.44
3:N:160:GLU:O	3:N:161:LEU:C	2.56	0.44
3:N:531:ASP:C	3:N:533:GLY:H	2.20	0.44
3:N:792:ILE:HG12	3:N:878:GLY:HA2	1.98	0.44
3:N:1209:LEU:CD2	4:O:16:LYS:HE3	2.47	0.44
3:N:1236:LEU:CD1	3:N:1256:LEU:HB2	2.38	0.44
7:I:11:DG:H2"	7:I:12:DT:H6	1.82	0.44
5:X:22:DA:H2	6:Y:12:U:O2	2.00	0.44
7:Z:1:DG:C3'	7:Z:1:DG:OP1	2.65	0.44
1:A:9:PRO:HD2	1:B:224:TYR:CE1	2.53	0.44
2:C:943:VAL:CG2	2:C:986:PRO:HD3	2.48	0.44
2:C:1008:ARG:NH2	2:C:1012:PRO:O	2.51	0.44
2:C:1032:PHE:O	2:C:1036:GLU:CB	2.61	0.44
2:C:1046:ALA:HB1	3:D:1472:ILE:CG1	2.48	0.44
3:D:26:VAL:HG11	3:D:44:LEU:CD2	2.36	0.44
3:D:85:VAL:HG23	3:D:86:ARG:N	2.32	0.44
3:D:565:ILE:H	3:D:565:ILE:CD1	1.97	0.44
3:D:631:ILE:HD13	3:D:743:ASP:HB2	1.93	0.44
3:D:851:LEU:N	3:D:851:LEU:HD23	2.31	0.44
3:D:1481:VAL:O	3:D:1483:PHE:N	2.50	0.44
1:L:62:LEU:HD12	1:L:62:LEU:H	1.83	0.44
2:M:31:GLN:HE21	2:M:38:LYS:HB2	1.82	0.44
2:M:114:PHE:CG	2:M:114:PHE:O	2.70	0.44
2:M:186:VAL:HG23	2:M:187:ASN:N	2.22	0.44
2:M:468:ARG:HB2	2:M:485:TYR:HB3	1.99	0.44
2:M:676:ILE:HG22	2:M:988:VAL:HG22	2.00	0.44
2:M:752:GLY:N	2:M:792:VAL:HB	2.31	0.44
2:M:762:LYS:HD2	2:M:786:LYS:CG	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:875:GLY:HA2	3:N:1029:ARG:HH22	1.75	0.44
3:N:101:HIS:O	3:N:105:VAL:HG23	2.18	0.44
3:N:1102:THR:O	3:N:1222:GLY:HA3	2.18	0.44
4:O:51:LEU:HG	4:O:53:GLY:H	1.83	0.44
5:G:9:DC:H2"	5:G:10:DA:C8	2.53	0.44
7:Z:3:DA:H2'	7:Z:3:DA:O5'	2.18	0.44
1:A:74:ASP:O	1:A:75:VAL:C	2.53	0.44
2:C:64:LEU:HD13	2:C:359:MET:HG3	1.98	0.44
2:C:110:GLU:HG3	2:C:369:PRO:CG	2.45	0.44
2:C:144:PRO:O	2:C:267:TYR:HE1	2.01	0.44
2:C:497:ALA:HA	2:C:515:ALA:HA	1.99	0.44
2:C:860:HIS:CE1	2:C:975:TYR:HB2	2.53	0.44
2:C:971:LYS:HG2	2:C:988:VAL:HG12	1.99	0.44
2:C:1035:MET:HB2	2:C:1036:GLU:OE1	2.17	0.44
3:D:506:GLY:O	3:D:508:ARG:N	2.50	0.44
3:D:531:ASP:C	3:D:533:GLY:H	2.21	0.44
3:D:776:GLU:OE1	3:D:912:LYS:HE2	2.18	0.44
3:D:785:ILE:HG23	3:D:938:GLY:CA	2.47	0.44
3:D:895:VAL:O	3:D:895:VAL:HG12	2.16	0.44
3:D:896:ALA:O	3:D:900:ILE:HG23	2.17	0.44
3:D:918:ALA:HA	3:D:922:LEU:HD12	2.00	0.44
3:D:1351:GLU:HA	3:D:1351:GLU:OE1	2.18	0.44
3:D:1399:ASP:O	3:D:1403:LEU:HB2	2.18	0.44
4:E:3:GLU:HA	4:E:3:GLU:OE1	2.18	0.44
1:K:62:LEU:HD12	1:K:62:LEU:N	2.33	0.44
1:K:217:ILE:HG22	1:K:221:HIS:HE2	1.83	0.44
1:L:104:GLU:HA	1:L:136:GLY:O	2.18	0.44
2:M:342:ASP:O	2:M:345:ARG:HG2	2.17	0.44
2:M:395:LYS:O	2:M:633:GLN:OE1	2.35	0.44
2:M:643:VAL:CG1	2:M:644:VAL:N	2.80	0.44
2:M:983:ILE:HG22	3:N:946:GLY:CA	2.48	0.44
3:N:66:GLN:O	3:N:68:PHE:N	2.51	0.44
3:N:185:VAL:HG13	3:N:189:GLN:OE1	2.18	0.44
3:N:204:LEU:O	3:N:393:ILE:HG23	2.18	0.44
3:N:868:TYR:HB2	3:N:873:LEU:CD1	2.47	0.44
3:N:925:GLU:N	4:O:7:ASP:OD2	2.51	0.44
3:N:1109:GLU:OE2	3:N:1202:GLN:HB2	2.18	0.44
3:N:1128:VAL:O	3:N:1129:THR:C	2.56	0.44
3:N:1239:ARG:CB	3:N:1239:ARG:CZ	2.96	0.44
3:N:1341:PRO:O	3:N:1343:ALA:N	2.51	0.44
4:O:37:ASN:HA	4:O:93:TYR:CD2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:3:DC:C6	5:G:3:DC:OP2	2.71	0.44
7:I:1:DG:H3'	7:I:1:DG:OP1	2.17	0.44
1:A:20:TYR:CE2	1:A:198:ARG:HB2	2.52	0.44
1:A:176:ARG:HH11	2:C:865:THR:CB	2.25	0.44
1:B:101:LEU:HD13	1:B:114:PHE:CD1	2.52	0.44
2:C:15:LEU:HA	2:C:458:TYR:CE2	2.53	0.44
2:C:71:TYR:HA	2:C:96:ALA:CB	2.47	0.44
2:C:612:VAL:HG13	2:C:621:VAL:O	2.18	0.44
2:C:918:LEU:HD23	2:C:968:LEU:CA	2.39	0.44
3:D:123:LEU:O	3:D:124:GLU:C	2.54	0.44
3:D:502:PHE:CE2	3:D:1452:ILE:HG13	2.53	0.44
3:D:554:LEU:HG	3:D:558:LEU:CG	2.47	0.44
3:D:644:LEU:HD12	3:D:645:PRO:CD	2.48	0.44
3:D:1412:LYS:HB2	2:M:376:ARG:CZ	2.48	0.44
1:K:64:GLU:O	1:K:76:VAL:HG23	2.18	0.44
1:K:222:LEU:HD23	1:L:219:ARG:CA	2.48	0.44
2:M:16:PRO:O	2:M:18:LEU:N	2.50	0.44
2:M:721:ARG:HH11	2:M:721:ARG:HG3	1.82	0.44
2:M:817:PRO:C	2:M:819:VAL:H	2.21	0.44
3:N:9:ARG:NH1	3:N:11:ALA:HB2	2.32	0.44
3:N:55:ASP:HA	3:N:82:LYS:HE2	2.00	0.44
3:N:87:ARG:HA	3:N:521:PRO:HB3	1.98	0.44
3:N:127:LEU:HD12	3:N:128:TYR:N	2.33	0.44
3:N:400:VAL:HG13	3:N:400:VAL:O	2.17	0.44
3:N:639:LEU:N	3:N:729:HIS:NE2	2.66	0.44
3:N:794:GLN:HG2	3:N:1017:PHE:CE2	2.53	0.44
3:N:1128:VAL:O	3:N:1129:THR:HG22	2.18	0.44
5:G:19:DG:H2"	5:G:20:DC:C5'	2.48	0.44
1:A:110:LYS:C	1:A:112:ARG:N	2.71	0.44
1:B:76:VAL:HA	1:B:79:ILE:CD1	2.48	0.44
2:C:16:PRO:O	2:C:18:LEU:N	2.51	0.44
2:C:22:GLN:NE2	2:C:136:ILE:O	2.51	0.44
2:C:195:LEU:HD21	2:C:238:LEU:HG	2.00	0.44
2:C:242:LEU:HD23	2:C:242:LEU:HA	1.89	0.44
2:C:328:LEU:C	2:C:330:ASN:N	2.70	0.44
2:C:402:SER:HB2	2:C:566:THR:O	2.17	0.44
2:C:752:GLY:H	2:C:792:VAL:HB	1.83	0.44
2:C:876:VAL:O	2:C:879:ARG:O	2.35	0.44
3:D:14:SER:O	3:D:17:LYS:N	2.50	0.44
3:D:15:PRO:O	3:D:18:ILE:HB	2.18	0.44
3:D:714:GLN:HE21	3:D:765:SER:HB2	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1197:ARG:CZ	3:D:1198:TYR:CD1	3.01	0.44
3:D:1264:GLU:CD	3:D:1425:THR:HB	2.38	0.44
1:K:71:VAL:O	2:M:608:GLY:N	2.51	0.44
1:K:78:ILE:O	1:K:81:ASN:N	2.51	0.44
1:L:42:ARG:HG2	1:L:42:ARG:HH11	1.83	0.44
1:L:83:LYS:HE2	1:L:168:ASP:OD2	2.18	0.44
2:M:15:LEU:HA	2:M:458:TYR:CE2	2.53	0.44
2:M:431:HIS:CB	2:M:434:HIS:CE1	2.81	0.44
2:M:478:VAL:HA	2:M:506:ASN:O	2.18	0.44
2:M:493:ARG:HB2	2:M:494:TYR:CD1	2.53	0.44
2:M:707:ARG:HD2	2:M:826:TYR:OH	2.18	0.44
2:M:922:PHE:CB	2:M:964:LYS:NZ	2.79	0.44
3:N:396:VAL:HB	3:N:447:VAL:HG12	1.99	0.44
3:N:506:GLY:O	3:N:507:ASN:C	2.57	0.44
3:N:1195:GLN:O	3:N:1196:THR:C	2.57	0.44
3:N:1313:VAL:HG21	3:N:1319:VAL:CG1	2.48	0.44
6:H:6:C:N4	6:H:7:G:O6	2.51	0.44
1:B:29:GLU:HB3	1:B:30:ARG:H	1.72	0.43
1:B:100:LEU:HB2	1:B:115:LEU:HD21	2.00	0.43
2:C:130:ASN:OD1	2:C:383:ARG:NH2	2.51	0.43
2:C:260:LEU:HD21	2:C:293:PHE:CE2	2.52	0.43
2:C:410:ILE:N	2:C:453:THR:O	2.42	0.43
2:C:435:TYR:C	2:C:437:ARG:H	2.22	0.43
2:C:468:ARG:HA	2:C:486:MET:O	2.17	0.43
2:C:473:ARG:HA	2:C:531:PHE:CE1	2.53	0.43
2:C:643:VAL:HG13	2:C:647:GLN:CD	2.39	0.43
3:D:8:VAL:HG23	3:D:1459:LEU:CD1	2.48	0.43
3:D:608:SER:HB3	3:D:1443:THR:HG23	1.99	0.43
3:D:850:LEU:HD12	3:D:850:LEU:N	2.31	0.43
3:D:1087:ARG:HE	3:D:1236:LEU:CD1	2.29	0.43
3:D:1119:SER:O	3:D:1121:PRO:HD3	2.17	0.43
3:D:1242:HIS:O	3:D:1251:ASP:N	2.42	0.43
3:D:1364:HIS:CE1	3:D:1366:LYS:HG3	2.53	0.43
1:K:218:LEU:O	1:K:222:LEU:HD13	2.18	0.43
1:L:28:LEU:HD11	1:L:195:LEU:H	1.83	0.43
2:M:157:ARG:HG3	2:M:158:TYR:H	1.83	0.43
2:M:191:PHE:CD2	2:M:241:LEU:HD13	2.53	0.43
2:M:286:SER:HB3	2:M:299:LYS:CE	2.47	0.43
2:M:456:ALA:HB3	2:M:459:ALA:HB2	1.99	0.43
3:N:52:PRO:HG2	3:N:82:LYS:O	2.18	0.43
3:N:795:VAL:HG23	3:N:879:ARG:NH1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1273:VAL:HG23	3:N:1274:ILE:N	2.33	0.43
3:N:1281:VAL:HG23	3:N:1319:VAL:CG2	2.47	0.43
3:N:1354:LYS:HA	3:N:1357:ARG:HD2	1.99	0.43
3:N:1483:PHE:O	4:O:77:GLU:HA	2.18	0.43
6:Y:4:G:H2'	6:Y:5:C:C6	2.49	0.43
1:A:9:PRO:HB3	1:A:25:LEU:CG	2.48	0.43
1:A:18:ARG:HB2	1:A:203:GLY:HA2	2.00	0.43
1:A:90:LEU:HD13	1:A:119:ASP:O	2.19	0.43
2:C:553:ASP:OD2	2:C:553:ASP:N	2.51	0.43
2:C:706:GLU:HG2	2:C:708:TYR:CZ	2.53	0.43
2:C:721:ARG:HG3	2:C:721:ARG:HH11	1.83	0.43
2:C:953:VAL:O	2:C:955:PRO:HD3	2.18	0.43
2:C:1040:LEU:HD12	2:C:1040:LEU:HA	1.71	0.43
2:C:1040:LEU:CG	2:C:1045:ALA:HB3	2.44	0.43
3:D:30:GLU:HA	3:D:30:GLU:OE1	2.18	0.43
3:D:100:ALA:CB	3:D:128:TYR:OH	2.65	0.43
3:D:521:PRO:CD	3:D:524:LEU:HD22	2.46	0.43
3:D:620:GLY:O	3:D:621:LYS:HD3	2.18	0.43
3:D:758:GLU:CB	3:D:762:GLN:NE2	2.81	0.43
3:D:796:ARG:HH21	3:D:862:ASP:CG	2.20	0.43
3:D:832:ARG:HD2	3:D:832:ARG:C	2.36	0.43
3:D:847:ASP:O	3:D:851:LEU:CG	2.63	0.43
3:D:1041:LEU:CD1	3:D:1045:MET:HB2	2.47	0.43
3:D:1209:LEU:HD11	4:E:16:LYS:HD2	2.00	0.43
3:D:1225:ALA:CA	3:D:1367:HIS:ND1	2.77	0.43
3:D:1268:PRO:HB2	3:D:1329:ALA:HB3	1.99	0.43
4:E:40:LEU:HD21	4:E:67:GLU:CA	2.36	0.43
2:M:289:THR:O	2:M:290:LEU:C	2.57	0.43
2:M:392:SER:O	2:M:393:GLN:HG3	2.19	0.43
2:M:762:LYS:HD2	2:M:786:LYS:HG3	1.99	0.43
2:M:785:VAL:HG13	2:M:786:LYS:N	2.33	0.43
3:N:470:LEU:HD23	3:N:470:LEU:H	1.82	0.43
3:N:736:PHE:H	3:N:736:PHE:HD1	1.62	0.43
3:N:761:ILE:HD12	4:O:20:THR:HA	2.01	0.43
3:N:1311:LEU:HD23	3:N:1311:LEU:H	1.82	0.43
1:A:109:VAL:HG23	1:A:132:LEU:HD13	2.00	0.43
1:A:217:ILE:HG22	1:A:221:HIS:NE2	2.33	0.43
1:B:43:ILE:HG23	1:B:47:SER:CB	2.47	0.43
1:B:152:PRO:HB2	1:B:155:LYS:HB2	2.00	0.43
2:C:90:TYR:CD1	2:C:120:LEU:HB2	2.54	0.43
2:C:203:ASP:HB2	2:C:205:GLU:OE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:334:ARG:HG2	2:C:338:GLU:OE1	2.19	0.43
2:C:479:VAL:CG2	2:C:506:ASN:HA	2.44	0.43
2:C:708:TYR:HE2	2:C:793:PRO:HG2	1.83	0.43
3:D:85:VAL:O	3:D:88:TYR:HB2	2.18	0.43
3:D:128:TYR:CZ	3:D:458:ALA:HB2	2.54	0.43
3:D:731:LEU:HA	3:D:731:LEU:HD23	1.70	0.43
3:D:787:LEU:HD21	3:D:947:ILE:HD11	2.00	0.43
3:D:1100:ASP:CA	3:D:1463:LYS:HZ1	2.30	0.43
3:D:1137:ARG:O	3:D:1141:GLU:HG3	2.18	0.43
3:D:1189:ARG:HD2	3:D:1190:SER:H	1.84	0.43
1:K:45:LEU:N	1:K:45:LEU:HD12	2.33	0.43
1:K:186:LEU:O	1:K:188:GLN:N	2.50	0.43
1:L:80:LEU:C	3:N:844:ALA:HB2	2.38	0.43
1:L:159:LYS:HE3	1:L:159:LYS:H	1.83	0.43
1:L:175:ARG:HB3	3:N:847:ASP:OD2	2.19	0.43
2:M:76:PRO:HG3	2:M:120:LEU:HD11	2.01	0.43
2:M:101:ILE:CD1	2:M:107:LEU:HD22	2.48	0.43
2:M:157:ARG:HG3	2:M:158:TYR:N	2.33	0.43
2:M:304:LEU:O	2:M:308:ARG:HB2	2.19	0.43
2:M:486:MET:HG3	2:M:487:THR:N	2.32	0.43
2:M:677:MET:HE1	2:M:678:PRO:O	2.18	0.43
2:M:987:ILE:HG12	3:N:948:THR:HG23	2.00	0.43
3:N:136:ASP:HB3	3:N:453:ASP:HB2	2.00	0.43
3:N:145:VAL:HG22	3:N:146:PRO:HD2	2.00	0.43
3:N:812:ALA:O	3:N:816:HIS:HB2	2.18	0.43
3:N:960:LYS:O	3:N:964:LEU:HB2	2.19	0.43
3:N:966:GLU:O	3:N:969:ARG:HG2	2.18	0.43
4:O:9:LEU:HD23	4:O:12:MET:SD	2.57	0.43
4:O:54:LEU:HD22	4:O:63:TRP:HE1	1.78	0.43
7:Z:4:DG:C2	7:Z:5:DC:C2	3.07	0.43
1:A:28:LEU:CD2	1:A:32:PHE:CD1	2.59	0.43
1:A:117:VAL:HB	1:A:120:VAL:HG11	1.99	0.43
1:B:11:PHE:HB2	1:B:25:LEU:HD12	2.01	0.43
2:C:35:PRO:C	2:C:37:GLU:H	2.22	0.43
2:C:275:TYR:OH	2:C:329:GLY:O	2.36	0.43
2:C:300:ASP:C	2:C:302:VAL:N	2.71	0.43
2:C:338:GLU:C	2:C:341:THR:HG22	2.38	0.43
2:C:686:ASP:HB3	2:C:846:LYS:O	2.18	0.43
2:C:836:GLY:HA2	3:D:725:SER:CB	2.45	0.43
2:C:1016:ILE:CG2	3:D:524:LEU:O	2.66	0.43
2:C:1072:LYS:HB3	2:C:1072:LYS:HE2	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:10:ILE:CD1	3:D:1434:TRP:HE1	2.31	0.43
3:D:23:TYR:CZ	3:D:89:ARG:HG2	2.53	0.43
3:D:543:LEU:HD11	3:D:600:LEU:HB2	2.00	0.43
3:D:637:LEU:HD11	3:D:642:CYS:C	2.38	0.43
3:D:698:LYS:NZ	3:D:756:GLN:HG2	2.33	0.43
3:D:732:VAL:CG2	3:D:736:PHE:HE1	2.30	0.43
3:D:812:ALA:O	3:D:816:HIS:HB2	2.19	0.43
3:D:1189:ARG:CZ	3:D:1204:CYS:SG	3.05	0.43
3:D:1258:ARG:NH1	3:D:1329:ALA:CB	2.71	0.43
1:L:18:ARG:O	1:L:207:PRO:HD3	2.18	0.43
1:L:36:LEU:C	1:L:39:PRO:HD2	2.38	0.43
1:L:56:VAL:CG1	1:L:57:TYR:N	2.81	0.43
1:L:65:PHE:CE1	3:N:813:LEU:HD13	2.53	0.43
2:M:44:ILE:HG21	2:M:71:TYR:CE1	2.53	0.43
2:M:129:ILE:CD1	2:M:129:ILE:H	2.30	0.43
2:M:265:ARG:CD	2:M:267:TYR:HB3	2.49	0.43
2:M:430:VAL:HG13	3:N:1075:HIS:ND1	2.33	0.43
2:M:498:GLN:HG3	2:M:516:ARG:HH21	1.81	0.43
2:M:604:ALA:O	2:M:645:VAL:HG12	2.18	0.43
2:M:884:GLN:O	2:M:992:MET:CE	2.65	0.43
2:M:1008:ARG:O	3:N:624:ASP:O	2.36	0.43
2:M:1045:ALA:HA	3:N:758:GLU:CD	2.38	0.43
3:N:104:PHE:HA	3:N:1448:THR:HG23	2.01	0.43
3:N:502:PHE:CD1	3:N:509:PRO:HB3	2.53	0.43
3:N:563:PRO:HG2	3:N:566:ILE:HD12	2.01	0.43
3:N:771:SER:CB	3:N:778:LEU:HD13	2.31	0.43
3:N:1205:TYR:CE2	3:N:1215:VAL:HG21	2.53	0.43
3:N:1491:THR:O	3:N:1494:ALA:HB3	2.18	0.43
4:O:36:LYS:HG2	4:O:95:VAL:HG21	1.99	0.43
5:X:19:DG:C2'	5:X:20:DC:C5'	2.96	0.43
7:Z:4:DG:C5	7:Z:5:DC:C4	3.06	0.43
1:A:139:ASN:HD22	1:A:140:MET:N	2.17	0.43
2:C:146:VAL:HG13	2:C:161:SER:O	2.18	0.43
2:C:460:ARG:HG3	2:C:460:ARG:NH1	2.33	0.43
2:C:817:PRO:C	2:C:819:VAL:H	2.22	0.43
2:C:861:LEU:CG	2:C:862:PRO:HD2	2.34	0.43
2:C:1090:LYS:HE2	2:C:1112:PHE:HE1	1.81	0.43
2:C:1106:ASP:CG	3:D:1456:LYS:HD3	2.38	0.43
3:D:8:VAL:O	3:D:1434:TRP:HH2	2.02	0.43
3:D:148:GLU:HB3	3:D:151:GLN:HB2	1.99	0.43
3:D:731:LEU:HD21	3:D:785:ILE:HD13	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:924:MET:SD	4:E:6:ILE:HG12	2.59	0.43
1:K:26:GLU:CB	1:K:27:PRO:HA	2.49	0.43
1:K:170:VAL:HG23	1:K:170:VAL:O	2.18	0.43
1:L:100:LEU:HD22	1:L:141:GLU:HB3	2.00	0.43
2:M:31:GLN:OE1	2:M:31:GLN:O	2.37	0.43
2:M:252:LYS:NZ	2:M:296:GLY:HA3	2.34	0.43
2:M:300:ASP:C	2:M:302:VAL:N	2.70	0.43
2:M:375:SER:O	2:M:379:GLU:OE1	2.37	0.43
2:M:431:HIS:HB3	2:M:434:HIS:CD2	2.52	0.43
2:M:581:THR:OG1	2:M:583:LEU:HD13	2.19	0.43
2:M:878:SER:OG	3:N:1029:ARG:CZ	2.67	0.43
2:M:1102:LEU:HB2	3:N:7:LYS:O	2.19	0.43
3:N:620:GLY:O	3:N:621:LYS:HD3	2.18	0.43
3:N:885:ILE:H	3:N:885:ILE:HG13	1.70	0.43
3:N:973:GLN:O	3:N:977:ALA:HB2	2.18	0.43
3:N:1009:LYS:O	3:N:1012:GLU:HB3	2.19	0.43
6:H:7:G:C2'	6:H:8:G:C5'	2.96	0.43
7:Z:1:DG:C4	7:Z:2:DT:C7	3.02	0.43
1:A:78:ILE:O	1:A:82:LEU:HG	2.17	0.43
1:A:206:THR:HG22	1:A:209:GLU:H	1.82	0.43
1:A:213:GLN:O	1:A:217:ILE:HG13	2.18	0.43
1:B:64:GLU:HG2	1:B:64:GLU:O	2.19	0.43
2:C:92:ALA:CB	2:C:120:LEU:HD21	2.49	0.43
2:C:143:SER:HB2	2:C:276:LYS:CE	2.44	0.43
2:C:289:THR:O	2:C:290:LEU:C	2.56	0.43
2:C:344:PHE:CZ	2:C:348:LEU:HD11	2.53	0.43
2:C:349:ALA:O	2:C:353:ARG:HB2	2.19	0.43
2:C:462:ASP:HB3	2:C:468:ARG:CZ	2.48	0.43
2:C:943:VAL:HG22	2:C:986:PRO:HD3	2.00	0.43
2:C:1038:TRP:CH2	3:D:1096:ARG:HA	2.53	0.43
2:C:1046:ALA:HA	3:D:1472:ILE:HG13	2.01	0.43
2:C:1096:ALA:HB2	3:D:101:HIS:CD2	2.53	0.43
3:D:530:VAL:O	6:H:4:G:C5'	2.59	0.43
3:D:686:GLU:HA	3:D:689:ASP:OD2	2.18	0.43
3:D:925:GLU:O	3:D:928:ALA:HB3	2.18	0.43
3:D:1223:ILE:O	3:D:1226:ALA:N	2.52	0.43
3:D:1468:LEU:CD2	3:D:1470:ARG:HG3	2.48	0.43
4:E:85:LEU:HD23	4:E:85:LEU:O	2.19	0.43
1:K:180:GLN:HA	2:M:937:ASP:OD1	2.19	0.43
1:K:195:LEU:HD12	1:K:196:THR:N	2.34	0.43
1:K:198:ARG:HD3	1:K:200:TRP:CH2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:56:GLU:OE2	2:M:59:LYS:HD2	2.18	0.43
2:M:537:LYS:HG3	2:M:905:ILE:HG12	2.01	0.43
2:M:677:MET:HB3	2:M:987:ILE:CG2	2.47	0.43
3:N:17:LYS:HG2	3:N:21:TRP:CE2	2.53	0.43
3:N:118:LEU:O	3:N:120:ALA:N	2.51	0.43
3:N:163:TYR:HE1	3:N:165:LYS:HA	1.81	0.43
3:N:1256:LEU:N	3:N:1257:PRO:CD	2.82	0.43
3:N:1394:VAL:HG12	3:N:1397:LYS:H	1.83	0.43
1:A:86:VAL:HG13	1:A:86:VAL:O	2.19	0.43
1:B:42:ARG:HG2	1:B:42:ARG:HH11	1.84	0.43
1:B:73:GLU:HB3	1:B:77:GLU:HG3	2.00	0.43
1:B:124:ASN:ND2	1:B:127:LEU:HB2	2.34	0.43
1:B:173:PRO:HB3	1:B:204:SER:HB3	2.00	0.43
1:B:198:ARG:NH2	3:D:888:GLU:OE2	2.52	0.43
2:C:404:LEU:HD13	2:C:591:SER:HB2	2.00	0.43
2:C:725:ASP:HB3	2:C:783:ARG:NH2	2.34	0.43
2:C:878:SER:HB3	3:D:1029:ARG:HD2	2.00	0.43
2:C:1040:LEU:HB3	2:C:1049:LEU:HD13	2.00	0.43
3:D:8:VAL:O	3:D:1457:ASP:N	2.35	0.43
3:D:522:PRO:N	3:D:525:ARG:NH1	2.67	0.43
3:D:671:LYS:HE2	3:D:671:LYS:HB3	1.59	0.43
3:D:749:VAL:HA	3:D:750:PRO:HD3	1.87	0.43
3:D:1000:THR:O	3:D:1003:VAL:HG12	2.19	0.43
3:D:1336:LEU:HB2	3:D:1344:VAL:HG21	2.01	0.43
4:E:54:LEU:CD2	4:E:63:TRP:HE1	2.24	0.43
1:L:149:GLY:O	1:L:171:PHE:HB2	2.19	0.43
1:L:150:TYR:HH	3:N:843:PHE:HE2	1.65	0.43
2:M:115:LEU:HD22	2:M:373:VAL:CG1	2.49	0.43
2:M:663:ASN:C	2:M:665:PHE:N	2.72	0.43
2:M:710:ILE:HB	2:M:790:LEU:HD22	2.01	0.43
2:M:843:HIS:ND1	2:M:884:GLN:HB3	2.32	0.43
2:M:906:PHE:CE2	3:N:1067:VAL:HA	2.54	0.43
3:N:15:PRO:CA	3:N:18:ILE:HG12	2.47	0.43
3:N:754:PHE:CG	4:O:24:ALA:HB1	2.54	0.43
3:N:1166:LEU:H	3:N:1166:LEU:CD2	2.18	0.43
6:Y:6:C:N4	6:Y:7:G:O6	2.51	0.43
1:A:13:VAL:CG1	1:A:14:ARG:H	2.30	0.43
1:A:48:ILE:CG2	1:A:173:PRO:HD2	2.48	0.43
1:A:135:GLY:O	1:A:137:ARG:HG3	2.19	0.43
1:A:152:PRO:CB	1:A:154:GLU:OE1	2.61	0.43
1:A:186:LEU:O	1:A:188:GLN:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:68:PHE:O	2:C:69:LEU:HD23	2.19	0.43
2:C:358:ARG:NE	2:C:371:LYS:O	2.52	0.43
2:C:583:LEU:HD12	2:C:583:LEU:N	2.34	0.43
2:C:596:TYR:C	2:C:655:LEU:HD11	2.39	0.43
2:C:661:SER:HA	2:C:665:PHE:O	2.19	0.43
3:D:7:LYS:HE2	3:D:1458:GLU:OE2	2.18	0.43
3:D:521:PRO:C	3:D:525:ARG:NH1	2.72	0.43
3:D:760:ARG:NH1	4:E:62:THR:HG23	2.34	0.43
3:D:1433:SER:HB2	3:D:1457:ASP:CG	2.38	0.43
1:K:55:SER:N	1:K:143:ARG:HB3	2.34	0.43
1:L:73:GLU:H	1:L:73:GLU:HG2	1.52	0.43
1:L:221:HIS:HA	1:L:224:TYR:CD2	2.53	0.43
2:M:68:PHE:O	2:M:69:LEU:HD23	2.17	0.43
2:M:326:ASP:HB3	2:M:431:HIS:CG	2.52	0.43
2:M:349:ALA:O	2:M:353:ARG:HB2	2.18	0.43
2:M:395:LYS:CG	2:M:397:GLU:HG3	2.49	0.43
2:M:436:GLY:O	2:M:456:ALA:HB3	2.18	0.43
2:M:524:VAL:CG1	2:M:525:SER:N	2.80	0.43
2:M:686:ASP:HB3	2:M:846:LYS:O	2.19	0.43
2:M:723:THR:CG2	2:M:725:ASP:HB2	2.48	0.43
2:M:939:ARG:HG3	2:M:975:TYR:HE2	1.84	0.43
3:N:55:ASP:HB3	3:N:82:LYS:HE2	2.01	0.43
3:N:87:ARG:HB3	3:N:523:ASP:CB	2.48	0.43
3:N:520:LEU:HG	3:N:521:PRO:CD	2.48	0.43
3:N:789:LEU:CD1	3:N:934:LEU:HD22	2.49	0.43
3:N:953:ASP:OD1	3:N:1019:PRO:HG2	2.19	0.43
3:N:1191:PRO:HA	3:N:1194:CYS:HB2	2.00	0.43
3:N:1200:VAL:HG13	3:N:1204:CYS:CB	2.41	0.43
3:N:1205:TYR:CE1	3:N:1366:LYS:HD3	2.54	0.43
3:N:1382:THR:CG2	3:N:1418:LYS:HE3	2.47	0.43
4:O:33:HIS:CE1	4:O:89:MET:HG2	2.53	0.43
5:G:3:DC:H6	5:G:3:DC:P	2.42	0.43
5:G:7:DA:H8	5:G:7:DA:P	2.42	0.43
7:I:17:DA:H8	7:I:17:DA:P	2.42	0.43
1:B:172:SER:HA	1:B:173:PRO:HD3	1.74	0.43
2:C:205:GLU:H	2:C:205:GLU:HG3	1.60	0.43
2:C:265:ARG:C	2:C:267:TYR:N	2.72	0.43
2:C:398:THR:HB	2:C:399:ASN:ND2	2.33	0.43
2:C:409:ARG:HA	2:C:454:SER:CA	2.33	0.43
2:C:749:VAL:HG23	2:C:749:VAL:O	2.19	0.43
2:C:1092:LEU:O	2:C:1095:LEU:O	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1098:ASP:HB2	3:D:21:TRP:HZ2	1.83	0.43
3:D:91:GLY:C	3:D:519:VAL:HG23	2.39	0.43
3:D:499:VAL:O	3:D:500:ARG:C	2.57	0.43
3:D:513:ILE:HD12	3:D:513:ILE:O	2.18	0.43
3:D:630:VAL:O	3:D:726:ILE:N	2.46	0.43
3:D:630:VAL:CG1	3:D:631:ILE:N	2.82	0.43
3:D:705:ALA:HB2	6:H:14:G:H21	1.61	0.43
3:D:709:HIS:HA	3:D:1227:GLN:CB	2.48	0.43
3:D:731:LEU:HD22	3:D:780:LYS:O	2.19	0.43
3:D:970:LYS:O	3:D:974:ILE:HG13	2.19	0.43
3:D:1031:ASN:HB2	3:D:1034:GLN:HB3	2.01	0.43
3:D:1200:VAL:HG22	3:D:1373:ARG:NH1	2.31	0.43
3:D:1363:LEU:HD23	3:D:1363:LEU:H	1.82	0.43
1:L:76:VAL:HA	1:L:79:ILE:HG12	2.01	0.43
2:M:113:VAL:CG1	2:M:115:LEU:HD23	2.49	0.43
2:M:195:LEU:O	2:M:199:VAL:HG23	2.19	0.43
2:M:718:GLY:HA3	2:M:761:PHE:CE1	2.54	0.43
2:M:724:ARG:NH2	2:M:734:LEU:O	2.52	0.43
2:M:903:SER:O	2:M:904:PRO:C	2.56	0.43
2:M:987:ILE:HA	3:N:948:THR:OG1	2.18	0.43
3:N:155:ASP:O	3:N:159:ARG:HB2	2.19	0.43
3:N:434:ARG:HH12	3:N:436:GLU:HG3	1.84	0.43
3:N:581:LEU:O	3:N:603:LEU:HG	2.19	0.43
3:N:610:LYS:HA	3:N:615:ARG:CD	2.49	0.43
3:N:645:PRO:HB3	3:N:723:GLY:O	2.19	0.43
3:N:657:LEU:HD13	3:N:691:LEU:HD13	2.01	0.43
3:N:699:VAL:HG22	3:N:760:ARG:HB3	1.99	0.43
3:N:704:ARG:HG3	3:N:705:ALA:N	2.34	0.43
3:N:811:GLU:O	3:N:815:ALA:HB3	2.19	0.43
3:N:950:GLY:H	3:N:953:ASP:HB2	1.82	0.43
3:N:1107:VAL:HG23	3:N:1219:GLU:O	2.17	0.43
3:N:1280:VAL:O	3:N:1294:VAL:HA	2.19	0.43
3:N:1348:LEU:HD13	3:N:1348:LEU:N	2.34	0.43
4:O:32:ARG:HB2	4:O:32:ARG:CZ	2.49	0.43
1:A:57:TYR:CZ	1:A:161:ARG:HD2	2.52	0.43
1:A:198:ARG:C	1:A:199:ILE:HD12	2.39	0.43
2:C:115:LEU:H	2:C:115:LEU:HG	1.60	0.43
2:C:288:ARG:HG3	2:C:288:ARG:NH1	2.33	0.43
2:C:341:THR:O	2:C:345:ARG:HG2	2.19	0.43
2:C:444:PRO:CB	6:H:12:U:OP1	2.64	0.43
2:C:1038:TRP:O	2:C:1042:ALA:N	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:465:LEU:HD22	3:D:510:GLU:HA	1.99	0.43
3:D:615:ARG:NH1	3:D:1096:ARG:NE	2.52	0.43
3:D:771:SER:HA	3:D:772:PRO:HD3	1.90	0.43
3:D:1084:THR:HA	3:D:1087:ARG:CG	2.48	0.43
3:D:1442:ASN:O	3:D:1443:THR:OG1	2.33	0.43
3:D:1442:ASN:O	3:D:1443:THR:CB	2.66	0.43
4:E:36:LYS:HB2	4:E:95:VAL:HG22	2.01	0.43
2:M:6:PHE:CD1	2:M:6:PHE:N	2.86	0.43
2:M:217:LEU:HD11	2:M:314:THR:OG1	2.19	0.43
2:M:537:LYS:CD	2:M:905:ILE:HD13	2.38	0.43
2:M:610:ARG:HH11	2:M:610:ARG:HG3	1.82	0.43
2:M:762:LYS:HG3	2:M:786:LYS:CE	2.49	0.43
2:M:966:LEU:HD12	2:M:966:LEU:HA	1.84	0.43
2:M:1055:LEU:HD23	2:M:1062:GLY:HA3	2.01	0.43
2:M:1118:LYS:O	2:M:1119:ARG:O	2.37	0.43
3:N:581:LEU:HD23	3:N:581:LEU:N	2.22	0.43
3:N:1149:LEU:HD13	3:N:1151:ARG:O	2.19	0.43
3:N:1330:ILE:HB	3:N:1347:TYR:CZ	2.53	0.43
3:N:1344:VAL:O	3:N:1345:GLU:C	2.56	0.43
1:A:9:PRO:HG2	1:B:224:TYR:CG	2.54	0.42
1:A:81:ASN:O	1:A:84:GLU:HB3	2.19	0.42
2:C:48:PHE:CB	2:C:52:PHE:HD2	2.31	0.42
2:C:408:ARG:NH1	2:C:542:VAL:HG23	2.34	0.42
2:C:606:VAL:CG2	2:C:645:VAL:HG22	2.49	0.42
2:C:1031:ARG:HA	3:D:621:LYS:O	2.19	0.42
2:C:1102:LEU:HA	2:C:1107:ASN:O	2.18	0.42
3:D:40:GLU:OE1	3:D:40:GLU:HA	2.18	0.42
3:D:119:SER:C	3:D:121:THR:N	2.72	0.42
3:D:122:GLU:HG2	3:D:126:VAL:HG23	2.01	0.42
3:D:502:PHE:CD2	3:D:509:PRO:HD3	2.54	0.42
3:D:582:LEU:HD23	3:D:603:LEU:HD12	1.99	0.42
3:D:1155:VAL:HB	3:D:1156:LEU:H	1.62	0.42
3:D:1341:PRO:C	3:D:1343:ALA:H	2.22	0.42
3:D:1393:GLN:CB	3:D:1398:TRP:HZ2	2.32	0.42
3:D:1437:ALA:C	3:D:1446:VAL:HG11	2.38	0.42
3:D:1479:ASP:OD2	3:D:1482:ARG:NH2	2.52	0.42
2:M:520:GLU:OE2	2:M:521:PRO:HD2	2.19	0.42
2:M:578:VAL:HG13	2:M:671:ASN:CB	2.49	0.42
2:M:582:GLY:C	2:M:583:LEU:HD12	2.40	0.42
2:M:1038:TRP:HA	2:M:1041:GLU:HG3	2.00	0.42
3:N:104:PHE:HA	3:N:1448:THR:CG2	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:104:PHE:CG	3:N:512:MET:SD	3.12	0.42
3:N:521:PRO:HA	3:N:522:PRO:HD3	1.86	0.42
3:N:625:TYR:HE2	3:N:655:PRO:CD	2.32	0.42
3:N:639:LEU:HG	3:N:932:ASP:OD1	2.18	0.42
3:N:774:SER:O	3:N:776:GLU:N	2.52	0.42
3:N:972:LEU:HA	3:N:975:GLU:HB2	2.00	0.42
3:N:1094:LEU:HD12	3:N:1094:LEU:HA	1.87	0.42
3:N:1271:LYS:HZ3	3:N:1331:ASP:HB2	1.80	0.42
4:O:25:LYS:HA	4:O:28:GLN:HE21	1.81	0.42
1:A:66:SER:O	1:A:75:VAL:HG23	2.18	0.42
1:A:99:LEU:HB3	1:A:114:PHE:CD2	2.54	0.42
2:C:79:PRO:O	2:C:83:CYS:SG	2.67	0.42
2:C:328:LEU:HD13	2:C:433:THR:CA	2.49	0.42
2:C:345:ARG:CA	2:C:348:LEU:HD22	2.45	0.42
2:C:368:THR:HB	2:C:369:PRO:CD	2.43	0.42
2:C:422:ARG:HB3	7:I:1:DG:C6	2.54	0.42
2:C:460:ARG:HH12	2:C:462:ASP:HA	1.84	0.42
2:C:697:ARG:O	2:C:697:ARG:HG3	2.18	0.42
2:C:796:GLU:CB	2:C:1004:LYS:NZ	2.75	0.42
2:C:971:LYS:NZ	3:D:953:ASP:OD1	2.50	0.42
2:C:1046:ALA:HB3	3:D:1476:THR:OG1	2.19	0.42
2:C:1083:GLU:C	2:C:1085:PHE:N	2.71	0.42
3:D:549:ASN:CB	3:D:550:ARG:HH21	2.31	0.42
3:D:618:LEU:HD13	3:D:1439:SER:CB	2.43	0.42
3:D:904:VAL:HA	3:D:905:PRO:HD3	1.89	0.42
3:D:916:TYR:OH	3:D:1145:TYR:HE2	2.02	0.42
3:D:1129:THR:HG23	3:D:1130:ARG:H	1.81	0.42
3:D:1369:GLU:O	3:D:1370:ILE:C	2.57	0.42
3:D:1396:GLU:O	3:D:1399:ASP:HB2	2.19	0.42
1:L:83:LYS:O	1:L:170:VAL:HG21	2.19	0.42
1:L:108:GLU:HB3	1:L:128:HIS:CE1	2.54	0.42
1:L:206:THR:HG23	1:L:208:LEU:N	2.33	0.42
2:M:25:SER:OG	2:M:335:THR:HB	2.19	0.42
2:M:141:HIS:O	2:M:331:ARG:CA	2.66	0.42
2:M:459:ALA:HB1	2:M:467:ILE:CG2	2.49	0.42
2:M:493:ARG:CZ	2:M:494:TYR:OH	2.68	0.42
2:M:520:GLU:O	2:M:522:VAL:HG23	2.18	0.42
2:M:1101:THR:O	2:M:1102:LEU:HD12	2.18	0.42
3:N:66:GLN:O	3:N:69:GLU:N	2.51	0.42
3:N:90:MET:HE2	3:N:521:PRO:HD3	2.00	0.42
3:N:111:LYS:HZ1	3:N:1449:GLU:CG	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:525:ARG:H	3:N:525:ARG:CD	2.31	0.42
3:N:662:GLU:C	3:N:664:LYS:O	2.58	0.42
3:N:764:LEU:HB3	3:N:767:HIS:CE1	2.54	0.42
3:N:864:VAL:CG1	3:N:865:THR:H	2.21	0.42
3:N:1082:ALA:O	3:N:1085:ALA:HB3	2.19	0.42
6:Y:8:G:H3'	6:Y:8:G:H8	1.80	0.42
1:B:101:LEU:HB2	1:B:114:PHE:CG	2.53	0.42
1:B:137:ARG:HD3	1:B:137:ARG:C	2.39	0.42
2:C:72:ARG:NE	2:C:95:TYR:HE1	2.17	0.42
2:C:584:GLU:CD	2:C:584:GLU:H	2.22	0.42
2:C:701:THR:HG21	2:C:830:LYS:CD	2.49	0.42
3:D:54:LYS:CG	3:D:57:GLU:HB3	2.49	0.42
3:D:662:GLU:HA	3:D:667:ALA:O	2.19	0.42
3:D:731:LEU:CD2	3:D:782:SER:N	2.83	0.42
3:D:907:GLU:CD	3:D:909:ASN:H	2.21	0.42
3:D:924:MET:CG	4:E:6:ILE:HG21	2.50	0.42
3:D:1103:HIS:O	3:D:1105:ILE:N	2.52	0.42
3:D:1106:VAL:HG12	3:D:1107:VAL:H	1.83	0.42
3:D:1191:PRO:O	3:D:1193:THR:N	2.52	0.42
3:D:1225:ALA:O	3:D:1229:ILE:HG13	2.19	0.42
3:D:1442:ASN:O	3:D:1443:THR:CG2	2.67	0.42
4:E:68:LEU:HD13	4:E:68:LEU:N	2.34	0.42
1:K:35:THR:HG23	1:L:42:ARG:HB2	2.01	0.42
1:K:117:VAL:HB	1:K:120:VAL:HG12	2.01	0.42
1:L:75:VAL:O	1:L:79:ILE:HG23	2.19	0.42
2:M:15:LEU:HD12	2:M:15:LEU:N	2.34	0.42
2:M:56:GLU:HB3	2:M:359:MET:SD	2.59	0.42
2:M:369:PRO:O	2:M:373:VAL:HG23	2.19	0.42
2:M:1090:LYS:HA	2:M:1090:LYS:HD3	1.84	0.42
3:N:131:LYS:C	3:N:132:TYR:CG	2.92	0.42
3:N:204:LEU:HB2	3:N:394:LEU:CD2	2.48	0.42
3:N:564:GLU:OE2	3:N:567:ILE:HD12	2.19	0.42
3:N:736:PHE:O	3:N:738:ALA:N	2.53	0.42
3:N:829:VAL:O	3:N:831:GLY:N	2.48	0.42
3:N:960:LYS:O	3:N:960:LYS:HG2	2.20	0.42
3:N:1114:THR:C	3:N:1189:ARG:HH21	2.15	0.42
3:N:1442:ASN:O	3:N:1446:VAL:HG21	2.13	0.42
1:A:88:ARG:HH11	1:A:88:ARG:CG	2.30	0.42
1:A:91:ASN:HA	1:A:92:PRO:HD3	1.92	0.42
1:B:24:VAL:HG12	1:B:26:GLU:OE2	2.19	0.42
2:C:185:LYS:HB3	2:C:188:LYS:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:198:ARG:HD2	2:C:204:GLN:OE1	2.19	0.42
2:C:399:ASN:O	2:C:400:PRO:C	2.57	0.42
2:C:412:ALA:CB	2:C:451:LEU:HB3	2.50	0.42
2:C:437:ARG:NH1	2:C:491:GLU:OE2	2.53	0.42
2:C:459:ALA:HB1	2:C:467:ILE:HG23	1.98	0.42
2:C:674:VAL:HG11	2:C:992:MET:HB3	2.02	0.42
2:C:683:ASN:CA	2:C:687:ALA:HB3	2.48	0.42
3:D:31:THR:C	3:D:32:ILE:HG13	2.39	0.42
3:D:500:ARG:HD2	3:D:500:ARG:HA	1.87	0.42
3:D:520:LEU:HD21	3:D:524:LEU:HB3	2.01	0.42
3:D:800:LYS:HG3	3:D:829:VAL:CG1	2.49	0.42
3:D:949:ILE:HD11	3:D:1023:MET:CE	2.48	0.42
3:D:1011:PHE:CG	3:D:1021:TYR:HB2	2.54	0.42
1:K:64:GLU:O	1:K:75:VAL:HB	2.18	0.42
1:L:73:GLU:HG3	1:L:130:ALA:HB2	2.00	0.42
1:L:90:LEU:HG	1:L:91:ASN:ND2	2.34	0.42
1:L:176:ARG:HG3	1:L:200:TRP:CE3	2.55	0.42
2:M:43:GLY:O	2:M:47:ALA:N	2.37	0.42
2:M:185:LYS:HB3	2:M:188:LYS:O	2.19	0.42
2:M:269:LEU:HG	2:M:288:ARG:CA	2.47	0.42
2:M:603:VAL:HG11	2:M:645:VAL:HA	2.01	0.42
2:M:1081:VAL:CG1	2:M:1086:ARG:HG2	2.50	0.42
3:N:28:LYS:HB2	3:N:41:ARG:CD	2.48	0.42
3:N:50:PHE:CD2	3:N:522:PRO:HD3	2.54	0.42
3:N:396:VAL:O	3:N:398:ALA:N	2.52	0.42
3:N:676:MET:O	3:N:676:MET:SD	2.77	0.42
3:N:732:VAL:O	3:N:736:PHE:HD1	2.01	0.42
3:N:972:LEU:HG	3:N:976:GLN:OE1	2.20	0.42
3:N:1112:CYS:O	3:N:1189:ARG:NH2	2.51	0.42
3:N:1380:GLU:HB2	3:N:1420:LEU:CD1	2.50	0.42
7:Z:5:DC:H2"	7:Z:6:DT:H71	2.01	0.42
1:A:26:GLU:CB	1:A:27:PRO:HA	2.49	0.42
1:B:3:ASP:HB3	1:B:4:SER:H	1.67	0.42
2:C:394:PHE:O	2:C:406:HIS:CE1	2.72	0.42
2:C:601:GLY:HA3	2:C:615:TYR:HA	2.01	0.42
2:C:630:ARG:HD3	2:C:705:ILE:HG21	1.98	0.42
2:C:700:TYR:O	2:C:833:LEU:HB2	2.19	0.42
2:C:841:ASN:HD22	2:C:841:ASN:N	2.17	0.42
2:C:1001:VAL:O	2:C:1001:VAL:HG12	2.18	0.42
2:C:1081:VAL:CB	2:C:1086:ARG:HH21	2.32	0.42
2:C:1089:VAL:O	2:C:1092:LEU:CB	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:84:ILE:CG1	3:D:85:VAL:N	2.81	0.42
3:D:105:VAL:HA	3:D:112:ILE:HG22	1.99	0.42
3:D:549:ASN:O	3:D:553:ARG:CB	2.68	0.42
3:D:618:LEU:HD11	3:D:1463:LYS:HE2	2.01	0.42
3:D:657:LEU:O	3:D:661:MET:HG2	2.19	0.42
3:D:770:LEU:HA	3:D:777:PRO:HA	2.00	0.42
3:D:847:ASP:O	3:D:848:GLU:C	2.57	0.42
4:E:9:LEU:HD21	4:E:69:LEU:HD12	2.00	0.42
4:E:27:ALA:HB1	4:E:60:ALA:HB1	2.01	0.42
4:E:92:LEU:O	4:E:94:PRO:HD3	2.19	0.42
1:K:38:ASN:N	1:K:39:PRO:CD	2.83	0.42
1:K:54:THR:HB	1:K:143:ARG:HG2	2.00	0.42
1:K:99:LEU:N	1:K:99:LEU:CD1	2.82	0.42
1:K:193:ASP:CG	2:M:938:LYS:NZ	2.72	0.42
1:L:52:ALA:HB1	1:L:170:VAL:N	2.27	0.42
2:M:118:ILE:HA	2:M:119:PRO:HD3	1.90	0.42
2:M:191:PHE:CE2	2:M:238:LEU:HD11	2.54	0.42
2:M:394:PHE:CE1	2:M:632:ASN:OD1	2.73	0.42
2:M:606:VAL:HG21	2:M:645:VAL:HG22	2.01	0.42
2:M:677:MET:O	2:M:870:ILE:HG22	2.19	0.42
2:M:987:ILE:HG23	3:N:948:THR:CG2	2.38	0.42
3:N:52:PRO:CG	3:N:80:VAL:HG13	2.50	0.42
3:N:484:PRO:HB3	3:N:488:ARG:HH21	1.80	0.42
3:N:521:PRO:O	3:N:524:LEU:HB2	2.19	0.42
3:N:1304:LYS:C	3:N:1305:LEU:HD23	2.40	0.42
3:N:1351:GLU:OE1	3:N:1351:GLU:HA	2.20	0.42
5:X:27:DC:H3'	5:X:27:DC:OP1	2.19	0.42
6:Y:11:C:H2'	6:Y:12:U:O4'	2.20	0.42
1:A:58:ILE:HB	1:A:61:VAL:HB	2.00	0.42
1:B:9:PRO:HB2	1:B:25:LEU:HD11	2.00	0.42
1:B:154:GLU:O	1:B:154:GLU:HG2	2.19	0.42
2:C:49:ARG:O	2:C:53:PRO:CD	2.68	0.42
2:C:182:VAL:HG11	2:C:193:LEU:HD22	2.02	0.42
2:C:202:TYR:CZ	2:C:304:LEU:HD13	2.54	0.42
2:C:408:ARG:NH1	2:C:542:VAL:CG2	2.82	0.42
2:C:658:GLY:N	2:C:661:SER:OG	2.52	0.42
2:C:739:GLU:O	2:C:742:VAL:N	2.52	0.42
2:C:832:LYS:O	2:C:834:GLN:N	2.53	0.42
3:D:51:GLY:N	3:D:86:ARG:HG3	2.34	0.42
3:D:127:LEU:C	3:D:127:LEU:CD1	2.85	0.42
3:D:454:ALA:O	3:D:455:ARG:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:774:SER:O	3:D:776:GLU:N	2.53	0.42
3:D:879:ARG:HH12	3:D:905:PRO:CD	2.32	0.42
3:D:1095:THR:O	3:D:1098:LEU:HB2	2.19	0.42
3:D:1135:ARG:HB3	3:D:1140:ILE:CG1	2.49	0.42
3:D:1259:VAL:O	3:D:1263:PHE:HD1	2.02	0.42
3:D:1344:VAL:O	3:D:1345:GLU:C	2.58	0.42
3:D:1412:LYS:C	3:D:1414:PRO:HD3	2.40	0.42
4:E:49:GLN:HA	4:E:51:LEU:O	2.19	0.42
1:K:38:ASN:HB3	1:K:39:PRO:HD3	2.00	0.42
1:L:94:LEU:HD11	1:L:119:ASP:HB2	2.00	0.42
2:M:6:PHE:CD2	2:M:909:ALA:HB2	2.55	0.42
2:M:63:GLY:O	2:M:65:VAL:HG23	2.19	0.42
2:M:75:GLU:O	2:M:93:PRO:CD	2.68	0.42
2:M:170:PRO:HG2	2:M:258:TYR:HE2	1.84	0.42
2:M:399:ASN:O	2:M:400:PRO:C	2.57	0.42
2:M:518:LYS:HB3	2:M:518:LYS:HZ3	1.83	0.42
2:M:553:ASP:OD1	2:M:843:HIS:HD2	2.02	0.42
2:M:887:GLU:HB3	2:M:992:MET:CE	2.49	0.42
2:M:1056:LYS:CD	3:N:623:VAL:HG13	2.49	0.42
2:M:1105:LYS:O	2:M:1107:ASN:N	2.53	0.42
3:N:401:TYR:OH	3:N:430:ASP:OD2	2.37	0.42
3:N:540:LEU:HA	3:N:543:LEU:HD12	2.00	0.42
3:N:1329:ALA:C	3:N:1330:ILE:HG13	2.40	0.42
3:N:1341:PRO:HA	3:N:1344:VAL:HG23	2.01	0.42
3:N:1397:LYS:HE3	3:N:1432:LYS:HZ2	1.85	0.42
7:Z:7:DT:H2"	7:Z:8:DG:OP2	2.18	0.42
1:A:111:ALA:O	1:A:114:PHE:HD1	2.02	0.42
2:C:328:LEU:CD1	2:C:328:LEU:H	2.32	0.42
2:C:579:VAL:CG1	2:C:842:ARG:HH22	2.20	0.42
2:C:1009:SER:HB3	3:D:651:GLU:O	2.19	0.42
2:C:1033:GLY:O	2:C:1037:VAL:HG23	2.19	0.42
2:C:1105:LYS:O	2:C:1107:ASN:N	2.53	0.42
3:D:771:SER:HB3	3:D:778:LEU:HD22	2.01	0.42
3:D:1176:LYS:O	3:D:1179:GLU:HB2	2.19	0.42
3:D:1266:ARG:O	3:D:1268:PRO:HD3	2.20	0.42
3:D:1336:LEU:O	3:D:1340:GLY:N	2.50	0.42
3:D:1401:GLU:OE2	3:D:1415:VAL:HG11	2.19	0.42
4:E:24:ALA:O	4:E:28:GLN:HG3	2.19	0.42
1:K:158:ILE:H	1:K:166:PRO:CG	2.32	0.42
1:K:178:ALA:HB2	2:M:864:GLY:CA	2.48	0.42
1:L:25:LEU:HG	1:L:28:LEU:HD21	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:31:GLY:O	1:L:35:THR:OG1	2.36	0.42
2:M:13:ILE:HA	2:M:14:PRO:HD3	1.86	0.42
2:M:197:LEU:HD22	2:M:202:TYR:CD2	2.55	0.42
2:M:259:GLY:O	2:M:290:LEU:O	2.37	0.42
2:M:408:ARG:HH21	2:M:455:LEU:CD1	2.33	0.42
2:M:575:GLN:N	2:M:670:GLN:OE1	2.53	0.42
2:M:683:ASN:O	2:M:872:ASN:CB	2.63	0.42
2:M:969:GLN:CD	3:N:952:ASP:HB2	2.39	0.42
2:M:1032:PHE:O	2:M:1036:GLU:CD	2.58	0.42
2:M:1052:MET:SD	2:M:1056:LYS:HD2	2.59	0.42
2:M:1088:LEU:O	2:M:1091:GLU:HB2	2.20	0.42
3:N:108:VAL:HB	3:N:109:PRO:CD	2.37	0.42
3:N:481:MET:CE	3:N:493:ARG:HA	2.50	0.42
3:N:689:ASP:O	3:N:692:GLU:HB3	2.19	0.42
3:N:1168:MET:HG3	3:N:1172:HIS:CE1	2.54	0.42
3:N:1258:ARG:NE	3:N:1262:LEU:HD11	2.33	0.42
3:N:1417:TRP:CD1	3:N:1418:LYS:N	2.88	0.42
4:O:59:ASN:HB3	4:O:62:THR:OG1	2.20	0.42
7:Z:4:DG:C4	7:Z:5:DC:C5	3.07	0.42
1:A:78:ILE:O	1:A:81:ASN:N	2.52	0.42
1:B:76:VAL:HA	1:B:79:ILE:HD11	2.02	0.42
2:C:192:PRO:C	2:C:193:LEU:HD12	2.40	0.42
2:C:260:LEU:HD21	2:C:293:PHE:CZ	2.54	0.42
2:C:473:ARG:HG3	2:C:474:VAL:N	2.34	0.42
2:C:693:GLU:HG2	2:C:697:ARG:NH2	2.26	0.42
2:C:863:ASP:C	2:C:863:ASP:OD2	2.58	0.42
2:C:863:ASP:CG	2:C:865:THR:HG22	2.40	0.42
2:C:1046:ALA:HA	3:D:1472:ILE:HD11	2.01	0.42
3:D:33:ASN:O	3:D:36:THR:O	2.37	0.42
3:D:107:ASP:OD2	3:D:1445:HIS:CD2	2.72	0.42
3:D:117:ASP:HB2	3:D:495:ARG:HH12	1.80	0.42
3:D:612:GLY:H	3:D:615:ARG:HB2	1.84	0.42
3:D:644:LEU:HD12	3:D:645:PRO:HD2	2.02	0.42
3:D:880:ILE:O	3:D:883:ALA:HB3	2.19	0.42
3:D:951:ILE:HD12	3:D:1062:ARG:NE	2.22	0.42
3:D:1377:LYS:HE2	3:D:1378:TYR:OH	2.20	0.42
4:E:31:LEU:HB2	4:E:32:ARG:H	1.69	0.42
2:M:338:GLU:C	2:M:341:THR:HG22	2.39	0.42
2:M:941:VAL:CA	2:M:944:LEU:HB2	2.48	0.42
3:N:603:LEU:HA	3:N:603:LEU:HD23	1.83	0.42
3:N:764:LEU:HD12	3:N:765:SER:H	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1231:GLU:HB3	3:N:1232:PRO:HD3	2.02	0.42
3:N:1397:LYS:CE	3:N:1432:LYS:HZ2	2.33	0.42
3:N:1466:VAL:C	3:N:1469:GLY:H	2.23	0.42
5:G:12:DA:C2'	5:G:13:DA:OP2	2.67	0.42
1:A:65:PHE:HE1	2:C:799:ILE:CG2	2.32	0.42
1:B:104:GLU:HA	1:B:136:GLY:O	2.19	0.42
2:C:50:GLU:HA	2:C:266:ARG:NE	2.27	0.42
2:C:520:GLU:HA	2:C:521:PRO:HD3	1.86	0.42
2:C:768:THR:HG22	2:C:771:GLU:H	1.84	0.42
2:C:768:THR:HA	2:C:769:PRO:HD3	1.88	0.42
2:C:878:SER:HB3	3:D:1029:ARG:NH1	2.35	0.42
2:C:1098:ASP:HB2	3:D:13:ALA:HB2	2.01	0.42
3:D:528:VAL:O	3:D:535:PHE:CD2	2.72	0.42
3:D:613:ARG:HA	3:D:613:ARG:HD3	1.74	0.42
3:D:743:ASP:OD2	3:D:743:ASP:N	2.53	0.42
3:D:1071:PHE:O	3:D:1071:PHE:CD1	2.73	0.42
4:E:27:ALA:HA	4:E:30:LEU:CD1	2.48	0.42
2:M:31:GLN:O	2:M:31:GLN:CG	2.68	0.42
2:M:247:PRO:HA	2:M:248:PRO:HD3	1.88	0.42
2:M:252:LYS:HB3	2:M:298:PHE:HZ	1.83	0.42
2:M:431:HIS:CD2	2:M:434:HIS:CE1	3.08	0.42
2:M:711:GLU:HG2	2:M:822:VAL:HG12	2.02	0.42
2:M:1047:HIS:CE1	3:N:754:PHE:CE1	3.07	0.42
3:N:484:PRO:O	3:N:489:ARG:CD	2.68	0.42
3:N:625:TYR:HD2	3:N:652:LEU:O	1.99	0.42
3:N:644:LEU:O	3:N:720:LEU:HA	2.20	0.42
3:N:1284:GLU:HG3	3:N:1286:THR:H	1.84	0.42
3:N:1383:ASP:HB2	3:N:1416:ALA:CB	2.42	0.42
3:N:1432:LYS:HB2	3:N:1432:LYS:NZ	2.34	0.42
6:H:5:C:O2	6:H:5:C:H2'	2.14	0.42
5:X:13:DA:C4	5:X:14:DG:N7	2.88	0.42
1:A:112:ARG:NH2	1:A:125:PRO:HB2	2.24	0.42
1:A:218:LEU:HD23	1:B:222:LEU:HD22	2.01	0.42
1:B:76:VAL:O	1:B:79:ILE:HG12	2.20	0.42
1:B:150:TYR:CE2	1:B:168:ASP:HB3	2.52	0.42
2:C:39:ARG:O	2:C:40:GLU:C	2.58	0.42
2:C:64:LEU:HD13	2:C:359:MET:CG	2.50	0.42
2:C:269:LEU:HB2	2:C:288:ARG:HG3	2.02	0.42
2:C:430:VAL:HG13	3:D:1075:HIS:ND1	2.35	0.42
2:C:583:LEU:N	2:C:583:LEU:CD1	2.83	0.42
2:C:675:ALA:HB2	2:C:867:VAL:HG11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:688:ILE:HD13	2:C:847:GLY:CA	2.43	0.42
2:C:738:ASP:HB2	2:C:744:ARG:HB3	2.01	0.42
2:C:974:LEU:HD12	2:C:974:LEU:HA	1.92	0.42
3:D:62:LYS:HB2	3:D:73:CYS:SG	2.60	0.42
3:D:646:LYS:O	3:D:649:ALA:HB3	2.20	0.42
3:D:1093:TYR:OH	5:G:17:DA:H1'	2.20	0.42
3:D:1112:CYS:O	3:D:1189:ARG:NH2	2.50	0.42
3:D:1223:ILE:CD1	3:D:1462:LEU:HD11	2.49	0.42
3:D:1336:LEU:HA	3:D:1344:VAL:HG22	2.02	0.42
3:D:1389:LEU:O	3:D:1390:LEU:C	2.58	0.42
3:D:1447:LEU:O	3:D:1450:ALA:N	2.53	0.42
1:K:109:VAL:HG21	1:K:138:LEU:HD23	2.02	0.42
2:M:437:ARG:HH22	2:M:488:ALA:HA	1.81	0.42
2:M:677:MET:HB2	2:M:987:ILE:HD13	2.00	0.42
2:M:700:TYR:CB	2:M:833:LEU:HD22	2.49	0.42
2:M:751:PRO:HA	2:M:792:VAL:HG12	2.02	0.42
2:M:1034:GLU:CD	2:M:1038:TRP:CZ2	2.93	0.42
3:N:109:PRO:O	3:N:111:LYS:N	2.52	0.42
3:N:149:LYS:HE3	3:N:150:ARG:N	2.26	0.42
3:N:520:LEU:HG	3:N:521:PRO:HD2	2.01	0.42
3:N:640:HIS:CD2	3:N:641:GLN:HG3	2.55	0.42
3:N:739:ASP:OD1	3:N:739:ASP:N	2.53	0.42
3:N:777:PRO:O	3:N:780:LYS:HE2	2.20	0.42
3:N:1257:PRO:O	3:N:1260:ILE:HG12	2.19	0.42
3:N:1271:LYS:NZ	3:N:1331:ASP:CB	2.68	0.42
3:N:1296:SER:C	3:N:1298:GLY:N	2.73	0.42
7:I:1:DG:P	7:I:1:DG:C3'	3.06	0.42
7:Z:14:DG:C5	7:Z:15:DT:H73	2.54	0.42
1:B:102:LYS:CE	1:B:139:ASN:HB2	2.44	0.41
2:C:187:ASN:OD1	2:C:188:LYS:HE2	2.19	0.41
2:C:191:PHE:O	2:C:193:LEU:HD12	2.20	0.41
2:C:275:TYR:OH	2:C:489:THR:HG21	2.19	0.41
2:C:328:LEU:CD1	2:C:328:LEU:N	2.83	0.41
2:C:404:LEU:O	2:C:407:LYS:HB2	2.20	0.41
2:C:630:ARG:HD2	2:C:634:GLY:CA	2.21	0.41
2:C:670:GLN:NE2	2:C:699:PHE:HD2	2.18	0.41
2:C:861:LEU:HD21	2:C:925:TYR:HE2	1.79	0.41
2:C:926:PHE:CE2	2:C:930:LYS:HD2	2.55	0.41
2:C:1105:LYS:NZ	2:C:1107:ASN:HB2	2.34	0.41
2:C:1114:GLY:C	2:C:1115:LEU:HD12	2.41	0.41
3:D:92:HIS:HA	3:D:517:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:97:THR:HG23	3:D:98:PRO:HD2	2.01	0.41
3:D:100:ALA:HB2	3:D:513:ILE:HG22	2.02	0.41
3:D:486:ARG:O	3:D:490:ALA:CB	2.68	0.41
3:D:1154:GLU:CD	3:N:563:PRO:HA	2.40	0.41
3:D:1189:ARG:CD	3:D:1204:CYS:SG	3.00	0.41
1:K:211:LEU:O	1:K:215:VAL:HG23	2.20	0.41
1:L:201:THR:CG2	1:L:205:VAL:HG23	2.50	0.41
2:M:676:ILE:HD13	3:N:949:ILE:O	2.19	0.41
2:M:817:PRO:O	3:N:532:GLY:CA	2.67	0.41
2:M:926:PHE:HA	2:M:929:ARG:HB2	2.01	0.41
3:N:181:ASP:HB2	3:N:441:ARG:HD3	1.94	0.41
3:N:187:LYS:HE2	3:N:199:LEU:HG	2.01	0.41
3:N:204:LEU:HD12	3:N:394:LEU:HG	2.02	0.41
3:N:413:ASP:O	3:N:435:VAL:HG23	2.20	0.41
3:N:654:LYS:N	3:N:655:PRO:CD	2.82	0.41
3:N:1323:GLN:N	3:N:1324:PRO:HD3	2.34	0.41
3:N:1331:ASP:HA	3:N:1332:PRO:HD3	1.76	0.41
3:N:1401:GLU:CD	3:N:1401:GLU:C	2.79	0.41
3:N:1447:LEU:O	3:N:1450:ALA:N	2.53	0.41
3:N:1483:PHE:O	4:O:77:GLU:O	2.38	0.41
7:Z:2:DT:C1'	7:Z:3:DA:H5'	2.41	0.41
1:A:123:MET:O	1:A:125:PRO:HD3	2.21	0.41
2:C:267:TYR:CE2	2:C:289:THR:HG23	2.55	0.41
2:C:634:GLY:O	2:C:705:ILE:CB	2.68	0.41
2:C:668:LEU:HD12	2:C:668:LEU:H	1.84	0.41
3:D:550:ARG:HA	3:D:550:ARG:HD3	1.71	0.41
3:D:706:PRO:HG3	5:G:19:DG:N2	2.35	0.41
3:D:759:ALA:HA	3:D:763:MET:HB2	2.02	0.41
3:D:928:ALA:C	3:D:930:LEU:N	2.73	0.41
3:D:1237:THR:HG22	3:D:1238:MET:HG3	2.01	0.41
4:E:8:LYS:O	4:E:12:MET:HG3	2.19	0.41
1:L:59:GLU:CB	1:L:137:ARG:HH22	2.33	0.41
1:L:101:LEU:C	1:L:101:LEU:CD2	2.84	0.41
2:M:140:ILE:HD13	2:M:331:ARG:NH2	2.31	0.41
2:M:288:ARG:HH11	2:M:288:ARG:HG3	1.83	0.41
2:M:368:THR:N	2:M:369:PRO:CD	2.83	0.41
2:M:793:PRO:O	2:M:794:PRO:C	2.58	0.41
2:M:1090:LYS:O	2:M:1094:ALA:N	2.47	0.41
3:N:30:GLU:HB2	3:N:41:ARG:HG3	2.01	0.41
3:N:131:LYS:O	3:N:132:TYR:CD2	2.73	0.41
3:N:147:VAL:HG13	3:N:147:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:539:ASP:O	3:N:541:ASN:N	2.53	0.41
3:N:587:ARG:HG2	3:N:587:ARG:HH11	1.85	0.41
3:N:609:GLY:O	3:N:615:ARG:CG	2.68	0.41
3:N:633:VAL:HG22	3:N:634:GLY:N	2.35	0.41
3:N:698:LYS:CE	4:O:59:ASN:OD1	2.68	0.41
3:N:783:ARG:O	3:N:787:LEU:HB2	2.19	0.41
3:N:847:ASP:HA	3:N:850:LEU:HD13	2.02	0.41
3:N:1123:PHE:HA	3:N:1133:ARG:O	2.20	0.41
3:N:1195:GLN:HG3	3:N:1196:THR:N	2.35	0.41
2:C:140:ILE:HD12	2:C:140:ILE:O	2.21	0.41
2:C:584:GLU:HB2	2:C:666:LEU:H	1.84	0.41
2:C:694:LEU:O	2:C:697:ARG:O	2.38	0.41
3:D:7:LYS:HG2	3:D:1458:GLU:CA	2.44	0.41
3:D:18:ILE:HG23	3:D:518:PRO:HG3	2.02	0.41
3:D:99:ALA:HA	3:D:458:ALA:CB	2.50	0.41
3:D:493:ARG:CG	3:D:494:LYS:N	2.83	0.41
3:D:764:LEU:HD12	3:D:765:SER:N	2.35	0.41
3:D:924:MET:HG2	4:E:6:ILE:HG21	2.01	0.41
3:D:983:LEU:CG	3:D:984:THR:N	2.82	0.41
3:D:1114:THR:CG2	3:D:1195:GLN:HB3	2.46	0.41
3:D:1264:GLU:OE2	3:D:1425:THR:HB	2.21	0.41
1:K:38:ASN:HB2	2:M:980:GLY:HA3	2.03	0.41
1:L:123:MET:H	1:L:123:MET:HG2	1.55	0.41
2:M:141:HIS:CD2	2:M:332:ARG:O	2.71	0.41
2:M:170:PRO:CG	2:M:258:TYR:CE2	3.03	0.41
2:M:264:PRO:CB	2:M:289:THR:CB	2.96	0.41
2:M:285:LEU:HD11	2:M:288:ARG:O	2.21	0.41
2:M:393:GLN:HG2	6:Y:10:G:C4'	2.45	0.41
2:M:677:MET:HA	2:M:678:PRO:HD3	1.88	0.41
2:M:1051:GLU:OE2	3:N:752:SER:N	2.53	0.41
2:M:1112:PHE:N	2:M:1112:PHE:CD2	2.85	0.41
3:N:51:GLY:HA3	3:N:86:ARG:CA	2.50	0.41
3:N:407:VAL:HG12	3:N:408:GLU:N	2.35	0.41
3:N:606:ILE:O	3:N:613:ARG:HB2	2.20	0.41
3:N:845:ASN:N	3:N:848:GLU:HG3	2.36	0.41
3:N:1129:THR:CG2	3:N:1130:ARG:H	2.01	0.41
3:N:1211:MET:HE2	3:N:1213:ARG:HB3	2.02	0.41
3:N:1401:GLU:CD	3:N:1415:VAL:HG11	2.41	0.41
5:G:24:DC:H2"	5:G:25:DG:C8	2.55	0.41
5:X:26:DC:O2	5:X:26:DC:C2'	2.65	0.41
7:Z:10:DG:C2	7:Z:11:DG:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:58:ILE:HD13	1:B:58:ILE:HA	1.89	0.41
2:C:13:ILE:HA	2:C:14:PRO:HD3	1.89	0.41
2:C:140:ILE:HA	2:C:332:ARG:O	2.20	0.41
2:C:189:ARG:NE	2:C:189:ARG:HA	2.34	0.41
2:C:208:ALA:HB1	2:C:218:VAL:HG11	2.02	0.41
2:C:532:MET:CE	2:C:533:ASP:O	2.68	0.41
2:C:905:ILE:N	2:C:905:ILE:CD1	2.84	0.41
2:C:946:ARG:HH11	2:C:946:ARG:CB	2.31	0.41
3:D:609:GLY:O	3:D:615:ARG:HD3	2.20	0.41
3:D:741:ASP:O	6:H:14:G:H5'	2.20	0.41
3:D:1094:LEU:CD1	3:D:1260:ILE:HD12	2.49	0.41
3:D:1154:GLU:HB2	3:N:562:ALA:H	1.82	0.41
3:D:1158:VAL:HG12	3:D:1159:ARG:N	2.35	0.41
3:D:1344:VAL:HG12	3:D:1348:LEU:CD1	2.51	0.41
4:E:5:GLY:HA3	4:E:8:LYS:HD2	2.02	0.41
1:K:20:TYR:HD2	1:K:199:ILE:O	2.03	0.41
1:K:23:PHE:HB2	1:K:197:LEU:HG	2.01	0.41
1:K:94:LEU:HD11	1:K:119:ASP:HB3	2.02	0.41
1:L:201:THR:HG22	1:L:203:GLY:H	1.85	0.41
2:M:39:ARG:O	2:M:40:GLU:C	2.58	0.41
2:M:88:LEU:HD13	2:M:88:LEU:HA	1.82	0.41
2:M:89:THR:O	2:M:91:GLN:HG3	2.19	0.41
2:M:265:ARG:C	2:M:267:TYR:N	2.73	0.41
2:M:403:SER:OG	2:M:404:LEU:N	2.53	0.41
2:M:461:VAL:HG13	2:M:465:GLY:HA2	2.01	0.41
2:M:535:SER:O	2:M:538:GLN:OE1	2.38	0.41
2:M:557:ARG:NH1	2:M:844:GLY:O	2.53	0.41
2:M:714:ASP:OD1	2:M:719:PRO:HB3	2.19	0.41
2:M:723:THR:C	2:M:725:ASP:H	2.24	0.41
2:M:737:LEU:O	2:M:737:LEU:HD23	2.19	0.41
2:M:959:PRO:CA	2:M:962:GLN:HG3	2.44	0.41
2:M:1040:LEU:HD23	2:M:1049:LEU:HB2	2.02	0.41
2:M:1081:VAL:O	2:M:1086:ARG:NE	2.54	0.41
3:N:586:ARG:NH2	5:X:16:DT:OP1	2.53	0.41
3:N:753:SER:HB3	4:O:27:ALA:HB3	2.02	0.41
3:N:784:ASP:HB3	3:N:939:PHE:CE2	2.48	0.41
3:N:835:SER:N	3:N:838:ARG:HD3	2.35	0.41
3:N:1103:HIS:O	3:N:1105:ILE:N	2.53	0.41
7:Z:8:DG:H2"	7:Z:9:DT:OP2	2.19	0.41
1:A:137:ARG:HG3	1:A:137:ARG:HH11	1.85	0.41
2:C:31:GLN:OE1	2:C:31:GLN:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:121:MET:HE2	2:C:125:GLY:HA2	2.02	0.41
2:C:267:TYR:HE2	2:C:289:THR:HG23	1.86	0.41
2:C:272:ALA:O	2:C:276:LYS:NZ	2.51	0.41
2:C:766:GLU:HA	2:C:767:PRO:HD3	1.87	0.41
2:C:862:PRO:HD3	2:C:973:VAL:O	2.21	0.41
2:C:890:LEU:HD21	2:C:901:TYR:CD1	2.55	0.41
2:C:976:ASP:HB2	2:C:981:GLU:O	2.20	0.41
3:D:97:THR:CB	3:D:571:LYS:HE2	2.45	0.41
3:D:500:ARG:O	3:D:501:ALA:C	2.58	0.41
3:D:741:ASP:OD1	6:H:15:C:OP1	2.37	0.41
3:D:785:ILE:HG22	3:D:938:GLY:HA3	2.02	0.41
3:D:910:SER:OG	3:D:911:LEU:HD12	2.20	0.41
3:D:918:ALA:HB3	3:D:927:THR:HG23	2.01	0.41
3:D:982:PHE:CD2	3:D:982:PHE:C	2.93	0.41
3:D:1041:LEU:HD13	3:D:1045:MET:CB	2.50	0.41
3:D:1365:ASP:O	3:D:1366:LYS:C	2.59	0.41
1:K:178:ALA:HB3	1:K:198:ARG:CG	2.50	0.41
1:L:201:THR:CG2	1:L:205:VAL:O	2.61	0.41
2:M:46:ALA:C	2:M:48:PHE:N	2.71	0.41
2:M:265:ARG:CG	2:M:267:TYR:HB3	2.51	0.41
2:M:267:TYR:CB	2:M:272:ALA:HB1	2.49	0.41
2:M:295:ASP:C	2:M:297:GLU:H	2.23	0.41
2:M:612:VAL:HG22	2:M:622:GLU:HA	2.02	0.41
2:M:650:ARG:HD2	2:M:653:ASP:OD2	2.20	0.41
2:M:922:PHE:HB3	2:M:964:LYS:HZ2	1.85	0.41
2:M:1066:ALA:O	2:M:1069:ALA:HB3	2.21	0.41
3:N:107:ASP:OD2	3:N:109:PRO:HD2	2.20	0.41
3:N:117:ASP:CB	3:N:495:ARG:HH22	2.33	0.41
3:N:171:LEU:CG	3:N:195:VAL:CG2	2.89	0.41
3:N:564:GLU:HA	3:N:567:ILE:CD1	2.50	0.41
3:N:778:LEU:HA	3:N:778:LEU:HD12	1.79	0.41
3:N:928:ALA:C	3:N:930:LEU:N	2.72	0.41
3:N:949:ILE:HD13	3:N:1019:PRO:HB2	2.01	0.41
3:N:1447:LEU:N	3:N:1447:LEU:CD1	2.83	0.41
5:G:8:DC:C2'	5:G:9:DC:OP2	2.55	0.41
7:I:8:DG:C2'	7:I:8:DG:O5'	2.68	0.41
1:B:106:PRO:HG3	1:B:133:GLU:O	2.20	0.41
2:C:9:ILE:O	2:C:9:ILE:CD1	2.69	0.41
2:C:72:ARG:CZ	2:C:95:TYR:HE1	2.33	0.41
2:C:75:GLU:O	2:C:93:PRO:CD	2.68	0.41
2:C:115:LEU:HD12	2:C:115:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:176:VAL:HG12	2:C:182:VAL:HG13	2.01	0.41
2:C:634:GLY:CA	2:C:705:ILE:O	2.67	0.41
2:C:754:ILE:HA	2:C:791:ARG:HA	2.02	0.41
2:C:759:THR:HB	2:C:785:VAL:HG13	2.02	0.41
2:C:878:SER:HB2	3:D:1029:ARG:NH1	2.36	0.41
3:D:153:LEU:O	3:D:153:LEU:HD12	2.21	0.41
3:D:163:TYR:N	3:D:163:TYR:CD1	2.82	0.41
3:D:487:ALA:HB2	5:G:8:DC:OP2	2.20	0.41
3:D:549:ASN:O	3:D:553:ARG:N	2.46	0.41
3:D:750:PRO:HB3	3:D:756:GLN:HA	2.03	0.41
3:D:770:LEU:HD23	3:D:777:PRO:HA	2.02	0.41
3:D:1046:GLN:HG2	3:D:1052:THR:CA	2.49	0.41
3:D:1074:SER:O	3:D:1078:ARG:HB2	2.20	0.41
3:D:1147:ARG:NH1	3:D:1189:ARG:O	2.53	0.41
3:D:1154:GLU:CA	3:N:562:ALA:H	2.34	0.41
3:D:1265:ALA:C	3:D:1266:ARG:HG3	2.40	0.41
3:D:1460:ILE:O	3:D:1460:ILE:CG1	2.61	0.41
1:K:39:PRO:O	1:K:43:ILE:HG12	2.20	0.41
1:K:101:LEU:HD23	1:K:101:LEU:O	2.20	0.41
1:L:80:LEU:O	3:N:844:ALA:CB	2.65	0.41
1:L:90:LEU:H	1:L:94:LEU:HD12	1.86	0.41
1:L:176:ARG:NH2	3:N:884:ARG:HG3	2.36	0.41
2:M:402:SER:HB2	2:M:566:THR:HG22	2.02	0.41
2:M:430:VAL:O	2:M:430:VAL:HG22	2.21	0.41
2:M:630:ARG:CG	2:M:630:ARG:NH1	2.81	0.41
2:M:754:ILE:CD1	2:M:791:ARG:CZ	2.98	0.41
2:M:799:ILE:O	2:M:827:VAL:HG13	2.20	0.41
2:M:937:ASP:H	2:M:940:GLU:HG3	1.86	0.41
2:M:1008:ARG:HH21	2:M:1012:PRO:CD	2.33	0.41
2:M:1039:ALA:O	2:M:1042:ALA:HB3	2.21	0.41
3:N:62:LYS:HD2	3:N:75:ARG:HH11	1.86	0.41
3:N:80:VAL:HG12	3:N:81:THR:N	2.36	0.41
3:N:477:LEU:HD22	3:N:492:ALA:CB	2.48	0.41
3:N:704:ARG:HE	3:N:706:PRO:CD	2.25	0.41
3:N:881:LEU:O	3:N:885:ILE:HG13	2.21	0.41
3:N:1109:GLU:CD	3:N:1201:CYS:HA	2.41	0.41
3:N:1267:ARG:HG2	3:N:1268:PRO:HD2	2.02	0.41
3:N:1394:VAL:CB	3:N:1397:LYS:HE2	2.48	0.41
3:N:1465:ASN:HD22	3:N:1465:ASN:HA	1.58	0.41
4:O:13:VAL:HG12	4:O:14:ASP:N	2.34	0.41
7:I:4:DG:O5'	7:I:4:DG:H2'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Y:5:C:C2'	6:Y:6:C:OP1	2.69	0.41
1:A:101:LEU:O	1:A:101:LEU:HD23	2.20	0.41
1:A:110:LYS:HB2	1:A:112:ARG:HG2	2.02	0.41
1:B:36:LEU:C	1:B:39:PRO:HD2	2.41	0.41
2:C:75:GLU:O	2:C:93:PRO:HD3	2.20	0.41
2:C:264:PRO:CB	2:C:289:THR:CB	2.98	0.41
2:C:317:VAL:C	2:C:319:GLY:N	2.68	0.41
2:C:573:ARG:HB2	2:C:670:GLN:HE22	1.86	0.41
2:C:668:LEU:HD12	2:C:668:LEU:N	2.36	0.41
2:C:882:LEU:HD12	3:D:1061:PHE:C	2.40	0.41
2:C:1030:GLN:HE22	3:D:628:ARG:HG2	1.85	0.41
3:D:100:ALA:HB3	3:D:128:TYR:OH	2.20	0.41
3:D:147:VAL:HG13	3:D:147:VAL:O	2.20	0.41
3:D:662:GLU:HG3	3:D:668:PRO:O	2.20	0.41
3:D:1083:ASP:C	3:D:1087:ARG:HG2	2.35	0.41
1:L:101:LEU:HD13	1:L:114:PHE:CD1	2.56	0.41
1:L:158:ILE:CG2	1:L:159:LYS:N	2.83	0.41
2:M:141:HIS:O	2:M:331:ARG:HB3	2.21	0.41
2:M:364:GLU:HB3	2:M:365:ASP:H	1.77	0.41
2:M:412:ALA:HB1	2:M:419:THR:HG21	2.03	0.41
2:M:1111:ILE:H	2:M:1111:ILE:HG12	1.46	0.41
3:N:25:GLU:HG3	3:N:92:HIS:O	2.21	0.41
3:N:41:ARG:C	3:N:43:GLY:N	2.72	0.41
3:N:52:PRO:HG3	3:N:80:VAL:HG13	2.02	0.41
3:N:55:ASP:CB	3:N:82:LYS:HE2	2.50	0.41
3:N:653:PHE:HZ	3:N:749:VAL:HG13	1.83	0.41
3:N:704:ARG:HD3	3:N:738:ALA:HB2	2.03	0.41
3:N:829:VAL:HG12	3:N:830:ALA:N	2.35	0.41
3:N:871:LYS:HE2	3:N:871:LYS:HB3	1.83	0.41
3:N:912:LYS:NZ	3:N:1362:LYS:NZ	2.68	0.41
3:N:962:GLN:O	3:N:965:GLU:HB3	2.21	0.41
1:A:56:VAL:HG22	1:A:142:VAL:HG12	2.03	0.41
2:C:160:ALA:CB	2:C:174:LEU:HD12	2.50	0.41
2:C:186:VAL:HG23	2:C:187:ASN:N	2.22	0.41
2:C:352:ALA:HA	2:C:355:VAL:CG1	2.51	0.41
2:C:518:LYS:NZ	2:C:518:LYS:CB	2.83	0.41
2:C:524:VAL:CG1	2:C:525:SER:H	2.32	0.41
2:C:754:ILE:HG12	2:C:791:ARG:NH1	2.36	0.41
3:D:36:THR:C	3:D:38:LYS:N	2.73	0.41
3:D:481:MET:O	3:D:489:ARG:HB2	2.20	0.41
3:D:792:ILE:HD12	3:D:941:PHE:CZ	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:880:ILE:CG2	3:D:881:LEU:N	2.84	0.41
3:D:907:GLU:OE2	3:D:909:ASN:HB2	2.21	0.41
3:D:988:ARG:O	3:D:992:ILE:HG13	2.20	0.41
3:D:1046:GLN:HG2	3:D:1052:THR:CB	2.51	0.41
3:D:1086:LEU:HD12	3:D:1086:LEU:N	2.35	0.41
3:D:1225:ALA:HA	3:D:1367:HIS:CG	2.56	0.41
3:D:1264:GLU:HB3	3:D:1266:ARG:CD	2.50	0.41
3:D:1489:GLN:H	3:D:1489:GLN:HG2	1.56	0.41
1:K:45:LEU:N	1:K:45:LEU:CD1	2.84	0.41
2:M:474:VAL:HG23	2:M:478:VAL:C	2.40	0.41
2:M:683:ASN:CA	2:M:687:ALA:HB3	2.51	0.41
2:M:903:SER:C	2:M:904:PRO:O	2.58	0.41
2:M:905:ILE:HG22	2:M:906:PHE:CD1	2.56	0.41
2:M:1002:GLU:CA	5:X:23:DG:H5”	2.46	0.41
3:N:117:ASP:HB2	3:N:495:ARG:NH2	2.36	0.41
3:N:455:ARG:HB3	3:N:459:GLU:HG2	2.02	0.41
3:N:522:PRO:CA	3:N:525:ARG:NH1	2.72	0.41
3:N:549:ASN:O	3:N:553:ARG:CB	2.69	0.41
3:N:918:ALA:HB3	3:N:927:THR:HG23	2.01	0.41
3:N:1033:GLN:O	3:N:1036:ARG:HB3	2.21	0.41
3:N:1294:VAL:O	3:N:1300:SER:HA	2.20	0.41
3:N:1365:ASP:O	3:N:1366:LYS:C	2.59	0.41
4:O:21:VAL:O	4:O:24:ALA:HB3	2.21	0.41
5:G:2:DT:OP1	5:G:2:DT:O4’	2.39	0.41
5:X:3:DC:O5’	5:X:3:DC:H2’	2.21	0.41
7:Z:2:DT:H1’	7:Z:3:DA:C5’	2.43	0.41
7:Z:3:DA:O5’	7:Z:3:DA:C2’	2.69	0.41
1:A:32:PHE:O	1:A:36:LEU:HG	2.21	0.41
1:A:101:LEU:HB2	1:A:114:PHE:HA	2.03	0.41
1:A:222:LEU:HD23	1:B:219:ARG:CG	2.50	0.41
1:B:59:GLU:CG	1:B:137:ARG:HH22	2.33	0.41
2:C:2:GLU:C	2:C:3:ILE:HD13	2.41	0.41
2:C:18:LEU:CD1	2:C:18:LEU:N	2.76	0.41
2:C:20:GLU:CG	2:C:21:ILE:N	2.84	0.41
2:C:35:PRO:HA	2:C:36:PRO:HD3	1.92	0.41
2:C:93:PRO:HA	2:C:117:HIS:CE1	2.56	0.41
2:C:293:PHE:N	2:C:293:PHE:CD1	2.89	0.41
2:C:578:VAL:HG13	2:C:671:ASN:HB3	2.02	0.41
2:C:650:ARG:HG3	2:C:653:ASP:HB2	2.03	0.41
2:C:858:MET:HE2	2:C:870:ILE:HD11	2.03	0.41
2:C:1014:SER:N	2:C:1019:GLN:O	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1042:ALA:N	3:D:1223:ILE:HG21	2.36	0.41
2:C:1046:ALA:HA	3:D:1472:ILE:CD1	2.51	0.41
2:C:1115:LEU:CD2	3:D:88:TYR:CD1	3.04	0.41
3:D:15:PRO:HB2	3:D:16:GLU:OE2	2.20	0.41
3:D:25:GLU:HG2	3:D:26:VAL:N	2.36	0.41
3:D:145:VAL:HG23	3:D:146:PRO:HD2	2.03	0.41
3:D:528:VAL:CG1	3:D:529:GLN:N	2.76	0.41
3:D:696:HIS:CD2	4:E:59:ASN:CA	3.04	0.41
3:D:706:PRO:HG2	5:G:19:DG:N2	2.35	0.41
3:D:708:LEU:O	3:D:1227:GLN:HG2	2.21	0.41
3:D:781:PRO:O	3:D:786:ILE:HD11	2.21	0.41
3:D:807:ALA:HA	3:D:833:GLU:CB	2.51	0.41
3:D:875:THR:HG22	3:D:876:SER:H	1.86	0.41
3:D:899:LEU:HD22	3:D:917:GLN:HG2	1.93	0.41
3:D:900:ILE:O	3:D:900:ILE:HD12	2.21	0.41
3:D:932:ASP:O	3:D:935:LYS:CE	2.69	0.41
3:D:998:GLU:HG3	3:D:1247:ALA:HB2	2.02	0.41
3:D:1046:GLN:HG2	3:D:1052:THR:HA	2.03	0.41
3:D:1096:ARG:NH1	5:G:18:DC:OP1	2.54	0.41
3:D:1131:SER:C	3:D:1132:LEU:HD12	2.41	0.41
3:D:1408:ILE:HG23	2:M:371:LYS:CA	2.51	0.41
1:K:42:ARG:HH12	1:L:34:VAL:HG12	1.86	0.41
1:K:112:ARG:NH2	1:K:125:PRO:HB2	2.36	0.41
1:K:124:ASN:OD1	1:K:127:LEU:HB2	2.21	0.41
1:L:86:VAL:HG13	1:L:86:VAL:O	2.21	0.41
1:L:141:GLU:H	1:L:141:GLU:HG2	1.73	0.41
1:L:199:ILE:HG22	1:L:200:TRP:N	2.35	0.41
2:M:31:GLN:NE2	2:M:35:PRO:O	2.54	0.41
2:M:66:LEU:HD12	2:M:99:GLN:C	2.40	0.41
2:M:163:ILE:O	2:M:163:ILE:HG13	2.21	0.41
2:M:408:ARG:NH2	2:M:455:LEU:CD1	2.84	0.41
2:M:437:ARG:NH2	2:M:491:GLU:OE2	2.54	0.41
2:M:952:LEU:HD13	2:M:952:LEU:HA	1.97	0.41
2:M:1004:LYS:HD3	2:M:1004:LYS:HA	1.77	0.41
2:M:1034:GLU:HB2	2:M:1038:TRP:CE2	2.56	0.41
2:M:1105:LYS:H	2:M:1105:LYS:HG3	1.68	0.41
2:M:1111:ILE:HG13	2:M:1112:PHE:N	2.33	0.41
3:N:95:LEU:HA	3:N:95:LEU:HD23	1.83	0.41
3:N:129:PHE:O	3:N:572:ARG:HG2	2.21	0.41
3:N:143:ASN:OD1	3:N:145:VAL:N	2.50	0.41
3:N:401:TYR:HB3	3:N:427:VAL:HG13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:452:ILE:HG23	3:N:452:ILE:O	2.20	0.41
3:N:552:ASN:O	3:N:555:LYS:HB2	2.20	0.41
3:N:646:LYS:CG	3:N:688:TRP:CZ2	3.03	0.41
3:N:875:THR:CG2	3:N:879:ARG:HB2	2.51	0.41
3:N:880:ILE:CG2	3:N:881:LEU:N	2.83	0.41
3:N:1108:ARG:HD3	3:N:1108:ARG:N	2.36	0.41
3:N:1200:VAL:HG12	3:N:1201:CYS:N	2.36	0.41
3:N:1257:PRO:O	3:N:1261:GLU:HG3	2.21	0.41
3:N:1340:GLY:O	3:N:1343:ALA:HB3	2.20	0.41
3:N:1364:HIS:CE1	3:N:1366:LYS:HG3	2.55	0.41
5:G:13:DA:O5'	5:G:13:DA:C2'	2.67	0.41
7:I:8:DG:C2'	7:I:9:DT:OP2	2.65	0.41
5:X:4:DA:O5'	5:X:4:DA:H2'	2.21	0.41
6:Y:7:G:H2'	6:Y:8:G:O5'	2.21	0.41
7:Z:5:DC:O5'	7:Z:5:DC:H2'	2.21	0.41
1:A:42:ARG:CD	1:B:35:THR:HA	2.39	0.41
1:B:76:VAL:HA	1:B:79:ILE:HG12	2.03	0.41
2:C:468:ARG:HB2	2:C:485:TYR:HB3	2.02	0.41
2:C:764:GLU:OE2	6:H:2:C:H4'	2.21	0.41
3:D:22:SER:HB2	3:D:92:HIS:HB3	2.03	0.41
3:D:502:PHE:CE2	3:D:1452:ILE:HG23	2.56	0.41
3:D:550:ARG:HD3	3:D:553:ARG:HD2	2.03	0.41
3:D:551:ASN:OD1	3:D:555:LYS:HE3	2.21	0.41
3:D:576:GLU:O	3:D:576:GLU:OE2	2.39	0.41
3:D:625:TYR:OH	3:D:655:PRO:HG2	2.20	0.41
3:D:1239:ARG:O	3:D:1239:ARG:HD3	2.21	0.41
3:D:1383:ASP:HB3	3:D:1416:ALA:HB3	2.02	0.41
3:D:1491:THR:O	3:D:1495:ILE:HD13	2.21	0.41
1:L:66:SER:O	1:L:75:VAL:HG23	2.21	0.41
2:M:310:LEU:HD12	2:M:314:THR:CG2	2.51	0.41
2:M:428:ARG:HH11	2:M:449:ILE:HG22	1.85	0.41
2:M:762:LYS:CE	2:M:786:LYS:HG3	2.51	0.41
2:M:861:LEU:HD23	2:M:862:PRO:HD2	2.02	0.41
2:M:1089:VAL:HG13	2:M:1099:VAL:HB	2.03	0.41
2:M:1091:GLU:O	2:M:1094:ALA:HB3	2.21	0.41
3:N:112:ILE:CD1	3:N:116:LEU:HD12	2.49	0.41
3:N:159:ARG:O	3:N:162:ARG:HB3	2.21	0.41
3:N:481:MET:O	3:N:489:ARG:CD	2.69	0.41
3:N:653:PHE:O	3:N:657:LEU:N	2.45	0.41
3:N:951:ILE:HG22	3:N:952:ASP:N	2.36	0.41
3:N:1350:GLU:OE2	3:N:1357:ARG:CZ	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1369:GLU:O	3:N:1370:ILE:C	2.58	0.41
3:N:1405:GLU:O	3:N:1405:GLU:HG3	2.20	0.41
3:N:1412:LYS:HE2	3:N:1414:PRO:HG3	2.03	0.41
3:N:1465:ASN:CB	3:N:1473:PRO:HD3	2.50	0.41
5:G:7:DA:C5	5:G:8:DC:C4	3.09	0.41
1:B:40:LEU:O	1:B:44:LEU:HG	2.21	0.40
2:C:19:THR:HG22	2:C:19:THR:O	2.20	0.40
2:C:101:ILE:HD12	2:C:107:LEU:HD22	2.02	0.40
2:C:165:LEU:HB3	2:C:265:ARG:HH12	1.84	0.40
2:C:165:LEU:O	2:C:265:ARG:NE	2.54	0.40
2:C:414:GLY:C	2:C:416:GLY:N	2.75	0.40
2:C:499:ALA:HA	2:C:532:MET:CE	2.50	0.40
2:C:516:ARG:HD2	3:D:1068:LEU:HD22	2.02	0.40
2:C:557:ARG:HH11	2:C:560:MET:HG3	1.85	0.40
2:C:677:MET:HA	2:C:678:PRO:HD3	1.86	0.40
2:C:994:ILE:HG22	2:C:995:MET:H	1.86	0.40
2:C:1035:MET:SD	5:G:20:DC:C5'	3.04	0.40
3:D:675:ARG:O	3:D:678:GLU:CD	2.59	0.40
3:D:800:LYS:HD2	3:D:804:LEU:HD13	2.03	0.40
3:D:978:TYR:HA	3:D:983:LEU:HD21	2.03	0.40
3:D:983:LEU:H	3:D:983:LEU:HD23	1.85	0.40
3:D:1488:ASP:OD2	3:D:1491:THR:OG1	2.36	0.40
1:K:221:HIS:HA	1:K:224:TYR:CE2	2.56	0.40
1:L:227:ASN:HA	1:L:228:PRO:HD3	1.71	0.40
2:M:12:VAL:HG13	2:M:13:ILE:N	2.36	0.40
2:M:88:LEU:HD22	2:M:814:GLU:HG2	2.03	0.40
2:M:334:ARG:HH22	2:M:342:ASP:CB	2.33	0.40
2:M:572:ILE:H	2:M:572:ILE:HG13	1.57	0.40
2:M:881:ASN:OD1	2:M:884:GLN:CD	2.60	0.40
2:M:985:GLY:HA2	2:M:986:PRO:HD3	1.91	0.40
3:N:131:LYS:O	3:N:132:TYR:CG	2.75	0.40
3:N:133:ILE:O	3:N:153:LEU:N	2.49	0.40
3:N:494:LYS:O	3:N:494:LYS:HG2	2.21	0.40
3:N:565:ILE:H	3:N:565:ILE:CD1	2.29	0.40
3:N:1059:SER:HB2	3:N:1065:LEU:HA	2.01	0.40
3:N:1209:LEU:HG	3:N:1219:GLU:OE2	2.21	0.40
3:N:1389:LEU:O	3:N:1390:LEU:C	2.60	0.40
3:N:1451:ALA:O	3:N:1452:ILE:C	2.60	0.40
7:I:8:DG:O5'	7:I:8:DG:H2'	2.21	0.40
1:A:178:ALA:HB3	1:A:198:ARG:CG	2.51	0.40
1:B:75:VAL:O	1:B:79:ILE:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:79:ILE:HA	1:B:82:LEU:HG	2.02	0.40
2:C:1004:LYS:HD3	2:C:1004:LYS:HA	1.72	0.40
2:C:1046:ALA:CB	3:D:1472:ILE:CG1	2.99	0.40
2:C:1071:ILE:O	3:D:659:LYS:HD3	2.21	0.40
2:C:1090:LYS:HD2	3:D:90:MET:HG2	2.03	0.40
3:D:109:PRO:O	3:D:110:SER:C	2.58	0.40
3:D:519:VAL:HA	3:D:544:TYR:OH	2.21	0.40
3:D:1038:LEU:CD1	3:D:1042:ARG:HH11	2.34	0.40
3:D:1089:ALA:O	3:D:1093:TYR:HB2	2.20	0.40
3:D:1225:ALA:CB	3:D:1367:HIS:ND1	2.84	0.40
1:K:56:VAL:HG13	1:K:142:VAL:CG1	2.51	0.40
1:K:76:VAL:HA	1:K:79:ILE:HG12	2.03	0.40
1:K:222:LEU:HD23	1:L:219:ARG:HA	2.03	0.40
1:L:86:VAL:CG1	1:L:124:ASN:HB2	2.52	0.40
1:L:213:GLN:O	1:L:217:ILE:HD13	2.22	0.40
2:M:221:LEU:HG	2:M:222:MET:H	1.86	0.40
2:M:306:THR:OG1	2:M:307:LEU:N	2.55	0.40
2:M:411:SER:OG	2:M:412:ALA:N	2.53	0.40
2:M:452:ILE:N	2:M:452:ILE:CD1	2.84	0.40
2:M:540:PHE:HB3	2:M:544:THR:CG2	2.50	0.40
2:M:863:ASP:O	2:M:865:THR:N	2.53	0.40
2:M:1096:ALA:O	3:N:13:ALA:HB2	2.22	0.40
3:N:160:GLU:O	3:N:162:ARG:N	2.55	0.40
3:N:473:LEU:HD12	3:N:473:LEU:N	2.36	0.40
3:N:475:LYS:HA	3:N:478:LEU:HD12	2.02	0.40
3:N:691:LEU:C	3:N:693:GLU:N	2.75	0.40
3:N:1112:CYS:HB2	3:N:1195:GLN:CG	2.52	0.40
3:N:1213:ARG:NH2	4:O:14:ASP:CA	2.83	0.40
3:N:1219:GLU:OE1	4:O:17:TYR:CE2	2.73	0.40
3:N:1227:GLN:O	3:N:1229:ILE:N	2.53	0.40
5:G:22:DA:H2	6:H:12:U:O2	2.04	0.40
1:A:11:PHE:HB3	1:B:227:ASN:O	2.21	0.40
1:A:80:LEU:HD23	1:A:80:LEU:C	2.41	0.40
1:A:107:LYS:NZ	1:A:113:ASP:OD2	2.49	0.40
1:A:134:GLU:C	1:A:136:GLY:N	2.72	0.40
2:C:26:TYR:HD2	2:C:121:MET:HB2	1.85	0.40
2:C:31:GLN:HG2	2:C:34:VAL:CG2	2.51	0.40
2:C:243:ARG:HG3	2:C:243:ARG:NH1	2.35	0.40
2:C:292:ARG:CB	2:C:299:LYS:HG2	2.45	0.40
2:C:399:ASN:CG	2:C:402:SER:HB3	2.36	0.40
2:C:684:PHE:HB3	3:D:740:PHE:HE1	1.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1008:ARG:NH2	2:C:1011:GLY:C	2.74	0.40
2:C:1014:SER:CB	2:C:1017:THR:O	2.62	0.40
2:C:1086:ARG:HH22	2:C:1113:GLU:HG2	1.86	0.40
3:D:19:ARG:HG3	3:D:19:ARG:NH1	2.36	0.40
3:D:87:ARG:N	3:D:523:ASP:OD2	2.55	0.40
3:D:660:LYS:HB2	3:D:660:LYS:NZ	2.35	0.40
3:D:888:GLU:O	3:D:889:ALA:C	2.57	0.40
3:D:916:TYR:HH	3:D:1145:TYR:HE2	1.68	0.40
3:D:1190:SER:C	3:D:1204:CYS:SG	3.00	0.40
4:E:4:PRO:O	4:E:5:GLY:C	2.60	0.40
1:K:11:PHE:CD1	1:K:25:LEU:HD13	2.55	0.40
1:K:29:GLU:HB3	1:K:30:ARG:H	1.69	0.40
1:L:195:LEU:HD12	1:L:196:THR:H	1.83	0.40
2:M:175:GLU:O	2:M:183:SER:HB3	2.21	0.40
2:M:458:TYR:O	2:M:459:ALA:C	2.57	0.40
2:M:473:ARG:NH1	2:M:473:ARG:HG2	2.36	0.40
2:M:517:ARG:HB3	2:M:518:LYS:H	1.66	0.40
2:M:640:ARG:CG	2:M:640:ARG:HH11	2.35	0.40
2:M:663:ASN:HB2	2:M:665:PHE:CE1	2.57	0.40
2:M:707:ARG:CD	2:M:824:ARG:CD	2.99	0.40
2:M:816:LYS:O	2:M:819:VAL:HB	2.21	0.40
2:M:826:TYR:N	2:M:826:TYR:CD1	2.89	0.40
2:M:937:ASP:N	2:M:940:GLU:OE2	2.52	0.40
2:M:1084:SER:HA	2:M:1087:VAL:HG12	2.03	0.40
3:N:30:GLU:OE1	3:N:30:GLU:HA	2.21	0.40
3:N:646:LYS:O	3:N:649:ALA:HB3	2.22	0.40
3:N:678:GLU:C	3:N:679:ARG:HG3	2.41	0.40
3:N:753:SER:HB3	4:O:27:ALA:CB	2.51	0.40
3:N:951:ILE:CG2	3:N:952:ASP:N	2.83	0.40
3:N:1271:LYS:HD3	3:N:1273:VAL:CG1	2.51	0.40
3:N:1294:VAL:HG23	3:N:1301:LYS:HB3	2.01	0.40
3:N:1305:LEU:HD12	3:N:1311:LEU:HB3	2.03	0.40
3:N:1463:LYS:HB2	3:N:1463:LYS:HE3	1.84	0.40
1:A:20:TYR:HD2	1:A:199:ILE:O	2.05	0.40
1:A:219:ARG:HA	1:A:222:LEU:HD13	2.04	0.40
2:C:214:TYR:OH	2:C:308:ARG:O	2.38	0.40
2:C:328:LEU:CG	2:C:433:THR:HB	2.50	0.40
2:C:470:PRO:HB2	2:C:534:VAL:HG21	2.04	0.40
2:C:863:ASP:O	2:C:865:THR:N	2.54	0.40
3:D:619:LEU:CD1	3:D:621:LYS:HZ1	2.31	0.40
3:D:788:GLY:O	3:D:792:ILE:HG22	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:796:ARG:NH2	3:D:859:ASP:HB2	2.36	0.40
3:D:925:GLU:OE1	4:E:5:GLY:N	2.54	0.40
3:D:1042:ARG:HE	3:D:1073:SER:HB2	1.86	0.40
3:D:1156:LEU:HD12	3:D:1177:ALA:HB2	2.04	0.40
3:D:1339:LYS:HG2	3:D:1343:ALA:HB2	2.03	0.40
3:D:1408:ILE:HG23	2:M:371:LYS:N	2.37	0.40
3:D:1435:LEU:HD13	3:D:1457:ASP:CG	2.41	0.40
4:E:54:LEU:HD21	4:E:63:TRP:NE1	2.28	0.40
4:E:68:LEU:CD1	4:E:73:LEU:HD13	2.46	0.40
2:M:172:ILE:HG22	2:M:173:ASP:N	2.36	0.40
2:M:269:LEU:HG	2:M:288:ARG:CG	2.48	0.40
2:M:567:GLN:HE22	6:Y:13:C:H5'	1.86	0.40
2:M:650:ARG:CD	2:M:653:ASP:OD2	2.70	0.40
2:M:692:GLU:OE1	2:M:854:PRO:CB	2.68	0.40
2:M:970:GLY:O	2:M:988:VAL:HB	2.21	0.40
2:M:1105:LYS:HZ3	2:M:1107:ASN:HB2	1.85	0.40
3:N:111:LYS:HE3	3:N:1449:GLU:CA	2.52	0.40
3:N:111:LYS:HZ2	3:N:1449:GLU:HG3	1.84	0.40
3:N:480:GLU:OE2	3:N:484:PRO:HG2	2.21	0.40
3:N:568:ARG:HH21	3:N:572:ARG:HA	1.87	0.40
3:N:812:ALA:O	3:N:816:HIS:CG	2.75	0.40
3:N:1401:GLU:OE2	3:N:1402:ALA:N	2.54	0.40
4:O:41:GLU:OE1	4:O:42:PRO:HD3	2.21	0.40
4:O:47:LYS:N	4:O:54:LEU:CD1	2.83	0.40
5:G:13:DA:C2'	5:G:14:DG:OP2	2.43	0.40
7:Z:9:DT:C2'	7:Z:10:DG:OP2	2.61	0.40
1:B:99:LEU:HB2	1:B:142:VAL:CG2	2.51	0.40
2:C:31:GLN:NE2	2:C:38:LYS:CB	2.84	0.40
2:C:137:VAL:O	2:C:391:LEU:HD21	2.21	0.40
2:C:243:ARG:N	2:C:244:PRO:HD3	2.36	0.40
2:C:251:ASP:HB3	2:C:252:LYS:HG3	2.03	0.40
2:C:256:TYR:CE1	2:C:293:PHE:HB2	2.57	0.40
2:C:260:LEU:HB3	2:C:291:ALA:HB2	1.98	0.40
2:C:409:ARG:HB3	2:C:454:SER:CB	2.45	0.40
2:C:498:GLN:O	2:C:532:MET:SD	2.80	0.40
2:C:1040:LEU:HD23	2:C:1049:LEU:HB2	2.02	0.40
2:C:1092:LEU:HB3	2:C:1099:VAL:CG2	2.52	0.40
3:D:16:GLU:CD	3:D:16:GLU:N	2.75	0.40
3:D:901:GLN:H	3:D:901:GLN:HG2	1.71	0.40
3:D:1093:TYR:CE2	3:D:1096:ARG:NH1	2.90	0.40
3:D:1094:LEU:HD11	3:D:1260:ILE:CD1	2.49	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1135:ARG:HD3	3:D:1139:ASP:CB	2.51	0.40
4:E:28:GLN:HA	4:E:31:LEU:HD12	2.03	0.40
4:E:36:LYS:NZ	4:E:45:ARG:HH22	2.18	0.40
1:K:36:LEU:C	1:K:39:PRO:HD2	2.42	0.40
1:K:210:ALA:HA	1:K:213:GLN:OE1	2.21	0.40
2:M:69:LEU:HD12	2:M:97:ARG:CB	2.48	0.40
2:M:162:ILE:CG2	2:M:172:ILE:HD13	2.51	0.40
2:M:394:PHE:CZ	2:M:632:ASN:CG	2.95	0.40
2:M:423:ALA:HB2	7:Z:1:DG:C1'	2.51	0.40
2:M:435:TYR:C	2:M:437:ARG:H	2.24	0.40
2:M:497:ALA:HA	2:M:515:ALA:HA	2.04	0.40
2:M:694:LEU:HD22	2:M:699:PHE:CD1	2.57	0.40
2:M:922:PHE:HB3	2:M:964:LYS:HZ1	1.82	0.40
3:N:827:ILE:O	3:N:827:ILE:HG22	2.21	0.40
3:N:1443:THR:HA	3:N:1446:VAL:CG2	2.52	0.40
4:O:41:GLU:O	4:O:42:PRO:O	2.39	0.40
5:G:6:DT:H2"	5:G:7:DA:C8	2.57	0.40
5:X:11:DC:O5'	5:X:11:DC:H2'	2.22	0.40
5:X:25:DG:H2'	5:X:26:DC:C6	2.56	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	227/315 (72%)	194 (86%)	24 (11%)	9 (4%)	3 26
1	B	227/315 (72%)	195 (86%)	23 (10%)	9 (4%)	3 26
1	K	227/315 (72%)	193 (85%)	26 (12%)	8 (4%)	3 29
1	L	227/315 (72%)	201 (88%)	17 (8%)	9 (4%)	3 26
2	C	1117/1119 (100%)	893 (80%)	151 (14%)	73 (6%)	1 18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	M	1117/1119 (100%)	889 (80%)	153 (14%)	75 (7%)	1	18
3	D	1143/1524 (75%)	903 (79%)	167 (15%)	73 (6%)	1	19
3	N	1280/1524 (84%)	1011 (79%)	190 (15%)	79 (6%)	1	19
4	E	93/99 (94%)	67 (72%)	15 (16%)	11 (12%)	0	6
4	O	93/99 (94%)	69 (74%)	13 (14%)	11 (12%)	0	6
All	All	5751/6744 (85%)	4615 (80%)	779 (14%)	357 (6%)	1	19

All (357) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	3	ASP
1	A	29	GLU
1	A	118	ALA
1	A	133	GLU
1	A	187	GLY
1	B	187	GLY
2	C	59	LYS
2	C	87	ASP
2	C	129	ILE
2	C	164	PRO
2	C	170	PRO
2	C	223	ASP
2	C	231	PRO
2	C	244	PRO
2	C	253	ALA
2	C	262	ALA
2	C	288	ARG
2	C	290	LEU
2	C	292	ARG
2	C	369	PRO
2	C	434	HIS
2	C	457	ALA
2	C	517	ARG
2	C	627	ARG
2	C	680	ASP
2	C	684	PHE
2	C	698	ASP
2	C	727	PRO
2	C	1005	MET
2	C	1033	GLY

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Mol	Chain	Res	Type
2	C	1106	ASP
3	D	40	GLU
3	D	55	ASP
3	D	120	ALA
3	D	136	ASP
3	D	705	ALA
3	D	725	SER
3	D	735	ALA
3	D	1028	ALA
3	D	1032	PRO
3	D	1237	THR
3	D	1389	LEU
3	D	1446	VAL
4	E	22	VAL
4	E	42	PRO
4	E	43	GLU
4	E	58	PRO
4	E	95	VAL
1	K	3	ASP
1	K	29	GLU
1	K	118	ALA
1	K	133	GLU
1	K	187	GLY
1	L	187	GLY
2	M	44	ILE
2	M	87	ASP
2	M	129	ILE
2	M	164	PRO
2	M	170	PRO
2	M	223	ASP
2	M	231	PRO
2	M	244	PRO
2	M	253	ALA
2	M	262	ALA
2	M	288	ARG
2	M	290	LEU
2	M	369	PRO
2	M	457	ALA
2	M	517	ARG
2	M	680	ASP
2	M	684	PHE
2	M	698	ASP

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Mol	Chain	Res	Type
2	M	727	PRO
2	M	905	ILE
2	M	1005	MET
2	M	1033	GLY
2	M	1096	ALA
2	M	1106	ASP
2	M	1113	GLU
3	N	40	GLU
3	N	43	GLY
3	N	55	ASP
3	N	136	ASP
3	N	167	GLU
3	N	539	ASP
3	N	1265	ALA
3	N	1323	GLN
3	N	1389	LEU
3	N	1408	ILE
3	N	1446	VAL
4	O	22	VAL
4	O	42	PRO
4	O	43	GLU
4	O	58	PRO
2	C	40	GLU
2	C	80	GLN
2	C	138	SER
2	C	144	PRO
2	C	152	PRO
2	C	156	GLY
2	C	178	PRO
2	C	205	GLU
2	C	251	ASP
2	C	261	ILE
2	C	264	PRO
2	C	268	ASP
2	C	325	ILE
2	C	366	SER
2	C	465	GLY
2	C	548	PRO
2	C	593	ALA
2	C	762	LYS
2	C	765	SER
2	C	831	ARG

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Mol	Chain	Res	Type
2	C	864	GLY
2	C	905	ILE
2	C	908	GLY
2	C	1055	LEU
3	D	43	GLY
3	D	98	PRO
3	D	530	VAL
3	D	532	GLY
3	D	564	GLU
3	D	620	GLY
3	D	652	LEU
3	D	803	GLY
3	D	807	ALA
3	D	822	ALA
3	D	924	MET
3	D	1045	MET
3	D	1104	GLU
3	D	1161	GLU
3	D	1197	ARG
3	D	1408	ILE
3	D	1410	GLU
3	D	1441	GLN
3	D	1454	GLY
1	L	125	PRO
2	M	40	GLU
2	M	80	GLN
2	M	138	SER
2	M	144	PRO
2	M	152	PRO
2	M	156	GLY
2	M	178	PRO
2	M	261	ILE
2	M	264	PRO
2	M	292	ARG
2	M	325	ILE
2	M	434	HIS
2	M	465	GLY
2	M	593	ALA
2	M	627	ARG
2	M	740	GLU
2	M	864	GLY
2	M	908	GLY

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Mol	Chain	Res	Type
2	M	984	GLU
2	M	1055	LEU
3	N	31	THR
3	N	59	ALA
3	N	67	ARG
3	N	77	GLY
3	N	110	SER
3	N	117	ASP
3	N	120	ALA
3	N	486	ARG
3	N	620	GLY
3	N	735	ALA
3	N	803	GLY
3	N	807	ALA
3	N	844	ALA
3	N	1104	GLU
3	N	1306	PRO
3	N	1332	PRO
3	N	1385	GLY
3	N	1410	GLU
3	N	1454	GLY
3	N	1482	ARG
1	A	157	GLY
1	B	29	GLU
1	B	118	ALA
1	B	125	PRO
2	C	188	LYS
2	C	278	GLU
2	C	646	GLY
2	C	738	ASP
2	C	740	GLU
2	C	904	PRO
2	C	984	GLU
2	C	1114	GLY
3	D	3	LYS
3	D	31	THR
3	D	119	SER
3	D	137	PRO
3	D	140	ALA
3	D	507	ASN
3	D	522	PRO
3	D	594	PRO

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Mol	Chain	Res	Type
3	D	834	THR
3	D	844	ALA
3	D	869	MET
3	D	1111	ASP
3	D	1125	PRO
3	D	1138	ALA
3	D	1196	THR
3	D	1208	ASP
3	D	1385	GLY
3	D	1407	LEU
4	E	5	GLY
4	E	82	GLU
1	L	3	ASP
1	L	29	GLU
1	L	191	ASP
2	M	10	ARG
2	M	251	ASP
2	M	268	ASP
2	M	363	SER
2	M	366	SER
2	M	462	ASP
2	M	548	PRO
2	M	762	LYS
2	M	767	PRO
3	N	34	TYR
3	N	37	LEU
3	N	96	ALA
3	N	98	PRO
3	N	137	PRO
3	N	160	GLU
3	N	564	GLU
3	N	594	PRO
3	N	696	HIS
3	N	822	ALA
3	N	834	THR
3	N	869	MET
3	N	1067	VAL
3	N	1111	ASP
3	N	1125	PRO
3	N	1161	GLU
3	N	1197	ARG
3	N	1237	THR

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Mol	Chain	Res	Type
3	N	1315	ASP
3	N	1390	LEU
3	N	1407	LEU
4	O	40	LEU
1	B	73	GLU
2	C	18	LEU
2	C	111	ASP
2	C	462	ASP
2	C	1000	MET
2	C	1079	PRO
3	D	37	LEU
3	D	42	ASP
3	D	503	LEU
3	D	808	THR
3	D	1103	HIS
3	D	1207	TYR
3	D	1240	THR
3	D	1348	LEU
3	D	1390	LEU
3	D	1482	ARG
4	E	32	ARG
4	E	40	LEU
4	E	55	PHE
1	K	157	GLY
1	L	118	ALA
2	M	53	PRO
2	M	111	ASP
2	M	188	LYS
2	M	205	GLU
2	M	326	ASP
2	M	646	GLY
2	M	904	PRO
2	M	1079	PRO
2	M	1114	GLY
3	N	119	SER
3	N	397	LYS
3	N	504	ASP
3	N	530	VAL
3	N	751	LEU
3	N	808	THR
3	N	924	MET
3	N	1276	GLU

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Mol	Chain	Res	Type
3	N	1457	ASP
4	O	55	PHE
4	O	82	GLU
1	B	3	ASP
1	B	9	PRO
1	B	47	SER
2	C	39	ARG
2	C	74	GLY
3	D	124	GLU
1	K	224	TYR
1	L	9	PRO
1	L	126	ASP
2	M	18	LEU
2	M	39	ARG
2	M	74	GLY
2	M	141	HIS
2	M	467	ILE
2	M	1027	PHE
3	N	507	ASN
3	N	540	LEU
3	N	705	ALA
3	N	757	ALA
3	N	1138	ALA
3	N	1155	VAL
3	N	1341	PRO
3	N	1355	VAL
4	O	5	GLY
1	A	9	PRO
1	A	224	TYR
2	C	1024	LYS
3	D	108	VAL
3	D	523	ASP
3	D	751	LEU
3	D	920	LEU
3	D	1155	VAL
3	D	1205	TYR
4	E	57	ASP
2	M	377	PRO
2	M	400	PRO
2	M	765	SER
3	N	503	LEU
3	N	522	PRO

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Mol	Chain	Res	Type
3	N	604	THR
3	N	668	PRO
3	N	1327	ARG
4	O	16	LYS
4	O	57	ASP
1	B	10	VAL
2	C	377	PRO
2	C	400	PRO
2	C	812	GLY
3	D	1341	PRO
3	D	1370	ILE
1	K	125	PRO
2	M	812	GLY
3	N	1128	VAL
3	N	1349	VAL
2	C	467	ILE
3	D	146	PRO
3	D	499	VAL
3	N	588	GLY
2	C	263	ASP
3	D	1050	GLY
1	L	10	VAL
2	M	113	VAL
3	N	548	ILE
1	A	125	PRO
2	C	113	VAL
2	C	128	ILE
2	C	424	GLY
3	D	1349	VAL
2	M	424	GLY
3	N	499	VAL
4	O	81	PRO
3	D	668	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	202/273 (74%)	178 (88%)	24 (12%)	5	23
1	B	202/273 (74%)	182 (90%)	20 (10%)	8	29
1	K	202/273 (74%)	182 (90%)	20 (10%)	8	29
1	L	202/273 (74%)	182 (90%)	20 (10%)	8	29
2	C	941/941 (100%)	790 (84%)	151 (16%)	2	15
2	M	941/941 (100%)	794 (84%)	147 (16%)	2	16
3	D	968/1279 (76%)	806 (83%)	162 (17%)	2	14
3	N	1088/1279 (85%)	919 (84%)	169 (16%)	2	16
4	E	84/88 (96%)	70 (83%)	14 (17%)	2	14
4	O	84/88 (96%)	70 (83%)	14 (17%)	2	14
All	All	4914/5708 (86%)	4173 (85%)	741 (15%)	3	17

All (741) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	20	TYR
1	A	26	GLU
1	A	54	THR
1	A	65	PHE
1	A	69	PRO
1	A	96	THR
1	A	100	LEU
1	A	101	LEU
1	A	104	GLU
1	A	113	ASP
1	A	123	MET
1	A	126	ASP
1	A	139	ASN
1	A	141	GLU
1	A	143	ARG
1	A	154	GLU
1	A	168	ASP
1	A	175	ARG
1	A	189	ARG
1	A	193	ASP
1	A	197	LEU
1	A	206	THR
1	A	219	ARG
1	A	226	SER

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Mol	Chain	Res	Type
1	B	3	ASP
1	B	20	TYR
1	B	62	LEU
1	B	73	GLU
1	B	81	ASN
1	B	96	THR
1	B	123	MET
1	B	124	ASN
1	B	140	MET
1	B	159	LYS
1	B	161	ARG
1	B	163	ASN
1	B	176	ARG
1	B	179	PHE
1	B	189	ARG
1	B	193	ASP
1	B	201	THR
1	B	206	THR
1	B	215	VAL
1	B	226	SER
2	C	5	ARG
2	C	30	LEU
2	C	33	ASP
2	C	34	VAL
2	C	39	ARG
2	C	48	PHE
2	C	51	THR
2	C	67	ASP
2	C	71	TYR
2	C	72	ARG
2	C	75	GLU
2	C	80	GLN
2	C	81	ASP
2	C	87	ASP
2	C	88	LEU
2	C	91	GLN
2	C	94	LEU
2	C	95	TYR
2	C	98	LEU
2	C	103	LYS
2	C	104	ASP
2	C	115	LEU

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Mol	Chain	Res	Type
2	C	117	HIS
2	C	129	ILE
2	C	133	ASP
2	C	141	HIS
2	C	142	ARG
2	C	158	TYR
2	C	170	PRO
2	C	173	ASP
2	C	183	SER
2	C	188	LYS
2	C	190	LYS
2	C	191	PHE
2	C	196	LEU
2	C	198	ARG
2	C	205	GLU
2	C	209	ARG
2	C	237	ARG
2	C	238	LEU
2	C	239	PHE
2	C	243	ARG
2	C	252	LYS
2	C	266	ARG
2	C	267	TYR
2	C	268	ASP
2	C	274	ARG
2	C	275	TYR
2	C	281	LEU
2	C	285	LEU
2	C	286	SER
2	C	289	THR
2	C	290	LEU
2	C	292	ARG
2	C	293	PHE
2	C	297	GLU
2	C	298	PHE
2	C	306	THR
2	C	308	ARG
2	C	309	TYR
2	C	313	LEU
2	C	321	GLU
2	C	322	VAL
2	C	327	HIS

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Mol	Chain	Res	Type
2	C	330	ASN
2	C	345	ARG
2	C	359	MET
2	C	365	ASP
2	C	367	LEU
2	C	376	ARG
2	C	392	SER
2	C	398	THR
2	C	400	PRO
2	C	404	LEU
2	C	419	THR
2	C	422	ARG
2	C	425	PHE
2	C	433	THR
2	C	443	THR
2	C	453	THR
2	C	458	TYR
2	C	469	THR
2	C	481	ASP
2	C	486	MET
2	C	492	ASP
2	C	498	GLN
2	C	500	ASN
2	C	503	LEU
2	C	506	ASN
2	C	533	ASP
2	C	537	LYS
2	C	541	SER
2	C	548	PRO
2	C	557	ARG
2	C	578	VAL
2	C	584	GLU
2	C	599	GLU
2	C	606	VAL
2	C	617	ASP
2	C	620	LEU
2	C	632	ASN
2	C	635	THR
2	C	640	ARG
2	C	645	VAL
2	C	654	LEU
2	C	668	LEU

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Mol	Chain	Res	Type
2	C	680	ASP
2	C	693	GLU
2	C	695	LEU
2	C	699	PHE
2	C	701	THR
2	C	714	ASP
2	C	727	PRO
2	C	728	HIS
2	C	738	ASP
2	C	739	GLU
2	C	766	GLU
2	C	780	GLU
2	C	784	ASP
2	C	785	VAL
2	C	796	GLU
2	C	805	ARG
2	C	837	ASP
2	C	839	LEU
2	C	841	ASN
2	C	856	GLU
2	C	858	MET
2	C	862	PRO
2	C	863	ASP
2	C	868	ASP
2	C	884	GLN
2	C	907	ASP
2	C	918	LEU
2	C	938	LYS
2	C	939	ARG
2	C	950	LEU
2	C	958	THR
2	C	963	LEU
2	C	988	VAL
2	C	999	HIS
2	C	1002	GLU
2	C	1003	ASP
2	C	1005	MET
2	C	1016	ILE
2	C	1026	GLN
2	C	1035	MET
2	C	1050	GLN
2	C	1074	GLU

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Mol	Chain	Res	Type
2	C	1090	LYS
2	C	1105	LYS
2	C	1115	LEU
3	D	4	GLU
3	D	6	ARG
3	D	21	TRP
3	D	29	PRO
3	D	41	ARG
3	D	47	GLU
3	D	60	CYS
3	D	64	LYS
3	D	68	PHE
3	D	74	GLU
3	D	75	ARG
3	D	80	VAL
3	D	87	ARG
3	D	95	LEU
3	D	101	HIS
3	D	108	VAL
3	D	116	LEU
3	D	123	LEU
3	D	124	GLU
3	D	127	LEU
3	D	128	TYR
3	D	130	SER
3	D	135	LEU
3	D	142	LEU
3	D	149	LYS
3	D	157	GLU
3	D	162	ARG
3	D	163	TYR
3	D	455	ARG
3	D	456	MET
3	D	465	LEU
3	D	485	SER
3	D	493	ARG
3	D	504	ASP
3	D	507	ASN
3	D	512	MET
3	D	525	ARG
3	D	531	ASP
3	D	537	THR

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Mol	Chain	Res	Type
3	D	538	SER
3	D	544	TYR
3	D	550	ARG
3	D	565	ILE
3	D	594	PRO
3	D	605	ASP
3	D	613	ARG
3	D	619	LEU
3	D	624	ASP
3	D	636	GLN
3	D	639	LEU
3	D	641	GLN
3	D	651	GLU
3	D	652	LEU
3	D	660	LYS
3	D	676	MET
3	D	686	GLU
3	D	688	TRP
3	D	701	LEU
3	D	704	ARG
3	D	709	HIS
3	D	734	GLU
3	D	736	PHE
3	D	743	ASP
3	D	749	VAL
3	D	754	PHE
3	D	758	GLU
3	D	763	MET
3	D	764	LEU
3	D	783	ARG
3	D	784	ASP
3	D	792	ILE
3	D	800	LYS
3	D	805	GLU
3	D	813	LEU
3	D	863	VAL
3	D	879	ARG
3	D	880	ILE
3	D	888	GLU
3	D	892	ASP
3	D	897	TRP
3	D	899	LEU

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Mol	Chain	Res	Type
3	D	900	ILE
3	D	902	LEU
3	D	907	GLU
3	D	922	LEU
3	D	925	GLU
3	D	935	LYS
3	D	937	TYR
3	D	940	THR
3	D	941	PHE
3	D	942	SER
3	D	951	ILE
3	D	959	GLU
3	D	964	LEU
3	D	978	TYR
3	D	983	LEU
3	D	985	ASP
3	D	988	ARG
3	D	991	GLN
3	D	1001	GLU
3	D	1005	GLN
3	D	1008	PHE
3	D	1019	PRO
3	D	1026	SER
3	D	1036	ARG
3	D	1038	LEU
3	D	1039	CYS
3	D	1041	LEU
3	D	1042	ARG
3	D	1044	LEU
3	D	1052	THR
3	D	1062	ARG
3	D	1068	LEU
3	D	1087	ARG
3	D	1088	THR
3	D	1095	THR
3	D	1100	ASP
3	D	1108	ARG
3	D	1112	CYS
3	D	1119	SER
3	D	1130	ARG
3	D	1133	ARG
3	D	1149	LEU

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Mol	Chain	Res	Type
3	D	1151	ARG
3	D	1161	GLU
3	D	1166	LEU
3	D	1169	ASP
3	D	1179	GLU
3	D	1189	ARG
3	D	1196	THR
3	D	1197	ARG
3	D	1204	CYS
3	D	1207	TYR
3	D	1209	LEU
3	D	1231	GLU
3	D	1236	LEU
3	D	1237	THR
3	D	1238	MET
3	D	1239	ARG
3	D	1240	THR
3	D	1269	LYS
3	D	1382	THR
3	D	1389	LEU
3	D	1391	GLU
3	D	1396	GLU
3	D	1399	ASP
3	D	1431	THR
3	D	1432	LYS
3	D	1436	SER
3	D	1439	SER
3	D	1441	GLN
3	D	1442	ASN
3	D	1447	LEU
3	D	1462	LEU
3	D	1464	GLU
3	D	1465	ASN
3	D	1472	ILE
3	D	1485	GLN
3	D	1488	ASP
3	D	1489	GLN
3	D	1496	GLU
3	D	1501	GLU
4	E	10	PHE
4	E	14	ASP
4	E	35	PHE

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Mol	Chain	Res	Type
4	E	43	GLU
4	E	51	LEU
4	E	57	ASP
4	E	62	THR
4	E	68	LEU
4	E	69	LEU
4	E	70	THR
4	E	77	GLU
4	E	78	ASN
4	E	83	ASP
4	E	89	MET
1	K	5	LYS
1	K	16	GLN
1	K	18	ARG
1	K	22	GLU
1	K	26	GLU
1	K	54	THR
1	K	55	SER
1	K	60	ASP
1	K	65	PHE
1	K	101	LEU
1	K	112	ARG
1	K	123	MET
1	K	143	ARG
1	K	155	LYS
1	K	168	ASP
1	K	175	ARG
1	K	189	ARG
1	K	193	ASP
1	K	198	ARG
1	K	219	ARG
1	L	5	LYS
1	L	7	LYS
1	L	20	TYR
1	L	25	LEU
1	L	62	LEU
1	L	73	GLU
1	L	119	ASP
1	L	123	MET
1	L	124	ASN
1	L	126	ASP
1	L	137	ARG

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Mol	Chain	Res	Type
1	L	141	GLU
1	L	145	ASP
1	L	159	LYS
1	L	161	ARG
1	L	163	ASN
1	L	179	PHE
1	L	184	THR
1	L	186	LEU
1	L	206	THR
2	M	9	ILE
2	M	10	ARG
2	M	30	LEU
2	M	34	VAL
2	M	48	PHE
2	M	49	ARG
2	M	52	PHE
2	M	56	GLU
2	M	75	GLU
2	M	88	LEU
2	M	89	THR
2	M	91	GLN
2	M	95	TYR
2	M	98	LEU
2	M	104	ASP
2	M	110	GLU
2	M	112	GLU
2	M	115	LEU
2	M	130	ASN
2	M	141	HIS
2	M	144	PRO
2	M	158	TYR
2	M	163	ILE
2	M	170	PRO
2	M	173	ASP
2	M	178	PRO
2	M	179	ASN
2	M	186	VAL
2	M	190	LYS
2	M	191	PHE
2	M	198	ARG
2	M	205	GLU
2	M	210	GLU

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Mol	Chain	Res	Type
2	M	221	LEU
2	M	226	VAL
2	M	237	ARG
2	M	238	LEU
2	M	252	LYS
2	M	261	ILE
2	M	266	ARG
2	M	267	TYR
2	M	268	ASP
2	M	274	ARG
2	M	275	TYR
2	M	285	LEU
2	M	286	SER
2	M	289	THR
2	M	293	PHE
2	M	297	GLU
2	M	298	PHE
2	M	308	ARG
2	M	309	TYR
2	M	310	LEU
2	M	328	LEU
2	M	358	ARG
2	M	359	MET
2	M	360	LEU
2	M	367	LEU
2	M	376	ARG
2	M	379	GLU
2	M	383	ARG
2	M	390	GLN
2	M	396	ASP
2	M	421	GLU
2	M	422	ARG
2	M	433	THR
2	M	455	LEU
2	M	463	GLU
2	M	490	GLU
2	M	491	GLU
2	M	503	LEU
2	M	517	ARG
2	M	528	GLU
2	M	533	ASP
2	M	554	ASP

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Mol	Chain	Res	Type
2	M	557	ARG
2	M	572	ILE
2	M	578	VAL
2	M	579	VAL
2	M	585	GLU
2	M	586	ARG
2	M	588	VAL
2	M	595	LEU
2	M	632	ASN
2	M	633	GLN
2	M	635	THR
2	M	640	ARG
2	M	645	VAL
2	M	668	LEU
2	M	677	MET
2	M	679	PHE
2	M	683	ASN
2	M	688	ILE
2	M	693	GLU
2	M	699	PHE
2	M	703	ILE
2	M	719	PRO
2	M	725	ASP
2	M	730	SER
2	M	738	ASP
2	M	749	VAL
2	M	766	GLU
2	M	780	GLU
2	M	781	LYS
2	M	784	ASP
2	M	785	VAL
2	M	787	ASP
2	M	791	ARG
2	M	805	ARG
2	M	824	ARG
2	M	834	GLN
2	M	837	ASP
2	M	856	GLU
2	M	862	PRO
2	M	863	ASP
2	M	868	ASP
2	M	878	SER

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Mol	Chain	Res	Type
2	M	881	ASN
2	M	884	GLN
2	M	904	PRO
2	M	923	GLU
2	M	929	ARG
2	M	937	ASP
2	M	938	LYS
2	M	939	ARG
2	M	942	GLU
2	M	950	LEU
2	M	958	THR
2	M	960	GLU
2	M	963	LEU
2	M	988	VAL
2	M	999	HIS
2	M	1003	ASP
2	M	1005	MET
2	M	1006	HIS
2	M	1016	ILE
2	M	1021	LEU
2	M	1035	MET
2	M	1052	MET
2	M	1053	LEU
2	M	1070	ILE
2	M	1079	PRO
2	M	1104	GLU
2	M	1105	LYS
2	M	1110	ASP
2	M	1111	ILE
2	M	1115	LEU
3	N	6	ARG
3	N	12	LEU
3	N	21	TRP
3	N	34	TYR
3	N	41	ARG
3	N	56	TYR
3	N	60	CYS
3	N	64	LYS
3	N	67	ARG
3	N	68	PHE
3	N	69	GLU
3	N	74	GLU

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Mol	Chain	Res	Type
3	N	76	CYS
3	N	80	VAL
3	N	82	LYS
3	N	85	VAL
3	N	87	ARG
3	N	103	TRP
3	N	112	ILE
3	N	116	LEU
3	N	118	LEU
3	N	124	GLU
3	N	127	LEU
3	N	128	TYR
3	N	135	LEU
3	N	145	VAL
3	N	148	GLU
3	N	149	LYS
3	N	150	ARG
3	N	156	GLU
3	N	157	GLU
3	N	161	LEU
3	N	163	TYR
3	N	197	SER
3	N	199	LEU
3	N	405	ASP
3	N	434	ARG
3	N	438	ASP
3	N	445	ARG
3	N	453	ASP
3	N	455	ARG
3	N	456	MET
3	N	465	LEU
3	N	467	GLU
3	N	470	LEU
3	N	476	GLU
3	N	481	MET
3	N	493	ARG
3	N	512	MET
3	N	525	ARG
3	N	537	THR
3	N	539	ASP
3	N	547	LEU
3	N	550	ARG

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Mol	Chain	Res	Type
3	N	581	LEU
3	N	594	PRO
3	N	600	LEU
3	N	611	GLN
3	N	619	LEU
3	N	639	LEU
3	N	641	GLN
3	N	651	GLU
3	N	652	LEU
3	N	660	LYS
3	N	666	ILE
3	N	682	ASP
3	N	688	TRP
3	N	701	LEU
3	N	707	THR
3	N	709	HIS
3	N	710	ARG
3	N	727	GLN
3	N	736	PHE
3	N	743	ASP
3	N	749	VAL
3	N	758	GLU
3	N	763	MET
3	N	783	ARG
3	N	805	GLU
3	N	808	THR
3	N	817	GLU
3	N	833	GLU
3	N	838	ARG
3	N	855	HIS
3	N	863	VAL
3	N	876	SER
3	N	880	ILE
3	N	881	LEU
3	N	888	GLU
3	N	891	GLU
3	N	892	ASP
3	N	897	TRP
3	N	902	LEU
3	N	914	LEU
3	N	922	LEU
3	N	925	GLU

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Mol	Chain	Res	Type
3	N	939	PHE
3	N	941	PHE
3	N	951	ILE
3	N	959	GLU
3	N	975	GLU
3	N	982	PHE
3	N	990	ASP
3	N	991	GLN
3	N	1029	ARG
3	N	1031	ASN
3	N	1062	ARG
3	N	1087	ARG
3	N	1090	ASP
3	N	1101	VAL
3	N	1108	ARG
3	N	1114	THR
3	N	1115	THR
3	N	1124	GLN
3	N	1130	ARG
3	N	1135	ARG
3	N	1149	LEU
3	N	1151	ARG
3	N	1159	ARG
3	N	1160	LEU
3	N	1161	GLU
3	N	1166	LEU
3	N	1183	ILE
3	N	1189	ARG
3	N	1197	ARG
3	N	1207	TYR
3	N	1210	SER
3	N	1237	THR
3	N	1238	MET
3	N	1239	ARG
3	N	1262	LEU
3	N	1267	ARG
3	N	1275	SER
3	N	1282	ARG
3	N	1285	GLU
3	N	1287	GLU
3	N	1288	GLU
3	N	1291	SER

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Mol	Chain	Res	Type
3	N	1297	GLU
3	N	1299	PHE
3	N	1300	SER
3	N	1305	LEU
3	N	1311	LEU
3	N	1315	ASP
3	N	1317	ASP
3	N	1319	VAL
3	N	1320	GLU
3	N	1326	THR
3	N	1337	GLU
3	N	1344	VAL
3	N	1348	LEU
3	N	1373	ARG
3	N	1376	MET
3	N	1383	ASP
3	N	1386	ASP
3	N	1389	LEU
3	N	1391	GLU
3	N	1412	LYS
3	N	1422	MET
3	N	1431	THR
3	N	1432	LYS
3	N	1434	TRP
3	N	1435	LEU
3	N	1441	GLN
3	N	1465	ASN
3	N	1472	ILE
3	N	1485	GLN
3	N	1488	ASP
3	N	1496	GLU
4	O	37	ASN
4	O	38	THR
4	O	46	PRO
4	O	48	MET
4	O	51	LEU
4	O	54	LEU
4	O	56	ASP
4	O	57	ASP
4	O	58	PRO
4	O	70	THR
4	O	72	ARG

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Mol	Chain	Res	Type
4	O	77	GLU
4	O	81	PRO
4	O	83	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

Mol	Chain	Res	Type
2	C	31	GLN
2	C	393	GLN
3	D	714	GLN
3	D	1227	GLN
2	M	393	GLN
2	M	406	HIS
2	M	567	GLN
2	M	841	ASN
2	M	889	HIS
3	N	714	GLN
3	N	1031	ASN
3	N	1034	GLN
4	O	37	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
6	H	15/16 (93%)	5 (33%)	1 (6%)
6	Y	14/16 (87%)	3 (21%)	1 (7%)
All	All	29/32 (90%)	8 (27%)	2 (6%)

All (8) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
6	H	4	G
6	H	5	C
6	H	6	C
6	H	15	C
6	H	16	A
6	Y	3	A
6	Y	4	G
6	Y	6	C

All (2) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
6	H	5	C
6	Y	5	C

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 4 ligands modelled in this entry, 4 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 (i)

6.1 Protein, DNA and RNA chains (i)

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, 95th 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	229/315 (72%)	-0.77	1 (0%)	92	87	154, 243, 347, 432	0
1	B	229/315 (72%)	-0.48	8 (3%)	44	35	202, 343, 460, 525	0
1	K	229/315 (72%)	-0.59	4 (1%)	70	61	157, 255, 375, 500	0
1	L	229/315 (72%)	-0.49	4 (1%)	70	61	193, 363, 452, 538	0
2	C	1119/1119 (100%)	-0.75	6 (0%)	91	86	12, 213, 336, 454	0
2	M	1119/1119 (100%)	-0.72	8 (0%)	87	82	60, 238, 426, 549	0
3	D	1151/1524 (75%)	-0.73	12 (1%)	82	74	8, 205, 382, 548	0
3	N	1288/1524 (84%)	-0.59	33 (2%)	56	46	81, 249, 452, 545	0
4	E	95/99 (95%)	-0.53	3 (3%)	47	37	156, 217, 337, 395	0
4	O	95/99 (95%)	-0.62	3 (3%)	47	37	205, 297, 426, 451	0
5	G	27/28 (96%)	-0.76	0	100	100	152, 210, 372, 381	0
5	X	27/28 (96%)	-0.67	0	100	100	238, 279, 353, 374	0
6	H	16/16 (100%)	0.21	1 (6%)	20	16	97, 189, 363, 385	0
6	Y	15/16 (93%)	-0.24	0	100	100	208, 249, 351, 378	0
7	I	17/21 (80%)	-0.65	0	100	100	215, 276, 418, 428	0
7	Z	17/21 (80%)	-0.72	0	100	100	264, 305, 348, 352	0
All	All	5902/6874 (85%)	-0.67	83 (1%)	75	66	8, 240, 416, 549	0

All (83) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	D	140	ALA	12.4
3	N	175	VAL	12.4
3	D	141	ILE	9.5
1	B	3	ASP	8.7
1	L	68	ILE	7.5

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Mol	Chain	Res	Type	RSRZ
2	M	193	LEU	7.5
3	N	174	GLY	7.3
3	N	425	GLY	6.6
3	D	139	GLY	6.4
1	B	2	LEU	6.1
2	M	194	VAL	5.9
3	N	140	ALA	5.9
3	D	142	LEU	5.9
3	N	395	VAL	5.7
1	B	1	MET	5.2
3	N	407	VAL	5.1
3	N	176	ASP	5.1
3	N	451	ASP	5.0
3	N	409	VAL	4.9
2	C	1025	ALA	4.2
3	N	802	ALA	4.2
1	K	1	MET	4.1
2	C	180	GLY	4.1
2	M	417	GLY	4.0
1	L	69	PRO	4.0
3	N	408	GLU	4.0
4	O	91	ARG	4.0
1	B	4	SER	3.9
1	K	3	ASP	3.9
3	N	393	ILE	3.9
4	E	91	ARG	3.7
3	N	394	LEU	3.6
3	N	1287	GLU	3.6
3	N	399	ARG	3.6
3	N	391	ALA	3.6
4	E	94	PRO	3.4
3	N	420	VAL	3.4
6	H	1	C	3.3
4	E	96	GLU	3.3
3	N	392	SER	3.3
3	N	426	LYS	3.2
3	N	1316	GLY	3.1
2	M	765	SER	3.1
1	K	2	LEU	3.1
3	D	138	LYS	3.0
3	N	801	GLY	3.0
3	D	595	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
3	D	653	PHE	3.0
3	N	173	PRO	2.9
1	L	67	THR	2.9
2	C	1119	ARG	2.9
3	N	406	ASP	2.9
3	D	146	PRO	2.9
2	M	416	GLY	2.9
1	L	99	LEU	2.7
1	B	87	VAL	2.7
3	N	628	ARG	2.6
3	D	594	PRO	2.6
3	D	161	LEU	2.5
3	N	985	ASP	2.5
2	C	179	ASN	2.5
3	D	137	PRO	2.4
1	K	188	GLN	2.4
2	M	202	TYR	2.4
2	C	114	PHE	2.4
2	M	176	VAL	2.4
1	B	5	LYS	2.4
3	N	1489	GLN	2.3
3	N	428	LYS	2.3
4	O	88	GLU	2.3
3	N	1310	ARG	2.2
3	N	418	GLY	2.2
3	N	745	MET	2.2
3	N	177	ALA	2.1
1	B	7	LYS	2.1
1	A	187	GLY	2.1
2	M	174	LEU	2.1
3	N	206	ARG	2.1
2	C	105	THR	2.1
4	O	92	LEU	2.1
3	D	1362	LYS	2.1
1	B	124	ASN	2.0
3	N	1339	LYS	2.0

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

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

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, 95th 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
8	ZN	N	1601	1/1	0.97	0.13	72,72,72,72	0
8	ZN	D	1601	1/1	0.98	0.05	72,72,72,72	0
8	ZN	N	1602	1/1	0.98	0.11	72,72,72,72	0
8	ZN	D	1602	1/1	0.99	0.14	72,72,72,72	0

6.5 Other polymers (i)

There are no such residues in this entry.