Full wwPDB X-ray Structure Validation Report

Feb 1, 2016 – 10:48 PM GMT

PDB ID	:	4YLN
Title	:	E. coli Transcription Initiation Complex - 17-bp spacer and 4-nt RNA
Authors	:	Zuo, Y.; Steitz, T.A.
Deposited on	:	2015-03-05
Resolution	:	5.50 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
http://wwpdb.org/validation/2016/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

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

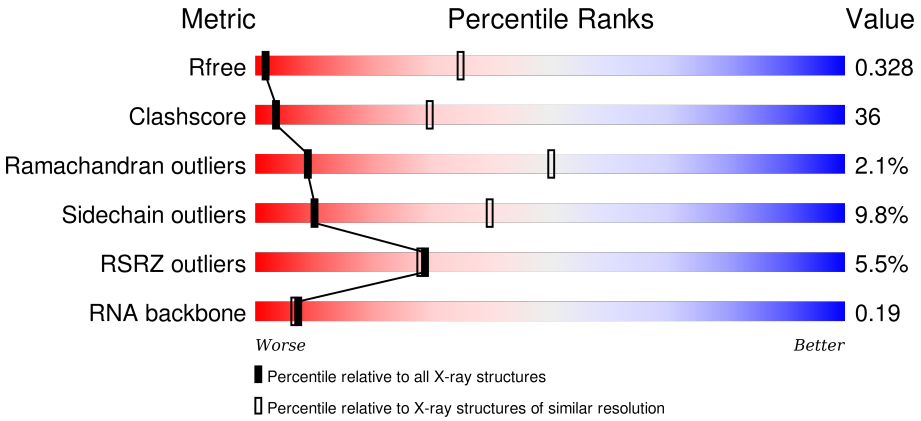
MolProbity	:	4.02b-467
Mogul	:	1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix)	:	1.9-1692
EDS	:	rb-20026688
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac	:	5.8.0135
CCP4	:	6.5.0
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk26865

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 5.50 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}	91344	1015 (7.38-3.62)
Clashscore	102246	1020 (7.10-3.70)
Ramachandran outliers	100387	1014 (7.36-3.64)
Sidechain outliers	100360	1013 (7.38-3.62)
RSRZ outliers	91569	1014 (7.38-3.62)
RNA backbone	2183	1101 (7.80-2.80)

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 on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. 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	242	38% 51% 5% 5%
1	B	242	2% 40% 47% 7% 6%
1	G	242	3% 48% 41% 6% 5%
1	H	242	48% 38% 7% 6%

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Mol	Chain	Length	Quality of chain
1	M	242	2% 49% 43% 5%
1	N	242	6% 48% 40% 6% 6%
2	C	1342	% 46% 48% 6%
2	I	1342	2% 48% 47% 5%
2	O	1342	% 50% 45%
3	D	1407	7% 44% 47% 6%
3	J	1407	5% 41% 48% 7%
3	P	1407	9% 45% 45% 7%
4	E	90	31% 48% 50%
4	K	90	13% 53% 42%
4	Q	90	14% 67% 29%
5	F	628	11% 43% 32% 21%
5	L	628	9% 43% 31% 5% 21%
5	R	628	8% 41% 32% 6% 21%
6	1	49	10% 29% 71%
6	4	49	10% 31% 69%
6	7	49	4% 31% 69%
7	2	49	4% 37% 63%
7	5	49	10% 41% 59%
7	8	49	35% 65%
8	3	4	25% 50% 25%
8	6	4	50% 50%
8	9	4	75% 25%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
9	ZN	J	1502	-	-	X	-

2 Entry composition

There are 10 unique types of molecules in this entry. The entry contains 94608 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
1	A	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	B	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			
1	G	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	H	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			
1	M	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	N	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			

There are 42 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-6	ALA	-	expression tag	UNP A7ZSI4
A	-5	HIS	-	expression tag	UNP A7ZSI4
A	-4	HIS	-	expression tag	UNP A7ZSI4
A	-3	HIS	-	expression tag	UNP A7ZSI4
A	-2	HIS	-	expression tag	UNP A7ZSI4
A	-1	HIS	-	expression tag	UNP A7ZSI4
A	0	HIS	-	expression tag	UNP A7ZSI4
B	-6	ALA	-	expression tag	UNP A7ZSI4
B	-5	HIS	-	expression tag	UNP A7ZSI4
B	-4	HIS	-	expression tag	UNP A7ZSI4
B	-3	HIS	-	expression tag	UNP A7ZSI4
B	-2	HIS	-	expression tag	UNP A7ZSI4
B	-1	HIS	-	expression tag	UNP A7ZSI4
B	0	HIS	-	expression tag	UNP A7ZSI4
G	-6	ALA	-	expression tag	UNP A7ZSI4
G	-5	HIS	-	expression tag	UNP A7ZSI4
G	-4	HIS	-	expression tag	UNP A7ZSI4

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Chain	Residue	Modelled	Actual	Comment	Reference
G	-3	HIS	-	expression tag	UNP A7ZSI4
G	-2	HIS	-	expression tag	UNP A7ZSI4
G	-1	HIS	-	expression tag	UNP A7ZSI4
G	0	HIS	-	expression tag	UNP A7ZSI4
H	-6	ALA	-	expression tag	UNP A7ZSI4
H	-5	HIS	-	expression tag	UNP A7ZSI4
H	-4	HIS	-	expression tag	UNP A7ZSI4
H	-3	HIS	-	expression tag	UNP A7ZSI4
H	-2	HIS	-	expression tag	UNP A7ZSI4
H	-1	HIS	-	expression tag	UNP A7ZSI4
H	0	HIS	-	expression tag	UNP A7ZSI4
M	-6	ALA	-	expression tag	UNP A7ZSI4
M	-5	HIS	-	expression tag	UNP A7ZSI4
M	-4	HIS	-	expression tag	UNP A7ZSI4
M	-3	HIS	-	expression tag	UNP A7ZSI4
M	-2	HIS	-	expression tag	UNP A7ZSI4
M	-1	HIS	-	expression tag	UNP A7ZSI4
M	0	HIS	-	expression tag	UNP A7ZSI4
N	-6	ALA	-	expression tag	UNP A7ZSI4
N	-5	HIS	-	expression tag	UNP A7ZSI4
N	-4	HIS	-	expression tag	UNP A7ZSI4
N	-3	HIS	-	expression tag	UNP A7ZSI4
N	-2	HIS	-	expression tag	UNP A7ZSI4
N	-1	HIS	-	expression tag	UNP A7ZSI4
N	0	HIS	-	expression tag	UNP A7ZSI4

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			
2	I	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			
2	O	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	D	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	J	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			
3	P	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	E	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			
4	K	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			
4	Q	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			

- Molecule 5 is a protein called RNA polymerase sigma factor RpoD.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	F	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			
5	L	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			
5	R	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			

There are 45 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
F	-14	MET	-	expression tag	UNP P00579
F	-13	ARG	-	expression tag	UNP P00579
F	-12	GLY	-	expression tag	UNP P00579
F	-11	SER	-	expression tag	UNP P00579
F	-10	HIS	-	expression tag	UNP P00579
F	-9	HIS	-	expression tag	UNP P00579
F	-8	HIS	-	expression tag	UNP P00579
F	-7	HIS	-	expression tag	UNP P00579
F	-6	HIS	-	expression tag	UNP P00579
F	-5	HIS	-	expression tag	UNP P00579
F	-4	THR	-	expression tag	UNP P00579
F	-3	ASP	-	expression tag	UNP P00579
F	-2	GLN	-	expression tag	UNP P00579
F	-1	PHE	-	expression tag	UNP P00579

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Chain	Residue	Modelled	Actual	Comment	Reference
F	0	THR	-	expression tag	UNP P00579
L	-14	MET	-	expression tag	UNP P00579
L	-13	ARG	-	expression tag	UNP P00579
L	-12	GLY	-	expression tag	UNP P00579
L	-11	SER	-	expression tag	UNP P00579
L	-10	HIS	-	expression tag	UNP P00579
L	-9	HIS	-	expression tag	UNP P00579
L	-8	HIS	-	expression tag	UNP P00579
L	-7	HIS	-	expression tag	UNP P00579
L	-6	HIS	-	expression tag	UNP P00579
L	-5	HIS	-	expression tag	UNP P00579
L	-4	THR	-	expression tag	UNP P00579
L	-3	ASP	-	expression tag	UNP P00579
L	-2	GLN	-	expression tag	UNP P00579
L	-1	PHE	-	expression tag	UNP P00579
L	0	THR	-	expression tag	UNP P00579
R	-14	MET	-	expression tag	UNP P00579
R	-13	ARG	-	expression tag	UNP P00579
R	-12	GLY	-	expression tag	UNP P00579
R	-11	SER	-	expression tag	UNP P00579
R	-10	HIS	-	expression tag	UNP P00579
R	-9	HIS	-	expression tag	UNP P00579
R	-8	HIS	-	expression tag	UNP P00579
R	-7	HIS	-	expression tag	UNP P00579
R	-6	HIS	-	expression tag	UNP P00579
R	-5	HIS	-	expression tag	UNP P00579
R	-4	THR	-	expression tag	UNP P00579
R	-3	ASP	-	expression tag	UNP P00579
R	-2	GLN	-	expression tag	UNP P00579
R	-1	PHE	-	expression tag	UNP P00579
R	0	THR	-	expression tag	UNP P00579

- Molecule 6 is a DNA chain called NT strand DNA (49-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			
6	4	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			
6	7	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			

- Molecule 7 is a DNA chain called T strand DNA (49-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	2	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			
7	5	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			
7	8	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			

- Molecule 8 is a RNA chain called RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	3	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			
8	6	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			
8	9	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			

- Molecule 9 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	P	2	Total	Zn	0	0
			2	2		
9	J	2	Total	Zn	0	0
			2	2		
9	D	2	Total	Zn	0	0
			2	2		

- Molecule 10 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

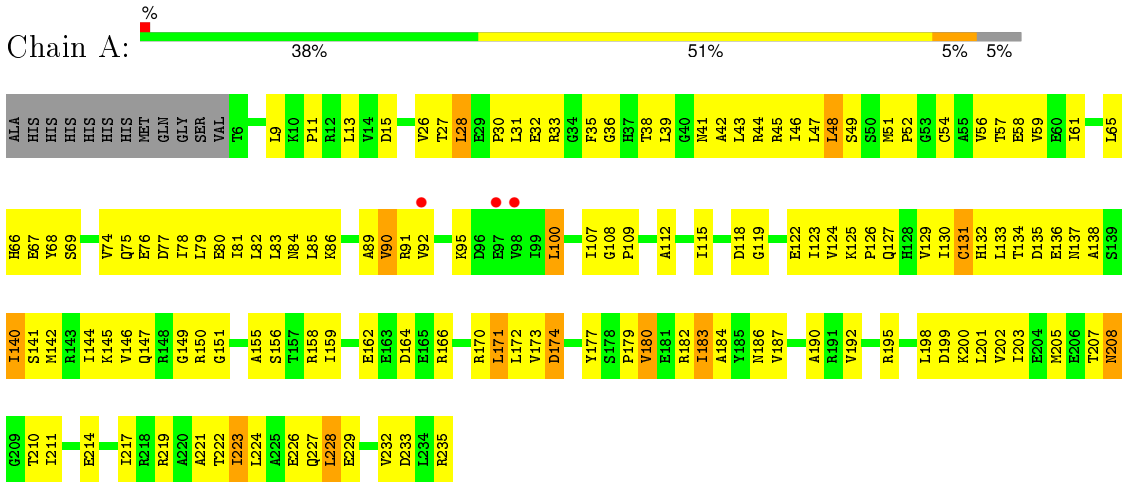
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
10	P	1	Total	Mg	0	0
			1	1		
10	D	1	Total	Mg	0	0
			1	1		
10	6	1	Total	Mg	0	0
			1	1		

3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

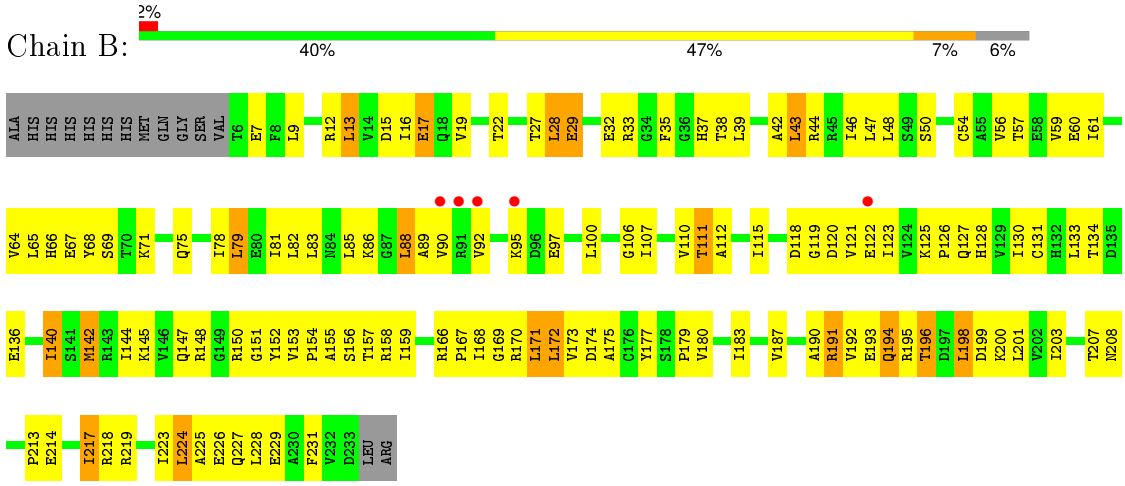
- Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain A:



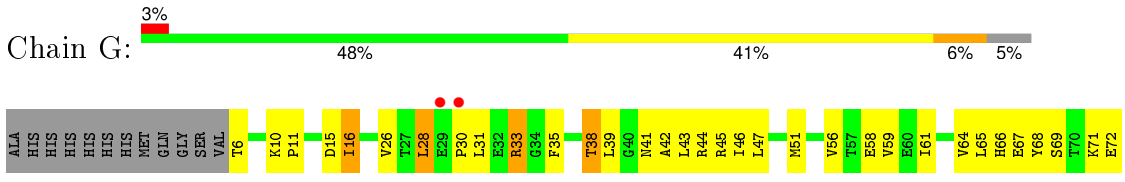
- Molecule 1: DNA-directed RNA polymerase subunit alpha

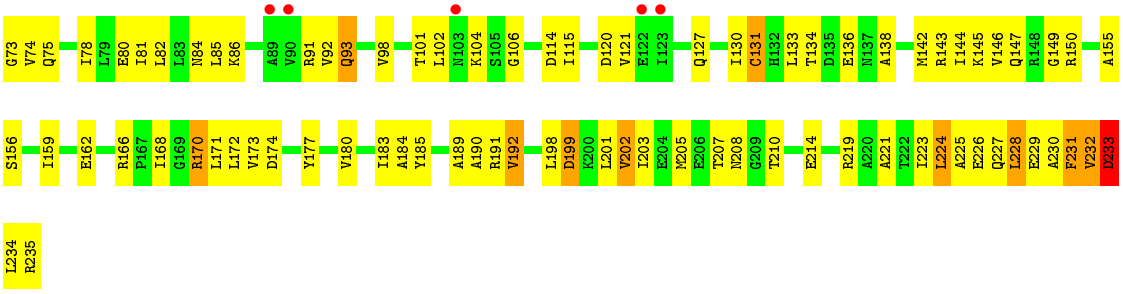
Chain B:



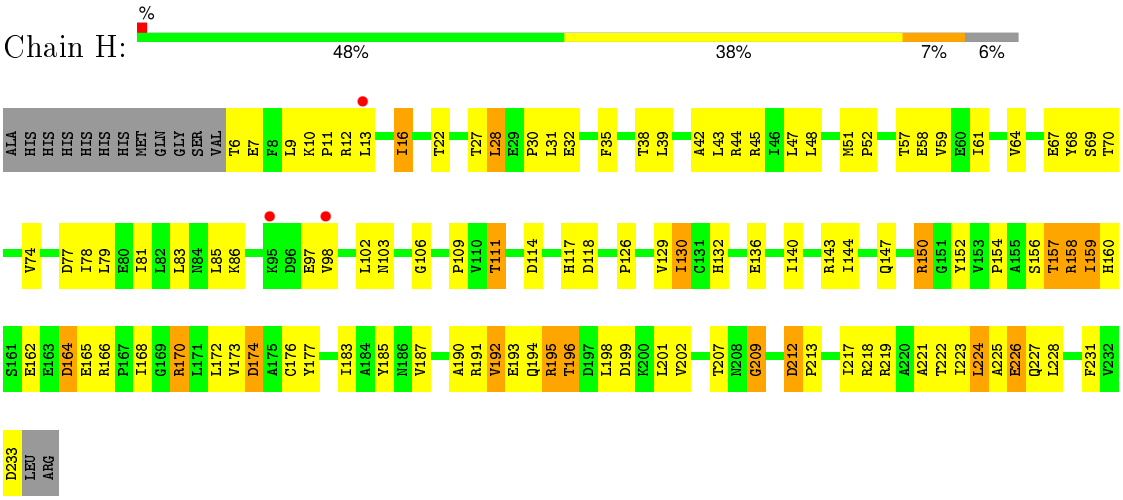
- Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain G:

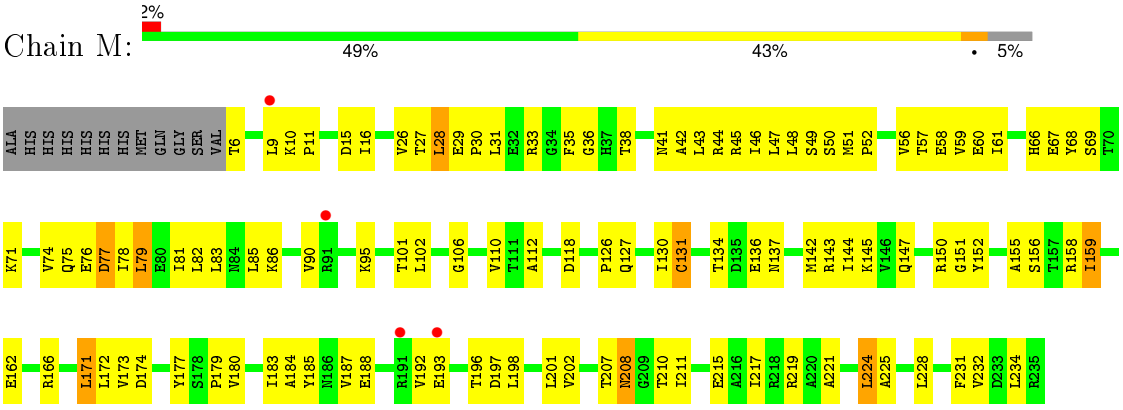




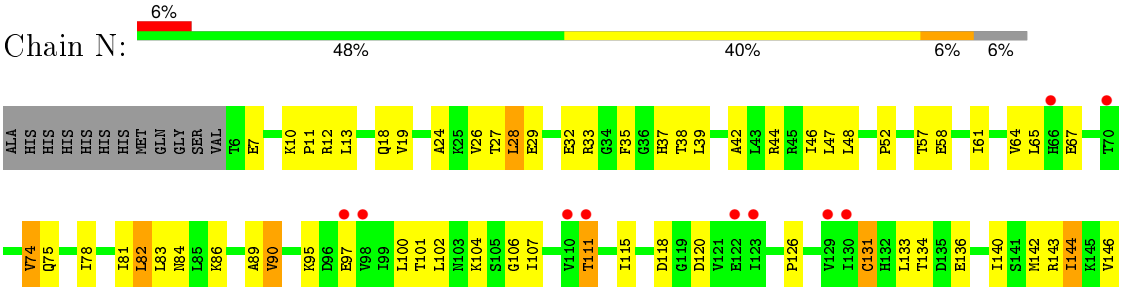
• Molecule 1: DNA-directed RNA polymerase subunit alpha

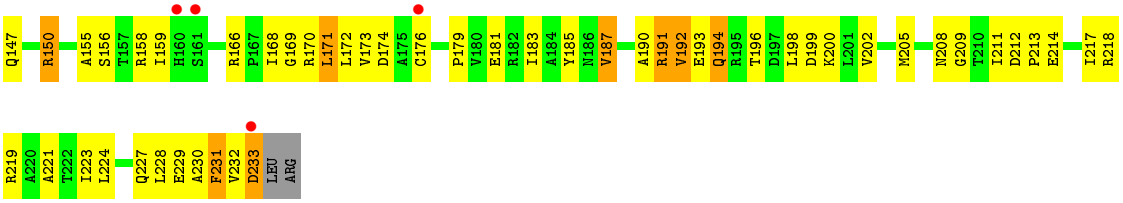


• Molecule 1: DNA-directed RNA polymerase subunit alpha

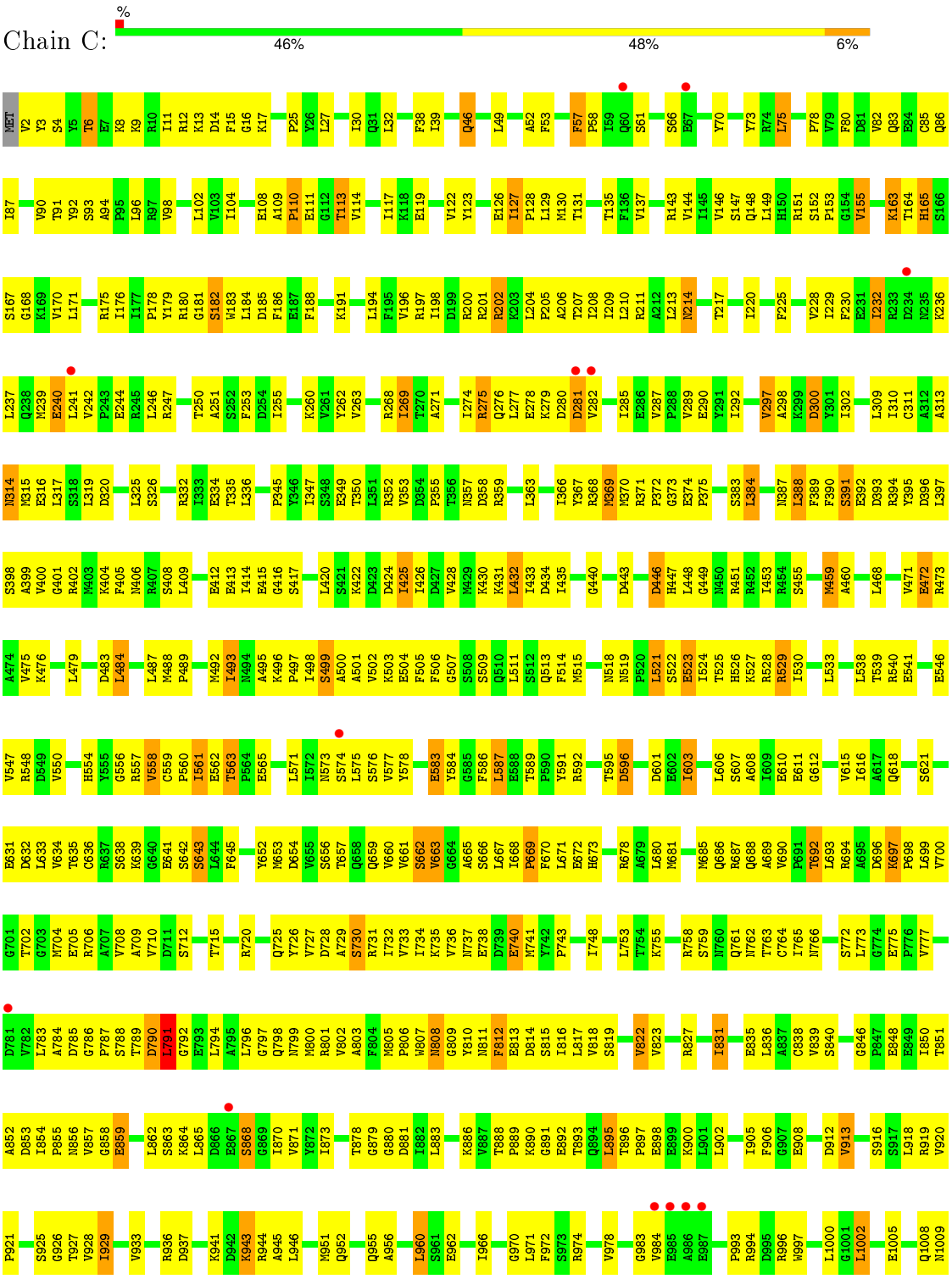


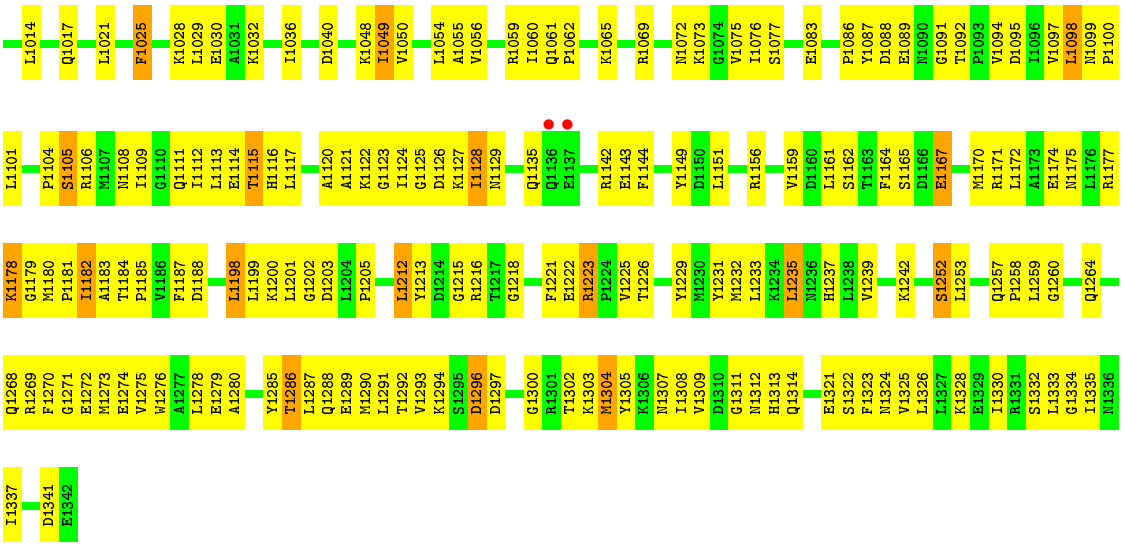
• Molecule 1: DNA-directed RNA polymerase subunit alpha





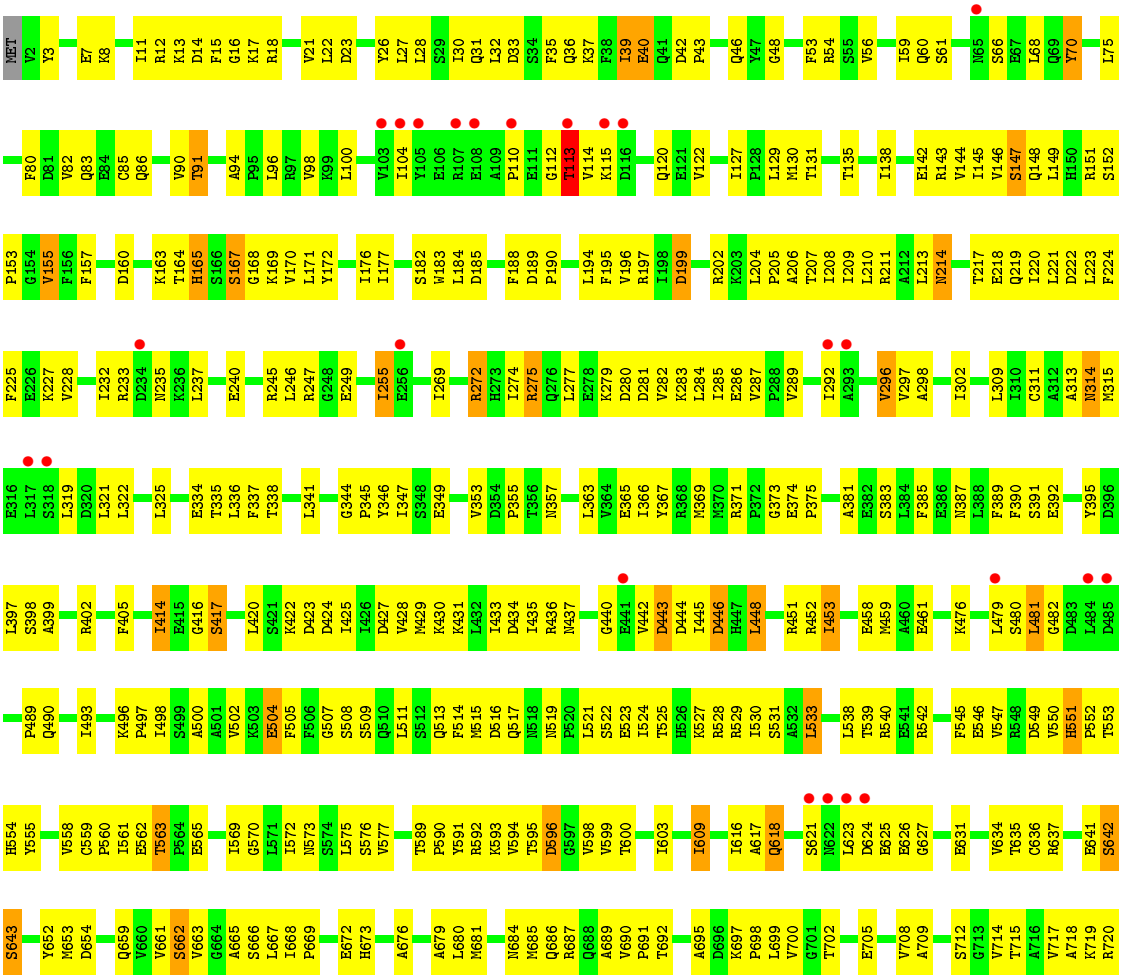
- Molecule 2: DNA-directed RNA polymerase subunit beta

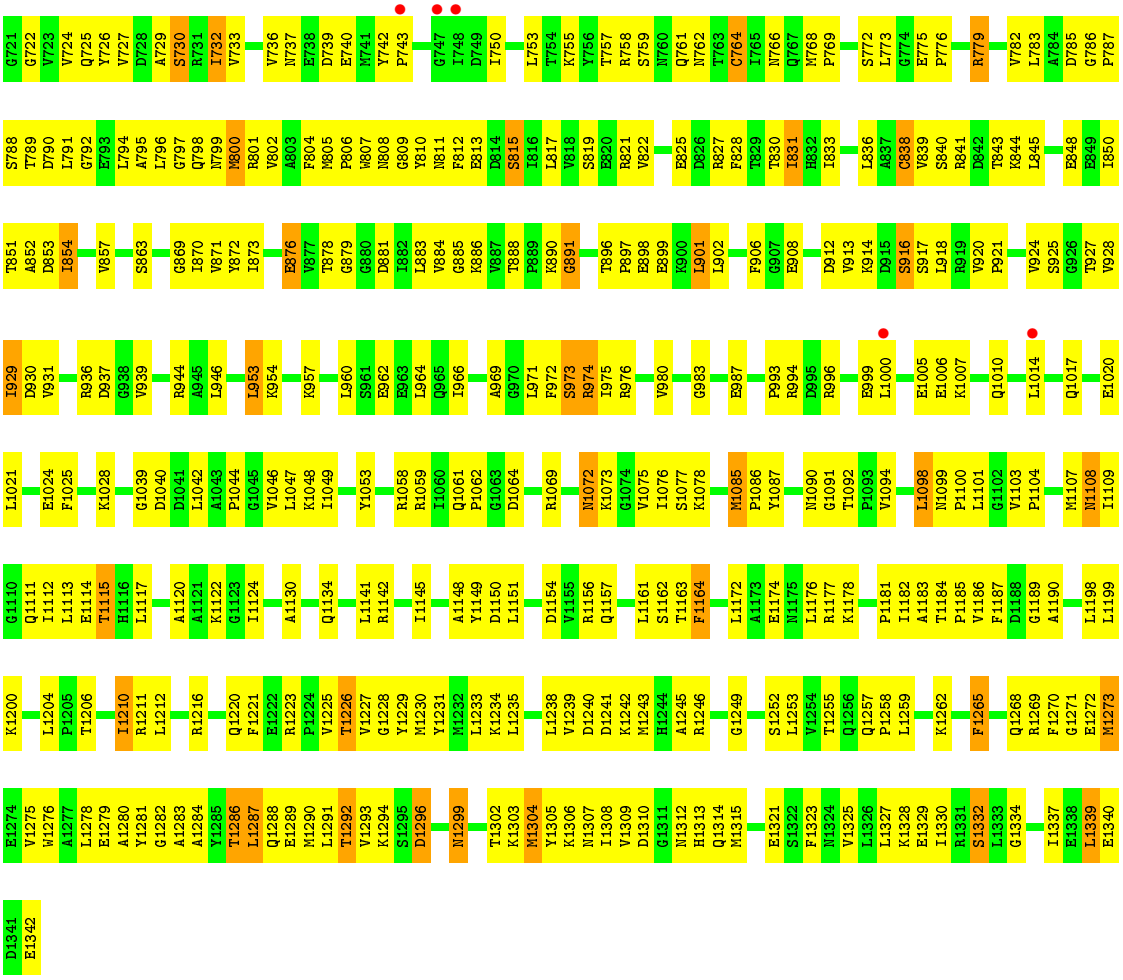




- Molecule 2: DNA-directed RNA polymerase subunit beta

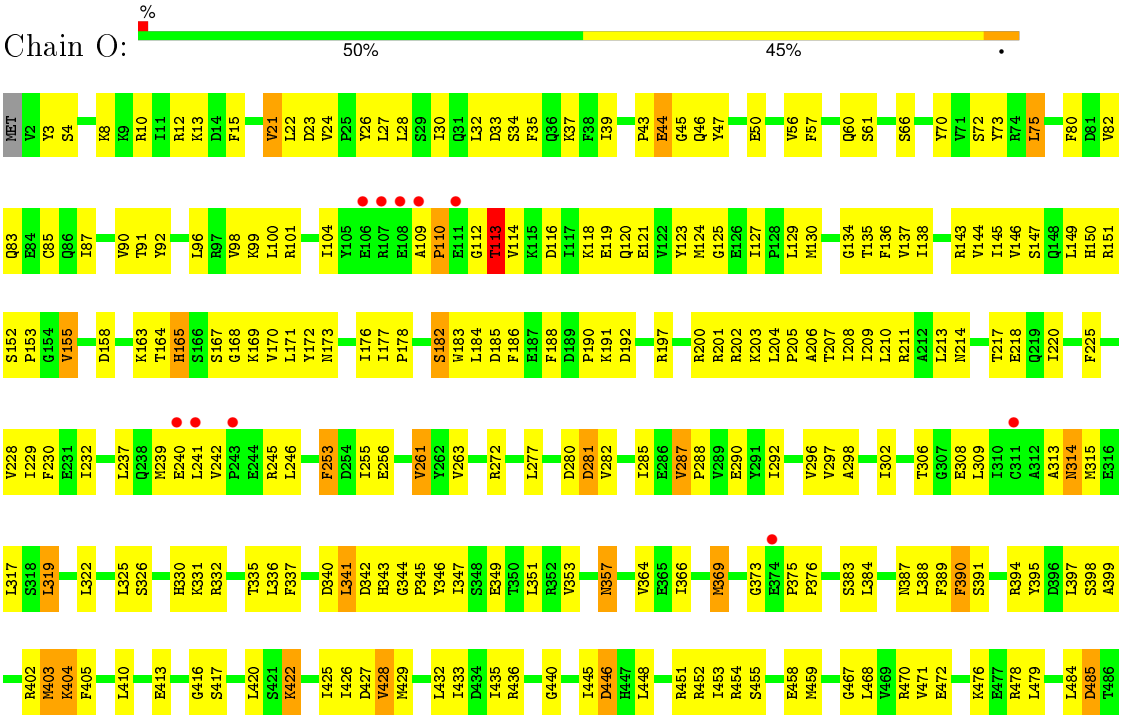
Chain I:

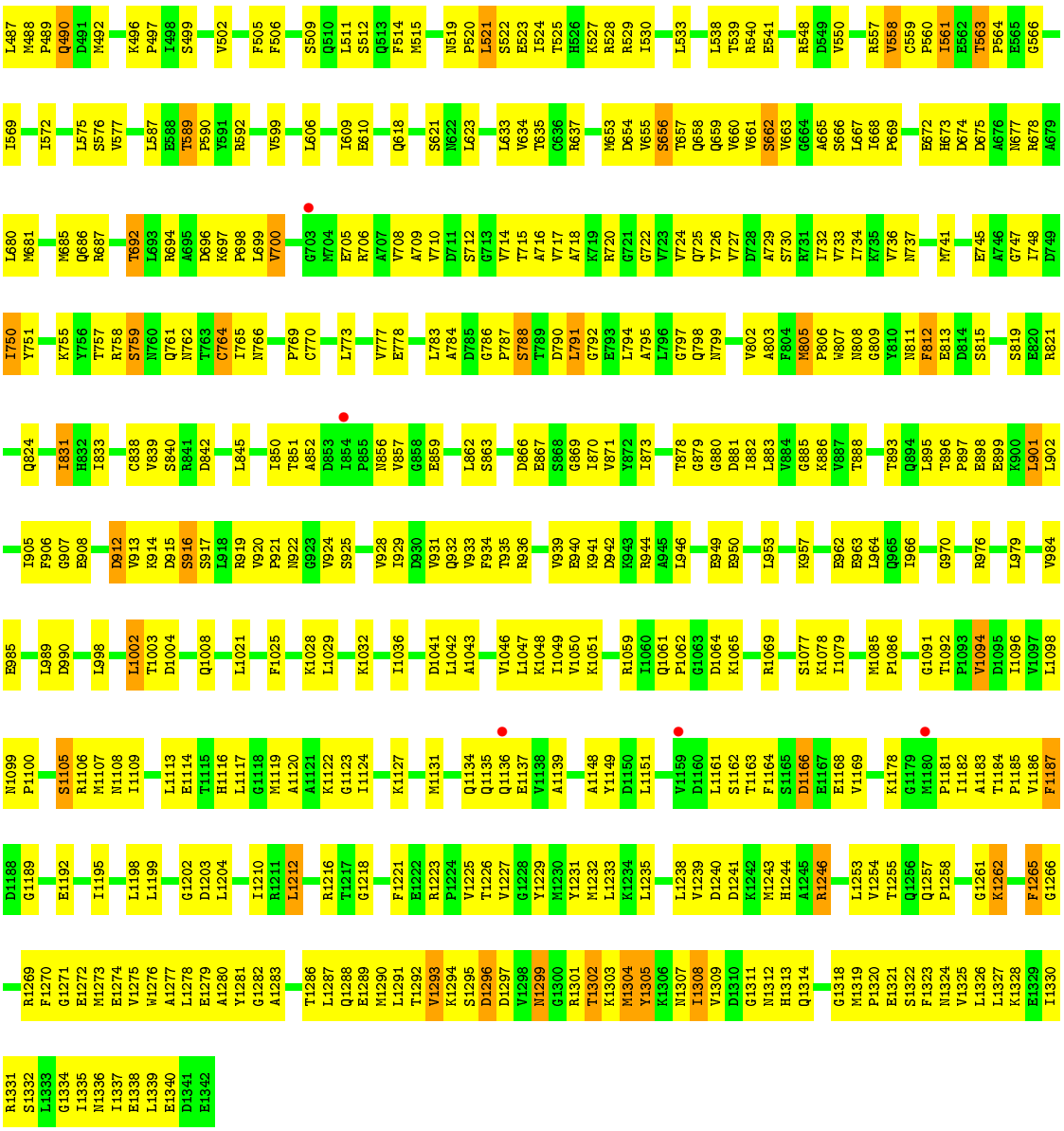




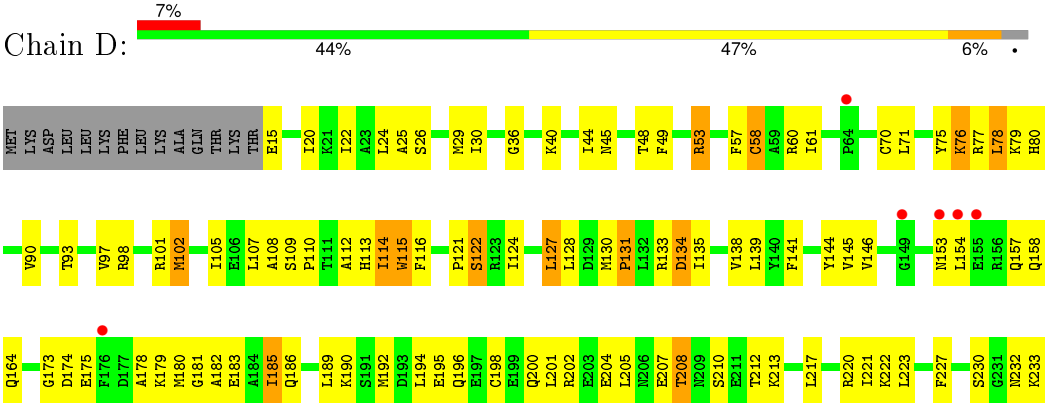
• Molecule 2: DNA-directed RNA polymerase subunit beta

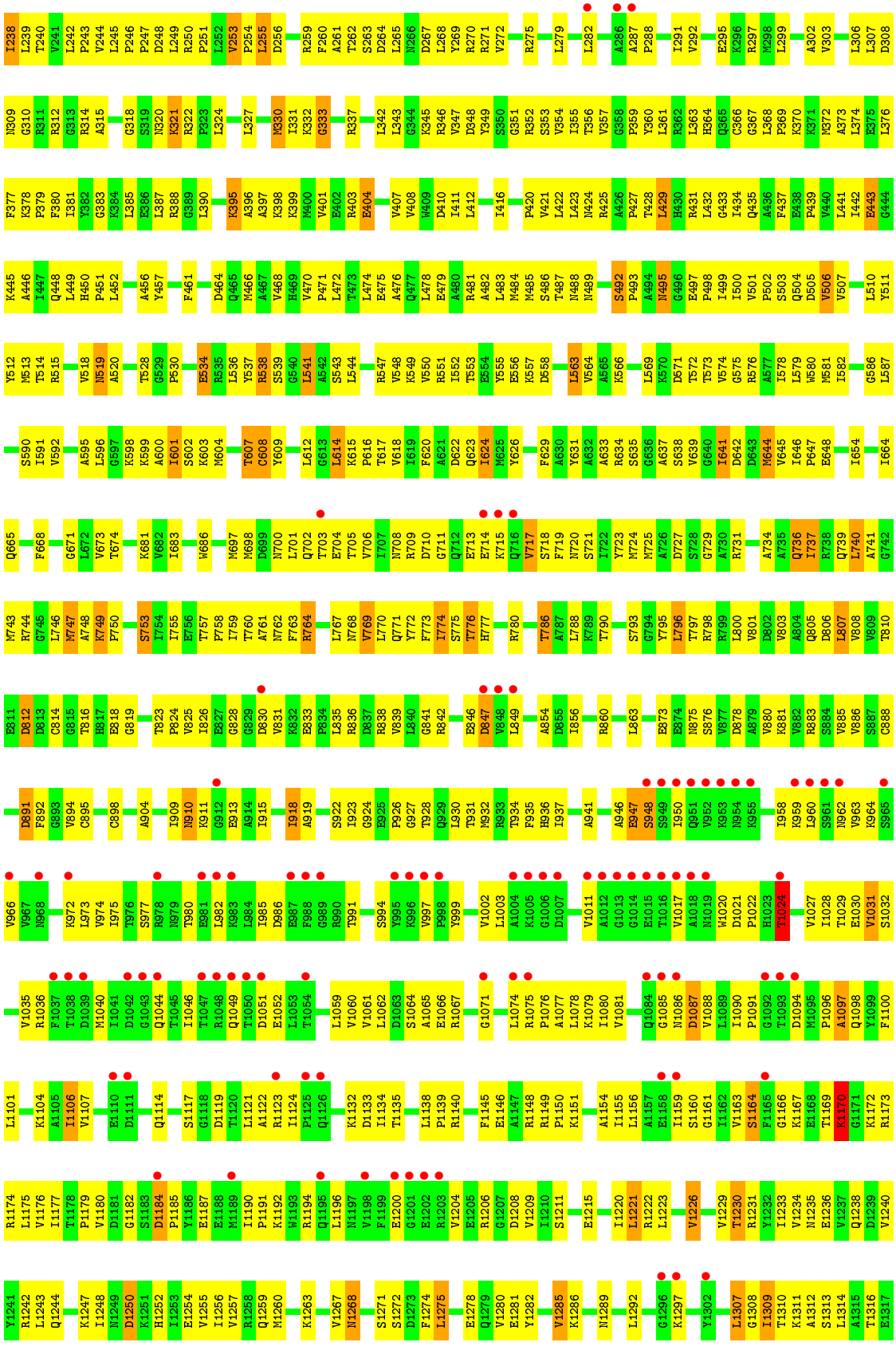
Chain O:





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

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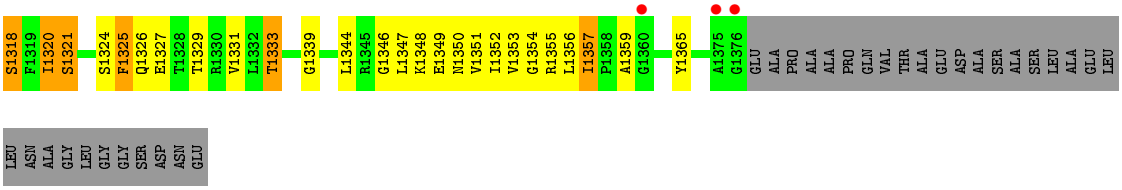
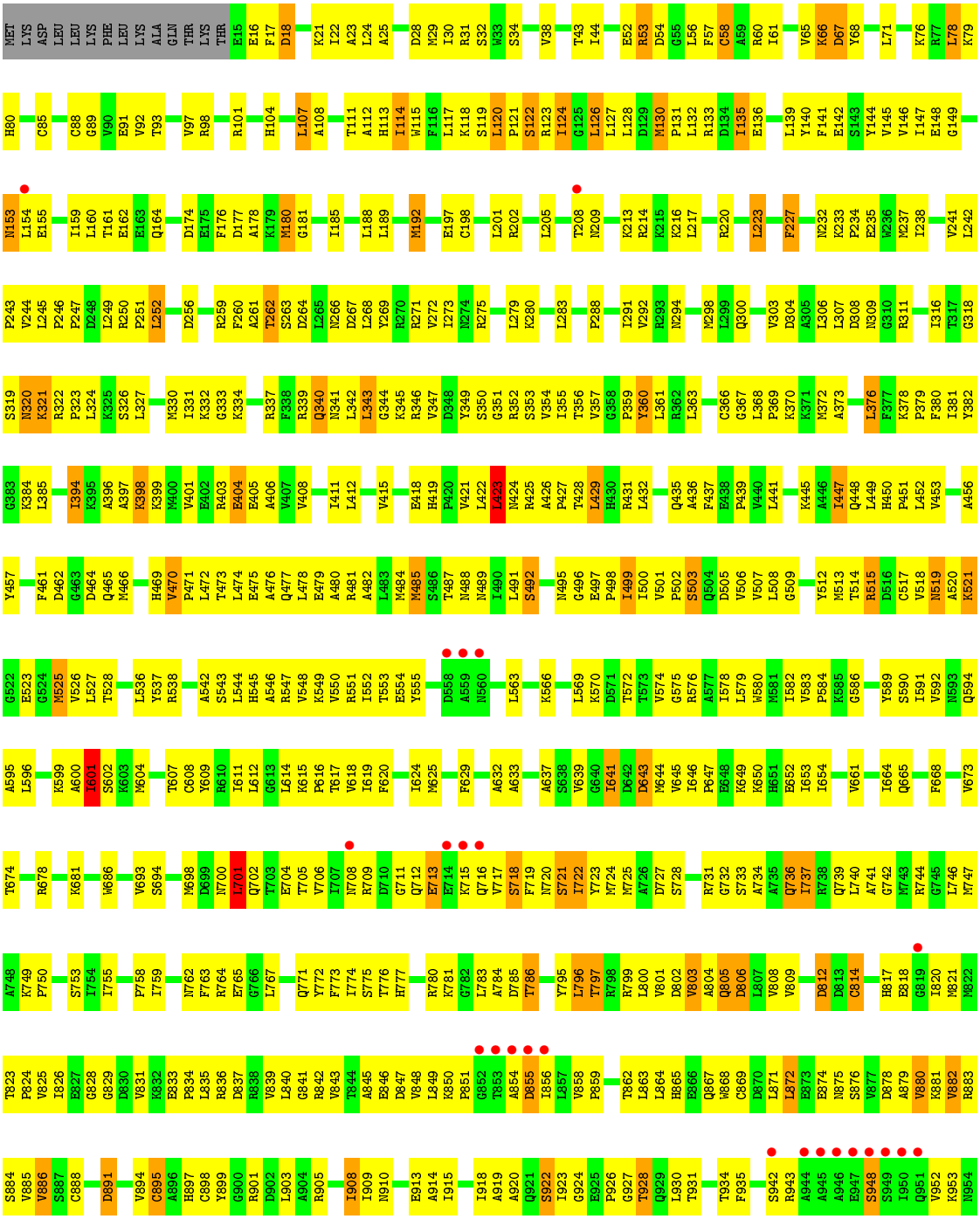
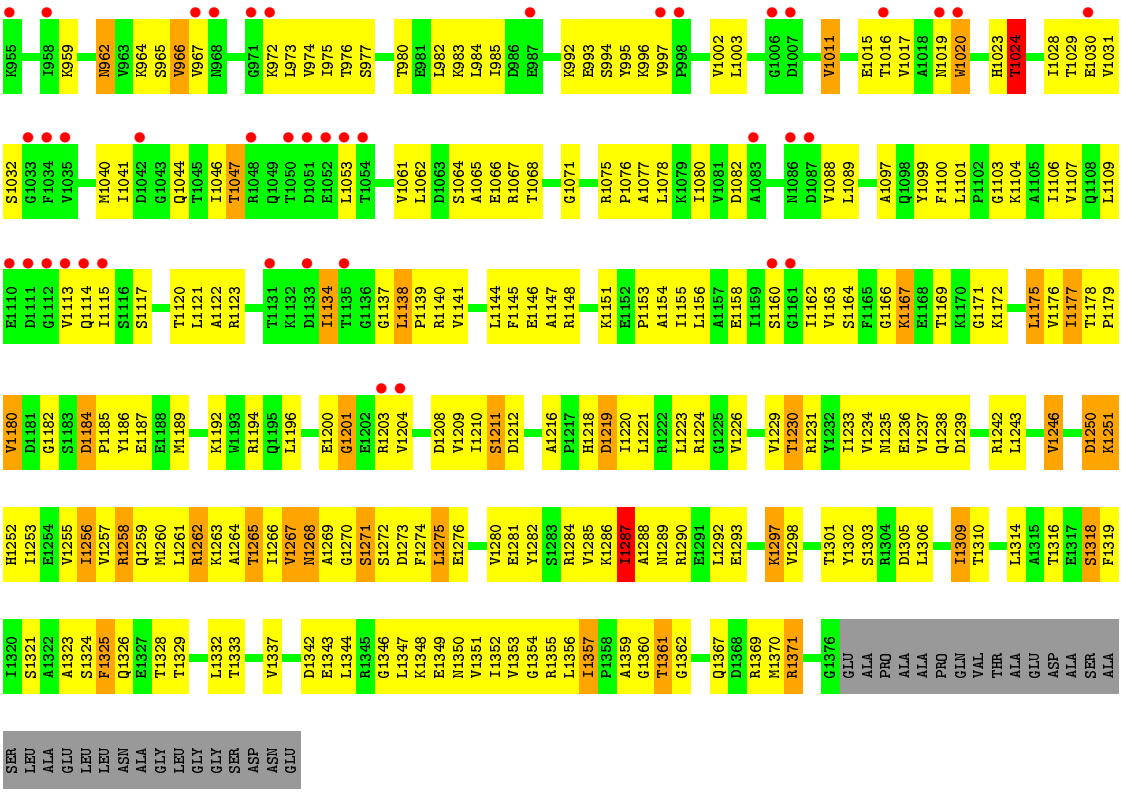
N309 G310 R311 R312 G313 R314 A315 G318 S319 N320 K321 R322 P323 L324 L327 M330 I331 K332 G333 R337 L342 L343 G344 K345 R346 V347 D348 Y349 S350 G351 R352 S353 V354 I355 T356 V357 G358 P359 Y360 L361 R362 L363 H364 Q365 C366 G367 L368 P369 K370 K371 M372 A373 L374 E375 L376
F377 K378 P379 F380 I381 Y382 G383 K384 L385 E386 I387 R388 G389 I390 K395 A396 A397 K398 K399 W400 V401 E402 R403 E404 V407 V408 W409 D410 I411 L412 I416 P420 V421 L422 L423 M424 R425 A426 P427 T428 L429 H430 R431 L432 G433 I434 Q435 A436 F437 E438 P439 V440 L441 I442 E443 G444
K445 A446 Y447 Q448 L449 H450 P451 L452 A456 Y457 F461 D464 Q465 M466 A467 V468 H469 V470 P471 L472 T473 L474 E475 A476 Q477 L478 E479 A480 R481 A482 L483 M484 M485 S486 T487 N488 N489 S492 P493 A494 N495 G496 E497 P498 I499 I500 V501 P502 S503 Q504 D505 V506 V507 L510 Y511
Y512 M513 T514 R515 V518 N519 A520 T528 G529 P530 E534 R535 L536 Y537 R538 S539 G540 L541 A542 S543 L544 R547 V548 K549 V550 R551 I552 T553 E554 Y555 E556 K557 D558 L563 V564 A565 K566 L569 K570 D571 T572 T573 V574 G575 R576 A577 I578 L579 W580 M581 I582 G586 L587
S590 I591 V592 A595 L596 G597 K598 K599 A600 I601 S602 K603 M604 T607 C608 Y609 L612 G613 L614 K615 P616 T617 V618 I619 F620 A621 D622 Q623 I624 M625 Y626 F629 A630 Y631 A632 A633 R634 S635 G636 A637 S638 V639 G640 I641 D642 D643 M644 V645 I646 P647 E648 I654 I664
Q665 F668 G671 L672 V673 T674 K681 V682 I683 W686 M697 M698 D699 N700 L701 Q702 T703 E704 T705 V706 I707 N708 R709 D710 G711 Q712 E713 E714 K715 Q716 V717 S718 F719 N720 S721 I722 Y723 M724 M725 A726 D727 S728 G729 A730 R731 A734 A735 Q736 I737 R738 Q739 L740 A741 G742
M743 R744 G745 L746 M747 A748 K749 P750 S753 I754 I755 E756 T757 F758 I759 T760 A761 M762 F763 R764 L767 N768 V769 L770 Q771 Y772 F773 I774 S775 T776 H777 R780 T786 A787 L788 K789 T790 S793 G794 Y795 L796 T797 R798 R799 L800 V801 D802 V803 A804 Q805 D806 L807 V808 V809 T810
E811 D812 D813 C814 G815 T816 H817 E818 G819 T823 P824 V825 I826 E827 G828 G829 D830 V831 K832 E833 P834 L835 R836 D837 R838 V839 L840 G841 R842 E846 D847 Y848 L849 A854 D855 I856 R860 L863 E873 E874 N875 S876 V877 D878 A879 V880 K881 V882 R883 S884 V885 V886 S887 C888
D891 F892 G893 V894 C895 C898 A904 I909 N910 K911 G912 E913 A914 I915 I918 A919 S922 I923 G924 E925 P926 G927 T928 Q929 L930 T931 M932 R933 T934 F935 H936 I937 A941 A946 E947 S948 S949 I950 Q951 V952 K953 N954 K955 I958 K959 L960 S961 N962 V963 K964 S965
V966 V967 N968 K972 L973 V974 I975 T976 S977 R978 N979 T980 E981 L982 K983 L984 I985 D986 E987 F988 G989 R990 T991 S994 Y995 K996 V997 P998 Y999 V1002 L1003 A1004 K1005 G1006 D1007 V1011 A1012 G1013 G1014 E1015 T1016 V1017 A1018 N1019 W1020 D1021 P1022 H1023 T1024 V1027 I1028 T1029 E1030 V1031 S1032
V1035 R1036 F1037 T1038 D1039 M1040 I1041 D1042 G1043 Q1044 T1045 I1046 T1047 R1048 Q1049 T1050 D1051 E1052 L1053 T1054 L1059 V1060 V1061 L1062 D1063 S1064 A1065 E1066 R1067 G1071 L1074 R1075 P1076 A1077 L1078 K1079 I1080 V1081 Q1084 G1085 N1086 D1087 V1088 L1089 I1090 P1091 G1092 T1093 D1094 M1095 P1096 A1097 Q1098 Y1099 F1100
L1101 K1104 A1105 I1106 V1107 E1110 D1111 Q1114 S1117 G1118 D1119 T1120 L1121 A1122 R1123 I1124 P1125 Q1126 K1132 D1133 I1134 T1135 L1138 P1139 R1140 F1145 E1146 A1147 R1148 R1149 P1150 K1151 A1154 I1155 L1156 A1157 E1158 I1159 S1160 G1161 I1162 V1163 S1164 F1165 G1166 K1167 E1168 T1169 K1170 G1171 K1172 R1173
R1174 L1175 V1176 I1177 T1178 P1179 V1180 D1181 G1182 S1183 D1184 P1185 Y1186 E1187 E1188 M1189 I1190 P1191 K1192 W1193 R1194 Q1195 L1196 N1197 V1198 F1199 E1200 G1201 E1202 R1203 V1204 E1205 R1206 G1207 D1208 V1209 I1210 S1211 E1215 I1220 L1221 R1222 L1223 V1226 V1229 T1230 R1231 Y1232 I1233 V1234 N1235 E1236 V1237 Q1238 D1239 V1240
Y1241 R1242 L1243 Q1244 K1247 I1248 N1249 D1250 K1251 H1252 Y1253 E1254 V1255 I1256 V1257 R1258 Q1259 M1260 K1263 V1267 N1268 S1271 S1272 D1273 F1274 L1275 E1278 Q1279 V1280 E1281 Y1282 V1285 K1286 N1289 L1292 G1296 K1297 Y1302 L1307 G1308 I1309 T1310 K1311 A1312 S1313 L1314 A1315 T1316 E1317



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

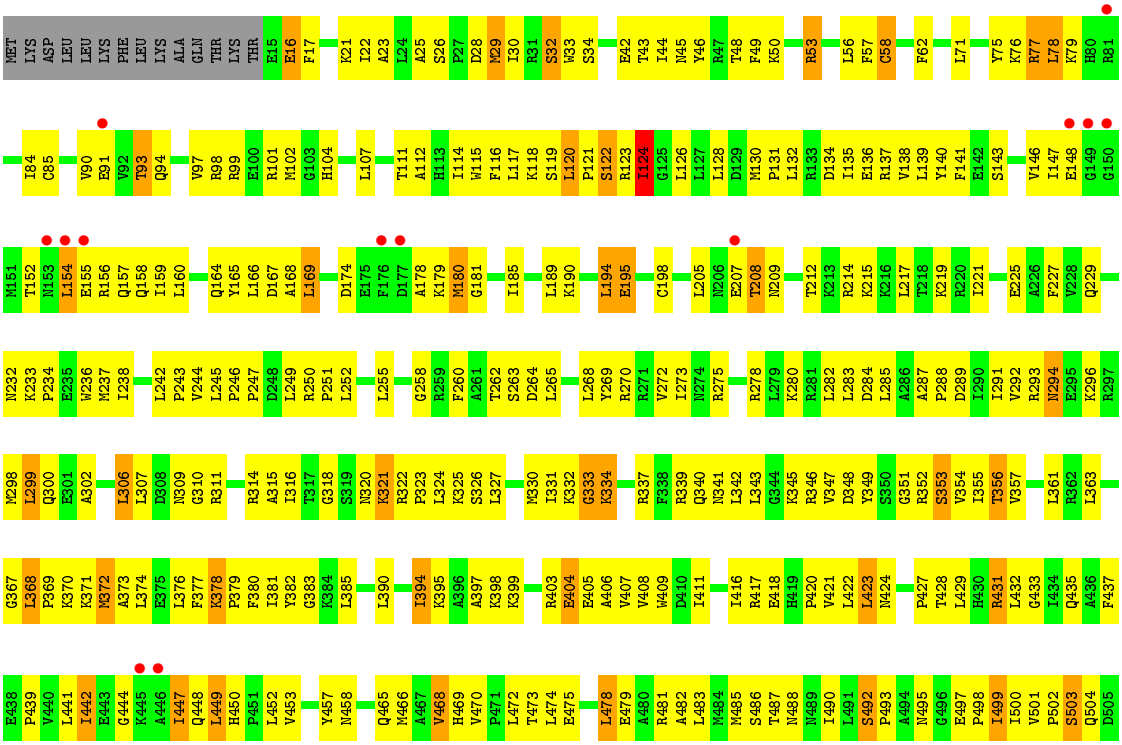
Chain J:

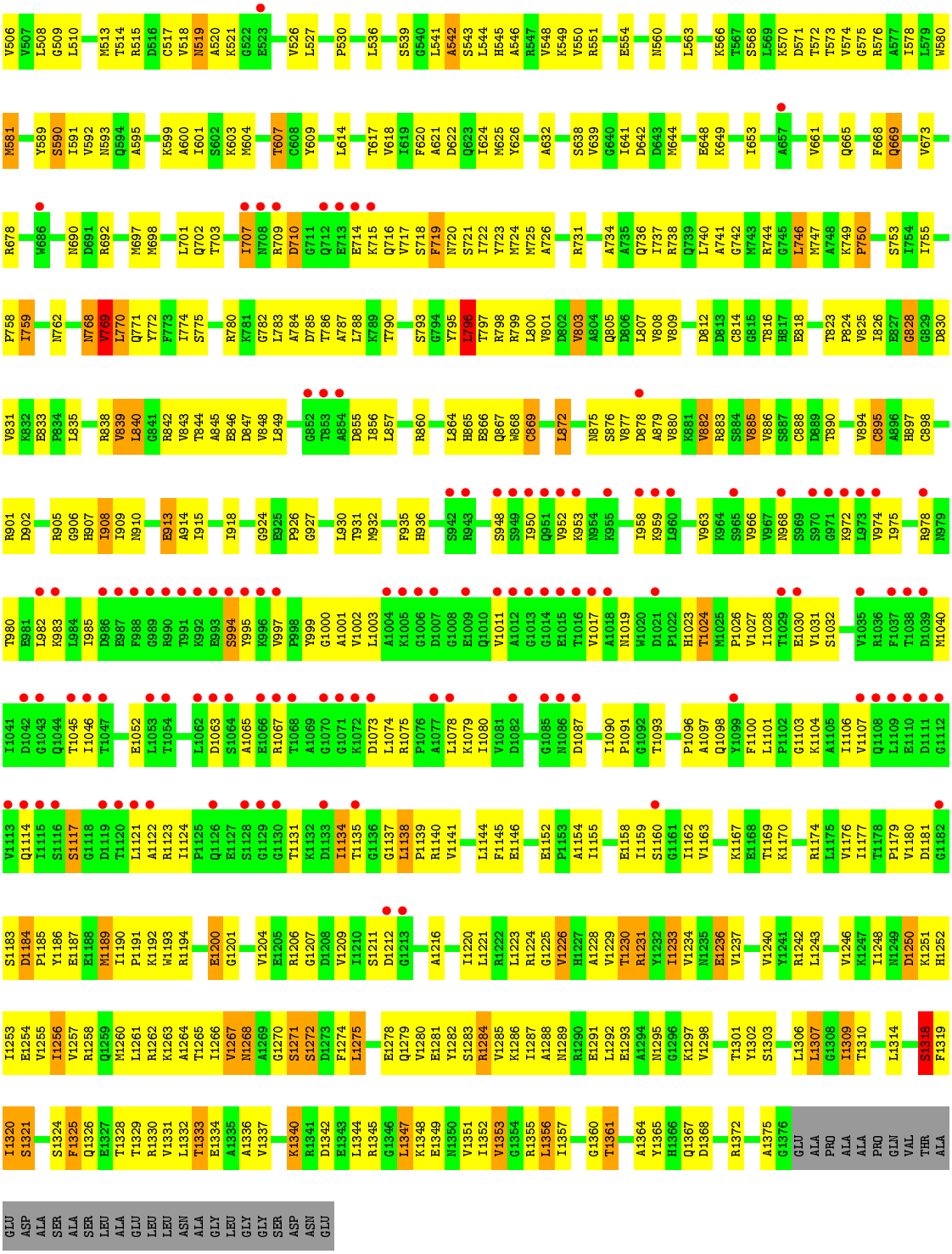




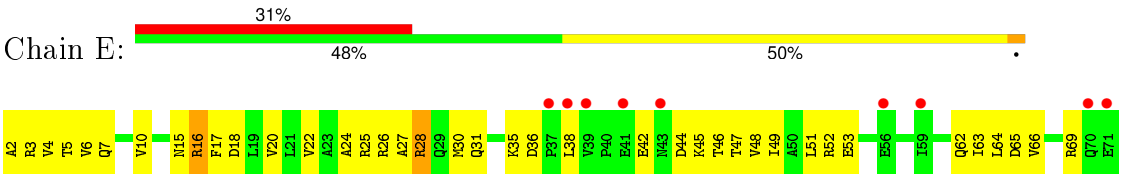
• Molecule 3: DNA-directed RNA polymerase subunit beta'

Chain P:



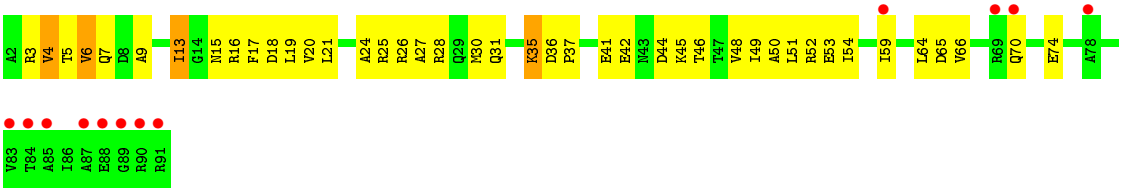


• Molecule 4: DNA-directed RNA polymerase subunit omega



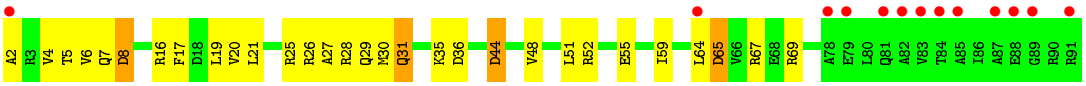
• Molecule 4: DNA-directed RNA polymerase subunit omega

Chain K:



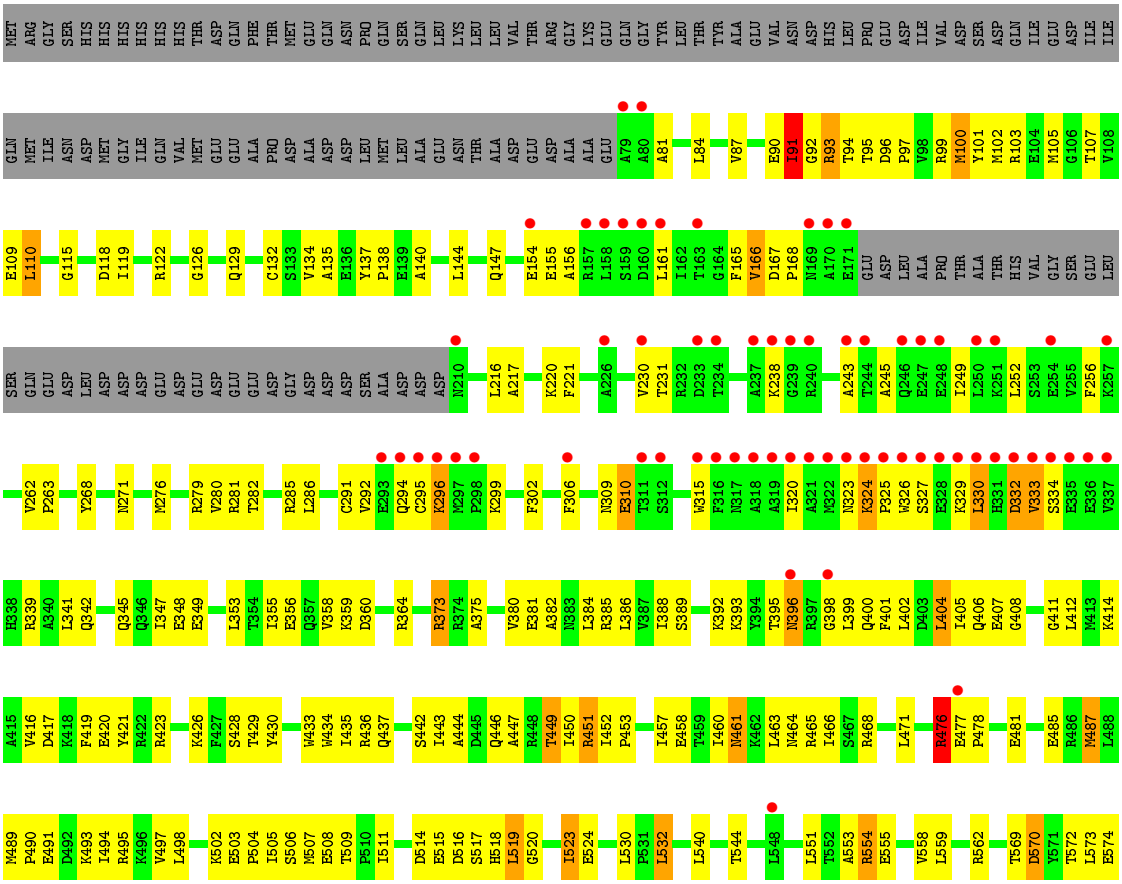
• Molecule 4: DNA-directed RNA polymerase subunit omega

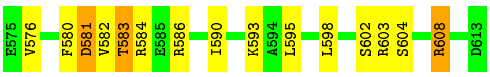
Chain Q:



• Molecule 5: RNA polymerase sigma factor RpoD

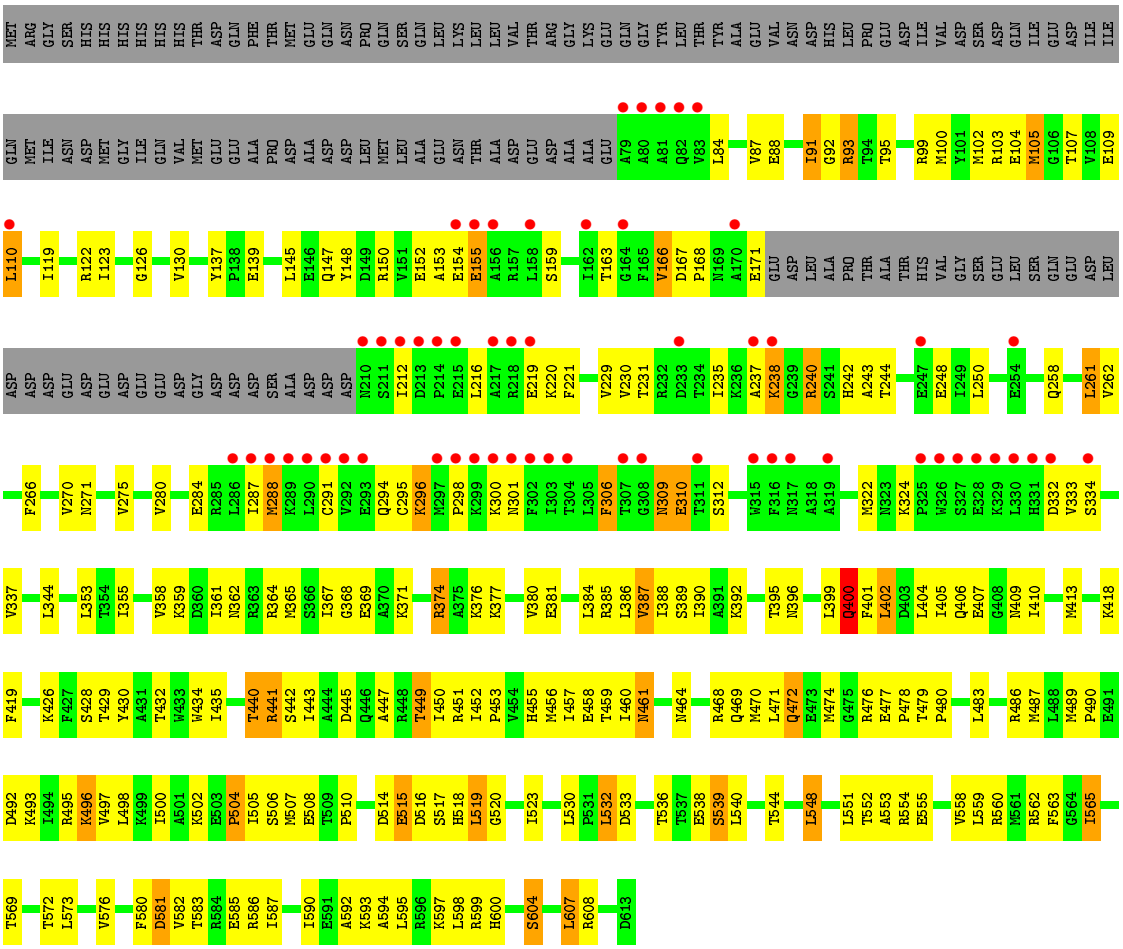
Chain F:





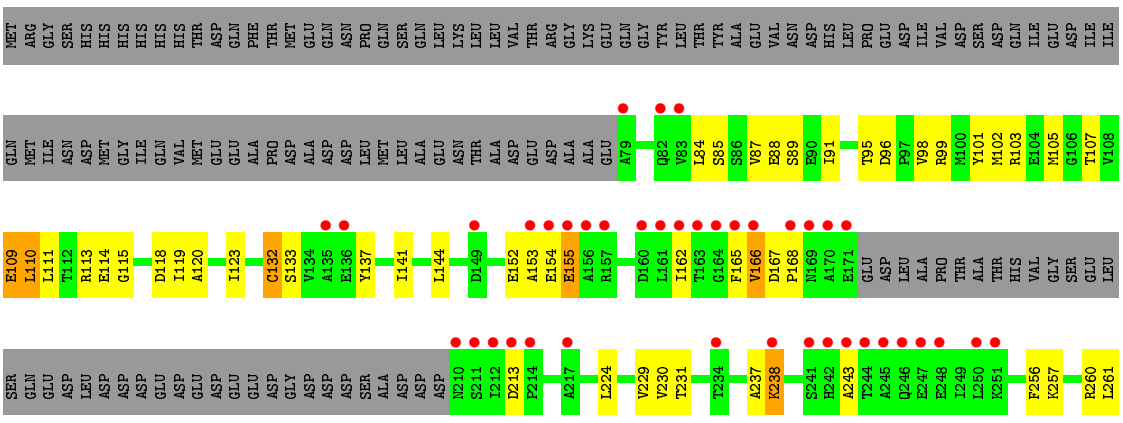
• Molecule 5: RNA polymerase sigma factor RpoD

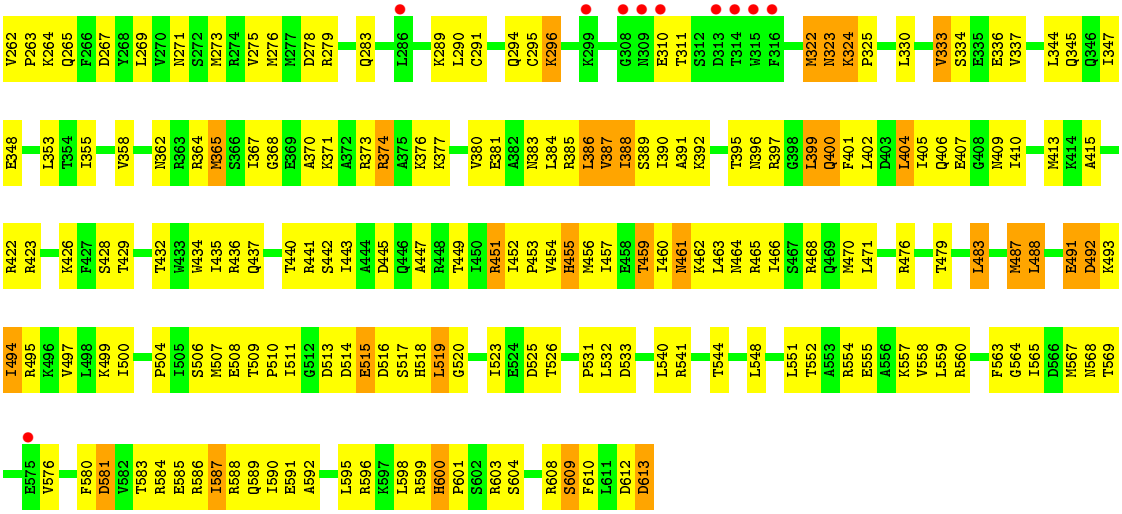
Chain L:



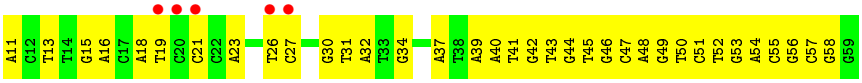
• Molecule 5: RNA polymerase sigma factor RpoD

Chain R:

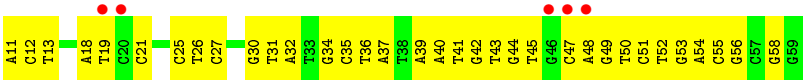




- Molecule 6: NT strand DNA (49-MER)

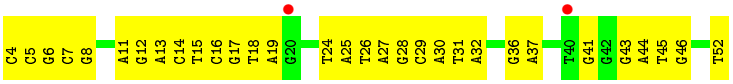


- Molecule 6: NT strand DNA (49-MER)

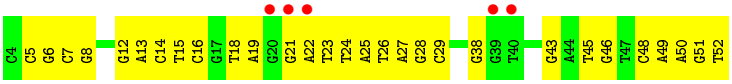


- Molecule 6: NT strand DNA (49-MER)

- Molecule 7: T strand DNA (49-MER)

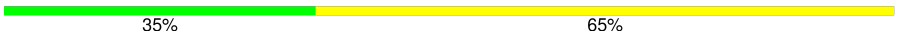


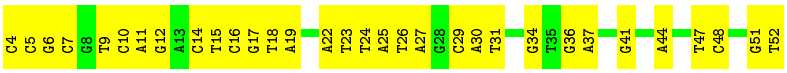
- Molecule 7: T strand DNA (49-MER)



• Molecule 7: T strand DNA (49-MER)

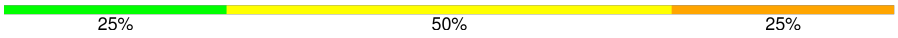
Chain 8:





• Molecule 8: RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3')

Chain 3:

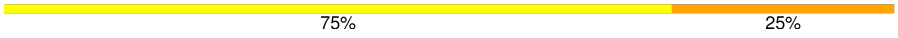


• Molecule 8: RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3')

Chain 6:

• Molecule 8: RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3')

Chain 9:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	237.40Å 206.05Å 248.69Å 90.00° 116.55° 90.00°	Depositor
Resolution (Å)	39.90 – 5.50 39.90 – 5.50	Depositor EDS
% Data completeness (in resolution range)	99.3 (39.90-5.50) 99.6 (39.90-5.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.20 (at 5.37Å)	Xtriage
Refinement program	REFMAC 5.8.0073	Depositor
R, R_{free}	0.245 , 0.328 0.244 , 0.328	Depositor DCC
R_{free} test set	3459 reflections (5.24%)	DCC
Wilson B-factor (Å^2)	268.1	Xtriage
Anisotropy	0.597	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 203.9	EDS
Estimated twinning fraction	0.045 for h,-k,-h-l	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.40$, $< L^2 > = 0.23$	Xtriage
Outliers	0 of 69425 reflections	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	94608	wwPDB-VP
Average B, all atoms (Å^2)	219.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.48% 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, 0.375 respectively for untwinned datasets, and 0.333, 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: GTP, ZN, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	A	0.59	0/1809	0.84	1/2450 (0.0%)
1	B	0.54	0/1789	0.78	0/2425
1	G	0.56	0/1809	0.76	1/2450 (0.0%)
1	H	0.53	0/1789	0.76	0/2425
1	M	0.53	0/1809	0.74	0/2450
1	N	0.54	0/1789	0.79	2/2425 (0.1%)
2	C	0.54	0/10745	0.78	4/14499 (0.0%)
2	I	0.54	3/10745 (0.0%)	0.77	2/14499 (0.0%)
2	O	0.53	0/10745	0.75	3/14499 (0.0%)
3	D	0.54	0/10729	0.77	4/14487 (0.0%)
3	J	0.58	2/10729 (0.0%)	0.81	10/14487 (0.1%)
3	P	0.55	1/10729 (0.0%)	0.77	6/14487 (0.0%)
4	E	0.54	1/710 (0.1%)	0.72	0/956
4	K	0.53	0/710	0.73	0/956
4	Q	0.52	0/710	0.72	0/956
5	F	0.49	1/4076 (0.0%)	0.69	0/5482
5	L	0.51	0/4076	0.72	0/5482
5	R	0.55	2/4076 (0.0%)	0.74	1/5482 (0.0%)
6	1	0.41	0/1115	0.69	0/1718
6	4	0.33	0/1112	0.66	0/1706
6	7	0.37	0/1114	0.67	0/1714
7	2	0.37	0/1134	0.67	0/1744
7	5	0.35	0/1134	0.65	0/1744
7	8	0.38	0/1136	0.64	0/1752
8	3	0.44	0/72	0.62	0/110
8	6	0.40	0/72	0.61	0/110
8	9	0.36	0/72	0.59	0/110
All	All	0.53	10/96535 (0.0%)	0.76	34/131605 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is

detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
3	D	0	1

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	1340	LYS	CB-CG	6.65	1.70	1.52
2	I	626	GLU	CD-OE2	6.62	1.32	1.25
2	I	626	GLU	CD-OE1	5.92	1.32	1.25
5	R	109	GLU	CD-OE1	5.75	1.31	1.25
5	F	491	GLU	CB-CG	5.70	1.62	1.52
2	I	876	GLU	CD-OE1	5.69	1.31	1.25
3	J	155	GLU	CD-OE2	5.67	1.31	1.25
4	E	88	GLU	CD-OE1	5.33	1.31	1.25
5	R	609	SER	CB-OG	5.16	1.49	1.42
3	J	85	CYS	CB-SG	-5.00	1.73	1.81

All (34) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	J	737	ILE	CB-CA-C	-7.98	95.64	111.60
3	J	803	VAL	CB-CA-C	-7.38	97.38	111.40
5	R	488	LEU	CA-CB-CG	7.32	132.12	115.30
3	D	737	ILE	CB-CA-C	-7.15	97.30	111.60
2	O	57	PHE	C-N-CD	-7.09	105.00	120.60
3	P	120	LEU	C-N-CD	-7.03	105.14	120.60
1	N	233	ASP	CB-CG-OD1	6.82	124.44	118.30
2	C	57	PHE	C-N-CD	-6.71	105.83	120.60
1	N	29	GLU	C-N-CD	-6.57	106.16	120.60
3	D	774	ILE	CB-CA-C	-6.51	98.58	111.60
3	P	803	VAL	CB-CA-C	-6.47	99.11	111.40
3	J	1287	ILE	CB-CA-C	-6.21	99.19	111.60
3	J	120	LEU	C-N-CD	-6.19	106.99	120.60
3	D	563	LEU	CA-CB-CG	5.83	128.72	115.30
2	O	1308	ILE	CB-CA-C	-5.83	99.93	111.60
3	J	423	LEU	CA-CB-CG	-5.67	102.27	115.30
3	J	71	LEU	CA-CB-CG	5.66	128.31	115.30
2	I	603	ILE	CB-CA-C	-5.65	100.30	111.60
3	D	506	VAL	CB-CA-C	-5.62	100.72	111.40
3	J	499	ILE	CB-CA-C	-5.62	100.35	111.60
3	J	601	ILE	CB-CA-C	-5.58	100.44	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	1054	LEU	CA-CB-CG	5.56	128.10	115.30
2	C	1198	LEU	CA-CB-CG	-5.47	102.71	115.30
3	P	374	LEU	CA-CB-CG	5.46	127.85	115.30
1	A	74	VAL	CB-CA-C	-5.44	101.07	111.40
3	P	124	ILE	CB-CA-C	-5.32	100.97	111.60
2	C	587	LEU	CA-CB-CG	-5.28	103.17	115.30
2	I	838	CYS	CA-CB-SG	-5.28	104.50	114.00
3	J	1089	LEU	CA-CB-CG	5.17	127.19	115.30
3	P	468	VAL	CB-CA-C	-5.15	101.61	111.40
1	G	231	PHE	CB-CA-C	-5.14	100.11	110.40
2	O	998	LEU	CA-CB-CG	5.14	127.11	115.30
3	P	796	LEU	CA-CB-CG	5.12	127.08	115.30
3	J	701	LEU	CA-CB-CG	-5.11	103.55	115.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	D	671	GLY	Peptide

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	1787	0	1813	220	0
1	B	1767	0	1789	175	0
1	G	1787	0	1812	173	0
1	H	1767	0	1789	149	0
1	M	1787	0	1813	178	0
1	N	1767	0	1789	142	0
2	C	10576	0	10591	868	0
2	I	10576	0	10591	845	0
2	O	10576	0	10591	771	0
3	D	10568	0	10782	856	3
3	J	10568	0	10780	1069	2
3	P	10568	0	10780	901	0
4	E	708	0	719	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	K	708	0	719	48	0
4	Q	708	0	719	36	0
5	F	4022	0	4083	243	0
5	L	4022	0	4083	270	0
5	R	4022	0	4083	282	0
6	1	996	0	554	70	1
6	4	996	0	557	76	0
6	7	996	0	555	74	0
7	2	1012	0	556	62	0
7	5	1012	0	556	59	0
7	8	1012	0	554	64	0
8	3	97	0	44	7	0
8	6	97	0	44	8	0
8	9	97	0	44	4	0
9	D	2	0	0	0	0
9	J	2	0	0	2	0
9	P	2	0	0	0	0
10	6	1	0	0	0	0
10	D	1	0	0	0	0
10	P	1	0	0	0	0
All	All	94608	0	92790	6821	3

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 36.

All (6821) 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)
3:D:608:CYS:SG	3:D:617:THR:HG22	1.31	1.67
3:D:501:VAL:CG1	3:D:502:PRO:HD2	1.33	1.55
3:J:349:TYR:O	3:J:470:VAL:HG23	1.24	1.30
3:D:645:VAL:CG2	3:D:701:LEU:HD13	1.59	1.30
5:L:573:LEU:HB2	7:5:46:DG:OP2	1.15	1.28
3:P:373:ALA:HA	3:P:376:LEU:CD1	1.64	1.28
2:O:75:LEU:CD2	2:O:127:ILE:HD12	1.63	1.27
2:I:661:VAL:CG1	2:I:665:ALA:HB3	1.65	1.27
1:M:47:LEU:HD13	1:M:183:ILE:CD1	1.65	1.26
3:J:814:CYS:SG	9:J:1502:ZN:ZN	1.23	1.26
3:J:135:ILE:O	3:J:139:LEU:HG	1.31	1.25
2:O:1294:LYS:HD3	3:P:347:VAL:CG1	1.66	1.25
3:P:233:LYS:HE2	3:P:236:TRP:NE1	1.48	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1164:SER:O	3:J:1175:LEU:CD1	1.84	1.25
2:C:206:ALA:O	2:C:209:ILE:HG22	1.32	1.24
3:D:608:CYS:SG	3:D:617:THR:CG2	2.25	1.23
3:J:1175:LEU:HD12	3:J:1176:VAL:N	1.52	1.23
3:J:1282:TYR:O	3:J:1285:VAL:HG12	1.36	1.23
3:D:139:LEU:CD2	3:D:185:ILE:CD1	2.16	1.22
2:C:1104:PRO:HG3	3:D:725:MET:CE	1.66	1.22
3:P:339:ARG:NH2	3:P:1325:PHE:O	1.71	1.22
3:P:1266:ILE:HD12	3:P:1278:GLU:CB	1.69	1.22
2:C:819:SER:O	2:C:822:VAL:HG23	1.39	1.21
3:D:135:ILE:O	3:D:139:LEU:HG	1.38	1.21
5:R:449:THR:OG1	5:R:504:PRO:HG3	1.40	1.18
2:C:1287:LEU:HD23	3:D:1357:ILE:HD11	1.25	1.18
2:O:838:CYS:SG	2:O:886:LYS:HE3	1.84	1.18
2:C:539:THR:HG22	2:C:540:ARG:H	1.03	1.17
3:D:501:VAL:CG1	3:D:502:PRO:CD	2.21	1.17
2:I:1286:THR:OG1	3:J:479:GLU:OE2	1.64	1.16
3:J:1163:VAL:CG2	3:J:1177:ILE:HG23	1.74	1.16
3:J:1145:PHE:CE1	3:J:1256:ILE:HD12	1.81	1.16
2:C:149:LEU:HD11	2:C:451:ARG:HB3	1.20	1.16
3:P:449:LEU:HD12	3:P:450:HIS:H	1.07	1.16
3:D:645:VAL:HG22	3:D:701:LEU:CD1	1.76	1.16
2:O:1282:GLY:HA3	4:Q:17:PHE:CE1	1.80	1.16
1:H:158:ARG:O	1:H:160:HIS:N	1.78	1.15
2:C:886:LYS:HD2	2:C:916:SER:HB2	1.27	1.15
3:J:242:LEU:HD12	3:J:243:PRO:HD2	1.15	1.15
5:F:97:PRO:HA	5:F:100:MET:HG3	1.29	1.14
3:J:1318:SER:OG	3:J:1321:SER:HB3	1.43	1.14
1:N:179:PRO:HG3	1:N:211:ILE:HD12	1.29	1.14
1:M:79:LEU:HA	1:M:82:LEU:HD12	1.24	1.14
3:D:556:GLU:HB3	3:D:564:VAL:HB	1.23	1.14
3:P:1318:SER:OG	3:P:1321:SER:HB3	1.45	1.14
3:D:501:VAL:HG12	3:D:502:PRO:CD	1.78	1.14
5:R:520:GLY:HA2	5:R:523:ILE:HD12	1.28	1.14
2:I:206:ALA:O	2:I:209:ILE:HG22	1.44	1.14
3:D:416:ILE:HD13	3:D:441:LEU:HD21	1.28	1.14
1:G:189:ALA:HA	1:G:199:ASP:HB3	1.26	1.14
1:A:35:PHE:O	1:A:39:LEU:HG	1.47	1.13
1:B:88:LEU:HD22	1:B:128:HIS:CD2	1.84	1.13
3:D:749:LYS:HB3	3:D:750:PRO:CD	1.75	1.13
2:I:1124:ILE:HD11	2:I:1198:LEU:HD11	1.28	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:886:LYS:HD2	2:O:916:SER:HB2	1.17	1.12
3:J:1145:PHE:O	3:J:1309:ILE:HG13	1.46	1.12
3:D:1169:THR:HB	3:D:1172:LYS:HB2	1.32	1.12
1:G:47:LEU:HD13	1:G:183:ILE:CD1	1.79	1.12
2:I:1061:GLN:HB2	2:I:1062:PRO:HD2	1.30	1.12
3:J:746:LEU:HG	3:J:758:PRO:HB3	1.30	1.12
3:J:1164:SER:O	3:J:1175:LEU:HD11	1.50	1.12
2:O:204:LEU:HB3	2:O:205:PRO:HD2	1.32	1.12
2:I:1332:SER:OG	3:J:245:LEU:HD13	1.48	1.11
3:D:747:MET:HE1	3:D:775:SER:HA	1.32	1.11
2:O:569:ILE:HD13	3:P:784:ALA:HB2	1.24	1.11
2:C:197:ARG:HB3	2:C:200:ARG:HA	1.31	1.11
3:D:282:LEU:HD22	3:D:287:ALA:CB	1.79	1.11
2:C:1225:VAL:HG22	3:D:638:SER:HB3	1.23	1.11
1:A:100:LEU:HD13	1:A:115:ILE:HG21	1.32	1.11
3:D:664:ILE:HG21	3:D:681:LYS:HD3	1.31	1.11
1:G:44:ARG:HA	1:G:47:LEU:HD12	1.26	1.11
1:B:158:ARG:HH21	1:B:175:ALA:HB2	1.07	1.11
2:O:344:GLY:HA3	2:O:346:TYR:CE2	1.85	1.11
2:C:557:ARG:HD3	2:C:587:LEU:HB3	1.32	1.11
1:B:47:LEU:HD13	1:B:183:ILE:HD12	1.29	1.10
3:P:521:LYS:HD2	3:P:543:SER:HB2	1.11	1.10
2:O:75:LEU:HD21	2:O:127:ILE:CD1	1.81	1.10
3:D:139:LEU:HD23	3:D:185:ILE:HD11	1.11	1.10
3:D:1046:ILE:HD12	3:D:1059:LEU:HD22	1.31	1.10
3:D:502:PRO:HG2	3:D:601:ILE:CG2	1.82	1.10
1:A:79:LEU:HA	1:A:82:LEU:HD12	1.15	1.10
3:J:1175:LEU:HD12	3:J:1176:VAL:H	0.95	1.10
3:J:749:LYS:HB3	3:J:750:PRO:HD2	1.30	1.10
3:D:1318:SER:OG	3:D:1321:SER:HB3	1.49	1.09
5:F:84:LEU:HG	5:F:107:THR:HG21	1.14	1.09
3:D:353:SER:HB2	3:D:372:MET:HE1	1.12	1.09
3:J:734:ALA:HA	3:J:737:ILE:CD1	1.82	1.09
2:I:1042:LEU:HD13	2:I:1049:ILE:CD1	1.81	1.09
1:M:47:LEU:HD13	1:M:183:ILE:HD13	1.33	1.09
3:D:720:ASN:O	3:D:724:MET:HG3	1.52	1.09
3:P:1266:ILE:HD12	3:P:1278:GLU:HB3	1.28	1.08
3:D:1274:PHE:O	3:D:1275:LEU:HB2	1.51	1.08
3:P:544:LEU:HD22	3:P:578:ILE:HD11	1.35	1.08
2:O:178:PRO:HG3	2:O:395:TYR:OH	1.52	1.08
2:O:589:THR:HG22	2:O:590:PRO:HD2	1.32	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:295:CYS:O	5:R:296:LYS:HB2	1.54	1.08
1:M:180:VAL:HA	1:M:207:THR:HG22	1.35	1.08
3:D:644:MET:O	3:D:764:ARG:NH1	1.85	1.08
3:P:502:PRO:HG2	3:P:601:ILE:HG21	1.29	1.08
1:M:41:ASN:O	1:M:45:ARG:HG3	1.53	1.08
1:H:31:LEU:HD11	1:H:39:LEU:HD12	1.29	1.08
2:C:353:VAL:O	2:C:355:PRO:HD3	1.51	1.08
3:P:268:LEU:HD21	3:P:324:LEU:HD13	1.25	1.08
3:D:501:VAL:HG12	3:D:502:PRO:HD2	1.11	1.08
3:D:646:ILE:CD1	3:D:764:ARG:HD3	1.83	1.08
2:C:524:ILE:HD11	2:C:712:SER:HB3	1.30	1.08
3:P:1101:LEU:CD2	3:P:1122:ALA:HB3	1.84	1.08
2:I:890:LYS:HG2	2:I:891:GLY:H	1.04	1.08
5:F:583:THR:CG2	5:F:586:ARG:HB3	1.84	1.07
3:D:1163:VAL:HG11	3:D:1175:LEU:HD21	1.31	1.07
5:L:401:PHE:O	5:L:405:ILE:HG13	1.52	1.07
2:O:92:TYR:HB2	2:O:137:VAL:HG21	1.34	1.07
3:J:1145:PHE:HE1	3:J:1256:ILE:HD12	1.11	1.07
3:D:282:LEU:HD22	3:D:287:ALA:HB2	1.25	1.07
3:J:115:TRP:CZ2	3:J:1329:THR:HG22	1.88	1.07
1:G:228:LEU:HD21	1:H:224:LEU:CD2	1.84	1.07
1:M:184:ALA:HB2	2:O:1091:GLY:HA3	1.36	1.07
1:A:180:VAL:HA	1:A:207:THR:HG22	1.29	1.07
3:P:398:LYS:HZ1	5:R:532:LEU:HG	1.10	1.06
1:H:31:LEU:CD1	1:H:39:LEU:HD12	1.86	1.06
1:G:229:GLU:O	1:G:233:ASP:HB2	1.55	1.06
6:1:47:DC:H6	6:1:47:DC:H5"	1.13	1.06
3:D:261:ALA:HA	5:F:505:ILE:O	1.52	1.06
3:D:501:VAL:HG13	3:D:502:PRO:HD2	1.11	1.06
1:G:228:LEU:HD21	1:H:224:LEU:HD21	1.38	1.06
3:J:349:TYR:O	3:J:470:VAL:CG2	2.03	1.06
2:O:1278:LEU:CD2	2:O:1283:ALA:HB3	1.86	1.05
2:I:839:VAL:O	2:I:886:LYS:HE2	1.52	1.05
2:O:599:VAL:HG21	2:O:623:LEU:CD2	1.85	1.05
1:M:30:PRO:HB2	1:M:198:LEU:HD22	1.34	1.05
3:D:1357:ILE:H	3:D:1357:ILE:HD12	1.14	1.05
2:O:1282:GLY:HA3	4:Q:17:PHE:HE1	1.11	1.05
2:I:661:VAL:HG11	2:I:665:ALA:HB3	1.35	1.05
2:I:170:VAL:HG23	3:J:1065:ALA:O	1.56	1.05
5:L:457:ILE:HA	5:L:460:ILE:HD12	1.36	1.05
5:R:457:ILE:HA	5:R:460:ILE:HD12	1.33	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:897:PRO:HB2	5:R:565:ILE:HG12	1.36	1.04
3:J:136:GLU:O	3:J:140:TYR:HD2	1.40	1.04
3:J:363:LEU:CD2	3:J:618:VAL:HG13	1.86	1.04
5:F:583:THR:HG23	5:F:586:ARG:HB3	1.35	1.04
3:P:130:MET:HG2	3:P:135:ILE:CG1	1.87	1.04
3:D:139:LEU:CD2	3:D:185:ILE:HD12	1.88	1.04
1:B:47:LEU:HD13	1:B:183:ILE:CD1	1.87	1.04
3:P:1289:ASN:O	3:P:1293:GLU:HG3	1.58	1.04
3:P:373:ALA:CA	3:P:376:LEU:HD12	1.88	1.03
2:O:92:TYR:HB2	2:O:137:VAL:CG2	1.86	1.03
1:B:100:LEU:HD13	1:B:115:ILE:HG21	1.37	1.03
2:C:1061:GLN:HB2	2:C:1062:PRO:HD2	1.36	1.03
2:C:1086:PRO:O	2:C:1094:VAL:HG23	1.57	1.03
2:I:1042:LEU:HD13	2:I:1049:ILE:HD11	1.36	1.03
3:D:139:LEU:CD2	3:D:185:ILE:HD11	1.80	1.03
3:P:130:MET:HG2	3:P:135:ILE:HG12	1.32	1.03
2:O:75:LEU:CD2	2:O:127:ILE:CD1	2.36	1.03
3:J:644:MET:O	3:J:764:ARG:NH1	1.92	1.03
3:J:421:VAL:HG13	3:J:469:HIS:O	1.55	1.03
3:P:905:ARG:HD2	4:Q:16:ARG:HD2	1.38	1.03
2:I:673:HIS:ND1	3:J:763:PHE:O	1.90	1.03
1:M:47:LEU:O	1:M:51:MET:HB2	1.58	1.03
3:P:233:LYS:HE2	3:P:236:TRP:HE1	0.92	1.03
2:I:448:LEU:HD21	2:I:553:THR:OG1	1.58	1.03
5:L:84:LEU:HD11	5:L:107:THR:HG21	1.39	1.03
2:I:211:ARG:HD3	2:I:357:ASN:O	1.59	1.03
1:A:129:VAL:HG11	1:A:132:HIS:CE1	1.94	1.03
2:O:96:LEU:HB2	2:O:127:ILE:HD11	1.40	1.02
1:M:48:LEU:HD21	1:M:183:ILE:HG22	1.37	1.02
2:C:205:PRO:O	2:C:208:ILE:HG22	1.58	1.02
3:D:1357:ILE:H	3:D:1357:ILE:CD1	1.68	1.02
2:O:599:VAL:HG21	2:O:623:LEU:HD21	1.39	1.02
1:A:45:ARG:HH12	2:C:1216:ARG:HA	1.16	1.02
3:D:668:PHE:HA	3:D:673:VAL:HG21	1.37	1.02
3:D:320:ASN:O	3:D:321:LYS:HB2	1.57	1.02
3:P:506:VAL:O	3:P:510:LEU:HG	1.57	1.02
2:O:1305:TYR:HA	2:O:1308:ILE:HD12	1.39	1.02
2:I:806:PRO:HG2	3:J:632:ALA:O	1.58	1.02
3:J:1163:VAL:HG22	3:J:1177:ILE:HG23	1.35	1.02
5:R:585:GLU:OE2	5:R:588:ARG:HG2	1.58	1.02
2:I:504:GLU:HA	2:I:504:GLU:OE2	1.52	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:ASN:HD21	2:C:1218:GLY:HA3	1.22	1.02
3:J:972:LYS:HB3	3:J:1002:VAL:HG13	1.38	1.02
2:C:345:PRO:O	2:C:349:GLU:HG2	1.58	1.02
1:G:43:LEU:O	1:G:47:LEU:HG	1.58	1.02
3:D:963:VAL:HG23	3:D:977:SER:OG	1.60	1.02
3:J:734:ALA:HA	3:J:737:ILE:HD12	1.05	1.01
3:P:1140:ARG:O	3:P:1144:LEU:HG	1.60	1.01
2:O:205:PRO:O	2:O:208:ILE:HG22	1.60	1.01
2:C:661:VAL:HG12	2:C:665:ALA:HB3	1.41	1.01
3:D:1101:LEU:HD22	3:D:1122:ALA:HB3	1.42	1.01
2:I:708:VAL:HG11	2:I:794:LEU:HD22	1.37	1.01
3:P:795:TYR:CD1	7:8:12:DG:H5'	1.95	1.01
3:J:1163:VAL:HG13	3:J:1176:VAL:O	1.60	1.01
3:J:368:LEU:HD12	3:J:369:PRO:HD2	1.37	1.01
3:D:543:SER:O	3:D:574:VAL:HG21	1.61	1.01
3:D:139:LEU:HD23	3:D:185:ILE:CD1	1.85	1.01
1:M:11:PRO:O	1:N:230:ALA:CB	2.08	1.01
2:C:859:GLU:HG2	2:C:862:LEU:HD12	1.40	1.01
5:F:135:ALA:HB2	5:F:256:PHE:CB	1.91	1.01
2:O:225:PHE:HE2	2:O:347:ILE:HB	1.23	1.00
5:L:452:ILE:CG2	5:L:457:ILE:CD1	2.39	1.00
5:L:452:ILE:CG2	5:L:457:ILE:HD11	1.89	1.00
2:O:1288:GLN:O	2:O:1292:THR:HG22	1.59	1.00
1:N:214:GLU:HA	1:N:217:ILE:HD12	1.40	1.00
2:C:155:VAL:O	2:C:404:LYS:NZ	1.93	1.00
2:C:962:GLU:O	2:C:966:ILE:HG13	1.60	1.00
2:I:143:ARG:NH1	2:I:507:GLY:O	1.94	1.00
5:L:573:LEU:CB	7:5:46:DG:OP2	2.08	1.00
1:A:45:ARG:NH1	2:C:1216:ARG:HA	1.75	1.00
2:I:1288:GLN:O	2:I:1292:THR:HG22	1.59	1.00
2:I:1292:THR:HG23	2:I:1293:VAL:H	1.25	1.00
3:P:398:LYS:NZ	5:R:532:LEU:HG	1.76	1.00
2:I:1235:LEU:HD23	2:I:1235:LEU:N	1.76	1.00
2:C:1086:PRO:CB	2:C:1212:LEU:HD13	1.92	1.00
5:F:320:ILE:HG23	5:F:327:SER:HB3	1.40	1.00
3:P:233:LYS:CE	3:P:236:TRP:HE1	1.73	1.00
3:P:544:LEU:CD2	3:P:578:ILE:HD11	1.91	1.00
1:M:75:GLN:HE22	2:O:727:VAL:HB	1.26	1.00
3:P:783:LEU:O	3:P:786:THR:HG22	1.62	0.99
3:J:1262:ARG:HD3	3:J:1316:THR:HG22	1.44	0.99
1:B:100:LEU:HD13	1:B:115:ILE:CG2	1.91	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:423:LEU:HB2	3:P:466:MET:HE1	1.44	0.99
2:O:1109:ILE:HD11	3:P:740:LEU:HD22	1.44	0.99
3:D:139:LEU:HD21	3:D:185:ILE:CD1	1.88	0.99
5:R:591:GLU:O	5:R:595:LEU:HG	1.64	0.98
3:J:826:ILE:HG12	3:J:831:VAL:HG13	1.42	0.98
3:P:449:LEU:HD12	3:P:450:HIS:N	1.78	0.98
3:J:1328:THR:HG22	3:J:1332:LEU:HD11	1.41	0.98
3:D:749:LYS:HB3	3:D:750:PRO:HD2	1.01	0.98
3:P:795:TYR:CE1	7:8:12:DG:H5'	1.99	0.98
5:R:120:ALA:HA	5:R:123:ILE:HD12	1.44	0.98
2:O:1269:ARG:N	7:8:16:DC:OP1	1.95	0.98
3:D:749:LYS:CB	3:D:750:PRO:HD2	1.92	0.98
3:D:747:MET:CE	3:D:775:SER:HA	1.93	0.98
5:R:102:MET:HE3	6:7:42:DG:H21	1.27	0.98
6:7:44:DG:H2"	6:7:45:DT:O4'	1.64	0.98
3:D:770:LEU:O	3:D:774:ILE:HG13	1.64	0.98
3:J:608:CYS:SG	3:J:617:THR:HG22	2.03	0.98
3:P:826:ILE:HG12	3:P:831:VAL:HG22	1.42	0.98
3:P:121:PRO:HB2	3:P:126:LEU:HD11	1.43	0.98
2:I:661:VAL:HG11	2:I:665:ALA:CB	1.92	0.98
3:J:1289:ASN:O	3:J:1293:GLU:HG3	1.64	0.98
1:B:35:PHE:O	1:B:39:LEU:HG	1.62	0.98
5:L:496:LYS:O	5:L:500:ILE:HG13	1.61	0.98
2:C:528:ARG:HD2	2:C:663:VAL:HG21	1.46	0.98
5:R:84:LEU:HG	5:R:107:THR:HG21	1.41	0.97
1:M:28:LEU:HD11	1:N:231:PHE:CE1	1.99	0.97
3:J:1101:LEU:HD22	3:J:1122:ALA:HB3	1.43	0.97
3:J:601:ILE:HG22	3:J:602:SER:N	1.76	0.97
3:J:1226:VAL:O	3:J:1229:VAL:CG1	2.11	0.97
3:J:709:ARG:O	3:J:709:ARG:HG3	1.64	0.97
3:D:1357:ILE:HD12	3:D:1357:ILE:N	1.75	0.97
3:D:251:PRO:O	5:F:507:MET:CE	2.11	0.97
1:M:232:VAL:CG1	1:N:218:ARG:HA	1.95	0.97
5:L:583:THR:HG23	5:L:586:ARG:HB3	1.46	0.97
3:D:502:PRO:HG2	3:D:601:ILE:HG21	1.44	0.97
3:J:797:THR:HG23	3:J:924:GLY:HA3	1.47	0.97
5:R:457:ILE:HA	5:R:460:ILE:CD1	1.95	0.97
2:O:1294:LYS:HD3	3:P:347:VAL:HG11	1.43	0.97
3:P:501:VAL:CG1	3:P:502:PRO:HD2	1.94	0.97
1:M:232:VAL:HG13	1:N:218:ARG:HA	1.47	0.97
1:G:58:GLU:HB2	1:G:145:LYS:HB3	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:268:LEU:CD2	3:P:324:LEU:HD13	1.95	0.97
5:F:393:LYS:O	5:F:396:ASN:ND2	1.97	0.97
1:H:68:TYR:CE1	1:H:79:LEU:HD21	1.98	0.97
2:I:227:LYS:NZ	2:I:334:GLU:OE1	1.97	0.96
1:G:44:ARG:CA	1:G:47:LEU:HD12	1.94	0.96
1:H:31:LEU:HD11	1:H:39:LEU:CD1	1.94	0.96
1:G:47:LEU:HD13	1:G:183:ILE:HD12	1.44	0.96
3:J:1146:GLU:OE1	3:J:1309:ILE:HB	1.64	0.96
1:A:129:VAL:HG11	1:A:132:HIS:HE1	1.29	0.96
7:2:36:DG:H2"	7:2:37:DA:OP2	1.59	0.96
1:B:86:LYS:HE2	1:B:173:VAL:HG12	1.47	0.96
2:C:211:ARG:HD3	2:C:357:ASN:O	1.66	0.96
5:F:511:ILE:HG21	5:F:519:LEU:HD13	1.46	0.96
2:I:690:VAL:CG1	2:I:691:PRO:HD2	1.95	0.96
3:J:1101:LEU:HD22	3:J:1122:ALA:CB	1.96	0.95
5:F:388:ILE:HG12	5:F:392:LYS:HE3	1.48	0.95
3:D:1327:GLU:O	3:D:1331:VAL:HG23	1.66	0.95
3:D:318:GLY:N	3:D:322:ARG:O	1.99	0.95
1:A:54:CYS:HB2	1:A:90:VAL:HG23	1.47	0.95
1:N:100:LEU:HD13	1:N:115:ILE:HG21	1.47	0.95
1:G:184:ALA:HB2	2:I:1091:GLY:HA3	1.47	0.95
2:I:854:ILE:CG2	2:I:857:VAL:HG21	1.94	0.95
3:J:135:ILE:O	3:J:139:LEU:CG	2.15	0.95
3:P:797:THR:HG23	3:P:924:GLY:HA3	1.47	0.95
2:C:389:PHE:HB3	2:C:420:LEU:HD12	1.46	0.95
3:J:797:THR:CG2	3:J:924:GLY:HA3	1.95	0.95
2:I:167:SER:O	3:J:1064:SER:HB2	1.66	0.95
2:I:560:PRO:HB2	3:J:776:THR:HG21	1.46	0.95
3:J:840:LEU:HD13	3:J:869:CYS:SG	2.05	0.95
3:J:1252:HIS:O	3:J:1255:VAL:HB	1.67	0.95
3:D:1353:VAL:HG21	3:D:1355:ARG:HD2	1.48	0.95
3:J:349:TYR:CD2	3:J:472:LEU:HD11	2.00	0.95
3:J:600:ALA:O	3:J:604:MET:HG3	1.67	0.95
2:I:91:THR:HG23	2:I:138:ILE:HA	1.47	0.95
5:L:476:ARG:HG3	5:L:477:GLU:N	1.82	0.95
2:O:178:PRO:HG3	2:O:395:TYR:CZ	2.01	0.94
2:O:524:ILE:HD11	2:O:712:SER:HB3	1.46	0.94
5:L:84:LEU:CD1	5:L:107:THR:HG21	1.97	0.94
3:J:868:TRP:O	3:J:872:LEU:HG	1.66	0.94
3:P:620:PHE:O	3:P:624:ILE:HG13	1.67	0.94
3:J:408:VAL:HA	3:J:411:ILE:HD12	1.48	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1290:MET:SD	2:O:1294:LYS:HD2	2.08	0.94
2:C:700:VAL:HG13	2:C:1117:LEU:HD23	1.49	0.94
2:I:690:VAL:HG13	2:I:691:PRO:HD2	1.49	0.94
5:L:355:ILE:HG22	5:L:359:LYS:HE3	1.48	0.94
2:I:1289:GLU:O	2:I:1294:LYS:HG3	1.66	0.94
2:C:539:THR:CG2	2:C:540:ARG:H	1.81	0.94
2:C:1086:PRO:HB3	2:C:1212:LEU:HD13	1.48	0.94
3:P:703:THR:HG21	3:P:715:LYS:NZ	1.83	0.94
2:O:1281:TYR:OH	3:P:431:ARG:O	1.84	0.94
3:P:1266:ILE:CD1	3:P:1278:GLU:HB3	1.97	0.94
2:O:1309:VAL:HG13	3:P:383:GLY:HA2	1.48	0.94
3:J:242:LEU:HD12	3:J:243:PRO:CD	1.97	0.94
3:D:749:LYS:HD2	3:D:753:SER:HB2	1.49	0.94
3:D:740:LEU:N	3:D:740:LEU:HD23	1.82	0.94
3:P:501:VAL:HG13	3:P:502:PRO:HD2	1.49	0.94
5:R:265:GLN:O	5:R:269:LEU:HG	1.67	0.94
3:J:1333:THR:O	3:J:1337:VAL:HG23	1.68	0.94
1:B:190:ALA:HB2	1:B:199:ASP:C	1.88	0.94
3:J:1226:VAL:O	3:J:1229:VAL:HG12	1.67	0.94
2:O:228:VAL:HG22	2:O:245:ARG:HH12	1.30	0.94
3:D:609:TYR:HA	3:D:617:THR:HG21	1.51	0.93
1:A:48:LEU:CD1	1:A:183:ILE:CG2	2.46	0.93
3:J:967:VAL:HG22	3:J:973:LEU:CD1	1.98	0.93
3:J:700:ASN:O	3:J:704:GLU:HB2	1.67	0.93
2:C:539:THR:HG22	2:C:540:ARG:N	1.80	0.93
1:B:158:ARG:NH2	1:B:175:ALA:HB2	1.83	0.93
3:P:885:VAL:HG12	3:P:894:VAL:HG11	1.50	0.93
3:P:373:ALA:HA	3:P:376:LEU:HD12	0.94	0.93
1:A:42:ALA:HA	1:B:38:THR:HG23	1.48	0.93
2:O:428:VAL:HG12	2:O:429:MET:HG3	1.51	0.93
3:P:1146:GLU:HG2	3:P:1309:ILE:HD12	1.47	0.93
3:J:645:VAL:CG2	3:J:701:LEU:HD13	1.98	0.93
2:I:205:PRO:O	2:I:208:ILE:HG22	1.69	0.93
3:P:385:LEU:CD2	3:P:411:ILE:HD13	1.98	0.93
3:D:373:ALA:HA	3:D:376:LEU:HD12	1.48	0.93
3:D:353:SER:HB2	3:D:372:MET:CE	1.99	0.93
2:O:75:LEU:HD21	2:O:127:ILE:HD12	0.94	0.93
3:J:814:CYS:HG	9:J:1502:ZN:ZN	0.80	0.93
3:J:645:VAL:HG22	3:J:701:LEU:HD13	1.49	0.93
2:O:164:THR:HG21	2:O:171:LEU:HD12	1.50	0.93
3:J:1266:ILE:HD12	3:J:1274:PHE:CD1	2.04	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:27:ALA:HA	4:Q:30:MET:SD	2.08	0.93
6:1:47:DC:C6	6:1:47:DC:H5"	2.04	0.93
2:I:448:LEU:HD23	2:I:448:LEU:N	1.81	0.93
5:R:102:MET:CE	6:7:42:DG:H21	1.81	0.93
1:B:156:SER:O	1:B:159:ILE:HG22	1.67	0.93
3:J:421:VAL:HG12	3:J:422:LEU:H	1.30	0.93
3:D:481:ARG:NH1	4:E:3:ARG:O	2.02	0.93
3:P:139:LEU:HD21	3:P:185:ILE:HD12	1.51	0.92
3:J:421:VAL:CG1	3:J:469:HIS:O	2.16	0.92
2:C:163:LYS:HD3	2:C:164:THR:HG22	1.51	0.92
2:I:1275:VAL:HG12	2:I:1279:GLU:OE2	1.68	0.92
2:C:46:GLN:O	2:C:46:GLN:HG3	1.66	0.92
2:O:661:VAL:CG1	2:O:665:ALA:HB3	1.99	0.92
2:I:960:LEU:HB3	2:I:1025:PHE:HE1	1.34	0.92
2:I:1278:LEU:CB	2:I:1287:LEU:HD22	1.99	0.92
3:P:431:ARG:NH1	3:P:493:PRO:HB3	1.85	0.92
2:I:1086:PRO:O	2:I:1094:VAL:HG23	1.68	0.92
5:R:166:VAL:HG12	5:R:168:PRO:HD3	1.50	0.92
3:P:349:TYR:CD2	3:P:472:LEU:HD11	2.05	0.92
1:A:13:LEU:HA	1:A:28:LEU:CD2	1.98	0.92
3:P:1274:PHE:O	3:P:1275:LEU:HB2	1.70	0.92
5:R:583:THR:CG2	5:R:586:ARG:HB3	1.99	0.92
3:P:26:SER:HB3	3:P:29:MET:SD	2.08	0.92
3:P:1101:LEU:HD22	3:P:1122:ALA:HB3	1.50	0.92
3:J:115:TRP:HE3	3:J:1333:THR:CG2	1.81	0.92
1:G:42:ALA:HA	1:H:38:THR:CG2	2.00	0.92
2:O:885:GLY:HA2	2:O:917:SER:OG	1.70	0.92
1:B:158:ARG:HH21	1:B:175:ALA:CB	1.82	0.92
5:R:454:VAL:HG23	5:R:455:HIS:N	1.84	0.92
3:P:372:MET:O	3:P:376:LEU:HG	1.70	0.92
2:C:1183:ALA:O	2:C:1185:PRO:HD3	1.69	0.92
2:O:118:LYS:NZ	2:O:485:ASP:O	2.03	0.92
5:F:518:HIS:O	5:F:520:GLY:N	2.03	0.92
3:J:432:LEU:HD12	3:J:499:ILE:HD13	1.51	0.92
2:O:211:ARG:HD3	2:O:357:ASN:O	1.70	0.91
3:J:1287:ILE:HG22	3:J:1288:ALA:N	1.84	0.91
5:L:583:THR:CG2	5:L:586:ARG:HB3	2.00	0.91
2:O:1105:SER:HA	3:P:736:GLN:HE21	1.34	0.91
2:I:196:VAL:HG23	2:I:206:ALA:HA	1.51	0.91
5:F:84:LEU:HG	5:F:107:THR:CG2	2.01	0.91
3:P:574:VAL:O	3:P:578:ILE:HG13	1.70	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:178:PRO:HA	2:C:397:LEU:HD23	1.52	0.91
5:F:310:GLU:OE2	5:F:355:ILE:HG21	1.70	0.91
3:P:212:THR:HG22	3:P:215:LYS:NZ	1.83	0.91
3:J:115:TRP:CE3	3:J:1333:THR:HG23	2.06	0.91
6:4:53:DG:H2"	6:4:54:DA:OP2	1.70	0.91
2:I:1124:ILE:CD1	2:I:1198:LEU:HD11	2.00	0.91
1:M:81:ILE:HD13	1:M:131:CYS:HB2	1.50	0.91
5:L:407:GLU:HA	5:L:410:ILE:HD12	1.51	0.91
3:J:734:ALA:CA	3:J:737:ILE:HD12	1.98	0.90
1:B:224:LEU:HD22	1:B:224:LEU:O	1.69	0.90
5:R:84:LEU:HG	5:R:107:THR:CG2	2.01	0.90
2:C:1309:VAL:HG13	3:D:383:GLY:HA2	1.52	0.90
2:O:1241:ASP:O	2:O:1262:LYS:NZ	2.03	0.90
3:D:427:PRO:HG2	3:D:429:LEU:CD2	2.01	0.90
2:C:726:TYR:HB3	2:C:733:VAL:CG2	2.01	0.90
3:D:130:MET:HG3	3:D:134:ASP:OD2	1.70	0.90
3:P:621:ALA:HA	3:P:624:ILE:HD12	1.53	0.90
1:M:47:LEU:CD1	1:M:183:ILE:CD1	2.49	0.90
2:O:205:PRO:HB2	2:O:207:THR:HG22	1.54	0.90
3:P:544:LEU:HD22	3:P:578:ILE:CD1	2.01	0.90
2:I:1200:LYS:HE3	2:I:1206:THR:HG21	1.52	0.90
1:B:57:THR:HG23	1:B:158:ARG:NH2	1.87	0.90
3:J:432:LEU:CD1	3:J:499:ILE:HD13	2.02	0.90
2:O:202:ARG:NH2	7:8:7:DC:OP1	2.05	0.90
2:O:207:THR:OG1	2:O:351:LEU:HD21	1.70	0.90
2:I:890:LYS:CG	2:I:891:GLY:H	1.85	0.90
3:J:518:VAL:HA	3:J:547:ARG:NH1	1.87	0.90
1:A:75:GLN:HE22	2:C:727:VAL:HG12	1.37	0.90
2:O:425:ILE:O	2:O:428:VAL:HG12	1.71	0.90
3:P:749:LYS:HB3	3:P:750:PRO:HD2	1.54	0.90
1:A:166:ARG:HD2	1:A:170:ARG:HG2	1.54	0.90
1:G:42:ALA:HA	1:H:38:THR:HG21	1.53	0.90
3:J:421:VAL:HG12	3:J:422:LEU:N	1.84	0.90
5:L:295:CYS:O	5:L:296:LYS:HB2	1.69	0.90
2:O:277:LEU:HD11	2:O:282:VAL:HG21	1.53	0.90
2:O:666:SER:HA	2:O:1186:VAL:HG21	1.54	0.90
3:J:373:ALA:O	3:J:376:LEU:HB2	1.72	0.89
2:O:675:ASP:HB2	2:O:1107:MET:HE2	1.54	0.89
2:O:708:VAL:HG11	2:O:794:LEU:HD22	1.51	0.89
2:C:213:LEU:O	2:C:214:ASN:CB	2.19	0.89
3:J:1162:ILE:HD12	3:J:1180:VAL:HG12	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:795:TYR:CD1	7:2:12:DG:H5'	2.07	0.89
3:D:646:ILE:HD11	3:D:764:ARG:HD3	1.50	0.89
2:I:805:MET:HE2	2:I:806:PRO:HD2	1.51	0.89
3:P:417:ARG:HG2	3:P:418:GLU:HG2	1.54	0.89
1:A:48:LEU:HD11	1:A:183:ILE:CG2	2.01	0.89
3:J:136:GLU:O	3:J:140:TYR:CD2	2.26	0.89
2:I:448:LEU:HD11	2:I:553:THR:C	1.92	0.89
2:C:3:TYR:O	2:C:8:LYS:HE3	1.71	0.89
2:I:425:ILE:O	2:I:429:MET:HG3	1.72	0.89
3:P:1101:LEU:HD21	3:P:1122:ALA:HB3	1.53	0.89
2:I:667:LEU:HD11	2:I:794:LEU:HD23	1.54	0.89
3:J:1259:GLN:OE1	3:J:1262:ARG:NH1	2.05	0.89
3:J:1284:ARG:O	3:J:1287:ILE:HB	1.72	0.89
3:P:115:TRP:CZ2	3:P:1329:THR:HG22	2.06	0.89
2:O:1124:ILE:CD1	2:O:1198:LEU:HD11	2.02	0.89
2:I:813:GLU:HB2	3:J:461:PHE:HD2	1.35	0.89
3:P:1282:TYR:O	3:P:1285:VAL:HG12	1.72	0.89
2:C:1314:GLN:HG3	4:E:28:ARG:NH2	1.87	0.89
5:F:502:LYS:HE3	5:F:503:GLU:O	1.72	0.89
3:P:423:LEU:CB	3:P:466:MET:HE1	2.02	0.89
3:J:1269:ALA:HB2	3:J:1274:PHE:HB2	1.54	0.89
1:G:47:LEU:CD1	1:G:183:ILE:CD1	2.50	0.89
3:D:427:PRO:HG2	3:D:429:LEU:HD21	1.53	0.89
3:D:807:LEU:HD22	3:D:1255:VAL:HG13	1.54	0.89
1:A:67:GLU:HA	1:A:78:ILE:HG21	1.54	0.89
3:D:1163:VAL:HG11	3:D:1175:LEU:CD2	2.02	0.89
2:C:657:THR:O	2:C:660:VAL:HG23	1.71	0.89
2:I:1280:ALA:CB	3:J:431:ARG:HB3	2.02	0.89
3:J:1164:SER:C	3:J:1175:LEU:HD11	1.92	0.89
3:J:1323:ALA:CB	3:J:1332:LEU:HD21	2.02	0.89
3:P:1347:LEU:HD22	3:P:1357:ILE:HG23	1.54	0.89
3:J:1172:LYS:HD3	3:J:1189:MET:HE1	1.55	0.89
2:C:912:ASP:O	2:C:913:VAL:HG23	1.72	0.89
3:J:1163:VAL:HG21	3:J:1177:ILE:HG23	1.51	0.88
3:D:749:LYS:CG	3:D:755:ILE:HG12	2.04	0.88
1:B:158:ARG:HD3	1:B:172:LEU:HD11	1.53	0.88
1:M:45:ARG:NE	1:N:38:THR:OG1	2.07	0.88
1:G:41:ASN:O	1:G:45:ARG:HG3	1.73	0.88
2:I:345:PRO:O	2:I:349:GLU:HG2	1.72	0.88
5:L:573:LEU:HD22	7:5:45:DT:H2'	1.53	0.88
2:C:1104:PRO:HG3	3:D:725:MET:HE3	1.52	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:661:VAL:HG13	2:O:665:ALA:HB3	1.54	0.88
3:J:464:ASP:OD1	8:6:15:G:O2'	1.90	0.88
2:I:953:LEU:HD13	2:I:954:LYS:NZ	1.87	0.88
3:P:521:LYS:HD2	3:P:543:SER:CB	2.02	0.88
3:P:824:PRO:HD3	3:P:878:ASP:O	1.73	0.88
2:I:255:ILE:HG12	2:I:285:ILE:HG21	1.54	0.88
1:M:85:LEU:HD13	1:M:144:ILE:HD13	1.55	0.88
3:J:1344:LEU:HA	3:J:1349:GLU:OE1	1.72	0.88
2:O:870:ILE:HG21	2:O:944:ARG:HE	1.37	0.88
3:D:747:MET:HE1	3:D:775:SER:CA	2.03	0.88
3:P:502:PRO:HG2	3:P:601:ILE:CG2	2.04	0.88
2:C:661:VAL:CG1	2:C:665:ALA:HB3	2.02	0.88
3:D:115:TRP:CZ2	3:D:1329:THR:HG22	2.09	0.88
2:C:698:PRO:HA	2:C:1231:TYR:CE1	2.07	0.88
2:I:798:GLN:HB2	2:I:828:PHE:CZ	2.09	0.88
3:J:909:ILE:HG12	3:J:910:ASN:N	1.88	0.88
5:F:84:LEU:CG	5:F:107:THR:HG21	2.04	0.88
2:O:897:PRO:HG2	2:O:898:GLU:OE1	1.73	0.88
3:D:1146:GLU:HG2	3:D:1309:ILE:HD12	1.55	0.88
2:I:1268:GLN:NE2	3:J:351:GLY:O	2.06	0.88
2:O:153:PRO:HA	2:O:177:ILE:HG22	1.56	0.88
3:J:53:ARG:O	3:J:58:CYS:HB2	1.74	0.88
2:C:870:ILE:HG13	2:C:944:ARG:HG2	1.56	0.88
3:D:1230:THR:HA	3:D:1233:ILE:HD12	1.54	0.88
3:D:972:LYS:HB3	3:D:1002:VAL:HG13	1.56	0.88
1:A:15:ASP:HB3	1:A:27:THR:OG1	1.73	0.88
2:O:228:VAL:HG22	2:O:245:ARG:NH1	1.88	0.88
2:O:539:THR:HG22	2:O:540:ARG:H	1.39	0.88
3:J:192:MET:HE1	3:J:197:GLU:OE1	1.74	0.88
2:I:577:VAL:HG23	2:I:661:VAL:O	1.74	0.87
3:J:115:TRP:CH2	3:J:1329:THR:HA	2.08	0.87
3:P:117:LEU:CD1	3:P:124:ILE:HD12	2.04	0.87
3:J:823:THR:HB	3:J:824:PRO:CD	2.03	0.87
3:D:107:LEU:HD21	3:D:242:LEU:HB2	1.53	0.87
2:O:897:PRO:HB2	5:R:565:ILE:CG1	2.04	0.87
3:P:458:ASN:ND2	8:9:16:U:O3'	2.07	0.87
4:Q:5:THR:HG22	4:Q:7:GLN:H	1.39	0.87
3:P:482:ALA:O	3:P:488:ASN:ND2	2.08	0.87
2:I:1278:LEU:HB3	2:I:1287:LEU:HD22	1.56	0.87
2:O:569:ILE:HD13	3:P:784:ALA:CB	2.04	0.87
2:O:1124:ILE:HD11	2:O:1198:LEU:HD11	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:382:TYR:HA	3:J:385:LEU:HD12	1.57	0.87
1:M:47:LEU:CD1	1:M:183:ILE:HD13	2.03	0.87
5:F:392:LYS:HA	5:F:395:THR:HG23	1.57	0.87
3:J:869:CYS:HA	3:J:872:LEU:HD12	1.56	0.87
1:A:9:LEU:HD21	1:A:198:LEU:HD13	1.57	0.87
3:J:130:MET:SD	3:J:135:ILE:HG12	2.14	0.87
5:R:456:MET:O	5:R:460:ILE:HG13	1.73	0.87
3:P:749:LYS:CB	3:P:750:PRO:HD2	2.04	0.87
3:J:322:ARG:HB2	3:J:323:PRO:HD2	1.56	0.87
2:I:1100:PRO:HB3	3:J:639:VAL:HG23	1.55	0.87
3:P:1266:ILE:HD12	3:P:1278:GLU:HB2	1.53	0.87
1:M:59:VAL:HG22	1:M:144:ILE:HG23	1.55	0.87
1:B:61:ILE:HB	1:B:64:VAL:HB	1.55	0.87
3:J:1167:LYS:HE3	3:J:1187:GLU:OE1	1.73	0.87
3:D:1163:VAL:HG22	3:D:1177:ILE:HG23	1.54	0.87
5:F:458:GLU:HA	5:F:461:ASN:ND2	1.89	0.87
2:O:878:THR:CG2	2:O:879:GLY:N	2.37	0.87
3:D:502:PRO:HG2	3:D:601:ILE:HG23	1.54	0.87
1:A:100:LEU:CD1	1:A:115:ILE:HG21	2.05	0.87
1:M:11:PRO:O	1:N:230:ALA:HB2	1.74	0.87
2:I:448:LEU:HD11	2:I:553:THR:O	1.75	0.87
1:A:109:PRO:HB3	1:A:132:HIS:CD2	2.09	0.87
2:I:1271:GLY:O	2:I:1275:VAL:HG23	1.74	0.87
3:D:1282:TYR:O	3:D:1285:VAL:HG12	1.75	0.87
3:P:1177:ILE:HD12	3:P:1186:TYR:O	1.74	0.86
5:L:386:LEU:HA	6:4:41:DT:O4'	1.75	0.86
3:D:1101:LEU:CD2	3:D:1122:ALA:HB3	2.05	0.86
3:D:514:THR:HG21	3:D:596:LEU:HG	1.57	0.86
2:O:589:THR:CG2	2:O:590:PRO:HD2	2.05	0.86
2:I:890:LYS:HG2	2:I:891:GLY:N	1.87	0.86
2:C:871:VAL:HG23	2:C:883:LEU:O	1.74	0.86
5:L:429:THR:HG1	6:4:39:DA:H8	0.90	0.86
2:O:667:LEU:HD22	2:O:705:GLU:OE2	1.76	0.86
2:C:525:THR:HG21	2:C:687:ARG:HD3	1.55	0.86
3:J:1233:ILE:O	3:J:1237:VAL:HG23	1.75	0.86
3:D:483:LEU:HD11	4:E:20:VAL:HG21	1.58	0.86
2:C:812:PHE:CE2	2:C:813:GLU:HG3	2.10	0.86
2:C:831:ILE:HD12	2:C:831:ILE:H	1.41	0.86
2:C:372:PRO:O	5:F:94:THR:OG1	1.92	0.86
3:P:521:LYS:CD	3:P:543:SER:HB2	2.03	0.86
7:5:25:DA:H2"	7:5:26:DT:OP2	1.74	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1140:ARG:NH2	3:D:1236:GLU:OE2	2.08	0.86
3:J:519:ASN:HA	3:J:523:GLU:HB2	1.58	0.86
2:I:60:GLN:O	2:I:476:LYS:NZ	2.07	0.86
3:D:288:PRO:O	3:D:292:VAL:HG23	1.76	0.86
2:I:122:VAL:HG11	2:I:493:ILE:HD12	1.58	0.86
3:D:608:CYS:HG	3:D:617:THR:HG22	1.38	0.86
3:D:501:VAL:HG13	3:D:502:PRO:CD	1.96	0.86
1:M:42:ALA:HA	1:N:38:THR:HG23	1.55	0.86
2:O:806:PRO:HG2	3:P:632:ALA:O	1.76	0.86
3:D:805:GLN:HB2	3:D:1347:LEU:HD12	1.57	0.86
3:J:673:VAL:CG1	3:J:678:ARG:HB2	2.05	0.86
1:M:44:ARG:HG3	1:M:183:ILE:HG12	1.57	0.86
2:C:1257:GLN:HG2	2:C:1296:ASP:OD1	1.76	0.86
2:O:1278:LEU:HD22	2:O:1283:ALA:HB3	1.56	0.86
1:G:106:GLY:HA2	1:G:136:GLU:HA	1.57	0.86
3:J:527:LEU:HB2	3:J:550:VAL:HG22	1.55	0.86
3:P:930:LEU:HB2	3:P:1134:ILE:HD11	1.58	0.86
5:R:454:VAL:HG23	5:R:455:HIS:H	1.37	0.85
2:O:1086:PRO:O	2:O:1094:VAL:HG23	1.74	0.85
2:C:807:TRP:CD1	2:C:817:LEU:HD11	2.11	0.85
5:L:452:ILE:CB	5:L:457:ILE:HD11	2.05	0.85
3:P:1145:PHE:CB	3:P:1309:ILE:HD11	2.06	0.85
3:J:823:THR:HB	3:J:824:PRO:HD2	1.58	0.85
2:I:719:LYS:O	2:I:779:ARG:NH1	2.09	0.85
2:C:528:ARG:HD2	2:C:663:VAL:CG2	2.05	0.85
5:L:310:GLU:OE1	5:L:355:ILE:HG21	1.77	0.85
3:J:1162:ILE:CD1	3:J:1180:VAL:HG12	2.06	0.85
2:I:871:VAL:HG23	2:I:883:LEU:O	1.76	0.85
2:O:178:PRO:HG3	2:O:395:TYR:HH	1.40	0.85
2:C:164:THR:O	2:C:165:HIS:HB2	1.75	0.85
2:I:1005:GLU:HG2	2:I:1006:GLU:H	1.40	0.85
5:R:96:ASP:HB3	5:R:99:ARG:HG2	1.57	0.85
3:P:111:THR:HG23	3:P:112:ALA:H	1.41	0.85
3:D:416:ILE:HD12	3:D:441:LEU:HD11	1.57	0.85
1:N:37:HIS:NE2	1:N:187:VAL:HG21	1.91	0.85
2:O:478:ARG:NH2	2:O:492:MET:O	2.09	0.85
1:B:92:VAL:HG22	1:B:121:VAL:HG22	1.58	0.85
3:D:353:SER:CB	3:D:372:MET:HE1	2.04	0.85
3:D:771:GLN:HA	3:D:774:ILE:CD1	2.07	0.85
5:L:452:ILE:HG22	5:L:457:ILE:HD11	1.56	0.85
3:P:974:VAL:HG11	3:P:1028:ILE:HG21	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:530:LEU:H	5:F:530:LEU:HD12	1.40	0.85
2:C:1311:GLY:O	4:E:31:GLN:HG3	1.75	0.85
2:O:70:TYR:HA	2:O:100:LEU:HD23	1.56	0.85
3:D:1179:PRO:HD2	3:D:1184:ASP:O	1.77	0.85
3:J:363:LEU:HD23	3:J:618:VAL:CG1	2.07	0.85
2:I:813:GLU:O	3:J:461:PHE:HB2	1.76	0.85
3:D:664:ILE:HG12	3:D:681:LYS:NZ	1.91	0.85
1:B:57:THR:HG23	1:B:158:ARG:HH22	1.41	0.85
5:L:452:ILE:HG22	5:L:457:ILE:CD1	2.07	0.85
2:I:1275:VAL:O	2:I:1279:GLU:HG3	1.77	0.85
3:J:519:ASN:HB3	3:J:523:GLU:OE1	1.77	0.85
2:C:816:ILE:HG22	2:C:818:VAL:HG13	1.58	0.85
2:C:149:LEU:HD21	2:C:451:ARG:HE	1.39	0.85
5:L:452:ILE:HG21	5:L:457:ILE:HD13	1.58	0.85
3:P:385:LEU:HD23	3:P:411:ILE:HD13	1.56	0.85
3:P:475:GLU:O	3:P:479:GLU:HG2	1.75	0.85
3:P:131:PRO:O	3:P:135:ILE:HG13	1.76	0.85
3:P:139:LEU:HD21	3:P:185:ILE:CD1	2.07	0.85
2:C:859:GLU:CG	2:C:862:LEU:HD12	2.07	0.85
2:I:854:ILE:HG22	2:I:857:VAL:HG21	1.59	0.85
3:P:975:ILE:HD13	3:P:980:THR:HG21	1.59	0.85
2:O:120:GLN:HG2	2:O:489:PRO:HG2	1.59	0.85
3:J:43:THR:HG21	5:L:449:THR:HG22	1.56	0.85
1:G:28:LEU:HD11	1:H:231:PHE:CE1	2.10	0.85
5:L:451:ARG:CZ	6:4:32:DA:OP1	2.25	0.85
5:R:520:GLY:HA2	5:R:523:ILE:CD1	2.07	0.84
2:O:204:LEU:HB3	2:O:205:PRO:CD	2.06	0.84
3:P:1075:ARG:HG3	3:P:1192:LYS:HD3	1.59	0.84
3:P:759:ILE:HD11	3:P:771:GLN:HB3	1.58	0.84
5:L:452:ILE:HB	5:L:457:ILE:HD11	1.58	0.84
5:L:507:MET:O	5:L:519:LEU:HB3	1.76	0.84
3:D:398:LYS:HD3	5:F:532:LEU:HG	1.59	0.84
3:D:251:PRO:O	5:F:507:MET:HE3	1.76	0.84
5:L:453:PRO:O	5:L:457:ILE:HG12	1.76	0.84
3:J:1309:ILE:HG22	3:J:1310:THR:N	1.92	0.84
3:J:868:TRP:O	3:J:872:LEU:CG	2.25	0.84
2:C:263:VAL:HG22	2:C:269:ILE:HD11	1.60	0.84
5:L:585:GLU:HG3	7:5:48:DC:N4	1.92	0.84
3:D:450:HIS:CD2	3:D:452:LEU:HB2	2.13	0.84
3:J:829:GLY:HA2	3:J:994:SER:O	1.77	0.84
2:O:838:CYS:SG	2:O:886:LYS:CE	2.65	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:520:PRO:O	2:O:524:ILE:HG13	1.78	0.84
3:P:130:MET:CG	3:P:135:ILE:HG12	2.07	0.84
5:F:381:GLU:O	5:F:384:LEU:HG	1.77	0.84
3:D:797:THR:HG23	3:D:924:GLY:HA3	1.58	0.84
5:F:573:LEU:HB2	7:2:46:DG:OP2	1.77	0.84
1:B:217:ILE:HG22	1:B:218:ARG:N	1.91	0.84
2:C:1225:VAL:CG2	3:D:638:SER:HB3	2.07	0.84
1:A:9:LEU:HD21	1:A:198:LEU:CD1	2.07	0.84
3:P:320:ASN:O	3:P:321:LYS:CB	2.26	0.84
3:D:512:TYR:CE2	3:D:635:SER:HB2	2.13	0.84
1:G:228:LEU:HD11	1:H:224:LEU:HD11	1.60	0.84
3:D:797:THR:CG2	3:D:924:GLY:HA3	2.07	0.84
3:D:703:THR:O	3:D:718:SER:HB3	1.78	0.84
1:M:38:THR:HG23	1:N:42:ALA:HA	1.59	0.84
3:P:930:LEU:HD11	3:P:1246:VAL:CG2	2.07	0.84
3:D:210:SER:HB3	3:D:213:LYS:HD2	1.57	0.84
2:O:21:VAL:HG11	2:O:592:ARG:HD3	1.58	0.83
3:P:1145:PHE:O	3:P:1309:ILE:HG13	1.77	0.83
2:O:1100:PRO:HB3	3:P:639:VAL:HG23	1.58	0.83
5:F:520:GLY:HA2	5:F:523:ILE:HD11	1.61	0.83
3:P:518:VAL:HG21	3:P:707:ILE:HD12	1.59	0.83
1:G:232:VAL:HG22	1:H:221:ALA:HB1	1.59	0.83
2:I:1269:ARG:NH1	3:J:340:GLN:HA	1.93	0.83
2:O:1064:ASP:OD1	2:O:1238:LEU:HD22	1.78	0.83
3:J:918:ILE:CG2	3:J:919:ALA:N	2.39	0.83
3:J:746:LEU:CG	3:J:758:PRO:HB3	2.08	0.83
2:O:164:THR:CG2	2:O:171:LEU:HD12	2.08	0.83
3:P:97:VAL:HG12	3:P:101:ARG:HG3	1.61	0.83
3:D:268:LEU:HB3	3:D:306:LEU:HD13	1.60	0.83
3:D:1081:VAL:HB	3:D:1085:GLY:O	1.78	0.83
2:C:974:ARG:O	2:C:978:VAL:HG23	1.78	0.83
3:J:918:ILE:HG22	3:J:919:ALA:N	1.93	0.83
6:4:44:DG:H2"	6:4:45:DT:O4'	1.77	0.83
5:L:102:MET:HE1	6:4:43:DT:H1'	1.59	0.83
3:J:609:TYR:HA	3:J:617:THR:HG21	1.59	0.83
2:I:953:LEU:HD13	2:I:954:LYS:HZ2	1.42	0.83
5:R:87:VAL:HG11	5:R:103:ARG:HD3	1.60	0.83
3:J:1226:VAL:O	3:J:1230:THR:OG1	1.95	0.83
2:I:431:LYS:O	2:I:435:ILE:HG13	1.77	0.83
2:C:1030:GLU:OE1	2:C:1030:GLU:HA	1.76	0.83
2:I:813:GLU:HB2	3:J:461:PHE:CD2	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:386:LEU:HB2	6:4:41:DT:C2	2.14	0.83
3:J:828:GLY:HA2	3:J:996:LYS:HG2	1.61	0.83
2:C:1077:SER:HA	3:D:356:THR:CG2	2.08	0.83
7:8:5:DC:H2"	7:8:6:DG:H5'	1.60	0.83
1:A:48:LEU:CD1	1:A:183:ILE:HG23	2.08	0.83
2:C:1117:LEU:HD21	2:C:1182:ILE:HD13	1.61	0.83
2:C:1117:LEU:HD21	2:C:1182:ILE:CD1	2.08	0.83
1:G:28:LEU:HD11	1:H:231:PHE:CZ	2.14	0.83
5:F:401:PHE:O	5:F:405:ILE:HG13	1.79	0.83
3:J:736:GLN:HE21	3:J:736:GLN:HA	1.42	0.83
5:L:518:HIS:O	5:L:520:GLY:N	2.12	0.83
5:L:244:THR:HG22	5:L:248:GLU:OE2	1.78	0.83
3:P:1158:GLU:O	3:P:1223:LEU:HD21	1.79	0.83
2:O:1309:VAL:HG13	3:P:383:GLY:CA	2.08	0.83
2:I:1061:GLN:HB2	2:I:1062:PRO:CD	2.09	0.83
1:G:225:ALA:HB2	1:H:228:LEU:HD13	1.58	0.83
5:F:395:THR:HA	5:F:404:LEU:CD1	2.09	0.83
2:O:277:LEU:CD1	2:O:282:VAL:HG21	2.09	0.83
2:O:225:PHE:CE2	2:O:347:ILE:HB	2.12	0.83
3:J:363:LEU:HD21	3:J:618:VAL:HG13	1.58	0.83
5:F:137:TYR:CE1	5:F:353:LEU:HD11	2.13	0.83
3:J:817:HIS:O	3:J:845:ALA:HB1	1.78	0.83
3:P:146:VAL:CG2	3:P:154:LEU:HD13	2.09	0.83
2:I:873:ILE:HG13	2:I:944:ARG:HH22	1.43	0.83
7:5:51:DG:O3'	7:5:52:DT:P	2.37	0.82
1:M:81:ILE:CD1	1:M:131:CYS:HB2	2.09	0.82
2:O:255:ILE:HD12	2:O:263:VAL:HG11	1.61	0.82
3:J:964:LYS:HD2	3:J:977:SER:CB	2.09	0.82
2:C:1269:ARG:HA	3:D:346:ARG:HA	1.59	0.82
3:J:115:TRP:CE3	3:J:1333:THR:CG2	2.61	0.82
1:A:13:LEU:HA	1:A:28:LEU:HD21	1.61	0.82
3:P:26:SER:CB	3:P:29:MET:SD	2.67	0.82
1:A:44:ARG:HA	1:A:183:ILE:HD11	1.60	0.82
2:I:1042:LEU:HD13	2:I:1049:ILE:HD12	1.61	0.82
1:A:45:ARG:NH1	2:C:1215:GLY:O	2.12	0.82
3:P:799:ARG:O	3:P:803:VAL:HG23	1.79	0.82
3:P:1226:VAL:O	3:P:1230:THR:OG1	1.97	0.82
3:D:601:ILE:HG22	3:D:602:SER:N	1.94	0.82
3:D:824:PRO:HG3	3:D:835:LEU:HB2	1.60	0.82
3:J:580:TRP:CZ3	3:J:583:VAL:HG11	2.14	0.82
2:O:178:PRO:HA	2:O:397:LEU:HD23	1.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1109:ILE:HG21	3:D:644:MET:CE	2.09	0.82
3:P:1145:PHE:HB3	3:P:1309:ILE:HD11	1.59	0.82
3:J:1011:VAL:HG11	3:J:1017:VAL:CG1	2.10	0.82
2:I:363:LEU:HD21	2:I:385:PHE:CB	2.08	0.82
2:C:483:ASP:O	2:C:487:LEU:HG	1.79	0.82
3:J:918:ILE:O	3:J:922:SER:OG	1.95	0.82
2:O:569:ILE:CD1	3:P:784:ALA:HB2	2.10	0.82
3:J:373:ALA:HA	3:J:376:LEU:CD1	2.09	0.82
3:J:848:VAL:HG21	3:J:880:VAL:HG13	1.59	0.82
5:F:166:VAL:HG12	5:F:168:PRO:HD3	1.61	0.82
3:J:931:THR:O	3:J:935:PHE:CD2	2.32	0.82
3:D:790:THR:HG22	3:D:931:THR:HB	1.62	0.82
1:B:59:VAL:HG22	1:B:144:ILE:HG23	1.59	0.82
2:C:75:LEU:HD21	2:C:94:ALA:HB3	1.62	0.82
2:C:206:ALA:O	2:C:209:ILE:CG2	2.24	0.82
5:F:511:ILE:HD13	5:F:519:LEU:HA	1.62	0.82
2:C:706:ARG:O	2:C:710:VAL:HG23	1.79	0.82
2:O:292:ILE:HG21	2:O:322:LEU:HD11	1.60	0.82
2:C:1305:TYR:HA	2:C:1308:ILE:HD12	1.61	0.82
3:D:645:VAL:HG22	3:D:701:LEU:HD13	0.85	0.82
3:J:915:ILE:O	3:J:918:ILE:HG22	1.79	0.82
3:J:373:ALA:HA	3:J:376:LEU:HD12	1.61	0.82
5:R:269:LEU:O	5:R:273:MET:CE	2.28	0.82
3:P:311:ARG:NH2	3:P:1329:THR:HG21	1.95	0.82
2:I:363:LEU:HD21	2:I:385:PHE:HB3	1.62	0.82
2:O:496:LYS:HB3	2:O:497:PRO:HD3	1.61	0.82
3:D:234:PRO:O	3:D:237:MET:HG2	1.80	0.82
3:J:664:ILE:HG21	3:J:681:LYS:HD3	1.61	0.82
2:C:557:ARG:HB3	2:C:587:LEU:HD13	1.60	0.81
1:B:219:ARG:O	1:B:223:ILE:HG13	1.80	0.81
3:D:105:ILE:HD12	3:D:242:LEU:HD23	1.60	0.81
2:C:251:ALA:HB2	2:C:263:VAL:HG11	1.63	0.81
2:O:1061:GLN:HB2	2:O:1062:PRO:HD2	1.59	0.81
3:D:749:LYS:HG3	3:D:755:ILE:HG12	1.62	0.81
2:I:686:GLN:CD	2:I:1069:ARG:HG2	2.01	0.81
3:D:478:LEU:CD1	4:E:24:ALA:HB2	2.10	0.81
3:D:1226:VAL:O	3:D:1230:THR:OG1	1.98	0.81
2:I:373:GLY:HA3	5:L:91:ILE:HG12	1.61	0.81
2:O:790:ASP:O	2:O:792:GLY:N	2.14	0.81
2:C:912:ASP:O	2:C:913:VAL:CG2	2.28	0.81
5:L:530:LEU:HB3	5:L:532:LEU:HD13	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:997:VAL:HG11	3:P:1003:LEU:HD21	1.62	0.81
2:I:562:GLU:C	2:I:563:THR:HG22	2.00	0.81
2:I:75:LEU:HD21	2:I:127:ILE:HD12	1.60	0.81
2:C:96:LEU:HB2	2:C:127:ILE:HD11	1.62	0.81
3:P:908:ILE:H	3:P:908:ILE:CD1	1.93	0.81
2:C:311:CYS:SG	2:C:325:LEU:HD21	2.20	0.81
2:C:402:ARG:NH1	2:C:424:ASP:OD2	2.13	0.81
2:I:531:SER:OG	2:I:533:LEU:HG	1.79	0.81
3:D:1046:ILE:HD12	3:D:1059:LEU:CD2	2.10	0.81
2:C:702:THR:HG22	2:C:1184:THR:O	1.80	0.81
2:O:681:MET:O	2:O:685:MET:HG2	1.79	0.81
2:I:1278:LEU:HD22	2:I:1283:ALA:HB3	1.61	0.81
3:J:247:PRO:HG3	3:J:250:ARG:NH2	1.95	0.81
5:L:452:ILE:CG2	5:L:457:ILE:HD13	2.11	0.81
2:I:886:LYS:H	2:I:917:SER:HG	1.26	0.81
3:D:665:GLN:O	3:D:668:PHE:HB3	1.80	0.81
3:J:1328:THR:HG22	3:J:1332:LEU:CD1	2.09	0.81
3:J:700:ASN:O	3:J:704:GLU:CB	2.27	0.81
4:K:13:ILE:HD12	4:K:19:LEU:HA	1.61	0.81
3:D:1167:LYS:HB2	3:D:1174:ARG:HD2	1.61	0.81
5:R:262:VAL:HG13	5:R:263:PRO:HD2	1.63	0.81
5:L:573:LEU:HB3	7:5:45:DT:H3'	1.62	0.81
1:A:41:ASN:ND2	2:C:1218:GLY:HA3	1.95	0.81
3:J:421:VAL:CG1	3:J:422:LEU:H	1.93	0.81
3:J:967:VAL:HG22	3:J:973:LEU:HD11	1.63	0.81
2:O:921:PRO:HB2	2:O:924:VAL:HB	1.61	0.81
3:J:614:LEU:O	3:J:618:VAL:HG23	1.80	0.81
3:D:1163:VAL:CG1	3:D:1175:LEU:HD21	2.11	0.81
5:F:135:ALA:HB2	5:F:256:PHE:HB2	1.61	0.81
2:I:1268:GLN:HE22	3:J:351:GLY:C	1.84	0.81
3:D:497:GLU:HB3	3:D:498:PRO:HD2	1.62	0.81
3:D:134:ASP:N	3:D:134:ASP:OD1	2.10	0.80
1:N:32:GLU:HB3	1:N:35:PHE:HD2	1.45	0.80
2:O:548:ARG:NH1	3:P:788:LEU:HD11	1.96	0.80
2:I:1299:ASN:O	2:I:1302:THR:HG22	1.81	0.80
3:J:665:GLN:O	3:J:668:PHE:HB3	1.80	0.80
2:I:661:VAL:CG1	2:I:665:ALA:CB	2.50	0.80
2:O:428:VAL:CG1	2:O:429:MET:N	2.44	0.80
2:C:1105:SER:HB3	3:D:731:ARG:HG3	1.63	0.80
1:N:61:ILE:HB	1:N:64:VAL:HB	1.62	0.80
2:C:1286:THR:OG1	3:D:479:GLU:OE2	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:139:LEU:CD2	3:J:185:ILE:HD11	2.11	0.80
2:I:255:ILE:O	2:I:255:ILE:HG22	1.82	0.80
3:P:245:LEU:HD12	3:P:246:PRO:HD2	1.63	0.80
2:O:1275:VAL:HG21	3:P:343:LEU:O	1.81	0.80
2:I:1085:MET:HA	2:I:1085:MET:HE2	1.62	0.80
3:P:1263:LYS:HB2	3:P:1307:LEU:CD1	2.11	0.80
3:P:45:ASN:HB3	3:P:48:THR:O	1.80	0.80
3:P:839:VAL:HG13	3:P:864:LEU:HD12	1.62	0.80
2:I:790:ASP:O	2:I:792:GLY:N	2.12	0.80
2:C:1113:LEU:HD23	2:C:1113:LEU:N	1.94	0.80
2:C:1288:GLN:O	2:C:1292:THR:HG22	1.81	0.80
2:O:1274:GLU:OE2	3:P:424:ASN:ND2	2.14	0.80
1:N:191:ARG:HG3	1:N:196:THR:HG22	1.63	0.80
2:O:1278:LEU:HD23	2:O:1283:ALA:HB3	1.64	0.80
2:I:1234:LYS:C	2:I:1235:LEU:HD23	2.02	0.80
3:D:1161:GLY:HA2	3:D:1180:VAL:HG22	1.62	0.80
2:I:148:GLN:NE2	2:I:533:LEU:O	2.10	0.80
3:J:797:THR:HG23	3:J:924:GLY:CA	2.11	0.80
3:D:1310:THR:O	3:D:1314:LEU:HG	1.82	0.80
3:J:959:LYS:HD2	3:J:985:ILE:HG13	1.61	0.80
1:M:106:GLY:HA2	1:M:136:GLU:HA	1.64	0.80
3:D:267:ASP:OD1	3:D:270:ARG:NH2	2.15	0.80
3:D:572:THR:OG1	3:D:576:ARG:HB2	1.80	0.80
5:L:105:MET:SD	5:L:385:ARG:HG2	2.22	0.80
2:I:1270:PHE:N	3:J:345:LYS:O	2.15	0.80
2:I:1327:LEU:HD23	2:I:1327:LEU:N	1.96	0.80
1:A:48:LEU:HD12	1:A:183:ILE:CG2	2.11	0.80
7:2:24:DT:H2"	7:2:25:DA:OP1	1.80	0.80
3:D:1179:PRO:CD	3:D:1184:ASP:O	2.30	0.80
3:J:153:ASN:HB2	3:J:154:LEU:HD12	1.63	0.80
2:I:176:ILE:HD12	2:I:184:LEU:HB2	1.63	0.80
2:O:390:PHE:CD2	2:O:390:PHE:N	2.48	0.80
5:L:548:LEU:HD11	5:L:560:ARG:HE	1.47	0.80
5:R:464:ASN:CG	7:8:25:DA:N6	2.36	0.80
2:O:1258:PRO:HG2	3:P:346:ARG:CB	2.12	0.80
3:P:749:LYS:HB3	3:P:750:PRO:CD	2.12	0.80
5:R:514:ASP:O	5:R:516:ASP:N	2.15	0.80
5:R:391:ALA:O	5:R:395:THR:HG23	1.81	0.80
3:P:1220:ILE:HG23	3:P:1224:ARG:HD2	1.64	0.80
3:J:1282:TYR:O	3:J:1285:VAL:CG1	2.25	0.80
2:C:1104:PRO:HG3	3:D:725:MET:HE1	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:251:PRO:O	5:F:507:MET:HE1	1.81	0.80
3:P:930:LEU:CD1	3:P:1246:VAL:HG21	2.12	0.80
1:A:91:ARG:HB2	1:A:122:GLU:HB3	1.62	0.80
2:O:155:VAL:HG22	2:O:405:PHE:CD2	2.17	0.79
3:P:367:GLY:O	3:P:447:ILE:HG23	1.81	0.79
2:I:681:MET:O	2:I:685:MET:HG2	1.82	0.79
2:O:60:GLN:O	2:O:476:LYS:HE3	1.82	0.79
3:D:1011:VAL:HG11	3:D:1017:VAL:HG11	1.64	0.79
3:J:111:THR:HG23	3:J:300:GLN:HG3	1.63	0.79
3:D:771:GLN:HA	3:D:774:ILE:HD12	1.64	0.79
1:M:50:SER:OG	1:N:35:PHE:HZ	1.65	0.79
1:M:41:ASN:HD21	2:O:1218:GLY:HA3	1.47	0.79
3:P:974:VAL:HG11	3:P:1028:ILE:CG2	2.12	0.79
2:I:402:ARG:HG2	2:I:416:GLY:HA3	1.64	0.79
5:L:476:ARG:HG3	5:L:477:GLU:H	1.45	0.79
2:O:672:GLU:HG3	2:O:1187:PHE:HA	1.64	0.79
2:O:1124:ILE:HD11	2:O:1198:LEU:CD1	2.13	0.79
3:D:926:PRO:O	3:D:930:LEU:HG	1.82	0.79
3:P:1137:GLY:O	3:P:1141:VAL:HG23	1.81	0.79
2:O:197:ARG:NH1	2:O:201:ARG:O	2.16	0.79
3:J:839:VAL:O	3:J:842:ARG:HG3	1.82	0.79
3:D:110:PRO:HD2	3:D:183:GLU:OE2	1.82	0.79
2:O:232:ILE:HG21	2:O:326:SER:HB2	1.64	0.79
2:C:1287:LEU:CD2	3:D:1357:ILE:HD11	2.09	0.79
3:D:720:ASN:HD22	3:D:723:TYR:H	1.27	0.79
5:L:390:ILE:HD13	5:L:432:THR:HG23	1.64	0.79
3:D:1356:LEU:HD12	3:D:1365:TYR:CD1	2.18	0.79
5:R:381:GLU:O	5:R:384:LEU:HG	1.83	0.79
3:J:514:THR:HB	3:J:595:ALA:HA	1.64	0.79
1:A:35:PHE:HZ	1:B:50:SER:HG	1.31	0.79
2:C:807:TRP:CG	2:C:817:LEU:HD11	2.18	0.79
3:P:849:LEU:CD2	3:P:857:LEU:HD23	2.12	0.79
3:D:1154:ALA:HB1	3:D:1211:SER:HB2	1.65	0.79
5:L:471:LEU:HG	5:L:476:ARG:O	1.81	0.79
3:P:242:LEU:HD12	3:P:243:PRO:HD2	1.65	0.79
2:C:1104:PRO:CG	3:D:725:MET:CE	2.57	0.79
5:F:395:THR:HA	5:F:404:LEU:HD13	1.62	0.79
2:C:1073:LYS:NZ	8:3:15:G:O5'	2.14	0.79
2:I:1280:ALA:HB1	3:J:431:ARG:HB3	1.62	0.79
1:A:214:GLU:HA	1:A:217:ILE:HD12	1.65	0.79
2:O:448:LEU:HD12	2:O:557:ARG:HD2	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1145:PHE:CB	3:J:1309:ILE:HD11	2.13	0.79
3:J:809:VAL:CG2	3:J:915:ILE:HD11	2.13	0.79
2:C:1086:PRO:HB2	2:C:1212:LEU:HD13	1.64	0.79
2:O:1275:VAL:HG12	2:O:1279:GLU:OE2	1.82	0.79
1:H:195:ARG:HB3	1:H:198:LEU:HD13	1.62	0.79
3:J:891:ASP:OD1	3:J:891:ASP:N	2.14	0.79
2:C:217:THR:HG21	2:C:313:ALA:HB1	1.65	0.79
5:F:465:ARG:HG2	5:F:468:ARG:NH2	1.98	0.79
1:B:88:LEU:CD2	1:B:128:HIS:CD2	2.64	0.78
2:O:92:TYR:CB	2:O:137:VAL:HG21	2.14	0.78
3:J:367:GLY:O	3:J:447:ILE:HG22	1.83	0.78
3:D:544:LEU:HA	3:D:574:VAL:HB	1.64	0.78
1:A:28:LEU:HD11	1:B:231:PHE:CE1	2.17	0.78
1:A:59:VAL:HG22	1:A:144:ILE:HG23	1.64	0.78
2:I:1289:GLU:C	2:I:1294:LYS:HG3	2.02	0.78
2:C:210:LEU:HB3	2:C:220:ILE:HD11	1.64	0.78
1:A:47:LEU:HD13	1:A:183:ILE:CD1	2.13	0.78
2:I:689:ALA:HB1	2:I:1233:LEU:HD22	1.65	0.78
3:J:869:CYS:HA	3:J:872:LEU:CD1	2.13	0.78
2:I:743:PRO:HA	2:I:974:ARG:HH12	1.49	0.78
3:D:598:LYS:HD2	3:D:729:GLY:O	1.83	0.78
5:L:374:ARG:HB2	5:L:374:ARG:NH1	1.98	0.78
3:D:1267:VAL:O	3:D:1268:ASN:HB2	1.80	0.78
3:P:217:LEU:O	3:P:221:ILE:HG13	1.82	0.78
2:O:92:TYR:CB	2:O:137:VAL:CG2	2.61	0.78
3:J:131:PRO:O	3:J:135:ILE:HG13	1.84	0.78
2:I:876:GLU:HG3	2:I:927:THR:HG23	1.65	0.78
3:D:363:LEU:HG	3:D:487:THR:HG22	1.65	0.78
4:E:46:THR:HA	4:E:49:ILE:HD12	1.65	0.78
3:J:1163:VAL:HG22	3:J:1177:ILE:CG2	2.13	0.78
2:C:819:SER:O	2:C:822:VAL:CG2	2.28	0.78
1:A:28:LEU:HD11	1:B:231:PHE:HE1	1.46	0.78
3:J:1280:VAL:HG12	3:J:1281:GLU:H	1.48	0.78
1:M:47:LEU:HD13	1:M:183:ILE:HD12	1.63	0.78
3:J:1220:ILE:HG23	3:J:1224:ARG:HD2	1.66	0.78
3:J:363:LEU:HD23	3:J:618:VAL:HG13	1.65	0.78
1:A:109:PRO:HB3	1:A:132:HIS:HD2	1.47	0.78
7:8:18:DT:H2'	7:8:19:DA:H5"	1.64	0.78
3:D:515:ARG:HH21	3:D:717:VAL:HB	1.48	0.78
3:J:839:VAL:HG12	3:J:864:LEU:HD12	1.64	0.78
2:C:1273:MET:HB3	3:D:428:THR:HB	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1047:LEU:C	2:O:1048:LYS:HG3	2.04	0.78
3:J:349:TYR:CE2	3:J:472:LEU:HD11	2.18	0.78
2:O:886:LYS:CD	2:O:916:SER:HB2	2.09	0.78
1:G:228:LEU:HD21	1:H:224:LEU:HD23	1.65	0.78
7:5:25:DA:H1'	7:5:26:DT:H5'	1.65	0.78
2:O:897:PRO:HB3	5:R:563:PHE:O	1.84	0.78
2:I:255:ILE:HD13	2:I:285:ILE:HD13	1.65	0.78
3:P:1328:THR:O	3:P:1332:LEU:HG	1.83	0.78
3:J:974:VAL:HG11	3:J:1028:ILE:HG21	1.66	0.78
1:H:190:ALA:H	1:H:199:ASP:HA	1.47	0.78
2:O:1278:LEU:CD2	2:O:1283:ALA:CB	2.62	0.78
3:J:1145:PHE:HB3	3:J:1309:ILE:HD11	1.66	0.78
1:A:39:LEU:HD23	1:A:39:LEU:N	1.98	0.78
3:P:483:LEU:HD21	4:Q:16:ARG:HB3	1.66	0.78
2:C:704:MET:O	2:C:708:VAL:HG23	1.84	0.78
3:J:664:ILE:HG12	3:J:681:LYS:HZ1	1.48	0.78
2:I:184:LEU:HD21	2:I:389:PHE:CZ	2.19	0.78
1:G:56:VAL:HG13	1:G:144:ILE:CG2	2.13	0.78
2:C:563:THR:CG2	2:C:680:LEU:HD11	2.13	0.78
3:J:1109:LEU:HD13	3:J:1115:ILE:HG22	1.66	0.78
3:P:503:SER:O	3:P:506:VAL:HG23	1.83	0.78
2:I:700:VAL:HG21	2:I:1114:GLU:HG3	1.66	0.78
3:J:795:TYR:O	3:J:799:ARG:HG3	1.83	0.78
2:O:870:ILE:HG13	2:O:944:ARG:HG2	1.66	0.78
2:O:75:LEU:HD23	2:O:127:ILE:CD1	2.13	0.77
5:R:291:CYS:O	5:R:295:CYS:HB2	1.84	0.77
1:M:30:PRO:HB2	1:M:198:LEU:CD2	2.13	0.77
5:R:583:THR:HG21	5:R:586:ARG:HB3	1.64	0.77
5:R:387:VAL:HG11	5:R:409:ASN:OD1	1.83	0.77
3:D:549:LYS:HD3	3:D:569:LEU:HD22	1.66	0.77
3:J:555:TYR:HB3	3:J:563:LEU:HD22	1.67	0.77
1:H:129:VAL:HG11	1:H:132:HIS:HE1	1.49	0.77
5:R:551:LEU:HD13	5:R:559:LEU:HD12	1.66	0.77
2:O:886:LYS:HD2	2:O:916:SER:CB	2.08	0.77
6:1:47:DC:H6	6:1:47:DC:C5'	1.95	0.77
2:O:599:VAL:CG2	2:O:623:LEU:CD2	2.62	0.77
5:L:548:LEU:CD1	5:L:560:ARG:HE	1.97	0.77
2:I:937:ASP:HB2	2:I:1039:GLY:HA3	1.67	0.77
3:J:492:SER:HG	3:J:495:ASN:H	1.29	0.77
2:O:934:PHE:O	2:O:1049:ILE:N	2.17	0.77
1:B:158:ARG:CD	1:B:172:LEU:HD11	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1304:MET:HE3	2:O:1308:ILE:HD11	1.64	0.77
3:J:449:LEU:HD12	3:J:450:HIS:N	2.00	0.77
7:8:18:DT:H2'	7:8:19:DA:C5'	2.14	0.77
2:C:213:LEU:O	2:C:214:ASN:HB2	1.82	0.77
2:O:488:MET:HB3	2:O:489:PRO:HD2	1.67	0.77
2:O:197:ARG:HB3	2:O:200:ARG:HA	1.66	0.77
3:D:112:ALA:HA	3:D:238:ILE:CD1	2.14	0.77
2:O:1004:ASP:OD1	2:O:1008:GLN:HG2	1.85	0.77
2:O:902:LEU:HA	2:O:905:ILE:HD12	1.66	0.77
2:C:798:GLN:HB3	2:C:827:ARG:NH2	1.98	0.77
1:H:168:ILE:HD11	3:P:867:GLN:HB3	1.64	0.77
3:D:139:LEU:HD21	3:D:185:ILE:HD12	1.57	0.77
3:J:482:ALA:O	3:J:488:ASN:ND2	2.17	0.77
3:J:1137:GLY:O	3:J:1141:VAL:HG23	1.84	0.77
3:P:698:MET:O	3:P:702:GLN:HB3	1.85	0.77
2:O:171:LEU:HD22	2:O:188:PHE:O	1.83	0.77
2:I:960:LEU:HD13	2:I:1028:LYS:HB3	1.66	0.77
5:F:306:PHE:O	5:F:310:GLU:HG3	1.83	0.77
2:I:718:ALA:HB2	2:I:783:LEU:HD21	1.67	0.77
1:M:46:ILE:HG23	1:M:50:SER:HB2	1.66	0.77
3:P:1286:LYS:HA	3:P:1289:ASN:HD22	1.49	0.77
3:J:629:PHE:O	3:J:632:ALA:HB3	1.82	0.77
5:L:583:THR:HG22	5:L:587:ILE:HG12	1.64	0.77
5:F:381:GLU:HA	5:F:384:LEU:HD21	1.63	0.77
2:C:1273:MET:O	3:D:428:THR:HG21	1.85	0.77
2:O:170:VAL:HG12	2:O:172:TYR:CE2	2.19	0.77
2:O:33:ASP:O	2:O:37:LYS:HG3	1.84	0.77
3:D:706:VAL:HA	3:D:714:GLU:O	1.84	0.77
1:N:75:GLN:HG3	1:N:134:THR:HG23	1.65	0.77
2:I:481:LEU:HG	2:I:482:GLY:N	1.96	0.77
2:I:1278:LEU:HB2	2:I:1287:LEU:HD22	1.66	0.77
2:I:560:PRO:O	3:J:780:ARG:NH2	2.12	0.77
1:M:75:GLN:HE21	1:M:134:THR:CG2	1.98	0.77
3:J:54:ASP:OD1	3:J:60:ARG:NH2	2.17	0.77
2:I:873:ILE:CG1	2:I:944:ARG:HH22	1.98	0.77
3:D:146:VAL:HG21	3:D:158:GLN:HB3	1.67	0.77
2:O:183:TRP:CZ3	6:7:48:DA:N6	2.53	0.77
1:G:101:THR:HG22	1:G:143:ARG:HG2	1.67	0.77
1:N:179:PRO:HG3	1:N:211:ILE:CD1	2.11	0.77
1:M:67:GLU:HA	1:M:78:ILE:HG21	1.67	0.77
2:I:886:LYS:N	2:I:917:SER:HG	1.82	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1144:LEU:HD13	3:J:1237:VAL:HG22	1.65	0.77
1:N:32:GLU:HB3	1:N:35:PHE:CD2	2.20	0.77
1:A:192:VAL:HG11	1:A:195:ARG:HB2	1.66	0.77
5:F:580:PHE:O	5:F:581:ASP:HB2	1.83	0.77
3:P:1267:VAL:O	3:P:1268:ASN:HB2	1.84	0.77
1:A:150:ARG:NH1	1:B:7:GLU:O	2.17	0.77
1:G:44:ARG:O	1:G:47:LEU:HB2	1.84	0.77
3:J:363:LEU:CD2	3:J:618:VAL:CG1	2.62	0.77
2:I:686:GLN:NE2	2:I:1069:ARG:HG2	2.00	0.77
3:J:1323:ALA:HB2	3:J:1332:LEU:HD21	1.68	0.77
2:C:13:LYS:NZ	2:C:1151:LEU:HB3	1.99	0.77
3:J:964:LYS:HD2	3:J:977:SER:HB3	1.64	0.77
3:D:1154:ALA:CB	3:D:1211:SER:HB2	2.14	0.77
1:G:38:THR:HG23	1:H:45:ARG:HD3	1.67	0.77
2:I:1282:GLY:O	3:J:1361:THR:OG1	2.02	0.77
2:I:1286:THR:O	2:I:1290:MET:HG2	1.85	0.76
1:G:189:ALA:HA	1:G:199:ASP:CB	2.11	0.76
3:J:601:ILE:CG2	3:J:602:SER:N	2.46	0.76
3:J:1226:VAL:O	3:J:1229:VAL:HG13	1.85	0.76
2:I:1276:TRP:HE1	3:J:1348:LYS:HZ1	1.32	0.76
5:L:507:MET:HA	5:L:519:LEU:HD23	1.66	0.76
2:C:1184:THR:O	2:C:1184:THR:CG2	2.34	0.76
3:D:378:LYS:HA	3:D:381:ILE:HD12	1.67	0.76
3:P:1321:SER:O	3:P:1324:SER:OG	2.01	0.76
3:J:749:LYS:HB3	3:J:750:PRO:CD	2.13	0.76
5:L:532:LEU:CD1	5:L:532:LEU:H	1.98	0.76
2:I:878:THR:HG22	2:I:879:GLY:N	1.98	0.76
2:O:700:VAL:O	2:O:1069:ARG:NH2	2.18	0.76
1:H:44:ARG:HH12	3:J:538:ARG:HD2	1.50	0.76
2:I:972:PHE:HA	2:I:975:ILE:HD12	1.67	0.76
1:M:48:LEU:HD21	1:M:183:ILE:CG2	2.16	0.76
7:5:25:DA:H1'	7:5:26:DT:C5'	2.15	0.76
2:O:539:THR:HG22	2:O:540:ARG:N	1.99	0.76
3:J:385:LEU:CD1	3:J:397:ALA:HB1	2.16	0.76
3:J:664:ILE:HG12	3:J:681:LYS:NZ	2.00	0.76
3:J:352:ARG:NH2	3:J:465:GLN:HB2	2.00	0.76
2:I:1124:ILE:HD11	2:I:1198:LEU:CD1	2.12	0.76
3:P:1159:ILE:HA	3:P:1206:ARG:HG2	1.66	0.76
5:R:384:LEU:O	5:R:388:ILE:HG22	1.85	0.76
3:P:515:ARG:NH2	3:P:717:VAL:O	2.17	0.76
2:O:302:ILE:HG22	2:O:309:LEU:HD22	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:42:GLU:OE1	4:E:52:ARG:NH2	2.17	0.76
3:P:826:ILE:HG12	3:P:831:VAL:CG2	2.16	0.76
3:J:411:ILE:O	3:J:415:VAL:HG23	1.86	0.76
1:M:74:VAL:HG12	1:M:76:GLU:O	1.85	0.76
3:P:1291:GLU:O	3:P:1295:ASN:ND2	2.19	0.76
2:I:1289:GLU:HG2	2:I:1293:VAL:HG21	1.68	0.76
2:O:96:LEU:HB2	2:O:127:ILE:CD1	2.16	0.76
3:J:139:LEU:HD23	3:J:185:ILE:HD11	1.65	0.76
3:J:709:ARG:O	3:J:709:ARG:CG	2.33	0.76
3:D:485:MET:SD	3:D:486:SER:N	2.58	0.76
3:P:1347:LEU:CD2	3:P:1357:ILE:HG23	2.14	0.76
2:I:60:GLN:O	2:I:476:LYS:CE	2.33	0.76
2:I:363:LEU:HD22	2:I:381:ALA:O	1.86	0.76
5:R:487:MET:O	5:R:488:LEU:HB3	1.85	0.76
1:M:86:LYS:HE2	1:M:173:VAL:CG1	2.16	0.76
2:O:726:TYR:HB3	2:O:733:VAL:HG22	1.67	0.76
5:R:610:PHE:HB3	5:R:613:ASP:OD2	1.86	0.76
1:G:228:LEU:CD2	1:H:224:LEU:HD21	2.16	0.76
5:L:456:MET:O	5:L:460:ILE:HG13	1.85	0.76
3:P:909:ILE:HG12	3:P:910:ASN:N	2.00	0.76
1:B:64:VAL:HG12	1:B:64:VAL:O	1.84	0.76
3:J:470:VAL:O	3:J:472:LEU:HD23	1.86	0.76
2:I:1332:SER:O	3:J:243:PRO:HG2	1.86	0.76
1:A:47:LEU:HD13	1:A:183:ILE:HD12	1.68	0.76
3:D:720:ASN:ND2	3:D:723:TYR:H	1.84	0.76
1:M:30:PRO:HB3	1:M:198:LEU:HD13	1.68	0.76
2:I:551:HIS:HD1	2:I:553:THR:HG1	1.20	0.76
3:D:1353:VAL:CG2	3:D:1355:ARG:HD2	2.16	0.76
2:C:1297:ASP:OD2	2:C:1300:GLY:HA3	1.84	0.76
3:J:845:ALA:O	3:J:846:GLU:HB3	1.85	0.76
2:I:1242:LYS:HE2	3:J:465:GLN:HE21	1.51	0.76
3:J:352:ARG:HH21	3:J:465:GLN:HB2	1.50	0.76
3:J:132:LEU:HA	3:J:135:ILE:HD12	1.68	0.76
2:I:206:ALA:O	2:I:209:ILE:CG2	2.32	0.76
2:O:1258:PRO:HG2	3:P:346:ARG:HB2	1.68	0.76
1:M:85:LEU:CD1	1:M:144:ILE:HD13	2.16	0.76
3:J:398:LYS:NZ	5:L:532:LEU:HG	2.00	0.76
2:C:422:LYS:HE2	2:I:996:ARG:HG2	1.67	0.76
5:L:593:LYS:O	5:L:597:LYS:HG2	1.86	0.76
2:C:374:GLU:OE2	6:1:42:DG:N2	2.19	0.76
3:J:234:PRO:O	3:J:237:MET:HG2	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:168:GLY:O	3:J:1065:ALA:HA	1.85	0.75
3:P:795:TYR:CD1	7:8:12:DG:C5'	2.69	0.75
5:R:84:LEU:CG	5:R:107:THR:HG21	2.15	0.75
2:C:1311:GLY:O	4:E:31:GLN:CG	2.34	0.75
2:I:164:THR:O	2:I:165:HIS:HB2	1.86	0.75
2:C:1101:LEU:HD22	3:D:505:ASP:OD1	1.85	0.75
4:E:38:LEU:HD12	4:E:53:GLU:HG2	1.67	0.75
3:D:26:SER:HB3	3:D:29:MET:HB2	1.68	0.75
3:P:318:GLY:N	3:P:322:ARG:O	2.19	0.75
1:M:179:PRO:HA	1:M:208:ASN:HD21	1.49	0.75
3:D:282:LEU:CD2	3:D:287:ALA:HB2	2.13	0.75
2:O:90:VAL:HG12	2:O:91:THR:H	1.48	0.75
3:P:320:ASN:O	3:P:321:LYS:HB3	1.84	0.75
3:P:146:VAL:HG21	3:P:154:LEU:HD13	1.68	0.75
2:I:722:GLY:HA2	2:I:737:ASN:OD1	1.85	0.75
5:L:166:VAL:HG11	5:L:212:ILE:HG13	1.68	0.75
3:J:1175:LEU:CD1	3:J:1176:VAL:H	1.89	0.75
1:A:35:PHE:HZ	1:B:50:SER:CB	1.99	0.75
1:B:224:LEU:HD13	1:B:225:ALA:N	2.02	0.75
2:C:929:ILE:O	2:C:929:ILE:HD13	1.87	0.75
7:8:30:DA:H2"	7:8:31:DT:OP2	1.85	0.75
3:D:918:ILE:HG22	3:D:919:ALA:N	2.01	0.75
5:L:401:PHE:O	5:L:405:ILE:CG1	2.33	0.75
5:R:460:ILE:O	5:R:464:ASN:ND2	2.19	0.75
6:7:45:DT:H3'	6:7:46:DG:H5"	1.69	0.75
5:L:493:LYS:O	5:L:497:VAL:HG23	1.87	0.75
2:C:700:VAL:HG13	2:C:1117:LEU:CD2	2.15	0.75
2:I:871:VAL:CG2	2:I:883:LEU:HA	2.16	0.75
5:L:559:LEU:HD11	5:L:594:ALA:HB1	1.67	0.75
1:A:48:LEU:HD12	1:A:183:ILE:HG23	1.67	0.75
3:D:767:LEU:HD13	3:D:771:GLN:HB3	1.67	0.75
1:G:224:LEU:HD21	1:H:228:LEU:HD11	1.68	0.75
7:8:24:DT:H2"	7:8:25:DA:OP1	1.85	0.75
3:P:518:VAL:O	3:P:520:ALA:N	2.20	0.75
2:C:402:ARG:HG2	2:C:416:GLY:N	2.02	0.75
5:F:333:VAL:HG13	5:F:333:VAL:O	1.85	0.75
2:C:1100:PRO:HB3	3:D:639:VAL:HG23	1.66	0.75
3:J:1357:ILE:O	3:J:1362:GLY:HA3	1.85	0.75
1:A:41:ASN:HD21	2:C:1218:GLY:CA	1.97	0.75
5:F:460:ILE:HA	5:F:463:LEU:HD12	1.67	0.75
2:O:96:LEU:CB	2:O:127:ILE:HD11	2.15	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:228:LEU:HA	1:G:231:PHE:CD2	2.22	0.75
2:I:60:GLN:O	2:I:476:LYS:HE3	1.86	0.75
4:E:79:GLU:HG2	4:E:82:ALA:HB3	1.69	0.75
3:J:1155:ILE:C	3:J:1156:LEU:HD23	2.05	0.75
5:F:514:ASP:O	5:F:516:ASP:N	2.19	0.75
3:J:475:GLU:OE1	3:J:475:GLU:N	2.18	0.75
3:J:79:LYS:HD3	3:J:80:HIS:CE1	2.22	0.75
3:P:1140:ARG:NH2	3:P:1236:GLU:OE2	2.20	0.75
3:J:368:LEU:HD12	3:J:369:PRO:CD	2.16	0.75
1:N:214:GLU:O	1:N:217:ILE:HB	1.87	0.75
3:J:251:PRO:HG2	5:L:507:MET:HE1	1.66	0.75
3:P:926:PRO:HG2	3:P:1248:ILE:HD11	1.69	0.75
2:I:593:LYS:NZ	2:I:595:THR:OG1	2.19	0.75
3:P:76:LYS:HG3	3:P:77:ARG:HG3	1.69	0.75
3:P:1282:TYR:O	3:P:1285:VAL:CG1	2.33	0.75
3:D:267:ASP:O	3:D:271:ARG:HG3	1.85	0.75
3:D:1263:LYS:HD3	3:D:1281:GLU:HA	1.68	0.75
2:C:1225:VAL:HG22	3:D:638:SER:CB	2.10	0.74
5:L:402:LEU:HA	5:L:405:ILE:HD12	1.69	0.74
3:P:431:ARG:HH11	3:P:493:PRO:HB3	1.50	0.74
2:I:275:ARG:HG3	2:I:275:ARG:HH11	1.51	0.74
2:I:1289:GLU:OE2	3:J:472:LEU:HB2	1.86	0.74
5:L:84:LEU:HG	5:L:107:THR:CG2	2.17	0.74
2:C:1121:ALA:HB2	2:C:1182:ILE:HD11	1.69	0.74
1:A:13:LEU:HA	1:A:28:LEU:HD22	1.69	0.74
2:C:927:THR:O	2:C:1055:ALA:N	2.17	0.74
3:J:1349:GLU:O	3:J:1353:VAL:HG13	1.87	0.74
5:R:449:THR:CB	5:R:504:PRO:HG3	2.18	0.74
2:I:1332:SER:OG	3:J:245:LEU:CD1	2.31	0.74
2:I:839:VAL:O	2:I:886:LYS:CE	2.33	0.74
4:E:2:ALA:N	4:E:5:THR:O	2.20	0.74
3:P:518:VAL:HG21	3:P:707:ILE:CD1	2.17	0.74
5:F:295:CYS:O	5:F:296:LYS:HB2	1.85	0.74
3:P:1093:THR:HG22	3:P:1200:GLU:OE1	1.87	0.74
3:P:111:THR:CG2	3:P:112:ALA:N	2.50	0.74
2:C:1294:LYS:HB3	3:D:347:VAL:HG13	1.69	0.74
3:P:367:GLY:O	3:P:447:ILE:CG2	2.36	0.74
1:M:66:HIS:CE1	2:O:929:ILE:HG13	2.22	0.74
3:D:654:ILE:HD13	3:D:760:THR:HB	1.70	0.74
2:I:551:HIS:H	2:I:554:HIS:CE1	2.05	0.74
2:C:698:PRO:HG3	2:C:1231:TYR:CZ	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:117:LEU:HD12	3:P:124:ILE:HD12	1.68	0.74
2:C:167:SER:HA	3:D:1064:SER:HB3	1.70	0.74
1:G:66:HIS:CE1	1:G:69:SER:HB3	2.22	0.74
3:P:1190:ILE:HG22	3:P:1191:PRO:O	1.88	0.74
1:M:50:SER:OG	1:N:35:PHE:CZ	2.40	0.74
5:L:554:ARG:O	5:L:558:VAL:HG23	1.86	0.74
2:O:658:GLN:HE21	2:O:1186:VAL:HG23	1.52	0.74
3:D:795:TYR:CE1	7:2:12:DG:H5'	2.22	0.74
2:O:878:THR:HG23	2:O:879:GLY:H	1.53	0.74
2:C:94:ALA:HB2	2:C:129:LEU:HD11	1.68	0.74
5:R:353:LEU:HB3	5:R:358:VAL:CG2	2.17	0.74
2:C:577:VAL:HG23	2:C:661:VAL:O	1.88	0.74
3:P:121:PRO:CB	3:P:126:LEU:HD11	2.17	0.74
5:F:392:LYS:HA	5:F:395:THR:CG2	2.16	0.74
2:I:960:LEU:HB3	2:I:1025:PHE:CE1	2.21	0.74
2:C:1309:VAL:HG13	3:D:383:GLY:CA	2.17	0.74
5:R:580:PHE:O	5:R:581:ASP:CB	2.36	0.74
3:D:891:ASP:N	3:D:891:ASP:OD1	2.19	0.74
3:D:160:LEU:HD22	3:D:164:GLN:HB3	1.69	0.74
5:R:464:ASN:OD1	7:8:25:DA:N6	2.21	0.74
3:P:212:THR:HA	3:P:215:LYS:HE3	1.70	0.74
3:D:475:GLU:HA	3:D:478:LEU:HD12	1.69	0.74
3:P:116:PHE:O	3:P:124:ILE:HG13	1.88	0.74
7:5:5:DC:H2"	7:5:6:DG:H5'	1.70	0.74
3:J:1321:SER:O	3:J:1324:SER:OG	2.06	0.74
1:A:44:ARG:HA	1:A:47:LEU:HD12	1.69	0.74
1:G:43:LEU:O	1:G:47:LEU:CG	2.34	0.74
1:B:224:LEU:C	1:B:224:LEU:HD22	2.06	0.74
2:I:96:LEU:HB2	2:I:127:ILE:HD11	1.69	0.74
2:O:722:GLY:HA2	2:O:737:ASN:OD1	1.88	0.74
2:C:653:MET:HG2	2:C:654:ASP:N	2.03	0.74
2:C:925:SER:O	2:C:1056:VAL:HG13	1.88	0.74
1:A:92:VAL:HG11	1:A:95:LYS:O	1.88	0.74
2:O:1120:ALA:HB2	2:O:1199:LEU:HG	1.69	0.74
2:C:201:ARG:HB3	2:C:369:MET:HE1	1.69	0.74
3:J:1163:VAL:CG1	3:J:1176:VAL:O	2.35	0.73
2:C:524:ILE:HD11	2:C:712:SER:CB	2.15	0.73
3:D:1326:GLN:HE21	7:2:11:DA:H4'	1.53	0.73
3:P:117:LEU:HD13	3:P:124:ILE:HD12	1.68	0.73
5:R:260:ARG:HH12	5:R:422:ARG:HH22	1.34	0.73
3:D:471:PRO:HB2	3:D:476:ALA:HB1	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:951:MET:O	2:C:955:GLN:HG2	1.88	0.73
7:8:25:DA:H1'	7:8:26:DT:H5'	1.70	0.73
3:P:121:PRO:O	3:P:122:SER:HB3	1.86	0.73
3:P:849:LEU:HD22	3:P:857:LEU:HA	1.68	0.73
2:O:335:THR:HG22	2:O:336:LEU:N	2.03	0.73
2:C:686:GLN:NE2	2:C:1069:ARG:HG2	2.03	0.73
2:O:1077:SER:HA	3:P:356:THR:HG21	1.70	0.73
3:P:78:LEU:HD23	3:P:78:LEU:N	2.03	0.73
5:R:585:GLU:OE2	5:R:588:ARG:CG	2.37	0.73
1:B:191:ARG:O	1:B:191:ARG:HG2	1.88	0.73
5:L:585:GLU:HG3	7:5:48:DC:H41	1.50	0.73
3:J:303:VAL:O	3:J:307:LEU:HG	1.88	0.73
1:G:42:ALA:O	1:G:46:ILE:HG13	1.89	0.73
2:I:886:LYS:HD2	2:I:916:SER:HB2	1.69	0.73
2:O:1184:THR:OG1	2:O:1189:GLY:HA3	1.89	0.73
3:J:1156:LEU:HD22	3:J:1209:VAL:HA	1.69	0.73
1:H:166:ARG:HD2	1:H:170:ARG:HG2	1.68	0.73
1:N:104:LYS:O	1:N:140:ILE:HG22	1.88	0.73
3:J:1318:SER:OG	3:J:1321:SER:CB	2.30	0.73
2:I:196:VAL:CG2	2:I:206:ALA:HA	2.18	0.73
3:J:373:ALA:HA	3:J:376:LEU:CG	2.19	0.73
2:I:524:ILE:HD11	2:I:712:SER:HB3	1.70	0.73
3:D:536:LEU:CD2	3:D:541:LEU:HB3	2.19	0.73
2:C:459:MET:HE2	2:C:459:MET:HA	1.70	0.73
2:C:1324:ASN:O	2:C:1328:LYS:HG2	1.89	0.73
2:O:1273:MET:HG2	7:8:14:DC:H4'	1.70	0.73
1:B:88:LEU:HD22	1:B:128:HIS:HD2	1.52	0.73
3:J:749:LYS:CB	3:J:750:PRO:HD2	2.13	0.73
7:2:25:DA:H2"	7:2:26:DT:OP2	1.87	0.73
3:P:1207:GLY:HA2	3:P:1223:LEU:HD13	1.69	0.73
2:C:1098:LEU:HD23	2:C:1099:ASN:H	1.52	0.73
2:I:539:THR:CG2	2:I:540:ARG:N	2.51	0.73
2:O:839:VAL:O	2:O:886:LYS:HE2	1.88	0.73
3:J:247:PRO:HA	3:J:250:ARG:HG3	1.70	0.73
2:O:599:VAL:HG21	2:O:623:LEU:HD22	1.69	0.73
1:N:100:LEU:HB3	1:N:115:ILE:HD12	1.71	0.73
6:1:43:DT:H2'	6:1:44:DG:H5"	1.71	0.73
2:O:445:ILE:HB	2:O:446:ASP:OD1	1.89	0.73
4:E:47:THR:O	4:E:51:LEU:HG	1.88	0.73
2:O:91:THR:HG23	2:O:137:VAL:O	1.88	0.73
2:I:211:ARG:CD	2:I:357:ASN:O	2.36	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1275:VAL:CG1	2:O:1279:GLU:OE2	2.36	0.73
5:L:166:VAL:HG12	5:L:168:PRO:HD3	1.71	0.73
2:I:508:SER:OG	7:5:21:DG:N2	2.21	0.73
3:J:1164:SER:C	3:J:1175:LEU:CD1	2.53	0.73
3:J:30:ILE:HD13	3:J:243:PRO:HD3	1.71	0.73
3:D:514:THR:HB	3:D:595:ALA:HA	1.71	0.73
5:L:385:ARG:O	5:L:388:ILE:HG22	1.89	0.73
2:O:448:LEU:CD1	2:O:557:ARG:HD2	2.19	0.73
2:I:30:ILE:HD11	2:I:575:LEU:HD22	1.71	0.73
1:M:11:PRO:O	1:N:230:ALA:HB1	1.89	0.73
2:C:661:VAL:CG1	2:C:665:ALA:CB	2.67	0.73
2:I:809:GLY:O	3:J:357:VAL:HG11	1.88	0.73
2:I:1085:MET:CE	2:I:1085:MET:HA	2.18	0.73
3:J:1234:VAL:HG12	3:J:1235:ASN:N	2.03	0.72
1:B:190:ALA:CB	1:B:199:ASP:HA	2.18	0.72
3:P:808:VAL:HG22	3:P:914:ALA:HA	1.70	0.72
2:I:255:ILE:O	2:I:255:ILE:CG2	2.37	0.72
2:C:217:THR:CG2	2:C:313:ALA:HB1	2.18	0.72
5:F:494:ILE:O	5:F:498:LEU:HG	1.89	0.72
3:P:575:GLY:HA2	3:P:578:ILE:HD12	1.71	0.72
2:O:137:VAL:C	2:O:138:ILE:HD13	2.08	0.72
3:J:673:VAL:HG11	3:J:678:ARG:HB2	1.69	0.72
3:J:983:LYS:NZ	3:J:985:ILE:HD11	2.04	0.72
3:D:146:VAL:CG2	3:D:158:GLN:HB3	2.19	0.72
5:L:489:MET:HB3	5:L:490:PRO:HD2	1.71	0.72
3:J:330:MET:SD	3:J:337:ARG:NH2	2.62	0.72
3:D:600:ALA:O	3:D:604:MET:HG3	1.89	0.72
2:C:186:PHE:HB3	2:C:194:LEU:HD11	1.69	0.72
3:J:1328:THR:O	3:J:1332:LEU:HG	1.89	0.72
6:1:18:DA:C2	7:2:46:DG:N2	2.58	0.72
5:R:386:LEU:O	5:R:390:ILE:HG13	1.88	0.72
5:R:353:LEU:HB3	5:R:358:VAL:HG23	1.71	0.72
5:R:132:CYS:SG	5:R:257:LYS:NZ	2.60	0.72
3:J:1164:SER:O	3:J:1175:LEU:HD13	1.84	0.72
3:D:1321:SER:O	3:D:1324:SER:OG	2.08	0.72
2:C:1109:ILE:HG21	3:D:644:MET:HE1	1.70	0.72
1:M:30:PRO:CB	1:M:198:LEU:HD13	2.19	0.72
3:J:452:LEU:HB3	3:J:500:ILE:HG22	1.71	0.72
3:P:703:THR:HG21	3:P:715:LYS:HZ1	1.53	0.72
2:C:563:THR:HG23	2:C:680:LEU:HD11	1.71	0.72
3:D:121:PRO:O	3:D:122:SER:HB3	1.87	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:42:ALA:O	1:M:46:ILE:HD13	1.88	0.72
2:I:1269:ARG:NE	7:5:15:DT:OP1	2.17	0.72
3:J:964:LYS:HB2	3:J:977:SER:HB3	1.70	0.72
3:P:908:ILE:N	3:P:908:ILE:CD1	2.53	0.72
2:O:387:ASN:HA	2:O:391:SER:HB2	1.71	0.72
4:K:48:VAL:HA	4:K:51:LEU:HG	1.70	0.72
2:C:83:GLN:O	2:C:87:ILE:HG13	1.90	0.72
3:P:840:LEU:HD13	3:P:869:CYS:SG	2.30	0.72
3:J:449:LEU:HD12	3:J:450:HIS:H	1.53	0.72
1:A:69:SER:O	1:A:78:ILE:HG13	1.89	0.72
2:I:1269:ARG:HA	3:J:346:ARG:HA	1.70	0.72
2:I:155:VAL:HG22	2:I:405:PHE:CD2	2.24	0.72
2:C:262:TYR:HE1	2:C:276:GLN:CD	1.92	0.72
3:J:1179:PRO:CD	3:J:1184:ASP:O	2.38	0.72
3:J:396:ALA:HA	3:J:399:LYS:HD2	1.71	0.72
1:B:158:ARG:HD3	1:B:172:LEU:CD1	2.20	0.72
3:J:1323:ALA:HB1	3:J:1332:LEU:HD21	1.72	0.72
3:D:795:TYR:CD1	7:2:12:DG:C5'	2.71	0.72
2:I:901:LEU:HG	2:I:902:LEU:N	2.04	0.72
1:A:46:ILE:HG12	1:B:35:PHE:CE1	2.25	0.72
1:G:224:LEU:CD2	1:H:228:LEU:HD11	2.20	0.72
2:C:522:SER:O	2:C:525:THR:HG22	1.90	0.72
1:G:232:VAL:HG22	1:H:221:ALA:CB	2.19	0.72
2:O:298:ALA:O	2:O:313:ALA:CB	2.37	0.72
2:C:548:ARG:NH1	3:D:788:LEU:HD11	2.04	0.72
2:C:672:GLU:CG	2:C:1187:PHE:HA	2.19	0.72
3:J:139:LEU:CD2	3:J:185:ILE:CD1	2.68	0.72
1:A:35:PHE:CZ	1:B:50:SER:OG	2.42	0.72
1:M:9:LEU:HD21	1:M:198:LEU:HD21	1.71	0.72
2:O:1100:PRO:HB3	3:P:639:VAL:CG2	2.18	0.72
5:R:132:CYS:SG	5:R:257:LYS:CE	2.78	0.72
3:J:261:ALA:HA	5:L:505:ILE:O	1.90	0.72
1:B:79:LEU:O	1:B:83:LEU:HD23	1.90	0.72
2:C:153:PRO:HD2	2:C:400:VAL:HG11	1.72	0.72
3:J:120:LEU:HD23	3:J:121:PRO:HA	1.72	0.72
2:O:1282:GLY:O	3:P:1361:THR:OG1	2.06	0.71
2:C:1116:HIS:CE1	2:C:1226:THR:HG23	2.24	0.71
3:D:963:VAL:CG2	3:D:975:ILE:HG23	2.19	0.71
1:B:82:LEU:HD22	1:B:173:VAL:HG21	1.71	0.71
6:4:50:DT:H5'	6:4:51:DC:C6	2.24	0.71
5:R:518:HIS:O	5:R:520:GLY:N	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:57:THR:HG23	1:B:158:ARG:CZ	2.21	0.71
3:P:121:PRO:HB2	3:P:126:LEU:CD1	2.20	0.71
3:D:839:VAL:O	3:D:842:ARG:HG3	1.89	0.71
1:H:51:MET:SD	1:H:52:PRO:HD2	2.29	0.71
3:P:334:LYS:O	3:P:339:ARG:HB2	1.90	0.71
2:C:155:VAL:HG22	2:C:405:PHE:CD2	2.26	0.71
3:P:423:LEU:HD23	3:P:423:LEU:N	2.05	0.71
3:D:1134:ILE:CG2	3:D:1138:LEU:HD13	2.19	0.71
3:D:790:THR:HG22	3:D:931:THR:CB	2.21	0.71
2:C:1101:LEU:CD1	2:C:1101:LEU:N	2.52	0.71
2:I:1185:PRO:HD2	2:I:1189:GLY:HA2	1.70	0.71
2:O:1314:GLN:HA	4:Q:28:ARG:NH2	2.06	0.71
2:I:189:ASP:CG	2:I:190:PRO:HD2	2.09	0.71
2:C:525:THR:HG21	2:C:687:ARG:CD	2.20	0.71
2:C:743:PRO:HA	2:C:974:ARG:HH12	1.55	0.71
3:P:908:ILE:N	3:P:908:ILE:HD12	2.06	0.71
2:I:732:ILE:HD11	2:I:753:LEU:HD11	1.73	0.71
2:I:1332:SER:HG	3:J:245:LEU:HD13	1.54	0.71
1:H:39:LEU:O	1:H:43:LEU:HD12	1.91	0.71
1:M:232:VAL:HG21	1:N:221:ALA:HB1	1.72	0.71
4:K:48:VAL:O	4:K:51:LEU:HB2	1.89	0.71
1:G:180:VAL:HG13	1:G:207:THR:HG22	1.72	0.71
3:J:885:VAL:O	3:J:1258:ARG:HD2	1.90	0.71
3:J:1145:PHE:C	3:J:1309:ILE:HG13	2.10	0.71
1:A:79:LEU:O	1:A:82:LEU:HB2	1.91	0.71
1:G:228:LEU:HA	1:G:231:PHE:CE2	2.24	0.71
2:I:448:LEU:CD1	2:I:553:THR:O	2.38	0.71
3:J:580:TRP:HZ3	3:J:583:VAL:HG11	1.52	0.71
2:C:80:PHE:HB3	2:C:85:CYS:SG	2.31	0.71
5:R:383:ASN:HD22	6:7:41:DT:H3	1.36	0.71
6:7:42:DG:H4'	6:7:43:DT:OP2	1.91	0.71
1:G:155:ALA:O	1:G:159:ILE:HG13	1.90	0.71
3:D:646:ILE:CG1	3:D:764:ARG:HD3	2.20	0.71
1:M:42:ALA:HA	1:N:38:THR:CG2	2.20	0.71
2:O:92:TYR:H	2:O:137:VAL:HB	1.56	0.71
5:L:310:GLU:OE1	5:L:355:ILE:HD13	1.91	0.71
2:I:720:ARG:HD3	2:I:736:VAL:HG11	1.72	0.71
2:I:498:ILE:O	2:I:502:VAL:HG23	1.90	0.71
2:C:1161:LEU:O	2:C:1164:PHE:HD2	1.74	0.71
2:C:1124:ILE:HD13	2:C:1180:MET:HB3	1.71	0.71
1:A:9:LEU:CD2	1:A:198:LEU:CD1	2.69	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:881:ASP:O	2:O:920:VAL:HG23	1.90	0.71
3:J:721:SER:O	3:J:725:MET:HG3	1.89	0.71
3:J:1075:ARG:HD3	3:J:1076:PRO:HD2	1.72	0.71
3:P:42:GLU:OE1	5:R:451:ARG:HG2	1.91	0.71
3:P:115:TRP:CH2	3:P:1329:THR:HA	2.26	0.71
5:R:87:VAL:O	5:R:91:ILE:HG13	1.90	0.71
2:O:325:LEU:HD22	2:O:330:HIS:HB2	1.73	0.71
2:I:424:ASP:O	2:I:428:VAL:HG23	1.91	0.71
2:C:368:ARG:HD3	5:F:90:GLU:HG2	1.73	0.71
3:D:518:VAL:HA	3:D:547:ARG:NH1	2.05	0.71
2:C:533:LEU:HD21	2:C:571:LEU:HD13	1.71	0.71
2:O:402:ARG:NH2	2:O:417:SER:O	2.21	0.71
3:P:510:LEU:HD12	3:P:601:ILE:HD11	1.73	0.70
3:P:601:ILE:HA	3:P:604:MET:SD	2.31	0.70
2:I:170:VAL:HG12	2:I:172:TYR:CZ	2.25	0.70
3:D:963:VAL:HG21	3:D:975:ILE:HG23	1.73	0.70
2:C:726:TYR:HB3	2:C:733:VAL:HG22	1.71	0.70
3:D:1138:LEU:HB3	3:D:1139:PRO:HD3	1.72	0.70
3:J:58:CYS:SG	3:J:61:ILE:N	2.64	0.70
3:P:930:LEU:CD1	3:P:1246:VAL:CG2	2.68	0.70
2:C:263:VAL:CG2	2:C:269:ILE:HD11	2.20	0.70
2:C:1292:THR:HG23	2:C:1293:VAL:H	1.55	0.70
2:I:182:SER:HB3	2:I:199:ASP:OD2	1.91	0.70
3:D:620:PHE:O	3:D:624:ILE:HG13	1.91	0.70
1:M:145:LYS:HD3	1:M:147:GLN:HE21	1.56	0.70
3:D:275:ARG:HH11	3:D:302:ALA:HB2	1.56	0.70
3:P:292:VAL:HG12	3:P:296:LYS:HE3	1.72	0.70
2:O:1273:MET:O	3:P:428:THR:HG21	1.91	0.70
3:D:416:ILE:CD1	3:D:441:LEU:HD21	2.15	0.70
1:A:35:PHE:HZ	1:B:50:SER:OG	1.74	0.70
3:P:421:VAL:HG23	3:P:439:PRO:HG2	1.73	0.70
5:R:87:VAL:CG1	5:R:103:ARG:HD3	2.20	0.70
3:J:736:GLN:CA	3:J:736:GLN:HE21	2.01	0.70
2:O:1077:SER:HA	3:P:356:THR:CG2	2.20	0.70
2:I:346:TYR:OH	2:I:436:ARG:HG3	1.91	0.70
3:P:828:GLY:HA2	3:P:994:SER:O	1.89	0.70
2:C:715:THR:HG22	2:C:786:GLY:H	1.56	0.70
1:G:230:ALA:CB	1:H:11:PRO:O	2.39	0.70
2:O:1292:THR:HG23	2:O:1293:VAL:H	1.55	0.70
3:J:60:ARG:HG3	3:J:89:GLY:O	1.91	0.70
2:O:878:THR:HG23	2:O:879:GLY:N	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:673:VAL:HG13	3:J:678:ARG:HB2	1.73	0.70
2:C:808:ASN:ND2	3:D:633:ALA:HB2	2.06	0.70
2:C:672:GLU:HG2	2:C:1187:PHE:HA	1.72	0.70
2:O:757:THR:O	2:O:833:ILE:HD12	1.90	0.70
5:F:493:LYS:O	5:F:497:VAL:HG23	1.91	0.70
2:C:1272:GLU:OE2	3:D:1348:LYS:NZ	2.21	0.70
3:J:288:PRO:HG2	5:L:380:VAL:HG11	1.72	0.70
2:I:1323:PHE:CE2	3:J:1353:VAL:HA	2.27	0.70
1:N:115:ILE:HD11	1:N:144:ILE:CD1	2.22	0.70
2:C:176:ILE:HB	2:C:184:LEU:HB2	1.72	0.70
6:4:53:DG:H1'	6:4:54:DA:H5'	1.73	0.70
2:C:78:PRO:HG3	2:C:129:LEU:HD12	1.73	0.70
3:P:835:LEU:HD11	3:P:839:VAL:HG21	1.72	0.70
1:A:61:ILE:HG12	1:A:142:MET:HE1	1.72	0.70
3:J:121:PRO:O	3:J:122:SER:HB3	1.88	0.70
2:C:1061:GLN:CB	2:C:1062:PRO:HD2	2.17	0.70
1:M:75:GLN:NE2	2:O:727:VAL:HB	2.05	0.70
3:J:1229:VAL:HG13	3:J:1230:THR:N	2.07	0.70
2:I:445:ILE:HD12	2:I:546:GLU:OE1	1.91	0.70
3:P:1252:HIS:O	3:P:1255:VAL:HB	1.91	0.70
2:I:82:VAL:HG23	2:I:83:GLN:N	2.07	0.70
3:P:385:LEU:HD21	3:P:411:ILE:HD13	1.72	0.70
5:L:355:ILE:CG2	5:L:359:LYS:HE3	2.19	0.70
3:P:703:THR:HG21	3:P:715:LYS:CE	2.22	0.70
1:B:156:SER:O	1:B:159:ILE:CG2	2.38	0.70
3:J:518:VAL:HA	3:J:547:ARG:HH12	1.54	0.70
3:P:759:ILE:CD1	3:P:771:GLN:HB3	2.21	0.70
2:C:1184:THR:HG23	2:C:1184:THR:O	1.91	0.70
3:J:521:LYS:HB2	3:J:543:SER:HB2	1.71	0.70
1:B:97:GLU:OE2	1:B:145:LYS:HD3	1.91	0.70
1:A:179:PRO:HA	1:A:208:ASN:HD21	1.55	0.70
2:C:1121:ALA:HA	2:C:1124:ILE:HD12	1.72	0.70
2:C:725:GLN:O	2:C:773:LEU:HD11	1.92	0.70
2:C:75:LEU:HD21	2:C:94:ALA:CB	2.21	0.70
3:D:471:PRO:CB	3:D:476:ALA:HB1	2.21	0.70
1:A:183:ILE:HG12	1:A:183:ILE:O	1.91	0.70
2:O:178:PRO:CG	2:O:395:TYR:CZ	2.73	0.70
1:G:224:LEU:HG	1:G:225:ALA:N	2.07	0.70
3:P:909:ILE:HD11	3:P:913:GLU:HB3	1.71	0.70
3:P:795:TYR:OH	3:P:1326:GLN:NE2	2.25	0.70
2:C:883:LEU:HD11	2:C:920:VAL:HG22	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:116:PHE:CE1	3:P:1333:THR:HG22	2.26	0.70
5:L:506:SER:O	5:L:519:LEU:HD23	1.92	0.70
2:I:1104:PRO:HG3	3:J:725:MET:SD	2.31	0.70
2:I:1108:ASN:OD1	2:I:1108:ASN:N	2.23	0.70
2:C:936:ARG:NH1	5:F:495:ARG:HE	1.90	0.70
2:I:1287:LEU:O	2:I:1291:LEU:HG	1.92	0.70
3:J:342:LEU:HB3	3:J:1352:ILE:HG12	1.74	0.70
2:O:886:LYS:N	2:O:917:SER:OG	2.24	0.70
3:J:1145:PHE:HE1	3:J:1256:ILE:CD1	1.97	0.70
3:P:544:LEU:CD2	3:P:578:ILE:CD1	2.67	0.70
1:A:45:ARG:NH2	1:B:37:HIS:HB2	2.07	0.70
2:I:448:LEU:N	2:I:448:LEU:CD2	2.53	0.70
2:I:1312:ASN:CG	2:I:1314:GLN:HB2	2.13	0.70
5:F:460:ILE:O	5:F:463:LEU:HB2	1.90	0.70
3:J:698:MET:O	3:J:702:GLN:HB2	1.91	0.70
2:I:237:LEU:O	2:I:287:VAL:HG22	1.91	0.70
1:M:45:ARG:HH12	2:O:1216:ARG:HA	1.56	0.70
2:I:886:LYS:CD	2:I:916:SER:HB2	2.22	0.70
3:P:1226:VAL:O	3:P:1229:VAL:CG1	2.39	0.70
2:C:422:LYS:O	2:C:426:ILE:HG13	1.92	0.70
2:O:155:VAL:HG22	2:O:405:PHE:HD2	1.55	0.70
1:A:140:ILE:HD11	1:A:142:MET:CE	2.21	0.70
3:J:425:ARG:HD2	3:J:457:TYR:HB3	1.74	0.70
2:I:808:ASN:OD1	2:I:1216:ARG:NH1	2.23	0.70
2:C:1104:PRO:HG3	3:D:725:MET:HE2	1.72	0.69
2:C:1105:SER:OG	3:D:731:ARG:HD2	1.91	0.69
2:O:901:LEU:O	2:O:905:ILE:HG13	1.92	0.69
2:O:335:THR:HG22	2:O:336:LEU:H	1.57	0.69
2:I:1161:LEU:O	2:I:1163:THR:N	2.24	0.69
5:L:92:GLY:O	5:L:93:ARG:HG2	1.91	0.69
2:C:499:SER:O	2:C:503:LYS:HD2	1.91	0.69
2:O:964:LEU:HD11	2:O:1021:LEU:HD22	1.73	0.69
3:J:1286:LYS:O	3:J:1290:ARG:HG3	1.92	0.69
3:P:427:PRO:HD3	8:9:16:U:O2	1.91	0.69
2:C:559:CYS:SG	2:C:561:ILE:HG13	2.32	0.69
1:H:68:TYR:CD1	1:H:79:LEU:HD21	2.27	0.69
2:C:1120:ALA:O	2:C:1124:ILE:HG13	1.92	0.69
3:D:475:GLU:N	3:D:475:GLU:OE1	2.23	0.69
5:F:530:LEU:N	5:F:530:LEU:HD12	2.07	0.69
3:P:242:LEU:HD12	3:P:243:PRO:CD	2.22	0.69
2:C:153:PRO:HD2	2:C:400:VAL:CG1	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:807:LEU:CD2	3:P:1255:VAL:HG13	2.23	0.69
1:N:86:LYS:HE2	1:N:174:ASP:HB2	1.74	0.69
2:C:823:VAL:HG13	2:C:1059:ARG:HD3	1.74	0.69
3:D:361:LEU:N	3:D:361:LEU:HD23	2.06	0.69
3:D:824:PRO:HD3	3:D:878:ASP:O	1.92	0.69
3:D:363:LEU:CD2	3:D:487:THR:HG22	2.22	0.69
2:I:237:LEU:HD11	2:I:289:VAL:HG13	1.74	0.69
5:R:493:LYS:NZ	6:7:30:DG:OP1	2.25	0.69
2:O:720:ARG:NH2	2:O:745:GLU:OE2	2.25	0.69
4:E:16:ARG:HH11	4:E:16:ARG:CG	2.04	0.69
3:D:734:ALA:HA	3:D:737:ILE:HD12	1.72	0.69
3:J:22:ILE:HG13	3:J:1319:PHE:CZ	2.27	0.69
3:D:556:GLU:HB3	3:D:564:VAL:CB	2.14	0.69
7:8:27:DA:H2'	7:8:27:DA:OP2	1.92	0.69
2:I:806:PRO:CG	3:J:632:ALA:O	2.38	0.69
3:P:146:VAL:CG2	3:P:158:GLN:HB3	2.23	0.69
3:J:1138:LEU:HB3	3:J:1139:PRO:HD3	1.72	0.69
2:C:996:ARG:O	2:C:997:TRP:HD1	1.74	0.69
5:R:402:LEU:HA	5:R:405:ILE:HD12	1.72	0.69
2:I:661:VAL:HG12	2:I:665:ALA:HB3	1.70	0.69
1:M:47:LEU:O	1:M:51:MET:CB	2.38	0.69
5:L:84:LEU:HG	5:L:107:THR:HG22	1.75	0.69
2:O:727:VAL:HG23	2:O:773:LEU:HD13	1.73	0.69
2:C:558:VAL:HG13	2:C:559:CYS:O	1.92	0.69
3:J:800:LEU:O	3:J:803:VAL:HB	1.93	0.69
1:A:228:LEU:HD22	1:B:224:LEU:HD12	1.74	0.69
3:J:839:VAL:CG1	3:J:864:LEU:HD12	2.22	0.69
3:J:1179:PRO:HB2	3:J:1182:GLY:CA	2.23	0.69
2:I:434:ASP:HA	2:I:437:ASN:ND2	2.07	0.69
2:I:146:VAL:HG13	2:I:529:ARG:O	1.91	0.69
3:J:115:TRP:HZ2	3:J:1329:THR:HG22	1.50	0.69
1:M:184:ALA:HB2	2:O:1091:GLY:CA	2.19	0.69
5:R:451:ARG:NH2	6:7:32:DA:P	2.65	0.69
2:C:349:GLU:OE1	2:C:349:GLU:HA	1.92	0.69
3:D:268:LEU:CB	3:D:306:LEU:HD13	2.22	0.69
1:A:140:ILE:C	1:A:140:ILE:HD13	2.12	0.69
3:P:395:LYS:O	3:P:399:LYS:HG3	1.91	0.69
5:F:295:CYS:O	5:F:296:LYS:CB	2.41	0.69
5:L:580:PHE:O	5:L:581:ASP:CB	2.41	0.69
2:O:797:GLY:HA3	2:O:1233:LEU:HD23	1.75	0.69
2:O:1305:TYR:CD2	5:R:531:PRO:HB2	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1295:SER:O	2:O:1301:ARG:NH1	2.26	0.69
2:C:1289:GLU:HA	2:C:1293:VAL:HG22	1.74	0.69
2:C:694:ARG:O	2:C:798:GLN:NE2	2.24	0.69
3:J:509:GLY:O	3:J:513:MET:HG3	1.93	0.69
2:C:179:TYR:HB3	2:C:396:ASP:O	1.93	0.69
3:P:46:TYR:OH	6:7:31:DT:OP1	2.09	0.69
2:O:1127:LYS:NZ	2:O:1203:ASP:OD2	2.18	0.69
2:C:1017:GLN:O	2:C:1021:LEU:HG	1.93	0.69
1:G:166:ARG:HD2	1:G:170:ARG:HG2	1.74	0.69
2:C:183:TRP:HZ3	6:1:47:DC:N4	1.91	0.69
3:J:739:GLN:HG2	3:J:744:ARG:HG3	1.75	0.69
2:I:689:ALA:CB	2:I:1233:LEU:HD13	2.23	0.69
2:I:700:VAL:HG13	2:I:1117:LEU:HD23	1.74	0.69
2:O:425:ILE:O	2:O:429:MET:HG3	1.91	0.69
2:O:165:HIS:NE2	2:O:190:PRO:HB3	2.08	0.69
2:I:1200:LYS:HE3	2:I:1206:THR:CG2	2.23	0.69
3:P:849:LEU:CD1	3:P:857:LEU:HD23	2.23	0.69
5:R:580:PHE:O	5:R:581:ASP:HB2	1.91	0.69
3:J:114:ILE:HD13	3:J:308:ASP:HB3	1.73	0.69
3:P:1251:LYS:O	3:P:1255:VAL:HG23	1.93	0.69
3:J:574:VAL:O	3:J:578:ILE:HG13	1.93	0.69
3:J:1158:GLU:HA	3:J:1223:LEU:HD11	1.75	0.69
3:D:1078:LEU:HD13	3:D:1121:LEU:HD22	1.73	0.69
3:D:511:TYR:OH	3:D:727:ASP:OD2	2.08	0.69
3:D:704:GLU:O	3:D:704:GLU:HG3	1.93	0.69
7:5:18:DT:H2'	7:5:19:DA:H5"	1.73	0.69
3:D:77:ARG:NH2	5:F:570:ASP:OD1	2.26	0.69
3:P:233:LYS:HB3	3:P:236:TRP:CE2	2.27	0.69
3:J:1145:PHE:HZ	3:J:1253:ILE:HG23	1.58	0.69
2:I:1235:LEU:CD2	2:I:1235:LEU:N	2.47	0.69
5:L:88:GLU:HG2	5:L:91:ILE:HD12	1.75	0.69
3:J:1220:ILE:CG2	3:J:1224:ARG:HD2	2.23	0.69
2:I:1246:ARG:HD2	2:I:1265:PHE:O	1.93	0.69
3:J:320:ASN:N	3:J:320:ASN:OD1	2.26	0.69
2:I:1325:VAL:O	2:I:1329:GLU:HG3	1.92	0.69
5:F:511:ILE:CG2	5:F:519:LEU:HD13	2.19	0.69
2:I:170:VAL:CG2	3:J:1065:ALA:O	2.39	0.69
3:J:972:LYS:HB3	3:J:1002:VAL:CG1	2.20	0.69
3:P:797:THR:O	3:P:801:VAL:HG23	1.91	0.69
3:D:433:GLY:O	3:D:457:TYR:HE1	1.76	0.69
1:A:9:LEU:CD2	1:A:198:LEU:HD13	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1165:SER:OG	2:C:1167:GLU:HG3	1.93	0.69
3:P:895:CYS:SG	3:P:898:CYS:N	2.59	0.69
3:J:806:ASP:O	3:J:808:VAL:HG23	1.93	0.69
6:1:51:DC:OP2	6:1:51:DC:H2'	1.92	0.69
3:J:1163:VAL:HG12	3:J:1164:SER:N	2.08	0.68
3:J:909:ILE:CG1	3:J:910:ASN:N	2.56	0.68
1:G:190:ALA:H	1:G:199:ASP:HA	1.57	0.68
3:P:212:THR:HG22	3:P:215:LYS:HZ2	1.56	0.68
2:I:878:THR:CG2	2:I:879:GLY:N	2.56	0.68
3:D:244:VAL:HG13	3:D:269:TYR:CE1	2.28	0.68
3:D:572:THR:HG1	3:D:576:ARG:HB2	1.57	0.68
3:P:288:PRO:O	3:P:292:VAL:HG23	1.94	0.68
3:J:24:LEU:HD12	3:J:232:ASN:HB3	1.75	0.68
3:D:492:SER:O	3:D:495:ASN:O	2.11	0.68
5:L:399:LEU:O	5:L:400:GLN:HB2	1.92	0.68
1:H:57:THR:HG22	1:H:58:GLU:HG3	1.73	0.68
3:P:251:PRO:O	5:R:507:MET:HE3	1.93	0.68
2:O:1282:GLY:CA	4:Q:17:PHE:HE1	1.97	0.68
3:D:364:HIS:HB3	3:D:487:THR:HG23	1.75	0.68
2:I:593:LYS:CE	2:I:595:THR:OG1	2.41	0.68
1:G:78:ILE:O	1:G:82:LEU:HG	1.93	0.68
2:O:349:GLU:O	2:O:353:VAL:HG23	1.92	0.68
2:C:149:LEU:HD21	2:C:451:ARG:NE	2.09	0.68
5:F:583:THR:HG21	5:F:586:ARG:HB3	1.75	0.68
2:O:1109:ILE:HD11	3:P:740:LEU:CD2	2.21	0.68
1:B:191:ARG:HG3	1:B:196:THR:HG22	1.75	0.68
5:L:295:CYS:O	5:L:296:LYS:CB	2.40	0.68
3:D:923:ILE:HD11	3:D:1252:HIS:HB3	1.75	0.68
2:O:539:THR:CG2	2:O:540:ARG:H	2.05	0.68
2:C:1304:MET:O	2:C:1308:ILE:HG13	1.94	0.68
2:O:10:ARG:CZ	2:O:697:LYS:HD3	2.23	0.68
2:C:9:LYS:HG2	2:C:1171:ARG:HD3	1.75	0.68
3:P:84:ILE:O	3:P:84:ILE:CG2	2.40	0.68
5:R:540:LEU:O	5:R:544:THR:HG23	1.93	0.68
2:I:559:CYS:SG	2:I:661:VAL:HG13	2.33	0.68
1:M:36:GLY:O	1:M:201:LEU:HD11	1.93	0.68
5:R:454:VAL:CG2	5:R:455:HIS:H	2.06	0.68
2:C:1117:LEU:CD2	2:C:1182:ILE:HD13	2.22	0.68
3:P:1179:PRO:HG2	3:P:1184:ASP:O	1.94	0.68
3:P:930:LEU:HD11	3:P:1246:VAL:HG21	1.75	0.68
2:I:921:PRO:HB2	2:I:924:VAL:HB	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:297:VAL:HG13	2:C:317:LEU:HD21	1.74	0.68
3:P:433:GLY:O	3:P:457:TYR:HE1	1.76	0.68
3:D:974:VAL:HG11	3:D:1028:ILE:HG21	1.75	0.68
3:P:492:SER:O	3:P:495:ASN:O	2.12	0.68
3:J:471:PRO:HB2	3:J:476:ALA:HB1	1.75	0.68
2:O:428:VAL:HG13	2:O:429:MET:N	2.09	0.68
5:L:506:SER:O	5:L:519:LEU:CD2	2.42	0.68
3:P:146:VAL:HG21	3:P:158:GLN:HB3	1.74	0.68
4:E:45:LYS:O	4:E:49:ILE:HG13	1.94	0.68
2:C:521:LEU:CD2	2:C:686:GLN:HB3	2.24	0.68
5:F:451:ARG:NH2	6:1:32:DA:OP1	2.26	0.68
3:J:795:TYR:OH	3:J:1326:GLN:NE2	2.24	0.68
1:M:59:VAL:O	1:M:171:LEU:HG	1.94	0.68
5:F:449:THR:OG1	5:F:504:PRO:HG3	1.94	0.68
2:O:692:THR:OG1	2:O:798:GLN:NE2	2.27	0.68
1:N:82:LEU:CD2	1:N:173:VAL:HG22	2.24	0.68
3:J:298:MET:SD	5:L:406:GLN:HG3	2.34	0.68
3:P:501:VAL:HG12	3:P:502:PRO:HD2	1.75	0.68
5:R:592:ALA:HA	5:R:595:LEU:HD12	1.76	0.68
3:P:1138:LEU:O	3:P:1141:VAL:HB	1.93	0.68
5:R:386:LEU:HD13	6:7:41:DT:O4'	1.94	0.68
2:I:1243:MET:SD	3:J:445:LYS:HB3	2.33	0.68
3:J:478:LEU:HB3	4:K:20:VAL:HG22	1.75	0.68
1:A:48:LEU:HD11	1:A:183:ILE:HG22	1.75	0.68
5:F:385:ARG:O	5:F:388:ILE:HG22	1.93	0.68
3:J:343:LEU:HD11	3:J:1348:LYS:HD3	1.76	0.68
2:C:4:SER:O	2:C:8:LYS:HG3	1.93	0.68
3:D:114:ILE:CG2	3:D:307:LEU:HD12	2.24	0.68
2:O:120:GLN:CD	2:O:490:GLN:HB3	2.14	0.68
3:P:146:VAL:HG21	3:P:154:LEU:CD1	2.24	0.68
1:B:56:VAL:HG13	1:B:144:ILE:CG2	2.24	0.68
1:B:85:LEU:HD13	1:B:144:ILE:CD1	2.24	0.68
2:I:539:THR:HG23	2:I:540:ARG:H	1.59	0.68
3:J:147:ILE:HG13	3:J:178:ALA:HA	1.75	0.68
3:J:161:THR:N	3:J:164:GLN:OE1	2.21	0.68
2:C:960:LEU:HD13	2:C:1029:LEU:HD12	1.74	0.68
3:P:398:LYS:NZ	5:R:532:LEU:CG	2.56	0.68
3:J:242:LEU:CD1	3:J:243:PRO:HD2	2.10	0.68
3:J:115:TRP:HE3	3:J:1333:THR:HG23	1.49	0.68
3:P:796:LEU:O	3:P:800:LEU:HG	1.94	0.68
2:O:1289:GLU:OE2	3:P:472:LEU:HB2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:795:TYR:OH	3:D:1326:GLN:NE2	2.26	0.68
2:C:667:LEU:HD22	2:C:705:GLU:OE2	1.93	0.68
3:D:363:LEU:CD2	3:D:618:VAL:HG13	2.24	0.68
3:D:363:LEU:CG	3:D:487:THR:HG22	2.24	0.68
6:7:54:DA:H2"	6:7:55:DC:C6	2.28	0.68
2:C:414:ILE:HG13	2:C:415:GLU:N	2.09	0.68
3:J:899:TYR:CE1	3:J:915:ILE:HG21	2.29	0.68
3:D:261:ALA:HB1	5:F:507:MET:HA	1.74	0.68
2:I:519:ASN:OD1	2:I:522:SER:HB2	1.94	0.68
3:J:797:THR:HG21	3:J:924:GLY:HA3	1.74	0.68
3:J:872:LEU:HD23	3:J:872:LEU:N	2.09	0.68
3:J:1284:ARG:HA	3:J:1287:ILE:HG13	1.76	0.68
3:D:1286:LYS:HA	3:D:1289:ASN:HD22	1.57	0.68
5:L:585:GLU:CG	7:5:48:DC:H41	2.07	0.68
2:I:75:LEU:CD2	2:I:127:ILE:HD12	2.24	0.68
2:O:519:ASN:OD1	2:O:522:SER:HB2	1.94	0.68
2:C:1117:LEU:CG	2:C:1182:ILE:HD13	2.24	0.67
3:D:107:LEU:HD21	3:D:242:LEU:CB	2.24	0.67
3:J:154:LEU:HD13	3:J:176:PHE:HE1	1.59	0.67
1:N:47:LEU:CD1	1:N:183:ILE:HD12	2.25	0.67
2:I:36:GLN:HA	2:I:39:ILE:HD12	1.75	0.67
3:J:582:ILE:HD13	3:J:582:ILE:N	2.09	0.67
2:I:1312:ASN:OD1	2:I:1314:GLN:HB2	1.94	0.67
5:R:132:CYS:SG	5:R:257:LYS:HE2	2.34	0.67
3:D:553:THR:HA	3:D:566:LYS:O	1.94	0.67
3:D:997:VAL:HG13	3:D:1020:TRP:CZ3	2.29	0.67
2:I:690:VAL:HG12	2:I:691:PRO:HD2	1.76	0.67
3:D:923:ILE:HD11	3:D:1252:HIS:CB	2.25	0.67
3:P:1357:ILE:HD12	3:P:1357:ILE:H	1.59	0.67
2:O:870:ILE:CG2	2:O:944:ARG:HE	2.05	0.67
1:A:232:VAL:HA	1:B:218:ARG:HG2	1.76	0.67
2:I:873:ILE:HD11	2:I:944:ARG:HH12	1.58	0.67
3:D:1161:GLY:CA	3:D:1180:VAL:HG22	2.24	0.67
2:I:821:ARG:HB3	2:I:825:GLU:OE2	1.93	0.67
2:O:8:LYS:HD3	2:O:1168:GLU:OE1	1.94	0.67
1:A:151:GLY:O	1:A:177:TYR:HB2	1.93	0.67
3:J:1226:VAL:C	3:J:1229:VAL:HG12	2.15	0.67
3:P:915:ILE:O	3:P:918:ILE:HB	1.95	0.67
1:A:228:LEU:HD13	1:B:224:LEU:HD11	1.77	0.67
2:O:870:ILE:HG21	2:O:944:ARG:NE	2.08	0.67
2:O:871:VAL:HG11	2:O:928:VAL:HG21	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:369:MET:HG3	2:C:370:MET:N	2.09	0.67
2:I:539:THR:CG2	2:I:540:ARG:H	2.08	0.67
5:F:115:GLY:O	5:F:118:ASP:HB2	1.94	0.67
1:N:190:ALA:H	1:N:199:ASP:HA	1.59	0.67
2:I:1270:PHE:HB2	3:J:347:VAL:CG2	2.25	0.67
5:F:520:GLY:HA2	5:F:523:ILE:CD1	2.24	0.67
1:A:140:ILE:HD11	1:A:142:MET:HE2	1.77	0.67
5:F:580:PHE:O	5:F:581:ASP:CB	2.42	0.67
2:C:686:GLN:HE21	2:C:1069:ARG:HG2	1.59	0.67
3:J:1179:PRO:HD3	3:J:1184:ASP:O	1.93	0.67
1:G:75:GLN:O	2:I:729:ALA:HB2	1.93	0.67
2:I:344:GLY:O	2:I:346:TYR:CD2	2.48	0.67
2:I:1142:ARG:HG3	2:I:1161:LEU:HD23	1.76	0.67
3:P:325:LYS:HE2	3:P:330:MET:HG2	1.77	0.67
3:D:826:ILE:HG22	3:D:826:ILE:O	1.95	0.67
3:J:759:ILE:HG23	3:J:771:GLN:NE2	2.09	0.67
5:F:554:ARG:O	5:F:558:VAL:HG23	1.94	0.67
3:D:740:LEU:N	3:D:740:LEU:CD2	2.52	0.67
2:I:1098:LEU:HD23	2:I:1099:ASN:H	1.60	0.67
2:I:689:ALA:HB2	2:I:1233:LEU:HD13	1.75	0.67
5:F:135:ALA:HB2	5:F:256:PHE:CG	2.30	0.67
3:J:645:VAL:HG21	3:J:701:LEU:HD13	1.77	0.67
3:J:1272:SER:HB3	3:J:1274:PHE:CE2	2.29	0.67
2:I:1273:MET:SD	3:J:428:THR:HB	2.34	0.67
3:J:537:TYR:CZ	3:J:544:LEU:HD11	2.30	0.67
5:R:493:LYS:O	5:R:497:VAL:HG23	1.95	0.67
2:I:387:ASN:HA	2:I:391:SER:HB2	1.76	0.67
3:P:53:ARG:O	3:P:58:CYS:HB2	1.93	0.67
3:P:339:ARG:NH1	3:P:798:ARG:NH2	2.42	0.67
2:O:839:VAL:HG13	2:O:1046:VAL:HG13	1.77	0.67
3:P:797:THR:CG2	3:P:924:GLY:HA3	2.24	0.67
2:O:1257:GLN:HB3	2:O:1258:PRO:HD2	1.77	0.67
5:F:110:LEU:N	5:F:110:LEU:HD12	2.08	0.67
3:P:885:VAL:CG1	3:P:894:VAL:HG11	2.24	0.67
3:J:492:SER:O	3:J:495:ASN:O	2.13	0.67
2:C:1101:LEU:HD12	2:C:1101:LEU:N	2.09	0.67
2:I:157:PHE:HB2	2:I:443:ASP:OD1	1.94	0.67
2:C:851:THR:HG22	2:C:852:ALA:N	2.10	0.67
3:J:1145:PHE:O	3:J:1309:ILE:CG1	2.35	0.67
3:D:762:ASN:OD1	3:D:764:ARG:HB3	1.95	0.67
5:L:464:ASN:OD1	7:5:25:DA:N6	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:8:26:DT:H2"	7:8:27:DA:OP1	1.92	0.67
5:L:84:LEU:CG	5:L:107:THR:CG2	2.72	0.67
3:P:744:ARG:HB3	3:P:759:ILE:HG21	1.77	0.67
3:D:233:LYS:HG3	3:D:234:PRO:HD2	1.77	0.67
3:J:1267:VAL:O	3:J:1268:ASN:HB2	1.94	0.67
3:P:339:ARG:NH1	3:P:798:ARG:HH22	1.92	0.67
1:M:67:GLU:C	1:M:78:ILE:HD12	2.15	0.67
2:O:92:TYR:HB2	2:O:137:VAL:CB	2.25	0.67
1:A:129:VAL:CG1	1:A:132:HIS:CE1	2.76	0.67
3:P:1146:GLU:CG	3:P:1309:ILE:HD12	2.23	0.67
1:A:57:THR:HG21	1:A:147:GLN:NE2	2.10	0.67
2:O:452:ARG:NH2	2:O:458:GLU:OE1	2.28	0.67
2:I:232:ILE:O	2:I:233:ARG:HG3	1.95	0.67
3:D:609:TYR:CA	3:D:617:THR:HG21	2.25	0.67
2:O:1294:LYS:HB3	3:P:347:VAL:HG13	1.77	0.67
2:C:871:VAL:CG2	2:C:883:LEU:HA	2.25	0.67
2:I:1305:TYR:OH	3:J:398:LYS:NZ	2.28	0.67
3:J:43:THR:CG2	5:L:449:THR:HG22	2.25	0.67
4:E:16:ARG:HH11	4:E:16:ARG:HG3	1.58	0.67
3:P:306:LEU:O	3:P:326:SER:HB2	1.94	0.67
3:P:143:SER:OG	3:P:159:ILE:CG2	2.43	0.67
2:C:12:ARG:NH1	2:C:1182:ILE:O	2.27	0.66
2:O:878:THR:HG22	2:O:879:GLY:N	2.08	0.66
5:F:554:ARG:HG3	5:F:555:GLU:N	2.10	0.66
2:I:1109:ILE:HD11	3:J:740:LEU:CD1	2.25	0.66
3:D:370:LYS:HE2	3:D:443:GLU:HA	1.78	0.66
3:P:385:LEU:HD21	3:P:411:ILE:CD1	2.25	0.66
3:P:1286:LYS:O	3:P:1289:ASN:HB2	1.95	0.66
3:P:1146:GLU:OE1	3:P:1309:ILE:HB	1.95	0.66
2:I:964:LEU:HD13	2:I:1025:PHE:HB2	1.76	0.66
2:I:100:LEU:HD12	2:I:122:VAL:HB	1.75	0.66
3:J:952:VAL:CG1	3:J:984:LEU:HD13	2.25	0.66
1:G:230:ALA:HB2	1:H:11:PRO:O	1.95	0.66
3:J:537:TYR:CD2	3:J:544:LEU:HD21	2.30	0.66
2:I:1109:ILE:HD11	3:J:740:LEU:HD13	1.75	0.66
2:I:169:LYS:HG2	2:I:171:LEU:HD21	1.75	0.66
5:R:415:ALA:HB2	5:R:434:TRP:HB2	1.77	0.66
2:I:302:ILE:HG22	2:I:309:LEU:HD23	1.76	0.66
3:D:482:ALA:O	3:D:488:ASN:ND2	2.28	0.66
2:C:280:ASP:O	2:C:281:ASP:HB2	1.95	0.66
5:L:392:LYS:HA	5:L:395:THR:HG23	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:909:ILE:HG12	3:P:910:ASN:H	1.59	0.66
5:F:353:LEU:HB3	5:F:358:VAL:CG2	2.25	0.66
3:P:1138:LEU:CG	3:P:1139:PRO:HD3	2.25	0.66
3:D:347:VAL:HG12	3:D:348:ASP:O	1.95	0.66
2:I:182:SER:HA	2:I:183:TRP:CE3	2.30	0.66
3:D:910:ASN:N	3:D:910:ASN:OD1	2.28	0.66
1:N:81:ILE:HD13	1:N:131:CYS:SG	2.35	0.66
2:O:1294:LYS:HD3	3:P:347:VAL:HG12	1.70	0.66
3:J:886:VAL:HA	3:J:1258:ARG:HG3	1.78	0.66
1:B:38:THR:HB	1:B:39:LEU:HD23	1.76	0.66
3:P:1145:PHE:HB2	3:P:1309:ILE:HD11	1.78	0.66
2:C:1272:GLU:O	2:C:1275:VAL:HB	1.94	0.66
3:J:209:ASN:HB2	3:J:214:ARG:HD3	1.78	0.66
1:G:234:LEU:HG	1:H:13:LEU:HD23	1.78	0.66
3:J:918:ILE:HG22	3:J:919:ALA:H	1.61	0.66
3:D:1318:SER:OG	3:D:1321:SER:CB	2.36	0.66
1:M:45:ARG:HD3	1:N:38:THR:HG23	1.76	0.66
5:L:84:LEU:CG	5:L:107:THR:HG21	2.24	0.66
3:J:868:TRP:O	3:J:872:LEU:CD2	2.43	0.66
3:J:647:PRO:HA	3:J:700:ASN:HD22	1.60	0.66
5:L:532:LEU:H	5:L:532:LEU:HD12	1.59	0.66
5:F:299:LYS:O	5:F:302:PHE:HB3	1.95	0.66
3:D:1159:ILE:HG22	3:D:1160:SER:H	1.61	0.66
3:P:485:MET:SD	3:P:486:SER:N	2.69	0.66
2:O:144:VAL:HG23	2:O:515:MET:HB2	1.78	0.66
4:K:50:ALA:O	4:K:54:ILE:HG13	1.95	0.66
2:I:962:GLU:O	2:I:966:ILE:HG13	1.94	0.66
3:D:664:ILE:HG12	3:D:681:LYS:HZ2	1.59	0.66
1:M:28:LEU:CD1	1:N:231:PHE:CE1	2.77	0.66
3:D:360:TYR:CE1	3:D:361:LEU:HD21	2.31	0.66
2:C:262:TYR:CE1	2:C:276:GLN:CD	2.69	0.66
2:C:890:LYS:HG2	2:C:891:GLY:H	1.58	0.66
1:B:155:ALA:HA	1:B:158:ARG:HD2	1.77	0.66
5:R:451:ARG:NH2	6:7:32:DA:OP2	2.28	0.66
3:P:1333:THR:O	3:P:1337:VAL:HG23	1.96	0.66
5:L:429:THR:OG1	6:4:39:DA:H8	1.71	0.66
5:L:374:ARG:HB2	5:L:374:ARG:HH11	1.60	0.66
2:C:997:TRP:HA	2:C:1000:LEU:HD13	1.77	0.66
2:O:61:SER:HB2	2:O:66:SER:OG	1.96	0.66
3:P:1271:SER:HB3	3:P:1297:LYS:NZ	2.10	0.66
5:F:91:ILE:HD11	5:F:103:ARG:NH1	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:25:ARG:HD3	4:K:64:LEU:HD13	1.78	0.66
3:J:128:LEU:HD13	3:J:188:LEU:HD23	1.78	0.66
3:J:247:PRO:HA	3:J:250:ARG:CG	2.25	0.66
3:P:272:VAL:HG22	3:P:302:ALA:HB1	1.77	0.66
3:D:544:LEU:HD21	3:D:578:ILE:HD11	1.76	0.66
2:C:831:ILE:HD12	2:C:831:ILE:N	2.09	0.66
2:O:168:GLY:O	3:P:1065:ALA:CB	2.44	0.66
3:D:1078:LEU:HD12	3:D:1121:LEU:HB3	1.76	0.66
3:D:803:VAL:HG23	3:D:1313:SER:OG	1.95	0.66
5:L:514:ASP:O	5:L:516:ASP:N	2.28	0.66
3:P:403:ARG:O	3:P:404:GLU:HB2	1.94	0.66
2:I:148:GLN:HB2	2:I:511:LEU:HD11	1.76	0.66
1:G:47:LEU:O	1:G:51:MET:HG2	1.96	0.66
3:J:647:PRO:HA	3:J:700:ASN:ND2	2.10	0.66
3:P:885:VAL:HG12	3:P:894:VAL:CG1	2.25	0.66
3:J:845:ALA:O	3:J:846:GLU:CB	2.43	0.66
3:P:146:VAL:HG12	3:P:155:GLU:O	1.95	0.66
2:C:1275:VAL:O	2:C:1279:GLU:HG3	1.96	0.66
1:H:48:LEU:HD21	1:H:183:ILE:HG22	1.77	0.66
2:O:1337:ILE:HD12	3:P:22:ILE:HD11	1.77	0.66
2:I:616:ILE:HG12	2:I:652:TYR:HB2	1.78	0.66
3:D:846:GLU:HA	3:D:860:ARG:HD3	1.78	0.66
2:I:1058:ARG:HD3	2:I:1238:LEU:HD13	1.77	0.66
1:A:41:ASN:O	1:A:45:ARG:HG3	1.95	0.66
3:J:1101:LEU:CD2	3:J:1122:ALA:CB	2.74	0.66
2:I:363:LEU:HD21	2:I:385:PHE:HB2	1.78	0.66
1:G:69:SER:O	1:G:78:ILE:HG13	1.96	0.66
3:D:645:VAL:CG2	3:D:701:LEU:CD1	2.53	0.65
3:J:899:TYR:O	3:J:1251:LYS:NZ	2.23	0.65
5:R:87:VAL:HG11	5:R:103:ARG:CD	2.25	0.65
2:C:1077:SER:HA	3:D:356:THR:HG23	1.77	0.65
3:D:227:PHE:HE1	3:D:234:PRO:HD3	1.60	0.65
3:D:363:LEU:HD23	3:D:618:VAL:HG13	1.78	0.65
3:P:720:ASN:O	3:P:724:MET:HG3	1.96	0.65
1:G:10:LYS:HE2	1:H:226:GLU:HG3	1.78	0.65
3:D:946:ALA:O	3:D:948:SER:N	2.28	0.65
3:J:1221:LEU:HD22	3:J:1306:LEU:HB2	1.77	0.65
2:C:1287:LEU:HD23	3:D:1357:ILE:CD1	2.15	0.65
1:A:48:LEU:CD2	1:A:180:VAL:HB	2.26	0.65
5:F:135:ALA:CB	5:F:256:PHE:HB2	2.26	0.65
2:C:46:GLN:CG	2:C:46:GLN:O	2.40	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:106:GLY:O	1:G:133:LEU:HB3	1.96	0.65
3:P:1233:ILE:O	3:P:1237:VAL:HG23	1.97	0.65
2:O:700:VAL:HG12	2:O:1117:LEU:HD23	1.78	0.65
2:C:335:THR:HG22	2:C:336:LEU:N	2.10	0.65
1:H:191:ARG:HG3	1:H:196:THR:HA	1.77	0.65
2:I:726:TYR:HB3	2:I:733:VAL:HG22	1.79	0.65
3:D:58:CYS:SG	3:D:61:ILE:N	2.69	0.65
2:I:1291:LEU:O	3:J:345:LYS:NZ	2.29	0.65
2:O:1278:LEU:HD22	2:O:1283:ALA:CB	2.24	0.65
1:M:69:SER:O	1:M:78:ILE:CD1	2.43	0.65
2:O:1304:MET:O	2:O:1308:ILE:HG13	1.95	0.65
2:I:1273:MET:O	3:J:428:THR:HG21	1.96	0.65
3:J:1172:LYS:HD3	3:J:1189:MET:CE	2.25	0.65
2:O:10:ARG:NH2	2:O:790:ASP:OD2	2.29	0.65
2:C:1232:MET:HA	2:C:1232:MET:HE2	1.79	0.65
2:I:1275:VAL:HG21	3:J:343:LEU:O	1.96	0.65
1:A:69:SER:O	1:A:78:ILE:CD1	2.44	0.65
5:F:402:LEU:HA	5:F:405:ILE:HD12	1.77	0.65
1:B:59:VAL:HG13	1:B:144:ILE:HG12	1.78	0.65
1:N:61:ILE:HD12	1:N:64:VAL:HG11	1.78	0.65
3:J:1263:LYS:HZ2	3:J:1280:VAL:HA	1.59	0.65
2:I:82:VAL:CG2	2:I:83:GLN:N	2.59	0.65
3:D:58:CYS:SG	3:D:60:ARG:N	2.69	0.65
2:C:797:GLY:HA3	2:C:1233:LEU:CD2	2.27	0.65
2:C:595:THR:HG22	2:C:596:ASP:OD1	1.96	0.65
3:P:377:PHE:O	3:P:381:ILE:HG13	1.96	0.65
1:B:47:LEU:CD1	1:B:183:ILE:CD1	2.72	0.65
1:B:44:ARG:NH1	3:D:538:ARG:HD3	2.10	0.65
1:B:198:LEU:CD1	1:B:198:LEU:N	2.59	0.65
2:I:249:GLU:O	2:I:269:ILE:HG12	1.96	0.65
5:R:370:ALA:HB1	5:R:374:ARG:HH22	1.61	0.65
3:J:1194:ARG:NH1	3:J:1212:ASP:O	2.29	0.65
3:J:1032:SER:OG	3:J:1117:SER:HB3	1.95	0.65
3:P:339:ARG:CZ	3:P:798:ARG:HH22	2.10	0.65
1:M:75:GLN:O	2:O:729:ALA:HB2	1.97	0.65
2:C:251:ALA:HB2	2:C:263:VAL:CG1	2.27	0.65
2:C:167:SER:HA	3:D:1064:SER:CB	2.26	0.65
1:G:61:ILE:HB	1:G:64:VAL:HB	1.78	0.65
2:O:732:ILE:HD11	2:O:769:PRO:HB3	1.79	0.65
3:P:816:THR:HG21	3:P:818:GLU:HG3	1.77	0.65
3:P:959:LYS:NZ	3:P:985:ILE:HD11	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1292:THR:HG23	2:I:1293:VAL:N	2.06	0.65
3:J:294:ASN:HD22	5:L:406:GLN:HE21	1.45	0.65
5:L:573:LEU:CD2	7:5:45:DT:H2'	2.26	0.65
2:O:1273:MET:CG	7:8:14:DC:H4'	2.26	0.65
5:R:459:THR:O	5:R:463:LEU:HG	1.97	0.65
3:P:1286:LYS:HA	3:P:1289:ASN:ND2	2.11	0.65
2:O:1304:MET:CE	2:O:1308:ILE:HD11	2.27	0.65
3:P:111:THR:HG23	3:P:112:ALA:N	2.11	0.65
3:P:128:LEU:HD11	3:P:189:LEU:HD21	1.78	0.65
3:P:886:VAL:CG2	3:P:1254:GLU:O	2.44	0.65
2:I:353:VAL:O	2:I:355:PRO:HD3	1.96	0.65
2:O:1326:LEU:O	2:O:1330:ILE:HG13	1.96	0.65
2:O:888:THR:O	2:O:913:VAL:HG13	1.97	0.65
4:E:44:ASP:HB3	4:E:48:VAL:HB	1.79	0.65
2:I:319:LEU:HA	2:I:322:LEU:HD12	1.78	0.65
2:C:1143:GLU:OE1	2:C:1144:PHE:N	2.30	0.65
2:O:550:VAL:HG22	3:P:780:ARG:NE	2.12	0.65
3:J:373:ALA:HA	3:J:376:LEU:HG	1.79	0.65
3:P:423:LEU:CB	3:P:466:MET:CE	2.74	0.65
1:B:156:SER:C	1:B:159:ILE:HG22	2.16	0.65
3:P:395:LYS:HG2	3:P:399:LYS:HE3	1.79	0.65
3:D:1351:VAL:HG12	3:D:1352:ILE:N	2.11	0.65
3:J:22:ILE:CD1	3:J:1319:PHE:CE1	2.80	0.65
2:I:1241:ASP:HA	2:I:1262:LYS:NZ	2.12	0.65
2:I:1044:PRO:HG3	5:L:498:LEU:HD22	1.76	0.65
5:R:598:LEU:O	5:R:604:SER:OG	2.15	0.65
3:P:265:LEU:O	3:P:269:TYR:HD2	1.79	0.65
3:D:186:GLN:HA	3:D:189:LEU:HD12	1.77	0.65
3:P:572:THR:OG1	3:P:576:ARG:HB2	1.97	0.65
3:J:450:HIS:CE1	3:J:625:MET:CE	2.80	0.65
1:M:232:VAL:CG2	1:N:221:ALA:CB	2.75	0.65
1:A:75:GLN:NE2	2:C:727:VAL:HG12	2.08	0.65
2:C:927:THR:N	2:C:1055:ALA:O	2.27	0.65
5:F:437:GLN:OE1	7:2:27:DA:N6	2.30	0.65
3:J:1263:LYS:NZ	3:J:1280:VAL:HA	2.11	0.65
2:C:811:ASN:ND2	2:C:1099:ASN:HA	2.11	0.65
2:O:280:ASP:O	2:O:281:ASP:HB2	1.97	0.65
5:L:598:LEU:O	5:L:604:SER:OG	2.15	0.65
2:C:6:THR:HG22	2:C:791:LEU:HD22	1.79	0.65
3:D:1163:VAL:HG12	3:D:1164:SER:N	2.12	0.64
5:R:457:ILE:O	5:R:461:ASN:OD1	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:667:LEU:HD22	2:O:705:GLU:CD	2.16	0.64
3:P:111:THR:CG2	3:P:112:ALA:H	2.07	0.64
1:N:82:LEU:HD21	1:N:173:VAL:HG22	1.78	0.64
1:B:151:GLY:O	1:B:177:TYR:HB2	1.97	0.64
2:O:653:MET:HG2	2:O:654:ASP:O	1.97	0.64
2:I:1281:TYR:HE1	3:J:489:ASN:HD21	1.45	0.64
2:C:230:PHE:CE1	2:C:292:ILE:HD11	2.32	0.64
2:O:1119:MET:SD	2:O:1210:ILE:HD11	2.37	0.64
3:D:501:VAL:HG12	3:D:502:PRO:N	2.11	0.64
2:I:1291:LEU:HA	3:J:345:LYS:HD2	1.79	0.64
1:B:57:THR:CG2	1:B:158:ARG:HH12	2.11	0.64
2:C:1086:PRO:HB2	2:C:1212:LEU:CD1	2.27	0.64
2:I:1307:ASN:HB3	2:I:1312:ASN:HB3	1.79	0.64
2:I:275:ARG:HH22	2:I:279:LYS:HD3	1.61	0.64
2:I:15:PHE:O	2:I:17:LYS:HE3	1.96	0.64
5:R:401:PHE:O	5:R:405:ILE:HG13	1.97	0.64
1:N:190:ALA:HB2	1:N:200:LYS:HG3	1.80	0.64
2:C:983:GLY:HA3	2:C:1002:LEU:HD11	1.78	0.64
3:D:421:VAL:HB	3:D:439:PRO:HG3	1.80	0.64
3:P:352:ARG:O	3:P:353:SER:HB2	1.96	0.64
3:D:647:PRO:HG3	3:D:697:MET:HB2	1.78	0.64
2:O:957:LYS:HG2	2:O:1029:LEU:HD11	1.79	0.64
2:O:1243:MET:HG3	3:P:372:MET:HE1	1.79	0.64
1:M:67:GLU:O	1:M:78:ILE:HB	1.97	0.64
3:P:1344:LEU:HA	3:P:1349:GLU:OE1	1.97	0.64
3:D:1169:THR:HG22	3:D:1170:LYS:HG3	1.78	0.64
1:G:224:LEU:CG	1:H:228:LEU:HD11	2.27	0.64
3:J:744:ARG:HD2	3:J:763:PHE:CE2	2.32	0.64
3:J:1101:LEU:CD2	3:J:1122:ALA:HB3	2.22	0.64
3:D:398:LYS:HD3	5:F:532:LEU:CG	2.27	0.64
2:C:1258:PRO:O	3:D:346:ARG:HD2	1.97	0.64
2:C:432:LEU:HG	2:C:433:ILE:N	2.05	0.64
5:F:423:ARG:HG3	6:1:37:DA:N1	2.11	0.64
3:D:173:GLY:O	3:D:175:GLU:N	2.29	0.64
2:O:83:GLN:O	2:O:87:ILE:HG13	1.97	0.64
2:I:969:ALA:O	2:I:973:SER:HB2	1.97	0.64
1:G:47:LEU:CD1	1:G:183:ILE:HD11	2.28	0.64
3:P:1101:LEU:CD2	3:P:1122:ALA:CB	2.69	0.64
5:L:395:THR:HA	5:L:404:LEU:CD1	2.28	0.64
1:G:224:LEU:HD12	1:G:224:LEU:O	1.97	0.64
1:H:78:ILE:HA	1:H:81:ILE:HD12	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:428:THR:O	3:J:428:THR:HG22	1.96	0.64
2:O:658:GLN:NE2	2:O:1186:VAL:HG23	2.11	0.64
5:R:167:ASP:N	5:R:168:PRO:HD3	2.12	0.64
1:B:224:LEU:C	1:B:224:LEU:HD13	2.17	0.64
2:O:708:VAL:HG11	2:O:794:LEU:CD2	2.26	0.64
2:C:808:ASN:ND2	3:D:633:ALA:CB	2.60	0.64
1:H:129:VAL:HG11	1:H:132:HIS:CE1	2.31	0.64
2:O:298:ALA:O	2:O:313:ALA:HB1	1.96	0.64
3:J:1040:MET:HG2	3:J:1046:ILE:CG2	2.27	0.64
5:F:598:LEU:O	5:F:604:SER:OG	2.15	0.64
3:D:182:ALA:HA	3:D:185:ILE:HG13	1.78	0.64
1:M:69:SER:O	1:M:78:ILE:HD11	1.97	0.64
1:G:223:ILE:O	1:G:227:GLN:HG2	1.97	0.64
3:J:502:PRO:HB2	3:J:601:ILE:HD13	1.80	0.64
1:N:115:ILE:HD11	1:N:144:ILE:HD12	1.78	0.64
3:P:620:PHE:CE2	3:P:624:ILE:HD11	2.33	0.64
2:O:1124:ILE:HD12	2:O:1198:LEU:HD11	1.77	0.64
2:O:700:VAL:CG1	2:O:1117:LEU:HD23	2.28	0.64
2:I:593:LYS:HE2	2:I:595:THR:OG1	1.98	0.64
5:F:481:GLU:O	5:F:485:GLU:HG3	1.98	0.64
3:J:1246:VAL:HG12	3:J:1246:VAL:O	1.98	0.64
2:C:449:GLY:O	2:C:586:PHE:HE1	1.79	0.64
2:I:1290:MET:SD	2:I:1294:LYS:HD2	2.37	0.64
2:O:496:LYS:HE2	7:8:24:DT:C5'	2.27	0.64
3:J:645:VAL:HG22	3:J:701:LEU:CD1	2.26	0.64
2:I:1280:ALA:HB3	3:J:431:ARG:HB3	1.80	0.64
3:D:1179:PRO:O	3:D:1182:GLY:O	2.16	0.64
3:P:759:ILE:O	3:P:759:ILE:HG22	1.94	0.64
1:A:179:PRO:CA	1:A:208:ASN:HD21	2.10	0.64
2:C:550:VAL:HG22	3:D:780:ARG:HD2	1.78	0.64
3:P:966:VAL:HG11	3:P:1030:GLU:HA	1.79	0.64
5:F:502:LYS:HD2	5:F:503:GLU:N	2.13	0.64
3:D:262:THR:C	5:F:507:MET:HB3	2.18	0.64
2:I:886:LYS:N	2:I:917:SER:OG	2.21	0.64
2:O:661:VAL:CG1	2:O:665:ALA:CB	2.75	0.64
3:D:114:ILE:HG22	3:D:307:LEU:HD12	1.79	0.64
3:D:1230:THR:HG23	3:D:1257:VAL:HG11	1.80	0.64
3:P:517:CYS:SG	3:P:518:VAL:N	2.71	0.64
2:C:1292:THR:HG23	2:C:1293:VAL:N	2.12	0.64
3:J:337:ARG:HD3	3:J:341:ASN:HD22	1.62	0.64
2:I:17:LYS:HG2	2:I:1154:ASP:O	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:35:PHE:O	2:I:39:ILE:HG13	1.97	0.64
3:P:141:PHE:HA	3:P:180:MET:HG2	1.80	0.64
3:D:71:LEU:HB2	3:D:90:VAL:HG21	1.80	0.64
3:J:644:MET:CE	3:J:764:ARG:HB2	2.27	0.64
2:O:1127:LYS:O	2:O:1131:MET:HG3	1.98	0.64
3:D:102:MET:CE	3:D:246:PRO:HD3	2.28	0.64
2:I:1323:PHE:O	2:I:1327:LEU:HG	1.97	0.64
3:J:131:PRO:O	3:J:135:ILE:CG1	2.45	0.64
3:J:246:PRO:O	3:J:250:ARG:HG2	1.98	0.64
3:D:412:LEU:CD1	3:D:416:ILE:HD11	2.27	0.64
5:L:452:ILE:HG21	5:L:457:ILE:CD1	2.16	0.64
3:J:625:MET:HG2	3:J:629:PHE:HE2	1.63	0.64
5:F:135:ALA:HB2	5:F:256:PHE:HB3	1.79	0.64
1:B:198:LEU:HD13	1:B:198:LEU:N	2.13	0.64
3:J:824:PRO:HD3	3:J:878:ASP:O	1.98	0.64
3:J:1011:VAL:HG11	3:J:1017:VAL:HG11	1.79	0.64
3:J:97:VAL:CG1	3:J:101:ARG:HG3	2.28	0.64
2:O:634:VAL:HG12	2:O:635:THR:N	2.13	0.64
3:P:1357:ILE:N	3:P:1357:ILE:HD12	2.13	0.64
2:O:805:MET:HE2	2:O:806:PRO:HD2	1.79	0.64
3:D:364:HIS:HB3	3:D:487:THR:CG2	2.28	0.64
3:J:355:ILE:O	3:J:355:ILE:HG13	1.97	0.64
1:N:44:ARG:HG3	1:N:183:ILE:HG23	1.79	0.64
3:J:97:VAL:HG12	3:J:101:ARG:HG3	1.80	0.64
3:J:965:SER:OG	3:J:966:VAL:N	2.31	0.64
5:L:235:ILE:HG23	5:L:240:ARG:HA	1.79	0.64
5:L:457:ILE:O	5:L:461:ASN:OD1	2.15	0.63
2:I:335:THR:HG22	2:I:336:LEU:N	2.13	0.63
5:F:457:ILE:HA	5:F:460:ILE:HD12	1.80	0.63
1:G:31:LEU:CD1	1:G:201:LEU:HB3	2.28	0.63
1:M:231:PHE:CE1	1:N:28:LEU:HG	2.32	0.63
2:I:528:ARG:HD2	2:I:663:VAL:CG2	2.28	0.63
2:I:662:SER:OG	2:I:663:VAL:N	2.28	0.63
3:J:746:LEU:HG	3:J:758:PRO:CB	2.18	0.63
1:G:227:GLN:HG3	1:H:35:PHE:CE1	2.34	0.63
2:O:1295:SER:OG	3:P:346:ARG:O	2.16	0.63
2:C:408:SER:O	2:C:431:LYS:NZ	2.23	0.63
5:L:306:PHE:O	5:L:310:GLU:HG3	1.98	0.63
1:B:190:ALA:HB2	1:B:200:LYS:N	2.12	0.63
2:O:164:THR:HG21	2:O:171:LEU:CD1	2.24	0.63
3:J:1272:SER:HB3	3:J:1274:PHE:HE2	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1230:THR:HG23	3:P:1257:VAL:HG11	1.81	0.63
3:D:121:PRO:O	3:D:122:SER:CB	2.45	0.63
3:P:709:ARG:O	3:P:710:ASP:CB	2.45	0.63
3:P:782:GLY:O	3:P:935:PHE:HB3	1.98	0.63
3:J:418:GLU:OE2	4:K:3:ARG:HG3	1.97	0.63
1:B:57:THR:HG23	1:B:158:ARG:NH1	2.13	0.63
1:B:43:LEU:C	1:B:47:LEU:HD12	2.18	0.63
7:8:24:DT:OP1	7:8:24:DT:H4'	1.97	0.63
3:P:42:GLU:CD	5:R:451:ARG:HG2	2.18	0.63
1:M:134:THR:HG21	2:O:727:VAL:O	1.98	0.63
5:L:410:ILE:O	5:L:413:MET:HB2	1.98	0.63
2:C:1030:GLU:OE1	2:C:1030:GLU:CA	2.46	0.63
3:J:839:VAL:CG1	3:J:864:LEU:CD1	2.76	0.63
2:O:726:TYR:CB	2:O:733:VAL:HG22	2.28	0.63
6:1:44:DG:H4'	6:1:44:DG:OP1	1.99	0.63
3:P:76:LYS:O	3:P:77:ARG:HB2	1.98	0.63
2:I:821:ARG:O	2:I:825:GLU:CD	2.37	0.63
3:D:1160:SER:HB2	3:D:1204:VAL:O	1.98	0.63
3:J:720:ASN:O	3:J:724:MET:HG3	1.98	0.63
1:M:210:THR:HG22	1:M:211:ILE:HD13	1.80	0.63
2:I:936:ARG:HH21	2:I:1047:LEU:HD23	1.63	0.63
2:C:1280:ALA:HB1	3:D:431:ARG:HD2	1.81	0.63
3:P:138:VAL:HG12	3:P:139:LEU:N	2.12	0.63
2:C:389:PHE:CB	2:C:420:LEU:HD12	2.25	0.63
2:O:164:THR:O	2:O:165:HIS:HB2	1.98	0.63
2:C:164:THR:O	2:C:165:HIS:CB	2.47	0.63
1:A:67:GLU:O	1:A:78:ILE:HB	1.98	0.63
3:D:1286:LYS:HA	3:D:1289:ASN:ND2	2.13	0.63
3:D:450:HIS:HD2	3:D:452:LEU:HB2	1.60	0.63
3:D:364:HIS:CD2	4:E:4:VAL:HG13	2.33	0.63
2:I:724:VAL:CG1	2:I:727:VAL:HG22	2.28	0.63
2:O:564:PRO:HG2	2:O:572:ILE:HD12	1.79	0.63
5:R:441:ARG:O	5:R:445:ASP:HB2	1.98	0.63
1:M:46:ILE:HD12	1:M:46:ILE:N	2.14	0.63
5:R:452:ILE:HB	5:R:457:ILE:HD11	1.81	0.63
1:M:232:VAL:HG21	1:N:221:ALA:CB	2.27	0.63
2:O:188:PHE:CE2	2:O:436:ARG:HB2	2.34	0.63
2:O:292:ILE:CG2	2:O:322:LEU:HD11	2.27	0.63
3:D:428:THR:O	3:D:428:THR:HG22	1.97	0.63
3:D:918:ILE:CG2	3:D:919:ALA:N	2.62	0.63
2:C:1142:ARG:HG3	2:C:1161:LEU:HD23	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:519:ASN:OD1	2:O:522:SER:N	2.31	0.63
2:I:1252:SER:HA	2:I:1259:LEU:HD21	1.80	0.63
2:O:741:MET:SD	2:O:747:GLY:HA3	2.39	0.63
1:A:56:VAL:HG21	1:A:85:LEU:HB3	1.79	0.63
3:P:734:ALA:HA	3:P:737:ILE:HD12	1.81	0.63
2:I:131:THR:HG23	2:I:135:THR:O	1.99	0.63
1:A:131:CYS:SG	1:A:132:HIS:N	2.71	0.63
2:O:729:ALA:O	2:O:755:LYS:HE3	1.99	0.63
3:J:1231:ARG:O	3:J:1234:VAL:HB	1.97	0.63
1:B:190:ALA:CB	1:B:199:ASP:CA	2.76	0.63
3:P:849:LEU:CD2	3:P:857:LEU:HA	2.29	0.63
7:5:18:DT:H2'	7:5:19:DA:C5'	2.27	0.63
2:C:414:ILE:HG13	2:C:415:GLU:H	1.61	0.63
5:L:137:TYR:HE2	5:L:139:GLU:HB2	1.64	0.63
1:H:59:VAL:HG22	1:H:144:ILE:HG23	1.80	0.63
2:I:642:SER:O	2:I:643:SER:HB3	1.97	0.63
2:O:214:ASN:CG	2:O:214:ASN:O	2.35	0.63
2:I:680:LEU:O	2:I:684:ASN:ND2	2.31	0.63
2:I:1199:LEU:HD23	2:I:1204:LEU:HD13	1.80	0.63
3:D:416:ILE:CD1	3:D:441:LEU:HD11	2.28	0.63
5:R:460:ILE:HA	5:R:463:LEU:CD1	2.29	0.63
2:I:708:VAL:CG1	2:I:794:LEU:HD22	2.23	0.63
2:C:1117:LEU:CD2	2:C:1182:ILE:CD1	2.77	0.63
3:D:1134:ILE:HG22	3:D:1134:ILE:O	1.98	0.63
2:I:870:ILE:HG13	2:I:944:ARG:HG2	1.81	0.63
3:J:964:LYS:HD2	3:J:977:SER:HB2	1.81	0.63
3:J:275:ARG:HD3	3:J:298:MET:HB3	1.80	0.63
5:F:231:THR:HG21	5:F:252:LEU:HD22	1.81	0.63
2:O:297:VAL:HG22	2:O:315:MET:O	1.98	0.63
1:B:71:LYS:NZ	1:B:140:ILE:HG13	2.13	0.63
3:D:135:ILE:O	3:D:139:LEU:CG	2.32	0.63
5:F:97:PRO:CA	5:F:100:MET:HG3	2.19	0.63
5:F:511:ILE:CD1	5:F:519:LEU:HA	2.28	0.63
1:B:217:ILE:CG2	1:B:218:ARG:N	2.61	0.63
3:P:146:VAL:HG11	3:P:154:LEU:HD22	1.80	0.63
3:D:342:LEU:HD22	3:D:1352:ILE:HG23	1.80	0.63
3:J:294:ASN:HD22	5:L:406:GLN:NE2	1.97	0.63
2:C:550:VAL:O	3:D:777:HIS:CE1	2.52	0.63
3:P:726:ALA:HB2	3:P:737:ILE:HD11	1.81	0.63
3:D:79:LYS:HG3	5:F:569:THR:HG22	1.81	0.63
3:D:309:ASN:OD1	3:D:315:ALA:HB1	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:612:GLY:O	2:C:639:LYS:HA	1.98	0.63
2:I:104:ILE:O	2:I:115:LYS:HB3	1.99	0.63
2:O:505:PHE:O	2:O:509:SER:HB3	1.99	0.63
5:L:377:LYS:O	5:L:381:GLU:HG3	1.99	0.63
3:P:385:LEU:CD2	3:P:411:ILE:CD1	2.74	0.63
3:J:1285:VAL:HG13	3:J:1286:LYS:N	2.14	0.63
3:D:130:MET:CG	3:D:134:ASP:OD2	2.45	0.63
3:P:1101:LEU:HD13	3:P:1107:VAL:HG22	1.81	0.63
5:R:453:PRO:HG2	5:R:456:MET:HE3	1.79	0.63
1:A:45:ARG:HH12	2:C:1216:ARG:CA	2.02	0.63
2:O:163:LYS:HD3	2:O:164:THR:HB	1.81	0.63
3:D:930:LEU:HB2	3:D:1134:ILE:HG13	1.81	0.63
2:O:313:ALA:O	2:O:314:ASN:HB3	1.98	0.63
3:P:288:PRO:HG2	5:R:380:VAL:HG11	1.81	0.63
3:P:337:ARG:HD3	3:P:341:ASN:HD22	1.62	0.63
3:P:1169:THR:O	3:P:1170:LYS:HB2	1.97	0.63
5:F:450:ILE:HG13	5:F:450:ILE:O	1.98	0.63
3:D:1308:GLY:O	3:D:1311:LYS:HE3	1.98	0.63
2:C:448:LEU:CD1	2:C:557:ARG:HD2	2.29	0.62
3:D:614:LEU:O	3:D:618:VAL:HG23	1.99	0.62
2:I:1284:ALA:HA	3:J:1357:ILE:CD1	2.29	0.62
2:C:936:ARG:HG2	2:C:937:ASP:N	2.14	0.62
2:I:1334:GLY:O	3:J:25:ALA:HB3	1.99	0.62
3:J:29:MET:O	3:J:32:SER:HB3	1.98	0.62
2:O:1322:SER:O	2:O:1325:VAL:HB	1.98	0.62
2:O:934:PHE:HE2	2:O:1051:LYS:HD2	1.65	0.62
1:M:67:GLU:OE1	1:M:79:LEU:HD21	1.99	0.62
2:I:1276:TRP:HE1	3:J:1348:LYS:NZ	1.95	0.62
2:O:369:MET:HE2	2:O:369:MET:C	2.20	0.62
1:B:71:LYS:HZ3	1:B:140:ILE:HA	1.64	0.62
3:J:1029:THR:HG22	3:J:1099:TYR:CE1	2.34	0.62
2:I:496:LYS:HB3	2:I:497:PRO:HD3	1.82	0.62
1:M:234:LEU:HB3	1:N:13:LEU:HD23	1.79	0.62
5:F:97:PRO:HA	5:F:100:MET:CG	2.19	0.62
3:D:759:ILE:HD13	3:D:767:LEU:CD1	2.29	0.62
5:L:84:LEU:HD23	5:L:103:ARG:HG2	1.80	0.62
3:P:421:VAL:CG2	3:P:439:PRO:HG2	2.28	0.62
6:4:12:DC:H2"	6:4:13:DT:OP2	1.99	0.62
7:5:51:DG:C2'	7:5:52:DT:H71	2.29	0.62
2:O:1064:ASP:OD1	2:O:1238:LEU:CD2	2.47	0.62
3:P:838:ARG:NH2	3:P:1234:VAL:HG11	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:167:ASP:N	5:L:168:PRO:HD3	2.14	0.62
5:R:576:VAL:O	5:R:580:PHE:HB2	1.99	0.62
2:I:807:TRP:CD1	2:I:817:LEU:HD11	2.34	0.62
3:D:575:GLY:O	3:D:579:LEU:HG	2.00	0.62
1:G:162:GLU:HG2	1:G:162:GLU:O	1.98	0.62
3:J:923:ILE:O	3:J:926:PRO:HD2	1.99	0.62
2:C:1060:ILE:HD11	2:C:1076:ILE:HD11	1.81	0.62
2:C:13:LYS:O	2:C:1183:ALA:N	2.31	0.62
2:I:1312:ASN:ND2	2:I:1314:GLN:HB2	2.13	0.62
5:F:457:ILE:O	5:F:461:ASN:OD1	2.15	0.62
2:I:695:ALA:HB1	2:I:795:ALA:HB3	1.80	0.62
2:I:709:ALA:O	2:I:712:SER:OG	2.16	0.62
3:J:543:SER:O	3:J:574:VAL:HG21	1.99	0.62
1:M:112:ALA:HB3	1:M:126:PRO:HA	1.81	0.62
2:O:109:ALA:HB1	2:O:110:PRO:HD2	1.81	0.62
2:C:846:GLY:O	2:C:889:PRO:HG2	1.98	0.62
2:I:1292:THR:HG23	2:I:1293:VAL:HG22	1.81	0.62
2:O:192:ASP:HB3	2:O:346:TYR:HD1	1.64	0.62
5:L:476:ARG:CG	5:L:477:GLU:H	2.13	0.62
2:C:808:ASN:HD21	3:D:633:ALA:CB	2.13	0.62
3:J:262:THR:C	5:L:507:MET:HB3	2.19	0.62
3:P:146:VAL:CG1	3:P:155:GLU:O	2.47	0.62
3:P:1253:ILE:O	3:P:1257:VAL:HG23	1.99	0.62
3:J:114:ILE:CD1	3:J:308:ASP:HB3	2.28	0.62
2:O:435:ILE:HG12	2:O:440:GLY:HA3	1.79	0.62
3:P:1045:THR:HG22	3:P:1067:ARG:HD3	1.81	0.62
3:J:57:PHE:HB3	3:J:98:ARG:HH22	1.63	0.62
2:O:698:PRO:HA	2:O:1231:TYR:CE1	2.35	0.62
2:C:502:VAL:O	2:C:506:PHE:HD2	1.83	0.62
1:M:45:ARG:CD	1:N:38:THR:OG1	2.48	0.62
3:D:922:SER:O	3:D:926:PRO:HD3	2.00	0.62
3:P:322:ARG:HE	5:R:510:PRO:HD3	1.65	0.62
1:M:145:LYS:CD	1:M:147:GLN:HE21	2.12	0.62
3:J:521:LYS:HB2	3:J:543:SER:CB	2.29	0.62
3:P:56:LEU:HD23	3:P:56:LEU:N	2.15	0.62
3:P:233:LYS:HB2	3:P:236:TRP:CZ2	2.34	0.62
3:P:575:GLY:HA2	3:P:578:ILE:CD1	2.30	0.62
3:J:1257:VAL:HA	3:J:1260:MET:HE2	1.81	0.62
2:O:120:GLN:HG2	2:O:489:PRO:CG	2.30	0.62
5:R:262:VAL:CG1	5:R:263:PRO:HD2	2.30	0.62
2:C:1294:LYS:HD3	3:D:347:VAL:CG1	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1280:VAL:HG12	3:J:1281:GLU:N	2.13	0.62
2:C:563:THR:HG22	2:C:680:LEU:HD11	1.81	0.62
2:I:163:LYS:HD3	2:I:164:THR:HG22	1.80	0.62
2:C:952:GLN:O	2:C:955:GLN:HB2	1.99	0.62
2:I:539:THR:HG22	2:I:540:ARG:N	2.14	0.62
7:2:29:DC:H2"	7:2:30:DA:C8	2.34	0.62
5:F:471:LEU:HG	5:F:476:ARG:O	2.00	0.62
2:I:1342:GLU:HA	3:J:18:ASP:HB2	1.81	0.62
2:I:1077:SER:HA	3:J:356:THR:HG23	1.80	0.62
2:C:972:PHE:HE2	2:C:994:ARG:O	1.83	0.62
3:J:615:LYS:CB	3:J:616:PRO:HD3	2.29	0.62
2:C:732:ILE:HG21	2:C:783:LEU:HD13	1.81	0.62
2:C:451:ARG:CZ	2:C:547:VAL:HG11	2.29	0.62
5:R:451:ARG:NH1	5:R:453:PRO:HA	2.15	0.62
2:I:686:GLN:NE2	2:I:1069:ARG:CG	2.62	0.62
2:O:1292:THR:HG23	2:O:1293:VAL:HG22	1.81	0.62
2:O:228:VAL:CG2	2:O:245:ARG:HH12	2.10	0.62
2:C:698:PRO:CA	2:C:1231:TYR:CE1	2.81	0.62
2:I:1304:MET:O	2:I:1308:ILE:HG13	2.00	0.62
3:D:835:LEU:HD21	3:D:880:VAL:HG23	1.81	0.62
6:4:48:DA:H2'	6:4:49:DG:O4'	1.98	0.62
3:J:930:LEU:HB3	3:J:1134:ILE:HD11	1.80	0.62
2:C:1199:LEU:HD13	2:C:1205:PRO:O	2.00	0.62
2:C:720:ARG:HD3	2:C:740:GLU:HB3	1.80	0.62
5:F:540:LEU:O	5:F:544:THR:HG23	1.99	0.62
1:M:26:VAL:HG11	1:M:217:ILE:CD1	2.30	0.62
2:O:857:VAL:HG21	2:O:882:ILE:HD11	1.81	0.62
2:O:1105:SER:HA	3:P:736:GLN:NE2	2.11	0.62
8:6:13:GTP:H2'	8:6:14:A:H8	1.65	0.62
3:J:370:LYS:HA	3:J:441:LEU:CD2	2.30	0.62
3:D:805:GLN:O	3:D:1347:LEU:HD11	2.00	0.62
5:L:455:HIS:O	5:L:458:GLU:HB2	2.00	0.62
5:R:385:ARG:O	5:R:388:ILE:HG23	2.00	0.62
3:D:76:LYS:HG3	3:D:77:ARG:N	2.14	0.62
2:C:128:PRO:HB2	2:C:506:PHE:CE1	2.34	0.62
2:C:753:LEU:HD11	2:C:784:ALA:HB2	1.81	0.62
2:C:228:VAL:HG11	2:C:239:MET:CE	2.30	0.62
3:D:502:PRO:HB3	3:D:506:VAL:HG11	1.82	0.62
1:M:208:ASN:HD22	1:M:208:ASN:H	1.48	0.62
2:O:366:ILE:O	2:O:369:MET:HG3	2.00	0.62
3:J:519:ASN:CA	3:J:523:GLU:HB2	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:796:LEU:HG	3:D:797:THR:N	2.15	0.62
3:P:849:LEU:HD22	3:P:857:LEU:HD23	1.81	0.62
3:J:307:LEU:HA	3:J:327:LEU:HD12	1.82	0.62
2:C:335:THR:CG2	2:C:336:LEU:N	2.63	0.62
3:D:1346:GLY:N	3:D:1349:GLU:OE1	2.33	0.62
2:O:1239:VAL:HG23	3:P:354:VAL:HG23	1.82	0.62
1:A:226:GLU:O	1:A:229:GLU:HB2	2.00	0.62
2:C:144:VAL:HG23	2:C:515:MET:HB2	1.82	0.62
1:M:179:PRO:CA	1:M:208:ASN:HD21	2.12	0.61
3:P:1360:GLY:HA3	4:Q:17:PHE:CZ	2.35	0.61
3:P:1349:GLU:O	3:P:1353:VAL:HG13	2.00	0.61
1:A:51:MET:CE	1:A:52:PRO:HD2	2.30	0.61
3:D:664:ILE:HG12	3:D:681:LYS:HZ3	1.63	0.61
3:D:744:ARG:HB3	3:D:759:ILE:CG2	2.29	0.61
2:O:1291:LEU:HA	3:P:345:LYS:HD2	1.82	0.61
1:H:30:PRO:HG3	1:H:192:VAL:HG21	1.81	0.61
3:P:1103:GLY:O	3:P:1104:LYS:HB2	1.99	0.61
3:P:44:ILE:HD12	3:P:49:PHE:HA	1.82	0.61
3:D:263:SER:OG	3:D:265:LEU:HG	2.00	0.61
3:J:592:VAL:HG22	3:J:592:VAL:O	2.00	0.61
2:C:1333:LEU:HB2	2:C:1335:ILE:HD12	1.80	0.61
5:R:269:LEU:O	5:R:273:MET:HE2	2.00	0.61
1:A:11:PRO:HG2	1:B:231:PHE:CZ	2.34	0.61
2:I:870:ILE:HG21	2:I:944:ARG:HG2	1.82	0.61
2:O:197:ARG:CB	2:O:200:ARG:HA	2.31	0.61
3:P:395:LYS:HE2	3:P:399:LYS:CE	2.30	0.61
2:I:275:ARG:CG	2:I:275:ARG:HH11	2.13	0.61
2:I:189:ASP:OD1	2:I:190:PRO:HD2	2.00	0.61
3:P:1330:ARG:O	3:P:1334:GLU:HG3	2.00	0.61
3:D:833:GLU:HB2	3:D:1242:ARG:CZ	2.29	0.61
3:J:1355:ARG:CZ	3:J:1369:ARG:HH12	2.14	0.61
3:D:128:LEU:HD22	3:D:157:GLN:NE2	2.15	0.61
2:I:1289:GLU:OE2	3:J:473:THR:HG23	2.00	0.61
3:P:233:LYS:CB	3:P:236:TRP:CE2	2.82	0.61
2:O:397:LEU:O	2:O:398:SER:HB3	1.99	0.61
3:P:793:SER:O	3:P:796:LEU:HB3	1.99	0.61
2:O:1258:PRO:HG2	3:P:346:ARG:HB3	1.80	0.61
2:C:681:MET:O	2:C:685:MET:HG2	1.99	0.61
2:O:577:VAL:HG23	2:O:661:VAL:O	2.00	0.61
2:C:1290:MET:SD	2:C:1294:LYS:HD2	2.40	0.61
3:J:111:THR:CG2	3:J:300:GLN:HG3	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:86:LYS:HE2	1:G:174:ASP:HB2	1.81	0.61
3:D:1348:LYS:O	3:D:1351:VAL:HB	1.99	0.61
6:1:11:DA:N1	7:2:52:DT:O2	2.33	0.61
5:R:509:THR:HG21	7:8:22:DA:N6	2.16	0.61
2:I:1148:ALA:O	2:I:1151:LEU:HB2	2.01	0.61
2:I:661:VAL:HG11	2:I:665:ALA:HB1	1.80	0.61
3:P:421:VAL:HG23	3:P:439:PRO:CG	2.30	0.61
3:P:1226:VAL:O	3:P:1229:VAL:HG13	2.00	0.61
2:I:937:ASP:CB	2:I:1039:GLY:HA3	2.29	0.61
3:J:930:LEU:CB	3:J:1134:ILE:HD11	2.31	0.61
2:I:142:GLU:HG2	2:I:515:MET:HE2	1.81	0.61
3:J:512:TYR:CE1	3:J:545:HIS:CE1	2.88	0.61
3:J:435:GLN:HB3	3:J:437:PHE:HE1	1.66	0.61
2:I:550:VAL:O	3:J:777:HIS:CE1	2.54	0.61
3:P:1031:VAL:HG23	3:P:1080:ILE:HG21	1.83	0.61
3:P:135:ILE:O	3:P:138:VAL:HB	2.00	0.61
2:C:1061:GLN:HB2	2:C:1062:PRO:CD	2.21	0.61
3:P:483:LEU:CD2	4:Q:16:ARG:HB3	2.29	0.61
2:I:805:MET:CE	2:I:806:PRO:HD2	2.27	0.61
2:I:298:ALA:HB2	2:I:336:LEU:HD21	1.82	0.61
2:C:213:LEU:O	2:C:214:ASN:HB3	2.01	0.61
2:I:255:ILE:HD13	2:I:285:ILE:CD1	2.30	0.61
2:C:667:LEU:HD22	2:C:705:GLU:CD	2.21	0.61
2:O:153:PRO:HA	2:O:177:ILE:CG2	2.30	0.61
3:D:146:VAL:HG23	3:D:158:GLN:O	2.01	0.61
5:F:490:PRO:HG2	5:F:493:LYS:HB2	1.80	0.61
3:P:968:ASN:HB3	3:P:1117:SER:O	2.01	0.61
2:I:429:MET:O	2:I:433:ILE:HG13	2.01	0.61
5:L:555:GLU:OE2	5:L:590:ILE:HG23	2.01	0.61
5:F:392:LYS:O	5:F:395:THR:OG1	2.17	0.61
3:J:474:LEU:HD12	4:K:28:ARG:HD3	1.81	0.61
3:P:1230:THR:HA	3:P:1233:ILE:HD12	1.83	0.61
2:O:1272:GLU:HB3	2:O:1276:TRP:CZ2	2.35	0.61
3:D:424:ASN:N	3:D:466:MET:HE2	2.15	0.61
1:B:112:ALA:HB1	1:B:123:ILE:HG21	1.83	0.61
2:C:642:SER:O	2:C:643:SER:HB3	2.01	0.61
2:I:448:LEU:CD2	2:I:553:THR:OG1	2.41	0.61
3:D:544:LEU:CD2	3:D:578:ILE:HD11	2.31	0.61
3:P:786:THR:CG2	3:P:787:ALA:N	2.62	0.61
2:O:428:VAL:CG1	2:O:429:MET:HG3	2.27	0.61
2:I:363:LEU:O	2:I:366:ILE:HB	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:839:VAL:HG12	3:J:864:LEU:CD1	2.31	0.61
1:G:81:ILE:HA	1:G:84:ASN:HD22	1.66	0.61
2:O:985:GLU:HB3	2:O:989:LEU:HG	1.82	0.61
2:O:759:SER:HB2	2:O:765:ILE:HD11	1.81	0.61
3:J:693:VAL:HG12	3:J:694:SER:N	2.15	0.61
3:J:280:LYS:HA	3:J:283:LEU:HD12	1.83	0.61
3:P:209:ASN:HB2	3:P:214:ARG:HG3	1.80	0.61
3:J:139:LEU:HD21	3:J:185:ILE:CD1	2.31	0.61
3:D:135:ILE:HG22	3:D:139:LEU:HD11	1.82	0.61
2:O:207:THR:OG1	2:O:351:LEU:CD2	2.45	0.61
3:D:646:ILE:HG13	3:D:764:ARG:CD	2.30	0.61
1:H:31:LEU:HD13	1:H:39:LEU:HD12	1.78	0.61
3:J:644:MET:HE1	3:J:764:ARG:HB2	1.83	0.61
3:P:26:SER:HB2	3:P:29:MET:SD	2.39	0.61
3:J:432:LEU:HD11	3:J:499:ILE:HD13	1.81	0.61
2:O:373:GLY:HA2	5:R:91:ILE:HG12	1.82	0.61
2:O:634:VAL:HG12	2:O:635:THR:H	1.66	0.61
2:O:1166:ASP:OD1	2:O:1166:ASP:N	2.33	0.61
3:P:1079:LYS:HE3	3:P:1087:ASP:OD1	1.99	0.61
2:O:1032:LYS:O	2:O:1036:ILE:HD12	2.00	0.61
2:O:217:THR:HA	2:O:220:ILE:HD12	1.81	0.61
2:O:1225:VAL:CG1	2:O:1226:THR:N	2.64	0.61
2:O:569:ILE:HD11	3:P:780:ARG:HG2	1.81	0.61
1:H:77:ASP:O	1:H:81:ILE:HD12	2.01	0.61
5:R:166:VAL:CG1	5:R:168:PRO:HD3	2.27	0.61
5:F:530:LEU:CD1	5:F:530:LEU:H	2.13	0.61
2:C:242:VAL:HG12	2:C:244:GLU:HG2	1.83	0.61
1:M:49:SER:CB	1:N:33:ARG:HH12	2.13	0.61
2:O:807:TRP:O	2:O:809:GLY:N	2.34	0.61
5:F:466:ILE:HD12	5:F:487:MET:SD	2.41	0.61
3:D:966:VAL:HG11	3:D:1030:GLU:HA	1.81	0.61
1:A:44:ARG:CA	1:A:47:LEU:HD12	2.31	0.61
3:J:609:TYR:CD1	3:J:609:TYR:C	2.74	0.61
6:7:12:DC:H2"	6:7:13:DT:OP2	2.00	0.61
3:D:1309:ILE:HG22	3:D:1310:THR:N	2.15	0.61
2:O:120:GLN:OE1	2:O:490:GLN:HB3	2.01	0.61
1:M:38:THR:HG21	1:N:46:ILE:HD11	1.82	0.61
5:R:387:VAL:HG12	5:R:388:ILE:N	2.14	0.61
3:J:1216:ALA:O	3:J:1220:ILE:HG13	2.01	0.61
6:4:58:DG:N2	7:5:6:DG:N3	2.48	0.61
3:J:759:ILE:HG12	3:J:771:GLN:HG2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:886:VAL:HG22	3:P:1254:GLU:O	2.00	0.61
1:G:102:LEU:HD13	1:G:115:ILE:HG12	1.82	0.61
6:4:26:DT:H1'	6:4:27:DC:H5'	1.83	0.61
3:J:762:ASN:OD1	3:J:764:ARG:HB3	2.00	0.60
8:3:14:A:H5'	8:3:15:G:OP2	2.00	0.60
3:J:192:MET:CE	3:J:197:GLU:OE1	2.47	0.60
2:I:1258:PRO:HG2	3:J:346:ARG:HB3	1.81	0.60
2:C:1289:GLU:HA	2:C:1293:VAL:CG2	2.31	0.60
2:C:82:VAL:CG2	2:C:83:GLN:N	2.63	0.60
2:C:6:THR:HG22	2:C:791:LEU:CD2	2.31	0.60
3:J:512:TYR:CE1	3:J:545:HIS:HE1	2.19	0.60
2:O:1192:GLU:HA	2:O:1195:ILE:HD12	1.82	0.60
5:R:152:GLU:HG2	5:R:162:ILE:HD11	1.83	0.60
2:I:530:ILE:HD11	2:I:575:LEU:HB2	1.83	0.60
3:D:646:ILE:HG13	3:D:764:ARG:HD3	1.82	0.60
2:I:448:LEU:HG	2:I:553:THR:HB	1.83	0.60
2:I:871:VAL:HG23	2:I:883:LEU:HA	1.82	0.60
2:I:160:ASP:HB3	2:I:163:LYS:HG3	1.83	0.60
1:G:78:ILE:HA	1:G:81:ILE:HD12	1.83	0.60
3:J:620:PHE:CZ	3:J:624:ILE:HD11	2.36	0.60
2:O:1049:ILE:CG2	2:O:1050:VAL:N	2.64	0.60
2:I:194:LEU:HD12	2:I:195:PHE:N	2.16	0.60
2:C:1124:ILE:CD1	2:C:1180:MET:HB3	2.30	0.60
3:D:805:GLN:NE2	3:D:1347:LEU:H	1.97	0.60
2:O:548:ARG:HH11	3:P:788:LEU:HD11	1.65	0.60
2:C:148:GLN:NE2	2:C:533:LEU:O	2.28	0.60
3:D:370:LYS:HE2	3:D:443:GLU:CA	2.32	0.60
3:P:1063:ASP:OD2	3:P:1104:LYS:HE3	2.00	0.60
2:O:256:GLU:HA	2:O:261:VAL:HG13	1.84	0.60
5:R:407:GLU:HG2	5:R:442:SER:HB3	1.82	0.60
2:C:39:ILE:O	2:C:39:ILE:HG22	2.00	0.60
3:D:220:ARG:HA	3:D:223:LEU:HD12	1.84	0.60
2:I:1130:ALA:O	2:I:1134:GLN:HB2	2.02	0.60
5:L:563:PHE:HB2	5:L:565:ILE:HD11	1.82	0.60
5:L:102:MET:HB3	6:4:42:DG:N2	2.15	0.60
3:J:972:LYS:HD3	3:J:1002:VAL:HG21	1.84	0.60
2:I:1273:MET:HB3	3:J:428:THR:HB	1.83	0.60
1:B:223:ILE:O	1:B:227:GLN:HG2	2.01	0.60
1:G:28:LEU:CD1	1:H:231:PHE:CZ	2.84	0.60
2:O:1272:GLU:O	2:O:1275:VAL:HB	2.02	0.60
1:G:38:THR:HG22	1:H:42:ALA:HA	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1321:GLU:O	2:I:1325:VAL:HG23	2.02	0.60
5:L:495:ARG:O	5:L:498:LEU:HB2	2.01	0.60
5:L:137:TYR:CE2	5:L:139:GLU:HB2	2.36	0.60
3:D:1094:ASP:O	3:D:1096:PRO:HD3	2.02	0.60
2:I:148:GLN:HB2	2:I:511:LEU:CD1	2.32	0.60
2:O:1278:LEU:HD21	2:O:1286:THR:OG1	2.01	0.60
6:1:46:DG:C5'	6:1:46:DG:H8	2.15	0.60
2:I:700:VAL:HG13	2:I:1117:LEU:CD2	2.31	0.60
2:I:794:LEU:HG	2:I:796:LEU:HG	1.84	0.60
1:A:67:GLU:HA	1:A:78:ILE:CG2	2.30	0.60
3:J:546:ALA:O	3:J:548:VAL:HG23	2.02	0.60
2:I:562:GLU:C	2:I:563:THR:CG2	2.70	0.60
2:I:569:ILE:HD13	3:J:784:ALA:HB2	1.82	0.60
3:D:883:ARG:NE	3:D:898:CYS:SG	2.75	0.60
4:E:80:LEU:O	4:E:84:THR:HG23	2.01	0.60
5:L:595:LEU:O	5:L:599:ARG:HG3	2.00	0.60
1:A:38:THR:HG23	1:B:42:ALA:HA	1.83	0.60
3:J:975:ILE:HD13	3:J:980:THR:HG21	1.82	0.60
1:M:102:LEU:HD21	1:M:110:VAL:HG11	1.82	0.60
7:2:18:DT:H2'	7:2:19:DA:H5"	1.83	0.60
3:P:62:PHE:HB3	3:P:98:ARG:HG2	1.82	0.60
2:C:451:ARG:NH2	2:C:547:VAL:HG11	2.17	0.60
2:O:206:ALA:O	2:O:209:ILE:HG22	2.00	0.60
1:G:45:ARG:HD3	1:H:38:THR:HG23	1.83	0.60
2:I:448:LEU:HD23	2:I:448:LEU:H	1.63	0.60
5:F:137:TYR:HE1	5:F:353:LEU:HD11	1.63	0.60
6:7:50:DT:H5'	6:7:51:DC:C6	2.37	0.60
2:O:185:ASP:CG	2:O:200:ARG:HG2	2.22	0.60
2:I:13:LYS:HG2	2:I:14:ASP:N	2.17	0.60
2:I:1109:ILE:CG1	3:J:740:LEU:HD22	2.32	0.60
3:D:395:LYS:HG3	3:D:399:LYS:HE2	1.83	0.60
3:J:809:VAL:HG21	3:J:909:ILE:HD13	1.82	0.60
1:A:48:LEU:HA	1:A:180:VAL:HG21	1.81	0.60
3:P:1309:ILE:HG22	3:P:1310:THR:N	2.16	0.60
3:J:426:ALA:HB1	7:5:14:DC:H1'	1.82	0.60
2:C:912:ASP:C	2:C:913:VAL:HG23	2.22	0.60
2:C:1280:ALA:CB	3:D:431:ARG:HB3	2.32	0.60
2:I:850:ILE:HG23	2:I:885:GLY:O	2.01	0.60
2:C:505:PHE:O	2:C:509:SER:HB3	2.02	0.60
3:P:378:LYS:HG2	3:P:382:TYR:OH	2.02	0.60
3:D:749:LYS:HG2	3:D:755:ILE:HG12	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:452:ILE:CG2	5:R:456:MET:HB3	2.32	0.60
3:J:450:HIS:CD2	3:J:451:PRO:HD2	2.36	0.60
2:I:1114:GLU:OE1	2:I:1230:MET:HG3	2.02	0.60
3:J:369:PRO:HD3	3:J:447:ILE:HG23	1.84	0.60
1:A:9:LEU:CD2	1:A:198:LEU:HD11	2.32	0.60
3:J:357:VAL:HG12	3:J:359:PRO:HD3	1.82	0.60
3:J:385:LEU:HD13	3:J:397:ALA:HB1	1.82	0.60
3:D:615:LYS:N	3:D:616:PRO:CD	2.65	0.60
1:A:190:ALA:H	1:A:199:ASP:HA	1.66	0.60
2:I:113:THR:OG1	2:I:113:THR:O	2.20	0.60
1:B:226:GLU:O	1:B:229:GLU:HB2	2.02	0.60
3:D:20:ILE:HG13	3:D:1344:LEU:HD11	1.84	0.60
3:P:1101:LEU:HD22	3:P:1122:ALA:CB	2.25	0.60
2:I:854:ILE:HG21	2:I:857:VAL:HG21	1.81	0.60
1:B:190:ALA:HB2	1:B:199:ASP:CA	2.31	0.60
3:D:1146:GLU:CD	3:D:1309:ILE:HB	2.22	0.60
2:I:881:ASP:O	2:I:920:VAL:HG23	2.02	0.60
3:J:216:LYS:HZ1	3:J:220:ARG:HG3	1.65	0.60
3:D:36:GLY:HA3	3:D:61:ILE:HG12	1.83	0.60
3:J:517:CYS:HB3	3:J:545:HIS:HB2	1.83	0.60
1:A:224:LEU:O	1:A:228:LEU:HD12	2.02	0.60
3:P:332:LYS:HD2	3:P:1329:THR:HG23	1.84	0.60
3:P:99:ARG:HG3	3:P:249:LEU:HD21	1.84	0.60
7:8:4:DC:C4	7:8:5:DC:N4	2.70	0.60
2:I:213:LEU:O	2:I:214:ASN:CB	2.48	0.60
3:P:908:ILE:HD13	3:P:908:ILE:H	1.64	0.60
2:C:297:VAL:HG21	2:C:311:CYS:HB2	1.82	0.60
5:F:102:MET:HE3	6:1:42:DG:N3	2.16	0.60
3:P:322:ARG:HD3	5:R:510:PRO:HG3	1.84	0.60
2:I:183:TRP:CZ3	6:4:48:DA:N6	2.70	0.60
3:J:1040:MET:HG2	3:J:1046:ILE:HG21	1.83	0.60
3:P:697:MET:HE3	3:P:738:ARG:HA	1.84	0.60
2:C:838:CYS:SG	2:C:918:LEU:HB2	2.41	0.60
1:M:101:THR:HG22	1:M:143:ARG:HG2	1.82	0.60
2:C:316:GLU:HG3	2:C:352:ARG:NH2	2.17	0.60
3:J:705:THR:HG21	3:J:716:GLN:CG	2.32	0.60
1:H:70:THR:HG23	1:H:70:THR:O	2.02	0.60
2:I:397:LEU:O	2:I:398:SER:HB3	2.00	0.60
3:J:1163:VAL:HG13	3:J:1176:VAL:C	2.21	0.59
3:J:915:ILE:O	3:J:918:ILE:CG2	2.48	0.59
3:D:759:ILE:HD13	3:D:767:LEU:HD11	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:35:PHE:O	1:H:39:LEU:HG	2.02	0.59
1:G:224:LEU:C	1:G:224:LEU:HD12	2.22	0.59
2:C:1323:PHE:CE2	3:D:1353:VAL:HG12	2.37	0.59
2:O:530:ILE:HD11	2:O:575:LEU:HB2	1.83	0.59
2:C:1309:VAL:CG1	3:D:383:GLY:HA2	2.28	0.59
3:J:385:LEU:HD13	3:J:397:ALA:CB	2.32	0.59
6:4:47:DC:H4'	6:4:47:DC:OP1	2.02	0.59
2:I:436:ARG:HH22	3:J:1068:THR:HG22	1.67	0.59
4:E:15:ASN:OD1	4:E:16:ARG:N	2.35	0.59
5:F:407:GLU:OE2	5:F:442:SER:HB3	2.01	0.59
3:P:609:TYR:CD1	3:P:609:TYR:C	2.75	0.59
2:C:209:ILE:HG23	2:C:210:LEU:N	2.17	0.59
3:D:749:LYS:HD2	3:D:753:SER:CB	2.30	0.59
3:P:1274:PHE:O	3:P:1275:LEU:CB	2.47	0.59
3:J:527:LEU:HG	3:J:548:VAL:CG1	2.32	0.59
5:R:96:ASP:CG	5:R:98:VAL:HB	2.22	0.59
3:J:983:LYS:HZ1	3:J:985:ILE:HD11	1.67	0.59
2:O:232:ILE:HG21	2:O:326:SER:CB	2.31	0.59
6:7:49:DG:H3'	6:7:49:DG:H8	1.67	0.59
3:P:527:LEU:HB2	3:P:550:VAL:HG22	1.84	0.59
1:N:212:ASP:CG	1:N:213:PRO:HD2	2.22	0.59
5:F:92:GLY:O	5:F:93:ARG:HG3	2.02	0.59
5:F:276:MET:O	5:F:280:VAL:HG23	2.02	0.59
3:J:772:TYR:O	3:J:775:SER:OG	2.20	0.59
3:J:1253:ILE:O	3:J:1256:ILE:HG13	2.03	0.59
3:J:1145:PHE:HB2	3:J:1309:ILE:HD11	1.83	0.59
6:1:47:DC:OP1	6:1:47:DC:H4'	2.02	0.59
2:C:198:ILE:CD1	2:C:389:PHE:HE1	2.15	0.59
2:I:1073:LYS:NZ	8:6:15:G:O5'	2.35	0.59
2:I:213:LEU:O	2:I:214:ASN:HB3	2.02	0.59
2:I:697:LYS:HB3	2:I:790:ASP:OD2	2.02	0.59
3:D:714:GLU:HG2	3:D:715:LYS:N	2.17	0.59
5:L:580:PHE:O	5:L:581:ASP:HB3	2.02	0.59
3:P:269:TYR:O	3:P:273:ILE:HG13	2.01	0.59
2:O:1078:LYS:HG2	2:O:1079:ILE:N	2.16	0.59
3:J:34:SER:CB	3:J:104:HIS:HB3	2.32	0.59
3:D:698:MET:O	3:D:702:GLN:HB2	2.03	0.59
2:C:759:SER:CA	2:C:765:ILE:HD11	2.32	0.59
3:P:1027:VAL:CG2	3:P:1124:ILE:HD11	2.31	0.59
2:I:1288:GLN:NE2	3:J:1354:GLY:O	2.35	0.59
3:D:259:ARG:CZ	5:F:502:LYS:HD3	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:405:GLU:O	3:J:408:VAL:HB	2.02	0.59
3:J:398:LYS:HZ3	5:L:532:LEU:HG	1.64	0.59
1:A:208:ASN:H	1:A:208:ASN:HD22	1.48	0.59
1:N:155:ALA:H	1:N:174:ASP:CG	2.04	0.59
3:P:251:PRO:O	5:R:507:MET:CE	2.50	0.59
5:F:451:ARG:HG3	5:F:451:ARG:O	2.00	0.59
1:N:47:LEU:HD13	1:N:183:ILE:HD12	1.84	0.59
2:C:890:LYS:HG2	2:C:891:GLY:N	2.17	0.59
2:C:182:SER:OG	2:C:388:LEU:HD23	2.02	0.59
2:C:237:LEU:HD11	2:C:289:VAL:HG22	1.83	0.59
3:P:379:PRO:HA	3:P:382:TYR:CD2	2.37	0.59
2:O:39:ILE:O	2:O:39:ILE:CG2	2.49	0.59
3:J:115:TRP:CZ3	3:J:1333:THR:HG23	2.37	0.59
2:I:698:PRO:HG3	2:I:1231:TYR:CZ	2.37	0.59
2:O:675:ASP:CB	2:O:1107:MET:HE2	2.29	0.59
1:H:68:TYR:CE1	1:H:79:LEU:CD2	2.82	0.59
2:O:228:VAL:HG11	2:O:239:MET:HE3	1.83	0.59
3:D:1134:ILE:O	3:D:1138:LEU:HB2	2.03	0.59
2:O:478:ARG:NH1	2:O:492:MET:HA	2.18	0.59
2:I:176:ILE:HD12	2:I:184:LEU:CB	2.32	0.59
3:D:734:ALA:O	3:D:737:ILE:HB	2.03	0.59
1:A:158:ARG:NE	1:A:172:LEU:HD11	2.18	0.59
2:I:1281:TYR:HE1	3:J:489:ASN:ND2	1.99	0.59
2:I:810:TYR:CE2	2:I:1078:LYS:HD3	2.37	0.59
2:I:764:CYS:O	2:I:764:CYS:SG	2.61	0.59
3:P:1264:ALA:HB1	3:P:1303:SER:O	2.03	0.59
3:J:972:LYS:HD3	3:J:1002:VAL:HG11	1.83	0.59
3:D:427:PRO:HG2	3:D:429:LEU:HD23	1.83	0.59
2:C:808:ASN:N	2:C:808:ASN:ND2	2.49	0.59
3:D:797:THR:HA	3:D:800:LEU:HD12	1.83	0.59
3:D:268:LEU:HD13	3:D:306:LEU:HA	1.83	0.59
2:I:435:ILE:HG23	2:I:440:GLY:O	2.03	0.59
2:O:1061:GLN:HB2	2:O:1062:PRO:CD	2.30	0.59
2:I:75:LEU:HD21	2:I:127:ILE:CD1	2.31	0.59
2:I:160:ASP:HB3	2:I:163:LYS:HB2	1.84	0.59
2:C:201:ARG:HB3	2:C:369:MET:CE	2.33	0.59
2:I:26:TYR:CE2	2:I:28:LEU:HB2	2.38	0.59
1:G:173:VAL:HG12	1:G:174:ASP:N	2.17	0.59
5:F:380:VAL:HG22	5:F:416:VAL:HG21	1.85	0.59
5:L:100:MET:O	5:L:104:GLU:HG3	2.03	0.59
1:H:102:LEU:HD12	1:H:103:ASN:N	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:107:ILE:HG13	1:B:136:GLU:HB3	1.84	0.59
3:J:1208:ASP:O	3:J:1210:ILE:HD12	2.02	0.59
2:I:225:PHE:CE2	2:I:347:ILE:HB	2.37	0.59
3:P:772:TYR:O	3:P:775:SER:OG	2.20	0.59
2:C:448:LEU:HD13	2:C:557:ARG:HD2	1.83	0.59
5:L:457:ILE:HA	5:L:460:ILE:CD1	2.24	0.59
2:C:554:HIS:HB3	2:C:558:VAL:HG12	1.84	0.59
3:D:425:ARG:HD2	3:D:457:TYR:HB3	1.84	0.59
3:D:435:GLN:NE2	3:D:486:SER:HA	2.17	0.59
3:J:385:LEU:HD12	3:J:397:ALA:HB1	1.83	0.59
3:D:497:GLU:HB3	3:D:498:PRO:CD	2.32	0.59
2:I:1246:ARG:NH2	2:I:1249:GLY:N	2.51	0.59
2:I:1044:PRO:HB3	5:L:498:LEU:HD13	1.84	0.59
3:D:327:LEU:HA	3:D:330:MET:HG3	1.85	0.59
2:C:905:ILE:HA	5:F:595:LEU:HD23	1.83	0.59
3:J:267:ASP:O	3:J:271:ARG:HG3	2.03	0.59
1:N:95:LYS:HE3	1:N:120:ASP:OD2	2.03	0.59
3:P:1024:THR:HG21	3:P:1123:ARG:HE	1.67	0.59
3:J:796:LEU:HA	3:J:799:ARG:HE	1.67	0.59
3:J:384:LYS:HZ2	3:J:415:VAL:HG22	1.66	0.59
2:C:943:LYS:HG3	2:C:944:ARG:N	2.16	0.59
3:J:425:ARG:HD3	3:J:457:TYR:O	2.02	0.59
3:D:647:PRO:HB3	3:D:697:MET:HA	1.84	0.59
1:M:26:VAL:HG21	1:M:217:ILE:HD11	1.85	0.59
3:J:783:LEU:O	3:J:786:THR:HG22	2.03	0.59
3:P:1364:ALA:O	3:P:1367:GLN:HG3	2.03	0.59
2:C:728:ASP:HB3	2:C:731:ARG:H	1.67	0.59
3:J:130:MET:HG2	3:J:135:ILE:HG12	1.85	0.59
1:M:67:GLU:CA	1:M:78:ILE:HG21	2.32	0.59
3:J:686:TRP:CE3	3:J:758:PRO:HG3	2.38	0.59
2:I:667:LEU:CD2	2:I:705:GLU:OE2	2.51	0.59
1:H:64:VAL:HG11	1:H:78:ILE:HD13	1.85	0.59
3:D:885:VAL:HG13	3:D:894:VAL:HG11	1.84	0.59
2:C:1117:LEU:HD21	2:C:1182:ILE:HD12	1.84	0.59
3:J:848:VAL:H	3:J:858:VAL:HB	1.67	0.59
2:C:1257:GLN:CG	2:C:1296:ASP:OD1	2.49	0.59
3:J:828:GLY:CA	3:J:996:LYS:HG2	2.32	0.59
3:P:1159:ILE:HG22	3:P:1160:SER:H	1.68	0.59
3:P:1226:VAL:O	3:P:1229:VAL:HG12	2.02	0.59
3:J:1011:VAL:HG11	3:J:1017:VAL:HG12	1.83	0.59
3:J:514:THR:O	3:J:576:ARG:NH2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1:43:DT:C2'	6:1:44:DG:H5"	2.32	0.59
2:O:335:THR:CG2	2:O:336:LEU:H	2.16	0.59
2:C:936:ARG:HG2	2:C:937:ASP:H	1.67	0.59
3:J:424:ASN:O	3:J:466:MET:HE2	2.02	0.59
2:C:373:GLY:HA2	5:F:91:ILE:HA	1.83	0.59
3:P:709:ARG:O	3:P:710:ASP:HB3	2.03	0.59
2:I:1289:GLU:OE1	3:J:472:LEU:HG	2.02	0.59
2:O:1294:LYS:HD3	3:P:347:VAL:HG13	1.74	0.59
1:G:47:LEU:HD13	1:G:183:ILE:HD11	1.81	0.59
5:L:392:LYS:HE2	5:L:401:PHE:CE1	2.38	0.59
3:J:609:TYR:CA	3:J:617:THR:HG21	2.33	0.59
5:R:584:ARG:O	5:R:587:ILE:HG12	2.03	0.59
1:N:228:LEU:O	1:N:232:VAL:HG23	2.02	0.59
3:P:783:LEU:HD11	3:P:936:HIS:HB2	1.84	0.59
1:B:82:LEU:HD22	1:B:173:VAL:CG2	2.32	0.59
8:6:14:A:H3'	8:6:15:G:C8	2.37	0.59
2:I:1312:ASN:O	2:I:1313:HIS:HB2	2.03	0.59
3:P:1075:ARG:CG	3:P:1192:LYS:HD3	2.31	0.59
3:J:154:LEU:HD13	3:J:176:PHE:CE1	2.38	0.59
3:J:492:SER:HG	3:J:495:ASN:N	1.97	0.59
3:P:515:ARG:NH1	3:P:724:MET:HG2	2.18	0.59
5:R:507:MET:O	5:R:519:LEU:HB3	2.02	0.59
2:C:1171:ARG:O	2:C:1175:ASN:ND2	2.35	0.59
3:D:950:ILE:HD11	3:D:997:VAL:HG22	1.83	0.59
2:I:144:VAL:HG11	2:I:527:LYS:HA	1.85	0.59
2:O:288:PRO:HB2	2:O:290:GLU:HB3	1.84	0.59
2:O:237:LEU:CB	2:O:287:VAL:HG22	2.33	0.59
1:H:74:VAL:HG12	1:H:74:VAL:O	2.02	0.59
2:C:302:ILE:HG22	2:C:309:LEU:CD2	2.33	0.59
2:O:1243:MET:HG3	3:P:372:MET:CE	2.33	0.58
3:J:888:CYS:SG	3:J:898:CYS:SG	3.01	0.58
2:I:667:LEU:HD22	2:I:705:GLU:OE2	2.03	0.58
2:C:558:VAL:HG13	2:C:559:CYS:C	2.24	0.58
1:B:86:LYS:HE2	1:B:173:VAL:CG1	2.29	0.58
2:O:709:ALA:O	2:O:712:SER:OG	2.20	0.58
2:C:397:LEU:O	2:C:398:SER:HB3	2.03	0.58
1:A:107:ILE:HG23	1:A:134:THR:O	2.02	0.58
5:L:532:LEU:HD12	5:L:532:LEU:N	2.18	0.58
5:L:428:SER:OG	6:4:41:DT:H73	2.03	0.58
1:A:208:ASN:N	1:A:208:ASN:HD22	2.00	0.58
3:D:200:GLN:O	3:D:204:GLU:HG3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:171:LEU:HD22	2:C:188:PHE:O	2.03	0.58
3:P:589:TYR:CE2	3:P:593:ASN:ND2	2.71	0.58
3:D:502:PRO:CG	3:D:601:ILE:HG21	2.25	0.58
3:J:895:CYS:SG	3:J:898:CYS:N	2.65	0.58
3:J:1290:ARG:HA	3:J:1293:GLU:CD	2.23	0.58
3:P:1266:ILE:CD1	3:P:1278:GLU:CB	2.60	0.58
3:J:797:THR:HA	3:J:800:LEU:HD12	1.85	0.58
2:C:297:VAL:CG1	2:C:317:LEU:HD21	2.33	0.58
5:L:388:ILE:CG2	5:L:389:SER:N	2.66	0.58
2:I:1241:ASP:HA	2:I:1262:LYS:HZ1	1.68	0.58
1:B:71:LYS:HZ3	1:B:140:ILE:HG13	1.68	0.58
3:P:1024:THR:HG21	3:P:1123:ARG:CD	2.32	0.58
2:C:1268:GLN:HE22	3:D:351:GLY:CA	2.16	0.58
3:P:416:ILE:HD13	3:P:441:LEU:HG	1.85	0.58
2:C:375:PRO:HB3	5:F:87:VAL:HG21	1.84	0.58
5:F:216:LEU:O	5:F:220:LYS:HG2	2.04	0.58
4:Q:8:ASP:N	4:Q:8:ASP:OD1	2.33	0.58
5:L:119:ILE:HG23	5:L:122:ARG:HH21	1.67	0.58
5:R:449:THR:OG1	5:R:504:PRO:CG	2.33	0.58
3:P:501:VAL:CG1	3:P:502:PRO:CD	2.77	0.58
2:I:504:GLU:OE2	2:I:504:GLU:CA	2.42	0.58
2:C:431:LYS:O	2:C:434:ASP:HB2	2.03	0.58
2:O:1109:ILE:HD13	2:O:1109:ILE:N	2.17	0.58
3:P:121:PRO:O	3:P:122:SER:CB	2.51	0.58
2:O:228:VAL:HG11	2:O:239:MET:CE	2.32	0.58
1:A:136:GLU:HG3	1:A:137:ASN:N	2.18	0.58
2:C:1313:HIS:HB2	3:D:474:LEU:CD1	2.33	0.58
3:D:1356:LEU:HD12	3:D:1365:TYR:CG	2.38	0.58
2:C:217:THR:HG21	2:C:313:ALA:CB	2.33	0.58
2:O:387:ASN:O	2:O:394:ARG:HD3	2.03	0.58
2:O:426:ILE:HG22	2:O:427:ASP:OD1	2.03	0.58
3:P:275:ARG:HG2	3:P:278:ARG:HH22	1.67	0.58
5:L:332:ASP:OD1	5:L:333:VAL:N	2.36	0.58
3:D:367:GLY:HA3	3:D:448:GLN:HB2	1.85	0.58
7:2:31:DT:H2"	7:2:32:DA:OP2	2.03	0.58
2:O:1116:HIS:CD2	3:P:641:ILE:HG13	2.38	0.58
1:N:58:GLU:OE2	1:N:166:ARG:HD3	2.03	0.58
3:P:233:LYS:HE2	3:P:236:TRP:CE2	2.33	0.58
5:R:508:GLU:O	5:R:518:HIS:HB3	2.03	0.58
2:C:1116:HIS:CD2	3:D:641:ILE:HG12	2.39	0.58
2:I:519:ASN:HD22	2:I:796:LEU:CD2	2.16	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:2:ALA:N	4:E:6:VAL:HA	2.17	0.58
5:L:386:LEU:HD22	6:4:41:DT:C4	2.38	0.58
2:I:82:VAL:O	2:I:86:GLN:HG3	2.03	0.58
3:D:803:VAL:CG2	3:D:1313:SER:OG	2.50	0.58
2:I:496:LYS:HD3	5:L:468:ARG:HH21	1.68	0.58
2:C:618:GLN:O	2:C:621:SER:OG	2.22	0.58
2:O:678:ARG:CZ	2:O:1106:ARG:HB3	2.33	0.58
2:C:30:ILE:HD11	2:C:575:LEU:CD2	2.33	0.58
2:C:495:ALA:O	2:C:498:ILE:HB	2.02	0.58
5:L:365:MET:O	5:L:369:GLU:HG3	2.04	0.58
2:O:403:MET:HE3	2:O:404:LYS:HA	1.84	0.58
2:C:1235:LEU:HB3	2:C:1237:HIS:H	1.69	0.58
2:I:561:ILE:HD11	2:I:661:VAL:HG21	1.85	0.58
1:A:47:LEU:HD13	1:A:183:ILE:HD11	1.84	0.58
2:C:709:ALA:O	2:C:712:SER:OG	2.20	0.58
3:P:786:THR:HG23	3:P:787:ALA:N	2.18	0.58
7:8:51:DG:C2'	7:8:52:DT:H71	2.32	0.58
4:K:28:ARG:HG3	4:K:28:ARG:NH1	2.19	0.58
5:L:386:LEU:HD13	6:4:41:DT:O4'	2.03	0.58
5:R:96:ASP:OD2	5:R:98:VAL:HB	2.03	0.58
3:D:515:ARG:NH2	3:D:718:SER:O	2.34	0.58
3:D:24:LEU:HD12	3:D:232:ASN:HB3	1.85	0.58
2:C:402:ARG:HG2	2:C:416:GLY:CA	2.33	0.58
2:C:1273:MET:HB3	3:D:428:THR:CB	2.32	0.58
3:J:306:LEU:O	3:J:326:SER:HB2	2.02	0.58
2:I:1104:PRO:HG2	3:J:725:MET:CE	2.33	0.58
2:C:823:VAL:CG1	2:C:1059:ARG:HD3	2.34	0.58
6:1:50:DT:O5'	6:1:51:DC:C5	2.56	0.58
2:C:1232:MET:C	2:C:1233:LEU:HG	2.23	0.58
3:P:166:LEU:HD23	3:P:169:LEU:CD2	2.33	0.58
2:C:1108:ASN:N	2:C:1108:ASN:OD1	2.36	0.58
2:C:53:PHE:O	2:C:57:PHE:HB2	2.03	0.58
1:H:162:GLU:HG2	1:H:164:ASP:HB3	1.84	0.58
3:J:130:MET:CG	3:J:135:ILE:HG12	2.33	0.58
1:A:43:LEU:O	1:A:47:LEU:HG	2.03	0.58
5:R:451:ARG:NH2	6:7:32:DA:OP1	2.36	0.58
2:C:560:PRO:HB2	3:D:776:THR:HG21	1.85	0.58
5:R:166:VAL:HG12	5:R:167:ASP:H	1.66	0.58
2:C:808:ASN:N	2:C:808:ASN:HD22	2.01	0.58
3:P:1256:ILE:HG22	3:P:1260:MET:HE2	1.85	0.58
1:H:44:ARG:NH1	3:J:538:ARG:HD2	2.15	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:371:ARG:HB3	5:F:99:ARG:NH1	2.18	0.58
1:H:102:LEU:HD11	1:H:114:ASP:HB3	1.85	0.58
6:1:15:DG:H2"	6:1:16:DA:OP2	2.02	0.58
2:I:634:VAL:HG12	2:I:635:THR:N	2.18	0.58
5:R:279:ARG:HH21	5:R:347:ILE:HD13	1.68	0.58
3:J:233:LYS:HG2	3:J:235:GLU:HG3	1.85	0.58
3:D:412:LEU:HD11	3:D:416:ILE:HD11	1.84	0.58
5:R:464:ASN:CG	7:8:25:DA:H62	2.07	0.58
4:E:27:ALA:HA	4:E:30:MET:HG3	1.86	0.58
5:F:292:VAL:HG21	5:F:299:LYS:HE2	1.86	0.58
2:C:895:LEU:HD13	2:C:900:LYS:HG2	1.84	0.58
3:D:551:ARG:O	3:D:552:ILE:HD13	2.03	0.58
1:B:67:GLU:O	1:B:78:ILE:HB	2.04	0.58
2:I:1309:VAL:HG12	2:I:1310:ASP:OD1	2.04	0.58
1:A:86:LYS:HE3	1:A:173:VAL:CG1	2.33	0.58
7:5:23:DT:H71	7:5:24:DT:H72	1.84	0.58
2:C:1087:TYR:HE1	2:C:1215:GLY:HA2	1.69	0.58
3:J:644:MET:HG3	3:J:722:ILE:HD11	1.85	0.58
2:C:27:LEU:HD23	2:C:528:ARG:NH2	2.18	0.58
3:P:1229:VAL:O	3:P:1233:ILE:HG13	2.04	0.58
2:I:275:ARG:NH2	2:I:279:LYS:HD3	2.18	0.58
7:2:5:DC:H2"	7:2:6:DG:H5'	1.86	0.58
3:P:306:LEU:HG	3:P:307:LEU:N	2.14	0.58
2:C:720:ARG:HD2	2:C:736:VAL:HG21	1.85	0.58
2:I:898:GLU:HB2	5:L:544:THR:HG21	1.86	0.58
1:N:101:THR:HG22	1:N:143:ARG:HG2	1.85	0.58
5:L:171:GLU:OE1	5:L:258:GLN:NE2	2.37	0.58
1:H:85:LEU:HD21	1:H:130:ILE:HG21	1.84	0.58
3:D:587:LEU:HD21	3:D:612:LEU:HD21	1.86	0.58
3:D:739:GLN:HG2	3:D:744:ARG:HA	1.86	0.58
5:R:451:ARG:HH22	6:7:32:DA:P	2.27	0.58
2:C:700:VAL:CG1	2:C:1117:LEU:HD23	2.29	0.58
2:I:964:LEU:HD11	2:I:1021:LEU:HD22	1.84	0.58
2:O:120:GLN:CG	2:O:489:PRO:HG2	2.33	0.58
2:O:232:ILE:HD13	2:O:326:SER:HB3	1.85	0.58
3:D:536:LEU:HD22	3:D:541:LEU:HB3	1.85	0.58
2:I:151:ARG:HD2	2:I:445:ILE:CG2	2.33	0.58
3:J:127:LEU:HD11	3:J:227:PHE:HE2	1.67	0.58
3:D:826:ILE:HG12	3:D:831:VAL:HG22	1.86	0.58
3:P:275:ARG:NH2	5:R:400:GLN:OE1	2.36	0.58
3:D:30:ILE:HD13	3:D:243:PRO:HD3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1331:ARG:HD3	3:P:33:TRP:CE3	2.38	0.58
5:R:552:THR:O	5:R:555:GLU:HB2	2.04	0.58
1:B:154:PRO:HD2	1:B:157:THR:HB	1.86	0.58
2:C:1116:HIS:HE1	2:C:1226:THR:HG23	1.68	0.58
2:O:90:VAL:HG12	2:O:91:THR:N	2.19	0.58
5:L:583:THR:HB	5:L:587:ILE:HD11	1.85	0.58
1:M:56:VAL:HG13	1:M:144:ILE:CG2	2.34	0.58
2:C:251:ALA:CB	2:C:263:VAL:CG1	2.82	0.58
2:I:1269:ARG:HH12	3:J:340:GLN:HA	1.66	0.58
3:D:232:ASN:HA	3:D:236:TRP:CZ3	2.39	0.58
2:C:1105:SER:HB3	3:D:731:ARG:CG	2.33	0.58
2:O:335:THR:C	2:O:336:LEU:HD23	2.24	0.58
3:J:620:PHE:O	3:J:624:ILE:HG13	2.03	0.58
2:O:1137:GLU:HG2	2:O:1139:ALA:H	1.69	0.58
2:I:146:VAL:HG12	2:I:147:SER:O	2.04	0.57
2:I:661:VAL:HG13	2:I:665:ALA:HB3	1.79	0.57
2:O:589:THR:HG22	2:O:590:PRO:CD	2.19	0.57
2:O:812:PHE:O	2:O:1099:ASN:ND2	2.37	0.57
3:P:117:LEU:HD13	3:P:124:ILE:CD1	2.33	0.57
2:I:122:VAL:HG11	2:I:493:ILE:CD1	2.32	0.57
2:C:809:GLY:HA3	3:D:629:PHE:CE1	2.39	0.57
2:O:197:ARG:HB3	2:O:200:ARG:CA	2.34	0.57
3:P:888:CYS:SG	3:P:898:CYS:SG	3.02	0.57
2:C:851:THR:CG2	2:C:852:ALA:N	2.66	0.57
3:D:1221:LEU:HG	3:D:1222:ARG:N	2.16	0.57
2:C:49:LEU:HD13	2:C:73:TYR:CZ	2.38	0.57
3:P:661:VAL:HG12	3:P:665:GLN:HE21	1.68	0.57
3:J:899:TYR:CZ	3:J:915:ILE:CG2	2.87	0.57
1:A:47:LEU:CD1	1:A:183:ILE:HD11	2.35	0.57
5:F:502:LYS:HD2	5:F:503:GLU:H	1.69	0.57
3:J:868:TRP:O	3:J:872:LEU:HD21	2.04	0.57
6:7:13:DT:C2	6:7:14:DT:C5	2.93	0.57
3:J:823:THR:CB	3:J:824:PRO:CD	2.76	0.57
2:I:878:THR:CG2	2:I:879:GLY:H	2.17	0.57
3:D:797:THR:HG21	3:D:924:GLY:HA3	1.85	0.57
2:C:425:ILE:HG22	2:C:426:ILE:N	2.18	0.57
6:7:47:DC:H2'	6:7:48:DA:C8	2.39	0.57
3:D:471:PRO:HB2	3:D:476:ALA:CB	2.33	0.57
2:C:459:MET:HE2	2:C:459:MET:CA	2.32	0.57
2:I:15:PHE:HE2	2:I:1182:ILE:HD13	1.69	0.57
3:J:1138:LEU:CB	3:J:1139:PRO:HD3	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:52:DT:OP2	6:7:52:DT:H2'	2.04	0.57
3:P:307:LEU:HA	3:P:327:LEU:HD12	1.86	0.57
2:I:528:ARG:HD2	2:I:663:VAL:HG23	1.86	0.57
2:O:706:ARG:O	2:O:710:VAL:HG23	2.04	0.57
3:D:97:VAL:HG12	3:D:101:ARG:HG3	1.86	0.57
2:I:525:THR:HG21	2:I:687:ARG:HD2	1.86	0.57
3:J:712:GLN:C	3:J:713:GLU:HG3	2.25	0.57
5:R:345:GLN:O	5:R:348:GLU:HB2	2.04	0.57
1:H:152:TYR:HE1	1:H:176:CYS:HG	1.52	0.57
2:I:505:PHE:O	2:I:509:SER:HB3	2.03	0.57
3:P:406:ALA:HA	3:P:409:TRP:HD1	1.67	0.57
2:I:1278:LEU:HD11	2:I:1286:THR:HB	1.87	0.57
5:L:573:LEU:HD22	7:5:45:DT:C2'	2.30	0.57
3:J:1163:VAL:HG12	3:J:1164:SER:H	1.68	0.57
6:1:46:DG:C8	6:1:46:DG:C5'	2.87	0.57
2:O:529:ARG:C	2:O:530:ILE:HG13	2.25	0.57
3:P:212:THR:HG22	3:P:215:LYS:HZ1	1.65	0.57
3:J:927:GLY:O	3:J:931:THR:HG23	2.04	0.57
6:1:43:DT:C3'	6:1:44:DG:H5"	2.34	0.57
1:N:47:LEU:HD22	1:N:205:MET:HE1	1.86	0.57
3:P:143:SER:OG	3:P:159:ILE:HG22	2.05	0.57
3:J:1194:ARG:HD3	3:J:1211:SER:HB3	1.84	0.57
2:O:759:SER:CB	2:O:765:ILE:HD11	2.34	0.57
3:J:108:ALA:HB3	3:J:279:LEU:HD21	1.86	0.57
5:R:494:ILE:HG22	5:R:495:ARG:N	2.19	0.57
6:1:21:DC:O2	7:2:43:DG:N2	2.37	0.57
1:A:203:ILE:HG22	1:A:205:MET:HE2	1.85	0.57
3:P:339:ARG:CZ	3:P:798:ARG:NH2	2.67	0.57
1:A:43:LEU:C	1:A:47:LEU:HD12	2.25	0.57
2:C:1225:VAL:CG1	2:C:1226:THR:N	2.67	0.57
1:B:43:LEU:O	1:B:47:LEU:HD12	2.04	0.57
2:O:1305:TYR:CA	2:O:1308:ILE:HD12	2.26	0.57
3:P:932:MET:CE	8:9:16:U:H3'	2.34	0.57
4:Q:26:ARG:O	4:Q:30:MET:HG3	2.04	0.57
1:A:69:SER:O	1:A:78:ILE:CG1	2.52	0.57
3:D:303:VAL:O	3:D:307:LEU:HG	2.04	0.57
2:O:168:GLY:O	3:P:1065:ALA:HB1	2.04	0.57
5:L:92:GLY:C	5:L:93:ARG:HG2	2.25	0.57
3:D:1078:LEU:CD1	3:D:1121:LEU:HB3	2.34	0.57
3:D:883:ARG:HG2	3:D:898:CYS:HA	1.86	0.57
1:N:95:LYS:CE	1:N:120:ASP:OD2	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:285:LEU:HD13	5:R:413:MET:HG3	1.85	0.57
1:G:150:ARG:NH1	1:H:7:GLU:O	2.37	0.57
5:L:271:ASN:O	5:L:275:VAL:HG23	2.04	0.57
2:O:1305:TYR:HA	2:O:1308:ILE:CD1	2.26	0.57
3:J:1229:VAL:O	3:J:1233:ILE:HG13	2.05	0.57
2:O:164:THR:CG2	2:O:171:LEU:CD1	2.82	0.57
7:5:6:DG:C2'	7:5:7:DC:O5'	2.52	0.57
5:L:479:THR:HB	5:L:480:PRO:HD2	1.87	0.57
3:J:802:ASP:OD1	3:J:1325:PHE:HB2	2.04	0.57
1:H:27:THR:HG22	1:H:202:VAL:HG13	1.86	0.57
5:R:471:LEU:HD23	5:R:476:ARG:O	2.04	0.57
2:O:838:CYS:HG	2:O:886:LYS:HE3	1.63	0.57
2:O:1282:GLY:HA3	4:Q:17:PHE:CZ	2.34	0.57
1:N:35:PHE:O	1:N:39:LEU:HG	2.03	0.57
2:O:672:GLU:CG	2:O:1187:PHE:HA	2.35	0.57
2:I:883:LEU:HD21	2:I:920:VAL:CG2	2.34	0.57
5:L:507:MET:O	5:L:519:LEU:CB	2.49	0.57
2:O:292:ILE:HD13	2:O:322:LEU:HD21	1.85	0.57
2:C:402:ARG:HG2	2:C:416:GLY:HA3	1.85	0.57
5:L:581:ASP:OD1	5:L:582:VAL:HG23	2.05	0.57
5:F:91:ILE:HG22	5:F:91:ILE:O	2.03	0.57
2:C:1232:MET:O	2:C:1233:LEU:HG	2.04	0.57
1:M:26:VAL:HG11	1:M:217:ILE:HD13	1.87	0.57
2:C:1268:GLN:OE1	2:C:1268:GLN:N	2.38	0.57
2:I:1174:GLU:O	2:I:1177:ARG:HB3	2.04	0.57
5:F:339:ARG:O	5:F:342:GLN:HB2	2.04	0.57
2:I:1275:VAL:O	2:I:1279:GLU:CG	2.52	0.57
2:I:1246:ARG:CZ	2:I:1249:GLY:CA	2.82	0.57
2:C:689:ALA:HB1	2:C:1233:LEU:HD22	1.86	0.57
2:C:1198:LEU:O	2:C:1198:LEU:HG	2.02	0.57
1:N:27:THR:HG22	1:N:202:VAL:HG13	1.87	0.57
2:C:168:GLY:O	3:D:1065:ALA:CB	2.53	0.57
2:O:1294:LYS:CB	3:P:347:VAL:HG13	2.34	0.57
2:O:1043:ALA:HB3	2:O:1046:VAL:HG21	1.86	0.57
3:J:1145:PHE:CZ	3:J:1253:ILE:HG23	2.39	0.57
3:J:608:CYS:SG	3:J:617:THR:CG2	2.86	0.57
3:J:625:MET:HG2	3:J:629:PHE:CE2	2.39	0.57
3:J:599:LYS:HG3	3:J:600:ALA:H	1.70	0.57
3:D:433:GLY:O	3:D:457:TYR:CE1	2.57	0.57
5:R:166:VAL:HG12	5:R:167:ASP:N	2.19	0.57
3:J:673:VAL:HG12	3:J:674:THR:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1109:LEU:CD1	3:J:1115:ILE:HG22	2.34	0.57
3:D:839:VAL:CG1	3:D:839:VAL:O	2.53	0.57
1:G:134:THR:HG21	2:I:727:VAL:O	2.05	0.57
3:P:275:ARG:HD3	3:P:298:MET:HB3	1.85	0.57
3:J:875:ASN:O	3:J:876:SER:HB2	2.04	0.57
3:P:490:ILE:HG12	3:P:500:ILE:HD12	1.87	0.57
2:C:387:ASN:HA	2:C:391:SER:HB2	1.86	0.57
2:I:976:ARG:O	2:I:980:VAL:HG23	2.05	0.57
3:J:245:LEU:O	3:J:250:ARG:NE	2.26	0.57
1:B:48:LEU:HD11	1:B:183:ILE:HG22	1.87	0.57
3:D:352:ARG:CZ	7:2:16:DC:H4'	2.34	0.57
3:J:353:SER:C	3:J:447:ILE:HD11	2.25	0.57
2:C:1252:SER:HB3	2:C:1257:GLN:O	2.05	0.57
6:7:49:DG:C8	6:7:49:DG:H3'	2.40	0.57
2:I:26:TYR:CE2	2:I:32:LEU:HD12	2.40	0.57
1:G:230:ALA:HB1	1:H:11:PRO:O	2.04	0.57
2:I:514:PHE:HE2	7:5:19:DA:N3	2.02	0.57
3:J:201:LEU:HD11	3:J:220:ARG:HH11	1.68	0.57
3:D:1060:VAL:HG22	3:D:1106:ILE:HG12	1.87	0.57
2:O:342:ASP:HB3	2:O:343:HIS:CD2	2.40	0.57
2:O:470:ARG:HH22	5:R:397:ARG:NH1	2.03	0.57
2:I:61:SER:HB2	2:I:66:SER:OG	2.04	0.57
2:O:770:CYS:HB2	2:O:783:LEU:O	2.04	0.57
2:I:1294:LYS:HD3	3:J:347:VAL:CG1	2.35	0.57
3:J:233:LYS:HG3	3:J:234:PRO:HD2	1.85	0.57
2:I:209:ILE:HG23	2:I:210:LEU:N	2.20	0.57
1:G:227:GLN:HG3	1:H:35:PHE:HE1	1.70	0.57
1:B:37:HIS:CE1	1:B:187:VAL:HG21	2.40	0.57
1:A:109:PRO:CB	1:A:132:HIS:CD2	2.86	0.57
3:D:464:ASP:OD1	8:3:15:G:O2'	2.22	0.57
5:F:353:LEU:HB3	5:F:358:VAL:HG22	1.87	0.57
2:I:953:LEU:HD13	2:I:954:LYS:HZ3	1.67	0.57
2:O:870:ILE:HG22	2:O:871:VAL:O	2.04	0.57
3:P:246:PRO:HB2	3:P:249:LEU:CD1	2.35	0.57
2:C:1273:MET:HA	2:C:1276:TRP:CE3	2.40	0.57
2:C:653:MET:HE2	2:C:654:ASP:O	2.04	0.57
2:I:436:ARG:NH2	3:J:1068:THR:HG22	2.20	0.57
3:J:521:LYS:CB	3:J:543:SER:HB2	2.34	0.57
1:B:140:ILE:HG12	1:B:142:MET:HE1	1.87	0.57
3:J:437:PHE:O	3:J:439:PRO:HD3	2.05	0.57
2:O:716:ALA:HB3	2:O:784:ALA:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:28:DA:C2	7:8:36:DG:N2	2.73	0.57
3:D:178:ALA:O	3:D:179:LYS:HG3	2.05	0.57
5:F:583:THR:OG1	6:1:13:DT:OP2	2.19	0.56
5:L:392:LYS:HA	5:L:395:THR:CG2	2.35	0.56
3:P:1138:LEU:HG	3:P:1139:PRO:HD3	1.87	0.56
3:P:97:VAL:CG1	3:P:101:ARG:HG3	2.33	0.56
3:D:270:ARG:HE	5:F:449:THR:HG23	1.68	0.56
2:O:1314:GLN:HA	4:Q:28:ARG:HH21	1.69	0.56
2:I:22:LEU:HG	2:I:23:ASP:N	2.20	0.56
3:J:360:TYR:CD1	3:J:360:TYR:C	2.77	0.56
3:J:1275:LEU:HG	3:J:1276:GLU:H	1.69	0.56
3:P:363:LEU:HA	3:P:450:HIS:CE1	2.39	0.56
1:A:51:MET:SD	1:A:52:PRO:HD2	2.45	0.56
1:G:224:LEU:HG	1:H:228:LEU:HD11	1.86	0.56
5:R:595:LEU:O	5:R:599:ARG:HG3	2.05	0.56
2:C:198:ILE:HD13	2:C:389:PHE:HE1	1.70	0.56
2:O:202:ARG:H	2:O:369:MET:HE3	1.69	0.56
2:I:1282:GLY:HA3	4:K:17:PHE:CE1	2.40	0.56
2:I:1242:LYS:HE2	3:J:465:GLN:NE2	2.18	0.56
3:P:1271:SER:HB3	3:P:1297:LYS:HZ2	1.68	0.56
3:P:1024:THR:HG21	3:P:1123:ARG:NE	2.20	0.56
2:C:57:PHE:CD1	2:C:58:PRO:HA	2.40	0.56
2:C:607:SER:H	2:C:610:GLU:CD	2.09	0.56
1:N:192:VAL:HG11	1:N:198:LEU:HD22	1.85	0.56
3:D:207:GLU:O	3:D:208:THR:HG23	2.04	0.56
2:O:1294:LYS:HB3	3:P:347:VAL:CG1	2.35	0.56
2:I:1120:ALA:O	2:I:1124:ILE:HG13	2.04	0.56
5:R:452:ILE:HG22	5:R:457:ILE:HG12	1.87	0.56
2:O:897:PRO:CB	5:R:565:ILE:HG12	2.23	0.56
1:M:225:ALA:HA	1:M:228:LEU:HD12	1.86	0.56
2:O:1109:ILE:CD1	3:P:740:LEU:HD22	2.29	0.56
3:J:1323:ALA:HB2	3:J:1332:LEU:CD2	2.35	0.56
1:B:190:ALA:HB3	1:B:199:ASP:HA	1.87	0.56
1:B:227:GLN:O	1:B:231:PHE:CE2	2.58	0.56
5:L:532:LEU:O	5:L:536:THR:OG1	2.17	0.56
3:P:146:VAL:HG22	3:P:154:LEU:HD13	1.85	0.56
2:O:1184:THR:HG23	2:O:1184:THR:O	2.05	0.56
2:I:96:LEU:HB2	2:I:127:ILE:CD1	2.33	0.56
1:A:140:ILE:HD13	1:A:141:SER:N	2.19	0.56
3:J:521:LYS:HB3	3:J:543:SER:N	2.20	0.56
3:J:698:MET:O	3:J:702:GLN:CB	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:996:ARG:C	2:C:997:TRP:HD1	2.09	0.56
3:D:57:PHE:CD1	3:D:247:PRO:HB3	2.41	0.56
3:D:513:MET:SD	3:D:631:TYR:CD2	2.98	0.56
1:A:83:LEU:HA	1:A:86:LYS:HD2	1.86	0.56
3:J:65:VAL:HB	3:J:66:LYS:HG3	1.87	0.56
2:I:374:GLU:OE1	5:L:99:ARG:NH1	2.38	0.56
3:P:50:LYS:HE2	3:P:71:LEU:HD22	1.86	0.56
5:L:216:LEU:O	5:L:220:LYS:HG2	2.05	0.56
3:J:1350:ASN:HA	3:J:1353:VAL:HG22	1.88	0.56
2:C:196:VAL:HG23	2:C:206:ALA:HA	1.87	0.56
3:D:107:LEU:HG	3:D:240:THR:O	2.04	0.56
3:J:736:GLN:CA	3:J:736:GLN:NE2	2.68	0.56
1:B:59:VAL:CG1	1:B:144:ILE:HG12	2.36	0.56
5:L:563:PHE:HB2	5:L:565:ILE:CG1	2.34	0.56
2:I:764:CYS:HA	2:I:833:ILE:HD11	1.88	0.56
1:N:158:ARG:HD2	1:N:172:LEU:HD11	1.88	0.56
3:J:1367:GLN:O	3:J:1370:MET:HB2	2.05	0.56
2:I:715:THR:HG22	2:I:786:GLY:H	1.70	0.56
3:J:1310:THR:O	3:J:1314:LEU:HG	2.06	0.56
3:D:772:TYR:O	3:D:775:SER:OG	2.23	0.56
3:P:309:ASN:HD21	3:P:316:ILE:HB	1.70	0.56
2:C:660:VAL:HB	2:C:661:VAL:HG23	1.87	0.56
3:P:797:THR:HA	3:P:800:LEU:HD12	1.86	0.56
3:J:594:GLN:HE21	3:J:600:ALA:HB2	1.69	0.56
1:M:81:ILE:HG23	1:M:130:ILE:CG2	2.35	0.56
2:I:1313:HIS:CE1	3:J:380:PHE:HE1	2.24	0.56
3:J:964:LYS:CB	3:J:977:SER:HB3	2.34	0.56
4:K:48:VAL:HA	4:K:51:LEU:CG	2.35	0.56
1:A:149:GLY:O	1:A:177:TYR:HB3	2.06	0.56
1:A:155:ALA:HA	1:A:172:LEU:HD21	1.88	0.56
3:J:435:GLN:HB3	3:J:437:PHE:CE1	2.40	0.56
2:C:607:SER:OG	2:C:610:GLU:HG3	2.05	0.56
2:I:1172:LEU:O	2:I:1176:LEU:HG	2.05	0.56
2:O:113:THR:OG1	2:O:113:THR:O	2.24	0.56
3:P:407:VAL:O	3:P:411:ILE:HG13	2.04	0.56
3:P:233:LYS:CE	3:P:236:TRP:NE1	2.42	0.56
3:J:1285:VAL:CG1	3:J:1286:LYS:N	2.67	0.56
1:M:79:LEU:O	1:M:82:LEU:HB2	2.05	0.56
2:O:661:VAL:HG13	2:O:665:ALA:CB	2.32	0.56
2:C:251:ALA:CB	2:C:263:VAL:HG11	2.35	0.56
1:N:42:ALA:O	1:N:46:ILE:HD12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1098:LEU:HD23	2:C:1099:ASN:N	2.21	0.56
2:I:542:ARG:NH1	6:4:49:DG:C8	2.74	0.56
2:C:1014:LEU:O	2:C:1017:GLN:HB3	2.05	0.56
3:J:591:ILE:HG22	3:J:592:VAL:N	2.19	0.56
2:O:1253:LEU:HD13	5:R:525:ASP:HA	1.88	0.56
2:I:153:PRO:HA	2:I:177:ILE:HG22	1.87	0.56
3:D:555:TYR:HB3	3:D:586:GLY:HA2	1.88	0.56
3:D:1032:SER:OG	3:D:1117:SER:HB3	2.06	0.56
3:P:118:LYS:HZ2	3:P:132:LEU:HD21	1.69	0.56
2:O:204:LEU:CB	2:O:205:PRO:HD2	2.22	0.56
6:4:43:DT:C3'	6:4:44:DG:H5"	2.36	0.56
7:5:25:DA:H1'	7:5:26:DT:H5"	1.88	0.56
5:R:462:LYS:O	5:R:466:ILE:HG13	2.06	0.56
2:O:896:THR:HB	2:O:898:GLU:OE2	2.06	0.56
1:B:100:LEU:CD1	1:B:115:ILE:HG21	2.23	0.56
3:P:1326:GLN:NE2	7:8:11:DA:H4'	2.21	0.56
3:P:783:LEU:CD1	3:P:936:HIS:HB2	2.36	0.56
5:R:102:MET:HE2	6:7:43:DT:O2	2.06	0.56
5:R:269:LEU:O	5:R:273:MET:HE1	2.04	0.56
2:O:662:SER:OG	2:O:663:VAL:N	2.38	0.56
3:P:1138:LEU:HG	3:P:1139:PRO:CD	2.36	0.56
3:J:142:GLU:HG3	5:L:88:GLU:OE1	2.05	0.56
4:K:45:LYS:O	4:K:49:ILE:HG13	2.06	0.56
3:D:102:MET:HE3	3:D:246:PRO:HD3	1.87	0.56
5:L:381:GLU:O	5:L:384:LEU:HG	2.05	0.56
3:J:309:ASN:HD21	3:J:316:ILE:H	1.54	0.56
2:I:1184:THR:O	2:I:1184:THR:HG23	2.06	0.56
1:N:12:ARG:NH1	1:N:12:ARG:HB3	2.21	0.56
3:D:1031:VAL:HG13	3:D:1091:PRO:HD3	1.86	0.56
2:I:149:LEU:CD2	2:I:451:ARG:NH2	2.69	0.56
3:J:132:LEU:HA	3:J:135:ILE:CD1	2.35	0.56
3:J:762:ASN:OD1	3:J:765:GLU:N	2.34	0.56
5:L:583:THR:HG21	5:L:586:ARG:HB3	1.83	0.56
2:O:428:VAL:HG12	2:O:429:MET:N	2.20	0.56
1:A:224:LEU:O	1:A:224:LEU:HD12	2.06	0.56
3:D:512:TYR:CD2	3:D:635:SER:HB2	2.41	0.56
1:M:71:LYS:O	1:M:74:VAL:HB	2.05	0.56
1:B:106:GLY:HA2	1:B:136:GLU:HA	1.87	0.56
3:P:1096:PRO:O	3:P:1098:GLN:N	2.38	0.56
3:D:812:ASP:N	3:D:812:ASP:OD1	2.36	0.56
5:R:110:LEU:HD12	5:R:110:LEU:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:523:GLU:HG3	2:C:527:LYS:HE3	1.88	0.56
3:D:427:PRO:O	3:D:429:LEU:HG	2.05	0.56
3:D:115:TRP:CH2	3:D:1329:THR:HA	2.40	0.56
1:G:11:PRO:HB3	1:G:31:LEU:HD23	1.88	0.56
1:A:192:VAL:HB	1:A:195:ARG:O	2.05	0.56
5:R:402:LEU:HD23	5:R:402:LEU:N	2.20	0.56
3:P:1330:ARG:NH2	7:8:9:DT:O3'	2.39	0.56
1:N:74:VAL:HG22	1:N:133:LEU:CD2	2.36	0.56
2:C:168:GLY:O	3:D:1065:ALA:HA	2.06	0.56
5:L:483:LEU:O	5:L:487:MET:HG3	2.06	0.56
3:J:508:LEU:O	3:J:508:LEU:HD12	2.06	0.56
2:I:1164:PHE:CD2	2:I:1164:PHE:N	2.74	0.56
2:O:1311:GLY:O	4:Q:31:GLN:HG2	2.06	0.56
1:M:75:GLN:HE22	2:O:727:VAL:CB	2.11	0.56
2:I:335:THR:C	2:I:336:LEU:HD23	2.25	0.56
1:B:190:ALA:HB2	1:B:199:ASP:HA	1.88	0.56
3:D:1314:LEU:HD21	3:D:1325:PHE:HD2	1.69	0.56
3:P:975:ILE:HD11	3:P:1003:LEU:HD11	1.88	0.56
1:A:235:ARG:HA	1:B:218:ARG:CZ	2.36	0.56
2:O:12:ARG:HD3	2:O:1183:ALA:HB2	1.87	0.56
2:I:695:ALA:HB1	2:I:795:ALA:CB	2.36	0.56
2:C:476:LYS:HA	2:C:479:LEU:HD12	1.87	0.56
3:P:1152:GLU:HB3	3:P:1194:ARG:HH12	1.71	0.56
3:P:294:ASN:HD21	5:R:101:TYR:HB2	1.70	0.56
5:F:506:SER:O	5:F:509:THR:OG1	2.21	0.56
5:L:461:ASN:N	5:L:461:ASN:OD1	2.36	0.55
3:J:378:LYS:HE2	3:J:382:TYR:OH	2.05	0.55
2:I:720:ARG:CD	2:I:736:VAL:HG21	2.37	0.55
2:O:335:THR:CG2	2:O:336:LEU:N	2.68	0.55
1:G:75:GLN:NE2	2:I:727:VAL:HB	2.21	0.55
3:D:310:GLY:CA	3:D:315:ALA:HB2	2.36	0.55
5:R:407:GLU:HG2	5:R:442:SER:CB	2.35	0.55
2:C:759:SER:HA	2:C:765:ILE:HD11	1.88	0.55
5:L:333:VAL:O	5:L:337:VAL:HG23	2.06	0.55
2:I:1212:LEU:HD12	2:I:1225:VAL:HB	1.88	0.55
2:I:1294:LYS:HB3	3:J:347:VAL:HG13	1.87	0.55
1:G:39:LEU:O	1:G:43:LEU:HD12	2.07	0.55
2:O:136:PHE:HB3	2:O:138:ILE:HD11	1.87	0.55
3:P:894:VAL:HG21	3:P:915:ILE:HD12	1.88	0.55
3:D:886:VAL:HG21	3:D:1230:THR:HG21	1.87	0.55
3:P:839:VAL:CG1	3:P:864:LEU:HD12	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:790:ASP:HB2	2:I:795:ALA:HB2	1.87	0.55
2:I:402:ARG:NH2	2:I:417:SER:O	2.27	0.55
1:G:86:LYS:HE3	1:G:173:VAL:HG12	1.88	0.55
1:N:44:ARG:HE	1:N:185:TYR:HE1	1.53	0.55
2:O:8:LYS:HD3	2:O:1168:GLU:CD	2.26	0.55
2:O:426:ILE:HG22	2:O:427:ASP:N	2.20	0.55
3:P:166:LEU:HD23	3:P:169:LEU:HD22	1.87	0.55
2:O:1334:GLY:O	3:P:25:ALA:HB2	2.05	0.55
3:P:678:ARG:HH11	3:P:678:ARG:HG2	1.71	0.55
1:G:185:TYR:O	1:G:185:TYR:CD2	2.59	0.55
3:J:711:GLY:O	3:P:1302:TYR:CE2	2.60	0.55
3:D:502:PRO:CB	3:D:601:ILE:HD13	2.35	0.55
3:P:378:LYS:HE2	3:P:382:TYR:OH	2.05	0.55
2:C:1104:PRO:CG	3:D:725:MET:HE1	2.29	0.55
2:C:886:LYS:HD2	2:C:916:SER:CB	2.18	0.55
3:D:282:LEU:HD11	3:D:291:ILE:HG22	1.88	0.55
3:D:368:LEU:HG	3:D:373:ALA:HB2	1.88	0.55
2:I:812:PHE:O	2:I:1099:ASN:ND2	2.39	0.55
3:P:423:LEU:HB3	3:P:466:MET:HE1	1.87	0.55
1:G:145:LYS:HD3	1:G:147:GLN:HE21	1.70	0.55
1:B:190:ALA:CB	1:B:199:ASP:C	2.71	0.55
3:D:1226:VAL:O	3:D:1229:VAL:HG12	2.07	0.55
2:C:810:TYR:CE1	3:D:359:PRO:HG3	2.41	0.55
3:D:931:THR:O	3:D:935:PHE:CD2	2.60	0.55
2:C:798:GLN:HG2	2:C:827:ARG:HH21	1.72	0.55
2:C:521:LEU:HD21	2:C:686:GLN:HB3	1.87	0.55
1:G:230:ALA:CB	1:H:11:PRO:HB2	2.36	0.55
3:P:570:LYS:HD2	3:P:589:TYR:CD2	2.42	0.55
2:O:678:ARG:NE	2:O:1106:ARG:HB3	2.20	0.55
3:P:118:LYS:NZ	3:P:132:LEU:HD21	2.21	0.55
1:B:169:GLY:O	1:B:171:LEU:HG	2.06	0.55
2:I:1257:GLN:HG2	2:I:1296:ASP:OD1	2.06	0.55
2:O:15:PHE:HE2	2:O:1182:ILE:HD13	1.71	0.55
3:P:478:LEU:HB3	4:Q:20:VAL:HG13	1.87	0.55
2:O:1122:LYS:HG3	2:O:1229:TYR:CZ	2.41	0.55
2:I:94:ALA:HB2	2:I:129:LEU:HD11	1.89	0.55
2:C:501:ALA:O	2:C:504:GLU:HB2	2.06	0.55
5:R:290:LEU:O	5:R:294:GLN:HB3	2.07	0.55
3:J:470:VAL:O	3:J:472:LEU:CD2	2.51	0.55
3:P:398:LYS:HZ3	5:R:532:LEU:HB3	1.71	0.55
1:N:179:PRO:CG	1:N:211:ILE:HD12	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:344:GLY:CA	2:O:346:TYR:CE2	2.77	0.55
3:P:599:LYS:HG3	3:P:600:ALA:H	1.71	0.55
2:O:599:VAL:CG2	2:O:623:LEU:HD22	2.30	0.55
3:J:865:HIS:HB3	3:J:868:TRP:HD1	1.71	0.55
3:P:1135:THR:O	3:P:1139:PRO:HD2	2.07	0.55
2:O:373:GLY:CA	5:R:91:ILE:HG12	2.37	0.55
2:I:363:LEU:CD2	2:I:385:PHE:HB2	2.37	0.55
3:J:572:THR:OG1	3:J:576:ARG:HB2	2.07	0.55
7:2:4:DC:C4	7:2:5:DC:N4	2.75	0.55
3:D:421:VAL:CG1	3:D:468:VAL:HG12	2.36	0.55
2:C:902:LEU:HD12	2:C:905:ILE:HD12	1.87	0.55
2:O:237:LEU:O	2:O:287:VAL:HG13	2.06	0.55
3:D:255:LEU:HD22	3:D:256:ASP:OD1	2.06	0.55
3:P:508:LEU:HD12	3:P:508:LEU:O	2.06	0.55
3:D:1191:PRO:HD2	3:D:1194:ARG:HD2	1.88	0.55
5:F:315:TRP:CH2	5:F:341:LEU:HD11	2.41	0.55
1:H:97:GLU:HB2	1:H:147:GLN:HG2	1.88	0.55
1:B:57:THR:CG2	1:B:158:ARG:NH1	2.69	0.55
2:O:136:PHE:CB	2:O:138:ILE:HD11	2.37	0.55
5:R:454:VAL:CG2	5:R:455:HIS:N	2.55	0.55
3:J:450:HIS:NE2	3:J:625:MET:SD	2.79	0.55
3:J:353:SER:HB3	3:J:447:ILE:HD11	1.88	0.55
2:C:528:ARG:CD	2:C:663:VAL:HG21	2.30	0.55
5:L:586:ARG:HB2	6:4:13:DT:H72	1.88	0.55
2:C:725:GLN:O	2:C:773:LEU:CD1	2.53	0.55
3:D:1176:VAL:HG22	3:D:1187:GLU:HG2	1.89	0.55
1:M:86:LYS:HE2	1:M:173:VAL:HG12	1.87	0.55
2:I:160:ASP:HB3	2:I:163:LYS:CG	2.37	0.55
3:J:114:ILE:HG22	3:J:307:LEU:HD12	1.87	0.55
3:D:76:LYS:O	3:D:80:HIS:ND1	2.39	0.55
3:D:966:VAL:HG13	3:D:966:VAL:O	2.06	0.55
1:B:9:LEU:HD23	1:B:32:GLU:N	2.20	0.55
3:P:104:HIS:HA	3:P:244:VAL:HG23	1.89	0.55
1:B:39:LEU:N	1:B:39:LEU:HD23	2.22	0.55
5:F:502:LYS:NZ	5:F:505:ILE:HD11	2.22	0.55
5:R:84:LEU:CD1	5:R:107:THR:HG21	2.37	0.55
3:J:381:ILE:HD11	3:J:412:LEU:HD13	1.89	0.55
3:P:997:VAL:CG1	3:P:1003:LEU:HD21	2.35	0.55
3:D:572:THR:HG1	3:D:576:ARG:CB	2.20	0.55
2:O:840:SER:OG	2:O:1048:LYS:N	2.40	0.55
5:L:166:VAL:HG12	5:L:167:ASP:H	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:950:GLU:HA	2:O:953:LEU:CD1	2.37	0.55
3:D:431:ARG:HH21	3:D:904:ALA:CB	2.20	0.55
1:M:49:SER:HB2	1:N:33:ARG:HH12	1.71	0.55
3:D:397:ALA:O	3:D:401:VAL:HG23	2.06	0.55
2:C:229:ILE:HB	2:C:240:GLU:HB2	1.87	0.55
2:C:208:ILE:HG23	2:C:209:ILE:N	2.21	0.55
1:G:44:ARG:HA	1:G:183:ILE:HD13	1.88	0.55
2:I:448:LEU:CD1	2:I:553:THR:HB	2.36	0.55
1:A:109:PRO:CB	1:A:132:HIS:HD2	2.19	0.55
3:J:1259:GLN:OE1	3:J:1262:ARG:CZ	2.55	0.55
5:F:101:TYR:CE2	5:F:388:ILE:HD12	2.41	0.55
1:B:61:ILE:HB	1:B:64:VAL:CB	2.33	0.55
2:C:808:ASN:HD22	3:D:633:ALA:HB2	1.70	0.55
5:R:98:VAL:HG12	5:R:99:ARG:HD3	1.88	0.55
2:C:402:ARG:HD2	2:C:406:ASN:HD21	1.70	0.55
2:C:424:ASP:O	2:C:428:VAL:HG23	2.07	0.55
2:C:1286:THR:O	2:C:1289:GLU:HB2	2.06	0.55
2:O:60:GLN:O	2:O:476:LYS:CE	2.54	0.55
3:P:342:LEU:HB3	3:P:1352:ILE:HG23	1.89	0.55
2:C:232:ILE:HG23	2:C:237:LEU:CD2	2.37	0.55
5:L:119:ILE:O	5:L:123:ILE:HG13	2.07	0.55
5:L:362:ASN:HA	5:L:365:MET:HE2	1.87	0.55
3:D:555:TYR:CB	3:D:586:GLY:HA2	2.36	0.55
2:I:617:ALA:HA	2:I:636:CYS:SG	2.47	0.55
3:P:258:GLY:HA3	5:R:499:LYS:NZ	2.21	0.55
2:C:113:THR:OG1	2:C:113:THR:O	2.19	0.55
3:P:351:GLY:O	3:P:468:VAL:HG23	2.06	0.55
2:I:785:ASP:HB3	2:I:789:THR:OG1	2.06	0.55
2:O:1286:THR:O	2:O:1290:MET:HG2	2.07	0.55
2:O:1269:ARG:NH1	3:P:340:GLN:HG3	2.22	0.55
3:J:1230:THR:O	3:J:1234:VAL:HG23	2.07	0.55
7:5:51:DG:H2"	7:5:52:DT:H71	1.89	0.55
3:D:481:ARG:O	3:D:485:MET:HB2	2.07	0.55
3:P:1184:ASP:N	3:P:1184:ASP:OD1	2.37	0.55
3:J:829:GLY:HA2	3:J:995:TYR:CD1	2.41	0.55
2:C:426:ILE:O	2:C:430:LYS:HG3	2.06	0.55
4:K:44:ASP:OD2	4:K:48:VAL:HG11	2.06	0.55
2:O:696:ASP:HB2	2:O:798:GLN:HG2	1.88	0.55
3:J:360:TYR:C	3:J:360:TYR:HD1	2.10	0.55
3:J:309:ASN:HD21	3:J:316:ILE:N	2.04	0.55
1:M:31:LEU:CD1	1:M:201:LEU:HB2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1134:ILE:HG21	3:D:1138:LEU:HD13	1.89	0.55
3:J:378:LYS:HG2	3:J:382:TYR:OH	2.07	0.55
5:L:532:LEU:CD1	5:L:532:LEU:N	2.70	0.55
3:P:768:ASN:ND2	3:P:771:GLN:HG3	2.22	0.55
2:O:1271:GLY:O	2:O:1275:VAL:HG23	2.06	0.55
2:I:402:ARG:HG2	2:I:416:GLY:CA	2.36	0.55
3:J:354:VAL:CG1	3:J:355:ILE:N	2.70	0.55
3:J:121:PRO:O	3:J:122:SER:CB	2.53	0.55
2:I:514:PHE:CE2	7:5:19:DA:N3	2.74	0.55
1:N:183:ILE:HB	1:N:205:MET:HE2	1.89	0.55
3:J:1040:MET:HE3	3:J:1046:ILE:HG21	1.88	0.55
2:O:213:LEU:O	2:O:214:ASN:HB3	2.07	0.55
5:R:141:ILE:HD13	5:R:224:LEU:HD11	1.88	0.55
5:L:153:ALA:O	5:L:155:GLU:N	2.39	0.55
3:P:546:ALA:O	3:P:548:VAL:HG23	2.07	0.55
4:E:25:ARG:NH1	4:E:65:ASP:OD1	2.40	0.55
3:J:1163:VAL:HG12	3:J:1175:LEU:HD11	1.88	0.55
3:J:922:SER:O	3:J:926:PRO:HD3	2.07	0.55
3:J:432:LEU:HD11	3:J:499:ILE:CD1	2.37	0.55
2:C:1312:ASN:HD21	2:C:1314:GLN:HB3	1.71	0.55
1:B:214:GLU:O	1:B:217:ILE:HB	2.07	0.55
3:D:839:VAL:O	3:D:839:VAL:HG12	2.05	0.55
2:C:797:GLY:HA3	2:C:1233:LEU:HD21	1.89	0.55
2:C:16:GLY:O	2:C:1156:ARG:HB3	2.06	0.55
5:F:574:GLU:HA	5:F:574:GLU:OE1	2.07	0.55
2:O:657:THR:O	2:O:660:VAL:HG23	2.06	0.55
3:P:1288:ALA:O	3:P:1292:LEU:HG	2.06	0.55
5:R:440:THR:HA	5:R:443:ILE:HG22	1.87	0.55
3:J:198:CYS:O	3:J:202:ARG:HG3	2.07	0.55
3:D:556:GLU:CB	3:D:564:VAL:HB	2.16	0.54
2:I:448:LEU:CG	2:I:553:THR:HB	2.37	0.54
3:J:367:GLY:HA3	3:J:448:GLN:HB2	1.88	0.54
3:D:537:TYR:CD1	3:D:544:LEU:HG	2.42	0.54
5:R:102:MET:HB3	6:7:42:DG:N2	2.22	0.54
5:F:388:ILE:HG23	5:F:392:LYS:NZ	2.22	0.54
2:I:1242:LYS:HD3	3:J:354:VAL:HG23	1.88	0.54
6:1:58:DG:N2	7:2:6:DG:C2	2.75	0.54
2:C:400:VAL:HG12	2:C:401:GLY:N	2.22	0.54
3:P:46:TYR:HD2	5:R:500:ILE:HD13	1.72	0.54
2:C:502:VAL:HG13	2:C:506:PHE:CE2	2.41	0.54
1:G:191:ARG:HH12	3:P:1372:ARG:HG2	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1090:ILE:HG23	3:P:1091:PRO:HD2	1.89	0.54
2:O:1277:ALA:O	2:O:1280:ALA:HB3	2.07	0.54
3:J:551:ARG:O	3:J:552:ILE:HD13	2.07	0.54
2:C:180:ARG:HG2	2:C:394:ARG:O	2.06	0.54
1:H:223:ILE:O	1:H:227:GLN:HG2	2.07	0.54
2:C:678:ARG:CZ	2:C:1106:ARG:HD2	2.37	0.54
5:R:564:GLY:HA2	5:R:567:MET:HB2	1.89	0.54
2:I:1270:PHE:HB2	3:J:347:VAL:HG21	1.87	0.54
1:M:45:ARG:HD3	1:N:38:THR:OG1	2.06	0.54
2:O:138:ILE:N	2:O:138:ILE:HD13	2.21	0.54
3:D:1350:ASN:HA	3:D:1353:VAL:HG22	1.90	0.54
3:P:621:ALA:O	3:P:624:ILE:HB	2.07	0.54
2:C:13:LYS:HE3	2:C:1149:TYR:O	2.07	0.54
1:A:9:LEU:O	1:B:227:GLN:OE1	2.26	0.54
2:O:313:ALA:O	2:O:314:ASN:CB	2.56	0.54
6:1:50:DT:H3'	6:1:51:DC:H5'	1.88	0.54
2:O:949:GLU:O	2:O:953:LEU:HG	2.06	0.54
2:I:496:LYS:CB	2:I:497:PRO:HD3	2.37	0.54
2:C:282:VAL:HG11	2:C:285:ILE:HD11	1.89	0.54
2:I:897:PRO:CB	5:L:565:ILE:HA	2.37	0.54
3:P:294:ASN:HB3	5:R:406:GLN:HE22	1.71	0.54
2:I:1072:ASN:N	2:I:1072:ASN:OD1	2.36	0.54
1:A:187:VAL:HG22	1:A:201:LEU:CD1	2.37	0.54
3:D:709:ARG:HG3	3:D:709:ARG:O	2.07	0.54
2:O:851:THR:HG22	2:O:852:ALA:N	2.22	0.54
2:I:40:GLU:HG2	2:I:42:ASP:HB2	1.88	0.54
1:A:47:LEU:CD1	1:A:183:ILE:CD1	2.84	0.54
3:J:422:LEU:C	3:J:423:LEU:HG	2.26	0.54
2:C:559:CYS:HB2	2:C:662:SER:HB3	1.88	0.54
3:P:749:LYS:HG3	3:P:755:ILE:HG12	1.89	0.54
2:I:813:GLU:CB	3:J:461:PHE:HD2	2.16	0.54
3:D:793:SER:HB2	3:D:1138:LEU:HD21	1.89	0.54
2:I:953:LEU:HB3	2:I:954:LYS:HD2	1.89	0.54
2:O:803:ALA:HB2	2:O:1094:VAL:HG11	1.88	0.54
3:P:518:VAL:HG13	3:P:714:GLU:OE1	2.07	0.54
5:R:87:VAL:CG1	5:R:103:ARG:CD	2.84	0.54
3:D:714:GLU:HG2	3:D:715:LYS:H	1.70	0.54
7:5:5:DC:C2'	7:5:6:DG:H5'	2.36	0.54
2:O:1232:MET:HE2	2:O:1232:MET:HA	1.89	0.54
5:F:420:GLU:HB2	5:F:423:ARG:HG2	1.89	0.54
2:I:549:ASP:OD2	3:J:781:LYS:HD3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:959:LYS:HD2	3:D:985:ILE:HG13	1.89	0.54
5:L:288:MET:HA	5:L:291:CYS:HB2	1.89	0.54
1:M:208:ASN:N	1:M:208:ASN:HD22	2.04	0.54
3:J:899:TYR:CG	3:J:915:ILE:HD13	2.43	0.54
1:G:44:ARG:N	1:G:47:LEU:HD12	2.21	0.54
3:D:744:ARG:HH11	3:D:763:PHE:HZ	1.55	0.54
2:O:130:MET:HB2	2:O:136:PHE:CZ	2.43	0.54
3:J:601:ILE:HG22	3:J:602:SER:CA	2.37	0.54
1:B:86:LYS:CE	1:B:173:VAL:HG12	2.30	0.54
3:J:967:VAL:HG22	3:J:973:LEU:HD12	1.82	0.54
1:A:11:PRO:CD	1:B:227:GLN:HA	2.38	0.54
2:O:1340:GLU:O	3:P:17:PHE:HB2	2.08	0.54
3:J:952:VAL:HG13	3:J:984:LEU:HD13	1.88	0.54
3:D:378:LYS:HB3	3:D:379:PRO:HD3	1.88	0.54
5:F:96:ASP:HB3	5:F:99:ARG:HG2	1.89	0.54
2:I:1044:PRO:HB3	5:L:498:LEU:HB3	1.89	0.54
6:1:34:DG:N2	7:2:30:DA:C2	2.75	0.54
2:I:807:TRP:CG	2:I:817:LEU:HD11	2.43	0.54
3:P:1024:THR:HG21	3:P:1123:ARG:HD3	1.89	0.54
2:O:734:ILE:HG22	2:O:751:TYR:HE2	1.72	0.54
5:F:262:VAL:HG13	5:F:263:PRO:HD2	1.90	0.54
3:P:497:GLU:HB3	3:P:498:PRO:HD2	1.87	0.54
3:J:1082:ASP:HB3	3:J:1088:VAL:CG2	2.38	0.54
3:J:471:PRO:CB	3:J:476:ALA:HB1	2.37	0.54
1:M:45:ARG:HD3	1:N:38:THR:CG2	2.36	0.54
2:C:1087:TYR:CE2	2:C:1213:TYR:HB2	2.43	0.54
2:C:211:ARG:NH1	2:C:357:ASN:O	2.40	0.54
5:F:353:LEU:HB3	5:F:358:VAL:HG23	1.89	0.54
3:P:1357:ILE:H	3:P:1357:ILE:CD1	2.21	0.54
8:6:14:A:H5'	8:6:15:G:OP2	2.07	0.54
3:J:474:LEU:CD1	4:K:28:ARG:HD3	2.38	0.54
3:D:1285:VAL:CG1	3:D:1286:LYS:N	2.70	0.54
5:L:242:HIS:O	5:L:244:THR:N	2.41	0.54
3:P:1159:ILE:HG22	3:P:1160:SER:N	2.21	0.54
2:I:870:ILE:HG21	2:I:944:ARG:HE	1.72	0.54
3:P:1230:THR:O	3:P:1234:VAL:HG23	2.08	0.54
1:A:208:ASN:ND2	1:A:208:ASN:H	2.05	0.54
2:C:596:ASP:N	2:C:596:ASP:OD1	2.41	0.54
2:C:230:PHE:CD1	2:C:292:ILE:HD11	2.42	0.54
2:I:1164:PHE:H	2:I:1164:PHE:HD2	1.55	0.54
2:C:906:PHE:HE1	5:F:608:ARG:HH22	1.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:5:27:DA:OP2	7:5:27:DA:H8	1.90	0.54
5:R:333:VAL:O	5:R:337:VAL:HG23	2.07	0.54
2:C:102:LEU:HD21	2:C:104:ILE:HD11	1.90	0.54
6:1:23:DA:C2	7:2:41:DG:N2	2.76	0.54
2:I:1289:GLU:OE1	2:I:1294:LYS:HE3	2.08	0.54
3:J:883:ARG:HG2	3:J:898:CYS:HA	1.88	0.54
3:D:1272:SER:HB2	3:D:1274:PHE:CE2	2.43	0.54
3:P:130:MET:SD	3:P:135:ILE:HG12	2.48	0.54
3:P:139:LEU:CD2	3:P:185:ILE:CD1	2.84	0.54
3:P:826:ILE:CG1	3:P:831:VAL:HG22	2.26	0.54
2:C:1117:LEU:HD11	2:C:1182:ILE:HD13	1.89	0.54
2:O:185:ASP:C	2:O:186:PHE:HD2	2.11	0.54
2:I:725:GLN:HB3	2:I:733:VAL:HG23	1.89	0.54
2:C:797:GLY:N	2:C:1233:LEU:HD21	2.23	0.54
2:O:953:LEU:O	2:O:957:LYS:HG3	2.07	0.54
3:J:615:LYS:HB2	3:J:616:PRO:HD3	1.89	0.54
3:P:1023:HIS:O	3:P:1024:THR:CB	2.56	0.54
2:C:562:GLU:CG	2:C:562:GLU:O	2.56	0.54
3:J:849:LEU:HA	3:J:856:ILE:O	2.07	0.54
5:R:373:ARG:HG2	5:R:377:LYS:HE3	1.90	0.54
5:L:469:GLN:O	5:L:472:GLN:HG2	2.07	0.54
2:O:1065:LYS:O	2:O:1235:LEU:HG	2.08	0.54
3:J:841:GLY:C	3:J:863:LEU:HD11	2.28	0.54
2:O:764:CYS:CB	2:O:831:ILE:HB	2.37	0.54
3:P:1360:GLY:HA2	4:Q:17:PHE:CE2	2.43	0.54
1:M:69:SER:O	1:M:78:ILE:HG13	2.07	0.54
2:O:344:GLY:HA3	2:O:346:TYR:HE2	1.58	0.54
1:B:44:ARG:HH12	3:D:538:ARG:HD3	1.72	0.54
3:P:42:GLU:CD	5:R:451:ARG:HB3	2.28	0.54
2:C:1061:GLN:HE22	3:D:445:LYS:HG3	1.73	0.54
3:J:452:LEU:HB3	3:J:500:ILE:CG2	2.36	0.54
5:R:596:ARG:HA	5:R:599:ARG:HD2	1.88	0.54
1:N:217:ILE:HG22	1:N:218:ARG:N	2.22	0.54
3:J:1323:ALA:O	3:J:1328:THR:HG23	2.08	0.54
6:4:52:DT:H2"	6:4:53:DG:N7	2.23	0.54
1:A:78:ILE:HA	1:A:81:ILE:HD12	1.89	0.54
2:O:1064:ASP:CG	2:O:1238:LEU:HD22	2.27	0.54
1:G:56:VAL:HG13	1:G:144:ILE:HG22	1.86	0.54
2:C:82:VAL:HG23	2:C:83:GLN:N	2.22	0.54
1:A:57:THR:HG22	1:A:58:GLU:HG3	1.88	0.54
2:C:890:LYS:CG	2:C:891:GLY:H	2.20	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:27:LEU:HD22	2:I:528:ARG:NH2	2.23	0.54
3:J:366:CYS:SG	3:J:439:PRO:HA	2.47	0.54
3:D:592:VAL:HG22	3:D:592:VAL:O	2.08	0.54
3:D:222:LYS:HE2	3:D:1278:GLU:HG2	1.88	0.54
1:G:73:GLY:HA3	1:G:138:ALA:HB2	1.90	0.54
3:P:398:LYS:HZ1	5:R:532:LEU:CG	2.00	0.54
2:I:146:VAL:O	2:I:511:LEU:HD13	2.07	0.54
3:J:909:ILE:HD11	3:J:913:GLU:HB3	1.89	0.54
1:M:232:VAL:CG2	1:N:221:ALA:HB1	2.35	0.54
3:J:384:LYS:CD	3:J:415:VAL:HG22	2.37	0.54
5:R:586:ARG:O	5:R:590:ILE:HG13	2.08	0.54
5:F:137:TYR:HE1	5:F:353:LEU:CD1	2.20	0.54
1:A:235:ARG:HA	1:B:218:ARG:NH1	2.23	0.54
2:C:402:ARG:NH2	2:C:417:SER:O	2.40	0.54
2:C:1294:LYS:HD3	3:D:347:VAL:HG13	1.90	0.54
3:J:492:SER:OG	3:J:495:ASN:N	2.37	0.54
5:R:355:ILE:HA	5:R:358:VAL:HB	1.89	0.54
2:I:1246:ARG:NH2	2:I:1249:GLY:H	2.06	0.54
3:P:263:SER:N	5:R:507:MET:HE3	2.23	0.54
1:N:47:LEU:CD1	1:N:183:ILE:CD1	2.86	0.54
2:C:797:GLY:CA	2:C:1233:LEU:HD21	2.37	0.54
2:I:555:TYR:CD1	2:I:637:ARG:NH2	2.76	0.54
2:O:384:LEU:O	2:O:388:LEU:HG	2.07	0.54
2:C:790:ASP:O	2:C:792:GLY:N	2.40	0.54
3:J:113:HIS:CD2	3:J:115:TRP:HB2	2.43	0.54
3:P:795:TYR:O	3:P:799:ARG:HG3	2.08	0.54
1:A:11:PRO:HD3	1:B:227:GLN:HA	1.90	0.54
2:I:871:VAL:HG12	2:I:872:TYR:O	2.07	0.54
2:I:184:LEU:HD11	2:I:389:PHE:CE2	2.43	0.54
2:O:725:GLN:HB3	2:O:733:VAL:HG23	1.89	0.54
5:F:102:MET:CE	6:1:42:DG:N3	2.70	0.54
5:F:96:ASP:OD2	6:1:44:DG:N2	2.35	0.54
3:D:1087:ASP:HB3	3:D:1096:PRO:HB3	1.90	0.54
3:D:1075:ARG:HH21	3:D:1192:LYS:HD3	1.73	0.54
2:I:1227:VAL:HG12	2:I:1228:GLY:N	2.23	0.54
3:J:734:ALA:O	3:J:737:ILE:HB	2.08	0.54
1:N:102:LEU:HB2	1:N:144:ILE:HD11	1.88	0.54
3:J:318:GLY:N	3:J:322:ARG:O	2.38	0.54
5:R:385:ARG:HA	5:R:388:ILE:CG2	2.37	0.54
3:D:1067:ARG:HD3	3:D:1071:GLY:O	2.08	0.54
2:O:1161:LEU:O	2:O:1164:PHE:HD2	1.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:563:THR:HG23	2:O:680:LEU:HD11	1.90	0.54
2:C:300:ASP:N	2:C:300:ASP:OD1	2.41	0.54
2:C:1072:ASN:OD1	2:C:1072:ASN:N	2.40	0.54
4:K:26:ARG:O	4:K:30:MET:HG3	2.07	0.54
4:K:53:GLU:HB3	4:K:59:ILE:HG12	1.89	0.54
1:M:179:PRO:HA	1:M:208:ASN:ND2	2.22	0.53
2:O:1278:LEU:CD2	2:O:1286:THR:OG1	2.56	0.53
2:C:1104:PRO:CG	3:D:725:MET:HE3	2.33	0.53
3:P:363:LEU:HA	3:P:450:HIS:ND1	2.23	0.53
1:H:158:ARG:C	1:H:160:HIS:N	2.60	0.53
2:O:514:PHE:HE2	7:8:19:DA:O4'	1.90	0.53
5:L:554:ARG:NH2	6:4:12:DC:OP2	2.32	0.53
5:F:355:ILE:HA	5:F:358:VAL:HB	1.90	0.53
7:2:24:DT:H72	7:2:25:DA:N6	2.23	0.53
3:D:450:HIS:CD2	3:D:452:LEU:H	2.26	0.53
3:P:99:ARG:HG2	3:P:99:ARG:O	2.09	0.53
5:L:387:VAL:HG12	5:L:388:ILE:N	2.22	0.53
2:I:346:TYR:OH	2:I:436:ARG:CG	2.56	0.53
3:P:237:MET:C	3:P:238:ILE:HD13	2.28	0.53
5:R:267:ASP:O	5:R:271:ASN:CG	2.47	0.53
2:I:297:VAL:HG22	2:I:315:MET:O	2.08	0.53
3:J:814:CYS:SG	3:J:883:ARG:NH2	2.81	0.53
2:O:1289:GLU:OE2	3:P:473:THR:N	2.41	0.53
1:G:28:LEU:HD11	1:H:231:PHE:HE1	1.68	0.53
5:L:455:HIS:CE1	6:4:31:DT:H71	2.43	0.53
3:J:817:HIS:O	3:J:845:ALA:CB	2.53	0.53
2:I:366:ILE:HG22	2:I:367:TYR:N	2.23	0.53
3:J:514:THR:O	3:J:576:ARG:NE	2.40	0.53
2:C:798:GLN:HB3	2:C:827:ARG:CZ	2.39	0.53
3:J:120:LEU:CD2	3:J:121:PRO:HA	2.37	0.53
1:N:74:VAL:HG22	1:N:133:LEU:HD21	1.91	0.53
2:I:398:SER:OG	2:I:399:ALA:N	2.41	0.53
3:J:747:MET:HE2	3:J:774:ILE:HG22	1.89	0.53
1:H:102:LEU:CD1	1:H:114:ASP:HB3	2.38	0.53
5:L:361:ILE:O	5:L:365:MET:HB2	2.08	0.53
3:D:1156:LEU:HD12	3:D:1223:LEU:HD12	1.90	0.53
2:I:1122:LYS:HG3	2:I:1229:TYR:CE2	2.43	0.53
3:P:75:TYR:CD2	3:P:85:CYS:SG	3.01	0.53
3:P:1319:PHE:CZ	3:P:1342:ASP:HB2	2.43	0.53
3:P:369:PRO:CB	3:P:372:MET:HE3	2.38	0.53
1:G:44:ARG:HA	1:G:47:LEU:CD1	2.18	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:812:PHE:O	3:P:504:GLN:OE1	2.26	0.53
1:G:11:PRO:HG2	1:H:231:PHE:CZ	2.44	0.53
3:D:363:LEU:HB2	3:D:622:ASP:OD1	2.08	0.53
2:O:309:LEU:N	2:O:309:LEU:HD23	2.24	0.53
2:I:36:GLN:HA	2:I:39:ILE:CD1	2.38	0.53
2:C:1237:HIS:HB3	2:C:1242:LYS:HE3	1.89	0.53
2:C:275:ARG:NH1	2:C:278:GLU:CD	2.62	0.53
3:P:882:VAL:O	3:P:882:VAL:CG2	2.56	0.53
5:R:153:ALA:O	5:R:155:GLU:N	2.41	0.53
2:O:1299:ASN:O	2:O:1302:THR:HG22	2.09	0.53
5:L:280:VAL:HG12	5:L:284:GLU:OE2	2.08	0.53
6:4:37:DA:P	6:4:37:DA:H8	2.31	0.53
3:J:739:GLN:CG	3:J:744:ARG:HG3	2.38	0.53
1:A:32:GLU:HA	1:A:198:LEU:HD22	1.91	0.53
2:I:953:LEU:HD22	2:I:957:LYS:NZ	2.23	0.53
7:8:5:DC:C2'	7:8:6:DG:H5'	2.34	0.53
2:O:476:LYS:HA	2:O:479:LEU:HD12	1.90	0.53
3:P:291:ILE:HG23	5:R:409:ASN:HD22	1.73	0.53
1:A:59:VAL:O	1:A:171:LEU:HG	2.09	0.53
1:G:56:VAL:CG1	1:G:144:ILE:CG2	2.84	0.53
6:7:30:DG:C2	7:8:34:DG:C2	2.97	0.53
2:I:1252:SER:CA	2:I:1259:LEU:HD21	2.37	0.53
2:O:237:LEU:HB2	2:O:287:VAL:HG22	1.90	0.53
5:R:410:ILE:HA	5:R:413:MET:HG2	1.89	0.53
2:O:1235:LEU:HD23	2:O:1235:LEU:N	2.23	0.53
1:N:65:LEU:HA	1:N:169:GLY:HA2	1.90	0.53
3:P:369:PRO:HB2	3:P:372:MET:HE3	1.91	0.53
3:J:809:VAL:HG21	3:J:915:ILE:HD11	1.89	0.53
5:L:554:ARG:HH12	6:4:12:DC:P	2.31	0.53
2:C:2:VAL:CG1	2:C:3:TYR:N	2.72	0.53
3:D:357:VAL:HG12	3:D:359:PRO:HD3	1.89	0.53
2:O:120:GLN:OE1	2:O:489:PRO:HG2	2.09	0.53
3:D:452:LEU:HB3	3:D:500:ILE:CG2	2.39	0.53
5:R:390:ILE:HD13	5:R:432:THR:HA	1.90	0.53
3:D:1154:ALA:CA	3:D:1211:SER:HB2	2.38	0.53
2:O:901:LEU:O	2:O:901:LEU:HD12	2.08	0.53
5:F:291:CYS:O	5:F:295:CYS:HB2	2.07	0.53
1:M:68:TYR:CB	2:O:929:ILE:HD12	2.38	0.53
1:G:86:LYS:HE3	1:G:173:VAL:CG1	2.39	0.53
3:D:518:VAL:HA	3:D:547:ARG:CZ	2.39	0.53
3:J:24:LEU:CD1	3:J:232:ASN:HB3	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:57:PHE:HD1	2:C:58:PRO:HA	1.71	0.53
1:B:65:LEU:HD22	1:B:168:ILE:HG22	1.89	0.53
2:O:931:VAL:HG12	2:O:932:GLN:N	2.24	0.53
3:J:497:GLU:HB3	3:J:498:PRO:HD2	1.90	0.53
2:I:1286:THR:CB	3:J:479:GLU:OE2	2.56	0.53
1:A:46:ILE:HD11	1:B:38:THR:HG21	1.90	0.53
3:J:1259:GLN:NE2	3:J:1259:GLN:HA	2.24	0.53
2:C:558:VAL:O	2:C:560:PRO:HD3	2.09	0.53
5:F:355:ILE:HG22	5:F:359:LYS:HE3	1.90	0.53
2:O:177:ILE:HG22	2:O:177:ILE:O	2.08	0.53
3:P:614:LEU:O	3:P:618:VAL:HG23	2.08	0.53
3:P:1138:LEU:CB	3:P:1139:PRO:HD3	2.37	0.53
3:D:718:SER:OG	3:D:719:PHE:N	2.40	0.53
2:O:1183:ALA:O	2:O:1185:PRO:HD3	2.07	0.53
2:I:32:LEU:HD23	2:I:130:MET:HE3	1.88	0.53
3:P:814:CYS:HB3	3:P:890:THR:OG1	2.09	0.53
2:C:271:ALA:HA	2:C:274:ILE:HD12	1.89	0.53
1:G:33:ARG:NH1	1:G:33:ARG:HB3	2.23	0.53
3:D:1244:GLN:OE1	3:D:1244:GLN:HA	2.08	0.53
3:J:706:VAL:HG12	3:J:706:VAL:O	2.08	0.53
2:C:207:THR:HB	2:C:350:THR:HG22	1.91	0.53
2:O:839:VAL:HG22	2:O:1049:ILE:HG12	1.91	0.53
2:C:859:GLU:HG2	2:C:862:LEU:CD1	2.27	0.53
2:I:690:VAL:CG1	2:I:691:PRO:CD	2.79	0.53
3:P:1282:TYR:C	3:P:1285:VAL:HG12	2.28	0.53
3:J:382:TYR:OH	3:J:398:LYS:HE3	2.08	0.53
2:I:1005:GLU:HG2	2:I:1006:GLU:N	2.17	0.53
3:D:154:LEU:HD13	3:D:158:GLN:HG2	1.90	0.53
1:G:80:GLU:O	1:G:84:ASN:ND2	2.41	0.53
2:I:1183:ALA:O	2:I:1185:PRO:HD3	2.08	0.53
3:J:521:LYS:HD3	3:J:543:SER:HB2	1.89	0.53
2:O:950:GLU:HA	2:O:953:LEU:HG	1.89	0.53
3:J:1208:ASP:O	3:J:1210:ILE:CD1	2.55	0.53
2:I:149:LEU:HD21	2:I:451:ARG:HH21	1.73	0.53
3:J:91:GLU:HG2	3:J:92:VAL:N	2.22	0.53
5:R:231:THR:O	5:R:231:THR:HG22	2.09	0.53
3:D:108:ALA:HB3	3:D:279:LEU:HD23	1.90	0.53
3:P:379:PRO:HA	3:P:382:TYR:HD2	1.74	0.53
2:O:209:ILE:CG2	2:O:210:LEU:N	2.72	0.53
1:B:47:LEU:HD13	1:B:183:ILE:HD11	1.85	0.53
3:D:248:ASP:O	3:D:251:PRO:HD3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1333:LEU:HD11	3:D:331:ILE:CD1	2.39	0.53
3:P:620:PHE:CD2	3:P:624:ILE:HD11	2.43	0.53
2:C:871:VAL:HG23	2:C:883:LEU:HA	1.89	0.53
3:J:673:VAL:CG1	3:J:674:THR:O	2.57	0.53
2:C:809:GLY:O	3:D:357:VAL:HG11	2.09	0.53
2:I:1258:PRO:HG2	3:J:346:ARG:CB	2.38	0.53
3:J:1220:ILE:HG23	3:J:1224:ARG:CD	2.38	0.53
2:C:806:PRO:HD3	3:D:637:ALA:O	2.09	0.53
2:I:16:GLY:HA3	2:I:1185:PRO:HG2	1.90	0.53
2:O:757:THR:HG22	2:O:758:ARG:N	2.23	0.53
1:N:74:VAL:HG11	1:N:131:CYS:SG	2.49	0.53
3:P:1023:HIS:O	3:P:1024:THR:HB	2.08	0.53
5:R:267:ASP:O	5:R:271:ASN:ND2	2.41	0.53
3:P:848:VAL:CG2	3:P:880:VAL:HG13	2.39	0.53
3:J:269:TYR:O	3:J:273:ILE:HG13	2.09	0.53
3:P:644:MET:HB3	3:P:741:ALA:HB2	1.90	0.53
4:K:42:GLU:OE1	4:K:52:ARG:NH1	2.41	0.53
3:P:541:LEU:O	3:P:542:ALA:HB2	2.09	0.53
3:J:1259:GLN:HE22	3:J:1262:ARG:NH2	2.06	0.53
5:L:407:GLU:HG2	5:L:442:SER:HB3	1.91	0.53
3:D:497:GLU:CB	3:D:498:PRO:HD2	2.36	0.53
1:H:168:ILE:CD1	3:P:867:GLN:HB3	2.34	0.53
7:2:29:DC:H2"	7:2:30:DA:N7	2.24	0.53
2:C:241:LEU:HD23	2:C:285:ILE:HD12	1.90	0.53
3:D:201:LEU:HD23	3:D:204:GLU:OE1	2.08	0.53
2:I:634:VAL:CG1	2:I:635:THR:N	2.72	0.53
1:B:166:ARG:HG2	1:B:167:PRO:HD2	1.90	0.53
3:J:1163:VAL:HG11	3:J:1175:LEU:HG	1.91	0.53
3:D:664:ILE:HD13	3:D:681:LYS:HE2	1.90	0.53
5:F:511:ILE:HG13	5:F:517:SER:OG	2.09	0.53
5:L:460:ILE:O	5:L:464:ASN:ND2	2.42	0.53
3:J:412:LEU:HD23	3:J:441:LEU:HD11	1.91	0.53
3:D:1179:PRO:HD3	3:D:1184:ASP:O	2.07	0.53
3:P:320:ASN:O	3:P:321:LYS:HB2	2.07	0.53
2:O:1064:ASP:CG	2:O:1238:LEU:CD2	2.77	0.53
2:C:1286:THR:O	2:C:1290:MET:HG2	2.09	0.53
3:D:958:ILE:HG13	3:D:1011:VAL:HG13	1.91	0.53
5:R:386:LEU:HD22	6:7:41:DT:N3	2.24	0.53
1:A:140:ILE:HD11	1:A:142:MET:HE3	1.90	0.53
2:C:1101:LEU:HD23	3:D:504:GLN:CG	2.38	0.53
2:O:113:THR:HG23	2:O:114:VAL:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:407:VAL:HG23	3:D:408:VAL:N	2.24	0.53
2:C:225:PHE:HE2	2:C:347:ILE:HB	1.73	0.53
2:O:1309:VAL:HG22	3:P:379:PRO:O	2.08	0.52
7:8:14:DC:H2'	7:8:15:DT:C6	2.44	0.52
3:D:743:MET:HG3	3:D:759:ILE:O	2.09	0.52
2:O:428:VAL:HG12	2:O:429:MET:H	1.74	0.52
1:A:11:PRO:HG2	1:B:231:PHE:CE2	2.43	0.52
2:C:816:ILE:CG2	2:C:818:VAL:HG13	2.34	0.52
2:O:373:GLY:HA2	5:R:91:ILE:CG1	2.39	0.52
3:P:128:LEU:HD11	3:P:189:LEU:CD2	2.39	0.52
2:O:255:ILE:HG23	2:O:285:ILE:HG21	1.91	0.52
3:D:470:VAL:O	3:D:472:LEU:HD23	2.09	0.52
3:D:549:LYS:NZ	3:D:569:LEU:HD13	2.25	0.52
2:O:34:SER:OG	2:O:455:SER:HB2	2.09	0.52
2:C:805:MET:HG2	2:C:1097:VAL:HG13	1.90	0.52
2:C:616:ILE:HG12	2:C:652:TYR:HB2	1.91	0.52
2:O:757:THR:C	2:O:833:ILE:HD12	2.30	0.52
3:J:425:ARG:NH1	3:J:427:PRO:HD2	2.24	0.52
3:D:492:SER:HG	3:D:495:ASN:H	1.56	0.52
3:J:141:PHE:HA	3:J:180:MET:HG2	1.91	0.52
3:J:1239:ASP:O	3:J:1243:LEU:HG	2.09	0.52
1:N:219:ARG:O	1:N:223:ILE:HG13	2.09	0.52
1:B:39:LEU:O	1:B:43:LEU:HD12	2.09	0.52
5:F:135:ALA:CB	5:F:256:PHE:CB	2.76	0.52
3:J:1229:VAL:HG22	3:J:1233:ILE:HD11	1.91	0.52
2:I:854:ILE:HG22	2:I:857:VAL:CG2	2.36	0.52
2:C:685:MET:HE2	2:C:1073:LYS:HB3	1.89	0.52
5:R:381:GLU:HA	5:R:384:LEU:HD21	1.91	0.52
5:F:102:MET:HE1	6:1:43:DT:H1'	1.91	0.52
1:B:168:ILE:HG22	1:B:169:GLY:N	2.23	0.52
3:J:1019:ASN:O	3:J:1020:TRP:HB3	2.10	0.52
4:Q:6:VAL:HG13	4:Q:51:LEU:HD22	1.91	0.52
2:I:209:ILE:HD11	2:I:425:ILE:HD13	1.91	0.52
3:D:372:MET:O	3:D:376:LEU:HG	2.09	0.52
2:O:178:PRO:CG	2:O:395:TYR:CE1	2.93	0.52
2:C:1121:ALA:HA	2:C:1124:ILE:CD1	2.40	0.52
1:B:190:ALA:HB3	1:B:199:ASP:CA	2.40	0.52
3:J:700:ASN:O	3:J:704:GLU:HB3	2.09	0.52
2:O:1289:GLU:OE1	3:P:472:LEU:HG	2.09	0.52
2:I:1085:MET:CE	2:I:1085:MET:CA	2.86	0.52
2:I:169:LYS:O	2:I:171:LEU:HG	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:966:VAL:HG13	3:P:966:VAL:O	2.10	0.52
1:H:97:GLU:HG3	1:H:147:GLN:HE21	1.74	0.52
2:O:150:HIS:CE1	2:O:454:ARG:HD2	2.44	0.52
3:D:836:ARG:HD2	3:D:873:GLU:OE2	2.10	0.52
6:4:55:DC:H2"	6:4:56:DG:OP2	2.09	0.52
1:M:60:GLU:O	1:M:142:MET:HB2	2.09	0.52
1:M:46:ILE:CD1	1:M:46:ILE:N	2.73	0.52
5:R:461:ASN:O	5:R:465:ARG:HG3	2.09	0.52
2:I:797:GLY:CA	2:I:1233:LEU:HD21	2.39	0.52
2:O:1047:LEU:O	2:O:1048:LYS:HG3	2.09	0.52
3:D:549:LYS:HZ3	3:D:569:LEU:HD13	1.74	0.52
2:I:202:ARG:HB2	2:I:369:MET:HE3	1.91	0.52
6:1:58:DG:N2	7:2:6:DG:N3	2.57	0.52
2:C:202:ARG:HB2	2:C:369:MET:CE	2.40	0.52
2:I:14:ASP:HA	2:I:1183:ALA:HB3	1.91	0.52
3:J:22:ILE:HD12	3:J:1319:PHE:CE1	2.44	0.52
3:D:245:LEU:HD12	3:D:246:PRO:HD2	1.90	0.52
5:F:466:ILE:CD1	5:F:487:MET:SD	2.98	0.52
3:P:697:MET:CE	3:P:738:ARG:HA	2.39	0.52
5:L:119:ILE:HG23	5:L:122:ARG:NH2	2.23	0.52
2:C:275:ARG:NH1	2:C:278:GLU:OE1	2.42	0.52
2:I:427:ASP:O	2:I:430:LYS:HB2	2.10	0.52
3:J:1151:LYS:O	3:J:1153:PRO:HD3	2.10	0.52
2:C:359:ARG:HG2	2:C:363:LEU:HD12	1.92	0.52
2:I:851:THR:HG22	2:I:852:ALA:N	2.25	0.52
3:P:746:LEU:HD23	3:P:758:PRO:HB3	1.92	0.52
1:B:152:TYR:OH	1:B:174:ASP:HB3	2.09	0.52
2:C:185:ASP:CG	2:C:200:ARG:HG2	2.30	0.52
7:8:24:DT:OP1	7:8:24:DT:C4'	2.58	0.52
3:J:502:PRO:HB3	3:J:506:VAL:HG11	1.91	0.52
7:2:36:DG:C2'	7:2:37:DA:OP2	2.45	0.52
7:8:51:DG:H2'	7:8:52:DT:H71	1.90	0.52
5:L:386:LEU:N	6:4:41:DT:H1'	2.24	0.52
5:R:91:ILE:O	5:R:91:ILE:HG22	2.08	0.52
2:C:696:ASP:HB2	2:C:798:GLN:HG2	1.92	0.52
2:I:1325:VAL:HG13	3:J:249:LEU:HD22	1.91	0.52
2:C:275:ARG:NH1	2:C:278:GLU:OE2	2.41	0.52
2:I:452:ARG:NH2	2:I:458:GLU:OE1	2.41	0.52
3:P:280:LYS:HA	3:P:283:LEU:HD12	1.91	0.52
3:J:843:VAL:HB	3:J:897:HIS:O	2.10	0.52
1:H:158:ARG:O	1:H:159:ILE:C	2.47	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:100:LEU:HD13	1:A:115:ILE:HD13	1.91	0.52
1:G:228:LEU:HD11	1:H:224:LEU:HD21	1.91	0.52
2:C:558:VAL:HG22	2:C:574:SER:O	2.09	0.52
2:O:528:ARG:NH1	2:O:575:LEU:O	2.40	0.52
2:I:70:TYR:HA	2:I:100:LEU:HD23	1.90	0.52
3:J:846:GLU:HG2	3:J:847:ASP:N	2.25	0.52
3:D:378:LYS:O	3:D:381:ILE:HB	2.10	0.52
6:4:50:DT:H5'	6:4:51:DC:C5	2.44	0.52
3:D:620:PHE:O	3:D:624:ILE:CG1	2.57	0.52
2:C:1275:VAL:HG12	2:C:1279:GLU:OE2	2.09	0.52
2:O:797:GLY:O	2:O:798:GLN:HG3	2.10	0.52
3:P:140:TYR:O	3:P:141:PHE:HB2	2.10	0.52
2:C:250:THR:OG1	2:C:268:ARG:NE	2.43	0.52
3:J:611:ILE:HG22	3:J:612:LEU:HD23	1.92	0.52
2:I:598:VAL:HG13	2:I:627:GLY:HA2	1.90	0.52
6:4:18:DA:C2	7:5:46:DG:N2	2.78	0.52
2:O:192:ASP:HB3	2:O:346:TYR:CD1	2.44	0.52
2:O:729:ALA:C	2:O:755:LYS:HE3	2.30	0.52
4:K:28:ARG:HG3	4:K:28:ARG:HH11	1.72	0.52
2:O:487:LEU:HB3	2:O:492:MET:SD	2.50	0.52
6:4:31:DT:H2"	6:4:32:DA:OP2	2.10	0.52
3:P:1075:ARG:HB2	3:P:1192:LYS:HD3	1.92	0.52
3:P:835:LEU:O	3:P:835:LEU:HG	2.09	0.52
3:P:839:VAL:HG13	3:P:864:LEU:CD1	2.38	0.52
3:J:555:TYR:CB	3:J:563:LEU:HD22	2.37	0.52
1:M:49:SER:HB2	1:N:33:ARG:NH1	2.24	0.52
2:C:514:PHE:CE2	7:2:19:DA:H1'	2.45	0.52
2:O:674:ASP:O	3:P:772:TYR:CE1	2.63	0.52
2:C:375:PRO:HD3	5:F:87:VAL:HG11	1.92	0.52
3:J:712:GLN:CD	3:J:712:GLN:N	2.63	0.52
3:J:812:ASP:O	3:J:897:HIS:ND1	2.37	0.52
3:J:419:HIS:CE1	3:J:477:GLN:NE2	2.78	0.52
3:P:580:TRP:O	3:P:580:TRP:CD1	2.63	0.52
2:C:857:VAL:HG12	2:C:858:GLY:O	2.10	0.52
5:L:572:THR:O	5:L:576:VAL:HG23	2.10	0.52
3:J:237:MET:C	3:J:238:ILE:HD13	2.30	0.52
3:P:264:ASP:HB3	3:P:324:LEU:CD2	2.40	0.52
2:O:592:ARG:NH2	2:O:599:VAL:HG12	2.24	0.52
5:L:452:ILE:HB	5:L:457:ILE:CD1	2.36	0.52
1:B:37:HIS:NE2	1:B:187:VAL:HG21	2.25	0.52
2:O:675:ASP:OD2	2:O:677:ASN:ND2	2.32	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:360:TYR:CD1	3:D:361:LEU:CD2	2.92	0.52
2:I:871:VAL:HG11	2:I:928:VAL:HG21	1.92	0.52
2:C:1105:SER:CB	3:D:731:ARG:HD2	2.39	0.52
2:O:1272:GLU:HG2	3:P:343:LEU:HB3	1.90	0.52
3:P:242:LEU:CD1	3:P:243:PRO:HD2	2.35	0.52
3:P:370:LYS:HD3	3:P:409:TRP:CZ3	2.45	0.52
6:4:36:DT:H3'	6:4:37:DA:P	2.50	0.52
2:I:618:GLN:O	2:I:621:SER:OG	2.22	0.52
2:C:941:LYS:HB2	2:C:946:LEU:HD13	1.90	0.52
2:C:878:THR:HG22	2:C:879:GLY:N	2.25	0.52
3:J:245:LEU:HD12	3:J:246:PRO:HD2	1.90	0.52
7:2:16:DC:H2'	7:2:17:DG:C8	2.45	0.52
3:J:872:LEU:N	3:J:872:LEU:CD2	2.65	0.52
2:I:1020:GLU:O	2:I:1024:GLU:N	2.32	0.52
2:I:1305:TYR:HA	2:I:1308:ILE:HD12	1.90	0.52
5:F:562:ARG:NH2	7:2:46:DG:OP1	2.42	0.52
2:I:213:LEU:HG	2:I:385:PHE:CZ	2.44	0.52
2:I:363:LEU:HB3	2:I:381:ALA:HB1	1.92	0.52
1:B:59:VAL:CG2	1:B:144:ILE:HG23	2.34	0.52
2:C:1101:LEU:HD23	3:D:504:GLN:HG3	1.91	0.52
3:D:704:GLU:O	3:D:704:GLU:CG	2.58	0.52
6:1:49:DG:H2'	6:1:50:DT:H1'	1.92	0.52
2:O:1225:VAL:HG22	3:P:638:SER:HB3	1.92	0.52
3:J:851:PRO:HA	3:J:855:ASP:HA	1.91	0.52
2:I:7:GLU:O	2:I:11:ILE:HG12	2.10	0.52
3:J:805:GLN:HB3	3:J:1347:LEU:HD12	1.92	0.52
2:I:1113:LEU:HG	3:J:641:ILE:HD12	1.92	0.52
1:N:156:SER:HA	1:N:159:ILE:HG22	1.92	0.52
5:R:368:GLY:HA2	5:R:371:LYS:HD2	1.91	0.52
2:C:205:PRO:HB2	2:C:207:THR:HG22	1.92	0.52
3:D:138:VAL:HG12	3:D:185:ILE:HD11	1.92	0.52
2:C:149:LEU:CD2	2:C:451:ARG:HH21	2.23	0.52
3:D:646:ILE:HD12	3:D:764:ARG:HD3	1.85	0.52
3:P:797:THR:HA	3:P:800:LEU:CD1	2.40	0.52
2:O:1281:TYR:OH	3:P:431:ARG:C	2.49	0.52
2:I:964:LEU:CD1	2:I:1021:LEU:HD22	2.39	0.52
3:P:212:THR:HG22	3:P:215:LYS:CE	2.40	0.52
3:D:805:GLN:HB2	3:D:1347:LEU:CD1	2.37	0.52
3:P:146:VAL:HG23	3:P:158:GLN:O	2.09	0.52
3:J:111:THR:CG2	3:J:112:ALA:N	2.73	0.52
3:D:599:LYS:HG3	3:D:600:ALA:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:727:VAL:HG13	2:I:732:ILE:HG23	1.91	0.52
3:J:123:ARG:O	3:J:127:LEU:HG	2.09	0.52
2:C:851:THR:HG22	2:C:853:ASP:H	1.74	0.52
2:O:1338:GLU:HG2	3:P:21:LYS:HE2	1.92	0.52
3:P:959:LYS:HZ2	3:P:985:ILE:HD11	1.74	0.52
3:J:1046:ILE:HG22	3:J:1061:VAL:HA	1.92	0.52
2:C:1332:SER:OG	3:D:245:LEU:HD13	2.09	0.52
2:I:764:CYS:HA	2:I:833:ILE:CD1	2.40	0.52
1:G:104:LYS:HE3	1:G:114:ASP:OD2	2.09	0.52
6:7:23:DA:C2	7:8:41:DG:N2	2.78	0.52
3:J:1047:THR:O	3:J:1047:THR:HG23	2.10	0.52
2:I:217:THR:HA	2:I:220:ILE:HD12	1.92	0.52
4:Q:44:ASP:OD2	4:Q:52:ARG:NH2	2.43	0.52
2:O:92:TYR:HB2	2:O:137:VAL:HB	1.91	0.51
5:R:599:ARG:O	5:R:601:PRO:HD3	2.10	0.51
2:O:1281:TYR:OH	3:P:432:LEU:HD23	2.10	0.51
3:J:704:GLU:HG3	3:J:704:GLU:O	2.10	0.51
3:D:425:ARG:HG2	3:D:425:ARG:HH11	1.75	0.51
1:A:76:GLU:N	1:A:76:GLU:OE1	2.43	0.51
2:O:878:THR:HA	2:O:925:SER:HB2	1.92	0.51
1:G:28:LEU:HD21	1:H:231:PHE:CE1	2.46	0.51
2:C:82:VAL:O	2:C:86:GLN:HG3	2.09	0.51
3:P:433:GLY:O	3:P:457:TYR:CE1	2.59	0.51
1:H:48:LEU:HD21	1:H:183:ILE:CG2	2.40	0.51
1:M:234:LEU:HB3	1:N:13:LEU:CD2	2.40	0.51
3:D:698:MET:O	3:D:702:GLN:CB	2.58	0.51
3:J:871:LEU:O	3:J:874:GLU:HB2	2.10	0.51
5:F:323:ASN:O	5:F:324:LYS:HB2	2.10	0.51
1:B:17:GLU:HG2	1:B:19:VAL:HG23	1.92	0.51
1:A:124:VAL:HG12	1:A:125:LYS:HG3	1.92	0.51
2:C:634:VAL:HG12	2:C:635:THR:N	2.26	0.51
5:L:148:TYR:CZ	5:L:152:GLU:HG3	2.45	0.51
3:P:207:GLU:O	3:P:208:THR:HG23	2.09	0.51
2:C:143:ARG:NH1	2:C:507:GLY:O	2.42	0.51
3:P:378:LYS:HA	3:P:381:ILE:HD12	1.92	0.51
3:P:347:VAL:HG12	3:P:348:ASP:N	2.25	0.51
2:C:149:LEU:HD23	2:C:451:ARG:HH21	1.75	0.51
1:M:31:LEU:HD12	1:M:201:LEU:HB2	1.91	0.51
2:I:805:MET:HB2	2:I:806:PRO:CD	2.40	0.51
1:M:224:LEU:CD2	1:N:228:LEU:HD21	2.40	0.51
3:P:749:LYS:CB	3:P:750:PRO:CD	2.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:870:ILE:CG1	2:O:944:ARG:HG2	2.39	0.51
3:P:614:LEU:HD23	4:Q:7:GLN:CD	2.31	0.51
3:P:1257:VAL:HA	3:P:1260:MET:HE2	1.91	0.51
3:J:1263:LYS:HD3	3:J:1280:VAL:C	2.30	0.51
3:J:1179:PRO:HB2	3:J:1182:GLY:HA3	1.93	0.51
2:I:183:TRP:CH2	6:4:48:DA:N6	2.79	0.51
2:I:542:ARG:NH1	6:4:49:DG:H8	2.08	0.51
3:P:180:MET:HE1	3:P:293:ARG:CZ	2.40	0.51
1:N:192:VAL:HG12	1:N:198:LEU:HB2	1.92	0.51
3:P:1162:ILE:HG13	3:P:1180:VAL:CG1	2.40	0.51
2:I:653:MET:HG2	2:I:654:ASP:N	2.25	0.51
1:G:68:TYR:HD2	2:I:929:ILE:HD11	1.74	0.51
1:N:111:THR:OG1	1:N:126:PRO:O	2.29	0.51
6:7:34:DG:N2	7:8:29:DC:O2	2.41	0.51
3:P:530:PRO:HB2	3:P:581:MET:CG	2.40	0.51
3:D:807:LEU:CD2	3:D:1255:VAL:HG13	2.35	0.51
2:C:809:GLY:CA	3:D:629:PHE:CD1	2.94	0.51
2:C:313:ALA:O	2:C:314:ASN:HB3	2.10	0.51
2:C:1098:LEU:CD2	2:C:1099:ASN:H	2.23	0.51
2:I:202:ARG:HH22	7:5:7:DC:H3'	1.76	0.51
3:J:424:ASN:O	3:J:466:MET:CE	2.58	0.51
2:C:732:ILE:CD1	2:C:753:LEU:HD11	2.40	0.51
5:R:311:THR:HG22	5:R:348:GLU:OE1	2.10	0.51
5:F:414:LYS:HD3	5:F:434:TRP:CZ3	2.46	0.51
3:D:254:PRO:HB3	3:D:260:PHE:CZ	2.45	0.51
2:I:1332:SER:O	3:J:243:PRO:CG	2.58	0.51
1:H:39:LEU:O	1:H:43:LEU:CD1	2.58	0.51
2:I:884:VAL:O	2:I:917:SER:HB3	2.10	0.51
1:M:11:PRO:HA	1:M:30:PRO:HD2	1.92	0.51
5:L:457:ILE:O	5:L:461:ASN:CG	2.49	0.51
3:P:902:ASP:HB2	3:P:909:ILE:HG13	1.91	0.51
2:I:519:ASN:ND2	2:I:686:GLN:O	2.43	0.51
3:J:704:GLU:CG	3:J:704:GLU:O	2.59	0.51
2:C:807:TRP:O	2:C:809:GLY:N	2.42	0.51
6:7:47:DC:H2"	6:7:48:DA:OP1	2.09	0.51
2:O:402:ARG:HG2	2:O:416:GLY:CA	2.40	0.51
2:C:732:ILE:HD11	2:C:753:LEU:HD11	1.92	0.51
5:R:491:GLU:O	5:R:494:ILE:HB	2.10	0.51
2:I:1156:ARG:NH1	2:I:1157:GLN:HB2	2.25	0.51
2:C:801:ARG:HG2	2:C:1229:TYR:CZ	2.45	0.51
2:O:143:ARG:NH1	2:O:512:SER:O	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:899:TYR:CD2	3:J:915:ILE:HD13	2.45	0.51
1:A:48:LEU:CD1	1:A:183:ILE:HG21	2.38	0.51
2:I:1198:LEU:HD12	2:I:1198:LEU:O	2.10	0.51
5:R:456:MET:HE2	5:R:456:MET:N	2.26	0.51
2:I:805:MET:O	2:I:811:ASN:ND2	2.43	0.51
3:P:421:VAL:HG12	3:P:469:HIS:O	2.10	0.51
3:D:478:LEU:HD13	4:E:24:ALA:HB2	1.93	0.51
3:P:1328:THR:HG22	3:P:1332:LEU:HD11	1.92	0.51
3:P:492:SER:HG	3:P:495:ASN:H	1.58	0.51
1:A:158:ARG:O	1:A:162:GLU:HB2	2.11	0.51
1:N:81:ILE:CD1	1:N:131:CYS:SG	2.98	0.51
2:O:297:VAL:HG13	2:O:317:LEU:HG	1.92	0.51
2:I:1225:VAL:CG1	2:I:1226:THR:N	2.73	0.51
3:P:1302:TYR:N	3:P:1302:TYR:CD1	2.77	0.51
3:D:190:LYS:HB2	3:D:235:GLU:HG2	1.93	0.51
2:I:538:LEU:N	2:I:538:LEU:HD23	2.25	0.51
1:A:44:ARG:O	1:A:47:LEU:HB2	2.10	0.51
3:D:746:LEU:HG	3:D:758:PRO:HB3	1.93	0.51
2:I:805:MET:HB2	2:I:806:PRO:HD2	1.92	0.51
2:O:1289:GLU:OE2	3:P:473:THR:HG23	2.11	0.51
2:C:3:TYR:OH	2:C:1159:VAL:HG22	2.11	0.51
3:D:474:LEU:O	3:D:478:LEU:HG	2.10	0.51
6:7:48:DA:H5"	6:7:48:DA:C8	2.46	0.51
5:R:506:SER:HB3	5:R:509:THR:OG1	2.11	0.51
7:5:28:DG:H2"	7:5:29:DC:OP2	2.11	0.51
3:J:491:LEU:HD22	3:J:496:GLY:O	2.10	0.51
3:J:1346:GLY:O	3:J:1349:GLU:HG3	2.10	0.51
2:O:39:ILE:O	2:O:39:ILE:HG22	2.09	0.51
3:D:975:ILE:HD11	3:D:1003:LEU:HG	1.92	0.51
3:J:322:ARG:NH2	5:L:508:GLU:C	2.64	0.51
2:I:1269:ARG:HH11	3:J:340:GLN:HA	1.74	0.51
3:D:1154:ALA:HA	3:D:1211:SER:HB2	1.93	0.51
2:O:840:SER:OG	2:O:840:SER:O	2.28	0.51
1:H:109:PRO:HB3	1:H:132:HIS:NE2	2.24	0.51
5:R:376:LYS:O	5:R:380:VAL:HG23	2.11	0.51
3:J:705:THR:HG21	3:J:716:GLN:HG2	1.93	0.51
2:O:13:LYS:HB3	2:O:1182:ILE:HG12	1.93	0.51
2:O:1122:LYS:HG3	2:O:1229:TYR:CE2	2.45	0.51
2:I:228:VAL:HG21	2:I:337:PHE:HB2	1.93	0.51
1:B:110:VAL:HG21	1:B:131:CYS:HB2	1.93	0.51
1:N:67:GLU:O	1:N:78:ILE:HB	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:15:ASP:C	1:G:16:ILE:HG13	2.26	0.51
3:J:117:LEU:HG	3:J:118:LYS:HD3	1.93	0.51
1:M:67:GLU:O	1:M:78:ILE:HD12	2.11	0.51
1:A:48:LEU:HD12	1:A:183:ILE:HG21	1.90	0.51
3:J:733:SER:O	3:J:737:ILE:HG13	2.10	0.51
3:P:501:VAL:HG12	3:P:502:PRO:CD	2.41	0.51
1:M:232:VAL:HG22	1:N:221:ALA:CB	2.39	0.51
2:O:228:VAL:HG13	2:O:245:ARG:NH1	2.25	0.51
3:D:1134:ILE:HG22	3:D:1138:LEU:HD13	1.90	0.51
3:P:128:LEU:HB3	3:P:157:GLN:HE22	1.76	0.51
2:O:390:PHE:N	2:O:390:PHE:HD2	2.02	0.51
1:N:82:LEU:HD22	1:N:173:VAL:CG2	2.41	0.51
3:P:959:LYS:HD2	3:P:985:ILE:CG1	2.41	0.51
1:B:71:LYS:HD3	1:B:140:ILE:HD12	1.92	0.51
2:C:736:VAL:HG12	2:C:737:ASN:O	2.11	0.51
2:C:838:CYS:HB2	2:C:918:LEU:HD22	1.93	0.51
1:A:184:ALA:HB2	2:C:1091:GLY:CA	2.41	0.51
1:H:6:THR:O	1:H:6:THR:HG22	2.10	0.51
1:N:97:GLU:OE1	1:N:147:GLN:NE2	2.43	0.51
3:P:390:LEU:HD13	3:P:411:ILE:HD11	1.92	0.51
3:P:1360:GLY:HA3	4:Q:17:PHE:CE1	2.46	0.51
2:C:1062:PRO:HA	2:C:1076:ILE:HB	1.93	0.51
1:A:84:ASN:ND2	1:A:130:ILE:O	2.37	0.51
1:M:228:LEU:HD21	1:N:224:LEU:HD23	1.93	0.51
2:I:690:VAL:HG12	2:I:691:PRO:CD	2.40	0.51
3:P:1347:LEU:CD2	3:P:1357:ILE:CG2	2.88	0.51
3:D:1145:PHE:O	3:D:1309:ILE:HG13	2.10	0.51
5:L:455:HIS:NE2	6:4:31:DT:H71	2.26	0.51
2:C:1099:ASN:HD21	2:C:1101:LEU:HB2	1.76	0.51
5:R:260:ARG:HH12	5:R:422:ARG:NH2	2.06	0.51
2:C:851:THR:CG2	2:C:852:ALA:H	2.24	0.51
2:O:61:SER:CB	2:O:66:SER:OG	2.58	0.51
2:C:797:GLY:CA	2:C:1233:LEU:CD2	2.89	0.51
3:D:79:LYS:HG3	5:F:569:THR:CG2	2.40	0.51
3:J:802:ASP:OD1	3:J:1325:PHE:CD1	2.64	0.51
3:J:515:ARG:NH2	3:J:718:SER:O	2.44	0.51
3:P:982:LEU:HD23	3:P:995:TYR:HD2	1.75	0.51
2:O:151:ARG:HG2	2:O:451:ARG:NH1	2.26	0.51
3:P:1002:VAL:O	3:P:1019:ASN:N	2.42	0.51
5:R:256:PHE:HZ	5:R:261:LEU:HD11	1.76	0.51
2:I:311:CYS:HB3	2:I:321:LEU:HD13	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:43:PRO:O	2:I:54:ARG:NH1	2.38	0.51
2:O:96:LEU:CA	2:O:127:ILE:HD11	2.40	0.51
3:P:363:LEU:CD2	3:P:487:THR:HG22	2.41	0.51
1:M:36:GLY:CA	1:M:201:LEU:HD13	2.41	0.51
5:L:460:ILE:HG22	7:5:26:DT:H72	1.93	0.51
2:O:524:ILE:CD1	2:O:712:SER:HB3	2.29	0.51
2:C:178:PRO:HA	2:C:397:LEU:CD2	2.35	0.51
2:O:870:ILE:N	2:O:870:ILE:HD13	2.25	0.51
3:P:111:THR:HG21	3:P:300:GLN:HA	1.93	0.51
2:O:920:VAL:HG13	2:O:921:PRO:HD2	1.92	0.51
3:J:1109:LEU:HD12	3:J:1120:THR:O	2.11	0.51
3:D:370:LYS:HG3	3:D:442:ILE:O	2.12	0.51
2:O:82:VAL:HG23	2:O:83:GLN:N	2.25	0.51
2:I:525:THR:HG21	2:I:687:ARG:CD	2.41	0.51
2:I:980:VAL:O	2:I:980:VAL:HG12	2.09	0.51
3:D:1080:ILE:HB	3:D:1097:ALA:HB3	1.93	0.51
5:R:373:ARG:O	5:R:377:LYS:HG3	2.11	0.51
2:I:33:ASP:O	2:I:37:LYS:HG3	2.10	0.51
3:J:908:ILE:HG22	3:J:908:ILE:O	2.10	0.51
2:I:120:GLN:OE1	2:I:489:PRO:HG2	2.10	0.51
2:I:313:ALA:O	2:I:314:ASN:CB	2.59	0.51
3:J:1163:VAL:HG13	3:J:1177:ILE:HA	1.93	0.50
3:P:1318:SER:HB2	3:P:1349:GLU:OE2	2.11	0.50
2:O:569:ILE:HD13	3:P:784:ALA:CA	2.40	0.50
2:C:557:ARG:NH2	2:C:608:ALA:HA	2.25	0.50
3:J:1230:THR:HG23	3:J:1257:VAL:HG11	1.93	0.50
2:O:242:VAL:O	2:O:245:ARG:HB2	2.11	0.50
2:O:805:MET:CE	2:O:806:PRO:HD2	2.40	0.50
3:D:470:VAL:O	3:D:472:LEU:CD2	2.59	0.50
3:P:1279:GLN:HE22	3:P:1307:LEU:HD21	1.76	0.50
4:K:48:VAL:HA	4:K:51:LEU:CD1	2.40	0.50
2:C:153:PRO:HB2	2:C:401:GLY:CA	2.41	0.50
2:I:808:ASN:ND2	3:J:633:ALA:HB2	2.27	0.50
3:P:275:ARG:HG2	3:P:278:ARG:NH2	2.25	0.50
3:P:982:LEU:HD23	3:P:995:TYR:CD2	2.46	0.50
3:D:580:TRP:O	3:D:580:TRP:CG	2.64	0.50
5:L:419:PHE:HA	5:L:430:TYR:CE2	2.46	0.50
2:I:1220:GLN:HG2	2:I:1221:PHE:O	2.11	0.50
2:C:1321:GLU:O	2:C:1325:VAL:HG23	2.11	0.50
3:J:1164:SER:CA	3:J:1175:LEU:HD11	2.42	0.50
1:A:44:ARG:HG3	1:A:183:ILE:HG12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:744:ARG:HB3	3:D:759:ILE:HG21	1.92	0.50
2:I:1098:LEU:HD23	2:I:1099:ASN:N	2.24	0.50
2:C:409:LEU:N	2:C:409:LEU:HD23	2.25	0.50
3:J:826:ILE:CG1	3:J:831:VAL:HG13	2.30	0.50
6:4:11:DA:H1'	6:4:12:DC:H5'	1.92	0.50
2:C:1117:LEU:HG	2:C:1117:LEU:O	2.10	0.50
2:O:211:ARG:CD	2:O:357:ASN:O	2.52	0.50
2:I:871:VAL:HG23	2:I:883:LEU:CA	2.41	0.50
3:D:268:LEU:O	3:D:272:VAL:HG23	2.11	0.50
3:D:112:ALA:CA	3:D:238:ILE:CD1	2.89	0.50
6:7:49:DG:C8	6:7:49:DG:C3'	2.94	0.50
2:C:521:LEU:HD12	2:C:521:LEU:O	2.12	0.50
2:C:260:LYS:HE2	2:C:262:TYR:CE2	2.47	0.50
2:O:1232:MET:C	2:O:1233:LEU:HG	2.32	0.50
2:C:1232:MET:CE	2:C:1232:MET:HA	2.41	0.50
2:C:73:TYR:CB	2:C:98:VAL:HG22	2.40	0.50
2:I:149:LEU:HD23	2:I:451:ARG:NH2	2.26	0.50
2:I:1111:GLN:O	2:I:1115:THR:OG1	2.27	0.50
1:M:192:VAL:HG12	1:M:193:GLU:H	1.76	0.50
2:O:1244:HIS:NE2	2:O:1266:GLY:O	2.38	0.50
2:C:1260:GLY:O	2:C:1264:GLN:HG2	2.11	0.50
3:D:1074:LEU:O	3:D:1076:PRO:HD3	2.11	0.50
2:I:392:GLU:H	2:I:392:GLU:CD	2.13	0.50
2:O:1297:ASP:OD2	2:O:1318:GLY:N	2.45	0.50
5:L:102:MET:HB3	6:4:42:DG:C2	2.46	0.50
5:R:460:ILE:HA	5:R:463:LEU:HG	1.94	0.50
5:R:120:ALA:HA	5:R:123:ILE:CD1	2.31	0.50
2:C:662:SER:OG	2:C:663:VAL:N	2.44	0.50
3:J:1229:VAL:HG13	3:J:1230:THR:H	1.74	0.50
7:2:25:DA:H1'	7:2:26:DT:H5'	1.94	0.50
3:J:519:ASN:HB3	3:J:523:GLU:CD	2.31	0.50
3:D:797:THR:HG23	3:D:924:GLY:CA	2.37	0.50
3:J:1155:ILE:O	3:J:1156:LEU:HD23	2.10	0.50
2:I:729:ALA:O	2:I:730:SER:HB3	2.12	0.50
2:I:169:LYS:CG	2:I:171:LEU:HD21	2.42	0.50
2:I:641:GLU:HG2	2:I:642:SER:N	2.26	0.50
3:J:512:TYR:CD1	3:J:545:HIS:HE1	2.30	0.50
1:H:70:THR:O	1:H:70:THR:CG2	2.59	0.50
2:O:674:ASP:O	3:P:772:TYR:HE1	1.95	0.50
3:D:1029:THR:HG21	3:D:1080:ILE:HD11	1.93	0.50
3:P:530:PRO:HB2	3:P:581:MET:HG2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1340:GLU:O	3:J:17:PHE:HB2	2.10	0.50
1:N:106:GLY:HA2	1:N:136:GLU:HA	1.93	0.50
2:I:1288:GLN:OE1	3:J:1356:LEU:HG	2.10	0.50
1:M:67:GLU:O	1:M:78:ILE:CB	2.60	0.50
2:O:898:GLU:H	2:O:898:GLU:CD	2.14	0.50
3:J:452:LEU:HG	3:J:625:MET:SD	2.52	0.50
5:R:167:ASP:N	5:R:168:PRO:CD	2.73	0.50
7:2:25:DA:C2'	7:2:26:DT:OP2	2.58	0.50
1:M:38:THR:HG23	1:N:42:ALA:CA	2.38	0.50
2:I:436:ARG:O	2:I:436:ARG:HD2	2.11	0.50
2:I:1246:ARG:NH2	2:I:1249:GLY:C	2.64	0.50
1:N:82:LEU:CD2	1:N:173:VAL:CG2	2.89	0.50
2:O:525:THR:HG21	2:O:687:ARG:CD	2.40	0.50
2:I:1184:THR:O	2:I:1184:THR:CG2	2.59	0.50
2:I:149:LEU:CD2	2:I:451:ARG:HH21	2.24	0.50
5:F:428:SER:HB2	6:1:40:DA:OP2	2.11	0.50
3:D:748:ALA:HB2	3:D:941:ALA:HB3	1.93	0.50
1:G:226:GLU:O	1:G:229:GLU:HB2	2.12	0.50
6:7:32:DA:H2"	6:7:33:DT:OP2	2.12	0.50
2:O:496:LYS:HE2	7:8:24:DT:H5"	1.92	0.50
2:I:516:ASP:HB3	2:I:522:SER:OG	2.11	0.50
3:P:783:LEU:HD13	3:P:936:HIS:CB	2.41	0.50
3:P:1229:VAL:HG13	3:P:1230:THR:N	2.27	0.50
3:D:615:LYS:O	3:D:618:VAL:HB	2.12	0.50
3:D:378:LYS:HB3	3:D:379:PRO:CD	2.42	0.50
2:O:336:LEU:N	2:O:336:LEU:HD23	2.26	0.50
2:C:1142:ARG:CG	2:C:1161:LEU:HD23	2.41	0.50
2:I:528:ARG:HD2	2:I:663:VAL:HG21	1.93	0.50
2:C:638:SER:O	2:C:639:LYS:HB3	2.11	0.50
3:P:1319:PHE:HD2	3:P:1340:LYS:HD3	1.76	0.50
3:J:67:ASP:OD1	3:J:67:ASP:N	2.45	0.50
3:D:355:ILE:HD12	3:D:461:PHE:CE1	2.45	0.50
3:D:841:GLY:O	3:D:863:LEU:HD11	2.11	0.50
1:M:15:ASP:HB3	1:M:27:THR:OG1	2.11	0.50
4:E:7:GLN:O	4:E:10:VAL:HB	2.12	0.50
3:J:1350:ASN:ND2	3:J:1356:LEU:O	2.44	0.50
3:J:473:THR:O	3:J:476:ALA:HB3	2.11	0.50
3:J:910:ASN:ND2	4:K:15:ASN:HA	2.26	0.50
3:P:450:HIS:HD2	3:P:452:LEU:H	1.60	0.50
3:J:644:MET:HG3	3:J:722:ILE:CD1	2.41	0.50
2:O:165:HIS:HB3	2:O:167:SER:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1287:ILE:HG22	3:J:1288:ALA:CA	2.42	0.50
3:D:109:SER:HB3	3:D:299:LEU:HD22	1.93	0.50
3:P:849:LEU:HD21	3:P:857:LEU:HD23	1.92	0.50
2:C:798:GLN:CB	2:C:827:ARG:NH2	2.71	0.50
6:7:30:DG:N2	7:8:34:DG:C2	2.80	0.50
2:O:135:THR:HG21	2:O:515:MET:CE	2.41	0.50
2:C:373:GLY:CA	5:F:91:ILE:HG12	2.42	0.50
3:P:572:THR:HG1	3:P:576:ARG:HB2	1.77	0.50
5:L:563:PHE:HB2	5:L:565:ILE:CD1	2.41	0.50
3:P:589:TYR:O	3:P:592:VAL:HG12	2.11	0.50
5:R:283:GLN:CB	5:R:344:LEU:HD21	2.42	0.50
5:R:333:VAL:HG13	5:R:333:VAL:O	2.10	0.50
3:P:237:MET:O	3:P:238:ILE:HD13	2.11	0.50
3:P:178:ALA:O	3:P:179:LYS:HD2	2.11	0.50
2:C:840:SER:OG	2:C:1048:LYS:N	2.45	0.50
1:N:89:ALA:HB2	1:N:208:ASN:HD21	1.77	0.50
2:I:112:GLY:C	2:I:114:VAL:H	2.13	0.50
3:D:202:ARG:HA	3:D:205:LEU:HD12	1.92	0.50
3:J:746:LEU:CD2	3:J:758:PRO:HB3	2.42	0.50
3:P:544:LEU:HA	3:P:574:VAL:HB	1.93	0.50
6:1:47:DC:C6	6:1:47:DC:C5'	2.80	0.50
2:I:448:LEU:HD11	2:I:553:THR:CB	2.42	0.50
2:I:448:LEU:HD11	2:I:553:THR:HB	1.93	0.50
3:P:790:THR:HG21	3:P:932:MET:HG3	1.94	0.50
5:F:137:TYR:CE1	5:F:353:LEU:CD1	2.90	0.50
1:A:75:GLN:HG2	1:A:134:THR:CG2	2.42	0.50
8:6:14:A:H3'	8:6:15:G:H8	1.76	0.50
3:P:116:PHE:HE1	3:P:1333:THR:HG22	1.72	0.50
3:D:1079:LYS:HE3	3:D:1087:ASP:OD1	2.11	0.50
7:2:18:DT:H2"	7:2:19:DA:OP1	2.11	0.50
2:C:237:LEU:O	2:C:287:VAL:HG22	2.11	0.50
2:I:757:THR:O	2:I:833:ILE:HD12	2.12	0.50
1:G:30:PRO:HB3	1:G:198:LEU:HD13	1.94	0.50
1:G:65:LEU:HD22	1:G:168:ILE:HG22	1.94	0.50
3:D:1151:LYS:HD3	3:D:1151:LYS:N	2.26	0.50
3:D:1169:THR:HG21	3:D:1172:LYS:HD2	1.92	0.50
2:I:1061:GLN:CB	2:I:1062:PRO:HD2	2.20	0.50
5:R:454:VAL:HG21	6:7:32:DA:N7	2.26	0.50
3:P:783:LEU:HD13	3:P:936:HIS:HB3	1.94	0.50
2:O:1151:LEU:CD2	2:O:1198:LEU:HA	2.41	0.50
3:J:848:VAL:CG2	3:J:880:VAL:HG13	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1207:GLY:CA	3:P:1223:LEU:HD13	2.38	0.50
3:J:580:TRP:CZ3	3:J:583:VAL:CG1	2.90	0.50
7:2:14:DC:H2'	7:2:15:DT:C6	2.47	0.50
3:D:891:ASP:O	3:D:892:PHE:HB2	2.11	0.50
2:I:1142:ARG:CG	2:I:1161:LEU:HD23	2.42	0.50
2:I:1243:MET:SD	3:J:445:LYS:CB	2.99	0.50
5:F:407:GLU:CD	5:F:442:SER:CB	2.80	0.50
2:O:470:ARG:NH2	5:R:397:ARG:NH1	2.60	0.50
2:C:1177:ARG:O	2:C:1177:ARG:HG2	2.10	0.50
1:N:90:VAL:HG11	1:N:146:VAL:HG11	1.94	0.50
2:O:750:ILE:HD13	2:O:963:GLU:CG	2.42	0.50
3:P:381:ILE:O	3:P:385:LEU:HG	2.12	0.50
3:P:334:LYS:NZ	7:8:14:DC:OP1	2.44	0.50
3:D:741:ALA:C	3:D:762:ASN:HD22	2.14	0.50
2:I:285:ILE:HG22	2:I:286:GLU:O	2.12	0.50
2:C:698:PRO:HG3	2:C:1231:TYR:OH	2.11	0.50
3:D:356:THR:OG1	3:D:446:ALA:HB1	2.12	0.50
2:I:870:ILE:CG1	2:I:944:ARG:HG2	2.42	0.50
2:C:653:MET:CE	2:C:654:ASP:O	2.60	0.50
1:G:156:SER:HA	1:G:159:ILE:HD12	1.92	0.50
1:B:140:ILE:HG12	1:B:142:MET:CE	2.42	0.50
4:Q:44:ASP:CG	4:Q:52:ARG:NH2	2.65	0.50
2:I:337:PHE:O	2:I:338:THR:HG23	2.12	0.50
3:D:1234:VAL:HG12	3:D:1235:ASN:N	2.27	0.50
2:O:906:PHE:C	2:O:908:GLU:H	2.15	0.50
3:J:28:ASP:HA	3:J:31:ARG:HD2	1.93	0.50
2:C:488:MET:HB3	2:C:489:PRO:HD2	1.93	0.50
3:P:363:LEU:HD23	3:P:487:THR:HG22	1.93	0.49
2:O:347:ILE:HG22	2:O:351:LEU:CD1	2.41	0.49
1:B:44:ARG:HA	1:B:183:ILE:HD13	1.93	0.49
1:M:11:PRO:HG3	1:N:227:GLN:HB3	1.94	0.49
7:8:23:DT:H2'	7:8:24:DT:O4'	2.11	0.49
2:I:1273:MET:HA	2:I:1276:TRP:CE3	2.47	0.49
1:G:202:VAL:O	1:G:202:VAL:HG12	2.12	0.49
2:C:75:LEU:CD2	2:C:94:ALA:CB	2.88	0.49
5:L:388:ILE:HG23	5:L:389:SER:N	2.27	0.49
2:C:811:ASN:ND2	2:C:1099:ASN:CA	2.74	0.49
5:L:166:VAL:HG12	5:L:167:ASP:N	2.26	0.49
3:J:475:GLU:HG3	4:K:24:ALA:CB	2.41	0.49
2:I:1182:ILE:HG22	2:I:1183:ALA:N	2.27	0.49
2:I:424:ASP:O	2:I:428:VAL:CG2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:76:LYS:O	3:D:77:ARG:HB2	2.11	0.49
2:C:335:THR:CG2	2:C:336:LEU:H	2.24	0.49
3:D:366:CYS:SG	3:D:439:PRO:HA	2.52	0.49
2:O:1278:LEU:HD22	2:O:1283:ALA:O	2.12	0.49
2:I:700:VAL:CG2	2:I:1114:GLU:HG3	2.38	0.49
2:I:796:LEU:O	2:I:1233:LEU:HD21	2.12	0.49
6:7:42:DG:C4'	6:7:43:DT:OP2	2.60	0.49
7:5:51:DG:H2"	7:5:52:DT:OP2	2.11	0.49
3:P:1138:LEU:HG	3:P:1139:PRO:N	2.27	0.49
3:D:360:TYR:CD1	3:D:361:LEU:HD23	2.46	0.49
2:C:809:GLY:CA	3:D:629:PHE:CE1	2.94	0.49
3:J:828:GLY:O	3:J:994:SER:C	2.50	0.49
2:O:185:ASP:OD2	2:O:200:ARG:HD3	2.11	0.49
1:H:129:VAL:CG1	1:H:132:HIS:CE1	2.95	0.49
3:P:395:LYS:NZ	5:R:610:PHE:HA	2.27	0.49
2:I:810:TYR:HE2	2:I:1078:LYS:HD3	1.76	0.49
5:R:492:ASP:OD1	5:R:492:ASP:N	2.35	0.49
2:C:61:SER:HB2	2:C:66:SER:OG	2.12	0.49
3:P:847:ASP:OD1	3:P:860:ARG:HB3	2.12	0.49
3:D:1024:THR:HG22	3:D:1024:THR:O	2.13	0.49
3:J:1164:SER:O	3:J:1175:LEU:HD12	1.98	0.49
3:J:884:SER:OG	3:J:886:VAL:HG23	2.12	0.49
1:A:48:LEU:HG	1:A:180:VAL:CG1	2.43	0.49
2:I:1124:ILE:HD11	2:I:1198:LEU:HD21	1.93	0.49
1:A:42:ALA:CA	1:B:38:THR:HG23	2.32	0.49
1:M:36:GLY:O	1:M:201:LEU:CD1	2.58	0.49
2:O:658:GLN:HE21	2:O:1186:VAL:CG2	2.23	0.49
3:J:322:ARG:HH22	5:L:508:GLU:C	2.16	0.49
2:C:1223:ARG:HG2	3:D:635:SER:O	2.12	0.49
3:J:846:GLU:HG2	3:J:847:ASP:H	1.77	0.49
5:L:91:ILE:HG22	5:L:91:ILE:O	2.11	0.49
3:J:300:GLN:HG2	3:J:304:ASP:OD2	2.12	0.49
2:C:1273:MET:SD	3:D:428:THR:HB	2.51	0.49
3:J:1156:LEU:HD23	3:J:1156:LEU:N	2.27	0.49
3:P:1093:THR:CG2	3:P:1200:GLU:OE1	2.60	0.49
2:O:402:ARG:HG2	2:O:416:GLY:HA3	1.93	0.49
3:P:886:VAL:HA	3:P:1258:ARG:HB2	1.95	0.49
3:J:589:TYR:O	3:J:591:ILE:N	2.45	0.49
1:A:38:THR:HG21	1:B:46:ILE:HD11	1.94	0.49
3:D:1024:THR:HG21	3:D:1123:ARG:HE	1.77	0.49
3:D:1312:ALA:O	3:D:1316:THR:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:895:LEU:HD12	2:O:899:GLU:OE1	2.11	0.49
1:A:222:THR:HG22	1:A:223:ILE:N	2.28	0.49
3:J:1251:LYS:O	3:J:1255:VAL:HG23	2.13	0.49
3:D:1163:VAL:CG1	3:D:1177:ILE:HG12	2.42	0.49
2:I:1268:GLN:NE2	3:J:351:GLY:C	2.56	0.49
3:J:263:SER:HB2	5:L:507:MET:SD	2.52	0.49
2:I:155:VAL:HG22	2:I:405:PHE:CE2	2.47	0.49
3:J:544:LEU:HD22	3:J:578:ILE:CD1	2.42	0.49
1:N:155:ALA:CB	1:N:174:ASP:OD1	2.61	0.49
3:J:759:ILE:HG23	3:J:771:GLN:CD	2.32	0.49
2:O:213:LEU:HD13	2:O:422:LYS:HB3	1.95	0.49
2:O:112:GLY:C	2:O:114:VAL:H	2.15	0.49
2:I:1101:LEU:HD11	3:J:508:LEU:HD22	1.93	0.49
2:C:225:PHE:CE2	2:C:347:ILE:HB	2.47	0.49
2:I:929:ILE:CG2	2:I:930:ASP:N	2.75	0.49
1:G:30:PRO:CB	1:G:198:LEU:HD13	2.42	0.49
3:J:403:ARG:O	3:J:404:GLU:HB2	2.12	0.49
2:C:1008:GLN:HA	2:C:1008:GLN:OE1	2.11	0.49
3:P:843:VAL:HB	3:P:897:HIS:O	2.12	0.49
2:I:841:ARG:HG2	2:I:1046:VAL:HA	1.93	0.49
5:L:573:LEU:CB	7:5:45:DT:H3'	2.40	0.49
3:D:739:GLN:C	3:D:740:LEU:HD23	2.32	0.49
3:J:739:GLN:HG2	3:J:744:ARG:HA	1.94	0.49
3:D:544:LEU:HA	3:D:574:VAL:CB	2.38	0.49
2:O:1292:THR:HG23	2:O:1293:VAL:N	2.24	0.49
6:7:42:DG:P	6:7:42:DG:H3'	2.52	0.49
3:J:1229:VAL:CG1	3:J:1230:THR:N	2.74	0.49
2:I:227:LYS:HZ1	2:I:298:ALA:HB1	1.76	0.49
2:C:75:LEU:CD2	2:C:94:ALA:HB1	2.43	0.49
3:D:1267:VAL:O	3:D:1268:ASN:CB	2.57	0.49
3:J:1360:GLY:HA2	4:K:17:PHE:CE2	2.48	0.49
2:O:696:ASP:CB	2:O:798:GLN:HG2	2.42	0.49
3:D:647:PRO:HD3	3:D:697:MET:HG3	1.94	0.49
3:D:1156:LEU:CD2	3:D:1209:VAL:HA	2.43	0.49
3:P:580:TRP:O	3:P:580:TRP:CG	2.65	0.49
3:J:1347:LEU:O	3:J:1351:VAL:HG23	2.12	0.49
2:O:907:GLY:O	2:O:908:GLU:C	2.51	0.49
3:D:786:THR:OG1	3:D:932:MET:HA	2.12	0.49
2:C:253:PHE:CE1	2:C:255:ILE:HG23	2.48	0.49
2:O:24:VAL:HG12	2:O:27:LEU:HD21	1.93	0.49
3:J:553:THR:O	3:J:553:THR:HG22	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1087:TYR:N	2:I:1087:TYR:CD1	2.80	0.49
2:I:888:THR:HB	2:I:914:LYS:HB2	1.94	0.49
1:G:98:VAL:HG22	1:G:146:VAL:HB	1.94	0.49
3:P:1100:PHE:HB2	3:P:1193:TRP:HA	1.93	0.49
3:P:1078:LEU:HD13	3:P:1121:LEU:HD22	1.95	0.49
3:D:139:LEU:HD22	3:D:185:ILE:HD12	1.88	0.49
2:I:1061:GLN:NE2	2:I:1240:ASP:OD1	2.45	0.49
3:P:600:ALA:O	3:P:604:MET:HG3	2.13	0.49
1:G:224:LEU:HD11	1:G:228:LEU:HD12	1.93	0.49
1:G:225:ALA:CB	1:H:228:LEU:HD13	2.36	0.49
7:5:23:DT:C2'	7:5:24:DT:OP1	2.60	0.49
2:C:660:VAL:HG21	3:D:769:VAL:HG13	1.94	0.49
3:J:803:VAL:HG12	3:J:804:ALA:N	2.27	0.49
2:C:176:ILE:HG22	2:C:176:ILE:O	2.11	0.49
2:C:698:PRO:HA	2:C:1231:TYR:CD1	2.44	0.49
3:P:744:ARG:O	3:P:744:ARG:HG3	2.12	0.49
2:O:12:ARG:HG3	2:O:1181:PRO:O	2.11	0.49
2:I:275:ARG:HH22	2:I:279:LYS:CD	2.25	0.49
1:N:155:ALA:HB2	1:N:174:ASP:OD1	2.12	0.49
5:R:493:LYS:NZ	6:7:30:DG:P	2.86	0.49
2:I:663:VAL:O	2:I:666:SER:OG	2.27	0.49
2:C:128:PRO:CD	2:C:502:VAL:HG11	2.42	0.49
2:O:256:GLU:CA	2:O:261:VAL:HG13	2.42	0.49
1:A:190:ALA:HB2	1:A:200:LYS:HB3	1.94	0.49
3:P:166:LEU:HA	3:P:169:LEU:HB3	1.95	0.49
2:O:533:LEU:HD22	2:O:538:LEU:O	2.13	0.49
2:O:22:LEU:HG	2:O:23:ASP:N	2.27	0.49
3:D:1027:VAL:CG2	3:D:1124:ILE:HD11	2.43	0.49
2:I:1323:PHE:CE1	2:I:1327:LEU:HD21	2.47	0.49
3:J:909:ILE:HG12	3:J:910:ASN:O	2.12	0.49
1:H:158:ARG:C	1:H:160:HIS:H	2.15	0.49
1:G:45:ARG:HD3	1:H:38:THR:CG2	2.43	0.49
1:G:229:GLU:O	1:G:233:ASP:CB	2.46	0.49
3:D:251:PRO:C	5:F:507:MET:HE1	2.33	0.49
3:P:1283:SER:HA	3:P:1286:LYS:HD3	1.95	0.49
3:P:809:VAL:CG2	3:P:915:ILE:HD11	2.42	0.49
7:8:4:DC:N3	7:8:5:DC:C4	2.81	0.49
2:I:1064:ASP:OD1	2:I:1239:VAL:HG12	2.13	0.49
2:C:993:PRO:HG2	2:C:996:ARG:NH1	2.28	0.49
3:D:495:ASN:OD1	3:D:495:ASN:N	2.46	0.49
3:P:84:ILE:O	3:P:84:ILE:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:423:LEU:CD2	3:D:468:VAL:HG13	2.42	0.49
1:M:102:LEU:HD21	1:M:110:VAL:CG1	2.42	0.49
3:D:395:LYS:CG	3:D:399:LYS:HE2	2.43	0.49
2:C:232:ILE:HD13	2:C:326:SER:CB	2.43	0.49
1:H:219:ARG:O	1:H:223:ILE:HG13	2.12	0.49
3:D:816:THR:HG22	3:D:818:GLU:H	1.76	0.49
2:O:1108:ASN:OD1	2:O:1108:ASN:N	2.41	0.49
2:O:253:PHE:CD2	2:O:253:PHE:N	2.81	0.49
5:L:237:ALA:O	5:L:238:LYS:HB2	2.12	0.49
2:C:1278:LEU:HD13	2:C:1287:LEU:HA	1.95	0.49
4:K:15:ASN:HB3	4:K:18:ASP:HB2	1.93	0.49
2:C:149:LEU:HD11	2:C:451:ARG:CB	2.15	0.49
1:A:48:LEU:HG	1:A:180:VAL:HG11	1.94	0.49
5:L:395:THR:HG22	5:L:404:LEU:HD12	1.95	0.49
2:I:884:VAL:O	2:I:917:SER:CB	2.60	0.49
1:M:28:LEU:CD1	1:N:231:PHE:CZ	2.95	0.49
4:Q:26:ARG:HH11	4:Q:64:LEU:HD21	1.77	0.49
2:C:667:LEU:CD1	2:C:794:LEU:HD23	2.42	0.49
3:J:382:TYR:O	3:J:385:LEU:HB2	2.13	0.49
2:C:1302:THR:O	2:C:1305:TYR:HB3	2.13	0.49
2:I:96:LEU:CB	2:I:127:ILE:HD11	2.42	0.49
2:I:1284:ALA:HB1	3:J:1357:ILE:HD12	1.95	0.49
3:J:427:PRO:O	3:J:429:LEU:HG	2.13	0.49
3:J:133:ARG:HH21	5:L:93:ARG:HH11	1.60	0.49
6:7:53:DG:H2"	6:7:54:DA:H5'	1.93	0.49
1:A:56:VAL:HG23	1:A:85:LEU:O	2.12	0.49
3:P:147:ILE:HG13	3:P:178:ALA:HA	1.95	0.49
2:C:435:ILE:HG12	2:C:440:GLY:HA3	1.95	0.49
1:M:188:GLU:OE2	1:M:202:VAL:HG21	2.13	0.49
2:C:446:ASP:N	2:C:446:ASP:OD1	2.45	0.49
2:C:668:ILE:HG21	2:C:671:LEU:HD13	1.93	0.49
6:1:53:DG:H2"	6:1:54:DA:OP2	2.11	0.49
5:L:266:PHE:O	5:L:270:VAL:HG23	2.13	0.49
2:I:1278:LEU:HD22	2:I:1283:ALA:CB	2.37	0.49
1:M:208:ASN:ND2	1:M:208:ASN:H	2.10	0.49
2:O:1278:LEU:HD13	2:O:1287:LEU:CA	2.43	0.49
3:J:1255:VAL:HG12	3:J:1256:ILE:N	2.27	0.49
3:J:899:TYR:CZ	3:J:915:ILE:HG23	2.48	0.49
3:D:412:LEU:HG	3:D:416:ILE:CD1	2.43	0.49
2:O:398:SER:OG	2:O:399:ALA:N	2.43	0.49
2:O:514:PHE:CE2	7:8:19:DA:O4'	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1229:VAL:HG13	3:D:1230:THR:N	2.28	0.49
3:J:370:LYS:HA	3:J:441:LEU:HD22	1.95	0.49
5:R:383:ASN:ND2	6:7:41:DT:H3	2.06	0.49
2:I:736:VAL:HG12	2:I:737:ASN:N	2.27	0.49
2:C:1100:PRO:HB3	3:D:639:VAL:CG2	2.39	0.49
3:J:759:ILE:HG21	3:J:767:LEU:HD22	1.95	0.49
2:O:82:VAL:HG23	2:O:83:GLN:H	1.78	0.49
2:I:142:GLU:CG	2:I:515:MET:HE2	2.43	0.49
2:O:660:VAL:HG21	3:P:769:VAL:HG12	1.94	0.49
2:I:840:SER:O	2:I:840:SER:OG	2.29	0.49
1:M:179:PRO:O	1:M:208:ASN:ND2	2.46	0.49
3:D:749:LYS:HG2	3:D:755:ILE:CG1	2.43	0.49
1:B:35:PHE:CD2	1:B:35:PHE:N	2.79	0.49
3:D:1163:VAL:CG1	3:D:1175:LEU:CD2	2.82	0.49
3:J:311:ARG:NH2	3:J:1329:THR:HG21	2.28	0.49
1:G:45:ARG:HD3	1:H:38:THR:OG1	2.12	0.49
2:I:90:VAL:CG1	2:I:91:THR:N	2.75	0.49
3:P:930:LEU:CB	3:P:1134:ILE:HD11	2.38	0.49
3:J:994:SER:O	3:J:995:TYR:CG	2.66	0.49
3:J:984:LEU:HD22	3:J:993:GLU:OE1	2.12	0.49
2:C:94:ALA:CB	2:C:129:LEU:HD11	2.42	0.49
3:J:492:SER:OG	3:J:495:ASN:OD1	2.22	0.49
1:N:75:GLN:HG3	1:N:134:THR:CG2	2.38	0.49
1:B:83:LEU:O	3:D:528:THR:HG21	2.12	0.49
3:J:133:ARG:HH21	5:L:93:ARG:NH1	2.10	0.49
3:J:294:ASN:ND2	5:L:406:GLN:HE21	2.09	0.49
2:I:1281:TYR:CE1	3:J:489:ASN:ND2	2.81	0.49
2:O:150:HIS:CE1	2:O:454:ARG:CD	2.96	0.49
2:O:748:ILE:HD11	2:O:970:GLY:HA3	1.93	0.49
3:D:909:ILE:HD13	3:D:915:ILE:HG12	1.94	0.49
3:J:1264:ALA:HB1	3:J:1303:SER:O	2.13	0.49
2:I:844:LYS:HG2	2:I:845:LEU:HD23	1.94	0.49
7:8:47:DT:H2"	7:8:48:DC:H5"	1.95	0.49
2:I:1210:ILE:CG2	2:I:1211:ARG:N	2.76	0.49
5:F:279:ARG:NH2	5:F:347:ILE:HG12	2.28	0.49
6:4:43:DT:H3'	6:4:44:DG:H5"	1.94	0.48
5:R:461:ASN:N	5:R:461:ASN:OD1	2.44	0.48
1:M:225:ALA:HB2	1:N:228:LEU:HD13	1.94	0.48
1:M:228:LEU:O	1:M:232:VAL:HG23	2.13	0.48
3:P:423:LEU:HB3	3:P:466:MET:CE	2.42	0.48
3:J:1272:SER:CB	3:J:1274:PHE:HE2	2.24	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:52:DT:H1'	6:4:53:DG:C5	2.47	0.48
1:A:224:LEU:HD11	1:A:228:LEU:HD11	1.94	0.48
3:P:768:ASN:OD1	3:P:768:ASN:C	2.52	0.48
3:D:1280:VAL:CG1	3:D:1281:GLU:N	2.75	0.48
2:O:525:THR:HG21	2:O:687:ARG:HD3	1.94	0.48
3:D:97:VAL:CG1	3:D:101:ARG:HG3	2.43	0.48
3:D:1156:LEU:HD23	3:D:1209:VAL:HA	1.95	0.48
2:I:228:VAL:CG2	2:I:337:PHE:HB2	2.43	0.48
2:C:253:PHE:HE1	2:C:255:ILE:HG23	1.78	0.48
3:P:653:ILE:HD13	3:P:692:ARG:HB3	1.94	0.48
3:P:23:ALA:HB1	3:P:232:ASN:HD21	1.78	0.48
2:C:25:PRO:HD3	2:C:578:TYR:CD1	2.47	0.48
5:L:353:LEU:HA	5:L:353:LEU:HD23	1.65	0.48
2:C:1123:GLY:O	2:C:1127:LYS:HG2	2.12	0.48
1:N:52:PRO:HB3	1:N:150:ARG:HB3	1.95	0.48
3:P:373:ALA:CA	3:P:376:LEU:CD1	2.60	0.48
1:B:48:LEU:CD2	1:B:180:VAL:HB	2.43	0.48
1:B:33:ARG:O	1:B:35:PHE:HD2	1.96	0.48
4:K:5:THR:HG22	4:K:7:GLN:H	1.78	0.48
2:O:369:MET:HE2	2:O:369:MET:O	2.13	0.48
5:L:426:LYS:HG2	6:4:39:DA:H3'	1.95	0.48
3:J:262:THR:HA	5:L:507:MET:HE3	1.95	0.48
3:J:1011:VAL:CG1	3:J:1017:VAL:HG12	2.43	0.48
2:C:811:ASN:HD22	2:C:1099:ASN:CA	2.26	0.48
4:K:6:VAL:HG11	4:K:51:LEU:HD22	1.96	0.48
3:J:544:LEU:CD2	3:J:578:ILE:HD11	2.43	0.48
2:O:694:ARG:O	2:O:798:GLN:NE2	2.46	0.48
2:O:1326:LEU:HD13	3:P:342:LEU:HD11	1.96	0.48
2:I:1334:GLY:O	3:J:25:ALA:CB	2.62	0.48
2:C:606:LEU:HA	2:C:610:GLU:OE1	2.13	0.48
1:B:110:VAL:HB	1:B:131:CYS:H	1.78	0.48
3:P:252:LEU:HD11	3:P:260:PHE:HB3	1.95	0.48
1:H:187:VAL:O	1:H:187:VAL:HG23	2.14	0.48
3:D:557:LYS:HG2	3:D:558:ASP:O	2.13	0.48
3:P:405:GLU:HB2	3:P:408:VAL:HG23	1.95	0.48
1:B:88:LEU:CD2	1:B:128:HIS:HD2	2.16	0.48
2:C:1109:ILE:HG21	3:D:644:MET:HE3	1.90	0.48
1:H:43:LEU:C	1:H:47:LEU:HD12	2.33	0.48
3:J:742:GLY:O	3:J:762:ASN:HB3	2.14	0.48
2:O:1269:ARG:HB2	3:P:346:ARG:HD3	1.96	0.48
1:H:69:SER:OG	1:H:78:ILE:HD11	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:81:ILE:HG23	1:M:130:ILE:HG23	1.95	0.48
2:O:869:GLY:C	2:O:870:ILE:HD13	2.34	0.48
2:I:798:GLN:OE1	2:I:827:ARG:HB3	2.14	0.48
3:J:58:CYS:SG	3:J:60:ARG:N	2.86	0.48
3:J:398:LYS:HZ1	5:L:532:LEU:HG	1.77	0.48
5:F:458:GLU:OE2	7:2:28:DG:C8	2.66	0.48
2:C:812:PHE:CD2	2:C:813:GLU:HG3	2.48	0.48
3:P:744:ARG:HB3	3:P:759:ILE:CG2	2.43	0.48
2:C:425:ILE:O	2:C:428:VAL:HB	2.14	0.48
3:P:849:LEU:CD1	3:P:857:LEU:CD2	2.90	0.48
2:I:1104:PRO:HG2	3:J:725:MET:HE1	1.95	0.48
3:J:425:ARG:HB2	3:J:466:MET:HE3	1.94	0.48
3:P:84:ILE:O	3:P:84:ILE:HG22	2.12	0.48
3:D:310:GLY:HA2	3:D:315:ALA:HB2	1.95	0.48
3:J:584:PRO:HD3	3:J:620:PHE:CD1	2.48	0.48
3:J:975:ILE:CD1	3:J:980:THR:HG21	2.44	0.48
1:A:187:VAL:HG22	1:A:201:LEU:HD12	1.93	0.48
1:G:33:ARG:CB	1:G:33:ARG:CZ	2.89	0.48
6:4:56:DG:C2	7:5:8:DG:C2	3.01	0.48
3:J:1148:ARG:HG2	6:4:55:DC:OP1	2.13	0.48
1:G:192:VAL:HG12	4:Q:69:ARG:NH2	2.27	0.48
1:H:83:LEU:HB3	3:J:528:THR:HG22	1.95	0.48
3:P:1174:ARG:HG3	3:P:1189:MET:HB3	1.95	0.48
3:D:534:GLU:HG3	3:D:534:GLU:O	2.12	0.48
1:A:156:SER:HA	1:A:159:ILE:HG22	1.94	0.48
1:A:100:LEU:HD13	1:A:115:ILE:CG2	2.23	0.48
3:P:591:ILE:HG21	3:P:604:MET:HG2	1.93	0.48
5:R:588:ARG:HG3	5:R:589:GLN:N	2.29	0.48
1:M:224:LEU:HD21	1:N:228:LEU:HD21	1.96	0.48
3:D:923:ILE:O	3:D:926:PRO:HD2	2.12	0.48
5:L:449:THR:OG1	5:L:504:PRO:HG3	2.13	0.48
1:G:232:VAL:HG12	1:H:218:ARG:HG2	1.95	0.48
1:H:166:ARG:CZ	1:H:166:ARG:HB2	2.42	0.48
6:1:50:DT:H5'	6:1:51:DC:C6	2.48	0.48
6:7:53:DG:H1'	6:7:54:DA:H5'	1.95	0.48
2:I:1107:MET:HE2	3:J:740:LEU:CD2	2.43	0.48
4:K:50:ALA:O	4:K:54:ILE:CG1	2.61	0.48
2:I:936:ARG:HH21	2:I:1047:LEU:CD2	2.26	0.48
2:C:232:ILE:HD13	2:C:326:SER:HB3	1.95	0.48
1:B:69:SER:O	1:B:78:ILE:HG13	2.14	0.48
3:J:708:ASN:HA	3:J:713:GLU:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1164:PHE:N	2:I:1164:PHE:HD2	2.11	0.48
3:J:141:PHE:CE1	3:J:181:GLY:HA3	2.48	0.48
3:P:843:VAL:HG11	3:P:883:ARG:HD3	1.95	0.48
3:J:1062:LEU:HD22	3:J:1066:GLU:OE1	2.13	0.48
3:J:1031:VAL:HG23	3:J:1080:ILE:HG21	1.95	0.48
1:B:179:PRO:O	1:B:208:ASN:HB2	2.12	0.48
8:9:14:A:H5'	8:9:15:G:OP2	2.12	0.48
2:I:80:PHE:HB2	2:I:85:CYS:SG	2.53	0.48
2:O:1324:ASN:O	2:O:1328:LYS:HG2	2.12	0.48
2:I:1289:GLU:HA	2:I:1293:VAL:HG22	1.96	0.48
2:I:1294:LYS:CB	3:J:347:VAL:HG13	2.42	0.48
3:J:450:HIS:CE1	3:J:625:MET:HE3	2.48	0.48
2:O:153:PRO:CA	2:O:177:ILE:HG22	2.38	0.48
3:D:805:GLN:NE2	3:D:1347:LEU:N	2.61	0.48
2:O:155:VAL:HG13	2:O:176:ILE:HG12	1.95	0.48
1:H:168:ILE:CG1	3:P:867:GLN:HB3	2.44	0.48
2:I:237:LEU:HB2	2:I:287:VAL:CG2	2.43	0.48
5:R:402:LEU:HA	5:R:405:ILE:CD1	2.42	0.48
6:1:50:DT:C5'	6:1:51:DC:C6	2.96	0.48
3:D:53:ARG:O	3:D:58:CYS:HB2	2.13	0.48
7:8:36:DG:H2"	7:8:37:DA:H5'	1.95	0.48
3:P:1301:THR:HG22	3:P:1302:TYR:H	1.79	0.48
2:I:1072:ASN:ND2	2:I:1111:GLN:OE1	2.47	0.48
1:G:192:VAL:HG21	1:G:198:LEU:HB2	1.95	0.48
2:C:529:ARG:C	2:C:530:ILE:HG13	2.34	0.48
5:L:309:ASN:OD1	5:L:312:SER:HB3	2.14	0.48
5:L:126:GLY:O	5:L:130:VAL:HG23	2.12	0.48
1:M:185:TYR:O	1:M:185:TYR:CD2	2.66	0.48
5:F:345:GLN:O	5:F:348:GLU:HB2	2.14	0.48
2:C:1025:PHE:HA	2:C:1028:LYS:HB2	1.95	0.48
2:C:511:LEU:HD23	2:C:511:LEU:N	2.28	0.48
3:J:1163:VAL:CG1	3:J:1164:SER:N	2.77	0.48
1:A:43:LEU:O	1:A:47:LEU:HD12	2.13	0.48
2:O:811:ASN:HB2	2:O:1099:ASN:HB2	1.95	0.48
1:G:224:LEU:HD23	1:H:228:LEU:HD21	1.94	0.48
2:O:897:PRO:CB	5:R:563:PHE:O	2.59	0.48
2:I:448:LEU:CD2	2:I:448:LEU:H	2.22	0.48
3:D:320:ASN:HB2	3:D:322:ARG:HG2	1.95	0.48
3:J:1144:LEU:HD13	3:J:1237:VAL:CG2	2.41	0.48
2:C:14:ASP:HA	2:C:1183:ALA:HB3	1.94	0.48
2:O:708:VAL:CG1	2:O:794:LEU:HD22	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:923:ILE:HD11	3:D:1252:HIS:HB2	1.94	0.48
3:D:807:LEU:HD13	3:D:1259:GLN:HE21	1.78	0.48
3:J:397:ALA:O	3:J:401:VAL:HG23	2.13	0.48
3:J:525:MET:HE2	3:J:527:LEU:HD21	1.95	0.48
5:F:381:GLU:O	5:F:384:LEU:CG	2.57	0.48
7:2:6:DG:H2'	7:2:7:DC:C6	2.48	0.48
3:J:425:ARG:HH22	8:6:16:U:C1'	2.26	0.48
2:I:808:ASN:HD22	2:I:808:ASN:N	2.10	0.48
6:1:50:DT:C3'	6:1:51:DC:H5'	2.43	0.48
5:R:279:ARG:HH21	5:R:347:ILE:CD1	2.26	0.48
2:O:15:PHE:CE2	2:O:1182:ILE:HD13	2.48	0.48
2:I:217:THR:HG22	2:I:221:LEU:HD12	1.95	0.48
2:O:717:VAL:CG1	2:O:718:ALA:N	2.77	0.48
2:O:26:TYR:HE2	2:O:28:LEU:HB2	1.79	0.48
1:G:71:LYS:O	1:G:74:VAL:HG23	2.13	0.48
2:C:390:PHE:CD2	2:C:390:PHE:N	2.81	0.48
2:O:915:ASP:C	2:O:915:ASP:OD1	2.52	0.48
4:E:26:ARG:HB2	4:E:64:LEU:HD11	1.95	0.48
1:B:95:LYS:HD2	1:B:120:ASP:OD2	2.14	0.48
1:B:111:THR:OG1	1:B:126:PRO:O	2.31	0.48
3:P:865:HIS:H	3:P:868:TRP:HD1	1.62	0.48
3:J:899:TYR:CZ	3:J:915:ILE:HG21	2.48	0.48
3:D:352:ARG:O	3:D:372:MET:CE	2.62	0.48
5:R:452:ILE:HG21	5:R:460:ILE:HD11	1.96	0.48
3:J:350:SER:HB3	3:J:469:HIS:ND1	2.29	0.48
3:J:1226:VAL:HA	3:J:1229:VAL:CG1	2.43	0.48
5:L:441:ARG:HG3	5:L:442:SER:N	2.29	0.48
3:D:474:LEU:HD13	4:E:28:ARG:HG2	1.96	0.48
3:D:116:PHE:CE1	3:D:1333:THR:HG22	2.48	0.48
5:L:386:LEU:HD22	6:4:41:DT:C5	2.49	0.48
3:P:768:ASN:OD1	3:P:770:LEU:N	2.47	0.48
3:J:984:LEU:N	3:J:993:GLU:O	2.47	0.48
2:O:920:VAL:CG1	2:O:921:PRO:HD2	2.43	0.48
1:H:190:ALA:N	1:H:199:ASP:HA	2.21	0.48
2:I:32:LEU:HD23	2:I:130:MET:CE	2.44	0.48
1:A:179:PRO:O	1:A:208:ASN:ND2	2.46	0.48
2:C:373:GLY:CA	5:F:91:ILE:HA	2.43	0.48
3:D:250:ARG:HB3	3:D:265:LEU:HD12	1.95	0.48
3:J:1355:ARG:CZ	3:J:1369:ARG:NH1	2.76	0.48
3:D:1044:GLN:O	3:D:1067:ARG:HG2	2.14	0.48
3:J:1140:ARG:HH21	3:J:1236:GLU:HG2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:110:LEU:H	5:L:110:LEU:HD12	1.79	0.48
2:O:104:ILE:HD12	2:O:116:ASP:HB2	1.95	0.48
1:H:106:GLY:HA2	1:H:136:GLU:HA	1.96	0.48
3:J:139:LEU:HD21	3:J:185:ILE:HD11	1.90	0.48
2:O:1294:LYS:CD	3:P:347:VAL:HG11	2.30	0.48
2:O:934:PHE:HB2	2:O:1049:ILE:HB	1.96	0.48
3:D:746:LEU:HD23	3:D:758:PRO:HA	1.96	0.48
2:O:550:VAL:HG13	3:P:780:ARG:NH2	2.29	0.48
3:P:130:MET:HG2	3:P:135:ILE:HG13	1.90	0.48
5:F:110:LEU:H	5:F:110:LEU:HD12	1.77	0.48
2:I:167:SER:HA	3:J:1064:SER:HB3	1.96	0.48
2:C:871:VAL:HG21	2:C:883:LEU:HA	1.94	0.48
2:C:1257:GLN:NE2	3:D:345:LYS:HB3	2.29	0.48
2:O:232:ILE:O	2:O:331:LYS:HB3	2.13	0.48
1:G:56:VAL:HG21	1:G:85:LEU:HB3	1.96	0.48
3:P:352:ARG:HH21	3:P:465:GLN:HB2	1.78	0.48
3:P:56:LEU:O	3:P:250:ARG:NH2	2.37	0.48
3:P:406:ALA:HA	3:P:409:TRP:CD1	2.48	0.48
2:I:61:SER:HA	2:I:479:LEU:HD13	1.95	0.48
2:O:13:LYS:HE3	2:O:1149:TYR:O	2.14	0.48
1:H:223:ILE:HG22	1:H:227:GLN:HE21	1.79	0.48
2:C:634:VAL:HG12	2:C:635:THR:H	1.77	0.48
2:C:933:VAL:HG11	2:C:945:ALA:HB2	1.96	0.48
3:P:742:GLY:O	3:P:762:ASN:HB3	2.14	0.48
1:M:156:SER:O	1:M:159:ILE:HG22	2.13	0.48
2:C:496:LYS:HB2	2:C:497:PRO:HD3	1.95	0.48
3:P:978:ARG:HD2	3:P:1212:ASP:OD2	2.14	0.48
5:L:470:MET:HG2	5:L:486:ARG:HH11	1.79	0.48
2:C:279:LYS:HE3	5:L:474:MET:HG2	1.94	0.48
1:H:43:LEU:O	1:H:47:LEU:HD12	2.14	0.48
2:O:1293:VAL:O	2:O:1301:ARG:CB	2.62	0.48
1:B:82:LEU:CD2	1:B:173:VAL:HG21	2.42	0.48
3:D:481:ARG:HG2	4:E:6:VAL:HG21	1.95	0.48
2:O:1186:VAL:O	2:O:1187:PHE:HB2	2.13	0.48
7:8:51:DG:C8	7:8:52:DT:H71	2.48	0.48
2:O:667:LEU:HA	2:O:667:LEU:HD23	1.61	0.48
2:C:743:PRO:HA	2:C:974:ARG:NH1	2.26	0.48
3:P:1256:ILE:HG22	3:P:1260:MET:CE	2.44	0.48
1:A:133:LEU:HD21	1:A:140:ILE:HG22	1.96	0.48
1:A:150:ARG:CZ	1:B:7:GLU:O	2.62	0.48
2:I:1284:ALA:HA	3:J:1357:ILE:HD13	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1239:VAL:HG23	3:P:354:VAL:CG2	2.44	0.48
1:M:49:SER:HB3	1:N:33:ARG:HH12	1.78	0.48
3:P:536:LEU:HB3	3:P:542:ALA:HB3	1.96	0.48
2:I:592:ARG:NH1	2:I:653:MET:HE1	2.29	0.48
2:O:618:GLN:O	2:O:621:SER:OG	2.21	0.48
5:F:134:VAL:HG13	5:F:140:ALA:HB1	1.96	0.48
2:O:56:VAL:HG21	2:O:468:LEU:HB3	1.96	0.48
2:C:656:SER:O	2:C:659:GLN:HG2	2.14	0.48
2:I:56:VAL:HG12	2:I:59:ILE:HG12	1.94	0.48
3:J:976:THR:HG21	3:J:1030:GLU:HG2	1.95	0.48
3:P:398:LYS:HZ3	5:R:532:LEU:CB	2.27	0.48
3:J:131:PRO:O	3:J:135:ILE:CD1	2.62	0.48
3:J:107:LEU:HD11	3:J:242:LEU:HB2	1.96	0.48
5:F:95:THR:O	5:F:97:PRO:HD3	2.14	0.48
1:M:69:SER:O	1:M:78:ILE:CG1	2.62	0.48
5:L:401:PHE:O	5:L:405:ILE:CD1	2.61	0.48
5:R:460:ILE:CA	5:R:463:LEU:HG	2.43	0.48
2:I:698:PRO:HG3	2:I:1231:TYR:CE2	2.48	0.48
2:O:1269:ARG:HA	3:P:346:ARG:HA	1.96	0.48
2:I:336:LEU:HD23	2:I:336:LEU:N	2.29	0.48
1:A:13:LEU:CA	1:A:28:LEU:HD21	2.38	0.48
3:P:823:THR:HG22	3:P:879:ALA:HB2	1.95	0.48
6:4:30:DG:C8	6:4:31:DT:H72	2.49	0.48
2:C:92:TYR:CE2	2:C:129:LEU:HB2	2.48	0.48
3:P:395:LYS:HE2	3:P:399:LYS:NZ	2.28	0.48
3:D:1263:LYS:HB2	3:D:1307:LEU:HD11	1.95	0.48
3:J:544:LEU:HA	3:J:574:VAL:HB	1.96	0.48
5:L:592:ALA:HA	5:L:595:LEU:HD12	1.95	0.48
2:C:759:SER:OG	2:C:763:THR:N	2.47	0.48
2:O:819:SER:OG	2:O:821:ARG:HB2	2.14	0.48
2:C:748:ILE:HG13	2:C:970:GLY:HA3	1.95	0.48
3:P:137:ARG:NH1	5:R:88:GLU:O	2.45	0.48
1:A:43:LEU:O	1:A:47:LEU:CG	2.62	0.47
2:O:35:PHE:CD2	2:O:130:MET:HB3	2.49	0.47
1:A:109:PRO:HA	1:A:132:HIS:CD2	2.48	0.47
3:D:318:GLY:CA	3:D:322:ARG:O	2.61	0.47
2:I:805:MET:HE2	2:I:806:PRO:CD	2.36	0.47
3:D:973:LEU:O	3:D:1003:LEU:HB2	2.14	0.47
2:C:1312:ASN:O	2:C:1313:HIS:HB2	2.14	0.47
3:J:474:LEU:HD12	4:K:28:ARG:CD	2.43	0.47
2:I:1005:GLU:OE1	2:I:1007:LYS:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:263:VAL:HG12	2:O:263:VAL:O	2.13	0.47
3:J:1280:VAL:CG1	3:J:1281:GLU:H	2.24	0.47
2:I:720:ARG:HD3	2:I:736:VAL:HG21	1.96	0.47
4:K:41:GLU:HG3	4:K:49:ILE:CD1	2.44	0.47
4:K:44:ASP:O	4:K:49:ILE:HD11	2.14	0.47
2:I:724:VAL:HG11	2:I:727:VAL:HG22	1.94	0.47
2:C:639:LYS:HG2	2:C:639:LYS:O	2.14	0.47
3:P:1067:ARG:NH1	3:P:1074:LEU:O	2.47	0.47
3:P:968:ASN:CB	3:P:1117:SER:O	2.62	0.47
2:C:697:LYS:HB3	2:C:790:ASP:OD2	2.14	0.47
3:P:190:LYS:O	3:P:190:LYS:HG3	2.12	0.47
3:P:114:ILE:HG12	3:P:114:ILE:O	2.13	0.47
2:O:80:PHE:HB2	2:O:85:CYS:SG	2.54	0.47
2:O:1135:GLN:O	2:O:1136:GLN:HB2	2.14	0.47
3:D:217:LEU:O	3:D:221:ILE:HG13	2.14	0.47
5:F:429:THR:OG1	6:1:39:DA:H8	1.98	0.47
3:D:749:LYS:CB	3:D:750:PRO:CD	2.56	0.47
6:1:46:DG:C8	6:1:46:DG:H5"	2.49	0.47
3:D:318:GLY:HA2	3:D:324:LEU:HD21	1.96	0.47
2:I:796:LEU:C	2:I:1233:LEU:HD21	2.34	0.47
2:C:559:CYS:SG	2:C:561:ILE:CG1	3.02	0.47
2:C:1117:LEU:CD1	2:C:1182:ILE:HD13	2.43	0.47
2:I:1273:MET:HG3	7:5:14:DC:C5'	2.43	0.47
2:O:202:ARG:NH2	7:8:7:DC:H5"	2.29	0.47
3:P:1355:ARG:O	3:P:1357:ILE:HD12	2.13	0.47
3:D:269:TYR:O	3:D:272:VAL:HB	2.13	0.47
2:I:1302:THR:HG23	2:I:1303:LYS:N	2.29	0.47
1:N:61:ILE:HG12	1:N:142:MET:HE2	1.96	0.47
3:P:367:GLY:O	3:P:447:ILE:HG22	2.13	0.47
1:G:180:VAL:HA	1:G:207:THR:HG22	1.95	0.47
3:J:425:ARG:HH12	3:J:427:PRO:HD2	1.78	0.47
1:H:57:THR:O	1:H:172:LEU:HD12	2.14	0.47
2:O:135:THR:HG22	2:O:144:VAL:HG22	1.95	0.47
2:C:239:MET:SD	2:C:241:LEU:HD13	2.54	0.47
3:D:833:GLU:HB2	3:D:1242:ARG:NH1	2.28	0.47
5:L:123:ILE:HG23	5:L:376:LYS:HE3	1.96	0.47
3:D:30:ILE:HG23	3:D:243:PRO:HB3	1.95	0.47
3:J:812:ASP:OD1	3:J:812:ASP:N	2.47	0.47
1:G:68:TYR:CD2	2:I:929:ILE:HD11	2.49	0.47
5:F:414:LYS:HD3	5:F:434:TRP:CE3	2.49	0.47
3:P:1174:ARG:HG3	3:P:1189:MET:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1155:ILE:H	3:P:1211:SER:HB2	1.80	0.47
2:I:1186:VAL:O	2:I:1187:PHE:HB2	2.14	0.47
5:L:159:SER:HA	5:L:163:THR:HG23	1.96	0.47
1:A:135:ASP:O	1:A:138:ALA:HB3	2.13	0.47
5:F:433:TRP:CZ3	5:F:436:ARG:HD3	2.48	0.47
1:G:149:GLY:HA3	1:G:177:TYR:CE2	2.49	0.47
6:4:34:DG:H2"	6:4:35:DC:C5	2.49	0.47
2:I:511:LEU:HA	2:I:511:LEU:HD23	1.51	0.47
1:B:88:LEU:HD12	1:B:89:ALA:H	1.80	0.47
1:M:41:ASN:HD21	2:O:1218:GLY:CA	2.23	0.47
5:R:588:ARG:O	5:R:591:GLU:HB3	2.14	0.47
5:F:388:ILE:CG2	5:F:389:SER:N	2.77	0.47
3:D:485:MET:O	3:D:489:ASN:ND2	2.46	0.47
7:8:51:DG:C8	7:8:52:DT:C7	2.97	0.47
2:I:873:ILE:HG13	2:I:944:ARG:NH2	2.20	0.47
2:O:1185:PRO:HD2	2:O:1189:GLY:HA2	1.97	0.47
5:R:389:SER:HA	5:R:392:LYS:HD2	1.96	0.47
2:I:720:ARG:HD2	2:I:736:VAL:HG21	1.95	0.47
6:7:29:DC:H2"	6:7:30:DG:C8	2.49	0.47
3:P:886:VAL:HG13	3:P:1258:ARG:HA	1.96	0.47
3:D:424:ASN:C	3:D:466:MET:HE2	2.34	0.47
1:A:190:ALA:HB2	1:A:200:LYS:N	2.29	0.47
1:G:191:ARG:NH2	3:P:1375:ALA:HB3	2.29	0.47
3:J:871:LEU:O	3:J:875:ASN:ND2	2.48	0.47
3:D:407:VAL:O	3:D:411:ILE:HG13	2.15	0.47
1:A:219:ARG:O	1:A:222:THR:HB	2.14	0.47
3:D:798:ARG:O	3:D:801:VAL:HB	2.14	0.47
5:F:147:GLN:HG2	5:F:161:LEU:HD21	1.96	0.47
3:D:1077:ALA:HB1	3:D:1098:GLN:HG2	1.94	0.47
1:G:120:ASP:N	1:G:120:ASP:OD1	2.45	0.47
2:I:219:GLN:O	2:I:223:LEU:HG	2.15	0.47
5:F:452:ILE:HG22	5:F:453:PRO:O	2.14	0.47
3:J:919:ALA:HB2	3:J:1255:VAL:HG21	1.96	0.47
2:I:196:VAL:HG23	2:I:206:ALA:CA	2.33	0.47
3:J:625:MET:HB3	3:J:625:MET:HE2	1.35	0.47
1:M:232:VAL:HG12	1:N:218:ARG:HA	1.87	0.47
3:D:435:GLN:HB2	3:D:457:TYR:OH	2.14	0.47
2:C:727:VAL:HG21	2:C:773:LEU:N	2.28	0.47
3:P:749:LYS:CG	3:P:750:PRO:HD2	2.44	0.47
2:I:1272:GLU:OE1	3:J:339:ARG:HG2	2.15	0.47
2:C:92:TYR:HB3	2:C:137:VAL:HB	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:849:LEU:HD13	3:P:857:LEU:HD23	1.94	0.47
1:G:59:VAL:HG22	1:G:144:ILE:HG12	1.96	0.47
2:C:1098:LEU:CD2	2:C:1099:ASN:N	2.77	0.47
3:J:146:VAL:HA	3:J:178:ALA:HB2	1.96	0.47
2:O:452:ARG:NH2	2:O:458:GLU:CD	2.67	0.47
2:O:1337:ILE:HA	3:P:21:LYS:O	2.14	0.47
3:J:723:TYR:CE1	3:J:727:ASP:HB2	2.50	0.47
2:C:309:LEU:C	2:C:310:ILE:HG13	2.34	0.47
5:R:440:THR:O	5:R:443:ILE:HG22	2.13	0.47
2:I:1330:ILE:HD13	2:I:1337:ILE:HD13	1.95	0.47
2:I:896:THR:OG1	2:I:899:GLU:HG3	2.14	0.47
5:R:113:ARG:HD3	5:R:426:LYS:HZ2	1.78	0.47
2:O:560:PRO:HG2	2:O:561:ILE:HG12	1.96	0.47
7:5:12:DG:O3'	7:5:13:DA:P	2.72	0.47
2:C:538:LEU:HD23	2:C:538:LEU:N	2.29	0.47
2:C:761:GLN:O	2:C:762:ASN:CB	2.63	0.47
3:P:701:LEU:HG	3:P:723:TYR:HB2	1.95	0.47
5:R:554:ARG:O	5:R:558:VAL:HG23	2.14	0.47
2:O:145:ILE:HD11	2:O:506:PHE:CD1	2.49	0.47
3:P:369:PRO:HB3	3:P:444:GLY:O	2.15	0.47
3:P:264:ASP:HB3	3:P:324:LEU:HD23	1.97	0.47
5:F:583:THR:HG23	5:F:586:ARG:CB	2.25	0.47
3:J:363:LEU:HD23	3:J:618:VAL:HG12	1.93	0.47
2:C:408:SER:C	2:C:409:LEU:HD23	2.35	0.47
1:A:90:VAL:HG11	1:A:146:VAL:HG11	1.96	0.47
3:J:661:VAL:CG1	3:J:665:GLN:NE2	2.77	0.47
3:P:839:VAL:CG1	3:P:864:LEU:CD1	2.93	0.47
5:L:548:LEU:HD21	5:L:560:ARG:HG3	1.97	0.47
5:R:387:VAL:CG2	5:R:435:ILE:HD13	2.44	0.47
1:G:38:THR:CG2	1:H:42:ALA:HA	2.44	0.47
2:C:797:GLY:HA3	2:C:1233:LEU:HD23	1.97	0.47
2:O:634:VAL:CG1	2:O:635:THR:H	2.27	0.47
3:J:649:LYS:HG3	3:J:653:ILE:HG13	1.96	0.47
3:P:33:TRP:HE3	3:P:102:MET:HE1	1.78	0.47
3:J:515:ARG:NH2	3:J:719:PHE:CD1	2.82	0.47
2:O:502:VAL:O	2:O:506:PHE:HD2	1.98	0.47
5:L:298:PRO:HB2	5:L:301:ASN:ND2	2.29	0.47
5:F:332:ASP:OD1	5:F:332:ASP:N	2.47	0.47
5:L:287:ILE:HD11	5:L:344:LEU:HD13	1.97	0.47
2:C:122:VAL:HG21	2:C:493:ILE:HD12	1.96	0.47
3:P:668:PHE:HD2	3:P:673:VAL:HB	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:130:MET:HG2	2:C:131:THR:N	2.28	0.47
5:L:368:GLY:O	5:L:371:LYS:HB2	2.15	0.47
2:C:785:ASP:HB3	2:C:789:THR:OG1	2.14	0.47
5:R:557:LYS:HE2	5:R:560:ARG:NH1	2.29	0.47
2:I:1290:MET:HA	2:I:1294:LYS:CG	2.44	0.47
3:P:452:LEU:HD21	3:P:625:MET:HG3	1.96	0.47
6:1:46:DG:H5'	6:1:46:DG:H8	1.80	0.47
7:8:23:DT:C2'	7:8:24:DT:OP1	2.62	0.47
3:P:422:LEU:C	3:P:423:LEU:HD23	2.34	0.47
2:I:960:LEU:CB	2:I:1025:PHE:HE1	2.15	0.47
3:J:1162:ILE:CD1	3:J:1180:VAL:CG1	2.87	0.47
3:P:311:ARG:NH1	7:8:10:DC:OP1	2.48	0.47
2:I:878:THR:HA	2:I:925:SER:HB2	1.96	0.47
2:O:70:TYR:HA	2:O:100:LEU:CD2	2.38	0.47
3:P:101:ARG:O	3:P:246:PRO:HG3	2.14	0.47
6:7:47:DC:H4'	6:7:47:DC:OP1	2.14	0.47
1:B:60:GLU:O	1:B:142:MET:HB2	2.15	0.47
5:F:476:ARG:HG3	5:F:477:GLU:N	2.29	0.47
2:O:337:PHE:HE2	2:O:343:HIS:CD2	2.32	0.47
1:G:16:ILE:HG23	1:G:26:VAL:HG13	1.95	0.47
3:D:1027:VAL:HG23	3:D:1124:ILE:HD11	1.97	0.47
5:F:245:ALA:O	5:F:249:ILE:HG13	2.15	0.47
2:I:1292:THR:CG2	2:I:1293:VAL:H	2.03	0.47
3:J:189:LEU:HB3	3:J:234:PRO:HB2	1.95	0.47
3:J:107:LEU:HD11	3:J:242:LEU:CB	2.43	0.47
2:I:207:THR:HA	2:I:210:LEU:HD12	1.96	0.47
1:G:190:ALA:N	1:G:199:ASP:HA	2.26	0.47
1:A:48:LEU:HD11	1:A:183:ILE:HG23	1.81	0.47
3:D:749:LYS:CG	3:D:755:ILE:CG1	2.86	0.47
2:O:550:VAL:HG22	3:P:780:ARG:CZ	2.43	0.47
2:C:557:ARG:HB3	2:C:587:LEU:CD1	2.37	0.47
3:D:261:ALA:HB1	5:F:507:MET:CA	2.42	0.47
1:M:9:LEU:CD2	1:M:198:LEU:HD21	2.44	0.47
5:R:460:ILE:HA	5:R:463:LEU:HD11	1.96	0.47
3:P:783:LEU:CD1	3:P:936:HIS:CB	2.93	0.47
5:R:102:MET:HE3	6:7:42:DG:N2	2.11	0.47
2:C:528:ARG:CD	2:C:663:VAL:CG2	2.86	0.47
1:H:64:VAL:HG11	1:H:78:ILE:CD1	2.45	0.47
2:I:208:ILE:HD11	2:I:365:GLU:HB3	1.97	0.47
1:A:107:ILE:HG12	1:A:136:GLU:HA	1.95	0.47
2:C:1312:ASN:CG	2:C:1314:GLN:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:464:ASN:CG	7:2:25:DA:H62	2.17	0.47
5:L:426:LYS:HE2	6:4:40:DA:OP2	2.15	0.47
2:O:488:MET:CB	2:O:489:PRO:HD2	2.40	0.47
2:I:1269:ARG:NH1	3:J:339:ARG:O	2.43	0.47
3:P:146:VAL:HG11	3:P:154:LEU:HB3	1.97	0.47
2:C:371:ARG:HB3	5:F:99:ARG:HH12	1.80	0.47
1:A:92:VAL:CG1	1:A:95:LYS:O	2.58	0.47
2:I:724:VAL:HG23	2:I:775:GLU:O	2.14	0.47
1:G:75:GLN:HE22	2:I:727:VAL:HB	1.80	0.47
2:I:1104:PRO:CG	3:J:725:MET:CE	2.93	0.47
3:J:288:PRO:O	3:J:292:VAL:HG23	2.15	0.47
3:J:521:LYS:HB3	3:J:543:SER:H	1.77	0.47
2:C:853:ASP:C	2:C:854:ILE:HG13	2.34	0.47
1:A:56:VAL:CG2	1:A:85:LEU:O	2.61	0.47
5:F:407:GLU:HG2	5:F:442:SER:OG	2.15	0.47
3:P:499:ILE:HG22	3:P:500:ILE:N	2.29	0.47
3:D:403:ARG:O	3:D:404:GLU:HB2	2.14	0.47
4:K:42:GLU:HB2	4:K:52:ARG:HH12	1.79	0.47
2:I:220:ILE:O	2:I:224:PHE:HD2	1.97	0.47
1:A:184:ALA:HB2	2:C:1091:GLY:HA2	1.97	0.47
5:L:237:ALA:O	5:L:238:LYS:CB	2.63	0.47
3:P:1270:GLY:HA2	3:P:1298:VAL:O	2.14	0.47
2:C:729:ALA:O	2:C:730:SER:HB3	2.15	0.47
3:J:38:VAL:HG21	3:J:244:VAL:HG11	1.96	0.47
3:P:952:VAL:HG23	3:P:1017:VAL:HG22	1.95	0.47
2:C:1334:GLY:O	3:D:25:ALA:HB3	2.15	0.47
2:I:48:GLY:HA2	2:I:461:GLU:HG3	1.97	0.47
4:Q:25:ARG:NH2	4:Q:65:ASP:OD1	2.48	0.47
2:C:475:VAL:HG13	2:C:492:MET:CE	2.45	0.47
3:J:1163:VAL:HG12	3:J:1175:LEU:CD1	2.44	0.47
1:B:125:LYS:HD3	1:B:128:HIS:HB2	1.96	0.47
2:C:1112:ILE:HG23	2:C:1116:HIS:NE2	2.29	0.47
1:M:42:ALA:CA	1:N:38:THR:HG23	2.37	0.47
2:O:21:VAL:HG21	2:O:592:ARG:HH11	1.79	0.47
2:C:661:VAL:HG11	2:C:665:ALA:CB	2.41	0.47
5:F:395:THR:HA	5:F:404:LEU:HD11	1.95	0.47
2:O:871:VAL:HG23	2:O:883:LEU:O	2.15	0.47
3:D:115:TRP:CE3	3:D:1333:THR:HG23	2.50	0.47
3:D:1256:ILE:HG22	3:D:1260:MET:HE2	1.97	0.47
6:1:18:DA:C2	6:1:19:DT:C2	3.02	0.47
3:D:349:TYR:O	3:D:470:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1:43:DT:C3'	6:1:44:DG:C5'	2.92	0.47
2:C:996:ARG:O	2:C:997:TRP:CD1	2.62	0.47
3:J:1040:MET:CE	3:J:1046:ILE:HG21	2.45	0.47
2:O:237:LEU:HB3	2:O:287:VAL:HG22	1.97	0.47
2:C:16:GLY:O	2:C:1156:ARG:CB	2.63	0.47
1:M:192:VAL:HG12	1:M:193:GLU:N	2.29	0.47
2:C:1127:LYS:HE3	2:C:1202:GLY:O	2.15	0.47
2:C:146:VAL:HG23	2:C:511:LEU:O	2.15	0.47
2:C:836:LEU:HD23	2:C:836:LEU:HA	1.74	0.47
2:C:110:PRO:HB2	2:C:111:GLU:H	1.57	0.47
3:P:369:PRO:HG2	3:P:372:MET:HE3	1.96	0.47
3:P:130:MET:CG	3:P:135:ILE:CG1	2.75	0.47
2:I:806:PRO:HD3	3:J:637:ALA:O	2.15	0.47
7:8:17:DG:H2'	7:8:18:DT:O4'	2.15	0.47
2:C:13:LYS:HE2	2:C:15:PHE:CE2	2.49	0.47
3:P:1145:PHE:HB3	3:P:1309:ILE:CD1	2.38	0.47
2:I:883:LEU:HD21	2:I:920:VAL:HG23	1.97	0.47
3:D:497:GLU:CB	3:D:498:PRO:CD	2.91	0.47
3:P:442:ILE:HD13	3:P:448:GLN:NE2	2.30	0.47
2:O:298:ALA:HB2	2:O:336:LEU:HD21	1.96	0.47
2:O:757:THR:CG2	2:O:758:ARG:N	2.77	0.47
2:I:1246:ARG:CZ	2:I:1249:GLY:HA3	2.45	0.47
5:R:507:MET:HE2	5:R:507:MET:HB2	1.62	0.47
2:C:1268:GLN:NE2	3:D:351:GLY:C	2.68	0.47
3:D:401:VAL:O	3:D:404:GLU:HG3	2.15	0.47
3:P:75:TYR:HD2	3:P:85:CYS:SG	2.38	0.47
2:I:112:GLY:O	2:I:114:VAL:N	2.44	0.47
2:C:671:LEU:HD12	2:C:671:LEU:HA	1.63	0.47
1:M:162:GLU:OE1	1:M:166:ARG:NH1	2.48	0.47
3:P:591:ILE:CG2	3:P:604:MET:HG2	2.45	0.47
3:J:115:TRP:O	3:J:119:SER:HB3	2.15	0.47
3:J:368:LEU:HD21	3:J:376:LEU:HD11	1.96	0.47
2:I:335:THR:CG2	2:I:336:LEU:N	2.78	0.47
5:L:355:ILE:HA	5:L:358:VAL:HB	1.97	0.47
3:P:808:VAL:CG1	3:P:809:VAL:N	2.77	0.47
2:O:428:VAL:CG1	2:O:429:MET:CG	2.93	0.47
2:I:1025:PHE:O	2:I:1028:LYS:HB2	2.15	0.47
3:P:332:LYS:NZ	3:P:1329:THR:OG1	2.47	0.47
3:D:805:GLN:HG3	3:D:806:ASP:N	2.30	0.47
3:P:927:GLY:O	3:P:1134:ILE:HD12	2.13	0.47
1:G:31:LEU:CD1	1:G:201:LEU:CB	2.92	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:450:HIS:HD2	3:D:452:LEU:H	1.63	0.47
3:P:242:LEU:HD12	3:P:243:PRO:N	2.30	0.47
2:I:160:ASP:HB3	2:I:163:LYS:CB	2.45	0.47
3:P:1169:THR:HG22	3:P:1169:THR:O	2.15	0.47
2:I:757:THR:HG22	2:I:758:ARG:N	2.30	0.47
2:O:851:THR:HG22	2:O:852:ALA:H	1.79	0.47
5:F:324:LYS:O	5:F:326:TRP:N	2.48	0.47
2:O:26:TYR:CE2	2:O:28:LEU:HB2	2.49	0.47
2:I:31:GLN:NE2	2:I:145:ILE:O	2.47	0.47
3:J:801:VAL:HG23	3:J:920:ALA:HB1	1.95	0.47
5:F:155:GLU:HG3	5:F:156:ALA:N	2.29	0.47
3:P:310:GLY:HA2	3:P:315:ALA:HB2	1.98	0.47
3:J:131:PRO:O	3:J:135:ILE:HD11	2.15	0.46
1:G:44:ARG:HG3	1:G:183:ILE:HG12	1.96	0.46
2:O:90:VAL:CG1	2:O:91:THR:H	2.24	0.46
2:I:811:ASN:O	2:I:1099:ASN:HB2	2.14	0.46
2:C:700:VAL:HG21	2:C:1114:GLU:HG3	1.98	0.46
2:O:255:ILE:HG23	2:O:285:ILE:CG2	2.44	0.46
3:P:1229:VAL:HG13	3:P:1230:THR:H	1.80	0.46
2:O:1184:THR:CG2	2:O:1184:THR:O	2.62	0.46
3:J:492:SER:CB	3:J:495:ASN:OD1	2.63	0.46
6:7:48:DA:H3'	6:7:49:DG:H5"	1.97	0.46
3:D:495:ASN:ND2	3:D:1247:LYS:O	2.48	0.46
1:N:47:LEU:HD13	1:N:205:MET:CE	2.45	0.46
3:D:366:CYS:SG	3:D:437:PHE:HB2	2.55	0.46
3:D:424:ASN:C	3:D:466:MET:CE	2.84	0.46
3:P:589:TYR:CD2	3:P:593:ASN:ND2	2.83	0.46
2:C:131:THR:HG23	2:C:135:THR:O	2.14	0.46
3:J:1171:GLY:O	3:J:1192:LYS:HG3	2.14	0.46
2:I:591:TYR:HE1	2:I:659:GLN:HE22	1.63	0.46
2:I:1306:LYS:NZ	5:L:538:GLU:HG3	2.30	0.46
3:P:722:ILE:O	3:P:725:MET:HB2	2.15	0.46
3:J:1346:GLY:C	3:J:1349:GLU:HG3	2.36	0.46
3:D:343:LEU:HD11	3:D:1324:SER:HB2	1.97	0.46
1:H:31:LEU:CD1	1:H:39:LEU:CD1	2.68	0.46
3:D:977:SER:HG	3:D:980:THR:HG1	1.64	0.46
2:C:661:VAL:HG11	2:C:665:ALA:HB1	1.97	0.46
5:F:110:LEU:HD23	5:F:382:ALA:O	2.15	0.46
5:R:166:VAL:HG12	5:R:168:PRO:CD	2.33	0.46
3:J:1284:ARG:HA	3:J:1287:ILE:CG1	2.45	0.46
5:F:353:LEU:CB	5:F:358:VAL:CG2	2.92	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:708:VAL:HG11	2:C:794:LEU:HD22	1.97	0.46
2:C:80:PHE:CB	2:C:85:CYS:SG	3.03	0.46
3:P:842:ARG:O	3:P:864:LEU:HG	2.16	0.46
2:C:805:MET:O	2:C:811:ASN:ND2	2.48	0.46
3:J:337:ARG:HD3	3:J:341:ASN:ND2	2.30	0.46
1:H:52:PRO:HA	1:H:150:ARG:HB3	1.97	0.46
2:O:758:ARG:HB2	2:O:833:ILE:CG2	2.45	0.46
2:C:972:PHE:CE2	2:C:994:ARG:HB3	2.49	0.46
2:O:1225:VAL:HG13	2:O:1226:THR:N	2.29	0.46
1:N:193:GLU:O	1:N:194:GLN:HB2	2.16	0.46
2:I:149:LEU:HA	2:I:453:ILE:HD13	1.96	0.46
3:P:258:GLY:HA3	5:R:499:LYS:HZ1	1.78	0.46
2:O:1161:LEU:O	2:O:1163:THR:N	2.48	0.46
4:E:64:LEU:HD23	4:E:64:LEU:HA	1.68	0.46
2:C:835:GLU:O	2:C:836:LEU:HD23	2.15	0.46
3:J:1238:GLN:O	3:J:1242:ARG:HG3	2.15	0.46
2:C:631:GLU:HG3	2:C:632:ASP:N	2.31	0.46
3:D:78:LEU:O	3:D:81:ARG:HG3	2.15	0.46
2:I:1283:ALA:HB1	3:J:479:GLU:OE2	2.14	0.46
3:J:809:VAL:CG2	3:J:915:ILE:CD1	2.88	0.46
2:C:1225:VAL:HG13	2:C:1226:THR:N	2.31	0.46
3:J:115:TRP:CZ2	3:J:1329:THR:CG2	2.80	0.46
2:C:1061:GLN:CB	2:C:1062:PRO:CD	2.87	0.46
2:O:1305:TYR:CD2	5:R:531:PRO:CB	2.97	0.46
2:I:519:ASN:ND2	2:I:521:LEU:HB3	2.30	0.46
2:I:1273:MET:HG3	7:5:14:DC:C4'	2.44	0.46
2:O:1151:LEU:HD21	2:O:1198:LEU:HA	1.98	0.46
5:F:461:ASN:OD1	7:2:26:DT:H72	2.15	0.46
2:C:513:GLN:CD	2:C:526:HIS:NE2	2.68	0.46
3:P:1206:ARG:HB3	3:P:1223:LEU:HD22	1.96	0.46
2:C:78:PRO:HB3	2:C:93:SER:O	2.16	0.46
2:O:1077:SER:HA	3:P:356:THR:HG22	1.95	0.46
1:G:173:VAL:CG1	1:G:174:ASP:N	2.78	0.46
2:O:1336:ASN:O	3:P:22:ILE:HA	2.16	0.46
1:G:10:LYS:HE2	1:H:226:GLU:CG	2.45	0.46
2:I:1252:SER:HB2	2:I:1259:LEU:CD2	2.45	0.46
3:D:513:MET:SD	3:D:631:TYR:CG	3.09	0.46
3:J:975:ILE:HD11	3:J:1003:LEU:HD11	1.96	0.46
3:J:747:MET:CE	3:J:774:ILE:HG22	2.46	0.46
5:R:483:LEU:O	5:R:483:LEU:HD12	2.16	0.46
3:J:536:LEU:HA	3:J:536:LEU:HD23	1.71	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:472:GLU:HG2	2:C:473:ARG:N	2.30	0.46
3:D:385:LEU:HD23	3:D:390:LEU:HB2	1.98	0.46
2:I:1289:GLU:O	2:I:1293:VAL:CG2	2.64	0.46
2:I:1323:PHE:CE2	3:J:1352:ILE:HG22	2.51	0.46
1:M:180:VAL:CA	1:M:207:THR:HG22	2.26	0.46
3:P:510:LEU:CD1	3:P:601:ILE:HD11	2.44	0.46
3:D:1163:VAL:CG1	3:D:1164:SER:N	2.77	0.46
5:L:401:PHE:CZ	6:4:44:DG:H1'	2.51	0.46
5:R:466:ILE:HG22	5:R:470:MET:SD	2.55	0.46
3:J:646:ILE:CD1	3:J:764:ARG:HD3	2.45	0.46
3:J:646:ILE:HG13	3:J:764:ARG:HD3	1.98	0.46
2:O:1339:LEU:HB3	3:P:17:PHE:CD2	2.50	0.46
8:6:13:GTP:C2'	8:6:14:A:H5"	2.45	0.46
1:G:31:LEU:HD12	1:G:201:LEU:HB3	1.97	0.46
3:P:146:VAL:HG23	3:P:158:GLN:HB3	1.96	0.46
2:C:1285:TYR:O	2:C:1289:GLU:HG3	2.15	0.46
2:I:782:VAL:HG11	2:I:792:GLY:HA2	1.97	0.46
3:J:154:LEU:HD22	3:J:160:LEU:HD11	1.97	0.46
1:G:35:PHE:HA	1:G:38:THR:OG1	2.15	0.46
1:G:64:VAL:HG11	1:G:78:ILE:HD13	1.97	0.46
3:D:518:VAL:HG12	3:D:519:ASN:N	2.30	0.46
3:D:1035:VAL:HG22	3:D:1121:LEU:HD21	1.97	0.46
6:1:49:DG:H3'	6:1:49:DG:H8	1.81	0.46
3:P:959:LYS:HD2	3:P:985:ILE:HG13	1.97	0.46
2:C:550:VAL:CG2	3:D:777:HIS:HA	2.46	0.46
2:O:857:VAL:HG21	2:O:882:ILE:CD1	2.45	0.46
3:J:997:VAL:HG11	3:J:1003:LEU:HD21	1.96	0.46
3:P:1364:ALA:O	3:P:1367:GLN:CG	2.64	0.46
1:A:203:ILE:CG2	1:A:205:MET:HE2	2.46	0.46
5:F:315:TRP:CZ2	5:F:341:LEU:HD11	2.51	0.46
3:J:1082:ASP:HB3	3:J:1088:VAL:HG23	1.97	0.46
2:I:848:GLU:HG2	2:I:888:THR:HG23	1.97	0.46
3:J:1044:GLN:O	3:J:1067:ARG:HG2	2.16	0.46
2:C:1270:PHE:CE1	2:C:1274:GLU:HB3	2.50	0.46
3:P:1356:LEU:HD13	3:P:1365:TYR:CE1	2.50	0.46
3:D:1320:ILE:HG13	3:D:1320:ILE:H	1.52	0.46
1:G:130:ILE:HG22	1:G:131:CYS:N	2.31	0.46
2:C:589:THR:CG2	2:C:591:TYR:CZ	2.98	0.46
5:F:282:THR:HG23	5:F:285:ARG:NH2	2.30	0.46
3:P:872:LEU:HD22	3:P:877:VAL:HB	1.97	0.46
3:P:1040:MET:CE	3:P:1046:ILE:HG21	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:382:TYR:OH	3:P:398:LYS:HE3	2.15	0.46
3:P:385:LEU:HD12	3:P:397:ALA:HB1	1.96	0.46
3:D:297:ARG:NH1	5:F:100:MET:HB2	2.30	0.46
2:I:209:ILE:HD13	2:I:425:ILE:HG21	1.97	0.46
3:P:139:LEU:CD2	3:P:185:ILE:HD11	2.46	0.46
2:I:805:MET:HE2	2:I:806:PRO:O	2.16	0.46
5:R:115:GLY:O	5:R:119:ILE:HD12	2.16	0.46
2:C:1313:HIS:HB2	3:D:474:LEU:HD11	1.98	0.46
2:O:1332:SER:OG	3:P:245:LEU:HD13	2.15	0.46
3:P:156:ARG:HB3	3:P:157:GLN:HG3	1.97	0.46
5:F:166:VAL:HG12	5:F:167:ASP:N	2.31	0.46
2:C:402:ARG:NE	2:C:416:GLY:HA3	2.31	0.46
2:I:742:TYR:HA	2:I:743:PRO:HD3	1.85	0.46
2:C:1273:MET:HG3	7:2:14:DC:H4'	1.96	0.46
3:P:840:LEU:HD11	3:P:866:GLU:HA	1.97	0.46
3:J:34:SER:HG	3:J:104:HIS:CG	2.30	0.46
3:D:960:LEU:CD2	3:D:982:LEU:HD12	2.46	0.46
2:O:1296:ASP:HB2	2:O:1320:PRO:HA	1.97	0.46
3:D:991:THR:HG22	3:D:991:THR:O	2.15	0.46
2:C:52:ALA:HB1	2:C:468:LEU:HD12	1.98	0.46
2:C:1111:GLN:O	2:C:1115:THR:OG1	2.32	0.46
3:D:510:LEU:HD12	3:D:601:ILE:HD11	1.97	0.46
3:D:507:VAL:HG13	3:D:601:ILE:HD12	1.96	0.46
2:I:1289:GLU:CD	3:J:472:LEU:HB2	2.36	0.46
5:L:562:ARG:NH2	7:5:46:DG:OP1	2.48	0.46
1:G:43:LEU:O	1:G:47:LEU:CD1	2.64	0.46
6:4:42:DG:H3'	6:4:42:DG:P	2.55	0.46
1:G:224:LEU:CD1	1:G:228:LEU:HD12	2.46	0.46
2:I:519:ASN:HD22	2:I:796:LEU:HD22	1.81	0.46
3:P:800:LEU:O	3:P:803:VAL:HB	2.16	0.46
3:P:421:VAL:CG1	3:P:469:HIS:O	2.64	0.46
3:J:1272:SER:CB	3:J:1274:PHE:CE2	2.97	0.46
2:C:685:MET:HE1	2:C:1073:LYS:HD2	1.98	0.46
7:2:12:DG:O3'	7:2:13:DA:P	2.74	0.46
3:P:115:TRP:O	3:P:119:SER:HB3	2.15	0.46
2:C:808:ASN:HA	3:D:629:PHE:HB3	1.97	0.46
3:D:512:TYR:CZ	3:D:635:SER:HB2	2.51	0.46
3:P:517:CYS:HB3	3:P:545:HIS:CB	2.44	0.46
2:I:562:GLU:O	2:I:563:THR:HG22	2.15	0.46
3:P:1280:VAL:CG1	3:P:1281:GLU:N	2.78	0.46
2:O:186:PHE:HD2	2:O:186:PHE:N	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:79:LYS:HZ3	3:J:80:HIS:CE1	2.27	0.46
7:5:19:DA:H4'	7:5:19:DA:OP1	2.15	0.46
2:I:821:ARG:O	2:I:825:GLU:CG	2.64	0.46
3:D:370:LYS:CE	3:D:443:GLU:HA	2.44	0.46
2:C:239:MET:HG3	2:C:241:LEU:HB2	1.97	0.46
2:C:1198:LEU:HD12	2:C:1201:LEU:HB2	1.97	0.46
3:D:1049:GLN:HE22	3:D:1060:VAL:HG21	1.81	0.46
1:N:12:ARG:CZ	1:N:12:ARG:HB3	2.44	0.46
3:P:1301:THR:HG22	3:P:1302:TYR:N	2.30	0.46
3:J:38:VAL:CG2	3:J:244:VAL:HG21	2.46	0.46
2:I:987:GLU:H	2:I:987:GLU:CD	2.18	0.46
3:J:1103:GLY:O	3:J:1104:LYS:CB	2.63	0.46
3:J:1103:GLY:O	3:J:1104:LYS:HB2	2.14	0.46
2:I:570:GLY:HA2	3:J:780:ARG:HH11	1.80	0.46
2:O:1049:ILE:HG22	2:O:1050:VAL:N	2.29	0.46
3:J:30:ILE:CD1	3:J:243:PRO:HD3	2.44	0.46
5:R:295:CYS:O	5:R:296:LYS:CB	2.40	0.46
3:D:259:ARG:CD	5:F:502:LYS:HG2	2.46	0.46
2:I:886:LYS:HD3	2:I:916:SER:HB2	1.95	0.46
5:R:460:ILE:HG13	5:R:460:ILE:H	1.54	0.46
2:O:1269:ARG:HH11	3:P:340:GLN:HG3	1.80	0.46
5:L:497:VAL:HA	5:L:500:ILE:HD12	1.96	0.46
3:D:253:VAL:HG21	5:F:523:ILE:HG21	1.97	0.46
3:D:113:HIS:CE1	3:D:307:LEU:HD13	2.51	0.46
3:P:1075:ARG:CB	3:P:1192:LYS:HD3	2.45	0.46
6:1:18:DA:C2	7:2:46:DG:C2	3.04	0.46
2:O:390:PHE:H	2:O:390:PHE:HD2	1.64	0.46
2:I:971:LEU:HD13	2:I:1017:GLN:HG2	1.98	0.46
2:C:955:GLN:HA	2:C:955:GLN:OE1	2.15	0.46
2:I:436:ARG:O	2:I:436:ARG:NH1	2.42	0.46
3:J:213:LYS:HG2	3:J:216:LYS:CB	2.46	0.46
2:I:939:VAL:HG21	2:I:1047:LEU:HD22	1.98	0.46
3:P:62:PHE:O	3:P:98:ARG:HG3	2.16	0.46
3:J:705:THR:OG1	3:J:716:GLN:HG3	2.15	0.46
1:B:66:HIS:CE1	1:B:69:SER:HB3	2.51	0.46
1:A:89:ALA:HB3	1:A:124:VAL:HB	1.97	0.46
2:I:596:ASP:N	2:I:596:ASP:OD1	2.49	0.46
2:C:108:GLU:HG3	2:C:109:ALA:H	1.81	0.46
6:1:56:DG:C2	7:2:8:DG:N2	2.84	0.46
3:P:377:PHE:C	3:P:379:PRO:HD2	2.37	0.46
2:O:885:GLY:CA	2:O:917:SER:OG	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:452:LEU:HD11	3:P:625:MET:HB2	1.98	0.46
2:C:1116:HIS:CE1	2:C:1226:THR:CG2	2.95	0.46
3:D:1061:VAL:O	3:D:1104:LYS:N	2.49	0.46
7:2:17:DG:C2	8:3:13:GTP:C2	3.03	0.46
3:P:1101:LEU:HD13	3:P:1107:VAL:CG2	2.46	0.46
1:G:225:ALA:O	1:G:228:LEU:HB2	2.15	0.46
3:P:483:LEU:HD21	4:Q:16:ARG:CB	2.42	0.46
2:I:700:VAL:O	2:I:1069:ARG:NH2	2.48	0.46
2:C:12:ARG:HA	2:C:1181:PRO:O	2.16	0.46
1:M:35:PHE:N	1:M:35:PHE:CD2	2.84	0.46
5:F:400:GLN:HG2	5:F:401:PHE:H	1.79	0.46
3:D:239:LEU:N	3:D:239:LEU:HD23	2.31	0.46
2:O:298:ALA:O	2:O:313:ALA:HA	2.14	0.46
3:D:431:ARG:HG3	3:D:432:LEU:HD23	1.98	0.46
1:B:78:ILE:HA	1:B:81:ILE:HD12	1.98	0.46
3:D:1031:VAL:HG23	3:D:1080:ILE:HG21	1.97	0.46
2:I:228:VAL:HG22	2:I:245:ARG:NH1	2.30	0.46
3:J:1270:GLY:HA2	3:J:1298:VAL:O	2.16	0.46
2:I:836:LEU:HD13	2:I:918:LEU:HD11	1.97	0.46
2:C:298:ALA:CB	2:C:334:GLU:O	2.64	0.46
3:J:905:ARG:HD2	4:K:16:ARG:HH11	1.81	0.46
3:P:369:PRO:HB2	3:P:372:MET:HB2	1.97	0.46
3:J:238:ILE:HD13	3:J:238:ILE:N	2.30	0.46
3:J:1176:VAL:HG13	3:J:1187:GLU:HG2	1.97	0.46
1:A:52:PRO:O	1:A:211:ILE:HD11	2.16	0.46
3:D:646:ILE:HG13	3:D:764:ARG:HD2	1.97	0.46
1:A:66:HIS:CE1	2:C:929:ILE:HG12	2.51	0.46
3:P:1347:LEU:HD21	3:P:1357:ILE:CG2	2.46	0.46
2:C:868:SER:HB2	2:C:944:ARG:HB2	1.96	0.46
3:J:381:ILE:O	3:J:385:LEU:HG	2.15	0.46
3:P:963:VAL:HG23	3:P:980:THR:OG1	2.16	0.46
2:I:873:ILE:H	2:I:873:ILE:HG13	1.52	0.46
3:P:395:LYS:HE2	3:P:399:LYS:HE2	1.97	0.46
3:P:395:LYS:HE2	3:P:399:LYS:HZ3	1.80	0.46
5:R:353:LEU:CB	5:R:358:VAL:CG2	2.90	0.46
3:D:518:VAL:CG1	3:D:519:ASN:N	2.78	0.46
6:1:51:DC:H2"	6:1:52:DT:C6	2.51	0.46
1:N:190:ALA:CB	1:N:200:LYS:HG3	2.45	0.46
1:A:31:LEU:HA	1:A:31:LEU:HD23	1.67	0.46
3:J:849:LEU:HD23	3:J:850:LYS:N	2.30	0.46
2:I:297:VAL:HG23	2:I:315:MET:H	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:337:PHE:O	2:I:338:THR:CG2	2.64	0.46
2:C:530:ILE:HD12	2:C:573:ASN:O	2.15	0.46
5:L:470:MET:HG2	5:L:486:ARG:NH1	2.31	0.46
5:F:399:LEU:HD23	5:F:399:LEU:HA	1.55	0.46
2:C:802:VAL:HG12	2:C:803:ALA:N	2.30	0.46
3:J:44:ILE:HD13	3:J:252:LEU:HD21	1.97	0.46
3:D:819:GLY:N	3:D:881:LYS:HE2	2.31	0.46
2:O:375:PRO:HA	2:O:376:PRO:HD3	1.84	0.46
1:G:92:VAL:HG12	1:G:93:GLN:N	2.31	0.46
2:I:552:PRO:HA	3:J:773:PHE:CZ	2.51	0.46
2:O:1283:ALA:HB1	2:O:1286:THR:HG1	1.81	0.46
3:D:131:PRO:O	3:D:135:ILE:HG13	2.16	0.46
3:D:181:GLY:O	3:D:185:ILE:HG13	2.16	0.46
3:D:1163:VAL:HG13	3:D:1177:ILE:HA	1.98	0.46
3:D:1163:VAL:HG13	3:D:1177:ILE:HG12	1.97	0.46
5:L:395:THR:HA	5:L:404:LEU:HD12	1.98	0.46
5:F:353:LEU:CB	5:F:358:VAL:HG22	2.46	0.46
3:D:1134:ILE:O	3:D:1134:ILE:CG2	2.64	0.46
2:O:539:THR:CG2	2:O:540:ARG:N	2.65	0.46
1:G:201:LEU:HD12	1:G:202:VAL:N	2.31	0.46
3:J:1155:ILE:HG22	3:J:1156:LEU:N	2.31	0.46
3:J:1178:THR:HA	3:J:1179:PRO:HD3	1.80	0.46
2:C:128:PRO:HD3	2:C:502:VAL:HG11	1.98	0.46
3:D:1031:VAL:CG1	3:D:1091:PRO:HD3	2.44	0.46
2:O:241:LEU:HD11	2:O:246:LEU:HG	1.98	0.46
2:C:1259:LEU:HD11	5:F:524:GLU:HB3	1.97	0.46
3:J:124:ILE:H	3:J:124:ILE:HG13	1.48	0.46
2:C:90:VAL:HG12	2:C:91:THR:N	2.31	0.46
3:P:875:ASN:O	3:P:876:SER:HB2	2.15	0.46
3:P:368:LEU:HD23	3:P:373:ALA:HB2	1.98	0.45
1:A:48:LEU:HD23	1:A:180:VAL:HB	1.96	0.45
2:O:178:PRO:HG2	2:O:395:TYR:CE1	2.50	0.45
2:O:182:SER:O	2:O:395:TYR:HE1	1.99	0.45
2:O:898:GLU:OE1	5:R:565:ILE:HG23	2.16	0.45
5:R:111:LEU:HD22	5:R:115:GLY:HA3	1.98	0.45
3:P:1000:GLY:HA2	3:P:1028:ILE:HD12	1.98	0.45
3:P:1225:GLY:O	3:P:1229:VAL:HG12	2.16	0.45
3:P:1257:VAL:O	3:P:1261:LEU:HG	2.15	0.45
2:O:186:PHE:CD2	2:O:186:PHE:N	2.83	0.45
3:D:109:SER:HB3	3:D:299:LEU:CD2	2.45	0.45
1:G:67:GLU:O	1:G:78:ILE:HB	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:634:VAL:CG1	2:O:635:THR:N	2.78	0.45
2:O:1166:ASP:O	2:O:1169:VAL:HB	2.16	0.45
5:F:407:GLU:CD	5:F:442:SER:HB3	2.37	0.45
2:O:678:ARG:NH2	2:O:1106:ARG:HG3	2.31	0.45
1:H:83:LEU:HD12	3:J:528:THR:HG23	1.97	0.45
5:F:429:THR:OG1	6:1:39:DA:H2'	2.15	0.45
5:F:119:ILE:HA	5:F:122:ARG:HG3	1.98	0.45
2:C:1125:GLY:HA3	2:C:1179:GLY:HA2	1.98	0.45
5:R:322:MET:O	5:R:323:ASN:HB2	2.15	0.45
5:F:329:LYS:HB3	5:F:329:LYS:HE2	1.70	0.45
3:P:1250:ASP:N	3:P:1250:ASP:OD1	2.49	0.45
1:H:22:THR:O	1:H:207:THR:HG22	2.16	0.45
2:O:1243:MET:CG	3:P:372:MET:CE	2.94	0.45
2:C:27:LEU:CD2	2:C:528:ARG:NH2	2.78	0.45
1:M:59:VAL:O	1:M:171:LEU:CG	2.63	0.45
2:I:1245:ALA:HA	3:J:351:GLY:HA2	1.98	0.45
2:I:920:VAL:HG12	2:I:921:PRO:O	2.16	0.45
3:J:959:LYS:CD	3:J:985:ILE:HG13	2.40	0.45
2:C:1077:SER:HA	3:D:356:THR:HG22	1.95	0.45
5:L:548:LEU:CD1	5:L:560:ARG:NE	2.75	0.45
3:P:78:LEU:HD23	3:P:78:LEU:H	1.77	0.45
2:I:1104:PRO:CG	3:J:725:MET:SD	3.03	0.45
2:I:1246:ARG:NH2	2:I:1249:GLY:CA	2.80	0.45
2:I:453:ILE:HD13	2:I:453:ILE:HA	1.66	0.45
1:N:65:LEU:HD22	1:N:168:ILE:HG22	1.98	0.45
5:R:437:GLN:CD	6:7:35:DC:N4	2.70	0.45
3:D:909:ILE:CD1	3:D:915:ILE:HG12	2.46	0.45
2:O:56:VAL:HG13	2:O:472:GLU:OE1	2.17	0.45
2:O:802:VAL:HG22	2:O:1096:ILE:HD12	1.98	0.45
3:D:603:LYS:O	3:D:607:THR:OG1	2.34	0.45
3:D:708:ASN:ND2	3:D:711:GLY:O	2.49	0.45
2:C:17:LYS:HG3	2:C:1188:ASP:OD1	2.16	0.45
5:F:406:GLN:HA	5:F:406:GLN:OE1	2.16	0.45
3:J:480:ALA:HA	3:J:484:MET:CG	2.46	0.45
2:C:123:TYR:OH	2:C:126:GLU:HG3	2.16	0.45
5:F:360:ASP:O	5:F:364:ARG:HB2	2.16	0.45
1:M:47:LEU:O	1:M:51:MET:CG	2.64	0.45
3:J:1163:VAL:CG1	3:J:1175:LEU:HG	2.46	0.45
2:C:539:THR:CG2	2:C:540:ARG:N	2.51	0.45
1:G:44:ARG:HA	1:G:183:ILE:CD1	2.46	0.45
1:H:31:LEU:HD13	1:H:35:PHE:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:228:LEU:HD23	1:G:231:PHE:HD2	1.81	0.45
5:R:462:LYS:HA	5:R:465:ARG:HE	1.81	0.45
5:R:600:HIS:HA	5:R:601:PRO:HD2	1.79	0.45
2:O:729:ALA:HB1	2:O:755:LYS:NZ	2.31	0.45
3:J:826:ILE:HD13	3:J:831:VAL:HG22	1.97	0.45
2:C:12:ARG:HD3	2:C:1183:ALA:HB2	1.97	0.45
2:O:169:LYS:HG2	2:O:171:LEU:HD21	1.97	0.45
2:O:530:ILE:HD11	2:O:575:LEU:N	2.32	0.45
7:8:51:DG:C4	7:8:52:DT:C5	3.05	0.45
5:R:586:ARG:HB2	6:7:13:DT:H72	1.99	0.45
3:P:332:LYS:O	3:P:333:GLY:O	2.35	0.45
3:P:1347:LEU:O	3:P:1351:VAL:HG23	2.16	0.45
3:D:115:TRP:HE3	3:D:1333:THR:HG23	1.81	0.45
7:2:24:DT:H72	7:2:25:DA:H61	1.79	0.45
2:C:810:TYR:CB	2:C:817:LEU:HD21	2.46	0.45
3:J:251:PRO:HG2	5:L:507:MET:CE	2.40	0.45
3:D:449:LEU:HG	3:D:450:HIS:N	2.32	0.45
3:D:958:ILE:HG13	3:D:1011:VAL:CG1	2.47	0.45
6:7:51:DC:OP1	6:7:51:DC:H3'	2.17	0.45
3:D:238:ILE:C	3:D:239:LEU:HD23	2.37	0.45
3:D:548:VAL:HG12	3:D:550:VAL:HG23	1.97	0.45
2:I:1246:ARG:CZ	2:I:1249:GLY:N	2.79	0.45
3:J:693:VAL:CG1	3:J:694:SER:N	2.79	0.45
1:A:38:THR:CG2	1:B:42:ALA:HA	2.46	0.45
2:C:1237:HIS:HB3	2:C:1242:LYS:NZ	2.31	0.45
1:H:162:GLU:OE2	1:H:164:ASP:HB3	2.16	0.45
2:C:168:GLY:O	3:D:1065:ALA:CA	2.64	0.45
5:L:434:TRP:CD2	6:4:36:DT:C7	2.99	0.45
5:R:426:LYS:HG2	6:7:39:DA:H3'	1.98	0.45
2:I:912:ASP:C	2:I:913:VAL:HG23	2.37	0.45
3:P:1284:ARG:HA	3:P:1287:ILE:HD12	1.98	0.45
1:G:235:ARG:NH2	1:H:16:ILE:HD13	2.32	0.45
3:D:749:LYS:HG3	3:D:755:ILE:CG1	2.41	0.45
3:D:368:LEU:HD12	3:D:369:PRO:HD2	1.99	0.45
3:J:450:HIS:CD2	3:J:452:LEU:H	2.35	0.45
2:I:960:LEU:HD22	2:I:1028:LYS:HD3	1.99	0.45
3:P:26:SER:O	3:P:30:ILE:HG13	2.16	0.45
3:J:379:PRO:HG2	3:J:380:PHE:H	1.81	0.45
2:I:1314:GLN:HA	4:K:28:ARG:NH2	2.31	0.45
1:G:28:LEU:CD1	1:H:231:PHE:HZ	2.30	0.45
6:7:47:DC:C2'	6:7:48:DA:H5"	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:202:ARG:NH2	7:2:7:DC:H5"	2.32	0.45
2:I:13:LYS:HB2	2:I:1149:TYR:CD1	2.50	0.45
1:A:57:THR:O	1:A:172:LEU:HD12	2.16	0.45
2:C:615:VAL:HG22	2:C:638:SER:HB2	1.99	0.45
2:C:972:PHE:CE2	2:C:994:ARG:O	2.68	0.45
5:L:563:PHE:HB2	5:L:565:ILE:HG12	1.97	0.45
2:C:1268:GLN:HE22	3:D:351:GLY:HA2	1.82	0.45
5:R:344:LEU:HD23	5:R:347:ILE:HD12	1.99	0.45
1:N:198:LEU:N	1:N:198:LEU:HD12	2.31	0.45
5:R:557:LYS:HE2	5:R:560:ARG:HH11	1.81	0.45
2:C:699:LEU:HA	2:C:699:LEU:HD23	1.65	0.45
5:L:147:GLN:HA	5:L:150:ARG:HD2	1.98	0.45
2:I:761:GLN:O	2:I:762:ASN:HB2	2.16	0.45
2:O:521:LEU:CD2	2:O:686:GLN:HB3	2.47	0.45
2:I:1270:PHE:HB2	3:J:347:VAL:HG23	1.96	0.45
3:J:130:MET:HG2	3:J:131:PRO:O	2.17	0.45
3:P:131:PRO:O	3:P:135:ILE:CG1	2.56	0.45
2:I:673:HIS:CG	3:J:763:PHE:O	2.67	0.45
3:J:797:THR:CG2	3:J:924:GLY:CA	2.78	0.45
2:O:524:ILE:HD11	2:O:712:SER:CB	2.32	0.45
3:J:357:VAL:HG22	3:J:461:PHE:CE2	2.52	0.45
2:C:78:PRO:HG3	2:C:129:LEU:CD1	2.45	0.45
2:C:811:ASN:HD22	2:C:1099:ASN:HA	1.79	0.45
4:K:44:ASP:HB2	4:K:49:ILE:HG12	1.98	0.45
2:I:808:ASN:ND2	2:I:808:ASN:N	2.62	0.45
4:E:18:ASP:O	4:E:22:VAL:HG23	2.17	0.45
3:P:255:LEU:HD11	5:R:519:LEU:HD21	1.97	0.45
2:O:345:PRO:O	2:O:349:GLU:HG2	2.16	0.45
2:I:383:SER:O	2:I:387:ASN:CG	2.55	0.45
3:J:1154:ALA:HA	3:J:1211:SER:HB2	1.98	0.45
5:F:412:LEU:O	5:F:416:VAL:HG23	2.16	0.45
3:P:589:TYR:HE2	3:P:593:ASN:ND2	2.11	0.45
2:C:73:TYR:HB3	2:C:98:VAL:HG22	1.99	0.45
2:I:1184:THR:OG1	2:I:1190:ALA:N	2.39	0.45
3:P:34:SER:CB	3:P:104:HIS:HB3	2.47	0.45
3:J:903:LEU:HD23	3:J:903:LEU:HA	1.69	0.45
2:I:1278:LEU:HD13	2:I:1283:ALA:O	2.17	0.45
2:I:1290:MET:HA	2:I:1294:LYS:HG3	1.99	0.45
2:C:149:LEU:HD13	2:C:453:ILE:HD11	1.99	0.45
7:5:24:DT:C7	7:5:25:DA:N6	2.80	0.45
7:8:23:DT:H2"	7:8:24:DT:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:GLY:HA2	1:A:109:PRO:HD3	1.78	0.45
2:O:1293:VAL:O	2:O:1301:ARG:HB3	2.17	0.45
2:C:155:VAL:HG23	2:C:405:PHE:HA	1.98	0.45
3:J:795:TYR:O	3:J:799:ARG:CG	2.57	0.45
2:C:1333:LEU:CD1	3:D:331:ILE:CD1	2.94	0.45
2:I:1021:LEU:HA	2:I:1024:GLU:HB3	1.97	0.45
3:P:215:LYS:O	3:P:219:LYS:HG3	2.17	0.45
1:A:76:GLU:HG3	1:A:80:GLU:CD	2.37	0.45
2:I:869:GLY:C	2:I:870:ILE:HD13	2.37	0.45
3:P:367:GLY:HA3	3:P:448:GLN:HB2	1.98	0.45
3:P:1331:VAL:HA	3:P:1334:GLU:OE1	2.17	0.45
2:I:443:ASP:N	2:I:443:ASP:OD1	2.50	0.45
3:P:1348:LYS:O	3:P:1352:ILE:HD12	2.17	0.45
3:J:1246:VAL:CG1	3:J:1246:VAL:O	2.62	0.45
2:C:736:VAL:HG12	2:C:737:ASN:N	2.32	0.45
3:J:653:ILE:HG21	3:J:693:VAL:HG23	1.98	0.45
2:C:236:LYS:O	2:C:237:LEU:HD23	2.16	0.45
2:C:1237:HIS:HB3	2:C:1242:LYS:HZ2	1.81	0.45
2:O:764:CYS:HB3	2:O:831:ILE:HB	1.99	0.45
3:D:1223:LEU:HD23	3:D:1223:LEU:HA	1.61	0.45
1:B:193:GLU:O	1:B:194:GLN:HB2	2.16	0.45
2:I:1339:LEU:H	2:I:1339:LEU:HG	1.66	0.45
2:C:209:ILE:CG2	2:C:210:LEU:N	2.79	0.45
3:J:1318:SER:HG	3:J:1321:SER:HB3	1.71	0.45
3:D:747:MET:HE1	3:D:775:SER:N	2.32	0.45
2:C:523:GLU:HG2	2:C:524:ILE:N	2.31	0.45
5:L:102:MET:CE	6:4:43:DT:H1'	2.38	0.45
3:J:826:ILE:HG23	3:J:831:VAL:HA	1.98	0.45
1:M:85:LEU:CD1	1:M:144:ILE:CD1	2.92	0.45
3:D:1145:PHE:HD1	3:D:1260:MET:HE1	1.81	0.45
3:J:160:LEU:HA	3:J:160:LEU:HD23	1.87	0.45
5:L:166:VAL:CG1	5:L:212:ILE:HG13	2.43	0.45
2:I:39:ILE:HG13	2:I:39:ILE:H	1.58	0.45
1:H:191:ARG:HG3	1:H:196:THR:HG22	1.98	0.45
3:P:931:THR:O	3:P:935:PHE:CD2	2.70	0.45
2:O:1123:GLY:HA3	2:O:1204:LEU:HD11	1.99	0.45
5:R:423:ARG:HG3	6:7:37:DA:N1	2.32	0.45
1:M:151:GLY:O	1:M:177:TYR:HB2	2.17	0.45
2:O:866:ASP:CG	2:O:867:GLU:H	2.19	0.45
3:P:339:ARG:NH2	3:P:798:ARG:HH12	2.14	0.45
3:J:1258:ARG:NH1	3:J:1258:ARG:HG2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:47:LEU:O	1:A:51:MET:HB2	2.17	0.45
1:G:43:LEU:C	1:G:47:LEU:HD12	2.36	0.45
3:D:762:ASN:CG	3:D:764:ARG:HB3	2.36	0.45
2:O:130:MET:SD	2:O:134:GLY:HA2	2.57	0.45
3:P:139:LEU:HA	3:P:181:GLY:HA2	1.99	0.45
2:I:143:ARG:HG2	2:I:513:GLN:C	2.37	0.45
5:F:110:LEU:HD21	5:F:385:ARG:HG3	1.99	0.45
3:P:809:VAL:HG22	3:P:915:ILE:HD11	1.97	0.45
2:C:1253:LEU:HB2	5:F:523:ILE:HB	1.98	0.45
2:C:920:VAL:HG13	2:C:921:PRO:HD2	1.99	0.45
3:J:823:THR:HG22	3:J:879:ALA:HB2	1.99	0.45
5:F:573:LEU:CB	7:2:45:DT:H3'	2.46	0.45
5:F:573:LEU:HB3	7:2:45:DT:H3'	1.99	0.45
3:P:517:CYS:HB2	3:P:719:PHE:CZ	2.52	0.45
5:F:165:PHE:HB3	5:F:166:VAL:H	1.64	0.45
2:I:1302:THR:CG2	2:I:1303:LYS:N	2.80	0.45
5:R:390:ILE:HD12	5:R:435:ILE:HD12	1.98	0.45
1:H:10:LYS:HA	1:H:11:PRO:HD3	1.71	0.45
3:D:431:ARG:HE	3:D:493:PRO:HG3	1.82	0.45
5:R:506:SER:O	5:R:509:THR:OG1	2.22	0.45
3:J:435:GLN:CB	3:J:437:PHE:HE1	2.28	0.45
3:D:1191:PRO:HB2	3:D:1194:ARG:HB2	1.98	0.45
3:P:104:HIS:CA	3:P:244:VAL:HG23	2.46	0.45
3:P:972:LYS:HD3	3:P:1002:VAL:HG21	1.99	0.45
2:O:1296:ASP:N	2:O:1296:ASP:OD1	2.47	0.45
2:O:880:GLY:O	2:O:919:ARG:HD3	2.17	0.45
2:I:1141:LEU:O	2:I:1145:ILE:HG13	2.17	0.45
2:O:979:LEU:HD22	2:O:1002:LEU:HD12	1.99	0.45
3:D:138:VAL:HG12	3:D:139:LEU:N	2.32	0.45
1:G:43:LEU:C	1:G:47:LEU:CD1	2.85	0.45
2:O:203:LYS:O	2:O:204:LEU:HD23	2.17	0.45
3:D:744:ARG:HG3	3:D:744:ARG:O	2.17	0.45
2:C:1212:LEU:HA	2:C:1212:LEU:HD23	1.60	0.45
6:7:45:DT:C5'	6:7:46:DG:OP2	2.65	0.45
2:I:871:VAL:HG23	2:I:883:LEU:C	2.34	0.45
3:D:112:ALA:HA	3:D:238:ILE:HD13	1.94	0.45
2:C:313:ALA:O	2:C:314:ASN:CB	2.64	0.45
6:1:43:DT:OP2	6:1:43:DT:O4'	2.35	0.45
2:C:1275:VAL:CG1	2:C:1279:GLU:OE2	2.65	0.45
2:O:523:GLU:HG2	2:O:527:LYS:HE3	1.99	0.45
2:O:736:VAL:HG23	2:O:747:GLY:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:436:ALA:C	3:J:437:PHE:CD1	2.91	0.45
1:B:65:LEU:HD22	1:B:168:ILE:CG2	2.47	0.45
3:J:1047:THR:O	3:J:1047:THR:CG2	2.65	0.45
2:C:1174:GLU:O	2:C:1177:ARG:HB3	2.17	0.45
2:I:1178:LYS:HG2	2:I:1178:LYS:O	2.17	0.45
3:J:1147:ALA:O	3:J:1218:HIS:HE1	2.00	0.45
2:I:529:ARG:C	2:I:530:ILE:HG13	2.36	0.45
2:C:848:GLU:HG2	2:C:888:THR:HA	1.99	0.45
3:P:506:VAL:HG12	3:P:510:LEU:HD11	1.98	0.45
2:I:143:ARG:HG2	2:I:513:GLN:O	2.16	0.45
1:A:9:LEU:HD22	1:A:198:LEU:HD11	1.98	0.45
2:I:870:ILE:CG2	2:I:944:ARG:HE	2.29	0.45
3:J:952:VAL:HG21	3:J:1017:VAL:HG11	1.99	0.45
2:O:389:PHE:HB2	2:O:390:PHE:CE2	2.52	0.45
2:O:34:SER:HA	2:O:37:LYS:HD2	1.98	0.45
3:D:154:LEU:CD1	3:D:158:GLN:HG2	2.47	0.45
6:1:43:DT:H2'	6:1:44:DG:O4'	2.17	0.45
2:O:1120:ALA:HB2	2:O:1199:LEU:CG	2.44	0.45
7:2:5:DC:C2'	7:2:6:DG:H5'	2.47	0.45
7:2:5:DC:C2	7:2:6:DG:C8	3.05	0.45
2:I:808:ASN:HD21	3:J:633:ALA:CB	2.30	0.45
6:7:30:DG:N3	7:8:34:DG:N2	2.65	0.45
2:C:890:LYS:CG	2:C:891:GLY:N	2.78	0.45
3:P:22:ILE:HG22	3:P:1336:ALA:HA	1.99	0.45
2:C:228:VAL:CG1	2:C:239:MET:HE2	2.47	0.45
3:P:33:TRP:HB2	3:P:102:MET:HE2	1.98	0.45
5:R:491:GLU:HA	5:R:494:ILE:HD13	1.99	0.45
2:C:170:VAL:HG23	3:D:1065:ALA:O	2.17	0.45
2:O:1246:ARG:HD2	2:O:1265:PHE:O	2.17	0.45
3:D:1250:ASP:O	3:D:1254:GLU:HG3	2.17	0.45
1:A:112:ALA:HB3	1:A:126:PRO:HA	1.99	0.45
5:L:502:LYS:HA	5:L:502:LYS:HD2	1.45	0.45
2:O:939:VAL:HG12	2:O:940:GLU:N	2.32	0.45
2:O:590:PRO:O	2:O:655:VAL:HG23	2.17	0.44
1:H:35:PHE:O	1:H:39:LEU:CG	2.64	0.44
3:J:363:LEU:HG	3:J:487:THR:HG22	1.99	0.44
3:J:644:MET:O	3:J:764:ARG:CZ	2.63	0.44
1:M:221:ALA:O	1:M:224:LEU:HB3	2.18	0.44
2:O:677:ASN:OD1	3:P:783:LEU:HD21	2.17	0.44
2:I:335:THR:HG22	2:I:336:LEU:H	1.82	0.44
3:P:1272:SER:HB3	3:P:1274:PHE:CE2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:798:GLN:NE2	2:I:827:ARG:HG2	2.32	0.44
1:M:35:PHE:CE1	1:N:46:ILE:HG12	2.51	0.44
3:P:1224:ARG:HB3	3:P:1228:ALA:HB3	1.98	0.44
3:P:849:LEU:HD11	3:P:857:LEU:CD2	2.46	0.44
3:D:146:VAL:HG23	3:D:158:GLN:HB3	1.97	0.44
6:1:44:DG:H2"	6:1:45:DT:O4'	2.17	0.44
2:C:1099:ASN:HD21	3:D:504:GLN:HE21	1.64	0.44
1:H:30:PRO:HG3	1:H:192:VAL:CG2	2.47	0.44
3:P:43:THR:OG1	3:P:44:ILE:N	2.51	0.44
2:C:30:ILE:H	2:C:30:ILE:HG13	1.52	0.44
2:C:168:GLY:O	3:D:1065:ALA:HB1	2.17	0.44
3:J:360:TYR:HE1	3:J:361:LEU:CD2	2.29	0.44
3:J:126:LEU:O	3:J:126:LEU:HD23	2.16	0.44
3:P:549:LYS:HG2	3:P:571:ASP:OD1	2.16	0.44
5:R:213:ASP:OD1	5:R:213:ASP:N	2.50	0.44
3:D:1173:ARG:O	3:D:1190:ILE:HD12	2.17	0.44
6:1:30:DG:C8	6:1:31:DT:H72	2.53	0.44
3:P:398:LYS:NZ	5:R:532:LEU:CB	2.80	0.44
3:J:130:MET:SD	3:J:135:ILE:CG1	2.97	0.44
2:C:557:ARG:NH2	2:C:611:GLU:OE1	2.50	0.44
3:D:744:ARG:NH1	3:D:763:PHE:HZ	2.15	0.44
2:O:812:PHE:HZ	3:P:503:SER:OG	2.01	0.44
1:G:219:ARG:O	1:G:223:ILE:HD12	2.16	0.44
3:D:262:THR:O	5:F:507:MET:N	2.39	0.44
3:J:744:ARG:HD2	3:J:763:PHE:HE2	1.77	0.44
5:R:584:ARG:HG3	5:R:585:GLU:N	2.31	0.44
3:D:963:VAL:HG22	3:D:964:LYS:N	2.32	0.44
5:L:552:THR:O	5:L:554:ARG:N	2.50	0.44
1:B:224:LEU:HD13	1:B:225:ALA:CA	2.47	0.44
2:C:214:ASN:ND2	2:I:999:GLU:HG2	2.32	0.44
7:2:24:DT:OP1	7:2:24:DT:H4'	2.18	0.44
3:D:145:VAL:HA	3:D:158:GLN:O	2.18	0.44
6:1:43:DT:C2'	6:1:44:DG:O4'	2.66	0.44
6:7:54:DA:H2"	6:7:55:DC:C5	2.52	0.44
1:A:158:ARG:HE	1:A:172:LEU:HD11	1.82	0.44
2:C:796:LEU:C	2:C:1233:LEU:HD21	2.37	0.44
2:O:1326:LEU:HD13	3:P:342:LEU:CD1	2.47	0.44
3:J:724:MET:O	3:J:728:SER:OG	2.26	0.44
1:A:205:MET:HE2	1:A:205:MET:HB2	1.75	0.44
2:I:371:ARG:HB3	5:L:99:ARG:NH2	2.32	0.44
3:P:746:LEU:HG	3:P:746:LEU:H	1.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:89:ALA:CB	1:A:124:VAL:HB	2.48	0.44
2:O:149:LEU:HD13	2:O:453:ILE:HD11	1.99	0.44
2:C:1177:ARG:HD2	2:C:1178:LYS:NZ	2.32	0.44
2:I:1075:VAL:CG1	2:I:1076:ILE:N	2.80	0.44
2:O:715:THR:HG22	2:O:786:GLY:H	1.83	0.44
3:J:291:ILE:H	3:J:291:ILE:HG13	1.64	0.44
3:P:669:GLN:H	3:P:669:GLN:HG3	1.42	0.44
3:P:355:ILE:HG13	3:P:355:ILE:O	2.18	0.44
5:F:268:TYR:HA	5:F:271:ASN:HD22	1.82	0.44
3:J:1078:LEU:HD13	3:J:1121:LEU:HD22	2.00	0.44
3:P:233:LYS:HB2	3:P:236:TRP:CE2	2.51	0.44
2:O:1043:ALA:HB3	2:O:1046:VAL:CG2	2.47	0.44
2:O:566:GLY:O	2:O:569:ILE:HG22	2.18	0.44
5:R:452:ILE:HG23	5:R:456:MET:HB3	2.00	0.44
3:P:120:LEU:CD2	3:P:121:PRO:HA	2.47	0.44
3:J:501:VAL:HG13	3:J:502:PRO:HD2	1.99	0.44
5:L:583:THR:CG2	5:L:586:ARG:CB	2.85	0.44
5:L:583:THR:HG23	5:L:586:ARG:CB	2.32	0.44
2:C:1313:HIS:HE1	3:D:380:PHE:CE1	2.36	0.44
7:2:26:DT:H2"	7:2:27:DA:OP1	2.16	0.44
2:C:525:THR:CG2	2:C:526:HIS:N	2.80	0.44
1:B:85:LEU:HD13	1:B:144:ILE:HD11	1.98	0.44
3:P:1224:ARG:HD3	3:P:1228:ALA:HB1	1.98	0.44
1:G:67:GLU:HB3	1:G:171:LEU:HD22	1.99	0.44
6:4:47:DC:H2"	6:4:48:DA:OP1	2.16	0.44
2:C:499:SER:CB	2:C:503:LYS:NZ	2.80	0.44
3:J:127:LEU:O	3:J:220:ARG:NH2	2.49	0.44
2:O:1323:PHE:O	2:O:1326:LEU:HB3	2.17	0.44
2:I:702:THR:HA	2:I:1184:THR:O	2.18	0.44
5:L:434:TRP:CE2	6:4:36:DT:C7	3.00	0.44
2:I:929:ILE:HG22	2:I:930:ASP:N	2.32	0.44
2:C:840:SER:O	2:C:840:SER:OG	2.28	0.44
3:P:1174:ARG:HG3	3:P:1189:MET:CB	2.48	0.44
2:O:364:VAL:HG13	2:O:376:PRO:HG2	1.99	0.44
3:P:1240:VAL:O	3:P:1243:LEU:HB2	2.16	0.44
5:R:362:ASN:HA	5:R:365:MET:HE2	1.99	0.44
2:C:38:PHE:CD1	2:C:460:ALA:HB3	2.51	0.44
2:I:994:ARG:HD3	2:I:994:ARG:HA	1.73	0.44
1:B:22:THR:O	1:B:207:THR:HG22	2.17	0.44
2:I:53:PHE:CZ	2:I:98:VAL:HG21	2.53	0.44
3:J:820:ILE:CG2	3:J:821:MET:N	2.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:901:ARG:HD3	3:P:906:GLY:HA2	2.00	0.44
2:O:99:LYS:CG	2:O:121:GLU:HG3	2.48	0.44
3:J:68:TYR:CD2	3:J:78:LEU:HD23	2.52	0.44
2:C:692:THR:OG1	2:C:693:LEU:N	2.48	0.44
2:O:75:LEU:HD23	2:O:75:LEU:HA	1.76	0.44
2:C:194:LEU:HG	2:C:206:ALA:HB2	1.99	0.44
2:C:208:ILE:CG2	2:C:209:ILE:N	2.81	0.44
1:H:158:ARG:NH2	1:H:177:TYR:OH	2.50	0.44
3:D:412:LEU:O	3:D:416:ILE:HG13	2.17	0.44
2:O:347:ILE:HG22	2:O:351:LEU:HD12	1.99	0.44
3:D:746:LEU:C	3:D:747:MET:HG3	2.37	0.44
7:8:26:DT:C2'	7:8:27:DA:OP1	2.63	0.44
3:J:367:GLY:O	3:J:447:ILE:CG2	2.59	0.44
6:7:45:DT:H5'	6:7:46:DG:OP2	2.16	0.44
2:I:296:VAL:O	2:I:336:LEU:HG	2.18	0.44
1:N:100:LEU:HA	1:N:100:LEU:HD23	1.86	0.44
2:C:176:ILE:HD12	2:C:184:LEU:CD1	2.47	0.44
3:P:431:ARG:HD3	3:P:493:PRO:HG3	1.99	0.44
1:A:11:PRO:HG3	1:B:227:GLN:HB3	1.98	0.44
2:O:185:ASP:OD2	2:O:200:ARG:CD	2.65	0.44
1:H:129:VAL:CG1	1:H:132:HIS:HE1	2.22	0.44
3:J:303:VAL:O	3:J:306:LEU:HB3	2.18	0.44
2:I:14:ASP:OD1	2:I:1185:PRO:HG3	2.17	0.44
2:I:82:VAL:CG2	2:I:83:GLN:H	2.27	0.44
6:1:49:DG:H3'	6:1:49:DG:C8	2.52	0.44
2:O:1337:ILE:HD12	3:P:22:ILE:CD1	2.44	0.44
2:C:550:VAL:HG21	3:D:777:HIS:HA	2.00	0.44
2:C:758:ARG:HG2	2:C:759:SER:O	2.18	0.44
7:2:43:DG:H2"	7:2:44:DA:OP2	2.17	0.44
4:K:26:ARG:HG3	4:K:30:MET:SD	2.58	0.44
3:P:950:ILE:HG22	3:P:950:ILE:O	2.16	0.44
2:I:840:SER:OG	2:I:1048:LYS:N	2.51	0.44
3:J:833:GLU:OE1	3:J:1242:ARG:NH2	2.51	0.44
3:D:1148:ARG:HG2	6:1:55:DC:OP1	2.16	0.44
2:O:467:GLY:O	2:O:471:VAL:HG23	2.16	0.44
1:A:118:ASP:OD1	1:A:119:GLY:N	2.48	0.44
4:K:35:LYS:HD2	4:K:35:LYS:HA	1.53	0.44
2:O:4:SER:CB	2:O:778:GLU:OE1	2.66	0.44
3:P:554:GLU:N	3:P:566:LYS:O	2.44	0.44
3:J:1015:GLU:HG2	3:J:1016:THR:H	1.83	0.44
3:J:1290:ARG:HA	3:J:1293:GLU:OE2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:39:LEU:O	1:G:43:LEU:HG	2.18	0.44
6:4:43:DT:OP2	6:4:43:DT:O4'	2.36	0.44
1:G:221:ALA:HB1	1:H:228:LEU:CD2	2.47	0.44
3:D:578:ILE:O	3:D:581:MET:HB2	2.17	0.44
7:8:18:DT:C2'	7:8:19:DA:H5"	2.41	0.44
3:J:1328:THR:CG2	3:J:1332:LEU:HD11	2.30	0.44
2:C:198:ILE:HD13	2:C:389:PHE:CE1	2.51	0.44
1:B:190:ALA:HB3	1:B:198:LEU:C	2.38	0.44
2:C:163:LYS:HD3	2:C:164:THR:CG2	2.34	0.44
2:I:255:ILE:CD1	2:I:285:ILE:HD13	2.42	0.44
3:D:450:HIS:HA	3:D:451:PRO:HD3	1.84	0.44
3:P:321:LYS:O	3:P:321:LYS:HG2	2.17	0.44
1:G:232:VAL:CG2	1:H:221:ALA:HB1	2.39	0.44
1:A:61:ILE:HD12	1:A:171:LEU:CD1	2.48	0.44
4:E:46:THR:HA	4:E:49:ILE:CD1	2.41	0.44
1:M:83:LEU:HA	1:M:86:LYS:HE3	2.00	0.44
3:J:22:ILE:HD11	3:J:1319:PHE:CE1	2.53	0.44
3:J:201:LEU:HD11	3:J:220:ARG:NH1	2.31	0.44
3:J:205:LEU:HD21	3:J:214:ARG:HG3	1.98	0.44
3:D:423:LEU:HD23	3:D:423:LEU:HA	1.54	0.44
3:D:647:PRO:HA	3:D:700:ASN:HD22	1.82	0.44
2:I:810:TYR:O	2:I:815:SER:HB2	2.18	0.44
2:I:22:LEU:HG	2:I:23:ASP:H	1.81	0.44
3:J:505:ASP:O	3:J:508:LEU:HB3	2.17	0.44
1:H:219:ARG:O	1:H:222:THR:HB	2.18	0.44
6:7:34:DG:C5	6:7:35:DC:N4	2.85	0.44
3:J:818:GLU:HA	3:J:881:LYS:NZ	2.33	0.44
4:E:86:ILE:HG22	4:E:90:ARG:NH1	2.33	0.44
3:J:1371:ARG:H	3:J:1371:ARG:HG2	1.68	0.44
2:I:609:ILE:HG13	2:I:609:ILE:H	1.32	0.44
2:I:755:LYS:NZ	2:I:769:PRO:HD3	2.32	0.44
5:L:440:THR:O	5:L:443:ILE:HG22	2.18	0.44
2:C:583:GLU:HG3	2:C:584:TYR:CD2	2.52	0.44
3:P:79:LYS:CD	5:R:569:THR:HG22	2.48	0.44
3:J:233:LYS:CG	3:J:234:PRO:HD2	2.46	0.44
3:J:1285:VAL:HG13	3:J:1286:LYS:HG3	2.00	0.44
3:D:757:THR:HA	3:D:758:PRO:HD3	1.75	0.44
2:O:191:LYS:O	2:O:192:ASP:HB2	2.16	0.44
3:D:1274:PHE:O	3:D:1275:LEU:CB	2.38	0.44
7:5:22:DA:O3'	7:5:23:DT:C6	2.56	0.44
2:O:496:LYS:HD2	5:R:468:ARG:HH21	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:727:VAL:HG23	2:O:773:LEU:CD1	2.43	0.44
3:J:1162:ILE:HD11	3:J:1180:VAL:HG12	1.96	0.44
3:D:478:LEU:HD13	4:E:20:VAL:O	2.17	0.44
2:O:1086:PRO:HB3	2:O:1221:PHE:HE2	1.83	0.44
2:I:1005:GLU:CG	2:I:1006:GLU:H	2.19	0.44
3:P:997:VAL:HG12	3:P:1001:ALA:HB3	1.98	0.44
3:P:1158:GLU:O	3:P:1223:LEU:CD2	2.60	0.44
3:P:1280:VAL:HG12	3:P:1281:GLU:N	2.32	0.44
2:I:155:VAL:HG13	2:I:176:ILE:HG12	2.00	0.44
2:O:200:ARG:NH1	6:7:50:DT:O2	2.51	0.44
4:E:27:ALA:HB1	4:E:46:THR:HB	1.99	0.44
1:A:192:VAL:CG1	1:A:195:ARG:HB2	2.43	0.44
7:8:30:DA:C2'	7:8:31:DT:OP2	2.63	0.44
3:P:76:LYS:O	3:P:77:ARG:CB	2.63	0.44
2:O:298:ALA:O	2:O:313:ALA:CA	2.66	0.44
4:K:45:LYS:HD2	4:K:45:LYS:HA	1.82	0.44
3:J:22:ILE:HD11	3:J:1319:PHE:HE1	1.82	0.44
1:A:190:ALA:HB2	1:A:200:LYS:CB	2.47	0.44
3:P:1368:ASP:O	3:P:1372:ARG:HG3	2.17	0.44
5:L:261:LEU:HD13	5:L:266:PHE:N	2.32	0.44
3:J:801:VAL:CG2	3:J:920:ALA:HB1	2.46	0.44
2:I:594:VAL:HG22	2:I:599:VAL:HG22	2.00	0.44
3:D:1357:ILE:HG22	3:D:1359:ALA:H	1.83	0.44
1:A:39:LEU:O	1:A:43:LEU:HD12	2.17	0.44
1:G:39:LEU:O	1:G:43:LEU:CD1	2.65	0.44
1:A:100:LEU:CD1	1:A:115:ILE:HD13	2.48	0.44
1:M:46:ILE:CD1	1:M:46:ILE:H	2.30	0.44
5:F:395:THR:HG22	5:F:404:LEU:HD13	1.98	0.44
2:C:13:LYS:CE	2:C:1149:TYR:O	2.66	0.44
3:D:478:LEU:HB3	4:E:20:VAL:HG13	2.00	0.44
3:J:379:PRO:HA	3:J:382:TYR:CD2	2.52	0.44
2:I:213:LEU:HG	2:I:385:PHE:HZ	1.81	0.44
3:J:260:PHE:O	5:L:505:ILE:HB	2.18	0.44
2:C:499:SER:HB2	2:C:503:LYS:HZ3	1.83	0.44
3:J:147:ILE:HD12	3:J:177:ASP:HB3	2.00	0.44
3:J:1040:MET:HE2	3:J:1046:ILE:HD13	1.99	0.44
3:J:57:PHE:O	3:J:98:ARG:NH2	2.51	0.44
2:I:523:GLU:O	2:I:527:LYS:HG3	2.18	0.44
2:I:897:PRO:HB2	5:L:565:ILE:HA	2.00	0.44
2:I:297:VAL:CG2	2:I:315:MET:H	2.30	0.44
2:C:1123:GLY:O	2:C:1126:ASP:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:429:THR:OG1	6:7:39:DA:H8	2.01	0.44
1:M:166:ARG:CZ	1:M:172:LEU:HB2	2.46	0.44
2:C:631:GLU:HG3	2:C:633:LEU:H	1.82	0.44
1:B:28:LEU:HD13	1:B:29:GLU:N	2.33	0.44
2:C:367:TYR:CD1	2:C:384:LEU:HD22	2.52	0.44
3:J:554:GLU:N	3:J:566:LYS:O	2.51	0.44
3:J:394:ILE:HD11	5:L:539:SER:HB2	1.99	0.44
3:J:21:LYS:HE3	3:J:23:ALA:HB2	2.00	0.44
3:P:225:GLU:OE2	3:P:229:GLN:NE2	2.50	0.44
2:O:1278:LEU:HD13	2:O:1287:LEU:N	2.33	0.44
3:J:136:GLU:C	3:J:140:TYR:HD2	2.16	0.44
3:J:485:MET:HG3	3:J:487:THR:OG1	2.18	0.44
2:I:667:LEU:HD11	2:I:794:LEU:CD2	2.36	0.44
3:P:786:THR:O	3:P:790:THR:HG23	2.18	0.44
5:R:583:THR:CG2	5:R:586:ARG:CB	2.86	0.44
2:C:1286:THR:N	3:D:479:GLU:OE2	2.40	0.44
2:I:184:LEU:CD2	2:I:389:PHE:CZ	2.96	0.44
6:4:58:DG:C2	7:5:6:DG:C2	3.06	0.44
3:J:1179:PRO:HB2	3:J:1182:GLY:O	2.18	0.44
3:J:725:MET:HE2	3:J:732:GLY:H	1.82	0.44
3:P:134:ASP:CG	3:P:159:ILE:HD11	2.38	0.44
3:J:723:TYR:CD1	3:J:723:TYR:O	2.70	0.44
3:P:1367:GLN:HG3	3:P:1368:ASP:N	2.33	0.44
3:P:234:PRO:O	3:P:237:MET:HG2	2.18	0.44
2:O:1299:ASN:OD1	2:O:1299:ASN:N	2.41	0.44
1:M:155:ALA:HA	1:M:172:LEU:HD21	1.99	0.44
1:H:194:GLN:NE2	3:J:406:ALA:HB1	2.33	0.44
5:L:231:THR:O	5:L:231:THR:HG22	2.17	0.44
2:O:47:TYR:H	2:O:50:GLU:HB2	1.83	0.44
2:O:1025:PHE:O	2:O:1028:LYS:HB2	2.18	0.44
2:I:589:THR:HG23	2:I:590:PRO:HD2	2.00	0.44
3:P:514:THR:HB	3:P:595:ALA:HA	1.98	0.44
2:O:146:VAL:HG23	2:O:511:LEU:O	2.18	0.44
3:D:502:PRO:HB3	3:D:601:ILE:HD13	1.98	0.44
5:L:562:ARG:HD3	5:L:576:VAL:HG21	2.00	0.44
3:P:376:LEU:HB2	3:P:377:PHE:CD2	2.53	0.44
5:R:449:THR:HG1	5:R:504:PRO:HG3	1.68	0.44
1:M:30:PRO:HB2	1:M:198:LEU:HD13	1.97	0.44
1:H:67:GLU:OE2	1:H:79:LEU:HD23	2.17	0.44
3:D:888:CYS:SG	3:D:894:VAL:HA	2.58	0.44
3:D:930:LEU:HB2	3:D:1134:ILE:CG1	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1138:LEU:HD23	3:P:1139:PRO:HD3	1.98	0.44
3:J:262:THR:OG1	3:J:266:ASN:ND2	2.45	0.44
3:P:1233:ILE:HG13	3:P:1233:ILE:H	1.47	0.44
3:D:314:ARG:HH21	5:F:96:ASP:HB2	1.83	0.44
2:I:737:ASN:HB2	2:I:739:ASP:HB2	1.99	0.44
3:D:160:LEU:HD23	3:D:160:LEU:HA	1.72	0.44
1:B:83:LEU:O	3:D:528:THR:CG2	2.66	0.44
2:I:724:VAL:O	2:I:773:LEU:HD12	2.18	0.44
2:I:346:TYR:CZ	2:I:436:ARG:HG2	2.53	0.44
2:O:758:ARG:HG3	2:O:833:ILE:O	2.18	0.44
1:N:82:LEU:HD22	1:N:173:VAL:HG22	1.95	0.44
4:K:50:ALA:O	4:K:54:ILE:CD1	2.66	0.44
3:P:1271:SER:HB3	3:P:1297:LYS:HZ1	1.81	0.44
2:C:373:GLY:HA3	5:F:91:ILE:HG12	1.99	0.44
3:P:180:MET:CE	3:P:293:ARG:CZ	2.96	0.44
3:P:57:PHE:HB3	3:P:98:ARG:NH2	2.33	0.44
2:O:112:GLY:O	2:O:114:VAL:N	2.49	0.44
2:I:149:LEU:HD13	2:I:453:ILE:HD11	2.00	0.44
3:P:678:ARG:HB3	3:P:678:ARG:CZ	2.47	0.44
2:C:678:ARG:NH2	2:C:1106:ARG:HD2	2.32	0.44
2:C:840:SER:HG	2:C:1048:LYS:H	1.66	0.44
3:J:1219:ASP:OD1	3:J:1219:ASP:N	2.51	0.44
3:P:282:LEU:HD22	3:P:287:ALA:HB2	2.00	0.44
3:D:412:LEU:HG	3:D:416:ILE:HD12	2.01	0.43
3:J:614:LEU:HD23	4:K:5:THR:HG21	2.00	0.43
1:M:225:ALA:O	1:M:228:LEU:HB2	2.17	0.43
2:C:663:VAL:O	2:C:666:SER:OG	2.28	0.43
1:H:67:GLU:O	1:H:78:ILE:HB	2.18	0.43
3:J:384:LYS:HZ2	3:J:415:VAL:HG13	1.83	0.43
1:B:156:SER:HA	1:B:159:ILE:HG22	2.00	0.43
2:C:1073:LYS:NZ	8:3:15:G:P	2.91	0.43
2:C:164:THR:HG23	2:C:165:HIS:ND1	2.32	0.43
2:O:1327:LEU:HD21	2:O:1339:LEU:HD21	2.00	0.43
3:P:975:ILE:HD11	3:P:1003:LEU:CD1	2.47	0.43
3:J:153:ASN:CB	3:J:154:LEU:HD12	2.43	0.43
2:I:720:ARG:HB3	2:I:736:VAL:HG13	1.99	0.43
6:1:58:DG:C2	7:2:6:DG:C2	3.06	0.43
4:K:48:VAL:CA	4:K:51:LEU:HG	2.44	0.43
6:4:50:DT:O3'	6:4:51:DC:H6	2.01	0.43
1:A:208:ASN:ND2	1:A:208:ASN:N	2.64	0.43
3:J:424:ASN:C	3:J:466:MET:HE3	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:30:DG:N2	7:8:34:DG:N3	2.66	0.43
6:1:34:DG:C2	7:2:30:DA:C2	3.06	0.43
3:D:79:LYS:CG	5:F:569:THR:HG22	2.45	0.43
3:J:279:LEU:O	3:J:283:LEU:HG	2.18	0.43
2:C:39:ILE:O	2:C:39:ILE:CG2	2.65	0.43
1:G:191:ARG:HH21	3:P:1375:ALA:HB3	1.83	0.43
2:C:1237:HIS:HB3	2:C:1242:LYS:CE	2.47	0.43
3:D:1238:GLN:NE2	3:D:1248:ILE:O	2.50	0.43
4:Q:21:LEU:HA	4:Q:21:LEU:HD23	1.77	0.43
2:I:390:PHE:CD2	2:I:390:PHE:N	2.85	0.43
3:J:1250:ASP:OD1	3:J:1250:ASP:N	2.51	0.43
2:O:30:ILE:H	2:O:30:ILE:HG13	1.54	0.43
2:C:1239:VAL:HG23	3:D:354:VAL:HG23	2.00	0.43
1:A:65:LEU:HD22	2:C:873:ILE:CG2	2.48	0.43
1:M:43:LEU:C	1:M:47:LEU:HD12	2.38	0.43
2:O:1278:LEU:HD13	2:O:1287:LEU:HB2	1.99	0.43
3:D:1040:MET:HG2	3:D:1046:ILE:CG2	2.48	0.43
2:C:673:HIS:HB3	3:D:763:PHE:O	2.18	0.43
3:D:767:LEU:HD22	3:D:771:GLN:OE1	2.17	0.43
3:P:272:VAL:HG22	3:P:302:ALA:CB	2.48	0.43
1:M:184:ALA:CB	2:O:1091:GLY:HA3	2.27	0.43
1:M:232:VAL:O	1:N:218:ARG:HG2	2.17	0.43
1:M:224:LEU:HD21	1:N:228:LEU:HD11	1.99	0.43
5:L:471:LEU:CG	5:L:476:ARG:O	2.60	0.43
3:J:379:PRO:HG2	3:J:380:PHE:N	2.33	0.43
3:P:1134:ILE:O	3:P:1138:LEU:HB3	2.18	0.43
3:P:974:VAL:CG1	3:P:1028:ILE:HG21	2.39	0.43
3:J:346:ARG:NH1	7:5:16:DC:OP1	2.51	0.43
3:J:579:LEU:O	3:J:583:VAL:HG23	2.18	0.43
1:A:61:ILE:HD12	1:A:171:LEU:HD13	1.99	0.43
2:I:1284:ALA:CA	3:J:1357:ILE:HD12	2.48	0.43
5:R:137:TYR:CE1	5:R:353:LEU:HD11	2.54	0.43
2:C:1161:LEU:O	2:C:1164:PHE:CD2	2.63	0.43
6:1:51:DC:OP2	6:1:51:DC:C2'	2.63	0.43
3:P:435:GLN:HB2	3:P:457:TYR:OH	2.18	0.43
2:O:698:PRO:HA	2:O:1231:TYR:CD1	2.53	0.43
1:N:95:LYS:NZ	1:N:120:ASP:OD2	2.51	0.43
2:O:1334:GLY:O	3:P:25:ALA:CB	2.66	0.43
5:L:434:TRP:CE2	6:4:36:DT:H73	2.53	0.43
2:O:150:HIS:HE1	2:O:454:ARG:HG3	1.83	0.43
1:H:194:GLN:HE22	3:J:406:ALA:CB	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:129:LEU:HD23	2:O:129:LEU:HA	1.83	0.43
3:J:859:PRO:O	3:J:862:THR:OG1	2.35	0.43
3:D:312:ARG:NH2	5:F:95:THR:OG1	2.52	0.43
2:O:209:ILE:HG23	2:O:210:LEU:N	2.33	0.43
3:D:1040:MET:HE3	3:D:1061:VAL:HG22	2.00	0.43
3:D:352:ARG:O	3:D:372:MET:HE2	2.18	0.43
3:P:544:LEU:O	3:P:573:THR:HB	2.18	0.43
1:G:225:ALA:HA	1:G:228:LEU:HB2	2.01	0.43
3:J:840:LEU:CD1	3:J:869:CYS:SG	2.93	0.43
3:D:425:ARG:CD	3:D:457:TYR:O	2.66	0.43
2:C:46:GLN:HE21	2:C:46:GLN:HB2	1.67	0.43
3:P:29:MET:O	3:P:32:SER:HB3	2.17	0.43
3:D:427:PRO:CG	3:D:429:LEU:HD21	2.38	0.43
2:C:809:GLY:N	3:D:629:PHE:CD1	2.86	0.43
2:I:879:GLY:HA2	2:I:920:VAL:HG12	1.99	0.43
3:P:1073:ASP:O	3:P:1075:ARG:HG2	2.18	0.43
1:H:109:PRO:HG3	1:H:132:HIS:CD2	2.53	0.43
2:I:1239:VAL:HA	2:I:1242:LYS:HB2	1.99	0.43
3:J:1155:ILE:CG2	3:J:1156:LEU:N	2.81	0.43
3:P:262:THR:O	3:P:262:THR:HG23	2.18	0.43
2:O:3:TYR:O	2:O:8:LYS:HE3	2.18	0.43
2:C:854:ILE:HA	2:C:855:PRO:HD2	1.80	0.43
3:D:423:LEU:HD21	3:D:468:VAL:HG13	2.01	0.43
3:J:592:VAL:O	3:J:592:VAL:CG2	2.66	0.43
3:J:712:GLN:N	3:J:712:GLN:OE1	2.50	0.43
2:O:341:LEU:HB2	2:O:342:ASP:H	1.63	0.43
7:5:27:DA:OP2	7:5:27:DA:C8	2.71	0.43
3:J:144:TYR:HA	3:J:180:MET:HG3	2.01	0.43
3:J:843:VAL:O	3:J:882:VAL:HG23	2.19	0.43
2:I:337:PHE:C	2:I:338:THR:HG23	2.38	0.43
1:G:71:LYS:HG3	1:G:72:GLU:H	1.82	0.43
2:I:768:MET:HA	2:I:769:PRO:HD3	1.85	0.43
3:J:554:GLU:OE2	3:J:570:LYS:CE	2.67	0.43
4:E:69:ARG:HG2	4:E:73:GLN:HE21	1.82	0.43
2:I:414:ILE:HG12	2:I:414:ILE:H	1.64	0.43
2:O:984:VAL:O	2:O:984:VAL:HG12	2.18	0.43
2:O:962:GLU:O	2:O:966:ILE:HG13	2.19	0.43
4:E:63:ILE:HA	4:E:66:VAL:HB	2.00	0.43
3:D:506:VAL:HG12	3:D:507:VAL:N	2.33	0.43
2:I:1289:GLU:O	2:I:1293:VAL:HG22	2.19	0.43
5:F:100:MET:HG2	5:F:100:MET:H	1.55	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:746:LEU:HD23	3:D:746:LEU:HA	1.51	0.43
5:R:584:ARG:CG	5:R:585:GLU:N	2.81	0.43
5:R:587:ILE:H	5:R:587:ILE:HG12	1.55	0.43
5:R:601:PRO:HB3	5:R:608:ARG:HH21	1.84	0.43
2:C:155:VAL:CG2	2:C:405:PHE:HA	2.48	0.43
2:C:1330:ILE:CG2	2:C:1335:ILE:HB	2.48	0.43
1:M:81:ILE:HD11	1:M:131:CYS:HB2	1.96	0.43
3:D:1179:PRO:HB2	3:D:1182:GLY:O	2.17	0.43
3:J:982:LEU:HB3	3:J:995:TYR:HB2	2.01	0.43
5:L:387:VAL:HG11	5:L:409:ASN:OD1	2.18	0.43
5:R:385:ARG:HA	5:R:388:ILE:HG23	1.99	0.43
3:J:514:THR:HG21	3:J:596:LEU:HG	2.00	0.43
1:A:61:ILE:HG23	1:A:142:MET:CE	2.48	0.43
2:C:202:ARG:NH2	7:2:7:DC:H3'	2.34	0.43
2:O:402:ARG:HG2	2:O:416:GLY:N	2.33	0.43
1:G:230:ALA:HB3	1:H:11:PRO:HB2	1.99	0.43
2:C:956:ALA:O	2:C:960:LEU:HD12	2.18	0.43
3:J:1355:ARG:NE	3:J:1369:ARG:HH12	2.16	0.43
2:I:515:MET:SD	2:I:523:GLU:HG3	2.59	0.43
1:N:212:ASP:OD1	1:N:213:PRO:HD2	2.18	0.43
5:R:275:VAL:O	5:R:278:ASP:HB2	2.18	0.43
2:C:562:GLU:HG2	2:C:562:GLU:O	2.18	0.43
1:A:223:ILE:O	1:A:227:GLN:HG2	2.18	0.43
3:P:812:ASP:O	3:P:897:HIS:ND1	2.43	0.43
5:F:147:GLN:HE21	5:F:161:LEU:HD11	1.84	0.43
3:P:1011:VAL:HG11	3:P:1017:VAL:HG11	2.00	0.43
3:J:264:ASP:HB3	3:J:324:LEU:HD22	1.99	0.43
7:5:49:DA:H2"	7:5:50:DA:H5"	2.00	0.43
3:J:650:LYS:O	3:J:654:ILE:HG13	2.19	0.43
3:D:686:TRP:CE2	3:D:758:PRO:HD3	2.54	0.43
1:H:32:GLU:O	1:H:35:PHE:HB2	2.19	0.43
1:M:11:PRO:CD	1:N:227:GLN:HA	2.48	0.43
3:J:485:MET:HB3	3:J:488:ASN:HB2	2.01	0.43
3:J:450:HIS:CE1	3:J:625:MET:HE1	2.53	0.43
3:P:470:VAL:O	3:P:472:LEU:HD23	2.18	0.43
1:A:224:LEU:C	1:A:224:LEU:HD12	2.39	0.43
3:P:517:CYS:HB3	3:P:545:HIS:HB2	1.99	0.43
2:C:80:PHE:O	2:C:92:TYR:CE1	2.72	0.43
5:R:262:VAL:HA	5:R:263:PRO:HD3	1.90	0.43
2:I:155:VAL:CG2	2:I:405:PHE:CD2	2.99	0.43
3:P:849:LEU:HA	3:P:856:ILE:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:107:LEU:HD11	3:P:242:LEU:HB2	2.01	0.43
2:I:1242:LYS:CE	3:J:465:GLN:HE21	2.28	0.43
7:2:4:DC:N3	7:2:5:DC:C4	2.87	0.43
3:J:537:TYR:CE1	3:J:544:LEU:HG	2.54	0.43
1:N:83:LEU:HD13	1:N:86:LYS:HE3	2.01	0.43
6:1:48:DA:H3'	6:1:49:DG:H5"	2.00	0.43
1:N:48:LEU:HD21	1:N:183:ILE:HG22	2.00	0.43
3:D:697:MET:HB3	3:D:697:MET:HE2	1.84	0.43
3:J:34:SER:HB2	3:J:104:HIS:HB3	2.00	0.43
2:I:764:CYS:HB3	2:I:831:ILE:HB	2.00	0.43
5:R:410:ILE:O	5:R:413:MET:HB2	2.18	0.43
2:O:15:PHE:HE2	2:O:1182:ILE:CD1	2.31	0.43
2:C:941:LYS:CB	2:C:946:LEU:HD13	2.48	0.43
2:C:878:THR:O	2:C:881:ASP:HB2	2.18	0.43
2:C:802:VAL:CG1	2:C:803:ALA:N	2.81	0.43
4:K:70:GLN:O	4:K:74:GLU:HG3	2.18	0.43
2:C:1200:LYS:HB2	2:C:1200:LYS:HE3	1.60	0.43
2:C:519:ASN:OD1	2:C:519:ASN:N	2.52	0.43
1:A:202:VAL:O	1:A:202:VAL:HG12	2.17	0.43
2:O:101:ARG:HG2	2:O:119:GLU:HB3	1.99	0.43
5:R:237:ALA:O	5:R:238:LYS:HB2	2.19	0.43
4:K:36:ASP:HA	4:K:37:PRO:HD2	1.84	0.43
3:D:456:ALA:HB2	3:D:499:ILE:HG21	2.00	0.43
3:P:382:TYR:CZ	3:P:398:LYS:HE3	2.53	0.43
2:I:561:ILE:HG22	3:J:776:THR:HG23	1.99	0.43
5:L:102:MET:CB	6:4:42:DG:N2	2.82	0.43
6:7:32:DA:H1'	6:7:33:DT:H5'	2.00	0.43
5:R:460:ILE:HA	5:R:463:LEU:CG	2.48	0.43
3:J:450:HIS:HD2	3:J:452:LEU:H	1.67	0.43
5:L:500:ILE:H	5:L:500:ILE:HG13	1.66	0.43
3:J:924:GLY:O	3:J:928:THR:OG1	2.34	0.43
1:B:82:LEU:HD13	1:B:173:VAL:HG13	2.01	0.43
2:O:672:GLU:CD	2:O:672:GLU:H	2.22	0.43
3:D:483:LEU:HG	3:D:483:LEU:H	1.54	0.43
4:Q:5:THR:HG22	4:Q:7:GLN:N	2.21	0.43
7:8:4:DC:N4	7:8:5:DC:N4	2.66	0.43
2:O:697:LYS:HZ2	2:O:1181:PRO:HG3	1.83	0.43
3:D:1167:LYS:HE3	3:D:1187:GLU:OE2	2.18	0.43
2:C:1291:LEU:HD13	3:D:1354:GLY:HA2	2.00	0.43
2:C:1294:LYS:CB	3:D:347:VAL:HG13	2.46	0.43
3:J:555:TYR:HB2	3:J:586:GLY:HA2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:202:ARG:HB2	2:I:369:MET:CE	2.48	0.43
2:O:325:LEU:HA	2:O:325:LEU:HD23	1.81	0.43
3:P:251:PRO:HG2	5:R:507:MET:HE1	2.00	0.43
1:N:47:LEU:HD13	1:N:205:MET:HE3	2.00	0.43
2:I:726:TYR:HB3	2:I:733:VAL:CG2	2.49	0.43
1:M:217:ILE:HG13	1:M:217:ILE:H	1.66	0.43
2:I:980:VAL:O	2:I:980:VAL:CG1	2.66	0.43
2:I:1225:VAL:HG12	2:I:1226:THR:N	2.33	0.43
2:C:500:ALA:O	2:C:504:GLU:HG2	2.17	0.43
2:O:563:THR:H	2:O:680:LEU:HD11	1.84	0.43
2:O:453:ILE:HG13	2:O:587:LEU:HD21	2.00	0.43
1:B:13:LEU:HD11	1:B:16:ILE:HG12	2.00	0.43
2:C:1337:ILE:HD12	3:D:22:ILE:HD11	2.01	0.43
5:L:145:LEU:HD23	5:L:221:PHE:CE2	2.54	0.43
3:P:1176:VAL:HG22	3:P:1187:GLU:HG2	2.01	0.43
1:B:54:CYS:SG	1:B:148:ARG:HB2	2.58	0.43
4:E:35:LYS:HA	4:E:35:LYS:HD3	1.66	0.43
3:P:16:GLU:O	3:P:16:GLU:HG2	2.18	0.43
1:H:111:THR:OG1	1:H:126:PRO:O	2.32	0.43
2:O:859:GLU:HA	2:O:862:LEU:HD12	1.99	0.43
2:I:531:SER:HB2	2:I:572:ILE:HG12	2.01	0.43
3:J:139:LEU:HD21	3:J:185:ILE:HD12	1.98	0.43
3:D:131:PRO:O	3:D:134:ASP:CG	2.57	0.43
2:C:149:LEU:CD1	2:C:451:ARG:HB3	2.15	0.43
1:M:50:SER:O	1:M:52:PRO:HD3	2.19	0.43
1:G:228:LEU:CG	1:H:224:LEU:HD21	2.48	0.43
3:D:259:ARG:HD3	5:F:502:LYS:HE2	2.00	0.43
3:D:769:VAL:O	3:D:773:PHE:HB2	2.19	0.43
2:I:1230:MET:HG2	2:I:1231:TYR:N	2.34	0.43
1:M:75:GLN:NE2	2:O:727:VAL:O	2.52	0.43
3:J:1141:VAL:HA	3:J:1144:LEU:HD12	1.99	0.43
3:J:1226:VAL:CA	3:J:1229:VAL:HG12	2.49	0.43
2:C:868:SER:CB	2:C:944:ARG:HB2	2.48	0.43
2:C:75:LEU:HD22	2:C:94:ALA:HB1	2.01	0.43
3:P:1263:LYS:HD3	3:P:1280:VAL:C	2.39	0.43
5:L:548:LEU:HD11	5:L:560:ARG:NE	2.25	0.43
1:H:195:ARG:CB	1:H:198:LEU:HD13	2.43	0.43
3:J:555:TYR:N	3:J:555:TYR:CD1	2.86	0.43
7:2:6:DG:C5	7:2:7:DC:C4	3.07	0.43
2:I:16:GLY:CA	2:I:1185:PRO:HG2	2.49	0.43
2:I:1103:VAL:HB	2:I:1104:PRO:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:174:ASP:OD2	2:C:1059:ARG:NH2	2.52	0.43
5:R:370:ALA:HB1	5:R:374:ARG:NH2	2.32	0.43
2:C:1143:GLU:OE1	2:C:1144:PHE:CA	2.66	0.43
3:P:136:GLU:OE1	3:P:140:TYR:HE2	2.01	0.43
2:I:897:PRO:HB3	5:L:565:ILE:HA	2.00	0.43
3:J:867:GLN:O	3:J:871:LEU:HG	2.18	0.43
2:O:158:ASP:HB3	2:O:173:ASN:OD1	2.18	0.43
3:D:1149:ARG:HA	3:D:1150:PRO:HD3	1.88	0.43
2:C:191:LYS:HB2	2:C:191:LYS:HE3	1.63	0.43
2:C:880:GLY:O	2:C:919:ARG:NH1	2.52	0.43
1:N:84:ASN:OD1	3:P:551:ARG:NH1	2.50	0.43
2:O:936:ARG:N	2:O:1042:LEU:HD12	2.34	0.43
2:O:976:ARG:HD2	2:O:990:ASP:OD1	2.17	0.43
2:C:1049:ILE:HG23	2:C:1050:VAL:N	2.34	0.43
2:I:194:LEU:HG	2:I:206:ALA:HB2	1.99	0.43
6:4:43:DT:H2'	6:4:44:DG:H5"	2.00	0.43
5:F:507:MET:O	5:F:519:LEU:HB3	2.19	0.43
3:J:421:VAL:CG1	3:J:422:LEU:N	2.51	0.43
3:J:372:MET:O	3:J:376:LEU:HG	2.18	0.43
5:R:115:GLY:O	5:R:119:ILE:CD1	2.67	0.43
2:C:2:VAL:HG12	2:C:3:TYR:N	2.34	0.43
3:D:1252:HIS:O	3:D:1255:VAL:HB	2.18	0.43
1:A:66:HIS:O	1:A:78:ILE:CD1	2.67	0.43
2:I:1100:PRO:CB	3:J:639:VAL:HG23	2.37	0.43
5:L:386:LEU:CA	6:4:41:DT:O4'	2.57	0.43
2:C:1221:PHE:CD1	3:D:633:ALA:O	2.71	0.43
1:G:155:ALA:HA	1:G:172:LEU:HD21	2.01	0.43
2:C:1271:GLY:O	2:C:1275:VAL:HG23	2.18	0.43
2:I:287:VAL:O	2:I:287:VAL:HG23	2.19	0.43
3:P:262:THR:C	5:R:507:MET:HB3	2.39	0.43
1:A:58:GLU:HB2	1:A:145:LYS:HB3	2.01	0.43
2:C:447:HIS:HD2	2:C:449:GLY:H	1.67	0.43
2:C:720:ARG:NH1	2:C:741:MET:HA	2.34	0.43
2:C:759:SER:HG	2:C:763:THR:CB	2.29	0.43
2:I:810:TYR:CE2	2:I:1078:LYS:CB	3.02	0.43
1:N:158:ARG:CD	1:N:172:LEU:HD11	2.48	0.43
2:O:1302:THR:CG2	2:O:1303:LYS:N	2.82	0.43
2:O:149:LEU:HD11	2:O:451:ARG:HB3	2.01	0.43
2:C:1128:ILE:HG22	2:C:1177:ARG:HA	2.00	0.43
3:P:361:LEU:O	3:P:626:TYR:OH	2.34	0.43
6:4:25:DC:H42	7:5:38:DG:H1	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:230:SER:HB2	3:D:1339:GLY:HA3	2.01	0.43
5:R:289:LYS:HB2	5:R:289:LYS:HE3	1.72	0.43
2:I:272:ARG:H	2:I:272:ARG:HD2	1.83	0.43
3:D:141:PHE:HA	3:D:180:MET:HG2	2.00	0.43
3:J:834:PRO:HD2	3:J:837:ASP:OD2	2.19	0.43
3:D:264:ASP:OD1	5:F:508:GLU:HB2	2.19	0.43
2:O:856:ASN:OD1	5:R:612:ASP:O	2.37	0.43
1:H:61:ILE:CG2	1:H:140:ILE:HD11	2.49	0.43
1:M:51:MET:HE2	1:M:179:PRO:HG2	2.01	0.43
2:C:207:THR:HB	2:C:350:THR:CG2	2.49	0.43
3:D:749:LYS:HG2	3:D:755:ILE:CD1	2.49	0.43
2:C:587:LEU:HD23	2:C:587:LEU:HA	1.17	0.43
1:G:228:LEU:CD2	1:H:224:LEU:CD2	2.74	0.43
2:C:405:PHE:O	2:C:409:LEU:HG	2.19	0.43
5:L:554:ARG:CG	5:L:555:GLU:N	2.80	0.43
3:J:872:LEU:H	3:J:872:LEU:HG	1.33	0.43
3:P:702:GLN:HG2	3:P:703:THR:HG23	2.01	0.43
1:B:190:ALA:O	1:B:191:ARG:C	2.57	0.43
2:I:1273:MET:HB3	3:J:428:THR:CB	2.48	0.43
3:D:114:ILE:CD1	3:D:308:ASP:HB3	2.48	0.43
2:C:297:VAL:HG22	2:C:315:MET:O	2.18	0.43
6:1:43:DT:H3'	6:1:44:DG:H5"	2.00	0.43
2:I:724:VAL:HG12	2:I:727:VAL:HG22	2.00	0.43
5:F:489:MET:HB3	5:F:490:PRO:HD2	2.00	0.43
3:J:544:LEU:HD22	3:J:578:ILE:HD11	1.99	0.43
2:I:237:LEU:CD1	2:I:289:VAL:HG22	2.49	0.43
3:D:950:ILE:CD1	3:D:997:VAL:HG22	2.46	0.43
3:P:265:LEU:O	3:P:269:TYR:CD2	2.67	0.43
3:J:1040:MET:HG2	3:J:1046:ILE:HG23	1.99	0.43
2:C:759:SER:N	2:C:765:ILE:HD11	2.33	0.43
5:R:275:VAL:O	5:R:279:ARG:HG3	2.18	0.43
2:C:1177:ARG:HH11	2:C:1178:LYS:HZ3	1.67	0.43
2:C:518:ASN:OD1	2:C:761:GLN:HG2	2.19	0.43
3:J:1067:ARG:HD3	3:J:1071:GLY:O	2.19	0.43
1:M:57:THR:HG22	1:M:58:GLU:HG3	2.00	0.43
3:D:1240:VAL:O	3:D:1243:LEU:HB2	2.19	0.43
6:7:20:DC:O2	7:8:44:DA:H2	2.02	0.43
3:J:1265:THR:HG23	3:J:1305:ASP:OD2	2.19	0.43
3:D:295:GLU:HA	3:D:295:GLU:OE1	2.18	0.43
2:I:699:LEU:N	2:I:699:LEU:HD23	2.33	0.43
2:I:1010:GLN:O	2:I:1014:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:845:ALA:O	3:P:846:GLU:CB	2.66	0.43
5:F:443:ILE:HG23	5:F:444:ALA:N	2.33	0.43
3:D:422:LEU:HD22	3:D:484:MET:HE2	2.00	0.43
2:O:606:LEU:HD22	2:O:610:GLU:HB2	2.01	0.43
3:J:1163:VAL:O	3:J:1201:GLY:HA2	2.18	0.43
3:P:316:ILE:HG22	3:P:324:LEU:HD12	2.00	0.43
6:1:46:DG:H2'	6:1:47:DC:O4'	2.18	0.43
1:A:49:SER:HB3	2:C:1083:GLU:OE2	2.19	0.43
3:J:368:LEU:HD21	3:J:376:LEU:CD1	2.49	0.43
2:I:830:THR:HG23	2:I:1234:LYS:NZ	2.32	0.43
3:J:1328:THR:O	3:J:1332:LEU:CG	2.65	0.43
1:B:191:ARG:O	1:B:191:ARG:CG	2.62	0.43
5:F:523:ILE:H	5:F:523:ILE:HG13	1.41	0.43
3:D:1314:LEU:HD21	3:D:1325:PHE:CD2	2.50	0.43
2:C:871:VAL:HG23	2:C:883:LEU:CA	2.48	0.43
3:J:879:ALA:C	3:J:880:VAL:CG2	2.86	0.43
3:D:110:PRO:HB3	3:D:238:ILE:CG2	2.49	0.43
5:F:514:ASP:O	5:F:516:ASP:HB2	2.18	0.43
2:C:369:MET:HE3	2:C:369:MET:HB2	1.77	0.43
3:D:620:PHE:O	3:D:623:GLN:HB2	2.19	0.43
3:D:70:CYS:HB2	3:D:90:VAL:HB	2.00	0.43
2:C:228:VAL:HG11	2:C:239:MET:HE2	2.00	0.43
3:P:678:ARG:HH11	3:P:678:ARG:CG	2.31	0.43
3:P:1284:ARG:O	3:P:1287:ILE:HB	2.18	0.43
1:B:22:THR:OG1	1:B:207:THR:O	2.36	0.43
3:P:901:ARG:HG3	3:P:907:HIS:O	2.18	0.43
1:H:193:GLU:O	1:H:194:GLN:HB2	2.18	0.43
3:P:165:TYR:O	3:P:168:ALA:HB3	2.19	0.43
3:J:1271:SER:HB3	3:J:1297:LYS:NZ	2.34	0.43
3:D:736:GLN:HG2	3:D:736:GLN:H	1.50	0.43
5:F:281:ARG:HA	5:F:281:ARG:HD2	1.93	0.43
2:C:1032:LYS:O	2:C:1036:ILE:HD12	2.19	0.43
2:O:73:TYR:CB	2:O:98:VAL:HG22	2.48	0.43
3:P:376:LEU:H	3:P:376:LEU:HG	1.62	0.42
3:J:686:TRP:CE3	3:J:758:PRO:CG	3.02	0.42
1:B:158:ARG:NH2	1:B:175:ALA:CB	2.62	0.42
3:P:130:MET:HG2	3:P:135:ILE:CD1	2.45	0.42
5:R:119:ILE:O	5:R:123:ILE:HG13	2.18	0.42
5:L:386:LEU:CD1	6:4:41:DT:O4'	2.66	0.42
2:O:70:TYR:CZ	2:O:72:SER:HA	2.54	0.42
1:G:11:PRO:HB2	1:G:28:LEU:HD12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:983:LYS:HZ2	3:J:985:ILE:HD11	1.79	0.42
3:P:844:THR:HG23	3:P:864:LEU:HD21	2.01	0.42
2:O:197:ARG:HB3	2:O:200:ARG:C	2.39	0.42
5:L:167:ASP:HB2	5:L:262:VAL:HG21	2.01	0.42
2:C:686:GLN:NE2	2:C:1069:ARG:CG	2.77	0.42
1:G:155:ALA:N	1:G:174:ASP:OD1	2.27	0.42
3:J:424:ASN:C	3:J:466:MET:CE	2.87	0.42
2:C:1172:LEU:HA	2:C:1175:ASN:HD22	1.84	0.42
2:C:890:LYS:HE2	2:C:892:GLU:HB2	2.01	0.42
3:J:38:VAL:HG21	3:J:244:VAL:HG21	2.01	0.42
5:F:572:THR:O	5:F:576:VAL:HG23	2.18	0.42
3:P:603:LYS:O	3:P:607:THR:OG1	2.36	0.42
3:D:194:LEU:O	3:D:198:CYS:SG	2.76	0.42
1:H:154:PRO:HD2	1:H:157:THR:OG1	2.18	0.42
2:I:1278:LEU:HD11	2:I:1286:THR:CB	2.49	0.42
2:C:688:GLN:NE2	8:3:13:GTP:O3'	2.52	0.42
3:P:309:ASN:ND2	3:P:316:ILE:HB	2.32	0.42
3:J:614:LEU:O	3:J:617:THR:OG1	2.33	0.42
2:C:1087:TYR:O	2:C:1212:LEU:CD2	2.67	0.42
3:J:422:LEU:HA	3:J:422:LEU:HD23	1.67	0.42
1:M:77:ASP:OD2	2:O:755:LYS:HD2	2.18	0.42
2:O:724:VAL:HG11	2:O:727:VAL:HG22	2.00	0.42
3:P:703:THR:HG21	3:P:715:LYS:HE2	1.96	0.42
2:I:1271:GLY:HA2	3:J:344:GLY:HA3	2.01	0.42
2:O:1186:VAL:HG12	2:O:1187:PHE:CD2	2.54	0.42
6:4:52:DT:H2"	6:4:53:DG:C8	2.54	0.42
3:J:322:ARG:HB2	3:J:323:PRO:CD	2.39	0.42
5:F:461:ASN:HA	7:2:26:DT:H71	2.00	0.42
5:L:506:SER:O	5:L:519:LEU:HD22	2.18	0.42
5:L:87:VAL:O	5:L:91:ILE:HG13	2.19	0.42
2:C:1292:THR:CG2	2:C:1293:VAL:N	2.81	0.42
3:D:591:ILE:HG23	3:D:604:MET:HG2	2.00	0.42
3:J:429:LEU:HG	3:J:429:LEU:H	1.69	0.42
6:1:51:DC:C5	6:1:52:DT:H73	2.54	0.42
5:F:558:VAL:HG12	5:F:559:LEU:HD23	2.02	0.42
2:I:1199:LEU:CD2	2:I:1204:LEU:HD13	2.46	0.42
3:J:849:LEU:HD21	3:J:855:ASP:OD2	2.19	0.42
6:4:36:DT:C3'	6:4:37:DA:P	3.07	0.42
6:4:36:DT:O3'	6:4:37:DA:P	2.77	0.42
5:F:430:TYR:CE1	5:F:434:TRP:NE1	2.81	0.42
2:O:1296:ASP:HB3	2:O:1321:GLU:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:838:CYS:HB2	2:I:918:LEU:CB	2.49	0.42
3:D:332:LYS:O	3:D:333:GLY:O	2.37	0.42
6:1:26:DT:H1'	6:1:27:DC:H5'	2.00	0.42
3:J:56:LEU:HD23	3:J:56:LEU:HA	1.86	0.42
4:Q:59:ILE:HD13	4:Q:59:ILE:HA	1.91	0.42
5:F:593:LYS:HE2	5:F:593:LYS:HB2	1.89	0.42
2:O:44:GLU:O	2:O:46:GLN:N	2.52	0.42
2:O:1313:HIS:CE1	3:P:380:PHE:HE1	2.36	0.42
3:J:1175:LEU:HD13	3:J:1175:LEU:HA	1.62	0.42
3:J:809:VAL:HG22	3:J:894:VAL:CG2	2.50	0.42
3:J:899:TYR:CE1	3:J:915:ILE:CG2	2.99	0.42
8:3:13:GTP:O2A	8:3:13:GTP:H8	2.01	0.42
3:D:1101:LEU:HD13	3:D:1122:ALA:CB	2.49	0.42
2:C:13:LYS:HZ1	2:C:1151:LEU:HB3	1.82	0.42
3:D:425:ARG:NH2	3:D:464:ASP:OD2	2.52	0.42
6:7:12:DC:C2	6:7:13:DT:C7	3.01	0.42
2:C:398:SER:OG	2:C:399:ALA:N	2.52	0.42
2:C:667:LEU:HD23	2:C:667:LEU:HA	1.86	0.42
3:P:614:LEU:CD2	4:Q:7:GLN:CD	2.87	0.42
2:O:230:PHE:CE1	2:O:292:ILE:HD11	2.54	0.42
2:C:1292:THR:CG2	2:C:1293:VAL:H	2.28	0.42
3:P:1263:LYS:HB2	3:P:1307:LEU:HD13	1.97	0.42
3:P:718:SER:O	3:P:720:ASN:N	2.44	0.42
2:I:32:LEU:HA	2:I:130:MET:HE1	2.00	0.42
2:O:1202:GLY:O	2:O:1203:ASP:HB2	2.18	0.42
6:7:52:DT:H1'	6:7:53:DG:C5	2.55	0.42
2:O:515:MET:SD	2:O:527:LYS:HE3	2.59	0.42
2:O:1330:ILE:HG22	2:O:1335:ILE:HB	2.01	0.42
3:D:330:MET:O	3:D:337:ARG:HG2	2.19	0.42
2:I:634:VAL:CG1	2:I:635:THR:H	2.32	0.42
3:D:592:VAL:CG2	3:D:592:VAL:O	2.66	0.42
2:C:1122:LYS:HG3	2:C:1229:TYR:CE1	2.54	0.42
2:I:313:ALA:O	2:I:314:ASN:HB3	2.19	0.42
2:C:668:ILE:HA	2:C:669:PRO:HD3	1.86	0.42
1:M:185:TYR:CD2	1:M:185:TYR:C	2.92	0.42
1:B:207:THR:HG22	1:B:213:PRO:HG3	2.01	0.42
3:J:148:GLU:CG	3:J:149:GLY:N	2.82	0.42
3:P:205:LEU:HD23	3:P:205:LEU:HA	1.74	0.42
2:O:184:LEU:HA	2:O:184:LEU:HD23	1.80	0.42
6:7:58:DG:C6	6:7:59:DG:C6	3.07	0.42
1:N:10:LYS:HA	1:N:11:PRO:HD3	1.94	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:135:ILE:O	3:J:139:LEU:CD1	2.65	0.42
3:P:1360:GLY:CA	4:Q:17:PHE:CZ	3.02	0.42
3:D:664:ILE:CD1	3:D:681:LYS:HE2	2.49	0.42
2:O:21:VAL:HG11	2:O:592:ARG:CD	2.39	0.42
1:M:29:GLU:HB2	1:M:30:PRO:HA	2.01	0.42
6:4:12:DC:C2'	6:4:13:DT:OP2	2.66	0.42
3:J:384:LYS:HD3	3:J:415:VAL:HG22	2.01	0.42
1:A:76:GLU:HB3	1:A:81:ILE:HG13	2.01	0.42
1:M:56:VAL:HG21	1:M:85:LEU:O	2.18	0.42
2:C:764:CYS:SG	2:C:831:ILE:HD13	2.58	0.42
2:C:1311:GLY:O	4:E:31:GLN:HG2	2.19	0.42
3:P:1253:ILE:HG13	3:P:1253:ILE:H	1.51	0.42
5:R:386:LEU:HD22	6:7:41:DT:C2	2.55	0.42
5:R:548:LEU:HA	5:R:551:LEU:HD12	2.00	0.42
2:C:202:ARG:HH21	7:2:7:DC:H3'	1.83	0.42
2:I:1182:ILE:CG2	2:I:1183:ALA:N	2.82	0.42
3:J:806:ASP:OD1	3:J:806:ASP:N	2.51	0.42
3:P:263:SER:H	5:R:507:MET:HE3	1.84	0.42
2:O:1337:ILE:HG23	2:O:1337:ILE:O	2.19	0.42
3:J:720:ASN:HB3	3:J:723:TYR:HB3	2.01	0.42
3:J:747:MET:HE3	3:J:775:SER:HA	2.01	0.42
5:F:419:PHE:CZ	5:F:421:TYR:HA	2.54	0.42
3:D:748:ALA:CB	3:D:941:ALA:HB3	2.49	0.42
3:J:126:LEU:HB3	3:J:223:LEU:CD1	2.49	0.42
3:D:856:ILE:HG13	3:D:875:ASN:HB3	2.02	0.42
3:P:195:GLU:H	3:P:195:GLU:HG2	1.42	0.42
2:I:1288:GLN:HB3	2:I:1315:MET:CE	2.50	0.42
2:O:1243:MET:CG	3:P:372:MET:HE2	2.48	0.42
1:A:43:LEU:O	1:A:47:LEU:CD1	2.67	0.42
1:G:46:ILE:HD12	1:G:224:LEU:HB2	2.01	0.42
2:C:155:VAL:HG22	2:C:405:PHE:HD2	1.80	0.42
5:R:115:GLY:O	5:R:118:ASP:HB2	2.20	0.42
5:L:476:ARG:HE	5:L:477:GLU:HG3	1.85	0.42
2:C:1117:LEU:HG	2:C:1182:ILE:HD13	1.99	0.42
3:D:420:PRO:HG3	3:D:481:ARG:HB2	2.01	0.42
2:O:661:VAL:CG1	2:O:662:SER:N	2.82	0.42
3:J:1288:ALA:O	3:J:1292:LEU:HG	2.19	0.42
2:C:929:ILE:HB	2:C:1055:ALA:HB2	2.00	0.42
3:P:17:PHE:N	3:P:17:PHE:CD1	2.87	0.42
3:D:824:PRO:CD	3:D:878:ASP:O	2.67	0.42
3:J:952:VAL:HG11	3:J:984:LEU:CD1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:389:PHE:CD2	2:I:420:LEU:HD12	2.54	0.42
2:I:1064:ASP:OD1	2:I:1239:VAL:N	2.48	0.42
5:F:333:VAL:O	5:F:333:VAL:CG1	2.57	0.42
3:P:840:LEU:HD22	3:P:869:CYS:SG	2.58	0.42
3:J:575:GLY:O	3:J:578:ILE:HB	2.20	0.42
2:C:753:LEU:CD1	2:C:784:ALA:CB	2.97	0.42
2:C:738:GLU:HA	2:C:741:MET:HB2	2.02	0.42
2:C:228:VAL:HG11	2:C:239:MET:HE3	1.99	0.42
2:C:277:LEU:HD11	2:C:282:VAL:HG21	2.02	0.42
3:D:196:GLN:HB3	3:D:200:GLN:HE21	1.84	0.42
2:C:1065:LYS:HD2	2:C:1242:LYS:HZ1	1.84	0.42
2:O:337:PHE:CE2	2:O:343:HIS:CD2	3.07	0.42
3:P:848:VAL:HG21	3:P:880:VAL:HG22	2.00	0.42
2:O:1002:LEU:HB3	2:O:1003:THR:H	1.66	0.42
1:H:28:LEU:HB3	1:H:201:LEU:HB3	2.02	0.42
2:I:277:LEU:HD12	2:I:282:VAL:HG21	2.02	0.42
3:J:643:ASP:N	3:J:643:ASP:OD1	2.51	0.42
2:C:484:LEU:HG	2:C:484:LEU:H	1.41	0.42
3:D:1271:SER:OG	3:D:1292:LEU:HD21	2.20	0.42
2:I:1278:LEU:HD12	2:I:1287:LEU:HD13	2.01	0.42
3:P:373:ALA:HA	3:P:376:LEU:HD11	1.82	0.42
2:C:557:ARG:HD3	2:C:587:LEU:CB	2.24	0.42
5:F:502:LYS:HA	5:F:502:LYS:HD2	1.79	0.42
5:F:388:ILE:HG23	5:F:392:LYS:HZ2	1.84	0.42
2:I:204:LEU:HB3	2:I:205:PRO:HD2	2.00	0.42
2:O:672:GLU:HB2	2:O:673:HIS:CD2	2.54	0.42
2:C:912:ASP:O	2:C:913:VAL:HG22	2.15	0.42
2:C:871:VAL:HG11	2:C:928:VAL:HG21	2.01	0.42
2:C:871:VAL:HG23	2:C:883:LEU:C	2.37	0.42
2:C:513:GLN:HG3	2:C:526:HIS:CE1	2.54	0.42
2:O:1238:LEU:HA	2:O:1238:LEU:HD23	1.77	0.42
1:M:136:GLU:HG3	1:M:137:ASN:N	2.35	0.42
2:I:717:VAL:CG1	2:I:718:ALA:N	2.82	0.42
3:J:259:ARG:HH22	7:5:21:DG:C5'	2.33	0.42
3:D:582:ILE:CG2	3:D:623:GLN:HB3	2.48	0.42
2:I:1109:ILE:CD1	3:J:740:LEU:HD13	2.47	0.42
3:P:1271:SER:CB	3:P:1297:LYS:NZ	2.82	0.42
2:I:810:TYR:HE2	2:I:1078:LYS:CD	2.32	0.42
3:J:802:ASP:CG	3:J:1325:PHE:HB2	2.39	0.42
3:P:499:ILE:HG22	3:P:500:ILE:HG12	2.01	0.42
1:M:61:ILE:HG12	1:M:142:MET:SD	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:57:THR:OG1	1:N:147:GLN:HB2	2.20	0.42
3:D:163:GLU:CD	5:F:81:ALA:CB	2.88	0.42
2:I:446:ASP:OD1	2:I:446:ASP:N	2.52	0.42
3:P:390:LEU:HG	3:P:390:LEU:H	1.64	0.42
3:J:139:LEU:HG	3:J:139:LEU:H	1.44	0.42
2:C:888:THR:OG1	2:C:916:SER:HB3	2.19	0.42
2:O:812:PHE:CD2	2:O:813:GLU:HG3	2.55	0.42
3:P:902:ASP:OD2	3:P:905:ARG:HB2	2.20	0.42
1:A:129:VAL:CG1	1:A:130:ILE:N	2.80	0.42
2:I:519:ASN:N	2:I:519:ASN:OD1	2.51	0.42
2:O:1261:GLY:HA2	7:8:17:DG:OP1	2.19	0.42
3:J:1101:LEU:HD13	3:J:1107:VAL:HG22	2.01	0.42
5:R:273:MET:HA	5:R:276:MET:HB2	2.02	0.42
2:I:960:LEU:CD1	2:I:1028:LYS:HB3	2.45	0.42
3:P:823:THR:HB	3:P:824:PRO:CD	2.50	0.42
2:C:698:PRO:HD3	2:C:794:LEU:O	2.19	0.42
3:J:983:LYS:HA	3:J:994:SER:HA	2.01	0.42
3:D:232:ASN:HA	3:D:236:TRP:HZ3	1.85	0.42
2:O:548:ARG:HH12	3:P:788:LEU:HD11	1.76	0.42
2:C:1294:LYS:CD	3:D:347:VAL:CG1	2.97	0.42
3:P:1306:LEU:C	3:P:1307:LEU:HG	2.39	0.42
2:O:155:VAL:CG2	2:O:405:PHE:HA	2.48	0.42
2:O:448:LEU:HD23	2:O:448:LEU:HA	1.56	0.42
3:J:974:VAL:HG11	3:J:1028:ILE:CG2	2.44	0.42
5:L:551:LEU:CD1	5:L:559:LEU:HD12	2.50	0.42
3:P:78:LEU:CD2	3:P:78:LEU:H	2.28	0.42
2:C:936:ARG:NH1	5:F:495:ARG:NE	2.64	0.42
1:N:83:LEU:CD1	1:N:86:LYS:HE3	2.50	0.42
5:L:399:LEU:O	5:L:400:GLN:CB	2.64	0.42
3:P:959:LYS:HZ3	3:P:985:ILE:HD11	1.84	0.42
2:I:225:PHE:HE2	2:I:347:ILE:HB	1.83	0.42
1:G:191:ARG:HH21	3:P:1375:ALA:CB	2.32	0.42
1:B:168:ILE:CG2	1:B:169:GLY:N	2.83	0.42
1:A:31:LEU:HD13	1:A:36:GLY:HA2	2.02	0.42
6:4:37:DA:OP2	6:4:37:DA:H8	2.03	0.42
3:P:950:ILE:HG21	3:P:995:TYR:CG	2.54	0.42
2:I:672:GLU:CG	2:I:1187:PHE:HA	2.50	0.42
3:D:144:TYR:CD2	3:D:180:MET:HB2	2.55	0.42
6:1:26:DT:H2"	6:1:27:DC:OP2	2.20	0.42
3:P:93:THR:HB	3:P:94:GLN:H	1.62	0.42
5:F:217:ALA:O	5:F:221:PHE:HD1	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1314:LEU:N	3:P:1314:LEU:HD23	2.34	0.42
2:C:1303:LYS:O	2:C:1307:ASN:ND2	2.53	0.42
3:J:885:VAL:HG11	3:J:1255:VAL:HA	2.01	0.42
3:P:437:PHE:O	3:P:439:PRO:HD3	2.20	0.42
5:F:386:LEU:HA	6:1:41:DT:O4'	2.19	0.42
3:D:886:VAL:HG21	3:D:1230:THR:CG2	2.50	0.42
2:C:525:THR:HG23	2:C:526:HIS:N	2.35	0.42
3:J:526:VAL:C	3:J:527:LEU:HD23	2.40	0.42
2:O:230:PHE:O	2:O:332:ARG:HA	2.20	0.42
2:C:1294:LYS:HZ3	3:D:349:TYR:HB2	1.84	0.42
5:L:387:VAL:HG23	5:L:435:ILE:HD13	2.01	0.42
3:J:1109:LEU:HD22	3:J:1113:VAL:HG11	2.02	0.42
2:O:522:SER:O	2:O:525:THR:HG22	2.19	0.42
2:I:269:ILE:HG22	2:I:274:ILE:HD11	2.02	0.42
3:D:245:LEU:HD11	3:D:249:LEU:HD13	2.02	0.42
3:D:57:PHE:HD1	3:D:98:ARG:HH21	1.67	0.42
1:A:86:LYS:CE	1:A:173:VAL:CG1	2.97	0.42
3:D:587:LEU:CD2	3:D:612:LEU:HD21	2.48	0.42
5:R:429:THR:HA	6:7:40:DA:N7	2.35	0.42
2:C:468:LEU:O	2:C:471:VAL:HB	2.19	0.42
2:I:589:THR:CG2	2:I:590:PRO:HD2	2.50	0.42
3:D:75:TYR:HE2	3:D:85:CYS:HG	1.57	0.42
3:D:1132:LYS:HB3	3:D:1133:ASP:H	1.60	0.42
2:O:319:LEU:HG	2:O:319:LEU:H	1.46	0.42
3:P:194:LEU:O	3:P:198:CYS:SG	2.76	0.42
3:D:823:THR:O	3:D:838:ARG:NH1	2.51	0.42
2:O:761:GLN:O	2:O:762:ASN:HB2	2.19	0.42
2:I:185:ASP:HB2	2:I:197:ARG:HB2	2.02	0.42
3:D:1215:GLU:HB2	3:D:1220:ILE:HD11	2.02	0.42
2:I:1323:PHE:HD2	3:J:1352:ILE:O	2.03	0.42
2:C:839:VAL:O	2:C:886:LYS:NZ	2.47	0.42
2:O:207:THR:HA	2:O:210:LEU:HD12	2.01	0.42
1:B:48:LEU:HD23	1:B:48:LEU:N	2.34	0.42
3:P:268:LEU:HD21	3:P:324:LEU:CD1	2.19	0.42
2:C:13:LYS:HZ3	2:C:1151:LEU:HB3	1.82	0.42
3:J:456:ALA:HB2	3:J:499:ILE:HG21	2.00	0.42
5:F:137:TYR:CD1	5:F:138:PRO:HD2	2.55	0.42
3:D:1286:LYS:O	3:D:1289:ASN:HB2	2.20	0.42
5:L:432:THR:OG1	6:4:40:DA:N7	2.49	0.42
2:O:667:LEU:CD2	2:O:705:GLU:CD	2.87	0.42
3:P:1138:LEU:CD2	3:P:1139:PRO:HD3	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:262:THR:O	5:L:507:MET:HB3	2.19	0.42
3:J:952:VAL:CG1	3:J:984:LEU:CD1	2.96	0.42
3:D:364:HIS:CD2	3:D:364:HIS:H	2.37	0.42
2:C:153:PRO:HB2	2:C:401:GLY:HA2	2.02	0.42
1:A:149:GLY:HA3	1:A:177:TYR:CD2	2.55	0.42
2:I:1109:ILE:HD13	2:I:1109:ILE:N	2.35	0.42
2:I:939:VAL:CG2	2:I:1047:LEU:HD22	2.49	0.42
2:O:422:LYS:HG2	2:O:422:LYS:H	1.57	0.42
3:P:1356:LEU:HD13	3:P:1365:TYR:CD1	2.55	0.42
1:B:193:GLU:O	1:B:194:GLN:CB	2.67	0.42
2:O:1313:HIS:N	2:O:1313:HIS:CD2	2.88	0.42
1:H:185:TYR:CD2	1:H:185:TYR:O	2.73	0.42
2:O:1270:PHE:HB2	3:P:347:VAL:CG2	2.50	0.42
3:D:759:ILE:O	3:D:759:ILE:HG22	2.19	0.42
2:O:32:LEU:HD23	2:O:130:MET:HE3	2.01	0.42
2:C:1323:PHE:O	2:C:1326:LEU:HB3	2.19	0.42
7:2:12:DG:HO3'	7:2:13:DA:P	2.43	0.42
1:A:67:GLU:HG2	1:A:67:GLU:H	1.54	0.42
2:I:100:LEU:HD12	2:I:122:VAL:CB	2.45	0.42
2:C:810:TYR:CE1	3:D:359:PRO:CG	3.03	0.42
3:D:359:PRO:O	3:D:626:TYR:CE1	2.73	0.42
3:P:99:ARG:CG	3:P:99:ARG:O	2.67	0.42
3:D:548:VAL:CG1	3:D:549:LYS:N	2.82	0.42
3:J:268:LEU:HB2	3:J:306:LEU:HD12	2.01	0.42
2:C:672:GLU:HG3	2:C:1187:PHE:HA	1.99	0.42
2:I:428:VAL:HG23	2:I:428:VAL:H	1.57	0.42
3:D:518:VAL:O	3:D:520:ALA:N	2.53	0.42
1:B:97:GLU:OE2	1:B:147:GLN:NE2	2.52	0.42
4:K:64:LEU:HA	4:K:64:LEU:HD23	1.82	0.42
3:P:782:GLY:HA3	3:P:935:PHE:O	2.19	0.42
3:J:930:LEU:HB2	3:J:1134:ILE:HD11	2.01	0.42
2:O:220:ILE:H	2:O:220:ILE:HG13	1.70	0.42
3:D:587:LEU:HD23	3:D:587:LEU:HA	1.63	0.42
3:D:255:LEU:HD22	3:D:256:ASP:N	2.34	0.42
1:G:16:ILE:HG21	1:G:214:GLU:HG3	2.02	0.42
2:O:558:VAL:HG13	2:O:559:CYS:O	2.19	0.42
2:C:122:VAL:HG21	2:C:493:ILE:CD1	2.50	0.42
1:H:207:THR:HG23	1:H:209:GLY:H	1.85	0.42
3:P:394:ILE:H	3:P:394:ILE:HG13	1.26	0.42
2:O:668:ILE:HA	2:O:669:PRO:HD3	1.87	0.42
3:J:1077:ALA:HB2	3:J:1100:PHE:CD1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:21:DC:O2	7:5:43:DG:N2	2.53	0.42
1:M:67:GLU:O	1:M:78:ILE:HG21	2.19	0.41
1:A:182:ARG:C	1:A:183:ILE:HG22	2.40	0.41
1:G:47:LEU:CD1	1:G:183:ILE:HD13	2.44	0.41
2:C:1112:ILE:HG22	2:C:1113:LEU:HD23	2.02	0.41
1:H:31:LEU:HD23	1:H:31:LEU:HA	1.78	0.41
3:P:1101:LEU:HD11	3:P:1122:ALA:HB2	2.01	0.41
3:J:644:MET:HB3	3:J:741:ALA:HB2	2.02	0.41
2:O:1288:GLN:HA	2:O:1291:LEU:HD12	2.02	0.41
3:J:1257:VAL:HA	3:J:1260:MET:CE	2.49	0.41
2:O:520:PRO:O	2:O:524:ILE:CG1	2.59	0.41
3:D:1036:ARG:HD2	3:D:1081:VAL:HG11	2.02	0.41
3:P:1231:ARG:O	3:P:1234:VAL:HB	2.19	0.41
5:R:395:THR:HG22	5:R:404:LEU:HD13	2.01	0.41
1:A:26:VAL:HG21	1:A:217:ILE:HD11	2.02	0.41
5:L:374:ARG:HB2	5:L:374:ARG:CZ	2.48	0.41
2:O:170:VAL:HG12	2:O:172:TYR:CZ	2.55	0.41
2:I:1284:ALA:CB	3:J:1357:ILE:HD12	2.50	0.41
2:C:202:ARG:HB2	2:C:369:MET:HE1	2.00	0.41
2:C:368:ARG:CD	5:F:90:GLU:HG2	2.47	0.41
1:N:44:ARG:HA	1:N:47:LEU:HD12	2.02	0.41
2:O:912:ASP:C	2:O:913:VAL:HG23	2.41	0.41
3:P:1180:VAL:HG23	3:P:1181:ASP:N	2.35	0.41
2:C:873:ILE:HG13	2:C:873:ILE:H	1.48	0.41
5:L:250:LEU:HD23	5:L:250:LEU:HA	1.92	0.41
5:L:540:LEU:HD13	5:L:540:LEU:C	2.41	0.41
2:C:151:ARG:HG3	2:C:151:ARG:H	1.62	0.41
5:R:144:LEU:HD12	5:R:165:PHE:CE2	2.55	0.41
2:O:123:TYR:CZ	2:O:125:GLY:HA2	2.55	0.41
2:C:196:VAL:CG2	2:C:206:ALA:HA	2.50	0.41
2:O:850:ILE:HG23	2:O:885:GLY:O	2.21	0.41
3:J:1318:SER:HG	3:J:1321:SER:CB	2.31	0.41
1:A:45:ARG:HA	2:C:1083:GLU:HG2	2.02	0.41
1:B:228:LEU:HA	1:B:231:PHE:HD2	1.85	0.41
3:D:1226:VAL:O	3:D:1229:VAL:CG1	2.67	0.41
4:Q:5:THR:HG22	4:Q:7:GLN:CB	2.51	0.41
2:C:809:GLY:HA3	3:D:629:PHE:CD1	2.55	0.41
3:D:268:LEU:HD23	3:D:268:LEU:HA	1.63	0.41
1:B:85:LEU:HD21	1:B:130:ILE:HG23	2.01	0.41
1:N:61:ILE:HD12	1:N:64:VAL:HG21	2.01	0.41
3:D:706:VAL:HG13	3:D:714:GLU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1360:GLY:HA2	4:K:17:PHE:CD2	2.55	0.41
2:I:275:ARG:O	2:I:275:ARG:HG2	2.20	0.41
2:C:616:ILE:HG23	2:C:653:MET:HA	2.02	0.41
6:1:57:DC:H2"	6:1:58:DG:H8	1.85	0.41
3:D:1159:ILE:HG22	3:D:1160:SER:N	2.30	0.41
3:J:1040:MET:HE3	3:J:1061:VAL:HG22	2.02	0.41
3:P:1032:SER:O	3:P:1080:ILE:CG2	2.68	0.41
2:C:1268:GLN:NE2	3:D:351:GLY:CA	2.83	0.41
3:D:530:PRO:HD3	3:D:552:ILE:CD1	2.50	0.41
1:H:152:TYR:HE1	1:H:176:CYS:SG	2.42	0.41
3:J:505:ASP:OD1	3:J:505:ASP:N	2.52	0.41
1:A:36:GLY:HA2	1:A:201:LEU:HD13	2.01	0.41
2:I:1112:ILE:CG2	3:J:641:ILE:HG12	2.49	0.41
3:P:950:ILE:HG21	3:P:995:TYR:CD1	2.55	0.41
1:N:52:PRO:HA	1:N:150:ARG:HA	2.02	0.41
2:C:556:GLY:HA2	2:C:659:GLN:O	2.20	0.41
2:O:559:CYS:SG	2:O:560:PRO:HD2	2.61	0.41
2:I:517:GLN:HB2	2:I:761:GLN:OE1	2.21	0.41
2:O:4:SER:HB3	2:O:778:GLU:OE1	2.20	0.41
3:J:148:GLU:CG	3:J:149:GLY:H	2.33	0.41
3:D:875:ASN:O	3:D:876:SER:HB2	2.19	0.41
2:O:761:GLN:O	2:O:762:ASN:CB	2.68	0.41
2:C:392:GLU:HG3	2:C:393:ASP:N	2.35	0.41
2:I:676:ALA:HA	2:I:679:ALA:HB3	2.02	0.41
5:R:364:ARG:O	5:R:367:ILE:HB	2.21	0.41
5:F:408:GLY:O	5:F:435:ILE:HG23	2.21	0.41
2:O:788:SER:OG	2:O:795:ALA:O	2.29	0.41
3:J:1177:ILE:HG13	3:J:1186:TYR:O	2.20	0.41
3:D:130:MET:HB3	3:D:130:MET:HE3	1.92	0.41
2:C:175:ARG:HG2	2:C:185:ASP:OD1	2.20	0.41
2:C:1225:VAL:HG13	3:D:638:SER:CB	2.51	0.41
1:B:48:LEU:HD22	1:B:180:VAL:HB	2.01	0.41
5:R:464:ASN:CB	7:8:25:DA:H62	2.33	0.41
2:C:1087:TYR:O	2:C:1212:LEU:HD22	2.19	0.41
3:D:1101:LEU:HD13	3:D:1107:VAL:HG22	2.03	0.41
2:I:796:LEU:HB3	2:I:1233:LEU:HD11	2.02	0.41
3:J:865:HIS:CE1	3:J:901:ARG:NH2	2.88	0.41
2:C:13:LYS:NZ	2:C:1149:TYR:O	2.53	0.41
2:O:428:VAL:HG12	2:O:429:MET:CG	2.34	0.41
5:F:137:TYR:CG	5:F:138:PRO:HD2	2.55	0.41
2:O:1148:ALA:O	2:O:1151:LEU:HB2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1312:ASN:HD21	2:C:1314:GLN:CB	2.33	0.41
3:D:116:PHE:O	3:D:124:ILE:HG13	2.20	0.41
3:J:53:ARG:O	3:J:58:CYS:CB	2.58	0.41
7:2:24:DT:C2'	7:2:25:DA:OP1	2.60	0.41
3:J:527:LEU:HG	3:J:548:VAL:HG12	2.02	0.41
5:F:573:LEU:CB	7:2:46:DG:OP2	2.59	0.41
3:P:146:VAL:CG2	3:P:154:LEU:CD1	2.86	0.41
2:O:697:LYS:NZ	2:O:1181:PRO:HG3	2.35	0.41
3:J:1179:PRO:HB2	3:J:1182:GLY:N	2.34	0.41
3:P:307:LEU:HD23	3:P:327:LEU:CD1	2.51	0.41
2:C:73:TYR:C	2:C:73:TYR:CD1	2.93	0.41
3:D:555:TYR:HB2	3:D:586:GLY:N	2.35	0.41
1:H:97:GLU:CG	1:H:147:GLN:HE21	2.33	0.41
5:R:333:VAL:HG22	5:R:336:GLU:HB2	2.02	0.41
2:I:325:LEU:HA	2:I:325:LEU:HD23	1.93	0.41
4:Q:29:GLN:HB3	4:Q:35:LYS:HG3	2.02	0.41
2:I:1294:LYS:HB3	3:J:347:VAL:CG1	2.50	0.41
3:J:1343:GLU:O	3:J:1344:LEU:HB2	2.21	0.41
6:4:18:DA:C2	6:4:19:DT:C2	3.07	0.41
3:D:1175:LEU:HD12	3:D:1175:LEU:HA	1.83	0.41
1:G:42:ALA:HA	1:H:38:THR:HG22	1.96	0.41
3:D:975:ILE:HD13	3:D:980:THR:HG21	2.02	0.41
6:7:45:DT:H2'	6:7:46:DG:O4'	2.21	0.41
3:J:502:PRO:HB3	3:J:506:VAL:CG1	2.49	0.41
5:F:389:SER:HA	5:F:392:LYS:HD2	2.00	0.41
2:O:663:VAL:O	2:O:666:SER:OG	2.27	0.41
7:8:51:DG:N9	7:8:52:DT:H71	2.34	0.41
3:D:360:TYR:CE1	3:D:361:LEU:CD2	3.02	0.41
2:I:871:VAL:HG21	2:I:883:LEU:HA	1.98	0.41
2:I:1284:ALA:HA	3:J:1357:ILE:HD12	2.02	0.41
2:I:524:ILE:HD11	2:I:712:SER:CB	2.44	0.41
3:P:270:ARG:HA	3:P:273:ILE:HD12	2.01	0.41
5:L:333:VAL:O	5:L:333:VAL:HG22	2.20	0.41
5:R:279:ARG:O	5:R:283:GLN:HG2	2.19	0.41
2:O:112:GLY:C	2:O:114:VAL:N	2.74	0.41
2:C:181:GLY:HA3	2:C:395:TYR:CD1	2.55	0.41
3:D:1156:LEU:HB2	3:D:1223:LEU:HD12	2.03	0.41
2:I:1156:ARG:HH12	2:I:1157:GLN:HB2	1.86	0.41
2:O:802:VAL:HG22	2:O:1096:ILE:HB	2.02	0.41
3:D:708:ASN:OD1	3:D:713:GLU:HG2	2.21	0.41
3:D:1173:ARG:H	3:D:1173:ARG:HG2	1.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:163:GLU:CD	5:F:81:ALA:HB3	2.40	0.41
3:P:509:GLY:O	3:P:513:MET:HG3	2.20	0.41
2:C:603:ILE:H	2:C:603:ILE:HG13	1.55	0.41
2:C:412:GLU:HG3	2:C:413:GLU:N	2.36	0.41
2:I:558:VAL:HG22	2:I:575:LEU:HA	2.02	0.41
2:I:1061:GLN:CB	2:I:1062:PRO:CD	2.85	0.41
3:P:1101:LEU:CD1	3:P:1122:ALA:HB2	2.50	0.41
2:I:375:PRO:HG3	5:L:103:ARG:HG3	2.01	0.41
2:C:862:LEU:HA	2:C:865:LEU:HD12	2.02	0.41
2:C:1117:LEU:HG	2:C:1182:ILE:CD1	2.51	0.41
6:4:53:DG:C2'	6:4:54:DA:OP2	2.50	0.41
1:A:107:ILE:HD11	1:A:136:GLU:HB3	2.02	0.41
3:D:795:TYR:CD1	7:2:12:DG:H5"	2.52	0.41
2:C:1312:ASN:ND2	2:C:1314:GLN:HB3	2.35	0.41
1:M:59:VAL:HG13	1:M:144:ILE:HG12	2.02	0.41
3:D:1229:VAL:O	3:D:1233:ILE:HG13	2.19	0.41
4:K:6:VAL:HG12	4:K:9:ALA:CB	2.51	0.41
3:D:624:ILE:H	3:D:624:ILE:HG13	1.48	0.41
3:J:521:LYS:CD	3:J:543:SER:HB2	2.51	0.41
3:J:965:SER:O	3:J:966:VAL:HB	2.21	0.41
2:I:758:ARG:HA	2:I:833:ILE:HD12	2.03	0.41
2:I:149:LEU:HD21	2:I:451:ARG:NH2	2.34	0.41
3:D:1062:LEU:HD22	3:D:1066:GLU:OE2	2.20	0.41
3:J:471:PRO:HB2	3:J:476:ALA:CB	2.47	0.41
3:J:130:MET:HG2	3:J:135:ILE:CG1	2.48	0.41
3:J:188:LEU:O	3:J:188:LEU:HG	2.19	0.41
2:C:204:LEU:HD13	2:C:208:ILE:HD13	2.03	0.41
2:C:448:LEU:HA	2:C:448:LEU:HD23	1.77	0.41
2:I:1042:LEU:CD1	2:I:1049:ILE:HD11	2.28	0.41
3:D:644:MET:HG3	3:D:644:MET:H	1.64	0.41
1:N:100:LEU:HD21	1:N:118:ASP:HB2	2.03	0.41
2:I:1200:LYS:CE	2:I:1206:THR:HG21	2.37	0.41
3:J:1162:ILE:HD11	3:J:1180:VAL:CG1	2.50	0.41
3:D:926:PRO:HD2	3:D:927:GLY:H	1.85	0.41
2:C:1288:GLN:HA	2:C:1291:LEU:HD12	2.02	0.41
5:R:387:VAL:HG22	5:R:435:ILE:HD13	2.03	0.41
2:C:806:PRO:HA	2:C:811:ASN:HD21	1.86	0.41
3:P:322:ARG:NH1	3:P:323:PRO:O	2.54	0.41
2:I:275:ARG:CG	2:I:275:ARG:NH1	2.77	0.41
6:7:29:DC:H2"	6:7:30:DG:H8	1.84	0.41
1:A:149:GLY:HA3	1:A:177:TYR:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:888:THR:O	2:O:914:LYS:N	2.54	0.41
2:C:753:LEU:HD11	2:C:784:ALA:CB	2.50	0.41
2:C:1322:SER:O	2:C:1325:VAL:HB	2.21	0.41
1:G:168:ILE:H	1:G:168:ILE:HG13	1.72	0.41
3:D:999:TYR:HE2	3:D:1027:VAL:HA	1.84	0.41
3:J:334:LYS:NZ	7:5:13:DA:OP1	2.54	0.41
1:B:201:LEU:HG	1:B:203:ILE:HG13	2.02	0.41
5:F:411:GLY:HA3	5:F:435:ILE:HA	2.02	0.41
2:I:240:GLU:HG2	2:I:284:LEU:CD2	2.50	0.41
2:I:906:PHE:CE2	5:L:607:LEU:HB3	2.56	0.41
1:M:152:TYR:CE1	2:O:824:GLN:HA	2.56	0.41
5:L:572:THR:HB	7:5:45:DT:H5"	2.02	0.41
2:I:558:VAL:CG1	2:I:559:CYS:N	2.84	0.41
3:J:128:LEU:HD11	3:J:189:LEU:HD21	2.03	0.41
3:D:1163:VAL:HG12	3:D:1164:SER:H	1.83	0.41
1:G:45:ARG:CD	1:H:38:THR:HG23	2.50	0.41
6:7:43:DT:O4'	6:7:43:DT:OP2	2.37	0.41
2:C:528:ARG:HD2	2:C:663:VAL:HG23	1.95	0.41
2:I:167:SER:O	3:J:1064:SER:CB	2.53	0.41
2:C:1326:LEU:O	2:C:1330:ILE:HG13	2.20	0.41
1:A:11:PRO:HA	1:A:30:PRO:HD2	2.02	0.41
3:J:456:ALA:HB2	3:J:499:ILE:CG2	2.50	0.41
2:I:1073:LYS:HE3	3:J:462:ASP:HB2	2.01	0.41
3:P:1177:ILE:O	3:P:1179:PRO:HD3	2.21	0.41
3:P:111:THR:HG22	3:P:112:ALA:N	2.31	0.41
3:J:952:VAL:CG2	3:J:1017:VAL:CG1	2.98	0.41
2:C:1101:LEU:CD2	3:D:505:ASP:OD1	2.64	0.41
3:J:268:LEU:O	3:J:272:VAL:HG23	2.20	0.41
3:J:537:TYR:CE2	3:J:544:LEU:HD21	2.56	0.41
2:O:1021:LEU:HA	2:O:1021:LEU:HD23	1.81	0.41
3:J:123:ARG:HD3	3:J:123:ARG:HA	1.77	0.41
3:D:833:GLU:CD	3:D:1242:ARG:NE	2.74	0.41
3:D:201:LEU:HD21	3:D:220:ARG:NH1	2.36	0.41
1:H:102:LEU:HD12	1:H:103:ASN:H	1.84	0.41
1:N:95:LYS:HZ2	1:N:120:ASP:CG	2.23	0.41
2:I:801:ARG:HG3	2:I:1229:TYR:CZ	2.56	0.41
2:I:21:VAL:HG21	2:I:592:ARG:NH1	2.35	0.41
3:P:982:LEU:O	3:P:983:LYS:HG3	2.21	0.41
3:J:148:GLU:HG2	3:J:149:GLY:N	2.36	0.41
3:J:507:VAL:HG23	3:J:507:VAL:H	1.59	0.41
1:B:15:ASP:CB	1:B:27:THR:OG1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:364:ARG:O	5:L:367:ILE:HB	2.20	0.41
2:I:1288:GLN:HB3	2:I:1315:MET:HE3	2.02	0.41
2:O:39:ILE:HD13	2:O:75:LEU:CD1	2.50	0.41
3:P:428:THR:O	3:P:428:THR:HG22	2.21	0.41
3:D:740:LEU:O	3:D:762:ASN:HB2	2.20	0.41
3:P:268:LEU:O	3:P:272:VAL:HG23	2.20	0.41
6:4:44:DG:H4'	6:4:44:DG:OP1	2.20	0.41
5:L:402:LEU:HD23	5:L:402:LEU:N	2.36	0.41
1:G:228:LEU:HD11	1:H:224:LEU:CD1	2.40	0.41
1:H:224:LEU:HG	1:H:225:ALA:N	2.36	0.41
5:R:460:ILE:O	5:R:463:LEU:HG	2.21	0.41
1:B:82:LEU:CD2	1:B:173:VAL:CG2	2.99	0.41
2:C:912:ASP:C	2:C:913:VAL:CG2	2.86	0.41
3:D:1145:PHE:HB3	3:D:1309:ILE:HD11	2.02	0.41
3:J:519:ASN:HA	3:J:523:GLU:CB	2.41	0.41
2:O:805:MET:HE2	2:O:806:PRO:O	2.20	0.41
3:J:526:VAL:HA	3:J:549:LYS:O	2.21	0.41
1:M:38:THR:CG2	1:N:42:ALA:HB1	2.50	0.41
3:J:514:THR:O	3:J:576:ARG:CZ	2.68	0.41
3:P:855:ASP:O	3:P:857:LEU:HG	2.20	0.41
3:D:377:PHE:O	3:D:381:ILE:HG13	2.21	0.41
2:I:971:LEU:O	2:I:975:ILE:HG13	2.21	0.41
3:P:1291:GLU:O	3:P:1295:ASN:CG	2.59	0.41
2:C:167:SER:HA	3:D:1064:SER:HB2	2.01	0.41
2:C:926:GLY:HA3	2:C:1056:VAL:HA	2.02	0.41
4:K:6:VAL:HG12	4:K:9:ALA:HB3	2.03	0.41
4:E:16:ARG:CG	4:E:16:ARG:NH1	2.73	0.41
3:P:1271:SER:OG	3:P:1297:LYS:HD2	2.21	0.41
3:D:513:MET:CE	3:D:579:LEU:HD21	2.51	0.41
3:J:649:LYS:O	3:J:649:LYS:CG	2.69	0.41
5:F:92:GLY:O	5:F:93:ARG:CG	2.69	0.41
2:O:563:THR:CG2	2:O:680:LEU:HD11	2.50	0.41
2:C:635:THR:HG23	2:C:635:THR:O	2.21	0.41
1:A:135:ASP:HB3	1:A:138:ALA:HB2	2.02	0.41
2:C:589:THR:HB	2:C:591:TYR:CZ	2.55	0.41
5:F:119:ILE:HG23	5:F:375:ALA:HB1	2.02	0.41
3:D:1250:ASP:OD1	3:D:1250:ASP:N	2.53	0.41
2:I:12:ARG:HG3	2:I:1181:PRO:O	2.21	0.41
3:J:332:LYS:O	3:J:333:GLY:O	2.39	0.41
5:F:126:GLY:O	5:F:129:GLN:HB3	2.21	0.41
1:M:95:LYS:HD2	1:M:95:LYS:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:474:LEU:HG	3:P:474:LEU:H	1.50	0.41
5:F:373:ARG:HB3	5:F:373:ARG:HE	1.42	0.41
2:I:1328:LYS:HD3	2:I:1328:LYS:HA	1.82	0.41
3:J:914:ALA:HB2	3:J:1359:ALA:HB1	2.03	0.41
1:H:212:ASP:CG	1:H:213:PRO:HD2	2.41	0.41
4:K:31:GLN:OE1	4:K:46:THR:HG21	2.21	0.41
3:D:510:LEU:HD23	3:D:510:LEU:HA	1.75	0.41
3:J:185:ILE:O	3:J:189:LEU:HD12	2.20	0.41
2:O:1286:THR:N	3:P:479:GLU:OE2	2.47	0.41
3:P:233:LYS:HB3	3:P:236:TRP:NE1	2.36	0.41
1:H:156:SER:O	1:H:160:HIS:HB2	2.21	0.41
1:M:67:GLU:O	1:M:78:ILE:CG2	2.69	0.41
1:A:100:LEU:HD23	1:A:100:LEU:HA	1.58	0.41
3:P:1101:LEU:HD21	3:P:1122:ALA:CB	2.38	0.41
5:F:586:ARG:O	5:F:590:ILE:HG13	2.20	0.41
1:M:11:PRO:HB3	1:M:31:LEU:HD23	2.02	0.41
2:I:170:VAL:HG11	2:I:172:TYR:OH	2.21	0.41
2:I:500:ALA:HB1	7:5:23:DT:H5'	2.02	0.41
2:I:806:PRO:HG3	3:J:637:ALA:HB3	2.03	0.41
3:J:369:PRO:CD	3:J:447:ILE:HG23	2.49	0.41
7:8:18:DT:C2'	7:8:19:DA:C5'	2.95	0.41
1:M:232:VAL:CG2	1:N:221:ALA:HB3	2.51	0.41
2:C:663:VAL:H	2:C:663:VAL:HG23	1.54	0.41
2:O:528:ARG:HD2	2:O:663:VAL:HG23	2.03	0.41
3:P:212:THR:HA	3:P:215:LYS:CE	2.47	0.41
3:P:418:GLU:OE1	4:Q:48:VAL:HG21	2.21	0.41
3:D:114:ILE:HD11	3:D:308:ASP:HB3	2.03	0.41
2:C:870:ILE:HG21	2:C:944:ARG:HE	1.86	0.41
3:J:322:ARG:NE	5:L:510:PRO:HD3	2.35	0.41
3:D:361:LEU:O	3:D:626:TYR:OH	2.35	0.41
3:D:449:LEU:HA	3:D:449:LEU:HD12	1.79	0.41
3:P:246:PRO:HA	3:P:247:PRO:HD3	1.83	0.41
2:C:96:LEU:CB	2:C:127:ILE:HD11	2.40	0.41
2:O:389:PHE:HB3	2:O:420:LEU:HD12	2.02	0.41
5:R:392:LYS:O	5:R:395:THR:OG1	2.34	0.41
5:R:559:LEU:HD23	5:R:559:LEU:HA	1.92	0.41
5:L:593:LYS:CG	5:L:597:LYS:HE2	2.51	0.41
5:F:102:MET:HB3	6:1:42:DG:N2	2.35	0.41
1:G:61:ILE:HG23	1:G:142:MET:HB3	2.02	0.41
2:C:592:ARG:HG3	2:C:653:MET:HE2	2.03	0.41
3:D:599:LYS:CG	3:D:600:ALA:H	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:262:TYR:CE1	2:C:276:GLN:NE2	2.89	0.41
2:C:672:GLU:HG3	2:C:1187:PHE:CD1	2.56	0.41
3:J:537:TYR:CG	3:J:544:LEU:HD21	2.56	0.41
2:C:499:SER:HB3	2:C:503:LYS:HZ2	1.85	0.41
2:C:996:ARG:C	2:C:997:TRP:CD1	2.92	0.41
3:J:227:PHE:CD1	3:J:232:ASN:O	2.74	0.41
3:J:205:LEU:HG	3:J:217:LEU:HD13	2.03	0.41
1:G:234:LEU:HD23	1:H:13:LEU:HB3	2.02	0.41
1:M:26:VAL:HG11	1:M:217:ILE:HD11	2.03	0.41
1:B:75:GLN:HG3	1:B:134:THR:CG2	2.51	0.41
2:O:403:MET:HE2	2:O:404:LYS:N	2.36	0.41
3:P:166:LEU:HD23	3:P:169:LEU:HD23	2.01	0.41
3:J:711:GLY:O	3:P:1302:TYR:CZ	2.74	0.41
2:O:563:THR:O	2:O:680:LEU:HD11	2.21	0.41
4:K:27:ALA:HA	4:K:30:MET:SD	2.61	0.41
5:F:419:PHE:HA	5:F:430:TYR:HE2	1.86	0.41
1:N:107:ILE:HG13	1:N:136:GLU:HB3	2.03	0.41
2:C:1128:ILE:HG22	2:C:1129:ASN:N	2.36	0.41
5:L:470:MET:SD	5:L:486:ARG:HD2	2.60	0.41
3:P:1154:ALA:HA	3:P:1211:SER:HB2	2.03	0.41
2:C:131:THR:HG1	2:C:135:THR:H	1.62	0.41
3:D:388:ARG:HB3	3:D:390:LEU:HG	2.03	0.41
3:P:1284:ARG:HG2	3:P:1287:ILE:HD12	2.01	0.41
3:P:560:ASN:N	3:P:560:ASN:OD1	2.54	0.41
1:M:215:GLU:HG2	1:M:219:ARG:HD2	2.03	0.41
1:H:86:LYS:CE	1:H:174:ASP:HB2	2.51	0.41
2:I:819:SER:O	2:I:822:VAL:HG23	2.21	0.41
3:D:768:ASN:OD1	3:D:768:ASN:C	2.58	0.41
1:A:77:ASP:OD1	2:C:755:LYS:NZ	2.48	0.41
1:M:174:ASP:OD2	2:O:1059:ARG:NH1	2.54	0.41
2:C:1094:VAL:HG12	2:C:1095:ASP:N	2.36	0.41
2:I:705:GLU:HG3	2:I:794:LEU:HB3	2.03	0.41
7:8:16:DC:H2"	7:8:17:DG:H5'	2.03	0.41
1:N:231:PHE:N	1:N:231:PHE:CD1	2.87	0.41
2:C:1117:LEU:CG	2:C:1182:ILE:CD1	2.97	0.41
3:P:332:LYS:O	3:P:333:GLY:C	2.59	0.41
1:A:67:GLU:HG3	1:A:68:TYR:CE2	2.56	0.41
3:D:113:HIS:CD2	3:D:115:TRP:HB2	2.55	0.41
2:C:870:ILE:HG22	2:C:871:VAL:O	2.21	0.41
1:N:37:HIS:CD2	1:N:187:VAL:HG21	2.55	0.41
3:D:1179:PRO:HB2	3:D:1182:GLY:CA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:31:LEU:HD11	1:G:201:LEU:HB3	2.01	0.41
2:C:743:PRO:HA	2:C:974:ARG:HH22	1.85	0.41
2:I:395:TYR:CZ	2:I:420:LEU:HD11	2.56	0.41
3:D:109:SER:HA	3:D:183:GLU:OE2	2.20	0.41
3:J:1280:VAL:CG1	3:J:1281:GLU:N	2.82	0.41
3:P:515:ARG:CZ	3:P:717:VAL:HG23	2.51	0.41
2:O:446:ASP:N	2:O:446:ASP:OD1	2.54	0.41
2:C:262:TYR:HE1	2:C:276:GLN:CG	2.33	0.41
1:B:68:TYR:HA	1:B:79:LEU:HD21	2.03	0.41
3:P:296:LYS:O	3:P:299:LEU:HB3	2.21	0.41
2:C:971:LEU:HD13	2:C:1017:GLN:HG2	2.03	0.41
2:I:1109:ILE:HG12	3:J:740:LEU:HD22	2.01	0.41
2:O:888:THR:O	2:O:913:VAL:CG1	2.67	0.41
3:D:423:LEU:O	3:D:434:ILE:HA	2.21	0.41
3:J:104:HIS:HB2	3:J:241:VAL:CG1	2.51	0.41
3:P:33:TRP:N	3:P:33:TRP:CD1	2.88	0.41
1:B:153:VAL:HA	1:B:154:PRO:HD3	1.85	0.41
2:I:1115:THR:HG1	2:I:1115:THR:H	1.55	0.41
2:I:851:THR:CG2	2:I:852:ALA:N	2.83	0.41
2:I:592:ARG:HG3	2:I:653:MET:HE2	2.03	0.41
5:F:398:GLY:O	5:F:399:LEU:HD23	2.20	0.41
3:P:79:LYS:CE	5:R:569:THR:HG22	2.51	0.41
1:B:28:LEU:HB3	1:B:201:LEU:HB3	2.03	0.41
3:P:160:LEU:HD22	3:P:164:GLN:HB3	2.03	0.41
3:J:1160:SER:HA	3:J:1204:VAL:O	2.20	0.41
3:D:127:LEU:HD23	3:D:127:LEU:HA	1.70	0.41
5:R:324:LYS:HA	5:R:325:PRO:HD3	1.81	0.41
2:I:209:ILE:HG23	2:I:210:LEU:H	1.86	0.40
3:J:646:ILE:HD11	3:J:764:ARG:HD3	2.02	0.40
2:I:700:VAL:HG22	2:I:1117:LEU:HD23	2.04	0.40
1:B:198:LEU:H	1:B:198:LEU:HD13	1.85	0.40
3:D:1135:THR:O	3:D:1139:PRO:HD2	2.20	0.40
3:P:17:PHE:CE1	3:P:1355:ARG:NH1	2.90	0.40
3:P:614:LEU:HD23	4:Q:7:GLN:HB2	2.03	0.40
7:2:24:DT:OP1	7:2:24:DT:C4'	2.69	0.40
2:O:1086:PRO:CB	2:O:1212:LEU:HD22	2.51	0.40
3:J:952:VAL:HG11	3:J:984:LEU:HD13	2.00	0.40
4:E:38:LEU:HG	4:E:53:GLU:OE2	2.21	0.40
7:5:5:DC:C2	7:5:6:DG:C8	3.09	0.40
2:C:636:CYS:HB2	2:C:645:PHE:CD2	2.56	0.40
2:C:616:ILE:O	2:C:636:CYS:HB3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:15:ASN:HB3	4:E:18:ASP:OD2	2.21	0.40
3:J:147:ILE:HG13	3:J:147:ILE:H	1.62	0.40
2:O:213:LEU:HD13	2:O:422:LYS:CB	2.51	0.40
5:F:476:ARG:HG3	5:F:477:GLU:H	1.87	0.40
1:B:107:ILE:HG12	1:B:134:THR:O	2.21	0.40
3:J:1210:ILE:HD12	3:J:1210:ILE:N	2.36	0.40
2:O:403:MET:O	2:O:403:MET:HG2	2.20	0.40
5:F:506:SER:HB3	5:F:509:THR:OG1	2.21	0.40
2:O:1122:LYS:HD3	2:O:1122:LYS:HA	1.82	0.40
5:L:280:VAL:CG1	5:L:284:GLU:OE2	2.68	0.40
2:C:1334:GLY:O	3:D:25:ALA:CB	2.68	0.40
3:P:725:MET:HE2	3:P:725:MET:HB2	1.68	0.40
3:J:1204:VAL:HG23	3:J:1204:VAL:O	2.22	0.40
3:P:284:ASP:N	3:P:284:ASP:OD1	2.54	0.40
2:I:68:LEU:HD12	2:I:68:LEU:HA	1.64	0.40
3:D:913:GLU:HG3	4:E:17:PHE:HZ	1.86	0.40
3:P:833:GLU:OE1	3:P:1242:ARG:NH2	2.53	0.40
2:O:1307:ASN:HB3	2:O:1312:ASN:HB3	2.02	0.40
3:J:1023:HIS:O	3:J:1024:THR:CB	2.69	0.40
4:Q:2:ALA:HB2	4:Q:55:GLU:OE1	2.22	0.40
3:P:368:LEU:HA	3:P:369:PRO:HD3	1.92	0.40
2:I:558:VAL:HG11	2:I:573:ASN:HB3	2.04	0.40
2:O:1273:MET:HB3	3:P:428:THR:HB	2.02	0.40
3:D:744:ARG:HB3	3:D:759:ILE:HG22	2.02	0.40
3:D:761:ALA:HB3	3:D:767:LEU:CD2	2.51	0.40
2:C:183:TRP:CZ3	6:1:47:DC:N4	2.79	0.40
2:I:170:VAL:CG1	2:I:172:TYR:OH	2.69	0.40
2:O:896:THR:HB	2:O:897:PRO:HD2	2.02	0.40
3:J:1226:VAL:HA	3:J:1229:VAL:HG12	2.03	0.40
2:C:11:ILE:HG22	2:C:12:ARG:N	2.35	0.40
2:O:164:THR:O	2:O:165:HIS:CB	2.68	0.40
6:4:53:DG:H1'	6:4:54:DA:C5'	2.47	0.40
1:A:221:ALA:O	1:A:224:LEU:HB3	2.22	0.40
2:C:831:ILE:CD1	2:C:831:ILE:H	2.20	0.40
5:R:98:VAL:HG12	5:R:99:ARG:N	2.37	0.40
5:R:103:ARG:HB3	5:R:103:ARG:CZ	2.52	0.40
3:D:227:PHE:CE1	3:D:232:ASN:O	2.74	0.40
2:C:1105:SER:HB3	3:D:731:ARG:HD2	2.03	0.40
3:P:1263:LYS:HB2	3:P:1307:LEU:HD11	1.98	0.40
2:O:700:VAL:HG21	2:O:1114:GLU:HG3	2.04	0.40
7:5:6:DG:H2"	7:5:7:DC:O5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:28:LEU:HD21	2:I:524:ILE:HG23	2.03	0.40
6:4:50:DT:C5'	6:4:51:DC:C5	3.03	0.40
1:G:75:GLN:HG2	1:G:134:THR:HG23	2.02	0.40
2:C:499:SER:HB3	2:C:503:LYS:NZ	2.36	0.40
2:I:514:PHE:CZ	7:5:19:DA:H1'	2.57	0.40
3:J:481:ARG:NH1	4:K:3:ARG:O	2.54	0.40
1:A:85:LEU:HD23	1:A:85:LEU:HA	1.80	0.40
1:N:192:VAL:O	1:N:193:GLU:C	2.60	0.40
3:D:1031:VAL:CG1	3:D:1090:ILE:HA	2.52	0.40
2:C:180:ARG:O	2:C:395:TYR:HA	2.21	0.40
3:P:178:ALA:C	3:P:179:LYS:HD2	2.41	0.40
5:R:113:ARG:HB2	5:R:114:GLU:H	1.64	0.40
2:O:866:ASP:CG	2:O:867:GLU:N	2.74	0.40
2:I:599:VAL:HG21	2:I:623:LEU:HD21	2.04	0.40
2:I:240:GLU:HA	2:I:283:LYS:O	2.21	0.40
3:J:1024:THR:HG21	3:J:1123:ARG:HD3	2.04	0.40
1:N:18:GLN:HG3	1:N:24:ALA:HB2	2.03	0.40
3:D:45:ASN:HB3	3:D:48:THR:O	2.21	0.40
2:O:1290:MET:N	2:O:1290:MET:SD	2.95	0.40
2:O:1290:MET:SD	2:O:1294:LYS:CD	2.94	0.40
3:J:1167:LYS:H	3:J:1167:LYS:HG3	1.39	0.40
3:J:918:ILE:HG23	3:J:919:ALA:N	2.29	0.40
1:A:44:ARG:N	1:A:47:LEU:HD12	2.37	0.40
6:1:46:DG:C8	6:1:46:DG:C3'	3.04	0.40
3:P:42:GLU:OE2	5:R:451:ARG:HG2	2.21	0.40
3:J:796:LEU:HD11	3:J:800:LEU:HD11	2.03	0.40
2:I:1273:MET:HG3	7:5:14:DC:H4'	2.03	0.40
3:D:483:LEU:N	3:D:483:LEU:HD23	2.36	0.40
2:C:927:THR:O	2:C:1055:ALA:HB3	2.21	0.40
1:M:56:VAL:HG13	1:M:144:ILE:HG22	2.03	0.40
2:I:798:GLN:HB2	2:I:828:PHE:CE1	2.55	0.40
2:C:1294:LYS:HE2	3:D:472:LEU:HD11	2.03	0.40
6:7:48:DA:C5'	6:7:48:DA:C8	3.05	0.40
6:7:48:DA:C5'	6:7:48:DA:H8	2.35	0.40
3:J:354:VAL:HG13	3:J:355:ILE:N	2.36	0.40
2:O:302:ILE:HB	2:O:308:GLU:O	2.22	0.40
2:C:616:ILE:CG1	2:C:652:TYR:HB2	2.50	0.40
3:D:582:ILE:HG23	3:D:623:GLN:HB3	2.03	0.40
1:N:74:VAL:CG1	1:N:131:CYS:SG	3.10	0.40
3:D:40:LYS:NZ	3:D:53:ARG:HE	2.19	0.40
5:F:551:LEU:HD21	5:F:598:LEU:HD21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:396:ALA:HA	3:D:399:LYS:HD2	2.02	0.40
3:P:1026:PRO:HA	3:P:1123:ARG:HA	2.03	0.40
2:I:702:THR:HG22	2:I:1184:THR:O	2.21	0.40
3:P:848:VAL:HG21	3:P:880:VAL:HG13	2.02	0.40
1:H:83:LEU:O	3:J:528:THR:HG21	2.21	0.40
2:O:99:LYS:HG3	2:O:121:GLU:HG3	2.03	0.40
2:C:366:ILE:HG22	2:C:384:LEU:CD2	2.52	0.40
2:C:1239:VAL:HG23	3:D:354:VAL:CG2	2.51	0.40
6:7:36:DT:H6	6:7:36:DT:H2'	1.71	0.40
3:D:847:ASP:N	3:D:847:ASP:OD1	2.55	0.40
2:I:668:ILE:HA	2:I:669:PRO:HD3	1.77	0.40
3:D:44:ILE:HD12	3:D:49:PHE:HA	2.03	0.40
3:D:701:LEU:HA	3:D:701:LEU:HD12	1.82	0.40
2:O:92:TYR:N	2:O:137:VAL:HB	2.31	0.40
2:O:32:LEU:HD23	2:O:130:MET:CE	2.51	0.40
2:C:558:VAL:O	2:C:560:PRO:CD	2.70	0.40
2:C:184:LEU:HG	2:C:389:PHE:CZ	2.57	0.40
3:J:701:LEU:HA	3:J:701:LEU:HD12	1.28	0.40
3:J:1273:ASP:C	3:J:1274:PHE:CG	2.95	0.40
2:C:725:GLN:OE1	2:C:735:LYS:HE3	2.22	0.40
3:P:975:ILE:HD12	3:P:997:VAL:HG11	2.03	0.40
7:8:4:DC:C4	7:8:5:DC:C4	3.10	0.40
3:P:155:GLU:HB3	3:P:156:ARG:H	1.67	0.40
2:C:670:PHE:HE1	2:C:1184:THR:HG1	1.63	0.40
1:N:61:ILE:HG13	1:N:171:LEU:HD11	2.03	0.40
3:P:1216:ALA:O	3:P:1220:ILE:HG13	2.21	0.40
3:J:514:THR:CB	3:J:595:ALA:HA	2.42	0.40
2:O:448:LEU:HD13	2:O:557:ARG:HD2	2.02	0.40
1:N:75:GLN:HE21	1:N:134:THR:HG22	1.85	0.40
2:I:775:GLU:HA	2:I:776:PRO:HD3	1.92	0.40
6:7:30:DG:C2	7:8:34:DG:N2	2.89	0.40
5:R:405:ILE:H	5:R:405:ILE:HG13	1.47	0.40
3:J:1154:ALA:HB1	3:J:1211:SER:HB2	2.03	0.40
3:D:648:GLU:HG3	3:D:700:ASN:ND2	2.36	0.40
3:J:747:MET:CE	3:J:775:SER:HA	2.51	0.40
3:P:999:TYR:HE2	3:P:1027:VAL:HA	1.86	0.40
5:R:399:LEU:HB3	5:R:400:GLN:H	1.48	0.40
2:I:851:THR:HG22	2:I:853:ASP:H	1.86	0.40
2:I:452:ARG:CZ	2:I:458:GLU:OE1	2.69	0.40
5:L:419:PHE:HA	5:L:430:TYR:HE2	1.86	0.40
2:C:253:PHE:CD2	2:C:253:PHE:N	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:429:THR:HG23	6:1:39:DA:C8	2.57	0.40
6:4:34:DG:H2"	6:4:35:DC:C6	2.56	0.40
3:P:1040:MET:HE3	3:P:1046:ILE:HG21	2.02	0.40
5:R:133:SER:HB3	5:R:365:MET:SD	2.61	0.40
2:C:367:TYR:HD1	2:C:384:LEU:HD22	1.87	0.40
3:J:503:SER:C	3:J:507:VAL:HG23	2.41	0.40
3:P:90:VAL:HG12	3:P:91:GLU:O	2.21	0.40
2:O:656:SER:O	2:O:659:GLN:HG2	2.21	0.40
5:F:426:LYS:HA	5:F:426:LYS:HD2	1.77	0.40
3:P:1320:ILE:H	3:P:1320:ILE:HG13	1.44	0.40
2:C:898:GLU:CD	2:C:898:GLU:H	2.24	0.40
2:I:18:ARG:HD3	2:I:18:ARG:HA	1.90	0.40
3:J:1169:THR:HG22	3:J:1169:THR:O	2.21	0.40
2:I:1323:PHE:HE2	3:J:1352:ILE:HG22	1.87	0.40
1:A:44:ARG:HA	1:A:183:ILE:CD1	2.41	0.40
1:A:48:LEU:HD21	1:A:180:VAL:O	2.21	0.40
3:J:450:HIS:HA	3:J:451:PRO:HD3	1.79	0.40
2:I:1233:LEU:HA	2:I:1233:LEU:HD23	1.81	0.40
3:P:423:LEU:HD11	3:P:437:PHE:CD1	2.56	0.40
6:7:43:DT:C6	6:7:43:DT:H3'	2.56	0.40
5:F:385:ARG:HB2	6:1:41:DT:H1'	2.03	0.40
2:I:804:PHE:C	2:I:1100:PRO:HG3	2.41	0.40
3:J:962:ASN:HD22	3:J:964:LYS:NZ	2.20	0.40
3:P:835:LEU:HD11	3:P:839:VAL:CG2	2.45	0.40
5:R:432:THR:O	5:R:436:ARG:HB2	2.22	0.40
1:A:142:MET:HB3	1:A:142:MET:HE2	1.54	0.40
2:O:170:VAL:HG23	3:P:1065:ALA:O	2.21	0.40
3:D:154:LEU:HD22	3:D:158:GLN:HG2	2.04	0.40
1:M:68:TYR:HB2	2:O:929:ILE:CD1	2.52	0.40
3:J:1319:PHE:CE2	3:J:1342:ASP:HB2	2.56	0.40
2:O:1232:MET:CE	2:O:1232:MET:HA	2.51	0.40
3:J:24:LEU:HG	3:J:232:ASN:ND2	2.36	0.40
3:P:481:ARG:O	3:P:485:MET:HB2	2.21	0.40
3:D:246:PRO:HA	3:D:247:PRO:HD3	1.88	0.40
2:I:550:VAL:O	3:J:777:HIS:HE1	2.02	0.40
1:A:190:ALA:N	1:A:199:ASP:HA	2.35	0.40
1:A:184:ALA:HB2	2:C:1091:GLY:HA3	2.02	0.40
3:P:1209:VAL:HG12	3:P:1211:SER:O	2.21	0.40
3:D:390:LEU:HG	3:D:390:LEU:H	1.64	0.40
3:D:1173:ARG:HG3	3:D:1196:LEU:HD11	2.03	0.40
3:J:1305:ASP:N	3:J:1305:ASP:OD1	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:800:MET:O	2:I:802:VAL:HG23	2.20	0.40
2:I:3:TYR:O	2:I:8:LYS:HE3	2.21	0.40

All (3) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1169:THR:OG1	6:1:16:DA:OP1[2_657]	1.85	0.35
3:D:710:ASP:OD2	3:J:1282:TYR:OH[2_547]	1.93	0.27
3:D:710:ASP:CA	3:J:1302:TYR:OH[2_547]	2.07	0.13

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	228/242 (94%)	214 (94%)	11 (5%)	3 (1%)	15 59
1	B	226/242 (93%)	204 (90%)	17 (8%)	5 (2%)	8 49
1	G	228/242 (94%)	209 (92%)	16 (7%)	3 (1%)	15 59
1	H	226/242 (93%)	207 (92%)	13 (6%)	6 (3%)	6 44
1	M	228/242 (94%)	214 (94%)	14 (6%)	0	100 100
1	N	226/242 (93%)	209 (92%)	14 (6%)	3 (1%)	15 59
2	C	1339/1342 (100%)	1218 (91%)	98 (7%)	23 (2%)	11 55
2	I	1339/1342 (100%)	1214 (91%)	105 (8%)	20 (2%)	13 57
2	O	1339/1342 (100%)	1234 (92%)	90 (7%)	15 (1%)	17 63
3	D	1360/1407 (97%)	1220 (90%)	109 (8%)	31 (2%)	8 48
3	J	1360/1407 (97%)	1227 (90%)	99 (7%)	34 (2%)	7 46
3	P	1360/1407 (97%)	1226 (90%)	99 (7%)	35 (3%)	7 45
4	E	88/90 (98%)	83 (94%)	5 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	K	88/90 (98%)	84 (96%)	3 (3%)	1 (1%)	17 63
4	Q	88/90 (98%)	84 (96%)	4 (4%)	0	100 100
5	F	493/628 (78%)	444 (90%)	27 (6%)	22 (4%)	3 33
5	L	493/628 (78%)	447 (91%)	28 (6%)	18 (4%)	4 38
5	R	493/628 (78%)	449 (91%)	30 (6%)	14 (3%)	6 44
All	All	11202/11853 (94%)	10187 (91%)	782 (7%)	233 (2%)	9 50

All (233) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	164	ASP
1	B	118	ASP
2	C	110	PRO
2	C	214	ASN
2	C	247	ARG
2	C	281	ASP
2	C	730	SER
2	C	791	LEU
2	C	812	PHE
2	C	1162	SER
3	D	53	ARG
3	D	174	ASP
3	D	519	ASN
3	D	590	SER
3	D	1200	GLU
3	D	1275	LEU
3	D	1309	ILE
5	F	243	ALA
5	F	296	LYS
5	F	325	PRO
5	F	330	LEU
5	F	396	ASN
5	F	446	GLN
5	F	515	GLU
5	F	519	LEU
5	F	553	ALA
5	F	581	ASP
1	G	210	THR
1	G	233	ASP
1	H	117	HIS

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Mol	Chain	Res	Type
1	H	158	ARG
1	H	159	ILE
2	I	481	LEU
2	I	625	GLU
2	I	791	LEU
2	I	1162	SER
3	J	53	ARG
3	J	321	LYS
3	J	519	ASN
3	J	590	SER
3	J	966	VAL
3	J	1024	THR
3	J	1201	GLY
3	J	1275	LEU
3	J	1297	LYS
3	J	1309	ILE
5	L	243	ALA
5	L	296	LYS
5	L	396	ASN
5	L	515	GLU
5	L	519	LEU
5	L	553	ALA
5	L	581	ASP
1	N	209	GLY
2	O	110	PRO
2	O	791	LEU
2	O	808	ASN
2	O	812	PHE
2	O	1162	SER
3	P	53	ARG
3	P	519	ASN
3	P	590	SER
3	P	828	GLY
3	P	1024	THR
3	P	1097	ALA
3	P	1200	GLU
3	P	1275	LEU
3	P	1309	ILE
5	R	154	GLU
5	R	243	ALA
5	R	296	LYS
5	R	396	ASN

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Mol	Chain	Res	Type
5	R	515	GLU
5	R	519	LEU
5	R	581	ASP
1	A	210	THR
1	B	119	GLY
1	B	191	ARG
2	C	165	HIS
2	C	314	ASN
2	C	546	GLU
2	C	643	SER
2	C	895	LEU
2	C	984	VAL
2	C	1005	GLU
3	D	321	LYS
3	D	404	GLU
3	D	769	VAL
3	D	947	GLU
3	D	1024	THR
3	D	1170	LYS
3	D	1268	ASN
5	F	154	GLU
5	F	310	GLU
1	G	93	GLN
1	H	118	ASP
2	I	40	GLU
2	I	113	THR
2	I	247	ARG
2	I	314	ASN
2	I	730	SER
2	I	908	GLU
3	J	520	ALA
3	J	948	SER
3	J	1053	LEU
3	J	1114	GLN
4	K	4	VAL
5	L	154	GLU
5	L	310	GLU
1	N	194	GLN
2	O	45	GLY
2	O	113	THR
2	O	314	ASN
2	O	730	SER

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Mol	Chain	Res	Type
3	P	174	ASP
3	P	321	LYS
3	P	404	GLU
3	P	542	ALA
3	P	719	PHE
3	P	1268	ASN
5	R	310	GLU
5	R	323	ASN
5	R	447	ALA
1	B	17	GLU
2	C	787	PRO
2	C	1135	GLN
3	D	962	ASN
3	D	1087	ASP
3	D	1097	ALA
3	D	1106	ILE
3	D	1114	GLN
3	D	1166	GLY
3	D	1325	PHE
5	F	166	VAL
1	H	164	ASP
2	I	165	HIS
2	I	341	LEU
2	I	643	SER
2	I	787	PRO
2	I	891	GLY
3	J	16	GLU
3	J	122	SER
3	J	731	ARG
3	J	953	LYS
3	J	1200	GLU
3	J	1268	ASN
5	L	166	VAL
5	L	238	LYS
5	L	400	GLN
5	L	478	PRO
2	O	281	ASP
2	O	787	PRO
3	P	16	GLU
3	P	122	SER
3	P	152	THR
3	P	353	SER

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Mol	Chain	Res	Type
3	P	1114	GLN
3	P	1201	GLY
3	P	1318	SER
3	P	1325	PHE
5	R	166	VAL
5	R	238	LYS
1	A	233	ASP
1	B	194	GLN
2	C	163	LYS
2	C	897	PRO
2	C	908	GLU
3	D	122	SER
3	D	333	GLY
3	D	1022	PRO
3	D	1297	LYS
5	F	324	LYS
5	F	476	ARG
2	I	110	PRO
2	I	246	LEU
3	J	174	ASP
3	J	376	LEU
3	J	404	GLU
3	J	854	ALA
3	J	1020	TRP
3	J	1097	ALA
3	J	1325	PHE
5	L	155	GLU
5	L	324	LYS
5	L	447	ALA
1	N	191	ARG
2	O	43	PRO
2	O	165	HIS
2	O	341	LEU
3	P	333	GLY
3	P	710	ASP
3	P	953	LYS
3	P	1117	SER
3	P	1185	PRO
5	R	155	GLU
2	C	246	LEU
2	C	669	PRO
2	C	913	VAL

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Mol	Chain	Res	Type
3	D	1100	PHE
5	F	144	LEU
5	F	447	ALA
2	I	214	ASN
3	J	943	ARG
3	J	1262	ARG
2	O	1187	PHE
3	P	77	ARG
3	P	420	PRO
3	P	731	ARG
3	P	769	VAL
3	D	828	GLY
3	D	854	ALA
3	D	1052	GLU
5	F	238	LYS
5	F	478	PRO
5	F	583	THR
2	I	993	PRO
3	J	542	ALA
3	J	1106	ILE
3	P	750	PRO
5	F	91	ILE
3	P	378	LYS
5	R	324	LYS
1	H	209	GLY
2	I	983	GLY
3	J	1166	GLY
3	J	1185	PRO
3	J	1287	ILE
5	L	504	PRO
3	D	749	LYS
3	D	1185	PRO
5	F	582	VAL
5	L	91	ILE
3	P	1106	ILE

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	198/208 (95%)	181 (91%)	17 (9%)	13 47
1	B	196/208 (94%)	172 (88%)	24 (12%)	6 31
1	G	198/208 (95%)	178 (90%)	20 (10%)	9 38
1	H	196/208 (94%)	174 (89%)	22 (11%)	7 34
1	M	198/208 (95%)	178 (90%)	20 (10%)	9 38
1	N	196/208 (94%)	176 (90%)	20 (10%)	9 38
2	C	1156/1157 (100%)	1042 (90%)	114 (10%)	10 39
2	I	1156/1157 (100%)	1052 (91%)	104 (9%)	12 44
2	O	1156/1157 (100%)	1050 (91%)	106 (9%)	11 43
3	D	1135/1168 (97%)	1026 (90%)	109 (10%)	10 41
3	J	1135/1168 (97%)	1014 (89%)	121 (11%)	8 36
3	P	1135/1168 (97%)	1017 (90%)	118 (10%)	9 37
4	E	74/74 (100%)	70 (95%)	4 (5%)	27 64
4	K	74/74 (100%)	67 (90%)	7 (10%)	11 41
4	Q	74/74 (100%)	66 (89%)	8 (11%)	8 36
5	F	439/554 (79%)	406 (92%)	33 (8%)	17 54
5	L	439/554 (79%)	394 (90%)	45 (10%)	9 37
5	R	439/554 (79%)	393 (90%)	46 (10%)	8 37
All	All	9594/10107 (95%)	8656 (90%)	938 (10%)	10 40

All (938) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	28	LEU
1	A	33	ARG
1	A	48	LEU
1	A	90	VAL
1	A	100	LEU
1	A	123	ILE
1	A	127	GLN
1	A	131	CYS
1	A	140	ILE
1	A	171	LEU
1	A	174	ASP
1	A	180	VAL

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Mol	Chain	Res	Type
1	A	183	ILE
1	A	186	ASN
1	A	208	ASN
1	A	223	ILE
1	A	228	LEU
1	B	12	ARG
1	B	13	LEU
1	B	28	LEU
1	B	29	GLU
1	B	43	LEU
1	B	79	LEU
1	B	88	LEU
1	B	90	VAL
1	B	111	THR
1	B	122	GLU
1	B	127	GLN
1	B	133	LEU
1	B	140	ILE
1	B	142	MET
1	B	150	ARG
1	B	170	ARG
1	B	171	LEU
1	B	172	LEU
1	B	192	VAL
1	B	195	ARG
1	B	196	THR
1	B	198	LEU
1	B	217	ILE
1	B	224	LEU
2	C	6	THR
2	C	32	LEU
2	C	46	GLN
2	C	70	TYR
2	C	75	LEU
2	C	113	THR
2	C	114	VAL
2	C	117	ILE
2	C	119	GLU
2	C	127	ILE
2	C	147	SER
2	C	152	SER
2	C	155	VAL

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Mol	Chain	Res	Type
2	C	182	SER
2	C	202	ARG
2	C	232	ILE
2	C	240	GLU
2	C	269	ILE
2	C	275	ARG
2	C	290	GLU
2	C	297	VAL
2	C	300	ASP
2	C	319	LEU
2	C	320	ASP
2	C	332	ARG
2	C	358	ASP
2	C	369	MET
2	C	383	SER
2	C	384	LEU
2	C	388	LEU
2	C	391	SER
2	C	425	ILE
2	C	432	LEU
2	C	443	ASP
2	C	446	ASP
2	C	455	SER
2	C	459	MET
2	C	472	GLU
2	C	484	LEU
2	C	493	ILE
2	C	499	SER
2	C	521	LEU
2	C	523	GLU
2	C	529	ARG
2	C	541	GLU
2	C	558	VAL
2	C	561	ILE
2	C	563	THR
2	C	565	GLU
2	C	576	SER
2	C	583	GLU
2	C	596	ASP
2	C	601	ASP
2	C	603	ILE
2	C	641	GLU

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Mol	Chain	Res	Type
2	C	662	SER
2	C	663	VAL
2	C	690	VAL
2	C	692	THR
2	C	697	LYS
2	C	734	ILE
2	C	740	GLU
2	C	766	ASN
2	C	772	SER
2	C	775	GLU
2	C	777	VAL
2	C	788	SER
2	C	790	ASP
2	C	791	LEU
2	C	799	ASN
2	C	800	MET
2	C	808	ASN
2	C	814	ASP
2	C	815	SER
2	C	822	VAL
2	C	831	ILE
2	C	850	ILE
2	C	856	ASN
2	C	859	GLU
2	C	863	SER
2	C	864	LYS
2	C	868	SER
2	C	893	THR
2	C	896	THR
2	C	929	ILE
2	C	943	LYS
2	C	960	LEU
2	C	1002	LEU
2	C	1009	ASN
2	C	1025	PHE
2	C	1040	ASP
2	C	1049	ILE
2	C	1075	VAL
2	C	1088	ASP
2	C	1089	GLU
2	C	1092	THR
2	C	1098	LEU

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Mol	Chain	Res	Type
2	C	1105	SER
2	C	1115	THR
2	C	1128	ILE
2	C	1167	GLU
2	C	1170	MET
2	C	1178	LYS
2	C	1182	ILE
2	C	1203	ASP
2	C	1212	LEU
2	C	1222	GLU
2	C	1223	ARG
2	C	1235	LEU
2	C	1252	SER
2	C	1286	THR
2	C	1296	ASP
2	C	1304	MET
2	C	1341	ASP
3	D	15	GLU
3	D	58	CYS
3	D	76	LYS
3	D	78	LEU
3	D	84	ILE
3	D	93	THR
3	D	102	MET
3	D	114	ILE
3	D	115	TRP
3	D	127	LEU
3	D	131	PRO
3	D	133	ARG
3	D	134	ASP
3	D	153	ASN
3	D	159	ILE
3	D	185	ILE
3	D	192	MET
3	D	195	GLU
3	D	208	THR
3	D	212	THR
3	D	238	ILE
3	D	253	VAL
3	D	255	LEU
3	D	330	MET
3	D	374	LEU

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Mol	Chain	Res	Type
3	D	387	LEU
3	D	395	LYS
3	D	410	ASP
3	D	429	LEU
3	D	443	GLU
3	D	492	SER
3	D	495	ASN
3	D	503	SER
3	D	534	GLU
3	D	538	ARG
3	D	539	SER
3	D	541	LEU
3	D	563	LEU
3	D	571	ASP
3	D	573	THR
3	D	601	ILE
3	D	607	THR
3	D	608	CYS
3	D	614	LEU
3	D	624	ILE
3	D	634	ARG
3	D	641	ILE
3	D	642	ASP
3	D	644	MET
3	D	674	THR
3	D	683	ILE
3	D	705	THR
3	D	717	VAL
3	D	721	SER
3	D	736	GLN
3	D	740	LEU
3	D	747	MET
3	D	753	SER
3	D	764	ARG
3	D	776	THR
3	D	786	THR
3	D	796	LEU
3	D	807	LEU
3	D	808	VAL
3	D	810	THR
3	D	812	ASP
3	D	814	CYS

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Mol	Chain	Res	Type
3	D	825	VAL
3	D	830	ASP
3	D	847	ASP
3	D	849	LEU
3	D	891	ASP
3	D	895	CYS
3	D	910	ASN
3	D	911	LYS
3	D	918	ILE
3	D	928	THR
3	D	934	THR
3	D	936	HIS
3	D	937	ILE
3	D	947	GLU
3	D	948	SER
3	D	986	ASP
3	D	994	SER
3	D	1021	ASP
3	D	1024	THR
3	D	1031	VAL
3	D	1051	ASP
3	D	1086	ASN
3	D	1088	VAL
3	D	1119	ASP
3	D	1155	ILE
3	D	1164	SER
3	D	1170	LYS
3	D	1184	ASP
3	D	1206	ARG
3	D	1208	ASP
3	D	1221	LEU
3	D	1226	VAL
3	D	1230	THR
3	D	1231	ARG
3	D	1250	ASP
3	D	1285	VAL
3	D	1307	LEU
3	D	1318	SER
3	D	1320	ILE
3	D	1321	SER
3	D	1333	THR
3	D	1357	ILE

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Mol	Chain	Res	Type
4	E	16	ARG
4	E	28	ARG
4	E	36	ASP
4	E	62	GLN
5	F	91	ILE
5	F	93	ARG
5	F	100	MET
5	F	105	MET
5	F	109	GLU
5	F	110	LEU
5	F	132	CYS
5	F	230	VAL
5	F	286	LEU
5	F	294	GLN
5	F	309	ASN
5	F	330	LEU
5	F	332	ASP
5	F	333	VAL
5	F	334	SER
5	F	349	GLU
5	F	356	GLU
5	F	373	ARG
5	F	404	LEU
5	F	417	ASP
5	F	449	THR
5	F	451	ARG
5	F	461	ASN
5	F	476	ARG
5	F	487	MET
5	F	523	ILE
5	F	532	LEU
5	F	554	ARG
5	F	570	ASP
5	F	584	ARG
5	F	602	SER
5	F	603	ARG
5	F	608	ARG
1	G	6	THR
1	G	16	ILE
1	G	28	LEU
1	G	33	ARG
1	G	38	THR

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Mol	Chain	Res	Type
1	G	91	ARG
1	G	121	VAL
1	G	127	GLN
1	G	131	CYS
1	G	170	ARG
1	G	192	VAL
1	G	199	ASP
1	G	202	VAL
1	G	203	ILE
1	G	205	MET
1	G	208	ASN
1	G	224	LEU
1	G	228	LEU
1	G	232	VAL
1	G	233	ASP
1	H	9	LEU
1	H	12	ARG
1	H	16	ILE
1	H	28	LEU
1	H	98	VAL
1	H	111	THR
1	H	130	ILE
1	H	143	ARG
1	H	150	ARG
1	H	157	THR
1	H	165	GLU
1	H	170	ARG
1	H	173	VAL
1	H	174	ASP
1	H	192	VAL
1	H	195	ARG
1	H	196	THR
1	H	212	ASP
1	H	217	ILE
1	H	224	LEU
1	H	226	GLU
1	H	233	ASP
2	I	39	ILE
2	I	46	GLN
2	I	70	TYR
2	I	91	THR
2	I	113	THR

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Mol	Chain	Res	Type
2	I	147	SER
2	I	152	SER
2	I	155	VAL
2	I	167	SER
2	I	188	PHE
2	I	199	ASP
2	I	218	GLU
2	I	222	ASP
2	I	235	ASN
2	I	255	ILE
2	I	272	ARG
2	I	275	ARG
2	I	280	ASP
2	I	281	ASP
2	I	292	ILE
2	I	296	VAL
2	I	414	ILE
2	I	417	SER
2	I	422	LYS
2	I	423	ASP
2	I	442	VAL
2	I	443	ASP
2	I	444	ASP
2	I	446	ASP
2	I	448	LEU
2	I	453	ILE
2	I	459	MET
2	I	480	SER
2	I	490	GLN
2	I	504	GLU
2	I	533	LEU
2	I	545	PHE
2	I	547	VAL
2	I	551	HIS
2	I	563	THR
2	I	565	GLU
2	I	576	SER
2	I	596	ASP
2	I	600	THR
2	I	609	ILE
2	I	618	GLN
2	I	624	ASP

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Mol	Chain	Res	Type
2	I	631	GLU
2	I	642	SER
2	I	662	SER
2	I	692	THR
2	I	714	VAL
2	I	732	ILE
2	I	740	GLU
2	I	750	ILE
2	I	759	SER
2	I	764	CYS
2	I	766	ASN
2	I	772	SER
2	I	779	ARG
2	I	788	SER
2	I	799	ASN
2	I	800	MET
2	I	815	SER
2	I	831	ILE
2	I	843	THR
2	I	854	ILE
2	I	863	SER
2	I	901	LEU
2	I	916	SER
2	I	929	ILE
2	I	931	VAL
2	I	946	LEU
2	I	953	LEU
2	I	973	SER
2	I	974	ARG
2	I	1000	LEU
2	I	1040	ASP
2	I	1053	TYR
2	I	1059	ARG
2	I	1072	ASN
2	I	1085	MET
2	I	1090	ASN
2	I	1092	THR
2	I	1098	LEU
2	I	1108	ASN
2	I	1115	THR
2	I	1150	ASP
2	I	1164	PHE

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Mol	Chain	Res	Type
2	I	1210	ILE
2	I	1223	ARG
2	I	1226	THR
2	I	1253	LEU
2	I	1255	THR
2	I	1265	PHE
2	I	1273	MET
2	I	1286	THR
2	I	1287	LEU
2	I	1292	THR
2	I	1296	ASP
2	I	1299	ASN
2	I	1304	MET
2	I	1332	SER
2	I	1339	LEU
3	J	18	ASP
3	J	52	GLU
3	J	58	CYS
3	J	66	LYS
3	J	67	ASP
3	J	76	LYS
3	J	78	LEU
3	J	88	CYS
3	J	93	THR
3	J	107	LEU
3	J	114	ILE
3	J	124	ILE
3	J	126	LEU
3	J	130	MET
3	J	135	ILE
3	J	145	VAL
3	J	153	ASN
3	J	159	ILE
3	J	162	GLU
3	J	180	MET
3	J	192	MET
3	J	208	THR
3	J	223	LEU
3	J	227	PHE
3	J	252	LEU
3	J	256	ASP
3	J	262	THR

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Mol	Chain	Res	Type
3	J	319	SER
3	J	320	ASN
3	J	321	LYS
3	J	331	ILE
3	J	340	GLN
3	J	343	LEU
3	J	360	TYR
3	J	394	ILE
3	J	398	LYS
3	J	423	LEU
3	J	429	LEU
3	J	447	ILE
3	J	453	VAL
3	J	470	VAL
3	J	485	MET
3	J	492	SER
3	J	503	SER
3	J	515	ARG
3	J	521	LYS
3	J	525	MET
3	J	569	LEU
3	J	601	ILE
3	J	607	THR
3	J	619	ILE
3	J	641	ILE
3	J	643	ASP
3	J	652	GLU
3	J	701	LEU
3	J	713	GLU
3	J	715	LYS
3	J	717	VAL
3	J	718	SER
3	J	721	SER
3	J	722	ILE
3	J	736	GLN
3	J	753	SER
3	J	755	ILE
3	J	785	ASP
3	J	786	THR
3	J	796	LEU
3	J	797	THR
3	J	805	GLN

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Mol	Chain	Res	Type
3	J	806	ASP
3	J	812	ASP
3	J	814	CYS
3	J	825	VAL
3	J	835	LEU
3	J	836	ARG
3	J	855	ASP
3	J	872	LEU
3	J	880	VAL
3	J	882	VAL
3	J	886	VAL
3	J	891	ASP
3	J	895	CYS
3	J	908	ILE
3	J	922	SER
3	J	928	THR
3	J	934	THR
3	J	942	SER
3	J	948	SER
3	J	962	ASN
3	J	992	LYS
3	J	1011	VAL
3	J	1024	THR
3	J	1041	ILE
3	J	1047	THR
3	J	1134	ILE
3	J	1138	LEU
3	J	1167	LYS
3	J	1175	LEU
3	J	1177	ILE
3	J	1180	VAL
3	J	1184	ASP
3	J	1196	LEU
3	J	1203	ARG
3	J	1211	SER
3	J	1219	ASP
3	J	1230	THR
3	J	1246	VAL
3	J	1250	ASP
3	J	1251	LYS
3	J	1256	ILE
3	J	1258	ARG

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Mol	Chain	Res	Type
3	J	1261	LEU
3	J	1265	THR
3	J	1267	VAL
3	J	1271	SER
3	J	1287	ILE
3	J	1301	THR
3	J	1318	SER
3	J	1357	ILE
3	J	1361	THR
3	J	1371	ARG
4	K	4	VAL
4	K	6	VAL
4	K	13	ILE
4	K	21	LEU
4	K	35	LYS
4	K	65	ASP
4	K	66	VAL
5	L	93	ARG
5	L	95	THR
5	L	105	MET
5	L	109	GLU
5	L	110	LEU
5	L	219	GLU
5	L	229	VAL
5	L	230	VAL
5	L	240	ARG
5	L	261	LEU
5	L	288	MET
5	L	294	GLN
5	L	300	LYS
5	L	306	PHE
5	L	309	ASN
5	L	322	MET
5	L	334	SER
5	L	374	ARG
5	L	387	VAL
5	L	400	GLN
5	L	402	LEU
5	L	418	LYS
5	L	440	THR
5	L	441	ARG
5	L	445	ASP

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Mol	Chain	Res	Type
5	L	449	THR
5	L	450	ILE
5	L	459	THR
5	L	461	ASN
5	L	472	GLN
5	L	492	ASP
5	L	496	LYS
5	L	515	GLU
5	L	517	SER
5	L	523	ILE
5	L	532	LEU
5	L	533	ASP
5	L	539	SER
5	L	548	LEU
5	L	565	ILE
5	L	569	THR
5	L	600	HIS
5	L	604	SER
5	L	607	LEU
5	L	608	ARG
1	M	6	THR
1	M	10	LYS
1	M	16	ILE
1	M	28	LEU
1	M	33	ARG
1	M	77	ASP
1	M	79	LEU
1	M	90	VAL
1	M	118	ASP
1	M	127	GLN
1	M	131	CYS
1	M	150	ARG
1	M	158	ARG
1	M	159	ILE
1	M	171	LEU
1	M	187	VAL
1	M	196	THR
1	M	197	ASP
1	M	208	ASN
1	M	224	LEU
1	N	7	GLU
1	N	19	VAL

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Mol	Chain	Res	Type
1	N	26	VAL
1	N	28	LEU
1	N	74	VAL
1	N	82	LEU
1	N	90	VAL
1	N	111	THR
1	N	131	CYS
1	N	144	ILE
1	N	150	ARG
1	N	170	ARG
1	N	171	LEU
1	N	176	CYS
1	N	181	GLU
1	N	187	VAL
1	N	192	VAL
1	N	229	GLU
1	N	231	PHE
1	N	233	ASP
2	O	21	VAL
2	O	44	GLU
2	O	75	LEU
2	O	113	THR
2	O	124	MET
2	O	147	SER
2	O	152	SER
2	O	155	VAL
2	O	182	SER
2	O	218	GLU
2	O	229	ILE
2	O	240	GLU
2	O	253	PHE
2	O	261	VAL
2	O	272	ARG
2	O	287	VAL
2	O	296	VAL
2	O	306	THR
2	O	319	LEU
2	O	340	ASP
2	O	357	ASN
2	O	369	MET
2	O	383	SER
2	O	390	PHE

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Mol	Chain	Res	Type
2	O	403	MET
2	O	404	LYS
2	O	410	LEU
2	O	413	GLU
2	O	422	LYS
2	O	428	VAL
2	O	432	LEU
2	O	433	ILE
2	O	446	ASP
2	O	459	MET
2	O	484	LEU
2	O	485	ASP
2	O	490	GLN
2	O	499	SER
2	O	521	LEU
2	O	541	GLU
2	O	558	VAL
2	O	561	ILE
2	O	563	THR
2	O	576	SER
2	O	589	THR
2	O	609	ILE
2	O	633	LEU
2	O	637	ARG
2	O	656	SER
2	O	662	SER
2	O	692	THR
2	O	699	LEU
2	O	700	VAL
2	O	714	VAL
2	O	750	ILE
2	O	759	SER
2	O	764	CYS
2	O	766	ASN
2	O	777	VAL
2	O	788	SER
2	O	791	LEU
2	O	799	ASN
2	O	805	MET
2	O	815	SER
2	O	831	ILE
2	O	842	ASP

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Mol	Chain	Res	Type
2	O	845	LEU
2	O	863	SER
2	O	873	ILE
2	O	893	THR
2	O	901	LEU
2	O	912	ASP
2	O	916	SER
2	O	922	ASN
2	O	933	VAL
2	O	935	THR
2	O	941	LYS
2	O	942	ASP
2	O	946	LEU
2	O	1002	LEU
2	O	1041	ASP
2	O	1085	MET
2	O	1092	THR
2	O	1094	VAL
2	O	1098	LEU
2	O	1105	SER
2	O	1113	LEU
2	O	1134	GLN
2	O	1166	ASP
2	O	1178	LYS
2	O	1212	LEU
2	O	1223	ARG
2	O	1227	VAL
2	O	1240	ASP
2	O	1246	ARG
2	O	1254	VAL
2	O	1255	THR
2	O	1262	LYS
2	O	1265	PHE
2	O	1293	VAL
2	O	1296	ASP
2	O	1299	ASN
2	O	1302	THR
2	O	1304	MET
2	O	1305	TYR
2	O	1319	MET
3	P	28	ASP
3	P	29	MET

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Mol	Chain	Res	Type
3	P	32	SER
3	P	58	CYS
3	P	78	LEU
3	P	93	THR
3	P	123	ARG
3	P	124	ILE
3	P	148	GLU
3	P	154	LEU
3	P	167	ASP
3	P	169	LEU
3	P	180	MET
3	P	194	LEU
3	P	195	GLU
3	P	208	THR
3	P	227	PHE
3	P	289	ASP
3	P	294	ASN
3	P	299	LEU
3	P	306	LEU
3	P	314	ARG
3	P	331	ILE
3	P	334	LYS
3	P	356	THR
3	P	357	VAL
3	P	368	LEU
3	P	371	LYS
3	P	372	MET
3	P	394	ILE
3	P	423	LEU
3	P	429	LEU
3	P	431	ARG
3	P	442	ILE
3	P	447	ILE
3	P	449	LEU
3	P	453	VAL
3	P	478	LEU
3	P	492	SER
3	P	499	ILE
3	P	503	SER
3	P	519	ASN
3	P	526	VAL
3	P	539	SER

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Mol	Chain	Res	Type
3	P	563	LEU
3	P	568	SER
3	P	581	MET
3	P	590	SER
3	P	607	THR
3	P	617	THR
3	P	622	ASP
3	P	642	ASP
3	P	648	GLU
3	P	649	LYS
3	P	669	GLN
3	P	690	ASN
3	P	707	ILE
3	P	716	GLN
3	P	721	SER
3	P	746	LEU
3	P	747	MET
3	P	753	SER
3	P	759	ILE
3	P	768	ASN
3	P	769	VAL
3	P	770	LEU
3	P	774	ILE
3	P	785	ASP
3	P	796	LEU
3	P	805	GLN
3	P	825	VAL
3	P	830	ASP
3	P	839	VAL
3	P	840	LEU
3	P	869	CYS
3	P	872	LEU
3	P	882	VAL
3	P	885	VAL
3	P	895	CYS
3	P	908	ILE
3	P	913	GLU
3	P	948	SER
3	P	958	ILE
3	P	994	SER
3	P	1052	GLU
3	P	1131	THR

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Mol	Chain	Res	Type
3	P	1134	ILE
3	P	1138	LEU
3	P	1163	VAL
3	P	1167	LYS
3	P	1183	SER
3	P	1184	ASP
3	P	1189	MET
3	P	1204	VAL
3	P	1221	LEU
3	P	1226	VAL
3	P	1230	THR
3	P	1231	ARG
3	P	1233	ILE
3	P	1236	GLU
3	P	1250	ASP
3	P	1256	ILE
3	P	1262	ARG
3	P	1265	THR
3	P	1267	VAL
3	P	1271	SER
3	P	1272	SER
3	P	1284	ARG
3	P	1307	LEU
3	P	1318	SER
3	P	1320	ILE
3	P	1321	SER
3	P	1333	THR
3	P	1345	ARG
3	P	1347	LEU
3	P	1353	VAL
3	P	1356	LEU
3	P	1361	THR
4	Q	4	VAL
4	Q	8	ASP
4	Q	19	LEU
4	Q	31	GLN
4	Q	36	ASP
4	Q	44	ASP
4	Q	65	ASP
4	Q	67	ARG
5	R	85	SER
5	R	89	SER

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Mol	Chain	Res	Type
5	R	95	THR
5	R	105	MET
5	R	109	GLU
5	R	110	LEU
5	R	132	CYS
5	R	229	VAL
5	R	230	VAL
5	R	264	LYS
5	R	322	MET
5	R	330	LEU
5	R	333	VAL
5	R	334	SER
5	R	365	MET
5	R	374	ARG
5	R	386	LEU
5	R	387	VAL
5	R	388	ILE
5	R	399	LEU
5	R	400	GLN
5	R	404	LEU
5	R	428	SER
5	R	451	ARG
5	R	455	HIS
5	R	459	THR
5	R	461	ASN
5	R	479	THR
5	R	483	LEU
5	R	487	MET
5	R	491	GLU
5	R	492	ASP
5	R	494	ILE
5	R	511	ILE
5	R	513	ASP
5	R	515	GLU
5	R	517	SER
5	R	526	THR
5	R	533	ASP
5	R	541	ARG
5	R	568	ASN
5	R	587	ILE
5	R	600	HIS
5	R	603	ARG

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Mol	Chain	Res	Type
5	R	609	SER
5	R	613	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (148) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	41	ASN
1	A	75	GLN
1	A	132	HIS
1	A	147	GLN
1	A	208	ASN
1	A	227	GLN
1	B	66	HIS
1	B	194	GLN
2	C	46	GLN
2	C	150	HIS
2	C	214	ASN
2	C	447	HIS
2	C	517	GLN
2	C	573	ASN
2	C	658	GLN
2	C	659	GLN
2	C	766	ASN
2	C	808	ASN
2	C	1116	HIS
2	C	1175	ASN
2	C	1257	GLN
2	C	1313	HIS
3	D	157	GLN
3	D	200	GLN
3	D	274	ASN
3	D	364	HIS
3	D	450	HIS
3	D	489	ASN
3	D	504	GLN
3	D	690	ASN
3	D	700	ASN
3	D	720	ASN
3	D	736	GLN
3	D	777	HIS
3	D	929	GLN
3	D	1019	ASN

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Mol	Chain	Res	Type
3	D	1049	GLN
3	D	1098	GLN
3	D	1114	GLN
3	D	1259	GLN
3	D	1289	ASN
3	D	1326	GLN
4	E	43	ASN
4	E	73	GLN
5	F	169	ASN
5	F	242	HIS
5	F	271	ASN
5	F	472	GLN
1	G	66	HIS
1	G	84	ASN
1	G	147	GLN
1	H	132	HIS
1	H	147	GLN
1	H	194	GLN
2	I	150	HIS
2	I	513	GLN
2	I	554	HIS
2	I	573	ASN
2	I	684	ASN
2	I	1061	GLN
2	I	1116	HIS
2	I	1220	GLN
2	I	1268	GLN
3	J	309	ASN
3	J	341	ASN
3	J	364	HIS
3	J	419	HIS
3	J	450	HIS
3	J	465	GLN
3	J	477	GLN
3	J	489	ASN
3	J	545	HIS
3	J	594	GLN
3	J	665	GLN
3	J	690	ASN
3	J	700	ASN
3	J	720	ASN
3	J	736	GLN

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Mol	Chain	Res	Type
3	J	777	HIS
3	J	865	HIS
3	J	875	ASN
3	J	962	ASN
3	J	979	ASN
3	J	1098	GLN
3	J	1114	GLN
3	J	1218	HIS
3	J	1326	GLN
3	J	1350	ASN
4	K	43	ASN
4	K	60	ASN
4	K	70	GLN
5	L	210	ASN
5	L	258	GLN
5	L	406	GLN
5	L	472	GLN
5	L	568	ASN
1	M	41	ASN
1	M	66	HIS
1	M	75	GLN
1	M	147	GLN
1	M	208	ASN
1	N	18	GLN
1	N	75	GLN
1	N	208	ASN
2	O	46	GLN
2	O	150	HIS
2	O	314	ASN
2	O	343	HIS
2	O	447	HIS
2	O	494	ASN
2	O	513	GLN
2	O	658	GLN
2	O	766	ASN
2	O	798	GLN
2	O	1313	HIS
3	P	113	HIS
3	P	153	ASN
3	P	157	GLN
3	P	232	ASN
3	P	294	ASN

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Mol	Chain	Res	Type
3	P	309	ASN
3	P	341	ASN
3	P	419	HIS
3	P	450	HIS
3	P	458	ASN
3	P	465	GLN
3	P	593	ASN
3	P	665	GLN
3	P	690	ASN
3	P	716	GLN
3	P	736	GLN
3	P	936	HIS
3	P	1019	ASN
3	P	1023	HIS
3	P	1098	GLN
3	P	1114	GLN
3	P	1259	GLN
3	P	1279	GLN
3	P	1289	ASN
3	P	1295	ASN
3	P	1326	GLN
4	Q	43	ASN
5	R	129	GLN
5	R	383	ASN
5	R	455	HIS
5	R	464	ASN
5	R	472	GLN
5	R	518	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
8	3	2/4 (50%)	1 (50%)	0
8	6	3/4 (75%)	1 (33%)	1 (33%)
8	9	3/4 (75%)	1 (33%)	1 (33%)
All	All	8/12 (66%)	3 (37%)	2 (25%)

All (3) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
8	3	15	G

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Mol	Chain	Res	Type
8	6	15	G
8	9	15	G

All (2) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
8	6	13	GTP
8	9	13	GTP

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 carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 9 ligands modelled in this entry, 9 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)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
7	2	3
6	4	3
7	5	3
7	8	1
6	7	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4	45:DT	O3'	46:DG	P	5.04
1	7	50:DT	O3'	51:DC	P	4.24
1	8	22:DA	O3'	23:DT	P	3.80
1	2	22:DA	O3'	23:DT	P	3.79
1	5	22:DA	O3'	23:DT	P	3.79
1	4	50:DT	O3'	51:DC	P	3.32
1	2	51:DG	O3'	52:DT	P	2.84
1	4	36:DT	O3'	37:DA	P	2.77
1	2	12:DG	O3'	13:DA	P	2.74
1	5	12:DG	O3'	13:DA	P	2.72
1	5	51:DG	O3'	52:DT	P	2.37

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	230/242 (95%)	-0.10	3 (1%) 79 73	153, 175, 210, 235	0
1	B	228/242 (94%)	-0.14	5 (2%) 65 60	162, 194, 217, 238	0
1	G	230/242 (95%)	0.09	7 (3%) 54 47	157, 185, 217, 248	0
1	H	228/242 (94%)	-0.10	3 (1%) 79 73	160, 191, 229, 261	0
1	M	230/242 (95%)	0.10	4 (1%) 73 67	166, 200, 233, 252	0
1	N	228/242 (94%)	0.31	14 (6%) 25 23	186, 233, 258, 273	0
2	C	1341/1342 (99%)	-0.06	15 (1%) 82 78	119, 186, 244, 277	0
2	I	1341/1342 (99%)	-0.06	29 (2%) 65 60	130, 195, 278, 377	0
2	O	1341/1342 (99%)	-0.06	15 (1%) 82 78	144, 183, 235, 270	0
3	D	1362/1407 (96%)	0.22	102 (7%) 17 19	128, 214, 296, 349	0
3	J	1362/1407 (96%)	0.13	65 (4%) 34 31	132, 194, 280, 314	0
3	P	1362/1407 (96%)	0.35	129 (9%) 10 13	148, 208, 292, 330	0
4	E	90/90 (100%)	1.21	28 (31%) 1 4	169, 206, 407, 461	0
4	K	90/90 (100%)	0.48	12 (13%) 4 8	144, 199, 394, 442	0
4	Q	90/90 (100%)	0.74	13 (14%) 3 7	167, 222, 416, 460	0
5	F	497/628 (79%)	0.44	66 (13%) 4 8	182, 294, 404, 418	0
5	L	497/628 (79%)	0.38	59 (11%) 6 10	169, 262, 400, 406	0
5	R	497/628 (79%)	0.31	50 (10%) 9 12	172, 259, 413, 444	0
6	1	49/49 (100%)	0.58	5 (10%) 9 12	201, 272, 311, 317	0
6	4	49/49 (100%)	0.38	5 (10%) 9 12	209, 264, 308, 350	0
6	7	49/49 (100%)	0.44	2 (4%) 41 37	211, 255, 278, 300	0
7	2	49/49 (100%)	0.44	2 (4%) 41 37	215, 278, 312, 343	0
7	5	49/49 (100%)	0.63	5 (10%) 9 12	198, 270, 339, 341	0
7	8	49/49 (100%)	0.44	0 100 100	195, 260, 296, 335	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
8	3	3/4 (75%)	0.67	0	100	100	255, 255, 281, 321	0
8	6	3/4 (75%)	0.50	0	100	100	263, 263, 272, 282	0
8	9	3/4 (75%)	0.89	0	100	100	262, 262, 277, 295	0
All	All	11547/12159 (94%)	0.14	638 (5%)	29	28	119, 203, 358, 461	0

All (638) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
5	L	210	ASN	8.9
3	P	1068	THR	8.9
3	P	1006	GLY	8.5
5	L	211	SER	8.3
3	D	961	SER	7.1
5	F	318	ALA	6.9
3	D	960	LEU	6.5
3	D	997	VAL	6.3
3	D	949	SER	6.3
5	F	160	ASP	6.2
3	P	1071	GLY	6.2
3	P	713	GLU	6.0
3	D	1012	ALA	5.9
5	F	321	ALA	5.9
4	E	84	THR	5.9
5	F	319	ALA	5.8
3	P	1012	ALA	5.8
3	P	1072	LYS	5.8
3	P	1005	LYS	5.7
3	P	949	SER	5.7
3	J	997	VAL	5.6
3	D	950	ILE	5.5
3	D	848	VAL	5.4
4	E	83	VAL	5.4
4	E	78	ALA	5.4
5	F	317	ASN	5.4
3	P	958	ILE	5.3
3	P	1108	GLN	5.3
6	1	20	DC	5.3
3	P	853	THR	5.3
3	J	949	SER	5.2
3	P	1086	ASN	5.2
5	F	335	GLU	5.2

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Mol	Chain	Res	Type	RSRZ
3	J	946	ALA	5.1
4	E	87	ALA	5.1
3	D	1048	ARG	5.1
5	F	326	TRP	5.1
3	D	1015	GLU	5.1
3	D	959	LYS	5.1
5	R	154	GLU	5.1
3	J	948	SER	5.0
3	P	149	GLY	5.0
3	J	1053	LEU	5.0
3	J	714	GLU	4.9
5	R	135	ALA	4.9
5	L	329	LYS	4.9
5	F	334	SER	4.9
3	P	1129	GLY	4.9
4	E	88	GLU	4.8
5	R	164	GLY	4.7
4	E	86	ILE	4.7
3	D	951	GLN	4.7
3	P	971	GLY	4.7
5	L	289	LYS	4.7
3	J	950	ILE	4.6
3	J	1203	ARG	4.6
5	F	79	ALA	4.6
5	F	159	SER	4.6
5	R	244	THR	4.6
3	D	1038	THR	4.6
3	D	1200	GLU	4.6
5	R	242	HIS	4.5
4	E	77	ALA	4.5
5	F	234	THR	4.5
5	L	219	GLU	4.5
5	F	239	GLY	4.4
3	D	998	PRO	4.4
5	R	169	ASN	4.4
3	P	854	ALA	4.4
3	P	1109	LEU	4.3
5	L	299	LYS	4.3
3	D	1016	THR	4.3
2	I	317	LEU	4.3
3	J	1114	GLN	4.3
4	E	74	GLU	4.3

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Mol	Chain	Res	Type	RSRZ
5	L	327	SER	4.3
3	P	972	LYS	4.3
3	P	942	SER	4.2
3	P	1063	ASP	4.2
5	F	80	ALA	4.2
3	D	154	LEU	4.2
3	D	1013	GLY	4.2
3	P	997	VAL	4.2
5	L	317	ASN	4.1
5	F	157	ARG	4.1
3	P	1013	GLY	4.1
3	P	992	LYS	4.1
5	L	155	GLU	4.1
5	L	218	ARG	4.1
4	E	85	ALA	4.1
3	P	1121	LEU	4.1
5	L	212	ILE	4.1
5	R	170	ALA	4.1
5	F	398	GLY	4.1
3	D	987	GLU	4.0
3	P	1130	GLY	4.0
4	E	76	GLU	4.0
5	L	238	LYS	4.0
3	J	1006	GLY	4.0
1	N	233	ASP	4.0
3	P	1046	ILE	4.0
5	F	322	MET	4.0
3	D	981	GLU	4.0
3	D	1084	GLN	3.9
3	P	1016	THR	3.9
5	R	136	GLU	3.9
3	P	714	GLU	3.9
5	F	311	THR	3.9
3	P	1064	SER	3.9
4	E	90	ARG	3.9
3	P	1011	VAL	3.9
4	Q	91	ARG	3.9
5	F	296	LYS	3.9
5	F	171	GLU	3.9
5	R	153	ALA	3.9
3	D	988	PHE	3.9
1	B	91	ARG	3.8

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Mol	Chain	Res	Type	RSRZ
3	P	1007	ASP	3.8
4	E	89	GLY	3.8
3	P	153	ASN	3.8
2	I	104	ILE	3.8
3	P	1053	LEU	3.8
3	D	1158	GLU	3.8
3	P	1073	ASP	3.8
3	P	970	SER	3.8
3	P	1017	VAL	3.8
3	P	708	ASN	3.8
3	P	1128	SER	3.8
5	R	309	ASN	3.8
5	R	166	VAL	3.8
4	K	87	ALA	3.8
3	P	148	GLU	3.7
3	P	993	GLU	3.7
5	R	213	ASP	3.7
5	F	306	PHE	3.7
3	J	1054	THR	3.7
3	P	1038	THR	3.7
5	R	171	GLU	3.7
5	L	214	PRO	3.7
3	P	1029	THR	3.7
3	P	1066	GLU	3.7
3	J	715	LYS	3.7
3	P	996	LYS	3.7
3	P	176	PHE	3.7
4	K	90	ARG	3.7
3	J	854	ALA	3.7
5	F	324	LYS	3.7
3	P	1047	THR	3.7
3	J	1160	SER	3.7
5	L	328	GLU	3.7
3	J	1020	TRP	3.7
5	R	161	LEU	3.7
3	P	1115	ILE	3.7
5	L	290	LEU	3.6
3	D	1039	ASP	3.6
3	P	1070	GLY	3.6
5	R	243	ALA	3.6
3	P	154	LEU	3.6
3	P	1087	ASP	3.6

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Mol	Chain	Res	Type	RSRZ
4	E	75	GLN	3.6
3	J	1033	GLY	3.6
3	J	1087	ASP	3.6
3	D	149	GLY	3.6
3	D	1201	GLY	3.6
5	F	244	THR	3.6
3	P	1133	ASP	3.6
4	Q	88	GLU	3.6
5	L	300	LYS	3.6
2	I	623	LEU	3.6
5	F	336	GLU	3.6
3	P	987	GLU	3.5
3	P	1212	ASP	3.5
5	L	215	GLU	3.5
3	P	852	GLY	3.5
3	P	712	GLN	3.5
3	P	1067	ARG	3.5
3	P	1082	ASP	3.5
3	P	950	ILE	3.5
3	D	966	VAL	3.5
4	E	71	GLU	3.5
2	O	107	ARG	3.5
3	P	990	ARG	3.5
3	D	1094	ASP	3.5
5	F	233	ASP	3.4
3	P	715	LYS	3.4
5	L	316	PHE	3.4
1	A	97	GLU	3.4
3	J	853	THR	3.4
4	E	81	GLN	3.4
5	R	212	ILE	3.4
3	J	852	GLY	3.4
5	F	247	GLU	3.4
5	F	238	LYS	3.4
5	L	307	THR	3.4
4	E	39	VAL	3.4
3	D	1037	PHE	3.4
3	P	995	TYR	3.4
3	P	709	ARG	3.4
3	D	1050	THR	3.4
5	F	248	GLU	3.4
3	D	1042	ASP	3.4

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Mol	Chain	Res	Type	RSRZ
3	P	1116	SER	3.4
2	O	106	GLU	3.3
4	Q	79	GLU	3.3
5	L	286	LEU	3.3
3	J	1007	ASP	3.3
3	D	955	LYS	3.3
5	R	310	GLU	3.3
3	J	968	ASN	3.3
3	P	1160	SER	3.3
3	D	1017	VAL	3.3
5	F	315	TRP	3.3
2	C	987	GLU	3.3
1	G	90	VAL	3.3
3	D	982	LEU	3.3
5	F	237	ALA	3.3
3	P	1018	ALA	3.3
5	L	304	THR	3.3
3	D	1125	PRO	3.3
3	D	1043	GLY	3.2
3	P	959	LYS	3.2
5	R	238	LYS	3.2
2	I	116	ASP	3.2
4	K	88	GLU	3.2
3	D	972	LYS	3.2
3	D	1126	GLN	3.2
5	R	316	PHE	3.2
3	D	1004	ALA	3.2
3	P	446	ALA	3.2
5	L	315	TRP	3.2
5	L	319	ALA	3.2
3	J	972	LYS	3.2
3	D	1074	LEU	3.2
4	E	72	GLN	3.2
3	P	983	LYS	3.2
2	I	108	GLU	3.1
3	P	1054	THR	3.1
5	L	288	MET	3.1
5	F	328	GLU	3.1
4	E	38	LEU	3.1
5	F	250	LEU	3.1
3	D	715	LYS	3.1
1	G	89	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
3	D	287	ALA	3.1
5	F	254	GLU	3.1
2	C	1136	GLN	3.1
3	J	947	GLU	3.1
5	F	230	VAL	3.1
5	L	237	ALA	3.1
3	P	973	LEU	3.1
5	F	161	LEU	3.1
5	F	240	ARG	3.1
3	D	1093	THR	3.1
3	D	1111	ASP	3.1
3	P	1062	LEU	3.1
4	E	79	GLU	3.1
5	R	211	SER	3.1
4	K	84	THR	3.1
4	Q	2	ALA	3.1
1	A	92	VAL	3.1
3	J	987	GLU	3.0
3	P	878	ASP	3.0
2	I	113	THR	3.0
4	E	80	LEU	3.0
5	L	217	ALA	3.0
3	J	942	SER	3.0
3	D	996	LYS	3.0
5	F	320	ILE	3.0
5	L	292	VAL	3.0
3	D	1049	GLN	3.0
5	R	168	PRO	3.0
1	N	122	GLU	3.0
3	J	1111	ASP	3.0
3	P	1107	VAL	3.0
5	L	331	HIS	3.0
5	R	247	GLU	3.0
1	N	161	SER	3.0
3	J	951	GLN	3.0
3	J	1052	GLU	3.0
2	I	107	ARG	3.0
3	P	1035	VAL	3.0
1	N	70	THR	3.0
5	F	330	LEU	3.0
6	1	19	DT	3.0
3	J	558	ASP	3.0

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Mol	Chain	Res	Type	RSRZ
5	R	160	ASP	3.0
2	O	1136	GLN	3.0
3	D	1047	THR	3.0
5	F	327	SER	3.0
5	R	165	PHE	3.0
5	L	156	ALA	3.0
2	I	234	ASP	3.0
5	R	214	PRO	3.0
2	C	234	ASP	3.0
2	I	115	LYS	2.9
3	P	943	ARG	2.9
2	C	60	GLN	2.9
4	E	73	GLN	2.9
5	F	325	PRO	2.9
4	K	85	ALA	2.9
3	P	989	GLY	2.9
3	J	1131	THR	2.9
4	K	89	GLY	2.9
1	G	123	ILE	2.9
5	F	246	GLN	2.9
5	L	82	GLN	2.9
3	D	1086	ASN	2.9
1	M	191	ARG	2.9
5	F	169	ASN	2.9
5	F	323	ASN	2.9
6	7	49	DG	2.9
4	E	70	GLN	2.9
4	Q	85	ALA	2.9
3	J	154	LEU	2.8
4	E	41	GLU	2.8
4	E	37	PRO	2.8
5	F	396	ASN	2.8
3	P	952	VAL	2.8
5	F	312	SER	2.8
2	I	622	ASN	2.8
4	E	82	ALA	2.8
3	P	1030	GLU	2.8
5	R	149	ASP	2.8
5	F	251	LYS	2.8
2	O	108	GLU	2.8
2	O	374	GLU	2.8
3	P	1110	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
3	P	1015	GLU	2.8
6	1	26	DT	2.8
3	D	948	SER	2.8
5	F	337	VAL	2.8
5	F	332	ASP	2.8
5	L	308	GLY	2.8
3	J	856	ILE	2.8
2	I	484	LEU	2.8
3	J	1042	ASP	2.8
3	P	1009	GLU	2.8
2	O	241	LEU	2.8
3	P	1077	ALA	2.8
5	L	213	ASP	2.8
5	R	155	GLU	2.8
5	F	158	LEU	2.8
3	D	1044	GLN	2.8
2	I	110	PRO	2.8
3	P	1111	ASP	2.8
5	F	329	LYS	2.8
4	Q	82	ALA	2.7
5	F	333	VAL	2.7
1	H	95	LYS	2.7
5	F	257	LYS	2.7
5	R	299	LYS	2.7
5	R	83	VAL	2.7
1	M	9	LEU	2.7
3	P	1114	GLN	2.7
3	D	153	ASN	2.7
6	4	46	DG	2.7
5	R	162	ILE	2.7
3	P	953	LYS	2.7
3	P	1113	VAL	2.7
5	F	294	GLN	2.7
5	L	83	VAL	2.7
5	L	301	ASN	2.7
3	D	1375	ALA	2.7
3	P	968	ASN	2.7
2	I	103	VAL	2.7
3	P	994	SER	2.7
5	L	254	GLU	2.7
3	P	1120	THR	2.7
3	P	978	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
3	D	1071	GLY	2.7
5	L	302	PHE	2.7
3	P	1014	GLY	2.7
3	J	944	ALA	2.7
2	I	293	ALA	2.7
3	J	1086	ASN	2.7
3	D	155	GLU	2.7
2	C	986	ALA	2.7
5	F	170	ALA	2.7
5	L	326	TRP	2.7
5	R	245	ALA	2.7
2	O	243	PRO	2.7
3	J	1110	GLU	2.6
3	D	978	ARG	2.6
3	D	176	PHE	2.6
3	D	64	PRO	2.6
7	5	22	DA	2.6
3	D	1051	ASP	2.6
1	N	110	VAL	2.6
4	Q	87	ALA	2.6
3	P	1043	GLY	2.6
6	1	21	DC	2.6
7	2	20	DG	2.6
4	Q	83	VAL	2.6
3	J	958	ILE	2.6
4	Q	64	LEU	2.6
3	D	1006	GLY	2.6
4	K	59	ILE	2.6
5	R	163	THR	2.6
2	O	854	ILE	2.6
5	L	154	GLU	2.6
4	Q	84	THR	2.6
5	L	287	ILE	2.6
4	Q	81	GLN	2.6
3	D	1198	VAL	2.6
5	L	291	CYS	2.6
2	O	703	GLY	2.6
3	P	955	LYS	2.6
3	P	988	PHE	2.6
3	D	1018	ALA	2.6
3	D	703	THR	2.5
3	D	1014	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
3	D	1110	GLU	2.5
3	D	847	ASP	2.5
2	O	1159	VAL	2.5
5	L	297	MET	2.5
3	D	952	VAL	2.5
3	J	855	ASP	2.5
3	P	707	ILE	2.5
3	D	1302	TYR	2.5
3	J	1050	THR	2.5
3	D	714	GLU	2.5
1	N	111	THR	2.5
5	R	308	GLY	2.5
3	J	1112	GLY	2.5
4	E	59	ILE	2.5
2	I	441	GLU	2.5
3	D	1360	GLY	2.5
3	J	559	ALA	2.5
5	R	156	ALA	2.5
3	D	954	ASN	2.5
2	C	1137	GLU	2.5
5	F	163	THR	2.5
4	E	56	GLU	2.5
3	J	955	LYS	2.5
2	I	292	ILE	2.5
1	G	29	GLU	2.4
5	L	247	GLU	2.4
3	P	523	GLU	2.4
3	P	974	VAL	2.4
5	R	157	ARG	2.4
5	R	246	GLN	2.4
7	5	40	DT	2.4
3	J	1115	ILE	2.4
5	L	303	ILE	2.4
5	L	311	THR	2.4
5	R	315	TRP	2.4
5	L	81	ALA	2.4
5	F	295	CYS	2.4
5	L	293	GLU	2.4
5	F	297	MET	2.4
3	D	1297	LYS	2.4
5	R	314	THR	2.4
3	P	686	TRP	2.4

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Mol	Chain	Res	Type	RSRZ
2	C	984	VAL	2.4
3	P	1085	GLY	2.4
5	L	79	ALA	2.4
3	D	830	ASP	2.4
2	C	241	LEU	2.4
1	A	98	VAL	2.4
5	L	298	PRO	2.4
3	D	1203	ARG	2.4
3	D	286	ALA	2.4
3	J	1204	VAL	2.4
6	1	27	DC	2.4
3	D	849	LEU	2.4
3	D	1085	GLY	2.4
3	P	982	LEU	2.4
3	P	986	ASP	2.4
5	F	210	ASN	2.4
3	J	1035	VAL	2.4
3	J	1135	THR	2.4
3	P	1119	ASP	2.4
5	R	313	ASP	2.4
3	P	1135	THR	2.4
2	C	985	GLU	2.3
5	R	248	GLU	2.3
3	P	657	ALA	2.3
2	I	747	GLY	2.3
5	L	164	GLY	2.3
3	P	1126	GLN	2.3
3	P	1112	GLY	2.3
5	L	80	ALA	2.3
5	F	154	GLU	2.3
3	D	1159	ILE	2.3
3	D	912	GLY	2.3
2	I	485	ASP	2.3
3	D	1007	ASP	2.3
3	P	1078	LEU	2.3
4	K	78	ALA	2.3
3	P	207	GLU	2.3
5	F	293	GLU	2.3
3	J	967	VAL	2.3
5	L	110	LEU	2.3
1	H	98	VAL	2.3
3	D	716	GLN	2.3

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Mol	Chain	Res	Type	RSRZ
3	P	951	GLN	2.3
5	L	332	ASP	2.3
3	D	1024	THR	2.3
4	K	70	GLN	2.3
1	N	97	GLU	2.3
3	D	1011	VAL	2.3
4	K	83	VAL	2.3
4	Q	89	GLY	2.3
7	2	40	DT	2.3
2	O	109	ALA	2.3
3	D	1202	GLU	2.3
3	J	1113	VAL	2.3
6	4	19	DT	2.3
4	K	91	ARG	2.3
1	G	30	PRO	2.3
3	P	1122	ALA	2.3
3	J	1030	GLU	2.3
3	D	962	ASN	2.3
5	L	170	ALA	2.3
2	C	282	VAL	2.3
3	D	968	ASN	2.2
5	F	243	ALA	2.2
5	R	241	SER	2.2
4	E	43	ASN	2.2
6	4	47	DC	2.2
3	D	1054	THR	2.2
3	D	1165	PHE	2.2
3	J	998	PRO	2.2
3	J	1161	GLY	2.2
3	D	1189	MET	2.2
3	P	91	GLU	2.2
3	D	983	LYS	2.2
3	J	971	GLY	2.2
3	P	991	THR	2.2
3	D	1123	ARG	2.2
5	L	330	LEU	2.2
3	P	965	SER	2.2
5	L	158	LEU	2.2
3	J	560	ASN	2.2
3	P	81	ARG	2.2
3	P	177	ASP	2.2
3	P	1213	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
5	R	79	ALA	2.2
1	N	129	VAL	2.2
7	5	39	DG	2.2
3	D	1019	ASN	2.2
3	J	1133	ASP	2.2
3	P	1021	ASP	2.2
3	J	945	ALA	2.2
5	F	298	PRO	2.2
6	4	20	DC	2.2
2	I	479	LEU	2.2
2	C	281	ASP	2.2
3	P	445	LYS	2.2
5	R	82	GLN	2.2
5	L	233	ASP	2.2
1	M	91	ARG	2.2
1	N	123	ILE	2.2
3	D	1005	LYS	2.2
3	J	708	ASN	2.2
3	P	1099	TYR	2.2
3	D	953	LYS	2.2
1	N	176	CYS	2.2
2	C	781	ASP	2.2
3	P	150	GLY	2.1
5	L	325	PRO	2.1
5	F	226	ALA	2.1
1	G	122	GLU	2.1
3	D	989	GLY	2.1
5	F	548	LEU	2.1
1	N	130	ILE	2.1
2	O	240	GLU	2.1
2	I	65	ASN	2.1
2	I	748	ILE	2.1
3	J	1019	ASN	2.1
5	R	250	LEU	2.1
1	B	90	VAL	2.1
7	5	21	DG	2.1
4	K	69	ARG	2.1
1	B	92	VAL	2.1
1	H	13	LEU	2.1
3	D	1092	GLY	2.1
6	7	50	DT	2.1
3	P	960	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
3	D	965	SER	2.1
5	R	210	ASN	2.1
3	D	1184	ASP	2.1
3	J	1083	ALA	2.1
3	P	1004	ALA	2.1
1	B	95	LYS	2.1
5	R	217	ALA	2.1
5	L	334	SER	2.1
2	I	105	TYR	2.1
3	P	1042	ASP	2.1
2	I	318	SER	2.1
2	I	1000	LEU	2.1
2	O	1180	MET	2.1
2	C	67	GLU	2.1
2	I	256	GLU	2.1
3	J	1034	PHE	2.1
6	4	48	DA	2.1
4	Q	78	ALA	2.1
2	I	743	PRO	2.1
5	F	316	PHE	2.1
5	F	331	HIS	2.1
1	N	98	VAL	2.1
5	R	575	GLU	2.1
3	D	1075	ARG	2.1
2	O	311	CYS	2.1
3	D	1296	GLY	2.1
3	D	1376	GLY	2.1
5	R	234	THR	2.1
1	B	122	GLU	2.1
2	O	111	GLU	2.1
2	I	621	SER	2.1
5	R	251	LYS	2.1
3	D	282	LEU	2.1
2	C	867	GLU	2.1
1	N	66	HIS	2.0
1	M	193	GLU	2.0
3	J	716	GLN	2.0
3	J	1051	ASP	2.0
3	P	1039	ASP	2.0
1	G	103	ASN	2.0
3	J	208	THR	2.0
3	P	1045	THR	2.0

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Mol	Chain	Res	Type	RSRZ
2	I	1014	LEU	2.0
3	P	948	SER	2.0
5	R	286	LEU	2.0
2	I	624	ASP	2.0
3	P	1182	GLY	2.0
2	C	574	SER	2.0
3	D	995	TYR	2.0
3	J	819	GLY	2.0
3	J	1016	THR	2.0
3	P	1037	PHE	2.0
5	F	477	GLU	2.0
5	L	162	ILE	2.0
3	J	1048	ARG	2.0
1	N	160	HIS	2.0
7	5	20	DG	2.0
3	D	1195	GLN	2.0
3	P	155	GLU	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 carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
9	ZN	P	1502	1/1	0.98	0.17	-0.01	187,187,187,187	0
9	ZN	J	1501	1/1	0.88	0.15	-0.87	200,200,200,200	0
9	ZN	D	1502	1/1	0.94	0.11	-0.98	212,212,212,212	0
9	ZN	J	1502	1/1	0.98	0.12	-1.02	174,174,174,174	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
10	MG	D	1503	1/1	0.95	0.16	-1.22	176,176,176,176	0
9	ZN	D	1501	1/1	0.97	0.09	-1.41	228,228,228,228	0
9	ZN	P	1501	1/1	0.95	0.10	-2.02	214,214,214,214	0
10	MG	P	1503	1/1	0.91	0.15	-2.25	194,194,194,194	0
10	MG	6	101	1/1	0.88	0.34	-	189,189,189,189	0

6.5 Other polymers

There are no such residues in this entry.