Full wwPDB X-ray Structure Validation Report (i)

May 29, 2020 – 08:16 am BST

PDB ID	:	4YLP
Title	:	E. coli Transcription Initiation Complex - 16-bp spacer and 5-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
https://www.wwpdb.org/validation/2017/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:

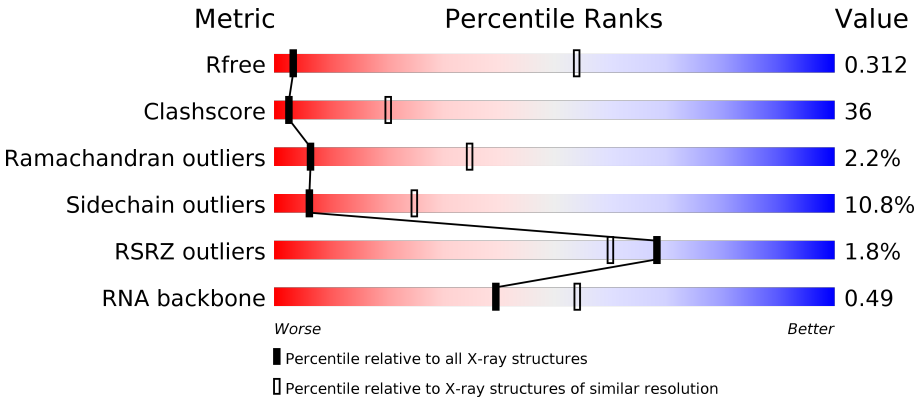
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

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}	130704	1019 (7.12-3.82)
Clashscore	141614	1010 (7.10-3.90)
Ramachandran outliers	138981	1014 (7.12-3.82)
Sidechain outliers	138945	1191 (7.20-3.80)
RSRZ outliers	127900	1023 (7.08-3.76)
RNA backbone	3102	1074 (7.80-3.00)

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

Mol	Chain	Length	Quality of chain
1	A	242	40% 44% 10% • 5%
1	B	242	39% 42% 13% 6%
1	G	242	49% 40% 5% • 5%
1	H	242	% 51% 36% 7% 6%

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Mol	Chain	Length	Quality of chain
1	M	242	2% 52% 39% 5%
1	N	242	2% 52% 37% 5% 6%
2	C	1342	47% 48% 5%
2	I	1342	44% 49% 7%
2	O	1342	49% 45% 5%
3	D	1407	2% 45% 44% 7%
3	J	1407	2% 44% 44% 9%
3	P	1407	3% 45% 44% 7%
4	E	90	7% 59% 40%
4	K	90	9% 54% 39% 7%
4	Q	90	4% 57% 40%
5	F	628	4% 41% 32% 6% 21%
5	L	628	5% 45% 29% 21%
5	R	628	4% 42% 30% 7% 21%
6	1	49	31% 69%
6	4	49	4% 35% 63%
6	7	49	2% 37% 63%
7	2	49	39% 61%
7	5	49	35% 65%
7	8	49	41% 59%
8	3	5	80% 20%
8	6	5	40% 40% 20%
8	9	5	40% 60%

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	D	1502	-	-	X	-
9	ZN	P	1501	-	-	X	-
9	ZN	P	1502	-	-	X	-

2 Entry composition

There are 10 unique types of molecules in this entry. The entry contains 94668 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'-R(*(GTP))-R(P*AP*GP*UP*C)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	3	5	Total	C	N	O	P	0	0	0
			117	48	20	42	7			
8	6	5	Total	C	N	O	P	0	0	0
			117	48	20	42	7			
8	9	5	Total	C	N	O	P	0	0	0
			117	48	20	42	7			

- 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).

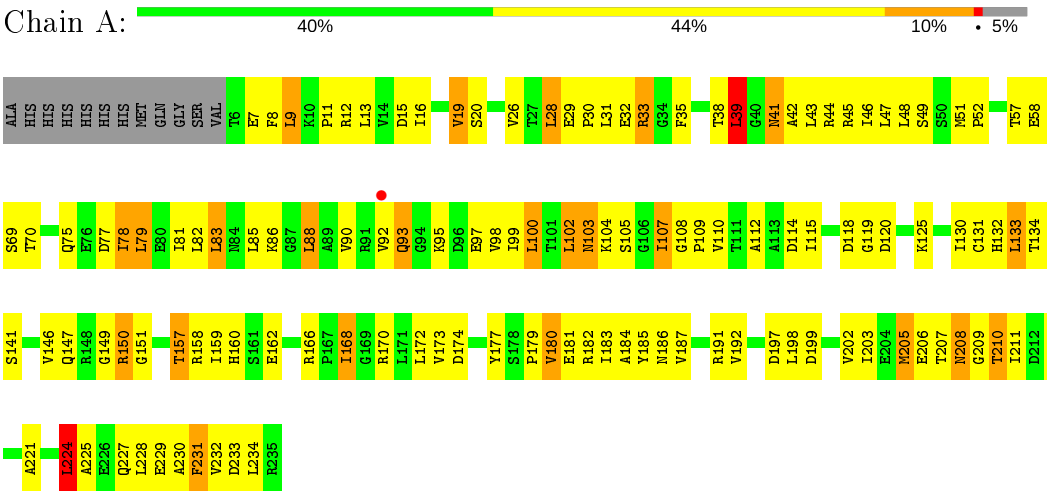
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
10	P	1	Total	Mg	0	0
			1	1		
10	J	1	Total	Mg	0	0
			1	1		
10	D	1	Total	Mg	0	0
			1	1		

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 the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

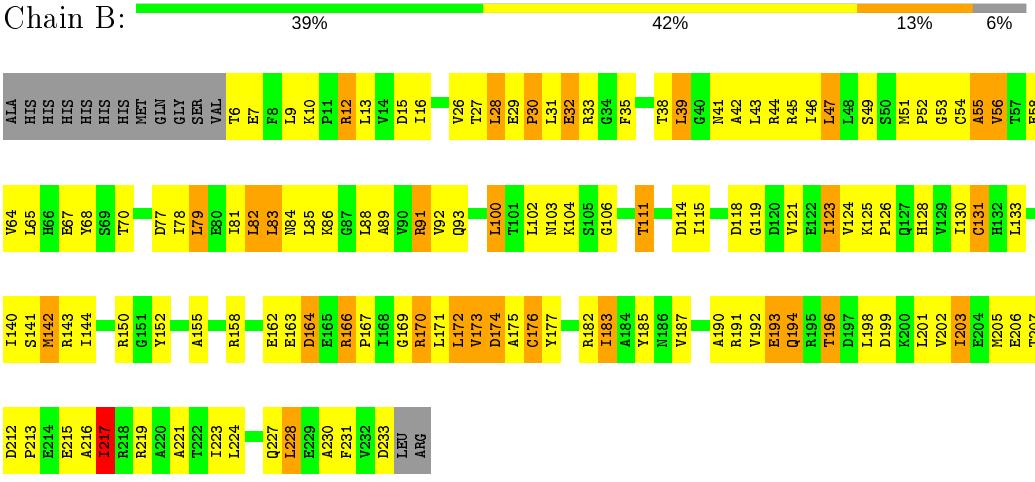
- Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain A:



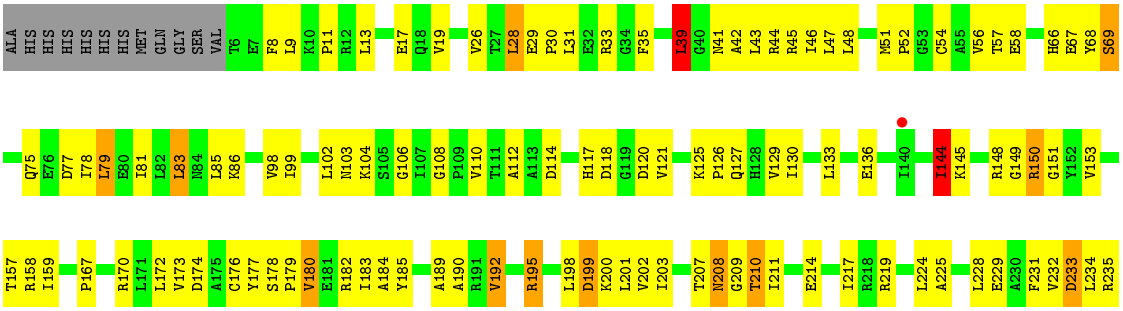
- Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain B:



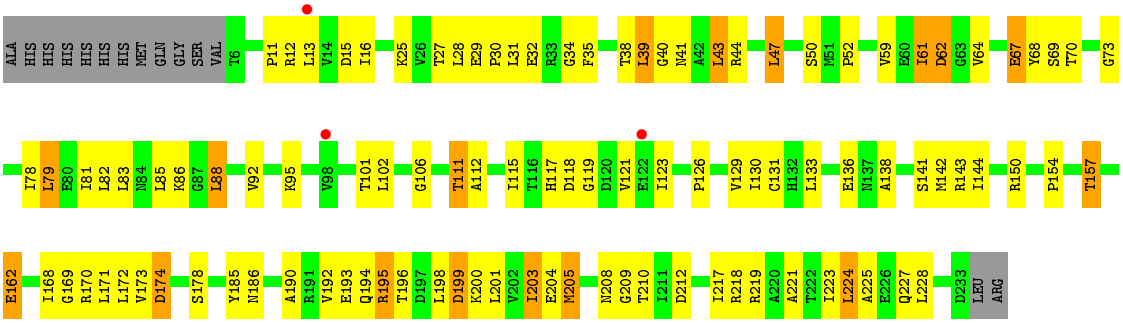
- Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain G:



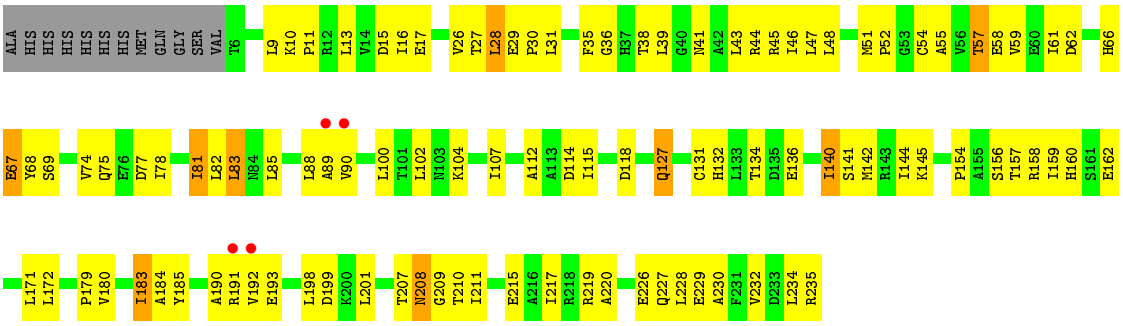
• Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain H:



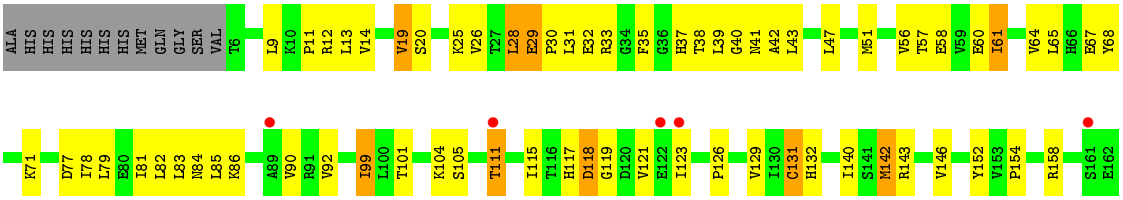
• Molecule 1: DNA-directed RNA polymerase subunit alpha

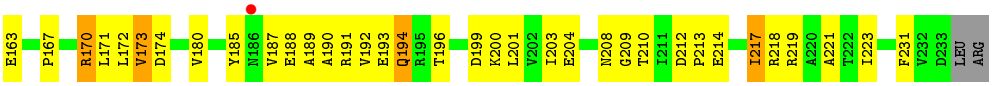
Chain M:



• Molecule 1: DNA-directed RNA polymerase subunit alpha

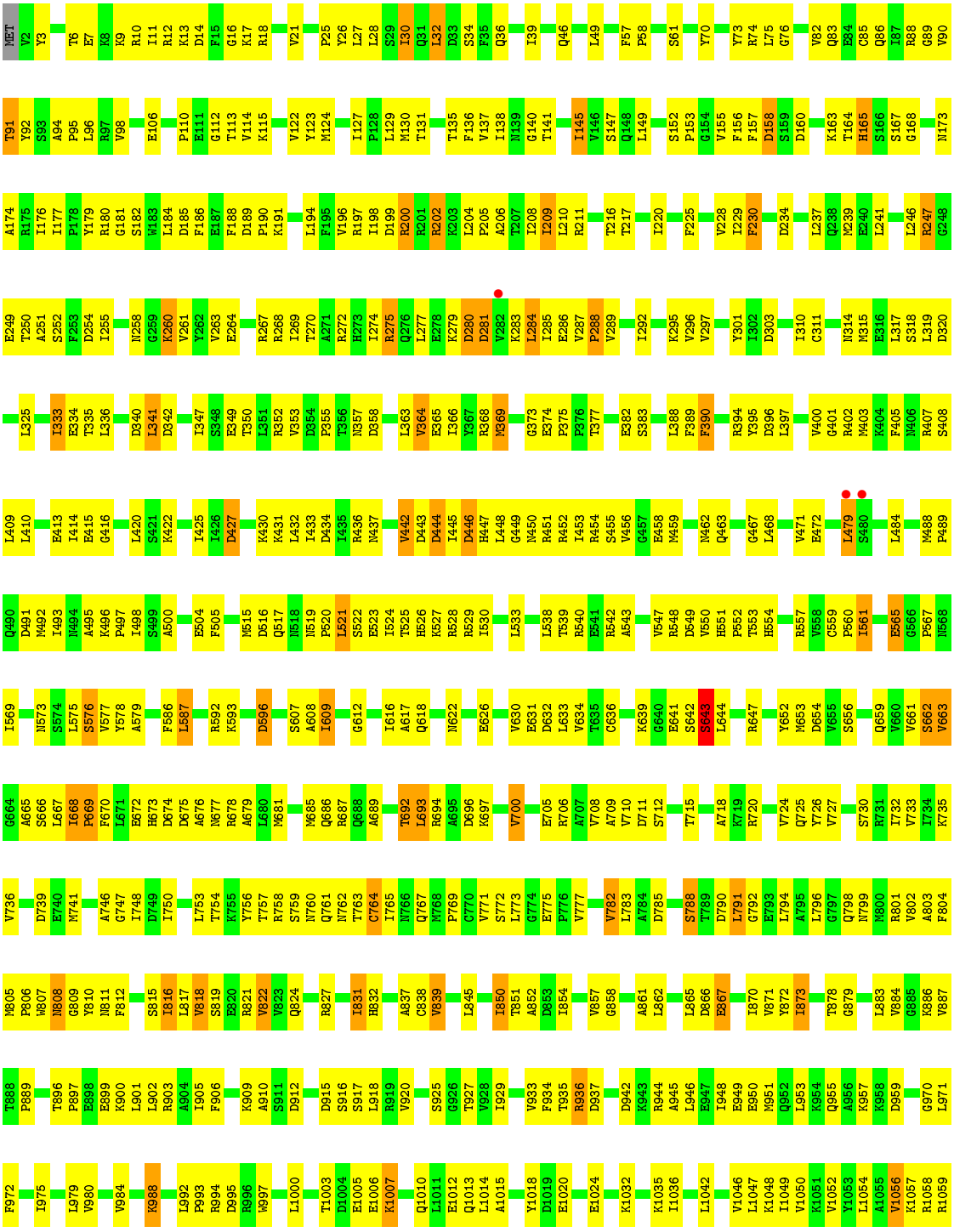
Chain N:

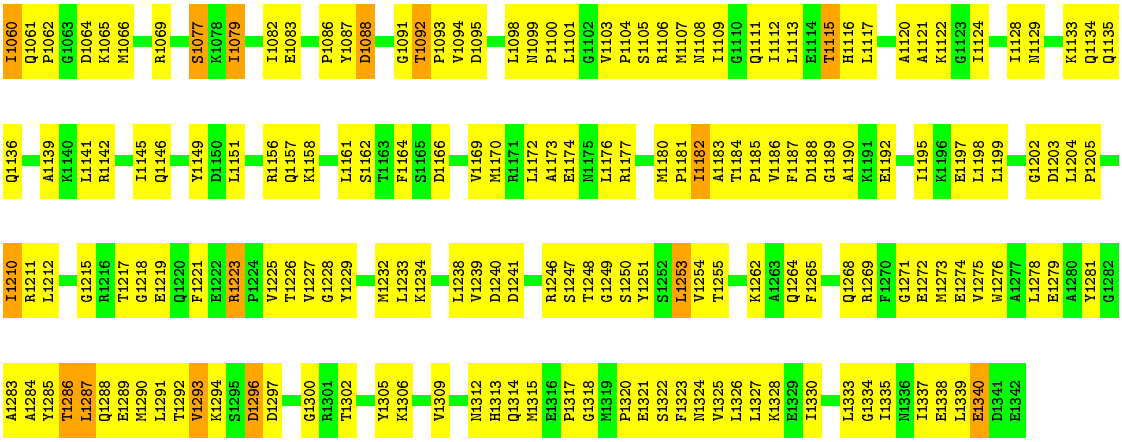




• Molecule 2: DNA-directed RNA polymerase subunit beta

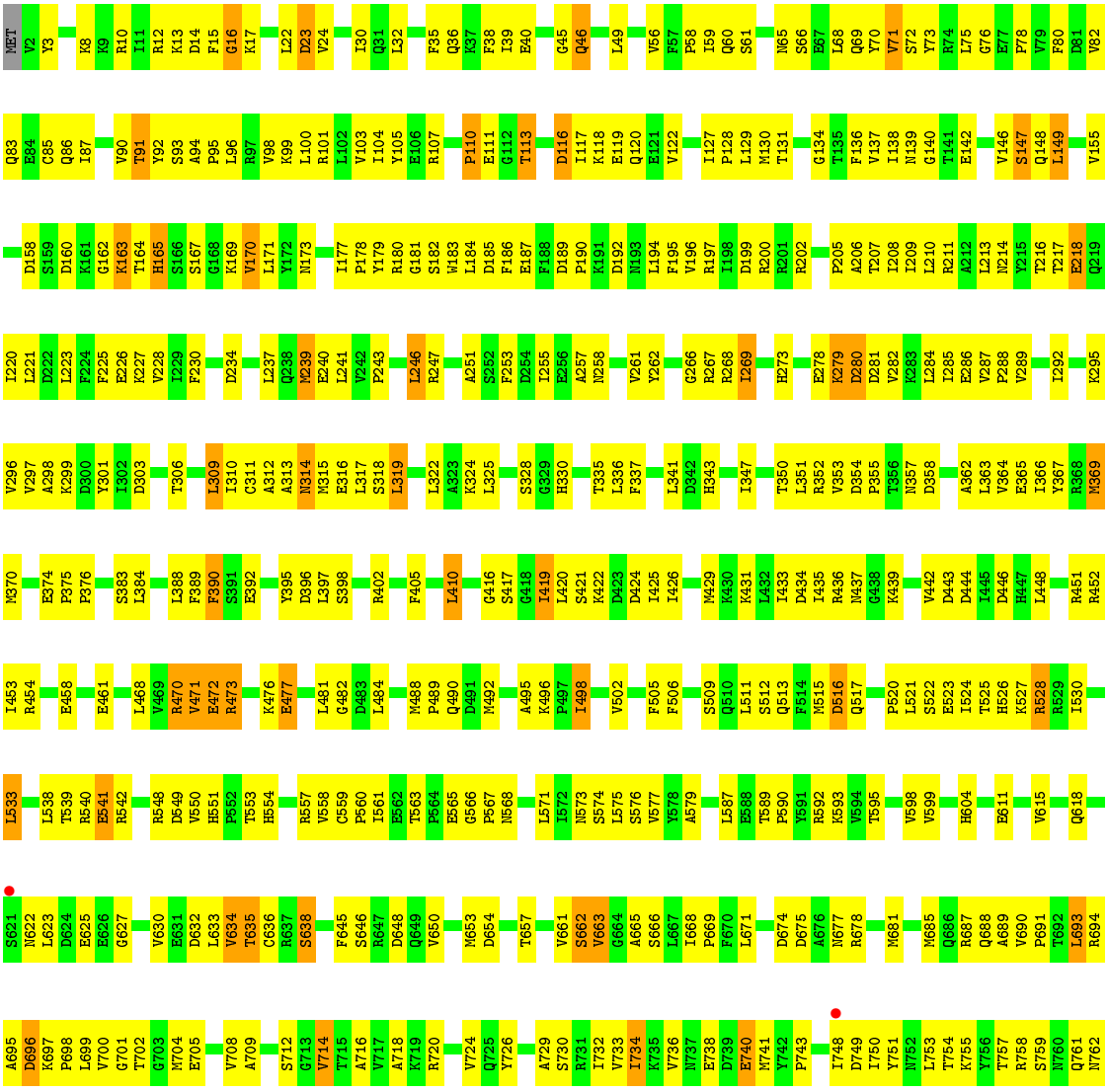
Chain C:

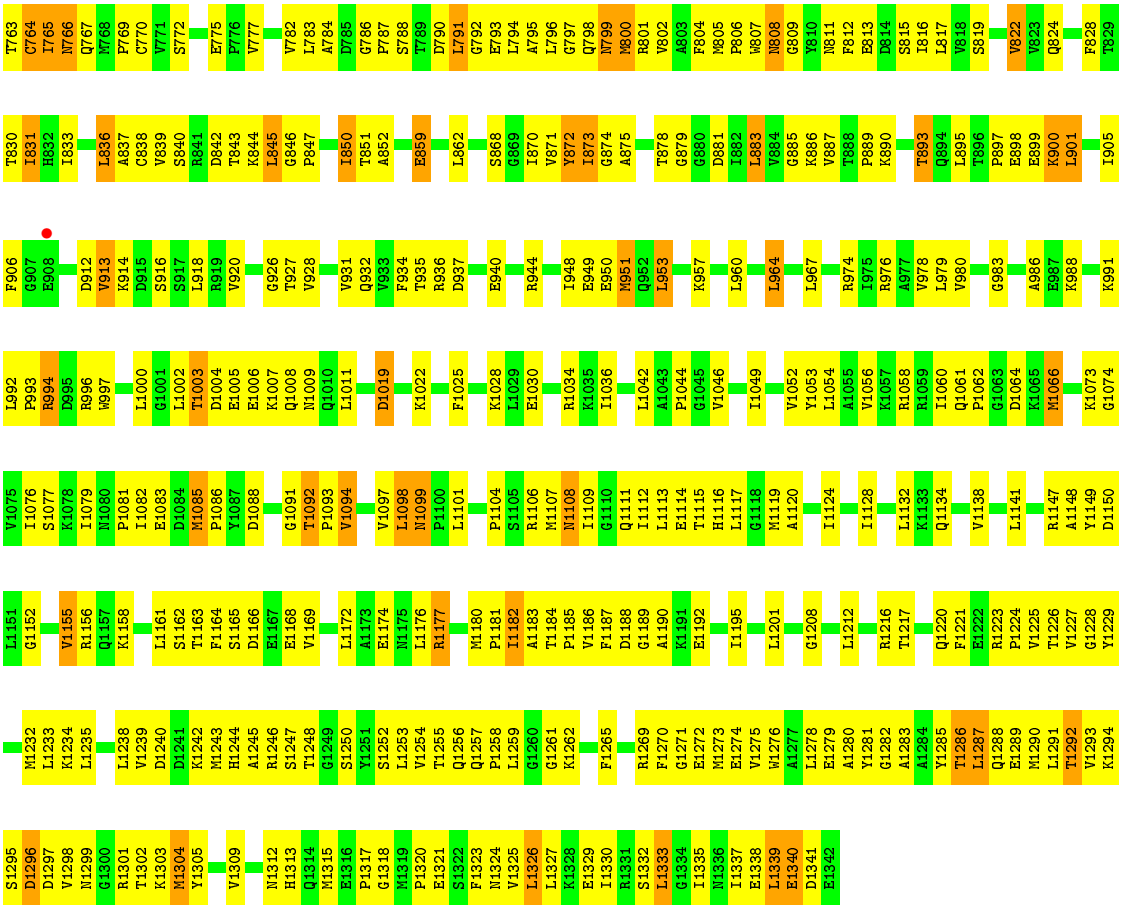




• Molecule 2: DNA-directed RNA polymerase subunit beta

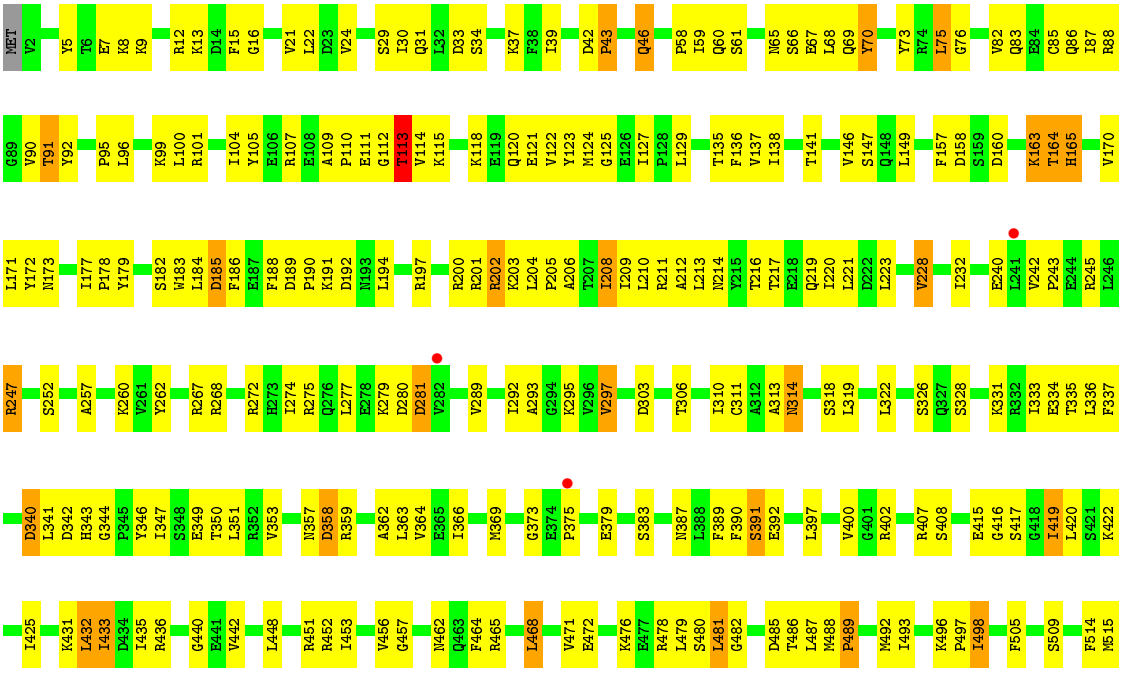
Chain I:

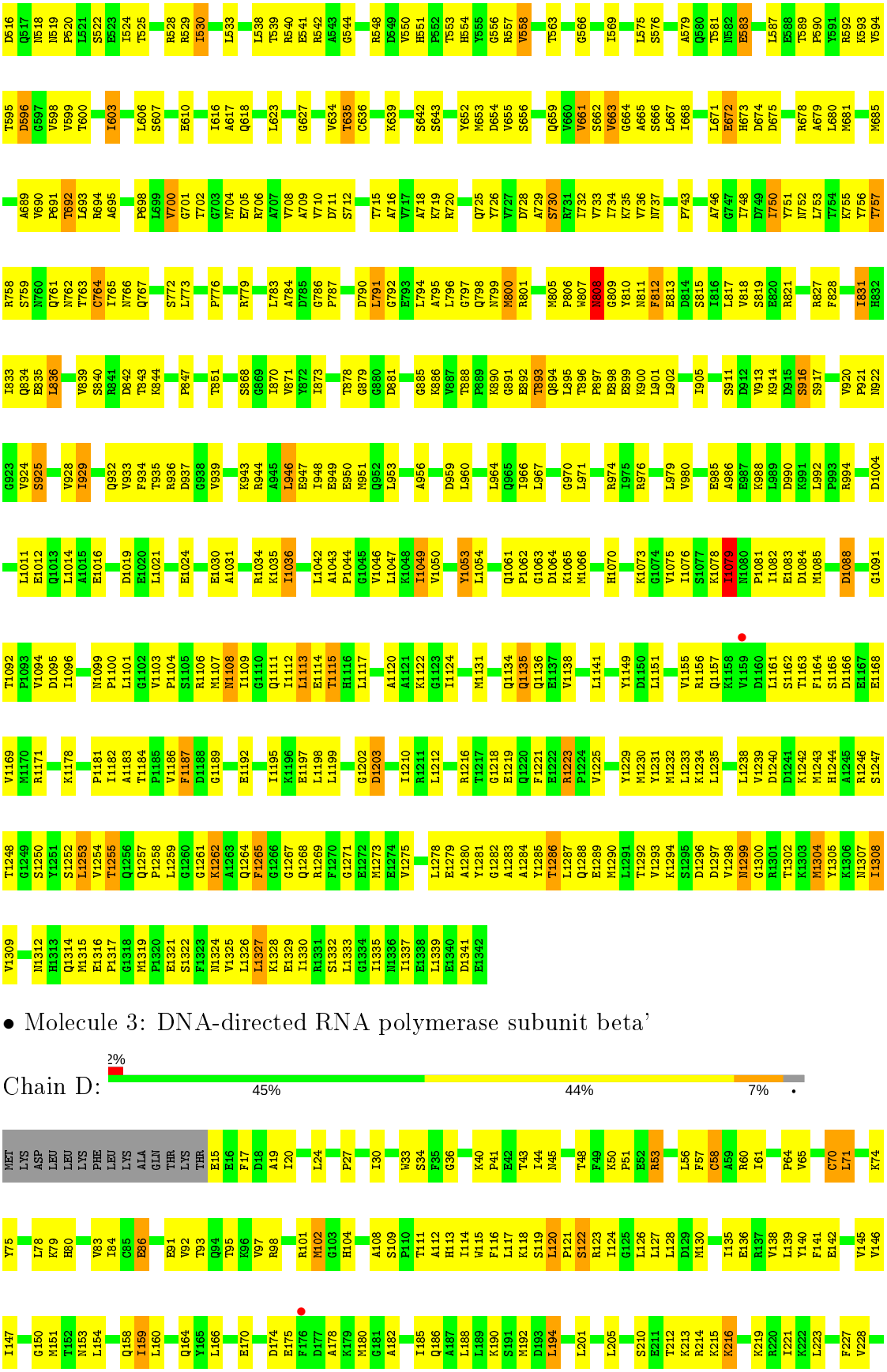




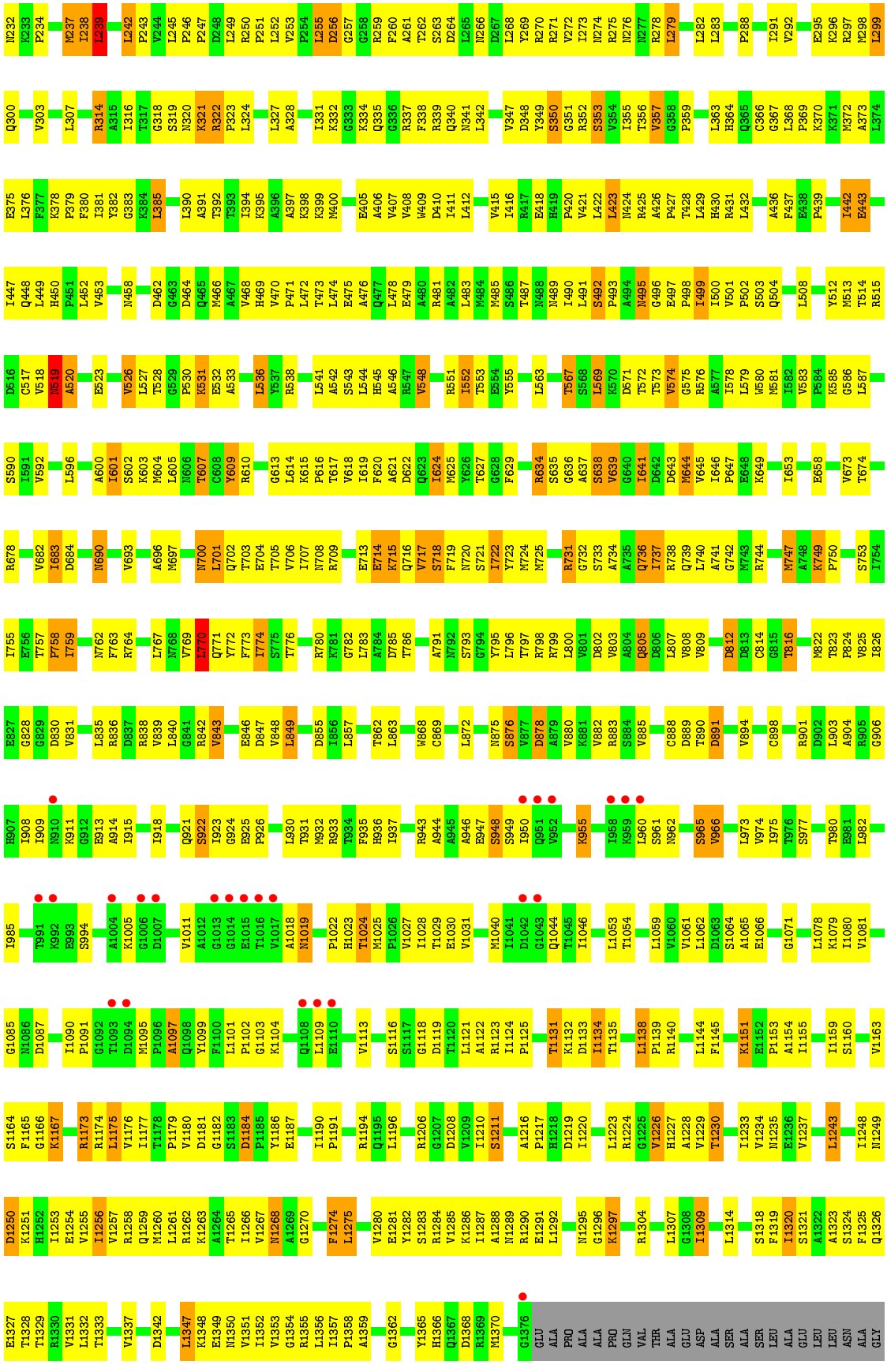
• Molecule 2: DNA-directed RNA polymerase subunit beta

Chain O:





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


N232 K233 P234 M237 I238 L239 L242 P243 V244 L245 P246 P247 D248 L249 R250 P251 L252 V253 P254 L255 D256 G257 G258 R259 F260 A261 T262 S263 D264 L265 N266 D267 L268 Y269 R270 R271 V272 I273 N274 R275 N276 N277 R278 L279 L282 L283 P288 I291 V292 E295 K296 R297 M298 L299
Q300 V303 L307 R314 A315 I316 T317 G318 S319 N320 K321 R322 P323 L324 L327 A328 I331 K332 G333 K334 Q335 G336 R337 F338 R339 Q340 N341 L342 V347 D348 Y349 S350 G351 R352 S353 V354 I355 T356 V357 G358 P359 L363 H364 Q365 C366 G367 L368 P369 K370 K371 M372 A373 L374
E375 L376 F377 K378 P379 F380 I381 Y382 G383 K384 L385 L390 A391 T392 T393 I394 K395 A396 A397 K398 K399 M400 E405 A406 V407 V408 W409 D410 I411 L412 V415 I416 R417 E418 H419 P420 V421 L422 L423 N424 R425 A426 P427 T428 L429 H430 R431 L432 A436 F437 E438 P439 I442 E443
I447 Q448 L449 H450 P451 L452 V453 N458 D462 G463 D464 Q465 M466 A467 V468 H469 V470 P471 L472 T473 L474 E475 A476 Q477 L478 E479 A480 R481 A482 L483 N484 M485 S486 T487 N488 N489 I490 L491 S492 P493 A494 N495 G496 E497 P498 I499 I500 V501 P502 S503 Q504 L508 Y512 M513 T514 R515
D516 C517 V518 N519 A520 E523 V526 L527 T528 G529 P530 K531 E532 A533 L536 Y537 R538 L541 A542 S543 L544 H545 A546 R547 V548 R551 I552 T553 E554 Y555 L563 T567 S568 L569 K570 D571 T572 T573 V574 G575 R576 A577 I578 L579 W580 M581 I582 V583 P584 K585 G586 L587
S590 I591 V592 L596 A600 I601 S602 K603 M604 L605 N606 T607 C608 Y609 R610 G613 L614 K615 P616 T617 V618 I619 F620 A621 D622 Q623 I624 M625 Y626 T627 G628 F629 R634 S635 G636 A637 S638 V639 G640 I641 D642 D643 M644 V645 I646 P647 E648 K649 I653 E658 V673 T674
R678 V682 I683 D684 N690 V693 A696 M697 N700 L701 Q702 T703 E704 T705 V706 I707 N708 R709 E713 E714 K715 Q716 V717 S718 F719 N720 S721 I722 Y723 M724 M725 R731 G732 S733 A734 A735 Q736 I737 R738 Q739 L740 A741 G742 M743 R744 M747 A748 K749 P750 S753 I754
I755 E756 T757 P758 I759 N762 F763 R764 L767 N768 V769 L770 Q771 Y772 F773 I774 S775 T776 R780 K781 G782 L783 A784 D785 T786 A791 N792 S793 G794 Y795 L796 T797 R798 R799 L800 V801 D802 V803 A804 Q805 D806 L807 V808 V809 D812 D813 C814 Q815 T816 M822 T823 P824 V825 I826
E827 G828 G829 D830 V831 L835 R836 D837 R838 V839 L840 G841 R842 V843 E846 D847 V848 L849 D855 I856 L857 T862 L863 W868 C869 L872 N875 S876 V877 D878 A879 V880 K881 V882 R883 S884 V885 C888 D889 T890 D891 V894 C898 R901 D902 L903 A904 R905 G906
H907 I908 I909 N910 K911 G912 E913 A914 I915 I918 Q921 S922 I923 G924 E925 P926 L930 T931 M932 R933 T934 F935 H936 I937 R943 A944 A945 A946 E947 S948 S949 I950 Q951 V952 K955 I958 H959 L960 S961 N962 S965 V966 L973 V974 I975 T976 S977 T980 E981 L982
I985 T991 K992 E993 S994 A1004 K1005 G1006 D1007 V1011 A1012 G1013 G1014 E1015 T1016 V1017 A1018 N1019 P1022 H1023 T1024 M1025 P1026 V1027 I1028 T1029 E1030 V1031 M1040 I1041 D1042 G1043 Q1044 T1045 I1046 L1053 T1054 L1059 V1060 V1061 L1062 D1063 S1064 A1065 E1066 G1071 L1078 K1079 I1080 V1081
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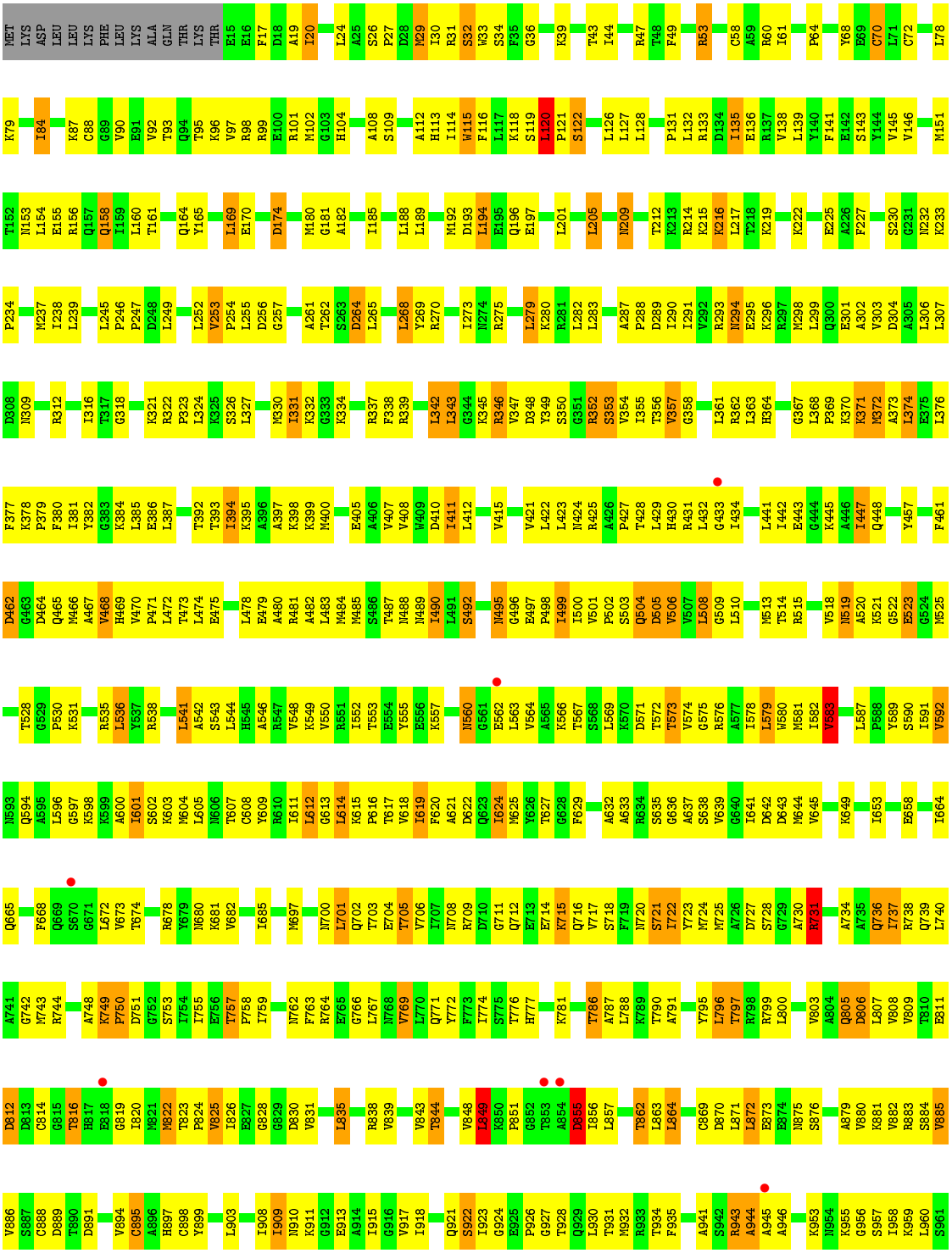
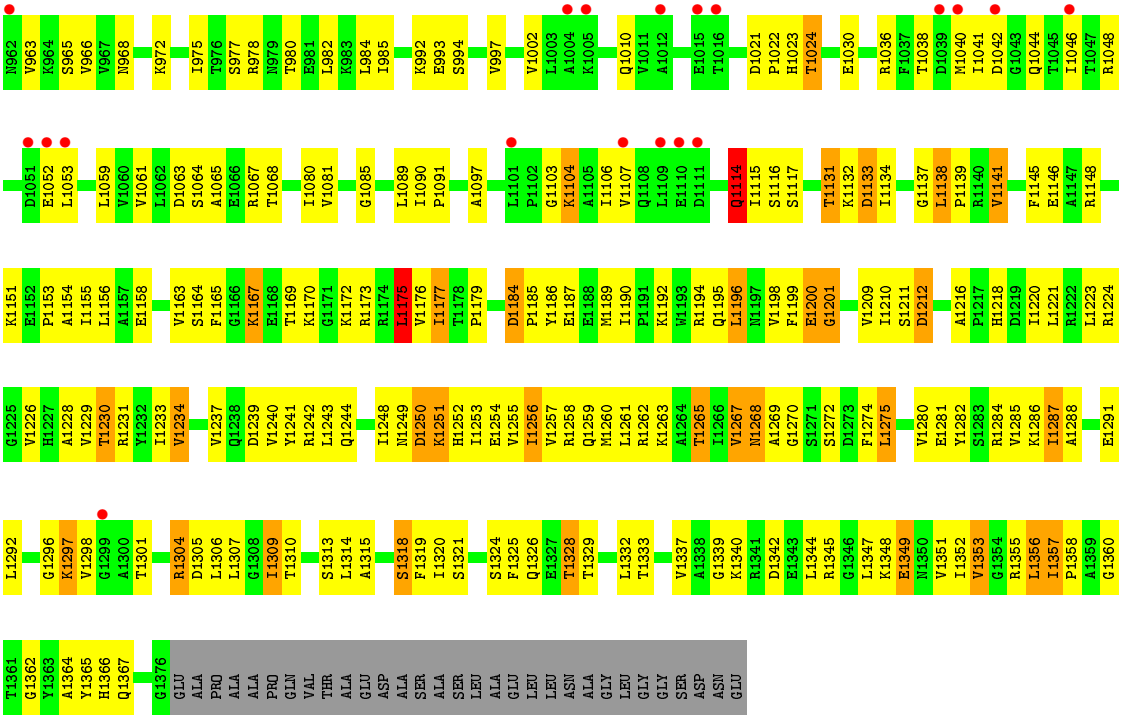
S1164 F1165 G1166 K1167 R1173 R1174 L1175 V1176 I1177 T1178 P1179 V1180 D1181 G1182 S1183 D1184 P1185 Y1186 E1187 I1190 P1191 R1194 Q1195 L1196 R1206 G1207 D1208 V1209 I1210 S1211 A1216 P1217 H1218 D1219 I1220 L1223 R1224 G1225 V1226 H1227 A1228 V1229 T1230 I1233 V1234 N1235 E1236 V1237 L1243 I1248 N1249
D1250 K1251 H1252 I1253 E1254 V1255 I1256 V1257 R1258 Q1259 M1260 L1261 R1262 K1263 A1264 T1265 I1266 V1267 N1268 A1269 G1270 F1274 L1275 V1280 E1281 Y1282 S1283 R1284 V1285 K1286 I1287 A1288 N1289 R1290 E1291 L1292 N1295 G1296 K1297 R1304 L1307 G1308 I1309 L1314 S1318 F1319 I1320 S1321 A1322 A1323 S1324 F1325 Q1326
E1327 T1328 T1329 R1330 V1331 L1332 T1333 V1337 D1342 L1347 K1348 E1349 N1350 V1351 I1352 V1353 G1354 R1355 L1356 I1357 P1358 A1359 G1362 Y1365 H1366 Q1367 D1368 R1369 M1370 G1376
GLU ALA PRO ALA ALA PRO GLN VAL THR ALA GLU ASP ALA SER ALA SER LEU ALA GLU LEU LEU ASN ALA GLY

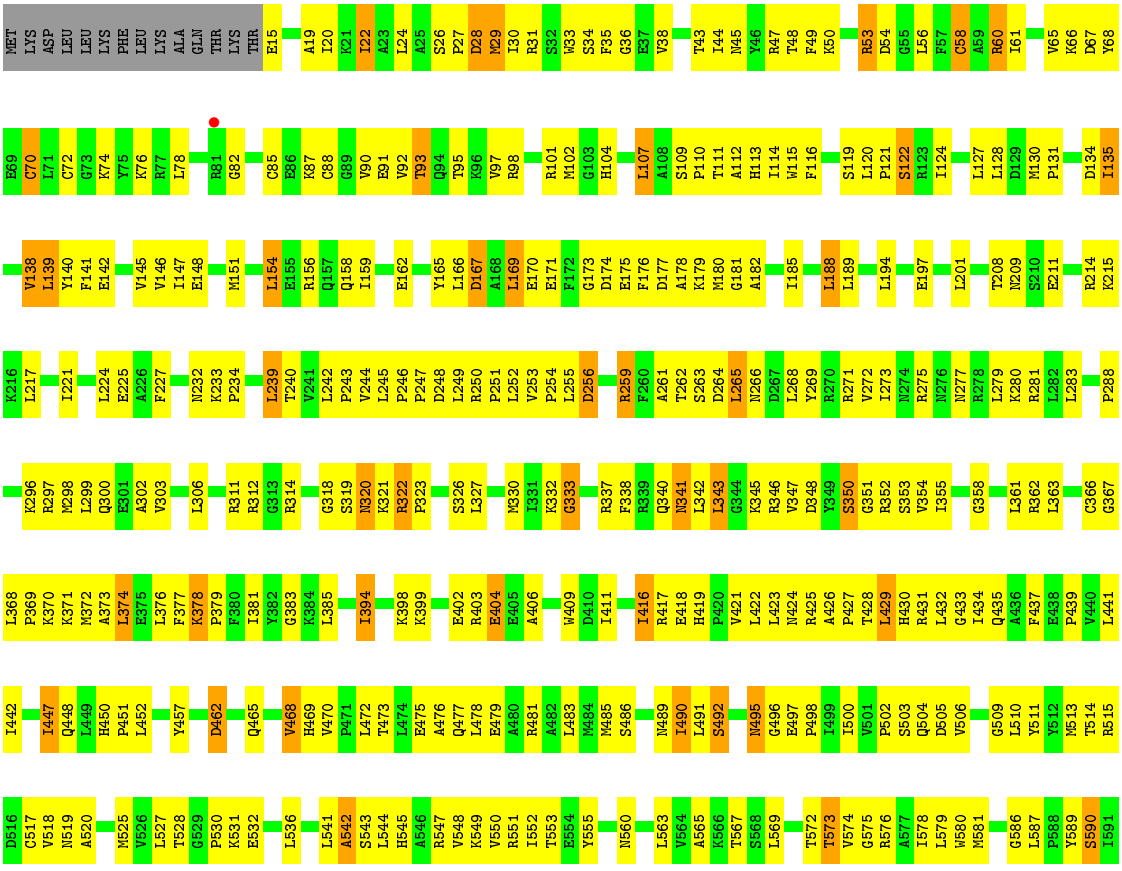
• Molecule 3: DNA-directed RNA polymerase subunit beta'

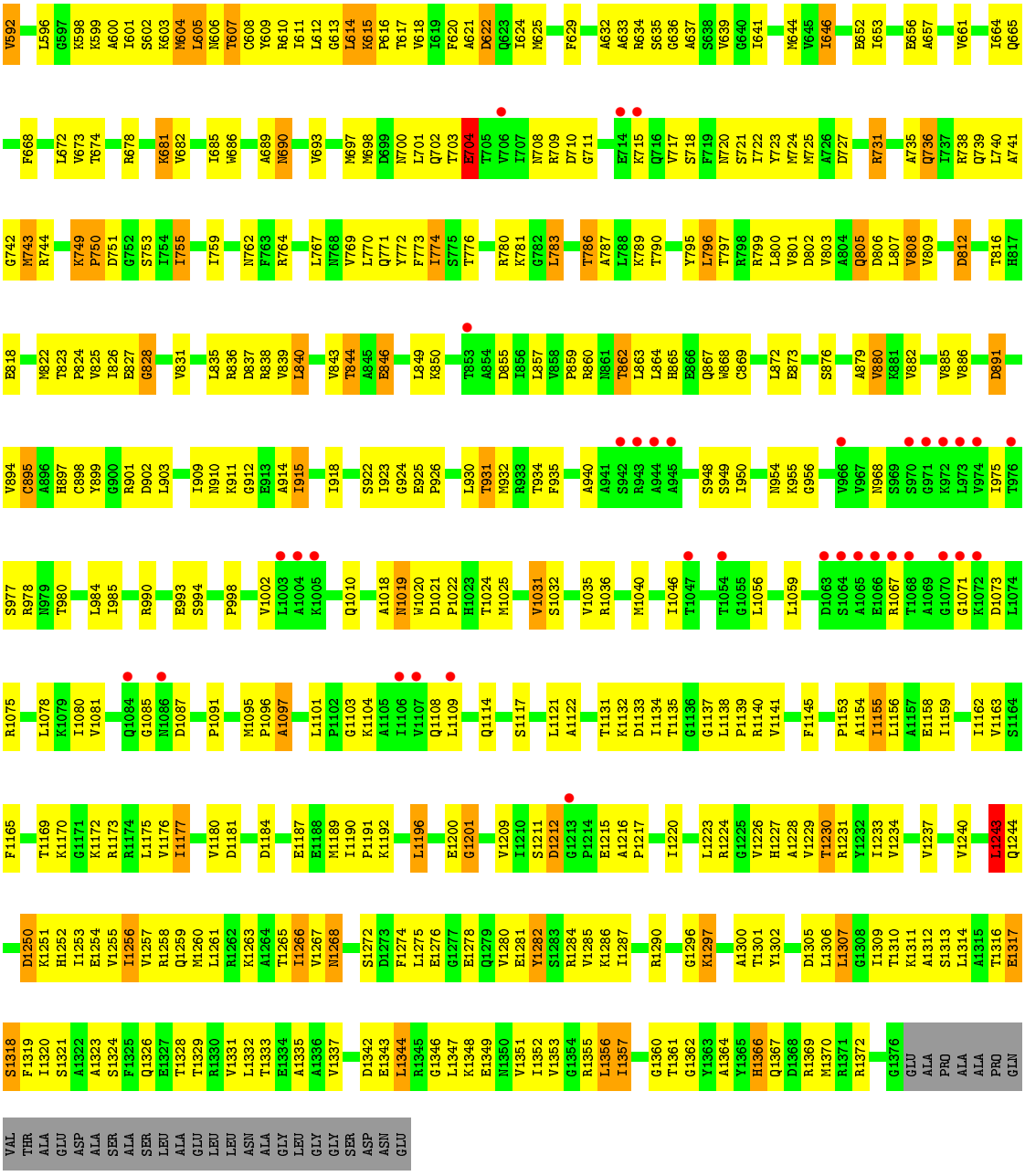




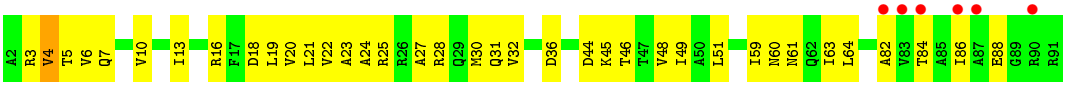
• Molecule 3: DNA-directed RNA polymerase subunit beta'

Chain P:

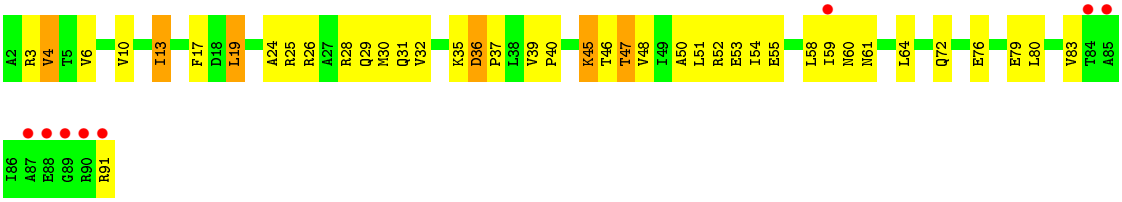




• Molecule 4: DNA-directed RNA polymerase subunit omega

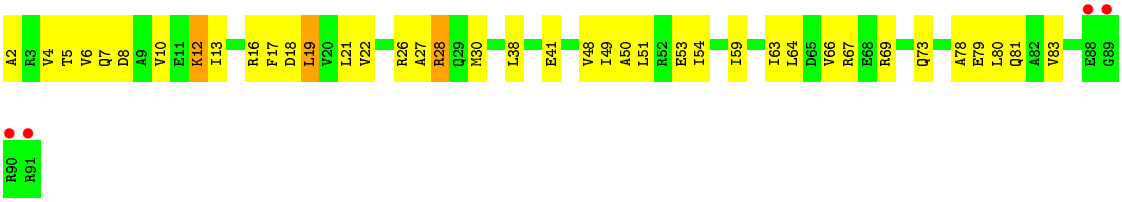


• Molecule 4: DNA-directed RNA polymerase subunit omega



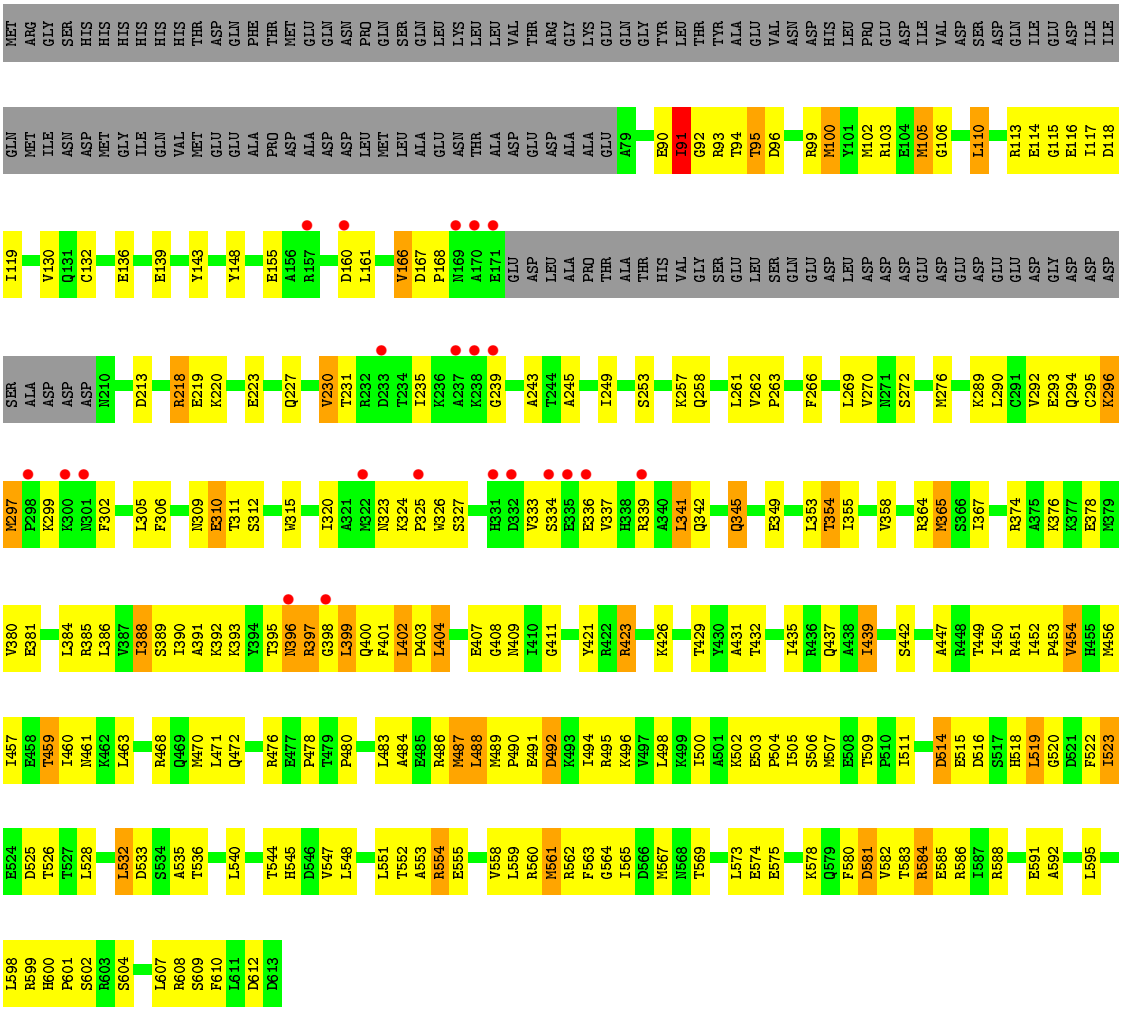
• Molecule 4: DNA-directed RNA polymerase subunit omega

Chain Q:



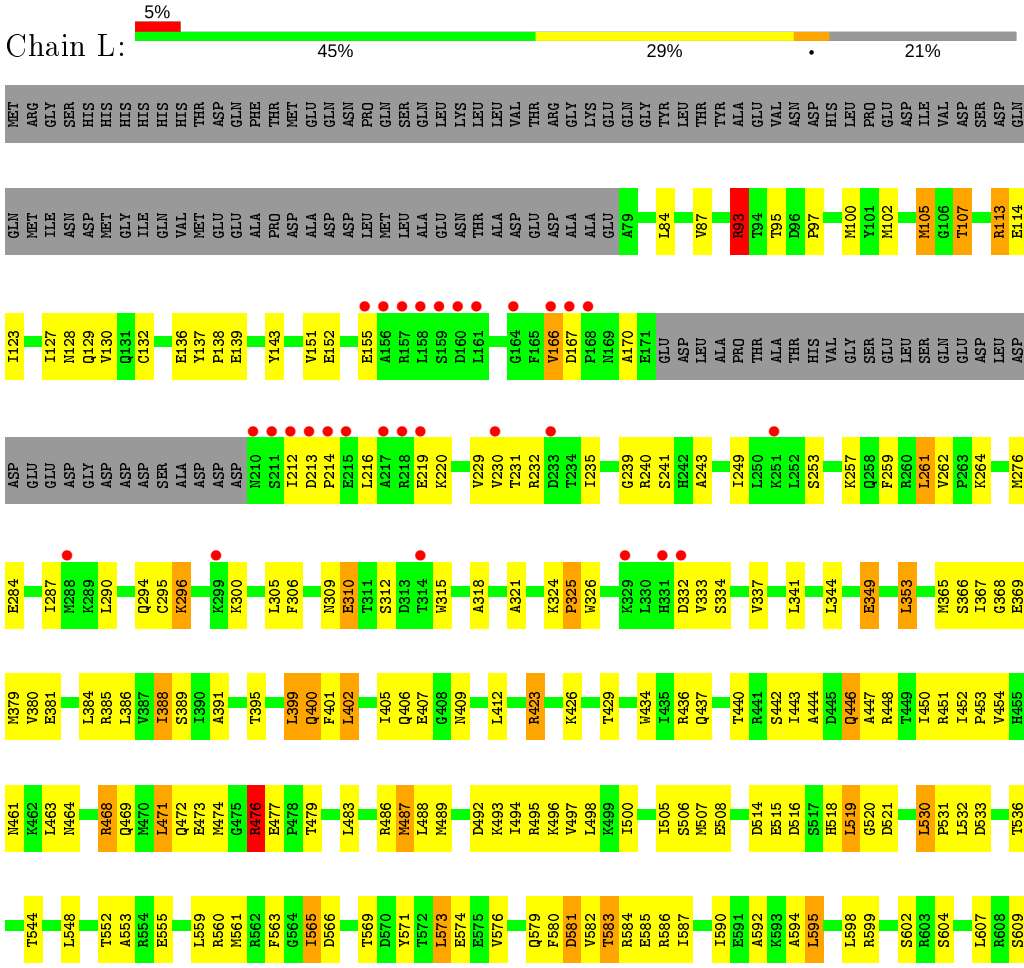
• Molecule 5: RNA polymerase sigma factor RpoD

Chain F:



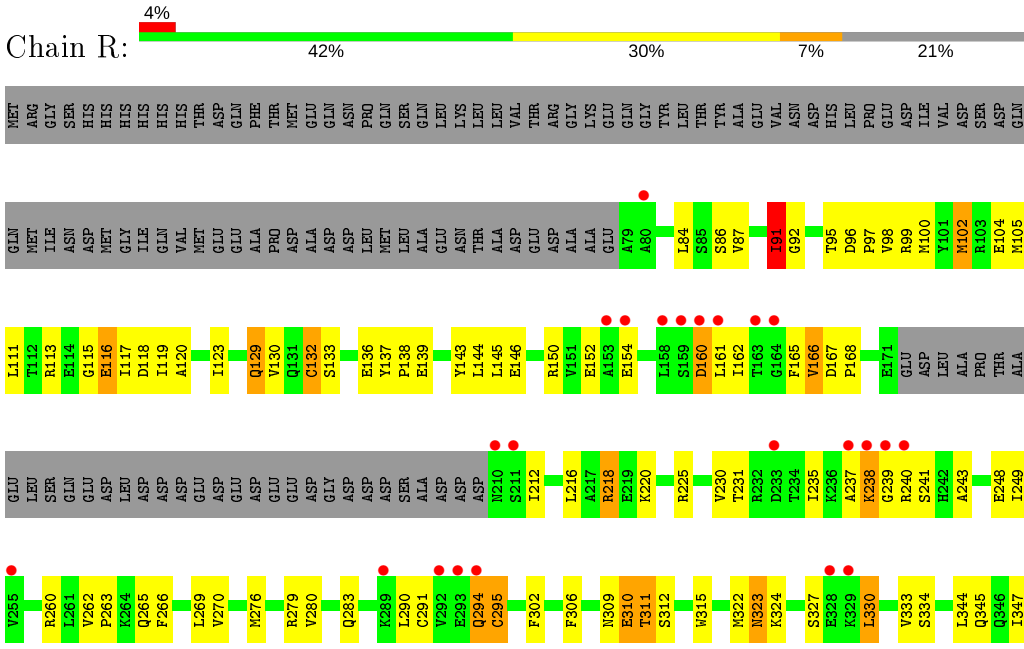
• Molecule 5: RNA polymerase sigma factor RpoD

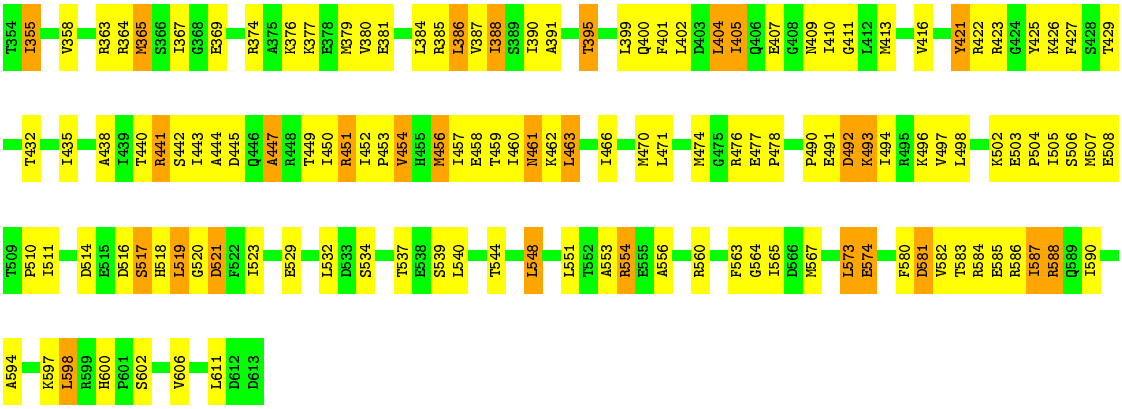
Chain L:



• Molecule 5: RNA polymerase sigma factor RpoD

Chain R:



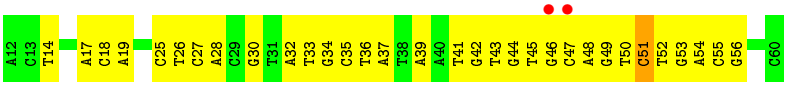


- Molecule 6: NT strand DNA (49-MER)

Chain 1:

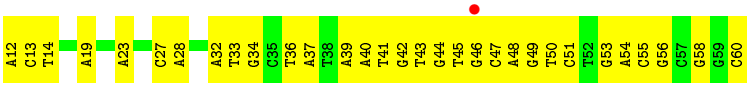
- Molecule 6: NT strand DNA (49-MER)

Chain 4:



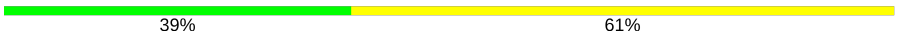
- Molecule 6: NT strand DNA (49-MER)

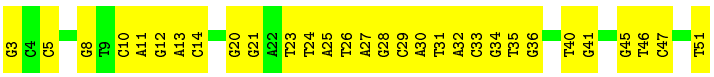
Chain 7:



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

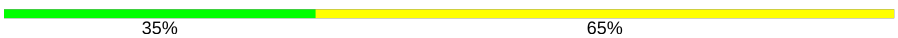
Chain 2:

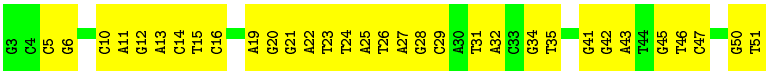




- Molecule 7: T strand DNA (49-MER)

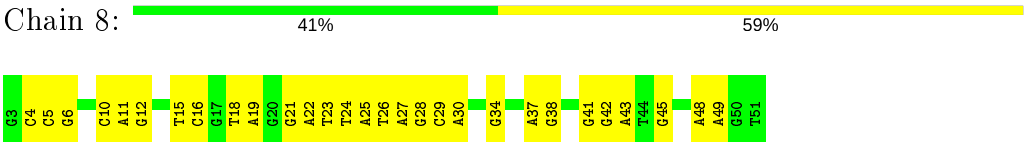
Chain 5:





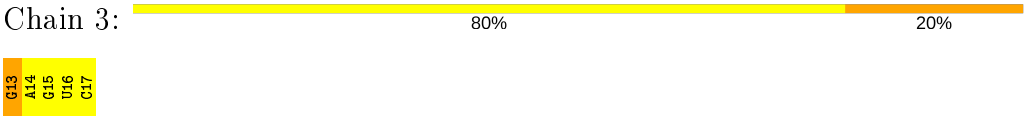
- Molecule 7: T strand DNA (49-MER)

Chain 8:



- Molecule 8: RNA (5'-R(*(GTP))-R(P*AP*GP*UP*C)-3')

Chain 3:

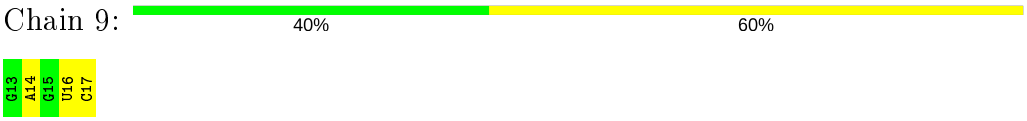


- Molecule 8: RNA (5'-R(*(GTP))-R(P*AP*GP*UP*C)-3')

Chain 6:

- Molecule 8: RNA (5'-R(*(GTP))-R(P*AP*GP*UP*C)-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	237.67Å 204.99Å 248.84Å 90.00° 116.86° 90.00°	Depositor
Resolution (Å)	39.98 – 5.50 39.98 – 5.50	Depositor EDS
% Data completeness (in resolution range)	97.9 (39.98-5.50) 98.1 (39.98-5.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.07 (at 5.37Å)	Xtriage
Refinement program	REFMAC 5.8.0073	Depositor
R, R_{free}	0.231 , 0.313 0.231 , 0.312	Depositor DCC
R_{free} test set	3384 reflections (4.98%)	wwPDB-VP
Wilson B-factor (Å^2)	324.1	Xtriage
Anisotropy	0.251	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.24 , 168.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.39$, $< L^2 > = 0.22$	Xtriage
Estimated twinning fraction	0.055 for h,-k,-h-l	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	94668	wwPDB-VP
Average B, all atoms (Å^2)	198.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.45% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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	0.63	0/1809	0.91	5/2450 (0.2%)
1	B	0.58	0/1789	0.87	3/2425 (0.1%)
1	G	0.60	0/1809	0.87	2/2450 (0.1%)
1	H	0.59	0/1789	0.87	2/2425 (0.1%)
1	M	0.53	0/1809	0.76	1/2450 (0.0%)
1	N	0.55	0/1789	0.81	1/2425 (0.0%)
2	C	0.56	0/10745	0.78	5/14499 (0.0%)
2	I	0.58	1/10745 (0.0%)	0.78	5/14499 (0.0%)
2	O	0.53	0/10745	0.75	4/14499 (0.0%)
3	D	0.57	1/10729 (0.0%)	0.80	9/14487 (0.1%)
3	J	0.59	1/10729 (0.0%)	0.85	16/14487 (0.1%)
3	P	0.57	1/10729 (0.0%)	0.80	5/14487 (0.0%)
4	E	0.53	0/710	0.71	0/956
4	K	0.62	1/710 (0.1%)	0.82	0/956
4	Q	0.54	0/710	0.77	0/956
5	F	0.51	0/4076	0.73	1/5482 (0.0%)
5	L	0.53	0/4076	0.75	3/5482 (0.1%)
5	R	0.54	1/4076 (0.0%)	0.75	3/5482 (0.1%)
6	1	0.34	0/1114	0.68	0/1714
6	4	1.27	1/1114 (0.1%)	0.91	4/1714 (0.2%)
6	7	0.40	0/1115	0.66	0/1718
7	2	0.35	0/1136	0.67	0/1752
7	5	0.33	0/1136	0.68	0/1752
7	8	0.41	0/1137	0.66	0/1756
8	3	0.38	0/94	0.67	0/144
8	6	0.42	0/94	0.64	0/144
8	9	0.28	0/94	0.68	0/144
All	All	0.57	7/96608 (0.0%)	0.79	69/131735 (0.1%)

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

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

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

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	4	51	DC	O3'-P	40.58	2.09	1.61
2	I	638	SER	CB-OG	16.07	1.63	1.42
3	D	955	LYS	CE-NZ	10.97	1.76	1.49
4	K	91	ARG	C-O	7.42	1.37	1.23
3	P	681	LYS	CG-CD	5.15	1.70	1.52
5	R	109	GLU	CG-CD	5.12	1.59	1.51
3	J	70	CYS	CB-SG	5.02	1.90	1.82

All (69) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	4	51	DC	OP1-P-O3'	15.55	139.42	105.20
6	4	51	DC	P-O3'-C3'	15.39	138.17	119.70
6	4	51	DC	O3'-P-O5'	-10.32	84.38	104.00
3	J	120	LEU	C-N-CD	-9.82	99.00	120.60
1	N	29	GLU	C-N-CD	-9.03	100.74	120.60
3	D	239	LEU	CA-CB-CG	-8.39	95.99	115.30
6	4	51	DC	OP2-P-O3'	-8.19	87.17	105.20
1	B	228	LEU	CA-CB-CG	-8.08	96.72	115.30
1	A	39	LEU	CA-CB-CG	-7.62	97.78	115.30
2	C	693	LEU	CA-CB-CG	-6.80	99.67	115.30
1	H	47	LEU	CA-CB-CG	-6.76	99.75	115.30
2	O	1327	LEU	CA-CB-CG	6.75	130.82	115.30
3	J	239	LEU	CA-CB-CG	-6.72	99.84	115.30
3	D	737	ILE	CB-CA-C	-6.65	98.30	111.60
3	P	120	LEU	C-N-CD	-6.54	106.22	120.60
3	D	423	LEU	CA-CB-CG	-6.51	100.32	115.30
3	D	770	LEU	CA-CB-CG	6.46	130.15	115.30
2	C	587	LEU	CA-CB-CG	-6.37	100.65	115.30
1	H	13	LEU	CA-CB-CG	6.33	129.86	115.30
3	P	1243	LEU	CA-CB-CG	6.29	129.77	115.30
1	M	83	LEU	CA-CB-CG	6.23	129.63	115.30
3	D	120	LEU	C-N-CD	-6.14	107.08	120.60
2	O	1308	ILE	CB-CA-C	-6.14	99.33	111.60
3	J	120	LEU	CA-CB-CG	6.12	129.37	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	J	885	VAL	CB-CA-C	-6.06	99.88	111.40
3	J	268	LEU	CA-CB-CG	-6.05	101.39	115.30
3	J	579	LEU	CA-CB-CG	-6.00	101.50	115.30
2	I	883	LEU	CA-CB-CG	-5.92	101.67	115.30
5	L	611	LEU	CA-CB-CG	5.92	128.93	115.30
5	R	598	LEU	CA-CB-CG	-5.90	101.72	115.30
2	I	953	LEU	CA-CB-CG	5.90	128.87	115.30
5	R	92	GLY	N-CA-C	-5.83	98.53	113.10
2	I	309	LEU	CA-CB-CG	5.82	128.68	115.30
2	O	1253	LEU	CA-CB-CG	-5.81	101.94	115.30
1	B	217	ILE	CB-CA-C	-5.80	100.01	111.60
1	G	39	LEU	CA-CB-CG	-5.78	102.00	115.30
3	J	583	VAL	CB-CA-C	-5.78	100.41	111.40
3	J	601	ILE	CB-CA-C	-5.76	100.08	111.60
5	L	532	LEU	CA-CB-CG	5.76	128.54	115.30
3	D	774	ILE	CB-CA-C	-5.73	100.13	111.60
3	D	641	ILE	CB-CA-C	-5.72	100.15	111.60
2	I	410	LEU	CA-CB-CG	5.72	128.45	115.30
5	R	350	GLU	OE1-CD-OE2	-5.71	116.44	123.30
3	J	387	LEU	CA-CB-CG	5.66	128.31	115.30
2	C	209	ILE	CB-CA-C	-5.56	100.49	111.60
3	P	1282	TYR	CA-CB-CG	5.55	123.95	113.40
2	I	246	LEU	CA-CB-CG	-5.50	102.64	115.30
1	A	224	LEU	CA-CB-CG	-5.49	102.67	115.30
1	A	205	MET	CB-CG-SD	-5.49	95.94	112.40
3	J	1175	LEU	CA-CB-CG	-5.48	102.69	115.30
2	O	1079	ILE	CB-CA-C	-5.46	100.68	111.60
3	J	737	ILE	CB-CA-C	-5.46	100.69	111.60
3	P	139	LEU	CA-CB-CG	-5.45	102.77	115.30
1	B	82	LEU	CA-CB-CG	5.41	127.75	115.30
1	G	144	ILE	CB-CA-C	-5.37	100.85	111.60
3	J	849	LEU	CA-CB-CG	5.36	127.63	115.30
2	C	1079	ILE	CB-CA-C	-5.34	100.92	111.60
1	A	79	LEU	CA-CB-CG	-5.27	103.17	115.30
3	D	803	VAL	CB-CA-C	-5.26	101.40	111.40
2	C	862	LEU	CA-CB-CG	5.25	127.38	115.30
3	D	849	LEU	CA-CB-CG	5.24	127.36	115.30
3	J	1292	LEU	CA-CB-CG	-5.23	103.28	115.30
5	L	595	LEU	CA-CB-CG	5.21	127.27	115.30
3	J	541	LEU	CA-CB-CG	-5.18	103.38	115.30
5	F	488	LEU	CA-CB-CG	5.17	127.19	115.30
3	J	342	LEU	CA-CB-CG	-5.12	103.52	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	J	499	ILE	CB-CA-C	-5.12	101.36	111.60
1	A	133	LEU	CA-CB-CG	5.10	127.02	115.30
3	P	840	LEU	CA-CB-CG	5.08	126.98	115.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	P	1276	GLU	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	209	0
1	B	1767	0	1789	217	0
1	G	1787	0	1813	166	0
1	H	1767	0	1789	160	0
1	M	1787	0	1813	134	0
1	N	1767	0	1789	116	0
2	C	10576	0	10591	815	0
2	I	10576	0	10591	916	0
2	O	10576	0	10591	739	0
3	D	10568	0	10781	927	1
3	J	10568	0	10780	1017	0
3	P	10568	0	10783	901	0
4	E	708	0	719	39	0
4	K	708	0	719	38	0
4	Q	708	0	719	47	0
5	F	4022	0	4083	280	0
5	L	4022	0	4083	220	0
5	R	4022	0	4083	298	0
6	1	996	0	555	65	1
6	4	996	0	556	71	0
6	7	996	0	554	60	1
7	2	1012	0	554	55	1
7	5	1012	0	554	53	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	8	1012	0	553	48	0
8	3	117	0	55	10	0
8	6	117	0	55	6	0
8	9	117	0	55	6	0
9	D	2	0	0	2	0
9	J	2	0	0	1	0
9	P	2	0	0	5	0
10	D	1	0	0	0	0
10	J	1	0	0	0	0
10	P	1	0	0	0	0
All	All	94668	0	92820	6810	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 (6810) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:255:ILE:CG1	2:I:255:ILE:CD1	1.74	1.59
3:D:955:LYS:NZ	3:D:955:LYS:CE	1.76	1.48
3:P:514:THR:HG21	3:P:596:LEU:CD1	1.48	1.42
3:J:421:VAL:CG1	3:J:469:HIS:O	1.70	1.40
3:P:1095:MET:SD	3:P:1173:ARG:NH2	1.97	1.38
3:D:130:MET:SD	3:D:135:ILE:HG12	1.62	1.37
3:P:514:THR:CG2	3:P:596:LEU:HD12	1.54	1.36
2:I:184:LEU:HD21	2:I:389:PHE:CZ	1.62	1.33
1:B:35:PHE:O	1:B:39:LEU:HG	1.27	1.32
2:I:206:ALA:O	2:I:209:ILE:HG22	1.23	1.30
3:D:703:THR:O	3:D:718:SER:CB	1.77	1.29
2:C:342:ASP:O	2:C:437:ASN:ND2	1.62	1.29
1:A:69:SER:O	1:A:78:ILE:HD11	1.24	1.29
2:O:1275:VAL:HG12	2:O:1279:GLU:OE2	1.29	1.29
1:A:224:LEU:CD1	1:A:228:LEU:HD11	1.62	1.28
3:J:1233:ILE:O	3:J:1237:VAL:HG23	1.27	1.28
1:H:39:LEU:O	1:H:43:LEU:HG	1.27	1.28
1:H:43:LEU:O	1:H:47:LEU:HD12	1.32	1.27
3:D:139:LEU:HD21	3:D:185:ILE:CD1	1.63	1.27
1:M:112:ALA:O	1:M:115:ILE:HD12	1.28	1.27
1:A:35:PHE:O	1:A:39:LEU:HG	1.29	1.26
2:O:206:ALA:O	2:O:209:ILE:HG22	1.30	1.26
1:A:45:ARG:HD3	1:B:38:THR:OG1	1.32	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1073:LYS:NZ	8:9:16:U:OP1	1.65	1.26
3:D:868:TRP:O	3:D:872:LEU:HG	1.33	1.26
3:J:1257:VAL:HA	3:J:1260:MET:CE	1.64	1.26
3:D:805:GLN:HB2	3:D:1347:LEU:CD1	1.66	1.24
3:J:1348:LYS:O	3:J:1352:ILE:HD12	1.11	1.24
1:A:180:VAL:HA	1:A:207:THR:CG2	1.69	1.23
3:J:372:MET:O	3:J:376:LEU:HG	1.38	1.23
5:L:573:LEU:HB3	7:5:45:DG:OP2	1.39	1.23
1:G:35:PHE:O	1:G:39:LEU:HD12	1.35	1.22
3:D:425:ARG:NH2	8:3:16:U:O2'	1.72	1.22
1:H:35:PHE:O	1:H:39:LEU:HG	1.37	1.21
2:I:1326:LEU:HA	2:I:1329:GLU:OE1	1.38	1.21
3:D:139:LEU:CD2	3:D:185:ILE:HD12	1.70	1.21
1:B:47:LEU:HD13	1:B:183:ILE:CD1	1.68	1.21
1:G:47:LEU:HD13	1:G:183:ILE:CD1	1.69	1.21
2:C:542:ARG:NH1	6:1:50:DT:C7	2.03	1.20
2:I:448:LEU:HD11	2:I:553:THR:O	1.37	1.20
2:C:521:LEU:HD21	2:C:686:GLN:HB3	1.21	1.20
3:J:843:VAL:HG21	3:J:897:HIS:O	1.43	1.17
3:P:398:LYS:CE	5:R:532:LEU:HD21	1.73	1.17
2:I:661:VAL:HG13	2:I:665:ALA:HB3	1.24	1.17
1:A:224:LEU:HD11	1:A:228:LEU:CD1	1.72	1.17
2:C:542:ARG:NH1	6:1:50:DT:H71	1.59	1.17
2:C:452:ARG:NH2	2:C:458:GLU:OE1	1.78	1.17
2:C:211:ARG:HD3	2:C:357:ASN:O	1.45	1.17
3:J:282:LEU:HD22	3:J:287:ALA:HB2	1.21	1.17
2:O:1326:LEU:O	2:O:1330:ILE:HD12	1.45	1.17
7:8:25:DA:H1'	7:8:26:DT:H5"	1.24	1.17
2:C:521:LEU:CD2	2:C:686:GLN:HB3	1.74	1.17
3:D:749:LYS:HB3	3:D:750:PRO:CD	1.70	1.17
1:M:112:ALA:O	1:M:115:ILE:CD1	1.93	1.16
3:P:398:LYS:HE2	5:R:532:LEU:HD21	1.21	1.16
3:P:608:CYS:SG	3:P:617:THR:HG22	1.85	1.15
1:M:47:LEU:CD1	1:M:183:ILE:HD12	1.75	1.15
3:P:502:PRO:HB3	3:P:506:VAL:HG11	1.29	1.15
2:O:136:PHE:HB3	2:O:138:ILE:HD11	1.26	1.15
1:N:101:THR:HG22	1:N:143:ARG:HG2	1.22	1.15
3:J:673:VAL:CG1	3:J:678:ARG:HB2	1.76	1.15
3:J:749:LYS:HB3	3:J:750:PRO:CD	1.77	1.15
2:O:402:ARG:NH2	2:O:417:SER:O	1.77	1.14
2:C:206:ALA:O	2:C:209:ILE:HG22	1.43	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:146:VAL:CG2	3:D:158:GLN:HB3	1.78	1.14
1:G:44:ARG:HA	1:G:47:LEU:HD12	1.29	1.13
1:N:31:LEU:HD11	1:N:39:LEU:HD12	1.23	1.13
1:H:85:LEU:HD21	1:H:130:ILE:CG2	1.77	1.13
2:O:29:SER:OG	2:O:30:ILE:HD12	1.46	1.13
3:D:759:ILE:O	3:D:759:ILE:HG22	1.49	1.13
3:D:943:ARG:HG2	3:D:944:ALA:H	1.10	1.13
2:C:96:LEU:CB	2:C:127:ILE:HD11	1.77	1.13
5:R:507:MET:O	5:R:519:LEU:HB3	1.46	1.12
3:D:515:ARG:NH2	3:D:717:VAL:HB	1.61	1.12
3:P:749:LYS:HB3	3:P:750:PRO:CD	1.79	1.12
3:J:421:VAL:HG12	3:J:469:HIS:O	1.30	1.12
3:P:849:LEU:HD21	3:P:857:LEU:HD23	1.31	1.12
1:A:192:VAL:HG21	1:A:198:LEU:HD12	1.22	1.12
3:D:869:CYS:HA	3:D:872:LEU:HD12	1.22	1.12
5:F:511:ILE:HD13	5:F:519:LEU:HD13	1.22	1.12
3:P:262:THR:HA	5:R:507:MET:HE3	1.17	1.11
3:J:112:ALA:HA	3:J:238:ILE:HD12	1.19	1.11
2:I:228:VAL:HG11	2:I:239:MET:HE3	1.28	1.11
3:J:496:GLY:HA2	3:J:903:LEU:HD22	1.28	1.11
2:C:575:LEU:HD11	2:C:579:ALA:HB3	1.33	1.11
5:L:507:MET:HA	5:L:519:LEU:HD23	1.24	1.11
2:C:149:LEU:HD11	2:C:451:ARG:HB3	1.33	1.11
3:J:1348:LYS:O	3:J:1352:ILE:CD1	1.98	1.11
5:L:533:ASP:O	5:L:536:THR:HB	1.50	1.11
1:H:39:LEU:O	1:H:43:LEU:CG	2.00	1.10
2:C:1077:SER:HA	3:D:356:THR:HG21	1.27	1.10
5:R:506:SER:O	5:R:519:LEU:HD23	1.52	1.10
1:B:61:ILE:HD12	1:B:61:ILE:N	1.61	1.10
1:B:84:ASN:OD1	3:D:551:ARG:NH1	1.84	1.10
6:4:51:DC:O3'	6:4:52:DT:P	2.09	1.10
1:A:13:LEU:HA	1:A:28:LEU:CD2	1.81	1.10
2:C:463:GLN:HG3	2:C:505:PHE:HD1	1.11	1.10
2:I:661:VAL:CG1	2:I:665:ALA:HB3	1.81	1.10
3:P:22:ILE:HD11	3:P:1319:PHE:CE1	1.87	1.10
5:R:584:ARG:O	5:R:587:ILE:HG12	1.49	1.10
2:C:988:LYS:HB2	2:C:988:LYS:NZ	1.67	1.09
1:G:180:VAL:HA	1:G:207:THR:HG22	1.34	1.09
1:M:9:LEU:HD21	1:M:198:LEU:HD21	1.25	1.09
3:P:88:CYS:SG	9:P:1501:ZN:ZN	1.39	1.09
3:J:363:LEU:HG	3:J:487:THR:HG22	1.26	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:734:ALA:HA	3:D:737:ILE:HD12	1.09	1.09
3:J:1138:LEU:HB3	3:J:1139:PRO:HD3	1.27	1.09
3:J:282:LEU:HD22	3:J:287:ALA:CB	1.81	1.09
1:H:68:TYR:HB2	3:P:857:LEU:HD13	1.23	1.09
1:A:39:LEU:HD23	1:A:39:LEU:N	1.48	1.09
5:F:132:CYS:SG	5:F:257:LYS:HE2	1.93	1.09
2:I:689:ALA:CB	2:I:1233:LEU:HD13	1.83	1.09
2:C:217:THR:CA	2:C:220:ILE:HD12	1.82	1.09
3:D:749:LYS:HG3	3:D:755:ILE:HG12	1.16	1.09
3:J:1156:LEU:HD22	3:J:1209:VAL:HA	1.34	1.09
2:I:870:ILE:HG13	2:I:944:ARG:HG2	1.29	1.09
2:C:524:ILE:HD11	2:C:712:SER:HB3	1.15	1.08
2:C:1077:SER:HA	3:D:356:THR:CG2	1.83	1.08
2:I:1324:ASN:HA	2:I:1327:LEU:HD12	1.15	1.08
2:I:402:ARG:HG2	2:I:416:GLY:HA3	1.34	1.08
3:J:749:LYS:HB3	3:J:750:PRO:HD2	1.14	1.08
3:D:139:LEU:CD2	3:D:185:ILE:CD1	2.26	1.08
2:C:96:LEU:HB2	2:C:127:ILE:CD1	1.83	1.08
1:G:228:LEU:HD13	1:H:224:LEU:HD11	1.08	1.08
1:M:47:LEU:HD12	1:M:183:ILE:CD1	1.83	1.08
2:O:496:LYS:HB2	2:O:497:PRO:HD3	1.26	1.08
2:C:560:PRO:O	3:D:780:ARG:NH2	1.87	1.08
2:C:903:ARG:HH21	2:C:909:LYS:HG2	1.19	1.08
3:J:1164:SER:O	3:J:1175:LEU:CD1	2.02	1.08
3:J:373:ALA:HA	3:J:376:LEU:HD12	1.10	1.08
1:A:47:LEU:HD13	1:A:183:ILE:HD11	1.33	1.07
2:I:1276:TRP:HD1	2:I:1279:GLU:OE1	1.37	1.07
3:J:373:ALA:HA	3:J:376:LEU:CD1	1.82	1.07
3:J:502:PRO:HG2	3:J:601:ILE:HG21	1.33	1.07
1:A:180:VAL:CA	1:A:207:THR:HG22	1.83	1.07
1:A:13:LEU:HA	1:A:28:LEU:HD21	1.24	1.07
1:G:43:LEU:O	1:G:47:LEU:HG	1.51	1.07
3:P:74:LYS:HD3	3:P:85:CYS:SG	1.95	1.07
2:C:616:ILE:HG12	2:C:652:TYR:HB2	1.34	1.07
3:D:1155:ILE:O	3:D:1210:ILE:HD12	1.52	1.07
3:P:262:THR:O	5:R:507:MET:HB2	1.55	1.07
3:P:322:ARG:HB2	3:P:323:PRO:HD2	1.35	1.07
3:D:425:ARG:NH1	3:D:426:ALA:O	1.88	1.07
3:J:115:TRP:CH2	3:J:1329:THR:HA	1.90	1.07
5:F:91:ILE:HD11	5:F:103:ARG:NH1	1.70	1.06
3:D:1328:THR:O	3:D:1332:LEU:HG	1.53	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:86:LYS:HE2	1:N:174:ASP:HB2	1.34	1.06
3:P:245:LEU:HD12	3:P:246:PRO:HD2	1.35	1.06
5:F:396:ASN:O	5:F:398:GLY:N	1.88	1.06
1:A:227:GLN:O	1:A:231:PHE:CZ	2.09	1.06
1:H:85:LEU:HD21	1:H:130:ILE:HG23	1.07	1.06
3:P:805:GLN:OE1	3:P:1348:LYS:HG3	1.55	1.06
2:C:14:ASP:OD2	2:C:1156:ARG:NH2	1.86	1.06
5:F:511:ILE:CD1	5:F:519:LEU:HD13	1.85	1.06
2:O:59:ILE:HG23	2:O:476:LYS:HE3	1.35	1.06
1:A:182:ARG:CD	2:C:1092:THR:HG23	1.86	1.06
2:I:883:LEU:HD21	2:I:920:VAL:CG2	1.84	1.06
3:P:262:THR:HA	5:R:507:MET:CE	1.85	1.05
2:O:896:THR:HG22	2:O:899:GLU:OE1	1.56	1.05
2:I:689:ALA:HB2	2:I:1233:LEU:HD13	1.13	1.05
2:C:217:THR:HA	2:C:220:ILE:CD1	1.85	1.05
3:J:1138:LEU:CB	3:J:1139:PRO:HD3	1.86	1.05
3:P:1163:VAL:HG11	3:P:1175:LEU:HD21	1.38	1.05
3:P:109:SER:HB2	3:P:296:LYS:CE	1.87	1.05
1:G:47:LEU:HD13	1:G:183:ILE:HD11	1.39	1.04
2:I:363:LEU:HA	2:I:366:ILE:HD12	1.06	1.04
2:I:764:CYS:HA	2:I:833:ILE:HD11	1.39	1.04
3:P:253:VAL:HB	3:P:254:PRO:CD	1.85	1.04
2:O:1243:MET:HG2	3:P:372:MET:HE2	1.34	1.04
2:O:247:ARG:HG3	2:O:274:ILE:HD13	1.36	1.04
1:A:224:LEU:HG	1:A:225:ALA:N	1.36	1.04
2:C:10:ARG:NH2	2:C:697:LYS:HD3	1.71	1.04
1:G:102:LEU:HD13	1:G:114:ASP:O	1.57	1.04
2:I:38:PHE:HE1	2:I:461:GLU:HA	1.17	1.04
2:O:1275:VAL:O	2:O:1279:GLU:HG3	1.57	1.04
3:P:601:ILE:HA	3:P:604:MET:SD	1.97	1.04
1:M:43:LEU:O	1:M:47:LEU:HG	1.58	1.03
3:P:739:GLN:HE22	3:P:940:ALA:HB3	1.20	1.03
3:P:139:LEU:HD11	3:P:185:ILE:HD12	1.37	1.03
1:A:168:ILE:H	1:A:168:ILE:HD12	1.21	1.03
1:A:39:LEU:N	1:A:39:LEU:CD2	2.16	1.03
5:L:507:MET:O	5:L:519:LEU:HB3	1.58	1.03
1:B:44:ARG:HH12	3:D:538:ARG:HB3	1.22	1.03
3:J:368:LEU:O	3:J:441:LEU:HD23	1.58	1.03
3:J:673:VAL:HG13	3:J:678:ARG:HB2	1.39	1.03
3:P:620:PHE:O	3:P:624:ILE:HG13	1.56	1.03
3:D:251:PRO:O	5:F:507:MET:HE3	1.59	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:17:PHE:O	3:J:1355:ARG:NH1	1.90	1.03
1:B:39:LEU:N	1:B:39:LEU:HD23	1.74	1.03
2:C:819:SER:O	2:C:822:VAL:HG23	1.59	1.02
1:G:106:GLY:HA2	1:G:136:GLU:HA	1.40	1.02
1:B:47:LEU:HD13	1:B:183:ILE:HD12	1.03	1.02
3:J:109:SER:HB2	3:J:296:LYS:HE2	1.37	1.02
5:L:592:ALA:HA	5:L:595:LEU:HD12	1.36	1.02
2:I:1286:THR:OG1	3:J:479:GLU:OE2	1.77	1.02
1:N:31:LEU:CD1	1:N:39:LEU:HD12	1.89	1.02
2:O:550:VAL:HG23	3:P:780:ARG:HD2	1.37	1.02
3:P:514:THR:HG21	3:P:596:LEU:CG	1.89	1.02
3:J:839:VAL:HG12	3:J:864:LEU:HD12	1.02	1.02
2:O:878:THR:HG22	2:O:879:GLY:N	1.72	1.02
1:B:83:LEU:HD13	1:B:86:LYS:HD2	1.40	1.02
3:D:805:GLN:HB2	3:D:1347:LEU:HD12	1.33	1.02
2:I:241:LEU:HD11	2:I:246:LEU:HD11	1.38	1.02
1:B:85:LEU:HD21	1:B:130:ILE:HG23	1.42	1.02
2:I:524:ILE:HD11	2:I:712:SER:HB3	1.39	1.02
3:J:1257:VAL:HA	3:J:1260:MET:HE2	1.06	1.02
1:M:232:VAL:HG13	1:N:218:ARG:HG2	1.39	1.02
3:J:185:ILE:HG22	3:J:189:LEU:HD11	1.40	1.01
3:J:839:VAL:CG1	3:J:864:LEU:HD12	1.89	1.01
1:G:47:LEU:CD1	1:G:183:ILE:CD1	2.39	1.01
3:P:1310:THR:O	3:P:1314:LEU:HG	1.60	1.01
1:G:232:VAL:HG22	1:H:221:ALA:CB	1.90	1.01
3:J:598:LYS:HA	3:J:601:ILE:HD12	1.41	1.01
3:J:363:LEU:HD23	3:J:618:VAL:HG13	1.02	1.01
3:P:840:LEU:HD13	3:P:869:CYS:SG	2.00	1.01
3:D:749:LYS:CG	3:D:755:ILE:HG12	1.89	1.01
2:I:1276:TRP:HE1	3:J:1348:LYS:NZ	1.59	1.01
3:P:427:PRO:HB3	7:8:12:DG:N2	1.75	1.01
3:J:503:SER:O	3:J:506:VAL:HG23	1.58	1.01
3:P:115:TRP:CH2	3:P:1329:THR:HA	1.96	1.01
3:P:1344:LEU:HA	3:P:1349:GLU:OE1	1.60	1.01
2:C:264:GLU:HB2	2:C:267:ARG:HB3	1.42	1.01
3:P:749:LYS:HB3	3:P:750:PRO:HD2	1.03	1.01
1:A:224:LEU:CG	1:A:225:ALA:N	2.24	1.00
3:D:930:LEU:HB2	3:D:1134:ILE:HD11	1.43	1.00
1:B:61:ILE:HD12	1:B:61:ILE:H	1.20	1.00
3:D:749:LYS:CB	3:D:750:PRO:HD2	1.91	1.00
5:L:123:ILE:HD13	5:L:376:LYS:HE3	1.39	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:797:THR:O	3:P:801:VAL:HG23	1.61	1.00
3:D:543:SER:O	3:D:574:VAL:HG21	1.60	1.00
3:P:1328:THR:O	3:P:1332:LEU:HG	1.62	1.00
2:I:206:ALA:O	2:I:209:ILE:CG2	2.09	1.00
2:I:953:LEU:HD22	2:I:957:LYS:HZ2	1.26	1.00
3:P:1145:PHE:HB3	3:P:1309:ILE:HD11	1.39	1.00
3:D:342:LEU:HD22	3:D:1352:ILE:HG23	1.43	1.00
2:I:871:VAL:HG23	2:I:883:LEU:O	1.62	1.00
3:J:1282:TYR:OH	3:J:1304:ARG:NH2	1.95	1.00
3:D:736:GLN:O	3:D:740:LEU:HG	1.60	1.00
5:F:449:THR:OG1	5:F:504:PRO:HG3	1.60	1.00
1:H:78:ILE:O	1:H:82:LEU:HG	1.61	1.00
3:P:515:ARG:NH2	3:P:718:SER:O	1.93	1.00
5:R:457:ILE:HA	5:R:460:ILE:HD12	1.44	1.00
3:J:275:ARG:NH1	3:J:298:MET:O	1.93	0.99
5:L:306:PHE:O	5:L:310:GLU:HG3	1.61	0.99
1:A:38:THR:HG23	1:B:42:ALA:HA	1.42	0.99
3:J:797:THR:HA	3:J:800:LEU:HD12	1.44	0.99
2:C:542:ARG:NH1	6:1:50:DT:H73	1.75	0.99
2:I:912:ASP:O	2:I:913:VAL:HG23	1.62	0.99
2:I:953:LEU:HD22	2:I:957:LYS:NZ	1.77	0.99
3:P:425:ARG:NH1	3:P:426:ALA:O	1.95	0.99
5:R:120:ALA:HA	5:R:123:ILE:HD12	1.43	0.99
1:B:81:ILE:O	1:B:85:LEU:HG	1.61	0.99
5:F:460:ILE:HA	5:F:463:LEU:HD12	1.45	0.99
7:2:23:DT:H3'	7:2:24:DT:H5"	1.45	0.99
1:A:182:ARG:HD2	2:C:1092:THR:HG23	1.43	0.99
1:G:228:LEU:CD1	1:H:224:LEU:HD11	1.91	0.99
1:H:192:VAL:HG11	1:H:198:LEU:HD22	1.42	0.99
3:J:814:CYS:SG	9:J:1502:ZN:ZN	1.51	0.99
5:L:429:THR:HG1	6:4:39:DA:H8	1.10	0.99
2:I:184:LEU:HD21	2:I:389:PHE:CE2	1.97	0.99
3:P:22:ILE:HD11	3:P:1319:PHE:CD1	1.96	0.99
1:B:61:ILE:HB	1:B:64:VAL:HB	1.42	0.99
2:C:656:SER:O	2:C:659:GLN:HG2	1.60	0.98
3:D:139:LEU:HD21	3:D:185:ILE:HD12	1.23	0.98
3:J:421:VAL:HG12	3:J:422:LEU:H	1.26	0.98
1:N:158:ARG:HD3	1:N:172:LEU:HD11	1.41	0.98
3:P:368:LEU:HD21	3:P:373:ALA:HB2	1.43	0.98
1:A:192:VAL:HG21	1:A:198:LEU:CD1	1.93	0.98
3:D:318:GLY:HA3	3:D:322:ARG:HH12	1.24	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1257:VAL:CA	3:J:1260:MET:HE2	1.92	0.98
3:J:1357:ILE:N	3:J:1357:ILE:HD12	1.75	0.98
3:P:139:LEU:HD11	3:P:185:ILE:CD1	1.92	0.98
2:I:755:LYS:NZ	2:I:767:GLN:O	1.94	0.98
3:J:1163:VAL:HG13	3:J:1176:VAL:O	1.63	0.98
2:I:1280:ALA:CB	3:J:431:ARG:HB3	1.93	0.98
3:J:519:ASN:HB2	3:J:523:GLU:HB2	1.45	0.98
3:J:613:GLY:O	3:J:617:THR:HG23	1.62	0.98
2:O:878:THR:HG22	2:O:879:GLY:H	1.27	0.98
2:C:670:PHE:CD2	2:C:1113:LEU:HB2	1.99	0.98
2:O:1275:VAL:CG1	2:O:1279:GLU:OE2	2.11	0.98
2:O:732:ILE:HD11	2:O:753:LEU:HD11	1.41	0.98
2:I:217:THR:HA	2:I:220:ILE:HD12	1.44	0.98
1:H:168:ILE:HD11	3:P:867:GLN:HB2	1.46	0.98
1:B:35:PHE:O	1:B:39:LEU:CG	2.12	0.97
1:A:225:ALA:HA	1:A:228:LEU:HD12	1.44	0.97
3:D:703:THR:O	3:D:718:SER:HB3	0.81	0.97
1:H:190:ALA:H	1:H:199:ASP:HA	1.25	0.97
2:I:228:VAL:HG11	2:I:239:MET:CE	1.93	0.97
2:I:1086:PRO:O	2:I:1094:VAL:CG2	2.13	0.97
5:F:339:ARG:O	5:F:342:GLN:HB2	1.65	0.97
1:G:232:VAL:CG2	1:H:221:ALA:CB	2.43	0.97
3:P:337:ARG:CD	3:P:341:ASN:HD21	1.78	0.97
2:C:706:ARG:O	2:C:710:VAL:HG23	1.63	0.97
3:J:839:VAL:HG12	3:J:864:LEU:CD1	1.94	0.97
1:M:45:ARG:HH12	2:O:1216:ARG:HA	1.30	0.97
3:D:44:ILE:HD12	3:D:44:ILE:O	1.64	0.97
2:O:1261:GLY:CA	7:8:16:DC:OP1	2.13	0.97
2:O:435:ILE:HG12	2:O:440:GLY:HA3	1.42	0.97
3:D:514:THR:HG21	3:D:596:LEU:HG	1.44	0.97
2:I:1288:GLN:O	2:I:1292:THR:HG22	1.63	0.97
3:J:620:PHE:O	3:J:624:ILE:HG13	1.65	0.97
2:C:157:PHE:O	2:C:442:VAL:HG12	1.65	0.96
3:P:1134:ILE:HG23	3:P:1138:LEU:HG	1.41	0.96
3:J:711:GLY:N	3:P:1302:TYR:OH	1.96	0.96
3:P:113:HIS:HB2	3:P:239:LEU:HD21	1.47	0.96
2:I:819:SER:O	2:I:822:VAL:HG23	1.62	0.96
1:A:16:ILE:HA	1:A:26:VAL:HG22	1.47	0.96
3:D:1274:PHE:O	3:D:1275:LEU:HB2	1.64	0.96
3:J:185:ILE:O	3:J:189:LEU:HG	1.64	0.96
3:J:1357:ILE:CD1	3:J:1357:ILE:N	2.25	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:620:PHE:O	3:J:624:ILE:CG1	2.13	0.96
3:P:109:SER:HB2	3:P:296:LYS:NZ	1.79	0.96
3:D:620:PHE:O	3:D:624:ILE:HG13	1.64	0.96
3:D:946:ALA:O	3:D:948:SER:N	1.97	0.96
5:L:93:ARG:HD2	5:L:93:ARG:O	1.64	0.96
5:F:583:THR:OG1	6:1:14:DT:OP2	1.81	0.96
3:D:1282:TYR:O	3:D:1285:VAL:HG12	1.65	0.96
2:I:237:LEU:CD1	2:I:289:VAL:HG13	1.94	0.96
1:M:9:LEU:HD21	1:M:198:LEU:CD2	1.96	0.96
2:C:897:PRO:HA	2:C:900:LYS:HD3	1.43	0.96
3:D:318:GLY:HA3	3:D:322:ARG:NH1	1.79	0.96
1:G:47:LEU:CD1	1:G:183:ILE:HD11	1.94	0.96
3:J:482:ALA:O	3:J:488:ASN:ND2	1.99	0.96
3:P:70:CYS:SG	9:P:1501:ZN:ZN	1.52	0.96
3:D:251:PRO:O	5:F:507:MET:CE	2.13	0.95
2:O:890:LYS:NZ	2:O:893:THR:HG23	1.81	0.95
5:R:587:ILE:N	5:R:587:ILE:HD13	1.80	0.95
2:C:260:LYS:HD3	2:C:260:LYS:H	1.30	0.95
2:C:463:GLN:HG3	2:C:505:PHE:CD1	2.00	0.95
2:I:1113:LEU:CD2	3:J:641:ILE:HD13	1.95	0.95
3:P:70:CYS:HG	9:P:1501:ZN:ZN	0.68	0.95
2:C:542:ARG:HH12	6:1:50:DT:H71	1.28	0.95
1:H:35:PHE:O	1:H:39:LEU:CG	2.14	0.95
6:7:44:DG:H2'	6:7:45:DT:O4'	1.66	0.95
2:I:1271:GLY:O	2:I:1275:VAL:HG23	1.66	0.95
2:I:1113:LEU:HD23	3:J:641:ILE:CD1	1.95	0.95
1:H:43:LEU:C	1:H:47:LEU:HD12	1.85	0.95
3:J:1233:ILE:O	3:J:1237:VAL:CG2	2.14	0.95
2:I:1289:GLU:OE2	3:J:473:THR:HG23	1.65	0.95
3:P:322:ARG:HE	5:R:510:PRO:HD3	1.31	0.95
5:R:511:ILE:O	7:8:19:DA:N6	1.99	0.95
1:B:85:LEU:CD2	1:B:130:ILE:HG23	1.96	0.95
2:C:96:LEU:HB2	2:C:127:ILE:HD11	0.96	0.95
3:D:531:LYS:H	3:D:531:LYS:HD2	1.31	0.95
1:H:162:GLU:HG2	1:H:162:GLU:O	1.67	0.95
1:H:43:LEU:O	1:H:47:LEU:CD1	2.14	0.95
2:I:875:ALA:O	2:I:928:VAL:HG23	1.65	0.95
3:J:227:PHE:CE1	3:J:232:ASN:O	2.19	0.95
1:M:47:LEU:HD12	1:M:183:ILE:HD12	0.97	0.95
2:C:467:GLY:O	2:C:471:VAL:HG23	1.67	0.95
3:J:1132:LYS:O	3:J:1133:ASP:HB3	1.66	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:506:VAL:O	3:J:510:LEU:HG	1.66	0.94
2:I:1290:MET:SD	2:I:1294:LYS:HD2	2.06	0.94
2:I:1297:ASP:OD2	2:I:1318:GLY:HA3	1.67	0.94
3:D:1167:LYS:H	3:D:1167:LYS:HD2	1.33	0.94
2:O:1326:LEU:HA	2:O:1329:GLU:OE1	1.67	0.94
3:P:473:THR:HB	3:P:475:GLU:OE1	1.66	0.94
1:A:224:LEU:HD11	1:A:228:LEU:HD11	0.94	0.94
2:C:870:ILE:HG13	2:C:944:ARG:HG2	1.50	0.94
2:I:1113:LEU:HD23	3:J:641:ILE:HD13	1.47	0.94
3:P:337:ARG:HD3	3:P:341:ASN:HD21	1.32	0.94
5:R:518:HIS:O	5:R:520:GLY:N	2.01	0.94
3:J:1344:LEU:HA	3:J:1349:GLU:OE1	1.68	0.94
1:B:38:THR:HB	1:B:39:LEU:HD23	1.50	0.94
3:D:515:ARG:HH21	3:D:717:VAL:HB	1.32	0.94
3:D:868:TRP:O	3:D:872:LEU:CG	2.16	0.94
5:F:575:GLU:HG2	5:F:578:LYS:HE3	1.48	0.94
3:J:594:GLN:O	3:J:596:LEU:HG	1.68	0.94
3:D:121:PRO:O	3:D:122:SER:HB3	1.66	0.94
5:L:295:CYS:O	5:L:296:LYS:HE3	1.67	0.94
2:O:1042:LEU:HD21	2:O:1049:ILE:HD11	1.50	0.94
2:I:540:ARG:NH2	8:6:13:GTP:O1G	2.01	0.94
3:J:502:PRO:HG2	3:J:601:ILE:CG2	1.98	0.94
3:P:1266:ILE:HD12	3:P:1278:GLU:HB2	1.49	0.94
2:C:878:THR:HG22	2:C:879:GLY:H	1.29	0.93
2:I:593:LYS:NZ	2:I:595:THR:OG1	2.01	0.93
3:P:514:THR:HG21	3:P:596:LEU:HD12	0.95	0.93
5:R:583:THR:HG22	5:R:586:ARG:HB3	1.50	0.93
3:J:363:LEU:HD23	3:J:618:VAL:CG1	1.97	0.93
3:D:378:LYS:NZ	5:F:532:LEU:HD11	1.83	0.93
1:A:38:THR:C	1:A:39:LEU:HD23	1.88	0.93
1:A:69:SER:O	1:A:78:ILE:CD1	2.16	0.93
1:B:142:MET:N	1:B:142:MET:HE3	1.82	0.93
2:O:878:THR:CG2	2:O:879:GLY:H	1.81	0.93
3:D:805:GLN:CB	3:D:1347:LEU:CD1	2.46	0.93
1:H:192:VAL:CG1	1:H:198:LEU:HD22	1.97	0.93
3:J:536:LEU:CD2	3:J:541:LEU:HB2	1.99	0.93
2:C:1061:GLN:HB2	2:C:1062:PRO:HD2	1.51	0.93
3:P:169:LEU:HG	3:P:170:GLU:N	1.82	0.93
1:B:13:LEU:HA	1:B:28:LEU:HD21	1.47	0.93
3:D:974:VAL:HG11	3:D:1028:ILE:HG21	1.50	0.93
3:D:530:PRO:HD3	3:D:552:ILE:HD11	1.46	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:190:ALA:H	1:N:199:ASP:HA	1.30	0.93
2:C:452:ARG:C	2:C:453:ILE:HD13	1.88	0.93
2:I:1324:ASN:HA	2:I:1327:LEU:CD1	1.99	0.93
2:I:936:ARG:HG2	2:I:937:ASP:H	1.29	0.93
2:O:551:HIS:HD1	2:O:553:THR:HG1	0.98	0.93
5:F:295:CYS:O	5:F:296:LYS:HB2	1.67	0.93
2:O:260:LYS:HE3	2:O:262:TYR:OH	1.67	0.93
2:I:661:VAL:HG13	2:I:665:ALA:CB	1.99	0.92
3:J:1163:VAL:HG22	3:J:1177:ILE:HG23	1.51	0.92
3:J:1356:LEU:HD13	3:J:1365:TYR:CE1	2.04	0.92
3:P:739:GLN:NE2	3:P:940:ALA:HB3	1.84	0.92
5:R:429:THR:HG1	6:7:39:DA:H8	1.09	0.92
2:O:1305:TYR:HA	2:O:1308:ILE:HD12	1.50	0.92
2:I:798:GLN:HB2	2:I:828:PHE:CZ	2.05	0.92
2:O:118:LYS:NZ	2:O:485:ASP:O	2.03	0.92
3:D:822:MET:HG2	3:D:838:ARG:HH21	1.35	0.92
5:L:381:GLU:O	5:L:384:LEU:HG	1.69	0.92
3:P:492:SER:CB	3:P:495:ASN:OD1	2.17	0.92
3:J:673:VAL:HG11	3:J:678:ARG:HB2	1.49	0.92
5:L:385:ARG:O	5:L:388:ILE:HG23	1.70	0.92
3:P:1267:VAL:O	3:P:1268:ASN:HB2	1.69	0.92
2:O:550:VAL:HG21	3:P:776:THR:CG2	1.99	0.92
1:A:42:ALA:HA	1:B:38:THR:HG23	1.51	0.92
3:D:97:VAL:HG12	3:D:101:ARG:HG3	1.52	0.92
3:D:1163:VAL:HG13	3:D:1176:VAL:O	1.68	0.92
3:D:392:THR:HG1	5:F:609:SER:HG	1.16	0.92
3:J:363:LEU:CD2	3:J:618:VAL:HG13	1.96	0.92
2:O:1322:SER:O	2:O:1325:VAL:HB	1.69	0.92
3:P:868:TRP:O	3:P:872:LEU:HG	1.70	0.92
3:P:252:LEU:HD13	3:P:262:THR:HB	1.48	0.92
1:H:68:TYR:CB	3:P:857:LEU:HD13	1.99	0.92
3:D:130:MET:SD	3:D:135:ILE:CG1	2.56	0.91
2:O:1290:MET:SD	2:O:1294:LYS:HD2	2.10	0.91
2:O:157:PHE:O	2:O:442:VAL:HG13	1.68	0.91
2:C:524:ILE:CD1	2:C:712:SER:HB3	1.99	0.91
5:F:320:ILE:HG23	5:F:327:SER:HB3	1.49	0.91
2:I:1061:GLN:HB2	2:I:1062:PRO:HD2	1.50	0.91
2:I:448:LEU:HD11	2:I:553:THR:C	1.90	0.91
2:I:881:ASP:O	2:I:920:VAL:HG23	1.71	0.91
3:J:1333:THR:O	3:J:1337:VAL:HG23	1.69	0.91
3:D:1267:VAL:O	3:D:1268:ASN:HB2	1.69	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:51:DC:O3'	6:4:52:DT:H5'	1.70	0.91
2:I:700:VAL:HG13	2:I:1117:LEU:HD23	1.50	0.91
3:J:1272:SER:HB2	3:J:1274:PHE:CE2	2.06	0.91
5:L:507:MET:HA	5:L:519:LEU:CD2	1.99	0.91
3:J:1175:LEU:HD12	3:J:1176:VAL:H	1.30	0.91
3:J:363:LEU:HG	3:J:487:THR:CG2	2.01	0.91
3:J:363:LEU:CG	3:J:487:THR:HG22	2.00	0.91
3:J:930:LEU:HB3	3:J:1134:ILE:HD12	1.53	0.91
3:D:205:LEU:HD21	3:D:214:ARG:HG3	1.51	0.91
3:D:749:LYS:HB3	3:D:750:PRO:HD2	0.94	0.91
5:L:216:LEU:HG	5:L:220:LYS:HE2	1.51	0.91
5:R:520:GLY:HA2	5:R:523:ILE:CD1	2.01	0.91
1:B:83:LEU:HD11	1:B:86:LYS:HZ2	1.36	0.91
2:I:375:PRO:HD3	5:L:87:VAL:HG11	1.52	0.91
1:B:79:LEU:O	1:B:82:LEU:HB2	1.70	0.91
2:C:883:LEU:HD21	2:C:920:VAL:HG22	1.52	0.91
5:R:265:GLN:O	5:R:269:LEU:HG	1.71	0.91
5:R:583:THR:CG2	5:R:586:ARG:HB3	2.01	0.91
3:D:1173:ARG:O	3:D:1190:ILE:HB	1.71	0.90
1:G:232:VAL:CG1	1:H:218:ARG:HA	2.01	0.90
1:A:180:VAL:HA	1:A:207:THR:HG22	0.92	0.90
1:G:167:PRO:HG2	1:G:170:ARG:HD2	1.54	0.90
2:I:1276:TRP:HE1	3:J:1348:LYS:HZ1	1.13	0.90
3:J:245:LEU:HD21	3:J:249:LEU:HB2	1.51	0.90
3:J:492:SER:HG	3:J:495:ASN:H	1.16	0.90
3:J:848:VAL:HG11	3:J:880:VAL:HG22	1.52	0.90
1:M:48:LEU:HD21	1:M:183:ILE:HG22	1.53	0.90
3:P:797:THR:HA	3:P:800:LEU:HD12	1.53	0.90
2:I:363:LEU:HA	2:I:366:ILE:CD1	2.00	0.90
2:O:15:PHE:CE2	2:O:1182:ILE:HD13	2.06	0.90
1:G:77:ASP:O	1:G:81:ILE:HD12	1.70	0.90
3:J:255:LEU:HD22	3:J:256:ASP:H	1.36	0.90
3:P:720:ASN:O	3:P:724:MET:HG3	1.69	0.90
1:B:47:LEU:CD1	1:B:183:ILE:HD12	1.99	0.90
2:C:903:ARG:NH2	2:C:909:LYS:HG2	1.87	0.90
3:D:146:VAL:HG21	3:D:158:GLN:HB3	1.54	0.90
3:J:536:LEU:HD22	3:J:541:LEU:HB2	1.54	0.90
5:F:423:ARG:HD3	6:1:37:DA:C6	2.06	0.90
2:I:452:ARG:NH2	2:I:458:GLU:OE1	2.05	0.90
3:J:848:VAL:HG21	3:J:880:VAL:CG1	2.00	0.90
5:R:407:GLU:HG2	5:R:442:SER:HB3	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:74:LYS:NZ	3:D:86:GLU:OE2	2.05	0.90
1:G:225:ALA:HA	1:G:228:LEU:HD12	1.54	0.90
2:I:1042:LEU:HD13	2:I:1049:ILE:CD1	2.02	0.90
1:A:35:PHE:O	1:A:39:LEU:CG	2.20	0.90
3:P:490:ILE:HD12	3:P:490:ILE:H	1.36	0.90
1:A:81:ILE:O	1:A:85:LEU:HG	1.72	0.89
2:I:593:LYS:CE	2:I:595:THR:OG1	2.21	0.89
2:O:1314:GLN:HA	4:Q:28:ARG:NH2	1.86	0.89
2:C:13:LYS:HE3	2:C:1149:TYR:O	1.71	0.89
3:D:1230:THR:HA	3:D:1233:ILE:HD12	1.54	0.89
3:D:154:LEU:HD13	3:D:158:GLN:HG2	1.54	0.89
5:F:132:CYS:SG	5:F:257:LYS:CE	2.60	0.89
1:G:112:ALA:HB3	1:G:126:PRO:HA	1.51	0.89
3:J:1231:ARG:O	3:J:1234:VAL:HB	1.71	0.89
3:P:1154:ALA:HB1	3:P:1211:SER:HB2	1.52	0.89
3:D:262:THR:C	5:F:507:MET:HB2	1.92	0.89
1:G:39:LEU:O	1:G:43:LEU:HD12	1.73	0.89
2:I:800:MET:HE2	2:I:800:MET:HA	1.51	0.89
3:J:139:LEU:HD21	3:J:185:ILE:CG1	2.03	0.89
1:N:35:PHE:O	1:N:39:LEU:HG	1.72	0.89
3:P:1075:ARG:HG3	3:P:1192:LYS:HD3	1.53	0.89
2:C:1105:SER:OG	3:D:731:ARG:NH1	2.06	0.89
3:D:262:THR:O	5:F:507:MET:HB2	1.72	0.89
2:I:96:LEU:HB2	2:I:127:ILE:CD1	2.03	0.89
1:M:232:VAL:HG13	1:N:218:ARG:CG	2.02	0.89
3:P:514:THR:CG2	3:P:596:LEU:CD1	2.26	0.89
2:C:1232:MET:HA	2:C:1232:MET:HE2	1.54	0.89
2:I:671:LEU:HD23	2:I:1186:VAL:CG1	2.02	0.89
2:I:1291:LEU:O	3:J:345:LYS:NZ	2.05	0.89
3:P:262:THR:OG1	3:P:266:ASN:ND2	2.06	0.89
1:G:232:VAL:CG2	1:H:221:ALA:HB1	2.02	0.89
1:A:221:ALA:O	1:A:224:LEU:HD23	1.71	0.89
1:A:228:LEU:HA	1:A:231:PHE:CE2	2.06	0.89
2:I:575:LEU:HD11	2:I:579:ALA:HB3	1.51	0.89
5:R:466:ILE:HG22	5:R:470:MET:SD	2.12	0.89
3:D:517:CYS:HB2	3:D:719:PHE:HZ	1.38	0.89
2:I:883:LEU:HD21	2:I:920:VAL:HG22	1.53	0.89
3:P:121:PRO:O	3:P:122:SER:HB3	1.72	0.89
5:L:451:ARG:NH1	6:4:32:DA:OP1	2.06	0.88
2:I:671:LEU:HD23	2:I:1186:VAL:HG11	1.55	0.88
1:G:228:LEU:HA	1:G:231:PHE:CE2	2.07	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1164:SER:O	3:J:1175:LEU:HD11	1.73	0.88
3:J:1357:ILE:CD1	3:J:1357:ILE:H	1.86	0.88
2:O:110:PRO:O	2:O:112:GLY:N	2.05	0.88
2:O:1288:GLN:O	2:O:1292:THR:HG22	1.73	0.88
3:P:869:CYS:HA	3:P:872:LEU:HD12	1.54	0.88
2:I:208:ILE:HD11	2:I:365:GLU:HB3	1.53	0.88
2:I:697:LYS:HB3	2:I:790:ASP:OD2	1.73	0.88
3:J:805:GLN:HB2	3:J:1347:LEU:HD12	1.56	0.88
3:D:373:ALA:HA	3:D:376:LEU:HD12	1.55	0.88
3:D:621:ALA:HA	3:D:624:ILE:HD12	1.55	0.88
3:J:575:GLY:HA2	3:J:578:ILE:HD12	1.55	0.88
2:O:217:THR:HA	2:O:220:ILE:HD12	1.55	0.88
2:C:188:PHE:CE2	2:C:432:LEU:HD11	2.08	0.88
2:C:675:ASP:OD2	2:C:677:ASN:ND2	2.05	0.88
3:D:1101:LEU:HD22	3:D:1122:ALA:HB3	1.56	0.88
2:I:1324:ASN:CA	2:I:1327:LEU:HD12	2.04	0.88
2:I:559:CYS:HB2	2:I:662:SER:HB3	1.53	0.88
3:J:697:MET:HE1	3:J:738:ARG:HA	1.52	0.88
1:M:38:THR:CG2	1:N:42:ALA:HA	2.04	0.88
3:P:1333:THR:O	3:P:1337:VAL:HG23	1.73	0.88
3:P:97:VAL:HG13	3:P:101:ARG:HG3	1.55	0.88
2:C:373:GLY:CA	5:F:91:ILE:HG12	2.03	0.88
2:I:1086:PRO:O	2:I:1094:VAL:HG23	1.74	0.88
3:D:614:LEU:CD2	4:E:5:THR:HG21	2.04	0.88
1:G:69:SER:O	1:G:78:ILE:CG1	2.21	0.88
2:I:1042:LEU:HD13	2:I:1049:ILE:HD12	1.53	0.88
3:J:1138:LEU:HB3	3:J:1139:PRO:CD	2.03	0.88
2:O:1104:PRO:HG3	3:P:725:MET:CE	2.04	0.88
3:D:481:ARG:NH1	4:E:3:ARG:O	2.06	0.88
3:J:843:VAL:CG2	3:J:897:HIS:O	2.22	0.88
7:5:11:DA:O3'	7:5:12:DG:P	2.33	0.87
2:C:1180:MET:HG3	2:C:1181:PRO:HD2	1.56	0.87
3:D:269:TYR:O	3:D:273:ILE:HG13	1.74	0.87
1:H:102:LEU:HB2	1:H:115:ILE:CD1	2.04	0.87
3:J:492:SER:HA	3:J:499:ILE:HD11	1.54	0.87
3:D:805:GLN:CB	3:D:1347:LEU:HD12	2.03	0.87
3:J:169:LEU:HG	3:J:170:GLU:N	1.87	0.87
3:P:337:ARG:HD2	3:P:341:ASN:ND2	1.89	0.87
3:D:1263:LYS:HD3	3:D:1281:GLU:HA	1.52	0.87
3:J:421:VAL:HG13	3:J:469:HIS:O	1.74	0.87
3:P:68:TYR:HA	3:P:92:VAL:HG13	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:521:LEU:HD21	2:C:686:GLN:CB	2.02	0.87
5:L:585:GLU:HG3	7:5:47:DC:N4	1.89	0.87
2:O:34:SER:HA	2:O:37:LYS:HD2	1.55	0.87
2:C:577:VAL:HG23	2:C:661:VAL:O	1.75	0.87
2:I:38:PHE:CE1	2:I:461:GLU:HA	2.08	0.87
6:4:48:DA:H2"	6:4:49:DG:H5"	1.54	0.87
1:A:13:LEU:CA	1:A:28:LEU:HD21	2.04	0.87
3:D:734:ALA:CA	3:D:737:ILE:HD12	2.02	0.87
3:D:622:ASP:O	3:D:625:MET:HB3	1.75	0.87
5:R:262:VAL:HG13	5:R:263:PRO:CD	2.03	0.87
5:L:437:GLN:HG2	6:4:35:DC:N4	1.90	0.87
6:4:54:DA:H2"	6:4:55:DC:OP2	1.75	0.87
1:B:38:THR:HB	1:B:39:LEU:CD2	2.04	0.87
2:C:681:MET:O	2:C:685:MET:HG2	1.73	0.87
3:D:1362:GLY:O	3:D:1366:HIS:HB2	1.75	0.87
3:D:262:THR:HA	5:F:507:MET:HE3	1.57	0.87
1:G:54:CYS:SG	1:G:148:ARG:HG3	2.14	0.87
2:C:883:LEU:HD21	2:C:920:VAL:CG2	2.04	0.86
2:I:1325:VAL:O	2:I:1329:GLU:HG3	1.75	0.86
3:J:70:CYS:HB2	3:J:90:VAL:CG1	2.04	0.86
2:O:33:ASP:O	2:O:37:LYS:HG3	1.75	0.86
2:O:539:THR:HG22	2:O:540:ARG:H	1.38	0.86
3:P:138:VAL:HG12	3:P:139:LEU:HG	1.55	0.86
2:C:668:ILE:HG23	2:C:1069:ARG:HB3	1.57	0.86
3:D:1229:VAL:O	3:D:1233:ILE:HG13	1.75	0.86
1:A:109:PRO:HB3	1:A:132:HIS:CD2	2.10	0.86
3:D:139:LEU:HD23	3:D:185:ILE:HD12	1.54	0.86
5:L:507:MET:O	5:L:519:LEU:CB	2.22	0.86
2:O:260:LYS:HE3	2:O:262:TYR:CZ	2.10	0.86
1:B:44:ARG:HA	1:B:183:ILE:HD13	1.57	0.86
5:F:506:SER:HB3	5:F:509:THR:OG1	1.74	0.86
2:I:237:LEU:HD12	2:I:289:VAL:HG13	1.53	0.86
2:C:542:ARG:HH11	6:1:50:DT:H73	1.40	0.86
6:4:47:DC:H3'	6:4:48:DA:H5"	1.55	0.86
2:C:1104:PRO:HG2	2:C:1105:SER:H	1.40	0.86
3:D:805:GLN:HB2	3:D:1347:LEU:HD11	1.57	0.86
3:P:749:LYS:CB	3:P:750:PRO:HD2	1.99	0.86
3:P:849:LEU:CD2	3:P:857:LEU:HD23	2.05	0.86
1:B:15:ASP:HB3	1:B:27:THR:OG1	1.75	0.86
1:B:65:LEU:O	1:B:169:GLY:HA2	1.75	0.86
3:D:350:SER:HB3	3:D:469:HIS:CE1	2.10	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1339:LEU:H	2:I:1339:LEU:HD12	1.40	0.86
2:I:528:ARG:CD	2:I:663:VAL:HG21	2.05	0.86
3:J:112:ALA:HA	3:J:238:ILE:CD1	2.04	0.86
3:D:797:THR:HG23	3:D:924:GLY:HA3	1.57	0.86
3:D:943:ARG:HG2	3:D:944:ALA:N	1.91	0.86
2:O:518:ASN:OD1	2:O:761:GLN:HG2	1.75	0.86
4:Q:27:ALA:HA	4:Q:30:MET:SD	2.16	0.86
2:C:217:THR:HA	2:C:220:ILE:HD12	0.90	0.86
2:C:285:ILE:HG22	2:C:286:GLU:H	1.41	0.86
3:D:216:LYS:HA	3:D:219:LYS:HD2	1.57	0.86
3:D:759:ILE:O	3:D:759:ILE:CG2	2.18	0.86
1:M:45:ARG:NH1	2:O:1216:ARG:HA	1.91	0.86
3:P:1328:THR:HG22	3:P:1332:LEU:HD11	1.58	0.86
1:B:201:LEU:HG	1:B:203:ILE:HD11	1.56	0.86
2:C:160:ASP:HB3	2:C:163:LYS:CB	2.06	0.86
3:D:139:LEU:HD21	3:D:185:ILE:HD13	1.57	0.86
5:F:324:LYS:O	5:F:326:TRP:N	2.09	0.86
2:I:184:LEU:CD2	2:I:389:PHE:CZ	2.56	0.86
2:O:689:ALA:HB1	2:O:1233:LEU:HD22	1.58	0.86
3:P:1162:ILE:HG13	3:P:1180:VAL:CG1	2.06	0.86
3:D:205:LEU:CD2	3:D:214:ARG:HG3	2.05	0.85
3:J:70:CYS:HB3	3:J:92:VAL:HG22	1.57	0.85
5:R:262:VAL:HG13	5:R:263:PRO:HD2	1.56	0.85
3:J:582:ILE:HG22	3:J:620:PHE:HE1	1.40	0.85
3:P:975:ILE:HD13	3:P:980:THR:HG21	1.57	0.85
2:C:10:ARG:NH1	2:C:697:LYS:HB3	1.91	0.85
2:I:448:LEU:CD1	2:I:553:THR:O	2.24	0.85
2:I:593:LYS:HE2	2:I:595:THR:OG1	1.76	0.85
4:Q:6:VAL:HG13	4:Q:51:LEU:HD21	1.57	0.85
3:P:297:ARG:HD3	5:R:100:MET:SD	2.16	0.85
3:D:536:LEU:HD13	3:D:542:ALA:HB2	1.57	0.85
2:I:96:LEU:HB2	2:I:127:ILE:HD11	1.56	0.85
2:C:149:LEU:CD1	2:C:451:ARG:HB3	2.07	0.85
2:C:732:ILE:HD11	2:C:769:PRO:HB3	1.56	0.85
3:D:146:VAL:HG23	3:D:158:GLN:HB3	1.57	0.85
1:G:48:LEU:CD2	1:G:180:VAL:HB	2.07	0.85
1:G:190:ALA:H	1:G:199:ASP:HA	1.42	0.85
2:I:764:CYS:SG	2:I:831:ILE:HD12	2.16	0.85
2:O:1120:ALA:HB1	2:O:1198:LEU:HG	1.59	0.85
2:O:1243:MET:HG2	3:P:372:MET:CE	2.07	0.85
5:F:117:ILE:HG23	5:F:421:TYR:HB2	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:520:GLY:HA2	5:F:523:ILE:HD11	1.58	0.85
1:H:85:LEU:CD2	1:H:130:ILE:HG23	2.01	0.85
3:J:392:THR:HG1	5:L:609:SER:HG	1.24	0.85
3:D:1233:ILE:O	3:D:1237:VAL:HG23	1.77	0.85
5:L:295:CYS:O	5:L:296:LYS:HB2	1.74	0.85
5:R:117:ILE:HG23	5:R:421:TYR:HB2	1.57	0.85
2:I:541:GLU:OE1	6:4:52:DT:N3	2.09	0.85
3:J:1318:SER:OG	3:J:1321:SER:HB3	1.76	0.85
3:P:109:SER:HB2	3:P:296:LYS:HE2	1.58	0.85
3:D:869:CYS:HA	3:D:872:LEU:CD1	2.04	0.84
1:G:47:LEU:HD13	1:G:183:ILE:HD12	1.59	0.84
3:J:930:LEU:HB3	3:J:1134:ILE:CD1	2.07	0.84
3:J:849:LEU:HD22	3:J:856:ILE:O	1.77	0.84
2:O:1043:ALA:HB1	2:O:1044:PRO:HD2	1.56	0.84
3:D:363:LEU:HD12	3:D:363:LEU:O	1.77	0.84
3:D:909:ILE:HD11	3:D:913:GLU:HB3	1.59	0.84
3:D:614:LEU:HD23	4:E:5:THR:HG21	1.59	0.84
2:I:1005:GLU:HG2	2:I:1006:GLU:H	1.41	0.84
2:C:678:ARG:NH1	2:C:1106:ARG:HD2	1.91	0.84
3:P:1165:PHE:HZ	3:P:1196:LEU:HD12	1.42	0.84
1:A:100:LEU:HD13	1:A:115:ILE:HG22	1.59	0.84
1:G:189:ALA:HA	1:G:199:ASP:HB3	1.59	0.84
2:O:137:VAL:C	2:O:138:ILE:HD13	1.97	0.84
2:O:422:LYS:HA	2:O:425:ILE:HD12	1.58	0.84
5:R:166:VAL:HG12	5:R:168:PRO:HD3	1.60	0.84
3:D:709:ARG:O	3:D:709:ARG:HG3	1.78	0.84
1:G:35:PHE:HB3	1:G:39:LEU:CD1	2.08	0.84
3:J:720:ASN:O	3:J:724:MET:HG3	1.77	0.84
5:L:452:ILE:HG22	5:L:457:ILE:HG12	1.57	0.84
3:D:805:GLN:OE1	3:D:1348:LYS:HG2	1.77	0.84
1:G:69:SER:O	1:G:78:ILE:HG13	1.76	0.84
3:D:1282:TYR:OH	3:D:1304:ARG:NH2	2.10	0.84
3:J:1164:SER:C	3:J:1175:LEU:HD11	1.98	0.84
3:J:481:ARG:NH1	4:K:3:ARG:O	2.10	0.84
1:H:168:ILE:HD11	3:P:867:GLN:CB	2.07	0.84
1:B:133:LEU:HD22	1:B:138:ALA:HB1	1.58	0.84
2:C:1199:LEU:HD22	2:C:1205:PRO:O	1.76	0.84
3:D:367:GLY:O	3:D:447:ILE:CG2	2.26	0.84
1:G:228:LEU:CD1	1:H:228:LEU:CD1	2.55	0.84
2:I:225:PHE:HE2	2:I:347:ILE:HB	1.41	0.84
3:J:318:GLY:HA2	3:J:324:LEU:HD21	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:725:MET:CE	3:D:732:GLY:H	1.91	0.84
1:B:44:ARG:HA	1:B:183:ILE:CD1	2.07	0.84
2:C:445:ILE:HB	2:C:446:ASP:OD1	1.78	0.84
2:C:616:ILE:CG1	2:C:652:TYR:HB2	2.07	0.84
2:I:225:PHE:CE2	2:I:347:ILE:HB	2.11	0.84
2:O:1292:THR:HG23	2:O:1293:VAL:H	1.43	0.84
2:O:73:TYR:HE1	2:O:75:LEU:HD21	1.42	0.84
1:A:224:LEU:HG	1:A:225:ALA:H	1.36	0.83
2:C:764:CYS:HB3	2:C:831:ILE:HB	1.60	0.83
3:D:1288:ALA:O	3:D:1292:LEU:HG	1.77	0.83
5:F:110:LEU:H	5:F:110:LEU:HD12	1.38	0.83
3:J:909:ILE:HG12	3:J:910:ASN:N	1.93	0.83
5:L:440:THR:O	5:L:443:ILE:HG22	1.77	0.83
2:O:202:ARG:HH22	7:8:6:DG:H3'	1.41	0.83
5:R:451:ARG:NH1	5:R:453:PRO:HG3	1.92	0.83
2:C:10:ARG:CZ	2:C:697:LYS:HD3	2.07	0.83
2:C:988:LYS:HZ2	2:C:988:LYS:HB2	1.41	0.83
3:D:367:GLY:O	3:D:447:ILE:HG23	1.78	0.83
3:P:74:LYS:HZ2	3:P:87:LYS:HB2	1.43	0.83
1:B:133:LEU:HD22	1:B:138:ALA:CB	2.08	0.83
3:D:108:ALA:HB3	3:D:279:LEU:HD21	1.59	0.83
1:G:69:SER:O	1:G:78:ILE:HD11	1.78	0.83
3:J:1155:ILE:C	3:J:1156:LEU:HD23	1.98	0.83
2:I:558:VAL:HG22	2:I:574:SER:O	1.78	0.83
3:J:392:THR:OG1	5:L:609:SER:OG	1.96	0.83
2:O:29:SER:OG	2:O:30:ILE:CD1	2.26	0.83
3:P:421:VAL:CG1	3:P:469:HIS:O	2.27	0.83
2:C:1296:ASP:O	2:C:1321:GLU:HG2	1.78	0.83
2:C:871:VAL:HG23	2:C:883:LEU:O	1.77	0.83
3:J:411:ILE:O	3:J:415:VAL:HG23	1.77	0.83
5:L:518:HIS:O	5:L:520:GLY:N	2.11	0.83
2:C:741:MET:SD	2:C:747:GLY:HA3	2.18	0.83
2:I:1243:MET:HG3	3:J:372:MET:CE	2.07	0.83
2:C:160:ASP:CG	2:C:163:LYS:HD3	1.99	0.83
3:D:475:GLU:N	3:D:475:GLU:OE1	2.11	0.83
2:I:1066:MET:HE3	2:I:1233:LEU:O	1.79	0.83
3:J:1226:VAL:O	3:J:1230:THR:OG1	1.95	0.83
2:O:136:PHE:CB	2:O:138:ILE:HD11	2.07	0.83
2:O:15:PHE:HE2	2:O:1182:ILE:HD13	1.41	0.83
3:P:1145:PHE:CE1	3:P:1256:ILE:HD13	2.13	0.83
3:P:621:ALA:HA	3:P:624:ILE:HD12	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:213:PRO:O	1:A:217:ILE:HD12	1.79	0.83
2:I:1276:TRP:CD1	2:I:1279:GLU:OE1	2.29	0.83
2:O:206:ALA:O	2:O:209:ILE:CG2	2.21	0.83
1:H:68:TYR:CD1	1:H:79:LEU:HD21	2.14	0.83
2:I:228:VAL:CG1	2:I:239:MET:HE3	2.09	0.83
2:I:732:ILE:HD11	2:I:769:PRO:HB3	1.61	0.83
2:O:1117:LEU:HD12	2:O:1195:ILE:HG23	1.59	0.83
1:M:45:ARG:HD3	1:N:38:THR:HG23	1.59	0.82
3:P:337:ARG:CD	3:P:341:ASN:ND2	2.41	0.82
5:R:426:LYS:HE2	6:7:40:DA:OP2	1.80	0.82
1:B:88:LEU:HD22	1:B:128:HIS:CD2	2.13	0.82
3:D:115:TRP:CH2	3:D:1332:LEU:HD12	2.13	0.82
2:I:1116:HIS:CD2	3:J:641:ILE:HD11	2.14	0.82
5:L:452:ILE:HG23	5:L:456:MET:HG2	1.61	0.82
3:D:1190:ILE:HG22	3:D:1191:PRO:O	1.79	0.82
5:F:407:GLU:HG2	5:F:442:SER:CB	2.09	0.82
5:F:564:GLY:O	5:F:567:MET:O	1.96	0.82
1:H:68:TYR:HB2	3:P:857:LEU:CD1	2.06	0.82
3:J:1212:ASP:N	3:J:1212:ASP:OD1	2.11	0.82
2:O:211:ARG:HD3	2:O:357:ASN:O	1.78	0.82
3:P:492:SER:HG	3:P:495:ASN:H	1.23	0.82
1:G:232:VAL:CG2	1:H:221:ALA:HB3	2.09	0.82
2:I:1313:HIS:CE1	3:J:380:PHE:HE1	1.97	0.82
3:P:403:ARG:O	3:P:404:GLU:HB2	1.79	0.82
3:P:425:ARG:NH2	8:9:16:U:O2'	2.12	0.82
2:I:1212:LEU:HD12	2:I:1225:VAL:HB	1.61	0.82
2:I:405:PHE:HZ	2:I:424:ASP:HB3	1.45	0.82
2:I:1289:GLU:OE1	3:J:472:LEU:HB2	1.79	0.82
3:D:1179:PRO:HD2	3:D:1184:ASP:O	1.79	0.82
3:P:322:ARG:HE	5:R:510:PRO:CD	1.92	0.82
2:C:551:HIS:H	2:C:554:HIS:CE1	1.97	0.82
2:I:178:PRO:HA	2:I:397:LEU:CD2	2.09	0.82
2:I:696:ASP:HB2	2:I:798:GLN:HG2	1.60	0.82
3:J:1164:SER:O	3:J:1175:LEU:HD12	1.79	0.82
3:J:844:THR:HG23	3:J:862:THR:O	1.80	0.82
2:O:171:LEU:HD22	2:O:188:PHE:O	1.78	0.82
3:P:1145:PHE:CB	3:P:1309:ILE:HD11	2.08	0.82
3:D:1101:LEU:CD2	3:D:1122:ALA:HB3	2.09	0.82
2:C:373:GLY:HA3	5:F:91:ILE:HG12	1.59	0.82
1:H:190:ALA:HA	1:H:200:LYS:HG3	1.60	0.82
1:H:224:LEU:HG	1:H:225:ALA:N	1.95	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:767:LEU:HD12	3:P:772:TYR:HD1	1.44	0.82
5:R:548:LEU:HD23	5:R:551:LEU:HD12	1.62	0.82
5:R:586:ARG:O	5:R:590:ILE:HG13	1.79	0.82
7:8:23:DT:H3'	7:8:24:DT:H5"	1.61	0.82
2:O:1333:LEU:HB2	2:O:1335:ILE:HD12	1.60	0.82
2:O:59:ILE:CG2	2:O:476:LYS:HE3	2.09	0.82
3:P:128:LEU:HD11	3:P:189:LEU:HD21	1.62	0.82
3:P:139:LEU:HD22	3:P:182:ALA:HA	1.61	0.82
3:P:492:SER:HB3	3:P:495:ASN:OD1	1.78	0.82
2:I:14:ASP:OD2	2:I:1156:ARG:NH2	2.12	0.82
5:R:440:THR:O	5:R:443:ILE:HG22	1.80	0.82
1:B:86:LYS:HB3	1:B:176:CYS:SG	2.20	0.81
1:G:228:LEU:HD13	1:H:224:LEU:CD1	2.03	0.81
2:I:764:CYS:HA	2:I:833:ILE:CD1	2.09	0.81
2:O:939:VAL:HG21	2:O:1047:LEU:HD22	1.62	0.81
2:C:160:ASP:CB	2:C:163:LYS:HD3	2.09	0.81
2:C:1291:LEU:HD13	3:D:1354:GLY:HA2	1.60	0.81
3:D:707:ILE:HG22	3:D:708:ASN:H	1.44	0.81
1:H:81:ILE:O	1:H:85:LEU:HG	1.79	0.81
2:I:886:LYS:HD2	2:I:916:SER:HB2	1.60	0.81
2:O:280:ASP:O	2:O:281:ASP:HB2	1.79	0.81
2:O:589:THR:CG2	2:O:590:PRO:HD2	2.10	0.81
1:B:213:PRO:O	1:B:217:ILE:HD13	1.79	0.81
2:C:14:ASP:HA	2:C:1183:ALA:HB3	1.61	0.81
1:N:212:ASP:OD1	1:N:213:PRO:HD2	1.80	0.81
3:P:262:THR:C	5:R:507:MET:HB2	1.99	0.81
1:A:182:ARG:HD3	2:C:1092:THR:HG23	1.60	0.81
3:D:347:VAL:HG12	3:D:348:ASP:O	1.80	0.81
1:G:214:GLU:HA	1:G:217:ILE:HD12	1.61	0.81
2:I:1299:ASN:O	2:I:1302:THR:HG22	1.81	0.81
2:O:8:LYS:HD3	2:O:1168:GLU:OE1	1.80	0.81
3:P:503:SER:O	3:P:506:VAL:HG23	1.80	0.81
3:D:544:LEU:HD22	3:D:578:ILE:HD11	1.63	0.81
2:C:569:ILE:HD12	3:D:783:LEU:HD23	1.62	0.81
1:G:69:SER:O	1:G:78:ILE:CD1	2.29	0.81
3:J:422:LEU:O	3:J:468:VAL:CG1	2.28	0.81
3:P:1226:VAL:O	3:P:1230:THR:OG1	1.97	0.81
3:P:370:LYS:HA	3:P:441:LEU:HD22	1.62	0.81
5:R:449:THR:CB	5:R:504:PRO:HG3	2.11	0.81
1:H:186:ASN:O	1:H:201:LEU:HD12	1.80	0.81
2:I:1108:ASN:OD1	2:I:1108:ASN:N	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:297:VAL:HG22	2:I:315:MET:H	1.44	0.81
3:J:299:LEU:O	3:J:303:VAL:HG23	1.80	0.81
2:I:1280:ALA:HB3	3:J:431:ARG:HB3	1.62	0.81
3:J:849:LEU:CD2	3:J:857:LEU:HD23	2.10	0.81
1:N:60:GLU:O	1:N:142:MET:HB2	1.81	0.81
3:D:930:LEU:CB	3:D:1134:ILE:HD11	2.11	0.81
1:H:50:SER:O	1:H:150:ARG:HD2	1.80	0.81
2:I:363:LEU:O	2:I:366:ILE:HB	1.80	0.81
3:J:322:ARG:HB2	3:J:323:PRO:HD2	1.62	0.81
2:O:550:VAL:HG23	3:P:780:ARG:CD	2.11	0.81
1:A:45:ARG:HD3	1:B:38:THR:CB	2.09	0.81
2:C:559:CYS:CB	2:C:662:SER:HB3	2.09	0.81
3:D:703:THR:HG22	3:D:717:VAL:HA	1.63	0.81
3:P:739:GLN:NE2	3:P:940:ALA:CB	2.43	0.81
3:D:372:MET:O	3:D:376:LEU:HG	1.80	0.81
2:C:1309:VAL:O	3:D:383:GLY:HA2	1.81	0.81
3:P:1253:ILE:O	3:P:1257:VAL:HG23	1.80	0.81
3:D:485:MET:O	3:D:489:ASN:ND2	2.13	0.81
2:C:1120:ALA:O	2:C:1124:ILE:HG13	1.80	0.81
3:P:1163:VAL:CG1	3:P:1175:LEU:HD21	2.11	0.81
1:B:102:LEU:HB2	1:B:115:ILE:HD11	1.63	0.80
3:D:1226:VAL:O	3:D:1230:THR:OG1	1.99	0.80
4:E:27:ALA:HA	4:E:30:MET:SD	2.20	0.80
2:I:936:ARG:HG2	2:I:937:ASP:N	1.92	0.80
3:J:1175:LEU:HD12	3:J:1176:VAL:N	1.94	0.80
3:J:848:VAL:HG21	3:J:880:VAL:HG13	1.63	0.80
3:P:1078:LEU:HD13	3:P:1121:LEU:HD22	1.64	0.80
2:C:1174:GLU:O	2:C:1177:ARG:HB3	1.81	0.80
2:C:149:LEU:HD11	2:C:451:ARG:CB	2.11	0.80
1:M:180:VAL:HA	1:M:207:THR:HG22	1.64	0.80
3:P:1282:TYR:O	3:P:1285:VAL:CG1	2.30	0.80
3:P:253:VAL:HB	3:P:254:PRO:HD2	1.63	0.80
5:R:387:VAL:HG23	5:R:435:ILE:HD13	1.63	0.80
5:R:443:ILE:O	5:R:447:ALA:HB2	1.80	0.80
2:C:617:ALA:HA	2:C:636:CYS:SG	2.22	0.80
3:D:544:LEU:HD22	3:D:578:ILE:CD1	2.11	0.80
3:J:1347:LEU:O	3:J:1351:VAL:HG23	1.80	0.80
2:O:1184:THR:OG1	2:O:1189:GLY:HA3	1.81	0.80
2:O:790:ASP:O	2:O:792:GLY:N	2.13	0.80
3:D:1257:VAL:HA	3:D:1260:MET:HE3	1.62	0.80
3:J:255:LEU:HD13	3:J:257:GLY:H	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1243:MET:HG3	3:J:372:MET:HE2	1.61	0.80
3:J:546:ALA:O	3:J:548:VAL:HG23	1.80	0.80
3:P:406:ALA:HA	3:P:409:TRP:HD1	1.46	0.80
1:B:39:LEU:O	1:B:43:LEU:HD12	1.82	0.80
3:D:442:ILE:HG13	3:D:442:ILE:O	1.80	0.80
2:I:1315:MET:HE2	3:J:473:THR:HG21	1.64	0.80
5:L:123:ILE:HD13	5:L:376:LYS:CE	2.11	0.80
1:N:86:LYS:CE	1:N:174:ASP:HB2	2.11	0.80
3:P:421:VAL:HG12	3:P:469:HIS:O	1.82	0.80
3:D:822:MET:HG2	3:D:838:ARG:NH2	1.97	0.80
5:L:452:ILE:HG23	5:L:456:MET:CG	2.12	0.80
2:O:1271:GLY:O	2:O:1275:VAL:HG23	1.82	0.80
3:D:339:ARG:NH2	3:D:1325:PHE:O	2.14	0.80
1:G:45:ARG:HD3	1:H:38:THR:OG1	1.81	0.80
2:I:528:ARG:HD3	2:I:663:VAL:HG21	1.64	0.80
3:J:1230:THR:HA	3:J:1233:ILE:HD12	1.61	0.80
3:J:1230:THR:O	3:J:1234:VAL:HG23	1.80	0.80
3:J:279:LEU:O	3:J:283:LEU:HG	1.81	0.80
1:M:61:ILE:HG12	1:M:142:MET:HE2	1.61	0.80
5:R:583:THR:O	5:R:587:ILE:HD11	1.82	0.80
3:J:1267:VAL:O	3:J:1268:ASN:HB2	1.80	0.80
2:I:1280:ALA:HB1	3:J:431:ARG:HB3	1.63	0.80
3:J:809:VAL:HG21	3:J:909:ILE:HD13	1.64	0.80
5:L:401:PHE:O	5:L:405:ILE:HG13	1.82	0.80
1:M:69:SER:O	1:M:78:ILE:HG13	1.81	0.80
3:D:318:GLY:HA2	3:D:324:LEU:HD21	1.62	0.80
3:D:759:ILE:HD11	3:D:767:LEU:HD13	1.63	0.80
2:I:164:THR:O	2:I:165:HIS:HB2	1.80	0.80
3:J:497:GLU:HB3	3:J:498:PRO:HD2	1.63	0.80
5:L:93:ARG:CD	5:L:93:ARG:O	2.29	0.80
2:O:197:ARG:HB3	2:O:200:ARG:HA	1.64	0.80
2:C:209:ILE:HG23	2:C:210:LEU:N	1.96	0.79
3:D:385:LEU:HD22	3:D:391:ALA:HB2	1.64	0.79
5:F:404:LEU:HD23	5:F:439:ILE:HG12	1.62	0.79
2:I:237:LEU:HG	2:I:289:VAL:HG22	1.64	0.79
1:A:179:PRO:CA	1:A:208:ASN:HD21	1.96	0.79
1:B:82:LEU:HD22	1:B:173:VAL:HG13	1.61	0.79
3:D:734:ALA:O	3:D:737:ILE:HB	1.82	0.79
3:J:1046:ILE:HG22	3:J:1061:VAL:HA	1.64	0.79
3:J:797:THR:CG2	3:J:924:GLY:HA3	2.11	0.79
2:O:1261:GLY:HA2	7:8:16:DC:OP1	1.80	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:575:LEU:HD11	2:O:579:ALA:HB3	1.64	0.79
4:Q:6:VAL:HG13	4:Q:51:LEU:CD2	2.12	0.79
1:B:217:ILE:CD1	1:B:217:ILE:H	1.96	0.79
2:C:1232:MET:HA	2:C:1232:MET:CE	2.12	0.79
2:C:1309:VAL:O	3:D:383:GLY:CA	2.30	0.79
2:C:1313:HIS:CE1	3:D:380:PHE:HE1	2.00	0.79
2:C:667:LEU:HD11	2:C:708:VAL:HG21	1.62	0.79
4:E:45:LYS:O	4:E:49:ILE:HG13	1.83	0.79
2:I:142:GLU:OE1	2:I:517:GLN:NE2	2.15	0.79
2:I:661:VAL:CG1	2:I:665:ALA:CB	2.58	0.79
2:I:846:GLY:HA3	2:I:889:PRO:HG2	1.64	0.79
3:J:1239:ASP:O	3:J:1243:LEU:HG	1.81	0.79
2:C:263:VAL:HG11	2:C:269:ILE:HD11	1.65	0.79
3:D:749:LYS:HG2	3:D:755:ILE:CD1	2.12	0.79
1:G:106:GLY:HA2	1:G:136:GLU:CA	2.13	0.79
2:I:178:PRO:HA	2:I:397:LEU:HD23	1.64	0.79
2:I:838:CYS:SG	2:I:886:LYS:HE3	2.21	0.79
3:J:309:ASN:HD21	3:J:316:ILE:H	1.31	0.79
1:N:31:LEU:HD11	1:N:39:LEU:CD1	2.11	0.79
2:O:202:ARG:HB2	2:O:369:MET:HE3	1.64	0.79
5:R:564:GLY:O	5:R:567:MET:O	2.00	0.79
2:C:82:VAL:HG23	2:C:83:GLN:N	1.95	0.79
5:F:385:ARG:O	5:F:388:ILE:HG22	1.81	0.79
2:I:148:GLN:NE2	2:I:533:LEU:O	2.16	0.79
6:7:48:DA:H2"	6:7:49:DG:H5"	1.64	0.79
2:C:17:LYS:NZ	2:C:1189:GLY:O	2.14	0.79
3:D:759:ILE:CD1	3:D:767:LEU:HD13	2.12	0.79
3:D:922:SER:O	3:D:926:PRO:HD3	1.83	0.79
5:F:399:LEU:HD13	5:F:403:ASP:HB3	1.64	0.79
3:J:282:LEU:CD2	3:J:287:ALA:HB2	2.08	0.79
2:O:671:LEU:HD11	2:O:679:ALA:HB1	1.65	0.79
1:B:61:ILE:CD1	1:B:61:ILE:H	1.93	0.79
3:D:478:LEU:CD1	4:E:24:ALA:HB2	2.13	0.79
5:F:457:ILE:HA	5:F:460:ILE:HD12	1.64	0.79
2:I:1116:HIS:CD2	3:J:641:ILE:CD1	2.66	0.79
2:I:993:PRO:HG2	2:I:996:ARG:HE	1.48	0.79
3:J:423:LEU:HB3	3:J:466:MET:HE1	1.65	0.79
3:J:519:ASN:CB	3:J:523:GLU:HB2	2.13	0.79
2:I:1252:SER:HA	2:I:1259:LEU:HD21	1.64	0.79
2:I:1275:VAL:O	2:I:1279:GLU:HG3	1.82	0.79
2:I:755:LYS:HZ1	2:I:769:PRO:HD3	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:883:LEU:HD21	2:I:920:VAL:HG23	1.64	0.79
5:R:262:VAL:CG1	5:R:263:PRO:HD2	2.11	0.79
7:8:25:DA:H2"	7:8:26:DT:OP2	1.79	0.79
2:C:559:CYS:SG	2:C:560:PRO:HD2	2.23	0.79
3:D:470:VAL:HG12	3:D:472:LEU:HD23	1.65	0.79
3:D:497:GLU:HB3	3:D:498:PRO:HD2	1.65	0.79
2:I:241:LEU:HD11	2:I:246:LEU:CD1	2.13	0.79
3:J:1252:HIS:O	3:J:1255:VAL:HB	1.83	0.79
3:J:146:VAL:HG11	3:J:155:GLU:O	1.81	0.79
3:J:553:THR:HG23	3:J:566:LYS:C	2.01	0.79
2:I:1187:PHE:CZ	3:J:769:VAL:HA	2.18	0.79
3:P:1230:THR:HA	3:P:1233:ILE:HD12	1.65	0.79
5:R:110:LEU:H	5:R:110:LEU:HD12	1.46	0.79
5:R:449:THR:HB	5:R:504:PRO:HG3	1.63	0.79
3:J:543:SER:O	3:J:574:VAL:HG21	1.82	0.78
3:J:97:VAL:HG12	3:J:101:ARG:HG3	1.64	0.78
2:O:478:ARG:NH1	2:O:492:MET:HA	1.97	0.78
2:O:693:LEU:HB2	2:O:831:ILE:HD11	1.65	0.78
3:P:673:VAL:HG11	3:P:678:ARG:HB2	1.64	0.78
3:D:583:VAL:O	3:D:583:VAL:HG12	1.82	0.78
3:J:1138:LEU:CB	3:J:1139:PRO:CD	2.61	0.78
3:J:20:ILE:HD13	3:J:1320:ILE:HD11	1.63	0.78
2:O:897:PRO:HB2	5:R:565:ILE:CG1	2.13	0.78
3:J:519:ASN:HB3	3:J:523:GLU:CD	2.03	0.78
3:J:885:VAL:HG12	3:J:886:VAL:N	1.97	0.78
3:P:749:LYS:HG3	3:P:755:ILE:HG12	1.65	0.78
5:F:451:ARG:HH12	6:1:32:DA:P	2.06	0.78
1:A:157:THR:O	1:A:160:HIS:HB3	1.82	0.78
3:D:337:ARG:HA	3:D:341:ASN:ND2	1.98	0.78
2:C:1314:GLN:HG3	4:E:28:ARG:CZ	2.14	0.78
3:D:337:ARG:HA	3:D:341:ASN:HD22	1.47	0.78
3:J:342:LEU:HB3	3:J:1352:ILE:HG23	1.63	0.78
3:J:475:GLU:HG3	4:K:24:ALA:HB1	1.66	0.78
5:L:120:ALA:HA	5:L:123:ILE:HD12	1.65	0.78
2:O:557:ARG:HD3	2:O:587:LEU:HB2	1.65	0.78
1:A:39:LEU:O	1:A:43:LEU:HD12	1.83	0.78
1:B:83:LEU:CD1	1:B:86:LYS:HZ2	1.94	0.78
3:D:649:LYS:O	3:D:653:ILE:HG13	1.84	0.78
3:P:783:LEU:O	3:P:786:THR:HG22	1.83	0.78
2:C:746:ALA:HB2	2:C:971:LEU:HD13	1.66	0.78
1:G:228:LEU:HD12	1:H:228:LEU:HD13	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:227:PHE:HE1	3:J:232:ASN:O	1.66	0.78
1:N:61:ILE:HB	1:N:64:VAL:HB	1.65	0.78
2:O:672:GLU:HG2	2:O:1187:PHE:HA	1.64	0.78
4:Q:13:ILE:HD12	4:Q:19:LEU:HB2	1.66	0.78
5:F:110:LEU:N	5:F:110:LEU:HD12	1.99	0.78
5:F:591:GLU:O	5:F:595:LEU:HG	1.84	0.78
2:I:1294:LYS:HD3	3:J:347:VAL:HG12	1.64	0.78
3:J:582:ILE:HG22	3:J:620:PHE:CE1	2.19	0.78
3:J:848:VAL:HG21	3:J:880:VAL:HG11	1.66	0.78
2:O:949:GLU:O	2:O:953:LEU:HG	1.84	0.78
3:P:673:VAL:HG13	3:P:674:THR:O	1.83	0.78
3:P:739:GLN:HE22	3:P:940:ALA:CB	1.95	0.78
7:8:25:DA:C1'	7:8:26:DT:H5"	2.12	0.78
3:D:747:MET:HE2	3:D:774:ILE:HG22	1.66	0.78
1:M:11:PRO:HB2	1:N:231:PHE:HZ	1.47	0.78
3:P:700:ASN:O	3:P:704:GLU:HB2	1.83	0.78
5:R:262:VAL:CG1	5:R:263:PRO:CD	2.61	0.78
1:B:83:LEU:HD13	1:B:86:LYS:CD	2.14	0.77
1:G:102:LEU:CD1	1:G:114:ASP:O	2.33	0.77
2:I:1128:ILE:O	2:I:1132:LEU:HG	1.84	0.77
2:I:850:ILE:HG22	2:I:885:GLY:O	1.84	0.77
3:J:309:ASN:HD21	3:J:316:ILE:N	1.81	0.77
3:J:909:ILE:HD11	3:J:913:GLU:HB3	1.66	0.77
3:P:1266:ILE:HD13	3:P:1274:PHE:HB3	1.66	0.77
1:N:101:THR:CG2	1:N:143:ARG:HG2	2.09	0.77
3:P:1343:GLU:C	3:P:1344:LEU:HG	2.02	0.77
1:G:66:HIS:NE2	1:G:69:SER:HB3	1.99	0.77
1:G:232:VAL:HG13	1:H:218:ARG:HA	1.65	0.77
3:J:625:MET:HG2	3:J:629:PHE:CE2	2.18	0.77
3:P:1321:SER:O	3:P:1324:SER:OG	2.03	0.77
5:R:401:PHE:O	5:R:405:ILE:HG13	1.83	0.77
5:R:506:SER:O	5:R:519:LEU:CD2	2.31	0.77
3:J:156:ARG:HD3	3:J:188:LEU:HD11	1.66	0.77
1:M:232:VAL:CG2	1:N:221:ALA:HB3	2.13	0.77
3:P:421:VAL:HG23	3:P:439:PRO:HG2	1.66	0.77
3:P:490:ILE:HD12	3:P:490:ILE:N	1.99	0.77
3:P:74:LYS:NZ	3:P:87:LYS:HB2	1.99	0.77
2:C:530:ILE:HD12	2:C:573:ASN:O	1.84	0.77
2:C:622:ASN:HB3	2:C:630:VAL:HG21	1.64	0.77
2:C:878:THR:HG22	2:C:879:GLY:N	1.99	0.77
2:C:809:GLY:HA3	3:D:629:PHE:CE1	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1326:LEU:CA	2:I:1329:GLU:OE1	2.28	0.77
2:I:237:LEU:HD11	2:I:289:VAL:HG13	1.66	0.77
5:L:93:ARG:CG	5:L:93:ARG:O	2.32	0.77
1:A:38:THR:HG23	1:B:42:ALA:CA	2.13	0.77
2:C:1104:PRO:HG2	2:C:1105:SER:N	1.99	0.77
5:F:91:ILE:HD11	5:F:103:ARG:HH12	1.48	0.77
2:I:878:THR:HG22	2:I:879:GLY:H	1.50	0.77
3:J:473:THR:HB	3:J:475:GLU:OE1	1.84	0.77
2:C:496:LYS:HB2	2:C:497:PRO:HD3	1.64	0.77
2:O:209:ILE:HG23	2:O:210:LEU:N	2.00	0.77
1:A:234:LEU:HD22	1:B:12:ARG:HH12	1.50	0.77
2:C:726:TYR:HB3	2:C:733:VAL:HG22	1.66	0.77
3:D:50:LYS:HD3	3:D:71:LEU:CD2	2.15	0.77
1:G:117:HIS:NE2	1:G:121:VAL:O	2.18	0.77
2:I:78:PRO:HB3	2:I:93:SER:O	1.83	0.77
3:J:1132:LYS:O	3:J:1133:ASP:CB	2.32	0.77
3:J:1173:ARG:O	3:J:1190:ILE:HD12	1.84	0.77
2:O:15:PHE:HE2	2:O:1182:ILE:CD1	1.96	0.77
2:O:91:THR:HG23	2:O:138:ILE:HA	1.67	0.77
3:P:1230:THR:O	3:P:1234:VAL:HG23	1.85	0.77
3:P:268:LEU:O	3:P:272:VAL:HG23	1.84	0.77
1:B:44:ARG:NH1	3:D:538:ARG:HD2	2.00	0.77
3:D:770:LEU:HD23	3:D:771:GLN:HG3	1.64	0.77
3:D:805:GLN:CA	3:D:1347:LEU:HD11	2.14	0.77
3:D:478:LEU:HD22	4:E:20:VAL:HG13	1.66	0.77
2:I:237:LEU:O	2:I:287:VAL:HG22	1.84	0.77
2:I:178:PRO:HB3	2:I:395:TYR:CZ	2.20	0.77
3:J:1163:VAL:CG2	3:J:1177:ILE:HG23	2.15	0.77
6:4:54:DA:H1'	6:4:55:DC:H5'	1.67	0.77
2:C:1306:LYS:HD3	5:F:535:ALA:HA	1.67	0.77
5:F:580:PHE:O	5:F:581:ASP:HB2	1.83	0.77
2:I:38:PHE:HE1	2:I:461:GLU:CA	1.95	0.77
3:J:372:MET:O	3:J:376:LEU:CG	2.28	0.77
2:O:1198:LEU:O	2:O:1198:LEU:HD12	1.85	0.77
2:O:890:LYS:HZ1	2:O:893:THR:HG23	1.48	0.77
3:P:664:ILE:HD12	3:P:685:ILE:HD11	1.65	0.77
1:A:232:VAL:HG22	1:B:221:ALA:HB3	1.66	0.76
1:B:61:ILE:CD1	1:B:171:LEU:CD1	2.64	0.76
2:C:149:LEU:HD21	2:C:451:ARG:NE	2.00	0.76
2:C:988:LYS:HB2	2:C:988:LYS:HZ3	1.46	0.76
3:D:378:LYS:HA	3:D:381:ILE:HD12	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:421:VAL:CG2	3:D:439:PRO:HG2	2.14	0.76
1:H:59:VAL:HG22	1:H:144:ILE:HG23	1.64	0.76
3:J:421:VAL:HG13	3:J:470:VAL:HA	1.66	0.76
2:O:1135:GLN:HG3	2:O:1136:GLN:H	1.50	0.76
3:P:1154:ALA:CB	3:P:1211:SER:HB2	2.14	0.76
3:P:245:LEU:HD12	3:P:246:PRO:CD	2.14	0.76
3:P:682:VAL:HA	3:P:685:ILE:HD12	1.67	0.76
3:D:1217:PRO:HA	3:D:1220:ILE:HD12	1.66	0.76
1:H:102:LEU:HB2	1:H:115:ILE:HD13	1.66	0.76
3:P:367:GLY:O	3:P:447:ILE:HG22	1.84	0.76
5:R:551:LEU:HB2	5:R:556:ALA:HB2	1.67	0.76
2:C:748:ILE:HD11	2:C:970:GLY:HA3	1.65	0.76
3:D:943:ARG:CG	3:D:944:ALA:H	1.92	0.76
1:G:102:LEU:HD12	1:G:103:ASN:N	1.99	0.76
1:H:82:LEU:HD23	1:H:82:LEU:N	1.99	0.76
2:I:1327:LEU:HA	2:I:1330:ILE:HD12	1.66	0.76
3:J:1321:SER:O	3:J:1324:SER:OG	2.03	0.76
3:J:474:LEU:O	3:J:478:LEU:HG	1.85	0.76
1:M:41:ASN:O	1:M:45:ARG:HG3	1.85	0.76
3:P:253:VAL:HB	3:P:254:PRO:HD3	1.67	0.76
3:P:58:CYS:SG	3:P:60:ARG:HB3	2.25	0.76
3:P:608:CYS:HG	3:P:617:THR:HG22	1.46	0.76
1:B:47:LEU:CD1	1:B:183:ILE:CD1	2.60	0.76
1:A:9:LEU:O	1:B:227:GLN:NE2	2.19	0.76
3:D:514:THR:HG21	3:D:596:LEU:CG	2.16	0.76
3:D:526:VAL:O	3:D:527:LEU:HD23	1.85	0.76
3:D:703:THR:HB	3:D:716:GLN:O	1.86	0.76
1:G:232:VAL:HG21	1:H:221:ALA:HB1	1.67	0.76
2:I:1313:HIS:NE2	3:J:380:PHE:HE1	1.82	0.76
2:I:1333:LEU:HD13	2:I:1335:ILE:HD12	1.68	0.76
2:I:218:GLU:OE1	2:I:299:LYS:HG2	1.85	0.76
1:A:19:VAL:HG12	1:A:20:SER:N	2.00	0.76
3:D:138:VAL:HG12	3:D:185:ILE:HD11	1.66	0.76
3:D:572:THR:OG1	3:D:576:ARG:HB2	1.85	0.76
3:D:620:PHE:O	3:D:624:ILE:CG1	2.33	0.76
5:F:130:VAL:HG13	5:F:365:MET:HG3	1.67	0.76
2:I:241:LEU:CD1	2:I:246:LEU:HD11	2.14	0.76
3:J:70:CYS:HB2	3:J:90:VAL:HB	1.66	0.76
1:N:61:ILE:HA	1:N:142:MET:HB2	1.66	0.76
3:P:1190:ILE:HG22	3:P:1191:PRO:O	1.86	0.76
2:C:560:PRO:HG2	2:C:561:ILE:HG12	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:839:VAL:O	2:C:886:LYS:NZ	2.17	0.76
2:I:513:GLN:OE1	2:I:526:HIS:NE2	2.18	0.76
3:J:1357:ILE:HD13	3:J:1357:ILE:H	1.50	0.76
3:P:697:MET:O	3:P:701:LEU:HB2	1.85	0.76
3:P:932:MET:CE	8:9:17:C:H2'	2.16	0.76
3:D:975:ILE:HD13	3:D:980:THR:HG21	1.68	0.76
1:G:51:MET:SD	1:G:52:PRO:HD2	2.25	0.76
3:J:739:GLN:HG2	3:J:744:ARG:HG3	1.67	0.76
3:J:767:LEU:HD23	3:J:767:LEU:N	2.00	0.76
3:J:797:THR:HG23	3:J:924:GLY:HA3	1.65	0.76
5:L:235:ILE:HG23	5:L:240:ARG:HA	1.68	0.76
5:L:324:LYS:O	5:L:326:TRP:N	2.19	0.76
1:N:71:LYS:HD3	1:N:140:ILE:HD12	1.66	0.76
2:O:1326:LEU:O	2:O:1330:ILE:CD1	2.28	0.76
3:P:1328:THR:O	3:P:1332:LEU:CG	2.33	0.76
3:P:139:LEU:CD1	3:P:185:ILE:HD12	2.13	0.76
5:R:84:LEU:HD11	5:R:107:THR:HG21	1.66	0.76
5:R:407:GLU:HG2	5:R:442:SER:CB	2.15	0.76
3:D:544:LEU:HA	3:D:574:VAL:HB	1.68	0.76
3:J:681:LYS:O	3:J:685:ILE:HG13	1.85	0.76
1:M:227:GLN:NE2	1:N:9:LEU:O	2.12	0.76
2:O:539:THR:HG22	2:O:540:ARG:N	2.00	0.76
3:P:259:ARG:HH11	5:R:502:LYS:HG2	1.49	0.76
3:D:720:ASN:O	3:D:724:MET:HG3	1.86	0.76
3:J:128:LEU:HD11	3:J:189:LEU:HD21	1.68	0.76
3:J:197:GLU:O	3:J:201:LEU:HG	1.86	0.76
3:J:872:LEU:CD2	3:J:872:LEU:C	2.55	0.76
2:O:932:GLN:HB3	2:O:934:PHE:CZ	2.19	0.76
3:P:599:LYS:HG3	3:P:600:ALA:H	1.48	0.76
2:O:1261:GLY:HA3	7:8:16:DC:OP1	1.84	0.76
3:D:1280:VAL:HG12	3:D:1281:GLU:N	2.00	0.76
3:D:138:VAL:CG1	3:D:185:ILE:HD11	2.15	0.76
3:D:512:TYR:CE2	3:D:635:SER:HB2	2.21	0.76
2:O:496:LYS:CB	2:O:497:PRO:HD3	2.09	0.76
3:P:68:TYR:CA	3:P:92:VAL:HG13	2.16	0.76
1:A:42:ALA:HA	1:B:38:THR:CG2	2.16	0.75
1:B:83:LEU:HD11	1:B:86:LYS:NZ	1.99	0.75
2:C:263:VAL:CG1	2:C:269:ILE:HD11	2.16	0.75
1:G:153:VAL:HG13	1:G:157:THR:HB	1.66	0.75
3:D:1326:GLN:NE2	7:2:10:DC:H4'	2.00	0.75
1:B:221:ALA:O	1:B:224:LEU:HB3	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:16:GLY:O	2:C:1156:ARG:HB3	1.86	0.75
2:I:76:GLY:HA3	2:I:95:PRO:HG2	1.68	0.75
5:L:561:MET:SD	5:L:579:GLN:OE1	2.43	0.75
5:R:520:GLY:HA2	5:R:523:ILE:HD11	1.68	0.75
2:C:1141:LEU:O	2:C:1145:ILE:HD12	1.87	0.75
3:D:805:GLN:C	3:D:1347:LEU:HD11	2.07	0.75
3:D:113:HIS:HB2	3:D:239:LEU:HD11	1.69	0.75
3:D:805:GLN:CB	3:D:1347:LEU:HD11	2.13	0.75
5:F:395:THR:HG22	5:F:404:LEU:HD13	1.68	0.75
5:R:381:GLU:O	5:R:384:LEU:HG	1.87	0.75
1:B:44:ARG:NH1	3:D:538:ARG:CD	2.50	0.75
2:C:1294:LYS:HE2	3:D:349:TYR:HB2	1.68	0.75
2:C:557:ARG:O	2:C:575:LEU:HD12	1.86	0.75
3:J:1167:LYS:H	3:J:1167:LYS:HD2	1.51	0.75
3:J:480:ALA:HA	3:J:484:MET:SD	2.26	0.75
3:J:848:VAL:CG2	3:J:880:VAL:HG13	2.16	0.75
3:D:707:ILE:HG22	3:D:708:ASN:N	2.01	0.75
3:P:1165:PHE:HZ	3:P:1196:LEU:CD1	1.99	0.75
3:P:1145:PHE:O	3:P:1309:ILE:HG13	1.87	0.75
2:I:15:PHE:HB3	2:I:17:LYS:NZ	2.00	0.75
2:I:994:ARG:HA	2:I:994:ARG:HH11	1.52	0.75
3:J:378:LYS:HG2	3:J:382:TYR:HE2	1.49	0.75
3:J:294:ASN:HB3	5:L:406:GLN:HE22	1.52	0.75
2:O:73:TYR:CE1	2:O:75:LEU:HD21	2.20	0.75
3:P:1332:LEU:HD23	3:P:1332:LEU:N	1.98	0.75
3:P:416:ILE:HD12	3:P:441:LEU:HG	1.67	0.75
1:B:142:MET:SD	1:B:144:ILE:HD11	2.26	0.75
2:C:447:HIS:HD2	2:C:449:GLY:H	1.35	0.75
2:O:1138:VAL:HA	2:O:1141:LEU:HD12	1.67	0.75
2:O:1246:ARG:HD2	2:O:1265:PHE:O	1.85	0.75
3:P:978:ARG:HG3	3:P:1212:ASP:HB3	1.68	0.75
5:R:386:LEU:HD13	6:7:41:DT:O4'	1.87	0.75
2:C:160:ASP:HB3	2:C:163:LYS:HB3	1.68	0.75
2:C:727:VAL:HG23	2:C:773:LEU:HD13	1.69	0.75
3:D:1090:ILE:HG12	3:D:1097:ALA:HB2	1.68	0.75
3:D:1132:LYS:HG2	3:D:1243:LEU:HD21	1.67	0.75
3:D:848:VAL:HG21	3:D:880:VAL:HG22	1.67	0.75
2:I:184:LEU:HD11	2:I:389:PHE:CE2	2.22	0.75
3:J:1282:TYR:CZ	3:J:1304:ARG:NH2	2.52	0.75
3:J:805:GLN:HB2	3:J:1347:LEU:CD1	2.16	0.75
3:J:245:LEU:HD21	3:J:249:LEU:CB	2.17	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:276:MET:O	5:R:280:VAL:HG23	1.87	0.75
6:4:34:DG:N2	7:5:29:DC:O2	2.19	0.75
2:C:1184:THR:HG23	2:C:1184:THR:O	1.86	0.75
3:D:1321:SER:O	3:D:1324:SER:OG	2.04	0.75
3:D:492:SER:HG	3:D:495:ASN:H	1.34	0.75
3:J:803:VAL:HG22	3:J:1313:SER:OG	1.87	0.75
3:D:544:LEU:CD2	3:D:578:ILE:HD11	2.16	0.74
2:I:838:CYS:SG	2:I:886:LYS:CE	2.75	0.74
2:O:898:GLU:OE1	5:R:565:ILE:HG12	1.86	0.74
2:I:1273:MET:CG	7:5:13:DA:H4'	2.17	0.74
3:P:1326:GLN:NE2	7:8:10:DC:H4'	2.03	0.74
6:7:34:DG:N2	7:8:29:DC:O2	2.19	0.74
6:7:28:DA:N6	7:8:34:DG:C6	2.54	0.74
2:C:1297:ASP:OD2	2:C:1318:GLY:HA3	1.86	0.74
1:G:232:VAL:HG12	1:H:218:ARG:HA	1.68	0.74
3:J:115:TRP:CZ2	3:J:1329:THR:HG22	2.22	0.74
5:R:306:PHE:O	5:R:310:GLU:HG3	1.86	0.74
1:A:41:ASN:ND2	2:C:1218:GLY:CA	2.50	0.74
2:C:810:TYR:CE1	3:D:359:PRO:HG3	2.22	0.74
1:G:151:GLY:O	1:G:177:TYR:HB2	1.88	0.74
2:I:807:TRP:O	2:I:809:GLY:N	2.20	0.74
2:I:1269:ARG:HA	3:J:346:ARG:HA	1.69	0.74
3:D:30:ILE:HG23	3:D:243:PRO:HB3	1.68	0.74
3:D:328:ALA:HA	3:D:331:ILE:HD12	1.69	0.74
2:I:878:THR:HG22	2:I:879:GLY:N	2.01	0.74
2:I:873:ILE:HG12	2:I:944:ARG:HH22	1.53	0.74
3:J:185:ILE:CG2	3:J:189:LEU:HD11	2.15	0.74
3:J:112:ALA:CA	3:J:238:ILE:HD12	2.08	0.74
3:J:492:SER:CB	3:J:495:ASN:OD1	2.36	0.74
5:L:166:VAL:HG11	5:L:212:ILE:HG13	1.70	0.74
2:O:835:GLU:O	2:O:836:LEU:HD23	1.87	0.74
3:P:681:LYS:O	3:P:685:ILE:HG13	1.87	0.74
1:B:191:ARG:HG3	1:B:196:THR:HG22	1.69	0.74
2:I:702:THR:HG22	2:I:1184:THR:O	1.87	0.74
2:I:488:MET:HB3	2:I:489:PRO:HD2	1.70	0.74
3:J:613:GLY:O	3:J:617:THR:CG2	2.35	0.74
3:P:1002:VAL:HB	3:P:1019:ASN:O	1.87	0.74
3:P:332:LYS:O	3:P:333:GLY:O	2.05	0.74
3:P:575:GLY:HA2	3:P:578:ILE:HD12	1.69	0.74
2:C:1086:PRO:O	2:C:1094:VAL:HG23	1.88	0.74
2:C:1223:ARG:HD3	3:D:637:ALA:HA	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:206:ALA:O	2:C:209:ILE:CG2	2.31	0.74
5:F:487:MET:O	5:F:488:LEU:HB3	1.88	0.74
1:H:67:GLU:HG2	1:H:171:LEU:HD22	1.68	0.74
2:I:520:PRO:O	2:I:524:ILE:HD12	1.87	0.74
2:I:86:GLN:HA	2:I:140:GLY:HA2	1.70	0.74
3:J:1163:VAL:HG13	3:J:1176:VAL:C	2.08	0.74
2:O:667:LEU:HD13	2:O:796:LEU:HD11	1.69	0.74
3:P:808:VAL:HG13	3:P:914:ALA:HA	1.70	0.74
3:P:314:ARG:NH1	5:R:96:ASP:OD1	2.20	0.74
2:C:250:THR:HA	2:C:268:ARG:HG2	1.69	0.74
2:I:10:ARG:CZ	2:I:697:LYS:HD3	2.17	0.74
3:J:1163:VAL:CG1	3:J:1176:VAL:O	2.36	0.74
3:J:705:THR:HG21	3:J:716:GLN:HE21	1.53	0.74
3:J:899:TYR:CE1	3:J:915:ILE:HG21	2.23	0.74
2:O:83:GLN:O	2:O:87:ILE:HG13	1.87	0.74
3:P:322:ARG:CB	3:P:323:PRO:HD2	2.12	0.74
1:A:224:LEU:CD1	1:A:228:LEU:CD1	2.49	0.74
2:C:1273:MET:CE	7:2:13:DA:H5"	2.17	0.74
2:C:807:TRP:O	2:C:809:GLY:N	2.20	0.74
2:I:402:ARG:CG	2:I:416:GLY:HA3	2.15	0.74
3:J:1052:GLU:HG2	3:J:1053:LEU:H	1.51	0.74
3:J:580:TRP:HA	3:J:583:VAL:CG2	2.18	0.74
3:P:242:LEU:HD12	3:P:243:PRO:HD2	1.68	0.74
2:C:1271:GLY:HA3	7:2:14:DC:OP1	1.87	0.74
7:5:6:DG:H8	7:5:6:DG:OP2	1.71	0.74
2:C:1288:GLN:O	2:C:1292:THR:HG22	1.88	0.74
3:D:1135:THR:O	3:D:1139:PRO:HD2	1.88	0.74
1:H:205:MET:HG3	1:H:205:MET:O	1.82	0.74
2:I:402:ARG:HG2	2:I:416:GLY:CA	2.14	0.74
3:J:245:LEU:CD2	3:J:249:LEU:HB2	2.18	0.74
2:C:353:VAL:O	2:C:355:PRO:HD3	1.88	0.74
3:D:530:PRO:HD2	3:D:531:LYS:NZ	2.03	0.74
5:F:575:GLU:CG	5:F:578:LYS:HE3	2.17	0.74
2:O:979:LEU:HD21	2:O:1011:LEU:HD13	1.67	0.74
2:C:1253:LEU:HD12	5:F:525:ASP:HB2	1.69	0.73
2:I:1117:LEU:HD11	2:I:1182:ILE:HD12	1.70	0.73
2:I:1212:LEU:O	2:I:1221:PHE:CD2	2.40	0.73
1:M:47:LEU:O	1:M:51:MET:HG2	1.87	0.73
6:1:48:DA:H2"	6:1:49:DG:H5"	1.70	0.73
2:C:539:THR:HG22	2:C:540:ARG:N	2.02	0.73
1:G:46:ILE:CD1	1:G:224:LEU:HB2	2.18	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:596:LEU:CD2	3:J:600:ALA:HB1	2.18	0.73
3:J:608:CYS:SG	3:J:617:THR:HG22	2.28	0.73
3:J:644:MET:O	3:J:764:ARG:NH1	2.21	0.73
1:M:190:ALA:H	1:M:199:ASP:HA	1.53	0.73
5:R:231:THR:HG21	5:R:252:LEU:HD22	1.69	0.73
5:R:505:ILE:HD12	7:8:22:DA:H62	1.52	0.73
1:B:217:ILE:CD1	1:B:217:ILE:N	2.50	0.73
2:C:18:ARG:HH22	2:C:622:ASN:CG	1.90	0.73
3:J:1257:VAL:HA	3:J:1260:MET:HE1	1.65	0.73
3:J:264:ASP:N	3:J:264:ASP:OD1	2.20	0.73
2:I:900:LYS:HZ3	5:L:563:PHE:HE1	1.34	0.73
3:P:1253:ILE:HA	3:P:1256:ILE:CD1	2.18	0.73
3:P:115:TRP:CZ2	3:P:1329:THR:HG22	2.23	0.73
3:P:610:ARG:CZ	3:P:901:ARG:HH12	2.02	0.73
4:Q:48:VAL:O	4:Q:51:LEU:HB2	1.88	0.73
5:R:309:ASN:OD1	5:R:312:SER:HB3	1.87	0.73
2:C:1305:TYR:CE2	3:D:379:PRO:HB3	2.22	0.73
1:G:232:VAL:HG21	1:H:221:ALA:CB	2.16	0.73
1:H:217:ILE:H	1:H:217:ILE:HD12	1.54	0.73
1:M:208:ASN:O	1:M:210:THR:N	2.19	0.73
3:P:886:VAL:HG21	3:P:1230:THR:HG21	1.71	0.73
5:R:84:LEU:CD1	5:R:107:THR:HG21	2.18	0.73
2:C:409:LEU:CD1	2:C:427:ASP:HB3	2.18	0.73
3:J:797:THR:HA	3:J:800:LEU:CD1	2.18	0.73
2:O:260:LYS:CE	2:O:262:TYR:OH	2.36	0.73
3:P:371:LYS:O	3:P:374:LEU:HD23	1.88	0.73
5:R:401:PHE:O	5:R:405:ILE:CG1	2.36	0.73
1:A:140:ILE:HG13	1:A:141:SER:N	2.03	0.73
3:D:600:ALA:O	3:D:604:MET:HG3	1.89	0.73
2:I:615:VAL:HG22	2:I:638:SER:HB2	1.70	0.73
3:J:703:THR:O	3:J:718:SER:HB3	1.89	0.73
3:P:843:VAL:HG21	3:P:897:HIS:O	1.89	0.73
2:C:255:ILE:HG22	2:C:255:ILE:O	1.88	0.73
2:C:616:ILE:HG12	2:C:652:TYR:CB	2.14	0.73
3:D:314:ARG:HH21	5:F:95:THR:HG23	1.53	0.73
1:H:30:PRO:HG3	1:H:192:VAL:CG2	2.18	0.73
2:I:384:LEU:O	2:I:388:LEU:HG	1.87	0.73
2:O:1296:ASP:HB3	2:O:1321:GLU:H	1.53	0.73
1:B:86:LYS:HE2	1:B:173:VAL:HG12	1.70	0.73
2:C:1077:SER:CA	3:D:356:THR:CG2	2.66	0.73
2:C:1340:GLU:HB2	3:D:19:ALA:O	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:334:LYS:NZ	7:2:13:DA:OP1	2.21	0.73
3:J:786:THR:OG1	3:J:932:MET:HA	1.88	0.73
3:J:931:THR:O	3:J:935:PHE:CD2	2.41	0.73
1:M:184:ALA:HB2	2:O:1091:GLY:HA3	1.71	0.73
4:Q:5:THR:HG22	4:Q:7:GLN:H	1.53	0.73
2:I:734:ILE:HG23	2:I:749:ASP:HB2	1.70	0.73
3:J:1155:ILE:O	3:J:1156:LEU:HD23	1.88	0.73
3:J:378:LYS:O	3:J:382:TYR:CD2	2.41	0.73
2:O:529:ARG:C	2:O:530:ILE:HG12	2.08	0.73
3:P:1080:ILE:HB	3:P:1097:ALA:HB3	1.71	0.73
3:P:452:LEU:HD22	3:P:502:PRO:HA	1.71	0.73
3:P:665:GLN:O	3:P:668:PHE:HB3	1.87	0.73
3:P:739:GLN:HG2	3:P:744:ARG:HG3	1.70	0.73
3:P:930:LEU:HB2	3:P:1134:ILE:HD11	1.69	0.73
2:C:542:ARG:HH21	6:1:51:DC:N4	1.86	0.73
1:B:217:ILE:HD12	1:B:217:ILE:N	2.03	0.73
2:C:1066:MET:HG2	2:C:1234:LYS:HA	1.69	0.73
2:O:524:ILE:HD11	2:O:712:SER:HB3	1.71	0.73
5:R:323:ASN:CG	5:R:324:LYS:H	1.92	0.73
1:A:168:ILE:H	1:A:168:ILE:CD1	1.95	0.72
3:D:303:VAL:O	3:D:307:LEU:HG	1.88	0.72
3:D:734:ALA:HA	3:D:737:ILE:CD1	2.05	0.72
1:G:224:LEU:O	1:G:228:LEU:HG	1.89	0.72
2:O:109:ALA:HB1	2:O:110:PRO:HD2	1.70	0.72
2:O:719:LYS:O	2:O:779:ARG:NH1	2.22	0.72
1:G:192:VAL:HG21	1:G:198:LEU:HB2	1.69	0.72
1:G:26:VAL:O	1:G:203:ILE:HD12	1.89	0.72
1:G:229:GLU:O	1:G:233:ASP:HB2	1.89	0.72
1:H:102:LEU:HB2	1:H:115:ILE:HD11	1.70	0.72
2:I:3:TYR:O	2:I:8:LYS:HE3	1.89	0.72
3:J:146:VAL:CG1	3:J:155:GLU:O	2.36	0.72
4:K:53:GLU:HB3	4:K:59:ILE:HG13	1.72	0.72
5:R:310:GLU:HB3	5:R:355:ILE:HD13	1.72	0.72
2:C:395:TYR:HE2	2:C:420:LEU:HD21	1.53	0.72
3:D:1224:ARG:HB3	3:D:1228:ALA:HB3	1.69	0.72
3:D:252:LEU:HD11	3:D:260:PHE:CD2	2.24	0.72
3:J:237:MET:O	3:J:238:ILE:HD13	1.88	0.72
2:O:137:VAL:O	2:O:138:ILE:HD13	1.89	0.72
2:C:1121:ALA:HA	2:C:1124:ILE:HD12	1.69	0.72
2:I:130:MET:HG2	2:I:131:THR:O	1.88	0.72
2:I:714:VAL:HG13	2:I:786:GLY:HA3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:422:LEU:O	3:J:468:VAL:HG12	1.89	0.72
3:P:1253:ILE:HA	3:P:1256:ILE:HD11	1.71	0.72
7:2:33:DC:H2"	7:2:34:DG:OP2	1.89	0.72
3:D:1167:LYS:H	3:D:1167:LYS:CD	2.03	0.72
2:I:91:THR:HG23	2:I:138:ILE:HA	1.70	0.72
2:I:268:ARG:NH2	3:J:1048:ARG:HD2	2.03	0.72
3:J:805:GLN:O	3:J:1347:LEU:HD11	1.88	0.72
3:J:574:VAL:O	3:J:578:ILE:HG13	1.89	0.72
2:C:237:LEU:O	2:C:287:VAL:HG22	1.89	0.72
3:D:27:PRO:HA	3:D:30:ILE:HD12	1.69	0.72
3:D:574:VAL:O	3:D:578:ILE:HG13	1.88	0.72
3:J:139:LEU:HD21	3:J:185:ILE:HG13	1.70	0.72
1:M:38:THR:HG23	1:N:42:ALA:HA	1.69	0.72
2:O:933:VAL:HG22	2:O:1050:VAL:HG13	1.70	0.72
2:O:30:ILE:HD12	2:O:30:ILE:N	2.04	0.72
2:O:890:LYS:HZ3	2:O:893:THR:HG23	1.50	0.72
2:O:953:LEU:HD23	2:O:1036:ILE:HD12	1.71	0.72
2:O:1243:MET:CG	3:P:372:MET:HE2	2.18	0.72
2:C:325:LEU:HD12	2:C:333:ILE:HD11	1.71	0.72
2:C:953:LEU:O	2:C:957:LYS:HG3	1.89	0.72
1:G:79:LEU:O	1:G:83:LEU:HD23	1.90	0.72
3:J:378:LYS:HG2	3:J:382:TYR:CE2	2.24	0.72
2:O:347:ILE:HD13	2:O:347:ILE:N	2.03	0.72
2:C:211:ARG:CD	2:C:357:ASN:O	2.34	0.72
2:C:1225:VAL:HG13	3:D:638:SER:HB3	1.72	0.72
5:F:166:VAL:HG12	5:F:168:PRO:HD3	1.70	0.72
3:D:262:THR:HA	5:F:507:MET:CE	2.20	0.72
2:I:758:ARG:HG3	2:I:833:ILE:O	1.90	0.72
3:J:1254:GLU:O	3:J:1257:VAL:HB	1.90	0.72
3:J:146:VAL:HG21	3:J:158:GLN:HB2	1.71	0.72
2:O:896:THR:HG23	2:O:899:GLU:H	1.53	0.72
3:P:513:MET:CE	3:P:579:LEU:HD21	2.20	0.72
3:J:580:TRP:O	3:J:583:VAL:HB	1.90	0.72
3:J:70:CYS:HB2	3:J:90:VAL:CB	2.20	0.72
6:4:51:DC:O3'	6:4:52:DT:C5'	2.37	0.72
3:D:450:HIS:HD2	3:D:452:LEU:HB2	1.55	0.72
5:F:514:ASP:O	5:F:516:ASP:N	2.20	0.72
3:J:492:SER:OG	3:J:495:ASN:N	2.23	0.72
2:O:689:ALA:HB2	2:O:1233:LEU:HD13	1.71	0.72
2:O:178:PRO:HA	2:O:397:LEU:HD23	1.70	0.72
1:A:208:ASN:N	1:A:208:ASN:HD22	1.88	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:870:ILE:CG1	2:I:944:ARG:HG2	2.16	0.71
3:J:496:GLY:HA2	3:J:903:LEU:CD2	2.13	0.71
3:J:536:LEU:HD21	3:J:541:LEU:HB2	1.73	0.71
3:J:673:VAL:HG11	3:J:678:ARG:CB	2.19	0.71
3:J:977:SER:OG	3:J:980:THR:OG1	2.07	0.71
4:K:6:VAL:O	4:K:10:VAL:HG23	1.89	0.71
1:M:156:SER:O	1:M:159:ILE:HG22	1.89	0.71
2:O:798:GLN:NE2	2:O:827:ARG:HG2	2.04	0.71
2:C:1227:VAL:HG12	2:C:1228:GLY:N	2.05	0.71
3:D:1081:VAL:HB	3:D:1085:GLY:O	1.89	0.71
2:I:1286:THR:O	2:I:1290:MET:HG2	1.89	0.71
3:J:1146:GLU:CD	3:J:1309:ILE:HB	2.11	0.71
5:L:456:MET:O	5:L:460:ILE:HG13	1.90	0.71
5:L:489:MET:SD	5:L:494:ILE:HD11	2.29	0.71
2:O:110:PRO:C	2:O:112:GLY:H	1.94	0.71
2:O:1117:LEU:CD1	2:O:1195:ILE:HG23	2.20	0.71
6:7:23:DA:C2	7:8:41:DG:N2	2.57	0.71
1:A:224:LEU:C	1:A:224:LEU:HD12	2.10	0.71
2:C:1241:ASP:O	2:C:1262:LYS:NZ	2.23	0.71
2:C:1272:GLU:O	2:C:1276:TRP:CD1	2.43	0.71
2:C:164:THR:O	2:C:165:HIS:HB2	1.88	0.71
2:C:363:LEU:HA	2:C:366:ILE:HD12	1.72	0.71
2:C:10:ARG:NH2	2:C:697:LYS:CD	2.52	0.71
2:I:94:ALA:HB2	2:I:129:LEU:HD11	1.72	0.71
2:I:593:LYS:CE	2:I:595:THR:HG1	2.02	0.71
3:J:1137:GLY:O	3:J:1141:VAL:HG23	1.90	0.71
3:J:332:LYS:NZ	3:J:1329:THR:OG1	2.23	0.71
3:J:492:SER:OG	3:J:495:ASN:OD1	2.08	0.71
1:M:47:LEU:O	1:M:51:MET:HB2	1.90	0.71
3:P:614:LEU:O	3:P:617:THR:OG1	2.09	0.71
3:P:795:TYR:CE1	7:8:11:DA:H5'	2.25	0.71
1:A:100:LEU:HD13	1:A:115:ILE:CG2	2.21	0.71
2:C:936:ARG:NE	2:C:1046:VAL:O	2.24	0.71
2:C:10:ARG:HH12	2:C:697:LYS:HB3	1.53	0.71
2:C:1121:ALA:HA	2:C:1124:ILE:CD1	2.20	0.71
2:C:1284:ALA:HB1	3:D:1356:LEU:CD2	2.21	0.71
2:C:28:LEU:O	2:C:32:LEU:HD21	1.90	0.71
3:D:1224:ARG:CD	3:D:1228:ALA:HB1	2.20	0.71
2:I:528:ARG:HD2	2:I:663:VAL:HG21	1.72	0.71
3:J:597:GLY:O	3:J:601:ILE:HG13	1.91	0.71
2:O:1186:VAL:O	2:O:1187:PHE:HB2	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:27:DC:H2"	6:4:28:DA:OP2	1.91	0.71
2:C:1290:MET:SD	2:C:1294:LYS:HD2	2.30	0.71
3:D:1046:ILE:HD12	3:D:1059:LEU:HD13	1.72	0.71
2:C:1286:THR:N	3:D:479:GLU:OE2	2.19	0.71
2:I:843:THR:HB	2:I:845:LEU:HG	1.72	0.71
5:L:132:CYS:SG	5:L:257:LYS:HE3	2.29	0.71
5:L:452:ILE:CG2	5:L:457:ILE:HG12	2.19	0.71
2:O:885:GLY:HA2	2:O:917:SER:OG	1.89	0.71
3:P:427:PRO:HB3	7:8:12:DG:H22	1.53	0.71
3:P:492:SER:OG	3:P:495:ASN:OD1	2.08	0.71
2:C:463:GLN:CG	2:C:505:PHE:HD1	1.97	0.71
3:D:1226:VAL:HG12	3:D:1227:HIS:N	2.05	0.71
5:L:137:TYR:CD1	5:L:138:PRO:HD2	2.26	0.71
1:B:144:ILE:N	1:B:144:ILE:HD12	2.05	0.71
1:B:9:LEU:HD21	1:B:30:PRO:O	1.90	0.71
3:D:115:TRP:CZ3	3:D:1332:LEU:HD12	2.26	0.71
3:D:442:ILE:HD12	3:D:443:GLU:O	1.90	0.71
1:H:83:LEU:O	3:J:528:THR:HG21	1.91	0.71
2:I:542:ARG:NH1	6:4:50:DT:H71	2.06	0.71
3:J:1216:ALA:O	3:J:1220:ILE:HG13	1.91	0.71
3:J:1282:TYR:O	3:J:1285:VAL:CG1	2.39	0.71
3:J:422:LEU:O	3:J:468:VAL:HG13	1.90	0.71
1:M:67:GLU:HA	1:M:78:ILE:HG21	1.72	0.71
3:P:1268:ASN:O	3:P:1300:ALA:HB1	1.91	0.71
1:A:140:ILE:HG13	1:A:141:SER:H	1.54	0.71
3:D:1061:VAL:O	3:D:1104:LYS:N	2.24	0.71
3:D:1226:VAL:O	3:D:1229:VAL:HG12	1.91	0.71
3:D:30:ILE:HD13	3:D:243:PRO:HD3	1.73	0.71
3:D:364:HIS:HB3	3:D:487:THR:CG2	2.20	0.71
3:J:253:VAL:HB	3:J:254:PRO:HD2	1.73	0.71
3:P:269:TYR:O	3:P:273:ILE:HG13	1.91	0.71
3:D:415:VAL:HA	4:E:45:LYS:NZ	2.05	0.71
2:I:1282:GLY:H	3:J:483:LEU:HD13	1.56	0.71
3:J:918:ILE:O	3:J:922:SER:OG	2.08	0.71
1:N:152:TYR:CE2	1:N:154:PRO:HG3	2.24	0.71
3:P:109:SER:CB	3:P:296:LYS:NZ	2.52	0.71
2:O:1282:GLY:HA3	4:Q:17:PHE:CE1	2.26	0.71
2:C:525:THR:HG21	2:C:687:ARG:HD3	1.71	0.71
3:D:949:SER:HB3	3:D:1019:ASN:HD22	1.55	0.71
3:D:449:LEU:HD12	3:D:450:HIS:H	1.55	0.71
3:D:530:PRO:HD3	3:D:552:ILE:CD1	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:425:ILE:O	2:I:429:MET:HG3	1.91	0.71
3:J:139:LEU:HD21	3:J:185:ILE:HG12	1.73	0.71
2:O:592:ARG:NH2	2:O:599:VAL:HG12	2.06	0.71
2:O:634:VAL:HG12	2:O:635:THR:H	1.55	0.71
3:D:1145:PHE:CE1	3:D:1256:ILE:HD13	2.25	0.70
1:H:34:GLY:O	1:H:38:THR:OG1	2.09	0.70
2:I:1275:VAL:HG21	3:J:343:LEU:O	1.91	0.70
2:I:405:PHE:CZ	2:I:424:ASP:HB3	2.26	0.70
3:J:722:ILE:HA	3:J:725:MET:SD	2.31	0.70
3:J:393:THR:OG1	5:L:609:SER:HB3	1.91	0.70
1:A:11:PRO:O	1:B:231:PHE:CZ	2.44	0.70
2:C:1324:ASN:HA	2:C:1327:LEU:HD12	1.73	0.70
3:D:1145:PHE:HE1	3:D:1256:ILE:HD13	1.54	0.70
3:D:44:ILE:HD12	3:D:44:ILE:C	2.11	0.70
3:D:749:LYS:CG	3:D:755:ILE:CG1	2.68	0.70
5:F:491:GLU:HA	5:F:494:ILE:HD13	1.72	0.70
2:I:495:ALA:HA	2:I:498:ILE:HD12	1.72	0.70
2:O:1081:PRO:HB3	2:O:1083:GLU:OE1	1.92	0.70
3:P:604:MET:HE2	3:P:605:LEU:HD23	1.73	0.70
1:A:151:GLY:O	1:A:177:TYR:HB2	1.91	0.70
2:C:1121:ALA:HB2	2:C:1182:ILE:HD11	1.74	0.70
2:C:1184:THR:O	2:C:1184:THR:CG2	2.39	0.70
2:C:515:MET:SD	2:C:523:GLU:HG3	2.32	0.70
3:D:977:SER:OG	3:D:980:THR:OG1	2.09	0.70
4:K:48:VAL:O	4:K:51:LEU:HB2	1.91	0.70
2:O:1122:LYS:HE2	2:O:1178:LYS:O	1.89	0.70
2:O:436:ARG:HD2	2:O:436:ARG:O	1.91	0.70
3:P:1075:ARG:CG	3:P:1192:LYS:HD3	2.20	0.70
3:P:859:PRO:HG2	3:P:862:THR:OG1	1.91	0.70
3:P:918:ILE:O	3:P:922:SER:OG	2.07	0.70
1:A:184:ALA:HB2	2:C:1091:GLY:HA3	1.72	0.70
2:C:373:GLY:HA2	5:F:91:ILE:HG12	1.72	0.70
3:D:918:ILE:O	3:D:922:SER:OG	2.09	0.70
5:F:554:ARG:HG3	5:F:555:GLU:N	2.07	0.70
1:G:125:LYS:HE2	1:G:127:GLN:HG3	1.72	0.70
1:G:184:ALA:HB2	2:I:1091:GLY:HA3	1.73	0.70
2:I:542:ARG:HD2	6:4:51:DC:OP2	1.91	0.70
3:J:930:LEU:CB	3:J:1134:ILE:CD1	2.69	0.70
1:M:74:VAL:HG13	1:M:131:CYS:SG	2.31	0.70
3:P:589:TYR:O	3:P:592:VAL:HG13	1.90	0.70
2:C:1294:LYS:HD3	3:D:347:VAL:HG13	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:209:ILE:HG23	2:C:210:LEU:H	1.54	0.70
2:I:1313:HIS:CE1	3:J:380:PHE:CE1	2.78	0.70
2:I:184:LEU:HD21	2:I:389:PHE:HZ	1.51	0.70
3:J:1158:GLU:HA	3:J:1223:LEU:HD13	1.72	0.70
3:J:614:LEU:O	3:J:617:THR:OG1	2.08	0.70
3:P:1272:SER:HB2	3:P:1274:PHE:CE2	2.26	0.70
6:4:47:DC:H3'	6:4:48:DA:C5'	2.22	0.70
2:I:1273:MET:HG2	7:5:13:DA:H4'	1.73	0.70
1:G:47:LEU:O	1:G:51:MET:HB2	1.91	0.70
1:G:69:SER:C	1:G:78:ILE:HD11	2.12	0.70
2:I:98:VAL:HG12	2:I:100:LEU:HG	1.74	0.70
3:J:70:CYS:CB	3:J:90:VAL:CG1	2.70	0.70
1:M:41:ASN:HD21	2:O:1218:GLY:HA3	1.54	0.70
2:O:488:MET:HB3	2:O:489:PRO:HD2	1.71	0.70
3:P:495:ASN:HB2	3:P:497:GLU:OE1	1.91	0.70
6:7:44:DG:C2'	6:7:45:DT:O4'	2.38	0.70
2:C:1227:VAL:HG12	2:C:1228:GLY:H	1.57	0.70
2:C:444:ASP:O	2:C:450:ASN:ND2	2.24	0.70
3:D:278:ARG:O	3:D:282:LEU:HG	1.90	0.70
3:D:470:VAL:CG1	3:D:472:LEU:HD23	2.20	0.70
2:I:525:THR:HG21	2:I:687:ARG:HD2	1.74	0.70
3:J:872:LEU:HD22	3:J:873:GLU:N	2.06	0.70
5:F:573:LEU:CB	7:2:45:DG:OP2	2.40	0.70
7:5:42:DG:H2"	7:5:43:DA:OP2	1.91	0.70
3:D:1280:VAL:HG12	3:D:1281:GLU:H	1.54	0.70
5:F:132:CYS:SG	5:F:257:LYS:NZ	2.64	0.70
2:I:871:VAL:CG2	2:I:883:LEU:HA	2.21	0.70
3:J:20:ILE:HD12	3:J:20:ILE:N	2.05	0.70
5:L:496:LYS:HE2	5:L:500:ILE:HD11	1.73	0.70
2:O:886:LYS:N	2:O:917:SER:OG	2.24	0.70
1:A:86:LYS:HG2	1:A:173:VAL:CG1	2.22	0.70
3:D:1256:ILE:C	3:D:1260:MET:HE2	2.12	0.70
2:I:539:THR:HG22	2:I:540:ARG:H	1.57	0.70
2:I:549:ASP:OD2	3:J:781:LYS:HD3	1.92	0.70
3:J:185:ILE:HG22	3:J:189:LEU:CD1	2.20	0.70
3:P:406:ALA:HA	3:P:409:TRP:CD1	2.26	0.70
3:D:464:ASP:OD1	8:3:16:U:H4'	1.92	0.70
2:C:205:PRO:O	2:C:208:ILE:HG22	1.91	0.70
3:D:91:GLU:OE1	3:D:101:ARG:NH2	2.25	0.70
1:H:61:ILE:H	1:H:61:ILE:HD12	1.57	0.70
4:K:79:GLU:HG2	4:K:83:VAL:HG23	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1285:TYR:HD2	3:P:1361:THR:HG21	1.55	0.70
2:O:392:GLU:HG2	2:O:419:ILE:HG21	1.74	0.70
3:P:610:ARG:CZ	3:P:901:ARG:NH1	2.55	0.70
3:P:806:ASP:O	3:P:808:VAL:HG23	1.90	0.70
5:R:456:MET:O	5:R:460:ILE:HG13	1.91	0.70
1:B:61:ILE:CD1	1:B:61:ILE:N	2.37	0.69
3:D:406:ALA:HA	3:D:409:TRP:HD1	1.57	0.69
3:D:933:ARG:NH1	3:D:937:ILE:HD11	2.07	0.69
2:C:1210:ILE:HG22	2:C:1212:LEU:HD23	1.75	0.69
3:D:252:LEU:HD11	3:D:260:PHE:HD2	1.56	0.69
2:C:1225:VAL:HG13	3:D:638:SER:CB	2.22	0.69
5:F:460:ILE:O	5:F:463:LEU:HB2	1.91	0.69
3:J:596:LEU:HD22	3:J:600:ALA:HB1	1.72	0.69
3:P:111:THR:CG2	3:P:112:ALA:N	2.54	0.69
3:P:1282:TYR:O	3:P:1285:VAL:HG12	1.92	0.69
2:C:239:MET:SD	2:C:241:LEU:HD13	2.32	0.69
2:I:1086:PRO:O	2:I:1094:VAL:HG22	1.92	0.69
2:I:790:ASP:O	2:I:792:GLY:N	2.24	0.69
3:J:1328:THR:O	3:J:1332:LEU:HG	1.92	0.69
4:K:50:ALA:O	4:K:54:ILE:HG13	1.92	0.69
2:O:219:GLN:O	2:O:223:LEU:HG	1.91	0.69
3:P:977:SER:OG	3:P:980:THR:OG1	2.08	0.69
5:R:385:ARG:O	5:R:388:ILE:HG22	1.91	0.69
1:B:13:LEU:HD11	1:B:16:ILE:HG12	1.74	0.69
3:D:613:GLY:O	3:D:617:THR:HG23	1.93	0.69
5:F:96:ASP:HB3	5:F:99:ARG:HG2	1.73	0.69
3:J:1080:ILE:HD12	3:J:1115:ILE:HD11	1.74	0.69
3:J:1250:ASP:O	3:J:1254:GLU:HG3	1.91	0.69
3:J:869:CYS:O	3:J:872:LEU:HB3	1.91	0.69
3:P:111:THR:HG22	3:P:112:ALA:N	2.07	0.69
3:P:950:ILE:HB	3:P:1018:ALA:HB3	1.75	0.69
2:C:1065:LYS:NZ	8:3:15:G:H4'	2.07	0.69
2:C:409:LEU:HD13	2:C:427:ASP:HB3	1.74	0.69
2:C:569:ILE:CD1	3:D:783:LEU:HD23	2.23	0.69
2:C:643:SER:OG	2:C:644:LEU:N	2.24	0.69
2:C:861:ALA:O	2:C:865:LEU:HG	1.92	0.69
1:H:28:LEU:HD12	1:H:31:LEU:HD11	1.73	0.69
1:H:35:PHE:O	1:H:39:LEU:CD1	2.40	0.69
2:I:953:LEU:CD2	2:I:957:LYS:NZ	2.54	0.69
3:J:982:LEU:O	3:J:994:SER:OG	2.08	0.69
2:O:693:LEU:HB2	2:O:831:ILE:CD1	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1163:VAL:HG22	3:P:1177:ILE:HG23	1.74	0.69
3:P:398:LYS:CE	5:R:532:LEU:CD2	2.63	0.69
5:R:390:ILE:HD13	5:R:432:THR:HG23	1.74	0.69
3:P:298:MET:SD	5:R:402:LEU:HB3	2.31	0.69
2:I:15:PHE:CG	2:I:1190:ALA:HB2	2.28	0.69
3:J:373:ALA:CA	3:J:376:LEU:HD12	2.05	0.69
3:J:43:THR:HB	3:J:44:ILE:HG23	1.73	0.69
3:J:262:THR:O	5:L:507:MET:HB2	1.93	0.69
3:P:312:ARG:NH1	5:R:95:THR:OG1	2.25	0.69
3:P:514:THR:HG21	3:P:596:LEU:HG	1.72	0.69
3:D:624:ILE:O	3:D:627:THR:HB	1.93	0.69
3:D:749:LYS:HG2	3:D:755:ILE:HD11	1.72	0.69
5:F:551:LEU:HD21	5:F:598:LEU:HD21	1.74	0.69
1:G:42:ALA:HA	1:H:38:THR:HG23	1.74	0.69
3:J:1173:ARG:HB2	3:J:1190:ILE:HB	1.74	0.69
3:J:596:LEU:HD23	3:J:600:ALA:CB	2.21	0.69
2:O:806:PRO:HG3	3:P:632:ALA:O	1.92	0.69
2:O:1268:GLN:HG2	3:P:352:ARG:HH11	1.58	0.69
3:D:1328:THR:HG22	3:D:1332:LEU:HD11	1.74	0.69
3:D:747:MET:CE	3:D:774:ILE:HG22	2.22	0.69
3:D:791:ALA:HA	7:2:12:DG:O4'	1.92	0.69
3:D:378:LYS:HZ3	5:F:532:LEU:HD11	1.55	0.69
5:L:130:VAL:HG13	5:L:365:MET:HG3	1.73	0.69
1:M:47:LEU:HA	1:M:51:MET:HG2	1.72	0.69
1:B:54:CYS:O	1:B:55:ALA:HB2	1.92	0.69
2:C:617:ALA:CA	2:C:636:CYS:SG	2.81	0.69
2:C:906:PHE:HE2	5:F:608:ARG:HH12	1.39	0.69
5:F:461:ASN:HA	7:2:26:DT:H73	1.75	0.69
1:G:228:LEU:CD1	1:H:228:LEU:HD11	2.23	0.69
1:H:203:ILE:HD12	1:H:203:ILE:N	2.07	0.69
2:I:1161:LEU:O	2:I:1164:PHE:HD2	1.75	0.69
2:I:179:TYR:HB3	2:I:396:ASP:O	1.93	0.69
3:J:185:ILE:O	3:J:189:LEU:CG	2.40	0.69
1:N:67:GLU:OE1	1:N:82:LEU:HD11	1.93	0.69
2:C:519:ASN:OD1	2:C:522:SER:HB2	1.93	0.69
3:D:609:TYR:C	3:D:609:TYR:CD1	2.66	0.69
1:G:208:ASN:HD22	1:G:208:ASN:H	1.41	0.69
2:I:1252:SER:HB2	2:I:1259:LEU:HD23	1.73	0.69
3:J:550:VAL:HG12	3:J:552:ILE:HG12	1.74	0.69
5:L:423:ARG:HD2	6:4:37:DA:C6	2.28	0.69
2:O:1243:MET:CG	3:P:372:MET:CE	2.71	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:580:PHE:O	5:R:581:ASP:HB2	1.91	0.69
7:2:27:DA:H2"	7:2:28:DG:H5'	1.73	0.69
2:C:559:CYS:HB3	2:C:662:SER:HB3	1.74	0.69
2:I:693:LEU:HG	2:I:694:ARG:N	2.08	0.69
3:J:109:SER:CB	3:J:296:LYS:HE2	2.18	0.69
3:P:1155:ILE:HG22	3:P:1156:LEU:H	1.58	0.69
3:P:272:VAL:HG22	3:P:302:ALA:HB1	1.75	0.69
2:O:1109:ILE:HD11	3:P:740:LEU:HD22	1.75	0.69
5:R:387:VAL:HG12	5:R:388:ILE:N	2.08	0.69
2:C:809:GLY:CA	3:D:629:PHE:CE1	2.76	0.68
5:F:494:ILE:O	5:F:498:LEU:HG	1.93	0.68
2:I:592:ARG:NH2	2:I:599:VAL:HG12	2.09	0.68
2:I:800:MET:CE	2:I:800:MET:HA	2.24	0.68
3:J:957:SER:N	3:J:985:ILE:O	2.21	0.68
6:1:45:DT:H2'	6:1:46:DG:O4'	1.92	0.68
2:C:225:PHE:CE2	2:C:347:ILE:HB	2.28	0.68
3:D:474:LEU:HD12	4:E:28:ARG:HE	1.57	0.68
3:D:704:GLU:O	3:D:704:GLU:HG3	1.94	0.68
2:I:1273:MET:HB2	2:I:1274:GLU:OE1	1.93	0.68
2:I:528:ARG:HD3	2:I:663:VAL:CG2	2.22	0.68
5:L:130:VAL:HG13	5:L:365:MET:CG	2.23	0.68
1:A:179:PRO:O	1:A:208:ASN:ND2	2.26	0.68
1:B:102:LEU:HB2	1:B:115:ILE:CD1	2.23	0.68
1:B:65:LEU:O	1:B:169:GLY:CA	2.42	0.68
2:C:801:ARG:NH1	2:C:1229:TYR:OH	2.25	0.68
2:I:1101:LEU:HD11	3:J:508:LEU:HD22	1.74	0.68
2:I:169:LYS:NZ	2:I:190:PRO:O	2.25	0.68
2:I:12:ARG:NH2	2:I:793:GLU:OE1	2.25	0.68
3:J:425:ARG:HD3	3:J:457:TYR:O	1.94	0.68
2:O:1273:MET:HB3	3:P:428:THR:HB	1.75	0.68
3:P:826:ILE:HG23	3:P:831:VAL:HG22	1.74	0.68
3:D:115:TRP:HH2	3:D:1332:LEU:HD12	1.59	0.68
2:C:1291:LEU:HD21	3:D:1351:VAL:O	1.92	0.68
3:J:131:PRO:O	3:J:135:ILE:HG13	1.93	0.68
2:O:672:GLU:CG	2:O:1187:PHE:HA	2.23	0.68
3:P:1282:TYR:O	3:P:1285:VAL:HG13	1.93	0.68
1:A:208:ASN:H	1:A:208:ASN:HD22	1.42	0.68
2:I:1273:MET:HG3	7:5:13:DA:O4'	1.94	0.68
3:J:108:ALA:HB3	3:J:279:LEU:HD21	1.74	0.68
4:K:60:ASN:O	4:K:64:LEU:HG	1.93	0.68
3:P:1266:ILE:CD1	3:P:1278:GLU:HB2	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:661:VAL:HG22	3:P:685:ILE:HG21	1.74	0.68
5:R:365:MET:O	5:R:369:GLU:HG3	1.93	0.68
2:C:12:ARG:HA	2:C:1181:PRO:HG2	1.75	0.68
3:D:614:LEU:O	3:D:617:THR:OG1	2.10	0.68
3:D:620:PHE:O	3:D:624:ILE:CD1	2.42	0.68
2:I:211:ARG:HD3	2:I:357:ASN:O	1.93	0.68
2:I:770:CYS:HB3	2:I:791:LEU:CD2	2.24	0.68
3:J:275:ARG:NH1	3:J:301:GLU:OE1	2.26	0.68
1:N:57:THR:HG23	1:N:158:ARG:NH2	2.09	0.68
2:O:964:LEU:HD12	2:O:1021:LEU:HD22	1.75	0.68
3:P:368:LEU:CD2	3:P:373:ALA:HB2	2.22	0.68
3:D:268:LEU:O	3:D:272:VAL:HG23	1.93	0.68
3:J:1356:LEU:HD13	3:J:1365:TYR:CZ	2.27	0.68
1:M:215:GLU:OE2	1:M:219:ARG:NH2	2.27	0.68
2:O:202:ARG:NH2	7:8:6:DG:H3'	2.08	0.68
2:O:213:LEU:O	2:O:214:ASN:HB3	1.93	0.68
2:I:1077:SER:HA	3:J:356:THR:HG21	1.75	0.68
2:I:1174:GLU:O	2:I:1177:ARG:HB3	1.93	0.68
2:I:743:PRO:HA	2:I:974:ARG:HH12	1.58	0.68
5:L:583:THR:O	5:L:587:ILE:HD11	1.94	0.68
2:O:1131:MET:HE2	2:O:1141:LEU:HD23	1.76	0.68
2:O:1325:VAL:HG12	2:O:1326:LEU:N	2.08	0.68
2:O:807:TRP:O	2:O:809:GLY:N	2.27	0.68
3:P:1134:ILE:CG2	3:P:1138:LEU:HG	2.21	0.68
3:P:543:SER:O	3:P:574:VAL:HG21	1.93	0.68
2:C:160:ASP:HA	2:C:163:LYS:HD3	1.75	0.68
2:C:452:ARG:NH1	2:C:454:ARG:HG3	2.09	0.68
1:H:67:GLU:O	1:H:78:ILE:HB	1.93	0.68
2:I:110:PRO:O	2:I:111:GLU:HG3	1.94	0.68
2:I:1257:GLN:HB3	2:I:1258:PRO:HD2	1.75	0.68
2:I:208:ILE:CD1	2:I:365:GLU:HB3	2.24	0.68
2:I:754:THR:N	2:I:767:GLN:OE1	2.27	0.68
3:J:501:VAL:HG13	3:J:502:PRO:HD2	1.76	0.68
3:J:553:THR:HG23	3:J:566:LYS:O	1.94	0.68
2:O:1065:LYS:O	2:O:1235:LEU:HG	1.94	0.68
3:P:673:VAL:CG1	3:P:678:ARG:HB2	2.23	0.68
3:P:797:THR:HG23	3:P:924:GLY:HA3	1.75	0.68
2:C:463:GLN:CG	2:C:505:PHE:CD1	2.75	0.68
2:C:824:GLN:HE22	2:C:1082:ILE:HD11	1.59	0.68
3:D:1283:SER:O	3:D:1287:ILE:HG13	1.93	0.68
2:I:816:ILE:CD1	2:I:1074:GLY:HA3	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:505:ASP:N	3:J:505:ASP:OD1	2.25	0.68
3:P:509:GLY:O	3:P:513:MET:HG3	1.93	0.68
3:P:803:VAL:HG21	3:P:1309:ILE:HG23	1.76	0.68
2:C:1116:HIS:CE1	2:C:1226:THR:HG23	2.29	0.67
3:D:1353:VAL:HG23	3:D:1355:ARG:HG3	1.75	0.67
5:F:562:ARG:HE	5:F:573:LEU:HD13	1.58	0.67
1:G:13:LEU:HA	1:G:28:LEU:HD22	1.74	0.67
1:H:168:ILE:CD1	3:P:867:GLN:CB	2.71	0.67
2:I:839:VAL:O	2:I:886:LYS:HE2	1.94	0.67
2:O:708:VAL:HG11	2:O:794:LEU:HD22	1.75	0.67
3:P:803:VAL:CG1	3:P:1259:GLN:HB3	2.24	0.67
3:P:251:PRO:O	5:R:507:MET:CE	2.42	0.67
2:C:488:MET:HB3	2:C:489:PRO:HD2	1.75	0.67
5:F:452:ILE:HB	5:F:457:ILE:HD11	1.75	0.67
1:H:85:LEU:O	1:H:88:LEU:HB2	1.94	0.67
2:I:1305:TYR:O	2:I:1309:VAL:HG23	1.93	0.67
2:I:448:LEU:HG	2:I:553:THR:OG1	1.94	0.67
2:I:681:MET:O	2:I:685:MET:HG2	1.94	0.67
2:I:704:MET:O	2:I:708:VAL:HG23	1.93	0.67
3:J:1179:PRO:HD3	3:J:1184:ASP:O	1.94	0.67
1:N:61:ILE:HG23	1:N:142:MET:HE2	1.74	0.67
3:P:1233:ILE:O	3:P:1237:VAL:HG23	1.94	0.67
3:P:141:PHE:HA	3:P:180:MET:HG2	1.76	0.67
1:B:83:LEU:CD1	1:B:86:LYS:NZ	2.56	0.67
3:D:703:THR:HA	3:D:718:SER:H	1.59	0.67
1:G:211:ILE:HD12	1:G:219:ARG:HH12	1.58	0.67
3:J:379:PRO:HG2	3:J:380:PHE:H	1.57	0.67
3:J:975:ILE:HD13	3:J:980:THR:HG21	1.74	0.67
3:J:474:LEU:HD12	4:K:28:ARG:HG2	1.76	0.67
2:O:1109:ILE:HD13	2:O:1109:ILE:N	2.08	0.67
2:O:806:PRO:CG	3:P:632:ALA:O	2.42	0.67
5:R:520:GLY:HA2	5:R:523:ILE:HD12	1.77	0.67
3:D:1167:LYS:HD2	3:D:1167:LYS:N	2.09	0.67
2:C:1286:THR:OG1	3:D:479:GLU:OE2	2.10	0.67
2:I:950:GLU:O	2:I:953:LEU:HB2	1.94	0.67
2:I:953:LEU:CD2	2:I:957:LYS:HZ2	2.06	0.67
2:O:589:THR:HG23	2:O:590:PRO:HD2	1.74	0.67
3:P:217:LEU:O	3:P:221:ILE:HG13	1.94	0.67
4:Q:54:ILE:CG1	4:Q:59:ILE:HB	2.23	0.67
1:A:67:GLU:C	1:A:78:ILE:HD12	2.15	0.67
2:C:525:THR:HG21	2:C:687:ARG:CD	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:997:TRP:O	2:C:1000:LEU:HB2	1.95	0.67
3:D:749:LYS:HG3	3:D:755:ILE:CG1	2.10	0.67
3:D:298:MET:HE3	5:F:402:LEU:HB2	1.77	0.67
1:H:78:ILE:O	1:H:82:LEU:CG	2.41	0.67
3:J:20:ILE:CD1	3:J:1344:LEU:HD21	2.25	0.67
2:O:164:THR:O	2:O:165:HIS:HB2	1.92	0.67
3:P:128:LEU:HD13	3:P:188:LEU:HD21	1.77	0.67
3:P:608:CYS:SG	3:P:617:THR:CG2	2.75	0.67
5:R:457:ILE:HA	5:R:460:ILE:CD1	2.21	0.67
6:7:54:DA:H1'	6:7:55:DC:H5"	1.77	0.67
2:C:616:ILE:HG23	2:C:653:MET:HA	1.77	0.67
2:C:754:THR:N	2:C:767:GLN:OE1	2.24	0.67
2:I:297:VAL:CG2	2:I:315:MET:H	2.06	0.67
1:G:75:GLN:O	2:I:729:ALA:HB2	1.94	0.67
2:O:112:GLY:O	2:O:114:VAL:N	2.27	0.67
4:Q:48:VAL:HG13	4:Q:51:LEU:HD12	1.75	0.67
5:R:505:ILE:HD12	7:8:22:DA:N6	2.08	0.67
2:O:897:PRO:HB2	5:R:565:ILE:HG13	1.76	0.67
2:C:211:ARG:HG2	2:C:211:ARG:HH11	1.60	0.67
3:D:24:LEU:HD12	3:D:232:ASN:HB3	1.77	0.67
5:F:545:HIS:HA	5:F:548:LEU:HD12	1.76	0.67
2:I:738:GLU:HA	2:I:741:MET:HB2	1.76	0.67
3:J:580:TRP:HA	3:J:583:VAL:HG23	1.76	0.67
5:L:295:CYS:O	5:L:296:LYS:CB	2.41	0.67
2:O:1327:LEU:HD21	2:O:1339:LEU:HD21	1.75	0.67
1:A:179:PRO:CB	1:A:208:ASN:HD21	2.07	0.67
2:C:807:TRP:CZ3	2:C:1086:PRO:HD3	2.30	0.67
2:C:593:LYS:HA	2:C:652:TYR:CD1	2.29	0.67
2:C:82:VAL:CG2	2:C:83:GLN:N	2.58	0.67
3:D:1151:LYS:O	3:D:1153:PRO:HD3	1.94	0.67
3:D:205:LEU:HD21	3:D:214:ARG:CG	2.24	0.67
3:D:450:HIS:CD2	3:D:452:LEU:HB2	2.30	0.67
5:F:573:LEU:HB2	7:2:45:DG:OP2	1.95	0.67
2:I:498:ILE:O	2:I:502:VAL:HG23	1.94	0.67
3:P:43:THR:OG1	3:P:44:ILE:HG12	1.93	0.67
3:P:773:PHE:O	3:P:776:THR:HB	1.95	0.67
5:R:167:ASP:OD2	5:R:262:VAL:HG21	1.94	0.67
5:R:441:ARG:O	5:R:445:ASP:HB2	1.95	0.67
1:B:158:ARG:HH21	1:B:175:ALA:CB	2.08	0.67
1:B:43:LEU:O	1:B:47:LEU:HD12	1.94	0.67
3:D:121:PRO:O	3:D:122:SER:CB	2.39	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:644:MET:HE2	3:D:764:ARG:HB2	1.77	0.67
5:L:458:GLU:OE2	7:5:28:DG:H8	1.77	0.67
2:O:1284:ALA:HB1	3:P:1356:LEU:HD22	1.77	0.67
3:P:601:ILE:CA	3:P:604:MET:SD	2.79	0.67
3:D:44:ILE:HG22	3:D:51:PRO:HA	1.77	0.67
2:C:1219:GLU:OE1	3:D:634:ARG:HD3	1.94	0.67
5:F:91:ILE:HG23	5:F:94:THR:OG1	1.95	0.67
5:L:493:LYS:O	5:L:497:VAL:HG23	1.94	0.67
2:O:901:LEU:O	2:O:905:ILE:HG13	1.94	0.67
5:R:385:ARG:O	5:R:388:ILE:CG2	2.43	0.67
1:A:69:SER:C	1:A:78:ILE:HD11	2.11	0.66
2:C:160:ASP:CA	2:C:163:LYS:HD3	2.25	0.66
2:I:448:LEU:HG	2:I:553:THR:CB	2.25	0.66
3:J:1309:ILE:HG22	3:J:1310:THR:N	2.10	0.66
3:J:759:ILE:HG12	3:J:771:GLN:HG2	1.77	0.66
5:L:583:THR:HG21	5:L:586:ARG:HB3	1.76	0.66
1:M:232:VAL:CG1	1:N:218:ARG:HG2	2.22	0.66
2:O:247:ARG:HD2	2:O:274:ILE:HG21	1.76	0.66
3:P:111:THR:CG2	3:P:112:ALA:H	2.08	0.66
3:P:111:THR:CG2	3:P:300:GLN:HG3	2.25	0.66
3:P:367:GLY:O	3:P:447:ILE:CG2	2.43	0.66
3:D:1333:THR:O	3:D:1337:VAL:HG23	1.94	0.66
2:I:575:LEU:HG	2:I:576:SER:O	1.96	0.66
3:J:1133:ASP:CG	3:J:1134:ILE:H	1.98	0.66
3:J:596:LEU:CD2	3:J:600:ALA:CB	2.73	0.66
3:J:84:ILE:HD12	3:J:84:ILE:H	1.59	0.66
2:O:70:TYR:HA	2:O:100:LEU:HD23	1.75	0.66
3:P:233:LYS:CG	3:P:234:PRO:HD2	2.25	0.66
3:P:332:LYS:O	3:P:333:GLY:C	2.31	0.66
3:J:109:SER:HB2	3:J:296:LYS:CE	2.22	0.66
2:O:1109:ILE:HG23	2:O:1112:ILE:HD12	1.76	0.66
4:Q:48:VAL:HA	4:Q:51:LEU:HD12	1.77	0.66
6:7:54:DA:H2"	6:7:55:DC:H5'	1.78	0.66
1:B:106:GLY:HA2	1:B:136:GLU:HA	1.76	0.66
3:D:53:ARG:O	3:D:58:CYS:HB2	1.95	0.66
5:F:562:ARG:NE	5:F:573:LEU:HD13	2.10	0.66
1:G:35:PHE:C	1:G:39:LEU:HD12	2.14	0.66
1:G:44:ARG:HA	1:G:47:LEU:CD1	2.17	0.66
2:I:1004:ASP:OD2	2:I:1008:GLN:HG2	1.95	0.66
2:I:819:SER:HB2	2:I:1085:MET:SD	2.36	0.66
2:I:149:LEU:HD21	2:I:451:ARG:NH2	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:805:GLN:CB	3:J:1347:LEU:HD12	2.25	0.66
3:J:245:LEU:HD11	3:J:249:LEU:HD12	1.77	0.66
3:J:377:PHE:C	3:J:379:PRO:HD2	2.15	0.66
5:L:514:ASP:O	5:L:516:ASP:N	2.27	0.66
1:M:140:ILE:HG13	1:M:141:SER:N	2.11	0.66
1:M:59:VAL:HG12	1:M:171:LEU:HD12	1.78	0.66
3:P:1138:LEU:HB2	3:P:1139:PRO:HD3	1.77	0.66
3:P:923:ILE:O	3:P:926:PRO:HD2	1.95	0.66
2:C:878:THR:CG2	2:C:879:GLY:H	2.07	0.66
3:D:415:VAL:HA	4:E:45:LYS:HZ1	1.59	0.66
3:D:493:PRO:HA	3:D:904:ALA:HB2	1.78	0.66
3:J:492:SER:HB3	3:J:495:ASN:OD1	1.95	0.66
3:P:517:CYS:HB3	3:P:545:HIS:HB2	1.76	0.66
3:D:842:ARG:NH1	3:D:1254:GLU:OE2	2.27	0.66
2:I:701:GLY:O	2:I:1183:ALA:HA	1.96	0.66
3:J:1200:GLU:HG2	3:J:1201:GLY:H	1.60	0.66
3:J:1318:SER:OG	3:J:1321:SER:CB	2.43	0.66
1:M:59:VAL:HG22	1:M:144:ILE:HG23	1.77	0.66
2:O:674:ASP:O	3:P:772:TYR:OH	2.06	0.66
3:P:427:PRO:HB3	7:8:12:DG:H21	1.60	0.66
2:O:1104:PRO:HG3	3:P:725:MET:SD	2.36	0.66
2:O:375:PRO:HD3	5:R:87:VAL:HG11	1.78	0.66
6:4:44:DG:H2'	6:4:45:DT:O4'	1.95	0.66
4:E:46:THR:HA	4:E:49:ILE:HD12	1.77	0.66
1:G:150:ARG:NH2	1:H:32:GLU:OE1	2.27	0.66
2:I:1273:MET:HG3	7:5:13:DA:C4'	2.26	0.66
2:I:764:CYS:HB3	2:I:831:ILE:HB	1.78	0.66
3:J:269:TYR:O	3:J:273:ILE:HG13	1.94	0.66
2:O:257:ALA:HB3	2:O:262:TYR:CD2	2.30	0.66
2:C:798:GLN:NE2	2:C:827:ARG:HE	1.94	0.66
2:C:878:THR:HG23	2:C:925:SER:HB2	1.77	0.66
2:C:936:ARG:HB2	2:C:1047:LEU:O	1.96	0.66
3:D:114:ILE:HG22	3:D:307:LEU:HD12	1.76	0.66
2:I:1005:GLU:HG2	2:I:1006:GLU:N	2.10	0.66
2:I:577:VAL:HG23	2:I:661:VAL:O	1.95	0.66
3:J:1282:TYR:O	3:J:1285:VAL:HG12	1.94	0.66
3:J:115:TRP:HH2	3:J:1329:THR:HA	1.59	0.66
2:O:1117:LEU:HD13	2:O:1195:ILE:HG12	1.77	0.66
3:P:932:MET:HE3	8:9:17:C:H2'	1.78	0.66
2:C:796:LEU:O	2:C:1233:LEU:HD21	1.96	0.66
3:D:112:ALA:HA	3:D:238:ILE:HD13	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:770:LEU:CD2	3:D:771:GLN:HG3	2.26	0.66
2:I:1305:TYR:CE2	3:J:379:PRO:HB3	2.31	0.66
2:I:240:GLU:HG3	2:I:284:LEU:CD2	2.26	0.66
3:J:20:ILE:HD13	3:J:1320:ILE:CD1	2.26	0.66
3:J:421:VAL:HG12	3:J:422:LEU:N	2.04	0.66
3:J:750:PRO:O	3:J:781:LYS:HE3	1.95	0.66
1:M:58:GLU:HB2	1:M:145:LYS:HB3	1.77	0.66
3:P:1040:MET:HE2	3:P:1046:ILE:HD13	1.78	0.66
5:R:597:LYS:O	5:R:600:HIS:HB2	1.96	0.66
2:C:557:ARG:HD3	2:C:587:LEU:HB2	1.77	0.66
3:D:583:VAL:O	3:D:583:VAL:CG1	2.44	0.66
5:F:511:ILE:HD13	5:F:519:LEU:CD1	2.14	0.66
2:I:1296:ASP:N	2:I:1296:ASP:OD1	2.27	0.66
2:I:757:THR:HG22	2:I:758:ARG:H	1.60	0.66
5:L:399:LEU:O	5:L:400:GLN:HB2	1.95	0.66
3:P:955:LYS:HE3	3:P:1010:GLN:HB3	1.78	0.66
3:P:1251:LYS:O	3:P:1255:VAL:HG23	1.94	0.66
3:P:113:HIS:HA	3:P:239:LEU:HD11	1.78	0.66
1:B:81:ILE:HG22	1:B:85:LEU:HD11	1.76	0.65
2:C:1172:LEU:HD12	2:C:1172:LEU:O	1.96	0.65
2:C:1326:LEU:HD22	3:D:342:LEU:HD11	1.78	0.65
3:D:826:ILE:HG12	3:D:831:VAL:HG22	1.77	0.65
2:I:949:GLU:OE2	2:I:1036:ILE:HG22	1.96	0.65
1:M:44:ARG:HG3	1:M:183:ILE:HG23	1.78	0.65
2:O:757:THR:HG22	2:O:758:ARG:H	1.61	0.65
5:R:364:ARG:HA	5:R:367:ILE:HD12	1.78	0.65
1:A:224:LEU:CD1	1:A:224:LEU:C	2.59	0.65
3:D:366:CYS:SG	3:D:439:PRO:HA	2.37	0.65
5:F:132:CYS:O	5:F:136:GLU:HG2	1.97	0.65
2:I:1292:THR:HG23	2:I:1293:VAL:H	1.60	0.65
2:I:163:LYS:HD3	2:I:171:LEU:HD12	1.78	0.65
3:P:492:SER:O	3:P:495:ASN:O	2.15	0.65
1:A:228:LEU:HD23	1:A:231:PHE:HE2	1.60	0.65
2:C:936:ARG:NH2	2:C:1046:VAL:O	2.29	0.65
2:C:1268:GLN:HE22	3:D:351:GLY:CA	2.08	0.65
3:D:555:TYR:CD2	3:D:563:LEU:HD22	2.31	0.65
3:D:771:GLN:O	3:D:774:ILE:HG13	1.96	0.65
3:D:797:THR:HA	3:D:800:LEU:HD12	1.78	0.65
5:F:585:GLU:HG3	7:2:47:DC:H41	1.61	0.65
1:M:9:LEU:CD2	1:M:198:LEU:CD2	2.74	0.65
5:R:152:GLU:HG2	5:R:162:ILE:HD11	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:185:TYR:C	1:A:185:TYR:CD2	2.70	0.65
2:C:689:ALA:HB1	2:C:1233:LEU:HD22	1.79	0.65
3:D:262:THR:O	5:F:507:MET:CB	2.44	0.65
3:D:499:ILE:HG23	3:D:500:ILE:HG13	1.78	0.65
5:F:437:GLN:OE1	7:2:27:DA:N6	2.30	0.65
5:F:588:ARG:HE	7:2:46:DT:P	2.19	0.65
2:I:96:LEU:HB2	2:I:127:ILE:HD12	1.78	0.65
3:P:1162:ILE:HG13	3:P:1180:VAL:HG12	1.79	0.65
2:O:806:PRO:HG2	3:P:633:ALA:HA	1.77	0.65
5:R:463:LEU:HD23	5:R:463:LEU:N	2.10	0.65
2:C:10:ARG:HH22	2:C:697:LYS:HD3	1.58	0.65
3:D:437:PHE:O	3:D:439:PRO:HD3	1.96	0.65
5:F:468:ARG:NH2	7:2:25:DA:C8	2.64	0.65
1:H:28:LEU:C	1:H:28:LEU:HD13	2.16	0.65
2:I:1113:LEU:HD23	3:J:641:ILE:HD11	1.76	0.65
2:I:575:LEU:CD1	2:I:579:ALA:HB3	2.25	0.65
3:J:1103:GLY:O	3:J:1104:LYS:HB2	1.97	0.65
3:J:1165:PHE:HZ	3:J:1196:LEU:HD13	1.60	0.65
3:J:489:ASN:O	3:J:500:ILE:HD11	1.96	0.65
1:M:41:ASN:HD21	2:O:1218:GLY:CA	2.09	0.65
1:B:44:ARG:HH12	3:D:538:ARG:CB	2.05	0.65
3:D:883:ARG:NE	3:D:898:CYS:SG	2.69	0.65
2:I:257:ALA:HB1	2:I:282:VAL:HG21	1.78	0.65
3:J:1145:PHE:O	3:J:1309:ILE:HG13	1.97	0.65
2:I:1101:LEU:HD11	3:J:508:LEU:CD2	2.26	0.65
3:J:509:GLY:O	3:J:513:MET:HG3	1.97	0.65
2:O:1100:PRO:HB3	3:P:639:VAL:HG23	1.77	0.65
3:P:767:LEU:HD12	3:P:772:TYR:CD1	2.29	0.65
5:R:353:LEU:HB3	5:R:358:VAL:HG23	1.78	0.65
6:1:26:DT:O4	7:2:36:DG:O6	2.14	0.65
2:C:1104:PRO:CG	2:C:1105:SER:H	2.07	0.65
2:C:452:ARG:HG2	2:C:453:ILE:N	2.11	0.65
2:C:626:GLU:CG	2:C:626:GLU:O	2.44	0.65
5:F:295:CYS:O	5:F:296:LYS:CB	2.43	0.65
2:I:255:ILE:HG23	2:I:285:ILE:HG21	1.78	0.65
2:I:521:LEU:HD21	2:I:687:ARG:HG2	1.79	0.65
2:I:788:SER:O	2:I:794:LEU:HD12	1.96	0.65
5:L:97:PRO:HA	5:L:100:MET:HG3	1.78	0.65
5:L:93:ARG:HG3	5:L:93:ARG:O	1.96	0.65
2:O:1275:VAL:HG21	3:P:343:LEU:O	1.97	0.65
2:O:902:LEU:HA	2:O:905:ILE:HD12	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:394:ARG:HB3	2:C:394:ARG:CZ	2.26	0.65
2:C:452:ARG:NH2	2:C:458:GLU:CD	2.50	0.65
1:B:44:ARG:NH1	3:D:538:ARG:HB3	2.05	0.65
3:D:955:LYS:CD	3:D:955:LYS:NZ	2.59	0.65
1:H:61:ILE:HD11	1:H:171:LEU:HD12	1.77	0.65
1:H:40:GLY:HA2	1:H:43:LEU:HD12	1.78	0.65
2:I:209:ILE:HG23	2:I:210:LEU:N	2.11	0.65
3:J:1233:ILE:HG22	3:J:1237:VAL:HG21	1.79	0.65
3:J:245:LEU:HD11	3:J:249:LEU:CD1	2.27	0.65
1:N:99:ILE:HD11	1:N:170:ARG:NH2	2.11	0.65
2:O:1104:PRO:HG3	3:P:725:MET:HE3	1.78	0.65
2:O:13:LYS:HB2	2:O:1149:TYR:CE1	2.31	0.65
2:O:1269:ARG:NH1	3:P:340:GLN:HG3	2.12	0.65
1:B:83:LEU:HB3	3:D:528:THR:HG22	1.79	0.65
3:D:725:MET:HE1	3:D:731:ARG:HB3	1.79	0.65
5:F:574:GLU:O	5:F:578:LYS:HG3	1.97	0.65
1:H:85:LEU:N	1:H:85:LEU:HD23	2.10	0.65
2:I:80:PHE:O	2:I:92:TYR:HE1	1.80	0.65
3:J:1131:THR:O	3:J:1132:LYS:HB3	1.96	0.65
3:J:121:PRO:O	3:J:122:SER:HB3	1.97	0.65
2:O:257:ALA:HB3	2:O:262:TYR:HD2	1.61	0.65
2:O:936:ARG:HG2	2:O:937:ASP:N	2.12	0.65
3:P:47:ARG:HH12	5:R:496:LYS:HD3	1.61	0.65
3:P:826:ILE:HA	3:P:831:VAL:HA	1.77	0.65
3:D:814:CYS:SG	3:D:883:ARG:NH2	2.70	0.65
1:G:106:GLY:CA	1:G:136:GLU:HA	2.22	0.65
3:J:1198:VAL:HG22	3:J:1210:ILE:HG23	1.79	0.65
3:J:620:PHE:O	3:J:624:ILE:HG12	1.96	0.65
5:L:583:THR:CG2	5:L:586:ARG:HB3	2.27	0.65
2:O:34:SER:OG	2:O:457:GLY:N	2.29	0.65
3:P:1075:ARG:HG3	3:P:1192:LYS:HB3	1.78	0.65
4:Q:80:LEU:HD23	4:Q:83:VAL:HB	1.77	0.65
3:D:1123:ARG:O	3:D:1125:PRO:HD3	1.96	0.64
3:D:97:VAL:CG1	3:D:101:ARG:HG3	2.27	0.64
1:G:228:LEU:HD12	1:H:228:LEU:CD1	2.22	0.64
2:I:434:ASP:O	2:I:439:LYS:HB2	1.97	0.64
3:J:806:ASP:OD1	3:J:806:ASP:N	2.30	0.64
5:L:385:ARG:HA	5:L:388:ILE:CG2	2.27	0.64
1:N:190:ALA:HB2	1:N:200:LYS:CG	2.27	0.64
1:B:61:ILE:HD13	1:B:171:LEU:CD1	2.28	0.64
3:D:1224:ARG:HD3	3:D:1228:ALA:HB1	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:367:GLY:O	3:D:447:ILE:HG22	1.97	0.64
2:C:1217:THR:HG21	3:D:634:ARG:NH1	2.12	0.64
1:G:58:GLU:HB2	1:G:145:LYS:CB	2.27	0.64
3:J:721:SER:O	3:J:725:MET:HG3	1.97	0.64
2:O:1042:LEU:CD2	2:O:1049:ILE:HD11	2.24	0.64
2:O:333:ILE:HG22	2:O:334:GLU:H	1.62	0.64
3:P:496:GLY:HA2	3:P:903:LEU:HD22	1.78	0.64
7:2:20:DG:H2"	7:2:21:DG:C8	2.32	0.64
3:D:869:CYS:CA	3:D:872:LEU:HD12	2.15	0.64
5:F:407:GLU:HG2	5:F:442:SER:OG	1.98	0.64
2:I:1278:LEU:HD12	2:I:1287:LEU:HD13	1.80	0.64
3:J:342:LEU:HD22	3:J:1352:ILE:HG23	1.78	0.64
3:J:796:LEU:HG	3:J:797:THR:N	2.12	0.64
3:J:826:ILE:HD13	3:J:831:VAL:HG22	1.78	0.64
2:O:9:LYS:HE2	2:O:1171:ARG:HH11	1.63	0.64
1:A:43:LEU:O	1:A:47:LEU:HD12	1.97	0.64
1:A:11:PRO:O	1:B:231:PHE:HZ	1.80	0.64
1:B:67:GLU:HA	1:B:78:ILE:HG21	1.79	0.64
2:C:191:LYS:HD2	2:C:191:LYS:N	2.11	0.64
2:C:389:PHE:HB3	2:C:420:LEU:HD12	1.77	0.64
3:D:1266:ILE:HD13	3:D:1274:PHE:CD1	2.32	0.64
3:D:151:MET:HB3	3:D:153:ASN:ND2	2.12	0.64
2:I:517:GLN:H	2:I:761:GLN:NE2	1.96	0.64
3:J:1280:VAL:CG1	3:J:1281:GLU:N	2.61	0.64
1:M:47:LEU:O	1:M:51:MET:CG	2.45	0.64
2:O:247:ARG:HG3	2:O:274:ILE:CD1	2.21	0.64
3:P:338:PHE:CD1	3:P:1324:SER:HA	2.33	0.64
2:C:1273:MET:HE3	7:2:13:DA:H5"	1.78	0.64
2:C:157:PHE:O	2:C:442:VAL:CG1	2.44	0.64
2:C:285:ILE:HG22	2:C:286:GLU:N	2.12	0.64
2:C:82:VAL:HG23	2:C:83:GLN:H	1.61	0.64
2:C:98:VAL:HB	2:C:124:MET:SD	2.38	0.64
3:D:966:VAL:HG11	3:D:1030:GLU:HG2	1.80	0.64
3:D:742:GLY:O	3:D:762:ASN:HB3	1.97	0.64
1:G:225:ALA:HA	1:G:228:LEU:CD1	2.27	0.64
1:G:67:GLU:O	1:G:78:ILE:HB	1.97	0.64
1:H:30:PRO:HG3	1:H:192:VAL:HG23	1.78	0.64
2:I:185:ASP:HB2	2:I:197:ARG:HB2	1.78	0.64
3:P:111:THR:O	3:P:239:LEU:HG	1.96	0.64
5:F:585:GLU:HG3	7:2:47:DC:N4	2.12	0.64
2:C:1104:PRO:CG	2:C:1105:SER:N	2.60	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1229:VAL:HG22	3:D:1233:ILE:HD11	1.80	0.64
5:F:489:MET:HB3	5:F:490:PRO:HD2	1.79	0.64
2:I:313:ALA:O	2:I:314:ASN:CB	2.45	0.64
3:J:972:LYS:HD3	3:J:1002:VAL:HG11	1.78	0.64
5:L:507:MET:CA	5:L:519:LEU:HD23	2.16	0.64
2:O:1307:ASN:HB3	2:O:1312:ASN:HB3	1.78	0.64
2:O:709:ALA:O	2:O:712:SER:OG	2.15	0.64
3:P:421:VAL:CG2	3:P:439:PRO:HG2	2.27	0.64
2:C:1020:GLU:O	2:C:1024:GLU:HB3	1.98	0.64
2:I:1278:LEU:HB2	2:I:1287:LEU:HD22	1.79	0.64
2:I:251:ALA:HB3	2:I:266:GLY:H	1.61	0.64
2:I:538:LEU:N	2:I:538:LEU:HD23	2.13	0.64
2:I:632:ASP:HB2	2:I:633:LEU:HD12	1.79	0.64
3:J:268:LEU:CB	3:J:306:LEU:HD13	2.27	0.64
2:O:448:LEU:N	2:O:448:LEU:HD23	2.12	0.64
2:O:589:THR:HG22	2:O:590:PRO:HD2	1.78	0.64
2:O:671:LEU:HD11	2:O:679:ALA:CB	2.26	0.64
2:O:758:ARG:HB2	2:O:833:ILE:CG2	2.27	0.64
3:P:322:ARG:HB2	3:P:323:PRO:CD	2.21	0.64
5:R:548:LEU:HD23	5:R:551:LEU:CD1	2.28	0.64
1:A:221:ALA:O	1:A:224:LEU:CD2	2.46	0.64
1:A:45:ARG:CD	1:B:38:THR:OG1	2.28	0.64
2:C:1120:ALA:HB1	2:C:1198:LEU:HG	1.79	0.64
2:C:539:THR:HG22	2:C:540:ARG:H	1.60	0.64
2:C:575:LEU:HG	2:C:576:SER:O	1.97	0.64
3:J:1081:VAL:HB	3:J:1085:GLY:O	1.98	0.64
3:J:553:THR:CG2	3:J:566:LYS:O	2.46	0.64
1:N:11:PRO:HB3	1:N:30:PRO:O	1.98	0.64
3:P:1212:ASP:OD1	3:P:1212:ASP:N	2.20	0.64
2:O:901:LEU:HD13	5:R:563:PHE:CZ	2.33	0.64
1:B:133:LEU:CD2	1:B:138:ALA:HB1	2.26	0.64
3:D:1284:ARG:HA	3:D:1287:ILE:HD12	1.78	0.64
2:I:1073:LYS:HD2	3:J:462:ASP:HB2	1.79	0.64
3:J:1250:ASP:OD1	3:J:1250:ASP:N	2.31	0.64
3:J:349:TYR:CD2	3:J:472:LEU:HD11	2.33	0.64
2:O:1081:PRO:CB	2:O:1083:GLU:OE1	2.45	0.64
3:P:803:VAL:HG12	3:P:1259:GLN:HB3	1.80	0.64
3:D:795:TYR:CD1	7:2:11:DA:H5'	2.33	0.64
1:B:61:ILE:HA	1:B:142:MET:HB2	1.80	0.64
3:D:1062:LEU:HD22	3:D:1066:GLU:CD	2.19	0.64
1:H:68:TYR:CD1	1:H:79:LEU:CD2	2.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:184:LEU:HD11	2:I:389:PHE:HE2	1.63	0.64
2:I:944:ARG:O	2:I:948:ILE:HG13	1.98	0.64
3:J:234:PRO:O	3:J:237:MET:HG2	1.98	0.64
3:J:369:PRO:HB2	3:J:372:MET:HE3	1.80	0.64
3:J:95:THR:O	3:J:98:ARG:HG3	1.97	0.64
2:O:209:ILE:HG23	2:O:210:LEU:HG	1.80	0.64
2:O:496:LYS:HB2	2:O:497:PRO:CD	2.15	0.64
3:P:256:ASP:OD1	3:P:256:ASP:N	2.28	0.64
2:C:1161:LEU:HD12	2:C:1164:PHE:HB2	1.80	0.63
2:C:1105:SER:HG	3:D:731:ARG:HH11	1.43	0.63
3:D:749:LYS:CB	3:D:750:PRO:CD	2.57	0.63
2:I:1258:PRO:HG2	3:J:346:ARG:HB2	1.80	0.63
2:I:615:VAL:HG22	2:I:638:SER:CB	2.27	0.63
3:P:762:ASN:HD21	3:P:764:ARG:HB3	1.64	0.63
5:R:401:PHE:HZ	6:7:45:DT:H1'	1.63	0.63
2:C:1129:ASN:OD1	2:C:1133:LYS:HE3	1.98	0.63
1:H:61:ILE:N	1:H:61:ILE:HD12	2.13	0.63
2:I:1113:LEU:HD22	2:I:1195:ILE:CD1	2.28	0.63
3:J:872:LEU:HD22	3:J:873:GLU:CA	2.27	0.63
5:L:585:GLU:HG3	7:5:47:DC:H41	1.61	0.63
2:O:716:ALA:HB3	2:O:784:ALA:HB3	1.80	0.63
5:R:119:ILE:O	5:R:123:ILE:HG13	1.99	0.63
1:B:60:GLU:O	1:B:142:MET:HB2	1.99	0.63
2:C:1313:HIS:CE1	3:D:380:PHE:CE1	2.86	0.63
2:C:137:VAL:C	2:C:138:ILE:HD13	2.18	0.63
3:D:385:LEU:HD22	3:D:391:ALA:CB	2.28	0.63
5:F:451:ARG:HG3	5:F:451:ARG:O	1.98	0.63
2:I:709:ALA:O	2:I:712:SER:OG	2.15	0.63
1:M:235:ARG:C	1:N:218:ARG:HH21	2.02	0.63
3:P:139:LEU:HD23	3:P:181:GLY:C	2.17	0.63
1:B:217:ILE:HD13	1:B:217:ILE:H	1.62	0.63
2:C:708:VAL:HG11	2:C:794:LEU:HD22	1.79	0.63
3:D:1224:ARG:HD2	3:D:1228:ALA:HB1	1.80	0.63
3:D:378:LYS:HZ2	5:F:532:LEU:HD11	1.64	0.63
2:I:1081:PRO:HB2	2:I:1083:GLU:OE1	1.98	0.63
2:I:1116:HIS:HD2	3:J:641:ILE:HD11	1.60	0.63
2:I:663:VAL:O	2:I:666:SER:OG	2.16	0.63
3:J:352:ARG:O	3:J:353:SER:HB2	1.96	0.63
3:J:580:TRP:CZ3	3:J:583:VAL:HG11	2.33	0.63
3:J:665:GLN:O	3:J:668:PHE:HB3	1.98	0.63
5:L:583:THR:HG21	5:L:586:ARG:CB	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:432:LEU:HG	2:O:433:ILE:N	2.10	0.63
3:P:1230:THR:HG23	3:P:1257:VAL:HG11	1.81	0.63
3:P:371:LYS:O	3:P:374:LEU:CD2	2.46	0.63
3:P:437:PHE:O	3:P:439:PRO:HD3	1.98	0.63
3:P:513:MET:SD	3:P:579:LEU:HD21	2.37	0.63
2:C:1327:LEU:HA	2:C:1330:ILE:HD12	1.79	0.63
2:C:753:LEU:CD1	2:C:769:PRO:HG3	2.29	0.63
3:D:706:VAL:CG1	3:D:713:GLU:OE1	2.46	0.63
2:I:1332:SER:OG	3:J:245:LEU:HB2	1.98	0.63
2:I:1280:ALA:HB3	3:J:431:ARG:CB	2.27	0.63
3:P:368:LEU:HD21	3:P:373:ALA:CB	2.23	0.63
4:Q:54:ILE:HG12	4:Q:59:ILE:HB	1.79	0.63
5:R:401:PHE:CZ	6:7:45:DT:H1'	2.33	0.63
3:P:251:PRO:O	5:R:507:MET:HE3	1.99	0.63
6:1:19:DA:C2	7:2:45:DG:C2	2.85	0.63
7:8:29:DC:H2"	7:8:30:DA:C8	2.34	0.63
2:C:204:LEU:HB3	2:C:205:PRO:HD2	1.80	0.63
2:C:724:VAL:HG23	2:C:775:GLU:O	1.99	0.63
3:D:714:GLU:O	3:D:715:LYS:HB2	1.97	0.63
3:D:744:ARG:HB3	3:D:759:ILE:HG21	1.79	0.63
5:F:130:VAL:HG13	5:F:365:MET:CG	2.27	0.63
2:I:1186:VAL:O	2:I:1187:PHE:HB2	1.98	0.63
2:I:1272:GLU:O	2:I:1275:VAL:HB	1.98	0.63
2:I:237:LEU:HD13	2:I:292:ILE:HD12	1.80	0.63
3:J:1170:LYS:O	3:J:1192:LYS:HE3	1.98	0.63
2:I:1325:VAL:HG13	3:J:249:LEU:HD22	1.81	0.63
1:M:38:THR:HG22	1:N:42:ALA:HA	1.81	0.63
2:O:811:ASN:HD22	2:O:1099:ASN:HA	1.62	0.63
2:O:208:ILE:HD11	2:O:362:ALA:O	1.98	0.63
2:O:805:MET:HB2	2:O:806:PRO:HD2	1.81	0.63
3:P:424:ASN:HB2	3:P:434:ILE:HG12	1.81	0.63
3:P:518:VAL:O	3:P:520:ALA:N	2.32	0.63
3:D:1230:THR:O	3:D:1234:VAL:HG23	1.99	0.63
3:D:888:CYS:SG	9:D:1502:ZN:ZN	1.87	0.63
2:I:473:ARG:O	2:I:477:GLU:HB2	1.98	0.63
3:J:355:ILE:HD13	3:J:464:ASP:HB2	1.80	0.63
2:I:1286:THR:CB	3:J:479:GLU:OE2	2.46	0.63
1:M:13:LEU:HA	1:M:28:LEU:HD22	1.81	0.63
2:O:868:SER:HB2	2:O:870:ILE:HG12	1.80	0.63
1:B:91:ARG:HH12	1:B:210:THR:CG2	2.11	0.63
2:C:17:LYS:NZ	2:C:1190:ALA:HA	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:82:VAL:CG2	2:C:83:GLN:H	2.11	0.63
3:D:142:GLU:OE2	5:F:91:ILE:HG21	1.97	0.63
3:D:40:LYS:NZ	3:D:53:ARG:HE	1.97	0.63
5:F:449:THR:CB	5:F:504:PRO:HG3	2.28	0.63
1:N:99:ILE:HD11	1:N:170:ARG:HH22	1.61	0.63
3:P:421:VAL:HG12	3:P:422:LEU:H	1.64	0.63
1:A:231:PHE:N	1:A:231:PHE:CD1	2.60	0.63
1:A:184:ALA:HB2	2:C:1091:GLY:CA	2.29	0.63
2:C:870:ILE:HG22	2:C:871:VAL:O	1.99	0.63
5:F:309:ASN:OD1	5:F:312:SER:HB3	1.98	0.63
1:H:190:ALA:N	1:H:199:ASP:HA	2.05	0.63
2:I:1184:THR:O	2:I:1184:THR:HG23	1.98	0.63
2:I:718:ALA:HB2	2:I:783:LEU:HD21	1.81	0.63
3:J:1169:THR:O	3:J:1170:LYS:HB2	1.97	0.63
3:J:1169:THR:O	3:J:1172:LYS:HB2	1.98	0.63
3:J:115:TRP:HH2	3:J:1332:LEU:HD12	1.64	0.63
2:O:598:VAL:HG13	2:O:627:GLY:O	1.99	0.63
2:O:663:VAL:O	2:O:666:SER:OG	2.16	0.63
2:O:1281:TYR:OH	3:P:431:ARG:O	2.15	0.63
3:P:690:ASN:HA	3:P:743:MET:CE	2.29	0.63
5:R:594:ALA:O	5:R:598:LEU:HG	1.98	0.63
1:A:224:LEU:O	1:A:224:LEU:HD12	1.98	0.62
2:C:1273:MET:HG3	7:2:13:DA:H4'	1.81	0.62
3:D:1062:LEU:HB3	3:D:1066:GLU:HB2	1.79	0.62
3:D:1206:ARG:NH2	3:D:1223:LEU:O	2.32	0.62
3:D:1226:VAL:CG1	3:D:1227:HIS:N	2.61	0.62
1:H:154:PRO:HG2	1:H:157:THR:OG1	1.98	0.62
2:I:1104:PRO:HG3	3:J:725:MET:HE1	1.80	0.62
3:J:736:GLN:O	3:J:740:LEU:HG	1.98	0.62
3:P:1243:LEU:HD22	3:P:1244:GLN:NE2	2.14	0.62
3:P:421:VAL:HG13	3:P:469:HIS:O	1.99	0.62
3:P:497:GLU:HB3	3:P:498:PRO:HD2	1.80	0.62
4:Q:10:VAL:HG22	4:Q:19:LEU:HD22	1.79	0.62
2:C:796:LEU:CB	2:C:1233:LEU:HD11	2.29	0.62
2:C:759:SER:CB	2:C:763:THR:HG1	2.12	0.62
5:F:385:ARG:O	5:F:388:ILE:CG2	2.47	0.62
5:F:588:ARG:NE	7:2:46:DT:OP2	2.32	0.62
2:I:678:ARG:CZ	2:I:1106:ARG:HB3	2.29	0.62
2:I:296:VAL:HG12	2:I:297:VAL:N	2.14	0.62
2:I:764:CYS:CB	2:I:831:ILE:HB	2.28	0.62
3:J:930:LEU:CB	3:J:1134:ILE:HD12	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:872:LEU:HD22	3:J:873:GLU:HA	1.80	0.62
3:J:885:VAL:HG12	3:J:886:VAL:CG2	2.29	0.62
1:N:99:ILE:HD13	1:N:143:ARG:HB3	1.80	0.62
2:O:83:GLN:O	2:O:86:GLN:HB2	1.99	0.62
3:P:109:SER:CB	3:P:296:LYS:HZ3	2.12	0.62
3:P:262:THR:CA	5:R:507:MET:HE3	2.11	0.62
5:R:587:ILE:N	5:R:587:ILE:CD1	2.50	0.62
1:A:179:PRO:HA	1:A:208:ASN:HD21	1.64	0.62
2:C:524:ILE:HD11	2:C:712:SER:CB	2.10	0.62
3:D:646:ILE:HG13	3:D:764:ARG:HH11	1.64	0.62
2:I:1212:LEU:O	2:I:1221:PHE:HD2	1.81	0.62
2:I:15:PHE:HB3	2:I:17:LYS:HZ1	1.64	0.62
2:I:227:LYS:NZ	2:I:298:ALA:HB1	2.13	0.62
5:L:409:ASN:O	5:L:412:LEU:HB3	2.00	0.62
1:M:88:LEU:HD12	1:M:89:ALA:H	1.64	0.62
2:O:581:THR:HG22	2:O:587:LEU:HD23	1.79	0.62
1:M:83:LEU:HD11	2:O:694:ARG:HH11	1.63	0.62
5:F:461:ASN:HA	7:2:26:DT:C7	2.29	0.62
1:B:213:PRO:O	1:B:217:ILE:CD1	2.47	0.62
2:C:1100:PRO:HB3	3:D:639:VAL:CG2	2.28	0.62
2:I:1113:LEU:HD22	2:I:1195:ILE:HD13	1.81	0.62
2:I:448:LEU:HG	2:I:553:THR:HB	1.82	0.62
2:I:807:TRP:CG	2:I:817:LEU:HD11	2.35	0.62
3:J:1106:ILE:O	3:J:1106:ILE:HG22	1.97	0.62
4:K:13:ILE:HG22	4:K:19:LEU:HD22	1.82	0.62
1:N:92:VAL:HG22	1:N:121:VAL:HG13	1.81	0.62
3:P:846:GLU:H	3:P:860:ARG:HG2	1.63	0.62
2:C:149:LEU:HD21	2:C:451:ARG:HE	1.65	0.62
2:C:757:THR:HG22	2:C:758:ARG:N	2.15	0.62
3:D:653:ILE:HD13	3:D:693:VAL:HG22	1.82	0.62
3:D:809:VAL:HG23	3:D:915:ILE:HD11	1.81	0.62
3:D:839:VAL:O	3:D:839:VAL:HG12	1.99	0.62
3:D:474:LEU:HD21	4:E:31:GLN:NE2	2.15	0.62
1:G:39:LEU:O	1:G:43:LEU:CD1	2.46	0.62
3:J:1241:TYR:CD2	3:J:1241:TYR:N	2.65	0.62
3:J:307:LEU:HD23	3:J:327:LEU:HD13	1.81	0.62
3:J:495:ASN:C	3:J:903:LEU:HD13	2.20	0.62
2:O:1184:THR:O	2:O:1184:THR:HG23	1.99	0.62
2:O:333:ILE:HG22	2:O:334:GLU:N	2.13	0.62
2:O:661:VAL:HG12	2:O:665:ALA:HB3	1.82	0.62
3:P:1163:VAL:HG11	3:P:1175:LEU:CD2	2.23	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:THR:HG22	1:B:42:ALA:HB1	1.81	0.62
1:B:158:ARG:HH21	1:B:175:ALA:HB3	1.65	0.62
2:C:663:VAL:O	2:C:666:SER:OG	2.16	0.62
3:D:744:ARG:CB	3:D:759:ILE:HG21	2.30	0.62
5:F:92:GLY:O	5:F:93:ARG:HG2	1.98	0.62
1:H:190:ALA:HB2	1:H:199:ASP:C	2.20	0.62
2:I:1235:LEU:HD23	2:I:1235:LEU:N	2.14	0.62
1:N:61:ILE:HD12	1:N:64:VAL:CG1	2.29	0.62
2:O:183:TRP:CZ3	6:7:49:DG:O6	2.53	0.62
2:O:990:ASP:O	2:O:994:ARG:NH2	2.32	0.62
3:P:139:LEU:HD21	3:P:185:ILE:HD12	1.80	0.62
3:P:15:GLU:CG	3:P:15:GLU:O	2.47	0.62
3:P:576:ARG:HB3	3:P:592:VAL:HG23	1.81	0.62
3:P:661:VAL:HG22	3:P:685:ILE:HD13	1.80	0.62
2:C:1326:LEU:O	2:C:1330:ILE:HG13	1.99	0.62
2:C:946:LEU:HD11	2:C:950:GLU:OE1	1.99	0.62
3:D:1280:VAL:CG1	3:D:1281:GLU:H	2.12	0.62
2:C:1284:ALA:HB1	3:D:1356:LEU:HD22	1.82	0.62
3:D:275:ARG:HD3	3:D:298:MET:HB3	1.80	0.62
2:C:1294:LYS:HD3	3:D:347:VAL:CG1	2.29	0.62
3:D:492:SER:OG	3:D:495:ASN:OD1	2.07	0.62
3:D:880:VAL:HG12	3:D:882:VAL:HG12	1.80	0.62
1:H:221:ALA:O	1:H:224:LEU:HD23	2.00	0.62
2:I:1061:GLN:HB2	2:I:1062:PRO:CD	2.28	0.62
2:I:806:PRO:HA	2:I:811:ASN:HD21	1.65	0.62
3:J:1261:LEU:HD13	3:J:1304:ARG:HD2	1.80	0.62
3:J:363:LEU:CD2	3:J:487:THR:HG22	2.29	0.62
3:J:958:ILE:HG23	3:J:982:LEU:HD11	1.81	0.62
5:L:123:ILE:CD1	5:L:376:LYS:HE3	2.23	0.62
5:L:489:MET:SD	5:L:494:ILE:CD1	2.88	0.62
2:O:1309:VAL:HG13	3:P:383:GLY:HA2	1.81	0.62
2:O:292:ILE:CG2	2:O:322:LEU:HD11	2.28	0.62
2:O:812:PHE:CD2	2:O:813:GLU:HG3	2.33	0.62
3:P:259:ARG:HH11	5:R:502:LYS:CG	2.12	0.62
3:P:506:VAL:O	3:P:510:LEU:HG	1.99	0.62
3:P:1360:GLY:HA2	4:Q:17:PHE:CD2	2.35	0.62
7:5:23:DT:H3'	7:5:24:DT:H5"	1.81	0.62
6:7:47:DC:O5'	6:7:48:DA:OP2	2.18	0.62
7:8:23:DT:H5'	7:8:24:DT:OP2	1.99	0.62
2:C:92:TYR:HB2	2:C:137:VAL:HG21	1.80	0.62
1:G:190:ALA:N	1:G:199:ASP:HA	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:106:GLY:O	1:H:133:LEU:HB3	1.99	0.62
2:I:1212:LEU:CD1	2:I:1225:VAL:HB	2.30	0.62
2:I:433:ILE:HG22	2:I:437:ASN:HD21	1.64	0.62
5:L:128:ASN:ND2	5:L:257:LYS:HD3	2.15	0.62
2:O:1292:THR:HG23	2:O:1293:VAL:N	2.12	0.62
2:O:147:SER:HB2	2:O:530:ILE:HG23	1.82	0.62
1:B:38:THR:CB	1:B:39:LEU:HD23	2.27	0.62
2:C:670:PHE:HD2	2:C:1113:LEU:HB2	1.56	0.62
2:C:156:PHE:O	2:C:174:ALA:HA	1.98	0.62
3:D:215:LYS:O	3:D:219:LYS:HG3	2.00	0.62
3:D:405:GLU:O	3:D:408:VAL:HB	2.00	0.62
1:H:101:THR:HG22	1:H:143:ARG:HG2	1.82	0.62
2:I:255:ILE:CB	2:I:255:ILE:CD1	2.74	0.62
5:L:506:SER:O	5:L:519:LEU:HD22	1.99	0.62
2:O:575:LEU:HG	2:O:576:SER:O	2.00	0.62
2:O:758:ARG:HG3	2:O:833:ILE:O	2.00	0.62
3:P:492:SER:OG	3:P:495:ASN:N	2.32	0.62
3:J:352:ARG:CD	7:5:15:DT:H4'	2.30	0.62
2:C:971:LEU:HD11	2:C:1014:LEU:HD13	1.82	0.62
2:C:524:ILE:HG12	2:C:712:SER:HA	1.81	0.62
3:D:1348:LYS:O	3:D:1351:VAL:HB	1.99	0.62
1:G:104:LYS:HE3	1:G:114:ASP:OD2	2.00	0.62
2:I:661:VAL:HG12	2:I:662:SER:O	1.99	0.62
3:J:560:ASN:N	3:J:560:ASN:OD1	2.32	0.62
1:N:71:LYS:HD3	1:N:140:ILE:CD1	2.30	0.62
3:P:97:VAL:CG1	3:P:101:ARG:HG3	2.29	0.62
3:P:898:CYS:SG	9:P:1502:ZN:ZN	1.87	0.62
6:4:48:DA:C2'	6:4:49:DG:H5"	2.28	0.61
2:C:436:ARG:NH1	2:C:436:ARG:O	2.22	0.61
2:C:764:CYS:CB	2:C:831:ILE:HB	2.30	0.61
3:D:41:PRO:HA	3:D:273:ILE:HD12	1.81	0.61
2:C:1104:PRO:HG3	3:D:725:MET:SD	2.40	0.61
3:D:771:GLN:HA	3:D:774:ILE:CD1	2.29	0.61
3:D:261:ALA:HA	5:F:505:ILE:O	2.00	0.61
1:G:228:LEU:HD11	1:H:228:LEU:HD11	1.81	0.61
2:I:1104:PRO:HG3	3:J:725:MET:CE	2.30	0.61
3:J:822:MET:HG2	3:J:838:ARG:NH2	2.13	0.61
1:M:29:GLU:HB2	1:M:30:PRO:HA	1.82	0.61
2:O:188:PHE:CE2	2:O:432:LEU:HD11	2.35	0.61
2:O:599:VAL:HG21	2:O:623:LEU:HD21	1.81	0.61
2:O:528:ARG:NH1	2:O:663:VAL:HB	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:720:ARG:HD2	2:O:736:VAL:HG21	1.82	0.61
2:O:82:VAL:HG23	2:O:83:GLN:N	2.15	0.61
2:O:1261:GLY:HA3	7:8:16:DC:P	2.40	0.61
1:B:44:ARG:O	1:B:47:LEU:HB2	2.00	0.61
2:C:1198:LEU:O	2:C:1198:LEU:HD12	1.98	0.61
2:C:764:CYS:SG	2:C:831:ILE:HD12	2.40	0.61
3:J:826:ILE:CD1	3:J:831:VAL:HG22	2.30	0.61
3:J:1360:GLY:HA2	4:K:17:PHE:CD2	2.35	0.61
1:M:28:LEU:HD11	1:N:231:PHE:CE1	2.35	0.61
2:O:1061:GLN:HB2	2:O:1062:PRO:HD2	1.82	0.61
3:P:1075:ARG:HG3	3:P:1192:LYS:CD	2.28	0.61
3:P:322:ARG:NH1	3:P:322:ARG:HG3	2.14	0.61
3:P:615:LYS:HE2	4:Q:5:THR:HB	1.82	0.61
5:F:423:ARG:HD3	6:1:37:DA:N1	2.15	0.61
2:C:1274:GLU:N	2:C:1274:GLU:OE1	2.27	0.61
2:C:525:THR:HG23	2:C:526:HIS:N	2.15	0.61
3:D:1101:LEU:HD22	3:D:1122:ALA:CB	2.28	0.61
2:C:809:GLY:CA	3:D:629:PHE:CD1	2.83	0.61
3:D:807:LEU:CD1	3:D:1259:GLN:HE21	2.14	0.61
4:E:22:VAL:HG11	4:E:61:ASN:HA	1.82	0.61
5:F:468:ARG:NH2	7:2:25:DA:H8	1.97	0.61
1:G:102:LEU:HD12	1:G:103:ASN:H	1.64	0.61
1:G:112:ALA:HB3	1:G:126:PRO:CA	2.29	0.61
2:I:1315:MET:CE	3:J:473:THR:HG21	2.29	0.61
2:I:525:THR:HG21	2:I:687:ARG:CD	2.30	0.61
2:I:878:THR:CG2	2:I:879:GLY:H	2.12	0.61
2:I:837:ALA:O	2:I:918:LEU:HD22	1.99	0.61
3:J:522:GLY:CA	3:J:525:MET:SD	2.88	0.61
2:O:599:VAL:CG2	2:O:623:LEU:HD21	2.31	0.61
2:O:967:LEU:O	2:O:971:LEU:HB2	1.99	0.61
3:P:140:TYR:O	3:P:141:PHE:HB2	2.00	0.61
2:I:541:GLU:OE1	6:4:52:DT:C4	2.53	0.61
2:C:395:TYR:CE2	2:C:420:LEU:HD21	2.35	0.61
2:C:76:GLY:HA3	2:C:95:PRO:HG2	1.82	0.61
3:D:1103:GLY:O	3:D:1104:LYS:HB2	2.00	0.61
1:H:28:LEU:HD13	1:H:29:GLU:N	2.15	0.61
2:I:845:LEU:O	2:I:889:PRO:HB2	2.01	0.61
3:J:27:PRO:HA	3:J:30:ILE:HD12	1.82	0.61
1:M:115:ILE:H	1:M:115:ILE:HD12	1.65	0.61
2:O:796:LEU:C	2:O:1233:LEU:HD21	2.21	0.61
2:O:896:THR:CG2	2:O:898:GLU:HB2	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:41:GLU:HA	4:Q:49:ILE:HD11	1.80	0.61
5:R:583:THR:HG21	5:R:586:ARG:HB3	1.81	0.61
3:D:271:ARG:HA	3:D:274:ASN:HD22	1.65	0.61
1:G:211:ILE:HD12	1:G:219:ARG:NH1	2.15	0.61
2:I:799:ASN:O	2:I:800:MET:HE3	2.01	0.61
3:J:1080:ILE:CD1	3:J:1115:ILE:HD11	2.30	0.61
3:J:431:ARG:HG3	3:J:432:LEU:HD23	1.81	0.61
1:M:190:ALA:N	1:M:199:ASP:HA	2.14	0.61
3:P:1078:LEU:CD1	3:P:1121:LEU:HD22	2.30	0.61
3:P:1342:ASP:OD1	3:P:1344:LEU:HD23	1.99	0.61
3:P:377:PHE:O	3:P:381:ILE:HG13	2.01	0.61
1:A:47:LEU:HD13	1:A:183:ILE:CD1	2.21	0.61
2:C:409:LEU:HD11	2:C:427:ASP:C	2.21	0.61
2:C:496:LYS:CB	2:C:497:PRO:HD3	2.30	0.61
2:I:216:THR:O	2:I:220:ILE:HG13	2.01	0.61
3:J:1284:ARG:O	3:J:1287:ILE:HG22	2.01	0.61
2:O:303:ASP:OD1	2:O:328:SER:HB2	2.00	0.61
2:O:431:LYS:O	2:O:435:ILE:HG13	2.01	0.61
3:P:138:VAL:HG12	3:P:139:LEU:N	2.15	0.61
3:P:262:THR:HA	5:R:507:MET:SD	2.40	0.61
3:P:609:TYR:CD1	3:P:609:TYR:C	2.73	0.61
2:C:1217:THR:HG21	3:D:634:ARG:HH12	1.63	0.61
3:D:1256:ILE:HB	3:D:1260:MET:HE1	1.82	0.61
3:D:363:LEU:HD23	3:D:618:VAL:HG13	1.82	0.61
3:D:737:ILE:HG22	3:D:738:ARG:N	2.15	0.61
4:E:22:VAL:HG12	4:E:64:LEU:HD12	1.83	0.61
2:I:173:ASN:HA	2:I:186:PHE:O	2.01	0.61
2:I:790:ASP:HB2	2:I:795:ALA:HB2	1.83	0.61
3:J:1230:THR:HA	3:J:1233:ILE:CD1	2.31	0.61
2:I:1270:PHE:HB2	3:J:347:VAL:HG21	1.83	0.61
3:J:723:TYR:CD1	3:J:723:TYR:O	2.54	0.61
3:J:736:GLN:CA	3:J:736:GLN:HE21	2.13	0.61
2:I:906:PHE:HE1	5:L:607:LEU:HB3	1.66	0.61
2:O:76:GLY:HA3	2:O:95:PRO:HG2	1.83	0.61
3:P:514:THR:HG23	3:P:596:LEU:HD12	1.71	0.61
5:R:587:ILE:H	5:R:587:ILE:HD13	1.60	0.61
2:C:1246:ARG:NH2	2:C:1249:GLY:H	1.99	0.61
2:C:158:ASP:HB3	2:C:173:ASN:OD1	1.99	0.61
2:C:453:ILE:HD13	2:C:453:ILE:N	2.12	0.61
1:G:68:TYR:HE2	2:I:927:THR:HB	1.65	0.61
2:I:808:ASN:C	3:J:629:PHE:HB3	2.21	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:233:LYS:CG	3:J:234:PRO:HD2	2.30	0.61
3:J:255:LEU:HD22	3:J:256:ASP:N	2.13	0.61
2:O:267:ARG:HD3	2:O:268:ARG:N	2.15	0.61
2:O:292:ILE:HG21	2:O:322:LEU:HD21	1.83	0.61
3:P:111:THR:HG23	3:P:300:GLN:HG3	1.82	0.61
3:P:673:VAL:CG1	3:P:674:THR:O	2.47	0.61
3:J:427:PRO:HB3	7:5:12:DG:N2	2.16	0.61
1:B:33:ARG:H	1:B:198:LEU:HD12	1.66	0.61
2:C:112:GLY:C	2:C:114:VAL:H	2.04	0.61
3:D:690:ASN:HD22	3:D:690:ASN:C	2.05	0.61
1:H:168:ILE:CD1	3:P:867:GLN:HB3	2.31	0.61
3:J:399:LYS:NZ	5:L:611:LEU:HD23	2.16	0.61
3:P:341:ASN:OD1	3:P:341:ASN:N	2.33	0.61
2:O:1242:LYS:NZ	3:P:465:GLN:HE21	1.99	0.61
3:P:622:ASP:O	3:P:625:MET:HB3	2.01	0.61
2:C:459:MET:HB3	2:C:505:PHE:CZ	2.36	0.61
2:C:975:ILE:O	2:C:979:LEU:HG	2.01	0.61
2:I:1243:MET:HG3	3:J:372:MET:HE1	1.82	0.61
2:I:548:ARG:HH12	3:J:788:LEU:HG	1.66	0.61
2:C:427:ASP:O	2:C:430:LYS:HB2	2.01	0.60
2:C:520:PRO:O	2:C:524:ILE:HG13	2.01	0.60
2:C:617:ALA:HB2	2:C:636:CYS:SG	2.40	0.60
3:D:1328:THR:O	3:D:1332:LEU:CG	2.41	0.60
3:D:805:GLN:O	3:D:1347:LEU:HD11	2.00	0.60
3:D:135:ILE:HG22	3:D:139:LEU:HD11	1.83	0.60
5:F:519:LEU:HD12	5:F:522:PHE:HB3	1.83	0.60
2:I:182:SER:HA	2:I:183:TRP:CE3	2.36	0.60
2:I:720:ARG:HD2	2:I:736:VAL:HG21	1.83	0.60
3:J:1349:GLU:O	3:J:1353:VAL:HG13	2.01	0.60
3:J:796:LEU:HA	3:J:799:ARG:HE	1.66	0.60
1:N:26:VAL:CG1	1:N:28:LEU:HD23	2.31	0.60
3:P:481:ARG:O	3:P:485:MET:HB2	2.01	0.60
1:A:38:THR:CG2	1:B:42:ALA:HB1	2.31	0.60
2:C:230:PHE:CE1	2:C:292:ILE:HG12	2.36	0.60
2:C:522:SER:O	2:C:525:THR:HG22	2.00	0.60
2:C:642:SER:O	2:C:643:SER:HB3	2.01	0.60
3:D:227:PHE:HE1	3:D:234:PRO:HD3	1.66	0.60
2:C:1309:VAL:O	3:D:383:GLY:HA3	2.00	0.60
3:D:423:LEU:HB3	3:D:466:MET:HE1	1.83	0.60
3:D:553:THR:HG23	3:D:567:THR:OG1	2.01	0.60
1:G:58:GLU:HB2	1:G:145:LYS:HB3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1261:GLY:HA2	7:5:16:DC:OP2	2.01	0.60
3:J:1179:PRO:CD	3:J:1184:ASP:O	2.48	0.60
3:J:261:ALA:CB	5:L:519:LEU:HD21	2.31	0.60
5:L:560:ARG:HA	5:L:565:ILE:HD12	1.83	0.60
2:O:110:PRO:C	2:O:112:GLY:N	2.54	0.60
2:O:898:GLU:OE2	5:R:565:ILE:HG23	2.01	0.60
3:P:271:ARG:O	3:P:275:ARG:HG3	2.00	0.60
6:4:44:DG:C5	6:4:45:DT:H72	2.36	0.60
3:P:121:PRO:HG3	6:7:58:DG:OP1	2.01	0.60
1:A:35:PHE:HB3	1:A:39:LEU:HD11	1.83	0.60
2:C:1012:GLU:HA	2:C:1015:ALA:HB3	1.83	0.60
2:C:709:ALA:O	2:C:712:SER:OG	2.19	0.60
2:C:975:ILE:HG22	2:C:979:LEU:HD11	1.83	0.60
3:D:501:VAL:HG13	3:D:502:PRO:HD2	1.82	0.60
3:D:614:LEU:O	3:D:618:VAL:HG23	2.02	0.60
3:D:828:GLY:O	3:D:994:SER:O	2.20	0.60
1:G:232:VAL:HG22	1:H:221:ALA:HB3	1.69	0.60
2:I:1138:VAL:HG13	2:I:1169:VAL:HG11	1.82	0.60
3:J:1281:GLU:HB3	3:J:1284:ARG:HG3	1.83	0.60
3:J:79:LYS:HD2	5:L:569:THR:HG22	1.83	0.60
5:L:166:VAL:HG12	5:L:167:ASP:H	1.65	0.60
2:O:890:LYS:HG2	2:O:891:GLY:N	2.16	0.60
3:P:1138:LEU:CB	3:P:1139:PRO:HD3	2.30	0.60
3:P:115:TRP:CZ3	3:P:1329:THR:HA	2.35	0.60
1:G:195:ARG:HH22	4:Q:66:VAL:HG23	1.65	0.60
5:R:102:MET:HB3	6:7:42:DG:N2	2.16	0.60
3:D:791:ALA:O	7:2:12:DG:H5"	2.02	0.60
2:C:325:LEU:CD1	2:C:333:ILE:HD11	2.31	0.60
4:E:13:ILE:HD12	4:E:19:LEU:HA	1.84	0.60
1:G:41:ASN:HD22	1:H:41:ASN:ND2	1.99	0.60
2:I:178:PRO:HA	2:I:397:LEU:HD21	1.82	0.60
2:I:565:GLU:O	2:I:567:PRO:HD2	2.01	0.60
3:J:115:TRP:O	3:J:119:SER:HB3	2.02	0.60
3:J:151:MET:HB3	3:J:153:ASN:HD22	1.64	0.60
3:J:350:SER:HB3	3:J:469:HIS:CE1	2.36	0.60
3:J:823:THR:HB	3:J:824:PRO:CD	2.32	0.60
2:O:9:LYS:HE2	2:O:1171:ARG:HD2	1.84	0.60
2:O:30:ILE:HD12	2:O:30:ILE:H	1.64	0.60
3:P:620:PHE:O	3:P:624:ILE:CG1	2.43	0.60
5:R:322:MET:O	5:R:323:ASN:HB3	2.01	0.60
1:A:12:ARG:O	1:A:28:LEU:HD13	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:ASN:HD22	2:C:1218:GLY:HA3	1.65	0.60
2:C:1296:ASP:OD1	2:C:1296:ASP:N	2.34	0.60
2:C:57:PHE:HB3	2:C:58:PRO:HA	1.84	0.60
1:G:13:LEU:HA	1:G:28:LEU:CD2	2.31	0.60
2:I:662:SER:OG	2:I:663:VAL:N	2.28	0.60
3:J:742:GLY:O	3:J:762:ASN:HB3	2.01	0.60
5:L:261:LEU:HD22	5:L:262:VAL:O	2.01	0.60
1:N:158:ARG:HD3	1:N:172:LEU:CD1	2.27	0.60
3:P:115:TRP:CZ3	3:P:1332:LEU:HD12	2.36	0.60
1:A:225:ALA:HA	1:A:228:LEU:CD1	2.27	0.60
2:C:10:ARG:CZ	2:C:697:LYS:CD	2.80	0.60
2:C:1275:VAL:O	2:C:1279:GLU:HG3	2.01	0.60
1:H:112:ALA:HB3	1:H:126:PRO:HA	1.83	0.60
2:I:732:ILE:HD11	2:I:769:PRO:CB	2.31	0.60
3:J:1229:VAL:O	3:J:1233:ILE:HG13	2.02	0.60
3:J:245:LEU:CD1	3:J:249:LEU:HD12	2.32	0.60
2:I:1113:LEU:HD21	3:J:641:ILE:HD13	1.81	0.60
3:P:1162:ILE:HG13	3:P:1180:VAL:HG13	1.82	0.60
3:P:622:ASP:HA	3:P:625:MET:HE1	1.84	0.60
2:C:230:PHE:CZ	2:C:292:ILE:HG12	2.37	0.60
2:C:452:ARG:O	2:C:453:ILE:HD13	2.01	0.60
2:C:525:THR:CG2	2:C:526:HIS:N	2.64	0.60
2:C:705:GLU:OE1	2:C:705:GLU:N	2.34	0.60
3:D:1286:LYS:O	3:D:1289:ASN:HB2	2.02	0.60
3:D:555:TYR:CD1	3:D:585:LYS:HB3	2.37	0.60
4:E:6:VAL:HG11	4:E:51:LEU:HD22	1.83	0.60
1:G:228:LEU:HB3	1:H:224:LEU:HD21	1.82	0.60
2:I:1081:PRO:CB	2:I:1083:GLU:OE1	2.49	0.60
2:I:495:ALA:HA	2:I:498:ILE:CD1	2.32	0.60
2:I:764:CYS:O	2:I:764:CYS:SG	2.59	0.60
3:J:1287:ILE:HD13	3:J:1291:GLU:HG3	1.84	0.60
2:O:811:ASN:HB2	2:O:1099:ASN:HB2	1.84	0.60
2:O:30:ILE:H	2:O:30:ILE:CD1	2.14	0.60
2:O:950:GLU:HA	2:O:953:LEU:HD12	1.82	0.60
2:C:25:PRO:O	2:C:27:LEU:HD23	2.02	0.60
3:D:1027:VAL:CG2	3:D:1124:ILE:HD11	2.32	0.60
3:D:145:VAL:HA	3:D:158:GLN:O	2.01	0.60
5:F:431:ALA:O	5:F:435:ILE:HD12	2.02	0.60
2:I:1004:ASP:CG	2:I:1008:GLN:HB2	2.22	0.60
2:I:726:TYR:HB3	2:I:733:VAL:CG2	2.31	0.60
3:J:1164:SER:C	3:J:1175:LEU:CD1	2.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:61:ASN:HA	4:K:64:LEU:HD12	1.83	0.60
5:L:385:ARG:C	5:L:388:ILE:HG23	2.22	0.60
2:O:1247:SER:OG	2:O:1248:THR:N	2.34	0.60
2:O:59:ILE:HG23	2:O:476:LYS:CE	2.22	0.60
3:P:796:LEU:O	3:P:800:LEU:HG	2.02	0.60
3:D:382:TYR:HE1	3:D:398:LYS:N	2.00	0.60
3:D:530:PRO:HD2	3:D:531:LYS:HZ1	1.66	0.60
2:I:646:SER:O	2:I:650:VAL:HG23	2.02	0.60
2:I:770:CYS:HB3	2:I:791:LEU:HD22	1.84	0.60
2:I:94:ALA:CB	2:I:129:LEU:HD11	2.31	0.60
3:J:1241:TYR:HD2	3:J:1241:TYR:H	1.48	0.60
3:J:24:LEU:HD11	3:J:237:MET:SD	2.42	0.60
3:J:530:PRO:HB2	3:J:581:MET:HG3	1.84	0.60
3:J:645:VAL:CG2	3:J:700:ASN:ND2	2.65	0.60
5:L:309:ASN:OD1	5:L:312:SER:HB3	2.01	0.60
2:O:956:ALA:O	2:O:960:LEU:HG	2.02	0.60
3:P:1145:PHE:HB3	3:P:1309:ILE:CD1	2.25	0.60
3:P:869:CYS:HA	3:P:872:LEU:CD1	2.28	0.60
2:O:514:PHE:CZ	7:8:18:DT:O2	2.55	0.60
1:B:47:LEU:HD13	1:B:183:ILE:HD11	1.77	0.60
2:C:757:THR:HG22	2:C:758:ARG:H	1.67	0.60
3:D:436:ALA:O	3:D:485:MET:SD	2.60	0.60
3:D:527:LEU:HD13	3:D:532:GLU:HB3	1.84	0.60
2:I:1339:LEU:H	2:I:1339:LEU:CD1	2.14	0.60
2:O:1289:GLU:OE2	3:P:472:LEU:HB2	2.02	0.60
3:P:502:PRO:HB3	3:P:506:VAL:CG1	2.19	0.60
3:P:620:PHE:CD2	3:P:624:ILE:HD11	2.37	0.60
3:P:708:ASN:ND2	3:P:711:GLY:O	2.35	0.60
5:R:364:ARG:O	5:R:367:ILE:HB	2.02	0.60
2:C:516:ASP:HB3	2:C:522:SER:OG	2.02	0.59
3:D:1319:PHE:CE2	3:D:1342:ASP:HB2	2.37	0.59
3:D:251:PRO:O	5:F:507:MET:HE1	2.01	0.59
1:G:46:ILE:HD12	1:G:224:LEU:HB2	1.84	0.59
2:I:690:VAL:HG12	2:I:691:PRO:HD2	1.84	0.59
3:J:1133:ASP:CG	3:J:1134:ILE:N	2.54	0.59
3:J:20:ILE:H	3:J:20:ILE:HD12	1.66	0.59
2:I:1313:HIS:NE2	3:J:380:PHE:CE1	2.68	0.59
4:K:26:ARG:CZ	4:K:30:MET:HG2	2.32	0.59
3:P:115:TRP:CH2	3:P:1332:LEU:HD12	2.36	0.59
2:C:1315:MET:HB2	3:D:473:THR:HG21	1.82	0.59
2:C:515:MET:SD	2:C:523:GLU:CG	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:36:GLY:HA3	3:D:61:ILE:HG12	1.84	0.59
3:D:478:LEU:HD11	4:E:24:ALA:HB2	1.84	0.59
3:D:298:MET:CE	5:F:402:LEU:HB2	2.32	0.59
2:I:1273:MET:CG	7:5:13:DA:C4'	2.80	0.59
2:I:1330:ILE:HG22	2:I:1335:ILE:HB	1.83	0.59
2:I:375:PRO:HB3	5:L:87:VAL:HG21	1.84	0.59
2:I:575:LEU:HD11	2:I:579:ALA:CB	2.28	0.59
3:J:165:TYR:O	3:J:169:LEU:N	2.33	0.59
3:J:475:GLU:HA	3:J:478:LEU:HD12	1.84	0.59
3:J:475:GLU:HG3	4:K:24:ALA:CB	2.31	0.59
3:J:53:ARG:O	3:J:58:CYS:HB2	2.00	0.59
2:I:804:PHE:O	3:J:638:SER:HB3	2.03	0.59
5:L:105:MET:CE	5:L:385:ARG:HG2	2.31	0.59
3:P:885:VAL:HG11	3:P:1255:VAL:HA	1.83	0.59
3:P:1357:ILE:O	3:P:1362:GLY:HA3	2.00	0.59
3:P:261:ALA:O	5:R:507:MET:CE	2.50	0.59
3:P:661:VAL:CG2	3:P:685:ILE:HG21	2.30	0.59
2:C:1281:TYR:CE1	3:D:431:ARG:HD2	2.38	0.59
2:I:303:ASP:OD1	2:I:328:SER:HB3	2.02	0.59
2:I:724:VAL:HG23	2:I:775:GLU:O	2.03	0.59
5:L:119:ILE:N	5:L:119:ILE:HD12	2.16	0.59
2:O:478:ARG:HG2	2:O:481:LEU:HD22	1.84	0.59
2:O:964:LEU:CD1	2:O:1021:LEU:HD22	2.32	0.59
3:P:898:CYS:HG	9:P:1502:ZN:ZN	1.13	0.59
1:B:130:ILE:HG22	1:B:131:CYS:SG	2.42	0.59
1:B:91:ARG:HH12	1:B:210:THR:HG22	1.66	0.59
2:C:618:GLN:HA	2:C:654:ASP:OD2	2.03	0.59
3:D:332:LYS:HZ1	3:D:1327:GLU:HA	1.66	0.59
3:D:888:CYS:HG	9:D:1502:ZN:ZN	1.16	0.59
3:D:704:GLU:O	3:D:704:GLU:CG	2.50	0.59
4:E:31:GLN:OE1	4:E:46:THR:HG21	2.02	0.59
2:I:240:GLU:HG3	2:I:284:LEU:HD21	1.84	0.59
2:I:542:ARG:CD	6:4:51:DC:OP2	2.50	0.59
3:J:233:LYS:HG3	3:J:234:PRO:HD2	1.82	0.59
2:O:1219:GLU:OE1	3:P:634:ARG:NH1	2.35	0.59
1:A:162:GLU:OE1	1:A:166:ARG:NH1	2.35	0.59
2:C:363:LEU:HD23	2:C:366:ILE:HD12	1.84	0.59
3:D:1319:PHE:CZ	3:D:1342:ASP:HB2	2.38	0.59
3:D:276:ASN:OD1	3:D:279:LEU:HD23	2.02	0.59
2:I:422:LYS:O	2:I:426:ILE:HG13	2.02	0.59
2:O:596:ASP:OD1	2:O:596:ASP:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1280:VAL:HG12	3:P:1281:GLU:N	2.17	0.59
3:P:130:MET:HG2	3:P:135:ILE:HG12	1.84	0.59
4:Q:26:ARG:O	4:Q:30:MET:HG3	2.02	0.59
5:R:130:VAL:HG13	5:R:365:MET:HG2	1.83	0.59
7:2:31:DT:H2"	7:2:32:DA:OP2	2.03	0.59
3:D:70:CYS:HB3	3:D:92:VAL:HG22	1.84	0.59
2:I:122:VAL:HG13	2:I:490:GLN:HG3	1.84	0.59
2:I:13:LYS:O	2:I:1182:ILE:HG22	2.01	0.59
2:I:367:TYR:CD1	2:I:384:LEU:HD22	2.37	0.59
2:I:178:PRO:HB3	2:I:395:TYR:CE1	2.36	0.59
2:I:1294:LYS:HD3	3:J:347:VAL:CG1	2.30	0.59
3:J:673:VAL:HG11	3:J:678:ARG:CG	2.32	0.59
2:O:1299:ASN:OD1	2:O:1299:ASN:N	2.34	0.59
2:O:933:VAL:O	2:O:934:PHE:CD1	2.56	0.59
5:L:461:ASN:HA	7:5:26:DT:H73	1.83	0.59
2:O:1261:GLY:CA	7:8:16:DC:P	2.90	0.59
1:A:97:GLU:HG3	1:A:147:GLN:HG2	1.84	0.59
2:C:176:ILE:HG22	2:C:176:ILE:O	2.03	0.59
2:C:176:ILE:HB	2:C:184:LEU:HB2	1.83	0.59
2:C:335:THR:CG2	2:C:336:LEU:N	2.66	0.59
2:C:500:ALA:O	2:C:504:GLU:HG2	2.02	0.59
2:C:761:GLN:O	2:C:762:ASN:HB2	2.03	0.59
1:H:106:GLY:HA2	1:H:136:GLU:HA	1.85	0.59
2:I:205:PRO:O	2:I:208:ILE:HG22	2.02	0.59
3:J:227:PHE:CD1	3:J:232:ASN:O	2.55	0.59
3:J:572:THR:OG1	3:J:576:ARG:HB2	2.02	0.59
3:J:811:GLU:O	3:J:895:CYS:HA	2.02	0.59
3:J:828:GLY:O	3:J:994:SER:O	2.21	0.59
5:L:276:MET:O	5:L:280:VAL:HG23	2.01	0.59
1:M:179:PRO:HA	1:M:208:ASN:ND2	2.18	0.59
3:P:115:TRP:O	3:P:119:SER:HB3	2.02	0.59
3:P:173:GLY:O	3:P:175:GLU:N	2.36	0.59
7:5:41:DG:H2"	7:5:42:DG:C8	2.38	0.59
1:A:12:ARG:O	1:A:28:LEU:CD1	2.50	0.59
1:B:16:ILE:HA	1:B:26:VAL:HG22	1.85	0.59
3:D:1353:VAL:HG21	3:D:1355:ARG:HD2	1.85	0.59
3:D:481:ARG:O	3:D:485:MET:HB2	2.02	0.59
5:F:454:VAL:O	5:F:457:ILE:HB	2.03	0.59
5:F:520:GLY:HA2	5:F:523:ILE:CD1	2.33	0.59
2:I:297:VAL:HG22	2:I:315:MET:N	2.17	0.59
2:I:794:LEU:HD21	2:I:796:LEU:HD21	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:268:ARG:HH22	3:J:1048:ARG:HD2	1.65	0.59
3:J:115:TRP:CE3	3:J:1333:THR:HG23	2.37	0.59
2:O:65:ASN:OD1	2:O:66:SER:N	2.35	0.59
2:O:757:THR:C	2:O:833:ILE:HD12	2.23	0.59
1:B:86:LYS:CE	1:B:173:VAL:HG12	2.33	0.59
1:A:33:ARG:NH2	1:B:49:SER:HB2	2.17	0.59
2:C:292:ILE:HG22	2:C:317:LEU:HD13	1.83	0.59
1:G:35:PHE:HB3	1:G:39:LEU:HD11	1.85	0.59
2:I:1138:VAL:CG1	2:I:1169:VAL:HG11	2.33	0.59
1:M:67:GLU:O	1:M:78:ILE:HB	2.02	0.59
2:O:1269:ARG:N	7:8:15:DT:OP1	2.35	0.59
2:O:209:ILE:CG2	2:O:210:LEU:N	2.65	0.59
2:O:595:THR:CG2	2:O:596:ASP:OD1	2.49	0.59
5:R:133:SER:HB3	5:R:365:MET:SD	2.42	0.59
5:R:262:VAL:HG13	5:R:263:PRO:HD3	1.83	0.59
5:R:295:CYS:SG	5:R:330:LEU:HD11	2.43	0.59
5:R:460:ILE:O	5:R:463:LEU:HG	2.02	0.59
8:6:13:GTP:N2	8:6:14:A:C4	2.71	0.59
1:A:234:LEU:HD23	1:B:13:LEU:HD23	1.85	0.59
3:D:736:GLN:O	3:D:740:LEU:CG	2.46	0.59
1:G:153:VAL:HG13	1:G:157:THR:CB	2.32	0.59
2:I:1270:PHE:CD2	2:I:1274:GLU:HB3	2.38	0.59
2:I:209:ILE:HG23	2:I:210:LEU:H	1.66	0.59
2:I:690:VAL:CG1	2:I:691:PRO:HD2	2.33	0.59
3:J:115:TRP:HE3	3:J:1333:THR:HG23	1.68	0.59
3:J:268:LEU:HB2	3:J:306:LEU:HD13	1.85	0.59
3:J:342:LEU:HD22	3:J:1352:ILE:CG2	2.33	0.59
3:J:357:VAL:HG22	3:J:461:PHE:CZ	2.37	0.59
3:J:79:LYS:HD2	5:L:569:THR:CG2	2.32	0.59
2:O:811:ASN:HD22	2:O:1099:ASN:CA	2.14	0.59
3:P:502:PRO:CB	3:P:506:VAL:HG11	2.20	0.59
5:R:548:LEU:HD22	5:R:560:ARG:HE	1.68	0.59
1:A:192:VAL:CG2	1:A:198:LEU:HD12	2.14	0.58
1:A:45:ARG:NH1	2:C:1215:GLY:O	2.34	0.58
2:C:942:ASP:O	2:C:945:ALA:HB3	2.02	0.58
5:F:574:GLU:OE1	5:F:584:ARG:HG2	2.03	0.58
2:I:13:LYS:HB3	2:I:1182:ILE:HG23	1.85	0.58
2:I:163:LYS:CD	2:I:171:LEU:HD12	2.32	0.58
2:I:838:CYS:SG	2:I:886:LYS:HE2	2.41	0.58
1:M:104:LYS:HE3	1:M:114:ASP:OD2	2.02	0.58
2:O:1104:PRO:CG	3:P:725:MET:CE	2.80	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1288:GLN:NE2	2:O:1317:PRO:HG3	2.18	0.58
2:O:878:THR:HA	2:O:925:SER:HB2	1.84	0.58
3:P:601:ILE:HG22	3:P:602:SER:N	2.17	0.58
4:Q:50:ALA:O	4:Q:54:ILE:HD12	2.02	0.58
8:3:14:A:O2'	8:3:15:G:H5'	2.03	0.58
6:7:46:DG:H3'	6:7:47:DC:H5"	1.84	0.58
2:O:1262:LYS:N	7:8:16:DC:OP1	2.36	0.58
1:A:32:GLU:HG2	1:A:33:ARG:H	1.67	0.58
5:F:167:ASP:N	5:F:168:PRO:HD3	2.18	0.58
2:I:1281:TYR:CE2	3:J:431:ARG:O	2.56	0.58
2:I:837:ALA:C	2:I:918:LEU:HD22	2.23	0.58
3:J:378:LYS:N	3:J:379:PRO:HD2	2.18	0.58
1:M:210:THR:HG22	1:M:211:ILE:HD13	1.85	0.58
3:P:1323:ALA:HB2	3:P:1331:VAL:HG11	1.84	0.58
2:C:901:LEU:O	2:C:905:ILE:HG13	2.03	0.58
3:D:1280:VAL:CG1	3:D:1281:GLU:N	2.65	0.58
3:D:805:GLN:HB2	3:D:1347:LEU:CG	2.33	0.58
1:G:102:LEU:HD13	1:G:114:ASP:C	2.23	0.58
3:J:580:TRP:CE3	3:J:583:VAL:HG21	2.38	0.58
2:O:1061:GLN:HB2	2:O:1062:PRO:CD	2.34	0.58
2:O:209:ILE:HG23	2:O:210:LEU:H	1.69	0.58
3:P:247:PRO:HA	3:P:250:ARG:CZ	2.33	0.58
3:P:615:LYS:HB2	3:P:616:PRO:HD3	1.85	0.58
5:R:306:PHE:CE2	5:R:310:GLU:HG2	2.38	0.58
1:A:224:LEU:HG	1:A:225:ALA:CA	2.29	0.58
2:C:807:TRP:HZ3	2:C:1086:PRO:CG	2.15	0.58
2:C:179:TYR:HB3	2:C:396:ASP:O	2.04	0.58
2:C:871:VAL:CG2	2:C:883:LEU:O	2.51	0.58
3:D:1101:LEU:CD2	3:D:1122:ALA:CB	2.80	0.58
3:D:1190:ILE:HD13	3:D:1196:LEU:HD21	1.85	0.58
1:H:39:LEU:O	1:H:43:LEU:CD2	2.52	0.58
3:J:955:LYS:HG2	3:J:956:GLY:N	2.18	0.58
5:L:407:GLU:HG2	5:L:442:SER:HB3	1.84	0.58
1:M:47:LEU:O	1:M:51:MET:CB	2.51	0.58
1:M:51:MET:CE	1:M:52:PRO:HD2	2.34	0.58
2:O:1296:ASP:HB3	2:O:1321:GLU:N	2.18	0.58
6:1:44:DG:H2'	6:1:45:DT:O4'	2.04	0.58
1:B:13:LEU:HA	1:B:28:LEU:CD2	2.30	0.58
1:B:27:THR:HG22	1:B:202:VAL:HG13	1.86	0.58
2:C:575:LEU:HD11	2:C:579:ALA:CB	2.20	0.58
2:C:971:LEU:CD1	2:C:1014:LEU:HD13	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:423:LEU:HD12	3:D:437:PHE:CD1	2.39	0.58
3:D:531:LYS:H	3:D:531:LYS:CD	2.00	0.58
2:I:1183:ALA:O	2:I:1185:PRO:HD3	2.03	0.58
2:I:1286:THR:HG23	3:J:479:GLU:OE2	2.03	0.58
2:I:90:VAL:HG12	2:I:91:THR:N	2.17	0.58
2:I:912:ASP:O	2:I:913:VAL:CG2	2.47	0.58
3:J:553:THR:HA	3:J:566:LYS:O	2.04	0.58
3:P:351:GLY:O	3:P:468:VAL:HG23	2.03	0.58
3:P:931:THR:O	3:P:935:PHE:CD2	2.56	0.58
1:A:57:THR:O	1:A:172:LEU:HD12	2.03	0.58
1:A:38:THR:HB	1:A:39:LEU:HD21	1.85	0.58
3:D:1132:LYS:CG	3:D:1243:LEU:HD21	2.33	0.58
3:D:580:TRP:CZ3	3:D:583:VAL:HG11	2.38	0.58
3:D:706:VAL:HG12	3:D:713:GLU:OE1	2.04	0.58
3:D:771:GLN:HA	3:D:774:ILE:HD11	1.84	0.58
1:H:112:ALA:HB1	1:H:123:ILE:HG21	1.84	0.58
2:I:1042:LEU:HD13	2:I:1049:ILE:HD11	1.84	0.58
2:I:149:LEU:HA	2:I:453:ILE:HD13	1.86	0.58
3:J:349:TYR:O	3:J:470:VAL:HG23	2.04	0.58
3:J:580:TRP:HA	3:J:583:VAL:HG21	1.84	0.58
3:J:673:VAL:HG13	3:J:674:THR:O	2.04	0.58
1:M:179:PRO:CA	1:M:208:ASN:HD21	2.17	0.58
1:B:142:MET:H	1:B:142:MET:HE3	1.69	0.58
1:B:15:ASP:O	1:B:26:VAL:HG13	2.03	0.58
1:B:58:GLU:HG2	1:B:172:LEU:HA	1.85	0.58
1:B:61:ILE:CD1	1:B:171:LEU:HD12	2.32	0.58
2:C:540:ARG:NH1	2:C:567:PRO:HB2	2.18	0.58
2:C:804:PHE:O	2:C:805:MET:HB3	2.03	0.58
3:D:1229:VAL:O	3:D:1233:ILE:CG1	2.49	0.58
3:D:1267:VAL:O	3:D:1268:ASN:CB	2.47	0.58
3:D:1318:SER:HA	3:D:1342:ASP:OD2	2.02	0.58
3:D:260:PHE:O	5:F:505:ILE:HB	2.04	0.58
2:I:801:ARG:HG2	2:I:1229:TYR:CE2	2.39	0.58
2:I:15:PHE:O	2:I:17:LYS:HD2	2.04	0.58
2:I:186:PHE:CE2	2:I:196:VAL:HG13	2.38	0.58
3:J:1310:THR:O	3:J:1314:LEU:HG	2.03	0.58
3:J:615:LYS:N	3:J:616:PRO:CD	2.67	0.58
3:J:825:VAL:HG22	3:J:838:ARG:HH11	1.68	0.58
5:L:102:MET:HB3	6:4:42:DG:N2	2.18	0.58
2:C:279:LYS:NZ	5:L:486:ARG:HH22	2.01	0.58
5:L:585:GLU:CG	7:5:47:DC:H41	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:84:ASN:OD1	3:P:551:ARG:NH2	2.33	0.58
2:O:292:ILE:HG21	2:O:322:LEU:HD11	1.85	0.58
3:P:15:GLU:HG2	3:P:15:GLU:O	2.03	0.58
5:R:302:PHE:CZ	5:R:306:PHE:HB2	2.38	0.58
2:C:1061:GLN:HB2	2:C:1062:PRO:CD	2.31	0.58
3:D:1291:GLU:O	3:D:1295:ASN:ND2	2.37	0.58
1:G:190:ALA:HB2	1:G:200:LYS:N	2.18	0.58
2:I:859:GLU:HA	2:I:862:LEU:HB2	1.86	0.58
3:J:205:LEU:HD21	3:J:214:ARG:CG	2.33	0.58
3:J:795:TYR:O	3:J:799:ARG:HG3	2.03	0.58
3:J:803:VAL:CG2	3:J:1313:SER:OG	2.51	0.58
3:J:68:TYR:HA	3:J:92:VAL:HG12	1.86	0.58
4:K:61:ASN:HA	4:K:64:LEU:CD1	2.34	0.58
5:L:407:GLU:HG2	5:L:442:SER:CB	2.34	0.58
1:M:179:PRO:CB	1:M:208:ASN:HD21	2.17	0.58
1:M:61:ILE:HG12	1:M:142:MET:CE	2.33	0.58
2:O:1314:GLN:HE21	2:O:1316:GLU:HG3	1.68	0.58
2:O:525:THR:O	2:O:528:ARG:HG3	2.03	0.58
3:P:1145:PHE:HE1	3:P:1256:ILE:HD13	1.65	0.58
3:P:1280:VAL:HG12	3:P:1281:GLU:H	1.68	0.58
2:C:1111:GLN:HG3	2:C:1112:ILE:HD12	1.85	0.58
2:C:21:VAL:HG21	2:C:592:ARG:NH1	2.19	0.58
3:D:1159:ILE:HG22	3:D:1160:SER:H	1.68	0.58
2:I:926:GLY:HA3	2:I:1056:VAL:HG22	1.86	0.58
3:J:275:ARG:NH2	3:J:301:GLU:OE1	2.37	0.58
1:N:19:VAL:HG12	1:N:20:SER:N	2.18	0.58
3:P:429:LEU:HB2	3:P:430:HIS:ND1	2.19	0.58
3:P:762:ASN:ND2	3:P:764:ARG:HB3	2.18	0.58
2:C:349:GLU:OE1	2:C:349:GLU:HA	2.03	0.58
3:D:1062:LEU:HD22	3:D:1066:GLU:OE2	2.03	0.58
2:C:1284:ALA:HB1	3:D:1356:LEU:HD23	1.86	0.58
1:H:217:ILE:N	1:H:217:ILE:HD12	2.17	0.58
1:H:223:ILE:O	1:H:227:GLN:HG2	2.03	0.58
2:I:362:ALA:O	2:I:366:ILE:HG13	2.03	0.58
3:J:421:VAL:HG13	3:J:471:PRO:CD	2.33	0.58
2:I:1286:THR:CG2	3:J:479:GLU:OE2	2.52	0.58
1:H:44:ARG:NH1	3:J:538:ARG:HB3	2.18	0.58
2:O:759:SER:HB3	2:O:765:ILE:CG1	2.34	0.58
3:P:102:MET:HG2	3:P:246:PRO:HD3	1.84	0.58
3:P:1040:MET:HE3	3:P:1046:ILE:HG21	1.86	0.58
3:P:54:ASP:OD1	3:P:60:ARG:NH1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:53:ARG:O	3:P:58:CYS:HB2	2.04	0.58
3:P:682:VAL:HG13	3:P:686:TRP:NE1	2.19	0.58
3:P:828:GLY:O	3:P:994:SER:O	2.20	0.58
3:P:846:GLU:N	3:P:860:ARG:HG2	2.18	0.58
3:P:984:LEU:HB3	3:P:993:GLU:HB2	1.86	0.58
5:R:585:GLU:OE2	5:R:588:ARG:HG2	2.02	0.58
6:4:44:DG:C6	6:4:45:DT:H72	2.39	0.57
3:D:1229:VAL:HG13	3:D:1230:THR:N	2.19	0.57
3:D:234:PRO:O	3:D:237:MET:HG3	2.02	0.57
1:H:61:ILE:HB	1:H:64:VAL:HB	1.86	0.57
2:I:991:LYS:N	2:I:991:LYS:HD2	2.19	0.57
3:J:1133:ASP:OD1	3:J:1134:ILE:N	2.37	0.57
3:J:113:HIS:CD2	3:J:115:TRP:HB2	2.39	0.57
3:J:1320:ILE:HD12	3:J:1344:LEU:CD2	2.33	0.57
3:J:146:VAL:HG21	3:J:158:GLN:CB	2.34	0.57
5:L:446:GLN:O	5:L:448:ARG:N	2.37	0.57
1:M:74:VAL:CG1	1:M:131:CYS:SG	2.92	0.57
1:M:48:LEU:CD2	1:M:183:ILE:HG22	2.31	0.57
1:N:13:LEU:HD13	1:N:26:VAL:HG13	1.86	0.57
2:O:267:ARG:HD3	2:O:268:ARG:H	1.68	0.57
2:O:448:LEU:HD12	2:O:557:ARG:HD2	1.85	0.57
2:O:96:LEU:HD23	2:O:124:MET:HB2	1.86	0.57
3:P:138:VAL:HG12	3:P:139:LEU:CG	2.32	0.57
3:P:242:LEU:HD12	3:P:243:PRO:CD	2.34	0.57
3:P:773:PHE:HD2	3:P:774:ILE:HG12	1.69	0.57
7:2:29:DC:H2"	7:2:30:DA:C8	2.39	0.57
1:A:43:LEU:C	1:A:47:LEU:HD12	2.24	0.57
2:C:1309:VAL:HG13	3:D:383:GLY:N	2.18	0.57
3:D:1134:ILE:HG22	3:D:1138:LEU:HG	1.84	0.57
3:D:318:GLY:CA	3:D:322:ARG:HH12	2.10	0.57
3:D:519:ASN:HA	3:D:523:GLU:CD	2.25	0.57
2:I:130:MET:SD	2:I:134:GLY:HA2	2.44	0.57
2:I:390:PHE:CD2	2:I:390:PHE:N	2.71	0.57
3:J:797:THR:HG21	3:J:924:GLY:HA3	1.84	0.57
5:L:381:GLU:O	5:L:384:LEU:CG	2.50	0.57
2:O:1304:MET:HE3	2:O:1308:ILE:HD11	1.85	0.57
5:R:458:GLU:OE2	7:8:28:DG:C8	2.57	0.57
1:B:102:LEU:HD12	1:B:103:ASN:N	2.19	0.57
3:D:1362:GLY:O	3:D:1366:HIS:CB	2.50	0.57
3:D:166:LEU:O	3:D:170:GLU:HG3	2.04	0.57
3:D:378:LYS:HB3	3:D:379:PRO:HD3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:501:VAL:CG1	3:D:502:PRO:HD2	2.35	0.57
3:D:931:THR:O	3:D:935:PHE:CD2	2.57	0.57
2:I:178:PRO:CB	2:I:395:TYR:CE1	2.88	0.57
2:I:798:GLN:CB	2:I:828:PHE:CZ	2.85	0.57
3:J:968:ASN:HA	3:J:1117:SER:O	2.04	0.57
2:I:813:GLU:O	3:J:461:PHE:HB2	2.04	0.57
1:N:61:ILE:HA	1:N:142:MET:CB	2.32	0.57
2:O:146:VAL:CG1	2:O:529:ARG:O	2.52	0.57
3:P:248:ASP:O	3:P:251:PRO:HG3	2.04	0.57
3:P:483:LEU:HD11	4:Q:17:PHE:CD1	2.38	0.57
5:R:423:ARG:HB3	5:R:425:TYR:HD2	1.68	0.57
6:4:55:DC:H2"	6:4:56:DG:C8	2.39	0.57
1:B:230:ALA:HB3	1:B:231:PHE:CZ	2.39	0.57
2:C:1116:HIS:HE1	2:C:1226:THR:HG23	1.68	0.57
2:C:1286:THR:O	2:C:1290:MET:HG2	2.04	0.57
3:D:1109:LEU:HD22	3:D:1113:VAL:HG21	1.87	0.57
3:D:1327:GLU:O	3:D:1331:VAL:HG23	2.05	0.57
3:D:363:LEU:HD21	3:D:487:THR:HA	1.86	0.57
3:D:502:PRO:HG2	3:D:601:ILE:HD13	1.84	0.57
3:D:621:ALA:CA	3:D:624:ILE:HD12	2.32	0.57
3:D:932:MET:SD	8:3:17:C:C2	2.97	0.57
3:J:1272:SER:HB2	3:J:1274:PHE:HE2	1.64	0.57
3:J:36:GLY:HA3	3:J:61:ILE:HD13	1.85	0.57
3:J:557:LYS:HA	3:J:562:GLU:O	2.04	0.57
3:J:600:ALA:O	3:J:604:MET:HG3	2.04	0.57
3:J:612:LEU:HD22	3:J:616:PRO:HG2	1.86	0.57
1:N:65:LEU:O	1:N:171:LEU:HD21	2.04	0.57
5:R:573:LEU:HB3	7:8:45:DG:OP2	2.04	0.57
1:A:227:GLN:O	1:A:231:PHE:CE1	2.56	0.57
1:B:33:ARG:O	1:B:35:PHE:CD2	2.57	0.57
2:C:653:MET:HG2	2:C:654:ASP:N	2.19	0.57
2:C:92:TYR:CB	2:C:137:VAL:HG21	2.34	0.57
3:D:399:LYS:HE3	5:F:612:ASP:CB	2.34	0.57
1:G:44:ARG:CA	1:G:47:LEU:HD12	2.19	0.57
1:H:162:GLU:CG	1:H:162:GLU:O	2.49	0.57
2:I:558:VAL:HG11	2:I:573:ASN:HB3	1.86	0.57
2:I:705:GLU:OE1	2:I:705:GLU:N	2.36	0.57
2:I:734:ILE:HG21	2:I:751:TYR:HE2	1.68	0.57
3:J:665:GLN:HE21	3:J:682:VAL:HG21	1.69	0.57
3:P:1075:ARG:HG3	3:P:1192:LYS:CB	2.35	0.57
5:R:429:THR:HA	6:7:40:DA:N7	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:386:LEU:HD22	6:7:41:DT:C2	2.39	0.57
2:C:796:LEU:HB2	2:C:1233:LEU:HD11	1.85	0.57
3:D:933:ARG:HH11	3:D:937:ILE:HD11	1.70	0.57
4:E:44:ASP:HB3	4:E:48:VAL:HB	1.85	0.57
2:I:1004:ASP:CG	2:I:1008:GLN:CB	2.73	0.57
2:I:517:GLN:H	2:I:761:GLN:HE22	1.52	0.57
2:I:953:LEU:HD22	2:I:957:LYS:HZ1	1.67	0.57
2:I:960:LEU:HB3	2:I:1025:PHE:HE1	1.70	0.57
2:C:279:LYS:HZ3	5:L:486:ARG:HH22	1.52	0.57
3:P:1259:GLN:NE2	3:P:1259:GLN:HA	2.14	0.57
3:P:416:ILE:CD1	3:P:441:LEU:HG	2.35	0.57
5:R:395:THR:HA	5:R:404:LEU:HD13	1.87	0.57
6:1:22:DC:H2"	6:1:23:DA:OP2	2.04	0.57
6:1:45:DT:C2'	6:1:46:DG:O4'	2.51	0.57
2:C:832:HIS:HB2	2:C:1056:VAL:HB	1.85	0.57
3:D:348:ASP:HB3	3:D:349:TYR:CD2	2.40	0.57
3:J:795:TYR:CE2	3:J:799:ARG:NH1	2.73	0.57
1:M:68:TYR:O	2:O:756:TYR:CD2	2.58	0.57
2:O:1304:MET:O	2:O:1308:ILE:HG13	2.05	0.57
4:Q:13:ILE:HD13	4:Q:19:LEU:HA	1.86	0.57
1:A:57:THR:HG22	1:A:58:GLU:HG3	1.86	0.57
1:B:142:MET:N	1:B:142:MET:CE	2.64	0.57
2:C:1087:TYR:HD2	2:C:1088:ASP:O	1.88	0.57
2:C:1268:GLN:HE22	3:D:351:GLY:N	2.03	0.57
2:C:757:THR:CG2	2:C:758:ARG:H	2.16	0.57
3:D:1263:LYS:HD3	3:D:1281:GLU:CA	2.29	0.57
3:D:609:TYR:C	3:D:609:TYR:HD1	2.06	0.57
5:F:91:ILE:HG23	5:F:94:THR:H	1.69	0.57
1:H:39:LEU:C	1:H:43:LEU:HD11	2.24	0.57
1:H:61:ILE:CD1	1:H:171:LEU:HD12	2.35	0.57
2:I:550:VAL:HG21	3:J:776:THR:HG22	1.87	0.57
1:M:88:LEU:HD21	1:M:112:ALA:HB2	1.86	0.57
3:P:259:ARG:HD3	5:R:502:LYS:HG2	1.86	0.57
3:P:1360:GLY:HA2	4:Q:17:PHE:CE2	2.40	0.57
5:R:237:ALA:O	5:R:238:LYS:HB2	2.05	0.57
5:R:459:THR:O	5:R:463:LEU:HD21	2.05	0.57
2:C:217:THR:O	2:C:220:ILE:HB	2.04	0.57
3:D:1018:ALA:O	3:D:1019:ASN:HB2	2.05	0.57
5:F:235:ILE:O	5:F:239:GLY:O	2.22	0.57
5:F:592:ALA:HA	5:F:595:LEU:HD12	1.86	0.57
2:I:1270:PHE:CE2	2:I:1274:GLU:HB3	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:223:LEU:HD13	2:I:426:ILE:HG21	1.85	0.57
2:I:732:ILE:CD1	2:I:769:PRO:HB3	2.34	0.57
3:J:872:LEU:C	3:J:872:LEU:HD22	2.24	0.57
3:J:820:ILE:O	3:J:882:VAL:HG12	2.04	0.57
1:M:226:GLU:O	1:M:229:GLU:HB2	2.05	0.57
2:O:358:ASP:OD1	2:O:358:ASP:N	2.36	0.57
2:O:590:PRO:HB2	2:O:655:VAL:HG21	1.86	0.57
2:O:759:SER:OG	2:O:763:THR:OG1	2.18	0.57
3:P:531:LYS:H	3:P:531:LYS:HD2	1.70	0.57
3:P:363:LEU:HD23	3:P:618:VAL:HG13	1.87	0.57
5:R:387:VAL:CG2	5:R:435:ILE:HD13	2.34	0.57
3:P:142:GLU:OE1	5:R:91:ILE:HG21	2.05	0.57
2:C:1099:ASN:HD21	2:C:1101:LEU:HB2	1.70	0.57
2:C:1288:GLN:OE1	3:D:1356:LEU:HG	2.05	0.57
2:C:32:LEU:O	2:C:36:GLN:HB2	2.04	0.57
1:G:192:VAL:HB	1:G:195:ARG:HB2	1.87	0.57
1:H:15:ASP:HB3	1:H:27:THR:OG1	2.04	0.57
2:I:178:PRO:HG3	2:I:395:TYR:HE1	1.69	0.57
3:J:1156:LEU:CD2	3:J:1209:VAL:HA	2.22	0.57
3:J:1272:SER:CB	3:J:1274:PHE:CE2	2.86	0.57
3:J:536:LEU:HD21	3:J:541:LEU:CB	2.34	0.57
3:J:931:THR:O	3:J:935:PHE:HD2	1.86	0.57
2:O:173:ASN:HA	2:O:186:PHE:O	2.05	0.57
2:O:30:ILE:N	2:O:30:ILE:CD1	2.68	0.57
3:P:1169:THR:O	3:P:1172:LYS:HB2	2.05	0.57
3:P:121:PRO:O	3:P:122:SER:CB	2.43	0.57
3:P:553:THR:HA	3:P:567:THR:HG23	1.86	0.57
3:P:58:CYS:SG	3:P:60:ARG:N	2.78	0.57
3:P:483:LEU:HD11	4:Q:17:PHE:HD1	1.69	0.57
5:F:429:THR:HA	6:1:40:DA:N7	2.20	0.56
7:8:24:DT:H2"	7:8:25:DA:OP1	2.04	0.56
5:R:461:ASN:HA	7:8:26:DT:H72	1.86	0.56
1:A:157:THR:HA	1:A:160:HIS:HB2	1.87	0.56
1:B:52:PRO:HA	1:B:150:ARG:HA	1.86	0.56
2:C:654:ASP:HB3	2:C:659:GLN:NE2	2.20	0.56
3:D:709:ARG:O	3:D:709:ARG:CG	2.47	0.56
2:C:1253:LEU:CD1	5:F:525:ASP:HB2	2.34	0.56
2:I:213:LEU:HD11	2:I:390:PHE:CZ	2.40	0.56
2:I:551:HIS:H	2:I:554:HIS:CE1	2.23	0.56
3:J:151:MET:HB3	3:J:153:ASN:ND2	2.20	0.56
3:J:522:GLY:HA2	3:J:525:MET:SD	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:216:LEU:O	5:L:220:LYS:HG2	2.05	0.56
2:O:539:THR:CG2	2:O:540:ARG:H	2.15	0.56
2:O:757:THR:O	2:O:833:ILE:HD12	2.04	0.56
3:P:1215:GLU:HB3	3:P:1220:ILE:HD11	1.86	0.56
6:4:54:DA:C2'	6:4:55:DC:OP2	2.51	0.56
2:I:1269:ARG:CZ	7:5:14:DC:OP1	2.54	0.56
2:C:264:GLU:CB	2:C:267:ARG:HB3	2.27	0.56
2:C:936:ARG:HG3	2:C:937:ASP:N	2.20	0.56
3:D:741:ALA:C	3:D:762:ASN:HD22	2.09	0.56
5:F:290:LEU:O	5:F:294:GLN:HB3	2.05	0.56
5:F:389:SER:O	5:F:393:LYS:HG2	2.06	0.56
2:I:851:THR:HG22	2:I:852:ALA:N	2.20	0.56
3:J:1198:VAL:HG22	3:J:1210:ILE:CG2	2.34	0.56
3:J:354:VAL:O	3:J:447:ILE:HD12	2.05	0.56
2:I:1256:GLN:HE21	3:J:99:ARG:NH2	2.03	0.56
2:O:936:ARG:HG2	2:O:937:ASP:H	1.69	0.56
2:O:1073:LYS:CD	3:P:462:ASP:HB2	2.35	0.56
3:D:385:LEU:HD11	3:D:400:MET:HE2	1.86	0.56
5:F:547:VAL:HG11	5:F:598:LEU:HD22	1.87	0.56
1:G:182:ARG:HD2	2:I:1092:THR:HG23	1.87	0.56
2:I:268:ARG:NH1	3:J:1042:ASP:OD2	2.39	0.56
2:I:599:VAL:HG21	2:I:623:LEU:HD21	1.85	0.56
2:I:695:ALA:HB1	2:I:795:ALA:CB	2.36	0.56
2:I:843:THR:CB	2:I:845:LEU:HG	2.35	0.56
2:I:895:LEU:HB3	2:I:899:GLU:OE1	2.06	0.56
3:J:429:LEU:HB2	3:J:430:HIS:ND1	2.20	0.56
3:J:823:THR:HB	3:J:824:PRO:HD2	1.87	0.56
5:L:471:LEU:HG	5:L:476:ARG:O	2.06	0.56
3:P:1067:ARG:HD3	3:P:1071:GLY:O	2.05	0.56
3:P:978:ARG:CG	3:P:1212:ASP:HB3	2.35	0.56
2:O:1285:TYR:CD2	3:P:1361:THR:HG21	2.40	0.56
4:Q:2:ALA:N	4:Q:51:LEU:HD22	2.19	0.56
2:O:123:TYR:HE2	5:R:471:LEU:HD21	1.71	0.56
2:C:409:LEU:O	2:C:410:LEU:HB2	2.05	0.56
3:D:1079:LYS:HE3	3:D:1087:ASP:OD1	2.05	0.56
3:D:378:LYS:HB3	3:D:379:PRO:CD	2.35	0.56
3:D:395:LYS:HA	3:D:398:LYS:HE3	1.88	0.56
2:I:523:GLU:O	2:I:527:LYS:HG3	2.05	0.56
3:J:1138:LEU:HB2	3:J:1139:PRO:HD3	1.81	0.56
3:J:421:VAL:HG11	3:J:469:HIS:O	1.94	0.56
3:J:645:VAL:HG23	3:J:700:ASN:ND2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:166:VAL:CG1	5:L:212:ILE:HG13	2.35	0.56
2:O:1030:GLU:OE2	2:O:1034:ARG:NE	2.35	0.56
2:O:12:ARG:CZ	2:O:1181:PRO:HB2	2.35	0.56
2:O:21:VAL:HG11	2:O:592:ARG:HD3	1.87	0.56
1:M:75:GLN:O	2:O:729:ALA:HB2	2.05	0.56
3:P:322:ARG:HG3	3:P:322:ARG:HH11	1.69	0.56
3:P:366:CYS:SG	3:P:437:PHE:HB2	2.46	0.56
2:I:542:ARG:NH2	6:4:50:DT:H72	2.20	0.56
6:4:51:DC:C3'	6:4:52:DT:H5'	2.35	0.56
2:C:798:GLN:HE22	2:C:827:ARG:HG2	1.70	0.56
3:D:1256:ILE:HB	3:D:1260:MET:CE	2.34	0.56
3:D:227:PHE:HZ	3:D:234:PRO:HA	1.70	0.56
5:F:407:GLU:HG2	5:F:442:SER:HB3	1.88	0.56
2:I:1296:ASP:OD2	2:I:1320:PRO:HB3	2.05	0.56
2:I:782:VAL:HG11	2:I:792:GLY:HA2	1.87	0.56
5:L:305:LEU:HD22	5:L:315:TRP:HB2	1.88	0.56
5:L:461:ASN:HA	7:5:26:DT:C7	2.35	0.56
2:O:558:VAL:HG12	2:O:558:VAL:O	2.04	0.56
3:P:221:ILE:HA	3:P:224:LEU:HD12	1.86	0.56
3:P:27:PRO:HA	3:P:30:ILE:HD12	1.87	0.56
3:P:515:ARG:HH21	3:P:717:VAL:HG23	1.71	0.56
5:R:235:ILE:HD11	5:R:249:ILE:HD11	1.87	0.56
6:1:17:DA:H2"	6:1:18:DC:OP2	2.06	0.56
6:1:54:DA:H2"	6:1:55:DC:H5'	1.87	0.56
1:A:232:VAL:HG22	1:B:221:ALA:CB	2.35	0.56
1:B:13:LEU:HD21	1:B:16:ILE:HD11	1.86	0.56
2:C:1049:ILE:HG22	2:C:1050:VAL:N	2.21	0.56
2:C:14:ASP:HB3	2:C:1157:GLN:HB2	1.86	0.56
3:D:242:LEU:HD12	3:D:243:PRO:O	2.05	0.56
5:F:450:ILE:HD12	5:F:452:ILE:HD11	1.87	0.56
3:J:1151:LYS:O	3:J:1153:PRO:HD3	2.06	0.56
3:J:736:GLN:HA	3:J:736:GLN:HE21	1.70	0.56
5:L:235:ILE:O	5:L:239:GLY:O	2.23	0.56
1:N:81:ILE:HD13	1:N:131:CYS:SG	2.46	0.56
1:N:190:ALA:HB2	1:N:200:LYS:HG3	1.86	0.56
2:O:212:ALA:HB1	2:O:363:LEU:CD2	2.35	0.56
2:O:42:ASP:OD1	2:O:43:PRO:HD2	2.06	0.56
3:P:1250:ASP:N	3:P:1250:ASP:OD1	2.38	0.56
3:P:955:LYS:CG	3:P:956:GLY:N	2.69	0.56
3:J:352:ARG:HD2	7:5:15:DT:H4'	1.88	0.56
7:8:4:DC:H2"	7:8:5:DC:H5'	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:670:PHE:CD2	2:C:1113:LEU:CB	2.82	0.56
3:D:256:ASP:OD1	3:D:256:ASP:N	2.36	0.56
3:D:418:GLU:O	3:D:420:PRO:HD3	2.04	0.56
5:F:586:ARG:NH1	6:1:13:DC:OP2	2.39	0.56
2:I:1004:ASP:OD2	2:I:1008:GLN:CG	2.53	0.56
2:I:1227:VAL:HG12	2:I:1228:GLY:H	1.69	0.56
2:I:807:TRP:CD1	2:I:817:LEU:HD11	2.41	0.56
2:O:1304:MET:CE	2:O:1308:ILE:HD11	2.36	0.56
2:O:743:PRO:HA	2:O:974:ARG:HH12	1.70	0.56
3:P:1320:ILE:HD11	3:P:1342:ASP:HB3	1.88	0.56
3:P:657:ALA:O	3:P:661:VAL:HG23	2.05	0.56
5:L:505:ILE:HD12	7:5:22:DA:N6	2.21	0.56
1:B:54:CYS:O	1:B:55:ALA:CB	2.54	0.56
2:C:452:ARG:HH22	2:C:458:GLU:CD	2.09	0.56
2:C:622:ASN:HB3	2:C:630:VAL:CG2	2.33	0.56
2:C:559:CYS:HB2	2:C:662:SER:N	2.20	0.56
3:D:1109:LEU:HD13	3:D:1113:VAL:HG11	1.86	0.56
3:D:364:HIS:HB3	3:D:487:THR:HG21	1.86	0.56
3:D:378:LYS:O	3:D:381:ILE:HB	2.05	0.56
3:D:725:MET:CE	3:D:731:ARG:HB3	2.36	0.56
5:F:333:VAL:HG13	5:F:337:VAL:HG23	1.87	0.56
2:I:1326:LEU:O	2:I:1330:ILE:HG13	2.05	0.56
2:I:296:VAL:CG1	2:I:297:VAL:N	2.68	0.56
3:J:609:TYR:CD1	3:J:609:TYR:C	2.79	0.56
1:N:99:ILE:HG22	1:N:99:ILE:O	2.04	0.56
2:O:1332:SER:O	3:P:243:PRO:HG2	2.06	0.56
3:P:337:ARG:HD2	3:P:341:ASN:HD22	1.71	0.56
3:P:923:ILE:HD11	3:P:1252:HIS:HB3	1.87	0.56
2:C:153:PRO:HB2	2:C:401:GLY:HA2	1.86	0.56
2:C:519:ASN:ND2	2:C:521:LEU:HB3	2.21	0.56
2:C:992:LEU:HB3	2:C:993:PRO:CD	2.34	0.56
3:D:421:VAL:HG23	3:D:439:PRO:HG2	1.85	0.56
2:I:1288:GLN:O	2:I:1292:THR:CG2	2.48	0.56
2:I:1302:THR:HA	5:L:531:PRO:HB3	1.88	0.56
2:I:146:VAL:HB	2:I:511:LEU:HD22	1.88	0.56
2:I:15:PHE:O	2:I:17:LYS:CD	2.54	0.56
3:J:132:LEU:O	3:J:136:GLU:HG3	2.06	0.56
3:J:943:ARG:O	3:J:944:ALA:HB3	2.06	0.56
5:L:495:ARG:HA	5:L:498:LEU:HD12	1.88	0.56
1:M:11:PRO:HB2	1:N:231:PHE:CZ	2.36	0.56
2:O:949:GLU:HG2	2:O:1036:ILE:HG22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1165:PHE:CZ	3:P:1196:LEU:CD1	2.85	0.56
3:P:233:LYS:HG3	3:P:234:PRO:HD2	1.88	0.56
3:P:261:ALA:HA	5:R:505:ILE:O	2.06	0.56
3:P:555:TYR:HB2	3:P:586:GLY:HA2	1.86	0.56
2:O:900:LYS:HD2	5:R:563:PHE:CE1	2.40	0.56
1:B:53:GLY:O	1:B:177:TYR:HD1	1.88	0.56
2:C:1324:ASN:O	2:C:1328:LYS:HG2	2.05	0.56
2:C:61:SER:HB2	2:C:479:LEU:HD22	1.88	0.56
3:D:1362:GLY:O	3:D:1366:HIS:N	2.38	0.56
3:D:128:LEU:HD22	3:D:188:LEU:HD21	1.88	0.56
3:D:364:HIS:CD2	4:E:4:VAL:HG13	2.41	0.56
3:D:799:ARG:HB3	3:D:1309:ILE:CG2	2.35	0.56
2:I:1112:ILE:HG22	3:J:641:ILE:HG13	1.88	0.56
2:I:1187:PHE:CE1	3:J:769:VAL:HA	2.41	0.56
1:N:219:ARG:O	1:N:223:ILE:HG13	2.05	0.56
2:O:1314:GLN:HA	4:Q:28:ARG:HH22	1.65	0.56
2:O:289:VAL:HG12	2:O:319:LEU:HD22	1.86	0.56
3:P:227:PHE:CE1	3:P:232:ASN:O	2.59	0.56
1:A:109:PRO:HB3	1:A:132:HIS:HD2	1.67	0.56
1:A:8:PHE:HZ	1:B:52:PRO:HG3	1.71	0.56
2:C:1296:ASP:HB2	2:C:1321:GLU:H	1.70	0.56
2:C:886:LYS:HD2	2:C:916:SER:HB2	1.86	0.56
3:D:115:TRP:O	3:D:119:SER:HB3	2.06	0.56
3:D:643:ASP:O	3:D:722:ILE:CD1	2.53	0.56
4:E:59:ILE:HD12	4:E:64:LEU:HD21	1.86	0.56
2:I:213:LEU:O	2:I:214:ASN:HB3	2.06	0.56
3:J:1165:PHE:HE1	3:J:1199:PHE:O	1.89	0.56
2:O:1070:HIS:NE2	2:O:1114:GLU:OE1	2.38	0.56
2:O:1333:LEU:CB	2:O:1335:ILE:HD12	2.34	0.56
2:O:539:THR:H	2:O:542:ARG:HB3	1.70	0.56
3:P:816:THR:CG2	3:P:818:GLU:H	2.19	0.56
3:P:261:ALA:O	5:R:507:MET:HE2	2.06	0.56
5:F:105:MET:HE1	6:1:42:DG:C8	2.41	0.55
2:C:92:TYR:HB3	2:C:137:VAL:HB	1.88	0.55
3:D:263:SER:HA	5:F:507:MET:HB3	1.88	0.55
2:I:10:ARG:HH12	2:I:790:ASP:CG	2.10	0.55
2:I:1326:LEU:CD1	2:I:1330:ILE:HD11	2.36	0.55
2:I:15:PHE:HB3	2:I:17:LYS:HZ2	1.67	0.55
2:I:353:VAL:O	2:I:355:PRO:HD3	2.05	0.55
2:I:671:LEU:HD23	2:I:1186:VAL:HG13	1.85	0.55
3:J:154:LEU:HD22	3:J:158:GLN:HG2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:835:LEU:CD1	3:J:839:VAL:HG21	2.35	0.55
3:J:885:VAL:HG12	3:J:886:VAL:CA	2.35	0.55
5:L:450:ILE:HG13	5:L:450:ILE:O	2.05	0.55
5:L:584:ARG:O	5:L:587:ILE:HG12	2.05	0.55
2:O:818:VAL:HG11	2:O:1076:ILE:HG23	1.89	0.55
2:O:944:ARG:O	2:O:947:GLU:HG2	2.07	0.55
3:P:430:HIS:N	3:P:430:HIS:ND1	2.54	0.55
3:P:682:VAL:HG13	3:P:686:TRP:HE1	1.71	0.55
5:R:574:GLU:OE2	5:R:584:ARG:HD2	2.06	0.55
1:A:38:THR:HB	1:A:39:LEU:CD2	2.36	0.55
1:B:28:LEU:HD13	1:B:29:GLU:N	2.21	0.55
2:C:335:THR:HG22	2:C:336:LEU:N	2.21	0.55
2:C:816:ILE:CG2	2:C:818:VAL:HG12	2.36	0.55
2:I:1272:GLU:HB3	2:I:1276:TRP:CZ2	2.41	0.55
2:I:1272:GLU:HB3	2:I:1276:TRP:CH2	2.41	0.55
2:I:38:PHE:CE1	2:I:461:GLU:CA	2.81	0.55
2:I:753:LEU:HB3	2:I:755:LYS:HE2	1.88	0.55
3:J:115:TRP:HZ3	3:J:1332:LEU:HB2	1.71	0.55
3:J:370:LYS:HA	3:J:441:LEU:HD22	1.88	0.55
3:J:467:ALA:C	3:J:468:VAL:CG2	2.74	0.55
3:J:536:LEU:CD2	3:J:541:LEU:CB	2.80	0.55
3:J:835:LEU:HD12	3:J:839:VAL:HG21	1.87	0.55
1:M:185:TYR:CD2	1:M:185:TYR:O	2.59	0.55
2:O:349:GLU:O	2:O:353:VAL:HG23	2.06	0.55
2:O:715:THR:HG22	2:O:786:GLY:H	1.70	0.55
3:P:1056:LEU:HD13	3:P:1109:LEU:CD2	2.36	0.55
3:P:245:LEU:HG	3:P:246:PRO:O	2.06	0.55
3:P:530:PRO:HB2	3:P:581:MET:CG	2.36	0.55
3:P:288:PRO:HG2	5:R:380:VAL:HG11	1.87	0.55
7:8:48:DA:H2"	7:8:49:DA:H5"	1.88	0.55
1:A:227:GLN:C	1:A:231:PHE:CZ	2.77	0.55
2:C:1225:VAL:CG1	2:C:1226:THR:N	2.69	0.55
3:D:891:ASP:N	3:D:891:ASP:OD1	2.38	0.55
2:I:1274:GLU:OE1	2:I:1274:GLU:N	2.39	0.55
2:I:868:SER:HB2	2:I:870:ILE:HG12	1.86	0.55
3:J:1044:GLN:HA	3:J:1068:THR:OG1	2.06	0.55
3:J:1165:PHE:HZ	3:J:1196:LEU:CD1	2.19	0.55
3:J:234:PRO:O	3:J:237:MET:CG	2.54	0.55
2:I:1289:GLU:OE2	3:J:473:THR:N	2.40	0.55
3:J:555:TYR:HA	3:J:564:VAL:O	2.06	0.55
3:P:268:LEU:HD13	3:P:306:LEU:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1:42:DG:OP1	6:1:43:DT:OP1	2.24	0.55
1:B:79:LEU:HA	1:B:82:LEU:HD12	1.87	0.55
2:C:557:ARG:HH22	2:C:608:ALA:HA	1.71	0.55
2:C:521:LEU:HD22	2:C:686:GLN:HB3	1.81	0.55
1:H:102:LEU:CB	1:H:115:ILE:HD13	2.36	0.55
2:I:528:ARG:NH2	2:I:575:LEU:HD23	2.21	0.55
3:J:205:LEU:HD21	3:J:214:ARG:HG3	1.88	0.55
3:J:70:CYS:HB3	3:J:92:VAL:CG2	2.32	0.55
1:N:13:LEU:CD1	1:N:26:VAL:HG13	2.36	0.55
2:O:1104:PRO:CG	3:P:725:MET:HE3	2.35	0.55
7:5:25:DA:H1'	7:5:26:DT:H5"	1.89	0.55
2:C:543:ALA:HB3	2:C:548:ARG:HH21	1.71	0.55
3:D:334:LYS:NZ	7:2:13:DA:P	2.80	0.55
2:C:1281:TYR:OH	3:D:432:LEU:HD23	2.05	0.55
1:H:39:LEU:O	1:H:43:LEU:CD1	2.54	0.55
2:I:1008:GLN:OE1	2:I:1011:LEU:HD23	2.07	0.55
2:I:1098:LEU:HD23	2:I:1099:ASN:H	1.71	0.55
2:I:689:ALA:HB1	2:I:1233:LEU:HD22	1.88	0.55
2:O:122:VAL:HG21	2:O:493:ILE:HD12	1.88	0.55
3:P:1231:ARG:O	3:P:1234:VAL:HB	2.07	0.55
7:2:35:DT:H2"	7:2:36:DG:OP2	2.07	0.55
6:4:49:DG:H5'	6:4:50:DT:OP2	2.07	0.55
6:7:54:DA:H2"	6:7:55:DC:C5'	2.37	0.55
1:A:44:ARG:HG3	1:A:183:ILE:HG23	1.88	0.55
1:A:51:MET:CE	1:A:211:ILE:HG13	2.37	0.55
1:B:43:LEU:C	1:B:47:LEU:HD12	2.27	0.55
2:C:402:ARG:HG2	2:C:416:GLY:N	2.21	0.55
5:F:561:MET:HE3	5:F:567:MET:SD	2.47	0.55
5:F:565:ILE:O	5:F:567:MET:HG2	2.07	0.55
3:J:766:GLY:C	3:J:767:LEU:HD23	2.26	0.55
2:O:1230:MET:HG2	2:O:1231:TYR:N	2.20	0.55
2:O:943:LYS:HG3	2:O:944:ARG:N	2.21	0.55
3:P:1155:ILE:HG22	3:P:1156:LEU:N	2.22	0.55
3:P:544:LEU:CD2	3:P:578:ILE:CD1	2.85	0.55
6:1:47:DC:H6	6:1:47:DC:C5'	2.19	0.55
2:C:209:ILE:CG2	2:C:210:LEU:N	2.67	0.55
2:C:551:HIS:CB	2:C:554:HIS:CE1	2.90	0.55
2:C:617:ALA:CB	2:C:636:CYS:SG	2.95	0.55
3:D:799:ARG:HB3	3:D:1309:ILE:HG21	1.88	0.55
3:D:276:ASN:O	3:D:279:LEU:HB3	2.07	0.55
5:F:400:GLN:HG2	5:F:401:PHE:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:195:ARG:NH2	4:Q:66:VAL:HG23	2.22	0.55
2:I:1315:MET:HG3	2:I:1317:PRO:HD3	1.88	0.55
2:I:208:ILE:HG12	2:I:362:ALA:HB1	1.88	0.55
2:I:228:VAL:HG21	2:I:337:PHE:HD1	1.72	0.55
2:I:226:GLU:OE2	2:I:343:HIS:CD2	2.59	0.55
2:I:886:LYS:HD2	2:I:916:SER:CB	2.34	0.55
3:J:1023:HIS:O	3:J:1024:THR:CB	2.54	0.55
3:J:262:THR:C	5:L:507:MET:HB2	2.27	0.55
3:J:421:VAL:CG1	3:J:470:VAL:HA	2.34	0.55
3:J:70:CYS:HB2	3:J:90:VAL:HG11	1.86	0.55
3:J:730:ALA:O	3:J:731:ARG:HB2	2.07	0.55
3:P:1240:VAL:O	3:P:1243:LEU:HB3	2.06	0.55
3:P:809:VAL:HB	3:P:912:GLY:H	1.70	0.55
5:F:437:GLN:HG2	6:1:35:DC:N4	2.21	0.55
1:A:92:VAL:HG11	1:A:95:LYS:O	2.07	0.55
2:C:1246:ARG:HH21	2:C:1249:GLY:H	1.54	0.55
2:C:674:ASP:O	3:D:772:TYR:OH	2.17	0.55
3:D:1101:LEU:HD21	3:D:1122:ALA:HB3	1.89	0.55
3:D:1256:ILE:O	3:D:1260:MET:HE2	2.06	0.55
3:D:234:PRO:O	3:D:237:MET:CG	2.54	0.55
3:D:378:LYS:HG2	3:D:382:TYR:HE2	1.71	0.55
5:F:580:PHE:O	5:F:581:ASP:CB	2.55	0.55
2:I:32:LEU:HD23	2:I:130:MET:HE3	1.87	0.55
2:I:708:VAL:HG11	2:I:794:LEU:HD22	1.89	0.55
3:J:649:LYS:O	3:J:653:ILE:HG13	2.07	0.55
3:J:496:GLY:CA	3:J:903:LEU:HD22	2.20	0.55
5:L:391:ALA:O	5:L:395:THR:HG23	2.06	0.55
5:L:580:PHE:O	5:L:581:ASP:HB2	2.05	0.55
2:O:1324:ASN:O	2:O:1327:LEU:HB2	2.06	0.55
5:R:167:ASP:N	5:R:168:PRO:HD3	2.22	0.55
1:A:208:ASN:ND2	1:A:208:ASN:H	2.04	0.55
2:C:720:ARG:HD2	2:C:736:VAL:HG21	1.89	0.55
2:C:805:MET:HB2	2:C:806:PRO:HD2	1.89	0.55
3:D:245:LEU:HD21	3:D:249:LEU:HB2	1.89	0.55
5:F:110:LEU:HD23	6:1:41:DT:C2	2.41	0.55
5:F:449:THR:HG1	5:F:504:PRO:HG3	1.71	0.55
1:G:232:VAL:HG11	1:H:218:ARG:O	2.07	0.55
2:I:878:THR:CG2	2:I:879:GLY:N	2.68	0.55
3:J:1265:THR:OG1	3:J:1305:ASP:OD1	2.24	0.55
2:O:896:THR:HG23	2:O:898:GLU:HB2	1.88	0.55
2:O:746:ALA:HB2	2:O:971:LEU:HD13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:403:ARG:O	3:P:404:GLU:CB	2.55	0.55
3:P:803:VAL:CG2	3:P:1309:ILE:HG23	2.36	0.55
2:C:1170:MET:O	2:C:1173:ALA:HB3	2.07	0.55
2:C:267:ARG:HD3	2:C:268:ARG:N	2.22	0.55
3:D:707:ILE:O	3:D:713:GLU:HG2	2.07	0.55
3:D:739:GLN:O	3:D:763:PHE:HD2	1.90	0.55
3:D:759:ILE:HD13	3:D:767:LEU:HD13	1.87	0.55
2:I:765:ILE:HG22	2:I:765:ILE:O	2.06	0.55
2:I:1340:GLU:HB2	3:J:19:ALA:O	2.06	0.55
3:J:944:ALA:O	3:J:946:ALA:N	2.39	0.55
1:N:90:VAL:HG11	1:N:146:VAL:HG11	1.89	0.55
2:O:698:PRO:HG3	2:O:1231:TYR:CZ	2.42	0.55
2:O:184:LEU:HD11	2:O:389:PHE:CE2	2.41	0.55
2:O:761:GLN:O	2:O:762:ASN:HB2	2.07	0.55
3:P:825:VAL:HG22	3:P:838:ARG:HH11	1.72	0.55
5:R:136:GLU:OE2	5:R:249:ILE:HG23	2.07	0.55
5:R:323:ASN:CG	5:R:324:LYS:N	2.59	0.55
5:R:345:GLN:O	5:R:348:GLU:HB2	2.06	0.55
7:2:23:DT:C3'	7:2:24:DT:H5"	2.29	0.54
2:C:1293:VAL:HG12	2:C:1300:GLY:C	2.27	0.54
2:C:1272:GLU:OE1	3:D:798:ARG:HD2	2.07	0.54
5:F:492:ASP:OD1	5:F:492:ASP:N	2.40	0.54
1:G:11:PRO:HB3	1:G:31:LEU:CD2	2.37	0.54
3:J:680:ASN:OD1	3:J:1023:HIS:NE2	2.40	0.54
3:J:1154:ALA:HA	3:J:1211:SER:HB2	1.89	0.54
3:J:598:LYS:CA	3:J:601:ILE:HD12	2.26	0.54
3:J:643:ASP:OD2	3:J:721:SER:OG	2.25	0.54
2:O:1284:ALA:O	3:P:1356:LEU:CD2	2.55	0.54
3:P:253:VAL:CB	3:P:254:PRO:HD3	2.37	0.54
3:P:67:ASP:OD1	3:P:95:THR:N	2.28	0.54
1:B:59:VAL:HG22	1:B:144:ILE:HG23	1.88	0.54
5:F:503:GLU:CB	5:F:504:PRO:HD2	2.37	0.54
3:J:1059:LEU:HB2	3:J:1107:VAL:HB	1.87	0.54
3:J:237:MET:C	3:J:238:ILE:HD13	2.27	0.54
5:L:132:CYS:O	5:L:136:GLU:HG2	2.07	0.54
1:M:179:PRO:HA	1:M:208:ASN:HD21	1.72	0.54
2:O:13:LYS:HB2	2:O:1149:TYR:HE1	1.70	0.54
2:O:220:ILE:HA	2:O:223:LEU:HD12	1.88	0.54
2:O:7:GLU:HG2	2:O:706:ARG:NH1	2.23	0.54
3:P:1216:ALA:O	3:P:1220:ILE:HG13	2.07	0.54
3:P:141:PHE:CE2	3:P:181:GLY:HA3	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:423:ARG:HB3	5:R:425:TYR:CD2	2.42	0.54
5:R:84:LEU:HG	5:R:107:THR:CG2	2.37	0.54
7:5:50:DG:H2"	7:5:51:DT:OP2	2.06	0.54
1:A:227:GLN:NE2	1:B:9:LEU:O	2.38	0.54
2:C:229:ILE:HG12	2:C:334:GLU:HG2	1.89	0.54
3:D:1061:VAL:O	3:D:1104:LYS:HA	2.08	0.54
3:D:318:GLY:CA	3:D:324:LEU:HD21	2.35	0.54
3:D:44:ILE:CD1	3:D:44:ILE:C	2.75	0.54
3:D:569:LEU:N	3:D:569:LEU:HD13	2.22	0.54
3:D:643:ASP:OD2	3:D:721:SER:OG	2.24	0.54
2:I:228:VAL:HG21	2:I:337:PHE:CD1	2.42	0.54
2:I:316:GLU:CG	2:I:352:ARG:HH22	2.20	0.54
2:I:58:PRO:HB3	2:I:69:GLN:HA	1.89	0.54
1:N:104:LYS:HG3	1:N:105:SER:N	2.23	0.54
2:O:1308:ILE:HG21	3:P:379:PRO:HB2	1.89	0.54
2:O:551:HIS:H	2:O:554:HIS:CE1	2.25	0.54
3:P:259:ARG:CD	5:R:502:LYS:HG2	2.37	0.54
5:R:456:MET:O	5:R:459:THR:OG1	2.25	0.54
5:R:583:THR:CG2	5:R:586:ARG:CB	2.80	0.54
5:R:583:THR:HG21	5:R:586:ARG:CB	2.37	0.54
6:7:42:DG:OP1	6:7:43:DT:OP1	2.24	0.54
1:A:51:MET:HE2	1:A:211:ILE:HG13	1.89	0.54
2:C:1269:ARG:NH1	3:D:340:GLN:HG3	2.21	0.54
2:C:1296:ASP:O	2:C:1321:GLU:CG	2.53	0.54
2:C:364:VAL:HG12	2:C:365:GLU:N	2.23	0.54
2:C:596:ASP:N	2:C:596:ASP:OD1	2.36	0.54
3:D:517:CYS:HB2	3:D:719:PHE:CZ	2.30	0.54
1:H:85:LEU:HD21	1:H:130:ILE:HG21	1.84	0.54
2:I:1275:VAL:HG12	2:I:1279:GLU:CD	2.27	0.54
2:I:217:THR:CA	2:I:220:ILE:HD12	2.27	0.54
2:I:1073:LYS:CD	3:J:462:ASP:HB2	2.38	0.54
2:O:61:SER:OG	2:O:479:LEU:HB3	2.08	0.54
4:Q:10:VAL:HG22	4:Q:19:LEU:CD2	2.38	0.54
3:P:322:ARG:NE	5:R:510:PRO:HD3	2.10	0.54
6:4:53:DG:H2"	6:4:54:DA:C8	2.42	0.54
5:L:585:GLU:HG3	7:5:47:DC:C4	2.42	0.54
1:A:85:LEU:CD2	1:A:130:ILE:HG23	2.37	0.54
2:C:1320:PRO:O	2:C:1323:PHE:HB3	2.07	0.54
2:C:672:GLU:H	2:C:672:GLU:CD	2.10	0.54
3:D:475:GLU:HA	3:D:478:LEU:HD12	1.89	0.54
3:D:452:LEU:HB3	3:D:500:ILE:CG2	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:863:LEU:HD13	3:D:908:ILE:HG12	1.89	0.54
2:I:542:ARG:HH12	6:4:50:DT:H71	1.73	0.54
3:J:373:ALA:HA	3:J:376:LEU:CG	2.36	0.54
5:L:555:GLU:OE2	5:L:590:ILE:HG23	2.08	0.54
1:N:61:ILE:HD12	1:N:64:VAL:HG12	1.88	0.54
2:O:96:LEU:HB2	2:O:127:ILE:HD11	1.88	0.54
2:O:15:PHE:CE2	2:O:1182:ILE:CD1	2.79	0.54
3:P:806:ASP:O	3:P:808:VAL:CG2	2.55	0.54
5:R:458:GLU:O	5:R:462:LYS:HG3	2.08	0.54
5:R:476:ARG:HG3	5:R:477:GLU:N	2.21	0.54
3:P:259:ARG:NH1	5:R:502:LYS:HG2	2.21	0.54
3:P:394:ILE:CD1	5:R:539:SER:HB2	2.38	0.54
1:A:81:ILE:HG22	1:A:85:LEU:HD11	1.88	0.54
1:B:124:VAL:HG21	1:B:210:THR:HG23	1.88	0.54
2:C:301:TYR:HB2	2:C:311:CYS:SG	2.47	0.54
2:C:741:MET:SD	2:C:747:GLY:CA	2.94	0.54
3:D:1253:ILE:HA	3:D:1256:ILE:HD11	1.90	0.54
3:D:205:LEU:HD22	3:D:214:ARG:HG3	1.88	0.54
3:D:394:ILE:O	3:D:398:LYS:HG3	2.07	0.54
3:D:424:ASN:O	3:D:466:MET:HE2	2.07	0.54
3:D:349:TYR:CD2	3:D:472:LEU:HD11	2.43	0.54
3:J:253:VAL:HB	3:J:254:PRO:CD	2.37	0.54
3:J:849:LEU:HD22	3:J:856:ILE:C	2.27	0.54
3:J:880:VAL:HG12	3:J:881:LYS:N	2.23	0.54
5:L:84:LEU:HG	5:L:107:THR:CG2	2.38	0.54
2:O:149:LEU:HD11	2:O:451:ARG:HB3	1.90	0.54
2:O:667:LEU:HD22	2:O:705:GLU:OE2	2.08	0.54
2:C:1106:ARG:O	2:C:1107:MET:HB2	2.07	0.54
2:C:1103:VAL:HG22	2:C:1111:GLN:NE2	2.23	0.54
2:C:1185:PRO:HB2	2:C:1188:ASP:HB3	1.90	0.54
3:D:350:SER:HB3	3:D:469:HIS:NE2	2.22	0.54
1:G:85:LEU:HD21	1:G:130:ILE:HG23	1.88	0.54
2:I:1315:MET:HA	2:I:1315:MET:CE	2.37	0.54
3:J:219:LYS:HG2	3:J:222:LYS:CE	2.38	0.54
1:M:15:ASP:HB3	1:M:27:THR:OG1	2.08	0.54
3:P:1319:PHE:CZ	3:P:1342:ASP:HB2	2.42	0.54
3:P:139:LEU:CD2	3:P:182:ALA:HA	2.35	0.54
4:Q:18:ASP:O	4:Q:22:VAL:HG23	2.07	0.54
5:R:139:GLU:O	5:R:143:TYR:HD1	1.89	0.54
6:4:42:DG:OP1	6:4:43:DT:OP1	2.26	0.54
1:A:67:GLU:O	1:A:78:ILE:HD12	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:403:MET:CE	2:C:586:PHE:HE2	2.21	0.54
3:D:807:LEU:HD13	3:D:1259:GLN:NE2	2.23	0.54
3:D:614:LEU:HD23	4:E:7:GLN:HB2	1.88	0.54
3:D:933:ARG:HH11	3:D:937:ILE:CD1	2.20	0.54
5:F:399:LEU:HD13	5:F:403:ASP:CB	2.36	0.54
3:J:531:LYS:H	3:J:531:LYS:HD2	1.72	0.54
3:J:955:LYS:HG2	3:J:956:GLY:H	1.71	0.54
5:L:443:ILE:CG2	5:L:444:ALA:N	2.70	0.54
2:O:1161:LEU:O	2:O:1163:THR:N	2.41	0.54
2:O:1235:LEU:HD23	2:O:1235:LEU:N	2.23	0.54
2:O:1322:SER:C	2:O:1325:VAL:HB	2.27	0.54
2:O:478:ARG:HH11	2:O:492:MET:HA	1.72	0.54
3:P:378:LYS:HA	3:P:381:ILE:HD12	1.90	0.54
3:P:604:MET:HE2	3:P:605:LEU:CD2	2.37	0.54
3:P:839:VAL:O	3:P:839:VAL:HG12	2.08	0.54
5:R:295:CYS:SG	5:R:330:LEU:CD1	2.95	0.54
2:O:897:PRO:C	5:R:565:ILE:HD11	2.28	0.54
7:2:27:DA:H2"	7:2:28:DG:C5'	2.37	0.54
6:7:49:DG:H3'	6:7:50:DT:H5"	1.88	0.54
1:A:48:LEU:HD21	1:A:180:VAL:O	2.08	0.54
1:A:224:LEU:HD12	1:A:228:LEU:HD11	1.77	0.54
1:B:201:LEU:CG	1:B:203:ILE:HD11	2.35	0.54
3:D:111:THR:HG23	3:D:300:GLN:HG3	1.90	0.54
3:D:518:VAL:O	3:D:520:ALA:N	2.41	0.54
3:D:835:LEU:HD11	3:D:839:VAL:HG21	1.90	0.54
2:I:1005:GLU:CG	2:I:1006:GLU:H	2.18	0.54
2:I:808:ASN:HA	3:J:629:PHE:HB3	1.89	0.54
2:I:82:VAL:CG2	2:I:83:GLN:N	2.70	0.54
3:J:625:MET:HG2	3:J:629:PHE:HE2	1.71	0.54
1:N:193:GLU:O	1:N:194:GLN:HB2	2.07	0.54
2:O:1064:ASP:OD1	2:O:1239:VAL:HG12	2.08	0.54
2:O:232:ILE:O	2:O:331:LYS:HD3	2.08	0.54
2:O:505:PHE:O	2:O:509:SER:HB3	2.08	0.54
2:O:800:MET:HB2	2:O:1096:ILE:HD12	1.90	0.54
3:P:1256:ILE:O	3:P:1260:MET:HG3	2.07	0.54
3:P:1364:ALA:HA	3:P:1367:GLN:HE21	1.73	0.54
3:P:652:GLU:O	3:P:656:GLU:HG3	2.07	0.54
4:Q:54:ILE:HG13	4:Q:59:ILE:HB	1.89	0.54
6:1:50:DT:O3'	6:1:51:DC:O4'	2.26	0.54
7:2:25:DA:H1'	7:2:26:DT:H5"	1.89	0.54
6:7:27:DC:H2"	6:7:28:DA:OP2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:54:DA:H1'	6:7:55:DC:C5'	2.38	0.54
3:D:262:THR:O	5:F:507:MET:N	2.37	0.54
2:I:1004:ASP:OD1	2:I:1008:GLN:HB2	2.08	0.54
2:I:1008:GLN:HG3	2:I:1008:GLN:O	2.05	0.54
2:I:521:LEU:HD12	2:I:521:LEU:O	2.08	0.54
2:I:699:LEU:HD23	2:I:699:LEU:N	2.22	0.54
3:J:205:LEU:CD2	3:J:214:ARG:HG3	2.38	0.54
3:J:501:VAL:HG13	3:J:502:PRO:CD	2.37	0.54
5:L:460:ILE:O	5:L:463:LEU:HB2	2.08	0.54
3:P:1133:ASP:H	3:P:1244:GLN:NE2	2.06	0.54
3:P:297:ARG:CD	5:R:100:MET:SD	2.92	0.54
5:R:235:ILE:O	5:R:239:GLY:O	2.25	0.54
5:R:381:GLU:HA	5:R:384:LEU:HD21	1.90	0.54
1:A:41:ASN:HD22	2:C:1218:GLY:CA	2.19	0.53
2:C:1210:ILE:HG22	2:C:1212:LEU:CD2	2.36	0.53
3:D:875:ASN:O	3:D:876:SER:HB2	2.08	0.53
3:D:930:LEU:HB2	3:D:1134:ILE:CD1	2.28	0.53
5:F:456:MET:O	5:F:460:ILE:HG13	2.07	0.53
2:I:335:THR:CG2	2:I:336:LEU:N	2.70	0.53
2:I:593:LYS:NZ	2:I:595:THR:HG1	2.00	0.53
2:I:788:SER:OG	2:I:796:LEU:HA	2.08	0.53
3:J:510:LEU:O	3:J:514:THR:HG23	2.08	0.53
3:J:635:SER:OG	3:J:636:GLY:N	2.41	0.53
3:J:809:VAL:CG2	3:J:909:ILE:HD13	2.34	0.53
3:J:814:CYS:HG	3:J:816:THR:HG1	1.56	0.53
2:O:1324:ASN:O	2:O:1328:LYS:HG2	2.08	0.53
3:P:306:LEU:O	3:P:326:SER:HB2	2.08	0.53
5:R:411:GLY:CA	5:R:438:ALA:HB2	2.38	0.53
7:2:23:DT:H3'	7:2:24:DT:C5'	2.29	0.53
7:5:19:DA:H2'	7:5:20:DG:O4'	2.08	0.53
2:C:1253:LEU:HB2	5:F:523:ILE:HB	1.90	0.53
2:I:558:VAL:HG13	2:I:559:CYS:N	2.22	0.53
3:J:34:SER:OG	3:J:104:HIS:ND1	2.02	0.53
3:J:185:ILE:O	3:J:189:LEU:CD1	2.56	0.53
3:J:612:LEU:HD13	3:J:616:PRO:HB3	1.91	0.53
1:M:208:ASN:C	1:M:210:THR:H	2.10	0.53
1:N:92:VAL:HG13	1:N:121:VAL:HG22	1.89	0.53
3:P:107:LEU:HG	3:P:240:THR:O	2.08	0.53
3:P:517:CYS:HB3	3:P:545:HIS:CB	2.38	0.53
3:P:968:ASN:CB	3:P:1117:SER:O	2.56	0.53
4:Q:59:ILE:HD12	4:Q:64:LEU:HD21	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:50:DT:O3'	6:4:51:DC:O4'	2.27	0.53
1:A:187:VAL:HG13	1:A:199:ASP:OD2	2.07	0.53
1:A:67:GLU:O	1:A:78:ILE:HB	2.08	0.53
1:B:38:THR:C	1:B:39:LEU:HD23	2.26	0.53
2:C:251:ALA:HB2	2:C:263:VAL:HG11	1.90	0.53
5:F:595:LEU:O	5:F:599:ARG:HG3	2.08	0.53
2:I:1327:LEU:CA	2:I:1330:ILE:HD12	2.37	0.53
2:I:36:GLN:HA	2:I:39:ILE:HD12	1.89	0.53
3:J:115:TRP:CZ3	3:J:1329:THR:O	2.61	0.53
2:I:1077:SER:HA	3:J:356:THR:CG2	2.38	0.53
3:J:573:THR:OG1	3:J:575:GLY:N	2.41	0.53
3:J:871:LEU:O	3:J:875:ASN:ND2	2.42	0.53
1:M:35:PHE:O	1:M:39:LEU:HG	2.08	0.53
2:O:1314:GLN:NE2	2:O:1316:GLU:HG3	2.23	0.53
2:O:764:CYS:O	2:O:764:CYS:SG	2.65	0.53
3:P:1176:VAL:HG22	3:P:1187:GLU:HG2	1.89	0.53
3:P:366:CYS:SG	3:P:439:PRO:HA	2.48	0.53
2:C:807:TRP:CG	2:C:817:LEU:HD11	2.43	0.53
3:D:1133:ASP:OD1	3:D:1134:ILE:N	2.33	0.53
3:D:490:ILE:HA	3:D:500:ILE:HD12	1.88	0.53
5:F:117:ILE:HG23	5:F:421:TYR:CB	2.34	0.53
1:G:185:TYR:CD2	1:G:185:TYR:O	2.62	0.53
2:I:557:ARG:HB3	2:I:587:LEU:HD12	1.89	0.53
3:J:146:VAL:CG2	3:J:158:GLN:HB2	2.39	0.53
3:J:219:LYS:HG2	3:J:222:LYS:HD2	1.90	0.53
3:J:255:LEU:HD13	3:J:256:ASP:N	2.24	0.53
3:J:306:LEU:O	3:J:326:SER:HB2	2.07	0.53
3:J:607:THR:O	3:J:611:ILE:HG13	2.08	0.53
1:N:77:ASP:O	1:N:81:ILE:HG13	2.08	0.53
2:O:819:SER:HA	2:O:1085:MET:SD	2.49	0.53
3:P:1046:ILE:HD12	3:P:1059:LEU:HD22	1.91	0.53
3:P:273:ILE:HG22	3:P:277:ASN:HD21	1.73	0.53
6:7:42:DG:P	6:7:42:DG:H3'	2.48	0.53
2:C:1253:LEU:HD13	5:F:523:ILE:HG22	1.90	0.53
1:G:47:LEU:HD12	1:G:183:ILE:CD1	2.33	0.53
2:I:734:ILE:HG23	2:I:749:ASP:CB	2.38	0.53
2:I:845:LEU:N	2:I:845:LEU:HD23	2.24	0.53
3:P:318:GLY:N	3:P:322:ARG:O	2.35	0.53
4:Q:78:ALA:O	4:Q:81:GLN:HG2	2.08	0.53
1:A:44:ARG:HH12	2:C:1093:PRO:HG3	1.73	0.53
3:D:423:LEU:HD12	3:D:437:PHE:CE1	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:546:ALA:O	3:D:548:VAL:HG23	2.09	0.53
3:D:641:ILE:O	3:D:644:MET:SD	2.67	0.53
5:F:540:LEU:O	5:F:544:THR:HG23	2.09	0.53
5:F:604:SER:O	5:F:608:ARG:N	2.41	0.53
2:I:1304:MET:HE3	2:I:1304:MET:C	2.29	0.53
2:I:716:ALA:HB3	2:I:784:ALA:HB3	1.91	0.53
2:I:870:ILE:HG13	2:I:944:ARG:CG	2.20	0.53
3:J:492:SER:HA	3:J:499:ILE:CD1	2.32	0.53
3:J:521:LYS:HB3	3:J:542:ALA:HA	1.90	0.53
3:J:755:ILE:HG21	3:J:774:ILE:HD13	1.90	0.53
1:M:88:LEU:HD21	1:M:112:ALA:CB	2.39	0.53
1:M:11:PRO:CB	1:N:231:PHE:HZ	2.19	0.53
1:N:64:VAL:CG2	1:N:71:LYS:HD2	2.38	0.53
2:O:211:ARG:O	2:O:359:ARG:HA	2.08	0.53
2:O:34:SER:O	2:O:457:GLY:HA3	2.08	0.53
2:O:557:ARG:HD3	2:O:587:LEU:CB	2.37	0.53
3:P:1040:MET:CE	3:P:1046:ILE:HG21	2.39	0.53
3:P:601:ILE:O	3:P:605:LEU:HG	2.09	0.53
3:P:902:ASP:HB2	3:P:909:ILE:HD12	1.90	0.53
3:P:262:THR:CA	5:R:507:MET:CE	2.75	0.53
5:L:437:GLN:CG	6:4:35:DC:N4	2.69	0.53
2:C:280:ASP:O	2:C:281:ASP:HB2	2.08	0.53
3:D:1274:PHE:O	3:D:1275:LEU:CB	2.47	0.53
3:D:478:LEU:HB3	4:E:20:VAL:HG13	1.91	0.53
5:F:598:LEU:O	5:F:604:SER:OG	2.21	0.53
2:I:1184:THR:OG1	2:I:1190:ALA:N	2.41	0.53
2:I:1326:LEU:O	2:I:1330:ILE:CD1	2.57	0.53
2:I:22:LEU:HG	2:I:23:ASP:N	2.22	0.53
2:I:906:PHE:CE1	5:L:607:LEU:HB3	2.44	0.53
3:J:1280:VAL:HG12	3:J:1281:GLU:N	2.23	0.53
3:J:521:LYS:CB	3:J:542:ALA:HA	2.38	0.53
2:I:1104:PRO:CG	3:J:725:MET:HE1	2.39	0.53
1:M:230:ALA:HB1	1:N:11:PRO:O	2.08	0.53
2:O:539:THR:CG2	2:O:540:ARG:N	2.70	0.53
3:P:742:GLY:O	3:P:762:ASN:HB3	2.08	0.53
5:R:260:ARG:HH12	5:R:422:ARG:NH2	2.07	0.53
7:5:12:DG:N2	7:5:13:DA:C4	2.77	0.53
1:B:133:LEU:HD22	1:B:138:ALA:HB3	1.85	0.53
1:B:32:GLU:HA	1:B:198:LEU:HD12	1.90	0.53
1:A:174:ASP:CG	2:C:1059:ARG:HH22	2.12	0.53
2:C:34:SER:OG	2:C:456:VAL:N	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:901:ARG:CD	3:D:903:LEU:HD23	2.38	0.53
1:G:232:VAL:CG1	1:H:218:ARG:O	2.56	0.53
2:I:1247:SER:O	3:J:348:ASP:HB3	2.07	0.53
2:I:230:PHE:CD1	2:I:292:ILE:HD11	2.43	0.53
2:I:551:HIS:ND1	2:I:553:THR:OG1	2.37	0.53
3:J:1158:GLU:HA	3:J:1223:LEU:CD1	2.39	0.53
3:J:214:ARG:NH2	3:J:215:LYS:HG2	2.23	0.53
2:O:1053:TYR:N	2:O:1053:TYR:CD2	2.76	0.53
2:O:146:VAL:HG13	2:O:529:ARG:O	2.08	0.53
2:O:890:LYS:HZ1	2:O:893:THR:CG2	2.20	0.53
3:P:1036:ARG:HD2	3:P:1081:VAL:HG11	1.91	0.53
3:P:1154:ALA:CA	3:P:1211:SER:HB2	2.38	0.53
3:P:262:THR:O	5:R:507:MET:CB	2.44	0.53
3:P:368:LEU:HD12	3:P:369:PRO:HD2	1.91	0.53
3:P:367:GLY:HA3	3:P:448:GLN:HB2	1.91	0.53
5:R:411:GLY:HA3	5:R:438:ALA:HB2	1.89	0.53
5:R:91:ILE:O	5:R:91:ILE:HG22	2.08	0.53
6:7:19:DA:C2	7:8:45:DG:C2	2.97	0.53
1:B:82:LEU:HD22	1:B:173:VAL:CG1	2.37	0.53
2:C:1122:LYS:HG3	2:C:1229:TYR:CE1	2.43	0.53
2:C:211:ARG:HH22	2:C:217:THR:HG1	1.55	0.53
2:C:539:THR:CG2	2:C:540:ARG:N	2.71	0.53
3:D:295:GLU:HA	3:D:295:GLU:OE1	2.09	0.53
3:D:610:ARG:HH12	3:D:840:LEU:HD21	1.74	0.53
3:D:653:ILE:CD1	3:D:693:VAL:HG22	2.39	0.53
5:F:355:ILE:HD12	5:F:355:ILE:H	1.74	0.53
1:G:42:ALA:HA	1:H:38:THR:CG2	2.39	0.53
2:I:1291:LEU:HD23	3:J:345:LYS:HE3	1.90	0.53
3:J:1176:VAL:HG13	3:J:1187:GLU:HG2	1.91	0.53
3:J:209:ASN:HB2	3:J:214:ARG:HD3	1.90	0.53
3:J:261:ALA:HB1	5:L:519:LEU:HD21	1.90	0.53
3:J:572:THR:OG1	3:J:573:THR:N	2.41	0.53
3:J:601:ILE:O	3:J:605:LEU:HD12	2.08	0.53
3:P:1364:ALA:O	3:P:1367:GLN:HG2	2.08	0.53
3:P:19:ALA:O	3:P:20:ILE:HG13	2.08	0.53
2:O:1268:GLN:CG	3:P:352:ARG:HD2	2.39	0.53
5:R:450:ILE:CD1	5:R:504:PRO:HD3	2.39	0.53
6:7:53:DG:C4	6:7:54:DA:C6	2.97	0.53
1:A:19:VAL:CG1	1:A:20:SER:N	2.71	0.53
2:C:1166:ASP:O	2:C:1169:VAL:HB	2.09	0.53
2:C:153:PRO:HB2	2:C:401:GLY:CA	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:676:ALA:HA	2:C:679:ALA:HB3	1.89	0.53
3:D:135:ILE:O	3:D:139:LEU:HG	2.09	0.53
3:D:747:MET:CE	3:D:774:ILE:CG2	2.87	0.53
3:D:822:MET:HE3	3:D:838:ARG:HG2	1.90	0.53
5:F:480:PRO:HG2	5:F:495:ARG:HH21	1.73	0.53
2:I:1172:LEU:O	2:I:1176:LEU:HG	2.09	0.53
2:I:107:ARG:NH2	2:I:484:LEU:HD11	2.24	0.53
3:J:589:TYR:O	3:J:592:VAL:HG13	2.09	0.53
5:L:166:VAL:HG12	5:L:167:ASP:N	2.24	0.53
5:L:130:VAL:CG2	5:L:368:GLY:HA3	2.39	0.53
1:M:232:VAL:CG2	1:N:221:ALA:CB	2.85	0.53
1:M:232:VAL:HG22	1:N:221:ALA:HB3	1.91	0.53
2:O:160:ASP:HB3	2:O:163:LYS:HB2	1.90	0.53
2:O:811:ASN:ND2	2:O:1099:ASN:HA	2.23	0.53
2:O:948:ILE:O	2:O:951:MET:HB2	2.09	0.53
3:P:28:ASP:HA	3:P:31:ARG:HD2	1.91	0.53
3:P:342:LEU:HD22	3:P:1352:ILE:O	2.09	0.53
3:P:515:ARG:HH21	3:P:717:VAL:CG2	2.22	0.53
4:Q:54:ILE:HG12	4:Q:59:ILE:CG2	2.39	0.53
5:R:310:GLU:CB	5:R:355:ILE:HD13	2.36	0.53
6:4:44:DG:C2'	6:4:45:DT:O4'	2.57	0.52
6:4:48:DA:OP1	6:4:48:DA:H4'	2.09	0.52
6:7:49:DG:H5'	6:7:50:DT:OP2	2.09	0.52
1:B:193:GLU:O	1:B:194:GLN:HB2	2.08	0.52
2:C:670:PHE:CE2	2:C:1113:LEU:HB2	2.44	0.52
2:C:94:ALA:HB2	2:C:129:LEU:CD1	2.40	0.52
3:D:1179:PRO:CD	3:D:1184:ASP:O	2.54	0.52
3:D:544:LEU:HD22	3:D:578:ILE:HD12	1.91	0.52
1:G:232:VAL:CG1	1:H:221:ALA:HB3	2.39	0.52
2:I:15:PHE:CD2	2:I:1190:ALA:HB2	2.44	0.52
2:I:689:ALA:CB	2:I:1233:LEU:CD1	2.72	0.52
2:I:808:ASN:HD22	2:I:808:ASN:N	2.07	0.52
3:J:442:ILE:HG13	3:J:443:GLU:O	2.08	0.52
3:J:70:CYS:CB	3:J:90:VAL:HG11	2.39	0.52
4:K:59:ILE:HG23	4:K:64:LEU:HD21	1.89	0.52
1:M:112:ALA:O	1:M:115:ILE:HD13	2.01	0.52
2:O:1246:ARG:NH2	2:O:1258:PRO:HB3	2.24	0.52
2:O:1268:GLN:HG2	3:P:352:ARG:HD2	1.91	0.52
2:O:292:ILE:HB	2:O:322:LEU:HD11	1.91	0.52
2:O:566:GLY:O	2:O:569:ILE:HG22	2.08	0.52
2:O:453:ILE:HG13	2:O:587:LEU:HD21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:511:TYR:HD1	3:P:596:LEU:O	1.91	0.52
2:C:1180:MET:CG	2:C:1181:PRO:HD2	2.35	0.52
2:C:672:GLU:CG	2:C:1187:PHE:HA	2.39	0.52
2:C:155:VAL:HG22	2:C:405:PHE:CD2	2.45	0.52
2:C:17:LYS:HZ2	2:C:1190:ALA:HA	1.72	0.52
2:C:550:VAL:CG2	3:D:780:ARG:HD2	2.40	0.52
3:D:364:HIS:CD2	3:D:364:HIS:H	2.26	0.52
3:D:497:GLU:CB	3:D:498:PRO:HD2	2.33	0.52
2:I:558:VAL:HG13	2:I:559:CYS:O	2.09	0.52
2:I:65:ASN:HA	2:I:105:TYR:HB2	1.91	0.52
3:J:621:ALA:HA	3:J:624:ILE:CD1	2.39	0.52
2:O:205:PRO:O	2:O:208:ILE:HG22	2.10	0.52
2:O:524:ILE:O	2:O:528:ARG:HG2	2.08	0.52
3:P:1155:ILE:CG2	3:P:1156:LEU:H	2.23	0.52
2:O:1288:GLN:HB2	3:P:1356:LEU:HD23	1.89	0.52
3:P:211:GLU:O	3:P:215:LYS:HG3	2.09	0.52
1:A:159:ILE:HA	1:A:162:GLU:HB2	1.91	0.52
1:A:227:GLN:O	1:A:231:PHE:CE2	2.62	0.52
2:C:390:PHE:CD2	2:C:390:PHE:N	2.78	0.52
3:D:141:PHE:HA	3:D:180:MET:HG2	1.92	0.52
3:D:782:GLY:O	3:D:785:ASP:HB2	2.09	0.52
3:D:923:ILE:O	3:D:926:PRO:HD2	2.10	0.52
5:F:426:LYS:HB3	6:1:39:DA:OP2	2.09	0.52
5:F:456:MET:O	5:F:459:THR:OG1	2.24	0.52
1:H:59:VAL:CG2	1:H:144:ILE:HG23	2.39	0.52
3:J:34:SER:CB	3:J:104:HIS:HB3	2.39	0.52
3:J:930:LEU:CB	3:J:1134:ILE:HD11	2.39	0.52
3:J:1200:GLU:CG	3:J:1201:GLY:H	2.19	0.52
3:J:367:GLY:O	3:J:447:ILE:HG22	2.09	0.52
3:J:909:ILE:CG1	3:J:910:ASN:N	2.68	0.52
1:N:189:ALA:HA	1:N:199:ASP:CB	2.40	0.52
2:O:212:ALA:HB1	2:O:363:LEU:HD23	1.91	0.52
2:O:812:PHE:O	2:O:1099:ASN:ND2	2.42	0.52
2:O:898:GLU:OE1	2:O:898:GLU:N	2.41	0.52
3:P:366:CYS:SG	3:P:437:PHE:CB	2.98	0.52
5:R:311:THR:HG22	5:R:345:GLN:HE21	1.74	0.52
3:D:791:ALA:HA	7:2:12:DG:H5'	1.92	0.52
2:C:626:GLU:HG3	2:C:626:GLU:O	2.08	0.52
2:C:616:ILE:HG23	2:C:653:MET:CA	2.39	0.52
1:G:45:ARG:HH12	2:I:1216:ARG:HA	1.74	0.52
1:H:43:LEU:C	1:H:47:LEU:CD1	2.68	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:68:TYR:CE1	1:H:79:LEU:CD2	2.93	0.52
2:I:1184:THR:O	2:I:1184:THR:CG2	2.58	0.52
2:I:1257:GLN:CB	2:I:1258:PRO:HD2	2.37	0.52
3:J:270:ARG:HA	3:J:273:ILE:HD12	1.90	0.52
3:J:268:LEU:HB3	3:J:306:LEU:HD13	1.89	0.52
3:J:645:VAL:O	3:J:645:VAL:HG23	2.09	0.52
3:J:70:CYS:CB	3:J:90:VAL:HG12	2.39	0.52
3:J:826:ILE:HG22	3:J:826:ILE:O	2.09	0.52
3:J:975:ILE:HD12	3:J:997:VAL:HG11	1.92	0.52
5:L:216:LEU:CG	5:L:220:LYS:HE2	2.33	0.52
2:O:801:ARG:O	2:O:1094:VAL:HG12	2.10	0.52
2:O:344:GLY:HA3	2:O:346:TYR:CZ	2.44	0.52
2:O:347:ILE:HD11	2:O:433:ILE:HD11	1.90	0.52
2:O:595:THR:HG22	2:O:596:ASP:OD1	2.10	0.52
2:O:595:THR:HG23	2:O:596:ASP:OD1	2.08	0.52
3:P:26:SER:HB3	3:P:29:MET:HB2	1.91	0.52
3:P:47:ARG:NH1	5:R:496:LYS:HD3	2.25	0.52
5:R:459:THR:O	5:R:463:LEU:CD2	2.57	0.52
1:A:13:LEU:HD11	1:A:16:ILE:HG12	1.90	0.52
2:C:672:GLU:HG2	2:C:1187:PHE:HA	1.91	0.52
2:C:1064:ASP:OD1	2:C:1239:VAL:HG12	2.10	0.52
2:C:857:VAL:HG11	2:C:861:ALA:HB3	1.91	0.52
1:G:125:LYS:HG2	1:G:127:GLN:HG3	1.91	0.52
1:H:59:VAL:HG22	1:H:144:ILE:HG12	1.91	0.52
1:H:186:ASN:O	1:H:201:LEU:CD1	2.57	0.52
1:H:83:LEU:HD13	1:H:86:LYS:HD2	1.92	0.52
2:I:1283:ALA:HB1	3:J:479:GLU:OE2	2.09	0.52
3:J:58:CYS:SG	3:J:60:ARG:HB3	2.50	0.52
2:I:1112:ILE:HG22	3:J:641:ILE:CG1	2.39	0.52
1:N:57:THR:HG23	1:N:158:ARG:CZ	2.39	0.52
2:O:1324:ASN:OD1	2:O:1327:LEU:HD12	2.09	0.52
3:P:30:ILE:HA	3:P:33:TRP:CE3	2.45	0.52
3:P:363:LEU:HA	3:P:450:HIS:CE1	2.45	0.52
3:P:796:LEU:HG	3:P:800:LEU:HD11	1.91	0.52
6:1:48:DA:OP1	6:1:48:DA:H4'	2.10	0.52
5:R:423:ARG:HD3	6:7:37:DA:C2	2.45	0.52
3:D:102:MET:HE3	3:D:246:PRO:HD3	1.92	0.52
1:G:179:PRO:O	1:G:208:ASN:ND2	2.43	0.52
2:I:15:PHE:O	2:I:17:LYS:CE	2.58	0.52
2:I:653:MET:HG2	2:I:654:ASP:N	2.25	0.52
2:I:90:VAL:CG1	2:I:91:THR:N	2.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:796:LEU:O	3:J:800:LEU:HG	2.10	0.52
3:P:273:ILE:HG22	3:P:277:ASN:ND2	2.24	0.52
3:P:653:ILE:HD13	3:P:693:VAL:HG22	1.90	0.52
3:P:826:ILE:HG23	3:P:831:VAL:CG2	2.37	0.52
6:4:49:DG:H3'	6:4:49:DG:C8	2.44	0.52
1:G:224:LEU:HD12	1:G:224:LEU:O	2.10	0.52
2:I:1066:MET:CE	2:I:1232:MET:HB3	2.40	0.52
2:I:763:THR:O	2:I:833:ILE:HD12	2.09	0.52
3:J:1090:ILE:HG23	3:J:1091:PRO:HD2	1.90	0.52
3:J:405:GLU:O	3:J:408:VAL:HB	2.08	0.52
3:J:478:LEU:HD11	4:K:24:ALA:HA	1.92	0.52
3:J:530:PRO:HD2	3:J:531:LYS:HD2	1.92	0.52
5:L:483:LEU:HD23	5:L:494:ILE:HG21	1.91	0.52
1:N:193:GLU:O	1:N:194:GLN:CB	2.57	0.52
3:P:97:VAL:HG11	3:P:101:ARG:NE	2.24	0.52
3:P:1253:ILE:HA	3:P:1256:ILE:HD12	1.91	0.52
2:O:1223:ARG:HD3	3:P:637:ALA:HA	1.90	0.52
1:A:208:ASN:ND2	1:A:208:ASN:N	2.58	0.52
1:A:32:GLU:HG2	1:A:33:ARG:N	2.25	0.52
1:B:230:ALA:HB3	1:B:231:PHE:CE2	2.45	0.52
1:B:38:THR:HB	1:B:39:LEU:HD21	1.86	0.52
2:C:1047:LEU:C	2:C:1048:LYS:HG3	2.30	0.52
2:C:94:ALA:HB2	2:C:129:LEU:HD11	1.92	0.52
2:C:403:MET:CE	2:C:407:ARG:HH22	2.22	0.52
2:I:1019:ASP:O	2:I:1022:LYS:HB3	2.10	0.52
3:J:1224:ARG:HB3	3:J:1228:ALA:HB3	1.91	0.52
5:L:453:PRO:O	5:L:456:MET:HB3	2.10	0.52
2:O:13:LYS:HB3	2:O:1182:ILE:HG12	1.91	0.52
2:O:976:ARG:O	2:O:980:VAL:HG23	2.10	0.52
3:P:1046:ILE:HD12	3:P:1059:LEU:HD13	1.92	0.52
3:P:111:THR:HG23	3:P:112:ALA:H	1.73	0.52
3:P:635:SER:OG	3:P:636:GLY:N	2.42	0.52
6:1:53:DG:C4	6:1:54:DA:C6	2.98	0.52
2:C:850:ILE:HD11	2:C:1048:LYS:CD	2.40	0.52
3:D:322:ARG:HB2	3:D:323:PRO:HD2	1.91	0.52
3:D:702:GLN:HG3	3:D:723:TYR:CZ	2.45	0.52
3:D:812:ASP:N	3:D:812:ASP:OD1	2.43	0.52
3:D:885:VAL:HG13	3:D:894:VAL:HG11	1.91	0.52
4:E:10:VAL:HG22	4:E:19:LEU:HD22	1.92	0.52
4:E:82:ALA:O	4:E:86:ILE:HG13	2.09	0.52
5:F:488:LEU:O	5:F:488:LEU:HG	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1147:ARG:NH2	2:I:1201:LEU:HD21	2.25	0.52
2:I:753:LEU:HD11	2:I:769:PRO:HG3	1.90	0.52
2:I:805:MET:O	2:I:811:ASN:ND2	2.43	0.52
2:I:964:LEU:HD13	2:I:1025:PHE:HB2	1.91	0.52
3:J:1326:GLN:NE2	7:5:10:DC:H4'	2.25	0.52
3:J:116:PHE:CE1	3:J:1333:THR:HG22	2.44	0.52
3:J:379:PRO:HG2	3:J:380:PHE:N	2.24	0.52
2:O:202:ARG:H	2:O:369:MET:CE	2.22	0.52
3:P:22:ILE:CD1	3:P:1319:PHE:CE1	2.76	0.52
3:P:433:GLY:O	3:P:457:TYR:HE1	1.92	0.52
3:P:826:ILE:HG12	3:P:831:VAL:HG22	1.92	0.52
7:5:31:DT:H2"	7:5:32:DA:OP2	2.10	0.52
7:5:45:DG:C2	7:5:46:DT:C2	2.98	0.52
1:A:105:SER:HA	1:A:139:SER:HB2	1.91	0.52
2:C:1176:LEU:HD23	2:C:1176:LEU:N	2.24	0.52
2:C:448:LEU:HD12	2:C:553:THR:O	2.10	0.52
3:D:113:HIS:HB3	3:D:116:PHE:CD2	2.45	0.52
3:D:363:LEU:CD2	3:D:487:THR:HG22	2.40	0.52
3:D:546:ALA:O	3:D:548:VAL:CG2	2.58	0.52
1:G:125:LYS:HG2	1:G:127:GLN:CG	2.40	0.52
2:I:1276:TRP:HB3	3:J:921:GLN:NE2	2.25	0.52
2:I:194:LEU:HD12	2:I:195:PHE:N	2.25	0.52
2:I:699:LEU:HG	2:I:799:ASN:OD1	2.09	0.52
2:I:893:THR:HG22	2:I:895:LEU:HG	1.92	0.52
2:I:898:GLU:CB	5:L:540:LEU:HD21	2.40	0.52
3:J:1226:VAL:O	3:J:1229:VAL:HG12	2.10	0.52
3:J:1248:ILE:HG22	3:J:1249:ASN:O	2.10	0.52
3:J:34:SER:HG	3:J:104:HIS:CG	2.16	0.52
3:J:424:ASN:C	3:J:466:MET:HE3	2.30	0.52
3:J:803:VAL:CG1	3:J:1259:GLN:HB3	2.39	0.52
3:J:826:ILE:HG23	3:J:830:ASP:C	2.30	0.52
2:O:800:MET:CB	2:O:1096:ILE:HD12	2.40	0.52
4:Q:50:ALA:HA	4:Q:53:GLU:OE1	2.10	0.52
5:R:302:PHE:HE1	5:R:315:TRP:CZ3	2.28	0.52
3:P:264:ASP:OD2	5:R:508:GLU:HG3	2.10	0.52
1:B:167:PRO:HD2	1:B:170:ARG:HB2	1.93	0.51
2:C:1124:ILE:O	2:C:1128:ILE:HD12	2.10	0.51
2:C:1141:LEU:O	2:C:1145:ILE:CD1	2.58	0.51
2:C:106:GLU:HG2	2:C:115:LYS:HD2	1.92	0.51
2:C:153:PRO:HA	2:C:177:ILE:O	2.10	0.51
2:C:839:VAL:HG23	2:C:886:LYS:NZ	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1251:LYS:O	3:D:1255:VAL:HG23	2.10	0.51
3:D:1357:ILE:HG23	3:D:1358:PRO:HD2	1.92	0.51
3:J:591:ILE:HG22	3:J:592:VAL:N	2.25	0.51
5:L:139:GLU:O	5:L:143:TYR:HD1	1.92	0.51
1:M:179:PRO:CA	1:M:208:ASN:ND2	2.73	0.51
2:O:698:PRO:HG3	2:O:1231:TYR:CE2	2.45	0.51
2:O:718:ALA:HB2	2:O:783:LEU:HD21	1.90	0.51
3:P:1311:LYS:HZ1	6:7:56:DG:H5"	1.73	0.51
3:P:879:ALA:C	3:P:880:VAL:HG22	2.31	0.51
1:B:166:ARG:HB2	1:B:166:ARG:CZ	2.38	0.51
1:B:88:LEU:HD22	1:B:128:HIS:HD2	1.71	0.51
2:C:149:LEU:HD13	2:C:453:ILE:CD1	2.40	0.51
3:D:965:SER:O	3:D:966:VAL:HB	2.10	0.51
5:F:573:LEU:N	7:2:45:DG:OP2	2.43	0.51
1:H:217:ILE:H	1:H:217:ILE:CD1	2.21	0.51
2:I:1119:MET:HE1	2:I:1208:GLY:O	2.11	0.51
2:I:699:LEU:HD11	2:I:799:ASN:CG	2.30	0.51
3:J:156:ARG:HH22	3:J:192:MET:HA	1.74	0.51
2:I:804:PHE:O	3:J:638:SER:CB	2.58	0.51
2:O:1120:ALA:HB2	2:O:1199:LEU:HD23	1.91	0.51
2:O:303:ASP:HB2	2:O:310:ILE:HG13	1.91	0.51
3:P:1162:ILE:CG1	3:P:1180:VAL:CG1	2.84	0.51
3:P:185:ILE:HG23	3:P:189:LEU:HD11	1.92	0.51
3:P:736:GLN:O	3:P:740:LEU:HG	2.09	0.51
5:R:130:VAL:HG13	5:R:365:MET:CG	2.40	0.51
5:R:260:ARG:HH12	5:R:422:ARG:HH22	1.57	0.51
6:7:55:DC:H2"	6:7:56:DG:C8	2.45	0.51
1:B:111:THR:OG1	1:B:126:PRO:O	2.28	0.51
1:B:142:MET:HG2	1:B:143:ARG:N	2.26	0.51
2:C:1010:GLN:HA	2:C:1013:GLN:HG3	1.92	0.51
2:C:452:ARG:NH1	2:C:454:ARG:CG	2.73	0.51
3:D:458:ASN:ND2	8:3:17:C:O2'	2.42	0.51
5:F:105:MET:SD	5:F:385:ARG:HG2	2.50	0.51
5:F:395:THR:HA	5:F:404:LEU:HD13	1.92	0.51
2:I:1116:HIS:CD2	3:J:641:ILE:HG13	2.45	0.51
2:I:280:ASP:O	2:I:281:ASP:HB2	2.09	0.51
3:J:382:TYR:HB3	3:J:394:ILE:HG23	1.90	0.51
3:J:864:LEU:HD22	3:J:869:CYS:SG	2.50	0.51
1:N:32:GLU:HG2	1:N:33:ARG:H	1.76	0.51
2:O:655:VAL:HB	2:O:659:GLN:OE1	2.11	0.51
2:O:871:VAL:HG11	2:O:928:VAL:HG21	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1227:HIS:O	3:P:1231:ARG:HB2	2.10	0.51
3:P:1297:LYS:HD3	3:P:1297:LYS:N	2.24	0.51
3:P:844:THR:HG23	3:P:862:THR:O	2.10	0.51
2:C:757:THR:CG2	2:C:758:ARG:N	2.73	0.51
3:D:807:LEU:HD11	3:D:1259:GLN:HE21	1.75	0.51
3:D:551:ARG:O	3:D:552:ILE:HD13	2.11	0.51
5:F:506:SER:CB	5:F:509:THR:OG1	2.54	0.51
1:G:208:ASN:O	1:G:210:THR:N	2.36	0.51
1:G:66:HIS:CE1	1:G:69:SER:HB3	2.45	0.51
2:I:796:LEU:HB3	2:I:1233:LEU:HD11	1.93	0.51
2:I:1330:ILE:O	2:I:1333:LEU:HB2	2.09	0.51
3:J:1249:ASN:HB3	3:J:1251:LYS:HG2	1.91	0.51
3:J:1145:PHE:HZ	3:J:1253:ILE:HG23	1.76	0.51
3:J:1253:ILE:O	3:J:1257:VAL:HG23	2.10	0.51
3:J:373:ALA:CA	3:J:376:LEU:CD1	2.74	0.51
3:J:583:VAL:HG12	3:J:583:VAL:O	2.11	0.51
3:J:872:LEU:O	3:J:872:LEU:HD23	2.10	0.51
2:O:1307:ASN:HB3	2:O:1312:ASN:CB	2.40	0.51
2:O:1326:LEU:CD1	2:O:1330:ILE:HD11	2.40	0.51
3:P:280:LYS:HA	3:P:283:LEU:HD12	1.93	0.51
3:P:517:CYS:CB	3:P:545:HIS:HB2	2.40	0.51
3:P:786:THR:CG2	3:P:787:ALA:N	2.73	0.51
3:P:931:THR:O	3:P:935:PHE:HD2	1.93	0.51
6:1:34:DG:N2	7:2:29:DC:O2	2.43	0.51
3:D:138:VAL:HG11	3:D:185:ILE:HD11	1.90	0.51
3:D:363:LEU:CD1	3:D:363:LEU:O	2.53	0.51
5:F:299:LYS:O	5:F:302:PHE:HB3	2.11	0.51
2:I:1293:VAL:O	2:I:1301:ARG:HB3	2.10	0.51
2:I:589:THR:CG2	2:I:590:PRO:HD2	2.40	0.51
2:I:695:ALA:HB1	2:I:795:ALA:HB3	1.93	0.51
2:I:794:LEU:HG	2:I:796:LEU:HG	1.91	0.51
2:I:82:VAL:HG23	2:I:83:GLN:N	2.25	0.51
3:J:899:TYR:CG	3:J:915:ILE:HD13	2.45	0.51
1:M:9:LEU:CD2	1:M:198:LEU:HD21	2.18	0.51
2:O:678:ARG:HG3	2:O:1106:ARG:O	2.10	0.51
2:O:1108:ASN:OD1	2:O:1108:ASN:N	2.44	0.51
2:O:359:ARG:HE	2:O:363:LEU:HD11	1.74	0.51
2:O:616:ILE:HG12	2:O:652:TYR:HB2	1.93	0.51
3:P:955:LYS:HG2	3:P:956:GLY:N	2.25	0.51
5:R:344:LEU:O	5:R:347:ILE:HB	2.11	0.51
5:R:376:LYS:O	5:R:380:VAL:HG23	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:426:LYS:HG2	6:7:39:DA:H3'	1.93	0.51
5:L:102:MET:HB3	6:4:42:DG:C2	2.45	0.51
1:A:88:LEU:HD21	1:A:112:ALA:HB2	1.92	0.51
1:A:58:GLU:HG2	1:A:172:LEU:CD1	2.40	0.51
1:A:77:ASP:OD2	2:C:756:TYR:OH	2.22	0.51
1:B:44:ARG:HA	1:B:183:ILE:HD11	1.90	0.51
1:B:82:LEU:HB3	1:B:83:LEU:HD22	1.93	0.51
1:H:192:VAL:HG12	1:H:198:LEU:HD22	1.86	0.51
2:I:183:TRP:HE3	2:I:199:ASP:OD1	1.94	0.51
3:J:522:GLY:HA3	3:J:525:MET:SD	2.50	0.51
3:J:826:ILE:HG12	3:J:831:VAL:HA	1.93	0.51
5:L:476:ARG:HG3	5:L:477:GLU:N	2.25	0.51
1:N:39:LEU:O	1:N:43:LEU:HD12	2.10	0.51
2:O:1212:LEU:HD11	2:O:1225:VAL:HB	1.93	0.51
2:O:468:LEU:O	2:O:471:VAL:HB	2.10	0.51
2:O:482:GLY:HA3	2:O:487:LEU:HD12	1.92	0.51
2:O:598:VAL:HG13	2:O:627:GLY:HA2	1.93	0.51
2:O:755:LYS:HD3	2:O:767:GLN:O	2.11	0.51
2:O:812:PHE:CE2	2:O:813:GLU:HG3	2.45	0.51
2:O:758:ARG:HD2	2:O:835:GLU:HB2	1.91	0.51
3:P:139:LEU:CG	3:P:185:ILE:HD12	2.40	0.51
3:P:341:ASN:O	3:P:345:LYS:HE2	2.09	0.51
3:P:36:GLY:HA3	3:P:61:ILE:HG12	1.92	0.51
2:O:1309:VAL:HA	3:P:383:GLY:HA3	1.93	0.51
2:C:1305:TYR:O	2:C:1309:VAL:HG23	2.11	0.51
2:C:303:ASP:HB2	2:C:310:ILE:HG13	1.92	0.51
2:C:403:MET:HE1	2:C:586:PHE:HE2	1.75	0.51
2:C:1283:ALA:HB1	3:D:479:GLU:CD	2.31	0.51
3:D:703:THR:HG21	3:D:715:LYS:HE3	1.93	0.51
1:G:228:LEU:HA	1:G:231:PHE:HE2	1.67	0.51
2:I:1120:ALA:O	2:I:1124:ILE:HG13	2.11	0.51
2:I:1234:LYS:C	2:I:1235:LEU:HD23	2.31	0.51
2:I:794:LEU:HD12	2:I:795:ALA:N	2.25	0.51
2:I:808:ASN:CA	3:J:629:PHE:HB3	2.41	0.51
2:I:976:ARG:O	2:I:980:VAL:HB	2.10	0.51
3:J:121:PRO:O	3:J:122:SER:CB	2.58	0.51
3:J:358:GLY:HA3	3:J:361:LEU:HD12	1.91	0.51
3:J:422:LEU:HD21	3:J:484:MET:HE2	1.92	0.51
3:J:749:LYS:CB	3:J:750:PRO:CD	2.64	0.51
4:K:52:ARG:O	4:K:55:GLU:HB3	2.10	0.51
5:L:123:ILE:HG21	5:L:376:LYS:HE3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:90:VAL:HG12	2:O:91:THR:H	1.75	0.51
3:P:1251:LYS:O	3:P:1254:GLU:HB2	2.11	0.51
3:P:549:LYS:HB3	3:P:569:LEU:HD22	1.93	0.51
5:R:452:ILE:HG22	5:R:457:ILE:HG12	1.93	0.51
6:1:48:DA:C2'	6:1:49:DG:C8	2.94	0.51
1:A:51:MET:SD	1:A:52:PRO:HD2	2.50	0.51
1:B:83:LEU:HD13	1:B:86:LYS:CE	2.41	0.51
2:C:92:TYR:CB	2:C:137:VAL:HB	2.41	0.51
2:C:295:LYS:HB2	2:C:317:LEU:HD12	1.93	0.51
2:C:631:GLU:O	2:C:634:VAL:HG22	2.10	0.51
2:C:7:GLU:O	2:C:11:ILE:HG12	2.11	0.51
3:D:1179:PRO:HB2	3:D:1182:GLY:O	2.10	0.51
3:D:1253:ILE:HA	3:D:1256:ILE:CD1	2.40	0.51
3:D:1270:GLY:H	3:D:1274:PHE:HD2	1.59	0.51
1:H:185:TYR:HB2	1:H:201:LEU:HD11	1.91	0.51
2:I:13:LYS:NZ	2:I:1148:ALA:O	2.39	0.51
2:I:1302:THR:HG23	2:I:1303:LYS:N	2.26	0.51
2:I:524:ILE:O	2:I:528:ARG:HG2	2.11	0.51
3:J:838:ARG:NE	3:J:1250:ASP:OD2	2.42	0.51
3:J:485:MET:HG3	3:J:487:THR:H	1.75	0.51
1:M:11:PRO:HG2	1:N:231:PHE:CE2	2.45	0.51
1:M:47:LEU:CA	1:M:51:MET:HG2	2.39	0.51
2:O:810:TYR:HE2	2:O:1078:LYS:HD2	1.75	0.51
1:M:184:ALA:HB2	2:O:1091:GLY:CA	2.40	0.51
2:O:123:TYR:CZ	2:O:125:GLY:HA2	2.45	0.51
2:O:202:ARG:H	2:O:369:MET:HE1	1.76	0.51
2:O:758:ARG:HB2	2:O:833:ILE:HG21	1.92	0.51
3:P:1320:ILE:HD12	3:P:1342:ASP:CG	2.31	0.51
3:P:139:LEU:HD11	3:P:185:ILE:HD13	1.85	0.51
5:R:218:ARG:HB2	5:R:218:ARG:NH1	2.26	0.51
5:R:363:ARG:O	5:R:367:ILE:HG13	2.11	0.51
1:A:39:LEU:C	1:A:43:LEU:HD12	2.31	0.51
2:C:796:LEU:HB3	2:C:1233:LEU:HD11	1.93	0.51
2:C:292:ILE:CG2	2:C:317:LEU:HD13	2.40	0.51
3:D:442:ILE:CD1	3:D:443:GLU:O	2.59	0.51
3:D:508:LEU:HD12	3:D:508:LEU:O	2.11	0.51
3:D:530:PRO:O	3:D:533:ALA:HB3	2.09	0.51
1:H:68:TYR:CE1	1:H:79:LEU:HD22	2.46	0.51
2:I:1117:LEU:HD11	2:I:1182:ILE:CD1	2.40	0.51
2:I:1132:LEU:HD13	2:I:1174:GLU:HG2	1.93	0.51
2:I:96:LEU:HD22	2:I:127:ILE:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:316:GLU:HG2	2:I:352:ARG:HH22	1.76	0.51
3:J:1306:LEU:HD12	3:J:1307:LEU:N	2.26	0.51
3:J:343:LEU:HD21	3:J:1348:LYS:HD3	1.93	0.51
2:I:898:GLU:HB3	5:L:540:LEU:HD21	1.93	0.51
1:N:167:PRO:HG2	1:N:170:ARG:HH11	1.75	0.51
2:O:678:ARG:CG	2:O:1106:ARG:O	2.59	0.51
2:O:392:GLU:HG2	2:O:419:ILE:HD13	1.93	0.51
2:O:678:ARG:HG3	2:O:1108:ASN:ND2	2.26	0.51
3:P:38:VAL:HG11	3:P:56:LEU:CD2	2.41	0.51
3:P:525:MET:O	3:P:548:VAL:HG13	2.11	0.51
3:P:843:VAL:CG2	3:P:897:HIS:O	2.59	0.51
5:R:330:LEU:O	5:R:330:LEU:HD23	2.10	0.51
2:C:155:VAL:HG23	2:C:405:PHE:HA	1.93	0.51
2:C:225:PHE:HE2	2:C:347:ILE:HB	1.76	0.51
3:D:264:ASP:O	3:D:268:LEU:HG	2.11	0.51
3:D:614:LEU:HD12	3:D:614:LEU:O	2.10	0.51
3:J:132:LEU:HA	3:J:135:ILE:HD12	1.93	0.51
3:J:275:ARG:CZ	3:J:301:GLU:OE1	2.59	0.51
2:I:844:LYS:NZ	3:J:47:ARG:HD3	2.25	0.51
3:J:826:ILE:HG12	3:J:831:VAL:HG13	1.93	0.51
5:L:132:CYS:SG	5:L:257:LYS:CE	2.97	0.51
5:L:170:ALA:HA	5:L:259:PHE:HD1	1.75	0.51
1:N:189:ALA:HA	1:N:199:ASP:HB2	1.92	0.51
2:O:946:LEU:HD13	2:O:946:LEU:O	2.11	0.51
3:P:68:TYR:CD1	3:P:93:THR:HA	2.46	0.51
6:1:53:DG:C5	6:1:54:DA:N6	2.79	0.50
1:A:11:PRO:HD3	1:B:227:GLN:OE1	2.11	0.50
1:B:39:LEU:N	1:B:39:LEU:CD2	2.44	0.50
3:D:45:ASN:HB3	3:D:48:THR:O	2.10	0.50
3:D:514:THR:CG2	3:D:596:LEU:HG	2.29	0.50
3:D:58:CYS:SG	3:D:60:ARG:HB3	2.51	0.50
3:D:641:ILE:HA	3:D:644:MET:SD	2.50	0.50
3:D:814:CYS:HB3	3:D:890:THR:OG1	2.12	0.50
5:F:315:TRP:HZ2	5:F:341:LEU:HD11	1.75	0.50
5:F:575:GLU:HA	5:F:578:LYS:CD	2.41	0.50
2:I:1109:ILE:HG23	2:I:1112:ILE:HD12	1.93	0.50
2:I:1166:ASP:O	2:I:1169:VAL:HB	2.11	0.50
2:I:296:VAL:HG22	2:I:316:GLU:HA	1.92	0.50
2:I:148:GLN:HB3	2:I:454:ARG:HB2	1.93	0.50
3:J:1036:ARG:CZ	3:J:1081:VAL:HG11	2.41	0.50
3:J:549:LYS:HE2	3:J:571:ASP:OD2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:26:ARG:HH22	4:K:35:LYS:HB2	1.75	0.50
5:L:295:CYS:O	5:L:296:LYS:CE	2.50	0.50
1:M:11:PRO:O	1:N:231:PHE:CZ	2.64	0.50
2:O:1289:GLU:HA	2:O:1293:VAL:HG22	1.93	0.50
2:O:533:LEU:HD23	2:O:538:LEU:O	2.11	0.50
3:P:1268:ASN:O	3:P:1300:ALA:CB	2.58	0.50
3:P:252:LEU:HD12	3:P:261:ALA:O	2.12	0.50
3:P:490:ILE:CD1	3:P:490:ILE:H	2.17	0.50
6:7:50:DT:O3'	6:7:51:DC:O4'	2.29	0.50
2:C:1287:LEU:HG	2:C:1288:GLN:N	2.19	0.50
3:D:1173:ARG:HB2	3:D:1190:ILE:HB	1.93	0.50
3:D:41:PRO:HB2	3:D:270:ARG:HG2	1.93	0.50
2:I:481:LEU:HG	2:I:482:GLY:N	2.27	0.50
3:J:368:LEU:HD12	3:J:369:PRO:HD2	1.93	0.50
3:J:370:LYS:HG3	3:J:443:GLU:HA	1.93	0.50
3:J:395:LYS:O	3:J:398:LYS:HB2	2.10	0.50
2:I:1302:THR:HA	5:L:531:PRO:HG3	1.92	0.50
1:M:81:ILE:HD13	1:M:131:CYS:HB2	1.93	0.50
1:M:162:GLU:HG2	1:M:162:GLU:O	2.11	0.50
2:O:1298:VAL:HG12	2:O:1299:ASN:N	2.26	0.50
3:P:58:CYS:HG	3:P:60:ARG:HB3	1.74	0.50
1:A:234:LEU:CD2	1:B:12:ARG:HH12	2.21	0.50
2:C:12:ARG:HG3	2:C:1181:PRO:O	2.11	0.50
2:C:296:VAL:HG13	2:C:315:MET:O	2.11	0.50
2:C:866:ASP:OD1	2:C:867:GLU:HG3	2.11	0.50
3:D:1078:LEU:HD13	3:D:1121:LEU:HD22	1.93	0.50
3:D:1233:ILE:O	3:D:1237:VAL:CG2	2.53	0.50
3:D:190:LYS:HG3	3:D:190:LYS:O	2.11	0.50
3:D:250:ARG:HB2	3:D:266:ASN:OD1	2.12	0.50
3:D:347:VAL:HG11	3:D:469:HIS:CE1	2.47	0.50
3:D:496:GLY:HA2	3:D:903:LEU:HD22	1.91	0.50
5:F:266:PHE:O	5:F:270:VAL:HG23	2.12	0.50
2:I:68:LEU:HD22	2:I:492:MET:CE	2.41	0.50
3:J:885:VAL:O	3:J:1258:ARG:HD2	2.11	0.50
3:J:519:ASN:OD1	3:J:520:ALA:N	2.40	0.50
3:J:68:TYR:CD2	3:J:78:LEU:HD22	2.47	0.50
3:J:975:ILE:CD1	3:J:980:THR:HG21	2.39	0.50
5:L:598:LEU:O	5:L:604:SER:OG	2.30	0.50
2:O:886:LYS:HD2	2:O:916:SER:CB	2.41	0.50
3:P:249:LEU:C	3:P:251:PRO:HD3	2.32	0.50
3:P:968:ASN:HA	3:P:1117:SER:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:460:ILE:HA	5:R:463:LEU:CD1	2.42	0.50
1:B:61:ILE:HG23	1:B:142:MET:HB3	1.93	0.50
1:B:9:LEU:HD12	1:B:10:LYS:N	2.26	0.50
2:C:1010:GLN:O	2:C:1013:GLN:HB2	2.11	0.50
2:C:1247:SER:OG	2:C:1248:THR:N	2.44	0.50
2:C:188:PHE:CE2	2:C:432:LEU:CD1	2.89	0.50
3:D:830:ASP:OD1	3:D:831:VAL:N	2.44	0.50
5:F:518:HIS:O	5:F:520:GLY:N	2.44	0.50
1:H:174:ASP:N	1:H:174:ASP:OD1	2.40	0.50
2:I:1064:ASP:OD1	2:I:1239:VAL:N	2.40	0.50
2:I:1312:ASN:ND2	4:K:32:VAL:HG21	2.26	0.50
2:I:1323:PHE:HE1	2:I:1327:LEU:HD21	1.76	0.50
1:N:31:LEU:HD13	1:N:39:LEU:HD12	1.90	0.50
2:O:9:LYS:HE2	2:O:1171:ARG:CD	2.41	0.50
3:P:275:ARG:NH1	3:P:298:MET:O	2.44	0.50
1:A:58:GLU:HG2	1:A:172:LEU:HD13	1.93	0.50
1:B:155:ALA:HB1	1:B:172:LEU:HD21	1.92	0.50
1:B:67:GLU:CA	1:B:78:ILE:HG21	2.40	0.50
2:C:1042:LEU:HD13	2:C:1049:ILE:CD1	2.42	0.50
2:C:106:GLU:OE2	2:C:115:LYS:HD2	2.12	0.50
2:C:559:CYS:HB2	2:C:662:SER:HB3	1.90	0.50
2:C:92:TYR:H	2:C:137:VAL:HB	1.77	0.50
3:D:1353:VAL:CG2	3:D:1355:ARG:HG3	2.40	0.50
3:D:422:LEU:HD23	3:D:436:ALA:HA	1.94	0.50
5:F:511:ILE:HD11	5:F:519:LEU:HD13	1.87	0.50
1:H:40:GLY:HA2	1:H:43:LEU:CD1	2.42	0.50
2:I:1269:ARG:NH2	7:5:14:DC:OP1	2.44	0.50
2:I:309:LEU:HD13	2:I:312:ALA:HB2	1.94	0.50
3:J:139:LEU:HD23	3:J:181:GLY:C	2.32	0.50
3:J:371:LYS:O	3:J:374:LEU:HB3	2.12	0.50
3:J:421:VAL:HG13	3:J:471:PRO:HD2	1.93	0.50
3:J:43:THR:OG1	3:J:44:ILE:N	2.45	0.50
3:J:490:ILE:HA	3:J:500:ILE:HD12	1.92	0.50
5:L:476:ARG:HG3	5:L:477:GLU:H	1.77	0.50
2:O:1031:ALA:O	2:O:1035:LYS:HG3	2.11	0.50
2:O:693:LEU:CB	2:O:831:ILE:HD11	2.36	0.50
2:O:950:GLU:C	2:O:950:GLU:CD	2.70	0.50
2:O:99:LYS:HG3	2:O:121:GLU:HG3	1.94	0.50
3:P:154:LEU:HD13	3:P:158:GLN:HG2	1.93	0.50
3:P:147:ILE:HD11	3:P:179:LYS:HD2	1.94	0.50
3:P:548:VAL:CG1	3:P:549:LYS:N	2.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:864:LEU:HD22	3:P:868:TRP:HB2	1.93	0.50
5:R:146:GLU:OE2	5:R:150:ARG:NH2	2.44	0.50
2:C:1065:LYS:HZ2	8:3:15:G:H4'	1.74	0.50
2:C:1108:ASN:N	2:C:1108:ASN:OD1	2.45	0.50
2:C:85:CYS:SG	2:C:90:VAL:HB	2.52	0.50
3:D:140:TYR:O	3:D:141:PHE:HB2	2.12	0.50
3:D:475:GLU:H	3:D:475:GLU:CD	2.08	0.50
2:C:809:GLY:HA3	3:D:629:PHE:CD1	2.46	0.50
1:G:145:LYS:HZ1	1:G:170:ARG:HH21	1.60	0.50
1:H:70:THR:HG23	1:H:70:THR:O	2.11	0.50
2:I:240:GLU:HG3	2:I:284:LEU:HD23	1.93	0.50
3:J:843:VAL:HG21	3:J:897:HIS:C	2.26	0.50
3:J:966:VAL:HG21	3:J:1030:GLU:HA	1.93	0.50
4:K:26:ARG:O	4:K:30:MET:HG3	2.12	0.50
2:I:1044:PRO:HB3	5:L:498:LEU:HD22	1.94	0.50
2:O:67:GLU:CD	2:O:105:TYR:HH	2.15	0.50
2:O:209:ILE:CG2	2:O:210:LEU:H	2.25	0.50
2:O:213:LEU:O	2:O:214:ASN:CB	2.60	0.50
2:O:435:ILE:HA	2:O:440:GLY:H	1.77	0.50
2:O:706:ARG:O	2:O:710:VAL:HG23	2.12	0.50
3:P:1328:THR:O	3:P:1332:LEU:CD2	2.59	0.50
5:R:587:ILE:H	5:R:587:ILE:CD1	2.14	0.50
6:1:55:DC:H2"	6:1:56:DG:C8	2.47	0.50
2:C:459:MET:HB3	2:C:505:PHE:HZ	1.76	0.50
2:C:726:TYR:HB3	2:C:733:VAL:CG2	2.39	0.50
3:D:1175:LEU:HD22	3:D:1190:ILE:HD11	1.93	0.50
3:D:43:THR:OG1	3:D:44:ILE:HG13	2.12	0.50
1:H:92:VAL:HG22	1:H:121:VAL:HG13	1.94	0.50
3:J:357:VAL:HG22	3:J:461:PHE:CE2	2.46	0.50
3:J:872:LEU:HD23	3:J:872:LEU:C	2.29	0.50
5:L:544:THR:O	5:L:548:LEU:HG	2.11	0.50
1:M:44:ARG:HA	1:M:183:ILE:HD13	1.94	0.50
2:O:1103:VAL:HB	2:O:1104:PRO:HD3	1.93	0.50
3:P:38:VAL:HG11	3:P:56:LEU:HD23	1.92	0.50
3:P:646:ILE:HG13	3:P:764:ARG:NH1	2.26	0.50
5:R:426:LYS:HG3	5:R:427:PHE:N	2.27	0.50
5:R:386:LEU:CD1	6:7:41:DT:O4'	2.59	0.50
1:A:38:THR:CG2	1:B:42:ALA:CB	2.90	0.50
1:A:45:ARG:HD2	1:B:38:THR:HA	1.94	0.50
3:D:355:ILE:HG13	3:D:355:ILE:O	2.10	0.50
3:D:720:ASN:O	3:D:724:MET:CG	2.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:58:GLU:HB2	1:G:145:LYS:HB2	1.91	0.50
2:I:429:MET:O	2:I:433:ILE:HG13	2.12	0.50
2:O:1109:ILE:HA	2:O:1112:ILE:CD1	2.41	0.50
2:O:671:LEU:HB2	2:O:1186:VAL:HG13	1.93	0.50
2:O:1269:ARG:HH12	3:P:340:GLN:HG3	1.76	0.50
2:O:390:PHE:CD2	2:O:390:PHE:N	2.80	0.50
2:O:575:LEU:CD1	2:O:579:ALA:HB3	2.39	0.50
2:O:520:PRO:HB2	2:O:794:LEU:HD11	1.94	0.50
3:P:423:LEU:HG	3:P:437:PHE:CD1	2.47	0.50
3:P:610:ARG:NH2	3:P:901:ARG:NH1	2.60	0.50
6:1:30:DG:H2"	6:1:31:DT:OP2	2.11	0.50
2:C:164:THR:O	2:C:165:HIS:CB	2.56	0.50
2:C:715:THR:HG22	2:C:785:ASP:HA	1.93	0.50
5:F:323:ASN:O	5:F:324:LYS:HB2	2.10	0.50
3:J:1038:THR:O	3:J:1040:MET:HG3	2.11	0.50
3:J:1287:ILE:CG2	3:J:1288:ALA:N	2.75	0.50
3:J:1318:SER:HA	3:J:1342:ASP:OD2	2.11	0.50
3:J:373:ALA:O	3:J:376:LEU:HB2	2.12	0.50
3:J:622:ASP:HA	3:J:625:MET:HE2	1.93	0.50
3:J:849:LEU:HD12	3:J:851:PRO:HD3	1.94	0.50
2:O:1253:LEU:HG	2:O:1253:LEU:O	2.10	0.50
2:O:346:TYR:O	2:O:350:THR:OG1	2.26	0.50
2:O:668:ILE:HG21	2:O:671:LEU:HD13	1.94	0.50
3:P:113:HIS:NE2	3:P:115:TRP:HB2	2.27	0.50
3:P:1263:LYS:HD3	3:P:1281:GLU:HA	1.93	0.50
2:O:1269:ARG:HA	3:P:346:ARG:HA	1.94	0.50
3:P:44:ILE:HD11	5:R:450:ILE:HG22	1.92	0.50
2:O:806:PRO:HG2	3:P:632:ALA:O	2.12	0.50
5:R:563:PHE:HB3	5:R:565:ILE:CD1	2.42	0.50
6:4:33:DT:H2"	6:4:34:DG:OP2	2.12	0.49
1:A:86:LYS:HE2	1:A:173:VAL:HG13	1.93	0.49
1:A:182:ARG:HD3	2:C:1092:THR:CG2	2.36	0.49
1:B:81:ILE:HG23	1:B:130:ILE:O	2.12	0.49
2:C:936:ARG:CZ	2:C:1046:VAL:O	2.59	0.49
2:C:230:PHE:HD2	2:C:335:THR:HB	1.76	0.49
3:D:1177:ILE:HG13	3:D:1186:TYR:O	2.12	0.49
3:D:146:VAL:CB	3:D:158:GLN:HB3	2.40	0.49
3:D:255:LEU:HD12	3:D:259:ARG:HB2	1.94	0.49
3:D:382:TYR:HD1	3:D:397:ALA:HB3	1.76	0.49
3:D:714:GLU:O	3:D:715:LYS:CB	2.58	0.49
3:D:744:ARG:HB3	3:D:759:ILE:CG2	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:105:MET:HE3	5:F:106:GLY:HA2	1.94	0.49
5:F:395:THR:CG2	5:F:404:LEU:HD13	2.41	0.49
1:G:118:ASP:HB3	1:G:121:VAL:CG2	2.42	0.49
1:G:208:ASN:HD22	1:G:208:ASN:N	2.07	0.49
1:G:47:LEU:CD1	1:G:183:ILE:HD13	2.37	0.49
2:I:1061:GLN:NE2	2:I:1240:ASP:OD1	2.45	0.49
2:I:85:CYS:HB3	2:I:137:VAL:HG11	1.93	0.49
2:I:298:ALA:HB2	2:I:336:LEU:HD21	1.93	0.49
2:I:49:LEU:HD13	2:I:73:TYR:CE1	2.47	0.49
2:I:816:ILE:HD11	2:I:1074:GLY:HA3	1.94	0.49
3:J:1146:GLU:OE2	3:J:1309:ILE:HB	2.12	0.49
3:J:118:LYS:HE3	3:J:312:ARG:HA	1.94	0.49
3:J:497:GLU:CB	3:J:498:PRO:HD2	2.40	0.49
3:J:706:VAL:HG12	3:J:706:VAL:O	2.11	0.49
1:N:101:THR:HG22	1:N:143:ARG:CG	2.16	0.49
2:O:618:GLN:HE21	2:O:635:THR:HG21	1.75	0.49
3:P:1021:ASP:OD1	3:P:1022:PRO:HD2	2.12	0.49
3:P:812:ASP:O	3:P:897:HIS:ND1	2.37	0.49
5:R:260:ARG:NH1	5:R:422:ARG:HH22	2.10	0.49
6:7:48:DA:OP1	6:7:48:DA:H4'	2.11	0.49
1:A:29:GLU:HB2	1:A:30:PRO:HA	1.93	0.49
1:A:13:LEU:N	1:B:231:PHE:HE1	2.10	0.49
2:C:1134:GLN:HB3	2:C:1136:GLN:HE21	1.76	0.49
2:C:1212:LEU:O	2:C:1221:PHE:CD2	2.65	0.49
3:D:1027:VAL:HG21	3:D:1124:ILE:HD11	1.93	0.49
3:D:696:ALA:O	3:D:700:ASN:HB2	2.12	0.49
3:J:972:LYS:HD3	3:J:1002:VAL:CG1	2.43	0.49
3:J:1257:VAL:CA	3:J:1260:MET:CE	2.60	0.49
3:J:193:ASP:OD2	3:J:196:GLN:HG3	2.12	0.49
3:J:501:VAL:CG1	3:J:502:PRO:CD	2.91	0.49
3:J:502:PRO:CG	3:J:601:ILE:CG2	2.81	0.49
3:J:839:VAL:CG1	3:J:864:LEU:CD1	2.70	0.49
1:N:111:THR:OG1	1:N:126:PRO:O	2.29	0.49
1:N:190:ALA:N	1:N:199:ASP:HA	2.13	0.49
2:O:1182:ILE:CG2	2:O:1183:ALA:N	2.75	0.49
3:P:1035:VAL:CG1	3:P:1078:LEU:HD22	2.42	0.49
2:O:1286:THR:OG1	3:P:479:GLU:OE2	2.21	0.49
3:P:555:TYR:CD2	3:P:563:LEU:HB3	2.46	0.49
3:P:911:LYS:O	3:P:911:LYS:HG3	2.12	0.49
5:R:133:SER:CB	5:R:365:MET:SD	2.99	0.49
6:4:30:DG:C2	7:5:34:DG:N2	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:888:CYS:HB3	3:D:894:VAL:HG12	1.94	0.49
2:C:496:LYS:HE3	5:F:468:ARG:HG2	1.93	0.49
5:F:520:GLY:O	5:F:523:ILE:HG13	2.12	0.49
1:G:51:MET:CE	1:G:52:PRO:HD2	2.41	0.49
2:I:1092:THR:HG22	2:I:1093:PRO:HD2	1.94	0.49
2:I:1223:ARG:HB2	2:I:1224:PRO:CD	2.43	0.49
2:I:186:PHE:CE1	2:I:196:VAL:HG22	2.47	0.49
2:I:557:ARG:NH2	2:I:611:GLU:OE1	2.45	0.49
3:J:1145:PHE:HE1	3:J:1256:ILE:HD12	1.77	0.49
3:J:1364:ALA:O	3:J:1367:GLN:HG2	2.12	0.49
3:J:139:LEU:CD2	3:J:182:ALA:HA	2.42	0.49
3:J:885:VAL:HG12	3:J:886:VAL:HG22	1.94	0.49
3:J:1360:GLY:HA2	4:K:17:PHE:CE2	2.48	0.49
5:L:137:TYR:CE2	5:L:139:GLU:HB2	2.46	0.49
1:N:31:LEU:CD1	1:N:39:LEU:CD1	2.77	0.49
2:O:1261:GLY:HA2	7:8:16:DC:P	2.50	0.49
2:O:213:LEU:HD11	2:O:422:LYS:HB2	1.94	0.49
2:O:496:LYS:CB	2:O:497:PRO:CD	2.83	0.49
2:O:550:VAL:HG21	3:P:776:THR:HG22	1.86	0.49
3:P:803:VAL:HG22	3:P:1313:SER:OG	2.12	0.49
3:P:322:ARG:CG	3:P:322:ARG:HH11	2.25	0.49
3:P:823:THR:C	3:P:835:LEU:HD13	2.32	0.49
5:R:279:ARG:O	5:R:283:GLN:HG2	2.12	0.49
5:R:476:ARG:CG	5:R:477:GLU:H	2.24	0.49
6:4:48:DA:H2"	6:4:49:DG:C5'	2.34	0.49
1:A:179:PRO:CA	1:A:208:ASN:ND2	2.71	0.49
2:C:1146:GLN:HB2	2:C:1161:LEU:HD23	1.94	0.49
2:C:241:LEU:HD22	2:C:285:ILE:CD1	2.43	0.49
3:D:475:GLU:N	3:D:475:GLU:CD	2.66	0.49
3:D:553:THR:HA	3:D:567:THR:HA	1.94	0.49
1:H:28:LEU:HD12	1:H:31:LEU:HD21	1.94	0.49
2:I:1058:ARG:HH11	2:I:1238:LEU:HD12	1.76	0.49
2:I:978:VAL:HG13	2:I:1007:LYS:HD2	1.93	0.49
3:J:214:ARG:NH2	3:J:215:LYS:HE2	2.27	0.49
3:J:544:LEU:HA	3:J:574:VAL:HB	1.94	0.49
5:L:583:THR:CG2	5:L:586:ARG:CB	2.89	0.49
2:O:184:LEU:HD11	2:O:389:PHE:CZ	2.46	0.49
3:P:1349:GLU:O	3:P:1353:VAL:HG13	2.13	0.49
3:P:245:LEU:HD11	3:P:249:LEU:HD12	1.94	0.49
3:P:909:ILE:HG13	3:P:910:ASN:H	1.78	0.49
6:4:47:DC:H6	6:4:47:DC:C5'	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:41:ASN:ND2	2:C:1217:THR:O	2.45	0.49
2:C:1286:THR:O	2:C:1289:GLU:HB2	2.13	0.49
2:C:903:ARG:NH2	2:C:909:LYS:CG	2.69	0.49
3:D:252:LEU:HD12	3:D:253:VAL:N	2.26	0.49
3:D:452:LEU:HB3	3:D:500:ILE:HG22	1.94	0.49
2:I:530:ILE:HD12	2:I:530:ILE:N	2.27	0.49
3:J:576:ARG:HB3	3:J:592:VAL:HG23	1.94	0.49
5:L:559:LEU:HD11	5:L:594:ALA:HB1	1.94	0.49
1:M:31:LEU:CD1	1:M:201:LEU:HB2	2.42	0.49
2:O:1184:THR:CG2	2:O:1184:THR:O	2.61	0.49
2:O:514:PHE:CE2	7:8:18:DT:O2	2.65	0.49
3:P:1018:ALA:O	3:P:1019:ASN:HB2	2.12	0.49
3:P:1263:LYS:O	3:P:1305:ASP:HB2	2.13	0.49
3:P:245:LEU:HD11	3:P:249:LEU:HB2	1.93	0.49
3:P:528:THR:OG1	3:P:528:THR:O	2.30	0.49
3:P:899:TYR:CE1	3:P:915:ILE:HG21	2.48	0.49
5:R:129:GLN:O	5:R:132:CYS:HB2	2.13	0.49
6:4:17:DA:C5	6:4:18:DC:C4	3.00	0.49
2:C:1032:LYS:O	2:C:1036:ILE:HG13	2.12	0.49
2:C:1094:VAL:HG12	2:C:1095:ASP:N	2.26	0.49
2:C:1129:ASN:O	2:C:1133:LYS:HG3	2.12	0.49
2:C:13:LYS:CE	2:C:1149:TYR:O	2.53	0.49
2:C:189:ASP:CG	2:C:190:PRO:HD2	2.32	0.49
2:C:255:ILE:HD12	2:C:263:VAL:HB	1.95	0.49
2:C:363:LEU:HD23	2:C:366:ILE:CD1	2.42	0.49
2:C:854:ILE:HD11	2:C:917:SER:OG	2.11	0.49
3:D:255:LEU:HD22	3:D:256:ASP:N	2.28	0.49
3:D:592:VAL:HG22	3:D:592:VAL:O	2.13	0.49
2:I:528:ARG:O	2:I:530:ILE:HD11	2.13	0.49
2:O:213:LEU:HD21	2:O:422:LYS:HB3	1.95	0.49
2:O:85:CYS:HB3	2:O:137:VAL:HG11	1.94	0.49
3:P:935:PHE:CE1	3:P:1133:ASP:OD2	2.66	0.49
7:2:25:DA:C2	7:2:26:DT:C4	3.00	0.49
2:I:688:GLN:NE2	8:6:14:A:O3'	2.46	0.49
1:B:158:ARG:NH2	1:B:175:ALA:CB	2.75	0.49
2:C:741:MET:CE	2:C:747:GLY:HA3	2.42	0.49
3:D:271:ARG:HH12	3:D:316:ILE:HG21	1.77	0.49
3:D:34:SER:HG	3:D:104:HIS:CG	2.28	0.49
3:D:515:ARG:HH21	3:D:717:VAL:CB	2.17	0.49
2:C:809:GLY:N	3:D:629:PHE:CD1	2.81	0.49
1:H:111:THR:OG1	1:H:126:PRO:O	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1165:SER:O	2:I:1169:VAL:HG23	2.13	0.49
2:I:1281:TYR:CD1	3:J:431:ARG:HD2	2.48	0.49
2:I:1302:THR:CG2	2:I:1303:LYS:N	2.75	0.49
3:J:355:ILE:HG23	3:J:464:ASP:O	2.11	0.49
3:J:740:LEU:HD23	3:J:763:PHE:CD2	2.47	0.49
1:M:13:LEU:HA	1:M:28:LEU:CD2	2.42	0.49
2:O:292:ILE:CB	2:O:322:LEU:HD11	2.43	0.49
2:O:464:PHE:HE1	2:O:498:ILE:HG22	1.78	0.49
2:O:551:HIS:CE1	2:O:553:THR:HG1	2.28	0.49
2:O:661:VAL:HG12	2:O:665:ALA:CB	2.42	0.49
2:O:797:GLY:HA3	2:O:1233:LEU:CD2	2.43	0.49
2:O:890:LYS:HG2	2:O:891:GLY:H	1.78	0.49
3:P:320:ASN:N	3:P:320:ASN:OD1	2.45	0.49
5:R:144:LEU:HD13	5:R:165:PHE:HE2	1.77	0.49
5:R:262:VAL:HG12	5:R:263:PRO:HD2	1.93	0.49
1:A:81:ILE:O	1:A:85:LEU:CG	2.54	0.49
1:A:28:LEU:HD11	1:B:231:PHE:CZ	2.48	0.49
2:C:12:ARG:HG3	2:C:1181:PRO:C	2.32	0.49
2:C:1253:LEU:HD22	5:F:523:ILE:HG21	1.95	0.49
2:C:160:ASP:HB3	2:C:163:LYS:CG	2.42	0.49
2:C:1077:SER:HB3	3:D:356:THR:CG2	2.43	0.49
2:C:810:TYR:CZ	3:D:359:PRO:HG3	2.48	0.49
3:D:530:PRO:HD2	3:D:531:LYS:HZ2	1.78	0.49
3:D:638:SER:OG	3:D:639:VAL:N	2.44	0.49
5:F:148:TYR:OH	5:F:218:ARG:NH1	2.45	0.49
2:I:1257:GLN:HB3	2:I:1258:PRO:CD	2.42	0.49
2:I:189:ASP:CG	2:I:190:PRO:HD2	2.33	0.49
2:I:700:VAL:HG13	2:I:1117:LEU:CD2	2.33	0.49
2:I:736:VAL:O	2:I:741:MET:CE	2.61	0.49
2:I:87:ILE:HG22	2:I:934:PHE:HZ	1.76	0.49
2:I:960:LEU:HB3	2:I:1025:PHE:CE1	2.48	0.49
3:J:1319:PHE:CD2	3:J:1340:LYS:HB3	2.48	0.49
3:J:959:LYS:HD3	3:J:985:ILE:HG13	1.95	0.49
1:M:100:LEU:HD21	1:M:118:ASP:HB2	1.94	0.49
1:M:69:SER:O	1:M:78:ILE:CG1	2.58	0.49
2:O:201:ARG:HB2	2:O:369:MET:HE1	1.95	0.49
2:O:801:ARG:HB3	2:O:801:ARG:CZ	2.39	0.49
3:P:362:ARG:HA	3:P:622:ASP:OD2	2.13	0.49
3:P:371:LYS:O	3:P:374:LEU:HB3	2.12	0.49
5:R:466:ILE:CG2	5:R:470:MET:SD	2.96	0.49
5:F:392:LYS:HD3	6:1:44:DG:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:LEU:O	1:A:82:LEU:HB2	2.13	0.49
1:B:102:LEU:HB3	1:B:142:MET:SD	2.52	0.49
1:A:38:THR:OG1	1:B:45:ARG:HD3	2.12	0.49
1:B:82:LEU:HB3	1:B:83:LEU:CD2	2.42	0.49
1:B:85:LEU:N	1:B:85:LEU:HD23	2.26	0.49
2:C:670:PHE:CE2	2:C:1113:LEU:CB	2.96	0.49
2:C:1186:VAL:HG12	2:C:1187:PHE:CD2	2.48	0.49
3:D:138:VAL:HG12	3:D:139:LEU:N	2.28	0.49
3:D:961:SER:O	3:D:962:ASN:HB2	2.13	0.49
5:F:219:GLU:HG3	5:F:220:LYS:HD2	1.94	0.49
5:F:574:GLU:OE2	5:F:584:ARG:HD2	2.13	0.49
2:I:433:ILE:O	2:I:437:ASN:ND2	2.45	0.49
2:I:636:CYS:HB2	2:I:645:PHE:HD2	1.77	0.49
2:I:871:VAL:HG23	2:I:883:LEU:C	2.32	0.49
5:L:170:ALA:HB1	5:L:259:PHE:HE1	1.78	0.49
2:O:1161:LEU:HD12	2:O:1164:PHE:CD2	2.47	0.49
2:O:363:LEU:HA	2:O:366:ILE:HD12	1.95	0.49
2:O:448:LEU:HG	2:O:553:THR:HB	1.95	0.49
2:O:634:VAL:HG12	2:O:635:THR:N	2.27	0.49
3:P:110:PRO:HB3	3:P:240:THR:HG22	1.95	0.49
3:P:425:ARG:HG2	3:P:426:ALA:O	2.13	0.49
3:P:544:LEU:HD23	3:P:578:ILE:CD1	2.42	0.49
3:P:613:GLY:O	3:P:617:THR:HG23	2.12	0.49
3:P:879:ALA:C	3:P:880:VAL:CG2	2.81	0.49
6:7:53:DG:H1'	6:7:54:DA:C5	2.48	0.49
2:C:1077:SER:HB3	3:D:356:THR:HG22	1.94	0.49
2:C:186:PHE:CE2	2:C:196:VAL:HG13	2.48	0.49
2:C:246:LEU:HD23	2:C:249:GLU:OE1	2.13	0.49
2:C:521:LEU:HD23	2:C:686:GLN:O	2.13	0.49
3:D:182:ALA:HB1	3:D:238:ILE:HD11	1.93	0.49
3:D:425:ARG:HH22	8:3:16:U:C2'	2.23	0.49
5:F:554:ARG:HG3	5:F:555:GLU:H	1.78	0.49
5:F:554:ARG:O	5:F:558:VAL:HG23	2.13	0.49
2:I:817:LEU:HB2	2:I:1097:VAL:HB	1.94	0.49
3:J:382:TYR:HD1	3:J:397:ALA:HB1	1.78	0.49
3:J:680:ASN:OD1	3:J:1023:HIS:CE1	2.66	0.49
1:N:67:GLU:O	1:N:78:ILE:HB	2.13	0.49
2:O:618:GLN:HE21	2:O:635:THR:CG2	2.26	0.49
2:O:729:ALA:O	2:O:730:SER:HB3	2.13	0.49
3:P:1286:LYS:HB2	3:P:1286:LYS:HE2	1.56	0.49
5:R:450:ILE:HD13	5:R:504:PRO:HD3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1:49:DG:H3'	6:1:50:DT:H5"	1.94	0.48
7:8:42:DG:H2"	7:8:43:DA:OP2	2.13	0.48
1:A:79:LEU:O	1:A:83:LEU:HD23	2.12	0.48
2:C:1061:GLN:CB	2:C:1062:PRO:HD2	2.35	0.48
2:C:432:LEU:O	2:C:432:LEU:HD12	2.11	0.48
2:C:949:GLU:O	2:C:953:LEU:HG	2.13	0.48
3:D:1061:VAL:O	3:D:1104:LYS:CA	2.61	0.48
3:D:227:PHE:CE1	3:D:234:PRO:HD3	2.48	0.48
3:D:808:VAL:HG12	3:D:809:VAL:N	2.26	0.48
5:F:491:GLU:HA	5:F:494:ILE:CD1	2.41	0.48
5:F:584:ARG:CZ	5:F:584:ARG:HB2	2.41	0.48
1:G:48:LEU:HD23	1:G:180:VAL:HB	1.89	0.48
1:G:30:PRO:HB2	1:G:198:LEU:HD22	1.94	0.48
1:H:106:GLY:HA2	1:H:136:GLU:O	2.13	0.48
2:I:839:VAL:HG22	2:I:1049:ILE:HG23	1.95	0.48
2:I:1255:THR:O	2:I:1256:GLN:HB2	2.13	0.48
2:I:335:THR:HG22	2:I:336:LEU:N	2.28	0.48
3:J:1269:ALA:HB2	3:J:1275:LEU:HD13	1.94	0.48
1:M:208:ASN:N	1:M:208:ASN:HD22	2.10	0.48
1:N:82:LEU:HD22	1:N:173:VAL:HG22	1.95	0.48
2:O:272:ARG:HB3	2:O:272:ARG:CZ	2.43	0.48
2:O:544:GLY:O	2:O:548:ARG:HG3	2.13	0.48
2:O:828:PHE:O	2:O:1234:LYS:NZ	2.46	0.48
3:P:141:PHE:CZ	3:P:181:GLY:HA3	2.48	0.48
3:P:22:ILE:HD12	3:P:1335:ALA:HB1	1.95	0.48
2:O:1267:GLY:HA3	3:P:347:VAL:O	2.13	0.48
3:P:615:LYS:HD2	3:P:615:LYS:H	1.78	0.48
3:P:954:ASN:O	3:P:984:LEU:HD21	2.12	0.48
1:B:70:THR:HG23	1:B:70:THR:O	2.14	0.48
2:C:1109:ILE:N	2:C:1109:ILE:HD13	2.27	0.48
3:D:65:VAL:HG22	3:D:98:ARG:CZ	2.42	0.48
1:G:145:LYS:NZ	1:G:170:ARG:HH21	2.11	0.48
1:H:83:LEU:O	3:J:528:THR:CG2	2.61	0.48
2:I:205:PRO:HB2	2:I:207:THR:HG22	1.95	0.48
2:I:30:ILE:H	2:I:30:ILE:HG13	1.44	0.48
2:I:369:MET:HG3	2:I:370:MET:N	2.27	0.48
2:I:178:PRO:HG3	2:I:395:TYR:CE1	2.47	0.48
2:I:806:PRO:HB2	3:J:632:ALA:HB1	1.94	0.48
2:I:1338:GLU:O	3:J:20:ILE:HG23	2.13	0.48
3:J:245:LEU:HD12	3:J:246:PRO:HD2	1.95	0.48
3:J:425:ARG:HD2	3:J:457:TYR:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:95:THR:O	5:L:97:PRO:HD3	2.13	0.48
2:O:1246:ARG:CZ	2:O:1258:PRO:HB3	2.43	0.48
2:O:690:VAL:CG1	2:O:691:PRO:HD2	2.43	0.48
3:P:930:LEU:CB	3:P:1134:ILE:HD11	2.39	0.48
3:P:116:PHE:HB3	3:P:124:ILE:HG13	1.96	0.48
4:Q:69:ARG:O	4:Q:73:GLN:HG3	2.12	0.48
5:R:493:LYS:O	5:R:497:VAL:HG23	2.13	0.48
3:P:262:THR:CA	5:R:507:MET:SD	3.01	0.48
5:F:451:ARG:NH1	6:1:32:DA:P	2.81	0.48
6:7:47:DC:H3'	6:7:48:DA:H5"	1.95	0.48
1:A:230:ALA:HB3	1:A:231:PHE:CE1	2.48	0.48
1:B:92:VAL:HG12	1:B:93:GLN:N	2.28	0.48
2:C:10:ARG:NH1	2:C:697:LYS:CB	2.73	0.48
2:C:1305:TYR:CD2	3:D:379:PRO:HB3	2.48	0.48
2:C:179:TYR:CE2	2:C:462:ASN:OD1	2.67	0.48
2:C:672:GLU:HB2	2:C:673:HIS:CD2	2.48	0.48
2:C:725:GLN:HB3	2:C:733:VAL:HG23	1.94	0.48
2:C:718:ALA:HB2	2:C:783:LEU:HD21	1.95	0.48
3:D:1229:VAL:O	3:D:1233:ILE:CD1	2.61	0.48
2:I:1184:THR:OG1	2:I:1189:GLY:CA	2.61	0.48
2:I:1323:PHE:O	2:I:1327:LEU:HG	2.13	0.48
2:I:1325:VAL:HG12	2:I:1329:GLU:CD	2.34	0.48
2:I:515:MET:HE3	2:I:517:GLN:HG2	1.96	0.48
2:I:558:VAL:CG1	2:I:559:CYS:O	2.62	0.48
2:I:720:ARG:HB3	2:I:740:GLU:HG2	1.96	0.48
2:I:78:PRO:CB	2:I:93:SER:O	2.58	0.48
3:J:825:VAL:CG1	3:J:1242:ARG:HH12	2.26	0.48
3:J:146:VAL:CG2	3:J:158:GLN:CB	2.91	0.48
3:J:421:VAL:CG1	3:J:422:LEU:H	2.11	0.48
3:J:899:TYR:CE1	3:J:915:ILE:CG2	2.94	0.48
1:N:64:VAL:HG12	1:N:64:VAL:O	2.13	0.48
1:M:184:ALA:CB	2:O:1091:GLY:HA3	2.42	0.48
2:O:693:LEU:HG	2:O:693:LEU:O	2.13	0.48
3:P:1306:LEU:HD12	3:P:1307:LEU:N	2.28	0.48
3:P:394:ILE:H	3:P:394:ILE:HG13	1.37	0.48
2:O:1315:MET:HB2	3:P:473:THR:HG21	1.95	0.48
3:P:741:ALA:HA	3:P:762:ASN:HD22	1.78	0.48
4:Q:10:VAL:HG11	4:Q:16:ARG:HG2	1.94	0.48
5:R:306:PHE:CZ	5:R:310:GLU:HG2	2.48	0.48
6:1:48:DA:H2"	6:1:49:DG:C8	2.49	0.48
1:A:31:LEU:HA	1:A:31:LEU:HD23	1.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:213:PRO:O	1:B:216:ALA:HB3	2.14	0.48
1:B:67:GLU:HG3	1:B:68:TYR:CZ	2.48	0.48
2:C:669:PRO:HD3	2:C:1069:ARG:HD2	1.94	0.48
2:C:551:HIS:N	2:C:554:HIS:CE1	2.76	0.48
3:D:1284:ARG:HA	3:D:1287:ILE:CD1	2.42	0.48
3:D:635:SER:OG	3:D:636:GLY:N	2.46	0.48
3:D:922:SER:O	3:D:926:PRO:CD	2.57	0.48
5:F:310:GLU:OE1	5:F:355:ILE:HB	2.13	0.48
5:F:423:ARG:NH1	6:1:37:DA:C5	2.81	0.48
5:F:584:ARG:NH1	5:F:584:ARG:H	2.10	0.48
2:I:700:VAL:HG21	2:I:1114:GLU:HG3	1.96	0.48
2:I:237:LEU:CD1	2:I:292:ILE:HD12	2.42	0.48
2:I:694:ARG:O	2:I:798:GLN:NE2	2.47	0.48
3:J:501:VAL:CG1	3:J:502:PRO:HD2	2.42	0.48
3:J:806:ASP:O	3:J:808:VAL:HG23	2.13	0.48
2:O:1073:LYS:HD2	3:P:462:ASP:HB2	1.95	0.48
2:O:400:VAL:HG21	2:O:452:ARG:NH2	2.28	0.48
2:O:886:LYS:HD2	2:O:916:SER:HB2	1.95	0.48
3:P:1075:ARG:CG	3:P:1192:LYS:HB3	2.42	0.48
3:P:299:LEU:O	3:P:303:VAL:HG23	2.14	0.48
2:O:1243:MET:CG	3:P:372:MET:HE3	2.42	0.48
2:O:1280:ALA:HB3	3:P:431:ARG:HB3	1.96	0.48
3:P:544:LEU:HA	3:P:574:VAL:HB	1.94	0.48
3:P:646:ILE:HG13	3:P:764:ARG:HH11	1.79	0.48
3:P:65:VAL:HG22	3:P:98:ARG:NH1	2.28	0.48
5:R:310:GLU:HB3	5:R:355:ILE:CD1	2.41	0.48
5:F:429:THR:OG1	6:1:39:DA:H8	1.97	0.48
7:2:25:DA:H2"	7:2:26:DT:H5"	1.94	0.48
2:C:616:ILE:CD1	2:C:652:TYR:HB2	2.43	0.48
2:C:850:ILE:HD12	2:C:942:ASP:OD2	2.12	0.48
2:C:1077:SER:HB3	3:D:357:VAL:HG23	1.95	0.48
3:D:614:LEU:HD12	3:D:614:LEU:C	2.33	0.48
3:D:849:LEU:HD21	3:D:857:LEU:HD23	1.95	0.48
3:D:478:LEU:HD21	4:E:23:ALA:HB3	1.96	0.48
5:F:297:MET:CE	5:F:326:TRP:HZ3	2.27	0.48
5:F:396:ASN:O	5:F:397:ARG:C	2.50	0.48
1:G:118:ASP:HB3	1:G:121:VAL:HG23	1.94	0.48
1:G:17:GLU:OE2	1:G:19:VAL:HG22	2.13	0.48
1:H:129:VAL:C	1:H:130:ILE:HG13	2.32	0.48
2:I:1281:TYR:CE2	3:J:431:ARG:HB2	2.48	0.48
2:I:178:PRO:HG3	2:I:182:SER:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:803:VAL:HG12	3:J:1259:GLN:HB3	1.95	0.48
3:J:1263:LYS:HE3	3:J:1315:ALA:HB1	1.95	0.48
3:J:598:LYS:O	3:J:601:ILE:HB	2.11	0.48
3:J:58:CYS:SG	3:J:60:ARG:N	2.86	0.48
4:K:76:GLU:O	4:K:80:LEU:HG	2.13	0.48
5:L:130:VAL:HG23	5:L:368:GLY:HA3	1.93	0.48
5:L:488:LEU:HG	5:L:488:LEU:O	2.13	0.48
1:M:13:LEU:HB2	1:M:28:LEU:HD21	1.94	0.48
1:M:208:ASN:HD22	1:M:208:ASN:H	1.60	0.48
3:P:796:LEU:HA	3:P:799:ARG:HE	1.78	0.48
5:R:521:ASP:N	5:R:521:ASP:OD1	2.47	0.48
5:R:95:THR:O	5:R:97:PRO:HD3	2.13	0.48
2:I:688:GLN:NE2	8:6:14:A:O2'	2.46	0.48
1:A:234:LEU:HD22	1:B:12:ARG:NH1	2.22	0.48
1:B:219:ARG:O	1:B:223:ILE:HG13	2.14	0.48
3:D:1256:ILE:C	3:D:1260:MET:CE	2.81	0.48
3:D:839:VAL:O	3:D:842:ARG:HG3	2.14	0.48
3:D:842:ARG:HH12	3:D:1254:GLU:CD	2.14	0.48
3:D:496:GLY:CA	3:D:903:LEU:HD22	2.44	0.48
1:H:44:ARG:HH12	3:J:538:ARG:HB3	1.76	0.48
2:I:313:ALA:O	2:I:314:ASN:HB3	2.13	0.48
2:I:384:LEU:HG	2:I:388:LEU:HD11	1.96	0.48
2:I:782:VAL:HG21	2:I:792:GLY:HA2	1.95	0.48
3:J:1173:ARG:HB2	3:J:1190:ILE:CB	2.43	0.48
3:J:467:ALA:C	3:J:468:VAL:HG22	2.33	0.48
3:J:261:ALA:HB2	5:L:519:LEU:HD21	1.96	0.48
5:L:565:ILE:O	5:L:566:ASP:CB	2.62	0.48
2:O:1297:ASP:CG	2:O:1300:GLY:H	2.17	0.48
2:O:1324:ASN:HA	2:O:1327:LEU:HD12	1.95	0.48
2:O:189:ASP:OD1	2:O:190:PRO:HD2	2.13	0.48
3:P:1163:VAL:CG1	3:P:1175:LEU:CD2	2.86	0.48
3:P:421:VAL:HG12	3:P:422:LEU:N	2.29	0.48
5:R:377:LYS:O	5:R:381:GLU:HG3	2.13	0.48
1:A:15:ASP:O	1:A:26:VAL:HG13	2.13	0.48
1:A:70:THR:O	1:A:70:THR:HG23	2.14	0.48
1:B:202:VAL:C	1:B:203:ILE:HG12	2.33	0.48
1:B:31:LEU:O	1:B:198:LEU:HB3	2.14	0.48
2:C:1210:ILE:HG23	2:C:1211:ARG:N	2.28	0.48
2:C:1264:GLN:O	2:C:1265:PHE:HB3	2.13	0.48
2:C:176:ILE:HD12	2:C:176:ILE:N	2.28	0.48
2:C:692:THR:OG1	2:C:693:LEU:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:92:TYR:CB	2:C:137:VAL:CG2	2.92	0.48
3:D:1062:LEU:HD13	3:D:1066:GLU:OE1	2.14	0.48
3:D:1163:VAL:HG22	3:D:1177:ILE:HA	1.95	0.48
3:D:1350:ASN:O	3:D:1353:VAL:HG22	2.13	0.48
3:D:139:LEU:CD2	3:D:185:ILE:HD11	2.34	0.48
4:E:5:THR:HG22	4:E:7:GLN:H	1.79	0.48
5:F:585:GLU:HG2	7:2:46:DT:H73	1.96	0.48
1:G:110:VAL:HG12	1:G:130:ILE:HD12	1.95	0.48
1:G:67:GLU:C	1:G:78:ILE:HD12	2.34	0.48
2:I:255:ILE:O	2:I:255:ILE:HG22	2.13	0.48
2:I:296:VAL:CG1	2:I:297:VAL:H	2.26	0.48
3:J:1306:LEU:HD12	3:J:1307:LEU:H	1.77	0.48
3:J:510:LEU:HD23	3:J:510:LEU:N	2.28	0.48
1:M:15:ASP:CB	1:M:27:THR:OG1	2.61	0.48
1:M:47:LEU:CD2	1:M:220:ALA:CB	2.91	0.48
1:N:188:GLU:O	1:N:200:LYS:HB2	2.13	0.48
2:O:1073:LYS:HG3	3:P:462:ASP:CB	2.44	0.48
2:O:1066:MET:HE1	2:O:1232:MET:SD	2.54	0.48
2:O:1289:GLU:HA	2:O:1293:VAL:CG2	2.44	0.48
3:P:807:LEU:HD11	3:P:1258:ARG:HD3	1.95	0.48
3:P:1263:LYS:HB2	3:P:1307:LEU:HD11	1.95	0.48
3:P:1347:LEU:O	3:P:1351:VAL:HG23	2.13	0.48
3:P:197:GLU:O	3:P:201:LEU:HG	2.13	0.48
3:P:262:THR:HG1	3:P:266:ASN:ND2	2.12	0.48
5:R:586:ARG:HE	5:R:590:ILE:HD11	1.78	0.48
6:1:47:DC:C6	6:1:47:DC:H5"	2.48	0.48
1:A:100:LEU:CD1	1:A:115:ILE:HG22	2.38	0.48
1:A:47:LEU:O	1:A:51:MET:HB2	2.12	0.48
1:B:224:LEU:O	1:B:228:LEU:HG	2.14	0.48
2:C:197:ARG:HB3	2:C:200:ARG:HA	1.96	0.48
3:D:1163:VAL:HG12	3:D:1164:SER:N	2.27	0.48
3:D:334:LYS:HA	3:D:339:ARG:HD2	1.96	0.48
5:F:309:ASN:O	5:F:311:THR:N	2.45	0.48
2:I:1030:GLU:O	2:I:1034:ARG:HG3	2.14	0.48
2:I:1132:LEU:HD11	2:I:1177:ARG:HB2	1.95	0.48
2:I:1290:MET:HA	2:I:1294:LYS:HB2	1.96	0.48
2:I:160:ASP:HB3	2:I:163:LYS:HG3	1.96	0.48
2:I:599:VAL:HG23	2:I:627:GLY:O	2.14	0.48
2:I:951:MET:HB3	2:I:951:MET:HE3	1.84	0.48
2:I:1294:LYS:HB3	3:J:347:VAL:CG1	2.43	0.48
3:J:596:LEU:HD22	3:J:600:ALA:CB	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:807:TRP:HA	3:J:633:ALA:HB2	1.95	0.48
2:I:566:GLY:HA2	3:J:787:ALA:HB2	1.95	0.48
5:L:318:ALA:O	5:L:321:ALA:HB3	2.13	0.48
3:P:1081:VAL:HB	3:P:1085:GLY:O	2.14	0.48
3:P:1243:LEU:HD22	3:P:1244:GLN:HE21	1.76	0.48
3:P:1344:LEU:CA	3:P:1349:GLU:OE1	2.48	0.48
3:P:312:ARG:O	3:P:312:ARG:HG2	2.14	0.48
3:P:43:THR:OG1	3:P:44:ILE:N	2.46	0.48
6:7:46:DG:C3'	6:7:47:DC:H5"	2.44	0.48
1:A:118:ASP:OD1	1:A:119:GLY:N	2.46	0.48
1:A:41:ASN:HD21	2:C:1218:GLY:HA2	1.79	0.48
1:B:158:ARG:NH2	1:B:175:ALA:HB2	2.28	0.48
3:D:1154:ALA:HA	3:D:1211:SER:OG	2.14	0.48
3:D:1216:ALA:O	3:D:1220:ILE:HG13	2.14	0.48
2:I:1253:LEU:O	2:I:1253:LEU:HD12	2.14	0.48
2:I:1270:PHE:HA	2:I:1274:GLU:HG2	1.94	0.48
2:I:521:LEU:CD2	2:I:687:ARG:HG2	2.41	0.48
3:J:230:SER:HB2	3:J:1339:GLY:HA3	1.96	0.48
3:J:39:LYS:HZ1	3:J:280:LYS:CD	2.27	0.48
3:J:955:LYS:HE2	3:J:1010:GLN:OE1	2.14	0.48
5:L:113:ARG:HA	5:L:426:LYS:HZ1	1.79	0.48
5:L:458:GLU:OE2	7:5:28:DG:C8	2.64	0.48
5:L:507:MET:O	5:L:519:LEU:HB2	2.08	0.48
1:N:214:GLU:HB3	1:N:218:ARG:HH22	1.78	0.48
2:O:1202:GLY:O	2:O:1203:ASP:HB2	2.14	0.48
2:O:1255:THR:HG22	2:O:1257:GLN:HG3	1.96	0.48
2:O:242:VAL:HG13	2:O:243:PRO:HD2	1.94	0.48
2:O:881:ASP:O	2:O:920:VAL:HG23	2.14	0.48
3:P:1306:LEU:O	3:P:1306:LEU:HG	2.08	0.48
3:P:603:LYS:O	3:P:607:THR:OG1	2.32	0.48
3:P:72:CYS:SG	3:P:74:LYS:HB2	2.54	0.48
4:Q:79:GLU:O	4:Q:79:GLU:HG2	2.12	0.48
5:R:514:ASP:OD2	5:R:516:ASP:HB2	2.13	0.48
5:R:529:GLU:OE2	5:R:534:SER:HA	2.14	0.48
7:5:6:DG:C8	7:5:6:DG:OP2	2.59	0.48
1:A:41:ASN:HD21	2:C:1218:GLY:CA	2.23	0.48
1:B:88:LEU:HD12	1:B:89:ALA:H	1.77	0.48
2:C:1103:VAL:N	2:C:1104:PRO:CD	2.77	0.48
3:D:749:LYS:HG2	3:D:755:ILE:CG1	2.40	0.48
3:D:839:VAL:CG1	3:D:839:VAL:O	2.62	0.48
3:D:960:LEU:HD23	3:D:982:LEU:HD12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:575:GLU:HA	5:F:578:LYS:CE	2.44	0.48
1:H:32:GLU:O	1:H:35:PHE:HB2	2.14	0.48
2:I:1326:LEU:HG	2:I:1330:ILE:HD11	1.96	0.48
2:O:606:LEU:HD22	2:O:610:GLU:HB3	1.96	0.48
3:P:1031:VAL:HG13	3:P:1091:PRO:HD3	1.94	0.48
3:P:139:LEU:CD2	3:P:185:ILE:HD12	2.44	0.48
3:P:201:LEU:HB3	3:P:221:ILE:HD11	1.96	0.48
5:R:563:PHE:HB3	5:R:565:ILE:HD12	1.95	0.48
7:2:24:DT:H2"	7:2:25:DA:OP1	2.14	0.47
1:A:86:LYS:HG2	1:A:173:VAL:HG11	1.94	0.47
2:C:1007:LYS:HD3	2:C:1007:LYS:N	2.29	0.47
2:C:136:PHE:CE2	2:C:145:ILE:HD11	2.49	0.47
2:C:409:LEU:CD1	2:C:427:ASP:CB	2.91	0.47
2:C:530:ILE:HD11	2:C:575:LEU:N	2.29	0.47
3:D:43:THR:OG1	3:D:44:ILE:N	2.47	0.47
5:F:520:GLY:CA	5:F:523:ILE:HD11	2.39	0.47
1:H:28:LEU:C	1:H:28:LEU:CD1	2.82	0.47
2:I:1155:VAL:O	2:I:1155:VAL:CG1	2.61	0.47
2:I:104:ILE:HD12	2:I:116:ASP:HB2	1.96	0.47
2:I:240:GLU:CG	2:I:284:LEU:CD2	2.92	0.47
2:I:528:ARG:O	2:I:530:ILE:CD1	2.61	0.47
2:I:993:PRO:HB2	2:I:996:ARG:HB2	1.96	0.47
3:J:1200:GLU:HG2	3:J:1201:GLY:N	2.26	0.47
3:J:1240:VAL:HB	3:J:1241:TYR:CD2	2.49	0.47
3:J:1348:LYS:O	3:J:1351:VAL:HB	2.14	0.47
3:J:246:PRO:HB2	3:J:249:LEU:HG	1.95	0.47
3:J:331:ILE:HG22	3:J:338:PHE:HE2	1.78	0.47
3:J:722:ILE:O	3:J:725:MET:HB2	2.14	0.47
4:K:58:LEU:HD23	4:K:58:LEU:N	2.29	0.47
1:M:31:LEU:HD12	1:M:201:LEU:HB2	1.95	0.47
2:O:462:ASN:O	2:O:465:ARG:HB2	2.13	0.47
2:O:524:ILE:HD11	2:O:712:SER:CB	2.41	0.47
2:O:92:TYR:HB2	2:O:137:VAL:HB	1.96	0.47
3:P:1364:ALA:HA	3:P:1367:GLN:HG2	1.96	0.47
2:O:1286:THR:HG23	3:P:479:GLU:OE2	2.14	0.47
3:P:394:ILE:HD11	5:R:539:SER:HB2	1.95	0.47
6:7:47:DC:H2'	6:7:48:DA:C4	2.49	0.47
3:P:795:TYR:CD1	7:8:11:DA:C5'	2.97	0.47
1:B:158:ARG:HH21	1:B:175:ALA:HB2	1.78	0.47
2:C:160:ASP:OD1	2:C:163:LYS:HD3	2.13	0.47
2:C:283:LYS:C	2:C:284:LEU:HG	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:665:ALA:HA	2:C:668:ILE:HD11	1.96	0.47
3:D:1159:ILE:HG22	3:D:1160:SER:N	2.28	0.47
3:D:113:HIS:CB	3:D:239:LEU:HD11	2.43	0.47
3:D:385:LEU:HD23	3:D:390:LEU:HB2	1.96	0.47
3:D:773:PHE:O	3:D:773:PHE:CD2	2.66	0.47
3:D:946:ALA:C	3:D:948:SER:N	2.62	0.47
5:F:496:LYS:O	5:F:500:ILE:HG13	2.14	0.47
2:I:761:GLN:O	2:I:762:ASN:HB2	2.14	0.47
2:I:806:PRO:CA	2:I:811:ASN:HD21	2.25	0.47
2:I:82:VAL:O	2:I:86:GLN:HG3	2.15	0.47
2:I:846:GLY:CA	2:I:889:PRO:HG2	2.37	0.47
3:J:1177:ILE:HG13	3:J:1186:TYR:O	2.13	0.47
3:J:1251:LYS:HE2	3:J:1251:LYS:HB3	1.72	0.47
3:J:115:TRP:CZ3	3:J:1332:LEU:HB2	2.50	0.47
3:J:421:VAL:HG13	3:J:471:PRO:HD3	1.96	0.47
3:J:943:ARG:O	3:J:944:ALA:CB	2.62	0.47
5:L:129:GLN:OE1	5:L:367:ILE:CG2	2.63	0.47
5:L:595:LEU:O	5:L:599:ARG:HG3	2.14	0.47
2:O:1063:GLY:HA2	2:O:1075:VAL:CG1	2.44	0.47
2:O:592:ARG:NH2	2:O:600:THR:O	2.42	0.47
2:O:671:LEU:HA	2:O:671:LEU:HD12	1.54	0.47
2:O:761:GLN:O	2:O:762:ASN:CB	2.62	0.47
5:R:401:PHE:O	5:R:405:ILE:HG12	2.12	0.47
6:1:47:DC:H3'	6:1:48:DA:H5"	1.95	0.47
7:8:37:DA:H2"	7:8:38:DG:C8	2.49	0.47
2:C:1010:GLN:HA	2:C:1013:GLN:CG	2.43	0.47
3:D:117:LEU:HD23	3:D:118:LYS:HE2	1.95	0.47
3:D:421:VAL:CG1	3:D:469:HIS:O	2.62	0.47
3:D:703:THR:CB	3:D:716:GLN:O	2.59	0.47
4:E:22:VAL:CG1	4:E:64:LEU:HD12	2.44	0.47
3:D:399:LYS:HE3	5:F:612:ASP:CG	2.35	0.47
1:G:29:GLU:OE1	1:G:200:LYS:HB3	2.14	0.47
1:H:193:GLU:O	1:H:194:GLN:HB2	2.14	0.47
2:I:15:PHE:CE2	2:I:1182:ILE:HG21	2.49	0.47
2:I:364:VAL:HG22	2:I:376:PRO:CB	2.44	0.47
2:I:364:VAL:HG22	2:I:376:PRO:HB2	1.95	0.47
2:I:714:VAL:CG1	2:I:786:GLY:HA3	2.42	0.47
2:I:953:LEU:CD2	2:I:957:LYS:HZ1	2.25	0.47
2:I:960:LEU:HD21	2:I:1028:LYS:HG2	1.95	0.47
3:J:1282:TYR:O	3:J:1285:VAL:HG13	2.14	0.47
3:J:139:LEU:HD11	3:J:185:ILE:HG13	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:145:VAL:HG22	3:J:146:VAL:N	2.29	0.47
3:J:331:ILE:HG22	3:J:338:PHE:CE2	2.49	0.47
3:J:399:LYS:HZ3	5:L:611:LEU:HD23	1.78	0.47
2:I:809:GLY:HA3	3:J:629:PHE:CD1	2.48	0.47
3:J:786:THR:CG2	3:J:787:ALA:N	2.77	0.47
5:L:402:LEU:O	5:L:406:GLN:HG2	2.14	0.47
2:O:1165:SER:O	2:O:1169:VAL:HG23	2.13	0.47
2:O:5:TYR:CE2	2:O:776:PRO:HB2	2.49	0.47
3:P:22:ILE:CD1	3:P:1319:PHE:CD1	2.83	0.47
3:P:527:LEU:HB2	3:P:550:VAL:HG13	1.96	0.47
5:R:452:ILE:CG2	5:R:456:MET:HB3	2.44	0.47
5:R:460:ILE:HA	5:R:463:LEU:HD11	1.96	0.47
3:P:262:THR:C	5:R:507:MET:SD	2.92	0.47
8:3:13:GTP:N2	8:3:14:A:C4	2.82	0.47
1:A:26:VAL:O	1:A:203:ILE:HD12	2.13	0.47
1:A:228:LEU:HA	1:A:231:PHE:HE2	1.74	0.47
1:A:85:LEU:HD21	1:A:130:ILE:HG23	1.96	0.47
2:C:824:GLN:NE2	2:C:1082:ILE:HD11	2.28	0.47
2:C:1192:GLU:HA	2:C:1195:ILE:HD12	1.96	0.47
2:C:122:VAL:HG12	2:C:123:TYR:N	2.28	0.47
2:C:202:ARG:HB2	2:C:369:MET:HE1	1.97	0.47
2:C:263:VAL:CG1	2:C:269:ILE:CD1	2.89	0.47
2:C:30:ILE:H	2:C:30:ILE:HG13	1.14	0.47
2:C:358:ASP:OD1	2:C:358:ASP:N	2.43	0.47
2:C:612:GLY:O	2:C:639:LYS:HG3	2.15	0.47
2:C:726:TYR:CB	2:C:733:VAL:HG22	2.40	0.47
3:D:1351:VAL:HG12	3:D:1352:ILE:N	2.28	0.47
3:D:412:LEU:HG	3:D:416:ILE:HD11	1.97	0.47
3:D:725:MET:HE2	3:D:732:GLY:H	1.77	0.47
3:D:744:ARG:H	3:D:759:ILE:CG2	2.27	0.47
2:I:1005:GLU:HB3	2:I:1007:LYS:HG2	1.95	0.47
2:I:1111:GLN:O	2:I:1115:THR:OG1	2.32	0.47
2:I:1165:SER:H	2:I:1168:GLU:CD	2.17	0.47
2:I:431:LYS:O	2:I:435:ILE:HG13	2.15	0.47
3:J:612:LEU:HD23	3:J:612:LEU:O	2.15	0.47
5:L:487:MET:O	5:L:488:LEU:HB3	2.15	0.47
1:N:39:LEU:N	1:N:39:LEU:HD23	2.28	0.47
2:O:681:MET:O	2:O:685:MET:HG2	2.13	0.47
3:P:749:LYS:CB	3:P:750:PRO:CD	2.64	0.47
6:4:47:DC:C6	6:4:47:DC:H5"	2.49	0.47
1:A:104:LYS:HG2	1:A:114:ASP:OD2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:12:ARG:O	1:A:28:LEU:CD2	2.62	0.47
2:C:1186:VAL:O	2:C:1187:PHE:HB2	2.14	0.47
2:C:1223:ARG:HG3	3:D:635:SER:O	2.15	0.47
2:C:1326:LEU:CD2	3:D:342:LEU:HD11	2.44	0.47
2:C:267:ARG:HD3	2:C:268:ARG:H	1.79	0.47
2:C:149:LEU:HD13	2:C:453:ILE:HD11	1.96	0.47
2:C:633:LEU:HB3	2:C:644:LEU:HD22	1.95	0.47
2:C:168:GLY:O	3:D:1065:ALA:HB2	2.14	0.47
2:C:1077:SER:CB	3:D:356:THR:CG2	2.92	0.47
3:D:491:LEU:HD22	3:D:496:GLY:O	2.14	0.47
3:D:601:ILE:O	3:D:605:LEU:HG	2.14	0.47
3:D:807:LEU:CD1	3:D:1259:GLN:NE2	2.77	0.47
5:F:411:GLY:HA3	5:F:435:ILE:HA	1.96	0.47
2:I:1085:MET:HE2	2:I:1085:MET:HB3	1.76	0.47
2:I:1223:ARG:HD2	3:J:637:ALA:HA	1.95	0.47
2:I:181:GLY:HA3	2:I:395:TYR:CD1	2.49	0.47
2:I:280:ASP:HB3	2:I:282:VAL:HG23	1.95	0.47
2:I:296:VAL:HG13	2:I:315:MET:O	2.14	0.47
2:I:1243:MET:SD	3:J:445:LYS:HD3	2.55	0.47
3:J:645:VAL:HG21	3:J:700:ASN:ND2	2.29	0.47
2:O:831:ILE:H	2:O:831:ILE:HG13	1.52	0.47
3:P:1101:LEU:HD22	3:P:1122:ALA:CB	2.44	0.47
3:P:247:PRO:HG3	3:P:250:ARG:NH2	2.29	0.47
2:O:1243:MET:HG3	3:P:372:MET:HE3	1.97	0.47
3:P:398:LYS:NZ	5:R:532:LEU:HD21	2.27	0.47
6:4:45:DT:H2'	6:4:46:DG:O4'	2.14	0.47
2:C:1056:VAL:HG12	2:C:1058:ARG:HG3	1.95	0.47
3:D:950:ILE:HB	3:D:1018:ALA:HB3	1.95	0.47
2:C:1284:ALA:CB	3:D:1356:LEU:HD22	2.44	0.47
3:D:645:VAL:HG22	3:D:701:LEU:HD13	1.97	0.47
3:D:683:ILE:HG22	3:D:684:ASP:N	2.29	0.47
5:F:333:VAL:O	5:F:337:VAL:HG23	2.15	0.47
5:F:408:GLY:O	5:F:435:ILE:HG23	2.14	0.47
3:D:262:THR:CA	5:F:507:MET:HE3	2.36	0.47
2:I:1066:MET:HE1	2:I:1232:MET:HB3	1.96	0.47
2:I:181:GLY:HA3	2:I:395:TYR:HD1	1.80	0.47
2:I:221:LEU:HD23	2:I:221:LEU:HA	1.60	0.47
2:I:211:ARG:NH1	2:I:357:ASN:O	2.46	0.47
2:I:367:TYR:HD1	2:I:384:LEU:HD22	1.78	0.47
2:I:71:VAL:CG2	2:I:101:ARG:HG3	2.45	0.47
3:J:194:LEU:HG	3:J:194:LEU:H	1.17	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:268:LEU:HD23	3:J:268:LEU:HA	1.54	0.47
3:J:723:TYR:CE1	3:J:727:ASP:HB2	2.49	0.47
2:O:1079:ILE:H	2:O:1079:ILE:HG13	1.41	0.47
2:O:1124:ILE:HD11	2:O:1198:LEU:HD13	1.96	0.47
2:O:217:THR:CA	2:O:220:ILE:HD12	2.36	0.47
2:O:595:THR:HG22	2:O:596:ASP:CG	2.35	0.47
2:O:808:ASN:N	2:O:808:ASN:HD22	2.12	0.47
2:O:82:VAL:HG23	2:O:83:GLN:H	1.78	0.47
3:P:541:LEU:O	3:P:542:ALA:HB2	2.14	0.47
3:P:553:THR:CA	3:P:567:THR:HG23	2.44	0.47
3:P:601:ILE:O	3:P:605:LEU:CG	2.63	0.47
3:P:836:ARG:HD2	3:P:873:GLU:CD	2.35	0.47
3:P:985:ILE:HG23	3:P:990:ARG:O	2.15	0.47
5:R:266:PHE:O	5:R:270:VAL:HG23	2.14	0.47
5:R:391:ALA:O	5:R:395:THR:HG23	2.15	0.47
6:1:49:DG:H5"	6:1:49:DG:H8	1.80	0.47
1:B:85:LEU:HD22	1:B:130:ILE:HG23	1.87	0.47
2:C:91:THR:HG23	2:C:138:ILE:HA	1.96	0.47
2:C:432:LEU:C	2:C:432:LEU:HD12	2.34	0.47
2:C:915:ASP:C	2:C:915:ASP:OD1	2.53	0.47
3:D:246:PRO:HB2	3:D:249:LEU:HG	1.97	0.47
3:D:246:PRO:HA	3:D:247:PRO:HD3	1.81	0.47
3:D:449:LEU:HD12	3:D:450:HIS:N	2.28	0.47
3:D:678:ARG:O	3:D:682:VAL:HG23	2.15	0.47
3:D:740:LEU:HA	3:D:763:PHE:HB2	1.95	0.47
5:F:119:ILE:HD13	5:F:378:GLU:HB3	1.95	0.47
2:I:177:ILE:HG23	2:I:183:TRP:HE1	1.80	0.47
2:I:303:ASP:OD1	2:I:328:SER:CB	2.63	0.47
2:I:622:ASN:ND2	2:I:630:VAL:HG21	2.30	0.47
3:J:141:PHE:HA	3:J:180:MET:HG2	1.96	0.47
3:J:825:VAL:HG11	3:J:1242:ARG:HH12	1.79	0.47
4:K:47:THR:O	4:K:50:ALA:HB3	2.15	0.47
5:L:469:GLN:O	5:L:472:GLN:HG2	2.15	0.47
2:O:1333:LEU:HB2	2:O:1335:ILE:CD1	2.38	0.47
2:O:400:VAL:HG21	2:O:452:ARG:CZ	2.44	0.47
3:P:1261:LEU:HA	3:P:1261:LEU:HD23	1.53	0.47
3:P:261:ALA:O	5:R:507:MET:HE3	2.14	0.47
3:P:430:HIS:CD2	3:P:432:LEU:HB2	2.50	0.47
5:F:386:LEU:CD1	6:1:41:DT:O4'	2.63	0.47
6:4:45:DT:H71	6:4:46:DG:N2	2.30	0.47
6:7:36:DT:H2"	6:7:37:DA:C5'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:100:LEU:CD1	1:A:115:ILE:CG2	2.91	0.47
1:B:185:TYR:O	1:B:185:TYR:CD2	2.67	0.47
1:B:53:GLY:O	1:B:177:TYR:CD1	2.67	0.47
2:C:1315:MET:HG2	2:C:1317:PRO:HD3	1.97	0.47
2:C:149:LEU:HB2	2:C:453:ILE:HD12	1.97	0.47
2:C:495:ALA:HA	2:C:498:ILE:CD1	2.45	0.47
2:C:672:GLU:HG3	2:C:1187:PHE:CD1	2.50	0.47
3:D:1131:THR:O	3:D:1132:LYS:HB2	2.15	0.47
3:D:1134:ILE:CG2	3:D:1138:LEU:HG	2.45	0.47
3:D:160:LEU:HD22	3:D:164:GLN:HB3	1.96	0.47
3:D:624:ILE:H	3:D:624:ILE:HG13	1.35	0.47
1:G:158:ARG:HD2	1:G:172:LEU:HD11	1.96	0.47
1:G:26:VAL:HG21	1:G:217:ILE:HD11	1.97	0.47
2:I:851:THR:HG22	2:I:852:ALA:H	1.80	0.47
3:J:1261:LEU:HB3	3:J:1304:ARG:HD3	1.96	0.47
3:J:531:LYS:H	3:J:531:LYS:CD	2.28	0.47
1:M:102:LEU:HD13	1:M:115:ILE:HA	1.95	0.47
1:M:45:ARG:NH2	1:N:37:HIS:HB2	2.29	0.47
2:O:340:ASP:O	2:O:342:ASP:N	2.47	0.47
3:P:609:TYR:CE2	3:P:614:LEU:HD13	2.49	0.47
3:P:314:ARG:CZ	5:R:96:ASP:OD1	2.62	0.47
6:1:19:DA:N3	7:2:45:DG:N2	2.61	0.47
1:B:104:LYS:HE3	1:B:114:ASP:CG	2.35	0.47
2:C:551:HIS:HB3	2:C:554:HIS:CE1	2.50	0.47
2:C:761:GLN:O	2:C:762:ASN:CB	2.60	0.47
3:D:536:LEU:HD13	3:D:542:ALA:CB	2.37	0.47
3:D:512:TYR:CE1	3:D:545:HIS:HE1	2.32	0.47
1:G:86:LYS:HE2	1:G:174:ASP:HB2	1.95	0.47
1:H:30:PRO:HG3	1:H:192:VAL:HG21	1.97	0.47
2:I:1246:ARG:HD2	2:I:1265:PHE:O	2.15	0.47
2:I:317:LEU:HD22	2:I:322:LEU:HD21	1.96	0.47
2:I:598:VAL:HG13	2:I:627:GLY:HA2	1.97	0.47
2:I:736:VAL:O	2:I:741:MET:HE2	2.15	0.47
2:I:798:GLN:HB2	2:I:828:PHE:CE2	2.47	0.47
3:J:553:THR:CG2	3:J:566:LYS:C	2.80	0.47
3:J:587:LEU:CD2	3:J:611:ILE:HD12	2.45	0.47
5:L:571:TYR:HB2	5:L:576:VAL:CG2	2.45	0.47
2:O:810:TYR:CE2	2:O:1078:LYS:HD2	2.50	0.47
2:O:733:VAL:HG12	2:O:750:ILE:HA	1.97	0.47
3:P:1137:GLY:O	3:P:1141:VAL:HG23	2.15	0.47
3:P:1224:ARG:HB3	3:P:1228:ALA:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:542:ARG:NH2	6:4:50:DT:C7	2.78	0.47
1:B:155:ALA:CB	1:B:172:LEU:HD21	2.44	0.47
3:D:366:CYS:SG	3:D:437:PHE:CB	3.03	0.47
3:D:603:LYS:O	3:D:607:THR:OG1	2.31	0.47
3:D:609:TYR:HA	3:D:617:THR:HG21	1.96	0.47
3:D:673:VAL:CG1	3:D:678:ARG:HB2	2.45	0.47
3:D:943:ARG:CG	3:D:944:ALA:N	2.64	0.47
2:I:295:LYS:O	2:I:317:LEU:HB2	2.14	0.47
2:I:634:VAL:HG12	2:I:635:THR:H	1.79	0.47
2:I:770:CYS:HB3	2:I:791:LEU:HD23	1.94	0.47
2:I:839:VAL:HG13	2:I:1046:VAL:HG13	1.95	0.47
3:J:613:GLY:O	3:J:616:PRO:HD2	2.15	0.47
3:J:759:ILE:HG23	3:J:771:GLN:CD	2.35	0.47
3:J:882:VAL:HG22	3:J:883:ARG:O	2.14	0.47
5:L:508:GLU:O	5:L:518:HIS:HB3	2.15	0.47
2:O:839:VAL:HG12	2:O:1046:VAL:HG13	1.96	0.47
2:O:689:ALA:CB	2:O:1233:LEU:HD13	2.43	0.47
2:O:170:VAL:HG12	2:O:172:TYR:CE2	2.50	0.47
2:O:293:ALA:HB2	2:O:319:LEU:CD2	2.45	0.47
3:P:1156:LEU:HD23	3:P:1209:VAL:HA	1.96	0.47
3:P:1280:VAL:HG12	3:P:1284:ARG:HB2	1.96	0.47
3:P:139:LEU:HD23	3:P:181:GLY:O	2.15	0.47
3:P:300:GLN:O	3:P:303:VAL:HB	2.15	0.47
3:P:478:LEU:HD23	3:P:478:LEU:HA	1.59	0.47
3:P:723:TYR:CZ	3:P:727:ASP:HB2	2.49	0.47
3:P:773:PHE:CD2	3:P:773:PHE:C	2.88	0.47
3:P:789:LYS:HE3	3:P:1135:THR:HA	1.97	0.47
2:C:200:ARG:HD2	6:1:50:DT:O2	2.14	0.47
6:1:58:DG:C6	6:1:59:DG:C6	3.03	0.47
6:4:47:DC:C5'	6:4:47:DC:C6	2.98	0.47
2:C:851:THR:HG22	2:C:852:ALA:N	2.29	0.47
3:D:115:TRP:CH2	3:D:1329:THR:HA	2.49	0.47
3:D:1180:VAL:HG23	3:D:1181:ASP:N	2.30	0.47
3:D:1224:ARG:HD3	3:D:1228:ALA:CB	2.45	0.47
3:D:335:GLN:OE1	5:F:518:HIS:NE2	2.47	0.47
2:I:794:LEU:HD12	2:I:795:ALA:H	1.79	0.47
3:J:109:SER:CB	3:J:296:LYS:CE	2.87	0.47
3:J:275:ARG:HD3	3:J:298:MET:HB3	1.97	0.47
3:J:530:PRO:CD	3:J:531:LYS:HD2	2.45	0.47
3:J:639:VAL:HG12	3:J:639:VAL:O	2.14	0.47
2:I:1116:HIS:CD2	3:J:641:ILE:CG1	2.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:673:VAL:HG11	3:J:678:ARG:HD3	1.96	0.47
3:J:759:ILE:HD13	3:J:771:GLN:HB3	1.97	0.47
2:O:67:GLU:CD	2:O:105:TYR:OH	2.52	0.47
2:O:297:VAL:HG21	2:O:311:CYS:HB2	1.96	0.47
2:O:488:MET:CB	2:O:489:PRO:HD2	2.37	0.47
3:P:201:LEU:HD12	3:P:221:ILE:HG12	1.97	0.47
3:P:332:LYS:C	3:P:333:GLY:O	2.53	0.47
3:P:350:SER:O	3:P:376:LEU:HD21	2.15	0.47
3:P:498:PRO:HD3	3:P:606:ASN:ND2	2.29	0.47
5:R:387:VAL:CG1	5:R:388:ILE:N	2.73	0.47
7:5:34:DG:H2"	7:5:35:DT:OP2	2.15	0.46
1:A:208:ASN:O	1:A:210:THR:N	2.48	0.46
1:A:213:PRO:O	1:A:217:ILE:CD1	2.58	0.46
1:B:123:ILE:H	1:B:123:ILE:HG13	1.35	0.46
2:C:933:VAL:CG1	2:C:934:PHE:N	2.79	0.46
3:D:117:LEU:HD21	3:D:139:LEU:CD1	2.45	0.46
3:D:615:LYS:N	3:D:616:PRO:CD	2.78	0.46
4:E:30:MET:HE1	4:E:46:THR:HA	1.95	0.46
5:F:91:ILE:CG2	5:F:94:THR:H	2.28	0.46
2:I:139:ASN:OD1	2:I:139:ASN:N	2.47	0.46
2:I:202:ARG:HH22	7:5:6:DG:C5'	2.28	0.46
3:J:70:CYS:HA	3:J:90:VAL:HG11	1.96	0.46
3:J:261:ALA:HB1	5:L:519:LEU:CD2	2.44	0.46
1:N:68:TYR:CE1	1:N:79:LEU:HD21	2.49	0.46
2:O:888:THR:O	2:O:913:VAL:HG13	2.15	0.46
3:P:165:TYR:HD2	3:P:166:LEU:HG	1.80	0.46
5:R:216:LEU:O	5:R:220:LYS:HG2	2.16	0.46
7:8:23:DT:C3'	7:8:24:DT:H5"	2.41	0.46
2:C:1111:GLN:O	2:C:1115:THR:OG1	2.33	0.46
2:C:149:LEU:HD21	2:C:451:ARG:CZ	2.45	0.46
2:C:255:ILE:CG2	2:C:255:ILE:O	2.60	0.46
2:C:279:LYS:HE3	5:L:473:GLU:OE2	2.15	0.46
2:C:409:LEU:HD11	2:C:427:ASP:HB3	1.94	0.46
2:C:431:LYS:O	2:C:434:ASP:HB2	2.14	0.46
2:C:667:LEU:HD22	2:C:705:GLU:OE2	2.15	0.46
2:C:741:MET:HE1	2:C:747:GLY:HA3	1.97	0.46
3:D:146:VAL:HG21	3:D:158:GLN:CB	2.34	0.46
3:D:188:LEU:HD12	3:D:188:LEU:O	2.16	0.46
3:D:30:ILE:CD1	3:D:243:PRO:HD3	2.44	0.46
3:D:601:ILE:HG22	3:D:602:SER:N	2.30	0.46
3:D:622:ASP:HA	3:D:625:MET:HE1	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:885:VAL:HG11	3:D:1255:VAL:HA	1.97	0.46
5:F:341:LEU:HD22	5:F:345:GLN:OE1	2.16	0.46
1:G:102:LEU:HD11	1:G:114:ASP:HB3	1.97	0.46
2:I:1161:LEU:O	2:I:1163:THR:N	2.49	0.46
2:I:1225:VAL:HG13	3:J:638:SER:HB3	1.97	0.46
2:I:759:SER:OG	2:I:763:THR:N	2.47	0.46
3:J:820:ILE:HD12	3:J:884:SER:HB3	1.97	0.46
5:L:84:LEU:HG	5:L:107:THR:HG22	1.98	0.46
1:N:37:HIS:CD2	1:N:187:VAL:HG11	2.51	0.46
2:O:104:ILE:O	2:O:115:LYS:HB3	2.15	0.46
3:P:930:LEU:CB	3:P:1134:ILE:CD1	2.93	0.46
3:P:1253:ILE:O	3:P:1256:ILE:HD12	2.16	0.46
3:P:139:LEU:HA	3:P:181:GLY:HA2	1.97	0.46
3:P:277:ASN:O	3:P:281:ARG:HG3	2.16	0.46
5:R:310:GLU:CB	5:R:355:ILE:CD1	2.93	0.46
5:R:476:ARG:CG	5:R:477:GLU:N	2.77	0.46
5:R:490:PRO:HB2	5:R:492:ASP:OD2	2.14	0.46
2:C:1161:LEU:C	2:C:1161:LEU:HD12	2.35	0.46
3:D:126:LEU:CD2	3:D:216:LYS:NZ	2.78	0.46
3:D:572:THR:HG1	3:D:576:ARG:HB2	1.79	0.46
5:F:297:MET:HE3	5:F:326:TRP:HZ3	1.80	0.46
5:F:333:VAL:HG22	5:F:336:GLU:HB2	1.98	0.46
5:F:390:ILE:HD11	5:F:432:THR:HA	1.98	0.46
2:I:1278:LEU:CB	2:I:1287:LEU:HD22	2.44	0.46
3:J:246:PRO:HA	3:J:247:PRO:HD3	1.84	0.46
1:M:100:LEU:HA	1:M:100:LEU:HD23	1.77	0.46
1:N:32:GLU:HG2	1:N:33:ARG:N	2.31	0.46
2:O:1335:ILE:HG22	3:P:22:ILE:HG22	1.98	0.46
3:P:1087:ASP:HB3	3:P:1096:PRO:HB3	1.97	0.46
3:P:527:LEU:HD22	3:P:532:GLU:CD	2.36	0.46
6:4:49:DG:C3'	6:4:49:DG:C8	2.97	0.46
1:B:68:TYR:HA	1:B:79:LEU:HD21	1.96	0.46
2:C:540:ARG:NH1	2:C:567:PRO:CB	2.78	0.46
2:C:790:ASP:O	2:C:792:GLY:N	2.48	0.46
3:D:114:ILE:HG13	3:D:118:LYS:HG2	1.97	0.46
3:D:1253:ILE:O	3:D:1257:VAL:HG23	2.15	0.46
4:E:18:ASP:O	4:E:22:VAL:HG23	2.15	0.46
1:H:68:TYR:CD2	1:H:68:TYR:N	2.83	0.46
2:I:375:PRO:HB3	5:L:87:VAL:CG2	2.45	0.46
2:I:184:LEU:CD2	2:I:389:PHE:CE2	2.85	0.46
3:J:131:PRO:O	3:J:135:ILE:CG1	2.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:839:VAL:HG12	3:J:839:VAL:O	2.14	0.46
3:J:899:TYR:CD1	3:J:915:ILE:HD13	2.50	0.46
2:O:1073:LYS:HG3	3:P:462:ASP:HB3	1.97	0.46
2:O:112:GLY:C	2:O:114:VAL:N	2.69	0.46
3:P:1252:HIS:HA	3:P:1255:VAL:HG23	1.97	0.46
3:P:245:LEU:HD23	3:P:250:ARG:HG2	1.98	0.46
3:P:950:ILE:HB	3:P:1018:ALA:CB	2.43	0.46
4:Q:54:ILE:HG12	4:Q:59:ILE:CB	2.44	0.46
6:1:17:DA:H1'	6:1:18:DC:O4'	2.14	0.46
7:2:12:DG:O3'	7:2:13:DA:P	2.74	0.46
2:C:1141:LEU:C	2:C:1145:ILE:HD12	2.36	0.46
2:C:34:SER:OG	2:C:455:SER:HB2	2.15	0.46
3:D:1180:VAL:CG2	3:D:1181:ASP:N	2.78	0.46
3:D:127:LEU:HD23	3:D:223:LEU:HD13	1.98	0.46
3:D:492:SER:CB	3:D:495:ASN:OD1	2.63	0.46
3:D:638:SER:C	3:D:639:VAL:CG2	2.83	0.46
3:D:725:MET:HE1	3:D:732:GLY:H	1.78	0.46
3:D:95:THR:O	3:D:95:THR:HG22	2.15	0.46
5:F:453:PRO:O	5:F:457:ILE:HG12	2.15	0.46
3:D:262:THR:CA	5:F:507:MET:CE	2.91	0.46
5:F:555:GLU:O	5:F:559:LEU:HG	2.15	0.46
2:I:1246:ARG:CD	2:I:1265:PHE:O	2.63	0.46
2:I:1257:GLN:HG2	2:I:1295:SER:HB3	1.97	0.46
2:I:253:PHE:O	2:I:255:ILE:HD12	2.15	0.46
2:I:806:PRO:HA	2:I:811:ASN:ND2	2.29	0.46
3:J:265:LEU:HD21	3:J:326:SER:HA	1.96	0.46
3:J:379:PRO:CG	3:J:380:PHE:H	2.26	0.46
3:J:645:VAL:HG22	3:J:701:LEU:HD13	1.96	0.46
3:J:863:LEU:HD22	3:J:908:ILE:HG13	1.97	0.46
4:K:46:THR:OG1	4:K:47:THR:N	2.48	0.46
5:L:279:ARG:O	5:L:283:GLN:HG2	2.15	0.46
2:O:1111:GLN:O	2:O:1115:THR:OG1	2.32	0.46
2:O:1192:GLU:OE2	3:P:764:ARG:NH2	2.39	0.46
2:O:663:VAL:HG12	2:O:664:GLY:N	2.30	0.46
2:O:708:VAL:CG1	2:O:794:LEU:HD22	2.45	0.46
2:O:1285:TYR:CD2	3:P:1361:THR:CG2	2.98	0.46
3:P:111:THR:HG21	3:P:303:VAL:HG21	1.98	0.46
5:R:166:VAL:HG12	5:R:168:PRO:CD	2.38	0.46
7:2:26:DT:H3'	7:2:27:DA:C5'	2.46	0.46
1:B:140:ILE:HD12	1:B:141:SER:H	1.80	0.46
2:C:642:SER:O	2:C:643:SER:CB	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1062:LEU:HD13	3:D:1066:GLU:HB3	1.98	0.46
3:D:690:ASN:ND2	3:D:690:ASN:C	2.68	0.46
5:F:364:ARG:O	5:F:367:ILE:HB	2.15	0.46
3:D:136:GLU:OE1	5:F:93:ARG:HB2	2.15	0.46
1:G:52:PRO:O	1:G:179:PRO:HG3	2.15	0.46
1:G:208:ASN:ND2	1:G:208:ASN:H	2.12	0.46
2:I:173:ASN:HB3	2:I:187:GLU:HB3	1.98	0.46
2:I:22:LEU:HG	2:I:23:ASP:H	1.80	0.46
2:I:890:LYS:HG3	2:I:914:LYS:HG3	1.97	0.46
3:J:1229:VAL:HG13	3:J:1230:THR:N	2.31	0.46
3:J:154:LEU:CD2	3:J:158:GLN:HG2	2.46	0.46
3:J:915:ILE:O	3:J:915:ILE:HG22	2.15	0.46
2:O:498:ILE:HG13	2:O:498:ILE:H	1.53	0.46
3:P:427:PRO:HG2	3:P:429:LEU:HD21	1.98	0.46
3:P:759:ILE:HG12	3:P:771:GLN:CG	2.46	0.46
5:R:556:ALA:O	5:R:560:ARG:HG3	2.15	0.46
6:1:34:DG:N2	7:2:30:DA:C2	2.84	0.46
6:7:45:DT:H3'	6:7:46:DG:O4'	2.16	0.46
1:A:107:ILE:H	1:A:107:ILE:HG13	1.59	0.46
1:A:150:ARG:HD2	1:B:6:THR:HA	1.98	0.46
2:C:1334:GLY:O	2:C:1335:ILE:HG12	2.15	0.46
2:C:448:LEU:HB2	2:C:553:THR:HB	1.97	0.46
2:C:557:ARG:NH2	2:C:608:ALA:HA	2.31	0.46
3:D:1029:THR:HG22	3:D:1099:TYR:CD1	2.51	0.46
3:D:1224:ARG:CD	3:D:1228:ALA:CB	2.90	0.46
3:D:544:LEU:CD2	3:D:578:ILE:CD1	2.85	0.46
5:F:547:VAL:CG1	5:F:598:LEU:CD2	2.94	0.46
1:G:224:LEU:HD12	1:G:224:LEU:C	2.36	0.46
2:I:149:LEU:HA	2:I:453:ILE:CD1	2.44	0.46
3:J:1223:LEU:HD23	3:J:1223:LEU:HA	1.77	0.46
3:J:20:ILE:HD11	3:J:1344:LEU:HD21	1.98	0.46
3:J:381:ILE:HD11	3:J:412:LEU:HD13	1.98	0.46
3:J:367:GLY:HA3	3:J:448:GLN:HB2	1.97	0.46
2:O:191:LYS:O	2:O:192:ASP:HB2	2.16	0.46
2:O:333:ILE:CG2	2:O:334:GLU:H	2.28	0.46
3:P:1355:ARG:HD3	3:P:1369:ARG:HH12	1.80	0.46
3:P:517:CYS:CB	3:P:545:HIS:CB	2.93	0.46
3:P:646:ILE:HG13	3:P:646:ILE:H	1.56	0.46
5:R:144:LEU:HD13	5:R:165:PHE:CE2	2.51	0.46
5:R:390:ILE:CD1	5:R:432:THR:HA	2.46	0.46
6:7:12:DA:H2"	6:7:13:DC:O5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:3:TYR:HD1	2:C:7:GLU:OE1	1.99	0.46
2:C:972:PHE:HE2	2:C:994:ARG:O	1.99	0.46
3:D:497:GLU:HB3	3:D:498:PRO:CD	2.42	0.46
3:D:575:GLY:HA2	3:D:578:ILE:HD12	1.98	0.46
4:E:84:THR:O	4:E:88:GLU:HG3	2.15	0.46
1:H:208:ASN:O	1:H:210:THR:N	2.47	0.46
2:I:12:ARG:HA	2:I:1181:PRO:O	2.15	0.46
2:I:149:LEU:HD11	2:I:451:ARG:CZ	2.45	0.46
2:I:496:LYS:NZ	7:5:24:DT:H5'	2.30	0.46
2:I:565:GLU:O	2:I:567:PRO:CD	2.64	0.46
3:J:664:ILE:HD12	3:J:685:ILE:CD1	2.46	0.46
1:N:83:LEU:HD13	1:N:86:LYS:HE3	1.98	0.46
2:O:112:GLY:C	2:O:114:VAL:H	2.15	0.46
3:P:1343:GLU:O	3:P:1344:LEU:CB	2.62	0.46
3:P:816:THR:HG23	3:P:818:GLU:H	1.80	0.46
4:Q:78:ALA:O	4:Q:81:GLN:CG	2.64	0.46
5:R:461:ASN:N	5:R:461:ASN:OD1	2.46	0.46
5:R:537:THR:O	5:R:540:LEU:HB3	2.15	0.46
1:A:41:ASN:ND2	2:C:1218:GLY:HA2	2.29	0.46
2:C:112:GLY:O	2:C:114:VAL:N	2.48	0.46
2:C:539:THR:CG2	2:C:540:ARG:H	2.26	0.46
2:C:73:TYR:HB3	2:C:98:VAL:HG22	1.98	0.46
3:D:733:SER:H	3:D:736:GLN:HG3	1.81	0.46
3:D:903:LEU:HA	3:D:903:LEU:HD23	1.75	0.46
3:D:64:PRO:HG3	3:D:91:GLU:O	2.16	0.46
2:I:1252:SER:HB2	2:I:1259:LEU:CD2	2.43	0.46
2:I:755:LYS:NZ	2:I:769:PRO:HD3	2.23	0.46
3:J:1173:ARG:C	3:J:1190:ILE:HD12	2.35	0.46
3:J:1356:LEU:C	3:J:1357:ILE:HD12	2.35	0.46
4:K:26:ARG:NH2	4:K:30:MET:HG2	2.31	0.46
1:N:185:TYR:CD2	1:N:185:TYR:O	2.69	0.46
2:O:678:ARG:HB3	2:O:1108:ASN:HD22	1.80	0.46
2:O:1283:ALA:HB1	3:P:479:GLU:CD	2.36	0.46
3:P:998:PRO:HG2	3:P:1020:TRP:CE2	2.50	0.46
3:P:1158:GLU:HA	3:P:1223:LEU:HD13	1.98	0.46
3:P:102:MET:CG	3:P:246:PRO:HD3	2.46	0.46
3:P:68:TYR:C	3:P:92:VAL:HG13	2.36	0.46
5:R:97:PRO:HA	5:R:100:MET:HG3	1.98	0.46
1:A:108:GLY:O	1:A:133:LEU:HB2	2.15	0.46
2:C:1042:LEU:HD13	2:C:1049:ILE:HD12	1.98	0.46
2:C:1077:SER:CB	3:D:356:THR:HG22	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:447:HIS:CD2	2:C:449:GLY:H	2.24	0.46
3:D:117:LEU:HD13	3:D:124:ILE:HD12	1.97	0.46
3:D:1257:VAL:CA	3:D:1260:MET:HE3	2.41	0.46
3:D:421:VAL:HG12	3:D:422:LEU:H	1.81	0.46
3:D:363:LEU:HG	3:D:487:THR:HG22	1.98	0.46
3:D:501:VAL:CG1	3:D:502:PRO:CD	2.94	0.46
5:F:310:GLU:CD	5:F:355:ILE:HG21	2.37	0.46
2:I:1247:SER:OG	2:I:1248:THR:N	2.47	0.46
2:I:14:ASP:OD2	2:I:1156:ARG:CZ	2.63	0.46
2:I:419:ILE:HG12	2:I:419:ILE:H	1.56	0.46
2:I:599:VAL:CG2	2:I:623:LEU:HD21	2.46	0.46
3:J:301:GLU:HB2	3:J:312:ARG:NH2	2.30	0.46
3:J:519:ASN:HB3	3:J:523:GLU:CG	2.45	0.46
3:J:734:ALA:O	3:J:737:ILE:HB	2.16	0.46
3:J:909:ILE:HG12	3:J:910:ASN:O	2.16	0.46
5:L:105:MET:HE3	5:L:385:ARG:HG2	1.98	0.46
1:M:232:VAL:HG13	1:N:218:ARG:HG3	1.93	0.46
2:O:1073:LYS:HE3	3:P:462:ASP:HB2	1.98	0.46
2:O:91:THR:CG2	2:O:138:ILE:HA	2.43	0.46
2:O:260:LYS:NZ	2:O:262:TYR:OH	2.49	0.46
2:O:120:GLN:HG2	2:O:489:PRO:HG2	1.98	0.46
2:O:550:VAL:HG21	3:P:776:THR:HG21	1.89	0.46
2:O:719:LYS:CD	2:O:751:TYR:HE1	2.29	0.46
2:O:88:ARG:HB3	2:O:90:VAL:HG23	1.97	0.46
2:O:913:VAL:CG1	2:O:914:LYS:N	2.79	0.46
3:P:803:VAL:HG12	3:P:1259:GLN:CB	2.46	0.46
3:P:476:ALA:HA	3:P:479:GLU:HG2	1.98	0.46
3:P:555:TYR:CB	3:P:586:GLY:HA2	2.46	0.46
2:O:898:GLU:CD	5:R:565:ILE:CG2	2.85	0.46
7:2:12:DG:O3'	7:2:13:DA:H5'	2.16	0.45
1:B:33:ARG:N	1:B:198:LEU:HD12	2.29	0.45
1:B:79:LEU:H	1:B:79:LEU:HG	1.43	0.45
2:C:678:ARG:HH12	2:C:1106:ARG:HD2	1.77	0.45
2:C:196:VAL:HG12	2:C:198:ILE:HG13	1.96	0.45
2:C:251:ALA:HB2	2:C:263:VAL:CG1	2.46	0.45
2:C:788:SER:OG	2:C:796:LEU:HA	2.16	0.45
2:C:845:LEU:O	2:C:889:PRO:HB2	2.15	0.45
2:C:980:VAL:CG1	2:C:980:VAL:O	2.63	0.45
3:D:150:GLY:HA3	3:D:175:GLU:HB3	1.98	0.45
3:D:673:VAL:HG13	3:D:678:ARG:HB2	1.97	0.45
5:F:261:LEU:HD23	5:F:261:LEU:HA	1.76	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:354:THR:O	5:F:358:VAL:HG23	2.16	0.45
1:G:225:ALA:O	1:G:228:LEU:HB2	2.16	0.45
2:I:1294:LYS:HE2	3:J:349:TYR:HB2	1.97	0.45
2:I:1301:ARG:HG2	2:I:1302:THR:N	2.31	0.45
2:I:213:LEU:HA	2:I:213:LEU:HD23	1.79	0.45
2:I:448:LEU:CD2	2:I:553:THR:OG1	2.64	0.45
2:I:559:CYS:CB	2:I:662:SER:HB3	2.36	0.45
3:J:629:PHE:O	3:J:632:ALA:HB3	2.15	0.45
3:J:923:ILE:CD1	3:J:1253:ILE:HG12	2.46	0.45
4:K:79:GLU:HG2	4:K:83:VAL:CG2	2.44	0.45
1:M:210:THR:HG22	1:M:211:ILE:CD1	2.46	0.45
2:O:1120:ALA:HB2	2:O:1199:LEU:CD2	2.46	0.45
2:O:247:ARG:CG	2:O:274:ILE:HD13	2.27	0.45
2:O:726:TYR:HE2	2:O:728:ASP:HB2	1.81	0.45
2:O:928:VAL:HG22	2:O:1054:LEU:CD2	2.46	0.45
3:P:113:HIS:CA	3:P:239:LEU:HD11	2.46	0.45
3:P:259:ARG:NH1	5:R:502:LYS:CD	2.79	0.45
3:P:698:MET:O	3:P:702:GLN:CB	2.64	0.45
5:R:423:ARG:NH1	6:7:37:DA:C4	2.83	0.45
6:1:54:DA:H1'	6:1:55:DC:H5'	1.98	0.45
3:J:1148:ARG:HG2	6:4:56:DG:OP1	2.16	0.45
5:R:429:THR:OG1	6:7:39:DA:H8	1.84	0.45
1:B:61:ILE:CG2	1:B:140:ILE:HD11	2.46	0.45
1:B:67:GLU:O	1:B:78:ILE:HB	2.16	0.45
2:C:1227:VAL:CG1	2:C:1228:GLY:N	2.75	0.45
2:C:1321:GLU:O	2:C:1325:VAL:HG23	2.16	0.45
2:C:13:LYS:O	2:C:1183:ALA:N	2.40	0.45
2:C:446:ASP:N	2:C:446:ASP:OD1	2.49	0.45
2:C:46:GLN:O	2:C:46:GLN:HG3	2.16	0.45
3:D:483:LEU:HD21	4:E:16:ARG:HB3	1.96	0.45
3:D:622:ASP:O	3:D:625:MET:HE2	2.16	0.45
3:D:782:GLY:O	3:D:935:PHE:HB3	2.17	0.45
5:F:547:VAL:HG11	5:F:598:LEU:CD2	2.45	0.45
1:H:195:ARG:HA	1:H:195:ARG:HD3	1.46	0.45
2:I:1081:PRO:HB3	2:I:1083:GLU:OE1	2.16	0.45
2:I:164:THR:O	2:I:165:HIS:CB	2.57	0.45
2:I:542:ARG:CZ	6:4:50:DT:C7	2.94	0.45
2:I:693:LEU:O	2:I:693:LEU:HD12	2.16	0.45
3:J:115:TRP:CH2	3:J:1329:THR:CA	2.81	0.45
3:J:609:TYR:HA	3:J:617:THR:HG21	1.98	0.45
5:L:333:VAL:HG13	5:L:337:VAL:HG23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:489:MET:HB2	5:L:494:ILE:CD1	2.46	0.45
1:N:104:LYS:HG3	1:N:105:SER:H	1.80	0.45
2:O:1330:ILE:HG22	2:O:1335:ILE:HB	1.98	0.45
2:O:672:GLU:OE2	2:O:673:HIS:NE2	2.50	0.45
2:O:896:THR:HG23	2:O:899:GLU:N	2.29	0.45
3:P:245:LEU:HD21	3:P:249:LEU:HB2	1.98	0.45
3:P:322:ARG:CB	3:P:323:PRO:CD	2.86	0.45
5:R:511:ILE:CG1	5:R:517:SER:HB2	2.46	0.45
6:4:30:DG:C2	7:5:34:DG:C2	3.04	0.45
1:A:179:PRO:HA	1:A:208:ASN:ND2	2.30	0.45
1:A:45:ARG:HA	2:C:1083:GLU:HG2	1.98	0.45
2:C:188:PHE:CE2	2:C:436:ARG:HB2	2.52	0.45
2:C:459:MET:HB3	2:C:505:PHE:CE1	2.51	0.45
2:C:725:GLN:HB2	2:C:735:LYS:HG3	1.98	0.45
2:C:896:THR:HG22	2:C:899:GLU:OE1	2.17	0.45
3:D:1365:TYR:O	3:D:1368:ASP:HB2	2.17	0.45
3:D:147:ILE:HG13	3:D:178:ALA:HA	1.96	0.45
3:D:744:ARG:H	3:D:759:ILE:HG22	1.81	0.45
5:F:390:ILE:CD1	5:F:432:THR:HA	2.47	0.45
2:I:618:GLN:HE21	3:J:769:VAL:HB	1.81	0.45
2:I:873:ILE:HD11	2:I:944:ARG:HH12	1.81	0.45
3:J:68:TYR:CD2	3:J:78:LEU:CD2	2.99	0.45
5:L:552:THR:O	5:L:555:GLU:N	2.49	0.45
1:M:54:CYS:O	1:M:55:ALA:HB2	2.15	0.45
1:N:64:VAL:HG21	1:N:71:LYS:HD2	1.98	0.45
1:N:68:TYR:CD1	1:N:79:LEU:HD21	2.51	0.45
2:O:1108:ASN:C	2:O:1109:ILE:HD13	2.36	0.45
2:O:203:LYS:O	2:O:204:LEU:HD23	2.16	0.45
2:O:417:SER:HB2	2:O:419:ILE:HG12	1.99	0.45
2:O:834:GLN:HG3	2:O:835:GLU:N	2.32	0.45
3:P:1286:LYS:O	3:P:1290:ARG:HG3	2.15	0.45
3:P:923:ILE:HD11	3:P:1252:HIS:CB	2.46	0.45
3:P:934:THR:O	3:P:934:THR:HG22	2.15	0.45
5:R:440:THR:C	5:R:443:ILE:HG22	2.36	0.45
1:B:61:ILE:CD1	1:B:171:LEU:HD13	2.46	0.45
2:C:448:LEU:HA	2:C:448:LEU:HD23	1.45	0.45
2:C:83:GLN:O	2:C:86:GLN:HB2	2.16	0.45
3:D:1046:ILE:HG22	3:D:1061:VAL:HA	1.98	0.45
3:D:205:LEU:HA	3:D:205:LEU:HD23	1.50	0.45
3:D:492:SER:HG	3:D:495:ASN:CG	2.10	0.45
2:C:808:ASN:HA	3:D:629:PHE:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:793:SER:O	3:D:796:LEU:HB3	2.16	0.45
5:F:91:ILE:CD1	5:F:103:ARG:NH1	2.61	0.45
1:G:47:LEU:HD12	1:G:183:ILE:HD13	1.96	0.45
2:I:558:VAL:CG1	2:I:559:CYS:N	2.79	0.45
3:J:1173:ARG:O	3:J:1190:ILE:HB	2.17	0.45
3:J:1255:VAL:HG12	3:J:1256:ILE:N	2.31	0.45
3:J:115:TRP:HE3	3:J:1333:THR:CG2	2.29	0.45
3:J:27:PRO:O	3:J:31:ARG:HG3	2.17	0.45
3:J:289:ASP:O	3:J:293:ARG:HG3	2.17	0.45
3:J:354:VAL:HG12	3:J:355:ILE:N	2.30	0.45
2:O:1109:ILE:HA	2:O:1112:ILE:HD12	1.97	0.45
2:O:1278:LEU:HD11	2:O:1286:THR:HB	1.97	0.45
2:O:1292:THR:CG2	2:O:1293:VAL:H	2.23	0.45
2:O:213:LEU:HD22	2:O:422:LYS:HD2	1.98	0.45
2:O:734:ILE:CG2	2:O:751:TYR:HE2	2.29	0.45
3:P:1317:GLU:O	3:P:1318:SER:CB	2.63	0.45
3:P:154:LEU:HA	3:P:154:LEU:HD23	1.74	0.45
3:P:548:VAL:HG12	3:P:549:LYS:N	2.31	0.45
5:R:410:ILE:O	5:R:413:MET:HB2	2.15	0.45
6:1:25:DC:H2'	6:1:26:DT:H72	1.99	0.45
1:A:11:PRO:HB3	1:A:30:PRO:O	2.16	0.45
2:C:145:ILE:H	2:C:145:ILE:HG13	1.48	0.45
2:C:211:ARG:CG	2:C:211:ARG:HH11	2.28	0.45
2:C:575:LEU:CD1	2:C:579:ALA:HB3	2.24	0.45
2:C:718:ALA:HB2	2:C:783:LEU:HD11	1.99	0.45
2:C:897:PRO:HB3	5:F:563:PHE:O	2.16	0.45
3:D:1132:LYS:HB3	3:D:1133:ASP:H	1.55	0.45
3:D:1167:LYS:NZ	3:D:1187:GLU:OE2	2.25	0.45
2:C:1274:GLU:HA	3:D:428:THR:HG21	1.98	0.45
3:D:471:PRO:CB	3:D:476:ALA:HB1	2.47	0.45
3:D:572:THR:OG1	3:D:573:THR:N	2.48	0.45
3:D:697:MET:O	3:D:701:LEU:HB2	2.17	0.45
3:D:814:CYS:SG	3:D:816:THR:OG1	2.75	0.45
3:D:835:LEU:HD12	3:D:839:VAL:HG23	1.98	0.45
2:I:1002:LEU:HB3	2:I:1003:THR:H	1.54	0.45
2:I:192:ASP:CG	2:I:436:ARG:HH21	2.18	0.45
2:I:505:PHE:O	2:I:509:SER:HB3	2.17	0.45
2:I:61:SER:HB3	2:I:66:SER:O	2.17	0.45
3:J:128:LEU:HD11	3:J:189:LEU:CD2	2.41	0.45
3:J:730:ALA:O	3:J:731:ARG:CB	2.62	0.45
3:J:797:THR:HG23	3:J:924:GLY:CA	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:909:ILE:CD1	3:J:913:GLU:HB3	2.42	0.45
1:M:107:ILE:HG13	1:M:136:GLU:HB3	1.99	0.45
2:O:1333:LEU:CB	2:O:1335:ILE:CD1	2.94	0.45
2:O:839:VAL:HG13	2:O:1049:ILE:HG23	1.98	0.45
3:P:34:SER:CB	3:P:104:HIS:HB3	2.47	0.45
3:P:1103:GLY:O	3:P:1104:LYS:HB2	2.16	0.45
3:P:135:ILE:HG13	3:P:135:ILE:H	1.20	0.45
5:R:386:LEU:HD13	6:7:41:DT:N1	2.31	0.45
1:A:140:ILE:CG1	1:A:141:SER:N	2.78	0.45
2:C:263:VAL:HG13	2:C:269:ILE:CD1	2.47	0.45
2:C:593:LYS:HA	2:C:652:TYR:CE1	2.52	0.45
2:C:772:SER:OG	2:C:773:LEU:N	2.49	0.45
3:D:1005:LYS:HD2	3:D:1011:VAL:HG12	1.99	0.45
5:F:564:GLY:C	5:F:567:MET:O	2.54	0.45
5:F:604:SER:HB3	5:F:607:LEU:HB2	1.99	0.45
2:I:310:ILE:HD13	2:I:324:LYS:HB3	1.98	0.45
2:I:883:LEU:CD2	2:I:920:VAL:HG22	2.36	0.45
3:J:470:VAL:HB	3:J:472:LEU:HD21	1.99	0.45
3:J:706:VAL:HA	3:J:714:GLU:O	2.16	0.45
3:J:880:VAL:CG1	3:J:881:LYS:N	2.80	0.45
1:N:208:ASN:O	1:N:210:THR:N	2.40	0.45
3:P:1169:THR:O	3:P:1170:LYS:HB2	2.17	0.45
3:P:27:PRO:O	3:P:31:ARG:HG3	2.17	0.45
3:P:435:GLN:HB2	3:P:457:TYR:OH	2.17	0.45
3:P:322:ARG:NE	5:R:510:PRO:CD	2.71	0.45
6:1:47:DC:H6	6:1:47:DC:H5"	1.81	0.45
6:4:25:DC:C2'	6:4:26:DT:H72	2.46	0.45
6:7:53:DG:C5	6:7:54:DA:N6	2.85	0.45
1:A:110:VAL:HG13	1:A:114:ASP:HB2	1.99	0.45
1:B:175:ALA:HB1	1:B:177:TYR:CE2	2.52	0.45
1:B:190:ALA:H	1:B:199:ASP:HA	1.81	0.45
2:C:873:ILE:H	2:C:873:ILE:HG13	1.37	0.45
3:D:109:SER:HB2	3:D:296:LYS:HE2	1.99	0.45
3:D:347:VAL:CG1	3:D:469:HIS:HE1	2.28	0.45
1:G:120:ASP:OD1	1:G:120:ASP:N	2.48	0.45
2:I:96:LEU:CB	2:I:127:ILE:HD11	2.36	0.45
2:I:351:LEU:O	2:I:354:ASP:HB3	2.17	0.45
3:J:245:LEU:HG	3:J:246:PRO:N	2.31	0.45
3:J:515:ARG:HH21	3:J:717:VAL:HB	1.82	0.45
3:J:78:LEU:N	3:J:78:LEU:HD23	2.31	0.45
3:J:883:ARG:NE	3:J:898:CYS:SG	2.89	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:385:ARG:HA	5:L:388:ILE:HG23	1.97	0.45
1:N:40:GLY:HA2	1:N:43:LEU:HD12	1.99	0.45
2:O:1294:LYS:HB3	3:P:347:VAL:CG1	2.46	0.45
2:O:589:THR:HG22	2:O:590:PRO:CD	2.46	0.45
3:P:1217:PRO:HA	3:P:1220:ILE:HD12	1.99	0.45
3:P:572:THR:HG1	3:P:576:ARG:HB2	1.82	0.45
3:P:840:LEU:CD1	3:P:869:CYS:SG	2.91	0.45
3:P:82:GLY:HA2	3:P:91:GLU:OE2	2.16	0.45
3:P:398:LYS:HE3	5:R:532:LEU:HD21	1.84	0.45
1:A:93:GLN:HB2	1:A:120:ASP:HB2	1.98	0.45
1:B:228:LEU:HD23	1:B:228:LEU:HA	1.45	0.45
2:C:1338:GLU:O	3:D:20:ILE:HG23	2.17	0.45
2:C:489:PRO:HA	2:C:492:MET:SD	2.57	0.45
3:D:1250:ASP:OD1	3:D:1250:ASP:N	2.49	0.45
3:D:227:PHE:HE1	3:D:234:PRO:CD	2.29	0.45
3:D:544:LEU:HA	3:D:574:VAL:CB	2.42	0.45
3:D:643:ASP:C	3:D:722:ILE:HD11	2.37	0.45
3:D:647:PRO:HD3	3:D:697:MET:HG3	1.97	0.45
1:G:149:GLY:HA3	1:G:177:TYR:CZ	2.51	0.45
1:H:39:LEU:C	1:H:43:LEU:CD1	2.86	0.45
2:I:1138:VAL:HA	2:I:1141:LEU:HD12	1.98	0.45
2:I:1287:LEU:O	2:I:1287:LEU:HD12	2.17	0.45
3:J:886:VAL:HA	3:J:1258:ARG:HG3	1.98	0.45
3:J:1270:GLY:HA2	3:J:1298:VAL:O	2.17	0.45
3:J:541:LEU:HD23	3:J:541:LEU:HA	1.64	0.45
3:J:708:ASN:HA	3:J:712:GLN:O	2.17	0.45
5:L:592:ALA:O	5:L:595:LEU:HB2	2.17	0.45
1:M:47:LEU:CD2	1:M:220:ALA:HB2	2.47	0.45
2:O:1061:GLN:CB	2:O:1062:PRO:HD2	2.47	0.45
2:O:1326:LEU:HG	2:O:1330:ILE:HD11	1.98	0.45
2:O:245:ARG:HD3	2:O:337:PHE:CE1	2.51	0.45
2:O:208:ILE:HG12	2:O:362:ALA:HB1	1.99	0.45
2:O:736:VAL:HG12	2:O:737:ASN:O	2.16	0.45
2:O:1294:LYS:HB3	3:P:347:VAL:HG13	1.99	0.45
3:P:48:THR:C	3:P:50:LYS:H	2.20	0.45
3:P:604:MET:HE2	3:P:604:MET:HB2	1.58	0.45
3:P:689:ALA:O	3:P:693:VAL:HG23	2.17	0.45
5:R:407:GLU:CG	5:R:442:SER:HB3	2.36	0.45
5:R:502:LYS:HE2	5:R:505:ILE:HD11	1.98	0.45
5:R:511:ILE:HD11	5:R:517:SER:HB2	1.99	0.45
7:2:25:DA:C2'	7:2:26:DT:H5"	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:51:MET:HB3	1:A:179:PRO:HD2	1.99	0.45
1:B:167:PRO:HD2	1:B:170:ARG:CB	2.47	0.45
2:C:181:GLY:HA3	2:C:395:TYR:CD1	2.52	0.45
2:C:533:LEU:HD23	2:C:538:LEU:O	2.17	0.45
2:C:73:TYR:HB2	2:C:96:LEU:HD11	1.99	0.45
2:C:88:ARG:NH2	2:C:1035:LYS:O	2.47	0.45
3:D:1229:VAL:CG1	3:D:1230:THR:N	2.79	0.45
3:D:216:LYS:HE2	3:D:219:LYS:HB2	1.99	0.45
3:D:297:ARG:NH1	5:F:100:MET:HB2	2.32	0.45
3:D:425:ARG:HG2	3:D:426:ALA:N	2.32	0.45
3:D:366:CYS:SG	3:D:437:PHE:HB2	2.57	0.45
3:D:536:LEU:CD1	3:D:542:ALA:HB2	2.38	0.45
3:D:706:VAL:HG11	3:D:713:GLU:OE1	2.17	0.45
3:D:79:LYS:HB2	5:F:569:THR:HG22	1.98	0.45
5:F:305:LEU:HD23	5:F:305:LEU:HA	1.78	0.45
1:H:223:ILE:HG22	1:H:227:GLN:HE21	1.82	0.45
2:I:1064:ASP:O	2:I:1076:ILE:HD12	2.17	0.45
2:I:1298:VAL:HG22	2:I:1301:ARG:NH2	2.32	0.45
2:I:1315:MET:HA	2:I:1315:MET:HE1	1.98	0.45
2:I:269:ILE:HD13	2:I:269:ILE:HA	1.67	0.45
2:I:149:LEU:HB2	2:I:453:ILE:HD11	1.98	0.45
2:I:748:ILE:HD12	2:I:967:LEU:HA	1.98	0.45
2:I:850:ILE:HG13	2:I:850:ILE:H	1.64	0.45
3:J:120:LEU:HD23	3:J:121:PRO:HA	1.99	0.45
3:J:622:ASP:O	3:J:625:MET:HB3	2.16	0.45
4:K:31:GLN:OE1	4:K:46:THR:HG21	2.17	0.45
2:O:1155:VAL:HG22	2:O:1157:GLN:H	1.82	0.45
3:P:185:ILE:HG23	3:P:189:LEU:CD1	2.47	0.45
5:R:137:TYR:CE2	5:R:139:GLU:HB2	2.52	0.45
5:R:443:ILE:HG23	5:R:444:ALA:N	2.32	0.45
2:C:575:LEU:HD12	2:C:576:SER:N	2.32	0.45
3:D:109:SER:HB3	3:D:299:LEU:HD22	1.98	0.45
3:D:260:PHE:O	5:F:505:ILE:N	2.47	0.45
3:D:423:LEU:HB3	3:D:466:MET:CE	2.47	0.45
3:D:492:SER:HB2	3:D:499:ILE:HD12	1.99	0.45
3:D:579:LEU:HD21	3:D:627:THR:HG21	1.98	0.45
5:F:401:PHE:HB2	5:F:402:LEU:HD23	1.99	0.45
5:F:489:MET:HB3	5:F:490:PRO:CD	2.47	0.45
5:F:503:GLU:HB3	5:F:504:PRO:HD2	1.98	0.45
2:I:1270:PHE:CZ	2:I:1274:GLU:HB3	2.52	0.45
2:I:149:LEU:O	2:I:149:LEU:HG	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:753:LEU:CB	2:I:755:LYS:HE2	2.48	0.45
2:I:836:LEU:HD23	2:I:836:LEU:HA	1.75	0.45
2:I:842:ASP:OD1	2:I:842:ASP:N	2.50	0.45
2:I:874:GLY:CA	2:I:928:VAL:HB	2.46	0.45
3:J:498:PRO:HB2	3:J:501:VAL:CG2	2.46	0.45
3:J:502:PRO:HB2	3:J:601:ILE:HD13	1.98	0.45
3:J:814:CYS:SG	3:J:895:CYS:HB3	2.57	0.45
1:M:190:ALA:CB	1:M:199:ASP:HA	2.47	0.45
2:O:1109:ILE:O	2:O:1113:LEU:HD12	2.17	0.45
2:O:1326:LEU:C	2:O:1330:ILE:HD12	2.27	0.45
2:O:203:LYS:HE3	7:8:6:DG:OP1	2.17	0.45
2:O:617:ALA:HA	2:O:636:CYS:SG	2.57	0.45
2:O:653:MET:HG2	2:O:654:ASP:N	2.31	0.45
3:P:176:PHE:C	3:P:176:PHE:CD2	2.90	0.45
3:P:421:VAL:HG13	3:P:470:VAL:HA	1.98	0.45
2:O:808:ASN:HA	3:P:629:PHE:HB3	1.98	0.45
3:P:429:LEU:HB3	3:P:925:GLU:HG2	1.99	0.45
5:R:145:LEU:HD13	5:R:225:ARG:CZ	2.47	0.45
5:R:291:CYS:O	5:R:295:CYS:HB2	2.16	0.45
2:I:200:ARG:HD2	6:4:50:DT:O2	2.18	0.44
1:B:44:ARG:NH1	3:D:538:ARG:HD3	2.30	0.44
2:C:156:PHE:CE2	2:C:177:ILE:HD12	2.52	0.44
2:C:176:ILE:N	2:C:176:ILE:CD1	2.79	0.44
2:C:403:MET:CE	2:C:407:ARG:NH2	2.79	0.44
2:C:878:THR:HG23	2:C:925:SER:CB	2.44	0.44
2:C:971:LEU:O	2:C:975:ILE:HG13	2.17	0.44
3:D:1366:HIS:O	3:D:1370:MET:HG3	2.17	0.44
3:D:378:LYS:HG2	3:D:382:TYR:CE2	2.50	0.44
3:D:785:ASP:HB3	3:D:935:PHE:CZ	2.51	0.44
2:I:1223:ARG:HB2	2:I:1224:PRO:HD2	1.99	0.44
2:I:1233:LEU:HD23	2:I:1233:LEU:HA	1.61	0.44
2:I:209:ILE:CG2	2:I:210:LEU:N	2.79	0.44
2:I:240:GLU:CG	2:I:284:LEU:HD21	2.45	0.44
2:I:576:SER:HA	2:I:662:SER:HA	1.99	0.44
2:I:675:ASP:OD2	2:I:677:ASN:ND2	2.50	0.44
2:I:808:ASN:ND2	3:J:633:ALA:HB3	2.32	0.44
3:J:216:LYS:HG3	3:J:217:LEU:N	2.31	0.44
3:J:334:LYS:O	3:J:339:ARG:HB2	2.18	0.44
3:J:518:VAL:O	3:J:520:ALA:N	2.50	0.44
1:M:41:ASN:ND2	2:O:1218:GLY:HA3	2.27	0.44
2:O:289:VAL:HG12	2:O:289:VAL:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:719:LYS:HD3	2:O:751:TYR:HE1	1.82	0.44
3:P:609:TYR:CD2	3:P:614:LEU:HD13	2.53	0.44
3:P:864:LEU:HD23	3:P:864:LEU:HA	1.50	0.44
5:R:355:ILE:H	5:R:355:ILE:HG13	1.46	0.44
5:R:411:GLY:HA3	5:R:438:ALA:CB	2.47	0.44
5:R:540:LEU:O	5:R:544:THR:HG23	2.16	0.44
1:B:144:ILE:H	1:B:144:ILE:HD12	1.82	0.44
1:A:150:ARG:NH1	1:B:7:GLU:O	2.50	0.44
2:C:1293:VAL:HG12	2:C:1300:GLY:O	2.17	0.44
3:D:1022:PRO:O	3:D:1024:THR:N	2.43	0.44
3:D:427:PRO:HG2	3:D:429:LEU:HD21	2.00	0.44
3:D:50:LYS:HD3	3:D:71:LEU:HD21	1.95	0.44
3:D:653:ILE:H	3:D:653:ILE:HG13	1.57	0.44
3:D:836:ARG:HD2	3:D:869:CYS:HB3	1.99	0.44
1:H:62:ASP:OD1	1:H:141:SER:HB3	2.17	0.44
1:H:68:TYR:CB	3:P:857:LEU:CD1	2.82	0.44
2:I:1326:LEU:HG	2:I:1327:LEU:N	2.27	0.44
2:I:267:ARG:HG3	2:I:268:ARG:N	2.32	0.44
2:I:983:GLY:HA3	2:I:1002:LEU:HD22	1.99	0.44
3:J:1090:ILE:CG2	3:J:1091:PRO:HD2	2.47	0.44
3:J:1194:ARG:HH11	3:J:1211:SER:HB3	1.82	0.44
3:J:886:VAL:HG22	3:J:1258:ARG:HB2	1.98	0.44
3:J:115:TRP:CH2	3:J:1332:LEU:HD12	2.48	0.44
3:J:355:ILE:O	3:J:355:ILE:HG13	2.17	0.44
3:J:579:LEU:HD23	3:J:579:LEU:HA	1.46	0.44
3:J:582:ILE:CG2	3:J:620:PHE:HE1	2.22	0.44
3:J:703:THR:HG21	3:J:715:LYS:NZ	2.33	0.44
1:M:10:LYS:HA	1:M:11:PRO:HD3	1.88	0.44
1:M:11:PRO:HG2	1:N:231:PHE:HE2	1.82	0.44
1:N:57:THR:HG22	1:N:58:GLU:HG3	1.98	0.44
2:O:1238:LEU:HD23	2:O:1238:LEU:HA	1.78	0.44
2:O:387:ASN:HA	2:O:391:SER:HB2	1.99	0.44
2:O:598:VAL:HG13	2:O:627:GLY:C	2.38	0.44
3:P:1256:ILE:HG13	3:P:1256:ILE:H	1.39	0.44
3:P:147:ILE:HD11	3:P:179:LYS:CD	2.46	0.44
3:P:496:GLY:N	3:P:903:LEU:HD13	2.32	0.44
6:1:58:DG:H2"	6:1:59:DG:OP2	2.17	0.44
2:C:1272:GLU:HB3	2:C:1276:TRP:CZ2	2.53	0.44
2:C:550:VAL:HG23	3:D:780:ARG:HD2	1.98	0.44
2:C:616:ILE:CD1	2:C:652:TYR:CB	2.96	0.44
2:C:753:LEU:HD12	2:C:769:PRO:HG3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1133:ASP:CG	3:D:1134:ILE:H	2.20	0.44
3:D:84:ILE:HG22	3:D:84:ILE:O	2.17	0.44
5:F:386:LEU:HD13	6:1:41:DT:O4'	2.18	0.44
2:I:1270:PHE:CG	2:I:1274:GLU:HB3	2.52	0.44
2:I:804:PHE:O	2:I:805:MET:HB3	2.16	0.44
3:J:521:LYS:HB2	3:J:543:SER:H	1.83	0.44
1:N:201:LEU:HG	1:N:203:ILE:HG13	2.00	0.44
1:N:26:VAL:HG12	1:N:28:LEU:HD23	1.99	0.44
2:O:82:VAL:CG2	2:O:83:GLN:N	2.80	0.44
3:P:373:ALA:CB	3:P:441:LEU:HD21	2.48	0.44
4:Q:12:LYS:HD2	4:Q:12:LYS:HA	1.33	0.44
5:R:290:LEU:O	5:R:294:GLN:HB3	2.17	0.44
5:R:440:THR:O	5:R:443:ILE:CG2	2.59	0.44
5:R:554:ARG:H	5:R:554:ARG:HG2	1.30	0.44
2:C:275:ARG:HH11	2:C:275:ARG:HG3	1.83	0.44
2:C:347:ILE:O	2:C:350:THR:HB	2.18	0.44
2:C:374:GLU:HG3	2:C:375:PRO:HD2	2.00	0.44
2:C:422:LYS:HA	2:C:425:ILE:HD12	1.99	0.44
2:C:74:ARG:O	2:C:96:LEU:HD12	2.17	0.44
3:D:1219:ASP:OD1	3:D:1219:ASP:N	2.50	0.44
3:D:255:LEU:HD22	3:D:257:GLY:H	1.81	0.44
3:D:321:LYS:HE3	3:D:321:LYS:HB2	1.79	0.44
3:D:835:LEU:HD11	3:D:839:VAL:CG2	2.47	0.44
3:D:493:PRO:CA	3:D:904:ALA:HB2	2.46	0.44
5:F:402:LEU:HD23	5:F:402:LEU:N	2.31	0.44
2:I:1085:MET:HE2	2:I:1094:VAL:HB	1.98	0.44
2:I:257:ALA:HB3	2:I:262:TYR:CE2	2.53	0.44
2:I:46:GLN:H	2:I:46:GLN:HG2	1.58	0.44
2:I:759:SER:CB	2:I:763:THR:HG1	2.23	0.44
3:J:1167:LYS:CD	3:J:1167:LYS:H	2.18	0.44
3:J:1296:GLY:O	3:J:1297:LYS:O	2.36	0.44
3:J:504:GLN:HB3	3:J:505:ASP:OD1	2.17	0.44
3:J:724:MET:O	3:J:728:SER:OG	2.26	0.44
3:J:927:GLY:O	3:J:931:THR:HG23	2.18	0.44
2:O:842:ASP:HB3	2:O:847:PRO:HA	2.00	0.44
3:P:1229:VAL:HG13	3:P:1230:THR:N	2.32	0.44
3:P:731:ARG:HD3	3:P:731:ARG:HA	1.72	0.44
3:P:809:VAL:HB	3:P:911:LYS:HA	1.99	0.44
7:5:21:DG:H2'	7:5:22:DA:O4'	2.17	0.44
7:5:27:DA:H2"	7:5:28:DG:H5'	1.98	0.44
2:C:130:MET:HB2	2:C:136:PHE:CZ	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:748:ILE:CD1	2:C:970:GLY:HA3	2.43	0.44
3:D:1044:GLN:OE1	3:D:1071:GLY:N	2.51	0.44
3:D:1102:PRO:HG2	3:D:1124:ILE:HD13	2.00	0.44
3:D:809:VAL:CG2	3:D:915:ILE:HD11	2.47	0.44
3:D:933:ARG:HG3	3:D:937:ILE:HD12	2.00	0.44
5:F:575:GLU:HG2	5:F:578:LYS:CE	2.34	0.44
5:F:583:THR:HG21	5:F:586:ARG:HB2	1.98	0.44
1:G:48:LEU:HA	1:G:48:LEU:HD23	1.68	0.44
1:G:8:PHE:CE1	1:H:223:ILE:HG12	2.52	0.44
2:I:1066:MET:CE	2:I:1233:LEU:O	2.59	0.44
2:I:1304:MET:HE3	2:I:1305:TYR:N	2.32	0.44
2:I:130:MET:HB2	2:I:136:PHE:CE1	2.52	0.44
3:J:384:LYS:NZ	4:K:45:LYS:HE3	2.33	0.44
3:J:385:LEU:HD22	3:J:400:MET:HE1	2.00	0.44
3:J:490:ILE:HD11	3:J:614:LEU:HD11	1.99	0.44
2:I:560:PRO:HB2	3:J:776:THR:HG21	1.99	0.44
1:M:134:THR:HB	2:O:726:TYR:CE1	2.52	0.44
3:P:233:LYS:HG2	3:P:234:PRO:HD2	1.99	0.44
5:R:379:MET:HG2	5:R:416:VAL:HG13	1.99	0.44
6:1:54:DA:C6	6:1:55:DC:C4	3.06	0.44
2:C:850:ILE:HD11	2:C:1048:LYS:HD3	1.99	0.44
2:C:1108:ASN:C	2:C:1109:ILE:HD13	2.38	0.44
2:C:190:PRO:HB2	2:C:191:LYS:HD2	1.98	0.44
2:C:519:ASN:OD1	2:C:519:ASN:N	2.51	0.44
2:C:57:PHE:CB	2:C:58:PRO:HA	2.43	0.44
3:D:34:SER:CB	3:D:104:HIS:HB3	2.48	0.44
3:D:210:SER:HB3	3:D:213:LYS:HD2	1.99	0.44
5:F:289:LYS:O	5:F:293:GLU:HB3	2.17	0.44
5:F:489:MET:CB	5:F:490:PRO:HD2	2.47	0.44
2:I:119:GLU:O	2:I:120:GLN:HB3	2.16	0.44
2:I:811:ASN:N	2:I:811:ASN:OD1	2.48	0.44
2:I:895:LEU:HD22	2:I:899:GLU:OE1	2.17	0.44
3:J:318:GLY:HA2	3:J:324:LEU:CD2	2.38	0.44
3:J:382:TYR:HD1	3:J:397:ALA:CB	2.30	0.44
3:J:433:GLY:O	3:J:457:TYR:CE1	2.70	0.44
5:L:552:THR:O	5:L:555:GLU:HB2	2.18	0.44
5:L:583:THR:O	5:L:587:ILE:CD1	2.64	0.44
1:M:26:VAL:HG21	1:M:217:ILE:HD11	2.00	0.44
1:N:14:VAL:HG21	1:N:29:GLU:OE2	2.17	0.44
2:O:1073:LYS:HE3	3:P:462:ASP:CG	2.37	0.44
2:O:1287:LEU:HA	2:O:1287:LEU:HD12	1.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:194:LEU:HG	2:O:206:ALA:HB2	2.00	0.44
2:O:758:ARG:HB2	2:O:833:ILE:HG22	1.99	0.44
3:P:513:MET:HB2	3:P:579:LEU:HD11	2.00	0.44
3:P:690:ASN:HA	3:P:743:MET:HE1	1.98	0.44
1:A:45:ARG:CD	1:B:38:THR:CB	2.91	0.44
2:C:1112:ILE:HG23	2:C:1116:HIS:NE2	2.33	0.44
2:C:1292:THR:HG23	2:C:1293:VAL:H	1.82	0.44
3:D:126:LEU:HD22	3:D:216:LYS:HZ1	1.83	0.44
3:D:126:LEU:HD23	3:D:216:LYS:HZ2	1.83	0.44
3:D:1314:LEU:HD23	3:D:1314:LEU:N	2.33	0.44
3:D:382:TYR:HD1	3:D:397:ALA:CB	2.30	0.44
3:D:40:LYS:HZ3	3:D:53:ARG:HE	1.65	0.44
3:D:609:TYR:HA	3:D:617:THR:CG2	2.47	0.44
3:D:720:ASN:HD22	3:D:722:ILE:HG13	1.83	0.44
3:D:80:HIS:CD2	3:D:83:VAL:HG21	2.53	0.44
5:F:453:PRO:HG2	6:1:31:DT:OP1	2.16	0.44
1:H:81:ILE:HG23	1:H:130:ILE:HG22	2.00	0.44
1:H:203:ILE:HD12	1:H:203:ILE:H	1.82	0.44
2:I:170:VAL:C	2:I:171:LEU:HD23	2.38	0.44
3:J:209:ASN:N	3:J:209:ASN:OD1	2.51	0.44
3:J:307:LEU:HD23	3:J:327:LEU:CD1	2.46	0.44
2:I:1243:MET:CG	3:J:372:MET:HE2	2.39	0.44
5:L:123:ILE:O	5:L:127:ILE:HG13	2.17	0.44
5:L:284:GLU:HG3	5:L:344:LEU:HD11	2.00	0.44
5:L:476:ARG:CG	5:L:477:GLU:H	2.29	0.44
5:L:573:LEU:HG	5:L:574:GLU:N	2.32	0.44
1:N:115:ILE:HA	1:N:115:ILE:HD13	1.88	0.44
3:P:530:PRO:HB2	3:P:581:MET:HG3	1.99	0.44
3:P:865:HIS:HB3	3:P:868:TRP:HD1	1.83	0.44
3:P:610:ARG:NH1	3:P:901:ARG:HH12	2.15	0.44
5:R:400:GLN:OE1	5:R:402:LEU:HD12	2.17	0.44
5:L:468:ARG:NH1	7:5:25:DA:C8	2.86	0.44
1:A:16:ILE:HA	1:A:26:VAL:CG2	2.33	0.44
2:C:452:ARG:HH12	2:C:454:ARG:CG	2.29	0.44
2:C:557:ARG:HD3	2:C:587:LEU:CB	2.45	0.44
2:C:540:ARG:CZ	2:C:567:PRO:HB2	2.48	0.44
2:C:807:TRP:HZ3	2:C:1086:PRO:CD	2.31	0.44
3:D:380:PHE:HB3	3:D:415:VAL:HG11	1.99	0.44
3:D:412:LEU:O	3:D:416:ILE:HG13	2.18	0.44
3:D:421:VAL:HG13	3:D:469:HIS:O	2.17	0.44
5:F:160:ASP:HB3	5:F:161:LEU:H	1.62	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:391:ALA:O	5:F:395:THR:HG23	2.18	0.44
5:F:600:HIS:HA	5:F:601:PRO:HD3	1.85	0.44
2:I:842:ASP:HB3	2:I:847:PRO:HA	1.99	0.44
3:J:612:LEU:HD22	3:J:616:PRO:CG	2.47	0.44
3:J:702:GLN:HG3	3:J:723:TYR:CZ	2.53	0.44
3:J:984:LEU:O	3:J:992:LYS:HB3	2.17	0.44
5:L:349:GLU:N	5:L:349:GLU:OE1	2.51	0.44
2:O:550:VAL:HG21	3:P:776:THR:HG23	1.94	0.44
2:O:594:VAL:HG13	2:O:598:VAL:O	2.18	0.44
3:P:1163:VAL:O	3:P:1201:GLY:HA2	2.18	0.44
3:P:1314:LEU:HG	3:P:1314:LEU:H	1.57	0.44
3:P:176:PHE:O	3:P:176:PHE:CD2	2.71	0.44
3:P:550:VAL:HG12	3:P:552:ILE:HD11	1.99	0.44
3:P:614:LEU:O	3:P:618:VAL:HG23	2.18	0.44
6:4:50:DT:H6	6:4:50:DT:C5'	2.31	0.44
1:B:56:VAL:HG13	1:B:144:ILE:CG2	2.48	0.44
2:C:1312:ASN:OD1	2:C:1314:GLN:HB2	2.18	0.44
2:C:155:VAL:CG2	2:C:405:PHE:CD2	3.01	0.44
2:C:237:LEU:HD12	2:C:288:PRO:O	2.18	0.44
2:C:665:ALA:HA	2:C:668:ILE:CD1	2.48	0.44
2:C:805:MET:O	2:C:811:ASN:ND2	2.46	0.44
2:C:9:LYS:O	2:C:1172:LEU:HD13	2.18	0.44
3:D:1233:ILE:H	3:D:1233:ILE:HG13	1.43	0.44
3:D:1296:GLY:O	3:D:1297:LYS:O	2.36	0.44
3:D:201:LEU:HB2	3:D:221:ILE:HD11	1.98	0.44
3:D:364:HIS:HB3	3:D:487:THR:HG23	1.99	0.44
1:B:194:GLN:NE2	3:D:406:ALA:HB1	2.33	0.44
3:D:514:THR:O	3:D:576:ARG:NE	2.51	0.44
5:F:272:SER:O	5:F:276:MET:HG2	2.18	0.44
5:F:395:THR:HA	5:F:404:LEU:CD1	2.47	0.44
5:F:488:LEU:O	5:F:489:MET:HG3	2.18	0.44
1:G:232:VAL:HG13	1:H:218:ARG:CA	2.43	0.44
2:I:1106:ARG:O	2:I:1107:MET:HB2	2.18	0.44
2:I:1227:VAL:HG12	2:I:1228:GLY:N	2.32	0.44
2:I:253:PHE:CD1	2:I:288:PRO:HD2	2.53	0.44
2:I:453:ILE:HD13	2:I:453:ILE:HA	1.77	0.44
2:I:80:PHE:O	2:I:92:TYR:CE1	2.67	0.44
3:J:601:ILE:HG22	3:J:602:SER:N	2.32	0.44
1:N:47:LEU:O	1:N:51:MET:HG2	2.17	0.44
2:O:189:ASP:CG	2:O:190:PRO:HD2	2.38	0.44
2:O:22:LEU:HD13	2:O:603:ILE:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:639:LYS:O	2:O:639:LYS:HG2	2.18	0.44
3:P:1346:GLY:H	3:P:1349:GLU:CD	2.22	0.44
3:P:139:LEU:HD21	3:P:185:ILE:HB	2.00	0.44
5:R:115:GLY:O	5:R:118:ASP:HB2	2.18	0.44
6:1:56:DG:C2	7:2:8:DG:N2	2.86	0.43
6:4:45:DT:C2'	6:4:46:DG:O4'	2.66	0.43
1:A:13:LEU:CA	1:A:28:LEU:CD2	2.73	0.43
2:C:13:LYS:HB3	2:C:1182:ILE:HG23	1.99	0.43
2:C:448:LEU:HB3	2:C:608:ALA:HB2	2.00	0.43
3:D:1080:ILE:HB	3:D:1097:ALA:HB3	1.99	0.43
3:D:15:GLU:HG2	3:D:15:GLU:O	2.17	0.43
3:D:139:LEU:HD23	3:D:185:ILE:CD1	2.22	0.43
3:D:335:GLN:OE1	5:F:518:HIS:CD2	2.71	0.43
3:D:475:GLU:O	3:D:478:LEU:HB2	2.18	0.43
3:D:740:LEU:N	3:D:740:LEU:HD23	2.32	0.43
3:D:759:ILE:CD1	3:D:767:LEU:CD1	2.91	0.43
5:F:511:ILE:CD1	5:F:519:LEU:CD1	2.76	0.43
2:I:1315:MET:CE	3:J:473:THR:CG2	2.95	0.43
2:I:243:PRO:HG2	2:I:278:GLU:HA	2.00	0.43
2:I:448:LEU:CG	2:I:553:THR:OG1	2.63	0.43
2:I:528:ARG:CZ	2:I:575:LEU:HD23	2.48	0.43
3:J:1240:VAL:O	3:J:1244:GLN:HG2	2.18	0.43
3:J:536:LEU:HA	3:J:536:LEU:HD23	1.29	0.43
3:J:589:TYR:C	3:J:591:ILE:N	2.71	0.43
3:J:825:VAL:CG2	3:J:838:ARG:HH11	2.30	0.43
2:O:277:LEU:HG	2:O:277:LEU:O	2.17	0.43
2:O:592:ARG:HG3	2:O:653:MET:CE	2.48	0.43
2:O:898:GLU:OE2	5:R:565:ILE:CG2	2.67	0.43
2:O:1242:LYS:HZ2	3:P:465:GLN:HE21	1.66	0.43
3:P:572:THR:OG1	3:P:576:ARG:HB2	2.18	0.43
3:P:816:THR:HG22	3:P:818:GLU:N	2.33	0.43
3:P:891:ASP:OD1	3:P:891:ASP:N	2.50	0.43
3:P:894:VAL:HG23	3:P:895:CYS:N	2.31	0.43
5:R:137:TYR:CD1	5:R:138:PRO:HD2	2.53	0.43
5:R:160:ASP:HB3	5:R:161:LEU:H	1.64	0.43
5:R:306:PHE:HD1	5:R:315:TRP:CZ2	2.36	0.43
7:8:25:DA:C2'	7:8:26:DT:OP2	2.55	0.43
2:C:1005:GLU:HB3	2:C:1007:LYS:HE2	2.00	0.43
2:C:577:VAL:HG12	2:C:578:TYR:N	2.33	0.43
2:C:906:PHE:HE2	5:F:608:ARG:NH1	2.10	0.43
2:C:951:MET:O	2:C:955:GLN:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1165:PHE:HB3	3:D:1166:GLY:H	1.47	0.43
3:D:609:TYR:O	3:D:609:TYR:CD1	2.72	0.43
2:C:805:MET:HE3	3:D:636:GLY:HA2	2.00	0.43
3:D:757:THR:HA	3:D:758:PRO:HD3	1.75	0.43
2:I:1152:GLY:HA3	2:I:1155:VAL:HB	1.99	0.43
2:I:1286:THR:O	2:I:1289:GLU:HB2	2.19	0.43
2:I:1321:GLU:O	2:I:1325:VAL:HG23	2.18	0.43
2:I:319:LEU:H	2:I:319:LEU:HG	1.57	0.43
2:I:59:ILE:HG22	2:I:476:LYS:CE	2.49	0.43
2:I:68:LEU:HD12	2:I:68:LEU:HA	1.70	0.43
2:I:808:ASN:ND2	2:I:808:ASN:N	2.65	0.43
3:J:33:TRP:HB3	3:J:102:MET:SD	2.58	0.43
3:J:1357:ILE:HA	3:J:1358:PRO:HD3	1.78	0.43
3:J:279:LEU:HD12	3:J:283:LEU:HD21	1.99	0.43
3:J:288:PRO:HD2	3:J:291:ILE:HD12	2.00	0.43
3:J:601:ILE:CG2	3:J:605:LEU:HD11	2.47	0.43
3:J:848:VAL:HG22	3:J:880:VAL:HG13	1.97	0.43
3:J:814:CYS:HB2	3:J:889:ASP:HB3	2.00	0.43
1:M:46:ILE:HG13	1:N:35:PHE:HE1	1.83	0.43
1:M:77:ASP:OD1	2:O:729:ALA:HB1	2.18	0.43
3:P:24:LEU:N	3:P:24:LEU:HD23	2.33	0.43
5:R:248:GLU:O	5:R:251:LYS:HB3	2.18	0.43
5:L:434:TRP:CD2	6:4:36:DT:C7	3.02	0.43
5:R:423:ARG:HD3	6:7:37:DA:N1	2.33	0.43
6:7:53:DG:C4	6:7:54:DA:N6	2.86	0.43
1:A:48:LEU:HD23	1:A:180:VAL:HB	1.99	0.43
1:B:142:MET:HB3	1:B:142:MET:HE2	1.65	0.43
2:C:130:MET:HG2	2:C:131:THR:N	2.33	0.43
2:C:837:ALA:O	2:C:918:LEU:CD1	2.66	0.43
3:D:1323:ALA:HB2	3:D:1331:VAL:HG11	2.00	0.43
3:D:422:LEU:HD12	3:D:471:PRO:HD3	2.01	0.43
3:D:835:LEU:CD1	3:D:839:VAL:CG2	2.96	0.43
5:F:381:GLU:HA	5:F:384:LEU:HG	2.00	0.43
1:H:172:LEU:HG	1:H:173:VAL:N	2.33	0.43
2:I:496:LYS:NZ	5:L:468:ARG:NH2	2.66	0.43
3:J:33:TRP:HB2	3:J:102:MET:HE2	2.00	0.43
3:J:214:ARG:HH11	3:J:214:ARG:HG2	1.83	0.43
3:J:501:VAL:HG22	3:J:605:LEU:HD13	1.99	0.43
3:J:673:VAL:HG11	3:J:678:ARG:CD	2.48	0.43
3:J:923:ILE:O	3:J:926:PRO:HD2	2.18	0.43
4:K:36:ASP:OD1	4:K:36:ASP:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:79:GLU:O	4:K:83:VAL:HG23	2.18	0.43
5:L:489:MET:HB2	5:L:494:ILE:HD13	1.99	0.43
2:O:1284:ALA:HB3	3:P:1361:THR:HB	2.00	0.43
2:O:333:ILE:CG2	2:O:334:GLU:N	2.80	0.43
2:O:402:ARG:CD	2:O:416:GLY:HA3	2.48	0.43
2:O:911:SER:O	2:O:913:VAL:N	2.49	0.43
2:O:921:PRO:HB2	2:O:924:VAL:HB	2.01	0.43
2:O:985:GLU:CG	2:O:988:LYS:HD2	2.48	0.43
3:P:968:ASN:CA	3:P:1117:SER:O	2.66	0.43
3:P:147:ILE:HD12	3:P:177:ASP:HB3	2.00	0.43
3:P:185:ILE:O	3:P:189:LEU:HD12	2.18	0.43
3:P:239:LEU:H	3:P:239:LEU:HG	1.46	0.43
3:P:435:GLN:HE21	3:P:489:ASN:HD22	1.65	0.43
3:P:682:VAL:CG1	3:P:686:TRP:HE1	2.31	0.43
3:P:925:GLU:N	3:P:926:PRO:CD	2.81	0.43
2:C:542:ARG:CZ	6:1:50:DT:C7	2.89	0.43
2:O:529:ARG:NH2	8:9:14:A:OP1	2.51	0.43
1:A:187:VAL:CG1	1:A:199:ASP:OD2	2.65	0.43
1:A:58:GLU:O	1:A:59:VAL:HG23	2.18	0.43
2:C:1322:SER:O	2:C:1325:VAL:HB	2.18	0.43
2:C:285:ILE:CG2	2:C:286:GLU:H	2.20	0.43
3:D:807:LEU:HD13	3:D:1259:GLN:HE21	1.78	0.43
3:D:367:GLY:HA3	3:D:448:GLN:HB2	1.99	0.43
3:D:370:LYS:HG3	3:D:443:GLU:HA	1.99	0.43
3:D:736:GLN:H	3:D:736:GLN:HG2	1.36	0.43
3:D:889:ASP:OD2	3:D:1290:ARG:NH2	2.43	0.43
2:I:301:TYR:HD2	2:I:330:HIS:CD2	2.36	0.43
2:I:316:GLU:HG3	2:I:352:ARG:NH2	2.33	0.43
2:I:797:GLY:O	2:I:798:GLN:HG3	2.19	0.43
3:J:146:VAL:HG12	3:J:155:GLU:O	2.16	0.43
3:J:364:HIS:CD2	4:K:4:VAL:HG13	2.54	0.43
2:I:1281:TYR:HA	3:J:431:ARG:HH11	1.83	0.43
3:J:479:GLU:O	3:J:484:MET:HG3	2.18	0.43
2:I:809:GLY:CA	3:J:629:PHE:CD1	3.01	0.43
3:J:64:PRO:O	3:J:95:THR:HG23	2.18	0.43
2:O:1095:ASP:C	2:O:1096:ILE:HG13	2.38	0.43
2:O:1134:GLN:O	2:O:1136:GLN:HG3	2.19	0.43
3:P:1025:MET:HG2	3:P:1025:MET:O	2.17	0.43
3:P:598:LYS:O	3:P:601:ILE:HB	2.17	0.43
3:P:621:ALA:O	3:P:624:ILE:HB	2.18	0.43
3:P:700:ASN:O	3:P:704:GLU:CB	2.60	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:930:LEU:HB2	3:P:1134:ILE:CD1	2.43	0.43
3:P:968:ASN:HB2	3:P:1117:SER:O	2.18	0.43
1:A:134:THR:OG1	1:A:135:ASP:N	2.50	0.43
1:B:56:VAL:CG1	1:B:144:ILE:CG2	2.96	0.43
2:C:1151:LEU:HD21	2:C:1197:GLU:HB3	1.99	0.43
2:C:1186:VAL:HG12	2:C:1187:PHE:CE2	2.53	0.43
1:A:41:ASN:ND2	2:C:1218:GLY:N	2.66	0.43
2:C:295:LYS:C	2:C:317:LEU:HD12	2.39	0.43
3:D:194:LEU:HD13	3:D:228:VAL:HG23	2.00	0.43
3:D:288:PRO:O	3:D:292:VAL:HG23	2.18	0.43
3:D:823:THR:HB	3:D:824:PRO:CD	2.48	0.43
1:H:43:LEU:H	1:H:43:LEU:HG	1.33	0.43
2:I:3:TYR:O	2:I:8:LYS:CE	2.62	0.43
2:I:589:THR:HG23	2:I:590:PRO:HD2	2.01	0.43
3:J:1041:ILE:HG22	3:J:1042:ASP:N	2.34	0.43
3:J:1165:PHE:CE2	3:J:1173:ARG:NH2	2.87	0.43
2:I:1283:ALA:HB1	3:J:479:GLU:CD	2.38	0.43
3:J:601:ILE:HG22	3:J:605:LEU:HD12	2.00	0.43
3:J:712:GLN:CD	3:J:712:GLN:N	2.72	0.43
3:J:814:CYS:SG	3:J:888:CYS:SG	3.17	0.43
2:O:701:GLY:N	2:O:1182:ILE:O	2.50	0.43
2:O:31:GLN:OE1	2:O:456:VAL:CG2	2.66	0.43
1:M:83:LEU:CD1	2:O:694:ARG:HH11	2.31	0.43
3:P:127:LEU:HA	3:P:127:LEU:HD23	1.86	0.43
3:P:816:THR:HG22	3:P:818:GLU:H	1.83	0.43
5:R:168:PRO:CD	5:R:212:ILE:HD12	2.48	0.43
1:A:174:ASP:OD2	2:C:1059:ARG:NH2	2.52	0.43
1:B:56:VAL:HG13	1:B:144:ILE:HG22	2.01	0.43
2:C:112:GLY:C	2:C:114:VAL:N	2.69	0.43
2:C:90:VAL:HG12	2:C:91:THR:N	2.34	0.43
5:F:105:MET:HE2	5:F:106:GLY:N	2.33	0.43
1:G:234:LEU:O	1:G:235:ARG:CB	2.65	0.43
1:H:52:PRO:HA	1:H:150:ARG:HB2	2.00	0.43
1:H:168:ILE:HG22	1:H:169:GLY:N	2.34	0.43
2:I:1161:LEU:O	2:I:1164:PHE:CD2	2.65	0.43
2:I:17:LYS:N	2:I:17:LYS:HD2	2.34	0.43
2:I:251:ALA:HB3	2:I:266:GLY:N	2.32	0.43
2:I:568:ASN:HA	2:I:571:LEU:HD12	2.01	0.43
2:I:979:LEU:HA	2:I:979:LEU:HD23	1.75	0.43
3:J:160:LEU:HA	3:J:160:LEU:HD23	1.84	0.43
3:J:245:LEU:CG	3:J:249:LEU:HD12	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:275:ARG:NH1	3:J:302:ALA:HB2	2.33	0.43
3:J:29:MET:O	3:J:32:SER:HB3	2.19	0.43
3:J:467:ALA:O	3:J:468:VAL:HG22	2.18	0.43
5:L:231:THR:O	5:L:231:THR:HG22	2.18	0.43
5:L:235:ILE:CG2	5:L:240:ARG:HA	2.45	0.43
1:M:127:GLN:HG2	1:M:127:GLN:H	1.51	0.43
2:O:1166:ASP:O	2:O:1169:VAL:HB	2.18	0.43
2:O:122:VAL:HG11	2:O:493:ILE:HB	2.01	0.43
2:O:734:ILE:HG21	2:O:751:TYR:HE2	1.84	0.43
3:P:131:PRO:O	3:P:135:ILE:HG13	2.19	0.43
3:P:350:SER:HB3	3:P:469:HIS:CE1	2.53	0.43
3:P:504:GLN:HB3	3:P:505:ASP:H	1.66	0.43
3:P:824:PRO:HG3	3:P:835:LEU:HB2	2.01	0.43
1:A:125:LYS:HB2	1:A:125:LYS:HE3	1.83	0.43
1:B:169:GLY:O	1:B:171:LEU:HG	2.19	0.43
2:C:1049:ILE:CG2	2:C:1050:VAL:N	2.82	0.43
2:C:333:ILE:CG2	2:C:334:GLU:N	2.81	0.43
2:C:39:ILE:O	2:C:39:ILE:HG22	2.19	0.43
2:C:153:PRO:HD2	2:C:400:VAL:CG1	2.49	0.43
2:C:654:ASP:OD1	2:C:654:ASP:N	2.50	0.43
2:C:837:ALA:O	2:C:918:LEU:HD13	2.18	0.43
3:D:352:ARG:O	3:D:353:SER:HB2	2.17	0.43
3:D:791:ALA:HA	7:2:12:DG:C5'	2.48	0.43
5:F:116:GLU:HG3	5:F:116:GLU:H	1.48	0.43
5:F:262:VAL:HA	5:F:263:PRO:HD3	1.89	0.43
5:F:269:LEU:HD23	5:F:269:LEU:HA	1.71	0.43
5:F:315:TRP:CZ2	5:F:341:LEU:HD11	2.53	0.43
2:I:1244:HIS:CE1	2:I:1245:ALA:O	2.72	0.43
2:I:279:LYS:HB3	2:I:279:LYS:NZ	2.33	0.43
2:I:402:ARG:O	2:I:405:PHE:HB3	2.18	0.43
3:J:1196:LEU:HG	3:J:1196:LEU:H	1.57	0.43
3:J:1233:ILE:HG13	3:J:1233:ILE:H	1.58	0.43
3:J:923:ILE:HD11	3:J:1253:ILE:HG12	2.00	0.43
3:J:1357:ILE:O	3:J:1362:GLY:HA3	2.19	0.43
3:J:135:ILE:O	3:J:138:VAL:HB	2.19	0.43
3:J:330:MET:CE	3:J:337:ARG:HH22	2.31	0.43
3:J:428:THR:O	3:J:428:THR:HG22	2.19	0.43
2:I:1242:LYS:CE	3:J:465:GLN:NE2	2.81	0.43
3:J:601:ILE:HG22	3:J:605:LEU:CD1	2.49	0.43
3:J:68:TYR:C	3:J:92:VAL:CG1	2.87	0.43
5:L:129:GLN:OE1	5:L:367:ILE:HG22	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:401:PHE:O	5:L:405:ILE:CG1	2.59	0.43
5:L:571:TYR:HB2	5:L:576:VAL:HG22	2.01	0.43
2:O:1061:GLN:CB	2:O:1062:PRO:CD	2.95	0.43
1:M:45:ARG:NH2	2:O:1084:ASP:OD1	2.48	0.43
2:O:550:VAL:HG23	3:P:780:ARG:NE	2.33	0.43
3:P:653:ILE:HG21	3:P:693:VAL:CG2	2.49	0.43
5:R:102:MET:HB3	6:7:42:DG:H21	1.83	0.43
5:R:385:ARG:C	5:R:388:ILE:HG22	2.39	0.43
6:1:47:DC:C6	6:1:47:DC:C5'	3.01	0.43
7:5:19:DA:H3'	7:5:20:DG:H5"	1.99	0.43
7:5:5:DC:H2"	7:5:6:DG:OP2	2.19	0.43
1:A:41:ASN:O	1:A:45:ARG:HG3	2.19	0.43
1:B:39:LEU:H	1:B:39:LEU:CD2	2.24	0.43
2:C:1015:ALA:O	2:C:1018:TYR:HB3	2.19	0.43
2:C:1264:GLN:O	2:C:1265:PHE:CB	2.67	0.43
2:C:668:ILE:HA	2:C:669:PRO:HD3	1.81	0.43
2:C:807:TRP:CZ3	2:C:1086:PRO:CD	3.00	0.43
3:D:1018:ALA:O	3:D:1019:ASN:CB	2.66	0.43
3:D:1173:ARG:HB3	3:D:1173:ARG:HE	1.55	0.43
3:D:1167:LYS:HB2	3:D:1174:ARG:HD2	2.00	0.43
3:D:771:GLN:O	3:D:774:ILE:CG1	2.64	0.43
5:F:533:ASP:O	5:F:536:THR:HB	2.19	0.43
1:H:133:LEU:HA	1:H:133:LEU:HD23	1.67	0.43
1:H:29:GLU:OE1	1:H:200:LYS:HE2	2.19	0.43
2:I:295:LYS:HD3	2:I:295:LYS:HA	1.87	0.43
3:J:1261:LEU:HD23	3:J:1306:LEU:HD13	2.01	0.43
3:J:219:LYS:HG2	3:J:222:LYS:HZ2	1.84	0.43
3:J:295:GLU:HA	3:J:295:GLU:OE1	2.18	0.43
3:J:362:ARG:NH2	3:J:619:ILE:HD11	2.34	0.43
3:J:917:VAL:O	3:J:921:GLN:HG3	2.18	0.43
5:L:119:ILE:N	5:L:119:ILE:CD1	2.82	0.43
5:L:213:ASP:HA	5:L:214:PRO:HD3	1.91	0.43
5:L:583:THR:HG23	6:4:14:DT:H73	2.00	0.43
1:M:134:THR:HB	2:O:726:TYR:HE1	1.84	0.43
1:N:129:VAL:HG11	1:N:132:HIS:CE1	2.53	0.43
1:N:25:LYS:HE2	1:N:204:GLU:HG2	2.00	0.43
2:O:186:PHE:CD2	2:O:186:PHE:N	2.87	0.43
2:O:693:LEU:CA	2:O:831:ILE:HD11	2.49	0.43
3:P:1209:VAL:HG12	3:P:1211:SER:O	2.18	0.43
3:P:1366:HIS:O	3:P:1370:MET:HG3	2.19	0.43
3:P:139:LEU:HD22	3:P:182:ALA:CA	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:435:GLN:NE2	3:P:486:SER:HA	2.33	0.43
3:P:697:MET:HE1	3:P:738:ARG:HA	2.00	0.43
3:P:610:ARG:NH2	3:P:901:ARG:HH11	2.16	0.43
3:P:297:ARG:NE	5:R:100:MET:HE1	2.34	0.43
6:1:44:DG:C2'	6:1:45:DT:O4'	2.66	0.43
6:1:54:DA:C2'	6:1:55:DC:H5'	2.47	0.43
1:B:174:ASP:OD1	1:B:174:ASP:N	2.52	0.43
2:C:1225:VAL:CG2	3:D:636:GLY:O	2.67	0.43
2:C:436:ARG:HD2	2:C:436:ARG:O	2.19	0.43
3:D:111:THR:OG1	3:D:299:LEU:CD2	2.67	0.43
3:D:638:SER:C	3:D:639:VAL:HG22	2.39	0.43
3:D:824:PRO:HD3	3:D:878:ASP:O	2.19	0.43
5:F:113:ARG:HB2	5:F:114:GLU:H	1.58	0.43
5:F:502:LYS:HE3	5:F:503:GLU:O	2.19	0.43
5:F:560:ARG:HA	5:F:565:ILE:HB	2.00	0.43
1:G:112:ALA:CB	1:G:126:PRO:HA	2.34	0.43
2:I:170:VAL:HG22	3:J:1065:ALA:HB1	2.01	0.43
2:I:285:ILE:CG2	2:I:286:GLU:N	2.81	0.43
2:I:753:LEU:CD1	2:I:769:PRO:HG3	2.48	0.43
2:I:887:VAL:HG23	2:I:887:VAL:O	2.18	0.43
2:I:931:VAL:HG13	2:I:1052:VAL:HG22	2.00	0.43
2:I:94:ALA:HB2	2:I:129:LEU:CD1	2.45	0.43
3:J:33:TRP:CE3	3:J:102:MET:HE1	2.54	0.43
3:J:1231:ARG:HA	3:J:1234:VAL:HG21	2.01	0.43
3:J:214:ARG:HH22	3:J:215:LYS:HE2	1.84	0.43
3:J:44:ILE:HD12	3:J:49:PHE:CA	2.49	0.43
3:J:849:LEU:HD21	3:J:857:LEU:HD23	1.96	0.43
5:L:119:ILE:HB	5:L:379:MET:CE	2.48	0.43
2:O:593:LYS:HB3	2:O:600:THR:OG1	2.18	0.43
2:O:656:SER:O	2:O:659:GLN:HG2	2.19	0.43
2:O:556:GLY:HA2	2:O:659:GLN:O	2.19	0.43
2:O:807:TRP:HB3	2:O:817:LEU:HD11	2.00	0.43
2:O:844:LYS:HG2	2:O:844:LYS:O	2.19	0.43
3:P:109:SER:OG	3:P:296:LYS:HD3	2.19	0.43
3:P:1138:LEU:CB	3:P:1139:PRO:CD	2.96	0.43
3:P:1165:PHE:CZ	3:P:1196:LEU:HD12	2.34	0.43
3:P:1280:VAL:CG1	3:P:1281:GLU:N	2.82	0.43
3:P:1296:GLY:O	3:P:1297:LYS:O	2.37	0.43
3:P:28:ASP:O	3:P:31:ARG:HB2	2.19	0.43
2:O:1099:ASN:HD21	3:P:504:GLN:HE21	1.66	0.43
3:P:263:SER:N	5:R:507:MET:SD	2.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:5:50:DG:C2'	7:5:51:DT:OP2	2.66	0.43
6:7:37:DA:H2'	6:7:37:DA:OP2	2.19	0.43
1:A:48:LEU:CD2	1:A:180:VAL:HB	2.49	0.43
2:C:559:CYS:CB	2:C:662:SER:H	2.31	0.43
2:C:6:THR:HG21	2:C:782:VAL:HG23	2.00	0.43
2:C:870:ILE:HG21	2:C:944:ARG:CZ	2.48	0.43
2:C:73:TYR:CB	2:C:98:VAL:HG22	2.49	0.43
3:D:1163:VAL:CG1	3:D:1164:SER:N	2.81	0.43
3:D:245:LEU:CD1	3:D:249:LEU:HD12	2.49	0.43
3:D:368:LEU:HG	3:D:373:ALA:HB2	2.01	0.43
3:D:733:SER:O	3:D:736:GLN:HG2	2.19	0.43
2:C:560:PRO:HB2	3:D:776:THR:HG21	2.01	0.43
1:H:95:LYS:HD2	1:H:95:LYS:N	2.33	0.43
2:I:757:THR:CG2	2:I:758:ARG:H	2.31	0.43
2:I:850:ILE:CG2	2:I:885:GLY:O	2.61	0.43
3:J:113:HIS:NE2	3:J:115:TRP:HB2	2.33	0.43
2:I:1270:PHE:N	3:J:345:LYS:O	2.52	0.43
5:L:284:GLU:O	5:L:287:ILE:HB	2.19	0.43
2:O:675:ASP:CG	2:O:1107:MET:HE1	2.39	0.43
2:O:702:THR:C	2:O:704:MET:H	2.22	0.43
3:P:1284:ARG:HH11	3:P:1287:ILE:HD12	1.84	0.43
3:P:580:TRP:CH2	3:P:587:LEU:O	2.72	0.43
3:P:605:LEU:H	3:P:605:LEU:HG	1.42	0.43
3:P:70:CYS:HB2	3:P:90:VAL:HB	2.01	0.43
5:R:457:ILE:HD13	5:R:460:ILE:HD12	2.00	0.43
1:A:42:ALA:O	1:A:46:ILE:HD12	2.19	0.42
1:B:61:ILE:HG22	1:B:140:ILE:HD11	2.01	0.42
2:C:1161:LEU:HD12	2:C:1161:LEU:O	2.19	0.42
2:C:27:LEU:HG	2:C:711:ASP:OD2	2.19	0.42
2:C:632:ASP:OD1	2:C:647:ARG:NH2	2.52	0.42
2:C:850:ILE:HD11	2:C:1048:LYS:HD2	2.01	0.42
3:D:291:ILE:CG2	5:F:409:ASN:HD22	2.32	0.42
3:D:390:LEU:HD12	3:D:411:ILE:HD11	2.00	0.42
3:D:423:LEU:HD23	3:D:423:LEU:HA	1.46	0.42
3:D:569:LEU:H	3:D:569:LEU:HD22	1.83	0.42
4:E:31:GLN:HB3	4:E:32:VAL:HG23	2.01	0.42
2:I:539:THR:HG22	2:I:540:ARG:N	2.31	0.42
2:I:831:ILE:HG13	2:I:831:ILE:H	1.61	0.42
3:J:1156:LEU:HD23	3:J:1156:LEU:N	2.29	0.42
3:J:421:VAL:CG1	3:J:422:LEU:N	2.75	0.42
2:I:1116:HIS:NE2	3:J:641:ILE:HG13	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:261:LEU:HD23	5:L:262:VAL:N	2.34	0.42
5:L:349:GLU:CA	5:L:349:GLU:OE1	2.67	0.42
2:O:34:SER:HA	2:O:37:LYS:CD	2.36	0.42
2:O:690:VAL:HG13	2:O:691:PRO:HD2	2.00	0.42
2:O:895:LEU:HD13	2:O:899:GLU:HB3	2.01	0.42
2:O:90:VAL:HG12	2:O:91:THR:N	2.34	0.42
3:P:146:VAL:HA	3:P:178:ALA:HB2	2.01	0.42
3:P:311:ARG:NH2	3:P:1329:THR:HG21	2.34	0.42
3:P:450:HIS:CD2	3:P:451:PRO:HD2	2.54	0.42
5:L:464:ASN:HD22	7:5:26:DT:H71	1.84	0.42
7:8:27:DA:H1'	7:8:28:DG:H5'	2.01	0.42
1:A:104:LYS:HD2	1:A:104:LYS:HA	1.84	0.42
1:A:131:CYS:SG	1:A:132:HIS:N	2.92	0.42
1:A:158:ARG:HB3	1:A:172:LEU:HD21	2.00	0.42
1:B:61:ILE:HD11	1:B:171:LEU:CD1	2.47	0.42
2:C:519:ASN:OD1	2:C:522:SER:CB	2.67	0.42
2:C:782:VAL:HG21	2:C:792:GLY:HA2	2.01	0.42
3:D:227:PHE:CE1	3:D:232:ASN:O	2.72	0.42
3:D:186:GLN:HB2	3:D:238:ILE:HG13	2.01	0.42
3:D:57:PHE:HZ	3:D:250:ARG:O	2.02	0.42
3:D:620:PHE:O	3:D:624:ILE:HD11	2.17	0.42
5:F:115:GLY:O	5:F:118:ASP:HB2	2.19	0.42
5:F:272:SER:O	5:F:276:MET:CG	2.68	0.42
5:F:449:THR:OG1	5:F:504:PRO:CG	2.50	0.42
5:F:502:LYS:HD2	5:F:502:LYS:HA	1.75	0.42
1:H:15:ASP:HB3	1:H:27:THR:CG2	2.49	0.42
2:I:1252:SER:HA	2:I:1259:LEU:CD2	2.40	0.42
2:I:421:SER:O	2:I:425:ILE:HG13	2.20	0.42
3:J:151:MET:CB	3:J:153:ASN:HD22	2.28	0.42
3:J:255:LEU:CD2	3:J:256:ASP:H	2.17	0.42
3:J:399:LYS:HZ1	5:L:611:LEU:HD23	1.82	0.42
3:J:664:ILE:CD1	3:J:685:ILE:HD11	2.49	0.42
2:O:68:LEU:HD12	2:O:101:ARG:O	2.18	0.42
2:O:104:ILE:HG22	2:O:105:TYR:O	2.19	0.42
2:O:1088:ASP:OD1	2:O:1088:ASP:N	2.50	0.42
2:O:797:GLY:CA	2:O:1233:LEU:HD21	2.49	0.42
2:O:136:PHE:HB3	2:O:138:ILE:CD1	2.19	0.42
2:O:242:VAL:CG1	2:O:243:PRO:HD2	2.50	0.42
2:O:369:MET:HE3	2:O:369:MET:HB2	1.86	0.42
2:O:419:ILE:HG12	2:O:419:ILE:H	1.59	0.42
2:O:606:LEU:HD22	2:O:610:GLU:CB	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:58:PRO:HB3	2:O:69:GLN:HG2	2.01	0.42
2:O:719:LYS:HD3	2:O:751:TYR:CE1	2.54	0.42
3:P:114:ILE:HG23	3:P:115:TRP:N	2.35	0.42
3:P:1312:ALA:O	3:P:1316:THR:HG23	2.19	0.42
3:P:338:PHE:CE1	3:P:1324:SER:HA	2.53	0.42
3:P:368:LEU:HA	3:P:447:ILE:HG23	2.00	0.42
3:P:74:LYS:CD	3:P:85:CYS:SG	2.86	0.42
6:4:47:DC:C3'	6:4:47:DC:C6	3.03	0.42
1:A:198:LEU:HD23	1:A:198:LEU:HA	1.54	0.42
1:B:192:VAL:O	1:B:193:GLU:C	2.57	0.42
2:C:995:ASP:C	2:C:997:TRP:H	2.22	0.42
2:C:1340:GLU:O	3:D:17:PHE:HA	2.19	0.42
3:D:518:VAL:HG12	3:D:519:ASN:CG	2.39	0.42
3:D:512:TYR:CZ	3:D:635:SER:HB2	2.54	0.42
3:D:823:THR:HB	3:D:824:PRO:HD2	2.02	0.42
5:F:292:VAL:HG21	5:F:299:LYS:HE2	2.01	0.42
5:F:399:LEU:HB3	5:F:400:GLN:H	1.62	0.42
2:I:105:TYR:HE1	2:I:113:THR:HB	1.84	0.42
2:I:230:PHE:CD1	2:I:292:ILE:CD1	3.03	0.42
3:J:120:LEU:HA	3:J:121:PRO:HA	1.76	0.42
5:L:559:LEU:HD11	5:L:594:ALA:CB	2.49	0.42
2:I:897:PRO:HB3	5:L:563:PHE:O	2.20	0.42
1:M:232:VAL:HG21	1:N:221:ALA:HB3	1.98	0.42
2:O:183:TRP:C	2:O:184:LEU:HG	2.40	0.42
2:O:415:GLU:HG2	2:O:416:GLY:N	2.34	0.42
3:P:1075:ARG:HB2	3:P:1192:LYS:HD3	2.01	0.42
3:P:146:VAL:CG2	3:P:158:GLN:HB3	2.49	0.42
3:P:330:MET:CE	3:P:337:ARG:NH2	2.82	0.42
4:Q:59:ILE:HD13	4:Q:59:ILE:HA	1.90	0.42
5:R:386:LEU:HD13	6:7:41:DT:C1'	2.49	0.42
5:R:96:ASP:OD1	5:R:98:VAL:HG23	2.19	0.42
5:L:401:PHE:CZ	6:4:45:DT:H1'	2.53	0.42
2:C:1056:VAL:HG11	2:C:1058:ARG:NE	2.34	0.42
2:C:1285:TYR:CE1	3:D:475:GLU:HG2	2.55	0.42
2:C:946:LEU:HG	2:C:946:LEU:O	2.09	0.42
3:D:1347:LEU:N	3:D:1347:LEU:HD23	2.33	0.42
3:D:250:ARG:HH11	3:D:250:ARG:HG3	1.84	0.42
3:D:347:VAL:CG1	3:D:469:HIS:CE1	3.02	0.42
3:D:643:ASP:O	3:D:720:ASN:ND2	2.46	0.42
3:D:739:GLN:HG2	3:D:744:ARG:HG3	2.01	0.42
3:D:749:LYS:HE2	3:D:755:ILE:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:153:VAL:CG1	1:G:157:THR:HB	2.42	0.42
1:G:167:PRO:HG3	1:G:170:ARG:HH11	1.85	0.42
1:G:158:ARG:HB3	1:G:172:LEU:HD21	2.00	0.42
1:G:35:PHE:HB3	1:G:39:LEU:HD12	1.97	0.42
1:H:11:PRO:HB2	1:H:28:LEU:HD11	2.02	0.42
1:H:78:ILE:HA	1:H:81:ILE:HD12	2.00	0.42
2:I:1134:GLN:HG2	2:I:1134:GLN:O	2.19	0.42
2:I:196:VAL:HG12	2:I:197:ARG:N	2.34	0.42
2:I:292:ILE:HG22	2:I:292:ILE:O	2.18	0.42
2:I:420:LEU:HD23	2:I:420:LEU:HA	1.89	0.42
2:I:757:THR:HG22	2:I:758:ARG:N	2.29	0.42
3:J:1240:VAL:HB	3:J:1241:TYR:HD2	1.83	0.42
3:J:736:GLN:CA	3:J:736:GLN:NE2	2.81	0.42
3:J:839:VAL:CG1	3:J:839:VAL:O	2.66	0.42
5:L:493:LYS:HZ2	5:L:496:LYS:CD	2.32	0.42
1:M:82:LEU:HD23	1:M:85:LEU:HD11	2.00	0.42
2:O:1124:ILE:HD11	2:O:1198:LEU:CD1	2.49	0.42
2:O:1212:LEU:HB2	2:O:1221:PHE:HD2	1.83	0.42
2:O:129:LEU:O	2:O:136:PHE:CD1	2.72	0.42
2:O:179:TYR:OH	2:O:462:ASN:ND2	2.43	0.42
2:O:272:ARG:CB	2:O:272:ARG:NH1	2.81	0.42
2:O:335:THR:HG22	2:O:336:LEU:N	2.35	0.42
2:O:344:GLY:O	2:O:346:TYR:CD2	2.72	0.42
2:O:482:GLY:HA3	2:O:487:LEU:CD1	2.48	0.42
2:O:700:VAL:HG13	2:O:1117:LEU:HD23	2.00	0.42
2:O:759:SER:HB3	2:O:765:ILE:HG13	2.00	0.42
3:P:1145:PHE:HE1	3:P:1256:ILE:CD1	2.31	0.42
3:P:1176:VAL:HG22	3:P:1187:GLU:CG	2.48	0.42
3:P:1132:LYS:HB3	3:P:1243:LEU:HD21	2.00	0.42
3:P:1367:GLN:HA	3:P:1370:MET:HG3	2.00	0.42
2:O:1247:SER:O	3:P:348:ASP:HB3	2.19	0.42
3:P:347:VAL:HG12	3:P:348:ASP:N	2.33	0.42
3:P:450:HIS:HA	3:P:451:PRO:HD3	1.89	0.42
3:P:698:MET:O	3:P:702:GLN:HB2	2.20	0.42
5:R:385:ARG:O	5:R:388:ILE:HG23	2.19	0.42
6:4:53:DG:H2"	6:4:54:DA:N7	2.35	0.42
1:A:183:ILE:O	1:A:183:ILE:HG23	2.20	0.42
1:B:100:LEU:HD11	1:B:121:VAL:HG11	2.00	0.42
2:C:1183:ALA:O	2:C:1185:PRO:HD3	2.18	0.42
2:C:1225:VAL:HG12	2:C:1226:THR:N	2.34	0.42
2:C:1288:GLN:NE2	3:D:1354:GLY:O	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:138:ILE:N	2:C:138:ILE:HD13	2.32	0.42
2:C:149:LEU:HD11	2:C:451:ARG:CG	2.50	0.42
2:C:209:ILE:CG2	2:C:210:LEU:H	2.26	0.42
2:C:180:ARG:O	2:C:395:TYR:HA	2.19	0.42
2:C:906:PHE:CZ	5:F:608:ARG:NH2	2.87	0.42
2:C:992:LEU:CB	2:C:993:PRO:CD	2.98	0.42
3:D:135:ILE:O	3:D:138:VAL:HB	2.19	0.42
2:C:550:VAL:HG22	3:D:780:ARG:HD2	2.01	0.42
5:F:227:GLN:HA	5:F:230:VAL:HG12	2.00	0.42
5:F:231:THR:O	5:F:231:THR:HG22	2.19	0.42
1:G:9:LEU:HD21	1:G:198:LEU:HD21	2.00	0.42
2:I:13:LYS:HD2	2:I:1149:TYR:HA	2.00	0.42
2:I:118:LYS:HD3	2:I:488:MET:CE	2.50	0.42
2:I:511:LEU:HA	2:I:511:LEU:HD23	1.55	0.42
2:I:516:ASP:HB3	2:I:522:SER:OG	2.19	0.42
2:I:764:CYS:HB2	2:I:831:ILE:HB	1.98	0.42
3:J:216:LYS:CG	3:J:217:LEU:N	2.83	0.42
3:J:39:LYS:NZ	3:J:280:LYS:NZ	2.67	0.42
3:J:363:LEU:HB2	3:J:622:ASP:OD1	2.19	0.42
2:O:177:ILE:HG23	2:O:183:TRP:HE1	1.84	0.42
2:O:313:ALA:O	2:O:314:ASN:CB	2.68	0.42
2:O:667:LEU:HA	2:O:667:LEU:HD23	1.57	0.42
3:P:322:ARG:HE	5:R:510:PRO:CG	2.32	0.42
3:P:350:SER:C	3:P:376:LEU:HD21	2.39	0.42
3:P:419:HIS:O	3:P:439:PRO:HD2	2.19	0.42
3:P:433:GLY:O	3:P:457:TYR:CE1	2.72	0.42
3:P:872:LEU:HG	3:P:872:LEU:H	1.50	0.42
5:L:434:TRP:CZ3	6:4:35:DC:C5	3.08	0.42
6:4:54:DA:C6	6:4:55:DC:C4	3.08	0.42
1:A:218:ARG:HD3	1:B:233:ASP:O	2.19	0.42
2:C:1278:LEU:HD11	2:C:1286:THR:HB	2.01	0.42
2:C:397:LEU:HD11	2:C:420:LEU:CD2	2.50	0.42
2:C:630:VAL:HG12	2:C:631:GLU:N	2.33	0.42
2:C:866:ASP:CG	2:C:867:GLU:H	2.23	0.42
3:D:1177:ILE:O	3:D:1179:PRO:HD3	2.19	0.42
3:D:513:MET:CE	3:D:579:LEU:HG	2.49	0.42
3:D:843:VAL:HG12	3:D:883:ARG:CB	2.49	0.42
5:F:333:VAL:HG13	5:F:333:VAL:O	2.19	0.42
5:F:404:LEU:CD2	5:F:439:ILE:HG12	2.43	0.42
1:G:232:VAL:CG1	1:H:218:ARG:CA	2.86	0.42
1:G:66:HIS:CD2	1:G:69:SER:HB3	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:85:LEU:HA	1:H:88:LEU:HD22	2.00	0.42
2:I:1225:VAL:CG1	2:I:1226:THR:N	2.83	0.42
2:I:1276:TRP:HA	2:I:1279:GLU:OE1	2.20	0.42
2:I:173:ASN:HB3	2:I:187:GLU:CB	2.49	0.42
2:I:470:ARG:HD3	2:I:470:ARG:HA	1.78	0.42
3:J:1282:TYR:CZ	3:J:1304:ARG:NE	2.87	0.42
3:J:143:SER:HB2	3:J:160:LEU:O	2.19	0.42
3:J:369:PRO:CB	3:J:372:MET:HE3	2.49	0.42
3:J:44:ILE:HD12	3:J:49:PHE:HA	2.01	0.42
5:L:443:ILE:HG23	5:L:444:ALA:N	2.34	0.42
1:N:61:ILE:CD1	1:N:64:VAL:HG11	2.49	0.42
2:O:1103:VAL:HB	2:O:1104:PRO:CD	2.49	0.42
2:O:1122:LYS:HG3	2:O:1229:TYR:CE2	2.55	0.42
2:O:184:LEU:HA	2:O:184:LEU:HD23	1.76	0.42
2:O:228:VAL:HG21	2:O:337:PHE:HD1	1.84	0.42
2:O:524:ILE:HD11	2:O:712:SER:CA	2.50	0.42
2:O:695:ALA:HB1	2:O:795:ALA:HB3	2.01	0.42
2:O:840:SER:OG	2:O:840:SER:O	2.38	0.42
2:O:976:ARG:O	2:O:980:VAL:CG2	2.67	0.42
3:P:1075:ARG:CD	3:P:1192:LYS:HB3	2.50	0.42
3:P:1137:GLY:O	3:P:1140:ARG:HB3	2.20	0.42
3:P:1280:VAL:CG1	3:P:1281:GLU:H	2.31	0.42
3:P:151:MET:CE	3:P:151:MET:HA	2.49	0.42
3:P:275:ARG:HD2	3:P:302:ALA:HB2	2.02	0.42
3:P:622:ASP:O	3:P:625:MET:HE2	2.20	0.42
3:P:800:LEU:H	3:P:800:LEU:HG	1.60	0.42
5:R:460:ILE:C	5:R:463:LEU:HG	2.40	0.42
7:2:46:DT:H1'	7:2:47:DC:H5'	2.01	0.42
2:O:183:TRP:CE3	6:7:49:DG:O6	2.73	0.42
1:B:28:LEU:HA	1:B:28:LEU:HD22	1.64	0.42
2:C:1156:ARG:HG2	2:C:1157:GLN:N	2.34	0.42
2:C:1276:TRP:N	2:C:1276:TRP:CD1	2.85	0.42
2:C:529:ARG:C	2:C:530:ILE:HG13	2.39	0.42
2:C:718:ALA:HA	2:C:783:LEU:HD11	2.01	0.42
2:C:720:ARG:HB3	2:C:736:VAL:HG13	2.01	0.42
2:C:718:ALA:CA	2:C:783:LEU:HD11	2.49	0.42
2:C:897:PRO:CA	2:C:900:LYS:HD3	2.31	0.42
3:D:1028:ILE:HG23	3:D:1118:GLY:HA2	2.01	0.42
3:D:1266:ILE:CD1	3:D:1274:PHE:CD1	3.01	0.42
3:D:536:LEU:HD22	3:D:542:ALA:CB	2.49	0.42
3:D:736:GLN:HE21	3:D:736:GLN:HB3	1.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:178:SER:HA	1:G:179:PRO:HD3	1.87	0.42
2:I:1225:VAL:HG12	2:I:1226:THR:N	2.35	0.42
2:I:1244:HIS:CG	2:I:1245:ALA:N	2.87	0.42
2:I:146:VAL:HG12	2:I:147:SER:O	2.19	0.42
2:I:674:ASP:O	3:J:772:TYR:OH	2.14	0.42
2:I:883:LEU:H	2:I:883:LEU:HG	1.64	0.42
3:J:282:LEU:HD22	3:J:287:ALA:HB3	1.90	0.42
3:J:379:PRO:CG	3:J:380:PHE:N	2.81	0.42
3:J:851:PRO:HA	3:J:855:ASP:HA	2.01	0.42
4:K:51:LEU:HD23	4:K:51:LEU:HA	1.76	0.42
3:J:288:PRO:HG2	5:L:380:VAL:HG11	2.01	0.42
2:O:1053:TYR:N	2:O:1053:TYR:HD2	2.18	0.42
2:O:379:GLU:OE1	2:O:379:GLU:HA	2.20	0.42
3:P:1021:ASP:HA	3:P:1022:PRO:HD3	1.75	0.42
3:P:1154:ALA:HA	3:P:1211:SER:HB2	2.00	0.42
3:P:134:ASP:OD2	3:P:159:ILE:HD11	2.20	0.42
3:P:167:ASP:O	3:P:171:GLU:HG3	2.20	0.42
3:P:369:PRO:HB2	3:P:372:MET:HB2	2.01	0.42
2:O:898:GLU:CD	5:R:565:ILE:HG23	2.40	0.42
6:4:54:DA:C1'	6:4:55:DC:H5'	2.44	0.42
7:5:23:DT:H3'	7:5:24:DT:C5'	2.46	0.42
6:4:19:DA:C2	7:5:45:DG:C2	3.07	0.42
2:C:1238:LEU:HA	2:C:1238:LEU:HD23	1.93	0.42
2:C:727:VAL:CG2	2:C:773:LEU:HD13	2.46	0.42
2:C:839:VAL:HG23	2:C:886:LYS:HZ3	1.85	0.42
3:D:1053:LEU:HB3	3:D:1054:THR:H	1.66	0.42
3:D:115:TRP:HZ3	3:D:1332:LEU:HB2	1.85	0.42
3:D:239:LEU:HG	3:D:239:LEU:H	1.47	0.42
3:D:263:SER:HA	5:F:507:MET:CB	2.49	0.42
3:D:375:GLU:OE1	3:D:375:GLU:HA	2.20	0.42
3:D:478:LEU:HD11	4:E:24:ALA:CB	2.50	0.42
3:D:579:LEU:HA	3:D:579:LEU:HD23	1.89	0.42
2:C:809:GLY:HA2	3:D:629:PHE:CE1	2.53	0.42
3:D:496:GLY:HA2	3:D:903:LEU:HB3	2.01	0.42
5:F:478:PRO:HB2	5:F:483:LEU:HD13	2.01	0.42
1:G:125:LYS:HE2	1:G:127:GLN:CG	2.44	0.42
2:I:196:VAL:HG23	2:I:206:ALA:HA	2.00	0.42
2:I:237:LEU:CG	2:I:289:VAL:HG22	2.41	0.42
2:I:471:VAL:HG12	2:I:472:GLU:N	2.35	0.42
2:I:525:THR:HA	2:I:528:ARG:CG	2.50	0.42
2:I:550:VAL:O	3:J:777:HIS:CE1	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:448:LEU:CG	2:I:553:THR:HB	2.48	0.42
2:I:808:ASN:OD1	2:I:1216:ARG:NH2	2.53	0.42
2:I:988:LYS:O	2:I:992:LEU:HB2	2.19	0.42
3:J:930:LEU:HB2	3:J:1134:ILE:CD1	2.47	0.42
3:J:1145:PHE:CZ	3:J:1253:ILE:HG23	2.53	0.42
3:J:1146:GLU:OE2	3:J:1310:THR:HG23	2.19	0.42
3:J:155:GLU:HB2	3:J:156:ARG:H	1.60	0.42
3:J:275:ARG:HD3	3:J:298:MET:C	2.39	0.42
3:J:575:GLY:HA2	3:J:578:ILE:CD1	2.36	0.42
3:J:68:TYR:HA	3:J:92:VAL:CG1	2.49	0.42
3:J:930:LEU:HB3	3:J:1134:ILE:HD11	1.92	0.42
5:L:137:TYR:CE1	5:L:353:LEU:HD12	2.55	0.42
1:M:190:ALA:HB2	1:M:199:ASP:C	2.39	0.42
1:M:66:HIS:HE1	2:O:929:ILE:CG1	2.33	0.42
2:O:801:ARG:HG2	2:O:1229:TYR:CE1	2.55	0.42
2:O:748:ILE:HD11	2:O:970:GLY:HA3	2.02	0.42
2:O:985:GLU:HB3	2:O:988:LYS:HD2	2.02	0.42
3:P:1250:ASP:O	3:P:1254:GLU:HG3	2.19	0.42
3:P:1347:LEU:CD2	3:P:1357:ILE:HG22	2.50	0.42
3:P:722:ILE:O	3:P:725:MET:HB2	2.19	0.42
3:P:76:LYS:H	3:P:76:LYS:HG2	1.62	0.42
4:Q:26:ARG:HA	4:Q:26:ARG:HD2	1.96	0.42
2:C:1047:LEU:HB3	2:C:1048:LYS:HG3	2.02	0.42
2:C:373:GLY:HA2	5:F:91:ILE:CG1	2.47	0.42
2:C:528:ARG:HD2	2:C:663:VAL:CG2	2.50	0.42
2:C:906:PHE:CE2	5:F:608:ARG:NH1	2.86	0.42
2:C:992:LEU:HB3	2:C:993:PRO:HD2	2.01	0.42
3:D:1194:ARG:HH11	3:D:1211:SER:HB3	1.84	0.42
3:D:30:ILE:HA	3:D:33:TRP:CE3	2.55	0.42
3:D:720:ASN:ND2	3:D:722:ILE:HG13	2.35	0.42
1:G:195:ARG:HH22	4:Q:66:VAL:CG2	2.30	0.42
2:I:801:ARG:HG2	2:I:1229:TYR:CZ	2.54	0.42
2:I:1281:TYR:HE2	3:J:431:ARG:O	2.01	0.42
2:I:996:ARG:O	2:I:997:TRP:HD1	2.03	0.42
3:J:1064:SER:HA	3:J:1067:ARG:HB2	2.02	0.42
3:J:189:LEU:HG	3:J:189:LEU:H	1.71	0.42
3:J:304:ASP:HB2	3:J:312:ARG:HD2	2.02	0.42
3:J:497:GLU:HB3	3:J:498:PRO:CD	2.42	0.42
3:J:723:TYR:CD1	3:J:723:TYR:C	2.87	0.42
3:J:960:LEU:HD13	3:J:963:VAL:HG11	2.01	0.42
1:M:62:ASP:N	1:M:62:ASP:OD1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:524:ILE:HD12	2:O:708:VAL:HG13	2.01	0.42
3:P:491:LEU:HD22	3:P:496:GLY:O	2.19	0.42
2:C:89:GLY:HA2	2:C:140:GLY:HA3	2.02	0.42
3:D:338:PHE:HA	3:D:342:LEU:HB2	2.02	0.42
3:D:425:ARG:HG2	3:D:426:ALA:O	2.20	0.42
3:D:609:TYR:OH	3:D:906:GLY:HA3	2.20	0.42
3:D:869:CYS:CA	3:D:872:LEU:CD1	2.87	0.42
3:D:75:TYR:HB2	3:D:92:VAL:HG21	2.01	0.42
5:F:139:GLU:O	5:F:143:TYR:HD1	2.01	0.42
5:F:484:ALA:HA	5:F:494:ILE:HD11	2.01	0.42
5:F:519:LEU:CD1	5:F:522:PHE:HB3	2.49	0.42
1:G:190:ALA:CB	1:G:199:ASP:HA	2.50	0.42
2:I:1155:VAL:O	2:I:1155:VAL:HG12	2.20	0.42
2:I:118:LYS:HD3	2:I:488:MET:HE2	2.01	0.42
2:I:251:ALA:CB	2:I:266:GLY:H	2.30	0.42
2:I:91:THR:CG2	2:I:138:ILE:CD1	2.98	0.42
3:J:1342:ASP:OD1	3:J:1344:LEU:HD23	2.20	0.42
3:J:697:MET:O	3:J:701:LEU:HB2	2.20	0.42
3:J:748:ALA:HB2	3:J:941:ALA:CB	2.50	0.42
5:L:457:ILE:O	5:L:461:ASN:OD1	2.38	0.42
3:P:209:ASN:HD22	3:P:214:ARG:HD3	1.85	0.42
3:P:288:PRO:HG2	5:R:380:VAL:CG1	2.49	0.42
3:P:417:ARG:HG2	3:P:418:GLU:HG2	2.02	0.42
3:P:366:CYS:SG	3:P:437:PHE:HB3	2.60	0.42
3:P:553:THR:CG2	3:P:565:ALA:HB1	2.50	0.42
3:P:909:ILE:CG1	3:P:910:ASN:N	2.83	0.42
3:P:97:VAL:CG1	3:P:101:ARG:CD	2.97	0.42
1:A:149:GLY:HA3	1:A:177:TYR:CE2	2.55	0.41
1:A:186:ASN:O	1:A:202:VAL:HB	2.20	0.41
2:C:1202:GLY:C	2:C:1204:LEU:HG	2.40	0.41
2:C:368:ARG:NE	5:F:90:GLU:HG2	2.35	0.41
2:C:92:TYR:HB3	2:C:137:VAL:CG2	2.50	0.41
3:D:1282:TYR:O	3:D:1285:VAL:CG1	2.53	0.41
3:D:601:ILE:O	3:D:604:MET:HB2	2.20	0.41
3:D:809:VAL:CG1	3:D:911:LYS:HA	2.50	0.41
3:D:478:LEU:HD11	4:E:24:ALA:CA	2.49	0.41
4:E:6:VAL:CG1	4:E:51:LEU:HD22	2.50	0.41
1:H:201:LEU:HD12	1:H:201:LEU:HA	1.73	0.41
1:H:52:PRO:HA	1:H:150:ARG:CB	2.49	0.41
2:I:357:ASN:HB3	2:I:358:ASP:H	1.65	0.41
2:I:840:SER:O	2:I:840:SER:OG	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:169:LEU:CG	3:J:170:GLU:N	2.66	0.41
3:J:464:ASP:N	3:J:464:ASP:OD1	2.53	0.41
3:J:72:CYS:HB3	3:J:88:CYS:HB3	2.02	0.41
5:L:456:MET:HG3	5:L:460:ILE:HD11	2.02	0.41
2:O:185:ASP:C	2:O:186:PHE:HD2	2.23	0.41
2:O:346:TYR:HB2	2:O:347:ILE:HD13	2.02	0.41
2:O:563:THR:H	2:O:680:LEU:HD11	1.85	0.41
3:P:1145:PHE:CE1	3:P:1256:ILE:CD1	2.96	0.41
3:P:1297:LYS:HD3	3:P:1297:LYS:H	1.83	0.41
3:P:245:LEU:HD23	3:P:250:ARG:CG	2.50	0.41
3:P:265:LEU:H	3:P:265:LEU:HG	1.36	0.41
3:P:109:SER:CB	3:P:296:LYS:CE	2.79	0.41
3:P:922:SER:O	3:P:926:PRO:HD3	2.19	0.41
5:L:434:TRP:CE2	6:4:36:DT:C7	3.03	0.41
6:4:49:DG:H3'	6:4:50:DT:H5"	2.02	0.41
7:5:46:DT:H1'	7:5:47:DC:H5'	2.01	0.41
1:A:157:THR:O	1:A:160:HIS:CB	2.62	0.41
1:B:65:LEU:HA	1:B:169:GLY:HA3	2.01	0.41
2:C:700:VAL:HG12	2:C:1117:LEU:HD23	2.01	0.41
2:C:1199:LEU:HD23	2:C:1204:LEU:HB2	2.01	0.41
2:C:1225:VAL:HG22	3:D:638:SER:HB3	2.02	0.41
2:C:559:CYS:HB2	2:C:662:SER:CB	2.50	0.41
2:C:592:ARG:HG3	2:C:653:MET:CE	2.49	0.41
2:C:693:LEU:HG	2:C:694:ARG:N	2.15	0.41
2:C:857:VAL:HG13	2:C:858:GLY:N	2.35	0.41
3:D:1155:ILE:N	3:D:1211:SER:OG	2.51	0.41
3:D:1248:ILE:HG22	3:D:1249:ASN:N	2.34	0.41
3:D:154:LEU:HD23	3:D:154:LEU:HA	1.85	0.41
3:D:338:PHE:CD1	3:D:1324:SER:HA	2.55	0.41
3:D:421:VAL:HG12	3:D:422:LEU:N	2.35	0.41
5:F:505:ILE:HG22	5:F:506:SER:N	2.35	0.41
1:H:95:LYS:HD2	1:H:95:LYS:H	1.84	0.41
2:I:697:LYS:HA	2:I:698:PRO:HD3	1.89	0.41
2:I:871:VAL:HG12	2:I:872:TYR:O	2.19	0.41
2:I:887:VAL:CG2	2:I:887:VAL:O	2.68	0.41
3:J:1280:VAL:HG13	3:J:1281:GLU:H	1.86	0.41
3:J:26:SER:HB3	3:J:29:MET:HB2	2.02	0.41
2:I:1073:LYS:HE3	3:J:462:ASP:OD2	2.20	0.41
3:J:603:LYS:O	3:J:607:THR:OG1	2.31	0.41
3:J:849:LEU:HA	3:J:856:ILE:O	2.20	0.41
1:M:45:ARG:HD3	1:N:38:THR:CG2	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:190:ALA:HB2	1:N:200:LYS:HG2	1.98	0.41
2:O:1151:LEU:HD11	2:O:1197:GLU:CD	2.40	0.41
2:O:221:LEU:HD23	2:O:221:LEU:HA	1.68	0.41
2:O:232:ILE:HD13	2:O:326:SER:HB3	2.02	0.41
2:O:373:GLY:O	5:R:87:VAL:CG1	2.68	0.41
2:O:392:GLU:HG2	2:O:419:ILE:CG2	2.47	0.41
2:O:1073:LYS:HE3	3:P:462:ASP:CB	2.50	0.41
3:P:580:TRP:O	3:P:580:TRP:CG	2.72	0.41
3:P:725:MET:HB3	3:P:725:MET:HE2	1.24	0.41
3:P:496:GLY:CA	3:P:903:LEU:HD22	2.48	0.41
5:R:450:ILE:H	5:R:450:ILE:HG12	1.35	0.41
7:2:40:DT:H2"	7:2:41:DG:C8	2.55	0.41
7:8:18:DT:H6	7:8:18:DT:H2'	1.62	0.41
1:B:162:GLU:HG2	1:B:164:ASP:HB3	2.02	0.41
1:B:64:VAL:HG12	1:B:64:VAL:O	2.20	0.41
2:C:896:THR:OG1	2:C:897:PRO:HD2	2.20	0.41
3:D:796:LEU:HA	3:D:799:ARG:HE	1.86	0.41
5:F:583:THR:HG21	5:F:586:ARG:CB	2.50	0.41
1:G:43:LEU:O	1:G:47:LEU:CG	2.43	0.41
1:G:57:THR:HG22	1:G:58:GLU:HG3	2.01	0.41
2:I:16:GLY:O	2:I:1156:ARG:NH2	2.53	0.41
2:I:1220:GLN:HG2	2:I:1221:PHE:O	2.20	0.41
2:I:129:LEU:HD23	2:I:129:LEU:HA	1.69	0.41
2:I:183:TRP:CE3	2:I:199:ASP:OD1	2.73	0.41
2:I:297:VAL:HG23	2:I:297:VAL:O	2.19	0.41
2:I:525:THR:CG2	2:I:687:ARG:HD2	2.48	0.41
3:J:1021:ASP:HA	3:J:1022:PRO:HD3	1.93	0.41
3:J:219:LYS:HG2	3:J:222:LYS:CD	2.50	0.41
2:I:1258:PRO:HG2	3:J:346:ARG:C	2.41	0.41
3:J:819:GLY:O	3:J:881:LYS:HE3	2.20	0.41
5:L:388:ILE:HG12	5:L:389:SER:N	2.35	0.41
1:M:154:PRO:HG2	1:M:157:THR:OG1	2.19	0.41
2:O:8:LYS:HG2	2:O:1164:PHE:CE1	2.55	0.41
2:O:1117:LEU:CD1	2:O:1195:ILE:HG12	2.47	0.41
2:O:99:LYS:CG	2:O:121:GLU:HG3	2.51	0.41
2:O:212:ALA:HB1	2:O:363:LEU:HD21	2.01	0.41
2:O:402:ARG:HG2	2:O:416:GLY:HA3	2.02	0.41
2:O:420:LEU:HA	2:O:420:LEU:HD23	1.69	0.41
3:P:33:TRP:O	3:P:35:PHE:CE2	2.74	0.41
3:P:735:ALA:O	3:P:738:ARG:HB2	2.20	0.41
5:R:100:MET:O	5:R:104:GLU:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:129:GLN:HB3	5:R:129:GLN:HE21	1.64	0.41
5:R:457:ILE:O	5:R:461:ASN:OD1	2.38	0.41
5:L:464:ASN:HB2	7:5:26:DT:C7	2.50	0.41
1:A:9:LEU:HD13	1:A:9:LEU:N	2.35	0.41
1:B:152:TYR:CD1	1:B:176:CYS:HA	2.55	0.41
2:C:122:VAL:HG21	2:C:493:ILE:HD12	2.02	0.41
2:C:802:VAL:HG12	2:C:803:ALA:N	2.34	0.41
3:D:123:ARG:HD3	3:D:123:ARG:HA	1.72	0.41
3:D:1292:LEU:O	3:D:1296:GLY:N	2.54	0.41
3:D:1347:LEU:O	3:D:1351:VAL:HG23	2.20	0.41
3:D:24:LEU:HD12	3:D:232:ASN:CB	2.48	0.41
3:D:296:LYS:O	3:D:299:LEU:HB3	2.21	0.41
5:F:547:VAL:CG1	5:F:598:LEU:HD22	2.51	0.41
5:F:91:ILE:HG22	5:F:91:ILE:O	2.20	0.41
1:H:64:VAL:HG12	1:H:64:VAL:O	2.20	0.41
2:I:558:VAL:CG1	2:I:573:ASN:HB3	2.50	0.41
2:I:726:TYR:HB3	2:I:733:VAL:HG23	2.02	0.41
2:I:871:VAL:HG21	2:I:883:LEU:HA	1.99	0.41
3:J:424:ASN:HA	3:J:434:ILE:HG12	2.01	0.41
4:K:26:ARG:HD2	4:K:26:ARG:HA	1.85	0.41
4:K:36:ASP:HA	4:K:37:PRO:HD2	1.98	0.41
4:K:64:LEU:HG	4:K:64:LEU:H	1.51	0.41
1:M:44:ARG:NH2	2:O:1082:ILE:O	2.54	0.41
2:O:389:PHE:HB2	2:O:390:PHE:CE2	2.56	0.41
2:O:901:LEU:HD13	5:R:563:PHE:CE1	2.54	0.41
2:O:928:VAL:O	2:O:928:VAL:HG12	2.21	0.41
3:P:1101:LEU:HD22	3:P:1122:ALA:HB2	2.02	0.41
3:P:28:ASP:HA	3:P:31:ARG:CD	2.49	0.41
3:P:337:ARG:HA	3:P:341:ASN:ND2	2.35	0.41
3:P:351:GLY:C	3:P:468:VAL:HG23	2.40	0.41
3:P:354:VAL:HG12	3:P:355:ILE:N	2.35	0.41
3:P:429:LEU:HB3	3:P:925:GLU:CG	2.50	0.41
3:P:423:LEU:HD12	3:P:437:PHE:CE1	2.54	0.41
3:P:547:ARG:O	3:P:548:VAL:HG23	2.20	0.41
3:P:515:ARG:HH21	3:P:717:VAL:HB	1.86	0.41
3:P:615:LYS:HE3	4:Q:8:ASP:OD1	2.21	0.41
5:R:116:GLU:H	5:R:116:GLU:HG3	1.57	0.41
5:R:449:THR:OG1	5:R:504:PRO:CG	2.68	0.41
3:P:398:LYS:NZ	5:R:532:LEU:CD2	2.84	0.41
1:A:12:ARG:O	1:A:28:LEU:HD22	2.20	0.41
1:A:232:VAL:CG2	1:B:221:ALA:CB	2.99	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:131:THR:HG23	2:C:135:THR:O	2.20	0.41
2:C:182:SER:HB2	2:C:199:ASP:CG	2.41	0.41
2:C:75:LEU:HA	2:C:75:LEU:HD23	1.87	0.41
2:C:517:GLN:OE1	2:C:760:ASN:ND2	2.54	0.41
3:D:421:VAL:HG21	3:D:439:PRO:HG2	1.99	0.41
5:F:223:GLU:O	5:F:227:GLN:HG2	2.21	0.41
1:G:201:LEU:HD12	1:G:202:VAL:H	1.85	0.41
2:I:128:PRO:O	2:I:129:LEU:HD23	2.20	0.41
2:I:183:TRP:C	2:I:184:LEU:HG	2.40	0.41
2:I:71:VAL:HG23	2:I:99:LYS:O	2.21	0.41
3:J:34:SER:HB2	3:J:104:HIS:HB3	2.01	0.41
3:J:252:LEU:HD12	3:J:262:THR:HB	2.03	0.41
3:J:253:VAL:CB	3:J:254:PRO:CD	2.97	0.41
3:J:466:MET:HB3	3:J:466:MET:HE2	1.90	0.41
3:J:886:VAL:HG13	3:J:1258:ARG:HA	2.01	0.41
1:N:142:MET:HE2	1:N:142:MET:HB3	1.58	0.41
2:O:678:ARG:NH1	2:O:1106:ARG:HD2	2.36	0.41
2:O:1107:MET:HB3	2:O:1107:MET:HE2	1.71	0.41
2:O:594:VAL:HG22	2:O:599:VAL:HG13	2.03	0.41
2:O:726:TYR:CE2	2:O:728:ASP:HB2	2.55	0.41
2:O:9:LYS:NZ	2:O:1171:ARG:HD3	2.35	0.41
3:P:116:PHE:O	3:P:124:ILE:HG13	2.21	0.41
3:P:162:GLU:O	3:P:166:LEU:HD12	2.21	0.41
3:P:550:VAL:CG1	3:P:552:ILE:HD11	2.50	0.41
3:P:572:THR:OG1	3:P:573:THR:N	2.53	0.41
3:P:915:ILE:O	3:P:918:ILE:HB	2.19	0.41
5:R:503:GLU:HG2	5:R:504:PRO:HD2	2.03	0.41
8:6:14:A:O2'	8:6:15:G:H5'	2.21	0.41
6:7:13:DC:H2"	6:7:14:DT:OP2	2.20	0.41
7:8:26:DT:H2"	7:8:27:DA:OP1	2.21	0.41
1:A:102:LEU:HD12	1:A:103:ASN:N	2.36	0.41
1:A:28:LEU:HA	1:A:28:LEU:HD22	1.56	0.41
1:A:49:SER:HG	1:B:35:PHE:HZ	1.64	0.41
2:C:211:ARG:NH2	2:C:217:THR:OG1	2.40	0.41
3:D:1135:THR:O	3:D:1139:PRO:CD	2.66	0.41
3:D:1175:LEU:HD12	3:D:1175:LEU:HA	1.54	0.41
3:D:1320:ILE:H	3:D:1320:ILE:HG13	1.51	0.41
3:D:412:LEU:HG	3:D:416:ILE:CD1	2.51	0.41
3:D:773:PHE:HD2	3:D:773:PHE:O	2.03	0.41
5:F:540:LEU:HD12	5:F:540:LEU:HA	1.69	0.41
5:F:540:LEU:HD13	5:F:610:PHE:CZ	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:47:LEU:O	1:G:180:VAL:HG21	2.21	0.41
2:I:311:CYS:SG	2:I:325:LEU:HD21	2.61	0.41
2:I:389:PHE:HB2	2:I:390:PHE:CE2	2.55	0.41
2:I:91:THR:CG2	2:I:138:ILE:HD12	2.50	0.41
3:J:1114:GLN:HE21	3:J:1114:GLN:HB3	1.72	0.41
3:J:1163:VAL:HG12	3:J:1175:LEU:HG	2.03	0.41
3:J:135:ILE:H	3:J:135:ILE:HG13	1.32	0.41
3:J:536:LEU:HD22	3:J:536:LEU:O	2.20	0.41
3:J:53:ARG:HG3	3:J:53:ARG:H	1.74	0.41
5:L:324:LYS:HA	5:L:325:PRO:HD2	1.84	0.41
5:L:385:ARG:CA	5:L:388:ILE:HG23	2.50	0.41
5:L:530:LEU:HD22	5:L:531:PRO:HD2	2.01	0.41
2:O:1030:GLU:O	2:O:1034:ARG:HG3	2.21	0.41
2:O:800:MET:CE	2:O:1095:ASP:OD2	2.68	0.41
2:O:1109:ILE:CG2	2:O:1112:ILE:HD12	2.46	0.41
3:P:342:LEU:HD13	3:P:1352:ILE:HG23	2.03	0.41
3:P:497:GLU:CB	3:P:498:PRO:HD2	2.50	0.41
3:P:611:ILE:HG22	3:P:612:LEU:HD23	2.02	0.41
3:P:864:LEU:HD13	3:P:872:LEU:CD1	2.51	0.41
5:R:407:GLU:CG	5:R:442:SER:CB	2.95	0.41
5:L:434:TRP:CZ3	6:4:35:DC:H5	2.38	0.41
2:C:1005:GLU:HB3	2:C:1006:GLU:H	1.61	0.41
2:C:1161:LEU:CD1	2:C:1164:PHE:HB2	2.48	0.41
2:C:523:GLU:O	2:C:527:LYS:HG3	2.20	0.41
2:C:765:ILE:O	2:C:765:ILE:HG22	2.20	0.41
2:C:801:ARG:O	2:C:1094:VAL:HG12	2.21	0.41
2:C:850:ILE:HG13	2:C:850:ILE:H	1.50	0.41
2:C:871:VAL:HG12	2:C:872:TYR:O	2.21	0.41
3:D:1090:ILE:HG22	3:D:1091:PRO:HD2	2.01	0.41
3:D:108:ALA:CB	3:D:279:LEU:HD21	2.40	0.41
3:D:749:LYS:O	3:D:750:PRO:C	2.59	0.41
5:F:457:ILE:O	5:F:461:ASN:OD1	2.39	0.41
1:G:41:ASN:O	1:G:45:ARG:HG3	2.21	0.41
1:H:25:LYS:HE2	1:H:204:GLU:OE2	2.21	0.41
1:H:61:ILE:CD1	1:H:61:ILE:N	2.79	0.41
2:I:180:ARG:O	2:I:395:TYR:HA	2.20	0.41
2:I:830:THR:HG23	2:I:1234:LYS:HZ3	1.85	0.41
3:J:1282:TYR:CE1	3:J:1304:ARG:NH2	2.88	0.41
3:J:1320:ILE:HD12	3:J:1344:LEU:HD22	2.03	0.41
3:J:334:LYS:HG3	3:J:339:ARG:HD2	2.03	0.41
2:O:797:GLY:N	2:O:1233:LEU:HD21	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:178:PRO:HA	2:O:397:LEU:CD2	2.45	0.41
3:P:358:GLY:HA3	3:P:361:LEU:HD12	2.03	0.41
5:R:402:LEU:HG	5:R:402:LEU:H	1.72	0.41
2:O:900:LYS:CD	5:R:563:PHE:CE1	3.04	0.41
7:2:33:DC:C2'	7:2:34:DG:OP2	2.62	0.41
1:A:102:LEU:HD13	1:A:115:ILE:HA	2.02	0.41
1:B:224:LEU:C	1:B:224:LEU:HD12	2.41	0.41
1:B:35:PHE:O	1:B:39:LEU:CD2	2.67	0.41
1:B:77:ASP:HB3	1:B:79:LEU:HD12	2.01	0.41
2:C:1246:ARG:NH2	2:C:1251:TYR:CE1	2.88	0.41
2:C:543:ALA:HB1	2:C:548:ARG:HE	1.85	0.41
2:C:772:SER:O	2:C:775:GLU:HG3	2.21	0.41
3:D:114:ILE:HG13	3:D:118:LYS:CG	2.51	0.41
3:D:552:ILE:HD13	3:D:552:ILE:HA	1.57	0.41
3:D:759:ILE:HD13	3:D:767:LEU:CD1	2.51	0.41
5:F:167:ASP:HB2	5:F:262:VAL:CG2	2.51	0.41
5:F:167:ASP:N	5:F:168:PRO:CD	2.83	0.41
5:F:470:MET:SD	5:F:486:ARG:HD2	2.60	0.41
3:D:263:SER:HB2	5:F:507:MET:SD	2.61	0.41
1:G:30:PRO:O	1:G:31:LEU:HD23	2.21	0.41
2:I:1088:ASP:OD1	2:I:1088:ASP:N	2.51	0.41
2:I:1269:ARG:HG3	3:J:345:LYS:C	2.41	0.41
2:I:285:ILE:HG22	2:I:286:GLU:N	2.36	0.41
2:I:668:ILE:HA	2:I:669:PRO:HD3	1.71	0.41
3:J:367:GLY:O	3:J:447:ILE:CG2	2.69	0.41
3:J:709:ARG:O	3:J:709:ARG:CG	2.66	0.41
5:L:170:ALA:HA	5:L:259:PHE:CD1	2.54	0.41
5:L:587:ILE:HG12	5:L:587:ILE:H	1.61	0.41
1:M:131:CYS:SG	1:M:132:HIS:N	2.94	0.41
1:M:227:GLN:OE1	1:N:11:PRO:HD3	2.21	0.41
2:O:1333:LEU:CD2	3:P:327:LEU:HD13	2.51	0.41
2:O:16:GLY:O	2:O:1156:ARG:HB3	2.21	0.41
2:O:39:ILE:O	2:O:39:ILE:HG22	2.21	0.41
3:P:1176:VAL:HG22	3:P:1187:GLU:CD	2.41	0.41
3:P:1257:VAL:HA	3:P:1260:MET:HG3	2.02	0.41
3:P:1282:TYR:C	3:P:1285:VAL:HG12	2.40	0.41
3:P:381:ILE:O	3:P:385:LEU:HG	2.19	0.41
4:Q:81:GLN:HG2	4:Q:81:GLN:H	1.62	0.41
5:F:451:ARG:NH1	6:1:32:DA:OP1	2.43	0.41
7:2:5:DC:OP2	7:2:5:DC:H2'	2.21	0.41
2:C:1065:LYS:HZ1	8:3:15:G:H4'	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1094:VAL:HG12	2:C:1095:ASP:H	1.86	0.41
2:C:1139:ALA:O	2:C:1142:ARG:HB3	2.21	0.41
2:C:551:HIS:HA	2:C:552:PRO:HD3	1.93	0.41
3:D:159:ILE:HG13	3:D:159:ILE:H	1.51	0.41
3:D:620:PHE:C	3:D:624:ILE:HD11	2.41	0.41
5:F:575:GLU:HA	5:F:578:LYS:HE2	2.03	0.41
1:G:167:PRO:CG	1:G:170:ARG:HD2	2.37	0.41
1:G:47:LEU:HG	1:G:47:LEU:H	1.73	0.41
1:G:56:VAL:HG13	1:G:144:ILE:CG2	2.51	0.41
2:I:997:TRP:O	2:I:1000:LEU:CB	2.68	0.41
2:I:1101:LEU:HD11	3:J:508:LEU:HD23	2.02	0.41
1:H:41:ASN:ND2	2:I:1217:THR:O	2.53	0.41
2:I:160:ASP:HB3	2:I:163:LYS:CG	2.51	0.41
2:I:227:LYS:HZ1	2:I:298:ALA:HB1	1.83	0.41
2:I:506:PHE:O	2:I:512:SER:HB2	2.21	0.41
2:I:615:VAL:CG2	2:I:638:SER:HB2	2.46	0.41
2:I:824:GLN:HE22	2:I:1082:ILE:HD11	1.86	0.41
3:J:227:PHE:CE1	3:J:232:ASN:C	2.92	0.41
3:J:245:LEU:HG	3:J:249:LEU:HD12	2.02	0.41
3:J:963:VAL:HB	3:J:980:THR:HG23	2.02	0.41
3:J:953:LYS:HD2	3:J:993:GLU:OE2	2.20	0.41
5:L:241:SER:HB3	5:L:249:ILE:HD12	2.03	0.41
5:L:366:SER:HA	5:L:369:GLU:CD	2.41	0.41
1:M:36:GLY:O	1:M:201:LEU:HD13	2.21	0.41
2:O:228:VAL:CG2	2:O:337:PHE:HD1	2.34	0.41
2:O:46:GLN:H	2:O:46:GLN:HG2	1.62	0.41
2:O:589:THR:CG2	2:O:590:PRO:CD	2.91	0.41
3:P:1156:LEU:CD2	3:P:1209:VAL:HA	2.50	0.41
3:P:1320:ILE:H	3:P:1320:ILE:HG13	1.67	0.41
3:P:1332:LEU:CD2	3:P:1332:LEU:N	2.64	0.41
3:P:1347:LEU:HD22	3:P:1357:ILE:HG22	2.03	0.41
3:P:279:LEU:O	3:P:283:LEU:HG	2.21	0.41
3:P:653:ILE:HG21	3:P:693:VAL:HG22	2.02	0.41
5:R:387:VAL:HG11	5:R:409:ASN:OD1	2.21	0.41
5:F:110:LEU:CD2	6:1:41:DT:C2	3.04	0.41
6:4:47:DC:C3'	6:4:48:DA:C5'	2.96	0.41
3:J:791:ALA:HA	7:5:12:DG:H8	1.85	0.41
1:A:100:LEU:HD23	1:A:100:LEU:HA	1.67	0.41
2:C:884:VAL:HG11	2:C:1050:VAL:HG21	2.02	0.41
2:C:1333:LEU:HD23	2:C:1333:LEU:HA	1.47	0.41
2:C:197:ARG:HA	2:C:202:ARG:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:194:LEU:HD13	2:C:432:LEU:HD21	2.03	0.41
2:C:575:LEU:HD12	2:C:576:SER:H	1.86	0.41
3:D:369:PRO:HG2	3:D:372:MET:HE3	2.02	0.41
3:D:835:LEU:CD1	3:D:839:VAL:HG23	2.51	0.41
4:E:21:LEU:O	4:E:21:LEU:HD23	2.20	0.41
1:H:178:SER:HB2	3:J:535:ARG:NH1	2.35	0.41
2:I:1273:MET:HA	2:I:1276:TRP:CE3	2.56	0.41
2:I:269:ILE:HD12	2:I:273:HIS:CG	2.56	0.41
2:I:996:ARG:C	2:I:997:TRP:HD1	2.24	0.41
3:J:160:LEU:HD22	3:J:164:GLN:CB	2.50	0.41
3:J:521:LYS:HB2	3:J:542:ALA:HA	2.03	0.41
3:J:749:LYS:HG3	3:J:755:ILE:HG12	2.03	0.41
3:J:786:THR:HG22	3:J:787:ALA:N	2.35	0.41
3:J:848:VAL:HG11	3:J:880:VAL:CG2	2.36	0.41
3:J:879:ALA:O	3:J:880:VAL:CG2	2.69	0.41
3:J:894:VAL:HG21	3:J:915:ILE:HD12	2.03	0.41
1:M:57:THR:CG2	1:M:158:ARG:CZ	2.98	0.41
2:O:1101:LEU:HD23	2:O:1101:LEU:HA	1.87	0.41
3:P:1153:PRO:HB3	3:P:1216:ALA:HB2	2.03	0.41
2:O:1284:ALA:O	3:P:1356:LEU:HD21	2.21	0.41
3:P:536:LEU:HD13	3:P:542:ALA:CB	2.51	0.41
3:P:513:MET:HE1	3:P:579:LEU:HD21	1.97	0.41
3:P:661:VAL:HG21	3:P:686:TRP:CH2	2.56	0.41
3:P:721:SER:O	3:P:725:MET:HG3	2.21	0.41
3:P:615:LYS:NZ	4:Q:5:THR:O	2.38	0.41
5:R:573:LEU:O	5:R:573:LEU:HD12	2.21	0.41
1:A:90:VAL:HG11	1:A:146:VAL:HG11	2.03	0.41
1:B:182:ARG:HB3	1:B:206:GLU:HB3	2.02	0.41
1:B:39:LEU:H	1:B:39:LEU:HD23	1.73	0.41
2:C:184:LEU:HA	2:C:184:LEU:HD23	1.85	0.41
2:C:389:PHE:HB3	2:C:420:LEU:CD1	2.48	0.41
2:C:49:LEU:HD13	2:C:73:TYR:CZ	2.56	0.41
2:C:565:GLU:HB3	3:D:783:LEU:HD21	2.03	0.41
3:D:1259:GLN:OE1	3:D:1262:ARG:HD2	2.21	0.41
3:D:1349:GLU:HG3	3:D:1349:GLU:H	1.54	0.41
3:D:430:HIS:HA	3:D:921:GLN:HB3	2.03	0.41
3:D:925:GLU:N	3:D:926:PRO:CD	2.85	0.41
2:I:657:THR:HG21	2:I:1188:ASP:HB2	2.02	0.41
2:I:901:LEU:O	2:I:905:ILE:HG13	2.20	0.41
2:I:950:GLU:HA	2:I:953:LEU:HD12	2.03	0.41
3:J:1233:ILE:HG22	3:J:1237:VAL:CG2	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1285:VAL:HG13	3:J:1286:LYS:N	2.36	0.41
3:J:1352:ILE:HD12	3:J:1352:ILE:H	1.85	0.41
2:I:1294:LYS:NZ	3:J:349:TYR:HB2	2.36	0.41
3:J:386:GLU:OE1	3:J:394:ILE:HG12	2.21	0.41
2:I:1242:LYS:NZ	3:J:465:GLN:NE2	2.68	0.41
3:J:490:ILE:HA	3:J:500:ILE:CD1	2.51	0.41
5:L:540:LEU:HD12	5:L:544:THR:HG23	2.03	0.41
1:M:185:TYR:CD2	1:M:185:TYR:C	2.95	0.41
1:N:32:GLU:HB3	1:N:35:PHE:CD2	2.56	0.41
1:N:47:LEU:HD22	1:N:180:VAL:HG21	2.03	0.41
2:O:1252:SER:HB2	2:O:1259:LEU:HD23	2.03	0.41
2:O:135:THR:HG21	2:O:515:MET:SD	2.61	0.41
2:O:672:GLU:HG2	2:O:1187:PHE:CA	2.42	0.41
3:P:45:ASN:HB3	3:P:48:THR:O	2.21	0.41
3:P:555:TYR:HB2	3:P:586:GLY:CA	2.50	0.41
3:P:835:LEU:HD21	3:P:880:VAL:HG23	2.02	0.41
6:1:48:DA:H2'	6:1:49:DG:C8	2.55	0.40
7:8:21:DG:H2'	7:8:22:DA:C8	2.56	0.40
1:B:144:ILE:N	1:B:144:ILE:CD1	2.75	0.40
1:B:201:LEU:HG	1:B:203:ILE:CD1	2.41	0.40
2:C:838:CYS:HB3	2:C:1050:VAL:HB	2.02	0.40
2:C:1060:ILE:HG22	2:C:1060:ILE:H	1.50	0.40
2:C:12:ARG:CZ	2:C:1181:PRO:HB2	2.50	0.40
2:C:211:ARG:HG2	2:C:211:ARG:NH1	2.33	0.40
2:C:565:GLU:H	2:C:565:GLU:HG2	1.57	0.40
2:C:936:ARG:HG3	2:C:937:ASP:H	1.85	0.40
3:D:1159:ILE:HA	3:D:1206:ARG:HG2	2.03	0.40
3:D:1357:ILE:HG22	3:D:1359:ALA:N	2.36	0.40
3:D:227:PHE:CZ	3:D:234:PRO:HA	2.52	0.40
4:E:60:ASN:HB3	4:E:63:ILE:HG13	2.02	0.40
5:F:105:MET:CE	5:F:106:GLY:N	2.84	0.40
5:F:117:ILE:CG2	5:F:421:TYR:HB2	2.39	0.40
1:G:179:PRO:HD2	1:G:180:VAL:HG23	2.02	0.40
2:I:1256:GLN:HE21	3:J:99:ARG:HH22	1.68	0.40
3:J:1265:THR:HG1	3:J:1305:ASP:CG	2.23	0.40
3:J:185:ILE:HA	3:J:185:ILE:HD13	1.83	0.40
3:J:363:LEU:O	3:J:363:LEU:HD12	2.21	0.40
3:J:433:GLY:O	3:J:457:TYR:HE1	2.04	0.40
3:J:791:ALA:HA	7:5:12:DG:C8	2.56	0.40
3:J:978:ARG:HH21	3:J:1195:GLN:CD	2.25	0.40
4:K:39:VAL:HA	4:K:40:PRO:HD3	1.92	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:437:GLN:HG2	6:4:35:DC:C4	2.55	0.40
5:L:583:THR:HG21	5:L:586:ARG:HB2	2.03	0.40
1:M:192:VAL:HG12	1:M:193:GLU:N	2.37	0.40
1:N:56:VAL:HG21	1:N:85:LEU:HB3	2.03	0.40
2:O:1036:ILE:HG13	2:O:1036:ILE:H	1.62	0.40
2:O:1106:ARG:O	2:O:1107:MET:HB2	2.21	0.40
2:O:1264:GLN:O	2:O:1265:PHE:CB	2.69	0.40
2:O:642:SER:O	2:O:643:SER:HB3	2.21	0.40
2:O:690:VAL:CG1	2:O:691:PRO:CD	2.99	0.40
2:O:704:MET:HE2	2:O:704:MET:HB3	1.76	0.40
2:O:692:THR:HG21	2:O:798:GLN:OE1	2.20	0.40
2:O:868:SER:HB2	2:O:870:ILE:CG1	2.50	0.40
3:P:1075:ARG:CB	3:P:1192:LYS:HD3	2.51	0.40
3:P:1229:VAL:O	3:P:1233:ILE:HG13	2.21	0.40
3:P:1343:GLU:O	3:P:1344:LEU:HB2	2.21	0.40
2:O:1280:ALA:CB	3:P:431:ARG:HB3	2.51	0.40
5:R:306:PHE:CD1	5:R:315:TRP:CZ2	3.09	0.40
5:R:322:MET:O	5:R:323:ASN:CB	2.67	0.40
5:R:96:ASP:HB3	5:R:99:ARG:HG2	2.03	0.40
2:C:1273:MET:HE2	7:2:13:DA:H5"	1.99	0.40
2:C:1268:GLN:HE22	3:D:351:GLY:HA2	1.85	0.40
2:C:538:LEU:HD12	2:C:547:VAL:HG11	2.03	0.40
2:C:609:ILE:H	2:C:609:ILE:HG13	1.31	0.40
3:D:117:LEU:O	3:D:122:SER:HB2	2.21	0.40
3:D:269:TYR:O	3:D:272:VAL:HB	2.21	0.40
2:C:1309:VAL:HG22	3:D:379:PRO:O	2.21	0.40
5:F:110:LEU:H	5:F:110:LEU:CD1	2.20	0.40
2:I:816:ILE:HD12	2:I:1074:GLY:HA3	1.99	0.40
2:I:35:PHE:CE2	2:I:39:ILE:HD11	2.55	0.40
3:J:161:THR:OG1	3:J:164:GLN:NE2	2.54	0.40
3:J:219:LYS:HA	3:J:222:LYS:HG3	2.03	0.40
3:J:624:ILE:O	3:J:627:THR:HB	2.21	0.40
1:N:217:ILE:HG22	1:N:218:ARG:N	2.34	0.40
2:O:671:LEU:CB	2:O:1186:VAL:HG13	2.50	0.40
2:O:211:ARG:NH2	2:O:351:LEU:CD2	2.85	0.40
2:O:519:ASN:OD1	2:O:522:SER:HB2	2.21	0.40
2:O:7:GLU:HG2	2:O:706:ARG:HH12	1.86	0.40
2:O:933:VAL:C	2:O:934:PHE:CD1	2.95	0.40
3:P:1347:LEU:HD22	3:P:1357:ILE:CG2	2.52	0.40
3:P:416:ILE:O	3:P:416:ILE:CG2	2.65	0.40
7:8:16:DC:O2	8:9:14:A:C2	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:183:ILE:O	1:B:183:ILE:HG23	2.20	0.40
2:C:388:LEU:HB3	2:C:389:PHE:CD1	2.56	0.40
3:D:111:THR:CG2	3:D:112:ALA:N	2.84	0.40
3:D:512:TYR:CE1	3:D:545:HIS:CE1	3.09	0.40
3:D:647:PRO:HG3	3:D:697:MET:HA	2.02	0.40
3:D:795:TYR:CD1	7:2:11:DA:C5'	3.03	0.40
3:D:901:ARG:HD3	3:D:903:LEU:HD23	2.04	0.40
3:D:808:VAL:HG22	3:D:914:ALA:HA	2.04	0.40
1:H:35:PHE:HB3	1:H:39:LEU:HD11	2.04	0.40
2:I:213:LEU:HD11	2:I:390:PHE:CE1	2.57	0.40
2:I:524:ILE:HD11	2:I:712:SER:CB	2.30	0.40
2:I:541:GLU:HG3	2:I:542:ARG:N	2.37	0.40
2:I:448:LEU:CG	2:I:553:THR:CB	2.98	0.40
2:I:56:VAL:HG21	2:I:468:LEU:HB3	2.03	0.40
3:J:1141:VAL:HG21	3:J:1240:VAL:HG11	2.03	0.40
3:J:70:CYS:CA	3:J:90:VAL:HG11	2.51	0.40
3:J:757:THR:HA	3:J:758:PRO:HD3	1.82	0.40
3:J:958:ILE:HG23	3:J:982:LEU:CD1	2.51	0.40
1:M:158:ARG:HE	1:M:172:LEU:HD11	1.87	0.40
1:N:58:GLU:OE1	1:N:170:ARG:HG2	2.21	0.40
2:O:1016:GLU:O	2:O:1019:ASP:HB2	2.22	0.40
2:O:232:ILE:HG22	2:O:331:LYS:HE3	2.04	0.40
2:O:725:GLN:HB2	2:O:735:LYS:HG3	2.03	0.40
3:P:1311:LYS:HE2	6:7:56:DG:H4'	2.03	0.40
3:P:574:VAL:O	3:P:578:ILE:HG13	2.21	0.40
5:R:423:ARG:NH1	5:R:425:TYR:CD2	2.89	0.40
5:R:449:THR:OG1	5:R:504:PRO:HG3	2.20	0.40
5:L:386:LEU:HD13	6:4:41:DT:O4'	2.22	0.40
5:R:454:VAL:HG21	6:7:32:DA:N7	2.37	0.40
3:P:795:TYR:CD1	7:8:11:DA:H5'	2.55	0.40
1:A:75:GLN:HG3	1:A:132:HIS:HB2	2.04	0.40
1:B:83:LEU:HD22	1:B:86:LYS:HE3	2.02	0.40
2:C:152:SER:HA	2:C:153:PRO:HD3	1.96	0.40
2:C:414:ILE:HG13	2:C:415:GLU:N	2.37	0.40
2:C:857:VAL:CG1	2:C:858:GLY:N	2.84	0.40
2:C:878:THR:HA	2:C:925:SER:HB2	2.03	0.40
2:C:988:LYS:NZ	2:C:988:LYS:CB	2.56	0.40
3:D:1040:MET:HE3	3:D:1061:VAL:HG22	2.04	0.40
3:D:126:LEU:HD22	3:D:216:LYS:NZ	2.36	0.40
5:F:245:ALA:O	5:F:249:ILE:HG13	2.22	0.40
5:F:289:LYS:HG3	5:F:293:GLU:OE1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:376:LYS:O	5:F:380:VAL:HG23	2.22	0.40
5:F:528:LEU:HD23	5:F:528:LEU:HA	1.74	0.40
1:H:67:GLU:OE1	1:H:171:LEU:HB3	2.21	0.40
1:H:73:GLY:HA3	1:H:138:ALA:HB2	2.02	0.40
2:I:103:VAL:HG22	2:I:117:ILE:HG23	2.04	0.40
2:I:1132:LEU:CD1	2:I:1177:ARG:HB2	2.51	0.40
2:I:1150:ASP:OD2	2:I:1158:LYS:HG3	2.21	0.40
2:I:1280:ALA:CB	3:J:431:ARG:CB	2.80	0.40
2:I:1326:LEU:O	2:I:1330:ILE:CG1	2.69	0.40
2:I:289:VAL:HG12	2:I:289:VAL:O	2.21	0.40
2:I:470:ARG:NH1	2:I:473:ARG:NH2	2.69	0.40
2:I:766:ASN:ND2	2:I:766:ASN:C	2.74	0.40
2:I:950:GLU:HG3	2:I:953:LEU:HD12	2.03	0.40
3:J:1163:VAL:CG1	3:J:1175:LEU:HG	2.51	0.40
3:J:127:LEU:HA	3:J:127:LEU:HD23	1.90	0.40
3:J:227:PHE:HE2	3:J:237:MET:CE	2.35	0.40
3:J:282:LEU:HD23	3:J:282:LEU:HA	1.70	0.40
3:J:386:GLU:OE1	3:J:394:ILE:CG1	2.69	0.40
3:J:425:ARG:HB2	3:J:457:TYR:CD1	2.57	0.40
3:J:812:ASP:OD1	3:J:812:ASP:N	2.54	0.40
5:L:290:LEU:HD23	5:L:290:LEU:HA	1.94	0.40
5:L:454:VAL:HG23	5:L:454:VAL:H	1.55	0.40
2:O:1235:LEU:CD2	2:O:1235:LEU:N	2.79	0.40
2:O:295:LYS:HA	2:O:295:LYS:HD3	1.87	0.40
2:O:204:LEU:HD11	2:O:369:MET:SD	2.62	0.40
2:O:810:TYR:CB	2:O:817:LEU:HD21	2.51	0.40
2:O:894:GLN:H	2:O:894:GLN:HG2	1.72	0.40
2:O:1244:HIS:H	3:P:372:MET:HE1	1.87	0.40
3:P:394:ILE:HD12	5:R:539:SER:CB	2.51	0.40
3:P:759:ILE:HG12	3:P:771:GLN:HG2	2.02	0.40
3:P:644:MET:O	3:P:764:ARG:NH1	2.54	0.40
4:Q:63:ILE:O	4:Q:67:ARG:HB2	2.22	0.40
5:R:423:ARG:HD2	6:7:37:DA:C6	2.57	0.40
5:R:423:ARG:NH1	6:7:37:DA:N3	2.69	0.40
5:R:99:ARG:HH12	6:7:44:DG:H21	1.69	0.40
8:6:13:GTP:N2	8:6:14:A:N3	2.70	0.40
5:R:454:VAL:HG11	6:7:33:DT:O4	2.20	0.40
1:B:46:ILE:H	1:B:46:ILE:HG13	1.71	0.40
2:C:1227:VAL:CG1	2:C:1228:GLY:H	2.30	0.40
2:C:902:LEU:HA	2:C:902:LEU:HD12	2.00	0.40
3:D:1151:LYS:H	3:D:1151:LYS:HD2	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1261:LEU:HD23	3:D:1261:LEU:HA	1.86	0.40
3:D:423:LEU:CD2	3:D:468:VAL:HG13	2.52	0.40
3:D:773:PHE:CD2	3:D:773:PHE:C	2.95	0.40
1:G:108:GLY:O	1:G:133:LEU:HD12	2.22	0.40
1:G:33:ARG:HG3	1:G:33:ARG:H	1.63	0.40
2:I:1184:THR:OG1	2:I:1189:GLY:HA3	2.21	0.40
2:I:351:LEU:HD23	2:I:351:LEU:HA	1.89	0.40
2:I:932:GLN:HE21	2:I:1053:TYR:HE2	1.68	0.40
2:I:948:ILE:O	2:I:951:MET:HB2	2.22	0.40
2:I:979:LEU:HD21	2:I:1011:LEU:HD13	2.03	0.40
3:J:126:LEU:HD23	3:J:126:LEU:HA	1.57	0.40
3:J:1146:GLU:OE2	3:J:1309:ILE:CG2	2.70	0.40
3:J:984:LEU:HD23	3:J:992:LYS:HD3	2.03	0.40
5:L:151:VAL:HG13	5:L:152:GLU:N	2.37	0.40
5:L:341:LEU:HD23	5:L:341:LEU:O	2.21	0.40
5:L:583:THR:HG22	5:L:586:ARG:HB3	2.02	0.40
2:O:113:THR:OG1	2:O:113:THR:O	2.36	0.40
2:O:583:GLU:CD	2:O:583:GLU:H	2.24	0.40
3:P:419:HIS:CE1	3:P:477:GLN:CD	2.95	0.40
3:P:536:LEU:HB3	3:P:542:ALA:HB3	2.02	0.40
3:P:708:ASN:O	3:P:710:ASP:N	2.47	0.40
5:R:494:ILE:O	5:R:498:LEU:HG	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)
7:2:3:DG:O5'	7:2:51:DT:O3'[2_657]	1.64	0.56
3:D:1174:ARG:NH2	6:1:17:DA:OP1[2_657]	2.10	0.10
6:7:12:DA:O5'	6:7:60:DC:O3'[2_546]	2.13	0.07

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%)	213 (93%)	11 (5%)	4 (2%)	8 40
1	B	226/242 (93%)	204 (90%)	14 (6%)	8 (4%)	3 25
1	G	228/242 (94%)	211 (92%)	14 (6%)	3 (1%)	12 47
1	H	226/242 (93%)	205 (91%)	17 (8%)	4 (2%)	8 40
1	M	228/242 (94%)	215 (94%)	12 (5%)	1 (0%)	34 72
1	N	226/242 (93%)	208 (92%)	12 (5%)	6 (3%)	5 31
2	C	1339/1342 (100%)	1220 (91%)	97 (7%)	22 (2%)	9 43
2	I	1339/1342 (100%)	1226 (92%)	88 (7%)	25 (2%)	8 38
2	O	1339/1342 (100%)	1235 (92%)	82 (6%)	22 (2%)	9 43
3	D	1360/1407 (97%)	1212 (89%)	120 (9%)	28 (2%)	7 36
3	J	1360/1407 (97%)	1212 (89%)	113 (8%)	35 (3%)	5 31
3	P	1360/1407 (97%)	1214 (89%)	111 (8%)	35 (3%)	5 31
4	E	88/90 (98%)	84 (96%)	4 (4%)	0	100 100
4	K	88/90 (98%)	84 (96%)	4 (4%)	0	100 100
4	Q	88/90 (98%)	84 (96%)	4 (4%)	0	100 100
5	F	493/628 (78%)	449 (91%)	30 (6%)	14 (3%)	5 30
5	L	493/628 (78%)	444 (90%)	30 (6%)	19 (4%)	3 23
5	R	493/628 (78%)	447 (91%)	30 (6%)	16 (3%)	4 26
All	All	11202/11853 (94%)	10167 (91%)	793 (7%)	242 (2%)	6 35

All (242) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	210	THR
1	B	209	GLY
2	C	165	HIS
2	C	808	ASN
2	C	812	PHE
2	C	1162	SER
3	D	53	ARG
3	D	321	LYS
3	D	519	ASN
3	D	749	LYS
3	D	769	VAL
3	D	947	GLU

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Mol	Chain	Res	Type
3	D	965	SER
3	D	1097	ALA
3	D	1268	ASN
3	D	1274	PHE
3	D	1275	LEU
3	D	1297	LYS
3	D	1309	ILE
5	F	243	ALA
5	F	296	LYS
5	F	310	GLU
5	F	325	PRO
5	F	397	ARG
5	F	515	GLU
5	F	553	ALA
5	F	581	ASP
1	H	117	HIS
2	I	247	ARG
2	I	341	LEU
2	I	791	LEU
2	I	808	ASN
2	I	812	PHE
2	I	1162	SER
3	J	53	ARG
3	J	321	LYS
3	J	519	ASN
3	J	704	GLU
3	J	943	ARG
3	J	944	ALA
3	J	945	ALA
3	J	1024	THR
3	J	1133	ASP
3	J	1268	ASN
3	J	1275	LEU
3	J	1297	LYS
3	J	1309	ILE
5	L	243	ALA
5	L	296	LYS
5	L	310	GLU
5	L	325	PRO
5	L	447	ALA
5	L	515	GLU
5	L	519	LEU

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Mol	Chain	Res	Type
5	L	553	ALA
5	L	581	ASP
2	O	107	ARG
2	O	111	GLU
2	O	113	THR
2	O	341	LEU
2	O	481	LEU
2	O	791	LEU
2	O	808	ASN
2	O	812	PHE
2	O	1135	GLN
2	O	1162	SER
3	P	53	ARG
3	P	404	GLU
3	P	519	ASN
3	P	1019	ASN
3	P	1024	THR
3	P	1097	ALA
3	P	1268	ASN
3	P	1275	LEU
3	P	1297	LYS
3	P	1318	SER
5	R	243	ALA
5	R	519	LEU
5	R	581	ASP
1	A	93	GLN
1	A	209	GLY
1	B	55	ALA
1	B	118	ASP
1	B	119	GLY
2	C	113	THR
2	C	643	SER
2	C	730	SER
2	C	791	LEU
2	C	1135	GLN
3	D	590	SER
3	D	715	LYS
3	D	876	SER
3	D	966	VAL
3	D	1019	ASN
3	D	1023	HIS
3	D	1024	THR

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Mol	Chain	Res	Type
5	F	166	VAL
1	H	118	ASP
1	H	119	GLY
1	H	209	GLY
2	I	314	ASN
2	I	625	GLU
2	I	730	SER
3	J	174	ASP
3	J	523	GLU
3	J	590	SER
3	J	731	ARG
3	J	1201	GLY
3	J	1234	VAL
3	J	1318	SER
5	L	93	ARG
5	L	155	GLU
5	L	166	VAL
5	L	400	GLN
1	M	209	GLY
1	N	118	ASP
1	N	119	GLY
2	O	247	ARG
2	O	314	ASN
2	O	730	SER
3	P	174	ASP
3	P	321	LYS
3	P	333	GLY
3	P	590	SER
3	P	704	GLU
3	P	827	GLU
3	P	846	GLU
3	P	855	ASP
3	P	1200	GLU
3	P	1201	GLY
3	P	1317	GLU
3	P	1344	LEU
1	B	164	ASP
1	B	194	GLN
2	C	200	ARG
2	C	247	ARG
2	C	341	LEU
2	C	669	PRO

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Mol	Chain	Res	Type
2	C	912	ASP
3	D	122	SER
3	D	174	ASP
5	F	447	ALA
1	G	210	THR
2	I	113	THR
2	I	165	HIS
2	I	410	LEU
2	I	986	ALA
3	J	749	LYS
3	J	769	VAL
3	J	855	ASP
3	J	1097	ALA
3	J	1200	GLU
5	L	113	ARG
5	L	583	THR
1	N	194	GLN
2	O	165	HIS
2	O	281	ASP
2	O	986	ALA
2	O	1187	PHE
3	P	122	SER
3	P	876	SER
5	R	113	ARG
5	R	154	GLU
5	R	166	VAL
5	R	323	ASN
5	R	395	THR
5	R	553	ALA
1	B	193	GLU
2	C	26	TYR
2	C	281	ASP
2	C	288	PRO
2	C	314	ASN
3	D	520	ALA
3	D	855	ASP
3	D	948	SER
5	F	91	ILE
2	I	163	LYS
2	I	167	SER
2	I	913	VAL
3	J	122	SER

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Mol	Chain	Res	Type
3	J	1104	LYS
3	J	1114	GLN
3	J	1325	PHE
5	L	107	THR
5	L	476	ARG
2	O	163	LYS
2	O	787	PRO
2	O	922	ASN
2	O	1203	ASP
3	P	49	PHE
3	P	542	ALA
3	P	709	ARG
3	P	749	LYS
5	R	238	LYS
5	R	330	LEU
5	R	447	ALA
5	R	478	PRO
2	C	258	ASN
2	C	910	ALA
3	D	846	GLU
5	F	155	GLU
5	F	519	LEU
5	F	582	VAL
2	I	40	GLU
2	I	45	GLY
2	I	258	ASN
3	J	750	PRO
3	J	876	SER
3	J	1185	PRO
5	L	446	GLN
1	N	117	HIS
1	N	191	ARG
1	N	209	GLY
3	P	750	PRO
5	R	310	GLU
1	G	195	ARG
1	G	209	GLY
2	I	16	GLY
2	I	398	SER
3	J	353	SER
3	J	462	ASP
3	P	769	VAL

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Mol	Chain	Res	Type
3	P	948	SER
3	P	1108	GLN
3	P	1114	GLN
5	R	91	ILE
2	C	110	PRO
3	D	758	PRO
2	O	43	PRO
5	R	582	VAL
2	C	984	VAL
3	P	828	GLY
3	D	586	GLY
2	I	162	GLY
2	I	787	PRO
1	A	19	VAL
2	I	110	PRO
2	I	563	THR
3	J	583	VAL
5	L	582	VAL
3	P	378	LYS
1	B	30	PRO

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	198/208 (95%)	166 (84%)	32 (16%)	2 14
1	B	196/208 (94%)	163 (83%)	33 (17%)	2 12
1	G	198/208 (95%)	180 (91%)	18 (9%)	9 31
1	H	196/208 (94%)	171 (87%)	25 (13%)	4 19
1	M	198/208 (95%)	183 (92%)	15 (8%)	13 39
1	N	196/208 (94%)	179 (91%)	17 (9%)	10 33
2	C	1156/1157 (100%)	1027 (89%)	129 (11%)	6 23
2	I	1156/1157 (100%)	1038 (90%)	118 (10%)	7 26

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	O	1156/1157 (100%)	1044 (90%)	112 (10%)	8 28
3	D	1135/1168 (97%)	1009 (89%)	126 (11%)	6 24
3	J	1135/1168 (97%)	1003 (88%)	132 (12%)	5 22
3	P	1135/1168 (97%)	1014 (89%)	121 (11%)	6 25
4	E	74/74 (100%)	71 (96%)	3 (4%)	30 55
4	K	74/74 (100%)	65 (88%)	9 (12%)	5 21
4	Q	74/74 (100%)	68 (92%)	6 (8%)	11 37
5	F	439/554 (79%)	395 (90%)	44 (10%)	7 27
5	L	439/554 (79%)	401 (91%)	38 (9%)	10 33
5	R	439/554 (79%)	384 (88%)	55 (12%)	4 20
All	All	9594/10107 (95%)	8561 (89%)	1033 (11%)	6 25

All (1033) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	7	GLU
1	A	9	LEU
1	A	28	LEU
1	A	33	ARG
1	A	39	LEU
1	A	41	ASN
1	A	67	GLU
1	A	78	ILE
1	A	83	LEU
1	A	88	LEU
1	A	98	VAL
1	A	99	ILE
1	A	100	LEU
1	A	102	LEU
1	A	103	ASN
1	A	107	ILE
1	A	140	ILE
1	A	150	ARG
1	A	157	THR
1	A	168	ILE
1	A	170	ARG
1	A	180	VAL
1	A	181	GLU

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Mol	Chain	Res	Type
1	A	191	ARG
1	A	197	ASP
1	A	205	MET
1	A	206	GLU
1	A	208	ASN
1	A	224	LEU
1	A	229	GLU
1	A	231	PHE
1	A	233	ASP
1	B	12	ARG
1	B	28	LEU
1	B	32	GLU
1	B	39	LEU
1	B	47	LEU
1	B	51	MET
1	B	56	VAL
1	B	61	ILE
1	B	79	LEU
1	B	83	LEU
1	B	91	ARG
1	B	100	LEU
1	B	111	THR
1	B	123	ILE
1	B	125	LYS
1	B	131	CYS
1	B	142	MET
1	B	163	GLU
1	B	166	ARG
1	B	170	ARG
1	B	172	LEU
1	B	173	VAL
1	B	174	ASP
1	B	176	CYS
1	B	183	ILE
1	B	187	VAL
1	B	196	THR
1	B	203	ILE
1	B	205	MET
1	B	207	THR
1	B	212	ASP
1	B	215	GLU
1	B	217	ILE

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Mol	Chain	Res	Type
2	C	30	ILE
2	C	32	LEU
2	C	70	TYR
2	C	91	THR
2	C	141	THR
2	C	145	ILE
2	C	147	SER
2	C	158	ASP
2	C	167	SER
2	C	185	ASP
2	C	202	ARG
2	C	216	THR
2	C	228	VAL
2	C	230	PHE
2	C	234	ASP
2	C	247	ARG
2	C	252	SER
2	C	254	ASP
2	C	260	LYS
2	C	261	VAL
2	C	270	THR
2	C	272	ARG
2	C	274	ILE
2	C	275	ARG
2	C	277	LEU
2	C	280	ASP
2	C	284	LEU
2	C	289	VAL
2	C	297	VAL
2	C	318	SER
2	C	319	LEU
2	C	320	ASP
2	C	333	ILE
2	C	340	ASP
2	C	341	LEU
2	C	352	ARG
2	C	364	VAL
2	C	369	MET
2	C	377	THR
2	C	382	GLU
2	C	383	SER
2	C	390	PHE

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Mol	Chain	Res	Type
2	C	408	SER
2	C	413	GLU
2	C	427	ASP
2	C	433	ILE
2	C	442	VAL
2	C	443	ASP
2	C	444	ASP
2	C	446	ASP
2	C	468	LEU
2	C	472	GLU
2	C	479	LEU
2	C	484	LEU
2	C	491	ASP
2	C	521	LEU
2	C	549	ASP
2	C	561	ILE
2	C	565	GLU
2	C	576	SER
2	C	596	ASP
2	C	607	SER
2	C	609	ILE
2	C	641	GLU
2	C	643	SER
2	C	662	SER
2	C	663	VAL
2	C	668	ILE
2	C	692	THR
2	C	696	ASP
2	C	700	VAL
2	C	739	ASP
2	C	750	ILE
2	C	764	CYS
2	C	771	VAL
2	C	777	VAL
2	C	782	VAL
2	C	788	SER
2	C	791	LEU
2	C	799	ASN
2	C	815	SER
2	C	816	ILE
2	C	818	VAL
2	C	821	ARG

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Mol	Chain	Res	Type
2	C	822	VAL
2	C	831	ILE
2	C	839	VAL
2	C	850	ILE
2	C	867	GLU
2	C	873	ILE
2	C	887	VAL
2	C	927	THR
2	C	929	ILE
2	C	935	THR
2	C	936	ARG
2	C	948	ILE
2	C	959	ASP
2	C	988	LYS
2	C	1003	THR
2	C	1007	LYS
2	C	1052	VAL
2	C	1054	LEU
2	C	1056	VAL
2	C	1057	LYS
2	C	1060	ILE
2	C	1077	SER
2	C	1079	ILE
2	C	1088	ASP
2	C	1092	THR
2	C	1098	LEU
2	C	1115	THR
2	C	1158	LYS
2	C	1182	ILE
2	C	1203	ASP
2	C	1210	ILE
2	C	1223	ARG
2	C	1240	ASP
2	C	1250	SER
2	C	1253	LEU
2	C	1254	VAL
2	C	1255	THR
2	C	1286	THR
2	C	1287	LEU
2	C	1293	VAL
2	C	1296	ASP
2	C	1302	THR

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Mol	Chain	Res	Type
2	C	1337	ILE
2	C	1339	LEU
2	C	1340	GLU
3	D	56	LEU
3	D	58	CYS
3	D	70	CYS
3	D	71	LEU
3	D	78	LEU
3	D	86	GLU
3	D	93	THR
3	D	102	MET
3	D	120	LEU
3	D	159	ILE
3	D	192	MET
3	D	194	LEU
3	D	212	THR
3	D	216	LYS
3	D	237	MET
3	D	238	ILE
3	D	239	LEU
3	D	242	LEU
3	D	255	LEU
3	D	256	ASP
3	D	279	LEU
3	D	283	LEU
3	D	299	LEU
3	D	314	ARG
3	D	319	SER
3	D	320	ASN
3	D	322	ARG
3	D	327	LEU
3	D	350	SER
3	D	353	SER
3	D	357	VAL
3	D	385	LEU
3	D	407	VAL
3	D	410	ASP
3	D	442	ILE
3	D	443	GLU
3	D	453	VAL
3	D	462	ASP
3	D	492	SER

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Mol	Chain	Res	Type
3	D	495	ASN
3	D	499	ILE
3	D	503	SER
3	D	504	GLN
3	D	519	ASN
3	D	526	VAL
3	D	531	LYS
3	D	536	LEU
3	D	541	LEU
3	D	548	VAL
3	D	552	ILE
3	D	567	THR
3	D	569	LEU
3	D	571	ASP
3	D	574	VAL
3	D	581	MET
3	D	587	LEU
3	D	601	ILE
3	D	607	THR
3	D	609	TYR
3	D	619	ILE
3	D	624	ILE
3	D	634	ARG
3	D	638	SER
3	D	639	VAL
3	D	644	MET
3	D	658	GLU
3	D	674	THR
3	D	683	ILE
3	D	690	ASN
3	D	700	ASN
3	D	701	LEU
3	D	705	THR
3	D	714	GLU
3	D	717	VAL
3	D	718	SER
3	D	722	ILE
3	D	731	ARG
3	D	736	GLN
3	D	747	MET
3	D	753	SER
3	D	759	ILE

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Mol	Chain	Res	Type
3	D	770	LEU
3	D	786	THR
3	D	802	ASP
3	D	805	GLN
3	D	812	ASP
3	D	816	THR
3	D	825	VAL
3	D	843	VAL
3	D	847	ASP
3	D	862	THR
3	D	878	ASP
3	D	891	ASP
3	D	922	SER
3	D	936	HIS
3	D	973	LEU
3	D	985	ILE
3	D	1025	MET
3	D	1031	VAL
3	D	1064	SER
3	D	1095	MET
3	D	1116	SER
3	D	1119	ASP
3	D	1131	THR
3	D	1134	ILE
3	D	1138	LEU
3	D	1140	ARG
3	D	1144	LEU
3	D	1151	LYS
3	D	1167	LYS
3	D	1173	ARG
3	D	1175	LEU
3	D	1184	ASP
3	D	1208	ASP
3	D	1211	SER
3	D	1226	VAL
3	D	1230	THR
3	D	1235	ASN
3	D	1243	LEU
3	D	1250	ASP
3	D	1256	ILE
3	D	1258	ARG
3	D	1265	THR

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Mol	Chain	Res	Type
3	D	1307	LEU
3	D	1320	ILE
3	D	1347	LEU
4	E	4	VAL
4	E	25	ARG
4	E	36	ASP
5	F	91	ILE
5	F	95	THR
5	F	100	MET
5	F	102	MET
5	F	105	MET
5	F	110	LEU
5	F	213	ASP
5	F	218	ARG
5	F	230	VAL
5	F	253	SER
5	F	258	GLN
5	F	297	MET
5	F	306	PHE
5	F	334	SER
5	F	341	LEU
5	F	345	GLN
5	F	349	GLU
5	F	353	LEU
5	F	354	THR
5	F	365	MET
5	F	374	ARG
5	F	388	ILE
5	F	396	ASN
5	F	399	LEU
5	F	402	LEU
5	F	404	LEU
5	F	423	ARG
5	F	439	ILE
5	F	454	VAL
5	F	459	THR
5	F	471	LEU
5	F	472	GLN
5	F	476	ARG
5	F	487	MET
5	F	492	ASP
5	F	514	ASP

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Mol	Chain	Res	Type
5	F	523	ILE
5	F	526	THR
5	F	532	LEU
5	F	552	THR
5	F	554	ARG
5	F	561	MET
5	F	584	ARG
5	F	602	SER
1	G	28	LEU
1	G	39	LEU
1	G	69	SER
1	G	79	LEU
1	G	83	LEU
1	G	98	VAL
1	G	99	ILE
1	G	129	VAL
1	G	144	ILE
1	G	150	ARG
1	G	159	ILE
1	G	173	VAL
1	G	176	CYS
1	G	180	VAL
1	G	192	VAL
1	G	199	ASP
1	G	208	ASN
1	G	233	ASP
1	H	12	ARG
1	H	16	ILE
1	H	39	LEU
1	H	43	LEU
1	H	61	ILE
1	H	62	ASP
1	H	67	GLU
1	H	69	SER
1	H	79	LEU
1	H	88	LEU
1	H	111	THR
1	H	131	CYS
1	H	142	MET
1	H	157	THR
1	H	162	GLU
1	H	170	ARG

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Mol	Chain	Res	Type
1	H	174	ASP
1	H	195	ARG
1	H	196	THR
1	H	199	ASP
1	H	203	ILE
1	H	205	MET
1	H	212	ASP
1	H	219	ARG
1	H	224	LEU
2	I	23	ASP
2	I	24	VAL
2	I	46	GLN
2	I	60	GLN
2	I	70	TYR
2	I	71	VAL
2	I	72	SER
2	I	75	LEU
2	I	91	THR
2	I	116	ASP
2	I	147	SER
2	I	149	LEU
2	I	155	VAL
2	I	158	ASP
2	I	170	VAL
2	I	218	GLU
2	I	234	ASP
2	I	239	MET
2	I	261	VAL
2	I	269	ILE
2	I	279	LYS
2	I	280	ASP
2	I	306	THR
2	I	318	SER
2	I	319	LEU
2	I	350	THR
2	I	369	MET
2	I	374	GLU
2	I	383	SER
2	I	390	PHE
2	I	392	GLU
2	I	417	SER
2	I	419	ILE

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Mol	Chain	Res	Type
2	I	442	VAL
2	I	443	ASP
2	I	444	ASP
2	I	446	ASP
2	I	470	ARG
2	I	471	VAL
2	I	472	GLU
2	I	473	ARG
2	I	477	GLU
2	I	498	ILE
2	I	516	ASP
2	I	528	ARG
2	I	533	LEU
2	I	541	GLU
2	I	561	ILE
2	I	604	HIS
2	I	634	VAL
2	I	635	THR
2	I	648	ASP
2	I	662	SER
2	I	663	VAL
2	I	693	LEU
2	I	696	ASP
2	I	714	VAL
2	I	734	ILE
2	I	740	GLU
2	I	750	ILE
2	I	764	CYS
2	I	765	ILE
2	I	766	ASN
2	I	772	SER
2	I	777	VAL
2	I	799	ASN
2	I	800	MET
2	I	802	VAL
2	I	815	SER
2	I	822	VAL
2	I	831	ILE
2	I	836	LEU
2	I	845	LEU
2	I	850	ILE
2	I	859	GLU

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Mol	Chain	Res	Type
2	I	872	TYR
2	I	873	ILE
2	I	893	THR
2	I	900	LYS
2	I	901	LEU
2	I	935	THR
2	I	940	GLU
2	I	951	MET
2	I	964	LEU
2	I	994	ARG
2	I	1003	THR
2	I	1009	ASN
2	I	1019	ASP
2	I	1054	LEU
2	I	1060	ILE
2	I	1066	MET
2	I	1079	ILE
2	I	1085	MET
2	I	1092	THR
2	I	1094	VAL
2	I	1098	LEU
2	I	1099	ASN
2	I	1108	ASN
2	I	1155	VAL
2	I	1177	ARG
2	I	1180	MET
2	I	1182	ILE
2	I	1192	GLU
2	I	1250	SER
2	I	1254	VAL
2	I	1262	LYS
2	I	1285	TYR
2	I	1286	THR
2	I	1287	LEU
2	I	1292	THR
2	I	1296	ASP
2	I	1304	MET
2	I	1326	LEU
2	I	1333	LEU
2	I	1337	ILE
2	I	1339	LEU
2	I	1340	GLU

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Mol	Chain	Res	Type
2	I	1341	ASP
3	J	20	ILE
3	J	29	MET
3	J	32	SER
3	J	84	ILE
3	J	87	LYS
3	J	93	THR
3	J	96	LYS
3	J	114	ILE
3	J	115	TRP
3	J	120	LEU
3	J	133	ARG
3	J	135	ILE
3	J	158	GLN
3	J	169	LEU
3	J	174	ASP
3	J	194	LEU
3	J	205	LEU
3	J	209	ASN
3	J	212	THR
3	J	216	LYS
3	J	225	GLU
3	J	253	VAL
3	J	264	ASP
3	J	279	LEU
3	J	290	ILE
3	J	294	ASN
3	J	331	ILE
3	J	343	LEU
3	J	346	ARG
3	J	352	ARG
3	J	357	VAL
3	J	371	LYS
3	J	372	MET
3	J	374	LEU
3	J	394	ILE
3	J	407	VAL
3	J	410	ASP
3	J	411	ILE
3	J	447	ILE
3	J	468	VAL
3	J	490	ILE

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Mol	Chain	Res	Type
3	J	492	SER
3	J	495	ASN
3	J	504	GLN
3	J	505	ASP
3	J	506	VAL
3	J	508	LEU
3	J	536	LEU
3	J	560	ASN
3	J	563	LEU
3	J	567	THR
3	J	569	LEU
3	J	573	THR
3	J	592	VAL
3	J	612	LEU
3	J	614	LEU
3	J	619	ILE
3	J	624	ILE
3	J	642	ASP
3	J	658	GLU
3	J	672	LEU
3	J	701	LEU
3	J	705	THR
3	J	715	LYS
3	J	721	SER
3	J	722	ILE
3	J	731	ARG
3	J	736	GLN
3	J	743	MET
3	J	751	ASP
3	J	753	SER
3	J	757	THR
3	J	786	THR
3	J	790	THR
3	J	796	LEU
3	J	797	THR
3	J	805	GLN
3	J	806	ASP
3	J	807	LEU
3	J	812	ASP
3	J	816	THR
3	J	822	MET
3	J	825	VAL

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Mol	Chain	Res	Type
3	J	835	LEU
3	J	844	THR
3	J	849	LEU
3	J	855	ASP
3	J	862	THR
3	J	864	LEU
3	J	870	ASP
3	J	872	LEU
3	J	891	ASP
3	J	895	CYS
3	J	909	ILE
3	J	911	LYS
3	J	922	SER
3	J	928	THR
3	J	934	THR
3	J	965	SER
3	J	1063	ASP
3	J	1089	LEU
3	J	1114	GLN
3	J	1116	SER
3	J	1131	THR
3	J	1138	LEU
3	J	1141	VAL
3	J	1167	LYS
3	J	1175	LEU
3	J	1177	ILE
3	J	1184	ASP
3	J	1189	MET
3	J	1196	LEU
3	J	1212	ASP
3	J	1218	HIS
3	J	1221	LEU
3	J	1230	THR
3	J	1250	ASP
3	J	1251	LYS
3	J	1256	ILE
3	J	1262	ARG
3	J	1265	THR
3	J	1267	VAL
3	J	1287	ILE
3	J	1301	THR
3	J	1304	ARG

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Mol	Chain	Res	Type
3	J	1328	THR
3	J	1345	ARG
3	J	1349	GLU
3	J	1353	VAL
3	J	1356	LEU
3	J	1357	ILE
3	J	1366	HIS
4	K	4	VAL
4	K	13	ILE
4	K	19	LEU
4	K	25	ARG
4	K	29	GLN
4	K	36	ASP
4	K	45	LYS
4	K	47	THR
4	K	72	GLN
5	L	93	ARG
5	L	105	MET
5	L	114	GLU
5	L	122	ARG
5	L	219	GLU
5	L	229	VAL
5	L	230	VAL
5	L	232	ARG
5	L	253	SER
5	L	261	LEU
5	L	264	LYS
5	L	294	GLN
5	L	300	LYS
5	L	332	ASP
5	L	334	SER
5	L	349	GLU
5	L	353	LEU
5	L	374	ARG
5	L	388	ILE
5	L	399	LEU
5	L	402	LEU
5	L	423	ARG
5	L	436	ARG
5	L	468	ARG
5	L	471	LEU
5	L	474	MET

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Mol	Chain	Res	Type
5	L	476	ARG
5	L	479	THR
5	L	487	MET
5	L	492	ASP
5	L	521	ASP
5	L	530	LEU
5	L	538	GLU
5	L	541	ARG
5	L	565	ILE
5	L	573	LEU
5	L	602	SER
5	L	613	ASP
1	M	16	ILE
1	M	17	GLU
1	M	28	LEU
1	M	57	THR
1	M	67	GLU
1	M	81	ILE
1	M	90	VAL
1	M	127	GLN
1	M	140	ILE
1	M	160	HIS
1	M	183	ILE
1	M	191	ARG
1	M	208	ASN
1	M	228	LEU
1	M	234	LEU
1	N	12	ARG
1	N	19	VAL
1	N	28	LEU
1	N	41	ASN
1	N	61	ILE
1	N	99	ILE
1	N	111	THR
1	N	118	ASP
1	N	123	ILE
1	N	131	CYS
1	N	142	MET
1	N	163	GLU
1	N	170	ARG
1	N	173	VAL
1	N	192	VAL

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Mol	Chain	Res	Type
1	N	196	THR
1	N	217	ILE
2	O	24	VAL
2	O	46	GLN
2	O	60	GLN
2	O	70	TYR
2	O	75	LEU
2	O	91	THR
2	O	113	THR
2	O	141	THR
2	O	158	ASP
2	O	164	THR
2	O	182	SER
2	O	185	ASP
2	O	202	ARG
2	O	208	ILE
2	O	216	THR
2	O	228	VAL
2	O	240	GLU
2	O	252	SER
2	O	275	ARG
2	O	279	LYS
2	O	297	VAL
2	O	306	THR
2	O	318	SER
2	O	340	ASP
2	O	343	HIS
2	O	358	ASP
2	O	364	VAL
2	O	383	SER
2	O	391	SER
2	O	407	ARG
2	O	408	SER
2	O	419	ILE
2	O	432	LEU
2	O	433	ILE
2	O	468	LEU
2	O	472	GLU
2	O	480	SER
2	O	486	THR
2	O	489	PRO
2	O	498	ILE

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Mol	Chain	Res	Type
2	O	516	ASP
2	O	530	ILE
2	O	541	GLU
2	O	558	VAL
2	O	583	GLU
2	O	596	ASP
2	O	603	ILE
2	O	607	SER
2	O	635	THR
2	O	661	VAL
2	O	662	SER
2	O	663	VAL
2	O	672	GLU
2	O	692	THR
2	O	700	VAL
2	O	711	ASP
2	O	750	ILE
2	O	752	ASN
2	O	757	THR
2	O	764	CYS
2	O	766	ASN
2	O	772	SER
2	O	773	LEU
2	O	791	LEU
2	O	799	ASN
2	O	800	MET
2	O	808	ASN
2	O	815	SER
2	O	821	ARG
2	O	831	ILE
2	O	836	LEU
2	O	843	THR
2	O	851	THR
2	O	873	ILE
2	O	892	GLU
2	O	893	THR
2	O	916	SER
2	O	925	SER
2	O	929	ILE
2	O	935	THR
2	O	946	LEU
2	O	959	ASP

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Mol	Chain	Res	Type
2	O	966	ILE
2	O	992	LEU
2	O	1004	ASP
2	O	1012	GLU
2	O	1014	LEU
2	O	1024	GLU
2	O	1036	ILE
2	O	1049	ILE
2	O	1053	TYR
2	O	1079	ILE
2	O	1088	ASP
2	O	1092	THR
2	O	1108	ASN
2	O	1113	LEU
2	O	1115	THR
2	O	1210	ILE
2	O	1223	ARG
2	O	1240	ASP
2	O	1250	SER
2	O	1254	VAL
2	O	1255	THR
2	O	1262	LYS
2	O	1265	PHE
2	O	1286	THR
2	O	1299	ASN
2	O	1302	THR
2	O	1304	MET
2	O	1319	MET
2	O	1337	ILE
2	O	1341	ASP
3	P	22	ILE
3	P	28	ASP
3	P	29	MET
3	P	58	CYS
3	P	60	ARG
3	P	66	LYS
3	P	70	CYS
3	P	78	LEU
3	P	93	THR
3	P	107	LEU
3	P	135	ILE
3	P	138	VAL

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Mol	Chain	Res	Type
3	P	145	VAL
3	P	148	GLU
3	P	154	LEU
3	P	156	ARG
3	P	167	ASP
3	P	169	LEU
3	P	188	LEU
3	P	194	LEU
3	P	208	THR
3	P	225	GLU
3	P	239	LEU
3	P	244	VAL
3	P	255	LEU
3	P	256	ASP
3	P	259	ARG
3	P	265	LEU
3	P	319	SER
3	P	320	ASN
3	P	322	ARG
3	P	341	ASN
3	P	343	LEU
3	P	350	SER
3	P	353	SER
3	P	374	LEU
3	P	394	ILE
3	P	399	LYS
3	P	402	GLU
3	P	411	ILE
3	P	416	ILE
3	P	429	LEU
3	P	442	ILE
3	P	447	ILE
3	P	462	ASP
3	P	468	VAL
3	P	490	ILE
3	P	492	SER
3	P	495	ASN
3	P	500	ILE
3	P	560	ASN
3	P	573	THR
3	P	590	SER
3	P	592	VAL

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Mol	Chain	Res	Type
3	P	604	MET
3	P	605	LEU
3	P	607	THR
3	P	614	LEU
3	P	615	LYS
3	P	622	ASP
3	P	641	ILE
3	P	646	ILE
3	P	672	LEU
3	P	690	ASN
3	P	703	THR
3	P	704	GLU
3	P	715	LYS
3	P	731	ARG
3	P	736	GLN
3	P	743	MET
3	P	751	ASP
3	P	753	SER
3	P	755	ILE
3	P	770	LEU
3	P	774	ILE
3	P	781	LYS
3	P	783	LEU
3	P	786	THR
3	P	790	THR
3	P	796	LEU
3	P	802	ASP
3	P	805	GLN
3	P	808	VAL
3	P	812	ASP
3	P	822	MET
3	P	837	ASP
3	P	844	THR
3	P	850	LYS
3	P	862	THR
3	P	863	LEU
3	P	880	VAL
3	P	882	VAL
3	P	891	ASP
3	P	895	CYS
3	P	915	ILE
3	P	931	THR

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Mol	Chain	Res	Type
3	P	949	SER
3	P	1031	VAL
3	P	1032	SER
3	P	1073	ASP
3	P	1131	THR
3	P	1155	ILE
3	P	1159	ILE
3	P	1177	ILE
3	P	1181	ASP
3	P	1184	ASP
3	P	1189	MET
3	P	1196	LEU
3	P	1212	ASP
3	P	1230	THR
3	P	1243	LEU
3	P	1250	ASP
3	P	1256	ILE
3	P	1265	THR
3	P	1266	ILE
3	P	1301	THR
3	P	1307	LEU
3	P	1356	LEU
3	P	1357	ILE
3	P	1366	HIS
3	P	1372	ARG
4	Q	4	VAL
4	Q	12	LYS
4	Q	19	LEU
4	Q	21	LEU
4	Q	28	ARG
4	Q	38	LEU
5	R	86	SER
5	R	91	ILE
5	R	102	MET
5	R	105	MET
5	R	109	GLU
5	R	110	LEU
5	R	111	LEU
5	R	116	GLU
5	R	129	GLN
5	R	132	CYS
5	R	160	ASP

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Mol	Chain	Res	Type
5	R	218	ARG
5	R	230	VAL
5	R	240	ARG
5	R	241	SER
5	R	250	LEU
5	R	253	SER
5	R	294	GLN
5	R	295	CYS
5	R	311	THR
5	R	327	SER
5	R	333	VAL
5	R	334	SER
5	R	349	GLU
5	R	353	LEU
5	R	355	ILE
5	R	365	MET
5	R	374	ARG
5	R	386	LEU
5	R	388	ILE
5	R	399	LEU
5	R	404	LEU
5	R	405	ILE
5	R	421	TYR
5	R	441	ARG
5	R	451	ARG
5	R	454	VAL
5	R	456	MET
5	R	461	ASN
5	R	463	LEU
5	R	474	MET
5	R	491	GLU
5	R	492	ASP
5	R	493	LYS
5	R	517	SER
5	R	521	ASP
5	R	548	LEU
5	R	554	ARG
5	R	573	LEU
5	R	574	GLU
5	R	587	ILE
5	R	588	ARG
5	R	602	SER

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Mol	Chain	Res	Type
5	R	606	VAL
5	R	611	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (143) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	41	ASN
1	A	128	HIS
1	A	132	HIS
1	A	208	ASN
1	B	194	GLN
2	C	46	GLN
2	C	148	GLN
2	C	150	HIS
2	C	447	HIS
2	C	554	HIS
2	C	658	GLN
2	C	659	GLN
2	C	677	ASN
2	C	760	ASN
2	C	798	GLN
2	C	808	ASN
2	C	824	GLN
2	C	1023	HIS
2	C	1116	HIS
2	C	1136	GLN
2	C	1268	GLN
2	C	1313	HIS
3	D	153	ASN
3	D	274	ASN
3	D	341	ASN
3	D	364	HIS
3	D	419	HIS
3	D	450	HIS
3	D	458	ASN
3	D	489	ASN
3	D	504	GLN
3	D	545	HIS
3	D	690	ASN
3	D	736	GLN
3	D	739	GLN
3	D	771	GLN

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Mol	Chain	Res	Type
3	D	954	ASN
3	D	1019	ASN
3	D	1098	GLN
3	D	1114	GLN
3	D	1295	ASN
3	D	1326	GLN
3	D	1366	HIS
4	E	43	ASN
5	F	271	ASN
5	F	362	ASN
5	F	472	GLN
5	F	545	HIS
5	F	589	GLN
1	G	208	ASN
1	H	18	GLN
1	H	37	HIS
1	H	41	ASN
2	I	46	GLN
2	I	150	HIS
2	I	343	HIS
2	I	437	ASN
2	I	618	GLN
2	I	688	GLN
2	I	760	ASN
2	I	766	ASN
2	I	798	GLN
2	I	824	GLN
2	I	1061	GLN
2	I	1116	HIS
2	I	1220	GLN
2	I	1307	ASN
3	J	153	ASN
3	J	164	GLN
3	J	232	ASN
3	J	294	ASN
3	J	309	ASN
3	J	341	ASN
3	J	364	HIS
3	J	419	HIS
3	J	448	GLN
3	J	458	ASN
3	J	465	GLN

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Mol	Chain	Res	Type
3	J	545	HIS
3	J	665	GLN
3	J	690	ASN
3	J	700	ASN
3	J	708	ASN
3	J	716	GLN
3	J	736	GLN
3	J	777	HIS
3	J	910	ASN
3	J	921	GLN
3	J	1098	GLN
3	J	1114	GLN
3	J	1197	ASN
3	J	1227	HIS
3	J	1326	GLN
5	L	128	ASN
5	L	406	GLN
5	L	464	ASN
5	L	472	GLN
5	L	545	HIS
5	L	579	GLN
1	M	41	ASN
1	M	66	HIS
1	M	208	ASN
1	N	18	GLN
1	N	132	HIS
1	N	227	GLN
2	O	150	HIS
2	O	462	ASN
2	O	554	HIS
2	O	573	ASN
2	O	618	GLN
2	O	766	ASN
2	O	808	ASN
2	O	1209	GLN
2	O	1314	GLN
3	P	266	ASN
3	P	277	ASN
3	P	294	ASN
3	P	341	ASN
3	P	364	HIS
3	P	419	HIS

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Mol	Chain	Res	Type
3	P	435	GLN
3	P	450	HIS
3	P	458	ASN
3	P	465	GLN
3	P	489	ASN
3	P	504	GLN
3	P	545	HIS
3	P	606	ASN
3	P	690	ASN
3	P	739	GLN
3	P	936	HIS
3	P	1098	GLN
3	P	1114	GLN
3	P	1244	GLN
3	P	1326	GLN
3	P	1367	GLN
4	Q	43	ASN
4	Q	60	ASN
4	Q	70	GLN
5	R	129	GLN
5	R	345	GLN
5	R	455	HIS
5	R	472	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
8	3	4/5 (80%)	0	1 (25%)
8	6	4/5 (80%)	0	1 (25%)
8	9	3/5 (60%)	0	0
All	All	11/15 (73%)	0	2 (18%)

There are no RNA backbone outliers to report.

All (2) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
8	3	13	GTP
8	6	13	GTP

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

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

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

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

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

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4	46:DG	O3'	47:DC	P	5.33
1	1	46:DG	O3'	47:DC	P	4.95
1	2	12:DG	O3'	13:DA	P	2.74
1	5	11:DA	O3'	12:DG	P	2.33

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4	51:DC	O3'	52:DT	P	2.09

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%)	-0.42	1 (0%) 92 87	134, 152, 183, 205	0
1	B	228/242 (94%)	-0.55	0 100 100	136, 167, 199, 236	0
1	G	230/242 (95%)	-0.30	1 (0%) 92 87	139, 162, 198, 240	0
1	H	228/242 (94%)	-0.40	3 (1%) 77 68	141, 176, 208, 242	0
1	M	230/242 (95%)	-0.20	4 (1%) 70 61	159, 179, 209, 245	0
1	N	228/242 (94%)	-0.15	6 (2%) 56 47	169, 201, 249, 272	0
2	C	1341/1342 (99%)	-0.34	3 (0%) 95 93	107, 166, 250, 351	0
2	I	1341/1342 (99%)	-0.36	3 (0%) 95 93	98, 172, 227, 283	0
2	O	1341/1342 (99%)	-0.35	4 (0%) 94 90	113, 174, 222, 263	0
3	D	1362/1407 (96%)	-0.21	26 (1%) 66 58	112, 184, 269, 324	0
3	J	1362/1407 (96%)	-0.22	26 (1%) 66 58	100, 172, 323, 386	0
3	P	1362/1407 (96%)	-0.17	36 (2%) 56 47	117, 182, 291, 333	0
4	E	90/90 (100%)	0.07	6 (6%) 17 16	136, 169, 350, 413	0
4	K	90/90 (100%)	-0.10	8 (8%) 9 11	112, 152, 324, 363	0
4	Q	90/90 (100%)	-0.30	4 (4%) 34 30	128, 171, 328, 364	0
5	F	497/628 (79%)	-0.11	22 (4%) 34 30	154, 271, 387, 434	0
5	L	497/628 (79%)	0.07	29 (5%) 23 21	138, 281, 365, 402	0
5	R	497/628 (79%)	-0.13	23 (4%) 32 29	146, 261, 390, 426	0
6	1	49/49 (100%)	-0.34	0 100 100	205, 265, 288, 289	0
6	4	49/49 (100%)	-0.34	2 (4%) 37 32	181, 228, 278, 302	0
6	7	49/49 (100%)	-0.38	1 (2%) 65 57	184, 228, 266, 277	0
7	2	49/49 (100%)	-0.51	0 100 100	192, 268, 291, 312	0
7	5	49/49 (100%)	-0.29	0 100 100	163, 232, 279, 326	0
7	8	49/49 (100%)	-0.51	0 100 100	166, 227, 262, 322	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
8	3	4/5 (80%)	0.18	0 100 100	230, 234, 236, 245	0
8	6	4/5 (80%)	0.03	0 100 100	220, 221, 224, 239	0
8	9	4/5 (80%)	0.33	0 100 100	215, 221, 224, 236	0
All	All	11550/12162 (94%)	-0.25	208 (1%) 68 60	98, 182, 331, 434	0

All (208) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
5	L	211	SER	11.1
3	D	959	LYS	7.7
5	L	212	ILE	6.8
5	R	211	SER	6.7
3	P	1004	ALA	6.5
3	D	960	LEU	6.0
5	R	210	ASN	5.0
5	R	238	LYS	5.0
5	L	210	ASN	5.0
5	F	332	ASP	4.9
5	L	158	LEU	4.8
5	L	166	VAL	4.6
3	P	971	GLY	4.4
5	L	214	PRO	4.4
3	D	951	GLN	4.3
3	P	944	ALA	4.3
1	N	122	GLU	4.2
3	J	853	THR	4.1
3	P	1068	THR	4.1
3	D	958	ILE	4.1
5	L	155	GLU	3.9
3	P	974	VAL	3.9
3	D	1016	THR	3.8
4	K	88	GLU	3.8
5	L	331	HIS	3.8
3	P	945	ALA	3.8
5	L	156	ALA	3.7
3	P	1003	LEU	3.7
5	F	171	GLU	3.7
5	R	293	GLU	3.6
3	P	1066	GLU	3.6
6	4	47	DC	3.6
3	P	1005	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
3	D	1094	ASP	3.5
3	J	1110	GLU	3.5
5	L	332	ASP	3.5
4	E	90	ARG	3.5
3	P	972	LYS	3.4
5	R	160	ASP	3.4
5	L	213	ASP	3.4
5	R	294	GLN	3.3
3	D	1042	ASP	3.3
3	P	966	VAL	3.3
4	K	90	ARG	3.3
5	L	299	LYS	3.3
1	M	191	ARG	3.3
3	D	1110	GLU	3.2
5	L	218	ARG	3.2
5	L	159	SER	3.2
5	R	158	LEU	3.2
3	P	1107	VAL	3.2
6	4	46	DG	3.2
3	P	1106	ILE	3.1
5	F	170	ALA	3.1
2	I	621	SER	3.1
3	J	1111	ASP	3.1
3	P	1064	SER	3.1
5	F	169	ASN	3.0
5	F	335	GLU	3.0
3	D	952	VAL	3.0
5	F	331	HIS	3.0
5	R	237	ALA	3.0
3	D	950	ILE	3.0
3	D	1006	GLY	3.0
3	J	1042	ASP	3.0
5	F	160	ASP	3.0
5	L	168	PRO	2.9
3	D	1017	VAL	2.9
3	J	1052	GLU	2.9
5	L	157	ARG	2.9
2	C	480	SER	2.9
1	M	90	VAL	2.9
2	I	748	ILE	2.8
3	J	1109	LEU	2.8
3	D	1093	THR	2.8

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Mol	Chain	Res	Type	RSRZ
5	F	238	LYS	2.8
3	D	1015	GLU	2.8
5	R	163	THR	2.8
5	R	289	LYS	2.8
1	H	13	LEU	2.8
4	E	83	VAL	2.8
3	D	1007	ASP	2.7
5	F	396	ASN	2.7
5	L	217	ALA	2.7
3	J	1051	ASP	2.7
5	R	80	ALA	2.7
3	J	818	GLU	2.7
5	L	233	ASP	2.7
3	P	1067	ARG	2.7
3	P	1086	ASN	2.7
5	L	219	GLU	2.7
3	D	1043	GLY	2.7
5	F	398	GLY	2.7
3	J	1016	THR	2.7
5	F	322	MET	2.6
3	P	973	LEU	2.6
5	R	159	SER	2.6
5	R	239	GLY	2.6
3	P	1065	ALA	2.6
3	P	1070	GLY	2.6
3	J	1101	LEU	2.6
5	L	160	ASP	2.6
3	P	1071	GLY	2.6
4	Q	90	ARG	2.6
5	F	301	ASN	2.6
3	J	1004	ALA	2.6
3	D	1014	GLY	2.6
3	P	1063	ASP	2.6
5	F	237	ALA	2.6
4	E	84	THR	2.6
1	M	89	ALA	2.5
3	D	910	ASN	2.5
5	R	255	VAL	2.5
1	N	89	ALA	2.5
5	R	328	GLU	2.5
5	F	239	GLY	2.5
3	D	1013	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
3	P	1072	LYS	2.5
2	C	282	VAL	2.5
3	P	942	SER	2.5
5	L	329	LYS	2.5
2	O	375	PRO	2.5
1	N	111	THR	2.4
3	J	854	ALA	2.4
3	J	945	ALA	2.4
5	F	339	ARG	2.4
4	Q	89	GLY	2.4
1	N	123	ILE	2.4
4	Q	88	GLU	2.4
5	R	154	GLU	2.4
3	P	943	ARG	2.4
3	J	1053	LEU	2.4
3	J	1040	MET	2.4
5	L	215	GLU	2.4
2	I	908	GLU	2.4
4	E	86	ILE	2.4
5	L	164	GLY	2.4
2	O	1159	VAL	2.4
3	P	853	THR	2.4
2	C	479	LEU	2.3
3	P	1084	GLN	2.3
5	R	240	ARG	2.3
3	P	1054	THR	2.3
3	D	176	PHE	2.3
3	D	992	LYS	2.3
3	D	1004	ALA	2.3
3	J	962	ASN	2.3
5	R	153	ALA	2.3
5	R	161	LEU	2.3
3	J	562	GLU	2.3
3	P	706	VAL	2.3
4	E	82	ALA	2.2
5	F	298	PRO	2.2
3	D	1109	LEU	2.2
1	A	92	VAL	2.2
4	K	89	GLY	2.2
5	L	314	THR	2.2
5	L	251	LYS	2.2
3	D	1376	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
5	F	334	SER	2.2
4	K	91	ARG	2.2
5	R	292	VAL	2.2
5	F	300	LYS	2.2
3	J	1299	GLY	2.2
3	P	1047	THR	2.2
4	K	87	ALA	2.2
5	F	157	ARG	2.2
3	D	1108	GLN	2.2
4	K	59	ILE	2.2
1	H	122	GLU	2.2
3	D	991	THR	2.2
5	F	325	PRO	2.2
6	7	46	DG	2.2
3	P	976	THR	2.2
1	N	186	ASN	2.2
3	J	1039	ASP	2.1
5	F	233	ASP	2.1
5	R	329	LYS	2.1
2	O	241	LEU	2.1
5	L	161	LEU	2.1
5	R	233	ASP	2.1
3	J	1046	ILE	2.1
5	R	164	GLY	2.1
1	M	192	VAL	2.1
5	L	230	VAL	2.1
1	H	98	VAL	2.1
4	E	87	ALA	2.1
3	J	1005	LYS	2.1
3	J	433	GLY	2.1
2	O	282	VAL	2.1
4	K	84	THR	2.1
3	J	1015	GLU	2.1
3	P	81	ARG	2.1
5	L	167	ASP	2.1
4	Q	91	ARG	2.1
3	J	670	SER	2.1
3	J	1012	ALA	2.1
3	P	1213	GLY	2.1
5	F	336	GLU	2.1
1	N	161	SER	2.1
3	P	715	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
1	G	140	ILE	2.0
3	P	1109	LEU	2.0
4	K	85	ALA	2.0
5	L	288	MET	2.0
3	P	970	SER	2.0
3	P	714	GLU	2.0
3	J	1107	VAL	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. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
9	ZN	P	1501	1/1	0.92	0.08	206,206,206,206	0
9	ZN	D	1501	1/1	0.93	0.06	220,220,220,220	0
9	ZN	J	1501	1/1	0.94	0.07	211,211,211,211	0
9	ZN	P	1502	1/1	0.96	0.14	158,158,158,158	0
9	ZN	J	1502	1/1	0.96	0.17	144,144,144,144	0
9	ZN	D	1502	1/1	0.98	0.15	181,181,181,181	0
10	MG	P	1503	1/1	0.98	0.31	170,170,170,170	0
10	MG	J	1503	1/1	0.99	0.19	145,145,145,145	0
10	MG	D	1503	1/1	0.99	0.16	141,141,141,141	0

6.5 Other polymers (i)

There are no such residues in this entry.