Full wwPDB X-ray Structure Validation Report (i)

May 16, 2020 – 04:26 am BST

PDB ID	:	2VKZ
Title	:	Structure of the cerulenin-inhibited fungal fatty acid synthase type I multienzyme complex
Authors	:	Johansson, P.; Wiltschi, B.; Kumari, P.; Kessler, B.; Vonrhein, C.; Vonck, J.; Oesterhelt, D.; Grininger, M.
Deposited on	:	2008-01-07
Resolution	:	4.00 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 (i)) were used in the production of this report:

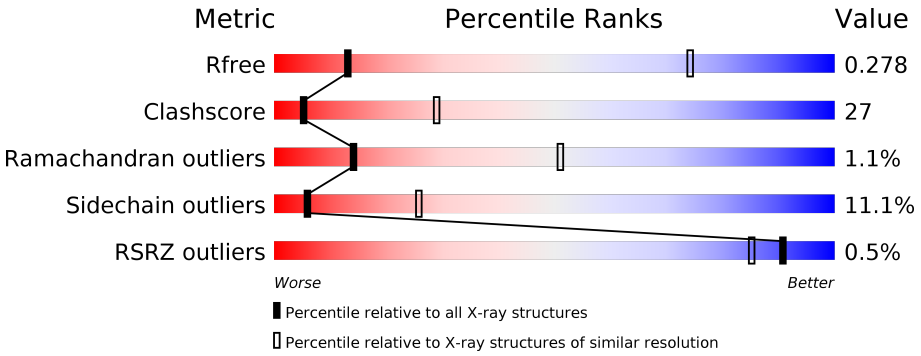
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.11
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (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 4.00 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	1087 (4.30-3.70)
Clashscore	141614	1148 (4.30-3.70)
Ramachandran outliers	138981	1108 (4.30-3.70)
Sidechain outliers	138945	1099 (4.30-3.70)
RSRZ outliers	127900	1028 (4.34-3.66)

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	1887	% 50% 31% • 14%
1	B	1887	% 50% 30% 5% 14%
1	C	1887	% 49% 32% 5% 14%
2	G	2051	51% 40% 8% •
2	H	2051	% 51% 40% 8% •
2	I	2051	51% 40% 8% •

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 85959 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.

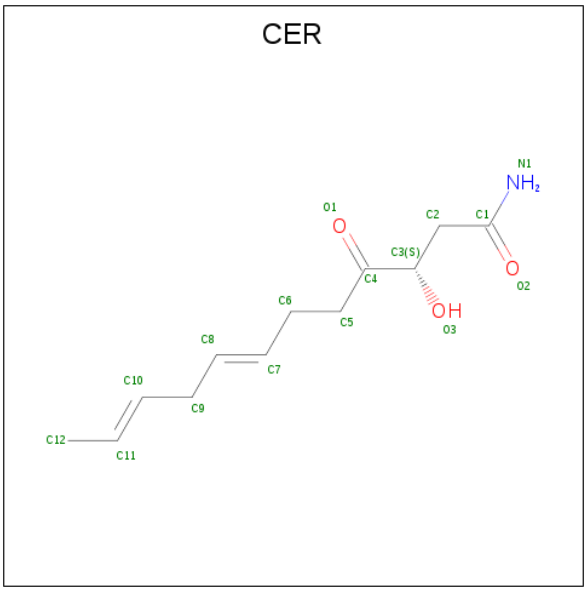
- Molecule 1 is a protein called FATTY ACID SYNTHASE SUBUNIT ALPHA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1614	Total	C	N	O	S	0	0	0
			12615	7997	2127	2443	48			
1	B	1614	Total	C	N	O	S	0	0	0
			12615	7997	2127	2443	48			
1	C	1614	Total	C	N	O	S	0	0	0
			12615	7997	2127	2443	48			

- Molecule 2 is a protein called FATTY ACID SYNTHASE SUBUNIT BETA.

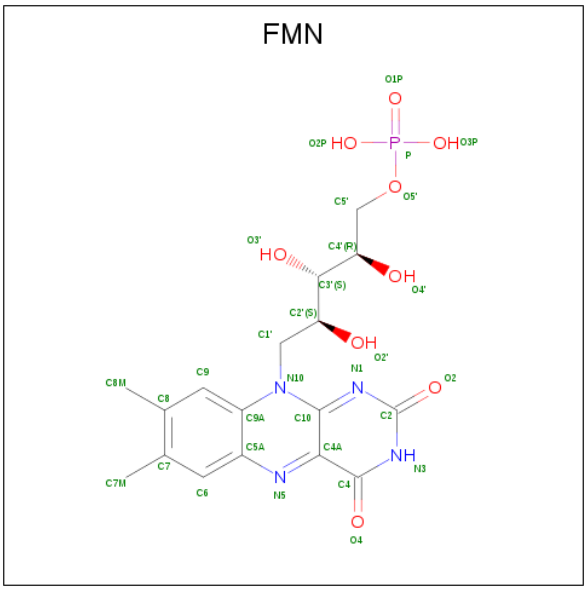
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	G	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	H	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	I	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			

- Molecule 3 is (2S, 3R)-3-HYDROXY-4-OXO-7,10-TRANS,TRANS-DODECADIENAMIDE (three-letter code: CER) (formula: $C_{12}H_{19}NO_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C N O 12 8 1 3	0	0
3	B	1	Total C N O 12 8 1 3	0	0
3	C	1	Total C N O 12 8 1 3	0	0

- Molecule 4 is FLAVIN MONONUCLEOTIDE (three-letter code: FMN) (formula: $C_{17}H_{21}N_4O_9P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	G	1	Total C N O P 31 17 4 9 1	0	0

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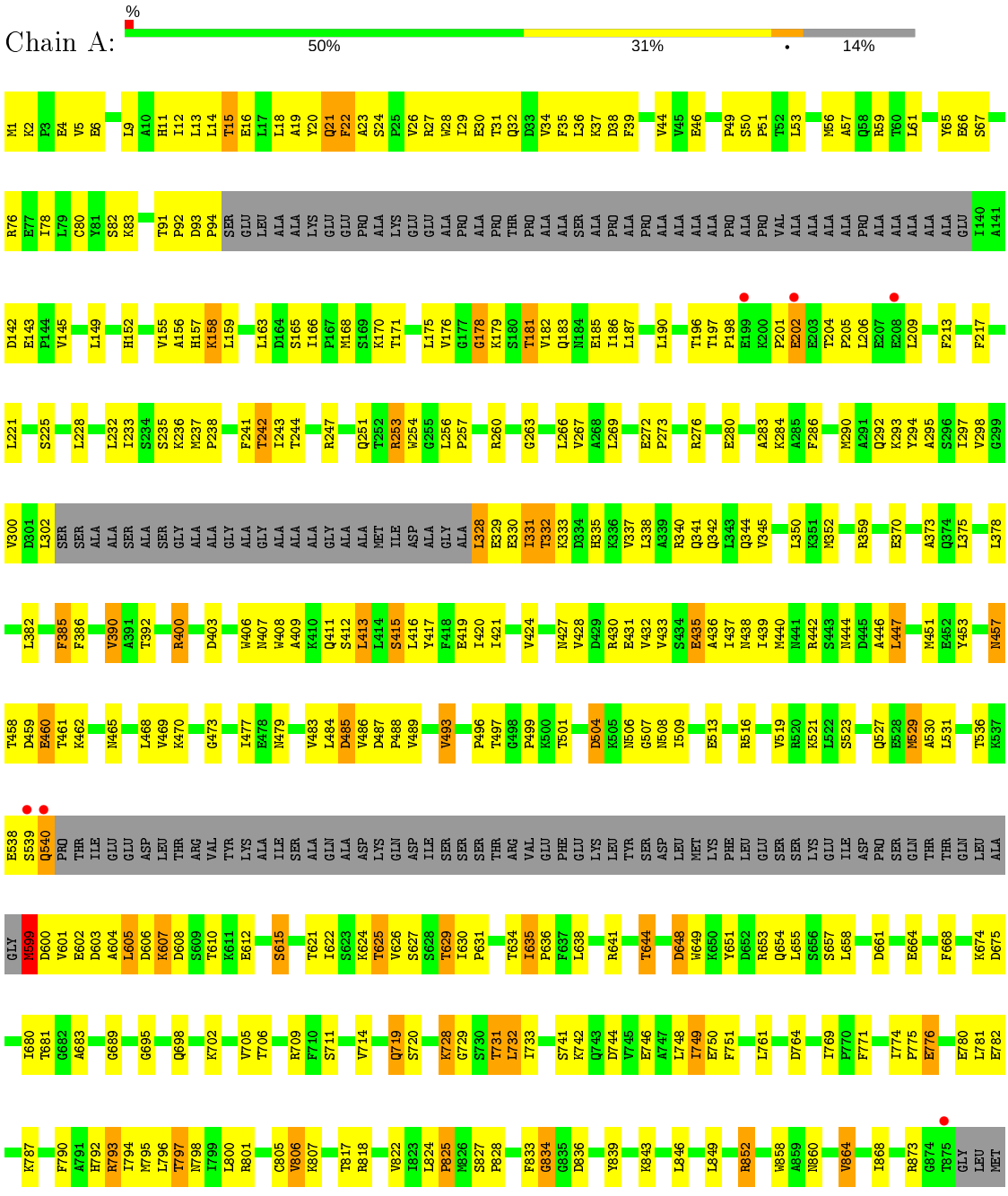
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	H	1	Total	C	N	O	P	0	0
			31	17	4	9	1		
4	I	1	Total	C	N	O	P	0	0
			31	17	4	9	1		

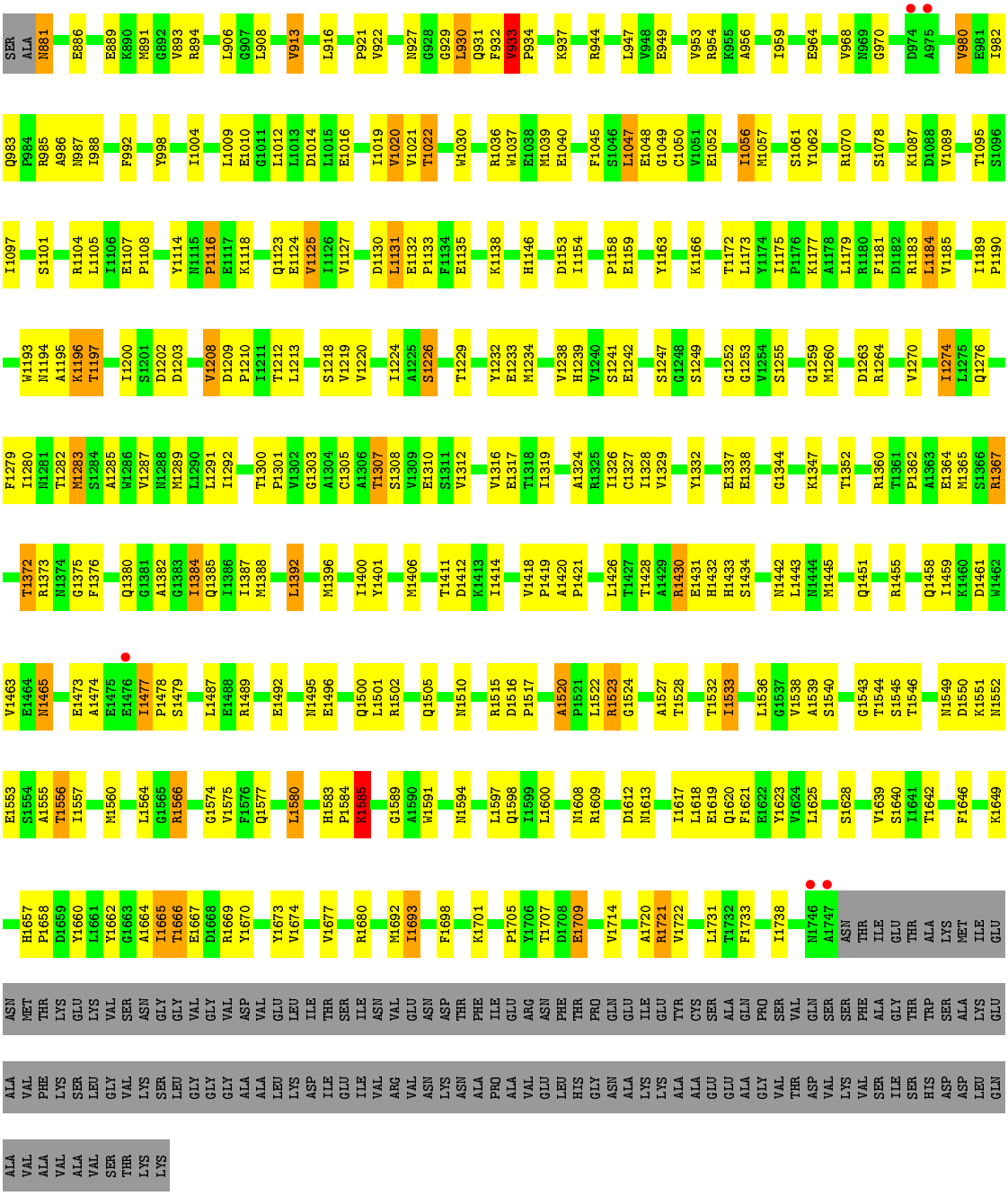
3 Residue-property plots (i)

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: FATTY ACID SYNTHASE SUBUNIT ALPHA

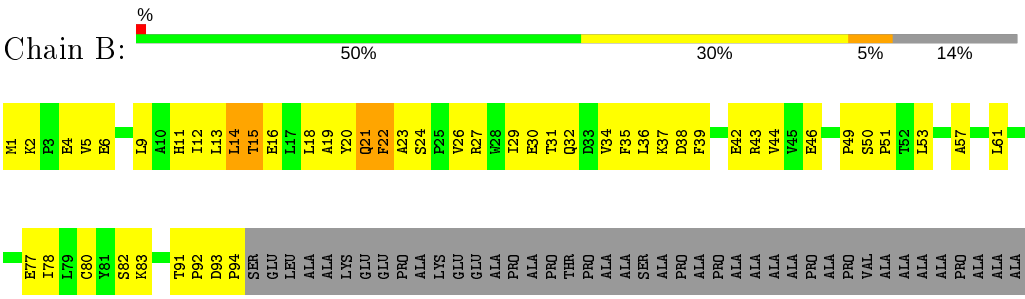
Chain A:

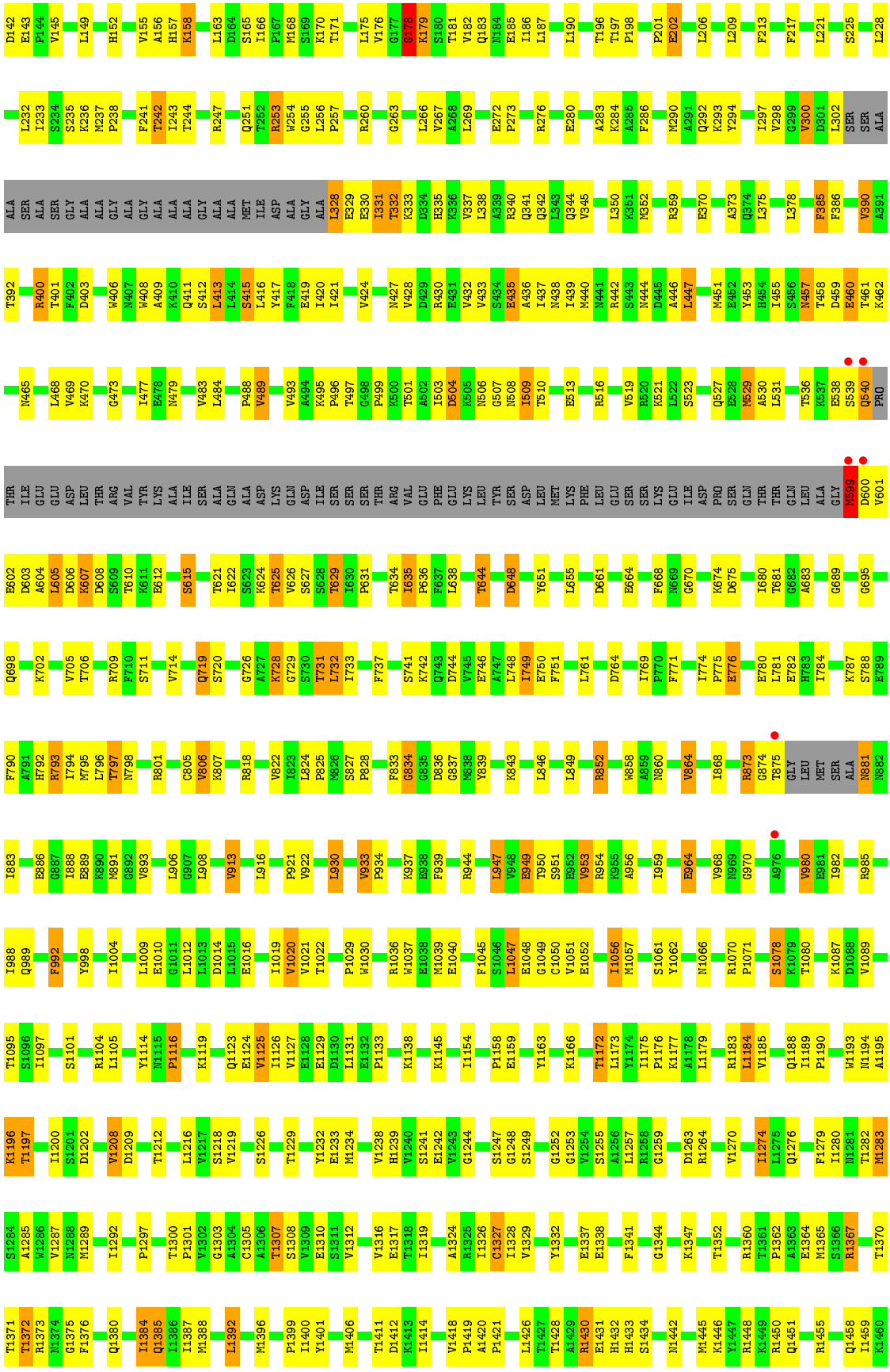




• Molecule 1: FATTY ACID SYNTHASE SUBUNIT ALPHA

Chain B:

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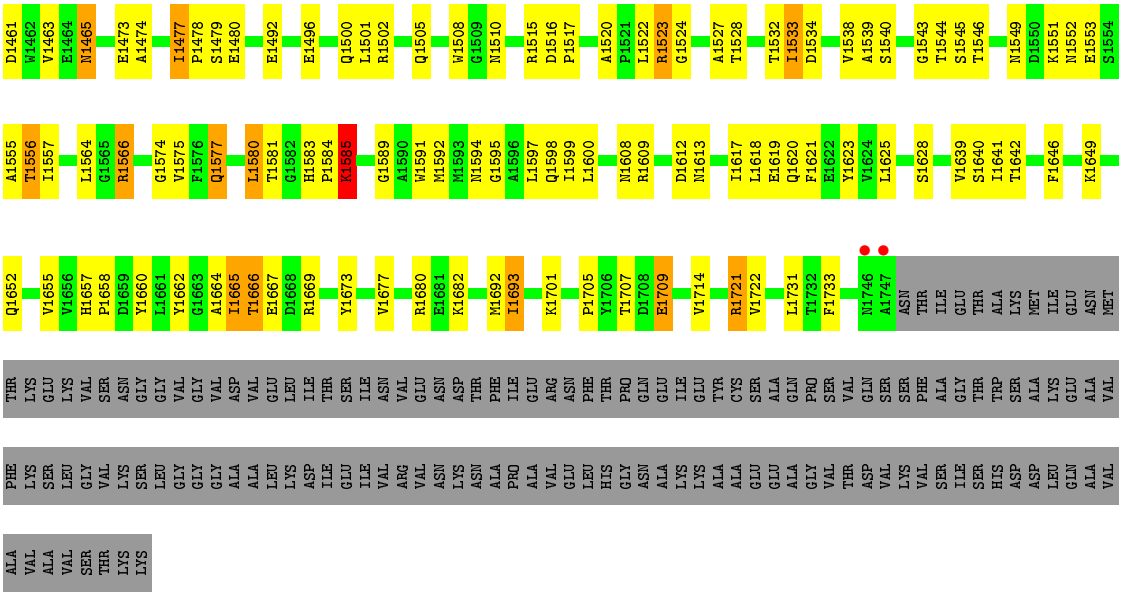
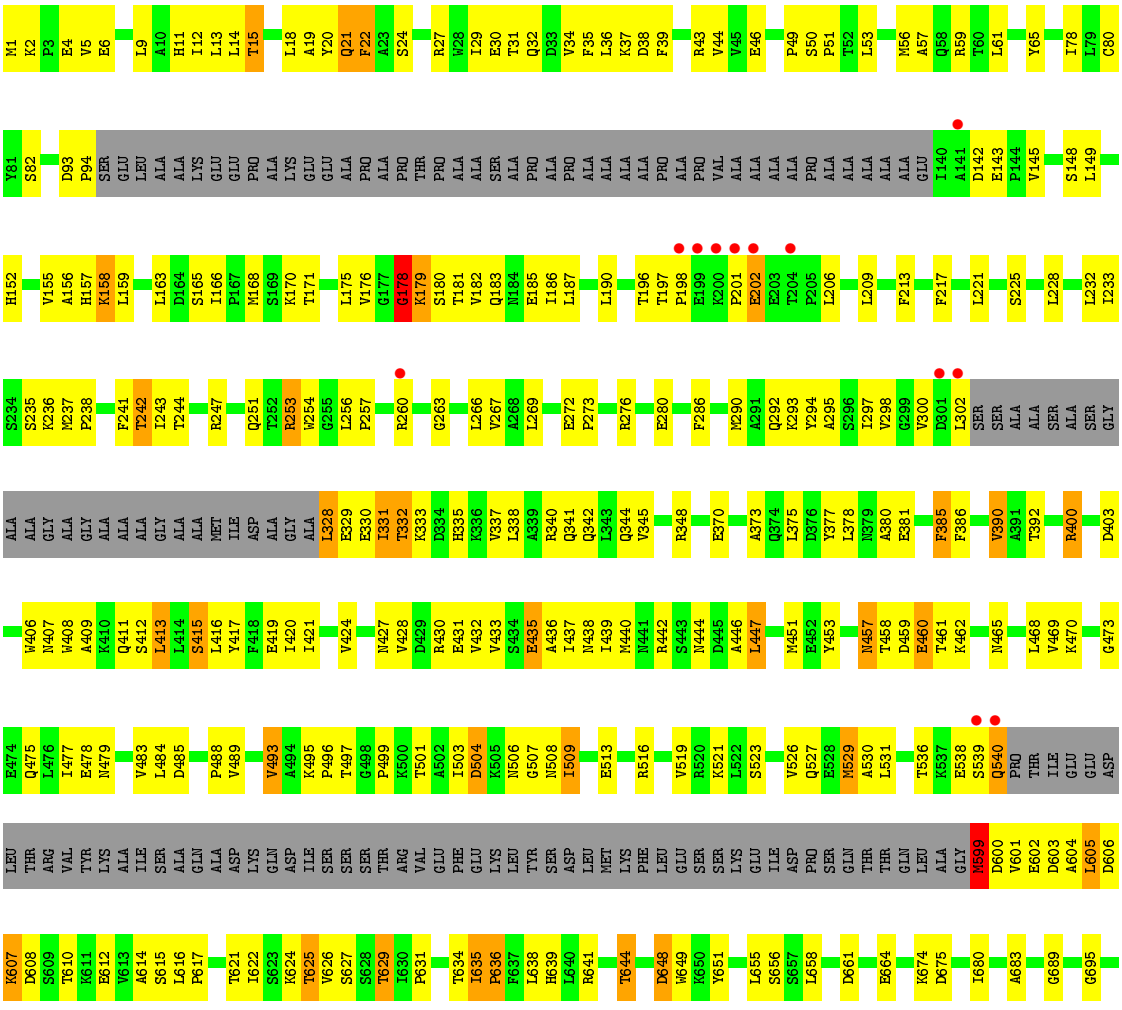
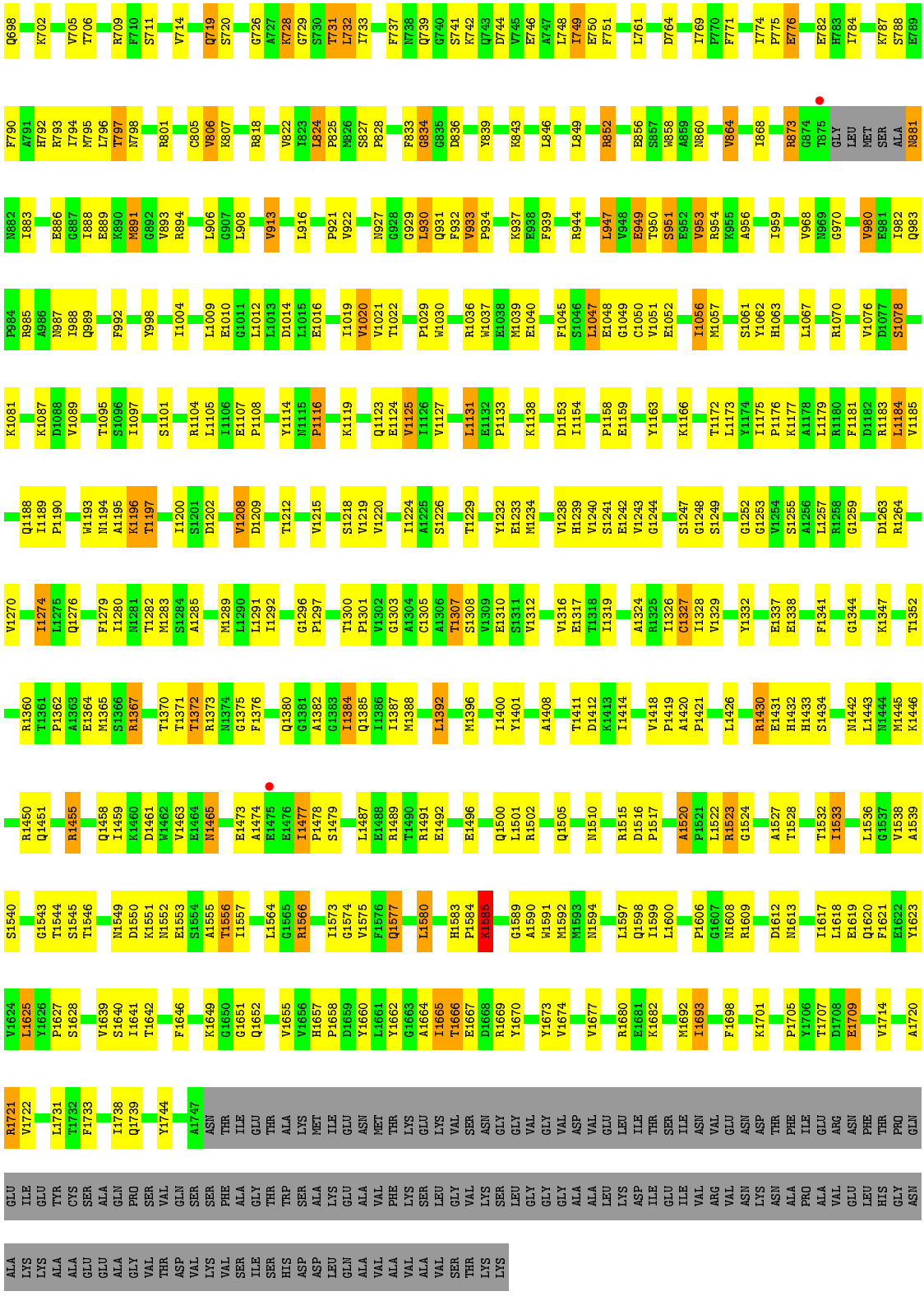
L232 I233 S234 S235 K236 M237 P238 F241 T242 I243 T244 R247 Q251 T252 R253 W254 G255 L256 P257 R260 G263 L266 V267 A268 L269 E272 P273 R276 E280 A283 K284 A285 F286 M290 A291 Q292 K293 Y294 I297 V298 G299 V300 D301 L302 SER SER ALA
ALA SER ALA SER GLY ALA ALA GLY ALA GLY ALA ALA ALA GLY ALA ALA MET ILE ASP ALA GLY ALA L328 E329 E330 I331 T332 K333 D334 H335 K336 V337 L338 A339 R340 Q341 Q342 L343 Q344 V345 L350 K351 M352 R359 E370 A373 Q374 L375 L378 F385 F386 V390 A391
T392 R400 T401 F402 D403 W406 N407 W408 A409 K410 Q411 S412 L413 L414 S415 L416 Y417 F418 E419 I420 I421 V424 N427 V428 D429 R430 E431 V432 V433 S434 E435 A436 I437 N438 I439 M440 N441 R442 S443 N444 D445 A446 L447 M451 E452 Y453 H454 I455 S456 N457 T458 D459 E460 T461 K462
N465 L468 V469 K470 G473 I477 E478 N479 V483 L484 P488 V489 V493 A494 K495 P496 T497 G498 P499 K500 T501 A502 I503 D504 K505 N506 G507 N508 I509 T510 E513 R516 V519 R520 K521 L522 S523 Q527 E528 M529 A530 L531 T536 K537 E538 S539 Q540 PRO
THR ILE GLU GLU ASP LEU THR ARG VAL TYR LYS ALA ILE SER ALA GLN ALA ASP LYS GLN ASP ILE SER SER SER THR ARG VAL GLU PHE GLU LYS LEU TYR SER ASP LEU MET LYS PHE LEU GLU SER SER LYS GLU ILE ASP PRO SER GLN THR THR GLN LEU ALA GLY N599 D600 V601
E602 D603 A604 L605 D606 K607 D608 S609 T610 K611 E612 S615 T621 I622 S623 K624 T625 V626 S627 S628 T629 I630 P631 T634 I635 P636 F637 L638 T644 D648 Y651 L655 D661 E664 F668 N669 G670 K674 D675 I680 T681 G682 A683 G689 G695
Q698 K702 V705 T706 R709 F710 S711 V714 Q719 S720 G726 A727 K728 G729 S730 T731 L732 I733 F737 S741 K742 Q743 D744 V745 E746 A747 L748 I749 E750 F751 L761 D764 I769 P770 F771 I774 P775 E776 E780 L781 E782 H783 I784 K787 S788 E789
F790 A791 H792 R793 L794 M795 L796 T797 N798 R801 C805 V806 K807 R818 V822 I823 L824 P825 M826 S827 P828 F833 G834 G835 D836 G837 M838 Y839 K843 L846 L849 R852 W858 A859 N860 V864 I868 B873 G874 T875 GLY LEU MET SER ALA N881 N882
I883 E886 G887 I888 E889 K890 M891 G892 V893 L906 G907 I908 V913 L916 P921 V922 L930 V933 P934 K937 E938 M939 R944 L947 V948 E949 T950 S951 E952 V953 R954 K955 A956 I959 E964 V968 N969 G970 A976 V980 E981 I982 R985
I988 Q989 F992 Y998 I1004 L1009 E1010 G1011 L1012 L1013 D1014 L1015 E1016 I1019 V1020 V1021 T1022 P1029 W1030 R1036 W1037 E1038 M1039 E1040 F1045 S1046 L1047 E1048 G1049 C1050 V1051 E1052 I1056 M1057 S1061 Y1062 N1066 R1070 P1071 S1078 K1079 T1080 K1087 D1088 V1089
T1095 S1096 I1097 S1101 R1104 L1105 Y1114 N1115 P1116 K1119 Q1123 E1124 V1125 I1126 V1127 E1128 E1129 D1130 L1131 E1132 P1133 K1138 K1145 I1154 P1158 E1159 Y1163 K1166 T1172 L1173 Y1174 I1175 P1176 K1177 A1178 L1179 R1183 L1184 V1185 Q1188 I1189 P1190 W1193 N1194 A1195
K1196 T1197 I1200 S1201 D1202 V1208 D1209 T1212 L1216 V1217 S1218 V1219 S1226 T1229 Y1232 E1233 M1234 V1238 H1239 V1240 S1241 E1242 V1243 G1244 S1247 G1248 S1249 G1252 G1253 V1254 S1255 A1256 L1257 R1258 G1259 D1263 R1264 V1270 I1274 L1275 Q1276 F1279 I1280 N1281 T1282 M1283
S1284 A1285 W1286 V1287 N1288 M1289 I1292 P1297 T1300 P1301 V1302 G1303 A1304 C1305 A1306 T1307 S1308 V1309 E1310 S1311 V1312 V1316 E1317 T1318 I1319 A1324 R1325 I1326 G1327 I1328 V1329 Y1332 E1337 E1338 F1341 G1344 K1347 T1352 R1360 T1361 P1362 A1363 E1364 M1365 S1366 R1367 T1370
T1371 T1372 R1373 N1374 G1375 F1376 Q1380 I1384 Q1385 V1386 I1387 M1388 L1392 M1396 P1399 I1400 Y1401 M1406 T1411 D1412 K1413 I1414 V1418 P1419 A1420 P1421 L1426 T1427 T1428 A1429 R1430 E1431 H1432 H1433 S1434 N1442 M1445 K1446 Y1447 R1448 R1449 R1450 Q1451 R1455 Q1458 I1459 K1460



• Molecule 1: FATTY ACID SYNTHASE SUBUNIT ALPHA

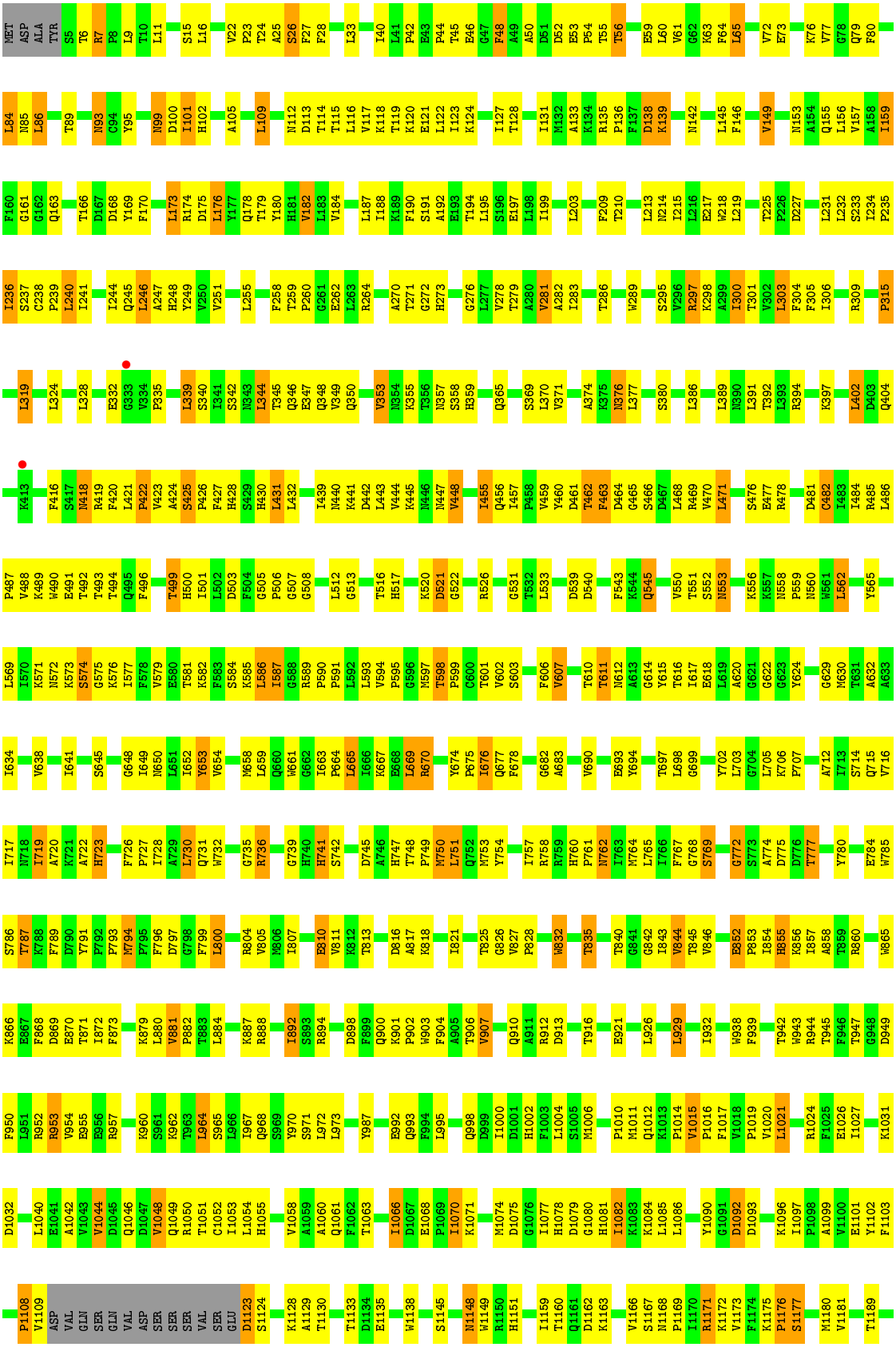
Chain C:

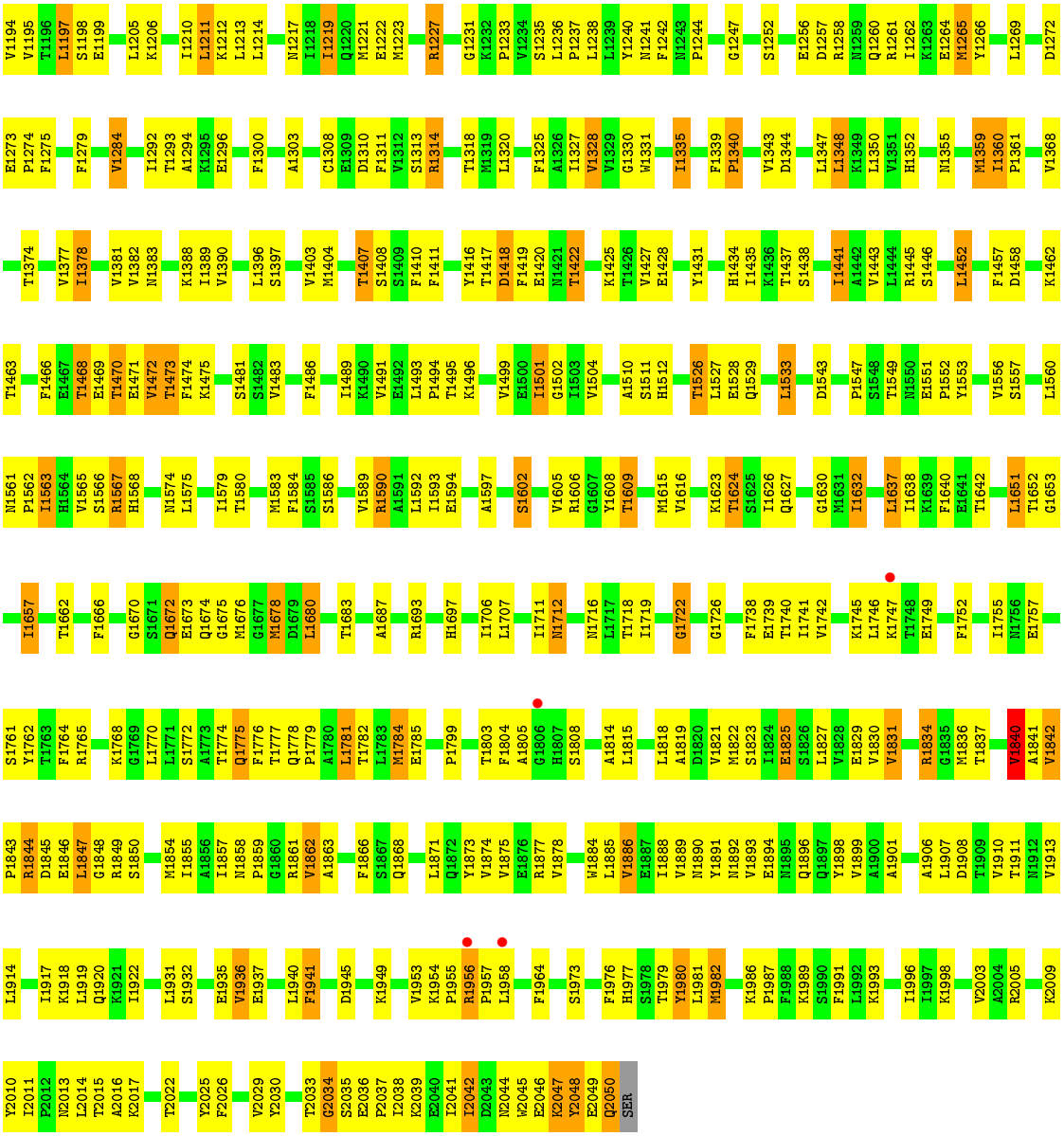




• Molecule 2: FATTY ACID SYNTHASE SUBUNIT BETA

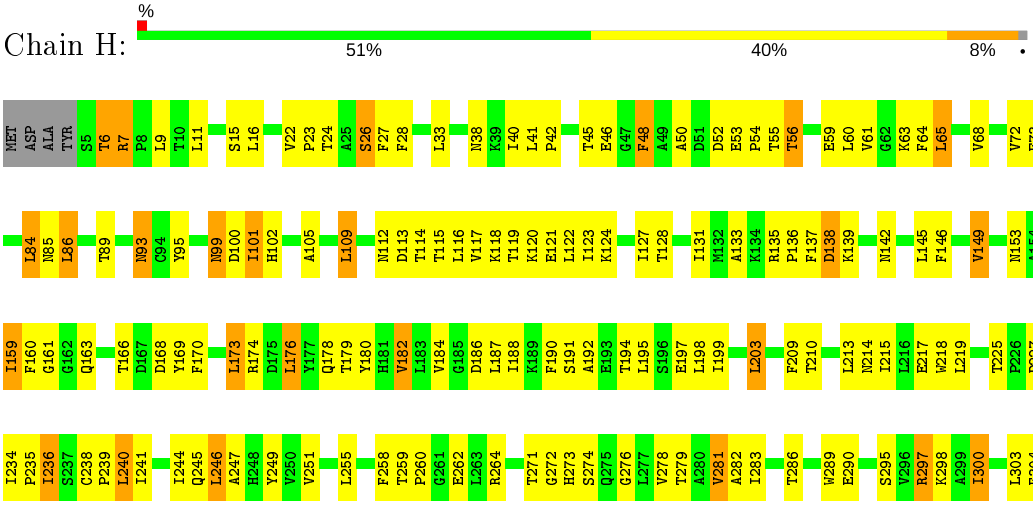
Chain G:

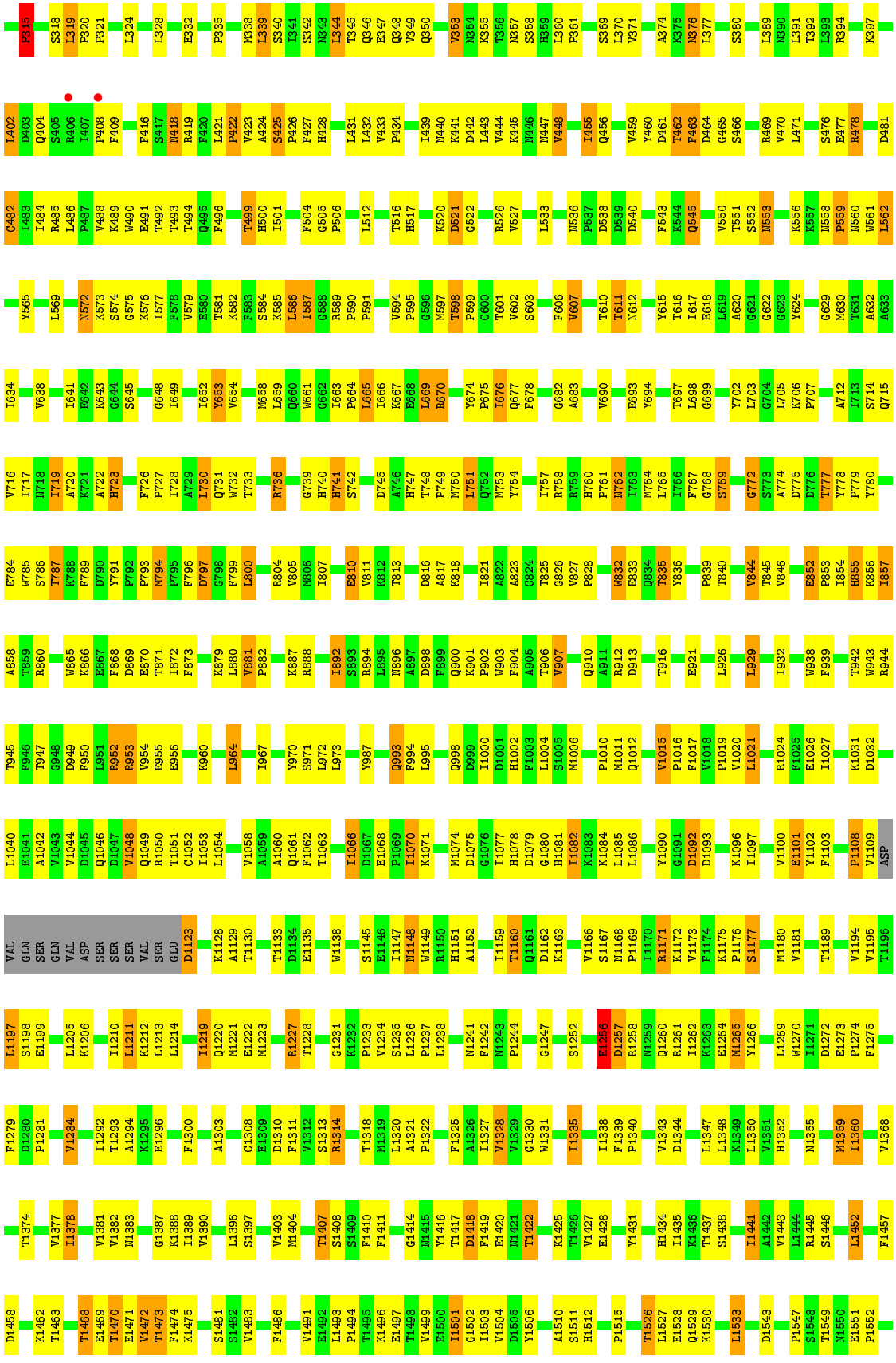




• Molecule 2: FATTY ACID SYNTHASE SUBUNIT BETA

Chain H:

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L402 D403 Q404 S405 R406 I407 P408 F409 F416 S417 N418 R419 F420 L421 P422 V423 A424 S425 P426 F427 H428 L431 L432 V433 P434 I439 N440 K441 D442 L443 V444 K445 N446 N447 V448 I455 Q456 V459 Y460 D461 T462 F463 D464 G465 S466 R469 V470 L471 S476 E477 R478 D481
C482 I483 I484 R485 L486 P487 V488 K489 W490 E491 T492 T493 T494 Q495 F496 T499 H500 I501 F504 G505 P506 L512 T516 H517 K520 D521 G522 R526 V527 L533 N536 P537 D538 D539 D540 F543 K544 Q545 V550 T551 S552 N553 K556 K557 N558 P559 N560 W561 L562
Y565 L569 N572 K573 S574 G575 K576 I577 F578 V579 E580 T581 K582 F583 S584 K585 L586 I587 G588 R589 P590 P591 V594 P595 G596 M597 T598 P599 C600 T601 V602 S603 F606 V607 T610 T611 N612 Y615 T616 I617 E618 L619 A620 G621 G622 G623 Y624 G629 M630 T631 A632 A633
I634 V638 I641 E642 K643 G644 S645 G648 I649 I652 Y653 V654 M658 L659 Q660 W661 G662 I663 P664 L665 I666 K667 E668 L669 R670 Y674 P675 I676 Q677 F678 G682 A683 V690 E693 Y694 T697 L698 G699 Y702 L703 G704 L705 K706 P707 A712 I713 S714 Q715
V716 I717 N718 I719 A720 K721 A722 H723 F726 P727 I728 A729 L730 Q731 W732 T733 R736 G739 H740 H741 S742 D745 A746 H747 T748 P749 M750 L751 Q752 M753 Y754 I757 R758 R759 H760 P761 N762 I763 M764 L765 I766 F767 G768 S769 G772 S773 A774 D775 D776 T777 Y778 P779 Y780
E784 W785 S786 T787 K788 F789 D790 Y791 F792 P793 M794 F795 F796 D797 G798 F799 L800 R804 V805 M806 I807 E810 V811 K812 T813 D816 A817 K818 I821 A822 A823 G824 T825 G826 V827 P828 W832 E833 Q834 T835 Y836 P839 T840 V844 T845 V846 E852 P853 I854 H855 K856 I857
A858 T859 R860 W865 K866 E867 F868 D869 E870 T871 I872 F873 K879 L880 V881 P882 K887 R888 I892 S893 R894 L895 N896 A897 D898 F899 Q900 K901 P902 W903 F904 A905 T906 V907 Q910 A911 R912 D913 T916 E921 L926 L929 I932 W938 F939 T942 W943 R944
T945 F946 T947 G948 D949 F950 L951 R952 R953 V954 E955 E956 K960 L964 I967 Y970 S971 L972 L973 Y987 Q993 F994 L995 Q998 D999 I1000 D1001 H1002 F1003 L1004 S1005 M1006 P1010 M1011 Q1012 V1015 P1016 F1017 V1018 P1019 V1020 L1021 R1024 F1025 E1026 I1027 K1031 D1032
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VAL GLN SER GLN VAL ASP SER SER SER VAL SER GLU D1123 K1128 A1129 T1130 T1133 D1134 E1135 W1138 S1145 E1146 I1147 N1148 W1149 R1150 H1151 A1152 I1159 T1160 Q1161 D1162 K1163 V1166 S1167 N1168 P1169 I1170 R1171 K1172 V1173 F1174 K1175 P1176 S1177 M1180 V1181 T1189 V1194 V1195 T1196
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F1279 D1280 P1281 V1284 I1292 T1293 A1294 K1296 E1296 F1300 A1303 C1308 E1309 D1310 F1311 V1312 S1313 R1314 T1318 M1319 L1320 A1321 P1322 F1325 A1326 I1327 V1328 V1329 G1330 W1331 I1335 I1338 F1339 P1340 V1343 D1344 L1347 L1348 K1349 L1350 V1351 H1352 N1355 M1359 I1360 V1368
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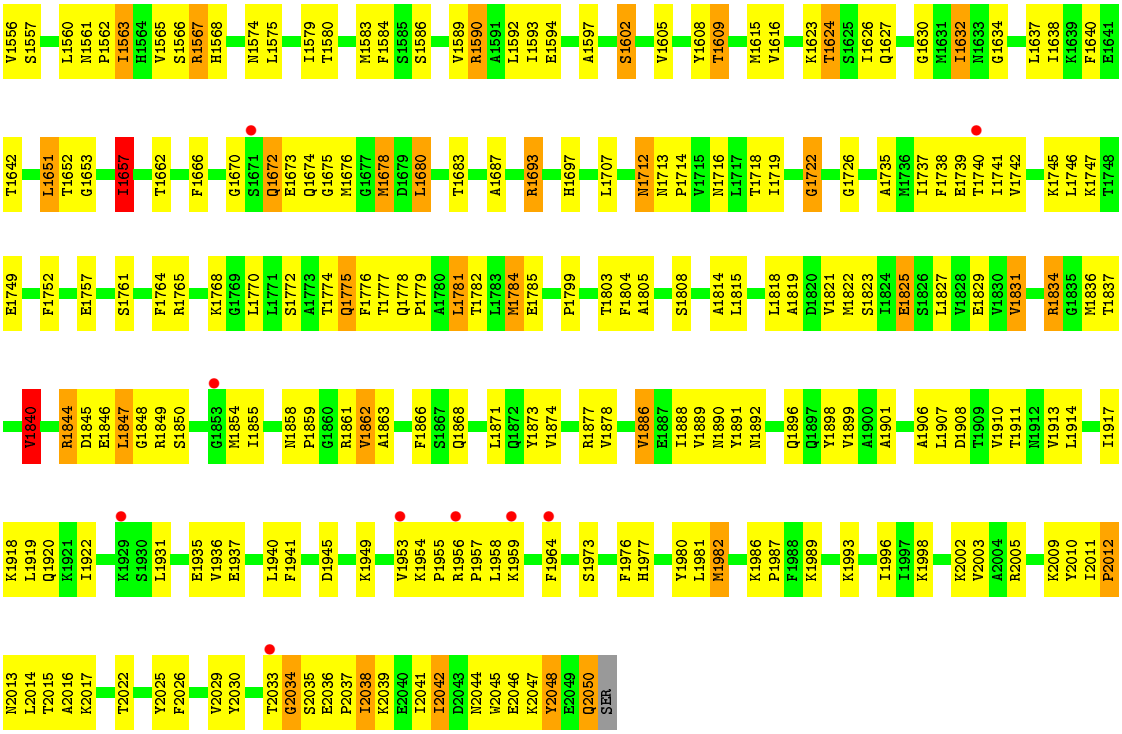
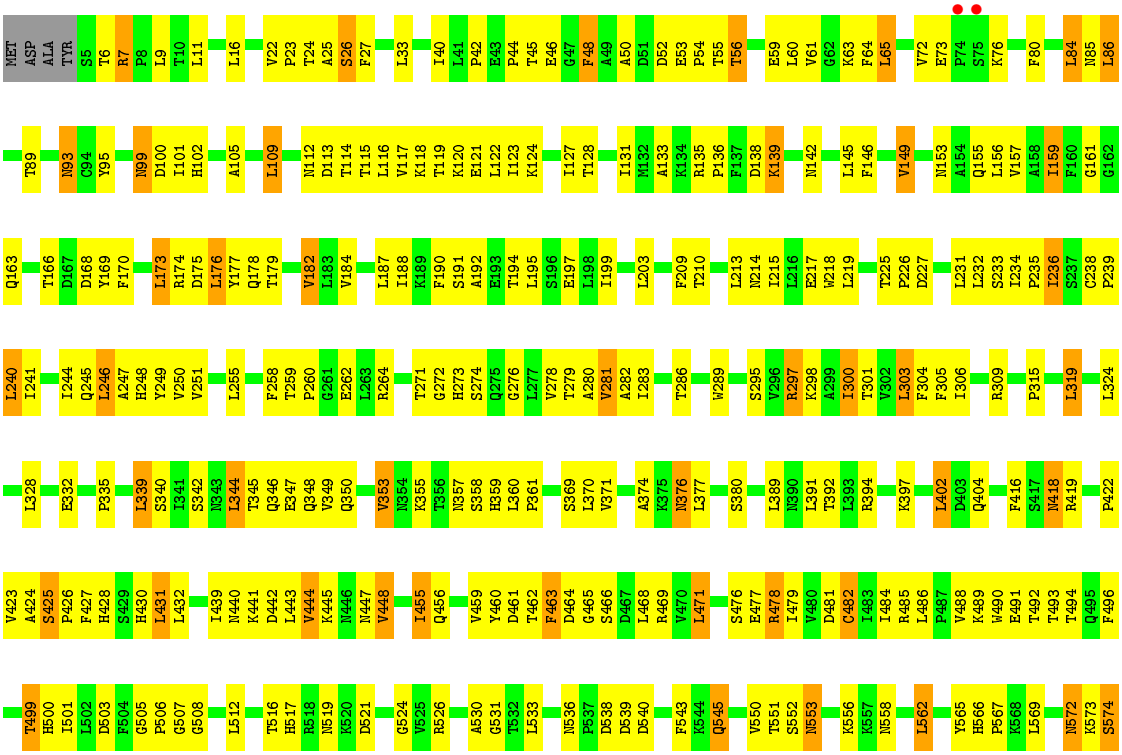
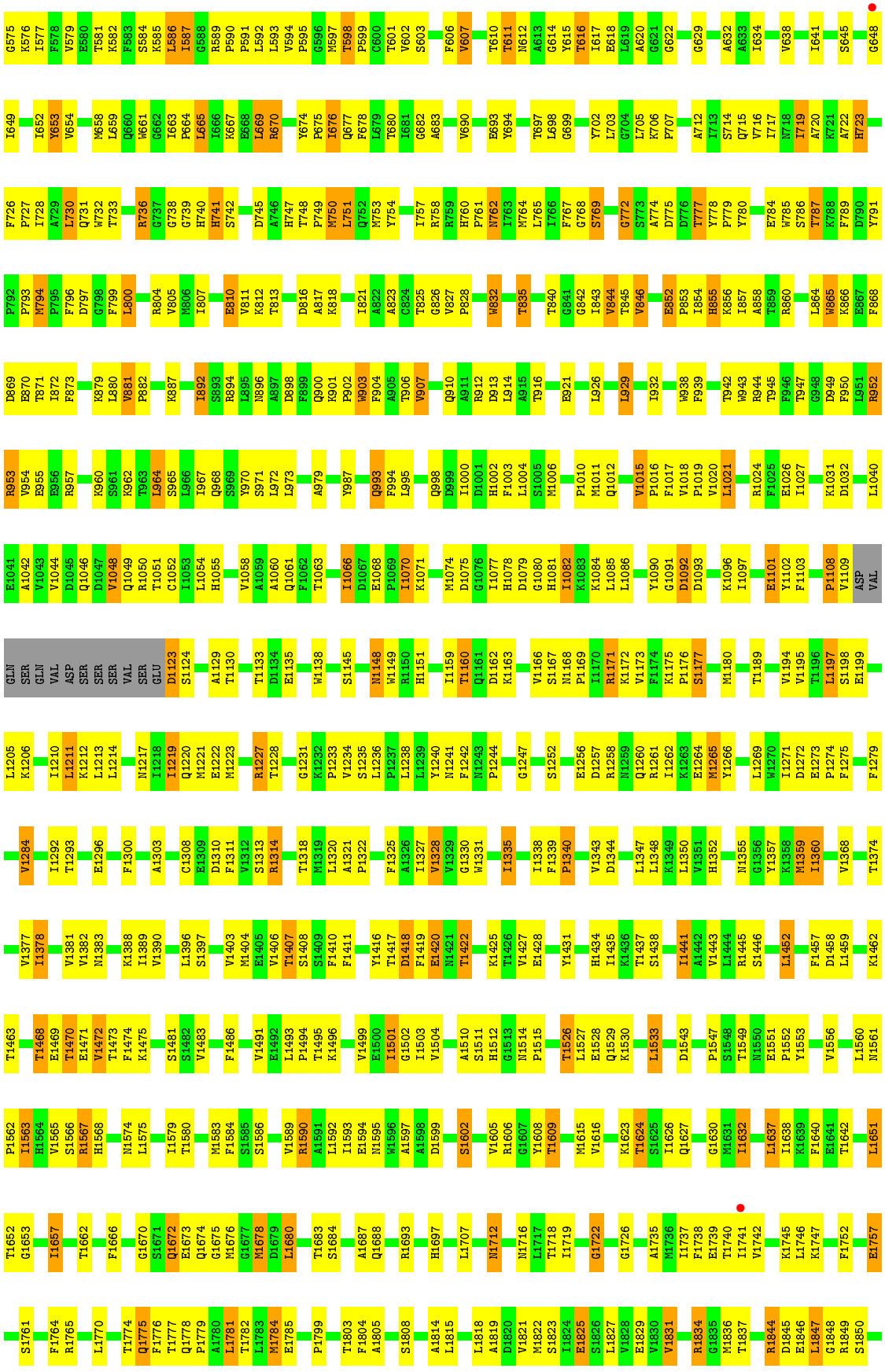
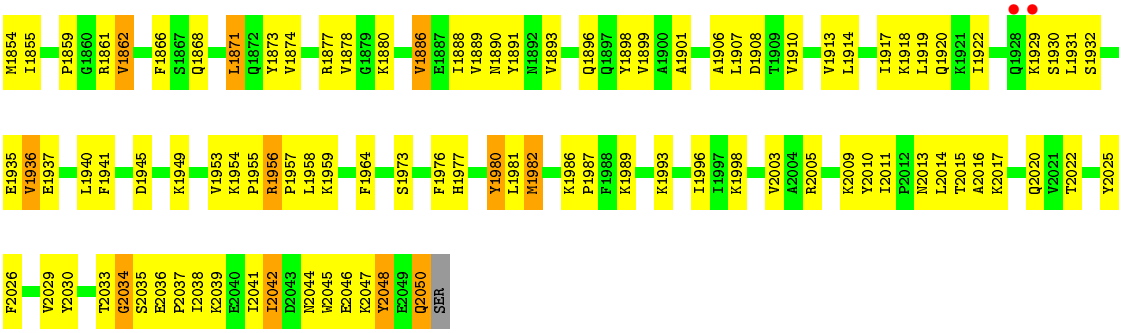


• Molecule 2: FATTY ACID SYNTHASE SUBUNIT BETA

Chain I:






M1854 I1855 P1859 G1860 R1861 V1862 F1866 S1867 Q1868 L1871 Q1872 Y1873 V1874 R1877 V1878 G1879 K1880 V1886 E1887 I1888 V1889 N1890 Y1891 N1892 V1893 Q1896 Q1897 Y1898 V1899 A1900 A1901 A1906 L1907 D1908 T1909 V1910 V1913 L1914 I1917 K1918 L1919 Q1920 K1921 I1922 Q1928 K1929 S1930 L1931 S1932
E1935 V1936 E1937 L1940 F1941 D1945 K1949 V1953 K1954 P1955 R1956 P1957 L1958 K1959 F1964 S1973 F1976 H1977 Y1980 L1981 M1982 K1986 P1987 F1988 K1989 K1993 I1996 I1997 K1998 V2003 A2004 R2005 K2009 Y2010 I2011 P2012 N2013 L2014 T2015 A2016 K2017 Q2020 V2021 T2022 Y2025
F2026 V2029 Y2030 T2033 G2034 S2035 E2036 P2037 I2038 K2039 E2040 I2041 T2042 D2043 M2044 W2045 E2046 K2047 Y2048 E2049 Q2050 SER

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 43 21 2	Depositor
Cell constants a, b, c, α, β, γ	231.90Å 231.90Å 756.80Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	24.99 – 4.00 24.99 – 4.00	Depositor EDS
% Data completeness (in resolution range)	97.3 (24.99-4.00) 97.3 (24.99-4.00)	Depositor EDS
R_{merge}	0.24	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.66 (at 3.97Å)	Xtriage
Refinement program		Depositor
R, R_{free}	0.268 , 0.268 0.276 , 0.278	Depositor DCC
R_{free} test set	8547 reflections (5.06%)	wwPDB-VP
Wilson B-factor (Å^2)	130.2	Xtriage
Anisotropy	0.319	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.24 , 76.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.36$, $< L^2 > = 0.19$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.89	EDS
Total number of atoms	85959	wwPDB-VP
Average B, all atoms (Å^2)	164.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.69% 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: FMN, CER

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.50	9/12855 (0.1%)	0.61	8/17369 (0.0%)
1	B	0.44	3/12855 (0.0%)	0.62	9/17369 (0.1%)
1	C	0.48	8/12855 (0.1%)	0.61	7/17369 (0.0%)
2	G	0.42	11/16360 (0.1%)	0.58	7/22198 (0.0%)
2	H	0.55	13/16360 (0.1%)	0.61	9/22198 (0.0%)
2	I	0.42	8/16360 (0.0%)	0.59	12/22198 (0.1%)
All	All	0.47	52/87645 (0.1%)	0.60	52/118701 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	G	0	1
2	H	0	3
2	I	0	1
All	All	0	5

All (52) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	H	1657	ILE	C-N	-32.81	0.58	1.34
2	H	559	PRO	C-N	23.37	1.87	1.34
1	A	485	ASP	C-N	18.89	1.77	1.34
1	C	1430	ARG	C-N	-13.61	1.02	1.34
2	H	1422	THR	C-N	-13.47	1.03	1.34
1	A	992	PHE	C-N	13.35	1.59	1.34
2	H	315	PRO	C-N	13.20	1.64	1.34
1	C	992	PHE	C-N	13.18	1.59	1.34
1	C	181	THR	C-N	-12.39	1.05	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	933	VAL	C-N	12.23	1.57	1.34
2	H	1530	LYS	C-N	11.67	1.60	1.34
2	I	842	GLY	C-N	11.12	1.59	1.34
2	G	315	PRO	C-N	10.45	1.58	1.34
1	A	932	PHE	C-N	-9.64	1.11	1.34
1	C	485	ASP	C-N	9.61	1.56	1.34
2	H	1529	GLN	C-N	-9.44	1.12	1.34
2	H	1256	GLU	C-N	9.35	1.55	1.34
2	H	138	ASP	C-N	9.07	1.54	1.34
2	H	1840	VAL	C-N	8.47	1.53	1.34
1	A	1118	LYS	C-N	-8.42	1.14	1.34
2	G	1657	ILE	C-N	8.15	1.52	1.34
2	I	1530	LYS	C-N	7.92	1.52	1.34
2	I	315	PRO	C-N	7.84	1.52	1.34
1	A	668	PHE	C-N	7.73	1.51	1.34
2	I	1980	TYR	C-N	7.70	1.51	1.34
2	G	1841	ALA	C-N	-7.11	1.17	1.34
1	A	181	THR	C-N	7.05	1.50	1.34
2	G	422	PRO	C-N	6.97	1.50	1.34
2	I	1422	THR	C-N	-6.96	1.18	1.34
2	G	559	PRO	C-N	-6.78	1.18	1.34
2	G	1422	THR	C-N	-6.67	1.18	1.34
1	C	381	GLU	C-N	-6.65	1.18	1.34
2	I	1018	VAL	C-N	-6.57	1.21	1.34
2	G	1256	GLU	C-N	6.43	1.48	1.34
1	C	1520	ALA	C-N	-6.36	1.22	1.34
1	C	932	PHE	C-N	-6.35	1.19	1.34
2	I	903	TRP	C-N	6.33	1.48	1.34
2	H	1053	ILE	C-N	6.30	1.48	1.34
2	H	422	PRO	C-N	6.29	1.48	1.34
2	I	1529	GLN	C-N	-6.27	1.19	1.34
2	G	842	GLY	C-N	6.06	1.48	1.34
2	H	137	PHE	C-N	5.95	1.47	1.34
1	A	1520	ALA	C-N	5.79	1.45	1.34
2	H	1982	MET	C-N	5.67	1.47	1.34
1	B	181	THR	C-N	-5.65	1.21	1.34
2	G	1529	GLN	C-N	-5.50	1.21	1.34
2	G	1840	VAL	C-N	5.48	1.46	1.34
2	G	1980	TYR	C-N	5.38	1.46	1.34
1	C	636	PRO	C-N	-5.29	1.21	1.34
1	B	668	PHE	C-N	5.29	1.46	1.34
1	B	1430	ARG	C-N	-5.19	1.22	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1181	PHE	C-N	5.13	1.45	1.34

All (52) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	H	1657	ILE	O-C-N	-17.23	95.13	122.70
2	H	1657	ILE	CA-C-N	12.14	143.92	117.20
1	B	1116	PRO	O-C-N	-11.67	104.02	122.70
2	H	1657	ILE	C-N-CA	11.19	149.68	121.70
1	C	178	GLY	O-C-N	10.12	138.89	122.70
2	I	1982	MET	O-C-N	-9.44	107.59	122.70
2	G	842	GLY	O-C-N	-8.86	108.52	122.70
2	G	1053	ILE	O-C-N	-8.58	108.97	122.70
1	B	992	PHE	O-C-N	8.47	137.19	121.10
2	I	422	PRO	O-C-N	-8.30	109.42	122.70
2	H	1530	LYS	O-C-N	8.28	135.95	122.70
1	B	992	PHE	C-N-CD	8.15	145.52	128.40
2	I	1982	MET	C-N-CA	8.08	141.89	121.70
1	B	1116	PRO	CA-C-N	8.00	134.79	117.20
1	C	178	GLY	CA-C-N	-7.55	100.59	117.20
2	I	1657	ILE	O-C-N	-7.47	110.75	122.70
1	C	1520	ALA	O-C-N	7.43	135.22	121.10
1	A	1430	ARG	O-C-N	-7.40	110.85	122.70
1	B	1116	PRO	C-N-CA	7.29	139.94	121.70
1	B	599	MET	N-CA-C	-6.93	92.27	111.00
1	C	599	MET	N-CA-C	-6.92	92.32	111.00
1	A	599	MET	N-CA-C	-6.90	92.37	111.00
1	A	992	PHE	C-N-CD	6.65	142.37	128.40
2	I	422	PRO	CA-C-N	6.52	131.55	117.20
2	H	1840	VAL	O-C-N	-6.51	112.29	122.70
2	I	1982	MET	CA-C-N	6.50	131.50	117.20
2	H	1530	LYS	C-N-CA	-6.37	105.79	121.70
1	C	1116	PRO	O-C-N	-6.36	112.52	122.70
2	H	1530	LYS	CA-C-N	-6.32	103.30	117.20
2	I	1530	LYS	O-C-N	6.31	132.79	122.70
1	B	992	PHE	CA-C-N	-6.11	100.00	117.10
2	G	1053	ILE	CA-C-N	6.05	130.50	117.20
1	A	992	PHE	O-C-N	5.97	132.45	121.10
2	G	1842	VAL	O-C-N	5.80	132.12	121.10
2	I	315	PRO	O-C-N	-5.75	113.50	122.70
1	B	540	GLN	N-CA-C	-5.65	95.74	111.00
1	A	540	GLN	N-CA-C	-5.64	95.77	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	540	GLN	N-CA-C	-5.63	95.80	111.00
1	B	178	GLY	O-C-N	5.57	131.61	122.70
2	I	422	PRO	C-N-CA	5.52	135.50	121.70
2	G	138	ASP	O-C-N	-5.44	113.99	122.70
1	A	933	VAL	O-C-N	5.44	131.44	121.10
1	A	1520	ALA	O-C-N	5.44	131.44	121.10
2	H	1256	GLU	CA-C-N	-5.39	105.35	117.20
2	I	1657	ILE	CA-C-N	5.34	128.95	117.20
2	G	842	GLY	CA-C-N	5.30	128.86	117.20
1	C	178	GLY	C-N-CA	-5.24	108.61	121.70
1	A	1116	PRO	O-C-N	-5.17	114.43	122.70
2	H	138	ASP	O-C-N	-5.08	114.56	122.70
2	G	138	ASP	C-N-CA	5.05	134.32	121.70
2	I	1657	ILE	C-N-CA	5.03	134.27	121.70
2	I	1530	LYS	CA-C-N	-5.02	106.15	117.20

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	G	1108	PRO	Peptide
2	H	1108	PRO	Peptide
2	H	1256	GLU	Mainchain
2	H	1657	ILE	Mainchain
2	I	1108	PRO	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	12615	0	12589	601	1
1	B	12615	0	12591	582	6
1	C	12615	0	12587	588	0
2	G	15995	0	15975	998	10
2	H	15995	0	15974	997	7
2	I	15995	0	15976	977	12
3	A	12	0	10	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	12	0	10	4	0
3	C	12	0	10	4	0
4	G	31	0	19	7	0
4	H	31	0	19	6	0
4	I	31	0	19	8	0
All	All	85959	0	85779	4568	18

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 27.

All (4568) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:485:ASP:C	1:A:486:VAL:N	1.77	1.36
2:H:559:PRO:C	2:H:560:ASN:N	1.87	1.26
2:H:1956:ARG:HB2	2:H:1957:PRO:HD3	1.24	1.18
2:G:28:PHE:CE2	2:H:7:ARG:HD2	1.80	1.16
2:G:1859:PRO:HG3	2:G:1871:LEU:HD12	1.29	1.15
2:H:1834:ARG:HH11	2:H:1834:ARG:HG2	1.06	1.15
2:H:490:TRP:HE1	2:H:516:THR:HG22	1.12	1.14
2:H:499:THR:HB	2:H:500:HIS:HD2	1.10	1.12
2:I:490:TRP:HE1	2:I:516:THR:HG22	1.10	1.12
2:G:1956:ARG:HB2	2:G:1957:PRO:HD3	1.23	1.12
2:G:131:ILE:HD12	2:G:182:VAL:HB	1.18	1.12
2:H:131:ILE:HD12	2:H:182:VAL:CB	1.79	1.11
2:I:601:THR:HG21	2:I:618:GLU:O	1.50	1.11
2:I:1956:ARG:HB2	2:I:1957:PRO:HD3	1.23	1.11
1:A:253:ARG:HG3	1:A:254:TRP:HD1	1.15	1.10
1:A:1721:ARG:HG2	1:A:1721:ARG:HH11	1.16	1.10
2:H:601:THR:HG21	2:H:618:GLU:O	1.50	1.10
2:G:601:THR:HG21	2:G:618:GLU:O	1.52	1.10
2:G:499:THR:HB	2:G:500:HIS:HD2	1.08	1.09
2:H:131:ILE:CB	2:H:182:VAL:HG11	1.82	1.09
2:I:297:ARG:HD3	2:I:447:ASN:HD21	1.15	1.09
2:G:131:ILE:HB	2:G:182:VAL:HG11	1.31	1.09
2:I:499:THR:HB	2:I:500:HIS:HD2	1.07	1.08
2:G:490:TRP:HE1	2:G:516:THR:HG22	1.12	1.08
1:C:852:ARG:HG2	1:C:852:ARG:HH11	1.14	1.08
2:H:131:ILE:HG21	2:H:182:VAL:HG12	1.35	1.07
2:H:128:THR:HA	2:H:182:VAL:HG21	1.31	1.07
2:I:1227:ARG:HH11	2:I:1227:ARG:HG3	1.18	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:297:ARG:HD3	2:G:447:ASN:HD21	1.17	1.06
2:G:28:PHE:CZ	2:H:7:ARG:HD2	1.91	1.06
2:I:1834:ARG:HG2	2:I:1834:ARG:HH11	1.16	1.06
1:C:1367:ARG:NH1	1:C:1372:THR:HB	1.71	1.06
2:G:903:TRP:O	2:G:906:THR:HG22	1.57	1.05
1:C:1721:ARG:HG2	1:C:1721:ARG:HH11	1.19	1.05
2:G:1834:ARG:HG2	2:G:1834:ARG:HH11	1.16	1.05
2:I:7:ARG:HH21	2:I:27:PHE:HB3	1.20	1.05
1:B:253:ARG:HG3	1:B:254:TRP:HD1	1.17	1.04
1:A:1367:ARG:NH1	1:A:1372:THR:HB	1.72	1.04
1:C:253:ARG:HG3	1:C:254:TRP:HD1	1.15	1.04
2:G:932:ILE:HD11	2:G:1042:ALA:HB2	1.36	1.04
2:I:1739:GLU:HB2	2:I:1987:PRO:HB3	1.40	1.04
1:B:1367:ARG:NH1	1:B:1372:THR:HB	1.73	1.04
2:H:1227:ARG:HG3	2:H:1227:ARG:HH11	1.19	1.03
2:G:1227:ARG:HH11	2:G:1227:ARG:HG3	1.18	1.03
2:H:297:ARG:HD3	2:H:447:ASN:HD21	1.16	1.03
1:B:1721:ARG:HH11	1:B:1721:ARG:HG2	1.21	1.03
1:B:1722:VAL:HG11	1:B:1731:LEU:HB3	1.37	1.03
1:C:1722:VAL:HG11	1:C:1731:LEU:HB3	1.37	1.02
2:G:7:ARG:HH21	2:G:27:PHE:HB3	1.22	1.02
1:B:599:MET:HB2	1:B:624:LYS:HD2	1.42	1.02
2:H:7:ARG:HH21	2:H:27:PHE:HB3	1.22	1.02
1:B:852:ARG:HH11	1:B:852:ARG:HG2	1.20	1.02
1:A:852:ARG:HH11	1:A:852:ARG:HG2	1.23	1.02
2:H:1739:GLU:HB2	2:H:1987:PRO:HB3	1.42	1.02
2:H:1859:PRO:HG3	2:H:1871:LEU:HD12	1.37	1.01
2:I:1859:PRO:HG3	2:I:1871:LEU:HD12	1.41	1.01
2:H:131:ILE:HB	2:H:182:VAL:CG1	1.89	1.01
1:C:1219:VAL:HA	1:C:1384:ILE:HD11	1.40	1.01
2:H:131:ILE:CD1	2:H:182:VAL:HB	1.91	1.00
1:C:1014:ASP:H	1:C:1510:ASN:HD21	1.03	1.00
2:H:903:TRP:O	2:H:906:THR:HG22	1.59	1.00
1:A:1722:VAL:HG11	1:A:1731:LEU:HB3	1.40	1.00
2:I:741:HIS:NE2	2:I:855:HIS:CE1	2.30	1.00
1:A:599:MET:HB2	1:A:624:LYS:HD2	1.43	0.99
2:H:1567:ARG:HG3	2:H:1567:ARG:HH11	1.27	0.99
1:C:599:MET:HB2	1:C:624:LYS:HD2	1.43	0.99
1:C:253:ARG:HG3	1:C:254:TRP:CD1	1.98	0.99
2:G:499:THR:HB	2:G:500:HIS:CD2	1.97	0.98
2:I:892:ILE:HD11	2:I:903:TRP:CE2	1.98	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:ARG:HG3	1:A:254:TRP:CD1	1.98	0.98
1:B:1219:VAL:HA	1:B:1384:ILE:HD11	1.45	0.98
2:H:1803:THR:HG22	2:H:2009:LYS:HA	1.45	0.98
2:H:762:ASN:H	2:H:762:ASN:HD22	1.03	0.98
2:H:131:ILE:HB	2:H:182:VAL:HG11	1.00	0.98
2:I:499:THR:HB	2:I:500:HIS:CD2	1.97	0.98
2:I:903:TRP:O	2:I:906:THR:HG22	1.63	0.98
1:A:400:ARG:HG2	1:A:400:ARG:HH11	1.28	0.97
2:G:892:ILE:HD11	2:G:903:TRP:CE2	1.98	0.97
1:A:400:ARG:CG	1:A:400:ARG:HH11	1.76	0.97
2:H:499:THR:HB	2:H:500:HIS:CD2	1.99	0.97
2:H:1172:LYS:HE3	2:H:1574:ASN:OD1	1.64	0.97
1:B:198:PRO:HG3	1:B:209:LEU:HD21	1.47	0.97
1:B:253:ARG:HG3	1:B:254:TRP:CD1	1.99	0.96
2:H:594:VAL:HB	2:H:617:ILE:HG13	1.44	0.96
2:I:490:TRP:NE1	2:I:516:THR:HG22	1.79	0.96
2:I:762:ASN:HD22	2:I:762:ASN:H	1.08	0.96
1:A:1014:ASP:H	1:A:1510:ASN:HD21	1.10	0.96
2:H:490:TRP:NE1	2:H:516:THR:HG22	1.81	0.96
2:H:131:ILE:HD12	2:H:182:VAL:HB	0.96	0.96
1:A:12:ILE:HD11	2:G:2041:ILE:HD12	1.47	0.95
1:C:198:PRO:HG3	1:C:209:LEU:HD21	1.48	0.95
2:G:490:TRP:NE1	2:G:516:THR:HG22	1.81	0.95
2:H:1567:ARG:HH11	2:H:1567:ARG:CG	1.79	0.95
2:H:892:ILE:HD11	2:H:903:TRP:CE2	2.01	0.95
2:G:1803:THR:HG22	2:G:2009:LYS:HA	1.48	0.95
2:I:1567:ARG:HH11	2:I:1567:ARG:HG3	1.29	0.95
2:I:594:VAL:HB	2:I:617:ILE:HG13	1.46	0.95
2:I:1567:ARG:HH11	2:I:1567:ARG:CG	1.79	0.95
2:H:1199:GLU:OE2	2:H:1567:ARG:NH1	2.00	0.95
2:G:1878:VAL:HG11	2:G:1910:VAL:HG22	1.48	0.95
2:G:1741:ILE:HD12	2:G:1986:LYS:HD2	1.47	0.95
1:A:198:PRO:HG3	1:A:209:LEU:HD21	1.47	0.95
2:I:741:HIS:CE1	2:I:855:HIS:CE1	2.55	0.95
2:G:1567:ARG:CG	2:G:1567:ARG:HH11	1.80	0.95
1:A:444:ASN:HB2	1:A:447:LEU:H	1.31	0.95
2:H:741:HIS:HE1	2:H:845:THR:CG2	1.80	0.95
2:H:835:THR:HG21	2:H:855:HIS:CD2	1.99	0.94
2:G:1739:GLU:HB2	2:G:1987:PRO:HB3	1.43	0.94
2:G:1589:VAL:HA	2:G:1592:LEU:HD12	1.49	0.94
2:H:55:THR:HG22	2:H:56:THR:HG22	1.48	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:444:ASN:HB2	1:B:447:LEU:H	1.31	0.94
2:I:1741:ILE:HD12	2:I:1986:LYS:HD2	1.49	0.94
1:C:400:ARG:HG2	1:C:400:ARG:HH11	1.33	0.94
1:C:2:LYS:HD2	2:I:2050:GLN:HB3	1.50	0.94
2:I:1878:VAL:HG11	2:I:1910:VAL:HG22	1.50	0.94
2:H:1314:ARG:HH11	2:H:1314:ARG:HG3	1.31	0.94
2:G:762:ASN:H	2:G:762:ASN:HD22	1.03	0.93
2:G:942:THR:HB	2:G:1012:GLN:HG2	1.50	0.93
1:A:1219:VAL:HA	1:A:1384:ILE:HD11	1.45	0.93
1:B:529:MET:HE3	1:B:529:MET:HA	1.47	0.93
2:I:741:HIS:HE1	2:I:845:THR:CG2	1.81	0.93
2:H:1845:ASP:HB2	2:H:1849:ARG:H	1.34	0.93
2:H:652:ILE:H	2:H:658:MET:HE3	1.30	0.93
1:B:400:ARG:HH11	1:B:400:ARG:CG	1.81	0.93
2:H:1589:VAL:HA	2:H:1592:LEU:HD12	1.49	0.93
2:I:1314:ARG:HG3	2:I:1314:ARG:HH11	1.32	0.93
1:A:12:ILE:HD11	2:G:2041:ILE:CD1	1.99	0.93
2:I:56:THR:HG23	2:I:59:GLU:HG3	1.49	0.93
2:G:1567:ARG:HG3	2:G:1567:ARG:HH11	1.30	0.93
2:G:128:THR:HA	2:G:182:VAL:HG21	1.51	0.92
1:A:1523:ARG:HG3	1:A:1523:ARG:HH11	1.33	0.92
1:C:1523:ARG:HH11	1:C:1523:ARG:HG3	1.32	0.92
2:I:741:HIS:CE1	2:I:845:THR:CG2	2.52	0.92
2:G:55:THR:HG21	2:G:113:ASP:HB2	1.52	0.92
1:A:152:HIS:CD2	1:A:163:LEU:HB2	2.05	0.92
2:G:741:HIS:NE2	2:G:855:HIS:CE1	2.38	0.92
2:I:55:THR:HG22	2:I:56:THR:HG22	1.51	0.91
2:I:667:LYS:HD2	2:I:697:THR:HG22	1.51	0.91
2:G:1845:ASP:HB2	2:G:1849:ARG:H	1.34	0.91
2:I:741:HIS:CE1	2:I:845:THR:HG22	2.04	0.91
1:A:1721:ARG:CG	1:A:1721:ARG:HH11	1.84	0.91
1:C:400:ARG:HH11	1:C:400:ARG:CG	1.81	0.91
2:G:1314:ARG:HH11	2:G:1314:ARG:HG3	1.32	0.91
1:C:152:HIS:CD2	1:C:163:LEU:HB2	2.05	0.91
2:G:56:THR:HG23	2:G:59:GLU:HG3	1.50	0.91
2:G:741:HIS:CE1	2:G:855:HIS:CE1	2.57	0.91
2:I:1803:THR:HG22	2:I:2009:LYS:HA	1.51	0.91
2:I:707:PRO:HG3	2:I:716:VAL:HG21	1.52	0.91
1:A:1693:ILE:HD11	2:G:998:GLN:HB2	1.51	0.91
1:B:1523:ARG:HH11	1:B:1523:ARG:HG3	1.36	0.91
1:C:793:ARG:HA	1:C:797:THR:HG23	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1741:ILE:HD12	2:H:1986:LYS:HD2	1.54	0.90
2:I:942:THR:HB	2:I:1012:GLN:HG2	1.52	0.90
2:H:707:PRO:HG3	2:H:716:VAL:HG21	1.54	0.90
2:I:1441:ILE:HD11	2:I:1445:ARG:CZ	2.02	0.90
2:I:652:ILE:H	2:I:658:MET:HE3	1.36	0.90
2:G:55:THR:HG22	2:G:56:THR:HG22	1.52	0.90
2:G:131:ILE:HD12	2:G:182:VAL:CB	2.01	0.89
2:G:1847:LEU:H	2:G:1847:LEU:HD12	1.37	0.89
1:C:444:ASN:HB2	1:C:447:LEU:H	1.33	0.89
2:G:594:VAL:HB	2:G:617:ILE:HG13	1.52	0.89
1:B:1721:ARG:HH11	1:B:1721:ARG:CG	1.85	0.89
1:B:793:ARG:HA	1:B:797:THR:HG23	1.54	0.89
2:I:1589:VAL:HA	2:I:1592:LEU:HD12	1.51	0.89
1:A:253:ARG:HE	1:A:254:TRP:HE1	1.21	0.89
2:G:1441:ILE:HD11	2:G:1445:ARG:CZ	2.02	0.89
2:H:1847:LEU:H	2:H:1847:LEU:HD12	1.37	0.89
2:H:55:THR:HG21	2:H:113:ASP:HB2	1.53	0.89
1:A:529:MET:HA	1:A:529:MET:HE3	1.53	0.89
2:H:56:THR:HG23	2:H:59:GLU:HG3	1.54	0.89
1:A:1474:ALA:HA	1:A:1478:PRO:HG2	1.54	0.88
2:G:667:LYS:HD2	2:G:697:THR:HG22	1.55	0.88
2:H:667:LYS:HD2	2:H:697:THR:HG22	1.55	0.88
1:A:1367:ARG:HH12	1:A:1372:THR:HB	1.35	0.88
1:A:403:ASP:HB2	1:A:1613:ASN:HD21	1.38	0.88
1:B:31:THR:HG23	2:H:2011:ILE:HG21	1.56	0.88
2:H:942:THR:HB	2:H:1012:GLN:HG2	1.54	0.88
2:I:55:THR:HG21	2:I:113:ASP:HB2	1.53	0.88
1:B:1367:ARG:HH12	1:B:1372:THR:HB	1.38	0.88
1:B:152:HIS:CD2	1:B:163:LEU:HB2	2.09	0.88
2:I:1227:ARG:HH11	2:I:1227:ARG:CG	1.87	0.88
1:C:1721:ARG:CG	1:C:1721:ARG:HH11	1.87	0.87
2:G:707:PRO:HG3	2:G:716:VAL:HG21	1.56	0.87
2:H:1441:ILE:HD11	2:H:1445:ARG:CZ	2.04	0.87
2:I:131:ILE:HD12	2:I:182:VAL:HB	1.55	0.87
1:A:793:ARG:HA	1:A:797:THR:HG23	1.53	0.87
1:C:59:ARG:HH11	2:I:1896:GLN:NE2	1.71	0.87
2:I:369:SER:OG	2:I:380:SER:HB3	1.74	0.87
2:I:298:LYS:HG2	2:I:448:VAL:HG22	1.56	0.87
1:C:529:MET:HA	1:C:529:MET:HE3	1.57	0.87
2:H:131:ILE:CG2	2:H:182:VAL:HG12	2.04	0.87
2:I:1845:ASP:HB2	2:I:1849:ARG:H	1.38	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:260:ARG:HH12	1:B:300:VAL:HG21	1.38	0.87
2:I:932:ILE:HD11	2:I:1042:ALA:HB2	1.57	0.87
1:C:253:ARG:HE	1:C:254:TRP:HE1	1.21	0.87
1:A:340:ARG:NH1	1:A:344:GLN:HG2	1.88	0.87
1:B:893:VAL:HG11	1:B:930:LEU:HD23	1.55	0.87
2:H:741:HIS:HE1	2:H:845:THR:HG22	1.38	0.86
1:C:1474:ALA:HA	1:C:1478:PRO:HG2	1.57	0.86
2:H:1878:VAL:HG11	2:H:1910:VAL:HG22	1.55	0.86
2:I:1739:GLU:HB3	2:I:1746:LEU:HD11	1.58	0.86
1:B:1474:ALA:HA	1:B:1478:PRO:HG2	1.58	0.86
2:G:741:HIS:HE1	2:G:845:THR:CG2	1.88	0.86
2:H:1533:LEU:HD13	2:H:1630:GLY:HA2	1.55	0.86
1:B:400:ARG:HH11	1:B:400:ARG:HG2	1.41	0.85
2:H:1739:GLU:HB3	2:H:1746:LEU:HD11	1.56	0.85
2:G:741:HIS:CE1	2:G:845:THR:CG2	2.59	0.85
2:I:1533:LEU:HD13	2:I:1630:GLY:HA2	1.59	0.85
2:H:1425:LYS:HG2	2:H:1471:GLU:HG3	1.58	0.85
2:H:774:ALA:HB1	2:H:1081:HIS:HD2	1.41	0.85
2:G:1425:LYS:HG2	2:G:1471:GLU:HG3	1.57	0.85
2:I:1847:LEU:HD12	2:I:1847:LEU:H	1.40	0.85
1:B:340:ARG:NH1	1:B:344:GLN:HG2	1.91	0.85
2:G:28:PHE:HE2	2:H:7:ARG:HD2	1.36	0.85
2:H:1844:ARG:HH11	2:H:1844:ARG:CG	1.89	0.85
2:H:1844:ARG:HH11	2:H:1844:ARG:HG2	1.41	0.85
2:G:28:PHE:CZ	2:H:7:ARG:CD	2.59	0.85
2:H:932:ILE:HD11	2:H:1042:ALA:HB2	1.58	0.84
2:H:297:ARG:HD3	2:H:447:ASN:ND2	1.91	0.84
2:G:369:SER:OG	2:G:380:SER:HB3	1.75	0.84
2:H:777:THR:CG2	2:H:1081:HIS:NE2	2.41	0.84
1:A:893:VAL:HG11	1:A:930:LEU:HD23	1.59	0.84
2:G:131:ILE:HG21	2:G:182:VAL:HG12	1.57	0.84
1:C:340:ARG:NH1	1:C:344:GLN:HG2	1.91	0.84
2:I:297:ARG:HD3	2:I:447:ASN:ND2	1.92	0.84
2:G:1054:LEU:HB2	4:G:3051:FMN:HM72	1.60	0.84
2:G:652:ILE:H	2:G:658:MET:HE3	1.42	0.84
2:H:2038:ILE:HG22	2:H:2042:ILE:HD11	1.60	0.84
2:H:369:SER:OG	2:H:380:SER:HB3	1.78	0.84
1:C:852:ARG:HG2	1:C:852:ARG:NH1	1.93	0.84
2:I:774:ALA:HB2	2:I:1077:ILE:HA	1.58	0.84
1:B:11:HIS:ND1	2:H:1998:LYS:HA	1.93	0.84
1:C:1303:GLY:HA2	1:C:1649:LYS:HE2	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:995:LEU:HD23	2:I:1000:ILE:HD13	1.60	0.84
2:H:741:HIS:CE1	2:H:845:THR:HG22	2.12	0.84
1:C:31:THR:HG23	2:I:2011:ILE:HG21	1.59	0.84
2:G:1533:LEU:HD13	2:G:1630:GLY:HA2	1.60	0.83
2:G:774:ALA:HB2	2:G:1077:ILE:HA	1.61	0.83
1:A:980:VAL:HG23	2:G:968:GLN:OE1	1.78	0.83
1:B:253:ARG:HE	1:B:254:TRP:HE1	1.21	0.83
2:G:1227:ARG:HH11	2:G:1227:ARG:CG	1.89	0.83
2:I:774:ALA:HB1	2:I:1081:HIS:HD2	1.43	0.83
2:H:1227:ARG:HH11	2:H:1227:ARG:CG	1.90	0.83
2:H:1672:GLN:HG2	2:H:1777:THR:HG23	1.59	0.83
2:H:741:HIS:CE1	2:H:845:THR:CG2	2.60	0.83
2:I:1844:ARG:HH11	2:I:1844:ARG:HG2	1.43	0.83
1:C:893:VAL:HG11	1:C:930:LEU:HD23	1.59	0.83
2:G:1293:THR:HG23	2:G:1296:GLU:H	1.44	0.83
2:I:1425:LYS:HG2	2:I:1471:GLU:HG3	1.61	0.83
2:I:598:THR:HG22	2:I:622:GLY:HA3	1.61	0.83
1:B:403:ASP:HB2	1:B:1613:ASN:HD21	1.44	0.82
2:G:777:THR:CG2	2:G:1081:HIS:NE2	2.41	0.82
1:A:20:TYR:CG	2:G:2033:THR:OG1	2.32	0.82
2:G:297:ARG:HD3	2:G:447:ASN:ND2	1.94	0.82
2:H:85:ASN:HD22	2:H:135:ARG:HH11	1.26	0.82
1:C:1367:ARG:HH12	1:C:1372:THR:HB	1.37	0.82
2:G:1739:GLU:HB3	2:G:1746:LEU:HD11	1.60	0.82
2:G:131:ILE:CB	2:G:182:VAL:HG11	2.07	0.82
2:G:298:LYS:HG2	2:G:448:VAL:HG22	1.61	0.82
2:I:1672:GLN:HG2	2:I:1777:THR:HG23	1.61	0.82
1:A:1249:SER:HB3	1:A:1280:ILE:HG23	1.62	0.82
1:A:36:LEU:HD22	1:A:61:LEU:HD21	1.60	0.82
1:B:1014:ASP:H	1:B:1510:ASN:HD21	1.28	0.82
2:H:995:LEU:HD23	2:H:1000:ILE:HD13	1.58	0.82
2:I:1931:LEU:HB3	2:I:1935:GLU:HG2	1.62	0.82
2:I:2038:ILE:HG22	2:I:2042:ILE:HD11	1.61	0.82
1:A:335:HIS:HE1	1:B:335:HIS:CE1	1.98	0.82
1:B:12:ILE:HD11	2:H:2041:ILE:CD1	2.10	0.82
1:C:333:LYS:O	1:C:337:VAL:HG23	1.80	0.81
2:G:995:LEU:HD23	2:G:1000:ILE:HD13	1.60	0.81
2:G:1844:ARG:CG	2:G:1844:ARG:HH11	1.93	0.81
2:G:1847:LEU:HD13	2:G:1849:ARG:HD2	1.62	0.81
2:I:128:THR:HA	2:I:182:VAL:HG21	1.62	0.81
2:H:1159:ILE:HG12	2:H:1168:ASN:HA	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:543:PHE:HB2	2:H:545:GLN:HE22	1.45	0.81
2:I:1844:ARG:CG	2:I:1844:ARG:HH11	1.93	0.81
2:I:1054:LEU:HB2	4:I:3051:FMN:C7M	2.11	0.81
1:B:1249:SER:HB3	1:B:1280:ILE:HG23	1.62	0.81
2:G:543:PHE:HB2	2:G:545:GLN:HE22	1.46	0.81
2:I:777:THR:CG2	2:I:1081:HIS:NE2	2.43	0.81
2:I:345:THR:HG22	2:I:347:GLU:H	1.46	0.81
2:G:1931:LEU:HB3	2:G:1935:GLU:HG2	1.61	0.81
2:H:1149:TRP:HA	2:H:1242:PHE:CE1	2.15	0.81
1:C:59:ARG:HH11	2:I:1896:GLN:HE22	1.25	0.81
1:B:881:ASN:HA	1:B:944:ARG:NH2	1.96	0.81
1:B:93:ASP:HB3	1:B:94:PRO:HD2	1.62	0.81
1:A:1203:ASP:HB3	1:B:179:LYS:NZ	1.95	0.81
2:G:2038:ILE:HG22	2:G:2042:ILE:HD11	1.60	0.81
1:A:335:HIS:CE1	1:C:335:HIS:HE1	1.98	0.81
2:I:345:THR:HB	2:I:348:GLN:H	1.46	0.81
1:A:93:ASP:HB3	1:A:94:PRO:HD2	1.63	0.81
2:G:1844:ARG:HG2	2:G:1844:ARG:HH11	1.46	0.81
2:I:1159:ILE:HG12	2:I:1168:ASN:HA	1.63	0.81
1:A:400:ARG:HG2	1:A:400:ARG:NH1	1.91	0.80
2:I:1693:ARG:HD2	2:I:1825:GLU:OE2	1.80	0.80
1:A:1552:ASN:O	1:A:1556:THR:HG22	1.80	0.80
1:A:333:LYS:O	1:A:337:VAL:HG23	1.82	0.80
2:G:1693:ARG:HD2	2:G:1825:GLU:OE2	1.81	0.80
2:I:584:SER:HB3	2:I:591:PRO:HG3	1.63	0.80
1:B:1030:TRP:CD1	1:B:1580:LEU:HD22	2.17	0.80
2:H:1931:LEU:HB3	2:H:1935:GLU:HG2	1.62	0.80
2:H:298:LYS:HG2	2:H:448:VAL:HG22	1.63	0.80
1:A:340:ARG:HH12	1:A:344:GLN:HG2	1.45	0.80
1:A:20:TYR:CE1	2:G:2035:SER:HB2	2.17	0.80
2:I:259:THR:HG22	2:I:262:GLU:HG3	1.63	0.80
2:G:1672:GLN:HG2	2:G:1777:THR:HG23	1.61	0.80
1:B:36:LEU:HD22	1:B:61:LEU:HD21	1.64	0.80
2:H:1159:ILE:HG12	2:H:1169:PRO:HD3	1.63	0.80
1:B:24:SER:CB	2:H:2014:LEU:HD12	2.11	0.80
2:G:741:HIS:CE1	2:G:845:THR:HG22	2.17	0.80
2:H:1847:LEU:HD13	2:H:1849:ARG:HD2	1.63	0.80
2:I:192:ALA:HA	2:I:215:ILE:HD12	1.64	0.80
1:C:1249:SER:HB3	1:C:1280:ILE:HG23	1.63	0.80
2:I:1242:PHE:HE2	2:I:1244:PRO:HG3	1.46	0.80
2:H:598:THR:HG22	2:H:622:GLY:HA3	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:907:VAL:HG21	2:H:921:GLU:HG2	1.64	0.79
2:I:455:ILE:HD11	2:I:469:ARG:HD3	1.63	0.79
2:I:1293:THR:HG23	2:I:1296:GLU:H	1.47	0.79
2:H:1199:GLU:OE2	2:H:1567:ARG:CZ	2.31	0.79
2:I:55:THR:CG2	2:I:113:ASP:HB2	2.12	0.79
1:A:31:THR:HG23	2:G:2011:ILE:HG21	1.64	0.79
2:I:1310:ASP:OD2	2:I:1602:SER:HB3	1.82	0.79
2:H:774:ALA:HB2	2:H:1077:ILE:HA	1.64	0.79
2:H:455:ILE:HD11	2:H:469:ARG:HD3	1.63	0.79
2:I:238:CYS:HB2	2:I:239:PRO:HD3	1.64	0.79
2:I:543:PHE:HB2	2:I:545:GLN:HE22	1.46	0.79
2:G:634:ILE:HD11	2:G:649:ILE:HD11	1.63	0.79
2:I:907:VAL:HG21	2:I:921:GLU:HG2	1.65	0.79
2:G:1314:ARG:CG	2:G:1314:ARG:HH11	1.95	0.79
1:B:260:ARG:NH1	1:B:300:VAL:HG21	1.97	0.79
1:C:403:ASP:HB2	1:C:1613:ASN:HD21	1.46	0.79
2:G:774:ALA:HB1	2:G:1081:HIS:HD2	1.47	0.79
1:B:1303:GLY:HA2	1:B:1649:LYS:HE2	1.63	0.79
2:G:55:THR:CG2	2:G:113:ASP:HB2	2.13	0.79
2:H:105:ALA:HB1	2:H:119:THR:HG23	1.65	0.79
2:H:757:ILE:HG21	2:H:765:LEU:HD13	1.64	0.79
2:I:1847:LEU:HD13	2:I:1849:ARG:HD2	1.64	0.79
1:B:1722:VAL:CG1	1:B:1731:LEU:HB3	2.13	0.78
1:C:1523:ARG:CG	1:C:1523:ARG:HH11	1.96	0.78
2:G:85:ASN:HD22	2:G:135:ARG:HH11	1.28	0.78
2:I:1149:TRP:HA	2:I:1242:PHE:CE1	2.19	0.78
1:C:328:LEU:O	1:C:331:ILE:HG22	1.84	0.78
2:H:1567:ARG:NH1	2:H:1567:ARG:HG3	1.98	0.78
2:H:345:THR:HB	2:H:348:GLN:H	1.48	0.78
2:H:960:LYS:HA	2:H:960:LYS:HE2	1.65	0.78
2:I:85:ASN:HD22	2:I:135:ARG:HH11	1.28	0.78
1:B:12:ILE:HD11	2:H:2041:ILE:HD12	1.63	0.78
2:G:7:ARG:NH2	2:G:27:PHE:HB3	1.99	0.78
2:H:131:ILE:CB	2:H:182:VAL:CG1	2.53	0.78
1:A:328:LEU:O	1:A:331:ILE:HG22	1.84	0.78
1:B:333:LYS:O	1:B:337:VAL:HG23	1.81	0.78
2:I:741:HIS:HE1	2:I:845:THR:HG22	1.41	0.78
1:C:1014:ASP:N	1:C:1510:ASN:HD21	1.82	0.78
2:I:138:ASP:O	2:I:139:LYS:HG3	1.83	0.78
2:I:1770:LEU:HD23	2:I:1776:PHE:CE2	2.19	0.78
1:A:2:LYS:HD2	2:G:2050:GLN:HB3	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:198:PRO:HG3	1:B:209:LEU:CD2	2.13	0.78
1:B:24:SER:O	2:H:1977:HIS:HD2	1.67	0.78
2:H:55:THR:CG2	2:H:113:ASP:HB2	2.13	0.78
2:I:7:ARG:NH2	2:I:27:PHE:HB3	1.97	0.78
2:I:634:ILE:HD11	2:I:649:ILE:HD11	1.66	0.78
2:G:1227:ARG:HD2	2:G:1565:VAL:HG11	1.66	0.77
2:G:1770:LEU:HD23	2:G:1776:PHE:CE2	2.20	0.77
2:H:1693:ARG:HD2	2:H:1825:GLU:OE2	1.83	0.77
1:A:335:HIS:CE1	1:C:335:HIS:CE1	2.72	0.77
2:H:1293:THR:HG23	2:H:1296:GLU:H	1.49	0.77
1:C:1665:ILE:HG13	1:C:1669:ARG:HD3	1.66	0.77
2:G:455:ILE:HD11	2:G:469:ARG:HD3	1.66	0.77
2:G:355:LYS:O	2:G:358:SER:HB3	1.84	0.77
2:H:131:ILE:CG2	2:H:182:VAL:CG1	2.63	0.77
2:G:28:PHE:HZ	2:H:7:ARG:CD	1.97	0.77
2:I:741:HIS:CE1	2:I:855:HIS:NE2	2.52	0.77
1:A:1523:ARG:CG	1:A:1523:ARG:HH11	1.97	0.77
2:H:1310:ASP:OD2	2:H:1602:SER:HB3	1.82	0.77
1:A:24:SER:HB3	2:G:2014:LEU:HD12	1.64	0.77
1:B:1239:HIS:HD2	1:B:1241:SER:OG	1.67	0.77
2:I:1314:ARG:CG	2:I:1314:ARG:HH11	1.98	0.77
1:C:1030:TRP:CD1	1:C:1580:LEU:HD22	2.20	0.77
2:G:1284:VAL:HG13	2:G:1377:VAL:HG22	1.65	0.77
2:G:345:THR:HG22	2:G:347:GLU:H	1.47	0.77
2:G:598:THR:HG22	2:G:622:GLY:HA3	1.67	0.77
1:C:1693:ILE:HD11	2:I:998:GLN:HB2	1.67	0.77
1:C:93:ASP:HB3	1:C:94:PRO:HD2	1.65	0.77
1:B:29:ILE:HG13	2:H:1891:TYR:O	1.85	0.77
1:C:1030:TRP:NE1	1:C:1580:LEU:HD22	2.00	0.77
1:C:12:ILE:HD11	2:I:2041:ILE:HD12	1.67	0.77
1:C:340:ARG:HH12	1:C:344:GLN:HG2	1.49	0.77
2:G:907:VAL:HG21	2:G:921:GLU:HG2	1.65	0.77
1:A:1665:ILE:HG13	1:A:1669:ARG:HD3	1.66	0.76
2:H:1834:ARG:NH1	2:H:1834:ARG:HG2	1.86	0.76
2:I:1567:ARG:HG3	2:I:1567:ARG:NH1	2.00	0.76
2:I:1834:ARG:HG2	2:I:1834:ARG:NH1	1.93	0.76
2:I:1956:ARG:CB	2:I:1957:PRO:HD3	2.09	0.76
1:A:1030:TRP:NE1	1:A:1580:LEU:HD22	1.99	0.76
1:B:1030:TRP:NE1	1:B:1580:LEU:HD22	2.00	0.76
1:A:198:PRO:HG3	1:A:209:LEU:CD2	2.14	0.76
1:C:198:PRO:HG3	1:C:209:LEU:CD2	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1678:MET:HE3	2:G:1707:LEU:HD22	1.66	0.76
1:C:400:ARG:HG2	1:C:400:ARG:NH1	1.94	0.76
2:H:762:ASN:N	2:H:762:ASN:HD22	1.82	0.76
2:G:146:PHE:HA	2:G:149:VAL:CG1	2.15	0.76
2:G:345:THR:HB	2:G:348:GLN:H	1.50	0.76
2:I:355:LYS:O	2:I:358:SER:HB3	1.85	0.76
1:A:1030:TRP:CD1	1:A:1580:LEU:HD22	2.21	0.76
2:G:1149:TRP:HA	2:G:1242:PHE:CE1	2.20	0.76
2:G:964:LEU:H	2:G:964:LEU:HD23	1.50	0.76
2:H:598:THR:OG1	2:H:599:PRO:HD3	1.86	0.76
2:I:2015:THR:HG22	2:I:2017:LYS:H	1.51	0.76
1:C:1722:VAL:CG1	1:C:1731:LEU:HB3	2.14	0.76
1:C:24:SER:O	2:I:1977:HIS:HD2	1.68	0.76
2:H:1956:ARG:HB2	2:H:1957:PRO:CD	2.12	0.76
1:C:1239:HIS:HD2	1:C:1241:SER:OG	1.68	0.76
2:H:584:SER:HB3	2:H:591:PRO:HG3	1.67	0.76
1:A:988:ILE:HD13	1:A:1048:GLU:CB	2.15	0.75
2:G:2015:THR:HG22	2:G:2017:LYS:H	1.51	0.75
2:H:1314:ARG:HH11	2:H:1314:ARG:CG	1.97	0.75
2:I:707:PRO:CG	2:I:716:VAL:HG21	2.15	0.75
1:B:1523:ARG:HH11	1:B:1523:ARG:CG	1.98	0.75
1:B:340:ARG:HH12	1:B:344:GLN:HG2	1.48	0.75
2:H:192:ALA:HA	2:H:215:ILE:HD12	1.68	0.75
2:I:1054:LEU:HB2	4:I:3051:FMN:HM72	1.66	0.75
1:B:1665:ILE:HG13	1:B:1669:ARG:HD3	1.66	0.75
2:G:1159:ILE:HG12	2:G:1168:ASN:HA	1.67	0.75
2:G:1956:ARG:HB2	2:G:1957:PRO:CD	2.11	0.75
2:H:7:ARG:NH2	2:H:27:PHE:HB3	1.99	0.75
2:I:856:LYS:HG2	2:I:1054:LEU:HD12	1.68	0.75
2:G:960:LYS:HE2	2:G:960:LYS:HA	1.67	0.75
2:H:355:LYS:O	2:H:358:SER:HB3	1.85	0.75
2:H:84:LEU:HD13	2:H:133:ALA:HB2	1.69	0.75
1:B:328:LEU:O	1:B:331:ILE:HG22	1.86	0.75
2:H:1770:LEU:HD23	2:H:1776:PHE:CE2	2.22	0.75
2:H:259:THR:HG22	2:H:262:GLU:HG3	1.68	0.75
1:B:1208:VAL:HG13	1:B:1212:THR:HB	1.68	0.75
2:H:2015:THR:HG22	2:H:2017:LYS:H	1.51	0.75
2:H:579:VAL:HG23	2:H:1078:HIS:CD2	2.21	0.75
1:A:1303:GLY:HA2	1:A:1649:LYS:HE2	1.68	0.75
1:A:1310:GLU:OE1	1:A:1649:LYS:HE3	1.86	0.75
2:G:192:ALA:HA	2:G:215:ILE:HD12	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:572:ASN:HB3	2:G:576:LYS:H	1.52	0.75
2:H:455:ILE:HD11	2:H:469:ARG:CD	2.17	0.75
2:H:741:HIS:CB	2:H:853:PRO:HB2	2.16	0.75
2:I:960:LYS:HA	2:I:960:LYS:HE2	1.67	0.75
2:I:1129:ALA:HB2	2:I:1138:TRP:CZ3	2.22	0.75
2:I:1956:ARG:HB2	2:I:1957:PRO:CD	2.11	0.75
2:I:572:ASN:HB3	2:I:576:LYS:H	1.52	0.75
2:I:757:ILE:HG21	2:I:765:LEU:HD13	1.69	0.75
2:H:943:TRP:CH2	2:H:1016:PRO:HG3	2.22	0.74
2:H:1834:ARG:CG	2:H:1834:ARG:HH11	1.92	0.74
2:I:1159:ILE:HG12	2:I:1169:PRO:HD3	1.67	0.74
2:I:1284:VAL:HG13	2:I:1377:VAL:HG22	1.69	0.74
1:A:427:ASN:HD21	1:A:610:THR:H	1.33	0.74
1:B:1552:ASN:O	1:B:1556:THR:HG22	1.88	0.74
2:H:1678:MET:HE3	2:H:1707:LEU:HD22	1.67	0.74
1:A:20:TYR:CD2	2:G:2033:THR:OG1	2.40	0.74
2:H:1242:PHE:HE2	2:H:1244:PRO:HG3	1.51	0.74
2:H:1672:GLN:HA	2:H:1676:MET:HE1	1.68	0.74
2:I:943:TRP:CH2	2:I:1016:PRO:HG3	2.21	0.74
2:H:1784:MET:HG3	2:H:1785:GLU:N	2.03	0.74
1:A:1239:HIS:HD2	1:A:1241:SER:OG	1.69	0.74
1:A:335:HIS:CE1	1:B:335:HIS:CE1	2.74	0.74
1:B:335:HIS:HE1	1:C:335:HIS:CE1	2.06	0.74
1:C:749:ILE:HD13	1:C:806:VAL:HG12	1.70	0.74
2:H:1129:ALA:HB2	2:H:1138:TRP:CZ3	2.21	0.74
2:H:1672:GLN:HA	2:H:1676:MET:CE	2.18	0.74
2:H:1956:ARG:CB	2:H:1957:PRO:HD3	2.11	0.74
2:I:105:ALA:HB1	2:I:119:THR:HG23	1.67	0.74
2:I:131:ILE:HB	2:I:182:VAL:HG11	1.69	0.74
1:C:1552:ASN:O	1:C:1556:THR:HG22	1.88	0.74
2:G:1310:ASP:OD2	2:G:1602:SER:HB3	1.88	0.74
2:I:2035:SER:HB3	2:I:2038:ILE:HG13	1.69	0.74
2:I:835:THR:HG21	2:I:855:HIS:CD2	2.23	0.74
1:B:1551:LYS:HD2	1:B:1617:ILE:HG21	1.70	0.74
2:G:705:LEU:HD12	2:G:716:VAL:HG13	1.70	0.74
2:I:741:HIS:CE1	2:I:845:THR:HG21	2.22	0.74
2:G:757:ILE:HG21	2:G:765:LEU:HD13	1.67	0.74
1:B:18:LEU:HD21	2:H:1815:LEU:HD12	1.70	0.74
2:I:1889:VAL:HG13	2:I:1977:HIS:HB2	1.69	0.74
1:A:44:VAL:CG1	1:A:78:ILE:HG12	2.18	0.73
1:B:833:PHE:HA	1:B:937:LYS:HD2	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1194:VAL:HG22	2:H:1212:LYS:HB3	1.70	0.73
2:H:7:ARG:NH1	2:H:24:THR:HG23	2.03	0.73
2:H:1004:LEU:HD21	2:H:1020:VAL:HG23	1.70	0.73
1:C:36:LEU:HD22	1:C:61:LEU:HD21	1.68	0.73
2:G:1159:ILE:HG12	2:G:1169:PRO:HD3	1.71	0.73
1:A:982:ILE:HD11	2:G:965:SER:HB2	1.69	0.73
2:H:705:LEU:HD12	2:H:716:VAL:HG13	1.70	0.73
2:H:1680:LEU:HD13	2:H:1687:ALA:HB2	1.71	0.73
2:I:1784:MET:HG3	2:I:1785:GLU:N	2.02	0.73
2:G:105:ALA:HB1	2:G:119:THR:HG23	1.70	0.73
2:G:7:ARG:NH1	2:G:24:THR:HG23	2.03	0.73
2:I:455:ILE:HD11	2:I:469:ARG:CD	2.19	0.73
1:B:749:ILE:HD13	1:B:806:VAL:HG12	1.70	0.73
2:G:259:THR:HG22	2:G:262:GLU:HG3	1.68	0.73
2:G:777:THR:HG22	2:G:1081:HIS:NE2	2.03	0.73
2:I:7:ARG:NH1	2:I:24:THR:HG23	2.03	0.73
1:A:1551:LYS:HD2	1:A:1617:ILE:HG21	1.70	0.73
2:G:194:THR:HG23	2:G:300:ILE:HD11	1.70	0.73
2:H:1300:PHE:CA	2:H:1556:VAL:HG11	2.19	0.73
2:H:345:THR:HG22	2:H:347:GLU:H	1.51	0.73
1:C:260:ARG:HH12	1:C:300:VAL:HG21	1.52	0.73
2:G:652:ILE:H	2:G:658:MET:CE	2.01	0.73
2:H:1331:TRP:CZ2	2:H:1335:ILE:HG13	2.23	0.73
2:H:1355:ASN:HA	2:H:1407:THR:O	1.88	0.73
2:H:194:THR:HG23	2:H:300:ILE:HD11	1.71	0.73
2:H:146:PHE:HA	2:H:149:VAL:CG1	2.18	0.73
2:H:1300:PHE:HA	2:H:1556:VAL:HG11	1.70	0.73
2:H:7:ARG:HH21	2:H:27:PHE:CB	2.01	0.73
1:B:44:VAL:CG1	1:B:78:ILE:HG12	2.18	0.72
2:H:1284:VAL:HG13	2:H:1377:VAL:HG22	1.71	0.72
2:H:579:VAL:HG23	2:H:1078:HIS:NE2	2.03	0.72
2:I:707:PRO:HG3	2:I:716:VAL:CG2	2.18	0.72
2:G:762:ASN:N	2:G:762:ASN:HD22	1.82	0.72
2:I:579:VAL:HG23	2:I:1078:HIS:CD2	2.24	0.72
1:A:1045:PHE:HB3	1:A:1049:GLY:HA3	1.71	0.72
1:A:655:LEU:HD22	1:A:916:LEU:HD11	1.71	0.72
1:C:1208:VAL:HG13	1:C:1212:THR:HB	1.71	0.72
1:C:1551:LYS:HD2	1:C:1617:ILE:HG21	1.70	0.72
2:G:1889:VAL:HG13	2:G:1977:HIS:HB2	1.72	0.72
2:H:128:THR:HA	2:H:182:VAL:CG2	2.16	0.72
2:H:634:ILE:HD11	2:H:649:ILE:HD11	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1672:GLN:HA	2:I:1676:MET:HE1	1.70	0.72
1:A:1722:VAL:CG1	1:A:1731:LEU:HB3	2.19	0.72
1:C:473:GLY:O	1:C:477:ILE:HG13	1.88	0.72
2:I:191:SER:HA	2:I:194:THR:HG22	1.71	0.72
2:I:194:THR:HG23	2:I:300:ILE:HD11	1.70	0.72
1:C:427:ASN:HD21	1:C:610:THR:H	1.38	0.72
1:A:24:SER:CB	2:G:2014:LEU:HD12	2.19	0.72
2:H:109:LEU:HD11	2:H:116:LEU:HD23	1.72	0.72
1:A:1208:VAL:HG13	1:A:1212:THR:HB	1.70	0.72
1:B:254:TRP:CZ3	1:B:302:LEU:HD13	2.24	0.72
2:I:1672:GLN:HA	2:I:1676:MET:CE	2.20	0.72
2:I:777:THR:HG22	2:I:1081:HIS:NE2	2.04	0.72
2:I:7:ARG:HH21	2:I:27:PHE:CB	1.99	0.72
1:B:24:SER:HB3	2:H:2014:LEU:HD12	1.69	0.72
2:G:584:SER:HB3	2:G:591:PRO:HG3	1.70	0.72
2:H:455:ILE:CD1	2:H:469:ARG:HD3	2.20	0.72
2:H:455:ILE:CG1	2:H:469:ARG:HD3	2.20	0.72
2:I:259:THR:HG22	2:I:262:GLU:CG	2.20	0.72
1:B:473:GLY:O	1:B:477:ILE:HG13	1.89	0.72
2:G:1680:LEU:HD13	2:G:1687:ALA:HB2	1.71	0.72
2:G:598:THR:OG1	2:G:599:PRO:HD3	1.89	0.72
2:H:572:ASN:HB3	2:H:576:LYS:H	1.54	0.72
2:G:131:ILE:CD1	2:G:182:VAL:HB	2.09	0.72
2:H:777:THR:HG22	2:H:1081:HIS:NE2	2.04	0.72
2:G:751:LEU:HD23	2:G:791:TYR:CE2	2.25	0.72
2:G:741:HIS:CE1	2:G:845:THR:HG21	2.24	0.72
2:G:741:HIS:CE1	2:G:855:HIS:NE2	2.58	0.72
2:I:1086:LEU:HG	2:I:1092:ASP:HA	1.72	0.72
2:I:84:LEU:HD13	2:I:133:ALA:HB2	1.71	0.72
1:B:1232:TYR:CZ	1:B:1701:LYS:HD2	2.26	0.71
2:G:1567:ARG:HG3	2:G:1567:ARG:NH1	2.02	0.71
2:G:161:GLY:H	2:G:505:GLY:HA3	1.54	0.71
2:I:2036:GLU:HB2	2:I:2037:PRO:HD3	1.72	0.71
1:B:888:ILE:HD12	1:B:939:PHE:HE2	1.55	0.71
1:C:59:ARG:NH1	2:I:1896:GLN:NE2	2.38	0.71
2:H:652:ILE:H	2:H:658:MET:CE	2.03	0.71
2:H:741:HIS:NE2	2:H:855:HIS:CE1	2.58	0.71
2:I:1419:PHE:O	2:I:1422:THR:HG22	1.90	0.71
2:I:1673:GLU:H	2:I:1676:MET:HE3	1.55	0.71
1:B:1030:TRP:NE1	1:B:1580:LEU:CD2	2.54	0.71
2:G:1638:ILE:HD12	2:G:1657:ILE:HD12	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:762:ASN:H	2:G:762:ASN:ND2	1.85	0.71
2:H:1227:ARG:HD2	2:H:1565:VAL:HG11	1.71	0.71
2:I:1670:GLY:H	2:I:1672:GLN:HE21	1.38	0.71
1:A:733:ILE:HD13	1:A:761:LEU:HD11	1.71	0.71
1:A:982:ILE:HD11	2:G:965:SER:CB	2.21	0.71
2:G:2036:GLU:HB2	2:G:2037:PRO:HD3	1.73	0.71
2:G:50:ALA:HB3	2:G:53:GLU:HG3	1.72	0.71
1:A:983:GLN:NE2	2:G:962:LYS:HD2	2.05	0.71
2:H:1819:ALA:HA	2:H:2005:ARG:HH11	1.55	0.71
1:B:2:LYS:HD2	2:H:2050:GLN:HB3	1.72	0.71
2:I:1331:TRP:CZ2	2:I:1335:ILE:HG13	2.25	0.71
2:I:455:ILE:CG1	2:I:469:ARG:HD3	2.21	0.71
1:C:733:ILE:HD13	1:C:761:LEU:HD11	1.72	0.71
2:H:1054:LEU:HB2	4:H:3051:FMN:C7M	2.21	0.71
2:I:732:TRP:CG	2:I:750:MET:CE	2.73	0.71
1:A:1208:VAL:CG1	1:A:1212:THR:HB	2.21	0.71
1:C:1219:VAL:HG22	1:C:1384:ILE:HD12	1.73	0.71
2:G:1199:GLU:OE2	2:G:1567:ARG:NH1	2.23	0.71
2:G:1672:GLN:HA	2:G:1676:MET:HE1	1.72	0.71
2:G:1917:ILE:HG23	2:G:1922:ILE:HB	1.72	0.71
2:G:238:CYS:HB2	2:G:239:PRO:HD3	1.71	0.71
2:G:949:ASP:HB3	2:G:1006:MET:HE2	1.71	0.71
2:H:238:CYS:HB2	2:H:239:PRO:HD3	1.71	0.71
2:I:1058:VAL:O	2:I:1061:GLN:HG2	1.90	0.71
2:G:109:LEU:HD11	2:G:116:LEU:HD23	1.71	0.71
1:B:18:LEU:HD21	2:H:1815:LEU:CD1	2.20	0.71
1:B:655:LEU:HD22	1:B:916:LEU:HD11	1.72	0.71
2:G:707:PRO:CG	2:G:716:VAL:HG21	2.20	0.71
2:H:964:LEU:HD23	2:H:964:LEU:H	1.56	0.71
1:C:459:ASP:HB3	1:C:462:LYS:HG3	1.73	0.70
2:I:1242:PHE:CE2	2:I:1244:PRO:HG3	2.26	0.70
1:C:59:ARG:NH1	2:I:1896:GLN:HE22	1.88	0.70
2:I:751:LEU:HD23	2:I:791:TYR:CE2	2.25	0.70
1:B:1721:ARG:NH1	1:B:1721:ARG:HG2	2.00	0.70
2:H:707:PRO:CG	2:H:716:VAL:HG21	2.21	0.70
1:A:1:MET:CE	1:A:6:GLU:HA	2.21	0.70
1:C:631:PRO:HB2	1:C:634:THR:OG1	1.91	0.70
2:G:1672:GLN:HA	2:G:1676:MET:CE	2.21	0.70
1:C:12:ILE:HD11	2:I:2041:ILE:CD1	2.21	0.70
2:I:964:LEU:H	2:I:964:LEU:HD23	1.56	0.70
1:C:881:ASN:HA	1:C:944:ARG:NH2	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:650:ASN:HD21	4:G:3051:FMN:HN3	1.40	0.70
2:I:1680:LEU:HD13	2:I:1687:ALA:HB2	1.72	0.70
2:I:732:TRP:CG	2:I:750:MET:HE1	2.26	0.70
1:B:1208:VAL:CG1	1:B:1212:THR:HB	2.20	0.70
2:G:579:VAL:HG23	2:G:1078:HIS:CD2	2.27	0.70
2:G:123:ILE:HD11	2:G:533:LEU:CD2	2.21	0.70
2:I:455:ILE:CD1	2:I:469:ARG:HD3	2.20	0.70
2:I:748:THR:HB	2:I:749:PRO:HD3	1.74	0.70
1:B:459:ASP:HB3	1:B:462:LYS:HG3	1.73	0.70
2:G:1956:ARG:CB	2:G:1957:PRO:HD3	2.10	0.70
2:G:707:PRO:HG3	2:G:716:VAL:CG2	2.22	0.70
2:G:732:TRP:CG	2:G:750:MET:HE1	2.27	0.70
2:I:146:PHE:HA	2:I:149:VAL:CG1	2.20	0.70
1:A:1312:VAL:HG22	1:A:1329:VAL:HG11	1.73	0.70
1:B:1:MET:CE	1:B:6:GLU:HA	2.21	0.70
2:G:1242:PHE:HE2	2:G:1244:PRO:HG3	1.55	0.70
1:B:968:VAL:HG23	2:H:1515:PRO:HG3	1.74	0.70
1:C:260:ARG:NH1	1:C:300:VAL:HG21	2.06	0.70
2:G:1355:ASN:HA	2:G:1407:THR:O	1.92	0.70
2:H:234:ILE:HG13	2:H:235:PRO:HD3	1.73	0.70
2:I:1264:GLU:HA	2:I:1275:PHE:CE1	2.27	0.70
1:C:655:LEU:HD22	1:C:916:LEU:HD11	1.74	0.70
2:G:455:ILE:HD11	2:G:469:ARG:CD	2.22	0.70
2:H:741:HIS:CE1	2:H:845:THR:HG21	2.26	0.70
1:A:12:ILE:HA	1:A:15:THR:CG2	2.21	0.70
2:G:1331:TRP:CZ2	2:G:1335:ILE:HG13	2.26	0.70
2:G:1673:GLU:H	2:G:1676:MET:HE3	1.57	0.70
2:H:2036:GLU:HB2	2:H:2037:PRO:HD3	1.72	0.70
1:A:1232:TYR:CZ	1:A:1701:LYS:HD2	2.27	0.69
2:G:7:ARG:HH21	2:G:27:PHE:CB	2.01	0.69
2:H:1673:GLU:H	2:H:1676:MET:HE3	1.57	0.69
2:H:499:THR:CB	2:H:500:HIS:HD2	1.99	0.69
2:H:835:THR:HB	2:H:845:THR:HG23	1.73	0.69
2:I:926:LEU:HD13	2:I:947:THR:HG22	1.73	0.69
1:B:427:ASN:HD21	1:B:610:THR:H	1.40	0.69
2:G:1194:VAL:HG22	2:G:1212:LYS:HB3	1.74	0.69
2:H:1670:GLY:H	2:H:1672:GLN:HE21	1.40	0.69
2:I:1862:VAL:HG11	2:I:1866:PHE:CD1	2.26	0.69
1:A:749:ILE:HD13	1:A:806:VAL:HG12	1.72	0.69
1:C:12:ILE:HA	1:C:15:THR:CG2	2.22	0.69
1:C:852:ARG:CG	1:C:852:ARG:HH11	2.00	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1054:LEU:HB2	4:G:3051:FMN:C7M	2.22	0.69
2:H:1195:VAL:CG1	2:H:1211:LEU:HB3	2.23	0.69
2:H:1381:VAL:HG13	2:H:1390:VAL:HG22	1.74	0.69
2:I:652:ILE:H	2:I:658:MET:CE	2.04	0.69
1:A:254:TRP:CZ3	1:A:292:GLN:HG3	2.26	0.69
1:B:254:TRP:CZ3	1:B:292:GLN:HG3	2.27	0.69
2:I:1770:LEU:HD23	2:I:1776:PHE:HE2	1.55	0.69
2:G:84:LEU:HD13	2:G:133:ALA:HB2	1.75	0.69
2:G:964:LEU:CD2	2:G:964:LEU:H	2.05	0.69
2:I:1678:MET:HE3	2:I:1707:LEU:HD22	1.75	0.69
1:C:1208:VAL:CG1	1:C:1212:THR:HB	2.23	0.69
2:G:856:LYS:HG2	2:G:1054:LEU:HD12	1.73	0.69
2:H:1917:ILE:HG23	2:H:1922:ILE:HB	1.74	0.69
2:H:1889:VAL:HG13	2:H:1977:HIS:CB	2.22	0.69
1:A:1721:ARG:NH1	1:A:1721:ARG:HG2	1.97	0.69
1:A:749:ILE:HD11	1:A:805:CYS:HB3	1.75	0.69
1:B:1376:PHE:HB3	1:B:1544:THR:HG22	1.74	0.69
2:G:191:SER:HA	2:G:194:THR:HG22	1.74	0.69
2:I:109:LEU:HD11	2:I:116:LEU:HD23	1.73	0.69
2:I:1194:VAL:HG22	2:I:1212:LYS:HB3	1.75	0.69
2:G:1172:LYS:HE3	2:G:1574:ASN:OD1	1.92	0.69
2:G:1670:GLY:H	2:G:1672:GLN:HE21	1.39	0.69
2:H:1889:VAL:HG13	2:H:1977:HIS:HB2	1.72	0.69
2:H:2022:THR:HG23	2:H:2025:TYR:H	1.58	0.69
1:A:1693:ILE:CD1	2:G:998:GLN:HB2	2.23	0.69
2:H:663:ILE:HB	2:H:664:PRO:HD3	1.75	0.69
2:H:751:LEU:HD23	2:H:791:TYR:CE2	2.27	0.69
2:I:652:ILE:N	2:I:658:MET:HE3	2.08	0.69
1:A:631:PRO:HB2	1:A:634:THR:OG1	1.92	0.69
2:G:1264:GLU:HA	2:G:1275:PHE:CE1	2.28	0.69
2:G:1496:LYS:HE2	2:G:1693:ARG:HH21	1.57	0.69
2:H:1172:LYS:CE	2:H:1574:ASN:OD1	2.40	0.69
2:H:1739:GLU:CB	2:H:1987:PRO:HB3	2.21	0.69
2:H:305:PHE:CE1	2:H:442:ASP:HB3	2.28	0.69
2:I:1739:GLU:CB	2:I:1987:PRO:HB3	2.20	0.69
2:I:663:ILE:HB	2:I:664:PRO:HD3	1.75	0.69
2:I:768:GLY:HA3	2:I:800:LEU:HD21	1.74	0.69
1:A:1376:PHE:HB3	1:A:1544:THR:HG22	1.74	0.69
1:A:257:PRO:HD2	1:A:260:ARG:HB2	1.75	0.69
1:C:1219:VAL:HA	1:C:1384:ILE:CD1	2.20	0.69
1:C:1021:VAL:HG11	1:C:1597:LEU:HD11	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:663:ILE:HB	2:G:664:PRO:HD3	1.74	0.69
2:H:54:PRO:HG3	2:H:63:LYS:HG3	1.72	0.69
2:H:652:ILE:N	2:H:658:MET:HE3	2.05	0.69
2:I:1917:ILE:HG23	2:I:1922:ILE:HB	1.74	0.69
2:I:499:THR:CB	2:I:500:HIS:HD2	1.95	0.69
2:H:1419:PHE:O	2:H:1422:THR:HG22	1.93	0.68
2:H:259:THR:HG22	2:H:262:GLU:CG	2.22	0.68
2:I:234:ILE:HG13	2:I:235:PRO:HD3	1.73	0.68
1:A:1203:ASP:HB3	1:B:179:LYS:HZ3	1.58	0.68
2:G:1058:VAL:O	2:G:1061:GLN:HG2	1.93	0.68
1:A:1431:GLU:HG3	1:A:1433:HIS:CE1	2.28	0.68
1:C:1045:PHE:HB3	1:C:1049:GLY:HA3	1.74	0.68
2:G:2035:SER:HB3	2:G:2038:ILE:HG13	1.74	0.68
2:H:1101:GLU:HB3	2:H:1147:ILE:HG22	1.76	0.68
2:H:161:GLY:H	2:H:505:GLY:HA3	1.59	0.68
1:C:1376:PHE:HB3	1:C:1544:THR:HG22	1.74	0.68
2:G:1834:ARG:HG2	2:G:1834:ARG:NH1	1.93	0.68
2:I:1227:ARG:NH1	2:I:1227:ARG:HG3	2.00	0.68
2:I:598:THR:CG2	2:I:622:GLY:HA3	2.23	0.68
1:B:1312:VAL:HG22	1:B:1329:VAL:HG11	1.73	0.68
1:B:400:ARG:HG2	1:B:400:ARG:NH1	2.00	0.68
2:I:187:LEU:HA	2:I:190:PHE:HB3	1.76	0.68
2:I:161:GLY:H	2:I:505:GLY:HA3	1.56	0.68
1:C:985:ARG:NH1	2:I:953:ARG:CZ	2.57	0.68
1:C:1014:ASP:H	1:C:1510:ASN:ND2	1.84	0.68
2:G:1784:MET:HG3	2:G:1785:GLU:N	2.07	0.68
2:G:259:THR:HG22	2:G:262:GLU:CG	2.22	0.68
2:G:54:PRO:HG3	2:G:63:LYS:HG3	1.76	0.68
2:G:732:TRP:CG	2:G:750:MET:CE	2.76	0.68
2:I:1638:ILE:HD12	2:I:1657:ILE:HD12	1.75	0.68
2:I:594:VAL:HG21	2:I:610:THR:HG21	1.75	0.68
1:A:1474:ALA:HA	1:A:1478:PRO:CG	2.24	0.68
1:C:987:ASN:HD22	2:I:957:ARG:HD2	1.58	0.68
2:H:648:GLY:HA3	2:H:678:PHE:CE2	2.29	0.68
1:A:504:ASP:HB3	1:A:508:ASN:H	1.56	0.68
1:A:332:THR:HG22	1:B:331:ILE:HD11	1.76	0.68
2:G:455:ILE:CG1	2:G:469:ARG:HD3	2.23	0.68
2:H:187:LEU:HA	2:H:190:PHE:HB3	1.75	0.68
2:I:305:PHE:CE1	2:I:442:ASP:HB3	2.28	0.68
1:B:1219:VAL:HG22	1:B:1384:ILE:HD12	1.75	0.68
1:C:1310:GLU:OE1	1:C:1649:LYS:HE3	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:455:ILE:CD1	2:G:469:ARG:HD3	2.24	0.68
2:H:641:ILE:HG12	2:H:645:SER:HB2	1.76	0.68
1:A:1056:ILE:HD13	1:A:1193:TRP:HD1	1.59	0.68
2:G:1176:PRO:O	2:G:1177:SER:HB3	1.93	0.68
2:H:1058:VAL:O	2:H:1061:GLN:HG2	1.94	0.68
1:A:1303:GLY:H	1:A:1307:THR:HG22	1.59	0.67
1:A:1594:ASN:O	1:A:1598:GLN:HG3	1.94	0.67
1:B:183:GLN:HE21	1:B:202:GLU:HG2	1.59	0.67
1:C:1303:GLY:H	1:C:1307:THR:HG22	1.60	0.67
1:C:254:TRP:CZ3	1:C:292:GLN:HG3	2.29	0.67
1:C:44:VAL:CG1	1:C:78:ILE:HG12	2.24	0.67
2:G:1475:LYS:CG	2:G:1481:SER:HB2	2.24	0.67
2:G:187:LEU:HA	2:G:190:PHE:HB3	1.74	0.67
2:H:1054:LEU:HB2	4:H:3051:FMN:HM72	1.76	0.67
2:H:707:PRO:HG3	2:H:716:VAL:CG2	2.24	0.67
2:H:191:SER:HA	2:H:194:THR:HG22	1.77	0.67
1:C:1232:TYR:CZ	1:C:1701:LYS:HD2	2.29	0.67
1:C:1455:ARG:HH11	1:C:1458:GLN:HE21	1.42	0.67
2:G:1889:VAL:HG13	2:G:1977:HIS:CB	2.24	0.67
2:G:163:GLN:HG2	2:G:423:VAL:HG12	1.77	0.67
2:H:50:ALA:HB3	2:H:53:GLU:HG3	1.76	0.67
2:I:579:VAL:HG23	2:I:1078:HIS:NE2	2.10	0.67
1:C:504:ASP:HB3	1:C:508:ASN:H	1.60	0.67
2:G:1129:ALA:HB2	2:G:1138:TRP:CZ3	2.30	0.67
2:I:598:THR:OG1	2:I:599:PRO:HD3	1.94	0.67
1:A:459:ASP:HB3	1:A:462:LYS:HG3	1.76	0.67
1:B:1303:GLY:H	1:B:1307:THR:HG22	1.59	0.67
1:C:1056:ILE:HD13	1:C:1193:TRP:HD1	1.60	0.67
1:C:1523:ARG:CG	1:C:1523:ARG:NH1	2.57	0.67
1:C:409:ALA:HB2	1:C:442:ARG:HD2	1.76	0.67
2:G:768:GLY:HA3	2:G:800:LEU:HD21	1.76	0.67
2:G:910:GLN:HE21	2:G:912:ARG:HH21	1.42	0.67
2:H:1638:ILE:HD12	2:H:1657:ILE:HD12	1.76	0.67
2:H:902:PRO:HG2	2:H:929:LEU:HD21	1.74	0.67
2:I:904:PHE:HB2	2:I:1017:PHE:CD1	2.28	0.67
2:I:910:GLN:HE21	2:I:912:ARG:HH21	1.40	0.67
1:A:1360:ARG:HH11	1:A:1364:GLU:HG2	1.60	0.67
1:B:1039:MET:O	1:B:1609:ARG:NH2	2.27	0.67
2:G:1741:ILE:HG12	2:G:1746:LEU:HD13	1.77	0.67
1:B:1310:GLU:OE1	1:B:1649:LYS:HE3	1.94	0.67
2:I:1675:GLY:O	2:I:1678:MET:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:328:LEU:O	1:A:328:LEU:HD22	1.94	0.67
1:C:746:GLU:O	1:C:750:GLU:HG3	1.95	0.67
2:H:545:GLN:HE21	2:H:545:GLN:H	1.41	0.67
2:H:594:VAL:HG21	2:H:610:THR:HG21	1.77	0.67
2:H:768:GLY:HA3	2:H:800:LEU:HD21	1.77	0.67
2:I:54:PRO:HG3	2:I:63:LYS:HG3	1.75	0.67
2:G:1004:LEU:HD21	2:G:1020:VAL:HG23	1.77	0.67
2:G:1676:MET:HE1	2:G:1781:LEU:HD21	1.76	0.67
2:G:1770:LEU:HD23	2:G:1776:PHE:HE2	1.58	0.67
2:H:1086:LEU:HG	2:H:1092:ASP:HA	1.77	0.67
2:H:1242:PHE:CE2	2:H:1244:PRO:HG3	2.30	0.67
2:H:1264:GLU:HA	2:H:1275:PHE:CE1	2.29	0.67
2:I:703:LEU:HD21	2:I:705:LEU:HD21	1.76	0.67
2:G:353:VAL:HG23	2:G:357:ASN:ND2	2.10	0.67
2:H:1256:GLU:O	2:H:1257:ASP:HB2	1.93	0.67
2:I:1889:VAL:HG13	2:I:1977:HIS:CB	2.24	0.67
2:I:949:ASP:HB3	2:I:1006:MET:HE2	1.77	0.67
1:A:1030:TRP:NE1	1:A:1580:LEU:CD2	2.57	0.66
1:C:183:GLN:HE21	1:C:202:GLU:HG2	1.61	0.66
1:C:257:PRO:HD2	1:C:260:ARG:HB2	1.76	0.66
1:C:888:ILE:HD12	1:C:939:PHE:HE2	1.60	0.66
2:G:670:ARG:HD3	2:G:699:GLY:O	1.95	0.66
2:H:1159:ILE:CG1	2:H:1169:PRO:HD3	2.24	0.66
2:H:1862:VAL:HG11	2:H:1866:PHE:CD1	2.30	0.66
2:I:1227:ARG:HD2	2:I:1565:VAL:HG11	1.77	0.66
2:I:163:GLN:HG2	2:I:423:VAL:HG12	1.76	0.66
2:I:50:ALA:HB3	2:I:53:GLU:HG3	1.76	0.66
1:A:1662:TYR:O	1:A:1665:ILE:HG22	1.95	0.66
1:A:473:GLY:O	1:A:477:ILE:HG13	1.95	0.66
1:B:328:LEU:O	1:B:328:LEU:HD22	1.95	0.66
1:B:335:HIS:CE1	1:C:335:HIS:CE1	2.82	0.66
1:C:294:TYR:CE1	1:C:298:VAL:HG21	2.29	0.66
1:C:328:LEU:HD22	1:C:328:LEU:O	1.95	0.66
2:H:670:ARG:HD3	2:H:699:GLY:O	1.95	0.66
2:I:1920:GLN:HG2	2:I:1922:ILE:HD11	1.75	0.66
2:I:1739:GLU:O	2:I:1987:PRO:HG3	1.95	0.66
1:A:183:GLN:HE21	1:A:202:GLU:HG2	1.59	0.66
1:B:1045:PHE:HB3	1:B:1049:GLY:HA3	1.76	0.66
1:B:27:ARG:HB2	2:H:2016:ALA:HB2	1.76	0.66
1:C:1030:TRP:NE1	1:C:1580:LEU:CD2	2.58	0.66
1:C:460:GLU:HG2	1:C:470:LYS:HD3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:507:GLY:N	1:C:954:ARG:HG2	2.11	0.66
2:H:910:GLN:HE21	2:H:912:ARG:HH21	1.43	0.66
2:I:762:ASN:ND2	2:I:762:ASN:H	1.88	0.66
2:I:750:MET:HG3	2:I:796:PHE:HZ	1.60	0.66
1:A:864:VAL:HG22	1:A:921:PRO:HB3	1.78	0.66
1:B:12:ILE:HA	1:B:15:THR:CG2	2.25	0.66
2:I:705:LEU:HD12	2:I:716:VAL:HG13	1.75	0.66
1:B:504:ASP:HB3	1:B:508:ASN:H	1.60	0.66
2:G:1300:PHE:HA	2:G:1556:VAL:HG11	1.77	0.66
2:G:1862:VAL:HG11	2:G:1866:PHE:CD1	2.30	0.66
2:G:61:VAL:O	2:G:65:LEU:HB2	1.96	0.66
2:H:826:GLY:HA3	2:H:1061:GLN:HB3	1.75	0.66
2:H:835:THR:HG21	2:H:855:HIS:HD2	1.59	0.66
2:H:741:HIS:CE1	2:H:855:HIS:CE1	2.84	0.66
1:A:988:ILE:HD13	1:A:1048:GLU:HB3	1.76	0.66
2:G:579:VAL:HG23	2:G:1078:HIS:NE2	2.10	0.66
2:H:1173:VAL:HG21	2:H:1221:MET:HE1	1.77	0.66
2:H:1986:LYS:N	2:H:1987:PRO:HD2	2.11	0.66
1:A:836:ASP:HB3	1:A:839:TYR:HB3	1.76	0.66
1:B:1540:SER:HA	1:B:1575:VAL:HG22	1.78	0.66
1:B:497:THR:OG1	1:B:513:GLU:HG2	1.95	0.66
2:G:1920:GLN:HG2	2:G:1922:ILE:HD11	1.78	0.66
2:H:904:PHE:HB2	2:H:1017:PHE:CD1	2.30	0.66
2:H:1741:ILE:HG12	2:H:1746:LEU:HD13	1.76	0.66
2:H:61:VAL:O	2:H:65:LEU:HB2	1.96	0.66
1:B:733:ILE:HD13	1:B:761:LEU:HD11	1.78	0.66
2:G:1419:PHE:O	2:G:1422:THR:HG22	1.95	0.66
2:G:1457:PHE:CZ	2:G:1501:ILE:HD11	2.30	0.66
2:G:1808:SER:H	2:G:2013:ASN:ND2	1.93	0.66
2:H:131:ILE:HG21	2:H:182:VAL:CG1	2.18	0.66
2:I:1173:VAL:HG21	2:I:1221:MET:HE1	1.77	0.66
2:I:1195:VAL:CG1	2:I:1211:LEU:HB3	2.25	0.66
1:A:254:TRP:CH2	1:A:292:GLN:HG3	2.31	0.66
1:B:1219:VAL:HA	1:B:1384:ILE:CD1	2.24	0.66
1:C:295:ALA:HB2	1:C:302:LEU:HD11	1.77	0.66
2:H:1770:LEU:HD23	2:H:1776:PHE:HE2	1.59	0.66
2:I:1381:VAL:HG13	2:I:1390:VAL:HG22	1.78	0.66
2:I:1808:SER:H	2:I:2013:ASN:ND2	1.94	0.66
1:B:501:THR:N	1:B:886:GLU:OE1	2.21	0.66
1:C:1360:ARG:HH11	1:C:1364:GLU:HG2	1.60	0.66
2:G:843:ILE:HD11	2:G:1055:HIS:HB3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1352:HIS:CD2	2:G:1410:PHE:CE2	2.84	0.66
2:G:33:LEU:HD11	2:G:80:PHE:HD2	1.61	0.66
2:G:904:PHE:HB2	2:G:1017:PHE:CD1	2.30	0.66
2:I:1819:ALA:HA	2:I:2005:ARG:HH11	1.61	0.66
1:A:497:THR:OG1	1:A:513:GLU:HG2	1.96	0.65
1:B:529:MET:CG	1:B:638:LEU:HG	2.26	0.65
1:C:1317:GLU:HA	1:C:1317:GLU:OE1	1.96	0.65
1:C:1:MET:CE	1:C:6:GLU:HA	2.25	0.65
2:G:1976:PHE:HA	2:G:1981:LEU:HD22	1.78	0.65
2:G:652:ILE:N	2:G:658:MET:HE3	2.11	0.65
2:H:2035:SER:HB3	2:H:2038:ILE:HG13	1.78	0.65
1:B:836:ASP:HB3	1:B:839:TYR:HB3	1.79	0.65
1:C:1312:VAL:HG22	1:C:1329:VAL:HG11	1.78	0.65
1:C:330:GLU:HA	1:C:333:LYS:HD2	1.79	0.65
1:C:836:ASP:HB3	1:C:839:TYR:HB3	1.77	0.65
2:G:1352:HIS:HE1	2:G:1583:MET:HE1	1.60	0.65
2:G:1986:LYS:N	2:G:1987:PRO:HD2	2.12	0.65
2:H:1325:PHE:CZ	2:H:1328:VAL:HG11	2.32	0.65
2:H:732:TRP:CG	2:H:750:MET:CE	2.79	0.65
2:I:1782:THR:HG22	2:I:1827:LEU:HD21	1.78	0.65
1:A:27:ARG:HB2	2:G:2016:ALA:HB2	1.77	0.65
2:G:597:MET:HA	4:G:3051:FMN:N5	2.10	0.65
1:A:27:ARG:HD2	1:A:30:GLU:OE2	1.97	0.65
1:A:331:ILE:HD11	1:C:332:THR:HG22	1.79	0.65
1:B:1317:GLU:OE1	1:B:1317:GLU:HA	1.96	0.65
1:B:460:GLU:HG2	1:B:470:LYS:HD3	1.78	0.65
1:C:32:GLN:HA	1:C:35:PHE:CE2	2.31	0.65
2:G:1086:LEU:HG	2:G:1092:ASP:HA	1.77	0.65
2:G:234:ILE:HG13	2:G:235:PRO:HD3	1.77	0.65
2:G:259:THR:HG23	2:G:262:GLU:H	1.62	0.65
2:G:902:PRO:HG2	2:G:929:LEU:HD21	1.79	0.65
2:H:1719:ILE:O	2:H:1761:SER:HB2	1.97	0.65
2:I:251:VAL:O	2:I:255:LEU:HB2	1.96	0.65
1:B:257:PRO:HD2	1:B:260:ARG:HB2	1.78	0.65
1:B:749:ILE:HD11	1:B:805:CYS:HB3	1.77	0.65
2:G:736:ARG:NH1	2:G:769:SER:O	2.29	0.65
1:A:1219:VAL:HG22	1:A:1384:ILE:HD12	1.77	0.65
1:A:331:ILE:CD1	1:C:332:THR:HG22	2.26	0.65
2:G:131:ILE:HG21	2:G:182:VAL:CG1	2.26	0.65
2:I:545:GLN:HE21	2:I:545:GLN:H	1.42	0.65
1:C:435:GLU:O	1:C:439:ILE:HG13	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1381:VAL:HG13	2:G:1390:VAL:HG22	1.77	0.65
1:A:968:VAL:O	2:G:1512:HIS:HB2	1.97	0.65
2:G:1740:THR:HG22	2:G:1742:VAL:HG23	1.78	0.65
1:B:294:TYR:CE1	1:B:298:VAL:HG21	2.32	0.65
1:C:497:THR:OG1	1:C:513:GLU:HG2	1.97	0.65
2:G:826:GLY:HA3	2:G:1061:GLN:HB3	1.77	0.65
2:H:667:LYS:HB2	2:H:698:LEU:HD23	1.79	0.65
2:H:748:THR:HB	2:H:749:PRO:HD3	1.78	0.65
2:H:949:ASP:HB3	2:H:1006:MET:HE2	1.79	0.65
1:A:1219:VAL:HA	1:A:1384:ILE:CD1	2.23	0.65
1:A:340:ARG:HH12	1:A:344:GLN:CG	2.09	0.65
1:A:529:MET:CG	1:A:638:LEU:HG	2.27	0.65
2:G:1242:PHE:CE2	2:G:1244:PRO:HG3	2.31	0.65
2:G:259:THR:CG2	2:G:262:GLU:H	2.10	0.65
1:A:294:TYR:CE1	1:A:298:VAL:HG21	2.32	0.65
1:C:1292:ILE:CD1	1:C:1328:ILE:HD11	2.27	0.65
2:I:1176:PRO:O	2:I:1177:SER:HB3	1.95	0.65
1:C:11:HIS:ND1	2:I:1998:LYS:HA	2.12	0.65
1:B:254:TRP:CH2	1:B:292:GLN:HG3	2.32	0.64
2:H:1195:VAL:HG13	2:H:1211:LEU:HB3	1.80	0.64
2:H:741:HIS:HB3	2:H:853:PRO:HB2	1.77	0.64
2:I:1475:LYS:CG	2:I:1481:SER:HB2	2.27	0.64
2:I:490:TRP:HE1	2:I:516:THR:CG2	2.00	0.64
1:B:599:MET:HB2	1:B:624:LYS:CD	2.24	0.64
1:C:1721:ARG:CG	1:C:1721:ARG:NH1	2.56	0.64
2:G:1906:ALA:O	2:G:1910:VAL:HG23	1.97	0.64
2:G:353:VAL:HG23	2:G:357:ASN:HD22	1.61	0.64
2:H:1859:PRO:O	2:H:1862:VAL:HG13	1.98	0.64
2:I:1355:ASN:HA	2:I:1407:THR:O	1.97	0.64
2:I:719:ILE:O	2:I:722:ALA:HB3	1.97	0.64
1:A:421:ILE:CG1	1:A:469:VAL:HG21	2.28	0.64
1:B:864:VAL:HG22	1:B:921:PRO:HB3	1.77	0.64
1:C:749:ILE:HD11	1:C:805:CYS:HB3	1.78	0.64
2:H:115:THR:HB	2:H:118:LYS:HB2	1.80	0.64
1:C:604:ALA:HB3	1:C:612:GLU:HG2	1.80	0.64
2:G:138:ASP:O	2:G:139:LYS:HG3	1.97	0.64
2:H:1352:HIS:CD2	2:H:1410:PHE:CE2	2.85	0.64
2:H:1906:ALA:O	2:H:1910:VAL:HG23	1.98	0.64
2:H:259:THR:HG23	2:H:262:GLU:H	1.63	0.64
2:I:1265:MET:HE1	2:I:1562:PRO:HG2	1.78	0.64
1:A:1039:MET:O	1:A:1609:ARG:NH2	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:746:GLU:O	1:B:750:GLU:HG3	1.97	0.64
2:G:1359:MET:HE3	2:G:1404:MET:HB3	1.79	0.64
2:G:490:TRP:HE1	2:G:516:THR:CG2	1.99	0.64
2:H:1823:SER:OG	2:H:1825:GLU:HG2	1.96	0.64
2:H:259:THR:CG2	2:H:262:GLU:H	2.10	0.64
2:H:658:MET:HA	2:H:661:TRP:NE1	2.13	0.64
2:I:1422:THR:CG2	2:I:1474:PHE:HB2	2.27	0.64
1:B:504:ASP:HB2	1:B:508:ASN:HB2	1.79	0.64
1:C:1540:SER:HA	1:C:1575:VAL:HG22	1.79	0.64
1:C:1594:ASN:O	1:C:1598:GLN:HG3	1.97	0.64
2:G:1195:VAL:CG1	2:G:1211:LEU:HB3	2.27	0.64
2:G:1103:PHE:O	2:G:1247:GLY:HA3	1.97	0.64
2:I:61:VAL:O	2:I:65:LEU:HB2	1.96	0.64
2:I:826:GLY:HA3	2:I:1061:GLN:HB3	1.78	0.64
1:A:1022:THR:HG22	1:A:1226:SER:HB2	1.80	0.64
1:A:504:ASP:HB2	1:A:508:ASN:HB2	1.78	0.64
1:A:746:GLU:O	1:A:750:GLU:HG3	1.97	0.64
1:C:833:PHE:HA	1:C:937:LYS:HD2	1.78	0.64
2:G:499:THR:CB	2:G:500:HIS:HD2	1.97	0.64
2:H:1808:SER:H	2:H:2013:ASN:HD21	1.46	0.64
2:I:1457:PHE:CZ	2:I:1501:ILE:HD11	2.33	0.64
2:I:7:ARG:HE	2:I:27:PHE:HB2	1.62	0.64
1:B:330:GLU:HA	1:B:333:LYS:HD2	1.80	0.64
1:B:852:ARG:NH1	1:B:852:ARG:HG2	1.98	0.64
1:C:1194:ASN:HB3	1:C:1197:THR:CG2	2.27	0.64
2:G:1739:GLU:CB	2:G:1987:PRO:HB3	2.23	0.64
2:H:1457:PHE:CZ	2:H:1501:ILE:HD11	2.32	0.64
2:H:232:LEU:O	2:H:232:LEU:HD23	1.98	0.64
2:I:1676:MET:HE1	2:I:1781:LEU:HD21	1.79	0.64
2:I:2022:THR:HG23	2:I:2025:TYR:H	1.63	0.64
2:I:648:GLY:HA3	2:I:678:PHE:CE2	2.32	0.64
1:A:1317:GLU:OE1	1:A:1317:GLU:HA	1.96	0.64
1:B:421:ILE:CG1	1:B:469:VAL:HG21	2.27	0.64
2:G:545:GLN:H	2:G:545:GLN:HE21	1.46	0.64
2:H:1205:LEU:O	2:H:1206:LYS:HG3	1.97	0.64
2:H:1676:MET:HE1	2:H:1781:LEU:HD21	1.80	0.64
2:I:892:ILE:HD11	2:I:903:TRP:NE1	2.12	0.64
2:I:964:LEU:CD2	2:I:964:LEU:H	2.11	0.64
1:B:1474:ALA:HA	1:B:1478:PRO:CG	2.27	0.64
2:G:305:PHE:CE1	2:G:442:ASP:HB3	2.32	0.64
2:H:163:GLN:HG2	2:H:423:VAL:HG12	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:703:LEU:HD21	2:H:705:LEU:HD21	1.79	0.64
2:I:670:ARG:HD3	2:I:699:GLY:O	1.98	0.64
1:A:1021:VAL:HG11	1:A:1597:LEU:HD11	1.79	0.63
1:A:152:HIS:HD2	1:A:163:LEU:HB2	1.61	0.63
1:C:1474:ALA:HA	1:C:1478:PRO:CG	2.27	0.63
2:G:648:GLY:HA3	2:G:678:PHE:CE2	2.33	0.63
2:H:1176:PRO:O	2:H:1177:SER:HB3	1.97	0.63
2:H:1266:TYR:CB	2:H:1347:LEU:HD23	2.28	0.63
2:H:964:LEU:CD2	2:H:964:LEU:H	2.09	0.63
1:C:24:SER:CB	2:I:2014:LEU:HD12	2.27	0.63
2:I:641:ILE:HG12	2:I:645:SER:HB2	1.79	0.63
1:A:504:ASP:CB	1:A:508:ASN:H	2.10	0.63
1:B:438:ASN:HD21	1:B:698:GLN:HE21	1.46	0.63
1:C:436:ALA:O	1:C:440:MET:HG3	1.98	0.63
1:C:504:ASP:HB2	1:C:508:ASN:HB2	1.80	0.63
1:C:989:GLN:NE2	2:I:993:GLN:OE1	2.32	0.63
2:G:1205:LEU:O	2:G:1206:LYS:HG3	1.98	0.63
2:G:2022:THR:HG23	2:G:2025:TYR:H	1.63	0.63
2:H:1227:ARG:CG	2:H:1227:ARG:NH1	2.57	0.63
2:H:1808:SER:H	2:H:2013:ASN:ND2	1.95	0.63
2:I:1279:PHE:HB2	2:I:1340:PRO:HG3	1.79	0.63
2:I:1266:TYR:CB	2:I:1347:LEU:HD23	2.28	0.63
2:I:1378:ILE:HD11	2:I:1381:VAL:CG2	2.28	0.63
2:I:902:PRO:HG2	2:I:929:LEU:HD21	1.79	0.63
1:A:1292:ILE:CD1	1:A:1328:ILE:HD11	2.28	0.63
1:A:1461:ASP:O	1:A:1465:ASN:HB2	1.99	0.63
1:A:956:ALA:O	1:A:959:ILE:HG22	1.98	0.63
1:B:992:PHE:CE2	1:B:1399:PRO:HG3	2.34	0.63
1:C:1721:ARG:HG2	1:C:1721:ARG:NH1	2.00	0.63
2:G:259:THR:OG1	2:G:260:PRO:HD2	1.97	0.63
2:G:7:ARG:HE	2:G:27:PHE:HB2	1.63	0.63
2:G:745:ASP:HA	2:G:832:TRP:HH2	1.64	0.63
2:H:353:VAL:HG23	2:H:357:ASN:ND2	2.13	0.63
2:I:1890:ASN:HB2	2:I:1899:VAL:HB	1.81	0.63
2:I:1976:PHE:HA	2:I:1981:LEU:HD22	1.81	0.63
1:A:824:LEU:HD12	1:A:846:LEU:HB3	1.80	0.63
1:A:852:ARG:NH1	1:A:852:ARG:HG2	2.00	0.63
1:B:881:ASN:HA	1:B:944:ARG:HH21	1.63	0.63
1:C:599:MET:HB2	1:C:624:LYS:CD	2.25	0.63
1:C:680:ILE:HG13	1:C:769:ILE:HB	1.80	0.63
2:G:1266:TYR:CB	2:G:1347:LEU:HD23	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:835:THR:HG21	2:G:855:HIS:CD2	2.33	0.63
2:H:1422:THR:CG2	2:H:1474:PHE:HB2	2.29	0.63
2:H:1740:THR:HG22	2:H:1742:VAL:HG23	1.79	0.63
2:I:1159:ILE:CG1	2:I:1169:PRO:HD3	2.28	0.63
1:B:421:ILE:HG13	1:B:469:VAL:HG21	1.81	0.63
2:G:1859:PRO:O	2:G:1862:VAL:HG13	1.99	0.63
2:H:598:THR:CG2	2:H:622:GLY:HA3	2.28	0.63
2:I:1195:VAL:HG13	2:I:1211:LEU:HB3	1.79	0.63
2:I:159:ILE:HD11	2:I:512:LEU:HG	1.80	0.63
1:A:330:GLU:HA	1:A:333:LYS:HD2	1.80	0.63
1:B:1721:ARG:CG	1:B:1721:ARG:NH1	2.55	0.63
1:B:444:ASN:HB3	1:B:446:ALA:H	1.63	0.63
1:B:1:MET:HE3	1:B:5:VAL:HG12	1.81	0.63
1:C:158:LYS:HD3	1:C:185:GLU:HB3	1.79	0.63
2:G:115:THR:HB	2:G:118:LYS:HB2	1.80	0.63
2:G:251:VAL:O	2:G:255:LEU:HB2	1.99	0.63
2:H:1475:LYS:CG	2:H:1481:SER:HB2	2.29	0.63
2:H:601:THR:CG2	2:H:618:GLU:O	2.38	0.63
2:H:835:THR:HG22	2:H:845:THR:N	2.14	0.63
2:I:1741:ILE:HG12	2:I:1746:LEU:HD13	1.80	0.63
2:I:1859:PRO:O	2:I:1862:VAL:HG13	1.98	0.63
1:A:1194:ASN:HB3	1:A:1197:THR:CG2	2.28	0.63
1:A:233:ILE:HD13	1:A:237:MET:HE2	1.81	0.63
1:A:436:ALA:O	1:A:440:MET:HG3	1.99	0.63
2:I:241:ILE:HG23	2:I:506:PRO:HG3	1.81	0.63
1:B:27:ARG:HH21	2:H:2015:THR:HA	1.64	0.63
1:C:864:VAL:HG22	1:C:921:PRO:HB3	1.79	0.63
2:G:1360:ILE:HG23	2:G:1403:VAL:O	1.99	0.63
2:G:748:THR:HB	2:G:749:PRO:HD3	1.78	0.63
2:H:892:ILE:HD11	2:H:903:TRP:NE1	2.14	0.63
2:I:1194:VAL:HG12	2:I:1194:VAL:O	1.99	0.63
1:A:460:GLU:HG2	1:A:470:LYS:HD3	1.79	0.63
1:C:742:LYS:HD3	1:C:746:GLU:OE2	1.98	0.63
2:G:490:TRP:O	2:G:494:THR:HG22	1.99	0.63
2:I:115:THR:HB	2:I:118:LYS:HB2	1.80	0.63
2:I:259:THR:HG23	2:I:262:GLU:H	1.64	0.63
2:I:259:THR:OG1	2:I:260:PRO:HD2	1.98	0.63
1:A:411:GLN:HE22	1:A:1628:SER:H	1.47	0.62
1:B:1056:ILE:HD13	1:B:1193:TRP:HD1	1.64	0.62
1:C:956:ALA:O	1:C:959:ILE:HG22	1.98	0.62
2:G:1227:ARG:HG3	2:G:1227:ARG:NH1	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1874:VAL:O	2:H:1878:VAL:HG12	1.98	0.62
2:H:33:LEU:HD11	2:H:80:PHE:HD2	1.63	0.62
1:A:13:LEU:HB2	2:G:2026:PHE:CE1	2.34	0.62
1:A:158:LYS:HD3	1:A:185:GLU:HB3	1.81	0.62
1:B:529:MET:HG3	1:B:638:LEU:HG	1.80	0.62
2:G:943:TRP:CH2	2:G:1016:PRO:HG3	2.34	0.62
2:G:1173:VAL:HG21	2:G:1221:MET:HE1	1.80	0.62
2:G:1378:ILE:HD11	2:G:1381:VAL:CG2	2.29	0.62
2:G:85:ASN:ND2	2:G:135:ARG:HH11	1.97	0.62
2:H:1374:THR:HG23	2:H:1396:LEU:HD12	1.81	0.62
2:H:1931:LEU:HD22	2:H:1935:GLU:HG2	1.81	0.62
2:H:251:VAL:O	2:H:255:LEU:HB2	1.99	0.62
1:A:1259:GLY:HA2	1:A:1263:ASP:HB2	1.81	0.62
1:A:440:MET:HE3	1:A:483:VAL:HG21	1.81	0.62
1:C:254:TRP:CH2	1:C:292:GLN:HG3	2.34	0.62
1:C:529:MET:CG	1:C:638:LEU:HG	2.30	0.62
2:G:726:PHE:O	2:G:762:ASN:HB2	1.98	0.62
2:H:750:MET:HG3	2:H:796:PHE:HZ	1.64	0.62
2:H:856:LYS:HG2	2:H:1054:LEU:HD12	1.81	0.62
2:I:1472:VAL:HG22	2:I:1483:VAL:HG22	1.81	0.62
2:I:1624:THR:HB	2:I:1642:THR:HG23	1.81	0.62
2:I:324:LEU:HD12	2:I:328:LEU:HG	1.82	0.62
1:C:1431:GLU:HG3	1:C:1433:HIS:CE1	2.33	0.62
2:H:1472:VAL:HG22	2:H:1483:VAL:HG22	1.79	0.62
2:H:871:THR:HB	2:H:872:ILE:HD12	1.80	0.62
2:I:1868:GLN:HG3	2:I:1898:TYR:OH	1.99	0.62
2:I:1906:ALA:O	2:I:1910:VAL:HG23	2.00	0.62
1:A:1292:ILE:HD11	1:A:1328:ILE:HD11	1.81	0.62
1:A:1455:ARG:HH11	1:A:1458:GLN:HE21	1.46	0.62
1:B:1584:PRO:HG3	1:B:1591:TRP:CZ3	2.35	0.62
1:B:507:GLY:N	1:B:954:ARG:HG2	2.15	0.62
1:C:1039:MET:O	1:C:1609:ARG:NH2	2.31	0.62
2:G:1102:TYR:HB3	2:G:1244:PRO:HA	1.80	0.62
2:G:1782:THR:HG22	2:G:1827:LEU:HD21	1.81	0.62
2:G:1819:ALA:HA	2:G:2005:ARG:HH11	1.65	0.62
2:H:601:THR:O	2:H:601:THR:HG22	2.00	0.62
1:B:1455:ARG:HH11	1:B:1458:GLN:HE21	1.47	0.62
1:C:822:VAL:HG12	1:C:824:LEU:HD22	1.82	0.62
2:H:1168:ASN:ND2	2:H:1171:ARG:HB2	2.14	0.62
2:I:1740:THR:HG22	2:I:1742:VAL:HG23	1.79	0.62
2:I:464:ASP:HB3	2:I:466:SER:HB3	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:846:VAL:HG13	2:I:865:TRP:NE1	2.15	0.62
1:A:1540:SER:HA	1:A:1575:VAL:HG22	1.81	0.62
1:A:749:ILE:CD1	1:A:805:CYS:HB3	2.29	0.62
1:C:233:ILE:HD13	1:C:237:MET:CE	2.30	0.62
2:G:1908:ASP:HB2	2:G:1958:LEU:HD21	1.81	0.62
2:G:241:ILE:HG23	2:G:506:PRO:HG3	1.80	0.62
2:G:871:THR:HB	2:G:872:ILE:HD12	1.82	0.62
2:H:131:ILE:HD12	2:H:182:VAL:CG1	2.29	0.62
2:I:184:VAL:HG13	2:I:187:LEU:HD21	1.80	0.62
2:I:259:THR:CG2	2:I:262:GLU:H	2.11	0.62
1:C:444:ASN:HB3	1:C:446:ALA:H	1.65	0.62
2:G:1300:PHE:CA	2:G:1556:VAL:HG11	2.29	0.62
2:G:159:ILE:HD11	2:G:512:LEU:HG	1.80	0.62
2:G:641:ILE:HG12	2:G:645:SER:HB2	1.80	0.62
2:H:85:ASN:ND2	2:H:135:ARG:HH11	1.96	0.62
2:I:1805:ALA:HB2	2:I:2011:ILE:HB	1.82	0.62
1:A:1523:ARG:CG	1:A:1523:ARG:NH1	2.57	0.62
1:A:20:TYR:HE1	2:G:2035:SER:HB2	1.60	0.62
1:B:27:ARG:HD2	1:B:30:GLU:OE2	2.00	0.62
1:C:501:THR:N	1:C:886:GLU:OE1	2.21	0.62
2:G:750:MET:HG3	2:G:796:PHE:HZ	1.65	0.62
2:H:490:TRP:O	2:H:494:THR:HG22	2.00	0.62
1:A:1326:ILE:HG12	1:A:1388:MET:HG3	1.82	0.62
2:G:1719:ILE:O	2:G:1761:SER:HB2	2.00	0.62
2:G:1931:LEU:HD22	2:G:1935:GLU:HG2	1.82	0.62
2:H:1149:TRP:CD1	2:H:1213:LEU:HD12	2.34	0.62
2:I:1086:LEU:HD12	2:I:1090:TYR:HB2	1.82	0.62
2:I:1823:SER:OG	2:I:1825:GLU:HG2	2.00	0.62
2:I:745:ASP:HA	2:I:832:TRP:HH2	1.65	0.62
1:C:1057:MET:SD	1:C:1097:ILE:HG23	2.40	0.61
1:C:233:ILE:HD13	1:C:237:MET:HE2	1.80	0.61
1:C:509:ILE:HG12	1:C:951:SER:HB2	1.82	0.61
2:G:1199:GLU:OE2	2:G:1567:ARG:CZ	2.46	0.61
2:G:719:ILE:O	2:G:722:ALA:HB3	2.00	0.61
2:H:100:ASP:OD2	2:H:102:HIS:HD2	1.82	0.61
2:H:159:ILE:HD11	2:H:512:LEU:HG	1.82	0.61
2:H:1675:GLY:O	2:H:1678:MET:HB2	1.99	0.61
1:B:1292:ILE:CD1	1:B:1328:ILE:HD11	2.30	0.61
1:B:631:PRO:HB2	1:B:634:THR:OG1	2.00	0.61
2:H:7:ARG:HE	2:H:27:PHE:HB2	1.64	0.61
2:H:353:VAL:HG23	2:H:357:ASN:HD22	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:158:LYS:HD3	1:B:185:GLU:HB3	1.82	0.61
1:B:340:ARG:HH12	1:B:344:GLN:CG	2.13	0.61
1:B:824:LEU:HD12	1:B:846:LEU:HB3	1.82	0.61
2:H:856:LYS:NZ	2:H:1052:CYS:SG	2.70	0.61
2:H:589:ARG:HB3	2:H:590:PRO:HD2	1.82	0.61
2:I:1054:LEU:HB2	4:I:3051:FMN:HM71	1.82	0.61
2:I:860:ARG:HB3	2:I:898:ASP:HB3	1.81	0.61
1:A:1721:ARG:NH1	1:A:1721:ARG:CG	2.52	0.61
1:B:1555:ALA:HA	1:B:1621:PHE:CE1	2.36	0.61
2:G:1739:GLU:O	2:G:1987:PRO:HG3	2.00	0.61
2:H:1378:ILE:HD11	2:H:1381:VAL:CG2	2.31	0.61
2:H:565:TYR:CZ	2:H:758:ARG:HD2	2.35	0.61
2:H:835:THR:HG21	2:H:855:HIS:NE2	2.14	0.61
2:I:100:ASP:OD2	2:I:102:HIS:HD2	1.83	0.61
2:I:1808:SER:H	2:I:2013:ASN:HD21	1.47	0.61
1:C:20:TYR:CE1	2:I:2035:SER:HB2	2.35	0.61
1:A:24:SER:O	2:G:1977:HIS:HD2	1.84	0.61
1:B:20:TYR:CE1	2:H:2035:SER:HB2	2.35	0.61
1:B:644:THR:HG23	1:B:648:ASP:H	1.65	0.61
1:C:1292:ILE:HD11	1:C:1328:ILE:HD11	1.81	0.61
2:G:324:LEU:HD12	2:G:328:LEU:HG	1.81	0.61
2:H:1086:LEU:HD12	2:H:1090:TYR:HB2	1.83	0.61
2:H:1279:PHE:HB2	2:H:1340:PRO:HG3	1.81	0.61
2:H:174:ARG:NH2	2:H:225:THR:OG1	2.33	0.61
2:H:33:LEU:HD11	2:H:80:PHE:CD2	2.35	0.61
1:C:20:TYR:CG	2:I:2033:THR:OG1	2.53	0.61
2:I:56:THR:HG23	2:I:59:GLU:CG	2.28	0.61
1:A:705:VAL:HG23	1:A:732:LEU:HD21	1.82	0.61
1:B:1431:GLU:HG3	1:B:1433:HIS:CE1	2.36	0.61
1:B:1693:ILE:HD11	2:H:998:GLN:HB2	1.83	0.61
1:B:24:SER:O	2:H:1977:HIS:CD2	2.53	0.61
2:H:603:SER:O	2:H:607:VAL:HG12	2.00	0.61
1:A:644:THR:HG23	1:A:648:ASP:H	1.65	0.61
1:A:822:VAL:HG12	1:A:824:LEU:HD22	1.82	0.61
1:B:1194:ASN:HB3	1:B:1197:THR:CG2	2.30	0.61
1:C:824:LEU:HD12	1:C:846:LEU:HB3	1.82	0.61
2:I:1325:PHE:CZ	2:I:1328:VAL:HG11	2.36	0.61
2:I:1352:HIS:HE1	2:I:1583:MET:HE1	1.65	0.61
1:C:24:SER:HB3	2:I:2014:LEU:HD12	1.82	0.61
2:I:663:ILE:HG13	2:I:694:TYR:HE1	1.66	0.61
1:B:1052:GLU:O	1:B:1056:ILE:HG23	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1594:ASN:O	1:B:1598:GLN:HG3	2.00	0.61
1:A:599:MET:HB2	1:A:624:LYS:CD	2.25	0.61
1:A:488:PRO:HG3	1:A:728:LYS:HG3	1.81	0.61
1:B:1292:ILE:HD11	1:B:1328:ILE:HD11	1.82	0.61
1:B:1360:ARG:HH11	1:B:1364:GLU:HG2	1.66	0.61
2:G:1123:ASP:N	2:G:1123:ASP:OD1	2.34	0.61
2:G:1976:PHE:HB3	2:G:1981:LEU:HD21	1.82	0.61
1:A:11:HIS:ND1	2:G:1998:LYS:HA	2.15	0.61
2:G:601:THR:O	2:G:601:THR:HG22	2.01	0.61
2:H:260:PRO:HD3	2:H:289:TRP:CE2	2.36	0.61
1:A:1:MET:HE3	1:A:5:VAL:HG12	1.82	0.61
2:G:856:LYS:NZ	2:G:1052:CYS:SG	2.69	0.61
2:G:1472:VAL:HG22	2:G:1483:VAL:HG22	1.83	0.61
2:H:1805:ALA:HB2	2:H:2011:ILE:HB	1.83	0.61
2:H:184:VAL:HG13	2:H:187:LEU:HD21	1.83	0.61
2:I:1219:ILE:HD11	2:I:1242:PHE:HB2	1.83	0.61
1:C:504:ASP:CB	1:C:508:ASN:H	2.14	0.60
2:H:846:VAL:HG13	2:H:865:TRP:NE1	2.16	0.60
2:I:565:TYR:CZ	2:I:758:ARG:HD2	2.35	0.60
1:A:32:GLN:HA	1:A:35:PHE:CE2	2.35	0.60
1:B:233:ILE:HD13	1:B:237:MET:HE2	1.82	0.60
2:G:174:ARG:NH2	2:G:225:THR:OG1	2.34	0.60
2:G:33:LEU:HD11	2:G:80:PHE:CD2	2.35	0.60
2:I:856:LYS:NZ	2:I:1052:CYS:SG	2.70	0.60
2:I:1300:PHE:HA	2:I:1556:VAL:HG11	1.84	0.60
1:C:2:LYS:CD	2:I:2050:GLN:HB3	2.30	0.60
2:I:33:LEU:HD11	2:I:80:PHE:CD2	2.36	0.60
1:A:232:LEU:HD22	1:A:269:LEU:HA	1.83	0.60
2:G:1808:SER:H	2:G:2013:ASN:HD21	1.47	0.60
2:G:607:VAL:HA	2:G:617:ILE:HD13	1.82	0.60
2:G:747:HIS:HE1	2:G:780:TYR:OH	1.84	0.60
2:I:1198:SER:HB3	2:I:1205:LEU:HD21	1.82	0.60
2:I:1908:ASP:HB2	2:I:1958:LEU:HD21	1.83	0.60
1:B:400:ARG:HH11	1:B:400:ARG:HG3	1.64	0.60
1:A:20:TYR:OH	2:G:2035:SER:HB2	2.01	0.60
2:G:846:VAL:HG13	2:G:865:TRP:NE1	2.16	0.60
2:H:1198:SER:HB3	2:H:1205:LEU:HD21	1.83	0.60
2:H:1219:ILE:HD11	2:H:1242:PHE:HB2	1.83	0.60
2:H:324:LEU:HD12	2:H:328:LEU:HG	1.84	0.60
2:I:1352:HIS:CD2	2:I:1410:PHE:CE2	2.90	0.60
2:I:1360:ILE:HG23	2:I:1403:VAL:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:674:TYR:HB3	2:I:676:ILE:HG22	1.84	0.60
1:B:1523:ARG:NH1	1:B:1523:ARG:CG	2.59	0.60
1:B:509:ILE:HG12	1:B:951:SER:HB2	1.82	0.60
1:C:221:LEU:O	1:C:225:SER:HB3	2.02	0.60
2:G:1325:PHE:CZ	2:G:1328:VAL:HG11	2.37	0.60
2:G:499:THR:CB	2:G:500:HIS:CD2	2.80	0.60
2:G:61:VAL:HG21	2:G:95:TYR:HE1	1.67	0.60
2:G:926:LEU:HD13	2:G:947:THR:HG22	1.84	0.60
2:H:745:ASP:HA	2:H:832:TRP:HH2	1.66	0.60
2:I:1123:ASP:OD1	2:I:1123:ASP:N	2.35	0.60
2:I:1205:LEU:O	2:I:1206:LYS:HG3	2.00	0.60
2:I:667:LYS:HB2	2:I:698:LEU:HD23	1.82	0.60
2:I:817:ALA:O	2:I:821:ILE:HG13	2.01	0.60
1:C:644:THR:HG23	1:C:648:ASP:H	1.65	0.60
2:G:1822:MET:HE2	2:G:1996:ILE:HG12	1.84	0.60
2:G:816:ASP:HB3	2:G:1048:VAL:HG21	1.83	0.60
2:H:1624:THR:HB	2:H:1642:THR:HG23	1.82	0.60
2:I:1976:PHE:HB3	2:I:1981:LEU:HD21	1.83	0.60
2:I:589:ARG:HB3	2:I:590:PRO:HD2	1.83	0.60
1:A:1194:ASN:O	1:A:1197:THR:HG23	2.02	0.60
1:A:529:MET:HG3	1:A:638:LEU:HG	1.84	0.60
1:B:513:GLU:OE2	1:B:873:ARG:NH1	2.33	0.60
2:G:184:VAL:HG13	2:G:187:LEU:HD21	1.84	0.60
2:G:271:THR:OG1	2:G:460:TYR:HB2	2.01	0.60
2:I:33:LEU:HD11	2:I:80:PHE:HD2	1.65	0.60
1:A:233:ILE:HD13	1:A:237:MET:CE	2.32	0.60
1:C:1062:TYR:CD2	1:C:1693:ILE:HG23	2.36	0.60
2:H:1149:TRP:CD1	2:H:1213:LEU:CD1	2.85	0.60
2:H:1739:GLU:O	2:H:1987:PRO:HG3	2.02	0.60
2:I:1986:LYS:N	2:I:1987:PRO:HD2	2.16	0.60
1:B:1657:HIS:ND1	1:B:1658:PRO:HD2	2.17	0.60
1:B:604:ALA:HB3	1:B:612:GLU:HG2	1.82	0.60
1:C:529:MET:HG3	1:C:638:LEU:HG	1.82	0.60
2:G:732:TRP:CD2	2:G:750:MET:CE	2.85	0.60
2:G:892:ILE:HD11	2:G:903:TRP:NE1	2.17	0.60
2:H:719:ILE:O	2:H:722:ALA:HB3	2.02	0.60
1:B:1021:VAL:HG11	1:B:1597:LEU:HD11	1.83	0.60
1:B:1057:MET:SD	1:B:1097:ILE:HG23	2.42	0.60
1:C:1662:TYR:O	1:C:1665:ILE:HG22	2.01	0.60
2:H:1093:ASP:HB3	2:H:1096:LYS:HG3	1.84	0.60
2:I:1874:VAL:O	2:I:1878:VAL:HG12	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1989:LYS:O	2:I:1993:LYS:HG3	2.02	0.60
2:I:601:THR:HG22	2:I:601:THR:O	2.02	0.60
2:I:741:HIS:CB	2:I:853:PRO:HB2	2.32	0.60
1:B:1189:ILE:HD12	1:B:1380:GLN:HG3	1.82	0.59
1:C:1461:ASP:O	1:C:1465:ASN:HB2	2.02	0.59
1:C:1585:LYS:HB3	3:C:2748:CER:H52	1.84	0.59
2:G:100:ASP:OD2	2:G:102:HIS:HD2	1.85	0.59
2:G:598:THR:CG2	2:G:622:GLY:HA3	2.30	0.59
2:H:1494:PRO:HB2	2:H:1823:SER:HB2	1.84	0.59
2:I:732:TRP:CD2	2:I:750:MET:CE	2.84	0.59
1:A:37:LYS:HB2	1:A:65:TYR:HE1	1.67	0.59
1:A:67:SER:OG	2:I:359:HIS:HE1	1.85	0.59
1:B:1062:TYR:CD2	1:B:1693:ILE:HG23	2.36	0.59
1:B:1184:LEU:HB2	1:B:1352:THR:HG21	1.83	0.59
1:B:80:CYS:SG	1:B:82:SER:HB3	2.42	0.59
2:H:813:THR:HB	2:H:818:LYS:HE3	1.84	0.59
2:I:1378:ILE:HD11	2:I:1381:VAL:HG21	1.84	0.59
2:I:163:GLN:CG	2:I:423:VAL:HG12	2.32	0.59
1:A:435:GLU:O	1:A:439:ILE:HG13	2.03	0.59
1:B:32:GLN:HA	1:B:35:PHE:CE2	2.38	0.59
1:B:680:ILE:HG13	1:B:769:ILE:HB	1.83	0.59
1:C:705:VAL:HG23	1:C:732:LEU:HD21	1.83	0.59
2:G:594:VAL:HG21	2:G:610:THR:HG21	1.84	0.59
2:H:1314:ARG:NH1	2:H:1314:ARG:CG	2.62	0.59
2:I:1575:LEU:HD13	2:I:1579:ILE:HD12	1.84	0.59
1:A:1584:PRO:HG3	1:A:1591:TRP:CZ3	2.37	0.59
1:B:1259:GLY:HA2	1:B:1263:ASP:HB2	1.84	0.59
1:B:221:LEU:O	1:B:225:SER:HB3	2.02	0.59
1:C:421:ILE:CG1	1:C:469:VAL:HG21	2.32	0.59
1:C:56:MET:HG3	2:I:1893:VAL:CG2	2.32	0.59
2:G:2038:ILE:O	2:G:2042:ILE:HG12	2.02	0.59
2:G:565:TYR:CZ	2:G:758:ARG:HD2	2.37	0.59
2:G:754:TYR:CD2	2:G:794:MET:HG3	2.38	0.59
2:H:1223:MET:HE3	2:H:1238:LEU:HD12	1.84	0.59
2:H:409:PHE:HB3	2:H:833:GLU:OE1	2.02	0.59
2:H:241:ILE:HG23	2:H:506:PRO:HG3	1.83	0.59
2:H:860:ARG:HB3	2:H:898:ASP:HB3	1.83	0.59
2:I:658:MET:HA	2:I:661:TRP:NE1	2.17	0.59
1:A:1432:HIS:CE1	1:A:1434:SER:OG	2.55	0.59
1:B:233:ILE:HD13	1:B:237:MET:CE	2.32	0.59
1:B:956:ALA:O	1:B:959:ILE:HG22	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1194:ASN:O	1:C:1197:THR:HG23	2.02	0.59
1:C:1492:GLU:O	1:C:1496:GLU:HG3	2.01	0.59
2:G:1805:ALA:HB2	2:G:2011:ILE:HB	1.84	0.59
2:G:443:LEU:HD22	2:G:448:VAL:HG11	1.84	0.59
2:I:1149:TRP:CD1	2:I:1213:LEU:HD12	2.37	0.59
2:I:85:ASN:ND2	2:I:135:ARG:HH11	1.99	0.59
2:I:402:LEU:HD13	2:I:402:LEU:O	2.02	0.59
1:B:504:ASP:CB	1:B:508:ASN:H	2.15	0.59
1:C:1584:PRO:HG3	1:C:1591:TRP:CZ3	2.38	0.59
2:G:1195:VAL:HG13	2:G:1211:LEU:HB3	1.84	0.59
2:G:603:SER:O	2:G:607:VAL:HG12	2.03	0.59
2:G:932:ILE:HD11	2:G:1042:ALA:CB	2.24	0.59
2:H:817:ALA:O	2:H:821:ILE:HG13	2.02	0.59
1:A:417:TYR:OH	1:A:458:THR:HG22	2.02	0.59
1:A:516:ARG:NH2	1:A:889:GLU:OE1	2.35	0.59
1:B:1585:LYS:HB3	3:B:2748:CER:H52	1.85	0.59
1:C:733:ILE:HD12	1:C:761:LEU:HD21	1.85	0.59
2:H:663:ILE:HG13	2:H:694:TYR:HE1	1.66	0.59
2:H:726:PHE:O	2:H:762:ASN:HB2	2.03	0.59
2:I:1086:LEU:HD12	2:I:1090:TYR:CB	2.33	0.59
2:I:1496:LYS:HE2	2:I:1693:ARG:HH21	1.67	0.59
2:I:99:ASN:HA	2:I:550:VAL:CG2	2.32	0.59
1:A:409:ALA:HB2	1:A:442:ARG:HD2	1.84	0.59
2:G:131:ILE:CG2	2:G:182:VAL:CG1	2.80	0.59
2:H:197:GLU:HA	2:H:197:GLU:OE1	2.02	0.59
2:H:455:ILE:HG13	2:H:469:ARG:HD3	1.83	0.59
1:A:50:SER:HB2	1:A:51:PRO:HD3	1.85	0.59
1:C:1555:ALA:HA	1:C:1621:PHE:CE1	2.38	0.59
2:G:1086:LEU:HD12	2:G:1090:TYR:HB2	1.84	0.59
2:G:402:LEU:HD13	2:G:402:LEU:O	2.03	0.59
2:H:2038:ILE:O	2:H:2042:ILE:HG12	2.03	0.59
1:B:1474:ALA:O	1:B:1478:PRO:HD2	2.03	0.59
1:B:417:TYR:OH	1:B:458:THR:HG22	2.03	0.59
2:G:1210:ILE:HB	2:G:1222:GLU:HB3	1.85	0.59
2:G:1293:THR:CG2	2:G:1296:GLU:H	2.14	0.59
2:G:1374:THR:HG23	2:G:1396:LEU:HD12	1.85	0.59
2:H:1130:THR:H	2:H:1133:THR:HG23	1.68	0.59
2:H:259:THR:OG1	2:H:260:PRO:HD2	2.03	0.59
2:I:174:ARG:NH2	2:I:225:THR:OG1	2.36	0.59
2:I:353:VAL:HG23	2:I:357:ASN:ND2	2.18	0.59
2:I:490:TRP:O	2:I:494:THR:HG22	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1524:GLY:O	1:A:1528:THR:HG23	2.03	0.58
1:A:1585:LYS:HB3	3:A:2748:CER:H52	1.85	0.58
1:B:1234:MET:HG2	1:B:1326:ILE:HD12	1.85	0.58
1:C:488:PRO:HG3	1:C:728:LYS:HG3	1.83	0.58
2:G:1198:SER:HB3	2:G:1205:LEU:HD21	1.85	0.58
2:G:1279:PHE:HB2	2:G:1340:PRO:HG3	1.85	0.58
2:G:1378:ILE:HD11	2:G:1381:VAL:HG21	1.85	0.58
2:H:273:HIS:HB3	2:H:512:LEU:HD22	1.85	0.58
2:I:455:ILE:HG13	2:I:469:ARG:HD3	1.85	0.58
1:A:421:ILE:HG12	1:A:469:VAL:HG21	1.85	0.58
1:A:531:LEU:HD21	1:A:629:THR:HG22	1.85	0.58
1:B:1392:LEU:HD22	1:B:1396:MET:HG3	1.84	0.58
1:C:1657:HIS:ND1	1:C:1658:PRO:HD2	2.17	0.58
1:C:749:ILE:CD1	1:C:805:CYS:HB3	2.32	0.58
1:C:80:CYS:SG	1:C:82:SER:HB3	2.42	0.58
2:G:1149:TRP:CD1	2:G:1213:LEU:HD12	2.38	0.58
2:H:1010:PRO:O	2:H:1011:MET:HB2	2.03	0.58
2:H:665:LEU:O	2:H:669:LEU:HB2	2.04	0.58
2:I:1822:MET:CE	2:I:1996:ILE:HG12	2.34	0.58
2:I:499:THR:CB	2:I:500:HIS:CD2	2.79	0.58
2:I:907:VAL:O	2:I:910:GLN:HB3	2.03	0.58
1:B:37:LYS:HB2	1:B:65:TYR:HE1	1.69	0.58
2:G:166:THR:HG22	2:G:168:ASP:N	2.19	0.58
2:G:28:PHE:CZ	2:H:7:ARG:NE	2.70	0.58
2:I:1227:ARG:NH1	2:I:1227:ARG:CG	2.55	0.58
2:I:1374:THR:HG23	2:I:1396:LEU:HD12	1.83	0.58
2:I:601:THR:CG2	2:I:618:GLU:O	2.39	0.58
1:A:260:ARG:HH12	1:A:300:VAL:HG21	1.68	0.58
1:A:444:ASN:HB3	1:A:446:ALA:H	1.66	0.58
1:B:409:ALA:HB2	1:B:442:ARG:HD2	1.86	0.58
1:C:1233:GLU:OE2	1:C:1680:ARG:NH2	2.36	0.58
1:C:24:SER:O	2:I:1977:HIS:CD2	2.54	0.58
2:H:1103:PHE:O	2:H:1247:GLY:HA3	2.03	0.58
2:H:1360:ILE:HG23	2:H:1403:VAL:O	2.04	0.58
2:I:127:ILE:O	2:I:131:ILE:HG13	2.03	0.58
2:I:736:ARG:NH1	2:I:769:SER:O	2.36	0.58
1:B:436:ALA:O	1:B:440:MET:HG3	2.04	0.58
1:C:1009:LEU:HA	1:C:1445:MET:HE2	1.85	0.58
1:C:232:LEU:HD22	1:C:269:LEU:HA	1.83	0.58
2:G:1597:ALA:HB1	2:G:1638:ILE:CD1	2.33	0.58
2:G:1823:SER:OG	2:G:1825:GLU:HG2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:807:ILE:CG2	2:G:1066:ILE:HA	2.34	0.58
2:H:271:THR:OG1	2:H:460:TYR:HB2	2.03	0.58
2:H:499:THR:CB	2:H:500:HIS:CD2	2.81	0.58
2:H:762:ASN:H	2:H:762:ASN:ND2	1.85	0.58
2:I:1269:LEU:O	2:I:1560:LEU:HD23	2.03	0.58
1:A:986:ALA:HB2	1:A:1047:LEU:HD13	1.85	0.58
1:B:1461:ASP:O	1:B:1465:ASN:HB2	2.03	0.58
1:C:1665:ILE:HD11	1:C:1669:ARG:HG2	1.85	0.58
1:C:232:LEU:HD13	1:C:272:GLU:HB2	1.85	0.58
1:C:340:ARG:HH12	1:C:344:GLN:CG	2.13	0.58
1:C:421:ILE:HG13	1:C:469:VAL:HG21	1.84	0.58
2:G:1223:MET:HE3	2:G:1238:LEU:HD12	1.85	0.58
2:G:131:ILE:CG2	2:G:182:VAL:HG12	2.33	0.58
2:G:907:VAL:O	2:G:910:GLN:HB3	2.02	0.58
2:I:707:PRO:HG2	2:I:730:LEU:HD13	1.85	0.58
1:A:1600:LEU:HD13	1:A:1657:HIS:HA	1.85	0.58
1:C:419:GLU:HG2	1:C:424:VAL:HB	1.86	0.58
2:G:1159:ILE:CG1	2:G:1169:PRO:HD3	2.33	0.58
2:G:260:PRO:HD3	2:G:289:TRP:CE2	2.38	0.58
2:G:674:TYR:HB3	2:G:676:ILE:HG22	1.85	0.58
1:B:29:ILE:HG13	2:H:1891:TYR:C	2.23	0.58
2:H:490:TRP:CH2	2:H:512:LEU:HD21	2.39	0.58
2:H:543:PHE:CB	2:H:545:GLN:HE22	2.17	0.58
2:I:942:THR:HG21	2:I:1012:GLN:HA	1.85	0.58
1:C:968:VAL:O	2:I:1512:HIS:HB2	2.04	0.58
2:I:1719:ILE:O	2:I:1761:SER:HB2	2.01	0.58
1:B:198:PRO:CG	1:B:209:LEU:HD21	2.26	0.58
1:B:286:PHE:O	1:B:290:MET:HG2	2.03	0.58
1:C:1020:VAL:HG13	1:C:1400:ILE:HG23	1.84	0.58
2:G:638:VAL:HA	2:G:641:ILE:HG22	1.86	0.58
2:H:163:GLN:CG	2:H:423:VAL:HG12	2.32	0.58
2:I:1822:MET:HE2	2:I:1996:ILE:HG12	1.86	0.58
1:A:198:PRO:CG	1:A:209:LEU:HD21	2.28	0.58
1:A:987:ASN:HD22	2:G:957:ARG:HD2	1.68	0.58
1:B:1473:GLU:O	1:B:1478:PRO:HD3	2.04	0.58
1:B:1662:TYR:O	1:B:1665:ILE:HG22	2.04	0.58
1:B:232:LEU:HD22	1:B:269:LEU:HA	1.85	0.58
1:B:749:ILE:CD1	1:B:805:CYS:HB3	2.33	0.58
1:C:1247:SER:HB2	1:C:1332:TYR:HE2	1.68	0.58
2:G:1359:MET:HA	2:G:1359:MET:HE3	1.86	0.58
1:A:20:TYR:CZ	2:G:2035:SER:HB2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:232:LEU:HD23	2:G:232:LEU:O	2.03	0.58
2:G:273:HIS:HB3	2:G:512:LEU:HD22	1.86	0.58
2:G:611:THR:CG2	2:G:641:ILE:HG13	2.34	0.58
2:G:817:ALA:O	2:G:821:ILE:HG13	2.04	0.58
2:G:860:ARG:HB3	2:G:898:ASP:HB3	1.85	0.58
2:H:1210:ILE:HB	2:H:1222:GLU:HB3	1.85	0.58
1:C:27:ARG:HH21	2:I:2015:THR:HA	1.68	0.58
1:A:1062:TYR:CD2	1:A:1693:ILE:HG23	2.39	0.57
1:A:1189:ILE:HD12	1:A:1380:GLN:HG3	1.86	0.57
1:A:1419:PRO:HB3	1:A:1646:PHE:CZ	2.39	0.57
1:A:329:GLU:O	1:A:333:LYS:HG3	2.04	0.57
1:B:1247:SER:HB2	1:B:1332:TYR:HE2	1.69	0.57
1:B:419:GLU:HG2	1:B:424:VAL:HB	1.86	0.57
1:C:1219:VAL:CA	1:C:1384:ILE:HD11	2.27	0.57
1:C:433:VAL:O	1:C:437:ILE:HG13	2.04	0.57
2:G:146:PHE:HA	2:G:149:VAL:HG12	1.86	0.57
2:G:376:ASN:HD22	2:G:377:LEU:N	2.02	0.57
2:G:526:ARG:HH11	2:G:558:ASN:HD21	1.49	0.57
2:G:56:THR:HG23	2:G:59:GLU:CG	2.29	0.57
2:G:7:ARG:NH1	2:G:24:THR:HA	2.19	0.57
2:I:239:PRO:HG3	2:I:304:PHE:HA	1.86	0.57
2:I:376:ASN:HD22	2:I:377:LEU:N	2.02	0.57
1:A:1056:ILE:CD1	1:A:1193:TRP:HD1	2.17	0.57
1:A:1203:ASP:HB3	1:B:179:LYS:HZ1	1.68	0.57
1:A:1247:SER:HB2	1:A:1332:TYR:HE2	1.66	0.57
1:A:11:HIS:O	1:A:15:THR:HG22	2.04	0.57
1:B:1496:GLU:O	1:B:1500:GLN:HG3	2.03	0.57
1:B:232:LEU:HD13	1:B:272:GLU:HB2	1.87	0.57
1:C:1052:GLU:O	1:C:1056:ILE:HG23	2.04	0.57
2:G:1149:TRP:CD1	2:G:1213:LEU:CD1	2.87	0.57
2:G:658:MET:HA	2:G:661:TRP:NE1	2.19	0.57
2:H:1331:TRP:CE2	2:H:1335:ILE:HG13	2.38	0.57
2:H:722:ALA:HB1	2:H:723:HIS:CE1	2.38	0.57
2:I:726:PHE:O	2:I:762:ASN:HB2	2.04	0.57
1:A:1538:VAL:HB	1:A:1639:VAL:HG22	1.86	0.57
1:B:1022:THR:HG22	1:B:1226:SER:HB2	1.87	0.57
1:B:1125:VAL:HG21	1:B:1175:ILE:HD12	1.86	0.57
1:B:50:SER:HB2	1:B:51:PRO:HD3	1.86	0.57
1:C:1056:ILE:CD1	1:C:1193:TRP:HD1	2.16	0.57
2:G:942:THR:HG21	2:G:1012:GLN:HA	1.86	0.57
2:G:826:GLY:O	2:G:827:VAL:HG23	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:124:LYS:HG2	2:H:179:THR:HA	1.86	0.57
1:B:413:LEU:HD13	1:B:451:MET:HG2	1.85	0.57
1:B:705:VAL:HG23	1:B:732:LEU:HD21	1.85	0.57
2:G:163:GLN:CG	2:G:423:VAL:HG12	2.33	0.57
2:H:1086:LEU:HD12	2:H:1090:TYR:CB	2.34	0.57
2:H:1231:GLY:O	2:H:1233:PRO:HD3	2.04	0.57
2:H:1567:ARG:HH12	2:H:1568:HIS:HB3	1.70	0.57
2:H:1908:ASP:HB2	2:H:1958:LEU:HD21	1.86	0.57
2:H:601:THR:HG22	2:H:620:ALA:H	1.69	0.57
2:H:732:TRP:CG	2:H:750:MET:HE3	2.39	0.57
2:H:907:VAL:O	2:H:910:GLN:HB3	2.03	0.57
2:I:145:LEU:O	2:I:149:VAL:HG12	2.03	0.57
2:I:654:VAL:HG23	2:I:683:ALA:HB1	1.87	0.57
1:A:232:LEU:HD13	1:A:272:GLU:HB2	1.85	0.57
1:C:1189:ILE:HD12	1:C:1380:GLN:HG3	1.86	0.57
1:C:1600:LEU:HD13	1:C:1657:HIS:HA	1.87	0.57
1:C:198:PRO:CG	1:C:209:LEU:HD21	2.28	0.57
1:C:771:PHE:CD1	1:C:825:PRO:HG3	2.40	0.57
2:G:1010:PRO:O	2:G:1011:MET:HB2	2.05	0.57
2:G:932:ILE:CD1	2:G:1042:ALA:HB2	2.24	0.57
2:H:736:ARG:NH1	2:H:769:SER:O	2.36	0.57
2:H:89:THR:O	2:H:93:ASN:HB2	2.04	0.57
2:I:1130:THR:H	2:I:1133:THR:HG23	1.69	0.57
1:A:604:ALA:HB3	1:A:612:GLU:HG2	1.86	0.57
1:A:828:PRO:HG3	1:A:868:ILE:HG22	1.86	0.57
1:B:980:VAL:HG21	2:H:952:ARG:HH21	1.70	0.57
1:C:1184:LEU:HB2	1:C:1352:THR:HG21	1.85	0.57
1:C:1473:GLU:O	1:C:1478:PRO:HD3	2.05	0.57
1:C:251:GLN:HA	1:C:256:LEU:H	1.69	0.57
2:G:1314:ARG:CG	2:G:1314:ARG:NH1	2.61	0.57
2:G:1954:LYS:HD3	2:G:1958:LEU:HD13	1.86	0.57
2:G:517:HIS:C	2:G:517:HIS:CD2	2.78	0.57
2:H:1782:THR:HG22	2:H:1827:LEU:HD21	1.86	0.57
2:H:522:GLY:HA3	2:H:561:TRP:CZ3	2.40	0.57
2:H:732:TRP:CG	2:H:750:MET:HE1	2.40	0.57
2:I:2038:ILE:O	2:I:2042:ILE:HG12	2.04	0.57
2:I:813:THR:HB	2:I:818:LYS:HE3	1.85	0.57
1:A:988:ILE:HA	1:A:1048:GLU:HG2	1.84	0.57
1:A:655:LEU:CD2	1:A:916:LEU:HD11	2.35	0.57
2:G:1775:GLN:HG2	2:G:1836:MET:SD	2.44	0.57
2:G:1778:GLN:HB3	2:G:1831:VAL:HG13	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1890:ASN:HB2	2:G:1899:VAL:HB	1.86	0.57
2:G:741:HIS:HE1	2:G:845:THR:HG22	1.58	0.57
2:H:166:THR:HG22	2:H:168:ASP:N	2.19	0.57
2:H:61:VAL:HG21	2:H:95:TYR:HE1	1.69	0.57
2:I:665:LEU:O	2:I:669:LEU:HB2	2.05	0.57
1:A:1285:ALA:O	1:A:1289:MET:HG3	2.04	0.57
1:A:1474:ALA:O	1:A:1478:PRO:HD2	2.04	0.57
1:A:680:ILE:HG13	1:A:769:ILE:HB	1.87	0.57
1:B:140:ILE:HD13	1:B:255:GLY:O	2.05	0.57
1:B:440:MET:HE3	1:B:483:VAL:HG21	1.87	0.57
2:G:1266:TYR:CG	2:G:1347:LEU:HD23	2.40	0.57
2:G:703:LEU:HD21	2:G:705:LEU:HD21	1.86	0.57
2:H:1123:ASP:OD1	2:H:1123:ASP:N	2.36	0.57
2:H:1100:VAL:HG21	2:H:1147:ILE:CD1	2.34	0.57
2:H:1575:LEU:HD13	2:H:1579:ILE:HD12	1.85	0.57
2:H:2029:VAL:O	2:H:2033:THR:HG22	2.05	0.57
2:H:732:TRP:CD2	2:H:750:MET:CE	2.87	0.57
2:I:1292:ILE:O	2:I:1368:VAL:O	2.23	0.57
2:I:273:HIS:HB3	2:I:512:LEU:HD22	1.87	0.57
2:I:353:VAL:HG23	2:I:357:ASN:HD22	1.69	0.57
1:A:415:SER:O	1:A:419:GLU:HB2	2.05	0.57
1:A:80:CYS:SG	1:A:82:SER:HB3	2.45	0.57
1:C:1474:ALA:O	1:C:1478:PRO:HD2	2.04	0.57
2:G:1168:ASN:ND2	2:G:1171:ARG:HB2	2.20	0.57
2:G:1547:PRO:HD3	2:G:1584:PHE:CE2	2.40	0.57
2:G:463:PHE:HD1	2:G:486:LEU:HD13	1.70	0.57
2:G:455:ILE:HG13	2:G:469:ARG:HD3	1.86	0.57
2:G:584:SER:HA	2:G:587:ILE:HG23	1.87	0.57
2:G:667:LYS:HB2	2:G:698:LEU:HD23	1.85	0.57
2:G:89:THR:O	2:G:93:ASN:HB2	2.05	0.57
2:H:777:THR:CG2	2:H:1081:HIS:CE1	2.88	0.57
2:H:127:ILE:O	2:H:131:ILE:HG13	2.04	0.57
2:H:1589:VAL:HG11	2:H:1640:PHE:CE1	2.39	0.57
2:I:777:THR:CG2	2:I:1081:HIS:CE1	2.88	0.57
2:I:1199:GLU:OE2	2:I:1567:ARG:NH1	2.37	0.57
2:I:463:PHE:HD1	2:I:486:LEU:HD13	1.70	0.57
2:I:807:ILE:CG2	2:I:1066:ILE:HA	2.35	0.57
1:B:1431:GLU:HB3	1:B:1520:ALA:HB2	1.86	0.57
1:B:529:MET:HE3	1:B:529:MET:CA	2.31	0.57
1:B:742:LYS:HD3	1:B:746:GLU:OE2	2.05	0.57
1:C:341:GLN:O	1:C:345:VAL:HG12	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1675:GLY:O	2:G:1678:MET:HB2	2.05	0.57
2:H:1266:TYR:CG	2:H:1347:LEU:HD23	2.40	0.57
2:H:1871:LEU:HD22	2:H:1888:ILE:HD11	1.85	0.57
2:H:1976:PHE:HA	2:H:1981:LEU:HD22	1.86	0.57
2:I:1210:ILE:HB	2:I:1222:GLU:HB3	1.85	0.57
2:I:1231:GLY:O	2:I:1233:PRO:HD3	2.05	0.57
2:I:2029:VAL:O	2:I:2033:THR:HG22	2.05	0.57
2:I:607:VAL:HA	2:I:617:ILE:HD13	1.86	0.57
1:A:263:GLY:O	1:A:267:VAL:HG23	2.05	0.56
1:A:742:LYS:HD3	1:A:746:GLU:OE2	2.05	0.56
1:B:1524:GLY:O	1:B:1528:THR:HG23	2.05	0.56
1:B:152:HIS:HD2	1:B:163:LEU:HB2	1.66	0.56
1:B:251:GLN:HA	1:B:256:LEU:H	1.70	0.56
2:G:1868:GLN:HG3	2:G:1898:TYR:OH	2.04	0.56
2:G:653:TYR:CD1	2:G:659:LEU:HD21	2.39	0.56
1:B:964:GLU:HG2	2:H:1515:PRO:HB3	1.86	0.56
2:H:517:HIS:CD2	2:H:517:HIS:C	2.78	0.56
2:H:526:ARG:HH11	2:H:558:ASN:HD21	1.53	0.56
2:H:56:THR:HG23	2:H:59:GLU:CG	2.32	0.56
2:H:653:TYR:CD1	2:H:659:LEU:HD21	2.40	0.56
2:H:740:HIS:CE1	2:H:852:GLU:OE1	2.58	0.56
2:I:120:LYS:O	2:I:124:LYS:HG3	2.05	0.56
2:I:2030:TYR:CE1	2:I:2034:GLY:HA2	2.39	0.56
1:A:419:GLU:HG2	1:A:424:VAL:HB	1.86	0.56
1:C:1326:ILE:HG12	1:C:1388:MET:HG3	1.86	0.56
1:C:1524:GLY:O	1:C:1528:THR:HG23	2.05	0.56
1:C:1538:VAL:HB	1:C:1639:VAL:HG22	1.86	0.56
1:C:626:VAL:HG23	1:C:664:GLU:OE2	2.05	0.56
2:G:1567:ARG:HG3	2:G:1568:HIS:N	2.20	0.56
2:G:1804:PHE:CZ	2:G:2010:TYR:HB2	2.40	0.56
2:G:654:VAL:HG23	2:G:683:ALA:HB1	1.87	0.56
2:H:1352:HIS:HE1	2:H:1583:MET:HE1	1.69	0.56
2:H:638:VAL:HA	2:H:641:ILE:HG22	1.86	0.56
2:G:28:PHE:HZ	2:H:7:ARG:NE	2.02	0.56
2:H:839:PRO:HA	2:H:844:VAL:HG13	1.86	0.56
2:H:926:LEU:HD13	2:H:947:THR:HG22	1.86	0.56
2:I:1223:MET:HE3	2:I:1238:LEU:HD12	1.87	0.56
2:I:197:GLU:OE1	2:I:197:GLU:HA	2.05	0.56
1:C:20:TYR:HE1	2:I:2035:SER:HB2	1.69	0.56
2:I:281:VAL:HG23	2:I:459:VAL:HG11	1.87	0.56
2:I:741:HIS:HB3	2:I:853:PRO:HB2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:89:THR:O	2:I:93:ASN:HB2	2.05	0.56
1:A:1014:ASP:N	1:A:1510:ASN:HD21	1.92	0.56
1:B:152:HIS:CE1	1:B:168:MET:HG3	2.40	0.56
2:G:1194:VAL:HG12	2:G:1194:VAL:O	2.05	0.56
2:G:1989:LYS:O	2:G:1993:LYS:HG3	2.05	0.56
2:G:1086:LEU:HD12	2:G:1090:TYR:CB	2.35	0.56
2:G:663:ILE:HG13	2:G:694:TYR:HE1	1.70	0.56
2:H:702:TYR:CB	2:H:727:PRO:HB2	2.36	0.56
2:I:1149:TRP:CD1	2:I:1213:LEU:CD1	2.88	0.56
2:I:443:LEU:HD22	2:I:448:VAL:HG11	1.87	0.56
2:I:481:ASP:OD2	2:I:485:ARG:NH1	2.38	0.56
2:I:490:TRP:CH2	2:I:512:LEU:HD21	2.40	0.56
2:I:543:PHE:CB	2:I:545:GLN:HE22	2.17	0.56
1:B:488:PRO:HG3	1:B:728:LYS:HG3	1.87	0.56
1:C:635:ILE:HG22	1:C:651:TYR:CD1	2.41	0.56
2:G:813:THR:HB	2:G:818:LYS:HE3	1.87	0.56
2:H:1223:MET:CE	2:H:1238:LEU:HD12	2.35	0.56
2:H:1834:ARG:NH1	2:H:1834:ARG:CG	2.60	0.56
2:H:376:ASN:HD22	2:H:377:LEU:N	2.03	0.56
2:H:835:THR:HG22	2:H:844:VAL:C	2.26	0.56
2:I:1722:GLY:N	2:I:1726:GLY:HA3	2.21	0.56
2:I:1804:PHE:CZ	2:I:2010:TYR:HB2	2.40	0.56
1:A:1009:LEU:HA	1:A:1445:MET:HE2	1.87	0.56
1:A:21:GLN:O	2:G:1977:HIS:CD2	2.59	0.56
1:B:411:GLN:HE22	1:B:1628:SER:H	1.52	0.56
1:C:152:HIS:HD2	1:C:163:LEU:HB2	1.63	0.56
2:G:1834:ARG:HH11	2:G:1834:ARG:CG	2.03	0.56
2:G:543:PHE:CB	2:G:545:GLN:HE22	2.17	0.56
2:G:758:ARG:NH2	2:G:797:ASP:OD1	2.33	0.56
2:H:120:LYS:O	2:H:124:LYS:HG3	2.06	0.56
2:H:606:PHE:HZ	2:H:805:VAL:HG11	1.68	0.56
1:A:1057:MET:SD	1:A:1097:ILE:HG23	2.45	0.56
1:A:221:LEU:O	1:A:225:SER:HB3	2.05	0.56
1:B:1419:PRO:HB3	1:B:1646:PHE:CZ	2.40	0.56
1:C:1022:THR:HG22	1:C:1226:SER:HB2	1.87	0.56
1:C:741:SER:HB3	1:C:744:ASP:HB2	1.86	0.56
2:H:1920:GLN:HG2	2:H:1922:ILE:HD11	1.87	0.56
1:B:1009:LEU:HG	1:B:1664:ALA:HB2	1.87	0.56
1:C:695:GLY:HA3	1:C:906:LEU:HD11	1.88	0.56
2:G:1722:GLY:N	2:G:1726:GLY:HA3	2.21	0.56
2:G:634:ILE:HD11	2:G:649:ILE:CD1	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1890:ASN:HB2	2:H:1899:VAL:HB	1.88	0.56
2:H:443:LEU:HD22	2:H:448:VAL:HG11	1.86	0.56
2:H:463:PHE:HD1	2:H:486:LEU:HD13	1.71	0.56
2:I:1567:ARG:HH12	2:I:1568:HIS:HB3	1.71	0.56
2:I:835:THR:HG23	2:I:843:ILE:O	2.05	0.56
1:A:1036:ARG:NH1	1:A:1040:GLU:OE1	2.39	0.56
1:A:152:HIS:CE1	1:A:168:MET:HG3	2.41	0.56
1:A:251:GLN:HA	1:A:256:LEU:H	1.68	0.56
1:B:1138:LYS:HG3	1:B:1163:TYR:CE1	2.41	0.56
1:B:1492:GLU:O	1:B:1496:GLU:HG3	2.06	0.56
1:B:644:THR:HG22	1:B:648:ASP:O	2.06	0.56
2:G:577:ILE:HD13	2:G:1097:ILE:CD1	2.35	0.56
2:G:589:ARG:HB3	2:G:590:PRO:HD2	1.87	0.56
2:G:599:PRO:HD2	4:G:3051:FMN:H6	1.88	0.56
2:H:1868:GLN:HG3	2:H:1898:TYR:OH	2.05	0.56
2:H:607:VAL:HA	2:H:617:ILE:HD13	1.88	0.56
2:I:601:THR:HG22	2:I:620:ALA:H	1.71	0.56
2:I:702:TYR:CB	2:I:727:PRO:HB2	2.36	0.56
2:I:732:TRP:CG	2:I:750:MET:HE3	2.39	0.56
2:I:774:ALA:HB1	2:I:1081:HIS:CD2	2.33	0.56
2:I:871:THR:HB	2:I:872:ILE:HD12	1.88	0.56
1:B:529:MET:HG2	1:B:638:LEU:CD1	2.35	0.56
1:C:1259:GLY:HA2	1:C:1263:ASP:HB2	1.87	0.56
1:C:329:GLU:O	1:C:333:LYS:HG3	2.06	0.56
1:C:531:LEU:HD21	1:C:629:THR:HG22	1.88	0.56
1:C:881:ASN:HA	1:C:944:ARG:HH21	1.70	0.56
2:G:1130:THR:H	2:G:1133:THR:HG23	1.70	0.56
2:G:1422:THR:CG2	2:G:1474:PHE:HB2	2.36	0.56
2:G:1567:ARG:HH12	2:G:1568:HIS:HB3	1.71	0.56
2:G:702:TYR:CB	2:G:727:PRO:HB2	2.35	0.56
2:H:1100:VAL:HG21	2:H:1147:ILE:HD13	1.88	0.56
2:H:1194:VAL:O	2:H:1194:VAL:HG12	2.05	0.56
2:H:1778:GLN:HB3	2:H:1831:VAL:HG13	1.88	0.56
2:H:1989:LYS:O	2:H:1993:LYS:HG3	2.06	0.56
2:I:1931:LEU:HD22	2:I:1935:GLU:HG2	1.86	0.56
1:A:1052:GLU:O	1:A:1056:ILE:HG23	2.06	0.56
1:A:1665:ILE:CG1	1:A:1669:ARG:HD3	2.36	0.56
1:C:1419:PRO:HB3	1:C:1646:PHE:CZ	2.41	0.56
2:G:120:LYS:O	2:G:124:LYS:HG3	2.05	0.56
2:G:1308:CYS:HB3	2:G:1311:PHE:CD2	2.41	0.56
2:G:1874:VAL:O	2:G:1878:VAL:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1308:CYS:HB3	2:H:1311:PHE:CD2	2.41	0.56
2:H:1328:VAL:HG23	2:H:1557:SER:HA	1.88	0.56
2:I:826:GLY:HA2	2:I:1060:ALA:HB3	1.88	0.56
2:I:577:ILE:HD13	2:I:1097:ILE:CD1	2.36	0.56
2:I:1589:VAL:HG11	2:I:1640:PHE:CE1	2.41	0.56
2:I:732:TRP:CD1	2:I:750:MET:HE3	2.40	0.56
1:A:1524:GLY:HA2	1:A:1527:ALA:HB3	1.89	0.55
1:A:295:ALA:HB2	1:A:302:LEU:HD11	1.87	0.55
1:B:11:HIS:O	1:B:15:THR:HG22	2.06	0.55
1:B:1233:GLU:OE2	1:B:1680:ARG:NH2	2.40	0.55
1:C:1496:GLU:O	1:C:1500:GLN:HG3	2.06	0.55
2:G:1475:LYS:HG3	2:G:1481:SER:HB2	1.88	0.55
2:G:1561:ASN:OD1	2:G:1563:ILE:HB	2.05	0.55
2:G:732:TRP:CD2	2:G:750:MET:HE1	2.41	0.55
2:H:1493:LEU:HD11	2:H:1499:VAL:CG2	2.36	0.55
2:H:16:LEU:HG	2:H:48:PHE:CZ	2.40	0.55
2:H:239:PRO:HG3	2:H:304:PHE:HA	1.88	0.55
2:I:1308:CYS:HB3	2:I:1311:PHE:CD2	2.40	0.55
1:C:29:ILE:HG13	2:I:1891:TYR:O	2.06	0.55
2:I:7:ARG:NH1	2:I:24:THR:HA	2.20	0.55
2:I:653:TYR:CD1	2:I:659:LEU:HD21	2.40	0.55
1:A:1114:TYR:CD1	1:A:1337:GLU:HG3	2.41	0.55
1:A:1555:ALA:HA	1:A:1621:PHE:CE1	2.41	0.55
1:A:864:VAL:CG2	1:A:921:PRO:HB3	2.36	0.55
1:B:1538:VAL:HB	1:B:1639:VAL:HG22	1.87	0.55
1:B:733:ILE:HD12	1:B:761:LEU:HD21	1.88	0.55
1:B:988:ILE:HD13	1:B:1048:GLU:HB3	1.89	0.55
1:C:335:HIS:HD2	1:C:335:HIS:O	1.89	0.55
2:G:652:ILE:HB	2:G:658:MET:CE	2.36	0.55
2:H:7:ARG:NH1	2:H:24:THR:HA	2.21	0.55
2:I:1382:VAL:HA	2:I:1422:THR:OG1	2.07	0.55
2:I:1931:LEU:HB3	2:I:1935:GLU:CG	2.35	0.55
2:I:232:LEU:HD23	2:I:232:LEU:O	2.06	0.55
1:A:1665:ILE:HD11	1:A:1669:ARG:HG2	1.88	0.55
1:B:1665:ILE:HD11	1:B:1669:ARG:HG2	1.88	0.55
1:B:433:VAL:O	1:B:437:ILE:HG13	2.07	0.55
1:C:12:ILE:HA	1:C:15:THR:HG23	1.88	0.55
1:C:417:TYR:OH	1:C:458:THR:HG22	2.06	0.55
2:G:1931:LEU:HB3	2:G:1935:GLU:CG	2.33	0.55
2:G:2036:GLU:O	2:G:2039:LYS:HG2	2.06	0.55
2:G:722:ALA:HB1	2:G:723:HIS:CE1	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1822:MET:HE2	2:H:1996:ILE:HG12	1.89	0.55
2:H:490:TRP:HA	2:H:493:THR:CG2	2.36	0.55
2:I:124:LYS:HG2	2:I:179:THR:HA	1.87	0.55
2:I:634:ILE:HD11	2:I:649:ILE:CD1	2.35	0.55
1:A:825:PRO:HB2	1:A:843:LYS:NZ	2.21	0.55
1:B:1036:ARG:NH1	1:B:1040:GLU:OE1	2.40	0.55
1:C:1347:LYS:HD3	1:C:1347:LYS:O	2.05	0.55
1:C:1:MET:HE3	1:C:9:LEU:HD12	1.89	0.55
2:G:1678:MET:CE	2:G:1707:LEU:HD22	2.35	0.55
2:G:665:LEU:O	2:G:669:LEU:HB2	2.06	0.55
2:H:1431:TYR:CE1	2:H:1526:THR:HG23	2.41	0.55
1:C:254:TRP:CZ3	1:C:302:LEU:HD13	2.41	0.55
1:C:27:ARG:HD2	1:C:30:GLU:OE2	2.06	0.55
1:C:807:LYS:HG3	1:C:858:TRP:HB3	1.87	0.55
2:G:1475:LYS:HB2	2:G:1481:SER:HB2	1.89	0.55
2:H:1166:VAL:HG12	2:H:1167:SER:N	2.21	0.55
2:H:2038:ILE:HG22	2:H:2042:ILE:CD1	2.36	0.55
2:I:166:THR:HG22	2:I:168:ASP:N	2.21	0.55
2:I:638:VAL:HA	2:I:641:ILE:HG22	1.88	0.55
2:I:926:LEU:HB3	2:I:947:THR:HG22	1.88	0.55
2:I:61:VAL:HG21	2:I:95:TYR:HE1	1.72	0.55
1:A:1238:VAL:HG12	1:A:1239:HIS:N	2.21	0.55
1:C:1125:VAL:HG21	1:C:1175:ILE:HD12	1.88	0.55
1:C:152:HIS:CE1	1:C:168:MET:HG3	2.41	0.55
1:C:11:HIS:O	1:C:15:THR:HG22	2.06	0.55
2:G:1496:LYS:HE2	2:G:1693:ARG:NH2	2.20	0.55
2:G:197:GLU:OE1	2:G:197:GLU:HA	2.06	0.55
2:H:807:ILE:CG2	2:H:1066:ILE:HA	2.36	0.55
2:H:1359:MET:HE3	2:H:1359:MET:HA	1.88	0.55
2:I:2015:THR:HG22	2:I:2017:LYS:N	2.21	0.55
1:A:1056:ILE:HD13	1:A:1193:TRP:CD1	2.42	0.55
1:A:1233:GLU:OE2	1:A:1680:ARG:NH2	2.40	0.55
1:A:12:ILE:HD11	2:G:2041:ILE:HD11	1.83	0.55
1:A:1473:GLU:O	1:A:1478:PRO:HD3	2.06	0.55
1:A:529:MET:HG2	1:A:638:LEU:CD1	2.36	0.55
1:A:771:PHE:CD1	1:A:825:PRO:HG3	2.42	0.55
1:B:1285:ALA:O	1:B:1289:MET:HG3	2.07	0.55
1:B:1432:HIS:CE1	1:B:1434:SER:OG	2.60	0.55
1:B:328:LEU:C	1:B:328:LEU:HD22	2.28	0.55
1:A:332:THR:HG22	1:B:331:ILE:CD1	2.36	0.55
1:C:883:ILE:HD12	1:C:947:LEU:HD12	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:239:PRO:HG3	2:G:304:PHE:HA	1.88	0.55
2:H:584:SER:HA	2:H:587:ILE:HG23	1.89	0.55
2:H:707:PRO:HG2	2:H:730:LEU:HD13	1.89	0.55
2:I:1873:TYR:HE1	2:I:1877:ARG:HH21	1.54	0.55
2:I:603:SER:O	2:I:607:VAL:HG12	2.06	0.55
1:C:635:ILE:HG22	1:C:651:TYR:CG	2.42	0.55
2:G:777:THR:CG2	2:G:1081:HIS:CE1	2.89	0.55
2:G:1822:MET:CE	2:G:1996:ILE:HG12	2.37	0.55
2:H:1173:VAL:CG2	2:H:1221:MET:HE1	2.35	0.55
2:H:1822:MET:CE	2:H:1996:ILE:HG12	2.37	0.55
2:H:264:ARG:NH1	2:H:456:GLN:HG3	2.22	0.55
2:H:740:HIS:HA	2:H:854:ILE:HD13	1.89	0.55
2:I:1427:VAL:HG12	2:I:1427:VAL:O	2.07	0.55
2:I:741:HIS:CE1	2:I:855:HIS:CD2	2.95	0.55
1:A:56:MET:HG3	2:G:1893:VAL:CG2	2.37	0.55
1:A:982:ILE:HG13	2:G:965:SER:N	2.22	0.55
1:C:50:SER:HB2	1:C:51:PRO:HD3	1.88	0.55
2:G:127:ILE:O	2:G:131:ILE:HG13	2.07	0.55
2:G:1624:THR:HB	2:G:1642:THR:HG23	1.86	0.55
2:G:747:HIS:O	2:G:751:LEU:HB2	2.07	0.55
2:G:835:THR:HG23	2:G:843:ILE:O	2.06	0.55
2:H:1350:LEU:HD11	2:H:1410:PHE:HB3	1.89	0.55
2:H:1567:ARG:NH1	2:H:1567:ARG:CG	2.50	0.55
2:H:1697:HIS:CE1	2:H:1829:GLU:HG2	2.42	0.55
2:H:1844:ARG:CG	2:H:1844:ARG:NH1	2.58	0.55
2:H:402:LEU:O	2:H:402:LEU:HD13	2.07	0.55
2:I:1010:PRO:O	2:I:1011:MET:HB2	2.05	0.55
2:I:1168:ASN:ND2	2:I:1171:ARG:HB2	2.22	0.55
1:A:1392:LEU:HD22	1:A:1396:MET:HG3	1.89	0.55
1:B:1123:GLN:HG3	1:B:1124:GLU:N	2.22	0.55
1:B:1566:ARG:HB3	1:B:1623:TYR:CE1	2.42	0.55
1:B:49:PRO:O	1:B:82:SER:HB2	2.07	0.55
1:C:1009:LEU:HD13	1:C:1445:MET:HE1	1.89	0.55
1:C:1455:ARG:NH2	1:C:1459:ILE:HG12	2.22	0.55
2:G:1844:ARG:NH1	2:G:1844:ARG:CG	2.62	0.55
2:G:264:ARG:NH1	2:G:456:GLN:HG3	2.22	0.55
2:H:1475:LYS:HB2	2:H:1481:SER:HB2	1.88	0.55
2:H:2036:GLU:O	2:H:2039:LYS:HG2	2.07	0.55
2:I:1293:THR:HG22	2:I:1296:GLU:CD	2.28	0.55
2:I:1624:THR:HB	2:I:1642:THR:OG1	2.06	0.55
2:I:260:PRO:HD3	2:I:289:TRP:CE2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1194:ASN:HB3	1:A:1197:THR:HG22	1.88	0.54
1:B:1373:ARG:HB2	1:B:1545:SER:O	2.07	0.54
1:C:1501:LEU:O	1:C:1505:GLN:HG3	2.07	0.54
1:C:1:MET:HE3	1:C:5:VAL:HG12	1.88	0.54
2:G:1227:ARG:CG	2:G:1227:ARG:NH1	2.56	0.54
2:G:1313:SER:O	2:G:1314:ARG:HD3	2.07	0.54
2:G:598:THR:HG23	4:G:3051:FMN:O4	2.06	0.54
2:H:1159:ILE:HG12	2:H:1169:PRO:CD	2.36	0.54
2:I:1382:VAL:HA	2:I:1422:THR:HG1	1.72	0.54
2:I:1493:LEU:HD11	2:I:1499:VAL:CG2	2.37	0.54
1:A:1455:ARG:NH2	1:A:1459:ILE:HG12	2.22	0.54
1:A:236:LYS:HE2	1:A:273:PRO:O	2.07	0.54
1:A:733:ILE:CD1	1:A:761:LEU:HD11	2.37	0.54
1:A:741:SER:HB3	1:A:744:ASP:HB2	1.89	0.54
1:B:263:GLY:O	1:B:267:VAL:HG23	2.07	0.54
1:B:771:PHE:CD1	1:B:825:PRO:HG3	2.42	0.54
1:C:1373:ARG:HB2	1:C:1545:SER:O	2.07	0.54
1:C:286:PHE:O	1:C:290:MET:HG2	2.07	0.54
2:G:1859:PRO:CG	2:G:1871:LEU:HD12	2.20	0.54
2:G:464:ASP:HB3	2:G:466:SER:HB3	1.88	0.54
2:H:1293:THR:HG22	2:H:1296:GLU:CD	2.28	0.54
2:H:1976:PHE:HB3	2:H:1981:LEU:HD21	1.89	0.54
2:I:131:ILE:HD12	2:I:182:VAL:CB	2.33	0.54
2:I:1331:TRP:CE2	2:I:1335:ILE:HG13	2.42	0.54
2:I:145:LEU:HD21	2:I:156:LEU:HD21	1.89	0.54
2:I:606:PHE:HZ	2:I:805:VAL:HG11	1.71	0.54
1:A:430:ARG:NH2	1:A:605:LEU:HD13	2.23	0.54
2:G:1292:ILE:O	2:G:1368:VAL:O	2.25	0.54
2:G:332:GLU:OE2	2:G:394:ARG:HD3	2.07	0.54
2:G:462:THR:HB	2:G:482:CYS:SG	2.48	0.54
2:H:1497:GLU:OE1	2:H:2002:LYS:HE3	2.07	0.54
2:H:2015:THR:HG22	2:H:2017:LYS:N	2.21	0.54
2:H:732:TRP:CD2	2:H:750:MET:HE3	2.43	0.54
2:I:1567:ARG:CG	2:I:1567:ARG:NH1	2.50	0.54
2:I:517:HIS:CD2	2:I:517:HIS:C	2.80	0.54
1:A:733:ILE:HD12	1:A:761:LEU:HD21	1.89	0.54
1:A:20:TYR:CD1	2:G:2033:THR:HG21	2.42	0.54
2:H:1102:TYR:HB3	2:H:1244:PRO:HA	1.90	0.54
2:H:490:TRP:HE1	2:H:516:THR:CG2	2.01	0.54
2:H:611:THR:CG2	2:H:641:ILE:HG13	2.38	0.54
2:I:1093:ASP:HB3	2:I:1096:LYS:HG3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1166:VAL:HG12	2:I:1167:SER:N	2.23	0.54
2:I:490:TRP:HA	2:I:493:THR:CG2	2.38	0.54
1:A:1657:HIS:ND1	1:A:1658:PRO:HD2	2.21	0.54
1:A:183:GLN:O	1:A:187:LEU:HG	2.08	0.54
1:B:1501:LEU:O	1:B:1505:GLN:HG3	2.08	0.54
1:B:1401:TYR:C	1:B:1658:PRO:HG3	2.27	0.54
1:C:479:ASN:O	1:C:483:VAL:HG23	2.07	0.54
2:G:1575:LEU:HD13	2:G:1579:ILE:HD12	1.89	0.54
2:G:344:LEU:HB3	2:G:349:VAL:HG23	1.90	0.54
2:H:85:ASN:HD22	2:H:135:ARG:NH1	2.02	0.54
2:I:1475:LYS:HB2	2:I:1481:SER:HB2	1.89	0.54
2:I:1547:PRO:HD3	2:I:1584:PHE:CE2	2.43	0.54
2:I:2046:GLU:C	2:I:2048:TYR:H	2.11	0.54
2:I:584:SER:HA	2:I:587:ILE:HG23	1.89	0.54
1:A:1234:MET:CE	1:A:1326:ILE:HG21	2.38	0.54
1:A:328:LEU:C	1:A:328:LEU:HD22	2.28	0.54
1:B:385:PHE:HD2	1:B:787:LYS:HA	1.73	0.54
1:B:824:LEU:HD11	1:B:849:LEU:HD12	1.89	0.54
1:C:1123:GLN:HG3	1:C:1124:GLU:N	2.23	0.54
2:G:1697:HIS:CE1	2:G:1829:GLU:HG2	2.43	0.54
2:G:2030:TYR:CE1	2:G:2034:GLY:HA2	2.43	0.54
2:G:807:ILE:HG21	2:G:1066:ILE:HA	1.88	0.54
2:H:1547:PRO:HD3	2:H:1584:PHE:CE2	2.42	0.54
2:H:464:ASP:HB3	2:H:466:SER:HB3	1.90	0.54
2:I:1778:GLN:HB3	2:I:1831:VAL:HG13	1.88	0.54
2:I:123:ILE:HD11	2:I:533:LEU:CD2	2.37	0.54
2:I:611:THR:CG2	2:I:641:ILE:HG13	2.37	0.54
2:I:652:ILE:HB	2:I:658:MET:CE	2.37	0.54
1:A:1184:LEU:HB2	1:A:1352:THR:HG21	1.89	0.54
1:B:23:ALA:O	2:H:1977:HIS:HA	2.07	0.54
2:G:1428:GLU:HB2	2:G:1468:THR:HG22	1.88	0.54
1:B:236:LYS:HE2	1:B:273:PRO:O	2.07	0.54
1:B:280:GLU:O	1:B:280:GLU:HG2	2.08	0.54
1:B:655:LEU:CD2	1:B:916:LEU:HD11	2.38	0.54
2:G:601:THR:CG2	2:G:618:GLU:O	2.41	0.54
2:H:1378:ILE:HD11	2:H:1381:VAL:HG21	1.90	0.54
2:H:964:LEU:N	2:H:964:LEU:CD2	2.70	0.54
2:I:1452:LEU:HA	2:I:1502:GLY:HA3	1.88	0.54
2:I:545:GLN:NE2	2:I:545:GLN:H	2.06	0.54
2:I:722:ALA:HB1	2:I:723:HIS:CE1	2.42	0.54
2:I:99:ASN:HA	2:I:550:VAL:HG21	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1496:GLU:O	1:A:1500:GLN:HG3	2.07	0.54
1:B:695:GLY:HA3	1:B:906:LEU:HD11	1.90	0.54
1:C:1477:ILE:H	1:C:1478:PRO:CD	2.20	0.54
1:C:37:LYS:HB2	1:C:65:TYR:HE1	1.72	0.54
2:I:826:GLY:O	2:I:827:VAL:HG23	2.07	0.54
1:A:1138:LYS:HG3	1:A:1163:TYR:CE1	2.43	0.54
1:A:340:ARG:HH12	1:A:344:GLN:NE2	2.06	0.54
1:A:644:THR:HG22	1:A:648:ASP:O	2.08	0.54
1:A:625:THR:HG23	1:A:661:ASP:OD1	2.08	0.54
1:B:1600:LEU:HD13	1:B:1657:HIS:HA	1.90	0.54
1:B:635:ILE:HG22	1:B:651:TYR:CG	2.43	0.54
1:C:1682:LYS:HB3	2:I:994:PHE:CE2	2.43	0.54
1:C:516:ARG:NH2	1:C:889:GLU:OE1	2.41	0.54
2:G:1231:GLY:O	2:G:1233:PRO:HD3	2.08	0.54
2:I:1054:LEU:CB	4:I:3051:FMN:C7M	2.85	0.54
2:I:1172:LYS:HE3	2:I:1574:ASN:OD1	2.08	0.54
2:I:332:GLU:OE2	2:I:394:ARG:HD3	2.08	0.54
2:I:868:PHE:HB3	2:I:873:PHE:CE2	2.43	0.54
1:A:1125:VAL:HG21	1:A:1175:ILE:HD12	1.88	0.53
1:B:1010:GLU:HA	1:B:1664:ALA:HA	1.89	0.53
1:C:1194:ASN:HB3	1:C:1197:THR:HG22	1.89	0.53
1:C:529:MET:HG2	1:C:638:LEU:CD1	2.39	0.53
2:H:1313:SER:O	2:H:1314:ARG:HD3	2.09	0.53
2:H:1325:PHE:CE1	2:H:1328:VAL:HG11	2.43	0.53
2:H:146:PHE:HA	2:H:149:VAL:HG12	1.89	0.53
2:I:754:TYR:CD2	2:I:794:MET:HG3	2.42	0.53
1:A:1566:ARG:HB3	1:A:1623:TYR:CE1	2.42	0.53
1:B:807:LYS:HG3	1:B:858:TRP:HB3	1.90	0.53
1:C:825:PRO:HB2	1:C:843:LYS:NZ	2.24	0.53
2:G:1331:TRP:CE2	2:G:1335:ILE:HG13	2.43	0.53
2:H:1177:SER:O	2:H:1180:MET:HG2	2.08	0.53
2:H:606:PHE:CE1	2:H:811:VAL:HG13	2.43	0.53
2:I:615:TYR:CZ	2:I:1074:MET:HB3	2.42	0.53
2:I:1844:ARG:CG	2:I:1844:ARG:NH1	2.61	0.53
2:I:1954:LYS:HD3	2:I:1958:LEU:HD13	1.89	0.53
1:A:1153:ASP:OD2	1:B:359:ARG:NH2	2.41	0.53
1:A:1123:GLN:HB2	1:A:1177:LYS:HE2	1.90	0.53
1:A:1392:LEU:CD2	1:A:1396:MET:HG3	2.38	0.53
1:B:1194:ASN:O	1:B:1197:THR:HG23	2.08	0.53
1:C:236:LYS:HE2	1:C:273:PRO:O	2.08	0.53
2:G:1269:LEU:O	2:G:1560:LEU:HD23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:281:VAL:HG23	2:H:459:VAL:HG11	1.90	0.53
2:H:674:TYR:HB3	2:H:676:ILE:HG22	1.88	0.53
2:H:826:GLY:O	2:H:827:VAL:HG23	2.07	0.53
2:I:873:PHE:CD1	2:I:1026:GLU:HB2	2.43	0.53
2:I:234:ILE:CG1	2:I:235:PRO:HD3	2.38	0.53
2:I:491:GLU:HA	2:I:494:THR:HG22	1.89	0.53
2:I:582:LYS:HE2	2:I:1108:PRO:HB3	1.91	0.53
1:A:1373:ARG:HB2	1:A:1545:SER:O	2.08	0.53
1:A:807:LYS:HG3	1:A:858:TRP:HB3	1.91	0.53
1:B:1392:LEU:CD2	1:B:1396:MET:HG3	2.38	0.53
1:B:1020:VAL:HG13	1:B:1400:ILE:HG23	1.91	0.53
1:C:263:GLY:O	1:C:267:VAL:HG23	2.08	0.53
1:C:824:LEU:HD11	1:C:849:LEU:HD12	1.90	0.53
2:G:741:HIS:CB	2:G:853:PRO:HB2	2.38	0.53
2:G:892:ILE:HG12	2:G:903:TRP:CG	2.43	0.53
2:G:964:LEU:CD2	2:G:964:LEU:N	2.68	0.53
2:H:55:THR:CG2	2:H:56:THR:HG22	2.30	0.53
2:I:1745:LYS:HE2	2:I:1747:LYS:HG2	1.91	0.53
2:I:271:THR:OG1	2:I:460:TYR:HB2	2.08	0.53
1:A:421:ILE:HG13	1:A:469:VAL:HG21	1.89	0.53
1:B:1665:ILE:CG1	1:B:1669:ARG:HD3	2.36	0.53
1:B:607:LYS:HG2	1:B:608:ASP:N	2.23	0.53
1:B:751:PHE:CZ	1:B:761:LEU:HD13	2.42	0.53
1:C:1401:TYR:C	1:C:1658:PRO:HG3	2.29	0.53
1:C:176:VAL:HG11	1:C:179:LYS:O	2.08	0.53
1:C:385:PHE:HD2	1:C:787:LYS:HA	1.73	0.53
2:G:707:PRO:HG2	2:G:730:LEU:HD13	1.90	0.53
2:H:1804:PHE:CZ	2:H:2010:TYR:HB2	2.44	0.53
2:H:173:LEU:HD13	2:H:219:LEU:HD21	1.90	0.53
2:H:816:ASP:HB3	2:H:1048:VAL:HG21	1.91	0.53
2:I:1102:TYR:HB3	2:I:1244:PRO:HA	1.91	0.53
2:I:1177:SER:O	2:I:1180:MET:HG2	2.09	0.53
2:I:1314:ARG:CG	2:I:1314:ARG:NH1	2.63	0.53
2:I:1567:ARG:HG3	2:I:1568:HIS:N	2.22	0.53
2:I:526:ARG:HH11	2:I:558:ASN:HD21	1.55	0.53
1:C:985:ARG:HH12	2:I:953:ARG:CZ	2.21	0.53
1:A:1020:VAL:HG13	1:A:1400:ILE:HG23	1.90	0.53
1:A:1665:ILE:HG12	1:A:1666:THR:N	2.23	0.53
1:A:50:SER:HB2	1:A:51:PRO:CD	2.39	0.53
1:A:635:ILE:HG22	1:A:651:TYR:CG	2.43	0.53
1:A:529:MET:CE	1:A:894:ARG:HD2	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:825:PRO:HB2	1:C:843:LYS:HZ2	1.73	0.53
2:G:1382:VAL:HA	2:G:1422:THR:OG1	2.08	0.53
2:G:2015:THR:HG22	2:G:2017:LYS:N	2.22	0.53
2:G:913:ASP:H	2:G:916:THR:CG2	2.22	0.53
2:H:1567:ARG:HG3	2:H:1568:HIS:N	2.23	0.53
2:H:652:ILE:HB	2:H:658:MET:CE	2.39	0.53
2:I:1173:VAL:CG2	2:I:1221:MET:HE1	2.39	0.53
2:I:1293:THR:HG22	2:I:1296:GLU:CG	2.39	0.53
2:I:2036:GLU:HG2	2:I:2039:LYS:NZ	2.23	0.53
1:A:1492:GLU:O	1:A:1496:GLU:HG3	2.09	0.53
1:B:1123:GLN:HB2	1:B:1177:LYS:HE2	1.91	0.53
1:B:1577:GLN:HE22	1:B:1591:TRP:C	2.12	0.53
1:C:1012:LEU:HD23	1:C:1445:MET:CE	2.39	0.53
1:C:1037:TRP:HB2	1:C:1598:GLN:OE1	2.09	0.53
2:G:1166:VAL:HG12	2:G:1167:SER:N	2.23	0.53
2:G:346:GLN:HA	2:G:377:LEU:HD21	1.89	0.53
2:G:606:PHE:HZ	2:G:805:VAL:HG11	1.74	0.53
2:H:1382:VAL:HA	2:H:1422:THR:OG1	2.09	0.53
2:H:1913:VAL:O	2:H:1917:ILE:HG13	2.08	0.53
2:H:402:LEU:HD12	2:H:404:GLN:HG2	1.90	0.53
2:H:774:ALA:HB1	2:H:1081:HIS:CD2	2.32	0.53
2:I:1327:ILE:HG12	2:I:1583:MET:HE3	1.91	0.53
1:A:1014:ASP:H	1:A:1510:ASN:ND2	1.93	0.53
1:A:385:PHE:HD2	1:A:787:LYS:HA	1.74	0.53
1:B:12:ILE:HA	1:B:15:THR:HG23	1.90	0.53
1:C:1524:GLY:HA2	1:C:1527:ALA:HB3	1.91	0.53
2:G:490:TRP:CH2	2:G:512:LEU:HD21	2.43	0.53
2:G:750:MET:CG	2:G:796:PHE:HZ	2.21	0.53
2:G:85:ASN:HD22	2:G:135:ARG:NH1	2.03	0.53
2:H:1040:LEU:HD21	2:H:1048:VAL:HA	1.89	0.53
2:H:1452:LEU:HA	2:H:1502:GLY:HA3	1.90	0.53
2:H:1954:LYS:HD3	2:H:1958:LEU:HD13	1.90	0.53
2:H:346:GLN:HA	2:H:377:LEU:HD21	1.91	0.53
2:I:1040:LEU:HD21	2:I:1048:VAL:HA	1.90	0.53
2:I:1441:ILE:HD11	2:I:1445:ARG:NH2	2.23	0.53
2:I:1861:ARG:HD2	2:I:1964:PHE:O	2.08	0.53
2:I:2038:ILE:HG22	2:I:2042:ILE:CD1	2.37	0.53
2:I:892:ILE:HG12	2:I:903:TRP:CG	2.44	0.53
1:A:1455:ARG:O	1:A:1459:ILE:HG13	2.08	0.53
1:A:12:ILE:HA	1:A:15:THR:HG23	1.88	0.53
1:C:1036:ARG:NH1	1:C:1040:GLU:OE1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1040:LEU:HD21	2:G:1048:VAL:HA	1.90	0.53
2:G:2038:ILE:HG22	2:G:2042:ILE:CD1	2.37	0.53
2:G:281:VAL:HG23	2:G:459:VAL:HG11	1.91	0.53
2:H:1745:LYS:HE2	2:H:1747:LYS:HG2	1.91	0.53
2:I:1266:TYR:CG	2:I:1347:LEU:HD23	2.43	0.53
2:I:2035:SER:HB3	2:I:2038:ILE:CG1	2.37	0.53
2:I:240:LEU:O	2:I:244:ILE:HG13	2.08	0.53
2:I:871:THR:HG21	2:I:887:LYS:NZ	2.24	0.53
1:B:1326:ILE:HG12	1:B:1388:MET:HG3	1.91	0.53
1:C:1285:ALA:O	1:C:1289:MET:HG3	2.09	0.53
1:C:625:THR:HG23	1:C:661:ASP:OD1	2.09	0.53
2:G:1173:VAL:CG2	2:G:1221:MET:HE1	2.38	0.53
2:G:102:HIS:HE1	2:G:180:TYR:OH	1.92	0.53
2:G:1861:ARG:HD2	2:G:1964:PHE:O	2.09	0.53
2:H:1101:GLU:HB2	2:H:1147:ILE:O	2.09	0.53
2:H:1697:HIS:HE1	2:H:1829:GLU:HG2	1.74	0.53
2:H:234:ILE:CG1	2:H:235:PRO:HD3	2.39	0.53
2:H:455:ILE:HG12	2:H:469:ARG:HG2	1.91	0.53
2:I:264:ARG:NH1	2:I:456:GLN:HG3	2.24	0.53
1:A:529:MET:HG2	1:A:638:LEU:HG	1.89	0.52
1:B:340:ARG:HH12	1:B:344:GLN:NE2	2.08	0.52
1:C:864:VAL:CG2	1:C:921:PRO:HB3	2.39	0.52
2:G:55:THR:CG2	2:G:56:THR:HG22	2.33	0.52
2:I:1040:LEU:O	2:I:1046:GLN:HG3	2.09	0.52
2:I:606:PHE:CE1	2:I:811:VAL:HG13	2.44	0.52
1:A:156:ALA:HA	1:A:166:ILE:CD1	2.39	0.52
1:A:341:GLN:O	1:A:345:VAL:HG12	2.09	0.52
1:A:986:ALA:CA	1:A:1047:LEU:HD13	2.39	0.52
1:B:12:ILE:HD11	2:H:2041:ILE:HD11	1.89	0.52
1:B:1234:MET:CE	1:B:1326:ILE:HG21	2.40	0.52
2:H:1159:ILE:CG1	2:H:1169:PRO:CD	2.87	0.52
2:H:1427:VAL:O	2:H:1427:VAL:HG12	2.08	0.52
2:H:145:LEU:O	2:H:149:VAL:HG12	2.10	0.52
2:H:1697:HIS:HE1	2:H:1829:GLU:CG	2.22	0.52
2:H:2026:PHE:CD2	2:H:2045:TRP:HZ3	2.27	0.52
2:I:2036:GLU:O	2:I:2039:LYS:HG2	2.09	0.52
2:I:465:GLY:HA2	2:I:493:THR:HA	1.91	0.52
2:I:598:THR:O	2:I:602:VAL:HB	2.09	0.52
1:B:784:ILE:HG23	1:B:788:SER:HB2	1.92	0.52
1:C:1056:ILE:HD13	1:C:1193:TRP:CD1	2.41	0.52
1:C:1305:CYS:SG	1:C:1583:HIS:NE2	2.82	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:615:TYR:CZ	2:G:1074:MET:HB3	2.44	0.52
2:H:194:THR:CG2	2:H:300:ILE:HD11	2.39	0.52
2:H:768:GLY:HA3	2:H:800:LEU:CD2	2.39	0.52
1:B:980:VAL:HG21	2:H:952:ARG:NH2	2.24	0.52
2:I:418:ASN:HD22	2:I:418:ASN:N	2.07	0.52
1:A:335:HIS:HD2	1:A:335:HIS:O	1.92	0.52
1:A:824:LEU:HD11	1:A:849:LEU:HD12	1.89	0.52
1:B:329:GLU:O	1:B:333:LYS:HG3	2.08	0.52
1:C:1411:THR:HG22	1:C:1412:ASP:N	2.24	0.52
1:C:260:ARG:HH12	1:C:300:VAL:CG2	2.22	0.52
1:C:530:ALA:HA	1:C:636:PRO:HB3	1.91	0.52
2:G:1159:ILE:HG12	2:G:1169:PRO:CD	2.39	0.52
2:G:1359:MET:CE	2:G:1404:MET:HB3	2.39	0.52
2:G:1438:SER:O	2:G:1441:ILE:HG23	2.09	0.52
2:G:490:TRP:HA	2:G:493:THR:CG2	2.40	0.52
2:H:955:GLU:HG2	2:H:987:TYR:CE2	2.45	0.52
2:I:1486:PHE:HA	2:I:1504:VAL:O	2.10	0.52
1:A:988:ILE:HD13	1:A:1048:GLU:CA	2.39	0.52
1:C:406:TRP:CE3	1:C:1619:GLU:HG3	2.44	0.52
1:C:465:ASN:O	1:C:469:VAL:HG23	2.10	0.52
2:G:1389:ILE:HG13	2:G:1411:PHE:HD1	1.75	0.52
2:G:145:LEU:HD21	2:G:156:LEU:HD21	1.91	0.52
2:G:871:THR:HG21	2:G:887:LYS:NZ	2.25	0.52
2:H:1722:GLY:N	2:H:1726:GLY:HA3	2.24	0.52
2:H:754:TYR:CD2	2:H:794:MET:HG3	2.44	0.52
2:I:1350:LEU:HD11	2:I:1410:PHE:HB3	1.91	0.52
2:I:1438:SER:O	2:I:1441:ILE:HG23	2.08	0.52
2:I:1475:LYS:HG3	2:I:1481:SER:HB2	1.92	0.52
2:I:1300:PHE:CA	2:I:1556:VAL:HG11	2.40	0.52
2:I:1774:THR:HA	2:I:1777:THR:HB	1.92	0.52
2:I:741:HIS:HE1	2:I:855:HIS:NE2	2.06	0.52
1:A:1477:ILE:H	1:A:1478:PRO:CD	2.21	0.52
1:A:998:TYR:CE2	1:A:1667:GLU:HB2	2.44	0.52
1:A:501:THR:N	1:A:886:GLU:OE1	2.30	0.52
1:B:341:GLN:O	1:B:345:VAL:HG12	2.10	0.52
2:G:1475:LYS:CB	2:G:1481:SER:HB2	2.39	0.52
2:G:1567:ARG:HG2	2:G:1567:ARG:HH11	1.72	0.52
2:G:1593:ILE:HD13	2:G:1626:ILE:HD13	1.92	0.52
2:G:1932:SER:O	2:G:1936:VAL:HG22	2.10	0.52
2:H:1359:MET:HE3	2:H:1404:MET:HB3	1.92	0.52
2:I:702:TYR:HB2	2:I:727:PRO:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:964:LEU:CD2	2:I:964:LEU:N	2.72	0.52
1:A:1305:CYS:SG	1:A:1583:HIS:NE2	2.83	0.52
1:A:430:ARG:NH1	1:A:493:VAL:O	2.40	0.52
1:A:59:ARG:HH11	2:G:1896:GLN:NE2	2.07	0.52
2:G:2026:PHE:CD2	2:G:2045:TRP:HZ3	2.27	0.52
1:A:2:LYS:CD	2:G:2050:GLN:HB3	2.38	0.52
2:G:955:GLU:HG2	2:G:987:TYR:CE2	2.45	0.52
2:H:615:TYR:CZ	2:H:1074:MET:HB3	2.43	0.52
2:H:1292:ILE:O	2:H:1368:VAL:O	2.27	0.52
2:H:1776:PHE:O	2:H:1779:PRO:HD2	2.09	0.52
2:H:747:HIS:O	2:H:751:LEU:HB2	2.10	0.52
2:I:1004:LEU:HD21	2:I:1020:VAL:HG23	1.91	0.52
2:I:1159:ILE:HG12	2:I:1169:PRO:CD	2.39	0.52
2:I:913:ASP:H	2:I:916:THR:CG2	2.23	0.52
1:B:529:MET:HG2	1:B:638:LEU:HG	1.92	0.52
1:B:893:VAL:HG11	1:B:930:LEU:CD2	2.36	0.52
1:C:27:ARG:HB2	2:I:2016:ALA:HB2	1.91	0.52
1:C:607:LYS:HG2	1:C:608:ASP:N	2.24	0.52
2:G:1177:SER:O	2:G:1180:MET:HG2	2.09	0.52
2:G:926:LEU:HB3	2:G:947:THR:HG22	1.92	0.52
2:H:599:PRO:HD2	4:H:3051:FMN:H6	1.92	0.52
2:H:418:ASN:HD22	2:H:418:ASN:N	2.08	0.52
2:I:1597:ALA:HB1	2:I:1638:ILE:CD1	2.39	0.52
2:I:1918:LYS:HG2	2:I:1919:LEU:HD23	1.92	0.52
2:I:751:LEU:HD23	2:I:791:TYR:CZ	2.44	0.52
1:A:521:LYS:HE2	1:A:605:LEU:HD11	1.92	0.52
1:A:705:VAL:CG2	1:A:732:LEU:HD21	2.39	0.52
1:C:1577:GLN:HE22	1:C:1591:TRP:C	2.13	0.52
1:C:340:ARG:HH12	1:C:344:GLN:NE2	2.08	0.52
1:C:705:VAL:CG2	1:C:732:LEU:HD21	2.40	0.52
2:G:1093:ASP:HB3	2:G:1096:LYS:HG3	1.90	0.52
2:G:121:GLU:HA	2:G:124:LYS:HD2	1.91	0.52
2:G:1745:LYS:HD3	2:G:1747:LYS:HE2	1.91	0.52
2:G:176:LEU:HD22	2:G:247:ALA:HB1	1.90	0.52
2:G:1873:TYR:CE1	2:G:1877:ARG:NE	2.75	0.52
2:G:768:GLY:HA3	2:G:800:LEU:CD2	2.38	0.52
2:H:278:VAL:HG11	2:H:303:LEU:HD13	1.92	0.52
2:I:1223:MET:CE	2:I:1238:LEU:HD12	2.40	0.52
2:I:273:HIS:CB	2:I:512:LEU:HD22	2.40	0.52
2:I:747:HIS:O	2:I:751:LEU:HB2	2.10	0.52
1:A:1183:ARG:NH1	1:A:1344:GLY:HA2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1577:GLN:HE22	1:A:1591:TRP:C	2.13	0.52
1:A:280:GLU:O	1:A:280:GLU:HG2	2.10	0.52
1:A:607:LYS:HG2	1:A:608:ASP:N	2.25	0.52
1:A:674:LYS:O	1:A:675:ASP:HB2	2.09	0.52
1:C:156:ALA:HA	1:C:166:ILE:CD1	2.40	0.52
2:G:278:VAL:HG11	2:G:303:LEU:HD13	1.92	0.52
2:H:281:VAL:HG12	2:H:282:ALA:N	2.24	0.52
2:H:522:GLY:HA3	2:H:561:TRP:CH2	2.45	0.52
2:H:577:ILE:HD13	2:H:1097:ILE:CD1	2.40	0.52
2:H:892:ILE:HG12	2:H:903:TRP:CG	2.45	0.52
2:I:1871:LEU:HD22	2:I:1888:ILE:HD11	1.92	0.52
2:I:2026:PHE:CD2	2:I:2045:TRP:HZ3	2.27	0.52
1:A:881:ASN:HA	1:A:944:ARG:NH2	2.25	0.51
1:B:1056:ILE:CD1	1:B:1193:TRP:HD1	2.22	0.51
1:B:1238:VAL:HG12	1:B:1239:HIS:N	2.25	0.51
1:C:1431:GLU:HB3	1:C:1520:ALA:HB2	1.92	0.51
1:C:1665:ILE:CG1	1:C:1669:ARG:HD3	2.36	0.51
2:G:1774:THR:HA	2:G:1777:THR:HB	1.90	0.51
2:G:234:ILE:CG1	2:G:235:PRO:HD3	2.40	0.51
2:H:1673:GLU:N	2:H:1676:MET:HE3	2.25	0.51
2:H:654:VAL:HG23	2:H:683:ALA:HB1	1.92	0.51
1:B:985:ARG:HH12	2:H:953:ARG:NH2	2.07	0.51
2:I:1745:LYS:HD3	2:I:1747:LYS:HE2	1.93	0.51
1:A:1123:GLN:HG3	1:A:1124:GLU:N	2.24	0.51
1:A:1411:THR:HG22	1:A:1412:ASP:N	2.25	0.51
1:B:1104:ARG:O	1:B:1185:VAL:HG13	2.11	0.51
1:B:1665:ILE:HG12	1:B:1666:THR:N	2.25	0.51
1:C:1238:VAL:HG12	1:C:1239:HIS:N	2.25	0.51
1:C:1303:GLY:N	1:C:1307:THR:HG22	2.26	0.51
1:C:156:ALA:HA	1:C:166:ILE:HD12	1.92	0.51
2:G:376:ASN:C	2:G:376:ASN:HD22	2.13	0.51
2:H:131:ILE:CD1	2:H:182:VAL:CG1	2.88	0.51
2:I:1697:HIS:CE1	2:I:1829:GLU:HG2	2.45	0.51
2:I:1868:GLN:HG3	2:I:1898:TYR:CZ	2.45	0.51
2:I:715:GLN:O	2:I:719:ILE:HG12	2.10	0.51
1:A:1303:GLY:N	1:A:1307:THR:HG22	2.25	0.51
1:A:1411:THR:HG22	1:A:1412:ASP:H	1.76	0.51
1:A:1474:ALA:HA	1:A:1478:PRO:CD	2.41	0.51
1:C:46:GLU:OE1	1:C:53:LEU:HB2	2.11	0.51
1:C:674:LYS:O	1:C:675:ASP:HB2	2.11	0.51
2:G:1293:THR:HG22	2:G:1296:GLU:CG	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1328:VAL:HG23	2:G:1557:SER:HA	1.92	0.51
2:G:1493:LEU:HD11	2:G:1499:VAL:CG2	2.40	0.51
2:G:124:LYS:HG2	2:G:179:THR:HA	1.90	0.51
2:G:213:LEU:HG	2:G:213:LEU:O	2.10	0.51
2:G:489:LYS:O	2:G:493:THR:HG22	2.10	0.51
2:G:702:TYR:HB2	2:G:727:PRO:HB2	1.93	0.51
2:H:1293:THR:HG22	2:H:1296:GLU:CG	2.41	0.51
2:H:1475:LYS:CB	2:H:1481:SER:HB2	2.40	0.51
2:H:545:GLN:NE2	2:H:545:GLN:H	2.07	0.51
2:H:758:ARG:NH2	2:H:797:ASP:OD1	2.35	0.51
1:B:985:ARG:NH1	2:H:953:ARG:CZ	2.73	0.51
2:H:318:SER:HB3	2:I:1595:ASN:HD21	1.76	0.51
1:B:1411:THR:HG22	1:B:1412:ASP:N	2.26	0.51
1:B:335:HIS:HD2	1:B:335:HIS:O	1.93	0.51
1:C:983:GLN:NE2	2:I:962:LYS:HD2	2.25	0.51
2:G:1081:HIS:O	2:G:1085:LEU:HB2	2.10	0.51
1:A:12:ILE:CD1	2:G:2041:ILE:CD1	2.83	0.51
2:G:654:VAL:HG12	2:G:654:VAL:O	2.09	0.51
2:H:1081:HIS:O	2:H:1085:LEU:HB2	2.10	0.51
2:H:582:LYS:HE2	2:H:1108:PRO:HB3	1.92	0.51
2:H:1475:LYS:HG3	2:H:1481:SER:HB2	1.93	0.51
2:H:1491:VAL:HB	2:H:1501:ILE:HD12	1.92	0.51
2:I:1475:LYS:CB	2:I:1481:SER:HB2	2.41	0.51
2:I:652:ILE:HD12	2:I:652:ILE:N	2.25	0.51
2:I:732:TRP:CD2	2:I:750:MET:HE3	2.45	0.51
2:I:732:TRP:CD2	2:I:750:MET:HE1	2.43	0.51
2:G:816:ASP:HB3	2:G:1048:VAL:CG2	2.41	0.51
2:H:1561:ASN:OD1	2:H:1563:ILE:HB	2.10	0.51
2:I:460:TYR:HA	2:I:466:SER:O	2.11	0.51
1:A:157:HIS:HE1	1:A:228:LEU:HD22	1.76	0.51
1:B:1194:ASN:HB3	1:B:1197:THR:HG22	1.91	0.51
1:B:1477:ILE:H	1:B:1478:PRO:CD	2.24	0.51
1:B:338:LEU:O	1:B:342:GLN:HG3	2.10	0.51
1:B:415:SER:O	1:B:419:GLU:HB2	2.10	0.51
1:C:328:LEU:HD22	1:C:328:LEU:C	2.30	0.51
1:C:644:THR:HG22	1:C:648:ASP:O	2.10	0.51
2:G:1427:VAL:HG12	2:G:1427:VAL:O	2.09	0.51
2:G:145:LEU:O	2:G:149:VAL:HG12	2.10	0.51
2:H:1493:LEU:HD11	2:H:1499:VAL:HG21	1.93	0.51
2:H:432:LEU:HB3	2:H:484:ILE:HG23	1.92	0.51
2:H:55:THR:HB	2:H:59:GLU:OE2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1015:VAL:HG11	2:I:1017:PHE:CE1	2.45	0.51
1:A:1310:GLU:OE1	1:A:1649:LYS:CE	2.56	0.51
2:G:1431:TYR:CE1	2:G:1526:THR:HG23	2.45	0.51
2:G:1589:VAL:HG11	2:G:1640:PHE:CE1	2.45	0.51
2:G:1579:ILE:HD11	2:G:1615:MET:SD	2.51	0.51
2:G:1764:PHE:HB2	2:G:1770:LEU:HD21	1.93	0.51
2:H:1716:ASN:OD1	2:H:1765:ARG:HA	2.11	0.51
2:H:260:PRO:HD3	2:H:289:TRP:CZ2	2.46	0.51
2:H:1054:LEU:HB3	4:H:3051:FMN:HM82	1.93	0.51
2:H:732:TRP:CD1	2:H:750:MET:HE3	2.46	0.51
2:I:1428:GLU:HB2	2:I:1468:THR:HG22	1.93	0.51
2:I:1566:SER:HB3	2:I:1568:HIS:CE1	2.45	0.51
2:I:306:ILE:HA	2:I:439:ILE:CD1	2.40	0.51
1:A:254:TRP:HZ3	1:A:292:GLN:HG3	1.75	0.51
1:A:465:ASN:O	1:A:469:VAL:HG23	2.11	0.51
1:B:864:VAL:CG2	1:B:921:PRO:HB3	2.40	0.51
1:C:1123:GLN:HB2	1:C:1177:LYS:HE2	1.93	0.51
1:C:1411:THR:HG22	1:C:1412:ASP:H	1.75	0.51
1:C:1009:LEU:HG	1:C:1664:ALA:HB2	1.93	0.51
1:C:513:GLU:OE2	1:C:873:ARG:NH1	2.44	0.51
2:G:1986:LYS:HA	2:G:1989:LYS:HB3	1.92	0.51
2:H:1236:LEU:HD11	2:H:1262:ILE:HG12	1.92	0.51
2:H:533:LEU:HD13	2:H:545:GLN:HG3	1.92	0.51
2:H:667:LYS:HD2	2:H:697:THR:CG2	2.35	0.51
2:I:157:VAL:HG11	2:I:496:PHE:CZ	2.46	0.51
2:I:346:GLN:HA	2:I:377:LEU:HD21	1.92	0.51
2:I:950:PHE:O	2:I:954:VAL:HG23	2.11	0.51
1:B:1705:PRO:HB2	1:B:1733:PHE:CE1	2.46	0.51
1:C:733:ILE:CD1	1:C:761:LEU:HD11	2.40	0.51
2:G:1382:VAL:HA	2:G:1422:THR:HG1	1.76	0.51
2:G:16:LEU:HG	2:G:48:PHE:CZ	2.45	0.51
2:G:443:LEU:HD22	2:G:448:VAL:CG1	2.41	0.51
2:G:786:SER:CB	2:G:794:MET:HE2	2.41	0.51
2:H:807:ILE:HG21	2:H:1066:ILE:HA	1.92	0.51
2:H:2046:GLU:C	2:H:2048:TYR:H	2.14	0.51
2:H:332:GLU:OE2	2:H:394:ARG:HD3	2.10	0.51
2:H:461:ASP:HB3	2:H:464:ASP:HB2	1.93	0.51
2:I:1313:SER:O	2:I:1314:ARG:HD3	2.11	0.51
2:I:1359:MET:HA	2:I:1359:MET:HE3	1.92	0.51
2:I:807:ILE:HG21	2:I:1066:ILE:HA	1.93	0.51
1:A:400:ARG:HH11	1:A:400:ARG:HG3	1.67	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:889:GLU:HG3	1:A:893:VAL:O	2.11	0.51
1:B:1455:ARG:NH2	1:B:1459:ILE:HG12	2.26	0.51
1:B:822:VAL:HG12	1:B:824:LEU:HD22	1.93	0.51
1:C:157:HIS:HE1	1:C:228:LEU:HD22	1.75	0.51
1:C:411:GLN:HE22	1:C:1628:SER:H	1.58	0.51
2:G:1135:GLU:OE2	2:G:1175:LYS:HE3	2.11	0.51
2:G:1452:LEU:HA	2:G:1502:GLY:HA3	1.92	0.51
2:G:418:ASN:N	2:G:418:ASN:HD22	2.09	0.51
2:G:751:LEU:HD23	2:G:791:TYR:CZ	2.46	0.51
2:G:868:PHE:HB3	2:G:873:PHE:CE2	2.46	0.51
2:H:1678:MET:CE	2:H:1707:LEU:HD22	2.40	0.51
2:H:2026:PHE:HD2	2:H:2045:TRP:HZ3	1.59	0.51
2:H:233:SER:HA	2:H:424:ALA:CB	2.41	0.51
2:H:460:TYR:HA	2:H:466:SER:O	2.11	0.51
2:H:741:HIS:HB2	2:H:853:PRO:O	2.11	0.51
2:I:1431:TYR:CE1	2:I:1526:THR:HG23	2.46	0.51
1:A:1105:LEU:HD23	1:A:1185:VAL:HG22	1.93	0.50
1:A:635:ILE:HG22	1:A:651:TYR:CD1	2.46	0.50
1:A:985:ARG:NH1	2:G:953:ARG:CZ	2.74	0.50
1:B:1524:GLY:HA2	1:B:1527:ALA:HB3	1.93	0.50
1:B:386:PHE:O	1:B:390:VAL:HB	2.11	0.50
1:B:50:SER:HB2	1:B:51:PRO:CD	2.40	0.50
2:G:1223:MET:CE	2:G:1238:LEU:HD12	2.40	0.50
2:G:1697:HIS:HE1	2:G:1829:GLU:HG2	1.74	0.50
2:G:194:THR:CG2	2:G:300:ILE:HD11	2.41	0.50
2:G:601:THR:HG22	2:G:620:ALA:H	1.75	0.50
2:H:1265:MET:HE1	2:H:1562:PRO:HG2	1.92	0.50
2:H:1422:THR:HG21	2:H:1474:PHE:HB2	1.94	0.50
2:H:408:PRO:HG3	2:H:836:TYR:CD2	2.46	0.50
2:I:1493:LEU:HD11	2:I:1499:VAL:HG21	1.93	0.50
2:I:1776:PHE:O	2:I:1779:PRO:HD2	2.10	0.50
1:A:1533:ILE:HD11	1:A:1564:LEU:HD13	1.93	0.50
1:A:433:VAL:O	1:A:437:ILE:HG13	2.12	0.50
1:B:1158:PRO:HD2	1:B:1159:GLU:OE2	2.10	0.50
1:B:1196:LYS:HE3	1:B:1202:ASP:CG	2.31	0.50
1:B:1411:THR:HG22	1:B:1412:ASP:H	1.75	0.50
1:B:635:ILE:HG22	1:B:651:TYR:CD1	2.46	0.50
1:C:34:VAL:O	1:C:38:ASP:HB2	2.11	0.50
1:C:828:PRO:HG3	1:C:868:ILE:HG22	1.94	0.50
1:C:655:LEU:CD2	1:C:916:LEU:HD11	2.41	0.50
2:G:281:VAL:HG12	2:G:282:ALA:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:7:ARG:CZ	2:G:24:THR:HA	2.41	0.50
2:H:1597:ALA:HB1	2:H:1638:ILE:CD1	2.41	0.50
2:H:1861:ARG:HD2	2:H:1964:PHE:O	2.12	0.50
2:I:281:VAL:HG12	2:I:282:ALA:N	2.25	0.50
2:I:611:THR:HA	2:I:615:TYR:O	2.11	0.50
2:I:750:MET:CG	2:I:796:PHE:HZ	2.24	0.50
2:I:85:ASN:HD22	2:I:135:ARG:NH1	2.04	0.50
1:A:20:TYR:CE1	2:G:2033:THR:HG21	2.47	0.50
1:A:24:SER:O	2:G:1977:HIS:CD2	2.65	0.50
1:A:34:VAL:O	1:A:38:ASP:HB2	2.10	0.50
1:A:59:ARG:HH11	2:G:1896:GLN:HE22	1.58	0.50
1:C:176:VAL:CG1	1:C:179:LYS:O	2.59	0.50
2:G:1272:ASP:O	2:G:1273:GLU:HG3	2.11	0.50
2:G:1918:LYS:HG2	2:G:1919:LEU:HD23	1.93	0.50
2:G:652:ILE:CD1	2:G:658:MET:HE3	2.42	0.50
2:H:1774:THR:HA	2:H:1777:THR:HB	1.93	0.50
2:H:1775:GLN:HG2	2:H:1836:MET:SD	2.51	0.50
2:H:344:LEU:HB3	2:H:349:VAL:HG23	1.94	0.50
2:H:491:GLU:HA	2:H:494:THR:HG22	1.93	0.50
2:I:1027:ILE:O	2:I:1031:LYS:HB2	2.11	0.50
2:I:1945:ASP:O	2:I:1949:LYS:HG3	2.10	0.50
2:I:173:LEU:HD13	2:I:219:LEU:HD21	1.94	0.50
2:I:376:ASN:C	2:I:376:ASN:HD22	2.14	0.50
1:A:286:PHE:O	1:A:290:MET:HG2	2.10	0.50
1:B:1303:GLY:N	1:B:1307:THR:HG22	2.25	0.50
1:B:421:ILE:HG12	1:B:469:VAL:HG21	1.93	0.50
1:C:1116:PRO:HB2	1:C:1184:LEU:HD12	1.93	0.50
1:C:280:GLU:O	1:C:280:GLU:HG2	2.11	0.50
1:C:415:SER:O	1:C:419:GLU:HB2	2.12	0.50
1:C:702:LYS:HE2	1:C:729:GLY:O	2.11	0.50
2:G:545:GLN:NE2	2:G:545:GLN:H	2.09	0.50
2:H:1148:ASN:ND2	2:H:1151:HIS:H	2.08	0.50
2:H:1102:TYR:CE2	2:H:1152:ALA:HB2	2.47	0.50
2:H:1389:ILE:HG13	2:H:1411:PHE:HD1	1.76	0.50
2:H:1435:ILE:HG22	2:H:1435:ILE:O	2.10	0.50
2:H:463:PHE:CE1	2:H:486:LEU:HD22	2.47	0.50
2:I:1491:VAL:HB	2:I:1501:ILE:HD12	1.93	0.50
1:A:1004:ILE:HG22	1:A:1660:TYR:CE2	2.46	0.50
1:B:156:ALA:HA	1:B:166:ILE:CD1	2.41	0.50
1:B:156:ALA:HA	1:B:166:ILE:HD12	1.93	0.50
2:G:1871:LEU:HD22	2:G:1888:ILE:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:611:THR:HA	2:G:615:TYR:O	2.11	0.50
2:G:663:ILE:HB	2:G:664:PRO:CD	2.40	0.50
2:G:676:ILE:HG12	2:G:676:ILE:O	2.11	0.50
2:G:732:TRP:CG	2:G:750:MET:HE3	2.46	0.50
2:G:784:GLU:O	2:G:787:THR:HB	2.11	0.50
2:H:1382:VAL:HA	2:H:1422:THR:HG1	1.76	0.50
2:H:1428:GLU:HB2	2:H:1468:THR:HG22	1.94	0.50
2:I:1135:GLU:OE2	2:I:1175:LYS:HE3	2.12	0.50
2:I:1716:ASN:OD1	2:I:1765:ARG:HA	2.11	0.50
2:I:2035:SER:HB3	2:I:2038:ILE:CD1	2.40	0.50
2:I:955:GLU:HG2	2:I:987:TYR:CE2	2.46	0.50
1:A:1523:ARG:NH2	1:A:1564:LEU:O	2.45	0.50
1:B:1009:LEU:HA	1:B:1445:MET:HE2	1.93	0.50
1:C:1019:ILE:HG21	1:C:1316:VAL:HG22	1.94	0.50
1:C:1474:ALA:HA	1:C:1478:PRO:CD	2.42	0.50
1:C:985:ARG:HH12	2:I:953:ARG:NH2	2.09	0.50
2:G:1350:LEU:HD11	2:G:1410:PHE:HB3	1.94	0.50
2:G:774:ALA:HB1	2:G:1081:HIS:CD2	2.37	0.50
2:H:826:GLY:HA2	2:H:1060:ALA:HB3	1.94	0.50
2:H:2036:GLU:HG2	2:H:2039:LYS:NZ	2.27	0.50
2:I:1953:VAL:HG12	2:I:1953:VAL:O	2.11	0.50
2:I:712:ALA:O	2:I:715:GLN:HB3	2.12	0.50
2:I:866:LYS:O	2:I:870:GLU:HG3	2.12	0.50
1:A:1104:ARG:O	1:A:1185:VAL:HG13	2.12	0.50
1:A:12:ILE:CD1	2:G:2041:ILE:HD11	2.41	0.50
1:A:359:ARG:NH2	1:C:1153:ASP:OD2	2.43	0.50
1:B:1347:LYS:O	1:B:1347:LYS:HD3	2.11	0.50
1:B:825:PRO:HB2	1:B:843:LYS:NZ	2.27	0.50
2:G:440:ASN:ND2	2:G:477:GLU:HG2	2.26	0.50
2:G:894:ARG:NH1	2:G:898:ASP:OD2	2.43	0.50
2:G:949:ASP:CB	2:G:1006:MET:HE2	2.38	0.50
2:H:121:GLU:HA	2:H:124:LYS:HD2	1.93	0.50
1:B:20:TYR:OH	2:H:2035:SER:HB2	2.12	0.50
2:H:161:GLY:HA3	2:H:506:PRO:HD2	1.93	0.50
2:H:638:VAL:HG22	2:H:675:PRO:HG2	1.93	0.50
2:I:1986:LYS:HA	2:I:1989:LYS:HB3	1.93	0.50
1:C:13:LEU:HB2	2:I:2026:PHE:CE1	2.45	0.50
1:B:408:TRP:CZ3	1:B:1628:SER:HB3	2.47	0.50
1:C:157:HIS:CE1	1:C:228:LEU:HD22	2.47	0.50
1:C:328:LEU:HD13	1:C:329:GLU:N	2.27	0.50
1:C:702:LYS:HD3	1:C:731:THR:CG2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1776:PHE:O	2:G:1779:PRO:HD2	2.12	0.50
2:G:2035:SER:HB3	2:G:2038:ILE:CD1	2.42	0.50
2:G:24:THR:O	2:G:26:SER:N	2.44	0.50
2:G:306:ILE:HA	2:G:439:ILE:CD1	2.42	0.50
2:G:606:PHE:CE1	2:G:811:VAL:HG13	2.46	0.50
2:G:60:LEU:O	2:G:63:LYS:HB2	2.12	0.50
2:G:682:GLY:O	2:G:683:ALA:HB3	2.12	0.50
2:H:2035:SER:HB3	2:H:2038:ILE:CD1	2.42	0.50
2:H:747:HIS:HE1	2:H:780:TYR:OH	1.95	0.50
2:I:344:LEU:HB3	2:I:349:VAL:HG23	1.93	0.50
1:A:1125:VAL:HG21	1:A:1175:ILE:CD1	2.42	0.50
1:A:1116:PRO:HB2	1:A:1184:LEU:HD12	1.94	0.50
1:A:1347:LYS:HD3	1:A:1347:LYS:O	2.11	0.50
1:A:1459:ILE:O	1:A:1463:VAL:HG23	2.12	0.50
1:A:156:ALA:HA	1:A:166:ILE:HD12	1.93	0.50
1:B:46:GLU:OE1	1:B:53:LEU:HB2	2.12	0.50
1:C:1566:ARG:HB3	1:C:1623:TYR:CE1	2.46	0.50
1:C:1705:PRO:HB2	1:C:1733:PHE:CE1	2.46	0.50
2:G:1552:PRO:O	2:G:1556:VAL:HG23	2.12	0.50
2:G:1716:ASN:OD1	2:G:1765:ARG:HA	2.12	0.50
2:G:1697:HIS:HE1	2:G:1829:GLU:CG	2.25	0.50
2:G:1845:ASP:HB2	2:G:1849:ARG:N	2.15	0.50
2:G:428:HIS:CD2	2:G:488:VAL:HG23	2.47	0.50
2:H:1004:LEU:HD21	2:H:1020:VAL:CG2	2.41	0.50
2:H:2030:TYR:CE1	2:H:2034:GLY:HA2	2.46	0.50
2:H:441:LYS:O	2:H:444:VAL:HG12	2.12	0.50
2:H:7:ARG:CZ	2:H:24:THR:HA	2.42	0.50
2:I:777:THR:HG23	2:I:1081:HIS:CE1	2.47	0.50
2:I:1673:GLU:N	2:I:1676:MET:HE3	2.25	0.50
2:I:455:ILE:HG12	2:I:469:ARG:HG2	1.93	0.50
1:A:142:ASP:CG	1:A:257:PRO:HB2	2.32	0.49
1:B:1451:GLN:OE1	1:B:1451:GLN:HA	2.12	0.49
1:B:1533:ILE:HG13	1:B:1564:LEU:HB3	1.94	0.49
1:B:413:LEU:HB2	1:B:439:ILE:HD13	1.94	0.49
1:C:1665:ILE:HG12	1:C:1666:THR:N	2.27	0.49
1:C:267:VAL:O	1:C:290:MET:HE1	2.12	0.49
2:G:131:ILE:CB	2:G:182:VAL:CG1	2.85	0.49
2:G:1441:ILE:HD11	2:G:1445:ARG:NH2	2.25	0.49
2:G:1868:GLN:HG3	2:G:1898:TYR:CZ	2.48	0.49
2:G:2029:VAL:O	2:G:2033:THR:HG22	2.12	0.49
2:H:1227:ARG:HG3	2:H:1227:ARG:NH1	2.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:777:THR:HG23	2:H:1081:HIS:CE1	2.47	0.49
2:I:1632:ILE:HG23	2:I:1632:ILE:O	2.12	0.49
2:I:72:VAL:HG12	2:I:73:GLU:N	2.27	0.49
2:I:7:ARG:HE	2:I:27:PHE:CB	2.24	0.49
1:A:335:HIS:O	1:A:338:LEU:HB3	2.12	0.49
1:B:1125:VAL:HG21	1:B:1175:ILE:CD1	2.42	0.49
1:B:1474:ALA:HA	1:B:1478:PRO:CD	2.41	0.49
1:B:674:LYS:O	1:B:675:ASP:HB2	2.11	0.49
2:G:871:THR:HG21	2:G:887:LYS:HZ2	1.77	0.49
2:H:1148:ASN:HD22	2:H:1151:HIS:H	1.60	0.49
2:H:1162:ASP:O	2:H:1163:LYS:HB2	2.11	0.49
2:H:1745:LYS:HD3	2:H:1747:LYS:HE2	1.94	0.49
2:H:7:ARG:HE	2:H:27:PHE:CB	2.26	0.49
2:H:871:THR:HG21	2:H:887:LYS:NZ	2.26	0.49
2:I:24:THR:O	2:I:26:SER:N	2.45	0.49
2:I:259:THR:HG22	2:I:262:GLU:CB	2.41	0.49
2:H:28:PHE:CE1	2:I:27:PHE:CE2	3.00	0.49
2:I:274:SER:OG	2:I:428:HIS:HE1	1.95	0.49
2:I:60:LEU:O	2:I:63:LYS:HB2	2.11	0.49
1:A:1276:GLN:O	1:A:1282:THR:HG21	2.13	0.49
1:C:1264:ARG:NH1	1:C:1270:VAL:HB	2.27	0.49
1:C:1455:ARG:O	1:C:1459:ILE:HG13	2.12	0.49
1:C:889:GLU:HG3	1:C:893:VAL:O	2.13	0.49
2:G:1425:LYS:HG2	2:G:1471:GLU:CG	2.37	0.49
2:G:1493:LEU:HD11	2:G:1499:VAL:HG21	1.93	0.49
2:G:1486:PHE:HA	2:G:1504:VAL:O	2.12	0.49
2:G:463:PHE:CE1	2:G:486:LEU:HD22	2.47	0.49
2:G:463:PHE:O	2:G:463:PHE:HD2	1.95	0.49
2:H:894:ARG:NH1	2:H:898:ASP:OD2	2.41	0.49
2:I:1352:HIS:HE1	2:I:1583:MET:CE	2.25	0.49
2:I:324:LEU:HD12	2:I:324:LEU:O	2.12	0.49
2:I:751:LEU:HA	2:I:794:MET:HE3	1.94	0.49
1:A:1189:ILE:HG23	1:A:1190:PRO:HD2	1.95	0.49
1:A:1009:LEU:HD13	1:A:1445:MET:HE1	1.94	0.49
1:C:1392:LEU:HD22	1:C:1396:MET:HG3	1.93	0.49
1:C:790:PHE:CE2	1:C:794:ILE:HD11	2.48	0.49
2:G:1427:VAL:HG22	2:G:1469:GLU:HG2	1.94	0.49
2:G:677:GLN:O	2:G:678:PHE:HB3	2.13	0.49
2:G:706:LYS:HE2	2:G:731:GLN:OE1	2.13	0.49
2:G:950:PHE:O	2:G:954:VAL:HG23	2.13	0.49
2:H:942:THR:HG21	2:H:1012:GLN:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1889:VAL:HG13	2:H:1977:HIS:HB3	1.93	0.49
2:H:273:HIS:CB	2:H:512:LEU:HD22	2.41	0.49
2:H:682:GLY:O	2:H:683:ALA:HB3	2.13	0.49
2:I:1293:THR:CG2	2:I:1296:GLU:H	2.20	0.49
2:I:1678:MET:CE	2:I:1707:LEU:HD22	2.41	0.49
2:I:238:CYS:CB	2:I:239:PRO:HD3	2.40	0.49
1:A:1234:MET:HG2	1:A:1326:ILE:HD12	1.94	0.49
1:A:20:TYR:CD1	2:G:2033:THR:OG1	2.59	0.49
1:A:46:GLU:OE1	1:A:53:LEU:HB2	2.12	0.49
1:B:1305:CYS:SG	1:B:1583:HIS:NE2	2.85	0.49
1:B:435:GLU:O	1:B:439:ILE:HG13	2.12	0.49
1:C:1050:CYS:HB3	1:C:1089:VAL:HG12	1.94	0.49
1:C:50:SER:HB2	1:C:51:PRO:CD	2.43	0.49
2:H:1303:ALA:HB2	2:H:1556:VAL:HG21	1.93	0.49
2:H:598:THR:O	2:H:602:VAL:HB	2.11	0.49
1:A:1451:GLN:OE1	1:A:1451:GLN:HA	2.12	0.49
1:A:157:HIS:CE1	1:A:228:LEU:HD22	2.48	0.49
1:B:1362:PRO:HA	1:B:1365:MET:HG3	1.94	0.49
1:B:1600:LEU:HD11	1:B:1655:VAL:HG12	1.94	0.49
1:B:170:LYS:HD3	1:B:175:LEU:HD23	1.93	0.49
1:B:764:ASP:OD2	1:B:818:ARG:HD3	2.11	0.49
2:G:465:GLY:HA2	2:G:493:THR:HA	1.95	0.49
2:H:138:ASP:O	2:H:139:LYS:HG3	2.12	0.49
2:H:1566:SER:HB3	2:H:1568:HIS:CE1	2.47	0.49
2:H:7:ARG:HH11	2:H:24:THR:HG23	1.75	0.49
2:H:22:VAL:HG11	2:H:27:PHE:HA	1.94	0.49
2:H:369:SER:O	2:H:370:LEU:HD23	2.13	0.49
2:H:715:GLN:O	2:H:719:ILE:HG12	2.13	0.49
2:H:949:ASP:CB	2:H:1006:MET:HE2	2.42	0.49
2:I:1015:VAL:HG13	2:I:1017:PHE:CE2	2.47	0.49
2:I:1265:MET:CE	2:I:1562:PRO:HG2	2.41	0.49
2:I:1435:ILE:O	2:I:1435:ILE:HG22	2.12	0.49
2:I:7:ARG:CZ	2:I:24:THR:HA	2.42	0.49
2:I:16:LEU:HG	2:I:48:PHE:CZ	2.48	0.49
2:I:161:GLY:HA3	2:I:506:PRO:HD2	1.93	0.49
2:I:55:THR:CG2	2:I:56:THR:HG22	2.33	0.49
1:A:1264:ARG:NH1	1:A:1270:VAL:HB	2.28	0.49
1:A:1705:PRO:HB2	1:A:1733:PHE:CE1	2.47	0.49
1:A:256:LEU:HD22	1:A:260:ARG:HB3	1.94	0.49
1:A:328:LEU:HD13	1:A:329:GLU:N	2.27	0.49
1:B:1105:LEU:HD23	1:B:1185:VAL:HG22	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:636:PRO:HB2	1:C:638:LEU:O	2.13	0.49
1:C:980:VAL:HG23	2:I:968:GLN:OE1	2.13	0.49
2:G:1266:TYR:HB2	2:G:1347:LEU:HD23	1.95	0.49
1:A:18:LEU:HD21	2:G:1815:LEU:HD12	1.95	0.49
2:G:618:GLU:HG2	2:G:678:PHE:CZ	2.48	0.49
2:H:161:GLY:N	2:H:505:GLY:HA3	2.25	0.49
2:H:1873:TYR:HE1	2:H:1877:ARG:HH21	1.59	0.49
2:H:463:PHE:O	2:H:463:PHE:HD2	1.96	0.49
2:H:455:ILE:HD11	2:H:469:ARG:NE	2.27	0.49
2:I:1169:PRO:O	2:I:1173:VAL:HG23	2.13	0.49
2:I:1873:TYR:CE2	2:I:1940:LEU:HD21	2.47	0.49
2:I:740:HIS:CE1	2:I:852:GLU:OE1	2.65	0.49
1:A:21:GLN:HG3	2:G:2013:ASN:HB2	1.93	0.49
1:B:1642:THR:HG22	1:B:1652:GLN:HG3	1.93	0.49
1:C:1114:TYR:CD1	1:C:1337:GLU:HG3	2.48	0.49
1:C:176:VAL:HG12	1:C:178:GLY:H	1.77	0.49
2:G:157:VAL:HG11	2:G:496:PHE:CZ	2.47	0.49
2:G:491:GLU:HA	2:G:494:THR:HG22	1.95	0.49
2:G:732:TRP:CD1	2:G:750:MET:HE3	2.47	0.49
2:H:569:LEU:HD12	2:H:1090:TYR:CD1	2.48	0.49
2:H:1425:LYS:HG2	2:H:1471:GLU:CG	2.38	0.49
2:H:1593:ILE:O	2:H:1597:ALA:HB3	2.12	0.49
2:H:1634:GLY:HA3	2:H:1799:PRO:HA	1.94	0.49
2:H:1666:PHE:CD1	2:H:1814:ALA:HA	2.48	0.49
2:H:173:LEU:O	2:H:173:LEU:HD22	2.13	0.49
2:H:702:TYR:HB2	2:H:727:PRO:HB2	1.94	0.49
2:H:932:ILE:HD12	2:H:939:PHE:HD1	1.78	0.49
2:I:949:ASP:CB	2:I:1006:MET:HE2	2.43	0.49
2:I:573:LYS:HE3	2:I:1101:GLU:OE1	2.12	0.49
2:I:597:MET:H	2:I:601:THR:HB	1.78	0.49
2:I:11:LEU:HD11	2:I:64:PHE:CD2	2.48	0.49
1:C:982:ILE:HD11	2:I:965:SER:HB2	1.95	0.49
1:A:1362:PRO:HA	1:A:1365:MET:HG3	1.95	0.49
1:A:1219:VAL:CA	1:A:1384:ILE:HD11	2.31	0.49
1:B:186:ILE:O	1:B:190:LEU:HG	2.13	0.49
1:C:1020:VAL:CG1	1:C:1400:ILE:HG23	2.42	0.49
1:C:267:VAL:HG12	1:C:290:MET:CE	2.42	0.49
2:G:1130:THR:H	2:G:1133:THR:CG2	2.26	0.49
2:G:161:GLY:N	2:G:505:GLY:HA3	2.24	0.49
2:G:273:HIS:CB	2:G:512:LEU:HD22	2.42	0.49
2:H:1749:GLU:OE2	2:H:1840:VAL:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:428:HIS:HD2	2:H:486:LEU:O	1.96	0.49
2:I:1567:ARG:HH11	2:I:1567:ARG:HG2	1.70	0.49
2:I:173:LEU:O	2:I:173:LEU:HD22	2.13	0.49
1:C:18:LEU:HD21	2:I:1815:LEU:HD12	1.94	0.49
1:C:20:TYR:CD2	2:I:2033:THR:OG1	2.66	0.49
2:I:306:ILE:HA	2:I:439:ILE:HD13	1.94	0.49
1:A:1009:LEU:HG	1:A:1664:ALA:HB2	1.95	0.49
1:A:1022:THR:HG22	1:A:1226:SER:CB	2.43	0.49
1:B:1312:VAL:CG2	1:B:1329:VAL:HG11	2.39	0.49
1:C:335:HIS:O	1:C:335:HIS:CD2	2.65	0.49
1:C:32:GLN:NE2	1:C:57:ALA:HA	2.28	0.49
2:G:1666:PHE:CD1	2:G:1814:ALA:HA	2.48	0.49
2:G:173:LEU:HD22	2:G:173:LEU:O	2.13	0.49
2:G:1913:VAL:O	2:G:1917:ILE:HG13	2.12	0.49
2:G:2036:GLU:HG2	2:G:2039:LYS:NZ	2.28	0.49
2:G:259:THR:HG22	2:G:262:GLU:CB	2.43	0.49
2:G:653:TYR:HD1	2:G:659:LEU:HD21	1.78	0.49
2:G:715:GLN:O	2:G:719:ILE:HG12	2.13	0.49
2:G:807:ILE:HD12	2:G:1063:THR:HG23	1.95	0.49
2:H:1002:HIS:NE2	2:H:1006:MET:HE3	2.27	0.49
2:H:860:ARG:HB2	2:H:1049:GLN:HG3	1.94	0.49
2:I:1567:ARG:NH1	2:I:1568:HIS:HB3	2.28	0.49
2:I:428:HIS:HD2	2:I:486:LEU:O	1.95	0.49
2:I:881:VAL:N	2:I:882:PRO:CD	2.76	0.49
1:A:1021:VAL:HG22	1:A:1387:ILE:HG22	1.95	0.48
1:A:1312:VAL:CG2	1:A:1329:VAL:HG11	2.41	0.48
1:B:182:VAL:O	1:B:186:ILE:HG13	2.12	0.48
1:B:916:LEU:HD22	1:B:922:VAL:HG22	1.94	0.48
1:C:1105:LEU:HD23	1:C:1185:VAL:HG22	1.94	0.48
2:G:402:LEU:HD12	2:G:404:GLN:HG2	1.95	0.48
2:G:598:THR:O	2:G:602:VAL:HB	2.13	0.48
2:H:739:GLY:HA2	2:H:1054:LEU:HG	1.95	0.48
2:H:1931:LEU:HB3	2:H:1935:GLU:CG	2.36	0.48
2:H:465:GLY:HA2	2:H:493:THR:HA	1.95	0.48
2:I:1697:HIS:HE1	2:I:1829:GLU:CG	2.26	0.48
2:I:161:GLY:N	2:I:505:GLY:HA3	2.24	0.48
2:I:663:ILE:HB	2:I:664:PRO:CD	2.42	0.48
2:I:835:THR:HG22	2:I:844:VAL:HA	1.95	0.48
1:C:1693:ILE:CD1	2:I:998:GLN:HB2	2.40	0.48
1:B:187:LEU:HD22	1:B:201:PRO:HB2	1.94	0.48
1:B:465:ASN:O	1:B:469:VAL:HG23	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1745:LYS:HE2	2:G:1747:LYS:HG2	1.95	0.48
2:G:2046:GLU:C	2:G:2048:TYR:H	2.15	0.48
2:G:376:ASN:C	2:G:376:ASN:ND2	2.67	0.48
2:G:597:MET:H	2:G:601:THR:HB	1.77	0.48
2:G:11:LEU:HD11	2:G:64:PHE:CD2	2.48	0.48
2:H:901:LYS:NZ	2:H:1031:LYS:O	2.46	0.48
2:H:1272:ASP:O	2:H:1273:GLU:HG3	2.13	0.48
2:H:1417:THR:O	2:H:1419:PHE:N	2.45	0.48
2:H:1868:GLN:HG3	2:H:1898:TYR:CZ	2.48	0.48
2:H:259:THR:HG22	2:H:262:GLU:CB	2.42	0.48
2:H:306:ILE:HA	2:H:439:ILE:CD1	2.42	0.48
2:H:786:SER:CB	2:H:794:MET:HE2	2.43	0.48
2:I:1674:GLN:OE1	2:I:1712:ASN:HA	2.13	0.48
2:I:629:GLY:O	2:I:632:ALA:HB3	2.13	0.48
2:I:682:GLY:O	2:I:683:ALA:HB3	2.13	0.48
2:I:970:TYR:O	2:I:973:LEU:HB2	2.14	0.48
1:A:1477:ILE:H	1:A:1478:PRO:HD3	1.78	0.48
1:B:157:HIS:HE1	1:B:228:LEU:HD22	1.77	0.48
1:B:413:LEU:C	1:B:415:SER:H	2.17	0.48
1:B:2:LYS:HE2	1:B:4:GLU:CD	2.34	0.48
1:C:1305:CYS:SG	3:C:2748:CER:C5	3.01	0.48
1:C:1523:ARG:NH2	1:C:1564:LEU:O	2.46	0.48
1:C:256:LEU:HD22	1:C:260:ARG:HB3	1.95	0.48
2:G:1330:GLY:HA2	2:G:1374:THR:HG21	1.94	0.48
2:G:1428:GLU:HG2	2:G:1470:THR:HG22	1.94	0.48
2:G:533:LEU:HD13	2:G:545:GLN:HG3	1.94	0.48
2:G:754:TYR:CE2	2:G:794:MET:HG3	2.48	0.48
2:G:7:ARG:HE	2:G:27:PHE:CB	2.25	0.48
2:H:33:LEU:HD21	2:H:80:PHE:CE2	2.49	0.48
2:H:40:ILE:O	2:H:42:PRO:HD3	2.13	0.48
2:H:463:PHE:CD1	2:H:486:LEU:HD22	2.48	0.48
2:H:955:GLU:HG2	2:H:987:TYR:HE2	1.78	0.48
2:I:1130:THR:H	2:I:1133:THR:CG2	2.25	0.48
2:I:1873:TYR:CE1	2:I:1877:ARG:NE	2.77	0.48
2:I:278:VAL:HG11	2:I:303:LEU:HD13	1.95	0.48
2:I:786:SER:CB	2:I:794:MET:HE2	2.42	0.48
1:A:340:ARG:HH12	1:A:344:GLN:HE21	1.60	0.48
1:B:328:LEU:HD13	1:B:329:GLU:N	2.29	0.48
1:B:335:HIS:O	1:B:338:LEU:HB3	2.14	0.48
1:B:702:LYS:HD3	1:B:731:THR:CG2	2.44	0.48
1:B:332:THR:HG22	1:C:331:ILE:CD1	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:331:ILE:HG23	1:C:332:THR:N	2.28	0.48
2:G:1980:TYR:HD1	2:G:1981:LEU:HD12	1.79	0.48
2:G:455:ILE:HG12	2:G:469:ARG:HG2	1.94	0.48
2:G:720:ALA:HA	2:G:728:ILE:CD1	2.43	0.48
2:H:1624:THR:HB	2:H:1642:THR:OG1	2.14	0.48
2:H:428:HIS:CD2	2:H:488:VAL:HG23	2.49	0.48
2:H:995:LEU:HB3	2:H:1000:ILE:HD11	1.94	0.48
2:I:146:PHE:HA	2:I:149:VAL:HG12	1.92	0.48
2:I:1850:SER:HB2	2:I:1973:SER:HB2	1.95	0.48
2:I:249:TYR:CD2	2:I:283:ILE:HD11	2.48	0.48
2:I:402:LEU:HD12	2:I:404:GLN:HG2	1.94	0.48
2:I:455:ILE:O	2:I:455:ILE:HG13	2.13	0.48
2:I:551:THR:HG22	2:I:552:SER:N	2.29	0.48
2:I:593:LEU:HD21	2:I:800:LEU:HB3	1.95	0.48
2:I:995:LEU:HB3	2:I:1000:ILE:HD11	1.95	0.48
1:A:1714:VAL:HG22	1:A:1738:ILE:HD11	1.96	0.48
1:B:408:TRP:CH2	1:B:1628:SER:HB3	2.47	0.48
1:B:21:GLN:HG3	2:H:2013:ASN:HB2	1.95	0.48
1:B:998:TYR:CE2	1:B:1667:GLU:HB2	2.49	0.48
1:C:988:ILE:HD13	1:C:1048:GLU:CB	2.43	0.48
1:C:1477:ILE:H	1:C:1478:PRO:HD3	1.78	0.48
1:C:1642:THR:HG22	1:C:1652:GLN:HG3	1.96	0.48
2:G:1344:ASP:O	2:G:1416:TYR:HE2	1.97	0.48
2:G:1567:ARG:CG	2:G:1567:ARG:NH1	2.51	0.48
2:G:995:LEU:HB3	2:G:1000:ILE:HD11	1.96	0.48
2:H:1100:VAL:CG2	2:H:1147:ILE:HG21	2.43	0.48
2:H:145:LEU:HD21	2:H:156:LEU:HD21	1.95	0.48
2:H:1918:LYS:HG2	2:H:1919:LEU:HD23	1.96	0.48
2:H:1953:VAL:O	2:H:1953:VAL:HG12	2.14	0.48
2:H:1986:LYS:HA	2:H:1989:LYS:HB3	1.95	0.48
2:I:1081:HIS:O	2:I:1085:LEU:HB2	2.14	0.48
2:I:569:LEU:HD12	2:I:1090:TYR:CD1	2.48	0.48
2:I:1266:TYR:HB2	2:I:1347:LEU:HD23	1.95	0.48
1:A:1401:TYR:C	1:A:1658:PRO:HG3	2.33	0.48
1:A:19:ALA:O	1:A:22:PHE:HB2	2.14	0.48
1:A:444:ASN:HB2	1:A:447:LEU:N	2.14	0.48
1:B:503:ILE:HD12	1:B:950:THR:HG21	1.96	0.48
1:C:430:ARG:NH1	1:C:493:VAL:O	2.44	0.48
1:C:764:ASP:OD2	1:C:818:ARG:HD3	2.12	0.48
2:G:569:LEU:HD12	2:G:1090:TYR:CD1	2.48	0.48
2:G:1148:ASN:C	2:G:1148:ASN:HD22	2.17	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1213:LEU:O	2:G:1214:LEU:HD23	2.12	0.48
1:A:20:TYR:CE1	2:G:2033:THR:CG2	2.97	0.48
2:G:593:LEU:HD21	2:G:800:LEU:HB3	1.96	0.48
2:G:72:VAL:HG12	2:G:73:GLU:N	2.28	0.48
2:H:1632:ILE:O	2:H:1632:ILE:HG23	2.13	0.48
2:H:397:LYS:HB3	2:H:416:PHE:CE2	2.48	0.48
2:H:99:ASN:HA	2:H:550:VAL:HG21	1.95	0.48
2:H:784:GLU:O	2:H:787:THR:HB	2.13	0.48
2:I:1159:ILE:CG1	2:I:1169:PRO:CD	2.90	0.48
2:I:121:GLU:HA	2:I:124:LYS:HD2	1.96	0.48
2:I:1738:PHE:CE1	2:I:1837:THR:HG23	2.48	0.48
2:I:7:ARG:HH11	2:I:24:THR:HG23	1.77	0.48
2:I:533:LEU:HG	2:I:533:LEU:O	2.13	0.48
2:I:586:LEU:HD12	2:I:764:MET:SD	2.54	0.48
1:A:988:ILE:HA	1:A:1048:GLU:CG	2.44	0.48
1:A:182:VAL:O	1:A:186:ILE:HG13	2.14	0.48
1:A:420:ILE:HG22	1:A:469:VAL:HG22	1.96	0.48
1:A:485:ASP:C	1:A:486:VAL:CA	2.76	0.48
1:C:1276:GLN:O	1:C:1282:THR:HG21	2.13	0.48
1:C:1300:THR:HA	1:C:1301:PRO:HD3	1.67	0.48
1:C:1312:VAL:CG2	1:C:1329:VAL:HG11	2.44	0.48
1:C:1396:MET:O	1:C:1680:ARG:NH1	2.46	0.48
1:C:1451:GLN:OE1	1:C:1451:GLN:HA	2.13	0.48
1:C:1617:ILE:O	1:C:1620:GLN:HG2	2.13	0.48
1:C:852:ARG:CG	1:C:852:ARG:NH1	2.66	0.48
2:G:1590:ARG:HG3	2:G:1608:TYR:CD2	2.48	0.48
2:G:2026:PHE:HD2	2:G:2045:TRP:HZ3	1.59	0.48
2:G:240:LEU:O	2:G:244:ILE:HG13	2.13	0.48
2:H:1674:GLN:OE1	2:H:1712:ASN:HA	2.12	0.48
2:H:751:LEU:HD23	2:H:791:TYR:CZ	2.49	0.48
2:I:1697:HIS:HE1	2:I:1829:GLU:HG2	1.77	0.48
2:I:667:LYS:HD2	2:I:697:THR:CG2	2.35	0.48
2:I:762:ASN:HD22	2:I:762:ASN:N	1.88	0.48
1:A:1037:TRP:HB2	1:A:1598:GLN:OE1	2.13	0.48
1:A:539:SER:O	1:A:540:GLN:C	2.52	0.48
1:B:1056:ILE:HD13	1:B:1193:TRP:CD1	2.45	0.48
1:B:1183:ARG:NH1	1:B:1344:GLY:HA2	2.29	0.48
1:B:625:THR:HG23	1:B:661:ASP:OD1	2.13	0.48
1:B:790:PHE:CE2	1:B:794:ILE:HD11	2.47	0.48
1:C:1738:ILE:O	1:C:1739:GLN:HB2	2.14	0.48
1:C:888:ILE:HD12	1:C:939:PHE:CE2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1180:MET:HB2	2:G:1197:LEU:HD21	1.95	0.48
2:G:522:GLY:O	2:G:560:ASN:HA	2.13	0.48
2:H:1040:LEU:O	2:H:1046:GLN:HG3	2.13	0.48
2:H:169:TYR:CG	2:H:170:PHE:N	2.81	0.48
2:H:214:ASN:ND2	2:H:217:GLU:HB2	2.27	0.48
2:H:490:TRP:HA	2:H:493:THR:HG22	1.96	0.48
2:H:597:MET:H	2:H:601:THR:HB	1.78	0.48
2:I:1325:PHE:CE1	2:I:1328:VAL:HG11	2.49	0.48
2:I:1586:SER:O	2:I:1590:ARG:HB2	2.14	0.48
2:I:845:THR:HG22	2:I:855:HIS:CD2	2.49	0.48
1:A:427:ASN:HB2	1:A:468:LEU:HD21	1.95	0.48
1:A:695:GLY:HA3	1:A:906:LEU:HD11	1.94	0.48
1:B:243:ILE:O	1:B:247:ARG:HG3	2.13	0.48
2:G:306:ILE:HA	2:G:439:ILE:HD13	1.96	0.48
2:G:432:LEU:HB3	2:G:484:ILE:HG23	1.96	0.48
2:G:481:ASP:OD2	2:G:485:ARG:NH1	2.47	0.48
2:H:489:LYS:O	2:H:493:THR:HG22	2.13	0.48
2:H:868:PHE:HB3	2:H:873:PHE:CE2	2.48	0.48
2:I:1159:ILE:HG22	2:I:1160:THR:N	2.28	0.48
2:I:772:GLY:O	2:I:804:ARG:HD3	2.14	0.48
1:A:1639:VAL:HG12	1:A:1640:SER:N	2.28	0.48
1:A:328:LEU:N	1:A:330:GLU:H	2.12	0.48
1:A:927:ASN:O	1:A:929:GLY:N	2.41	0.48
1:B:1319:ILE:HA	1:B:1324:ALA:O	2.13	0.48
1:B:328:LEU:N	1:B:330:GLU:H	2.11	0.48
1:B:683:ALA:HA	1:B:689:GLY:HA3	1.95	0.48
1:B:930:LEU:HD23	1:B:930:LEU:HA	1.67	0.48
1:C:386:PHE:O	1:C:390:VAL:HB	2.14	0.48
1:C:751:PHE:CZ	1:C:761:LEU:HD13	2.49	0.48
2:G:1148:ASN:ND2	2:G:1151:HIS:H	2.12	0.48
2:G:1325:PHE:CE1	2:G:1328:VAL:HG11	2.48	0.48
2:G:173:LEU:HD13	2:G:219:LEU:HD21	1.94	0.48
2:G:461:ASP:HB3	2:G:464:ASP:HB2	1.95	0.48
2:H:157:VAL:HG11	2:H:496:PHE:CZ	2.49	0.48
2:H:232:LEU:HD21	2:H:423:VAL:HA	1.95	0.48
2:H:706:LYS:HE2	2:H:731:GLN:OE1	2.14	0.48
2:I:2026:PHE:HD2	2:I:2045:TRP:HZ3	1.60	0.48
2:I:214:ASN:ND2	2:I:217:GLU:HB2	2.28	0.48
2:I:489:LYS:O	2:I:493:THR:HG22	2.13	0.48
2:I:753:MET:O	2:I:757:ILE:HG13	2.14	0.48
1:A:187:LEU:HD22	1:A:201:PRO:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1646:PHE:CE1	3:B:2748:CER:H31	2.49	0.47
1:B:1:MET:HE3	1:B:9:LEU:HD12	1.96	0.47
1:C:1392:LEU:CD2	1:C:1396:MET:HG3	2.44	0.47
1:C:182:VAL:O	1:C:186:ILE:HG13	2.14	0.47
1:C:187:LEU:HD22	1:C:201:PRO:HB2	1.96	0.47
1:C:440:MET:HE3	1:C:483:VAL:HG21	1.95	0.47
1:C:529:MET:HG2	1:C:638:LEU:HG	1.95	0.47
2:G:1027:ILE:O	2:G:1031:LYS:HB2	2.14	0.47
2:G:1566:SER:HB3	2:G:1568:HIS:CE1	2.49	0.47
2:G:22:VAL:HG11	2:G:27:PHE:HA	1.96	0.47
2:H:873:PHE:CD1	2:H:1026:GLU:HB2	2.49	0.47
2:H:1590:ARG:NH2	2:H:1594:GLU:OE2	2.47	0.47
2:H:943:TRP:CZ2	2:H:1016:PRO:HG3	2.49	0.47
2:I:1002:HIS:NE2	2:I:1006:MET:HE3	2.29	0.47
2:I:1015:VAL:HA	2:I:1016:PRO:HD3	1.74	0.47
2:I:176:LEU:HD22	2:I:247:ALA:HB1	1.96	0.47
2:I:1834:ARG:NH1	2:I:1834:ARG:CG	2.66	0.47
2:I:594:VAL:CG2	2:I:610:THR:HG21	2.44	0.47
2:I:900:GLN:NE2	2:I:1051:THR:HA	2.28	0.47
1:A:1501:LEU:O	1:A:1505:GLN:HG3	2.14	0.47
1:A:176:VAL:HG12	1:A:178:GLY:H	1.79	0.47
1:B:1367:ARG:HH12	1:B:1372:THR:CB	2.20	0.47
1:B:256:LEU:HD22	1:B:260:ARG:HB3	1.95	0.47
1:C:1021:VAL:HG11	1:C:1597:LEU:CD1	2.44	0.47
1:C:1125:VAL:HG21	1:C:1175:ILE:CD1	2.43	0.47
1:C:427:ASN:HB2	1:C:468:LEU:HD21	1.95	0.47
2:G:777:THR:HG23	2:G:1081:HIS:CE1	2.49	0.47
2:G:40:ILE:O	2:G:42:PRO:HD3	2.14	0.47
2:H:159:ILE:CG2	2:H:501:ILE:HG22	2.44	0.47
2:H:1749:GLU:OE2	2:H:1840:VAL:CG1	2.62	0.47
2:H:213:LEU:HG	2:H:213:LEU:O	2.14	0.47
2:H:732:TRP:CD2	2:H:750:MET:HE1	2.49	0.47
2:H:950:PHE:O	2:H:954:VAL:HG23	2.13	0.47
1:A:1238:VAL:CG1	1:A:1242:GLU:HB2	2.44	0.47
1:A:1303:GLY:C	1:A:1307:THR:HG22	2.35	0.47
1:A:683:ALA:HA	1:A:689:GLY:HA3	1.95	0.47
1:A:852:ARG:HB3	1:A:858:TRP:HZ2	1.80	0.47
1:A:893:VAL:HG11	1:A:930:LEU:CD2	2.38	0.47
1:B:1116:PRO:HB2	1:B:1184:LEU:HD12	1.95	0.47
1:B:1209:ASP:OD2	1:B:1253:GLY:HA2	2.14	0.47
1:B:530:ALA:HA	1:B:636:PRO:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1516:ASP:HA	1:C:1517:PRO:HD3	1.66	0.47
1:C:1010:GLU:HA	1:C:1664:ALA:HA	1.95	0.47
2:G:1417:THR:O	2:G:1419:PHE:N	2.46	0.47
2:G:1624:THR:HB	2:G:1642:THR:OG1	2.15	0.47
2:G:1666:PHE:CD1	2:G:1814:ALA:HB2	2.49	0.47
2:G:428:HIS:HD2	2:G:486:LEU:O	1.97	0.47
2:G:804:ARG:NH2	2:G:1068:GLU:OE1	2.48	0.47
2:H:1417:THR:C	2:H:1419:PHE:H	2.18	0.47
2:H:1438:SER:O	2:H:1441:ILE:HG23	2.13	0.47
2:H:589:ARG:HB3	2:H:590:PRO:CD	2.43	0.47
2:I:1579:ILE:HD11	2:I:1615:MET:SD	2.53	0.47
2:I:1752:PHE:HZ	2:I:1836:MET:HE3	1.80	0.47
2:I:926:LEU:HB3	2:I:947:THR:CG2	2.43	0.47
1:C:1133:PRO:HG3	1:C:1166:LYS:HG3	1.96	0.47
1:C:1138:LYS:HG3	1:C:1163:TYR:CE1	2.48	0.47
1:C:998:TYR:CE2	1:C:1667:GLU:HB2	2.49	0.47
1:C:370:GLU:O	1:C:373:ALA:HB3	2.14	0.47
1:C:526:VAL:HG12	1:C:626:VAL:HG11	1.96	0.47
1:C:987:ASN:HD22	2:I:957:ARG:CD	2.26	0.47
2:G:169:TYR:CG	2:G:170:PHE:N	2.83	0.47
2:G:33:LEU:HD21	2:G:80:PHE:CE2	2.50	0.47
2:G:512:LEU:O	2:G:516:THR:HG23	2.15	0.47
2:H:1472:VAL:CG2	2:H:1483:VAL:HG22	2.44	0.47
2:H:1486:PHE:HA	2:H:1504:VAL:O	2.14	0.47
2:H:597:MET:HA	4:H:3051:FMN:N5	2.30	0.47
2:H:634:ILE:HD11	2:H:649:ILE:CD1	2.40	0.47
2:H:677:GLN:O	2:H:678:PHE:HB3	2.15	0.47
2:I:1804:PHE:CD2	2:I:1818:LEU:HD22	2.49	0.47
2:I:233:SER:HA	2:I:424:ALA:CB	2.44	0.47
2:I:562:LEU:HG	2:I:793:PRO:CB	2.44	0.47
1:A:1208:VAL:HG11	1:A:1212:THR:HB	1.96	0.47
1:A:1319:ILE:HA	1:A:1324:ALA:O	2.14	0.47
1:A:1012:LEU:HD23	1:A:1445:MET:CE	2.43	0.47
1:B:1477:ILE:H	1:B:1478:PRO:HD3	1.79	0.47
1:B:20:TYR:CG	2:H:2033:THR:OG1	2.67	0.47
1:B:331:ILE:HG23	1:B:332:THR:N	2.29	0.47
1:B:531:LEU:HD21	1:B:629:THR:HG22	1.97	0.47
1:C:1303:GLY:CA	1:C:1649:LYS:HE2	2.36	0.47
1:C:142:ASP:CG	1:C:257:PRO:HB2	2.34	0.47
1:C:328:LEU:N	1:C:330:GLU:H	2.12	0.47
2:G:1651:LEU:O	2:G:1652:THR:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1949:LYS:O	2:G:1953:VAL:HG23	2.15	0.47
2:G:463:PHE:CD1	2:G:486:LEU:HD22	2.48	0.47
2:G:123:ILE:CD1	2:G:533:LEU:CD2	2.93	0.47
2:G:732:TRP:CD2	2:G:750:MET:HE3	2.48	0.47
2:H:2037:PRO:O	2:H:2041:ILE:HG13	2.15	0.47
2:H:376:ASN:C	2:H:376:ASN:HD22	2.18	0.47
2:H:455:ILE:HG13	2:H:455:ILE:O	2.13	0.47
2:H:750:MET:CG	2:H:796:PHE:HZ	2.25	0.47
2:H:860:ARG:H	2:H:1049:GLN:HG3	1.79	0.47
2:I:873:PHE:CE1	2:I:1026:GLU:HB2	2.49	0.47
2:I:1378:ILE:O	2:I:1378:ILE:HG12	2.14	0.47
2:I:2037:PRO:O	2:I:2041:ILE:HG13	2.14	0.47
2:I:350:GLN:HA	2:I:353:VAL:HG13	1.96	0.47
2:I:55:THR:HB	2:I:59:GLU:OE2	2.13	0.47
1:A:983:GLN:HE22	2:G:962:LYS:HD2	1.77	0.47
1:B:157:HIS:CE1	1:B:228:LEU:HD22	2.49	0.47
1:B:1305:CYS:SG	3:B:2748:CER:C5	3.03	0.47
1:C:335:HIS:O	1:C:338:LEU:HB3	2.14	0.47
2:H:579:VAL:CG2	2:H:1078:HIS:CD2	2.95	0.47
2:H:1854:MET:CG	2:H:1901:ALA:HB2	2.45	0.47
2:H:355:LYS:HB3	2:H:355:LYS:HE2	1.65	0.47
2:H:652:ILE:N	2:H:652:ILE:HD12	2.30	0.47
2:H:751:LEU:HD23	2:H:791:TYR:CD2	2.49	0.47
2:I:1103:PHE:O	2:I:1247:GLY:HA3	2.14	0.47
2:I:1389:ILE:HG13	2:I:1411:PHE:HD1	1.80	0.47
2:I:1590:ARG:NH2	2:I:1594:GLU:OE2	2.48	0.47
2:I:455:ILE:HD11	2:I:469:ARG:NE	2.29	0.47
2:I:553:ASN:O	2:I:556:LYS:HE3	2.15	0.47
2:I:706:LYS:HE2	2:I:731:GLN:OE1	2.15	0.47
2:I:748:THR:CB	2:I:749:PRO:HD3	2.44	0.47
1:A:1061:SER:HB2	1:A:1078:SER:HB3	1.96	0.47
1:A:1010:GLU:HA	1:A:1664:ALA:HA	1.97	0.47
1:A:243:ILE:O	1:A:247:ARG:HG3	2.14	0.47
1:A:413:LEU:HD13	1:A:451:MET:HG2	1.97	0.47
1:B:34:VAL:O	1:B:38:ASP:HB2	2.14	0.47
1:B:776:GLU:OE1	1:B:795:MET:HE1	2.13	0.47
1:B:827:SER:HA	1:B:828:PRO:HD3	1.73	0.47
1:B:889:GLU:HG3	1:B:893:VAL:O	2.15	0.47
1:C:1183:ARG:NH1	1:C:1344:GLY:HA2	2.30	0.47
1:C:1305:CYS:SG	1:C:1585:LYS:HA	2.55	0.47
1:C:254:TRP:HZ3	1:C:292:GLN:HG3	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1102:TYR:HB3	2:G:1244:PRO:CA	2.44	0.47
2:G:232:LEU:HD21	2:G:423:VAL:HA	1.97	0.47
2:G:732:TRP:CE2	2:G:750:MET:HE3	2.50	0.47
2:H:1130:THR:H	2:H:1133:THR:CG2	2.27	0.47
2:H:1378:ILE:HG12	2:H:1378:ILE:O	2.13	0.47
2:H:176:LEU:HD22	2:H:247:ALA:HB1	1.95	0.47
2:H:606:PHE:HZ	2:H:805:VAL:CG1	2.28	0.47
2:H:11:LEU:HD11	2:H:64:PHE:CD2	2.50	0.47
2:H:741:HIS:HE1	2:H:845:THR:HG21	1.61	0.47
2:I:1148:ASN:ND2	2:I:1151:HIS:H	2.13	0.47
2:I:22:VAL:HG11	2:I:27:PHE:HA	1.97	0.47
2:I:461:ASP:HB3	2:I:464:ASP:HB2	1.95	0.47
2:I:732:TRP:CE2	2:I:750:MET:HE3	2.50	0.47
1:A:1158:PRO:HD2	1:A:1159:GLU:OE2	2.14	0.47
1:A:406:TRP:CE3	1:A:1619:GLU:HG3	2.49	0.47
1:B:1276:GLN:O	1:B:1282:THR:HG21	2.14	0.47
1:B:705:VAL:CG2	1:B:732:LEU:HD21	2.43	0.47
1:B:968:VAL:O	2:H:1512:HIS:HB2	2.14	0.47
1:C:186:ILE:O	1:C:190:LEU:HG	2.14	0.47
1:C:338:LEU:O	1:C:342:GLN:HG3	2.15	0.47
2:G:1567:ARG:NH1	2:G:1568:HIS:HB3	2.28	0.47
2:G:369:SER:O	2:G:370:LEU:HD23	2.14	0.47
2:G:629:GLY:O	2:G:632:ALA:HB3	2.15	0.47
2:H:1980:TYR:HD1	2:H:1981:LEU:HD12	1.79	0.47
2:H:1819:ALA:CA	2:H:2005:ARG:HH11	2.26	0.47
2:H:967:ILE:HD12	2:H:972:LEU:HD22	1.96	0.47
2:I:1004:LEU:CD2	2:I:1019:PRO:HB2	2.44	0.47
2:I:443:LEU:HD22	2:I:448:VAL:CG1	2.45	0.47
2:I:747:HIS:HE1	2:I:780:TYR:OH	1.97	0.47
2:I:768:GLY:HA3	2:I:800:LEU:CD2	2.41	0.47
2:I:955:GLU:HG2	2:I:987:TYR:HE2	1.79	0.47
1:A:479:ASN:O	1:A:483:VAL:HG23	2.15	0.47
1:A:529:MET:HE3	1:A:529:MET:CA	2.36	0.47
1:A:988:ILE:HD13	1:A:1048:GLU:HA	1.97	0.47
1:B:1523:ARG:NH2	1:B:1564:LEU:O	2.48	0.47
1:B:253:ARG:O	1:B:254:TRP:CD1	2.68	0.47
1:B:142:ASP:CG	1:B:257:PRO:HB2	2.35	0.47
1:C:1544:THR:O	1:C:1545:SER:HB3	2.15	0.47
2:G:1159:ILE:CG1	2:G:1169:PRO:CD	2.93	0.47
2:G:1666:PHE:CE1	2:G:1814:ALA:HA	2.50	0.47
2:G:1873:TYR:CE2	2:G:1940:LEU:HD21	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:55:THR:HB	2:G:59:GLU:OE2	2.14	0.47
2:H:1004:LEU:CD2	2:H:1019:PRO:HB2	2.44	0.47
2:H:586:LEU:HD12	2:H:764:MET:SD	2.55	0.47
2:H:826:GLY:HA3	2:H:1061:GLN:CB	2.44	0.47
2:I:194:THR:CG2	2:I:300:ILE:HD11	2.40	0.47
2:I:376:ASN:C	2:I:376:ASN:ND2	2.68	0.47
2:I:42:PRO:HG2	2:I:52:ASP:CG	2.35	0.47
1:B:1305:CYS:SG	3:B:2748:CER:H51	2.54	0.47
1:C:1012:LEU:HD23	1:C:1445:MET:HE3	1.97	0.47
1:C:237:MET:HG3	1:C:241:PHE:HB3	1.95	0.47
2:G:826:GLY:HA2	2:G:1060:ALA:HB3	1.97	0.47
2:G:1850:SER:HB2	2:G:1973:SER:HB2	1.96	0.47
2:G:730:LEU:C	2:G:730:LEU:HD12	2.35	0.47
2:G:772:GLY:O	2:G:804:ARG:HD3	2.15	0.47
2:H:127:ILE:HD12	2:H:180:TYR:HD2	1.80	0.47
2:H:131:ILE:CD1	2:H:182:VAL:CB	2.71	0.47
2:I:1553:TYR:OH	2:I:1583:MET:HB3	2.15	0.47
1:C:18:LEU:HD21	2:I:1815:LEU:CD1	2.45	0.47
2:I:606:PHE:HZ	2:I:805:VAL:CG1	2.28	0.47
1:A:1430:ARG:O	1:A:1430:ARG:HG2	2.15	0.47
1:A:36:LEU:CD2	1:A:61:LEU:HD21	2.37	0.47
1:B:1009:LEU:HD13	1:B:1445:MET:HE1	1.97	0.47
1:B:254:TRP:HZ3	1:B:292:GLN:HG3	1.76	0.47
1:B:32:GLN:NE2	1:B:57:ALA:HA	2.29	0.47
1:B:883:ILE:HD12	1:B:947:LEU:HD12	1.97	0.47
1:C:1189:ILE:HG23	1:C:1190:PRO:HD2	1.97	0.47
2:G:1273:GLU:HB3	2:G:1274:PRO:CD	2.45	0.47
2:G:1493:LEU:HB3	2:G:1494:PRO:HD2	1.96	0.47
1:A:29:ILE:HG13	2:G:1891:TYR:O	2.15	0.47
2:G:739:GLY:HA2	2:G:1054:LEU:HG	1.97	0.47
2:G:745:ASP:HA	2:G:832:TRP:CH2	2.48	0.47
2:G:881:VAL:N	2:G:882:PRO:CD	2.78	0.47
2:H:1015:VAL:HG11	2:H:1017:PHE:CE1	2.50	0.47
2:H:1054:LEU:HB2	4:H:3051:FMN:HM71	1.96	0.47
2:H:1273:GLU:HB3	2:H:1274:PRO:CD	2.45	0.47
2:H:1428:GLU:HG2	2:H:1470:THR:HG22	1.97	0.47
2:H:1473:THR:O	2:H:1481:SER:HB3	2.15	0.47
2:H:1764:PHE:HB2	2:H:1770:LEU:HD21	1.97	0.47
2:H:238:CYS:CB	2:H:239:PRO:HD3	2.43	0.47
2:H:720:ALA:HA	2:H:728:ILE:CD1	2.45	0.47
2:I:1148:ASN:HD22	2:I:1148:ASN:C	2.19	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:490:TRP:HA	2:I:493:THR:HG22	1.96	0.47
1:A:186:ILE:O	1:A:190:LEU:HG	2.14	0.46
1:A:702:LYS:HD3	1:A:731:THR:CG2	2.44	0.46
1:B:1544:THR:O	1:B:1545:SER:HB3	2.15	0.46
1:C:709:ARG:O	1:C:714:VAL:HG21	2.16	0.46
2:G:1015:VAL:HG11	2:G:1017:PHE:CE1	2.50	0.46
2:G:1417:THR:C	2:G:1419:PHE:H	2.18	0.46
2:G:1738:PHE:CE1	2:G:1837:THR:HG23	2.50	0.46
2:G:2035:SER:HB3	2:G:2038:ILE:CG1	2.41	0.46
2:G:249:TYR:CD2	2:G:283:ILE:HD11	2.50	0.46
2:H:7:ARG:NH2	2:H:24:THR:O	2.48	0.46
2:H:440:ASN:ND2	2:H:477:GLU:HG2	2.30	0.46
2:I:1344:ASP:O	2:I:1416:TYR:HE2	1.98	0.46
2:I:1913:VAL:O	2:I:1917:ILE:HG13	2.15	0.46
2:I:533:LEU:HD13	2:I:545:GLN:HG3	1.97	0.46
2:I:573:LYS:C	2:I:575:GLY:H	2.19	0.46
2:I:99:ASN:HA	2:I:550:VAL:HG23	1.97	0.46
1:A:1056:ILE:HG13	1:A:1057:MET:N	2.30	0.46
1:A:1238:VAL:CG1	1:A:1239:HIS:N	2.78	0.46
1:A:183:GLN:NE2	1:A:202:GLU:HG2	2.29	0.46
1:A:908:LEU:HA	1:A:913:VAL:HG21	1.96	0.46
1:A:930:LEU:HD23	1:A:930:LEU:HA	1.70	0.46
1:B:1133:PRO:HG3	1:B:1166:LYS:HG3	1.97	0.46
1:C:1303:GLY:C	1:C:1307:THR:HG22	2.35	0.46
1:C:1646:PHE:CE1	3:C:2748:CER:H31	2.50	0.46
1:C:293:LYS:O	1:C:297:ILE:HG13	2.15	0.46
1:C:499:PRO:HD3	1:C:516:ARG:HH21	1.80	0.46
1:C:893:VAL:HG11	1:C:930:LEU:CD2	2.40	0.46
2:G:1293:THR:HG22	2:G:1296:GLU:CD	2.35	0.46
2:G:279:THR:O	2:G:283:ILE:HB	2.15	0.46
2:G:598:THR:CB	2:G:599:PRO:HD3	2.46	0.46
2:G:652:ILE:HD12	2:G:652:ILE:N	2.29	0.46
2:G:751:LEU:HA	2:G:794:MET:HE3	1.96	0.46
2:H:101:ILE:H	2:H:101:ILE:HG13	1.30	0.46
2:H:1258:ARG:O	2:H:1262:ILE:HG13	2.15	0.46
2:H:1269:LEU:O	2:H:1560:LEU:HD23	2.15	0.46
2:H:1804:PHE:CD2	2:H:1818:LEU:HD22	2.50	0.46
2:H:218:TRP:HB3	2:H:225:THR:OG1	2.15	0.46
2:H:736:ARG:H	2:H:736:ARG:HG3	1.55	0.46
2:H:926:LEU:HB3	2:H:947:THR:HG22	1.97	0.46
2:I:1080:GLY:O	2:I:1084:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1148:ASN:HD22	2:I:1151:HIS:H	1.63	0.46
2:I:213:LEU:HG	2:I:213:LEU:O	2.16	0.46
2:I:345:THR:HG22	2:I:347:GLU:N	2.23	0.46
2:I:758:ARG:NH2	2:I:797:ASP:OD1	2.38	0.46
1:A:232:LEU:HD13	1:A:272:GLU:CB	2.44	0.46
1:A:702:LYS:HE2	1:A:729:GLY:O	2.15	0.46
1:B:1239:HIS:CD2	1:B:1241:SER:H	2.33	0.46
1:B:1303:GLY:C	1:B:1307:THR:HG22	2.35	0.46
1:B:1114:TYR:CD1	1:B:1337:GLU:HG3	2.50	0.46
1:B:1639:VAL:CG1	1:B:1640:SER:N	2.79	0.46
1:B:237:MET:HG3	1:B:241:PHE:HB3	1.97	0.46
1:C:1004:ILE:HG22	1:C:1660:TYR:CE2	2.49	0.46
1:C:420:ILE:HG22	1:C:469:VAL:HG22	1.96	0.46
1:C:908:LEU:HA	1:C:913:VAL:HG21	1.96	0.46
2:G:1579:ILE:HG22	2:G:1580:THR:O	2.15	0.46
2:G:9:LEU:HB2	2:G:27:PHE:HE1	1.81	0.46
2:G:7:ARG:NH2	2:G:24:THR:O	2.48	0.46
2:G:826:GLY:HA3	2:G:1061:GLN:CB	2.44	0.46
2:H:1079:ASP:O	2:H:1082:ILE:HG22	2.16	0.46
2:H:1359:MET:CE	2:H:1404:MET:HB3	2.44	0.46
2:H:1552:PRO:O	2:H:1556:VAL:HG23	2.15	0.46
1:B:14:LEU:HD11	2:H:1821:VAL:HG11	1.97	0.46
2:H:1945:ASP:O	2:H:1949:LYS:HG3	2.15	0.46
2:H:350:GLN:HA	2:H:353:VAL:HG13	1.97	0.46
2:H:598:THR:CB	2:H:599:PRO:HD3	2.44	0.46
2:H:72:VAL:HG12	2:H:73:GLU:N	2.30	0.46
2:H:879:LYS:HA	2:H:879:LYS:HD3	1.71	0.46
2:I:1417:THR:C	2:I:1419:PHE:H	2.18	0.46
2:I:1593:ILE:HD13	2:I:1626:ILE:HD13	1.97	0.46
2:I:826:GLY:HA3	2:I:1061:GLN:CB	2.46	0.46
1:A:986:ALA:CB	1:A:1047:LEU:HD13	2.45	0.46
1:A:1544:THR:O	1:A:1545:SER:HB3	2.15	0.46
1:A:1639:VAL:CG1	1:A:1640:SER:N	2.78	0.46
1:A:1646:PHE:CE1	3:A:2748:CER:H31	2.50	0.46
1:A:338:LEU:O	1:A:342:GLN:HG3	2.16	0.46
1:B:1305:CYS:SG	1:B:1585:LYS:HA	2.56	0.46
1:B:741:SER:HB3	1:B:744:ASP:HB2	1.97	0.46
1:C:1238:VAL:CG1	1:C:1242:GLU:HB2	2.45	0.46
1:C:451:MET:HE2	1:C:451:MET:HB3	1.71	0.46
1:C:784:ILE:HG23	1:C:788:SER:HB2	1.98	0.46
1:C:933:VAL:HA	1:C:934:PRO:HD3	1.57	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:355:LYS:HE2	2:G:355:LYS:HB3	1.64	0.46
2:H:807:ILE:HD12	2:H:1063:THR:HG23	1.96	0.46
2:H:1266:TYR:HB2	2:H:1347:LEU:HD23	1.97	0.46
2:H:1666:PHE:CD1	2:H:1814:ALA:HB2	2.49	0.46
2:H:1908:ASP:HA	2:H:1911:THR:HG22	1.98	0.46
2:H:42:PRO:HG2	2:H:52:ASP:CG	2.36	0.46
2:H:573:LYS:HE3	2:H:1101:GLU:OE1	2.15	0.46
2:H:881:VAL:N	2:H:882:PRO:CD	2.79	0.46
2:I:1272:ASP:O	2:I:1273:GLU:HG3	2.15	0.46
2:I:131:ILE:HG21	2:I:182:VAL:HG12	1.97	0.46
2:I:1624:THR:HB	2:I:1642:THR:CG2	2.43	0.46
2:I:1764:PHE:HB2	2:I:1770:LEU:HD21	1.97	0.46
1:A:1050:CYS:HB3	1:A:1089:VAL:HG12	1.98	0.46
1:B:1618:LEU:HD23	1:B:1621:PHE:CE2	2.51	0.46
1:B:183:GLN:NE2	1:B:202:GLU:HG2	2.29	0.46
1:B:451:MET:HE2	1:B:451:MET:HB3	1.73	0.46
1:C:256:LEU:HA	1:C:257:PRO:HD3	1.72	0.46
1:C:2:LYS:HE2	1:C:4:GLU:CD	2.35	0.46
2:G:873:PHE:CD1	2:G:1026:GLU:HB2	2.50	0.46
2:G:109:LEU:HD11	2:G:116:LEU:CD2	2.41	0.46
2:G:1834:ARG:CG	2:G:1834:ARG:NH1	2.68	0.46
1:A:26:VAL:CG2	2:G:1890:ASN:ND2	2.78	0.46
2:G:455:ILE:O	2:G:455:ILE:HG13	2.14	0.46
2:G:702:TYR:HB3	2:G:727:PRO:HB2	1.97	0.46
2:H:1169:PRO:O	2:H:1173:VAL:HG23	2.15	0.46
2:H:1195:VAL:HG13	2:H:1211:LEU:CB	2.44	0.46
2:H:1441:ILE:HD11	2:H:1445:ARG:NH2	2.27	0.46
2:H:1567:ARG:NH1	2:H:1568:HIS:HB3	2.29	0.46
2:I:1666:PHE:CD1	2:I:1814:ALA:HA	2.50	0.46
2:I:584:SER:CB	2:I:591:PRO:HG3	2.41	0.46
1:A:170:LYS:HD3	1:A:175:LEU:HD23	1.97	0.46
1:A:2:LYS:HE2	1:A:4:GLU:CD	2.36	0.46
1:B:1303:GLY:CA	1:B:1649:LYS:HE2	2.40	0.46
1:B:702:LYS:HE2	1:B:729:GLY:O	2.15	0.46
1:C:1319:ILE:HA	1:C:1324:ALA:O	2.14	0.46
1:C:1362:PRO:HA	1:C:1365:MET:HG3	1.97	0.46
1:C:1367:ARG:HH12	1:C:1372:THR:CB	2.20	0.46
1:C:1533:ILE:HD11	1:C:1564:LEU:HD13	1.98	0.46
1:C:243:ILE:O	1:C:247:ARG:HG3	2.16	0.46
2:G:1886:VAL:HG22	2:G:1906:ALA:HB1	1.97	0.46
2:G:209:PHE:CE2	2:G:213:LEU:HD22	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:214:ASN:ND2	2:G:217:GLU:HB2	2.30	0.46
2:G:309:ARG:HA	2:G:309:ARG:HD3	1.64	0.46
2:G:441:LYS:O	2:G:444:VAL:HG12	2.15	0.46
2:G:669:LEU:HD12	2:G:669:LEU:HA	1.62	0.46
2:G:719:ILE:H	2:G:719:ILE:HG12	1.57	0.46
2:G:844:VAL:HG22	2:G:858:ALA:HB2	1.98	0.46
2:H:582:LYS:HE2	2:H:761:PRO:O	2.16	0.46
2:I:1071:LYS:HE3	2:I:1075:ASP:OD2	2.14	0.46
2:H:321:PRO:HD2	2:I:1599:ASP:OD1	2.16	0.46
2:I:1932:SER:O	2:I:1936:VAL:HG22	2.16	0.46
2:I:2026:PHE:HB3	2:I:2042:ILE:HD13	1.98	0.46
2:I:843:ILE:HD11	2:I:1055:HIS:HB3	1.98	0.46
1:A:1270:VAL:HG11	1:A:1274:ILE:HD13	1.97	0.46
1:A:1487:LEU:C	1:A:1487:LEU:HD23	2.35	0.46
1:A:1617:ILE:O	1:A:1620:GLN:HG2	2.16	0.46
1:A:709:ARG:O	1:A:714:VAL:HG21	2.16	0.46
1:B:11:HIS:C	1:B:11:HIS:CD2	2.89	0.46
1:B:792:HIS:CE1	1:B:796:LEU:HD23	2.51	0.46
1:C:1263:ASP:HB2	1:C:1270:VAL:HG21	1.98	0.46
1:C:1577:GLN:NE2	1:C:1591:TRP:HB3	2.30	0.46
1:C:1233:GLU:CD	1:C:1680:ARG:HH21	2.19	0.46
1:C:183:GLN:O	1:C:187:LEU:HG	2.15	0.46
1:C:774:ILE:HA	1:C:775:PRO:HD3	1.74	0.46
2:G:1378:ILE:O	2:G:1378:ILE:HG12	2.13	0.46
2:G:1854:MET:CG	2:G:1901:ALA:HB2	2.46	0.46
2:G:553:ASN:O	2:G:556:LYS:HE3	2.16	0.46
2:H:1180:MET:HB2	2:H:1197:LEU:HD21	1.98	0.46
2:H:1624:THR:HB	2:H:1642:THR:CG2	2.45	0.46
2:H:1738:PHE:CE1	2:H:1837:THR:HG23	2.50	0.46
2:H:1850:SER:HB2	2:H:1973:SER:HB2	1.97	0.46
2:H:1858:ASN:HA	2:H:1896:GLN:O	2.16	0.46
2:H:306:ILE:HA	2:H:439:ILE:HD13	1.96	0.46
2:H:481:ASP:OD2	2:H:485:ARG:NH1	2.48	0.46
2:H:553:ASN:O	2:H:556:LYS:HE3	2.16	0.46
2:H:653:TYR:HD1	2:H:659:LEU:HD21	1.80	0.46
2:H:845:THR:HG22	2:H:855:HIS:CD2	2.51	0.46
2:I:860:ARG:HB2	2:I:1049:GLN:HG3	1.97	0.46
2:I:109:LEU:HD11	2:I:116:LEU:CD2	2.43	0.46
2:I:109:LEU:HD22	2:I:114:THR:HG23	1.96	0.46
2:I:589:ARG:HB3	2:I:590:PRO:CD	2.43	0.46
2:I:653:TYR:HD1	2:I:659:LEU:HD21	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:37:LYS:HB2	1:A:65:TYR:CE1	2.48	0.46
1:A:427:ASN:ND2	1:A:610:THR:H	2.08	0.46
1:A:49:PRO:O	1:A:82:SER:HB2	2.16	0.46
1:B:1021:VAL:HG22	1:B:1387:ILE:HG22	1.98	0.46
1:B:1595:GLY:O	1:B:1599:ILE:HG13	2.15	0.46
2:G:1168:ASN:HA	2:G:1169:PRO:HD3	1.81	0.46
2:G:1303:ALA:HB2	2:G:1556:VAL:HG21	1.98	0.46
2:G:131:ILE:CG2	2:G:182:VAL:HG11	2.43	0.46
2:G:2037:PRO:O	2:G:2041:ILE:HG13	2.16	0.46
2:G:785:TRP:CG	2:G:786:SER:N	2.83	0.46
2:G:845:THR:HG22	2:G:855:HIS:CD2	2.50	0.46
2:G:955:GLU:HG2	2:G:987:TYR:HE2	1.80	0.46
2:H:1344:ASP:O	2:H:1416:TYR:HE2	1.99	0.46
2:H:1427:VAL:HG22	2:H:1469:GLU:HG2	1.96	0.46
2:H:1491:VAL:HB	2:H:1501:ILE:CD1	2.45	0.46
2:H:1651:LEU:O	2:H:1652:THR:HG23	2.16	0.46
2:H:1846:GLU:C	2:H:1848:GLY:H	2.19	0.46
2:H:1873:TYR:CE1	2:H:1877:ARG:NE	2.77	0.46
2:H:551:THR:HG22	2:H:552:SER:N	2.30	0.46
2:H:60:LEU:O	2:H:63:LYS:HB2	2.16	0.46
2:I:1180:MET:HB3	2:I:1199:GLU:HG2	1.98	0.46
2:I:1543:ASP:OD1	2:I:1623:LYS:HG2	2.15	0.46
2:I:490:TRP:CZ2	2:I:512:LEU:HD21	2.51	0.46
1:A:331:ILE:HG23	1:A:332:THR:N	2.31	0.46
1:A:35:PHE:HA	1:A:39:PHE:HD2	1.81	0.46
1:A:507:GLY:N	1:A:954:ARG:HG2	2.31	0.46
1:C:1196:LYS:HE3	1:C:1202:ASP:CG	2.37	0.46
1:C:11:HIS:C	1:C:11:HIS:CD2	2.89	0.46
1:C:1209:ASP:OD2	1:C:1253:GLY:HA2	2.16	0.46
2:G:123:ILE:HD11	2:G:533:LEU:HD22	1.98	0.46
2:G:1842:VAL:HA	2:G:1843:PRO:HD2	1.89	0.46
2:G:970:TYR:O	2:G:973:LEU:HB2	2.16	0.46
2:H:1236:LEU:HA	2:H:1237:PRO:HD3	1.78	0.46
2:H:1374:THR:HG23	2:H:1396:LEU:CD1	2.46	0.46
2:H:1227:ARG:NE	2:H:1565:VAL:HG12	2.30	0.46
2:H:490:TRP:CZ2	2:H:512:LEU:HD21	2.51	0.46
2:H:702:TYR:HB3	2:H:727:PRO:HB2	1.97	0.46
2:I:1031:LYS:O	2:I:1032:ASP:C	2.54	0.46
2:I:1054:LEU:HB3	4:I:3051:FMN:HM82	1.98	0.46
2:I:1228:THR:HG21	2:I:1234:VAL:HG23	1.98	0.46
2:I:740:HIS:HE1	2:I:852:GLU:OE1	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:860:ARG:H	2:I:1049:GLN:HG3	1.80	0.46
1:A:1709:GLU:HG3	1:A:1709:GLU:H	1.46	0.46
1:A:386:PHE:O	1:A:390:VAL:HB	2.16	0.46
1:B:143:GLU:H	1:B:260:ARG:HG2	1.81	0.46
1:B:601:VAL:O	1:B:602:GLU:C	2.54	0.46
1:C:1459:ILE:O	1:C:1463:VAL:HG23	2.16	0.46
1:C:539:SER:O	1:C:540:GLN:C	2.52	0.46
2:G:1002:HIS:NE2	2:G:1006:MET:CE	2.79	0.46
2:G:1311:PHE:HD1	2:G:1320:LEU:O	1.99	0.46
2:G:1435:ILE:O	2:G:1435:ILE:HG22	2.15	0.46
2:G:233:SER:HA	2:G:424:ALA:CB	2.46	0.46
2:H:1021:LEU:HA	2:H:1021:LEU:HD22	1.58	0.46
2:H:913:ASP:H	2:H:916:THR:CG2	2.29	0.46
2:I:1222:GLU:HG3	2:I:1235:SER:OG	2.16	0.46
2:I:1561:ASN:OD1	2:I:1563:ILE:HB	2.15	0.46
2:I:232:LEU:HD21	2:I:423:VAL:HA	1.98	0.46
2:I:391:LEU:CD2	2:I:394:ARG:NH2	2.78	0.46
2:I:670:ARG:HD2	2:I:676:ILE:O	2.16	0.46
2:I:785:TRP:CG	2:I:786:SER:N	2.84	0.46
2:I:751:LEU:HD11	2:I:789:PHE:CD1	2.51	0.46
2:I:844:VAL:HG22	2:I:858:ALA:HB2	1.97	0.46
1:A:1533:ILE:HG13	1:A:1564:LEU:HB3	1.98	0.45
1:A:411:GLN:NE2	1:A:1628:SER:H	2.13	0.45
1:A:1557:ILE:HD11	1:A:1642:THR:HG21	1.97	0.45
1:A:792:HIS:CE1	1:A:796:LEU:HD23	2.51	0.45
1:B:1234:MET:HG2	1:B:1326:ILE:CD1	2.46	0.45
1:B:516:ARG:NH2	1:B:889:GLU:OE1	2.49	0.45
1:B:881:ASN:HA	1:B:944:ARG:HH22	1.78	0.45
1:C:1040:GLU:HB2	1:C:1580:LEU:HD12	1.98	0.45
1:C:1432:HIS:CE1	1:C:1434:SER:OG	2.69	0.45
1:C:1376:PHE:CB	1:C:1544:THR:HG22	2.45	0.45
1:C:1573:ILE:HG23	1:C:1627:PRO:HG3	1.98	0.45
1:C:400:ARG:HH11	1:C:400:ARG:HG3	1.72	0.45
2:G:1586:SER:O	2:G:1590:ARG:HB2	2.16	0.45
2:G:159:ILE:CG2	2:G:501:ILE:HG22	2.46	0.45
2:H:1031:LYS:O	2:H:1032:ASP:C	2.54	0.45
2:H:1135:GLU:OE2	2:H:1175:LYS:HE3	2.15	0.45
2:H:1388:LYS:HE3	2:H:1418:ASP:OD2	2.16	0.45
2:H:1593:ILE:HD13	2:H:1626:ILE:HD13	1.97	0.45
2:H:1666:PHE:CE1	2:H:1814:ALA:HA	2.50	0.45
2:H:1873:TYR:CE1	2:H:1877:ARG:NH2	2.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2026:PHE:HB3	2:H:2042:ILE:HD13	1.98	0.45
2:H:391:LEU:CD2	2:H:394:ARG:NH2	2.80	0.45
2:H:730:LEU:HD12	2:H:730:LEU:C	2.36	0.45
2:I:738:GLY:HA3	4:I:3051:FMN:HM81	1.98	0.45
2:I:807:ILE:HD12	2:I:1063:THR:HG23	1.98	0.45
1:A:1114:TYR:CE1	1:A:1337:GLU:HG3	2.50	0.45
1:A:408:TRP:CZ3	1:A:1628:SER:HB3	2.51	0.45
1:A:764:ASP:OD2	1:A:818:ARG:HD3	2.17	0.45
1:B:1431:GLU:OE2	1:B:1433:HIS:HE1	2.00	0.45
1:B:19:ALA:O	1:B:22:PHE:HB2	2.15	0.45
1:B:26:VAL:HG13	2:H:2013:ASN:ND2	2.31	0.45
1:B:2:LYS:HE2	1:B:4:GLU:OE1	2.15	0.45
1:B:719:GLN:HG3	1:B:720:SER:N	2.31	0.45
1:C:170:LYS:HD3	1:C:175:LEU:HD23	1.97	0.45
1:C:430:ARG:NH2	1:C:605:LEU:HD13	2.31	0.45
1:C:529:MET:CE	1:C:894:ARG:HD2	2.46	0.45
1:C:931:GLN:HG3	1:C:931:GLN:H	1.31	0.45
2:G:1219:ILE:HD11	2:G:1242:PHE:HB2	1.98	0.45
2:G:1222:GLU:HG3	2:G:1235:SER:OG	2.16	0.45
2:G:1472:VAL:CG2	2:G:1483:VAL:HG22	2.46	0.45
2:G:1673:GLU:N	2:G:1676:MET:HE3	2.25	0.45
2:G:191:SER:HA	2:G:194:THR:CG2	2.46	0.45
2:G:1976:PHE:HA	2:G:1981:LEU:CD2	2.46	0.45
2:G:161:GLY:HA3	2:G:506:PRO:HD2	1.98	0.45
2:H:1579:ILE:HG22	2:H:1580:THR:O	2.16	0.45
2:H:1768:LYS:HE2	2:H:1772:SER:HB3	1.98	0.45
2:H:246:LEU:HD12	2:H:246:LEU:HA	1.85	0.45
2:H:324:LEU:HD12	2:H:324:LEU:O	2.16	0.45
2:H:612:ASN:HD21	2:H:641:ILE:HA	1.81	0.45
2:I:1359:MET:HE3	2:I:1404:MET:HB3	1.98	0.45
2:I:369:SER:O	2:I:370:LEU:HD23	2.16	0.45
2:I:601:THR:HB	2:I:620:ALA:HB2	1.98	0.45
2:I:669:LEU:HD12	2:I:669:LEU:HA	1.65	0.45
1:A:1367:ARG:HH12	1:A:1372:THR:CB	2.18	0.45
1:A:1431:GLU:OE2	1:A:1523:ARG:NH1	2.48	0.45
1:A:751:PHE:CZ	1:A:761:LEU:HD13	2.51	0.45
1:B:1639:VAL:HG12	1:B:1640:SER:N	2.31	0.45
1:B:235:SER:HA	1:B:276:ARG:NH2	2.32	0.45
1:B:37:LYS:HB2	1:B:65:TYR:CE1	2.51	0.45
1:B:444:ASN:HB2	1:B:447:LEU:N	2.15	0.45
1:C:827:SER:HA	1:C:828:PRO:HD3	1.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:982:ILE:HD11	2:I:965:SER:CB	2.46	0.45
1:A:18:LEU:HD21	2:G:1815:LEU:CD1	2.46	0.45
2:G:1953:VAL:O	2:G:1953:VAL:HG12	2.16	0.45
2:G:247:ALA:O	2:G:251:VAL:HG13	2.15	0.45
2:G:460:TYR:HA	2:G:466:SER:O	2.17	0.45
2:G:860:ARG:HB2	2:G:1049:GLN:HG3	1.97	0.45
2:H:1590:ARG:HG3	2:H:1608:TYR:CD2	2.51	0.45
2:H:1776:PHE:C	2:H:1779:PRO:HD2	2.37	0.45
2:H:249:TYR:CD2	2:H:283:ILE:HD11	2.52	0.45
2:H:439:ILE:HD12	2:H:484:ILE:CD1	2.46	0.45
2:I:1180:MET:HB2	2:I:1197:LEU:HD21	1.97	0.45
2:I:1775:GLN:HG2	2:I:1836:MET:SD	2.57	0.45
2:I:1854:MET:CG	2:I:1901:ALA:HB2	2.47	0.45
2:I:618:GLU:HG2	2:I:678:PHE:CZ	2.51	0.45
2:I:739:GLY:HA2	2:I:1054:LEU:HG	1.97	0.45
1:A:168:MET:HA	1:A:206:LEU:HB2	1.98	0.45
1:A:413:LEU:C	1:A:415:SER:H	2.18	0.45
1:A:625:THR:HG23	1:A:627:SER:H	1.82	0.45
1:A:630:ILE:O	1:A:653:ARG:NH2	2.48	0.45
1:A:798:ASN:HA	1:A:801:ARG:HB2	1.98	0.45
1:B:1310:GLU:OE1	1:B:1649:LYS:CE	2.62	0.45
1:B:32:GLN:NE2	1:B:57:ALA:CA	2.80	0.45
1:B:988:ILE:HD13	1:B:1048:GLU:CB	2.47	0.45
1:C:1533:ILE:HG13	1:C:1564:LEU:HB3	1.98	0.45
2:G:1015:VAL:HG13	2:G:1017:PHE:CE2	2.52	0.45
2:G:1148:ASN:HD22	2:G:1151:HIS:H	1.63	0.45
2:G:1314:ARG:HA	2:G:1314:ARG:HD3	1.62	0.45
2:G:582:LYS:HE2	2:G:1108:PRO:HB3	1.97	0.45
2:G:807:ILE:HA	2:G:818:LYS:HG2	1.97	0.45
2:H:1735:ALA:O	2:H:1737:ILE:HG13	2.16	0.45
2:H:463:PHE:CD2	2:H:463:PHE:C	2.90	0.45
2:H:601:THR:O	2:H:601:THR:CG2	2.65	0.45
2:H:835:THR:CB	2:H:845:THR:HG23	2.43	0.45
2:I:1199:GLU:OE2	2:I:1567:ARG:CZ	2.65	0.45
2:I:1327:ILE:HA	2:I:1327:ILE:HD12	1.80	0.45
2:I:1609:THR:O	2:I:1653:GLY:HA3	2.16	0.45
2:I:463:PHE:CE1	2:I:486:LEU:HD22	2.51	0.45
1:A:1196:LYS:HE3	1:A:1202:ASP:CG	2.36	0.45
1:A:143:GLU:H	1:A:260:ARG:HG2	1.81	0.45
1:A:293:LYS:O	1:A:297:ILE:HG13	2.16	0.45
1:B:1020:VAL:CG1	1:B:1400:ILE:HG23	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1061:SER:HB2	1:B:1078:SER:HB3	1.99	0.45
1:B:1019:ILE:HG21	1:B:1316:VAL:HG22	1.98	0.45
1:B:1376:PHE:CB	1:B:1544:THR:HG22	2.45	0.45
1:C:1104:ARG:O	1:C:1185:VAL:HG13	2.17	0.45
1:C:776:GLU:OE1	1:C:795:MET:HE1	2.17	0.45
2:G:357:ASN:OD1	2:G:365:GLN:HB3	2.16	0.45
2:H:1027:ILE:O	2:H:1031:LYS:HB2	2.16	0.45
2:H:1383:ASN:HD21	2:H:1418:ASP:CB	2.30	0.45
2:H:24:THR:O	2:H:26:SER:N	2.49	0.45
2:H:319:LEU:HA	2:H:319:LEU:HD22	1.68	0.45
2:H:611:THR:HA	2:H:615:TYR:O	2.16	0.45
2:H:659:LEU:HA	2:H:659:LEU:HD12	1.82	0.45
2:H:754:TYR:CE2	2:H:794:MET:HG3	2.52	0.45
2:I:1776:PHE:C	2:I:1779:PRO:HD2	2.37	0.45
2:I:1976:PHE:CB	2:I:1981:LEU:CD2	2.94	0.45
2:I:2036:GLU:HG2	2:I:2039:LYS:HZ3	1.82	0.45
2:I:894:ARG:NH1	2:I:898:ASP:OD2	2.42	0.45
2:I:938:TRP:CD1	2:I:944:ARG:HG3	2.52	0.45
1:C:1682:LYS:HB3	2:I:994:PHE:CD2	2.51	0.45
1:A:776:GLU:OE1	1:A:795:MET:HE1	2.16	0.45
1:A:658:LEU:HD13	1:A:916:LEU:HD12	1.99	0.45
1:B:1533:ILE:HD11	1:B:1564:LEU:HD13	1.98	0.45
1:C:1491:ARG:NH1	1:C:1744:TYR:O	2.50	0.45
1:C:197:THR:HG22	1:C:198:PRO:O	2.15	0.45
1:C:225:SER:OG	1:C:266:LEU:HD21	2.16	0.45
1:C:143:GLU:H	1:C:260:ARG:HG2	1.81	0.45
1:B:332:THR:HG22	1:C:331:ILE:HD11	1.98	0.45
2:G:1080:GLY:O	2:G:1084:LYS:HG3	2.16	0.45
2:G:1241:ASN:N	2:G:1252:SER:O	2.49	0.45
2:G:142:ASN:HB2	2:G:550:VAL:HG13	1.99	0.45
2:G:1466:PHE:HE2	2:G:1489:ILE:HD13	1.81	0.45
2:G:1976:PHE:CB	2:G:1981:LEU:CD2	2.95	0.45
2:G:315:PRO:O	2:H:1314:ARG:NH2	2.50	0.45
2:G:712:ALA:O	2:G:715:GLN:HB3	2.16	0.45
2:H:1085:LEU:HD12	2:H:1085:LEU:HA	1.85	0.45
2:H:1159:ILE:HG22	2:H:1160:THR:N	2.32	0.45
2:H:1325:PHE:O	2:H:1328:VAL:HG12	2.16	0.45
2:H:618:GLU:HG2	2:H:678:PHE:CZ	2.52	0.45
2:H:785:TRP:CG	2:H:786:SER:N	2.84	0.45
2:I:1195:VAL:HG13	2:I:1211:LEU:CB	2.46	0.45
2:I:1637:LEU:HD23	2:I:1637:LEU:HA	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:440:ASN:ND2	2:I:477:GLU:HG2	2.31	0.45
2:I:23:PRO:HG2	2:I:86:LEU:HD11	1.98	0.45
1:A:1300:THR:HA	1:A:1301:PRO:HD3	1.70	0.45
1:B:66:GLU:HA	1:B:66:GLU:OE1	2.15	0.45
1:C:1670:TYR:O	1:C:1674:VAL:HG23	2.17	0.45
1:C:1305:CYS:SG	3:C:2748:CER:H51	2.57	0.45
1:C:521:LYS:HB3	1:C:523:SER:HB3	1.98	0.45
2:G:1858:ASN:ND2	2:G:1861:ARG:HG3	2.32	0.45
2:G:1873:TYR:HE1	2:G:1877:ARG:HH21	1.59	0.45
2:G:665:LEU:O	2:G:665:LEU:HD22	2.17	0.45
2:G:754:TYR:CG	2:G:794:MET:HG2	2.51	0.45
2:H:1678:MET:HE3	2:H:1707:LEU:CD2	2.41	0.45
2:H:2035:SER:HB3	2:H:2038:ILE:CG1	2.44	0.45
2:H:594:VAL:CG2	2:H:610:THR:HG21	2.45	0.45
2:I:1162:ASP:O	2:I:1163:LYS:HB2	2.16	0.45
2:I:1949:LYS:O	2:I:1953:VAL:HG23	2.17	0.45
1:C:21:GLN:HG3	2:I:2013:ASN:HB2	1.98	0.45
2:I:478:ARG:O	2:I:482:CYS:HB2	2.17	0.45
2:I:784:GLU:O	2:I:787:THR:HB	2.17	0.45
1:A:1239:HIS:CD2	1:A:1241:SER:H	2.35	0.45
1:A:1443:LEU:HA	1:A:1443:LEU:HD23	1.75	0.45
1:B:1004:ILE:HG22	1:B:1660:TYR:CE2	2.52	0.45
1:B:1459:ILE:O	1:B:1463:VAL:HG23	2.17	0.45
1:B:1584:PRO:CG	1:B:1591:TRP:CZ3	3.00	0.45
1:B:1239:HIS:HE1	1:B:1714:VAL:O	2.00	0.45
2:G:101:ILE:HG13	2:G:101:ILE:H	1.31	0.45
2:G:1265:MET:HE1	2:G:1562:PRO:HG2	1.98	0.45
2:G:218:TRP:HB3	2:G:225:THR:OG1	2.16	0.45
2:G:350:GLN:HA	2:G:353:VAL:HG13	1.97	0.45
2:G:455:ILE:HD11	2:G:469:ARG:NE	2.32	0.45
2:G:879:LYS:HA	2:G:879:LYS:HD3	1.68	0.45
2:H:1100:VAL:HG23	2:H:1147:ILE:HB	1.99	0.45
2:H:1845:ASP:HB2	2:H:1849:ARG:N	2.15	0.45
2:H:751:LEU:HA	2:H:794:MET:HE3	1.98	0.45
2:I:1002:HIS:NE2	2:I:1006:MET:CE	2.80	0.45
2:I:943:TRP:CZ2	2:I:1016:PRO:HG3	2.52	0.45
2:I:1258:ARG:O	2:I:1262:ILE:HG13	2.17	0.45
2:I:1308:CYS:HB3	2:I:1311:PHE:CE2	2.51	0.45
2:I:1417:THR:O	2:I:1419:PHE:N	2.45	0.45
2:I:161:GLY:H	2:I:505:GLY:CA	2.28	0.45
2:I:355:LYS:HE2	2:I:355:LYS:HB3	1.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:654:VAL:O	2:I:654:VAL:HG12	2.17	0.45
2:I:677:GLN:O	2:I:678:PHE:HB3	2.17	0.45
1:A:485:ASP:CA	1:A:486:VAL:N	2.72	0.45
1:B:1617:ILE:O	1:B:1620:GLN:HG2	2.17	0.45
1:B:340:ARG:HH12	1:B:344:GLN:HE21	1.64	0.45
1:B:420:ILE:HG22	1:B:469:VAL:HG22	1.99	0.45
1:C:927:ASN:O	1:C:929:GLY:N	2.41	0.45
2:G:1491:VAL:HB	2:G:1501:ILE:HD12	1.99	0.45
2:G:1543:ASP:OD1	2:G:1623:LYS:HG2	2.16	0.45
2:G:1227:ARG:CZ	2:G:1565:VAL:HG12	2.47	0.45
2:G:624:TYR:HB2	2:G:630:MET:HE3	1.99	0.45
2:H:1327:ILE:HG12	2:H:1583:MET:HE3	1.99	0.45
2:H:512:LEU:O	2:H:516:THR:HG23	2.17	0.45
2:I:1491:VAL:HB	2:I:1501:ILE:CD1	2.47	0.45
2:I:653:TYR:OH	2:I:690:VAL:HG11	2.17	0.45
1:A:1516:ASP:HA	1:A:1517:PRO:HD3	1.61	0.45
1:A:204:THR:HA	1:A:205:PRO:HD3	1.85	0.45
1:A:335:HIS:CD2	1:A:335:HIS:O	2.69	0.45
1:B:1119:LYS:HE2	1:B:1341:PHE:CG	2.52	0.45
1:B:1300:THR:HA	1:B:1301:PRO:HD3	1.69	0.45
1:B:1592:MET:HE2	1:B:1641:ILE:HG23	1.98	0.45
1:B:196:THR:O	1:B:213:PHE:HE2	2.00	0.45
1:B:43:ARG:O	2:H:1662:THR:HA	2.16	0.45
1:B:32:GLN:HE21	1:B:57:ALA:HB2	1.82	0.45
1:B:67:SER:OG	2:G:359:HIS:HE1	1.99	0.45
1:B:44:VAL:HG13	1:B:78:ILE:HG12	1.98	0.45
1:C:1061:SER:HB2	1:C:1078:SER:HB3	1.99	0.45
1:C:478:GLU:OE1	1:C:478:GLU:HA	2.17	0.45
1:C:916:LEU:HD22	1:C:922:VAL:HG22	1.99	0.45
2:G:1002:HIS:NE2	2:G:1006:MET:HE3	2.32	0.45
2:G:109:LEU:HA	2:G:109:LEU:HD23	1.79	0.45
2:G:1325:PHE:O	2:G:1328:VAL:HG12	2.17	0.45
2:G:1389:ILE:HG13	2:G:1411:PHE:CD1	2.52	0.45
2:G:42:PRO:HG2	2:G:52:ASP:CG	2.38	0.45
2:H:315:PRO:O	2:I:1314:ARG:NH2	2.50	0.45
2:H:641:ILE:HG12	2:H:645:SER:CB	2.46	0.45
2:I:1256:GLU:O	2:I:1257:ASP:HB2	2.17	0.45
2:I:231:LEU:HA	2:I:236:ILE:HD12	1.99	0.45
2:I:298:LYS:HG2	2:I:448:VAL:CG2	2.38	0.45
1:A:1283:MET:O	1:A:1287:VAL:HG23	2.18	0.44
1:A:242:THR:HG22	1:A:243:ILE:H	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:636:PRO:HB2	1:A:638:LEU:O	2.16	0.44
1:A:931:GLN:H	1:A:931:GLN:HG3	1.30	0.44
1:B:1029:PRO:HA	1:B:1188:GLN:O	2.17	0.44
1:B:1455:ARG:HD2	1:B:1455:ARG:HA	1.86	0.44
1:B:411:GLN:NE2	1:B:1628:SER:H	2.15	0.44
1:B:427:ASN:HB2	1:B:468:LEU:HD21	1.99	0.44
1:B:612:GLU:O	1:B:615:SER:HB3	2.17	0.44
1:B:626:VAL:HG23	1:B:664:GLU:OE2	2.17	0.44
1:B:733:ILE:CD1	1:B:761:LEU:HD11	2.46	0.44
1:C:1257:LEU:HA	1:C:1257:LEU:HD23	1.83	0.44
1:C:253:ARG:O	1:C:254:TRP:CD1	2.70	0.44
1:C:641:ARG:HD3	1:C:649:TRP:O	2.17	0.44
2:G:1071:LYS:HE3	2:G:1075:ASP:OD2	2.16	0.44
2:G:1294:ALA:HA	2:G:1368:VAL:CG2	2.47	0.44
2:G:1855:ILE:HB	2:G:1907:LEU:HD12	2.00	0.44
2:G:607:VAL:O	2:G:611:THR:HB	2.17	0.44
2:G:717:ILE:O	2:G:720:ALA:HB3	2.18	0.44
2:G:741:HIS:HB3	2:G:853:PRO:HB2	1.98	0.44
2:G:741:HIS:HE1	2:G:855:HIS:NE2	2.13	0.44
2:G:926:LEU:HB3	2:G:947:THR:CG2	2.46	0.44
2:H:109:LEU:HD22	2:H:114:THR:HG23	1.99	0.44
2:H:1308:CYS:HB3	2:H:1311:PHE:CE2	2.52	0.44
2:H:1321:ALA:HA	2:H:1322:PRO:HD3	1.84	0.44
1:B:13:LEU:HB2	2:H:2026:PHE:CE1	2.52	0.44
2:H:443:LEU:HD22	2:H:448:VAL:CG1	2.46	0.44
2:I:1159:ILE:CG2	2:I:1160:THR:N	2.81	0.44
2:I:1589:VAL:HG21	2:I:1651:LEU:HD12	1.99	0.44
2:I:272:GLY:HA3	2:I:276:GLY:C	2.37	0.44
1:A:1012:LEU:HD23	1:A:1445:MET:HE2	1.99	0.44
1:A:1373:ARG:NE	1:A:1550:ASP:HB2	2.32	0.44
1:A:1666:THR:HG23	1:A:1669:ARG:CB	2.47	0.44
1:A:225:SER:OG	1:A:266:LEU:HD21	2.16	0.44
1:B:168:MET:HA	1:B:206:LEU:HB2	2.00	0.44
1:B:256:LEU:HA	1:B:257:PRO:HD3	1.73	0.44
1:B:330:GLU:O	1:B:330:GLU:HG2	2.16	0.44
1:C:1234:MET:HG2	1:C:1326:ILE:HD12	1.98	0.44
1:C:1238:VAL:CG1	1:C:1239:HIS:N	2.80	0.44
2:G:1609:THR:O	2:G:1653:GLY:HA3	2.16	0.44
2:G:7:ARG:HH11	2:G:24:THR:HG23	1.76	0.44
2:G:463:PHE:C	2:G:463:PHE:CD2	2.90	0.44
2:G:595:PRO:HD3	2:G:800:LEU:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:120:LYS:HB3	2:H:124:LYS:HE3	1.99	0.44
2:H:1330:GLY:HA2	2:H:1374:THR:HG21	1.98	0.44
2:H:1543:ASP:OD1	2:H:1623:LYS:HG2	2.17	0.44
2:H:786:SER:HB2	2:H:794:MET:HE2	1.99	0.44
2:H:854:ILE:HG22	2:H:856:LYS:HG3	1.99	0.44
2:I:1303:ALA:HB2	2:I:1556:VAL:HG21	1.98	0.44
2:I:1314:ARG:HD3	2:I:1314:ARG:HA	1.64	0.44
2:I:191:SER:HA	2:I:194:THR:CG2	2.43	0.44
2:I:441:LYS:O	2:I:444:VAL:HG12	2.17	0.44
2:I:659:LEU:HA	2:I:659:LEU:HD12	1.84	0.44
1:A:1431:GLU:HB3	1:A:1520:ALA:HB2	1.99	0.44
1:A:27:ARG:HH21	2:G:2015:THR:HA	1.82	0.44
1:A:267:VAL:HG12	1:A:290:MET:CE	2.48	0.44
1:B:183:GLN:O	1:B:187:LEU:HG	2.17	0.44
1:B:225:SER:OG	1:B:266:LEU:HD21	2.18	0.44
1:B:479:ASN:O	1:B:483:VAL:HG23	2.17	0.44
1:B:539:SER:O	1:B:540:GLN:C	2.54	0.44
1:B:655:LEU:HD23	1:B:655:LEU:HA	1.82	0.44
1:B:833:PHE:O	1:B:834:GLY:O	2.35	0.44
1:C:1487:LEU:C	1:C:1487:LEU:HD23	2.38	0.44
2:G:1015:VAL:HA	2:G:1016:PRO:HD3	1.79	0.44
2:G:120:LYS:HB3	2:G:124:LYS:HE3	1.99	0.44
2:G:231:LEU:HA	2:G:236:ILE:HD12	2.00	0.44
2:H:161:GLY:H	2:H:505:GLY:CA	2.29	0.44
2:H:427:PHE:HB3	2:H:428:HIS:ND1	2.32	0.44
2:H:607:VAL:O	2:H:611:THR:HB	2.17	0.44
2:I:1735:ALA:O	2:I:1737:ILE:HG13	2.17	0.44
2:I:1757:GLU:H	2:I:1757:GLU:HG3	1.50	0.44
2:I:703:LEU:HD21	2:I:705:LEU:CD2	2.45	0.44
2:I:780:TYR:HB2	2:I:799:PHE:CE2	2.53	0.44
2:I:901:LYS:NZ	2:I:1031:LYS:O	2.51	0.44
1:A:1020:VAL:CG1	1:A:1400:ILE:HG23	2.47	0.44
1:A:1056:ILE:CD1	1:A:1193:TRP:CD1	3.00	0.44
1:A:66:GLU:HA	1:A:66:GLU:OE1	2.17	0.44
1:B:1040:GLU:OE2	1:B:1577:GLN:HB2	2.18	0.44
1:B:232:LEU:HD13	1:B:272:GLU:CB	2.47	0.44
1:B:32:GLN:HE22	1:B:57:ALA:N	2.16	0.44
1:C:1022:THR:HG22	1:C:1226:SER:CB	2.47	0.44
1:C:1657:HIS:CG	1:C:1658:PRO:HD2	2.53	0.44
1:C:625:THR:HG23	1:C:627:SER:H	1.83	0.44
2:G:1590:ARG:NH2	2:G:1594:GLU:OE2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1752:PHE:HZ	2:G:1836:MET:HE3	1.82	0.44
2:G:1873:TYR:CE1	2:G:1877:ARG:NH2	2.84	0.44
2:G:1908:ASP:HA	2:G:1911:THR:HG22	2.00	0.44
2:G:1945:ASP:O	2:G:1949:LYS:HG3	2.17	0.44
2:G:932:ILE:HD12	2:G:939:PHE:HD1	1.83	0.44
2:H:1311:PHE:HD1	2:H:1320:LEU:O	2.00	0.44
2:H:1697:HIS:CE1	2:H:1829:GLU:CG	3.00	0.44
2:H:209:PHE:CE2	2:H:213:LEU:HD22	2.52	0.44
2:H:663:ILE:HB	2:H:664:PRO:CD	2.44	0.44
2:H:778:TYR:N	2:H:779:PRO:CD	2.80	0.44
2:I:1330:GLY:HA2	2:I:1374:THR:HG21	1.99	0.44
2:I:1420:GLU:HG3	2:I:1420:GLU:H	1.41	0.44
2:I:1651:LEU:HA	2:I:1651:LEU:HD23	1.73	0.44
2:I:1054:LEU:CB	4:I:3051:FMN:HM71	2.46	0.44
2:I:665:LEU:HD22	2:I:665:LEU:O	2.18	0.44
1:B:496:PRO:HB2	1:B:519:VAL:HG12	1.99	0.44
1:C:503:ILE:HD12	1:C:950:THR:HG21	1.98	0.44
1:C:44:VAL:HG13	1:C:78:ILE:HG12	1.99	0.44
2:G:109:LEU:HD22	2:G:114:THR:HG23	2.00	0.44
2:G:1632:ILE:O	2:G:1632:ILE:HG23	2.16	0.44
2:G:297:ARG:O	2:G:301:THR:HG22	2.17	0.44
2:G:490:TRP:HA	2:G:493:THR:HG22	1.98	0.44
2:G:562:LEU:HG	2:G:793:PRO:CB	2.48	0.44
2:G:589:ARG:HB3	2:G:590:PRO:CD	2.48	0.44
2:H:109:LEU:HD11	2:H:116:LEU:CD2	2.43	0.44
2:H:641:ILE:CG1	2:H:645:SER:HB2	2.45	0.44
2:I:1590:ARG:HG3	2:I:1608:TYR:CD2	2.53	0.44
2:I:1846:GLU:C	2:I:1848:GLY:H	2.20	0.44
2:I:468:LEU:O	2:I:471:LEU:HB2	2.18	0.44
2:I:245:GLN:HG2	2:I:505:GLY:HA2	2.00	0.44
2:I:835:THR:HG22	2:I:844:VAL:CA	2.48	0.44
2:I:9:LEU:HB2	2:I:27:PHE:HE1	1.82	0.44
1:A:1022:THR:CG2	1:A:1226:SER:OG	2.66	0.44
1:A:1135:GLU:CD	1:B:242:THR:HG21	2.38	0.44
1:A:1305:CYS:SG	1:A:1585:LYS:HA	2.57	0.44
1:B:1238:VAL:CG1	1:B:1239:HIS:N	2.81	0.44
1:B:1516:ASP:HA	1:B:1517:PRO:HD3	1.65	0.44
1:B:267:VAL:HG12	1:B:290:MET:CE	2.48	0.44
1:C:1557:ILE:HD11	1:C:1642:THR:HG21	2.00	0.44
1:C:503:ILE:HD11	1:C:947:LEU:HD22	1.98	0.44
2:G:1784:MET:HE2	2:G:1784:MET:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:551:THR:C	2:G:553:ASN:H	2.20	0.44
2:G:551:THR:HG22	2:G:552:SER:N	2.31	0.44
2:G:751:LEU:HD11	2:G:789:PHE:CD1	2.53	0.44
2:G:751:LEU:HD23	2:G:791:TYR:CD2	2.53	0.44
2:H:1389:ILE:HG13	2:H:1411:PHE:CD1	2.52	0.44
2:H:305:PHE:CD1	2:H:442:ASP:HB3	2.53	0.44
2:H:807:ILE:HA	2:H:818:LYS:HG2	1.99	0.44
2:I:1257:ASP:O	2:I:1261:ARG:HG3	2.17	0.44
2:I:159:ILE:CG2	2:I:501:ILE:HG22	2.47	0.44
2:I:1896:GLN:HE21	2:I:1896:GLN:HB3	1.58	0.44
2:I:305:PHE:CD1	2:I:442:ASP:HB3	2.52	0.44
2:I:40:ILE:O	2:I:42:PRO:HD3	2.17	0.44
2:I:720:ALA:HA	2:I:728:ILE:CD1	2.47	0.44
1:A:1194:ASN:OD1	1:A:1196:LYS:HB2	2.18	0.44
1:A:1220:VAL:O	1:A:1224:ILE:HG12	2.18	0.44
1:A:458:THR:OG1	1:A:470:LYS:HD2	2.18	0.44
1:B:1012:LEU:HD23	1:B:1445:MET:CE	2.48	0.44
1:B:1195:ALA:HB1	1:B:1200:ILE:HD12	1.99	0.44
1:C:1673:TYR:CZ	1:C:1677:VAL:HG21	2.51	0.44
2:H:1148:ASN:HD22	2:H:1148:ASN:C	2.21	0.44
2:H:1579:ILE:HD11	2:H:1615:MET:SD	2.58	0.44
1:B:29:ILE:HG12	2:H:1892:ASN:C	2.37	0.44
2:H:272:GLY:HA3	2:H:276:GLY:C	2.38	0.44
2:H:376:ASN:C	2:H:376:ASN:ND2	2.70	0.44
2:H:455:ILE:C	2:H:455:ILE:HD12	2.38	0.44
2:H:562:LEU:HG	2:H:793:PRO:CB	2.47	0.44
2:I:1739:GLU:HB2	2:I:1987:PRO:CB	2.29	0.44
2:I:184:VAL:HG12	2:I:188:ILE:HG12	1.99	0.44
2:I:1976:PHE:HB3	2:I:1981:LEU:CD2	2.48	0.44
2:I:297:ARG:O	2:I:301:THR:HG22	2.18	0.44
2:I:517:HIS:CE1	2:I:540:ASP:O	2.71	0.44
1:A:1133:PRO:HG3	1:A:1166:LYS:HG3	1.99	0.44
1:A:11:HIS:CD2	1:A:11:HIS:C	2.92	0.44
1:A:499:PRO:HD3	1:A:516:ARG:HH21	1.83	0.44
1:A:530:ALA:HA	1:A:636:PRO:HB3	1.99	0.44
1:B:1037:TRP:HB2	1:B:1598:GLN:OE1	2.18	0.44
1:B:1455:ARG:O	1:B:1459:ILE:HG13	2.18	0.44
1:B:42:GLU:O	1:B:77:GLU:N	2.47	0.44
1:C:1270:VAL:HG11	1:C:1274:ILE:HD13	1.99	0.44
1:C:1234:MET:CE	1:C:1326:ILE:HG21	2.48	0.44
1:C:601:VAL:O	1:C:602:GLU:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:706:THR:HB	1:C:737:PHE:HB3	2.00	0.44
1:C:852:ARG:HB3	1:C:858:TRP:HZ2	1.83	0.44
2:G:615:TYR:CE2	2:G:1074:MET:HB3	2.52	0.44
2:G:1257:ASP:O	2:G:1261:ARG:HG3	2.18	0.44
2:G:1551:GLU:HB2	2:G:1552:PRO:HD3	2.00	0.44
2:G:1589:VAL:HG21	2:G:1651:LEU:HD12	1.99	0.44
2:G:1776:PHE:C	2:G:1779:PRO:HD2	2.38	0.44
2:G:1662:THR:HB	2:G:1799:PRO:HG2	1.99	0.44
2:H:1228:THR:HG21	2:H:1234:VAL:HG23	2.00	0.44
2:H:184:VAL:HG12	2:H:188:ILE:HG12	2.00	0.44
1:B:20:TYR:CD2	2:H:2033:THR:OG1	2.71	0.44
2:H:732:TRP:CE2	2:H:750:MET:HE3	2.52	0.44
2:H:780:TYR:HB2	2:H:799:PHE:CE2	2.53	0.44
2:H:938:TRP:CE2	2:H:944:ARG:HG3	2.52	0.44
2:I:142:ASN:HB2	2:I:550:VAL:HG13	1.99	0.44
2:I:1579:ILE:HG22	2:I:1580:THR:O	2.18	0.44
2:I:1666:PHE:CE1	2:I:1814:ALA:HA	2.53	0.44
2:I:1886:VAL:HG22	2:I:1906:ALA:HB1	1.98	0.44
1:B:1430:ARG:HG2	1:B:1430:ARG:O	2.18	0.44
1:B:267:VAL:O	1:B:290:MET:HE1	2.17	0.44
1:C:1181:PHE:CZ	1:C:1341:PHE:HA	2.53	0.44
1:C:1291:LEU:HD21	1:C:1698:PHE:CE1	2.53	0.44
1:C:295:ALA:HB1	1:C:300:VAL:O	2.18	0.44
1:C:833:PHE:O	1:C:834:GLY:O	2.36	0.44
2:G:1004:LEU:CD2	2:G:1019:PRO:HB2	2.48	0.44
2:G:1352:HIS:HE1	2:G:1583:MET:CE	2.27	0.44
2:G:159:ILE:HD11	2:G:512:LEU:CG	2.48	0.44
2:G:459:VAL:HG12	2:G:468:LEU:HD12	2.00	0.44
2:G:901:LYS:NZ	2:G:1031:LYS:O	2.50	0.44
2:H:102:HIS:HE1	2:H:180:TYR:OH	2.00	0.44
2:H:1496:LYS:HE2	2:H:1693:ARG:HH21	1.82	0.44
2:H:1739:GLU:HB2	2:H:1987:PRO:CB	2.30	0.44
2:I:914:LEU:HD21	2:I:1003:PHE:CD2	2.53	0.44
2:I:1493:LEU:HB3	2:I:1494:PRO:CD	2.48	0.44
2:I:1684:SER:O	2:I:1688:GLN:HG3	2.18	0.44
2:I:218:TRP:HB3	2:I:225:THR:OG1	2.18	0.44
2:I:246:LEU:O	2:I:250:VAL:HG23	2.18	0.44
1:A:181:THR:O	1:A:185:GLU:HG3	2.18	0.43
1:A:406:TRP:CE3	1:A:407:ASN:HB2	2.53	0.43
1:B:35:PHE:HA	1:B:39:PHE:HD2	1.83	0.43
1:B:888:ILE:HD12	1:B:939:PHE:CE2	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1332:TYR:HB3	1:C:1382:ALA:CB	2.48	0.43
1:C:1373:ARG:NE	1:C:1550:ASP:HB2	2.33	0.43
1:C:178:GLY:O	1:C:180:SER:N	2.50	0.43
1:B:1129:GLU:OE1	1:C:348:ARG:HD3	2.18	0.43
1:C:413:LEU:C	1:C:415:SER:H	2.21	0.43
2:G:1236:LEU:HD11	2:G:1262:ILE:HG12	1.99	0.43
2:G:245:GLN:HG2	2:G:505:GLY:HA2	1.99	0.43
2:G:543:PHE:CB	2:G:545:GLN:NE2	2.81	0.43
2:G:726:PHE:HA	2:G:727:PRO:HD3	1.89	0.43
2:G:753:MET:O	2:G:757:ILE:HG13	2.18	0.43
2:G:866:LYS:O	2:G:870:GLU:HG3	2.18	0.43
2:H:1222:GLU:HG3	2:H:1235:SER:OG	2.17	0.43
2:H:1586:SER:O	2:H:1590:ARG:HB2	2.17	0.43
2:H:9:LEU:HB2	2:H:27:PHE:HE1	1.83	0.43
2:H:123:ILE:HD11	2:H:533:LEU:CD2	2.48	0.43
2:H:670:ARG:HD2	2:H:676:ILE:O	2.18	0.43
2:I:1427:VAL:HG22	2:I:1469:GLU:HG2	1.99	0.43
2:I:1551:GLU:HB2	2:I:1552:PRO:HD3	2.00	0.43
2:I:1782:THR:CG2	2:I:1827:LEU:HD21	2.45	0.43
2:I:427:PHE:HB3	2:I:428:HIS:ND1	2.33	0.43
2:I:432:LEU:HB3	2:I:484:ILE:HG23	2.00	0.43
2:I:932:ILE:HD12	2:I:939:PHE:HD1	1.83	0.43
1:A:1584:PRO:CG	1:A:1591:TRP:CZ3	3.02	0.43
1:A:626:VAL:HG23	1:A:664:GLU:OE2	2.18	0.43
1:B:1279:PHE:HB2	1:B:1282:THR:HG23	2.00	0.43
1:C:1279:PHE:HB2	1:C:1282:THR:HG23	2.00	0.43
1:C:1720:ALA:O	1:C:1721:ARG:HG2	2.17	0.43
1:C:196:THR:O	1:C:213:PHE:HE2	2.01	0.43
1:C:168:MET:HA	1:C:206:LEU:HB2	2.00	0.43
2:G:1195:VAL:HG13	2:G:1211:LEU:CB	2.48	0.43
2:G:1227:ARG:CD	2:G:1565:VAL:HG11	2.44	0.43
2:G:195:LEU:O	2:G:199:ILE:HG13	2.18	0.43
2:G:581:THR:O	2:G:585:LYS:HB2	2.18	0.43
2:G:754:TYR:CD2	2:G:794:MET:CG	3.01	0.43
2:G:900:GLN:NE2	2:G:1051:THR:HA	2.32	0.43
2:H:666:ILE:HG22	2:H:698:LEU:HD22	2.00	0.43
2:I:1778:GLN:HB2	2:I:1779:PRO:HD3	2.00	0.43
2:I:1976:PHE:HA	2:I:1981:LEU:CD2	2.48	0.43
2:I:428:HIS:CD2	2:I:488:VAL:HG23	2.53	0.43
2:I:751:LEU:HD23	2:I:791:TYR:CD2	2.53	0.43
2:I:938:TRP:CE2	2:I:944:ARG:HG3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1209:ASP:OD2	1:A:1253:GLY:HA2	2.19	0.43
1:A:237:MET:HG3	1:A:241:PHE:HB3	2.00	0.43
1:A:235:SER:HA	1:A:276:ARG:NH2	2.32	0.43
1:A:28:TRP:HB3	2:G:1892:ASN:HA	2.00	0.43
1:A:411:GLN:O	1:A:415:SER:HB2	2.18	0.43
1:B:1248:GLY:HA3	1:B:1301:PRO:HD2	1.99	0.43
1:B:1014:ASP:N	1:B:1510:ASN:HD21	2.06	0.43
1:B:807:LYS:HD3	1:B:807:LYS:C	2.39	0.43
1:C:988:ILE:HD13	1:C:1048:GLU:HB3	2.01	0.43
1:C:1056:ILE:CD1	1:C:1193:TRP:CD1	2.99	0.43
1:C:340:ARG:HH12	1:C:344:GLN:HE21	1.65	0.43
1:C:421:ILE:HG12	1:C:469:VAL:HG21	1.98	0.43
1:C:627:SER:HB3	1:C:661:ASP:OD1	2.18	0.43
1:C:639:HIS:HB2	1:C:656:SER:OG	2.18	0.43
2:G:1327:ILE:HD12	2:G:1327:ILE:HA	1.79	0.43
2:G:1473:THR:O	2:G:1481:SER:HB3	2.18	0.43
2:G:1768:LYS:HE2	2:G:1772:SER:HB3	2.00	0.43
2:H:856:LYS:CE	2:H:1052:CYS:SG	3.06	0.43
2:H:369:SER:C	2:H:370:LEU:HD23	2.38	0.43
2:H:439:ILE:HD12	2:H:484:ILE:HD11	1.99	0.43
2:H:732:TRP:CH2	2:H:749:PRO:HG2	2.53	0.43
2:H:772:GLY:O	2:H:804:ARG:HD3	2.18	0.43
2:H:970:TYR:O	2:H:973:LEU:HB2	2.18	0.43
2:I:1241:ASN:N	2:I:1252:SER:O	2.50	0.43
2:I:159:ILE:HG12	2:I:512:LEU:HD23	2.01	0.43
2:I:1624:THR:CB	2:I:1642:THR:HG23	2.47	0.43
2:I:551:THR:C	2:I:553:ASN:H	2.22	0.43
2:I:572:ASN:CB	2:I:576:LYS:H	2.27	0.43
2:I:754:TYR:CG	2:I:794:MET:HG2	2.53	0.43
2:I:843:ILE:HD13	2:I:1055:HIS:O	2.18	0.43
1:B:1244:GLY:C	1:B:1327:CYS:HB2	2.38	0.43
1:B:176:VAL:HG12	1:B:178:GLY:H	1.83	0.43
1:C:980:VAL:HG21	2:I:952:ARG:HH21	1.83	0.43
2:G:1016:PRO:HD2	2:G:1017:PHE:CE2	2.53	0.43
2:G:1040:LEU:O	2:G:1046:GLN:HG3	2.19	0.43
2:G:1162:ASP:O	2:G:1163:LYS:HB2	2.19	0.43
2:G:1223:MET:HE3	2:G:1238:LEU:CD1	2.49	0.43
2:G:1308:CYS:HB3	2:G:1311:PHE:CE2	2.53	0.43
2:G:1674:GLN:OE1	2:G:1712:ASN:HA	2.18	0.43
2:G:1678:MET:HE3	2:G:1707:LEU:CD2	2.43	0.43
2:G:1804:PHE:CD2	2:G:1818:LEU:HD22	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1846:GLU:C	2:G:1848:GLY:H	2.20	0.43
2:G:455:ILE:C	2:G:455:ILE:HD12	2.39	0.43
2:G:967:ILE:HD12	2:G:972:LEU:HD22	2.00	0.43
2:H:309:ARG:HD3	2:H:309:ARG:HA	1.63	0.43
2:I:1210:ILE:O	2:I:1210:ILE:HG22	2.18	0.43
2:I:1325:PHE:O	2:I:1328:VAL:HG12	2.18	0.43
2:I:1428:GLU:HG2	2:I:1470:THR:HG22	1.99	0.43
2:I:430:HIS:CE1	2:I:431:LEU:HD13	2.53	0.43
2:I:439:ILE:HD12	2:I:484:ILE:CD1	2.48	0.43
2:I:835:THR:HG21	2:I:855:HIS:NE2	2.33	0.43
1:A:1291:LEU:HD21	1:A:1698:PHE:CE1	2.53	0.43
1:A:1375:GLY:HA2	1:A:1546:THR:HG22	2.01	0.43
1:A:1553:GLU:HA	1:A:1556:THR:HG23	2.01	0.43
1:A:1556:THR:O	1:A:1560:MET:HG2	2.18	0.43
1:A:1673:TYR:CZ	1:A:1677:VAL:HG21	2.53	0.43
1:A:254:TRP:CZ3	1:A:302:LEU:HD13	2.53	0.43
1:A:413:LEU:HG	1:A:413:LEU:O	2.17	0.43
1:A:496:PRO:HB2	1:A:519:VAL:HG12	2.01	0.43
1:B:242:THR:HB	1:B:244:THR:HB	2.01	0.43
1:C:1021:VAL:HG22	1:C:1387:ILE:HG22	2.01	0.43
1:C:1625:LEU:O	1:C:1627:PRO:HD3	2.18	0.43
1:C:221:LEU:HA	1:C:221:LEU:HD23	1.89	0.43
1:C:235:SER:HA	1:C:276:ARG:NH2	2.33	0.43
2:G:1458:ASP:O	2:G:1462:LYS:HE3	2.19	0.43
2:G:1493:LEU:HB3	2:G:1494:PRO:CD	2.48	0.43
2:G:272:GLY:HA3	2:G:276:GLY:C	2.38	0.43
2:G:397:LYS:HB3	2:G:416:PHE:CE2	2.53	0.43
2:G:156:LEU:HD23	2:G:500:HIS:HB2	1.99	0.43
2:G:653:TYR:OH	2:G:690:VAL:HG11	2.18	0.43
2:H:1015:VAL:HG13	2:H:1017:PHE:CE2	2.53	0.43
2:H:726:PHE:HA	2:H:727:PRO:HD3	1.88	0.43
2:H:745:ASP:HA	2:H:832:TRP:CH2	2.51	0.43
2:I:1651:LEU:O	2:I:1652:THR:HG23	2.17	0.43
2:I:1496:LYS:CE	2:I:1693:ARG:HH21	2.31	0.43
2:I:397:LYS:HB3	2:I:416:PHE:CE2	2.53	0.43
2:I:439:ILE:HD12	2:I:484:ILE:HD11	1.99	0.43
2:I:562:LEU:HD23	2:I:562:LEU:HA	1.79	0.43
2:I:852:GLU:HG3	2:I:852:GLU:H	1.39	0.43
2:I:972:LEU:HD23	2:I:979:ALA:HB2	2.00	0.43
1:A:242:THR:HB	1:A:244:THR:HB	2.00	0.43
1:A:641:ARG:HD3	1:A:649:TRP:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:627:SER:HB2	1:A:657:SER:CB	2.48	0.43
1:A:790:PHE:CE2	1:A:794:ILE:HD11	2.53	0.43
1:B:1208:VAL:HG11	1:B:1212:THR:HB	1.97	0.43
1:B:1270:VAL:HG11	1:B:1274:ILE:HD13	2.00	0.43
1:C:1234:MET:HE3	1:C:1326:ILE:HG21	2.01	0.43
1:C:1446:LYS:O	1:C:1450:ARG:HG3	2.18	0.43
1:C:232:LEU:HD13	1:C:272:GLU:CB	2.48	0.43
1:C:378:LEU:HA	1:C:378:LEU:HD12	1.85	0.43
1:C:930:LEU:HD23	1:C:930:LEU:HA	1.68	0.43
2:G:1889:VAL:HG13	2:G:1977:HIS:HB3	1.97	0.43
2:G:419:ARG:HG3	2:G:420:PHE:N	2.33	0.43
2:G:99:ASN:HA	2:G:550:VAL:CG2	2.49	0.43
2:H:1241:ASN:N	2:H:1252:SER:O	2.51	0.43
2:H:360:LEU:HA	2:H:361:PRO:HD3	1.90	0.43
2:H:160:PHE:CE2	2:H:504:PHE:HB2	2.54	0.43
2:H:73:GLU:OE2	2:H:76:LYS:HD2	2.18	0.43
2:I:1079:ASP:O	2:I:1082:ILE:HG22	2.19	0.43
2:I:1236:LEU:HD22	2:I:1238:LEU:HG	1.99	0.43
2:I:1959:LYS:HG2	2:I:1959:LYS:O	2.19	0.43
2:I:279:THR:O	2:I:283:ILE:HB	2.19	0.43
2:I:871:THR:HG21	2:I:887:LYS:HZ1	1.83	0.43
1:A:1431:GLU:OE2	1:A:1433:HIS:HE1	2.02	0.43
1:A:267:VAL:O	1:A:290:MET:HE1	2.19	0.43
1:A:988:ILE:CD1	1:A:1048:GLU:HA	2.48	0.43
1:B:1219:VAL:CA	1:B:1384:ILE:HD11	2.32	0.43
1:B:1233:GLU:CD	1:B:1680:ARG:HH21	2.22	0.43
1:B:370:GLU:O	1:B:373:ALA:HB3	2.19	0.43
1:C:1248:GLY:HA3	1:C:1301:PRO:HD2	2.01	0.43
1:C:1431:GLU:OE2	1:C:1433:HIS:HE1	2.00	0.43
1:C:1375:GLY:HA2	1:C:1546:THR:HG22	1.99	0.43
1:C:1553:GLU:HA	1:C:1556:THR:HG23	2.01	0.43
1:C:1539:ALA:O	1:C:1574:GLY:HA2	2.18	0.43
1:C:1599:ILE:HD11	1:C:1606:PRO:HD2	2.01	0.43
1:C:49:PRO:O	1:C:82:SER:HB2	2.19	0.43
2:G:184:VAL:HG12	2:G:188:ILE:HG12	2.00	0.43
2:G:184:VAL:O	2:G:184:VAL:HG12	2.19	0.43
2:G:324:LEU:O	2:G:324:LEU:HD12	2.18	0.43
2:G:573:LYS:C	2:G:575:GLY:H	2.21	0.43
2:G:652:ILE:HD13	2:G:658:MET:HE3	1.99	0.43
2:G:854:ILE:HG22	2:G:856:LYS:HG3	2.01	0.43
2:H:1223:MET:HE3	2:H:1238:LEU:CD1	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1422:THR:HG23	2:H:1474:PHE:CD1	2.54	0.43
2:H:573:LYS:C	2:H:575:GLY:H	2.21	0.43
2:H:629:GLY:O	2:H:632:ALA:HB3	2.18	0.43
2:H:643:LYS:HA	2:H:1163:LYS:HG2	1.99	0.43
2:H:653:TYR:OH	2:H:690:VAL:HG11	2.18	0.43
2:I:607:VAL:O	2:I:611:THR:HB	2.18	0.43
2:I:7:ARG:NH2	2:I:24:THR:O	2.52	0.43
1:A:1009:LEU:CD1	1:A:1445:MET:HE1	2.48	0.43
1:A:644:THR:HG23	1:A:648:ASP:N	2.34	0.43
1:A:827:SER:HA	1:A:828:PRO:HD3	1.70	0.43
1:B:1375:GLY:HA2	1:B:1546:THR:HG22	2.01	0.43
1:B:1446:LYS:O	1:B:1450:ARG:HG3	2.19	0.43
1:B:681:THR:HA	1:B:706:THR:OG1	2.19	0.43
1:C:1158:PRO:HD2	1:C:1159:GLU:OE2	2.18	0.43
1:A:335:HIS:ND1	1:C:335:HIS:HE1	2.17	0.43
2:G:1004:LEU:HD21	2:G:1020:VAL:CG2	2.48	0.43
2:G:1175:LYS:HG3	2:G:1176:PRO:HD2	2.00	0.43
2:G:324:LEU:O	2:G:328:LEU:HG	2.18	0.43
2:G:601:THR:O	2:G:601:THR:CG2	2.67	0.43
2:G:786:SER:HB3	2:G:794:MET:HE2	2.01	0.43
2:G:860:ARG:H	2:G:1049:GLN:HG3	1.83	0.43
2:H:1567:ARG:HH11	2:H:1567:ARG:HG2	1.72	0.43
2:H:1940:LEU:HD12	2:H:1941:PHE:N	2.34	0.43
2:H:654:VAL:HG12	2:H:654:VAL:O	2.18	0.43
2:I:1168:ASN:HA	2:I:1169:PRO:HD3	1.84	0.43
2:I:1552:PRO:O	2:I:1556:VAL:HG23	2.19	0.43
2:I:169:TYR:CG	2:I:170:PHE:N	2.87	0.43
2:I:2030:TYR:CD1	2:I:2034:GLY:HA2	2.54	0.43
2:I:425:SER:HA	2:I:426:PRO:HD3	1.78	0.43
2:I:846:VAL:CG1	2:I:865:TRP:NE1	2.82	0.43
1:A:1431:GLU:CG	1:A:1433:HIS:CE1	3.00	0.43
1:A:1670:TYR:O	1:A:1674:VAL:HG23	2.18	0.43
1:A:933:VAL:HA	1:A:934:PRO:HD3	1.84	0.43
1:A:833:PHE:HA	1:A:937:LYS:HD2	2.00	0.43
1:B:1431:GLU:CG	1:B:1433:HIS:CE1	3.02	0.43
1:B:1657:HIS:HA	1:B:1658:PRO:HD3	1.89	0.43
1:B:460:GLU:CG	1:B:470:LYS:HD3	2.48	0.43
1:C:1600:LEU:HD11	1:C:1655:VAL:HG12	2.00	0.43
2:G:884:LEU:HD22	2:G:1021:LEU:CD1	2.49	0.43
2:G:1219:ILE:HB	2:G:1240:TYR:HB2	2.01	0.43
2:G:1875:VAL:HG22	2:G:1910:VAL:HG11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2042:ILE:HG12	2:G:2042:ILE:H	1.39	0.43
2:G:28:PHE:CE2	2:H:7:ARG:CD	2.73	0.43
2:G:486:LEU:HA	2:G:487:PRO:HD3	1.90	0.43
2:G:15:SER:H	2:G:48:PHE:HE2	1.67	0.43
2:G:835:THR:HG22	2:G:844:VAL:HA	2.00	0.43
2:H:1862:VAL:HG22	2:H:1863:ALA:N	2.33	0.43
2:H:543:PHE:CB	2:H:545:GLN:NE2	2.81	0.43
2:H:717:ILE:HG23	2:H:760:HIS:CE1	2.54	0.43
2:I:615:TYR:CE2	2:I:1074:MET:HB3	2.53	0.43
2:I:1561:ASN:HA	2:I:1562:PRO:HD3	1.80	0.43
2:I:1662:THR:HB	2:I:1799:PRO:HG2	2.00	0.43
2:I:1873:TYR:CE1	2:I:1877:ARG:NH2	2.81	0.43
2:I:209:PHE:CE2	2:I:213:LEU:HD22	2.53	0.43
2:I:573:LYS:C	2:I:575:GLY:N	2.72	0.43
2:I:702:TYR:HB3	2:I:727:PRO:HB2	2.00	0.43
2:I:967:ILE:HD12	2:I:972:LEU:HD22	2.00	0.43
1:A:1107:GLU:HA	1:A:1108:PRO:HD3	1.90	0.43
1:A:196:THR:O	1:A:213:PHE:HE2	2.01	0.43
1:A:460:GLU:CG	1:A:470:LYS:HD3	2.49	0.43
1:A:32:GLN:HE22	1:A:57:ALA:N	2.16	0.43
1:A:44:VAL:HG11	1:A:78:ILE:HG12	1.96	0.43
1:B:1283:MET:O	1:B:1287:VAL:HG23	2.18	0.43
1:B:1553:GLU:HA	1:B:1556:THR:HG23	2.00	0.43
1:B:260:ARG:HH12	1:B:300:VAL:CG2	2.20	0.43
1:B:335:HIS:C	1:B:335:HIS:CD2	2.92	0.43
1:B:411:GLN:O	1:B:415:SER:HB2	2.18	0.43
1:C:1047:LEU:O	1:C:1051:VAL:HG23	2.19	0.43
1:C:1107:GLU:HA	1:C:1108:PRO:HD3	1.89	0.43
1:C:1208:VAL:HG11	1:C:1212:THR:HB	1.98	0.43
1:C:1430:ARG:O	1:C:1430:ARG:HG2	2.19	0.43
1:C:852:ARG:NH1	1:C:856:GLU:OE1	2.52	0.43
2:G:1339:PHE:N	2:G:1340:PRO:CD	2.82	0.43
2:G:1348:LEU:HD12	2:G:1348:LEU:HA	1.81	0.43
2:G:1327:ILE:HG12	2:G:1583:MET:HE3	2.01	0.43
2:G:1858:ASN:HA	2:G:1896:GLN:O	2.18	0.43
2:G:339:LEU:HD23	2:G:419:ARG:O	2.19	0.43
2:G:441:LYS:O	2:G:445:LYS:HG3	2.18	0.43
2:G:634:ILE:CD1	2:G:649:ILE:HD11	2.43	0.43
2:H:1293:THR:CG2	2:H:1296:GLU:H	2.24	0.43
2:H:595:PRO:HD3	2:H:800:LEU:HB2	2.01	0.43
2:I:652:ILE:CD1	2:I:658:MET:HE3	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:950:PHE:O	2:I:953:ARG:HB3	2.19	0.43
1:A:1396:MET:O	1:A:1680:ARG:NH1	2.52	0.42
1:A:1539:ALA:O	1:A:1574:GLY:HA2	2.18	0.42
1:A:155:VAL:O	1:A:159:LEU:HG	2.19	0.42
1:A:2:LYS:HE2	1:A:4:GLU:OE1	2.19	0.42
1:A:705:VAL:HG23	1:A:732:LEU:CD2	2.48	0.42
1:B:1050:CYS:HB3	1:B:1089:VAL:HG12	2.00	0.42
1:B:1263:ASP:HB2	1:B:1270:VAL:HG21	2.00	0.42
1:B:1406:MET:HE1	1:B:1428:THR:HB	2.01	0.42
1:B:335:HIS:CD2	1:B:335:HIS:O	2.70	0.42
1:B:350:LEU:HB2	1:B:352:MET:HG2	2.01	0.42
1:B:430:ARG:NH2	1:B:605:LEU:HD13	2.33	0.42
1:C:1175:ILE:HA	1:C:1176:PRO:HD3	1.89	0.42
1:C:1243:VAL:O	1:C:1296:GLY:HA3	2.18	0.42
1:C:1431:GLU:CG	1:C:1433:HIS:CE1	3.01	0.42
2:G:23:PRO:HG2	2:G:86:LEU:HD11	2.00	0.42
2:H:1257:ASP:O	2:H:1261:ARG:HG3	2.19	0.42
2:H:1458:ASP:O	2:H:1462:LYS:HE3	2.19	0.42
2:H:1847:LEU:H	2:H:1847:LEU:CD1	2.12	0.42
2:H:551:THR:C	2:H:553:ASN:H	2.21	0.42
2:I:1311:PHE:HD1	2:I:1320:LEU:O	2.02	0.42
2:I:1868:GLN:HG3	2:I:1898:TYR:HH	1.83	0.42
2:I:1878:VAL:CG1	2:I:1910:VAL:HG22	2.36	0.42
2:I:7:ARG:CG	2:I:22:VAL:O	2.67	0.42
2:I:516:THR:O	2:I:519:ASN:HB2	2.19	0.42
2:I:736:ARG:HG3	2:I:736:ARG:H	1.57	0.42
2:I:835:THR:HB	2:I:845:THR:HG23	2.01	0.42
1:A:1195:ALA:HB1	1:A:1200:ILE:HD12	2.02	0.42
1:A:1495:ASN:HD22	1:A:1495:ASN:HA	1.67	0.42
1:A:32:GLN:NE2	1:A:57:ALA:HA	2.34	0.42
1:B:1119:LYS:HE2	1:B:1341:PHE:CD1	2.54	0.42
1:B:417:TYR:HH	1:B:458:THR:HG22	1.84	0.42
1:C:1308:SER:HB3	1:C:1589:GLY:HA3	2.01	0.42
1:C:1618:LEU:HD23	1:C:1621:PHE:CE2	2.55	0.42
1:C:1657:HIS:CE1	1:C:1658:PRO:HD2	2.54	0.42
1:C:1239:HIS:HE1	1:C:1714:VAL:O	2.02	0.42
1:C:949:GLU:O	1:C:953:VAL:CG1	2.67	0.42
2:G:1320:LEU:HD12	2:G:1320:LEU:HA	1.88	0.42
2:G:238:CYS:CB	2:G:239:PRO:HD3	2.45	0.42
2:G:612:ASN:HD21	2:G:641:ILE:HA	1.85	0.42
2:H:1070:ILE:CD1	2:H:1074:MET:HG2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1149:TRP:HA	2:H:1242:PHE:CD1	2.54	0.42
2:H:1335:ILE:O	2:H:1338:ILE:HG12	2.19	0.42
2:H:127:ILE:HD12	2:H:180:TYR:CD2	2.54	0.42
1:B:12:ILE:CD1	2:H:2041:ILE:HD11	2.49	0.42
2:H:245:GLN:HG2	2:H:505:GLY:HA2	2.00	0.42
2:H:274:SER:OG	2:H:428:HIS:HE1	2.02	0.42
2:H:279:THR:O	2:H:283:ILE:HB	2.20	0.42
2:H:665:LEU:HD22	2:H:665:LEU:O	2.19	0.42
2:H:866:LYS:O	2:H:870:GLU:HG3	2.19	0.42
2:H:938:TRP:CD1	2:H:944:ARG:HG3	2.53	0.42
2:I:896:ASN:O	2:I:1050:ARG:NH2	2.52	0.42
2:I:1321:ALA:HA	2:I:1322:PRO:HD3	1.83	0.42
2:I:1666:PHE:CD1	2:I:1814:ALA:HB2	2.54	0.42
2:I:503:ASP:O	2:I:530:ALA:HB3	2.19	0.42
2:I:538:ASP:HB2	2:I:540:ASP:HB2	2.01	0.42
2:I:810:GLU:OE2	2:I:1070:ILE:N	2.43	0.42
2:I:856:LYS:CE	2:I:1052:CYS:SG	3.07	0.42
1:A:1131:LEU:HD12	1:A:1131:LEU:HA	1.76	0.42
1:A:1132:GLU:HA	1:A:1133:PRO:HD3	1.94	0.42
1:A:290:MET:HB3	1:A:290:MET:HE2	1.93	0.42
1:B:1145:LYS:HD3	1:B:1154:ILE:HG12	2.01	0.42
1:B:1420:ALA:HA	1:B:1421:PRO:HD3	1.74	0.42
1:B:155:VAL:HG22	1:B:186:ILE:CG2	2.50	0.42
1:B:280:GLU:O	1:B:284:LYS:HG3	2.20	0.42
1:B:828:PRO:HG3	1:B:868:ILE:HG22	2.00	0.42
1:B:908:LEU:HA	1:B:913:VAL:HG21	2.00	0.42
1:C:1114:TYR:CE1	1:C:1337:GLU:HG3	2.55	0.42
1:C:408:TRP:CH2	1:C:1628:SER:HB3	2.55	0.42
1:C:330:GLU:O	1:C:330:GLU:HG2	2.18	0.42
2:G:1031:LYS:O	2:G:1032:ASP:C	2.57	0.42
2:G:1986:LYS:N	2:G:1987:PRO:CD	2.82	0.42
2:G:2026:PHE:HB3	2:G:2042:ILE:HD13	2.00	0.42
2:G:421:LEU:HA	2:G:422:PRO:HD3	1.81	0.42
2:G:543:PHE:HB2	2:G:545:GLN:NE2	2.25	0.42
2:G:586:LEU:HD12	2:G:764:MET:SD	2.59	0.42
2:H:1080:GLY:O	2:H:1084:LYS:HG3	2.19	0.42
2:H:1159:ILE:CG2	2:H:1160:THR:N	2.82	0.42
2:H:1383:ASN:HD21	2:H:1418:ASP:HB3	1.84	0.42
2:H:1497:GLU:OE1	2:H:2002:LYS:CE	2.66	0.42
2:H:1551:GLU:HB2	2:H:1552:PRO:HD3	2.00	0.42
2:H:240:LEU:HA	2:H:240:LEU:HD12	1.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:258:PHE:N	2:H:258:PHE:CD1	2.87	0.42
2:H:38:ASN:HA	2:H:41:LEU:HD12	2.01	0.42
2:H:967:ILE:CD1	2:H:972:LEU:HD22	2.50	0.42
2:I:1085:LEU:HD12	2:I:1085:LEU:HA	1.82	0.42
2:I:190:PHE:O	2:I:194:THR:HG22	2.19	0.42
2:I:234:ILE:HG13	2:I:235:PRO:CD	2.46	0.42
2:I:309:ARG:HD3	2:I:309:ARG:HA	1.61	0.42
2:I:726:PHE:HA	2:I:727:PRO:HD3	1.86	0.42
2:I:778:TYR:N	2:I:779:PRO:CD	2.82	0.42
1:A:460:GLU:H	1:A:460:GLU:HG3	1.34	0.42
1:B:874:GLY:O	1:B:875:THR:C	2.58	0.42
1:C:1219:VAL:CA	1:C:1384:ILE:CD1	2.94	0.42
1:C:183:GLN:NE2	1:C:202:GLU:HG2	2.31	0.42
1:C:21:GLN:HB3	1:C:21:GLN:HE21	1.69	0.42
1:C:406:TRP:CE3	1:C:407:ASN:HB2	2.53	0.42
1:C:798:ASN:HA	1:C:801:ARG:HB2	2.02	0.42
2:G:1749:GLU:OE2	2:G:1840:VAL:HG13	2.19	0.42
2:G:1878:VAL:CG1	2:G:1910:VAL:HG22	2.34	0.42
2:G:503:ASP:OD2	2:G:513:GLY:N	2.50	0.42
2:H:1159:ILE:HG13	2:H:1169:PRO:CD	2.50	0.42
2:H:1427:VAL:HG22	2:H:1469:GLU:CG	2.50	0.42
2:H:176:LEU:CD2	2:H:184:VAL:HG21	2.50	0.42
2:H:1986:LYS:N	2:H:1987:PRO:CD	2.81	0.42
2:H:520:LYS:O	2:H:521:ASP:C	2.58	0.42
2:H:536:ASN:HD21	2:H:540:ASP:HB3	1.84	0.42
2:H:741:HIS:CE1	2:H:855:HIS:NE2	2.88	0.42
2:I:1102:TYR:HB3	2:I:1244:PRO:CA	2.49	0.42
2:I:1175:LYS:HG3	2:I:1176:PRO:HD2	2.00	0.42
2:I:120:LYS:HB3	2:I:124:LYS:HE3	2.01	0.42
2:I:1590:ARG:HG3	2:I:1608:TYR:CG	2.54	0.42
2:I:2042:ILE:HG12	2:I:2042:ILE:H	1.36	0.42
2:I:441:LYS:O	2:I:445:LYS:HG3	2.19	0.42
2:I:674:TYR:HA	2:I:675:PRO:HD3	1.69	0.42
1:A:1195:ALA:CB	1:A:1213:LEU:HD13	2.49	0.42
1:A:382:LEU:HA	1:A:382:LEU:HD23	1.79	0.42
1:B:1022:THR:HG22	1:B:1226:SER:CB	2.49	0.42
1:B:1234:MET:HE3	1:B:1326:ILE:HG21	2.01	0.42
1:B:1385:GLN:HE21	1:B:1385:GLN:HB3	1.66	0.42
1:B:1534:ASP:OD1	1:B:1566:ARG:HD3	2.19	0.42
1:B:157:HIS:CE1	1:B:269:LEU:HD11	2.55	0.42
1:B:272:GLU:HA	1:B:273:PRO:HD3	1.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1455:ARG:HD2	1:C:1455:ARG:HA	1.82	0.42
1:C:1592:MET:HE2	1:C:1641:ILE:HG23	2.00	0.42
1:C:408:TRP:CZ3	1:C:1628:SER:HB3	2.54	0.42
1:C:413:LEU:O	1:C:413:LEU:HG	2.19	0.42
1:C:32:GLN:NE2	1:C:57:ALA:CA	2.82	0.42
2:G:1135:GLU:HG2	2:G:1176:PRO:HG2	2.02	0.42
2:G:517:HIS:CE1	2:G:540:ASP:O	2.73	0.42
2:G:638:VAL:HG22	2:G:675:PRO:HG2	2.01	0.42
2:H:1149:TRP:NE1	2:H:1213:LEU:HD12	2.34	0.42
2:H:1294:ALA:HA	2:H:1368:VAL:CG2	2.49	0.42
1:B:20:TYR:HE1	2:H:2035:SER:HB2	1.82	0.42
2:H:676:ILE:O	2:H:676:ILE:HG12	2.17	0.42
2:H:751:LEU:HD11	2:H:789:PHE:CD1	2.55	0.42
2:I:463:PHE:CD1	2:I:486:LEU:HD22	2.54	0.42
2:I:730:LEU:C	2:I:730:LEU:HD12	2.40	0.42
2:I:786:SER:HB3	2:I:794:MET:HE2	2.01	0.42
2:I:754:TYR:CE2	2:I:794:MET:HG3	2.53	0.42
2:I:835:THR:HG22	2:I:844:VAL:C	2.40	0.42
1:A:1420:ALA:HA	1:A:1421:PRO:HD3	1.75	0.42
1:A:529:MET:HG2	1:A:638:LEU:CG	2.50	0.42
1:B:1239:HIS:CD2	1:B:1241:SER:OG	2.59	0.42
1:B:706:THR:HB	1:B:737:PHE:HB3	2.01	0.42
1:B:982:ILE:HG23	2:H:956:GLU:HG2	2.01	0.42
1:C:1220:VAL:O	1:C:1224:ILE:HG12	2.19	0.42
1:C:406:TRP:CD2	1:C:1619:GLU:HG3	2.55	0.42
1:C:1639:VAL:CG1	1:C:1640:SER:N	2.82	0.42
1:C:475:GLN:CD	1:C:614:ALA:HB2	2.40	0.42
2:G:1180:MET:HB3	2:G:1199:GLU:HG2	2.00	0.42
2:G:786:SER:HB2	2:G:794:MET:HE2	2.00	0.42
2:H:345:THR:HG22	2:H:347:GLU:N	2.25	0.42
2:H:60:LEU:HD23	2:H:60:LEU:O	2.20	0.42
2:H:900:GLN:NE2	2:H:1051:THR:HA	2.34	0.42
2:I:1217:ASN:HD22	2:I:1217:ASN:HA	1.60	0.42
2:I:1359:MET:CE	2:I:1404:MET:HB3	2.50	0.42
2:I:298:LYS:HA	2:I:448:VAL:CG2	2.49	0.42
2:I:33:LEU:HD21	2:I:80:PHE:CE2	2.54	0.42
1:A:1019:ILE:HG13	1:A:1316:VAL:HG13	2.01	0.42
1:A:1263:ASP:HB2	1:A:1270:VAL:HG21	2.01	0.42
1:A:181:THR:HG22	1:A:185:GLU:OE2	2.19	0.42
1:A:1:MET:HE3	1:A:9:LEU:HD12	2.01	0.42
1:B:1238:VAL:CG1	1:B:1242:GLU:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1264:ARG:NH1	1:B:1270:VAL:HB	2.35	0.42
1:B:1244:GLY:O	1:B:1327:CYS:HB2	2.20	0.42
1:B:1682:LYS:HB3	2:H:994:PHE:CE2	2.54	0.42
1:B:242:THR:HG22	1:B:243:ILE:H	1.83	0.42
1:B:625:THR:HG23	1:B:627:SER:H	1.84	0.42
1:C:1067:LEU:HA	1:C:1067:LEU:HD23	1.76	0.42
1:C:377:TYR:O	1:C:380:ALA:HB3	2.19	0.42
1:C:438:ASN:HD21	1:C:698:GLN:HE21	1.66	0.42
2:G:1044:VAL:HG21	2:G:1050:ARG:NE	2.34	0.42
2:G:856:LYS:CE	2:G:1052:CYS:SG	3.08	0.42
2:G:1149:TRP:NE1	2:G:1213:LEU:HD12	2.35	0.42
2:G:507:GLY:O	2:G:508:GLY:C	2.58	0.42
2:G:810:GLU:OE2	2:G:1070:ILE:N	2.44	0.42
2:G:938:TRP:CE2	2:G:944:ARG:HG3	2.54	0.42
2:H:1002:HIS:NE2	2:H:1006:MET:CE	2.82	0.42
2:H:804:ARG:NH1	2:H:1062:PHE:O	2.52	0.42
2:H:1175:LYS:HG3	2:H:1176:PRO:HD2	2.02	0.42
2:H:1339:PHE:N	2:H:1340:PRO:CD	2.83	0.42
2:H:581:THR:O	2:H:585:LYS:HB2	2.20	0.42
2:H:712:ALA:O	2:H:716:VAL:HG23	2.20	0.42
2:H:754:TYR:CG	2:H:794:MET:HG2	2.55	0.42
2:H:949:ASP:HB3	2:H:1006:MET:CE	2.47	0.42
2:I:1129:ALA:HB2	2:I:1138:TRP:CH2	2.55	0.42
2:I:1273:GLU:HB3	2:I:1274:PRO:CD	2.50	0.42
2:I:1343:VAL:HG22	2:I:1343:VAL:O	2.20	0.42
2:I:1989:LYS:NZ	2:I:2037:PRO:HG2	2.35	0.42
2:I:2046:GLU:C	2:I:2048:TYR:N	2.73	0.42
2:I:44:PRO:HA	2:I:53:GLU:OE2	2.19	0.42
2:I:703:LEU:CD2	2:I:705:LEU:HG	2.50	0.42
2:I:73:GLU:OE2	2:I:76:LYS:HD2	2.18	0.42
2:I:740:HIS:HA	2:I:854:ILE:HD13	2.01	0.42
2:I:745:ASP:HA	2:I:832:TRP:CH2	2.49	0.42
1:A:1260:MET:HB2	1:A:1274:ILE:HD12	2.02	0.42
1:A:408:TRP:CH2	1:A:1628:SER:HB3	2.55	0.42
1:A:655:LEU:HA	1:A:655:LEU:HD23	1.81	0.42
1:A:800:LEU:HA	1:A:800:LEU:HD23	1.84	0.42
1:B:1012:LEU:HD23	1:B:1445:MET:HE3	2.00	0.42
1:B:458:THR:OG1	1:B:470:LYS:HD2	2.20	0.42
1:B:798:ASN:HA	1:B:801:ARG:HB2	2.02	0.42
1:C:1310:GLU:OE1	1:C:1649:LYS:CE	2.65	0.42
1:C:155:VAL:O	1:C:159:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2:LYS:HE2	1:C:4:GLU:OE1	2.19	0.42
1:C:37:LYS:HB2	1:C:65:TYR:CE1	2.52	0.42
2:G:1014:PRO:HG2	2:G:1032:ASP:HB2	2.01	0.42
2:G:1079:ASP:O	2:G:1082:ILE:HG22	2.19	0.42
2:G:1217:ASN:HA	2:G:1217:ASN:HD22	1.62	0.42
2:G:1383:ASN:OD1	2:G:1388:LYS:HG3	2.20	0.42
2:G:237:SER:O	2:G:241:ILE:HG13	2.20	0.42
2:G:258:PHE:HD1	2:G:258:PHE:N	2.18	0.42
2:G:732:TRP:CH2	2:G:749:PRO:HG2	2.55	0.42
2:G:7:ARG:NH1	2:G:24:THR:CG2	2.79	0.42
2:G:827:VAL:HG21	2:G:840:THR:CG2	2.49	0.42
1:A:987:ASN:HD22	2:G:957:ARG:CD	2.30	0.42
2:H:1642:THR:HB	2:H:1651:LEU:HB2	2.01	0.42
2:H:33:LEU:HD13	2:H:68:VAL:HG22	2.02	0.42
2:H:624:TYR:HB2	2:H:630:MET:HE3	2.02	0.42
2:H:844:VAL:HG22	2:H:858:ALA:HB2	2.01	0.42
2:I:732:TRP:CH2	2:I:749:PRO:HG2	2.55	0.42
1:A:1332:TYR:HB3	1:A:1382:ALA:CB	2.50	0.42
1:A:1618:LEU:HD23	1:A:1621:PHE:CE2	2.54	0.42
1:A:155:VAL:HG22	1:A:186:ILE:CG2	2.50	0.42
1:A:335:HIS:CD2	1:A:335:HIS:C	2.92	0.42
1:A:444:ASN:CB	1:A:446:ALA:H	2.32	0.42
1:A:453:TYR:O	1:A:457:ASN:HB2	2.20	0.42
1:B:1189:ILE:HG23	1:B:1190:PRO:HD2	2.01	0.42
1:B:1539:ALA:O	1:B:1574:GLY:HA2	2.20	0.42
1:B:1705:PRO:HB2	1:B:1733:PHE:CD1	2.55	0.42
1:B:1:MET:HE3	1:B:6:GLU:HA	2.01	0.42
1:B:780:GLU:O	1:B:781:LEU:C	2.58	0.42
1:B:44:VAL:HG11	1:B:78:ILE:HG12	2.00	0.42
1:C:1012:LEU:HD23	1:C:1445:MET:HE2	2.02	0.42
1:C:1154:ILE:O	1:C:1154:ILE:HG13	2.20	0.42
1:C:1244:GLY:HA3	1:C:1297:PRO:HD2	2.02	0.42
2:G:1666:PHE:CD1	2:G:1814:ALA:CB	3.02	0.42
2:G:2036:GLU:HB2	2:G:2037:PRO:CD	2.48	0.42
2:G:892:ILE:HD11	2:G:903:TRP:CD2	2.51	0.42
2:H:1889:VAL:HG22	2:H:1977:HIS:O	2.19	0.42
1:B:31:THR:CG2	2:H:2011:ILE:HG21	2.40	0.42
1:B:20:TYR:CZ	2:H:2035:SER:HB2	2.53	0.42
2:H:433:VAL:N	2:H:434:PRO:CD	2.83	0.42
2:H:641:ILE:CD1	2:H:645:SER:HB2	2.50	0.42
2:H:995:LEU:HB3	2:H:1000:ILE:CD1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1135:GLU:HG2	2:I:1176:PRO:HG2	2.02	0.42
2:I:1223:MET:HE3	2:I:1238:LEU:CD1	2.49	0.42
2:I:1593:ILE:O	2:I:1597:ALA:HB3	2.20	0.42
2:I:360:LEU:HA	2:I:361:PRO:HD3	1.89	0.42
2:I:879:LYS:HA	2:I:879:LYS:HD3	1.73	0.42
1:A:1234:MET:HE3	1:A:1326:ILE:HG21	2.02	0.42
1:A:998:TYR:CD2	1:A:1667:GLU:HG3	2.55	0.42
1:A:350:LEU:HD23	1:A:350:LEU:HA	1.89	0.42
1:A:483:VAL:O	1:A:486:VAL:HB	2.20	0.42
1:A:521:LYS:HB3	1:A:523:SER:HB3	2.01	0.42
1:A:32:GLN:HE21	1:A:57:ALA:HB2	1.85	0.42
1:A:780:GLU:O	1:A:781:LEU:C	2.59	0.42
1:B:1175:ILE:HA	1:B:1176:PRO:HD3	1.89	0.42
1:B:140:ILE:CG2	1:B:141:ALA:N	2.83	0.42
1:B:438:ASN:ND2	1:B:698:GLN:HE21	2.14	0.42
1:C:1029:PRO:HA	1:C:1188:GLN:O	2.20	0.42
1:C:1370:THR:HG22	1:C:1371:THR:N	2.35	0.42
1:C:19:ALA:O	1:C:22:PHE:HB2	2.19	0.42
2:G:1236:LEU:HA	2:G:1237:PRO:HD3	1.76	0.42
2:G:1360:ILE:HA	2:G:1361:PRO:HD3	1.91	0.42
2:G:1383:ASN:HD21	2:G:1418:ASP:HB3	1.85	0.42
2:G:1782:THR:CG2	2:G:1827:LEU:HD21	2.48	0.42
2:G:298:LYS:HA	2:G:448:VAL:CG2	2.50	0.42
2:G:427:PHE:HB3	2:G:428:HIS:ND1	2.34	0.42
2:G:468:LEU:O	2:G:471:LEU:HB2	2.20	0.42
2:G:670:ARG:HD2	2:G:676:ILE:O	2.20	0.42
2:G:736:ARG:H	2:G:736:ARG:HG3	1.59	0.42
2:H:1180:MET:HB3	2:H:1199:GLU:HG2	2.02	0.42
2:H:1343:VAL:HG22	2:H:1343:VAL:O	2.20	0.42
2:H:1666:PHE:CD1	2:H:1814:ALA:CB	3.03	0.42
2:H:1855:ILE:HB	2:H:1907:LEU:HD12	2.01	0.42
2:H:2036:GLU:HB2	2:H:2037:PRO:CD	2.47	0.42
2:H:234:ILE:HG13	2:H:235:PRO:CD	2.47	0.42
2:H:23:PRO:HG2	2:H:86:LEU:HD11	2.01	0.42
2:H:421:LEU:HA	2:H:422:PRO:HD3	1.78	0.42
2:I:804:ARG:NH2	2:I:1068:GLU:OE1	2.53	0.42
2:I:1214:LEU:HD11	2:I:1220:GLN:NE2	2.35	0.42
2:I:1335:ILE:O	2:I:1338:ILE:HG12	2.20	0.42
2:I:1738:PHE:HE1	2:I:1837:THR:HG23	1.85	0.42
2:I:258:PHE:N	2:I:258:PHE:CD1	2.87	0.42
1:A:1279:PHE:HB2	1:A:1282:THR:HG23	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1308:SER:HB3	1:A:1589:GLY:HA3	2.01	0.41
1:A:1019:ILE:HG21	1:A:1316:VAL:HG22	2.01	0.41
1:A:1657:HIS:CG	1:A:1658:PRO:HD2	2.55	0.41
1:A:32:GLN:NE2	1:A:57:ALA:CA	2.83	0.41
1:B:1019:ILE:HG13	1:B:1316:VAL:HG13	2.02	0.41
1:B:1673:TYR:CZ	1:B:1677:VAL:HG21	2.55	0.41
1:C:1215:VAL:O	1:C:1219:VAL:HG23	2.20	0.41
1:C:12:ILE:HD11	2:I:2041:ILE:HD11	2.01	0.41
1:C:616:LEU:HB2	1:C:617:PRO:HD3	2.01	0.41
1:C:635:ILE:CG2	1:C:651:TYR:CG	3.03	0.41
2:G:1128:LYS:HG2	2:G:1181:VAL:HG22	2.02	0.41
2:G:1579:ILE:CD1	2:G:1615:MET:SD	3.08	0.41
2:G:1496:LYS:CE	2:G:1693:ARG:HH21	2.28	0.41
2:G:439:ILE:HD12	2:G:484:ILE:HD11	2.01	0.41
2:G:638:VAL:HA	2:G:641:ILE:CG2	2.50	0.41
2:H:896:ASN:O	2:H:1050:ARG:NH2	2.53	0.41
2:H:2010:TYR:O	2:H:2012:PRO:HD3	2.20	0.41
2:H:240:LEU:O	2:H:244:ILE:HG13	2.19	0.41
2:H:258:PHE:N	2:H:258:PHE:HD1	2.18	0.41
2:I:1815:LEU:O	2:I:1821:VAL:HG23	2.20	0.41
2:I:1697:HIS:CE1	2:I:1829:GLU:CG	3.03	0.41
2:I:1980:TYR:HD1	2:I:1981:LEU:HD12	1.85	0.41
2:I:441:LYS:HG2	2:I:445:LYS:HE3	2.02	0.41
2:I:512:LEU:O	2:I:516:THR:HG23	2.20	0.41
2:I:659:LEU:O	2:I:663:ILE:HG12	2.20	0.41
1:A:1233:GLU:CD	1:A:1680:ARG:HH21	2.24	0.41
1:A:280:GLU:O	1:A:284:LYS:HG3	2.21	0.41
1:A:28:TRP:CE2	1:A:53:LEU:HD22	2.55	0.41
1:A:340:ARG:NH1	1:A:344:GLN:CG	2.70	0.41
1:A:50:SER:CB	1:A:51:PRO:CD	2.98	0.41
1:B:290:MET:HE2	1:B:290:MET:HB3	1.96	0.41
1:C:1584:PRO:CG	1:C:1591:TRP:CZ3	3.03	0.41
1:C:12:ILE:O	1:C:15:THR:HG23	2.20	0.41
1:C:889:GLU:C	1:C:891:MET:H	2.24	0.41
2:G:1553:TYR:OH	2:G:1583:MET:HB3	2.20	0.41
2:G:1755:ILE:HD11	2:G:1762:TYR:HB2	2.03	0.41
1:A:29:ILE:HD13	2:G:1894:GLU:HA	2.01	0.41
2:G:2035:SER:OG	2:G:2037:PRO:HD2	2.21	0.41
2:G:717:ILE:HG23	2:G:760:HIS:CE1	2.55	0.41
1:A:983:GLN:HE21	2:G:962:LYS:HD2	1.80	0.41
2:G:992:GLU:HA	2:G:992:GLU:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:142:ASN:HB2	2:H:550:VAL:HG13	2.01	0.41
2:H:1713:ASN:HA	2:H:1714:PRO:HD3	1.89	0.41
2:H:15:SER:H	2:H:48:PHE:HE2	1.66	0.41
2:H:584:SER:CB	2:H:591:PRO:HG3	2.46	0.41
2:I:1149:TRP:HA	2:I:1242:PHE:CD1	2.54	0.41
2:I:1495:THR:O	2:I:1496:LYS:HB2	2.20	0.41
2:I:524:GLY:HA2	2:I:558:ASN:O	2.20	0.41
2:I:592:LEU:O	2:I:616:THR:HG23	2.19	0.41
2:I:84:LEU:HA	2:I:84:LEU:HD23	1.89	0.41
1:A:1666:THR:HG23	1:A:1669:ARG:HB2	2.01	0.41
1:B:1047:LEU:O	1:B:1051:VAL:HG23	2.20	0.41
1:B:455:ILE:HD13	1:B:455:ILE:HA	1.84	0.41
1:B:852:ARG:HB3	1:B:858:TRP:HZ2	1.83	0.41
1:C:1047:LEU:HD23	1:C:1047:LEU:HA	1.89	0.41
1:C:1208:VAL:HG13	1:C:1209:ASP:O	2.20	0.41
1:C:335:HIS:C	1:C:335:HIS:CD2	2.91	0.41
1:C:792:HIS:CE1	1:C:796:LEU:HD23	2.55	0.41
2:G:1258:ARG:O	2:G:1262:ILE:HG13	2.20	0.41
2:G:1359:MET:HB3	2:G:1606:ARG:NH2	2.35	0.41
2:G:1624:THR:HB	2:G:1642:THR:CG2	2.50	0.41
2:G:520:LYS:O	2:G:521:ASP:C	2.58	0.41
2:G:667:LYS:HD2	2:G:697:THR:CG2	2.38	0.41
2:G:888:ARG:O	2:G:892:ILE:HB	2.21	0.41
2:H:1314:ARG:HD3	2:H:1314:ARG:HA	1.63	0.41
2:I:1493:LEU:HB3	2:I:1494:PRO:HD2	2.02	0.41
2:I:195:LEU:O	2:I:199:ILE:HG13	2.20	0.41
2:I:339:LEU:HD23	2:I:419:ARG:O	2.20	0.41
2:I:507:GLY:O	2:I:508:GLY:C	2.59	0.41
2:I:581:THR:O	2:I:585:LYS:HB2	2.20	0.41
2:I:807:ILE:HA	2:I:818:LYS:HG2	2.02	0.41
1:A:1154:ILE:O	1:A:1154:ILE:HG13	2.19	0.41
1:A:1305:CYS:SG	3:A:2748:CER:C5	3.08	0.41
1:A:12:ILE:O	1:A:15:THR:HG23	2.20	0.41
1:A:1720:ALA:O	1:A:1721:ARG:HG2	2.21	0.41
1:A:330:GLU:O	1:A:330:GLU:HG2	2.20	0.41
1:A:28:TRP:CZ2	1:A:53:LEU:HD22	2.56	0.41
1:A:807:LYS:C	1:A:807:LYS:HD3	2.40	0.41
1:B:1216:LEU:HA	1:B:1216:LEU:HD23	1.93	0.41
1:B:1448:ARG:HD2	1:B:1508:TRP:O	2.21	0.41
1:B:378:LEU:HA	1:B:378:LEU:HD12	1.75	0.41
1:B:992:PHE:CD2	1:B:1399:PRO:HG3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:495:LYS:HA	1:C:496:PRO:HD3	1.86	0.41
1:C:496:PRO:HB2	1:C:519:VAL:HG12	2.02	0.41
1:C:521:LYS:HE2	1:C:605:LEU:HD11	2.02	0.41
1:C:719:GLN:HG3	1:C:720:SER:N	2.35	0.41
2:G:439:ILE:HD12	2:G:484:ILE:CD1	2.50	0.41
2:G:760:HIS:HA	2:G:761:PRO:HD3	1.85	0.41
2:G:846:VAL:HG13	2:G:865:TRP:CD1	2.55	0.41
2:G:950:PHE:O	2:G:953:ARG:HB3	2.20	0.41
2:H:1071:LYS:HE3	2:H:1075:ASP:OD2	2.20	0.41
2:H:1752:PHE:HZ	2:H:1836:MET:HE3	1.84	0.41
2:H:1886:VAL:HG22	2:H:1906:ALA:HB1	2.02	0.41
2:H:455:ILE:HG12	2:H:469:ARG:CG	2.49	0.41
2:H:601:THR:HB	2:H:620:ALA:HB2	2.01	0.41
2:I:1021:LEU:HD22	2:I:1021:LEU:HA	1.61	0.41
2:I:1383:ASN:HD21	2:I:1418:ASP:CB	2.34	0.41
2:I:1388:LYS:HE3	2:I:1418:ASP:OD2	2.21	0.41
2:I:1457:PHE:CD2	2:I:1459:LEU:HD23	2.55	0.41
2:I:1458:ASP:O	2:I:1462:LYS:HE3	2.21	0.41
2:I:156:LEU:HD23	2:I:500:HIS:HB2	2.02	0.41
2:I:258:PHE:HD1	2:I:258:PHE:N	2.18	0.41
2:I:654:VAL:CG2	2:I:683:ALA:HB1	2.50	0.41
2:I:949:ASP:HB3	2:I:1006:MET:CE	2.48	0.41
1:A:12:ILE:O	1:A:16:GLU:HG2	2.20	0.41
1:A:1477:ILE:N	1:A:1478:PRO:CD	2.83	0.41
1:A:601:VAL:O	1:A:602:GLU:C	2.59	0.41
1:A:82:SER:OG	1:A:83:LYS:HG3	2.20	0.41
1:B:1244:GLY:HA3	1:B:1297:PRO:HD2	2.03	0.41
1:B:1257:LEU:HD23	1:B:1257:LEU:HA	1.76	0.41
1:B:1303:GLY:H	1:B:1307:THR:CG2	2.31	0.41
1:B:1308:SER:HB3	1:B:1589:GLY:HA3	2.03	0.41
1:B:1232:TYR:CE2	1:B:1701:LYS:HD2	2.55	0.41
1:B:453:TYR:O	1:B:457:ASN:HB2	2.21	0.41
1:B:504:ASP:CB	1:B:508:ASN:HB2	2.49	0.41
1:B:949:GLU:O	1:B:953:VAL:HG12	2.21	0.41
1:C:1408:ALA:O	1:C:1651:GLY:HA2	2.21	0.41
1:C:1443:LEU:HA	1:C:1443:LEU:HD23	1.77	0.41
1:C:242:THR:HB	1:C:244:THR:HB	2.02	0.41
2:G:1676:MET:HE1	2:G:1781:LEU:CD2	2.47	0.41
2:G:1706:ILE:HD12	2:G:1706:ILE:HA	1.89	0.41
2:G:1862:VAL:HG22	2:G:1863:ALA:N	2.36	0.41
1:A:9:LEU:HD21	2:G:2047:LYS:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2:LYS:CD	2:H:2050:GLN:HB3	2.44	0.41
2:H:231:LEU:HA	2:H:236:ILE:HD12	2.03	0.41
2:H:339:LEU:HD23	2:H:419:ARG:O	2.20	0.41
2:H:478:ARG:O	2:H:482:CYS:HB2	2.20	0.41
2:I:177:TYR:CD1	2:I:188:ILE:HG21	2.55	0.41
2:I:1940:LEU:HD12	2:I:1941:PHE:N	2.35	0.41
2:I:566:HIS:ND1	2:I:567:PRO:HD2	2.35	0.41
2:I:572:ASN:HA	2:I:572:ASN:HD22	1.70	0.41
2:I:712:ALA:O	2:I:716:VAL:HG23	2.21	0.41
2:I:780:TYR:HB2	2:I:799:PHE:HE2	1.85	0.41
2:I:786:SER:HB2	2:I:794:MET:HE2	2.02	0.41
2:I:800:LEU:H	2:I:800:LEU:HD23	1.85	0.41
1:A:370:GLU:O	1:A:373:ALA:HB3	2.20	0.41
1:A:825:PRO:HB2	1:A:843:LYS:HZ2	1.86	0.41
1:A:529:MET:HE1	1:A:894:ARG:HD2	2.00	0.41
1:B:1066:ASN:HD22	1:B:1071:PRO:HA	1.86	0.41
1:B:238:PRO:CG	1:B:283:ALA:HB2	2.50	0.41
1:B:406:TRP:CD2	1:B:1619:GLU:HG3	2.55	0.41
1:B:495:LYS:HA	1:B:496:PRO:HD3	1.89	0.41
1:C:1709:GLU:H	1:C:1709:GLU:HG3	1.42	0.41
1:C:155:VAL:HG22	1:C:186:ILE:CG2	2.50	0.41
2:G:1169:PRO:O	2:G:1173:VAL:HG23	2.20	0.41
2:G:1352:HIS:HD2	2:G:1410:PHE:CD2	2.38	0.41
2:G:1495:THR:O	2:G:1496:LYS:HB2	2.20	0.41
2:G:1642:THR:HB	2:G:1651:LEU:HB2	2.01	0.41
2:G:1815:LEU:O	2:G:1821:VAL:HG23	2.20	0.41
2:G:1979:THR:O	2:G:1982:MET:HB2	2.21	0.41
2:G:597:MET:HA	4:G:3051:FMN:C5A	2.51	0.41
2:G:490:TRP:CZ2	2:G:512:LEU:HD21	2.55	0.41
2:G:754:TYR:CG	2:G:794:MET:CG	3.04	0.41
2:H:1236:LEU:HD22	2:H:1238:LEU:HG	2.03	0.41
2:H:1680:LEU:HD13	2:H:1687:ALA:CB	2.45	0.41
2:H:624:TYR:CD1	2:H:630:MET:HE2	2.56	0.41
2:H:712:ALA:O	2:H:715:GLN:HB3	2.20	0.41
2:H:717:ILE:CG2	2:H:760:HIS:CE1	3.04	0.41
2:H:722:ALA:CB	2:H:723:HIS:CE1	3.04	0.41
2:H:950:PHE:O	2:H:953:ARG:HB3	2.20	0.41
2:I:1054:LEU:HD22	4:I:3051:FMN:HM72	2.03	0.41
2:I:663:ILE:HG13	2:I:694:TYR:CE1	2.51	0.41
2:I:638:VAL:HG22	2:I:675:PRO:HG2	2.03	0.41
1:A:32:GLN:O	1:A:36:LEU:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:774:ILE:HA	1:A:775:PRO:HD3	1.76	0.41
1:A:988:ILE:HD13	1:A:1048:GLU:CG	2.50	0.41
1:B:1105:LEU:HA	1:B:1105:LEU:HD23	1.89	0.41
1:B:1126:ILE:CD1	1:B:1172:THR:HG22	2.51	0.41
1:B:1666:THR:HG23	1:B:1669:ARG:CB	2.50	0.41
1:C:1119:LYS:HE2	1:C:1341:PHE:CG	2.55	0.41
1:C:1131:LEU:HA	1:C:1131:LEU:HD12	1.69	0.41
1:C:1418:VAL:N	1:C:1419:PRO:CD	2.83	0.41
1:C:35:PHE:HA	1:C:39:PHE:HD2	1.86	0.41
2:G:843:ILE:CD1	2:G:1055:HIS:HB3	2.50	0.41
2:G:571:LYS:HB2	2:G:1099:ALA:HB2	2.02	0.41
2:G:1388:LYS:HE3	2:G:1418:ASP:OD2	2.20	0.41
2:G:1427:VAL:HG22	2:G:1469:GLU:CG	2.51	0.41
2:G:1749:GLU:OE2	2:G:1840:VAL:CG1	2.68	0.41
2:G:246:LEU:HD12	2:G:246:LEU:HA	1.82	0.41
2:G:425:SER:HA	2:G:426:PRO:HD3	1.79	0.41
2:G:587:ILE:HD11	2:G:589:ARG:HB2	2.03	0.41
2:G:835:THR:HG21	2:G:855:HIS:NE2	2.35	0.41
2:H:1128:LYS:HG2	2:H:1181:VAL:HG22	2.01	0.41
2:H:11:LEU:HD23	2:H:11:LEU:HA	1.93	0.41
2:H:1503:ILE:HG22	2:H:1504:VAL:C	2.41	0.41
2:H:236:ILE:C	2:H:236:ILE:HD13	2.40	0.41
2:H:821:ILE:HA	2:H:857:ILE:HD11	2.02	0.41
2:H:827:VAL:HG12	2:H:828:PRO:O	2.19	0.41
2:I:1357:TYR:HD1	2:I:1406:VAL:HG22	1.85	0.41
2:I:159:ILE:HD11	2:I:512:LEU:CG	2.49	0.41
2:I:1642:THR:HB	2:I:1651:LEU:HB2	2.03	0.41
2:I:1981:LEU:HD12	2:I:1981:LEU:N	2.36	0.41
2:I:463:PHE:O	2:I:463:PHE:HD2	2.04	0.41
2:I:634:ILE:CD1	2:I:649:ILE:HD11	2.44	0.41
2:I:595:PRO:HD3	2:I:800:LEU:HB2	2.01	0.41
1:A:16:GLU:HA	1:A:16:GLU:OE2	2.21	0.41
1:A:1239:HIS:HE1	1:A:1714:VAL:O	2.03	0.41
1:A:91:THR:HA	1:A:92:PRO:HD3	1.81	0.41
1:B:521:LYS:HB3	1:B:523:SER:HB3	2.03	0.41
1:B:949:GLU:O	1:B:953:VAL:CG1	2.68	0.41
1:C:1420:ALA:HA	1:C:1421:PRO:HD3	1.78	0.41
1:C:658:LEU:HD13	1:C:916:LEU:HD12	2.02	0.41
2:G:1070:ILE:O	2:G:1070:ILE:HD13	2.21	0.41
2:G:131:ILE:HD12	2:G:182:VAL:CG1	2.49	0.41
2:G:1428:GLU:CG	2:G:1468:THR:HG22	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:236:ILE:HG12	2:G:240:LEU:HD22	2.02	0.41
2:G:270:ALA:O	2:G:459:VAL:HA	2.20	0.41
2:G:123:ILE:CD1	2:G:533:LEU:HD23	2.50	0.41
2:H:159:ILE:HG12	2:H:512:LEU:HD23	2.02	0.41
2:H:1662:THR:HB	2:H:1799:PRO:HG2	2.02	0.41
2:H:1959:LYS:HG2	2:H:1959:LYS:O	2.20	0.41
2:H:320:PRO:HA	2:H:321:PRO:HD3	1.92	0.41
2:H:674:TYR:HA	2:H:675:PRO:HD3	1.73	0.41
2:H:719:ILE:HG12	2:H:719:ILE:H	1.63	0.41
2:H:805:VAL:HG12	2:H:805:VAL:O	2.21	0.41
2:I:1374:THR:HG23	2:I:1396:LEU:CD1	2.49	0.41
2:I:2035:SER:OG	2:I:2037:PRO:HD2	2.21	0.41
2:I:705:LEU:HD23	2:I:705:LEU:HA	1.80	0.41
1:A:152:HIS:HD2	1:A:163:LEU:CB	2.32	0.41
1:A:612:GLU:O	1:A:615:SER:HB3	2.21	0.41
1:A:719:GLN:HG3	1:A:720:SER:N	2.36	0.41
1:B:1418:VAL:N	1:B:1419:PRO:CD	2.83	0.41
1:B:1618:LEU:HD23	1:B:1621:PHE:HE2	1.85	0.41
1:B:1709:GLU:HG3	1:B:1709:GLU:H	1.45	0.41
1:C:1239:HIS:CD2	1:C:1241:SER:H	2.38	0.41
1:C:1244:GLY:C	1:C:1327:CYS:HB2	2.41	0.41
1:C:453:TYR:O	1:C:457:ASN:HB2	2.19	0.41
1:C:32:GLN:HE22	1:C:57:ALA:N	2.19	0.41
1:C:683:ALA:HA	1:C:689:GLY:HA3	2.02	0.41
2:G:1210:ILE:O	2:G:1210:ILE:HG22	2.19	0.41
2:G:1383:ASN:HD21	2:G:1418:ASP:CB	2.33	0.41
2:G:1884:TRP:HB3	2:G:1885:LEU:H	1.74	0.41
2:H:1300:PHE:CB	2:H:1556:VAL:HG11	2.50	0.41
2:H:1815:LEU:O	2:H:1821:VAL:HG23	2.21	0.41
2:H:1868:GLN:HG3	2:H:1898:TYR:HH	1.83	0.41
2:H:195:LEU:O	2:H:199:ILE:HG13	2.20	0.41
2:H:827:VAL:HG21	2:H:840:THR:CG2	2.51	0.41
2:I:1219:ILE:HB	2:I:1240:TYR:HB2	2.03	0.41
2:I:1503:ILE:HG22	2:I:1504:VAL:C	2.41	0.41
2:I:1514:ASN:HA	2:I:1515:PRO:HD3	1.86	0.41
2:I:1579:ILE:CD1	2:I:1615:MET:SD	3.09	0.41
2:I:827:VAL:HG12	2:I:828:PRO:O	2.20	0.41
1:A:253:ARG:O	1:A:254:TRP:CD1	2.74	0.41
1:A:438:ASN:HD21	1:A:698:GLN:HE21	1.68	0.41
1:B:1657:HIS:CG	1:B:1658:PRO:HD2	2.55	0.41
1:B:444:ASN:CB	1:B:446:ALA:H	2.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1076:VAL:CG1	1:C:1081:LYS:HA	2.50	0.41
1:C:1705:PRO:HB2	1:C:1733:PHE:CD1	2.56	0.41
1:C:739:GLN:HB3	1:C:794:ILE:HG23	2.03	0.41
1:C:949:GLU:O	1:C:953:VAL:HG12	2.21	0.41
2:G:1352:HIS:CD2	2:G:1410:PHE:CD2	3.09	0.41
2:G:1778:GLN:HB2	2:G:1779:PRO:HD3	2.02	0.41
2:G:1889:VAL:HG22	2:G:1977:HIS:O	2.20	0.41
2:G:1981:LEU:HD12	2:G:1981:LEU:N	2.36	0.41
2:G:1989:LYS:NZ	2:G:2037:PRO:HG2	2.35	0.41
2:G:258:PHE:N	2:G:258:PHE:CD1	2.87	0.41
2:G:260:PRO:HD3	2:G:289:TRP:CZ2	2.54	0.41
2:G:735:GLY:O	2:G:741:HIS:CD2	2.73	0.41
2:G:748:THR:CB	2:G:749:PRO:HD3	2.47	0.41
2:G:780:TYR:HB2	2:G:799:PHE:CE2	2.56	0.41
2:G:995:LEU:HB3	2:G:1000:ILE:CD1	2.50	0.41
2:H:615:TYR:CE2	2:H:1074:MET:HB3	2.56	0.41
2:H:1213:LEU:O	2:H:1214:LEU:HD23	2.19	0.41
2:H:1270:TRP:HZ3	2:H:1347:LEU:HD21	1.85	0.41
2:H:1589:VAL:HG21	2:H:1651:LEU:HD12	2.02	0.41
2:H:425:SER:HA	2:H:426:PRO:HD3	1.78	0.41
2:H:753:MET:O	2:H:757:ILE:HG13	2.21	0.41
2:H:804:ARG:NH2	2:H:1068:GLU:OE1	2.54	0.41
2:H:892:ILE:HD11	2:H:903:TRP:CD2	2.53	0.41
2:I:248:HIS:CE1	2:I:531:GLY:HA2	2.55	0.41
2:I:455:ILE:C	2:I:455:ILE:HD12	2.42	0.41
2:I:582:LYS:HE2	2:I:761:PRO:O	2.21	0.41
1:A:1705:PRO:HB2	1:A:1733:PHE:CD1	2.56	0.41
1:A:36:LEU:O	1:A:76:ARG:NH1	2.53	0.41
1:A:487:ASP:HA	1:A:488:PRO:HD3	1.88	0.41
1:A:908:LEU:O	1:A:913:VAL:HG22	2.21	0.41
1:B:1029:PRO:HG2	1:B:1581:THR:O	2.21	0.41
1:B:197:THR:HG22	1:B:198:PRO:O	2.21	0.41
1:B:187:LEU:CD2	1:B:201:PRO:HB2	2.51	0.41
1:B:32:GLN:HE22	1:B:57:ALA:CA	2.34	0.41
1:B:489:VAL:HG22	1:B:670:GLY:HA3	2.02	0.41
1:B:427:ASN:ND2	1:B:610:THR:H	2.14	0.41
1:B:82:SER:OG	1:B:83:LYS:HG3	2.20	0.41
1:B:504:ASP:O	1:B:954:ARG:HD3	2.21	0.41
1:C:1019:ILE:HG13	1:C:1316:VAL:HG13	2.03	0.41
1:C:1666:THR:HG23	1:C:1669:ARG:CB	2.51	0.41
1:C:237:MET:HA	1:C:238:PRO:HD3	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:294:TYR:CZ	1:C:298:VAL:HG21	2.55	0.41
1:C:427:ASN:HB2	1:C:468:LEU:CD2	2.51	0.41
1:C:644:THR:HG23	1:C:648:ASP:N	2.34	0.41
2:G:2049:GLU:O	2:G:2050:GLN:C	2.59	0.41
2:G:339:LEU:HB2	2:G:386:LEU:HD22	2.03	0.41
2:G:44:PRO:HA	2:G:53:GLU:OE2	2.21	0.41
2:G:455:ILE:HD13	2:G:457:ILE:O	2.21	0.41
2:H:1063:THR:HG22	2:H:1063:THR:O	2.21	0.41
2:H:1387:GLY:HA2	2:H:1414:GLY:O	2.21	0.41
2:H:1949:LYS:O	2:H:1953:VAL:HG23	2.21	0.41
2:I:118:LYS:O	2:I:121:GLU:HB2	2.20	0.41
2:I:1327:ILE:O	2:I:1331:TRP:HB2	2.21	0.41
2:I:2020:GLN:NE2	2:I:2020:GLN:HA	2.36	0.41
2:I:319:LEU:HA	2:I:319:LEU:HD22	1.67	0.41
2:I:717:ILE:O	2:I:720:ALA:HB3	2.21	0.41
2:I:754:TYR:CG	2:I:794:MET:CG	3.04	0.41
2:I:827:VAL:HG21	2:I:840:THR:CG2	2.51	0.41
1:A:1418:VAL:N	1:A:1419:PRO:CD	2.84	0.40
1:A:197:THR:HG22	1:A:198:PRO:O	2.21	0.40
1:A:232:LEU:O	1:A:236:LYS:HB2	2.21	0.40
1:A:681:THR:HA	1:A:706:THR:OG1	2.21	0.40
1:B:1056:ILE:HG13	1:B:1057:MET:N	2.36	0.40
1:B:1557:ILE:HD11	1:B:1642:THR:HG21	2.03	0.40
1:B:483:VAL:O	1:B:483:VAL:HG12	2.21	0.40
1:B:91:THR:HA	1:B:92:PRO:HD3	1.81	0.40
1:B:933:VAL:HA	1:B:934:PRO:HD3	1.63	0.40
1:B:989:GLN:NE2	2:H:993:GLN:OE1	2.53	0.40
1:B:998:TYR:CD2	1:B:1667:GLU:HG3	2.56	0.40
1:C:1308:SER:OG	1:C:1590:ALA:N	2.54	0.40
2:G:1343:VAL:HG22	2:G:1343:VAL:O	2.20	0.40
1:A:29:ILE:HG21	2:G:1894:GLU:HB2	2.04	0.40
2:G:430:HIS:CE1	2:G:431:LEU:HD13	2.56	0.40
2:G:159:ILE:HG12	2:G:512:LEU:HD23	2.03	0.40
2:G:73:GLU:OE2	2:G:76:LYS:HD2	2.21	0.40
2:G:938:TRP:CD1	2:G:944:ARG:HG3	2.56	0.40
2:H:1227:ARG:CZ	2:H:1565:VAL:HG12	2.51	0.40
2:H:338:MET:HG3	2:H:423:VAL:HG21	2.02	0.40
2:H:888:ARG:O	2:H:892:ILE:HB	2.21	0.40
2:I:1676:MET:HE1	2:I:1781:LEU:CD2	2.50	0.40
2:I:1880:LYS:HB2	2:I:1880:LYS:HE3	1.90	0.40
2:I:1889:VAL:HG21	2:I:1901:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:2036:GLU:HB2	2:I:2037:PRO:CD	2.47	0.40
2:I:2039:LYS:HA	2:I:2042:ILE:HG13	2.03	0.40
2:I:247:ALA:O	2:I:251:VAL:HG13	2.21	0.40
2:I:280:ALA:O	2:I:283:ILE:HG22	2.21	0.40
2:I:846:VAL:CG2	2:I:866:LYS:HB2	2.51	0.40
1:A:1021:VAL:HG11	1:A:1597:LEU:CD1	2.50	0.40
1:A:1146:HIS:O	1:A:1146:HIS:HD2	2.04	0.40
1:A:1665:ILE:HD11	1:A:1669:ARG:CG	2.51	0.40
1:A:44:VAL:HG13	1:A:78:ILE:HG12	1.99	0.40
1:A:833:PHE:O	1:A:834:GLY:O	2.39	0.40
1:B:1583:HIS:HA	1:B:1584:PRO:HD3	1.84	0.40
1:C:1105:LEU:HA	1:C:1105:LEU:HD23	1.84	0.40
1:C:148:SER:O	1:C:152:HIS:HB2	2.21	0.40
1:C:411:GLN:O	1:C:415:SER:HB2	2.21	0.40
2:G:1227:ARG:NE	2:G:1565:VAL:HG12	2.36	0.40
2:G:1678:MET:HG2	2:G:1711:ILE:HG12	2.03	0.40
2:G:1940:LEU:HD12	2:G:1941:PHE:N	2.37	0.40
1:A:23:ALA:O	2:G:1977:HIS:HA	2.20	0.40
2:G:601:THR:HB	2:G:620:ALA:HB2	2.01	0.40
2:G:638:VAL:O	2:G:641:ILE:HG22	2.20	0.40
2:G:805:VAL:O	2:G:805:VAL:HG12	2.21	0.40
2:G:827:VAL:HG12	2:G:828:PRO:O	2.21	0.40
2:H:1214:LEU:HD11	2:H:1220:GLN:NE2	2.36	0.40
2:H:1506:TYR:CZ	2:H:1515:PRO:HG2	2.56	0.40
2:H:1609:THR:O	2:H:1653:GLY:HA3	2.21	0.40
2:H:203:LEU:HD12	2:H:203:LEU:HA	1.91	0.40
2:H:462:THR:HB	2:H:482:CYS:SG	2.61	0.40
2:H:573:LYS:C	2:H:575:GLY:N	2.75	0.40
2:H:590:PRO:HA	2:H:591:PRO:HD3	1.81	0.40
2:H:638:VAL:HA	2:H:641:ILE:CG2	2.52	0.40
2:H:723:HIS:ND1	2:H:723:HIS:N	2.70	0.40
2:H:960:LYS:CE	2:H:960:LYS:HA	2.44	0.40
2:I:1091:GLY:O	2:I:1093:ASP:N	2.55	0.40
2:I:1339:PHE:N	2:I:1340:PRO:CD	2.85	0.40
2:I:1359:MET:HB3	2:I:1606:ARG:NH2	2.36	0.40
2:I:1889:VAL:HG13	2:I:1977:HIS:HB3	2.00	0.40
2:I:246:LEU:HA	2:I:246:LEU:HD12	1.79	0.40
2:I:536:ASN:HD21	2:I:540:ASP:HB3	1.85	0.40
2:I:543:PHE:CB	2:I:545:GLN:NE2	2.82	0.40
2:I:703:LEU:HD23	2:I:705:LEU:HG	2.04	0.40
2:I:816:ASP:HB3	2:I:1048:VAL:HG21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:238:PRO:CG	1:A:283:ALA:HB2	2.51	0.40
1:A:852:ARG:NH1	1:A:852:ARG:CG	2.73	0.40
1:B:1303:GLY:CA	1:B:1307:THR:HG22	2.52	0.40
1:B:221:LEU:HD23	1:B:221:LEU:HA	1.94	0.40
1:B:293:LYS:O	1:B:297:ILE:HG13	2.20	0.40
1:B:774:ILE:HA	1:B:775:PRO:HD3	1.74	0.40
1:C:1303:GLY:CA	1:C:1307:THR:HG22	2.52	0.40
1:C:43:ARG:O	2:I:1662:THR:HA	2.22	0.40
2:G:1637:LEU:HA	2:G:1637:LEU:HD23	1.77	0.40
2:G:1875:VAL:HA	2:G:1878:VAL:CG1	2.52	0.40
2:G:248:HIS:CE1	2:G:531:GLY:HA2	2.56	0.40
2:G:319:LEU:HA	2:G:319:LEU:HD22	1.62	0.40
2:G:391:LEU:CD2	2:G:394:ARG:NH2	2.85	0.40
2:G:441:LYS:HG2	2:G:445:LYS:HE3	2.02	0.40
2:G:573:LYS:C	2:G:575:GLY:N	2.75	0.40
2:G:582:LYS:HE2	2:G:761:PRO:O	2.22	0.40
2:G:852:GLU:H	2:G:852:GLU:HG3	1.40	0.40
2:H:1166:VAL:CG1	2:H:1167:SER:N	2.85	0.40
2:H:517:HIS:HB2	2:H:527:VAL:HG21	2.04	0.40
2:H:517:HIS:CE1	2:H:540:ASP:O	2.75	0.40
2:H:810:GLU:OE2	2:H:1070:ILE:N	2.45	0.40
2:H:912:ARG:HB2	2:H:916:THR:HG23	2.03	0.40
2:I:1213:LEU:O	2:I:1214:LEU:HD23	2.20	0.40
2:I:1271:ILE:HG22	2:I:1273:GLU:HB2	2.04	0.40
2:I:1855:ILE:HB	2:I:1907:LEU:HD12	2.02	0.40
2:I:612:ASN:HD21	2:I:641:ILE:HA	1.84	0.40
2:I:864:LEU:HD13	2:I:894:ARG:HB3	2.04	0.40
1:A:1209:ASP:OD1	1:A:1210:PRO:HD2	2.21	0.40
1:A:1406:MET:CE	1:A:1428:THR:HB	2.52	0.40
1:A:157:HIS:CE1	1:A:269:LEU:HD11	2.57	0.40
1:A:916:LEU:HD22	1:A:922:VAL:HG22	2.02	0.40
1:B:1370:THR:HG22	1:B:1371:THR:N	2.36	0.40
1:B:12:ILE:O	1:B:16:GLU:HG2	2.20	0.40
1:B:509:ILE:HG13	1:B:509:ILE:H	1.50	0.40
1:B:74:LEU:O	1:B:74:LEU:HD12	2.22	0.40
1:C:1063:HIS:CE1	1:C:1067:LEU:CD2	3.04	0.40
1:C:1195:ALA:HB1	1:C:1200:ILE:HD12	2.03	0.40
1:C:1639:VAL:HG12	1:C:1640:SER:N	2.35	0.40
1:C:406:TRP:CZ3	1:C:407:ASN:HB2	2.57	0.40
1:C:655:LEU:HD23	1:C:655:LEU:HA	1.79	0.40
2:G:260:PRO:HD3	2:G:289:TRP:CD2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:612:ASN:C	2:G:614:GLY:H	2.24	0.40
2:H:1281:PRO:O	2:H:1378:ILE:HG23	2.22	0.40
2:H:1593:ILE:HD13	2:H:1626:ILE:CD1	2.51	0.40
2:H:1716:ASN:HA	2:H:1770:LEU:HD11	2.04	0.40
2:H:538:ASP:HB2	2:H:540:ASP:HB2	2.03	0.40
2:H:607:VAL:HG23	2:H:617:ILE:CG2	2.51	0.40
2:I:240:LEU:HA	2:I:240:LEU:HD12	1.81	0.40
2:I:717:ILE:CG2	2:I:760:HIS:CE1	3.05	0.40
2:I:812:LYS:HA	2:I:812:LYS:HD3	1.82	0.40
1:A:350:LEU:HB2	1:A:352:MET:HG2	2.03	0.40
1:A:427:ASN:HB2	1:A:468:LEU:CD2	2.51	0.40
1:B:1577:GLN:NE2	1:B:1591:TRP:HB3	2.36	0.40
1:B:709:ARG:O	1:B:714:VAL:HG21	2.21	0.40
1:C:413:LEU:HD13	1:C:451:MET:HG2	2.03	0.40
2:G:119:THR:HG22	2:G:120:LYS:N	2.36	0.40
2:G:1830:VAL:HA	2:G:1991:PHE:HE2	1.86	0.40
2:G:2039:LYS:HA	2:G:2042:ILE:HG13	2.03	0.40
2:G:533:LEU:HG	2:G:533:LEU:O	2.21	0.40
2:G:606:PHE:HZ	2:G:805:VAL:CG1	2.33	0.40
2:H:1172:LYS:HZ1	2:H:1574:ASN:HA	1.85	0.40
2:H:1327:ILE:HA	2:H:1327:ILE:HD12	1.77	0.40
2:H:283:ILE:HD12	2:H:283:ILE:HA	1.89	0.40
2:H:233:SER:HA	2:H:424:ALA:HB3	2.03	0.40
2:H:441:LYS:O	2:H:445:LYS:HG3	2.22	0.40
2:H:298:LYS:HA	2:H:448:VAL:CG2	2.52	0.40
2:H:156:LEU:HD23	2:H:500:HIS:HB2	2.04	0.40
2:H:816:ASP:HB3	2:H:1048:VAL:CG2	2.52	0.40
2:I:225:THR:HA	2:I:226:PRO:HD3	1.98	0.40
2:I:601:THR:O	2:I:601:THR:CG2	2.68	0.40
2:I:612:ASN:C	2:I:614:GLY:H	2.25	0.40

All (18) 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)
1:B:1480:GLU:OE2	2:H:290:GLU:CB[6_555]	0.75	1.45
1:B:1480:GLU:CD	2:H:290:GLU:CB[6_555]	1.29	0.91
2:G:77:VAL:CB	2:I:1929:LYS:CD[6_455]	1.32	0.88
1:B:1480:GLU:OE2	2:H:290:GLU:CG[6_555]	1.43	0.77
2:G:77:VAL:CG2	2:I:1929:LYS:NZ[6_455]	1.47	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:77:VAL:CG2	2:I:1929:LYS:CE[6_455]	1.51	0.69
2:G:79:GLN:OE1	2:I:1930:SER:O[6_455]	1.65	0.55
2:G:77:VAL:CB	2:I:1929:LYS:CE[6_455]	1.72	0.48
1:B:1480:GLU:OE1	2:H:290:GLU:CB[6_555]	1.82	0.38
2:G:77:VAL:O	2:I:1929:LYS:CB[6_455]	1.93	0.27
2:G:77:VAL:O	2:I:1929:LYS:CA[6_455]	1.93	0.27
2:G:77:VAL:CG1	2:I:1929:LYS:CD[6_455]	1.95	0.25
2:G:77:VAL:O	2:I:1929:LYS:CG[6_455]	1.98	0.22
2:H:6:THR:CG2	2:I:1935:GLU:OE2[6_455]	2.06	0.14
2:H:6:THR:CG2	2:I:1935:GLU:CD[6_455]	2.06	0.14
2:G:77:VAL:CB	2:I:1929:LYS:CG[6_455]	2.14	0.06
1:A:852:ARG:NH2	1:B:837:GLY:O[7_645]	2.19	0.01
1:B:1480:GLU:OE1	2:H:290:GLU:CA[6_555]	2.19	0.01

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	1604/1887 (85%)	1498 (93%)	92 (6%)	14 (1%)	17	55
1	B	1604/1887 (85%)	1497 (93%)	94 (6%)	13 (1%)	19	58
1	C	1604/1887 (85%)	1499 (94%)	90 (6%)	15 (1%)	17	55
2	G	2029/2051 (99%)	1836 (90%)	167 (8%)	26 (1%)	12	48
2	H	2029/2051 (99%)	1836 (90%)	170 (8%)	23 (1%)	14	51
2	I	2029/2051 (99%)	1833 (90%)	171 (8%)	25 (1%)	13	49
All	All	10899/11814 (92%)	9999 (92%)	784 (7%)	116 (1%)	14	51

All (116) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	504	ASP
1	A	538	GLU

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Mol	Chain	Res	Type
1	A	605	LEU
1	A	834	GLY
1	B	504	ASP
1	B	538	GLU
1	B	605	LEU
1	B	834	GLY
1	C	504	ASP
1	C	538	GLU
1	C	605	LEU
1	C	834	GLY
2	G	521	ASP
2	G	1177	SER
2	G	1418	ASP
2	G	1955	PRO
2	H	521	ASP
2	H	1418	ASP
2	H	1955	PRO
2	I	521	ASP
2	I	1418	ASP
2	I	1955	PRO
1	A	1252	GLY
1	A	1585	LYS
1	A	1608	ASN
1	B	179	LYS
1	B	1252	GLY
1	B	1585	LYS
1	B	1608	ASN
1	C	1252	GLY
1	C	1585	LYS
1	C	1608	ASN
2	G	203	LEU
2	G	1044	VAL
2	G	1722	GLY
2	H	203	LEU
2	H	1044	VAL
2	H	1177	SER
2	H	1722	GLY
2	I	203	LEU
2	I	1044	VAL
2	I	1177	SER
2	I	1722	GLY
1	A	179	LYS

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Mol	Chain	Res	Type
1	C	179	LYS
2	G	112	ASN
2	G	139	LYS
2	G	1101	GLU
2	G	2034	GLY
2	H	112	ASN
2	H	1101	GLU
2	I	374	ALA
2	I	1092	ASP
2	I	1101	GLU
2	I	2034	GLY
2	G	25	ALA
2	G	26	SER
2	G	374	ALA
2	G	742	SER
2	G	769	SER
2	G	1092	ASP
2	G	1510	ALA
2	H	26	SER
2	H	374	ALA
2	H	742	SER
2	H	823	ALA
2	H	1510	ALA
2	H	2034	GLY
2	I	26	SER
2	I	112	ASN
2	I	742	SER
1	A	1130	ASP
1	A	1477	ILE
1	A	1536	LEU
1	B	970	GLY
1	B	1477	ILE
1	C	1477	ILE
2	H	769	SER
2	H	1092	ASP
2	H	1257	ASP
2	I	25	ALA
2	I	136	PRO
2	I	769	SER
2	I	823	ALA
2	I	1510	ALA
1	A	178	GLY

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Mol	Chain	Res	Type
1	A	970	GLY
1	C	970	GLY
1	C	1536	LEU
2	G	574	SER
2	I	139	LYS
2	I	574	SER
1	A	1543	GLY
1	B	1543	GLY
1	C	178	GLY
1	C	1543	GLY
2	G	136	PRO
2	G	335	PRO
2	H	136	PRO
2	H	335	PRO
1	B	178	GLY
2	G	1340	PRO
2	G	1956	ARG
2	H	772	GLY
1	C	1240	VAL
2	G	772	GLY
2	G	1176	PRO
2	I	772	GLY
1	B	726	GLY
1	C	726	GLY
2	G	470	VAL
2	H	470	VAL
2	H	2012	PRO
2	I	335	PRO
2	I	1956	ARG
2	I	1340	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	1367/1566 (87%)	1224 (90%)	143 (10%)	7 27

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	B	1367/1566 (87%)	1225 (90%)	142 (10%)	7 28
1	C	1367/1566 (87%)	1227 (90%)	140 (10%)	7 28
2	G	1772/1789 (99%)	1567 (88%)	205 (12%)	5 24
2	H	1772/1789 (99%)	1566 (88%)	206 (12%)	5 24
2	I	1772/1789 (99%)	1562 (88%)	210 (12%)	5 24
All	All	9417/10065 (94%)	8371 (89%)	1046 (11%)	6 26

All (1046) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	14	LEU
1	A	15	THR
1	A	21	GLN
1	A	22	PHE
1	A	145	VAL
1	A	149	LEU
1	A	158	LYS
1	A	165	SER
1	A	171	THR
1	A	202	GLU
1	A	217	PHE
1	A	242	THR
1	A	253	ARG
1	A	328	LEU
1	A	331	ILE
1	A	332	THR
1	A	375	LEU
1	A	378	LEU
1	A	385	PHE
1	A	390	VAL
1	A	392	THR
1	A	400	ARG
1	A	412	SER
1	A	413	LEU
1	A	415	SER
1	A	416	LEU
1	A	428	VAL
1	A	431	GLU
1	A	432	VAL
1	A	435	GLU

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Mol	Chain	Res	Type
1	A	447	LEU
1	A	457	ASN
1	A	460	GLU
1	A	461	THR
1	A	484	LEU
1	A	489	VAL
1	A	493	VAL
1	A	506	ASN
1	A	509	ILE
1	A	527	GLN
1	A	529	MET
1	A	536	THR
1	A	599	MET
1	A	600	ASP
1	A	603	ASP
1	A	606	ASP
1	A	607	LYS
1	A	615	SER
1	A	621	THR
1	A	622	ILE
1	A	625	THR
1	A	629	THR
1	A	635	ILE
1	A	644	THR
1	A	648	ASP
1	A	654	GLN
1	A	711	SER
1	A	719	GLN
1	A	728	LYS
1	A	731	THR
1	A	732	LEU
1	A	748	LEU
1	A	749	ILE
1	A	776	GLU
1	A	782	GLU
1	A	793	ARG
1	A	797	THR
1	A	806	VAL
1	A	817	THR
1	A	825	PRO
1	A	852	ARG
1	A	860	ASN

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Mol	Chain	Res	Type
1	A	864	VAL
1	A	873	ARG
1	A	881	ASN
1	A	891	MET
1	A	913	VAL
1	A	930	LEU
1	A	933	VAL
1	A	947	LEU
1	A	949	GLU
1	A	953	VAL
1	A	964	GLU
1	A	980	VAL
1	A	1016	GLU
1	A	1020	VAL
1	A	1022	THR
1	A	1047	LEU
1	A	1056	ILE
1	A	1070	ARG
1	A	1087	LYS
1	A	1095	THR
1	A	1101	SER
1	A	1125	VAL
1	A	1127	VAL
1	A	1131	LEU
1	A	1172	THR
1	A	1173	LEU
1	A	1179	LEU
1	A	1184	LEU
1	A	1196	LYS
1	A	1197	THR
1	A	1208	VAL
1	A	1218	SER
1	A	1226	SER
1	A	1229	THR
1	A	1255	SER
1	A	1274	ILE
1	A	1283	MET
1	A	1307	THR
1	A	1327	CYS
1	A	1338	GLU
1	A	1367	ARG
1	A	1372	THR

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Mol	Chain	Res	Type
1	A	1384	ILE
1	A	1385	GLN
1	A	1392	LEU
1	A	1414	ILE
1	A	1426	LEU
1	A	1442	ASN
1	A	1465	ASN
1	A	1479	SER
1	A	1489	ARG
1	A	1502	ARG
1	A	1515	ARG
1	A	1522	LEU
1	A	1523	ARG
1	A	1532	THR
1	A	1533	ILE
1	A	1549	ASN
1	A	1556	THR
1	A	1566	ARG
1	A	1580	LEU
1	A	1585	LYS
1	A	1612	ASP
1	A	1625	LEU
1	A	1665	ILE
1	A	1666	THR
1	A	1692	MET
1	A	1693	ILE
1	A	1707	THR
1	A	1709	GLU
1	A	1721	ARG
1	B	14	LEU
1	B	15	THR
1	B	21	GLN
1	B	22	PHE
1	B	145	VAL
1	B	149	LEU
1	B	158	LYS
1	B	165	SER
1	B	171	THR
1	B	202	GLU
1	B	217	PHE
1	B	242	THR
1	B	253	ARG

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Mol	Chain	Res	Type
1	B	300	VAL
1	B	328	LEU
1	B	331	ILE
1	B	332	THR
1	B	375	LEU
1	B	385	PHE
1	B	390	VAL
1	B	392	THR
1	B	400	ARG
1	B	401	THR
1	B	412	SER
1	B	413	LEU
1	B	415	SER
1	B	416	LEU
1	B	428	VAL
1	B	432	VAL
1	B	435	GLU
1	B	447	LEU
1	B	457	ASN
1	B	460	GLU
1	B	461	THR
1	B	484	LEU
1	B	489	VAL
1	B	493	VAL
1	B	499	PRO
1	B	506	ASN
1	B	509	ILE
1	B	510	THR
1	B	527	GLN
1	B	529	MET
1	B	536	THR
1	B	599	MET
1	B	600	ASP
1	B	603	ASP
1	B	606	ASP
1	B	607	LYS
1	B	615	SER
1	B	621	THR
1	B	622	ILE
1	B	625	THR
1	B	629	THR
1	B	635	ILE

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Mol	Chain	Res	Type
1	B	644	THR
1	B	648	ASP
1	B	711	SER
1	B	719	GLN
1	B	728	LYS
1	B	731	THR
1	B	732	LEU
1	B	748	LEU
1	B	749	ILE
1	B	776	GLU
1	B	782	GLU
1	B	793	ARG
1	B	797	THR
1	B	806	VAL
1	B	852	ARG
1	B	860	ASN
1	B	864	VAL
1	B	873	ARG
1	B	881	ASN
1	B	891	MET
1	B	913	VAL
1	B	930	LEU
1	B	933	VAL
1	B	947	LEU
1	B	949	GLU
1	B	953	VAL
1	B	964	GLU
1	B	980	VAL
1	B	1016	GLU
1	B	1020	VAL
1	B	1047	LEU
1	B	1056	ILE
1	B	1070	ARG
1	B	1078	SER
1	B	1080	THR
1	B	1087	LYS
1	B	1095	THR
1	B	1101	SER
1	B	1125	VAL
1	B	1127	VAL
1	B	1131	LEU
1	B	1172	THR

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Mol	Chain	Res	Type
1	B	1173	LEU
1	B	1179	LEU
1	B	1184	LEU
1	B	1196	LYS
1	B	1197	THR
1	B	1208	VAL
1	B	1218	SER
1	B	1229	THR
1	B	1255	SER
1	B	1274	ILE
1	B	1283	MET
1	B	1307	THR
1	B	1327	CYS
1	B	1338	GLU
1	B	1367	ARG
1	B	1372	THR
1	B	1384	ILE
1	B	1385	GLN
1	B	1392	LEU
1	B	1414	ILE
1	B	1426	LEU
1	B	1442	ASN
1	B	1465	ASN
1	B	1479	SER
1	B	1502	ARG
1	B	1515	ARG
1	B	1522	LEU
1	B	1523	ARG
1	B	1532	THR
1	B	1533	ILE
1	B	1549	ASN
1	B	1556	THR
1	B	1566	ARG
1	B	1577	GLN
1	B	1580	LEU
1	B	1585	LYS
1	B	1612	ASP
1	B	1625	LEU
1	B	1665	ILE
1	B	1666	THR
1	B	1692	MET
1	B	1693	ILE

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Mol	Chain	Res	Type
1	B	1707	THR
1	B	1709	GLU
1	B	1721	ARG
1	C	14	LEU
1	C	15	THR
1	C	21	GLN
1	C	22	PHE
1	C	145	VAL
1	C	149	LEU
1	C	158	LYS
1	C	165	SER
1	C	171	THR
1	C	202	GLU
1	C	217	PHE
1	C	242	THR
1	C	253	ARG
1	C	328	LEU
1	C	331	ILE
1	C	332	THR
1	C	375	LEU
1	C	385	PHE
1	C	390	VAL
1	C	392	THR
1	C	400	ARG
1	C	412	SER
1	C	413	LEU
1	C	415	SER
1	C	416	LEU
1	C	428	VAL
1	C	431	GLU
1	C	432	VAL
1	C	435	GLU
1	C	447	LEU
1	C	457	ASN
1	C	460	GLU
1	C	461	THR
1	C	484	LEU
1	C	489	VAL
1	C	493	VAL
1	C	506	ASN
1	C	509	ILE
1	C	527	GLN

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Mol	Chain	Res	Type
1	C	529	MET
1	C	536	THR
1	C	599	MET
1	C	600	ASP
1	C	603	ASP
1	C	606	ASP
1	C	607	LYS
1	C	615	SER
1	C	621	THR
1	C	622	ILE
1	C	625	THR
1	C	629	THR
1	C	635	ILE
1	C	644	THR
1	C	648	ASP
1	C	711	SER
1	C	719	GLN
1	C	728	LYS
1	C	731	THR
1	C	732	LEU
1	C	748	LEU
1	C	749	ILE
1	C	776	GLU
1	C	782	GLU
1	C	797	THR
1	C	806	VAL
1	C	824	LEU
1	C	852	ARG
1	C	860	ASN
1	C	864	VAL
1	C	873	ARG
1	C	881	ASN
1	C	891	MET
1	C	913	VAL
1	C	930	LEU
1	C	933	VAL
1	C	947	LEU
1	C	949	GLU
1	C	951	SER
1	C	953	VAL
1	C	980	VAL
1	C	1016	GLU

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Mol	Chain	Res	Type
1	C	1020	VAL
1	C	1047	LEU
1	C	1056	ILE
1	C	1070	ARG
1	C	1078	SER
1	C	1087	LYS
1	C	1095	THR
1	C	1101	SER
1	C	1125	VAL
1	C	1127	VAL
1	C	1131	LEU
1	C	1172	THR
1	C	1173	LEU
1	C	1179	LEU
1	C	1184	LEU
1	C	1196	LYS
1	C	1197	THR
1	C	1208	VAL
1	C	1218	SER
1	C	1229	THR
1	C	1255	SER
1	C	1274	ILE
1	C	1283	MET
1	C	1307	THR
1	C	1327	CYS
1	C	1338	GLU
1	C	1367	ARG
1	C	1372	THR
1	C	1384	ILE
1	C	1385	GLN
1	C	1392	LEU
1	C	1414	ILE
1	C	1426	LEU
1	C	1442	ASN
1	C	1455	ARG
1	C	1465	ASN
1	C	1479	SER
1	C	1489	ARG
1	C	1502	ARG
1	C	1515	ARG
1	C	1522	LEU
1	C	1523	ARG

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Mol	Chain	Res	Type
1	C	1532	THR
1	C	1533	ILE
1	C	1549	ASN
1	C	1556	THR
1	C	1566	ARG
1	C	1577	GLN
1	C	1580	LEU
1	C	1585	LYS
1	C	1612	ASP
1	C	1625	LEU
1	C	1665	ILE
1	C	1666	THR
1	C	1692	MET
1	C	1693	ILE
1	C	1707	THR
1	C	1709	GLU
1	C	1721	ARG
2	G	6	THR
2	G	7	ARG
2	G	45	THR
2	G	46	GLU
2	G	48	PHE
2	G	56	THR
2	G	65	LEU
2	G	84	LEU
2	G	86	LEU
2	G	93	ASN
2	G	99	ASN
2	G	101	ILE
2	G	109	LEU
2	G	117	VAL
2	G	122	LEU
2	G	149	VAL
2	G	153	ASN
2	G	155	GLN
2	G	159	ILE
2	G	173	LEU
2	G	175	ASP
2	G	176	LEU
2	G	178	GLN
2	G	182	VAL
2	G	210	THR

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Mol	Chain	Res	Type
2	G	227	ASP
2	G	236	ILE
2	G	240	LEU
2	G	246	LEU
2	G	281	VAL
2	G	286	THR
2	G	295	SER
2	G	297	ARG
2	G	300	ILE
2	G	303	LEU
2	G	319	LEU
2	G	339	LEU
2	G	340	SER
2	G	342	SER
2	G	344	LEU
2	G	353	VAL
2	G	371	VAL
2	G	376	ASN
2	G	389	LEU
2	G	392	THR
2	G	402	LEU
2	G	418	ASN
2	G	425	SER
2	G	431	LEU
2	G	448	VAL
2	G	455	ILE
2	G	462	THR
2	G	463	PHE
2	G	471	LEU
2	G	476	SER
2	G	478	ARG
2	G	482	CYS
2	G	492	THR
2	G	499	THR
2	G	539	ASP
2	G	545	GLN
2	G	553	ASN
2	G	562	LEU
2	G	574	SER
2	G	586	LEU
2	G	587	ILE
2	G	598	THR

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Mol	Chain	Res	Type
2	G	607	VAL
2	G	611	THR
2	G	616	THR
2	G	653	TYR
2	G	665	LEU
2	G	669	LEU
2	G	670	ARG
2	G	676	ILE
2	G	693	GLU
2	G	714	SER
2	G	719	ILE
2	G	723	HIS
2	G	730	LEU
2	G	736	ARG
2	G	741	HIS
2	G	750	MET
2	G	751	LEU
2	G	762	ASN
2	G	767	PHE
2	G	775	ASP
2	G	777	THR
2	G	787	THR
2	G	794	MET
2	G	800	LEU
2	G	810	GLU
2	G	825	THR
2	G	832	TRP
2	G	835	THR
2	G	844	VAL
2	G	852	GLU
2	G	855	HIS
2	G	857	ILE
2	G	869	ASP
2	G	880	LEU
2	G	881	VAL
2	G	892	ILE
2	G	907	VAL
2	G	929	LEU
2	G	945	THR
2	G	952	ARG
2	G	953	ARG
2	G	964	LEU

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Mol	Chain	Res	Type
2	G	971	SER
2	G	993	GLN
2	G	1015	VAL
2	G	1021	LEU
2	G	1024	ARG
2	G	1048	VAL
2	G	1066	ILE
2	G	1070	ILE
2	G	1082	ILE
2	G	1109	VAL
2	G	1123	ASP
2	G	1124	SER
2	G	1145	SER
2	G	1148	ASN
2	G	1160	THR
2	G	1171	ARG
2	G	1189	THR
2	G	1197	LEU
2	G	1211	LEU
2	G	1219	ILE
2	G	1227	ARG
2	G	1260	GLN
2	G	1265	MET
2	G	1284	VAL
2	G	1314	ARG
2	G	1318	THR
2	G	1328	VAL
2	G	1335	ILE
2	G	1348	LEU
2	G	1359	MET
2	G	1360	ILE
2	G	1378	ILE
2	G	1397	SER
2	G	1407	THR
2	G	1408	SER
2	G	1420	GLU
2	G	1434	HIS
2	G	1437	THR
2	G	1441	ILE
2	G	1443	VAL
2	G	1446	SER
2	G	1452	LEU

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Mol	Chain	Res	Type
2	G	1463	THR
2	G	1468	THR
2	G	1470	THR
2	G	1472	VAL
2	G	1473	THR
2	G	1501	ILE
2	G	1511	SER
2	G	1526	THR
2	G	1527	LEU
2	G	1528	GLU
2	G	1533	LEU
2	G	1549	THR
2	G	1563	ILE
2	G	1567	ARG
2	G	1590	ARG
2	G	1602	SER
2	G	1605	VAL
2	G	1609	THR
2	G	1616	VAL
2	G	1624	THR
2	G	1627	GLN
2	G	1632	ILE
2	G	1637	LEU
2	G	1651	LEU
2	G	1672	GLN
2	G	1678	MET
2	G	1680	LEU
2	G	1683	THR
2	G	1712	ASN
2	G	1718	THR
2	G	1757	GLU
2	G	1775	GLN
2	G	1781	LEU
2	G	1784	MET
2	G	1825	GLU
2	G	1831	VAL
2	G	1834	ARG
2	G	1840	VAL
2	G	1844	ARG
2	G	1847	LEU
2	G	1857	ILE
2	G	1862	VAL

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Mol	Chain	Res	Type
2	G	1886	VAL
2	G	1914	LEU
2	G	1936	VAL
2	G	1937	GLU
2	G	1941	PHE
2	G	1982	MET
2	G	2003	VAL
2	G	2042	ILE
2	G	2044	ASN
2	G	2047	LYS
2	G	2048	TYR
2	G	2050	GLN
2	H	6	THR
2	H	7	ARG
2	H	45	THR
2	H	46	GLU
2	H	48	PHE
2	H	56	THR
2	H	65	LEU
2	H	84	LEU
2	H	86	LEU
2	H	93	ASN
2	H	99	ASN
2	H	101	ILE
2	H	109	LEU
2	H	117	VAL
2	H	122	LEU
2	H	149	VAL
2	H	153	ASN
2	H	155	GLN
2	H	159	ILE
2	H	173	LEU
2	H	176	LEU
2	H	178	GLN
2	H	182	VAL
2	H	186	ASP
2	H	198	LEU
2	H	210	THR
2	H	227	ASP
2	H	236	ILE
2	H	240	LEU
2	H	246	LEU

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Mol	Chain	Res	Type
2	H	281	VAL
2	H	286	THR
2	H	295	SER
2	H	297	ARG
2	H	300	ILE
2	H	315	PRO
2	H	319	LEU
2	H	339	LEU
2	H	340	SER
2	H	342	SER
2	H	344	LEU
2	H	353	VAL
2	H	371	VAL
2	H	376	ASN
2	H	389	LEU
2	H	392	THR
2	H	402	LEU
2	H	418	ASN
2	H	425	SER
2	H	431	LEU
2	H	448	VAL
2	H	455	ILE
2	H	462	THR
2	H	463	PHE
2	H	471	LEU
2	H	476	SER
2	H	478	ARG
2	H	482	CYS
2	H	492	THR
2	H	499	THR
2	H	545	GLN
2	H	553	ASN
2	H	562	LEU
2	H	572	ASN
2	H	574	SER
2	H	586	LEU
2	H	587	ILE
2	H	598	THR
2	H	607	VAL
2	H	611	THR
2	H	616	THR
2	H	653	TYR

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Mol	Chain	Res	Type
2	H	665	LEU
2	H	669	LEU
2	H	670	ARG
2	H	676	ILE
2	H	693	GLU
2	H	714	SER
2	H	719	ILE
2	H	723	HIS
2	H	730	LEU
2	H	733	THR
2	H	736	ARG
2	H	741	HIS
2	H	751	LEU
2	H	762	ASN
2	H	767	PHE
2	H	775	ASP
2	H	777	THR
2	H	787	THR
2	H	794	MET
2	H	797	ASP
2	H	800	LEU
2	H	810	GLU
2	H	825	THR
2	H	832	TRP
2	H	835	THR
2	H	844	VAL
2	H	852	GLU
2	H	855	HIS
2	H	857	ILE
2	H	869	ASP
2	H	880	LEU
2	H	881	VAL
2	H	892	ILE
2	H	907	VAL
2	H	929	LEU
2	H	945	THR
2	H	952	ARG
2	H	953	ARG
2	H	964	LEU
2	H	971	SER
2	H	993	GLN
2	H	1015	VAL

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Mol	Chain	Res	Type
2	H	1021	LEU
2	H	1024	ARG
2	H	1048	VAL
2	H	1066	ILE
2	H	1070	ILE
2	H	1082	ILE
2	H	1109	VAL
2	H	1123	ASP
2	H	1145	SER
2	H	1148	ASN
2	H	1160	THR
2	H	1171	ARG
2	H	1189	THR
2	H	1197	LEU
2	H	1211	LEU
2	H	1219	ILE
2	H	1227	ARG
2	H	1260	GLN
2	H	1265	MET
2	H	1284	VAL
2	H	1314	ARG
2	H	1318	THR
2	H	1328	VAL
2	H	1335	ILE
2	H	1348	LEU
2	H	1359	MET
2	H	1360	ILE
2	H	1378	ILE
2	H	1397	SER
2	H	1407	THR
2	H	1408	SER
2	H	1420	GLU
2	H	1434	HIS
2	H	1437	THR
2	H	1441	ILE
2	H	1443	VAL
2	H	1446	SER
2	H	1452	LEU
2	H	1463	THR
2	H	1468	THR
2	H	1470	THR
2	H	1472	VAL

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Mol	Chain	Res	Type
2	H	1473	THR
2	H	1501	ILE
2	H	1511	SER
2	H	1526	THR
2	H	1527	LEU
2	H	1528	GLU
2	H	1533	LEU
2	H	1549	THR
2	H	1563	ILE
2	H	1567	ARG
2	H	1590	ARG
2	H	1602	SER
2	H	1605	VAL
2	H	1609	THR
2	H	1616	VAL
2	H	1624	THR
2	H	1627	GLN
2	H	1632	ILE
2	H	1637	LEU
2	H	1651	LEU
2	H	1672	GLN
2	H	1678	MET
2	H	1680	LEU
2	H	1683	THR
2	H	1693	ARG
2	H	1712	ASN
2	H	1718	THR
2	H	1757	GLU
2	H	1775	GLN
2	H	1781	LEU
2	H	1784	MET
2	H	1825	GLU
2	H	1831	VAL
2	H	1834	ARG
2	H	1840	VAL
2	H	1844	ARG
2	H	1847	LEU
2	H	1862	VAL
2	H	1886	VAL
2	H	1914	LEU
2	H	1936	VAL
2	H	1937	GLU

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Mol	Chain	Res	Type
2	H	1982	MET
2	H	2003	VAL
2	H	2038	ILE
2	H	2042	ILE
2	H	2044	ASN
2	H	2047	LYS
2	H	2048	TYR
2	H	2050	GLN
2	I	6	THR
2	I	7	ARG
2	I	45	THR
2	I	46	GLU
2	I	48	PHE
2	I	56	THR
2	I	65	LEU
2	I	84	LEU
2	I	86	LEU
2	I	93	ASN
2	I	99	ASN
2	I	101	ILE
2	I	109	LEU
2	I	117	VAL
2	I	122	LEU
2	I	149	VAL
2	I	153	ASN
2	I	155	GLN
2	I	159	ILE
2	I	173	LEU
2	I	175	ASP
2	I	176	LEU
2	I	178	GLN
2	I	182	VAL
2	I	210	THR
2	I	227	ASP
2	I	236	ILE
2	I	240	LEU
2	I	246	LEU
2	I	281	VAL
2	I	286	THR
2	I	295	SER
2	I	297	ARG
2	I	300	ILE

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Mol	Chain	Res	Type
2	I	303	LEU
2	I	319	LEU
2	I	339	LEU
2	I	340	SER
2	I	342	SER
2	I	344	LEU
2	I	353	VAL
2	I	371	VAL
2	I	376	ASN
2	I	389	LEU
2	I	392	THR
2	I	402	LEU
2	I	418	ASN
2	I	425	SER
2	I	431	LEU
2	I	444	VAL
2	I	448	VAL
2	I	455	ILE
2	I	462	THR
2	I	463	PHE
2	I	471	LEU
2	I	476	SER
2	I	478	ARG
2	I	479	ILE
2	I	482	CYS
2	I	492	THR
2	I	499	THR
2	I	539	ASP
2	I	545	GLN
2	I	553	ASN
2	I	562	LEU
2	I	572	ASN
2	I	574	SER
2	I	586	LEU
2	I	587	ILE
2	I	598	THR
2	I	607	VAL
2	I	611	THR
2	I	616	THR
2	I	653	TYR
2	I	665	LEU
2	I	669	LEU

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Mol	Chain	Res	Type
2	I	670	ARG
2	I	676	ILE
2	I	680	THR
2	I	693	GLU
2	I	714	SER
2	I	719	ILE
2	I	723	HIS
2	I	730	LEU
2	I	733	THR
2	I	736	ARG
2	I	741	HIS
2	I	750	MET
2	I	751	LEU
2	I	762	ASN
2	I	767	PHE
2	I	775	ASP
2	I	777	THR
2	I	787	THR
2	I	794	MET
2	I	800	LEU
2	I	810	GLU
2	I	825	THR
2	I	832	TRP
2	I	835	THR
2	I	844	VAL
2	I	846	VAL
2	I	852	GLU
2	I	855	HIS
2	I	857	ILE
2	I	865	TRP
2	I	869	ASP
2	I	880	LEU
2	I	881	VAL
2	I	892	ILE
2	I	907	VAL
2	I	929	LEU
2	I	945	THR
2	I	952	ARG
2	I	953	ARG
2	I	964	LEU
2	I	971	SER
2	I	993	GLN

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Mol	Chain	Res	Type
2	I	1015	VAL
2	I	1021	LEU
2	I	1024	ARG
2	I	1048	VAL
2	I	1066	ILE
2	I	1070	ILE
2	I	1082	ILE
2	I	1109	VAL
2	I	1123	ASP
2	I	1124	SER
2	I	1145	SER
2	I	1148	ASN
2	I	1160	THR
2	I	1171	ARG
2	I	1189	THR
2	I	1197	LEU
2	I	1211	LEU
2	I	1219	ILE
2	I	1227	ARG
2	I	1260	GLN
2	I	1265	MET
2	I	1284	VAL
2	I	1314	ARG
2	I	1318	THR
2	I	1328	VAL
2	I	1335	ILE
2	I	1348	LEU
2	I	1359	MET
2	I	1360	ILE
2	I	1378	ILE
2	I	1397	SER
2	I	1407	THR
2	I	1408	SER
2	I	1420	GLU
2	I	1434	HIS
2	I	1437	THR
2	I	1441	ILE
2	I	1443	VAL
2	I	1446	SER
2	I	1452	LEU
2	I	1463	THR
2	I	1468	THR

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Mol	Chain	Res	Type
2	I	1470	THR
2	I	1472	VAL
2	I	1473	THR
2	I	1501	ILE
2	I	1511	SER
2	I	1526	THR
2	I	1527	LEU
2	I	1528	GLU
2	I	1533	LEU
2	I	1549	THR
2	I	1563	ILE
2	I	1567	ARG
2	I	1590	ARG
2	I	1602	SER
2	I	1605	VAL
2	I	1609	THR
2	I	1616	VAL
2	I	1624	THR
2	I	1627	GLN
2	I	1632	ILE
2	I	1637	LEU
2	I	1651	LEU
2	I	1672	GLN
2	I	1678	MET
2	I	1680	LEU
2	I	1683	THR
2	I	1712	ASN
2	I	1718	THR
2	I	1757	GLU
2	I	1775	GLN
2	I	1781	LEU
2	I	1784	MET
2	I	1825	GLU
2	I	1831	VAL
2	I	1834	ARG
2	I	1844	ARG
2	I	1847	LEU
2	I	1862	VAL
2	I	1871	LEU
2	I	1886	VAL
2	I	1914	LEU
2	I	1936	VAL

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Mol	Chain	Res	Type
2	I	1937	GLU
2	I	1982	MET
2	I	2003	VAL
2	I	2042	ILE
2	I	2044	ASN
2	I	2047	LYS
2	I	2048	TYR
2	I	2050	GLN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (288) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	11	HIS
1	A	21	GLN
1	A	32	GLN
1	A	58	GLN
1	A	63	ASN
1	A	157	HIS
1	A	183	GLN
1	A	214	GLN
1	A	271	ASN
1	A	335	HIS
1	A	341	GLN
1	A	344	GLN
1	A	374	GLN
1	A	411	GLN
1	A	427	ASN
1	A	438	ASN
1	A	506	ASN
1	A	527	GLN
1	A	618	ASN
1	A	694	GLN
1	A	738	ASN
1	A	758	ASN
1	A	792	HIS
1	A	860	ASN
1	A	898	GLN
1	A	983	GLN
1	A	987	ASN
1	A	989	GLN
1	A	1000	GLN
1	A	1003	GLN

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Mol	Chain	Res	Type
1	A	1063	HIS
1	A	1064	ASN
1	A	1066	ASN
1	A	1146	HIS
1	A	1239	HIS
1	A	1385	GLN
1	A	1432	HIS
1	A	1433	HIS
1	A	1442	ASN
1	A	1458	GLN
1	A	1482	GLN
1	A	1495	ASN
1	A	1505	GLN
1	A	1510	ASN
1	A	1542	HIS
1	A	1549	ASN
1	A	1563	HIS
1	A	1577	GLN
1	A	1610	ASN
1	A	1652	GLN
1	A	1690	ASN
1	B	11	HIS
1	B	21	GLN
1	B	32	GLN
1	B	58	GLN
1	B	63	ASN
1	B	157	HIS
1	B	183	GLN
1	B	214	GLN
1	B	271	ASN
1	B	335	HIS
1	B	341	GLN
1	B	344	GLN
1	B	374	GLN
1	B	407	ASN
1	B	411	GLN
1	B	427	ASN
1	B	438	ASN
1	B	506	ASN
1	B	527	GLN
1	B	618	ASN
1	B	694	GLN

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Mol	Chain	Res	Type
1	B	738	ASN
1	B	758	ASN
1	B	792	HIS
1	B	898	GLN
1	B	987	ASN
1	B	989	GLN
1	B	1000	GLN
1	B	1003	GLN
1	B	1063	HIS
1	B	1064	ASN
1	B	1066	ASN
1	B	1146	HIS
1	B	1239	HIS
1	B	1385	GLN
1	B	1432	HIS
1	B	1433	HIS
1	B	1442	ASN
1	B	1458	GLN
1	B	1482	GLN
1	B	1495	ASN
1	B	1505	GLN
1	B	1510	ASN
1	B	1542	HIS
1	B	1549	ASN
1	B	1563	HIS
1	B	1577	GLN
1	B	1610	ASN
1	B	1652	GLN
1	B	1690	ASN
1	C	11	HIS
1	C	21	GLN
1	C	32	GLN
1	C	58	GLN
1	C	63	ASN
1	C	157	HIS
1	C	183	GLN
1	C	214	GLN
1	C	271	ASN
1	C	335	HIS
1	C	341	GLN
1	C	344	GLN
1	C	374	GLN

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Mol	Chain	Res	Type
1	C	411	GLN
1	C	427	ASN
1	C	438	ASN
1	C	506	ASN
1	C	527	GLN
1	C	618	ASN
1	C	694	GLN
1	C	738	ASN
1	C	758	ASN
1	C	792	HIS
1	C	860	ASN
1	C	898	GLN
1	C	987	ASN
1	C	989	GLN
1	C	1000	GLN
1	C	1003	GLN
1	C	1063	HIS
1	C	1064	ASN
1	C	1066	ASN
1	C	1146	HIS
1	C	1239	HIS
1	C	1385	GLN
1	C	1432	HIS
1	C	1433	HIS
1	C	1442	ASN
1	C	1458	GLN
1	C	1482	GLN
1	C	1495	ASN
1	C	1505	GLN
1	C	1510	ASN
1	C	1542	HIS
1	C	1549	ASN
1	C	1563	HIS
1	C	1577	GLN
1	C	1610	ASN
1	C	1652	GLN
1	C	1690	ASN
2	G	34	GLN
2	G	36	GLN
2	G	85	ASN
2	G	102	HIS
2	G	178	GLN

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Mol	Chain	Res	Type
2	G	359	HIS
2	G	376	ASN
2	G	418	ASN
2	G	428	HIS
2	G	440	ASN
2	G	447	ASN
2	G	500	HIS
2	G	517	HIS
2	G	545	GLN
2	G	558	ASN
2	G	572	ASN
2	G	612	ASN
2	G	650	ASN
2	G	718	ASN
2	G	740	HIS
2	G	741	HIS
2	G	747	HIS
2	G	752	GLN
2	G	762	ASN
2	G	855	HIS
2	G	900	GLN
2	G	910	GLN
2	G	1046	GLN
2	G	1148	ASN
2	G	1217	ASN
2	G	1220	GLN
2	G	1260	GLN
2	G	1341	ASN
2	G	1352	HIS
2	G	1355	ASN
2	G	1367	GLN
2	G	1384	GLN
2	G	1595	ASN
2	G	1659	GLN
2	G	1669	GLN
2	G	1672	GLN
2	G	1697	HIS
2	G	1890	ASN
2	G	1896	GLN
2	G	1977	HIS
2	G	2013	ASN
2	G	2020	GLN

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Mol	Chain	Res	Type
2	H	34	GLN
2	H	85	ASN
2	H	102	HIS
2	H	178	GLN
2	H	359	HIS
2	H	376	ASN
2	H	418	ASN
2	H	428	HIS
2	H	440	ASN
2	H	447	ASN
2	H	500	HIS
2	H	517	HIS
2	H	545	GLN
2	H	558	ASN
2	H	572	ASN
2	H	612	ASN
2	H	650	ASN
2	H	718	ASN
2	H	740	HIS
2	H	741	HIS
2	H	747	HIS
2	H	752	GLN
2	H	762	ASN
2	H	900	GLN
2	H	910	GLN
2	H	1039	HIS
2	H	1046	GLN
2	H	1148	ASN
2	H	1217	ASN
2	H	1220	GLN
2	H	1260	GLN
2	H	1341	ASN
2	H	1352	HIS
2	H	1355	ASN
2	H	1367	GLN
2	H	1659	GLN
2	H	1669	GLN
2	H	1672	GLN
2	H	1697	HIS
2	H	1890	ASN
2	H	1896	GLN
2	H	1977	HIS

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Mol	Chain	Res	Type
2	H	2013	ASN
2	H	2020	GLN
2	I	34	GLN
2	I	36	GLN
2	I	85	ASN
2	I	102	HIS
2	I	178	GLN
2	I	359	HIS
2	I	376	ASN
2	I	418	ASN
2	I	428	HIS
2	I	440	ASN
2	I	447	ASN
2	I	500	HIS
2	I	517	HIS
2	I	545	GLN
2	I	558	ASN
2	I	572	ASN
2	I	612	ASN
2	I	718	ASN
2	I	740	HIS
2	I	741	HIS
2	I	747	HIS
2	I	752	GLN
2	I	762	ASN
2	I	855	HIS
2	I	900	GLN
2	I	910	GLN
2	I	1046	GLN
2	I	1055	HIS
2	I	1148	ASN
2	I	1217	ASN
2	I	1220	GLN
2	I	1260	GLN
2	I	1341	ASN
2	I	1352	HIS
2	I	1355	ASN
2	I	1367	GLN
2	I	1595	ASN
2	I	1669	GLN
2	I	1672	GLN
2	I	1697	HIS

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Mol	Chain	Res	Type
2	I	1868	GLN
2	I	1890	ASN
2	I	1896	GLN
2	I	1977	HIS
2	I	2013	ASN
2	I	2020	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
4	FMN	G	3051	-	31,33,33	6.88	18 (58%)	40,50,50	1.96	7 (17%)
4	FMN	H	3051	-	31,33,33	6.73	18 (58%)	40,50,50	1.91	8 (20%)
3	CER	A	2748	1	10,11,15	4.19	3 (30%)	9,13,17	3.18	3 (33%)
3	CER	B	2748	1	10,11,15	4.19	3 (30%)	9,13,17	3.05	3 (33%)
4	FMN	I	3051	-	31,33,33	6.74	21 (67%)	40,50,50	1.81	7 (17%)
3	CER	C	2748	1	10,11,15	4.21	3 (30%)	9,13,17	3.18	3 (33%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	FMN	G	3051	-	-	5/18/18/18	0/3/3/3
4	FMN	H	3051	-	-	5/18/18/18	0/3/3/3
3	CER	A	2748	1	-	5/12/12/16	-
3	CER	B	2748	1	-	5/12/12/16	-
4	FMN	I	3051	-	-	5/18/18/18	0/3/3/3
3	CER	C	2748	1	-	5/12/12/16	-

All (66) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	3051	FMN	C4A-C10	16.06	1.54	1.38
4	H	3051	FMN	C4A-C10	15.15	1.53	1.38
4	I	3051	FMN	C4A-C10	14.86	1.53	1.38
4	G	3051	FMN	C4A-N5	12.70	1.51	1.33
4	I	3051	FMN	C4A-N5	12.26	1.50	1.33
4	H	3051	FMN	C4A-N5	12.20	1.50	1.33
3	C	2748	CER	O1-C4	11.69	1.41	1.21
3	A	2748	CER	O1-C4	11.67	1.41	1.21
3	B	2748	CER	O1-C4	11.63	1.41	1.21
4	G	3051	FMN	C10-N1	11.49	1.48	1.33
4	H	3051	FMN	C10-N1	11.35	1.47	1.33
4	I	3051	FMN	C6-C5A	11.06	1.59	1.41
4	I	3051	FMN	C10-N1	10.87	1.47	1.33
4	G	3051	FMN	C6-C5A	10.78	1.58	1.41
4	H	3051	FMN	C6-C5A	10.58	1.58	1.41
4	H	3051	FMN	C4-N3	10.22	1.50	1.33
4	I	3051	FMN	C5A-N5	9.86	1.51	1.35
4	G	3051	FMN	C4-N3	9.85	1.50	1.33
4	I	3051	FMN	C4-N3	9.83	1.50	1.33
4	G	3051	FMN	C5A-N5	9.70	1.51	1.35
4	H	3051	FMN	C5A-N5	9.56	1.51	1.35
4	G	3051	FMN	C9-C9A	9.45	1.59	1.40
4	H	3051	FMN	C9-C9A	9.33	1.59	1.40
4	I	3051	FMN	C9-C9A	9.29	1.59	1.40
4	G	3051	FMN	C9A-N10	8.68	1.50	1.38
4	H	3051	FMN	C9A-N10	8.32	1.49	1.38
4	I	3051	FMN	C9A-N10	8.27	1.49	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	3051	FMN	C6-C7	7.90	1.57	1.37
4	I	3051	FMN	C6-C7	7.71	1.57	1.37
4	G	3051	FMN	C2-N1	7.69	1.53	1.38
4	H	3051	FMN	C2-N3	7.68	1.53	1.38
4	H	3051	FMN	C6-C7	7.55	1.57	1.37
4	H	3051	FMN	C2-N1	7.51	1.53	1.38
4	I	3051	FMN	C2-N1	7.45	1.52	1.38
4	I	3051	FMN	C9-C8	7.33	1.56	1.37
4	I	3051	FMN	C8-C7	7.29	1.59	1.40
4	G	3051	FMN	C2-N3	7.27	1.52	1.38
4	G	3051	FMN	O4-C4	7.17	1.42	1.24
4	I	3051	FMN	C2-N3	7.10	1.52	1.38
4	G	3051	FMN	C9-C8	7.10	1.55	1.37
4	G	3051	FMN	C4-C4A	7.09	1.53	1.41
4	H	3051	FMN	O4-C4	7.08	1.42	1.24
4	H	3051	FMN	C9-C8	7.00	1.55	1.37
4	I	3051	FMN	O4-C4	6.94	1.42	1.24
4	G	3051	FMN	C8-C7	6.89	1.58	1.40
4	H	3051	FMN	C4-C4A	6.82	1.53	1.41
4	H	3051	FMN	C8-C7	6.72	1.57	1.40
4	I	3051	FMN	C4-C4A	6.61	1.52	1.41
4	I	3051	FMN	C9A-C5A	6.59	1.55	1.42
4	G	3051	FMN	C9A-C5A	6.31	1.55	1.42
4	H	3051	FMN	C9A-C5A	6.04	1.54	1.42
3	C	2748	CER	C1-N1	4.46	1.47	1.32
3	B	2748	CER	C1-N1	4.44	1.47	1.32
3	A	2748	CER	C1-N1	4.39	1.47	1.32
3	B	2748	CER	C5-C4	3.49	1.56	1.51
3	C	2748	CER	C5-C4	3.47	1.55	1.51
3	A	2748	CER	C5-C4	3.38	1.55	1.51
4	I	3051	FMN	P-O2P	3.04	1.66	1.54
4	H	3051	FMN	P-O2P	2.92	1.66	1.54
4	G	3051	FMN	P-O2P	2.89	1.66	1.54
4	I	3051	FMN	P-O3P	2.84	1.65	1.54
4	H	3051	FMN	P-O3P	2.81	1.65	1.54
4	G	3051	FMN	P-O3P	2.60	1.64	1.54
4	I	3051	FMN	C8M-C8	2.26	1.55	1.51
4	I	3051	FMN	C7M-C7	2.10	1.55	1.51
4	I	3051	FMN	C5'-C4'	2.04	1.54	1.51

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	2748	CER	O1-C4-C5	-7.72	107.97	121.70
3	A	2748	CER	O1-C4-C5	-7.67	108.06	121.70
4	H	3051	FMN	C4-N3-C2	7.46	121.44	115.14
3	B	2748	CER	O1-C4-C5	-7.34	108.64	121.70
4	G	3051	FMN	C4-N3-C2	7.33	121.33	115.14
4	I	3051	FMN	C4-N3-C2	7.00	121.05	115.14
4	G	3051	FMN	C1'-N10-C9A	4.68	121.97	118.29
4	H	3051	FMN	C1'-N10-C9A	4.30	121.68	118.29
4	H	3051	FMN	C4A-C4-N3	-3.94	118.04	123.43
4	G	3051	FMN	C4A-C4-N3	-3.90	118.10	123.43
4	I	3051	FMN	C1'-N10-C9A	3.89	121.35	118.29
3	A	2748	CER	C5-C4-C3	-3.86	110.87	117.94
3	B	2748	CER	C5-C4-C3	-3.77	111.03	117.94
3	C	2748	CER	C5-C4-C3	-3.76	111.05	117.94
4	I	3051	FMN	C4A-C4-N3	-3.67	118.41	123.43
3	A	2748	CER	C6-C5-C4	-3.35	108.47	113.88
3	C	2748	CER	C6-C5-C4	-3.30	108.56	113.88
4	G	3051	FMN	C4A-N5-C5A	3.29	120.06	116.77
4	H	3051	FMN	C4A-N5-C5A	3.17	119.94	116.77
4	G	3051	FMN	C10-C4A-N5	-3.15	119.08	121.26
3	B	2748	CER	C6-C5-C4	-3.05	108.95	113.88
4	H	3051	FMN	C10-C4A-N5	-2.98	119.20	121.26
4	I	3051	FMN	C4A-N5-C5A	2.97	119.74	116.77
4	G	3051	FMN	C5A-C9A-N10	2.97	119.86	117.72
4	I	3051	FMN	C4'-C3'-C2'	-2.76	107.62	113.36
4	H	3051	FMN	C4'-C3'-C2'	-2.72	107.71	113.36
4	G	3051	FMN	C4'-C3'-C2'	-2.70	107.74	113.36
4	I	3051	FMN	C5A-C9A-N10	2.59	119.59	117.72
4	H	3051	FMN	C5A-C9A-N10	2.51	119.53	117.72
4	I	3051	FMN	C10-C4A-N5	-2.41	119.59	121.26
4	H	3051	FMN	O5'-C5'-C4'	-2.03	103.94	109.36

There are no chirality outliers.

All (30) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	G	3051	FMN	C2'-C3'-C4'-C5'
4	G	3051	FMN	O3'-C3'-C4'-C5'
4	H	3051	FMN	C2'-C3'-C4'-C5'
4	H	3051	FMN	O3'-C3'-C4'-C5'
3	A	2748	CER	C2-C3-C4-O1
3	B	2748	CER	C2-C3-C4-O1
4	I	3051	FMN	C2'-C3'-C4'-C5'

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Mol	Chain	Res	Type	Atoms
4	I	3051	FMN	O3'-C3'-C4'-C5'
3	C	2748	CER	C2-C3-C4-O1
4	H	3051	FMN	O3'-C3'-C4'-O4'
4	I	3051	FMN	O3'-C3'-C4'-O4'
4	I	3051	FMN	C2'-C3'-C4'-O4'
4	H	3051	FMN	C2'-C3'-C4'-O4'
3	A	2748	CER	O2-C1-C2-C3
3	B	2748	CER	O2-C1-C2-C3
3	C	2748	CER	O2-C1-C2-C3
4	G	3051	FMN	C2'-C3'-C4'-O4'
4	G	3051	FMN	O3'-C3'-C4'-O4'
3	A	2748	CER	N1-C1-C2-C3
3	B	2748	CER	N1-C1-C2-C3
3	C	2748	CER	N1-C1-C2-C3
3	C	2748	CER	C5-C6-C7-C8
3	A	2748	CER	O3-C3-C4-O1
3	B	2748	CER	O3-C3-C4-O1
3	C	2748	CER	O3-C3-C4-O1
3	A	2748	CER	C5-C6-C7-C8
3	B	2748	CER	C5-C6-C7-C8
4	G	3051	FMN	C4'-C5'-O5'-P
4	H	3051	FMN	C4'-C5'-O5'-P
4	I	3051	FMN	C4'-C5'-O5'-P

There are no ring outliers.

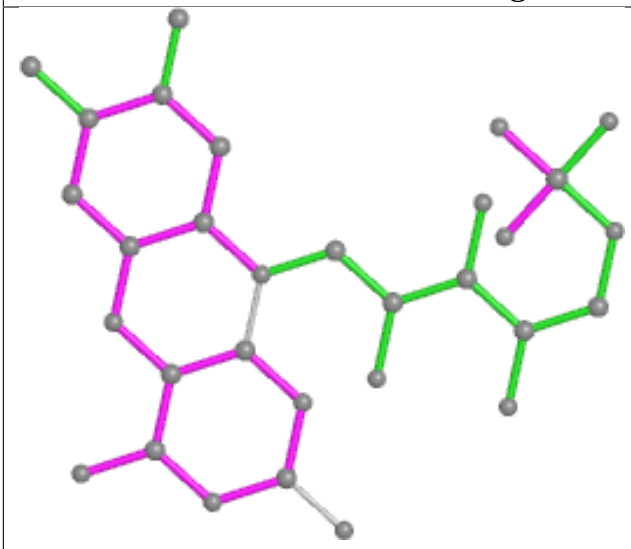
6 monomers are involved in 32 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	G	3051	FMN	7	0
4	H	3051	FMN	6	0
3	A	2748	CER	3	0
3	B	2748	CER	4	0
4	I	3051	FMN	8	0
3	C	2748	CER	4	0

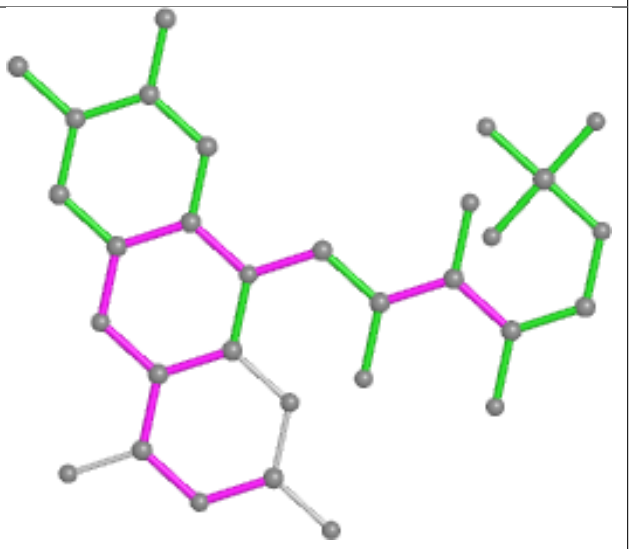
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring

in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

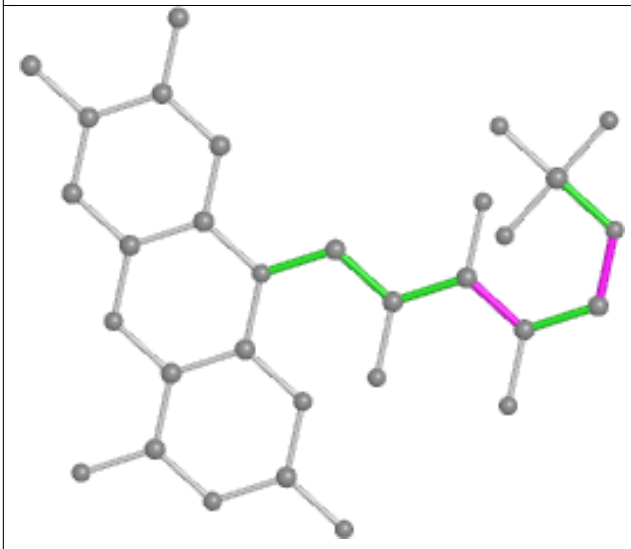
Ligand FMN G 3051



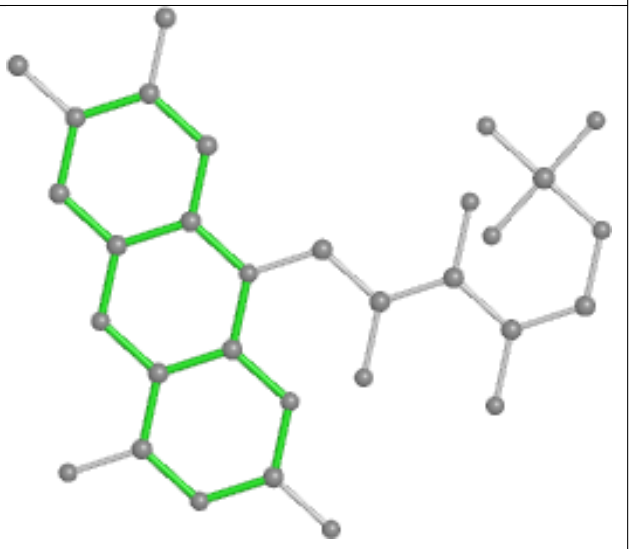
Bond lengths



Bond angles

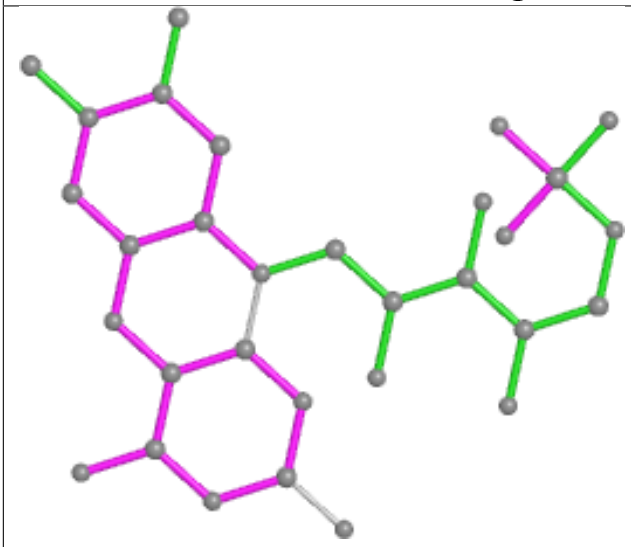


Torsions

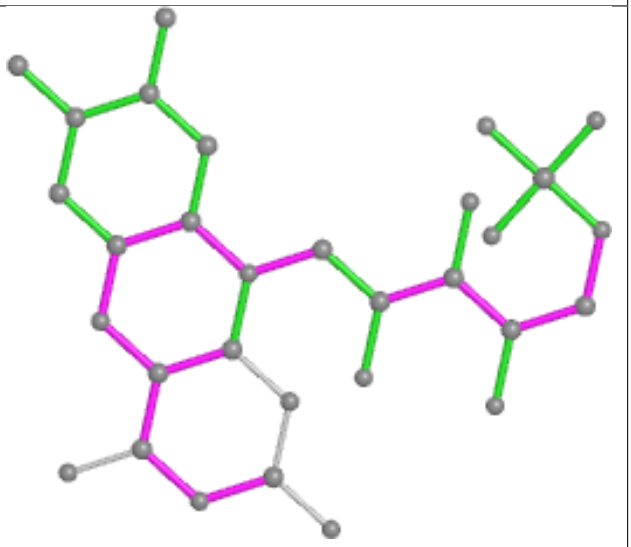


Rings

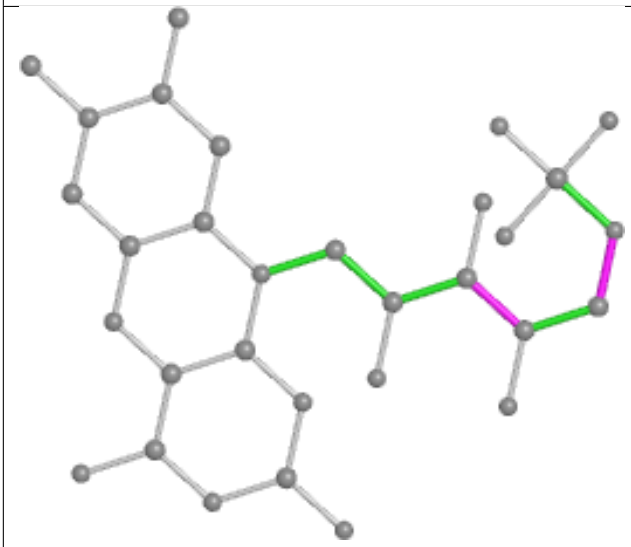
Ligand FMN H 3051



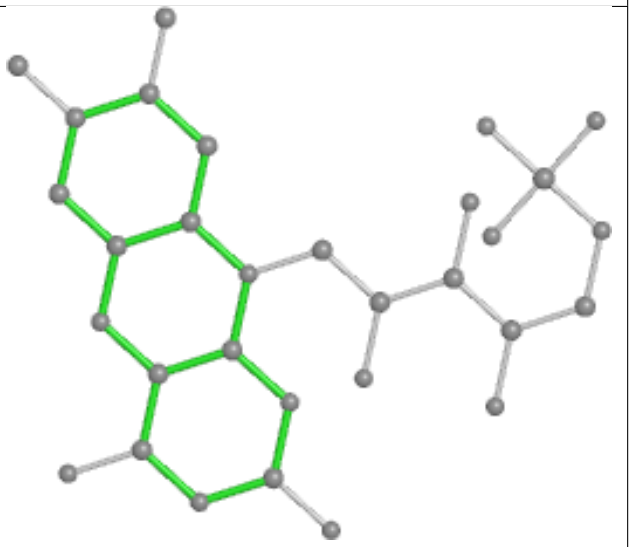
Bond lengths



Bond angles

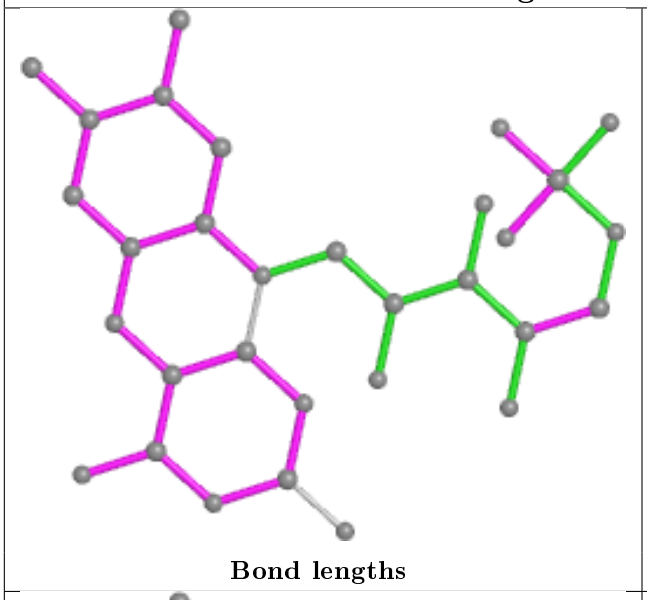


Torsions

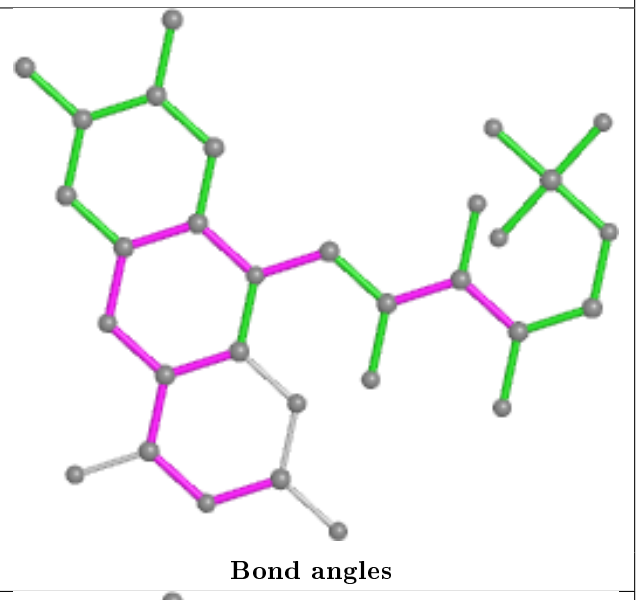


Rings

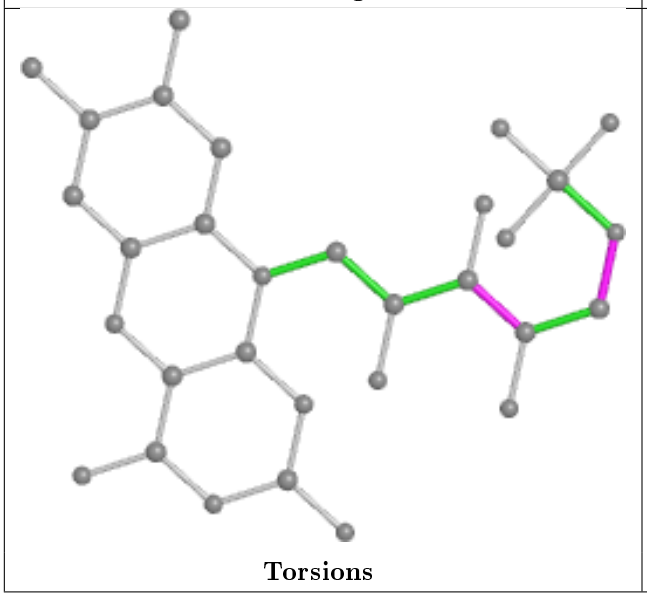
Ligand FMN I 3051



Bond lengths



Bond angles



Torsions

Rings

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
2	H	6
1	C	4
2	G	3

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Mol	Chain	Number of breaks
1	A	3
2	I	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	H	559:PRO	C	560:ASN	N	1.87
1	A	485:ASP	C	486:VAL	N	1.77
1	H	315:PRO	C	316:ASN	N	1.64
1	H	1530:LYS	C	1531:VAL	N	1.60
1	C	932:PHE	C	933:VAL	N	1.19
1	I	1529:GLN	C	1530:LYS	N	1.19
1	C	381:GLU	C	382:LEU	N	1.18
1	G	559:PRO	C	560:ASN	N	1.18
1	G	1422:THR	C	1423:PHE	N	1.18
1	I	1422:THR	C	1423:PHE	N	1.18
1	G	1841:ALA	C	1842:VAL	N	1.17
1	A	1118:LYS	C	1119:LYS	N	1.14
1	H	1529:GLN	C	1530:LYS	N	1.12
1	A	932:PHE	C	933:VAL	N	1.11
1	C	181:THR	C	182:VAL	N	1.05
1	H	1422:THR	C	1423:PHE	N	1.03
1	C	1430:ARG	C	1431:GLU	N	1.02
1	H	1657:ILE	C	1658:GLU	N	0.58

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	1614/1887 (85%)	-0.42	11 (0%)	87	82	98, 134, 233, 288	0
1	B	1614/1887 (85%)	-0.42	10 (0%)	89	84	99, 133, 233, 296	0
1	C	1614/1887 (85%)	-0.41	14 (0%)	84	77	100, 135, 233, 294	0
2	G	2033/2051 (99%)	-0.42	6 (0%)	94	90	134, 172, 221, 270	0
2	H	2033/2051 (99%)	-0.31	11 (0%)	91	85	133, 173, 218, 268	0
2	I	2033/2051 (99%)	-0.39	6 (0%)	94	90	134, 173, 218, 264	0
All	All	10941/11814 (92%)	-0.39	58 (0%)	91	85	98, 164, 226, 296	0

All (58) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	539	SER	6.2
1	C	875	THR	5.8
1	B	875	THR	5.3
1	B	1747	ALA	5.3
1	A	540	GLN	4.1
2	G	1956	ARG	4.0
1	A	539	SER	4.0
1	B	540	GLN	3.8
2	H	1953	VAL	3.8
2	I	1928	GLN	3.7
1	C	540	GLN	3.7
1	C	539	SER	3.6
2	H	1671	SER	3.5
1	B	976	ALA	3.5
1	A	1747	ALA	3.5
1	A	208	GLU	3.4
2	H	1929	LYS	3.3
1	B	141	ALA	3.3
1	B	599	MET	3.2

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Mol	Chain	Res	Type	RSRZ
1	B	140	ILE	3.1
1	A	974	ASP	3.1
1	C	204	THR	3.0
1	A	1476	GLU	3.0
1	B	1746	ASN	3.0
2	H	1964	PHE	2.9
2	H	2033	THR	2.9
2	H	408	PRO	2.9
1	A	1746	ASN	2.9
2	I	75	SER	2.8
1	C	201	PRO	2.8
1	C	198	PRO	2.7
1	C	141	ALA	2.7
1	A	975	ALA	2.7
1	C	202	GLU	2.7
1	A	875	THR	2.6
2	H	1959	LYS	2.6
1	C	199	GLU	2.6
2	I	648	GLY	2.5
1	C	200	LYS	2.4
1	C	260	ARG	2.4
2	G	1747	LYS	2.4
2	H	1853	GLY	2.3
1	B	600	ASP	2.3
2	I	74	PRO	2.3
2	I	1929	LYS	2.3
2	G	413	LYS	2.3
1	A	199	GLU	2.3
2	H	1740	THR	2.2
1	C	301	ASP	2.2
2	H	1956	ARG	2.2
2	G	1958	LEU	2.1
2	G	1806	GLY	2.1
2	G	333	GLY	2.1
2	H	406	ARG	2.1
2	I	1741	ILE	2.1
1	A	202	GLU	2.1
1	C	1475	GLU	2.1
1	C	302	LEU	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)

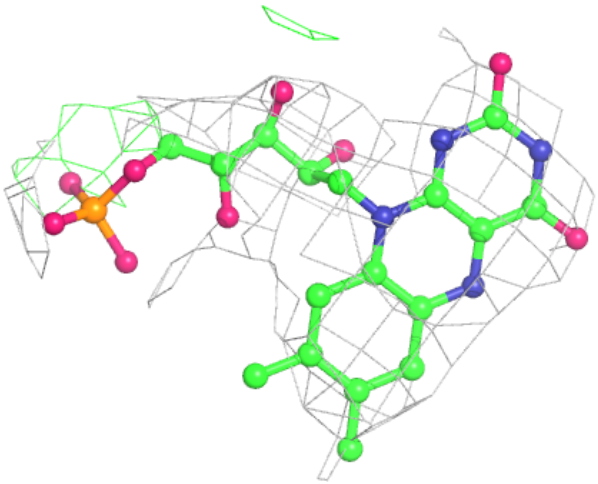
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

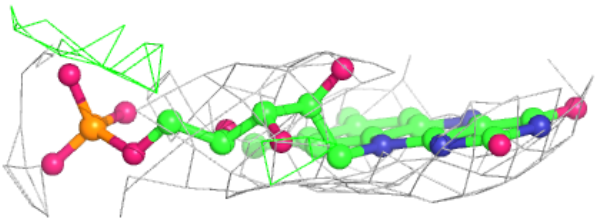
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	CER	A	2748	12/16	0.81	0.32	70,134,243,252	0
4	FMN	I	3051	31/31	0.85	0.41	132,164,181,204	0
4	FMN	G	3051	31/31	0.87	0.33	137,161,187,206	0
4	FMN	H	3051	31/31	0.88	0.26	133,160,184,188	0
3	CER	C	2748	12/16	0.90	0.37	70,134,252,253	0
3	CER	B	2748	12/16	0.91	0.21	70,134,252,253	0

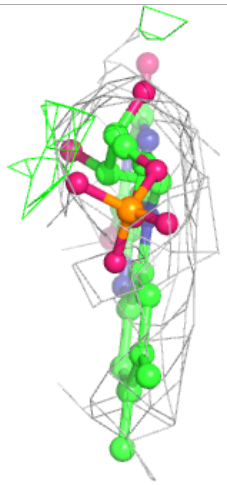
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around FMN I 3051:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

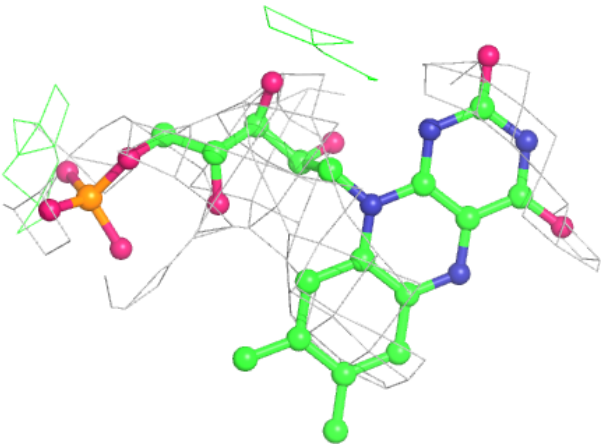


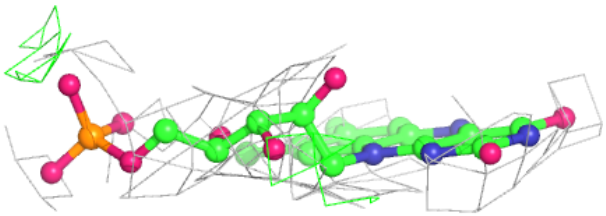


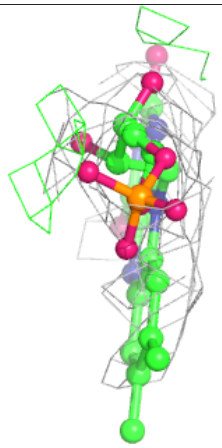


Electron density around FMN G 3051:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

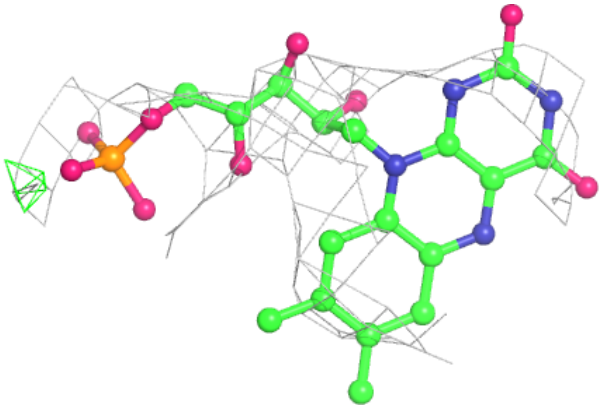


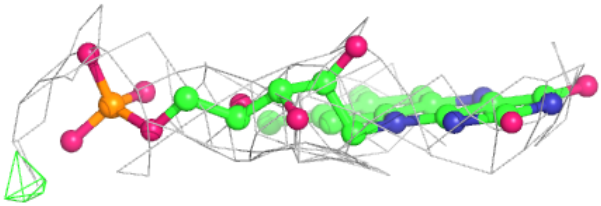


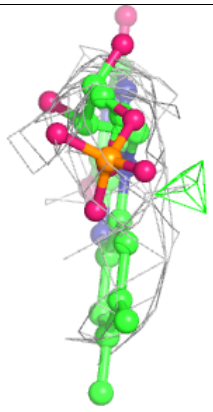


Electron density around FMN H 3051:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)







6.5 Other polymers (i)

There are no such residues in this entry.