Full wwPDB EM Validation Report ⓘ

Jan 6, 2026 – 08:02 PM EST

PDB ID	:	9PQX / pdb_00009pqx
EMDB ID	:	EMD-71792
Title	:	Structure of M. tuberculosis type-I FAS in the apo state
Authors	:	Mazhab-Jafari, M.T.; Samani, E.K.
Deposited on	:	2025-07-23
Resolution	:	2.83 Å(reported)
Based on initial model	:	6GJC

This is a Full wwPDB EM 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/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

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

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

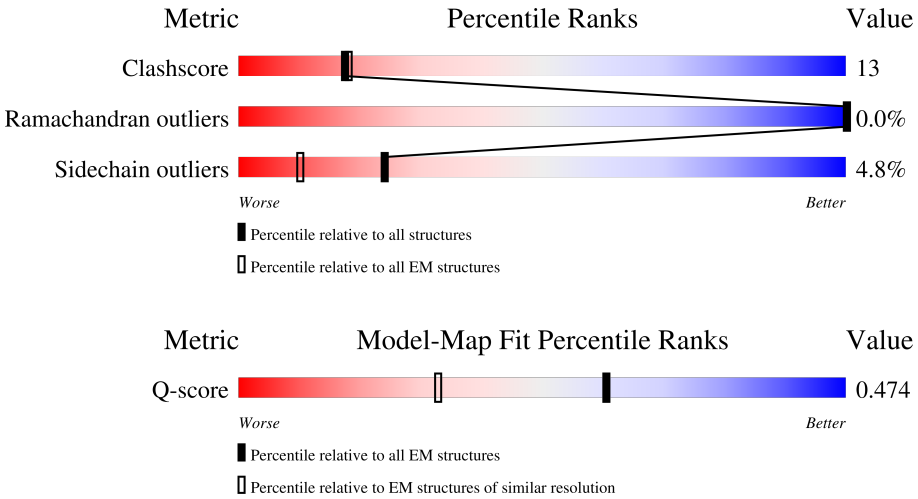
EMDB validation analysis	:	0.0.1.dev129
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.47

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 2.83 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.



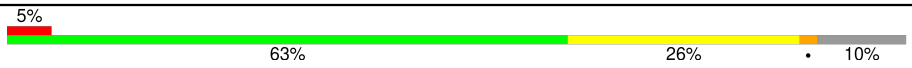
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
Q-score	-	25397	11847 (2.33 - 3.33)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	3069	5% 63% 25% • 10%
1	B	3069	5% 63% 26% • 10%
1	C	3069	5% 61% 27% • 10%
1	D	3069	5% 63% 26% • 10%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	E	3069	
1	F	3069	

2 Entry composition

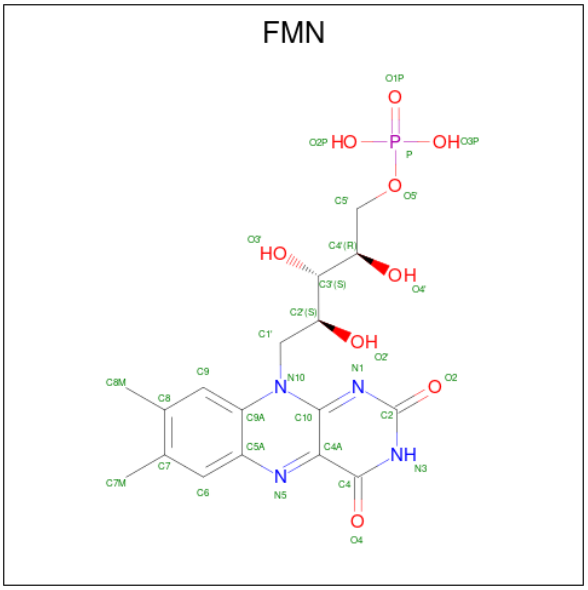
There are 2 unique types of molecules in this entry. The entry contains 124914 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 3-oxoacyl-ACP synthase.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	2770	Total	C	N	O	S	0	0
			20787	13071	3700	3951	65		
1	B	2770	Total	C	N	O	S	0	0
			20788	13072	3700	3951	65		
1	C	2770	Total	C	N	O	S	0	0
			20779	13067	3700	3947	65		
1	D	2770	Total	C	N	O	S	0	0
			20801	13078	3703	3955	65		
1	E	2770	Total	C	N	O	S	0	0
			20782	13068	3699	3950	65		
1	F	2770	Total	C	N	O	S	0	0
			20791	13073	3700	3953	65		

- Molecule 2 is FLAVIN MONONUCLEOTIDE (CCD ID: FMN) (formula: $C_{17}H_{21}N_4O_9P$) (labeled as "Ligand of Interest" by depositor).



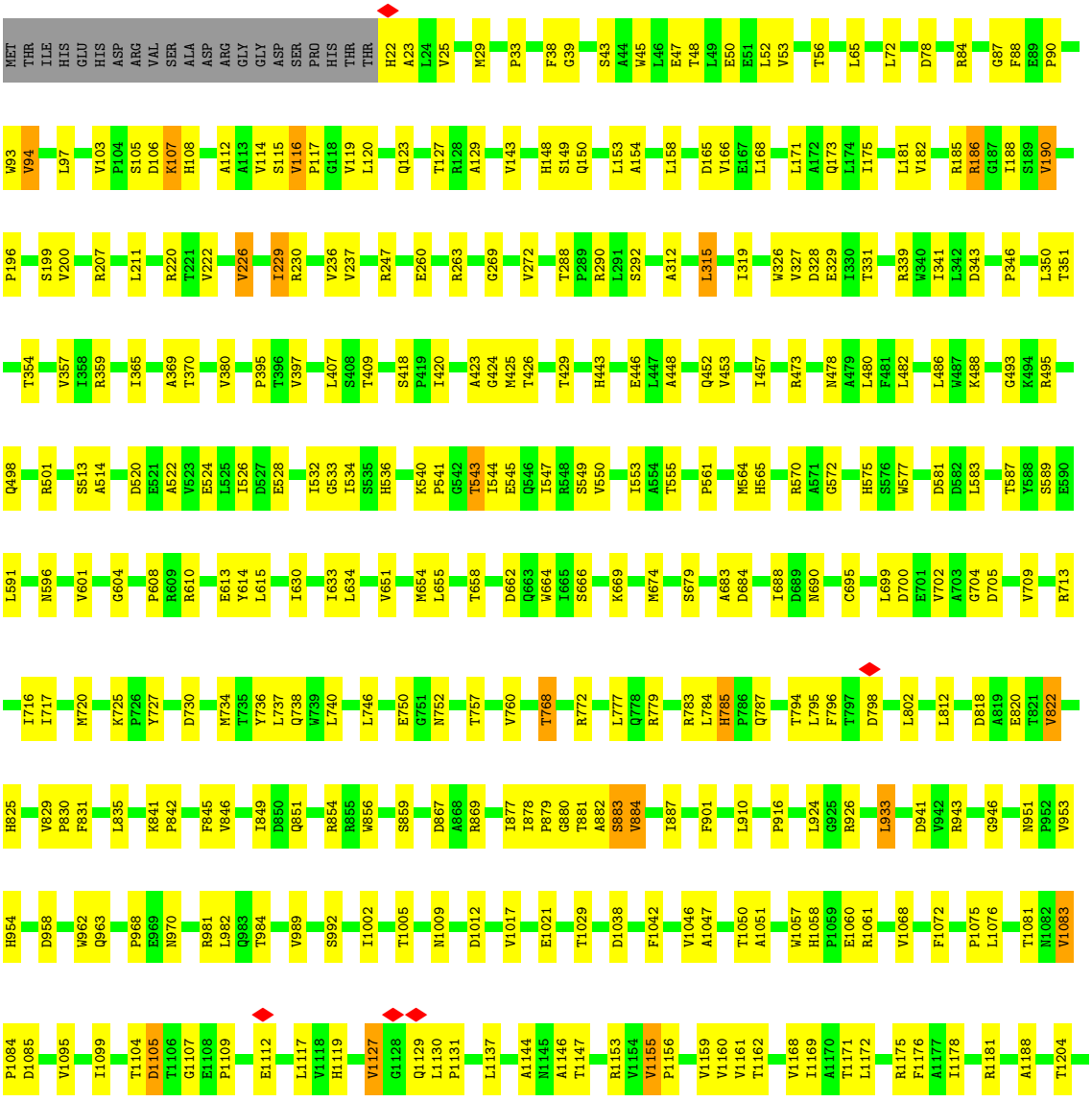
Mol	Chain	Residues	Atoms					AltConf
2	A	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	B	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	C	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	D	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	E	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	F	1	Total	C	N	O	P	0
			31	17	4	9	1	

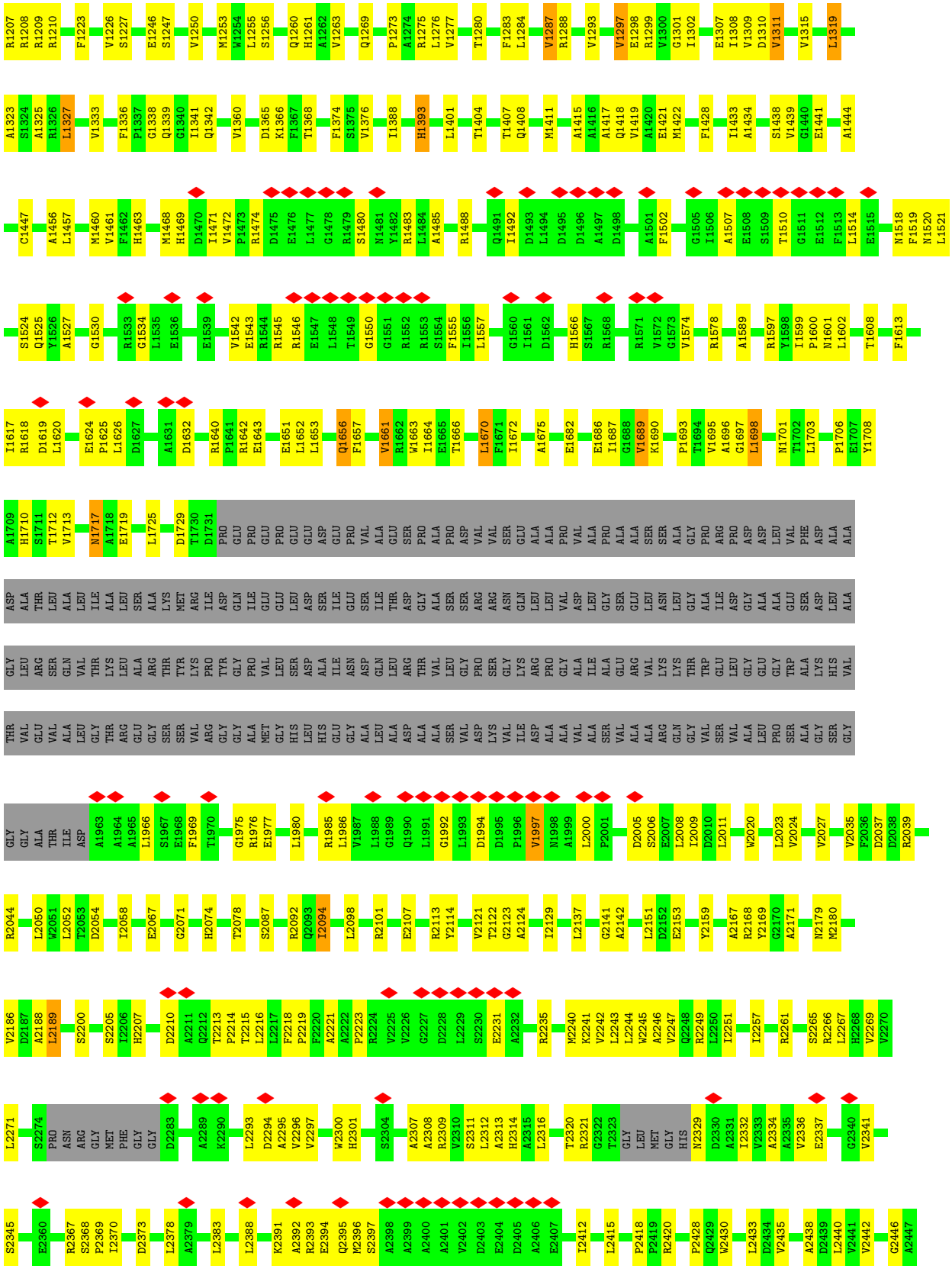
3 Residue-property plots (i)

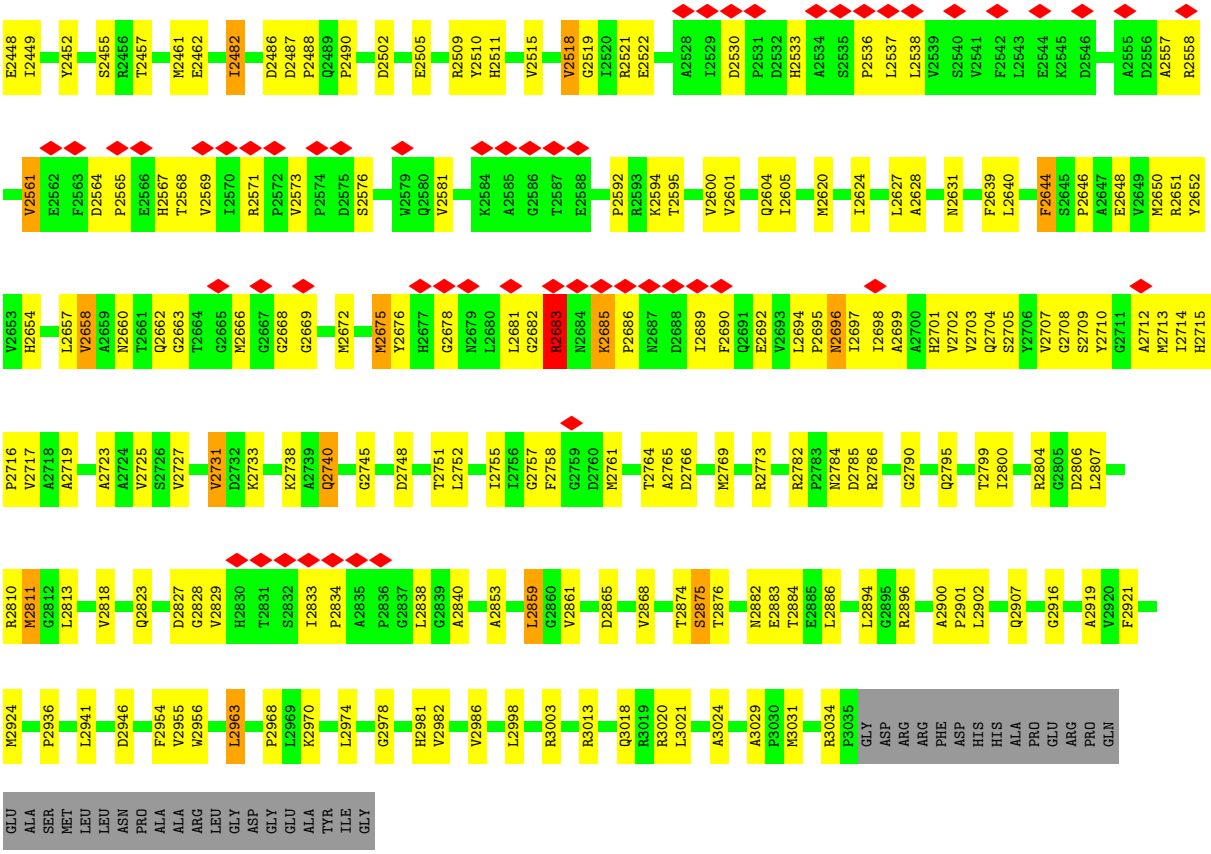
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: 3-oxoacyl-ACP synthase

Chain A:

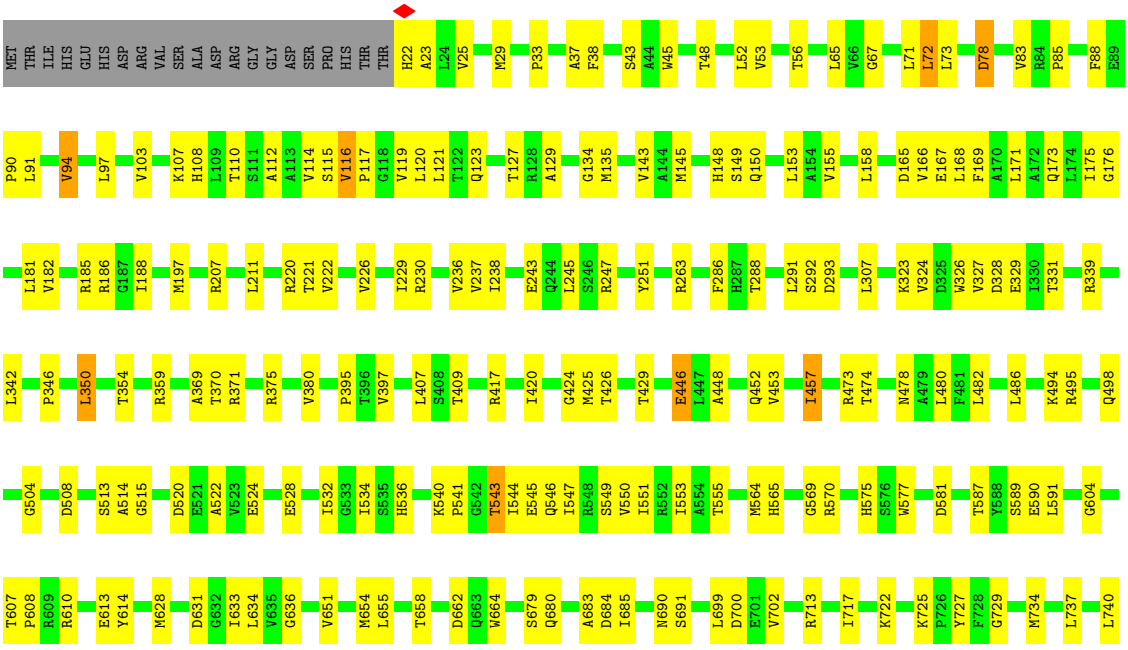


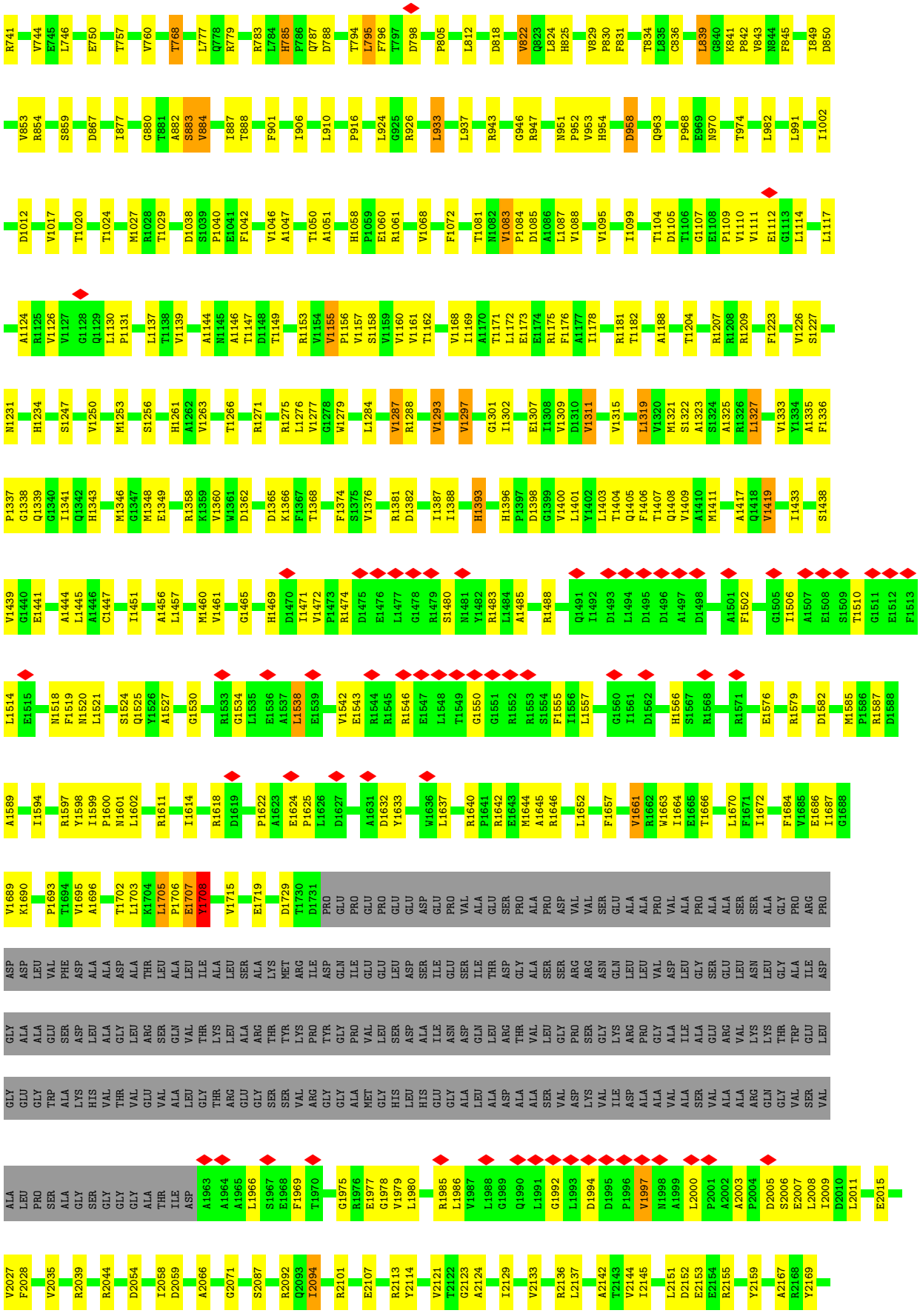


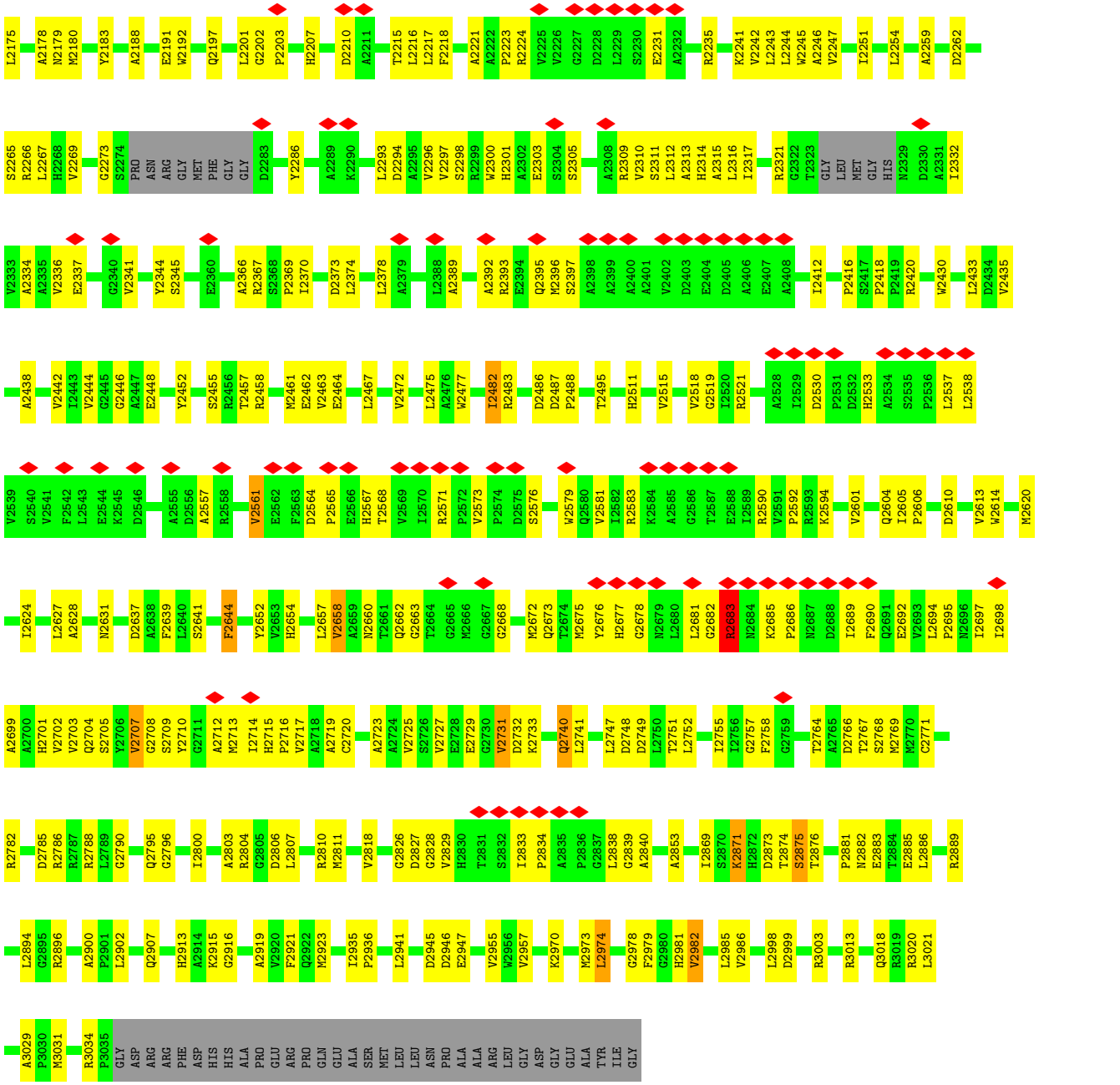


• Molecule 1: 3-oxoacyl-ACP synthase

Chain B:

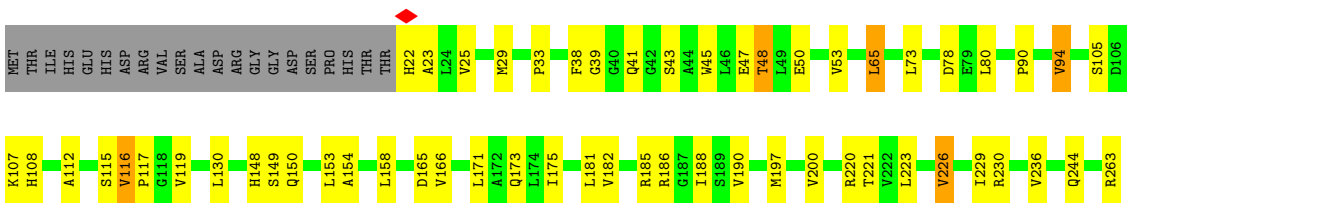


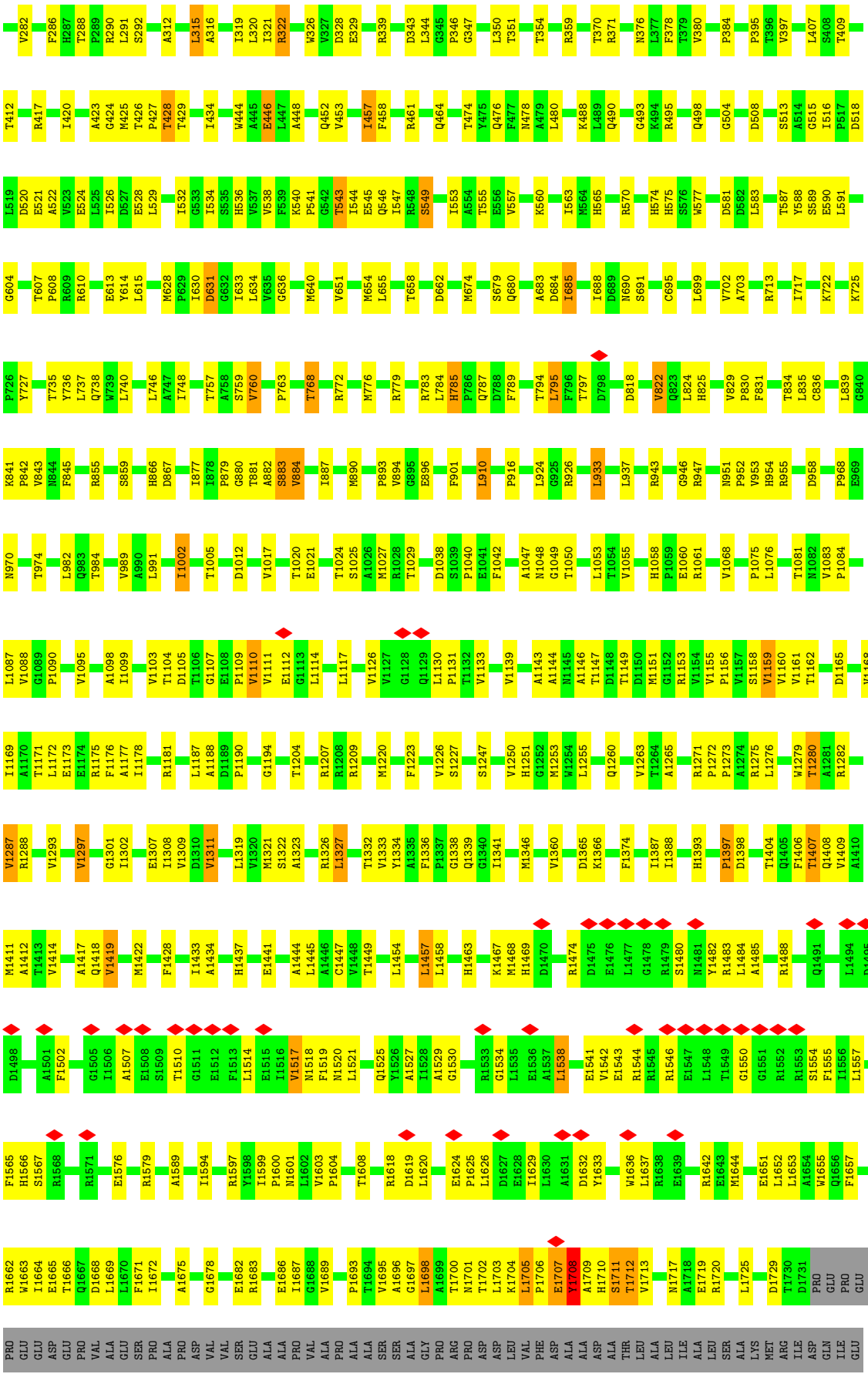

R741 V744 E745 L746 E750 T757 V760 T768 L777 Q778 R779 R783 L784 H785 P786 Q787 D788 T794 L795 F796 T797 D798 P805 L812 D818 V822 Q823 L824 H825 V829 P830 F831 T834 L835 C836 L839 G840 K841 P842 V843 N844 F845 I849 D850
V853 R854 S859 D867 I877 G880 T881 A882 S883 V884 I887 T888 F901 I906 L910 P916 L924 G925 R926 L933 L937 R943 G946 R947 N951 P952 V953 H954 D958 Q963 P968 E969 N970 T974 L982 L991 I1002
D1012 V1017 T1020 T1024 M1027 R1028 T1029 D1038 S1039 P1040 E1041 F1042 V1046 A1047 T1050 A1051 H1058 P1059 E1060 R1061 V1068 F1072 T1081 N1082 V1083 P1084 D1085 A1086 L1087 V1088 V1095 I1099 T1104 D1105 T1106 G1107 E1108 P1109 V1110 V1111 E1112 G1113 L1114 L1117
A1124 R1125 V1126 V1127 G1128 Q1129 L1130 P1131 L1137 T1138 V1139 A1144 N1145 A1146 T1147 D1148 T1149 R1153 Y1154 V1155 P1156 V1157 S1158 V1159 V1160 V1161 T1162 V1168 I1169 A1170 T1171 L1172 E1173 E1174 R1175 F1176 A1177 I1178 R1181 T1182 A1188 T1204 R1207 R1208 R1209 F1223 V1226 S1227
N1231 H1234 S1247 V1250 M1253 S1256 H1261 A1262 V1263 T1266 R1271 R1275 L1276 V1277 G1278 W1279 L1284 V1287 R1288 V1293 V1297 G1301 I1302 E1307 I1308 V1309 D1310 V1311 V1315 L1319 V1320 M1321 S1322 A1323 S1324 A1325 R1326 L1327 V1333 Y1334 A1335 F1336
P1337 G1338 Q1339 G1340 I1341 Q1342 H1343 M1346 G1347 M1348 E1349 R1358 K1359 V1360 W1361 D1362 D1365 K1366 F1367 T1368 F1374 S1375 V1376 R1381 D1382 I1387 I1388 H1393 H1396 P1397 D1398 G1399 V1400 L1401 Y1402 L1403 T1404 Q1405 F1406 T1407 Q1408 V1409 A1410 M1411 A1417 Q1418 V1419 T1433 S1438
V1439 G1440 E1441 A1444 L1445 A1446 C1447 I1451 A1456 L1457 M1460 V1461 G1465 H1469 D1470 T1471 V1472 P1473 R1474 D1475 E1476 R1477 G1478 R1479 S1480 N1481 Y1482 R1483 L1484 A1485 R1488 Q1491 I1492 D1493 L1494 D1495 D1496 A1497 D1498 A1501 F1502 G1505 I1506 A1507 E1508 S1509 T1510 G1511 E1512 F1513
L1514 E1515 N1518 F1519 N1520 L1521 S1524 Q1525 Y1526 A1527 G1530 R1533 G1534 L1535 E1536 A1537 L1538 E1539 V1542 E1543 R1544 R1545 R1546 E1547 L1548 T1549 G1550 G1551 R1552 R1553 S1554 S1555 I1556 L1557 G1560 I1561 D1562 H1566 S1567 R1568 R1571 E1576 R1579 D1582 M1585 P1586 R1587 D1588
A1589 I1594 R1597 Y1598 I1599 P1600 N1601 L1602 R1611 I1614 R1618 D1619 P1622 A1623 E1624 P1625 L1626 D1627 A1631 D1632 Y1633 W1636 L1637 R1640 P1641 R1642 E1643 M1644 A1645 R1646 L1652 F1657 V1661 R1662 W1663 I1664 E1665 T1666 L1670 F1671 I1672 F1684 V1685 E1686 I1687 G1688
V1689 K1690 P1693 T1694 V1695 A1696 T1702 L1703 K1704 L1705 P1706 E1707 Y1708 V1715 E1719 D1729 T1730 D1731 PRO GLU PRO GLU PRO GLU GLU ASP GLU PRO VAL ALA GLU SER PRO ALA PRO ASP VAL VAL SER GLU ALA ALA PRO VAL ALA PRO ALA ALA SER SER ALA GLY PRO PRO
ASP ASP LEU VAL PHE ASP ALA ALA ASP ALA THR LEU ALA LEU ILE ALA LEU SER ALA LYS MET ARG ILE ASP GLN ILE GLU GLU LEU ASP SER ILE GLU SER ILE THR ASP GLY ALA SER SER ARG ARG ASN GLN LEU LEU VAL ASP LEU ASN LEU GLY ALA ARG LEU
GLY ALA ALA GLU SER ASP LEU ALA GLY LEU ARG SER GLN VAL THR LYS LEU ALA ARG THR TYR LYS PRO TYR GLY PRO VAL LEU SER ASP ALA ILE GLU ILE ASN ASP GLN LEU ARG THR VAL LEU GLY PRO SER GLY LYS ARG PRO GLY ALA ILE ALA GLU ARG VAL LYS LYS THR TRP GLU LEU
GLY GLU GLY TRP ALA LYS HIS VAL THR VAL GLU VAL GLU ALA LEU GLY THR ARG GLU GLY SER SER VAL ARG GLY GLY ALA MET GLY HIS LEU HIS GLU GLY ALA LEU ALA ASP ALA ALA SER VAL ASP LYS VAL ILE ASP ALA ALA VAL ALA ALA SER VAL GLY ALA ALA ARG GLN GLY VAL SER VAL
ALA LEU PRO SER ALA GLY GLY ALA ALA THR ILE ASP A1963 A1964 A1965 L1966 S1967 E1968 F1969 T1970 G1975 R1976 E1977 G1978 V1979 L1980 R1985 L1986 V1987 L1988 G1989 Q1990 L1991 G1992 L1993 D1994 D1995 P1996 V1997 N1998 A1999 L2000 P2001 A2002 A2003 P2004 D2005 S2006 E2007 L2008 I2009 D2010 L2011 E2015
V2027 F2028 V2035 R2039 R2044 D2054 D2059 I2058 A2066 G2071 S2087 R2092 Q2093 I2094 R2101 E2107 R2113 Y2114 V2121 T2122 G2123 A2124 I2129 V2133 R2136 L2137 A2142 T2143 V2144 I2145 L2151 D2152 E2153 E2154 R2155 Y2159 A2167 R2168 Y2169

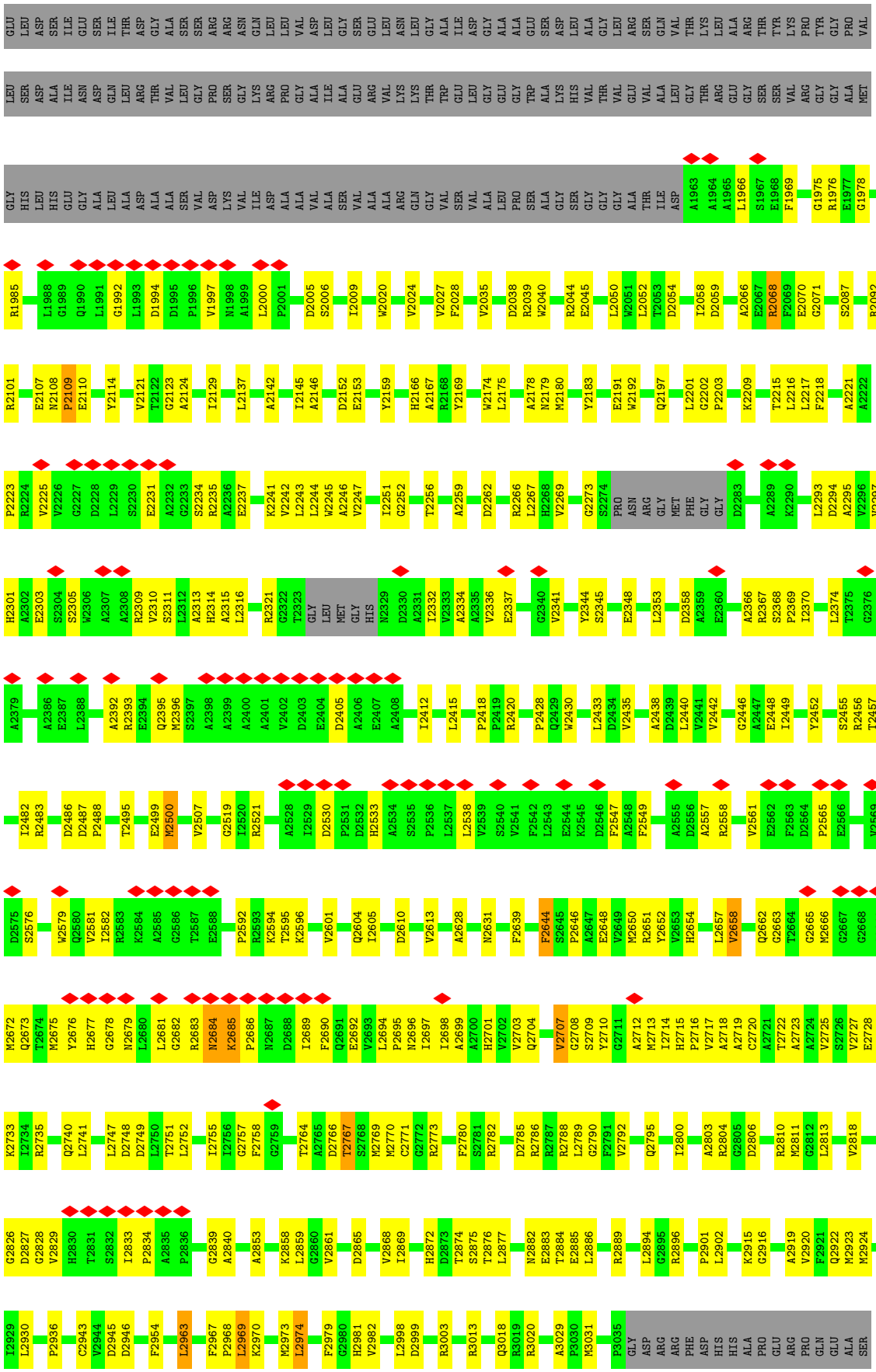


• Molecule 1: 3-oxoacyl-ACP synthase

Chain C:

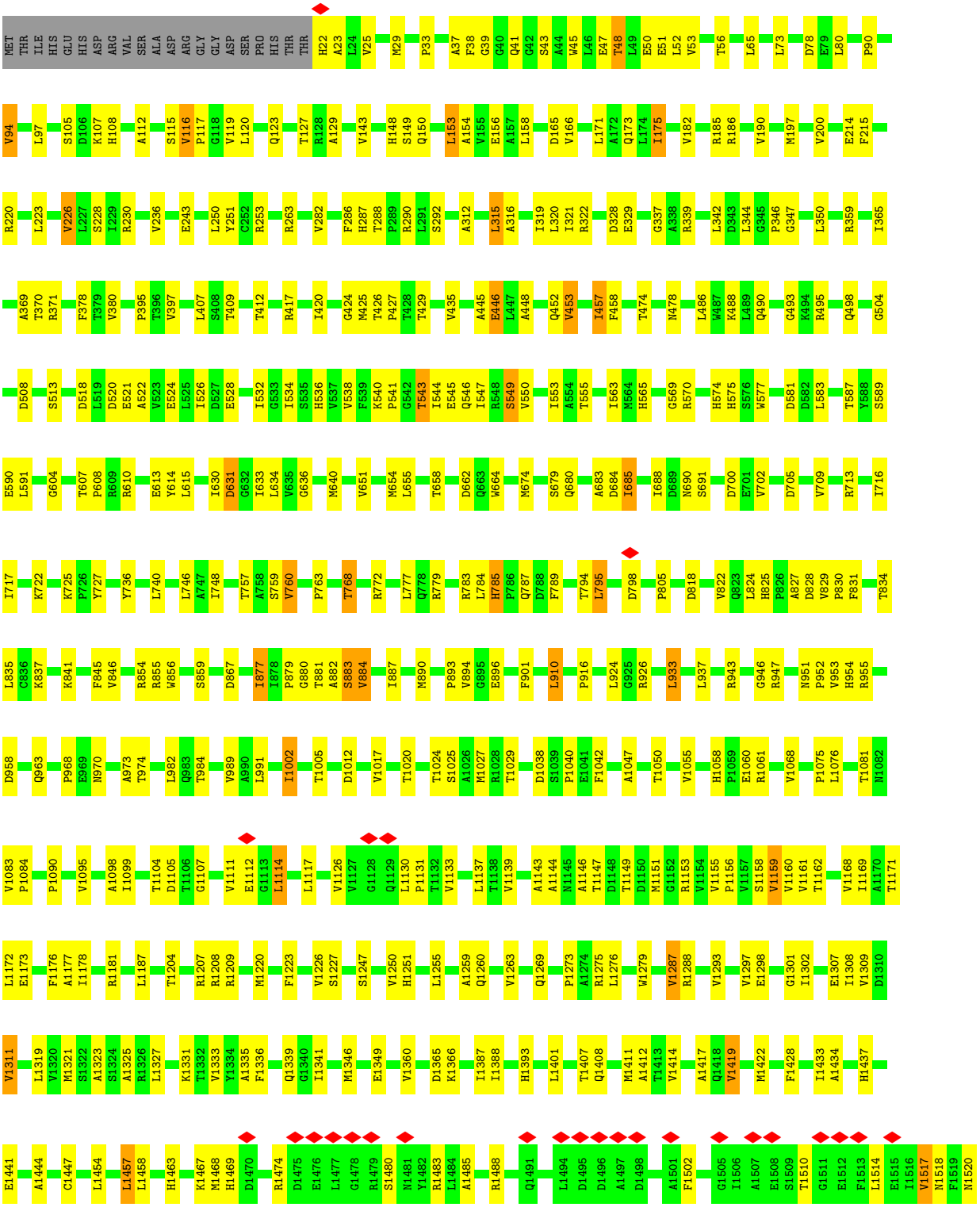


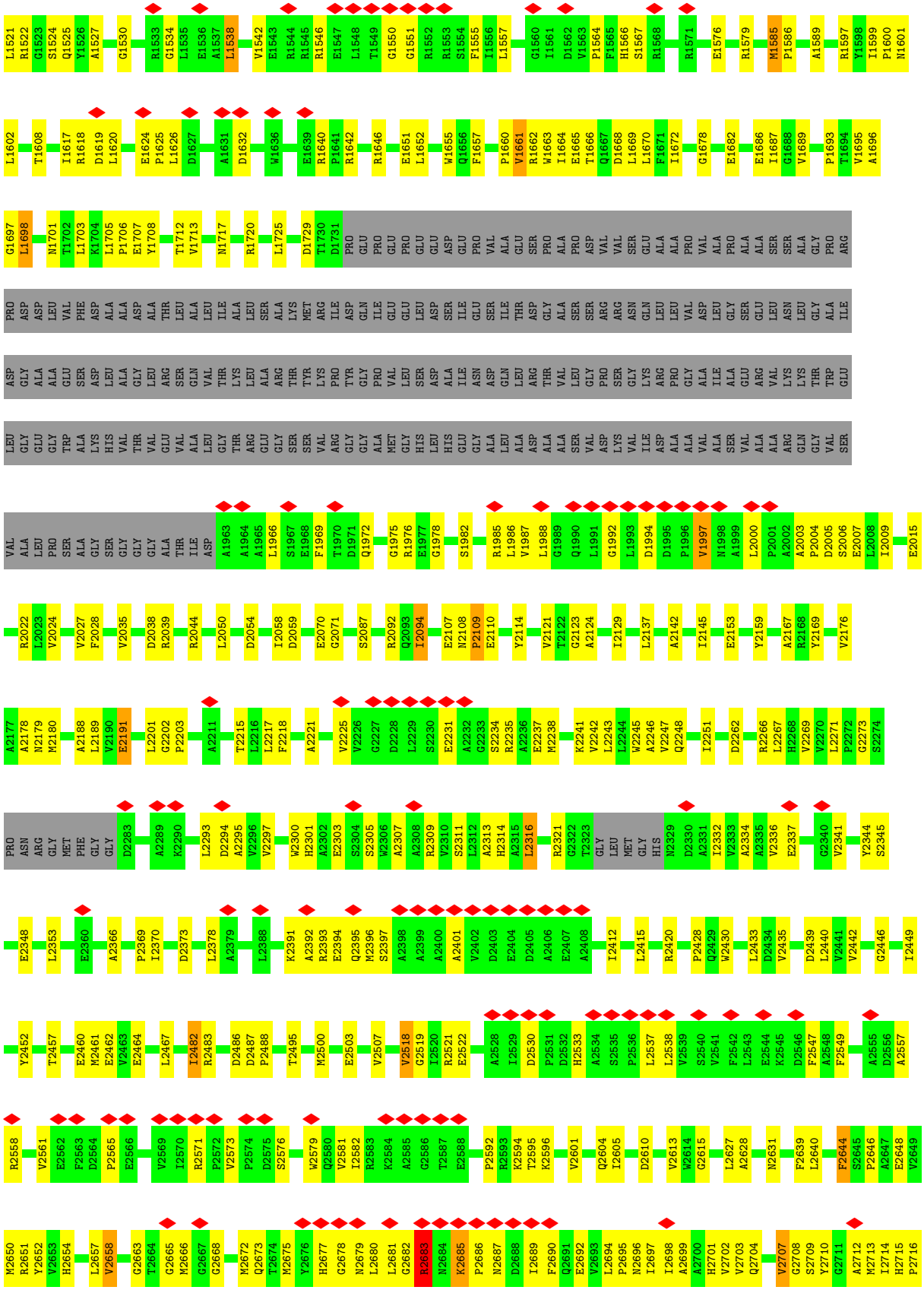

V282 F286 H287 T288 P289 R290 L291 S292 A312 L315 A316 I319 L320 I321 R322 W326 V327 D328 E329 R339 D343 L344 G345 P346 G347 L350 T351 T354 R359 T370 R371 N376 L377 F378 T379 V380 P384 P395 T396 V397 L407 S408 T409
T412 R417 I420 A423 G424 M425 T426 P427 T428 T429 I434 W444 A445 E446 L447 A448 Q452 V453 I457 F458 R461 Q464 T474 Y475 Q476 F477 N478 A479 L480 K488 L489 Q490 G493 K494 R495 Q498 G504 D508 S513 A514 G515 I516 P517 D518
L519 D520 E521 A522 V523 E524 L525 I526 D527 E528 L529 I532 G533 I534 S535 H536 V537 V538 F539 K540 P541 G542 T543 I544 E545 Q546 I547 R548 S549 I553 A554 T555 E556 V557 K560 I563 M564 H565 R570 H574 H575 S576 W577 D581 D582 L583 T587 Y588 S589 E590 L591
G604 T607 P608 R609 R610 E613 Y614 L615 M628 P629 I630 D631 G632 I633 L634 V635 G636 M640 V651 M654 L655 T658 D662 M674 S679 Q680 A683 D684 I685 I688 D689 N690 S691 C695 L699 V702 A703 R713 I717 K722 K725
P726 Y727 T735 Y736 L737 Q738 W739 L740 L746 A747 I748 T757 A758 S759 V760 P763 T768 R772 M776 R779 R783 L784 H785 P786 Q787 D788 F789 T794 L795 F796 T797 D798 D818 V822 Q823 L824 H825 V829 P830 F831 T834 L835 C836 L839 G840
K841 P842 V843 N844 F845 R855 S859 H866 D867 I877 I878 P879 G880 T881 A882 S883 V884 I887 M890 P893 V894 G895 E896 F901 L910 P916 L924 G925 R926 L933 L937 R943 G946 R947 N951 P952 V953 H954 R955 D958 P968 E969
N970 T974 L982 Q983 T984 V989 A990 L991 I1002 T1005 D1012 V1017 T1020 E1021 T1024 S1025 A1026 M1027 R1028 T1029 D1038 S1039 P1040 E1041 F1042 A1047 N1048 G1049 T1050 L1053 T1054 V1055 H1058 P1059 E1060 R1061 V1068 P1075 L1076 T1081 N1082 V1083 P1084
L1087 V1088 G1089 P1090 V1095 A1098 I1099 V1103 T1104 D1105 T1106 G1107 E1108 P1109 V1110 V1111 E1112 G1113 L1114 L1117 V1126 V1127 G1128 Q1129 L1130 P1131 T1132 V1133 V1139 A1143 A1144 N1145 A1146 T1147 D1148 T1149 D1150 M1151 G1152 R1153 Y1154 V1155 P1156 Y1157 S1158 V1159 V1160 V1161 T1162 D1165 V1168
I1169 A1170 T1171 L1172 E1173 E1174 R1175 F1176 A1177 I1178 R1181 L1187 A1188 D1189 P1190 G1194 T1204 R1207 R1208 R1209 M1220 F1223 V1226 S1227 S1247 V1250 H1251 G1252 M1253 W1254 L1255 Q1260 V1263 T1264 A1265 R1271 P1272 P1273 A1274 R1275 L1276 W1279 T1280 A1281 R1282
V1287 R1288 V1293 V1297 G1301 I1302 E1307 I1308 V1309 D1310 V1311 L1319 V1320 M1321 S1322 A1323 R1326 L1327 T1332 V1333 Y1334 A1335 F1336 P1337 G1338 Q1339 G1340 I1341 M1346 V1360 D1365 K1366 F1374 I1387 I1388 H1393 P1397 D1398 T1404 Q1405 F1406 T1407 Q1408 V1409 A1410
M1411 A1412 T1413 V1414 A1417 Q1418 V1419 M1422 F1428 I1433 A1434 H1437 E1441 A1444 L1445 A1446 C1447 V1448 T1449 L1454 L1457 L1458 H1463 K1467 M1468 H1469 D1470 R1474 D1475 E1476 L1477 G1478 R1479 S1480 N1481 Y1482 R1483 L1484 A1485 R1488 Q1491 L1494 D1495 D1496 A1497
D1498 A1501 F1502 G1505 I1506 A1507 E1508 S1509 T1510 G1511 E1512 F1513 L1514 E1515 I1516 V1517 N1518 F1519 N1520 L1521 Q1525 Y1526 A1527 I1528 A1529 G1530 R1533 G1534 L1535 E1536 A1537 L1538 E1541 V1542 E1543 R1544 R1545 R1546 E1547 L1548 T1549 G1550 G1551 R1552 R1553 S1554 F1555 I1556 L1557 G1560 I1561 D1562 V1563 P1564
F1565 H1566 S1567 R1568 R1571 E1576 R1579 A1589 I1594 R1597 Y1598 I1599 P1600 N1601 L1602 V1603 P1604 T1608 R1618 D1619 L1620 E1624 P1625 L1626 D1627 E1628 I1629 L1630 A1631 D1632 Y1633 W1636 L1637 R1638 E1639 R1642 E1643 M1644 E1651 L1652 L1653 A1654 W1655 Q1656 F1657 P1660 V1661
R1662 W1663 I1664 E1665 T1666 Q1667 D1668 L1669 L1670 F1671 I1672 A1675 G1678 E1682 R1683 E1686 I1687 G1688 V1689 P1693 T1694 V1695 A1696 G1697 L1698 A1699 T1700 N1701 T1702 L1703 K1704 L1705 P1706 E1707 V1708 A1709 H1710 S1711 T1712 V1713 N1717 A1718 E1719 R1720 L1725 D1729 T1730 D1731 PRO GLU PRO GLU
PRO GLU GLU ASP GLU PRO VAL ALA GLU SER PRO ALA PRO ASP VAL VAL SER GLU ALA ALA PRO VAL ALA PRO ALA ALA SER SER ALA GLY PRO ARG PRO ASP LEU VAL PHE ASP ALA ALA ASP ALA THR LEU ALA LEU ILE ALA LEU SER ALA LYS MET ARG ILE ASP GLN ILE GLU

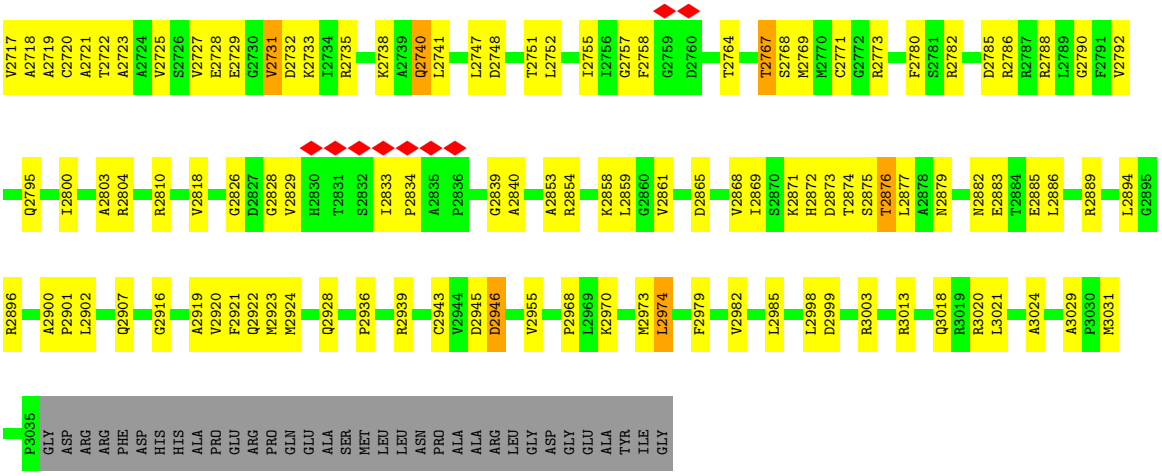

GLU LEU ASP SER ILE GLU SER ILE THR ASP GLY ALA SER SER ARG ARG ASN GLN LEU LEU VAL ASP LEU GLY SER GLU LEU ARG SER GLN VAL THR LYS LEU LEU ALA ARG THR TYR LYS PRO TYR GLY PRO VAL
LEU SER ASP ALA ILE ASN ASP GLN LEU ARG THR VAL LEU GLY PRO SER GLY LYS ARG PRO GLY ALA ILE ALA GLU ARG VAL LYS LYS THR TRP GLU LEU GLY GLU GLY GLY TRP ALA LYS HIS VAL THR VAL GLU VAL ALA LEU GLY THR ARG GLU GLY GLY SER VAL ARG GLY GLY ALA MET
GLY HIS LEU HIS GLU GLY ALA LEU ALA ASP ALA ALA SER VAL ALA ALA ARG GLN GLY VAL SER VAL ALA LEU LEU PRO SER ALA ALA GLY SER GLY GLY GLY ALA THR ILE ASP A1963 A1964 A1965 L1966 S1967 E1968 F1969 G1975 R1976 E1977 G1978
R1985 L1988 G1989 Q1990 L1991 G1992 L1993 D1994 D1995 P1996 V1997 N1998 A1999 L2000 P2001 D2005 S2006 I2009 W2020 V2024 V2027 F2028 V2035 D2038 R2039 W2040 R2044 E2045 L2050 W2051 L2052 T2053 D2054 I2058 D2059 A2066 E2067 R2068 F2069 E2070 G2071 S2087 R2092 Q2093 I2094
R2101 E2107 N2108 P2109 E2110 Y2114 V2121 T2122 G2123 A2124 I2129 L2137 A2142 I2145 A2146 D2152 E2153 Y2159 H2166 A2167 R2168 Y2169 W2174 L2175 A2178 N2179 M2180 Y2183 E2191 W2192 Q2197 L2201 G2202 P2203 K2209 T2215 L2216 L2217 F2218 A2221 A2222
P2223 R2224 V2225 V2226 G2227 D2228 L2229 S2230 E2231 A2232 G2233 S2234 R2235 A2236 E2237 K2241 V2242 L2243 L2244 W2245 A2246 V2247 I2251 G2252 T2256 A2259 D2262 R2266 L2267 H2268 V2269 G2273 S2274 PRO ASN ARG GLY MET PHE GLY GLY D2283 A2289 K2290 L2293 D2294 A2295 V2296 V2297 W2300
H2301 A2302 E2303 S2304 S2305 W2306 A2307 A2308 R2309 V2310 S2311 L2312 A2313 H2314 A2315 L2316 R2321 G2322 T2323 GLY LEU MET GLY HIS N2329 D2330 A2331 I2332 V2333 A2334 A2335 V2336 E2337 G2340 V2341 Y2344 S2345 E2348 L2353 D2358 A2359 E2360 A2366 R2367 S2368 P2369 I2370 L2374 T2375 G2376 G2377 L2378
A2379 A2386 E2387 L2388 A2392 R2393 E2394 Q2395 M2396 S2397 A2398 A2399 A2400 A2401 V2402 D2403 E2404 D2405 A2406 E2407 A2408 I2412 L2415 P2418 P2419 R2420 P2428 Q2429 W2430 L2433 D2434 V2435 A2438 D2439 L2440 V2441 V2442 G2446 A2447 E2448 I2449 Y2452 S2455 R2456 T2457 E2460 M2461 E2462
I2482 R2483 D2486 D2487 P2488 T2495 E2499 M2500 V2507 G2519 I2520 R2521 A2528 I2529 D2530 P2531 D2532 H2533 A2534 S2535 P2536 L2537 L2538 V2539 S2540 V2541 F2542 L2543 E2544 K2545 D2546 F2547 A2548 F2549 A2555 D2556 A2557 R2558 V2561 E2562 F2563 D2564 P2565 E2566 V2569 I2570 R2571 P2572 V2573 P2574
D2575 S2576 W2579 Q2580 V2581 I2582 R2583 K2584 A2585 G2586 T2587 E2588 P2592 R2593 K2594 T2595 K2596 V2601 Q2604 I2605 D2610 V2613 A2628 N2631 F2639 F2644 S2645 P2646 A2647 E2648 V2649 M2650 R2651 Y2652 V2653 H2654 L2657 V2658 Q2662 G2663 T2664 G2665 M2666 G2667 G2668 G2669 T2670 S2671
M2672 Q2673 T2674 M2675 Y2676 H2677 G2678 N2679 L2680 L2681 G2682 R2683 N2684 K2685 P2686 W2687 D2688 I2689 F2690 Q2691 E2692 V2693 L2694 P2695 N2696 I2697 I2698 A2699 A2700 H2701 V2702 V2703 Q2704 V2707 G2708 S2709 Y2710 G2711 A2712 M2713 I2714 H2715 P2716 V2717 A2718 A2719 C2720 A2721 T2722 A2723 A2724 V2725 S2726 V2727 E2728 E2729 G2730 V2731 D2732
K2733 I2734 R2735 Q2740 L2741 L2747 D2748 D2749 L2750 T2751 L2752 I2755 I2756 G2757 F2758 G2759 T2764 A2765 D2766 T2767 S2768 M2769 M2770 C2771 G2772 R2773 F2780 S2781 R2782 D2785 R2786 R2787 R2788 L2789 G2790 F2791 V2792 Q2795 I2800 A2803 R2804 G2805 D2806 R2810 M2811 G2812 L2813 V2818
G2826 D2827 G2828 V2829 H2830 T2831 S2832 I2833 P2834 A2835 P2836 G2839 A2840 A2853 K2858 L2859 G2860 V2861 D2865 V2868 I2869 H2872 D2873 T2874 S2875 T2876 L2877 N2882 E2883 T2884 E2885 L2886 R2889 L2894 G2895 R2896 P2901 L2902 K2915 G2916 A2919 V2920 F2921 Q2922 M2923 M2924 Q2928
I2929 L2930 P2936 C2943 V2944 D2945 D2946 F2954 L2963 F2967 P2968 L2969 K2970 M2973 L2974 F2979 G2980 H2981 V2982 L2998 D2999 R3003 R3013 Q3018 R3019 R3020 A3029 P3030 M3031 P3035 GLY ASP ARG ARG PHE ASP HIS HIS ALA PRO GLU ARG PRO GLN GLU ALA SER

• Molecule 1: 3-oxoacyl-ACP synthase

Chain D:

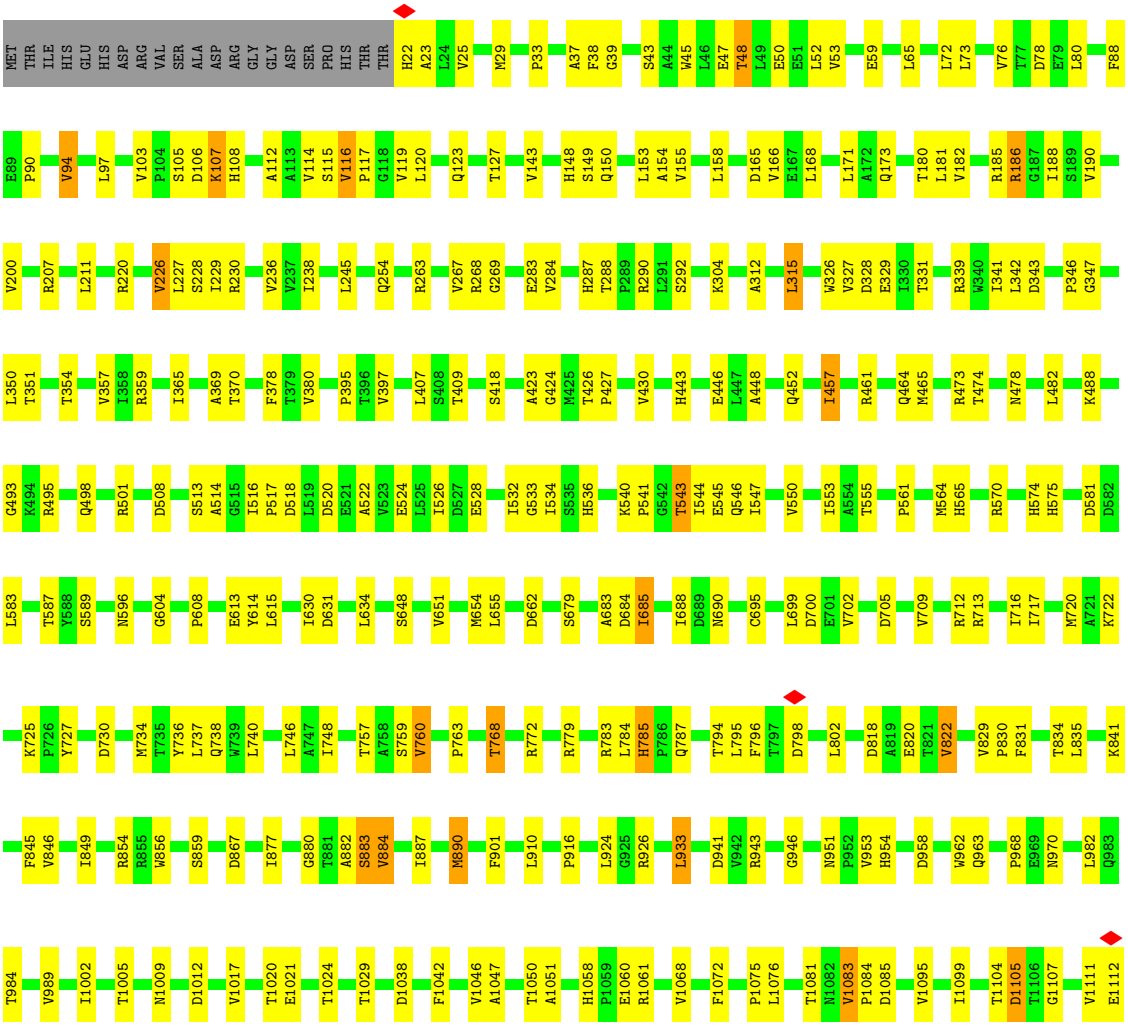


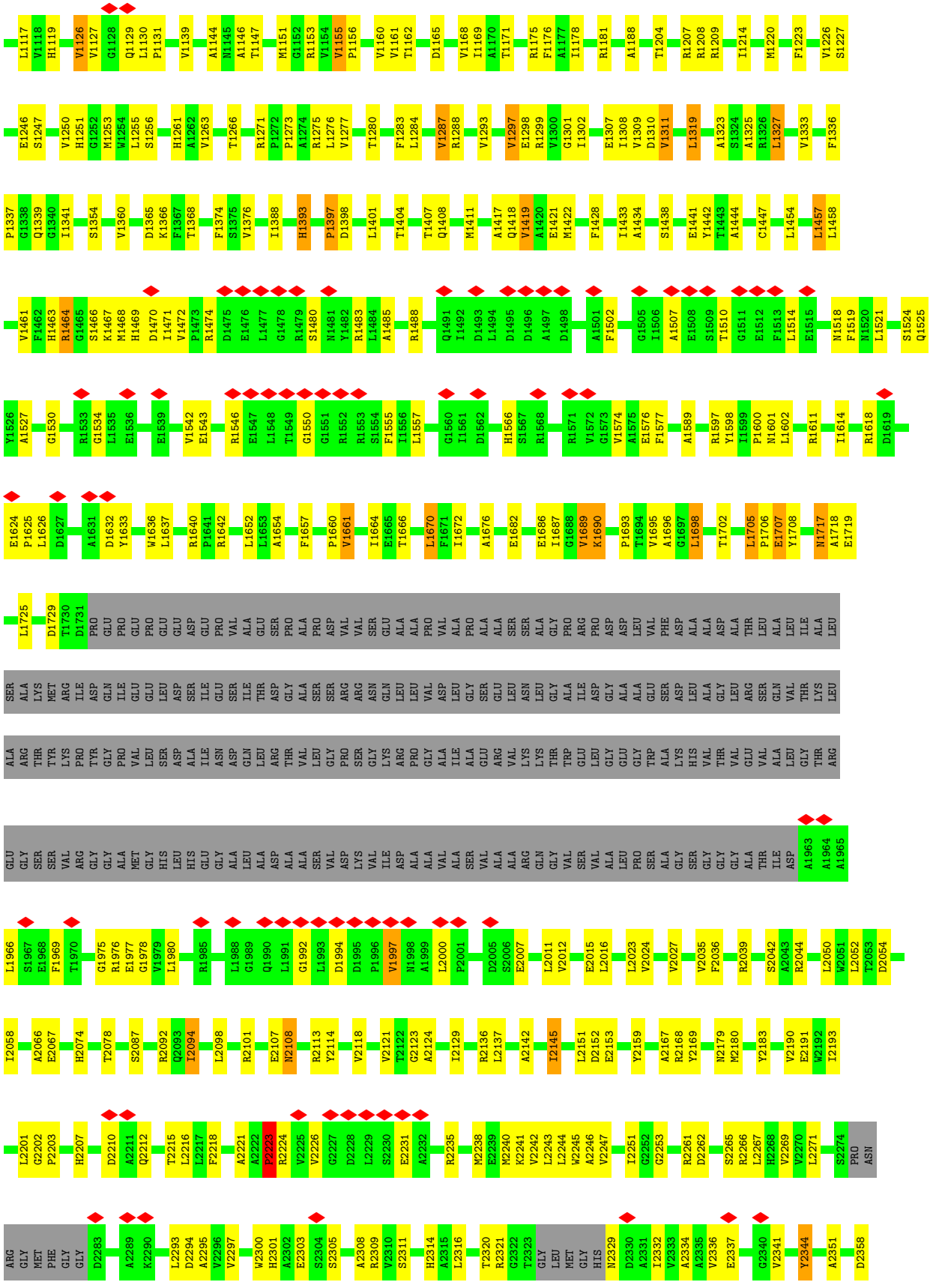


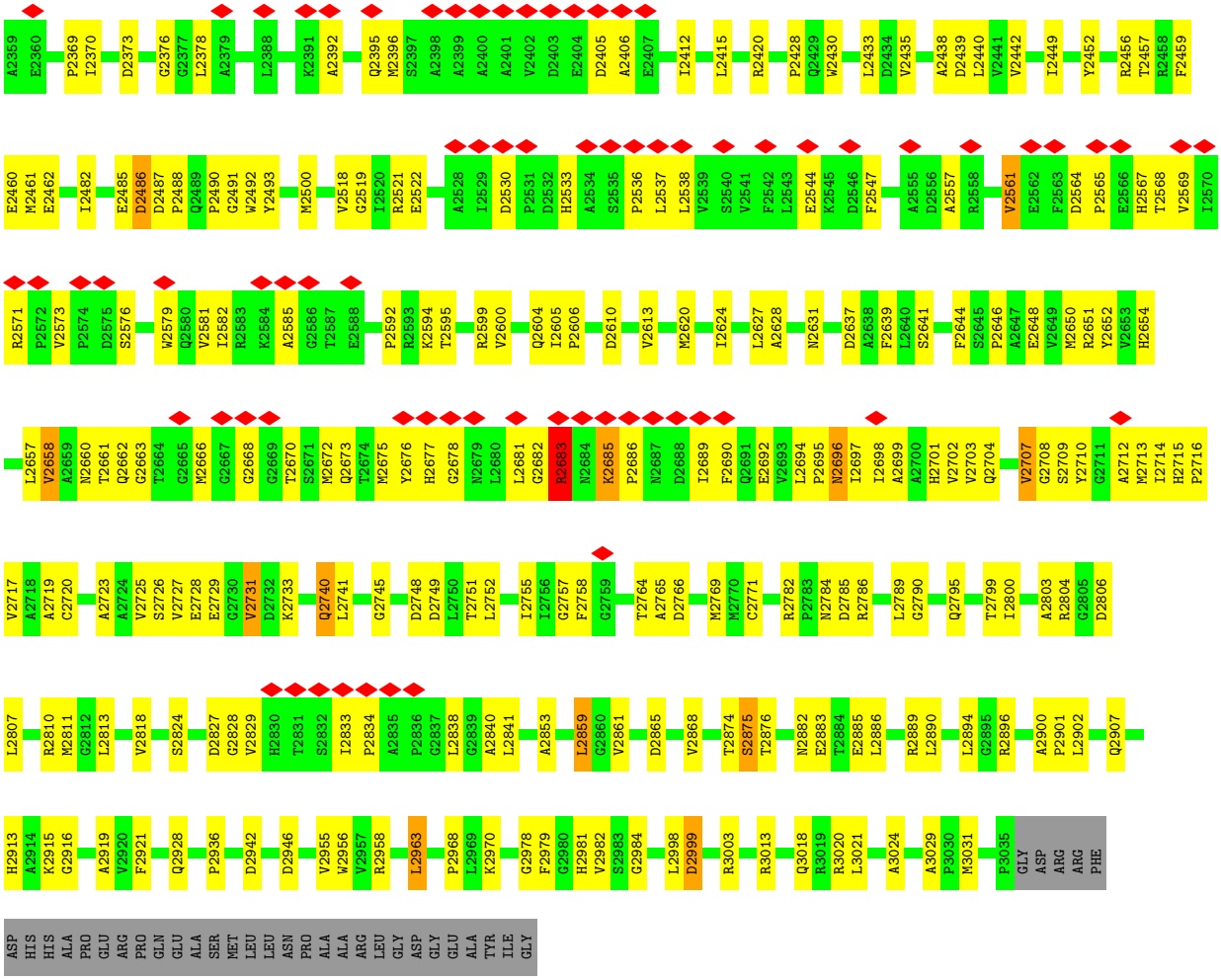


• Molecule 1: 3-oxoacyl-ACP synthase

Chain E:

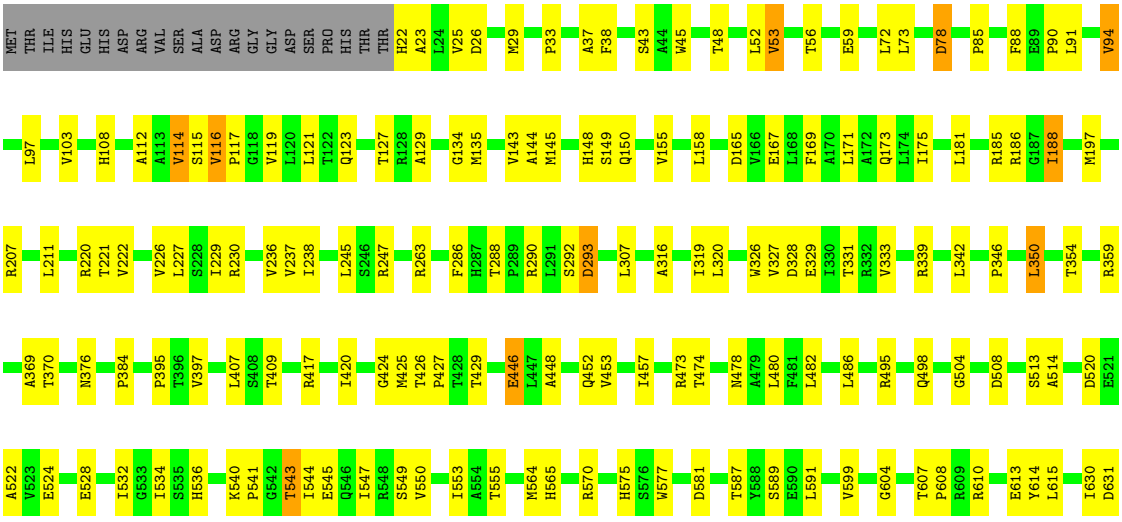


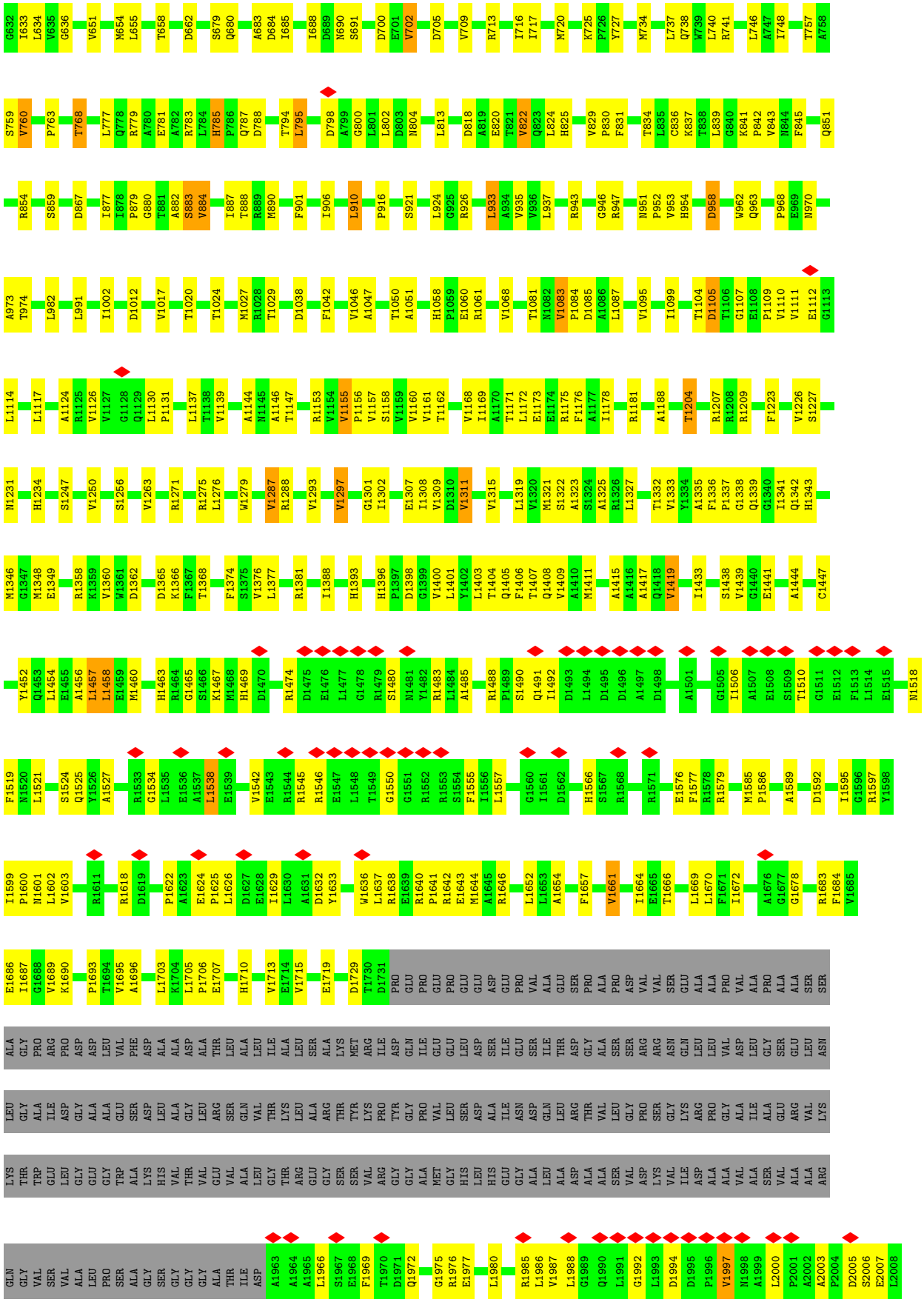

L1117 V1118 H1119 V1126 V1127 G1128 Q1129 L1130 P1131 V1139 A1144 N1145 A1146 T1147 M1151 G1152 R1153 V1154 V1155 P1156 V1160 V1161 T1162 D1165 V1168 I1169 A1170 T1171 R1175 F1176 A1177 I1178 R1181 A1188 T1204 R1207 R1208 R1209 I1214 M1220 F1223 V1226 S1227
E1246 S1247 V1250 H1251 G1252 M1253 W1254 L1255 S1256 H1261 A1262 V1263 T1266 R1271 P1272 P1273 A1274 R1275 L1276 V1277 T1280 F1283 L1284 V1287 R1288 V1293 V1297 E1298 R1299 V1300 G1301 I1302 E1307 I1308 V1309 D1310 V1311 L1319 A1323 S1324 A1325 R1326 L1327 V1333 F1336
P1337 G1338 Q1339 G1340 I1341 S1354 V1360 D1365 K1366 F1367 T1368 F1374 S1375 V1376 I1388 H1393 P1397 D1398 L1401 T1404 T1407 Q1408 M1411 A1417 Q1418 V1419 A1420 E1421 M1422 F1428 I1433 A1434 S1438 E1441 Y1442 T1443 A1444 C1447 L1454 L1457 L1458
V1461 F1462 H1463 R1464 G1465 S1466 K1467 M1468 H1469 D1470 I1471 V1472 P1473 R1474 D1475 E1476 L1477 G1478 R1479 S1480 N1481 Y1482 R1483 L1484 A1485 R1488 Q1491 I1492 D1493 L1494 D1495 D1496 A1497 D1498 A1501 F1502 G1505 I1506 A1507 E1508 S1509 T1510 G1511 E1512 F1513 L1514 E1515 N1518 F1519 N1520 L1521 S1524 Q1525
Y1526 A1527 G1530 R1533 G1534 L1535 E1536 E1539 V1542 E1543 R1546 E1547 L1548 T1549 G1550 G1551 R1552 R1553 S1554 F1555 I1556 L1557 G1560 I1561 D1562 H1566 S1567 R1568 R1571 V1572 G1573 V1574 A1575 E1576 F1577 A1589 R1597 Y1598 I1599 P1600 N1601 L1602 R1611 I1614 R1618 D1619
E1624 P1625 L1626 D1627 A1631 D1632 Y1633 W1636 L1637 R1640 P1641 R1642 L1652 L1653 A1654 F1657 P1660 V1661 I1664 E1665 T1666 L1670 F1671 T1672 A1676 E1682 E1686 I1687 G1688 V1689 K1690 P1693 T1694 V1695 A1696 G1697 L1698 T1702 L1705 P1706 E1707 Y1708 N1717 A1718 E1719
L1725 D1729 T1730 D1731 PRO GLU PRO GLU PRO GLU GLU ASP GLU PRO VAL ALA GLU SER PRO ALA PRO ASP VAL VAL SER GLU ALA ALA PRO VAL ALA PRO ALA ALA PRO VAL ALA ASP ALA SER SER ALA GLY PRO ARG PRO ASP ASP LEU VAL PHE ASP ALA ALA ASP ALA THR LEU ALA LEU ILE ALA LEU
SER ALA LYS MET ARG ILE ASP GLN ILE GLU GLU LEU ASP SER ILE GLU SER ILE THR ASP GLY ALA SER SER ARG ARG ASN GLN LEU LEU VAL ASP LEU GLY SER GLU LEU ASN LEU GLY ALA ILE ASP GLY ALA ALA GLU VAL GLY SER ASP LEU ALA ARG SER GLN VAL THR LYS LEU
ALA ARG THR TYR LYS PRO TYR GLY PRO VAL LEU SER ASP ALA ILE ASN ASP GLN LEU ARG THR VAL LEU GLY PRO SER GLY LYS ARG PRO GLY ALA ILE ALA GLU ARG VAL LYS LYS THR TRP GLU LEU GLY GLU GLY TRP ALA LYS HIS VAL THR VAL GLU VAL ALA LEU GLY THR ARG
GLU GLY SER SER VAL ARG GLY GLY ALA MET GLY HIS LEU HIS GLU GLY ALA LEU ALA ASP ALA ALA SER VAL ASP LYS VAL ILE ASP ALA ALA VAL ALA SER VAL ALA GLN GLY VAL SER VAL ALA LEU PRO SER ALA GLY SER GLY GLY GLY ALA THR ILE ASP A1963 A1964 A1965
L1966 S1967 E1968 F1969 T1970 G1975 R1976 E1977 G1978 V1979 L1980 R1985 L1988 G1989 Q1990 L1991 G1992 L1993 D1994 D1995 P1996 V1997 N1998 A1999 L2000 P2001 D2005 S2006 E2007 L2011 V2012 E2015 L2016 L2023 V2024 V2027 V2035 F2036 R2039 S2042 A2043 R2044 L2050 W2051 L2052 T2053 D2054
I2058 A2066 E2067 H2074 T2078 S2087 R2092 Q2093 I2094 L2098 R2101 E2107 W2108 R2113 Y2114 V2118 V2121 T2122 G2123 A2124 I2129 R2136 L2137 A2142 I2145 L2151 D2152 E2153 Y2159 A2167 R2168 Y2169 W2179 M2180 Y2183 V2190 E2191 W2192 I2193
L2201 G2202 P2203 H2207 D2210 A2211 Q2212 T2215 L2216 L2217 F2218 A2221 A2222 P2223 R2224 V2225 V2226 G2227 D2228 L2229 S2230 E2231 A2232 R2235 M2238 E2239 M2240 K2241 V2242 L2243 L2244 W2245 A2246 V2247 I2251 G2252 G2253 R2261 D2262 S2265 R2266 L2267 H2268 V2269 V2270 L2271 S2274 PRO ASN
ARG GLY MET PHE GLY GLY D2283 A2289 K2290 L2293 D2294 A2295 V2296 V2297 W2300 H2301 A2302 E2303 S2304 S2305 A2308 R2309 V2310 S2311 H2314 A2315 L2316 T2320 R2321 G2322 T2323 GLY LEU MET GLY HIS N2329 D2330 A2331 I2332 V2333 A2334 A2335 V2336 E2337 G2340 V2341 Y2344 A2351 D2358

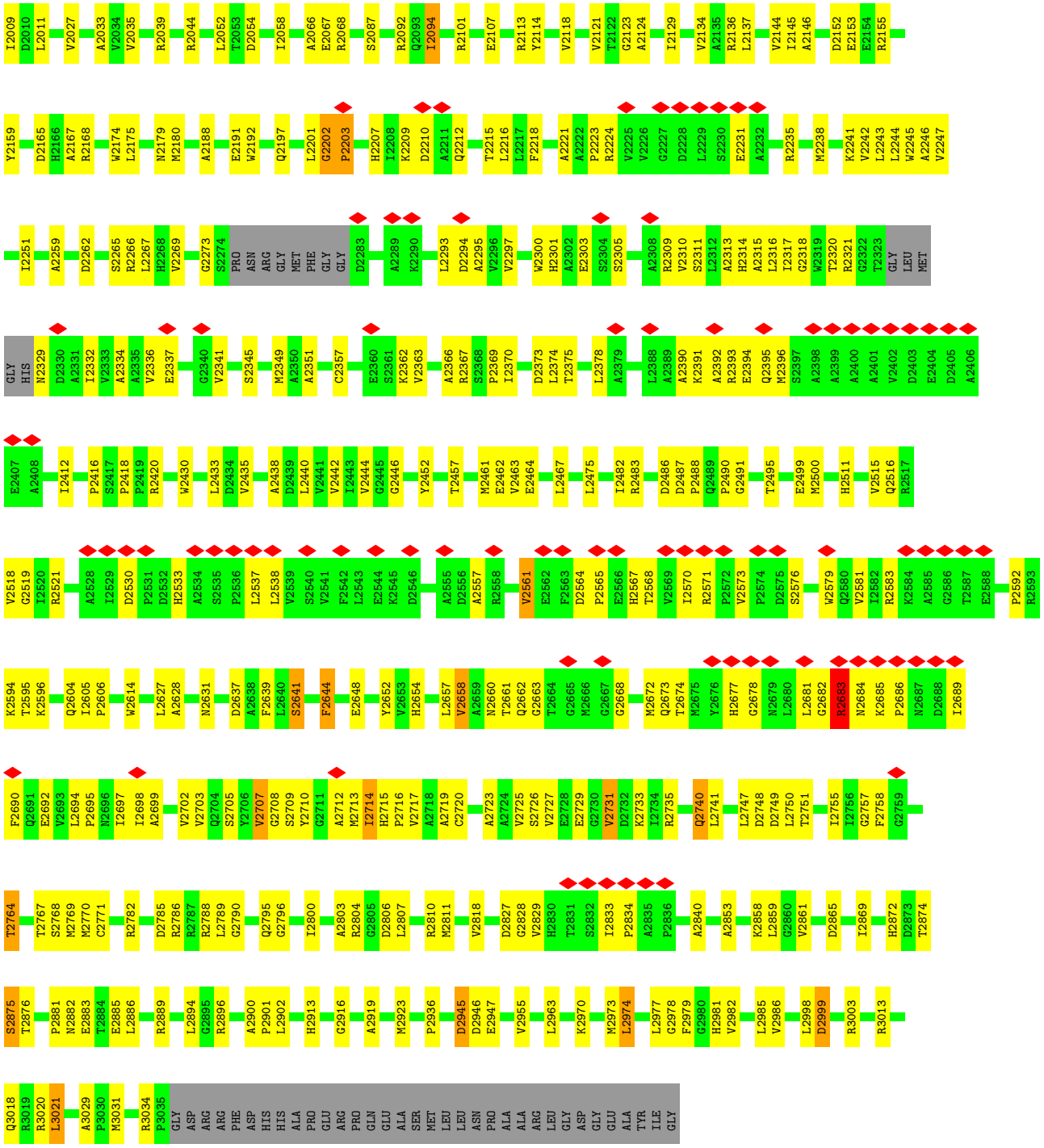


• Molecule 1: 3-oxoacyl-ACP synthase

Chain F:




G632 I633 L634 V635 G636 V651 M654 L655 T658 D662 S679 Q680 A683 D684 I685 I688 D689 N690 S691 D700 E701 V702 D705 V709 R713 I716 I717 M720 K725 P726 Y727 M734 L737 Q738 W739 L740 R741 L746 A747 I748 T757 A758
S759 V760 P763 T768 L777 Q778 R779 A780 E781 A782 R783 L784 H785 P786 Q787 D788 T794 L795 D798 A799 G800 L801 L802 D803 N804 L813 D818 A819 E820 T821 V822 Q823 L824 H825 V829 P830 F831 T834 L835 C836 K837 T838 L839 G840 K841 P842 V843 N844 F845 Q851
R854 S859 D867 I877 I878 P879 G880 T881 A882 S883 V884 I887 T888 R889 M890 F901 I906 L910 P916 S921 L924 G925 R926 L933 A934 V935 V936 L937 R943 G946 R947 N951 P952 V953 H954 D958 W962 Q963 P968 E969 N970
A973 T974 L982 L991 I1002 D1012 V1017 T1020 T1024 M1027 R1028 T1029 D1038 F1042 V1046 A1047 T1050 A1051 H1058 P1059 E1060 R1061 V1068 T1081 N1082 V1083 P1084 D1085 A1086 L1087 V1095 I1099 T1104 D1105 T1106 G1107 E1108 P1109 V1110 V1111 E1112 G1113
L1114 L1117 A1124 R1125 V1126 V1127 G1128 Q1129 L1130 P1131 L1137 T1138 V1139 A1144 N1145 A1146 T1147 R1153 V1154 V1155 P1156 V1157 S1158 V1159 V1160 V1161 T1162 V1168 I1169 A1170 T1171 L1172 E1173 E1174 R1175 F1176 A1177 I1178 R1181 A1188 T1204 R1207 R1208 R1209 F1223 V1226 S1227
N1231 H1234 S1247 V1250 S1256 V1263 R1271 R1275 L1276 W1279 V1287 R1288 V1293 V1297 G1301 I1302 E1307 I1308 V1309 D1310 V1311 V1315 L1319 V1320 M1321 S1322 A1323 S1324 A1325 R1326 L1327 T1332 V1333 Y1334 A1335 F1336 P1337 G1338 Q1339 G1340 I1341 Q1342 H1343
M1346 G1347 M1348 E1349 R1358 K1359 V1360 W1361 D1362 D1365 K1366 F1367 T1368 F1374 S1375 V1376 L1377 R1381 I1388 H1393 H1396 P1397 D1398 G1399 V1400 L1401 Y1402 L1403 T1404 Q1405 F1406 T1407 Q1408 V1409 A1410 M1411 A1415 A1416 A1417 Q1418 V1419 I1433 S1438 V1439 G1440 E1441 A1444 C1447
Y1452 Q1453 L1454 E1455 A1456 L1457 L1458 E1459 M1460 H1463 R1464 G1465 S1466 K1467 M1468 H1469 D1470 R1474 D1475 E1476 L1477 G1478 R1479 S1480 N1481 Y1482 R1483 L1484 A1485 R1488 P1489 S1490 Q1491 I1492 D1493 L1494 D1495 D1496 A1497 D1498 A1501 G1505 I1506 A1507 E1508 S1509 T1510 G1511 E1512 F1513 L1514 E1515 N1518
F1519 N1520 L1521 S1524 Q1525 Y1526 A1527 R1533 G1534 L1535 E1536 A1537 L1538 E1539 V1542 E1543 R1544 R1545 R1546 E1547 L1548 T1549 G1550 G1551 R1552 R1553 S1554 F1555 I1556 L1557 G1560 I1561 D1562 H1566 S1567 R1568 R1571 E1576 F1577 R1578 R1579 M1585 P1586 A1589 D1592 I1595 G1596 R1597 Y1598
I1599 P1600 N1601 L1602 V1603 R1611 R1618 D1619 P1622 A1623 E1624 P1625 L1626 D1627 E1628 I1629 L1630 A1631 D1632 Y1633 W1636 L1637 R1638 E1639 R1640 P1641 R1642 E1643 M1644 A1645 R1646 L1652 L1653 A1654 F1657 V1661 I1664 E1665 T1666 L1669 L1670 F1671 I1672 A1676 G1677 G1678 R1683 F1684 V1685
E1686 I1687 G1688 V1689 K1690 P1693 T1694 V1695 A1696 L1703 R1704 L1705 P1706 E1707 H1710 V1713 E1714 V1715 E1719 D1729 T1730 D1731 PRO GLU PRO GLU PRO GLU GLU ASP GLU PRO VAL ALA GLU SER PRO ALA PRO ASP VAL VAL SER GLU ALA ALA PRO PRO VAL ALA ALA PRO ALA ALA SER SER
ALA GLY PRO ARG PRO ASP ASP LEU VAL PHE ASP ALA ALA ASP ALA THR LEU ALA LEU ILE ALA LEU SER ALA LYS MET ARG ILE ASP GLN ILE GLU GLU LEU GLU SER ASP SER ILE GLU SER ILE THR ASP GLY ALA SER SER ARG ARG ASN GLN LEU LEU VAL ASP LEU GLY SER GLU ASN LEU
LEU GLY ALA ILE ASP GLY ALA ALA GLU SER ASP LEU ALA GLY LEU ARG SER GLN VAL THR LYS LEU GLU ALA ARG GLY PRO VAL LEU SER ASP ALA ILE ASN ASP GLN LEU ARG THR VAL LEU GLY PRO SER GLY LYS ARG PRO GLY GLY ALA ILE ALA GLU ARG VAL LYS
LYS THR TRP GLU LEU GLY GLU GLY TRP ALA LYS HIS VAL THR VAL GLU VAL ALA LEU GLY THR ARG GLY GLY SER SER VAL ARG GLY GLY ALA MET GLY HIS LEU HIS GLU GLY ALA LEU ASP ALA ALA SER VAL ARG VAL ASP LYS VAL ILE ASP ALA ALA VAL ALA SER ALA ALA
GLN GLY VAL SER VAL ALA LEU PRO SER ALA GLY GLY SER GLY GLY GLY ALA THR ILE ASP A1963 A1964 A1965 L1966 S1967 E1968 F1969 T1970 D1971 Q1972 G1975 R1976 E1977 L1980 R1985 L1986 V1987 L1988 G1989 Q1990 L1991 G1992 L1993 D1994 D1995 P1996 V1997 N1998 A1999 L2000 P2001 A2002 A2003 P2004 D2005 S2006 E2007 L2008


I2009 D2010 L2011 V2027 A2033 V2034 V2035 R2039 R2044 L2052 T2053 D2054 I2058 A2066 E2067 R2068 S2087 R2092 Q2093 I2094 R2101 E2107 R2113 Y2114 V2118 V2121 T2122 G2123 A2124 I2129 V2134 A2135 R2136 L2137 V2144 I2145 A2146 D2152 E2153 E2154 R2155
Y2159 D2165 H2166 A2167 R2168 W2174 L2175 N2179 M2180 A2188 E2191 W2192 Q2197 L2201 G2202 P2203 H2207 I2208 K2209 D2210 A2211 Q2212 T2215 L2216 L2217 F2218 A2221 A2222 P2223 R2224 V2225 V2226 G2227 D2228 L2229 S2230 E2231 A2232 R2235 M2238 K2241 V2242 L2243 L2244 W2245 A2246 V2247
I2251 A2259 D2262 S2265 R2266 L2267 H2268 V2269 G2273 S2274 PRO ASN ARG GLY MET PHE GLY GLY D2283 A2289 K2290 L2293 D2294 A2295 V2296 V2297 W2300 H2301 A2302 E2303 S2304 S2305 A2308 R2309 V2310 S2311 L2312 A2313 H2314 A2315 L2316 I2317 G2318 W2319 T2320 R2321 G2322 T2323 GLY LEU MET
GLY HIS N2329 D2330 A2331 I2332 V2333 A2334 A2335 V2336 E2337 G2340 V2341 S2345 M2349 A2350 A2351 C2357 E2360 S2361 K2362 V2363 A2366 R2367 S2368 P2369 I2370 D2373 L2374 T2375 L2378 A2379 L2388 A2389 A2390 K2391 A2392 R2393 E2394 Q2395 M2396 S2397 A2398 A2399 A2400 A2401 V2402 D2403 E2404 D2405 A2406
E2407 A2408 I2412 P2416 S2417 P2418 P2419 R2420 W2430 L2433 D2434 V2435 A2438 D2439 L2440 V2441 V2442 I2443 V2444 G2445 G2446 Y2452 T2457 M2461 E2462 V2463 E2464 L2467 L2475 I2482 R2483 D2486 D2487 P2488 Q2489 P2490 G2491 T2495 E2499 M2500 H2511 V2515 Q2516 R2517
V2518 G2519 I2520 R2521 A2528 I2529 D2530 P2531 D2532 H2533 A2534 S2535 P2536 L2537 L2538 V2539 S2540 V2541 F2542 L2543 V2544 E2544 K2545 D2546 A2555 D2556 A2557 R2558 V2561 E2562 F2563 D2564 P2565 E2566 H2567 T2568 V2569 I2570 R2571 P2572 V2573 P2574 D2575 S2576 W2579 Q2580 V2581 I2582 R2583 K2584 A2585 G2586 T2587 E2588 P2592 R2593
K2594 T2595 K2596 Q2604 I2605 P2606 W2614 L2627 A2628 N2631 D2637 A2638 F2639 L2640 S2641 F2644 E2648 Y2652 V2653 H2654 L2657 V2658 A2659 N2660 T2661 Q2662 G2663 T2664 G2665 M2666 G2667 G2668 M2672 Q2673 T2674 M2675 Y2676 H2677 G2678 N2679 L2680 L2681 G2682 R2683 N2684 K2685 P2686 N2687 D2688 I2689
F2690 Q2691 E2692 V2693 L2694 P2695 N2696 I2697 I2698 A2699 V2702 V2703 Q2704 S2705 Y2706 V2707 G2708 S2709 Y2710 G2711 A2712 M2713 I2714 H2715 P2716 V2717 A2718 A2719 C2720 A2723 A2724 V2725 S2726 V2727 E2728 E2729 G2730 V2731 D2732 K2733 I2734 R2735 Q2740 L2741 L2747 D2748 D2749 L2750 T2751 I2755 I2756 G2757 F2758 G2759
T2764 T2767 S2768 M2769 M2770 C2771 R2782 D2785 R2786 R2787 R2788 L2789 G2790 Q2795 G2796 I2800 A2803 R2804 G2805 D2806 L2807 R2810 M2811 V2818 D2827 G2828 V2829 H2830 T2831 S2832 I2833 P2834 A2835 P2836 A2840 A2853 K2858 L2859 G2860 V2861 D2865 I2869 H2872 D2873 T2874
S2875 T2876 P2881 N2882 E2883 T2884 E2885 L2886 R2889 L2894 G2895 R2896 A2900 P2901 L2902 H2913 G2916 A2919 M2923 P2936 D2945 D2946 E2947 V2955 L2963 K2970 M2973 L2974 L2977 G2978 F2979 G2980 H2981 V2982 L2985 V2986 L2998 D2999 R3003 R3013
Q3018 R3019 R3020 L3021 A3029 P3030 M3031 R3034 P3035 GLY ASP ARG ARG PHE ASP HIS HIS ALA PRO GLU ARG PRO GLN GLU ALA SER MET LEU LEU ASN PRO ALA ALA ARG LEU GLY ASP GLY GLU ALA TYR ILE GLY

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	113758	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	40	Depositor
Minimum defocus (nm)	600	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	0.517	Depositor
Minimum map value	-0.288	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.021	Depositor
Recommended contour level	0.05	Depositor
Map size (Å)	372.0, 372.0, 372.0	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.93, 0.93, 0.93	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: FMN

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	0.13	0/21209	0.36	3/28918 (0.0%)
1	B	0.13	0/21210	0.38	4/28919 (0.0%)
1	C	0.14	0/21200	0.49	9/28905 (0.0%)
1	D	0.13	0/21223	0.36	5/28935 (0.0%)
1	E	0.21	3/21203 (0.0%)	0.46	13/28909 (0.0%)
1	F	0.13	0/21213	0.36	4/28923 (0.0%)
All	All	0.15	3/127258 (0.0%)	0.41	38/173509 (0.0%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	2223	PRO	CG-CD	-20.42	0.81	1.50
1	E	2223	PRO	CB-CG	10.05	1.99	1.49
1	E	2223	PRO	N-CD	5.72	1.55	1.47

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	1707	GLU	CA-C-N	33.23	170.59	122.40
1	C	1707	GLU	C-N-CA	33.23	170.59	122.40
1	C	1707	GLU	N-CA-C	-27.44	68.80	109.96
1	E	2223	PRO	N-CD-CG	-24.95	65.78	103.20
1	E	1708	TYR	N-CA-C	19.89	135.88	111.02
1	E	2223	PRO	CA-CB-CG	-19.39	67.66	104.50
1	E	1707	GLU	N-CA-C	-16.52	85.49	110.10
1	B	1707	GLU	N-CA-C	-15.89	86.43	110.10
1	E	2223	PRO	N-CA-CB	-15.05	87.45	103.25
1	B	1708	TYR	N-CA-C	13.39	130.27	111.52
1	C	1707	GLU	CB-CA-C	-13.20	88.78	109.89
1	B	1707	GLU	CB-CA-C	-11.48	91.99	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	1707	GLU	CB-CA-C	-10.78	93.09	109.90
1	C	2684	ASN	CB-CA-C	9.96	122.05	109.80
1	E	2223	PRO	CB-CG-CD	-9.25	76.51	106.10
1	C	1397	PRO	CA-N-CD	-9.15	99.19	112.00
1	E	1397	PRO	CA-N-CD	-8.43	100.20	112.00
1	D	1706	PRO	CA-N-CD	-8.30	100.38	112.00
1	E	2223	PRO	CA-N-CD	-8.16	100.58	112.00
1	E	2683	ARG	N-CA-C	-8.10	99.02	110.35
1	F	2683	ARG	N-CA-C	-6.78	98.88	109.25
1	C	2684	ASN	N-CA-C	-6.45	101.10	110.64
1	E	2683	ARG	CB-CA-C	6.44	119.78	109.61
1	C	2109	PRO	CA-N-CD	-6.38	103.07	112.00
1	D	2109	PRO	CA-N-CD	-6.17	103.36	112.00
1	B	2683	ARG	N-CA-C	-6.10	101.51	110.42
1	A	1706	PRO	CA-N-CD	-5.93	103.70	112.00
1	E	2223	PRO	N-CA-C	5.83	124.48	112.47
1	F	1706	PRO	CA-N-CD	-5.58	104.18	112.00
1	F	188	ILE	N-CA-C	-5.43	107.07	111.91
1	C	1708	TYR	N-CA-C	-5.41	105.31	112.24
1	D	2683	ARG	N-CA-C	-5.39	102.66	110.64
1	A	2683	ARG	N-CA-C	-5.33	102.75	110.64
1	D	1706	PRO	CB-CA-C	-5.22	102.95	111.56
1	D	1706	PRO	N-CA-C	5.13	123.05	112.47
1	E	107	LYS	CA-CB-CG	5.09	124.29	114.10
1	F	2202	GLY	N-CA-C	5.08	122.70	112.34
1	A	107	LYS	CA-CB-CG	5.01	124.13	114.10

There are no chirality outliers.

There are no planarity outliers.

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	20787	0	20642	542	0
1	B	20788	0	20644	569	0
1	C	20779	0	20631	600	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	20801	0	20661	570	0
1	E	20782	0	20632	569	0
1	F	20791	0	20646	571	0
2	A	31	0	19	4	0
2	B	31	0	19	4	0
2	C	31	0	19	5	0
2	D	31	0	19	4	0
2	E	31	0	19	4	0
2	F	31	0	19	4	0
All	All	124914	0	123970	3306	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 13.

All (3306) 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:C:2677:HIS:HB3	1:C:2683:ARG:NH1	1.62	1.13
1:C:2677:HIS:CB	1:C:2683:ARG:HH12	1.62	1.10
1:C:1705:LEU:O	1:C:1707:GLU:O	1.69	1.09
1:F:2678:GLY:HA2	1:F:2683:ARG:HD3	1.40	1.03
1:F:2681:LEU:HB2	1:F:2683:ARG:HD2	1.44	0.99
1:C:1705:LEU:HG	1:C:1707:GLU:O	1.66	0.96
1:C:2677:HIS:HB3	1:C:2683:ARG:HH12	0.81	0.95
1:E:1705:LEU:O	1:E:1707:GLU:O	1.92	0.87
1:C:1702:THR:HG22	1:C:1708:TYR:HE1	1.40	0.85
1:F:1408:GLN:HE22	1:F:1439:VAL:HG21	1.41	0.84
1:D:1060:GLU:HB2	1:E:185:ARG:HD2	1.58	0.84
1:B:1408:GLN:HE22	1:B:1439:VAL:HG21	1.42	0.83
1:F:229:ILE:HG12	1:F:237:VAL:HG22	1.61	0.82
1:A:2686:PRO:HG2	1:A:2689:ILE:HB	1.62	0.81
1:A:119:VAL:HG23	1:A:150:GLN:HE22	1.45	0.81
1:D:631:ASP:N	1:D:631:ASP:OD1	2.14	0.81
1:E:1397:PRO:HD2	1:E:1398:ASP:H	1.42	0.81
1:C:2716:PRO:HA	1:E:2716:PRO:HA	1.63	0.81
1:D:495:ARG:HB3	1:D:498:GLN:HB2	1.60	0.81
1:B:495:ARG:HB3	1:B:498:GLN:HB2	1.61	0.81
1:E:2686:PRO:HG2	1:E:2689:ILE:HB	1.63	0.80
1:C:631:ASP:N	1:C:631:ASP:OD1	2.13	0.80
1:F:495:ARG:HB3	1:F:498:GLN:HB2	1.64	0.80
1:A:1433:ILE:HG22	1:A:1597:ARG:HA	1.64	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1433:ILE:HG22	1:D:1597:ARG:HA	1.65	0.79
1:C:495:ARG:HB3	1:C:498:GLN:HB2	1.63	0.79
1:A:495:ARG:HB3	1:A:498:GLN:HB2	1.63	0.79
1:F:1624:GLU:HG2	1:F:1625:PRO:HD3	1.64	0.79
1:D:1624:GLU:HG2	1:D:1625:PRO:HD3	1.65	0.79
1:A:2840:ALA:HB3	1:A:2886:LEU:HD11	1.65	0.79
1:A:1060:GLU:HB2	1:B:185:ARG:HD2	1.65	0.79
1:F:1433:ILE:HG22	1:F:1597:ARG:HA	1.65	0.79
1:B:1433:ILE:HG22	1:B:1597:ARG:HA	1.65	0.78
1:C:1624:GLU:HG2	1:C:1625:PRO:HD3	1.65	0.78
1:D:2840:ALA:HB3	1:D:2886:LEU:HD11	1.64	0.78
1:C:1433:ILE:HG22	1:C:1597:ARG:HA	1.64	0.78
1:C:2712:ALA:HB3	1:C:2733:LYS:HZ2	1.49	0.78
1:E:1433:ILE:HG22	1:E:1597:ARG:HA	1.64	0.78
1:F:1271:ARG:O	1:F:1271:ARG:NH1	2.16	0.78
1:B:1705:LEU:O	1:B:1707:GLU:O	2.01	0.77
1:B:2712:ALA:HB3	1:B:2733:LYS:HZ2	1.49	0.77
1:E:2840:ALA:HB3	1:E:2886:LEU:HD11	1.64	0.77
1:B:991:LEU:HD23	1:B:1002:ILE:HD11	1.66	0.77
1:F:991:LEU:HD23	1:F:1002:ILE:HD11	1.67	0.77
1:A:1624:GLU:HG2	1:A:1625:PRO:HD3	1.64	0.77
1:B:1690:LYS:HG2	1:B:1719:GLU:HB3	1.66	0.77
1:E:1624:GLU:HG2	1:E:1625:PRO:HD3	1.64	0.77
1:F:1686:GLU:HG3	1:F:1695:VAL:HB	1.66	0.77
1:C:2840:ALA:HB3	1:C:2886:LEU:HD11	1.64	0.77
1:F:2758:PHE:HB3	1:F:2764:THR:HG21	1.67	0.76
1:B:1624:GLU:HG2	1:B:1625:PRO:HD3	1.66	0.76
1:B:1686:GLU:HG3	1:B:1695:VAL:HB	1.67	0.76
1:B:1060:GLU:HB2	1:C:185:ARG:HD2	1.67	0.76
1:E:1418:GLN:NE2	1:E:1421:GLU:OE1	2.19	0.76
1:F:2840:ALA:HB3	1:F:2886:LEU:HD11	1.68	0.76
1:B:1117:LEU:HD11	1:B:1176:PHE:HB3	1.67	0.75
1:B:2716:PRO:HA	1:F:2716:PRO:HA	1.67	0.75
1:B:2678:GLY:HA2	1:B:2683:ARG:HD3	1.68	0.75
1:E:1060:GLU:HB2	1:F:185:ARG:HG3	1.68	0.75
1:B:2758:PHE:HB3	1:B:2764:THR:HG21	1.68	0.75
1:D:1083:VAL:HG22	1:D:1260:GLN:HE21	1.50	0.75
1:E:495:ARG:HB3	1:E:498:GLN:HB2	1.66	0.75
1:B:1349:GLU:OE1	1:B:1349:GLU:N	2.20	0.74
1:B:2686:PRO:HG2	1:B:2689:ILE:HB	1.69	0.74
1:D:2675:MET:HA	1:D:2685:LYS:HE2	1.69	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1339:GLN:OE1	1:F:1408:GLN:NE2	2.20	0.74
1:A:397:VAL:HG12	1:A:916:PRO:HB3	1.68	0.74
1:A:2784:ASN:HD22	1:A:2956:TRP:HE1	1.35	0.74
1:B:2231:GLU:HG2	1:B:2235:ARG:HB2	1.69	0.74
1:D:991:LEU:HD23	1:D:1002:ILE:HD11	1.70	0.74
1:E:397:VAL:HG12	1:E:916:PRO:HB3	1.69	0.74
1:A:47:GLU:N	1:A:47:GLU:OE2	2.21	0.73
1:D:185:ARG:HG3	1:F:1060:GLU:HB2	1.69	0.73
1:D:1982:SER:HA	1:D:1985:ARG:HE	1.53	0.73
1:E:47:GLU:N	1:E:47:GLU:OE2	2.20	0.73
1:C:2231:GLU:HG2	1:C:2235:ARG:HB2	1.71	0.73
1:F:2231:GLU:HG2	1:F:2235:ARG:HB2	1.70	0.73
1:F:1117:LEU:HD11	1:F:1176:PHE:HB3	1.69	0.73
1:A:2628:ALA:HA	1:A:2698:ILE:HG23	1.69	0.73
1:A:2716:PRO:HA	1:D:2716:PRO:HA	1.70	0.73
1:C:1397:PRO:HD2	1:C:1398:ASP:H	1.50	0.73
1:F:2788:ARG:NH1	1:F:2945:ASP:OD2	2.21	0.73
1:C:587:THR:HG22	1:C:591:LEU:HG	1.71	0.73
1:C:1058:HIS:HB2	1:C:1061:ARG:HD3	1.70	0.73
1:D:1349:GLU:OE1	1:D:1349:GLU:N	2.20	0.73
1:D:783:ARG:HE	1:D:2415:LEU:HB3	1.54	0.73
1:E:2784:ASN:HD22	1:E:2956:TRP:HE1	1.37	0.73
1:C:47:GLU:OE1	1:C:47:GLU:N	2.21	0.72
1:C:2758:PHE:HB3	1:C:2764:THR:HG21	1.71	0.72
1:D:2686:PRO:HB2	1:D:2689:ILE:HB	1.69	0.72
1:E:963:GLN:OE1	1:E:963:GLN:N	2.22	0.72
1:A:1181:ARG:H	1:A:1181:ARG:HD2	1.53	0.72
1:D:47:GLU:OE1	1:D:47:GLU:N	2.21	0.72
1:D:2712:ALA:HB3	1:D:2733:LYS:HZ2	1.54	0.72
1:E:2628:ALA:HA	1:E:2698:ILE:HG23	1.71	0.72
1:A:1388:ILE:HG13	1:A:1393:HIS:HB2	1.70	0.72
1:F:2678:GLY:HA2	1:F:2683:ARG:HB2	1.69	0.72
1:C:991:LEU:HD23	1:C:1002:ILE:HD11	1.70	0.72
1:F:1638:ARG:NH1	1:F:1638:ARG:HA	2.03	0.72
1:F:2247:VAL:O	1:F:2251:ILE:HG12	1.90	0.72
1:A:2712:ALA:HB3	1:A:2733:LYS:HZ2	1.55	0.72
1:B:1519:PHE:HB3	1:B:1664:ILE:HG22	1.72	0.72
1:B:2840:ALA:HB3	1:B:2886:LEU:HD11	1.71	0.72
1:D:587:THR:HG22	1:D:591:LEU:HG	1.70	0.72
1:B:2678:GLY:HA2	1:B:2683:ARG:HB2	1.71	0.71
1:E:2201:LEU:HD22	1:E:2202:GLY:H	1.55	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2231:GLU:HG2	1:E:2235:ARG:HB2	1.72	0.71
1:F:2201:LEU:HD13	1:F:2203:PRO:HD2	1.70	0.71
1:B:963:GLN:OE1	1:B:963:GLN:N	2.24	0.71
1:B:1339:GLN:OE1	1:B:1408:GLN:NE2	2.23	0.71
1:C:2861:VAL:HG13	1:C:2865:ASP:HB3	1.72	0.71
1:C:2686:PRO:HG2	1:C:2689:ILE:HB	1.71	0.71
1:A:2067:GLU:OE1	1:A:2168:ARG:NH1	2.24	0.71
1:A:2231:GLU:HG2	1:A:2235:ARG:HB2	1.72	0.71
1:B:2247:VAL:O	1:B:2251:ILE:HG12	1.91	0.71
1:A:2442:VAL:HG12	1:A:2818:VAL:HG22	1.73	0.71
1:C:119:VAL:HG23	1:C:150:GLN:HE22	1.55	0.71
1:F:2007:GLU:O	1:F:2011:LEU:HD23	1.91	0.71
1:B:397:VAL:HG12	1:B:916:PRO:HB3	1.72	0.71
1:E:2297:VAL:O	1:E:2301:HIS:ND1	2.23	0.71
1:D:2861:VAL:HG13	1:D:2865:ASP:HB3	1.72	0.70
1:F:119:VAL:HG23	1:F:150:GLN:HE22	1.56	0.70
1:F:397:VAL:HG12	1:F:916:PRO:HB3	1.71	0.70
1:A:207:ARG:O	1:A:211:LEU:HD23	1.91	0.70
1:B:2201:LEU:HD13	1:B:2203:PRO:HD2	1.72	0.70
1:B:2714:ILE:HB	1:B:2729:GLU:OE1	1.91	0.70
1:D:2714:ILE:HB	1:D:2729:GLU:OE2	1.91	0.70
1:F:1519:PHE:HB3	1:F:1664:ILE:HG22	1.73	0.70
1:B:2267:LEU:O	1:B:2311:SER:N	2.23	0.70
1:D:2231:GLU:HG2	1:D:2235:ARG:HB2	1.72	0.70
1:F:2267:LEU:O	1:F:2311:SER:N	2.24	0.70
1:D:2461:MET:HE2	1:D:2461:MET:HA	1.73	0.70
1:D:2758:PHE:HB3	1:D:2764:THR:HG21	1.71	0.70
1:F:1438:SER:OG	1:F:1566:HIS:NE2	2.22	0.70
1:E:2682:GLY:O	1:E:2683:ARG:C	2.35	0.70
1:F:2067:GLU:OE1	1:F:2168:ARG:NH1	2.24	0.70
1:B:167:GLU:O	1:B:171:LEU:HD12	1.92	0.70
1:D:2297:VAL:O	1:D:2301:HIS:ND1	2.24	0.70
1:E:1117:LEU:HD11	1:E:1176:PHE:HB3	1.74	0.70
1:A:587:THR:HG22	1:A:591:LEU:HG	1.74	0.69
1:C:2201:LEU:HD13	1:C:2203:PRO:HD2	1.74	0.69
1:D:29:MET:HA	1:D:29:MET:HE3	1.74	0.69
1:E:2442:VAL:HG12	1:E:2818:VAL:HG22	1.73	0.69
1:C:2681:LEU:HD12	1:C:2683:ARG:HH11	1.57	0.69
1:C:2717:VAL:HA	1:C:2722:THR:HG22	1.74	0.69
1:E:2712:ALA:HB3	1:E:2733:LYS:HZ2	1.57	0.69
1:D:2241:LYS:HA	1:D:2245:TRP:HD1	1.55	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:167:GLU:O	1:F:171:LEU:HD12	1.92	0.69
1:F:2201:LEU:HD22	1:F:2202:GLY:H	1.56	0.69
1:C:2628:ALA:HA	1:C:2698:ILE:HG23	1.74	0.69
1:D:2201:LEU:HD13	1:D:2203:PRO:HD2	1.74	0.69
1:F:2686:PRO:HG2	1:F:2689:ILE:HB	1.73	0.69
1:B:2442:VAL:HG12	1:B:2818:VAL:HG22	1.75	0.69
1:B:2463:VAL:HG12	1:B:2464:GLU:HG3	1.75	0.69
1:F:2786:ARG:NH2	1:F:2946:ASP:OD2	2.26	0.69
1:B:1130:LEU:HD12	1:B:1131:PRO:HD2	1.74	0.69
1:D:1705:LEU:HD12	1:D:1707:GLU:H	1.57	0.69
1:F:29:MET:HA	1:F:29:MET:HE3	1.75	0.69
1:F:2442:VAL:HG12	1:F:2818:VAL:HG22	1.74	0.69
1:F:1130:LEU:HD12	1:F:1131:PRO:HD2	1.75	0.69
1:B:119:VAL:HG23	1:B:150:GLN:HE22	1.58	0.68
1:F:2712:ALA:HB3	1:F:2733:LYS:HZ2	1.58	0.68
1:A:1060:GLU:OE2	1:A:1061:ARG:NH1	2.25	0.68
1:A:2627:LEU:HD12	1:A:2668:GLY:H	1.57	0.68
1:A:2982:VAL:HG23	1:D:2713:MET:HB2	1.75	0.68
1:C:2723:ALA:HB3	1:C:2919:ALA:HB3	1.75	0.68
1:E:1702:THR:HA	1:E:1705:LEU:HD22	1.74	0.68
1:E:2201:LEU:HD13	1:E:2203:PRO:HD2	1.75	0.68
1:F:963:GLN:N	1:F:963:GLN:OE1	2.27	0.68
1:A:1456:ALA:O	1:A:1460:MET:HG2	1.93	0.68
1:C:29:MET:HA	1:C:29:MET:HE3	1.74	0.68
1:C:654:MET:HE1	1:C:690:ASN:HB3	1.74	0.68
1:C:1705:LEU:C	1:C:1707:GLU:O	2.35	0.68
1:D:2769:MET:SD	1:D:2769:MET:N	2.67	0.68
1:F:2332:ILE:H	1:F:2332:ILE:HD12	1.57	0.68
1:C:1159:VAL:HG23	1:C:1172:LEU:HB2	1.76	0.68
1:D:654:MET:HE1	1:D:690:ASN:HB3	1.76	0.68
1:D:951:ASN:HB3	1:D:954:HIS:HB2	1.76	0.68
1:D:2628:ALA:HA	1:D:2698:ILE:HG23	1.75	0.68
1:D:2788:ARG:NH1	1:D:2945:ASP:OD2	2.26	0.68
1:E:168:LEU:HA	1:E:171:LEU:HD23	1.76	0.68
1:A:168:LEU:HA	1:A:171:LEU:HD23	1.76	0.68
1:B:2769:MET:N	1:B:2769:MET:SD	2.67	0.68
1:D:2442:VAL:HG12	1:D:2818:VAL:HG22	1.75	0.68
1:E:1336:PHE:HE1	1:E:1687:ILE:HD12	1.58	0.68
1:E:2007:GLU:O	1:E:2011:LEU:HD23	1.94	0.68
1:B:1060:GLU:OE2	1:B:1061:ARG:NH1	2.26	0.68
1:E:1339:GLN:NE2	1:E:1408:GLN:OE1	2.27	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:397:VAL:HG12	1:C:916:PRO:HB3	1.76	0.68
1:E:1422:MET:HE1	1:E:1725:LEU:HD21	1.75	0.68
1:A:2696:ASN:HB3	1:D:2717:VAL:HG12	1.73	0.67
1:A:2861:VAL:HG13	1:A:2865:ASP:HB3	1.76	0.67
1:C:2217:LEU:HB3	1:C:2269:VAL:HG22	1.77	0.67
1:A:1418:GLN:NE2	1:A:1421:GLU:OE1	2.26	0.67
1:D:1144:ALA:HB3	1:D:1156:PRO:HG2	1.77	0.67
1:A:1339:GLN:OE1	1:A:1408:GLN:NE2	2.28	0.67
1:C:2717:VAL:HG12	1:E:2696:ASN:HB3	1.76	0.67
1:C:2769:MET:N	1:C:2769:MET:SD	2.67	0.67
1:F:2121:VAL:HG22	1:F:2218:PHE:HB2	1.76	0.67
1:A:2153:GLU:OE2	1:A:2153:GLU:N	2.24	0.67
1:A:2703:VAL:HG21	1:A:2713:MET:HE1	1.77	0.67
1:C:2367:ARG:NH1	1:C:2368:SER:OG	2.27	0.67
1:C:2696:ASN:HB3	1:E:2717:VAL:HG12	1.77	0.67
1:D:2241:LYS:HA	1:D:2245:TRP:CD1	2.29	0.67
1:C:951:ASN:HB3	1:C:954:HIS:HB2	1.76	0.67
1:C:2297:VAL:O	1:C:2301:HIS:ND1	2.27	0.67
1:E:1602:LEU:HD21	1:E:1652:LEU:HG	1.75	0.67
1:A:654:MET:HE1	1:A:690:ASN:HB3	1.77	0.67
1:A:1117:LEU:HD11	1:A:1176:PHE:HB3	1.76	0.67
1:E:1388:ILE:HG13	1:E:1393:HIS:HB2	1.77	0.67
1:B:1488:ARG:HG3	1:B:1524:SER:HB2	1.77	0.67
1:F:513:SER:OG	2:F:3101:FMN:O2	2.09	0.67
1:A:1519:PHE:HB3	1:A:1664:ILE:HG22	1.76	0.67
1:C:1144:ALA:HB3	1:C:1156:PRO:HG2	1.76	0.67
1:D:1992:GLY:HA3	1:E:2571:ARG:HG3	1.77	0.67
1:E:1336:PHE:HE2	1:E:1444:ALA:HA	1.59	0.67
1:F:2192:TRP:NE1	1:F:2197:GLN:OE1	2.28	0.67
1:B:513:SER:OG	2:B:3101:FMN:O2	2.10	0.67
1:F:2769:MET:N	1:F:2769:MET:SD	2.68	0.67
1:B:2121:VAL:HG22	1:B:2218:PHE:HB2	1.76	0.66
1:D:397:VAL:HG12	1:D:916:PRO:HB3	1.76	0.66
1:D:2665:GLY:HA2	1:D:2722:THR:HG21	1.75	0.66
1:E:2786:ARG:NH2	1:E:2946:ASP:OD1	2.27	0.66
1:A:2675:MET:HA	1:A:2685:LYS:HD3	1.77	0.66
1:B:2153:GLU:N	1:B:2153:GLU:OE2	2.27	0.66
1:D:448:ALA:O	1:D:452:GLN:NE2	2.27	0.66
1:D:2723:ALA:HB3	1:D:2919:ALA:HB3	1.77	0.66
1:A:448:ALA:O	1:A:452:GLN:NE2	2.29	0.66
1:D:1060:GLU:OE2	1:D:1061:ARG:NH1	2.29	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1600:PRO:HB3	1:D:1652:LEU:HD21	1.77	0.66
1:B:1388:ILE:HG13	1:B:1393:HIS:HB2	1.75	0.66
1:B:2708:GLY:HA3	1:F:2829:VAL:HG23	1.77	0.66
1:C:2683:ARG:O	1:C:2684:ASN:C	2.37	0.66
1:B:2829:VAL:HG23	1:F:2708:GLY:HA3	1.76	0.66
1:D:2519:GLY:O	1:D:2521:ARG:NH1	2.28	0.66
1:C:448:ALA:O	1:C:452:GLN:NE2	2.27	0.66
1:C:2788:ARG:NH1	1:C:2945:ASP:OD2	2.26	0.66
1:F:448:ALA:O	1:F:452:GLN:NE2	2.29	0.66
1:B:1438:SER:OG	1:B:1566:HIS:NE2	2.25	0.66
1:E:2703:VAL:HG21	1:E:2713:MET:HE1	1.76	0.66
1:E:2827:ASP:HB2	1:E:2981:HIS:HB3	1.76	0.66
1:F:2714:ILE:HB	1:F:2729:GLU:OE1	1.96	0.66
1:B:2681:LEU:HB2	1:B:2683:ARG:HD2	1.76	0.66
1:C:2442:VAL:HG12	1:C:2818:VAL:HG22	1.75	0.66
1:D:1602:LEU:HD21	1:D:1652:LEU:HG	1.77	0.66
1:A:2266:ARG:HH22	1:A:2308:ALA:HA	1.60	0.66
1:A:2708:GLY:HA3	1:D:2829:VAL:HG23	1.77	0.66
1:D:2273:GLY:HA3	1:D:2314:HIS:HE1	1.61	0.66
1:A:2717:VAL:HG12	1:D:2696:ASN:HB3	1.77	0.66
1:E:654:MET:HE1	1:E:690:ASN:HB3	1.77	0.66
1:B:2192:TRP:NE1	1:B:2197:GLN:OE1	2.29	0.65
1:C:1117:LEU:HD11	1:C:1176:PHE:HB3	1.77	0.65
1:E:2266:ARG:HH22	1:E:2308:ALA:HA	1.61	0.65
1:D:1159:VAL:HG23	1:D:1172:LEU:HB2	1.76	0.65
1:D:1401:LEU:O	1:D:1407:THR:OG1	2.11	0.65
1:A:2332:ILE:H	1:A:2332:ILE:HD12	1.61	0.65
1:A:2714:ILE:HG23	1:D:2725:VAL:HG22	1.77	0.65
1:D:1488:ARG:HG3	1:D:1524:SER:HB2	1.78	0.65
1:D:1542:VAL:HG11	1:D:1555:PHE:HB2	1.78	0.65
1:F:825:HIS:HD2	1:F:2418:PRO:HA	1.61	0.65
1:A:2571:ARG:HG3	1:C:1992:GLY:HA3	1.79	0.65
1:C:498:GLN:HG3	1:C:532:ILE:HD13	1.77	0.65
1:D:2420:ARG:O	1:D:3018:GLN:NE2	2.28	0.65
1:A:1600:PRO:HB3	1:A:1652:LEU:HD21	1.77	0.65
1:A:2267:LEU:O	1:A:2311:SER:N	2.30	0.65
1:A:2699:ALA:O	1:A:2703:VAL:HG23	1.97	0.65
1:B:825:HIS:HD2	1:B:2418:PRO:HA	1.61	0.65
1:D:150:GLN:HG3	1:D:319:ILE:HD11	1.77	0.65
1:E:283:GLU:HG2	1:E:284:VAL:HG13	1.79	0.65
1:F:2681:LEU:HB2	1:F:2683:ARG:CD	2.25	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1602:LEU:HD21	1:A:1652:LEU:HG	1.79	0.65
1:B:1992:GLY:HA3	1:C:2571:ARG:HG3	1.78	0.65
1:B:2231:GLU:O	1:B:2235:ARG:N	2.27	0.65
1:B:2717:VAL:HG11	1:F:2695:PRO:HB2	1.78	0.65
1:B:2732:ASP:OD1	1:B:2733:LYS:N	2.29	0.65
1:F:2463:VAL:HG12	1:F:2464:GLU:HG3	1.78	0.65
1:B:263:ARG:NH2	1:B:577:TRP:O	2.29	0.65
1:D:2673:GLN:O	1:D:2677:HIS:ND1	2.28	0.65
1:E:1333:VAL:HG11	1:E:1670:LEU:HD21	1.77	0.65
1:F:1600:PRO:HB3	1:F:1652:LEU:HD21	1.79	0.65
1:B:951:ASN:HB3	1:B:954:HIS:HB2	1.78	0.65
1:B:2420:ARG:O	1:B:3018:GLN:NE2	2.28	0.65
1:B:2628:ALA:HA	1:B:2698:ILE:HG23	1.79	0.65
1:E:1336:PHE:CE1	1:E:1687:ILE:HD12	2.31	0.65
1:E:1519:PHE:HB3	1:E:1664:ILE:HG22	1.79	0.65
1:A:610:ARG:NH1	1:A:613:GLU:OE2	2.30	0.65
1:A:1419:VAL:HG11	1:A:1447:CYS:HB3	1.79	0.65
1:A:2519:GLY:O	1:A:2521:ARG:NH1	2.30	0.65
1:F:800:GLY:O	1:F:804:ASN:ND2	2.30	0.65
1:F:2749:ASP:OD1	1:F:2795:GLN:NE2	2.30	0.65
1:A:1992:GLY:HA3	1:B:2571:ARG:HG3	1.80	0.64
1:C:610:ARG:NH1	1:C:613:GLU:OE2	2.30	0.64
1:B:448:ALA:O	1:B:452:GLN:NE2	2.29	0.64
1:C:1418:GLN:NE2	1:C:1719:GLU:OE1	2.27	0.64
1:D:1686:GLU:OE2	1:D:1717:ASN:ND2	2.31	0.64
1:E:1263:VAL:HG23	1:E:1297:VAL:HG21	1.78	0.64
1:E:1992:GLY:HA3	1:F:2571:ARG:HG3	1.79	0.64
1:F:2519:GLY:O	1:F:2521:ARG:NH1	2.31	0.64
1:B:1204:THR:HG23	1:B:1301:GLY:HA2	1.79	0.64
1:C:2519:GLY:O	1:C:2521:ARG:NH1	2.30	0.64
1:F:1024:THR:HG22	1:F:1111:VAL:HG11	1.79	0.64
1:F:1488:ARG:HG3	1:F:1524:SER:HB2	1.78	0.64
1:A:2231:GLU:O	1:A:2235:ARG:N	2.26	0.64
1:D:1130:LEU:HD12	1:D:1131:PRO:HD2	1.78	0.64
1:E:1341:ILE:HD11	1:E:1411:MET:SD	2.38	0.64
1:E:2699:ALA:O	1:E:2703:VAL:HG23	1.97	0.64
1:A:2829:VAL:HG23	1:D:2708:GLY:HA3	1.79	0.64
1:C:1130:LEU:HD12	1:C:1131:PRO:HD2	1.79	0.64
1:E:1397:PRO:HD2	1:E:1398:ASP:N	2.08	0.64
1:F:25:VAL:HG21	1:F:135:MET:HE2	1.79	0.64
1:D:1985:ARG:HG3	1:D:1986:LEU:HD12	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2571:ARG:HG3	1:F:1992:GLY:HA3	1.78	0.64
1:C:2677:HIS:CB	1:C:2683:ARG:NH1	2.38	0.64
1:D:1117:LEU:HD11	1:D:1176:PHE:HB3	1.79	0.64
1:E:2121:VAL:HG22	1:E:2218:PHE:HB2	1.79	0.64
1:A:522:ALA:O	1:A:526:ILE:HG13	1.98	0.64
1:C:783:ARG:HH11	1:C:2415:LEU:HB3	1.61	0.64
1:A:1263:VAL:HG23	1:A:1297:VAL:HG21	1.79	0.64
1:D:2153:GLU:N	1:D:2153:GLU:OE2	2.31	0.64
1:C:2829:VAL:HG23	1:E:2708:GLY:HA3	1.78	0.64
1:F:2627:LEU:HD12	1:F:2668:GLY:H	1.63	0.64
1:A:120:LEU:HD13	1:A:153:LEU:HD13	1.80	0.63
1:B:610:ARG:NH1	1:B:613:GLU:OE2	2.32	0.63
1:D:2121:VAL:HG22	1:D:2218:PHE:HB2	1.79	0.63
1:E:2267:LEU:O	1:E:2311:SER:N	2.30	0.63
1:F:2420:ARG:O	1:F:3018:GLN:NE2	2.29	0.63
1:A:951:ASN:HB3	1:A:954:HIS:HB2	1.79	0.63
1:A:2297:VAL:O	1:A:2301:HIS:ND1	2.32	0.63
1:A:2769:MET:N	1:A:2769:MET:SD	2.70	0.63
1:C:2896:ARG:HH22	1:C:2902:LEU:HD13	1.63	0.63
1:E:2723:ALA:HB3	1:E:2919:ALA:HB3	1.80	0.63
1:F:795:LEU:HD23	1:F:795:LEU:H	1.64	0.63
1:C:2786:ARG:NH2	1:C:2946:ASP:OD1	2.31	0.63
1:D:2740:GLN:HB3	1:D:2804:ARG:HD3	1.80	0.63
1:B:1975:GLY:O	1:B:1979:VAL:HG23	1.99	0.63
1:C:2678:GLY:HA2	1:C:2683:ARG:HD3	1.79	0.63
1:E:951:ASN:HB3	1:E:954:HIS:HB2	1.79	0.63
1:F:263:ARG:NH2	1:F:577:TRP:O	2.30	0.63
1:F:2467:LEU:HD21	1:F:2475:LEU:HD12	1.80	0.63
1:A:2811:MET:HB3	1:A:2813:LEU:HG	1.80	0.63
1:A:2924:MET:HA	1:A:2924:MET:HE2	1.81	0.63
1:B:2699:ALA:O	1:B:2703:VAL:HG23	1.97	0.63
1:E:2207:HIS:NE2	1:E:2210:ASP:OD1	2.27	0.63
1:F:1046:VAL:HG22	1:F:1051:ALA:HB2	1.80	0.63
1:C:1181:ARG:HD2	1:C:1181:ARG:H	1.63	0.63
1:E:2675:MET:HA	1:E:2685:LYS:HD3	1.81	0.63
1:E:2769:MET:N	1:E:2769:MET:SD	2.70	0.63
1:C:1339:GLN:NE2	1:C:1408:GLN:OE1	2.32	0.63
1:C:1397:PRO:HD2	1:C:1398:ASP:N	2.12	0.63
1:E:2231:GLU:O	1:E:2235:ARG:N	2.26	0.63
1:B:1024:THR:HG22	1:B:1111:VAL:HG11	1.79	0.63
1:C:1454:LEU:HA	1:C:1457:LEU:HD23	1.80	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1144:ALA:HB3	1:A:1156:PRO:HG2	1.81	0.63
1:C:2231:GLU:O	1:C:2235:ARG:N	2.24	0.63
1:E:1060:GLU:OE2	1:E:1061:ARG:NH1	2.32	0.63
1:F:951:ASN:HB3	1:F:954:HIS:HB2	1.80	0.63
1:B:1633:TYR:O	1:B:1637:LEU:N	2.30	0.62
1:C:795:LEU:HD23	1:C:795:LEU:H	1.64	0.62
1:C:1600:PRO:HB3	1:C:1652:LEU:HD21	1.80	0.62
1:F:1204:THR:HG23	1:F:1301:GLY:HA2	1.81	0.62
1:A:2420:ARG:O	1:A:3018:GLN:NE2	2.31	0.62
1:D:417:ARG:NH2	1:D:508:ASP:OD2	2.32	0.62
1:A:1112:GLU:OE1	1:A:1153:ARG:NH1	2.32	0.62
1:B:2467:LEU:HD21	1:B:2475:LEU:HD12	1.81	0.62
1:F:420:ILE:HD12	1:F:633:ILE:HD11	1.82	0.62
1:F:883:SER:OG	2:F:3101:FMN:O2P	2.17	0.62
1:A:2695:PRO:HB2	1:D:2717:VAL:HG11	1.82	0.62
1:B:587:THR:HG22	1:B:591:LEU:HG	1.80	0.62
1:B:1600:PRO:HB3	1:B:1652:LEU:HD21	1.82	0.62
1:C:2673:GLN:O	1:C:2677:HIS:ND1	2.26	0.62
1:D:795:LEU:HD23	1:D:795:LEU:H	1.64	0.62
1:A:175:ILE:HD13	1:A:319:ILE:HG21	1.80	0.62
1:A:540:LYS:HB3	1:A:565:HIS:HB2	1.81	0.62
1:A:783:ARG:HH11	1:A:2415:LEU:HB3	1.65	0.62
1:B:2766:ASP:HB3	1:B:2769:MET:HE1	1.80	0.62
1:C:2267:LEU:O	1:C:2311:SER:N	2.25	0.62
1:D:2786:ARG:NH2	1:D:2946:ASP:OD1	2.31	0.62
1:E:1112:GLU:OE1	1:E:1153:ARG:NH1	2.32	0.62
1:F:1388:ILE:HG13	1:F:1393:HIS:HB3	1.81	0.62
1:A:1360:VAL:HG21	1:A:1417:ALA:HA	1.82	0.62
1:C:768:THR:HG21	1:C:841:LYS:H	1.64	0.62
1:C:2665:GLY:HA2	1:C:2722:THR:HG21	1.81	0.62
1:C:2740:GLN:HB3	1:C:2804:ARG:HD3	1.81	0.62
1:D:883:SER:OG	2:D:3101:FMN:O2P	2.16	0.62
1:E:424:GLY:HA3	1:E:478:ASN:HD22	1.64	0.62
1:F:540:LYS:HB3	1:F:565:HIS:HB2	1.82	0.62
1:A:424:GLY:HA3	1:A:478:ASN:HD22	1.63	0.62
1:B:1046:VAL:HG22	1:B:1051:ALA:HB2	1.82	0.62
1:D:1112:GLU:OE1	1:D:1153:ARG:NH1	2.33	0.62
1:E:1419:VAL:HG11	1:E:1447:CYS:HB3	1.82	0.62
1:E:2039:ARG:HD3	1:E:2167:ALA:HB3	1.80	0.62
1:A:119:VAL:HG12	1:A:346:PRO:HG3	1.82	0.62
1:A:963:GLN:OE1	1:A:963:GLN:N	2.32	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2201:LEU:HD22	1:B:2202:GLY:H	1.64	0.62
1:C:883:SER:OG	2:C:3101:FMN:O2P	2.17	0.62
1:C:2273:GLY:HA3	1:C:2314:HIS:HE1	1.63	0.62
1:D:615:LEU:HD12	1:D:630:ILE:HG13	1.82	0.62
1:D:2294:ASP:HA	1:D:2297:VAL:HG22	1.82	0.62
1:E:540:LYS:HB3	1:E:565:HIS:HB2	1.82	0.62
1:F:2363:VAL:O	1:F:2367:ARG:NH2	2.32	0.62
1:E:29:MET:HA	1:E:29:MET:HE3	1.82	0.62
1:F:2265:SER:O	1:F:2309:ARG:NH2	2.32	0.62
1:B:795:LEU:HD23	1:B:795:LEU:H	1.64	0.61
1:D:963:GLN:OE1	1:D:963:GLN:N	2.32	0.61
1:F:2628:ALA:HA	1:F:2698:ILE:HG23	1.82	0.61
1:D:23:ALA:HB2	1:D:380:VAL:HG13	1.82	0.61
1:F:587:THR:HG22	1:F:591:LEU:HG	1.81	0.61
1:A:1273:PRO:HD2	1:A:1682:GLU:HG2	1.81	0.61
1:C:23:ALA:HB2	1:C:380:VAL:HG13	1.81	0.61
1:C:1997:VAL:HG13	1:C:2000:LEU:HD12	1.82	0.61
1:D:2217:LEU:HB3	1:D:2269:VAL:HG22	1.82	0.61
1:F:1349:GLU:OE2	1:F:1349:GLU:N	2.26	0.61
1:F:1365:ASP:OD1	1:F:1366:LYS:N	2.34	0.61
1:A:2121:VAL:HG22	1:A:2218:PHE:HB2	1.81	0.61
1:C:2521:ARG:NH2	1:C:2605:ILE:O	2.32	0.61
1:E:1144:ALA:HB3	1:E:1156:PRO:HG2	1.83	0.61
1:A:29:MET:HA	1:A:29:MET:HE3	1.82	0.61
1:B:1112:GLU:OE1	1:B:1153:ARG:NH1	2.33	0.61
1:E:1204:THR:HG23	1:E:1301:GLY:HA2	1.81	0.61
1:B:2124:ALA:O	1:B:2159:TYR:OH	2.17	0.61
1:E:2521:ARG:NH2	1:E:2605:ILE:O	2.33	0.61
1:B:29:MET:HA	1:B:29:MET:HE3	1.81	0.61
1:D:1514:LEU:HD21	1:D:1538:LEU:HD21	1.82	0.61
1:E:1600:PRO:HB3	1:E:1652:LEU:HD21	1.83	0.61
1:F:1175:ARG:NH1	1:F:1188:ALA:O	2.26	0.61
1:C:2121:VAL:HG22	1:C:2218:PHE:HB2	1.82	0.61
1:D:1269:GLN:O	1:D:1712:THR:OG1	2.19	0.61
1:D:2627:LEU:HD12	1:D:2668:GLY:H	1.65	0.61
1:B:1365:ASP:OD1	1:B:1366:LYS:N	2.34	0.61
1:B:2749:ASP:OD1	1:B:2795:GLN:NE2	2.34	0.61
1:C:2420:ARG:O	1:C:3018:GLN:NE2	2.30	0.61
1:C:2487:ASP:HB2	1:C:2488:PRO:HD3	1.83	0.61
1:D:610:ARG:NH1	1:D:613:GLU:OE2	2.33	0.61
1:E:1365:ASP:OD1	1:E:1366:LYS:N	2.34	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1690:LYS:HG2	1:E:1719:GLU:HB3	1.81	0.61
1:A:883:SER:OG	2:A:3101:FMN:O2P	2.18	0.61
1:A:1204:THR:HG23	1:A:1301:GLY:HA2	1.82	0.61
1:B:2627:LEU:HD12	1:B:2668:GLY:H	1.66	0.61
1:C:2039:ARG:HD3	1:C:2167:ALA:HB3	1.82	0.61
1:E:883:SER:OG	2:E:3101:FMN:O2P	2.18	0.61
1:E:2519:GLY:O	1:E:2521:ARG:NH1	2.33	0.61
1:F:1181:ARG:H	1:F:1181:ARG:HD2	1.66	0.61
1:F:2251:ILE:HD12	1:F:2269:VAL:HG21	1.82	0.61
1:F:785:HIS:NE2	1:F:787:GLN:HB3	2.16	0.60
1:A:1365:ASP:OD1	1:A:1366:LYS:N	2.34	0.60
1:B:1706:PRO:O	1:B:1707:GLU:C	2.43	0.60
1:E:1127:VAL:HG23	1:E:1129:GLN:H	1.66	0.60
1:E:1333:VAL:HG22	1:E:1433:ILE:HD11	1.83	0.60
1:F:2231:GLU:O	1:F:2235:ARG:N	2.27	0.60
1:B:1978:GLY:HA3	1:D:1985:ARG:HH22	1.67	0.60
1:D:540:LYS:HB3	1:D:565:HIS:HB2	1.82	0.60
1:D:2452:TYR:CD2	1:D:2461:MET:HG3	2.36	0.60
1:E:76:VAL:HG12	1:E:304:LYS:HE3	1.82	0.60
1:F:1112:GLU:OE1	1:F:1153:ARG:NH1	2.34	0.60
1:A:23:ALA:HB2	1:A:380:VAL:HG13	1.83	0.60
1:A:772:ARG:HD3	1:A:835:LEU:HD13	1.83	0.60
1:A:2123:GLY:HA3	1:A:2221:ALA:HA	1.83	0.60
1:B:2123:GLY:HA3	1:B:2221:ALA:HA	1.84	0.60
1:B:2487:ASP:HB2	1:B:2488:PRO:HD3	1.83	0.60
1:B:2682:GLY:O	1:B:2683:ARG:C	2.42	0.60
1:F:2266:ARG:NE	1:F:2310:VAL:O	2.34	0.60
1:B:951:ASN:HD22	1:B:952:PRO:HD2	1.67	0.60
1:D:933:LEU:HD21	1:D:982:LEU:HB3	1.84	0.60
1:F:1060:GLU:OE1	1:F:1061:ARG:NH1	2.34	0.60
1:A:326:TRP:HE1	1:A:354:THR:HG22	1.65	0.60
1:A:1341:ILE:HD11	1:A:1411:MET:SD	2.42	0.60
1:B:25:VAL:HG11	1:B:135:MET:HE2	1.83	0.60
1:B:1181:ARG:H	1:B:1181:ARG:HD2	1.66	0.60
1:E:2420:ARG:O	1:E:3018:GLN:NE2	2.32	0.60
1:A:2723:ALA:HB3	1:A:2919:ALA:HB3	1.83	0.60
1:C:1686:GLU:OE1	1:C:1717:ASN:ND2	2.35	0.60
1:D:1204:THR:HG23	1:D:1301:GLY:HA2	1.82	0.60
1:E:1181:ARG:H	1:E:1181:ARG:HD2	1.67	0.60
1:C:1388:ILE:HG13	1:C:1393:HIS:HB3	1.84	0.60
1:C:2192:TRP:NE1	1:C:2197:GLN:OE1	2.32	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1181:ARG:H	1:D:1181:ARG:HD2	1.65	0.60
1:D:2869:ILE:HD13	1:D:2973:MET:HB2	1.84	0.60
1:C:1161:VAL:HG23	1:C:1169:ILE:HB	1.84	0.60
1:F:951:ASN:HD22	1:F:952:PRO:HD2	1.67	0.60
1:F:2521:ARG:NH2	1:F:2605:ILE:O	2.35	0.60
1:A:795:LEU:HD23	1:A:795:LEU:H	1.67	0.60
1:C:1204:THR:HG23	1:C:1301:GLY:HA2	1.83	0.60
1:C:2708:GLY:HA3	1:E:2829:VAL:HG23	1.81	0.60
1:E:426:THR:OG1	2:E:3101:FMN:O4	2.20	0.60
1:F:1360:VAL:HG21	1:F:1417:ALA:HA	1.84	0.60
1:F:2740:GLN:HB3	1:F:2804:ARG:HD3	1.83	0.60
1:A:2786:ARG:NH2	1:A:2946:ASP:OD1	2.35	0.59
1:B:2521:ARG:NH2	1:B:2605:ILE:O	2.34	0.59
1:B:2786:ARG:NH2	1:B:2946:ASP:OD1	2.34	0.59
1:C:1273:PRO:HD2	1:C:1682:GLU:HG2	1.84	0.59
1:D:420:ILE:HD12	1:D:633:ILE:HD11	1.83	0.59
1:B:785:HIS:NE2	1:B:787:GLN:HB3	2.17	0.59
1:D:1161:VAL:HG23	1:D:1169:ILE:HB	1.84	0.59
1:E:23:ALA:HB2	1:E:380:VAL:HG13	1.83	0.59
1:E:153:LEU:HB3	1:E:315:LEU:HD11	1.84	0.59
1:B:1161:VAL:HG23	1:B:1169:ILE:HB	1.83	0.59
1:C:1636:TRP:HB3	1:C:1644:MET:HE2	1.84	0.59
1:D:1480:SER:O	1:D:1483:ARG:NH1	2.36	0.59
1:D:1602:LEU:O	1:D:1662:ARG:NH1	2.35	0.59
1:E:2639:PHE:HD1	1:E:2644:PHE:HB3	1.67	0.59
1:F:2875:SER:O	1:F:2875:SER:OG	2.21	0.59
1:A:1046:VAL:HG22	1:A:1051:ALA:HB2	1.84	0.59
1:A:1985:ARG:HH11	1:A:1986:LEU:HD13	1.66	0.59
1:B:540:LYS:HB3	1:B:565:HIS:HB2	1.82	0.59
1:B:1360:VAL:HG21	1:B:1417:ALA:HA	1.84	0.59
1:C:2332:ILE:O	1:C:2336:VAL:HG22	2.03	0.59
1:D:243:GLU:OE2	1:F:1710:HIS:ND1	2.34	0.59
1:E:343:ASP:OD2	1:E:351:THR:OG1	2.20	0.59
1:D:498:GLN:HG3	1:D:532:ILE:HD13	1.83	0.59
1:D:2717:VAL:HA	1:D:2722:THR:HG22	1.83	0.59
1:D:2896:ARG:HH22	1:D:2902:LEU:HD13	1.68	0.59
1:E:1175:ARG:NH1	1:E:1188:ALA:O	2.30	0.59
1:B:933:LEU:HD21	1:B:982:LEU:HB3	1.85	0.59
1:E:2247:VAL:O	1:E:2251:ILE:HG13	2.02	0.59
1:F:1161:VAL:HG23	1:F:1169:ILE:HB	1.83	0.59
1:B:883:SER:OG	2:B:3101:FMN:O2P	2.19	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2740:GLN:HB3	1:B:2804:ARG:HD3	1.84	0.59
1:C:2717:VAL:HG11	1:E:2695:PRO:HB2	1.83	0.59
1:D:1997:VAL:HG13	1:D:2000:LEU:HD12	1.84	0.59
1:E:1360:VAL:HG21	1:E:1417:ALA:HA	1.83	0.59
1:E:2782:ARG:NH1	1:E:2785:ASP:OD2	2.35	0.59
1:B:420:ILE:HD12	1:B:633:ILE:HD11	1.84	0.59
1:C:1618:ARG:HD3	1:C:1626:LEU:HB3	1.84	0.59
1:D:1618:ARG:HB2	1:D:1626:LEU:HD12	1.84	0.59
1:D:1640:ARG:O	1:D:1640:ARG:HG2	2.02	0.59
1:F:768:THR:HG21	1:F:841:LYS:H	1.68	0.59
1:A:1469:HIS:O	1:A:1474:ARG:NH2	2.36	0.59
1:B:23:ALA:HB2	1:B:380:VAL:HG13	1.84	0.59
1:B:2266:ARG:NE	1:B:2310:VAL:O	2.35	0.59
1:C:2303:GLU:HG3	1:C:2305:SER:H	1.68	0.59
1:D:674:MET:HG2	1:D:881:THR:HG22	1.85	0.59
1:F:2487:ASP:HB2	1:F:2488:PRO:HD3	1.85	0.59
1:F:2678:GLY:CA	1:F:2683:ARG:HB2	2.32	0.59
1:A:1269:GLN:O	1:A:1712:THR:OG1	2.21	0.59
1:A:1997:VAL:HG13	1:A:2000:LEU:HD12	1.85	0.59
1:B:2265:SER:O	1:B:2309:ARG:NH2	2.36	0.59
1:C:2677:HIS:C	1:C:2683:ARG:NH1	2.60	0.59
1:D:1273:PRO:HD2	1:D:1682:GLU:HG2	1.84	0.59
1:D:2487:ASP:HB2	1:D:2488:PRO:HD3	1.83	0.59
1:D:3020:ARG:NH2	1:D:3029:ALA:O	2.32	0.59
1:E:1546:ARG:O	1:E:1550:GLY:N	2.36	0.59
1:F:608:PRO:HB3	1:F:901:PHE:HA	1.84	0.59
1:F:1510:THR:HG21	1:F:1534:GLY:HA2	1.85	0.59
1:A:1521:LEU:HB3	1:A:1525:GLN:HB3	1.85	0.58
1:D:263:ARG:NH2	1:D:577:TRP:O	2.30	0.58
1:A:768:THR:HG21	1:A:841:LYS:H	1.66	0.58
1:A:2247:VAL:O	1:A:2251:ILE:HG13	2.02	0.58
1:B:768:THR:HG21	1:B:841:LYS:H	1.69	0.58
1:B:1144:ALA:HB3	1:B:1156:PRO:HG2	1.85	0.58
1:B:1175:ARG:NH1	1:B:1188:ALA:O	2.26	0.58
1:D:1341:ILE:HD11	1:D:1411:MET:SD	2.42	0.58
1:D:1365:ASP:OD1	1:D:1366:LYS:N	2.36	0.58
1:D:2231:GLU:O	1:D:2235:ARG:N	2.28	0.58
1:E:795:LEU:HD23	1:E:795:LEU:H	1.68	0.58
1:E:1480:SER:O	1:E:1483:ARG:NH1	2.36	0.58
1:C:38:PHE:HZ	1:C:158:LEU:HD22	1.68	0.58
1:C:1543:GLU:HB2	1:C:1546:ARG:HH21	1.68	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:38:PHE:HZ	1:D:158:LEU:HD22	1.69	0.58
1:D:2668:GLY:O	1:D:2672:MET:HG2	2.03	0.58
1:E:785:HIS:NE2	1:E:787:GLN:HB3	2.18	0.58
1:E:1104:THR:HG22	1:E:1146:ALA:HB3	1.85	0.58
1:F:610:ARG:NH1	1:F:613:GLU:OE2	2.34	0.58
1:F:933:LEU:HD21	1:F:982:LEU:HB3	1.85	0.58
1:B:73:LEU:HD21	1:B:173:GLN:HE21	1.68	0.58
1:B:1162:THR:HG22	1:B:1168:VAL:HA	1.85	0.58
1:C:1469:HIS:O	1:C:1474:ARG:NH2	2.36	0.58
1:D:1546:ARG:O	1:D:1550:GLY:N	2.35	0.58
1:D:2345:SER:OG	1:D:2348:GLU:OE2	2.19	0.58
1:E:448:ALA:O	1:E:452:GLN:NE2	2.29	0.58
1:E:1255:LEU:HD11	1:E:1287:VAL:HG21	1.86	0.58
1:E:2294:ASP:HA	1:E:2297:VAL:HG22	1.83	0.58
1:A:2487:ASP:HB2	1:A:2488:PRO:HD3	1.85	0.58
1:B:2869:ILE:HD13	1:B:2973:MET:HB2	1.85	0.58
1:C:540:LYS:HB3	1:C:565:HIS:HB2	1.84	0.58
1:C:2201:LEU:HD22	1:C:2202:GLY:H	1.69	0.58
1:C:2782:ARG:NH1	1:C:2785:ASP:OD2	2.35	0.58
1:E:2067:GLU:OE1	1:E:2168:ARG:NH1	2.37	0.58
1:E:2223:PRO:CG	1:E:2224:ARG:N	2.66	0.58
1:F:534:ILE:HG22	1:F:536:HIS:H	1.69	0.58
1:F:2123:GLY:HA3	1:F:2221:ALA:HA	1.85	0.58
1:F:2486:ASP:N	1:F:2486:ASP:OD1	2.37	0.58
1:A:1255:LEU:HD11	1:A:1287:VAL:HG21	1.85	0.58
1:A:2592:PRO:HB2	1:A:2594:LYS:HE3	1.86	0.58
1:B:534:ILE:HG22	1:B:536:HIS:H	1.68	0.58
1:C:2717:VAL:N	1:E:2715:HIS:O	2.37	0.58
1:E:543:THR:OG1	1:E:545:GLU:OE1	2.21	0.58
1:E:1434:ALA:HB1	1:E:1444:ALA:HB1	1.84	0.58
1:F:1144:ALA:HB3	1:F:1156:PRO:HG2	1.85	0.58
1:A:2486:ASP:OD1	1:A:2486:ASP:N	2.36	0.58
1:B:2241:LYS:HA	1:B:2245:TRP:CD1	2.39	0.58
1:C:1160:VAL:HG12	1:C:1171:THR:HG23	1.86	0.58
1:C:1534:GLY:O	1:C:1538:LEU:HD22	2.04	0.58
1:D:105:SER:OG	1:D:108:HIS:ND1	2.33	0.58
1:D:2332:ILE:O	1:D:2336:VAL:HG22	2.03	0.58
1:D:2782:ARG:NH1	1:D:2785:ASP:OD2	2.36	0.58
1:D:2790:GLY:HA2	1:D:2876:THR:HG23	1.85	0.58
1:E:2727:VAL:O	1:E:2731:VAL:HG13	2.04	0.58
1:F:2367:ARG:NE	1:F:2367:ARG:H	2.00	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1333:VAL:HG22	1:A:1433:ILE:HD11	1.84	0.58
1:B:2788:ARG:NH1	1:B:2945:ASP:OD2	2.36	0.58
1:C:588:TYR:HB3	1:C:628:MET:HE2	1.85	0.58
1:C:1333:VAL:HG22	1:C:1433:ILE:HD11	1.86	0.58
1:C:1365:ASP:OD1	1:C:1366:LYS:N	2.36	0.58
1:C:1510:THR:HG21	1:C:1534:GLY:HA2	1.85	0.58
1:D:1220:MET:HE2	1:D:1251:HIS:H	1.69	0.58
1:F:2668:GLY:O	1:F:2672:MET:HG2	2.03	0.58
1:A:1127:VAL:HG23	1:A:1129:GLN:H	1.68	0.58
1:C:423:ALA:HB2	1:C:634:LEU:HD12	1.86	0.58
1:C:1112:GLU:OE1	1:C:1153:ARG:NH1	2.37	0.58
1:E:343:ASP:OD1	1:E:343:ASP:N	2.37	0.58
1:F:1542:VAL:HG11	1:F:1555:PHE:HB2	1.85	0.58
1:C:933:LEU:HD21	1:C:982:LEU:HB3	1.86	0.58
1:C:951:ASN:HD22	1:C:952:PRO:HD2	1.69	0.58
1:C:2109:PRO:HD2	1:C:2110:GLU:H	1.69	0.58
1:C:2345:SER:OG	1:C:2348:GLU:OE1	2.21	0.58
1:D:424:GLY:HA3	1:D:478:ASN:HD22	1.68	0.58
1:D:1521:LEU:HB3	1:D:1525:GLN:HB3	1.86	0.58
1:D:2201:LEU:HD22	1:D:2202:GLY:H	1.69	0.58
1:F:2303:GLU:HG3	1:F:2305:SER:H	1.69	0.58
1:B:1072:PHE:HZ	1:B:1261:HIS:HB3	1.69	0.57
1:B:2486:ASP:OD1	1:B:2486:ASP:N	2.37	0.57
1:C:105:SER:OG	1:C:108:HIS:ND1	2.33	0.57
1:C:529:LEU:HD12	1:C:534:ILE:HG13	1.86	0.57
1:D:2678:GLY:HA3	1:D:2685:LYS:HD3	1.85	0.57
1:E:78:ASP:OD1	1:E:78:ASP:N	2.37	0.57
1:E:168:LEU:HA	1:E:171:LEU:CD2	2.34	0.57
1:E:1161:VAL:HG23	1:E:1169:ILE:HB	1.85	0.57
1:F:1342:GLN:HB2	1:F:1401:LEU:HD21	1.86	0.57
1:F:2241:LYS:HA	1:F:2245:TRP:CD1	2.39	0.57
1:A:1480:SER:O	1:A:1483:ARG:NH1	2.37	0.57
1:B:2251:ILE:HD12	1:B:2269:VAL:HG21	1.85	0.57
1:C:1020:THR:O	1:C:1024:THR:HG23	2.04	0.57
1:D:1255:LEU:HD11	1:D:1287:VAL:HG21	1.85	0.57
1:D:2521:ARG:NH2	1:D:2605:ILE:O	2.37	0.57
1:E:520:ASP:O	1:E:524:GLU:HG3	2.04	0.57
1:E:1469:HIS:O	1:E:1474:ARG:NH2	2.37	0.57
1:E:2108:ASN:ND2	1:E:2108:ASN:O	2.37	0.57
1:F:1104:THR:N	1:F:1107:GLY:O	2.37	0.57
1:A:2678:GLY:HA3	1:A:2685:LYS:HD2	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1997:VAL:HG13	1:B:2000:LEU:HD12	1.86	0.57
1:C:1255:LEU:HD11	1:C:1287:VAL:HG21	1.87	0.57
1:D:288:THR:HG22	1:D:290:ARG:H	1.68	0.57
1:D:2648:GLU:OE1	1:D:3013:ARG:NH2	2.36	0.57
1:E:181:LEU:O	1:E:185:ARG:HG2	2.03	0.57
1:E:1020:THR:O	1:E:1024:THR:HG23	2.04	0.57
1:E:1075:PRO:HD2	1:E:1076:LEU:HD12	1.86	0.57
1:F:2673:GLN:O	1:F:2677:HIS:ND1	2.30	0.57
1:A:543:THR:OG1	1:A:545:GLU:OE1	2.22	0.57
1:A:1175:ARG:NH1	1:A:1188:ALA:O	2.30	0.57
1:A:1985:ARG:HH22	1:E:1978:GLY:HA3	1.69	0.57
1:A:2790:GLY:HA2	1:A:2876:THR:HG22	1.85	0.57
1:A:3024:ALA:HB3	1:A:3031:MET:HE3	1.85	0.57
1:B:1693:PRO:HB2	1:B:1696:ALA:HB3	1.86	0.57
1:C:3020:ARG:NH2	1:C:3029:ALA:O	2.37	0.57
1:D:543:THR:OG1	1:D:545:GLU:OE1	2.22	0.57
1:E:2487:ASP:HB2	1:E:2488:PRO:HD3	1.87	0.57
1:A:1081:THR:HG21	1:A:1275:ARG:HG2	1.87	0.57
1:B:2564:ASP:HA	1:B:2583:ARG:HH21	1.69	0.57
1:D:1333:VAL:HG11	1:D:1670:LEU:HD21	1.87	0.57
1:D:2486:ASP:OD1	1:D:2486:ASP:N	2.36	0.57
1:E:1104:THR:N	1:E:1107:GLY:O	2.37	0.57
1:F:2564:ASP:HA	1:F:2583:ARG:HH21	1.69	0.57
1:B:230:ARG:HA	1:B:236:VAL:HG12	1.86	0.57
1:C:713:ARG:O	1:C:717:ILE:HG12	2.05	0.57
1:C:1220:MET:HE2	1:C:1251:HIS:H	1.69	0.57
1:C:2486:ASP:N	1:C:2486:ASP:OD1	2.36	0.57
1:D:2461:MET:HE3	1:D:2467:LEU:HG	1.85	0.57
1:E:39:GLY:HA2	1:E:350:LEU:HD22	1.86	0.57
1:E:1005:THR:OG1	1:E:1017:VAL:O	2.21	0.57
1:F:1104:THR:HG22	1:F:1146:ALA:HB3	1.87	0.57
1:A:1104:THR:HG22	1:A:1146:ALA:HB3	1.87	0.57
1:A:2207:HIS:NE2	1:A:2210:ASP:OD1	2.35	0.57
1:B:575:HIS:HB3	1:B:684:ASP:HB2	1.87	0.57
1:B:1276:LEU:HD23	1:B:1327:LEU:HB3	1.85	0.57
1:B:1510:THR:HG21	1:B:1534:GLY:HA2	1.85	0.57
1:B:2448:GLU:HG2	1:B:2455:SER:HB3	1.87	0.57
1:B:2592:PRO:HB2	1:B:2594:LYS:HE3	1.86	0.57
1:D:45:TRP:HB3	1:D:119:VAL:HG12	1.86	0.57
1:D:1160:VAL:HG12	1:D:1171:THR:HG23	1.85	0.57
1:E:2486:ASP:N	1:E:2486:ASP:OD1	2.35	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1997:VAL:HG13	1:F:2000:LEU:HD12	1.87	0.57
1:A:88:PHE:HE2	1:A:173:GLN:HE21	1.52	0.57
1:A:1160:VAL:HG12	1:A:1171:THR:HG23	1.87	0.57
1:A:1578:ARG:NH2	1:A:1651:GLU:OE2	2.38	0.57
1:B:181:LEU:O	1:B:185:ARG:HG2	2.04	0.57
1:D:2039:ARG:HD3	1:D:2167:ALA:HB3	1.86	0.57
1:F:543:THR:OG1	1:F:545:GLU:OE1	2.21	0.57
1:F:2663:GLY:HA2	1:F:2715:HIS:HB3	1.86	0.57
1:F:2678:GLY:HA3	1:F:2685:LYS:HE2	1.86	0.57
1:A:570:ARG:NH1	1:A:662:ASP:O	2.36	0.57
1:B:2668:GLY:O	1:B:2672:MET:HG2	2.05	0.57
1:C:2448:GLU:HG2	1:C:2455:SER:HB3	1.86	0.57
1:D:1104:THR:N	1:D:1107:GLY:O	2.35	0.57
1:D:2058:ILE:HB	1:D:2094:ILE:HD11	1.87	0.57
1:E:2251:ILE:HD13	1:E:2269:VAL:HG21	1.87	0.57
1:F:1405:GLN:HG3	1:F:1465:GLY:HA3	1.86	0.57
1:F:1693:PRO:HB2	1:F:1696:ALA:HB3	1.86	0.57
1:F:2124:ALA:O	1:F:2159:TYR:OH	2.17	0.57
1:F:2207:HIS:NE2	1:F:2210:ASP:OD1	2.36	0.57
1:A:426:THR:OG1	2:A:3101:FMN:O4	2.23	0.57
1:C:2124:ALA:O	1:C:2159:TYR:OH	2.17	0.57
1:D:2393:ARG:HA	1:D:2396:MET:HG3	1.85	0.57
1:E:263:ARG:NH2	1:E:269:GLY:O	2.36	0.57
1:E:2681:LEU:HB2	1:E:2683:ARG:HG3	1.87	0.57
1:F:2692:GLU:HA	1:F:2697:ILE:HG21	1.87	0.57
1:B:543:THR:OG1	1:B:545:GLU:OE1	2.21	0.56
1:C:2123:GLY:HA3	1:C:2221:ALA:HA	1.87	0.56
1:D:725:LYS:NZ	1:D:859:SER:O	2.38	0.56
1:D:1360:VAL:HG21	1:D:1417:ALA:HA	1.87	0.56
1:E:1466:SER:O	1:E:1469:HIS:ND1	2.35	0.56
1:E:2896:ARG:HH22	1:E:2902:LEU:HD13	1.70	0.56
1:F:288:THR:HG22	1:F:290:ARG:H	1.70	0.56
1:A:168:LEU:HA	1:A:171:LEU:CD2	2.34	0.56
1:A:1333:VAL:HG11	1:A:1670:LEU:HD21	1.88	0.56
1:B:2511:HIS:O	1:B:2515:VAL:HG13	2.05	0.56
1:B:2519:GLY:O	1:B:2521:ARG:NH1	2.37	0.56
1:C:1518:ASN:HA	1:C:1661:VAL:HG22	1.87	0.56
1:D:1336:PHE:CZ	1:D:1687:ILE:HD12	2.40	0.56
1:D:2721:ALA:O	1:D:2725:VAL:HG12	2.05	0.56
1:E:107:LYS:NZ	1:E:283:GLU:OE2	2.38	0.56
1:E:501:ARG:NH2	1:E:941:ASP:OD2	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:135:MET:N	1:F:135:MET:HE3	2.20	0.56
1:F:498:GLN:HG3	1:F:532:ILE:HD13	1.86	0.56
1:A:520:ASP:O	1:A:524:GLU:HG3	2.06	0.56
1:A:2682:GLY:O	1:A:2683:ARG:C	2.49	0.56
1:B:2654:HIS:HB3	1:B:2657:LEU:HD12	1.87	0.56
1:C:181:LEU:O	1:C:185:ARG:HG2	2.05	0.56
1:C:674:MET:HG2	1:C:881:THR:HG22	1.86	0.56
1:C:1048:ASN:OD1	1:C:1049:GLY:N	2.37	0.56
1:C:2293:LEU:HD21	1:C:2314:HIS:CG	2.41	0.56
1:C:2294:ASP:HA	1:C:2297:VAL:HG22	1.85	0.56
1:C:2648:GLU:OE1	1:C:3013:ARG:NH2	2.36	0.56
1:D:768:THR:HG21	1:D:841:LYS:H	1.70	0.56
1:D:2123:GLY:HA3	1:D:2221:ALA:HA	1.87	0.56
1:D:2266:ARG:HH12	1:D:2366:ALA:HA	1.70	0.56
1:E:783:ARG:HH11	1:E:2415:LEU:HB3	1.69	0.56
1:E:1438:SER:OG	1:E:1566:HIS:NE2	2.26	0.56
1:F:1518:ASN:HA	1:F:1661:VAL:HG22	1.86	0.56
1:A:501:ARG:NH2	1:A:941:ASP:OD2	2.38	0.56
1:A:608:PRO:HB3	1:A:901:PHE:HA	1.88	0.56
1:A:2251:ILE:HD13	1:A:2269:VAL:HG21	1.86	0.56
1:B:608:PRO:HB3	1:B:901:PHE:HA	1.87	0.56
1:B:1083:VAL:HG13	1:B:1085:ASP:H	1.70	0.56
1:B:1456:ALA:O	1:B:1460:MET:HG3	2.05	0.56
1:B:2133:VAL:O	1:B:2137:LEU:HG	2.04	0.56
1:C:608:PRO:HB3	1:C:901:PHE:HA	1.87	0.56
1:C:2174:TRP:CH2	1:C:2209:LYS:HB3	2.41	0.56
1:D:2699:ALA:O	1:D:2703:VAL:HG12	2.06	0.56
1:A:1710:HIS:ND1	1:B:243:GLU:OE2	2.35	0.56
1:B:2058:ILE:HB	1:B:2094:ILE:HD11	1.88	0.56
1:C:39:GLY:HA2	1:C:350:LEU:HD22	1.86	0.56
1:D:951:ASN:HD22	1:D:952:PRO:HD2	1.70	0.56
1:B:1104:THR:N	1:B:1107:GLY:O	2.37	0.56
1:B:1341:ILE:HD11	1:B:1411:MET:SD	2.45	0.56
1:C:2430:TRP:HZ3	1:C:2970:LYS:HG2	1.70	0.56
1:D:2875:SER:O	1:D:2875:SER:OG	2.18	0.56
1:F:1469:HIS:O	1:F:1474:ARG:NH2	2.39	0.56
1:A:1543:GLU:HB2	1:A:1546:ARG:HH21	1.70	0.56
1:B:135:MET:N	1:B:135:MET:HE3	2.21	0.56
1:B:165:ASP:OD1	1:B:165:ASP:N	2.36	0.56
1:B:498:GLN:HG3	1:B:532:ILE:HD13	1.87	0.56
1:C:359:ARG:HD3	1:C:589:SER:HB2	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:794:THR:HB	1:C:2412:ILE:HG21	1.88	0.56
1:D:1454:LEU:HA	1:D:1457:LEU:HD23	1.87	0.56
1:E:2654:HIS:HB3	1:E:2657:LEU:HD12	1.87	0.56
1:F:1333:VAL:HG11	1:F:1670:LEU:HD21	1.87	0.56
1:A:1161:VAL:HG23	1:A:1169:ILE:HB	1.88	0.56
1:A:1336:PHE:CZ	1:A:1687:ILE:HD12	2.41	0.56
1:B:2303:GLU:HG3	1:B:2305:SER:H	1.69	0.56
1:C:1514:LEU:HD13	1:C:1530:GLY:HA3	1.86	0.56
1:D:120:LEU:HD13	1:D:153:LEU:HD13	1.88	0.56
1:D:608:PRO:HB3	1:D:901:PHE:HA	1.88	0.56
1:D:2682:GLY:O	1:D:2683:ARG:C	2.48	0.56
1:E:2153:GLU:OE1	1:E:2153:GLU:N	2.38	0.56
1:E:2332:ILE:O	1:E:2336:VAL:HG13	2.06	0.56
1:F:575:HIS:HB3	1:F:684:ASP:HB2	1.86	0.56
1:F:1333:VAL:HG22	1:F:1433:ILE:HD11	1.87	0.56
1:F:1534:GLY:O	1:F:1538:LEU:HD22	2.06	0.56
1:A:2639:PHE:HD1	1:A:2644:PHE:HB3	1.71	0.56
1:C:263:ARG:NH2	1:C:577:TRP:O	2.29	0.56
1:D:1469:HIS:O	1:D:1474:ARG:NH2	2.39	0.56
1:E:326:TRP:HE1	1:E:354:THR:HG22	1.71	0.56
1:E:2316:LEU:HB2	1:E:2373:ASP:HA	1.86	0.56
1:A:575:HIS:HB3	1:A:684:ASP:HB2	1.87	0.56
1:B:1104:THR:HG22	1:B:1146:ALA:HB3	1.88	0.56
1:C:615:LEU:HD12	1:C:630:ILE:HG13	1.87	0.56
1:C:1081:THR:HG21	1:C:1275:ARG:HG2	1.88	0.56
1:C:1260:GLN:HE21	1:C:1279:TRP:CD1	2.24	0.56
1:C:1695:VAL:HA	1:C:1698:LEU:HD23	1.88	0.56
1:A:2521:ARG:NH2	1:A:2605:ILE:O	2.38	0.55
1:B:1543:GLU:HB2	1:B:1546:ARG:HH21	1.71	0.55
1:B:2690:PHE:CG	1:F:2757:GLY:HA3	2.41	0.55
1:C:2714:ILE:HG23	1:E:2725:VAL:CG1	2.37	0.55
1:D:359:ARG:HD3	1:D:589:SER:HB2	1.87	0.55
1:D:794:THR:HB	1:D:2412:ILE:HG21	1.87	0.55
1:D:1020:THR:O	1:D:1024:THR:HG23	2.06	0.55
1:D:1339:GLN:OE1	1:D:1408:GLN:NE2	2.39	0.55
1:D:2654:HIS:HB3	1:D:2657:LEU:HD12	1.87	0.55
1:E:1543:GLU:HB2	1:E:1546:ARG:HH21	1.70	0.55
1:E:1729:ASP:OD1	1:E:1729:ASP:N	2.35	0.55
1:F:2727:VAL:O	1:F:2731:VAL:HG13	2.06	0.55
1:B:1020:THR:O	1:B:1024:THR:HG23	2.07	0.55
1:C:1514:LEU:HD21	1:C:1534:GLY:HA3	1.88	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2293:LEU:HD21	1:D:2314:HIS:CG	2.41	0.55
1:F:713:ARG:O	1:F:717:ILE:HG12	2.06	0.55
1:F:1341:ILE:HD11	1:F:1411:MET:SD	2.46	0.55
1:C:1589:ALA:O	1:C:1642:ARG:NH1	2.40	0.55
1:C:2266:ARG:NE	1:C:2310:VAL:O	2.39	0.55
1:D:1651:GLU:OE2	1:D:1655:TRP:NE1	2.38	0.55
1:F:1480:SER:O	1:F:1483:ARG:NH1	2.40	0.55
1:F:1589:ALA:O	1:F:1642:ARG:NH1	2.39	0.55
1:A:2681:LEU:HB2	1:A:2683:ARG:HG3	1.88	0.55
1:B:2896:ARG:HH22	1:B:2902:LEU:HD13	1.72	0.55
1:D:39:GLY:HA2	1:D:350:LEU:HD22	1.88	0.55
1:D:522:ALA:O	1:D:526:ILE:HG13	2.05	0.55
1:D:2663:GLY:HA2	1:D:2715:HIS:HB3	1.89	0.55
1:E:713:ARG:O	1:E:717:ILE:HG12	2.06	0.55
1:E:2293:LEU:HD11	1:E:2314:HIS:CD2	2.42	0.55
1:F:53:VAL:HG22	1:F:59:GLU:HG3	1.89	0.55
1:F:1162:THR:HG22	1:F:1168:VAL:HA	1.88	0.55
1:F:2654:HIS:HB3	1:F:2657:LEU:HD12	1.89	0.55
1:A:343:ASP:OD2	1:A:351:THR:OG1	2.22	0.55
1:A:488:LYS:HA	1:A:493:GLY:H	1.71	0.55
1:A:1155:VAL:HG13	1:A:1176:PHE:HB2	1.88	0.55
1:A:1589:ALA:O	1:A:1642:ARG:NH1	2.40	0.55
1:B:426:THR:OG1	2:B:3101:FMN:O4	2.23	0.55
1:B:1480:SER:O	1:B:1483:ARG:NH1	2.40	0.55
1:C:343:ASP:OD2	1:C:351:THR:OG1	2.24	0.55
1:D:748:ILE:HD12	1:D:763:PRO:HB2	1.88	0.55
1:D:1139:VAL:HG12	1:D:1161:VAL:HG12	1.88	0.55
1:D:2124:ALA:O	1:D:2159:TYR:OH	2.20	0.55
1:F:679:SER:N	1:F:683:ALA:O	2.38	0.55
1:F:1546:ARG:O	1:F:1550:GLY:N	2.38	0.55
1:F:2393:ARG:HA	1:F:2396:MET:HG3	1.87	0.55
1:A:165:ASP:N	1:A:165:ASP:OD1	2.39	0.55
1:B:474:THR:OG1	1:B:508:ASP:OD1	2.20	0.55
1:B:1333:VAL:HG22	1:B:1433:ILE:HD11	1.88	0.55
1:D:1005:THR:OG1	1:D:1017:VAL:O	2.25	0.55
1:D:2303:GLU:HG3	1:D:2305:SER:H	1.70	0.55
1:E:188:ILE:HD11	1:E:290:ARG:HE	1.70	0.55
1:E:1155:VAL:HG13	1:E:1176:PHE:HB2	1.89	0.55
1:E:2058:ILE:HB	1:E:2094:ILE:HD11	1.89	0.55
1:F:2723:ALA:HB3	1:F:2919:ALA:HB3	1.89	0.55
1:A:651:VAL:HG13	1:A:877:ILE:HD13	1.88	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1159:VAL:HG13	1:A:1172:LEU:HB2	1.89	0.55
1:B:725:LYS:NZ	1:B:859:SER:O	2.40	0.55
1:C:1412:ALA:HB1	1:C:1457:LEU:HD11	1.89	0.55
1:D:772:ARG:HD3	1:D:835:LEU:HD13	1.88	0.55
1:E:38:PHE:HZ	1:E:158:LEU:HD22	1.71	0.55
1:E:1081:THR:HG21	1:E:1275:ARG:HG2	1.89	0.55
1:E:2241:LYS:HA	1:E:2245:TRP:CD1	2.41	0.55
1:F:1020:THR:O	1:F:1024:THR:HG23	2.07	0.55
1:A:1546:ARG:O	1:A:1550:GLY:N	2.36	0.55
1:A:2008:LEU:HA	1:A:2011:LEU:HD23	1.88	0.55
1:A:2654:HIS:HB3	1:A:2657:LEU:HD12	1.87	0.55
1:C:65:LEU:HD13	1:C:166:VAL:HG12	1.89	0.55
1:D:713:ARG:O	1:D:717:ILE:HG12	2.06	0.55
1:D:2316:LEU:HB2	1:D:2373:ASP:HA	1.88	0.55
1:D:2871:LYS:NZ	1:D:2873:ASP:OD1	2.40	0.55
1:A:343:ASP:OD1	1:A:343:ASP:N	2.38	0.55
1:C:1139:VAL:HG12	1:C:1161:VAL:HG12	1.88	0.55
1:C:2654:HIS:HB3	1:C:2657:LEU:HD12	1.88	0.55
1:E:700:ASP:OD1	1:E:854:ARG:NH1	2.38	0.55
1:F:426:THR:OG1	2:F:3101:FMN:O4	2.24	0.55
1:F:1972:GLN:HA	1:F:1976:ARG:HH12	1.72	0.55
1:A:78:ASP:OD1	1:A:78:ASP:N	2.36	0.55
1:A:2294:ASP:HA	1:A:2297:VAL:HG22	1.88	0.55
1:B:700:ASP:OD1	1:B:854:ARG:NH1	2.37	0.55
1:B:1546:ARG:O	1:B:1550:GLY:N	2.37	0.55
1:C:748:ILE:HD12	1:C:763:PRO:HB2	1.88	0.55
1:C:2218:PHE:HE2	1:C:2353:LEU:HD21	1.72	0.55
1:D:1518:ASN:HA	1:D:1661:VAL:HG22	1.89	0.55
1:E:119:VAL:HG12	1:E:346:PRO:HG3	1.89	0.55
1:E:359:ARG:HD3	1:E:589:SER:HB2	1.89	0.55
1:F:230:ARG:HA	1:F:236:VAL:HG12	1.89	0.55
1:F:2872:HIS:N	1:F:2883:GLU:OE2	2.35	0.55
1:B:1336:PHE:CZ	1:B:1687:ILE:HD12	2.42	0.54
1:B:1469:HIS:O	1:B:1474:ARG:NH2	2.40	0.54
1:B:2672:MET:HE3	1:F:2672:MET:HE3	1.89	0.54
1:B:2782:ARG:NH1	1:B:2785:ASP:OD2	2.39	0.54
1:C:2690:PHE:CD2	1:E:2757:GLY:HA3	2.42	0.54
1:E:522:ALA:O	1:E:526:ILE:HG13	2.06	0.54
1:E:1160:VAL:HG12	1:E:1171:THR:HG23	1.88	0.54
1:F:1083:VAL:HG13	1:F:1085:ASP:H	1.71	0.54
1:F:2367:ARG:H	1:F:2367:ARG:HE	1.55	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:713:ARG:O	1:A:717:ILE:HG12	2.06	0.54
1:A:1153:ARG:HB3	1:A:1178:ILE:HB	1.90	0.54
1:B:1333:VAL:HG11	1:B:1670:LEU:HD21	1.89	0.54
1:B:1518:ASN:HA	1:B:1661:VAL:HG22	1.88	0.54
1:B:2452:TYR:O	1:B:2457:THR:OG1	2.25	0.54
1:C:2704:GLN:OE1	1:E:2981:HIS:NE2	2.41	0.54
1:C:2919:ALA:O	1:C:2923:MET:HG3	2.07	0.54
1:F:165:ASP:N	1:F:165:ASP:OD1	2.35	0.54
1:A:1514:LEU:HD23	1:A:1530:GLY:HA3	1.88	0.54
1:A:2568:THR:HG21	1:A:2581:VAL:HG23	1.89	0.54
1:A:2727:VAL:O	1:A:2731:VAL:HG13	2.08	0.54
1:B:2332:ILE:O	1:B:2336:VAL:HG13	2.07	0.54
1:B:2678:GLY:CA	1:B:2683:ARG:HB2	2.36	0.54
1:C:1341:ILE:HD11	1:C:1411:MET:SD	2.48	0.54
1:C:1480:SER:O	1:C:1483:ARG:NH1	2.41	0.54
1:C:2180:MET:HE2	1:C:2180:MET:HA	1.88	0.54
1:D:785:HIS:NE2	1:D:787:GLN:HB3	2.23	0.54
1:D:1686:GLU:HG3	1:D:1695:VAL:HB	1.89	0.54
1:D:2087:SER:OG	1:D:2092:ARG:O	2.25	0.54
1:E:488:LYS:HA	1:E:493:GLY:H	1.72	0.54
1:E:2841:LEU:HD23	1:E:2890:LEU:HG	1.89	0.54
1:F:2698:ILE:O	1:F:2702:VAL:HG23	2.07	0.54
1:A:785:HIS:NE2	1:A:787:GLN:HB3	2.22	0.54
1:B:1506:ILE:HG21	1:B:1538:LEU:HD11	1.90	0.54
1:B:2003:ALA:O	1:B:2007:GLU:HG2	2.08	0.54
1:B:2875:SER:O	1:B:2875:SER:OG	2.21	0.54
1:C:2433:LEU:HB3	1:C:2435:VAL:HG12	1.90	0.54
1:C:2727:VAL:O	1:C:2731:VAL:HG13	2.07	0.54
1:D:1081:THR:HG21	1:D:1275:ARG:HG2	1.88	0.54
1:D:1311:VAL:HG13	1:D:1323:ALA:HB3	1.90	0.54
1:D:2919:ALA:O	1:D:2923:MET:HG3	2.07	0.54
1:E:186:ARG:HB2	1:E:188:ILE:HG12	1.90	0.54
1:E:495:ARG:NH1	1:E:528:GLU:OE2	2.40	0.54
1:F:78:ASP:OD1	1:F:78:ASP:N	2.39	0.54
1:F:1633:TYR:O	1:F:1637:LEU:N	2.32	0.54
1:C:223:LEU:O	1:C:244:GLN:NE2	2.36	0.54
1:C:343:ASP:OD1	1:C:343:ASP:N	2.41	0.54
1:C:1104:THR:HG23	1:C:1109:PRO:HG3	1.88	0.54
1:C:1712:THR:O	1:C:1713:VAL:C	2.50	0.54
1:D:783:ARG:NH1	1:D:828:ASP:OD1	2.40	0.54
1:D:2681:LEU:HB2	1:D:2683:ARG:HG3	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1083:VAL:HG13	1:E:1085:ASP:H	1.71	0.54
1:E:1542:VAL:HG11	1:E:1555:PHE:HB2	1.89	0.54
1:C:1546:ARG:O	1:C:1550:GLY:N	2.35	0.54
1:E:2790:GLY:HA2	1:E:2876:THR:HG22	1.89	0.54
1:F:1452:TYR:HD2	1:F:1585:MET:HE1	1.72	0.54
1:A:90:PRO:O	1:A:94:VAL:HG12	2.08	0.54
1:C:426:THR:OG1	2:C:3101:FMN:O4	2.24	0.54
1:C:543:THR:OG1	1:C:545:GLU:OE1	2.24	0.54
1:C:1703:LEU:HD11	1:C:1713:VAL:HB	1.89	0.54
1:D:1434:ALA:HB1	1:D:1444:ALA:HB1	1.89	0.54
1:E:474:THR:OG1	1:E:508:ASP:OD1	2.20	0.54
1:F:495:ARG:NH1	1:F:528:GLU:OE2	2.41	0.54
1:F:2118:VAL:HG21	1:F:2212:GLN:HB2	1.90	0.54
1:F:2293:LEU:HD11	1:F:2314:HIS:CD2	2.43	0.54
1:F:2297:VAL:O	1:F:2301:HIS:ND1	2.40	0.54
1:F:2511:HIS:O	1:F:2515:VAL:HG13	2.08	0.54
1:A:181:LEU:O	1:A:185:ARG:HG2	2.07	0.54
1:A:1083:VAL:HG13	1:A:1085:ASP:H	1.71	0.54
1:B:2604:GLN:HA	1:B:2795:GLN:HG2	1.90	0.54
1:C:575:HIS:HB3	1:C:684:ASP:HB2	1.89	0.54
1:C:825:HIS:HD2	1:C:2418:PRO:HA	1.73	0.54
1:C:1360:VAL:HG21	1:C:1417:ALA:HA	1.90	0.54
1:C:1468:MET:HB2	1:C:1657:PHE:HZ	1.72	0.54
1:C:1521:LEU:HB3	1:C:1525:GLN:HB3	1.90	0.54
1:C:1701:ASN:HA	1:C:1704:LYS:HE3	1.89	0.54
1:D:1695:VAL:HA	1:D:1698:LEU:HD23	1.90	0.54
1:E:267:VAL:HG12	1:E:268:ARG:H	1.72	0.54
1:E:604:GLY:HA2	1:E:882:ALA:HB3	1.88	0.54
1:E:1589:ALA:O	1:E:1642:ARG:NH1	2.41	0.54
1:B:1311:VAL:HG13	1:B:1323:ALA:HB3	1.90	0.54
1:B:1599:ILE:HG21	1:B:1666:THR:OG1	2.08	0.54
1:C:679:SER:N	1:C:683:ALA:O	2.38	0.54
1:D:90:PRO:O	1:D:94:VAL:HG12	2.07	0.54
1:D:702:VAL:HG11	1:D:716:ILE:HD11	1.90	0.54
1:D:1669:LEU:HD12	1:D:1678:GLY:HA2	1.89	0.54
1:E:106:ASP:OD1	1:E:106:ASP:N	2.41	0.54
1:E:165:ASP:OD1	1:E:165:ASP:N	2.40	0.54
1:E:608:PRO:HB3	1:E:901:PHE:HA	1.89	0.54
1:E:748:ILE:HD12	1:E:763:PRO:HB2	1.90	0.54
1:A:263:ARG:NH2	1:A:269:GLY:O	2.40	0.54
1:A:933:LEU:HD21	1:A:982:LEU:HB3	1.90	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1510:THR:HG21	1:A:1534:GLY:HA2	1.89	0.54
1:A:1695:VAL:HA	1:A:1698:LEU:HD23	1.88	0.54
1:B:1365:ASP:HA	1:B:1368:THR:HG22	1.90	0.54
1:B:2568:THR:HG21	1:B:2581:VAL:HG23	1.90	0.54
1:C:772:ARG:HD3	1:C:835:LEU:HD13	1.89	0.54
1:C:1346:MET:HE3	1:C:1414:VAL:HG21	1.89	0.54
1:D:435:VAL:HG13	1:D:445:ALA:HB1	1.90	0.54
1:E:679:SER:N	1:E:683:ALA:O	2.41	0.54
1:E:2042:SER:OG	1:E:2958:ARG:NH2	2.41	0.54
1:E:2433:LEU:HB3	1:E:2435:VAL:HG12	1.90	0.54
1:B:207:ARG:O	1:B:211:LEU:HG	2.08	0.53
1:B:2610:ASP:O	1:B:2613:VAL:HG12	2.08	0.53
1:D:1204:THR:HG21	1:D:1302:ILE:HG12	1.90	0.53
1:E:933:LEU:HD21	1:E:982:LEU:HB3	1.90	0.53
1:F:23:ALA:H	1:F:26:ASP:HB2	1.73	0.53
1:F:37:ALA:N	1:F:342:LEU:O	2.30	0.53
1:A:2875:SER:O	1:A:2875:SER:OG	2.22	0.53
1:B:2159:TYR:CD1	1:B:2175:LEU:HD11	2.43	0.53
1:B:2698:ILE:O	1:B:2702:VAL:HG23	2.08	0.53
1:C:2573:VAL:HG12	1:C:2576:SER:H	1.72	0.53
1:D:2267:LEU:O	1:D:2311:SER:N	2.27	0.53
1:E:1507:ALA:HB2	1:E:1514:LEU:HB2	1.91	0.53
1:F:2573:VAL:HG12	1:F:2576:SER:H	1.72	0.53
1:A:2241:LYS:HA	1:A:2245:TRP:CD1	2.42	0.53
1:A:2692:GLU:HA	1:A:2697:ILE:HG21	1.90	0.53
1:B:1419:VAL:HG11	1:B:1447:CYS:HB3	1.90	0.53
1:B:1702:THR:HG22	1:B:1708:TYR:HE2	1.73	0.53
1:C:1301:GLY:O	1:C:1308:ILE:N	2.31	0.53
1:C:1703:LEU:HD22	1:C:1711:SER:HB2	1.89	0.53
1:D:1419:VAL:HG11	1:D:1447:CYS:HB3	1.89	0.53
1:E:1153:ARG:HB3	1:E:1178:ILE:HB	1.90	0.53
1:F:1153:ARG:HB3	1:F:1178:ILE:HB	1.91	0.53
1:A:2027:VAL:HG22	1:A:2179:ASN:HB2	1.90	0.53
1:A:2440:LEU:HD11	1:A:2859:LEU:HD11	1.91	0.53
1:B:230:ARG:HB2	1:B:323:LYS:HZ1	1.73	0.53
1:B:2087:SER:OG	1:B:2092:ARG:O	2.27	0.53
1:B:2293:LEU:HD11	1:B:2314:HIS:CD2	2.44	0.53
1:C:655:LEU:HG	1:C:887:ILE:HD12	1.89	0.53
1:C:1576:GLU:O	1:C:1579:ARG:HG3	2.09	0.53
1:F:655:LEU:HD13	1:F:688:ILE:HD11	1.91	0.53
1:A:230:ARG:HA	1:A:236:VAL:HG12	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1005:THR:OG1	1:A:1017:VAL:O	2.24	0.53
1:A:2761:MET:HG2	1:D:2687:ASN:O	2.08	0.53
1:C:2456:ARG:O	1:C:2460:GLU:HG2	2.08	0.53
1:C:2695:PRO:HB2	1:E:2717:VAL:HG11	1.90	0.53
1:D:2266:ARG:HH22	1:D:2366:ALA:HA	1.72	0.53
1:E:1518:ASN:HA	1:E:1661:VAL:HG22	1.91	0.53
1:E:1636:TRP:HB3	1:E:1640:ARG:NH1	2.23	0.53
1:E:1997:VAL:HG13	1:E:2000:LEU:HD12	1.90	0.53
1:E:2396:MET:HE2	1:E:2396:MET:C	2.33	0.53
1:F:1419:VAL:HG11	1:F:1447:CYS:HB3	1.89	0.53
1:B:794:THR:HB	1:B:2412:ILE:HG21	1.89	0.53
1:C:2682:GLY:HA3	1:E:2538:LEU:HG	1.91	0.53
1:E:1510:THR:HG21	1:E:1534:GLY:HA2	1.91	0.53
1:A:1075:PRO:HD2	1:A:1076:LEU:HD12	1.89	0.53
1:A:1085:ASP:OD2	1:A:1256:SER:OG	2.25	0.53
1:A:1311:VAL:HG13	1:A:1323:ALA:HB3	1.91	0.53
1:D:2006:SER:O	1:D:2009:ILE:HG13	2.08	0.53
1:D:2180:MET:HE2	1:D:2180:MET:HA	1.90	0.53
1:D:2218:PHE:HE2	1:D:2353:LEU:HD21	1.73	0.53
1:E:2370:ILE:HD12	1:E:2370:ILE:O	2.09	0.53
1:F:1336:PHE:CZ	1:F:1687:ILE:HD12	2.44	0.53
1:F:1365:ASP:HA	1:F:1368:THR:HG22	1.91	0.53
1:A:604:GLY:HA2	1:A:882:ALA:HB3	1.90	0.53
1:A:2240:MET:HE2	1:A:2240:MET:HA	1.91	0.53
1:A:2428:PRO:HB3	1:A:2968:PRO:HB2	1.91	0.53
1:C:90:PRO:O	1:C:94:VAL:HG12	2.07	0.53
1:C:725:LYS:NZ	1:C:859:SER:O	2.41	0.53
1:C:2071:GLY:HA3	1:C:2169:TYR:HA	1.90	0.53
1:D:575:HIS:HB3	1:D:684:ASP:HB2	1.89	0.53
1:E:2678:GLY:HA3	1:E:2685:LYS:HD2	1.91	0.53
1:F:1521:LEU:HB3	1:F:1525:GLN:HB3	1.91	0.53
1:F:2006:SER:O	1:F:2009:ILE:HG13	2.08	0.53
1:B:1589:ALA:O	1:B:1642:ARG:NH1	2.42	0.53
1:C:2769:MET:O	1:C:2773:ARG:HG3	2.08	0.53
1:D:534:ILE:HG22	1:D:536:HIS:H	1.72	0.53
1:E:1514:LEU:HD23	1:E:1530:GLY:HA3	1.91	0.53
1:E:2652:TYR:O	1:E:2810:ARG:NH2	2.42	0.53
1:E:2875:SER:O	1:E:2875:SER:OG	2.20	0.53
1:F:2782:ARG:NH1	1:F:2785:ASP:OD2	2.39	0.53
1:A:926:ARG:NH1	1:A:962:TRP:O	2.38	0.53
1:A:2758:PHE:HD1	1:A:2761:MET:HE2	1.74	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:655:LEU:HD22	1:B:887:ILE:HD12	1.90	0.53
1:B:2639:PHE:HD1	1:B:2644:PHE:HB3	1.74	0.53
1:C:2241:LYS:HA	1:C:2245:TRP:CD1	2.44	0.53
1:D:1153:ARG:HB3	1:D:1178:ILE:HB	1.90	0.53
1:D:1247:SER:H	1:D:1288:ARG:HH12	1.57	0.53
1:E:88:PHE:HE2	1:E:173:GLN:HE21	1.57	0.53
1:E:2440:LEU:HD11	1:E:2859:LEU:HD11	1.90	0.53
1:E:2666:MET:HE1	1:E:2672:MET:HE1	1.89	0.53
1:E:3020:ARG:NH2	1:E:3029:ALA:O	2.39	0.53
1:F:1081:THR:HG21	1:F:1275:ARG:HG2	1.91	0.53
1:F:1083:VAL:HG22	1:F:1084:PRO:HD2	1.90	0.53
1:F:1247:SER:H	1:F:1288:ARG:HH12	1.57	0.53
1:A:1072:PHE:HZ	1:A:1261:HIS:HB3	1.74	0.52
1:A:1441:GLU:OE1	1:A:1601:ASN:ND2	2.42	0.52
1:A:1507:ALA:HB2	1:A:1514:LEU:HB2	1.91	0.52
1:A:1518:ASN:HA	1:A:1661:VAL:HG22	1.91	0.52
1:C:534:ILE:HG22	1:C:536:HIS:H	1.74	0.52
1:D:655:LEU:HG	1:D:887:ILE:HD12	1.90	0.52
1:D:1058:HIS:HB2	1:D:1061:ARG:HD3	1.90	0.52
1:E:446:GLU:HG2	1:E:478:ASN:HB2	1.91	0.52
1:E:1311:VAL:HG13	1:E:1323:ALA:HB3	1.91	0.52
1:E:1672:ILE:HD12	1:F:220:ARG:HE	1.74	0.52
1:F:1518:ASN:HB2	1:F:1527:ALA:HB3	1.91	0.52
1:A:1083:VAL:HG22	1:A:1084:PRO:HD2	1.92	0.52
1:A:2300:TRP:NE1	1:A:2369:PRO:HD3	2.24	0.52
1:A:2316:LEU:HB2	1:A:2373:ASP:HA	1.90	0.52
1:B:359:ARG:HD3	1:B:589:SER:HB2	1.92	0.52
1:B:1247:SER:H	1:B:1288:ARG:HH12	1.57	0.52
1:B:1407:THR:O	1:B:1411:MET:HG2	2.10	0.52
1:B:2573:VAL:HG12	1:B:2576:SER:H	1.75	0.52
1:B:2682:GLY:HA3	1:F:2538:LEU:HG	1.90	0.52
1:C:522:ALA:O	1:C:526:ILE:HG13	2.09	0.52
1:C:2087:SER:OG	1:C:2092:ARG:O	2.27	0.52
1:D:73:LEU:HD21	1:D:173:GLN:HE21	1.75	0.52
1:D:230:ARG:HA	1:D:236:VAL:HG12	1.90	0.52
1:D:1467:LYS:HD3	1:D:1576:GLU:HB3	1.91	0.52
1:F:90:PRO:O	1:F:94:VAL:HG12	2.09	0.52
1:F:359:ARG:HD3	1:F:589:SER:HB2	1.91	0.52
1:A:288:THR:HG22	1:A:290:ARG:H	1.75	0.52
1:A:2640:LEU:HD22	1:A:3031:MET:HG2	1.90	0.52
1:B:495:ARG:NH1	1:B:528:GLU:OE2	2.42	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1153:ARG:HB3	1:B:1178:ILE:HB	1.90	0.52
1:B:2297:VAL:O	1:B:2301:HIS:ND1	2.35	0.52
1:B:2692:GLU:HA	1:B:2697:ILE:HG21	1.91	0.52
1:B:2695:PRO:HB2	1:F:2717:VAL:HG11	1.90	0.52
1:C:288:THR:HG22	1:C:290:ARG:H	1.74	0.52
1:C:1204:THR:HG21	1:C:1302:ILE:HG12	1.90	0.52
1:C:1485:ALA:HB2	1:C:1557:LEU:HD12	1.90	0.52
1:E:725:LYS:NZ	1:E:859:SER:O	2.41	0.52
1:E:2537:LEU:HD11	1:E:2595:THR:HG22	1.91	0.52
1:F:700:ASP:OD1	1:F:854:ARG:NH1	2.37	0.52
1:F:725:LYS:NZ	1:F:859:SER:O	2.42	0.52
1:A:2433:LEU:HB3	1:A:2435:VAL:HG12	1.92	0.52
1:B:2725:VAL:HG22	1:F:2714:ILE:HG23	1.91	0.52
1:C:1566:HIS:HB3	1:C:1660:PRO:HA	1.90	0.52
1:C:2058:ILE:HB	1:C:2094:ILE:HD11	1.90	0.52
1:D:215:PHE:HD1	1:D:251:TYR:HD2	1.56	0.52
1:D:426:THR:OG1	2:D:3101:FMN:O4	2.23	0.52
1:D:2573:VAL:HG12	1:D:2576:SER:H	1.73	0.52
1:E:1083:VAL:HG22	1:E:1084:PRO:HD2	1.91	0.52
1:E:1706:PRO:O	1:E:1707:GLU:C	2.49	0.52
1:E:2180:MET:HE2	1:E:2180:MET:HA	1.92	0.52
1:F:655:LEU:HG	1:F:887:ILE:HD12	1.91	0.52
1:F:748:ILE:HD12	1:F:763:PRO:HB2	1.90	0.52
1:A:1599:ILE:HG21	1:A:1666:THR:OG1	2.09	0.52
1:A:2332:ILE:O	1:A:2336:VAL:HG13	2.09	0.52
1:A:2695:PRO:HD3	1:D:2666:MET:HG2	1.91	0.52
1:B:90:PRO:O	1:B:94:VAL:HG12	2.08	0.52
1:C:495:ARG:NH1	1:C:528:GLU:OE2	2.43	0.52
1:D:1158:SER:OG	1:D:1173:GLU:OE2	2.25	0.52
1:D:2071:GLY:HA3	1:D:2169:TYR:HA	1.91	0.52
1:D:2396:MET:SD	1:D:2397:SER:N	2.82	0.52
1:D:2751:THR:O	1:D:2755:ILE:HG12	2.09	0.52
1:D:2769:MET:O	1:D:2773:ARG:HG3	2.10	0.52
1:E:2573:VAL:HG12	1:E:2576:SER:H	1.74	0.52
1:E:2648:GLU:OE1	1:E:3013:ARG:NH2	2.37	0.52
1:F:116:VAL:HG22	1:F:117:PRO:HD3	1.92	0.52
1:F:794:THR:HB	1:F:2412:ILE:HG21	1.91	0.52
1:F:2294:ASP:HA	1:F:2297:VAL:HG22	1.91	0.52
1:B:417:ARG:NH2	1:B:508:ASP:OD1	2.43	0.52
1:C:2452:TYR:O	1:C:2457:THR:OG1	2.27	0.52
1:D:458:PHE:HE2	1:D:490:GLN:HG2	1.74	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2720:CYS:HB2	1:D:2979:PHE:H	1.75	0.52
1:D:2741:LEU:HD23	1:D:2803:ALA:HB2	1.92	0.52
1:E:288:THR:HG22	1:E:290:ARG:H	1.75	0.52
1:F:2999:ASP:N	1:F:2999:ASP:OD1	2.43	0.52
1:B:1083:VAL:HG22	1:B:1084:PRO:HD2	1.90	0.52
1:C:538:VAL:HG22	1:C:563:ILE:HB	1.92	0.52
1:F:1629:ILE:HG12	1:F:1640:ARG:HH22	1.75	0.52
1:A:65:LEU:HD12	1:A:166:VAL:HG12	1.92	0.52
1:A:84:ARG:HD3	1:A:87:GLY:HA2	1.91	0.52
1:A:2537:LEU:HD11	1:A:2595:THR:HG22	1.91	0.52
1:A:2823:GLN:HG2	1:D:2738:LYS:HE2	1.92	0.52
1:A:2882:ASN:OD1	1:A:2883:GLU:N	2.43	0.52
1:B:2367:ARG:H	1:B:2367:ARG:NE	2.08	0.52
1:C:2790:GLY:HA2	1:C:2876:THR:HG22	1.91	0.52
1:D:1576:GLU:O	1:D:1579:ARG:HG3	2.09	0.52
1:E:1633:TYR:O	1:E:1637:LEU:N	2.39	0.52
1:E:2978:GLY:N	1:E:2982:VAL:O	2.42	0.52
1:F:1105:ASP:OD1	1:F:1105:ASP:N	2.43	0.52
1:F:2720:CYS:HB2	1:F:2979:PHE:H	1.74	0.52
1:F:2751:THR:O	1:F:2755:ILE:HG12	2.08	0.52
1:A:794:THR:HB	1:A:2412:ILE:HG21	1.92	0.52
1:A:1690:LYS:HG2	1:A:1719:GLU:HB3	1.92	0.52
1:B:1471:ILE:HD12	1:B:1472:VAL:HG23	1.92	0.52
1:B:2713:MET:HB2	1:F:2982:VAL:HG23	1.91	0.52
1:D:1025:SER:O	1:D:1029:THR:HG23	2.10	0.52
1:D:1412:ALA:HB1	1:D:1457:LEU:HD11	1.91	0.52
1:D:2028:PHE:HD2	1:D:2178:ALA:HB2	1.74	0.52
1:E:2066:ALA:HB1	1:E:2101:ARG:HD2	1.92	0.52
1:A:423:ALA:HB2	1:A:634:LEU:HD12	1.92	0.52
1:A:1542:VAL:HG11	1:A:1555:PHE:HB2	1.90	0.52
1:A:2538:LEU:HG	1:D:2682:GLY:HA3	1.91	0.52
1:B:73:LEU:HD21	1:B:173:GLN:NE2	2.25	0.52
1:B:2727:VAL:O	1:B:2731:VAL:HG13	2.09	0.52
1:C:41:GLN:HE22	1:C:115:SER:HB3	1.75	0.52
1:C:1024:THR:HG22	1:C:1111:VAL:HG11	1.92	0.52
1:D:321:ILE:HG13	1:D:322:ARG:N	2.25	0.52
1:D:544:ILE:HG13	1:D:583:LEU:HD23	1.91	0.52
1:D:1301:GLY:O	1:D:1308:ILE:N	2.30	0.52
1:D:1520:ASN:HB2	1:D:1525:GLN:HG2	1.92	0.52
1:E:2646:PRO:O	1:E:2650:MET:HG2	2.10	0.52
1:F:73:LEU:HD21	1:F:173:GLN:NE2	2.25	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1338:GLY:C	1:F:1411:MET:HE1	2.35	0.52
1:F:2003:ALA:O	1:F:2007:GLU:HG2	2.09	0.52
1:A:700:ASP:OD1	1:A:854:ARG:NH1	2.37	0.51
1:A:2006:SER:O	1:A:2009:ILE:HG13	2.10	0.51
1:A:2573:VAL:HG12	1:A:2576:SER:H	1.73	0.51
1:A:2717:VAL:HG11	1:D:2695:PRO:HB2	1.92	0.51
1:B:1403:LEU:HD23	1:B:1404:THR:N	2.25	0.51
1:B:1542:VAL:HG11	1:B:1555:PHE:HB2	1.92	0.51
1:B:2703:VAL:HG21	1:B:2713:MET:HE1	1.92	0.51
1:D:37:ALA:N	1:D:342:LEU:O	2.31	0.51
1:D:1729:ASP:OD1	1:D:1729:ASP:N	2.43	0.51
1:D:2428:PRO:HB3	1:D:2968:PRO:HB2	1.93	0.51
1:D:2433:LEU:HB3	1:D:2435:VAL:HG12	1.91	0.51
1:E:2240:MET:HE2	1:E:2240:MET:HA	1.91	0.51
1:E:2522:GLU:OE2	1:E:2599:ARG:NE	2.43	0.51
1:F:740:LEU:HD13	1:F:777:LEU:HD23	1.92	0.51
1:F:1592:ASP:HA	1:F:1595:ILE:HD12	1.92	0.51
1:F:2604:GLN:HA	1:F:2795:GLN:HG2	1.91	0.51
1:A:2782:ARG:NH1	1:A:2785:ASP:OD2	2.41	0.51
1:B:1672:ILE:HD12	1:C:220:ARG:HE	1.75	0.51
1:B:2446:GLY:HA2	1:B:2800:ILE:HA	1.91	0.51
1:C:1467:LYS:HD3	1:C:1576:GLU:HB3	1.92	0.51
1:C:2701:HIS:CE1	1:C:2704:GLN:HE21	2.28	0.51
1:E:112:ALA:O	1:E:116:VAL:HG13	2.10	0.51
1:E:1365:ASP:HA	1:E:1368:THR:HG22	1.92	0.51
1:F:2180:MET:HE2	1:F:2180:MET:HA	1.92	0.51
1:F:2370:ILE:HD12	1:F:2370:ILE:O	2.10	0.51
1:F:2440:LEU:HD11	1:F:2859:LEU:HD21	1.90	0.51
1:F:2568:THR:HG21	1:F:2581:VAL:HG23	1.92	0.51
1:A:498:GLN:HG3	1:A:532:ILE:HD13	1.91	0.51
1:A:513:SER:OG	2:A:3101:FMN:O2	2.24	0.51
1:A:1130:LEU:HD22	1:A:1131:PRO:HD2	1.92	0.51
1:A:1422:MET:HE2	1:A:1428:PHE:HD1	1.75	0.51
1:A:2393:ARG:HA	1:A:2396:MET:HE3	1.92	0.51
1:B:836:CYS:HB2	1:B:843:VAL:HG11	1.92	0.51
1:E:768:THR:HG21	1:E:841:LYS:H	1.75	0.51
1:E:2568:THR:HG21	1:E:2581:VAL:HG23	1.92	0.51
1:F:1585:MET:HB3	1:F:1646:ARG:HH21	1.74	0.51
1:F:2224:ARG:HH11	1:F:2224:ARG:HA	1.76	0.51
1:F:2316:LEU:HB2	1:F:2373:ASP:HA	1.92	0.51
1:F:2741:LEU:HD23	1:F:2803:ALA:HB2	1.91	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2811:MET:O	1:F:3013:ARG:NH1	2.44	0.51
1:B:570:ARG:NH1	1:B:662:ASP:O	2.38	0.51
1:B:604:GLY:HA2	1:B:882:ALA:HB3	1.92	0.51
1:B:1348:MET:HE2	1:B:1348:MET:HA	1.93	0.51
1:B:2370:ILE:HD12	1:B:2370:ILE:O	2.11	0.51
1:C:458:PHE:HE2	1:C:490:GLN:HG2	1.75	0.51
1:C:476:GLN:NE2	1:C:508:ASP:OD2	2.44	0.51
1:C:1419:VAL:HG11	1:C:1447:CYS:HB3	1.92	0.51
1:C:2006:SER:O	1:C:2009:ILE:HG13	2.09	0.51
1:C:2690:PHE:CG	1:E:2757:GLY:HA3	2.46	0.51
1:C:2751:THR:O	1:C:2755:ILE:HG12	2.10	0.51
1:D:1104:THR:HG22	1:D:1146:ALA:HB3	1.93	0.51
1:D:1510:THR:HG21	1:D:1534:GLY:HA2	1.93	0.51
1:D:2314:HIS:NE2	1:D:2316:LEU:HD22	2.26	0.51
1:E:90:PRO:O	1:E:94:VAL:HG12	2.09	0.51
1:E:1687:ILE:HG23	1:E:1718:ALA:HB3	1.92	0.51
1:E:2114:TYR:HB3	1:E:2142:ALA:HB2	1.92	0.51
1:F:1311:VAL:HG13	1:F:1323:ALA:HB3	1.91	0.51
1:A:2293:LEU:HD11	1:A:2314:HIS:CD2	2.45	0.51
1:B:2999:ASP:N	1:B:2999:ASP:OD1	2.44	0.51
1:C:326:TRP:HE1	1:C:354:THR:HG22	1.75	0.51
1:C:1158:SER:OG	1:C:1173:GLU:OE2	2.25	0.51
1:C:1669:LEU:HD12	1:C:1678:GLY:HA2	1.92	0.51
1:C:2446:GLY:HA2	1:C:2800:ILE:HA	1.92	0.51
1:D:1599:ILE:HG21	1:D:1666:THR:OG1	2.10	0.51
1:E:2027:VAL:HG22	1:E:2179:ASN:HB2	1.93	0.51
1:E:2485:GLU:HB2	1:E:2493:TYR:CD2	2.45	0.51
1:F:424:GLY:HA3	1:F:478:ASN:HD22	1.75	0.51
1:A:666:SER:HB2	1:A:669:LYS:HG3	1.92	0.51
1:A:2430:TRP:HZ3	1:A:2970:LYS:HG2	1.76	0.51
1:B:2008:LEU:HA	1:B:2011:LEU:HD23	1.92	0.51
1:B:2224:ARG:HA	1:B:2224:ARG:HH11	1.76	0.51
1:D:1589:ALA:O	1:D:1642:ARG:NH1	2.44	0.51
1:E:2896:ARG:NH2	1:E:2901:PRO:O	2.44	0.51
1:F:1348:MET:HE2	1:F:1348:MET:HA	1.93	0.51
1:F:2107:GLU:OE1	1:F:2107:GLU:HA	2.10	0.51
1:F:2452:TYR:O	1:F:2457:THR:OG1	2.28	0.51
1:B:2660:ASN:OD1	1:B:2662:GLN:HG2	2.11	0.51
1:B:2714:ILE:HG23	1:F:2725:VAL:CG1	2.41	0.51
1:C:2882:ASN:OD1	1:C:2883:GLU:N	2.44	0.51
1:D:65:LEU:HD12	1:D:166:VAL:HG12	1.91	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:679:SER:N	1:D:683:ALA:O	2.37	0.51
1:D:779:ARG:HD2	1:D:831:PHE:CE2	2.46	0.51
1:E:2430:TRP:HZ3	1:E:2970:LYS:HG2	1.75	0.51
1:F:1024:THR:HA	1:F:1111:VAL:HG12	1.93	0.51
1:F:2087:SER:OG	1:F:2092:ARG:O	2.28	0.51
1:F:2113:ARG:HG3	1:F:2114:TYR:CD1	2.46	0.51
1:F:2357:CYS:O	1:F:2362:LYS:NZ	2.40	0.51
1:F:2790:GLY:HA2	1:F:2876:THR:HG22	1.92	0.51
1:A:725:LYS:NZ	1:A:859:SER:O	2.43	0.51
1:A:1276:LEU:HA	1:A:1327:LEU:HA	1.93	0.51
1:A:2757:GLY:HA3	1:D:2690:PHE:CG	2.46	0.51
1:B:116:VAL:HG22	1:B:117:PRO:HD3	1.93	0.51
1:B:424:GLY:HA3	1:B:478:ASN:HD22	1.76	0.51
1:B:2838:LEU:HD12	1:B:2886:LEU:HD12	1.91	0.51
1:C:1175:ARG:NH1	1:C:1188:ALA:O	2.27	0.51
1:C:2610:ASP:O	1:C:2613:VAL:HG12	2.11	0.51
1:D:226:VAL:HG11	1:D:288:THR:HG23	1.91	0.51
1:E:423:ALA:HB2	1:E:634:LEU:HD12	1.92	0.51
1:E:2639:PHE:O	1:E:2644:PHE:HB2	2.10	0.51
1:F:1456:ALA:O	1:F:1460:MET:HG3	2.11	0.51
1:F:1599:ILE:HG21	1:F:1666:THR:OG1	2.10	0.51
1:F:2332:ILE:O	1:F:2336:VAL:HG13	2.11	0.51
1:A:38:PHE:HZ	1:A:158:LEU:HD22	1.74	0.51
1:A:2715:HIS:O	1:D:2717:VAL:N	2.44	0.51
1:C:772:ARG:O	1:C:776:MET:HG3	2.11	0.51
1:C:1223:PHE:O	1:C:1227:SER:OG	2.28	0.51
1:C:1662:ARG:NE	1:C:1665:GLU:OE2	2.37	0.51
1:D:984:THR:HG22	1:D:989:VAL:HG22	1.93	0.51
1:F:1223:PHE:O	1:F:1227:SER:OG	2.29	0.51
1:A:112:ALA:O	1:A:116:VAL:HG13	2.11	0.51
1:A:2631:ASN:HB3	1:A:2702:VAL:HG21	1.93	0.51
1:B:679:SER:N	1:B:683:ALA:O	2.39	0.51
1:B:1585:MET:HB3	1:B:1646:ARG:HH21	1.76	0.51
1:B:2567:HIS:ND1	1:B:2567:HIS:O	2.44	0.51
1:B:2811:MET:O	1:B:3013:ARG:NH1	2.44	0.51
1:C:45:TRP:HB3	1:C:119:VAL:HG12	1.92	0.51
1:C:1336:PHE:CZ	1:C:1687:ILE:HD12	2.45	0.51
1:C:2070:GLU:OE2	1:C:2108:ASN:ND2	2.40	0.51
1:D:446:GLU:HG2	1:D:478:ASN:HB2	1.93	0.51
1:D:2522:GLU:HG2	1:D:2601:VAL:HG12	1.93	0.51
1:D:2882:ASN:OD1	1:D:2883:GLU:N	2.43	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1441:GLU:OE1	1:E:1601:ASN:ND2	2.44	0.51
1:E:2044:ARG:HB3	1:E:2955:VAL:HG22	1.91	0.51
1:E:2265:SER:O	1:E:2309:ARG:NH2	2.43	0.51
1:F:924:LEU:HD12	1:F:924:LEU:O	2.11	0.51
1:F:1348:MET:SD	1:F:1381:ARG:HG2	2.51	0.51
1:F:2945:ASP:N	1:F:2945:ASP:OD1	2.44	0.51
1:A:446:GLU:HG2	1:A:478:ASN:HB2	1.92	0.50
1:A:924:LEU:O	1:A:924:LEU:HD12	2.11	0.50
1:A:1104:THR:N	1:A:1107:GLY:O	2.43	0.50
1:A:2740:GLN:HB3	1:A:2804:ARG:HD3	1.93	0.50
1:B:2751:THR:O	1:B:2755:ILE:HG12	2.11	0.50
1:C:1564:PRO:O	1:C:1567:SER:OG	2.28	0.50
1:C:2483:ARG:HH12	1:C:2495:THR:HG23	1.76	0.50
1:D:541:PRO:HG2	1:D:547:ILE:HG12	1.93	0.50
1:E:1085:ASP:OD2	1:E:1256:SER:OG	2.25	0.50
1:F:1209:ARG:NH2	1:F:1307:GLU:OE1	2.41	0.50
1:B:1081:THR:HG21	1:B:1275:ARG:HG2	1.93	0.50
1:B:1521:LEU:HB3	1:B:1525:GLN:HB3	1.91	0.50
1:C:836:CYS:HB2	1:C:843:VAL:HG11	1.93	0.50
1:C:2999:ASP:N	1:C:2999:ASP:OD1	2.41	0.50
1:D:41:GLN:HE22	1:D:115:SER:HB3	1.77	0.50
1:D:2727:VAL:O	1:D:2731:VAL:HG13	2.11	0.50
1:E:655:LEU:HG	1:E:887:ILE:HD12	1.93	0.50
1:E:794:THR:HB	1:E:2412:ILE:HG21	1.93	0.50
1:E:1162:THR:HG22	1:E:1168:VAL:HA	1.92	0.50
1:E:1247:SER:H	1:E:1288:ARG:HH12	1.60	0.50
1:E:1271:ARG:O	1:E:1271:ARG:NH1	2.35	0.50
1:E:2557:ALA:O	1:E:2561:VAL:HG23	2.11	0.50
1:A:2646:PRO:O	1:A:2650:MET:HG2	2.10	0.50
1:B:924:LEU:HD12	1:B:924:LEU:O	2.12	0.50
1:B:1396:HIS:ND1	1:B:1398:ASP:OD1	2.43	0.50
1:D:112:ALA:O	1:D:116:VAL:HG13	2.11	0.50
1:D:165:ASP:N	1:D:165:ASP:OD1	2.38	0.50
1:D:2999:ASP:OD1	1:D:2999:ASP:N	2.42	0.50
1:E:867:ASP:OD1	1:E:867:ASP:N	2.43	0.50
1:E:2223:PRO:HG3	1:E:2224:ARG:H	1.75	0.50
1:E:2764:THR:OG1	1:E:2765:ALA:N	2.44	0.50
1:E:2806:ASP:OD2	1:E:2806:ASP:N	2.44	0.50
1:F:226:VAL:HG11	1:F:288:THR:HG23	1.91	0.50
1:F:549:SER:O	1:F:553:ILE:HG12	2.12	0.50
1:F:1403:LEU:HD23	1:F:1404:THR:N	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1705:LEU:HD12	1:F:1707:GLU:H	1.77	0.50
1:F:2557:ALA:O	1:F:2561:VAL:HG23	2.11	0.50
1:F:2567:HIS:ND1	1:F:2567:HIS:O	2.43	0.50
1:F:2674:THR:HG22	1:F:2685:LYS:HE3	1.94	0.50
1:A:1336:PHE:HE1	1:A:1415:ALA:HB1	1.75	0.50
1:A:1729:ASP:OD1	1:A:1729:ASP:N	2.35	0.50
1:A:2652:TYR:O	1:A:2810:ARG:NH2	2.45	0.50
1:A:3020:ARG:NH2	1:A:3029:ALA:O	2.41	0.50
1:B:175:ILE:HD12	1:B:176:GLY:N	2.27	0.50
1:B:547:ILE:HG21	1:B:587:THR:HG21	1.92	0.50
1:B:2180:MET:HA	1:B:2180:MET:HE2	1.93	0.50
1:B:2557:ALA:O	1:B:2561:VAL:HG23	2.11	0.50
1:B:2652:TYR:O	1:B:2810:ARG:NH2	2.45	0.50
1:C:1025:SER:O	1:C:1029:THR:HG23	2.11	0.50
1:C:1404:THR:O	1:C:1407:THR:HG22	2.12	0.50
1:C:1520:ASN:HB2	1:C:1525:GLN:HG2	1.94	0.50
1:D:1346:MET:HE3	1:D:1414:VAL:HG21	1.93	0.50
1:D:2924:MET:O	1:D:2928:GLN:HG3	2.12	0.50
1:E:65:LEU:HD12	1:E:166:VAL:HG12	1.93	0.50
1:E:1276:LEU:HA	1:E:1327:LEU:HA	1.93	0.50
1:E:2118:VAL:HG21	1:E:2212:GLN:HB2	1.94	0.50
1:E:2567:HIS:ND1	1:E:2567:HIS:O	2.45	0.50
1:E:2627:LEU:HD12	1:E:2668:GLY:H	1.76	0.50
1:F:425:MET:HB3	1:F:429:THR:H	1.76	0.50
1:F:836:CYS:HB2	1:F:843:VAL:HG11	1.94	0.50
1:F:1690:LYS:HG2	1:F:1719:GLU:HB3	1.94	0.50
1:A:115:SER:O	1:A:119:VAL:HG22	2.11	0.50
1:A:1162:THR:HG22	1:A:1168:VAL:HA	1.92	0.50
1:A:2648:GLU:HB3	1:A:2811:MET:HE3	1.94	0.50
1:B:45:TRP:HB3	1:B:119:VAL:HG12	1.93	0.50
1:B:549:SER:O	1:B:553:ILE:HG12	2.12	0.50
1:B:1024:THR:HA	1:B:1111:VAL:HG12	1.93	0.50
1:B:1126:VAL:HG22	1:B:1277:VAL:HA	1.94	0.50
1:C:570:ARG:NH1	1:C:662:ASP:O	2.41	0.50
1:C:1542:VAL:HG11	1:C:1555:PHE:HB2	1.93	0.50
1:C:2027:VAL:HG22	1:C:2179:ASN:HB2	1.94	0.50
1:D:2872:HIS:N	1:D:2883:GLU:OE2	2.41	0.50
1:E:1467:LYS:HZ3	1:E:1576:GLU:HG3	1.76	0.50
1:E:2314:HIS:NE2	1:E:2316:LEU:HD22	2.27	0.50
1:E:2631:ASN:HB3	1:E:2702:VAL:HG21	1.93	0.50
1:E:2720:CYS:HB2	1:E:2979:PHE:H	1.76	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2293:LEU:HD21	1:F:2314:HIS:CD2	2.47	0.50
1:F:2639:PHE:HD1	1:F:2644:PHE:HB3	1.76	0.50
1:A:1422:MET:SD	1:A:1725:LEU:HD21	2.52	0.50
1:B:654:MET:HE1	1:B:690:ASN:HB3	1.92	0.50
1:B:1368:THR:HG21	1:B:1376:VAL:HG12	1.93	0.50
1:B:2011:LEU:HD12	1:E:2024:VAL:HG12	1.94	0.50
1:B:2590:ARG:NH2	1:F:2681:LEU:HA	2.26	0.50
1:B:2723:ALA:HB3	1:B:2919:ALA:HB3	1.94	0.50
1:C:1247:SER:H	1:C:1288:ARG:HH12	1.58	0.50
1:C:2244:LEU:HD11	1:C:2295:ALA:HB3	1.94	0.50
1:D:604:GLY:HA2	1:D:882:ALA:HB3	1.93	0.50
1:D:2188:ALA:HA	1:D:2191:GLU:HG2	1.92	0.50
1:E:2428:PRO:HB3	1:E:2968:PRO:HB2	1.93	0.50
1:E:2882:ASN:OD1	1:E:2883:GLU:N	2.44	0.50
1:F:604:GLY:HA2	1:F:882:ALA:HB3	1.92	0.50
1:F:2694:LEU:O	1:F:2697:ILE:HG22	2.12	0.50
1:A:1693:PRO:HB2	1:A:1696:ALA:HB3	1.93	0.50
1:A:2050:LEU:HD21	1:A:2098:LEU:HD21	1.93	0.50
1:B:112:ALA:O	1:B:116:VAL:HG13	2.10	0.50
1:B:740:LEU:HD13	1:B:777:LEU:HD23	1.93	0.50
1:B:2741:LEU:HD23	1:B:2803:ALA:HB2	1.94	0.50
1:C:78:ASP:OD1	1:C:78:ASP:N	2.40	0.50
1:C:1005:THR:OG1	1:C:1017:VAL:O	2.25	0.50
1:E:2303:GLU:HG3	1:E:2305:SER:H	1.77	0.50
1:E:2670:THR:OG1	1:E:2749:ASP:OD2	2.23	0.50
1:F:547:ILE:HG21	1:F:587:THR:HG21	1.93	0.50
1:A:495:ARG:NH1	1:A:528:GLU:OE2	2.44	0.50
1:A:2682:GLY:HA3	1:D:2538:LEU:HG	1.92	0.50
1:B:1405:GLN:HG3	1:B:1465:GLY:HA3	1.94	0.50
1:B:2430:TRP:HZ3	1:B:2970:LYS:HB3	1.76	0.50
1:C:1047:ALA:N	1:C:1050:THR:O	2.37	0.50
1:C:1311:VAL:HG13	1:C:1323:ALA:HB3	1.93	0.50
1:D:1441:GLU:OE1	1:D:1601:ASN:ND2	2.45	0.50
1:E:2491:GLY:HA3	1:E:2500:MET:HE1	1.93	0.50
1:F:1276:LEU:HA	1:F:1327:LEU:HA	1.94	0.50
1:A:581:ASP:OD1	1:A:614:TYR:OH	2.24	0.50
1:B:1271:ARG:O	1:B:1271:ARG:HD3	2.12	0.50
1:B:1518:ASN:HB2	1:B:1527:ALA:HB3	1.92	0.50
1:C:43:SER:OG	1:C:346:PRO:O	2.30	0.50
1:C:446:GLU:HG2	1:C:478:ASN:HB2	1.94	0.50
1:C:544:ILE:HG13	1:C:583:LEU:HD23	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:604:GLY:HA2	1:C:882:ALA:HB3	1.93	0.50
1:C:717:ILE:HD12	1:C:727:TYR:CD2	2.47	0.50
1:C:2853:ALA:HB2	1:C:2894:LEU:HD22	1.93	0.50
1:D:251:TYR:HD1	1:D:251:TYR:O	1.95	0.50
1:D:1534:GLY:O	1:D:1538:LEU:HD22	2.12	0.50
1:D:2678:GLY:HA2	1:D:2683:ARG:HB2	1.94	0.50
1:F:1204:THR:HG21	1:F:1302:ILE:HG12	1.92	0.50
1:A:226:VAL:HG11	1:A:288:THR:HG23	1.93	0.49
1:B:134:GLY:C	1:B:135:MET:HE3	2.37	0.49
1:B:1703:LEU:HD23	1:B:1708:TYR:CD2	2.47	0.49
1:B:2393:ARG:HA	1:B:2396:MET:HE3	1.94	0.49
1:C:488:LYS:HG3	1:C:493:GLY:HA3	1.94	0.49
1:C:1104:THR:HG22	1:C:1146:ALA:HB3	1.93	0.49
1:D:1388:ILE:HG13	1:D:1393:HIS:HB2	1.94	0.49
1:D:1585:MET:HB3	1:D:1646:ARG:HH21	1.77	0.49
1:E:570:ARG:NH1	1:E:662:ASP:O	2.41	0.49
1:E:2592:PRO:HB2	1:E:2594:LYS:HE3	1.93	0.49
1:A:171:LEU:HD12	1:A:312:ALA:HA	1.94	0.49
1:A:2557:ALA:O	1:A:2561:VAL:HG23	2.12	0.49
1:B:188:ILE:HD11	1:B:291:LEU:HD11	1.93	0.49
1:B:2433:LEU:HB3	1:B:2435:VAL:HG12	1.94	0.49
1:C:73:LEU:HD21	1:C:173:GLN:NE2	2.27	0.49
1:C:321:ILE:HG13	1:C:322:ARG:N	2.26	0.49
1:C:424:GLY:HA3	1:C:478:ASN:HD22	1.76	0.49
1:D:115:SER:O	1:D:119:VAL:HG22	2.12	0.49
1:E:105:SER:OG	1:E:108:HIS:ND1	2.36	0.49
1:E:2456:ARG:O	1:E:2460:GLU:HG3	2.12	0.49
1:F:2661:THR:HG22	1:F:2733:LYS:HZ1	1.77	0.49
1:B:1204:THR:HG21	1:B:1302:ILE:HG12	1.93	0.49
1:B:1338:GLY:C	1:B:1411:MET:HE1	2.38	0.49
1:B:1348:MET:SD	1:B:1381:ARG:HG2	2.52	0.49
1:B:1401:LEU:O	1:B:1407:THR:HB	2.12	0.49
1:B:2207:HIS:HE2	1:B:2210:ASP:HA	1.77	0.49
1:B:2367:ARG:H	1:B:2367:ARG:HE	1.60	0.49
1:C:112:ALA:O	1:C:116:VAL:HG13	2.12	0.49
1:C:541:PRO:HG2	1:C:547:ILE:HG12	1.94	0.49
1:C:1434:ALA:HB1	1:C:1444:ALA:HB1	1.94	0.49
1:C:2440:LEU:HD21	1:C:2859:LEU:HD21	1.94	0.49
1:C:2924:MET:O	1:C:2928:GLN:HG3	2.11	0.49
1:D:2610:ASP:O	1:D:2613:VAL:HG12	2.12	0.49
1:E:2123:GLY:HA3	1:E:2221:ALA:HA	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2978:GLY:HA3	1:E:2982:VAL:HG13	1.94	0.49
1:F:45:TRP:HB3	1:F:119:VAL:HG12	1.94	0.49
1:F:1085:ASP:OD2	1:F:1256:SER:OG	2.26	0.49
1:F:2561:VAL:HG13	1:F:2564:ASP:HB2	1.95	0.49
1:A:679:SER:N	1:A:683:ALA:O	2.45	0.49
1:A:2604:GLN:HA	1:A:2795:GLN:HG2	1.93	0.49
1:A:2896:ARG:HH12	1:A:2902:LEU:HD13	1.78	0.49
1:B:958:ASP:OD1	1:B:958:ASP:N	2.45	0.49
1:B:1534:GLY:O	1:B:1538:LEU:HD22	2.13	0.49
1:B:2207:HIS:NE2	1:B:2210:ASP:OD1	2.46	0.49
1:B:2882:ASN:OD1	1:B:2883:GLU:N	2.46	0.49
1:C:1083:VAL:HG22	1:C:1084:PRO:HD2	1.95	0.49
1:C:1729:ASP:OD1	1:C:1729:ASP:N	2.44	0.49
1:C:2293:LEU:HD11	1:C:2314:HIS:NE2	2.27	0.49
1:D:538:VAL:HG22	1:D:563:ILE:HB	1.94	0.49
1:D:1454:LEU:HD12	1:D:1457:LEU:HD21	1.92	0.49
1:D:1566:HIS:HB3	1:D:1660:PRO:HA	1.93	0.49
1:E:148:HIS:CG	1:E:149:SER:H	2.31	0.49
1:E:1469:HIS:CE1	1:E:1470:ASP:HB2	2.47	0.49
1:E:1471:ILE:HD12	1:E:1472:VAL:HG23	1.95	0.49
1:E:1695:VAL:HA	1:E:1698:LEU:HD23	1.94	0.49
1:A:655:LEU:HG	1:A:887:ILE:HD12	1.93	0.49
1:A:1697:GLY:O	1:A:1701:ASN:ND2	2.44	0.49
1:A:2648:GLU:OE1	1:A:3013:ARG:NH2	2.39	0.49
1:A:2660:ASN:HD21	1:A:2662:GLN:HE21	1.60	0.49
1:A:2806:ASP:OD2	1:A:2806:ASP:N	2.44	0.49
1:B:2678:GLY:HA2	1:B:2683:ARG:CD	2.40	0.49
1:B:2694:LEU:O	1:B:2697:ILE:HG22	2.13	0.49
1:C:226:VAL:HG11	1:C:288:THR:HG23	1.94	0.49
1:C:1705:LEU:O	1:C:1707:GLU:C	2.50	0.49
1:C:1978:GLY:HA3	1:F:1985:ARG:HH22	1.77	0.49
1:C:2109:PRO:HD2	1:C:2110:GLU:N	2.27	0.49
1:C:2714:ILE:HB	1:C:2729:GLU:OE1	2.12	0.49
1:C:2872:HIS:N	1:C:2883:GLU:OE2	2.41	0.49
1:D:73:LEU:HD21	1:D:173:GLN:NE2	2.27	0.49
1:D:220:ARG:HE	1:F:1672:ILE:HD12	1.77	0.49
1:E:107:LYS:C	1:E:107:LYS:HD3	2.38	0.49
1:E:226:VAL:HG11	1:E:288:THR:HG23	1.95	0.49
1:E:2300:TRP:NE1	1:E:2369:PRO:HD3	2.28	0.49
1:F:2885:GLU:O	1:F:2889:ARG:HG3	2.13	0.49
1:A:2044:ARG:HB3	1:A:2955:VAL:HG22	1.93	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2714:ILE:HG23	1:D:2725:VAL:CG2	2.43	0.49
1:B:2054:ASP:OD1	1:B:2054:ASP:N	2.45	0.49
1:B:2690:PHE:CD2	1:F:2757:GLY:HA3	2.47	0.49
1:C:115:SER:O	1:C:119:VAL:HG22	2.12	0.49
1:C:785:HIS:NE2	1:C:787:GLN:HB3	2.28	0.49
1:C:1651:GLU:OE2	1:C:1655:TRP:NE1	2.39	0.49
1:D:250:LEU:HD23	1:D:253:ARG:NH2	2.27	0.49
1:E:1208:ARG:HA	1:E:1298:GLU:HG2	1.95	0.49
1:E:2824:SER:HA	1:E:2984:GLY:HA2	1.94	0.49
1:F:1441:GLU:OE1	1:F:1601:ASN:ND2	2.46	0.49
1:A:123:GLN:O	1:A:127:THR:HG23	2.13	0.49
1:A:1365:ASP:HA	1:A:1368:THR:HG22	1.93	0.49
1:A:1663:TRP:O	1:A:1666:THR:HG22	2.13	0.49
1:A:2751:THR:O	1:A:2755:ILE:HG12	2.13	0.49
1:B:145:MET:HG2	1:B:155:VAL:HG13	1.94	0.49
1:B:1087:LEU:HD12	1:B:1087:LEU:H	1.78	0.49
1:B:2637:ASP:O	1:B:2641:SER:HB3	2.12	0.49
1:C:924:LEU:HD12	1:C:924:LEU:O	2.13	0.49
1:F:123:GLN:O	1:F:127:THR:HG23	2.13	0.49
1:F:446:GLU:HG2	1:F:478:ASN:HB2	1.95	0.49
1:A:1438:SER:OG	1:A:1566:HIS:NE2	2.29	0.49
1:A:2561:VAL:HG13	1:A:2564:ASP:HB2	1.95	0.49
1:B:425:MET:HB3	1:B:429:THR:H	1.78	0.49
1:B:2044:ARG:HB3	1:B:2955:VAL:HG22	1.93	0.49
1:C:425:MET:HB3	1:C:429:THR:H	1.78	0.49
1:C:779:ARG:HD2	1:C:831:PHE:CE2	2.48	0.49
1:E:924:LEU:HD12	1:E:924:LEU:O	2.11	0.49
1:E:2107:GLU:OE1	1:E:2107:GLU:HA	2.12	0.49
1:E:2216:LEU:HD21	1:E:2218:PHE:HE1	1.77	0.49
1:E:2998:LEU:O	1:E:3003:ARG:NH2	2.46	0.49
1:F:112:ALA:O	1:F:116:VAL:HG13	2.13	0.49
1:F:547:ILE:CG2	1:F:587:THR:HG21	2.43	0.49
1:F:1618:ARG:HH12	1:F:1622:PRO:HA	1.77	0.49
1:F:2806:ASP:OD2	1:F:2806:ASP:N	2.45	0.49
1:A:359:ARG:HD3	1:A:589:SER:HB2	1.94	0.49
1:A:1247:SER:H	1:A:1288:ARG:HH12	1.61	0.49
1:A:2438:ALA:HA	1:A:2806:ASP:OD2	2.13	0.49
1:B:123:GLN:O	1:B:127:THR:HG23	2.12	0.49
1:B:543:THR:O	1:B:547:ILE:HG13	2.13	0.49
1:B:2719:ALA:HB1	1:F:2694:LEU:HD13	1.94	0.49
1:C:867:ASP:OD1	1:C:867:ASP:N	2.44	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2315:ALA:HB1	1:C:2374:LEU:HD12	1.94	0.49
1:C:2896:ARG:NH2	1:C:2901:PRO:O	2.45	0.49
1:D:185:ARG:NE	1:F:1060:GLU:OE2	2.46	0.49
1:D:397:VAL:HG11	1:D:910:LEU:HD21	1.95	0.49
1:D:1223:PHE:O	1:D:1227:SER:OG	2.28	0.49
1:E:785:HIS:CE1	1:E:787:GLN:HB3	2.48	0.49
1:E:1422:MET:HG2	1:E:1428:PHE:HD1	1.78	0.49
1:F:1333:VAL:HG21	1:F:1670:LEU:HD21	1.94	0.49
1:A:199:SER:HA	1:A:237:VAL:HG12	1.95	0.49
1:A:634:LEU:HD23	1:A:634:LEU:H	1.78	0.49
1:B:115:SER:O	1:B:119:VAL:HG22	2.12	0.49
1:B:425:MET:HE1	1:B:636:GLY:HA2	1.93	0.49
1:B:1155:VAL:HG13	1:B:1176:PHE:HB2	1.95	0.49
1:B:2113:ARG:HG3	1:B:2114:TYR:CD1	2.48	0.49
1:C:1153:ARG:HB3	1:C:1178:ILE:HB	1.95	0.49
1:C:2114:TYR:CD2	1:C:2137:LEU:HD23	2.48	0.49
1:D:2271:LEU:HB2	1:D:2314:HIS:HB2	1.94	0.49
1:E:120:LEU:HD22	1:E:153:LEU:HD13	1.95	0.49
1:F:221:THR:OG1	1:F:247:ARG:NH2	2.44	0.49
1:F:541:PRO:HG2	1:F:547:ILE:HG12	1.95	0.49
1:F:1058:HIS:HB2	1:F:1061:ARG:HD3	1.94	0.49
1:F:2637:ASP:O	1:F:2641:SER:HB3	2.13	0.49
1:A:2265:SER:O	1:A:2309:ARG:NH2	2.45	0.48
1:B:397:VAL:HG11	1:B:910:LEU:HD21	1.94	0.48
1:B:1209:ARG:NH2	1:B:1307:GLU:OE1	2.42	0.48
1:B:1388:ILE:HB	1:E:2262:ASP:HB2	1.95	0.48
1:C:73:LEU:HD21	1:C:173:GLN:HE21	1.77	0.48
1:C:1276:LEU:HA	1:C:1327:LEU:HA	1.94	0.48
1:D:197:MET:HE3	1:D:286:PHE:H	1.78	0.48
1:E:2740:GLN:HB3	1:E:2804:ARG:HD3	1.95	0.48
1:F:115:SER:O	1:F:119:VAL:HG22	2.13	0.48
1:F:207:ARG:O	1:F:211:LEU:HG	2.13	0.48
1:F:397:VAL:HG11	1:F:910:LEU:HD21	1.94	0.48
1:F:543:THR:O	1:F:547:ILE:HG13	2.13	0.48
1:F:1987:VAL:O	1:F:1988:LEU:HD23	2.12	0.48
1:A:543:THR:O	1:A:547:ILE:HG13	2.14	0.48
1:A:1686:GLU:CD	1:A:1696:ALA:HB2	2.38	0.48
1:A:2738:LYS:NZ	1:D:2732:ASP:OD2	2.35	0.48
1:D:2483:ARG:HH12	1:D:2495:THR:HG23	1.78	0.48
1:E:123:GLN:O	1:E:127:THR:HG23	2.14	0.48
1:F:1401:LEU:O	1:F:1407:THR:HB	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2483:ARG:HH12	1:F:2495:THR:HG23	1.78	0.48
1:A:534:ILE:HG22	1:A:536:HIS:H	1.77	0.48
1:A:655:LEU:HD13	1:A:688:ILE:HD11	1.95	0.48
1:A:734:MET:HG2	1:A:738:GLN:HE21	1.76	0.48
1:A:2054:ASP:N	1:A:2054:ASP:OD1	2.46	0.48
1:A:2087:SER:OG	1:A:2092:ARG:O	2.32	0.48
1:B:1284:LEU:HD12	1:B:1319:LEU:HB3	1.94	0.48
1:D:1333:VAL:HG22	1:D:1433:ILE:HD11	1.94	0.48
1:D:1982:SER:HA	1:D:1985:ARG:NE	2.24	0.48
1:E:1301:GLY:O	1:E:1308:ILE:N	2.36	0.48
1:F:425:MET:HE1	1:F:636:GLY:HA2	1.95	0.48
1:F:2652:TYR:O	1:F:2810:ARG:NH2	2.46	0.48
1:A:106:ASP:N	1:A:106:ASP:OD1	2.44	0.48
1:A:2383:LEU:HB3	1:A:2388:LEU:HD21	1.94	0.48
1:B:1027:MET:SD	1:B:1114:LEU:HB3	2.53	0.48
1:B:1729:ASP:OD1	1:B:1729:ASP:N	2.44	0.48
1:B:2483:ARG:HH12	1:B:2495:THR:HG23	1.77	0.48
1:B:2694:LEU:HD13	1:F:2719:ALA:HB1	1.94	0.48
1:C:22:HIS:ND1	1:C:378:PHE:O	2.40	0.48
1:C:1162:THR:HG22	1:C:1168:VAL:HA	1.95	0.48
1:C:2107:GLU:HA	1:C:2107:GLU:OE2	2.12	0.48
1:C:2293:LEU:O	1:C:2297:VAL:HG13	2.13	0.48
1:D:1333:VAL:HG21	1:D:1670:LEU:HD21	1.95	0.48
1:E:574:HIS:HA	1:E:685:ILE:HG22	1.95	0.48
1:E:575:HIS:HB3	1:E:684:ASP:HB2	1.94	0.48
1:E:1204:THR:HG21	1:E:1302:ILE:HG12	1.95	0.48
1:E:2012:VAL:HG23	1:E:2016:LEU:HD12	1.95	0.48
1:E:2054:ASP:OD1	1:E:2054:ASP:N	2.46	0.48
1:E:2405:ASP:OD2	1:E:2406:ALA:N	2.46	0.48
1:F:1139:VAL:HG12	1:F:1161:VAL:HG12	1.94	0.48
1:A:1047:ALA:N	1:A:1050:THR:O	2.38	0.48
1:A:1208:ARG:HA	1:A:1298:GLU:HG2	1.95	0.48
1:A:2296:VAL:HB	1:A:2312:LEU:HD21	1.96	0.48
1:A:2567:HIS:O	1:A:2567:HIS:ND1	2.46	0.48
1:B:547:ILE:CG2	1:B:587:THR:HG21	2.43	0.48
1:B:1441:GLU:OE1	1:B:1601:ASN:ND2	2.46	0.48
1:B:1514:LEU:HD22	1:B:1530:GLY:HA3	1.96	0.48
1:B:2293:LEU:HD21	1:B:2314:HIS:CD2	2.49	0.48
1:B:2978:GLY:N	1:B:2982:VAL:O	2.45	0.48
1:B:3020:ARG:NH2	1:B:3029:ALA:O	2.44	0.48
1:D:717:ILE:HD12	1:D:727:TYR:CD2	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:924:LEU:O	1:D:924:LEU:HD12	2.12	0.48
1:D:1422:MET:SD	1:D:1725:LEU:HD21	2.54	0.48
1:D:1651:GLU:O	1:D:1655:TRP:HD1	1.96	0.48
1:D:2027:VAL:HG22	1:D:2179:ASN:HB2	1.95	0.48
1:D:2266:ARG:HG3	1:D:2309:ARG:C	2.39	0.48
1:D:2652:TYR:O	1:D:2810:ARG:NH2	2.47	0.48
1:D:2718:ALA:H	1:D:2722:THR:HG22	1.78	0.48
1:F:2699:ALA:O	1:F:2703:VAL:HG23	2.14	0.48
1:A:1338:GLY:C	1:A:1411:MET:HE1	2.39	0.48
1:B:2561:VAL:HG13	1:B:2564:ASP:HB2	1.95	0.48
1:C:2266:ARG:HH22	1:C:2366:ALA:HA	1.78	0.48
1:C:2341:VAL:HG21	1:C:2378:LEU:HB2	1.96	0.48
1:D:818:ASP:O	1:D:822:VAL:HG12	2.14	0.48
1:D:1027:MET:SD	1:D:1114:LEU:HB3	2.53	0.48
1:E:1521:LEU:HB3	1:E:1525:GLN:HB3	1.94	0.48
1:E:2190:VAL:HG11	1:E:2253:GLY:HA3	1.96	0.48
1:E:2244:LEU:HD11	1:E:2295:ALA:HB3	1.96	0.48
1:E:2452:TYR:O	1:E:2457:THR:OG1	2.31	0.48
1:E:2741:LEU:HD23	1:E:2803:ALA:HB2	1.95	0.48
1:F:73:LEU:HD21	1:F:173:GLN:HE21	1.77	0.48
1:F:238:ILE:HD12	1:F:245:LEU:HD22	1.95	0.48
1:F:293:ASP:OD1	1:F:293:ASP:N	2.43	0.48
1:F:717:ILE:HD12	1:F:727:TYR:CD2	2.49	0.48
1:A:550:VAL:HB	1:A:564:MET:HE2	1.96	0.48
1:A:2180:MET:HE2	1:A:2180:MET:HA	1.95	0.48
1:A:2764:THR:OG1	1:A:2765:ALA:N	2.47	0.48
1:B:2673:GLN:HG2	1:B:2677:HIS:CE1	2.47	0.48
1:C:171:LEU:HD11	1:C:312:ALA:HA	1.95	0.48
1:D:43:SER:OG	1:D:346:PRO:O	2.30	0.48
1:D:1024:THR:HG22	1:D:1111:VAL:HG22	1.95	0.48
1:E:395:PRO:HB2	1:E:407:LEU:HD11	1.95	0.48
1:E:2114:TYR:CD2	1:E:2137:LEU:HD23	2.49	0.48
1:E:2293:LEU:HD21	1:E:2314:HIS:CD2	2.49	0.48
1:E:2637:ASP:O	1:E:2641:SER:HB3	2.14	0.48
1:F:134:GLY:C	1:F:135:MET:HE3	2.39	0.48
1:F:482:LEU:HG	1:F:514:ALA:O	2.13	0.48
1:F:1027:MET:SD	1:F:1114:LEU:HB3	2.53	0.48
1:F:1975:GLY:HA3	1:F:1976:ARG:NH2	2.27	0.48
1:A:2452:TYR:O	1:A:2457:THR:OG1	2.31	0.48
1:B:446:GLU:HG2	1:B:478:ASN:HB2	1.95	0.48
1:B:1618:ARG:NH1	1:B:1618:ARG:O	2.47	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2392:ALA:O	1:D:2395:GLN:HG3	2.14	0.48
1:E:1454:LEU:HA	1:E:1457:LEU:HD23	1.95	0.48
1:E:1994:ASP:OD1	1:E:1994:ASP:N	2.47	0.48
1:E:2050:LEU:HD21	1:E:2098:LEU:HD21	1.96	0.48
1:E:2874:THR:OG1	1:E:2913:HIS:ND1	2.45	0.48
1:A:2998:LEU:O	1:A:3003:ARG:NH2	2.46	0.48
1:B:238:ILE:HD12	1:B:245:LEU:HD22	1.95	0.48
1:B:713:ARG:O	1:B:717:ILE:HG12	2.14	0.48
1:B:2039:ARG:HD3	1:B:2167:ALA:HB3	1.94	0.48
1:C:1419:VAL:HG21	1:C:1447:CYS:HB3	1.96	0.48
1:E:2243:LEU:O	1:E:2247:VAL:HG13	2.13	0.48
1:F:2462:GLU:HG2	1:F:2936:PRO:HB3	1.96	0.48
1:A:185:ARG:HD2	1:C:1060:GLU:HB3	1.95	0.48
1:A:473:ARG:NH1	1:A:1012:ASP:O	2.46	0.48
1:A:1119:HIS:HD2	1:A:1283:PHE:CE2	2.31	0.48
1:A:1672:ILE:HD12	1:B:220:ARG:HE	1.78	0.48
1:A:2703:VAL:HA	1:A:2707:VAL:HG22	1.94	0.48
1:B:1333:VAL:HG21	1:B:1670:LEU:HD21	1.94	0.48
1:C:634:LEU:HD23	1:C:634:LEU:H	1.78	0.48
1:C:1706:PRO:HA	1:C:1709:ALA:HB2	1.96	0.48
1:C:2358:ASP:OD1	1:C:2358:ASP:N	2.35	0.48
1:C:2811:MET:HB3	1:C:2813:LEU:HG	1.95	0.48
1:D:1276:LEU:HD23	1:D:1327:LEU:HB3	1.96	0.48
1:E:395:PRO:HB3	1:E:409:THR:HG22	1.96	0.48
1:E:534:ILE:HG22	1:E:536:HIS:H	1.78	0.48
1:E:2344:TYR:OH	1:E:2376:GLY:N	2.46	0.48
1:E:2604:GLN:HA	1:E:2795:GLN:HG2	1.96	0.48
1:F:175:ILE:HD13	1:F:319:ILE:HG21	1.95	0.48
1:A:615:LEU:HD12	1:A:630:ILE:HG13	1.96	0.47
1:A:1058:HIS:HB2	1:A:1061:ARG:HD3	1.96	0.47
1:A:1299:ARG:HA	1:A:1309:VAL:HG23	1.95	0.47
1:A:2648:GLU:HG2	1:A:2651:ARG:NH1	2.29	0.47
1:B:522:ALA:HB3	1:B:553:ILE:HD12	1.96	0.47
1:B:2242:VAL:O	1:B:2246:ALA:HB3	2.14	0.47
1:C:2538:LEU:HG	1:E:2682:GLY:HA3	1.95	0.47
1:C:2741:LEU:HD23	1:C:2803:ALA:HB2	1.96	0.47
1:D:2022:ARG:HB3	1:D:2022:ARG:NH1	2.29	0.47
1:E:1299:ARG:HA	1:E:1309:VAL:HG23	1.96	0.47
1:E:2482:ILE:HG23	1:E:2492:TRP:HB3	1.96	0.47
1:F:1966:LEU:HA	1:F:1969:PHE:CD2	2.49	0.47
1:F:2770:MET:HG2	1:F:2789:LEU:HD11	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:229:ILE:HG12	1:A:237:VAL:HG22	1.96	0.47
1:A:867:ASP:N	1:A:867:ASP:OD1	2.44	0.47
1:A:1204:THR:HG21	1:A:1302:ILE:HG12	1.95	0.47
1:A:2020:TRP:O	1:A:2024:VAL:HG22	2.14	0.47
1:B:482:LEU:HG	1:B:514:ALA:O	2.14	0.47
1:C:1223:PHE:HA	1:C:1226:VAL:HG22	1.96	0.47
1:C:1338:GLY:C	1:C:1411:MET:HE1	2.39	0.47
1:C:2153:GLU:H	1:C:2153:GLU:CD	2.22	0.47
1:C:2718:ALA:H	1:C:2722:THR:HG22	1.79	0.47
1:C:2728:GLU:O	1:C:2731:VAL:HG22	2.14	0.47
1:D:425:MET:HB3	1:D:429:THR:H	1.77	0.47
1:D:1703:LEU:HD11	1:D:1713:VAL:HB	1.96	0.47
1:E:37:ALA:N	1:E:342:LEU:O	2.27	0.47
1:E:544:ILE:HG13	1:E:583:LEU:HD22	1.96	0.47
1:E:1119:HIS:HD2	1:E:1283:PHE:CE2	2.31	0.47
1:E:2485:GLU:HB2	1:E:2493:TYR:HD2	1.78	0.47
1:F:1155:VAL:HG13	1:F:1176:PHE:HB2	1.96	0.47
1:F:1640:ARG:HG2	1:F:1643:GLU:HB3	1.95	0.47
1:F:1994:ASP:OD1	1:F:1994:ASP:N	2.48	0.47
1:A:39:GLY:HA2	1:A:350:LEU:HD22	1.96	0.47
1:A:547:ILE:CG2	1:A:587:THR:HG21	2.44	0.47
1:A:1301:GLY:O	1:A:1308:ILE:N	2.36	0.47
1:A:2321:ARG:O	1:A:2329:ASN:ND2	2.48	0.47
1:D:520:ASP:O	1:D:524:GLU:HG3	2.14	0.47
1:D:2044:ARG:HB3	1:D:2955:VAL:HG22	1.96	0.47
1:E:182:VAL:O	1:E:186:ARG:HG2	2.14	0.47
1:E:1689:VAL:HA	1:E:1719:GLU:HG2	1.96	0.47
1:F:43:SER:OG	1:F:346:PRO:O	2.31	0.47
1:F:777:LEU:O	1:F:781:GLU:HG3	2.14	0.47
1:A:796:PHE:HB3	1:A:802:LEU:HD12	1.95	0.47
1:A:1336:PHE:CE1	1:A:1415:ALA:HB1	2.49	0.47
1:A:1434:ALA:HB1	1:A:1444:ALA:HB1	1.96	0.47
1:B:1266:THR:OG1	1:B:1271:ARG:NH2	2.46	0.47
1:B:2107:GLU:OE2	1:B:2107:GLU:HA	2.15	0.47
1:B:2658:VAL:O	1:B:2709:SER:HB2	2.15	0.47
1:C:417:ARG:NH2	1:C:474:THR:OG1	2.46	0.47
1:C:695:CYS:O	1:C:699:LEU:HG	2.14	0.47
1:C:1484:LEU:HD12	1:C:1529:ALA:HB2	1.97	0.47
1:D:495:ARG:NH1	1:D:528:GLU:OE2	2.48	0.47
1:D:740:LEU:HD13	1:D:777:LEU:HD23	1.95	0.47
1:D:1662:ARG:NE	1:D:1665:GLU:OE2	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2440:LEU:HD21	1:D:2859:LEU:HD21	1.96	0.47
1:D:2723:ALA:HB1	1:D:2920:VAL:HG23	1.96	0.47
1:E:119:VAL:HG21	1:E:150:GLN:HE22	1.79	0.47
1:F:2869:ILE:HG13	1:F:2902:LEU:HD13	1.97	0.47
1:A:1966:LEU:HA	1:A:1969:PHE:CD2	2.49	0.47
1:A:2293:LEU:HD11	1:A:2314:HIS:HD2	1.79	0.47
1:B:1160:VAL:HG12	1:B:1171:THR:HG23	1.97	0.47
1:B:2467:LEU:HB3	1:B:2472:VAL:HG23	1.96	0.47
1:B:2748:ASP:HB2	1:B:2916:GLY:H	1.79	0.47
1:C:371:ARG:HB2	1:C:371:ARG:CZ	2.45	0.47
1:C:488:LYS:HA	1:C:493:GLY:H	1.78	0.47
1:C:1087:LEU:H	1:C:1087:LEU:HD12	1.79	0.47
1:C:1271:ARG:O	1:C:1271:ARG:HD3	2.14	0.47
1:C:1599:ILE:HG21	1:C:1666:THR:OG1	2.13	0.47
1:C:2663:GLY:HA2	1:C:2715:HIS:HB3	1.97	0.47
1:D:1276:LEU:HA	1:D:1327:LEU:HA	1.97	0.47
1:E:1676:ALA:HB2	1:F:222:VAL:HG12	1.96	0.47
1:E:2544:GLU:HG2	1:E:2585:ALA:HA	1.97	0.47
1:F:1301:GLY:O	1:F:1308:ILE:N	2.31	0.47
1:F:1506:ILE:HG21	1:F:1538:LEU:HD11	1.95	0.47
1:F:1576:GLU:O	1:F:1579:ARG:HG3	2.15	0.47
1:A:341:ILE:HD11	1:A:365:ILE:HG13	1.94	0.47
1:B:541:PRO:HG2	1:B:547:ILE:HG12	1.97	0.47
1:B:2216:LEU:HD21	1:B:2218:PHE:CE1	2.50	0.47
1:B:2973:MET:HE3	1:B:2985:LEU:HD21	1.96	0.47
1:C:22:HIS:HB2	1:C:25:VAL:HB	1.97	0.47
1:C:818:ASP:O	1:C:822:VAL:HG12	2.15	0.47
1:C:1636:TRP:HE3	1:C:1644:MET:HE1	1.78	0.47
1:E:227:LEU:HA	1:E:238:ILE:HG22	1.97	0.47
1:E:1284:LEU:HD12	1:E:1319:LEU:HB3	1.96	0.47
1:E:2224:ARG:HG3	1:E:2226:VAL:HG23	1.95	0.47
1:F:188:ILE:HD11	1:F:290:ARG:HD3	1.95	0.47
1:F:2242:VAL:O	1:F:2246:ALA:HB3	2.14	0.47
1:A:541:PRO:HG2	1:A:547:ILE:HG12	1.97	0.47
1:A:1566:HIS:ND1	1:A:1657:PHE:O	2.41	0.47
1:A:1717:ASN:N	1:A:1717:ASN:OD1	2.46	0.47
1:A:2713:MET:HB2	1:D:2982:VAL:HG23	1.97	0.47
1:A:2725:VAL:CG1	1:D:2714:ILE:HG23	2.45	0.47
1:B:33:PRO:O	1:B:339:ARG:N	2.45	0.47
1:B:78:ASP:OD1	1:B:78:ASP:N	2.46	0.47
1:B:494:LYS:HB3	1:B:494:LYS:HE2	1.64	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:727:TYR:CD1	1:B:849:ILE:HD11	2.50	0.47
1:B:2313:ALA:HB1	1:B:2370:ILE:HD11	1.97	0.47
1:B:2620:MET:O	1:B:2624:ILE:HG12	2.14	0.47
1:C:165:ASP:OD1	1:C:165:ASP:N	2.37	0.47
1:C:182:VAL:O	1:C:186:ARG:HG2	2.14	0.47
1:C:197:MET:HE3	1:C:286:PHE:H	1.77	0.47
1:C:350:LEU:O	1:C:354:THR:OG1	2.20	0.47
1:C:543:THR:OG1	1:C:544:ILE:N	2.47	0.47
1:C:1109:PRO:HB3	1:C:1153:ARG:HD3	1.95	0.47
1:C:1151:MET:HE1	1:C:1177:ALA:HB1	1.96	0.47
1:C:2054:ASP:N	1:C:2054:ASP:OD1	2.46	0.47
1:D:48:THR:HG21	1:D:347:GLY:H	1.79	0.47
1:D:846:VAL:HG13	1:D:856:TRP:HB3	1.97	0.47
1:D:2054:ASP:N	1:D:2054:ASP:OD1	2.46	0.47
1:D:2537:LEU:HD23	1:D:2537:LEU:HA	1.78	0.47
1:D:2558:ARG:NH2	1:D:2561:VAL:HG23	2.29	0.47
1:E:1223:PHE:HA	1:E:1226:VAL:HG22	1.97	0.47
1:E:1468:MET:HB2	1:E:1657:PHE:HZ	1.79	0.47
1:E:1693:PRO:HB2	1:E:1696:ALA:HB3	1.97	0.47
1:E:2087:SER:OG	1:E:2092:ARG:O	2.33	0.47
1:E:2561:VAL:HG13	1:E:2564:ASP:HB2	1.96	0.47
1:F:395:PRO:HB2	1:F:407:LEU:HD11	1.97	0.47
1:F:829:VAL:HB	1:F:830:PRO:HD3	1.96	0.47
1:F:1566:HIS:ND1	1:F:1657:PHE:O	2.38	0.47
1:F:2027:VAL:HG22	1:F:2179:ASN:HB2	1.96	0.47
1:F:2216:LEU:HD21	1:F:2218:PHE:CE1	2.49	0.47
1:F:2499:GLU:N	1:F:2499:GLU:OE2	2.48	0.47
1:A:829:VAL:HB	1:A:830:PRO:HD3	1.97	0.47
1:B:2243:LEU:O	1:B:2247:VAL:HG13	2.15	0.47
1:B:2806:ASP:OD2	1:B:2806:ASP:N	2.45	0.47
1:C:2216:LEU:HD23	1:C:2218:PHE:HE1	1.79	0.47
1:C:2321:ARG:HH11	1:C:2345:SER:HB3	1.79	0.47
1:D:171:LEU:HD11	1:D:312:ALA:HA	1.95	0.47
1:D:2107:GLU:HA	1:D:2107:GLU:OE2	2.14	0.47
1:D:2109:PRO:HD2	1:D:2110:GLU:H	1.78	0.47
1:E:717:ILE:HD12	1:E:727:TYR:CD2	2.50	0.47
1:E:1072:PHE:HZ	1:E:1261:HIS:HB3	1.79	0.47
1:E:1223:PHE:O	1:E:1227:SER:OG	2.32	0.47
1:E:1966:LEU:HA	1:E:1969:PHE:CD1	2.50	0.47
1:F:717:ILE:HG23	1:F:727:TYR:HD2	1.79	0.47
1:F:2054:ASP:N	1:F:2054:ASP:OD1	2.45	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2243:LEU:O	1:F:2247:VAL:HG13	2.15	0.47
1:F:2882:ASN:OD1	1:F:2883:GLU:N	2.48	0.47
1:F:2973:MET:HE3	1:F:2985:LEU:HD21	1.97	0.47
1:A:2107:GLU:HA	1:A:2107:GLU:OE2	2.14	0.47
1:A:2452:TYR:HE2	1:A:2461:MET:HE3	1.80	0.47
1:B:417:ARG:NH2	1:B:474:THR:OG1	2.48	0.47
1:B:425:MET:N	1:B:429:THR:OG1	2.48	0.47
1:B:543:THR:OG1	1:B:544:ILE:N	2.48	0.47
1:B:550:VAL:HB	1:B:564:MET:HE2	1.96	0.47
1:B:2266:ARG:HH22	1:B:2366:ALA:HA	1.80	0.47
1:B:2266:ARG:HH12	1:B:2366:ALA:HA	1.80	0.47
1:C:1708:TYR:O	1:C:1709:ALA:C	2.56	0.47
1:D:2592:PRO:HB2	1:D:2594:LYS:HE3	1.97	0.47
1:E:207:ARG:O	1:E:211:LEU:HG	2.15	0.47
1:A:1520:ASN:HB2	1:A:1525:GLN:HG2	1.97	0.47
1:B:2223:PRO:O	1:B:2224:ARG:HG2	2.15	0.47
1:B:2853:ALA:HB2	1:B:2894:LEU:HD22	1.97	0.47
1:C:395:PRO:HB2	1:C:407:LEU:HD11	1.97	0.47
1:C:420:ILE:HD12	1:C:633:ILE:HD11	1.97	0.47
1:C:520:ASP:O	1:C:524:GLU:HG3	2.15	0.47
1:C:943:ARG:CZ	1:C:946:GLY:HA2	2.45	0.47
1:C:1422:MET:HE3	1:C:1428:PHE:HD1	1.80	0.47
1:C:2930:LEU:HD23	1:C:2969:LEU:HD13	1.97	0.47
1:D:78:ASP:OD1	1:D:78:ASP:N	2.40	0.47
1:D:316:ALA:O	1:D:320:LEU:HB2	2.15	0.47
1:D:943:ARG:CZ	1:D:946:GLY:HA2	2.45	0.47
1:D:1047:ALA:N	1:D:1050:THR:O	2.36	0.47
1:D:1223:PHE:HA	1:D:1226:VAL:HG22	1.97	0.47
1:D:2247:VAL:O	1:D:2251:ILE:HG13	2.15	0.47
1:E:2660:ASN:HD21	1:E:2662:GLN:HE21	1.62	0.47
1:F:188:ILE:O	1:F:188:ILE:HG22	2.15	0.47
1:A:153:LEU:HD12	1:A:154:ALA:H	1.80	0.46
1:A:190:VAL:HB	1:A:196:PRO:HD3	1.97	0.46
1:A:549:SER:O	1:A:553:ILE:HG12	2.15	0.46
1:A:1485:ALA:HB2	1:A:1557:LEU:HD12	1.96	0.46
1:A:2214:PRO:HD2	1:A:2257:ILE:HD11	1.96	0.46
1:B:943:ARG:HG2	1:B:1017:VAL:HG23	1.96	0.46
1:B:2614:TRP:O	1:B:3031:MET:HB2	2.15	0.46
1:C:425:MET:N	1:C:429:THR:OG1	2.44	0.46
1:C:2748:ASP:HB2	1:C:2916:GLY:H	1.80	0.46
1:C:2766:ASP:HB2	1:C:2769:MET:HE1	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2826:GLY:O	1:C:2839:GLY:HA3	2.15	0.46
1:D:2242:VAL:O	1:D:2246:ALA:HB3	2.16	0.46
1:D:2728:GLU:O	1:D:2731:VAL:HG22	2.16	0.46
1:E:230:ARG:HG2	1:E:236:VAL:HG12	1.97	0.46
1:E:1047:ALA:N	1:E:1050:THR:O	2.38	0.46
1:E:1518:ASN:HB2	1:E:1527:ALA:HB3	1.96	0.46
1:E:2438:ALA:HA	1:E:2806:ASP:OD2	2.15	0.46
1:F:1012:ASP:OD1	1:F:1012:ASP:N	2.48	0.46
1:F:1407:THR:O	1:F:1411:MET:HG2	2.14	0.46
1:A:544:ILE:HG13	1:A:583:LEU:HD22	1.97	0.46
1:A:717:ILE:HD12	1:A:727:TYR:CD2	2.50	0.46
1:A:736:TYR:O	1:A:740:LEU:HG	2.16	0.46
1:A:2666:MET:HG2	1:D:2695:PRO:HD3	1.98	0.46
1:B:1038:ASP:O	1:B:1042:PHE:HB2	2.16	0.46
1:B:1139:VAL:HG12	1:B:1161:VAL:HG12	1.96	0.46
1:B:1336:PHE:CE1	1:B:1687:ILE:HD12	2.50	0.46
1:B:1966:LEU:HA	1:B:1969:PHE:CD2	2.50	0.46
1:C:1038:ASP:O	1:C:1042:PHE:HB2	2.16	0.46
1:C:2266:ARG:HG2	1:C:2311:SER:OG	2.15	0.46
1:D:1468:MET:HB2	1:D:1657:PHE:HZ	1.80	0.46
1:D:1987:VAL:C	1:D:1988:LEU:HD23	2.40	0.46
1:E:615:LEU:HD12	1:E:630:ILE:HG13	1.97	0.46
1:E:1046:VAL:HG22	1:E:1051:ALA:HB2	1.98	0.46
1:E:1488:ARG:HG3	1:E:1524:SER:HB2	1.98	0.46
1:E:2074:HIS:O	1:E:2078:THR:HG23	2.16	0.46
1:F:474:THR:OG1	1:F:508:ASP:OD2	2.28	0.46
1:F:522:ALA:HB3	1:F:553:ILE:HD12	1.98	0.46
1:F:1729:ASP:OD1	1:F:1729:ASP:N	2.44	0.46
1:A:1223:PHE:HA	1:A:1226:VAL:HG22	1.97	0.46
1:A:2452:TYR:HA	1:A:2518:VAL:HG22	1.97	0.46
1:B:2393:ARG:HA	1:B:2396:MET:HG3	1.97	0.46
1:B:2757:GLY:HA3	1:F:2690:PHE:CD2	2.51	0.46
1:C:397:VAL:HG11	1:C:910:LEU:HD21	1.96	0.46
1:C:1441:GLU:OE1	1:C:1601:ASN:ND2	2.48	0.46
1:C:2666:MET:HG2	1:E:2695:PRO:HD3	1.96	0.46
1:C:2922:GLN:HB2	1:C:2974:LEU:HD21	1.97	0.46
1:D:570:ARG:NH1	1:D:662:ASP:O	2.40	0.46
1:D:2446:GLY:HA2	1:D:2800:ILE:HA	1.97	0.46
1:D:2658:VAL:O	1:D:2709:SER:HB2	2.15	0.46
1:D:2826:GLY:O	1:D:2839:GLY:HA3	2.14	0.46
1:E:2242:VAL:O	1:E:2246:ALA:HB3	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:119:VAL:HG12	1:F:346:PRO:HG3	1.98	0.46
1:F:1618:ARG:NH1	1:F:1618:ARG:O	2.48	0.46
1:F:1636:TRP:HB3	1:F:1640:ARG:NH1	2.30	0.46
1:F:2978:GLY:N	1:F:2982:VAL:O	2.48	0.46
1:A:1401:LEU:O	1:A:1407:THR:HB	2.14	0.46
1:A:2367:ARG:NH1	1:A:2368:SER:OG	2.48	0.46
1:B:1644:MET:SD	1:B:1645:ALA:N	2.88	0.46
1:C:119:VAL:HG12	1:C:346:PRO:HG3	1.96	0.46
1:C:319:ILE:HG23	1:C:320:LEU:HG	1.96	0.46
1:C:1966:LEU:HA	1:C:1969:PHE:CD2	2.50	0.46
1:C:2066:ALA:HB1	1:C:2101:ARG:HD2	1.96	0.46
1:C:2652:TYR:O	1:C:2810:ARG:NH2	2.48	0.46
1:C:2875:SER:O	1:C:2875:SER:OG	2.24	0.46
1:D:651:VAL:HG13	1:D:877:ILE:HD13	1.97	0.46
1:D:1564:PRO:O	1:D:1567:SER:OG	2.32	0.46
1:E:541:PRO:HG2	1:E:547:ILE:HG12	1.97	0.46
1:E:2658:VAL:O	1:E:2709:SER:HB2	2.15	0.46
1:F:867:ASP:N	1:F:867:ASP:OD1	2.47	0.46
1:F:2313:ALA:HB1	1:F:2370:ILE:HD11	1.96	0.46
1:A:182:VAL:O	1:A:186:ARG:HG2	2.16	0.46
1:A:717:ILE:HG23	1:A:727:TYR:HD2	1.81	0.46
1:A:2216:LEU:HD21	1:A:2218:PHE:CE1	2.51	0.46
1:A:2370:ILE:O	1:A:2370:ILE:HD12	2.16	0.46
1:A:2757:GLY:HA3	1:D:2690:PHE:CD2	2.50	0.46
1:A:2896:ARG:HE	1:A:2900:ALA:HB3	1.81	0.46
1:B:2136:ARG:HE	1:B:2136:ARG:HB3	1.54	0.46
1:C:230:ARG:HG2	1:C:236:VAL:HG12	1.97	0.46
1:C:316:ALA:HA	1:C:319:ILE:HG22	1.97	0.46
1:C:2658:VAL:O	1:C:2709:SER:HB2	2.15	0.46
1:E:115:SER:O	1:E:119:VAL:HG22	2.15	0.46
1:E:1404:THR:O	1:E:1407:THR:HG22	2.16	0.46
1:E:1442:TYR:OH	1:E:1464:ARG:NH1	2.49	0.46
1:E:2129:ILE:H	1:E:2129:ILE:HD12	1.79	0.46
1:F:2223:PRO:O	1:F:2224:ARG:HG2	2.15	0.46
1:F:2518:VAL:HG12	1:F:2606:PRO:HB3	1.97	0.46
1:F:2703:VAL:HA	1:F:2707:VAL:HG13	1.97	0.46
1:F:2712:ALA:HB3	1:F:2733:LYS:NZ	2.28	0.46
1:A:105:SER:OG	1:A:108:HIS:ND1	2.40	0.46
1:A:1336:PHE:CE2	1:A:1444:ALA:HA	2.51	0.46
1:A:1471:ILE:HD12	1:A:1472:VAL:HG23	1.98	0.46
1:A:2129:ILE:HD12	1:A:2129:ILE:H	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2242:VAL:O	1:A:2246:ALA:HB3	2.15	0.46
1:A:2620:MET:O	1:A:2624:ILE:HG12	2.15	0.46
1:A:2896:ARG:HH22	1:A:2902:LEU:HD13	1.80	0.46
1:B:107:LYS:HE2	1:B:107:LYS:HA	1.98	0.46
1:B:2703:VAL:HA	1:B:2707:VAL:HG13	1.98	0.46
1:C:581:ASP:OD1	1:C:614:TYR:OH	2.19	0.46
1:C:2247:VAL:O	1:C:2251:ILE:HG13	2.15	0.46
1:D:156:GLU:HG3	1:D:315:LEU:HD21	1.97	0.46
1:D:1972:GLN:HA	1:D:1976:ARG:HH12	1.81	0.46
1:D:2005:ASP:O	1:D:2009:ILE:HG23	2.16	0.46
1:E:1368:THR:HG21	1:E:1376:VAL:HG12	1.96	0.46
1:E:2392:ALA:O	1:E:2395:GLN:HG3	2.16	0.46
1:F:2005:ASP:O	1:F:2009:ILE:HG23	2.15	0.46
1:F:2703:VAL:HG21	1:F:2713:MET:HE1	1.98	0.46
1:A:116:VAL:HG22	1:A:117:PRO:HD3	1.97	0.46
1:A:1012:ASP:N	1:A:1012:ASP:OD1	2.49	0.46
1:A:2244:LEU:HD23	1:A:2245:TRP:CZ3	2.51	0.46
1:B:52:LEU:HD11	1:B:369:ALA:HA	1.98	0.46
1:B:1223:PHE:O	1:B:1227:SER:OG	2.28	0.46
1:B:3021:LEU:HA	1:B:3031:MET:HE1	1.97	0.46
1:C:425:MET:HE1	1:C:636:GLY:HA2	1.98	0.46
1:C:1098:ALA:HB1	1:C:1143:ALA:HB2	1.98	0.46
1:C:1711:SER:C	1:C:1713:VAL:H	2.24	0.46
1:C:2685:LYS:HD2	1:C:2685:LYS:HA	1.70	0.46
1:D:228:SER:HB3	1:D:287:HIS:HB2	1.97	0.46
1:D:395:PRO:HB2	1:D:407:LEU:HD11	1.97	0.46
1:D:825:HIS:CD2	1:D:827:ALA:H	2.33	0.46
1:D:1038:ASP:O	1:D:1042:PHE:HB2	2.16	0.46
1:D:2415:LEU:HD22	1:D:2503:GLU:HB2	1.97	0.46
1:D:2430:TRP:HZ3	1:D:2970:LYS:HG2	1.81	0.46
1:D:2646:PRO:O	1:D:2650:MET:HG2	2.16	0.46
1:E:171:LEU:HD12	1:E:312:ALA:HA	1.96	0.46
1:F:654:MET:HE1	1:F:690:ASN:HB3	1.97	0.46
1:F:1087:LEU:H	1:F:1087:LEU:HD12	1.81	0.46
1:A:395:PRO:HB2	1:A:407:LEU:HD11	1.98	0.46
1:A:395:PRO:HB3	1:A:409:THR:HG22	1.96	0.46
1:A:501:ARG:NH2	1:A:533:GLY:O	2.49	0.46
1:B:119:VAL:HG12	1:B:346:PRO:HG3	1.98	0.46
1:B:221:THR:OG1	1:B:247:ARG:NH2	2.45	0.46
1:B:350:LEU:HD23	1:B:350:LEU:HA	1.81	0.46
1:B:1404:THR:O	1:B:1407:THR:HG22	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2273:GLY:O	1:B:2317:ILE:HG13	2.16	0.46
1:B:2699:ALA:HB3	1:B:2715:HIS:CE1	2.51	0.46
1:C:48:THR:HG21	1:C:347:GLY:H	1.80	0.46
1:C:1488:ARG:HB3	1:C:1554:SER:HA	1.97	0.46
1:C:1663:TRP:HA	1:C:1666:THR:HG22	1.97	0.46
1:D:474:THR:OG1	1:D:508:ASP:OD2	2.29	0.46
1:D:513:SER:OG	2:D:3101:FMN:O2	2.17	0.46
1:D:543:THR:O	1:D:547:ILE:HG13	2.16	0.46
1:D:1422:MET:HE3	1:D:1428:PHE:HD1	1.79	0.46
1:D:2109:PRO:HD2	1:D:2110:GLU:N	2.30	0.46
1:E:543:THR:O	1:E:547:ILE:HG13	2.16	0.46
1:E:772:ARG:HG2	1:E:835:LEU:HG	1.97	0.46
1:E:1401:LEU:O	1:E:1407:THR:HB	2.16	0.46
1:E:1975:GLY:HA3	1:E:1976:ARG:NH2	2.30	0.46
1:E:2853:ALA:HB2	1:E:2894:LEU:HD22	1.98	0.46
1:F:2058:ILE:HB	1:F:2094:ILE:HD11	1.97	0.46
1:A:1518:ASN:HB2	1:A:1527:ALA:HB3	1.97	0.46
1:A:2874:THR:HG22	1:A:2876:THR:HG23	1.96	0.46
1:B:1640:ARG:HG2	1:B:1640:ARG:O	2.16	0.46
1:C:117:PRO:HG3	1:C:173:GLN:HA	1.98	0.46
1:C:829:VAL:HB	1:C:830:PRO:HD3	1.98	0.46
1:C:2028:PHE:HD2	1:C:2178:ALA:HB2	1.81	0.46
1:C:2242:VAL:O	1:C:2246:ALA:HB3	2.16	0.46
1:C:2313:ALA:HB1	1:C:2370:ILE:HD11	1.98	0.46
1:D:22:HIS:HB2	1:D:25:VAL:HB	1.98	0.46
1:D:223:LEU:HD22	1:D:290:ARG:HH12	1.81	0.46
1:D:1309:VAL:HG12	1:D:1325:ALA:HB3	1.97	0.46
1:D:1331:LYS:HG3	1:D:1331:LYS:O	2.15	0.46
1:D:2696:ASN:HB2	1:D:2715:HIS:ND1	2.31	0.46
1:D:2853:ALA:HB2	1:D:2894:LEU:HD22	1.98	0.46
1:E:926:ARG:NH1	1:E:962:TRP:O	2.43	0.46
1:F:326:TRP:HE1	1:F:354:THR:HG22	1.81	0.46
1:F:702:VAL:HG11	1:F:716:ILE:HD11	1.98	0.46
1:F:746:LEU:HD13	1:F:845:PHE:HB3	1.98	0.46
1:F:2396:MET:C	1:F:2396:MET:HE2	2.40	0.46
1:A:1368:THR:HG21	1:A:1376:VAL:HG12	1.98	0.46
1:A:2522:GLU:HA	1:A:2601:VAL:HG12	1.98	0.46
1:B:1223:PHE:HA	1:B:1226:VAL:HG22	1.98	0.46
1:B:2768:SER:HB2	1:B:2769:MET:SD	2.56	0.46
1:C:33:PRO:O	1:C:339:ARG:N	2.45	0.46
1:C:1088:VAL:HG21	1:C:1253:MET:HE3	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1151:MET:C	1:C:1151:MET:HE2	2.41	0.46
1:C:1517:VAL:HG12	1:C:1566:HIS:HB2	1.98	0.46
1:C:2998:LEU:O	1:C:3003:ARG:NH2	2.49	0.46
1:D:680:GLN:HG3	1:D:855:ARG:HA	1.98	0.46
1:D:2293:LEU:HD11	1:D:2314:HIS:NE2	2.31	0.46
1:D:2748:ASP:HB2	1:D:2916:GLY:H	1.81	0.46
1:E:116:VAL:HG22	1:E:117:PRO:HD3	1.97	0.46
1:E:513:SER:OG	2:E:3101:FMN:O2	2.23	0.46
1:E:2752:LEU:HD23	1:E:2755:ILE:HD11	1.98	0.46
1:F:1335:ALA:HB3	1:F:1686:GLU:HB2	1.98	0.46
1:F:1396:HIS:ND1	1:F:1398:ASP:OD1	2.48	0.46
1:F:2768:SER:HB2	1:F:2769:MET:SD	2.56	0.46
1:A:2039:ARG:HD3	1:A:2167:ALA:HB3	1.98	0.45
1:A:2710:TYR:HE1	1:D:2828:GLY:HA3	1.80	0.45
1:B:850:ASP:N	1:B:850:ASP:OD1	2.49	0.45
1:B:1105:ASP:OD2	1:B:1105:ASP:N	2.48	0.45
1:B:2223:PRO:HG3	1:B:2243:LEU:HD11	1.98	0.45
1:B:2727:VAL:HG21	1:B:2923:MET:HE1	1.97	0.45
1:C:515:GLY:HA2	1:C:546:GLN:HE22	1.81	0.45
1:C:655:LEU:HD13	1:C:688:ILE:HD11	1.98	0.45
1:C:984:THR:HG22	1:C:989:VAL:HG22	1.97	0.45
1:C:1104:THR:N	1:C:1107:GLY:O	2.35	0.45
1:C:1519:PHE:HB3	1:C:1664:ILE:HG13	1.97	0.45
1:C:1633:TYR:O	1:C:1637:LEU:HB2	2.16	0.45
1:C:2052:LEU:HD21	1:C:2963:LEU:HD23	1.98	0.45
1:C:2677:HIS:NE2	1:E:2676:TYR:OH	2.48	0.45
1:C:2699:ALA:O	1:C:2703:VAL:HG23	2.16	0.45
1:C:2720:CYS:HB2	1:C:2979:PHE:H	1.81	0.45
1:C:2828:GLY:HA3	1:E:2710:TYR:HE1	1.80	0.45
1:D:1972:GLN:O	1:D:1976:ARG:HG2	2.17	0.45
1:D:2114:TYR:CD2	1:D:2137:LEU:HD23	2.51	0.45
1:E:33:PRO:O	1:E:339:ARG:N	2.47	0.45
1:E:1717:ASN:OD1	1:E:1717:ASN:N	2.47	0.45
1:F:327:VAL:O	1:F:331:THR:HG23	2.17	0.45
1:F:2044:ARG:HB3	1:F:2955:VAL:HG22	1.97	0.45
1:A:1488:ARG:HG3	1:A:1524:SER:HB2	1.98	0.45
1:A:2271:LEU:O	1:A:2314:HIS:ND1	2.49	0.45
1:A:2392:ALA:O	1:A:2395:GLN:HG3	2.15	0.45
1:B:327:VAL:O	1:B:331:THR:HG23	2.16	0.45
1:B:395:PRO:HB3	1:B:409:THR:HG22	1.99	0.45
1:B:2114:TYR:HB3	1:B:2142:ALA:HB2	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:574:HIS:HA	1:C:685:ILE:HG22	1.98	0.45
1:C:1276:LEU:HD23	1:C:1327:LEU:HB3	1.98	0.45
1:C:1671:PHE:HD2	1:C:1708:TYR:CE1	2.33	0.45
1:C:2731:VAL:O	1:C:2735:ARG:HG3	2.16	0.45
1:D:119:VAL:HG21	1:D:150:GLN:HE22	1.79	0.45
1:D:409:THR:OG1	1:D:631:ASP:O	2.28	0.45
1:D:1485:ALA:HB2	1:D:1557:LEU:HD12	1.97	0.45
1:D:1717:ASN:HB3	1:D:1720:ARG:HB3	1.98	0.45
1:D:1966:LEU:HA	1:D:1969:PHE:CD1	2.51	0.45
1:D:2648:GLU:HG2	1:D:2651:ARG:NH1	2.32	0.45
1:D:2731:VAL:O	1:D:2735:ARG:HG3	2.16	0.45
1:E:546:GLN:O	1:E:550:VAL:HG23	2.16	0.45
1:E:2271:LEU:O	1:E:2314:HIS:ND1	2.46	0.45
1:E:2748:ASP:HB2	1:E:2916:GLY:H	1.81	0.45
1:E:2811:MET:O	1:E:3013:ARG:NH1	2.49	0.45
1:F:2114:TYR:CD2	1:F:2137:LEU:HD23	2.51	0.45
1:F:2433:LEU:HB3	1:F:2435:VAL:HG12	1.97	0.45
1:A:2113:ARG:HE	1:A:2114:TYR:HE1	1.64	0.45
1:B:375:ARG:HG2	1:B:375:ARG:HH11	1.81	0.45
1:C:1600:PRO:HG2	1:C:1603:VAL:O	2.16	0.45
1:C:2561:VAL:O	1:C:2565:PRO:HD3	2.16	0.45
1:D:1220:MET:HE3	1:D:1220:MET:HB3	1.85	0.45
1:D:2176:VAL:HG21	1:D:2189:LEU:HD21	1.99	0.45
1:D:2922:GLN:HB2	1:D:2974:LEU:HD21	1.99	0.45
1:E:1690:LYS:CG	1:E:1719:GLU:HB3	2.45	0.45
1:E:2052:LEU:HD11	1:E:2963:LEU:HD23	1.98	0.45
1:E:2216:LEU:HD21	1:E:2218:PHE:CE1	2.51	0.45
1:E:2620:MET:O	1:E:2624:ILE:HG12	2.16	0.45
1:F:2300:TRP:NE1	1:F:2369:PRO:HD3	2.30	0.45
1:F:2321:ARG:O	1:F:2329:ASN:ND2	2.49	0.45
1:F:2321:ARG:HH11	1:F:2345:SER:HB3	1.82	0.45
1:A:2052:LEU:HD11	1:A:2963:LEU:HD23	1.98	0.45
1:A:2216:LEU:HD21	1:A:2218:PHE:HE1	1.80	0.45
1:A:2223:PRO:HG3	1:A:2243:LEU:HD11	1.98	0.45
1:A:2243:LEU:O	1:A:2247:VAL:HG13	2.17	0.45
1:A:2668:GLY:O	1:A:2672:MET:HG2	2.16	0.45
1:B:1158:SER:OG	1:B:1173:GLU:OE2	2.26	0.45
1:B:1336:PHE:CE2	1:B:1444:ALA:HA	2.51	0.45
1:B:1400:VAL:HG22	1:B:1406:PHE:HD2	1.81	0.45
1:C:2604:GLN:HA	1:C:2795:GLN:HG2	1.98	0.45
1:C:2723:ALA:HB1	1:C:2920:VAL:HG23	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:829:VAL:HB	1:D:830:PRO:HD3	1.99	0.45
1:E:50:GLU:HG2	1:E:97:LEU:HD23	1.98	0.45
1:E:473:ARG:NH1	1:E:1012:ASP:O	2.47	0.45
1:E:655:LEU:HD13	1:E:688:ILE:HD11	1.98	0.45
1:E:829:VAL:HB	1:E:830:PRO:HD3	1.98	0.45
1:E:1640:ARG:HG2	1:E:1640:ARG:O	2.15	0.45
1:F:1309:VAL:HG12	1:F:1325:ALA:HB3	1.98	0.45
1:F:1400:VAL:HG22	1:F:1406:PHE:HD2	1.82	0.45
1:F:1602:LEU:HD23	1:F:1602:LEU:H	1.81	0.45
1:A:1388:ILE:HA	1:A:1393:HIS:HA	1.98	0.45
1:B:1663:TRP:O	1:B:1666:THR:HG22	2.17	0.45
1:C:543:THR:O	1:C:547:ILE:HG13	2.16	0.45
1:D:33:PRO:HB3	1:D:143:VAL:HG11	1.98	0.45
1:D:546:GLN:O	1:D:550:VAL:HG23	2.16	0.45
1:D:2703:VAL:HA	1:D:2707:VAL:HG13	1.99	0.45
1:E:397:VAL:HG11	1:E:910:LEU:HD21	1.99	0.45
1:E:2145:ILE:HD13	1:E:2193:ILE:HG12	1.99	0.45
1:E:2915:LYS:HE2	1:E:2915:LYS:HB2	1.81	0.45
1:E:3024:ALA:HB3	1:E:3031:MET:HE2	1.99	0.45
1:F:1160:VAL:HG12	1:F:1171:THR:HG23	1.98	0.45
1:F:1368:THR:HG21	1:F:1376:VAL:HG12	1.99	0.45
1:A:2341:VAL:HG21	1:A:2378:LEU:HB2	1.99	0.45
1:B:182:VAL:O	1:B:186:ARG:HG2	2.16	0.45
1:B:229:ILE:HG13	1:B:237:VAL:HG22	1.98	0.45
1:B:293:ASP:N	1:B:293:ASP:OD1	2.45	0.45
1:C:1686:GLU:HG3	1:C:1695:VAL:HB	1.99	0.45
1:C:2020:TRP:O	1:C:2024:VAL:HG22	2.16	0.45
1:D:56:THR:HG21	1:D:129:ALA:HB1	1.97	0.45
1:D:150:GLN:O	1:D:150:GLN:HG2	2.17	0.45
1:D:2604:GLN:HA	1:D:2795:GLN:HG2	1.98	0.45
1:D:2678:GLY:HA3	1:D:2685:LYS:CD	2.47	0.45
1:E:117:PRO:HG3	1:E:173:GLN:HA	1.99	0.45
1:E:717:ILE:HG23	1:E:727:TYR:HD2	1.81	0.45
1:E:2113:ARG:HG3	1:E:2114:TYR:CD1	2.52	0.45
1:E:2663:GLY:HA2	1:E:2715:HIS:HB3	1.99	0.45
1:E:2728:GLU:HG3	1:E:2729:GLU:N	2.30	0.45
1:E:2896:ARG:HE	1:E:2900:ALA:HB3	1.81	0.45
1:F:1640:ARG:HG2	1:F:1640:ARG:O	2.17	0.45
1:F:2266:ARG:HH22	1:F:2366:ALA:HA	1.81	0.45
1:F:2430:TRP:HZ3	1:F:2970:LYS:HB3	1.81	0.45
1:F:2750:LEU:HD22	1:F:2795:GLN:HB3	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:97:LEU:HD13	1:A:103:VAL:HG11	1.99	0.45
1:A:107:LYS:C	1:A:107:LYS:HD3	2.42	0.45
1:A:117:PRO:HG3	1:A:173:GLN:HA	1.98	0.45
1:A:420:ILE:HD12	1:A:633:ILE:HD11	1.97	0.45
1:A:1690:LYS:CG	1:A:1719:GLU:HB3	2.47	0.45
1:A:2462:GLU:HG2	1:A:2936:PRO:HB3	1.98	0.45
1:B:818:ASP:O	1:B:822:VAL:HG12	2.17	0.45
1:B:867:ASP:OD1	1:B:867:ASP:N	2.49	0.45
1:B:1445:LEU:HD12	1:B:1451:ILE:HG21	1.98	0.45
1:B:1594:ILE:HD11	1:B:1598:TYR:HB2	1.98	0.45
1:B:2071:GLY:HA3	1:B:2169:TYR:HA	1.99	0.45
1:B:2316:LEU:HB2	1:B:2373:ASP:HA	1.98	0.45
1:C:521:GLU:HA	1:C:524:GLU:HG3	1.98	0.45
1:C:736:TYR:CD1	1:C:784:LEU:HD21	2.51	0.45
1:D:51:GLU:HG3	1:D:371:ARG:HH22	1.82	0.45
1:D:1994:ASP:OD1	1:D:1994:ASP:N	2.47	0.45
1:D:2874:THR:HB	1:D:2879:ASN:HD21	1.81	0.45
1:E:48:THR:HG21	1:E:347:GLY:H	1.81	0.45
1:E:1012:ASP:OD1	1:E:1012:ASP:N	2.48	0.45
1:E:2124:ALA:O	1:E:2159:TYR:OH	2.30	0.45
1:E:2610:ASP:O	1:E:2613:VAL:HG12	2.17	0.45
1:E:2713:MET:HE3	1:E:2713:MET:HB3	1.81	0.45
1:F:880:GLY:O	1:F:884:VAL:HG22	2.17	0.45
1:F:1585:MET:HE3	1:F:1586:PRO:HD2	1.99	0.45
1:F:1703:LEU:HD11	1:F:1713:VAL:HB	1.98	0.45
1:F:2145:ILE:HD11	1:F:2192:TRP:CZ3	2.52	0.45
1:A:2261:ARG:CZ	1:A:2261:ARG:HB2	2.46	0.45
1:A:2853:ALA:HB2	1:A:2894:LEU:HD22	1.98	0.45
1:B:67:GLY:O	1:B:71:LEU:HD13	2.17	0.45
1:B:798:ASP:OD2	1:B:798:ASP:N	2.49	0.45
1:B:1085:ASP:OD2	1:B:1256:SER:OG	2.30	0.45
1:B:2005:ASP:O	1:B:2009:ILE:HG13	2.17	0.45
1:B:2244:LEU:HD23	1:B:2245:TRP:CZ3	2.51	0.45
1:C:2114:TYR:HB3	1:C:2142:ALA:HB2	1.99	0.45
1:D:867:ASP:OD1	1:D:867:ASP:N	2.47	0.45
1:D:2004:PRO:HA	1:D:2007:GLU:HG2	1.98	0.45
1:E:1266:THR:OG1	1:E:1271:ARG:NH2	2.49	0.45
1:F:705:ASP:O	1:F:709:VAL:HG23	2.17	0.45
1:F:720:MET:SD	1:F:727:TYR:HB2	2.57	0.45
1:F:1618:ARG:HD3	1:F:1626:LEU:HB3	1.98	0.45
1:F:2052:LEU:HD21	1:F:2963:LEU:HD23	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2658:VAL:O	1:F:2709:SER:HB2	2.16	0.45
1:F:2660:ASN:OD1	1:F:2662:GLN:HG2	2.17	0.45
1:A:982:LEU:HD23	1:A:982:LEU:HA	1.84	0.45
1:A:2188:ALA:O	1:A:2189:LEU:C	2.60	0.45
1:A:2838:LEU:HD12	1:A:2886:LEU:HD12	1.98	0.45
1:B:744:VAL:HG21	1:B:805:PRO:HB2	1.98	0.45
1:B:2145:ILE:HD11	1:B:2192:TRP:HZ3	1.81	0.45
1:B:2790:GLY:HA2	1:B:2876:THR:HG22	1.99	0.45
1:C:1717:ASN:HB3	1:C:1720:ARG:HB3	1.99	0.45
1:C:2129:ILE:H	1:C:2129:ILE:HD12	1.82	0.45
1:D:1162:THR:HG22	1:D:1168:VAL:HA	1.97	0.45
1:D:1632:ASP:OD1	1:D:1632:ASP:N	2.50	0.45
1:E:501:ARG:NH2	1:E:533:GLY:O	2.50	0.45
1:E:1626:LEU:O	1:E:1626:LEU:HD13	2.17	0.45
1:E:2341:VAL:HG21	1:E:2378:LEU:HB2	1.98	0.45
1:F:197:MET:HE3	1:F:286:PHE:H	1.81	0.45
1:A:1207:ARG:HD2	1:A:1207:ARG:HA	1.78	0.45
1:A:1602:LEU:HD23	1:A:1602:LEU:H	1.81	0.45
1:A:1703:LEU:HD11	1:A:1713:VAL:HB	1.98	0.45
1:A:2978:GLY:N	1:A:2982:VAL:O	2.50	0.45
1:B:2027:VAL:HG22	1:B:2179:ASN:HB2	1.99	0.45
1:B:2568:THR:HB	1:B:2583:ARG:HG2	1.99	0.45
1:C:1149:THR:HG21	1:C:1187:LEU:HD13	1.99	0.45
1:C:1507:ALA:HB2	1:C:1514:LEU:HB2	1.99	0.45
1:C:2243:LEU:O	1:C:2247:VAL:HG13	2.17	0.45
1:C:2592:PRO:HB2	1:C:2594:LYS:HE3	1.98	0.45
1:C:2767:THR:HG22	1:C:2771:CYS:SG	2.57	0.45
1:D:1208:ARG:HA	1:D:1298:GLU:OE1	2.17	0.45
1:D:1602:LEU:H	1:D:1602:LEU:HD23	1.81	0.45
1:D:2336:VAL:HB	1:D:2341:VAL:HG13	1.99	0.45
1:D:2397:SER:HA	1:D:2401:ALA:HB2	1.98	0.45
1:D:2557:ALA:HB1	1:D:2579:TRP:HB2	1.99	0.45
1:E:1276:LEU:HD23	1:E:1327:LEU:HB3	1.99	0.45
1:E:2108:ASN:ND2	1:E:2108:ASN:C	2.75	0.45
1:F:818:ASP:O	1:F:822:VAL:HG12	2.17	0.45
1:F:943:ARG:HG2	1:F:1017:VAL:HG23	1.99	0.45
1:F:1223:PHE:HA	1:F:1226:VAL:HG22	1.98	0.45
1:F:2145:ILE:HD11	1:F:2192:TRP:HZ3	1.82	0.45
1:F:2727:VAL:HG21	1:F:2923:MET:HE1	1.99	0.45
1:A:482:LEU:HG	1:A:514:ALA:O	2.17	0.44
1:A:746:LEU:HD13	1:A:845:PHE:HB3	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1276:LEU:HD23	1:A:1327:LEU:HB3	1.98	0.44
1:A:1368:THR:HG23	1:A:1374:PHE:O	2.17	0.44
1:A:1975:GLY:HA3	1:A:1976:ARG:NH2	2.32	0.44
1:B:1012:ASP:N	1:B:1012:ASP:OD1	2.50	0.44
1:B:2871:LYS:HZ2	1:B:2873:ASP:CG	2.26	0.44
1:B:2885:GLU:O	1:B:2889:ARG:HG3	2.17	0.44
1:C:1110:VAL:HG13	1:C:1111:VAL:HG13	1.99	0.44
1:D:182:VAL:O	1:D:186:ARG:HG2	2.16	0.44
1:D:783:ARG:HD3	1:D:783:ARG:HA	1.71	0.44
1:D:893:PRO:HG2	1:D:896:GLU:HB2	1.99	0.44
1:E:153:LEU:HD12	1:E:154:ALA:N	2.32	0.44
1:F:148:HIS:CG	1:F:149:SER:H	2.35	0.44
1:F:1638:ARG:HA	1:F:1638:ARG:HH11	1.82	0.44
1:A:522:ALA:HB3	1:A:553:ILE:HD12	1.98	0.44
1:B:371:ARG:CZ	1:B:371:ARG:HB2	2.46	0.44
1:B:717:ILE:HD12	1:B:727:TYR:CD2	2.52	0.44
1:B:1276:LEU:HA	1:B:1327:LEU:HA	1.98	0.44
1:B:1632:ASP:OD1	1:B:1632:ASP:N	2.51	0.44
1:B:2396:MET:SD	1:B:2397:SER:N	2.90	0.44
1:C:1308:ILE:HD13	1:C:1326:ARG:HD3	1.99	0.44
1:C:1518:ASN:HB2	1:C:1527:ALA:HB3	1.99	0.44
1:C:2681:LEU:HB2	1:C:2683:ARG:HD3	1.99	0.44
1:D:153:LEU:HD12	1:D:154:ALA:H	1.82	0.44
1:D:982:LEU:HD23	1:D:982:LEU:HA	1.88	0.44
1:D:1663:TRP:HA	1:D:1666:THR:HG22	1.99	0.44
1:D:1975:GLY:HA3	1:D:1976:ARG:NH2	2.32	0.44
1:D:2701:HIS:CE1	1:D:2704:GLN:HE21	2.36	0.44
1:F:88:PHE:CZ	1:F:117:PRO:HB2	2.52	0.44
1:F:2592:PRO:HB2	1:F:2594:LYS:HE3	1.98	0.44
1:F:2853:ALA:HB2	1:F:2894:LEU:HD22	1.98	0.44
1:A:1223:PHE:O	1:A:1227:SER:OG	2.31	0.44
1:A:2658:VAL:O	1:A:2709:SER:HB2	2.17	0.44
1:A:2827:ASP:HB2	1:A:2981:HIS:HB3	1.99	0.44
1:B:22:HIS:HB2	1:B:25:VAL:HB	1.98	0.44
1:B:829:VAL:HB	1:B:830:PRO:HD3	1.99	0.44
1:B:1058:HIS:HB2	1:B:1061:ARG:HD3	1.98	0.44
1:B:2183:TYR:H	1:E:2015:GLU:CD	2.24	0.44
1:C:532:ILE:HD11	1:C:534:ILE:HG12	1.99	0.44
1:C:2982:VAL:HG23	1:E:2713:MET:HB2	1.99	0.44
1:D:837:LYS:HB2	1:D:837:LYS:HE3	1.77	0.44
1:D:2896:ARG:NH2	1:D:2901:PRO:O	2.50	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:22:HIS:ND1	1:E:378:PHE:O	2.45	0.44
1:E:1024:THR:HG22	1:E:1111:VAL:HG22	1.99	0.44
1:F:395:PRO:HB3	1:F:409:THR:HG22	1.98	0.44
1:A:186:ARG:HB2	1:A:188:ILE:HG12	2.00	0.44
1:A:984:THR:HG22	1:A:989:VAL:HG22	1.98	0.44
1:A:2312:LEU:HD12	1:A:2312:LEU:HA	1.78	0.44
1:A:2448:GLU:HG2	1:A:2455:SER:HB3	1.99	0.44
1:B:1047:ALA:N	1:B:1050:THR:O	2.38	0.44
1:B:1358:ARG:NH1	1:B:1362:ASP:OD1	2.50	0.44
1:B:1387:ILE:HG22	1:E:2261:ARG:HD3	1.99	0.44
1:C:534:ILE:HD13	1:C:534:ILE:HA	1.86	0.44
1:C:2710:TYR:HE1	1:E:2828:GLY:HA3	1.81	0.44
1:C:2752:LEU:HD23	1:C:2755:ILE:HD11	2.00	0.44
1:C:2973:MET:HE3	1:C:2973:MET:HB3	1.88	0.44
1:D:22:HIS:HB3	1:D:378:PHE:HA	1.98	0.44
1:D:779:ARG:HD2	1:D:831:PHE:CD2	2.52	0.44
1:D:1522:ARG:N	1:D:1664:ILE:HD11	2.32	0.44
1:E:2136:ARG:NH1	1:E:2351:ALA:HB2	2.33	0.44
1:F:543:THR:OG1	1:F:544:ILE:N	2.50	0.44
1:F:1038:ASP:O	1:F:1042:PHE:HB2	2.18	0.44
1:F:2557:ALA:HB1	1:F:2579:TRP:HB2	1.99	0.44
1:F:2614:TRP:O	1:F:3031:MET:HB2	2.17	0.44
1:A:750:GLU:N	1:A:750:GLU:OE1	2.51	0.44
1:A:841:LYS:HD2	1:A:842:PRO:HD2	2.00	0.44
1:A:1057:TRP:HB2	1:A:1137:LEU:HD22	1.99	0.44
1:A:2200:SER:HA	1:A:2205:SER:HA	1.99	0.44
1:B:37:ALA:N	1:B:342:LEU:O	2.31	0.44
1:B:473:ARG:NH1	1:B:1012:ASP:O	2.50	0.44
1:B:746:LEU:HD13	1:B:845:PHE:HB3	2.00	0.44
1:B:880:GLY:O	1:B:884:VAL:HG22	2.16	0.44
1:B:2015:GLU:CD	1:E:2183:TYR:H	2.24	0.44
1:B:2392:ALA:O	1:B:2395:GLN:HG3	2.18	0.44
1:B:2827:ASP:HB2	1:B:2981:HIS:HB3	2.00	0.44
1:C:171:LEU:HD23	1:C:171:LEU:HA	1.79	0.44
1:C:328:ASP:OD1	1:C:329:GLU:N	2.51	0.44
1:C:926:ARG:HH11	1:C:937:LEU:HD21	1.83	0.44
1:C:1502:PHE:CD1	1:C:1502:PHE:C	2.96	0.44
1:C:1651:GLU:O	1:C:1655:TRP:HD1	1.99	0.44
1:C:2757:GLY:HA3	1:E:2690:PHE:CG	2.53	0.44
1:D:1388:ILE:HA	1:D:1393:HIS:HA	1.99	0.44
1:D:2300:TRP:NE1	1:D:2369:PRO:HD3	2.32	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:730:ASP:O	1:E:734:MET:HG3	2.18	0.44
1:E:746:LEU:HD23	1:E:746:LEU:HA	1.74	0.44
1:F:798:ASP:OD2	1:F:798:ASP:N	2.50	0.44
1:F:2314:HIS:NE2	1:F:2316:LEU:HD22	2.32	0.44
1:A:148:HIS:CG	1:A:149:SER:H	2.35	0.44
1:A:2486:ASP:HA	1:A:2490:PRO:HA	2.00	0.44
1:A:2502:ASP:HB3	1:A:2505:GLU:HG3	2.00	0.44
1:B:1109:PRO:HB3	1:B:1153:ARG:HD3	1.99	0.44
1:B:1309:VAL:HG12	1:B:1325:ALA:HB3	1.99	0.44
1:B:1985:ARG:HH22	1:D:1978:GLY:HA3	1.83	0.44
1:B:2712:ALA:HB3	1:B:2733:LYS:NZ	2.27	0.44
1:C:651:VAL:HG13	1:C:877:ILE:HD13	1.98	0.44
1:C:1027:MET:SD	1:C:1114:LEU:HB3	2.57	0.44
1:C:2068:ARG:NH2	1:C:2166:HIS:HA	2.33	0.44
1:C:2259:ALA:HA	1:C:2309:ARG:CZ	2.48	0.44
1:C:2462:GLU:HG2	1:C:2936:PRO:HB3	1.99	0.44
1:C:2672:MET:HA	1:C:2675:MET:HG2	1.99	0.44
1:D:2639:PHE:HD1	1:D:2644:PHE:HB3	1.82	0.44
1:E:482:LEU:HG	1:E:514:ALA:O	2.17	0.44
1:E:736:TYR:O	1:E:740:LEU:HG	2.18	0.44
1:E:890:MET:HE3	1:E:890:MET:HB3	1.81	0.44
1:F:943:ARG:CZ	1:F:946:GLY:HA2	2.48	0.44
1:F:1110:VAL:HG12	1:F:1111:VAL:HG13	1.99	0.44
1:F:2491:GLY:HA3	1:F:2500:MET:HE1	1.99	0.44
1:A:752:ASN:HB3	1:A:869:ARG:HB2	2.00	0.44
1:A:2446:GLY:HA2	1:A:2800:ILE:HA	2.00	0.44
1:B:2672:MET:HA	1:B:2675:MET:HG2	1.99	0.44
1:C:841:LYS:HD2	1:C:842:PRO:HD2	1.98	0.44
1:C:1012:ASP:OD1	1:C:1012:ASP:N	2.49	0.44
1:C:1271:ARG:HA	1:C:1272:PRO:HD3	1.90	0.44
1:C:2332:ILE:H	1:C:2332:ILE:HD12	1.83	0.44
1:D:746:LEU:HD23	1:D:746:LEU:HA	1.76	0.44
1:D:1098:ALA:HB1	1:D:1143:ALA:HB2	1.99	0.44
1:D:1502:PHE:CD1	1:D:1502:PHE:C	2.95	0.44
1:E:547:ILE:HG23	1:E:564:MET:HE1	2.00	0.44
1:F:376:ASN:HB3	1:F:384:PRO:HD3	1.99	0.44
1:F:802:LEU:HD12	1:F:802:LEU:O	2.17	0.44
1:F:851:GLN:H	1:F:851:GLN:CD	2.21	0.44
1:F:2039:ARG:HD3	1:F:2167:ALA:HB3	2.00	0.44
1:F:2244:LEU:HD23	1:F:2245:TRP:CZ3	2.52	0.44
1:F:2731:VAL:O	1:F:2735:ARG:HG2	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:730:ASP:O	1:A:734:MET:HG3	2.18	0.44
1:A:1342:GLN:OE1	1:A:1407:THR:OG1	2.24	0.44
1:A:1468:MET:HB2	1:A:1657:PHE:HZ	1.81	0.44
1:A:1626:LEU:O	1:A:1626:LEU:HD13	2.18	0.44
1:B:943:ARG:CZ	1:B:946:GLY:HA2	2.48	0.44
1:B:1566:HIS:ND1	1:B:1657:PHE:O	2.38	0.44
1:B:2300:TRP:NE1	1:B:2369:PRO:HD3	2.32	0.44
1:C:395:PRO:HB3	1:C:409:THR:HG22	2.00	0.44
1:C:789:PHE:CE1	1:C:2507:VAL:HG21	2.53	0.44
1:C:1105:ASP:OD1	1:C:1105:ASP:N	2.50	0.44
1:C:2438:ALA:HA	1:C:2806:ASP:OD1	2.18	0.44
1:C:2681:LEU:HD12	1:C:2683:ARG:NH1	2.26	0.44
1:C:2713:MET:HB2	1:E:2982:VAL:HG23	1.99	0.44
1:D:783:ARG:NH2	1:D:2503:GLU:OE1	2.51	0.44
1:D:1099:ILE:HD11	1:D:1176:PHE:CD2	2.53	0.44
1:E:238:ILE:HD12	1:E:245:LEU:HD22	1.99	0.44
1:E:522:ALA:HB3	1:E:553:ILE:HD12	2.00	0.44
1:E:1457:LEU:HG	1:E:1458:LEU:N	2.32	0.44
1:F:1336:PHE:CE1	1:F:1415:ALA:HB1	2.52	0.44
1:F:2341:VAL:HG21	1:F:2378:LEU:HB2	2.00	0.44
1:F:2568:THR:HB	1:F:2583:ARG:HG2	2.00	0.44
1:A:33:PRO:O	1:A:339:ARG:N	2.47	0.44
1:A:2293:LEU:HD21	1:A:2314:HIS:CD2	2.53	0.44
1:A:2334:ALA:O	1:A:2337:GLU:HG2	2.17	0.44
1:A:2676:TYR:OH	1:D:2677:HIS:NE2	2.50	0.44
1:B:2631:ASN:ND2	1:B:2702:VAL:HG21	2.33	0.44
1:B:2732:ASP:OD1	1:B:2732:ASP:C	2.61	0.44
1:B:2896:ARG:HE	1:B:2900:ALA:HB3	1.83	0.44
1:C:2694:LEU:HD13	1:E:2719:ALA:HB1	1.98	0.44
1:C:2703:VAL:HA	1:C:2707:VAL:HG13	1.99	0.44
1:C:2718:ALA:H	1:C:2722:THR:CG2	2.31	0.44
1:D:123:GLN:O	1:D:127:THR:HG23	2.18	0.44
1:D:655:LEU:HD13	1:D:688:ILE:HD11	2.00	0.44
1:D:798:ASP:OD2	1:D:798:ASP:N	2.50	0.44
1:D:880:GLY:O	1:D:884:VAL:HG22	2.17	0.44
1:D:1075:PRO:HD2	1:D:1076:LEU:HD22	2.00	0.44
1:D:2313:ALA:HB1	1:D:2370:ILE:HD11	1.99	0.44
1:E:150:GLN:O	1:E:150:GLN:HG2	2.17	0.44
1:F:1358:ARG:NH1	1:F:1362:ASP:OD1	2.51	0.44
1:A:397:VAL:HG11	1:A:910:LEU:HD21	1.99	0.43
1:A:547:ILE:HG21	1:A:587:THR:HG21	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2058:ILE:HB	1:A:2094:ILE:HD11	2.00	0.43
1:B:1110:VAL:HG12	1:B:1111:VAL:HG13	2.00	0.43
1:B:2757:GLY:HA3	1:F:2690:PHE:CG	2.53	0.43
1:C:2266:ARG:HH12	1:C:2366:ALA:HA	1.83	0.43
1:C:2646:PRO:O	1:C:2650:MET:HG2	2.18	0.43
1:C:2806:ASP:OD1	1:C:2806:ASP:N	2.49	0.43
1:D:543:THR:OG1	1:D:544:ILE:N	2.51	0.43
1:E:581:ASP:OD1	1:E:614:TYR:OH	2.22	0.43
1:E:1354:SER:HB2	1:E:1421:GLU:HG3	2.00	0.43
1:F:186:ARG:HD3	1:F:290:ARG:HG2	2.00	0.43
1:F:2748:ASP:HB2	1:F:2916:GLY:H	1.81	0.43
1:F:2896:ARG:HE	1:F:2900:ALA:HB3	1.83	0.43
1:A:56:THR:HG21	1:A:129:ALA:HB1	1.99	0.43
1:A:263:ARG:NH2	1:A:577:TRP:O	2.52	0.43
1:A:746:LEU:HD23	1:A:746:LEU:HA	1.79	0.43
1:A:798:ASP:N	1:A:798:ASP:OD1	2.50	0.43
1:B:1602:LEU:HD23	1:B:1602:LEU:H	1.82	0.43
1:C:1711:SER:C	1:C:1713:VAL:N	2.76	0.43
1:C:2648:GLU:HG2	1:C:2651:ARG:NH1	2.33	0.43
1:D:1105:ASP:OD2	1:D:1105:ASP:N	2.50	0.43
1:D:2462:GLU:HG2	1:D:2936:PRO:HB3	2.00	0.43
1:D:2530:ASP:HB2	1:D:2533:HIS:CD2	2.53	0.43
1:D:2549:PHE:CZ	1:D:2581:VAL:HG12	2.53	0.43
1:D:2678:GLY:HA2	1:D:2683:ARG:CG	2.48	0.43
1:D:2686:PRO:O	1:D:2689:ILE:HG22	2.18	0.43
1:E:461:ARG:HA	1:E:464:GLN:HG2	2.00	0.43
1:E:1566:HIS:ND1	1:E:1657:PHE:O	2.41	0.43
1:F:1492:ILE:HB	1:F:1545:ARG:HG2	2.00	0.43
1:A:50:GLU:HG2	1:A:97:LEU:HD23	1.99	0.43
1:A:779:ARG:HD2	1:A:831:PHE:CD2	2.53	0.43
1:A:1284:LEU:HD12	1:A:1319:LEU:HB3	1.99	0.43
1:B:651:VAL:HG13	1:B:877:ILE:HD13	2.00	0.43
1:B:1485:ALA:HB2	1:B:1557:LEU:HD12	2.00	0.43
1:B:2294:ASP:O	1:B:2298:SER:HB3	2.19	0.43
1:B:2826:GLY:O	1:B:2839:GLY:HA3	2.18	0.43
1:C:22:HIS:HB3	1:C:378:PHE:HA	1.99	0.43
1:C:880:GLY:O	1:C:884:VAL:HG22	2.17	0.43
1:C:2145:ILE:HD11	1:C:2192:TRP:HZ3	1.84	0.43
1:C:2499:GLU:OE1	1:C:2499:GLU:N	2.51	0.43
1:D:328:ASP:OD1	1:D:329:GLU:N	2.51	0.43
1:D:1149:THR:HG21	1:D:1187:LEU:HD13	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2129:ILE:H	1:D:2129:ILE:HD12	1.82	0.43
1:D:2234:SER:O	1:D:2237:GLU:HG3	2.17	0.43
1:D:2685:LYS:O	1:D:2686:PRO:C	2.61	0.43
1:D:2998:LEU:O	1:D:3003:ARG:NH2	2.50	0.43
1:E:1105:ASP:OD2	1:E:1105:ASP:N	2.51	0.43
1:E:1602:LEU:HD23	1:E:1602:LEU:H	1.83	0.43
1:E:2223:PRO:CG	1:E:2224:ARG:H	2.31	0.43
1:F:350:LEU:HD23	1:F:350:LEU:HA	1.79	0.43
1:F:615:LEU:HD12	1:F:630:ILE:HG13	2.00	0.43
1:F:1632:ASP:N	1:F:1632:ASP:OD1	2.51	0.43
1:A:88:PHE:HA	1:A:93:TRP:CH2	2.53	0.43
1:A:2101:ARG:O	1:A:2101:ARG:HD3	2.17	0.43
1:A:2941:LEU:HD12	1:A:2941:LEU:HA	1.90	0.43
1:B:783:ARG:HB3	1:B:2418:PRO:HD3	2.00	0.43
1:B:1088:VAL:HG21	1:B:1253:MET:HE3	1.99	0.43
1:B:1099:ILE:HD11	1:B:1176:PHE:CD2	2.53	0.43
1:B:2334:ALA:O	1:B:2337:GLU:HG2	2.18	0.43
1:C:116:VAL:HG22	1:C:117:PRO:HD3	1.99	0.43
1:C:148:HIS:CG	1:C:149:SER:H	2.37	0.43
1:C:223:LEU:HD22	1:C:290:ARG:HH12	1.82	0.43
1:C:434:ILE:HG13	1:C:894:VAL:HG11	2.01	0.43
1:C:2336:VAL:HB	1:C:2341:VAL:HG13	1.99	0.43
1:C:2530:ASP:HB2	1:C:2533:HIS:CD2	2.53	0.43
1:D:1099:ILE:HD13	1:D:1117:LEU:HD21	2.01	0.43
1:D:1619:ASP:OD1	1:D:1620:LEU:N	2.52	0.43
1:D:2003:ALA:O	1:D:2007:GLU:HG2	2.18	0.43
1:D:2243:LEU:O	1:D:2247:VAL:HG13	2.17	0.43
1:E:1485:ALA:HB2	1:E:1557:LEU:HD12	2.00	0.43
1:E:2334:ALA:O	1:E:2337:GLU:HG2	2.17	0.43
1:F:2188:ALA:O	1:F:2191:GLU:HG3	2.18	0.43
1:F:2440:LEU:HD12	1:F:2440:LEU:HA	1.88	0.43
1:F:3020:ARG:NH2	1:F:3029:ALA:O	2.48	0.43
1:A:45:TRP:HB3	1:A:119:VAL:HG12	2.00	0.43
1:A:796:PHE:HZ	1:A:812:LEU:HB2	1.84	0.43
1:A:1287:VAL:HG13	1:A:1315:VAL:HG21	2.00	0.43
1:A:1388:ILE:HB	1:F:2262:ASP:CG	2.42	0.43
1:A:2828:GLY:HA3	1:D:2710:TYR:HE1	1.82	0.43
1:B:746:LEU:HD23	1:B:746:LEU:HA	1.80	0.43
1:B:2998:LEU:O	1:B:3003:ARG:NH2	2.50	0.43
1:C:1422:MET:SD	1:C:1725:LEU:HD21	2.58	0.43
1:C:2040:TRP:O	1:C:2044:ARG:HG3	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2146:ALA:O	1:C:2175:LEU:HA	2.19	0.43
1:C:2300:TRP:NE1	1:C:2369:PRO:HD3	2.34	0.43
1:D:581:ASP:OD1	1:D:614:TYR:OH	2.24	0.43
1:D:679:SER:OG	1:D:680:GLN:N	2.52	0.43
1:D:1518:ASN:HB2	1:D:1527:ALA:HB3	2.01	0.43
1:D:2245:TRP:HA	1:D:2248:GLN:HG2	1.99	0.43
1:D:2321:ARG:HH11	1:D:2345:SER:HB3	1.83	0.43
1:E:105:SER:HG	1:E:108:HIS:HD1	1.63	0.43
1:E:1130:LEU:HD22	1:E:1131:PRO:HD2	2.01	0.43
1:E:1209:ARG:NH2	1:E:1307:GLU:OE1	2.44	0.43
1:E:2486:ASP:HA	1:E:2490:PRO:HA	2.01	0.43
1:E:2703:VAL:HA	1:E:2707:VAL:HG13	2.00	0.43
1:F:570:ARG:NH1	1:F:662:ASP:O	2.40	0.43
1:F:1099:ILE:HD11	1:F:1176:PHE:CD2	2.54	0.43
1:F:2631:ASN:ND2	1:F:2702:VAL:HG21	2.34	0.43
1:F:2998:LEU:O	1:F:3003:ARG:NH2	2.49	0.43
1:A:654:MET:O	1:A:658:THR:HG22	2.19	0.43
1:A:674:MET:HG2	1:A:881:THR:HG22	2.01	0.43
1:A:818:ASP:O	1:A:822:VAL:HG12	2.17	0.43
1:A:1099:ILE:HD11	1:A:1176:PHE:CD2	2.54	0.43
1:A:1105:ASP:OD2	1:A:1105:ASP:N	2.51	0.43
1:B:395:PRO:HB2	1:B:407:LEU:HD11	1.99	0.43
1:B:569:GLY:HA3	1:B:664:TRP:HH2	1.84	0.43
1:B:2262:ASP:CG	1:E:1388:ILE:HB	2.44	0.43
1:B:2530:ASP:HB2	1:B:2533:HIS:CD2	2.53	0.43
1:C:221:THR:HG23	1:C:244:GLN:NE2	2.34	0.43
1:C:444:TRP:CZ2	1:C:476:GLN:HG2	2.53	0.43
1:C:717:ILE:HG23	1:C:727:TYR:HD2	1.83	0.43
1:C:1619:ASP:OD1	1:C:1620:LEU:N	2.51	0.43
1:C:1693:PRO:HB2	1:C:1696:ALA:HB3	2.01	0.43
1:C:1702:THR:HG22	1:C:1708:TYR:CE1	2.33	0.43
1:C:2631:ASN:OD1	1:C:2662:GLN:NE2	2.52	0.43
1:D:640:MET:HE1	1:D:879:PRO:HA	2.01	0.43
1:E:779:ARG:HD2	1:E:831:PHE:CD2	2.53	0.43
1:E:984:THR:HG22	1:E:989:VAL:HG22	1.99	0.43
1:E:1514:LEU:HD23	1:E:1514:LEU:HA	1.87	0.43
1:F:1336:PHE:HE1	1:F:1415:ALA:HB1	1.84	0.43
1:F:1637:LEU:HD12	1:F:1644:MET:HE3	2.01	0.43
1:A:2530:ASP:HB2	1:A:2533:HIS:CD2	2.54	0.43
1:A:2752:LEU:HD23	1:A:2755:ILE:HD11	2.00	0.43
1:B:120:LEU:HD22	1:B:153:LEU:HD13	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:121:LEU:HD13	1:B:169:PHE:CZ	2.53	0.43
1:B:326:TRP:HE1	1:B:354:THR:HG22	1.83	0.43
1:B:2557:ALA:HB1	1:B:2579:TRP:HB2	1.99	0.43
1:C:547:ILE:HG21	1:C:587:THR:HG21	2.01	0.43
1:C:680:GLN:HG3	1:C:855:ARG:HA	2.00	0.43
1:C:1099:ILE:HD11	1:C:1176:PHE:CD2	2.53	0.43
1:C:1632:ASP:N	1:C:1632:ASP:OD1	2.49	0.43
1:D:395:PRO:HB3	1:D:409:THR:HG22	2.00	0.43
1:D:547:ILE:HG21	1:D:587:THR:HG21	2.00	0.43
1:D:1335:ALA:HB3	1:D:1686:GLU:HB2	2.00	0.43
1:D:2332:ILE:H	1:D:2332:ILE:HD12	1.84	0.43
1:D:2561:VAL:O	1:D:2565:PRO:HD3	2.18	0.43
1:D:2767:THR:HG22	1:D:2771:CYS:SG	2.59	0.43
1:D:2780:PHE:HB3	1:D:2792:VAL:HG21	2.00	0.43
1:E:488:LYS:HA	1:E:488:LYS:HD2	1.85	0.43
1:E:798:ASP:OD1	1:E:798:ASP:N	2.51	0.43
1:E:1632:ASP:N	1:E:1632:ASP:OD1	2.51	0.43
1:F:837:LYS:HE2	1:F:837:LYS:HB2	1.77	0.43
1:F:1047:ALA:N	1:F:1050:THR:O	2.39	0.43
1:F:1403:LEU:HD23	1:F:1404:THR:H	1.84	0.43
1:F:2152:ASP:OD1	1:F:2155:ARG:HG3	2.19	0.43
1:F:2153:GLU:H	1:F:2153:GLU:CD	2.25	0.43
1:F:2391:LYS:O	1:F:2394:GLU:HG3	2.19	0.43
1:A:108:HIS:O	1:A:114:VAL:HG11	2.18	0.43
1:A:716:ILE:HG22	1:A:720:MET:HE3	2.01	0.43
1:A:2896:ARG:NH2	1:A:2901:PRO:O	2.51	0.43
1:B:43:SER:OG	1:B:346:PRO:O	2.33	0.43
1:B:85:PRO:HG2	1:B:108:HIS:HD2	1.84	0.43
1:C:1321:MET:HE2	1:C:1321:MET:HB3	1.81	0.43
1:C:1445:LEU:O	1:C:1449:THR:OG1	2.29	0.43
1:C:1604:PRO:HG3	1:C:1665:GLU:HB2	2.00	0.43
1:C:2370:ILE:HD12	1:C:2370:ILE:O	2.19	0.43
1:D:1987:VAL:O	1:D:1988:LEU:HD23	2.19	0.43
1:D:2059:ASP:OD1	1:D:2059:ASP:N	2.52	0.43
1:D:2393:ARG:HB2	1:D:2396:MET:HE3	1.99	0.43
1:E:53:VAL:HG13	1:E:59:GLU:HG3	2.01	0.43
1:E:327:VAL:O	1:E:331:THR:HG23	2.19	0.43
1:E:634:LEU:HD23	1:E:634:LEU:H	1.83	0.43
1:E:1021:GLU:O	1:E:1024:THR:OG1	2.24	0.43
1:E:1038:ASP:O	1:E:1042:PHE:HB2	2.18	0.43
1:E:1058:HIS:HB2	1:E:1061:ARG:HD3	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1271:ARG:O	1:E:1271:ARG:HD3	2.18	0.43
1:E:2244:LEU:HD23	1:E:2245:TRP:CZ3	2.53	0.43
1:E:2811:MET:HE2	1:E:2811:MET:HB3	1.89	0.43
1:F:1109:PRO:HB3	1:F:1153:ARG:HD3	1.99	0.43
1:F:2033:ALA:HB1	1:F:2174:TRP:HE1	1.84	0.43
1:F:2209:LYS:HB3	1:F:2209:LYS:HE3	1.75	0.43
1:A:43:SER:OG	1:A:346:PRO:O	2.36	0.43
1:A:740:LEU:HD13	1:A:777:LEU:HD23	2.00	0.43
1:A:1502:PHE:C	1:A:1502:PHE:CD1	2.97	0.43
1:A:2114:TYR:HB3	1:A:2142:ALA:HB2	2.01	0.43
1:A:2186:VAL:HG11	1:A:2249:ARG:HG3	2.00	0.43
1:C:654:MET:O	1:C:658:THR:HG22	2.19	0.43
1:C:2244:LEU:HD23	1:C:2245:TRP:CZ3	2.53	0.43
1:C:2639:PHE:HD1	1:C:2644:PHE:HB3	1.83	0.43
1:C:2874:THR:O	1:C:2875:SER:HB3	2.18	0.43
1:D:116:VAL:HG22	1:D:117:PRO:HD3	1.99	0.43
1:D:488:LYS:HA	1:D:493:GLY:H	1.84	0.43
1:D:1084:PRO:HG2	1:D:1260:GLN:NE2	2.34	0.43
1:D:2640:LEU:HD23	1:D:3020:ARG:HD2	2.00	0.43
1:D:2692:GLU:HA	1:D:2697:ILE:HG21	2.00	0.43
1:D:2768:SER:HB2	1:D:2769:MET:SD	2.58	0.43
1:D:2945:ASP:OD1	1:D:2945:ASP:N	2.52	0.43
1:E:2293:LEU:O	1:E:2297:VAL:HG13	2.19	0.43
1:E:2321:ARG:O	1:E:2329:ASN:ND2	2.52	0.43
1:F:890:MET:HE2	1:F:890:MET:HA	2.00	0.43
1:F:1388:ILE:HA	1:F:1393:HIS:HA	2.00	0.43
1:F:2446:GLY:HA2	1:F:2800:ILE:HA	2.00	0.43
1:A:695:CYS:O	1:A:699:LEU:HG	2.18	0.43
1:A:825:HIS:HD2	1:A:2418:PRO:HA	1.84	0.43
1:A:878:ILE:N	1:A:879:PRO:HD3	2.34	0.43
1:A:1619:ASP:OD1	1:A:1620:LEU:N	2.52	0.43
1:A:2884:THR:HG23	1:A:2954:PHE:CE2	2.54	0.43
1:B:117:PRO:HG3	1:B:173:GLN:HA	2.00	0.43
1:B:2145:ILE:HD11	1:B:2192:TRP:CZ3	2.54	0.43
1:B:2448:GLU:OE1	1:B:2458:ARG:NH2	2.40	0.43
1:B:2462:GLU:HG2	1:B:2936:PRO:HB3	2.00	0.43
1:C:48:THR:HG21	1:C:347:GLY:N	2.33	0.43
1:C:427:PRO:CD	2:C:3101:FMN:H6	2.49	0.43
1:C:640:MET:HE1	1:C:879:PRO:HA	2.00	0.43
1:C:1021:GLU:O	1:C:1024:THR:OG1	2.26	0.43
1:C:2670:THR:OG1	1:C:2749:ASP:OD2	2.24	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:700:ASP:OD1	1:D:854:ARG:NH1	2.41	0.43
1:D:717:ILE:HG23	1:D:727:TYR:HD2	1.84	0.43
1:D:1972:GLN:HA	1:D:1976:ARG:NH1	2.33	0.43
1:E:2358:ASP:OD1	1:E:2358:ASP:N	2.39	0.43
1:E:2561:VAL:O	1:E:2565:PRO:HD3	2.19	0.43
1:F:2066:ALA:HB1	1:F:2101:ARG:HG2	2.01	0.43
1:F:2223:PRO:HG3	1:F:2243:LEU:HD11	2.01	0.43
1:F:2273:GLY:O	1:F:2317:ILE:HG13	2.19	0.43
1:F:2648:GLU:HB3	1:F:2811:MET:HE1	1.99	0.43
1:A:1653:LEU:HD23	1:A:1653:LEU:HA	1.92	0.42
1:B:197:MET:HE1	1:B:286:PHE:HB2	2.00	0.42
1:B:453:VAL:HA	1:B:486:LEU:HD21	2.00	0.42
1:B:839:LEU:HD13	1:B:839:LEU:HA	1.82	0.42
1:B:2874:THR:OG1	1:B:2913:HIS:ND1	2.47	0.42
1:C:153:LEU:HB3	1:C:315:LEU:HD11	2.00	0.42
1:C:1087:LEU:HD22	1:C:1161:VAL:HG21	2.01	0.42
1:C:2392:ALA:O	1:C:2395:GLN:HG3	2.19	0.42
1:C:2679:ASN:O	1:E:2536:PRO:HA	2.18	0.42
1:C:2714:ILE:HG12	1:E:2725:VAL:HG13	2.01	0.42
1:D:48:THR:HG21	1:D:347:GLY:N	2.34	0.42
1:D:705:ASP:O	1:D:709:VAL:HG23	2.18	0.42
1:D:736:TYR:CD1	1:D:784:LEU:HD21	2.53	0.42
1:D:1112:GLU:HB3	1:D:1181:ARG:HH21	1.84	0.42
1:D:2393:ARG:CB	1:D:2396:MET:HE3	2.49	0.42
1:D:2701:HIS:O	1:D:2704:GLN:HG2	2.19	0.42
1:E:47:GLU:O	1:E:50:GLU:HG3	2.19	0.42
1:E:705:ASP:O	1:E:709:VAL:HG23	2.18	0.42
1:E:2261:ARG:HG2	1:E:2261:ARG:HH11	1.83	0.42
1:E:3003:ARG:H	1:E:3003:ARG:HG2	1.59	0.42
1:F:417:ARG:NH2	1:F:474:THR:OG1	2.51	0.42
1:F:2334:ALA:O	1:F:2337:GLU:HG2	2.19	0.42
1:F:2869:ILE:HD13	1:F:2973:MET:HB2	2.01	0.42
1:A:704:GLY:C	1:A:851:GLN:HE22	2.26	0.42
1:A:736:TYR:CD1	1:A:784:LEU:HD21	2.54	0.42
1:A:1038:ASP:O	1:A:1042:PHE:HB2	2.18	0.42
1:A:1109:PRO:HB3	1:A:1153:ARG:HD3	2.02	0.42
1:B:1618:ARG:HH12	1:B:1622:PRO:HA	1.84	0.42
1:C:150:GLN:HG3	1:C:319:ILE:HD11	2.01	0.42
1:C:1099:ILE:HD13	1:C:1117:LEU:HD21	2.01	0.42
1:C:2183:TYR:H	1:D:2015:GLU:CD	2.27	0.42
1:D:33:PRO:O	1:D:339:ARG:N	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1672:ILE:HD12	1:E:220:ARG:HH11	1.84	0.42
1:D:2452:TYR:HA	1:D:2518:VAL:HG22	2.00	0.42
1:E:418:SER:HB3	1:E:443:HIS:CD2	2.54	0.42
1:E:1502:PHE:CD1	1:E:1502:PHE:C	2.97	0.42
1:E:2766:ASP:HB2	1:E:2769:MET:HE1	2.02	0.42
1:F:119:VAL:CG2	1:F:150:GLN:HE22	2.29	0.42
1:F:651:VAL:HG13	1:F:877:ILE:HD13	2.00	0.42
1:A:846:VAL:HG13	1:A:856:TRP:HB3	2.01	0.42
1:A:1613:PHE:O	1:A:1617:ILE:HG23	2.19	0.42
1:A:2037:ASP:OD1	1:A:2786:ARG:NH2	2.52	0.42
1:A:2313:ALA:HB1	1:A:2370:ILE:HD11	2.02	0.42
1:A:2536:PRO:HA	1:D:2679:ASN:O	2.19	0.42
1:B:88:PHE:CZ	1:B:117:PRO:HB2	2.54	0.42
1:B:654:MET:O	1:B:658:THR:HG22	2.19	0.42
1:B:729:GLY:HA3	1:B:734:MET:HE3	2.02	0.42
1:B:1231:ASN:HB3	1:B:1234:HIS:HD2	1.85	0.42
1:B:2003:ALA:O	1:B:2006:SER:OG	2.25	0.42
1:B:2341:VAL:HG21	1:B:2378:LEU:HB2	2.01	0.42
1:B:2705:SER:O	1:B:3034:ARG:NH2	2.52	0.42
1:B:2720:CYS:HB2	1:B:2979:PHE:H	1.84	0.42
1:C:105:SER:HG	1:C:108:HIS:HD1	1.61	0.42
1:C:504:GLY:HA3	1:C:947:ARG:HG3	2.00	0.42
1:C:1457:LEU:HG	1:C:1458:LEU:N	2.34	0.42
1:C:2780:PHE:HB3	1:C:2792:VAL:HG21	2.00	0.42
1:D:453:VAL:HA	1:D:486:LEU:HD21	2.00	0.42
1:D:521:GLU:HA	1:D:524:GLU:HG3	2.00	0.42
1:D:1707:GLU:HG3	1:D:1708:TYR:CD1	2.54	0.42
1:D:2718:ALA:H	1:D:2722:THR:CG2	2.32	0.42
1:D:2752:LEU:HD23	1:D:2755:ILE:HD11	2.02	0.42
1:E:1099:ILE:HD11	1:E:1176:PHE:CD2	2.55	0.42
1:E:2293:LEU:HD21	1:E:2314:HIS:CG	2.54	0.42
1:E:2462:GLU:HG2	1:E:2936:PRO:HB3	2.00	0.42
1:E:2648:GLU:HG2	1:E:2651:ARG:NH1	2.33	0.42
1:E:2838:LEU:HD12	1:E:2886:LEU:HD12	2.00	0.42
1:F:425:MET:N	1:F:429:THR:OG1	2.52	0.42
1:F:779:ARG:HD2	1:F:831:PHE:CE2	2.55	0.42
1:F:1368:THR:HG23	1:F:1374:PHE:O	2.20	0.42
1:F:1457:LEU:HG	1:F:1458:LEU:N	2.34	0.42
1:A:222:VAL:HG11	1:C:1675:ALA:HB1	2.00	0.42
1:A:820:GLU:OE1	1:A:820:GLU:N	2.27	0.42
1:A:1368:THR:HG21	1:A:1376:VAL:H	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2725:VAL:HG13	1:D:2714:ILE:HG12	2.00	0.42
1:B:1335:ALA:HB3	1:B:1686:GLU:HB2	2.02	0.42
1:B:1985:ARG:HD2	1:B:1986:LEU:HD12	2.01	0.42
1:B:2152:ASP:OD1	1:B:2155:ARG:HG3	2.18	0.42
1:B:2286:TYR:HD2	1:B:2316:LEU:HD12	1.84	0.42
1:B:2389:ALA:O	1:B:2393:ARG:HG2	2.19	0.42
1:B:2482:ILE:HD12	1:B:2482:ILE:HA	1.89	0.42
1:B:2881:PRO:HB3	1:B:2947:GLU:HG3	2.02	0.42
1:C:1103:VAL:HA	1:C:1109:PRO:HD3	2.01	0.42
1:C:1700:THR:O	1:C:1704:LYS:HG3	2.19	0.42
1:C:1975:GLY:HA3	1:C:1976:ARG:NH2	2.34	0.42
1:D:2452:TYR:O	1:D:2457:THR:OG1	2.36	0.42
1:E:52:LEU:HD11	1:E:369:ALA:HA	2.01	0.42
1:E:818:ASP:O	1:E:822:VAL:HG12	2.19	0.42
1:E:1977:GLU:O	1:E:1980:LEU:HG	2.20	0.42
1:E:2692:GLU:HA	1:E:2697:ILE:HG21	2.01	0.42
1:F:97:LEU:HD13	1:F:103:VAL:HG11	2.01	0.42
1:F:550:VAL:HB	1:F:564:MET:HE2	2.01	0.42
1:F:783:ARG:HB3	1:F:2418:PRO:HD3	2.01	0.42
1:F:877:ILE:HG22	1:F:879:PRO:HD3	2.01	0.42
1:F:1068:VAL:HG11	1:F:1226:VAL:HG21	2.00	0.42
1:F:2392:ALA:O	1:F:2395:GLN:HG3	2.19	0.42
1:F:2452:TYR:CD2	1:F:2461:MET:HG3	2.54	0.42
1:F:2705:SER:O	1:F:3034:ARG:NH2	2.52	0.42
1:F:3021:LEU:HA	1:F:3031:MET:HE1	2.02	0.42
1:A:1675:ALA:HB1	1:B:222:VAL:HG11	2.01	0.42
1:A:2071:GLY:HA3	1:A:2169:TYR:HA	2.01	0.42
1:A:2669:GLY:O	1:A:2672:MET:HG3	2.18	0.42
1:B:1321:MET:HE2	1:B:1321:MET:HB3	1.80	0.42
1:B:2259:ALA:HA	1:B:2309:ARG:CZ	2.50	0.42
1:B:2725:VAL:CG2	1:F:2714:ILE:HG12	2.48	0.42
1:C:1021:GLU:OE2	1:C:1021:GLU:N	2.35	0.42
1:C:1048:ASN:OD1	1:C:1048:ASN:C	2.62	0.42
1:C:1209:ARG:HB2	1:C:1297:VAL:HG22	2.02	0.42
1:C:2440:LEU:HD23	1:C:2440:LEU:HA	1.89	0.42
1:C:2757:GLY:HA3	1:E:2690:PHE:CD2	2.54	0.42
1:D:22:HIS:ND1	1:D:378:PHE:O	2.42	0.42
1:D:457:ILE:H	1:D:457:ILE:HG12	1.68	0.42
1:D:789:PHE:CE1	1:D:2507:VAL:HG21	2.54	0.42
1:D:2439:ASP:OD1	1:D:2439:ASP:N	2.53	0.42
1:E:716:ILE:HG22	1:E:720:MET:HE3	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:796:PHE:HB3	1:E:802:LEU:HD12	2.01	0.42
1:E:846:VAL:HG13	1:E:856:TRP:HB3	2.00	0.42
1:F:38:PHE:HZ	1:F:158:LEU:HD22	1.85	0.42
1:F:2293:LEU:C	1:F:2295:ALA:H	2.28	0.42
1:F:2530:ASP:HB2	1:F:2533:HIS:CD2	2.54	0.42
1:A:47:GLU:O	1:A:50:GLU:HG3	2.19	0.42
1:A:327:VAL:O	1:A:331:THR:HG23	2.20	0.42
1:A:1640:ARG:HB2	1:A:1643:GLU:HB3	2.01	0.42
1:A:1656:GLN:O	1:A:1656:GLN:NE2	2.51	0.42
1:A:1994:ASP:OD1	1:A:1994:ASP:N	2.47	0.42
1:A:2314:HIS:NE2	1:A:2316:LEU:HD22	2.34	0.42
1:B:229:ILE:HG22	1:B:324:VAL:HG12	2.02	0.42
1:B:636:GLY:HA3	2:B:3101:FMN:O4'	2.18	0.42
1:B:779:ARG:HD2	1:B:831:PHE:CD2	2.55	0.42
1:C:457:ILE:H	1:C:457:ILE:HG12	1.66	0.42
1:C:2223:PRO:HG3	1:C:2243:LEU:HD11	2.01	0.42
1:D:532:ILE:HD11	1:D:534:ILE:HG12	2.01	0.42
1:D:746:LEU:HD13	1:D:845:PHE:HB3	2.02	0.42
1:D:759:SER:OG	1:D:760:VAL:N	2.53	0.42
1:D:2070:GLU:OE2	1:D:2108:ASN:ND2	2.52	0.42
1:D:2391:LYS:O	1:D:2394:GLU:HG3	2.19	0.42
1:D:2615:GLY:HA3	1:D:3031:MET:O	2.20	0.42
1:D:2907:GLN:OE1	1:D:2921:PHE:HB3	2.18	0.42
1:E:108:HIS:O	1:E:114:VAL:HG11	2.20	0.42
1:F:581:ASP:OD1	1:F:614:TYR:OH	2.24	0.42
1:F:1231:ASN:HB3	1:F:1234:HIS:HD2	1.85	0.42
1:F:1490:SER:OG	1:F:1491:GLN:OE1	2.25	0.42
1:F:2259:ALA:HA	1:F:2309:ARG:CZ	2.49	0.42
1:F:2561:VAL:O	1:F:2565:PRO:HD3	2.20	0.42
1:F:2974:LEU:HB2	1:F:2986:VAL:HB	2.02	0.42
1:A:943:ARG:CZ	1:A:946:GLY:HA2	2.50	0.42
1:A:1209:ARG:NH2	1:A:1307:GLU:OE1	2.45	0.42
1:A:1404:THR:O	1:A:1407:THR:HG22	2.20	0.42
1:A:1488:ARG:O	1:A:1488:ARG:HG2	2.20	0.42
1:A:2511:HIS:O	1:A:2515:VAL:HG13	2.20	0.42
1:A:2690:PHE:CD2	1:D:2757:GLY:HA3	2.55	0.42
1:B:72:LEU:HD22	1:B:72:LEU:HA	1.93	0.42
1:B:251:TYR:CD1	1:B:251:TYR:C	2.98	0.42
1:B:581:ASP:OD1	1:B:614:TYR:OH	2.27	0.42
1:B:1209:ARG:HB2	1:B:1297:VAL:HG22	2.01	0.42
1:B:2315:ALA:HB1	1:B:2374:LEU:HD12	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:188:ILE:HD12	1:C:291:LEU:HD21	2.00	0.42
1:C:736:TYR:O	1:C:740:LEU:HG	2.20	0.42
1:C:1075:PRO:HD2	1:C:1076:LEU:HD22	2.01	0.42
1:C:1482:TYR:CG	1:C:1564:PRO:HG3	2.54	0.42
1:C:2197:GLN:HB3	1:C:2209:LYS:HG2	2.01	0.42
1:C:2393:ARG:NH1	1:C:2396:MET:SD	2.93	0.42
1:D:117:PRO:HG3	1:D:173:GLN:HA	2.00	0.42
1:D:968:PRO:HG2	1:D:970:ASN:OD1	2.20	0.42
1:D:2114:TYR:HB3	1:D:2142:ALA:HB2	2.02	0.42
1:E:426:THR:HB	1:E:427:PRO:HD3	2.01	0.42
1:E:2392:ALA:O	1:E:2396:MET:HG3	2.19	0.42
1:E:2701:HIS:O	1:E:2704:GLN:HG2	2.19	0.42
1:E:3021:LEU:HA	1:E:3031:MET:HE1	2.02	0.42
1:F:85:PRO:HG2	1:F:108:HIS:HD2	1.84	0.42
1:F:2266:ARG:HH12	1:F:2366:ALA:HA	1.85	0.42
1:A:171:LEU:CD1	1:A:312:ALA:HA	2.50	0.42
1:A:968:PRO:HG2	1:A:970:ASN:OD1	2.20	0.42
1:A:2663:GLY:HA2	1:A:2715:HIS:HB3	2.00	0.42
1:A:2974:LEU:HB2	1:A:2986:VAL:HB	2.00	0.42
1:B:1602:LEU:HD21	1:B:1652:LEU:HG	2.02	0.42
1:C:513:SER:OG	2:C:3101:FMN:O2	2.26	0.42
1:C:1388:ILE:HB	1:D:2262:ASP:CG	2.44	0.42
1:C:2101:ARG:O	1:C:2101:ARG:HD3	2.19	0.42
1:C:2595:THR:OG1	1:C:2596:LYS:N	2.53	0.42
1:C:2725:VAL:HG22	1:E:2714:ILE:HG23	2.00	0.42
1:D:107:LYS:HE2	1:D:107:LYS:HA	2.01	0.42
1:D:427:PRO:CD	2:D:3101:FMN:H6	2.49	0.42
1:D:1276:LEU:HD13	1:D:1279:TRP:CD1	2.55	0.42
1:E:746:LEU:HD13	1:E:845:PHE:HB3	2.02	0.42
1:E:1139:VAL:HG12	1:E:1161:VAL:HG12	2.00	0.42
1:E:1151:MET:SD	1:E:1151:MET:C	3.03	0.42
1:E:1302:ILE:HA	1:E:1307:GLU:HA	2.01	0.42
1:E:2101:ARG:O	1:E:2101:ARG:HD3	2.20	0.42
1:E:2113:ARG:HG3	1:E:2114:TYR:HD1	1.83	0.42
1:F:407:LEU:HB2	1:F:906:ILE:HD11	2.02	0.42
1:F:737:LEU:HD11	1:F:741:ARG:HE	1.85	0.42
1:F:1279:TRP:HD1	1:F:1325:ALA:HB2	1.85	0.42
1:F:1600:PRO:HG2	1:F:1603:VAL:O	2.20	0.42
1:F:2146:ALA:O	1:F:2175:LEU:HA	2.20	0.42
1:F:2238:MET:HE2	1:F:2238:MET:HB2	1.89	0.42
1:F:2317:ILE:C	1:F:2317:ILE:HD12	2.45	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1253:MET:HA	1:A:1256:SER:HB3	2.02	0.42
1:A:1689:VAL:HA	1:A:1719:GLU:HG2	2.01	0.42
1:A:2392:ALA:O	1:A:2396:MET:HG3	2.20	0.42
1:A:2561:VAL:O	1:A:2565:PRO:HD3	2.20	0.42
1:B:148:HIS:CG	1:B:149:SER:H	2.38	0.42
1:B:1302:ILE:HA	1:B:1307:GLU:HA	2.02	0.42
1:B:1576:GLU:O	1:B:1579:ARG:HG3	2.20	0.42
1:B:2129:ILE:H	1:B:2129:ILE:HD12	1.85	0.42
1:B:2430:TRP:CZ3	1:B:2970:LYS:HB3	2.54	0.42
1:B:2518:VAL:HG12	1:B:2606:PRO:HB3	2.02	0.42
1:C:679:SER:OG	1:C:680:GLN:N	2.53	0.42
1:C:2038:ASP:OD2	1:C:2943:CYS:HA	2.19	0.42
1:C:2252:GLY:O	1:C:2256:THR:OG1	2.26	0.42
1:C:2694:LEU:H	1:C:2694:LEU:HG	1.66	0.42
1:D:33:PRO:HB2	1:D:337:GLY:O	2.20	0.42
1:D:365:ILE:HD12	1:D:365:ILE:HA	1.89	0.42
1:D:654:MET:O	1:D:658:THR:HG22	2.19	0.42
1:E:180:THR:HA	1:E:284:VAL:HG11	2.01	0.42
1:E:943:ARG:CZ	1:E:946:GLY:HA2	2.50	0.42
1:E:1072:PHE:CE1	1:E:1214:ILE:HD11	2.55	0.42
1:E:2907:GLN:OE1	1:E:2921:PHE:HB3	2.19	0.42
1:F:145:MET:HG2	1:F:155:VAL:HG13	2.01	0.42
1:F:2827:ASP:HB2	1:F:2981:HIS:HB3	2.01	0.42
1:A:418:SER:HB3	1:A:443:HIS:CD2	2.55	0.42
1:A:981:ARG:HB2	1:A:992:SER:OG	2.20	0.42
1:A:1618:ARG:HD2	1:A:1618:ARG:HA	1.73	0.42
1:A:2769:MET:O	1:A:2773:ARG:HG3	2.20	0.42
1:B:65:LEU:HD12	1:B:166:VAL:HG12	2.02	0.42
1:B:1336:PHE:HA	1:B:1337:PRO:HD3	1.89	0.42
1:B:2066:ALA:HB1	1:B:2101:ARG:HG2	2.01	0.42
1:B:2561:VAL:O	1:B:2565:PRO:HD3	2.20	0.42
1:B:2713:MET:HE3	1:B:2713:MET:HB3	1.94	0.42
1:C:376:ASN:HB3	1:C:384:PRO:HD3	2.02	0.42
1:C:428:THR:HA	1:C:866:HIS:CE1	2.55	0.42
1:C:557:VAL:HG11	1:C:560:LYS:HD2	2.01	0.42
1:C:1387:ILE:C	1:C:1387:ILE:HD12	2.44	0.42
1:C:1514:LEU:HD13	1:C:1514:LEU:HA	1.86	0.42
1:C:2262:ASP:CG	1:D:1388:ILE:HB	2.45	0.42
1:C:2915:LYS:HB2	1:C:2915:LYS:HE2	1.83	0.42
2:C:3101:FMN:HM73	2:C:3101:FMN:HM81	1.87	0.42
1:D:547:ILE:CG2	1:D:587:THR:HG21	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1012:ASP:OD1	1:D:1012:ASP:N	2.49	0.42
1:D:1259:ALA:HB2	1:D:1321:MET:HE1	2.01	0.42
1:D:1668:ASP:O	1:D:1672:ILE:HG12	2.20	0.42
1:E:97:LEU:HD13	1:E:103:VAL:HG11	2.02	0.42
1:E:228:SER:OG	1:E:229:ILE:HG23	2.20	0.42
1:E:473:ARG:HG2	1:E:1009:ASN:HD21	1.85	0.42
1:E:1398:ASP:N	1:E:1398:ASP:OD1	2.50	0.42
1:F:734:MET:HG2	1:F:738:GLN:HG3	2.02	0.42
1:F:958:ASP:OD1	1:F:958:ASP:N	2.53	0.42
1:F:1374:PHE:HZ	1:F:1409:VAL:HG21	1.85	0.42
1:F:2129:ILE:HD12	1:F:2129:ILE:H	1.84	0.42
1:F:2273:GLY:HA3	1:F:2314:HIS:HE1	1.84	0.42
1:F:2486:ASP:HA	1:F:2490:PRO:HA	2.02	0.42
1:A:220:ARG:HE	1:A:247:ARG:NH1	2.17	0.41
1:A:473:ARG:HG2	1:A:1009:ASN:HD21	1.85	0.41
1:B:168:LEU:HD23	1:B:171:LEU:HD13	2.01	0.41
1:B:841:LYS:HD2	1:B:842:PRO:HD2	2.02	0.41
1:B:2332:ILE:HD12	1:B:2332:ILE:H	1.85	0.41
1:B:2663:GLY:HA2	1:B:2715:HIS:HB3	2.02	0.41
1:B:2710:TYR:HE1	1:F:2828:GLY:HA3	1.85	0.41
1:C:107:LYS:HE2	1:C:107:LYS:HA	2.01	0.41
1:C:2547:PHE:CD1	1:C:2582:ILE:HA	2.55	0.41
1:D:52:LEU:HD11	1:D:369:ALA:HA	2.02	0.41
1:D:175:ILE:HD13	1:D:175:ILE:HA	1.87	0.41
1:D:504:GLY:HA3	1:D:947:ARG:HG3	2.02	0.41
1:D:2334:ALA:O	1:D:2337:GLU:HG2	2.20	0.41
1:E:38:PHE:HD2	1:E:155:VAL:HG23	1.85	0.41
1:E:171:LEU:CD1	1:E:312:ALA:HA	2.50	0.41
1:E:561:PRO:HA	1:E:596:ASN:HB2	2.02	0.41
1:E:779:ARG:HD2	1:E:831:PHE:CE2	2.55	0.41
1:E:982:LEU:HD23	1:E:982:LEU:HA	1.85	0.41
1:E:1126:VAL:HG22	1:E:1277:VAL:HA	2.02	0.41
1:E:1388:ILE:HA	1:E:1393:HIS:HA	2.02	0.41
1:E:2459:PHE:CZ	1:E:2928:GLN:HB3	2.55	0.41
1:E:2673:GLN:HG2	1:E:2677:HIS:CE1	2.54	0.41
1:F:425:MET:H	1:F:448:ALA:HB2	1.85	0.41
1:F:636:GLY:HA3	2:F:3101:FMN:O4'	2.20	0.41
1:F:2136:ARG:NH1	1:F:2351:ALA:HB2	2.34	0.41
1:F:2318:GLY:HA2	1:F:2375:THR:HG23	2.02	0.41
1:A:1076:LEU:HD21	1:A:1210:ARG:HD3	2.02	0.41
1:A:1492:ILE:HB	1:A:1545:ARG:HG2	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2124:ALA:O	1:A:2159:TYR:OH	2.29	0.41
1:A:2907:GLN:OE1	1:A:2921:PHE:HB3	2.19	0.41
1:B:699:LEU:HD12	1:B:854:ARG:HA	2.02	0.41
1:B:2701:HIS:CE1	1:B:2704:GLN:HE21	2.37	0.41
1:B:2747:LEU:HD23	1:B:2796:GLY:C	2.45	0.41
1:C:785:HIS:CE1	1:C:787:GLN:HB3	2.55	0.41
1:C:1334:TYR:CE1	1:C:1422:MET:HE1	2.56	0.41
1:C:1517:VAL:HA	1:C:1660:PRO:HB3	2.02	0.41
1:C:2549:PHE:CZ	1:C:2581:VAL:HG12	2.54	0.41
1:C:2692:GLU:HA	1:C:2697:ILE:HG21	2.02	0.41
1:C:2963:LEU:HB3	1:C:2967:PHE:HB3	2.01	0.41
1:D:47:GLU:O	1:D:50:GLU:HG3	2.20	0.41
1:D:148:HIS:CG	1:D:149:SER:H	2.37	0.41
1:D:569:GLY:HA3	1:D:664:TRP:HH2	1.85	0.41
1:D:2039:ARG:HA	1:D:2039:ARG:HD2	1.87	0.41
1:D:2460:GLU:HB2	1:D:2464:GLU:OE1	2.20	0.41
1:D:2547:PHE:CD1	1:D:2582:ILE:HA	2.56	0.41
1:E:695:CYS:O	1:E:699:LEU:HG	2.20	0.41
1:E:759:SER:OG	1:E:760:VAL:N	2.53	0.41
1:E:1577:PHE:CE2	1:E:1654:ALA:HA	2.55	0.41
1:E:2518:VAL:HG12	1:E:2606:PRO:HB3	2.02	0.41
1:E:2661:THR:O	1:E:2726:SER:HB2	2.20	0.41
1:E:2745:GLY:HA3	1:E:2799:THR:HA	2.02	0.41
1:F:52:LEU:HD11	1:F:369:ALA:HA	2.02	0.41
1:F:654:MET:O	1:F:658:THR:HG22	2.20	0.41
1:F:779:ARG:HD2	1:F:831:PHE:CD2	2.55	0.41
1:F:1377:LEU:O	1:F:1381:ARG:HB2	2.21	0.41
1:F:1977:GLU:O	1:F:1980:LEU:HG	2.20	0.41
1:F:1985:ARG:HH11	1:F:1986:LEU:HD23	1.84	0.41
1:F:2438:ALA:HA	1:F:2806:ASP:OD2	2.20	0.41
1:F:2861:VAL:HG13	1:F:2865:ASP:HB3	2.02	0.41
1:F:2881:PRO:HB3	1:F:2947:GLU:HG3	2.03	0.41
1:A:153:LEU:HB3	1:A:315:LEU:HD11	2.01	0.41
1:A:1632:ASP:OD1	1:A:1632:ASP:N	2.50	0.41
1:A:2482:ILE:HD11	1:A:2510:TYR:CZ	2.55	0.41
1:A:2558:ARG:NH2	1:A:2561:VAL:O	2.53	0.41
1:B:1068:VAL:HG11	1:B:1226:VAL:HG21	2.02	0.41
1:B:1502:PHE:CD1	1:B:1502:PHE:C	2.98	0.41
1:B:1977:GLU:O	1:B:1980:LEU:HG	2.20	0.41
1:B:2538:LEU:HG	1:F:2682:GLY:HA3	2.01	0.41
1:C:150:GLN:O	1:C:150:GLN:HG2	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:968:PRO:HG2	1:C:970:ASN:OD1	2.20	0.41
1:C:1302:ILE:HA	1:C:1307:GLU:HA	2.03	0.41
1:C:1388:ILE:HA	1:C:1393:HIS:HA	2.02	0.41
1:C:1618:ARG:HA	1:C:1618:ARG:HD2	1.78	0.41
1:C:2052:LEU:HD23	1:C:2052:LEU:HA	1.87	0.41
1:D:1038:ASP:HB3	1:D:1040:PRO:HD2	2.02	0.41
1:D:1083:VAL:HG22	1:D:1084:PRO:HD2	2.03	0.41
1:D:1209:ARG:NH2	1:D:1307:GLU:OE1	2.44	0.41
1:D:2370:ILE:HD12	1:D:2370:ILE:O	2.21	0.41
1:E:45:TRP:HB3	1:E:119:VAL:HG12	2.01	0.41
1:E:516:ILE:HA	1:E:517:PRO:HD3	1.90	0.41
1:E:1165:ASP:OD1	1:E:1165:ASP:N	2.52	0.41
1:E:1220:MET:HE2	1:E:1251:HIS:H	1.85	0.41
1:E:1618:ARG:O	1:E:1618:ARG:NH1	2.46	0.41
1:E:2262:ASP:OD2	1:E:2265:SER:HB3	2.20	0.41
1:F:33:PRO:HB3	1:F:143:VAL:HG11	2.01	0.41
1:F:33:PRO:O	1:F:339:ARG:N	2.47	0.41
1:F:108:HIS:O	1:F:114:VAL:HG11	2.20	0.41
1:F:504:GLY:HA3	1:F:947:ARG:HG3	2.02	0.41
1:F:1209:ARG:HB2	1:F:1297:VAL:HG22	2.03	0.41
1:F:1641:PRO:O	1:F:1644:MET:HG3	2.20	0.41
1:F:2726:SER:O	1:F:2729:GLU:HG2	2.20	0.41
1:A:572:GLY:HA3	2:A:3101:FMN:HM83	2.02	0.41
1:A:1021:GLU:OE1	1:A:1021:GLU:N	2.35	0.41
1:A:2141:GLY:HA2	1:A:2171:ALA:HB2	2.02	0.41
1:A:2694:LEU:HD13	1:D:2719:ALA:HB1	2.02	0.41
1:A:2766:ASP:HB2	1:A:2769:MET:HE1	2.01	0.41
1:B:737:LEU:HD11	1:B:741:ARG:HE	1.85	0.41
1:B:779:ARG:HD2	1:B:831:PHE:CE2	2.55	0.41
1:B:2039:ARG:HA	1:B:2039:ARG:HD2	1.92	0.41
1:B:2438:ALA:HA	1:B:2806:ASP:OD2	2.19	0.41
1:B:2752:LEU:HD23	1:B:2755:ILE:HD11	2.02	0.41
1:C:549:SER:O	1:C:553:ILE:HG13	2.20	0.41
1:C:1076:LEU:HB3	1:C:1265:ALA:HB1	2.01	0.41
1:C:1190:PRO:HD2	1:C:1282:ARG:HH22	1.85	0.41
1:C:1207:ARG:HD2	1:C:1207:ARG:HA	1.77	0.41
1:C:1407:THR:O	1:C:1411:MET:HG2	2.20	0.41
1:C:1594:ILE:HD12	1:C:1594:ILE:HA	1.90	0.41
1:C:2059:ASP:OD1	1:C:2059:ASP:N	2.51	0.41
1:C:2557:ALA:HB1	1:C:2579:TRP:HB2	2.01	0.41
1:C:2675:MET:HG3	1:C:2676:TYR:N	2.34	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2719:ALA:HB1	1:E:2694:LEU:HD13	2.01	0.41
1:D:1514:LEU:HD12	1:D:1530:GLY:HA3	2.03	0.41
1:D:1697:GLY:O	1:D:1701:ASN:ND2	2.43	0.41
1:D:2631:ASN:HB3	1:D:2702:VAL:HG21	2.01	0.41
1:E:727:TYR:CD1	1:E:849:ILE:HD11	2.55	0.41
1:E:820:GLU:H	1:E:820:GLU:CD	2.21	0.41
1:E:1336:PHE:CE2	1:E:1444:ALA:HA	2.46	0.41
1:E:1368:THR:HG21	1:E:1376:VAL:H	1.84	0.41
1:E:2751:THR:O	1:E:2755:ILE:HG12	2.19	0.41
1:F:453:VAL:HA	1:F:486:LEU:HD21	2.02	0.41
1:F:1419:VAL:HG21	1:F:1447:CYS:HB3	2.02	0.41
1:F:1577:PHE:CE2	1:F:1654:ALA:HA	2.55	0.41
1:F:1690:LYS:CG	1:F:1719:GLU:HB3	2.50	0.41
1:F:2174:TRP:CH2	1:F:2209:LYS:HG2	2.55	0.41
1:F:2561:VAL:HG11	1:F:2570:ILE:HG12	2.03	0.41
1:A:260:GLU:HG2	1:A:272:VAL:HG11	2.03	0.41
1:A:453:VAL:HA	1:A:486:LEU:HD21	2.01	0.41
1:A:488:LYS:HA	1:A:488:LYS:HD2	1.85	0.41
1:A:543:THR:OG1	1:A:544:ILE:N	2.53	0.41
1:A:727:TYR:CD1	1:A:849:ILE:HD11	2.55	0.41
1:A:1310:ASP:C	1:A:1310:ASP:OD1	2.64	0.41
1:A:2321:ARG:HH11	1:A:2345:SER:HB3	1.85	0.41
1:B:97:LEU:HD13	1:B:103:VAL:HG11	2.02	0.41
1:B:1038:ASP:HB3	1:B:1040:PRO:HD2	2.02	0.41
1:B:1149:THR:O	1:B:1182:THR:OG1	2.35	0.41
1:B:1388:ILE:HA	1:B:1393:HIS:HA	2.02	0.41
1:B:2008:LEU:HA	1:B:2011:LEU:CD2	2.50	0.41
1:B:2151:LEU:HD12	1:B:2151:LEU:HA	1.84	0.41
1:B:2828:GLY:HA3	1:F:2710:TYR:HE1	1.85	0.41
1:C:47:GLU:O	1:C:50:GLU:HG3	2.19	0.41
1:C:893:PRO:HG2	1:C:896:GLU:HB2	2.02	0.41
1:C:2005:ASP:O	1:C:2009:ILE:HG23	2.21	0.41
1:C:2234:SER:O	1:C:2237:GLU:HG3	2.21	0.41
1:C:2695:PRO:HD3	1:E:2666:MET:HG2	2.02	0.41
1:D:50:GLU:HG2	1:D:97:LEU:HD23	2.01	0.41
1:D:1517:VAL:HG12	1:D:1566:HIS:HB2	2.03	0.41
1:D:2238:MET:HE2	1:D:2238:MET:HB2	1.70	0.41
1:E:409:THR:OG1	1:E:631:ASP:O	2.36	0.41
1:E:534:ILE:HD13	1:E:534:ILE:HA	1.89	0.41
1:E:651:VAL:HG13	1:E:877:ILE:HD13	2.03	0.41
1:E:1207:ARG:HA	1:E:1207:ARG:HD2	1.78	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1332:THR:HG22	1:F:1683:ARG:HB2	2.03	0.41
1:F:2672:MET:HG2	1:F:2672:MET:H	1.65	0.41
1:A:561:PRO:HA	1:A:596:ASN:HB2	2.02	0.41
1:A:1977:GLU:O	1:A:1980:LEU:HG	2.21	0.41
1:A:2509:ARG:HG2	1:A:2510:TYR:CE2	2.55	0.41
1:B:56:THR:HG21	1:B:129:ALA:HB1	2.03	0.41
1:B:119:VAL:HG23	1:B:150:GLN:NE2	2.30	0.41
1:B:796:PHE:HZ	1:B:812:LEU:HB2	1.85	0.41
1:B:1287:VAL:HG13	1:B:1315:VAL:HG21	2.02	0.41
1:B:1368:THR:HG23	1:B:1374:PHE:O	2.21	0.41
1:B:1419:VAL:HG21	1:B:1447:CYS:HB3	2.02	0.41
1:B:1582:ASP:O	1:B:1587:ARG:NH2	2.53	0.41
1:B:2317:ILE:HD12	1:B:2317:ILE:C	2.45	0.41
1:B:2915:LYS:HE2	1:B:2915:LYS:HB2	1.81	0.41
1:B:2941:LEU:HD23	1:B:2941:LEU:HA	1.94	0.41
1:C:1038:ASP:HB3	1:C:1040:PRO:HD2	2.02	0.41
1:C:1165:ASP:OD1	1:C:1165:ASP:N	2.52	0.41
1:C:1332:THR:HG22	1:C:1683:ARG:HB2	2.02	0.41
1:C:1398:ASP:N	1:C:1398:ASP:OD1	2.53	0.41
1:C:1626:LEU:HD22	1:C:1629:ILE:HD12	2.03	0.41
1:C:2297:VAL:O	1:C:2301:HIS:CE1	2.74	0.41
1:C:2558:ARG:NH2	1:C:2561:VAL:HG23	2.35	0.41
1:D:2189:LEU:HD23	1:D:2189:LEU:HA	1.93	0.41
1:D:2885:GLU:O	1:D:2889:ARG:HG3	2.20	0.41
1:D:2896:ARG:HE	1:D:2900:ALA:HB3	1.86	0.41
1:E:457:ILE:H	1:E:457:ILE:HG12	1.62	0.41
1:E:736:TYR:CD1	1:E:784:LEU:HD21	2.56	0.41
1:E:2058:ILE:HG23	1:E:2098:LEU:HD22	2.02	0.41
1:F:962:TRP:HB3	1:F:973:ALA:HB1	2.03	0.41
1:F:968:PRO:HG2	1:F:970:ASN:OD1	2.20	0.41
1:F:1618:ARG:HH11	1:F:1618:ARG:HA	1.86	0.41
1:A:425:MET:N	1:A:429:THR:OG1	2.46	0.41
1:A:1260:GLN:O	1:A:1263:VAL:HG12	2.19	0.41
1:A:2005:ASP:O	1:A:2009:ILE:HG23	2.20	0.41
1:A:2719:ALA:HB1	1:D:2694:LEU:HD13	2.03	0.41
1:B:229:ILE:CG1	1:B:237:VAL:HG22	2.51	0.41
1:B:926:ARG:HH11	1:B:937:LEU:HD21	1.86	0.41
1:B:982:LEU:HD23	1:B:982:LEU:HA	1.85	0.41
1:B:2028:PHE:HD2	1:B:2178:ALA:HB2	1.86	0.41
1:C:1985:ARG:HD3	1:C:1985:ARG:HA	1.76	0.41
1:C:2827:ASP:HB2	1:C:2981:HIS:HB3	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1693:PRO:HB2	1:D:1696:ALA:HB3	2.02	0.41
1:D:2393:ARG:HA	1:D:2396:MET:HE3	2.02	0.41
1:D:2558:ARG:HH21	1:D:2561:VAL:HG23	1.86	0.41
1:D:2973:MET:HE3	1:D:2973:MET:HB3	1.85	0.41
1:E:430:VAL:O	1:E:461:ARG:HD3	2.20	0.41
1:E:2452:TYR:HE1	1:E:2461:MET:HE3	1.85	0.41
1:E:2530:ASP:HB2	1:E:2533:HIS:CD2	2.55	0.41
1:E:2547:PHE:CD1	1:E:2582:ILE:HA	2.56	0.41
1:E:2557:ALA:HB1	1:E:2579:TRP:HB2	2.02	0.41
1:E:2861:VAL:HG13	1:E:2865:ASP:HB3	2.02	0.41
2:E:3101:FMN:H9	2:E:3101:FMN:H1'2	1.84	0.41
1:F:181:LEU:O	1:F:185:ARG:HD3	2.21	0.41
1:F:591:LEU:HD13	1:F:599:VAL:HG21	2.02	0.41
1:F:1669:LEU:HD12	1:F:1678:GLY:HA2	2.02	0.41
1:F:2390:ALA:HA	1:F:2393:ARG:HG2	2.03	0.41
1:A:705:ASP:O	1:A:709:VAL:HG23	2.20	0.41
1:A:877:ILE:C	1:A:879:PRO:HD3	2.46	0.41
1:A:2396:MET:SD	1:A:2397:SER:N	2.93	0.41
1:B:33:PRO:HB3	1:B:143:VAL:HG11	2.02	0.41
1:B:520:ASP:O	1:B:524:GLU:HG3	2.21	0.41
1:C:130:LEU:HD12	1:C:344:LEU:HD11	2.02	0.41
1:C:1055:VAL:HG21	1:C:1090:PRO:HB2	2.03	0.41
1:C:1668:ASP:O	1:C:1672:ILE:HG12	2.21	0.41
1:D:574:HIS:HA	1:D:685:ILE:HG22	2.02	0.41
1:D:890:MET:HE3	1:D:890:MET:HB3	1.94	0.41
1:D:1546:ARG:HD3	1:D:1551:GLY:HA2	2.02	0.41
1:D:2680:LEU:HD23	1:D:2680:LEU:HA	1.83	0.41
1:E:547:ILE:CG2	1:E:587:THR:HG21	2.51	0.41
1:E:1310:ASP:C	1:E:1310:ASP:OD1	2.63	0.41
1:E:1686:GLU:CD	1:E:1696:ALA:HB2	2.46	0.41
1:F:144:ALA:HB1	1:F:333:VAL:HG22	2.02	0.41
1:F:227:LEU:HA	1:F:238:ILE:HG22	2.02	0.41
1:F:921:SER:HB3	1:F:935:VAL:HG22	2.02	0.41
1:F:1158:SER:OG	1:F:1173:GLU:OE2	2.26	0.41
1:F:1271:ARG:HH11	1:F:1271:ARG:C	2.16	0.41
1:F:2537:LEU:HD23	1:F:2537:LEU:HA	1.80	0.41
1:F:2595:THR:OG1	1:F:2596:LYS:N	2.54	0.41
1:F:2874:THR:OG1	1:F:2913:HIS:ND1	2.47	0.41
1:F:2896:ARG:NH2	1:F:2901:PRO:O	2.54	0.41
1:A:880:GLY:O	1:A:884:VAL:HG22	2.21	0.41
1:A:1302:ILE:HA	1:A:1307:GLU:HA	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1309:VAL:HG12	1:A:1325:ALA:HB3	2.03	0.41
1:A:1404:THR:O	1:A:1408:GLN:HG2	2.21	0.41
1:A:2074:HIS:O	1:A:2078:THR:HG23	2.20	0.41
1:A:2114:TYR:CD2	1:A:2137:LEU:HD23	2.56	0.41
1:A:2122:THR:HG22	1:A:2219:PRO:HA	2.02	0.41
1:A:2391:LYS:O	1:A:2394:GLU:HG3	2.21	0.41
1:A:2393:ARG:HA	1:A:2396:MET:HG3	2.02	0.41
1:B:504:GLY:HA3	1:B:947:ARG:HG3	2.02	0.41
1:B:717:ILE:HG23	1:B:727:TYR:HD2	1.86	0.41
1:B:750:GLU:OE1	1:B:750:GLU:N	2.54	0.41
1:B:968:PRO:HG2	1:B:970:ASN:OD1	2.20	0.41
1:B:1388:ILE:HB	1:E:2262:ASP:CG	2.46	0.41
1:B:1611:ARG:HA	1:B:1614:ILE:HG12	2.03	0.41
1:B:1684:PHE:O	1:B:1715:VAL:HA	2.21	0.41
1:B:2224:ARG:HA	1:B:2224:ARG:NH1	2.35	0.41
1:B:2321:ARG:HH11	1:B:2345:SER:HB3	1.86	0.41
1:B:2537:LEU:HD23	1:B:2537:LEU:HA	1.80	0.41
1:B:2974:LEU:HB2	1:B:2986:VAL:HB	2.03	0.41
1:C:746:LEU:HD13	1:C:845:PHE:HB3	2.03	0.41
1:C:1374:PHE:HZ	1:C:1409:VAL:HG21	1.86	0.41
1:C:1519:PHE:O	1:C:1664:ILE:HG12	2.20	0.41
1:C:2145:ILE:HD11	1:C:2192:TRP:CZ3	2.56	0.41
1:C:2428:PRO:HB3	1:C:2968:PRO:HB2	2.03	0.41
1:C:2833:ILE:N	1:C:2834:PRO:HD2	2.36	0.41
1:D:50:GLU:HB2	1:D:94:VAL:HG23	2.02	0.41
1:D:1585:MET:SD	1:D:1586:PRO:HD2	2.61	0.41
1:D:2038:ASP:OD2	1:D:2943:CYS:HA	2.20	0.41
1:D:2293:LEU:C	1:D:2295:ALA:H	2.28	0.41
1:D:2341:VAL:HG21	1:D:2378:LEU:HB2	2.01	0.41
1:E:22:HIS:HB2	1:E:25:VAL:HB	2.03	0.41
1:E:328:ASP:OD1	1:E:329:GLU:N	2.54	0.41
1:E:543:THR:OG1	1:E:544:ILE:N	2.54	0.41
1:E:1273:PRO:HD2	1:E:1682:GLU:HG2	2.03	0.41
1:E:1368:THR:HG23	1:E:1374:PHE:O	2.20	0.41
1:E:1467:LYS:HD3	1:E:1576:GLU:HB3	2.03	0.41
1:E:2036:PHE:HE1	1:E:2942:ASP:HB3	1.86	0.41
1:E:2332:ILE:H	1:E:2332:ILE:HD12	1.86	0.41
1:F:121:LEU:HD13	1:F:169:PHE:CZ	2.56	0.41
1:F:316:ALA:O	1:F:320:LEU:HB2	2.21	0.41
1:F:841:LYS:HD2	1:F:842:PRO:HD2	2.02	0.41
1:F:1207:ARG:HA	1:F:1207:ARG:HD2	1.77	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1209:ARG:HA	1:F:1209:ARG:HD3	1.91	0.41
1:F:1485:ALA:HB2	1:F:1557:LEU:HD12	2.03	0.41
1:F:1684:PHE:O	1:F:1715:VAL:HA	2.20	0.41
1:F:2224:ARG:HA	1:F:2224:ARG:NH1	2.34	0.41
1:F:2833:ILE:N	1:F:2834:PRO:HD2	2.36	0.41
1:F:2896:ARG:HH12	1:F:2902:LEU:HD21	1.86	0.41
1:A:2058:ILE:HG23	1:A:2098:LEU:HD22	2.02	0.41
1:A:2678:GLY:HA2	1:A:2683:ARG:CG	2.51	0.41
1:A:2701:HIS:O	1:A:2704:GLN:HG2	2.21	0.41
1:A:2745:GLY:HA3	1:A:2799:THR:HA	2.02	0.41
1:A:2833:ILE:N	1:A:2834:PRO:HD2	2.36	0.41
1:B:2188:ALA:O	1:B:2191:GLU:HG3	2.20	0.41
1:B:2675:MET:HG3	1:B:2676:TYR:N	2.36	0.41
1:C:153:LEU:HD12	1:C:154:ALA:N	2.36	0.41
1:C:547:ILE:CG2	1:C:587:THR:HG21	2.50	0.41
1:C:759:SER:OG	1:C:760:VAL:N	2.53	0.41
1:C:1209:ARG:NH2	1:C:1307:GLU:OE1	2.43	0.41
1:C:1697:GLY:O	1:C:1701:ASN:ND2	2.45	0.41
1:C:1994:ASP:OD1	1:C:1994:ASP:N	2.46	0.41
1:C:2334:ALA:O	1:C:2337:GLU:HG2	2.21	0.41
1:E:149:SER:HG	1:E:287:HIS:CE1	2.29	0.41
1:E:350:LEU:O	1:E:354:THR:OG1	2.26	0.41
1:E:1488:ARG:O	1:E:1488:ARG:HG2	2.20	0.41
1:E:2568:THR:OG1	1:E:2569:VAL:N	2.54	0.41
1:E:2833:ILE:N	1:E:2834:PRO:HD2	2.36	0.41
1:F:56:THR:HG21	1:F:129:ALA:HB1	2.03	0.41
1:F:117:PRO:HG3	1:F:173:GLN:HA	2.03	0.41
1:F:453:VAL:HG12	1:F:486:LEU:HD21	2.03	0.41
1:F:926:ARG:HH11	1:F:937:LEU:HD21	1.85	0.41
1:F:2902:LEU:HA	1:F:2902:LEU:HD23	1.84	0.41
1:A:22:HIS:HB2	1:A:25:VAL:HB	2.03	0.40
1:A:785:HIS:CE1	1:A:787:GLN:HB3	2.56	0.40
1:B:457:ILE:H	1:B:457:ILE:HG12	1.66	0.40
1:B:515:GLY:HA2	1:B:546:GLN:NE2	2.36	0.40
1:B:1207:ARG:HD2	1:B:1207:ARG:HA	1.77	0.40
1:B:1520:ASN:HB2	1:B:1525:GLN:HG2	2.02	0.40
1:C:735:THR:OG1	1:C:738:GLN:HG2	2.22	0.40
1:C:890:MET:HE3	1:C:890:MET:HB3	1.95	0.40
1:C:1053:LEU:HD23	1:C:1053:LEU:HA	1.97	0.40
1:D:528:GLU:O	1:D:532:ILE:HG23	2.21	0.40
1:D:748:ILE:HG13	1:D:805:PRO:HG3	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1521:LEU:C	1:D:1664:ILE:HD11	2.45	0.40
1:E:341:ILE:HD11	1:E:365:ILE:HG13	2.03	0.40
1:E:1253:MET:HA	1:E:1256:SER:HB3	2.02	0.40
1:E:1336:PHE:HA	1:E:1337:PRO:HD3	1.88	0.40
1:E:1441:GLU:HG3	1:E:1598:TYR:HE1	1.85	0.40
1:E:2223:PRO:HG3	1:E:2224:ARG:N	2.32	0.40
1:E:2238:MET:HE2	1:E:2238:MET:HB2	1.84	0.40
1:F:328:ASP:OD1	1:F:329:GLU:N	2.54	0.40
1:F:520:ASP:O	1:F:524:GLU:HG3	2.21	0.40
1:F:1321:MET:HB3	1:F:1321:MET:HE2	1.78	0.40
1:F:1404:THR:O	1:F:1407:THR:HG22	2.21	0.40
1:F:1703:LEU:HD23	1:F:1703:LEU:HA	1.94	0.40
1:F:2767:THR:HG22	1:F:2771:CYS:SG	2.61	0.40
1:A:52:LEU:HD11	1:A:369:ALA:HA	2.02	0.40
1:A:2748:ASP:HB2	1:A:2916:GLY:H	1.85	0.40
1:B:328:ASP:OD1	1:B:329:GLU:N	2.55	0.40
1:B:699:LEU:HD11	1:B:853:VAL:HG22	2.02	0.40
1:B:788:ASP:OD2	1:B:2416:PRO:HA	2.22	0.40
1:B:1253:MET:HA	1:B:1256:SER:HB3	2.03	0.40
1:B:1293:VAL:HG12	1:B:1315:VAL:HG22	2.03	0.40
1:B:2217:LEU:HD22	1:B:2254:LEU:HD12	2.04	0.40
1:B:2393:ARG:CB	1:B:2396:MET:HE3	2.51	0.40
1:B:2477:TRP:CZ2	1:B:2613:VAL:HG22	2.56	0.40
1:B:2767:THR:HG22	1:B:2771:CYS:SG	2.61	0.40
1:B:2935:ILE:HG21	1:B:2957:VAL:HG21	2.03	0.40
1:C:1653:LEU:HD23	1:C:1653:LEU:HA	1.93	0.40
1:C:2500:MET:HE2	1:C:2500:MET:HA	2.03	0.40
1:D:153:LEU:HD12	1:D:154:ALA:N	2.36	0.40
1:D:825:HIS:HD2	1:D:827:ALA:H	1.68	0.40
1:D:1457:LEU:HG	1:D:1458:LEU:N	2.37	0.40
1:D:2723:ALA:CB	1:D:2920:VAL:HG23	2.51	0.40
1:D:3020:ARG:NH1	1:D:3024:ALA:HB2	2.35	0.40
1:E:48:THR:HG21	1:E:347:GLY:N	2.36	0.40
1:E:880:GLY:O	1:E:884:VAL:HG22	2.21	0.40
1:E:1309:VAL:HG12	1:E:1325:ALA:HB3	2.02	0.40
1:E:2758:PHE:HB3	1:E:2764:THR:HG21	2.04	0.40
1:E:2999:ASP:OD1	1:E:2999:ASP:N	2.54	0.40
1:F:486:LEU:HD23	1:F:486:LEU:HA	1.87	0.40
1:F:1287:VAL:HG13	1:F:1315:VAL:HG21	2.02	0.40
1:F:1343:HIS:CD2	1:F:1346:MET:HG2	2.57	0.40
1:A:486:LEU:HD23	1:A:486:LEU:HA	1.94	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:528:GLU:O	1:A:532:ILE:HG23	2.21	0.40
1:A:575:HIS:CE1	1:A:664:TRP:HZ3	2.40	0.40
1:A:2300:TRP:CZ3	1:A:2307:ALA:HA	2.57	0.40
1:B:551:ILE:HD13	1:B:590:GLU:HB2	2.03	0.40
1:B:1124:ALA:HA	1:B:1172:LEU:HD23	2.03	0.40
1:B:1343:HIS:CD2	1:B:1346:MET:HG2	2.56	0.40
1:B:2296:VAL:HG12	1:B:2312:LEU:HD21	2.03	0.40
1:B:2833:ILE:N	1:B:2834:PRO:HD2	2.36	0.40
1:C:461:ARG:HD3	1:C:464:GLN:HE21	1.87	0.40
1:C:1194:GLY:H	1:C:1280:THR:HB	1.86	0.40
1:C:1600:PRO:HG3	1:C:1652:LEU:HD11	2.03	0.40
1:C:1706:PRO:O	1:C:1707:GLU:C	2.49	0.40
1:D:549:SER:O	1:D:553:ILE:HG13	2.21	0.40
1:D:926:ARG:HH11	1:D:937:LEU:HD21	1.86	0.40
1:D:973:ALA:HB3	1:D:982:LEU:HD12	2.04	0.40
1:D:1055:VAL:HG21	1:D:1090:PRO:HB2	2.03	0.40
1:D:1151:MET:HE1	1:D:1177:ALA:HB1	2.02	0.40
1:D:1207:ARG:HA	1:D:1207:ARG:HD2	1.79	0.40
1:D:2902:LEU:HD12	1:D:2902:LEU:HA	1.94	0.40
1:E:968:PRO:HG2	1:E:970:ASN:OD1	2.20	0.40
1:E:1611:ARG:HA	1:E:1614:ILE:HG12	2.03	0.40
1:E:2039:ARG:HA	1:E:2039:ARG:HD2	1.93	0.40
1:E:2152:ASP:OD1	1:E:2152:ASP:N	2.54	0.40
1:E:2885:GLU:O	1:E:2889:ARG:HG3	2.21	0.40
1:F:426:THR:HB	1:F:427:PRO:HD3	2.04	0.40
1:F:1279:TRP:CD1	1:F:1325:ALA:HB2	2.55	0.40
1:F:1467:LYS:HB2	1:F:1467:LYS:HE3	1.84	0.40
1:F:2068:ARG:NH1	1:F:2165:ASP:O	2.54	0.40
1:F:2977:LEU:H	1:F:2977:LEU:HD22	1.87	0.40
1:A:328:ASP:OD1	1:A:329:GLU:N	2.54	0.40
1:A:779:ARG:HD2	1:A:831:PHE:CE2	2.56	0.40
1:A:2293:LEU:C	1:A:2295:ALA:H	2.29	0.40
1:A:2568:THR:OG1	1:A:2569:VAL:N	2.54	0.40
1:A:2705:SER:O	1:A:3034:ARG:NH2	2.54	0.40
1:B:407:LEU:HB2	1:B:906:ILE:HD11	2.03	0.40
1:B:1374:PHE:HZ	1:B:1409:VAL:HG21	1.86	0.40
1:B:2059:ASP:OD1	1:B:2059:ASP:N	2.54	0.40
1:B:2452:TYR:CD2	1:B:2461:MET:HG3	2.57	0.40
1:C:50:GLU:HB2	1:C:94:VAL:HG23	2.04	0.40
1:C:425:MET:HG2	1:C:428:THR:HG23	2.03	0.40
1:C:699:LEU:O	1:C:703:ALA:N	2.52	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1387:ILE:HD11	1:C:1406:PHE:CZ	2.57	0.40
1:C:2884:THR:HG23	1:C:2954:PHE:CE2	2.57	0.40
1:C:2885:GLU:O	1:C:2889:ARG:HG3	2.21	0.40
1:C:2945:ASP:OD1	1:C:2945:ASP:N	2.53	0.40
1:C:3003:ARG:H	1:C:3003:ARG:HG2	1.63	0.40
1:C:3031:MET:H	1:C:3031:MET:HG2	1.75	0.40
1:D:214:GLU:OE2	1:D:251:TYR:OH	2.37	0.40
1:D:425:MET:HE1	1:D:636:GLY:HA2	2.04	0.40
1:D:2300:TRP:CZ3	1:D:2307:ALA:HA	2.56	0.40
1:D:2833:ILE:N	1:D:2834:PRO:HD2	2.36	0.40
1:E:2644:PHE:CZ	1:E:2813:LEU:HD13	2.57	0.40
1:E:2694:LEU:O	1:E:2697:ILE:HG22	2.22	0.40
1:F:813:LEU:HD11	1:F:820:GLU:HG3	2.04	0.40
1:F:1124:ALA:HA	1:F:1172:LEU:HD23	2.03	0.40
1:F:1454:LEU:HA	1:F:1457:LEU:HD23	2.03	0.40
1:F:2747:LEU:HD23	1:F:2796:GLY:C	2.46	0.40
1:A:615:LEU:HD12	1:A:615:LEU:HA	1.92	0.40
1:B:38:PHE:HZ	1:B:158:LEU:HD22	1.86	0.40
1:B:175:ILE:HD12	1:B:175:ILE:C	2.46	0.40
1:B:1279:TRP:CD1	1:B:1325:ALA:HB2	2.56	0.40
1:B:1618:ARG:HA	1:B:1618:ARG:HH11	1.87	0.40
1:B:1994:ASP:OD1	1:B:1994:ASP:N	2.48	0.40
1:B:2266:ARG:HG2	1:B:2311:SER:OG	2.22	0.40
1:B:2660:ASN:ND2	1:B:2703:VAL:HG22	2.37	0.40
1:B:2907:GLN:OE1	1:B:2921:PHE:HB3	2.20	0.40
1:C:1541:GLU:O	1:C:1544:ARG:HG2	2.22	0.40
1:C:2152:ASP:OD1	1:C:2152:ASP:N	2.54	0.40
1:C:2748:ASP:CB	1:C:2916:GLY:H	2.35	0.40
1:C:2770:MET:HG2	1:C:2789:LEU:HD11	2.03	0.40
1:D:1617:ILE:HD11	1:D:1626:LEU:HG	2.03	0.40
1:D:1686:GLU:CD	1:D:1696:ALA:HB2	2.47	0.40
1:D:2482:ILE:HD12	1:D:2482:ILE:HA	1.89	0.40
1:D:2595:THR:OG1	1:D:2596:LYS:N	2.53	0.40
1:E:1566:HIS:HB3	1:E:1660:PRO:HA	2.04	0.40
1:E:2439:ASP:OD1	1:E:2439:ASP:N	2.55	0.40
1:E:2599:ARG:NH1	1:E:2771:CYS:SG	2.93	0.40
1:F:473:ARG:NH1	1:F:1012:ASP:O	2.54	0.40
1:F:759:SER:OG	1:F:760:VAL:N	2.54	0.40
1:F:788:ASP:OD2	1:F:2416:PRO:HA	2.22	0.40
1:F:1336:PHE:HA	1:F:1337:PRO:HD3	1.91	0.40
1:F:1336:PHE:CE2	1:F:1444:ALA:HA	2.57	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2134:VAL:HG13	1:F:2144:VAL:HG11	2.04	0.40
1:F:2315:ALA:HB1	1:F:2374:LEU:HD12	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	2762/3069 (90%)	2629 (95%)	133 (5%)	0	100	100
1	B	2762/3069 (90%)	2643 (96%)	119 (4%)	0	100	100
1	C	2762/3069 (90%)	2630 (95%)	132 (5%)	0	100	100
1	D	2762/3069 (90%)	2633 (95%)	129 (5%)	0	100	100
1	E	2762/3069 (90%)	2630 (95%)	132 (5%)	0	100	100
1	F	2762/3069 (90%)	2636 (95%)	125 (4%)	1 (0%)	100	100
All	All	16572/18414 (90%)	15801 (95%)	770 (5%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	F	2203	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 PDB entries followed by that with respect to all EM entries.

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	2132/2359 (90%)	2038 (96%)	94 (4%)	24 47
1	B	2132/2359 (90%)	2038 (96%)	94 (4%)	24 47
1	C	2129/2359 (90%)	2010 (94%)	119 (6%)	17 35
1	D	2135/2359 (90%)	2025 (95%)	110 (5%)	19 39
1	E	2130/2359 (90%)	2022 (95%)	108 (5%)	20 40
1	F	2133/2359 (90%)	2038 (96%)	95 (4%)	23 46
All	All	12791/14154 (90%)	12171 (95%)	620 (5%)	24 43

All (620) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	48	THR
1	A	53	VAL
1	A	72	LEU
1	A	94	VAL
1	A	116	VAL
1	A	143	VAL
1	A	186	ARG
1	A	190	VAL
1	A	200	VAL
1	A	226	VAL
1	A	229	ILE
1	A	292	SER
1	A	315	LEU
1	A	357	VAL
1	A	370	THR
1	A	457	ILE
1	A	480	LEU
1	A	543	THR
1	A	555	THR
1	A	601	VAL
1	A	702	VAL
1	A	737	LEU
1	A	757	THR
1	A	760	VAL
1	A	768	THR
1	A	785	HIS
1	A	822	VAL
1	A	883	SER
1	A	884	VAL
1	A	933	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	953	VAL
1	A	958	ASP
1	A	1002	ILE
1	A	1029	THR
1	A	1068	VAL
1	A	1083	VAL
1	A	1095	VAL
1	A	1105	ASP
1	A	1127	VAL
1	A	1147	THR
1	A	1155	VAL
1	A	1246	GLU
1	A	1250	VAL
1	A	1277	VAL
1	A	1280	THR
1	A	1287	VAL
1	A	1293	VAL
1	A	1297	VAL
1	A	1311	VAL
1	A	1319	LEU
1	A	1327	LEU
1	A	1393	HIS
1	A	1439	VAL
1	A	1457	LEU
1	A	1461	VAL
1	A	1463	HIS
1	A	1574	VAL
1	A	1608	THR
1	A	1656	GLN
1	A	1661	VAL
1	A	1670	LEU
1	A	1689	VAL
1	A	1698	LEU
1	A	1708	TYR
1	A	1717	ASN
1	A	1997	VAL
1	A	2023	LEU
1	A	2035	VAL
1	A	2094	ILE
1	A	2151	LEU
1	A	2189	LEU
1	A	2213	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2215	THR
1	A	2320	THR
1	A	2449	ILE
1	A	2482	ILE
1	A	2518	VAL
1	A	2561	VAL
1	A	2600	VAL
1	A	2644	PHE
1	A	2658	VAL
1	A	2675	MET
1	A	2683	ARG
1	A	2685	LYS
1	A	2696	ASN
1	A	2731	VAL
1	A	2740	GLN
1	A	2807	LEU
1	A	2811	MET
1	A	2859	LEU
1	A	2868	VAL
1	A	2875	SER
1	A	2963	LEU
1	A	3021	LEU
1	B	48	THR
1	B	53	VAL
1	B	72	LEU
1	B	78	ASP
1	B	83	VAL
1	B	91	LEU
1	B	94	VAL
1	B	110	THR
1	B	114	VAL
1	B	116	VAL
1	B	226	VAL
1	B	288	THR
1	B	292	SER
1	B	307	LEU
1	B	350	LEU
1	B	370	THR
1	B	446	GLU
1	B	457	ILE
1	B	480	LEU
1	B	543	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	555	THR
1	B	607	THR
1	B	628	MET
1	B	631	ASP
1	B	634	LEU
1	B	680	GLN
1	B	685	ILE
1	B	691	SER
1	B	702	VAL
1	B	722	LYS
1	B	757	THR
1	B	760	VAL
1	B	768	THR
1	B	785	HIS
1	B	795	LEU
1	B	822	VAL
1	B	824	LEU
1	B	834	THR
1	B	839	LEU
1	B	883	SER
1	B	884	VAL
1	B	888	THR
1	B	933	LEU
1	B	953	VAL
1	B	958	ASP
1	B	974	THR
1	B	1029	THR
1	B	1083	VAL
1	B	1095	VAL
1	B	1137	LEU
1	B	1147	THR
1	B	1155	VAL
1	B	1157	VAL
1	B	1250	VAL
1	B	1263	VAL
1	B	1287	VAL
1	B	1293	VAL
1	B	1297	VAL
1	B	1311	VAL
1	B	1319	LEU
1	B	1322	SER
1	B	1327	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	1382	ASP
1	B	1393	HIS
1	B	1419	VAL
1	B	1457	LEU
1	B	1461	VAL
1	B	1538	LEU
1	B	1661	VAL
1	B	1689	VAL
1	B	1705	LEU
1	B	1708	TYR
1	B	1997	VAL
1	B	2035	VAL
1	B	2094	ILE
1	B	2144	VAL
1	B	2215	THR
1	B	2344	TYR
1	B	2444	VAL
1	B	2482	ILE
1	B	2561	VAL
1	B	2601	VAL
1	B	2644	PHE
1	B	2658	VAL
1	B	2683	ARG
1	B	2685	LYS
1	B	2707	VAL
1	B	2731	VAL
1	B	2740	GLN
1	B	2807	LEU
1	B	2871	LYS
1	B	2875	SER
1	B	2974	LEU
1	B	2982	VAL
1	C	48	THR
1	C	53	VAL
1	C	65	LEU
1	C	80	LEU
1	C	94	VAL
1	C	116	VAL
1	C	175	ILE
1	C	190	VAL
1	C	200	VAL
1	C	226	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	229	ILE
1	C	282	VAL
1	C	292	SER
1	C	315	LEU
1	C	322	ARG
1	C	370	THR
1	C	412	THR
1	C	428	THR
1	C	446	GLU
1	C	453	VAL
1	C	457	ILE
1	C	480	LEU
1	C	516	ILE
1	C	518	ASP
1	C	543	THR
1	C	549	SER
1	C	555	THR
1	C	590	GLU
1	C	607	THR
1	C	631	ASP
1	C	685	ILE
1	C	691	SER
1	C	702	VAL
1	C	722	LYS
1	C	737	LEU
1	C	757	THR
1	C	760	VAL
1	C	768	THR
1	C	785	HIS
1	C	795	LEU
1	C	797	THR
1	C	822	VAL
1	C	824	LEU
1	C	834	THR
1	C	839	LEU
1	C	883	SER
1	C	884	VAL
1	C	910	LEU
1	C	933	LEU
1	C	953	VAL
1	C	955	ARG
1	C	958	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	974	THR
1	C	1002	ILE
1	C	1068	VAL
1	C	1095	VAL
1	C	1110	VAL
1	C	1126	VAL
1	C	1133	VAL
1	C	1147	THR
1	C	1155	VAL
1	C	1159	VAL
1	C	1250	VAL
1	C	1263	VAL
1	C	1280	THR
1	C	1287	VAL
1	C	1293	VAL
1	C	1297	VAL
1	C	1309	VAL
1	C	1311	VAL
1	C	1319	LEU
1	C	1322	SER
1	C	1327	LEU
1	C	1407	THR
1	C	1419	VAL
1	C	1437	HIS
1	C	1457	LEU
1	C	1463	HIS
1	C	1517	VAL
1	C	1538	LEU
1	C	1565	PHE
1	C	1608	THR
1	C	1661	VAL
1	C	1689	VAL
1	C	1698	LEU
1	C	1705	LEU
1	C	1708	TYR
1	C	1710	HIS
1	C	1711	SER
1	C	1712	THR
1	C	2035	VAL
1	C	2045	GLU
1	C	2050	LEU
1	C	2068	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	2094	ILE
1	C	2191	GLU
1	C	2215	THR
1	C	2225	VAL
1	C	2316	LEU
1	C	2344	TYR
1	C	2405	ASP
1	C	2449	ILE
1	C	2482	ILE
1	C	2500	MET
1	C	2601	VAL
1	C	2644	PHE
1	C	2658	VAL
1	C	2685	LYS
1	C	2707	VAL
1	C	2731	VAL
1	C	2747	LEU
1	C	2767	THR
1	C	2858	LYS
1	C	2868	VAL
1	C	2869	ILE
1	C	2877	LEU
1	C	2963	LEU
1	C	2969	LEU
1	C	2974	LEU
1	D	48	THR
1	D	53	VAL
1	D	80	LEU
1	D	94	VAL
1	D	116	VAL
1	D	153	LEU
1	D	175	ILE
1	D	190	VAL
1	D	200	VAL
1	D	226	VAL
1	D	282	VAL
1	D	292	SER
1	D	315	LEU
1	D	344	LEU
1	D	370	THR
1	D	412	THR
1	D	446	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	453	VAL
1	D	457	ILE
1	D	518	ASP
1	D	543	THR
1	D	549	SER
1	D	555	THR
1	D	590	GLU
1	D	607	THR
1	D	631	ASP
1	D	634	LEU
1	D	685	ILE
1	D	691	SER
1	D	722	LYS
1	D	757	THR
1	D	760	VAL
1	D	768	THR
1	D	785	HIS
1	D	795	LEU
1	D	824	LEU
1	D	834	THR
1	D	877	ILE
1	D	883	SER
1	D	884	VAL
1	D	894	VAL
1	D	910	LEU
1	D	933	LEU
1	D	953	VAL
1	D	955	ARG
1	D	958	ASP
1	D	974	THR
1	D	1002	ILE
1	D	1068	VAL
1	D	1095	VAL
1	D	1114	LEU
1	D	1126	VAL
1	D	1133	VAL
1	D	1137	LEU
1	D	1147	THR
1	D	1155	VAL
1	D	1159	VAL
1	D	1250	VAL
1	D	1263	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	1287	VAL
1	D	1293	VAL
1	D	1297	VAL
1	D	1311	VAL
1	D	1319	LEU
1	D	1387	ILE
1	D	1419	VAL
1	D	1437	HIS
1	D	1457	LEU
1	D	1463	HIS
1	D	1517	VAL
1	D	1538	LEU
1	D	1585	MET
1	D	1608	THR
1	D	1661	VAL
1	D	1689	VAL
1	D	1698	LEU
1	D	1997	VAL
1	D	2024	VAL
1	D	2035	VAL
1	D	2050	LEU
1	D	2094	ILE
1	D	2145	ILE
1	D	2191	GLU
1	D	2215	THR
1	D	2225	VAL
1	D	2316	LEU
1	D	2344	TYR
1	D	2449	ILE
1	D	2482	ILE
1	D	2500	MET
1	D	2518	VAL
1	D	2644	PHE
1	D	2658	VAL
1	D	2683	ARG
1	D	2685	LYS
1	D	2707	VAL
1	D	2731	VAL
1	D	2740	GLN
1	D	2747	LEU
1	D	2767	THR
1	D	2854	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	2858	LYS
1	D	2868	VAL
1	D	2876	THR
1	D	2877	LEU
1	D	2939	ARG
1	D	2946	ASP
1	D	2974	LEU
1	D	2985	LEU
1	D	3021	LEU
1	E	43	SER
1	E	48	THR
1	E	72	LEU
1	E	73	LEU
1	E	80	LEU
1	E	94	VAL
1	E	116	VAL
1	E	143	VAL
1	E	186	ARG
1	E	190	VAL
1	E	200	VAL
1	E	226	VAL
1	E	254	GLN
1	E	292	SER
1	E	315	LEU
1	E	357	VAL
1	E	370	THR
1	E	457	ILE
1	E	465	MET
1	E	518	ASP
1	E	532	ILE
1	E	543	THR
1	E	555	THR
1	E	613	GLU
1	E	648	SER
1	E	685	ILE
1	E	702	VAL
1	E	712	ARG
1	E	722	LYS
1	E	737	LEU
1	E	738	GLN
1	E	757	THR
1	E	760	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	768	THR
1	E	785	HIS
1	E	822	VAL
1	E	834	THR
1	E	883	SER
1	E	884	VAL
1	E	890	MET
1	E	933	LEU
1	E	953	VAL
1	E	958	ASP
1	E	1002	ILE
1	E	1029	THR
1	E	1068	VAL
1	E	1083	VAL
1	E	1095	VAL
1	E	1105	ASP
1	E	1126	VAL
1	E	1147	THR
1	E	1155	VAL
1	E	1246	GLU
1	E	1250	VAL
1	E	1280	THR
1	E	1287	VAL
1	E	1293	VAL
1	E	1297	VAL
1	E	1311	VAL
1	E	1319	LEU
1	E	1327	LEU
1	E	1393	HIS
1	E	1419	VAL
1	E	1457	LEU
1	E	1461	VAL
1	E	1463	HIS
1	E	1464	ARG
1	E	1574	VAL
1	E	1661	VAL
1	E	1666	THR
1	E	1670	LEU
1	E	1689	VAL
1	E	1690	LYS
1	E	1698	LEU
1	E	1705	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	1717	ASN
1	E	1997	VAL
1	E	2023	LEU
1	E	2035	VAL
1	E	2094	ILE
1	E	2108	ASN
1	E	2145	ILE
1	E	2151	LEU
1	E	2169	TYR
1	E	2191	GLU
1	E	2215	THR
1	E	2223	PRO
1	E	2320	THR
1	E	2344	TYR
1	E	2449	ILE
1	E	2486	ASP
1	E	2561	VAL
1	E	2600	VAL
1	E	2658	VAL
1	E	2683	ARG
1	E	2685	LYS
1	E	2696	ASN
1	E	2707	VAL
1	E	2731	VAL
1	E	2740	GLN
1	E	2789	LEU
1	E	2800	ILE
1	E	2807	LEU
1	E	2859	LEU
1	E	2868	VAL
1	E	2875	SER
1	E	2963	LEU
1	E	2999	ASP
1	F	22	HIS
1	F	48	THR
1	F	53	VAL
1	F	72	LEU
1	F	78	ASP
1	F	91	LEU
1	F	94	VAL
1	F	114	VAL
1	F	116	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	292	SER
1	F	293	ASP
1	F	307	LEU
1	F	350	LEU
1	F	370	THR
1	F	446	GLU
1	F	457	ILE
1	F	480	LEU
1	F	543	THR
1	F	555	THR
1	F	607	THR
1	F	631	ASP
1	F	634	LEU
1	F	680	GLN
1	F	685	ILE
1	F	691	SER
1	F	702	VAL
1	F	757	THR
1	F	760	VAL
1	F	768	THR
1	F	785	HIS
1	F	795	LEU
1	F	822	VAL
1	F	824	LEU
1	F	834	THR
1	F	839	LEU
1	F	883	SER
1	F	884	VAL
1	F	888	THR
1	F	910	LEU
1	F	933	LEU
1	F	953	VAL
1	F	958	ASP
1	F	974	THR
1	F	1029	THR
1	F	1083	VAL
1	F	1095	VAL
1	F	1105	ASP
1	F	1126	VAL
1	F	1137	LEU
1	F	1147	THR
1	F	1155	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	1157	VAL
1	F	1204	THR
1	F	1250	VAL
1	F	1263	VAL
1	F	1287	VAL
1	F	1293	VAL
1	F	1297	VAL
1	F	1311	VAL
1	F	1319	LEU
1	F	1322	SER
1	F	1419	VAL
1	F	1457	LEU
1	F	1458	LEU
1	F	1463	HIS
1	F	1538	LEU
1	F	1661	VAL
1	F	1689	VAL
1	F	1997	VAL
1	F	2035	VAL
1	F	2094	ILE
1	F	2215	THR
1	F	2320	THR
1	F	2349	MET
1	F	2444	VAL
1	F	2482	ILE
1	F	2516	GLN
1	F	2561	VAL
1	F	2641	SER
1	F	2644	PHE
1	F	2658	VAL
1	F	2683	ARG
1	F	2684	ASN
1	F	2707	VAL
1	F	2714	ILE
1	F	2731	VAL
1	F	2740	GLN
1	F	2764	THR
1	F	2807	LEU
1	F	2858	LYS
1	F	2875	SER
1	F	2945	ASP
1	F	2974	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	2999	ASP
1	F	3021	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (84) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	150	GLN
1	A	265	ASN
1	A	490	GLN
1	A	574	HIS
1	A	775	GLN
1	A	807	GLN
1	A	985	HIS
1	A	1234	HIS
1	A	1339	GLN
1	A	1378	HIS
1	A	1408	GLN
1	A	1601	ASN
1	A	1656	GLN
1	A	2580	GLN
1	A	2673	GLN
1	A	2696	ASN
1	A	2784	ASN
1	A	2795	GLN
1	A	2981	HIS
1	A	3002	GLN
1	B	150	GLN
1	B	173	GLN
1	B	265	ASN
1	B	490	GLN
1	B	680	GLN
1	B	951	ASN
1	B	954	HIS
1	B	1234	HIS
1	B	1339	GLN
1	B	1408	GLN
1	B	1601	ASN
1	B	2074	HIS
1	B	2662	GLN
1	B	2673	GLN
1	B	2795	GLN
1	B	2938	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	41	GLN
1	C	265	ASN
1	C	476	GLN
1	C	951	ASN
1	C	954	HIS
1	C	1234	HIS
1	C	2074	HIS
1	C	2580	GLN
1	C	2696	ASN
1	C	3002	GLN
1	D	173	GLN
1	D	265	ASN
1	D	807	GLN
1	D	951	ASN
1	D	954	HIS
1	D	985	HIS
1	D	1234	HIS
1	D	1260	GLN
1	D	1408	GLN
1	D	1463	HIS
1	D	2166	HIS
1	D	2580	GLN
1	D	2696	ASN
1	D	2704	GLN
1	D	2784	ASN
1	D	2879	ASN
1	E	265	ASN
1	E	460	ASN
1	E	738	GLN
1	E	1145	ASN
1	E	1234	HIS
1	E	1304	GLN
1	E	1378	HIS
1	E	1425	GLN
1	E	2580	GLN
1	E	2696	ASN
1	E	2784	ASN
1	E	2953	HIS
1	E	3002	GLN
1	F	92	GLN
1	F	150	GLN
1	F	265	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	951	ASN
1	F	954	HIS
1	F	1234	HIS
1	F	1408	GLN
1	F	2662	GLN
1	F	2823	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 oligosaccharides 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	$\#\|Z\| > 2$
2	FMN	D	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.25	8 (16%)
2	FMN	A	3101	-	33,33,33	1.06	2 (6%)	48,50,50	1.26	8 (16%)
2	FMN	B	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.28	8 (16%)
2	FMN	F	3101	-	33,33,33	1.06	2 (6%)	48,50,50	1.28	8 (16%)
2	FMN	E	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.28	8 (16%)
2	FMN	C	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.24	8 (16%)

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
2	FMN	D	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	A	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	B	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	F	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	E	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	C	3101	-	-	2/18/18/18	0/3/3/3

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	3101	FMN	C4A-N5	3.49	1.38	1.30
2	D	3101	FMN	C4A-N5	3.49	1.38	1.30
2	E	3101	FMN	C4A-N5	3.47	1.38	1.30
2	C	3101	FMN	C4A-N5	3.45	1.38	1.30
2	F	3101	FMN	C4A-N5	3.43	1.38	1.30
2	A	3101	FMN	C4A-N5	3.43	1.38	1.30
2	C	3101	FMN	C10-N1	2.45	1.38	1.33
2	D	3101	FMN	C10-N1	2.42	1.38	1.33
2	A	3101	FMN	C10-N1	2.34	1.37	1.33
2	E	3101	FMN	C10-N1	2.34	1.37	1.33
2	B	3101	FMN	C10-N1	2.31	1.37	1.33
2	F	3101	FMN	C10-N1	2.30	1.37	1.33

All (48) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	F	3101	FMN	C4-N3-C2	-3.27	119.83	125.64
2	A	3101	FMN	C4-N3-C2	-3.25	119.86	125.64
2	E	3101	FMN	C4-N3-C2	-3.23	119.91	125.64
2	B	3101	FMN	C4-N3-C2	-3.21	119.95	125.64
2	D	3101	FMN	C4-N3-C2	-3.18	119.99	125.64
2	C	3101	FMN	C4-N3-C2	-3.17	120.02	125.64
2	F	3101	FMN	C4A-C10-N10	2.82	120.52	116.48
2	B	3101	FMN	C4A-C10-N10	2.78	120.47	116.48
2	E	3101	FMN	C4A-C10-N10	2.75	120.42	116.48
2	E	3101	FMN	C5A-C9A-N10	2.72	120.43	117.97
2	D	3101	FMN	C4A-C10-N10	2.71	120.36	116.48

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	3101	FMN	C4A-C10-N10	2.71	120.36	116.48
2	C	3101	FMN	C4A-C10-N10	2.66	120.29	116.48
2	B	3101	FMN	C5A-C9A-N10	2.63	120.35	117.97
2	A	3101	FMN	C5A-C9A-N10	2.62	120.34	117.97
2	F	3101	FMN	C5A-C9A-N10	2.58	120.31	117.97
2	D	3101	FMN	C4A-C4-N3	2.58	119.81	113.25
2	C	3101	FMN	C4A-C4-N3	2.56	119.78	113.25
2	E	3101	FMN	C4A-C4-N3	2.56	119.77	113.25
2	F	3101	FMN	C4A-C4-N3	2.55	119.76	113.25
2	A	3101	FMN	C4A-C4-N3	2.55	119.75	113.25
2	B	3101	FMN	C4A-C4-N3	2.54	119.73	113.25
2	A	3101	FMN	O4-C4-C4A	-2.45	120.07	126.53
2	D	3101	FMN	C4'-C3'-C2'	-2.43	109.53	113.57
2	F	3101	FMN	O4-C4-C4A	-2.42	120.13	126.53
2	D	3101	FMN	O4-C4-C4A	-2.42	120.15	126.53
2	E	3101	FMN	O4-C4-C4A	-2.42	120.15	126.53
2	C	3101	FMN	O4-C4-C4A	-2.41	120.16	126.53
2	C	3101	FMN	C4'-C3'-C2'	-2.40	109.58	113.57
2	B	3101	FMN	O4-C4-C4A	-2.39	120.22	126.53
2	C	3101	FMN	C5A-C9A-N10	2.39	120.13	117.97
2	D	3101	FMN	C5A-C9A-N10	2.38	120.12	117.97
2	B	3101	FMN	C4'-C3'-C2'	-2.38	109.62	113.57
2	B	3101	FMN	C10-C4A-N5	-2.36	119.98	124.81
2	D	3101	FMN	C10-C4A-N5	-2.36	119.98	124.81
2	F	3101	FMN	C10-C4A-N5	-2.36	119.98	124.81
2	E	3101	FMN	C9A-C5A-N5	-2.34	119.97	122.45
2	C	3101	FMN	C10-C4A-N5	-2.32	120.06	124.81
2	E	3101	FMN	C10-C4A-N5	-2.32	120.07	124.81
2	A	3101	FMN	C10-C4A-N5	-2.29	120.14	124.81
2	F	3101	FMN	C4'-C3'-C2'	-2.26	109.80	113.57
2	B	3101	FMN	C9A-C5A-N5	-2.21	120.11	122.45
2	A	3101	FMN	C4'-C3'-C2'	-2.21	109.89	113.57
2	E	3101	FMN	C4'-C3'-C2'	-2.20	109.91	113.57
2	F	3101	FMN	C9A-C5A-N5	-2.17	120.15	122.45
2	A	3101	FMN	C9A-C5A-N5	-2.17	120.15	122.45
2	D	3101	FMN	C9A-C5A-N5	-2.11	120.22	122.45
2	C	3101	FMN	C9A-C5A-N5	-2.10	120.22	122.45

There are no chirality outliers.

All (12) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	3101	FMN	C5'-O5'-P-O1P
2	B	3101	FMN	C5'-O5'-P-O1P
2	E	3101	FMN	C5'-O5'-P-O1P
2	F	3101	FMN	C5'-O5'-P-O1P
2	C	3101	FMN	C5'-O5'-P-O1P
2	D	3101	FMN	C5'-O5'-P-O1P
2	A	3101	FMN	C5'-O5'-P-O2P
2	B	3101	FMN	C5'-O5'-P-O2P
2	E	3101	FMN	C5'-O5'-P-O2P
2	F	3101	FMN	C5'-O5'-P-O2P
2	C	3101	FMN	C5'-O5'-P-O2P
2	D	3101	FMN	C5'-O5'-P-O2P

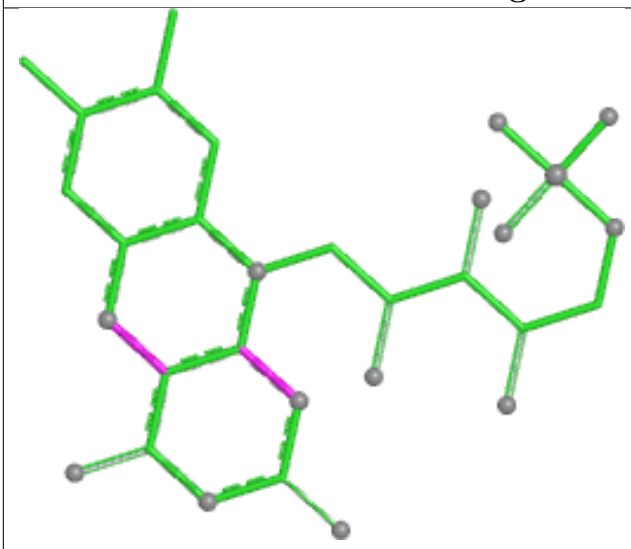
There are no ring outliers.

6 monomers are involved in 25 short contacts:

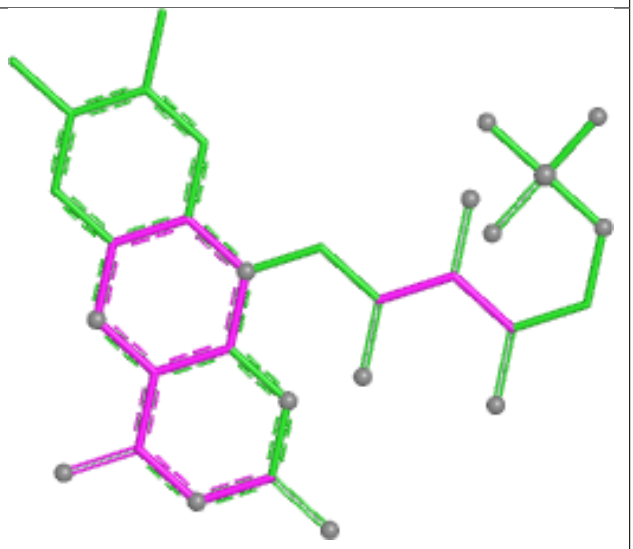
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	D	3101	FMN	4	0
2	A	3101	FMN	4	0
2	B	3101	FMN	4	0
2	F	3101	FMN	4	0
2	E	3101	FMN	4	0
2	C	3101	FMN	5	0

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.

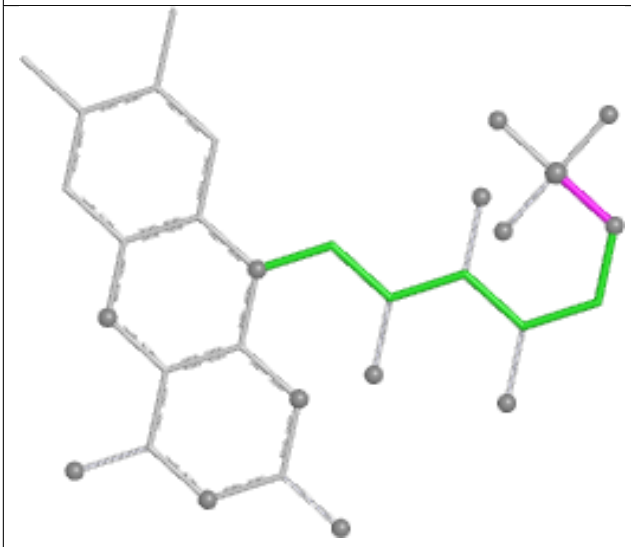
Ligand FMN D 3101



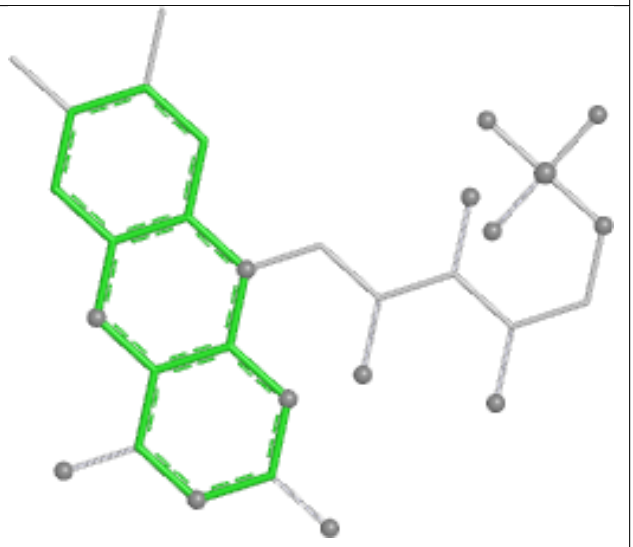
Bond lengths



Bond angles

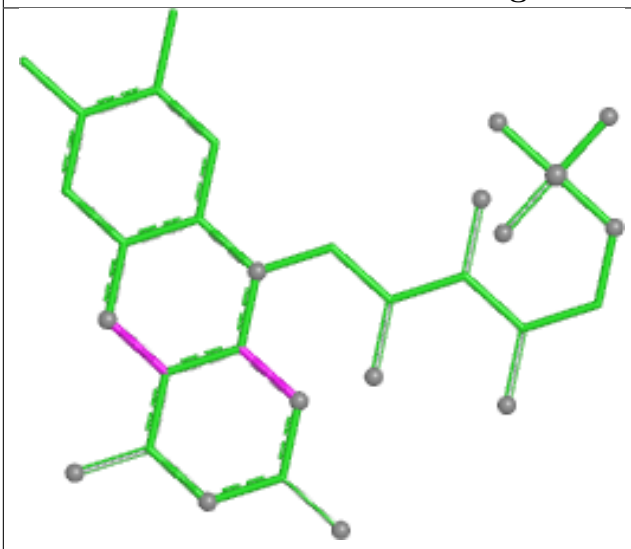


Torsions

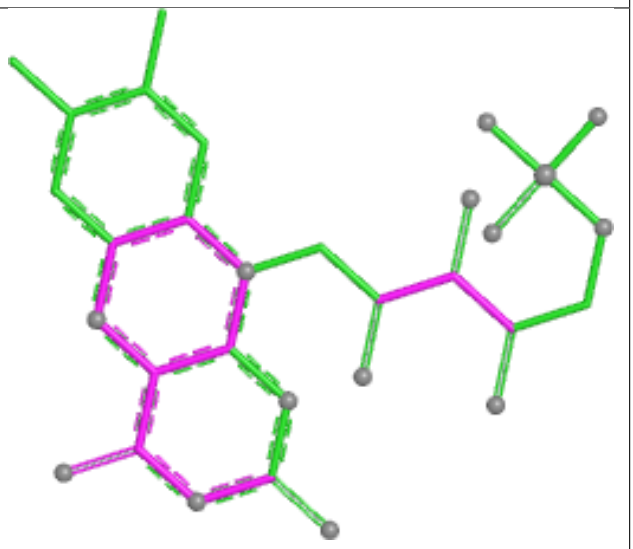


Rings

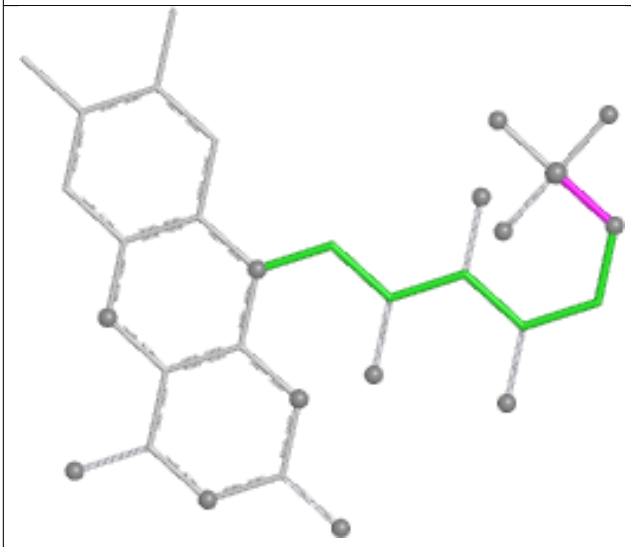
Ligand FMN A 3101



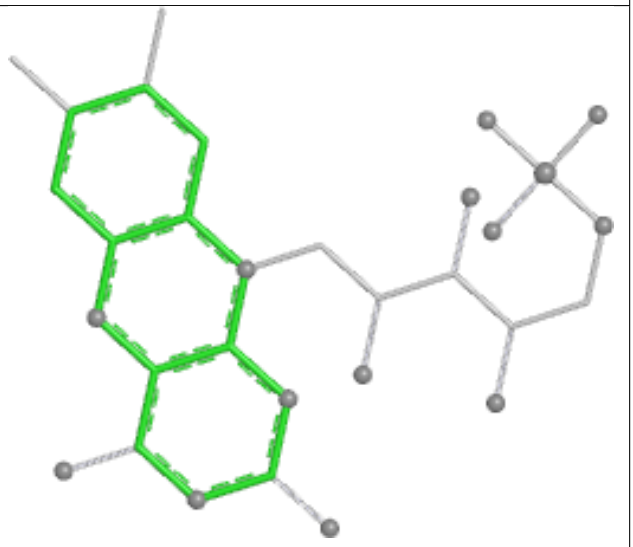
Bond lengths



Bond angles

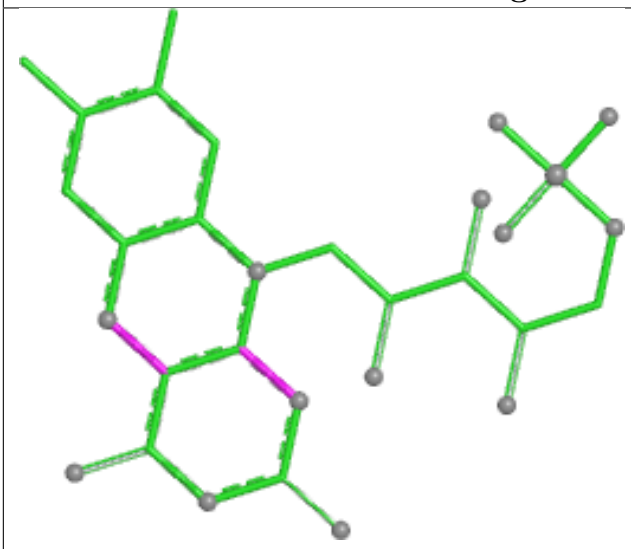


Torsions

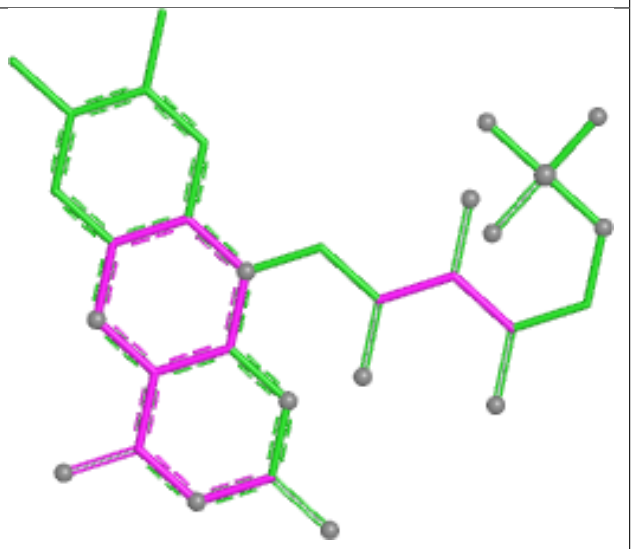


Rings

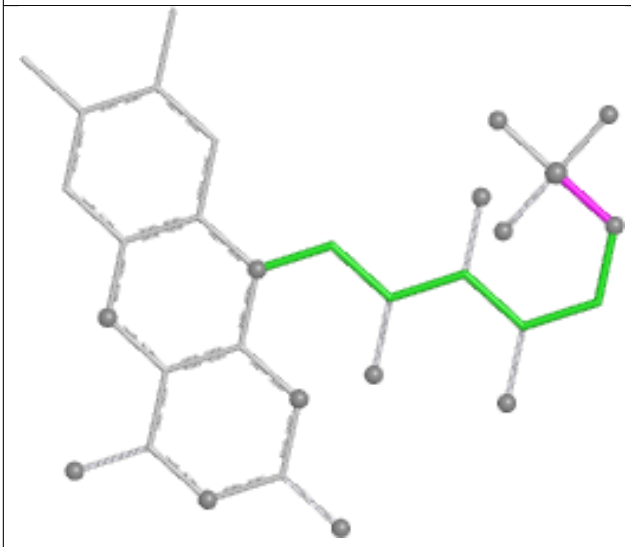
Ligand FMN B 3101



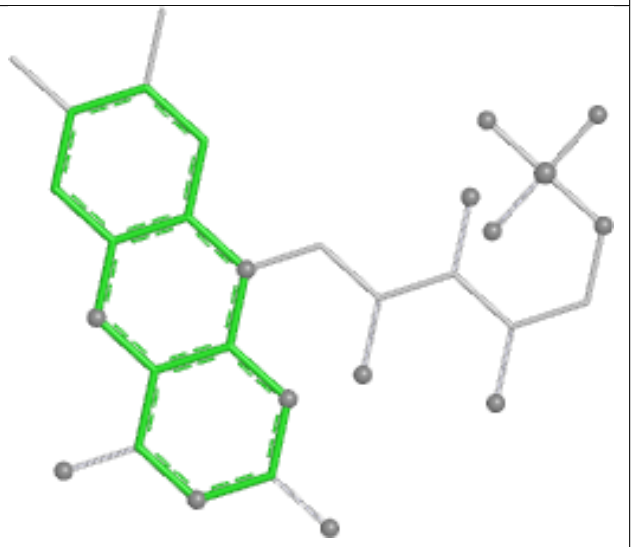
Bond lengths



Bond angles

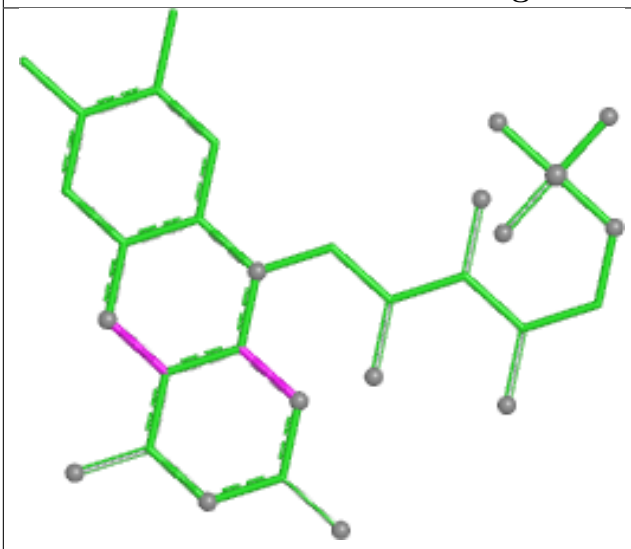


Torsions

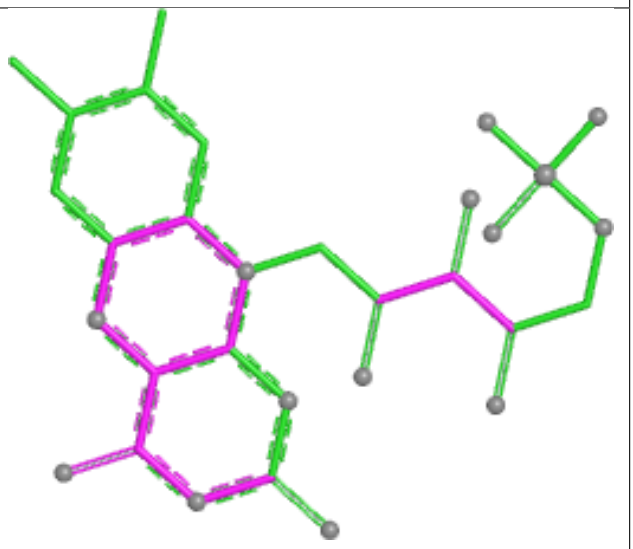


Rings

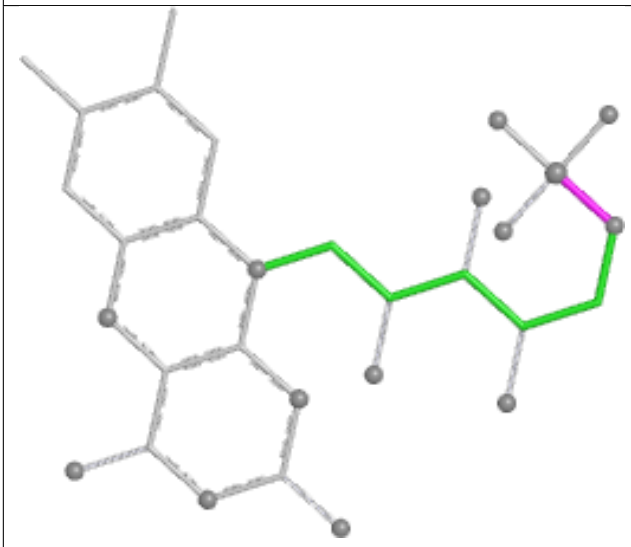
Ligand FMN F 3101



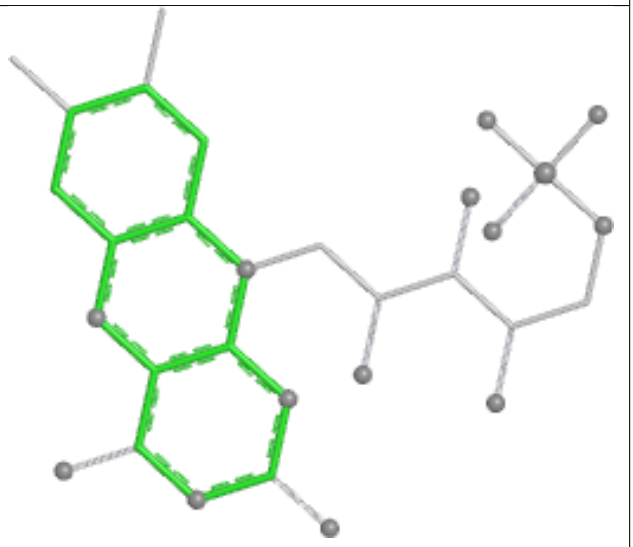
Bond lengths



Bond angles

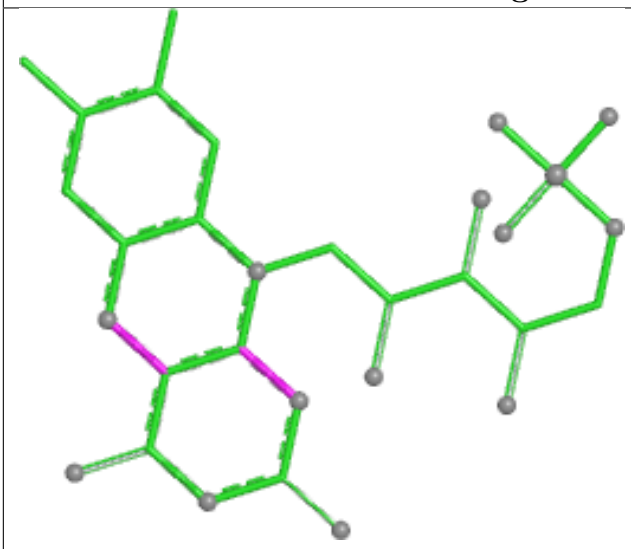


Torsions

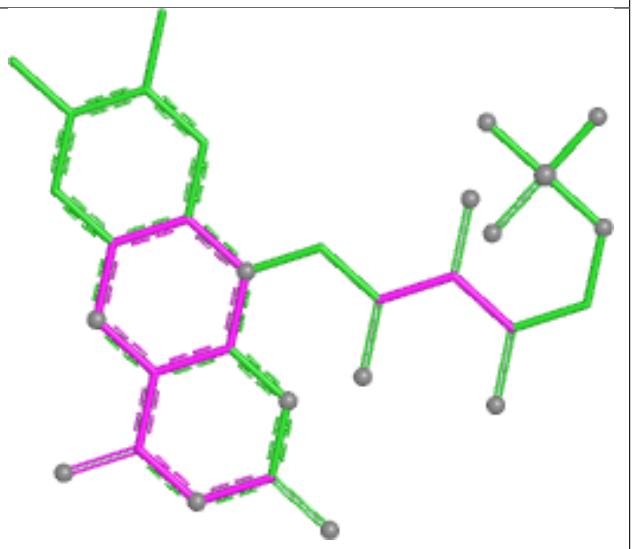


Rings

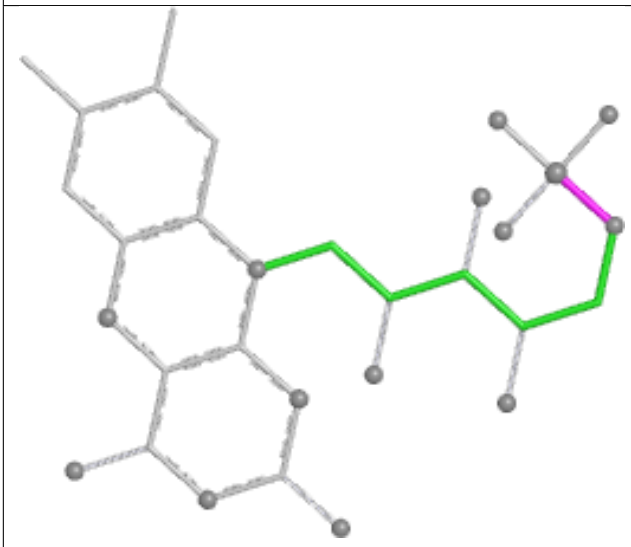
Ligand FMN E 3101



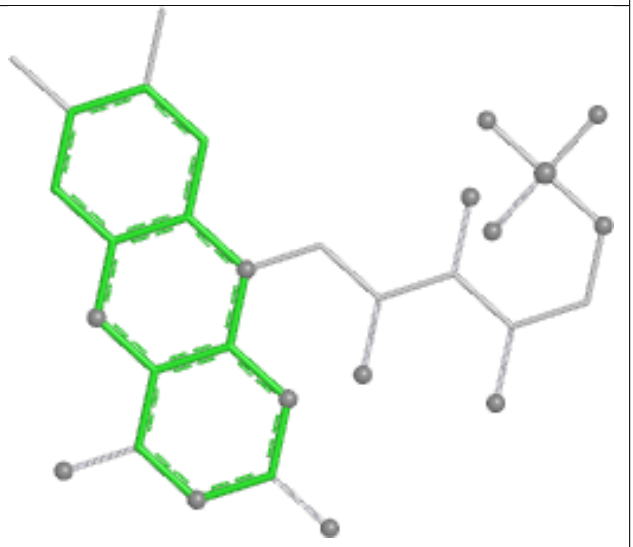
Bond lengths



Bond angles

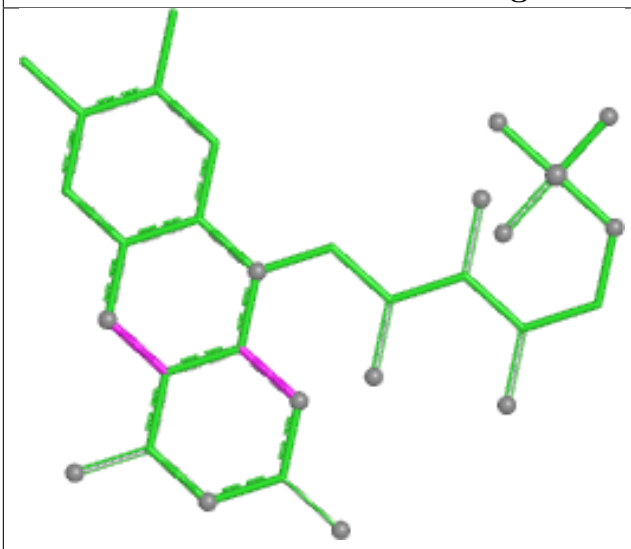


Torsions

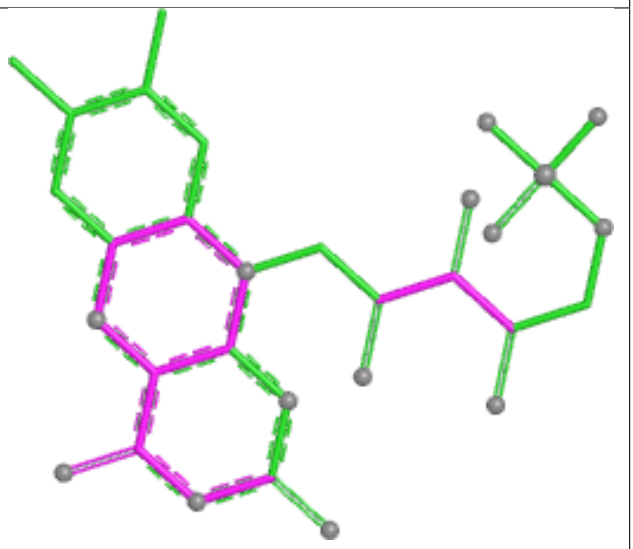


Rings

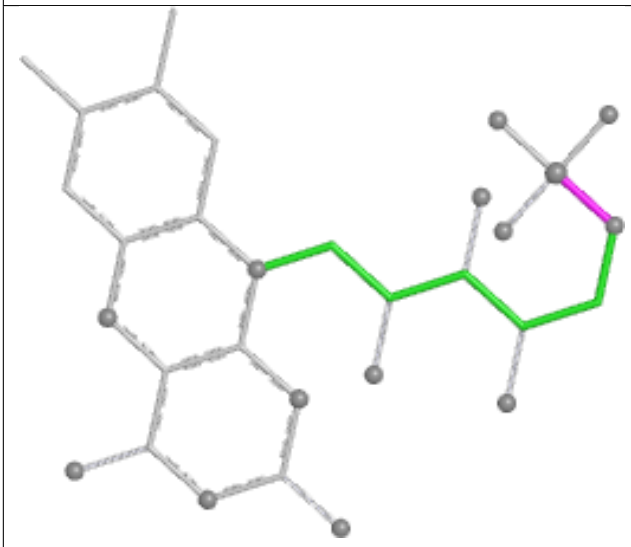
Ligand FMN C 3101



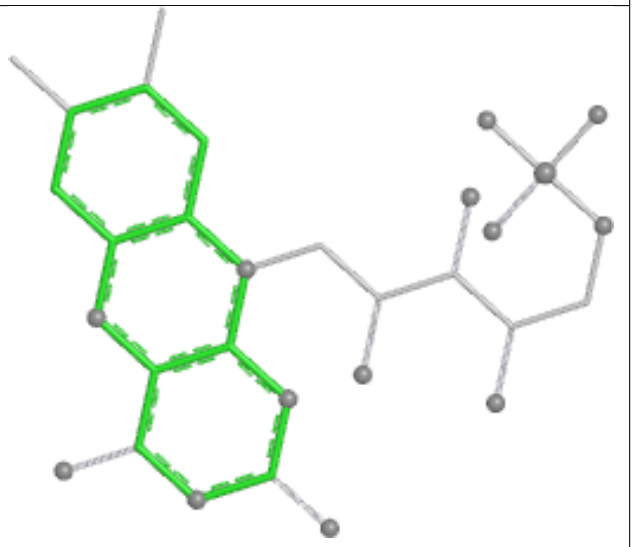
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

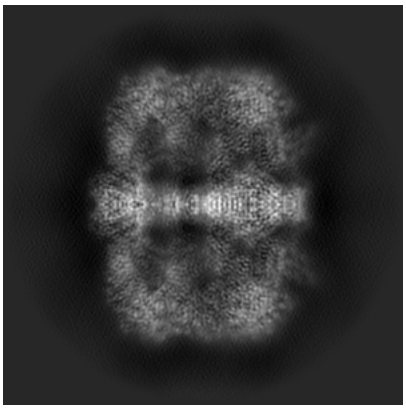
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-71792. These allow visual inspection of the internal detail of the map and identification of artifacts.

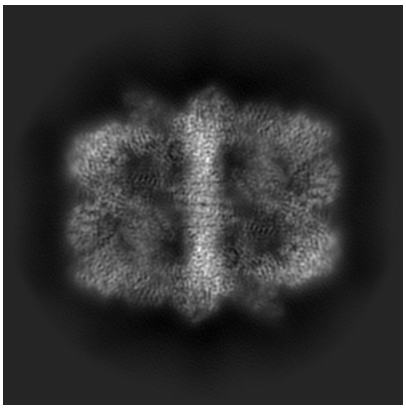
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

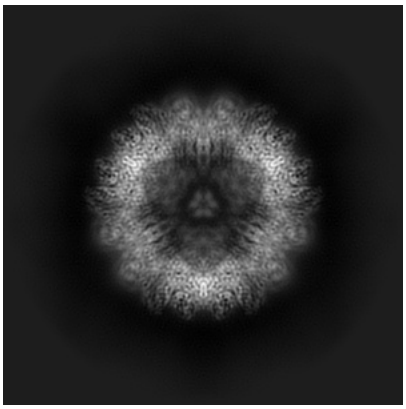
6.1.1 Primary map



X

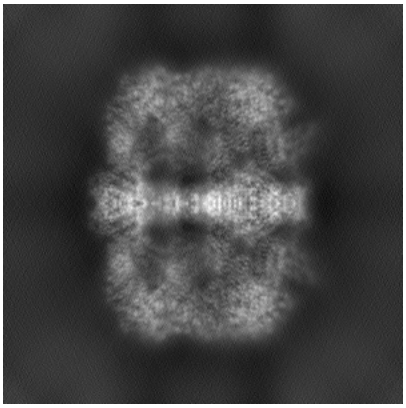


Y

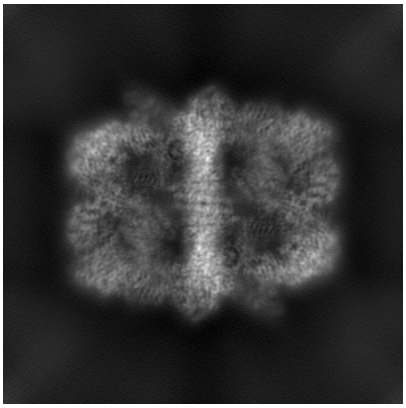


Z

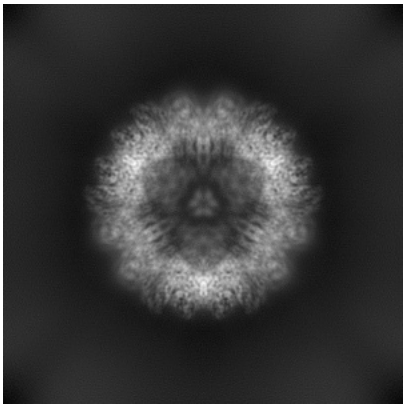
6.1.2 Raw map



X



Y

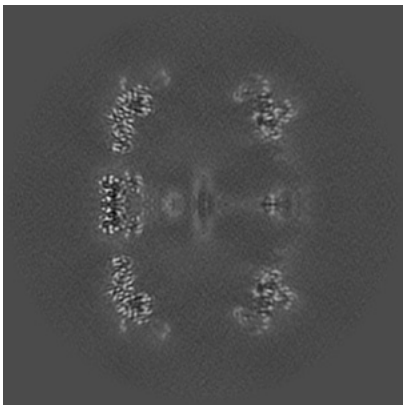


Z

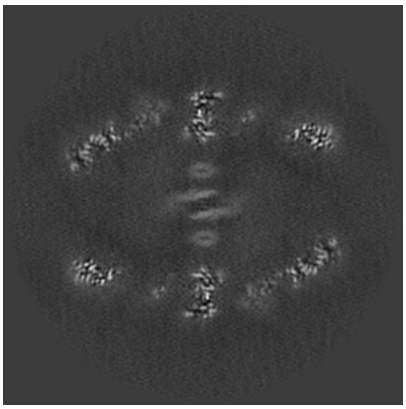
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

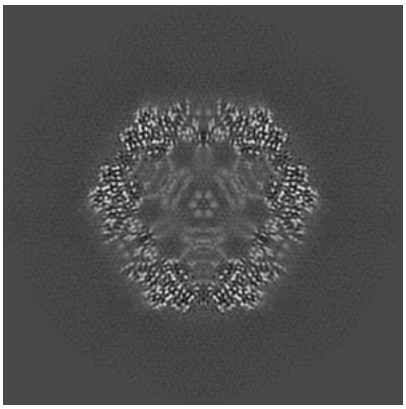
6.2.1 Primary map



X Index: 200

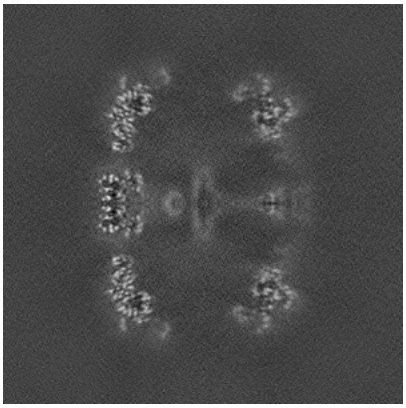


Y Index: 200

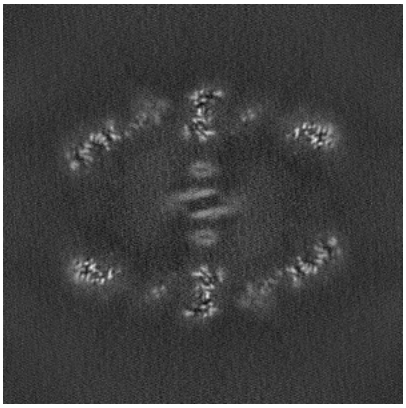


Z Index: 200

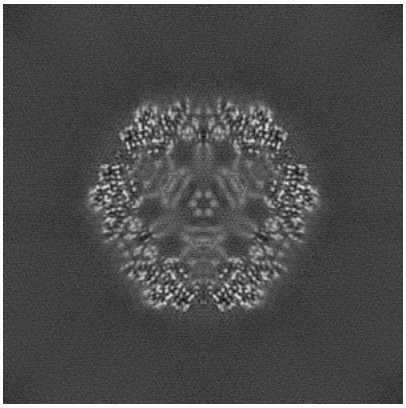
6.2.2 Raw map



X Index: 200



Y Index: 200

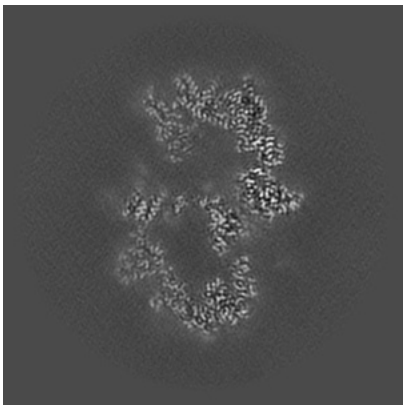


Z Index: 200

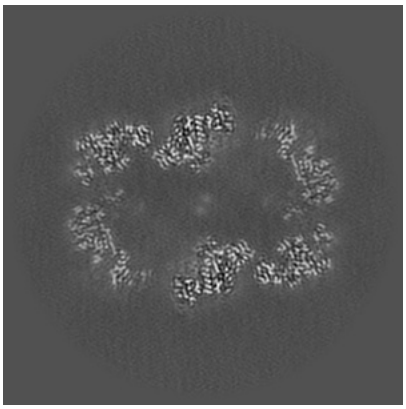
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

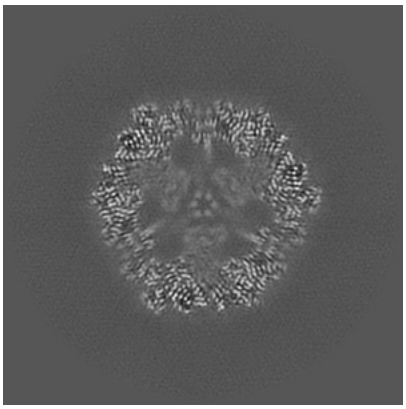
6.3.1 Primary map



X Index: 135

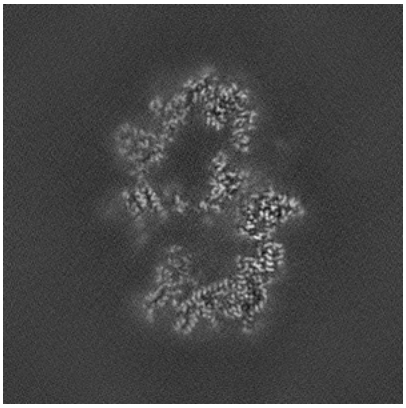


Y Index: 248

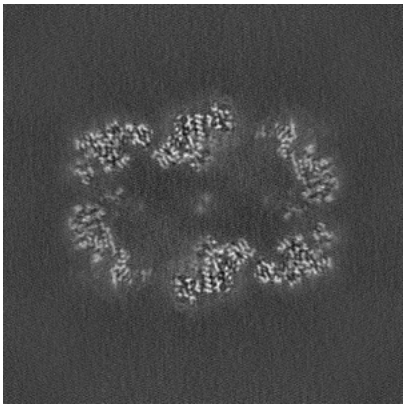


Z Index: 204

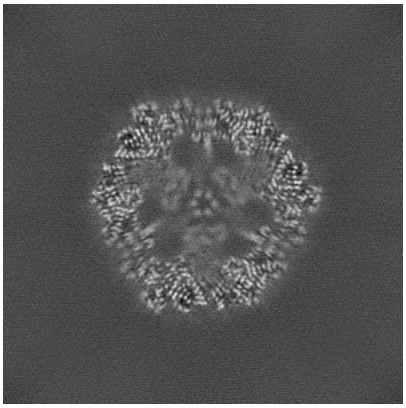
6.3.2 Raw map



X Index: 265



Y Index: 248

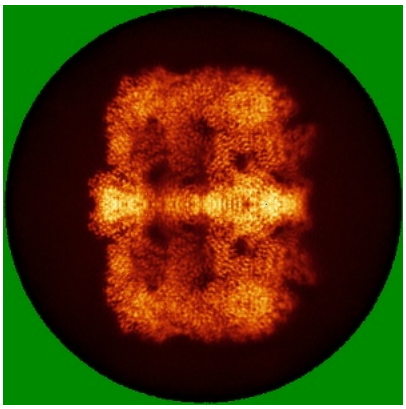


Z Index: 204

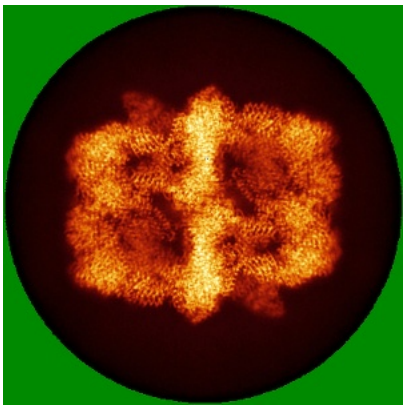
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

6.4.1 Primary map



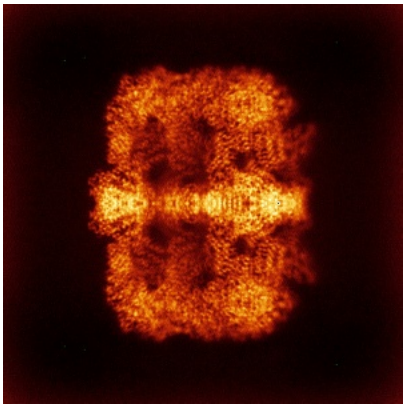
X



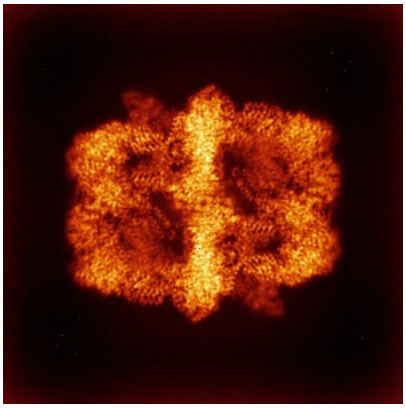
Y

Z

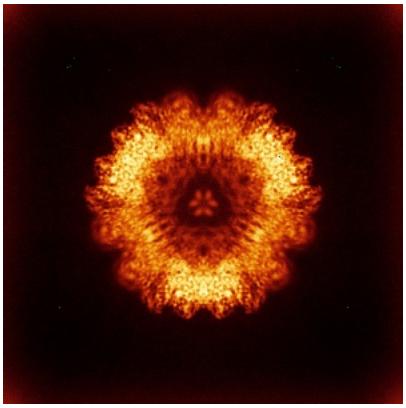
6.4.2 Raw map



X



Y

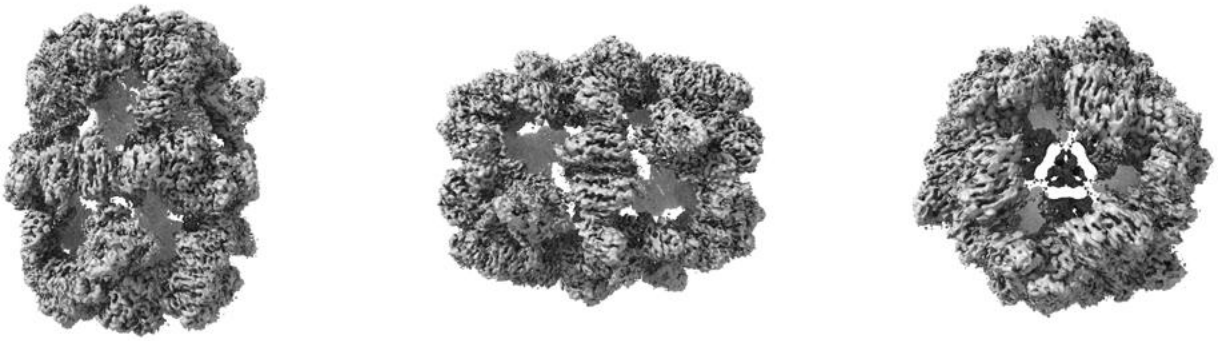


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.05. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map

X Y Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

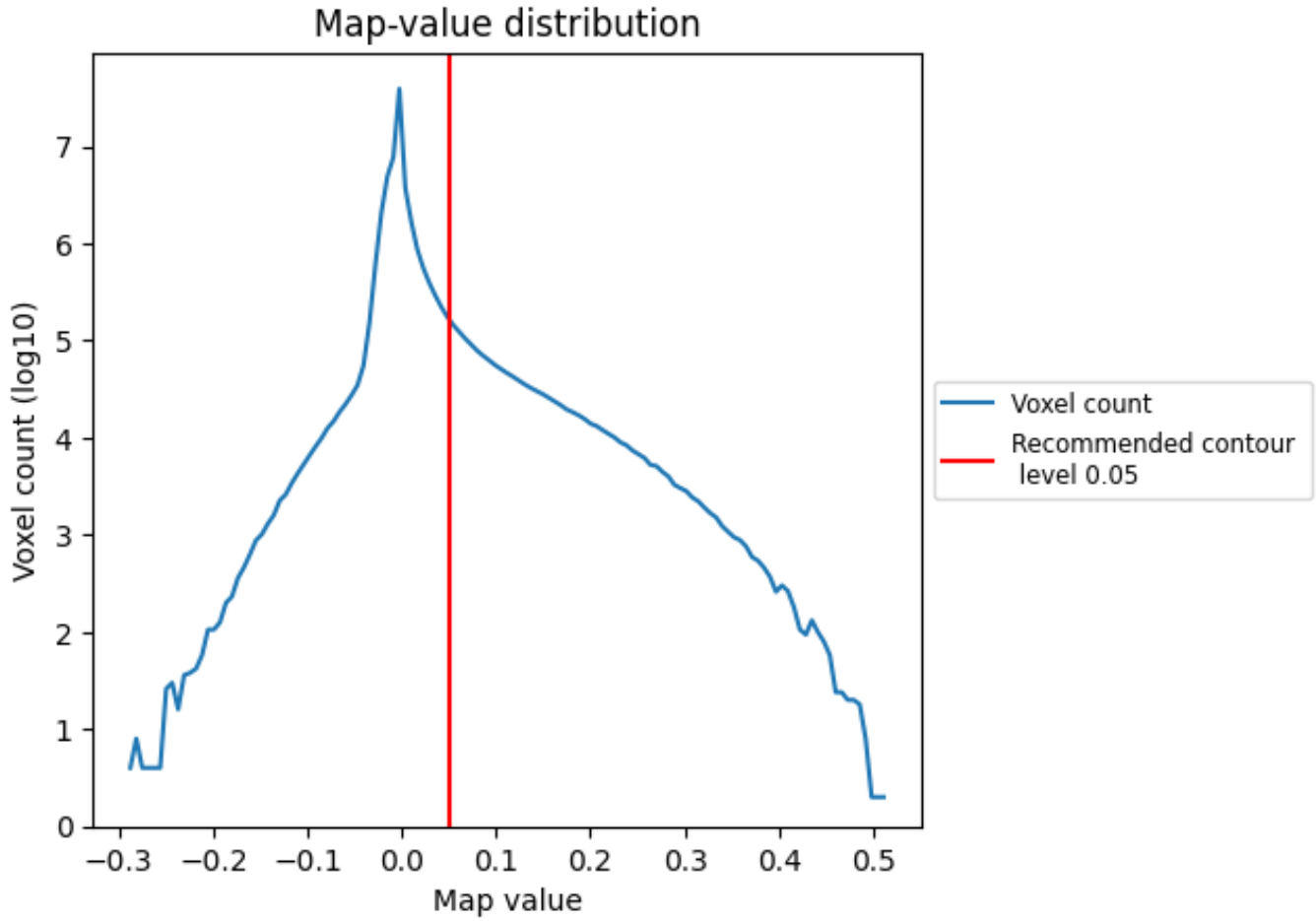
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

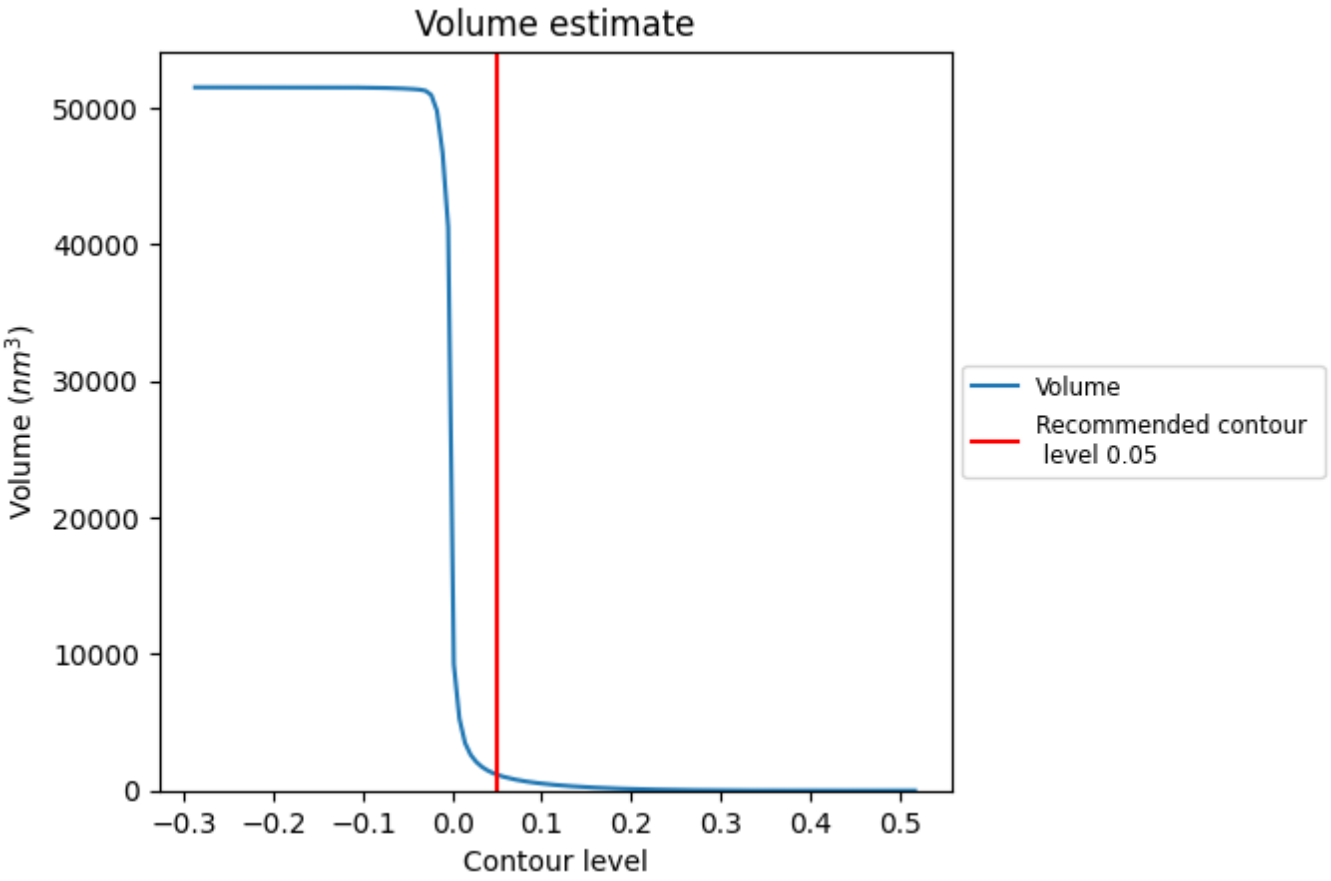
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

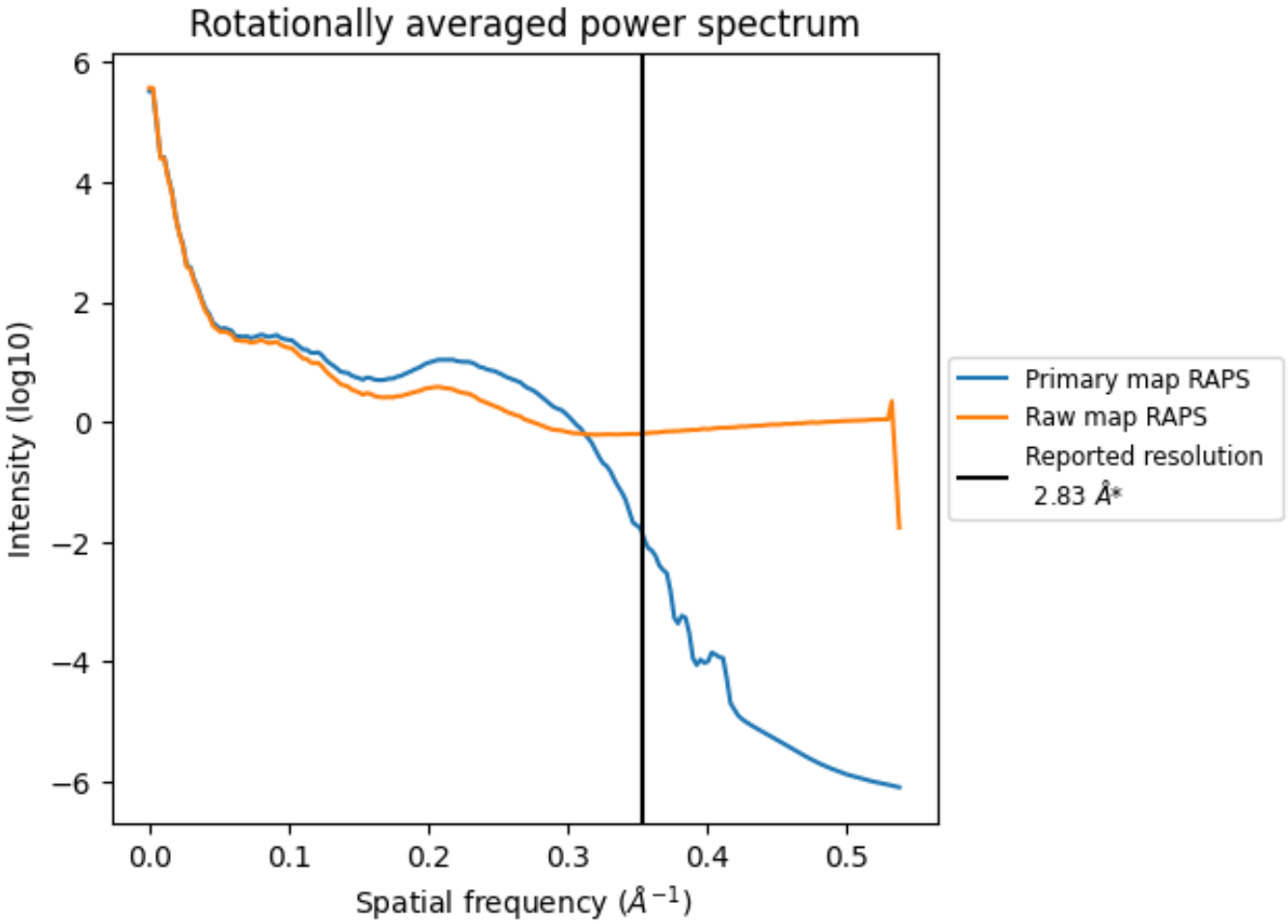
7.2 Volume estimate



The volume at the recommended contour level is 1168 nm^3; this corresponds to an approximate mass of 1055 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)

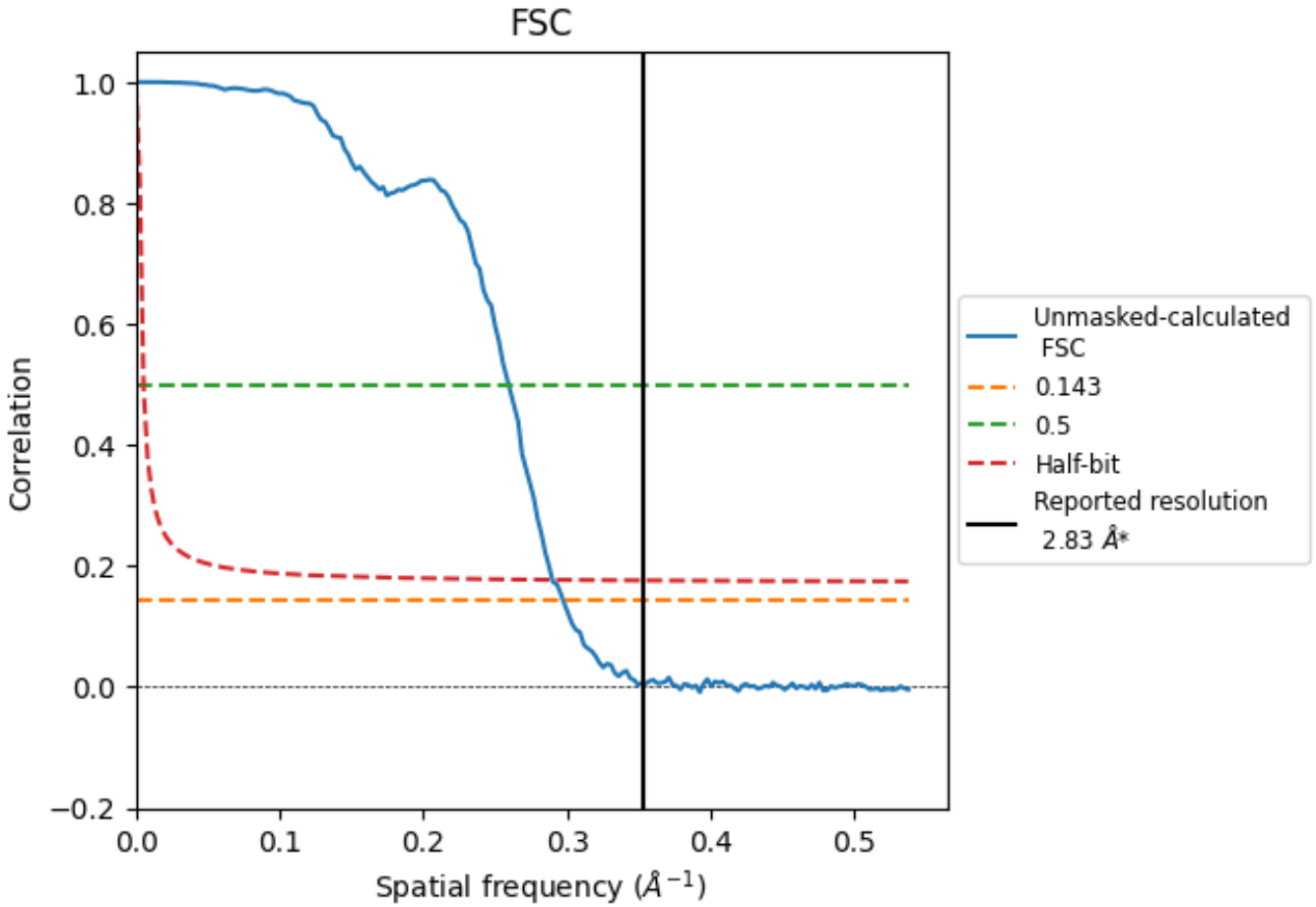


*Reported resolution corresponds to spatial frequency of 0.353 Å^{-1}

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.353 Å^{-1}

8.2 Resolution estimates (i)

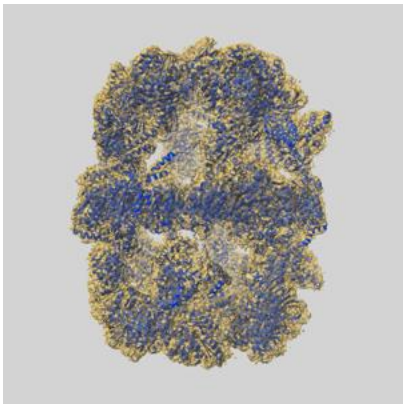
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.83	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.36	3.86	3.45

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.36 differs from the reported value 2.83 by more than 10 %

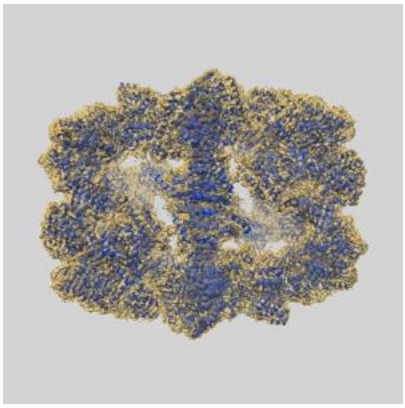
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-71792 and PDB model 9PQX. Per-residue inclusion information can be found in section 3 on page 6.

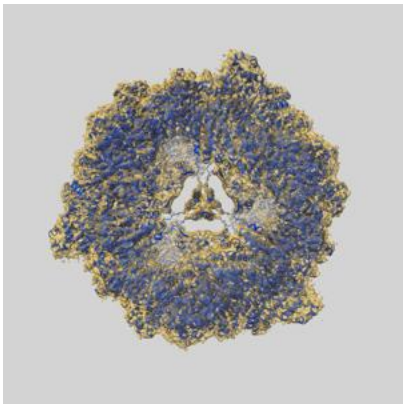
9.1 Map-model overlay



X



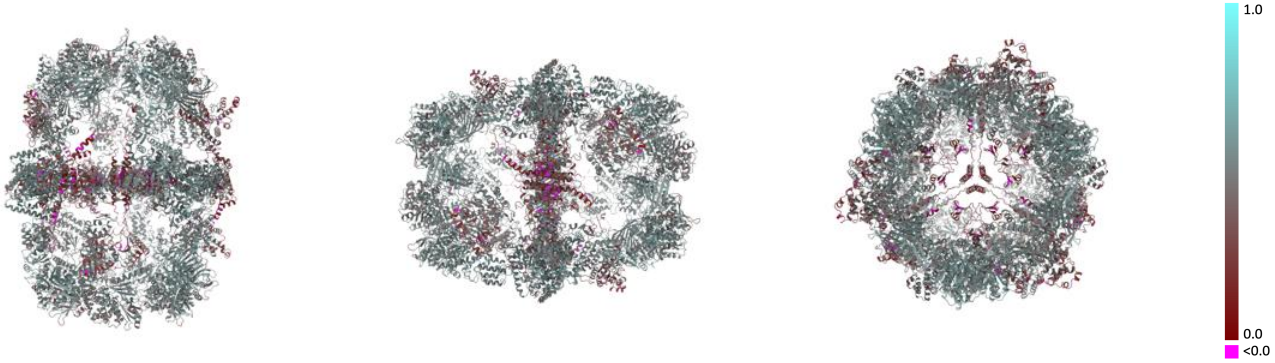
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.05 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

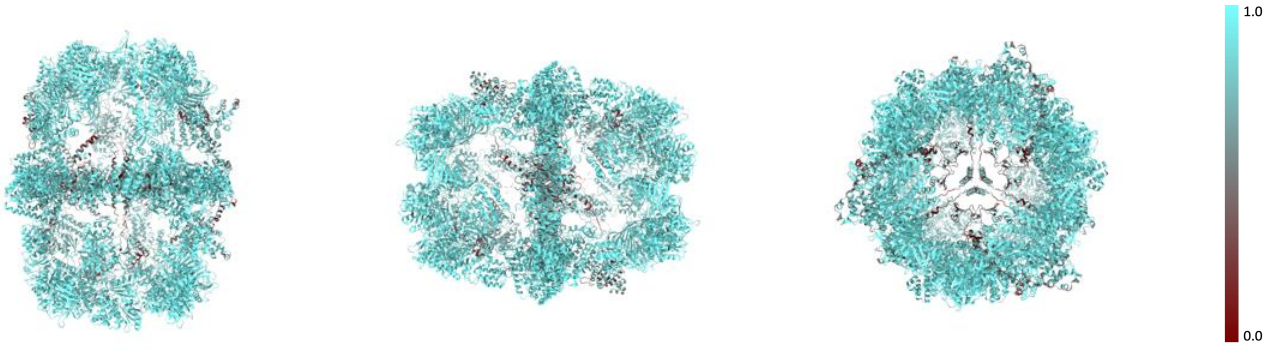
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

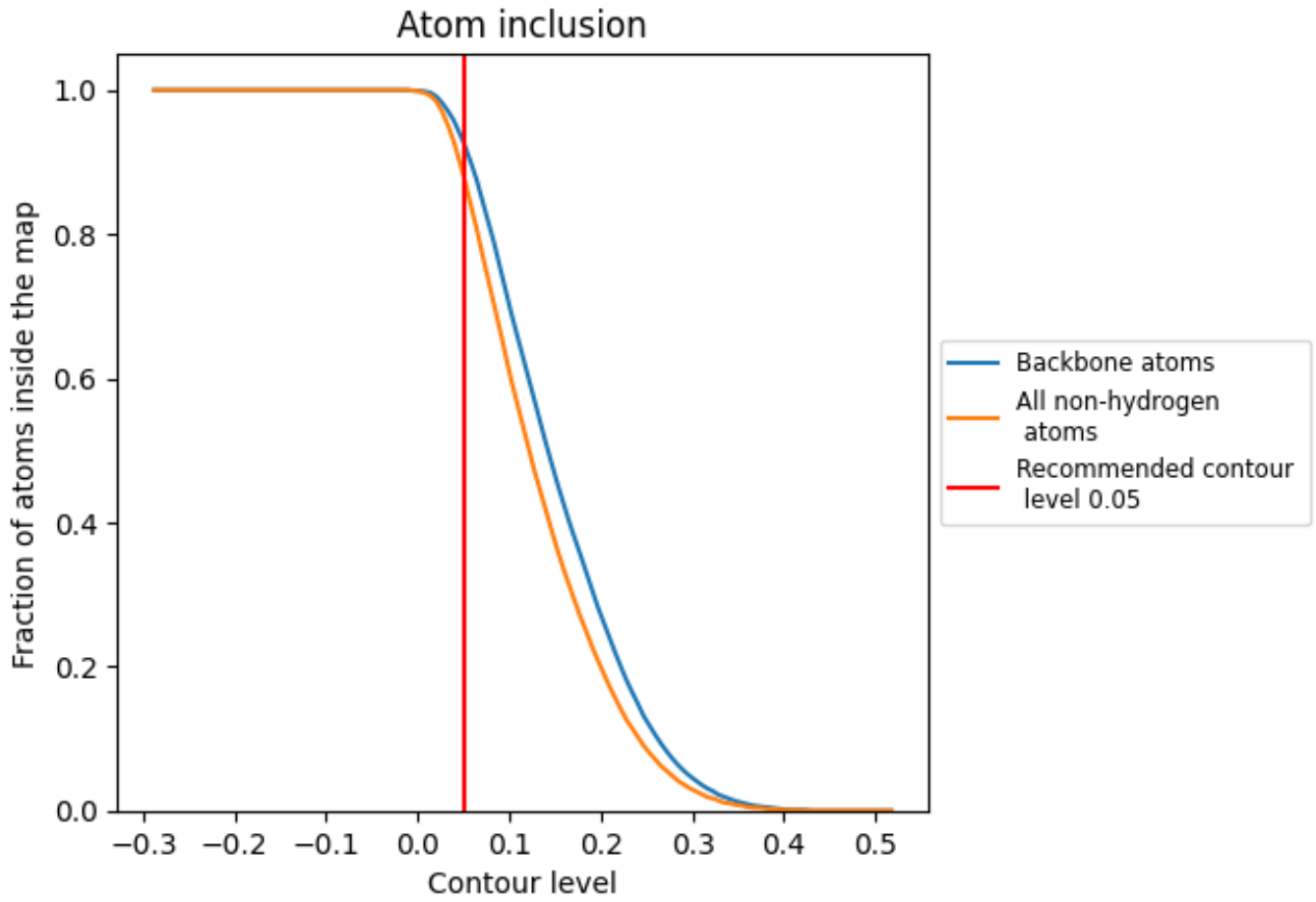
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.05).

9.4 Atom inclusion (i)



At the recommended contour level, 93% of all backbone atoms, 88% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.05) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8820	0.4740
A	0.8820	0.4750
B	0.8800	0.4730
C	0.8830	0.4740
D	0.8820	0.4730
E	0.8820	0.4730
F	0.8820	0.4740