Full wwPDB EM Validation Report ⓘ

Nov 23, 2022 – 01:13 AM EST

PDB ID	:	7UA3
EMDB ID	:	EMD-26413
Title	:	Structure of PKA phosphorylated human RyR2-R2474S in the closed state in the presence of Calmodulin
Authors	:	Miotto, M.C.; Marks, A.R.
Deposited on	:	2022-03-11
Resolution	:	2.97 Å(reported)
Based on initial model	:	7U9X

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:

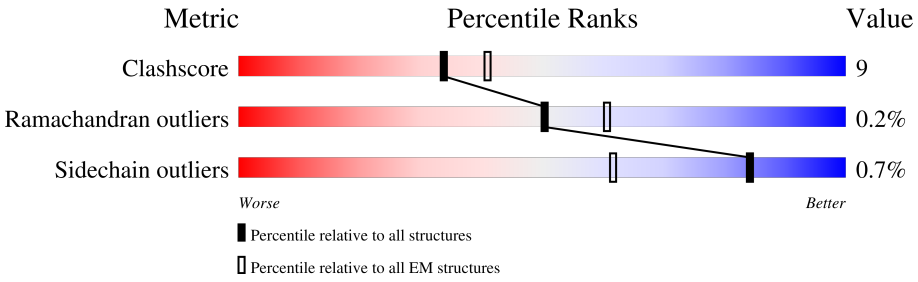
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	FAILED
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

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 2.97 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)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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%

Mol	Chain	Length	Quality of chain
1	A	4967	70% 19% 11%
1	B	4967	70% 19% 11%
1	C	4967	70% 19% 11%
1	D	4967	70% 19% 11%
2	E	108	73% 25% ••
2	F	108	70% 28% ••
2	G	108	73% 25% ••
2	H	108	73% 25% ••
3	I	149	56% 34% 5% 5%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	J	149	56% 34% 5% 5%
3	K	149	55% 35% 5% 5%
3	L	149	56% 34% 5% 5%

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 150252 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 Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4443	Total 35570	C 22656	N 6059	O 6618	S 237	2	0
1	B	4443	Total 35570	C 22656	N 6059	O 6618	S 237	2	0
1	C	4443	Total 35570	C 22656	N 6059	O 6618	S 237	2	0
1	D	4443	Total 35570	C 22656	N 6059	O 6618	S 237	2	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	2474	SER	ARG	variant	UNP Q92736
B	2474	SER	ARG	variant	UNP Q92736
C	2474	SER	ARG	variant	UNP Q92736
D	2474	SER	ARG	variant	UNP Q92736

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	E	107	Total 818	C 516	N 144	O 154	S 4	0	0
2	F	107	Total 818	C 516	N 144	O 154	S 4	0	0
2	G	107	Total 818	C 516	N 144	O 154	S 4	0	0
2	H	107	Total 818	C 516	N 144	O 154	S 4	0	0

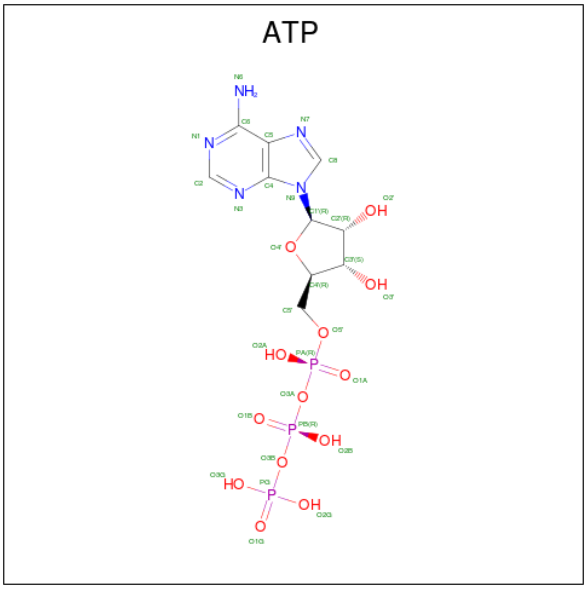
- Molecule 3 is a protein called Calmodulin-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	I	142	Total	C	N	O	S	0	0
			1112	687	181	234	10		
3	J	142	Total	C	N	O	S	0	0
			1112	687	181	234	10		
3	K	142	Total	C	N	O	S	0	0
			1112	687	181	234	10		
3	L	142	Total	C	N	O	S	0	0
			1112	687	181	234	10		

- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
4	A	1	Total	Zn	0
			1	1	
4	B	1	Total	Zn	0
			1	1	
4	C	1	Total	Zn	0
			1	1	
4	D	1	Total	Zn	0
			1	1	

- Molecule 5 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: $C_{10}H_{16}N_5O_{13}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
5	A	1	Total	C	N	O	P	0
			62	20	10	26	6	

Continued on next page...

Continued from previous page...

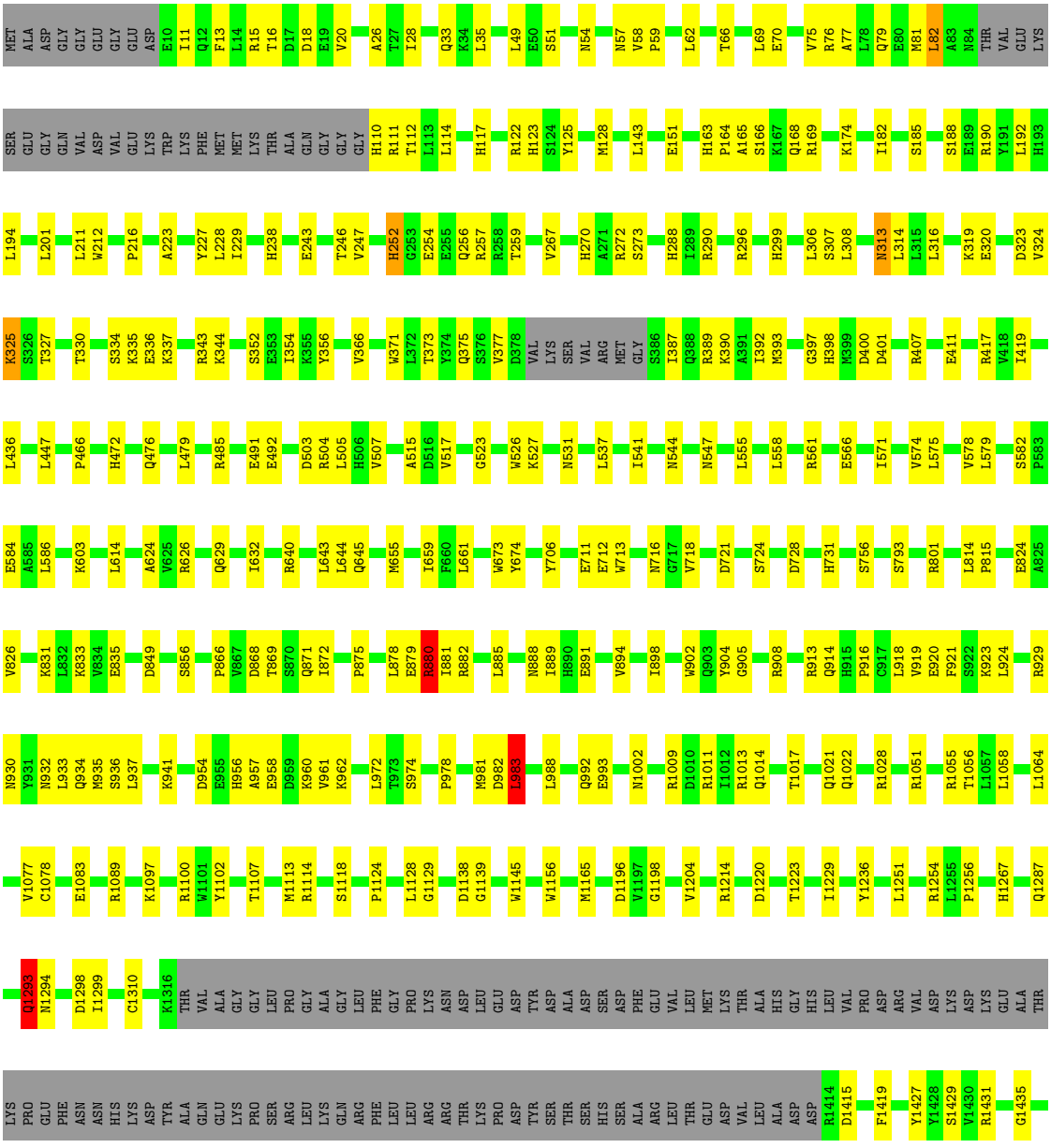
Mol	Chain	Residues	Atoms					AltConf
5	A	1	Total	C	N	O	P	0
			62	20	10	26	6	
5	B	1	Total	C	N	O	P	0
			62	20	10	26	6	
5	B	1	Total	C	N	O	P	0
			62	20	10	26	6	
5	C	1	Total	C	N	O	P	0
			62	20	10	26	6	
5	C	1	Total	C	N	O	P	0
			62	20	10	26	6	
5	D	1	Total	C	N	O	P	0
			62	20	10	26	6	
5	D	1	Total	C	N	O	P	0
			62	20	10	26	6	

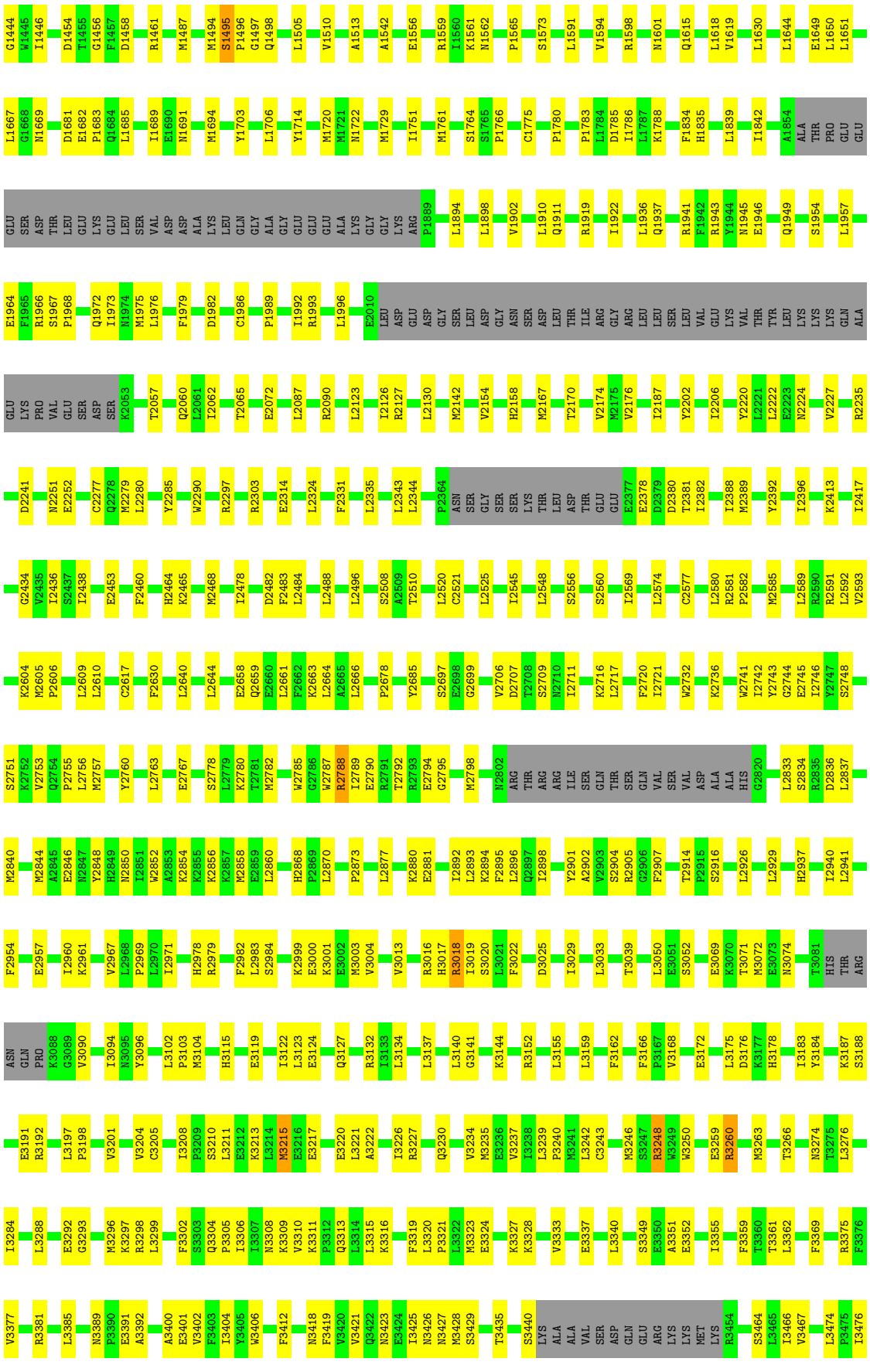
3 Residue-property plots (i)

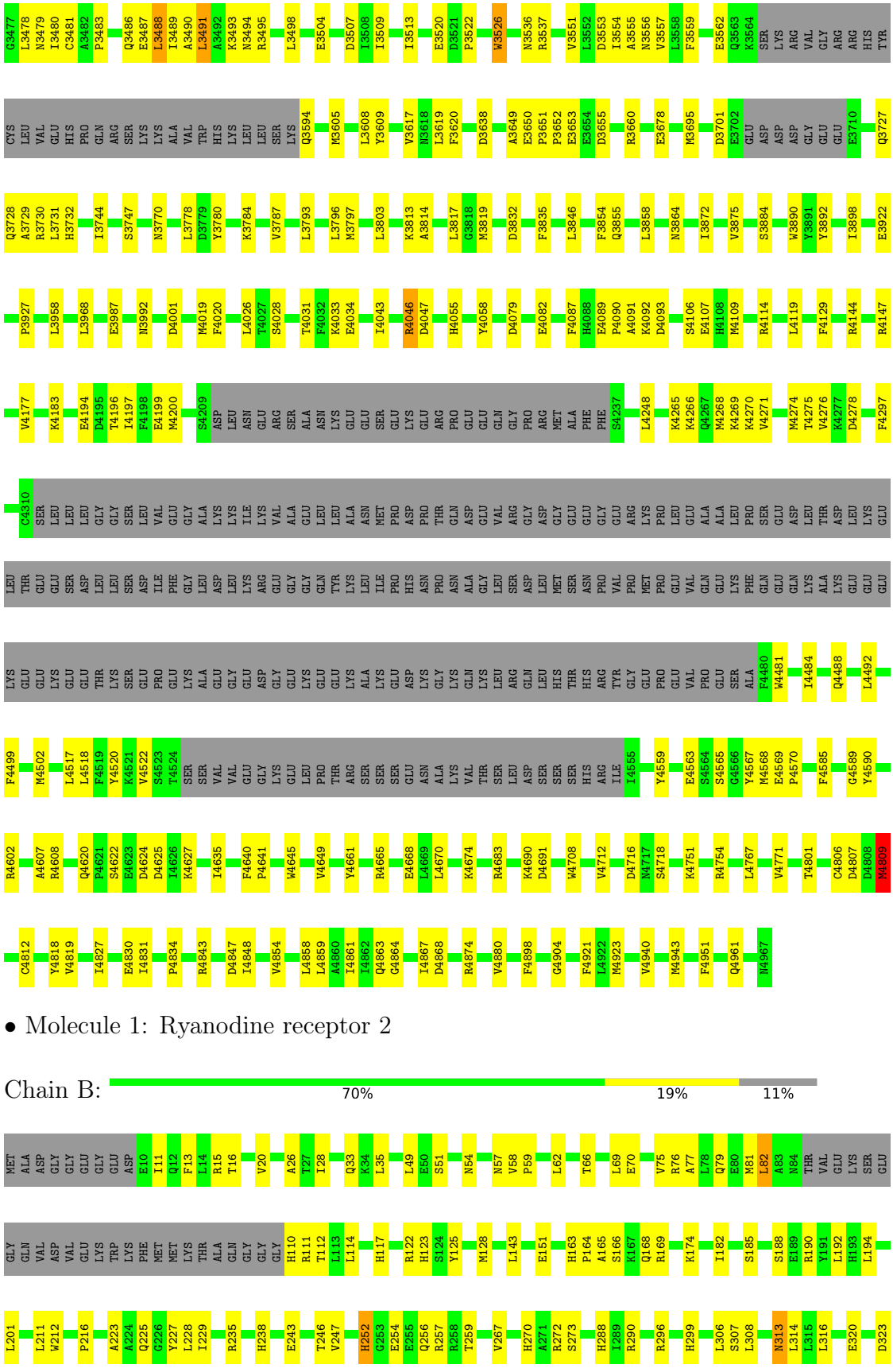
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded 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. 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: Ryanodine receptor 2

Chain A:

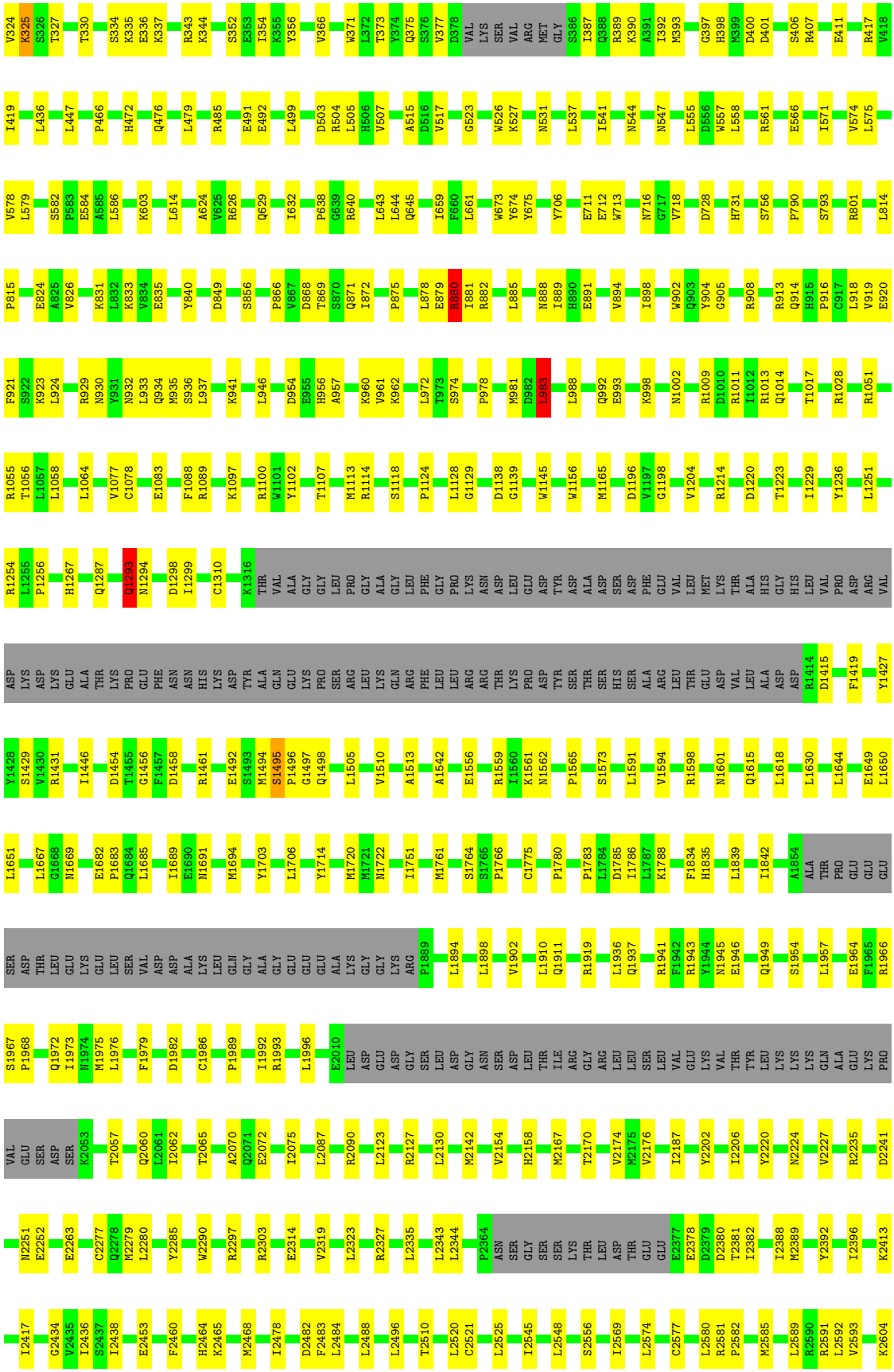


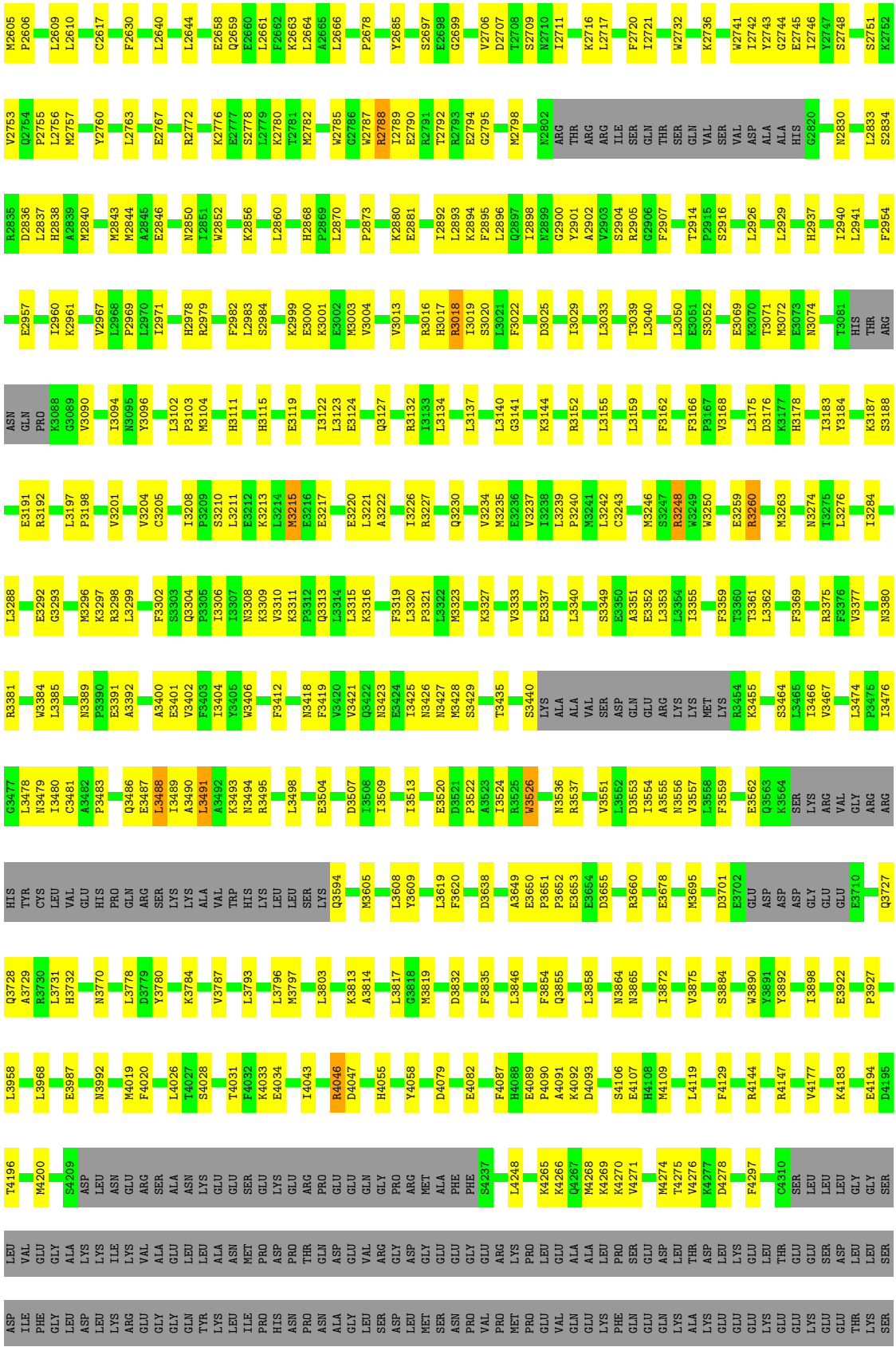


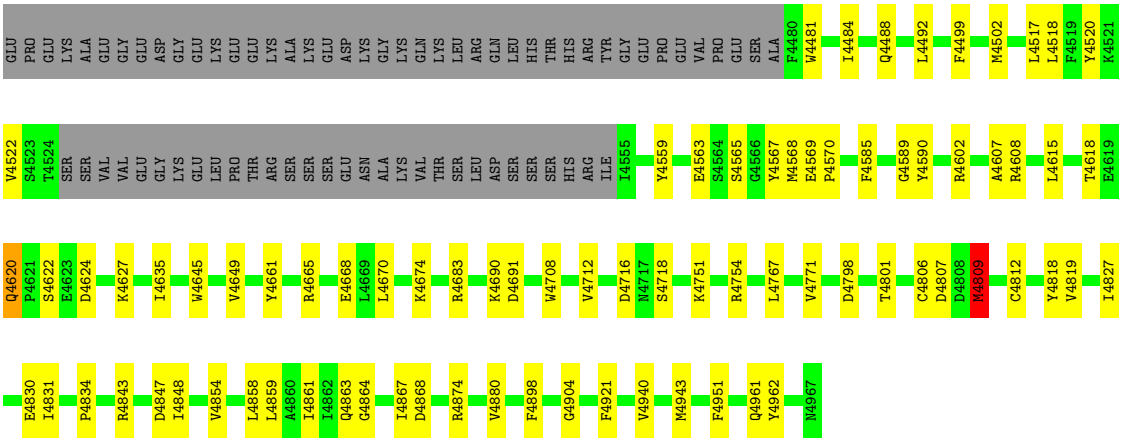


• Molecule 1: Ryanodine receptor 2

Chain B:

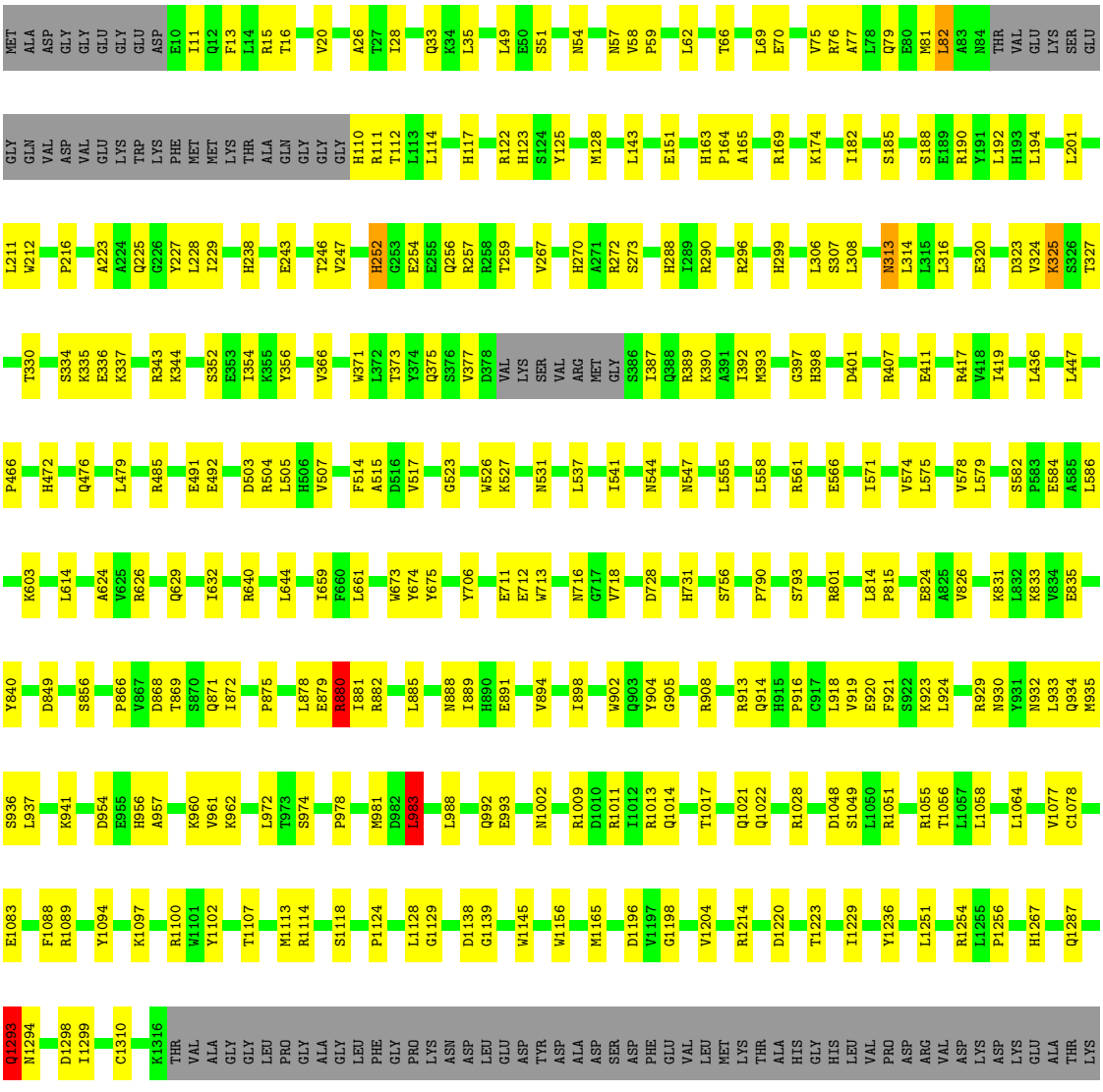

V324 K325 S326 T327 T330 S334 K335 E336 K337 R343 K344 S352 E353 I354 K355 Y356 V366 W371 L372 T373 Y374 Q375 S376 V377 D378 VAL LYS SER VAL ARG MET GLY S386 I387 Q388 R389 K390 A391 I392 M393 G397 H398 M399 D400 D401 S406 R407 E411 R417 V418
I419 L436 L447 P466 H472 Q476 L479 R485 E491 E492 L499 D503 R504 L505 H506 V507 A515 D516 V517 G523 W526 K527 N531 L537 I541 N544 N547 L555 D556 W557 L558 R561 E566 I571 V574 L575
V578 L579 S582 P583 E584 A585 L586 K603 L614 A624 V625 R626 Q629 I632 P638 G639 R640 L643 L644 Q645 I659 F660 L661 W673 Y674 Y675 Y706 E711 E712 W713 N716 G717 V718 D728 H731 S756 P790 S793 R801 L814
P815 E824 A825 V826 K831 L832 K833 V834 E835 Y840 D849 S856 P866 V867 D868 T869 S870 Q871 I872 P875 L878 E879 R880 I881 R882 L885 N888 I889 H890 E891 V894 I898 W902 Q903 Y904 G905 R908 R913 Q914 H915 P916 C917 L918 V919 E920
F921 S922 K923 L924 R929 N930 Y931 N932 L933 Q934 M935 S936 L937 K941 L946 D954 E955 H956 A957 K960 V961 K962 L972 T973 S974 P978 M981 D982 L983 L988 Q992 E993 K998 N1002 R1009 D1010 R1011 I1012 R1013 Q1014 T1017 R1028 R1051
R1055 T1056 L1057 L1058 L1064 V1077 C1078 E1083 F1088 R1089 K1097 R1100 W1101 Y1102 T1107 M1113 R1114 S1118 P1124 L1128 G1129 D1138 G1139 W1145 W1156 M1165 D1196 V1197 G1198 V1204 R1214 D1220 T1223 I1229 Y1236 L1251
R1254 L1255 P1256 H1267 Q1287 Q1293 N1294 D1298 I1299 C1310 K1316 THR VAL ALA GLY GLY LEU PRO GLY ALA GLY LEU PHE GLY PRO LYS ASN ASP LEU GLU ASP TYR ASP ALA ASP SER ASP PHE GLU VAL LEU MET LYS THR ALA HIS GLY HIS LEU VAL PRO ASP ARG VAL
ASP LYS ASP LYS GLU ALA THR LYS PRO GLU PHE ASN ASN HIS LYS ASP TYR ALA GLN GLU LYS PRO SER ARG LEU LYS GLN ARG PHE LEU LEU ARG ARG THR LYS PRO ASP TYR SER THR SER HIS SER ALA ARG LEU THR GLU ASP VAL LEU ALA ASP R1414 D1415 F1419 Y1427
Y1428 S1429 Y1430 R1431 I1446 D1454 T1455 G1456 F1457 D1458 R1461 E1492 S1493 M1494 S1495 P1496 G1497 Q1498 L1505 V1510 A1513 A1542 E1556 R1559 I1560 K1561 N1562 P1565 S1573 L1591 V1594 R1598 N1601 Q1615 L1618 L1630 L1644 E1649 L1650
L1651 L1667 G1668 N1669 E1682 P1683 Q1684 L1685 I1689 E1690 N1691 M1694 Y1703 L1706 Y1714 M1720 M1721 N1722 I1751 M1761 S1764 S1765 P1766 C1775 P1780 P1783 L1784 D1785 I1786 L1787 K1788 F1834 H1835 L1839 I1842 A1854 ALA THR PRO GLU GLU
SER ASP THR LEU GLU LYS GLU LEU SER VAL ASP ASP ALA LYS LEU GLN GLY ALA GLY GLU GLU GLU ALA LYS GLY GLY LYS ARG P1889 L1894 L1898 V1902 L1910 Q1911 R1919 L1936 Q1937 R1941 F1942 R1943 Y1944 N1945 E1946 Q1949 S1954 L1957 E1964 F1965 R1966
S1967 P1968 Q1972 I1973 N1974 M1975 L1976 F1979 D1982 C1986 P1989 I1992 R1993 L1996 E2010 LEU ASP GLU ASP GLY SER LEU ASP GLY ASN SER ASP LEU THR ILE ARG GLY ARG LEU LEU SER LEU VAL GLU LYS VAL SER LYS LYS GLN GLY ALA GLU LYS PRO
VAL GLU SER ASP SER K2053 T2057 Q2060 L2061 I2062 T2065 A2070 Q2071 E2072 I2075 L2087 R2090 L2123 R2127 L2130 M2142 V2154 H2158 M2167 T2170 V2174 M2175 V2176 I2187 E2377 Y2202 I2206 Y2220 M2224 V2227 R2235 D2241
N2251 E2252 E2263 C2277 Q2278 M2279 L2280 Y2285 W2290 R2297 R2303 E2314 V2319 L2323 R2327 L2335 L2343 L2344 P2364 ASN SER GLY SER SER LYS THR LEU ASP THR GLU GLU E2377 E2378 D2379 D2380 T2381 I2382 I2388 M2389 Y2392 I2396 K2413
I2417 G2434 V2435 I2436 S2437 I2438 E2453 F2460 H2464 K2465 M2468 I2478 D2482 F2483 L2484 L2488 L2496 T2510 L2520 C2521 L2525 I2545 L2548 S2556 I2569 L2574 C2577 L2580 R2581 P2582 M2585 L2589 R2590 R2591 L2592 V2593 K2604

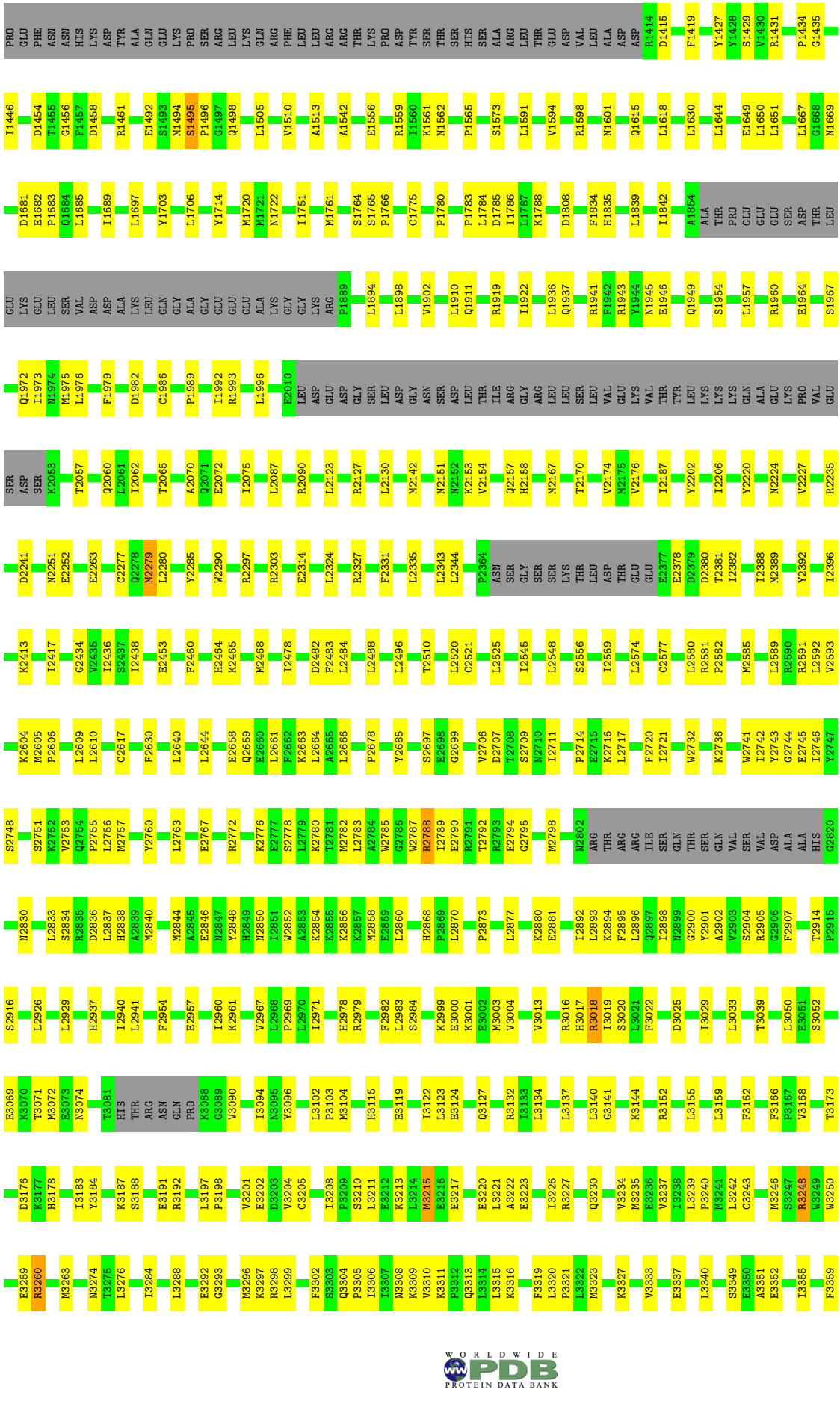


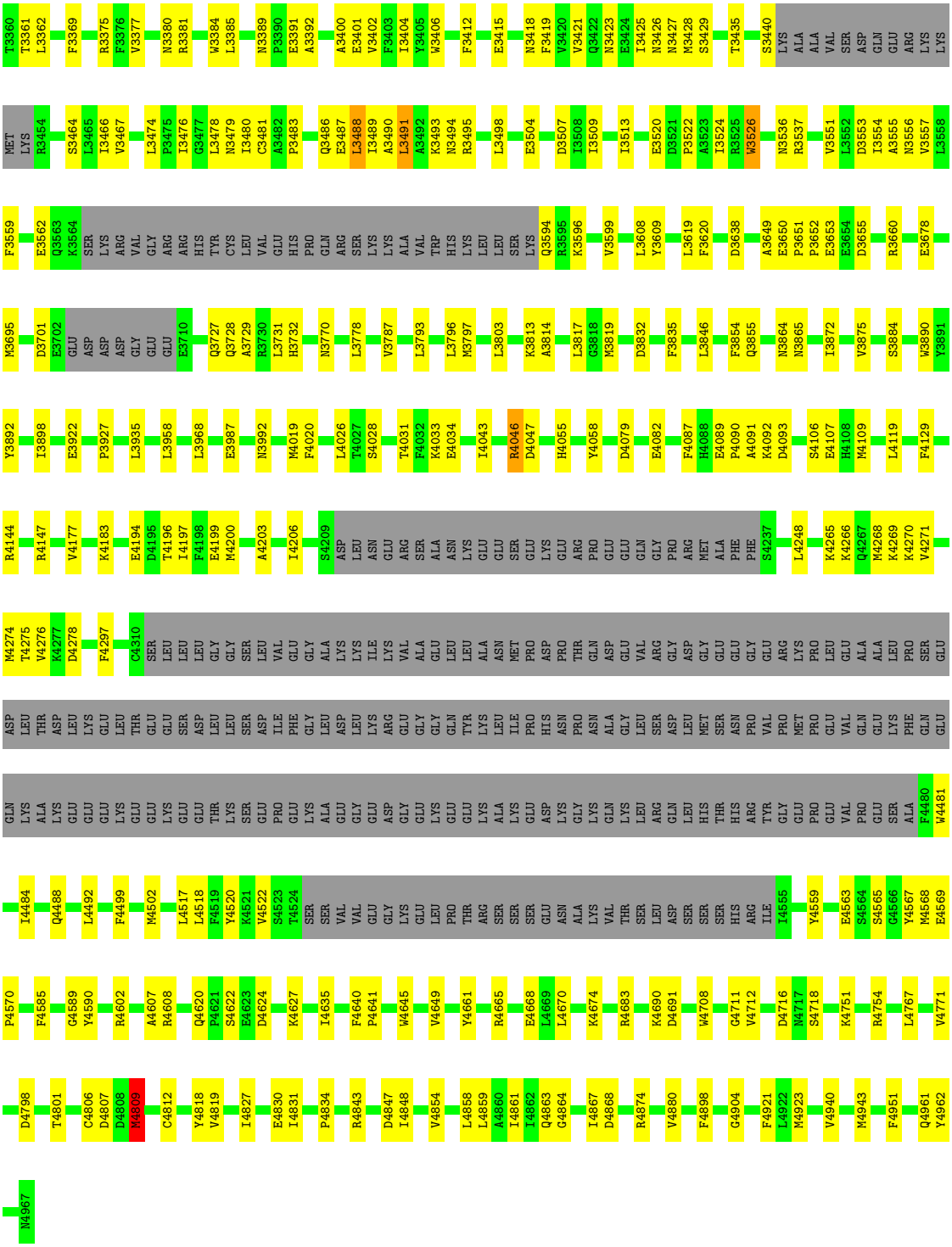


• Molecule 1: Ryanodine receptor 2

Chain C:

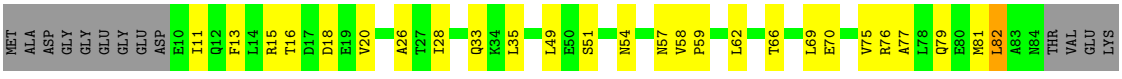


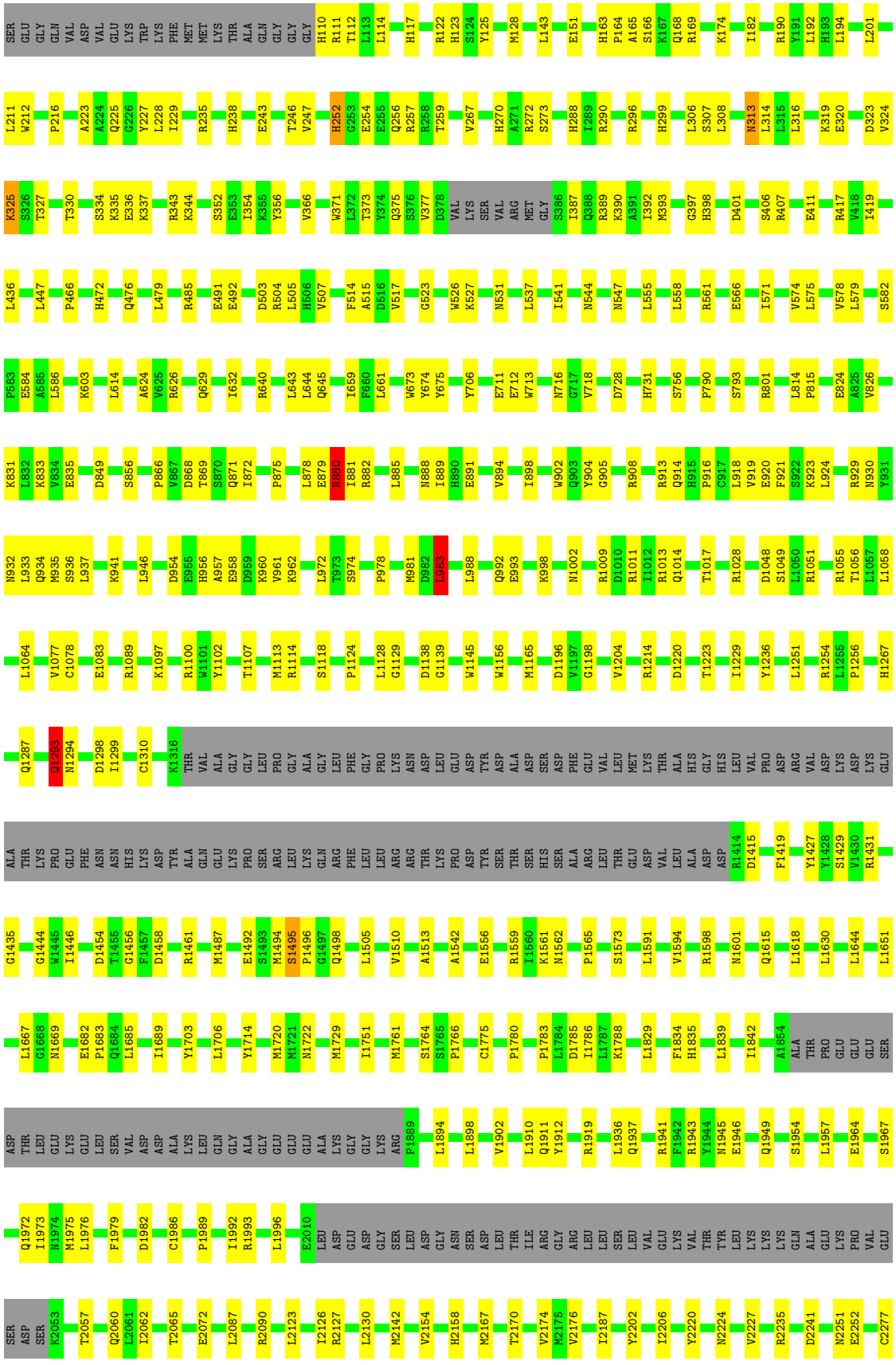


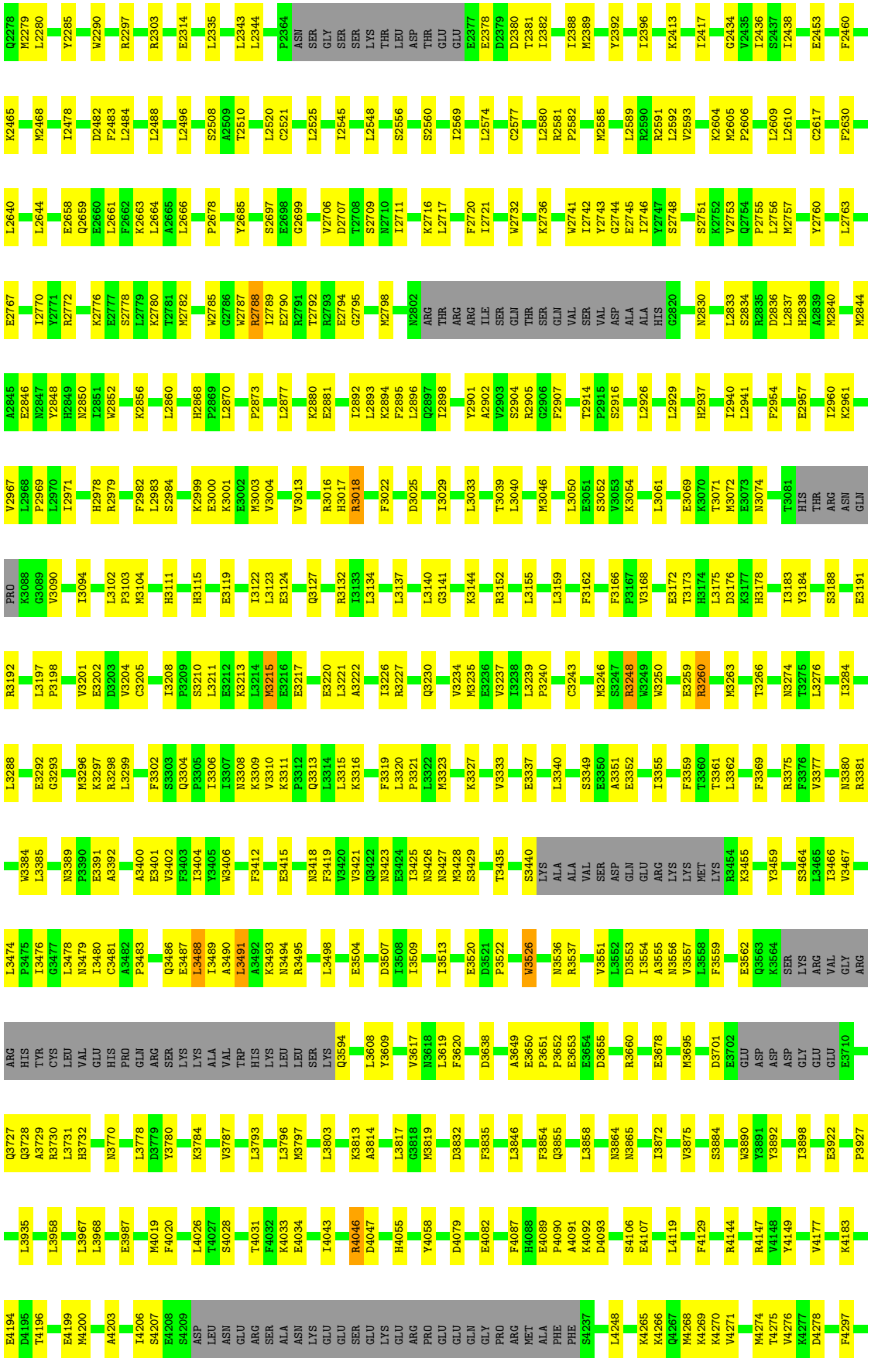


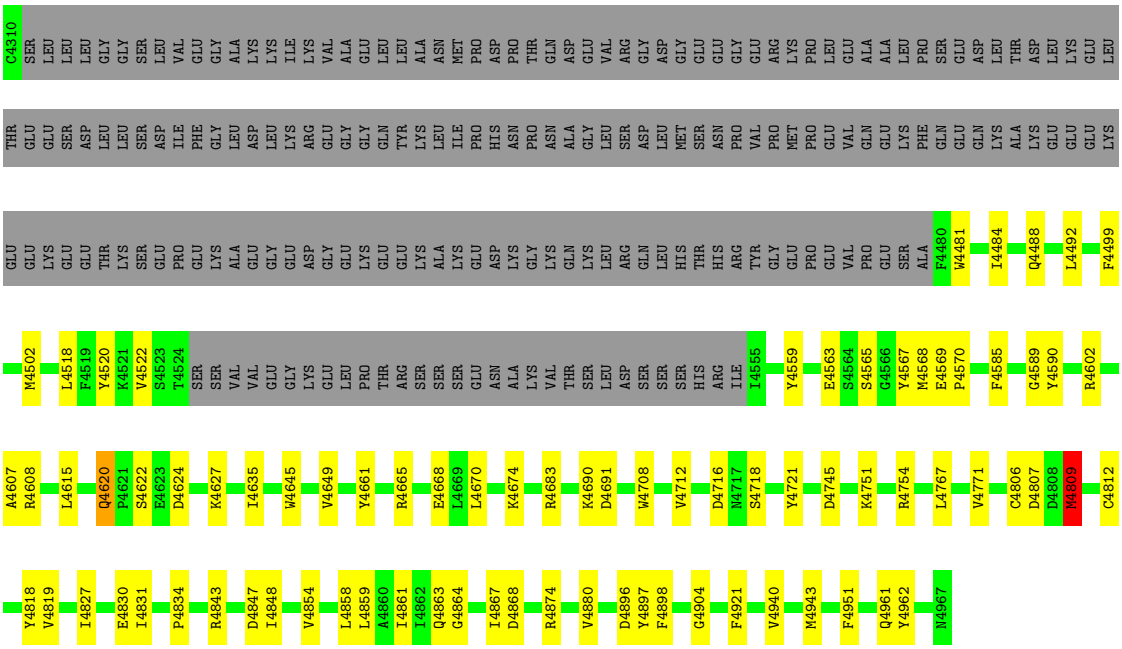
• Molecule 1: Ryanodine receptor 2

Chain D:







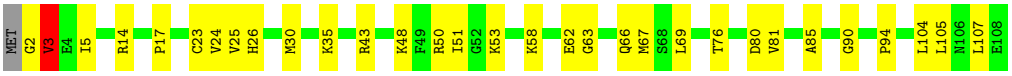


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain E:

• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain F:



• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

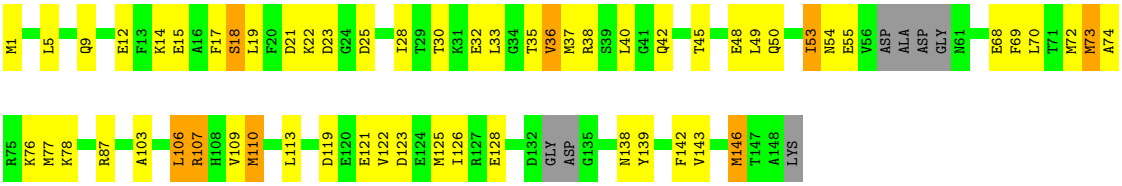
Chain G:

• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain H:

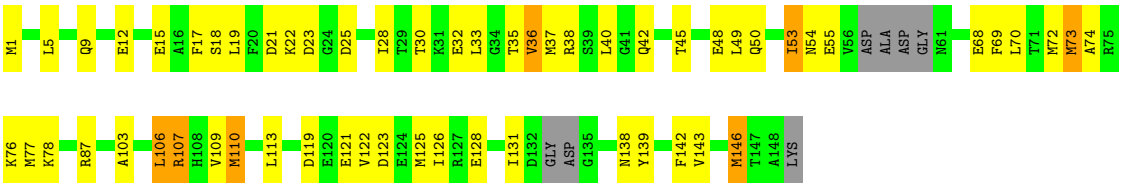
• Molecule 3: Calmodulin-1

Chain I:



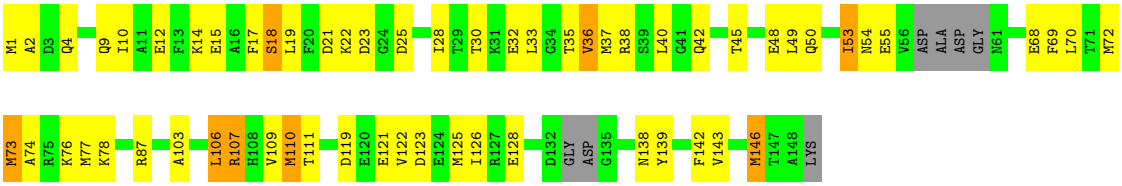
• Molecule 3: Calmodulin-1

Chain J:



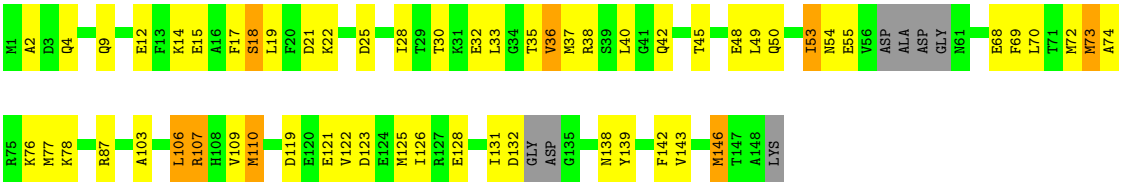
• Molecule 3: Calmodulin-1

Chain K:



• Molecule 3: Calmodulin-1

Chain L:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	73052	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	58	Depositor
Minimum defocus (nm)	400	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.26	0/36343	0.50	10/49085 (0.0%)
1	B	0.26	0/36343	0.50	10/49085 (0.0%)
1	C	0.26	0/36343	0.50	10/49085 (0.0%)
1	D	0.26	0/36343	0.50	10/49085 (0.0%)
2	E	0.29	0/834	0.55	0/1123
2	F	0.29	0/834	0.55	0/1123
2	G	0.29	0/834	0.55	0/1123
2	H	0.29	0/834	0.55	0/1123
3	I	0.33	0/1122	0.82	5/1504 (0.3%)
3	J	0.33	0/1122	0.82	5/1504 (0.3%)
3	K	0.33	0/1122	0.82	5/1504 (0.3%)
3	L	0.33	0/1122	0.82	5/1504 (0.3%)
All	All	0.26	0/153196	0.51	60/206848 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
1	C	0	1
1	D	0	1
3	I	0	1
3	J	0	1
3	K	0	1
3	L	0	1
All	All	0	8

There are no bond length outliers.

All (60) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	1293	GLN	CA-CB-CG	7.56	130.02	113.40
1	A	1293	GLN	CA-CB-CG	7.54	129.98	113.40
1	B	1293	GLN	CA-CB-CG	7.53	129.96	113.40
1	C	1293	GLN	CA-CB-CG	7.52	129.94	113.40
1	B	983	LEU	CA-CB-CG	7.18	131.81	115.30
1	A	983	LEU	CA-CB-CG	7.17	131.80	115.30
1	C	983	LEU	CA-CB-CG	7.17	131.79	115.30
1	D	983	LEU	CA-CB-CG	7.14	131.72	115.30
1	B	3491	LEU	CA-CB-CG	6.79	130.91	115.30
1	D	3491	LEU	CA-CB-CG	6.79	130.91	115.30
1	D	4046	ARG	CG-CD-NE	6.78	126.04	111.80
1	A	4046	ARG	CG-CD-NE	6.78	126.03	111.80
1	C	3491	LEU	CA-CB-CG	6.78	130.88	115.30
1	C	4046	ARG	CG-CD-NE	6.78	126.03	111.80
1	A	3491	LEU	CA-CB-CG	6.77	130.87	115.30
1	B	4046	ARG	CG-CD-NE	6.76	126.01	111.80
3	K	17	PHE	CB-CG-CD1	-6.06	116.56	120.80
3	L	17	PHE	CB-CG-CD1	-5.99	116.61	120.80
3	I	17	PHE	CB-CG-CD1	-5.98	116.62	120.80
1	B	3288	LEU	CA-CB-CG	5.96	129.01	115.30
1	D	3288	LEU	CA-CB-CG	5.95	128.99	115.30
3	J	17	PHE	CB-CG-CD1	-5.94	116.64	120.80
1	A	3288	LEU	CA-CB-CG	5.94	128.96	115.30
1	C	3288	LEU	CA-CB-CG	5.94	128.96	115.30
1	D	82	LEU	CA-CB-CG	5.78	128.60	115.30
1	C	82	LEU	CA-CB-CG	5.78	128.59	115.30
1	A	82	LEU	CA-CB-CG	5.77	128.58	115.30
1	B	82	LEU	CA-CB-CG	5.75	128.52	115.30
1	A	3526	TRP	CA-CB-CG	5.68	124.50	113.70
1	C	3526	TRP	CA-CB-CG	5.67	124.48	113.70
1	D	3526	TRP	CA-CB-CG	5.66	124.46	113.70
1	B	3526	TRP	CA-CB-CG	5.65	124.43	113.70
3	K	73	MET	CG-SD-CE	-5.46	91.46	100.20
1	D	4809	MET	CB-CG-SD	5.46	128.77	112.40
1	A	4809	MET	CB-CG-SD	5.45	128.75	112.40
1	B	4809	MET	CB-CG-SD	5.45	128.74	112.40
3	I	73	MET	CG-SD-CE	-5.44	91.49	100.20
1	C	4809	MET	CB-CG-SD	5.44	128.72	112.40
3	L	73	MET	CG-SD-CE	-5.43	91.51	100.20
3	J	73	MET	CG-SD-CE	-5.42	91.52	100.20
3	K	106	LEU	CA-CB-CG	5.37	127.65	115.30
3	J	106	LEU	CA-CB-CG	5.36	127.62	115.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	I	106	LEU	CA-CB-CG	5.35	127.61	115.30
3	K	17	PHE	CB-CG-CD2	5.35	124.55	120.80
1	B	880	ARG	CA-CB-CG	5.35	125.16	113.40
1	A	880	ARG	CA-CB-CG	5.34	125.16	113.40
1	C	880	ARG	CA-CB-CG	5.34	125.16	113.40
3	L	106	LEU	CA-CB-CG	5.33	127.57	115.30
1	D	880	ARG	CA-CB-CG	5.33	125.12	113.40
3	I	17	PHE	CB-CG-CD2	5.32	124.53	120.80
3	J	17	PHE	CB-CG-CD2	5.30	124.51	120.80
3	L	17	PHE	CB-CG-CD2	5.26	124.48	120.80
3	I	110	MET	CB-CG-SD	5.24	128.11	112.40
1	B	3488	LEU	CA-CB-CG	5.23	127.34	115.30
1	D	3488	LEU	CA-CB-CG	5.23	127.33	115.30
3	K	110	MET	CB-CG-SD	5.23	128.09	112.40
3	L	110	MET	CB-CG-SD	5.23	128.09	112.40
3	J	110	MET	CB-CG-SD	5.22	128.07	112.40
1	C	3488	LEU	CA-CB-CG	5.21	127.29	115.30
1	A	3488	LEU	CA-CB-CG	5.21	127.29	115.30

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	3520	GLU	Peptide
1	B	3520	GLU	Peptide
1	C	3520	GLU	Peptide
1	D	3520	GLU	Peptide
3	I	107	ARG	Sidechain
3	J	107	ARG	Sidechain
3	K	107	ARG	Sidechain
3	L	107	ARG	Sidechain

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	35570	0	35258	638	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	35570	0	35258	632	0
1	C	35570	0	35258	647	0
1	D	35570	0	35258	639	0
2	E	818	0	821	19	0
2	F	818	0	821	21	0
2	G	818	0	821	19	0
2	H	818	0	821	19	0
3	I	1112	0	1053	31	0
3	J	1112	0	1053	32	0
3	K	1112	0	1053	39	0
3	L	1112	0	1053	31	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	A	62	0	24	0	0
5	B	62	0	24	0	0
5	C	62	0	24	0	0
5	D	62	0	24	0	0
All	All	150252	0	148624	2702	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 9.

All (2702) 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:2905:ARG:NH1	1:C:2907:PHE:O	1.97	0.98
1:D:2905:ARG:NH1	1:D:2907:PHE:O	1.97	0.97
1:B:2905:ARG:NH1	1:B:2907:PHE:O	1.97	0.97
1:A:2905:ARG:NH1	1:A:2907:PHE:O	1.97	0.97
3:I:138:ASN:O	3:I:142:PHE:HB2	1.64	0.96
3:L:138:ASN:O	3:L:142:PHE:HB2	1.64	0.96
3:J:138:ASN:O	3:J:142:PHE:HB2	1.64	0.95
3:K:138:ASN:O	3:K:142:PHE:HB2	1.64	0.95
1:C:3650:GLU:HG2	1:C:3651:PRO:HD3	1.56	0.87
1:D:3650:GLU:HG2	1:D:3651:PRO:HD3	1.56	0.87
1:A:3650:GLU:HG2	1:A:3651:PRO:HD3	1.56	0.87
2:H:24:VAL:HG22	2:H:48:LYS:HG2	1.58	0.85
1:B:3650:GLU:HG2	1:B:3651:PRO:HD3	1.56	0.85
2:E:24:VAL:HG22	2:E:48:LYS:HG2	1.58	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:24:VAL:HG22	2:F:48:LYS:HG2	1.58	0.84
2:G:24:VAL:HG22	2:G:48:LYS:HG2	1.58	0.83
1:B:3483:PRO:HA	1:B:3486:GLN:HB2	1.59	0.82
1:C:3483:PRO:HA	1:C:3486:GLN:HB2	1.59	0.82
1:A:3483:PRO:HA	1:A:3486:GLN:HB2	1.59	0.81
1:D:3483:PRO:HA	1:D:3486:GLN:HB2	1.59	0.81
1:D:4834:PRO:HB3	1:D:4843:ARG:HD3	1.61	0.81
1:A:882:ARG:NH2	1:A:933:LEU:O	2.13	0.81
1:C:882:ARG:NH2	1:C:933:LEU:O	2.13	0.81
1:C:4834:PRO:HB3	1:C:4843:ARG:HD3	1.61	0.81
1:C:75:VAL:HG12	1:C:79:GLN:HE22	1.46	0.81
1:B:75:VAL:HG12	1:B:79:GLN:HE22	1.46	0.80
1:D:75:VAL:HG12	1:D:79:GLN:HE22	1.45	0.80
1:D:882:ARG:NH2	1:D:933:LEU:O	2.13	0.80
1:B:882:ARG:NH2	1:B:933:LEU:O	2.13	0.80
1:A:4834:PRO:HB3	1:A:4843:ARG:HD3	1.61	0.80
1:B:4834:PRO:HB3	1:B:4843:ARG:HD3	1.61	0.80
1:A:2868:HIS:HE1	1:A:2870:LEU:HB2	1.47	0.80
1:B:2868:HIS:HE1	1:B:2870:LEU:HB2	1.47	0.80
1:D:2868:HIS:HE1	1:D:2870:LEU:HB2	1.47	0.79
1:A:75:VAL:HG12	1:A:79:GLN:HE22	1.46	0.79
1:C:2868:HIS:HE1	1:C:2870:LEU:HB2	1.47	0.79
1:B:2706:VAL:HG21	1:B:2785:TRP:HE1	1.49	0.78
1:B:2389:MET:HE1	1:B:2460:PHE:HA	1.66	0.78
1:A:3488:LEU:HA	1:A:3491:LEU:HD23	1.66	0.77
1:D:3488:LEU:HA	1:D:3491:LEU:HD23	1.66	0.77
1:B:3488:LEU:HA	1:B:3491:LEU:HD23	1.66	0.77
1:D:2706:VAL:HG21	1:D:2785:TRP:HE1	1.49	0.77
1:A:2706:VAL:HG21	1:A:2785:TRP:HE1	1.49	0.77
1:A:2389:MET:HE1	1:A:2460:PHE:HA	1.67	0.77
1:C:2706:VAL:HG21	1:C:2785:TRP:HE1	1.49	0.77
1:C:2389:MET:HE1	1:C:2460:PHE:HA	1.67	0.76
1:C:2868:HIS:CE1	1:C:2870:LEU:HB2	2.21	0.76
1:D:2389:MET:HE1	1:D:2460:PHE:HA	1.68	0.76
1:C:3488:LEU:HA	1:C:3491:LEU:HD23	1.66	0.76
1:B:2868:HIS:CE1	1:B:2870:LEU:HB2	2.21	0.75
1:B:3489:ILE:HG22	1:B:3493:LYS:HZ3	1.50	0.75
1:B:1293:GLN:OE1	1:B:1294:ASN:N	2.19	0.75
1:D:2868:HIS:CE1	1:D:2870:LEU:HB2	2.21	0.75
1:A:2868:HIS:CE1	1:A:2870:LEU:HB2	2.21	0.75
1:A:1293:GLN:OE1	1:A:1294:ASN:N	2.19	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1293:GLN:OE1	1:D:1294:ASN:N	2.19	0.74
1:C:1293:GLN:OE1	1:C:1294:ASN:N	2.19	0.74
1:A:436:LEU:HD11	1:A:447:LEU:HD11	1.70	0.74
1:C:930:ASN:O	1:C:934:GLN:NE2	2.21	0.73
1:A:930:ASN:O	1:A:934:GLN:NE2	2.21	0.73
3:K:74:ALA:O	3:K:77:MET:HB3	1.88	0.73
3:L:74:ALA:O	3:L:77:MET:HB3	1.88	0.73
3:J:74:ALA:O	3:J:77:MET:HB3	1.88	0.73
1:D:436:LEU:HD11	1:D:447:LEU:HD11	1.70	0.73
1:B:436:LEU:HD11	1:B:447:LEU:HD11	1.70	0.73
1:B:930:ASN:O	1:B:934:GLN:NE2	2.21	0.73
1:C:2787:TRP:HE3	1:C:2905:ARG:HA	1.54	0.73
3:I:74:ALA:O	3:I:77:MET:HB3	1.88	0.72
1:D:930:ASN:O	1:D:934:GLN:NE2	2.21	0.72
1:B:2787:TRP:HE3	1:B:2905:ARG:HA	1.54	0.72
1:C:436:LEU:HD11	1:C:447:LEU:HD11	1.70	0.72
1:C:3489:ILE:HD13	1:C:3554:ILE:HD11	1.72	0.72
1:D:3489:ILE:HD13	1:D:3554:ILE:HD11	1.72	0.72
1:A:252:HIS:O	1:A:256:GLN:NE2	2.24	0.71
1:A:3489:ILE:HD13	1:A:3554:ILE:HD11	1.72	0.71
1:C:323:ASP:O	1:C:325:LYS:N	2.22	0.71
1:D:2787:TRP:HE3	1:D:2905:ARG:HA	1.54	0.71
1:B:252:HIS:O	1:B:256:GLN:NE2	2.24	0.71
1:D:252:HIS:O	1:D:256:GLN:NE2	2.24	0.71
1:B:3489:ILE:HD13	1:B:3554:ILE:HD11	1.72	0.71
1:C:902:TRP:HH2	1:C:913:ARG:HG3	1.56	0.71
1:D:902:TRP:HH2	1:D:913:ARG:HG3	1.56	0.71
1:B:3050:LEU:HD23	1:B:3052:SER:H	1.55	0.71
1:B:2711:ILE:O	1:B:2780:LYS:NZ	2.24	0.71
1:B:323:ASP:O	1:B:325:LYS:N	2.22	0.71
1:D:3050:LEU:HD23	1:D:3052:SER:H	1.55	0.71
1:B:902:TRP:HH2	1:B:913:ARG:HG3	1.56	0.70
1:A:2787:TRP:HE3	1:A:2905:ARG:HA	1.54	0.70
3:L:48:GLU:HG3	3:L:76:LYS:HZ2	1.56	0.70
1:A:2711:ILE:O	1:A:2780:LYS:NZ	2.24	0.70
1:A:3050:LEU:HD23	1:A:3052:SER:H	1.55	0.70
1:A:888:ASN:HD21	1:A:1056:THR:HG21	1.57	0.70
1:A:902:TRP:HH2	1:A:913:ARG:HG3	1.56	0.70
1:B:1496:PRO:O	1:B:1498:GLN:NE2	2.25	0.70
1:C:252:HIS:O	1:C:256:GLN:NE2	2.24	0.70
1:C:267:VAL:HG22	1:C:272:ARG:HH21	1.57	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1496:PRO:O	1:C:1498:GLN:NE2	2.25	0.70
1:B:3315:LEU:HA	1:B:3319:PHE:HD2	1.57	0.70
1:A:1496:PRO:O	1:A:1498:GLN:NE2	2.25	0.69
1:C:3050:LEU:HD23	1:C:3052:SER:H	1.55	0.69
1:A:3803:LEU:HB2	1:A:3884:SER:HB3	1.75	0.69
3:K:48:GLU:HG3	3:K:76:LYS:HZ1	1.57	0.69
1:D:888:ASN:HD21	1:D:1056:THR:HG21	1.57	0.69
1:C:888:ASN:HD21	1:C:1056:THR:HG21	1.57	0.69
1:B:3803:LEU:HB2	1:B:3884:SER:HB3	1.75	0.69
1:C:3489:ILE:HG22	1:C:3493:LYS:NZ	2.08	0.69
1:A:3315:LEU:HA	1:A:3319:PHE:HD2	1.57	0.69
1:B:888:ASN:HD21	1:B:1056:THR:HG21	1.57	0.69
1:C:3293:GLY:H	1:C:3296:MET:HE1	1.56	0.69
1:D:1496:PRO:O	1:D:1498:GLN:NE2	2.25	0.69
1:A:267:VAL:HG22	1:A:272:ARG:HH21	1.57	0.69
1:A:3489:ILE:HG22	1:A:3493:LYS:NZ	2.08	0.69
1:B:3140:LEU:HD13	1:B:3155:LEU:HD22	1.75	0.69
1:C:824:GLU:OE1	1:C:1028:ARG:NH1	2.26	0.69
1:C:3803:LEU:HB2	1:C:3884:SER:HB3	1.75	0.69
1:D:267:VAL:HG22	1:D:272:ARG:HH21	1.57	0.69
1:D:824:GLU:OE1	1:D:1028:ARG:NH1	2.26	0.69
1:D:323:ASP:O	1:D:325:LYS:N	2.22	0.69
1:A:2833:LEU:HD12	1:A:2837:LEU:HB3	1.75	0.69
1:D:3140:LEU:HD13	1:D:3155:LEU:HD22	1.75	0.69
1:D:3293:GLY:H	1:D:3296:MET:HE1	1.57	0.69
1:D:3803:LEU:HB2	1:D:3884:SER:HB3	1.75	0.69
1:B:3489:ILE:HG22	1:B:3493:LYS:NZ	2.08	0.68
1:C:3315:LEU:HA	1:C:3319:PHE:HD2	1.57	0.68
1:D:3489:ILE:HG22	1:D:3493:LYS:NZ	2.08	0.68
1:A:3293:GLY:H	1:A:3296:MET:HE1	1.57	0.68
1:A:824:GLU:OE1	1:A:1028:ARG:NH1	2.26	0.68
1:B:824:GLU:OE1	1:B:1028:ARG:NH1	2.26	0.68
1:C:3140:LEU:HD13	1:C:3155:LEU:HD22	1.75	0.68
1:C:3846:LEU:HB3	1:C:3854:PHE:CE2	2.29	0.68
1:D:3315:LEU:HA	1:D:3319:PHE:HD2	1.57	0.68
1:A:3140:LEU:HD13	1:A:3155:LEU:HD22	1.75	0.68
1:B:2833:LEU:HD12	1:B:2837:LEU:HB3	1.75	0.68
1:A:882:ARG:NH2	1:A:936:SER:OG	2.27	0.68
1:B:267:VAL:HG22	1:B:272:ARG:HH21	1.57	0.68
1:B:3846:LEU:HB3	1:B:3854:PHE:CE2	2.29	0.68
1:C:2833:LEU:HD12	1:C:2837:LEU:HB3	1.75	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2833:LEU:HD12	1:D:2837:LEU:HB3	1.75	0.68
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.75	0.68
1:A:2593:VAL:HG22	1:A:2644:LEU:HB2	1.76	0.68
1:C:2711:ILE:O	1:C:2780:LYS:NZ	2.24	0.68
1:B:2593:VAL:HG22	1:B:2644:LEU:HB2	1.76	0.67
1:A:640:ARG:O	2:E:35:LYS:NZ	2.28	0.67
1:A:3235:MET:HA	1:A:3239:LEU:HD13	1.76	0.67
1:B:882:ARG:NH2	1:B:936:SER:OG	2.27	0.67
1:C:882:ARG:NH2	1:C:936:SER:OG	2.27	0.67
1:D:3846:LEU:HB3	1:D:3854:PHE:CE2	2.29	0.67
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.75	0.67
1:A:3846:LEU:HB3	1:A:3854:PHE:CE2	2.29	0.67
1:D:882:ARG:NH2	1:D:936:SER:OG	2.27	0.67
1:D:2593:VAL:HG22	1:D:2644:LEU:HB2	1.76	0.67
1:B:3235:MET:HA	1:B:3239:LEU:HD13	1.76	0.67
1:A:323:ASP:O	1:A:325:LYS:N	2.22	0.67
2:H:69:LEU:HA	2:H:104:LEU:HD22	1.77	0.67
2:E:69:LEU:HA	2:E:104:LEU:HD22	1.77	0.67
1:D:2711:ILE:O	1:D:2780:LYS:NZ	2.24	0.67
2:G:69:LEU:HA	2:G:104:LEU:HD22	1.77	0.66
3:K:10:ILE:HG21	1:C:2157:GLN:HG3	1.76	0.66
1:D:3235:MET:HA	1:D:3239:LEU:HD13	1.76	0.66
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.75	0.66
2:F:69:LEU:HA	2:F:104:LEU:HD22	1.77	0.66
1:C:2593:VAL:HG22	1:C:2644:LEU:HB2	1.76	0.66
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.75	0.66
1:A:4602:ARG:HH22	1:A:4627:LYS:HG2	1.61	0.66
1:C:3235:MET:HA	1:C:3239:LEU:HD13	1.76	0.66
1:C:3489:ILE:HG22	1:C:3493:LYS:HZ3	1.61	0.66
1:D:1097:LYS:NZ	1:D:1198:GLY:O	2.29	0.66
1:B:1097:LYS:NZ	1:B:1198:GLY:O	2.29	0.65
1:B:4602:ARG:HH22	1:B:4627:LYS:HG2	1.61	0.65
1:A:1097:LYS:NZ	1:A:1198:GLY:O	2.30	0.65
1:C:1097:LYS:NZ	1:C:1198:GLY:O	2.29	0.65
1:D:4602:ARG:HH22	1:D:4627:LYS:HG2	1.61	0.65
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	1.79	0.65
1:D:4177:VAL:HG11	1:D:4880:VAL:HA	1.79	0.65
1:B:1954:SER:HB3	1:B:1957:LEU:HB3	1.78	0.65
1:C:1954:SER:HB3	1:C:1957:LEU:HB3	1.78	0.65
1:B:3490:ALA:HA	1:B:3493:LYS:HE2	1.79	0.65
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	1.79	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1954:SER:HB3	1:D:1957:LEU:HB3	1.78	0.65
1:A:1954:SER:HB3	1:A:1957:LEU:HB3	1.78	0.64
1:C:1456:GLY:O	1:C:1461:ARG:NH2	2.29	0.64
1:C:1454:ASP:OD2	1:C:1461:ARG:NH2	2.31	0.64
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	1.79	0.64
1:C:4831:ILE:HG13	1:C:4843:ARG:HH21	1.63	0.64
1:D:4831:ILE:HG13	1:D:4843:ARG:HH21	1.63	0.64
1:C:4690:LYS:NZ	1:C:4691:ASP:OD1	2.31	0.64
1:D:4690:LYS:NZ	1:D:4691:ASP:OD1	2.31	0.64
1:B:879:GLU:HA	1:B:882:ARG:HG2	1.80	0.64
1:C:1839:LEU:HD23	1:C:1842:ILE:HD11	1.80	0.64
1:C:4518:LEU:HA	1:D:4809:MET:HG3	1.78	0.64
1:A:879:GLU:HA	1:A:882:ARG:HG2	1.80	0.64
1:A:3490:ALA:HA	1:A:3493:LYS:HE2	1.79	0.64
1:B:1454:ASP:OD2	1:B:1461:ARG:NH2	2.31	0.64
1:D:4668:GLU:OE2	1:D:4674:LYS:NZ	2.31	0.64
1:D:1454:ASP:OD2	1:D:1461:ARG:NH2	2.31	0.64
1:A:259:THR:OG1	1:A:390:LYS:NZ	2.31	0.64
1:C:3490:ALA:HA	1:C:3493:LYS:HE2	1.80	0.64
1:A:4831:ILE:HG13	1:A:4843:ARG:HH21	1.62	0.64
1:B:70:GLU:OE2	1:B:122:ARG:NH1	2.31	0.64
1:C:259:THR:OG1	1:C:390:LYS:NZ	2.31	0.64
1:C:503:ASP:HA	1:C:561:ARG:HH12	1.63	0.64
1:D:2072:GLU:O	1:D:3660:ARG:NH1	2.31	0.64
1:D:2787:TRP:CE3	1:D:2905:ARG:HA	2.33	0.64
1:D:3489:ILE:HG22	1:D:3493:LYS:HZ3	1.62	0.64
1:A:70:GLU:OE2	1:A:122:ARG:NH1	2.31	0.63
1:A:3144:LYS:HA	1:A:3152:ARG:HH22	1.63	0.63
1:B:4668:GLU:OE2	1:B:4674:LYS:NZ	2.31	0.63
1:C:4668:GLU:OE2	1:C:4674:LYS:NZ	2.31	0.63
1:D:3490:ALA:HA	1:D:3493:LYS:HE2	1.79	0.63
1:A:2130:LEU:HD11	1:A:2170:THR:HG23	1.80	0.63
2:F:35:LYS:NZ	1:B:640:ARG:O	2.30	0.63
1:B:4518:LEU:HA	1:C:4809:MET:HG3	1.80	0.63
1:C:2787:TRP:CE3	1:C:2905:ARG:HA	2.33	0.63
1:B:503:ASP:HA	1:B:561:ARG:HH12	1.63	0.63
1:B:2130:LEU:HD11	1:B:2170:THR:HG23	1.80	0.63
1:B:4831:ILE:HG13	1:B:4843:ARG:HH21	1.63	0.63
1:A:4690:LYS:NZ	1:A:4691:ASP:OD1	2.31	0.63
1:C:70:GLU:OE2	1:C:122:ARG:NH1	2.31	0.63
1:C:4602:ARG:HH22	1:C:4627:LYS:HG2	1.61	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3144:LYS:HA	1:B:3152:ARG:HH22	1.63	0.63
1:B:4690:LYS:NZ	1:B:4691:ASP:OD1	2.31	0.63
1:A:1839:LEU:HD23	1:A:1842:ILE:HD11	1.80	0.63
1:A:2072:GLU:O	1:A:3660:ARG:NH1	2.32	0.63
1:A:4868:ASP:OD1	1:D:4874:ARG:NH1	2.31	0.63
1:C:879:GLU:HA	1:C:882:ARG:HG2	1.80	0.63
1:D:879:GLU:HA	1:D:882:ARG:HG2	1.80	0.63
1:D:2130:LEU:HD11	1:D:2170:THR:HG23	1.80	0.63
1:A:4859:LEU:O	1:A:4863:GLN:HG2	1.99	0.63
1:B:259:THR:OG1	1:B:390:LYS:NZ	2.31	0.63
1:B:2072:GLU:O	1:B:3660:ARG:NH1	2.31	0.63
1:D:259:THR:OG1	1:D:390:LYS:NZ	2.31	0.63
1:D:1839:LEU:HD23	1:D:1842:ILE:HD11	1.80	0.63
1:A:1058:LEU:HD21	1:A:1064:LEU:HD22	1.81	0.63
1:A:4668:GLU:OE2	1:A:4674:LYS:NZ	2.31	0.63
1:C:1598:ARG:NH2	1:C:1601:ASN:OD1	2.32	0.63
1:C:2072:GLU:O	1:C:3660:ARG:NH1	2.31	0.63
1:A:1598:ARG:NH2	1:A:1601:ASN:OD1	2.32	0.62
1:A:2314:GLU:OE2	1:A:3813:LYS:NZ	2.32	0.62
1:A:4518:LEU:HA	1:B:4809:MET:HG3	1.81	0.62
1:A:2787:TRP:CE3	1:A:2905:ARG:HA	2.33	0.62
3:I:106:LEU:HA	3:I:109:VAL:HG22	1.81	0.62
1:B:1839:LEU:HD23	1:B:1842:ILE:HD11	1.80	0.62
1:B:3016:ARG:HG2	1:B:3017:HIS:CD2	2.35	0.62
1:D:3144:LYS:HA	1:D:3152:ARG:HH22	1.63	0.62
2:G:35:LYS:NZ	1:C:640:ARG:O	2.32	0.62
3:J:48:GLU:HG3	3:J:76:LYS:HZ1	1.64	0.62
1:D:70:GLU:OE2	1:D:122:ARG:NH1	2.31	0.62
1:D:503:ASP:HA	1:D:561:ARG:HH12	1.63	0.62
1:D:3016:ARG:HG2	1:D:3017:HIS:CD2	2.34	0.62
1:A:76:ARG:HD3	1:D:3890:TRP:HB3	1.80	0.62
1:A:503:ASP:HA	1:A:561:ARG:HH12	1.63	0.62
1:A:1454:ASP:OD2	1:A:1461:ARG:NH2	2.31	0.62
1:A:2744:GLY:HA3	1:A:2756:LEU:HA	1.80	0.62
1:B:2736:LYS:NZ	1:B:2742:ILE:O	2.33	0.62
1:B:3293:GLY:H	1:B:3296:MET:HE1	1.64	0.62
1:C:3144:LYS:HA	1:C:3152:ARG:HH22	1.63	0.62
1:C:3701:ASP:OD2	1:C:3727:GLN:NE2	2.28	0.62
1:D:1058:LEU:HD21	1:D:1064:LEU:HD22	1.82	0.62
1:D:1598:ARG:NH2	1:D:1601:ASN:OD1	2.32	0.62
1:B:2744:GLY:HA3	1:B:2756:LEU:HA	1.80	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4859:LEU:O	1:D:4863:GLN:HG2	1.99	0.62
1:B:1456:GLY:O	1:B:1461:ARG:NH2	2.29	0.62
1:B:3235:MET:HB2	1:B:3299:LEU:HD11	1.82	0.62
1:D:2736:LYS:NZ	1:D:2742:ILE:O	2.33	0.62
1:D:2744:GLY:HA3	1:D:2756:LEU:HA	1.80	0.62
1:D:3235:MET:HB2	1:D:3299:LEU:HD11	1.82	0.62
1:B:2314:GLU:OE2	1:B:3813:LYS:NZ	2.32	0.62
1:B:2787:TRP:CE3	1:B:2905:ARG:HA	2.33	0.62
1:C:1058:LEU:HD21	1:C:1064:LEU:HD22	1.81	0.62
1:C:2736:LYS:NZ	1:C:2742:ILE:O	2.33	0.62
1:C:2744:GLY:HA3	1:C:2756:LEU:HA	1.81	0.62
1:C:3016:ARG:HG2	1:C:3017:HIS:CD2	2.35	0.62
1:D:2314:GLU:OE2	1:D:3813:LYS:NZ	2.32	0.62
1:A:3016:ARG:HG2	1:A:3017:HIS:CD2	2.35	0.62
1:C:4874:ARG:NH1	1:D:4868:ASP:OD1	2.33	0.62
1:D:898:ILE:HD11	1:D:972:LEU:HB3	1.82	0.62
1:D:1722:ASN:O	1:D:1919:ARG:NH2	2.33	0.62
3:L:106:LEU:HA	3:L:109:VAL:HG22	1.82	0.61
1:B:3425:ILE:HG22	1:B:3427:ASN:H	1.66	0.61
1:B:4859:LEU:O	1:B:4863:GLN:HG2	1.99	0.61
1:C:3425:ILE:HG22	1:C:3427:ASN:H	1.66	0.61
1:C:2130:LEU:HD11	1:C:2170:THR:HG23	1.80	0.61
3:I:32:GLU:O	3:I:36:VAL:HG13	2.00	0.61
3:J:32:GLU:O	3:J:36:VAL:HG13	2.00	0.61
1:B:1058:LEU:HD21	1:B:1064:LEU:HD22	1.81	0.61
1:B:1941:ARG:NH2	1:B:3609:TYR:O	2.34	0.61
1:C:3235:MET:HB2	1:C:3299:LEU:HD11	1.82	0.61
1:A:2736:LYS:NZ	1:A:2742:ILE:O	2.33	0.61
1:B:330:THR:HG23	1:B:366:VAL:HG22	1.83	0.61
1:B:2277:CYS:HB3	1:B:2280:LEU:HB2	1.83	0.61
2:H:58:LYS:HE2	2:H:81:VAL:HG12	1.83	0.61
1:A:3425:ILE:HG22	1:A:3427:ASN:H	1.66	0.61
3:L:68:GLU:O	3:L:72:MET:HG2	2.01	0.61
1:B:898:ILE:HD11	1:B:972:LEU:HB3	1.82	0.61
1:B:3890:TRP:HB3	1:C:76:ARG:HD3	1.81	0.61
1:C:2314:GLU:OE2	1:C:3813:LYS:NZ	2.32	0.61
1:A:1722:ASN:O	1:A:1919:ARG:NH2	2.33	0.61
1:A:1967:SER:O	1:A:1972:GLN:NE2	2.33	0.61
1:A:3235:MET:HB2	1:A:3299:LEU:HD11	1.82	0.61
3:I:68:GLU:O	3:I:72:MET:HG2	2.01	0.61
1:B:2794:GLU:O	1:B:2798:MET:HB2	2.00	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2794:GLU:O	1:D:2798:MET:HB2	2.00	0.61
1:A:1456:GLY:O	1:A:1461:ARG:NH2	2.29	0.61
1:A:2794:GLU:O	1:A:2798:MET:HB2	2.00	0.61
1:B:919:VAL:HG13	1:B:923:LYS:HE3	1.83	0.61
1:B:1967:SER:O	1:B:1972:GLN:NE2	2.33	0.61
1:C:4859:LEU:O	1:C:4863:GLN:HG2	1.99	0.61
3:K:14:LYS:HE2	1:C:2151:ASN:O	2.01	0.61
3:K:32:GLU:O	3:K:36:VAL:HG13	2.00	0.61
3:K:106:LEU:HA	3:K:109:VAL:HG22	1.81	0.61
1:C:1941:ARG:NH2	1:C:3609:TYR:O	2.34	0.61
1:C:2794:GLU:O	1:C:2798:MET:HB2	2.00	0.61
1:D:3425:ILE:HG22	1:D:3427:ASN:H	1.65	0.61
1:A:3122:ILE:HG22	1:A:3127:GLN:HG2	1.83	0.60
2:E:58:LYS:HE2	2:E:81:VAL:HG12	1.83	0.60
3:J:106:LEU:HA	3:J:109:VAL:HG22	1.81	0.60
3:K:68:GLU:O	3:K:72:MET:HG2	2.01	0.60
1:B:1722:ASN:O	1:B:1919:ARG:NH2	2.33	0.60
1:C:919:VAL:HG13	1:C:923:LYS:HE3	1.83	0.60
1:A:1989:PRO:HD2	1:A:1992:ILE:HD12	1.83	0.60
1:A:3188:SER:OG	1:A:3191:GLU:OE1	2.20	0.60
3:I:48:GLU:HG3	3:I:76:LYS:HZ1	1.66	0.60
1:B:541:ILE:HD11	1:B:574:VAL:HG13	1.84	0.60
1:B:1598:ARG:NH2	1:B:1601:ASN:OD1	2.32	0.60
1:B:4275:THR:HG22	1:B:4278:ASP:H	1.66	0.60
1:C:1989:PRO:HD2	1:C:1992:ILE:HD12	1.83	0.60
1:C:2834:SER:H	1:C:2837:LEU:HD12	1.66	0.60
1:C:3122:ILE:HG22	1:C:3127:GLN:HG2	1.83	0.60
1:C:3205:CYS:HB2	1:C:3208:ILE:HD13	1.83	0.60
1:A:898:ILE:HD11	1:A:972:LEU:HB3	1.82	0.60
1:A:1911:GLN:OE1	1:A:2090:ARG:NH1	2.34	0.60
3:L:32:GLU:O	3:L:36:VAL:HG13	2.00	0.60
1:C:2720:PHE:HB2	1:C:2901:TYR:HE2	1.66	0.60
1:C:3890:TRP:HB3	1:D:76:ARG:HD3	1.83	0.60
1:D:1941:ARG:NH2	1:D:3609:TYR:O	2.34	0.60
1:C:541:ILE:HD11	1:C:574:VAL:HG13	1.84	0.60
1:C:898:ILE:HD11	1:C:972:LEU:HB3	1.82	0.60
3:J:68:GLU:O	3:J:72:MET:HG2	2.01	0.60
1:C:3188:SER:OG	1:C:3191:GLU:OE1	2.20	0.60
1:D:2277:CYS:HB3	1:D:2280:LEU:HB2	1.83	0.60
1:A:1941:ARG:NH2	1:A:3609:TYR:O	2.34	0.60
1:B:2744:GLY:H	1:B:2757:MET:HE1	1.67	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3188:SER:OG	1:B:3191:GLU:OE1	2.20	0.60
1:C:330:THR:HG23	1:C:366:VAL:HG22	1.82	0.60
1:D:3188:SER:OG	1:D:3191:GLU:OE1	2.20	0.60
2:F:58:LYS:HE2	2:F:81:VAL:HG12	1.83	0.60
1:B:3122:ILE:HG22	1:B:3127:GLN:HG2	1.83	0.60
1:C:2277:CYS:HB3	1:C:2280:LEU:HB2	1.83	0.60
1:A:2834:SER:H	1:A:2837:LEU:HD12	1.66	0.60
3:L:25:ASP:HA	3:L:28:ILE:HD11	1.84	0.60
1:B:1989:PRO:HD2	1:B:1992:ILE:HD12	1.83	0.60
1:C:1722:ASN:O	1:C:1919:ARG:NH2	2.33	0.60
1:D:2834:SER:H	1:D:2837:LEU:HD12	1.66	0.60
1:D:3205:CYS:HB2	1:D:3208:ILE:HD13	1.83	0.60
1:A:330:THR:HG23	1:A:366:VAL:HG22	1.82	0.60
1:A:919:VAL:HG13	1:A:923:LYS:HE3	1.83	0.60
1:A:2277:CYS:HB3	1:A:2280:LEU:HB2	1.83	0.60
2:E:26:HIS:CD2	2:E:105:LEU:HD11	2.37	0.60
1:B:272:ARG:O	1:B:299:HIS:NE2	2.33	0.60
1:B:2720:PHE:HB2	1:B:2901:TYR:HE2	1.67	0.60
1:A:2720:PHE:HB2	1:A:2901:TYR:HE2	1.66	0.60
1:A:3297:LYS:HD3	1:A:3425:ILE:HD11	1.84	0.60
1:A:3401:GLU:HA	1:A:3404:ILE:HG12	1.84	0.60
3:I:25:ASP:HA	3:I:28:ILE:HD11	1.84	0.60
1:B:3701:ASP:OD2	1:B:3727:GLN:NE2	2.28	0.60
1:D:3297:LYS:HD3	1:D:3425:ILE:HD11	1.84	0.60
1:D:3401:GLU:HA	1:D:3404:ILE:HG12	1.84	0.60
1:A:541:ILE:HD11	1:A:574:VAL:HG13	1.84	0.59
1:A:3140:LEU:HB3	1:A:3155:LEU:HD13	1.84	0.59
2:F:26:HIS:CD2	2:F:105:LEU:HD11	2.37	0.59
3:J:25:ASP:HA	3:J:28:ILE:HD11	1.84	0.59
1:C:885:LEU:O	1:C:889:ILE:HG13	2.02	0.59
1:D:1989:PRO:HD2	1:D:1992:ILE:HD12	1.83	0.59
1:D:2720:PHE:HB2	1:D:2901:TYR:HE2	1.67	0.59
1:A:4275:THR:HG22	1:A:4278:ASP:H	1.66	0.59
2:G:58:LYS:HE2	2:G:81:VAL:HG12	1.83	0.59
1:B:3205:CYS:HB2	1:B:3208:ILE:HD13	1.83	0.59
1:B:3401:GLU:HA	1:B:3404:ILE:HG12	1.84	0.59
1:B:3509:ILE:O	1:B:3513:ILE:HG23	2.02	0.59
1:D:885:LEU:O	1:D:889:ILE:HG13	2.02	0.59
1:B:3297:LYS:HD3	1:B:3425:ILE:HD11	1.84	0.59
1:C:3297:LYS:HD3	1:C:3425:ILE:HD11	1.84	0.59
1:A:885:LEU:O	1:A:889:ILE:HG13	2.02	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:35:LYS:NZ	1:D:640:ARG:O	2.35	0.59
1:B:885:LEU:O	1:B:889:ILE:HG13	2.02	0.59
1:C:3401:GLU:HA	1:C:3404:ILE:HG12	1.84	0.59
1:D:919:VAL:HG13	1:D:923:LYS:HE3	1.83	0.59
2:G:26:HIS:CD2	2:G:105:LEU:HD11	2.37	0.59
3:K:25:ASP:HA	3:K:28:ILE:HD11	1.84	0.59
1:C:4275:THR:HG22	1:C:4278:ASP:H	1.66	0.59
1:D:541:ILE:HD11	1:D:574:VAL:HG13	1.84	0.59
1:A:888:ASN:ND2	1:A:1056:THR:HG21	2.18	0.59
1:A:3489:ILE:HG22	1:A:3493:LYS:HZ3	1.67	0.59
1:A:4874:ARG:NH1	1:B:4868:ASP:OD1	2.36	0.59
1:B:2834:SER:H	1:B:2837:LEU:HD12	1.66	0.59
1:D:1967:SER:O	1:D:1972:GLN:NE2	2.33	0.59
1:B:3140:LEU:HB3	1:B:3155:LEU:HD13	1.84	0.59
1:C:3509:ILE:O	1:C:3513:ILE:HG23	2.02	0.59
1:D:3122:ILE:HG22	1:D:3127:GLN:HG2	1.83	0.59
1:D:1766:PRO:HG3	1:D:1780:PRO:HB3	1.84	0.59
1:A:558:LEU:HG	1:A:571:ILE:HG23	1.84	0.59
1:A:3509:ILE:O	1:A:3513:ILE:HG23	2.02	0.59
2:H:26:HIS:CD2	2:H:105:LEU:HD11	2.37	0.59
1:D:3119:GLU:OE2	1:D:3248:ARG:NH2	2.36	0.59
1:A:891:GLU:HB3	1:A:978:PRO:HB3	1.85	0.59
1:C:868:ASP:HB3	1:C:871:GLN:HE22	1.68	0.59
1:C:2252:GLU:HG2	1:C:3819:MET:SD	2.43	0.59
1:C:3140:LEU:HB3	1:C:3155:LEU:HD13	1.84	0.59
1:D:330:THR:HG23	1:D:366:VAL:HG22	1.82	0.59
1:D:3349:SER:HA	1:D:3352:GLU:HG3	1.85	0.59
1:D:3406:TRP:NE1	1:D:3466:ILE:HD13	2.18	0.59
1:D:3509:ILE:O	1:D:3513:ILE:HG23	2.02	0.59
1:A:934:GLN:HA	1:A:937:LEU:HG	1.85	0.58
2:F:3:VAL:HA	2:F:76:THR:O	2.03	0.58
2:G:3:VAL:HA	2:G:76:THR:O	2.03	0.58
1:C:114:LEU:HB2	1:C:117:HIS:CD2	2.38	0.58
1:C:934:GLN:HA	1:C:937:LEU:HG	1.85	0.58
1:D:558:LEU:HG	1:D:571:ILE:HG23	1.84	0.58
1:D:891:GLU:HB3	1:D:978:PRO:HB3	1.85	0.58
1:A:4809:MET:HG3	1:D:4518:LEU:HA	1.84	0.58
1:B:3222:ALA:H	1:B:3226:ILE:HG12	1.68	0.58
1:C:3119:GLU:OE2	1:C:3248:ARG:NH2	2.36	0.58
1:B:558:LEU:HG	1:B:571:ILE:HG23	1.84	0.58
1:B:888:ASN:ND2	1:B:1056:THR:HG21	2.18	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:934:GLN:HA	1:B:937:LEU:HG	1.85	0.58
1:B:1766:PRO:HG3	1:B:1780:PRO:HB3	1.84	0.58
1:B:3349:SER:HA	1:B:3352:GLU:HG3	1.85	0.58
1:C:908:ARG:HA	1:C:916:PRO:HG2	1.86	0.58
1:D:1911:GLN:OE1	1:D:2090:ARG:NH1	2.34	0.58
1:D:3701:ASP:OD2	1:D:3727:GLN:NE2	2.28	0.58
1:D:4275:THR:HG22	1:D:4278:ASP:H	1.66	0.58
1:A:114:LEU:HB2	1:A:117:HIS:CD2	2.38	0.58
1:A:2220:TYR:O	1:A:2224:ASN:ND2	2.32	0.58
1:A:3349:SER:HA	1:A:3352:GLU:HG3	1.85	0.58
3:L:49:LEU:O	3:L:53:ILE:HG23	2.04	0.58
1:B:3406:TRP:NE1	1:B:3466:ILE:HD13	2.18	0.58
1:C:3406:TRP:NE1	1:C:3466:ILE:HD13	2.19	0.58
1:D:934:GLN:HA	1:D:937:LEU:HG	1.85	0.58
1:D:1456:GLY:O	1:D:1461:ARG:NH2	2.29	0.58
1:D:2252:GLU:HG2	1:D:3819:MET:SD	2.43	0.58
1:D:3140:LEU:HB3	1:D:3155:LEU:HD13	1.84	0.58
1:A:1011:ARG:NH2	1:A:1014:GLN:OE1	2.37	0.58
1:A:3890:TRP:HB3	1:B:76:ARG:HD3	1.84	0.58
1:B:908:ARG:HA	1:B:916:PRO:HG2	1.85	0.58
1:C:1011:ARG:NH2	1:C:1014:GLN:OE1	2.37	0.58
1:C:3222:ALA:H	1:C:3226:ILE:HG12	1.69	0.58
1:D:114:LEU:HB2	1:D:117:HIS:CD2	2.38	0.58
1:D:888:ASN:ND2	1:D:1056:THR:HG21	2.18	0.58
1:A:503:ASP:OD1	1:A:561:ARG:NH2	2.32	0.58
1:A:3205:CYS:HB2	1:A:3208:ILE:HD13	1.83	0.58
1:B:114:LEU:HB2	1:B:117:HIS:CD2	2.38	0.58
1:B:335:LYS:NZ	1:B:398:HIS:O	2.37	0.58
1:C:558:LEU:HG	1:C:571:ILE:HG23	1.84	0.58
1:D:908:ARG:HA	1:D:916:PRO:HG2	1.86	0.58
2:E:3:VAL:HA	2:E:76:THR:O	2.03	0.58
1:C:2220:TYR:O	1:C:2224:ASN:ND2	2.32	0.58
1:A:335:LYS:NZ	1:A:398:HIS:O	2.37	0.58
3:L:35:THR:OG1	3:L:38:ARG:NH2	2.37	0.58
1:B:2982:PHE:O	1:B:3001:LYS:NZ	2.37	0.58
1:A:908:ARG:HA	1:A:916:PRO:HG2	1.86	0.58
1:A:1766:PRO:HG3	1:A:1780:PRO:HB3	1.84	0.58
1:A:1785:ASP:OD1	1:A:1786:ILE:N	2.37	0.58
1:A:3406:TRP:NE1	1:A:3466:ILE:HD13	2.19	0.58
2:H:3:VAL:HA	2:H:76:THR:O	2.03	0.58
3:I:35:THR:OG1	3:I:38:ARG:NH2	2.37	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:868:ASP:HB3	1:B:871:GLN:HE22	1.68	0.58
1:C:888:ASN:ND2	1:C:1056:THR:HG21	2.18	0.58
1:C:1766:PRO:HG3	1:C:1780:PRO:HB3	1.84	0.58
1:C:2744:GLY:H	1:C:2757:MET:HE1	1.69	0.58
1:C:3349:SER:HA	1:C:3352:GLU:HG3	1.85	0.58
1:D:527:LYS:NZ	1:D:531:ASN:OD1	2.36	0.58
3:J:35:THR:OG1	3:J:38:ARG:NH2	2.37	0.58
1:B:419:ILE:HG21	1:B:492:GLU:HG3	1.86	0.58
1:C:891:GLU:HB3	1:C:978:PRO:HB3	1.85	0.58
1:D:4806:CYS:HA	1:D:4812:CYS:HB2	1.86	0.58
1:A:3184:TYR:HA	1:A:3192:ARG:NH1	2.19	0.57
1:C:3134:LEU:HB2	1:C:3162:PHE:CE2	2.39	0.57
1:A:2252:GLU:HG2	1:A:3819:MET:SD	2.43	0.57
1:A:2744:GLY:H	1:A:2757:MET:HE1	1.68	0.57
3:I:49:LEU:O	3:I:53:ILE:HG23	2.04	0.57
3:K:49:LEU:O	3:K:53:ILE:HG23	2.04	0.57
1:B:1785:ASP:OD1	1:B:1786:ILE:N	2.37	0.57
1:B:1964:GLU:HA	1:B:1975:MET:HE1	1.86	0.57
1:C:2792:THR:HG22	1:C:2795:GLY:H	1.69	0.57
1:C:3650:GLU:O	1:C:3653:GLU:HG2	2.04	0.57
1:D:335:LYS:NZ	1:D:398:HIS:O	2.37	0.57
1:D:419:ILE:HG21	1:D:492:GLU:HG3	1.86	0.57
1:A:3222:ALA:H	1:A:3226:ILE:HG12	1.69	0.57
3:K:35:THR:OG1	3:K:38:ARG:NH2	2.37	0.57
1:B:2220:TYR:O	1:B:2224:ASN:ND2	2.32	0.57
1:B:2252:GLU:HG2	1:B:3819:MET:SD	2.43	0.57
1:D:868:ASP:HB3	1:D:871:GLN:HE22	1.68	0.57
1:D:2982:PHE:O	1:D:3001:LYS:NZ	2.37	0.57
1:D:3315:LEU:HA	1:D:3319:PHE:CD2	2.39	0.57
1:A:2790:GLU:HG3	1:A:2902:ALA:HB3	1.87	0.57
1:A:2982:PHE:O	1:A:3001:LYS:NZ	2.37	0.57
1:A:3119:GLU:OE2	1:A:3248:ARG:NH2	2.35	0.57
3:J:49:LEU:O	3:J:53:ILE:HG23	2.04	0.57
1:B:2792:THR:HG22	1:B:2795:GLY:H	1.69	0.57
1:C:419:ILE:HG21	1:C:492:GLU:HG3	1.86	0.57
1:C:1964:GLU:HA	1:C:1975:MET:HE1	1.86	0.57
1:A:3134:LEU:HB2	1:A:3162:PHE:CE2	2.39	0.57
1:A:3240:PRO:HB3	1:A:3302:PHE:CD1	2.40	0.57
1:B:3119:GLU:OE2	1:B:3248:ARG:NH2	2.36	0.57
1:B:3489:ILE:HD11	1:B:3551:VAL:HG22	1.86	0.57
1:C:527:LYS:NZ	1:C:531:ASN:OD1	2.36	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2521:CYS:HA	1:C:2525:LEU:HD12	1.87	0.57
1:C:3553:ASP:OD1	1:C:3554:ILE:N	2.38	0.57
1:D:3184:TYR:HA	1:D:3192:ARG:NH1	2.19	0.57
1:D:4622:SER:OG	1:D:4624:ASP:OD1	2.19	0.57
1:A:1966:ARG:HG3	3:I:113:LEU:HD13	1.85	0.57
1:A:3553:ASP:OD1	1:A:3554:ILE:N	2.38	0.57
2:F:25:VAL:HG12	2:F:104:LEU:HA	1.87	0.57
1:B:1011:ARG:NH2	1:B:1014:GLN:OE1	2.37	0.57
1:B:1911:GLN:OE1	1:B:2090:ARG:NH1	2.34	0.57
1:B:2521:CYS:HA	1:B:2525:LEU:HD12	1.87	0.57
1:B:2790:GLU:HG3	1:B:2902:ALA:HB3	1.87	0.57
1:B:3315:LEU:HA	1:B:3319:PHE:CD2	2.39	0.57
1:C:75:VAL:O	1:C:79:GLN:NE2	2.38	0.57
1:D:1011:ARG:NH2	1:D:1014:GLN:OE1	2.37	0.57
1:D:3222:ALA:H	1:D:3226:ILE:HG12	1.69	0.57
1:D:3246:MET:SD	1:D:3276:LEU:HD13	2.45	0.57
1:A:527:LYS:NZ	1:A:531:ASN:OD1	2.36	0.57
1:A:4806:CYS:HA	1:A:4812:CYS:HB2	1.86	0.57
1:B:891:GLU:HB3	1:B:978:PRO:HB3	1.85	0.57
1:B:3240:PRO:HB3	1:B:3302:PHE:CD1	2.40	0.57
1:B:4874:ARG:NH1	1:C:4868:ASP:OD1	2.36	0.57
1:C:1911:GLN:OE1	1:C:2090:ARG:NH1	2.34	0.57
1:C:3184:TYR:HA	1:C:3192:ARG:NH1	2.19	0.57
1:D:3134:LEU:HB2	1:D:3162:PHE:CE2	2.39	0.57
1:D:3553:ASP:OD1	1:D:3554:ILE:N	2.38	0.57
1:A:868:ASP:HB3	1:A:871:GLN:HE22	1.68	0.57
1:B:3134:LEU:HB2	1:B:3162:PHE:CE2	2.39	0.57
1:C:3246:MET:SD	1:C:3276:LEU:HD13	2.45	0.57
1:D:3240:PRO:HB3	1:D:3302:PHE:CD1	2.40	0.57
1:A:3259:GLU:O	1:A:3260:ARG:HD3	2.05	0.57
1:A:3488:LEU:HA	1:A:3491:LEU:CD2	2.35	0.57
1:C:335:LYS:NZ	1:C:398:HIS:O	2.37	0.57
1:D:3650:GLU:O	1:D:3653:GLU:HG2	2.04	0.57
2:G:25:VAL:HG12	2:G:104:LEU:HA	1.87	0.56
1:B:3184:TYR:HA	1:B:3192:ARG:NH1	2.19	0.56
1:B:3221:LEU:HA	1:B:3226:ILE:HD11	1.87	0.56
1:B:3246:MET:SD	1:B:3276:LEU:HD13	2.45	0.56
1:C:2982:PHE:O	1:C:3001:LYS:NZ	2.37	0.56
1:D:75:VAL:O	1:D:79:GLN:NE2	2.38	0.56
1:D:1785:ASP:OD1	1:D:1786:ILE:N	2.37	0.56
1:D:2521:CYS:HA	1:D:2525:LEU:HD12	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2792:THR:HG22	1:A:2795:GLY:H	1.69	0.56
1:A:3246:MET:SD	1:A:3276:LEU:HD13	2.45	0.56
1:B:75:VAL:O	1:B:79:GLN:NE2	2.38	0.56
1:B:801:ARG:HG2	1:B:1618:LEU:HA	1.87	0.56
1:B:3013:VAL:O	1:B:3018:ARG:NH2	2.38	0.56
1:B:3553:ASP:OD1	1:B:3554:ILE:N	2.38	0.56
1:C:3240:PRO:HB3	1:C:3302:PHE:CD1	2.40	0.56
1:C:3315:LEU:HA	1:C:3319:PHE:CD2	2.39	0.56
1:D:272:ARG:O	1:D:299:HIS:NE2	2.33	0.56
1:D:2792:THR:HG22	1:D:2795:GLY:H	1.69	0.56
1:A:419:ILE:HG21	1:A:492:GLU:HG3	1.86	0.56
1:A:2521:CYS:HA	1:A:2525:LEU:HD12	1.87	0.56
1:A:3124:GLU:HA	1:A:3183:ILE:HD13	1.87	0.56
1:A:3650:GLU:O	1:A:3653:GLU:HG2	2.04	0.56
1:A:4019:MET:O	1:A:4058:TYR:OH	2.24	0.56
3:L:45:THR:OG1	3:L:48:GLU:OE1	2.19	0.56
1:B:879:GLU:O	1:B:882:ARG:HG2	2.05	0.56
1:B:3488:LEU:HA	1:B:3491:LEU:CD2	2.35	0.56
1:B:3650:GLU:O	1:B:3653:GLU:HG2	2.04	0.56
1:C:272:ARG:O	1:C:299:HIS:NE2	2.33	0.56
1:C:2790:GLU:HG3	1:C:2902:ALA:HB3	1.87	0.56
1:D:2057:THR:HB	1:D:2060:GLN:HG3	1.87	0.56
1:D:3013:VAL:O	1:D:3018:ARG:NH2	2.38	0.56
1:D:3259:GLU:O	1:D:3260:ARG:HD3	2.05	0.56
1:D:3489:ILE:HD11	1:D:3551:VAL:HG22	1.86	0.56
1:A:3221:LEU:HA	1:A:3226:ILE:HD11	1.87	0.56
1:B:335:LYS:NZ	1:B:401:ASP:OD2	2.31	0.56
1:C:879:GLU:O	1:C:882:ARG:HG2	2.05	0.56
1:C:4806:CYS:HA	1:C:4812:CYS:HB2	1.86	0.56
1:D:2744:GLY:H	1:D:2757:MET:HE1	1.70	0.56
1:A:1124:PRO:HD2	1:A:1594:VAL:HG13	1.87	0.56
1:B:1986:CYS:O	1:B:1993:ARG:NH2	2.39	0.56
1:B:4806:CYS:HA	1:B:4812:CYS:HB2	1.86	0.56
1:D:801:ARG:HG2	1:D:1618:LEU:HA	1.87	0.56
1:D:1124:PRO:HD2	1:D:1594:VAL:HG13	1.88	0.56
1:D:4266:LYS:HA	1:D:4269:LYS:HE2	1.88	0.56
1:A:75:VAL:O	1:A:79:GLN:NE2	2.38	0.56
3:I:143:VAL:HA	3:I:146:MET:SD	2.46	0.56
1:B:4274:MET:SD	1:B:4276:VAL:HG13	2.46	0.56
1:C:3221:LEU:HA	1:C:3226:ILE:HD11	1.87	0.56
1:C:3333:VAL:HG21	1:C:3362:LEU:HD22	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3489:ILE:HD11	1:C:3551:VAL:HG22	1.86	0.56
1:D:3488:LEU:HA	1:D:3491:LEU:CD2	2.35	0.56
1:A:801:ARG:HG2	1:A:1618:LEU:HA	1.87	0.56
1:A:833:LYS:NZ	1:A:835:GLU:OE1	2.37	0.56
3:J:45:THR:OG1	3:J:48:GLU:OE1	2.19	0.56
1:B:503:ASP:OD1	1:B:561:ARG:NH2	2.32	0.56
1:B:3495:ARG:HA	1:B:3498:LEU:HG	1.88	0.56
1:B:4607:ALA:HB1	1:B:4649:VAL:HG21	1.87	0.56
1:C:2057:THR:HB	1:C:2060:GLN:HG3	1.87	0.56
1:C:3495:ARG:HA	1:C:3498:LEU:HG	1.88	0.56
1:D:833:LYS:NZ	1:D:835:GLU:OE1	2.37	0.56
1:D:2790:GLU:HG3	1:D:2902:ALA:HB3	1.87	0.56
2:G:50:ARG:HE	2:G:53:LYS:HG3	1.71	0.56
2:H:50:ARG:HE	2:H:53:LYS:HG3	1.71	0.56
3:J:143:VAL:HA	3:J:146:MET:SD	2.46	0.56
1:B:2742:ILE:H	1:B:2742:ILE:HD12	1.71	0.56
1:B:2846:GLU:O	1:B:2850:ASN:ND2	2.35	0.56
1:D:849:ASP:OD1	1:D:1214:ARG:NE	2.39	0.56
1:D:4607:ALA:HB1	1:D:4649:VAL:HG21	1.87	0.56
1:A:4266:LYS:HA	1:A:4269:LYS:HE2	1.88	0.56
1:B:290:ARG:HD2	1:B:343:ARG:HD2	1.87	0.56
1:C:335:LYS:NZ	1:C:401:ASP:OD2	2.31	0.56
1:C:801:ARG:HG2	1:C:1618:LEU:HA	1.87	0.56
1:C:1986:CYS:O	1:C:1993:ARG:NH2	2.39	0.56
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.06	0.56
1:A:879:GLU:O	1:A:882:ARG:HG2	2.05	0.56
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.06	0.56
1:A:3489:ILE:HD11	1:A:3551:VAL:HG22	1.86	0.56
2:E:25:VAL:HG12	2:E:104:LEU:HA	1.87	0.56
1:C:1967:SER:O	1:C:1972:GLN:NE2	2.33	0.56
1:D:4274:MET:SD	1:D:4276:VAL:HG13	2.46	0.56
1:D:4502:MET:HE1	1:D:4585:PHE:HB3	1.88	0.56
1:A:3315:LEU:HA	1:A:3319:PHE:CD2	2.39	0.55
1:B:77:ALA:O	1:B:81:MET:HG2	2.07	0.55
1:B:3259:GLU:O	1:B:3260:ARG:HD3	2.05	0.55
1:C:2251:ASN:HD22	1:C:3817:LEU:HD13	1.72	0.55
1:C:3259:GLU:O	1:C:3260:ARG:HD3	2.05	0.55
1:C:3377:VAL:O	1:C:3381:ARG:HB2	2.07	0.55
1:C:4274:MET:SD	1:C:4276:VAL:HG13	2.46	0.55
1:D:1986:CYS:O	1:D:1993:ARG:NH2	2.39	0.55
1:D:2846:GLU:O	1:D:2850:ASN:ND2	2.35	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4831:ILE:HG13	1:A:4843:ARG:NH2	2.22	0.55
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.06	0.55
1:C:833:LYS:NZ	1:C:835:GLU:OE1	2.37	0.55
1:C:2742:ILE:H	1:C:2742:ILE:HD12	1.71	0.55
1:C:3488:LEU:HA	1:C:3491:LEU:CD2	2.35	0.55
1:D:77:ALA:O	1:D:81:MET:HG2	2.07	0.55
1:D:879:GLU:O	1:D:882:ARG:HG2	2.05	0.55
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.06	0.55
1:D:2251:ASN:HD22	1:D:3817:LEU:HD13	1.72	0.55
1:D:3377:VAL:O	1:D:3381:ARG:HB2	2.07	0.55
1:A:227:TYR:CG	1:A:352:SER:HB2	2.42	0.55
1:A:2285:TYR:OH	1:A:2380:ASP:O	2.22	0.55
1:A:3377:VAL:O	1:A:3381:ARG:HB2	2.07	0.55
1:A:3701:ASP:OD2	1:A:3727:GLN:NE2	2.28	0.55
1:A:4520:TYR:CE2	1:A:4559:TYR:HB3	2.42	0.55
1:B:527:LYS:NZ	1:B:531:ASN:OD1	2.36	0.55
1:B:849:ASP:OD1	1:B:1214:ARG:NE	2.39	0.55
1:B:3124:GLU:HA	1:B:3183:ILE:HD13	1.87	0.55
1:C:77:ALA:O	1:C:81:MET:HG2	2.07	0.55
1:D:164:PRO:HB3	1:D:169:ARG:HB2	1.88	0.55
1:D:290:ARG:HD2	1:D:343:ARG:HD2	1.87	0.55
1:D:411:GLU:OE2	1:D:485:ARG:NE	2.38	0.55
1:D:1964:GLU:HA	1:D:1975:MET:HE1	1.87	0.55
1:D:2742:ILE:HD12	1:D:2742:ILE:H	1.71	0.55
1:A:849:ASP:OD1	1:A:1214:ARG:NE	2.39	0.55
1:A:3013:VAL:O	1:A:3018:ARG:NH2	2.38	0.55
1:A:4607:ALA:HB1	1:A:4649:VAL:HG21	1.87	0.55
1:B:4831:ILE:HG13	1:B:4843:ARG:NH2	2.22	0.55
1:C:706:TYR:OH	1:C:712:GLU:OE1	2.24	0.55
1:C:3124:GLU:HA	1:C:3183:ILE:HD13	1.87	0.55
1:D:227:TYR:CG	1:D:352:SER:HB2	2.42	0.55
1:D:3221:LEU:HA	1:D:3226:ILE:HD11	1.87	0.55
1:A:1986:CYS:O	1:A:1993:ARG:NH2	2.39	0.55
1:A:2057:THR:HB	1:A:2060:GLN:HG3	1.87	0.55
1:A:2736:LYS:HE2	1:A:2741:TRP:HB3	1.89	0.55
1:A:2742:ILE:HD12	1:A:2742:ILE:H	1.71	0.55
2:H:25:VAL:HG12	2:H:104:LEU:HA	1.87	0.55
1:B:3377:VAL:O	1:B:3381:ARG:HB2	2.07	0.55
1:D:3124:GLU:HA	1:D:3183:ILE:HD13	1.87	0.55
1:A:229:ILE:HG22	1:A:288:HIS:HD2	1.72	0.55
1:A:4274:MET:SD	1:A:4276:VAL:HG13	2.46	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:227:TYR:CG	1:C:352:SER:HB2	2.42	0.55
1:C:1785:ASP:OD1	1:C:1786:ILE:N	2.37	0.55
1:B:164:PRO:HB3	1:B:169:ARG:HB2	1.88	0.55
1:B:3333:VAL:HG21	1:B:3362:LEU:HD22	1.88	0.55
1:B:4520:TYR:CE2	1:B:4559:TYR:HB3	2.42	0.55
1:C:503:ASP:OD1	1:C:561:ARG:NH2	2.32	0.55
1:D:4019:MET:O	1:D:4058:TYR:OH	2.23	0.55
1:A:3728:GLN:OE1	1:A:3770:ASN:ND2	2.38	0.55
2:F:50:ARG:HE	2:F:53:LYS:HG3	1.71	0.55
1:B:2736:LYS:HE2	1:B:2741:TRP:HB3	1.89	0.55
1:C:2984:SER:O	1:C:3001:LYS:NZ	2.33	0.55
1:C:3013:VAL:O	1:C:3018:ARG:NH2	2.38	0.55
1:D:3495:ARG:HA	1:D:3498:LEU:HG	1.88	0.55
1:A:957:ALA:HA	1:A:960:LYS:HG2	1.89	0.55
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.07	0.55
1:A:2984:SER:O	1:A:3001:LYS:NZ	2.33	0.55
1:B:4266:LYS:HA	1:B:4269:LYS:HE2	1.88	0.55
1:C:924:LEU:HD22	1:C:929:ARG:HB2	1.89	0.55
1:C:1124:PRO:HD2	1:C:1594:VAL:HG13	1.87	0.55
1:A:164:PRO:HB3	1:A:169:ARG:HB2	1.88	0.55
1:A:272:ARG:O	1:A:299:HIS:NE2	2.33	0.55
1:A:924:LEU:HD22	1:A:929:ARG:HB2	1.89	0.55
1:A:2251:ASN:HD22	1:A:3817:LEU:HD13	1.72	0.55
2:E:50:ARG:HE	2:E:53:LYS:HG3	1.71	0.55
3:K:143:VAL:HA	3:K:146:MET:SD	2.46	0.55
3:L:143:VAL:HA	3:L:146:MET:SD	2.46	0.55
1:B:1124:PRO:HD2	1:B:1594:VAL:HG13	1.87	0.55
1:B:2251:ASN:HD22	1:B:3817:LEU:HD13	1.72	0.55
1:C:290:ARG:HD2	1:C:343:ARG:HD2	1.87	0.55
1:C:4502:MET:HE1	1:C:4585:PHE:HB3	1.89	0.55
1:C:4266:LYS:HA	1:C:4269:LYS:HE2	1.88	0.54
1:C:4831:ILE:HG13	1:C:4843:ARG:NH2	2.22	0.54
1:A:290:ARG:HD2	1:A:343:ARG:HD2	1.87	0.54
1:A:3495:ARG:HA	1:A:3498:LEU:HG	1.88	0.54
1:B:229:ILE:HG22	1:B:288:HIS:HD2	1.72	0.54
1:C:4607:ALA:HB1	1:C:4649:VAL:HG21	1.87	0.54
1:D:957:ALA:HA	1:D:960:LYS:HG2	1.89	0.54
1:D:2285:TYR:OH	1:D:2380:ASP:O	2.22	0.54
1:B:833:LYS:NZ	1:B:835:GLU:OE1	2.37	0.54
1:B:869:THR:HB	1:B:941:LYS:HE3	1.90	0.54
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.07	0.54
1:D:4831:ILE:HG13	1:D:4843:ARG:NH2	2.22	0.54
1:A:2954:PHE:HZ	1:A:2960:ILE:HG21	1.73	0.54
1:A:4819:VAL:HG12	1:A:4830:GLU:HG3	1.89	0.54
3:I:45:THR:OG1	3:I:48:GLU:OE1	2.19	0.54
1:B:227:TYR:CG	1:B:352:SER:HB2	2.42	0.54
1:B:2057:THR:HB	1:B:2060:GLN:HG3	1.87	0.54
1:B:2954:PHE:HZ	1:B:2960:ILE:HG21	1.73	0.54
1:C:3426:ASN:HB3	1:C:3429:SER:HB3	1.90	0.54
1:C:3728:GLN:OE1	1:C:3770:ASN:ND2	2.38	0.54
1:C:4622:SER:OG	1:C:4624:ASP:OD1	2.19	0.54
1:D:2220:TYR:O	1:D:2224:ASN:ND2	2.32	0.54
1:A:436:LEU:HD22	1:A:517:VAL:HG12	1.90	0.54
1:A:3333:VAL:HG21	1:A:3362:LEU:HD22	1.88	0.54
1:B:3426:ASN:HB3	1:B:3429:SER:HB3	1.90	0.54
1:C:436:LEU:HD22	1:C:517:VAL:HG12	1.90	0.54
1:C:869:THR:HB	1:C:941:LYS:HE3	1.90	0.54
1:C:4520:TYR:CE2	1:C:4559:TYR:HB3	2.42	0.54
1:D:706:TYR:OH	1:D:712:GLU:OE1	2.24	0.54
1:D:3333:VAL:HG21	1:D:3362:LEU:HD22	1.88	0.54
1:C:411:GLU:OE2	1:C:485:ARG:NE	2.37	0.54
1:C:1415:ASP:HB3	1:C:1561:LYS:HD3	1.89	0.54
1:C:3489:ILE:HG12	1:C:3551:VAL:HG13	1.90	0.54
1:D:163:HIS:HB2	1:D:182:ILE:HG13	1.90	0.54
1:D:1446:ILE:HG12	1:D:1542:ALA:HB2	1.90	0.54
1:D:2666:LEU:HD11	1:D:2969:PRO:HB2	1.90	0.54
1:D:2954:PHE:HZ	1:D:2960:ILE:HG21	1.73	0.54
1:D:3069:GLU:OE1	1:D:3132:ARG:NH2	2.40	0.54
1:D:4520:TYR:CE2	1:D:4559:TYR:HB3	2.42	0.54
1:A:77:ALA:O	1:A:81:MET:HG2	2.07	0.54
1:B:436:LEU:HD22	1:B:517:VAL:HG12	1.90	0.54
1:D:924:LEU:HD22	1:D:929:ARG:HB2	1.89	0.54
1:D:3215:MET:HE1	1:D:3276:LEU:HD12	1.88	0.54
1:D:3426:ASN:HB3	1:D:3429:SER:HB3	1.90	0.54
1:C:3292:GLU:HG2	1:C:3361:THR:HG22	1.89	0.54
1:D:711:GLU:OE1	1:D:716:ASN:ND2	2.41	0.54
1:D:869:THR:HB	1:D:941:LYS:HE3	1.90	0.54
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.07	0.54
1:A:1415:ASP:HB3	1:A:1561:LYS:HD3	1.89	0.54
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.90	0.54
1:B:924:LEU:HD22	1:B:929:ARG:HB2	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:163:HIS:HB2	1:C:182:ILE:HG13	1.90	0.54
1:D:644:LEU:HD13	1:D:1630:LEU:HD21	1.90	0.54
1:D:2736:LYS:HE2	1:D:2741:TRP:HB3	1.89	0.54
1:A:163:HIS:HB2	1:A:182:ILE:HG13	1.90	0.53
1:A:3292:GLU:HG2	1:A:3361:THR:HG22	1.89	0.53
1:A:4622:SER:OG	1:A:4624:ASP:OD1	2.19	0.53
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.90	0.53
1:C:164:PRO:HB3	1:C:169:ARG:HB2	1.88	0.53
1:C:1446:ILE:HG12	1:C:1542:ALA:HB2	1.90	0.53
1:D:983:LEU:HB2	1:D:1055:ARG:HH11	1.73	0.53
1:D:2482:ASP:OD1	1:D:2483:PHE:N	2.41	0.53
1:A:983:LEU:HB2	1:A:1055:ARG:HH11	1.73	0.53
1:A:3426:ASN:HB3	1:A:3429:SER:HB3	1.90	0.53
1:A:3489:ILE:HG12	1:A:3551:VAL:HG13	1.90	0.53
1:A:3958:LEU:HB2	1:A:3968:LEU:HD13	1.90	0.53
1:B:814:LEU:HD12	1:B:815:PRO:HD2	1.91	0.53
1:B:4819:VAL:HG12	1:B:4830:GLU:HG3	1.89	0.53
1:C:957:ALA:HA	1:C:960:LYS:HG2	1.89	0.53
1:C:2736:LYS:HE2	1:C:2741:TRP:HB3	1.89	0.53
1:C:4819:VAL:HG12	1:C:4830:GLU:HG3	1.89	0.53
1:D:192:LEU:O	1:D:212:TRP:NE1	2.30	0.53
1:D:229:ILE:HG22	1:D:288:HIS:HD2	1.72	0.53
1:A:3316:LYS:HB2	1:A:3391:GLU:HG2	1.91	0.53
1:C:2954:PHE:HZ	1:C:2960:ILE:HG21	1.73	0.53
1:D:4268:MET:HA	1:D:4271:VAL:HG12	1.91	0.53
1:D:4819:VAL:HG12	1:D:4830:GLU:HG3	1.89	0.53
1:A:814:LEU:HD12	1:A:815:PRO:HD2	1.91	0.53
1:B:3316:LYS:HB2	1:B:3391:GLU:HG2	1.91	0.53
1:C:229:ILE:HG22	1:C:288:HIS:HD2	1.72	0.53
1:C:2241:ASP:OD2	1:C:2297:ARG:NH2	2.42	0.53
1:C:4268:MET:HA	1:C:4271:VAL:HG12	1.91	0.53
1:D:875:PRO:HD2	1:D:878:LEU:HD12	1.90	0.53
1:D:1458:ASP:OD1	1:D:1461:ARG:NH1	2.42	0.53
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.90	0.53
1:A:644:LEU:HD13	1:A:1630:LEU:HD21	1.90	0.53
1:A:869:THR:HB	1:A:941:LYS:HE3	1.90	0.53
1:A:875:PRO:HD2	1:A:878:LEU:HD12	1.90	0.53
1:A:2666:LEU:HD11	1:A:2969:PRO:HB2	1.90	0.53
3:L:9:GLN:HA	3:L:12:GLU:HG3	1.91	0.53
1:B:163:HIS:HB2	1:B:182:ILE:HG13	1.90	0.53
1:B:957:ALA:HA	1:B:960:LYS:HG2	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1415:ASP:HB3	1:B:1561:LYS:HD3	1.89	0.53
1:B:3069:GLU:OE1	1:B:3132:ARG:NH2	2.40	0.53
1:C:814:LEU:HD12	1:C:815:PRO:HD2	1.91	0.53
1:D:814:LEU:HD12	1:D:815:PRO:HD2	1.90	0.53
1:D:2241:ASP:OD2	1:D:2297:ARG:NH2	2.42	0.53
1:D:3489:ILE:HG12	1:D:3551:VAL:HG13	1.90	0.53
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.41	0.53
1:A:2846:GLU:O	1:A:2850:ASN:ND2	2.35	0.53
1:B:1458:ASP:OD1	1:B:1461:ARG:NH1	2.42	0.53
1:B:3351:ALA:O	1:B:3355:ILE:HG12	2.09	0.53
1:B:3489:ILE:HG12	1:B:3551:VAL:HG13	1.90	0.53
1:C:644:LEU:HD13	1:C:1630:LEU:HD21	1.90	0.53
1:C:711:GLU:OE1	1:C:716:ASN:ND2	2.41	0.53
1:C:2482:ASP:OD1	1:C:2483:PHE:N	2.41	0.53
1:C:2666:LEU:HD11	1:C:2969:PRO:HB2	1.90	0.53
1:D:436:LEU:HD22	1:D:517:VAL:HG12	1.90	0.53
1:D:1415:ASP:HB3	1:D:1561:LYS:HD3	1.89	0.53
1:A:706:TYR:OH	1:A:712:GLU:OE1	2.24	0.53
1:A:2482:ASP:OD1	1:A:2483:PHE:N	2.41	0.53
3:K:9:GLN:HA	3:K:12:GLU:HG3	1.91	0.53
1:B:2581:ARG:HG2	1:B:2630:PHE:HE1	1.74	0.53
1:B:2929:LEU:HD13	1:B:2971:ILE:HG12	1.91	0.53
1:C:1458:ASP:OD1	1:C:1461:ARG:NH1	2.42	0.53
1:C:4019:MET:O	1:C:4058:TYR:OH	2.23	0.53
1:D:1009:ARG:HH11	1:D:1013:ARG:NH2	2.07	0.53
1:D:1894:LEU:HD22	1:D:2065:THR:HG21	1.90	0.53
1:D:3292:GLU:HG2	1:D:3361:THR:HG22	1.89	0.53
1:D:3316:LYS:HB2	1:D:3391:GLU:HG2	1.91	0.53
1:A:1458:ASP:OD1	1:A:1461:ARG:NH1	2.42	0.53
1:A:4268:MET:HA	1:A:4271:VAL:HG12	1.91	0.53
3:L:14:LYS:O	3:L:18:SER:OG	2.25	0.53
1:B:706:TYR:OH	1:B:712:GLU:OE1	2.24	0.53
1:B:983:LEU:HB2	1:B:1055:ARG:HH11	1.73	0.53
1:B:2984:SER:O	1:B:3001:LYS:NZ	2.33	0.53
1:B:4268:MET:HA	1:B:4271:VAL:HG12	1.91	0.53
1:C:3351:ALA:O	1:C:3355:ILE:HG12	2.09	0.53
1:A:2187:ILE:HG13	1:A:2227:VAL:HG13	1.91	0.53
3:K:14:LYS:HG2	1:C:2153:LYS:CG	2.39	0.53
1:B:2241:ASP:OD2	1:B:2297:ARG:NH2	2.42	0.53
1:B:3292:GLU:HG2	1:B:3361:THR:HG22	1.89	0.53
1:C:3308:ASN:CA	1:C:3375:ARG:HH12	2.22	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2581:ARG:HG2	1:D:2630:PHE:HE1	1.74	0.53
1:A:2937:HIS:O	1:A:2940:ILE:HG22	2.09	0.53
1:B:3308:ASN:CA	1:B:3375:ARG:HH12	2.22	0.53
1:B:3958:LEU:HB2	1:B:3968:LEU:HD13	1.90	0.53
1:C:983:LEU:HB2	1:C:1055:ARG:HH11	1.73	0.53
1:C:2846:GLU:O	1:C:2850:ASN:ND2	2.35	0.53
1:C:3316:LYS:HB2	1:C:3391:GLU:HG2	1.91	0.53
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.90	0.53
1:D:2187:ILE:HG13	1:D:2227:VAL:HG13	1.91	0.53
1:A:866:PRO:HG2	1:A:1009:ARG:HE	1.74	0.52
1:A:2241:ASP:OD2	1:A:2297:ARG:NH2	2.42	0.52
1:A:3351:ALA:O	1:A:3355:ILE:HG12	2.09	0.52
1:B:2285:TYR:OH	1:B:2380:ASP:O	2.22	0.52
1:B:3215:MET:HE1	1:B:3276:LEU:HD12	1.90	0.52
1:B:3385:LEU:HD21	1:C:1229:ILE:HA	1.91	0.52
1:C:875:PRO:HD2	1:C:878:LEU:HD12	1.90	0.52
1:D:2929:LEU:HD13	1:D:2971:ILE:HG12	1.91	0.52
1:D:3308:ASN:CA	1:D:3375:ARG:HH12	2.22	0.52
1:A:3556:ASN:OD1	1:A:3557:VAL:N	2.43	0.52
1:A:4502:MET:HE1	1:A:4585:PHE:HB3	1.91	0.52
1:A:4565:SER:HB2	1:A:4567:TYR:CE1	2.44	0.52
1:B:1009:ARG:HH11	1:B:1013:ARG:NH2	2.07	0.52
1:B:1446:ILE:HG12	1:B:1542:ALA:HB2	1.90	0.52
1:B:1751:ILE:HD11	1:B:1839:LEU:HB3	1.92	0.52
1:B:2187:ILE:HG13	1:B:2227:VAL:HG13	1.91	0.52
1:B:2482:ASP:OD1	1:B:2483:PHE:N	2.41	0.52
1:B:4019:MET:O	1:B:4058:TYR:OH	2.23	0.52
1:D:4565:SER:HB2	1:D:4567:TYR:CE1	2.44	0.52
1:A:1751:ILE:HD11	1:A:1839:LEU:HB3	1.92	0.52
3:L:131:ILE:HG21	1:D:3455:LYS:O	2.09	0.52
1:D:2937:HIS:O	1:D:2940:ILE:HG22	2.09	0.52
1:A:1446:ILE:HG12	1:A:1542:ALA:HB2	1.90	0.52
1:A:1495:SER:HB2	1:A:1496:PRO:CD	2.40	0.52
1:B:992:GLN:NE2	1:B:1051:ARG:HH22	2.07	0.52
1:B:1495:SER:HB2	1:B:1496:PRO:CD	2.40	0.52
1:B:3728:GLN:OE1	1:B:3770:ASN:ND2	2.38	0.52
1:C:4565:SER:HB2	1:C:4567:TYR:CE1	2.44	0.52
1:A:1894:LEU:HD22	1:A:2065:THR:HG21	1.90	0.52
1:A:3308:ASN:CA	1:A:3375:ARG:HH12	2.22	0.52
3:I:9:GLN:HA	3:I:12:GLU:HG3	1.91	0.52
3:K:45:THR:OG1	3:K:48:GLU:OE1	2.19	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:356:TYR:CE2	1:A:407:ARG:HB2	2.45	0.52
1:B:644:LEU:HD13	1:B:1630:LEU:HD21	1.91	0.52
1:C:1894:LEU:HD22	1:C:2065:THR:HG21	1.90	0.52
1:C:2285:TYR:OH	1:C:2380:ASP:O	2.22	0.52
1:D:4266:LYS:O	1:D:4270:LYS:NZ	2.35	0.52
1:A:2142:MET:SD	1:A:2174:VAL:HG11	2.50	0.52
1:B:356:TYR:CE2	1:B:407:ARG:HB2	2.45	0.52
1:B:875:PRO:HD2	1:B:878:LEU:HD12	1.90	0.52
1:B:2666:LEU:HD11	1:B:2969:PRO:HB2	1.90	0.52
1:C:1009:ARG:HH11	1:C:1013:ARG:NH2	2.07	0.52
1:C:3958:LEU:HB2	1:C:3968:LEU:HD13	1.90	0.52
1:D:3958:LEU:HB2	1:D:3968:LEU:HD13	1.90	0.52
1:B:1898:LEU:HD13	1:B:1902:VAL:HG12	1.92	0.52
1:B:2788:ARG:HG3	1:B:2904:SER:OG	2.10	0.52
1:C:254:GLU:HA	1:C:257:ARG:HB2	1.92	0.52
1:C:992:GLN:NE2	1:C:1051:ARG:HH22	2.07	0.52
1:C:1058:LEU:HD21	1:C:1064:LEU:CD2	2.40	0.52
1:C:2187:ILE:HG13	1:C:2227:VAL:HG13	1.91	0.52
1:C:2929:LEU:HD13	1:C:2971:ILE:HG12	1.91	0.52
1:D:254:GLU:HA	1:D:257:ARG:HB2	1.92	0.52
1:A:582:SER:OG	1:A:584:GLU:OE1	2.28	0.52
1:A:954:ASP:OD1	1:A:956:HIS:ND1	2.42	0.52
2:F:2:GLY:O	2:F:3:VAL:HG12	2.10	0.52
1:B:254:GLU:HA	1:B:257:ARG:HB2	1.92	0.52
1:C:356:TYR:CE2	1:C:407:ARG:HB2	2.45	0.52
1:C:1751:ILE:HD11	1:C:1839:LEU:HB3	1.92	0.52
1:C:2788:ARG:HG3	1:C:2904:SER:OG	2.10	0.52
1:C:2937:HIS:O	1:C:2940:ILE:HG22	2.09	0.52
1:C:2979:ARG:HG3	1:C:3039:THR:HG22	1.92	0.52
1:D:1751:ILE:HD11	1:D:1839:LEU:HB3	1.92	0.52
1:D:2142:MET:SD	1:D:2174:VAL:HG11	2.50	0.52
1:D:3033:LEU:HD13	1:D:3104:MET:SD	2.50	0.52
1:D:3556:ASN:OD1	1:D:3557:VAL:N	2.42	0.52
1:A:992:GLN:NE2	1:A:1051:ARG:HH22	2.07	0.52
1:A:3594:GLN:HG2	1:A:3594:GLN:O	2.10	0.52
1:A:3796:LEU:HD22	1:A:3835:PHE:HZ	1.75	0.52
3:J:9:GLN:HA	3:J:12:GLU:HG3	1.91	0.52
1:B:711:GLU:OE1	1:B:716:ASN:ND2	2.41	0.52
1:B:866:PRO:HG2	1:B:1009:ARG:HE	1.74	0.52
1:B:2235:ARG:HD2	1:B:2297:ARG:HH12	1.75	0.52
1:B:3355:ILE:HG22	1:B:3359:PHE:CE2	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:849:ASP:OD1	1:C:1214:ARG:NE	2.39	0.52
1:C:2581:ARG:HG2	1:C:2630:PHE:HE1	1.74	0.52
1:D:872:ILE:HD11	1:D:941:LYS:HB3	1.92	0.52
1:D:992:GLN:NE2	1:D:1051:ARG:HH22	2.07	0.52
1:D:1898:LEU:HD13	1:D:1902:VAL:HG12	1.92	0.52
1:D:2235:ARG:HD2	1:D:2297:ARG:HH12	1.75	0.52
1:A:2979:ARG:HG3	1:A:3039:THR:HG22	1.92	0.51
2:G:2:GLY:O	2:G:3:VAL:HG12	2.10	0.51
1:B:1894:LEU:HD22	1:B:2065:THR:HG21	1.90	0.51
1:B:2937:HIS:O	1:B:2940:ILE:HG22	2.09	0.51
1:B:3033:LEU:HD13	1:B:3104:MET:SD	2.50	0.51
1:B:3556:ASN:OD1	1:B:3557:VAL:N	2.43	0.51
1:C:3069:GLU:OE1	1:C:3132:ARG:NH2	2.40	0.51
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.11	0.51
1:D:503:ASP:OD1	1:D:561:ARG:NH2	2.32	0.51
1:D:1058:LEU:HD21	1:D:1064:LEU:CD2	2.40	0.51
1:D:1114:ARG:NH1	1:D:1128:LEU:O	2.40	0.51
1:A:2581:ARG:HG2	1:A:2630:PHE:HE1	1.74	0.51
1:A:2937:HIS:O	1:A:2941:LEU:HD12	2.11	0.51
1:A:4848:ILE:HD11	1:D:4818:TYR:HA	1.91	0.51
1:B:35:LEU:HD13	1:B:49:LEU:HD13	1.93	0.51
1:C:35:LEU:HD13	1:C:49:LEU:HD13	1.93	0.51
1:C:1293:GLN:CD	1:C:1294:ASN:H	2.13	0.51
1:C:3556:ASN:OD1	1:C:3557:VAL:N	2.43	0.51
1:C:4266:LYS:O	1:C:4270:LYS:NZ	2.35	0.51
1:D:3351:ALA:O	1:D:3355:ILE:HG12	2.09	0.51
1:D:3419:PHE:O	1:D:3423:ASN:ND2	2.44	0.51
1:A:713:TRP:HZ2	1:A:1251:LEU:HD21	1.76	0.51
1:A:1009:ARG:HH11	1:A:1013:ARG:NH2	2.07	0.51
1:A:1114:ARG:HG2	1:A:1138:ASP:HB2	1.93	0.51
1:A:1964:GLU:HA	1:A:1975:MET:HE1	1.92	0.51
1:A:3419:PHE:O	1:A:3423:ASN:ND2	2.44	0.51
2:E:2:GLY:O	2:E:3:VAL:HG12	2.11	0.51
2:G:63:GLY:O	2:G:67:MET:HG3	2.11	0.51
2:H:2:GLY:O	2:H:3:VAL:HG12	2.10	0.51
1:B:476:GLN:NE2	1:B:3678:GLU:OE1	2.44	0.51
1:B:4565:SER:HB2	1:B:4567:TYR:CE1	2.45	0.51
1:C:3074:ASN:HB3	1:C:3090:VAL:HG13	1.92	0.51
1:D:1427:TYR:HD1	1:D:1510:VAL:HG22	1.76	0.51
1:D:3355:ILE:HG22	1:D:3359:PHE:CE2	2.45	0.51
1:A:711:GLU:OE1	1:A:716:ASN:ND2	2.41	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2788:ARG:HG3	1:A:2904:SER:OG	2.10	0.51
1:A:2929:LEU:HD13	1:A:2971:ILE:HG12	1.91	0.51
1:A:3355:ILE:HG22	1:A:3359:PHE:CE2	2.45	0.51
1:A:3385:LEU:HD21	1:B:1229:ILE:HA	1.92	0.51
1:B:306:LEU:HD11	1:B:314:LEU:HD12	1.93	0.51
1:B:2937:HIS:O	1:B:2941:LEU:HD12	2.11	0.51
1:B:2979:ARG:HG3	1:B:3039:THR:HG22	1.92	0.51
1:C:527:LYS:HE2	1:C:566:GLU:HA	1.92	0.51
1:C:3033:LEU:HD13	1:C:3104:MET:SD	2.50	0.51
1:D:2979:ARG:HG3	1:D:3039:THR:HG22	1.92	0.51
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.11	0.51
1:A:579:LEU:HD22	1:A:586:LEU:HD23	1.93	0.51
1:A:1898:LEU:HD13	1:A:1902:VAL:HG12	1.92	0.51
1:A:2496:LEU:HD23	1:A:2520:LEU:HD13	1.93	0.51
1:A:3033:LEU:HD13	1:A:3104:MET:SD	2.50	0.51
2:F:63:GLY:O	2:F:67:MET:HG3	2.11	0.51
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.11	0.51
1:C:1495:SER:HB2	1:C:1496:PRO:CD	2.40	0.51
1:C:1898:LEU:HD13	1:C:1902:VAL:HG12	1.92	0.51
1:C:2142:MET:SD	1:C:2174:VAL:HG11	2.50	0.51
1:D:356:TYR:CE2	1:D:407:ARG:HB2	2.45	0.51
1:D:713:TRP:HZ2	1:D:1251:LEU:HD21	1.76	0.51
1:D:866:PRO:HG2	1:D:1009:ARG:HE	1.74	0.51
1:D:2788:ARG:HG3	1:D:2904:SER:OG	2.10	0.51
1:D:2937:HIS:O	1:D:2941:LEU:HD12	2.11	0.51
1:D:4502:MET:HE1	1:D:4585:PHE:CB	2.40	0.51
1:A:254:GLU:HA	1:A:257:ARG:HB2	1.92	0.51
1:A:2235:ARG:HD2	1:A:2297:ARG:HH12	1.75	0.51
1:B:904:TYR:HB2	1:B:918:LEU:HB3	1.93	0.51
1:B:1058:LEU:HD21	1:B:1064:LEU:CD2	2.40	0.51
1:B:1114:ARG:HG2	1:B:1138:ASP:HB2	1.93	0.51
1:B:2123:LEU:HD13	1:B:2167:MET:HG2	1.92	0.51
1:B:3227:ARG:HB3	1:B:3230:GLN:NE2	2.26	0.51
1:B:3406:TRP:CD1	1:B:3412:PHE:HE2	2.29	0.51
1:B:3419:PHE:O	1:B:3423:ASN:ND2	2.44	0.51
1:B:3796:LEU:HD22	1:B:3835:PHE:HZ	1.75	0.51
1:C:223:ALA:HB2	1:C:288:HIS:CE1	2.46	0.51
1:C:3406:TRP:CD1	1:C:3412:PHE:HE2	2.29	0.51
1:D:2984:SER:O	1:D:3001:LYS:NZ	2.33	0.51
1:A:411:GLU:OE2	1:A:485:ARG:NE	2.37	0.51
1:B:1685:LEU:HB3	1:B:1706:LEU:HD12	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2778:SER:O	1:B:2782:MET:HG2	2.11	0.51
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.41	0.51
1:C:3227:ARG:HB3	1:C:3230:GLN:NE2	2.26	0.51
1:D:1293:GLN:CD	1:D:1294:ASN:H	2.12	0.51
1:D:2496:LEU:HD23	1:D:2520:LEU:HD13	1.93	0.51
1:D:3406:TRP:CD1	1:D:3412:PHE:HE2	2.29	0.51
1:D:3728:GLN:OE1	1:D:3770:ASN:ND2	2.38	0.51
1:A:1058:LEU:HD21	1:A:1064:LEU:CD2	2.40	0.51
1:A:4031:THR:O	1:A:4034:GLU:HG3	2.11	0.51
1:B:872:ILE:HD11	1:B:941:LYS:HB3	1.92	0.51
1:B:3074:ASN:HB3	1:B:3090:VAL:HG13	1.92	0.51
1:B:4031:THR:O	1:B:4034:GLU:HG3	2.11	0.51
1:C:713:TRP:HZ2	1:C:1251:LEU:HD21	1.76	0.51
1:C:2123:LEU:HD13	1:C:2167:MET:HG2	1.92	0.51
1:D:223:ALA:HB2	1:D:288:HIS:CE1	2.46	0.51
1:D:527:LYS:HE2	1:D:566:GLU:HA	1.92	0.51
1:D:961:VAL:HG23	1:D:981:MET:HG2	1.92	0.51
1:D:1114:ARG:HG2	1:D:1138:ASP:HB2	1.93	0.51
1:D:1495:SER:HB2	1:D:1496:PRO:CD	2.40	0.51
1:A:2778:SER:O	1:A:2782:MET:HG2	2.11	0.51
2:E:63:GLY:O	2:E:67:MET:HG3	2.11	0.51
2:H:63:GLY:O	2:H:67:MET:HG3	2.11	0.51
1:B:2142:MET:SD	1:B:2174:VAL:HG11	2.50	0.51
1:C:143:LEU:O	1:C:190:ARG:NH2	2.44	0.51
1:C:466:PRO:HG2	1:C:479:LEU:HG	1.92	0.51
1:C:872:ILE:HD11	1:C:941:LYS:HB3	1.92	0.51
1:C:1427:TYR:HD1	1:C:1510:VAL:HG22	1.76	0.51
1:C:1685:LEU:HB3	1:C:1706:LEU:HD12	1.92	0.51
1:C:2235:ARG:HD2	1:C:2297:ARG:HH12	1.75	0.51
1:C:3695:MET:HB3	1:C:3731:LEU:HD11	1.93	0.51
1:C:3787:VAL:HG12	1:C:3864:ASN:HB3	1.92	0.51
1:D:3227:ARG:HB3	1:D:3230:GLN:NE2	2.26	0.51
1:D:3778:LEU:HD13	1:D:3854:PHE:HD1	1.76	0.51
1:A:238:HIS:HB3	1:A:243:GLU:HG3	1.93	0.51
1:B:192:LEU:O	1:B:212:TRP:NE1	2.30	0.51
1:B:411:GLU:OE2	1:B:485:ARG:NE	2.38	0.51
1:B:2833:LEU:HD21	1:B:2894:LYS:HG3	1.92	0.51
1:B:3308:ASN:HA	1:B:3375:ARG:HH12	1.76	0.51
1:B:4026:LEU:HG	1:B:4055:HIS:CD2	2.46	0.51
1:C:3355:ILE:HG22	1:C:3359:PHE:CE2	2.45	0.51
1:D:3787:VAL:HG12	1:D:3864:ASN:HB3	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:35:LEU:HD13	1:A:49:LEU:HD13	1.93	0.50
1:A:902:TRP:CH2	1:A:913:ARG:HG3	2.43	0.50
1:A:904:TYR:HB2	1:A:918:LEU:HB3	1.93	0.50
1:A:1229:ILE:HA	1:D:3385:LEU:HD21	1.92	0.50
1:A:1427:TYR:HD1	1:A:1510:VAL:HG22	1.76	0.50
1:A:3074:ASN:HB3	1:A:3090:VAL:HG13	1.92	0.50
3:I:48:GLU:HA	3:I:76:LYS:HZ1	1.75	0.50
1:B:579:LEU:HD22	1:B:586:LEU:HD23	1.93	0.50
1:B:3778:LEU:HD13	1:B:3854:PHE:HD1	1.76	0.50
1:B:4622:SER:OG	1:B:4624:ASP:OD1	2.19	0.50
1:C:306:LEU:HD11	1:C:314:LEU:HD12	1.93	0.50
1:C:866:PRO:HG2	1:C:1009:ARG:HE	1.74	0.50
1:C:961:VAL:HG23	1:C:981:MET:HG2	1.92	0.50
1:C:1107:THR:HB	1:C:1113:MET:HE1	1.92	0.50
1:D:35:LEU:HD13	1:D:49:LEU:HD13	1.93	0.50
1:D:3069:GLU:O	1:D:3072:MET:HB3	2.12	0.50
1:A:466:PRO:HG2	1:A:479:LEU:HG	1.92	0.50
1:A:2833:LEU:HD21	1:A:2894:LYS:HG3	1.92	0.50
1:B:238:HIS:HB3	1:B:243:GLU:HG3	1.93	0.50
1:C:3308:ASN:HA	1:C:3375:ARG:HH12	1.76	0.50
1:C:3419:PHE:O	1:C:3423:ASN:ND2	2.44	0.50
1:C:3796:LEU:HD22	1:C:3835:PHE:HZ	1.75	0.50
1:D:3594:GLN:HG2	1:D:3594:GLN:O	2.10	0.50
1:A:476:GLN:NE2	1:A:3678:GLU:OE1	2.44	0.50
1:A:527:LYS:HE2	1:A:566:GLU:HA	1.92	0.50
1:A:626:ARG:NH2	1:A:1667:LEU:O	2.42	0.50
1:A:2123:LEU:HD13	1:A:2167:MET:HG2	1.92	0.50
1:B:961:VAL:HG23	1:B:981:MET:HG2	1.92	0.50
1:B:2753:VAL:O	1:B:2753:VAL:HG12	2.12	0.50
1:B:3594:GLN:O	1:B:3594:GLN:HG2	2.10	0.50
1:C:904:TYR:HB2	1:C:918:LEU:HB3	1.93	0.50
1:C:2778:SER:O	1:C:2782:MET:HG2	2.11	0.50
1:C:3778:LEU:HD13	1:C:3854:PHE:HD1	1.76	0.50
1:D:579:LEU:HD22	1:D:586:LEU:HD23	1.93	0.50
1:D:582:SER:OG	1:D:584:GLU:OE1	2.28	0.50
1:D:3695:MET:HB3	1:D:3731:LEU:HD11	1.93	0.50
1:A:143:LEU:O	1:A:190:ARG:NH2	2.44	0.50
1:A:223:ALA:HB2	1:A:288:HIS:CE1	2.46	0.50
1:A:1685:LEU:HB3	1:A:1706:LEU:HD12	1.92	0.50
1:A:2753:VAL:HG12	1:A:2753:VAL:O	2.12	0.50
1:A:3025:ASP:O	1:A:3029:ILE:HD12	2.11	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:659:ILE:HD11	1:B:826:VAL:HG22	1.93	0.50
1:B:1644:LEU:HD23	1:B:1651:LEU:HA	1.94	0.50
1:B:3787:VAL:HG12	1:B:3864:ASN:HB3	1.92	0.50
1:C:238:HIS:HB3	1:C:243:GLU:HG3	1.94	0.50
1:C:902:TRP:CH2	1:C:913:ARG:HG3	2.42	0.50
1:D:466:PRO:HG2	1:D:479:LEU:HG	1.93	0.50
1:D:961:VAL:CG2	1:D:981:MET:HG2	2.42	0.50
1:D:3796:LEU:HD22	1:D:3835:PHE:HZ	1.75	0.50
1:A:872:ILE:HD11	1:A:941:LYS:HB3	1.92	0.50
1:A:3227:ARG:HB3	1:A:3230:GLN:NE2	2.26	0.50
1:B:223:ALA:HB2	1:B:288:HIS:CE1	2.46	0.50
1:B:961:VAL:CG2	1:B:981:MET:HG2	2.42	0.50
1:B:1293:GLN:CD	1:B:1294:ASN:H	2.13	0.50
1:C:659:ILE:HD11	1:C:826:VAL:HG22	1.94	0.50
1:C:1114:ARG:HG2	1:C:1138:ASP:HB2	1.93	0.50
1:C:2496:LEU:HD23	1:C:2520:LEU:HD13	1.93	0.50
1:C:2753:VAL:O	1:C:2753:VAL:HG12	2.12	0.50
1:D:626:ARG:NH2	1:D:1667:LEU:O	2.42	0.50
1:D:3074:ASN:HB3	1:D:3090:VAL:HG13	1.92	0.50
1:D:4590:TYR:OH	1:D:4716:ASP:OD2	2.29	0.50
1:A:3793:LEU:O	1:A:3797:MET:HG3	2.12	0.50
3:J:48:GLU:HA	3:J:76:LYS:HZ1	1.77	0.50
1:B:143:LEU:O	1:B:190:ARG:NH2	2.44	0.50
1:B:466:PRO:HG2	1:B:479:LEU:HG	1.92	0.50
1:B:2496:LEU:HD23	1:B:2520:LEU:HD13	1.93	0.50
1:C:2787:TRP:CZ3	1:C:2905:ARG:HG2	2.47	0.50
1:D:659:ILE:HD11	1:D:826:VAL:HG22	1.94	0.50
1:A:3406:TRP:CD1	1:A:3412:PHE:HE2	2.29	0.50
1:A:3787:VAL:HG12	1:A:3864:ASN:HB3	1.92	0.50
3:K:119:ASP:HA	3:K:122:VAL:HG12	1.94	0.50
3:L:119:ASP:HA	3:L:122:VAL:HG12	1.94	0.50
1:B:713:TRP:HZ2	1:B:1251:LEU:HD21	1.76	0.50
1:B:1114:ARG:NH1	1:B:1128:LEU:O	2.41	0.50
1:C:718:VAL:HG23	1:C:793:SER:HB3	1.94	0.50
1:C:2937:HIS:O	1:C:2941:LEU:HD12	2.11	0.50
1:C:3069:GLU:O	1:C:3072:MET:HB3	2.12	0.50
1:D:1682:GLU:HG2	1:D:1683:PRO:HD3	1.93	0.50
1:D:3025:ASP:O	1:D:3029:ILE:HD12	2.11	0.50
1:D:3311:LYS:HB3	1:D:3313:GLN:OE1	2.12	0.50
1:A:1293:GLN:CD	1:A:1294:ASN:H	2.13	0.50
1:B:527:LYS:HE2	1:B:566:GLU:HA	1.92	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:718:VAL:HG23	1:B:793:SER:HB3	1.94	0.50
1:B:3025:ASP:O	1:B:3029:ILE:HD12	2.11	0.50
1:C:3651:PRO:HB2	1:C:3652:PRO:HD3	1.94	0.50
1:C:4590:TYR:OH	1:C:4716:ASP:OD2	2.29	0.50
1:D:112:THR:HG21	1:D:174:LYS:HE2	1.94	0.50
1:D:2778:SER:O	1:D:2782:MET:HG2	2.11	0.50
1:A:961:VAL:CG2	1:A:981:MET:HG2	2.42	0.50
1:A:961:VAL:HG23	1:A:981:MET:HG2	1.92	0.50
1:A:1107:THR:HB	1:A:1113:MET:HE1	1.94	0.50
3:I:14:LYS:O	3:I:18:SER:OG	2.25	0.50
3:J:119:ASP:HA	3:J:122:VAL:HG12	1.94	0.50
3:K:14:LYS:O	3:K:18:SER:OG	2.24	0.50
1:B:2787:TRP:CZ3	1:B:2905:ARG:HG2	2.47	0.50
1:C:476:GLN:NE2	1:C:3678:GLU:OE1	2.44	0.50
1:C:954:ASP:OD1	1:C:956:HIS:ND1	2.42	0.50
1:C:4502:MET:HE1	1:C:4585:PHE:CB	2.41	0.50
1:D:2123:LEU:HD13	1:D:2167:MET:HG2	1.92	0.50
1:D:3651:PRO:HB2	1:D:3652:PRO:HD3	1.94	0.50
1:A:306:LEU:HD11	1:A:314:LEU:HD12	1.93	0.49
1:A:718:VAL:HG23	1:A:793:SER:HB3	1.94	0.49
1:A:1495:SER:HB2	1:A:1496:PRO:HD2	1.94	0.49
1:A:1682:GLU:HG2	1:A:1683:PRO:HD3	1.93	0.49
1:A:3695:MET:HB3	1:A:3731:LEU:HD11	1.93	0.49
1:A:3778:LEU:HD13	1:A:3854:PHE:HD1	1.76	0.49
3:K:146:MET:CE	1:C:3599:VAL:HG11	2.42	0.49
1:B:2870:LEU:HD11	1:B:2881:GLU:CD	2.33	0.49
1:B:3069:GLU:O	1:B:3072:MET:HB3	2.11	0.49
1:C:112:THR:HG21	1:C:174:LYS:HE2	1.94	0.49
1:C:579:LEU:HD22	1:C:586:LEU:HD23	1.93	0.49
1:C:961:VAL:CG2	1:C:981:MET:HG2	2.42	0.49
1:C:3311:LYS:HB3	1:C:3313:GLN:OE1	2.12	0.49
1:C:4026:LEU:HG	1:C:4055:HIS:CD2	2.46	0.49
1:C:4031:THR:O	1:C:4034:GLU:HG3	2.11	0.49
1:D:306:LEU:HA	1:D:316:LEU:HD23	1.94	0.49
1:D:992:GLN:HE21	1:D:1051:ARG:HH22	1.60	0.49
1:D:3793:LEU:O	1:D:3797:MET:HG3	2.12	0.49
1:D:4031:THR:O	1:D:4034:GLU:HG3	2.11	0.49
1:A:3069:GLU:O	1:A:3072:MET:HB3	2.12	0.49
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.11	0.49
1:C:306:LEU:HA	1:C:316:LEU:HD23	1.94	0.49
1:C:3274:ASN:HD22	1:C:3310:VAL:HG13	1.78	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:238:HIS:HB3	1:D:243:GLU:HG3	1.94	0.49
1:D:306:LEU:HD11	1:D:314:LEU:HD12	1.93	0.49
1:D:4026:LEU:HG	1:D:4055:HIS:CD2	2.47	0.49
1:A:306:LEU:HA	1:A:316:LEU:HD23	1.94	0.49
1:A:659:ILE:HD11	1:A:826:VAL:HG22	1.93	0.49
2:F:58:LYS:NZ	2:F:81:VAL:HA	2.28	0.49
1:B:626:ARG:NH2	1:B:1667:LEU:O	2.42	0.49
1:B:3638:ASP:OD2	1:B:4683:ARG:NH1	2.46	0.49
1:B:3793:LEU:O	1:B:3797:MET:HG3	2.12	0.49
1:B:4481:TRP:HA	1:B:4484:ILE:HG12	1.94	0.49
1:C:313:ASN:HD22	1:C:392:ILE:HG22	1.78	0.49
1:C:2685:TYR:HE2	1:C:2905:ARG:HH22	1.60	0.49
1:C:2833:LEU:HD21	1:C:2894:LYS:HG3	1.92	0.49
1:C:3594:GLN:O	1:C:3594:GLN:HG2	2.10	0.49
1:D:904:TYR:HB2	1:D:918:LEU:HB3	1.93	0.49
1:D:1644:LEU:HD23	1:D:1651:LEU:HA	1.94	0.49
1:D:1685:LEU:HB3	1:D:1706:LEU:HD12	1.92	0.49
1:A:1644:LEU:HD23	1:A:1651:LEU:HA	1.94	0.49
1:A:2787:TRP:CZ3	1:A:2905:ARG:HG2	2.47	0.49
2:G:58:LYS:NZ	2:G:81:VAL:HA	2.28	0.49
1:B:728:ASP:OD1	1:B:731:HIS:N	2.38	0.49
1:C:2870:LEU:HD11	1:C:2881:GLU:CD	2.33	0.49
1:C:3025:ASP:O	1:C:3029:ILE:HD12	2.11	0.49
1:C:4043:ILE:HG13	1:C:4047:ASP:HB3	1.94	0.49
1:D:334:SER:OG	1:D:336:GLU:OE1	2.27	0.49
1:D:476:GLN:NE2	1:D:3678:GLU:OE1	2.44	0.49
1:D:718:VAL:HG23	1:D:793:SER:HB3	1.94	0.49
1:D:2787:TRP:CZ3	1:D:2905:ARG:HG2	2.47	0.49
1:D:3426:ASN:O	1:D:3428:MET:N	2.46	0.49
1:D:3638:ASP:OD2	1:D:4683:ARG:NH1	2.46	0.49
1:A:3489:ILE:HG22	1:A:3493:LYS:HZ2	1.78	0.49
1:B:1495:SER:HB2	1:B:1496:PRO:HD2	1.94	0.49
1:B:4563:GLU:HG3	1:B:4568:MET:HE2	1.93	0.49
1:B:4818:TYR:HA	1:C:4848:ILE:HD11	1.94	0.49
1:C:307:SER:HB3	1:C:327:THR:HG22	1.95	0.49
1:C:4481:TRP:HA	1:C:4484:ILE:HG12	1.94	0.49
1:D:2685:TYR:HE2	1:D:2905:ARG:HH22	1.61	0.49
1:A:3311:LYS:HB3	1:A:3313:GLN:OE1	2.12	0.49
1:A:3813:LYS:O	1:A:3817:LEU:HG	2.13	0.49
1:A:4481:TRP:HA	1:A:4484:ILE:HG12	1.95	0.49
1:B:123:HIS:N	1:B:128:MET:O	2.40	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:373:THR:HG21	1:B:397:GLY:HA2	1.94	0.49
1:B:1427:TYR:HD1	1:B:1510:VAL:HG22	1.76	0.49
1:B:2697:SER:O	1:B:2699:GLY:N	2.46	0.49
1:B:3651:PRO:HB2	1:B:3652:PRO:HD3	1.94	0.49
1:B:4043:ILE:HG13	1:B:4047:ASP:HB3	1.94	0.49
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.48	0.49
1:D:143:LEU:O	1:D:190:ARG:NH2	2.44	0.49
1:D:2833:LEU:HD21	1:D:2894:LYS:HG3	1.92	0.49
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.48	0.49
1:A:313:ASN:HD22	1:A:392:ILE:HG22	1.77	0.49
1:A:2685:TYR:HE2	1:A:2905:ARG:HH22	1.61	0.49
1:A:3215:MET:HE1	1:A:3276:LEU:HD12	1.93	0.49
1:A:3274:ASN:HD22	1:A:3310:VAL:HG13	1.77	0.49
1:A:3653:GLU:HG3	1:A:3655:ASP:H	1.78	0.49
1:A:4026:LEU:HG	1:A:4055:HIS:CD2	2.47	0.49
1:B:375:GLN:HB3	1:B:377:VAL:HG22	1.94	0.49
1:B:856:SER:OG	1:B:1078:CYS:O	2.25	0.49
1:B:3311:LYS:HB3	1:B:3313:GLN:OE1	2.12	0.49
1:C:194:LEU:HD11	1:C:201:LEU:HB3	1.94	0.49
1:C:375:GLN:HB3	1:C:377:VAL:HG22	1.94	0.49
1:C:1644:LEU:HD23	1:C:1651:LEU:HA	1.94	0.49
1:D:2753:VAL:O	1:D:2753:VAL:HG12	2.12	0.49
1:A:4502:MET:HE1	1:A:4585:PHE:CB	2.42	0.49
2:F:50:ARG:NE	2:F:53:LYS:HG3	2.28	0.49
1:B:1107:THR:HB	1:B:1113:MET:HE1	1.94	0.49
1:B:4196:THR:O	1:B:4200:MET:HG3	2.13	0.49
1:B:4590:TYR:OH	1:B:4716:ASP:OD2	2.29	0.49
1:C:2582:PRO:HB3	1:C:2617:CYS:SG	2.53	0.49
1:C:3638:ASP:OD2	1:C:4683:ARG:NH1	2.46	0.49
1:D:313:ASN:HD22	1:D:392:ILE:HG22	1.78	0.49
1:D:1495:SER:HB2	1:D:1496:PRO:HD2	1.94	0.49
1:D:3308:ASN:HA	1:D:3375:ARG:HH12	1.76	0.49
1:D:3813:LYS:O	1:D:3817:LEU:HG	2.13	0.49
1:A:112:THR:HG21	1:A:174:LYS:HE2	1.94	0.49
1:A:375:GLN:HB3	1:A:377:VAL:HG22	1.94	0.49
1:A:3426:ASN:O	1:A:3428:MET:N	2.46	0.49
1:A:3651:PRO:HB2	1:A:3652:PRO:HD3	1.94	0.49
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.48	0.49
1:B:1682:GLU:HG2	1:B:1683:PRO:HD3	1.93	0.49
1:B:2751:SER:O	1:B:2753:VAL:HG23	2.13	0.49
1:B:3653:GLU:HG3	1:B:3655:ASP:H	1.78	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:728:ASP:OD1	1:C:731:HIS:N	2.38	0.49
1:C:1495:SER:HB2	1:C:1496:PRO:HD2	1.94	0.49
1:D:373:THR:HG21	1:D:397:GLY:HA2	1.94	0.49
1:D:1220:ASP:O	1:D:1223:THR:OG1	2.29	0.49
1:D:2582:PRO:HB3	1:D:2617:CYS:SG	2.53	0.49
1:A:2697:SER:O	1:A:2699:GLY:N	2.46	0.49
1:A:3069:GLU:OE1	1:A:3132:ARG:NH2	2.40	0.49
1:A:3308:ASN:HA	1:A:3375:ARG:HH12	1.76	0.49
1:A:3638:ASP:OD2	1:A:4683:ARG:NH1	2.46	0.49
1:B:2582:PRO:HB3	1:B:2617:CYS:SG	2.53	0.49
1:C:373:THR:HG21	1:C:397:GLY:HA2	1.94	0.49
1:C:1682:GLU:HG2	1:C:1683:PRO:HD3	1.93	0.49
1:C:3250:TRP:CZ2	1:C:3309:LYS:HG3	2.48	0.49
1:C:3813:LYS:O	1:C:3817:LEU:HG	2.13	0.49
1:C:4196:THR:O	1:C:4200:MET:HG3	2.13	0.49
1:D:2870:LEU:HD11	1:D:2881:GLU:CD	2.33	0.49
1:D:3653:GLU:HG3	1:D:3655:ASP:H	1.78	0.49
1:A:192:LEU:O	1:A:212:TRP:NE1	2.30	0.48
1:A:194:LEU:HD11	1:A:201:LEU:HB3	1.94	0.48
2:E:50:ARG:NE	2:E:53:LYS:HG3	2.28	0.48
3:I:123:ASP:HA	3:I:126:ILE:HG12	1.95	0.48
1:B:194:LEU:HD11	1:B:201:LEU:HB3	1.94	0.48
1:C:3298:ARG:O	1:C:3302:PHE:HD2	1.96	0.48
1:C:3653:GLU:HG3	1:C:3655:ASP:H	1.78	0.48
1:C:3793:LEU:O	1:C:3797:MET:HG3	2.12	0.48
1:D:307:SER:HB3	1:D:327:THR:HG22	1.95	0.48
1:A:2751:SER:O	1:A:2753:VAL:HG23	2.13	0.48
1:A:2870:LEU:HD11	1:A:2881:GLU:CD	2.33	0.48
1:B:2685:TYR:HE2	1:B:2905:ARG:HH22	1.61	0.48
1:B:3695:MET:HB3	1:B:3731:LEU:HD11	1.93	0.48
1:D:515:ALA:HB2	1:D:523:GLY:HA3	1.95	0.48
1:D:2697:SER:O	1:D:2699:GLY:N	2.46	0.48
1:D:3250:TRP:CZ2	1:D:3309:LYS:HG3	2.48	0.48
3:I:119:ASP:HA	3:I:122:VAL:HG12	1.94	0.48
1:B:112:THR:HG21	1:B:174:LYS:HE2	1.94	0.48
1:B:4043:ILE:HD11	1:B:4047:ASP:OD2	2.13	0.48
1:B:4843:ARG:NH1	1:B:4847:ASP:OD2	2.47	0.48
1:C:4043:ILE:HD11	1:C:4047:ASP:OD2	2.13	0.48
1:D:4091:ALA:C	1:D:4093:ASP:H	2.16	0.48
1:D:4481:TRP:HA	1:D:4484:ILE:HG12	1.94	0.48
1:A:992:GLN:HE21	1:A:1051:ARG:HH22	1.60	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3250:TRP:CZ2	1:A:3309:LYS:HG3	2.48	0.48
1:A:4043:ILE:HD11	1:A:4047:ASP:OD2	2.13	0.48
1:A:4107:GLU:OE1	1:A:4147:ARG:NH1	2.47	0.48
1:A:4818:TYR:HA	1:B:4848:ILE:HD11	1.96	0.48
1:B:307:SER:HB3	1:B:327:THR:HG22	1.95	0.48
1:B:2252:GLU:OE2	1:B:3814:ALA:HB1	2.14	0.48
1:C:582:SER:OG	1:C:584:GLU:OE1	2.28	0.48
1:C:4091:ALA:O	1:C:4092:LYS:HB3	2.14	0.48
1:D:375:GLN:HB3	1:D:377:VAL:HG22	1.94	0.48
1:D:954:ASP:OD1	1:D:956:HIS:ND1	2.42	0.48
1:D:1083:GLU:OE1	1:D:1254:ARG:NH1	2.46	0.48
1:D:1429:SER:OG	1:D:1556:GLU:HB2	2.13	0.48
1:D:1788:LYS:HG3	1:D:1834:PHE:CE1	2.49	0.48
1:A:932:ASN:HA	1:A:935:MET:HG2	1.96	0.48
1:A:3298:ARG:O	1:A:3302:PHE:HD2	1.96	0.48
1:B:992:GLN:HE21	1:B:1051:ARG:HH22	1.60	0.48
1:B:3274:ASN:HD22	1:B:3310:VAL:HG13	1.77	0.48
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.48	0.48
1:B:4091:ALA:C	1:B:4093:ASP:H	2.16	0.48
1:C:2751:SER:O	1:C:2753:VAL:HG23	2.13	0.48
1:C:3479:ASN:OD1	1:C:3480:ILE:N	2.47	0.48
1:D:3298:ARG:O	1:D:3302:PHE:HD2	1.96	0.48
1:D:4043:ILE:HD11	1:D:4047:ASP:OD2	2.13	0.48
1:A:59:PRO:O	1:A:319:LYS:NZ	2.33	0.48
1:A:4266:LYS:O	1:A:4270:LYS:NZ	2.35	0.48
2:F:80:ASP:OD2	2:F:81:VAL:N	2.47	0.48
2:H:50:ARG:NE	2:H:53:LYS:HG3	2.28	0.48
1:B:306:LEU:HA	1:B:316:LEU:HD23	1.94	0.48
1:B:2755:PRO:HG2	1:B:2757:MET:SD	2.54	0.48
1:C:4091:ALA:C	1:C:4093:ASP:H	2.16	0.48
1:C:4563:GLU:HG3	1:C:4568:MET:HE2	1.94	0.48
1:D:194:LEU:HD11	1:D:201:LEU:HB3	1.94	0.48
1:D:2751:SER:O	1:D:2753:VAL:HG23	2.13	0.48
1:D:3479:ASN:OD1	1:D:3480:ILE:N	2.47	0.48
1:D:4196:THR:O	1:D:4200:MET:HG3	2.13	0.48
1:A:2582:PRO:HB3	1:A:2617:CYS:SG	2.53	0.48
1:A:4843:ARG:NH1	1:A:4847:ASP:OD2	2.47	0.48
2:G:80:ASP:OD2	2:G:81:VAL:N	2.47	0.48
2:H:58:LYS:NZ	2:H:81:VAL:HA	2.27	0.48
3:L:123:ASP:HA	3:L:126:ILE:HG12	1.95	0.48
1:B:954:ASP:OD1	1:B:956:HIS:ND1	2.42	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1310:CYS:HA	1:B:1513:ALA:HB1	1.96	0.48
1:B:3250:TRP:CZ2	1:B:3309:LYS:HG3	2.48	0.48
1:B:3594:GLN:HE22	1:B:3819:MET:CE	2.27	0.48
1:C:992:GLN:HE21	1:C:1051:ARG:HH22	1.60	0.48
1:C:2748:SER:OG	1:C:2751:SER:HB3	2.14	0.48
1:D:2748:SER:OG	1:D:2751:SER:HB3	2.14	0.48
1:D:3217:GLU:O	1:D:3220:GLU:HG3	2.14	0.48
1:A:1089:ARG:HB3	1:A:1204:VAL:HG23	1.95	0.48
1:A:1310:CYS:HA	1:A:1513:ALA:HB1	1.96	0.48
1:A:1429:SER:OG	1:A:1556:GLU:HB2	2.13	0.48
1:A:3594:GLN:HE22	1:A:3819:MET:CE	2.27	0.48
1:A:3649:ALA:HB1	1:A:3652:PRO:HG2	1.95	0.48
1:A:4563:GLU:HG3	1:A:4568:MET:HE2	1.96	0.48
2:E:58:LYS:NZ	2:E:81:VAL:HA	2.28	0.48
3:J:21:ASP:OD1	3:J:22:LYS:N	2.47	0.48
1:B:902:TRP:CH2	1:B:913:ARG:HG3	2.42	0.48
1:B:1083:GLU:OE1	1:B:1254:ARG:NH1	2.46	0.48
1:B:3274:ASN:HD21	1:B:3310:VAL:HA	1.79	0.48
1:C:1089:ARG:HB3	1:C:1204:VAL:HG23	1.95	0.48
1:C:2999:LYS:O	1:C:3003:MET:HG3	2.14	0.48
1:C:3217:GLU:O	1:C:3220:GLU:HG3	2.14	0.48
1:C:3594:GLN:HE22	1:C:3819:MET:CE	2.27	0.48
1:D:932:ASN:HA	1:D:935:MET:HG2	1.96	0.48
1:D:2556:SER:HB3	1:D:2569:ILE:HG21	1.95	0.48
1:D:3274:ASN:HD22	1:D:3310:VAL:HG13	1.77	0.48
1:A:373:THR:HG21	1:A:397:GLY:HA2	1.94	0.48
1:A:2748:SER:OG	1:A:2751:SER:HB3	2.14	0.48
1:A:2926:LEU:HB3	1:A:3003:MET:HE2	1.96	0.48
1:A:4091:ALA:O	1:A:4092:LYS:HB3	2.14	0.48
2:G:50:ARG:NE	2:G:53:LYS:HG3	2.28	0.48
2:H:58:LYS:O	2:H:62:GLU:OE1	2.32	0.48
1:B:313:ASN:HD22	1:B:392:ILE:HG22	1.78	0.48
1:B:3813:LYS:O	1:B:3817:LEU:HG	2.13	0.48
1:C:1310:CYS:HA	1:C:1513:ALA:HB1	1.96	0.48
1:C:1788:LYS:HG3	1:C:1834:PHE:CE1	2.49	0.48
1:D:3594:GLN:HE22	1:D:3819:MET:CE	2.27	0.48
1:A:4091:ALA:C	1:A:4093:ASP:H	2.16	0.48
1:A:4864:GLY:HA2	1:D:4867:ILE:HG12	1.96	0.48
2:H:80:ASP:OD2	2:H:81:VAL:N	2.47	0.48
3:J:123:ASP:HA	3:J:126:ILE:HG12	1.95	0.48
1:B:674:TYR:CE1	1:B:756:SER:HB3	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:880:ARG:HD2	1:B:880:ARG:O	2.14	0.48
1:C:880:ARG:HD2	1:C:880:ARG:O	2.14	0.48
1:C:2556:SER:HB3	1:C:2569:ILE:HG21	1.95	0.48
1:D:28:ILE:HG12	1:D:33:GLN:HE22	1.79	0.48
1:D:728:ASP:OD1	1:D:731:HIS:N	2.38	0.48
1:D:902:TRP:CH2	1:D:913:ARG:HG3	2.42	0.48
1:A:307:SER:HB3	1:A:327:THR:HG22	1.95	0.47
1:A:3217:GLU:O	1:A:3220:GLU:HG3	2.14	0.47
1:A:4043:ILE:HG13	1:A:4047:ASP:HB3	1.94	0.47
1:B:1429:SER:OG	1:B:1556:GLU:HB2	2.13	0.47
1:B:2748:SER:OG	1:B:2751:SER:HB3	2.14	0.47
1:B:3298:ARG:O	1:B:3302:PHE:HD2	1.96	0.47
1:B:4107:GLU:OE1	1:B:4147:ARG:NH1	2.47	0.47
1:C:932:ASN:HA	1:C:935:MET:HG2	1.96	0.47
1:C:3355:ILE:HG22	1:C:3359:PHE:HE2	1.79	0.47
1:D:880:ARG:O	1:D:880:ARG:HD2	2.14	0.47
1:D:4843:ARG:NH1	1:D:4847:ASP:OD2	2.47	0.47
1:A:1083:GLU:OE1	1:A:1254:ARG:NH1	2.46	0.47
1:A:2252:GLU:OE2	1:A:3814:ALA:HB1	2.14	0.47
1:A:2436:ILE:HA	1:A:2465:LYS:HG2	1.96	0.47
1:A:3479:ASN:OD1	1:A:3480:ILE:N	2.47	0.47
2:E:58:LYS:O	2:E:62:GLU:OE1	2.32	0.47
1:C:674:TYR:CE1	1:C:756:SER:HB3	2.49	0.47
1:C:1429:SER:OG	1:C:1556:GLU:HB2	2.13	0.47
1:C:2755:PRO:HG2	1:C:2757:MET:SD	2.54	0.47
1:D:2434:GLY:O	1:D:2438:ILE:HG13	2.14	0.47
1:D:4043:ILE:HG13	1:D:4047:ASP:HB3	1.94	0.47
1:A:28:ILE:HG12	1:A:33:GLN:HE22	1.79	0.47
3:I:21:ASP:OD1	3:I:22:LYS:N	2.47	0.47
1:B:582:SER:OG	1:B:584:GLU:OE1	2.28	0.47
1:B:2434:GLY:O	1:B:2438:ILE:HG13	2.14	0.47
1:B:2717:LEU:O	1:B:2721:ILE:HG13	2.14	0.47
1:B:4091:ALA:O	1:B:4092:LYS:HB3	2.14	0.47
1:C:2478:ILE:HG21	1:C:2484:LEU:HD13	1.96	0.47
1:C:2720:PHE:HB2	1:C:2901:TYR:CE2	2.48	0.47
1:D:1089:ARG:HB3	1:D:1204:VAL:HG23	1.95	0.47
1:D:1310:CYS:HA	1:D:1513:ALA:HB1	1.96	0.47
1:D:2545:ILE:HD12	1:D:2580:LEU:HD21	1.96	0.47
1:D:3486:GLN:HA	1:D:3489:ILE:HB	1.96	0.47
1:D:3649:ALA:HB1	1:D:3652:PRO:HG2	1.95	0.47
1:A:2720:PHE:CE1	1:A:2896:LEU:HD23	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3872:ILE:HA	1:A:3875:VAL:HG12	1.96	0.47
3:K:121:GLU:HG2	3:K:122:VAL:N	2.30	0.47
3:L:132:ASP:O	1:D:3459:TYR:HB3	2.14	0.47
1:B:1089:ARG:HB3	1:B:1204:VAL:HG23	1.95	0.47
1:B:2545:ILE:HD12	1:B:2580:LEU:HD21	1.96	0.47
1:B:2720:PHE:CE1	1:B:2896:LEU:HD23	2.50	0.47
1:B:2999:LYS:O	1:B:3003:MET:HG3	2.14	0.47
1:B:3217:GLU:O	1:B:3220:GLU:HG3	2.14	0.47
1:B:3479:ASN:OD1	1:B:3480:ILE:N	2.47	0.47
1:C:1083:GLU:OE1	1:C:1254:ARG:NH1	2.46	0.47
1:C:2434:GLY:O	1:C:2438:ILE:HG13	2.14	0.47
1:C:2717:LEU:O	1:C:2721:ILE:HG13	2.14	0.47
1:C:4843:ARG:NH1	1:C:4847:ASP:OD2	2.47	0.47
1:D:2176:VAL:HG22	1:D:2220:TYR:CZ	2.50	0.47
1:A:515:ALA:HB2	1:A:523:GLY:HA3	1.95	0.47
1:A:1431:ARG:HA	1:A:1505:LEU:O	2.15	0.47
1:A:2999:LYS:O	1:A:3003:MET:HG3	2.14	0.47
1:A:4196:THR:O	1:A:4200:MET:HG3	2.13	0.47
3:K:123:ASP:HA	3:K:126:ILE:HG12	1.95	0.47
1:B:932:ASN:HA	1:B:935:MET:HG2	1.96	0.47
1:C:3284:ILE:HG12	1:C:3369:PHE:HE1	1.79	0.47
1:D:1107:THR:HB	1:D:1113:MET:HE1	1.96	0.47
1:D:1431:ARG:HA	1:D:1505:LEU:O	2.15	0.47
1:D:1936:LEU:HD11	1:D:1976:LEU:HD22	1.97	0.47
1:A:1788:LYS:HG3	1:A:1834:PHE:CE1	2.49	0.47
1:A:2508:SER:OG	1:A:2560:SER:OG	2.27	0.47
1:A:3486:GLN:HA	1:A:3489:ILE:HB	1.96	0.47
3:J:121:GLU:HG2	3:J:122:VAL:N	2.30	0.47
3:L:21:ASP:OD1	3:L:22:LYS:N	2.47	0.47
1:B:1559:ARG:HD2	1:B:1565:PRO:HD3	1.96	0.47
1:B:1788:LYS:HG3	1:B:1834:PHE:CE1	2.49	0.47
1:B:2436:ILE:HA	1:B:2465:LYS:HG2	1.96	0.47
1:C:334:SER:OG	1:C:336:GLU:OE1	2.27	0.47
1:C:515:ALA:HB2	1:C:523:GLY:HA3	1.95	0.47
1:C:2436:ILE:HA	1:C:2465:LYS:HG2	1.96	0.47
1:C:4818:TYR:HA	1:D:4848:ILE:HD11	1.95	0.47
1:D:2755:PRO:HG2	1:D:2757:MET:SD	2.54	0.47
1:A:2556:SER:HB3	1:A:2569:ILE:HG21	1.95	0.47
1:A:3274:ASN:HD21	1:A:3310:VAL:HA	1.79	0.47
1:A:4590:TYR:OH	1:A:4716:ASP:OD2	2.29	0.47
2:E:80:ASP:OD2	2:E:81:VAL:N	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:58:LYS:O	2:G:62:GLU:OE1	2.32	0.47
3:J:36:VAL:HG21	3:J:69:PHE:CZ	2.50	0.47
1:B:2926:LEU:HB3	1:B:3003:MET:HE2	1.96	0.47
1:B:3137:LEU:HB3	1:B:3159:LEU:HD13	1.97	0.47
1:B:3872:ILE:HA	1:B:3875:VAL:HG12	1.97	0.47
1:C:28:ILE:HG12	1:C:33:GLN:HE22	1.79	0.47
1:C:2697:SER:O	1:C:2699:GLY:N	2.46	0.47
1:C:3137:LEU:HB3	1:C:3159:LEU:HD13	1.97	0.47
1:D:1559:ARG:HD2	1:D:1565:PRO:HD3	1.96	0.47
1:D:2436:ILE:HA	1:D:2465:LYS:HG2	1.97	0.47
1:D:2478:ILE:HG21	1:D:2484:LEU:HD13	1.96	0.47
1:D:2717:LEU:O	1:D:2721:ILE:HG13	2.14	0.47
1:D:4563:GLU:HG3	1:D:4568:MET:HE2	1.96	0.47
1:A:880:ARG:O	1:A:880:ARG:HD2	2.14	0.47
1:A:2434:GLY:O	1:A:2438:ILE:HG13	2.14	0.47
1:A:3137:LEU:HB3	1:A:3159:LEU:HD13	1.97	0.47
1:A:3355:ILE:HG22	1:A:3359:PHE:HE2	1.79	0.47
2:H:43:ARG:HA	1:D:1682:GLU:OE2	2.15	0.47
1:B:165:ALA:HB1	1:B:211:LEU:HD22	1.97	0.47
1:B:515:ALA:HB2	1:B:523:GLY:HA3	1.95	0.47
1:B:1431:ARG:HA	1:B:1505:LEU:O	2.15	0.47
1:B:2176:VAL:HG22	1:B:2220:TYR:CZ	2.50	0.47
1:B:3284:ILE:HG12	1:B:3369:PHE:HE1	1.79	0.47
1:B:3426:ASN:O	1:B:3428:MET:N	2.46	0.47
1:B:3649:ALA:HB1	1:B:3652:PRO:HG2	1.95	0.47
1:C:2176:VAL:HG22	1:C:2220:TYR:CZ	2.50	0.47
1:C:3274:ASN:HD21	1:C:3310:VAL:HA	1.79	0.47
1:C:3832:ASP:HB3	1:C:3835:PHE:HB3	1.97	0.47
1:D:3355:ILE:HG22	1:D:3359:PHE:HE2	1.79	0.47
1:A:674:TYR:CE1	1:A:756:SER:HB3	2.49	0.47
1:A:2760:TYR:CD1	1:A:2763:LEU:HD12	2.50	0.47
1:A:3284:ILE:HG12	1:A:3369:PHE:HE1	1.79	0.47
1:C:11:ILE:HG23	1:C:13:PHE:HE1	1.80	0.47
1:C:626:ARG:NH2	1:C:1667:LEU:O	2.42	0.47
1:C:1431:ARG:HA	1:C:1505:LEU:O	2.14	0.47
1:C:2252:GLU:OE2	1:C:3814:ALA:HB1	2.14	0.47
1:C:3649:ALA:HB1	1:C:3652:PRO:HG2	1.95	0.47
1:D:2252:GLU:OE2	1:D:3814:ALA:HB1	2.14	0.47
1:D:2720:PHE:CE1	1:D:2896:LEU:HD23	2.50	0.47
1:D:2926:LEU:HB3	1:D:3003:MET:HE2	1.96	0.47
1:D:2999:LYS:O	1:D:3003:MET:HG3	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3274:ASN:HD21	1:D:3310:VAL:HA	1.79	0.47
1:A:11:ILE:HG23	1:A:13:PHE:HE1	1.80	0.47
1:A:123:HIS:N	1:A:128:MET:O	2.40	0.47
1:A:881:ILE:O	1:A:885:LEU:HG	2.15	0.47
1:A:2545:ILE:HD12	1:A:2580:LEU:HD21	1.96	0.47
1:A:3481:CYS:SG	1:A:3554:ILE:HD13	2.55	0.47
2:G:5:ILE:HD12	2:G:66:GLN:HG3	1.97	0.47
3:K:21:ASP:OD1	3:K:22:LYS:N	2.47	0.47
1:B:3355:ILE:HG22	1:B:3359:PHE:HE2	1.79	0.47
1:C:1102:TYR:HD2	1:C:1165:MET:HG2	1.79	0.47
1:C:3389:ASN:ND2	1:C:3391:GLU:HB2	2.30	0.47
1:C:3392:ALA:HB1	1:C:3476:ILE:HD13	1.97	0.47
1:D:11:ILE:HG23	1:D:13:PHE:HE1	1.80	0.47
1:D:674:TYR:CE1	1:D:756:SER:HB3	2.49	0.47
1:D:3832:ASP:HB3	1:D:3835:PHE:HB3	1.97	0.47
1:A:1559:ARG:HD2	1:A:1565:PRO:HD3	1.96	0.46
1:A:1936:LEU:HD11	1:A:1976:LEU:HD22	1.97	0.46
1:A:2717:LEU:O	1:A:2721:ILE:HG13	2.14	0.46
1:A:2789:ILE:HD11	1:A:2901:TYR:HB3	1.97	0.46
1:A:3292:GLU:OE1	1:A:3292:GLU:N	2.48	0.46
1:A:3389:ASN:ND2	1:A:3391:GLU:HB2	2.30	0.46
3:I:121:GLU:HG2	3:I:122:VAL:N	2.30	0.46
1:B:28:ILE:HG12	1:B:33:GLN:HE22	1.79	0.46
1:B:1764:SER:HB3	1:B:1775:CYS:HB2	1.97	0.46
1:B:2556:SER:HB3	1:B:2569:ILE:HG21	1.95	0.46
1:B:3292:GLU:OE1	1:B:3292:GLU:N	2.48	0.46
1:B:3464:SER:HB2	1:B:3467:VAL:HG22	1.97	0.46
1:B:3522:PRO:O	1:B:3526:TRP:CD1	2.68	0.46
1:C:2789:ILE:HD11	1:C:2901:TYR:HB3	1.97	0.46
1:C:3522:PRO:O	1:C:3526:TRP:CD1	2.68	0.46
1:D:1102:TYR:HD2	1:D:1165:MET:HG2	1.79	0.46
1:D:3284:ILE:HG12	1:D:3369:PHE:HE1	1.79	0.46
1:D:3872:ILE:HA	1:D:3875:VAL:HG12	1.97	0.46
1:A:165:ALA:HB1	1:A:211:LEU:HD22	1.97	0.46
1:A:2755:PRO:HG2	1:A:2757:MET:SD	2.54	0.46
1:A:3340:LEU:HD22	1:A:3355:ILE:HG13	1.98	0.46
2:F:58:LYS:O	2:F:62:GLU:OE1	2.32	0.46
3:I:54:ASN:OD1	3:I:55:GLU:N	2.47	0.46
3:L:121:GLU:HG2	3:L:122:VAL:N	2.30	0.46
1:B:2280:LEU:HD11	1:B:2382:ILE:HG13	1.98	0.46
1:B:2760:TYR:CD1	1:B:2763:LEU:HD12	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2789:ILE:HD11	1:B:2901:TYR:HB3	1.97	0.46
1:B:3481:CYS:SG	1:B:3554:ILE:HD13	2.55	0.46
1:C:3292:GLU:N	1:C:3292:GLU:OE1	2.48	0.46
1:C:3426:ASN:O	1:C:3428:MET:N	2.46	0.46
1:D:2280:LEU:HD11	1:D:2382:ILE:HG13	1.98	0.46
1:D:3137:LEU:HB3	1:D:3159:LEU:HD13	1.97	0.46
1:D:3389:ASN:ND2	1:D:3391:GLU:HB2	2.30	0.46
1:A:1102:TYR:HD2	1:A:1165:MET:HG2	1.79	0.46
1:A:2798:MET:CE	1:B:1497:GLY:HA2	2.45	0.46
1:A:4522:VAL:HG12	1:B:4807:ASP:O	2.15	0.46
2:H:5:ILE:HD12	2:H:66:GLN:HG3	1.97	0.46
3:I:36:VAL:HG21	3:I:69:PHE:CZ	2.50	0.46
3:J:12:GLU:O	3:J:15:GLU:HG3	2.15	0.46
1:B:3486:GLN:HA	1:B:3489:ILE:HB	1.96	0.46
1:C:247:VAL:O	1:C:272:ARG:HD2	2.15	0.46
1:C:1764:SER:HB3	1:C:1775:CYS:HB2	1.97	0.46
1:C:1973:ILE:HD12	1:C:3619:LEU:HB3	1.98	0.46
1:C:2760:TYR:CD1	1:C:2763:LEU:HD12	2.50	0.46
1:C:3486:GLN:HA	1:C:3489:ILE:HB	1.96	0.46
1:D:15:ARG:NH1	1:D:110:HIS:O	2.49	0.46
1:D:983:LEU:HD23	1:D:983:LEU:H	1.81	0.46
1:A:59:PRO:HG3	1:A:296:ARG:CZ	2.46	0.46
1:A:4867:ILE:HG12	1:B:4864:GLY:HA2	1.98	0.46
1:B:11:ILE:HG23	1:B:13:PHE:HE1	1.80	0.46
1:B:856:SER:H	1:B:1078:CYS:HB3	1.81	0.46
1:B:1102:TYR:HD2	1:B:1165:MET:HG2	1.79	0.46
1:B:3040:LEU:O	1:B:3111:HIS:NE2	2.40	0.46
1:B:4589:GLY:O	1:B:4590:TYR:HB3	2.16	0.46
1:B:4943:MET:HE1	1:B:4951:PHE:HB3	1.96	0.46
1:C:1559:ARG:HD2	1:C:1565:PRO:HD3	1.96	0.46
1:C:4107:GLU:OE1	1:C:4147:ARG:NH1	2.47	0.46
1:D:3292:GLU:OE1	1:D:3292:GLU:N	2.48	0.46
1:D:3464:SER:HB2	1:D:3467:VAL:HG22	1.97	0.46
1:A:16:THR:O	1:A:69:LEU:HB2	2.16	0.46
1:A:629:GLN:OE1	1:A:1669:ASN:ND2	2.45	0.46
1:A:3406:TRP:HE1	1:A:3466:ILE:HD13	1.80	0.46
1:A:4589:GLY:O	1:A:4590:TYR:HB3	2.16	0.46
3:K:54:ASN:OD1	3:K:55:GLU:N	2.48	0.46
1:B:247:VAL:O	1:B:272:ARG:HD2	2.15	0.46
1:B:2792:THR:OG1	1:B:2900:GLY:O	2.25	0.46
1:C:1220:ASP:O	1:C:1223:THR:OG1	2.29	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2280:LEU:HD11	1:C:2382:ILE:HG13	1.98	0.46
1:C:2720:PHE:CE1	1:C:2896:LEU:HD23	2.50	0.46
1:C:3481:CYS:SG	1:C:3554:ILE:HD13	2.55	0.46
1:C:4589:GLY:O	1:C:4590:TYR:HB3	2.16	0.46
1:C:4798:ASP:OD1	1:C:4798:ASP:N	2.46	0.46
1:D:59:PRO:HG3	1:D:296:ARG:CZ	2.46	0.46
1:D:2789:ILE:HD11	1:D:2901:TYR:HB3	1.98	0.46
1:A:2280:LEU:HD11	1:A:2382:ILE:HG13	1.98	0.46
1:A:3392:ALA:HB1	1:A:3476:ILE:HD13	1.97	0.46
1:B:629:GLN:OE1	1:B:1669:ASN:ND2	2.44	0.46
1:C:165:ALA:HB1	1:C:211:LEU:HD22	1.97	0.46
1:C:856:SER:OG	1:C:1078:CYS:O	2.25	0.46
1:C:881:ILE:O	1:C:885:LEU:HG	2.16	0.46
1:C:983:LEU:HD23	1:C:983:LEU:H	1.81	0.46
1:C:3872:ILE:HA	1:C:3875:VAL:HG12	1.96	0.46
1:D:247:VAL:O	1:D:272:ARG:HD2	2.15	0.46
1:D:2659:GLN:HG3	1:D:2663:LYS:NZ	2.31	0.46
1:D:3340:LEU:HD22	1:D:3355:ILE:HG13	1.98	0.46
1:D:3481:CYS:SG	1:D:3554:ILE:HD13	2.55	0.46
1:D:4589:GLY:O	1:D:4590:TYR:HB3	2.16	0.46
1:A:856:SER:H	1:A:1078:CYS:HB3	1.81	0.46
1:A:2478:ILE:HG21	1:A:2484:LEU:HD13	1.96	0.46
1:A:4248:LEU:HG	1:A:4297:PHE:CE1	2.51	0.46
3:I:12:GLU:O	3:I:15:GLU:HG3	2.15	0.46
1:B:16:THR:O	1:B:69:LEU:HB2	2.16	0.46
1:B:3389:ASN:ND2	1:B:3391:GLU:HB2	2.30	0.46
1:B:3392:ALA:HB1	1:B:3476:ILE:HD13	1.97	0.46
1:B:3832:ASP:HB3	1:B:3835:PHE:HB3	1.97	0.46
1:C:2545:ILE:HD12	1:C:2580:LEU:HD21	1.96	0.46
1:C:3464:SER:HB2	1:C:3467:VAL:HG22	1.97	0.46
1:D:1973:ILE:HD12	1:D:3619:LEU:HB3	1.98	0.46
1:D:3855:GLN:NE2	1:D:3922:GLU:O	2.49	0.46
1:A:920:GLU:HG3	1:A:974:SER:HB2	1.98	0.46
1:A:3178:HIS:CE1	1:A:3263:MET:HG3	2.51	0.46
1:A:3464:SER:HB2	1:A:3467:VAL:HG22	1.97	0.46
2:F:5:ILE:HD12	2:F:66:GLN:HG3	1.97	0.46
3:K:12:GLU:O	3:K:15:GLU:HG3	2.15	0.46
1:B:983:LEU:HD23	1:B:983:LEU:H	1.81	0.46
1:B:1936:LEU:HD11	1:B:1976:LEU:HD22	1.97	0.46
1:B:1973:ILE:HD12	1:B:3619:LEU:HB3	1.98	0.46
1:B:3855:GLN:NE2	1:B:3922:GLU:O	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:59:PRO:HG3	1:C:296:ARG:CZ	2.46	0.46
1:C:856:SER:H	1:C:1078:CYS:HB3	1.81	0.46
1:C:1936:LEU:HD11	1:C:1976:LEU:HD22	1.97	0.46
1:C:2589:LEU:HB3	1:C:2640:LEU:HD21	1.98	0.46
1:C:3487:GLU:HG2	1:C:3488:LEU:N	2.31	0.46
1:C:4661:TYR:HB3	1:C:4665:ARG:NH2	2.31	0.46
1:D:2127:ARG:O	1:D:2130:LEU:HB2	2.15	0.46
1:D:2413:LYS:O	1:D:2417:ILE:HD12	2.16	0.46
1:D:2760:TYR:CD1	1:D:2763:LEU:HD12	2.50	0.46
1:D:2914:THR:O	1:D:2916:SER:N	2.49	0.46
1:D:3435:THR:HB	1:D:3440:SER:HB3	1.97	0.46
1:A:728:ASP:OD1	1:A:731:HIS:N	2.38	0.46
1:A:983:LEU:HD23	1:A:983:LEU:H	1.81	0.46
1:A:1764:SER:HB3	1:A:1775:CYS:HB2	1.97	0.46
1:A:2914:THR:O	1:A:2916:SER:N	2.49	0.46
1:A:3522:PRO:O	1:A:3526:TRP:CD1	2.68	0.46
1:A:4144:ARG:HG3	1:A:4961:GLN:NE2	2.31	0.46
1:B:881:ILE:O	1:B:885:LEU:HG	2.16	0.46
1:B:2127:ARG:O	1:B:2130:LEU:HB2	2.15	0.46
1:B:3178:HIS:CE1	1:B:3263:MET:HG3	2.51	0.46
1:B:3340:LEU:HD22	1:B:3355:ILE:HG13	1.98	0.46
1:B:4661:TYR:HB3	1:B:4665:ARG:NH2	2.31	0.46
1:C:3304:GLN:OE1	1:C:3375:ARG:HD2	2.16	0.46
1:D:387:ILE:HG22	1:D:389:ARG:HG3	1.98	0.46
1:D:905:GLY:HA3	1:D:914:GLN:HB3	1.98	0.46
1:D:2589:LEU:HB3	1:D:2640:LEU:HD21	1.98	0.46
1:D:2658:GLU:HB3	1:D:2661:LEU:HB3	1.97	0.46
1:D:3487:GLU:HG2	1:D:3488:LEU:N	2.30	0.46
1:A:505:LEU:HD22	1:A:526:TRP:CD1	2.52	0.46
1:A:2744:GLY:N	1:A:2757:MET:HE1	2.31	0.46
1:A:2895:PHE:HA	1:A:2898:ILE:HG22	1.98	0.46
1:A:4661:TYR:HB3	1:A:4665:ARG:NH2	2.31	0.46
2:E:5:ILE:HD12	2:E:66:GLN:HG3	1.97	0.46
3:L:12:GLU:O	3:L:15:GLU:HG3	2.15	0.46
1:B:603:LYS:NZ	1:B:1573:SER:OG	2.32	0.46
1:B:2235:ARG:HD2	1:B:2297:ARG:NH1	2.31	0.46
1:C:2413:LYS:O	1:C:2417:ILE:HD12	2.16	0.46
1:C:3215:MET:HE1	1:C:3276:LEU:HD12	1.97	0.46
1:C:3274:ASN:ND2	1:C:3310:VAL:HG13	2.31	0.46
1:D:335:LYS:NZ	1:D:401:ASP:OD2	2.31	0.46
1:D:2895:PHE:HA	1:D:2898:ILE:HG22	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3178:HIS:CE1	1:D:3263:MET:HG3	2.51	0.46
1:D:3392:ALA:HB1	1:D:3476:ILE:HD13	1.97	0.46
1:D:4248:LEU:HG	1:D:4297:PHE:CE1	2.51	0.46
1:A:905:GLY:HA3	1:A:914:GLN:HB3	1.98	0.45
3:I:70:LEU:HA	3:I:73:MET:HE2	1.98	0.45
1:B:59:PRO:HG3	1:B:296:ARG:CZ	2.46	0.45
1:B:2478:ILE:HG21	1:B:2484:LEU:HD13	1.96	0.45
1:B:4144:ARG:HG3	1:B:4961:GLN:NE2	2.31	0.45
1:B:4502:MET:HE3	1:B:4502:MET:HB3	1.67	0.45
1:C:2235:ARG:HD2	1:C:2297:ARG:NH1	2.32	0.45
1:C:2658:GLU:HB3	1:C:2661:LEU:HB3	1.97	0.45
1:C:2659:GLN:HG3	1:C:2663:LYS:NZ	2.31	0.45
1:C:3178:HIS:CE1	1:C:3263:MET:HG3	2.51	0.45
1:C:3385:LEU:HD21	1:D:1229:ILE:HA	1.98	0.45
1:D:3274:ASN:ND2	1:D:3310:VAL:HG13	2.31	0.45
1:D:3304:GLN:OE1	1:D:3375:ARG:HD2	2.16	0.45
1:D:4091:ALA:O	1:D:4092:LYS:HB3	2.14	0.45
1:A:1973:ILE:HD12	1:A:3619:LEU:HB3	1.98	0.45
1:A:3304:GLN:OE1	1:A:3375:ARG:HD2	2.16	0.45
1:A:3435:THR:HB	1:A:3440:SER:HB3	1.98	0.45
1:A:3487:GLU:HG2	1:A:3488:LEU:N	2.31	0.45
1:A:3554:ILE:HG13	1:A:3555:ALA:N	2.30	0.45
3:K:36:VAL:HG21	3:K:69:PHE:CZ	2.50	0.45
3:K:103:ALA:O	3:K:106:LEU:HG	2.17	0.45
3:L:36:VAL:HG21	3:L:69:PHE:CZ	2.50	0.45
1:B:505:LEU:HD22	1:B:526:TRP:CD1	2.52	0.45
1:B:1220:ASP:O	1:B:1223:THR:OG1	2.29	0.45
1:B:3184:TYR:CD2	1:B:3201:VAL:HG22	2.52	0.45
1:C:2127:ARG:O	1:C:2130:LEU:HB2	2.15	0.45
1:C:3554:ILE:HG13	1:C:3555:ALA:N	2.31	0.45
1:C:4144:ARG:HG3	1:C:4961:GLN:NE2	2.31	0.45
1:C:4248:LEU:HG	1:C:4297:PHE:CE1	2.51	0.45
1:D:165:ALA:HB1	1:D:211:LEU:HD22	1.97	0.45
1:D:472:HIS:O	1:D:476:GLN:HG2	2.16	0.45
1:D:881:ILE:O	1:D:885:LEU:HG	2.16	0.45
1:D:3554:ILE:HG13	1:D:3555:ALA:N	2.31	0.45
1:D:4499:PHE:CE1	1:D:4590:TYR:HB2	2.52	0.45
1:A:387:ILE:HG22	1:A:389:ARG:HG3	1.98	0.45
1:A:603:LYS:NZ	1:A:1573:SER:OG	2.32	0.45
1:A:2176:VAL:HG22	1:A:2220:TYR:CZ	2.50	0.45
1:A:4106:SER:HB2	1:A:4119:LEU:HD11	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4499:PHE:CE1	1:A:4590:TYR:HB2	2.51	0.45
1:B:1118:SER:HB3	1:B:1204:VAL:HG11	1.98	0.45
1:B:2744:GLY:N	1:B:2757:MET:HE1	2.30	0.45
1:B:3304:GLN:OE1	1:B:3375:ARG:HD2	2.16	0.45
1:B:3435:THR:HB	1:B:3440:SER:HB3	1.98	0.45
1:A:247:VAL:O	1:A:272:ARG:HD2	2.15	0.45
1:A:472:HIS:O	1:A:476:GLN:HG2	2.16	0.45
1:A:3184:TYR:CD2	1:A:3201:VAL:HG22	2.52	0.45
1:A:3855:GLN:NE2	1:A:3922:GLU:O	2.49	0.45
2:G:23:CYS:SG	2:G:51:ILE:HD11	2.57	0.45
1:B:227:TYR:HA	1:B:354:ILE:O	2.17	0.45
1:B:3274:ASN:ND2	1:B:3310:VAL:HG13	2.31	0.45
1:C:16:THR:O	1:C:69:LEU:HB2	2.16	0.45
1:C:505:LEU:HD22	1:C:526:TRP:CD1	2.52	0.45
1:C:2290:TRP:CZ2	1:C:2388:ILE:HG12	2.52	0.45
1:C:4499:PHE:CE1	1:C:4590:TYR:HB2	2.51	0.45
1:D:16:THR:O	1:D:69:LEU:HB2	2.16	0.45
1:D:856:SER:H	1:D:1078:CYS:HB3	1.81	0.45
1:D:1764:SER:HB3	1:D:1775:CYS:HB2	1.97	0.45
1:D:3406:TRP:HE1	1:D:3466:ILE:HD13	1.80	0.45
1:D:3522:PRO:O	1:D:3526:TRP:CD1	2.68	0.45
1:A:1494:MET:O	1:A:1496:PRO:HD2	2.17	0.45
1:A:2658:GLU:HB3	1:A:2661:LEU:HB3	1.97	0.45
1:A:3327:LYS:HZ1	1:A:3402:VAL:N	2.15	0.45
3:J:131:ILE:HG21	1:B:3455:LYS:O	2.16	0.45
1:B:905:GLY:HA3	1:B:914:GLN:HB3	1.99	0.45
1:B:2413:LYS:O	1:B:2417:ILE:HD12	2.16	0.45
1:B:2659:GLN:HG3	1:B:2663:LYS:NZ	2.31	0.45
1:C:472:HIS:O	1:C:476:GLN:HG2	2.16	0.45
1:C:2880:LYS:HB2	1:C:2880:LYS:HE2	1.84	0.45
1:C:3327:LYS:HZ1	1:C:3402:VAL:N	2.14	0.45
1:C:3340:LEU:HD22	1:C:3355:ILE:HG13	1.97	0.45
1:D:4107:GLU:OE1	1:D:4147:ARG:NH1	2.47	0.45
1:A:2574:LEU:HD23	1:A:2609:LEU:HD13	1.99	0.45
1:A:3832:ASP:HB3	1:A:3835:PHE:HB3	1.97	0.45
2:F:23:CYS:SG	2:F:51:ILE:HD11	2.57	0.45
3:J:54:ASN:OD1	3:J:55:GLU:N	2.48	0.45
1:B:3406:TRP:HE1	1:B:3466:ILE:HD13	1.80	0.45
1:B:3554:ILE:HG13	1:B:3555:ALA:N	2.31	0.45
1:B:4635:ILE:HG22	1:B:4670:LEU:HA	1.99	0.45
1:C:246:THR:HG21	1:C:267:VAL:HG11	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:313:ASN:ND2	1:C:392:ILE:HG22	2.32	0.45
1:C:1494:MET:O	1:C:1496:PRO:HD2	2.17	0.45
1:C:4079:ASP:O	1:C:4082:GLU:HG3	2.17	0.45
1:C:4635:ILE:HG22	1:C:4670:LEU:HA	1.99	0.45
1:D:920:GLU:HG3	1:D:974:SER:HB2	1.98	0.45
1:D:1118:SER:HB3	1:D:1204:VAL:HG11	1.98	0.45
1:D:2720:PHE:HB2	1:D:2901:TYR:CE2	2.48	0.45
1:D:3184:TYR:CD2	1:D:3201:VAL:HG22	2.52	0.45
1:D:3494:ASN:OD1	1:D:3495:ARG:N	2.50	0.45
1:D:4106:SER:HB2	1:D:4119:LEU:HD11	1.98	0.45
1:A:2592:LEU:HG	1:A:2606:PRO:HB3	1.99	0.45
1:A:2852:TRP:HH2	1:A:2868:HIS:CE1	2.35	0.45
1:A:3892:TYR:CD2	1:A:3898:ILE:HG12	2.52	0.45
1:B:313:ASN:ND2	1:B:392:ILE:HG22	2.32	0.45
1:B:3487:GLU:HG2	1:B:3488:LEU:N	2.30	0.45
1:C:308:LEU:HD22	1:C:393:MET:HG3	1.99	0.45
1:C:387:ILE:HG22	1:C:389:ARG:HG3	1.98	0.45
1:D:227:TYR:HA	1:D:354:ILE:O	2.17	0.45
1:D:4194:GLU:CD	1:D:4608:ARG:HH22	2.20	0.45
1:D:4661:TYR:HB3	1:D:4665:ARG:NH2	2.31	0.45
1:A:1118:SER:HB3	1:A:1204:VAL:HG11	1.98	0.45
2:E:23:CYS:SG	2:E:51:ILE:HD11	2.57	0.45
2:H:23:CYS:SG	2:H:51:ILE:HD11	2.57	0.45
3:J:103:ALA:O	3:J:106:LEU:HG	2.17	0.45
3:K:70:LEU:HA	3:K:73:MET:HE2	1.99	0.45
1:B:15:ARG:NH1	1:B:110:HIS:O	2.49	0.45
1:B:920:GLU:HG3	1:B:974:SER:HB2	1.98	0.45
1:B:2154:VAL:HG13	1:B:2158:HIS:HD2	1.82	0.45
1:B:2589:LEU:HB3	1:B:2640:LEU:HD21	1.98	0.45
1:B:3327:LYS:HZ1	1:B:3402:VAL:N	2.15	0.45
1:C:3184:TYR:CD2	1:C:3201:VAL:HG22	2.52	0.45
1:C:3406:TRP:HE1	1:C:3466:ILE:HD13	1.80	0.45
1:C:3494:ASN:OD1	1:C:3495:ARG:N	2.50	0.45
1:C:3855:GLN:NE2	1:C:3922:GLU:O	2.49	0.45
1:D:2290:TRP:CZ2	1:D:2388:ILE:HG12	2.52	0.45
1:D:2592:LEU:HG	1:D:2606:PRO:HB3	1.99	0.45
1:D:4144:ARG:HG3	1:D:4961:GLN:NE2	2.31	0.45
1:A:185:SER:OG	1:A:188:SER:OG	2.30	0.45
1:A:2127:ARG:O	1:A:2130:LEU:HB2	2.15	0.45
1:A:2235:ARG:HD2	1:A:2297:ARG:NH1	2.32	0.45
1:A:2856:LYS:O	1:A:2860:LEU:HG	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3274:ASN:ND2	1:A:3310:VAL:HG13	2.31	0.45
1:A:3494:ASN:OD1	1:A:3495:ARG:N	2.50	0.45
3:J:125:MET:HA	3:J:128:GLU:O	2.17	0.45
3:L:103:ALA:O	3:L:106:LEU:HG	2.17	0.45
1:B:2290:TRP:CZ2	1:B:2388:ILE:HG12	2.52	0.45
1:B:4522:VAL:HG12	1:C:4807:ASP:O	2.17	0.45
1:C:2335:LEU:HD11	1:C:2343:LEU:HB2	1.99	0.45
1:C:2852:TRP:HH2	1:C:2868:HIS:CE1	2.35	0.45
1:C:2856:LYS:O	1:C:2860:LEU:HG	2.17	0.45
1:D:629:GLN:OE1	1:D:1669:ASN:ND2	2.44	0.45
1:D:2745:GLU:OE1	1:D:2746:ILE:HG23	2.17	0.45
1:A:76:ARG:NE	1:D:3890:TRP:O	2.49	0.45
1:A:2290:TRP:CZ2	1:A:2388:ILE:HG12	2.52	0.45
1:A:3016:ARG:O	1:A:3018:ARG:NE	2.49	0.45
1:A:4635:ILE:HG22	1:A:4670:LEU:HA	1.99	0.45
3:K:125:MET:HA	3:K:128:GLU:O	2.17	0.45
3:L:125:MET:HA	3:L:128:GLU:O	2.17	0.45
1:B:185:SER:OG	1:B:188:SER:OG	2.30	0.45
1:B:960:LYS:O	1:B:962:LYS:HG2	2.17	0.45
1:B:2895:PHE:HA	1:B:2898:ILE:HG22	1.98	0.45
1:B:3494:ASN:OD1	1:B:3495:ARG:N	2.50	0.45
1:B:3504:GLU:HA	1:B:3507:ASP:OD2	2.17	0.45
1:B:4079:ASP:O	1:B:4082:GLU:HG3	2.17	0.45
1:B:4248:LEU:HG	1:B:4297:PHE:CE1	2.51	0.45
1:C:227:TYR:HA	1:C:354:ILE:O	2.17	0.45
1:C:905:GLY:HA3	1:C:914:GLN:HB3	1.98	0.45
1:C:2745:GLU:OE1	1:C:2746:ILE:HG23	2.17	0.45
1:C:3435:THR:HB	1:C:3440:SER:HB3	1.97	0.45
1:D:313:ASN:ND2	1:D:392:ILE:HG22	2.32	0.45
1:D:960:LYS:O	1:D:962:LYS:HG2	2.17	0.45
1:D:1494:MET:O	1:D:1496:PRO:HD2	2.17	0.45
1:D:2154:VAL:HG13	1:D:2158:HIS:HD2	1.82	0.45
1:D:2235:ARG:HD2	1:D:2297:ARG:NH1	2.31	0.45
1:D:2574:LEU:HD23	1:D:2609:LEU:HD13	1.99	0.45
1:D:2836:ASP:O	1:D:2840:MET:HG2	2.17	0.45
1:D:3892:TYR:CD2	1:D:3898:ILE:HG12	2.52	0.45
1:A:2154:VAL:HG13	1:A:2158:HIS:HD2	1.82	0.44
1:A:2413:LYS:O	1:A:2417:ILE:HD12	2.16	0.44
1:A:2745:GLU:OE1	1:A:2746:ILE:HG23	2.17	0.44
1:A:2836:ASP:O	1:A:2840:MET:HG2	2.17	0.44
2:F:43:ARG:HA	1:B:1682:GLU:OE2	2.16	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:125:MET:HA	3:I:128:GLU:O	2.17	0.44
1:B:472:HIS:O	1:B:476:GLN:HG2	2.16	0.44
1:B:1494:MET:O	1:B:1496:PRO:HD2	2.17	0.44
1:B:2335:LEU:HD11	1:B:2343:LEU:HB2	1.99	0.44
1:B:3323:MET:HE1	1:B:3369:PHE:CD2	2.52	0.44
1:B:4266:LYS:O	1:B:4270:LYS:NZ	2.35	0.44
1:C:2154:VAL:HG13	1:C:2158:HIS:HD2	1.82	0.44
1:C:3504:GLU:HA	1:C:3507:ASP:OD2	2.17	0.44
1:D:123:HIS:N	1:D:128:MET:O	2.40	0.44
1:D:308:LEU:HD22	1:D:393:MET:HG3	1.99	0.44
1:A:227:TYR:HA	1:A:354:ILE:O	2.17	0.44
1:A:721:ASP:OD1	1:A:724:SER:OG	2.30	0.44
1:A:2589:LEU:HB3	1:A:2640:LEU:HD21	1.98	0.44
1:A:3123:LEU:HD23	1:A:3127:GLN:NE2	2.33	0.44
1:B:337:LYS:HE2	1:B:371:TRP:HE1	1.83	0.44
1:B:3017:HIS:O	1:B:3018:ARG:HD3	2.18	0.44
1:C:20:VAL:HG12	1:C:216:PRO:HA	1.99	0.44
1:C:920:GLU:HG3	1:C:974:SER:HB2	1.98	0.44
1:C:1118:SER:HB3	1:C:1204:VAL:HG11	1.98	0.44
1:C:3017:HIS:O	1:C:3018:ARG:HD3	2.18	0.44
1:C:3323:MET:HE1	1:C:3369:PHE:CD2	2.52	0.44
1:D:3176:ASP:N	1:D:3176:ASP:OD1	2.50	0.44
1:D:3323:MET:HE1	1:D:3369:PHE:CD2	2.52	0.44
1:D:4079:ASP:O	1:D:4082:GLU:HG3	2.17	0.44
1:A:35:LEU:HD23	1:A:51:SER:HA	1.99	0.44
3:L:70:LEU:HA	3:L:73:MET:HE2	1.99	0.44
1:B:2658:GLU:HB3	1:B:2661:LEU:HB3	1.97	0.44
1:B:2856:LYS:O	1:B:2860:LEU:HG	2.17	0.44
1:C:544:ASN:HB3	1:C:547:ASN:HB2	2.00	0.44
1:C:2895:PHE:HA	1:C:2898:ILE:HG22	1.98	0.44
1:C:2926:LEU:HB3	1:C:3003:MET:HE2	1.99	0.44
1:D:3123:LEU:HD23	1:D:3127:GLN:NE2	2.32	0.44
1:A:960:LYS:O	1:A:962:LYS:HG2	2.17	0.44
1:A:1910:LEU:HD13	1:A:2062:ILE:HG12	2.00	0.44
1:A:2717:LEU:HD11	1:A:2789:ILE:HD13	1.99	0.44
3:I:103:ALA:O	3:I:106:LEU:HG	2.17	0.44
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	2.00	0.44
1:B:3176:ASP:OD1	1:B:3176:ASP:N	2.50	0.44
1:C:35:LEU:HD23	1:C:51:SER:HA	1.99	0.44
1:C:603:LYS:NZ	1:C:1573:SER:OG	2.32	0.44
1:C:4265:LYS:HA	1:C:4268:MET:HG2	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:888:ASN:HA	1:A:891:GLU:HB2	2.00	0.44
1:A:2488:LEU:HD21	1:A:2548:LEU:HD22	2.00	0.44
1:A:3210:SER:H	1:A:3213:LYS:HE3	1.83	0.44
1:A:3211:LEU:O	1:A:3215:MET:HG2	2.18	0.44
1:A:3559:PHE:O	1:A:3562:GLU:HG3	2.18	0.44
1:A:3846:LEU:HD13	1:A:3854:PHE:CZ	2.53	0.44
1:A:4194:GLU:HG2	1:A:4645:TRP:HZ3	1.83	0.44
1:A:4590:TYR:OH	1:A:4718:SER:HB2	2.17	0.44
1:B:2852:TRP:HH2	1:B:2868:HIS:CE1	2.35	0.44
1:B:3892:TYR:CD2	1:B:3898:ILE:HG12	2.52	0.44
1:B:4499:PHE:CE1	1:B:4590:TYR:HB2	2.51	0.44
1:B:4590:TYR:OH	1:B:4718:SER:HB2	2.17	0.44
1:C:123:HIS:N	1:C:128:MET:O	2.40	0.44
1:C:503:ASP:O	1:C:507:VAL:HG13	2.18	0.44
1:C:960:LYS:O	1:C:962:LYS:HG2	2.17	0.44
1:C:3536:ASN:OD1	1:C:3537:ARG:N	2.51	0.44
1:D:35:LEU:HD23	1:D:51:SER:HA	1.99	0.44
1:D:3172:GLU:OE1	1:D:3266:THR:OG1	2.30	0.44
1:D:4207:SER:O	1:D:4207:SER:OG	2.34	0.44
1:A:2659:GLN:HG3	1:A:2663:LYS:NZ	2.31	0.44
1:A:2716:LYS:HG3	1:A:2717:LEU:HD22	2.00	0.44
1:A:2720:PHE:HB2	1:A:2901:TYR:CE2	2.48	0.44
1:A:4194:GLU:CD	1:A:4608:ARG:HH22	2.20	0.44
3:K:146:MET:O	1:C:3596:LYS:HB2	2.17	0.44
1:B:20:VAL:HG12	1:B:216:PRO:HA	1.99	0.44
1:B:246:THR:HG21	1:B:267:VAL:HG11	1.99	0.44
1:B:334:SER:OG	1:B:336:GLU:OE1	2.27	0.44
1:B:356:TYR:HE2	1:B:407:ARG:HD3	1.83	0.44
1:B:387:ILE:HG22	1:B:389:ARG:HG3	1.98	0.44
1:B:2745:GLU:OE1	1:B:2746:ILE:HG23	2.17	0.44
1:B:2836:ASP:O	1:B:2840:MET:HG2	2.17	0.44
1:B:3192:ARG:HB2	1:B:3197:LEU:HD12	2.00	0.44
1:C:1077:VAL:O	1:C:1077:VAL:HG13	2.18	0.44
1:C:2574:LEU:HD23	1:C:2609:LEU:HD13	1.98	0.44
1:C:3074:ASN:HD22	1:C:3090:VAL:HG22	1.83	0.44
1:C:3211:LEU:O	1:C:3215:MET:HG2	2.18	0.44
1:D:246:THR:HG21	1:D:267:VAL:HG11	1.99	0.44
1:D:2335:LEU:HD11	1:D:2343:LEU:HB2	1.99	0.44
1:D:2743:TYR:O	1:D:2753:VAL:HG13	2.18	0.44
1:D:3536:ASN:OD1	1:D:3537:ARG:N	2.51	0.44
1:D:3559:PHE:O	1:D:3562:GLU:HG3	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:270:HIS:CD2	1:A:491:GLU:HG3	2.53	0.44
1:A:337:LYS:HE2	1:A:371:TRP:HE1	1.83	0.44
1:A:3243:CYS:SG	1:A:3306:ILE:HD11	2.58	0.44
1:B:1077:VAL:HG13	1:B:1077:VAL:O	2.18	0.44
1:B:3846:LEU:HD13	1:B:3854:PHE:CZ	2.53	0.44
1:B:4265:LYS:HA	1:B:4268:MET:HG2	2.00	0.44
1:D:503:ASP:O	1:D:507:VAL:HG13	2.18	0.44
1:D:505:LEU:HD22	1:D:526:TRP:CD1	2.52	0.44
1:D:2744:GLY:HA2	1:D:2753:VAL:CG1	2.48	0.44
1:D:4265:LYS:HA	1:D:4268:MET:HG2	2.00	0.44
1:D:4590:TYR:OH	1:D:4718:SER:HB2	2.17	0.44
1:D:4943:MET:CE	1:D:4951:PHE:HB3	2.48	0.44
1:A:128:MET:HE3	1:A:151:GLU:HG3	2.00	0.44
1:A:246:THR:HG21	1:A:267:VAL:HG11	1.99	0.44
1:A:880:ARG:HD2	1:A:880:ARG:C	2.38	0.44
1:A:1910:LEU:HB2	1:A:2087:LEU:HD21	2.00	0.44
1:A:2744:GLY:HA2	1:A:2753:VAL:CG1	2.48	0.44
3:K:111:THR:CG2	1:C:1960:ARG:HH12	2.31	0.44
3:L:76:LYS:HD3	3:L:76:LYS:HA	1.84	0.44
1:B:3016:ARG:O	1:B:3018:ARG:NE	2.49	0.44
1:C:988:LEU:HB3	1:C:993:GLU:OE2	2.18	0.44
1:C:2717:LEU:HD11	1:C:2789:ILE:HD13	1.99	0.44
1:C:2830:ASN:HB3	1:D:1435:GLY:HA3	1.98	0.44
1:C:3192:ARG:HB2	1:C:3197:LEU:HD12	2.00	0.44
1:C:3892:TYR:CD2	1:C:3898:ILE:HG12	2.52	0.44
1:D:880:ARG:HD2	1:D:880:ARG:C	2.38	0.44
1:D:1077:VAL:O	1:D:1077:VAL:HG13	2.18	0.44
1:D:1910:LEU:HD13	1:D:2062:ILE:HG12	2.00	0.44
1:D:1910:LEU:HB2	1:D:2087:LEU:HD21	2.00	0.44
1:D:2856:LYS:O	1:D:2860:LEU:HG	2.17	0.44
1:D:3846:LEU:HD13	1:D:3854:PHE:CZ	2.53	0.44
1:D:4635:ILE:HG22	1:D:4670:LEU:HA	1.99	0.44
1:A:308:LEU:HD22	1:A:393:MET:HG3	1.99	0.44
1:A:2335:LEU:HD11	1:A:2343:LEU:HB2	1.99	0.44
1:A:3176:ASP:N	1:A:3176:ASP:OD1	2.50	0.44
1:A:3323:MET:HE1	1:A:3369:PHE:CD2	2.52	0.44
2:G:43:ARG:HA	1:C:1682:GLU:OE2	2.18	0.44
3:I:30:THR:HA	3:I:33:LEU:HB2	2.00	0.44
1:B:1835:HIS:O	1:B:1835:HIS:ND1	2.49	0.44
1:B:4943:MET:CE	1:B:4951:PHE:HB3	2.48	0.44
1:C:128:MET:HE3	1:C:151:GLU:HG3	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:337:LYS:HE2	1:C:371:TRP:HE1	1.83	0.44
1:C:356:TYR:HE2	1:C:407:ARG:HD3	1.83	0.44
1:C:1094:TYR:OH	1:C:1808:ASP:OD2	2.30	0.44
1:C:1492:GLU:O	1:C:1495:SER:OG	2.33	0.44
1:C:1979:PHE:CZ	1:C:1996:LEU:HD23	2.53	0.44
1:C:2707:ASP:OD2	1:C:2709:SER:OG	2.26	0.44
1:C:3559:PHE:O	1:C:3562:GLU:HG3	2.18	0.44
1:C:4106:SER:HB2	1:C:4119:LEU:HD11	1.98	0.44
1:D:20:VAL:HG12	1:D:216:PRO:HA	1.99	0.44
1:D:270:HIS:CD2	1:D:491:GLU:HG3	2.53	0.44
1:D:544:ASN:HB3	1:D:547:ASN:HB2	2.00	0.44
1:D:2852:TRP:HH2	1:D:2868:HIS:CE1	2.35	0.44
1:A:1682:GLU:OE2	2:E:43:ARG:HA	2.18	0.43
1:A:1979:PHE:CZ	1:A:1996:LEU:HD23	2.53	0.43
1:A:3017:HIS:O	1:A:3018:ARG:HD3	2.18	0.43
1:A:3504:GLU:HA	1:A:3507:ASP:OD2	2.17	0.43
1:A:4079:ASP:O	1:A:4082:GLU:HG3	2.17	0.43
1:B:35:LEU:HD23	1:B:51:SER:HA	1.99	0.43
1:B:270:HIS:CD2	1:B:491:GLU:HG3	2.53	0.43
1:B:2263:GLU:OE2	1:B:2327:ARG:NH1	2.29	0.43
1:B:2392:TYR:O	1:B:2396:ILE:HG12	2.18	0.43
1:B:3123:LEU:HD23	1:B:3127:GLN:NE2	2.33	0.43
1:C:185:SER:OG	1:C:188:SER:OG	2.30	0.43
1:C:1910:LEU:HB2	1:C:2087:LEU:HD21	2.00	0.43
1:C:3210:SER:H	1:C:3213:LYS:HE3	1.83	0.43
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.99	0.43
1:D:856:SER:OG	1:D:1078:CYS:O	2.25	0.43
1:D:3192:ARG:HB2	1:D:3197:LEU:HD12	2.00	0.43
1:D:3327:LYS:HZ1	1:D:3402:VAL:N	2.16	0.43
1:A:20:VAL:HG12	1:A:216:PRO:HA	1.99	0.43
1:A:2392:TYR:O	1:A:2396:ILE:HG12	2.18	0.43
1:A:2743:TYR:O	1:A:2753:VAL:HG13	2.18	0.43
1:B:544:ASN:HB3	1:B:547:ASN:HB2	2.00	0.43
1:B:880:ARG:HD2	1:B:880:ARG:C	2.38	0.43
1:B:4194:GLU:HG2	1:B:4645:TRP:HZ3	1.83	0.43
1:C:228:LEU:HB2	1:C:356:TYR:CE1	2.54	0.43
1:C:2488:LEU:HD21	1:C:2548:LEU:HD22	2.00	0.43
1:C:2744:GLY:N	1:C:2757:MET:HE1	2.32	0.43
1:C:4590:TYR:OH	1:C:4718:SER:HB2	2.17	0.43
1:D:16:THR:O	1:D:18:ASP:N	2.48	0.43
1:D:988:LEU:HB3	1:D:993:GLU:OE2	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1979:PHE:CZ	1:D:1996:LEU:HD23	2.53	0.43
1:D:3198:PRO:HG2	1:D:3204:VAL:HA	2.00	0.43
1:D:3337:GLU:HB2	1:D:3359:PHE:HZ	1.83	0.43
1:A:16:THR:O	1:A:18:ASP:N	2.48	0.43
3:J:70:LEU:HA	3:J:73:MET:HE2	1.99	0.43
3:L:30:THR:HA	3:L:33:LEU:HB2	2.00	0.43
1:B:308:LEU:HD22	1:B:393:MET:HG3	1.99	0.43
1:B:2488:LEU:HD21	1:B:2548:LEU:HD22	2.00	0.43
1:B:3211:LEU:O	1:B:3215:MET:HG2	2.18	0.43
1:B:3243:CYS:SG	1:B:3306:ILE:HD11	2.58	0.43
1:B:4502:MET:HE1	1:B:4585:PHE:HB3	2.00	0.43
1:C:2592:LEU:HG	1:C:2606:PRO:HB3	1.99	0.43
1:C:2743:TYR:O	1:C:2753:VAL:HG13	2.18	0.43
1:C:2836:ASP:O	1:C:2840:MET:HG2	2.17	0.43
1:C:3215:MET:HE1	1:C:3242:LEU:HD13	2.00	0.43
1:D:3017:HIS:O	1:D:3018:ARG:HD3	2.17	0.43
1:D:3022:PHE:HB3	1:D:3025:ASP:HB2	2.00	0.43
1:D:3074:ASN:HD22	1:D:3090:VAL:HG22	1.83	0.43
1:D:3243:CYS:SG	1:D:3306:ILE:HD11	2.58	0.43
1:D:3504:GLU:HA	1:D:3507:ASP:OD2	2.17	0.43
1:A:15:ARG:NH1	1:A:110:HIS:O	2.49	0.43
1:A:1691:ASN:HD22	1:A:1694:MET:HE2	1.84	0.43
1:A:3337:GLU:HB2	1:A:3359:PHE:HZ	1.83	0.43
1:A:3536:ASN:OD1	1:A:3537:ARG:N	2.51	0.43
1:A:4265:LYS:HA	1:A:4268:MET:HG2	2.00	0.43
1:B:504:ARG:O	1:B:507:VAL:HG22	2.19	0.43
1:B:1298:ASP:OD1	1:B:1299:ILE:N	2.51	0.43
1:B:2574:LEU:HD23	1:B:2609:LEU:HD13	1.99	0.43
1:B:2592:LEU:HG	1:B:2606:PRO:HB3	1.99	0.43
1:B:2716:LYS:HG3	1:B:2717:LEU:HD22	2.00	0.43
1:B:2717:LEU:HD11	1:B:2789:ILE:HD13	1.99	0.43
1:B:2760:TYR:HA	1:B:2763:LEU:HD12	2.01	0.43
1:B:3536:ASN:OD1	1:B:3537:ARG:N	2.51	0.43
1:C:192:LEU:O	1:C:212:TRP:NE1	2.30	0.43
1:C:270:HIS:CD2	1:C:491:GLU:HG3	2.53	0.43
1:C:888:ASN:HA	1:C:891:GLU:HB2	2.00	0.43
1:C:2760:TYR:HA	1:C:2763:LEU:HD12	2.01	0.43
1:C:3337:GLU:HB2	1:C:3359:PHE:HZ	1.84	0.43
1:D:930:ASN:HB3	1:D:934:GLN:HE22	1.82	0.43
1:D:2453:GLU:HG3	1:D:2510:THR:HB	2.01	0.43
1:D:2744:GLY:HA2	1:D:2753:VAL:HG13	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3211:LEU:O	1:D:3215:MET:HG2	2.18	0.43
1:A:3198:PRO:HG2	1:A:3204:VAL:HA	2.01	0.43
1:A:3890:TRP:O	1:B:76:ARG:NE	2.50	0.43
1:A:4690:LYS:HD2	1:A:4690:LYS:HA	1.85	0.43
1:A:4943:MET:CE	1:A:4951:PHE:HB3	2.48	0.43
1:B:888:ASN:HA	1:B:891:GLU:HB2	2.00	0.43
1:B:2453:GLU:HG3	1:B:2510:THR:HB	2.01	0.43
1:B:2720:PHE:HB2	1:B:2901:TYR:CE2	2.48	0.43
1:B:3337:GLU:HB2	1:B:3359:PHE:HZ	1.83	0.43
1:B:3559:PHE:O	1:B:3562:GLU:HG3	2.18	0.43
1:B:4106:SER:HB2	1:B:4119:LEU:HD11	1.99	0.43
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.99	0.43
1:C:661:LEU:HD22	1:C:673:TRP:CE2	2.54	0.43
1:C:1298:ASP:OD1	1:C:1299:ILE:N	2.51	0.43
1:C:2744:GLY:HA2	1:C:2753:VAL:CG1	2.48	0.43
1:C:2745:GLU:OE2	1:C:2746:ILE:HG12	2.19	0.43
1:C:3022:PHE:HB3	1:C:3025:ASP:HB2	2.00	0.43
1:C:3123:LEU:HD23	1:C:3127:GLN:NE2	2.33	0.43
1:C:3173:THR:OG1	1:C:3202:GLU:OE1	2.36	0.43
1:C:3198:PRO:HG2	1:C:3204:VAL:HA	2.01	0.43
1:C:4028:SER:O	1:C:4033:LYS:NZ	2.52	0.43
1:D:504:ARG:O	1:D:507:VAL:HG22	2.19	0.43
1:D:3474:LEU:HG	1:D:3478:LEU:HD13	2.00	0.43
3:J:30:THR:HA	3:J:33:LEU:HB2	2.00	0.43
1:B:930:ASN:HB3	1:B:934:GLN:HE22	1.82	0.43
1:B:2577:CYS:HB2	1:B:2609:LEU:HD11	2.00	0.43
1:B:2707:ASP:OD2	1:B:2709:SER:OG	2.26	0.43
1:B:2743:TYR:O	1:B:2753:VAL:HG13	2.18	0.43
1:B:3198:PRO:HG2	1:B:3204:VAL:HA	2.01	0.43
1:C:504:ARG:O	1:C:507:VAL:HG22	2.19	0.43
1:D:614:LEU:HD22	1:D:632:ILE:HG12	2.01	0.43
1:D:2577:CYS:HB2	1:D:2609:LEU:HD11	2.00	0.43
1:D:2585:MET:HG3	1:D:2589:LEU:HD23	2.01	0.43
1:D:2716:LYS:HG3	1:D:2717:LEU:HD22	2.00	0.43
1:D:2717:LEU:HD11	1:D:2789:ILE:HD13	1.99	0.43
1:D:3040:LEU:O	1:D:3111:HIS:NE2	2.40	0.43
1:D:4028:SER:O	1:D:4033:LYS:NZ	2.52	0.43
1:A:544:ASN:HB3	1:A:547:ASN:HB2	2.00	0.43
1:A:661:LEU:HD22	1:A:673:TRP:CE2	2.54	0.43
1:A:930:ASN:HB3	1:A:934:GLN:HE22	1.82	0.43
1:A:1077:VAL:O	1:A:1077:VAL:HG13	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1220:ASP:O	1:A:1223:THR:OG1	2.29	0.43
1:A:2744:GLY:HA2	1:A:2753:VAL:HG13	2.01	0.43
1:A:3744:ILE:O	1:A:3747:SER:OG	2.34	0.43
2:G:80:ASP:OD2	2:G:81:VAL:HG13	2.19	0.43
1:B:1910:LEU:HB2	1:B:2087:LEU:HD21	2.00	0.43
1:B:2840:MET:O	1:B:2844:MET:HG3	2.19	0.43
1:C:880:ARG:HD2	1:C:880:ARG:C	2.38	0.43
1:C:2392:TYR:O	1:C:2396:ILE:HG12	2.18	0.43
1:C:2792:THR:OG1	1:C:2900:GLY:O	2.24	0.43
1:D:228:LEU:HB2	1:D:356:TYR:CE1	2.54	0.43
1:A:227:TYR:CD1	1:A:352:SER:HB2	2.54	0.43
1:A:503:ASP:O	1:A:507:VAL:HG13	2.18	0.43
1:A:537:LEU:O	1:A:541:ILE:HG12	2.19	0.43
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.99	0.43
1:A:1298:ASP:OD1	1:A:1299:ILE:N	2.51	0.43
1:A:4625:ASP:OD1	1:A:4625:ASP:N	2.50	0.43
1:B:661:LEU:HD22	1:B:673:TRP:CE2	2.54	0.43
1:B:894:VAL:O	1:B:898:ILE:HG13	2.19	0.43
1:B:988:LEU:HB3	1:B:993:GLU:OE2	2.18	0.43
1:B:1492:GLU:O	1:B:1495:SER:OG	2.33	0.43
1:B:1714:TYR:CZ	1:B:1761:MET:HB2	2.54	0.43
1:B:2744:GLY:HA2	1:B:2753:VAL:HG13	2.01	0.43
1:C:1714:TYR:CZ	1:C:1761:MET:HB2	2.54	0.43
1:C:2577:CYS:HB2	1:C:2609:LEU:HD11	2.00	0.43
1:C:2585:MET:HG3	1:C:2589:LEU:HD23	2.01	0.43
1:C:2892:ILE:HG23	1:C:2893:LEU:HD22	2.01	0.43
1:D:661:LEU:HD22	1:D:673:TRP:CE2	2.54	0.43
1:D:3210:SER:H	1:D:3213:LYS:HE3	1.83	0.43
1:A:313:ASN:ND2	1:A:392:ILE:HG22	2.32	0.43
1:A:1714:TYR:CZ	1:A:1761:MET:HB2	2.54	0.43
1:A:2577:CYS:HB2	1:A:2609:LEU:HD11	2.00	0.43
1:A:2760:TYR:HA	1:A:2763:LEU:HD12	2.01	0.43
1:A:3074:ASN:HD22	1:A:3090:VAL:HG22	1.83	0.43
1:A:4028:SER:O	1:A:4033:LYS:NZ	2.52	0.43
1:A:4092:LYS:HA	1:A:4129:PHE:CZ	2.54	0.43
2:E:80:ASP:OD2	2:E:81:VAL:HG13	2.19	0.43
3:K:2:ALA:HA	1:C:2206:ILE:O	2.19	0.43
3:K:30:THR:HA	3:K:33:LEU:HB2	2.00	0.43
1:B:228:LEU:HB2	1:B:356:TYR:CE1	2.54	0.43
1:C:1910:LEU:HD13	1:C:2062:ILE:HG12	2.00	0.43
1:C:2744:GLY:HA2	1:C:2753:VAL:HG13	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2854:LYS:HG2	1:C:2858:MET:HE1	2.01	0.43
1:C:3243:CYS:SG	1:C:3306:ILE:HD11	2.58	0.43
1:C:3846:LEU:HD13	1:C:3854:PHE:CZ	2.53	0.43
1:D:337:LYS:HE2	1:D:371:TRP:HE1	1.83	0.43
1:D:1100:ARG:HB3	1:D:1236:TYR:CD1	2.54	0.43
1:D:2508:SER:OG	1:D:2560:SER:OG	2.26	0.43
1:D:4502:MET:HE3	1:D:4502:MET:HB3	1.81	0.43
1:A:988:LEU:HB3	1:A:993:GLU:OE2	2.18	0.43
1:A:1100:ARG:HB3	1:A:1236:TYR:CD1	2.54	0.43
1:A:2453:GLU:HG3	1:A:2510:THR:HB	2.01	0.43
1:A:2840:MET:O	1:A:2844:MET:HG3	2.19	0.43
1:A:3474:LEU:HG	1:A:3478:LEU:HD13	2.00	0.43
2:H:80:ASP:OD2	2:H:81:VAL:HG13	2.19	0.43
1:B:2744:GLY:HA2	1:B:2753:VAL:CG1	2.48	0.43
1:B:2830:ASN:HB3	1:C:1435:GLY:HA3	2.00	0.43
1:B:2880:LYS:HB2	1:B:2880:LYS:HE2	1.84	0.43
1:B:3074:ASN:HD22	1:B:3090:VAL:HG22	1.83	0.43
1:B:4502:MET:HE1	1:B:4585:PHE:CB	2.48	0.43
1:C:614:LEU:HD22	1:C:632:ILE:HG12	2.01	0.43
1:C:930:ASN:HB3	1:C:934:GLN:HE22	1.82	0.43
1:C:2453:GLU:HG3	1:C:2510:THR:HB	2.01	0.43
1:D:2392:TYR:O	1:D:2396:ILE:HG12	2.18	0.43
1:D:2880:LYS:HB2	1:D:2880:LYS:HE2	1.84	0.43
1:D:3173:THR:OG1	1:D:3202:GLU:OE1	2.36	0.43
1:A:334:SER:OG	1:A:336:GLU:OE1	2.27	0.42
1:A:504:ARG:O	1:A:507:VAL:HG22	2.19	0.42
1:A:1435:GLY:HA3	1:D:2830:ASN:HB3	2.00	0.42
1:A:2585:MET:HG3	1:A:2589:LEU:HD23	2.01	0.42
1:A:2745:GLU:OE2	1:A:2746:ILE:HG12	2.19	0.42
3:L:54:ASN:OD1	3:L:55:GLU:N	2.48	0.42
1:B:128:MET:HE3	1:B:151:GLU:HG3	2.00	0.42
1:B:227:TYR:CD1	1:B:352:SER:HB2	2.54	0.42
1:B:713:TRP:CZ2	1:B:1251:LEU:HD21	2.54	0.42
1:B:2678:PRO:HG3	1:B:2978:HIS:CE1	2.54	0.42
1:B:2732:TRP:CH2	1:B:2755:PRO:HB3	2.54	0.42
1:B:3141:GLY:HA3	1:B:3237:VAL:HG11	2.01	0.42
1:B:3221:LEU:HD22	1:B:3234:VAL:HG11	2.01	0.42
1:B:3524:ILE:HD12	1:B:3524:ILE:HA	1.93	0.42
1:B:3890:TRP:O	1:C:76:ARG:NE	2.49	0.42
1:B:4092:LYS:HA	1:B:4129:PHE:CZ	2.54	0.42
1:C:1835:HIS:O	1:C:1835:HIS:ND1	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1943:ARG:HH12	1:C:1964:GLU:CD	2.23	0.42
1:C:4867:ILE:HG12	1:D:4864:GLY:HA2	2.00	0.42
1:D:1267:HIS:HB3	1:D:1287:GLN:OE1	2.19	0.42
1:D:2732:TRP:CH2	1:D:2755:PRO:HB3	2.54	0.42
1:D:2745:GLU:OE2	1:D:2746:ILE:HG12	2.19	0.42
1:D:2785:TRP:HB3	1:D:2787:TRP:NE1	2.34	0.42
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.84	0.42
1:A:228:LEU:HB2	1:A:356:TYR:CE1	2.54	0.42
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	2.02	0.42
1:A:2732:TRP:CH2	1:A:2755:PRO:HB3	2.55	0.42
1:A:2785:TRP:HB3	1:A:2787:TRP:NE1	2.34	0.42
1:A:3022:PHE:HB3	1:A:3025:ASP:HB2	2.00	0.42
3:K:146:MET:HE3	1:C:3599:VAL:HG11	2.01	0.42
1:B:614:LEU:HD22	1:B:632:ILE:HG12	2.01	0.42
1:B:3022:PHE:HB3	1:B:3025:ASP:HB2	2.00	0.42
1:B:4615:LEU:O	1:B:4620:GLN:N	2.41	0.42
1:C:537:LEU:O	1:C:541:ILE:HG12	2.19	0.42
1:C:2957:GLU:O	1:C:2960:ILE:HG22	2.19	0.42
1:C:4194:GLU:CD	1:C:4608:ARG:HH22	2.20	0.42
1:D:537:LEU:O	1:D:541:ILE:HG12	2.18	0.42
1:D:1714:TYR:CZ	1:D:1761:MET:HB2	2.54	0.42
1:D:2744:GLY:N	1:D:2757:MET:HE1	2.32	0.42
1:D:2760:TYR:HA	1:D:2763:LEU:HD12	2.01	0.42
1:D:2840:MET:O	1:D:2844:MET:HG3	2.19	0.42
1:D:4858:LEU:HD23	1:D:4861:ILE:HD12	2.01	0.42
1:A:356:TYR:HE2	1:A:407:ARG:HD3	1.83	0.42
1:A:2678:PRO:HG3	1:A:2978:HIS:CE1	2.54	0.42
1:A:2967:VAL:O	1:A:2971:ILE:HG13	2.19	0.42
1:A:3071:THR:HG23	1:A:3094:ILE:HD13	2.01	0.42
1:A:3192:ARG:HB2	1:A:3197:LEU:HD12	2.00	0.42
2:F:80:ASP:OD2	2:F:81:VAL:HG13	2.19	0.42
1:B:537:LEU:O	1:B:541:ILE:HG12	2.19	0.42
1:B:1979:PHE:CZ	1:B:1996:LEU:HD23	2.53	0.42
1:B:3474:LEU:HG	1:B:3478:LEU:HD13	2.00	0.42
1:B:4194:GLU:CD	1:B:4608:ARG:HH22	2.20	0.42
1:C:58:VAL:HG22	1:C:320:GLU:HA	2.01	0.42
1:C:1009:ARG:HH11	1:C:1013:ARG:HH21	1.67	0.42
1:C:2604:LYS:HD2	1:C:2664:LEU:HD12	2.01	0.42
1:C:2716:LYS:HG3	1:C:2717:LEU:HD22	2.00	0.42
1:C:4943:MET:CE	1:C:4951:PHE:HB3	2.48	0.42
1:D:1256:PRO:HB2	1:D:1591:LEU:HG	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1943:ARG:HA	1:D:1946:GLU:OE1	2.20	0.42
1:D:3016:ARG:O	1:D:3018:ARG:NE	2.49	0.42
1:D:4194:GLU:HG2	1:D:4645:TRP:HZ3	1.83	0.42
1:A:16:THR:HG23	1:A:111:ARG:O	2.20	0.42
1:A:3221:LEU:HD22	1:A:3234:VAL:HG11	2.01	0.42
1:B:1910:LEU:HD13	1:B:2062:ILE:HG12	2.00	0.42
1:B:1943:ARG:HH12	1:B:1964:GLU:CD	2.23	0.42
1:C:921:PHE:HA	1:C:924:LEU:HB2	2.01	0.42
1:C:1100:ARG:HB3	1:C:1236:TYR:CD1	2.54	0.42
1:C:2732:TRP:CH2	1:C:2755:PRO:HB3	2.54	0.42
1:C:2763:LEU:HD13	1:C:2767:GLU:OE1	2.20	0.42
1:C:2785:TRP:HB3	1:C:2787:TRP:NE1	2.34	0.42
1:C:2840:MET:O	1:C:2844:MET:HG3	2.19	0.42
1:D:58:VAL:HG22	1:D:320:GLU:HA	2.01	0.42
1:D:2678:PRO:HG3	1:D:2978:HIS:CE1	2.54	0.42
1:A:643:LEU:O	1:A:645:GLN:NE2	2.52	0.42
1:A:713:TRP:CZ2	1:A:1251:LEU:HD21	2.55	0.42
1:A:2892:ILE:HG23	1:A:2893:LEU:HD22	2.01	0.42
1:A:4092:LYS:HA	1:A:4129:PHE:CE1	2.55	0.42
3:J:113:LEU:HD13	1:B:1966:ARG:HG3	2.02	0.42
1:B:2785:TRP:HB3	1:B:2787:TRP:NE1	2.34	0.42
1:B:2983:LEU:HD21	1:B:3115:HIS:NE2	2.35	0.42
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.85	0.42
1:C:15:ARG:NH1	1:C:110:HIS:O	2.49	0.42
1:C:227:TYR:CD1	1:C:352:SER:HB2	2.54	0.42
1:C:891:GLU:HA	1:C:894:VAL:HG22	2.02	0.42
1:C:1267:HIS:HB3	1:C:1287:GLN:OE1	2.19	0.42
1:C:3141:GLY:HA3	1:C:3237:VAL:HG11	2.01	0.42
1:C:3890:TRP:O	1:D:76:ARG:NE	2.52	0.42
1:C:4517:LEU:O	1:D:4809:MET:HG2	2.20	0.42
1:C:4751:LYS:HG3	1:C:4754:ARG:HH21	1.84	0.42
1:D:26:ALA:HB2	1:D:194:LEU:HD21	2.02	0.42
1:D:128:MET:HE3	1:D:151:GLU:HG3	2.01	0.42
1:D:356:TYR:HE2	1:D:407:ARG:HD3	1.83	0.42
1:D:603:LYS:NZ	1:D:1573:SER:OG	2.32	0.42
1:D:1298:ASP:OD1	1:D:1299:ILE:N	2.51	0.42
1:D:2488:LEU:HD21	1:D:2548:LEU:HD22	2.00	0.42
1:D:3858:LEU:HD23	1:D:3858:LEU:HA	1.92	0.42
1:D:4751:LYS:HG3	1:D:4754:ARG:HH21	1.84	0.42
1:A:26:ALA:HB2	1:A:194:LEU:HD21	2.02	0.42
1:A:1835:HIS:O	1:A:1835:HIS:ND1	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2957:GLU:O	1:A:2961:LYS:HG2	2.19	0.42
1:A:3141:GLY:HA3	1:A:3237:VAL:HG11	2.01	0.42
1:A:4858:LEU:HD23	1:A:4861:ILE:HD12	2.01	0.42
1:A:4898:PHE:O	1:A:4904:GLY:HA3	2.19	0.42
2:H:17:PRO:HG3	2:H:107:LEU:HD21	2.01	0.42
3:L:40:LEU:HD22	3:L:42:GLN:NE2	2.35	0.42
1:B:503:ASP:O	1:B:507:VAL:HG13	2.18	0.42
1:B:1100:ARG:HB3	1:B:1236:TYR:CD1	2.54	0.42
1:B:1267:HIS:HB3	1:B:1287:GLN:OE1	2.19	0.42
1:B:2585:MET:HG3	1:B:2589:LEU:HD23	2.01	0.42
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	2.02	0.42
1:B:2745:GLU:OE2	1:B:2746:ILE:HG12	2.19	0.42
1:B:2967:VAL:O	1:B:2971:ILE:HG13	2.19	0.42
1:B:3071:THR:HG23	1:B:3094:ILE:HD13	2.01	0.42
1:B:4028:SER:O	1:B:4033:LYS:NZ	2.52	0.42
1:B:4751:LYS:HG3	1:B:4754:ARG:HH21	1.84	0.42
1:C:16:THR:HG23	1:C:111:ARG:O	2.20	0.42
1:C:2344:LEU:HD22	1:C:2434:GLY:HA3	2.02	0.42
1:C:2983:LEU:HD21	1:C:3115:HIS:NE2	2.35	0.42
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.84	0.42
1:D:16:THR:HG23	1:D:111:ARG:O	2.20	0.42
1:D:831:LYS:HB3	1:D:831:LYS:HE3	1.82	0.42
1:D:2957:GLU:O	1:D:2960:ILE:HG22	2.19	0.42
1:D:3935:LEU:HD23	1:D:3935:LEU:HA	1.85	0.42
1:D:4092:LYS:HA	1:D:4129:PHE:CZ	2.54	0.42
1:A:801:ARG:HD2	1:A:1615:GLN:O	2.20	0.42
1:A:894:VAL:O	1:A:898:ILE:HG13	2.19	0.42
1:A:1943:ARG:HA	1:A:1946:GLU:OE1	2.20	0.42
1:A:2591:ARG:HH22	1:A:2873:PRO:HB2	1.85	0.42
1:A:2957:GLU:O	1:A:2960:ILE:HG22	2.19	0.42
1:A:3175:LEU:HD23	1:A:3175:LEU:H	1.85	0.42
1:A:4488:GLN:O	1:A:4492:LEU:HG	2.20	0.42
3:I:40:LEU:HD22	3:I:42:GLN:NE2	2.35	0.42
1:B:79:GLN:HA	1:B:82:LEU:HD23	2.02	0.42
1:B:921:PHE:HA	1:B:924:LEU:HB2	2.01	0.42
1:B:2343:LEU:HD21	1:B:2468:MET:HE3	2.02	0.42
1:B:2763:LEU:HD13	1:B:2767:GLU:OE1	2.20	0.42
1:C:894:VAL:O	1:C:898:ILE:HG13	2.19	0.42
1:C:2610:LEU:HD13	1:C:2644:LEU:HD21	2.02	0.42
1:C:3474:LEU:HG	1:C:3478:LEU:HD13	2.00	0.42
1:C:4898:PHE:O	1:C:4904:GLY:HA3	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2957:GLU:O	1:D:2961:LYS:HG2	2.20	0.42
1:A:125:TYR:CE1	1:A:417:ARG:HD3	2.55	0.42
1:A:335:LYS:NZ	1:A:401:ASP:OD2	2.31	0.42
1:A:614:LEU:HD22	1:A:632:ILE:HG12	2.01	0.42
1:B:16:THR:HG23	1:B:111:ARG:O	2.20	0.42
1:B:125:TYR:CE1	1:B:417:ARG:HD3	2.55	0.42
1:B:2957:GLU:O	1:B:2960:ILE:HG22	2.19	0.42
1:B:3187:LYS:O	1:B:3188:SER:OG	2.33	0.42
1:C:54:ASN:OD1	1:C:57:ASN:ND2	2.53	0.42
1:C:2914:THR:O	1:C:2916:SER:N	2.49	0.42
1:D:888:ASN:HA	1:D:891:GLU:HB2	2.00	0.42
1:D:891:GLU:HA	1:D:894:VAL:HG22	2.02	0.42
1:D:1943:ARG:HH12	1:D:1964:GLU:CD	2.23	0.42
1:D:2344:LEU:HD22	1:D:2434:GLY:HA3	2.02	0.42
1:D:2604:LYS:HD2	1:D:2664:LEU:HD12	2.01	0.42
1:D:4943:MET:HE1	1:D:4951:PHE:HB3	2.02	0.42
1:A:1682:GLU:OE1	1:A:1783:PRO:HD3	2.20	0.42
1:A:1943:ARG:HH12	1:A:1964:GLU:CD	2.23	0.42
1:A:3234:VAL:HG12	1:A:3239:LEU:CD1	2.50	0.42
1:A:4708:TRP:O	1:A:4712:VAL:HG23	2.20	0.42
1:B:1256:PRO:HB2	1:B:1591:LEU:HG	2.02	0.42
1:B:2610:LEU:HD13	1:B:2644:LEU:HD21	2.02	0.42
1:B:2892:ILE:HG23	1:B:2893:LEU:HD22	2.01	0.42
1:B:3210:SER:H	1:B:3213:LYS:HE3	1.83	0.42
1:B:4488:GLN:O	1:B:4492:LEU:HG	2.20	0.42
1:B:4517:LEU:O	1:C:4809:MET:HG2	2.20	0.42
1:C:26:ALA:HB2	1:C:194:LEU:HD21	2.02	0.42
1:C:674:TYR:CD2	1:C:815:PRO:HB3	2.55	0.42
1:C:1591:LEU:HD12	1:C:1591:LEU:HA	1.91	0.42
1:C:1681:ASP:OD1	1:C:1681:ASP:N	2.53	0.42
1:C:2678:PRO:HG3	1:C:2978:HIS:CE1	2.54	0.42
1:C:2957:GLU:O	1:C:2961:LYS:HG2	2.20	0.42
1:C:3016:ARG:O	1:C:3018:ARG:NE	2.49	0.42
1:C:3176:ASP:N	1:C:3176:ASP:OD1	2.50	0.42
1:C:3221:LEU:HD22	1:C:3234:VAL:HG11	2.01	0.42
1:C:3234:VAL:HG12	1:C:3239:LEU:CD1	2.50	0.42
1:D:79:GLN:HA	1:D:82:LEU:HD23	2.02	0.42
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	2.01	0.42
1:D:3071:THR:HG23	1:D:3094:ILE:HD13	2.01	0.42
1:D:4092:LYS:HA	1:D:4129:PHE:CE1	2.54	0.42
1:D:4898:PHE:O	1:D:4904:GLY:HA3	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:GLN:HA	1:A:82:LEU:HD23	2.02	0.42
1:A:2344:LEU:HD22	1:A:2434:GLY:HA3	2.02	0.42
1:A:3102:LEU:HB2	1:A:3103:PRO:HD3	2.02	0.42
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.85	0.42
1:B:555:LEU:HD13	1:B:578:VAL:HG11	2.02	0.42
1:B:801:ARG:HD2	1:B:1615:GLN:O	2.20	0.42
1:B:831:LYS:HB3	1:B:831:LYS:HE3	1.82	0.42
1:B:913:ARG:O	1:B:914:GLN:HG3	2.20	0.42
1:B:1196:ASP:OD1	1:B:1196:ASP:N	2.53	0.42
1:B:1682:GLU:OE1	1:B:1783:PRO:HD3	2.20	0.42
1:B:1691:ASN:HD22	1:B:1694:MET:HE2	1.84	0.42
1:B:1943:ARG:HA	1:B:1946:GLU:OE1	2.20	0.42
1:B:4690:LYS:HD2	1:B:4690:LYS:HA	1.85	0.42
1:C:79:GLN:HA	1:C:82:LEU:HD23	2.02	0.42
1:C:913:ARG:O	1:C:914:GLN:HG3	2.20	0.42
1:C:2343:LEU:HD21	1:C:2468:MET:HE3	2.00	0.42
1:C:4092:LYS:HA	1:C:4129:PHE:CZ	2.54	0.42
1:D:801:ARG:HD2	1:D:1615:GLN:O	2.20	0.42
1:D:1492:GLU:O	1:D:1495:SER:OG	2.33	0.42
1:D:1937:GLN:HG2	1:D:3608:LEU:HB3	2.02	0.42
1:D:2967:VAL:O	1:D:2971:ILE:HG13	2.19	0.42
1:D:3234:VAL:HG12	1:D:3239:LEU:CD1	2.50	0.42
1:D:4043:ILE:HD12	1:D:4043:ILE:HA	1.89	0.42
1:D:4488:GLN:O	1:D:4492:LEU:HG	2.20	0.42
1:A:921:PHE:HA	1:A:924:LEU:HB2	2.01	0.41
1:A:1964:GLU:HG3	1:A:1975:MET:HE1	2.02	0.41
1:A:3166:PHE:CE2	1:A:3168:VAL:HB	2.55	0.41
1:A:3418:ASN:HA	1:A:3421:VAL:HG22	2.02	0.41
1:B:1419:PHE:HE2	1:B:1562:ASN:HB3	1.85	0.41
1:B:1968:PRO:HA	1:B:3605:MET:HE2	2.02	0.41
1:B:2344:LEU:HD22	1:B:2434:GLY:HA3	2.02	0.41
1:B:2830:ASN:ND2	1:C:1434:PRO:O	2.50	0.41
1:B:2914:THR:O	1:B:2916:SER:N	2.49	0.41
1:B:4092:LYS:HA	1:B:4129:PHE:CE1	2.54	0.41
1:B:4898:PHE:O	1:B:4904:GLY:HA3	2.19	0.41
1:C:629:GLN:OE1	1:C:1669:ASN:ND2	2.45	0.41
1:C:1256:PRO:HB2	1:C:1591:LEU:HG	2.02	0.41
1:D:555:LEU:HD13	1:D:578:VAL:HG11	2.02	0.41
1:D:894:VAL:O	1:D:898:ILE:HG13	2.19	0.41
1:D:2062:ILE:HG21	1:D:2087:LEU:HG	2.02	0.41
1:D:2763:LEU:HD13	1:D:2767:GLU:OE1	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3320:LEU:HB2	1:D:3321:PRO:HD3	2.02	0.41
1:A:1009:ARG:HH11	1:A:1013:ARG:HH21	1.67	0.41
1:A:2604:LYS:HD2	1:A:2664:LEU:HD12	2.01	0.41
1:A:4001:ASP:OD1	1:A:4114:ARG:NH2	2.38	0.41
1:A:4089:GLU:N	1:A:4090:PRO:HD2	2.35	0.41
3:J:15:GLU:O	3:J:19:LEU:HG	2.20	0.41
3:J:40:LEU:HD22	3:J:42:GLN:NE2	2.35	0.41
1:B:674:TYR:CD2	1:B:815:PRO:HB3	2.55	0.41
1:B:1009:ARG:HH11	1:B:1013:ARG:HH21	1.67	0.41
1:B:3175:LEU:HD23	1:B:3175:LEU:H	1.85	0.41
1:B:4858:LEU:HD23	1:B:4861:ILE:HD12	2.01	0.41
1:C:125:TYR:CE1	1:C:417:ARG:HD3	2.55	0.41
1:C:801:ARG:HD2	1:C:1615:GLN:O	2.20	0.41
1:C:1419:PHE:HE2	1:C:1562:ASN:HB3	1.85	0.41
1:C:1922:ILE:HD13	1:C:1922:ILE:HA	1.92	0.41
1:C:2062:ILE:HG21	1:C:2087:LEU:HG	2.02	0.41
1:C:2967:VAL:O	1:C:2971:ILE:HG13	2.19	0.41
1:C:4089:GLU:N	1:C:4090:PRO:HD2	2.35	0.41
1:D:235:ARG:NH2	1:D:270:HIS:O	2.44	0.41
1:D:555:LEU:HD11	1:D:575:LEU:HD12	2.02	0.41
1:D:2892:ILE:HG23	1:D:2893:LEU:HD22	2.01	0.41
1:D:3061:LEU:HD23	1:D:3061:LEU:HA	1.89	0.41
1:D:3166:PHE:CE2	1:D:3168:VAL:HB	2.55	0.41
1:A:54:ASN:OD1	1:A:57:ASN:ND2	2.53	0.41
1:A:1937:GLN:HG2	1:A:3608:LEU:HB3	2.02	0.41
1:A:1945:ASN:O	1:A:1949:GLN:HG2	2.21	0.41
1:A:1968:PRO:HA	1:A:3605:MET:HE2	2.02	0.41
1:A:2763:LEU:HD13	1:A:2767:GLU:OE1	2.20	0.41
1:A:4751:LYS:HG3	1:A:4754:ARG:HH21	1.84	0.41
3:J:78:LYS:HE2	3:J:78:LYS:HA	2.02	0.41
3:L:15:GLU:O	3:L:19:LEU:HG	2.20	0.41
3:L:78:LYS:HE2	3:L:78:LYS:HA	2.02	0.41
1:B:26:ALA:HB2	1:B:194:LEU:HD21	2.02	0.41
1:B:3102:LEU:HB2	1:B:3103:PRO:HD3	2.02	0.41
1:B:3927:PRO:HG3	1:B:3987:GLU:HG2	2.02	0.41
1:C:1139:GLY:HA3	1:C:1156:TRP:CE3	2.55	0.41
1:C:1765:SER:HA	1:C:1766:PRO:HD3	1.87	0.41
1:C:1937:GLN:HG2	1:C:3608:LEU:HB3	2.02	0.41
1:C:3308:ASN:OD1	1:C:3309:LYS:N	2.53	0.41
1:C:3927:PRO:HG3	1:C:3987:GLU:HG2	2.02	0.41
1:C:4858:LEU:HD23	1:C:4861:ILE:HD12	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:125:TYR:CE1	1:D:417:ARG:HD3	2.55	0.41
1:D:643:LEU:O	1:D:645:GLN:NE2	2.52	0.41
1:D:1058:LEU:HD23	1:D:1058:LEU:HA	1.85	0.41
1:D:4107:GLU:OE1	1:D:4149:TYR:OH	2.27	0.41
1:D:4708:TRP:O	1:D:4712:VAL:HG23	2.20	0.41
1:A:831:LYS:HE3	1:A:831:LYS:HB3	1.82	0.41
1:A:1681:ASP:OD1	1:A:1681:ASP:N	2.53	0.41
1:A:4943:MET:HE1	1:A:4951:PHE:HB3	2.02	0.41
2:G:17:PRO:HG3	2:G:107:LEU:HD21	2.01	0.41
3:K:15:GLU:O	3:K:19:LEU:HG	2.20	0.41
1:B:54:ASN:OD1	1:B:57:ASN:ND2	2.53	0.41
1:B:62:LEU:O	1:B:66:THR:HG23	2.21	0.41
1:B:2604:LYS:HD2	1:B:2664:LEU:HD12	2.01	0.41
1:B:4089:GLU:N	1:B:4090:PRO:HD2	2.35	0.41
1:B:4708:TRP:O	1:B:4712:VAL:HG23	2.20	0.41
1:C:1196:ASP:OD1	1:C:1196:ASP:N	2.53	0.41
1:C:1943:ARG:HA	1:C:1946:GLU:OE1	2.20	0.41
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	2.01	0.41
1:C:3000:GLU:O	1:C:3004:VAL:HG23	2.20	0.41
1:C:3166:PHE:CE2	1:C:3168:VAL:HB	2.55	0.41
1:D:3892:TYR:CE2	1:D:3898:ILE:HG23	2.56	0.41
1:D:4721:TYR:OH	1:D:4745:ASP:OD1	2.25	0.41
1:A:555:LEU:HD11	1:A:575:LEU:HD12	2.03	0.41
1:A:1256:PRO:HB2	1:A:1591:LEU:HG	2.02	0.41
1:A:1729:MET:HE3	1:A:3617:VAL:HG21	2.03	0.41
1:A:1922:ILE:HD13	1:A:1922:ILE:HA	1.92	0.41
1:A:1973:ILE:HG21	1:A:3620:PHE:HA	2.03	0.41
1:A:2062:ILE:HG21	1:A:2087:LEU:HG	2.02	0.41
1:A:4020:PHE:CD1	1:A:4087:PHE:HB3	2.55	0.41
2:F:90:GLY:HA2	1:B:638:PRO:HD3	2.01	0.41
1:B:643:LEU:O	1:B:645:GLN:NE2	2.52	0.41
1:B:3234:VAL:HG12	1:B:3239:LEU:CD1	2.50	0.41
1:C:555:LEU:HD13	1:C:578:VAL:HG11	2.02	0.41
1:C:1682:GLU:OE1	1:C:1783:PRO:HD3	2.20	0.41
1:C:3071:THR:HG23	1:C:3094:ILE:HD13	2.01	0.41
1:D:54:ASN:OD1	1:D:57:ASN:ND2	2.53	0.41
1:D:225:GLN:NE2	1:D:3865:ASN:HA	2.36	0.41
1:D:227:TYR:CD1	1:D:352:SER:HB2	2.54	0.41
1:D:674:TYR:CD2	1:D:815:PRO:HB3	2.55	0.41
1:D:913:ARG:O	1:D:914:GLN:HG3	2.20	0.41
1:D:921:PHE:HA	1:D:924:LEU:HB2	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1196:ASP:N	1:D:1196:ASP:OD1	2.53	0.41
1:D:2707:ASP:OD2	1:D:2709:SER:OG	2.26	0.41
1:D:3000:GLU:O	1:D:3004:VAL:HG23	2.20	0.41
1:D:3141:GLY:HA3	1:D:3237:VAL:HG11	2.01	0.41
1:D:3221:LEU:HD22	1:D:3234:VAL:HG11	2.01	0.41
1:D:3308:ASN:OD1	1:D:3309:LYS:N	2.53	0.41
1:D:3927:PRO:HG3	1:D:3987:GLU:HG2	2.02	0.41
1:D:4020:PHE:CD1	1:D:4087:PHE:HB3	2.55	0.41
1:A:555:LEU:HD13	1:A:578:VAL:HG11	2.02	0.41
1:A:674:TYR:CD2	1:A:815:PRO:HB3	2.55	0.41
1:A:1267:HIS:HB3	1:A:1287:GLN:OE1	2.19	0.41
1:A:2464:HIS:O	1:A:2468:MET:HG2	2.21	0.41
1:A:3215:MET:HE1	1:A:3242:LEU:HD13	2.02	0.41
1:A:3308:ASN:OD1	1:A:3309:LYS:N	2.53	0.41
1:A:3400:ALA:O	1:A:3404:ILE:HG23	2.21	0.41
1:B:1945:ASN:O	1:B:1949:GLN:HG2	2.21	0.41
1:B:3400:ALA:O	1:B:3404:ILE:HG23	2.21	0.41
1:B:4767:LEU:O	1:B:4771:VAL:HG23	2.21	0.41
1:C:555:LEU:HD11	1:C:575:LEU:HD12	2.02	0.41
1:C:3320:LEU:HB2	1:C:3321:PRO:HD3	2.02	0.41
1:C:4020:PHE:CD1	1:C:4087:PHE:HB3	2.55	0.41
1:C:4194:GLU:HG2	1:C:4645:TRP:HZ3	1.83	0.41
1:C:4708:TRP:O	1:C:4712:VAL:HG23	2.20	0.41
1:D:1139:GLY:HA3	1:D:1156:TRP:CE3	2.55	0.41
1:D:2610:LEU:HD13	1:D:2644:LEU:HD21	2.02	0.41
1:D:2983:LEU:HD21	1:D:3115:HIS:NE2	2.35	0.41
1:D:3102:LEU:HB2	1:D:3103:PRO:HD3	2.02	0.41
1:D:3175:LEU:HD23	1:D:3175:LEU:H	1.85	0.41
1:A:2983:LEU:HD21	1:A:3115:HIS:NE2	2.35	0.41
1:A:3019:ILE:HD13	1:A:3096:TYR:HA	2.02	0.41
1:A:3858:LEU:HD23	1:A:3858:LEU:HA	1.93	0.41
1:A:4767:LEU:O	1:A:4771:VAL:HG23	2.21	0.41
1:A:4854:VAL:HA	1:A:4858:LEU:HD12	2.03	0.41
2:E:17:PRO:HG3	2:E:107:LEU:HD21	2.01	0.41
1:B:58:VAL:HG22	1:B:320:GLU:HA	2.01	0.41
1:B:166:SER:HB2	1:B:168:GLN:HE22	1.86	0.41
1:B:1689:ILE:HG23	1:B:1703:TYR:CZ	2.56	0.41
1:B:2957:GLU:O	1:B:2961:LYS:HG2	2.20	0.41
1:B:3308:ASN:OD1	1:B:3309:LYS:N	2.53	0.41
1:B:3320:LEU:HB2	1:B:3321:PRO:HD3	2.02	0.41
1:B:3353:LEU:HD23	1:B:3353:LEU:HA	1.97	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3380:ASN:HB2	1:B:3384:TRP:CH2	2.56	0.41
1:B:4867:ILE:HG12	1:C:4864:GLY:HA2	2.02	0.41
1:C:1689:ILE:HG23	1:C:1703:TYR:CZ	2.56	0.41
1:C:1784:LEU:HD23	1:C:1784:LEU:HA	1.92	0.41
1:C:2279:MET:HE3	1:C:2279:MET:HB3	1.82	0.41
1:C:2464:HIS:O	1:C:2468:MET:HG2	2.21	0.41
1:C:2585:MET:O	1:C:2589:LEU:HD23	2.21	0.41
1:C:2591:ARG:HH22	1:C:2873:PRO:HB2	1.85	0.41
1:C:2848:TYR:N	1:C:2848:TYR:CD1	2.89	0.41
1:C:3019:ILE:HD13	1:C:3096:TYR:HA	2.02	0.41
1:C:4092:LYS:HA	1:C:4129:PHE:CE1	2.55	0.41
1:C:4196:THR:HA	1:C:4199:GLU:HG2	2.03	0.41
1:D:1729:MET:HE3	1:D:3617:VAL:HG21	2.02	0.41
1:A:58:VAL:HG22	1:A:320:GLU:HA	2.01	0.41
1:A:1419:PHE:HE2	1:A:1562:ASN:HB3	1.85	0.41
1:A:2848:TYR:N	1:A:2848:TYR:CD1	2.89	0.41
1:A:2854:LYS:HG2	1:A:2858:MET:HE1	2.03	0.41
1:A:4807:ASP:O	1:D:4522:VAL:HG12	2.21	0.41
3:I:22:LYS:O	3:I:23:ASP:OD1	2.39	0.41
1:B:225:GLN:NE2	1:B:3865:ASN:HA	2.36	0.41
1:B:1139:GLY:HA3	1:B:1156:TRP:CE3	2.55	0.41
1:B:3019:ILE:HG13	1:B:3020:SER:N	2.36	0.41
1:B:3418:ASN:HA	1:B:3421:VAL:HG22	2.02	0.41
1:C:2070:ALA:HA	1:C:2075:ILE:HD11	2.03	0.41
1:C:2772:ARG:HB3	1:C:2776:LYS:HE3	2.03	0.41
1:C:3019:ILE:HG13	1:C:3020:SER:N	2.36	0.41
1:C:3380:ASN:HB2	1:C:3384:TRP:CH2	2.56	0.41
1:C:3524:ILE:HD12	1:C:3524:ILE:HA	1.93	0.41
1:D:235:ARG:HB2	1:D:406:SER:OG	2.21	0.41
1:D:1689:ILE:HG23	1:D:1703:TYR:CZ	2.56	0.41
1:D:1973:ILE:HG21	1:D:3620:PHE:HA	2.03	0.41
1:D:2343:LEU:HD21	1:D:2468:MET:HE3	2.02	0.41
1:D:2848:TYR:N	1:D:2848:TYR:CD1	2.89	0.41
1:A:62:LEU:O	1:A:66:THR:HG23	2.21	0.41
1:A:972:LEU:H	1:A:972:LEU:HD23	1.86	0.41
1:A:1689:ILE:HG23	1:A:1703:TYR:CZ	2.56	0.41
1:A:1720:MET:SD	1:A:2127:ARG:HB3	2.60	0.41
1:A:1839:LEU:HA	1:A:1842:ILE:HG12	2.03	0.41
1:A:3074:ASN:ND2	1:A:3090:VAL:HG22	2.36	0.41
1:A:3320:LEU:HB2	1:A:3321:PRO:HD3	2.02	0.41
1:A:3892:TYR:CE2	1:A:3898:ILE:HG23	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3927:PRO:HG3	1:A:3987:GLU:HG2	2.02	0.41
1:A:3992:ASN:HA	1:A:4109:MET:SD	2.61	0.41
1:A:4517:LEU:O	1:B:4809:MET:HG2	2.20	0.41
2:F:17:PRO:HG3	2:F:107:LEU:HD21	2.01	0.41
3:I:15:GLU:O	3:I:19:LEU:HG	2.20	0.41
3:J:76:LYS:HD3	3:J:76:LYS:HA	1.84	0.41
3:K:78:LYS:HA	3:K:78:LYS:HE2	2.02	0.41
1:B:235:ARG:HB2	1:B:406:SER:OG	2.21	0.41
1:B:840:TYR:HH	1:B:1088:PHE:HE2	1.67	0.41
1:B:891:GLU:HA	1:B:894:VAL:HG22	2.02	0.41
1:B:1017:THR:O	1:B:1028:ARG:HA	2.21	0.41
1:B:2070:ALA:HA	1:B:2075:ILE:HD11	2.03	0.41
1:B:2464:HIS:O	1:B:2468:MET:HG2	2.21	0.41
1:B:2591:ARG:HH22	1:B:2873:PRO:HB2	1.85	0.41
1:B:3000:GLU:O	1:B:3004:VAL:HG23	2.21	0.41
1:B:3187:LYS:O	1:B:3191:GLU:HB2	2.21	0.41
1:B:4020:PHE:CD1	1:B:4087:PHE:HB3	2.55	0.41
1:B:4144:ARG:HD2	1:B:4962:TYR:OH	2.21	0.41
1:C:62:LEU:O	1:C:66:THR:HG23	2.21	0.41
1:C:1973:ILE:HG21	1:C:3620:PHE:HA	2.03	0.41
1:C:2378:GLU:HB3	1:C:2381:THR:O	2.21	0.41
1:C:3187:LYS:O	1:C:3191:GLU:HB2	2.21	0.41
1:C:3418:ASN:HA	1:C:3421:VAL:HG22	2.02	0.41
1:C:3992:ASN:HA	1:C:4109:MET:SD	2.61	0.41
1:C:4144:ARG:HD2	1:C:4962:TYR:OH	2.21	0.41
1:C:4197:ILE:HG12	1:C:4923:MET:HE2	2.02	0.41
1:C:4854:VAL:HA	1:C:4858:LEU:HD12	2.03	0.41
1:D:59:PRO:O	1:D:319:LYS:NZ	2.33	0.41
1:D:267:VAL:HG12	1:D:273:SER:HB3	2.03	0.41
1:D:1682:GLU:OE1	1:D:1783:PRO:HD3	2.20	0.41
1:D:1835:HIS:O	1:D:1835:HIS:ND1	2.49	0.41
1:D:1945:ASN:O	1:D:1949:GLN:HG2	2.21	0.41
1:D:2378:GLU:HB3	1:D:2381:THR:O	2.21	0.41
1:D:2591:ARG:HH22	1:D:2873:PRO:HB2	1.85	0.41
1:D:2772:ARG:HB3	1:D:2776:LYS:HE3	2.03	0.41
1:D:2877:LEU:HD11	1:D:2881:GLU:HB3	2.03	0.41
1:D:3418:ASN:HA	1:D:3421:VAL:HG22	2.02	0.41
1:A:1017:THR:O	1:A:1028:ARG:HA	2.21	0.41
1:A:4640:PHE:HB3	1:A:4641:PRO:HD3	2.03	0.41
3:I:1:MET:HA	3:I:5:LEU:HD12	2.03	0.41
3:I:78:LYS:HE2	3:I:78:LYS:HA	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:40:LEU:HD22	3:K:42:GLN:NE2	2.35	0.41
1:B:1937:GLN:HG2	1:B:3608:LEU:HB3	2.02	0.41
1:B:2378:GLU:HB3	1:B:2381:THR:O	2.21	0.41
1:B:2785:TRP:CZ3	1:B:2843:MET:HG3	2.56	0.41
1:B:3308:ASN:O	1:B:3309:LYS:HE2	2.21	0.41
1:C:1720:MET:SD	1:C:2127:ARG:HB3	2.60	0.41
1:C:2877:LEU:HD11	1:C:2881:GLU:HB3	2.03	0.41
1:C:3308:ASN:O	1:C:3309:LYS:HE2	2.21	0.41
1:C:4488:GLN:O	1:C:4492:LEU:HG	2.20	0.41
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.56	0.41
1:D:1009:ARG:HH11	1:D:1013:ARG:HH21	1.67	0.41
1:D:1720:MET:SD	1:D:2127:ARG:HB3	2.60	0.41
1:D:3380:ASN:HB2	1:D:3384:TRP:CH2	2.56	0.41
1:D:4089:GLU:N	1:D:4090:PRO:HD2	2.35	0.41
1:D:4144:ARG:HD2	1:D:4962:TYR:OH	2.21	0.41
1:A:166:SER:HB2	1:A:168:GLN:HE22	1.86	0.40
1:A:913:ARG:O	1:A:914:GLN:HG3	2.20	0.40
1:A:1196:ASP:OD1	1:A:1196:ASP:N	2.53	0.40
1:A:2378:GLU:HB3	1:A:2381:THR:O	2.21	0.40
1:A:2610:LEU:HD13	1:A:2644:LEU:HD21	2.02	0.40
1:A:3172:GLU:OE1	1:A:3266:THR:OG1	2.30	0.40
1:A:3780:TYR:CZ	1:A:3784:LYS:HG3	2.56	0.40
3:J:1:MET:HA	3:J:5:LEU:HD12	2.04	0.40
3:L:2:ALA:N	3:L:4:GLN:OE1	2.55	0.40
1:B:267:VAL:HG12	1:B:273:SER:HB3	2.03	0.40
1:B:400:ASP:OD1	1:B:400:ASP:N	2.54	0.40
1:B:555:LEU:HD11	1:B:575:LEU:HD12	2.02	0.40
1:B:3242:LEU:HD23	1:B:3242:LEU:HA	1.94	0.40
1:B:3992:ASN:HA	1:B:4109:MET:SD	2.61	0.40
1:C:267:VAL:HG12	1:C:273:SER:HB3	2.03	0.40
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.36	0.40
1:D:972:LEU:HD23	1:D:972:LEU:H	1.86	0.40
1:D:1419:PHE:HE2	1:D:1562:ASN:HB3	1.85	0.40
1:D:2706:VAL:HG21	1:D:2785:TRP:NE1	2.27	0.40
1:D:4196:THR:HA	1:D:4199:GLU:HG2	2.03	0.40
1:A:267:VAL:HG12	1:A:273:SER:HB3	2.03	0.40
1:A:958:GLU:O	1:A:961:VAL:HG12	2.21	0.40
1:A:2222:LEU:HD23	1:A:2222:LEU:HA	1.88	0.40
1:A:3000:GLU:O	1:A:3004:VAL:HG23	2.21	0.40
1:A:3304:GLN:HB3	1:A:3305:PRO:HD3	2.03	0.40
3:K:2:ALA:N	3:K:4:GLN:OE1	2.55	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:675:TYR:CZ	1:B:790:PRO:HB3	2.57	0.40
1:B:3166:PHE:CE2	1:B:3168:VAL:HB	2.55	0.40
1:B:3780:TYR:CZ	1:B:3784:LYS:HG3	2.56	0.40
1:B:4854:VAL:HA	1:B:4858:LEU:HD12	2.03	0.40
1:C:505:LEU:HD23	1:C:505:LEU:HA	1.86	0.40
1:C:2324:LEU:HD23	1:C:2331:PHE:HE1	1.87	0.40
1:C:2714:PRO:HD3	1:C:2783:LEU:HD11	2.03	0.40
1:C:3304:GLN:HB3	1:C:3305:PRO:HD3	2.03	0.40
1:C:3935:LEU:HD23	1:C:3935:LEU:HA	1.85	0.40
1:D:62:LEU:O	1:D:66:THR:HG23	2.21	0.40
1:D:166:SER:HB2	1:D:168:GLN:HE22	1.86	0.40
1:D:1017:THR:O	1:D:1028:ARG:HA	2.21	0.40
1:D:3074:ASN:ND2	1:D:3090:VAL:HG22	2.36	0.40
1:D:3780:TYR:CZ	1:D:3784:LYS:HG3	2.56	0.40
1:A:400:ASP:OD1	1:A:400:ASP:N	2.54	0.40
1:A:655:MET:HG3	1:A:1619:VAL:HG11	2.04	0.40
1:A:1139:GLY:HA3	1:A:1156:TRP:CE3	2.55	0.40
1:A:1444:GLY:HA3	1:A:1487:MET:HA	2.03	0.40
1:A:2585:MET:O	1:A:2589:LEU:HD23	2.21	0.40
3:K:1:MET:H2	3:K:4:GLN:HE22	1.68	0.40
3:K:22:LYS:O	3:K:23:ASP:OD1	2.39	0.40
1:B:1720:MET:SD	1:B:2127:ARG:HB3	2.60	0.40
1:B:1973:ILE:HG21	1:B:3620:PHE:HA	2.03	0.40
1:B:2319:VAL:O	1:B:2323:LEU:HG	2.22	0.40
1:B:4618:THR:HG22	1:B:4661:TYR:CZ	2.57	0.40
1:B:4798:ASP:OD1	1:B:4798:ASP:N	2.46	0.40
1:C:1017:THR:O	1:C:1028:ARG:HA	2.21	0.40
1:C:1048:ASP:OD1	1:C:1049:SER:N	2.55	0.40
1:C:1697:LEU:HD23	1:C:1697:LEU:HA	1.96	0.40
1:C:1945:ASN:O	1:C:1949:GLN:HG2	2.21	0.40
1:C:3359:PHE:HB2	1:C:3415:GLU:OE2	2.21	0.40
1:C:4640:PHE:HB3	1:C:4641:PRO:HD3	2.03	0.40
1:C:4767:LEU:O	1:C:4771:VAL:HG23	2.21	0.40
1:C:4801:THR:HG23	1:C:4801:THR:O	2.21	0.40
1:D:675:TYR:CZ	1:D:790:PRO:HB3	2.57	0.40
1:D:958:GLU:O	1:D:961:VAL:HG12	2.21	0.40
1:D:1048:ASP:OD1	1:D:1049:SER:N	2.55	0.40
1:D:3308:ASN:O	1:D:3309:LYS:HE2	2.21	0.40
1:D:3400:ALA:O	1:D:3404:ILE:HG23	2.21	0.40
1:D:3967:LEU:HD12	1:D:3967:LEU:HA	1.95	0.40
1:D:4896:ASP:OD1	1:D:4897:TYR:N	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:972:LEU:HG	1:A:974:SER:H	1.87	0.40
1:A:981:MET:HB3	1:A:982:ASP:H	1.72	0.40
1:A:1497:GLY:HA2	1:D:2798:MET:CE	2.52	0.40
1:A:1649:GLU:HG2	1:A:1650:LEU:N	2.36	0.40
1:A:2877:LEU:HD11	1:A:2881:GLU:HB3	2.03	0.40
3:K:14:LYS:HG2	1:C:2153:LYS:HG2	2.03	0.40
1:B:946:LEU:HD21	1:B:998:LYS:NZ	2.37	0.40
1:B:3019:ILE:HD13	1:B:3096:TYR:HA	2.02	0.40
1:B:3858:LEU:HD23	1:B:3858:LEU:HA	1.93	0.40
1:C:831:LYS:HE3	1:C:831:LYS:HB3	1.82	0.40
1:C:840:TYR:HH	1:C:1088:PHE:HE2	1.68	0.40
1:C:972:LEU:HG	1:C:974:SER:H	1.86	0.40
1:C:1021:GLN:NE2	1:C:1022:GLN:O	2.55	0.40
1:C:1839:LEU:HA	1:C:1842:ILE:HG12	2.03	0.40
1:C:2263:GLU:OE2	1:C:2327:ARG:NH1	2.29	0.40
1:C:3298:ARG:O	1:C:3302:PHE:CD2	2.75	0.40
1:C:3400:ALA:O	1:C:3404:ILE:HG23	2.21	0.40
1:C:3892:TYR:CE2	1:C:3898:ILE:HG23	2.56	0.40
1:C:4203:ALA:HA	1:C:4206:ILE:HG12	2.04	0.40
1:C:4522:VAL:HG12	1:D:4807:ASP:O	2.21	0.40
1:D:1829:LEU:HG	1:D:1912:TYR:CE2	2.57	0.40
1:D:2767:GLU:O	1:D:2770:ILE:HG12	2.22	0.40
1:D:3727:GLN:HG2	1:D:3730:ARG:HH21	1.87	0.40
1:D:4615:LEU:O	1:D:4620:GLN:N	2.41	0.40
1:A:891:GLU:HA	1:A:894:VAL:HG22	2.02	0.40
1:A:1021:GLN:NE2	1:A:1022:GLN:O	2.55	0.40
1:A:2126:ILE:HG12	1:A:2142:MET:HG3	2.04	0.40
1:A:2324:LEU:HD23	1:A:2331:PHE:HE1	1.86	0.40
1:A:2707:ASP:OD2	1:A:2709:SER:OG	2.26	0.40
1:A:2880:LYS:HE2	1:A:2880:LYS:HB2	1.84	0.40
1:A:3019:ILE:HG13	1:A:3020:SER:N	2.36	0.40
1:A:3187:LYS:O	1:A:3191:GLU:HB2	2.21	0.40
1:A:3324:GLU:O	1:A:3328:LYS:HG2	2.22	0.40
1:A:3727:GLN:HG2	1:A:3730:ARG:HH21	1.87	0.40
1:A:4196:THR:HA	1:A:4199:GLU:HG2	2.03	0.40
1:A:4197:ILE:HG12	1:A:4923:MET:HE2	2.04	0.40
1:A:4265:LYS:O	1:A:4269:LYS:HG3	2.22	0.40
1:A:4801:THR:O	1:A:4801:THR:HG23	2.22	0.40
2:F:85:ALA:O	2:F:94:PRO:HB3	2.21	0.40
3:J:22:LYS:O	3:J:23:ASP:OD1	2.39	0.40
1:B:499:LEU:HD22	1:B:557:TRP:CZ3	2.57	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1649:GLU:HG2	1:B:1650:LEU:N	2.36	0.40
1:B:2585:MET:O	1:B:2589:LEU:HD23	2.21	0.40
1:B:2772:ARG:HB3	1:B:2776:LYS:HE3	2.03	0.40
1:B:3074:ASN:ND2	1:B:3090:VAL:HG22	2.36	0.40
1:B:4248:LEU:HD22	1:C:4711:GLY:HA2	2.03	0.40
1:B:4801:THR:O	1:B:4801:THR:HG23	2.22	0.40
1:C:225:GLN:NE2	1:C:3865:ASN:HA	2.36	0.40
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.56	0.40
1:C:675:TYR:CZ	1:C:790:PRO:HB3	2.57	0.40
1:C:3102:LEU:HB2	1:C:3103:PRO:HD3	2.02	0.40
1:C:3221:LEU:C	1:C:3223:GLU:H	2.25	0.40
1:C:4502:MET:HE3	1:C:4502:MET:HB3	1.80	0.40
1:D:878:LEU:HA	1:D:881:ILE:HG22	2.04	0.40
1:D:946:LEU:HD21	1:D:998:LYS:NZ	2.37	0.40
1:D:1444:GLY:HA3	1:D:1487:MET:HA	2.03	0.40
1:D:2126:ILE:HG12	1:D:2142:MET:HG3	2.04	0.40
1:D:3046:MET:HA	1:D:3054:LYS:HE2	2.03	0.40
1:D:3359:PHE:HB2	1:D:3415:GLU:OE2	2.21	0.40
1:D:3594:GLN:HE22	1:D:3819:MET:HE1	1.86	0.40
1:D:4203:ALA:HA	1:D:4206:ILE:HG12	2.04	0.40
1:D:4265:LYS:O	1:D:4269:LYS:HG3	2.22	0.40
1:D:4767:LEU:O	1:D:4771:VAL:HG23	2.21	0.40
1:D:4854:VAL:HA	1:D:4858:LEU:HD12	2.03	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	4415/4967 (89%)	4241 (96%)	168 (4%)	6 (0%)	51 83
1	B	4415/4967 (89%)	4240 (96%)	169 (4%)	6 (0%)	51 83

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	C	4415/4967 (89%)	4241 (96%)	168 (4%)	6 (0%)	51 83
1	D	4415/4967 (89%)	4241 (96%)	168 (4%)	6 (0%)	51 83
2	E	105/108 (97%)	101 (96%)	3 (3%)	1 (1%)	15 50
2	F	105/108 (97%)	100 (95%)	4 (4%)	1 (1%)	15 50
2	G	105/108 (97%)	99 (94%)	5 (5%)	1 (1%)	15 50
2	H	105/108 (97%)	100 (95%)	4 (4%)	1 (1%)	15 50
3	I	136/149 (91%)	126 (93%)	10 (7%)	0	100 100
3	J	136/149 (91%)	126 (93%)	10 (7%)	0	100 100
3	K	136/149 (91%)	126 (93%)	10 (7%)	0	100 100
3	L	136/149 (91%)	126 (93%)	10 (7%)	0	100 100
All	All	18624/20896 (89%)	17867 (96%)	729 (4%)	28 (0%)	50 80

All (28) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	324	VAL
1	A	1495	SER
2	E	3	VAL
2	F	3	VAL
2	G	3	VAL
2	H	3	VAL
1	B	324	VAL
1	B	1495	SER
1	C	324	VAL
1	C	1495	SER
1	D	324	VAL
1	D	1495	SER
1	A	1982	ASP
1	B	1982	ASP
1	C	1982	ASP
1	D	1982	ASP
1	A	313	ASN
1	B	313	ASN
1	C	313	ASN
1	D	313	ASN
1	A	252	HIS
1	A	4620	GLN
1	B	252	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	4620	GLN
1	C	252	HIS
1	C	4620	GLN
1	D	252	HIS
1	D	4620	GLN

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	3905/4358 (90%)	3889 (100%)	16 (0%)	91	97
1	B	3905/4358 (90%)	3887 (100%)	18 (0%)	88	95
1	C	3905/4358 (90%)	3887 (100%)	18 (0%)	88	95
1	D	3905/4358 (90%)	3887 (100%)	18 (0%)	88	95
2	E	88/89 (99%)	85 (97%)	3 (3%)	37	70
2	F	88/89 (99%)	85 (97%)	3 (3%)	37	70
2	G	88/89 (99%)	85 (97%)	3 (3%)	37	70
2	H	88/89 (99%)	85 (97%)	3 (3%)	37	70
3	I	119/127 (94%)	109 (92%)	10 (8%)	11	36
3	J	119/127 (94%)	109 (92%)	10 (8%)	11	36
3	K	119/127 (94%)	109 (92%)	10 (8%)	11	36
3	L	119/127 (94%)	109 (92%)	10 (8%)	11	36
All	All	16448/18296 (90%)	16326 (99%)	122 (1%)	84	93

All (122) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	325	LYS
1	A	344	LYS
1	A	880	ARG
1	A	983	LEU
1	A	1002	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1293	GLN
1	A	2279	MET
1	A	2303	ARG
1	A	2788	ARG
1	A	3018	ARG
1	A	3215	MET
1	A	3248	ARG
1	A	3260	ARG
1	A	4046	ARG
1	A	4183	LYS
1	A	4809	MET
2	E	3	VAL
2	E	14	ARG
2	E	30	MET
2	F	3	VAL
2	F	14	ARG
2	F	30	MET
2	G	3	VAL
2	G	14	ARG
2	G	30	MET
2	H	3	VAL
2	H	14	ARG
2	H	30	MET
3	I	18	SER
3	I	36	VAL
3	I	37	MET
3	I	50	GLN
3	I	53	ILE
3	I	87	ARG
3	I	107	ARG
3	I	110	MET
3	I	139	TYR
3	I	146	MET
3	J	18	SER
3	J	36	VAL
3	J	37	MET
3	J	50	GLN
3	J	53	ILE
3	J	87	ARG
3	J	107	ARG
3	J	110	MET
3	J	139	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	J	146	MET
3	K	18	SER
3	K	36	VAL
3	K	37	MET
3	K	50	GLN
3	K	53	ILE
3	K	87	ARG
3	K	107	ARG
3	K	110	MET
3	K	139	TYR
3	K	146	MET
3	L	18	SER
3	L	36	VAL
3	L	37	MET
3	L	50	GLN
3	L	53	ILE
3	L	87	ARG
3	L	107	ARG
3	L	110	MET
3	L	139	TYR
3	L	146	MET
1	B	325	LYS
1	B	344	LYS
1	B	880	ARG
1	B	983	LEU
1	B	1002	ASN
1	B	1293	GLN
1	B	2279	MET
1	B	2303	ARG
1	B	2788	ARG
1	B	2838[A]	HIS
1	B	2838[B]	HIS
1	B	3018	ARG
1	B	3215	MET
1	B	3248	ARG
1	B	3260	ARG
1	B	4046	ARG
1	B	4183	LYS
1	B	4809	MET
1	C	325	LYS
1	C	344	LYS
1	C	880	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	983	LEU
1	C	1002	ASN
1	C	1293	GLN
1	C	2279	MET
1	C	2303	ARG
1	C	2788	ARG
1	C	2838[A]	HIS
1	C	2838[B]	HIS
1	C	3018	ARG
1	C	3215	MET
1	C	3248	ARG
1	C	3260	ARG
1	C	4046	ARG
1	C	4183	LYS
1	C	4809	MET
1	D	325	LYS
1	D	344	LYS
1	D	880	ARG
1	D	983	LEU
1	D	1002	ASN
1	D	1293	GLN
1	D	2279	MET
1	D	2303	ARG
1	D	2788	ARG
1	D	2838[A]	HIS
1	D	2838[B]	HIS
1	D	3018	ARG
1	D	3215	MET
1	D	3248	ARG
1	D	3260	ARG
1	D	4046	ARG
1	D	4183	LYS
1	D	4809	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (32) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	79	GLN
1	A	836	HIS
1	A	934	GLN
1	A	1691	ASN
1	A	2868	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	3178	HIS
1	A	3274	ASN
1	A	3594	GLN
1	B	79	GLN
1	B	836	HIS
1	B	934	GLN
1	B	1691	ASN
1	B	2868	HIS
1	B	3178	HIS
1	B	3274	ASN
1	B	3594	GLN
1	C	79	GLN
1	C	836	HIS
1	C	934	GLN
1	C	1691	ASN
1	C	2868	HIS
1	C	3178	HIS
1	C	3274	ASN
1	C	3594	GLN
1	D	79	GLN
1	D	836	HIS
1	D	934	GLN
1	D	1691	ASN
1	D	2868	HIS
1	D	3178	HIS
1	D	3274	ASN
1	D	3594	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 monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 12 ligands modelled in this entry, 4 are monoatomic - leaving 8 for Mogul analysis.

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	$\#\|Z\| > 2$
5	ATP	C	5002	-	26,33,33	0.59	0	31,52,52	0.75	2 (6%)
5	ATP	C	5003	-	26,33,33	0.60	0	31,52,52	0.74	2 (6%)
5	ATP	A	5003	-	26,33,33	0.61	0	31,52,52	0.74	2 (6%)
5	ATP	A	5002	-	26,33,33	0.59	0	31,52,52	0.75	2 (6%)
5	ATP	B	5002	-	26,33,33	0.60	0	31,52,52	0.75	2 (6%)
5	ATP	D	5003	-	26,33,33	0.59	0	31,52,52	0.75	2 (6%)
5	ATP	D	5002	-	26,33,33	0.59	0	31,52,52	0.75	2 (6%)
5	ATP	B	5003	-	26,33,33	0.60	0	31,52,52	0.75	2 (6%)

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
5	ATP	C	5002	-	-	7/18/38/38	0/3/3/3
5	ATP	C	5003	-	-	5/18/38/38	0/3/3/3
5	ATP	A	5003	-	-	5/18/38/38	0/3/3/3
5	ATP	A	5002	-	-	7/18/38/38	0/3/3/3
5	ATP	B	5002	-	-	6/18/38/38	0/3/3/3
5	ATP	D	5003	-	-	5/18/38/38	0/3/3/3
5	ATP	D	5002	-	-	7/18/38/38	0/3/3/3
5	ATP	B	5003	-	-	5/18/38/38	0/3/3/3

There are no bond length outliers.

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	B	5003	ATP	C5-C6-N6	2.33	123.89	120.35
5	D	5003	ATP	C5-C6-N6	2.32	123.88	120.35
5	C	5003	ATP	C5-C6-N6	2.30	123.84	120.35
5	D	5002	ATP	C5-C6-N6	2.29	123.84	120.35
5	C	5002	ATP	C5-C6-N6	2.28	123.81	120.35
5	A	5002	ATP	C5-C6-N6	2.28	123.81	120.35
5	A	5003	ATP	C5-C6-N6	2.27	123.80	120.35
5	B	5002	ATP	C5-C6-N6	2.26	123.79	120.35
5	C	5002	ATP	PB-O3B-PG	2.07	139.93	132.83
5	D	5003	ATP	PB-O3B-PG	2.07	139.91	132.83
5	A	5002	ATP	PB-O3B-PG	2.06	139.90	132.83
5	B	5002	ATP	PB-O3B-PG	2.06	139.90	132.83
5	D	5002	ATP	PB-O3B-PG	2.06	139.88	132.83
5	B	5003	ATP	PB-O3B-PG	2.05	139.86	132.83
5	C	5003	ATP	PB-O3B-PG	2.04	139.81	132.83
5	A	5003	ATP	PB-O3B-PG	2.03	139.80	132.83

There are no chirality outliers.

All (47) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	5002	ATP	C5'-O5'-PA-O1A
5	A	5002	ATP	C5'-O5'-PA-O2A
5	A	5003	ATP	C5'-O5'-PA-O1A
5	A	5003	ATP	C5'-O5'-PA-O2A
5	B	5002	ATP	C5'-O5'-PA-O1A
5	B	5002	ATP	C5'-O5'-PA-O2A
5	B	5003	ATP	C5'-O5'-PA-O1A
5	B	5003	ATP	C5'-O5'-PA-O2A
5	C	5002	ATP	C5'-O5'-PA-O1A
5	C	5002	ATP	C5'-O5'-PA-O2A
5	C	5003	ATP	C5'-O5'-PA-O1A
5	C	5003	ATP	C5'-O5'-PA-O2A
5	D	5002	ATP	C5'-O5'-PA-O1A
5	D	5002	ATP	C5'-O5'-PA-O2A
5	D	5003	ATP	C5'-O5'-PA-O1A
5	D	5003	ATP	C5'-O5'-PA-O2A
5	A	5002	ATP	PG-O3B-PB-O3A
5	B	5002	ATP	PG-O3B-PB-O3A
5	C	5002	ATP	PG-O3B-PB-O3A
5	D	5002	ATP	PG-O3B-PB-O3A
5	A	5002	ATP	C5'-O5'-PA-O3A
5	A	5003	ATP	C5'-O5'-PA-O3A

Continued on next page...

Continued from previous page...

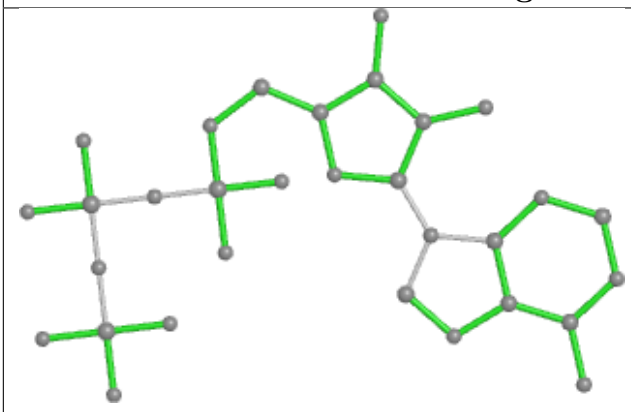
Mol	Chain	Res	Type	Atoms
5	B	5002	ATP	C5'-O5'-PA-O3A
5	B	5003	ATP	C5'-O5'-PA-O3A
5	C	5002	ATP	C5'-O5'-PA-O3A
5	C	5003	ATP	C5'-O5'-PA-O3A
5	D	5002	ATP	C5'-O5'-PA-O3A
5	D	5003	ATP	C5'-O5'-PA-O3A
5	A	5003	ATP	O4'-C4'-C5'-O5'
5	B	5003	ATP	O4'-C4'-C5'-O5'
5	C	5003	ATP	O4'-C4'-C5'-O5'
5	D	5003	ATP	O4'-C4'-C5'-O5'
5	A	5002	ATP	O4'-C4'-C5'-O5'
5	B	5002	ATP	O4'-C4'-C5'-O5'
5	C	5002	ATP	O4'-C4'-C5'-O5'
5	D	5002	ATP	O4'-C4'-C5'-O5'
5	A	5003	ATP	C3'-C4'-C5'-O5'
5	B	5003	ATP	C3'-C4'-C5'-O5'
5	C	5003	ATP	C3'-C4'-C5'-O5'
5	D	5003	ATP	C3'-C4'-C5'-O5'
5	A	5002	ATP	PG-O3B-PB-O1B
5	A	5002	ATP	PB-O3A-PA-O2A
5	B	5002	ATP	PG-O3B-PB-O1B
5	C	5002	ATP	PG-O3B-PB-O1B
5	C	5002	ATP	PB-O3A-PA-O2A
5	D	5002	ATP	PG-O3B-PB-O1B
5	D	5002	ATP	PB-O3A-PA-O2A

There are no ring outliers.

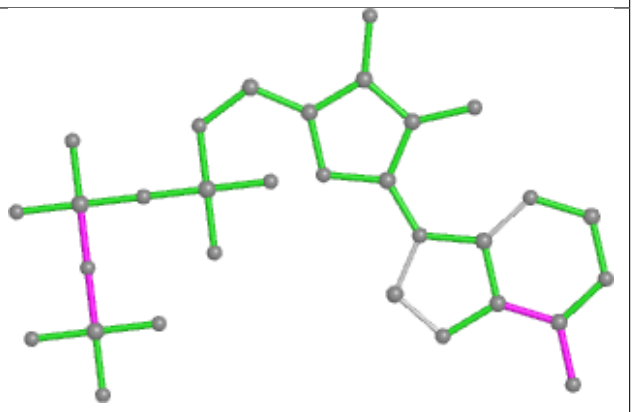
No monomer is involved in short contacts.

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.

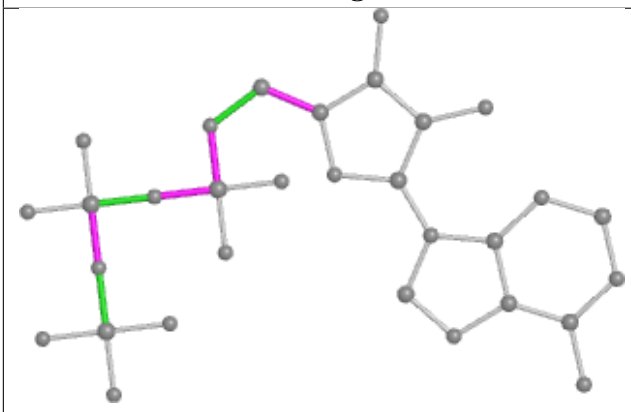
Ligand ATP C 5002



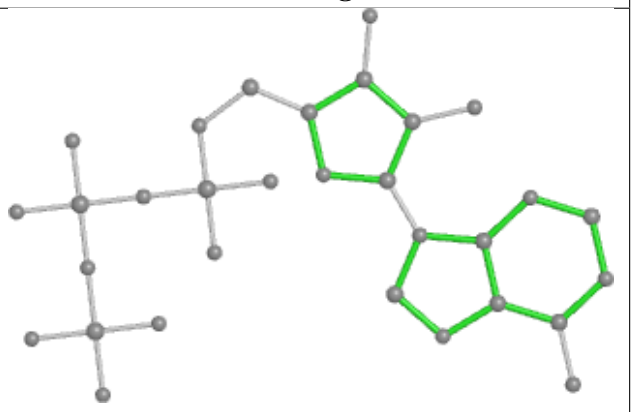
Bond lengths



Bond angles

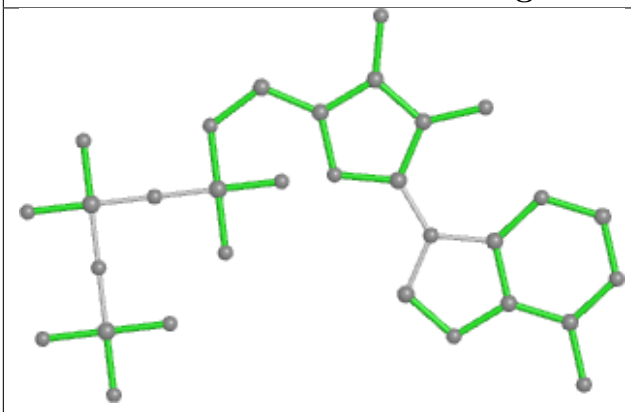


Torsions

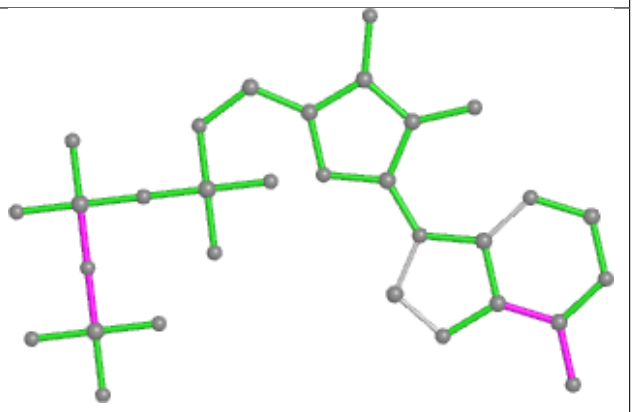


Rings

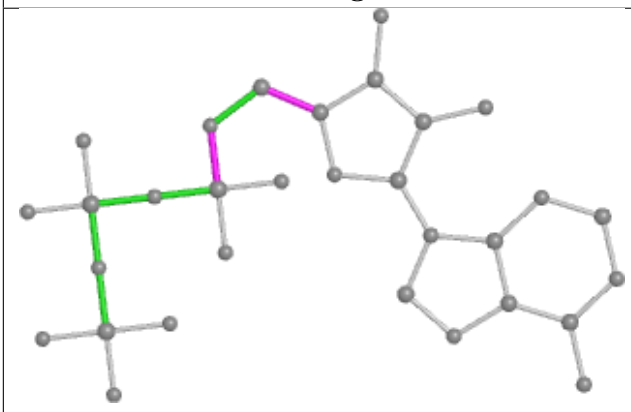
Ligand ATP C 5003



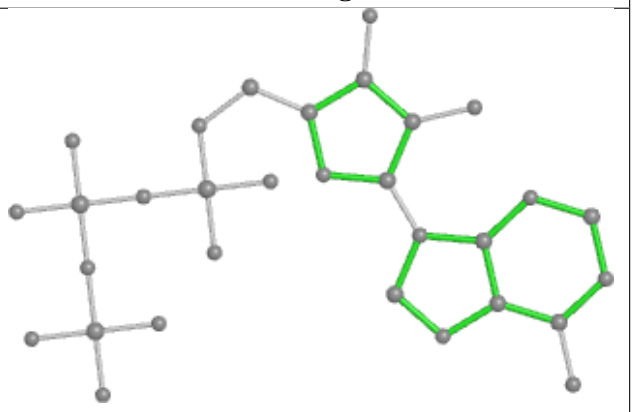
Bond lengths



Bond angles

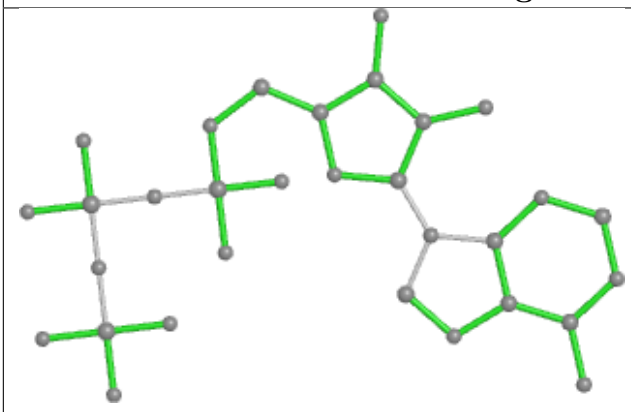


Torsions

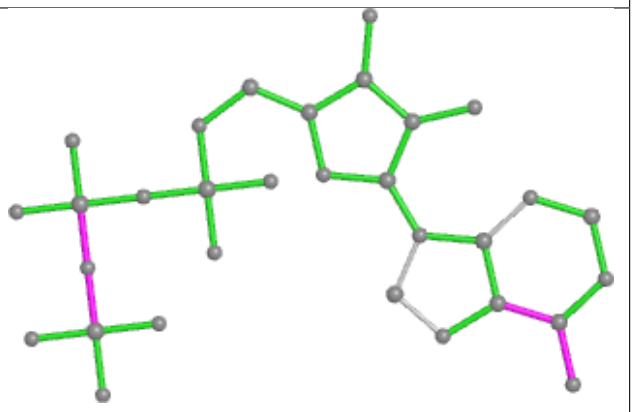


Rings

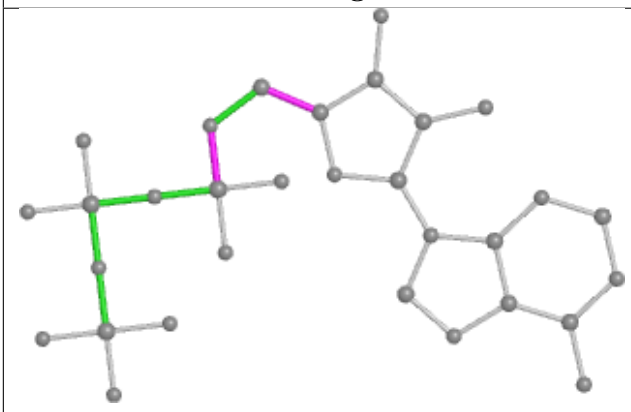
Ligand ATP A 5003



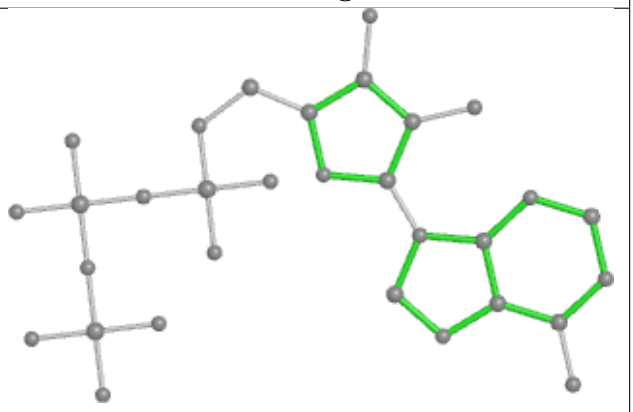
Bond lengths



Bond angles

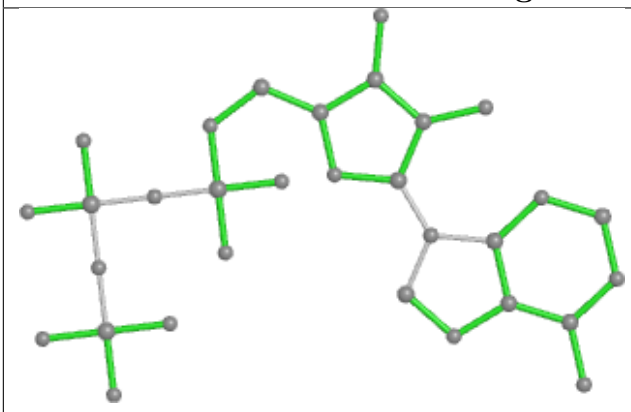


Torsions

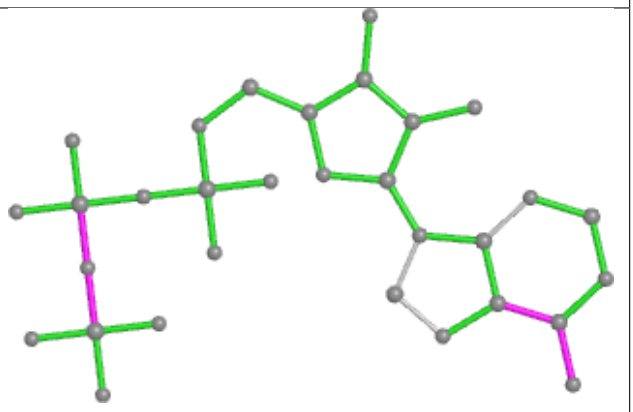


Rings

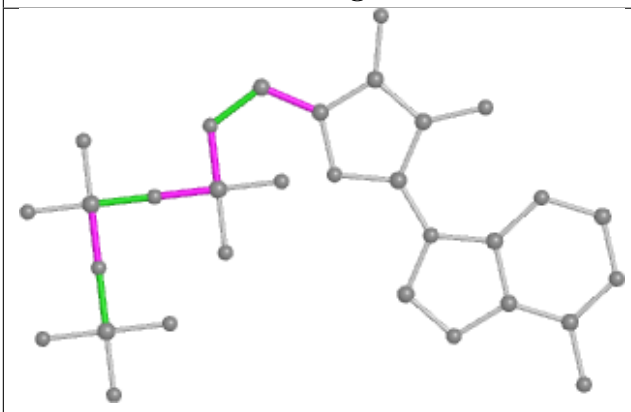
Ligand ATP A 5002



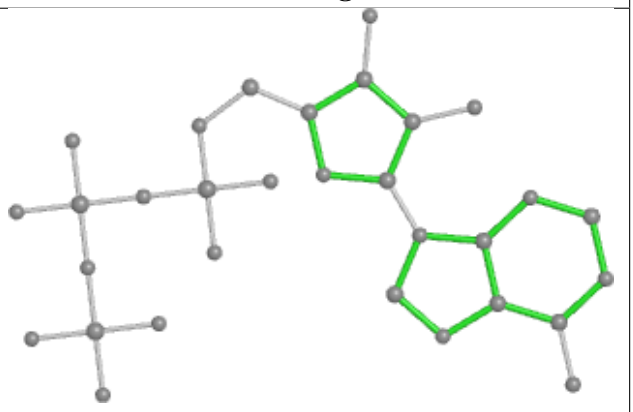
Bond lengths



Bond angles

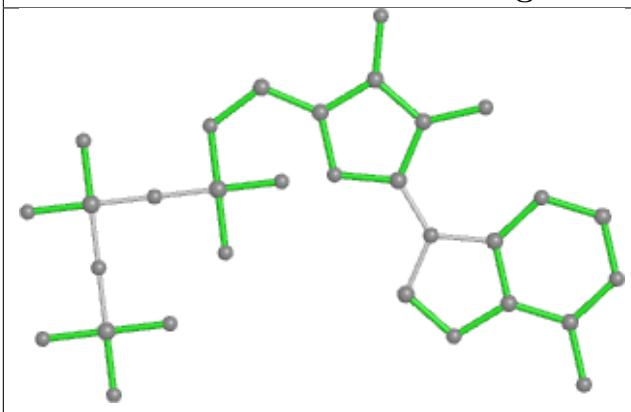


Torsions

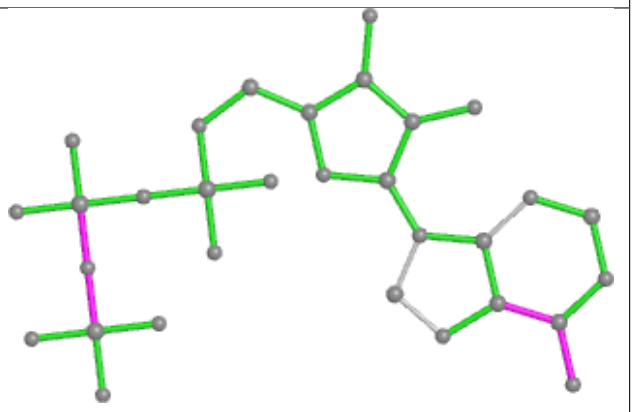


Rings

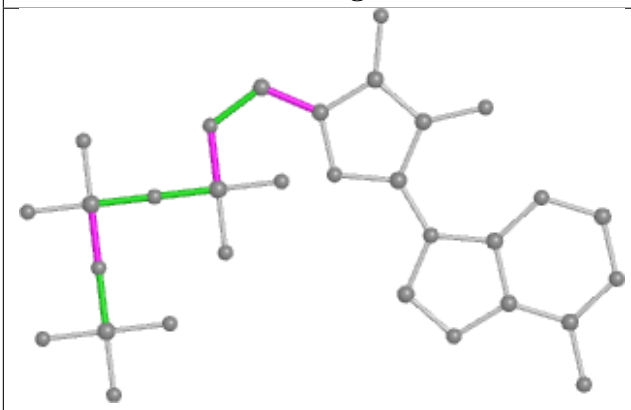
Ligand ATP B 5002



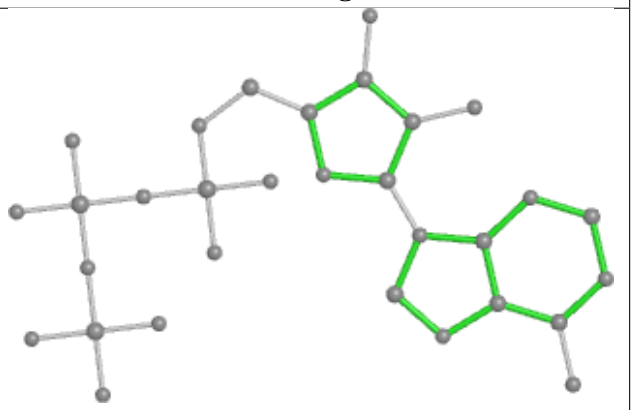
Bond lengths



Bond angles

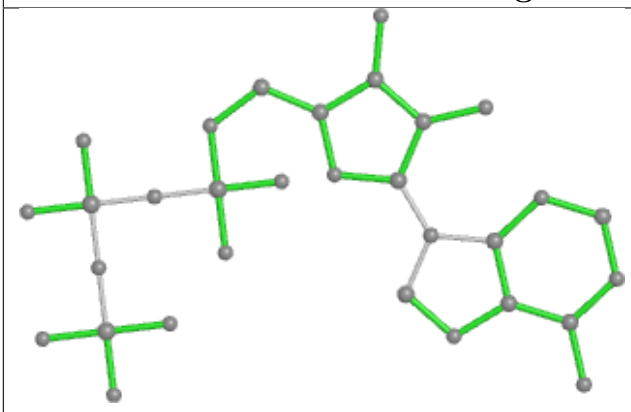


Torsions

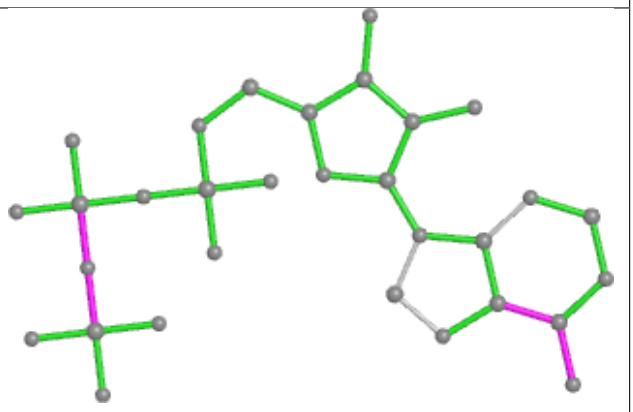


Rings

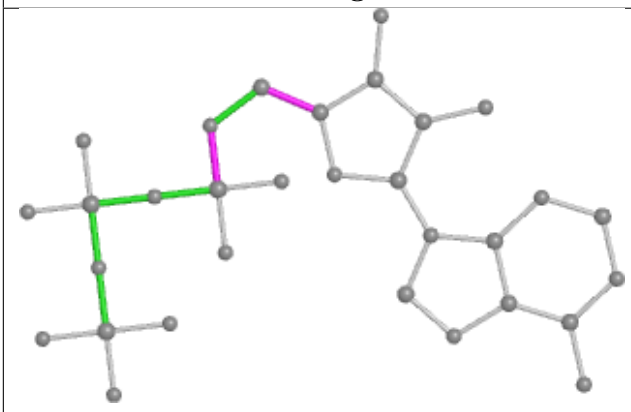
Ligand ATP D 5003



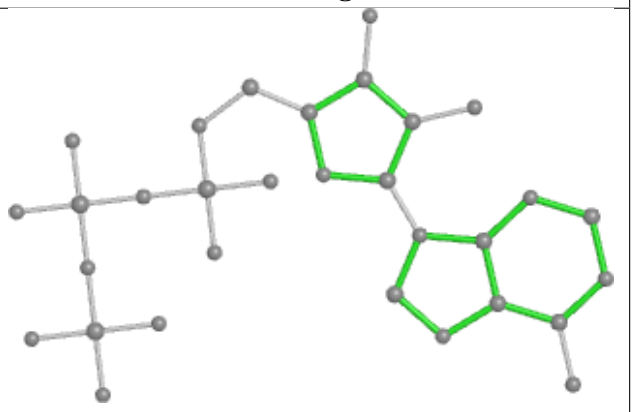
Bond lengths



Bond angles

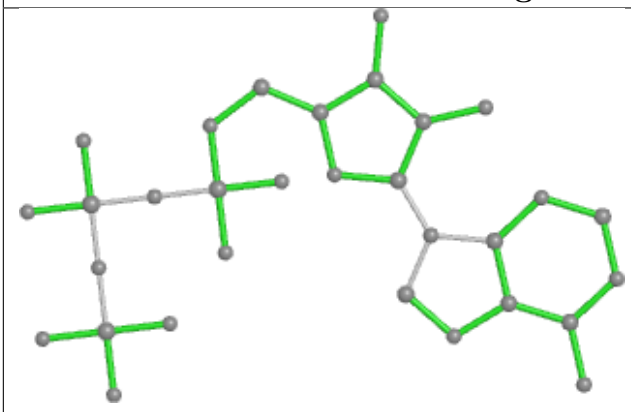


Torsions

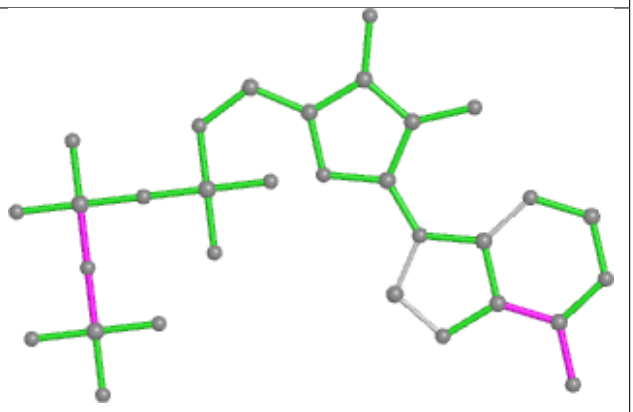


Rings

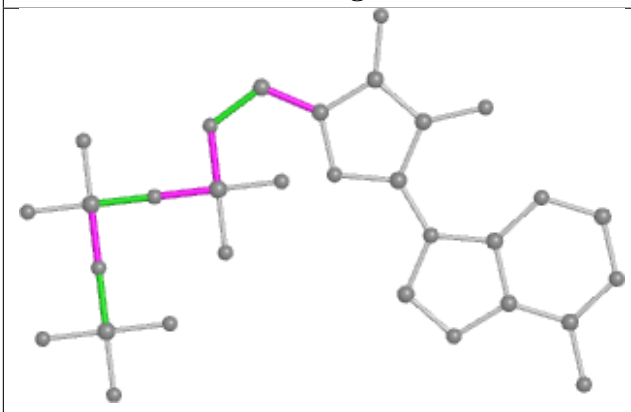
Ligand ATP D 5002



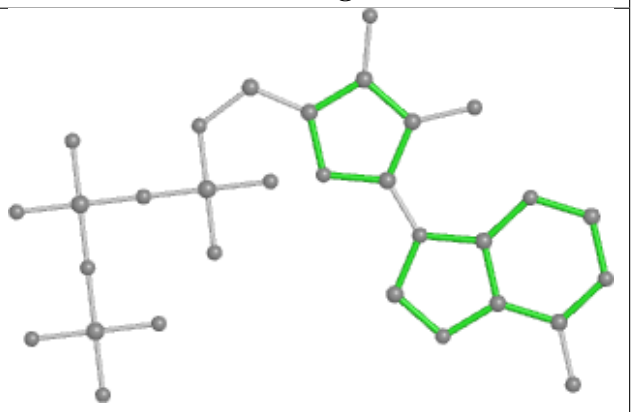
Bond lengths



Bond angles

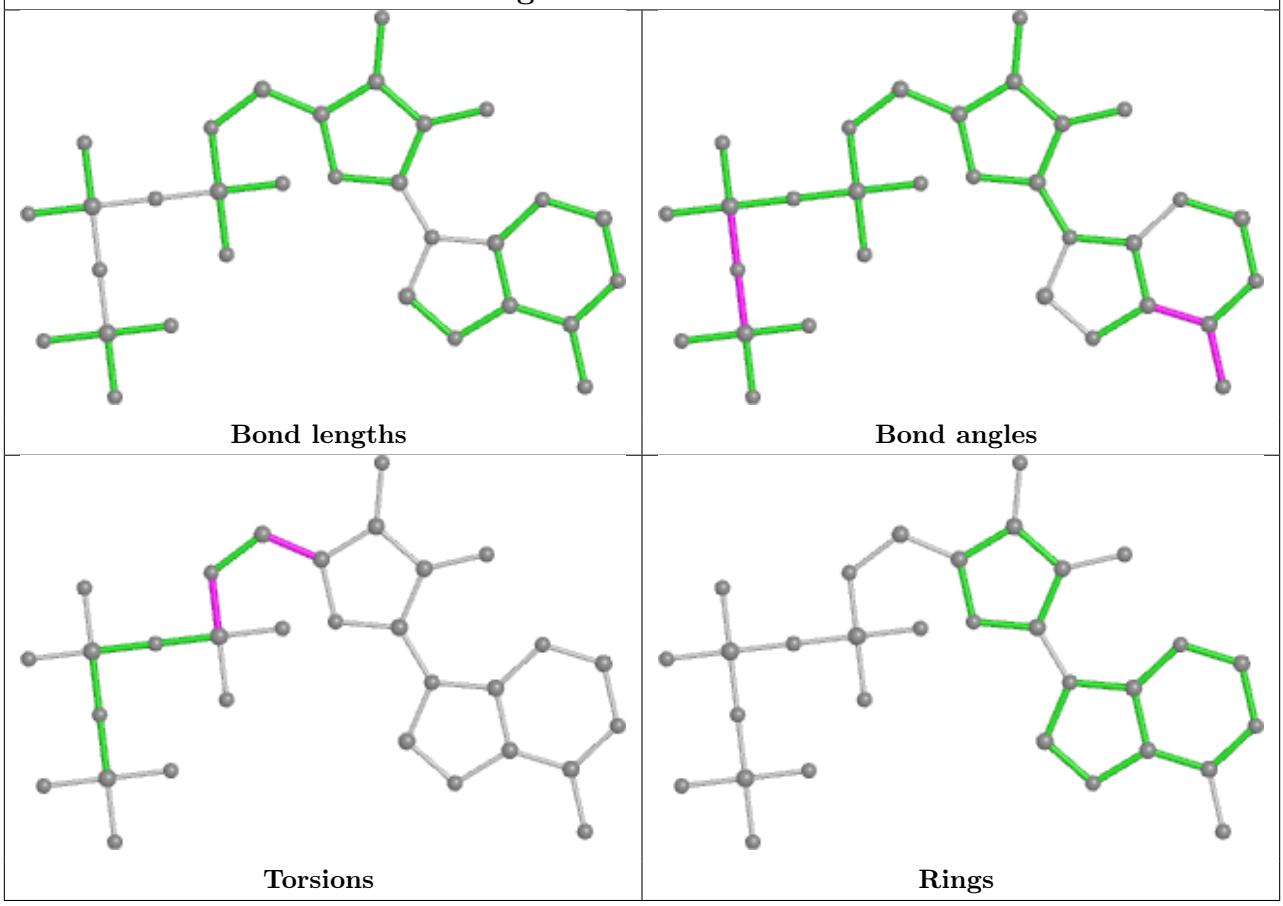


Torsions



Rings

Ligand ATP B 5003



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Map visualisation

This section contains visualisations of the EMDB entry EMD-26413. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

This section was not generated.

6.2 Central slices

This section was not generated.

6.3 Largest variance slices

This section was not generated.

6.4 Orthogonal surface views

This section was not generated.

6.5 Mask visualisation

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

This section was not generated.

7.2 Volume estimate versus contour level

This section was not generated.

7.3 Rotationally averaged power spectrum

This section was not generated. The rotationally averaged power spectrum had issues being displayed.

8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit

This section was not generated.