Full wwPDB EM Validation Report ⓘ

Nov 5, 2024 – 01:39 AM EST

PDB ID	:	8UXF
EMDB ID	:	EMD-42762
Title	:	Structure of PKA phosphorylated human RyR2-R420W in the primed state
Authors	:	Miotto, M.C.; Marks, A.R.
Deposited on	:	2023-11-09
Resolution	:	3.13 Å(reported)
Based on initial model	:	7UA5

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:

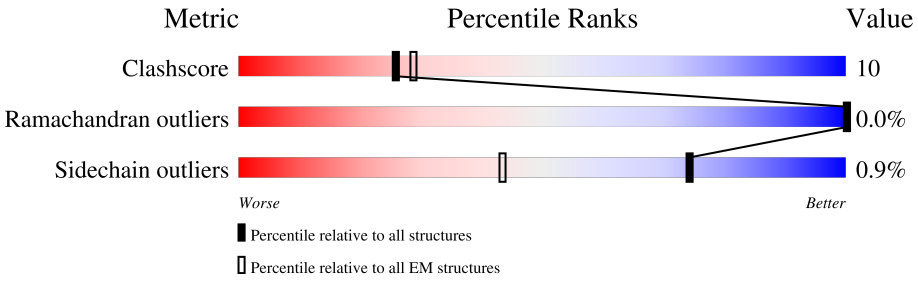
EMDB validation analysis	:	0.0.1.dev113
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.13 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	4967	5% 66% 19% 15%
1	B	4967	5% 66% 19% 15%
1	C	4967	5% 66% 19% 15%
1	D	4967	5% 65% 19% 15%
2	E	108	79% 19%
2	F	108	75% 22%
2	G	108	75% 22%
2	H	108	76% 22%

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 138620 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	4224	Total 33774	C 21521	N 5743	O 6280	S 230	2	0
1	B	4224	Total 33774	C 21521	N 5743	O 6280	S 230	2	0
1	C	4224	Total 33774	C 21521	N 5743	O 6280	S 230	2	0
1	D	4224	Total 33774	C 21521	N 5743	O 6280	S 230	2	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	420	TRP	ARG	variant	UNP Q92736
B	420	TRP	ARG	variant	UNP Q92736
C	420	TRP	ARG	variant	UNP Q92736
D	420	TRP	ARG	variant	UNP Q92736

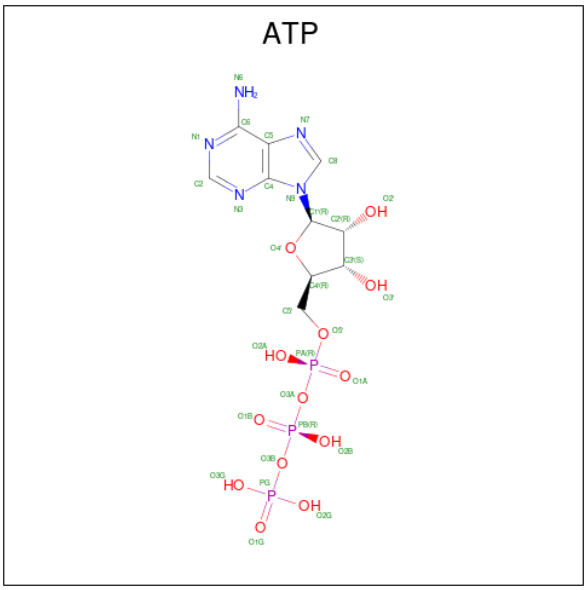
- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

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

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

- Molecule 4 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
4	A	1	Total C N O P 31 10 5 13 3	0
4	A	1	Total C N O P 31 10 5 13 3	0
4	B	1	Total C N O P 31 10 5 13 3	0
4	B	1	Total C N O P 31 10 5 13 3	0
4	C	1	Total C N O P 31 10 5 13 3	0
4	C	1	Total C N O P 31 10 5 13 3	0
4	D	1	Total C N O P 31 10 5 13 3	0

Continued on next page...

Continued from previous page...

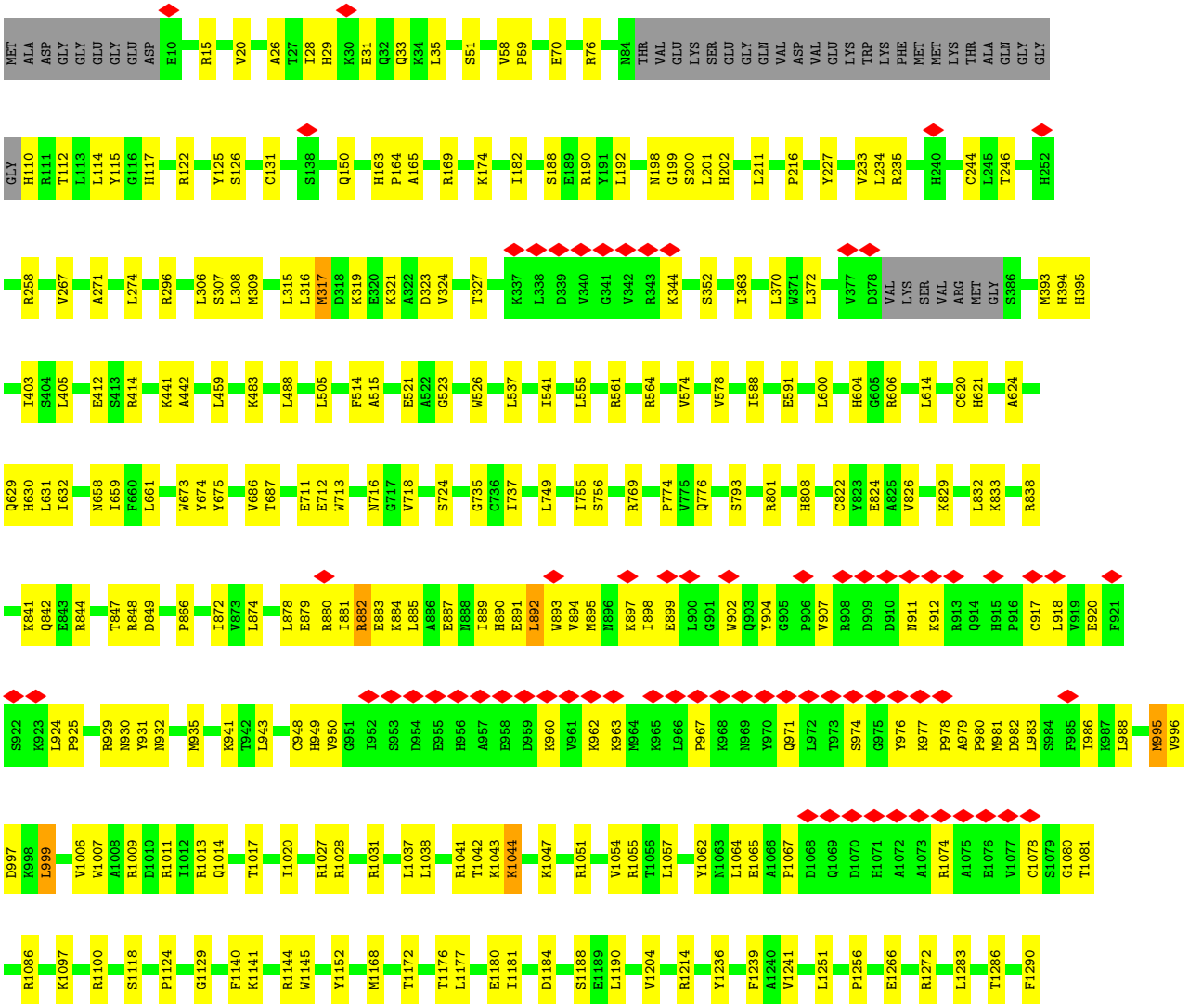
Mol	Chain	Residues	Atoms					AltConf
4	D	1	Total	C	N	O	P	0
			31	10	5	13	3	

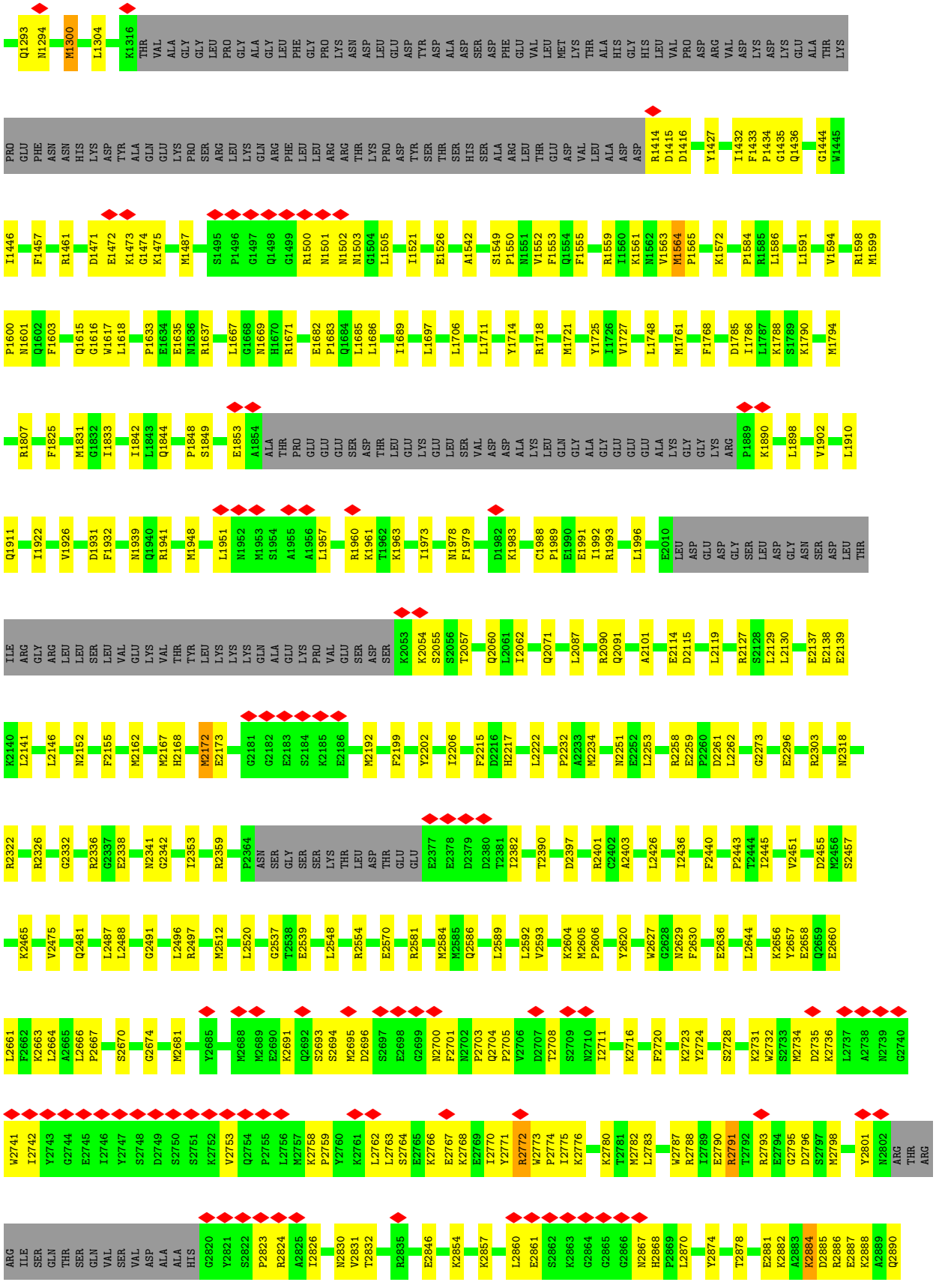
3 Residue-property plots (i)

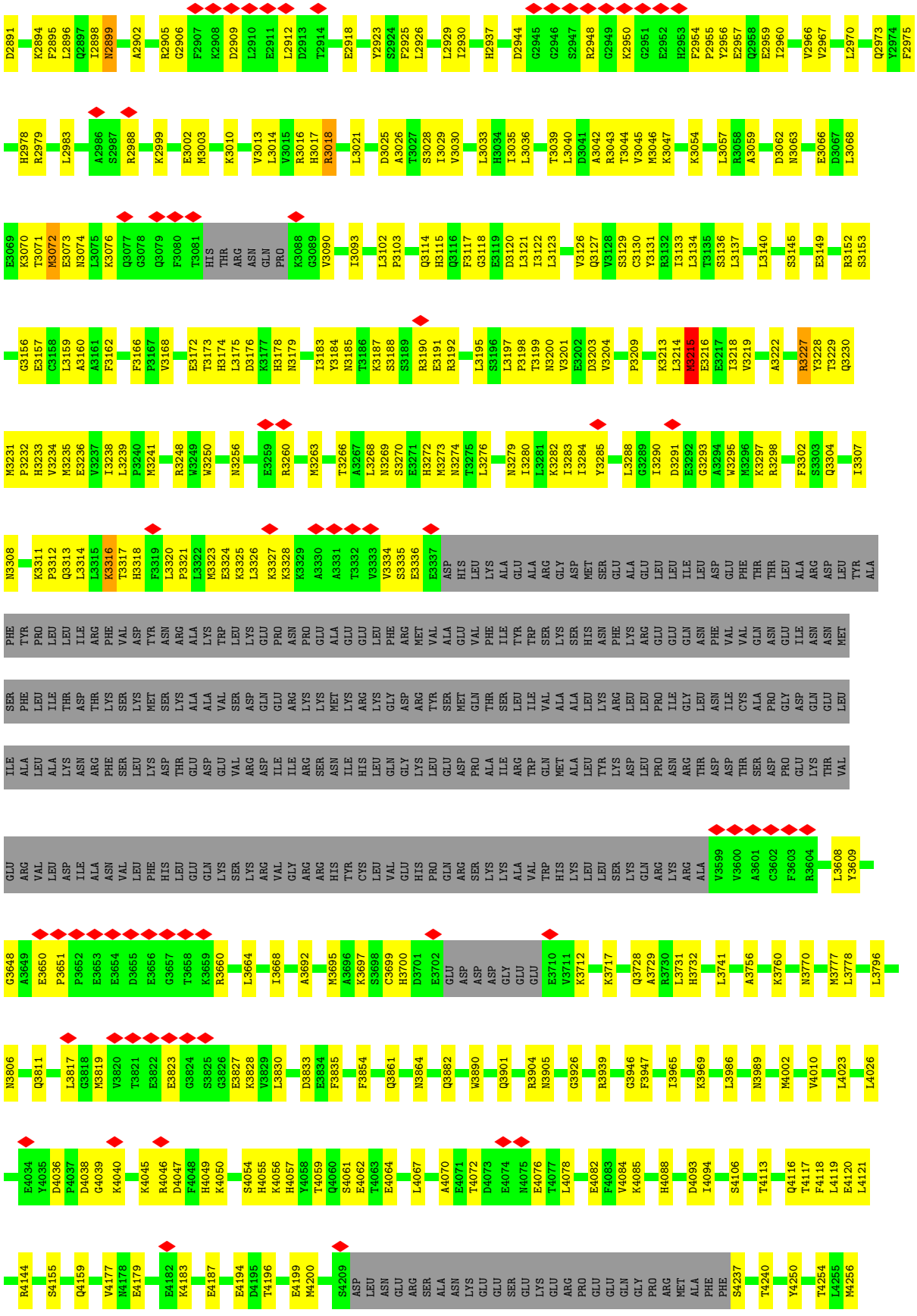
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

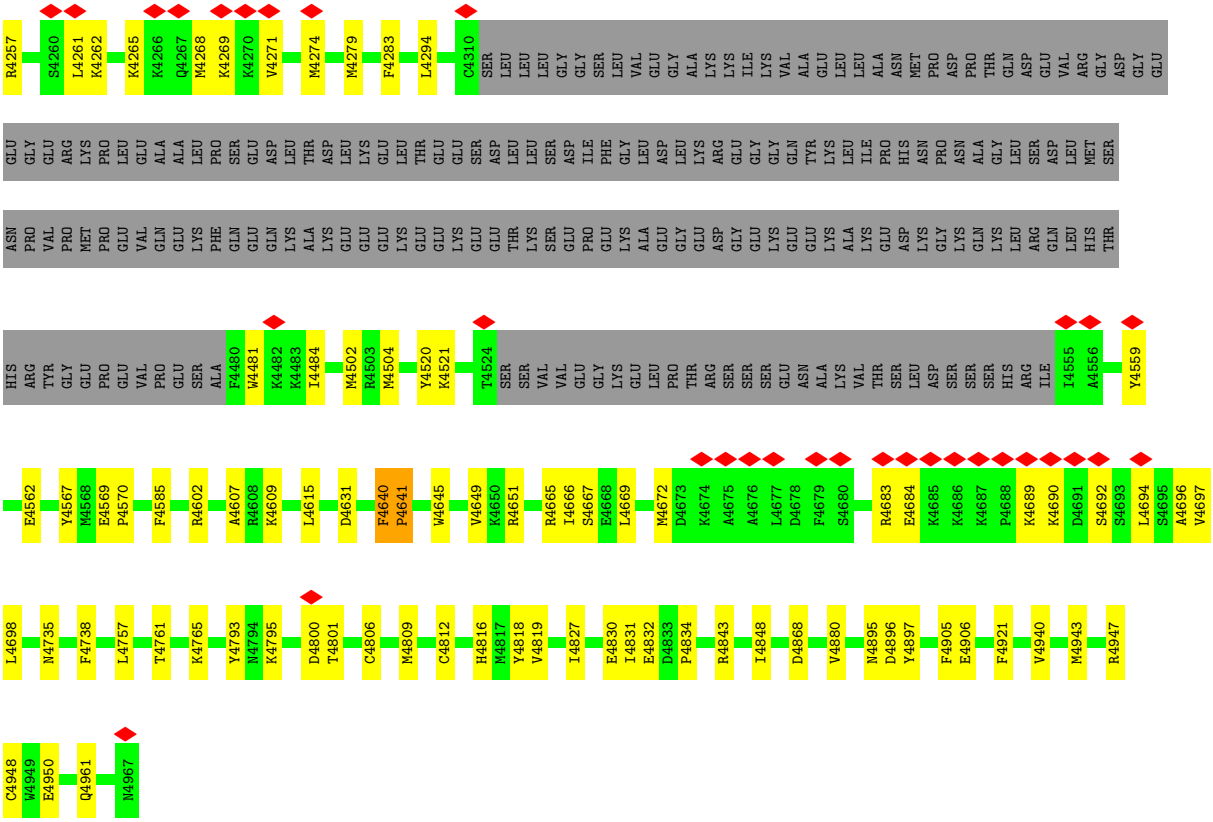
• Molecule 1: Ryanodine receptor 2

Chain A:



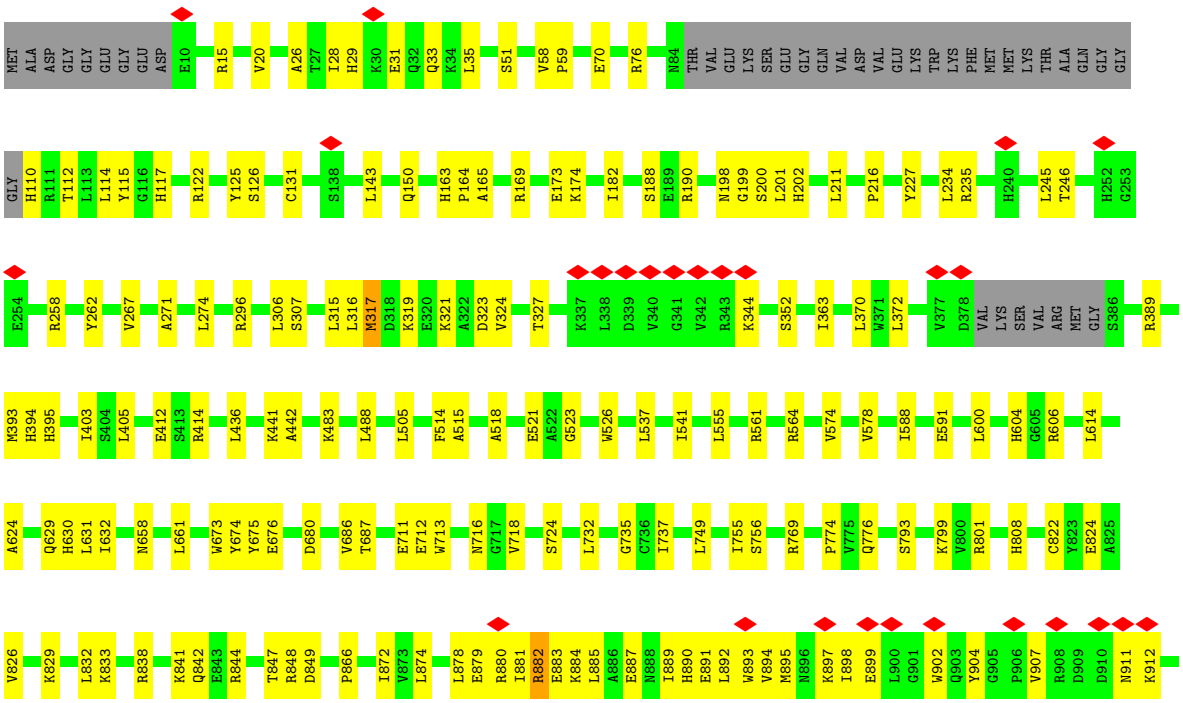


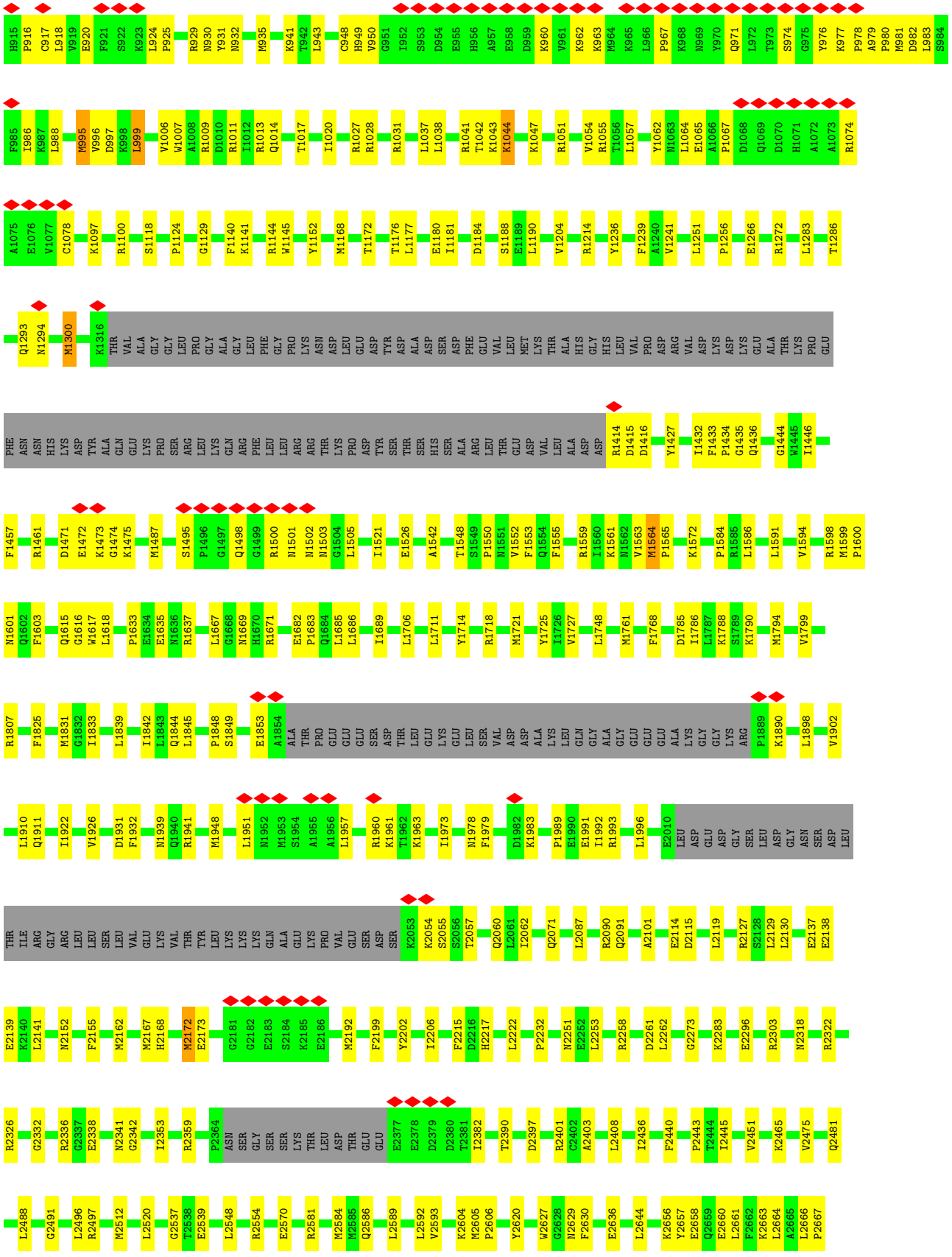


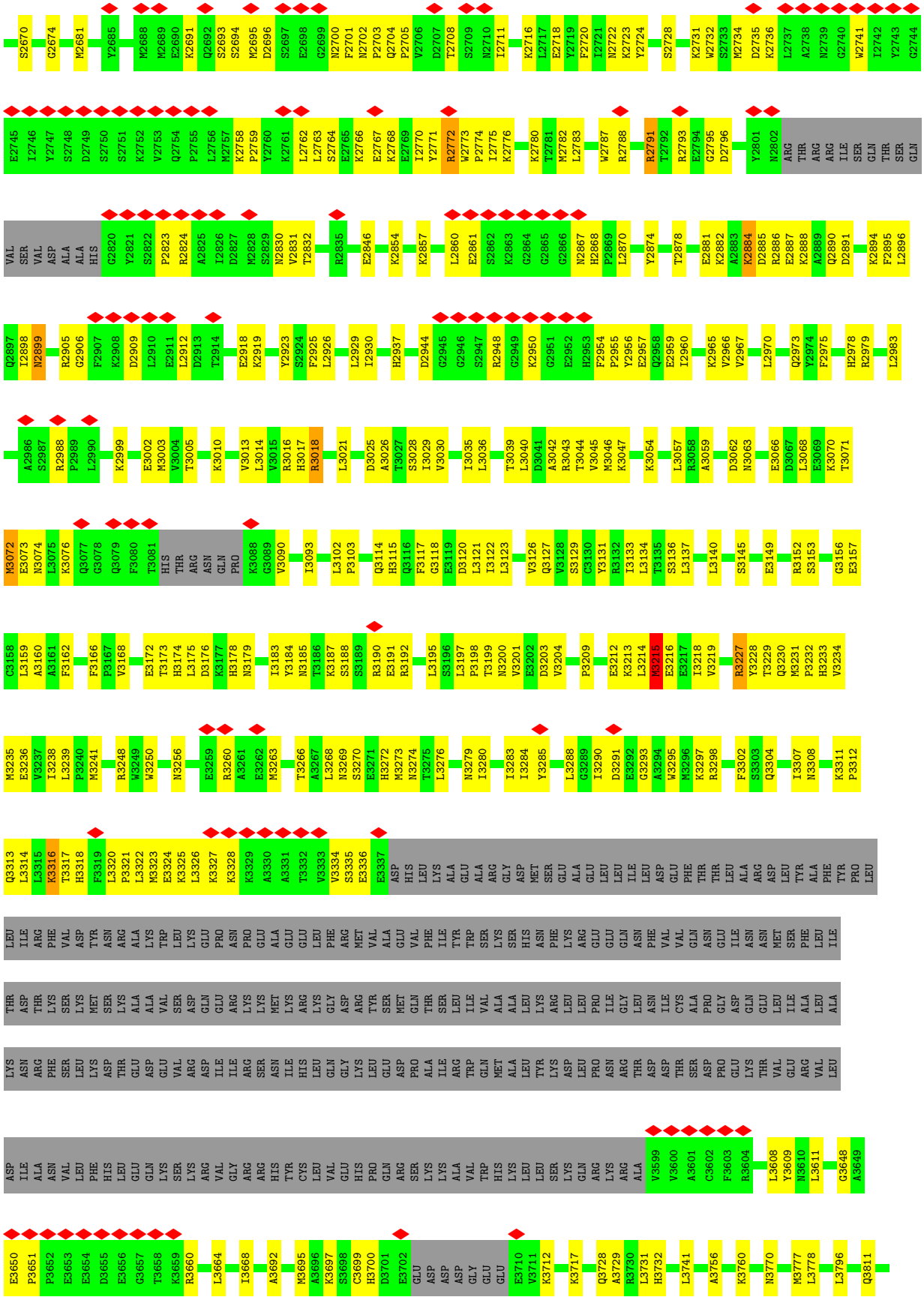


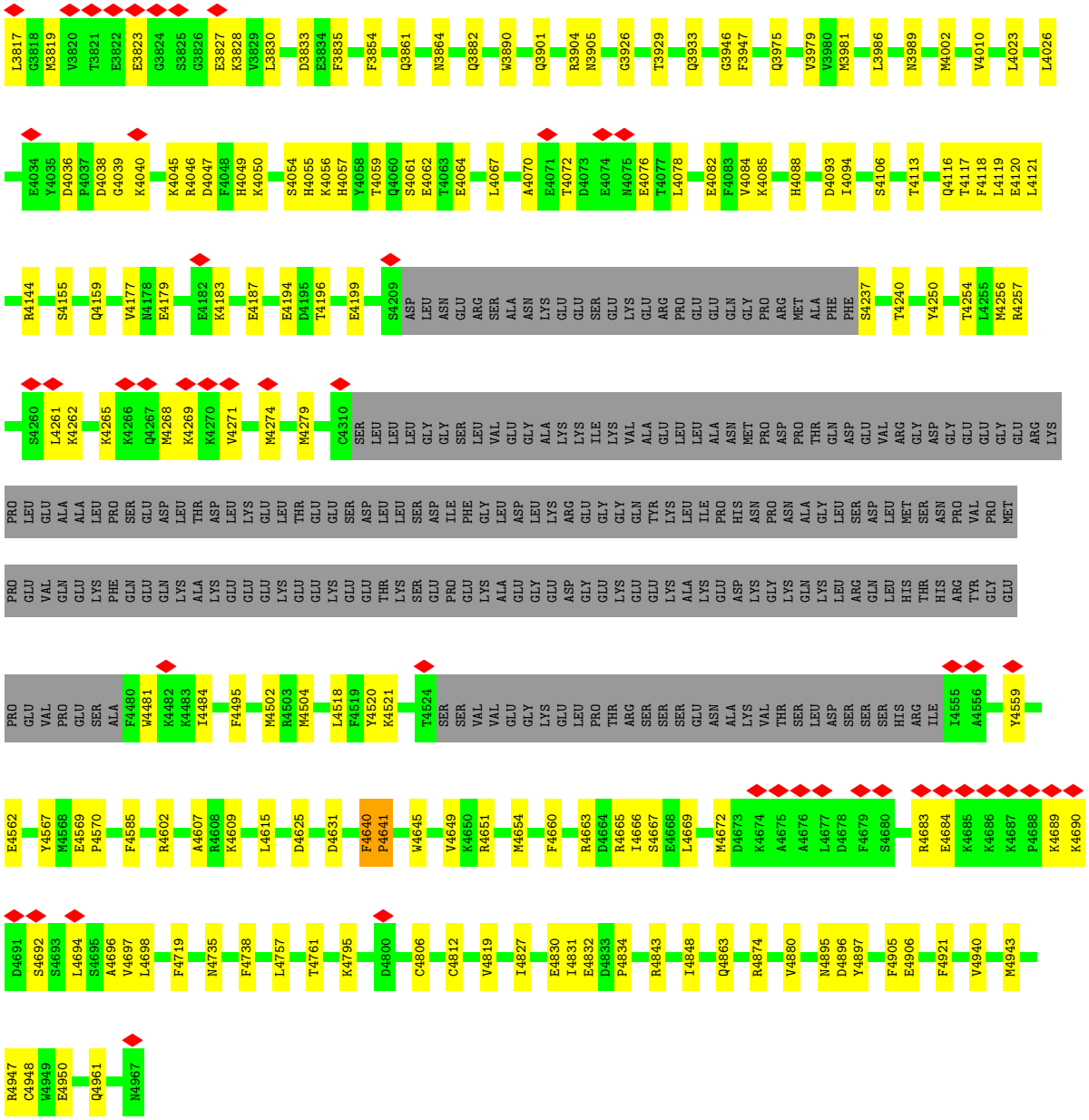
• Molecule 1: Ryanodine receptor 2

Chain B:



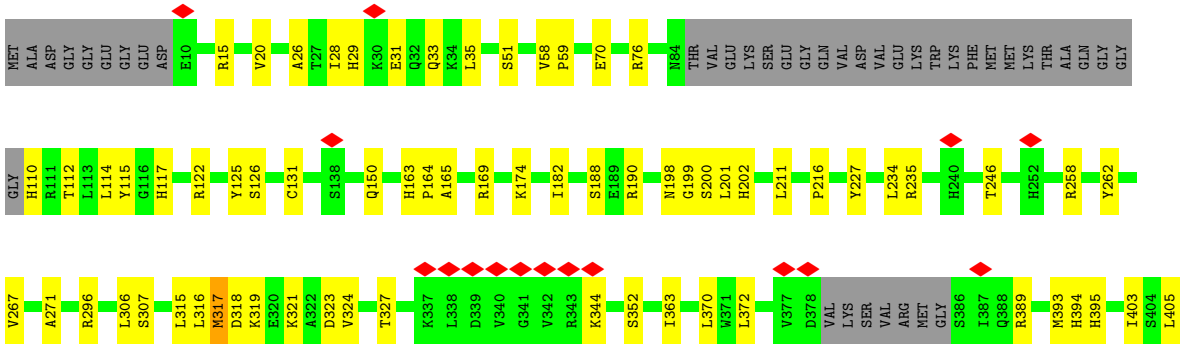

H915 P916 C917 L918 V919 E920 F921 S922 K923 L924 P925 R929 N930 Y931 N932 M935 K941 T942 L943 C948 H949 V950 G951 I952 S953 D954 E955 H956 A957 E958 D959 K960 V961 K962 K963 M964 K965 L966 P967 K968 N969 Y970 Q971 L972 T973 S974 G975 Y976 K977 P978 A979 P980 M981 D982 L983 S984
F985 I986 K987 L988 M995 V996 D997 K998 L999 V1006 W1007 A1008 R1009 D1010 R1011 I1012 R1013 Q1014 T1017 I1020 R1027 R1028 R1031 L1037 L1038 R1041 T1042 K1043 K1044 K1047 R1051 V1054 R1055 T1056 L1057 Y1062 N1063 L1064 E1065 A1066 P1067 D1068 Q1069 D1070 H1071 A1072 A1073 R1074
A1075 E1076 V1077 C1078 K1097 R1100 S1118 P1124 G1129 F1140 K1141 R1144 W1145 Y1152 M1168 T1172 T1176 L1177 E1180 I1181 D1184 S1188 E1189 L1190 V1204 R1214 Y1236 F1239 A1240 V1241 L1251 P1256 E1266 R1272 L1283 T1286
Q1293 N1294 M1300 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 ASP R1414 D1415 D1416 Y1427 I1432 F1433 P1434 G1435 Q1436 G1444 W1445 I1446
F1457 R1461 D1471 E1472 K1473 G1474 K1475 M1487 S1495 P1496 G1497 Q1498 G1499 R1500 N1501 N1502 N1503 G1504 L1505 I1521 E1526 A1542 T1548 S1549 P1550 N1551 V1552 F1553 Q1554 F1555 R1559 I1560 K1561 N1562 V1563 M1564 P1565 K1572 P1584 R1585 L1586 L1591 V1594 R1598 M1599 P1600
N1601 Q1602 F1603 Q1615 G1616 W1617 L1618 P1633 E1634 E1635 N1636 R1637 L1667 G1668 N1669 H1670 R1671 E1682 P1683 Q1684 L1685 L1686 I1689 L1706 L1711 Y1714 R1718 M1721 Y1725 I1726 V1727 L1748 M1761 F1768 D1785 I1786 L1787 K1788 S1789 K1790 M1794 V1799
R1807 F1825 M1831 G1832 I1833 L1839 I1842 L1843 Q1844 L1845 P1848 S1849 E1853 A1854 ALA THR PRO GLU 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 K1890 L1898 V1902
L1910 Q1911 I1922 V1926 D1931 F1932 N1939 Q1940 R1941 M1948 L1951 N1952 M1953 S1954 A1955 A1956 L1957 R1960 K1961 T1962 K1963 I1973 N1978 F1979 D1982 K1983 P1989 E1990 E1991 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 THR TYR LEU LYS LYS LYS GLN ALA GLU LYS PRO VAL GLU SER ASP SER K2053 K2054 S2055 S2056 T2057 Q2060 L2061 I2062 Q2071 L2087 R2090 Q2091 A2101 E2114 D2115 L2119 R2127 S2128 L2129 L2130 E2137 E2138
E2139 K2140 L2141 N2152 F2155 M2162 M2167 H2168 M2172 E2173 G2181 G2182 E2183 S2184 K2185 E2186 M2192 F2199 Y2202 I2206 F2215 D2216 H2217 L2222 P2232 N2251 E2252 L2253 R2258 D2261 L2262 G2273 K2283 E2296 R2303 N2318 R2322
R2326 G2232 R2336 G2337 E2338 N2341 G2342 I2353 R2359 P2364 ASN SER GLY SER SER LYS THR LEU ASP THR GLU GLU E2377 E2378 D2379 D2380 T2381 I2382 T2390 D2397 R2401 C2402 A2403 L2408 I2436 F2440 P2443 T2444 I2445 V2451 K2465 V2475 Q2481
L2488 G2491 L2496 R2497 M2512 L2520 G2537 T2538 E2539 L2548 R2554 E2570 R2581 M2584 M2585 Q2586 L2589 L2592 V2593 K2604 M2605 P2606 Y2620 W2627 G2628 N2629 F2630 E2636 L2644 K2656 Y2657 E2658 Q2659 E2660 L2661 F2662 K2663 L2664 A2665 L2666 P2667

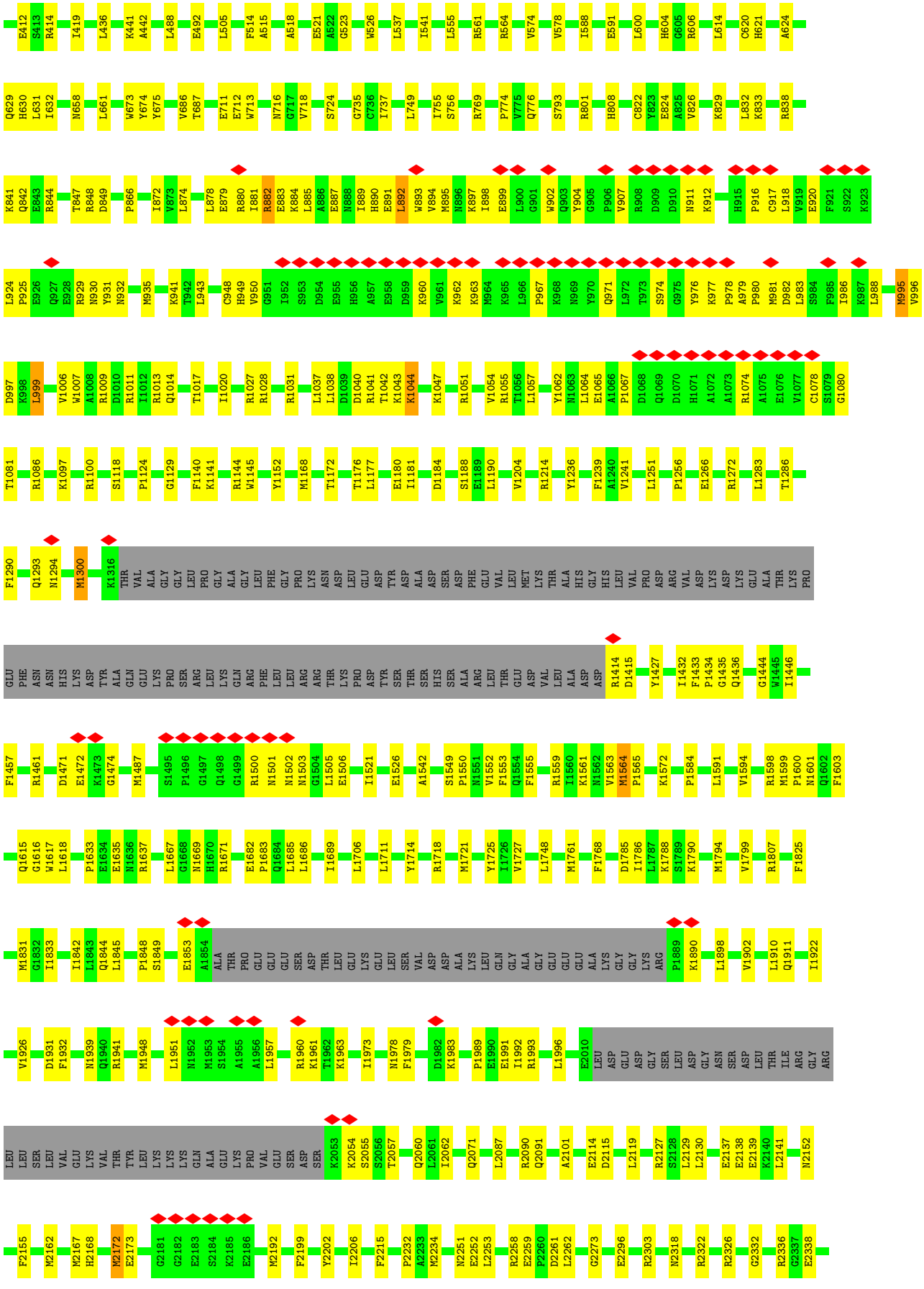


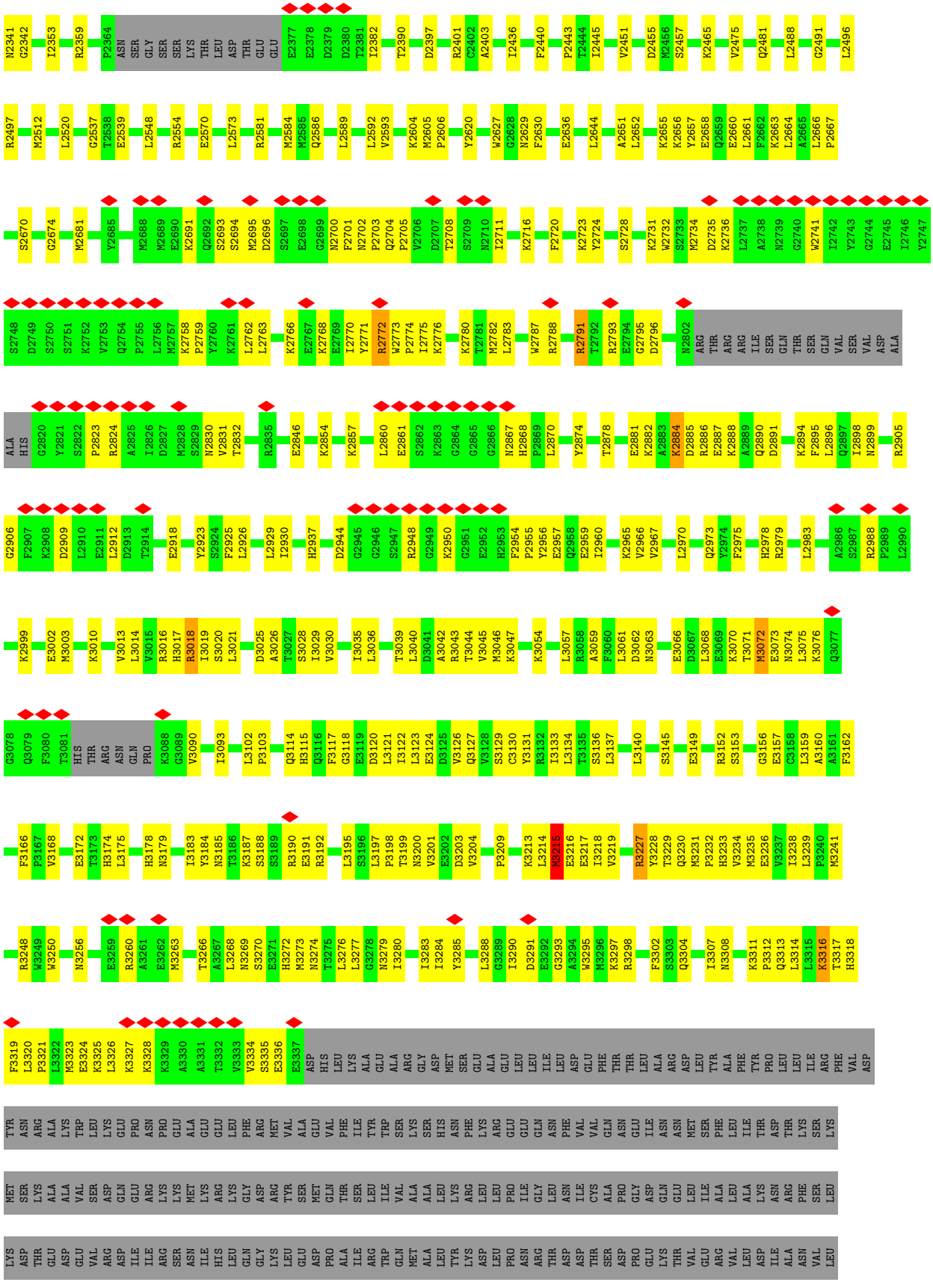


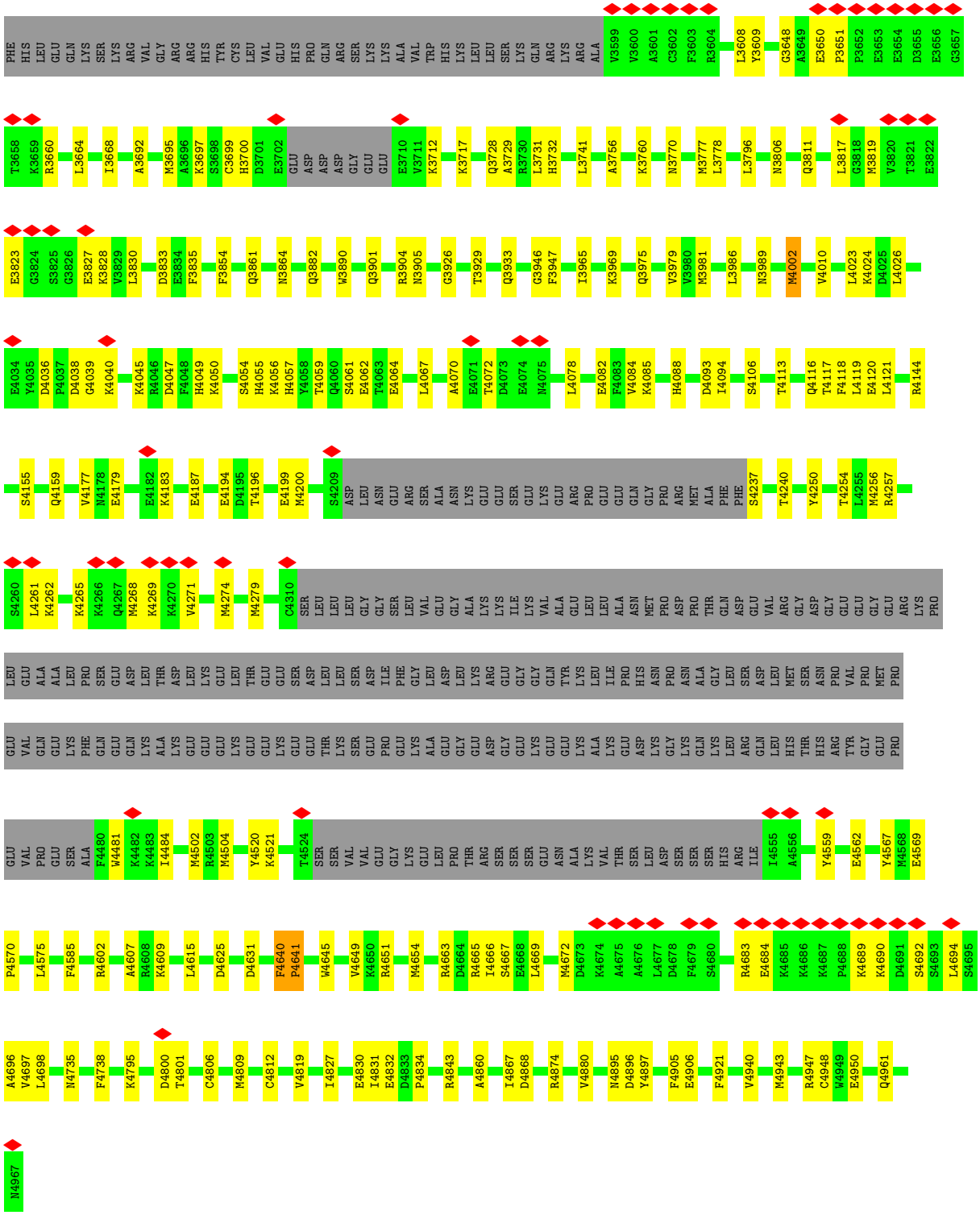
• Molecule 1: Ryanodine receptor 2

Chain C:



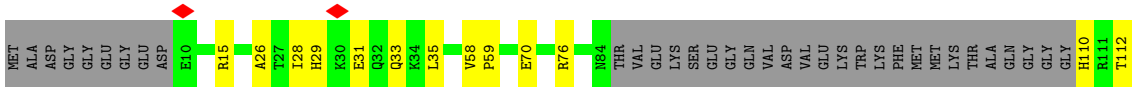

E412 S413 R414 I419 L436 K441 A442 L488 E492 L505 F514 A515 A518 E521 A522 G523 W526 L537 I541 L555 R561 R564 V574 V578 I588 E591 L600 H604 G605 R606 L614 C620 H621 A624
Q629 H630 L631 I632 N658 L661 W673 Y674 Y675 V686 T687 E711 E712 W713 N716 G717 V718 S724 G735 C736 I737 L749 I755 S756 R769 P774 V775 Q776 S793 R801 H808 C822 Y823 E824 A825 V826 K829 L832 K833 R838
K841 Q842 E843 R844 T847 R848 D849 P866 I872 V873 L874 L878 E879 R880 I881 R882 E883 K884 L885 A886 E887 N888 I889 H890 E891 L892 W893 V894 M895 N896 K897 I898 E899 L900 G901 W902 Q903 Y904 G905 P906 V907 R908 D909 D910 N911 K912 H915 P916 C917 L918 V919 E920 F921 S922 K923
L924 P925 E926 Q927 E928 R929 N930 Y931 N932 M935 K941 T942 L943 C948 H949 V950 G951 I952 S953 D954 E955 H956 A957 E958 D959 K960 V961 K962 K963 W964 K965 L966 P967 K968 N969 Y970 Q971 L972 T973 S974 G975 Y976 K977 P978 A979 P980 M981 D982 L983 S984 F985 I986 K987 L988 M995 V996
D997 K998 L999 V1006 W1007 A1008 R1009 D1010 R1011 I1012 R1013 Q1014 T1017 I1020 R1027 R1028 R1031 L1037 L1038 D1039 D1040 R1041 T1042 K1043 K1044 K1047 R1051 V1054 R1055 T1056 L1057 Y1062 N1063 L1064 E1065 A1066 P1067 D1068 Q1069 D1070 H1071 A1072 A1073 R1074 A1075 E1076 V1077 C1078 S1079 G1080
T1081 R1086 K1097 R1100 S1118 P1124 G1129 F1140 K1141 R1144 W1145 Y1152 M1168 T1172 T1176 L1177 E1180 I1181 D1184 S1188 E1189 L1190 V1204 R1214 Y1236 F1239 A1240 V1241 L1251 P1256 E1266 R1272 L1283 T1286
F1290 Q1293 N1294 M1300 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 GLU LYS PRO SER ARG LEU LYS GLN ARG PHE LEU LEU ARG ARG THR LYS PRO ASP GLU TYR SER THR SER HIS SER ALA ARG LEU THR GLU ASP VAL LEU ALA ASP R1414 D1415 Y1427 I1432 F1433 P1434 G1435 Q1436 G1444 W1445 I1446
F1457 R1461 D1471 E1472 K1473 G1474 M1487 S1495 P1496 G1497 Q1498 G1499 R1500 N1501 N1502 N1503 G1504 L1505 E1506 I1521 E1526 A1542 S1549 P1550 N1551 V1552 F1553 Q1554 F1555 R1559 I1560 K1561 N1562 V1563 M1564 P1565 K1572 P1584 L1591 V1594 R1598 M1599 P1600 N1601 Q1602 F1603
Q1615 G1616 W1617 L1618 P1633 E1634 E1635 N1636 R1637 L1667 G1668 N1669 H1670 R1671 E1682 P1683 Q1684 L1685 L1686 I1689 L1706 L1711 Y1714 R1718 M1721 Y1725 I1726 V1727 L1748 M1761 F1768 D1785 I1786 L1787 K1788 S1789 K1790 M1794 V1799 R1807 F1825
M1831 G1832 I1833 I1842 L1843 Q1844 L1845 P1848 S1849 E1853 A1854 ALA THR PRO GLU 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 K1890 L1898 V1902 L1910 Q1911 I1922
V1926 D1931 F1932 N1939 Q1940 R1941 M1948 L1951 N1952 M1953 S1954 A1955 A1956 L1957 R1960 K1961 T1962 K1963 I1973 N1978 F1979 D1982 K1983 P1989 E1990 E1991 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 THR TYR LEU LYS LYS LYS GLN ALA GLU LYS PRO VAL GLU SER ASP SER K2053 K2054 S2055 S2056 T2057 Q2060 L2061 I2062 Q2071 L2087 R2090 Q2091 A2101 E2114 D2115 L2119 R2127 S2128 L2129 L2130 E2137 E2138 E2139 K2140 L2141 N2152
F2155 M2162 M2167 H2168 M2172 E2173 G2181 G2182 E2183 S2184 K2185 E2186 M2192 F2199 Y2202 I2206 F2215 P2232 A2233 M2234 N2251 E2252 L2253 R2258 E2259 P2260 D2261 L2262 G2273 E2296 R2303 N2318 R2322 R2326 G2332 R2336 G2337 E2338

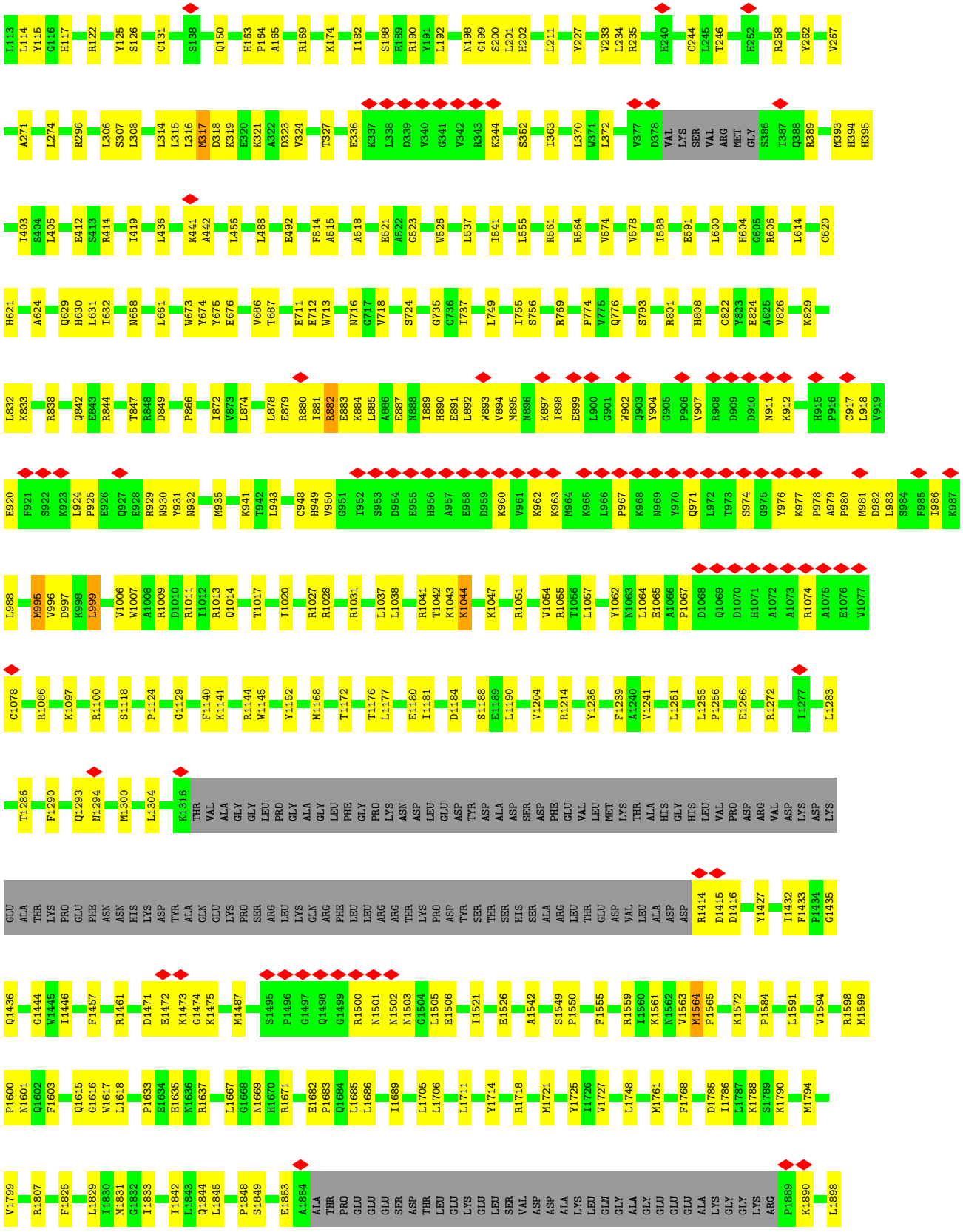


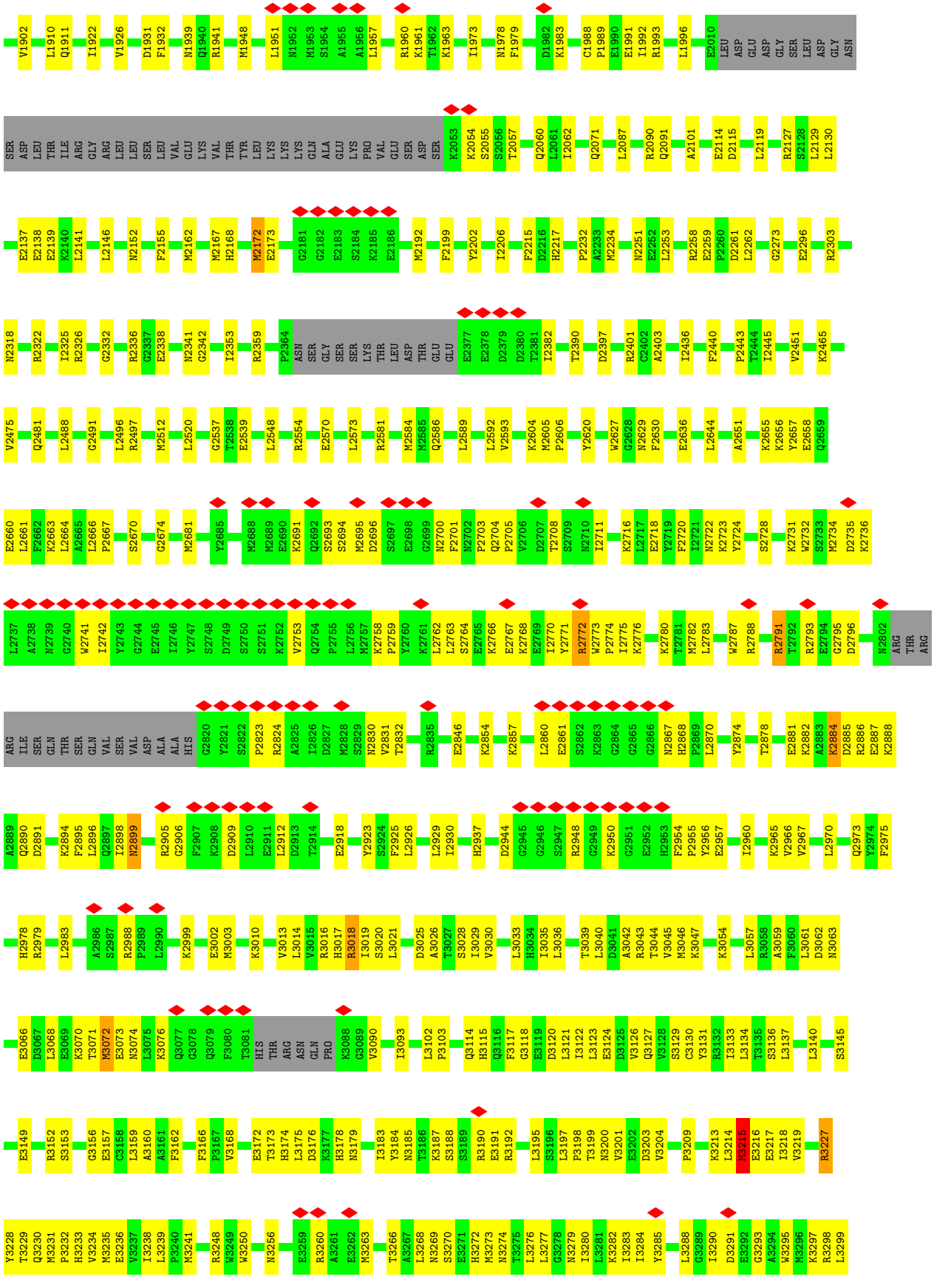


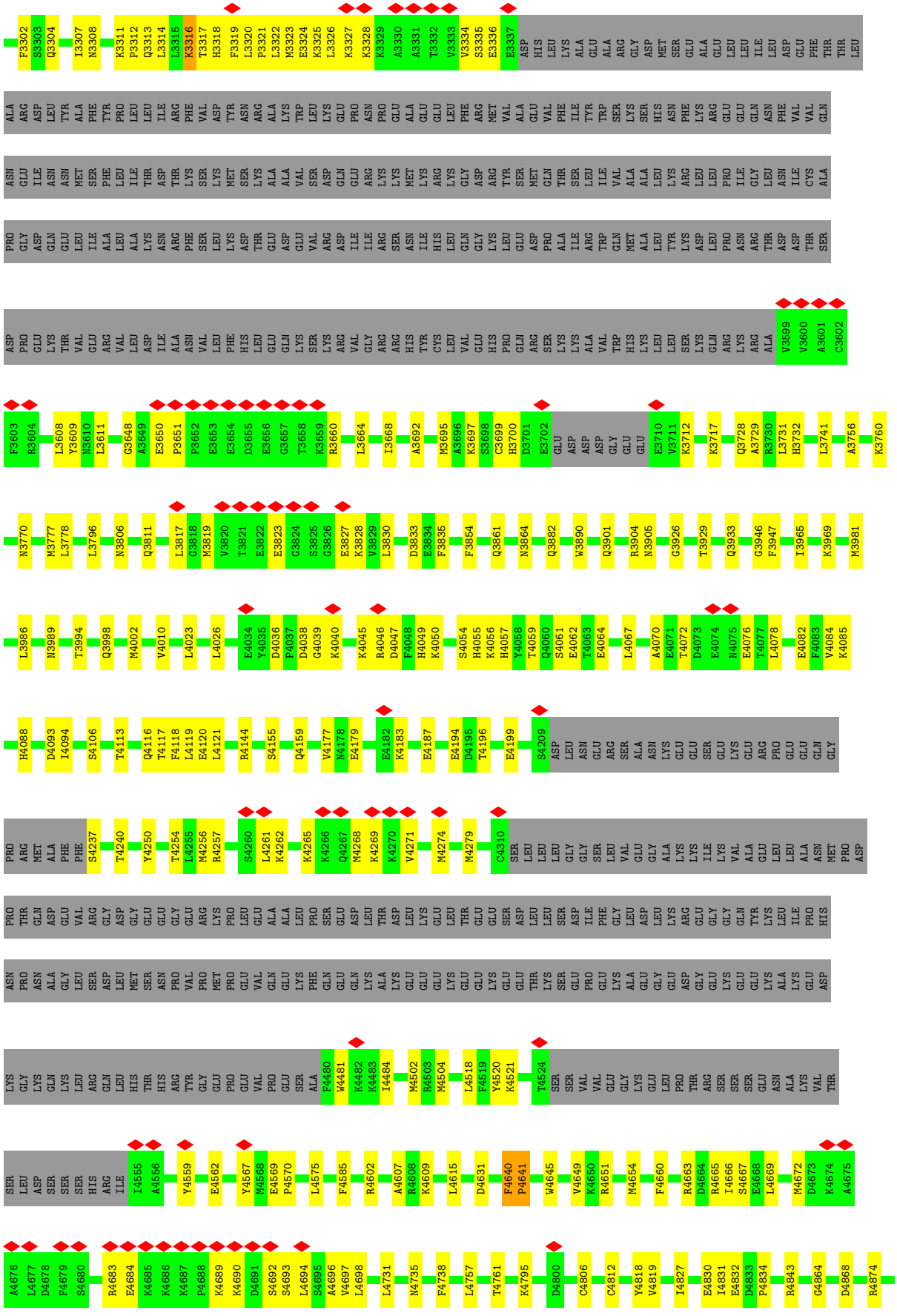
• Molecule 1: Ryanodine receptor 2

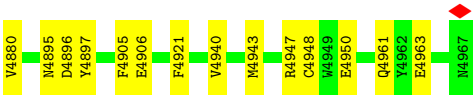
Chain D:





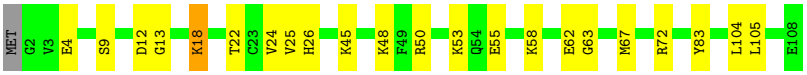

V1902 L1910 Q1911 I1922 V1926 D1931 F1932 N1939 Q1940 R1941 M1948 L1951 N1952 M1953 S1954 A1965 A1956 L1957 R1960 K1961 T1962 K1963 I1973 N1978 F1979 D1982 K1983 C1988 P1989 E1990 E1991 I1992 R1993 L1996 E2010 LEU ASP GLU ASP GLY SER LEU ASP GLY ASN
SER ASP LEU THR ILE ARG GLY ARG LEU LEU SER LEU VAL GLU LYS VAL THR TYR LEU LYS LYS LYS GLN ALA GLU LYS PRO VAL GLU SER ASP SER K2053 K2054 S2055 S2056 T2057 Q2060 L2061 I2062 Q2071 L2087 R2090 Q2091 A2101 E2114 D2115 L2119 R2127 S2128 L2129 L2130
E2137 E2138 E2139 K2140 L2141 L2146 N2152 F2155 M2162 M2167 H2168 M2172 E2173 G2181 G2182 E2183 S2184 K2185 E2186 M2192 F2199 Y2202 I2206 F2215 D2216 H2217 P2232 A2233 M2234 N2251 E2252 L2253 R2258 E2259 P2260 D2261 L2262 G2273 E2296 R2303
N2318 R2322 I2325 R2326 G2332 R2336 G2337 E2338 N2341 G2342 I2353 R2359 P2364 ASN SER GLY SER SER LYS THR LEU ASP THR GLU GLU E2377 E2378 D2379 D2380 T2381 I2382 T2390 D2397 R2401 C2402 A2403 I2436 F2440 P2443 I2444 I2445 V2451 K2465
V2475 Q2481 L2488 G2491 L2496 R2497 M2512 L2520 G2537 T2538 E2539 L2548 R2554 E2570 L2573 R2581 M2584 N2585 Q2586 L2589 L2592 V2593 K2604 M2605 P2606 Y2620 W2627 G2628 N2629 F2630 E2636 L2644 A2651 K2655 K2656 Y2657 E2658 Q2659
E2660 L2661 F2662 K2663 L2664 A2665 L2666 P2667 S2670 G2674 M2681 Y2685 M2688 M2689 E2690 K2691 Q2692 S2693 S2694 M2695 D2696 S2697 E2698 G2699 N2700 F2701 N2702 P2703 Q2704 P2705 V2706 D2707 T2708 S2709 N2710 I2711 K2716 L2717 E2718 Y2719 F2720 I2721 N2722 K2723 Y2724 S2728 K2731 W2732 S2733 M2734 D2735 K2736
L2737 A2738 N2739 G2740 W2741 I2742 Y2743 G2744 E2745 I2746 Y2747 S2748 D2749 S2750 S2751 K2752 V2753 Q2754 P2755 L2756 M2757 K2758 P2759 Y2760 K2761 L2762 L2763 S2764 E2765 K2766 E2767 K2768 E2769 I2770 Y2771 R2772 W2773 P2774 I2775 K2776 K2780 T2781 M2782 L2783 W2787 R2788 R2791 T2792 R2793 E2794 G2795 D2796 N2802 ARG THR ARG
ARG ILE SER GLN THR SER GLN VAL SER VAL ASP ALA ALA HIS G2820 Y2821 S2822 P2823 R2824 A2825 I2826 D2827 M2828 S2829 N2830 V2831 T2832 R2835 E2846 K2854 K2857 L2860 E2861 S2862 K2863 G2864 G2865 G2866 N2867 H2868 P2869 L2870 Y2874 T2878 E2881 K2882 A2883 K2884 D2885 R2886 E2887 K2888
A2889 Q2890 D2891 K2894 F2895 L2896 Q2897 I2898 N2899 R2905 G2906 F2907 K2908 D2909 L2910 E2911 L2912 D2913 T2914 E2918 Y2923 S2924 F2925 L2926 L2929 I2930 H2937 D2944 G2945 G2946 S2947 R2948 G2949 K2950 G2951 E2952 H2953 F2954 P2955 Y2956 E2957 I2960 K2965 V2966 V2967 L2970 Q2973 Y2974 F2975
H2978 R2979 L2983 A2986 S2987 R2988 P2989 L2990 K2999 E3002 M3003 K3010 V3013 L3014 V3015 R3016 H3017 R3018 I3019 S3020 L3021 D3025 A3026 T3027 S3028 I3029 V3030 L3033 H3034 I3035 L3036 T3039 L3040 D3041 A3042 R3043 T3044 V3045 M3046 K3047 K3054 L3057 R3058 A3059 F3060 L3061 D3062 N3063
E3066 D3067 L3068 E3069 K3070 T3071 M3072 E3073 N3074 L3075 K3076 Q3077 G3078 Q3079 F3080 T3081 HIS THR ARG ASN GLN PRO K3088 G3089 V3090 I3093 L3102 P3103 Q3114 H3115 Q3116 F3117 G3118 E3119 D3120 L3121 I3122 L3123 E3124 D3125 V3126 Q3127 V3128 S3129 C3130 Y3131 R3132 I3133 L3134 T3135 S3136 L3137 L3140 S3145
E3149 R3152 S3153 G3156 E3157 C3158 L3159 A3160 A3161 F3162 F3166 P3167 V3168 E3172 T3173 H3174 L3175 D3176 K3177 H3178 N3179 I3183 Y3184 N3185 T3186 K3187 S3188 S3189 R3190 E3191 R3192 L3195 S3196 L3197 P3198 T3199 N3200 V3201 E3202 D3203 V3204 P3209 K3213 L3214 K3215 E3216 E3217 I3218 V3219 R3227
Y3228 T3229 Q3230 M3231 P3232 H3233 V3234 M3235 E3236 V3237 I3238 L3239 P3240 M3241 R3248 W3249 W3250 N3256 E3259 R3260 A3261 E3262 M3263 T3266 A3267 L3268 N3269 S3270 E3271 H3272 M3273 N3274 T3275 L3276 L3277 G3278 N3279 I3280 L3281 K3282 I3283 I3284 Y3285 L3288 G3289 I3290 D3291 E3292 G3293 A3294 W3295 M3296 K3297 R3298 L3299





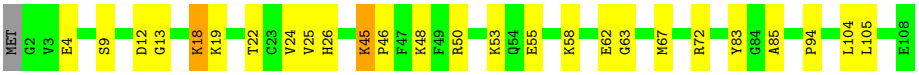
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain E:



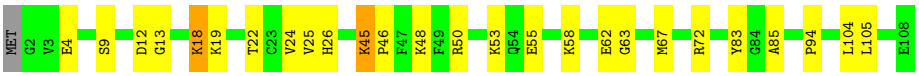
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain F:



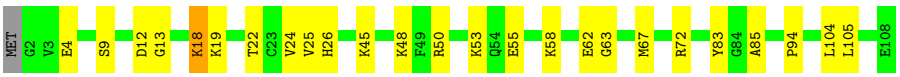
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain G:



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

Chain H:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	102478	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)	500	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.646	Depositor
Minimum map value	-0.013	Depositor
Average map value	0.011	Depositor
Map value standard deviation	0.031	Depositor
Recommended contour level	0.12	Depositor
Map size (Å)	430.848, 430.848, 430.848	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.8415, 0.8415, 0.8415	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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	0.29	0/34516	0.49	2/46623 (0.0%)
1	B	0.29	0/34516	0.49	1/46623 (0.0%)
1	C	0.29	0/34516	0.49	2/46623 (0.0%)
1	D	0.29	0/34516	0.49	1/46623 (0.0%)
2	E	0.31	0/834	0.55	0/1123
2	F	0.31	0/834	0.55	0/1123
2	G	0.31	0/834	0.55	0/1123
2	H	0.31	0/834	0.55	0/1123
All	All	0.29	0/141400	0.49	6/190984 (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	2
1	B	0	2
1	C	0	2
1	D	0	2
All	All	0	8

There are no bond length outliers.

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	3215	MET	CB-CG-SD	5.58	129.15	112.40
1	C	3215	MET	CB-CG-SD	5.58	129.14	112.40
1	B	3215	MET	CB-CG-SD	5.58	129.12	112.40
1	D	3215	MET	CB-CG-SD	5.57	129.12	112.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	892	LEU	CB-CG-CD2	-5.03	102.45	111.00
1	C	892	LEU	CB-CG-CD2	-5.02	102.46	111.00

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	3926	GLY	Peptide
1	A	4640	PHE	Peptide
1	B	3926	GLY	Peptide
1	B	4640	PHE	Peptide
1	C	3926	GLY	Peptide
1	C	4640	PHE	Peptide
1	D	3926	GLY	Peptide
1	D	4640	PHE	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	33774	0	33452	689	0
1	B	33774	0	33452	685	0
1	C	33774	0	33452	679	0
1	D	33774	0	33452	694	0
2	E	818	0	821	14	0
2	F	818	0	821	17	0
2	G	818	0	821	17	0
2	H	818	0	821	16	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
4	A	62	0	24	0	0
4	B	62	0	24	0	0
4	C	62	0	24	0	0
4	D	62	0	24	0	0
All	All	138620	0	137188	2751	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 10.

All (2751) 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:B:3235:MET:HA	1:B:3239:LEU:HD13	1.41	1.03
1:D:3235:MET:HA	1:D:3239:LEU:HD13	1.41	1.02
1:C:3235:MET:HA	1:C:3239:LEU:HD13	1.41	1.02
1:A:3235:MET:HA	1:A:3239:LEU:HD13	1.41	1.02
1:B:3152:ARG:HH21	1:B:3236:GLU:HB3	1.39	0.88
1:C:3152:ARG:HH21	1:C:3236:GLU:HB3	1.39	0.87
1:A:3152:ARG:HH21	1:A:3236:GLU:HB3	1.39	0.86
1:A:4237:SER:N	1:A:4240:THR:HG1	1.74	0.85
1:C:4237:SER:N	1:C:4240:THR:HG1	1.74	0.85
2:H:50:ARG:HE	2:H:53:LYS:HZ3	1.24	0.84
1:D:3152:ARG:HH21	1:D:3236:GLU:HB3	1.39	0.84
2:F:50:ARG:HE	2:F:53:LYS:HZ3	1.25	0.84
1:D:4237:SER:N	1:D:4240:THR:HG1	1.75	0.84
1:A:3270:SER:HA	1:A:3273:MET:HE2	1.61	0.82
1:B:4237:SER:N	1:B:4240:THR:HG1	1.77	0.82
2:E:50:ARG:HE	2:E:53:LYS:HZ3	1.24	0.81
1:B:3270:SER:HA	1:B:3273:MET:HE2	1.62	0.81
2:G:50:ARG:HE	2:G:53:LYS:HZ3	1.24	0.80
1:A:3197:LEU:HD23	1:A:3199:THR:H	1.47	0.80
1:C:3270:SER:HA	1:C:3273:MET:HE2	1.61	0.80
1:D:3270:SER:HA	1:D:3273:MET:HE2	1.62	0.80
1:D:3197:LEU:HD23	1:D:3199:THR:H	1.47	0.80
1:B:3197:LEU:HD23	1:B:3199:THR:H	1.47	0.79
1:B:2251:ASN:HD22	1:B:3817:LEU:HD11	1.48	0.78
1:C:3197:LEU:HD23	1:C:3199:THR:H	1.47	0.78
1:D:2251:ASN:HD22	1:D:3817:LEU:HD11	1.48	0.78
1:A:2251:ASN:HD22	1:A:3817:LEU:HD11	1.48	0.78
1:B:4665:ARG:HH21	1:B:4666:ILE:HD13	1.50	0.76
1:C:4665:ARG:HH21	1:C:4666:ILE:HD13	1.50	0.76
1:C:924:LEU:HD12	1:C:925:PRO:HD2	1.68	0.75
1:C:2251:ASN:HD22	1:C:3817:LEU:HD11	1.48	0.75
1:D:4665:ARG:HH21	1:D:4666:ILE:HD13	1.50	0.74
1:A:924:LEU:HD12	1:A:925:PRO:HD2	1.68	0.74
1:D:924:LEU:HD12	1:D:925:PRO:HD2	1.68	0.74
1:A:4665:ARG:HH21	1:A:4666:ILE:HD13	1.50	0.74
1:C:894:VAL:HG12	1:C:897:LYS:HZ2	1.53	0.73
1:D:2693:SER:OG	1:D:2704:GLN:NE2	2.21	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2693:SER:OG	1:B:2704:GLN:NE2	2.21	0.73
1:A:2693:SER:OG	1:A:2704:GLN:NE2	2.21	0.73
1:C:2693:SER:OG	1:C:2704:GLN:NE2	2.21	0.73
1:B:924:LEU:HD12	1:B:925:PRO:HD2	1.68	0.73
1:B:3013:VAL:O	1:B:3018:ARG:NH2	2.22	0.73
1:D:3013:VAL:O	1:D:3018:ARG:NH2	2.22	0.73
1:A:4279:MET:HE2	1:B:4484:ILE:HA	1.69	0.73
1:A:988:LEU:HD12	1:A:1055:ARG:HD3	1.71	0.72
1:C:988:LEU:HD12	1:C:1055:ARG:HD3	1.71	0.72
1:C:3013:VAL:O	1:C:3018:ARG:NH2	2.22	0.72
1:A:3013:VAL:O	1:A:3018:ARG:NH2	2.22	0.72
1:D:894:VAL:HG12	1:D:897:LYS:HZ2	1.53	0.72
1:D:3269:ASN:HB3	1:D:3272:HIS:ND1	2.05	0.72
1:A:3269:ASN:HB3	1:A:3272:HIS:ND1	2.05	0.72
1:B:988:LEU:HD12	1:B:1055:ARG:HD3	1.71	0.71
1:D:1941:ARG:HH21	1:D:3609:TYR:HB2	1.55	0.71
1:A:1941:ARG:HH21	1:A:3609:TYR:HB2	1.55	0.71
1:C:4279:MET:HE2	1:D:4484:ILE:HA	1.70	0.71
1:A:2488:LEU:HD21	1:A:2548:LEU:HD22	1.72	0.71
1:D:988:LEU:HD12	1:D:1055:ARG:HD3	1.71	0.71
1:D:2488:LEU:HD21	1:D:2548:LEU:HD22	1.72	0.71
1:B:3269:ASN:HB3	1:B:3272:HIS:ND1	2.05	0.71
1:C:3269:ASN:HB3	1:C:3272:HIS:ND1	2.05	0.71
1:B:894:VAL:HG12	1:B:897:LYS:HZ2	1.56	0.70
1:B:1941:ARG:HH21	1:B:3609:TYR:HB2	1.55	0.70
1:C:1941:ARG:HH21	1:C:3609:TYR:HB2	1.55	0.70
1:C:3042:ALA:HB1	1:C:3121:LEU:HD13	1.73	0.70
1:B:3042:ALA:HB1	1:B:3121:LEU:HD13	1.73	0.70
1:C:2791:ARG:HH12	1:C:2795:GLY:HA3	1.57	0.70
1:D:2791:ARG:HH12	1:D:2795:GLY:HA3	1.57	0.70
1:D:894:VAL:HA	1:D:897:LYS:HG2	1.73	0.70
1:D:2723:LYS:HG2	1:D:2895:PHE:HZ	1.56	0.70
1:B:2791:ARG:HH12	1:B:2795:GLY:HA3	1.57	0.70
1:C:1038:LEU:O	1:C:1043:LYS:NZ	2.24	0.70
1:D:769:ARG:HG2	1:D:774:PRO:HA	1.74	0.70
1:A:363:ILE:HD11	1:A:403:ILE:HD13	1.74	0.70
1:A:894:VAL:HA	1:A:897:LYS:HG2	1.73	0.70
1:A:1038:LEU:O	1:A:1043:LYS:NZ	2.24	0.70
1:A:2791:ARG:HH12	1:A:2795:GLY:HA3	1.57	0.70
1:B:1038:LEU:O	1:B:1043:LYS:NZ	2.24	0.70
1:D:1038:LEU:O	1:D:1043:LYS:NZ	2.24	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4481:TRP:HA	1:A:4484:ILE:HG22	1.74	0.70
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.74	0.70
1:B:2979:ARG:HH22	1:B:2983:LEU:HD22	1.57	0.69
1:B:2723:LYS:HG2	1:B:2895:PHE:HZ	1.56	0.69
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.74	0.69
1:A:3042:ALA:HB1	1:A:3121:LEU:HD13	1.73	0.69
1:B:2488:LEU:HD21	1:B:2548:LEU:HD22	1.72	0.69
1:A:2979:ARG:HH22	1:A:2983:LEU:HD22	1.57	0.69
1:C:769:ARG:HG2	1:C:774:PRO:HA	1.74	0.69
1:C:2488:LEU:HD21	1:C:2548:LEU:HD22	1.72	0.69
1:D:3042:ALA:HB1	1:D:3121:LEU:HD13	1.73	0.69
2:G:22:THR:HG22	2:G:50:ARG:HG2	1.74	0.69
1:B:769:ARG:HG2	1:B:774:PRO:HA	1.74	0.69
1:A:894:VAL:HG12	1:A:897:LYS:HZ2	1.58	0.69
1:A:2723:LYS:HG2	1:A:2895:PHE:HZ	1.56	0.69
1:B:363:ILE:HD11	1:B:403:ILE:HD13	1.74	0.69
1:C:2723:LYS:HG2	1:C:2895:PHE:HZ	1.56	0.69
1:C:4481:TRP:HA	1:C:4484:ILE:HG22	1.74	0.69
1:C:894:VAL:HA	1:C:897:LYS:HG2	1.73	0.69
2:H:22:THR:HG22	2:H:50:ARG:HG2	1.74	0.69
1:D:4481:TRP:HA	1:D:4484:ILE:HG22	1.74	0.68
1:B:894:VAL:HA	1:B:897:LYS:HG2	1.73	0.68
1:C:2979:ARG:HH22	1:C:2983:LEU:HD22	1.57	0.68
1:D:363:ILE:HD11	1:D:403:ILE:HD13	1.74	0.68
2:E:22:THR:HG22	2:E:50:ARG:HG2	1.74	0.68
1:B:3650:GLU:OE1	1:B:3660:ARG:NH1	2.27	0.68
1:B:4481:TRP:HA	1:B:4484:ILE:HG22	1.74	0.68
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.74	0.68
1:B:2627:TRP:HB2	1:B:2630:PHE:HB2	1.76	0.68
1:C:363:ILE:HD11	1:C:403:ILE:HD13	1.74	0.68
1:D:2979:ARG:HH22	1:D:2983:LEU:HD22	1.57	0.68
1:D:3650:GLU:OE1	1:D:3660:ARG:NH1	2.27	0.68
1:A:3650:GLU:OE1	1:A:3660:ARG:NH1	2.27	0.68
1:B:363:ILE:HD13	1:B:372:LEU:HD23	1.75	0.68
1:C:3650:GLU:OE1	1:C:3660:ARG:NH1	2.27	0.68
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.74	0.68
1:D:3778:LEU:HD13	1:D:3854:PHE:HD1	1.59	0.68
2:F:22:THR:HG22	2:F:50:ARG:HG2	1.74	0.68
1:A:769:ARG:HG2	1:A:774:PRO:HA	1.74	0.68
1:D:1635:GLU:OE1	1:D:1637:ARG:NH1	2.28	0.67
1:C:2627:TRP:HB2	1:C:2630:PHE:HB2	1.76	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2882:LYS:HD2	1:D:2886:ARG:HH21	1.60	0.67
1:A:2627:TRP:HB2	1:A:2630:PHE:HB2	1.76	0.67
1:C:3778:LEU:HD13	1:C:3854:PHE:HD1	1.59	0.67
1:A:4694:LEU:HD11	1:D:4268:MET:HG3	1.76	0.67
1:C:363:ILE:HD13	1:C:372:LEU:HD23	1.75	0.67
1:C:1009:ARG:HB2	1:C:1013:ARG:HH12	1.60	0.67
1:A:1635:GLU:OE1	1:A:1637:ARG:NH1	2.28	0.67
1:D:1009:ARG:HB2	1:D:1013:ARG:HH12	1.60	0.67
1:B:1009:ARG:HB2	1:B:1013:ARG:HH12	1.60	0.67
1:B:1433:PHE:O	1:B:1500:ARG:NH2	2.28	0.67
1:B:3778:LEU:HD13	1:B:3854:PHE:HD1	1.59	0.67
1:D:363:ILE:HD13	1:D:372:LEU:HD23	1.75	0.67
1:A:363:ILE:HD13	1:A:372:LEU:HD23	1.75	0.67
1:B:1635:GLU:OE1	1:B:1637:ARG:NH1	2.28	0.67
1:A:2882:LYS:HD2	1:A:2886:ARG:HH21	1.60	0.66
1:C:1635:GLU:OE1	1:C:1637:ARG:NH1	2.28	0.66
1:C:2882:LYS:HD2	1:C:2886:ARG:HH21	1.60	0.66
1:D:1433:PHE:O	1:D:1500:ARG:NH2	2.28	0.66
1:A:1009:ARG:HB2	1:A:1013:ARG:HH12	1.60	0.66
1:A:3778:LEU:HD13	1:A:3854:PHE:HD1	1.59	0.66
1:C:1433:PHE:O	1:C:1500:ARG:NH2	2.28	0.66
1:B:2882:LYS:HD2	1:B:2886:ARG:HH21	1.60	0.66
1:C:904:TYR:HB2	1:C:918:LEU:HD22	1.77	0.66
1:C:4072:THR:HG22	1:C:4078:LEU:HB3	1.78	0.66
1:D:4072:THR:HG22	1:D:4078:LEU:HB3	1.78	0.66
1:A:4484:ILE:HA	1:D:4279:MET:HE2	1.76	0.66
1:B:4268:MET:HA	1:B:4271:VAL:HG22	1.77	0.66
1:A:2830:ASN:HB2	1:B:1434:PRO:O	1.96	0.66
1:A:1433:PHE:O	1:A:1500:ARG:NH2	2.28	0.66
1:A:125:TYR:O	1:A:414:ARG:NH1	2.29	0.66
1:B:2604:LYS:NZ	1:B:2660:GLU:OE1	2.26	0.66
1:D:904:TYR:HB2	1:D:918:LEU:HD22	1.77	0.66
1:D:2627:TRP:HB2	1:D:2630:PHE:HB2	1.76	0.66
1:A:1768:PHE:O	2:E:83:TYR:OH	2.13	0.65
1:B:2657:TYR:OH	1:B:2663:LYS:NZ	2.30	0.65
1:B:4072:THR:HG22	1:B:4078:LEU:HB3	1.78	0.65
1:C:2657:TYR:OH	1:C:2663:LYS:NZ	2.30	0.65
1:C:4268:MET:HA	1:C:4271:VAL:HG22	1.77	0.65
1:A:904:TYR:HB2	1:A:918:LEU:HD22	1.77	0.65
1:A:4072:THR:HG22	1:A:4078:LEU:HB3	1.78	0.65
1:D:2657:TYR:OH	1:D:2663:LYS:NZ	2.30	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1503:ASN:HB2	1:D:2824:ARG:HH22	1.60	0.65
1:A:2657:TYR:OH	1:A:2663:LYS:NZ	2.30	0.65
1:B:904:TYR:HB2	1:B:918:LEU:HD22	1.77	0.65
1:B:2860:LEU:HD11	1:B:2867:ASN:HA	1.79	0.65
1:C:2860:LEU:HD11	1:C:2867:ASN:HA	1.79	0.65
1:D:125:TYR:O	1:D:414:ARG:NH1	2.29	0.65
1:C:3184:TYR:O	1:C:3192:ARG:NH2	2.30	0.65
1:D:963:LYS:HZ1	1:D:977:LYS:HD3	1.62	0.65
1:D:3025:ASP:O	1:D:3028:SER:OG	2.14	0.65
1:A:4268:MET:HA	1:A:4271:VAL:HG22	1.77	0.65
1:D:1432:ILE:HG22	1:D:1500:ARG:HH21	1.62	0.65
1:B:1432:ILE:HG22	1:B:1500:ARG:HH21	1.62	0.65
2:H:4:GLU:OE1	2:H:4:GLU:N	2.30	0.65
1:B:3179:ASN:O	1:B:3185:ASN:ND2	2.30	0.65
1:C:125:TYR:O	1:C:414:ARG:NH1	2.29	0.65
1:D:3184:TYR:O	1:D:3192:ARG:NH2	2.30	0.65
1:A:2232:PRO:HG3	1:A:2382:ILE:HD11	1.79	0.64
1:A:3184:TYR:O	1:A:3192:ARG:NH2	2.30	0.64
1:C:1911:GLN:OE1	1:C:2090:ARG:NH1	2.31	0.64
1:D:2860:LEU:HD11	1:D:2867:ASN:HA	1.78	0.64
1:B:3166:PHE:HE2	1:B:3168:VAL:HB	1.62	0.64
1:C:3166:PHE:HE2	1:C:3168:VAL:HB	1.62	0.64
1:C:4690:LYS:HG3	1:C:4692:SER:H	1.63	0.64
1:D:1911:GLN:OE1	1:D:2090:ARG:NH1	2.31	0.64
1:A:3166:PHE:HE2	1:A:3168:VAL:HB	1.62	0.64
1:B:2773:TRP:HB3	1:B:2774:PRO:HD3	1.79	0.64
1:C:2773:TRP:HB3	1:C:2774:PRO:HD3	1.79	0.64
1:C:3179:ASN:O	1:C:3185:ASN:ND2	2.30	0.64
1:A:1432:ILE:HG22	1:A:1500:ARG:HH21	1.62	0.64
1:A:1911:GLN:OE1	1:A:2090:ARG:NH1	2.31	0.64
1:A:2860:LEU:HD11	1:A:2867:ASN:HA	1.79	0.64
1:B:125:TYR:O	1:B:414:ARG:NH1	2.29	0.64
1:D:3227:ARG:HD3	1:D:3229:THR:H	1.63	0.64
1:D:4268:MET:HA	1:D:4271:VAL:HG22	1.77	0.64
1:A:3179:ASN:O	1:A:3185:ASN:ND2	2.30	0.64
1:B:1911:GLN:OE1	1:B:2090:ARG:NH1	2.31	0.64
1:C:1432:ILE:HG22	1:C:1500:ARG:HH21	1.62	0.64
2:G:4:GLU:OE1	2:G:4:GLU:N	2.30	0.64
1:B:963:LYS:HZ1	1:B:977:LYS:HD3	1.63	0.64
1:B:4690:LYS:HG3	1:B:4692:SER:H	1.63	0.64
1:C:2232:PRO:HG3	1:C:2382:ILE:HD11	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3227:ARG:HD3	1:A:3229:THR:H	1.63	0.63
1:A:4262:LYS:HG3	1:B:4698:LEU:HD13	1.78	0.63
1:D:2773:TRP:HB3	1:D:2774:PRO:HD3	1.79	0.63
1:B:3901:GLN:O	1:B:3905:ASN:ND2	2.28	0.63
1:C:4268:MET:HG3	1:D:4694:LEU:HD11	1.81	0.63
1:D:3179:ASN:O	1:D:3185:ASN:ND2	2.30	0.63
1:D:3166:PHE:HE2	1:D:3168:VAL:HB	1.62	0.63
2:F:4:GLU:OE1	2:F:4:GLU:N	2.29	0.63
1:C:3227:ARG:HD3	1:C:3229:THR:H	1.63	0.63
1:C:3127:GLN:O	1:C:3131:TYR:HD2	1.82	0.63
1:D:2232:PRO:HG3	1:D:2382:ILE:HD11	1.79	0.63
1:A:3127:GLN:O	1:A:3131:TYR:HD2	1.82	0.63
1:B:3127:GLN:O	1:B:3131:TYR:HD2	1.82	0.63
1:D:4690:LYS:HG3	1:D:4692:SER:H	1.63	0.63
2:G:26:HIS:CD2	2:G:105:LEU:HD11	2.34	0.63
1:A:2773:TRP:HB3	1:A:2774:PRO:HD3	1.79	0.63
1:A:4690:LYS:HG3	1:A:4692:SER:H	1.63	0.63
2:E:26:HIS:CD2	2:E:105:LEU:HD11	2.34	0.63
1:B:2232:PRO:HG3	1:B:2382:ILE:HD11	1.79	0.63
1:B:4279:MET:HE2	1:C:4484:ILE:HA	1.80	0.63
1:C:2604:LYS:NZ	1:C:2660:GLU:OE1	2.26	0.63
1:A:963:LYS:HZ1	1:A:977:LYS:HD3	1.63	0.63
1:D:3311:LYS:HB2	1:D:3314:LEU:HD13	1.80	0.63
1:A:2593:VAL:HG12	1:A:2644:LEU:HB2	1.81	0.62
1:B:3184:TYR:O	1:B:3192:ARG:NH2	2.30	0.62
1:D:3127:GLN:O	1:D:3131:TYR:HD2	1.82	0.62
1:D:2273:GLY:O	1:D:2336:ARG:NH2	2.32	0.62
2:F:26:HIS:CD2	2:F:105:LEU:HD11	2.34	0.62
1:A:2273:GLY:O	1:A:2336:ARG:NH2	2.32	0.62
1:A:4268:MET:HG3	1:B:4694:LEU:HD11	1.81	0.62
2:E:4:GLU:N	2:E:4:GLU:OE1	2.29	0.62
1:B:3134:LEU:HB3	1:B:3162:PHE:CE2	2.35	0.62
1:C:872:ILE:O	1:C:941:LYS:NZ	2.32	0.62
1:A:872:ILE:O	1:A:941:LYS:NZ	2.32	0.62
1:A:2586:GLN:NE2	1:A:2636:GLU:OE1	2.33	0.62
1:C:3025:ASP:O	1:C:3028:SER:OG	2.14	0.62
1:D:2593:VAL:HG12	1:D:2644:LEU:HB2	1.81	0.62
1:D:3325:LYS:HE3	1:D:3328:LYS:HD2	1.81	0.62
1:A:3134:LEU:HB3	1:A:3162:PHE:CE2	2.35	0.62
1:A:3325:LYS:HE3	1:A:3328:LYS:HD2	1.81	0.62
1:B:3311:LYS:HB2	1:B:3314:LEU:HD13	1.80	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2824:ARG:HH22	1:C:1503:ASN:HB2	1.65	0.62
1:B:3325:LYS:HE3	1:B:3328:LYS:HD2	1.81	0.62
1:C:3311:LYS:HB2	1:C:3314:LEU:HD13	1.80	0.62
1:A:3311:LYS:HB2	1:A:3314:LEU:HD13	1.80	0.62
1:B:3025:ASP:O	1:B:3028:SER:OG	2.14	0.62
2:H:26:HIS:CD2	2:H:105:LEU:HD11	2.34	0.62
1:B:2728:SER:HA	1:B:2731:LYS:HZ2	1.64	0.62
1:C:3134:LEU:HB3	1:C:3162:PHE:CE2	2.35	0.62
1:D:872:ILE:O	1:D:941:LYS:NZ	2.32	0.62
1:C:2593:VAL:HG12	1:C:2644:LEU:HB2	1.81	0.62
1:D:3043:ARG:NE	1:D:3120:ASP:OD2	2.27	0.62
1:D:3134:LEU:HB3	1:D:3162:PHE:CE2	2.35	0.62
1:B:872:ILE:O	1:B:941:LYS:NZ	2.32	0.61
1:B:3227:ARG:HD3	1:B:3229:THR:H	1.63	0.61
1:C:3325:LYS:HE3	1:C:3328:LYS:HD2	1.81	0.61
1:C:2273:GLY:O	1:C:2336:ARG:NH2	2.32	0.61
1:B:3016:ARG:HG2	1:B:3017:HIS:CD2	2.36	0.61
1:D:3016:ARG:HG2	1:D:3017:HIS:CD2	2.36	0.61
1:D:3901:GLN:O	1:D:3905:ASN:ND2	2.28	0.61
1:B:895:MET:SD	1:B:971:GLN:NE2	2.74	0.61
1:B:2273:GLY:O	1:B:2336:ARG:NH2	2.32	0.61
1:C:3901:GLN:O	1:C:3905:ASN:ND2	2.28	0.61
1:A:895:MET:SD	1:A:971:GLN:NE2	2.74	0.61
1:A:4665:ARG:HH22	1:A:4669:LEU:HD22	1.66	0.61
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.33	0.61
1:A:3016:ARG:HG2	1:A:3017:HIS:CD2	2.36	0.61
1:B:4665:ARG:HH22	1:B:4669:LEU:HD22	1.66	0.61
1:A:2824:ARG:HH22	1:B:1503:ASN:HB2	1.65	0.61
1:B:4609:LYS:HD2	1:B:4615:LEU:HD22	1.83	0.61
1:C:895:MET:SD	1:C:971:GLN:NE2	2.74	0.61
1:C:2586:GLN:NE2	1:C:2636:GLU:OE1	2.33	0.61
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.33	0.61
1:D:4609:LYS:HD2	1:D:4615:LEU:HD22	1.83	0.61
1:A:4609:LYS:HD2	1:A:4615:LEU:HD22	1.83	0.61
1:C:3016:ARG:HG2	1:C:3017:HIS:CD2	2.36	0.61
1:B:126:SER:HA	1:B:414:ARG:HH12	1.67	0.60
1:B:4010:VAL:HG11	1:B:4118:PHE:HZ	1.66	0.60
1:B:4874:ARG:NH1	1:C:4868:ASP:OD1	2.34	0.60
1:D:2831:VAL:HG12	1:D:2894:LYS:HD2	1.83	0.60
1:B:1910:LEU:HD13	1:B:2062:ILE:HG12	1.83	0.60
1:B:2593:VAL:HG12	1:B:2644:LEU:HB2	1.81	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4010:VAL:HG11	1:C:4118:PHE:HZ	1.66	0.60
1:D:3313:GLN:HA	1:D:3316:LYS:NZ	2.17	0.60
1:A:3313:GLN:HA	1:A:3316:LYS:NZ	2.17	0.60
1:B:2831:VAL:HG12	1:B:2894:LYS:HD2	1.84	0.60
1:D:895:MET:SD	1:D:971:GLN:NE2	2.74	0.60
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.33	0.60
1:C:1239:PHE:O	1:C:1807:ARG:NH2	2.35	0.60
1:C:4665:ARG:HH22	1:C:4669:LEU:HD22	1.66	0.60
1:D:2586:GLN:NE2	1:D:2636:GLU:OE1	2.33	0.60
1:D:3697:LYS:HA	1:D:3700:HIS:CD2	2.37	0.60
1:A:3059:ALA:O	1:A:3063:ASN:ND2	2.35	0.60
1:A:4010:VAL:HG11	1:A:4118:PHE:HZ	1.66	0.60
1:C:3137:LEU:HB2	1:C:3159:LEU:HD13	1.84	0.60
1:C:3313:GLN:HA	1:C:3316:LYS:NZ	2.17	0.60
1:D:1239:PHE:O	1:D:1807:ARG:NH2	2.35	0.60
1:A:126:SER:HA	1:A:414:ARG:HH12	1.66	0.60
1:C:2831:VAL:HG12	1:C:2894:LYS:HD2	1.84	0.60
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.02	0.60
1:C:3697:LYS:HA	1:C:3700:HIS:CD2	2.36	0.60
1:D:2296:GLU:HG3	1:D:2390:THR:HG22	1.83	0.60
1:A:2831:VAL:HG12	1:A:2894:LYS:HD2	1.84	0.60
1:A:3697:LYS:HA	1:A:3700:HIS:CD2	2.37	0.60
1:C:2890:GLN:O	1:C:2894:LYS:HG2	2.02	0.60
1:C:4609:LYS:HD2	1:C:4615:LEU:HD22	1.83	0.60
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.02	0.59
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.33	0.59
1:B:2586:GLN:NE2	1:B:2636:GLU:OE1	2.33	0.59
1:B:3313:GLN:HA	1:B:3316:LYS:NZ	2.17	0.59
1:C:126:SER:HA	1:C:414:ARG:HH12	1.67	0.59
1:D:2604:LYS:NZ	1:D:2660:GLU:OE1	2.26	0.59
1:A:1054:VAL:HA	1:A:1057:LEU:HD12	1.84	0.59
1:A:3137:LEU:HB2	1:A:3159:LEU:HD13	1.84	0.59
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.02	0.59
1:C:1910:LEU:HD13	1:C:2062:ILE:HG12	1.83	0.59
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.02	0.59
1:A:1239:PHE:O	1:A:1807:ARG:NH2	2.35	0.59
1:B:2890:GLN:O	1:B:2894:LYS:HG2	2.02	0.59
1:B:3697:LYS:HA	1:B:3700:HIS:CD2	2.36	0.59
1:B:4268:MET:HG3	1:C:4694:LEU:HD11	1.83	0.59
1:D:4665:ARG:HH22	1:D:4669:LEU:HD22	1.66	0.59
1:A:2296:GLU:HG3	1:A:2390:THR:HG22	1.83	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:892:LEU:HD21	1:C:980:PRO:HD3	1.85	0.59
1:D:561:ARG:HB3	1:D:564:ARG:HD2	1.84	0.59
1:D:2436:ILE:HA	1:D:2465:LYS:HD3	1.85	0.59
1:B:3152:ARG:NH2	1:B:3236:GLU:HB3	2.16	0.59
1:C:949:HIS:ND1	1:C:1065:GLU:OE2	2.34	0.59
1:C:3288:LEU:HD11	1:C:3328:LYS:HD3	1.85	0.59
1:C:4010:VAL:HG11	1:C:4118:PHE:CZ	2.38	0.59
1:D:2884:LYS:HD2	1:D:2884:LYS:C	2.23	0.59
1:A:2436:ILE:HA	1:A:2465:LYS:HD3	1.85	0.59
1:A:2937:HIS:HB2	1:A:3014:LEU:HD21	1.85	0.59
1:B:1239:PHE:O	1:B:1807:ARG:NH2	2.35	0.59
1:C:3280:ILE:O	1:C:3284:ILE:HG12	2.03	0.59
1:A:188:SER:HB2	1:A:190:ARG:HH11	1.67	0.59
1:B:188:SER:HB2	1:B:190:ARG:HH11	1.67	0.59
1:B:561:ARG:HB3	1:B:564:ARG:HD2	1.84	0.59
1:B:2884:LYS:HD2	1:B:2884:LYS:C	2.23	0.59
1:B:3043:ARG:NE	1:B:3120:ASP:OD2	2.27	0.59
1:B:3175:LEU:HD12	1:B:3178:HIS:HD2	1.68	0.59
1:D:892:LEU:HD21	1:D:980:PRO:HD3	1.85	0.59
1:D:4010:VAL:HG11	1:D:4118:PHE:HZ	1.66	0.59
1:A:1910:LEU:HD13	1:A:2062:ILE:HG12	1.83	0.59
1:B:2436:ILE:HA	1:B:2465:LYS:HD3	1.85	0.59
1:B:3137:LEU:HB2	1:B:3159:LEU:HD13	1.84	0.59
1:B:3280:ILE:O	1:B:3284:ILE:HG12	2.03	0.59
1:C:2296:GLU:HG3	1:C:2390:THR:HG22	1.83	0.59
1:D:591:GLU:HG3	1:D:631:LEU:HD22	1.85	0.59
1:D:1910:LEU:HD13	1:D:2062:ILE:HG12	1.83	0.59
1:A:591:GLU:HG3	1:A:631:LEU:HD22	1.85	0.59
1:A:4237:SER:N	1:A:4240:THR:OG1	2.36	0.59
1:B:892:LEU:HD21	1:B:980:PRO:HD3	1.85	0.59
1:B:4010:VAL:HG11	1:B:4118:PHE:CZ	2.38	0.59
1:C:963:LYS:HZ1	1:C:977:LYS:HD3	1.67	0.59
1:D:188:SER:HB2	1:D:190:ARG:HH11	1.67	0.59
1:A:561:ARG:HB3	1:A:564:ARG:HD2	1.84	0.59
1:A:892:LEU:HD21	1:A:980:PRO:HD3	1.85	0.59
1:A:1825:PHE:CE1	1:A:1842:ILE:HG12	2.38	0.59
1:A:2604:LYS:NZ	1:A:2660:GLU:OE1	2.26	0.59
1:A:2890:GLN:O	1:A:2894:LYS:HG2	2.02	0.59
1:B:1009:ARG:HB2	1:B:1013:ARG:NH1	2.18	0.59
1:B:1100:ARG:HB3	1:B:1236:TYR:HA	1.85	0.59
1:B:2296:GLU:HG3	1:B:2390:THR:HG22	1.83	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1009:ARG:HB2	1:D:1013:ARG:NH1	2.18	0.59
1:D:4271:VAL:HB	1:D:4274:MET:SD	2.43	0.59
1:A:15:ARG:NH2	1:A:110:HIS:O	2.36	0.58
1:B:4196:THR:HA	1:B:4199:GLU:HG2	1.85	0.58
1:C:3175:LEU:HD12	1:C:3178:HIS:CD2	2.38	0.58
1:D:2890:GLN:O	1:D:2894:LYS:HG2	2.02	0.58
1:D:3137:LEU:HB2	1:D:3159:LEU:HD13	1.84	0.58
1:D:4010:VAL:HG11	1:D:4118:PHE:CZ	2.38	0.58
1:B:1825:PHE:CE1	1:B:1842:ILE:HG12	2.38	0.58
1:C:1100:ARG:HB3	1:C:1236:TYR:HA	1.85	0.58
1:D:983:LEU:O	1:D:1055:ARG:NH2	2.37	0.58
1:D:1825:PHE:CE1	1:D:1842:ILE:HG12	2.38	0.58
1:D:3280:ILE:O	1:D:3284:ILE:HG12	2.03	0.58
1:B:591:GLU:HG3	1:B:631:LEU:HD22	1.85	0.58
1:C:561:ARG:HB3	1:C:564:ARG:HD2	1.84	0.58
1:C:591:GLU:HG3	1:C:631:LEU:HD22	1.85	0.58
1:C:983:LEU:O	1:C:1055:ARG:NH2	2.37	0.58
1:C:1825:PHE:CE1	1:C:1842:ILE:HG12	2.38	0.58
1:C:2436:ILE:HA	1:C:2465:LYS:HD3	1.85	0.58
1:C:4196:THR:HA	1:C:4199:GLU:HG2	1.85	0.58
1:C:4271:VAL:HB	1:C:4274:MET:SD	2.43	0.58
1:D:3174:HIS:ND1	1:D:3175:LEU:HD23	2.18	0.58
1:A:2884:LYS:HD2	1:A:2884:LYS:C	2.23	0.58
1:D:114:LEU:HB2	1:D:117:HIS:CE1	2.39	0.58
1:D:962:LYS:HZ1	1:D:982:ASP:H	1.51	0.58
1:D:1100:ARG:HB3	1:D:1236:TYR:HA	1.85	0.58
1:D:3059:ALA:O	1:D:3063:ASN:ND2	2.35	0.58
1:A:3152:ARG:NH2	1:A:3236:GLU:HB3	2.16	0.58
1:A:3175:LEU:HD12	1:A:3178:HIS:CD2	2.38	0.58
1:A:4689:LYS:HZ3	1:A:4696:ALA:HB2	1.67	0.58
1:B:15:ARG:NH2	1:B:110:HIS:O	2.36	0.58
1:B:3174:HIS:ND1	1:B:3175:LEU:HD23	2.19	0.58
1:B:3288:LEU:HD11	1:B:3328:LYS:HD3	1.85	0.58
1:D:2791:ARG:HH12	1:D:2795:GLY:CA	2.17	0.58
1:B:114:LEU:HB2	1:B:117:HIS:CE1	2.39	0.58
1:C:114:LEU:HB2	1:C:117:HIS:CE1	2.39	0.58
1:C:3174:HIS:ND1	1:C:3175:LEU:HD23	2.19	0.58
1:D:126:SER:HA	1:D:414:ARG:HH12	1.66	0.58
1:D:889:ILE:O	1:D:893:TRP:HB2	2.04	0.58
1:D:3288:LEU:HD11	1:D:3328:LYS:HD3	1.85	0.58
1:A:114:LEU:HB2	1:A:117:HIS:CE1	2.38	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3280:ILE:O	1:A:3284:ILE:HG12	2.03	0.58
1:B:3175:LEU:HD12	1:B:3178:HIS:CD2	2.38	0.58
1:C:2824:ARG:HH22	1:D:1503:ASN:HB2	1.66	0.58
1:D:15:ARG:NH2	1:D:110:HIS:O	2.36	0.58
1:D:1054:VAL:HA	1:D:1057:LEU:HD12	1.84	0.58
1:C:188:SER:HB2	1:C:190:ARG:HH11	1.68	0.58
1:C:1009:ARG:HB2	1:C:1013:ARG:NH1	2.18	0.58
1:C:1054:VAL:HA	1:C:1057:LEU:HD12	1.84	0.58
1:C:2884:LYS:HD2	1:C:2884:LYS:C	2.23	0.58
1:C:2937:HIS:HB2	1:C:3014:LEU:HD21	1.85	0.58
1:D:3175:LEU:HD12	1:D:3178:HIS:HD2	1.68	0.58
1:A:3174:HIS:ND1	1:A:3175:LEU:HD23	2.19	0.58
1:A:3901:GLN:O	1:A:3905:ASN:ND2	2.28	0.58
1:B:983:LEU:O	1:B:1055:ARG:NH2	2.37	0.58
1:B:2937:HIS:HB2	1:B:3014:LEU:HD21	1.85	0.58
1:B:4106:SER:HB2	1:B:4119:LEU:HD11	1.86	0.58
1:B:4237:SER:N	1:B:4240:THR:OG1	2.36	0.58
1:B:4271:VAL:HB	1:B:4274:MET:SD	2.43	0.58
1:C:15:ARG:NH2	1:C:110:HIS:O	2.36	0.58
1:C:3901:GLN:OE1	1:C:3904:ARG:NH1	2.37	0.58
1:D:2937:HIS:HB2	1:D:3014:LEU:HD21	1.85	0.58
1:D:4196:THR:HA	1:D:4199:GLU:HG2	1.85	0.58
1:A:3175:LEU:HD12	1:A:3178:HIS:HD2	1.68	0.58
1:A:4106:SER:HB2	1:A:4119:LEU:HD11	1.86	0.58
1:B:2788:ARG:NH1	1:B:2905:ARG:O	2.37	0.58
1:B:3059:ALA:O	1:B:3063:ASN:ND2	2.35	0.58
1:D:26:ALA:HB3	1:D:33:GLN:HB3	1.86	0.58
1:D:2999:LYS:O	1:D:3002:GLU:HG3	2.04	0.58
1:D:3175:LEU:HD12	1:D:3178:HIS:CD2	2.38	0.58
1:A:1100:ARG:HB3	1:A:1236:TYR:HA	1.85	0.57
1:C:515:ALA:HB2	1:C:523:GLY:HA3	1.86	0.57
1:C:3059:ALA:O	1:C:3063:ASN:ND2	2.35	0.57
1:D:2788:ARG:NH1	1:D:2905:ARG:O	2.37	0.57
1:D:3045:VAL:O	1:D:3054:LYS:NZ	2.36	0.57
1:A:2791:ARG:HH12	1:A:2795:GLY:CA	2.17	0.57
1:A:2999:LYS:O	1:A:3002:GLU:HG3	2.04	0.57
1:A:3288:LEU:HD11	1:A:3328:LYS:HD3	1.85	0.57
1:B:1286:THR:OG1	1:B:1550:PRO:O	2.19	0.57
1:C:2788:ARG:NH1	1:C:2905:ARG:O	2.37	0.57
1:D:515:ALA:HB2	1:D:523:GLY:HA3	1.86	0.57
1:D:3152:ARG:NH2	1:D:3236:GLU:HB3	2.16	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2788:ARG:NH1	1:A:2905:ARG:O	2.37	0.57
1:C:889:ILE:O	1:C:893:TRP:HB2	2.04	0.57
1:C:2791:ARG:HH12	1:C:2795:GLY:CA	2.17	0.57
1:C:3175:LEU:HD12	1:C:3178:HIS:HD2	1.68	0.57
1:D:2728:SER:HA	1:D:2731:LYS:HZ2	1.69	0.57
1:D:3187:LYS:NZ	1:D:3191:GLU:HB3	2.19	0.57
1:A:983:LEU:O	1:A:1055:ARG:NH2	2.37	0.57
1:A:4010:VAL:HG11	1:A:4118:PHE:CZ	2.38	0.57
1:B:2658:GLU:HB3	1:B:2661:LEU:HB3	1.87	0.57
1:B:2999:LYS:O	1:B:3002:GLU:HG3	2.04	0.57
1:C:26:ALA:HB3	1:C:33:GLN:HB3	1.86	0.57
1:D:1521:ILE:HG22	1:D:1526:GLU:HG3	1.86	0.57
1:A:4196:THR:HA	1:A:4199:GLU:HG2	1.85	0.57
1:A:4271:VAL:HB	1:A:4274:MET:SD	2.43	0.57
1:D:2658:GLU:HB3	1:D:2661:LEU:HB3	1.87	0.57
1:D:2975:PHE:HB3	1:D:3039:THR:HG21	1.86	0.57
1:D:3901:GLN:OE1	1:D:3904:ARG:NH1	2.37	0.57
1:A:515:ALA:HB2	1:A:523:GLY:HA3	1.86	0.57
1:A:1521:ILE:HG22	1:A:1526:GLU:HG3	1.87	0.57
1:B:3901:GLN:OE1	1:B:3904:ARG:NH1	2.37	0.57
1:D:3160:ALA:N	1:D:3241:MET:HE1	2.20	0.57
1:D:3817:LEU:HD22	1:D:3819:MET:HG3	1.87	0.57
1:A:1009:ARG:HB2	1:A:1013:ARG:NH1	2.18	0.57
1:A:3200:ASN:HB2	1:A:3203:ASP:HB2	1.87	0.57
1:B:1054:VAL:HA	1:B:1057:LEU:HD12	1.84	0.57
1:B:1521:ILE:HG22	1:B:1526:GLU:HG3	1.87	0.57
1:C:2999:LYS:O	1:C:3002:GLU:HG3	2.04	0.57
1:C:3200:ASN:HB2	1:C:3203:ASP:HB2	1.87	0.57
1:D:1283:LEU:HB2	1:D:1555:PHE:HB2	1.87	0.57
1:A:3901:GLN:OE1	1:A:3904:ARG:NH1	2.37	0.57
1:A:4049:HIS:CD2	1:A:4067:LEU:HD11	2.40	0.57
1:B:555:LEU:HD21	1:B:578:VAL:HG11	1.86	0.57
1:B:889:ILE:O	1:B:893:TRP:HB2	2.04	0.57
1:B:3152:ARG:NH2	1:B:3233:HIS:O	2.37	0.57
1:B:3200:ASN:HB2	1:B:3203:ASP:HB2	1.87	0.57
1:C:2658:GLU:HB3	1:C:2661:LEU:HB3	1.87	0.57
1:C:3152:ARG:NH2	1:C:3236:GLU:HB3	2.16	0.57
1:C:3817:LEU:HD22	1:C:3819:MET:HG3	1.87	0.57
1:C:4049:HIS:CD2	1:C:4067:LEU:HD11	2.40	0.57
1:D:555:LEU:HD21	1:D:578:VAL:HG11	1.86	0.57
1:B:515:ALA:HB2	1:B:523:GLY:HA3	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4093:ASP:OD1	1:C:4094:ILE:N	2.38	0.57
1:A:3045:VAL:O	1:A:3054:LYS:NZ	2.36	0.57
1:B:4049:HIS:CD2	1:B:4067:LEU:HD11	2.40	0.57
1:C:1521:ILE:HG22	1:C:1526:GLU:HG3	1.87	0.57
1:C:3187:LYS:NZ	1:C:3191:GLU:HB3	2.19	0.57
1:C:4106:SER:HB2	1:C:4119:LEU:HD11	1.86	0.57
1:D:2496:LEU:HD23	1:D:2520:LEU:HD13	1.87	0.57
1:D:3200:ASN:HB2	1:D:3203:ASP:HB2	1.87	0.57
1:D:4237:SER:N	1:D:4240:THR:OG1	2.36	0.57
1:A:889:ILE:O	1:A:893:TRP:HB2	2.04	0.56
1:B:1283:LEU:HB2	1:B:1555:PHE:HB2	1.87	0.56
1:A:555:LEU:HD21	1:A:578:VAL:HG11	1.86	0.56
1:A:2728:SER:HA	1:A:2731:LYS:HZ2	1.70	0.56
1:A:3890:TRP:HB3	1:B:76:ARG:HG2	1.86	0.56
1:B:1844:GLN:NE2	1:B:1853:GLU:OE1	2.37	0.56
1:B:2791:ARG:HH12	1:B:2795:GLY:CA	2.17	0.56
1:C:555:LEU:HD21	1:C:578:VAL:HG11	1.86	0.56
1:C:3035:ILE:O	1:C:3039:THR:HG23	2.05	0.56
1:C:3043:ARG:NE	1:C:3120:ASP:OD2	2.27	0.56
1:C:4237:SER:N	1:C:4240:THR:OG1	2.36	0.56
1:D:555:LEU:HD12	1:D:588:ILE:HD11	1.87	0.56
1:D:4084:VAL:O	1:D:4088:HIS:CB	2.54	0.56
1:A:3152:ARG:NH2	1:A:3233:HIS:O	2.37	0.56
1:A:3270:SER:O	1:A:3274:ASN:ND2	2.39	0.56
1:A:4084:VAL:O	1:A:4088:HIS:CB	2.54	0.56
1:A:4093:ASP:OD1	1:A:4094:ILE:N	2.38	0.56
1:B:2057:THR:HB	1:B:2060:GLN:HG3	1.86	0.56
1:B:2975:PHE:HB3	1:B:3039:THR:HG21	1.86	0.56
1:B:3172:GLU:OE1	1:B:3266:THR:OG1	2.22	0.56
1:B:3817:LEU:HD22	1:B:3819:MET:HG3	1.87	0.56
1:C:3227:ARG:NH1	1:C:3228:TYR:HB3	2.20	0.56
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	1.87	0.56
1:D:1014:GLN:O	1:D:1027:ARG:NH2	2.39	0.56
1:D:3227:ARG:NH1	1:D:3228:TYR:HB3	2.20	0.56
1:D:4106:SER:HB2	1:D:4119:LEU:HD11	1.86	0.56
1:B:3122:ILE:HG13	1:B:3126:VAL:HG23	1.88	0.56
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	1.87	0.56
1:C:1283:LEU:HB2	1:C:1555:PHE:HB2	1.87	0.56
1:C:2496:LEU:HD23	1:C:2520:LEU:HD13	1.87	0.56
1:C:2975:PHE:HB3	1:C:3039:THR:HG21	1.86	0.56
1:D:3035:ILE:O	1:D:3039:THR:HG23	2.06	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4045:LYS:HD3	1:A:4072:THR:HG21	1.88	0.56
1:B:26:ALA:HB3	1:B:33:GLN:HB3	1.86	0.56
1:B:3270:SER:O	1:B:3274:ASN:ND2	2.39	0.56
1:B:4093:ASP:OD1	1:B:4094:ILE:N	2.38	0.56
1:D:891:GLU:HG3	1:D:976:TYR:CD2	2.41	0.56
1:A:1286:THR:OG1	1:A:1550:PRO:O	2.19	0.56
1:A:1788:LYS:HD2	1:A:1833:ILE:HG22	1.87	0.56
1:A:2658:GLU:HB3	1:A:2661:LEU:HB3	1.87	0.56
1:B:1014:GLN:O	1:B:1027:ARG:NH2	2.39	0.56
1:B:4045:LYS:HD3	1:B:4072:THR:HG21	1.88	0.56
1:B:4084:VAL:O	1:B:4088:HIS:CB	2.54	0.56
1:D:2999:LYS:O	1:D:3003:MET:HG2	2.06	0.56
1:D:3323:MET:HB3	1:D:3327:LYS:NZ	2.21	0.56
1:D:4045:LYS:HD3	1:D:4072:THR:HG21	1.88	0.56
1:A:26:ALA:HB3	1:A:33:GLN:HB3	1.86	0.56
1:A:3160:ALA:N	1:A:3241:MET:HE1	2.20	0.56
1:A:3817:LEU:HD22	1:A:3819:MET:HG3	1.87	0.56
1:B:894:VAL:HG12	1:B:897:LYS:NZ	2.21	0.56
1:C:1559:ARG:HD2	1:C:1565:PRO:HD3	1.88	0.56
1:C:2999:LYS:O	1:C:3003:MET:HG2	2.06	0.56
1:C:3270:SER:O	1:C:3274:ASN:ND2	2.39	0.56
1:D:2137:GLU:OE1	1:D:2137:GLU:N	2.32	0.56
1:D:3270:SER:O	1:D:3274:ASN:ND2	2.39	0.56
1:A:1014:GLN:O	1:A:1027:ARG:NH2	2.39	0.56
1:B:555:LEU:HD12	1:B:588:ILE:HD11	1.87	0.56
1:B:1006:VAL:O	1:B:1009:ARG:HG2	2.06	0.56
1:B:3323:MET:HB3	1:B:3327:LYS:NZ	2.21	0.56
1:C:891:GLU:HG3	1:C:976:TYR:CD2	2.41	0.56
1:C:2057:THR:HB	1:C:2060:GLN:HG3	1.86	0.56
1:C:3045:VAL:O	1:C:3054:LYS:NZ	2.36	0.56
1:D:1788:LYS:HD2	1:D:1833:ILE:HG22	1.87	0.56
1:D:4093:ASP:OD1	1:D:4094:ILE:N	2.38	0.56
1:A:4640:PHE:CD2	1:A:4641:PRO:HD3	2.41	0.56
1:B:1559:ARG:HD2	1:B:1565:PRO:HD3	1.88	0.56
1:B:3187:LYS:NZ	1:B:3191:GLU:HB3	2.19	0.56
1:B:3238:ILE:HA	1:B:3241:MET:HB2	1.88	0.56
1:C:555:LEU:HD12	1:C:588:ILE:HD11	1.87	0.56
1:C:3160:ALA:N	1:C:3241:MET:HE1	2.20	0.56
1:C:3293:GLY:HA3	1:C:3295:TRP:CZ3	2.41	0.56
1:A:894:VAL:HG12	1:A:897:LYS:NZ	2.21	0.56
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3152:ARG:NH2	1:D:3233:HIS:O	2.37	0.56
1:D:4177:VAL:HG11	1:D:4880:VAL:HA	1.87	0.56
1:A:3187:LYS:NZ	1:A:3191:GLU:HB3	2.20	0.55
1:A:4144:ARG:HB3	1:A:4961:GLN:HE22	1.72	0.55
1:B:2496:LEU:HD23	1:B:2520:LEU:HD13	1.87	0.55
1:B:4640:PHE:CD2	1:B:4641:PRO:HD3	2.41	0.55
1:C:1849:SER:O	1:C:2054:LYS:NZ	2.39	0.55
1:C:4045:LYS:HD3	1:C:4072:THR:HG21	1.88	0.55
1:D:4049:HIS:CD2	1:D:4067:LEU:HD11	2.40	0.55
1:A:2057:THR:HB	1:A:2060:GLN:HG3	1.86	0.55
1:A:3227:ARG:NH1	1:A:3228:TYR:HB3	2.20	0.55
1:A:3323:MET:HB3	1:A:3327:LYS:NZ	2.21	0.55
1:C:3238:ILE:HA	1:C:3241:MET:HB2	1.88	0.55
1:C:3323:MET:HB3	1:C:3327:LYS:NZ	2.21	0.55
1:C:4640:PHE:CD2	1:C:4641:PRO:HD3	2.41	0.55
1:D:2057:THR:HB	1:D:2060:GLN:HG3	1.86	0.55
1:A:1006:VAL:O	1:A:1009:ARG:HG2	2.06	0.55
1:C:1788:LYS:HD2	1:C:1833:ILE:HG22	1.87	0.55
1:C:3152:ARG:NH2	1:C:3233:HIS:O	2.37	0.55
1:C:4084:VAL:O	1:C:4088:HIS:CB	2.54	0.55
1:D:3293:GLY:HA3	1:D:3295:TRP:CZ3	2.41	0.55
2:H:24:VAL:HG12	2:H:105:LEU:HD12	1.89	0.55
1:A:891:GLU:HG3	1:A:976:TYR:CD2	2.41	0.55
1:A:949:HIS:ND1	1:A:1065:GLU:OE2	2.34	0.55
1:B:878:LEU:HA	1:B:881:ILE:HG22	1.88	0.55
1:B:1788:LYS:HD2	1:B:1833:ILE:HG22	1.87	0.55
1:B:3035:ILE:O	1:B:3039:THR:HG23	2.05	0.55
1:B:3293:GLY:HA3	1:B:3295:TRP:CZ3	2.41	0.55
1:B:4144:ARG:HB3	1:B:4961:GLN:HE22	1.72	0.55
1:C:894:VAL:HG12	1:C:897:LYS:NZ	2.21	0.55
1:D:1266:GLU:OE1	1:D:1266:GLU:N	2.30	0.55
1:D:1849:SER:O	1:D:2054:LYS:NZ	2.39	0.55
1:A:1266:GLU:OE1	1:A:1266:GLU:N	2.30	0.55
1:A:2496:LEU:HD23	1:A:2520:LEU:HD13	1.87	0.55
1:A:2975:PHE:HB3	1:A:3039:THR:HG21	1.86	0.55
1:A:3293:GLY:HA3	1:A:3295:TRP:CZ3	2.42	0.55
1:B:949:HIS:ND1	1:B:1065:GLU:OE2	2.34	0.55
1:C:878:LEU:HA	1:C:881:ILE:HG22	1.88	0.55
1:D:3172:GLU:OE1	1:D:3266:THR:OG1	2.22	0.55
1:D:3238:ILE:HA	1:D:3241:MET:HB2	1.88	0.55
1:D:4179:GLU:N	1:D:4179:GLU:OE2	2.40	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4832:GLU:O	1:D:4843:ARG:NH1	2.38	0.55
1:B:3045:VAL:O	1:B:3054:LYS:NZ	2.36	0.55
1:B:4689:LYS:HZ3	1:B:4696:ALA:HB2	1.70	0.55
1:C:2703:PRO:HB2	1:C:2854:LYS:HG3	1.89	0.55
1:C:2728:SER:HA	1:C:2731:LYS:HZ2	1.71	0.55
1:C:3122:ILE:HG13	1:C:3126:VAL:HG23	1.88	0.55
1:D:1006:VAL:O	1:D:1009:ARG:HG2	2.06	0.55
1:D:4144:ARG:HB3	1:D:4961:GLN:HE22	1.72	0.55
2:G:24:VAL:HG12	2:G:105:LEU:HD12	1.89	0.55
1:A:555:LEU:HD12	1:A:588:ILE:HD11	1.87	0.55
1:A:3238:ILE:HA	1:A:3241:MET:HB2	1.88	0.55
1:B:2832:THR:HG21	1:C:1290:PHE:HE2	1.71	0.55
1:B:3227:ARG:NH1	1:B:3228:TYR:HB3	2.20	0.55
1:C:1014:GLN:O	1:C:1027:ARG:NH2	2.39	0.55
1:C:4179:GLU:N	1:C:4179:GLU:OE2	2.40	0.55
1:A:3043:ARG:NE	1:A:3120:ASP:OD2	2.27	0.55
1:A:4179:GLU:N	1:A:4179:GLU:OE2	2.40	0.55
1:B:4179:GLU:N	1:B:4179:GLU:OE2	2.40	0.55
1:D:894:VAL:HG12	1:D:897:LYS:NZ	2.21	0.55
1:A:2930:ILE:HG23	1:A:3010:LYS:NZ	2.22	0.55
1:A:3025:ASP:O	1:A:3028:SER:OG	2.14	0.55
1:A:3035:ILE:O	1:A:3039:THR:HG23	2.05	0.55
1:B:891:GLU:HG3	1:B:976:TYR:CD2	2.41	0.55
1:B:1427:TYR:HB2	1:B:1563:VAL:HG11	1.89	0.55
1:C:370:LEU:HD22	1:C:395:HIS:HA	1.89	0.55
1:D:4640:PHE:CD2	1:D:4641:PRO:HD3	2.41	0.55
1:A:1283:LEU:HB2	1:A:1555:PHE:HB2	1.87	0.55
1:A:1559:ARG:HD2	1:A:1565:PRO:HD3	1.88	0.55
1:A:3016:ARG:O	1:A:3018:ARG:NE	2.38	0.55
1:C:1844:GLN:NE2	1:C:1853:GLU:OE1	2.37	0.55
1:D:3166:PHE:CE2	1:D:3168:VAL:HB	2.42	0.55
1:A:629:GLN:OE1	1:A:1669:ASN:ND2	2.40	0.54
1:A:1290:PHE:HE2	1:D:2832:THR:HG21	1.72	0.54
1:A:2703:PRO:HB2	1:A:2854:LYS:HG3	1.89	0.54
1:A:3699:CYS:SG	1:A:3731:LEU:HD12	2.48	0.54
1:B:2930:ILE:HG23	1:B:3010:LYS:NZ	2.22	0.54
1:B:2999:LYS:O	1:B:3003:MET:HG2	2.06	0.54
1:D:370:LEU:HD22	1:D:395:HIS:HA	1.89	0.54
1:D:3122:ILE:HG13	1:D:3126:VAL:HG23	1.88	0.54
1:A:2772:ARG:HA	1:A:2775:ILE:HD12	1.90	0.54
1:B:2772:ARG:HA	1:B:2775:ILE:HD12	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1006:VAL:O	1:C:1009:ARG:HG2	2.06	0.54
1:C:2832:THR:HG21	1:D:1290:PHE:HE2	1.72	0.54
1:C:3166:PHE:CE2	1:C:3168:VAL:HB	2.42	0.54
1:C:4832:GLU:O	1:C:4843:ARG:NH1	2.38	0.54
1:D:2703:PRO:HB2	1:D:2854:LYS:HG3	1.89	0.54
1:D:2772:ARG:HA	1:D:2775:ILE:HD12	1.90	0.54
1:C:1768:PHE:O	2:G:83:TYR:OH	2.20	0.54
1:C:2129:LEU:HD11	1:C:2141:LEU:HB2	1.89	0.54
1:C:2930:ILE:HG23	1:C:3010:LYS:HZ3	1.72	0.54
1:D:3276:LEU:O	1:D:3280:ILE:HD12	2.08	0.54
1:A:2592:LEU:HD22	1:A:2606:PRO:HB3	1.90	0.54
1:A:3321:PRO:O	1:A:3325:LYS:HG2	2.08	0.54
1:B:2129:LEU:HD11	1:B:2141:LEU:HB2	1.89	0.54
1:B:3699:CYS:SG	1:B:3731:LEU:HD12	2.48	0.54
1:C:3276:LEU:O	1:C:3280:ILE:HD12	2.08	0.54
1:C:3699:CYS:SG	1:C:3731:LEU:HD12	2.48	0.54
1:D:2129:LEU:HD11	1:D:2141:LEU:HB2	1.89	0.54
2:F:24:VAL:HG12	2:F:105:LEU:HD12	1.89	0.54
1:A:1844:GLN:NE2	1:A:1853:GLU:OE1	2.37	0.54
1:A:4834:PRO:HB3	1:A:4843:ARG:HG2	1.89	0.54
2:E:24:VAL:HG12	2:E:105:LEU:HD12	1.89	0.54
1:B:2703:PRO:HB2	1:B:2854:LYS:HG3	1.89	0.54
1:B:3016:ARG:O	1:B:3018:ARG:NE	2.38	0.54
1:C:2772:ARG:HA	1:C:2775:ILE:HD12	1.89	0.54
1:C:3214:LEU:O	1:C:3218:ILE:HG12	2.08	0.54
1:D:878:LEU:HA	1:D:881:ILE:HG22	1.88	0.54
1:A:2129:LEU:HD11	1:A:2141:LEU:HB2	1.89	0.54
1:A:3276:LEU:O	1:A:3280:ILE:HD12	2.08	0.54
1:B:2704:GLN:O	1:B:2704:GLN:HG2	2.08	0.54
1:B:3297:LYS:HE3	1:B:3334:VAL:HG13	1.90	0.54
1:C:3016:ARG:O	1:C:3018:ARG:NE	2.38	0.54
1:C:3823:GLU:HG3	1:C:3827:GLU:H	1.73	0.54
1:C:4144:ARG:HB3	1:C:4961:GLN:HE22	1.72	0.54
1:D:1559:ARG:HD2	1:D:1565:PRO:HD3	1.88	0.54
1:D:2592:LEU:HD22	1:D:2606:PRO:HB3	1.90	0.54
1:D:2704:GLN:O	1:D:2704:GLN:HG2	2.08	0.54
1:D:3699:CYS:SG	1:D:3731:LEU:HD12	2.48	0.54
2:G:63:GLY:O	2:G:67:MET:HG3	2.07	0.54
1:A:878:LEU:HA	1:A:881:ILE:HG22	1.88	0.54
1:A:1427:TYR:HB2	1:A:1563:VAL:HG11	1.89	0.54
1:C:1427:TYR:HB2	1:C:1563:VAL:HG11	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3297:LYS:HE3	1:C:3334:VAL:HG13	1.90	0.54
1:D:2930:ILE:HG23	1:D:3010:LYS:NZ	2.22	0.54
2:F:63:GLY:O	2:F:67:MET:HG3	2.07	0.54
1:B:629:GLN:OE1	1:B:1669:ASN:ND2	2.40	0.54
1:B:3276:LEU:O	1:B:3280:ILE:HD12	2.08	0.54
1:C:629:GLN:OE1	1:C:1669:ASN:ND2	2.40	0.54
1:C:3018:ARG:HG3	1:C:3021:LEU:HD22	1.90	0.54
1:C:3321:PRO:O	1:C:3325:LYS:HG2	2.08	0.54
1:C:4834:PRO:HB3	1:C:4843:ARG:HG2	1.89	0.54
1:D:629:GLN:OE1	1:D:1669:ASN:ND2	2.40	0.54
1:D:1272:ARG:HH12	1:D:1584:PRO:HA	1.72	0.54
1:D:1844:GLN:NE2	1:D:1853:GLU:OE1	2.37	0.54
1:A:1849:SER:O	1:A:2054:LYS:NZ	2.39	0.54
1:A:2704:GLN:HG2	1:A:2704:GLN:O	2.08	0.54
1:A:2930:ILE:HG23	1:A:3010:LYS:HZ3	1.73	0.54
1:A:4257:ARG:O	1:A:4261:LEU:HG	2.08	0.54
1:B:3321:PRO:O	1:B:3325:LYS:HG2	2.08	0.54
1:B:4832:GLU:O	1:B:4843:ARG:NH1	2.38	0.54
1:C:2592:LEU:HD22	1:C:2606:PRO:HB3	1.90	0.54
1:C:2895:PHE:HA	1:C:2898:ILE:HG22	1.90	0.54
1:C:4906:GLU:OE1	1:D:4183:LYS:HE3	2.08	0.54
1:D:3321:PRO:O	1:D:3325:LYS:HG2	2.08	0.54
1:A:112:THR:HG21	1:A:174:LYS:HD3	1.91	0.53
1:A:1251:LEU:HD23	1:A:1599:MET:HE2	1.90	0.53
1:A:2119:LEU:HB2	1:A:2152:ASN:HD22	1.73	0.53
1:A:2895:PHE:HA	1:A:2898:ILE:HG22	1.89	0.53
1:A:2999:LYS:O	1:A:3003:MET:HG2	2.06	0.53
1:B:3823:GLU:HG3	1:B:3827:GLU:H	1.73	0.53
1:C:1686:LEU:HD22	1:C:1790:LYS:NZ	2.24	0.53
1:C:2930:ILE:HG23	1:C:3010:LYS:NZ	2.22	0.53
1:D:2895:PHE:HA	1:D:2898:ILE:HG22	1.90	0.53
1:D:2930:ILE:HG23	1:D:3010:LYS:HZ3	1.74	0.53
1:D:4834:PRO:HB3	1:D:4843:ARG:HG2	1.89	0.53
1:A:3122:ILE:HG13	1:A:3126:VAL:HG23	1.88	0.53
1:B:1849:SER:O	1:B:2054:LYS:NZ	2.39	0.53
1:B:2895:PHE:HA	1:B:2898:ILE:HG22	1.90	0.53
1:B:3160:ALA:N	1:B:3241:MET:HE1	2.23	0.53
1:B:3214:LEU:O	1:B:3218:ILE:HG12	2.08	0.53
1:B:4257:ARG:O	1:B:4261:LEU:HG	2.08	0.53
1:D:112:THR:HG21	1:D:174:LYS:HD3	1.91	0.53
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3198:PRO:HG2	1:D:3204:VAL:HA	1.91	0.53
2:H:63:GLY:O	2:H:67:MET:HG3	2.07	0.53
1:A:541:ILE:HD11	1:A:574:VAL:HG13	1.91	0.53
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.09	0.53
2:E:63:GLY:O	2:E:67:MET:HG3	2.07	0.53
1:B:3198:PRO:HG2	1:B:3204:VAL:HA	1.91	0.53
1:D:949:HIS:ND1	1:D:1065:GLU:OE2	2.34	0.53
1:D:2734:MET:HE1	1:D:2823:PRO:HB2	1.90	0.53
1:A:3166:PHE:CE2	1:A:3168:VAL:HB	2.42	0.53
1:A:3297:LYS:HE3	1:A:3334:VAL:HG13	1.90	0.53
1:A:4520:TYR:OH	1:A:4559:TYR:HA	2.09	0.53
1:B:4520:TYR:OH	1:B:4559:TYR:HA	2.09	0.53
1:C:3134:LEU:HB3	1:C:3162:PHE:HE2	1.74	0.53
1:C:4520:TYR:OH	1:C:4559:TYR:HA	2.09	0.53
1:D:1427:TYR:HB2	1:D:1563:VAL:HG11	1.89	0.53
1:D:3778:LEU:HD13	1:D:3854:PHE:CD1	2.41	0.53
1:D:4257:ARG:O	1:D:4261:LEU:HG	2.08	0.53
1:A:3214:LEU:O	1:A:3218:ILE:HG12	2.08	0.53
1:B:541:ILE:HD11	1:B:574:VAL:HG13	1.91	0.53
1:B:2592:LEU:HD22	1:B:2606:PRO:HB3	1.89	0.53
1:B:2691:LYS:O	1:B:2694:SER:OG	2.17	0.53
1:B:3134:LEU:HB3	1:B:3162:PHE:HE2	1.74	0.53
1:B:4834:PRO:HB3	1:B:4843:ARG:HG2	1.89	0.53
1:C:3068:LEU:O	1:C:3071:THR:OG1	2.25	0.53
1:D:3018:ARG:HG3	1:D:3021:LEU:HD22	1.90	0.53
1:A:370:LEU:HD22	1:A:395:HIS:HA	1.89	0.53
1:A:1272:ARG:HH12	1:A:1584:PRO:HA	1.73	0.53
1:A:1957:LEU:HA	1:A:1960:ARG:NH1	2.24	0.53
1:B:1686:LEU:HD22	1:B:1790:LYS:NZ	2.24	0.53
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.08	0.53
1:C:2704:GLN:HG2	1:C:2704:GLN:O	2.08	0.53
1:D:541:ILE:HD11	1:D:574:VAL:HG13	1.90	0.53
1:D:2440:PHE:CZ	1:D:2465:LYS:HE3	2.44	0.53
1:D:3214:LEU:O	1:D:3218:ILE:HG12	2.08	0.53
1:D:3297:LYS:HE3	1:D:3334:VAL:HG13	1.90	0.53
1:D:3882:GLN:HB2	1:D:3947:PHE:CE2	2.44	0.53
1:A:3198:PRO:HG2	1:A:3204:VAL:HA	1.91	0.53
1:A:4906:GLU:OE1	1:B:4183:LYS:HE3	2.09	0.53
1:B:3778:LEU:HD13	1:B:3854:PHE:CD1	2.41	0.53
1:C:3270:SER:HA	1:C:3273:MET:CE	2.37	0.53
1:C:3882:GLN:HB2	1:C:3947:PHE:CE2	2.44	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1957:LEU:HA	1:D:1960:ARG:NH1	2.24	0.53
1:D:2119:LEU:HB2	1:D:2152:ASN:HD22	1.73	0.53
1:A:1686:LEU:HD22	1:A:1790:LYS:NZ	2.24	0.53
1:A:2055:SER:HB2	1:A:2060:GLN:HB2	1.91	0.53
1:A:3068:LEU:O	1:A:3071:THR:OG1	2.25	0.53
1:A:3071:THR:HA	1:A:3074:ASN:HD21	1.74	0.53
1:A:4832:GLU:O	1:A:4843:ARG:NH1	2.38	0.53
1:B:112:THR:HG21	1:B:174:LYS:HD3	1.91	0.53
1:C:829:LYS:NZ	1:C:1037:LEU:HB3	2.24	0.53
1:C:1097:LYS:HA	1:C:1168:MET:HE1	1.90	0.53
1:A:2440:PHE:CZ	1:A:2465:LYS:HE3	2.44	0.53
1:A:2570:GLU:HG2	1:A:2605:MET:HG3	1.91	0.53
1:A:3172:GLU:OE1	1:A:3266:THR:OG1	2.22	0.53
1:B:370:LEU:HD22	1:B:395:HIS:HA	1.89	0.53
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.09	0.53
1:B:3166:PHE:CE2	1:B:3168:VAL:HB	2.42	0.53
1:B:4651:ARG:HH11	1:B:4651:ARG:HG2	1.74	0.53
1:C:2734:MET:HE1	1:C:2823:PRO:HB2	1.90	0.53
1:C:3198:PRO:HG2	1:C:3204:VAL:HA	1.91	0.53
1:D:829:LYS:NZ	1:D:1037:LEU:HB3	2.24	0.53
1:D:1686:LEU:HD22	1:D:1790:LYS:NZ	2.24	0.53
1:D:2570:GLU:HG2	1:D:2605:MET:HG3	1.91	0.53
1:D:3134:LEU:HB3	1:D:3162:PHE:HE2	1.74	0.53
1:D:3228:TYR:HA	1:D:3235:MET:CE	2.39	0.53
1:D:3697:LYS:HA	1:D:3700:HIS:NE2	2.24	0.53
1:D:3823:GLU:HG3	1:D:3827:GLU:H	1.73	0.53
1:A:514:PHE:HD2	1:A:526:TRP:HB2	1.74	0.53
1:A:3188:SER:OG	1:A:3191:GLU:OE1	2.28	0.53
1:B:3018:ARG:HG3	1:B:3021:LEU:HD22	1.90	0.53
1:B:3882:GLN:HB2	1:B:3947:PHE:CE2	2.44	0.53
1:C:112:THR:HG21	1:C:174:LYS:HD3	1.91	0.53
1:C:889:ILE:HA	1:C:892:LEU:HD12	1.91	0.53
1:C:1957:LEU:HA	1:C:1960:ARG:NH1	2.24	0.53
1:C:2119:LEU:HB2	1:C:2152:ASN:HD22	1.74	0.53
1:C:2440:PHE:CZ	1:C:2465:LYS:HE3	2.44	0.53
1:C:3228:TYR:HA	1:C:3235:MET:CE	2.39	0.53
1:D:3270:SER:HA	1:D:3273:MET:CE	2.37	0.53
1:A:2137:GLU:OE1	1:A:2137:GLU:N	2.32	0.52
1:A:2734:MET:HE1	1:A:2823:PRO:HB2	1.91	0.52
1:A:3778:LEU:HD13	1:A:3854:PHE:CD1	2.41	0.52
1:B:1957:LEU:HA	1:B:1960:ARG:NH1	2.24	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2055:SER:HB2	1:B:2060:GLN:HB2	1.91	0.52
1:B:2734:MET:HE1	1:B:2823:PRO:HB2	1.91	0.52
1:C:3183:ILE:HG23	1:C:3184:TYR:HD1	1.74	0.52
1:C:4257:ARG:O	1:C:4261:LEU:HG	2.08	0.52
1:D:2691:LYS:O	1:D:2694:SER:OG	2.17	0.52
1:A:4183:LYS:HE3	1:D:4906:GLU:OE1	2.09	0.52
1:B:35:LEU:HD11	1:B:201:LEU:HD13	1.92	0.52
1:B:1251:LEU:HD23	1:B:1599:MET:HE2	1.90	0.52
1:B:2119:LEU:HB2	1:B:2152:ASN:HD22	1.73	0.52
1:B:2570:GLU:HG2	1:B:2605:MET:HG3	1.91	0.52
1:B:3228:TYR:HA	1:B:3235:MET:CE	2.39	0.52
1:C:541:ILE:HD11	1:C:574:VAL:HG13	1.91	0.52
1:D:4520:TYR:OH	1:D:4559:TYR:HA	2.09	0.52
1:A:3228:TYR:HA	1:A:3235:MET:CE	2.39	0.52
1:B:370:LEU:HB2	1:B:393:MET:HE3	1.91	0.52
1:B:1272:ARG:HH12	1:B:1584:PRO:HA	1.72	0.52
1:B:2440:PHE:CZ	1:B:2465:LYS:HE3	2.44	0.52
1:B:3188:SER:OG	1:B:3191:GLU:OE1	2.27	0.52
1:C:2570:GLU:HG2	1:C:2605:MET:HG3	1.91	0.52
1:C:3697:LYS:HA	1:C:3700:HIS:NE2	2.24	0.52
1:D:3188:SER:OG	1:D:3191:GLU:OE1	2.27	0.52
1:A:165:ALA:HB1	1:A:211:LEU:HD22	1.92	0.52
1:B:3071:THR:HA	1:B:3074:ASN:HD21	1.74	0.52
1:B:3129:SER:O	1:B:3133:ILE:HG13	2.10	0.52
1:C:1118:SER:HB3	1:C:1204:VAL:HG11	1.92	0.52
1:C:1286:THR:OG1	1:C:1550:PRO:O	2.19	0.52
1:C:2691:LYS:O	1:C:2694:SER:OG	2.17	0.52
1:C:3314:LEU:O	1:C:3318:HIS:ND1	2.42	0.52
1:A:3018:ARG:HG3	1:A:3021:LEU:HD22	1.90	0.52
1:A:3697:LYS:HA	1:A:3700:HIS:NE2	2.24	0.52
1:B:514:PHE:HD2	1:B:526:TRP:HB2	1.74	0.52
1:C:4262:LYS:HG3	1:D:4698:LEU:HD13	1.91	0.52
1:D:35:LEU:HD11	1:D:201:LEU:HD13	1.92	0.52
1:D:889:ILE:HA	1:D:892:LEU:HD12	1.91	0.52
1:D:1118:SER:HB3	1:D:1204:VAL:HG11	1.92	0.52
1:A:35:LEU:HD11	1:A:201:LEU:HD13	1.91	0.52
1:B:3314:LEU:O	1:B:3318:HIS:ND1	2.42	0.52
1:C:35:LEU:HD11	1:C:201:LEU:HD13	1.92	0.52
1:C:4651:ARG:HG2	1:C:4651:ARG:HH11	1.74	0.52
1:D:4943:MET:HE1	1:D:4950:GLU:HB2	1.92	0.52
1:A:829:LYS:NZ	1:A:1037:LEU:HB3	2.24	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3314:LEU:O	1:A:3318:HIS:ND1	2.42	0.52
1:B:1768:PHE:O	2:F:83:TYR:OH	2.21	0.52
1:C:514:PHE:HD2	1:C:526:TRP:HB2	1.74	0.52
1:C:2055:SER:HB2	1:C:2060:GLN:HB2	1.91	0.52
1:C:2137:GLU:OE1	1:C:2137:GLU:N	2.32	0.52
1:D:3016:ARG:O	1:D:3018:ARG:NE	2.38	0.52
1:A:2168:HIS:O	1:A:2172:MET:HB2	2.10	0.52
1:A:3072:MET:SD	1:A:3136:SER:HA	2.50	0.52
1:A:3183:ILE:HG23	1:A:3184:TYR:HD1	1.74	0.52
1:B:889:ILE:HA	1:B:892:LEU:HD12	1.92	0.52
1:D:165:ALA:HB1	1:D:211:LEU:HD22	1.92	0.52
1:D:2759:PRO:HD2	1:D:2762:LEU:HD22	1.92	0.52
1:D:3183:ILE:HG23	1:D:3184:TYR:HD1	1.74	0.52
1:B:829:LYS:NZ	1:B:1037:LEU:HB3	2.24	0.52
1:B:1118:SER:HB3	1:B:1204:VAL:HG11	1.92	0.52
1:B:3183:ILE:HG23	1:B:3184:TYR:HD1	1.74	0.52
1:B:4518:LEU:HD12	1:C:4809:MET:HG3	1.91	0.52
1:C:1272:ARG:HH12	1:C:1584:PRO:HA	1.73	0.52
1:C:2455:ASP:OD2	1:C:2457:SER:OG	2.20	0.52
1:C:2759:PRO:HD2	1:C:2762:LEU:HD22	1.92	0.52
1:C:3071:THR:HA	1:C:3074:ASN:HD21	1.74	0.52
1:D:1041:ARG:O	1:D:1044:LYS:HG3	2.10	0.52
1:D:2055:SER:HB2	1:D:2060:GLN:HB2	1.91	0.52
1:D:4651:ARG:HG2	1:D:4651:ARG:HH11	1.75	0.52
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.92	0.52
1:A:948:CYS:HA	1:A:1067:PRO:HD3	1.92	0.52
1:A:1097:LYS:HA	1:A:1168:MET:HE1	1.92	0.52
1:A:1502:ASN:OD1	1:A:1503:ASN:N	2.43	0.52
1:B:1097:LYS:HA	1:B:1168:MET:HE1	1.91	0.52
1:B:1501:ASN:OD1	1:B:1502:ASN:N	2.44	0.52
1:B:2701:PHE:CE2	1:B:2703:PRO:HG3	2.45	0.52
1:B:3697:LYS:HA	1:B:3700:HIS:NE2	2.24	0.52
1:C:1041:ARG:O	1:C:1044:LYS:HG3	2.10	0.52
1:C:1501:ASN:OD1	1:C:1502:ASN:N	2.44	0.52
1:C:3188:SER:OG	1:C:3191:GLU:OE1	2.27	0.52
1:C:3778:LEU:HD13	1:C:3854:PHE:CD1	2.41	0.52
1:C:4689:LYS:HZ3	1:C:4696:ALA:HB2	1.74	0.52
1:D:514:PHE:HD2	1:D:526:TRP:HB2	1.74	0.52
1:A:1041:ARG:O	1:A:1044:LYS:HG3	2.10	0.51
1:A:3070:LYS:O	1:A:3074:ASN:ND2	2.43	0.51
1:A:3882:GLN:HB2	1:A:3947:PHE:CE2	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:58:LYS:O	2:E:62:GLU:HG3	2.10	0.51
1:B:1502:ASN:OD1	1:B:1503:ASN:N	2.43	0.51
1:B:3070:LYS:O	1:B:3074:ASN:ND2	2.43	0.51
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.92	0.51
1:C:3070:LYS:O	1:C:3074:ASN:ND2	2.43	0.51
1:D:370:LEU:HB2	1:D:393:MET:HE3	1.92	0.51
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.92	0.51
1:D:2168:HIS:O	1:D:2172:MET:HB2	2.10	0.51
1:D:3071:THR:HA	1:D:3074:ASN:HD21	1.74	0.51
1:A:3823:GLU:HG3	1:A:3827:GLU:H	1.73	0.51
1:A:4651:ARG:HG2	1:A:4651:ARG:HH11	1.74	0.51
1:B:2119:LEU:HB2	1:B:2152:ASN:ND2	2.25	0.51
1:B:3072:MET:SD	1:B:3136:SER:HA	2.50	0.51
1:D:1176:THR:HG22	1:D:1181:ILE:HA	1.93	0.51
1:D:1501:ASN:OD1	1:D:1502:ASN:N	2.44	0.51
1:D:3314:LEU:O	1:D:3318:HIS:ND1	2.42	0.51
1:A:849:ASP:OD1	1:A:1214:ARG:NE	2.44	0.51
1:A:889:ILE:HA	1:A:892:LEU:HD12	1.92	0.51
1:A:1118:SER:HB3	1:A:1204:VAL:HG11	1.92	0.51
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.92	0.51
1:B:892:LEU:HD21	1:B:980:PRO:HG3	1.93	0.51
1:B:1041:ARG:O	1:B:1044:LYS:HG3	2.10	0.51
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.92	0.51
1:C:881:ILE:HG12	1:C:1062:TYR:CE1	2.45	0.51
1:C:881:ILE:HD12	1:C:884:LYS:HZ3	1.75	0.51
1:D:881:ILE:HG12	1:D:1062:TYR:CE1	2.46	0.51
1:D:3882:GLN:HE21	1:D:3946:GLY:HA3	1.75	0.51
1:A:307:SER:OG	1:A:315:LEU:O	2.28	0.51
1:A:1184:ASP:OD1	1:A:1188:SER:OG	2.29	0.51
1:A:1414:ARG:O	1:A:1561:LYS:NZ	2.44	0.51
1:A:3129:SER:O	1:A:3133:ILE:HG13	2.10	0.51
1:A:3882:GLN:HE21	1:A:3946:GLY:HA3	1.75	0.51
1:B:881:ILE:HG13	1:B:885:LEU:HD23	1.93	0.51
1:C:3129:SER:O	1:C:3133:ILE:HG13	2.10	0.51
1:D:3068:LEU:O	1:D:3071:THR:OG1	2.25	0.51
2:F:58:LYS:O	2:F:62:GLU:HG3	2.10	0.51
1:A:1176:THR:HG22	1:A:1181:ILE:HA	1.93	0.51
1:A:3270:SER:HA	1:A:3273:MET:CE	2.37	0.51
1:B:881:ILE:HG12	1:B:1062:TYR:CE1	2.46	0.51
1:B:3209:PRO:HB3	1:B:3213:LYS:HE2	1.93	0.51
1:C:1436:GLN:O	1:C:1500:ARG:NH2	2.43	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.93	0.51
1:D:163:HIS:HB2	1:D:182:ILE:HG23	1.93	0.51
1:D:849:ASP:OD1	1:D:1214:ARG:NE	2.44	0.51
1:D:1502:ASN:OD1	1:D:1503:ASN:N	2.43	0.51
1:A:1436:GLN:O	1:A:1500:ARG:NH2	2.43	0.51
1:A:3228:TYR:CE2	1:A:3232:PRO:HB3	2.46	0.51
1:B:948:CYS:HA	1:B:1067:PRO:HD3	1.92	0.51
1:B:2168:HIS:O	1:B:2172:MET:HB2	2.10	0.51
1:C:1176:THR:HG22	1:C:1181:ILE:HA	1.93	0.51
1:C:2701:PHE:CE2	1:C:2703:PRO:HG3	2.45	0.51
1:C:2824:ARG:NH2	1:D:1502:ASN:O	2.44	0.51
1:A:2701:PHE:CE2	1:A:2703:PRO:HG3	2.45	0.51
1:A:3209:PRO:HB3	1:A:3213:LYS:HE2	1.93	0.51
1:B:235:ARG:NH2	1:B:412:GLU:OE2	2.27	0.51
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	1.92	0.51
1:B:995:MET:O	1:B:999:LEU:HD23	2.11	0.51
1:B:1414:ARG:O	1:B:1561:LYS:NZ	2.44	0.51
1:B:2793:ARG:HH21	1:B:2796:ASP:HB3	1.76	0.51
1:C:307:SER:HB3	1:C:327:THR:HG22	1.93	0.51
1:C:892:LEU:HD21	1:C:980:PRO:HG3	1.93	0.51
1:D:1436:GLN:O	1:D:1500:ARG:NH2	2.43	0.51
1:D:2119:LEU:HB2	1:D:2152:ASN:ND2	2.25	0.51
1:D:2723:LYS:HG2	1:D:2895:PHE:CZ	2.43	0.51
1:A:884:LYS:HA	1:A:887:GLU:OE1	2.11	0.51
1:A:995:MET:O	1:A:999:LEU:HD23	2.11	0.51
1:B:165:ALA:HB1	1:B:211:LEU:HD22	1.92	0.51
1:B:307:SER:HB3	1:B:327:THR:HG22	1.93	0.51
1:B:884:LYS:HA	1:B:887:GLU:OE1	2.11	0.51
1:B:1184:ASP:OD1	1:B:1188:SER:OG	2.29	0.51
1:B:3228:TYR:CE2	1:B:3232:PRO:HB3	2.46	0.51
1:B:3882:GLN:HE21	1:B:3946:GLY:HA3	1.75	0.51
2:H:58:LYS:O	2:H:62:GLU:HG3	2.10	0.51
1:A:2119:LEU:HB2	1:A:2152:ASN:ND2	2.25	0.51
1:A:3145:SER:O	1:A:3149:GLU:HG2	2.11	0.51
1:B:1176:THR:HG22	1:B:1181:ILE:HA	1.93	0.51
1:B:1266:GLU:OE1	1:B:1266:GLU:N	2.30	0.51
1:B:1598:ARG:NH2	1:B:1601:ASN:OD1	2.44	0.51
1:C:881:ILE:HG13	1:C:885:LEU:HD23	1.93	0.51
1:C:1502:ASN:OD1	1:C:1503:ASN:N	2.43	0.51
1:C:3145:SER:O	1:C:3149:GLU:HG2	2.11	0.51
1:C:3882:GLN:HE21	1:C:3946:GLY:HA3	1.74	0.51

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:HG3	2.10	0.51
1:A:1501:ASN:OD1	1:A:1502:ASN:N	2.44	0.51
1:A:1598:ARG:NH2	1:A:1601:ASN:OD1	2.44	0.51
1:C:2338:GLU:N	1:C:2338:GLU:OE1	2.44	0.51
1:D:3070:LYS:O	1:D:3074:ASN:ND2	2.43	0.51
1:D:3072:MET:SD	1:D:3136:SER:HA	2.50	0.51
1:A:881:ILE:HG13	1:A:885:LEU:HD23	1.93	0.50
1:A:920:GLU:OE1	1:A:974:SER:OG	2.25	0.50
1:A:2759:PRO:HD2	1:A:2762:LEU:HD22	1.92	0.50
1:A:2793:ARG:HH21	1:A:2796:ASP:HB3	1.76	0.50
1:B:1124:PRO:HD2	1:B:1594:VAL:HG23	1.93	0.50
1:B:1436:GLN:O	1:B:1500:ARG:NH2	2.43	0.50
1:B:2759:PRO:HD2	1:B:2762:LEU:HD22	1.92	0.50
1:B:4250:TYR:O	1:B:4254:THR:HG23	2.11	0.50
1:C:884:LYS:HA	1:C:887:GLU:OE1	2.11	0.50
1:C:995:MET:O	1:C:999:LEU:HD23	2.11	0.50
1:C:3072:MET:SD	1:C:3136:SER:HA	2.50	0.50
1:C:3209:PRO:HB3	1:C:3213:LYS:HE2	1.93	0.50
1:A:2884:LYS:O	1:A:2887:GLU:HG3	2.11	0.50
1:A:3134:LEU:HB3	1:A:3162:PHE:HE2	1.74	0.50
1:B:3145:SER:O	1:B:3149:GLU:HG2	2.11	0.50
1:C:163:HIS:HB2	1:C:182:ILE:HG23	1.93	0.50
1:C:948:CYS:HA	1:C:1067:PRO:HD3	1.92	0.50
1:C:1414:ARG:O	1:C:1561:LYS:NZ	2.44	0.50
1:C:1960:ARG:HA	1:C:1963:LYS:HG2	1.94	0.50
1:C:3228:TYR:CE2	1:C:3232:PRO:HB3	2.46	0.50
1:A:307:SER:HB3	1:A:327:THR:HG22	1.93	0.50
1:A:881:ILE:HG12	1:A:1062:TYR:CE1	2.45	0.50
1:A:882:ARG:NH1	1:A:883:GLU:HB2	2.27	0.50
1:A:4943:MET:HE1	1:A:4950:GLU:HB2	1.94	0.50
1:B:849:ASP:OD1	1:B:1214:ARG:NE	2.44	0.50
1:B:1006:VAL:HA	1:B:1009:ARG:NE	2.27	0.50
1:B:4502:MET:SD	1:B:4585:PHE:HB3	2.52	0.50
1:C:2119:LEU:HB2	1:C:2152:ASN:ND2	2.25	0.50
1:C:4502:MET:SD	1:C:4585:PHE:HB3	2.52	0.50
1:D:1414:ARG:O	1:D:1561:LYS:NZ	2.43	0.50
1:D:4502:MET:SD	1:D:4585:PHE:HB3	2.52	0.50
1:A:163:HIS:HB2	1:A:182:ILE:HG23	1.93	0.50
1:B:776:GLN:NE2	1:B:1472:GLU:OE2	2.45	0.50
1:C:1598:ARG:NH2	1:C:1601:ASN:OD1	2.44	0.50
1:C:2168:HIS:O	1:C:2172:MET:HB2	2.10	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4806:CYS:HA	1:C:4812:CYS:HB2	1.93	0.50
1:A:2087:LEU:O	1:A:2091:GLN:HG2	2.12	0.50
1:A:4896:ASP:OD1	1:A:4897:TYR:N	2.45	0.50
1:C:165:ALA:HB1	1:C:211:LEU:HD22	1.92	0.50
1:C:323:ASP:OD1	1:C:324:VAL:N	2.45	0.50
1:C:776:GLN:NE2	1:C:1472:GLU:OE2	2.45	0.50
1:C:849:ASP:OD1	1:C:1214:ARG:NE	2.44	0.50
1:C:895:MET:O	1:C:899:GLU:HG2	2.12	0.50
1:C:963:LYS:HZ3	1:C:979:ALA:HB3	1.76	0.50
1:C:4943:MET:HE1	1:C:4950:GLU:HB2	1.94	0.50
1:D:882:ARG:NH1	1:D:883:GLU:HB2	2.27	0.50
1:D:1097:LYS:HA	1:D:1168:MET:HE1	1.93	0.50
1:D:3209:PRO:HB3	1:D:3213:LYS:HE2	1.93	0.50
1:A:776:GLN:NE2	1:A:1472:GLU:OE2	2.45	0.50
1:A:892:LEU:HD21	1:A:980:PRO:HG3	1.92	0.50
1:B:658:ASN:ND2	1:B:833:LYS:HG2	2.27	0.50
1:B:1960:ARG:HA	1:B:1963:LYS:HG2	1.94	0.50
1:B:2930:ILE:HG23	1:B:3010:LYS:HZ3	1.77	0.50
1:B:3234:VAL:HA	1:B:3238:ILE:HD12	1.94	0.50
1:C:1184:ASP:OD1	1:C:1188:SER:OG	2.29	0.50
1:C:2723:LYS:HG2	1:C:2895:PHE:CZ	2.43	0.50
1:C:2884:LYS:O	1:C:2887:GLU:HG3	2.11	0.50
1:D:884:LYS:HA	1:D:887:GLU:OE1	2.11	0.50
1:D:892:LEU:HD21	1:D:980:PRO:HG3	1.92	0.50
1:D:895:MET:O	1:D:899:GLU:HG2	2.12	0.50
1:D:1184:ASP:OD1	1:D:1188:SER:OG	2.29	0.50
1:D:1960:ARG:HA	1:D:1963:LYS:HG2	1.94	0.50
1:D:2701:PHE:CE2	1:D:2703:PRO:HG3	2.45	0.50
1:D:2884:LYS:O	1:D:2887:GLU:HG3	2.11	0.50
1:D:3129:SER:O	1:D:3133:ILE:HG13	2.10	0.50
1:A:658:ASN:ND2	1:A:833:LYS:HG2	2.26	0.50
1:C:1006:VAL:HA	1:C:1009:ARG:NE	2.27	0.50
1:C:3650:GLU:HB2	1:C:3651:PRO:HD3	1.94	0.50
1:D:2087:LEU:O	1:D:2091:GLN:HG2	2.12	0.50
1:D:2338:GLU:OE1	1:D:2338:GLU:N	2.44	0.50
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.93	0.50
1:A:3650:GLU:HB2	1:A:3651:PRO:HD3	1.94	0.50
1:A:4250:TYR:O	1:A:4254:THR:HG23	2.11	0.50
1:A:4502:MET:SD	1:A:4585:PHE:HB3	2.52	0.50
1:B:28:ILE:HG22	1:B:29:HIS:HD2	1.77	0.50
1:C:28:ILE:HG22	1:C:29:HIS:HD2	1.77	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1124:PRO:HD2	1:C:1594:VAL:HG23	1.93	0.50
1:C:4116:GLN:O	1:C:4120:GLU:HG2	2.12	0.50
1:D:3145:SER:O	1:D:3149:GLU:HG2	2.11	0.50
1:D:3228:TYR:CE2	1:D:3232:PRO:HB3	2.46	0.50
1:D:3650:GLU:HB2	1:D:3651:PRO:HD3	1.94	0.50
1:A:76:ARG:HG2	1:D:3890:TRP:HB3	1.93	0.50
1:A:235:ARG:NH2	1:A:412:GLU:OE2	2.27	0.50
1:B:2087:LEU:O	1:B:2091:GLN:HG2	2.12	0.50
1:B:2884:LYS:O	1:B:2887:GLU:HG3	2.11	0.50
1:B:3153:SER:O	1:B:3156:GLY:N	2.45	0.50
1:B:3650:GLU:HB2	1:B:3651:PRO:HD3	1.94	0.50
1:C:2087:LEU:O	1:C:2091:GLN:HG2	2.12	0.50
1:C:2629:ASN:OD1	1:C:2630:PHE:N	2.45	0.50
1:C:4896:ASP:OD1	1:C:4897:TYR:N	2.45	0.50
1:D:881:ILE:HG13	1:D:885:LEU:HD23	1.93	0.50
1:D:1006:VAL:HA	1:D:1009:ARG:NE	2.27	0.50
1:B:323:ASP:OD1	1:B:324:VAL:N	2.45	0.49
1:B:2137:GLU:OE1	1:B:2137:GLU:N	2.32	0.49
1:B:4943:MET:HE1	1:B:4950:GLU:HB2	1.94	0.49
1:C:15:ARG:HH21	1:C:110:HIS:HB3	1.77	0.49
1:C:2716:LYS:HD3	1:C:2791:ARG:HG3	1.94	0.49
1:C:4250:TYR:O	1:C:4254:THR:HG23	2.11	0.49
1:D:307:SER:HB3	1:D:327:THR:HG22	1.93	0.49
1:D:4250:TYR:O	1:D:4254:THR:HG23	2.11	0.49
1:A:1006:VAL:HA	1:A:1009:ARG:NE	2.27	0.49
1:A:1124:PRO:HD2	1:A:1594:VAL:HG23	1.93	0.49
1:A:1960:ARG:HA	1:A:1963:LYS:HG2	1.94	0.49
1:A:3234:VAL:HA	1:A:3238:ILE:HD12	1.94	0.49
2:E:24:VAL:HG22	2:E:48:LYS:HG2	1.94	0.49
1:B:882:ARG:NH1	1:B:883:GLU:HB2	2.27	0.49
1:B:2338:GLU:OE1	1:B:2338:GLU:N	2.44	0.49
1:B:2788:ARG:NH2	1:B:2906:GLY:O	2.45	0.49
1:C:1266:GLU:OE1	1:C:1266:GLU:N	2.30	0.49
1:D:323:ASP:OD1	1:D:324:VAL:N	2.45	0.49
1:D:948:CYS:HA	1:D:1067:PRO:HD3	1.92	0.49
1:D:4116:GLN:O	1:D:4120:GLU:HG2	2.12	0.49
1:D:4735:ASN:HB3	1:D:4738:PHE:CD2	2.47	0.49
1:A:1978:ASN:HB3	1:A:1983:LYS:NZ	2.27	0.49
1:A:2338:GLU:OE1	1:A:2338:GLU:N	2.44	0.49
1:B:163:HIS:HB2	1:B:182:ILE:HG23	1.93	0.49
1:B:4116:GLN:O	1:B:4120:GLU:HG2	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4118:PHE:HA	1:B:4121:LEU:HD12	1.94	0.49
1:B:4896:ASP:OD1	1:B:4897:TYR:N	2.45	0.49
1:C:3044:THR:HA	1:C:3047:LYS:HZ3	1.77	0.49
1:C:3234:VAL:HA	1:C:3238:ILE:HD12	1.94	0.49
1:D:1598:ARG:NH2	1:D:1601:ASN:OD1	2.44	0.49
1:D:2788:ARG:NH2	1:D:2906:GLY:O	2.45	0.49
1:D:3284:ILE:HG21	1:D:3336:GLU:HG2	1.94	0.49
1:A:3284:ILE:HG21	1:A:3336:GLU:HG2	1.94	0.49
1:B:891:GLU:O	1:B:895:MET:HG2	2.13	0.49
1:B:1436:GLN:H	1:B:1500:ARG:HH22	1.60	0.49
1:B:4806:CYS:HA	1:B:4812:CYS:HB2	1.93	0.49
1:C:882:ARG:NH1	1:C:883:GLU:HB2	2.27	0.49
1:C:891:GLU:O	1:C:895:MET:HG2	2.13	0.49
1:D:658:ASN:ND2	1:D:833:LYS:HG2	2.27	0.49
1:D:995:MET:O	1:D:999:LEU:HD23	2.11	0.49
1:D:1251:LEU:HD23	1:D:1599:MET:HE2	1.95	0.49
1:D:4038:ASP:OD2	1:D:4039:GLY:N	2.46	0.49
1:D:4806:CYS:HA	1:D:4812:CYS:HB2	1.93	0.49
1:A:981:MET:N	1:A:981:MET:SD	2.86	0.49
1:B:2629:ASN:OD1	1:B:2630:PHE:N	2.45	0.49
1:C:307:SER:OG	1:C:315:LEU:O	2.28	0.49
1:C:981:MET:N	1:C:981:MET:SD	2.86	0.49
1:C:1727:VAL:HG11	1:C:1926:VAL:HG21	1.95	0.49
1:C:2793:ARG:HH21	1:C:2796:ASP:HB3	1.76	0.49
1:D:28:ILE:HG22	1:D:29:HIS:HD2	1.77	0.49
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.53	0.49
1:A:1922:ILE:O	1:A:1926:VAL:HG23	2.13	0.49
1:A:2788:ARG:NH2	1:A:2906:GLY:O	2.45	0.49
1:A:4038:ASP:OD2	1:A:4039:GLY:N	2.46	0.49
1:A:4116:GLN:O	1:A:4120:GLU:HG2	2.12	0.49
1:B:4625:ASP:OD1	1:B:4625:ASP:N	2.44	0.49
1:B:4735:ASN:HB3	1:B:4738:PHE:CD2	2.47	0.49
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.53	0.49
1:C:658:ASN:ND2	1:C:833:LYS:HG2	2.26	0.49
1:C:1436:GLN:H	1:C:1500:ARG:HH22	1.60	0.49
1:C:2788:ARG:NH2	1:C:2906:GLY:O	2.45	0.49
1:D:1768:PHE:O	2:H:83:TYR:OH	2.25	0.49
1:D:2261:ASP:OD1	1:D:2262:LEU:N	2.45	0.49
1:D:3234:VAL:HA	1:D:3238:ILE:HD12	1.94	0.49
2:G:24:VAL:HG22	2:G:48:LYS:HG2	1.94	0.49
1:A:164:PRO:HB3	1:A:169:ARG:HB2	1.95	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1436:GLN:H	1:A:1500:ARG:HH22	1.60	0.49
1:A:1457:PHE:HA	1:A:1461:ARG:HH12	1.78	0.49
1:A:2629:ASN:OD1	1:A:2630:PHE:N	2.45	0.49
1:A:4806:CYS:HA	1:A:4812:CYS:HB2	1.93	0.49
1:B:4084:VAL:O	1:B:4088:HIS:HB3	2.13	0.49
1:B:4265:LYS:O	1:B:4269:LYS:HG2	2.13	0.49
1:C:1978:ASN:HB3	1:C:1983:LYS:NZ	2.27	0.49
1:C:3157:GLU:HG3	1:C:3302:PHE:HZ	1.77	0.49
1:D:1124:PRO:HD2	1:D:1594:VAL:HG23	1.93	0.49
1:D:1922:ILE:O	1:D:1926:VAL:HG23	2.13	0.49
1:D:3317:THR:H	1:D:3320:LEU:HD12	1.78	0.49
1:D:4943:MET:HG2	1:D:4948:CYS:HB3	1.95	0.49
1:A:323:ASP:OD1	1:A:324:VAL:N	2.45	0.49
1:A:675:TYR:HB3	1:A:822:CYS:SG	2.53	0.49
1:A:895:MET:O	1:A:899:GLU:HG2	2.12	0.49
1:A:2691:LYS:O	1:A:2694:SER:OG	2.17	0.49
1:A:3187:LYS:O	1:A:3188:SER:OG	2.28	0.49
1:B:307:SER:OG	1:B:315:LEU:O	2.28	0.49
1:B:894:VAL:O	1:B:898:ILE:HG12	2.13	0.49
1:B:1017:THR:O	1:B:1028:ARG:HA	2.13	0.49
1:B:1922:ILE:O	1:B:1926:VAL:HG23	2.13	0.49
1:B:4640:PHE:CG	1:B:4641:PRO:HD3	2.48	0.49
1:C:675:TYR:HB3	1:C:822:CYS:SG	2.53	0.49
1:C:4943:MET:HG2	1:C:4948:CYS:HB3	1.95	0.49
1:D:891:GLU:O	1:D:895:MET:HG2	2.13	0.49
1:D:920:GLU:N	1:D:974:SER:OG	2.46	0.49
1:D:1051:ARG:O	1:D:1055:ARG:HG2	2.13	0.49
1:D:1978:ASN:HB3	1:D:1983:LYS:NZ	2.27	0.49
1:D:2629:ASN:OD1	1:D:2630:PHE:N	2.45	0.49
1:D:3157:GLU:HG3	1:D:3302:PHE:HZ	1.77	0.49
1:D:4896:ASP:OD1	1:D:4897:TYR:N	2.45	0.49
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.53	0.49
1:A:891:GLU:O	1:A:895:MET:HG2	2.13	0.49
1:A:920:GLU:N	1:A:974:SER:OG	2.46	0.49
1:A:3070:LYS:O	1:A:3073:GLU:HG3	2.13	0.49
1:A:4809:MET:HG3	1:D:4518:LEU:HD12	1.95	0.49
1:A:4943:MET:HG2	1:A:4948:CYS:HB3	1.95	0.49
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.53	0.49
1:B:981:MET:SD	1:B:981:MET:N	2.86	0.49
1:B:1727:VAL:HG11	1:B:1926:VAL:HG21	1.95	0.49
1:B:3157:GLU:HG3	1:B:3302:PHE:HZ	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4047:ASP:HA	1:B:4050:LYS:HG2	1.95	0.49
1:C:1457:PHE:HA	1:C:1461:ARG:HH12	1.78	0.49
1:C:1685:LEU:HD22	1:C:1706:LEU:HB2	1.95	0.49
1:C:2167:MET:HE3	1:C:2199:PHE:HZ	1.77	0.49
1:C:2261:ASP:OD1	1:C:2262:LEU:N	2.46	0.49
1:C:3153:SER:O	1:C:3156:GLY:N	2.45	0.49
1:C:3317:THR:H	1:C:3320:LEU:HD12	1.78	0.49
1:C:4640:PHE:CG	1:C:4641:PRO:HD3	2.48	0.49
1:C:4735:ASN:HB3	1:C:4738:PHE:CD2	2.47	0.49
1:D:15:ARG:HH21	1:D:110:HIS:HB3	1.77	0.49
1:D:675:TYR:HB3	1:D:822:CYS:SG	2.53	0.49
1:D:776:GLN:NE2	1:D:1472:GLU:OE2	2.45	0.49
1:D:2716:LYS:HD3	1:D:2791:ARG:HG3	1.94	0.49
1:D:2918:GLU:HA	1:D:2923:TYR:CD1	2.48	0.49
1:D:3187:LYS:HZ2	1:D:3191:GLU:HB3	1.78	0.49
1:D:4640:PHE:CG	1:D:4641:PRO:HD3	2.48	0.49
1:A:1549:SER:HB2	1:D:2830:ASN:HB3	1.94	0.49
1:B:164:PRO:HB3	1:B:169:ARG:HB2	1.95	0.49
1:B:1790:LYS:O	1:B:1794:MET:HG3	2.13	0.49
1:B:4038:ASP:OD2	1:B:4039:GLY:N	2.46	0.49
1:B:4113:THR:O	1:B:4117:THR:HG23	2.13	0.49
1:C:370:LEU:HB2	1:C:393:MET:HE3	1.95	0.49
1:C:1051:ARG:O	1:C:1055:ARG:HG2	2.13	0.49
1:C:4038:ASP:OD2	1:C:4039:GLY:N	2.46	0.49
1:C:4113:THR:O	1:C:4117:THR:HG23	2.13	0.49
1:C:4118:PHE:HA	1:C:4121:LEU:HD12	1.94	0.49
1:D:1685:LEU:HD22	1:D:1706:LEU:HB2	1.95	0.49
1:D:3811:GLN:NE2	1:D:3828:LYS:HB3	2.28	0.49
1:D:4118:PHE:HA	1:D:4121:LEU:HD12	1.94	0.49
1:A:28:ILE:HG22	1:A:29:HIS:HD2	1.77	0.48
1:A:3811:GLN:NE2	1:A:3828:LYS:HB3	2.28	0.48
1:A:4113:THR:O	1:A:4117:THR:HG23	2.13	0.48
1:A:4118:PHE:HA	1:A:4121:LEU:HD12	1.94	0.48
1:B:920:GLU:OE1	1:B:974:SER:OG	2.25	0.48
1:B:1978:ASN:HB3	1:B:1983:LYS:NZ	2.27	0.48
1:B:2770:ILE:HG13	1:B:2771:TYR:CD1	2.48	0.48
1:B:3317:THR:H	1:B:3320:LEU:HD12	1.78	0.48
1:C:894:VAL:O	1:C:898:ILE:HG12	2.13	0.48
1:C:920:GLU:N	1:C:974:SER:OG	2.45	0.48
1:C:3284:ILE:HG21	1:C:3336:GLU:HG2	1.94	0.48
1:D:307:SER:OG	1:D:315:LEU:O	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2341:ASN:OD1	1:D:2342:GLY:N	2.46	0.48
1:D:2770:ILE:HG13	1:D:2771:TYR:CD1	2.48	0.48
1:A:1727:VAL:HG11	1:A:1926:VAL:HG21	1.95	0.48
1:A:4047:ASP:HA	1:A:4050:LYS:HG2	1.95	0.48
1:B:675:TYR:HB3	1:B:822:CYS:SG	2.53	0.48
1:B:2318:ASN:HB3	1:B:2322:ARG:HH12	1.78	0.48
1:B:2581:ARG:HB2	1:B:2584:MET:HG3	1.96	0.48
1:C:1564:MET:CE	1:C:1565:PRO:HD2	2.43	0.48
1:C:2918:GLU:HA	1:C:2923:TYR:CD1	2.48	0.48
1:D:1017:THR:O	1:D:1028:ARG:HA	2.13	0.48
1:D:1564:MET:CE	1:D:1565:PRO:HD2	2.43	0.48
1:D:2793:ARG:HH21	1:D:2796:ASP:HB3	1.76	0.48
1:D:4265:LYS:O	1:D:4269:LYS:HG2	2.13	0.48
2:F:24:VAL:HG22	2:F:48:LYS:HG2	1.94	0.48
2:H:24:VAL:HG22	2:H:48:LYS:HG2	1.94	0.48
1:A:881:ILE:HG13	1:A:885:LEU:CD2	2.44	0.48
1:A:2167:MET:HE3	1:A:2199:PHE:HZ	1.78	0.48
1:A:2581:ARG:HB2	1:A:2584:MET:HG3	1.96	0.48
1:A:2918:GLU:HA	1:A:2923:TYR:CD1	2.48	0.48
1:A:4735:ASN:HB3	1:A:4738:PHE:CD2	2.47	0.48
1:B:2261:ASP:OD1	1:B:2262:LEU:N	2.46	0.48
1:B:2830:ASN:HB3	1:C:1549:SER:HB2	1.94	0.48
1:B:3070:LYS:O	1:B:3073:GLU:HG3	2.13	0.48
1:B:3284:ILE:HG21	1:B:3336:GLU:HG2	1.94	0.48
1:C:1017:THR:O	1:C:1028:ARG:HA	2.13	0.48
1:C:1922:ILE:O	1:C:1926:VAL:HG23	2.13	0.48
1:C:2341:ASN:OD1	1:C:2342:GLY:N	2.47	0.48
1:C:3070:LYS:O	1:C:3073:GLU:HG3	2.13	0.48
1:C:3811:GLN:NE2	1:C:3828:LYS:HB3	2.28	0.48
1:D:3070:LYS:O	1:D:3073:GLU:HG3	2.13	0.48
1:D:3187:LYS:O	1:D:3188:SER:OG	2.28	0.48
1:D:4047:ASP:HA	1:D:4050:LYS:HG2	1.94	0.48
1:A:258:ARG:NH1	1:A:317:MET:HA	2.28	0.48
1:A:894:VAL:O	1:A:898:ILE:HG12	2.13	0.48
1:A:1564:MET:CE	1:A:1565:PRO:HD2	2.43	0.48
1:A:2261:ASP:OD1	1:A:2262:LEU:N	2.46	0.48
1:A:2318:ASN:HB3	1:A:2322:ARG:HH12	1.78	0.48
1:A:2918:GLU:HG3	1:A:2923:TYR:CE1	2.49	0.48
1:A:3230:GLN:N	1:A:3230:GLN:OE1	2.46	0.48
1:A:3317:THR:H	1:A:3320:LEU:HD12	1.78	0.48
1:B:1051:ARG:O	1:B:1055:ARG:HG2	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1446:ILE:HG12	1:C:1542:ALA:HB2	1.96	0.48
1:C:2318:ASN:HB3	1:C:2322:ARG:HH12	1.78	0.48
1:C:3231:MET:HE3	1:C:3233:HIS:HB2	1.95	0.48
1:C:3260:ARG:HD2	1:C:3260:ARG:O	2.14	0.48
1:D:164:PRO:HB3	1:D:169:ARG:HB2	1.95	0.48
1:D:866:PRO:HA	1:D:1009:ARG:NH2	2.28	0.48
1:D:894:VAL:O	1:D:898:ILE:HG12	2.13	0.48
1:D:2581:ARG:HB2	1:D:2584:MET:HG3	1.96	0.48
1:D:3260:ARG:HD2	1:D:3260:ARG:O	2.14	0.48
1:A:866:PRO:HA	1:A:1009:ARG:NH2	2.28	0.48
1:A:2723:LYS:HG2	1:A:2895:PHE:CZ	2.43	0.48
1:A:2768:LYS:O	1:A:2772:ARG:HG3	2.14	0.48
1:B:1446:ILE:HG12	1:B:1542:ALA:HB2	1.96	0.48
1:B:3811:GLN:NE2	1:B:3828:LYS:HB3	2.28	0.48
1:C:866:PRO:HA	1:C:1009:ARG:NH2	2.28	0.48
1:C:4047:ASP:HA	1:C:4050:LYS:HG2	1.95	0.48
1:D:1436:GLN:H	1:D:1500:ARG:HH22	1.60	0.48
1:D:1790:LYS:O	1:D:1794:MET:HG3	2.13	0.48
1:D:3153:SER:O	1:D:3156:GLY:N	2.45	0.48
1:D:3285:TYR:HA	1:D:3288:LEU:HD23	1.96	0.48
1:D:4084:VAL:O	1:D:4088:HIS:HB3	2.13	0.48
1:A:15:ARG:HH21	1:A:110:HIS:HB3	1.77	0.48
1:A:1017:THR:O	1:A:1028:ARG:HA	2.13	0.48
1:A:2770:ILE:HG13	1:A:2771:TYR:CD1	2.48	0.48
1:A:3153:SER:O	1:A:3156:GLY:N	2.45	0.48
1:B:15:ARG:HH21	1:B:110:HIS:HB3	1.77	0.48
1:B:895:MET:O	1:B:899:GLU:HG2	2.12	0.48
1:B:1457:PHE:HA	1:B:1461:ARG:HH12	1.78	0.48
1:B:3152:ARG:CZ	1:B:3233:HIS:HA	2.44	0.48
1:C:4265:LYS:O	1:C:4269:LYS:HG2	2.13	0.48
1:D:881:ILE:HG13	1:D:885:LEU:CD2	2.44	0.48
1:D:943:LEU:HD23	1:D:999:LEU:HD21	1.96	0.48
1:A:1790:LYS:O	1:A:1794:MET:HG3	2.13	0.48
1:A:2716:LYS:HD3	1:A:2791:ARG:HG3	1.94	0.48
1:A:4265:LYS:O	1:A:4269:LYS:HG2	2.13	0.48
1:A:4521:LYS:HE3	1:A:4562:GLU:HG3	1.96	0.48
1:B:1564:MET:CE	1:B:1565:PRO:HD2	2.43	0.48
1:B:4943:MET:HG2	1:B:4948:CYS:HB3	1.95	0.48
1:C:2581:ARG:HB2	1:C:2584:MET:HG3	1.96	0.48
1:C:2830:ASN:HB3	1:D:1549:SER:HB2	1.95	0.48
1:C:3285:TYR:HA	1:C:3288:LEU:HD23	1.96	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2944:ASP:O	1:D:2948:ARG:NH1	2.47	0.48
1:D:4654:MET:HE2	1:D:4663:ARG:HH11	1.78	0.48
1:A:3152:ARG:CZ	1:A:3233:HIS:HA	2.44	0.48
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.49	0.48
1:B:2918:GLU:HA	1:B:2923:TYR:CD1	2.48	0.48
1:B:3068:LEU:O	1:B:3071:THR:OG1	2.25	0.48
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.49	0.48
1:C:881:ILE:HG13	1:C:885:LEU:CD2	2.44	0.48
1:C:2770:ILE:HG13	1:C:2771:TYR:CD1	2.48	0.48
1:D:885:LEU:O	1:D:889:ILE:HG12	2.14	0.48
1:D:2497:ARG:HH22	1:D:2878:THR:HB	1.79	0.48
1:D:3114:GLN:HE22	1:D:3115:HIS:CE1	2.32	0.48
1:D:3230:GLN:N	1:D:3230:GLN:OE1	2.46	0.48
1:D:3298:ARG:HB3	1:D:3302:PHE:HE1	1.79	0.48
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.49	0.48
1:D:4113:THR:O	1:D:4117:THR:HG23	2.13	0.48
1:A:1502:ASN:O	1:D:2824:ARG:NH2	2.47	0.48
1:A:2341:ASN:OD1	1:A:2342:GLY:N	2.46	0.48
1:A:2497:ARG:HH22	1:A:2878:THR:HB	1.79	0.48
1:A:2798:MET:SD	1:B:1498:GLN:HG3	2.54	0.48
1:A:3260:ARG:HD2	1:A:3260:ARG:O	2.14	0.48
1:A:3304:GLN:HA	1:A:3307:ILE:HG12	1.95	0.48
1:A:4084:VAL:O	1:A:4088:HIS:HB3	2.13	0.48
1:A:4848:ILE:HD11	1:D:4818:TYR:HD1	1.79	0.48
1:B:1685:LEU:HD22	1:B:1706:LEU:HB2	1.95	0.48
1:B:2341:ASN:OD1	1:B:2342:GLY:N	2.46	0.48
1:B:3270:SER:HA	1:B:3273:MET:CE	2.37	0.48
1:C:842:GLN:HB2	1:C:1603:PHE:HB2	1.96	0.48
1:C:1957:LEU:O	1:C:1961:LYS:HG2	2.14	0.48
1:C:4026:LEU:HD12	1:C:4055:HIS:ND1	2.29	0.48
1:A:842:GLN:HB2	1:A:1603:PHE:HB2	1.96	0.48
1:A:943:LEU:HD23	1:A:999:LEU:HD21	1.96	0.48
1:B:3230:GLN:OE1	1:B:3230:GLN:N	2.46	0.48
1:B:3316:LYS:HE2	1:B:3316:LYS:HB2	1.54	0.48
1:C:2918:GLU:HG3	1:C:2923:TYR:CE1	2.49	0.48
1:C:3152:ARG:CZ	1:C:3233:HIS:HA	2.44	0.48
1:D:981:MET:N	1:D:981:MET:SD	2.86	0.48
1:D:1727:VAL:HG11	1:D:1926:VAL:HG21	1.95	0.48
1:D:2918:GLU:HG3	1:D:2923:TYR:CE1	2.49	0.48
1:D:3325:LYS:O	1:D:3328:LYS:HG2	2.14	0.48
1:D:4689:LYS:HZ3	1:D:4696:ALA:HB2	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:986:ILE:HG22	1:A:1055:ARG:NH1	2.29	0.47
1:B:2497:ARG:HH22	1:B:2878:THR:HB	1.79	0.47
1:B:2768:LYS:O	1:B:2772:ARG:HG3	2.14	0.47
1:B:3260:ARG:O	1:B:3260:ARG:HD2	2.14	0.47
1:B:4521:LYS:HE3	1:B:4562:GLU:HG3	1.96	0.47
1:C:943:LEU:HD23	1:C:999:LEU:HD21	1.96	0.47
1:C:3298:ARG:HB3	1:C:3302:PHE:HE1	1.79	0.47
1:C:3304:GLN:HA	1:C:3307:ILE:HG12	1.95	0.47
1:C:3325:LYS:O	1:C:3328:LYS:HG2	2.14	0.47
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.49	0.47
1:C:4521:LYS:HE3	1:C:4562:GLU:HG3	1.96	0.47
1:C:4819:VAL:HG12	1:C:4830:GLU:HG3	1.96	0.47
1:D:258:ARG:NH1	1:D:317:MET:HA	2.28	0.47
1:D:986:ILE:HG22	1:D:1055:ARG:NH1	2.29	0.47
1:D:1957:LEU:O	1:D:1961:LYS:HG2	2.14	0.47
1:D:2318:ASN:HB3	1:D:2322:ARG:HH12	1.78	0.47
1:D:2768:LYS:O	1:D:2772:ARG:HG3	2.14	0.47
1:D:3238:ILE:O	1:D:3241:MET:HB2	2.14	0.47
1:A:317:MET:HG2	1:A:321:LYS:HE2	1.96	0.47
1:A:1051:ARG:O	1:A:1055:ARG:HG2	2.13	0.47
1:A:1931:ASP:OD1	1:A:1932:PHE:N	2.47	0.47
1:A:2139:GLU:HG3	1:A:2192:MET:HE3	1.96	0.47
1:A:3114:GLN:HE22	1:A:3115:HIS:CE1	2.32	0.47
1:A:3157:GLU:HG3	1:A:3302:PHE:HZ	1.77	0.47
1:A:4026:LEU:HD12	1:A:4055:HIS:ND1	2.29	0.47
1:B:2716:LYS:HD3	1:B:2791:ARG:HG3	1.94	0.47
1:B:2918:GLU:HG3	1:B:2923:TYR:CE1	2.49	0.47
1:B:4026:LEU:HD12	1:B:4055:HIS:ND1	2.29	0.47
1:C:164:PRO:HB3	1:C:169:ARG:HB2	1.95	0.47
1:C:258:ARG:NH1	1:C:317:MET:HA	2.28	0.47
1:C:1790:LYS:O	1:C:1794:MET:HG3	2.13	0.47
1:C:2768:LYS:O	1:C:2772:ARG:HG3	2.14	0.47
1:C:3172:GLU:OE1	1:C:3266:THR:OG1	2.22	0.47
1:C:3230:GLN:OE1	1:C:3230:GLN:N	2.46	0.47
1:D:3304:GLN:HA	1:D:3307:ILE:HG12	1.95	0.47
1:D:3313:GLN:HA	1:D:3316:LYS:HZ1	1.79	0.47
1:A:4818:TYR:HD1	1:B:4848:ILE:HD11	1.79	0.47
1:B:258:ARG:NH1	1:B:317:MET:HA	2.28	0.47
1:B:317:MET:HG2	1:B:321:LYS:HE2	1.96	0.47
1:B:881:ILE:HG13	1:B:885:LEU:CD2	2.44	0.47
1:B:920:GLU:N	1:B:974:SER:OG	2.46	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1931:ASP:OD1	1:B:1932:PHE:N	2.47	0.47
1:B:3250:TRP:CE3	1:B:3268:LEU:HB3	2.50	0.47
1:B:3285:TYR:HA	1:B:3288:LEU:HD23	1.96	0.47
1:B:3313:GLN:HA	1:B:3316:LYS:HZ1	1.79	0.47
1:B:4819:VAL:HG12	1:B:4830:GLU:HG3	1.96	0.47
1:C:986:ILE:HG22	1:C:1055:ARG:NH1	2.29	0.47
1:C:1251:LEU:HD23	1:C:1599:MET:HE2	1.96	0.47
1:C:3187:LYS:O	1:C:3188:SER:OG	2.28	0.47
1:C:3250:TRP:CE3	1:C:3268:LEU:HB3	2.50	0.47
1:A:614:LEU:HD22	1:A:632:ILE:HG12	1.97	0.47
1:A:2705:PRO:HD2	1:A:2854:LYS:HD2	1.97	0.47
1:A:2720:PHE:CE1	1:A:2896:LEU:HA	2.49	0.47
1:A:4640:PHE:CG	1:A:4641:PRO:HD3	2.48	0.47
1:B:514:PHE:CD2	1:B:526:TRP:HB2	2.50	0.47
1:B:885:LEU:O	1:B:889:ILE:HG12	2.14	0.47
1:B:2705:PRO:HD2	1:B:2854:LYS:HD2	1.97	0.47
1:C:3238:ILE:O	1:C:3241:MET:HB2	2.14	0.47
1:D:614:LEU:HD22	1:D:632:ILE:HG12	1.97	0.47
1:D:620:CYS:HG	1:D:621:HIS:HD1	1.62	0.47
1:D:842:GLN:HB2	1:D:1603:PHE:HB2	1.96	0.47
1:D:1941:ARG:NH2	1:D:3609:TYR:HB2	2.27	0.47
1:A:370:LEU:HB2	1:A:393:MET:HE3	1.95	0.47
1:A:394:HIS:CD2	1:A:395:HIS:H	2.33	0.47
1:A:891:GLU:HB3	1:A:978:PRO:HB3	1.97	0.47
1:A:3325:LYS:O	1:A:3328:LYS:HG2	2.14	0.47
1:B:866:PRO:HA	1:B:1009:ARG:NH2	2.28	0.47
1:B:1957:LEU:O	1:B:1961:LYS:HG2	2.14	0.47
1:B:2723:LYS:HG2	1:B:2895:PHE:CZ	2.43	0.47
1:B:2732:TRP:HA	1:B:2735:ASP:OD1	2.15	0.47
1:C:317:MET:HG2	1:C:321:LYS:HE2	1.96	0.47
1:C:3114:GLN:HE22	1:C:3115:HIS:CE1	2.32	0.47
1:C:4084:VAL:O	1:C:4088:HIS:HB3	2.13	0.47
1:D:630:HIS:CE1	1:D:1671:ARG:HE	2.33	0.47
1:D:1457:PHE:HA	1:D:1461:ARG:HH12	1.78	0.47
1:A:514:PHE:CD2	1:A:526:TRP:HB2	2.50	0.47
1:A:885:LEU:O	1:A:889:ILE:HG12	2.14	0.47
1:B:3042:ALA:O	1:B:3046:MET:HG2	2.15	0.47
1:C:1500:ARG:HG3	1:C:1505:LEU:HB2	1.97	0.47
1:C:1714:TYR:CZ	1:C:1761:MET:HB2	2.50	0.47
1:C:1931:ASP:OD1	1:C:1932:PHE:N	2.47	0.47
1:D:2720:PHE:CE1	1:D:2896:LEU:HA	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1446:ILE:HG12	1:A:1542:ALA:HB2	1.96	0.47
1:A:1685:LEU:HD22	1:A:1706:LEU:HB2	1.95	0.47
1:A:1957:LEU:O	1:A:1961:LYS:HG2	2.14	0.47
1:A:3298:ARG:HB3	1:A:3302:PHE:HE1	1.79	0.47
1:A:4765:LYS:HD2	1:A:4765:LYS:HA	1.73	0.47
1:B:394:HIS:CD2	1:B:395:HIS:H	2.33	0.47
1:B:943:LEU:HD23	1:B:999:LEU:HD21	1.96	0.47
1:B:1725:TYR:HE1	1:B:2101:ALA:HB1	1.80	0.47
1:B:2720:PHE:CE1	1:B:2896:LEU:HA	2.49	0.47
1:B:2846:GLU:HB3	1:B:2874:TYR:CD2	2.50	0.47
1:B:2944:ASP:O	1:B:2948:ARG:NH1	2.47	0.47
1:B:3304:GLN:HA	1:B:3307:ILE:HG12	1.96	0.47
1:B:3325:LYS:O	1:B:3328:LYS:HG2	2.14	0.47
1:C:614:LEU:HD22	1:C:632:ILE:HG12	1.97	0.47
1:C:620:CYS:HG	1:C:621:HIS:HD1	1.62	0.47
1:C:1725:TYR:HE1	1:C:2101:ALA:HB1	1.80	0.47
1:C:3042:ALA:O	1:C:3046:MET:HG2	2.15	0.47
1:D:317:MET:HG2	1:D:321:LYS:HE2	1.96	0.47
1:D:394:HIS:CD2	1:D:395:HIS:H	2.33	0.47
1:D:891:GLU:HB3	1:D:978:PRO:HB3	1.97	0.47
1:D:897:LYS:HD3	1:D:902:TRP:HE3	1.80	0.47
1:D:1446:ILE:HG12	1:D:1542:ALA:HB2	1.96	0.47
1:A:2944:ASP:O	1:A:2948:ARG:NH1	2.47	0.47
1:B:614:LEU:HD22	1:B:632:ILE:HG12	1.97	0.47
1:B:891:GLU:HB3	1:B:978:PRO:HB3	1.97	0.47
1:B:1500:ARG:HG3	1:B:1505:LEU:HB2	1.97	0.47
1:B:3114:GLN:HE22	1:B:3115:HIS:CE1	2.32	0.47
1:B:3231:MET:HE3	1:B:3233:HIS:HB2	1.97	0.47
1:B:4683:ARG:NH1	1:B:4684:GLU:O	2.48	0.47
1:C:885:LEU:O	1:C:889:ILE:HG12	2.14	0.47
1:C:2705:PRO:HD2	1:C:2854:LYS:HD2	1.97	0.47
1:C:2732:TRP:HA	1:C:2735:ASP:OD1	2.15	0.47
1:D:920:GLU:OE1	1:D:974:SER:OG	2.25	0.47
1:D:3152:ARG:CZ	1:D:3233:HIS:HA	2.44	0.47
1:D:3250:TRP:CE3	1:D:3268:LEU:HB3	2.50	0.47
1:D:3861:GLN:HB3	1:D:3864:ASN:HD22	1.80	0.47
1:A:2732:TRP:HA	1:A:2735:ASP:OD1	2.15	0.47
1:A:3250:TRP:CE3	1:A:3268:LEU:HB3	2.50	0.47
1:A:3297:LYS:HZ2	1:A:3335:SER:H	1.62	0.47
1:B:986:ILE:HG22	1:B:1055:ARG:NH1	2.29	0.47
1:B:1714:TYR:CZ	1:B:1761:MET:HB2	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3238:ILE:O	1:B:3241:MET:HB2	2.14	0.47
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.50	0.47
1:C:920:GLU:OE1	1:C:974:SER:OG	2.25	0.47
1:C:2497:ARG:HH22	1:C:2878:THR:HB	1.79	0.47
1:C:2944:ASP:O	1:C:2948:ARG:NH1	2.47	0.47
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.50	0.47
1:D:4521:LYS:HE3	1:D:4562:GLU:HG3	1.96	0.47
1:A:1500:ARG:HG3	1:A:1505:LEU:HB2	1.97	0.47
1:A:1725:TYR:HE1	1:A:2101:ALA:HB1	1.80	0.47
1:A:2801:TYR:OH	1:B:1495:SER:O	2.24	0.47
1:A:3238:ILE:O	1:A:3241:MET:HB2	2.14	0.47
1:A:3250:TRP:O	1:A:3256:ASN:ND2	2.49	0.47
1:B:1979:PHE:CZ	1:B:1996:LEU:HD23	2.50	0.47
1:C:891:GLU:HB3	1:C:978:PRO:HB3	1.97	0.47
1:C:2868:HIS:CD2	1:C:2870:LEU:HB2	2.50	0.47
1:C:4683:ARG:NH1	1:C:4684:GLU:O	2.48	0.47
1:D:1931:ASP:OD1	1:D:1932:PHE:N	2.47	0.47
1:D:4026:LEU:HD12	1:D:4055:HIS:ND1	2.29	0.47
1:A:59:PRO:HG3	1:A:296:ARG:CZ	2.45	0.46
1:A:630:HIS:CE1	1:A:1671:ARG:HE	2.33	0.46
1:A:1979:PHE:CZ	1:A:1996:LEU:HD23	2.50	0.46
1:A:3285:TYR:HA	1:A:3288:LEU:HD23	1.96	0.46
1:B:3298:ARG:HB3	1:B:3302:PHE:HE1	1.79	0.46
1:C:59:PRO:HG3	1:C:296:ARG:CZ	2.46	0.46
1:C:3090:VAL:HA	1:C:3093:ILE:HG12	1.98	0.46
1:C:3861:GLN:HB3	1:C:3864:ASN:HD22	1.80	0.46
1:C:4567:TYR:O	1:C:4570:PRO:HD2	2.15	0.46
1:C:4654:MET:HE2	1:C:4663:ARG:HH11	1.80	0.46
1:D:3316:LYS:O	1:D:3317:THR:OG1	2.31	0.46
1:D:4567:TYR:O	1:D:4570:PRO:HD2	2.15	0.46
1:D:4683:ARG:NH1	1:D:4684:GLU:O	2.48	0.46
1:D:4819:VAL:HG12	1:D:4830:GLU:HG3	1.96	0.46
1:A:2716:LYS:NZ	1:A:2791:ARG:HB2	2.30	0.46
1:B:59:PRO:HG3	1:B:296:ARG:CZ	2.45	0.46
1:B:842:GLN:HB2	1:B:1603:PHE:HB2	1.96	0.46
1:B:3187:LYS:O	1:B:3188:SER:OG	2.28	0.46
1:C:1979:PHE:CZ	1:C:1996:LEU:HD23	2.50	0.46
1:C:2716:LYS:NZ	1:C:2791:ARG:HB2	2.31	0.46
1:C:2720:PHE:CE1	1:C:2896:LEU:HA	2.49	0.46
1:C:4625:ASP:OD1	1:C:4625:ASP:N	2.44	0.46
1:D:258:ARG:HH12	1:D:317:MET:HA	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2167:MET:HE3	1:D:2199:PHE:HZ	1.80	0.46
1:D:2705:PRO:HD2	1:D:2854:LYS:HD2	1.97	0.46
1:D:3250:TRP:O	1:D:3256:ASN:ND2	2.48	0.46
1:A:3042:ALA:O	1:A:3046:MET:HG2	2.15	0.46
1:A:4819:VAL:HG12	1:A:4830:GLU:HG3	1.96	0.46
1:B:630:HIS:CE1	1:B:1671:ARG:HE	2.33	0.46
1:C:3297:LYS:HZ2	1:C:3335:SER:H	1.62	0.46
1:C:3890:TRP:HB3	1:D:76:ARG:HG2	1.97	0.46
1:D:59:PRO:HG3	1:D:296:ARG:CZ	2.45	0.46
1:D:1286:THR:OG1	1:D:1550:PRO:O	2.19	0.46
1:D:1500:ARG:HG3	1:D:1505:LEU:HB2	1.97	0.46
1:D:2732:TRP:HA	1:D:2735:ASP:OD1	2.15	0.46
1:D:2846:GLU:HB3	1:D:2874:TYR:CD2	2.50	0.46
1:D:3042:ALA:O	1:D:3046:MET:HG2	2.15	0.46
2:G:9:SER:HB3	2:G:72:ARG:HB3	1.97	0.46
1:A:897:LYS:HD3	1:A:902:TRP:HE3	1.80	0.46
1:A:1172:THR:HB	1:A:1190:LEU:HD22	1.98	0.46
1:A:2857:LYS:HG2	1:A:2861:GLU:OE2	2.16	0.46
1:A:2925:PHE:HZ	1:A:2970:LEU:HD13	1.80	0.46
1:A:3861:GLN:HB3	1:A:3864:ASN:HD22	1.80	0.46
1:B:1172:THR:HB	1:B:1190:LEU:HD22	1.98	0.46
1:B:4567:TYR:O	1:B:4570:PRO:HD2	2.15	0.46
1:B:4863:GLN:HG2	1:C:4860:ALA:HB2	1.98	0.46
1:C:897:LYS:HD3	1:C:902:TRP:HE3	1.80	0.46
1:C:3072:MET:HE2	1:C:3072:MET:HB2	1.71	0.46
1:D:1714:TYR:CZ	1:D:1761:MET:HB2	2.50	0.46
1:D:3297:LYS:HZ2	1:D:3335:SER:H	1.61	0.46
2:H:9:SER:HB3	2:H:72:ARG:HB3	1.97	0.46
1:A:2926:LEU:HD21	1:A:2975:PHE:HZ	1.81	0.46
1:B:2857:LYS:HG2	1:B:2861:GLU:OE2	2.16	0.46
1:C:28:ILE:O	1:C:31:GLU:HG3	2.15	0.46
1:C:1172:THR:HB	1:C:1190:LEU:HD22	1.98	0.46
1:C:2846:GLU:HB3	1:C:2874:TYR:CD2	2.50	0.46
1:D:317:MET:HE2	1:D:317:MET:HB2	1.69	0.46
1:D:776:GLN:HG2	1:D:1472:GLU:HA	1.98	0.46
1:D:1725:TYR:HE1	1:D:2101:ALA:HB1	1.80	0.46
1:D:2857:LYS:HG2	1:D:2861:GLU:OE2	2.16	0.46
2:F:50:ARG:N	2:F:55:GLU:OE1	2.42	0.46
1:A:1682:GLU:HB3	1:A:1683:PRO:HD3	1.97	0.46
1:B:28:ILE:O	1:B:31:GLU:HG3	2.15	0.46
1:B:1682:GLU:HB3	1:B:1683:PRO:HD3	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:394:HIS:CD2	1:C:395:HIS:H	2.33	0.46
1:C:2772:ARG:O	1:C:2776:LYS:HG3	2.16	0.46
1:C:2925:PHE:HZ	1:C:2970:LEU:HD13	1.80	0.46
1:D:1172:THR:HB	1:D:1190:LEU:HD22	1.98	0.46
1:D:2716:LYS:NZ	1:D:2791:ARG:HB2	2.31	0.46
1:A:2846:GLU:HB3	1:A:2874:TYR:CD2	2.50	0.46
1:B:2776:LYS:HB3	1:B:2780:LYS:NZ	2.31	0.46
1:B:3250:TRP:O	1:B:3256:ASN:ND2	2.48	0.46
1:B:3861:GLN:HB3	1:B:3864:ASN:HD22	1.80	0.46
1:C:801:ARG:NH1	1:C:1615:GLN:O	2.40	0.46
1:C:3250:TRP:O	1:C:3256:ASN:ND2	2.49	0.46
1:D:441:LYS:HD2	1:D:442:ALA:H	1.81	0.46
1:D:1241:VAL:HG12	1:D:1807:ARG:HH12	1.81	0.46
1:D:2620:TYR:HB2	1:D:2627:TRP:HD1	1.81	0.46
1:D:2868:HIS:CD2	1:D:2870:LEU:HB2	2.50	0.46
1:D:2925:PHE:HZ	1:D:2970:LEU:HD13	1.80	0.46
2:F:9:SER:HB3	2:F:72:ARG:HB3	1.97	0.46
1:A:28:ILE:HG22	1:A:29:HIS:CD2	2.51	0.46
1:A:776:GLN:HG2	1:A:1472:GLU:HA	1.98	0.46
1:A:1714:TYR:CE2	1:A:1718:ARG:HD2	2.51	0.46
1:B:28:ILE:HG22	1:B:29:HIS:CD2	2.51	0.46
1:B:4689:LYS:NZ	1:B:4696:ALA:HB2	2.31	0.46
1:C:630:HIS:CE1	1:C:1671:ARG:HE	2.33	0.46
1:C:3692:ALA:HA	1:C:3695:MET:HE3	1.98	0.46
1:D:3090:VAL:HA	1:D:3093:ILE:HG12	1.98	0.46
1:D:3231:MET:HE3	1:D:3233:HIS:HB2	1.97	0.46
2:H:50:ARG:N	2:H:55:GLU:OE1	2.42	0.46
1:A:1714:TYR:CZ	1:A:1761:MET:HB2	2.50	0.46
1:A:4683:ARG:NH1	1:A:4684:GLU:O	2.48	0.46
1:A:4831:ILE:HG13	1:A:4843:ARG:NH2	2.31	0.46
1:B:2716:LYS:NZ	1:B:2791:ARG:HB2	2.31	0.46
1:B:2975:PHE:O	1:B:2979:ARG:HB3	2.16	0.46
1:B:3090:VAL:HA	1:B:3093:ILE:HG12	1.98	0.46
1:C:258:ARG:HH12	1:C:317:MET:HA	1.80	0.46
1:C:2620:TYR:HB2	1:C:2627:TRP:HD1	1.81	0.46
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.16	0.46
1:D:1682:GLU:HB3	1:D:1683:PRO:HD3	1.97	0.46
1:D:3692:ALA:HA	1:D:3695:MET:HE3	1.98	0.46
1:A:2481:GLN:NE2	1:A:2537:GLY:O	2.42	0.46
1:B:441:LYS:HD2	1:B:442:ALA:H	1.81	0.46
1:B:2772:ARG:O	1:B:2776:LYS:HG3	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.16	0.46
1:C:441:LYS:HD2	1:C:442:ALA:H	1.81	0.46
1:C:1241:VAL:HG12	1:C:1807:ARG:HH12	1.81	0.46
1:C:1682:GLU:HB3	1:C:1683:PRO:HD3	1.97	0.46
1:C:2857:LYS:HG2	1:C:2861:GLU:OE2	2.16	0.46
1:D:28:ILE:O	1:D:31:GLU:HG3	2.15	0.46
1:D:235:ARG:NH2	1:D:412:GLU:OE2	2.27	0.46
1:D:808:HIS:O	1:D:1616:GLY:HA2	2.16	0.46
1:D:997:ASP:HA	1:D:1047:LYS:HZ2	1.80	0.46
1:D:3981:MET:HE3	1:D:3981:MET:HB3	1.90	0.46
1:A:28:ILE:O	1:A:31:GLU:HG3	2.15	0.45
1:A:258:ARG:HH12	1:A:317:MET:HA	1.80	0.45
1:A:997:ASP:HA	1:A:1047:LYS:HZ2	1.79	0.45
1:A:4567:TYR:O	1:A:4570:PRO:HD2	2.15	0.45
1:B:1714:TYR:CE2	1:B:1718:ARG:HD2	2.51	0.45
1:B:2167:MET:HE3	1:B:2199:PHE:HZ	1.80	0.45
1:B:2926:LEU:HD21	1:B:2975:PHE:HZ	1.81	0.45
1:C:1714:TYR:CE2	1:C:1718:ARG:HD2	2.51	0.45
1:C:2445:ILE:HA	1:C:2451:VAL:HA	1.98	0.45
1:C:4689:LYS:NZ	1:C:4696:ALA:HB2	2.31	0.45
1:D:749:LEU:HD22	1:D:755:ILE:HD11	1.98	0.45
1:D:1444:GLY:HA3	1:D:1487:MET:HA	1.98	0.45
1:A:713:TRP:CE2	1:A:1600:PRO:HD3	2.52	0.45
1:A:808:HIS:O	1:A:1616:GLY:HA2	2.16	0.45
1:A:1241:VAL:HG12	1:A:1807:ARG:HH12	1.81	0.45
1:A:2957:GLU:HA	1:A:2960:ILE:HG22	1.98	0.45
1:A:2966:VAL:HG12	1:A:2970:LEU:HD23	1.99	0.45
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.16	0.45
1:B:713:TRP:CE2	1:B:1600:PRO:HD3	2.52	0.45
1:B:3076:LYS:NZ	1:B:3140:LEU:HD23	2.31	0.45
1:C:1444:GLY:HA3	1:C:1487:MET:HA	1.99	0.45
1:C:3122:ILE:HG12	1:C:3127:GLN:HG2	1.99	0.45
1:D:3323:MET:HB3	1:D:3327:LYS:HZ3	1.79	0.45
1:D:4831:ILE:HG13	1:D:4843:ARG:NH2	2.31	0.45
1:A:2670:SER:HB2	1:A:2973:GLN:HG2	1.98	0.45
1:A:2975:PHE:O	1:A:2979:ARG:HB3	2.16	0.45
1:B:1241:VAL:HG12	1:B:1807:ARG:HH12	1.81	0.45
1:C:606:ARG:HH21	1:C:1633:PRO:HD2	1.82	0.45
1:C:808:HIS:O	1:C:1616:GLY:HA2	2.16	0.45
1:C:2353:ILE:HG12	1:C:2359:ARG:HE	1.82	0.45
1:C:2975:PHE:O	1:C:2979:ARG:HB3	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3076:LYS:NZ	1:C:3140:LEU:HD23	2.31	0.45
1:C:3187:LYS:HZ2	1:C:3191:GLU:HB3	1.81	0.45
1:D:1979:PHE:CZ	1:D:1996:LEU:HD23	2.51	0.45
1:D:3076:LYS:NZ	1:D:3140:LEU:HD23	2.31	0.45
1:A:198:ASN:OD1	1:A:199:GLY:N	2.50	0.45
1:A:2776:LYS:HB3	1:A:2780:LYS:NZ	2.31	0.45
1:A:3692:ALA:HA	1:A:3695:MET:HE3	1.97	0.45
1:A:3939:ARG:NH1	1:B:173:GLU:HG2	2.32	0.45
1:B:897:LYS:HD3	1:B:902:TRP:HE3	1.80	0.45
1:B:1043:LYS:O	1:B:1047:LYS:HB2	2.17	0.45
1:B:1444:GLY:HA3	1:B:1487:MET:HA	1.99	0.45
1:B:2353:ILE:HG12	1:B:2359:ARG:HE	1.82	0.45
1:C:713:TRP:CE2	1:C:1600:PRO:HD3	2.52	0.45
1:C:2926:LEU:HD21	1:C:2975:PHE:HZ	1.80	0.45
1:C:4874:ARG:NH1	1:D:4868:ASP:OD1	2.50	0.45
1:D:29:HIS:CE1	1:D:31:GLU:HG2	2.52	0.45
1:D:1031:ARG:HH11	1:D:1042:THR:HG21	1.81	0.45
1:D:1957:LEU:HA	1:D:1960:ARG:CZ	2.47	0.45
1:D:2772:ARG:O	1:D:2776:LYS:HG3	2.16	0.45
1:D:2926:LEU:HD21	1:D:2975:PHE:HZ	1.81	0.45
1:A:1957:LEU:HA	1:A:1960:ARG:CZ	2.47	0.45
1:A:3025:ASP:O	1:A:3029:ILE:HD12	2.17	0.45
1:A:3076:LYS:NZ	1:A:3140:LEU:HD23	2.31	0.45
1:B:258:ARG:HH12	1:B:317:MET:HA	1.80	0.45
1:B:907:VAL:HG11	1:B:912:LYS:HD3	1.98	0.45
1:B:2674:GLY:HA2	1:B:2978:HIS:CE1	2.52	0.45
1:B:4906:GLU:OE1	1:C:4183:LYS:HE3	2.17	0.45
1:C:2326:ARG:HD3	1:C:2326:ARG:HA	1.76	0.45
1:C:3025:ASP:O	1:C:3029:ILE:HD12	2.17	0.45
1:D:661:LEU:HD13	1:D:673:TRP:CD1	2.52	0.45
1:D:713:TRP:CE2	1:D:1600:PRO:HD3	2.52	0.45
1:D:2445:ILE:HA	1:D:2451:VAL:HA	1.98	0.45
1:D:2776:LYS:HB3	1:D:2780:LYS:NZ	2.31	0.45
1:D:2975:PHE:O	1:D:2979:ARG:HB3	2.16	0.45
1:D:3025:ASP:O	1:D:3029:ILE:HD12	2.17	0.45
1:D:3316:LYS:HE2	1:D:3316:LYS:HB2	1.53	0.45
1:A:2620:TYR:HB2	1:A:2627:TRP:HD1	1.81	0.45
1:A:2772:ARG:O	1:A:2776:LYS:HG3	2.16	0.45
1:A:3231:MET:HE3	1:A:3233:HIS:HB2	1.99	0.45
1:B:749:LEU:HD22	1:B:755:ILE:HD11	1.98	0.45
1:B:897:LYS:HE2	1:B:917:CYS:HB3	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2620:TYR:HB2	1:B:2627:TRP:HD1	1.81	0.45
1:B:2957:GLU:HA	1:B:2960:ILE:HG22	1.98	0.45
1:C:2776:LYS:HB3	1:C:2780:LYS:NZ	2.31	0.45
1:D:4667:SER:OG	1:D:4672:MET:O	2.34	0.45
1:A:712:GLU:OE1	1:A:1086:ARG:NH2	2.39	0.45
1:A:3122:ILE:HG12	1:A:3127:GLN:HG2	1.99	0.45
1:A:4262:LYS:HE3	1:B:4698:LEU:HD22	1.99	0.45
1:B:776:GLN:HG2	1:B:1472:GLU:HA	1.98	0.45
1:B:2670:SER:HB2	1:B:2973:GLN:HG2	1.99	0.45
1:B:4831:ILE:HG13	1:B:4843:ARG:NH2	2.31	0.45
1:C:997:ASP:HA	1:C:1047:LYS:HZ2	1.81	0.45
1:D:2670:SER:HB2	1:D:2973:GLN:HG2	1.98	0.45
1:D:3796:LEU:HD22	1:D:3835:PHE:HZ	1.82	0.45
1:A:271:ALA:HB2	1:A:488:LEU:HD22	1.99	0.45
1:A:674:TYR:CE1	1:A:756:SER:HB2	2.52	0.45
1:A:1444:GLY:HA3	1:A:1487:MET:HA	1.99	0.45
1:A:1500:ARG:HG3	1:A:1505:LEU:H	1.82	0.45
1:A:2868:HIS:CD2	1:A:2870:LEU:HB2	2.50	0.45
1:A:3042:ALA:HB3	1:A:3117:PHE:HD2	1.82	0.45
1:A:4795:LYS:HD2	1:A:4795:LYS:HA	1.81	0.45
1:B:674:TYR:CE1	1:B:756:SER:HB2	2.52	0.45
1:B:801:ARG:NH1	1:B:1615:GLN:O	2.40	0.45
1:B:1500:ARG:HG3	1:B:1505:LEU:H	1.82	0.45
1:B:2724:TYR:CD1	1:B:2895:PHE:HD1	2.35	0.45
1:C:756:SER:OG	1:C:769:ARG:HB2	2.17	0.45
1:C:776:GLN:HG2	1:C:1472:GLU:HA	1.98	0.45
1:C:2957:GLU:HA	1:C:2960:ILE:HG22	1.98	0.45
1:D:907:VAL:HG11	1:D:912:LYS:HD3	1.98	0.45
1:D:2353:ILE:HG12	1:D:2359:ARG:HE	1.82	0.45
1:D:2782:MET:HG2	1:D:2787:TRP:HE3	1.82	0.45
2:G:18:LYS:NZ	2:G:18:LYS:HB3	2.32	0.45
1:A:3090:VAL:HA	1:A:3093:ILE:HG12	1.98	0.45
1:A:3741:LEU:HD11	1:A:3777:MET:HG2	1.99	0.45
1:A:3796:LEU:HD22	1:A:3835:PHE:HZ	1.82	0.45
2:E:18:LYS:NZ	2:E:18:LYS:HB3	2.32	0.45
1:B:2445:ILE:HA	1:B:2451:VAL:HA	1.98	0.45
1:B:2868:HIS:CD2	1:B:2870:LEU:HB2	2.50	0.45
1:B:3042:ALA:HB3	1:B:3117:PHE:HD2	1.82	0.45
1:B:4055:HIS:CD2	1:B:4057:HIS:ND1	2.85	0.45
1:B:4654:MET:HE2	1:B:4663:ARG:HH11	1.82	0.45
1:B:4667:SER:OG	1:B:4672:MET:O	2.34	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:70:GLU:OE2	1:C:122:ARG:HD3	2.17	0.45
1:C:1144:ARG:HB3	1:C:1152:TYR:HB3	1.99	0.45
1:C:2674:GLY:HA2	1:C:2978:HIS:CE1	2.52	0.45
1:C:3316:LYS:O	1:C:3317:THR:OG1	2.31	0.45
1:D:1714:TYR:CE2	1:D:1718:ARG:HD2	2.51	0.45
1:D:4897:TYR:OH	1:D:4963:GLU:OE2	2.32	0.45
1:A:2758:LYS:HE2	1:A:2763:LEU:HA	1.99	0.45
1:A:4054:SER:O	1:A:4056:LYS:HG3	2.17	0.45
1:B:606:ARG:HH21	1:B:1633:PRO:HD2	1.82	0.45
1:B:808:HIS:O	1:B:1616:GLY:HA2	2.16	0.45
1:B:950:VAL:HA	1:B:1064:LEU:HA	1.99	0.45
1:B:1031:ARG:HH11	1:B:1042:THR:HG21	1.81	0.45
1:B:2481:GLN:NE2	1:B:2537:GLY:O	2.42	0.45
1:B:2925:PHE:HZ	1:B:2970:LEU:HD13	1.80	0.45
1:B:3796:LEU:HD22	1:B:3835:PHE:HZ	1.82	0.45
1:C:29:HIS:CE1	1:C:31:GLU:HG2	2.52	0.45
1:C:1031:ARG:HH11	1:C:1042:THR:HG21	1.81	0.45
1:C:2724:TYR:CD1	1:C:2895:PHE:HD1	2.35	0.45
1:D:801:ARG:NH1	1:D:1615:GLN:O	2.40	0.45
1:D:826:VAL:HG21	1:D:832:LEU:HB2	1.99	0.45
1:D:1144:ARG:HB3	1:D:1152:TYR:HB3	1.99	0.45
1:D:1785:ASP:OD1	1:D:1786:ILE:N	2.48	0.45
1:D:3122:ILE:HG12	1:D:3127:GLN:HG2	1.99	0.45
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.16	0.45
2:G:50:ARG:N	2:G:55:GLU:OE1	2.42	0.45
1:A:29:HIS:CE1	1:A:31:GLU:HG2	2.52	0.44
1:A:441:LYS:HD2	1:A:442:ALA:H	1.81	0.44
1:A:2353:ILE:HG12	1:A:2359:ARG:HE	1.82	0.44
1:A:2674:GLY:HA2	1:A:2978:HIS:CE1	2.52	0.44
1:A:4607:ALA:HB1	1:A:4649:VAL:HG21	1.99	0.44
1:B:661:LEU:HD13	1:B:673:TRP:CD1	2.52	0.44
1:B:2966:VAL:HG12	1:B:2970:LEU:HD23	1.99	0.44
1:C:28:ILE:HG22	1:C:29:HIS:CD2	2.51	0.44
1:C:370:LEU:HB2	1:C:393:MET:CE	2.47	0.44
1:C:749:LEU:HD22	1:C:755:ILE:HD11	1.98	0.44
1:C:826:VAL:HG21	1:C:832:LEU:HB2	1.99	0.44
1:C:1007:TRP:HE1	1:C:1011:ARG:NH1	2.16	0.44
1:C:3062:ASP:O	1:C:3066:GLU:OE1	2.35	0.44
1:C:3830:LEU:HB3	1:C:3833:ASP:OD2	2.18	0.44
1:C:4055:HIS:CD2	1:C:4057:HIS:ND1	2.85	0.44
1:C:4667:SER:OG	1:C:4672:MET:O	2.34	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:45:LYS:HA	2:G:46:PRO:HD3	1.82	0.44
1:A:661:LEU:HD13	1:A:673:TRP:CD1	2.52	0.44
1:A:2445:ILE:HA	1:A:2451:VAL:HA	1.98	0.44
1:A:4689:LYS:NZ	1:A:4696:ALA:HB2	2.31	0.44
1:B:2965:LYS:HA	1:B:2965:LYS:HD3	1.80	0.44
1:B:3062:ASP:O	1:B:3066:GLU:OE1	2.35	0.44
1:C:674:TYR:CE1	1:C:756:SER:HB2	2.52	0.44
1:C:2758:LYS:HE2	1:C:2763:LEU:HA	1.99	0.44
1:C:3323:MET:HB3	1:C:3327:LYS:HZ1	1.81	0.44
1:C:3796:LEU:HD22	1:C:3835:PHE:HZ	1.82	0.44
1:D:70:GLU:OE2	1:D:122:ARG:HD3	2.17	0.44
1:D:3044:THR:HA	1:D:3047:LYS:HZ3	1.82	0.44
1:D:3830:LEU:HB3	1:D:3833:ASP:OD2	2.18	0.44
2:F:18:LYS:NZ	2:F:18:LYS:HB3	2.32	0.44
2:H:18:LYS:NZ	2:H:18:LYS:HB3	2.32	0.44
1:A:537:LEU:O	1:A:541:ILE:HG12	2.18	0.44
1:A:756:SER:OG	1:A:769:ARG:HB2	2.17	0.44
1:A:881:ILE:HD12	1:A:884:LYS:HZ3	1.82	0.44
1:A:1043:LYS:O	1:A:1047:LYS:HB2	2.17	0.44
1:A:2724:TYR:CD1	1:A:2895:PHE:HD1	2.35	0.44
1:A:3313:GLN:HA	1:A:3316:LYS:HZ1	1.82	0.44
2:E:9:SER:HB3	2:E:72:ARG:HB3	1.97	0.44
1:B:1785:ASP:OD1	1:B:1786:ILE:N	2.48	0.44
1:B:3044:THR:HA	1:B:3047:LYS:NZ	2.32	0.44
1:B:3830:LEU:HB3	1:B:3833:ASP:OD2	2.18	0.44
1:C:1043:LYS:O	1:C:1047:LYS:HB2	2.17	0.44
1:D:2884:LYS:HD2	1:D:2885:ASP:N	2.33	0.44
2:F:12:ASP:OD1	2:F:13:GLY:N	2.51	0.44
1:A:370:LEU:HB2	1:A:393:MET:CE	2.48	0.44
1:A:749:LEU:HD22	1:A:755:ILE:HD11	1.98	0.44
1:A:907:VAL:HG11	1:A:912:LYS:HD3	1.98	0.44
1:A:1697:LEU:HD23	1:A:1697:LEU:HA	1.87	0.44
1:A:3044:THR:HA	1:A:3047:LYS:NZ	2.32	0.44
1:A:3882:GLN:NE2	1:A:3946:GLY:HA3	2.32	0.44
1:A:4056:LYS:HE3	1:B:4660:PHE:O	2.17	0.44
1:B:70:GLU:OE2	1:B:122:ARG:HD3	2.17	0.44
1:B:756:SER:OG	1:B:769:ARG:HB2	2.17	0.44
1:B:881:ILE:HD12	1:B:884:LYS:HZ3	1.82	0.44
1:B:4054:SER:O	1:B:4056:LYS:HG3	2.17	0.44
1:C:235:ARG:NH2	1:C:412:GLU:OE2	2.27	0.44
1:C:537:LEU:O	1:C:541:ILE:HG12	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:897:LYS:HE2	1:C:917:CYS:HB3	1.99	0.44
1:C:963:LYS:NZ	1:C:979:ALA:HB3	2.33	0.44
1:C:2139:GLU:HG3	1:C:2192:MET:HE3	1.99	0.44
1:D:28:ILE:HG22	1:D:29:HIS:CD2	2.51	0.44
1:D:370:LEU:HB2	1:D:393:MET:CE	2.47	0.44
1:D:537:LEU:O	1:D:541:ILE:HG12	2.18	0.44
1:D:606:ARG:HH21	1:D:1633:PRO:HD2	1.82	0.44
1:D:1991:GLU:HG2	1:D:1992:ILE:N	2.32	0.44
1:D:2139:GLU:HG3	1:D:2192:MET:HE3	1.98	0.44
1:D:3044:THR:HA	1:D:3047:LYS:NZ	2.32	0.44
1:A:962:LYS:NZ	1:A:982:ASP:H	2.16	0.44
1:A:1031:ARG:HH11	1:A:1042:THR:HG21	1.81	0.44
1:A:1991:GLU:HG2	1:A:1992:ILE:N	2.32	0.44
1:A:2826:ILE:HG23	1:B:1501:ASN:O	2.17	0.44
1:A:3184:TYR:CE1	1:A:3197:LEU:HD21	2.53	0.44
1:B:962:LYS:NZ	1:B:982:ASP:H	2.16	0.44
1:B:997:ASP:HA	1:B:1047:LYS:HZ2	1.83	0.44
1:B:1957:LEU:HA	1:B:1960:ARG:CZ	2.47	0.44
1:B:2884:LYS:HD2	1:B:2885:ASP:N	2.33	0.44
1:C:200:SER:O	1:C:202:HIS:HD2	2.01	0.44
1:C:661:LEU:HD13	1:C:673:TRP:CD1	2.52	0.44
1:C:1848:PRO:HG3	1:C:1890:LYS:HD2	2.00	0.44
1:C:3178:HIS:CE1	1:C:3263:MET:HA	2.53	0.44
1:C:4194:GLU:HG2	1:C:4645:TRP:HZ3	1.82	0.44
1:D:897:LYS:HE2	1:D:917:CYS:HB3	1.99	0.44
1:D:2397:ASP:O	1:D:2401:ARG:HG3	2.18	0.44
1:D:2957:GLU:HA	1:D:2960:ILE:HG22	1.98	0.44
1:D:3184:TYR:CE1	1:D:3197:LEU:HD21	2.53	0.44
1:D:3321:PRO:HA	1:D:3324:GLU:HG2	2.00	0.44
1:D:4054:SER:O	1:D:4056:LYS:HG3	2.17	0.44
1:D:4055:HIS:CD2	1:D:4057:HIS:ND1	2.85	0.44
1:D:4795:LYS:HD2	1:D:4795:LYS:HA	1.81	0.44
1:A:70:GLU:OE2	1:A:122:ARG:HD3	2.17	0.44
1:A:826:VAL:HG21	1:A:832:LEU:HB2	1.99	0.44
1:A:1572:LYS:HD2	1:A:1572:LYS:N	2.33	0.44
1:A:2884:LYS:HD2	1:A:2885:ASP:N	2.33	0.44
1:A:4294:LEU:HD22	1:B:4719:PHE:CE2	2.52	0.44
2:E:50:ARG:N	2:E:55:GLU:OE1	2.42	0.44
1:B:370:LEU:HB2	1:B:393:MET:CE	2.48	0.44
1:B:1007:TRP:HE1	1:B:1011:ARG:NH1	2.16	0.44
1:B:1991:GLU:HG2	1:B:1992:ILE:N	2.32	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2758:LYS:HE2	1:B:2763:LEU:HA	2.00	0.44
1:B:2782:MET:HG2	1:B:2787:TRP:HE3	1.82	0.44
1:B:3025:ASP:O	1:B:3029:ILE:HD12	2.17	0.44
1:B:3102:LEU:HB2	1:B:3103:PRO:HD3	2.00	0.44
1:B:3187:LYS:HZ3	1:B:3191:GLU:HB3	1.83	0.44
1:B:3981:MET:HE3	1:B:3981:MET:HB3	1.89	0.44
1:B:4607:ALA:HB1	1:B:4649:VAL:HG21	1.99	0.44
1:C:317:MET:HE2	1:C:317:MET:HB2	1.72	0.44
1:C:890:HIS:NE2	1:C:924:LEU:HD22	2.33	0.44
1:C:907:VAL:HG11	1:C:912:LYS:HD3	1.98	0.44
1:C:950:VAL:HA	1:C:1064:LEU:HA	1.99	0.44
1:C:1941:ARG:NH2	1:C:3609:TYR:HB2	2.27	0.44
1:C:3215:MET:CE	1:C:3215:MET:HA	2.48	0.44
1:D:115:TYR:CG	1:D:164:PRO:HG3	2.53	0.44
1:D:271:ALA:HB2	1:D:488:LEU:HD22	1.99	0.44
1:D:1293:GLN:O	1:D:1294:ASN:HB3	2.18	0.44
1:D:2674:GLY:HA2	1:D:2978:HIS:CE1	2.52	0.44
1:D:2758:LYS:HE2	1:D:2763:LEU:HA	2.00	0.44
2:G:12:ASP:OD1	2:G:13:GLY:N	2.51	0.44
2:G:25:VAL:HG12	2:G:104:LEU:HA	2.00	0.44
2:H:12:ASP:OD1	2:H:13:GLY:N	2.51	0.44
2:H:19:LYS:HB2	2:H:19:LYS:HE3	1.80	0.44
1:A:963:LYS:NZ	1:A:979:ALA:HB3	2.33	0.44
1:A:1293:GLN:O	1:A:1294:ASN:HB3	2.18	0.44
1:A:3062:ASP:O	1:A:3066:GLU:OE1	2.35	0.44
1:A:4055:HIS:CD2	1:A:4057:HIS:ND1	2.85	0.44
1:A:4667:SER:OG	1:A:4672:MET:O	2.34	0.44
2:E:12:ASP:OD1	2:E:13:GLY:N	2.51	0.44
1:B:537:LEU:O	1:B:541:ILE:HG12	2.18	0.44
1:B:1293:GLN:O	1:B:1294:ASN:HB3	2.18	0.44
1:B:2397:ASP:O	1:B:2401:ARG:HG3	2.18	0.44
1:B:3741:LEU:HD11	1:B:3777:MET:HG2	1.99	0.44
1:C:718:VAL:HG13	1:C:724:SER:OG	2.18	0.44
1:C:2397:ASP:O	1:C:2401:ARG:HG3	2.18	0.44
1:C:2670:SER:HB2	1:C:2973:GLN:HG2	1.98	0.44
1:C:3042:ALA:HB3	1:C:3117:PHE:HD2	1.82	0.44
1:D:756:SER:OG	1:D:769:ARG:HB2	2.17	0.44
1:D:890:HIS:NE2	1:D:924:LEU:HD22	2.33	0.44
1:D:963:LYS:NZ	1:D:979:ALA:HB3	2.33	0.44
1:D:1415:ASP:OD2	1:D:1559:ARG:NH2	2.51	0.44
1:D:2318:ASN:HB3	1:D:2322:ARG:NH1	2.33	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3042:ALA:HB3	1:D:3117:PHE:HD2	1.82	0.44
1:D:3062:ASP:O	1:D:3066:GLU:OE1	2.35	0.44
1:D:3741:LEU:HD11	1:D:3777:MET:HG2	1.99	0.44
1:D:4194:GLU:HG2	1:D:4645:TRP:HZ3	1.82	0.44
1:D:4689:LYS:NZ	1:D:4696:ALA:HB2	2.31	0.44
1:A:1074:ARG:HD3	1:A:1078:CYS:HB2	2.00	0.44
1:B:115:TYR:CG	1:B:164:PRO:HG3	2.52	0.44
1:B:1572:LYS:N	1:B:1572:LYS:HD2	2.33	0.44
1:B:3297:LYS:HE2	1:B:3297:LYS:HA	2.00	0.44
1:B:4084:VAL:O	1:B:4088:HIS:HB2	2.18	0.44
1:C:962:LYS:NZ	1:C:982:ASP:H	2.16	0.44
1:C:1074:ARG:HD3	1:C:1078:CYS:HB2	2.00	0.44
1:C:3044:THR:HA	1:C:3047:LYS:NZ	2.32	0.44
1:C:3882:GLN:NE2	1:C:3946:GLY:HA3	2.32	0.44
1:C:4795:LYS:HA	1:C:4795:LYS:HD2	1.81	0.44
1:D:306:LEU:HA	1:D:316:LEU:HD23	2.00	0.44
1:D:1043:LYS:O	1:D:1047:LYS:HB2	2.17	0.44
1:D:1572:LYS:HD2	1:D:1572:LYS:N	2.33	0.44
1:D:2966:VAL:HG12	1:D:2970:LEU:HD23	1.99	0.44
1:D:3304:GLN:OE1	1:D:3308:ASN:ND2	2.47	0.44
1:D:4023:LEU:HG	1:D:4084:VAL:HG12	1.99	0.44
1:A:3026:ALA:O	1:A:3030:VAL:HG23	2.18	0.44
1:A:3118:GLY:O	1:A:3122:ILE:HG22	2.18	0.44
1:A:3304:GLN:OE1	1:A:3308:ASN:ND2	2.48	0.44
1:A:3830:LEU:HB3	1:A:3833:ASP:OD2	2.18	0.44
1:B:1711:LEU:HB3	1:B:1831:MET:SD	2.58	0.44
1:B:1718:ARG:HD3	1:B:1831:MET:HA	2.00	0.44
1:B:3122:ILE:HG12	1:B:3127:GLN:HG2	1.99	0.44
1:B:3178:HIS:CE1	1:B:3263:MET:HA	2.53	0.44
1:C:712:GLU:OE1	1:C:1086:ARG:NH2	2.39	0.44
1:C:801:ARG:HG2	1:C:1618:LEU:HA	2.00	0.44
1:C:2954:PHE:CE2	1:C:2956:TYR:HB2	2.53	0.44
1:C:2966:VAL:HG12	1:C:2970:LEU:HD23	1.99	0.44
1:C:3017:HIS:O	1:C:3018:ARG:HD3	2.18	0.44
1:C:3297:LYS:HA	1:C:3297:LYS:HE2	2.00	0.44
1:C:4831:ILE:HG13	1:C:4843:ARG:NH2	2.31	0.44
1:C:4867:ILE:HG12	1:D:4864:GLY:HA2	2.00	0.44
1:D:1007:TRP:HE1	1:D:1011:ARG:NH1	2.16	0.44
1:D:1500:ARG:HG3	1:D:1505:LEU:H	1.82	0.44
1:D:3215:MET:HA	1:D:3215:MET:CE	2.48	0.44
2:F:45:LYS:HA	2:F:46:PRO:HD3	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:25:VAL:HG12	2:H:104:LEU:HA	2.00	0.44
1:A:950:VAL:HA	1:A:1064:LEU:HA	1.99	0.43
1:A:1304:LEU:HD23	1:A:1304:LEU:HA	1.84	0.43
1:A:2332:GLY:O	1:A:2336:ARG:HG3	2.18	0.43
1:A:4194:GLU:HG2	1:A:4645:TRP:HZ3	1.82	0.43
1:B:306:LEU:HA	1:B:316:LEU:HD23	2.00	0.43
1:B:718:VAL:HG13	1:B:724:SER:OG	2.18	0.43
1:B:2332:GLY:O	1:B:2336:ARG:HG3	2.18	0.43
1:B:3215:MET:HA	1:B:3215:MET:CE	2.48	0.43
1:C:198:ASN:OD1	1:C:199:GLY:N	2.50	0.43
1:C:505:LEU:HD23	1:C:505:LEU:HA	1.85	0.43
1:C:1711:LEU:HB3	1:C:1831:MET:SD	2.58	0.43
1:C:1957:LEU:HA	1:C:1960:ARG:CZ	2.47	0.43
1:C:1991:GLU:HG2	1:C:1992:ILE:N	2.32	0.43
1:C:2884:LYS:HD2	1:C:2885:ASP:N	2.33	0.43
1:D:674:TYR:CE1	1:D:756:SER:HB2	2.52	0.43
1:D:718:VAL:HG13	1:D:724:SER:OG	2.18	0.43
1:D:1074:ARG:HH11	1:D:1078:CYS:H	1.66	0.43
1:D:1848:PRO:HG3	1:D:1890:LYS:HD2	2.00	0.43
1:D:4036:ASP:OD1	1:D:4040:LYS:NZ	2.52	0.43
2:F:25:VAL:HG12	2:F:104:LEU:HA	2.00	0.43
1:A:718:VAL:HG13	1:A:724:SER:OG	2.18	0.43
1:A:1144:ARG:HB3	1:A:1152:TYR:HB3	1.99	0.43
1:A:1435:GLY:H	1:A:1500:ARG:HH12	1.66	0.43
1:A:1711:LEU:HB3	1:A:1831:MET:SD	2.58	0.43
1:A:1898:LEU:HD23	1:A:1902:VAL:HG12	2.00	0.43
1:A:2832:THR:OG1	1:B:1548:THR:O	2.33	0.43
1:A:4283:PHE:HE2	1:B:4495:PHE:HE2	1.66	0.43
1:B:29:HIS:CE1	1:B:31:GLU:HG2	2.52	0.43
1:B:826:VAL:HG21	1:B:832:LEU:HB2	1.99	0.43
1:B:3017:HIS:O	1:B:3018:ARG:HD3	2.18	0.43
1:B:3184:TYR:CE1	1:B:3197:LEU:HD21	2.53	0.43
1:B:4602:ARG:NH1	1:B:4631:ASP:OD1	2.51	0.43
1:C:115:TYR:CG	1:C:164:PRO:HG3	2.53	0.43
1:C:271:ALA:HB2	1:C:488:LEU:HD22	1.99	0.43
1:C:306:LEU:HA	1:C:316:LEU:HD23	2.00	0.43
1:C:3026:ALA:O	1:C:3030:VAL:HG23	2.18	0.43
1:C:3102:LEU:HB2	1:C:3103:PRO:HD3	2.00	0.43
1:C:3321:PRO:HA	1:C:3324:GLU:HG2	1.99	0.43
1:D:3118:GLY:O	1:D:3122:ILE:HG22	2.18	0.43
1:D:3178:HIS:CE1	1:D:3263:MET:HA	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4602:ARG:NH1	1:D:4631:ASP:OD1	2.51	0.43
1:D:4607:ALA:HB1	1:D:4649:VAL:HG21	1.99	0.43
1:A:234:LEU:HD13	1:A:405:LEU:HD22	2.00	0.43
1:A:306:LEU:HA	1:A:316:LEU:HD23	2.00	0.43
1:A:801:ARG:HG2	1:A:1618:LEU:HA	2.00	0.43
1:A:1718:ARG:HD3	1:A:1831:MET:HA	2.00	0.43
1:A:2318:ASN:HB3	1:A:2322:ARG:NH1	2.33	0.43
1:A:2782:MET:HG2	1:A:2787:TRP:HE3	1.82	0.43
1:A:2954:PHE:CE2	1:A:2956:TYR:HB2	2.53	0.43
1:A:3017:HIS:O	1:A:3018:ARG:HD3	2.18	0.43
1:B:234:LEU:HD13	1:B:405:LEU:HD22	2.00	0.43
1:B:891:GLU:HG3	1:B:976:TYR:HD2	1.82	0.43
1:B:1074:ARG:HH11	1:B:1078:CYS:H	1.66	0.43
1:B:1415:ASP:OD2	1:B:1559:ARG:NH2	2.51	0.43
1:B:1898:LEU:HD23	1:B:1902:VAL:HG12	2.00	0.43
1:B:2139:GLU:HG3	1:B:2192:MET:HE3	1.99	0.43
1:B:2954:PHE:CE2	1:B:2956:TYR:HB2	2.53	0.43
1:B:4036:ASP:OD1	1:B:4040:LYS:NZ	2.52	0.43
1:B:4085:LYS:HE3	1:B:4085:LYS:HB3	1.83	0.43
1:C:1500:ARG:HG3	1:C:1505:LEU:H	1.82	0.43
1:C:1979:PHE:HZ	1:C:1996:LEU:HD23	1.84	0.43
1:C:4054:SER:O	1:C:4056:LYS:HG3	2.17	0.43
1:D:1435:GLY:H	1:D:1500:ARG:HH12	1.66	0.43
1:D:1898:LEU:HD23	1:D:1902:VAL:HG12	2.00	0.43
1:A:1434:PRO:O	1:D:2830:ASN:HB2	2.18	0.43
1:A:1848:PRO:HG3	1:A:1890:LYS:HD2	2.00	0.43
1:A:2831:VAL:HG22	1:B:1435:GLY:HA2	2.00	0.43
1:A:3297:LYS:HE2	1:A:3297:LYS:HA	2.00	0.43
1:A:4023:LEU:HG	1:A:4084:VAL:HG12	1.99	0.43
1:B:271:ALA:HB2	1:B:488:LEU:HD22	1.99	0.43
1:B:1038:LEU:HD23	1:B:1043:LYS:HG2	2.01	0.43
1:B:1848:PRO:HG3	1:B:1890:LYS:HD2	2.00	0.43
1:B:1979:PHE:HZ	1:B:1996:LEU:HD23	1.83	0.43
1:B:2130:LEU:HD21	1:B:2173:GLU:HG3	2.00	0.43
1:B:3297:LYS:HZ2	1:B:3335:SER:H	1.67	0.43
1:B:4023:LEU:HG	1:B:4084:VAL:HG12	1.99	0.43
1:C:891:GLU:HG3	1:C:976:TYR:HD2	1.82	0.43
1:C:1785:ASP:OD1	1:C:1786:ILE:N	2.48	0.43
1:C:2728:SER:HA	1:C:2731:LYS:NZ	2.33	0.43
1:C:2791:ARG:HH12	1:C:2795:GLY:C	2.22	0.43
1:D:234:LEU:HD13	1:D:405:LEU:HD22	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:950:VAL:HA	1:D:1064:LEU:HA	1.99	0.43
1:D:1074:ARG:HD3	1:D:1078:CYS:HB2	2.00	0.43
1:D:2696:ASP:O	1:D:2700:ASN:HA	2.19	0.43
1:D:3017:HIS:O	1:D:3018:ARG:HD3	2.18	0.43
1:A:274:LEU:HD23	1:A:274:LEU:HA	1.90	0.43
1:A:1007:TRP:HE1	1:A:1011:ARG:NH1	2.16	0.43
1:A:2397:ASP:O	1:A:2401:ARG:HG3	2.18	0.43
1:A:2759:PRO:HG2	1:A:2762:LEU:HD13	2.01	0.43
1:A:2782:MET:HG2	1:A:2787:TRP:CE3	2.54	0.43
1:A:2909:ASP:OD2	1:A:2912:LEU:HG	2.19	0.43
1:A:4036:ASP:OD1	1:A:4040:LYS:NZ	2.52	0.43
1:A:4084:VAL:O	1:A:4088:HIS:HB2	2.18	0.43
1:B:801:ARG:HG2	1:B:1618:LEU:HA	2.00	0.43
1:B:2782:MET:HG2	1:B:2787:TRP:CE3	2.54	0.43
1:B:3323:MET:HB3	1:B:3327:LYS:HZ1	1.83	0.43
1:B:3695:MET:HB3	1:B:3731:LEU:HD11	2.00	0.43
1:B:3882:GLN:NE2	1:B:3946:GLY:HA3	2.33	0.43
1:C:686:VAL:HG13	1:C:687:THR:HG23	2.00	0.43
1:C:1293:GLN:O	1:C:1294:ASN:HB3	2.18	0.43
1:C:2481:GLN:NE2	1:C:2537:GLY:O	2.42	0.43
1:C:3741:LEU:HD11	1:C:3777:MET:HG2	1.99	0.43
1:D:58:VAL:HG13	1:D:319:LYS:HG2	2.00	0.43
1:D:874:LEU:HD23	1:D:879:GLU:OE1	2.19	0.43
1:D:2899:ASN:O	1:D:2899:ASN:ND2	2.52	0.43
1:D:2954:PHE:CE2	1:D:2956:TYR:HB2	2.53	0.43
1:D:3882:GLN:NE2	1:D:3946:GLY:HA3	2.32	0.43
1:A:891:GLU:HG3	1:A:976:TYR:HD2	1.82	0.43
1:A:897:LYS:HE2	1:A:917:CYS:HB3	1.99	0.43
1:A:1300:MET:HE2	1:A:1300:MET:HB3	1.81	0.43
1:A:1415:ASP:OD2	1:A:1559:ARG:NH2	2.51	0.43
1:B:1948:MET:HA	1:B:1951:LEU:HD23	2.00	0.43
1:B:2791:ARG:HH12	1:B:2795:GLY:C	2.22	0.43
1:C:880:ARG:HH12	1:C:881:ILE:HD13	1.84	0.43
1:C:1038:LEU:HD23	1:C:1043:LYS:HG2	2.01	0.43
1:C:1415:ASP:OD2	1:C:1559:ARG:NH2	2.51	0.43
1:C:2782:MET:HG2	1:C:2787:TRP:HE3	1.82	0.43
1:C:3184:TYR:CE1	1:C:3197:LEU:HD21	2.53	0.43
1:C:3986:LEU:O	1:C:3989:ASN:HB2	2.19	0.43
1:C:4602:ARG:NH1	1:C:4631:ASP:OD1	2.51	0.43
1:D:200:SER:O	1:D:202:HIS:HD2	2.01	0.43
1:D:686:VAL:HG13	1:D:687:THR:HG23	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:801:ARG:HG2	1:D:1618:LEU:HA	2.00	0.43
1:D:2909:ASP:OD2	1:D:2912:LEU:HG	2.19	0.43
1:A:115:TYR:CG	1:A:164:PRO:HG3	2.53	0.43
1:A:718:VAL:HG23	1:A:793:SER:HB3	2.01	0.43
1:A:2888:LYS:HA	1:A:2891:ASP:OD2	2.19	0.43
1:B:930:ASN:OD1	1:B:931:TYR:N	2.52	0.43
1:B:963:LYS:NZ	1:B:979:ALA:HB3	2.33	0.43
1:B:1074:ARG:HD3	1:B:1078:CYS:HB2	2.00	0.43
1:B:1939:ASN:ND2	1:B:1989:PRO:HD3	2.34	0.43
1:B:3026:ALA:O	1:B:3030:VAL:HG23	2.18	0.43
1:C:2332:GLY:O	1:C:2336:ARG:HG3	2.18	0.43
1:C:3695:MET:HB3	1:C:3731:LEU:HD11	2.00	0.43
1:C:3728:GLN:OE1	1:C:3770:ASN:ND2	2.52	0.43
1:C:4023:LEU:HG	1:C:4084:VAL:HG12	1.99	0.43
1:D:1718:ARG:HD3	1:D:1831:MET:HA	2.00	0.43
1:D:2215:PHE:CG	1:D:2253:LEU:HD22	2.54	0.43
1:D:2724:TYR:CD1	1:D:2895:PHE:HD1	2.35	0.43
1:D:2791:ARG:HH12	1:D:2795:GLY:C	2.22	0.43
1:D:3297:LYS:HE2	1:D:3297:LYS:HA	2.00	0.43
1:A:200:SER:O	1:A:202:HIS:HD2	2.01	0.43
1:A:606:ARG:HH21	1:A:1633:PRO:HD2	1.82	0.43
1:A:930:ASN:OD1	1:A:931:TYR:N	2.52	0.43
1:A:1074:ARG:HH11	1:A:1078:CYS:H	1.67	0.43
1:B:200:SER:O	1:B:202:HIS:HD2	2.01	0.43
1:B:1144:ARG:HB3	1:B:1152:TYR:HB3	1.99	0.43
1:C:911:ASN:OD1	1:C:912:LYS:N	2.52	0.43
1:C:1074:ARG:HH11	1:C:1078:CYS:H	1.67	0.43
1:C:1140:PHE:CD2	1:C:1141:LYS:HE3	2.54	0.43
1:C:1718:ARG:HD3	1:C:1831:MET:HA	2.00	0.43
1:C:1939:ASN:ND2	1:C:1989:PRO:HD3	2.34	0.43
1:C:2782:MET:HG2	1:C:2787:TRP:CE3	2.54	0.43
1:C:2909:ASP:OD2	1:C:2912:LEU:HG	2.19	0.43
1:C:3118:GLY:O	1:C:3122:ILE:HG22	2.18	0.43
1:C:3157:GLU:HG3	1:C:3302:PHE:CZ	2.54	0.43
1:D:1140:PHE:CD2	1:D:1141:LYS:HE3	2.54	0.43
1:D:1471:ASP:OD2	1:D:1474:GLY:N	2.51	0.43
1:D:2130:LEU:HD21	1:D:2173:GLU:HG3	2.00	0.43
1:D:2868:HIS:NE2	1:D:2870:LEU:HB2	2.34	0.43
1:A:505:LEU:HD23	1:A:505:LEU:HA	1.85	0.43
1:A:874:LEU:HD23	1:A:879:GLU:OE1	2.18	0.43
1:A:1948:MET:HA	1:A:1951:LEU:HD23	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2130:LEU:HD21	1:A:2173:GLU:HG3	2.00	0.43
1:A:2222:LEU:HD23	1:A:2222:LEU:HA	1.88	0.43
1:A:4793:TYR:HH	1:A:4816:HIS:CE1	2.36	0.43
1:B:246:THR:HG21	1:B:267:VAL:HG21	2.01	0.43
1:B:890:HIS:NE2	1:B:924:LEU:HD22	2.33	0.43
1:B:3118:GLY:O	1:B:3122:ILE:HG22	2.18	0.43
1:B:3611:LEU:HD23	1:B:3611:LEU:HA	1.89	0.43
1:B:3664:LEU:O	1:B:3668:ILE:HG13	2.19	0.43
1:B:3728:GLN:OE1	1:B:3770:ASN:ND2	2.52	0.43
1:B:3890:TRP:HB3	1:C:76:ARG:HG2	2.01	0.43
1:B:4194:GLU:HG2	1:B:4645:TRP:HZ3	1.82	0.43
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.84	0.43
1:C:711:GLU:OE1	1:C:716:ASN:ND2	2.52	0.43
1:C:874:LEU:HD23	1:C:879:GLU:OE1	2.18	0.43
1:C:1686:LEU:HD22	1:C:1790:LYS:HZ1	1.83	0.43
1:C:4607:ALA:HB1	1:C:4649:VAL:HG21	2.00	0.43
1:D:962:LYS:NZ	1:D:982:ASP:H	2.16	0.43
1:D:1475:LYS:HE3	1:D:1475:LYS:HB3	1.89	0.43
1:D:2589:LEU:O	1:D:2593:VAL:HG13	2.19	0.43
1:D:2782:MET:HG2	1:D:2787:TRP:CE3	2.54	0.43
1:A:58:VAL:HG13	1:A:319:LYS:HG2	2.00	0.43
1:A:880:ARG:HH12	1:A:881:ILE:HD13	1.84	0.43
1:A:890:HIS:NE2	1:A:924:LEU:HD22	2.33	0.43
1:A:1941:ARG:NH2	1:A:3609:TYR:HB2	2.27	0.43
1:A:3215:MET:HA	1:A:3215:MET:CE	2.48	0.43
1:A:3664:LEU:O	1:A:3668:ILE:HG13	2.19	0.43
1:B:686:VAL:HG13	1:B:687:THR:HG23	2.00	0.43
1:B:711:GLU:OE1	1:B:716:ASN:ND2	2.52	0.43
1:B:874:LEU:HD23	1:B:879:GLU:OE1	2.18	0.43
1:B:2929:LEU:HD21	1:B:2970:LEU:HD11	2.01	0.43
1:B:3321:PRO:HA	1:B:3324:GLU:HG2	2.00	0.43
1:C:246:THR:HG21	1:C:267:VAL:HG21	2.01	0.43
1:C:2130:LEU:HD21	1:C:2173:GLU:HG3	2.00	0.43
1:C:3312:PRO:HD2	1:C:3313:GLN:OE1	2.19	0.43
1:D:880:ARG:HH12	1:D:881:ILE:HD13	1.84	0.43
1:D:1979:PHE:HZ	1:D:1996:LEU:HD23	1.84	0.43
1:D:2332:GLY:O	1:D:2336:ARG:HG3	2.18	0.43
1:D:4689:LYS:HZ3	1:D:4693:SER:HB3	1.84	0.43
1:A:711:GLU:OE1	1:A:716:ASN:ND2	2.52	0.42
1:A:1038:LEU:HD23	1:A:1043:LYS:HG2	2.01	0.42
1:A:1979:PHE:HZ	1:A:1996:LEU:HD23	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2455:ASP:OD2	1:A:2457:SER:OG	2.20	0.42
1:A:2696:ASP:O	1:A:2700:ASN:HA	2.19	0.42
1:A:3321:PRO:HA	1:A:3324:GLU:HG2	2.00	0.42
1:A:3323:MET:HB3	1:A:3327:LYS:HZ3	1.83	0.42
1:A:4085:LYS:HB3	1:A:4085:LYS:HE3	1.83	0.42
1:B:600:LEU:HD12	1:B:604:HIS:CD2	2.54	0.42
1:B:1031:ARG:HD2	1:B:1042:THR:HG21	2.01	0.42
1:B:2589:LEU:O	1:B:2593:VAL:HG13	2.19	0.42
1:B:2868:HIS:NE2	1:B:2870:LEU:HB2	2.34	0.42
1:B:3122:ILE:HG12	1:B:3127:GLN:CG	2.49	0.42
1:B:3986:LEU:O	1:B:3989:ASN:HB2	2.19	0.42
1:C:234:LEU:HD13	1:C:405:LEU:HD22	2.00	0.42
1:C:718:VAL:HG23	1:C:793:SER:HB3	2.01	0.42
1:C:930:ASN:OD1	1:C:931:TYR:N	2.52	0.42
1:C:2318:ASN:HB3	1:C:2322:ARG:NH1	2.33	0.42
1:C:2696:ASP:O	1:C:2700:ASN:HA	2.19	0.42
1:C:3316:LYS:HB2	1:C:3316:LYS:HE2	1.54	0.42
1:C:3326:LEU:HD21	1:C:3336:GLU:HB2	2.01	0.42
1:D:712:GLU:OE1	1:D:1086:ARG:NH2	2.39	0.42
1:D:930:ASN:OD1	1:D:931:TYR:N	2.52	0.42
1:D:967:PRO:O	1:D:971:GLN:HG2	2.19	0.42
1:D:2759:PRO:HG2	1:D:2762:LEU:HD13	2.01	0.42
1:D:3026:ALA:O	1:D:3030:VAL:HG23	2.18	0.42
1:A:971:GLN:HE21	1:A:978:PRO:HD2	1.84	0.42
1:A:2791:ARG:HH12	1:A:2795:GLY:C	2.22	0.42
1:A:4602:ARG:NH1	1:A:4631:ASP:OD1	2.51	0.42
2:E:25:VAL:HG12	2:E:104:LEU:HA	2.00	0.42
1:B:274:LEU:HD23	1:B:274:LEU:HA	1.89	0.42
1:B:505:LEU:HD23	1:B:505:LEU:HA	1.85	0.42
1:B:880:ARG:HH12	1:B:881:ILE:HD13	1.84	0.42
1:B:983:LEU:HD11	1:B:1055:ARG:HG3	2.00	0.42
1:B:1300:MET:HE2	1:B:1300:MET:HB3	1.87	0.42
1:B:1564:MET:HE2	1:B:1565:PRO:HD2	2.00	0.42
1:B:2830:ASN:HB2	1:C:1434:PRO:O	2.19	0.42
1:C:3304:GLN:OE1	1:C:3308:ASN:ND2	2.48	0.42
1:D:971:GLN:HE21	1:D:978:PRO:HD2	1.84	0.42
1:D:1038:LEU:HD23	1:D:1043:LYS:HG2	2.01	0.42
1:D:2436:ILE:HG22	1:D:2491:GLY:HA3	2.02	0.42
1:D:3195:LEU:HD22	1:D:3197:LEU:HB2	2.01	0.42
1:D:3201:VAL:O	1:D:3204:VAL:HG12	2.19	0.42
1:D:3213:LYS:HA	1:D:3216:GLU:OE2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:600:LEU:HD12	1:A:604:HIS:CD2	2.54	0.42
1:A:967:PRO:O	1:A:971:GLN:HG2	2.19	0.42
1:A:3312:PRO:HD2	1:A:3313:GLN:OE1	2.19	0.42
1:A:3695:MET:HB3	1:A:3731:LEU:HD11	2.00	0.42
1:B:1140:PHE:CD2	1:B:1141:LYS:HE3	2.54	0.42
1:B:1572:LYS:HD2	1:B:1572:LYS:H	1.84	0.42
1:B:2554:ARG:HH11	1:B:2554:ARG:HG3	1.85	0.42
1:B:3213:LYS:HA	1:B:3216:GLU:OE2	2.19	0.42
1:C:58:VAL:HG13	1:C:319:LYS:HG2	2.00	0.42
1:C:600:LEU:HD12	1:C:604:HIS:CD2	2.54	0.42
1:C:1471:ASP:OD2	1:C:1474:GLY:N	2.51	0.42
1:C:1948:MET:HA	1:C:1951:LEU:HD23	2.00	0.42
1:C:2868:HIS:NE2	1:C:2870:LEU:HB2	2.34	0.42
1:C:2874:TYR:CZ	1:C:2882:LYS:HD3	2.54	0.42
1:C:4084:VAL:O	1:C:4088:HIS:HB2	2.18	0.42
1:D:2888:LYS:HA	1:D:2891:ASP:OD2	2.19	0.42
1:D:3102:LEU:HB2	1:D:3103:PRO:HD3	2.00	0.42
1:A:246:THR:HG21	1:A:267:VAL:HG21	2.01	0.42
1:A:1140:PHE:CD2	1:A:1141:LYS:HE3	2.54	0.42
1:A:2155:PHE:HD1	1:A:2162:MET:HG3	1.85	0.42
1:A:2771:TYR:O	1:A:2774:PRO:HD2	2.20	0.42
1:A:3178:HIS:CE1	1:A:3263:MET:HA	2.53	0.42
1:A:3187:LYS:HZ3	1:A:3191:GLU:HB3	1.84	0.42
1:A:3201:VAL:O	1:A:3204:VAL:HG12	2.20	0.42
1:A:3326:LEU:HD21	1:A:3336:GLU:HB2	2.02	0.42
1:A:3712:LYS:O	1:A:3717:LYS:NZ	2.53	0.42
1:B:911:ASN:OD1	1:B:912:LYS:N	2.52	0.42
1:B:2138:GLU:HA	1:B:2141:LEU:HD12	2.02	0.42
1:B:2318:ASN:HB3	1:B:2322:ARG:NH1	2.33	0.42
1:B:2696:ASP:O	1:B:2700:ASN:HA	2.19	0.42
1:C:932:ASN:HA	1:C:935:MET:HG3	2.02	0.42
1:C:2403:ALA:HB2	1:C:2475:VAL:HG22	2.01	0.42
1:C:3195:LEU:HD22	1:C:3197:LEU:HB2	2.01	0.42
1:D:198:ASN:OD1	1:D:199:GLY:N	2.50	0.42
1:D:711:GLU:OE1	1:D:716:ASN:ND2	2.52	0.42
1:D:891:GLU:HG3	1:D:976:TYR:HD2	1.82	0.42
1:D:983:LEU:HD11	1:D:1055:ARG:HG3	2.00	0.42
1:D:1711:LEU:HB3	1:D:1831:MET:SD	2.58	0.42
1:D:3712:LYS:O	1:D:3717:LYS:NZ	2.53	0.42
1:D:3986:LEU:O	1:D:3989:ASN:HB2	2.19	0.42
1:A:996:VAL:HG21	1:A:1051:ARG:HA	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2666:LEU:HB3	1:A:2667:PRO:HD3	2.02	0.42
1:B:58:VAL:HG13	1:B:319:LYS:HG2	2.00	0.42
1:B:227:TYR:CG	1:B:352:SER:HB3	2.55	0.42
1:B:718:VAL:HG23	1:B:793:SER:HB3	2.01	0.42
1:B:844:ARG:NH2	1:B:847:THR:HG21	2.35	0.42
1:B:1435:GLY:H	1:B:1500:ARG:HH12	1.66	0.42
1:B:2899:ASN:O	1:B:2899:ASN:ND2	2.52	0.42
1:B:3325:LYS:HE3	1:B:3325:LYS:HA	2.01	0.42
1:B:3712:LYS:O	1:B:3717:LYS:NZ	2.53	0.42
1:C:2436:ILE:HG22	1:C:2491:GLY:HA3	2.02	0.42
1:C:2888:LYS:HA	1:C:2891:ASP:OD2	2.19	0.42
1:D:718:VAL:HG23	1:D:793:SER:HB3	2.01	0.42
1:D:2155:PHE:HD1	1:D:2162:MET:HG3	1.85	0.42
1:D:2554:ARG:HH11	1:D:2554:ARG:HG3	1.85	0.42
1:D:4084:VAL:O	1:D:4088:HIS:HB2	2.18	0.42
1:D:4085:LYS:HE3	1:D:4085:LYS:HB3	1.83	0.42
1:A:2436:ILE:HG22	1:A:2491:GLY:HA3	2.02	0.42
1:A:2589:LEU:O	1:A:2593:VAL:HG13	2.19	0.42
1:A:2728:SER:HA	1:A:2731:LYS:NZ	2.33	0.42
1:A:3325:LYS:HE3	1:A:3325:LYS:HA	2.01	0.42
1:B:198:ASN:OD1	1:B:199:GLY:N	2.50	0.42
1:B:1979:PHE:CG	1:B:1993:ARG:HG2	2.55	0.42
1:B:2888:LYS:HA	1:B:2891:ASP:OD2	2.19	0.42
1:C:1435:GLY:H	1:C:1500:ARG:HH12	1.66	0.42
1:C:2589:LEU:O	1:C:2593:VAL:HG13	2.19	0.42
1:C:2711:ILE:HD11	1:C:2783:LEU:HG	2.02	0.42
1:C:2929:LEU:HD21	1:C:2970:LEU:HD11	2.01	0.42
1:C:3201:VAL:O	1:C:3204:VAL:HG12	2.20	0.42
1:C:3325:LYS:HE3	1:C:3325:LYS:HA	2.01	0.42
1:C:4036:ASP:OD1	1:C:4040:LYS:NZ	2.52	0.42
1:D:2666:LEU:HB3	1:D:2667:PRO:HD3	2.02	0.42
1:D:3325:LYS:HE3	1:D:3325:LYS:HA	2.01	0.42
1:A:686:VAL:HG13	1:A:687:THR:HG23	2.00	0.42
1:A:911:ASN:OD1	1:A:912:LYS:N	2.52	0.42
1:A:2146:LEU:HD23	1:A:2146:LEU:HA	1.87	0.42
1:A:2929:LEU:HD21	1:A:2970:LEU:HD11	2.01	0.42
1:A:3102:LEU:HB2	1:A:3103:PRO:HD3	2.00	0.42
1:A:3127:GLN:OE1	1:A:3183:ILE:HB	2.20	0.42
1:A:3213:LYS:HA	1:A:3216:GLU:OE2	2.19	0.42
1:B:881:ILE:O	1:B:885:LEU:HD23	2.20	0.42
1:B:932:ASN:HA	1:B:935:MET:HG3	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:996:VAL:HG21	1:B:1051:ARG:HA	2.02	0.42
1:B:2155:PHE:HD1	1:B:2162:MET:HG3	1.85	0.42
1:B:2408:LEU:HD23	1:B:2408:LEU:HA	1.90	0.42
1:B:2874:TYR:CZ	1:B:2882:LYS:HD3	2.54	0.42
1:B:2959:GLU:OE1	1:B:2959:GLU:N	2.53	0.42
1:B:3326:LEU:HD21	1:B:3336:GLU:HB2	2.02	0.42
1:B:4155:SER:O	1:B:4159:GLN:HG2	2.20	0.42
1:B:4262:LYS:HG3	1:C:4698:LEU:HD13	2.00	0.42
1:C:983:LEU:HD11	1:C:1055:ARG:HG3	2.01	0.42
1:C:2155:PHE:HD1	1:C:2162:MET:HG3	1.85	0.42
1:C:2554:ARG:HH11	1:C:2554:ARG:HG3	1.85	0.42
1:C:2708:THR:HB	1:C:2780:LYS:HB3	2.02	0.42
1:C:2759:PRO:HG2	1:C:2762:LEU:HD13	2.01	0.42
1:C:4155:SER:O	1:C:4159:GLN:HG2	2.20	0.42
1:D:1572:LYS:HD2	1:D:1572:LYS:H	1.85	0.42
1:D:1948:MET:HA	1:D:1951:LEU:HD23	2.00	0.42
1:D:2708:THR:HB	1:D:2780:LYS:HB3	2.01	0.42
1:A:844:ARG:NH2	1:A:847:THR:HG21	2.35	0.42
1:A:1572:LYS:HD2	1:A:1572:LYS:H	1.84	0.42
1:A:1939:ASN:ND2	1:A:1989:PRO:HD3	2.34	0.42
1:A:2215:PHE:CG	1:A:2253:LEU:HD22	2.54	0.42
1:A:2403:ALA:HB2	1:A:2475:VAL:HG22	2.01	0.42
1:A:2874:TYR:CZ	1:A:2882:LYS:HD3	2.54	0.42
1:A:3036:LEU:O	1:A:3040:LEU:HG	2.20	0.42
1:A:3756:ALA:O	1:A:3760:LYS:HG3	2.20	0.42
1:B:1064:LEU:HD23	1:B:1064:LEU:H	1.85	0.42
1:B:2403:ALA:HB2	1:B:2475:VAL:HG22	2.01	0.42
1:B:2909:ASP:OD2	1:B:2912:LEU:HG	2.19	0.42
1:B:3201:VAL:O	1:B:3204:VAL:HG12	2.20	0.42
1:C:844:ARG:NH2	1:C:847:THR:HG21	2.35	0.42
1:C:1064:LEU:H	1:C:1064:LEU:HD23	1.85	0.42
1:C:1572:LYS:H	1:C:1572:LYS:HD2	1.84	0.42
1:C:1572:LYS:HD2	1:C:1572:LYS:N	2.33	0.42
1:C:1979:PHE:CG	1:C:1993:ARG:HG2	2.55	0.42
1:C:2215:PHE:CG	1:C:2253:LEU:HD22	2.54	0.42
1:C:2965:LYS:HA	1:C:2965:LYS:HD3	1.80	0.42
1:C:3213:LYS:HA	1:C:3216:GLU:OE2	2.19	0.42
1:C:3290:ILE:HG22	1:C:3291:ASP:OD2	2.20	0.42
1:D:600:LEU:HD12	1:D:604:HIS:CD2	2.54	0.42
1:D:2138:GLU:HA	1:D:2141:LEU:HD12	2.02	0.42
1:D:3312:PRO:HD2	1:D:3313:GLN:OE1	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3695:MET:HB3	1:D:3731:LEU:HD11	2.00	0.42
1:D:3756:ALA:O	1:D:3760:LYS:HG3	2.20	0.42
2:F:19:LYS:HB2	2:F:19:LYS:HE3	1.80	0.42
1:A:2937:HIS:HA	1:A:3014:LEU:HD11	2.02	0.42
1:A:3157:GLU:HG3	1:A:3302:PHE:CZ	2.54	0.42
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.84	0.42
1:B:829:LYS:HZ2	1:B:1037:LEU:HB3	1.85	0.42
1:B:967:PRO:O	1:B:971:GLN:HG2	2.19	0.42
1:B:3072:MET:HE2	1:B:3072:MET:HB2	1.66	0.42
1:C:1080:GLY:O	1:C:1081:THR:OG1	2.32	0.42
1:C:1898:LEU:HD23	1:C:1902:VAL:HG12	2.00	0.42
1:C:2959:GLU:OE1	1:C:2959:GLU:N	2.53	0.42
1:C:3664:LEU:O	1:C:3668:ILE:HG13	2.19	0.42
1:D:227:TYR:CG	1:D:352:SER:HB3	2.55	0.42
1:D:844:ARG:NH2	1:D:847:THR:HG21	2.35	0.42
1:D:911:ASN:OD1	1:D:912:LYS:N	2.52	0.42
1:D:2711:ILE:HD11	1:D:2783:LEU:HG	2.02	0.42
1:D:3036:LEU:O	1:D:3040:LEU:HG	2.20	0.42
1:D:3290:ILE:HG22	1:D:3291:ASP:OD2	2.20	0.42
1:D:3326:LEU:HD21	1:D:3336:GLU:HB2	2.01	0.42
1:D:3728:GLN:OE1	1:D:3770:ASN:ND2	2.52	0.42
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.84	0.42
1:A:309:MET:HE3	1:A:315:LEU:HB3	2.01	0.42
1:A:2138:GLU:HA	1:A:2141:LEU:HD12	2.02	0.42
1:B:735:GLY:O	1:B:737:ILE:HD12	2.20	0.42
1:B:824:GLU:HA	1:B:1020:ILE:HD12	2.02	0.42
1:B:841:LYS:O	1:B:848:ARG:NH2	2.53	0.42
1:B:1591:LEU:HD12	1:B:1591:LEU:HA	1.93	0.42
1:B:1748:LEU:HD11	1:B:1853:GLU:HG3	2.02	0.42
1:B:2215:PHE:CG	1:B:2253:LEU:HD22	2.54	0.42
1:B:2919:LYS:HB2	1:B:2919:LYS:HE3	1.87	0.42
1:B:3312:PRO:HD2	1:B:3313:GLN:OE1	2.19	0.42
1:C:1031:ARG:HD2	1:C:1042:THR:HG21	2.01	0.42
1:C:2138:GLU:HA	1:C:2141:LEU:HD12	2.02	0.42
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.84	0.42
1:D:932:ASN:HA	1:D:935:MET:HG3	2.02	0.42
1:D:1283:LEU:O	1:D:1555:PHE:N	2.49	0.42
1:D:2146:LEU:HD23	1:D:2146:LEU:HA	1.87	0.42
1:D:2326:ARG:HD3	1:D:2326:ARG:HA	1.76	0.42
1:D:2874:TYR:CZ	1:D:2882:LYS:HD3	2.54	0.42
1:D:3127:GLN:OE1	1:D:3183:ILE:HB	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3664:LEU:O	1:D:3668:ILE:HG13	2.19	0.42
1:D:4061:SER:O	1:D:4064:GLU:HG3	2.20	0.42
1:D:4731:LEU:HD23	1:D:4731:LEU:HA	1.92	0.42
1:A:983:LEU:HD11	1:A:1055:ARG:HG3	2.00	0.41
1:A:2258:ARG:NE	1:A:2258:ARG:HA	2.35	0.41
1:A:2868:HIS:NE2	1:A:2870:LEU:HB2	2.34	0.41
1:A:3290:ILE:HG22	1:A:3291:ASP:OD2	2.20	0.41
1:A:4061:SER:O	1:A:4064:GLU:HG3	2.20	0.41
1:A:4155:SER:O	1:A:4159:GLN:HG2	2.20	0.41
1:B:674:TYR:OH	1:B:676:GLU:OE2	2.37	0.41
1:C:971:GLN:HE21	1:C:978:PRO:HD2	1.84	0.41
1:C:1721:MET:SD	1:C:2127:ARG:NH1	2.93	0.41
1:C:2114:GLU:HG2	1:C:2115:ASP:N	2.35	0.41
1:C:3036:LEU:O	1:C:3040:LEU:HG	2.20	0.41
1:C:3122:ILE:HG12	1:C:3127:GLN:CG	2.49	0.41
1:C:3717:LYS:HB2	1:C:3717:LYS:HE2	1.89	0.41
1:D:246:THR:HG21	1:D:267:VAL:HG21	2.01	0.41
1:D:881:ILE:O	1:D:885:LEU:HD23	2.20	0.41
1:D:1721:MET:SD	1:D:2127:ARG:NH1	2.93	0.41
1:D:1939:ASN:ND2	1:D:1989:PRO:HD3	2.34	0.41
1:D:2937:HIS:HA	1:D:3014:LEU:HD11	2.02	0.41
1:A:227:TYR:CG	1:A:352:SER:HB3	2.55	0.41
1:A:735:GLY:O	1:A:737:ILE:HD12	2.20	0.41
1:A:824:GLU:HA	1:A:1020:ILE:HD12	2.02	0.41
1:A:841:LYS:O	1:A:848:ARG:NH2	2.53	0.41
1:A:1748:LEU:HD11	1:A:1853:GLU:HG3	2.02	0.41
1:A:2554:ARG:HH11	1:A:2554:ARG:HG3	1.85	0.41
1:A:3728:GLN:OE1	1:A:3770:ASN:ND2	2.52	0.41
1:A:3986:LEU:O	1:A:3989:ASN:HB2	2.19	0.41
1:B:712:GLU:O	1:B:838:ARG:HG3	2.21	0.41
1:B:971:GLN:HE21	1:B:978:PRO:HD2	1.84	0.41
1:B:1721:MET:SD	1:B:2127:ARG:NH1	2.93	0.41
1:B:2711:ILE:HD11	1:B:2783:LEU:HG	2.02	0.41
1:B:2759:PRO:HG2	1:B:2762:LEU:HD13	2.01	0.41
1:B:2967:VAL:O	1:B:2970:LEU:HG	2.20	0.41
1:B:3127:GLN:OE1	1:B:3183:ILE:HB	2.20	0.41
1:B:3213:LYS:O	1:B:3216:GLU:HG2	2.20	0.41
1:C:2071:GLN:CD	1:C:3648:GLY:HA3	2.41	0.41
1:C:4061:SER:O	1:C:4064:GLU:HG3	2.20	0.41
1:C:4694:LEU:HA	1:C:4697:VAL:HG12	2.02	0.41
1:D:735:GLY:O	1:D:737:ILE:HD12	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2172:MET:HG2	1:D:2217:HIS:HD2	1.85	0.41
1:D:2771:TYR:O	1:D:2774:PRO:HD2	2.20	0.41
1:D:4082:GLU:HA	1:D:4085:LYS:HE3	2.03	0.41
1:A:801:ARG:NH1	1:A:1615:GLN:O	2.40	0.41
1:A:963:LYS:HZ3	1:A:979:ALA:HB3	1.86	0.41
1:A:1686:LEU:HD22	1:A:1790:LYS:HZ1	1.85	0.41
1:A:2539:GLU:HA	1:A:2584:MET:HE1	2.02	0.41
1:A:4895:ASN:HA	1:A:4905:PHE:CD1	2.56	0.41
1:B:2114:GLU:HG2	1:B:2115:ASP:N	2.35	0.41
1:B:2436:ILE:HG22	1:B:2491:GLY:HA3	2.02	0.41
1:B:2771:TYR:O	1:B:2774:PRO:HD2	2.20	0.41
1:B:3157:GLU:HG3	1:B:3302:PHE:CZ	2.54	0.41
1:B:3692:ALA:HA	1:B:3695:MET:HE3	2.01	0.41
1:C:824:GLU:HA	1:C:1020:ILE:HD12	2.02	0.41
1:C:2258:ARG:NE	1:C:2258:ARG:HA	2.35	0.41
1:C:3213:LYS:O	1:C:3216:GLU:HG2	2.20	0.41
1:C:4651:ARG:HG2	1:C:4651:ARG:NH1	2.34	0.41
1:D:712:GLU:O	1:D:838:ARG:HG3	2.21	0.41
1:D:1255:LEU:HD12	1:D:1255:LEU:HA	1.93	0.41
1:D:2232:PRO:C	1:D:2234:MET:H	2.24	0.41
1:D:2403:ALA:HB2	1:D:2475:VAL:HG22	2.01	0.41
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	2.02	0.41
1:D:4735:ASN:HB3	1:D:4738:PHE:HD2	1.86	0.41
1:A:114:LEU:HB2	1:A:117:HIS:ND1	2.35	0.41
1:A:1064:LEU:HD23	1:A:1064:LEU:H	1.85	0.41
1:A:2303:ARG:HE	1:A:2401:ARG:NE	2.19	0.41
1:A:2954:PHE:CD1	1:A:2955:PRO:HD2	2.56	0.41
1:A:3316:LYS:HE2	1:A:3316:LYS:HB2	1.54	0.41
1:A:4059:THR:OG1	1:A:4062:GLU:HG3	2.21	0.41
1:B:2539:GLU:HA	1:B:2584:MET:HE1	2.02	0.41
1:B:3290:ILE:HG22	1:B:3291:ASP:OD2	2.20	0.41
1:B:4059:THR:OG1	1:B:4062:GLU:HG3	2.21	0.41
1:B:4061:SER:O	1:B:4064:GLU:HG3	2.20	0.41
1:B:4651:ARG:HG2	1:B:4651:ARG:NH1	2.34	0.41
1:B:4694:LEU:HA	1:B:4697:VAL:HG12	2.02	0.41
1:C:2967:VAL:O	1:C:2970:LEU:HG	2.20	0.41
1:C:4056:LYS:HE3	1:D:4660:PHE:O	2.20	0.41
1:C:4082:GLU:HA	1:C:4085:LYS:HE3	2.03	0.41
1:D:192:LEU:HD12	1:D:192:LEU:HA	1.91	0.41
1:D:521:GLU:H	1:D:521:GLU:CD	2.24	0.41
1:D:996:VAL:HG21	1:D:1051:ARG:HA	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4155:SER:O	1:D:4159:GLN:HG2	2.20	0.41
1:A:483:LYS:HE2	1:A:483:LYS:HB2	1.80	0.41
1:A:2604:LYS:HZ2	1:A:2664:LEU:HD22	1.85	0.41
1:A:2708:THR:HB	1:A:2780:LYS:HB3	2.02	0.41
1:A:4046:ARG:HG2	1:A:4076:GLU:OE2	2.21	0.41
1:B:114:LEU:HB2	1:B:117:HIS:ND1	2.35	0.41
1:B:2071:GLN:CD	1:B:3648:GLY:HA3	2.41	0.41
1:B:2172:MET:HG2	1:B:2217:HIS:HD2	1.86	0.41
1:B:2258:ARG:HA	1:B:2258:ARG:NE	2.35	0.41
1:B:2303:ARG:HE	1:B:2401:ARG:NE	2.19	0.41
1:B:2326:ARG:HA	1:B:2326:ARG:HD3	1.76	0.41
1:B:3195:LEU:HD22	1:B:3197:LEU:HB2	2.01	0.41
1:B:4055:HIS:O	1:B:4057:HIS:ND1	2.54	0.41
1:C:521:GLU:CD	1:C:521:GLU:H	2.24	0.41
1:C:735:GLY:O	1:C:737:ILE:HD12	2.20	0.41
1:C:2666:LEU:HB3	1:C:2667:PRO:HD3	2.02	0.41
1:C:4735:ASN:HB3	1:C:4738:PHE:HD2	1.85	0.41
1:D:1031:ARG:HD2	1:D:1042:THR:HG21	2.01	0.41
1:D:1064:LEU:HD23	1:D:1064:LEU:H	1.85	0.41
1:D:1748:LEU:HD11	1:D:1853:GLU:HG3	2.02	0.41
1:D:1979:PHE:CG	1:D:1993:ARG:HG2	2.55	0.41
1:D:2604:LYS:HZ2	1:D:2664:LEU:HD22	1.84	0.41
1:D:2878:THR:HG23	1:D:2881:GLU:H	1.86	0.41
1:D:3157:GLU:HG3	1:D:3302:PHE:CZ	2.54	0.41
1:A:521:GLU:H	1:A:521:GLU:CD	2.24	0.41
1:A:2172:MET:HG2	1:A:2217:HIS:HD2	1.86	0.41
1:A:2326:ARG:HA	1:A:2326:ARG:HD3	1.76	0.41
1:A:3173:THR:HA	1:A:3176:ASP:OD2	2.21	0.41
1:A:3195:LEU:HD22	1:A:3197:LEU:HB2	2.01	0.41
1:A:4055:HIS:O	1:A:4057:HIS:ND1	2.54	0.41
1:A:4694:LEU:HA	1:A:4697:VAL:HG12	2.02	0.41
1:B:801:ARG:HA	1:B:1617:TRP:O	2.20	0.41
1:B:1177:LEU:O	1:B:1180:GLU:HG3	2.21	0.41
1:B:1941:ARG:NH2	1:B:3609:TYR:HB2	2.27	0.41
1:B:2878:THR:HG23	1:B:2881:GLU:H	1.86	0.41
1:B:2937:HIS:HA	1:B:3014:LEU:HD11	2.02	0.41
1:B:3173:THR:HA	1:B:3176:ASP:OD2	2.21	0.41
1:B:3756:ALA:O	1:B:3760:LYS:HG3	2.20	0.41
1:B:4735:ASN:HB3	1:B:4738:PHE:HD2	1.85	0.41
1:C:2259:GLU:OE2	1:C:3806:ASN:ND2	2.54	0.41
1:C:3061:LEU:HD23	1:C:3061:LEU:HA	1.88	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3127:GLN:OE1	1:C:3183:ILE:HB	2.20	0.41
1:C:3712:LYS:O	1:C:3717:LYS:NZ	2.53	0.41
1:C:4070:ALA:HB1	1:C:4078:LEU:HD13	2.03	0.41
1:D:274:LEU:HD23	1:D:274:LEU:HA	1.89	0.41
1:D:308:LEU:HD13	1:D:393:MET:HG3	2.03	0.41
1:D:881:ILE:HD12	1:D:884:LYS:HZ3	1.86	0.41
1:D:932:ASN:O	1:D:935:MET:HG3	2.21	0.41
1:D:977:LYS:HA	1:D:978:PRO:HD3	1.89	0.41
1:D:2481:GLN:NE2	1:D:2537:GLY:O	2.42	0.41
1:D:2929:LEU:HD21	1:D:2970:LEU:HD11	2.01	0.41
1:D:3033:LEU:HD23	1:D:3033:LEU:HA	1.86	0.41
1:D:3061:LEU:HD23	1:D:3061:LEU:HA	1.88	0.41
1:D:3611:LEU:HD23	1:D:3611:LEU:HA	1.89	0.41
1:A:712:GLU:O	1:A:838:ARG:HG3	2.21	0.41
1:A:801:ARG:HA	1:A:1617:TRP:O	2.20	0.41
1:A:881:ILE:O	1:A:885:LEU:HD23	2.20	0.41
1:A:2899:ASN:O	1:A:2899:ASN:ND2	2.52	0.41
1:A:4082:GLU:HA	1:A:4085:LYS:HE3	2.03	0.41
1:B:2708:THR:HB	1:B:2780:LYS:HB3	2.02	0.41
1:B:2728:SER:HA	1:B:2731:LYS:NZ	2.33	0.41
1:B:2954:PHE:CD1	1:B:2955:PRO:HD2	2.56	0.41
1:B:3036:LEU:O	1:B:3040:LEU:HG	2.20	0.41
1:B:4070:ALA:HB1	1:B:4078:LEU:HD13	2.03	0.41
1:C:841:LYS:O	1:C:848:ARG:NH2	2.53	0.41
1:C:967:PRO:O	1:C:971:GLN:HG2	2.20	0.41
1:C:996:VAL:HG21	1:C:1051:ARG:HA	2.02	0.41
1:C:2232:PRO:C	1:C:2234:MET:H	2.24	0.41
1:C:2604:LYS:HZ2	1:C:2664:LEU:HD22	1.86	0.41
1:C:3019:ILE:HG13	1:C:3020:SER:N	2.36	0.41
1:D:314:LEU:HD23	1:D:314:LEU:HA	1.93	0.41
1:D:879:GLU:HA	1:D:882:ARG:HD2	2.03	0.41
1:D:1988:CYS:HA	1:D:1989:PRO:HD3	1.95	0.41
1:D:4757:LEU:O	1:D:4761:THR:HG23	2.21	0.41
1:A:844:ARG:HH11	1:A:844:ARG:HG3	1.86	0.41
1:A:879:GLU:HA	1:A:882:ARG:HD2	2.03	0.41
1:A:1586:LEU:HD12	1:A:1586:LEU:HA	1.94	0.41
1:A:1785:ASP:OD1	1:A:1786:ILE:N	2.48	0.41
1:A:1979:PHE:CG	1:A:1993:ARG:HG2	2.55	0.41
1:A:2222:LEU:HD12	1:A:2261:ASP:HB2	2.03	0.41
1:A:2259:GLU:OE2	1:A:3806:ASN:ND2	2.54	0.41
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3122:ILE:HG12	1:A:3127:GLN:CG	2.50	0.41
1:A:4868:ASP:OD1	1:D:4874:ARG:NH1	2.53	0.41
1:B:20:VAL:HG12	1:B:216:PRO:HA	2.02	0.41
1:B:879:GLU:HA	1:B:882:ARG:HD2	2.03	0.41
1:B:1471:ASP:OD2	1:B:1474:GLY:N	2.51	0.41
1:B:2222:LEU:HD12	1:B:2261:ASP:HB2	2.03	0.41
1:B:3002:GLU:O	1:B:3005:THR:OG1	2.33	0.41
1:B:3929:THR:O	1:B:3933:GLN:HG2	2.21	0.41
1:C:227:TYR:CG	1:C:352:SER:HB3	2.55	0.41
1:C:436:LEU:HD13	1:C:518:ALA:HB2	2.03	0.41
1:C:881:ILE:O	1:C:885:LEU:HD23	2.20	0.41
1:C:1748:LEU:HD11	1:C:1853:GLU:HG3	2.02	0.41
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	2.02	0.41
1:C:3279:ASN:O	1:C:3283:ILE:HG12	2.21	0.41
1:C:3756:ALA:O	1:C:3760:LYS:HG3	2.20	0.41
1:D:456:LEU:HD23	1:D:456:LEU:HA	1.96	0.41
1:D:2258:ARG:NE	1:D:2258:ARG:HA	2.35	0.41
1:D:2259:GLU:OE2	1:D:3806:ASN:ND2	2.54	0.41
1:D:2539:GLU:HA	1:D:2584:MET:HE1	2.03	0.41
1:D:3122:ILE:HG12	1:D:3127:GLN:CG	2.50	0.41
1:D:3965:ILE:HG22	1:D:3969:LYS:HE2	2.03	0.41
2:G:85:ALA:O	2:G:94:PRO:HB3	2.21	0.41
1:A:20:VAL:HG12	1:A:216:PRO:HA	2.02	0.41
1:A:459:LEU:HD23	1:A:459:LEU:HA	1.93	0.41
1:A:620:CYS:HG	1:A:621:HIS:HD1	1.68	0.41
1:A:658:ASN:HB2	1:A:832:LEU:HD12	2.03	0.41
1:A:891:GLU:HG3	1:A:976:TYR:CE2	2.56	0.41
1:A:932:ASN:HA	1:A:935:MET:HG3	2.02	0.41
1:A:1080:GLY:O	1:A:1081:THR:OG1	2.32	0.41
1:A:1177:LEU:O	1:A:1180:GLU:HG3	2.21	0.41
1:A:1721:MET:SD	1:A:2127:ARG:NH1	2.93	0.41
1:A:2711:ILE:HD11	1:A:2783:LEU:HG	2.02	0.41
1:A:2736:LYS:HE2	1:A:2741:TRP:HB3	2.03	0.41
1:A:3187:LYS:HZ2	1:A:3191:GLU:HB3	1.84	0.41
1:A:3323:MET:HB3	1:A:3327:LYS:HZ1	1.86	0.41
1:A:4070:ALA:HB1	1:A:4078:LEU:HD13	2.03	0.41
1:B:35:LEU:HD23	1:B:51:SER:HA	2.03	0.41
1:B:245:LEU:HD12	1:B:245:LEU:HA	1.96	0.41
1:B:317:MET:HE2	1:B:317:MET:HB2	1.75	0.41
1:B:1799:VAL:HG21	1:B:1845:LEU:HD22	2.03	0.41
1:B:1973:ILE:HB	1:B:3608:LEU:HD21	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2222:LEU:HD23	1:B:2222:LEU:HA	1.88	0.41
1:B:2283:LYS:HB3	1:B:2283:LYS:HE2	1.87	0.41
1:B:2694:SER:HA	1:B:2702:ASN:O	2.21	0.41
1:B:3279:ASN:O	1:B:3283:ILE:HG12	2.21	0.41
1:B:4093:ASP:OD1	1:B:4094:ILE:HG13	2.21	0.41
1:B:4895:ASN:HA	1:B:4905:PHE:CD1	2.56	0.41
1:C:317:MET:HB3	1:C:318:ASP:H	1.75	0.41
1:C:658:ASN:HB2	1:C:832:LEU:HD12	2.03	0.41
1:C:879:GLU:HA	1:C:882:ARG:HD2	2.03	0.41
1:C:1177:LEU:O	1:C:1180:GLU:HG3	2.21	0.41
1:C:1256:PRO:HB2	1:C:1591:LEU:HG	2.03	0.41
1:C:2694:SER:HA	1:C:2702:ASN:O	2.21	0.41
1:C:2736:LYS:HE2	1:C:2741:TRP:HB3	2.03	0.41
1:C:3929:THR:O	1:C:3933:GLN:HG2	2.21	0.41
1:C:3965:ILE:HG22	1:C:3969:LYS:HE2	2.03	0.41
1:C:4059:THR:OG1	1:C:4062:GLU:HG3	2.21	0.41
1:C:4895:ASN:HA	1:C:4905:PHE:CD1	2.56	0.41
1:D:317:MET:HB3	1:D:318:ASP:H	1.75	0.41
1:D:801:ARG:HA	1:D:1617:TRP:O	2.20	0.41
1:D:844:ARG:HG3	1:D:844:ARG:HH11	1.86	0.41
1:D:1304:LEU:HD23	1:D:1304:LEU:HA	1.84	0.41
1:D:1705:LEU:HD12	1:D:1705:LEU:HA	1.90	0.41
1:D:2071:GLN:CD	1:D:3648:GLY:HA3	2.41	0.41
1:D:2303:ARG:HE	1:D:2401:ARG:NE	2.19	0.41
1:D:3215:MET:O	1:D:3219:VAL:HG13	2.21	0.41
1:D:3279:ASN:O	1:D:3283:ILE:HG12	2.21	0.41
1:D:4070:ALA:HB1	1:D:4078:LEU:HD13	2.03	0.41
1:D:4093:ASP:OD1	1:D:4094:ILE:HG13	2.21	0.41
1:D:4651:ARG:HG2	1:D:4651:ARG:NH1	2.34	0.41
1:D:4895:ASN:HA	1:D:4905:PHE:CD1	2.56	0.41
2:F:85:ALA:O	2:F:94:PRO:HB3	2.21	0.41
1:A:713:TRP:HH2	1:A:1251:LEU:HD21	1.86	0.41
1:A:1471:ASP:OD2	1:A:1474:GLY:N	2.51	0.41
1:A:1552:VAL:HG12	1:A:1553:PHE:HD1	1.87	0.41
1:A:2071:GLN:CD	1:A:3648:GLY:HA3	2.41	0.41
1:A:2426:LEU:HD23	1:B:143:LEU:HD22	2.02	0.41
1:A:3279:ASN:O	1:A:3283:ILE:HG12	2.21	0.41
1:B:907:VAL:O	1:B:916:PRO:HD3	2.21	0.41
1:B:963:LYS:HD2	1:B:979:ALA:O	2.21	0.41
1:B:1256:PRO:HB2	1:B:1591:LEU:HG	2.03	0.41
1:B:1839:LEU:HD12	1:B:1839:LEU:HA	1.93	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2666:LEU:HB3	1:B:2667:PRO:HD3	2.02	0.41
1:B:2718:GLU:OE2	1:B:2722:ASN:ND2	2.54	0.41
1:B:4082:GLU:HA	1:B:4085:LYS:HE3	2.03	0.41
1:C:712:GLU:O	1:C:838:ARG:HG3	2.21	0.41
1:C:2878:THR:HG23	1:C:2881:GLU:H	1.86	0.41
1:C:2937:HIS:HA	1:C:3014:LEU:HD11	2.02	0.41
1:D:336:GLU:H	1:D:336:GLU:HG2	1.74	0.41
1:D:658:ASN:HB2	1:D:832:LEU:HD12	2.03	0.41
1:D:824:GLU:HA	1:D:1020:ILE:HD12	2.02	0.41
1:D:1415:ASP:OD1	1:D:1416:ASP:N	2.54	0.41
1:D:1686:LEU:HD22	1:D:1790:LYS:HZ2	1.84	0.41
1:D:1973:ILE:HB	1:D:3608:LEU:HD21	2.03	0.41
1:D:2114:GLU:HG2	1:D:2115:ASP:N	2.35	0.41
1:D:2718:GLU:OE2	1:D:2722:ASN:ND2	2.54	0.41
1:D:2967:VAL:O	1:D:2970:LEU:HG	2.20	0.41
1:D:4694:LEU:HA	1:D:4697:VAL:HG12	2.02	0.41
1:A:35:LEU:HD23	1:A:51:SER:HA	2.03	0.40
1:A:308:LEU:HD13	1:A:393:MET:HG3	2.03	0.40
1:A:2443:PRO:HD3	1:A:2512:MET:HG2	2.03	0.40
1:A:2878:THR:HG23	1:A:2881:GLU:H	1.86	0.40
1:A:2967:VAL:O	1:A:2970:LEU:HG	2.20	0.40
1:A:3215:MET:O	1:A:3219:VAL:HG13	2.21	0.40
1:A:4757:LEU:O	1:A:4761:THR:HG23	2.21	0.40
1:B:483:LYS:HE2	1:B:483:LYS:HB2	1.80	0.40
1:B:844:ARG:HH11	1:B:844:ARG:HG3	1.86	0.40
1:B:1552:VAL:HG12	1:B:1553:PHE:HD1	1.87	0.40
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	2.02	0.40
1:B:2764:SER:HB3	1:B:2767:GLU:HG3	2.03	0.40
1:B:3187:LYS:HZ2	1:B:3191:GLU:HB3	1.85	0.40
1:B:4757:LEU:O	1:B:4761:THR:HG23	2.21	0.40
1:B:4795:LYS:HA	1:B:4795:LYS:HD2	1.81	0.40
1:C:35:LEU:HD23	1:C:51:SER:HA	2.03	0.40
1:C:1040:ASP:HA	1:C:1043:LYS:HZ3	1.85	0.40
1:C:1300:MET:HE2	1:C:1300:MET:HB3	1.86	0.40
1:C:1799:VAL:HG21	1:C:1845:LEU:HD22	2.03	0.40
1:C:2443:PRO:HD3	1:C:2512:MET:HG2	2.03	0.40
1:C:3274:ASN:HA	1:C:3277:LEU:HG	2.03	0.40
1:C:4575:LEU:HD23	1:C:4575:LEU:HA	1.91	0.40
1:D:114:LEU:HB2	1:D:117:HIS:ND1	2.35	0.40
1:D:674:TYR:OH	1:D:676:GLU:OE2	2.37	0.40
1:D:891:GLU:HG3	1:D:976:TYR:CE2	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1829:LEU:HD12	1:D:1829:LEU:HA	1.97	0.40
1:D:2443:PRO:HD3	1:D:2512:MET:HG2	2.03	0.40
1:D:2716:LYS:HZ1	1:D:2791:ARG:HB2	1.86	0.40
2:G:19:LYS:HB2	2:G:19:LYS:HE3	1.80	0.40
1:A:233:VAL:HG12	1:A:274:LEU:HD22	2.04	0.40
1:A:244:CYS:SG	1:A:267:VAL:HG13	2.62	0.40
1:A:659:ILE:HD13	1:A:822:CYS:HB3	2.03	0.40
1:A:1031:ARG:HD2	1:A:1042:THR:HG21	2.01	0.40
1:A:1988:CYS:HA	1:A:1989:PRO:HD3	1.95	0.40
1:A:2114:GLU:HG2	1:A:2115:ASP:N	2.35	0.40
1:A:2764:SER:HB3	1:A:2767:GLU:HG3	2.03	0.40
1:A:3282:LYS:HA	1:A:3285:TYR:CD2	2.57	0.40
1:A:4800:ASP:OD1	1:A:4801:THR:N	2.55	0.40
1:B:658:ASN:HB2	1:B:832:LEU:HD12	2.03	0.40
1:B:732:LEU:HD23	1:B:732:LEU:HA	1.89	0.40
1:B:1586:LEU:HD12	1:B:1586:LEU:HA	1.94	0.40
1:B:3304:GLN:OE1	1:B:3308:ASN:ND2	2.48	0.40
1:B:3323:MET:HB3	1:B:3327:LYS:HZ3	1.86	0.40
1:B:3975:GLN:O	1:B:3979:VAL:HG23	2.21	0.40
1:C:114:LEU:HB2	1:C:117:HIS:ND1	2.35	0.40
1:C:419:ILE:HD13	1:C:492:GLU:HG3	2.03	0.40
1:C:891:GLU:HG3	1:C:976:TYR:CE2	2.56	0.40
1:C:963:LYS:HD2	1:C:979:ALA:O	2.21	0.40
1:C:2652:LEU:HD12	1:C:2652:LEU:HA	1.91	0.40
1:C:3074:ASN:OD1	1:C:3075:LEU:N	2.55	0.40
1:C:3213:LYS:HA	1:C:3216:GLU:CD	2.42	0.40
1:C:3213:LYS:O	1:C:3217:GLU:OE1	2.39	0.40
1:C:3319:PHE:O	1:C:3323:MET:HG2	2.21	0.40
1:C:4024:LYS:HB2	1:C:4088:HIS:CE1	2.57	0.40
1:C:4055:HIS:O	1:C:4057:HIS:ND1	2.54	0.40
1:D:436:LEU:HD13	1:D:518:ALA:HB2	2.03	0.40
1:D:1177:LEU:O	1:D:1180:GLU:HG3	2.21	0.40
1:D:1473:LYS:NZ	1:D:1475:LYS:HB2	2.36	0.40
1:D:1505:LEU:HD23	1:D:1506:GLU:N	2.37	0.40
1:D:2742:ILE:HG23	1:D:2753:VAL:HG23	2.04	0.40
1:D:2954:PHE:CD1	1:D:2955:PRO:HD2	2.56	0.40
1:D:3130:CYS:HB3	1:D:3162:PHE:CZ	2.56	0.40
1:D:3282:LYS:HA	1:D:3285:TYR:CD2	2.57	0.40
1:D:3929:THR:O	1:D:3933:GLN:HG2	2.21	0.40
1:A:892:LEU:HD21	1:A:980:PRO:CD	2.51	0.40
1:A:1272:ARG:HH22	1:A:1584:PRO:HA	1.87	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1415:ASP:OD1	1:A:1416:ASP:N	2.54	0.40
1:A:1973:ILE:HB	1:A:3608:LEU:HD21	2.03	0.40
1:A:2232:PRO:C	1:A:2234:MET:H	2.24	0.40
1:A:2742:ILE:HG23	1:A:2753:VAL:HG23	2.03	0.40
1:A:3033:LEU:HD23	1:A:3033:LEU:HA	1.86	0.40
1:A:3213:LYS:O	1:A:3216:GLU:HG2	2.20	0.40
1:B:2443:PRO:HD3	1:B:2512:MET:HG2	2.03	0.40
1:B:3212:GLU:O	1:B:3216:GLU:OE1	2.40	0.40
1:C:801:ARG:HA	1:C:1617:TRP:O	2.20	0.40
1:C:907:VAL:O	1:C:916:PRO:HD3	2.21	0.40
1:C:962:LYS:HZ1	1:C:982:ASP:H	1.68	0.40
1:C:1505:LEU:HD23	1:C:1506:GLU:N	2.37	0.40
1:C:1973:ILE:HB	1:C:3608:LEU:HD21	2.03	0.40
1:C:2303:ARG:HE	1:C:2401:ARG:NE	2.19	0.40
1:C:2539:GLU:HA	1:C:2584:MET:HE1	2.02	0.40
1:C:2573:LEU:HD12	1:C:2573:LEU:HA	1.88	0.40
1:C:2651:ALA:O	1:C:2655:LYS:HB2	2.21	0.40
1:C:3130:CYS:HB3	1:C:3162:PHE:CZ	2.56	0.40
1:C:3981:MET:HE3	1:C:3981:MET:HB3	1.89	0.40
1:C:4002:MET:HB3	1:C:4002:MET:HE2	1.89	0.40
1:D:244:CYS:SG	1:D:267:VAL:HG13	2.62	0.40
1:D:419:ILE:HD13	1:D:492:GLU:HG3	2.03	0.40
1:D:1256:PRO:HB2	1:D:1591:LEU:HG	2.03	0.40
1:D:2736:LYS:HE2	1:D:2741:TRP:HB3	2.03	0.40
1:D:2764:SER:HB3	1:D:2767:GLU:HG3	2.03	0.40
1:D:2965:LYS:HA	1:D:2965:LYS:HD3	1.80	0.40
1:D:3019:ILE:HG13	1:D:3020:SER:N	2.36	0.40
1:D:3124:GLU:C	1:D:3126:VAL:H	2.25	0.40
1:D:3319:PHE:O	1:D:3323:MET:HG2	2.22	0.40
1:D:4575:LEU:HD23	1:D:4575:LEU:HA	1.90	0.40
1:A:192:LEU:HD12	1:A:192:LEU:HA	1.91	0.40
1:A:963:LYS:HD2	1:A:979:ALA:O	2.21	0.40
1:A:2790:GLU:O	1:A:2902:ALA:N	2.42	0.40
1:A:3130:CYS:HB3	1:A:3162:PHE:CZ	2.56	0.40
1:A:4038:ASP:HB3	1:A:4040:LYS:NZ	2.37	0.40
1:A:4196:THR:HG22	1:A:4200:MET:SD	2.62	0.40
1:A:4567:TYR:O	1:A:4567:TYR:CD2	2.75	0.40
1:A:4698:LEU:HD13	1:D:4262:LYS:HG3	2.03	0.40
1:B:680:ASP:N	1:B:799:LYS:O	2.54	0.40
1:B:891:GLU:HG3	1:B:976:TYR:CE2	2.56	0.40
1:B:1415:ASP:OD1	1:B:1416:ASP:N	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2604:LYS:HZ2	1:B:2664:LEU:HD22	1.86	0.40
1:B:2693:SER:O	1:B:2702:ASN:HB3	2.22	0.40
1:B:3215:MET:O	1:B:3219:VAL:HG13	2.21	0.40
1:B:3322:LEU:O	1:B:3326:LEU:HG	2.22	0.40
1:C:20:VAL:HG12	1:C:216:PRO:HA	2.02	0.40
1:C:262:TYR:HB2	1:C:389:ARG:HG3	2.04	0.40
1:C:932:ASN:O	1:C:935:MET:HG3	2.21	0.40
1:C:2090:ARG:HE	1:C:2090:ARG:HB3	1.51	0.40
1:C:2771:TYR:O	1:C:2774:PRO:HD2	2.20	0.40
1:C:2954:PHE:CD1	1:C:2955:PRO:HD2	2.56	0.40
1:C:4196:THR:HG22	1:C:4200:MET:SD	2.62	0.40
1:D:233:VAL:HG12	1:D:274:LEU:HD22	2.04	0.40
1:D:262:TYR:HB2	1:D:389:ARG:HG3	2.04	0.40
1:D:963:LYS:HD2	1:D:979:ALA:O	2.21	0.40
1:D:1799:VAL:HG21	1:D:1845:LEU:HD22	2.03	0.40
1:D:2573:LEU:HD12	1:D:2573:LEU:HA	1.88	0.40
1:D:3213:LYS:O	1:D:3217:GLU:OE1	2.39	0.40
1:D:3274:ASN:HA	1:D:3277:LEU:HG	2.03	0.40
1:D:3322:LEU:O	1:D:3326:LEU:HG	2.22	0.40
1:D:4046:ARG:HG2	1:D:4076:GLU:OE2	2.21	0.40
1:A:1256:PRO:HB2	1:A:1591:LEU:HG	2.03	0.40
1:A:1473:LYS:NZ	1:A:1475:LYS:HB2	2.36	0.40
1:A:2487:LEU:HD12	1:A:2487:LEU:HA	1.94	0.40
1:A:2959:GLU:OE1	1:A:2959:GLU:N	2.53	0.40
1:A:3213:LYS:HA	1:A:3216:GLU:CD	2.42	0.40
1:A:3222:ALA:HA	1:A:3283:ILE:HG22	2.04	0.40
1:A:3965:ILE:HG22	1:A:3969:LYS:HE2	2.03	0.40
1:B:262:TYR:HB2	1:B:389:ARG:HG3	2.04	0.40
1:B:436:LEU:HD13	1:B:518:ALA:HB2	2.03	0.40
1:B:521:GLU:H	1:B:521:GLU:CD	2.24	0.40
1:B:1272:ARG:HH22	1:B:1584:PRO:HA	1.87	0.40
1:B:1473:LYS:NZ	1:B:1475:LYS:HB2	2.36	0.40
1:B:2736:LYS:HE2	1:B:2741:TRP:HB3	2.03	0.40
1:B:4046:ARG:HG2	1:B:4076:GLU:OE2	2.21	0.40
1:C:844:ARG:HG3	1:C:844:ARG:HH11	1.86	0.40
1:C:1552:VAL:HG12	1:C:1553:PHE:HD1	1.87	0.40
1:C:2252:GLU:HB2	1:C:3819:MET:SD	2.62	0.40
1:C:3124:GLU:C	1:C:3126:VAL:H	2.25	0.40
1:C:3215:MET:O	1:C:3219:VAL:HG13	2.21	0.40
1:C:3975:GLN:O	1:C:3979:VAL:HG23	2.21	0.40
1:C:4800:ASP:OD1	1:C:4801:THR:N	2.55	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2322:ARG:HA	1:D:2325:ILE:HG12	2.04	0.40
1:D:2651:ALA:O	1:D:2655:LYS:HB2	2.21	0.40
1:D:3173:THR:HA	1:D:3176:ASP:OD2	2.21	0.40
1:D:3213:LYS:O	1:D:3216:GLU:HG2	2.20	0.40
1:D:3295:TRP:O	1:D:3299:LEU:HG	2.22	0.40
1:D:3994:THR:O	1:D:3998:GLN:HG3	2.22	0.40
1:D:4059:THR:OG1	1:D:4062:GLU:HG3	2.21	0.40
2:H:85:ALA:O	2:H:94:PRO:HB3	2.21	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	4198/4967 (84%)	4097 (98%)	99 (2%)	2 (0%)	100	100
1	B	4198/4967 (84%)	4099 (98%)	97 (2%)	2 (0%)	100	100
1	C	4198/4967 (84%)	4099 (98%)	97 (2%)	2 (0%)	100	100
1	D	4198/4967 (84%)	4098 (98%)	98 (2%)	2 (0%)	100	100
2	E	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	F	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	G	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	H	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
All	All	17212/20300 (85%)	16802 (98%)	402 (2%)	8 (0%)	100	100

All (8) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	2988	ARG
1	A	4641	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	2988	ARG
1	B	4641	PRO
1	C	2988	ARG
1	C	4641	PRO
1	D	2988	ARG
1	D	4641	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	3708/4358 (85%)	3676 (99%)	32 (1%)	75 86
1	B	3708/4358 (85%)	3676 (99%)	32 (1%)	75 86
1	C	3708/4358 (85%)	3676 (99%)	32 (1%)	75 86
1	D	3708/4358 (85%)	3676 (99%)	32 (1%)	75 86
2	E	88/89 (99%)	86 (98%)	2 (2%)	45 67
2	F	88/89 (99%)	86 (98%)	2 (2%)	45 67
2	G	88/89 (99%)	86 (98%)	2 (2%)	45 67
2	H	88/89 (99%)	86 (98%)	2 (2%)	45 67
All	All	15184/17788 (85%)	15048 (99%)	136 (1%)	74 86

All (136) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	317	MET
1	A	344	LYS
1	A	882	ARG
1	A	929	ARG
1	A	960	LYS
1	A	995	MET
1	A	999	LEU
1	A	1044	LYS
1	A	1300	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1564	MET
1	A	2172	MET
1	A	2656	LYS
1	A	2681	MET
1	A	2695	MET
1	A	2766	LYS
1	A	2772	ARG
1	A	2791	ARG
1	A	2884	LYS
1	A	2899	ASN
1	A	2950	LYS
1	A	3018	ARG
1	A	3057	LEU
1	A	3072	MET
1	A	3123	LEU
1	A	3190	ARG
1	A	3215	MET
1	A	3227	ARG
1	A	3248	ARG
1	A	3316	LYS
1	A	4002	MET
1	A	4256	MET
1	A	4504	MET
2	E	18	LYS
2	E	45	LYS
1	B	317	MET
1	B	344	LYS
1	B	882	ARG
1	B	929	ARG
1	B	960	LYS
1	B	995	MET
1	B	999	LEU
1	B	1044	LYS
1	B	1300	MET
1	B	1564	MET
1	B	2172	MET
1	B	2656	LYS
1	B	2681	MET
1	B	2695	MET
1	B	2766	LYS
1	B	2772	ARG
1	B	2791	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	2884	LYS
1	B	2899	ASN
1	B	2950	LYS
1	B	3018	ARG
1	B	3057	LEU
1	B	3072	MET
1	B	3123	LEU
1	B	3190	ARG
1	B	3215	MET
1	B	3227	ARG
1	B	3248	ARG
1	B	3316	LYS
1	B	4002	MET
1	B	4256	MET
1	B	4504	MET
1	C	317	MET
1	C	344	LYS
1	C	882	ARG
1	C	929	ARG
1	C	960	LYS
1	C	995	MET
1	C	999	LEU
1	C	1044	LYS
1	C	1300	MET
1	C	1564	MET
1	C	2172	MET
1	C	2656	LYS
1	C	2681	MET
1	C	2695	MET
1	C	2766	LYS
1	C	2772	ARG
1	C	2791	ARG
1	C	2884	LYS
1	C	2899	ASN
1	C	2950	LYS
1	C	3018	ARG
1	C	3057	LEU
1	C	3072	MET
1	C	3123	LEU
1	C	3190	ARG
1	C	3215	MET
1	C	3227	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	3248	ARG
1	C	3316	LYS
1	C	4002	MET
1	C	4256	MET
1	C	4504	MET
1	D	317	MET
1	D	344	LYS
1	D	882	ARG
1	D	929	ARG
1	D	960	LYS
1	D	995	MET
1	D	999	LEU
1	D	1044	LYS
1	D	1300	MET
1	D	1564	MET
1	D	2172	MET
1	D	2656	LYS
1	D	2681	MET
1	D	2695	MET
1	D	2766	LYS
1	D	2772	ARG
1	D	2791	ARG
1	D	2884	LYS
1	D	2899	ASN
1	D	2950	LYS
1	D	3018	ARG
1	D	3057	LEU
1	D	3072	MET
1	D	3123	LEU
1	D	3190	ARG
1	D	3215	MET
1	D	3227	ARG
1	D	3248	ARG
1	D	3316	LYS
1	D	4002	MET
1	D	4256	MET
1	D	4504	MET
2	F	18	LYS
2	F	45	LYS
2	G	18	LYS
2	G	45	LYS
2	H	18	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	H	45	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (39) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	29	HIS
1	A	604	HIS
1	A	658	ASN
1	A	2704	GLN
1	A	3111	HIS
1	A	3114	GLN
1	A	3178	HIS
1	A	3274	ASN
1	A	4055	HIS
2	E	26	HIS
1	B	29	HIS
1	B	658	ASN
1	B	2704	GLN
1	B	3111	HIS
1	B	3114	GLN
1	B	3178	HIS
1	B	3274	ASN
1	B	4055	HIS
1	C	29	HIS
1	C	604	HIS
1	C	658	ASN
1	C	2704	GLN
1	C	3111	HIS
1	C	3114	GLN
1	C	3178	HIS
1	C	3274	ASN
1	C	4055	HIS
1	D	29	HIS
1	D	604	HIS
1	D	658	ASN
1	D	2704	GLN
1	D	3111	HIS
1	D	3114	GLN
1	D	3178	HIS
1	D	3274	ASN
1	D	4055	HIS
2	F	26	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	G	26	HIS
2	H	26	HIS

5.3.3 RNA (i)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains (i)

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

5.5 Carbohydrates (i)

There are no oligosaccharides 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	$\#\|Z\| > 2$
4	ATP	B	5003	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	A	5002	-	28,33,33	0.68	0	34,52,52	0.69	1 (2%)
4	ATP	B	5002	-	28,33,33	0.67	0	34,52,52	0.69	1 (2%)
4	ATP	A	5003	-	28,33,33	0.63	0	34,52,52	0.58	1 (2%)
4	ATP	D	5002	-	28,33,33	0.68	0	34,52,52	0.70	2 (5%)
4	ATP	C	5003	-	28,33,33	0.62	0	34,52,52	0.59	1 (2%)
4	ATP	D	5003	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	C	5002	-	28,33,33	0.68	0	34,52,52	0.69	1 (2%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	B	5003	-	-	7/18/38/38	0/3/3/3
4	ATP	A	5002	-	-	8/18/38/38	0/3/3/3
4	ATP	B	5002	-	-	8/18/38/38	0/3/3/3
4	ATP	A	5003	-	-	7/18/38/38	0/3/3/3
4	ATP	D	5002	-	-	8/18/38/38	0/3/3/3
4	ATP	C	5003	-	-	7/18/38/38	0/3/3/3
4	ATP	D	5003	-	-	7/18/38/38	0/3/3/3
4	ATP	C	5002	-	-	8/18/38/38	0/3/3/3

There are no bond length outliers.

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	C	5003	ATP	C5-C6-N6	2.34	123.87	120.31
4	B	5003	ATP	C5-C6-N6	2.32	123.84	120.31
4	C	5002	ATP	C5-C6-N6	2.31	123.84	120.31
4	A	5002	ATP	C5-C6-N6	2.31	123.82	120.31
4	D	5002	ATP	C5-C6-N6	2.30	123.81	120.31
4	D	5003	ATP	C5-C6-N6	2.29	123.80	120.31
4	A	5003	ATP	C5-C6-N6	2.29	123.80	120.31
4	B	5002	ATP	C5-C6-N6	2.27	123.76	120.31
4	D	5002	ATP	C4'-O4'-C1'	-2.01	108.09	109.92

There are no chirality outliers.

All (60) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	C5'-O5'-PA-O1A
4	A	5002	ATP	C5'-O5'-PA-O3A
4	A	5003	ATP	C5'-O5'-PA-O1A
4	A	5003	ATP	C5'-O5'-PA-O2A
4	A	5003	ATP	C5'-O5'-PA-O3A
4	A	5003	ATP	O4'-C4'-C5'-O5'
4	B	5002	ATP	C5'-O5'-PA-O1A
4	B	5002	ATP	C5'-O5'-PA-O3A
4	B	5003	ATP	C5'-O5'-PA-O1A
4	B	5003	ATP	C5'-O5'-PA-O2A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
4	B	5003	ATP	C5'-O5'-PA-O3A
4	B	5003	ATP	O4'-C4'-C5'-O5'
4	C	5002	ATP	C5'-O5'-PA-O1A
4	C	5002	ATP	C5'-O5'-PA-O3A
4	C	5003	ATP	C5'-O5'-PA-O1A
4	C	5003	ATP	C5'-O5'-PA-O2A
4	C	5003	ATP	C5'-O5'-PA-O3A
4	C	5003	ATP	O4'-C4'-C5'-O5'
4	D	5002	ATP	C5'-O5'-PA-O1A
4	D	5002	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	C5'-O5'-PA-O1A
4	D	5003	ATP	C5'-O5'-PA-O2A
4	D	5003	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	C3'-C4'-C5'-O5'
4	B	5003	ATP	C3'-C4'-C5'-O5'
4	C	5003	ATP	C3'-C4'-C5'-O5'
4	D	5003	ATP	C3'-C4'-C5'-O5'
4	B	5003	ATP	PA-O3A-PB-O3B
4	D	5003	ATP	PA-O3A-PB-O3B
4	A	5002	ATP	PB-O3A-PA-O1A
4	B	5002	ATP	PB-O3A-PA-O1A
4	C	5002	ATP	PB-O3A-PA-O1A
4	D	5002	ATP	PB-O3A-PA-O1A
4	A	5003	ATP	PA-O3A-PB-O3B
4	C	5003	ATP	PA-O3A-PB-O3B
4	A	5002	ATP	PB-O3A-PA-O5'
4	A	5003	ATP	PB-O3A-PA-O5'
4	B	5002	ATP	PB-O3A-PA-O5'
4	B	5003	ATP	PB-O3A-PA-O5'
4	C	5002	ATP	PB-O3A-PA-O5'
4	C	5003	ATP	PB-O3A-PA-O5'
4	D	5002	ATP	PB-O3A-PA-O5'
4	D	5003	ATP	PB-O3A-PA-O5'
4	A	5002	ATP	C5'-O5'-PA-O2A
4	B	5002	ATP	C5'-O5'-PA-O2A
4	C	5002	ATP	C5'-O5'-PA-O2A
4	D	5002	ATP	C5'-O5'-PA-O2A
4	A	5002	ATP	PG-O3B-PB-O3A
4	B	5002	ATP	PG-O3B-PB-O3A
4	C	5002	ATP	PG-O3B-PB-O3A
4	D	5002	ATP	PG-O3B-PB-O3A

Continued on next page...

Continued from previous page...

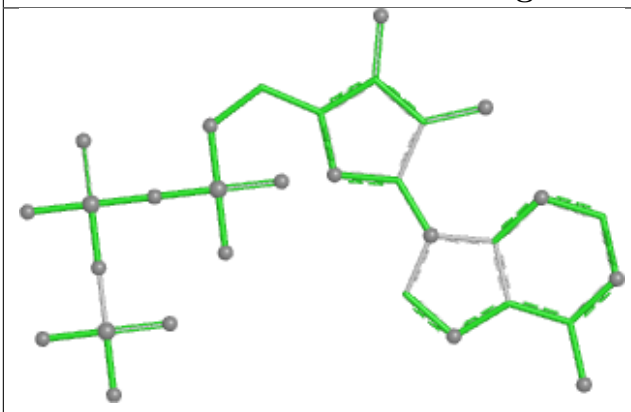
Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	PG-O3B-PB-O1B
4	A	5002	ATP	PG-O3B-PB-O2B
4	B	5002	ATP	PG-O3B-PB-O1B
4	B	5002	ATP	PG-O3B-PB-O2B
4	C	5002	ATP	PG-O3B-PB-O1B
4	C	5002	ATP	PG-O3B-PB-O2B
4	D	5002	ATP	PG-O3B-PB-O1B
4	D	5002	ATP	PG-O3B-PB-O2B

There are no ring outliers.

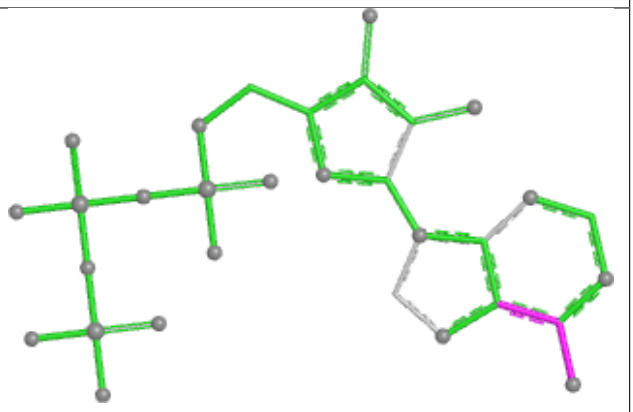
No monomer is involved in short contacts.

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.

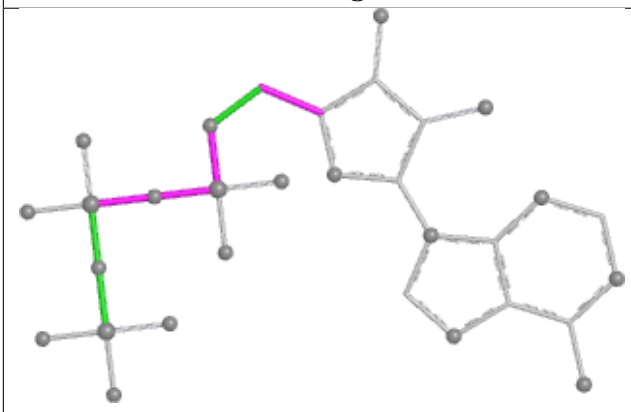
Ligand ATP B 5003



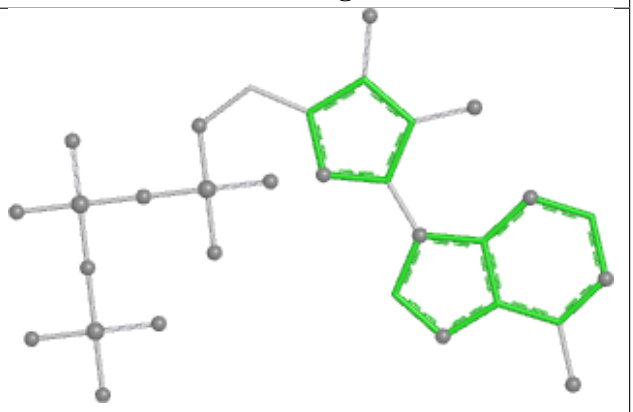
Bond lengths



Bond angles

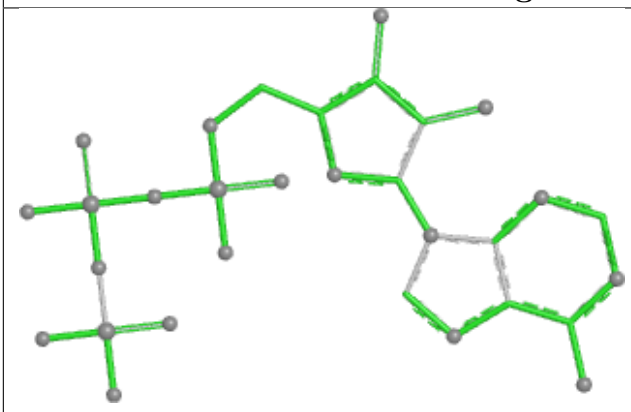


Torsions

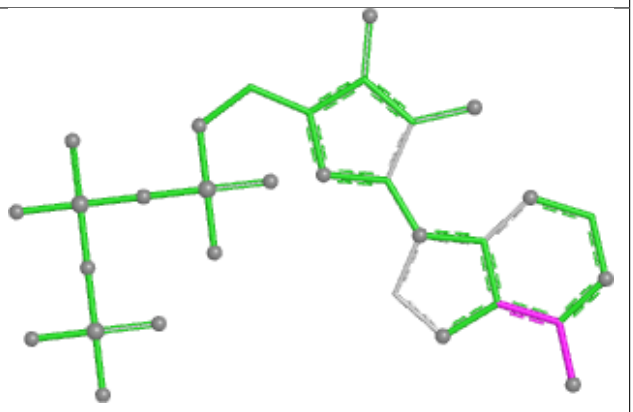


Rings

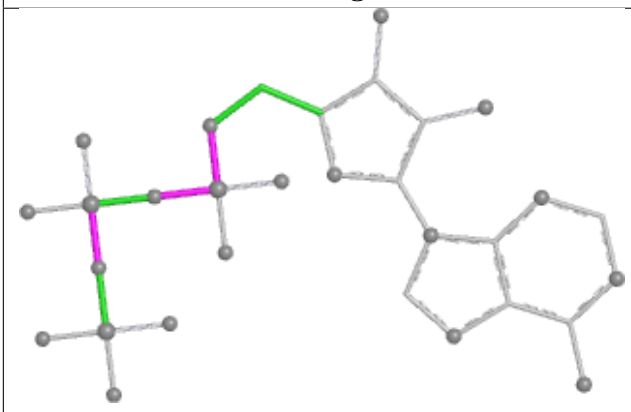
Ligand ATP A 5002



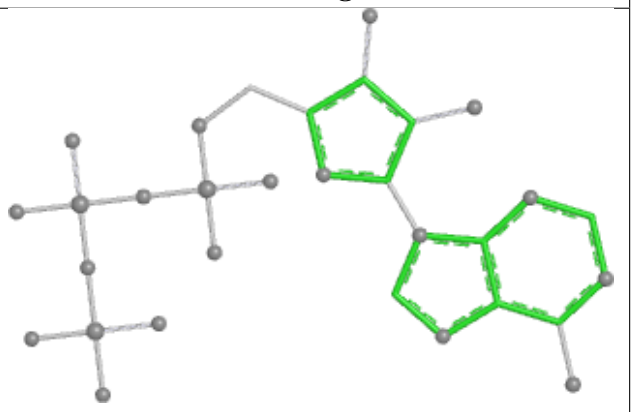
Bond lengths



Bond angles

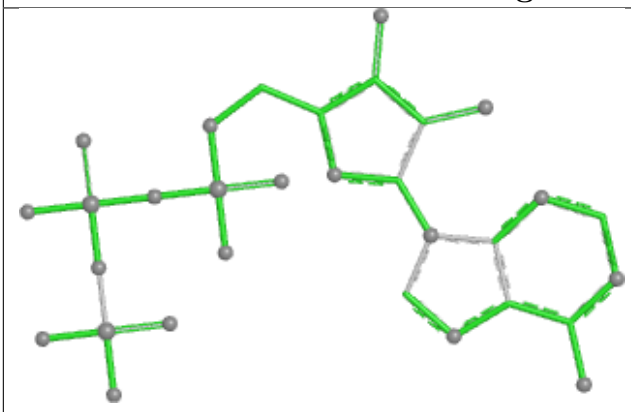


Torsions

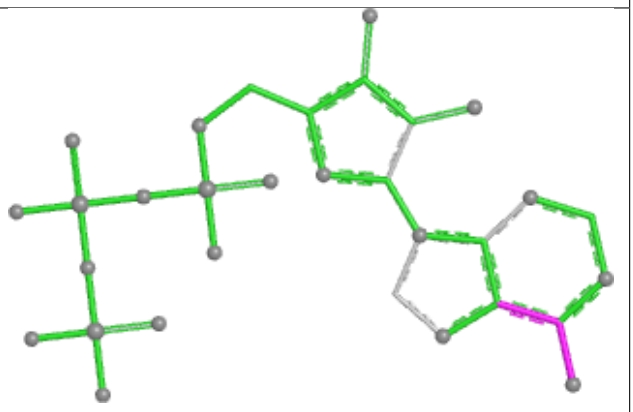


Rings

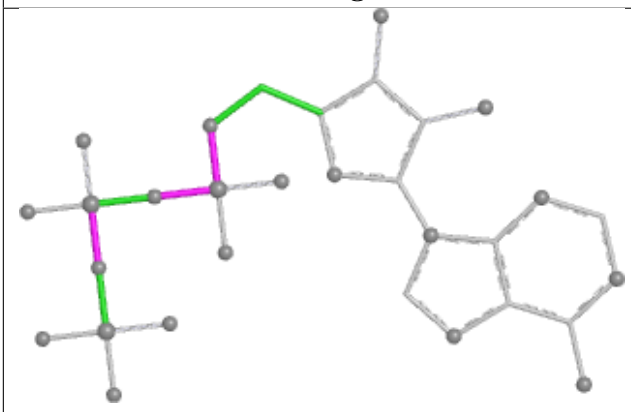
Ligand ATP B 5002



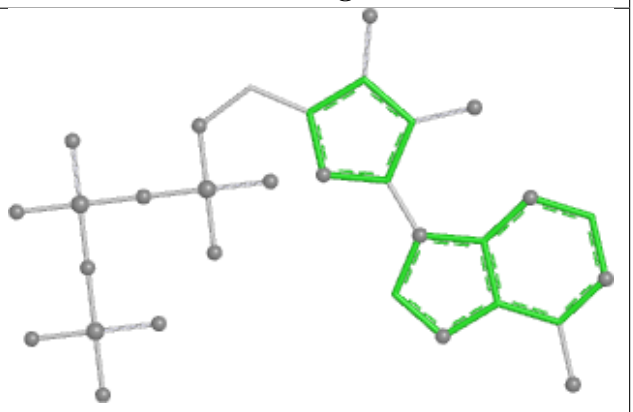
Bond lengths



Bond angles

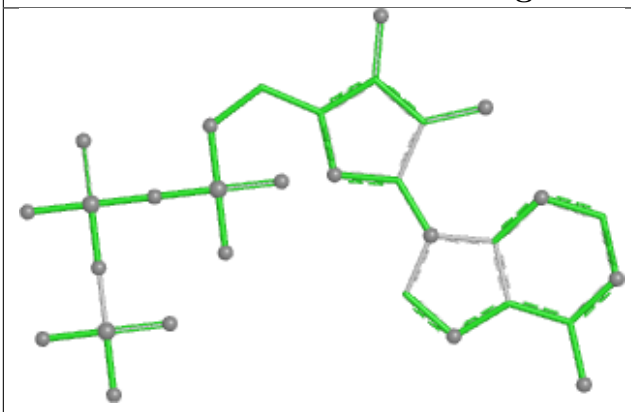


Torsions

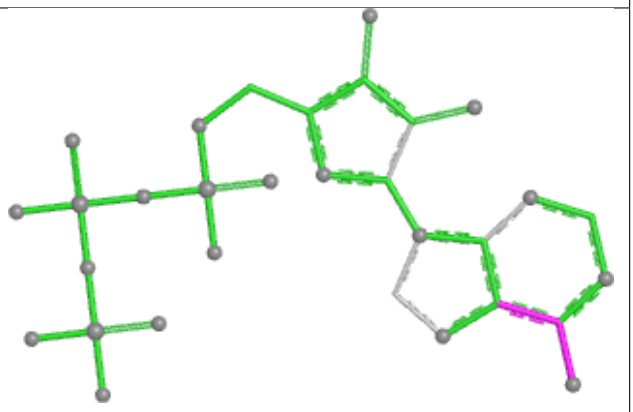


Rings

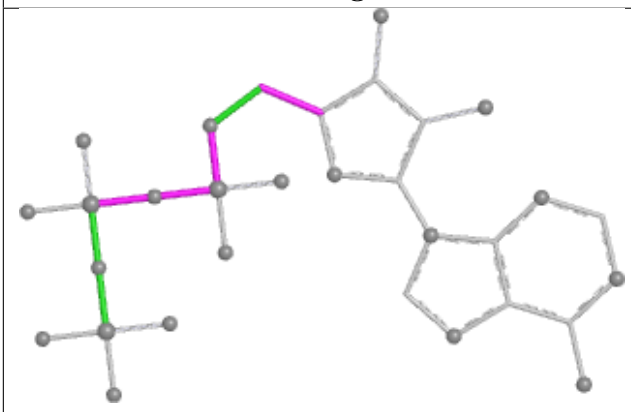
Ligand ATP A 5003



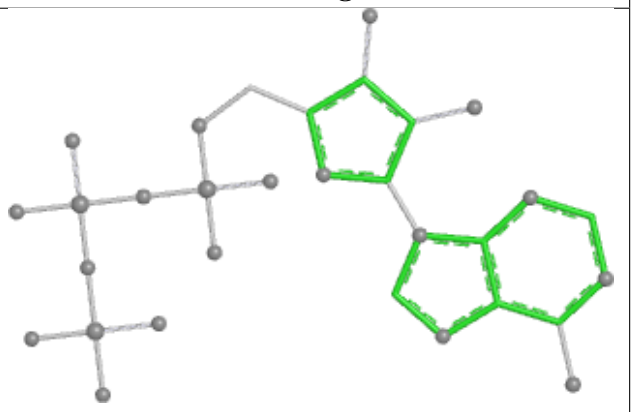
Bond lengths



Bond angles

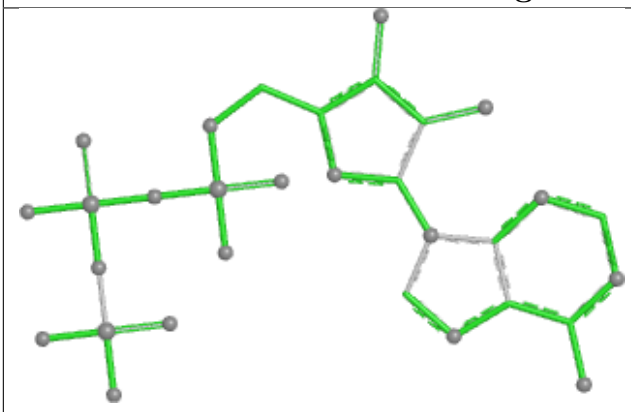


Torsions

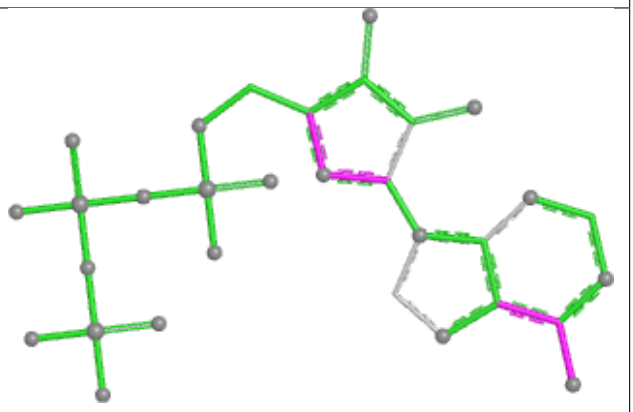


Rings

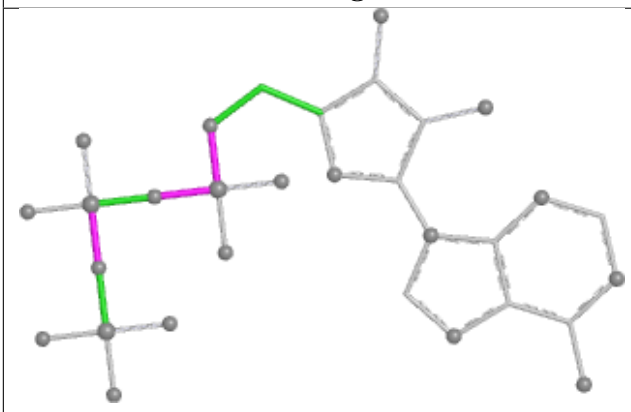
Ligand ATP D 5002



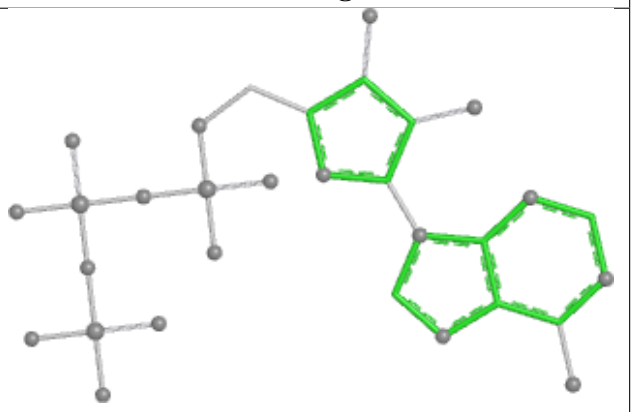
Bond lengths



Bond angles

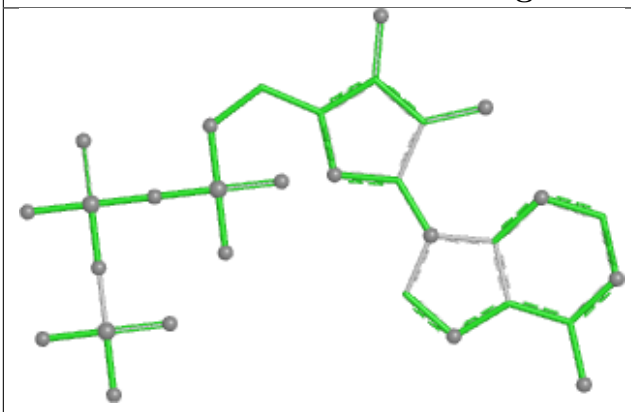


Torsions

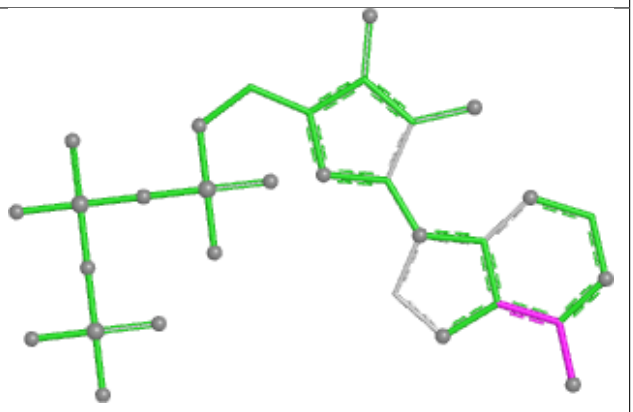


Rings

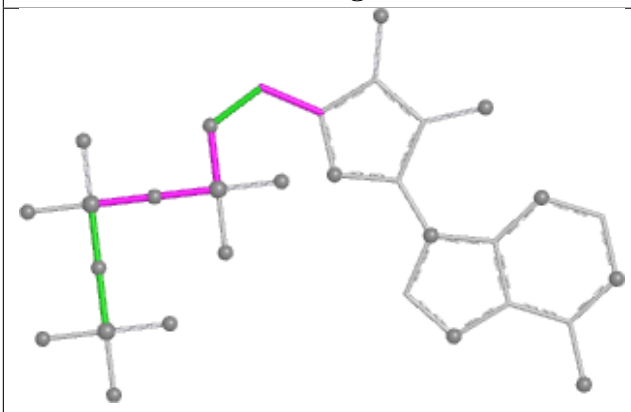
Ligand ATP C 5003



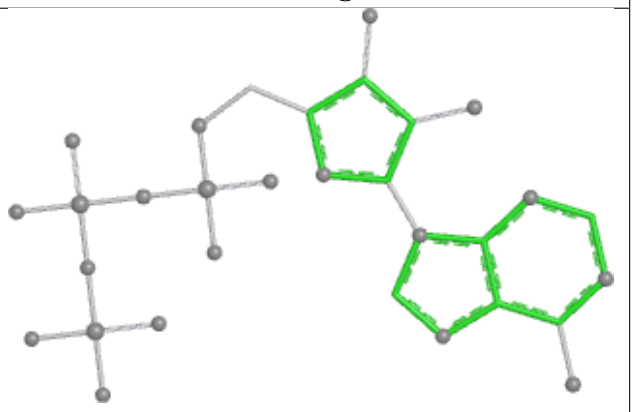
Bond lengths



Bond angles

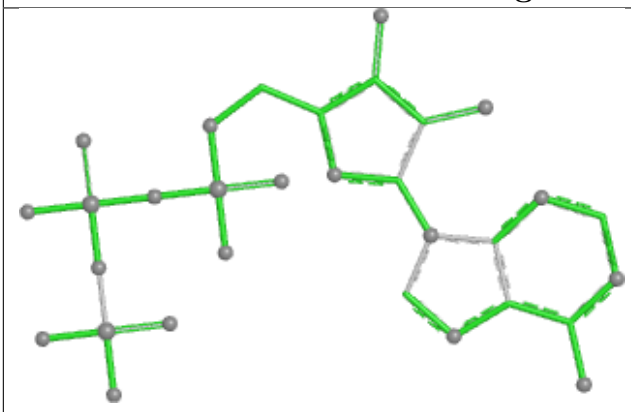


Torsions

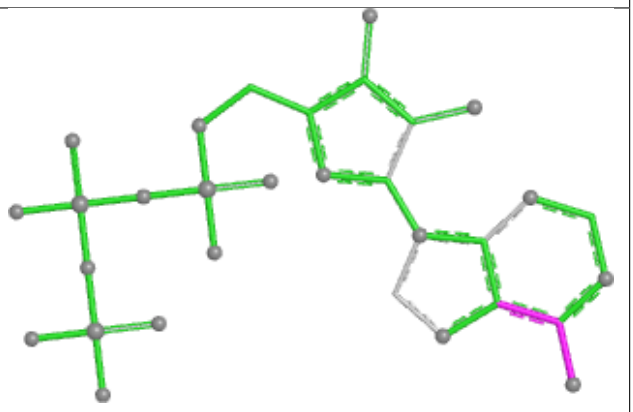


Rings

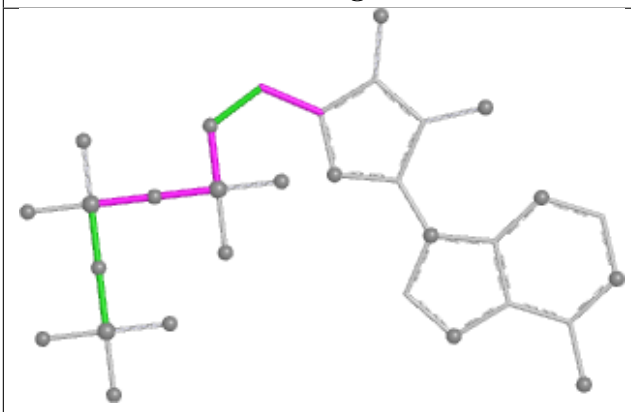
Ligand ATP D 5003



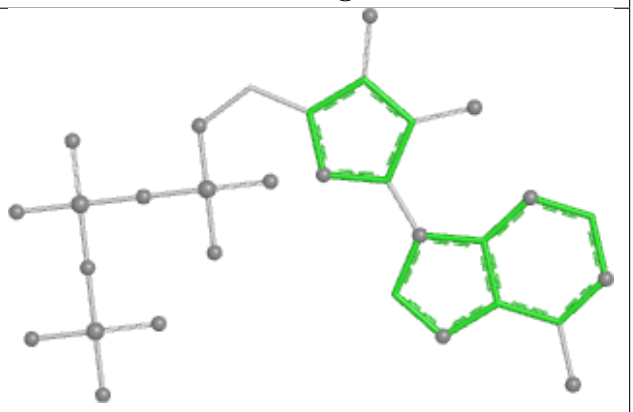
Bond lengths



Bond angles

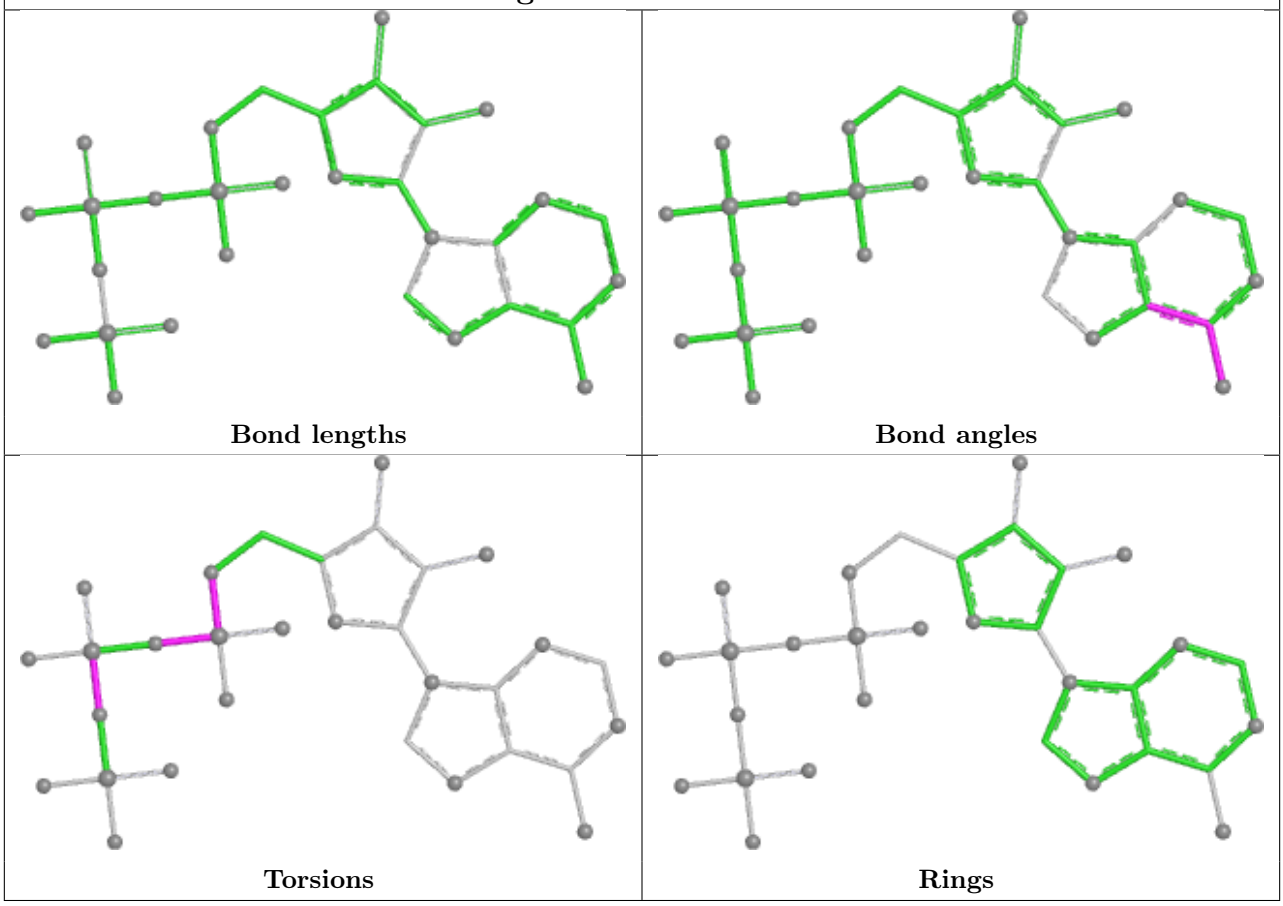


Torsions



Rings

Ligand ATP C 5002



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

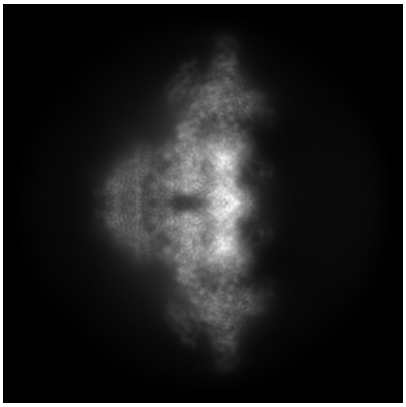
This section contains visualisations of the EMDB entry EMD-42762. These allow visual inspection of the internal detail of the map and identification of artifacts.

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.

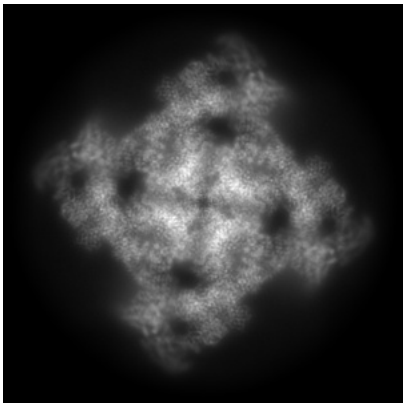
6.1 Orthogonal projections

6.1.1 Primary map

X



Y

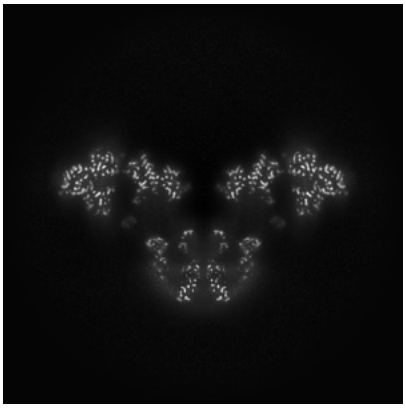


Z

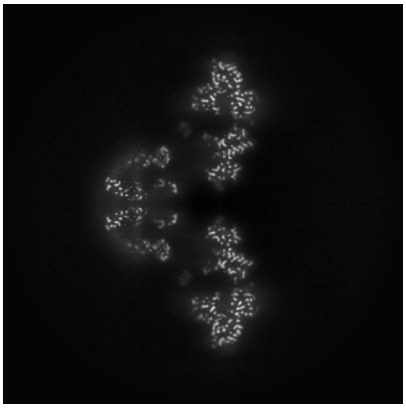
The images above show the map projected in three orthogonal directions.

6.2 Central slices

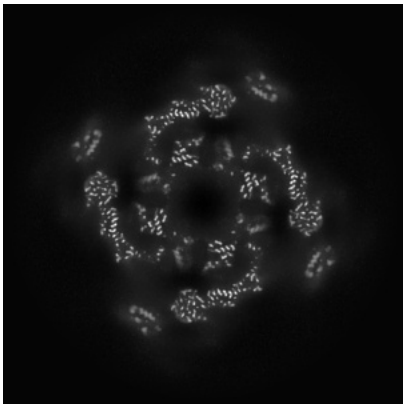
6.2.1 Primary map



X Index: 256



Y Index: 256

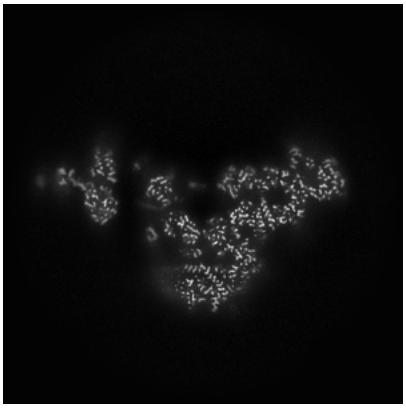


Z Index: 256

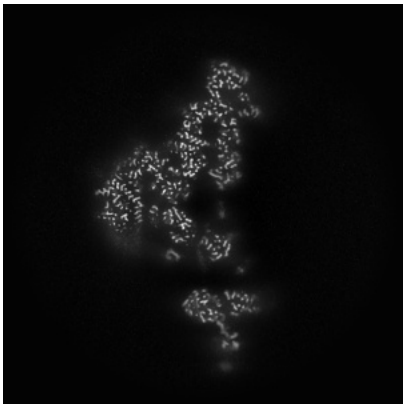
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

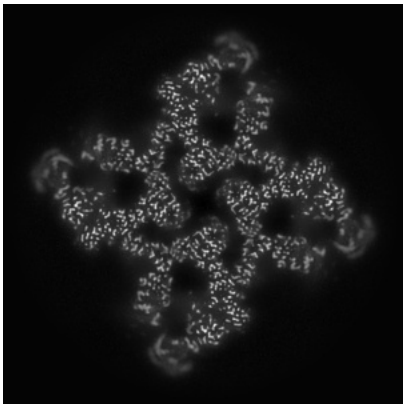
6.3.1 Primary map



X Index: 238



Y Index: 274



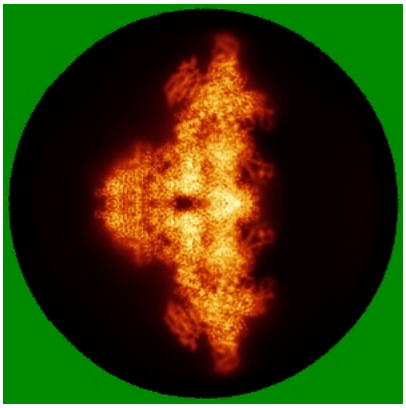
Z Index: 282

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

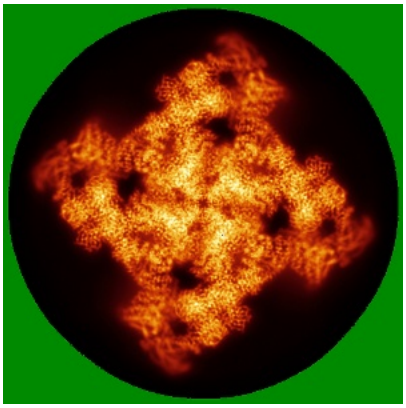
6.4 Orthogonal standard-deviation projections (False-color) (i)

6.4.1 Primary map

X



Y

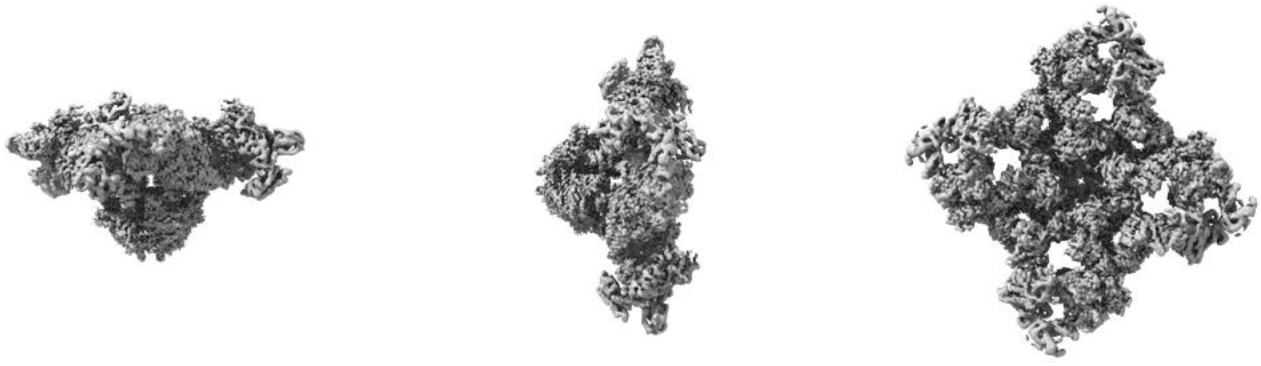


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.12. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

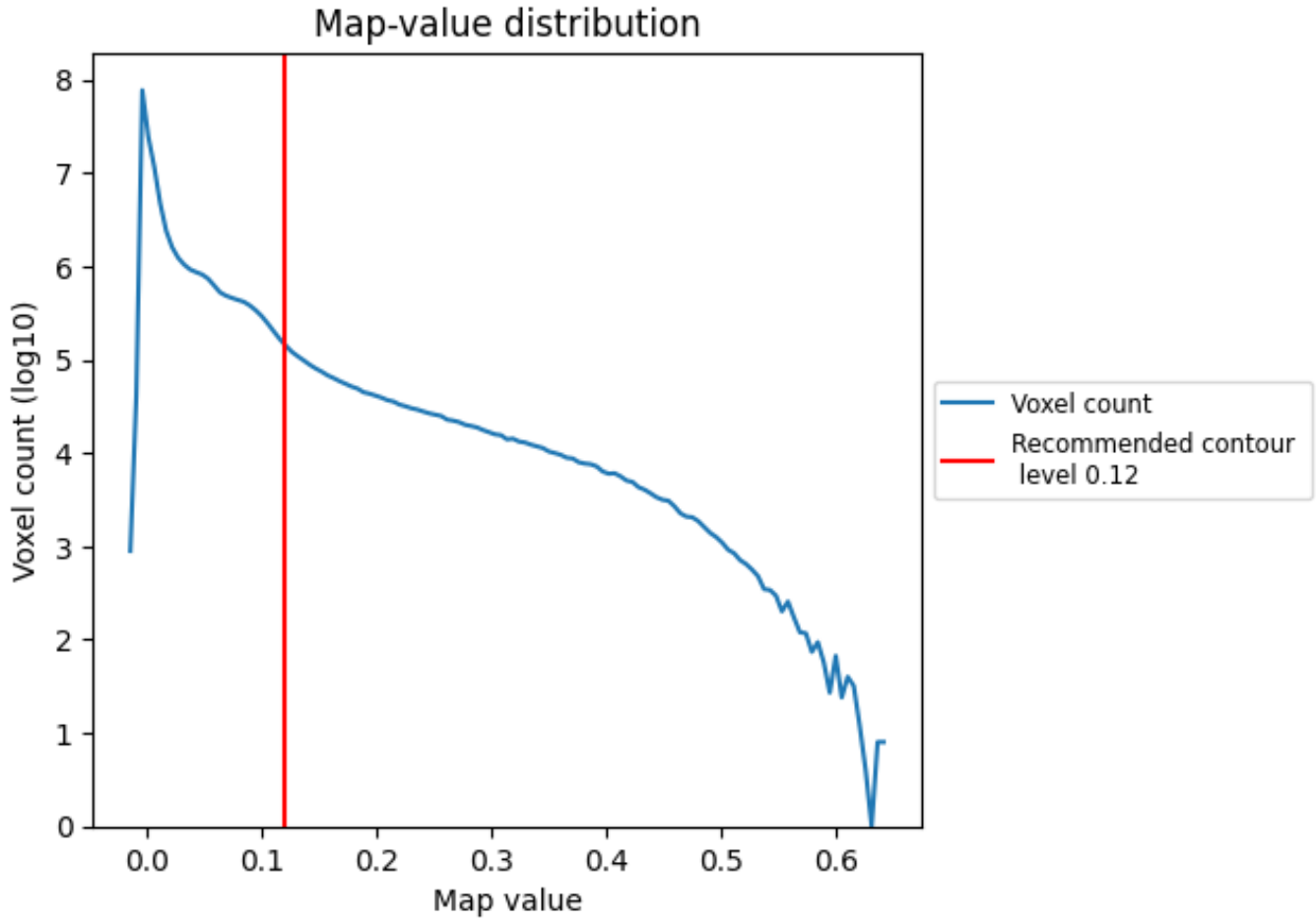
6.6 Mask visualisation (i)

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

7 Map analysis

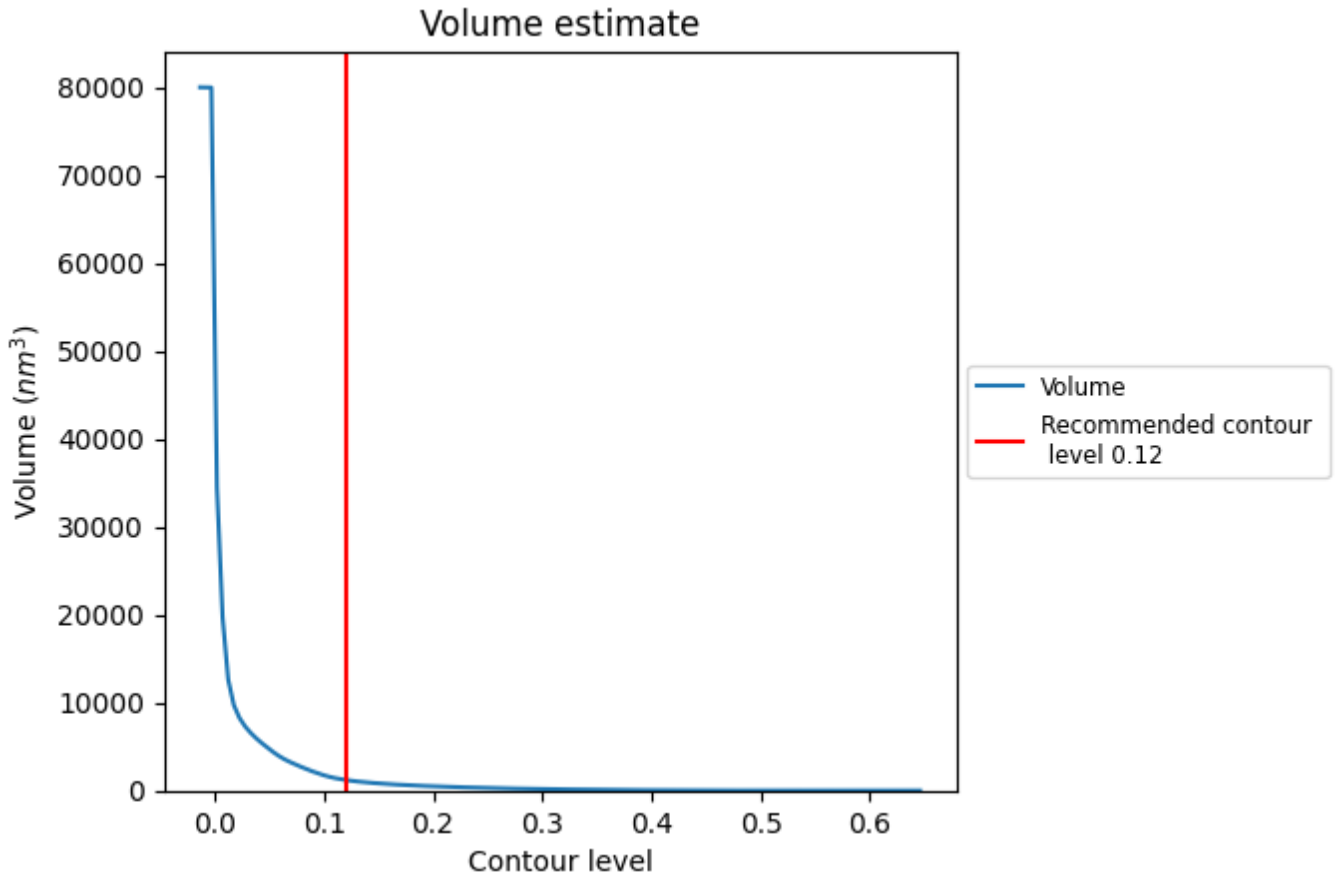
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

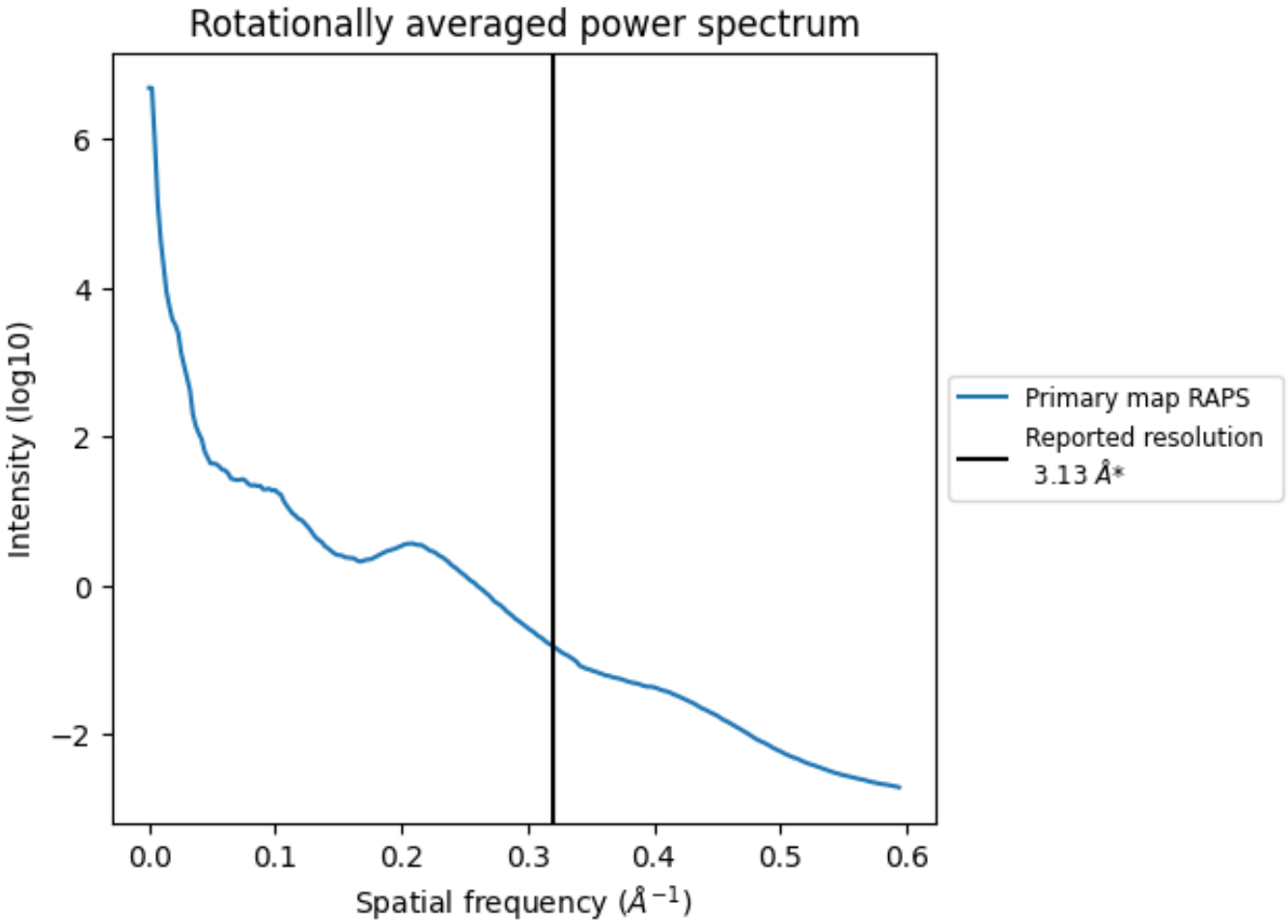
7.2 Volume estimate



The volume at the recommended contour level is 1200 nm^3; this corresponds to an approximate mass of 1084 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.319 $Å^{-1}$

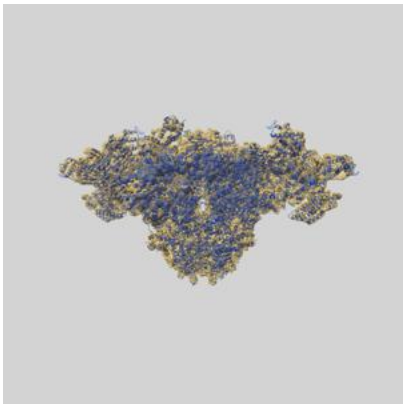
8 Fourier-Shell correlation

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

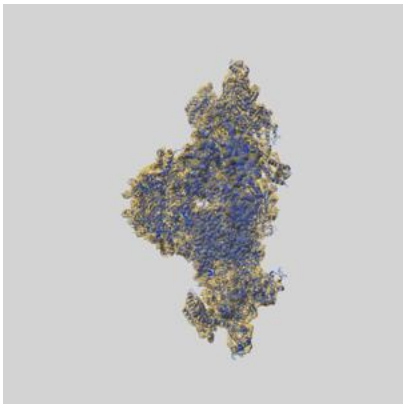
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-42762 and PDB model 8UXF. Per-residue inclusion information can be found in section 3 on page 6.

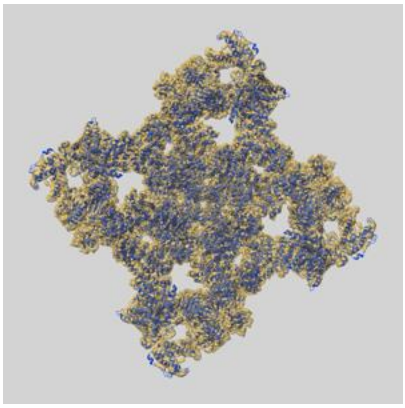
9.1 Map-model overlay



X



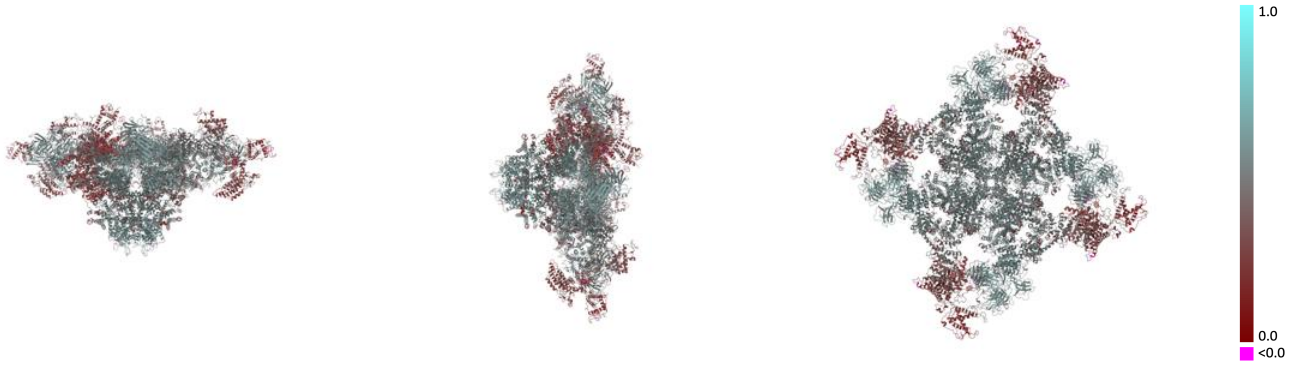
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.12 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

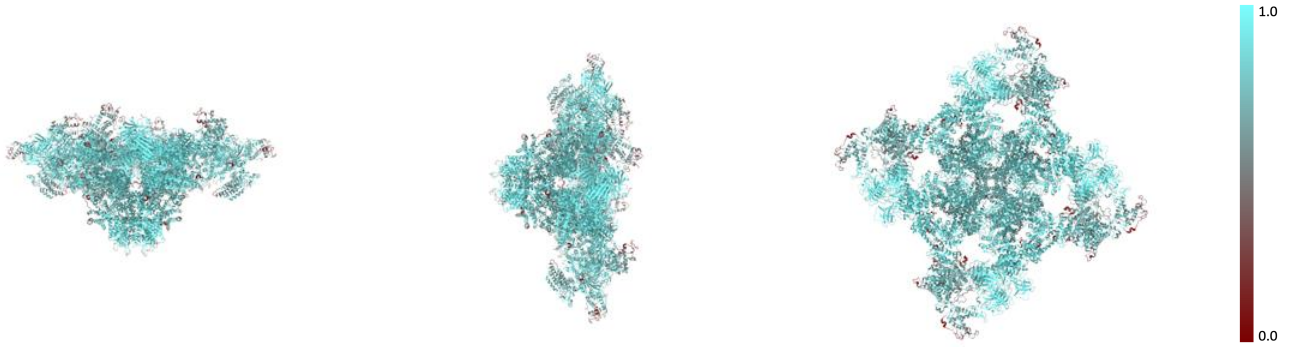
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

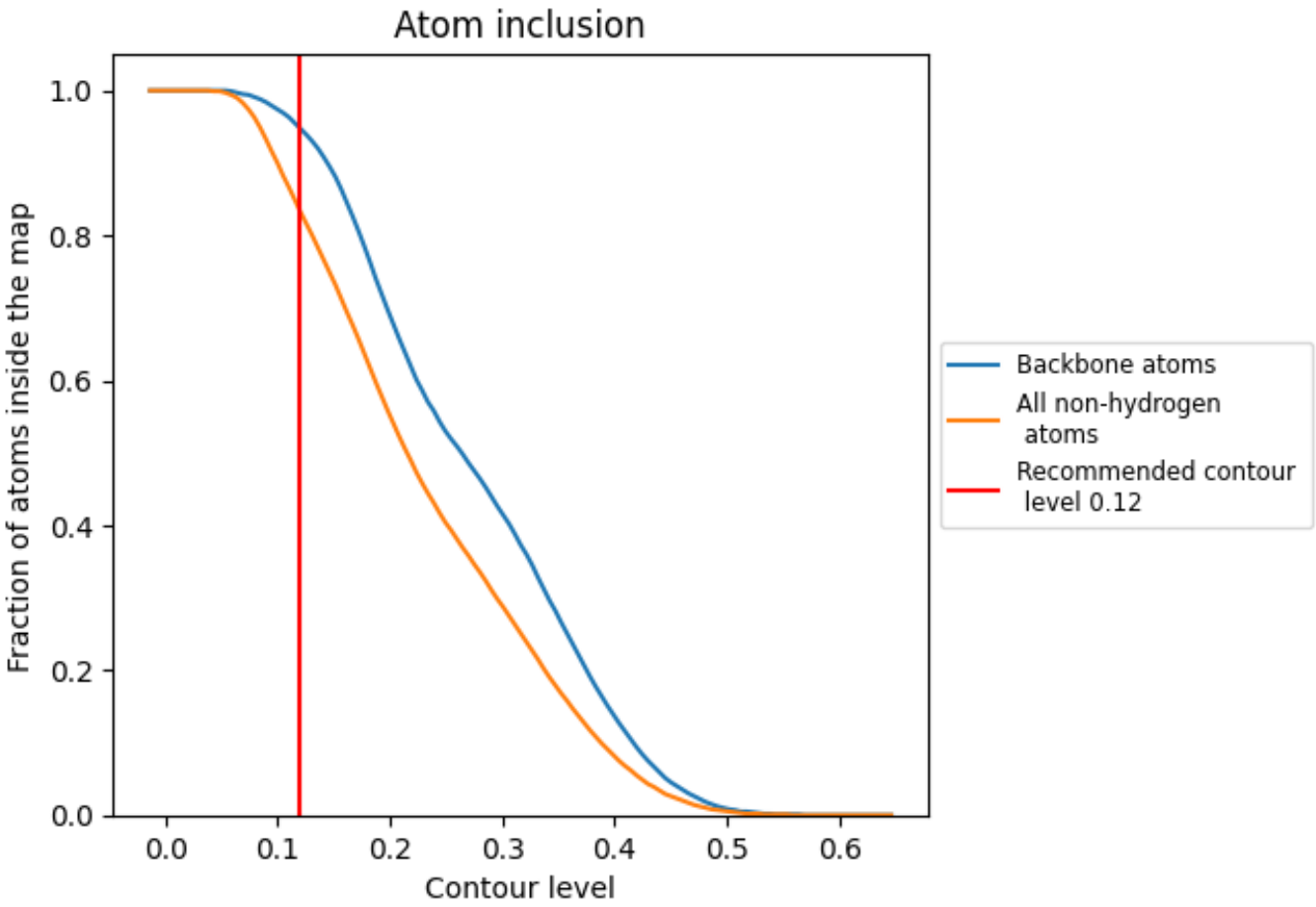
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.12).

9.4 Atom inclusion (i)



At the recommended contour level, 95% of all backbone atoms, 83% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.12) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8330	0.4540
A	0.8300	0.4510
B	0.8300	0.4510
C	0.8310	0.4530
D	0.8310	0.4520
E	0.9430	0.5530
F	0.9420	0.5530
G	0.9430	0.5540
H	0.9440	0.5540