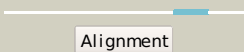

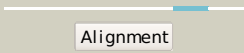

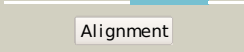
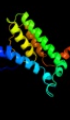




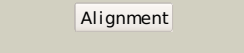
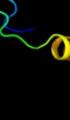
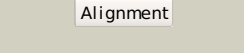
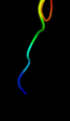
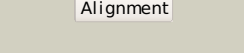



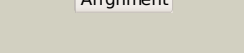

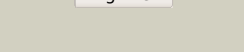


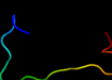
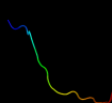


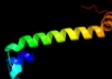
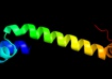

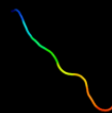


Phyre2

| | |
|---------------|------------------------------|
| Email | I.a.kelley@imperial.ac.uk |
| Description | P76552 |
| Date | Wed Jan 25 15:21:09 GMT 2012 |
| Unique Job ID | 4d33e6cdac4bab53 |

Detailed template information

| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|------------------------|--|---|------------|--------|---|
| 1 | d2hly1 |  Alignment |  | 35.4 | 33 | Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Atu2299-like |
| 2 | c3qnqD |  Alignment |  | 35.0 | 14 | PDB header: membrane protein, transport protein Chain: D: PDB Molecule: pts system, cellobiose-specific iic component; PDBTitle: crystal structure of the transporter chbc, the iic component from the 2 n,n'-diacetylchitobiose-specific phosphotransferase system |
| 3 | c3pjzA |  Alignment |  | 34.3 | 14 | PDB header: transport protein Chain: A: PDB Molecule: potassium uptake protein trkh; PDBTitle: crystal structure of the potassium transporter trkh from vibrio2 parahaemolyticus |
| 4 | dlj4na |  Alignment |  | 21.8 | 22 | Fold: Aquaporin-like Superfamily: Aquaporin-like Family: Aquaporin-like |
| 5 | c3ajvA |  Alignment |  | 17.3 | 16 | PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: splicing endonuclease from aeropyrum pernix |
| 6 | c2ntxB |  Alignment |  | 16.3 | 29 | PDB header: signaling protein Chain: B: PDB Molecule: emb cab41934.1; |
| 7 | c3ai9X |  Alignment |  | 16.0 | 42 | PDB header: transferase Chain: X: PDB Molecule: upf0217 protein mj1640; PDBTitle: crystal structure of duf358 protein reveals a putative spout-class2 rRNA methyltransferase |
| 8 | c2ka2A |  Alignment |  | 15.2 | 33 | PDB header: membrane protein Chain: A: PDB Molecule: bcl2/adenovirus e1b 19 kda protein-interacting PDBTitle: solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles with his173-ser172 intermonomer3 hydrogen bond restraints |
| 9 | c2ka2B |  Alignment |  | 15.2 | 33 | PDB header: membrane protein Chain: B: PDB Molecule: bcl2/adenovirus e1b 19 kda protein-interacting PDBTitle: solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles with his173-ser172 intermonomer3 hydrogen bond restraints |
| 10 | c2ka1B |  Alignment |  | 15.2 | 33 | PDB header: membrane protein Chain: B: PDB Molecule: bcl2/adenovirus e1b 19 kda protein-interacting PDBTitle: solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles |
| 11 | c2ka1A |  Alignment |  | 15.2 | 33 | PDB header: membrane protein Chain: A: PDB Molecule: bcl2/adenovirus e1b 19 kda protein-interacting PDBTitle: solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles |

| | | | | | | |
|----|-------------------------|-----------|---|------|----|--|
| 12 | d2qwva1 | Alignment |  | 15.0 | 25 | Fold: alpha/beta knot Superfamily: alpha/beta knot Family: AF1056-like |
| 13 | d2qmma1 | Alignment |  | 13.6 | 27 | Fold: alpha/beta knot Superfamily: alpha/beta knot Family: AF1056-like |
| 14 | d1acca_ | Alignment |  | 13.1 | 16 | Fold: Anthrax protective antigen Superfamily: Anthrax protective antigen Family: Anthrax protective antigen |
| 15 | d1ig8a1 | Alignment |  | 11.7 | 60 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Hexokinase |
| 16 | c2j5dA_ | Alignment |  | 11.2 | 32 | PDB header: membrane protein Chain: A: PDB Molecule: bcl2/adenovirus e1b 19 kda protein-interacting PDBTitle: nmr structure of bnip3 transmembrane domain in lipid2 bicelles |
| 17 | d1fx8a_ | Alignment |  | 11.1 | 20 | Fold: Aquaporin-like Superfamily: Aquaporin-like Family: Aquaporin-like |
| 18 | c1ldaA_ | Alignment |  | 11.1 | 20 | PDB header: transport protein Chain: A: PDB Molecule: glycerol uptake facilitator protein; PDBTitle: crystal structure of the e. coli glycerol facilitator (glpf) without2 substrate glycerol |
| 19 | c3zy6A_ | Alignment |  | 11.1 | 29 | PDB header: transferase Chain: A: PDB Molecule: putative gdp-fucose protein o-fucosyltransferase 1; PDBTitle: crystal structure of pofut1 in complex with gdp-fucose2 (crystal-form-ii) |
| 20 | d1czan1 | Alignment |  | 10.8 | 50 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Hexokinase |
| 21 | c2b2hA_ | Alignment | not modelled | 10.2 | 26 | PDB header: transport protein Chain: A: PDB Molecule: ammonium transporter; PDBTitle: ammonium transporter amt-1 from a. fulgidus (as) |
| 22 | c3op9A_ | Alignment | not modelled | 10.0 | 14 | PDB header: transcription regulator Chain: A: PDB Molecule: pli0006 protein; PDBTitle: crystal structure of transcriptional regulator from listeria innocua |
| 23 | d1czan3 | Alignment | not modelled | 9.9 | 60 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Hexokinase |
| 24 | d1bdga1 | Alignment | not modelled | 9.3 | 60 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Hexokinase |
| 25 | d1bg3a3 | Alignment | not modelled | 9.2 | 60 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Hexokinase |
| 26 | d1bg3a1 | Alignment | not modelled | 9.1 | 50 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Hexokinase |
| 27 | c2k3uA_ | Alignment | not modelled | 8.8 | 37 | PDB header: immune system Chain: A: PDB Molecule: chemotaxis inhibitory protein; PDBTitle: structure of the tyrosine-sulfated c5a receptor n-terminus2 in complex with the immune evasion protein chips. |
| 28 | c3llqB_ | Alignment | not modelled | 8.8 | 19 | PDB header: membrane protein Chain: B: PDB Molecule: aquaporin z 2; PDBTitle: aquaporin structure from plant pathogen agrobacterium tumefaciens |
| | | | | | | Fold: Ribonuclease H-like motif |

| | | | | | | |
|----|-------------------------|-----------|--------------|-----|----|--|
| 29 | d1v4sa1 | Alignment | not modelled | 8.4 | 50 | Superfamily: Actin-like ATPase domain Family: Hexokinase |
| 30 | c2lmfA | Alignment | not modelled | 7.2 | 43 | PDB header: antimicrobial protein Chain: A: PDB Molecule: antibacterial protein II-37; PDBTitle: solution structure of human II-23 bound to membrane-mimetic micelles |
| 31 | c3hm8D | Alignment | not modelled | 7.0 | 60 | PDB header: transferase Chain: D: PDB Molecule: hexokinase-3; PDBTitle: crystal structure of the c-terminal hexokinase domain of human hk3 |
| 32 | c2w2eA | Alignment | not modelled | 6.9 | 26 | PDB header: membrane protein Chain: A: PDB Molecule: aquaporin; PDBTitle: 1.15 angstrom crystal structure of p.pastoris aquaporin, 2 aqyl, in a closed conformation at ph 3.5 |
| 33 | d1rc2a | Alignment | not modelled | 6.9 | 13 | Fold: Aquaporin-like Superfamily: Aquaporin-like Family: Aquaporin-like |
| 34 | c3p04B | Alignment | not modelled | 6.6 | 14 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized bcr; PDBTitle: crystal structure of the bcr protein from corynebacterium glutamicum.2 northeast structural genomics consortium target cgr8 |
| 35 | c2magA | Alignment | not modelled | 6.4 | 35 | PDB header: antibiotic Chain: A: PDB Molecule: magainin 2; PDBTitle: nmr structure of magainin 2 in dpc micelles, 10 structures |
| 36 | c3c9jD | Alignment | not modelled | 6.2 | 21 | PDB header: membrane protein Chain: D: PDB Molecule: proton channel protein m2, transmembrane segment; PDBTitle: the crystal structure of transmembrane domain of m2 protein and2 amantadine complex |
| 37 | c3c9jA | Alignment | not modelled | 6.2 | 21 | PDB header: membrane protein Chain: A: PDB Molecule: proton channel protein m2, transmembrane segment; PDBTitle: the crystal structure of transmembrane domain of m2 protein and2 amantadine complex |
| 38 | c3c9jB | Alignment | not modelled | 6.2 | 21 | PDB header: membrane protein Chain: B: PDB Molecule: proton channel protein m2, transmembrane segment; PDBTitle: the crystal structure of transmembrane domain of m2 protein and2 amantadine complex |
| 39 | c3c9jC | Alignment | not modelled | 6.2 | 21 | PDB header: membrane protein Chain: C: PDB Molecule: proton channel protein m2, transmembrane segment; PDBTitle: the crystal structure of transmembrane domain of m2 protein and2 amantadine complex |
| 40 | c3ct5A | Alignment | not modelled | 6.0 | 14 | PDB header: hydrolase Chain: A: PDB Molecule: morphogenesis protein 1; PDBTitle: crystal and cryoem structural studies of a cell wall degrading enzyme2 in the bacteriophage phi29 tail |
| 41 | d1u9ya2 | Alignment | not modelled | 6.0 | 38 | Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like |
| 42 | d1u7ga | Alignment | not modelled | 5.9 | 16 | Fold: Ammonium transporter Superfamily: Ammonium transporter Family: Ammonium transporter |
| 43 | d1wi9a | Alignment | not modelled | 5.7 | 63 | Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: PCI domain (PINT motif) |
| 44 | c1ymgA | Alignment | not modelled | 5.7 | 26 | PDB header: membrane protein Chain: A: PDB Molecule: lens fiber major intrinsic protein; PDBTitle: the channel architecture of aquaporin o at 2.2 angstrom resolution |
| 45 | d1ymga1 | Alignment | not modelled | 5.7 | 26 | Fold: Aquaporin-like Superfamily: Aquaporin-like Family: Aquaporin-like |
| 46 | d1l8wd | Alignment | not modelled | 5.6 | 35 | Fold: Variable surface antigen VlsE Superfamily: Variable surface antigen VlsE Family: Variable surface antigen VlsE |
| 47 | c3c1iA | Alignment | not modelled | 5.5 | 20 | PDB header: transport protein Chain: A: PDB Molecule: ammonia channel; PDBTitle: substrate binding, deprotonation and selectivity at the2 periplasmic entrance of the e. coli ammonia channel ambt |
| 48 | c1iyjC | Alignment | not modelled | 5.5 | 55 | PDB header: gene regulation/antitumor protein Chain: C: PDB Molecule: deleted in split hand/split foot protein 1; PDBTitle: structure of a brca2-dss1 complex |
| 49 | c1bdgA | Alignment | not modelled | 5.5 | 60 | PDB header: hexokinase Chain: A: PDB Molecule: hexokinase; PDBTitle: hexokinase from schistosoma mansoni complexed with glucose |
| 50 | c1v4sA | Alignment | not modelled | 5.5 | 50 | PDB header: transferase Chain: A: PDB Molecule: glucokinase isoform 2; PDBTitle: crystal structure of human glucokinase |
| 51 | c1ig8A | Alignment | not modelled | 5.4 | 60 | PDB header: transferase Chain: A: PDB Molecule: hexokinase pii; PDBTitle: crystal structure of yeast hexokinase pii with the correct2 amino acid sequence |
| 52 | c2oarA | Alignment | not modelled | 5.3 | 26 | PDB header: membrane protein Chain: A: PDB Molecule: large-conductance mechanosensitive channel; PDBTitle: mechanosensitive channel of large conductance (mscl) |
| 53 | c3hzqA | Alignment | not modelled | 5.3 | 26 | PDB header: membrane protein Chain: A: PDB Molecule: large-conductance mechanosensitive channel; PDBTitle: structure of a tetrameric mscl in an expanded intermediate2 state |
| | | | | | | PDB header: dna binding protein/dna Chain: A: PDB Molecule: chromosomal replication initiator protein |

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|----|-------------------------|-----------|--------------|-----|----|--|
| 54 | c3pvpA_ | Alignment | not modelled | 5.1 | 10 | dnaa; PDBTitle: structure of mycobacterium tuberculosis dnaa-dbd in complex with box22 dna |
|----|-------------------------|-----------|--------------|-----|----|--|