

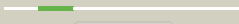


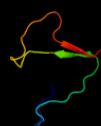







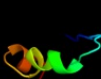



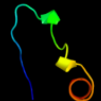

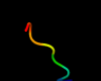





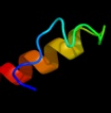

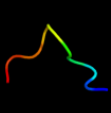
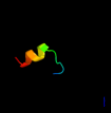




Phyre2

| | |
|---------------|-----------------------------|
| Email | l.a.kelley@imperial.ac.uk |
| Description | P33353 |
| Date | Thu Jan 5 11:51:54 GMT 2012 |
| Unique Job ID | a1ceb9407ef865e4 |

Detailed template information

| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|-------------------------|---|---|------------|--------|--|
| 1 | d1oy5a_ |  Alignment |  | 57.6 | 33 | Fold: alpha/beta knot Superfamily: alpha/beta knot Family: tRNA(m1G37)-methyltransferase TrmD |
| 2 | c1oy5B_ |  Alignment |  | 56.7 | 34 | PDB header: transferase Chain: B: PDB Molecule: trna (guanine-n(1)-)-methyltransferase; PDBTitle: crystal structure of trna (m1g37) methyltransferase from aquifex2 aeolicus |
| 3 | d2b5id2 |  Alignment |  | 35.6 | 21 | Fold: Complement control module/SCR domain Superfamily: Complement control module/SCR domain Family: Complement control module/SCR domain |
| 4 | d1s6la2 |  Alignment |  | 25.7 | 14 | Fold: NosL/MerB-like Superfamily: NosL/MerB-like Family: MerB-like |
| 5 | d1p9pa_ |  Alignment |  | 20.4 | 22 | Fold: alpha/beta knot Superfamily: alpha/beta knot Family: tRNA(m1G37)-methyltransferase TrmD |
| 6 | d1nfga1 |  Alignment |  | 19.5 | 10 | Fold: Composite domain of metallo-dependent hydrolases Superfamily: Composite domain of metallo-dependent hydrolases Family: Hydantoinase (dihydropyrimidinase) |
| 7 | d1uala_ |  Alignment |  | 18.2 | 22 | Fold: alpha/beta knot Superfamily: alpha/beta knot Family: tRNA(m1G37)-methyltransferase TrmD |
| 8 | c3quvB_ |  Alignment |  | 17.2 | 11 | PDB header: transferase Chain: B: PDB Molecule: trna (guanine-n(1)-)-methyltransferase; PDBTitle: crystal structure of a trna-guanine-n1-methyltransferase from2 mycobacterium abscessus |
| 9 | c3knuD_ |  Alignment |  | 16.7 | 19 | PDB header: transferase Chain: D: PDB Molecule: trna (guanine-n(1)-)-methyltransferase; PDBTitle: crystal structure of trna (guanine-n1)-methyltransferase from2 anaplasma phagocytophilum |
| 10 | d1dx5i2 |  Alignment |  | 14.0 | 38 | Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: EGF/Laminin Family: EGF-type module |
| 11 | c2l6nA_ |  Alignment |  | 13.4 | 15 | PDB header: structure genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein yp_001092504.1; PDBTitle: nmr solution structure of the protein yp_001092504.1 |

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|----|-------------------------|-----------|---|------|----|---|
| 12 | d1zaka2 | Alignment |  | 13.1 | 50 | Fold: Rubredoxin-like Superfamily: Microbial and mitochondrial ADK, insert "zinc finger" domain Family: Microbial and mitochondrial ADK, insert "zinc finger" domain |
| 13 | d2ih2a2 | Alignment |  | 12.9 | 24 | Fold: DNA methylase specificity domain Superfamily: DNA methylase specificity domain Family: TaqI C-terminal domain-like |
| 14 | c3ky7A | Alignment |  | 12.5 | 22 | PDB header: transferase Chain: A: PDB Molecule: trna (guanine-n(1)-)-methyltransferase; PDBTitle: 2.35 angstrom resolution crystal structure of a putative trna2 (guanine-7-)-methyltransferase (trmd) from staphylococcus aureus3 subsp. aureus mrsa252 |
| 15 | c1v85A | Alignment |  | 11.7 | 33 | PDB header: apoptosis Chain: A: PDB Molecule: similar to ring finger protein 36; PDBTitle: sterile alpha motif (sam) domain of mouse bifunctional2 apoptosis regulator |
| 16 | d1nh8a2 | Alignment |  | 11.6 | 14 | Fold: Ferredoxin-like Superfamily: GlnB-like Family: ATP phosphoribosyltransferase (ATP-PRTase, HisG), regulatory C-terminal domain |
| 17 | d2akja4 | Alignment |  | 11.6 | 20 | Fold: Nitrite and sulphite reductase 4Fe-4S domain-like Superfamily: Nitrite and sulphite reductase 4Fe-4S domain-like Family: Nitrite and sulphite reductase 4Fe-4S domain-like |
| 18 | c3pvcA | Alignment |  | 11.3 | 38 | PDB header: oxidoreductase, transferase Chain: A: PDB Molecule: trna 5-methylaminomethyl-2-thiouridine biosynthesis PDBTitle: crystal structure of apo mnmC from yersinia pestis |
| 19 | c2e58D | Alignment |  | 10.5 | 25 | PDB header: transferase Chain: D: PDB Molecule: mnmC2; PDBTitle: crystal structure of mnmC2 from aquifex aeolicus |
| 20 | d1veha | Alignment |  | 10.4 | 20 | Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like |
| 21 | c3luuA | Alignment | not modelled | 10.3 | 11 | PDB header: biosynthetic protein Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of protein with unknown function which belongs to2 pfam duf971 family (afe_2189) from acidithiobacillus ferrooxidans3 atcc 23270 at 1.93 a resolution |
| 22 | d2bt6a1 | Alignment | not modelled | 10.1 | 24 | Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin-related |
| 23 | d1zj8a4 | Alignment | not modelled | 9.6 | 10 | Fold: Nitrite and sulphite reductase 4Fe-4S domain-like Superfamily: Nitrite and sulphite reductase 4Fe-4S domain-like Family: Nitrite and sulphite reductase 4Fe-4S domain-like |
| 24 | c3pgH | Alignment | not modelled | 9.3 | 23 | PDB header: oxidoreductase Chain: D: PDB Molecule: cyclooxygenase-2; PDBTitle: cyclooxygenase-2 (prostaglandin synthase-2) complexed with a non-2 selective inhibitor, flurbiprofen |
| 25 | c2jdjB | Alignment | not modelled | 9.3 | 7 | PDB header: biosynthetic protein Chain: B: PDB Molecule: redy-like protein; PDBTitle: crystal structure of hapK from hahella chejuensis |
| 26 | d1nkia | Alignment | not modelled | 9.2 | 30 | Fold: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Superfamily: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Family: Antibiotic resistance proteins |
| 27 | c1ddxA | Alignment | not modelled | 8.5 | 20 | PDB header: oxidoreductase Chain: A: PDB Molecule: protein (prostaglandin h2 synthase-2); PDBTitle: crystal structure of a mixture of arachidonic acid and prostaglandin2 bound to the cyclooxygenase active site of cox-2: prostaglandin3 structure |
| 28 | d3cu0a1 | Alignment | not modelled | 8.4 | 25 | Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: 1,3-glucuronyltransferase |

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| 29 | d1m7xa1 | Alignment | not modelled | 8.3 | 13 | Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes |
| 30 | d3proc2 | Alignment | not modelled | 8.0 | 14 | Fold: Alpha-lytic protease prodomain-like Superfamily: Alpha-lytic protease prodomain Family: Alpha-lytic protease prodomain |
| 31 | c1pggB | Alignment | not modelled | 7.8 | 38 | PDB header: oxidoreductase Chain: B: PDB Molecule: prostaglandin h2 synthase-1; PDBTitle: prostaglandin h2 synthase-1 complexed with 1-(4-iodobenzoyl)-5-2 methoxy-2-methylindole-3-acetic acid (iodoindomethacin), trans model |
| 32 | c1ht8B | Alignment | not modelled | 7.8 | 38 | PDB header: oxidoreductase Chain: B: PDB Molecule: prostaglandin h2 synthase-1; PDBTitle: the 2.7 angstrom resolution model of ovine cox-1 complexed with2 alclofenac |
| 33 | c2oyuP | Alignment | not modelled | 7.7 | 38 | PDB header: oxidoreductase Chain: P: PDB Molecule: prostaglandin g/h synthase 1; PDBTitle: indomethacin-(s)-alpha-ethyl-ethanolamide bound to cyclooxygenase-1 |
| 34 | d1xr4a2 | Alignment | not modelled | 7.5 | 16 | Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: CoA transferase alpha subunit-like |
| 35 | d2r7da1 | Alignment | not modelled | 7.3 | 28 | Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like |
| 36 | c2d0jD | Alignment | not modelled | 7.2 | 25 | PDB header: transferase Chain: D: PDB Molecule: galactosylgalactosylxylosylprotein 3-beta- PDBTitle: crystal structure of human glcat-s apo form |
| 37 | d1v82a | Alignment | not modelled | 7.1 | 25 | Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: 1,3-glucuronyltransferase |
| 38 | c2lkjA | Alignment | not modelled | 7.1 | 44 | PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-m; PDBTitle: structures and interaction analyses of the integrin alpha-m beta-22 cytoplasmic tails |
| 39 | d1wgya | Alignment | not modelled | 7.1 | 20 | Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ras-binding domain, RBD |
| 40 | c2ofqA | Alignment | not modelled | 7.0 | 11 | PDB header: protein transport/protein transport Chain: A: PDB Molecule: trao; PDBTitle: nmr solution structure of a complex between the virb9/virb72 interaction domains of the pkm101 type iv secretion system |
| 41 | c2kakA | Alignment | not modelled | 6.8 | 47 | PDB header: metal binding protein Chain: A: PDB Molecule: ec protein i/ii; PDBTitle: solution structure of the beta-e-domain of wheat ec-12 metallothionein |
| 42 | d1xhja | Alignment | not modelled | 6.7 | 17 | Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like |
| 43 | d1bxni | Alignment | not modelled | 6.7 | 4 | Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit |
| 44 | d1npba | Alignment | not modelled | 6.7 | 30 | Fold: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Superfamily: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Family: Antibiotic resistance proteins |
| 45 | c2kvhA | Alignment | not modelled | 6.6 | 27 | PDB header: transcription Chain: A: PDB Molecule: zinc finger and btb domain-containing protein 32; PDBTitle: structure of the three-cys2his2 domain of mouse testis zinc2 finger protein |
| 46 | c2k49A | Alignment | not modelled | 6.4 | 19 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0339 protein so_3888; PDBTitle: solution nmr structure of upf0339 protein so3888 from shewanella2 oneidensis. northeast structural genomics consortium target sor190 |
| 47 | c2x8nA | Alignment | not modelled | 6.4 | 11 | PDB header: structural genomics Chain: A: PDB Molecule: cv0863; PDBTitle: solution nmr structure of uncharacterized protein cv08632 from chromobacterium violaceum. northeast structural3 genomics target (nesg) target cvt3. ocsp4 target cv0863. |
| 48 | d1uzhc1 | Alignment | not modelled | 6.4 | 9 | Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit |
| 49 | c3iefA | Alignment | not modelled | 6.4 | 19 | PDB header: transferase, rna binding protein Chain: A: PDB Molecule: trna (guanine-n(1)-)-methyltransferase; PDBTitle: crystal structure of trna guanine-n1-methyltransferase from2 bartonella henselae using mpcs. |
| 50 | c3n5nX | Alignment | not modelled | 6.2 | 15 | PDB header: hydrolase Chain: X: PDB Molecule: a/g-specific adenine dna glycosylase; PDBTitle: crystal structure analysis of the catalytic domain and interdomain2 connector of human muty homologue |
| 51 | c2d2aA | Alignment | not modelled | 6.1 | 25 | PDB header: metal transport Chain: A: PDB Molecule: sufa protein; PDBTitle: crystal structure of escherichia coli sufa involved in2 biosynthesis of iron-sulfur clusters |
| 52 | c2k8oA | Alignment | not modelled | 6.1 | 78 | PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-l; PDBTitle: solution structure of integrin alpha l |
| 53 | c2k7iB | Alignment | not modelled | 6.1 | 25 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: upf0339 protein atu0232; PDBTitle: solution nmr structure of protein atu0232 from agrobacterium2 tumefaciens. northeast structural genomics |

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|----|-------------------------|-----------|--------------|-----|--|
| | | | | | consortium (nesg) target3 att3. ontario center for structural proteomics target atc0223. |
| 54 | d2k7ia1 | Alignment | not modelled | 6.1 | 25 Fold: YegP-like Superfamily: YegP-like Family: YegP-like |
| 55 | c1aqsA_ | Alignment | not modelled | 6.1 | 43 PDB header: metallothionein Chain: A: PDB Molecule: cu-metallothionein; PDBTitle: cu-metallothionein from saccharomyces cerevisiae, nmr, 102 structures |
| 56 | d3bida1 | Alignment | not modelled | 6.0 | 6 Fold: YegP-like Superfamily: YegP-like Family: YegP-like |
| 57 | d2a2pa1 | Alignment | not modelled | 5.9 | 21 Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Selenoprotein W-related |
| 58 | d1tkea1 | Alignment | not modelled | 5.9 | 19 Fold: beta-Grasp (ubiquitin-like) Superfamily: TGS-like Family: TGS domain |
| 59 | c3ps9A_ | Alignment | not modelled | 5.9 | 44 PDB header: transferase Chain: A: PDB Molecule: trna 5-methylaminomethyl-2-thiouridine biosynthesis PDBTitle: crystal structure of mnmC from e. coli |
| 60 | c2p58B_ | Alignment | not modelled | 5.8 | 42 PDB header: transport protein/chaperone Chain: B: PDB Molecule: putative type iii secretion protein yscf; PDBTitle: structure of the yersinia pestis type iii secretion system2 needle protein yscf in complex with its chaperones3 ysce/yscg |
| 61 | d1rbli_ | Alignment | not modelled | 5.7 | 9 Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit |
| 62 | c2p0tA_ | Alignment | not modelled | 5.5 | 14 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0307 protein pspto_4464; PDBTitle: structural genomics, the crystal structure of a conserved putative2 protein from pseudomonas syringae pv. tomato str. dc3000 |
| 63 | d2p0ta1 | Alignment | not modelled | 5.5 | 14 Fold: PSPTO4464-like Superfamily: PSPTO4464-like Family: PSPTO4464-like |
| 64 | d1wxma1 | Alignment | not modelled | 5.5 | 14 Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ras-binding domain, RBD |
| 65 | d1w7ja1 | Alignment | not modelled | 5.5 | 27 Fold: SH3-like barrel Superfamily: Myosin S1 fragment, N-terminal domain Family: Myosin S1 fragment, N-terminal domain |
| 66 | c3jqoH_ | Alignment | not modelled | 5.4 | 11 PDB header: transport protein Chain: H: PDB Molecule: trao protein; PDBTitle: crystal structure of the outer membrane complex of a type iv2 secretion system |
| 67 | c2k8eA_ | Alignment | not modelled | 5.4 | 16 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0339 protein yegp; PDBTitle: solution nmr structure of protein of unknown function yegp from e.2 coli. ontario center for structural proteomics target ec0640_1_1233 northeast structural genomics consortium target et102. |
| 68 | c2apnA_ | Alignment | not modelled | 5.3 | 33 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein hi1723; PDBTitle: hi1723 solution structure |
| 69 | c2vncB_ | Alignment | not modelled | 5.3 | 20 PDB header: hydrolase Chain: B: PDB Molecule: glycogen operon protein glgx; PDBTitle: crystal structure of glycogen debranching enzyme trex from2 sulfolobus solfataricus |
| 70 | d1q4ga2 | Alignment | not modelled | 5.3 | 38 Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: EGF/Laminin Family: EGF-type module |
| 71 | c3fqmA_ | Alignment | not modelled | 5.2 | 38 PDB header: metal binding protein Chain: A: PDB Molecule: non-structural protein 5a; PDBTitle: crystal structure of a novel dimeric form of hcv ns5a domain i protein |
| 72 | d1xrta1 | Alignment | not modelled | 5.2 | 19 Fold: Composite domain of metallo-dependent hydrolases Superfamily: Composite domain of metallo-dependent hydrolases Family: Hydantoinase (dihydropyrimidinase) |
| 73 | c1q40C_ | Alignment | not modelled | 5.1 | 19 PDB header: translation Chain: C: PDB Molecule: mrna transport regulator mtr2; PDBTitle: crystal structure of the c. albicans mtr2-mex67 m domain complex |
| 74 | d1wjpa2 | Alignment | not modelled | 5.1 | 36 Fold: beta-beta-alpha zinc fingers Superfamily: beta-beta-alpha zinc fingers Family: Classic zinc finger, C2H2 |