




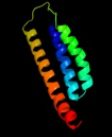









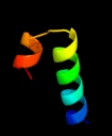





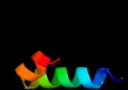




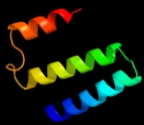

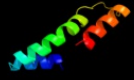
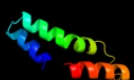



Phyre2

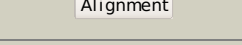
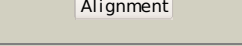

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|---------------|-----------------------------|
| Email | I.a.kelley@imperial.ac.uk |
| Description | P0ABY2 |
| Date | Thu Jan 5 11:16:41 GMT 2012 |
| Unique Job ID | 4874533b71916b29 |

Detailed template information

| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|-------------------------|---|---|------------|--------|--|
| 1 | c3a7mA |  Alignment |  | 100.0 | 33 | PDB header: gene regulation, chaperone Chain: A; PDB Molecule: flagellar protein flit; PDBTitle: structure of flit, the flagellar type iii chaperone for flit |
| 2 | c3nkzD |  Alignment |  | 100.0 | 43 | PDB header: structural genomics, unknown function Chain: D; PDB Molecule: flagellar protein flit; PDBTitle: the crystal structure of a flagella protein from yersinia2 enterocolitica subsp. enterocolitica 8081 |
| 3 | c3h3mB |  Alignment |  | 99.9 | 20 | PDB header: structural genomics Chain: B; PDB Molecule: flagellar protein flit; PDBTitle: crystal structure of flagellar protein flit from bordetella2 bronchiseptica |
| 4 | c3bc1F |  Alignment |  | 40.2 | 13 | PDB header: signaling protein/transport protein Chain: F; PDB Molecule: synaptotagmin-like protein 2; PDBTitle: crystal structure of the complex rab27a-slp2a |
| 5 | d2f86b1 |  Alignment |  | 31.5 | 16 | Fold: Cystatin-like Superfamily: NTF2-like Family: Association domain of calcium/calmodulin-dependent protein kinase type II alpha subunit, CAMK2A |
| 6 | c3bi8A |  Alignment |  | 28.6 | 16 | PDB header: lyase Chain: A; PDB Molecule: dihydrodipicolinate synthase; PDBTitle: structure of dihydrodipicolinate synthase from clostridium2 botulinum |
| 7 | d1wr0a1 |  Alignment |  | 27.0 | 18 | Fold: Spectrin repeat-like Superfamily: MIT domain Family: MIT domain |
| 8 | d2ux0a1 |  Alignment |  | 25.2 | 4 | Fold: Cystatin-like Superfamily: NTF2-like Family: Association domain of calcium/calmodulin-dependent protein kinase type II alpha subunit, CAMK2A |
| 9 | c3k17A |  Alignment |  | 23.3 | 12 | PDB header: transferase Chain: A; PDB Molecule: lin0012 protein; PDBTitle: crystal structure of a lin0012 protein from listeria innocua |
| 10 | d2a1ja1 |  Alignment |  | 22.3 | 17 | Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like |
| 11 | c3fsdA |  Alignment |  | 21.1 | 4 | PDB header: structural genomics, unknown function Chain: A; PDB Molecule: ntf2-like protein of unknown function in nutrient uptake; PDBTitle: crystal structure of ntf2-like protein of unknown function in nutrient2 uptake (yp_427473.1) from rhodospirillum rubrum atcc 11170 at 1.70 a3 resolution |

| | | | | | | |
|----|-------------------------|-----------|---|------|----|--|
| 12 | d1hkxa_ | Alignment |  | 20.9 | 4 | Fold: Cystatin-like Superfamily: NTF2-like Family: Association domain of calcium/calmodulin-dependent protein kinase type II alpha subunit, CAMK2A |
| 13 | c3fluD_ | Alignment |  | 17.5 | 14 | PDB header: lyase Chain: D: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from the pathogen2 neisseria meningitidis |
| 14 | c3echC_ | Alignment |  | 16.5 | 29 | PDB header: transcription, transcription regulation Chain: C: PDB Molecule: 25-mer fragment of protein armr; PDBTitle: the marr-family repressor mexr in complex with its antirepressor armr |
| 15 | d2r4ia1 | Alignment |  | 16.0 | 8 | Fold: Cystatin-like Superfamily: NTF2-like Family: CHU142-like |
| 16 | d1k47a2 | Alignment |  | 15.1 | 12 | Fold: Ferredoxin-like Superfamily: GHMP Kinase, C-terminal domain Family: Phosphomevalonate kinase (PMK) |
| 17 | d1wuua2 | Alignment |  | 14.1 | 18 | Fold: Ferredoxin-like Superfamily: GHMP Kinase, C-terminal domain Family: Galactokinase |
| 18 | c3s5oA_ | Alignment |  | 13.8 | 16 | PDB header: lyase Chain: A: PDB Molecule: 4-hydroxy-2-oxoglutarate aldolase, mitochondrial; PDBTitle: crystal structure of human 4-hydroxy-2-oxoglutarate aldolase bound to2 pyruvate |
| 19 | c3na8A_ | Alignment |  | 13.5 | 16 | PDB header: lyase Chain: A: PDB Molecule: putative dihydrodipicolinate synthetase; PDBTitle: crystal structure of a putative dihydrodipicolinate synthetase from2 pseudomonas aeruginosa |
| 20 | d1sr2a_ | Alignment |  | 12.9 | 8 | Fold: Four-helical up-and-down bundle Superfamily: Histidine-containing phosphotransfer domain, HPT domain Family: Sensor-like histidine kinase YojN, C-terminal domain |
| 21 | c2ehhE_ | Alignment | not modelled | 12.6 | 14 | PDB header: lyase Chain: E: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from2 aquifex aeolicus |
| 22 | c3si9B_ | Alignment | not modelled | 12.1 | 11 | PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from bartonella2 henselae |
| 23 | c3lciA_ | Alignment | not modelled | 12.1 | 7 | PDB header: lyase Chain: A: PDB Molecule: n-acetylneuraminatase lyase; PDBTitle: the d-sialic acid aldolase mutant v251w |
| 24 | c2hz8A_ | Alignment | not modelled | 12.1 | 29 | PDB header: de novo protein Chain: A: PDB Molecule: de novo designed diiron protein; PDBTitle: qm/mm structure refined from nmr-structure of a single2 chain diiron protein |
| 25 | d1yqha1 | Alignment | not modelled | 11.6 | 16 | Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like |
| 26 | d2crua1 | Alignment | not modelled | 11.4 | 18 | Fold: RuvA C-terminal domain-like Superfamily: Double-stranded DNA-binding domain Family: Double-stranded DNA-binding domain |
| 27 | c2ka3C_ | Alignment | not modelled | 11.3 | 20 | PDB header: structural protein Chain: C: PDB Molecule: emilin-1; PDBTitle: structure of emilin-1 c1q-like domain |
| 28 | c1u7mB_ | Alignment | not modelled | 11.2 | 24 | PDB header: de novo protein Chain: B: PDB Molecule: four-helix bundle model; PDBTitle: solution structure of a diiron protein model: due ferri(ii)2 turn mutant |
| | | | | | | PDB header: isomerase |

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|----|-------------------------|-----------|--------------|------|----|---|
| 29 | c1zvua_ | Alignment | not modelled | 11.2 | 28 | Chain: A: PDB Molecule: topoisomerase iv subunit a; PDBTitle: structure of the full-length e. coli parc subunit |
| 30 | d1wn0a1 | Alignment | not modelled | 10.6 | 11 | Fold: Four-helical up-and-down bundle Superfamily: Histidine-containing phosphotransfer domain, HPT domain Family: Phosphorelay protein-like |
| 31 | d2cpta1 | Alignment | not modelled | 10.6 | 18 | Fold: Spectrin repeat-like Superfamily: MIT domain Family: MIT domain |
| 32 | d1e9ya2 | Alignment | not modelled | 10.5 | 11 | Fold: Urease, gamma-subunit Superfamily: Urease, gamma-subunit Family: Urease, gamma-subunit |
| 33 | d1vk8a_ | Alignment | not modelled | 10.4 | 6 | Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like |
| 34 | d1ug7a_ | Alignment | not modelled | 10.1 | 15 | Fold: Four-helical up-and-down bundle Superfamily: Domain from hypothetical 2610208m17rik protein Family: Domain from hypothetical 2610208m17rik protein |
| 35 | d1lxja_ | Alignment | not modelled | 10.0 | 16 | Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like |
| 36 | c3qgaD_ | Alignment | not modelled | 9.8 | 11 | PDB header: hydrolase Chain: D: PDB Molecule: fusion of urease beta and gamma subunits; PDBTitle: 3.0 a model of iron containing urease urea2b2 from helicobacter2 mustelae |
| 37 | c3eb2A_ | Alignment | not modelled | 9.3 | 20 | PDB header: lyase Chain: A: PDB Molecule: putative dihydrodipicolinate synthetase; PDBTitle: crystal structure of dihydrodipicolinate synthase from2 rhodopseudomonas palustris at 2.0a resolution |
| 38 | d3en8a1 | Alignment | not modelled | 9.3 | 8 | Fold: Cystatin-like Superfamily: NTF2-like Family: Rpa4348-like |
| 39 | c2zetD_ | Alignment | not modelled | 9.1 | 9 | PDB header: signaling protein Chain: D: PDB Molecule: melanophilin; PDBTitle: crystal structure of the small gtpase rab27b complexed with2 the slp homology domain of slac2-a/melanophilin |
| 40 | c3efga_ | Alignment | not modelled | 9.0 | 16 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein slyx homolog; PDBTitle: structure of slyx protein from xanthomonas campestris pv. campestris2 str. atcc 33913 |
| 41 | c1e9za_ | Alignment | not modelled | 9.0 | 11 | PDB header: hydrolase Chain: A: PDB Molecule: urease subunit alpha; PDBTitle: crystal structure of helicobacter pylori urease |
| 42 | c3gzra_ | Alignment | not modelled | 9.0 | 4 | PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein with a ntf2-like fold; PDBTitle: crystal structure of an uncharacterized protein with a cystatin-like2 fold (cc_2572) from caulobacter vibrioides at 1.40 a resolution |
| 43 | c2epia_ | Alignment | not modelled | 8.6 | 17 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0045 protein mj1052; PDBTitle: crystal structure pf hypothetical protein mj1052 from2 methanocaldococcus jannaschii (form 2) |
| 44 | d1ngka_ | Alignment | not modelled | 8.5 | 8 | Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin |
| 45 | d1ejxa_ | Alignment | not modelled | 8.4 | 11 | Fold: Urease, gamma-subunit Superfamily: Urease, gamma-subunit Family: Urease, gamma-subunit |
| 46 | c3robC_ | Alignment | not modelled | 8.3 | 8 | PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized conserved protein; PDBTitle: the crystal structure of a conserved protein from plantcomycos2 limnophilus dsm 3776 |
| 47 | d4ubpa_ | Alignment | not modelled | 7.9 | 5 | Fold: Urease, gamma-subunit Superfamily: Urease, gamma-subunit Family: Urease, gamma-subunit |
| 48 | c2oi2A_ | Alignment | not modelled | 7.6 | 13 | PDB header: transferase Chain: A: PDB Molecule: mevalonate kinase; PDBTitle: streptococcus pneumoniae mevalonate kinase in complex with2 diphosphomevalonate |
| 49 | c2yxgD_ | Alignment | not modelled | 7.5 | 14 | PDB header: lyase Chain: D: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase (dapa) |
| 50 | d2a0ba_ | Alignment | not modelled | 7.0 | 11 | Fold: Four-helical up-and-down bundle Superfamily: Histidine-containing phosphotransfer domain, HPT domain Family: Aerobic respiration control sensor protein, ArcB |
| 51 | c2fvhB_ | Alignment | not modelled | 6.8 | 11 | PDB header: hydrolase Chain: B: PDB Molecule: urease gamma subunit; PDBTitle: crystal structure of rv1848, a urease gamma subunit urea (urea2 amidohydrolase), from mycobacterium tuberculosis |
| 52 | d2g3ba2 | Alignment | not modelled | 6.7 | 10 | Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain |
| 53 | c3f7sa_ | Alignment | not modelled | 6.6 | 11 | PDB header: unknown function Chain: A: PDB Molecule: uncharacterized ntf2-like protein; PDBTitle: crystal structure of a ntf2-like protein of unknown function (pp_4556)2 from pseudomonas putida kt2440 at 2.11 a resolution |
| 54 | d1yvia1 | Alignment | not modelled | 6.5 | 14 | Fold: Four-helical up-and-down bundle Superfamily: Histidine-containing phosphotransfer domain, HPT domain Family: Phosphorelay protein-like |

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|----|-------------------------|---|--------------|-----|----|---|
| 55 | c2v6xA |  | not modelled | 6.4 | 17 | PDB header: protein transport Chain: A: PDB Molecule: vacuolar protein sorting-associated protein 4; PDBTitle: structural insight into the interaction between escrt-iii2 and vps4 |
| 56 | dlxsfa1 |  | not modelled | 6.4 | 21 | Fold: Lysozyme-like Superfamily: Lysozyme-like Family: RPF-like |
| 57 | dlzymal |  | not modelled | 6.2 | 13 | Fold: Long alpha-hairpin Superfamily: Rabenosyn-5 Rab-binding domain-like Family: Rabenosyn-5 Rab-binding domain-like |
| 58 | clfi4A |  | not modelled | 6.2 | 7 | PDB header: lyase Chain: A: PDB Molecule: mevalonate 5-diphosphate decarboxylase; PDBTitle: the x-ray crystal structure of mevalonate 5-diphosphate decarboxylase2 at 2.3 angstrom resolution. |
| 59 | c3hx8A |  | not modelled | 6.2 | 0 | PDB header: isomerase Chain: A: PDB Molecule: putative ketosteroid isomerase; PDBTitle: crystal structure of putative ketosteroid isomerase2 (np_103587.1) from mesorhizobium loti at 1.45 a resolution |
| 60 | d2iboal |  | not modelled | 6.1 | 17 | Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like |
| 61 | c3jw4C |  | not modelled | 6.0 | 19 | PDB header: transcription regulator Chain: C: PDB Molecule: transcriptional regulator, marr/emrr family; PDBTitle: the structure of a putative marr family transcriptional regulator from2 clostridium acetobutylicum |
| 62 | d2q5ca1 |  | not modelled | 6.0 | 12 | Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: TyrA dimerization domain-like |
| 63 | c2rfgB |  | not modelled | 5.8 | 13 | PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from hahella2 chejuensis at 1.5a resolution |
| 64 | d3b8la1 |  | not modelled | 5.7 | 7 | Fold: Cystatin-like Superfamily: NTF2-like Family: BaiE/LinA-like |
| 65 | dls5aa |  | not modelled | 5.7 | 7 | Fold: Cystatin-like Superfamily: NTF2-like Family: PhzA/PhzB-like |
| 66 | clk47F |  | not modelled | 5.4 | 5 | PDB header: transferase Chain: F: PDB Molecule: phosphomevalonate kinase; PDBTitle: crystal structure of the streptococcus pneumoniae2 phosphomevalonate kinase (pmk) |
| 67 | dly6da |  | not modelled | 5.4 | 13 | Fold: Four-helical up-and-down bundle Superfamily: Histidine-containing phosphotransfer domain, HPT domain Family: Phosphorelay protein luxU |
| 68 | c2xcqA |  | not modelled | 5.4 | 20 | PDB header: isomerase Chain: A: PDB Molecule: dna gyrase subunit b, dna gyrase subunit a; PDBTitle: the 2.98a crystal structure of the catalytic core (b'a'2 region) of staphylococcus aureus dna gyrase |
| 69 | d1m98a1 |  | not modelled | 5.3 | 18 | Fold: Orange carotenoid protein, N-terminal domain Superfamily: Orange carotenoid protein, N-terminal domain Family: Orange carotenoid protein, N-terminal domain |
| 70 | c1m98A |  | not modelled | 5.3 | 15 | PDB header: unknown function Chain: A: PDB Molecule: orange carotenoid protein; PDBTitle: crystal structure of orange carotenoid protein |
| 71 | d1z05a2 |  | not modelled | 5.2 | 10 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: ROK |
| 72 | d1o5ka |  | not modelled | 5.2 | 16 | Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase |
| 73 | c2rrlA |  | not modelled | 5.2 | 19 | PDB header: protein transport Chain: A: PDB Molecule: flagellar hook-length control protein; PDBTitle: solution structure of the c-terminal domain of the flik |
| 74 | d1zbdb |  | not modelled | 5.1 | 13 | Fold: FYVE/PHD zinc finger Superfamily: FYVE/PHD zinc finger Family: FYVE, a phosphatidylinositol-3-phosphate binding domain |
| 75 | d1q3ma |  | not modelled | 5.1 | 39 | Fold: GLA-domain Superfamily: GLA-domain Family: GLA-domain |
| 76 | clu6tA |  | not modelled | 5.1 | 5 | PDB header: protein binding, signaling protein Chain: A: PDB Molecule: sh3 domain-binding glutamic acid-rich-like PDBTitle: crystal structure of the human sh3 binding glutamic-rich2 protein like |
| 77 | c3q4iA |  | not modelled | 5.0 | 24 | PDB header: hydrolase Chain: A: PDB Molecule: phosphohydrolase (mutt/nudix family protein); PDBTitle: crystal structure of cdp-chase in complex with gd3+ |
| 78 | d2cqea1 |  | not modelled | 5.0 | 25 | Fold: CCCH zinc finger Superfamily: CCCH zinc finger Family: CCCH zinc finger |
| 79 | c3g0eA |  | not modelled | 5.0 | 5 | PDB header: transferase Chain: A: PDB Molecule: mast/stem cell growth factor receptor; PDBTitle: kit kinase domain in complex with sunitinib |
| 80 | d1q8ha | | not modelled | 5.0 | 38 | Fold: GLA-domain Superfamily: GLA-domain |

