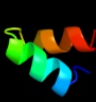




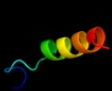






Phyre2

| | |
|---------------|-----------------------------|
| Email | l.a.kelley@imperial.ac.uk |
| Description | P77689 |
| Date | Thu Jan 5 12:31:40 GMT 2012 |
| Unique Job ID | 2c2395a4e5249a8b |

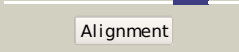
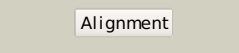

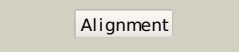

Detailed template information

| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|-------------------------|---|---|------------|--------|--|
| 1 | d1vh4a_ |  Alignment |  | 100.0 | 100 | Fold: Single-stranded right-handed beta-helix Superfamily: Stabilizer of iron transporter SufD Family: Stabilizer of iron transporter SufD |
| 2 | c2dagA_ |  Alignment |  | 74.2 | 17 | PDB header: hydrolase Chain: A: PDB Molecule: ubiquitin carboxyl-terminal hydrolase 5; PDBTitle: solution structure of the first uba domain in the human2 ubiquitin specific protease 5 (isopeptidase 5) |
| 3 | d1whca_ |  Alignment |  | 67.3 | 10 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 4 | c1dd9A_ |  Alignment |  | 63.0 | 17 | PDB header: transferase Chain: A: PDB Molecule: dna primase; PDBTitle: structure of the dnap catalytic core |
| 5 | d1dd9a_ |  Alignment |  | 63.0 | 17 | Fold: DNA primase core Superfamily: DNA primase core Family: DNA primase DnaG catalytic core |
| 6 | c2daiA_ |  Alignment |  | 62.2 | 19 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ubiquitin associated domain containing 1; PDBTitle: solution structure of the first uba domain in the human2 ubiquitin associated domain containing 1 (ubadc1) |
| 7 | c3sf5D_ |  Alignment |  | 58.4 | 13 | PDB header: chaperone Chain: D: PDB Molecule: urease accessory protein ureh; PDBTitle: crystal structure of helicobacter pylori urease accessory protein2 uref/h complex |
| 8 | d1veka_ |  Alignment |  | 54.2 | 27 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 9 | c2crnA_ |  Alignment |  | 54.0 | 10 | PDB header: immune system Chain: A: PDB Molecule: ubash3a protein; PDBTitle: solution structure of the uba domain of human ubash3a2 protein |
| 10 | d1p32a_ |  Alignment |  | 53.8 | 26 | Fold: Mitochondrial glycoprotein MAM33-like Superfamily: Mitochondrial glycoprotein MAM33-like Family: Mitochondrial glycoprotein MAM33-like |
| 11 | d1nuia1 |  Alignment |  | 52.5 | 33 | Fold: DNA primase core Superfamily: DNA primase core Family: Primase fragment of primase-helicase protein |

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|----|-------------------------|-----------|---|------|----|---|
| 12 | d2csba4 | Alignment |  | 50.8 | 19 | Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Topoisomerase V repeat domain |
| 13 | d1rfza_ | Alignment |  | 48.3 | 17 | Fold: YutG-like Superfamily: YutG-like Family: YutG-like |
| 14 | d1yqfa1 | Alignment |  | 47.7 | 35 | Fold: Mitochondrial glycoprotein MAM33-like Superfamily: Mitochondrial glycoprotein MAM33-like Family: Mitochondrial glycoprotein MAM33-like |
| 15 | c3qv0A_ | Alignment |  | 44.4 | 39 | PDB header: protein binding Chain: A: PDB Molecule: mitochondrial acidic protein mam33; PDBTitle: crystal structure of saccharomyces cerevisiae mam33 |
| 16 | c3jv1A_ | Alignment |  | 41.8 | 30 | PDB header: hydrolase Chain: A: PDB Molecule: p22 protein; PDBTitle: crystal structure of the trypanosoma brucei p22 protein |
| 17 | c1q57G_ | Alignment |  | 41.5 | 36 | PDB header: transferase Chain: G: PDB Molecule: dna primase/helicase; PDBTitle: the crystal structure of the bifunctional primase-helicase of2 bacteriophage t7 |
| 18 | d1wiva_ | Alignment |  | 39.7 | 22 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 19 | c3ic3C_ | Alignment |  | 39.1 | 33 | PDB header: oxidoreductase Chain: C: PDB Molecule: putative pyruvate dehydrogenase; PDBTitle: structure of a putative pyruvate dehydrogenase from the photosynthetic2 bacterium rhodopseudomonas palustris cga009 |
| 20 | d2crna1 | Alignment |  | 38.6 | 13 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 21 | c2qh9B_ | Alignment | not modelled | 37.2 | 12 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: upf0215 protein af_1433; PDBTitle: the crystal structure of a protein of unknown function from2 archaeoglobus fulgidus dsm 4304 |
| 22 | c3fp5A_ | Alignment | not modelled | 36.4 | 17 | PDB header: lipid binding protein Chain: A: PDB Molecule: acyl-coa binding protein; PDBTitle: crystal structure of acbp from moniliophthora perniciosa |
| 23 | c2f46A_ | Alignment | not modelled | 36.2 | 17 | PDB header: hydrolase Chain: A: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of a putative phosphatase (nma1982) from neisseria2 meningitidis z2491 at 1.41 a resolution |
| 24 | d2cpwa1 | Alignment | not modelled | 34.1 | 21 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 25 | c2cpwA_ | Alignment | not modelled | 33.3 | 21 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: cbl-interacting protein sts-1 variant; PDBTitle: solution structure of rsgi ruh-031, a uba domain from human2 cdna |
| 26 | d1n9pa_ | Alignment | not modelled | 33.0 | 19 | Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Cytoplasmic domain of inward rectifier potassium channel |
| 27 | d1yqga1 | Alignment | not modelled | 31.3 | 24 | Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: ProC C-terminal domain-like |
| 28 | c2au3A_ | Alignment | not modelled | 29.1 | 35 | PDB header: transferase Chain: A: PDB Molecule: dna primase; PDBTitle: crystal structure of the aquifex aeolicus primase (zinc binding and2 rna polymerase domains) PDB header: transferase |

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|----|-------------------------|-----------|--------------|------|----|---|
| 29 | c2o2kA | Alignment | not modelled | 28.9 | 22 | Chain: A: PDB Molecule: methionine synthase; PDBTitle: crystal structure of the activation domain of human2 methionine synthase isoform/mutant d963e/k1071n |
| 30 | c2zc1A | Alignment | not modelled | 28.8 | 33 | PDB header: hydrolase Chain: A: PDB Molecule: phosphotriesterase; PDBTitle: organophosphorus hydrolase from deinococcus radiodurans |
| 31 | c2dakA | Alignment | not modelled | 28.3 | 10 | PDB header: hydrolase Chain: A: PDB Molecule: ubiquitin carboxyl-terminal hydrolase 5; PDBTitle: solution structure of the second uba domain in the human2 ubiquitin specific protease 5 (isopeptidase 5) |
| 32 | d2e1za2 | Alignment | not modelled | 27.3 | 15 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Acetokinase-like |
| 33 | c2wknE | Alignment | not modelled | 26.8 | 25 | PDB header: hydrolase Chain: E: PDB Molecule: formamidase; PDBTitle: gamma lactamase from delftia acidovorans |
| 34 | d1g99a2 | Alignment | not modelled | 26.3 | 19 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Acetokinase-like |
| 35 | d1mskA | Alignment | not modelled | 24.8 | 22 | Fold: Methionine synthase activation domain-like Superfamily: Methionine synthase activation domain-like Family: Methionine synthase SAM-binding domain |
| 36 | d2ahra1 | Alignment | not modelled | 20.6 | 10 | Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: ProC C-terminal domain-like |
| 37 | c1nuiA | Alignment | not modelled | 20.5 | 33 | PDB header: replication Chain: A: PDB Molecule: dna primase/helicase; PDBTitle: crystal structure of the primase fragment of bacteriophage t7 primase-2 helicase protein |
| 38 | d2ddha2 | Alignment | not modelled | 20.2 | 13 | Fold: Bromodomain-like Superfamily: Acyl-CoA dehydrogenase C-terminal domain-like Family: acyl-CoA oxidase C-terminal domains |
| 39 | d1vega | Alignment | not modelled | 20.0 | 20 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 40 | d1livza | Alignment | not modelled | 19.9 | 25 | Fold: Ferredoxin-like Superfamily: SEA domain Family: SEA domain |
| 41 | c1tuuA | Alignment | not modelled | 18.5 | 19 | PDB header: transferase Chain: A: PDB Molecule: acetate kinase; PDBTitle: acetate kinase crystallized with atpgs |
| 42 | c3e3vA | Alignment | not modelled | 18.4 | 13 | PDB header: recombination Chain: A: PDB Molecule: regulatory protein recx; PDBTitle: crystal structure of recx from lactobacillus salivarius |
| 43 | c3my3A | Alignment | not modelled | 18.4 | 12 | PDB header: transcription Chain: A: PDB Molecule: nterf domain-containing protein 1, mitochondrial; PDBTitle: crystal structure of human mitochondrial transcription termination2 factor 3 |
| 44 | c2d9sA | Alignment | not modelled | 18.2 | 33 | PDB header: ligase Chain: A: PDB Molecule: cbl e3 ubiquitin protein ligase; PDBTitle: solution structure of rsgi ruh-049, a uba domain from mouse2 cdna |
| 45 | c3khyA | Alignment | not modelled | 18.0 | 19 | PDB header: transferase Chain: A: PDB Molecule: propionate kinase; PDBTitle: crystal structure of a propionate kinase from francisella2 tularensis subsp. tularensis schu s4 |
| 46 | d1ifya | Alignment | not modelled | 16.7 | 11 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 47 | c1sazA | Alignment | not modelled | 16.6 | 19 | PDB header: transferase Chain: A: PDB Molecule: probable butyrate kinase 2; PDBTitle: membership in the askha superfamily: enzymological2 properties and crystal structure of butyrate kinase 2 from3 thermotoga maritima |
| 48 | c3zq4C | Alignment | not modelled | 16.2 | 22 | PDB header: hydrolase Chain: C: PDB Molecule: ribonuclease j 1; PDBTitle: unusual, dual endo- and exo-nuclease activity in the degradosome2 explained by crystal structure analysis of rnase j1 |
| 49 | d1wfdA | Alignment | not modelled | 16.0 | 7 | Fold: Spectrin repeat-like Superfamily: MIT domain Family: MIT domain |
| 50 | c1x3nA | Alignment | not modelled | 15.8 | 15 | PDB header: transferase Chain: A: PDB Molecule: propionate kinase; PDBTitle: crystal structure of amppnp bound propionate kinase (tdcd) from2 salmonella typhimurium |
| 51 | d2qc1a1 | Alignment | not modelled | 15.3 | 42 | Fold: PH domain-like barrel Superfamily: PH domain-like Family: SSRP1-like |
| 52 | c3qyeA | Alignment | not modelled | 15.2 | 17 | PDB header: hydrolase activator Chain: A: PDB Molecule: tbc1 domain family member 1; PDBTitle: crystal structure of human tbc1d1 rabgap domain |
| 53 | d1saza2 | Alignment | not modelled | 15.0 | 15 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Acetokinase-like |
| 54 | d2g3qa1 | Alignment | not modelled | 14.5 | 13 | Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 55 | d1kx5d | Alignment | not modelled | 14.4 | 21 | Fold: Histone-fold Superfamily: Histone-fold |

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|----|-------------------------|-----------|--------------|------|---|
| | | | | | Family: Nucleosome core histones |
| 56 | d1v3aa_ | Alignment | not modelled | 14.0 | 34 Fold: (Phosphotyrosine protein) phosphatases II Superfamily: (Phosphotyrosine protein) phosphatases II Family: Dual specificity phosphatase-like |
| 57 | c2e4fA_ | Alignment | not modelled | 13.8 | 18 PDB header: transport protein Chain: A: PDB Molecule: g protein-activated inward rectifier potassium channel 2; PDBTitle: crystal structure of the cytoplasmic domain of g-protein-gated inward2 rectifier potassium channel kir3.2 |
| 58 | c3rhgA_ | Alignment | not modelled | 13.5 | 25 PDB header: hydrolase Chain: A: PDB Molecule: putative phosphotriesterase; PDBTitle: crystal structure of amidohydrolase pmi1525 (target efi-500319) from2 proteus mirabilis hi4320 |
| 59 | d1oqya1 | Alignment | not modelled | 13.4 | 11 Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 60 | c3ff5B_ | Alignment | not modelled | 13.3 | 8 PDB header: protein transport Chain: B: PDB Molecule: peroxisomal biogenesis factor 14; PDBTitle: crystal structure of the conserved n-terminal domain of the2 peroxisomal matrix-protein-import receptor, pex14p |
| 61 | c1tlqA_ | Alignment | not modelled | 12.6 | 17 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein yjpq; PDBTitle: crystal structure of protein yjpq from bacillus subtilis, pfam duf64 |
| 62 | d1tlqa_ | Alignment | not modelled | 12.6 | 17 Fold: YutG-like Superfamily: YutG-like Family: YutG-like |
| 63 | c2iirJ_ | Alignment | not modelled | 12.6 | 22 PDB header: transferase Chain: J: PDB Molecule: acetate kinase; PDBTitle: acetate kinase from a hypothermophile thermotoga maritima |
| 64 | d2gu3a1 | Alignment | not modelled | 12.5 | 36 Fold: Cystatin-like Superfamily: Cystatin/monellin Family: PepSY-like |
| 65 | c3gypA_ | Alignment | not modelled | 12.4 | 25 PDB header: chaperone Chain: A: PDB Molecule: histone chaperone rtt106; PDBTitle: rtt106p |
| 66 | c2gu3A_ | Alignment | not modelled | 12.3 | 25 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ypmb protein; PDBTitle: ypmb protein from bacillus subtilis |
| 67 | c2do6A_ | Alignment | not modelled | 12.2 | 19 PDB header: ligase Chain: A: PDB Molecule: e3 ubiquitin-protein ligase cbl-b; PDBTitle: solution structure of rsgi ruh-065, a uba domain from human2 cdna |
| 68 | c3gztF_ | Alignment | not modelled | 11.9 | 23 PDB header: virus Chain: F: PDB Molecule: outer capsid glycoprotein vp7; PDBTitle: vp7 recoated rotavirus dlp |
| 69 | c2kerA_ | Alignment | not modelled | 11.9 | 43 PDB header: hydrolase inhibitor Chain: A: PDB Molecule: alpha-amylase inhibitor z-2685; PDBTitle: alpha-amylase inhibitor parvulustat (z-2685) from2 streptomyces parvulus |
| 70 | d1eqzb_ | Alignment | not modelled | 11.8 | 21 Fold: Histone-fold Superfamily: Histone-fold Family: Nucleosome core histones |
| 71 | d1ok0a_ | Alignment | not modelled | 11.8 | 29 Fold: alpha-Amylase inhibitor tendamistat Superfamily: alpha-Amylase inhibitor tendamistat Family: alpha-Amylase inhibitor tendamistat |
| 72 | c3p4iA_ | Alignment | not modelled | 11.8 | 30 PDB header: transferase Chain: A: PDB Molecule: acetate kinase; PDBTitle: crystal structure of acetate kinase from mycobacterium avium |
| 73 | d1wjia_ | Alignment | not modelled | 11.5 | 11 Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain |
| 74 | d1s32d_ | Alignment | not modelled | 11.2 | 21 Fold: Histone-fold Superfamily: Histone-fold Family: Nucleosome core histones |
| 75 | c3mhvC_ | Alignment | not modelled | 11.0 | 12 PDB header: protein transport Chain: C: PDB Molecule: vacuolar protein sorting-associated protein 4; PDBTitle: crystal structure of vps4 and vta1 |
| 76 | c2w85A_ | Alignment | not modelled | 10.6 | 8 PDB header: protein transport Chain: A: PDB Molecule: peroxisomal membrane anchor protein pex14; PDBTitle: structure of pex14 in comex with pex19 |
| 77 | c3m66A_ | Alignment | not modelled | 10.6 | 17 PDB header: transcription Chain: A: PDB Molecule: mterf domain-containing protein 1, mitochondrial; PDBTitle: crystal structure of human mitochondrial transcription termination2 factor 3 |
| 78 | c1jrjA_ | Alignment | not modelled | 10.4 | 17 PDB header: hormone/growth factor Chain: A: PDB Molecule: exendin-4; PDBTitle: solution structure of exendin-4 in 30-vol% trifluoroethanol |
| 79 | c3hy5A_ | Alignment | not modelled | 10.4 | 23 PDB header: transport protein Chain: A: PDB Molecule: retinaldehyde-binding protein 1; PDBTitle: crystal structure of cralbp |
| 80 | d1oiza1 | Alignment | not modelled | 10.1 | 19 Fold: RuvA C-terminal domain-like Superfamily: CRAL/TRIO N-terminal domain Family: CRAL/TRIO N-terminal domain |
| 81 | d1y9ia_ | Alignment | not modelled | 9.7 | 15 Fold: YutG-like Superfamily: YutG-like Family: YutG-like |

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|----|-------------------------|---|--------------|-----|----|--|
| 82 | c3dfgA_ |  Alignment | not modelled | 9.5 | 19 | PDB header: recombination Chain: A: PDB Molecule: regulatory protein recx; PDBTitle: crystal structure of recx: a potent inhibitor protein of2 reca from xanthomonas campestris |
| 83 | c3f4cA_ |  Alignment | not modelled | 9.4 | 30 | PDB header: hydrolase Chain: A: PDB Molecule: organophosphorus hydrolase; PDBTitle: crystal structure of organophosphorus hydrolase from geobacillus2 steaerothermophilus strain 10, with glycerol bound |
| 84 | c1ye9E_ |  Alignment | not modelled | 9.3 | 18 | PDB header: oxidoreductase Chain: E: PDB Molecule: catalase hpii; PDBTitle: crystal structure of proteolytically truncated catalase2 hpii from e. coli |
| 85 | d1auaa1 |  Alignment | not modelled | 9.2 | 27 | Fold: RuvA C-terminal domain-like Superfamily: CRAL/TRIO N-terminal domain Family: CRAL/TRIO N-terminal domain |
| 86 | c2akhZ_ |  Alignment | not modelled | 9.0 | 18 | PDB header: protein transport Chain: Z: PDB Molecule: preprotein translocase sece subunit; PDBTitle: normal mode-based flexible fitted coordinates of a non-2 translocating secyeg protein-conducting channel into the3 cryo-em map of a secyeg-nascent chain-70s ribosome complex4 from e. coli |
| 87 | c3d5lA_ |  Alignment | not modelled | 8.6 | 13 | PDB header: signaling protein Chain: A: PDB Molecule: regulatory protein recx; PDBTitle: crystal structure of regulatory protein recx |
| 88 | c3rj1P_ |  Alignment | not modelled | 8.6 | 16 | PDB header: transcription Chain: P: PDB Molecule: mediator of rna polymerase ii transcription subunit 17; PDBTitle: architecture of the mediator head module |
| 89 | d1abaa_ |  Alignment | not modelled | 8.5 | 10 | Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase |
| 90 | c3k2gA_ |  Alignment | not modelled | 8.5 | 13 | PDB header: resiniferatoxin binding protein Chain: A: PDB Molecule: resiniferatoxin-binding, phosphotriesterase- PDBTitle: crystal structure of a resiniferatoxin-binding protein from2 rhodobacter sphaeroides |
| 91 | c2hjmB_ |  Alignment | not modelled | 8.1 | 22 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hypothetical protein pf1176; PDBTitle: crystal structure of a singleton protein pf1176 from p. furiosus |
| 92 | d1tzyb_ |  Alignment | not modelled | 8.1 | 21 | Fold: Histone-fold Superfamily: Histone-fold Family: Nucleosome core histones |
| 93 | d1bf6a_ |  Alignment | not modelled | 8.0 | 30 | Fold: TIM beta/alpha-barrel Superfamily: Metallo-dependent hydrolases Family: Phosphotriesterase-like |
| 94 | c2jnhA_ |  Alignment | not modelled | 7.9 | 19 | PDB header: ligase Chain: A: PDB Molecule: e3 ubiquitin-protein ligase cbl-b; PDBTitle: solution structure of the uba domain from cbl-b |
| 95 | c2i7aA_ |  Alignment | not modelled | 7.8 | 16 | PDB header: hydrolase Chain: A: PDB Molecule: calpain 13; PDBTitle: domain iv of human calpain 13 |
| 96 | c3okzB_ |  Alignment | not modelled | 7.8 | 18 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative uncharacterized protein gbs0355; PDBTitle: crystal structure of protein gbs0355 from streptococcus agalactiae,2 northeast structural genomics consortium target sar127 |
| 97 | d1y02a1 |  Alignment | not modelled | 7.8 | 23 | Fold: LEM/SAP HeH motif Superfamily: SAP domain Family: SAP domain |
| 98 | c2fhgC_ |  Alignment | not modelled | 7.6 | 14 | PDB header: hydrolase Chain: C: PDB Molecule: proteasome, beta subunit; PDBTitle: crystal structure of mycobacterial tuberculosis proteasome |
| 99 | c2vc7A_ |  Alignment | not modelled | 7.6 | 17 | PDB header: hydrolase Chain: A: PDB Molecule: arylalkylphosphatase; PDBTitle: structural basis for natural lactonase and promiscuous2 phosphotriesterase activities |