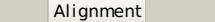
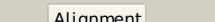
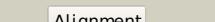


Phyre²

| | |
|---------------|--------------------------------|
| Email | I.a.kelley@imperial.ac.uk |
| Description | P32167 |
| Date | Thu Jan 5 11:49:44 GMT 2012 |
| Unique Job ID | 682bfd7af705ce4e |

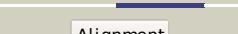
Detailed template information

| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|----------|---|---|------------|--------|---|
| 1 | d2if6a1 |  |  | 100.0 | 98 | Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: YiiX-like |
| 2 | c3kw0D_ |  |  | 100.0 | 22 | PDB header: hydrolase Chain: D: PDB Molecule: cysteine peptidase; PDBTitle: crystal structure of cysteine peptidase (np_982244.1) from bacillus2 cereus atcc 10987 at 2.50 a resolution |
| 3 | c2p1gA_ |  |  | 98.1 | 24 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative xylanase; PDBTitle: crystal structure of a putative xylanase from bacteroides fragilis |
| 4 | c2k1gA_ |  |  | 97.8 | 15 | PDB header: lipoprotein Chain: A: PDB Molecule: lipoprotein spr; PDBTitle: solution nmr structure of lipoprotein spr from escherichia coli k12.2 northeast structural genomics target er541-37-162 |
| 5 | c3npfB_ |  |  | 97.8 | 17 | PDB header: hydrolase Chain: B: PDB Molecule: putative dipeptidyl-peptidase vi; PDBTitle: crystal structure of a putative dipeptidyl-peptidase vi (bacova_00612)2 from bacteroides ovatus at 1.72 a resolution |
| 6 | c2fg0B_ |  |  | 97.6 | 24 | PDB header: hydrolase Chain: B: PDB Molecule: cog0791: cell wall-associated hydrolases (invasion- PDBTitle: crystal structure of a putative gamma-d-glutamyl-l-diamino acid2 endopeptidase (npun_r0659) from nostoc punctiforme pcc 73102 at 1.793 a resolution |
| 7 | c3gt2A_ |  |  | 97.5 | 12 | PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the p60 domain from m. avium2 paratuberculosis antigen map1272c |
| 8 | c3h41A_ |  |  | 97.5 | 22 | PDB header: hydrolase Chain: A: PDB Molecule: nlp/p60 family protein; PDBTitle: crystal structure of a nlp/p60 family protein (bce_2878) from2 bacillus cereus atcc 10987 at 1.79 a resolution |
| 9 | d2evra2 |  |  | 97.5 | 20 | Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: NlpC/P60 |
| 10 | c2kytA_ |  |  | 97.5 | 23 | PDB header: hydrolase Chain: A: PDB Molecule: group xvi phospholipase a2; PDBTitle: solution struture of the h-rev107 n-terminal domain |
| 11 | c2xivA_ |  |  | 97.2 | 16 | PDB header: structural protein Chain: A: PDB Molecule: hypothetical invasion protein; PDBTitle: structure of rv1477, hypothetical invasion protein of2 mycobacterium tuberculosis |

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|----|--------------------------|--|--------------|------|----|--|
| 12 | c3pb1A | | | 97.2 | 18 | PDB header: hydrolase Chain: A: PDB Molecule: invasion protein; PDBTitle: structure of the peptidoglycan hydrolase ripb (rv1478) from2 mycobacterium tuberculosis at 1.6 resolution |
| 13 | c3i86A | | | 97.2 | 16 | PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the p60 domain from m. avium subspecies2 paratuberculosis antigen map1204 |
| 14 | d2im9a1 | | | 97.1 | 20 | Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Lpg0564-like |
| 15 | c2im9A | | | 97.1 | 20 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of protein lpg0564 from legionella pneumophila str.2 philadelphia 1, pfam duf1460 |
| 16 | c3mluB | | | 94.3 | 19 | PDB header: hydrolase Chain: B: PDB Molecule: putative gamma-d-glutamyl-l-diamino acid endopeptidase; PDBTitle: crystal structure of a putative gamma-d-glutamyl-l-diamino acid2 endopeptidase (dvu_0896) from desulfovibrio vulgaris hildenborough at3 1.75 a resolution |
| 17 | d2io8a2 | | | 92.8 | 16 | Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: CHAP domain |
| 18 | c2ioaA | | | 80.2 | 17 | PDB header: ligase, hydrolase Chain: A: PDB Molecule: bifunctional glutathionylspermidine PDBTitle: e. coli bifunctional glutathionylspermidine2 synthetase/amidase incomplex with mg2+ and adp and3 phosphinate inhibitor |
| 19 | c2k3aA | | | 77.4 | 24 | PDB header: hydrolase Chain: A: PDB Molecule: chap domain protein; PDBTitle: nmr solution structure of staphylococcus saprophyticus chap2 (cysteine, histidine-dependent amidohydrolases/peptidases)3 domain protein. northeast structural genomics consortium4 target syr11 |
| 20 | c2vpmB | | | 77.2 | 21 | PDB header: ligase Chain: B: PDB Molecule: trypanothione synthetase; PDBTitle: trypanothione synthetase |
| 21 | d1u5tb1 | | not modelled | 33.0 | 12 | Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain |
| 22 | d1wh7a | | not modelled | 23.5 | 29 | Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain |
| 23 | c3mvnA | | not modelled | 23.0 | 20 | PDB header: ligase Chain: A: PDB Molecule: udp-n-acetyl muramate:l-alanyl-gamma-d-glutamyl-medo- PDBTitle: crystal structure of a domain from a putative udp-n-acetyl muramate:l-2 alanyl-gamma-d-glutamyl-medo-diaminopimelate ligase from haemophilus3 ducreyi 35000hp |
| 24 | d1wfzA | | not modelled | 20.6 | 19 | Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain |
| 25 | d1zj8a1 | | not modelled | 19.9 | 27 | Fold: Ferredoxin-like Superfamily: Nitrite/Sulfite reductase N-terminal domain-like Family: Duplicated Sir/Nir-like domains 1 and 3 |
| 26 | c1wypA | | not modelled | 18.7 | 15 | PDB header: structural protein Chain: A: PDB Molecule: calponin 1; PDBTitle: solution structure of the ch domain of human calponin 1 |
| 27 | c2z7eB | | not modelled | 17.9 | 13 | PDB header: biosynthetic protein Chain: B: PDB Molecule: nifu-like protein; PDBTitle: crystal structure of aquifex aeolicus iscu with bound [2fe-2 2s] cluster |
| 28 | d1jalal2 | | not modelled | 13.6 | 23 | Fold: beta-Grasp (ubiquitin-like) Superfamily: TGS-like Family: G domain-linked domain |

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|----|-------------------------|-----------|--------------|------|----|--|
| 29 | d1vbg2 | Alignment | not modelled | 13.3 | 18 | Fold: The "swivelling" beta/beta/alpha domain Superfamily: Phosphohistidine domain Family: Pyruvate phosphate dikinase, central domain |
| 30 | d1ni3a2 | Alignment | not modelled | 13.1 | 23 | Fold: beta-Grasp (ubiquitin-like) Superfamily: TGS-like Family: G domain-linked domain |
| 31 | d1knwa1 | Alignment | not modelled | 12.9 | 7 | Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Alanine racemase C-terminal domain-like Family: Eukaryotic ODC-like |
| 32 | d1vcta2 | Alignment | not modelled | 12.7 | 9 | Fold: TrkA C-terminal domain-like Superfamily: TrkA C-terminal domain-like Family: TrkA C-terminal domain-like |
| 33 | d1kbla2 | Alignment | not modelled | 12.1 | 11 | Fold: The "swivelling" beta/beta/alpha domain Superfamily: Phosphohistidine domain Family: Pyruvate phosphate dikinase, central domain |
| 34 | d1e8ca2 | Alignment | not modelled | 11.8 | 14 | Fold: MurD-like peptide ligases, peptide-binding domain Superfamily: MurD-like peptide ligases, peptide-binding domain Family: MurCDEF C-terminal domain |
| 35 | c3a56B | Alignment | not modelled | 11.6 | 14 | PDB header: hydrolase Chain: B: PDB Molecule: protein-glutaminase; PDBTitle: crystal structure of pro- protein-glutaminase |
| 36 | c3eatX | Alignment | not modelled | 11.5 | 13 | PDB header: oxidoreductase Chain: X: PDB Molecule: pyoverdine biosynthesis protein pvcb; PDBTitle: crystal structure of the pvcb (pa2255) protein from2 pseudomonas aeruginosa |
| 37 | d2ptza1 | Alignment | not modelled | 11.1 | 16 | Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: Enolase |
| 38 | c2wbqA | Alignment | not modelled | 10.7 | 22 | PDB header: oxidoreductase Chain: A: PDB Molecule: -arginine beta-hydroxylase; PDBTitle: crystal structure of vioc in complex with (2s,3s)-2 hydroxyarginine |
| 39 | d2gdwa1 | Alignment | not modelled | 10.6 | 21 | Fold: Acyl carrier protein-like Superfamily: ACP-like Family: Peptidyl carrier domain |
| 40 | c3da5A | Alignment | not modelled | 10.5 | 14 | PDB header: rna binding protein Chain: A: PDB Molecule: argonaute; PDBTitle: crystal structure of piwi/argonaute/zwill(e)paz) domain from2 thermococcus thioreducens |
| 41 | d1wpna | Alignment | not modelled | 10.3 | 10 | Fold: DHH phosphoesterases Superfamily: DHH phosphoesterases Family: Manganese-dependent inorganic pyrophosphatase (family II) |
| 42 | d1vk3a3 | Alignment | not modelled | 10.2 | 15 | Fold: PurM C-terminal domain-like Superfamily: PurM C-terminal domain-like Family: PurM C-terminal domain-like |
| 43 | c1wynA | Alignment | not modelled | 9.8 | 16 | PDB header: structural protein Chain: A: PDB Molecule: calponin-2; PDBTitle: solution structure of the ch domain of human calponin-2 |
| 44 | d1k20a | Alignment | not modelled | 9.6 | 15 | Fold: DHH phosphoesterases Superfamily: DHH phosphoesterases Family: Manganese-dependent inorganic pyrophosphatase (family II) |
| 45 | d2jfga2 | Alignment | not modelled | 9.5 | 19 | Fold: MurD-like peptide ligases, peptide-binding domain Superfamily: MurD-like peptide ligases, peptide-binding domain Family: MurCDEF C-terminal domain |
| 46 | d1h6za2 | Alignment | not modelled | 9.4 | 18 | Fold: The "swivelling" beta/beta/alpha domain Superfamily: Phosphohistidine domain Family: Pyruvate phosphate dikinase, central domain |
| 47 | d1ds1a | Alignment | not modelled | 9.0 | 22 | Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: Clavaminate synthase |
| 48 | c3pvjB | Alignment | not modelled | 8.9 | 27 | PDB header: oxidoreductase Chain: B: PDB Molecule: alpha-ketoglutarate-dependent taurine dioxygenase; PDBTitle: crystal structure of the fe(ii)/alpha-ketoglutarate dependent taurine2 dioxygenase from pseudomonas putida kt2440 |
| 49 | c2og5A | Alignment | not modelled | 8.9 | 13 | PDB header: oxidoreductase Chain: A: PDB Molecule: putative oxygenase; PDBTitle: crystal structure of asparagine oxygenase (asno) |
| 50 | d1twia1 | Alignment | not modelled | 8.9 | 9 | Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Alanine racemase C-terminal domain-like Family: Eukaryotic ODC-like |
| 51 | c2cmpA | Alignment | not modelled | 8.3 | 19 | PDB header: terminase Chain: A: PDB Molecule: terminase small subunit; PDBTitle: crystal structure of the dna binding domain of g1p small2 terminase subunit from bacteriophage sf6 |
| 52 | d1otja | Alignment | not modelled | 8.3 | 27 | Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: TauD/TfdA-like |
| 53 | c3r1jB | Alignment | not modelled | 8.1 | 20 | PDB header: oxidoreductase Chain: B: PDB Molecule: alpha-ketoglutarate-dependent taurine dioxygenase; PDBTitle: crystal structure of alpha-ketoglutarate-dependent taurine dioxygenase2 from mycobacterium avium, native form |
| 54 | c2lc3A | Alignment | not modelled | 7.9 | 30 | PDB header: ligase Chain: A: PDB Molecule: e3 ubiquitin-protein ligase hectd1; PDBTitle: solution nmr structure of a helical bundle domain from human e3 ligase2 hectd1. northeast structural genomics consortium (nesg) target3 ht6305a |
| | | | | | | Fold: Double-stranded beta-helix |

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|----|-------------------------|-----------|--------------|-----|----|--|
| 55 | d1oiha_ | Alignment | not modelled | 7.7 | 20 | Superfamily: Clavaminic acid synthase-like Family: TauD/TfdA-like |
| 56 | c2wawA_ | Alignment | not modelled | 7.6 | 7 | PDB header: unknown function Chain: A: PDB Molecule: moba relate protein; PDBTitle: crystal structure of mycobacterium tuberculosis rv0371c2 homolog from mycobacterium sp. strain jc1 |
| 57 | c3nnlB_ | Alignment | not modelled | 7.2 | 20 | PDB header: biosynthetic protein Chain: B: PDB Molecule: cura; PDBTitle: halogenase domain from cura module (crystal form iii) |
| 58 | c3n29A_ | Alignment | not modelled | 7.1 | 15 | PDB header: lyase Chain: A: PDB Molecule: carboxynorspermidine decarboxylase; PDBTitle: crystal structure of carboxynorspermidine decarboxylase complexed with2 norspermidine from campylobacter jejuni |
| 59 | c2pfrB_ | Alignment | not modelled | 7.0 | 17 | PDB header: transferase Chain: B: PDB Molecule: arylamine N-acetyltransferase 2; PDBTitle: human N-acetyltransferase 2 |
| 60 | d1xjsa_ | Alignment | not modelled | 6.8 | 22 | Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain |
| 61 | d1jr7a_ | Alignment | not modelled | 6.5 | 7 | Fold: Double-stranded beta-helix Superfamily: Clavaminic acid synthase-like Family: Gab protein (hypothetical protein YgaT) |
| 62 | d2hawa1 | Alignment | not modelled | 6.4 | 10 | Fold: DHH phosphoesterases Superfamily: DHH phosphoesterases Family: Manganese-dependent inorganic pyrophosphatase (family II) |
| 63 | c3bdeA_ | Alignment | not modelled | 6.4 | 17 | PDB header: unknown function Chain: A: PDB Molecule: ml15499 protein; PDBTitle: crystal structure of a dabb family protein with a ferredoxin-like fold2 (ml15499) from mesorhizobium loti maff303099 at 1.79 a resolution |
| 64 | d1hkva1 | Alignment | not modelled | 6.4 | 7 | Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Alanine racemase C-terminal domain-like Family: Eukaryotic ODC-like |
| 65 | c3bgua_ | Alignment | not modelled | 6.4 | 7 | PDB header: unknown function Chain: A: PDB Molecule: ferredoxin-like protein of unknown function; PDBTitle: crystal structure of a dimeric ferredoxin-like protein of unknown2 function (tfu_0763) from thermobifida fusca yx at 1.50 a resolution |
| 66 | c3al6A_ | Alignment | not modelled | 6.2 | 20 | PDB header: unknown function Chain: A: PDB Molecule: jmjC domain-containing protein c2orf60; PDBTitle: crystal structure of human tyw5 |
| 67 | d2bsza1 | Alignment | not modelled | 6.1 | 21 | Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Arylamine N-acetyltransferase |
| 68 | c3jxoB_ | Alignment | not modelled | 5.8 | 16 | PDB header: transport protein Chain: B: PDB Molecule: trka-n domain protein; PDBTitle: crystal structure of an octomeric two-subunit trka k+ channel ring2 gating assembly, tm1088a:tm1088b, from thermotoga maritima |
| 69 | d1w6va1 | Alignment | not modelled | 5.8 | 25 | Fold: DUSP-like Superfamily: DUSP-like Family: DUSP, domain in ubiquitin-specific proteases |
| 70 | c2cr4A_ | Alignment | not modelled | 5.7 | 18 | PDB header: signaling protein Chain: A: PDB Molecule: sh3 domain-binding protein 2; PDBTitle: solution structure of the sh2 domain of human sh3bp2 protein |
| 71 | d1asua_ | Alignment | not modelled | 5.7 | 18 | Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Retroviral integrase, catalytic domain |
| 72 | c3lybC_ | Alignment | not modelled | 5.7 | 20 | PDB header: hydrolase Chain: C: PDB Molecule: putative endoribonuclease; PDBTitle: structure of putative endoribonuclease(kp1_3112) from2 klebsiella pneumoniae |
| 73 | d1w4ta1 | Alignment | not modelled | 5.5 | 13 | Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Arylamine N-acetyltransferase |
| 74 | c2r32A_ | Alignment | not modelled | 5.5 | 31 | PDB header: immune system Chain: A: PDB Molecule: gcn4-pii/tumor necrosis factor ligand PDBTitle: crystal structure of human gitrl variant |
| 75 | c3d01G_ | Alignment | not modelled | 5.5 | 23 | PDB header: structural genomics, unknown function Chain: G: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of the protein atu1372 with unknown function from2 agrobacterium tumefaciens |
| 76 | c2zkqq_ | Alignment | not modelled | 5.4 | 25 | PDB header: ribosomal protein/rna Chain: Q: PDB Molecule: PDBTitle: structure of a mammalian ribosomal 40s subunit within an2 80s complex obtained by docking homology models of the rna3 and proteins into an 8.7 a cryo-em map |
| 77 | d1hyoa2 | Alignment | not modelled | 5.4 | 23 | Fold: FAH Superfamily: FAH Family: FAH |
| 78 | c1nhgD_ | Alignment | not modelled | 5.3 | 15 | PDB header: oxidoreductase Chain: D: PDB Molecule: enoyl-acyl carrier reductase; PDBTitle: crystal structure analysis of plasmodium falciparum enoyl-2 acyl-carrier-protein reductase with triclosan |
| 79 | c2eobA_ | Alignment | not modelled | 5.3 | 14 | PDB header: hydrolase Chain: A: PDB Molecule: 1-phosphatidylinositol-4,5-bisphosphate PDBTitle: solution structure of the second sh2 domain from rat plc2 gamma-2 |
| 80 | c1e8cB_ | Alignment | not modelled | 5.2 | 8 | PDB header: ligase Chain: B: PDB Molecule: udp-n-acetyl muramoylalanyl-d-glutamate--2,6- |

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|----|-------------------------|---|--------------|-----|----|---|
| | | | | | | PDBTitle: structure of mure the udp-n-acetyl muramyl tripeptide2 synthetase from e. coli PDB header: cell cycle Chain: A: PDB Molecule: microtubule-associated protein rp/eb family PDBTitle: structure of fragment of human end-binding protein 1 (eb1)2 containing the n-terminal domain at 1.35 a resolution |
| 81 | c2r8uA_ |  | not modelled | 5.2 | 9 | Fold: PA1123-like Superfamily: PA1123-like Family: PA1123-like |
| 82 | d2hg6a1 |  | not modelled | 5.2 | 67 | Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain |