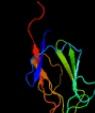
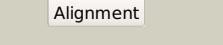
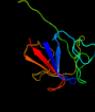
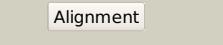
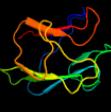


Phyre²

| | |
|---------------|------------------------------|
| Email | mdejesus@rockefeller.edu |
| Description | RVBD3360 (-)_3772822_3773190 |
| Date | Fri Aug 9 18:20:02 BST 2019 |
| Unique Job ID | 60d4eba849edc9b9 |

Detailed template information

| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|-------------------------|---|---|------------|--------|--|
| 1 | c6ccdA_ |  |  | 100.0 | 64 | PDB header: protein binding Chain: A: PDB Molecule: abc transporter atp-binding/permease protein rv1747; PDBTitle: the crystal structure of mycobacterium tuberculosis rv1747 fha-1 |
| 2 | c2kkIA_ |  |  | 99.9 | 22 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein mb1858; PDBTitle: solution nmr structure of fha domain of mb1858 from2 mycobacterium bovis. northeast structural genomics3 consortium target mbr243c (24-155). |
| 3 | c2kfua_ |  |  | 99.9 | 20 | PDB header: protein binding Chain: A: PDB Molecule: rv1827 pthr 22; PDBTitle: pknb-phosphorylated rv1827 |
| 4 | c2n84A_ |  |  | 99.9 | 20 | PDB header: isomerase Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of the fha domain of tbpar42 |
| 5 | c6cahA_ |  |  | 99.9 | 24 | PDB header: protein binding Chain: A: PDB Molecule: abc transporter atp-binding/permease protein rv1747; PDBTitle: nmr-based structure of the fha-2 domain from mycobacterium2 tuberculosis abc transporter rv1747 |
| 6 | c3hx1B_ |  |  | 99.8 | 22 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: slr1951 protein; PDBTitle: crystal structure of the slr1951 protein from synechocystis sp.2 northeast structural genomics consortium target sgr167a |
| 7 | c4jonA_ |  |  | 99.8 | 14 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: centrosomal protein of 170 kda; PDBTitle: crystal structure of a centrosomal protein 170kda, transcript variant2 beta (cep170) from homo sapiens at 2.15 a resolution (psi community3 target, sundstrom) |
| 8 | d1mzka_ |  |  | 99.8 | 17 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 9 | c3vpyA_ |  |  | 99.8 | 17 | PDB header: protein binding Chain: A: PDB Molecule: fha domain-containing protein ddl; PDBTitle: crystal structure of arabidopsis ddl fha domain |
| 10 | d1uhta_ |  |  | 99.8 | 25 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 11 | d2ff4a3 |  |  | 99.8 | 21 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |

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|----|-------------------------|-----------|---|------|----|---|
| 12 | c5a8iA | Alignment |  | 99.8 | 22 | PDB header: transcription Chain: A: PDB Molecule: arna; PDBTitle: crystal structure of the fha domain of arna from sulfolobus2 acidocaldarius |
| 13 | c3poaA | Alignment |  | 99.8 | 22 | PDB header: peptide binding protein Chain: A: PDB Molecule: putative uncharacterized protein tb39.8; PDBTitle: structural and functional analysis of phosphothreonine-dependent fha2 domain interactions |
| 14 | c2jkdB | Alignment |  | 99.8 | 17 | PDB header: gene regulation Chain: B: PDB Molecule: pre-mrna leakage protein 1; PDBTitle: structure of the yeast pml1 splicing factor and its2 integration into the res complex |
| 15 | c2jqIA | Alignment |  | 99.8 | 19 | PDB header: cell cycle Chain: A: PDB Molecule: dna damage response protein kinase dun1; PDBTitle: nmr structure of the yeast dun1 fha domain in complex with2 a doubly phosphorylated (pt) peptide derived from rad533 scd1 |
| 16 | c3elsA | Alignment |  | 99.8 | 16 | PDB header: splicing Chain: A: PDB Molecule: pre-mrna leakage protein 1; PDBTitle: crystal structure of yeast pml1p, residues 51-204 |
| 17 | c4h87A | Alignment |  | 99.8 | 19 | PDB header: peptide binding protein Chain: A: PDB Molecule: kanadaptin; PDBTitle: crystal structure of a fha domain of kanadaptin (slc4a1ap) from homo2 sapiens at 1.55 a resolution |
| 18 | c3ounA | Alignment |  | 99.8 | 22 | PDB header: protein binding/transferase Chain: A: PDB Molecule: putative uncharacterized protein tb39.8; PDBTitle: crystal structure of the fhaa fha domain complexed with the2 intracellular domain of rv3910 |
| 19 | c5yyxA | Alignment |  | 99.8 | 16 | PDB header: transferase Chain: A: PDB Molecule: meiosis-specific serine/threonine-protein kinase mek1; PDBTitle: crystal structure of the mek1 fha domain |
| 20 | c6ar2B | Alignment |  | 99.8 | 24 | PDB header: membrane protein Chain: B: PDB Molecule: sarcolemmal membrane-associated protein; PDBTitle: structure of human slmap fha domain in complex with pmst2 |
| 21 | c1r21A | Alignment | not modelled | 99.8 | 17 | PDB header: cell cycle Chain: A: PDB Molecule: antigen ki-67; PDBTitle: solution structure of human ki67 fha domain |
| 22 | d2affa1 | Alignment | not modelled | 99.8 | 18 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 23 | c3fm8A | Alignment | not modelled | 99.8 | 16 | PDB header: transport protein/hydrolase activator Chain: A: PDB Molecule: kinesin-like protein kif13b; PDBTitle: crystal structure of full length centaurin alpha-1 bound with the fha2 domain of kif13b (capri target) |
| 24 | c3uotB | Alignment | not modelled | 99.8 | 15 | PDB header: cell cycle Chain: B: PDB Molecule: mediator of dna damage checkpoint protein 1; PDBTitle: crystal structure of mdc1 fha domain in complex with a phosphorylated2 peptide from the mdc1 n-terminus |
| 25 | d2piea1 | Alignment | not modelled | 99.8 | 25 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 26 | c2jpeA | Alignment | not modelled | 99.8 | 21 | PDB header: transcription Chain: A: PDB Molecule: nuclear inhibitor of protein phosphatase 1; PDBTitle: fha domain of nipp1 |
| 27 | c3gqsB | Alignment | not modelled | 99.8 | 20 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: adenylate cyclase-like protein; PDBTitle: crystal structure of the fha domain of ct664 protein from chlamydia2 trachomatis |
| 28 | d1g6ga | Alignment | not modelled | 99.8 | 15 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| | | | | | | PDB header: cell cycle |

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|----|--------------------------|-----------|--------------|------|----|---|
| 29 | c5t2sA | Alignment | not modelled | 99.8 | 14 | Chain: A: PDB Molecule: ddk kinase regulatory subunit dbf4.serine/threonine-protein PDBTitle: structure of the fha1 domain of rad53 bound simultaneously to the brct2 domain of dbf4 and a phosphopeptide. |
| 30 | d1g3ga | Alignment | not modelled | 99.7 | 14 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 31 | c2ff4B | Alignment | not modelled | 99.7 | 19 | PDB header: transcription Chain: B: PDB Molecule: probable regulatory protein embr; PDBTitle: mycobacterium tuberculosis embr in complex with low affinity2 phosphopeptide PDB header: transport protein |
| 32 | c4a0eB | Alignment | not modelled | 99.7 | 22 | Chain: B: PDB Molecule: type iii secretion protein; PDBTitle: crystal structure of the cytoplasmic n-terminal domain of yersinia2 pestis yscd |
| 33 | d1gxca | Alignment | not modelled | 99.7 | 15 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 34 | c1gxcA | Alignment | not modelled | 99.7 | 15 | PDB header: phosphoprotein-binding domain Chain: A: PDB Molecule: serine/threonine-protein kinase chk2; PDBTitle: fha domain from human chk2 kinase in complex with a2 synthetic phosphopeptide |
| 35 | d1dmza | Alignment | not modelled | 99.7 | 9 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 36 | c6a8wA | Alignment | not modelled | 99.7 | 20 | PDB header: protein binding Chain: A: PDB Molecule: vacuolar protein sorting-associated protein 64; PDBTitle: crystal structure of the fha domain of far9 |
| 37 | c5e50A | Alignment | not modelled | 99.7 | 12 | PDB header: lyase Chain: A: PDB Molecule: aprataxin and pnk-like factor; PDBTitle: aplf/xrc4 complex |
| 38 | c3kt9A | Alignment | not modelled | 99.7 | 14 | PDB header: hydrolase Chain: A: PDB Molecule: aprataxin; PDBTitle: aprataxin fha domain |
| 39 | d1yjma1 | Alignment | not modelled | 99.7 | 13 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 40 | c5djoB | Alignment | not modelled | 99.7 | 15 | PDB header: transport protein Chain: B: PDB Molecule: kinesin-like protein; PDBTitle: crystal structure of the cc1-fha tandem of kinesin-3 kif13a |
| 41 | d1lw1na1 | Alignment | not modelled | 99.6 | 20 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 42 | c2eh0A | Alignment | not modelled | 99.6 | 23 | PDB header: transport protein Chain: A: PDB Molecule: kinesin-like protein kif1b; PDBTitle: solution structure of the fha domain from human kinesin-2 like protein kif1b |
| 43 | c1yj5C | Alignment | not modelled | 99.6 | 16 | PDB header: transferase Chain: C: PDB Molecule: 5' polynucleotide kinase-3' phosphatase fha domain; PDBTitle: molecular architecture of mammalian polynucleotide kinase, a dna2 repair enzyme |
| 44 | d1lgpa | Alignment | not modelled | 99.6 | 17 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 45 | d1ujxa | Alignment | not modelled | 99.6 | 14 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 46 | c4egxA | Alignment | not modelled | 99.6 | 22 | PDB header: transport protein Chain: A: PDB Molecule: kinesin-like protein kif1a; PDBTitle: crystal structure of kif1a cc1-fha tandem |
| 47 | d1qu5a | Alignment | not modelled | 99.6 | 14 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 48 | d2g1la1 | Alignment | not modelled | 99.6 | 20 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 49 | c5z58X | Alignment | not modelled | 99.6 | 15 | PDB header: splicing Chain: X: PDB Molecule: smad nuclear-interacting protein 1; PDBTitle: cryo-em structure of a human activated spliceosome (early bact) at 4.92 angstrom. |
| 50 | d2brfa1 | Alignment | not modelled | 99.5 | 17 | Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain |
| 51 | c4ejqB | Alignment | not modelled | 99.4 | 21 | PDB header: transport protein Chain: B: PDB Molecule: kinesin-like protein kif1a; PDBTitle: crystal structure of kif1a c-cc1-fha |
| 52 | c3i0mA | Alignment | not modelled | 99.3 | 20 | PDB header: cell cycle Chain: A: PDB Molecule: dna repair and telomere maintenance protein nbs1; PDBTitle: structure of the s. pombe nbs1 fha/brct-repeat domain |
| 53 | c5xzvB | Alignment | not modelled | 99.3 | 21 | PDB header: transferase Chain: B: PDB Molecule: serine/threonine-protein kinase rad53; PDBTitle: crystal structure of rad53 1-466 in complex with amp-pnp |
| 54 | c3i6uA | Alignment | not modelled | 98.8 | 15 | PDB header: transferase Chain: A: PDB Molecule: serine/threonine-protein kinase chk2; PDBTitle: structure and activation mechanism of the chk2 dna-damage checkpoint2 kinase |
| 55 | c3i6wB | Alignment | not modelled | 98.6 | 20 | PDB header: transferase Chain: B: PDB Molecule: serine/threonine-protein kinase chk2; PDBTitle: structure and activation mechanism of the chk2 dna-damage checkpoint2 kinase |

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|----|-------------------------|-----------|--------------|------|----|---|
| | | | | | | damage checkpoint2 kinase |
| 56 | c4zgiA | Alignment | not modelled | 98.1 | 13 | PDB header: signaling protein Chain: A: PDB Molecule: traf-interacting protein with fha domain-containing protein PDBTitle: structure of truncated human tifa |
| 57 | c5fwhA | Alignment | not modelled | 97.5 | 25 | PDB header: structural protein Chain: A: PDB Molecule: essc; PDBTitle: n-terminal fha domain from essc a component of the2 bacterial type vii secretion apparatus |
| 58 | c3uv0B | Alignment | not modelled | 96.9 | 17 | PDB header: protein binding Chain: B: PDB Molecule: mutator 2, isoform b; PDBTitle: crystal structure of the drosophila mu2 fha domain |
| 59 | c4xmmE | Alignment | not modelled | 68.7 | 9 | PDB header: transport protein/immune system Chain: E: PDB Molecule: nucleoporin nup120; PDBTitle: structure of the yeast coat nucleoporin complex, space group c2 |
| 60 | c3hxra | Alignment | not modelled | 66.5 | 9 | PDB header: structural protein Chain: A: PDB Molecule: nucleoporin nup120; PDBTitle: nucleoporin nup120 from s.cerevisiae (aa 1-757) |
| 61 | c3dwmA | Alignment | not modelled | 55.7 | 33 | PDB header: transferase Chain: A: PDB Molecule: 9.5 kda culture filtrate antigen cfp10a; PDBTitle: crystal structure of mycobacterium tuberculosis cyso, an antigen |
| 62 | d1xo3a | Alignment | not modelled | 50.8 | 10 | Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: C9orf74 homolog |
| 63 | d1dm9a | Alignment | not modelled | 48.2 | 17 | Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: Heat shock protein 15 kD |
| 64 | c1dm9A | Alignment | not modelled | 48.2 | 17 | PDB header: structural genomics Chain: A: PDB Molecule: hypothetical 15.5 kd protein in mrca-pcka intergenic PDBTitle: heat shock protein 15 kd |
| 65 | c2qjIA | Alignment | not modelled | 46.3 | 14 | PDB header: signaling protein Chain: A: PDB Molecule: ubiquitin-related modifier 1; PDBTitle: crystal structure of urm1 |
| 66 | c5z81A | Alignment | not modelled | 45.8 | 24 | PDB header: chaperone Chain: A: PDB Molecule: heat shock protein 15; PDBTitle: trimeric structure of vibrio cholerae heat shock protein 15 at 2.32 angstrom resolution |
| 67 | c4n6eB | Alignment | not modelled | 45.0 | 38 | PDB header: lyase/biosynthetic protein Chain: B: PDB Molecule: this/moad family protein; PDBTitle: crystal structure of amycolatopsis orientalis bexx/cys0 complex |
| 68 | d1wgka | Alignment | not modelled | 43.5 | 10 | Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: C9orf74 homolog |
| 69 | d1c06a | Alignment | not modelled | 42.5 | 32 | Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: Ribosomal protein S4 |
| 70 | c2k9xA | Alignment | not modelled | 42.5 | 19 | PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of urm1 from trypanosoma brucei |
| 71 | c2g1eA | Alignment | not modelled | 41.8 | 29 | PDB header: transferase Chain: A: PDB Molecule: hypothetical protein ta0895; PDBTitle: solution structure of ta0895 |
| 72 | d1v8ca1 | Alignment | not modelled | 41.3 | 24 | Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: MoaD |
| 73 | c3h7nD | Alignment | not modelled | 41.0 | 9 | PDB header: structural protein Chain: D: PDB Molecule: nucleoporin nup120; PDBTitle: structure of nup120 |
| 74 | d1wxqa2 | Alignment | not modelled | 40.6 | 15 | Fold: beta-Grasp (ubiquitin-like) Superfamily: TGS-like Family: G domain-linked domain |
| 75 | d2uubd1 | Alignment | not modelled | 40.5 | 24 | Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: Ribosomal protein S4 |
| 76 | c2fhda | Alignment | not modelled | 40.2 | 18 | PDB header: cell cycle Chain: A: PDB Molecule: dna repair protein rhp9/crb2; PDBTitle: crystal structure of crb2 tandem tudor domains |
| 77 | c1uebB | Alignment | not modelled | 37.8 | 13 | PDB header: rna binding protein Chain: B: PDB Molecule: elongation factor p; PDBTitle: crystal structure of translation elongation factor p from2 thermus thermophilus hb8 |
| 78 | c3hvzb | Alignment | not modelled | 35.8 | 32 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of the tgs domain of the cloleop_03100 protein from2 clostridium leptum, northeast structural genomics consortium target3 qlr13a |
| 79 | c2m19A | Alignment | not modelled | 34.4 | 19 | PDB header: protein binding Chain: A: PDB Molecule: molybdopterin converting factor subunit 1; PDBTitle: solution structure of the haloferax volcanii hvo 2177 protein |
| 80 | d1vjka | Alignment | not modelled | 33.3 | 29 | Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: MoaD |
| 81 | c3treA | Alignment | not modelled | 33.1 | 9 | PDB header: translation Chain: A: PDB Molecule: elongation factor p; PDBTitle: structure of a translation elongation factor p (efp) from coxiella burnetii |
| | | | | | | PDB header: ribosome |

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|----|-------------------------|-----------|--------------|------|----|--|
| 82 | c3bbnD | Alignment | not modelled | 31.3 | 20 | Chain: D; PDB Molecule: ribosomal protein s4; PDBTitle: homology model for the spinach chloroplast 30s subunit fitted to 9.4a2 cryo-em map of the 70s chlororibosome. |
| 83 | c5o5jD | Alignment | not modelled | 31.3 | 20 | PDB header: ribosome Chain: D; PDB Molecule: 30s ribosomal protein s4; PDBTitle: structure of the 30s small ribosomal subunit from mycobacterium2 smegmatis |
| 84 | c3po0A | Alignment | not modelled | 30.6 | 10 | PDB header: protein binding Chain: A; PDB Molecule: small archaeal modifier protein 1; PDBTitle: crystal structure of samp1 from haloferax volcanii |
| 85 | d1h3fa2 | Alignment | not modelled | 30.4 | 20 | Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: Tyrosyl-tRNA synthetase (TyrRS), C-terminal domain |
| 86 | c3mmIE | Alignment | not modelled | 29.0 | 22 | PDB header: hydrolase Chain: E; PDB Molecule: allophanate hydrolase subunit 2; PDBTitle: allophanate hydrolase complex from mycobacterium smegmatis, msmeg0435-2 msmeg0436 |
| 87 | c2k6pA | Alignment | not modelled | 28.9 | 17 | PDB header: unknown function Chain: A; PDB Molecule: uncharacterized protein hp_1423; PDBTitle: solution structure of hypothetical protein, hp1423 |
| 88 | c6jbzD | Alignment | not modelled | 28.4 | 33 | PDB header: transferase Chain: D; PDB Molecule: moad/this family protein; PDBTitle: structural analysis of molybdopterin synthases from two mycobacteria2 pathogens |
| 89 | c1ybyB | Alignment | not modelled | 27.5 | 9 | PDB header: translation Chain: B; PDB Molecule: translation elongation factor p; PDBTitle: conserved hypothetical protein cth-95 from clostridium thermocellum |
| 90 | d2gy9d1 | Alignment | not modelled | 27.4 | 20 | Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: Ribosomal protein S4 |
| 91 | d1p9ka | Alignment | not modelled | 26.5 | 29 | Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: YbcJ-like |
| 92 | c2l52A | Alignment | not modelled | 26.2 | 24 | PDB header: protein binding Chain: A; PDB Molecule: methanosaicina acetivorans samp1 homolog; PDBTitle: solution structure of the small archaeal modifier protein 1 (samp1)2 from methanosaicina acetivorans |
| 93 | d1fm0d | Alignment | not modelled | 25.9 | 24 | Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: MoaD |
| 94 | d1zud21 | Alignment | not modelled | 25.1 | 17 | Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: This |
| 95 | c5mpoA | Alignment | not modelled | 25.0 | 19 | PDB header: transferase Chain: A; PDB Molecule: molybdopterin synthase sulfur carrier subunit; PDBTitle: crystal structure of human molybdopterin synthase complex |
| 96 | c2kmma | Alignment | not modelled | 24.9 | 18 | PDB header: hydrolase Chain: A; PDB Molecule: guanosine-3',5'-bis(diphosphate) 3'- PDBTitle: solution nmr structure of the tgs domain of pg1808 from2 porphyromonas gingivalis. northeast structural genomics3 consortium target pgr122a (418-481) |
| 97 | c1v8cA | Alignment | not modelled | 24.6 | 22 | PDB header: protein binding Chain: A; PDB Molecule: moad related protein; PDBTitle: crystal structure of moad related protein from thermus2 thermophilus hb8 |
| 98 | c6jc0A | Alignment | not modelled | 24.5 | 14 | PDB header: transferase Chain: A; PDB Molecule: putative molybdenum cofactor biosynthesis protein d2 PDBTitle: structural analysis of molybdopterin synthases from two mycobacteria2 pathogens |
| 99 | c3a5zD | Alignment | not modelled | 22.3 | 12 | PDB header: ligase Chain: D; PDB Molecule: elongation factor p; PDBTitle: crystal structure of escherichia coli genx in complex with elongation2 factor p |