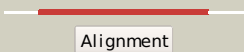

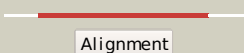

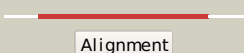

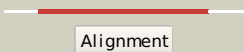

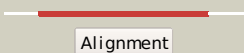

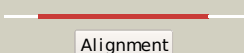

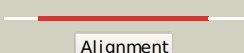

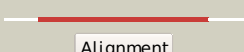

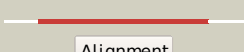

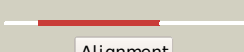

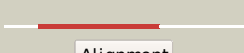




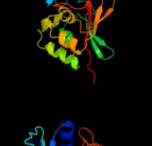

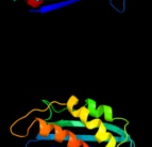


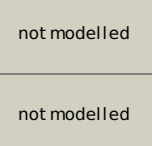


| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|-------------------------|---|---|------------|--------|---|
| 1 | c1n62C_ |  Alignment |  | 100.0 | 28 | PDB header: oxidoreductase Chain: C: PDB Molecule: carbon monoxide dehydrogenase medium chain; PDBTitle: crystal structure of the mo,cu-co dehydrogenase (codh), n-2 butylisocyanide-bound state |
| 2 | c3hrdC_ |  Alignment |  | 100.0 | 30 | PDB header: oxidoreductase Chain: C: PDB Molecule: nicotinate dehydrogenase fad-subunit; PDBTitle: crystal structure of nicotinate dehydrogenase |
| 3 | c1t3qF_ |  Alignment |  | 100.0 | 28 | PDB header: oxidoreductase Chain: F: PDB Molecule: quinoline 2-oxidoreductase medium subunit; PDBTitle: crystal structure of quinoline 2-oxidoreductase from pseudomonas2 putida 86 |
| 4 | c1ffuF_ |  Alignment |  | 100.0 | 31 | PDB header: hydrolase Chain: F: PDB Molecule: cutm, flavoprotein of carbon monoxide PDBTitle: carbon monoxide dehydrogenase from hydrogenophaga2 pseudoflava which lacks the mo-pyranopterin moiety of the3 molybdenum cofactor |
| 5 | c1rm6E_ |  Alignment |  | 100.0 | 32 | PDB header: oxidoreductase Chain: E: PDB Molecule: 4-hydroxybenzoyl-coa reductase beta subunit; PDBTitle: structure of 4-hydroxybenzoyl-coa reductase from thauera2 aromatica |
| 6 | c1wygA_ |  Alignment |  | 100.0 | 24 | PDB header: oxidoreductase Chain: A: PDB Molecule: xanthine dehydrogenase/oxidase; PDBTitle: crystal structure of a rat xanthine dehydrogenase triple mutant2 (c535a, c992r and c1324s) |
| 7 | c2w3rG_ |  Alignment |  | 100.0 | 26 | PDB header: oxidoreductase Chain: G: PDB Molecule: xanthine dehydrogenase; PDBTitle: crystal structure of xanthine dehydrogenase (desulfo form)2 from rhodobacter capsulatus in complex with hypoxanthine |
| 8 | c3b9jJ_ |  Alignment |  | 100.0 | 24 | PDB header: oxidoreductase Chain: J: PDB Molecule: xanthine oxidase; PDBTitle: structure of xanthine oxidase with 2-hydroxy-6-methylpurine |
| 9 | c3etrM_ |  Alignment |  | 100.0 | 24 | PDB header: oxidoreductase Chain: M: PDB Molecule: xanthine dehydrogenase/oxidase; PDBTitle: crystal structure of xanthine oxidase in complex with2 lumazine |
| 10 | d1ffvc2 |  Alignment |  | 100.0 | 35 | Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CO dehydrogenase flavoprotein N-terminal domain-like |
| 11 | d1n62c2 |  Alignment |  | 100.0 | 31 | Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CO dehydrogenase flavoprotein N-terminal domain-like |

| | | | | | | |
|----|-------------------------|-----------|---|-------|----|--|
| 12 | dlt3qc2 | Alignment |  | 100.0 | 30 | Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CO dehydrogenase flavoprotein N-terminal domain-like |
| 13 | d1rm6b2 | Alignment |  | 100.0 | 40 | Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CO dehydrogenase flavoprotein N-terminal domain-like |
| 14 | d1v97a6 | Alignment |  | 100.0 | 25 | Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CO dehydrogenase flavoprotein N-terminal domain-like |
| 15 | d3b9jb2 | Alignment |  | 100.0 | 24 | Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CO dehydrogenase flavoprotein N-terminal domain-like |
| 16 | d1jroa4 | Alignment |  | 100.0 | 25 | Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CO dehydrogenase flavoprotein N-terminal domain-like |
| 17 | d1v97a4 | Alignment |  | 99.9 | 20 | Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like |
| 18 | d1jroa3 | Alignment |  | 99.9 | 26 | Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like |
| 19 | d1n62c1 | Alignment |  | 99.9 | 22 | Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like |
| 20 | dlt3qc1 | Alignment |  | 99.9 | 23 | Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like |
| 21 | d1ffvc1 | Alignment | not modelled | 99.9 | 24 | Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like |
| 22 | d1rm6b1 | Alignment | not modelled | 99.9 | 18 | Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like |
| 23 | c1hskA_ | Alignment | not modelled | 97.9 | 15 | PDB header: oxidoreductase Chain: A: PDB Molecule: udp-n-acetylenolpyruvoylglucosamine reductase; PDBTitle: crystal structure of s. aureus murb |
| 24 | c1mbbA_ | Alignment | not modelled | 97.9 | 18 | PDB header: oxidoreductase Chain: A: PDB Molecule: uridine diphospho-n-acetylenolpyruvyglucosamine PDBTitle: oxidoreductase |
| 25 | c3i99A_ | Alignment | not modelled | 97.8 | 15 | PDB header: oxidoreductase Chain: A: PDB Molecule: udp-n-acetylenolpyruvoylglucosamine reductase; PDBTitle: the crystal structure of the udp-n-acetylenolpyruvoylglucosamine2 reductase from the vibrio cholerae o1 biovar tor |
| 26 | c1zr6A_ | Alignment | not modelled | 97.8 | 11 | PDB header: oxidoreductase Chain: A: PDB Molecule: glucosylglucosaccharide oxidase; PDBTitle: the crystal structure of an acremonium strictum glucosylglucosaccharide2 oxidase reveals a novel flavinylation |
| 27 | c2wdwB_ | Alignment | not modelled | 97.7 | 14 | PDB header: oxidoreductase Chain: B: PDB Molecule: putative hexose oxidase; PDBTitle: the native crystal structure of the primary hexose oxidase (2 dbv29) in antibiotic a40926 biosynthesis |
| 28 | c2ipiD_ | Alignment | not modelled | 97.5 | 12 | PDB header: oxidoreductase Chain: D: PDB Molecule: aclacinomycin oxidoreductase (aknox); |

| | | | | | | |
|----|-------------------------|-----------|--------------|------|----|--|
| 54 | c2e5aA | Alignment | not modelled | 75.4 | 9 | Chain: A: PDB Molecule: lipoyltransferase 1; PDBTitle: crystal structure of bovine lipoyltransferase in complex2 with lipoyl-amp |
| 55 | c1x2gB | Alignment | not modelled | 75.0 | 18 | PDB header: ligase Chain: B: PDB Molecule: lipoate-protein ligase a; PDBTitle: crystal structure of lipate-protein ligase a from2 escherichia coli |
| 56 | d1su0b | Alignment | not modelled | 69.2 | 14 | Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain |
| 57 | d1li4a2 | Alignment | not modelled | 67.0 | 13 | Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: S-adenosylhomocystein hydrolase |
| 58 | d1xjsa | Alignment | not modelled | 65.7 | 13 | Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain |
| 59 | c1vqzA | Alignment | not modelled | 63.1 | 2 | PDB header: ligase Chain: A: PDB Molecule: lipoate-protein ligase, putative; PDBTitle: crystal structure of a putative lipoate-protein ligase a (sp_1160)2 from streptococcus pneumoniae tigr4 at 1.99 a resolution |
| 60 | c2yvsA | Alignment | not modelled | 59.6 | 14 | PDB header: oxidoreductase Chain: A: PDB Molecule: glycolate oxidase subunit glce; PDBTitle: crystal structure of glycolate oxidase subunit glce from thermus2 thermophilus hb8 |
| 61 | d1v8ba2 | Alignment | not modelled | 56.1 | 16 | Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: S-adenosylhomocystein hydrolase |
| 62 | c2qq4A | Alignment | not modelled | 50.3 | 10 | PDB header: metal binding protein Chain: A: PDB Molecule: iron-sulfur cluster biosynthesis protein iscu; PDBTitle: crystal structure of iron-sulfur cluster biosynthesis2 protein iscu (ttha1736) from thermus thermophilus hb8 |
| 63 | c3d64A | Alignment | not modelled | 44.5 | 14 | PDB header: hydrolase Chain: A: PDB Molecule: adenosylhomocysteinase; PDBTitle: crystal structure of s-adenosyl-l-homocysteine hydrolase from2 burkholderia pseudomallei |
| 64 | c3dhYC | Alignment | not modelled | 43.0 | 17 | PDB header: hydrolase Chain: C: PDB Molecule: adenosylhomocysteinase; PDBTitle: crystal structures of mycobacterium tuberculosis s-adenosyl-l-2 homocysteine hydrolase in ternary complex with substrate and3 inhibitors |
| 65 | c1v8bA | Alignment | not modelled | 42.7 | 16 | PDB header: hydrolase Chain: A: PDB Molecule: adenosylhomocysteinase; PDBTitle: crystal structure of a hydrolase |
| 66 | c3oneA | Alignment | not modelled | 41.1 | 16 | PDB header: hydrolase/hydrolase substrate Chain: A: PDB Molecule: adenosylhomocysteinase; PDBTitle: crystal structure of lupinus luteus s-adenosyl-l-homocysteine2 hydrolase in complex with adenine |
| 67 | d1wfza | Alignment | not modelled | 35.9 | 13 | Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain |
| 68 | d1r9pa | Alignment | not modelled | 35.5 | 13 | Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain |
| 69 | c3n58D | Alignment | not modelled | 32.7 | 19 | PDB header: hydrolase Chain: D: PDB Molecule: adenosylhomocysteinase; PDBTitle: crystal structure of s-adenosyl-l-homocysteine hydrolase from brucella2 melitensis in ternary complex with nad and adenosine, orthorhombic3 form |
| 70 | d1frfl | Alignment | not modelled | 31.7 | 13 | Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit |
| 71 | d1e3db | Alignment | not modelled | 29.8 | 17 | Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit |
| 72 | d1wuil1 | Alignment | not modelled | 28.0 | 13 | Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit |
| 73 | c2z7eB | Alignment | not modelled | 25.8 | 9 | PDB header: biosynthetic protein Chain: B: PDB Molecule: nifu-like protein; PDBTitle: crystal structure of aquifex aeolicus iscu with bound [2fe-2 2s] cluster |
| 74 | c2wpmB | Alignment | not modelled | 23.4 | 7 | PDB header: oxidoreductase Chain: B: PDB Molecule: periplasmic [nifese] hydrogenase, large subunit, PDBTitle: structure of the oxidised, as-isolated nifese hydrogenase2 from d. vulgaris hildenborough |
| 75 | d1yq9h1 | Alignment | not modelled | 22.8 | 15 | Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit |
| 76 | c1h2aL | Alignment | not modelled | 22.1 | 14 | PDB header: oxidoreductase Chain: L: PDB Molecule: hydrogenase; PDBTitle: single crystals of hydrogenase from desulfovibrio vulgaris |
| 77 | d1j3ka | Alignment | not modelled | 20.1 | 24 | Fold: Dihydrofolate reductase-like Superfamily: Dihydrofolate reductase-like Family: Dihydrofolate reductases |
| 78 | c3ix9B | Alignment | not modelled | 19.3 | 7 | PDB header: oxidoreductase Chain: B: PDB Molecule: dihydrofolate reductase; PDBTitle: crystal structure of streptococcus pneumoniae dihydrofolate2 reductase - sp9 mutant |
| | | | | | | PDB header: oxidoreductase, transferase Chain: B: PDB Molecule: bifunctional dihydrofolate reductase- |

| | | | | | | |
|----|-------------------------|-----------|--------------|------|----|--|
| 79 | c3dg8B_ | Alignment | not modelled | 18.8 | 24 | thymidylate PDBTitle: quadruple mutant (n51i+c59r+s108n+i164l) plasmodium2 falciparum dihydrofolate reductase-thymidylate synthase3 (pfdhfr-ts) complexed with rjf670, nadph, and dump |
| 80 | d2ji7a1 | Alignment | not modelled | 18.7 | 17 | Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain |
| 81 | d1fmta1 | Alignment | not modelled | 18.0 | 13 | Fold: FMT C-terminal domain-like Superfamily: FMT C-terminal domain-like Family: Post formyltransferase domain |
| 82 | c2blcA_ | Alignment | not modelled | 17.7 | 21 | PDB header: oxidoreductase Chain: A: PDB Molecule: dihydrofolate reductase-thymidylate synthase; PDBTitle: sp21 double mutant p. vivax dihydrofolate reductase in2 complex with des-chloropyrimethamine |
| 83 | c1zdrB_ | Alignment | not modelled | 17.7 | 14 | PDB header: oxidoreductase Chain: B: PDB Molecule: dihydrofolate reductase; PDBTitle: dhfr from bacillus stearotherophilus |
| 84 | d2qdya1 | Alignment | not modelled | 17.5 | 20 | Fold: Nitrile hydratase alpha chain Superfamily: Nitrile hydratase alpha chain Family: Nitrile hydratase alpha chain |
| 85 | c2qyaA_ | Alignment | not modelled | 17.4 | 12 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized conserved protein; PDBTitle: crystal structure of an uncharacterized conserved protein2 from methanopyrus kandleri |
| 86 | c1d4fD_ | Alignment | not modelled | 14.8 | 14 | PDB header: hydrolase Chain: D: PDB Molecule: s-adenosylhomocysteine hydrolase; PDBTitle: crystal structure of recombinant rat-liver d244e mutant s-2 adenosylhomocysteine hydrolase |
| 87 | c3qyhG_ | Alignment | not modelled | 14.5 | 11 | PDB header: lyase Chain: G: PDB Molecule: co-type nitrile hydratase alpha subunit; PDBTitle: crystal structure of co-type nitrile hydratase beta-h71l from2 pseudomonas putida. |
| 88 | d1ozha1 | Alignment | not modelled | 14.2 | 17 | Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain |
| 89 | d2djia1 | Alignment | not modelled | 13.8 | 26 | Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain |
| 90 | d1aoea_ | Alignment | not modelled | 13.0 | 21 | Fold: Dihydrofolate reductase-like Superfamily: Dihydrofolate reductase-like Family: Dihydrofolate reductases |
| 91 | d1oj7a_ | Alignment | not modelled | 12.8 | 18 | Fold: Dehydroquinase synthase-like Superfamily: Dehydroquinase synthase-like Family: Iron-containing alcohol dehydrogenase |
| 92 | c2dyoB_ | Alignment | not modelled | 12.3 | 56 | PDB header: protein turnover/protein turnover Chain: B: PDB Molecule: autophagy protein 16; PDBTitle: the crystal structure of saccharomyces cerevisiae atg5-2 atg16(1-57) complex |
| 93 | d1cc1l_ | Alignment | not modelled | 12.2 | 10 | Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit |
| 94 | d1jr1a4 | Alignment | not modelled | 12.0 | 29 | Fold: CBS-domain pair Superfamily: CBS-domain pair Family: CBS-domain pair |
| 95 | c3gxxB_ | Alignment | not modelled | 11.9 | 13 | PDB header: transcription Chain: B: PDB Molecule: transcription elongation factor spt6; PDBTitle: structure of the sh2 domain of the candida glabrata2 transcription elongation factor spt6, crystal form b |
| 96 | d2fug41 | Alignment | not modelled | 11.2 | 11 | Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nqo4-like |
| 97 | c2fug4_ | Alignment | not modelled | 11.2 | 11 | PDB header: oxidoreductase Chain: 4: PDB Molecule: nadh-quinone oxidoreductase chain 4; PDBTitle: crystal structure of the hydrophilic domain of respiratory complex i2 from thermus thermophilus |
| 98 | d1ybha1 | Alignment | not modelled | 11.0 | 22 | Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain |
| 99 | c1b7gO_ | Alignment | not modelled | 11.0 | 19 | PDB header: oxidoreductase Chain: O: PDB Molecule: protein (glyceraldehyde 3-phosphate dehydrogenase); PDBTitle: glyceraldehyde 3-phosphate dehydrogenase |