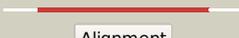
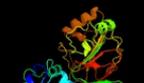
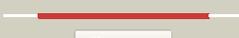
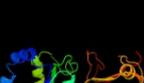
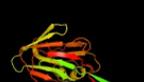


# Phyre2

|               |                              |
|---------------|------------------------------|
| Email         | mdejesus@rockefeller.edu     |
| Description   | RVBD2252_(-)_2526999_2527928 |
| Date          | Mon Aug 5 13:25:39 BST 2019  |
| Unique Job ID | cc0d9d8587e60a30             |

Detailed template information

| #  | Template                | Alignment Coverage   | 3D Model  | Confidence | % i.d. | Template Information   |
|----|-------------------------|--|---|------------|--------|--|
| 1  | <a href="#">c2qv7A_</a> | <br>Alignment   |    | 100.0      | 23     | <b>PDB header:</b> transferase<br><b>Chain:</b> A; <b>PDB Molecule:</b> diacylglycerol kinase dgkb;<br><b>PDBTitle:</b> crystal structure of diacylglycerol kinase dgkb in complex with adp2 and mg  |
| 2  | <a href="#">d2qv7a1</a> | <br>Alignment   |    | 100.0      | 24     | <b>Fold:</b> NAD kinase/diacylglycerol kinase-like<br><b>Superfamily:</b> NAD kinase/diacylglycerol kinase-like<br><b>Family:</b> Diacylglycerol kinase-like   |
| 3  | <a href="#">c3s40C_</a> | <br>Alignment   |    | 100.0      | 23     | <b>PDB header:</b> transferase<br><b>Chain:</b> C; <b>PDB Molecule:</b> diacylglycerol kinase;<br><b>PDBTitle:</b> the crystal structure of a diacylglycerol kinases from bacillus2 anthracis str. Sterne  |
| 4  | <a href="#">c3vzdB_</a> | <br>Alignment   |    | 100.0      | 23     | <b>PDB header:</b> transferase/inhibitor<br><b>Chain:</b> B; <b>PDB Molecule:</b> sphingosine kinase 1;<br><b>PDBTitle:</b> crystal structure of sphingosine kinase 1 with inhibitor and adp   |
| 5  | <a href="#">c4werA_</a> | <br>Alignment |  | 100.0      | 28     | <b>PDB header:</b> transferase<br><b>Chain:</b> A; <b>PDB Molecule:</b> diacylglycerol kinase catalytic domain protein;<br><b>PDBTitle:</b> crystal structure of diacylglycerol kinase catalytic domain protein2 from enterococcus faecalis v583 |
| 6  | <a href="#">d2bona1</a> | <br>Alignment |  | 100.0      | 26     | <b>Fold:</b> NAD kinase/diacylglycerol kinase-like<br><b>Superfamily:</b> NAD kinase/diacylglycerol kinase-like<br><b>Family:</b> Diacylglycerol kinase-like   |
| 7  | <a href="#">d2p1ra1</a> | <br>Alignment |  | 100.0      | 24     | <b>Fold:</b> NAD kinase/diacylglycerol kinase-like<br><b>Superfamily:</b> NAD kinase/diacylglycerol kinase-like<br><b>Family:</b> Diacylglycerol kinase-like   |
| 8  | <a href="#">c2bonB_</a> | <br>Alignment |  | 100.0      | 28     | <b>PDB header:</b> transferase<br><b>Chain:</b> B; <b>PDB Molecule:</b> lipid kinase;<br><b>PDBTitle:</b> structure of an escherichia coli lipid kinase (yegs)   |
| 9  | <a href="#">d2jgra1</a> | <br>Alignment |  | 100.0      | 29     | <b>Fold:</b> NAD kinase/diacylglycerol kinase-like<br><b>Superfamily:</b> NAD kinase/diacylglycerol kinase-like<br><b>Family:</b> Diacylglycerol kinase-like   |
| 10 | <a href="#">d1u0ta_</a> | <br>Alignment |  | 99.6       | 18     | <b>Fold:</b> NAD kinase/diacylglycerol kinase-like<br><b>Superfamily:</b> NAD kinase/diacylglycerol kinase-like<br><b>Family:</b> NAD kinase-like  |
| 11 | <a href="#">c1yt5A_</a> | <br>Alignment |  | 99.4       | 17     | <b>PDB header:</b> transferase<br><b>Chain:</b> A; <b>PDB Molecule:</b> inorganic polyphosphate/atp-nad kinase;<br><b>PDBTitle:</b> crystal structure of nad kinase from thermotoga maritima   |

|    |                         |           |              |      |    |  |
|----|-------------------------|-----------|--------------|------|----|--|
| 12 | <a href="#">c2an1D_</a> | Alignment |              | 99.2 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> putative kinase;<br><b>PDBTitle:</b> structural genomics, the crystal structure of a putative kinase from2 salmonella typhimurim lt2                           |
| 13 | <a href="#">dlz0sa1</a> | Alignment |              | 98.7 | 16 | <b>Fold:</b> NAD kinase/diacylglycerol kinase-like<br><b>Superfamily:</b> NAD kinase/diacylglycerol kinase-like<br><b>Family:</b> NAD kinase-like  |
| 14 | <a href="#">c1z0zC_</a> | Alignment |              | 98.7 | 17 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> probable inorganic polyphosphate/atp-nad kinase;<br><b>PDBTitle:</b> crystal structure of a nad kinase from archaeoglobus2 fulgidus in complex with nad        |
| 15 | <a href="#">c2i2aA_</a> | Alignment |              | 98.6 | 13 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable inorganic polyphosphate/atp-nad kinase 1;<br><b>PDBTitle:</b> crystal structure of lmnadk1 from listeria monocytogenes                                |
| 16 | <a href="#">c3pfnB_</a> | Alignment |              | 98.5 | 17 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> nad kinase;<br><b>PDBTitle:</b> crystal structure of human nad kinase  |
| 17 | <a href="#">c3afoB_</a> | Alignment |              | 98.3 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> nadh kinase pos5;<br><b>PDBTitle:</b> crystal structure of yeast nadh kinase complexed with nadh   |
| 18 | <a href="#">c3ox4D_</a> | Alignment |              | 97.4 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> alcohol dehydrogenase 2;<br><b>PDBTitle:</b> structures of iron-dependent alcohol dehydrogenase 2 from zymomonas2 mobilis zm4 complexed with nad cofactor   |
| 19 | <a href="#">d1vlja_</a> | Alignment |              | 97.4 | 26 | <b>Fold:</b> Dehydroquinase synthase-like<br><b>Superfamily:</b> Dehydroquinase synthase-like<br><b>Family:</b> Iron-containing alcohol dehydrogenase  |
| 20 | <a href="#">c3okfA_</a> | Alignment |              | 97.3 | 18 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquinase synthase;<br><b>PDBTitle:</b> 2.5 angstrom resolution crystal structure of 3-dehydroquinase synthase2 (arob) from vibrio cholerae                   |
| 21 | <a href="#">c4p53A_</a> | Alignment | not modelled | 97.2 | 19 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> cyclase;<br><b>PDBTitle:</b> vala (2-epi-5-epi-valiolone synthase) from streptomyces hygrosopicus2 subsp. jinggangensis 5008 with nad+ and zn2+ bound                |
| 22 | <a href="#">c5zxlD_</a> | Alignment | not modelled | 97.2 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> glycerol dehydrogenase;<br><b>PDBTitle:</b> structure of glda from e.coli   |
| 23 | <a href="#">c3qbeA_</a> | Alignment | not modelled | 97.2 | 22 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquinase synthase;<br><b>PDBTitle:</b> crystal structure of the 3-dehydroquinase synthase (arob) from2 mycobacterium tuberculosis                            |
| 24 | <a href="#">c3zokB_</a> | Alignment | not modelled | 97.2 | 18 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-dehydroquinase synthase;<br><b>PDBTitle:</b> structure of 3-dehydroquinase synthase from actinidia chinensis in2 complex with nad                                  |
| 25 | <a href="#">c3bfjK_</a> | Alignment | not modelled | 97.1 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> K: <b>PDB Molecule:</b> 1,3-propanediol oxidoreductase;<br><b>PDBTitle:</b> crystal structure analysis of 1,3-propanediol oxidoreductase  |
| 26 | <a href="#">c3ce9A_</a> | Alignment | not modelled | 97.0 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycerol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of glycerol dehydrogenase (np_348253.1) from2 clostridium acetobutylicum at 2.37 a resolution |
| 27 | <a href="#">c1ta9A_</a> | Alignment | not modelled | 97.0 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycerol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of glycerol dehydrogenase from schizosaccharomyces2 pombe                                     |
| 28 | <a href="#">c1zxxA_</a> | Alignment | not modelled | 96.9 | 24 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphofruktokinase;<br><b>PDBTitle:</b> the crystal structure of phosphofruktokinase from lactobacillus2 delbrueckii  |

|    |                         |           |              |      |    |   |
|----|-------------------------|-----------|--------------|------|----|---|
| 29 | <a href="#">d1jq5a_</a> | Alignment | not modelled | 96.9 | 19 | <b>Fold:</b> Dehydroquininate synthase-like<br><b>Superfamily:</b> Dehydroquininate synthase-like<br><b>Family:</b> Iron-containing alcohol dehydrogenase   |
| 30 | <a href="#">d1rrma_</a> | Alignment | not modelled | 96.8 | 16 | <b>Fold:</b> Dehydroquininate synthase-like<br><b>Superfamily:</b> Dehydroquininate synthase-like<br><b>Family:</b> Iron-containing alcohol dehydrogenase   |
| 31 | <a href="#">c5tpRB_</a> | Alignment | not modelled | 96.7 | 13 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-dehydroquininate synthase;<br><b>PDBTitle:</b> desmethyl-4-deoxygadusol synthase from anabaena variabilis (ava_3858)2 with nad+ and zn2+ bound  |
| 32 | <a href="#">c5eksB_</a> | Alignment | not modelled | 96.6 | 18 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-dehydroquininate synthase;<br><b>PDBTitle:</b> structure of 3-dehydroquininate synthase from acinetobacter baumannii n2 complex with nad  |
| 33 | <a href="#">c6c76A_</a> | Alignment | not modelled | 96.6 | 26 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> alcohol dehydrogenase;<br><b>PDBTitle:</b> structure of iron containing alcohol dehydrogenase from thermococcus2 thioreducens in an orthorhombic crystal form  |
| 34 | <a href="#">c5yvmA_</a> | Alignment | not modelled | 96.5 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> alcohol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of the archaeal halo-thermophilic red sea brine pool2 alcohol dehydrogenase adh/d1 bound to nzq   |
| 35 | <a href="#">c4fr2A_</a> | Alignment | not modelled | 96.4 | 20 | <b>PDB header:</b> oxidoreductase, metal binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> 1,3-propanediol dehydrogenase;<br><b>PDBTitle:</b> alcohol dehydrogenase from oenococcus oeni   |
| 36 | <a href="#">c5z6vA_</a> | Alignment | not modelled | 96.3 | 7  | <b>PDB header:</b> protein transport<br><b>Chain:</b> A: <b>PDB Molecule:</b> abc-type uncharacterized transport system periplasmic<br><b>PDBTitle:</b> crystal structure of a substrate-binding protein from rhodothermus2 marinus   |
| 37 | <a href="#">d1o2da_</a> | Alignment | not modelled | 96.3 | 14 | <b>Fold:</b> Dehydroquininate synthase-like<br><b>Superfamily:</b> Dehydroquininate synthase-like<br><b>Family:</b> Iron-containing alcohol dehydrogenase   |
| 38 | <a href="#">c4mcaB_</a> | Alignment | not modelled | 96.2 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> glycerol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of glycerol dehydrogenase from serratia to 1.9a  |
| 39 | <a href="#">c3zdrA_</a> | Alignment | not modelled | 96.0 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> alcohol dehydrogenase domain of the bifunctional<br><b>PDBTitle:</b> structure of the alcohol dehydrogenase (adh) domain of a2 bifunctional adhe dehydrogenase from geobacillus3 thermoglucosidasius ncimb 11955 |
| 40 | <a href="#">c4irxA_</a> | Alignment | not modelled | 95.8 | 17 | <b>PDB header:</b> transport protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> sugar abc transporter, periplasmic sugar-binding protein;<br><b>PDBTitle:</b> crystal structure of caulobacter myo-inositol binding protein bound to2 myo-inositol  |
| 41 | <a href="#">d4pfka_</a> | Alignment | not modelled | 95.6 | 26 | <b>Fold:</b> Phosphofructokinase<br><b>Superfamily:</b> Phosphofructokinase<br><b>Family:</b> Phosphofructokinase   |
| 42 | <a href="#">c3clhA_</a> | Alignment | not modelled | 95.6 | 23 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquininate synthase;<br><b>PDBTitle:</b> crystal structure of 3-dehydroquininate synthase (dhqs)from2 helicobacter pylori   |
| 43 | <a href="#">c2gruB_</a> | Alignment | not modelled | 95.3 | 17 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-deoxy-scylo-inosose synthase;<br><b>PDBTitle:</b> crystal structure of 2-deoxy-scylo-inosose synthase2 complexed with carbagluco-6-phosphate, nad+ and co2+   |
| 44 | <a href="#">c5xoeA_</a> | Alignment | not modelled | 95.3 | 21 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> atp-dependent 6-phosphofructokinase;<br><b>PDBTitle:</b> crystal structure of the apo staphylococcus aureus phosphofructokinase   |
| 45 | <a href="#">d1pfka_</a> | Alignment | not modelled | 95.3 | 28 | <b>Fold:</b> Phosphofructokinase<br><b>Superfamily:</b> Phosphofructokinase<br><b>Family:</b> Phosphofructokinase   |
| 46 | <a href="#">d1oj7a_</a> | Alignment | not modelled | 95.2 | 20 | <b>Fold:</b> Dehydroquininate synthase-like<br><b>Superfamily:</b> Dehydroquininate synthase-like<br><b>Family:</b> Iron-containing alcohol dehydrogenase   |
| 47 | <a href="#">c6c5cA_</a> | Alignment | not modelled | 95.1 | 10 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquininate synthase;<br><b>PDBTitle:</b> crystal structure of aro1p from candida albicans sc5314 in complex2 with nadh  |
| 48 | <a href="#">c6jkpD_</a> | Alignment | not modelled | 95.1 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> methanol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of sulfoacetaldehyde reductase from bifidobacterium2 kashiwanohense in complex with nad+   |
| 49 | <a href="#">c3rf7A_</a> | Alignment | not modelled | 94.9 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> iron-containing alcohol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of an iron-containing alcohol dehydrogenase2 (sden_2133) from shewanella denitrificans os-217 at 2.12 a resolution                  |
| 50 | <a href="#">c3uhjE_</a> | Alignment | not modelled | 94.9 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> E: <b>PDB Molecule:</b> probable glycerol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of a probable glycerol dehydrogenase from2 sinorhizobium meliloti 1021  |
| 51 | <a href="#">d1kq3a_</a> | Alignment | not modelled | 94.8 | 17 | <b>Fold:</b> Dehydroquininate synthase-like<br><b>Superfamily:</b> Dehydroquininate synthase-like<br><b>Family:</b> Iron-containing alcohol dehydrogenase   |
| 52 | <a href="#">c6csjD_</a> | Alignment | not modelled | 94.8 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> glycerol dehydrogenase;<br><b>PDBTitle:</b> structure of a bacillus coagulans polyol dehydrogenase double mutant2 with an acquired d-lactate dehydrogenase activity  |
| 53 | <a href="#">c3orsD_</a> | Alignment | not modelled | 94.7 | 13 | <b>PDB header:</b> isomerase,biosynthetic protein<br><b>Chain:</b> D: <b>PDB Molecule:</b> n5-carboxyaminoimidazole ribonucleotide mutase;<br><b>PDBTitle:</b> crystal structure of n5-carboxyaminoimidazole  |

|    |                         |           |              |      |    |  |
|----|-------------------------|-----------|--------------|------|----|--|
|    |                         |           |              |      |    | ribonucleotide mutase2 from staphylococcus aureus<br><b>PDB header:</b> oxidoreductase   |
| 54 | <a href="#">c3jzdA_</a> | Alignment | not modelled | 94.4 | 20 | <b>Chain:</b> A: <b>PDB Molecule:</b> iron-containing alcohol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of putative alcohol dehydrogenase (yp_298327.1) from2 ralstonia eutropha jmp134 at 2.10 a resolution  |
| 55 | <a href="#">c3o1hB_</a> | Alignment | not modelled | 94.4 | 17 | <b>PDB header:</b> signaling protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> periplasmic protein tort;<br><b>PDBTitle:</b> crystal structure of the tors sensor domain - tort complex in the2 presence of tmao  |
| 56 | <a href="#">d1sg6a_</a> | Alignment | not modelled | 94.3 | 14 | <b>Fold:</b> Dehydroquinase synthase-like<br><b>Superfamily:</b> Dehydroquinase synthase-like<br><b>Family:</b> Dehydroquinase synthase, DHQS  |
| 57 | <a href="#">c4lruA_</a> | Alignment | not modelled | 94.3 | 17 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glyoxalase iii (glutathione-independent);<br><b>PDBTitle:</b> crystal structure of glyoxalase iii (orf 19.251) from candida albicans   |
| 58 | <a href="#">c5hvnA_</a> | Alignment | not modelled | 94.2 | 20 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquinase synthase;<br><b>PDBTitle:</b> 3.0 angstrom crystal structure of 3-dehydroquinase synthase (arob)2 from francisella tularensis in complex with nad.  |
| 59 | <a href="#">c6cv6L_</a> | Alignment | not modelled | 94.1 | 20 | <b>PDB header:</b> lyase<br><b>Chain:</b> L: <b>PDB Molecule:</b> 3-dehydroquinase dehydratase;<br><b>PDBTitle:</b> crystal structure of 3-dehydroquinase dehydratase, type ii, from2 burkholderia phymatum stm815   |
| 60 | <a href="#">c6c2uA_</a> | Alignment | not modelled | 94.0 | 18 | <b>PDB header:</b> de novo protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> phosphate-loop protein;<br><b>PDBTitle:</b> solution structure of a phosphate-loop protein   |
| 61 | <a href="#">c3hl0B_</a> | Alignment | not modelled | 93.7 | 21 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> maleylacetate reductase;<br><b>PDBTitle:</b> crystal structure of maleylacetate reductase from agrobacterium2 tumefaciens   |
| 62 | <a href="#">d1o4va_</a> | Alignment | not modelled | 93.6 | 13 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)<br><b>Family:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)  |
| 63 | <a href="#">d1u11a_</a> | Alignment | not modelled | 93.4 | 10 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)<br><b>Family:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)  |
| 64 | <a href="#">d1vhqa_</a> | Alignment | not modelled | 93.4 | 24 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> DJ-1/Pfpl  |
| 65 | <a href="#">c2ejbA_</a> | Alignment | not modelled | 93.4 | 10 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable aromatic acid decarboxylase;<br><b>PDBTitle:</b> crystal structure of phenylacrylic acid decarboxylase from2 aquifex aeolicus   |
| 66 | <a href="#">c2fw9A_</a> | Alignment | not modelled | 93.4 | 10 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> n5-carboxyaminoimidazole ribonucleotide mutase;<br><b>PDBTitle:</b> structure of pure (n5-carboxyaminoimidazole ribonucleotide mutase)2 h59f from the acidophilic bacterium acetobacter aceti, at ph 8         |
| 67 | <a href="#">c6o55B_</a> | Alignment | not modelled | 93.4 | 11 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> n5-carboxyaminoimidazole ribonucleotide mutase;<br><b>PDBTitle:</b> crystal structure of n5-carboxyaminoimidazole ribonucleotide mutase2 (pure) from legionella pneumophila                                |
| 68 | <a href="#">c3lp6D_</a> | Alignment | not modelled | 93.1 | 15 | <b>PDB header:</b> lyase<br><b>Chain:</b> D: <b>PDB Molecule:</b> phosphoribosylaminoimidazole carboxylase catalytic subunit;<br><b>PDBTitle:</b> crystal structure of rv3275c-e60a from mycobacterium tuberculosis at2 1.7a resolution  |
| 69 | <a href="#">c4yccC_</a> | Alignment | not modelled | 93.1 | 11 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> crystal structure of putative lipoprotein from peptoclostridium2 difficile 630 (fragment)   |
| 70 | <a href="#">c3iv7B_</a> | Alignment | not modelled | 92.9 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> alcohol dehydrogenase iv;<br><b>PDBTitle:</b> crystal structure of iron-containing alcohol dehydrogenase2 (np_602249.1) from corynebacterium glutamicum atcc 13032 kitasato at3 2.07 a resolution     |
| 71 | <a href="#">c4p5pA_</a> | Alignment | not modelled | 92.7 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> thij/pfpi family protein;<br><b>PDBTitle:</b> x-ray structure of francisella tularensis rapid encystment protein 242 kda (rep24), gene product of ftn_0841   |
| 72 | <a href="#">d1qcza_</a> | Alignment | not modelled | 92.5 | 15 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)<br><b>Family:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)  |
| 73 | <a href="#">d1xmpa_</a> | Alignment | not modelled | 92.5 | 11 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)<br><b>Family:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)  |
| 74 | <a href="#">c4kzkA_</a> | Alignment | not modelled | 92.4 | 11 | <b>PDB header:</b> sugar binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> l-arabinose abc transporter, periplasmic l-arabinose-<br><b>PDBTitle:</b> the structure of the periplasmic l-arabinose binding protein from2 burkholderia thailandensis                        |
| 75 | <a href="#">c4grdA_</a> | Alignment | not modelled | 92.3 | 16 | <b>PDB header:</b> lyase,isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> phosphoribosylaminoimidazole carboxylase catalytic subunit;<br><b>PDBTitle:</b> crystal structure of phosphoribosylaminoimidazole carboxylase2 catalytic subunit from burkholderia cenocepacia j2315 |
| 76 | <a href="#">d1p80a1</a> | Alignment | not modelled | 92.1 | 18 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> Catalase, C-terminal domain  |

|    |                         |           |              |      |    |   |
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| 77 | <a href="#">c3opyH</a>  | Alignment | not modelled | 91.8 | 23 | <b>PDB header:</b> transferase<br><b>Chain:</b> H: <b>PDB Molecule:</b> 6-phosphofructo-1-kinase beta-subunit;<br><b>PDBTitle:</b> crystal structure of pichia pastoris phosphofructokinase in the t-2 state  |
| 78 | <a href="#">c3opyB</a>  | Alignment | not modelled | 91.8 | 23 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 6-phosphofructo-1-kinase beta-subunit;<br><b>PDBTitle:</b> crystal structure of pichia pastoris phosphofructokinase in the t-2 state  |
| 79 | <a href="#">c4yhsA</a>  | Alignment | not modelled | 91.4 | 19 | <b>PDB header:</b> solute-binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> monosaccharide abc transporter substrate-binding protein,<br><b>PDBTitle:</b> crystal structure of an abc transporter solute binding protein2 (ipr025997) from bradyrhizobium sp. btai1 (bbta_2440, target efi-3 511490) with bound bis-tris       |
| 80 | <a href="#">c4b4kK</a>  | Alignment | not modelled | 91.2 | 11 | <b>PDB header:</b> isomerase<br><b>Chain:</b> K: <b>PDB Molecule:</b> n5-carboxyaminoimidazole ribonucleotide mutase;<br><b>PDBTitle:</b> crystal structure of bacillus anthracis pure  |
| 81 | <a href="#">c4kqcA</a>  | Alignment | not modelled | 91.1 | 21 | <b>PDB header:</b> transport protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> periplasmic binding protein/laci transcriptional regulator;<br><b>PDBTitle:</b> abc transporter, laci family transcriptional regulator from2 brachyspira murdochii  |
| 82 | <a href="#">c3opyE</a>  | Alignment | not modelled | 91.0 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> E: <b>PDB Molecule:</b> 6-phosphofructo-1-kinase alpha-subunit;<br><b>PDBTitle:</b> crystal structure of pichia pastoris phosphofructokinase in the t-2 state   |
| 83 | <a href="#">c3opyG</a>  | Alignment | not modelled | 91.0 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> G: <b>PDB Molecule:</b> 6-phosphofructo-1-kinase alpha-subunit;<br><b>PDBTitle:</b> crystal structure of pichia pastoris phosphofructokinase in the t-2 state   |
| 84 | <a href="#">c3trhl</a>  | Alignment | not modelled | 90.9 | 16 | <b>PDB header:</b> lyase<br><b>Chain:</b> I: <b>PDB Molecule:</b> phosphoribosylaminoimidazole carboxylase<br><b>PDBTitle:</b> structure of a phosphoribosylaminoimidazole carboxylase catalytic2 subunit (pure) from coxiella burnetii   |
| 85 | <a href="#">c1sy7B</a>  | Alignment | not modelled | 90.8 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> catalase 1;<br><b>PDBTitle:</b> crystal structure of the catalase-1 from neurospora crassa, native2 structure at 1.75a resolution.   |
| 86 | <a href="#">d2f48a1</a> | Alignment | not modelled | 90.8 | 19 | <b>Fold:</b> Phosphofructokinase<br><b>Superfamily:</b> Phosphofructokinase<br><b>Family:</b> Phosphofructokinase   |
| 87 | <a href="#">c4rxuA</a>  | Alignment | not modelled | 90.6 | 15 | <b>PDB header:</b> transport protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> periplasmic sugar-binding protein;<br><b>PDBTitle:</b> crystal structure of carbohydrate transporter solute binding protein2 caur_1924 from chloroflexus aurantiacus, target efi-511158, in3 complex with d-glucose                                     |
| 88 | <a href="#">c5dkvD</a>  | Alignment | not modelled | 90.6 | 19 | <b>PDB header:</b> sugar binding protein<br><b>Chain:</b> D: <b>PDB Molecule:</b> abc transporter substrate binding protein (ribose);<br><b>PDBTitle:</b> crystal structure of an abc transporter solute binding protein from2 agrobacterium vitis(avis_5339, target efi-511225) bound with alpha-d-3 tagatopyranose                  |
| 89 | <a href="#">d1vmea1</a> | Alignment | not modelled | 90.6 | 25 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Flavoproteins<br><b>Family:</b> Flavodoxin-related  |
| 90 | <a href="#">c1xahA</a>  | Alignment | not modelled | 90.3 | 12 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquinate synthase;<br><b>PDBTitle:</b> crystal structure of staphylococcus aureus 3-dehydroquinate2 synthase (dhqs) in complex with zn2+ and nad+   |
| 91 | <a href="#">c3k2qA</a>  | Alignment | not modelled | 90.0 | 20 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyrophosphate-dependent phosphofructokinase;<br><b>PDBTitle:</b> crystal structure of pyrophosphate-dependent2 phosphofructokinase from marinobacter aquaeolei, northeast3 structural genomics consortium target mqr88  |
| 92 | <a href="#">c2higA</a>  | Alignment | not modelled | 89.8 | 25 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phospho-1-fructokinase;<br><b>PDBTitle:</b> crystal structure of phosphofructokinase apoenzyme from trypanosoma2 brucei.  |
| 93 | <a href="#">d1ycga1</a> | Alignment | not modelled | 89.8 | 17 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Flavoproteins<br><b>Family:</b> Flavodoxin-related  |
| 94 | <a href="#">c2fqxA</a>  | Alignment | not modelled | 89.8 | 11 | <b>PDB header:</b> transport protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> membrane lipoprotein tmpc;<br><b>PDBTitle:</b> pnra from treponema pallidum complexed with guanosine  |
| 95 | <a href="#">c3h5oB</a>  | Alignment | not modelled | 89.8 | 20 | <b>PDB header:</b> transcription regulator<br><b>Chain:</b> B: <b>PDB Molecule:</b> transcriptional regulator gntr;<br><b>PDBTitle:</b> the crystal structure of transcription regulator gntr from2 chromobacterium violaceum   |
| 96 | <a href="#">c3o8nA</a>  | Alignment | not modelled | 89.1 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphofructokinase, muscle type;<br><b>PDBTitle:</b> structure of phosphofructokinase from rabbit skeletal muscle  |
| 97 | <a href="#">c6ndiB</a>  | Alignment | not modelled | 88.6 | 8  | <b>PDB header:</b> sugar binding protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> transcriptional regulator;<br><b>PDBTitle:</b> 2.60 angstrom resolution crystal structure of periplasmic binding and2 sugar binding domain of laci family protein from klebsiella3 pneumoniae.  |
| 98 | <a href="#">d1uqra</a>  | Alignment | not modelled | 88.4 | 14 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Type II 3-dehydroquinate dehydratase<br><b>Family:</b> Type II 3-dehydroquinate dehydratase   |
| 99 | <a href="#">c5fb3C</a>  | Alignment | not modelled | 88.3 | 24 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> glycerol-1-phosphate dehydrogenase [nad(p)+];<br><b>PDBTitle:</b> structure of glycerophosphate dehydrogenase in complex with nadph<br><b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase, type ii; |

|     |                         |           |              |      |    |  |
|-----|-------------------------|-----------|--------------|------|----|--|
| 100 | <a href="#">c3u80A_</a> | Alignment | not modelled | 88.3 | 17 | <b>PDBTitle:</b> 1.60 angstrom resolution crystal structure of a 3-dehydroquinase 2 dehydratase-like protein from bifidobacterium longum   |
| 101 | <a href="#">c3o8oC_</a> | Alignment | not modelled | 88.3 | 21 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> 6-phosphofructokinase subunit alpha;<br><b>PDBTitle:</b> structure of phosphofructokinase from saccharomyces cerevisiae  |
| 102 | <a href="#">c3ej6D_</a> | Alignment | not modelled | 88.2 | 26 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> catalase-3;<br><b>PDBTitle:</b> neurospora crassa catalase-3 crystal structure  |
| 103 | <a href="#">c3uugB_</a> | Alignment | not modelled | 88.2 | 18 | <b>PDB header:</b> sugar binding protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> multiple sugar-binding periplasmic receptor chve;<br><b>PDBTitle:</b> crystal structure of the periplasmic sugar binding protein chve  |
| 104 | <a href="#">d2a5la1</a> | Alignment | not modelled | 88.2 | 13 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Flavoproteins<br><b>Family:</b> WrbA-like  |
| 105 | <a href="#">c3fniA_</a> | Alignment | not modelled | 88.2 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative diflavin flavoprotein a 3;<br><b>PDBTitle:</b> crystal structure of a diflavin flavoprotein a3 (all3895) from nostoc2 sp., northeast structural genomics consortium target nsr431a   |
| 106 | <a href="#">c5f4bB_</a> | Alignment | not modelled | 87.7 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> nad(p)h dehydrogenase (quinone);<br><b>PDBTitle:</b> structure of b. abortus wrba-related protein a (wrpa)  |
| 107 | <a href="#">d1qvwa_</a> | Alignment | not modelled | 87.7 | 15 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> DJ-1/Pfpl  |
| 108 | <a href="#">c3k9cA_</a> | Alignment | not modelled | 87.6 | 11 | <b>PDB header:</b> transcription regulator<br><b>Chain:</b> A: <b>PDB Molecule:</b> transcriptional regulator, lacI family protein;<br><b>PDBTitle:</b> crystal structure of lacI transcriptional regulator from rhodococcus2 species.   |
| 109 | <a href="#">c5dteD_</a> | Alignment | not modelled | 87.4 | 22 | <b>PDB header:</b> transport protein<br><b>Chain:</b> D: <b>PDB Molecule:</b> monosaccharide-transporting atpase;<br><b>PDBTitle:</b> crystal structure of an abc transporter periplasmic solute binding2 protein (ipr025997) from actinobacillus succinogenes 130z(asuc_0081,3 target efi-511065) with bound d-allose |
| 110 | <a href="#">d1jx6a_</a> | Alignment | not modelled | 87.3 | 11 | <b>Fold:</b> Periplasmic binding protein-like I<br><b>Superfamily:</b> Periplasmic binding protein-like I<br><b>Family:</b> L-arabinose binding protein-like   |
| 111 | <a href="#">d1mkza_</a> | Alignment | not modelled | 87.1 | 24 | <b>Fold:</b> Molybdenum cofactor biosynthesis proteins<br><b>Superfamily:</b> Molybdenum cofactor biosynthesis proteins<br><b>Family:</b> MogA-like  |
| 112 | <a href="#">c4ry8D_</a> | Alignment | not modelled | 87.1 | 11 | <b>PDB header:</b> transport protein<br><b>Chain:</b> D: <b>PDB Molecule:</b> periplasmic binding protein;<br><b>PDBTitle:</b> crystal structure of 5-methylthioribose transporter solute binding2 protein tlet_1677 from thermotoga lettingae tmo target efi-511109 in3 complex with 5-methylthioribose               |
| 113 | <a href="#">c6dspB_</a> | Alignment | not modelled | 86.9 | 22 | <b>PDB header:</b> signaling protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> autoinducer 2-binding protein lsrb;<br><b>PDBTitle:</b> lsrb from clostridium saccharobutylicum in complex with ai-2   |
| 114 | <a href="#">d1ydga_</a> | Alignment | not modelled | 86.9 | 20 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Flavoproteins<br><b>Family:</b> WrbA-like  |
| 115 | <a href="#">c3c5yD_</a> | Alignment | not modelled | 86.8 | 17 | <b>PDB header:</b> isomerase<br><b>Chain:</b> D: <b>PDB Molecule:</b> ribose/galactose isomerase;<br><b>PDBTitle:</b> crystal structure of a putative ribose 5-phosphate isomerase2 (saro_3514) from novosphingobium aromaticivorans dsm at 1.81 a3 resolution   |
| 116 | <a href="#">c3qjgD_</a> | Alignment | not modelled | 86.8 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> epidermin biosynthesis protein epid;<br><b>PDBTitle:</b> epidermin biosynthesis protein epid from staphylococcus aureus   |
| 117 | <a href="#">d1b1ca_</a> | Alignment | not modelled | 86.8 | 16 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Flavoproteins<br><b>Family:</b> Cytochrome p450 reductase N-terminal domain-like   |
| 118 | <a href="#">c5ulbA_</a> | Alignment | not modelled | 86.1 | 12 | <b>PDB header:</b> sugar binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative sugar abc transporter;<br><b>PDBTitle:</b> crystal structure of sugar abc transporter from yersinia2 enterocolitica subsp. enterocolitica 8081  |
| 119 | <a href="#">d1ydha_</a> | Alignment | not modelled | 85.9 | 28 | <b>Fold:</b> MCP/YpsA-like<br><b>Superfamily:</b> MCP/YpsA-like<br><b>Family:</b> MoCo carrier protein-like  |
| 120 | <a href="#">d1e5da1</a> | Alignment | not modelled | 85.8 | 18 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Flavoproteins<br><b>Family:</b> Flavodoxin-related   |