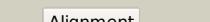
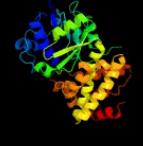
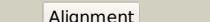
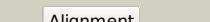
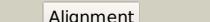
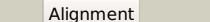
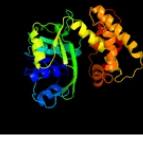


# Phyre<sup>2</sup>

|               |                                |
|---------------|--------------------------------|
| Email         | mdejesus@rockefeller.edu       |
| Description   | RVBD0564c_(gpsA)_654927_655952 |
| Date          | Fri Jul 26 01:50:11 BST 2019   |
| Unique Job ID | e5979674627537d1               |

Detailed template information

| #  | Template               | Alignment Coverage  | 3D Model  | Confidence | % i.d. | Template Information  |
|----|------------------------|---|---|------------|--------|---|
| 1  | <a href="#">c1m67A</a> |    |    | 100.0      | 35     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycerol-3-phosphate dehydrogenase;<br><b>PDBTitle:</b> crystal structure of leishmania mexicana gpdh complexed with inhibitor2 2-bromo-6-hydroxy-purine                           |
| 2  | <a href="#">c3k96B</a> |    |    | 100.0      | 32     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> glycerol-3-phosphate dehydrogenase [nad(p+)];<br><b>PDBTitle:</b> 2.1 angstrom resolution crystal structure of glycerol-3-phosphate2 dehydrogenase (gpsa) from coxiella burnetii   |
| 3  | <a href="#">c1wpqB</a> |    |    | 100.0      | 32     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> glycerol-3-phosphate dehydrogenase [nad+],<br><b>PDBTitle:</b> ternary complex of glycerol 3-phosphate dehydrogenase 12 with nad and dihydroxyacetone                              |
| 4  | <a href="#">c1yj8C</a> |    |   | 100.0      | 21     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> glycerol-3-phosphate dehydrogenase;<br><b>PDBTitle:</b> initial structural analysis of plasmodium falciparum glycerol-3-2 phosphate dehydrogenase                                  |
| 5  | <a href="#">c1z82A</a> |  |  | 100.0      | 38     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycerol-3-phosphate dehydrogenase;<br><b>PDBTitle:</b> crystal structure of glycerol-3-phosphate dehydrogenase (tm0378) from2 thermotoga maritima at 2.00 a resolution            |
| 6  | <a href="#">c4fgwA</a> |  |  | 100.0      | 29     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycerol-3-phosphate dehydrogenase [nad(+)] 1;<br><b>PDBTitle:</b> structure of glycerol-3-phosphate dehydrogenase, gpd1, from2 sacharomyces cerevisiae                            |
| 7  | <a href="#">c1txgA</a> |  |  | 100.0      | 27     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycerol-3-phosphate dehydrogenase [nad(p+)];<br><b>PDBTitle:</b> structure of glycerol-3-phosphate dehydrogenase from archaeoglobus2 fulgidus                                     |
| 8  | <a href="#">c2ew2B</a> |  |  | 100.0      | 12     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase, putative;<br><b>PDBTitle:</b> crystal structure of the putative 2-dehydropantoate 2-reductase from2 enterococcus faecalis                           |
| 9  | <a href="#">c2qytA</a> |  |  | 100.0      | 16     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of 2-dehydropantoate 2-reductase from porphyromonas2 gingivalis w83   |
| 10 | <a href="#">c5ayvB</a> |  |  | 100.0      | 15     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of archaeal ketopantoate reductase complexed with2 coenzyme a and 2-oxopantoate                               |
| 11 | <a href="#">c3hwrA</a> |  |  | 100.0      | 20     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of pane/apba family ketopantoate reductase2 (yp_299159.1) from ralstonia eutropha jmp134 at 2.15 a resolution |

|    |                        |  |              |       |    |  |
|----|------------------------|--|--------------|-------|----|--|
| 12 | <a href="#">c3hn2A</a> |  |              | 100.0 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of 2-dehydropantoate 2-reductase from geobacter2 metallireducens gs-15   |
| 13 | <a href="#">c5zikC</a> |  |              | 100.0 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> probable 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of ketopantoate reductase from pseudomonas2 aeruginosa  |
| 14 | <a href="#">c1bg6A</a> |  |              | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> n-(1-d-carboxylethyl)-l-norvaline dehydrogenase;<br><b>PDBTitle:</b> crystal structure of the n-(1-d-carboxylethyl)-l-norvaline2 dehydrogenase from arthrobacter sp. strain 1c                  |
| 15 | <a href="#">c3ghyA</a> |  |              | 100.0 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> ketopantoate reductase protein;<br><b>PDBTitle:</b> crystal structure of a putative ketopantoate reductase from ralstonia2 solanacearum molk2   |
| 16 | <a href="#">c4ol9A</a> |  |              | 100.0 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of putative 2-dehydropantoate 2-reductase pane from2 mycobacterium tuberculosis complexed with nadp and oxamate   |
| 17 | <a href="#">c3wfjD</a> |  |              | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> the complex structure of d-mandelate dehydrogenase with nadh   |
| 18 | <a href="#">c3egoB</a> |  |              | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> probable 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of probable 2-dehydropantoate 2-reductase pane from2 bacillus subtilis  |
| 19 | <a href="#">c1ks9A</a> |  |              | 100.0 | 12 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> ketopantoate reductase from escherichia coli   |
| 20 | <a href="#">c2ofpB</a> |  |              | 100.0 | 12 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> ketopantoate reductase;<br><b>PDBTitle:</b> crystal structure of escherichia coli ketopantoate2 reductase in a ternary complex with nadp+ and pantoate  |
| 21 | <a href="#">c3g17H</a> |  | not modelled | 100.0 | 16 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> H: <b>PDB Molecule:</b> similar to 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> structure of putative 2-dehydropantoate 2-reductase from staphylococcus aureus                             |
| 22 | <a href="#">c4a7pA</a> |  | not modelled | 100.0 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> udp-glucose dehydrogenase;<br><b>PDBTitle:</b> se-met derivatized uggd, udp-glucose dehydrogenase from sphingomonas2 elodea   |
| 23 | <a href="#">c1mv8A</a> |  | not modelled | 100.0 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> gdp-mannose 6-dehydrogenase;<br><b>PDBTitle:</b> 1.55 a crystal structure of a ternary complex of gdp-mannose2 dehydrogenase from psuedomonas aeruginosa  |
| 24 | <a href="#">c2y0dB</a> |  | not modelled | 100.0 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> udp-glucose dehydrogenase;<br><b>PDBTitle:</b> bcec mutation y10k   |
| 25 | <a href="#">c3i83B</a> |  | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of 2-dehydropantoate 2-reductase from methylococcus2 capsulatus  |
| 26 | <a href="#">c3gg2B</a> |  | not modelled | 100.0 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> sugar dehydrogenase, udp-glucose/gdp-mannose dehydrogenase<br><b>PDBTitle:</b> crystal structure of udp-glucose 6-dehydrogenase from porphyromonas2 gingivalis bound to product udp-glucuronate |
| 27 | <a href="#">c3vtfA</a> |  | not modelled | 100.0 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> udp-glucose 6-dehydrogenase;<br><b>PDBTitle:</b> structure of a udp-glucose dehydrogenase from the hyperthermophilic2 archaeon pyrococcus islandicum  |
| 28 | <a href="#">c1pgqA</a> |  | not modelled | 100.0 | 11 | <b>PDB header:</b> oxidoreductase (choh(d)-nadp+(a))<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase;<br><b>PDBTitle:</b> crystallographic study of coenzyme, coenzyme analogue and substrate2 binding in 6-phosphogluconate dehydrogenase;      |

|    |                        |           |              |       |    |   |
|----|------------------------|-----------|--------------|-------|----|---|
|    |                        |           |              |       |    | implications for nadp3 specificity and the enzyme mechanism   |
| 29 | <a href="#">c2iz1C</a> | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase, decarboxylating;<br><b>PDBTitle:</b> 6pdh complexed with pex inhibitor synchrotron data  |
| 30 | <a href="#">c1pgjA</a> | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase; <b>PDBTitle:</b> x-ray structure of 6-phosphogluconate dehydrogenase from the protozoan parasite t. brucei   |
| 31 | <a href="#">c3qhaB</a> | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative oxidoreductase; <b>PDBTitle:</b> crystal structure of a putative oxidoreductase from mycobacterium2 avium 104   |
| 32 | <a href="#">c3fwnB</a> | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase, decarboxylating;<br><b>PDBTitle:</b> dimeric 6-phosphogluconate dehydrogenase complexed with 6-2 phosphogluconate and 2'-monophosphoadenosine-5'-diphosphate   |
| 33 | <a href="#">c2p4qA</a> | Alignment | not modelled | 100.0 | 10 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase, decarboxylating 1;<br><b>PDBTitle:</b> crystal structure analysis of gnd1 in saccharomyces cerevisiae  |
| 34 | <a href="#">c6fqzB</a> | Alignment | not modelled | 100.0 | 10 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase, decarboxylating;<br><b>PDBTitle:</b> plasmodium falciparum 6-phosphogluconate dehydrogenase in its apo2 form, in complex with its cofactor nadp+ and in complex with its3 substrate 6-phosphogluconate |
| 35 | <a href="#">c4wb1B</a> | Alignment | not modelled | 100.0 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> cals8;<br><b>PDBTitle:</b> crystal structure of cals8 from micromonospora echinosa (p294s2 mutant)   |
| 36 | <a href="#">c3cumA</a> | Alignment | not modelled | 100.0 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable 3-hydroxyisobutyrate dehydrogenase;<br><b>PDBTitle:</b> crystal structure of a possible 3-hydroxyisobutyrate dehydrogenase2 from pseudomonas aeruginosa pao1  |
| 37 | <a href="#">c3w6uA</a> | Alignment | not modelled | 100.0 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase, nad-binding protein;<br><b>PDBTitle:</b> crystal structure of nadp bound l-serine 3-dehydrogenase from2 hyperthermophilic archaeon pyrobaculum calidifontis  |
| 38 | <a href="#">c2q3eH</a> | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> H: <b>PDB Molecule:</b> udp-glucose 6-dehydrogenase;<br><b>PDBTitle:</b> structure of human udp-glucose dehydrogenase complexed with nadh and2 udp-glucose   |
| 39 | <a href="#">c2o3jC</a> | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> udp-glucose 6-dehydrogenase;<br><b>PDBTitle:</b> structure of caenorhabditis elegans udp-glucose dehydrogenase   |
| 40 | <a href="#">c4e21B</a> | Alignment | not modelled | 100.0 | 12 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase (decarboxylating);<br><b>PDBTitle:</b> the crystal structure of 6-phosphogluconate dehydrogenase from2 geobacter metallireducens  |
| 41 | <a href="#">c2cvzD</a> | Alignment | not modelled | 100.0 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> 3-hydroxyisobutyrate dehydrogenase;<br><b>PDBTitle:</b> structure of hydroxyisobutyrate dehydrogenase from thermus2 thermophilus hb8   |
| 42 | <a href="#">c3prjB</a> | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> udp-glucose 6-dehydrogenase;<br><b>PDBTitle:</b> role of packing defects in the evolution of allosteric and induced fit2 in human udp-glucose dehydrogenase.   |
| 43 | <a href="#">c4r16A</a> | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 418aa long hypothetical udp-n-acetyl-d-mannosaminuronic<br><b>PDBTitle:</b> structure of udp-d-mannac dehydrogeanse from pyrococcus horikoshii   |
| 44 | <a href="#">c5y8mA</a> | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable 3-hydroxyisobutyrate dehydrogenase;<br><b>PDBTitle:</b> mycobacterium tuberculosis 3-hydroxyisobutyrate dehydrogenase2 (mthibadh) + nad + (r)-3-hydroxyisobutyrate (r-hiba)   |
| 45 | <a href="#">c1yb4A</a> | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tartronic semialdehyde reductase;<br><b>PDBTitle:</b> crystal structure of the tartronic semialdehyde reductase from2 salmonella typhimurium lt2   |
| 46 | <a href="#">c1vpdA</a> | Alignment | not modelled | 100.0 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tartronate semialdehyde reductase;<br><b>PDBTitle:</b> x-ray crystal structure of tartronate semialdehyde reductase2 [salmonella typhimurium lt2]  |
| 47 | <a href="#">c6aqjB</a> | Alignment | not modelled | 100.0 | 16 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> ketol-acid reductoisomerase (nadp(+));<br><b>PDBTitle:</b> crystal structures of staphylococcus aureus ketol-acid2 reductoisomerase in complex with two transition state analogs that3 have biocidal activity.                                |
| 48 | <a href="#">c3g0oA</a> | Alignment | not modelled | 100.0 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-hydroxyisobutyrate dehydrogenase;<br><b>PDBTitle:</b> crystal structure of 3-hydroxyisobutyrate dehydrogenase2 (ygbi) from salmonella typhimurium  |
| 49 | <a href="#">c4kqxB</a> | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase/oxidoreductase inhibitor<br><b>Chain:</b> B: <b>PDB Molecule:</b> ketol-acid reductoisomerase;<br><b>PDBTitle:</b> mutant slackia exigua kari ddd in complex with nad and an inhibitor  |
| 50 | <a href="#">c4dlIB</a> | Alignment | not modelled | 100.0 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-hydroxy-3-oxopropionate reductase;<br><b>PDBTitle:</b> crystal structure of a 2-hydroxy-3-oxopropionate reductase from2 polaromonas sp. js666  |
| 51 | <a href="#">c2nf3D</a> | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-hydroxyisobutyrate dehydrogenase;  |

|    |                         |           |              |       |    |  |
|----|-------------------------|-----------|--------------|-------|----|--|
| 51 | <a href="#">c2y1zD</a>  | Alignment | not modelled | 100.0 | 15 | <b>PDBTitle:</b> crystal structure of human hydroxyisobutyrate dehydrogenase<br><b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-hydroxymethyl glutarate dehydrogenase;<br><b>PDBTitle:</b> structural and kinetic properties of a beta-hydroxyacid dehydrogenase2 involved in nicotinate fermentation |
| 52 | <a href="#">c3ckyA</a>  | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-hydroxymethyl glutarate dehydrogenase;<br><b>PDBTitle:</b> structural and kinetic properties of a beta-hydroxyacid dehydrogenase2 involved in nicotinate fermentation   |
| 53 | <a href="#">c3ojlA</a>  | Alignment | not modelled | 100.0 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> cap50;<br><b>PDBTitle:</b> native structure of the udp-n-acetyl-mannosamine dehydrogenase cap502 from staphylococcus aureus   |
| 54 | <a href="#">c5a9tA</a>  | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative dehydrogenase;<br><b>PDBTitle:</b> imine reductase from amycolatopsis orientalis in complex2 with (r)-methyltetrahydroisoquinoline   |
| 55 | <a href="#">c5je8A</a>  | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-hydroxyisobutyrate dehydrogenase;<br><b>PDBTitle:</b> the crystal structure of bacillus cereus 3-hydroxyisobutyrate2 dehydrogenase in complex with nad  |
| 56 | <a href="#">c3g79A</a>  | Alignment | not modelled | 100.0 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> ndp-n-acetyl-d-galactosaminuronic acid dehydrogenase;<br><b>PDBTitle:</b> crystal structure of ndp-n-acetyl-d-galactosaminuronic acid2 dehydrogenase from methanoscarcina mazei go1   |
| 57 | <a href="#">c50cmA</a>  | Alignment | not modelled | 100.0 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nad_gly3p_dh, nad-dependent glycerol-3-phosphate<br><b>PDBTitle:</b> imine reductase from streptosporangium roseum in complex with nadp+2 and 2,2,2-trifluoroacetophenone hydrate   |
| 58 | <a href="#">c4gbjB</a>  | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase nad-binding;<br><b>PDBTitle:</b> crystal structure of nad-binding 6-phosphogluconate dehydrogenase from2 dyadobacter fermentans  |
| 59 | <a href="#">c4d3fB</a>  | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> imine reductase;<br><b>PDBTitle:</b> bcsired from bacillus cereus in complex with nadph   |
| 60 | <a href="#">c4oqzA</a>  | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative oxidoreductase yfjr;<br><b>PDBTitle:</b> streptomyces aurantiacus imine reductase  |
| 61 | <a href="#">c6grlA</a>  | Alignment | not modelled | 100.0 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-hydroxyacid dehydrogenase, 3-hydroxyisobutyrate<br><b>PDBTitle:</b> structure of imine reductase (apo form) at 1.6 a resolution from2 saccharomonospora xinjiangensis  |
| 62 | <a href="#">d1n1ea1</a> | Alignment | not modelled | 100.0 | 40 | <b>Fold:</b> 6-phosphogluconate dehydrogenase C-terminal domain-like<br><b>Superfamily:</b> 6-phosphogluconate dehydrogenase C-terminal domain-like<br><b>Family:</b> Glycerol-3-phosphate dehydrogenase   |
| 63 | <a href="#">c3plnA</a>  | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> udp-glucose 6-dehydrogenase;<br><b>PDBTitle:</b> crystal structure of klebsiella pneumoniae udp-glucose 6-dehydrogenase2 complexed with udp-glucose   |
| 64 | <a href="#">c4d3sA</a>  | Alignment | not modelled | 100.0 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> imine reductase;<br><b>PDBTitle:</b> imine reductase from nocardiosis halophila   |
| 65 | <a href="#">c4edfC</a>  | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> udp-glucose 6-dehydrogenase;<br><b>PDBTitle:</b> dimeric hugdh, k94e  |
| 66 | <a href="#">d1n1ea2</a> | Alignment | not modelled | 100.0 | 31 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain   |
| 67 | <a href="#">c3dojA</a>  | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dehydrogenase-like protein;<br><b>PDBTitle:</b> structure of glyoxylate reductase 1 from arabidopsis (atglyr1)  |
| 68 | <a href="#">c4oqyA</a>  | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> (s)-imine reductase;<br><b>PDBTitle:</b> streptomyces sp. gf3546 imine reductase  |
| 69 | <a href="#">c5u5gC</a>  | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase;<br><b>PDBTitle:</b> psf3 in complex with nadp+ and 2-opp  |
| 70 | <a href="#">c2uyyD</a>  | Alignment | not modelled | 100.0 | 17 | <b>PDB header:</b> cytokine<br><b>Chain:</b> D: <b>PDB Molecule:</b> n-pac protein;<br><b>PDBTitle:</b> structure of the cytokine-like nuclear factor n-pac  |
| 71 | <a href="#">c5g6sD</a>  | Alignment | not modelled | 99.9  | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> imine reductase;<br><b>PDBTitle:</b> imine reductase from aspergillus oryzae in complex with nadp(h) and2 (r)-rasagiline  |
| 72 | <a href="#">c4xdzB</a>  | Alignment | not modelled | 99.9  | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> ketol-acid reductoisomerase;<br><b>PDBTitle:</b> holo structure of ketol-acid reductoisomerase from ignisphaera2 aggregans  |
| 73 | <a href="#">c3l6dB</a>  | Alignment | not modelled | 99.9  | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative oxidoreductase;<br><b>PDBTitle:</b> crystal structure of putative oxidoreductase from pseudomonas putida2 kt2440   |
| 74 | <a href="#">c3zhbC</a>  | Alignment | not modelled | 99.9  | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> r-imine reductase;<br><b>PDBTitle:</b> r-imine reductase from streptomyces kanamyceticus in2 complex with nadp.   |
| 75 | <a href="#">c5ojlA</a>  | Alignment | not modelled | 99.9  | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> imine reductase;<br><b>PDBTitle:</b> imine reductase from aspergillus terreus in complex with nadph4 and2 dibenz[c,e]azepine<br><b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> udp-glucose dehydrogenase;                   |

|    |                         |           |              |      |    |  |
|----|-------------------------|-----------|--------------|------|----|--|
| 76 | <a href="#">c1dlIA</a>  | Alignment | not modelled | 99.9 | 15 | <p><b>PDB Title:</b> the first structure of udp-glucose dehydrogenase (udpgdh) reveals the 2 catalytic residues necessary for the two-fold oxidation</p>   |
| 77 | <a href="#">c3pduF</a>  | Alignment | not modelled | 99.9 | 15 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> F: <b>PDB Molecule:</b> 3-hydroxyisobutyrate dehydrogenase family protein;<br/><b>PDB Title:</b> crystal structure of gamma-hydroxybutyrate dehydrogenase from <i>geobacter sulfurreducens</i> in complex with nadp+</p>                                    |
| 78 | <a href="#">c4ezbA</a>  | Alignment | not modelled | 99.9 | 16 | <p><b>PDB header:</b> structural genomics, unknown function<br/><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized conserved protein;<br/><b>PDB Title:</b> crystal structure of the conserved hypothetical protein from <i>sinorhizobium meliloti</i> 1021</p>   |
| 79 | <a href="#">c3qsgA</a>  | Alignment | not modelled | 99.9 | 16 | <p><b>PDB header:</b> structural genomics, unknown function<br/><b>Chain:</b> A: <b>PDB Molecule:</b> nad-binding phosphogluconate dehydrogenase-like protein;<br/><b>PDB Title:</b> crystal structure of nad-binding phosphogluconate dehydrogenase-like2 protein from <i>alicyclobacillus acidocaldarius</i></p> |
| 80 | <a href="#">c4xdyB</a>  | Alignment | not modelled | 99.9 | 14 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> ketol-acid reductoisomerase;<br/><b>PDB Title:</b> structure of nadh-preferring ketol-acid reductoisomerase from an uncultured archaeon</p>   |
| 81 | <a href="#">d1txga2</a> | Alignment | not modelled | 99.9 | 21 | <p><b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br/><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br/><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain</p>  |
| 82 | <a href="#">c3pefA</a>  | Alignment | not modelled | 99.9 | 15 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase, nad-binding;<br/><b>PDB Title:</b> crystal structure of gamma-hydroxybutyrate dehydrogenase from <i>geobacter metallireducens</i> in complex with nadp+</p>                                       |
| 83 | <a href="#">c3c7cB</a>  | Alignment | not modelled | 99.9 | 15 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> octopine dehydrogenase;<br/><b>PDB Title:</b> a structural basis for substrate and stereo selectivity in 2 octopine dehydrogenase (odh-nadh-l-arginine)</p>   |
| 84 | <a href="#">c6c4IC</a>  | Alignment | not modelled | 99.9 | 12 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> C: <b>PDB Molecule:</b> yersinopine dehydrogenase;<br/><b>PDB Title:</b> yersinopine dehydrogenase (ypodh) - apo</p>  |
| 85 | <a href="#">d1txga1</a> | Alignment | not modelled | 99.9 | 34 | <p><b>Fold:</b> 6-phosphogluconate dehydrogenase C-terminal domain-like<br/><b>Superfamily:</b> 6-phosphogluconate dehydrogenase C-terminal domain-like<br/><b>Family:</b> Glycerol-3-phosphate dehydrogenase</p>  |
| 86 | <a href="#">c6c4jA</a>  | Alignment | not modelled | 99.9 | 12 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> A: <b>PDB Molecule:</b> udp-glucose 6-dehydrogenase;<br/><b>PDB Title:</b> ligand bound full length hugdh with a104l substitution</p>   |
| 87 | <a href="#">c5yeqB</a>  | Alignment | not modelled | 99.9 | 16 | <p><b>PDB header:</b> isomerase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> ketol-acid reductoisomerase (nadp+);<br/><b>PDB Title:</b> the structure of sac-kari protein</p>   |
| 88 | <a href="#">c3d1IB</a>  | Alignment | not modelled | 99.9 | 16 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> putative nadp oxidoreductase bf3122;<br/><b>PDB Title:</b> crystal structure of putative nadp oxidoreductase bf3122 from <i>bacteroides fragilis</i></p>  |
| 89 | <a href="#">c4ypoB</a>  | Alignment | not modelled | 99.9 | 16 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> ketol-acid reductoisomerase;<br/><b>PDB Title:</b> crystal structure of <i>mycobacterium tuberculosis</i> ketol-acid2 reductoisomerase in complex with mg2+</p>   |
| 90 | <a href="#">c6c4nB</a>  | Alignment | not modelled | 99.9 | 15 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> pseudopaline dehydrogenase;<br/><b>PDB Title:</b> pseudopaline dehydrogenase (paodh) - nadp+ bound</p>  |
| 91 | <a href="#">c2izzE</a>  | Alignment | not modelled | 99.9 | 18 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> E: <b>PDB Molecule:</b> pyrrolidine-5-carboxylate reductase 1;<br/><b>PDB Title:</b> crystal structure of human pyrrolidine-5-carboxylate reductase</p>   |
| 92 | <a href="#">c5t57A</a>  | Alignment | not modelled | 99.9 | 18 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> A: <b>PDB Molecule:</b> semialdehyde dehydrogenase nad-binding protein;<br/><b>PDB Title:</b> crystal structure of a semialdehyde dehydrogenase nad-binding protein2 from <i>cupriavidus necator</i> in complex with calcium and nad</p>                    |
| 93 | <a href="#">c1i36A</a>  | Alignment | not modelled | 99.9 | 12 | <p><b>PDB header:</b> structural genomics, unknown function<br/><b>Chain:</b> A: <b>PDB Molecule:</b> conserved hypothetical protein mth1747;<br/><b>PDB Title:</b> structure of conserved protein mth1747 of unknown function reveals 2 structural similarity with 3-hydroxyacid dehydrogenases</p>               |
| 94 | <a href="#">c5bseF</a>  | Alignment | not modelled | 99.9 | 17 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> F: <b>PDB Molecule:</b> pyrrolidine-5-carboxylate reductase;<br/><b>PDB Title:</b> crystal structure of <i>medicago truncatula</i> (delta)-1-pyrrolidine-5-2 carboxylate reductase (mtp5cr)</p>   |
| 95 | <a href="#">c2graA</a>  | Alignment | not modelled | 99.9 | 17 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> A: <b>PDB Molecule:</b> pyrrolidine-5-carboxylate reductase 1;<br/><b>PDB Title:</b> crystal structure of human pyrrolidine-5-carboxylate reductase complexed2 with nadp</p>  |
| 96 | <a href="#">c4joeB</a>  | Alignment | not modelled | 99.9 | 10 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> probable 3-hydroxyacyl-coa dehydrogenase f54c8.1;<br/><b>PDB Title:</b> crystal structure of 3-hydroxyacyl-coa dehydrogenase from <i>caenorhabditis elegans</i> in p1 space group</p>   |
| 97 | <a href="#">d1bg6a2</a> | Alignment | not modelled | 99.8 | 15 | <p><b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br/><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br/><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain</p>  |
| 98 | <a href="#">c4e12A</a>  | Alignment | not modelled | 99.8 | 15 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> A: <b>PDB Molecule:</b> diketoreductase;<br/><b>PDB Title:</b> substrate-directed dual catalysis of dicarbonyl compounds by 2 diketoreductase</p>   |
| 99 | <a href="#">c3triB</a>  | Alignment | not modelled | 99.8 | 20 | <p><b>PDB header:</b> oxidoreductase<br/><b>Chain:</b> B: <b>PDB Molecule:</b> pyrrolidine-5-carboxylate reductase;<br/><b>PDB Title:</b> structure of a pyrrolidine-5-carboxylate reductase (proc) from <i>coxiella2 burnetii</i></p>   |

|     |                         |           |              |      |    |   |
|-----|-------------------------|-----------|--------------|------|----|---|
| 100 | <a href="#">c6c4rA</a>  | Alignment | not modelled | 99.8 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> staphylopine dehydrogenase;<br><b>PDBTitle:</b> staphylopine dehydrogenase (saodh) - apo   |
| 101 | <a href="#">c2ahrB</a>  | Alignment | not modelled | 99.8 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative pyrroline carboxylate reductase;<br><b>PDBTitle:</b> crystal structures of 1-pyrroline-5-carboxylate reductase from human2 pathogen streptococcus pyogenes  |
| 102 | <a href="#">c1np3B</a>  | Alignment | not modelled | 99.8 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> ketol-acid reductoisomerase;<br><b>PDBTitle:</b> crystal structure of class i acetohydroxy acid isomeroreductase from2 pseudomonas aeruginosa  |
| 103 | <a href="#">d1mv8a2</a> | Alignment | not modelled | 99.8 | 21 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain  |
| 104 | <a href="#">c3dttA</a>  | Alignment | not modelled | 99.8 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nadp oxidoreductase;<br><b>PDBTitle:</b> crystal structure of a putative f420 dependent nadp-reductase2 (arth_0613) from arthrobacter sp. fb24 at 1.70 a resolution  |
| 105 | <a href="#">c2ep9A</a>  | Alignment | not modelled | 99.8 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> l-gulonate 3-dehydrogenase;<br><b>PDBTitle:</b> crystal structure of the rabbit l-gulonate 3-dehydrogenase2 (nadh form)  |
| 106 | <a href="#">d2pgda2</a> | Alignment | not modelled | 99.8 | 11 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain  |
| 107 | <a href="#">c3gt0A</a>  | Alignment | not modelled | 99.8 | 15 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyrroline-5-carboxylate reductase;<br><b>PDBTitle:</b> crystal structure of pyrroline 5-carboxylate reductase from bacillus2 cereus. northeast structural genomics consortium target bcr38b  |
| 108 | <a href="#">c5n2iC</a>  | Alignment | not modelled | 99.8 | 21 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> reduced coenzyme f420:nadp oxidoreductase;<br><b>PDBTitle:</b> f420:nadph oxidoreductase from thermobifida fusca with nadp+ bound  |
| 109 | <a href="#">d1vpda2</a> | Alignment | not modelled | 99.8 | 16 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain  |
| 110 | <a href="#">d2cvza2</a> | Alignment | not modelled | 99.8 | 21 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain  |
| 111 | <a href="#">d1jaya</a>  | Alignment | not modelled | 99.8 | 18 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain  |
| 112 | <a href="#">c3rgsB</a>  | Alignment | not modelled | 99.8 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> hydroxyacyl-coenzyme a dehydrogenase, mitochondrial;<br><b>PDBTitle:</b> crystal structure of human l-3- hydroxyacyl-coa dehydrogenase2 (ec1.1.1.35) from mitochondria at the resolution 2.0 a, northeast3 structural genomics consortium target hr487, mitochondrial protein4 partnership |
| 113 | <a href="#">c4om8B</a>  | Alignment | not modelled | 99.8 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-hydroxybutyryl-coa dehydrogenase;<br><b>PDBTitle:</b> crystal structure of 5-formyl-3-hydroxy-2-methylpyridine 4-carboxylic2 acid (fhmpc) 5-dehydrogenase, an nad+ dependent dismutase.  |
| 114 | <a href="#">d1ks9a2</a> | Alignment | not modelled | 99.8 | 16 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain  |
| 115 | <a href="#">c3k6jA</a>  | Alignment | not modelled | 99.8 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein f01g10.3, confirmed by transcript evidence;<br><b>PDBTitle:</b> crystal structure of the dehydrogenase part of multifunctional enzyme 12 from c.elegans  |
| 116 | <a href="#">c1m75B</a>  | Alignment | not modelled | 99.8 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-hydroxyacyl-coa dehydrogenase;<br><b>PDBTitle:</b> crystal structure of the n208s mutant of l-3-hydroxyacyl-coa2 dehydrogenase in complex with nad and acetoacetyl-coa   |
| 117 | <a href="#">c2f1kD</a>  | Alignment | not modelled | 99.8 | 22 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> prephenate dehydrogenase;<br><b>PDBTitle:</b> crystal structure of synchocystis argenone dehydrogenase   |
| 118 | <a href="#">c4tska</a>  | Alignment | not modelled | 99.7 | 18 | <b>PDB header:</b> oxidoreductase,isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> ketol-acid reductoisomerase;<br><b>PDBTitle:</b> ketol-acid reductoisomerase from alicyclobacillus acidocaldarius  |
| 119 | <a href="#">d3cuma2</a> | Alignment | not modelled | 99.7 | 15 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain  |
| 120 | <a href="#">c4wjiA</a>  | Alignment | not modelled | 99.7 | 21 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative cyclohexadienyl dehydrogenase and adh prephenate<br><b>PDBTitle:</b> crystal structure of cyclohexadienyl dehydrogenase from sinorhizobium2 meliloti in complex with nadp and tyrosine  |