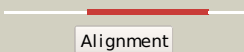

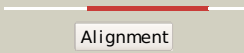







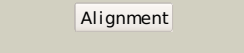



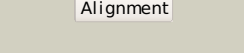



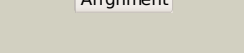

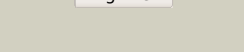



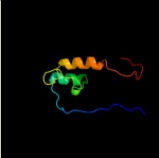
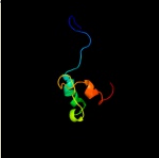

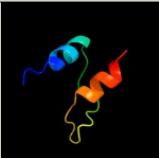
# Phyre2

|               |                             |
|---------------|-----------------------------|
| Email         | I.a.kelley@imperial.ac.uk   |
| Description   | P0AFG6                      |
| Date          | Thu Jan 5 11:26:10 GMT 2012 |
| Unique Job ID | 5a6db5a5f89e6459            |


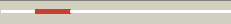

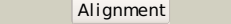
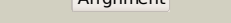
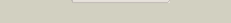


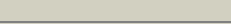

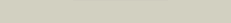


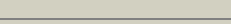

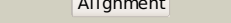





Detailed template information

| #  | Template                | Alignment Coverage  | 3D Model  | Confidence | % i.d. | Template Information   |
|----|-------------------------|---|---|------------|--------|--|
| 1  | <a href="#">d1b5sa_</a> |  Alignment   |    | 100.0      | 36     | <b>Fold:</b> CoA-dependent acyltransferases<br><b>Superfamily:</b> CoA-dependent acyltransferases<br><b>Family:</b> CAT-like   |
| 2  | <a href="#">d1dpba_</a> |  Alignment   |    | 100.0      | 30     | <b>Fold:</b> CoA-dependent acyltransferases<br><b>Superfamily:</b> CoA-dependent acyltransferases<br><b>Family:</b> CAT-like   |
| 3  | <a href="#">c2ii4C_</a> |  Alignment   |    | 100.0      | 30     | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> lipamide acyltransferase component of branched-chain<br><b>PDBTitle:</b> crystal structure of a cubic core of the dihydrolipoamide2 acyltransferase (e2b) component in the branched-chain alpha-ketoacid3 dehydrogenase complex (bckdc), coenzyme a-bound form |
| 4  | <a href="#">c3l60A_</a> |  Alignment   |    | 100.0      | 29     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> branched-chain alpha-keto acid dehydrogenase;<br><b>PDBTitle:</b> crystal structure of branched-chain alpha-keto acid2 dehydrogenase subunit e2 from mycobacterium tuberculosis   |
| 5  | <a href="#">d1scza_</a> |  Alignment |  | 100.0      | 100    | <b>Fold:</b> CoA-dependent acyltransferases<br><b>Superfamily:</b> CoA-dependent acyltransferases<br><b>Family:</b> CAT-like   |
| 6  | <a href="#">c3b8kA_</a> |  Alignment |  | 100.0      | 31     | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydrolipoyllysine-residue acetyltransferase;<br><b>PDBTitle:</b> structure of the truncated human dihydrolipoyl2 acetyltransferase (e2)  |
| 7  | <a href="#">c3maeA_</a> |  Alignment |  | 100.0      | 34     | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-oxoisovalerate dehydrogenase e2 component,<br><b>PDBTitle:</b> crystal structure of probable dihydrolipamide2 acetyltransferase from listeria monocytogenes 4b f2365   |
| 8  | <a href="#">c3rqcB_</a> |  Alignment |  | 100.0      | 36     | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> probable lipamide acyltransferase;<br><b>PDBTitle:</b> crystal structure of the catalytic core of the 2-oxoacid dehydrogenase2 multienzyme complex from thermoplasma acidophilum   |
| 9  | <a href="#">d1q23a_</a> |  Alignment |  | 100.0      | 8      | <b>Fold:</b> CoA-dependent acyltransferases<br><b>Superfamily:</b> CoA-dependent acyltransferases<br><b>Family:</b> CAT-like   |
| 10 | <a href="#">d3claa_</a> |  Alignment |  | 100.0      | 10     | <b>Fold:</b> CoA-dependent acyltransferases<br><b>Superfamily:</b> CoA-dependent acyltransferases<br><b>Family:</b> CAT-like   |
| 11 | <a href="#">c2i9dC_</a> |  Alignment |  | 100.0      | 18     | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> chloramphenicol acetyltransferase;<br><b>PDBTitle:</b> chloramphenicol acetyltransferase   |






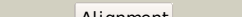
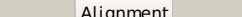
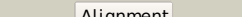
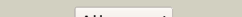
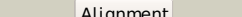
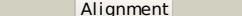









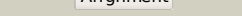
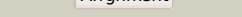
|    |                          |           |              |      |     |  |
|----|--------------------------|-----------|--------------|------|-----|--|
| 12 | <a href="#">c2dneA_</a>  | Alignment |              | 99.9 | 20  | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydrolipoyllysine-residue acetyltransferase<br><b>PDBTitle:</b> solution structure of rsgi ruh-058, a lipoyl domain of2 human 2-oxoacid dehydrogenase          |
| 13 | <a href="#">c2dncA_</a>  | Alignment |              | 99.9 | 34  | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyruvate dehydrogenase protein x component;<br><b>PDBTitle:</b> solution structure of rsgi ruh-054, a lipoyl domain from2 human 2-oxoacid dehydrogenase          |
| 14 | <a href="#">d1y8ob1_</a> | Alignment |              | 99.9 | 28  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 15 | <a href="#">c2q8iB_</a>  | Alignment |              | 99.9 | 29  | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> dihydrolipoyllysine-residue acetyltransferase component of<br><b>PDBTitle:</b> pyruvate dehydrogenase kinase isoform 3 in complex with antitumor drug2 radicicol |
| 16 | <a href="#">d1k8ma_</a>  | Alignment |              | 99.8 | 22  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 17 | <a href="#">c2l5tA_</a>  | Alignment |              | 99.8 | 32  | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipoamide acyltransferase;<br><b>PDBTitle:</b> solution nmr structure of e2 lipoyl domain from thermoplasma2 acidophilum   |
| 18 | <a href="#">d1ghja_</a>  | Alignment |              | 99.8 | 60  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 19 | <a href="#">d1gjxa_</a>  | Alignment |              | 99.8 | 23  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 20 | <a href="#">d1qjoa_</a>  | Alignment |              | 99.8 | 26  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 21 | <a href="#">d1laba_</a>  | Alignment | not modelled | 99.8 | 35  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 22 | <a href="#">d1pmra_</a>  | Alignment | not modelled | 99.8 | 100 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 23 | <a href="#">d1iyua_</a>  | Alignment | not modelled | 99.8 | 28  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 24 | <a href="#">c2xt6B_</a>  | Alignment | not modelled | 99.7 | 28  | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-oxoglutarate decarboxylase;<br><b>PDBTitle:</b> crystal structure of mycobacterium smegmatis alpha-ketoglutarate2 decarboxylase homodimer (orthorhombic form)        |
| 25 | <a href="#">d2pnrc1_</a> | Alignment | not modelled | 99.7 | 36  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 26 | <a href="#">c2ejmA_</a>  | Alignment | not modelled | 99.7 | 19  | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> methylcrotonoyl-coa carboxylase subunit alpha;<br><b>PDBTitle:</b> solution structure of ruh-072, an apo-biotinyl domain form2 human acetyl coenzyme a carboxylase    |
| 27 | <a href="#">c2dn8A_</a>  | Alignment | not modelled | 99.7 | 16  | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> acetyl-coa carboxylase 2;<br><b>PDBTitle:</b> solution structure of rsgi ruh-053, an apo-biotin carboxy2 carrier protein from human transcarboxylase                  |
| 28 | <a href="#">c2kccA_</a>  | Alignment | not modelled | 99.6 | 14  | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> acetyl-coa carboxylase 2;<br><b>PDBTitle:</b> solution structure of biotinoyl domain from human acetyl-2 coa carboxylase 2  |
| 29 | <a href="#">c2h8nA_</a>  | Alignment | not modelled | 99.6 | 23  | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> biotin/lipoyl attachment protein;   |



|    |                         |           |   |      |     |  |
|----|-------------------------|-----------|---|------|-----|--|
| 29 | <a href="#">c2009A</a>  | Alignment | not modelled  | 99.0 | 29  | <b>PDBTitle:</b> solution structure of bacillus subtilis blap biotinylated-2 form (energy minimized mean structure)  |
| 30 | <a href="#">d1dcza</a>  | Alignment | not modelled  | 99.5 | 30  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 31 | <a href="#">c2ejgD</a>  | Alignment | not modelled  | 99.5 | 30  | <b>PDB header:</b> ligase<br><b>Chain:</b> D: <b>PDB Molecule:</b> 149aa long hypothetical methylmalonyl-coa decarboxylase<br><b>PDBTitle:</b> crystal structure of the biotin protein ligase (mutation r48a) and2 biotin carboxyl carrier protein complex from pyrococcus horikoshii3 ot3 |
| 32 | <a href="#">d1o78a</a>  | Alignment | not modelled  | 99.4 | 30  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 33 | <a href="#">c3n6rK</a>  | Alignment | not modelled  | 99.4 | 15  | <b>PDB header:</b> ligase<br><b>Chain:</b> K: <b>PDB Molecule:</b> propionyl-coa carboxylase, alpha subunit;<br><b>PDBTitle:</b> crystal structure of the holoenzyme of propionyl-coa carboxylase (pcc)  |
| 34 | <a href="#">d1bdoa</a>  | Alignment | not modelled  | 99.4 | 23  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 35 | <a href="#">c2cooA</a>  | Alignment |    | 99.2 | 25  | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipoamide acyltransferase component of branched-<br><b>PDBTitle:</b> solution structure of the e3_binding domain of2 dihydrolipoamide branched chaintransacylase   |
| 36 | <a href="#">d1bala</a>  | Alignment |    | 99.1 | 100 | <b>Fold:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Superfamily:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Family:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex                    |
| 37 | <a href="#">c1zwvA</a>  | Alignment | not modelled  | 99.1 | 32  | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipoamide acyltransferase component of branched-<br><b>PDBTitle:</b> solution structure of the subunit binding domain (hbsbd) of2 the human mitochondrial branched-chain alpha-ketoacid3 dehydrogenase             |
| 38 | <a href="#">c1w4kA</a>  | Alignment | not modelled  | 99.1 | 40  | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyruvate dehydrogenase e2;<br><b>PDBTitle:</b> peripheral-subunit binding domains from mesophilic, 2 thermophilic, and hyperthermophilic bacteria fold by3 ultrafast, apparently two-state transitions             |
| 39 | <a href="#">c1w3dA</a>  | Alignment | not modelled  | 99.1 | 29  | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydrolipoyllysine-residue acetyltransferase<br><b>PDBTitle:</b> nmr structure of the peripheral-subunit binding domain of2 bacillus stearothermophilus e2p   |
| 40 | <a href="#">d1w4ha1</a> | Alignment |  | 99.1 | 100 | <b>Fold:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Superfamily:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Family:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex                    |
| 41 | <a href="#">c3dv0I</a>  | Alignment | not modelled  | 99.1 | 32  | <b>PDB header:</b> oxidoreductase/transferase<br><b>Chain:</b> I: <b>PDB Molecule:</b> dihydrolipoyllysine-residue acetyltransferase<br><b>PDBTitle:</b> snapshots of catalysis in the e1 subunit of the pyruvate2 dehydrogenase multi-enzyme complex                                      |
| 42 | <a href="#">c2eq9C</a>  | Alignment | not modelled  | 99.0 | 30  | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> pyruvate dehydrogenase complex, dihydrolipoamide<br><b>PDBTitle:</b> crystal structure of lipoamide dehydrogenase from thermus thermophilus2 hb8 with psbdb   |
| 43 | <a href="#">d1w85i</a>  | Alignment | not modelled  | 99.0 | 32  | <b>Fold:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Superfamily:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Family:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex                    |
| 44 | <a href="#">d2cyua1</a> | Alignment |  | 99.0 | 100 | <b>Fold:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Superfamily:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex<br><b>Family:</b> Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex                    |
| 45 | <a href="#">c2eq7C</a>  | Alignment | not modelled  | 98.9 | 41  | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> 2-oxoglutarate dehydrogenase e2 component;<br><b>PDBTitle:</b> crystal structure of lipoamide dehydrogenase from thermus thermophilus2 hb8 with psbdo   |
| 46 | <a href="#">c2eq8C</a>  | Alignment | not modelled  | 98.9 | 42  | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> pyruvate dehydrogenase complex, dihydrolipoamide<br><b>PDBTitle:</b> crystal structure of lipoamide dehydrogenase from thermus thermophilus2 hb8 with psbdp   |
| 47 | <a href="#">c2qf7A</a>  | Alignment | not modelled  | 98.5 | 16  | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyruvate carboxylase protein;<br><b>PDBTitle:</b> crystal structure of a complete multifunctional pyruvate carboxylase2 from rhizobium etli   |
|    |                         |           |   |      |     | <b>PDB header:</b> membrane protein, transport protein   |

|    |                          |           |              |      |    |  |
|----|--------------------------|-----------|--------------|------|----|--|
| 48 | <a href="#">c2k33A_</a>  | Alignment | not modelled | 98.1 | 25 | <b>Chain:</b> A: <b>PDB Molecule:</b> acra;<br><b>PDBTitle:</b> solution structure of an n-glycosylated protein using in2 vitro glycosylation  |
| 49 | <a href="#">c3h9iB_</a>  | Alignment | not modelled | 97.5 | 23 | <b>PDB header:</b> transport protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> cation efflux system protein cusb;<br><b>PDBTitle:</b> crystal structure of the membrane fusion protein cusb from escherichia2 coli  |
| 50 | <a href="#">d1onla_</a>  | Alignment | not modelled | 97.4 | 22 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 51 | <a href="#">c2edgA_</a>  | Alignment | not modelled | 97.3 | 19 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycine cleavage system h protein;<br><b>PDBTitle:</b> solution structure of the gcv_h domain from mouse glycine  |
| 52 | <a href="#">d1hpca_</a>  | Alignment | not modelled | 97.3 | 22 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Single hybrid motif<br><b>Family:</b> Biotinyl/lipoyl-carrier proteins and domains  |
| 53 | <a href="#">c3iftA_</a>  | Alignment | not modelled | 97.3 | 30 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycine cleavage system h protein;<br><b>PDBTitle:</b> crystal structure of glycine cleavage system protein h from2 mycobacterium tuberculosis, using x-rays from the compact light3 source.  |
| 54 | <a href="#">c3mxuA_</a>  | Alignment | not modelled | 97.3 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycine cleavage system h protein;<br><b>PDBTitle:</b> crystal structure of glycine cleavage system protein h from bartonella2 henselae   |
| 55 | <a href="#">c2f5zK_</a>  | Alignment | not modelled | 97.1 | 46 | <b>PDB header:</b> oxidoreductase/protein binding<br><b>Chain:</b> K: <b>PDB Molecule:</b> pyruvate dehydrogenase protein x component;<br><b>PDBTitle:</b> crystal structure of human dihydrolipoamide dehydrogenase2 (e3) complexed to the e3-binding domain of human e3-3 binding protein                              |
| 56 | <a href="#">c1zy8M_</a>  | Alignment | not modelled | 97.1 | 42 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> M: <b>PDB Molecule:</b> pyruvate dehydrogenase protein x component;<br><b>PDBTitle:</b> the crystal structure of dihydrolipoamide dehydrogenase and2 dihydrolipoamide dehydrogenase-binding protein (didomain)3 subcomplex of human pyruvate dehydrogenase complex.   |
| 57 | <a href="#">c2ka7A_</a>  | Alignment | not modelled | 96.9 | 30 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycine cleavage system h protein;<br><b>PDBTitle:</b> nmr solution structure of tm0212 at 40 c  |
| 58 | <a href="#">c3a8iF_</a>  | Alignment | not modelled | 96.9 | 19 | <b>PDB header:</b> transferase/transport protein<br><b>Chain:</b> F: <b>PDB Molecule:</b> glycine cleavage system h protein;<br><b>PDBTitle:</b> crystal structure of et-ehred complex   |
| 59 | <a href="#">c2qj8B_</a>  | Alignment | not modelled | 96.8 | 11 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> mlr6093 protein;<br><b>PDBTitle:</b> crystal structure of an aspartoacylase family protein (mlr6093) from2 mesorhizobium loti maff303099 at 2.00 a resolution  |
| 60 | <a href="#">c3fmcC_</a>  | Alignment | not modelled | 96.5 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> putative succinylglutamate desuccinylase / aspartoacylase;<br><b>PDBTitle:</b> crystal structure of a putative succinylglutamate desuccinylase /2 aspartoacylase family protein (sama_0604) from shewanella amazonensis3 sb2b at 1.80 a resolution |
| 61 | <a href="#">c3na6A_</a>  | Alignment | not modelled | 96.4 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> succinylglutamate desuccinylase/aspartoacylase;<br><b>PDBTitle:</b> crystal structure of a succinylglutamate desuccinylase (tm1040_2694)2 from silicibacter sp. tm1040 at 2.00 a resolution  |
| 62 | <a href="#">c2aukA_</a>  | Alignment | not modelled | 96.3 | 35 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dna-directed rna polymerase beta' chain;<br><b>PDBTitle:</b> structure of e. coli rna polymerase beta' g/g' insert   |
| 63 | <a href="#">c1t5eB_</a>  | Alignment | not modelled | 95.9 | 29 | <b>PDB header:</b> transport protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> multidrug resistance protein mexa;<br><b>PDBTitle:</b> the structure of mexa   |
| 64 | <a href="#">c3fppB_</a>  | Alignment | not modelled | 95.8 | 23 | <b>PDB header:</b> membrane protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> macrolide-specific efflux protein maca;<br><b>PDBTitle:</b> crystal structure of e.coli maca  |
| 65 | <a href="#">d1vf7a_</a>  | Alignment | not modelled | 95.7 | 29 | <b>Fold:</b> HlyD-like secretion proteins<br><b>Superfamily:</b> HlyD-like secretion proteins<br><b>Family:</b> HlyD-like secretion proteins   |
| 66 | <a href="#">c3cdxB_</a>  | Alignment | not modelled | 95.7 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> succinylglutamatedesuccinylase/aspartoacylase;<br><b>PDBTitle:</b> crystal structure of2 succinylglutamatedesuccinylase/aspartoacylase from3 rhodobacter sphaeroides   |
| 67 | <a href="#">c3lnnB_</a>  | Alignment | not modelled | 95.2 | 15 | <b>PDB header:</b> metal transport<br><b>Chain:</b> B: <b>PDB Molecule:</b> membrane fusion protein (mfp) heavy metal cation efflux<br><b>PDBTitle:</b> crystal structure of zneb from cupriavidus metallidurans   |
| 68 | <a href="#">c2f1mA_</a>  | Alignment | not modelled | 95.1 | 21 | <b>PDB header:</b> transport protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> acriflavine resistance protein a;<br><b>PDBTitle:</b> conformational flexibility in the multidrug efflux system protein acra   |
| 69 | <a href="#">d2gprra_</a> | Alignment | not modelled | 94.1 | 13 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Duplicated hybrid motif<br><b>Family:</b> Glucose permease-like   |
| 70 | <a href="#">d1brwa3</a>  | Alignment | not modelled | 93.1 | 38 | <b>Fold:</b> alpha/beta-Hammerhead<br><b>Superfamily:</b> Pyrimidine nucleoside phosphorylase C-terminal domain<br><b>Family:</b> Pyrimidine nucleoside phosphorylase C-terminal domain  |
| 71 | <a href="#">c2jkuA_</a>  | Alignment | not modelled | 93.1 | 38 | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> propionyl-coa carboxylase alpha chain,<br><b>PDBTitle:</b> crystal structure of the n-terminal region of the biotin2 acceptor domain of human propionyl-coa carboxylase   |

|    |                         |   |              |      |    |  |
|----|-------------------------|---|--------------|------|----|--|
| 72 | <a href="#">c2aujD</a>  |  Alignment    | not modelled | 92.8 | 23 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> dna-directed rna polymerase beta' chain;<br><b>PDBTitle:</b> structure of thermus aquaticus rna polymerase beta' - subunit2 insert   |
| 73 | <a href="#">c3d4rE</a>  |  Alignment   | not modelled | 91.6 | 17 | <b>PDB header:</b> unknown function<br><b>Chain:</b> E: <b>PDB Molecule:</b> domain of unknown function from the pfam-b_34464 family;<br><b>PDBTitle:</b> crystal structure of a duf2118 family protein (mmp0046) from2 methanococcus maripaludis at 2.20 a resolution                       |
| 74 | <a href="#">d1glaf</a>  |  Alignment   | not modelled | 91.5 | 21 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Duplicated hybrid motif<br><b>Family:</b> Glucose permease-like   |
| 75 | <a href="#">d1gpri</a>  |  Alignment   | not modelled | 90.4 | 21 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Duplicated hybrid motif<br><b>Family:</b> Glucose permease-like   |
| 76 | <a href="#">d2f3ga</a>  |  Alignment   | not modelled | 90.2 | 12 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Duplicated hybrid motif<br><b>Family:</b> Glucose permease-like   |
| 77 | <a href="#">d2tpa3</a>  |  Alignment   | not modelled | 90.0 | 25 | <b>Fold:</b> alpha/beta-Hammerhead<br><b>Superfamily:</b> Pyrimidine nucleoside phosphorylase C-terminal domain<br><b>Family:</b> Pyrimidine nucleoside phosphorylase C-terminal domain  |
| 78 | <a href="#">c3h5qA</a>  |  Alignment   | not modelled | 90.0 | 33 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyrimidine-nucleoside phosphorylase;<br><b>PDBTitle:</b> crystal structure of a putative pyrimidine-nucleoside phosphorylase2 from staphylococcus aureus   |
| 79 | <a href="#">d1o4ua2</a> |  Alignment   | not modelled | 90.0 | 24 | <b>Fold:</b> alpha/beta-Hammerhead<br><b>Superfamily:</b> Nicotinate/Quinolinate PRTase N-terminal domain-like<br><b>Family:</b> NadC N-terminal domain-like   |
| 80 | <a href="#">d1uoua3</a> |  Alignment   | not modelled | 89.8 | 17 | <b>Fold:</b> alpha/beta-Hammerhead<br><b>Superfamily:</b> Pyrimidine nucleoside phosphorylase C-terminal domain<br><b>Family:</b> Pyrimidine nucleoside phosphorylase C-terminal domain  |
| 81 | <a href="#">c2dsjA</a>  |  Alignment   | not modelled | 89.6 | 38 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyrimidine-nucleoside (thymidine) phosphorylase;<br><b>PDBTitle:</b> crystal structure of project id tt0128 from thermus thermophilus hb8  |
| 82 | <a href="#">c1brwB</a>  |  Alignment   | not modelled | 89.4 | 38 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> protein (pyrimidine nucleoside phosphorylase);<br><b>PDBTitle:</b> the crystal structure of pyrimidine nucleoside2 phosphorylase in a closed conformation  |
| 83 | <a href="#">c2j0fC</a>  |  Alignment | not modelled | 88.8 | 17 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> thymidine phosphorylase;<br><b>PDBTitle:</b> structural basis for non-competitive product inhibition in2 human thymidine phosphorylase: implication for drug design  |
| 84 | <a href="#">d1qapa2</a> |  Alignment | not modelled | 88.2 | 33 | <b>Fold:</b> alpha/beta-Hammerhead<br><b>Superfamily:</b> Nicotinate/Quinolinate PRTase N-terminal domain-like<br><b>Family:</b> NadC N-terminal domain-like   |
| 85 | <a href="#">c1otpA</a>  |  Alignment | not modelled | 86.8 | 25 | <b>PDB header:</b> phosphorylase<br><b>Chain:</b> A: <b>PDB Molecule:</b> thymidine phosphorylase;<br><b>PDBTitle:</b> structural and theoretical studies suggest domain movement produces an2 active conformation of thymidine phosphorylase  |
| 86 | <a href="#">d1qpoa2</a> |  Alignment | not modelled | 86.8 | 24 | <b>Fold:</b> alpha/beta-Hammerhead<br><b>Superfamily:</b> Nicotinate/Quinolinate PRTase N-terminal domain-like<br><b>Family:</b> NadC N-terminal domain-like   |
| 87 | <a href="#">c3gnaA</a>  |  Alignment | not modelled | 86.4 | 24 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nicotinate-nucleotide pyrophosphorylase;<br><b>PDBTitle:</b> crystal structure of nicotinate-nucleotide2 pyrophosphorylase from burkholderia pseudomallei  |
| 88 | <a href="#">c3pajA</a>  |  Alignment | not modelled | 85.4 | 24 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nicotinate-nucleotide pyrophosphorylase, carboxylating;<br><b>PDBTitle:</b> 2.00 angstrom resolution crystal structure of a quinolinate2 phosphoribosyltransferase from vibrio cholerae o1 biovar eltor str.3 n16961 |
| 89 | <a href="#">c1o4uA</a>  |  Alignment | not modelled | 84.1 | 24 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> type ii quinolic acid phosphoribosyltransferase;<br><b>PDBTitle:</b> crystal structure of a nicotinate nucleotide pyrophosphorylase2 (tm1645) from thermotoga maritima at 2.50 a resolution                          |
| 90 | <a href="#">c2jbmA</a>  |  Alignment | not modelled | 83.9 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nicotinate-nucleotide pyrophosphorylase;<br><b>PDBTitle:</b> qprtase structure from human  |
| 91 | <a href="#">c1qpoA</a>  |  Alignment | not modelled | 83.2 | 24 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> quinolinate acid phosphoribosyl transferase;<br><b>PDBTitle:</b> quinolinate phosphoribosyl transferase (qaprtase) apo-enzyme from2 mycobacterium tuberculosis   |
| 92 | <a href="#">c1qapA</a>  |  Alignment | not modelled | 82.7 | 33 | <b>PDB header:</b> glycosyltransferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> quinolinic acid phosphoribosyltransferase;<br><b>PDBTitle:</b> quinolinic acid phosphoribosyltransferase with bound2 quinolinic acid   |
| 93 | <a href="#">c3tqvA</a>  |  Alignment | not modelled | 82.5 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nicotinate-nucleotide pyrophosphorylase;<br><b>PDBTitle:</b> structure of the nicotinate-nucleotide pyrophosphorylase from2 francisella tularensis.  |
| 94 | <a href="#">c3l0gD</a>  |  Alignment | not modelled | 82.4 | 38 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> nicotinate-nucleotide pyrophosphorylase;<br><b>PDBTitle:</b> crystal structure of nicotinate-nucleotide  |



|     |                         |   |              |      |    |   |
|-----|-------------------------|---|--------------|------|----|---|
|     |                         |   |              |      |    | pyrophosphorylase from2 ehrlichia chaffeensis at 2.05a resolution   |
| 95  | <a href="#">c2b7pA</a>  |  Alignment   | not modelled | 81.6 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable nicotinate-nucleotide pyrophosphorylase;<br><b>PDBTitle:</b> crystal structure of quinolinic acid phosphoribosyltransferase from2 helicobacter pylori  |
| 96  | <a href="#">c1x1oC</a>  |  Alignment   | not modelled | 81.1 | 14 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> nicotinate-nucleotide pyrophosphorylase;<br><b>PDBTitle:</b> crystal structure of project id tt0268 from thermus thermophilus hb8   |
| 97  | <a href="#">c2zbaD</a>  |  Alignment   | not modelled | 79.4 | 11 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> trichothecene 3-o-acetyltransferase;<br><b>PDBTitle:</b> crystal structure of f. sporotrichioides tri101 complexed with coenzyme2 a and t-2   |
| 98  | <a href="#">c2jgpA</a>  |  Alignment   | not modelled | 78.6 | 14 | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tyrocidine synthetase 3;<br><b>PDBTitle:</b> structure of the tycc5-6 pcp-c bidomain of the tyrocidine2 synthetase tycc  |
| 99  | <a href="#">c2gu1A</a>  |  Alignment   | not modelled | 77.6 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> zinc peptidase;<br><b>PDBTitle:</b> crystal structure of a zinc containing peptidase from2 vibrio cholerae  |
| 100 | <a href="#">d1e2wa2</a> |  Alignment   | not modelled | 72.6 | 31 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Rudiment single hybrid motif<br><b>Family:</b> Cytochrome f, small domain  |
| 101 | <a href="#">c2e1uA</a>  |  Alignment   | not modelled | 72.3 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> acyl transferase;<br><b>PDBTitle:</b> crystal structure of dendranthema morifolium dmat   |
| 102 | <a href="#">c2vsqA</a>  |  Alignment   | not modelled | 70.9 | 11 | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> surfactin synthetase subunit 3;<br><b>PDBTitle:</b> structure of surfactin a synthetase c (srfa-c), a2 nonribosomal peptide synthetase termination module  |
| 103 | <a href="#">d1ci3m2</a> |  Alignment   | not modelled | 68.8 | 22 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Rudiment single hybrid motif<br><b>Family:</b> Cytochrome f, small domain  |
| 104 | <a href="#">c2hsiB</a>  |  Alignment   | not modelled | 65.4 | 19 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative peptidase m23;<br><b>PDBTitle:</b> crystal structure of putative peptidase m23 from2 pseudomonas aeruginosa, new york structural genomics3 consortium                            |
| 105 | <a href="#">c2bghA</a>  |  Alignment   | not modelled | 60.7 | 14 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> vinorine synthase;<br><b>PDBTitle:</b> crystal structure of vinorine synthase   |
| 106 | <a href="#">d1qwya</a>  |  Alignment | not modelled | 59.6 | 6  | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Duplicated hybrid motif<br><b>Family:</b> Peptidoglycan hydrolase LytM   |
| 107 | <a href="#">c2xr7A</a>  |  Alignment | not modelled | 58.6 | 21 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> malonyltransferase;<br><b>PDBTitle:</b> crystal structure of nicotiana tabacum malonyltransferase (ntmat1)2 complexed with malonyl-coa  |
| 108 | <a href="#">c3c2vA</a>  |  Alignment | not modelled | 55.6 | 24 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nicotinate-nucleotide pyrophosphorylase;<br><b>PDBTitle:</b> crystal structure of the quinolinate phosphoribosyl2 transferase (bna6) from saccharomyces cerevisiae complexed3 with prpp and the inhibitor phthalate |
| 109 | <a href="#">c2b44A</a>  |  Alignment | not modelled | 54.4 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glycyl-glycine endopeptidase lytm;<br><b>PDBTitle:</b> truncated s. aureus lytm, p 32 2 1 crystal form  |
| 110 | <a href="#">c1e2vB</a>  |  Alignment | not modelled | 52.8 | 31 | <b>PDB header:</b> electron transport proteins<br><b>Chain:</b> B: <b>PDB Molecule:</b> cytochrome f;<br><b>PDBTitle:</b> n153q mutant of cytochrome f from chlamydomonas reinhardtii   |
| 111 | <a href="#">c1tu2B</a>  |  Alignment | not modelled | 47.5 | 25 | <b>PDB header:</b> electron transport<br><b>Chain:</b> B: <b>PDB Molecule:</b> apocytochrome f;<br><b>PDBTitle:</b> the complex of nostoc cytochrome f and plastocyanin determin with2 paramagnetic nmr. based on the structures of cytochrome f and3 plastocyanin, 10 structures           |
| 112 | <a href="#">c1q90A</a>  |  Alignment | not modelled | 46.9 | 31 | <b>PDB header:</b> photosynthesis<br><b>Chain:</b> A: <b>PDB Molecule:</b> apocytochrome f;<br><b>PDBTitle:</b> structure of the cytochrome b6f (plastoquinone : plastocyanin2 oxidoreductase) from chlamydomonas reinhardtii   |
| 113 | <a href="#">c2xhaB</a>  |  Alignment | not modelled | 46.8 | 24 | <b>PDB header:</b> transcription<br><b>Chain:</b> B: <b>PDB Molecule:</b> transcription antitermination protein nusg;<br><b>PDBTitle:</b> crystal structure of domain 2 of thermotoga maritima n-utilization2 substance g (nusg)  |
| 114 | <a href="#">d1hcza2</a> |  Alignment | not modelled | 43.9 | 19 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Rudiment single hybrid motif<br><b>Family:</b> Cytochrome f, small domain  |
| 115 | <a href="#">c3fotA</a>  |  Alignment | not modelled | 43.5 | 15 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 15-o-acetyltransferase;<br><b>PDBTitle:</b> structural and functional characterization of tri3 trichothecene 15-o-2 acetyltransferase from fusarium sporotrichioides  |
| 116 | <a href="#">c2e75C</a>  |  Alignment | not modelled | 42.5 | 31 | <b>PDB header:</b> photosynthesis<br><b>Chain:</b> C: <b>PDB Molecule:</b> apocytochrome f;<br><b>PDBTitle:</b> crystal structure of the cytochrome b6f complex with 2-nonyl-4-2 hydroxyquinoline n-oxide (nqno) from m.laminosus   |
| 117 | <a href="#">c2xhgA</a>  |  Alignment | not modelled | 42.2 | 14 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tyrocidine synthetase a;<br><b>PDBTitle:</b> crystal structure of the epimerization domain from the initiation2 module of tyrocidine biosynthesis   |
| 118 | <a href="#">d1tu2b2</a> |  Alignment | not modelled | 40.8 | 25 | <b>Fold:</b> Barrel-sandwich hybrid<br><b>Superfamily:</b> Rudiment single hybrid motif<br><b>Family:</b> Cytochrome f, small domain  |

|     |                         |   |              |      |    |   |
|-----|-------------------------|---|--------------|------|----|---|
| 119 | <a href="#">c3it5B_</a> |  Alignment   | not modelled | 40.4 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> protease lasa;<br><b>PDBTitle:</b> crystal structure of the lasa virulence factor from pseudomonas2 aeruginosa  |
| 120 | <a href="#">c3nyyA_</a> |  Alignment | not modelled | 38.3 | 25 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative glycyl-glycine endopeptidase lytm;<br><b>PDBTitle:</b> crystal structure of a putative glycyl-glycine endopeptidase lytm2 (rumgna_02482) from ruminococcus gnavus atcc 29149 at 1.60 a3 resolution |