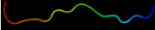
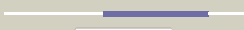
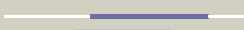
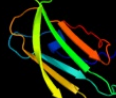
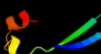
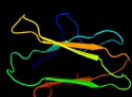
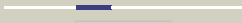
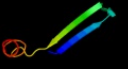
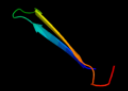
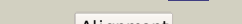
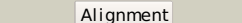
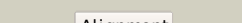
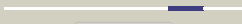
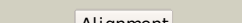


# Phyre2

|               |                             |
|---------------|-----------------------------|
| Email         | l.a.kelley@imperial.ac.uk   |
| Description   | P0AE91                      |
| Date          | Thu Jan 5 11:22:48 GMT 2012 |
| Unique Job ID | 29157def408eab84            |

Detailed template information

| #  | Template                | Alignment Coverage                                                                               | 3D Model                                                                            | Confidence | % i.d. | Template Information                                                                                                                                                                                                                                                                |
|----|-------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | <a href="#">c3qsqa_</a> | <br>Alignment   |    | 41.1       | 31     | <b>PDB header:</b> viral protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> capsid polyprotein;<br><b>PDBTitle:</b> crystal structure of the projection domain of the human astrovirus2 capsid protein                                                                                |
| 2  | <a href="#">c3bdkB_</a> | <br>Alignment   |    | 41.0       | 17     | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> d-mannonate dehydratase;<br><b>PDBTitle:</b> crystal structure of streptococcus suis mannonate2 dehydratase complexed with substrate analogue                                                                     |
| 3  | <a href="#">d1tz9a_</a> | <br>Alignment   |    | 27.6       | 22     | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Xylose isomerase-like<br><b>Family:</b> UxuA-like                                                                                                                                                                         |
| 4  | <a href="#">c3ba3A_</a> | <br>Alignment   |    | 22.0       | 22     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyridoxamine 5'-phosphate oxidase-like protein;<br><b>PDBTitle:</b> crystal structure of pyridoxamine 5'-phosphate oxidase-like protein2 (np_783940.1) from lactobacillus plantarum at 1.55 a resolution |
| 5  | <a href="#">c3cnkB_</a> | <br>Alignment |  | 19.0       | 14     | <b>PDB header:</b> structural protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> filamin-a;<br><b>PDBTitle:</b> crystal structure of the dimerization domain of human2 filamin a                                                                                                      |
| 6  | <a href="#">d2d7ma1</a> | <br>Alignment |  | 12.9       | 18     | <b>Fold:</b> Immunoglobulin-like beta-sandwich<br><b>Superfamily:</b> E set domains<br><b>Family:</b> Filamin repeat (rod domain)                                                                                                                                                   |
| 7  | <a href="#">d2q79a1</a> | <br>Alignment |  | 12.2       | 19     | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> Viral DNA-binding domain<br><b>Family:</b> Viral DNA-binding domain                                                                                                                                                             |
| 8  | <a href="#">d2bp3a1</a> | <br>Alignment |  | 11.3       | 18     | <b>Fold:</b> Immunoglobulin-like beta-sandwich<br><b>Superfamily:</b> E set domains<br><b>Family:</b> Filamin repeat (rod domain)                                                                                                                                                   |
| 9  | <a href="#">d1gk8a2</a> | <br>Alignment |  | 10.7       | 26     | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> RuBisCO, large subunit, small (N-terminal) domain<br><b>Family:</b> Ribulose 1,5-bisphosphate carboxylase-oxygenase                                                                                                             |
| 10 | <a href="#">d1rbla2</a> | <br>Alignment |  | 10.7       | 21     | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> RuBisCO, large subunit, small (N-terminal) domain<br><b>Family:</b> Ribulose 1,5-bisphosphate carboxylase-oxygenase                                                                                                             |
| 11 | <a href="#">c3iswA_</a> | <br>Alignment |  | 9.6        | 14     | <b>PDB header:</b> structural protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> filamin-a;<br><b>PDBTitle:</b> crystal structure of filamin-a immunoglobulin-like repeat 21 bound to2 an n-terminal peptide of cfr                                                                   |

|    |                         |           |                                                                                     |                                                                                     |     |    |                                                                                                                                                                                                                                                                      |
|----|-------------------------|-----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12 | <a href="#">d1wf9a1</a> | Alignment |    |     | 9.6 | 36 | <b>Fold:</b> beta-Grasp (ubiquitin-like)<br><b>Superfamily:</b> Ubiquitin-like<br><b>Family:</b> Ubiquitin-related                                                                                                                                                   |
| 13 | <a href="#">c2nytB</a>  | Alignment |    |    | 9.0 | 63 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> probable c->u-editing enzyme apobec-2;<br><b>PDBTitle:</b> the apobec2 crystal structure and functional implications2 for aid                                                                  |
| 14 | <a href="#">c1vknC</a>  | Alignment |    |    | 9.0 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> n-acetyl-gamma-glutamyl-phosphate reductase;<br><b>PDBTitle:</b> crystal structure of n-acetyl-gamma-glutamyl-phosphate reductase2 (tm1782) from thermotoga maritima at 1.80 a resolution |
| 15 | <a href="#">c2kboA</a>  | Alignment |    |    | 8.8 | 67 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dna dc->du-editing enzyme apobec-3g;<br><b>PDBTitle:</b> structure, interaction, and real-time monitoring of the2 enzymatic reaction of wild type apobec3g                                     |
| 16 | <a href="#">d2o62a2</a> | Alignment |    |    | 8.7 | 24 | <b>Fold:</b> Lipocalins<br><b>Superfamily:</b> Lipocalins<br><b>Family:</b> All1756-like                                                                                                                                                                             |
| 17 | <a href="#">c2eecA</a>  | Alignment |    |    | 8.4 | 23 | <b>PDB header:</b> structural protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> filamin-b;<br><b>PDBTitle:</b> solution structure of the 23th filamin domain from human2 filamin-b                                                                                    |
| 18 | <a href="#">d8ruca2</a> | Alignment |  |  | 7.8 | 21 | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> RuBisCO, large subunit, small (N-terminal) domain<br><b>Family:</b> Ribulose 1,5-bisphosphate carboxylase-oxygenase                                                                                              |
| 19 | <a href="#">d2e9ia1</a> | Alignment |  |  | 7.5 | 16 | <b>Fold:</b> Immunoglobulin-like beta-sandwich<br><b>Superfamily:</b> E set domains<br><b>Family:</b> Filamin repeat (rod domain)                                                                                                                                    |
| 20 | <a href="#">c2zw3B</a>  | Alignment |  |  | 7.5 | 40 | <b>PDB header:</b> cell adhesion<br><b>Chain:</b> B: <b>PDB Molecule:</b> gap junction beta-2 protein;<br><b>PDBTitle:</b> structure of the connexin-26 gap junction channel at 3.52 angstrom resolution                                                             |
| 21 | <a href="#">c3khpB</a>  | Alignment |  | not modelled                                                                        | 7.3 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> maoc family protein;<br><b>PDBTitle:</b> crystal structure of a possible dehydrogenase from2 mycobacterium tuberculosis at 2.3a resolution                                                |
| 22 | <a href="#">c1moxB</a>  | Alignment |  | not modelled                                                                        | 7.2 | 14 | <b>PDB header:</b> transferase/growth factor<br><b>Chain:</b> B: <b>PDB Molecule:</b> epidermal growth factor receptor;<br><b>PDBTitle:</b> crystal structure of human epidermal growth factor receptor (residues2 1-501) in complex with tgf-alpha                  |
| 23 | <a href="#">d1zl0a2</a> | Alignment |  | not modelled                                                                        | 6.9 | 54 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> LD-carboxypeptidase A N-terminal domain-like                                                                                                           |
| 24 | <a href="#">c3hsbB</a>  | Alignment |  | not modelled                                                                        | 6.7 | 42 | <b>PDB header:</b> rna binding protein/rna<br><b>Chain:</b> B: <b>PDB Molecule:</b> protein hfq;<br><b>PDBTitle:</b> crystal structure of ymah (hfq) from bacillus subtilis in complex with2 an rna aptamer                                                          |
| 25 | <a href="#">d1k8wa3</a> | Alignment |  | not modelled                                                                        | 6.6 | 17 | <b>Fold:</b> PUA domain-like<br><b>Superfamily:</b> PUA domain-like<br><b>Family:</b> PUA domain                                                                                                                                                                     |
| 26 | <a href="#">c2e9jA</a>  | Alignment |  | not modelled                                                                        | 6.3 | 18 | <b>PDB header:</b> structural protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> filamin-b;<br><b>PDBTitle:</b> solution structure of the 14th filamin domain from human2 filamin-b                                                                                    |
| 27 | <a href="#">d2o62a1</a> | Alignment |  | not modelled                                                                        | 6.3 | 25 | <b>Fold:</b> Lipocalins<br><b>Superfamily:</b> Lipocalins<br><b>Family:</b> All1756-like                                                                                                                                                                             |
| 28 | <a href="#">c2jf1A</a>  | Alignment |  | not modelled                                                                        | 6.2 | 18 | <b>PDB header:</b> cell adhesion<br><b>Chain:</b> A: <b>PDB Molecule:</b> filamin-a;<br><b>PDBTitle:</b> crystal structure of the filamin a repeat 21 complexed with2 the integrin beta2 cytoplasmic tail peptide                                                    |
|    |                         |           |                                                                                     |                                                                                     |     |    | <b>Fold:</b> Ferredoxin-like                                                                                                                                                                                                                                         |

|    |                         |           |              |     |    |                                                                                                                                                                                                                                                                                                         |
|----|-------------------------|-----------|--------------|-----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 | <a href="#">d1ej7l2</a> | Alignment | not modelled | 6.0 | 29 | <b>Superfamily:</b> RuBisCO, large subunit, small (N-terminal) domain<br><b>Family:</b> Ribulose 1,5-bisphosphate carboxylase-oxygenase                                                                                                                                                                 |
| 30 | <a href="#">c2e2zA</a>  | Alignment | not modelled | 5.9 | 35 | <b>PDB header:</b> protein transport, chaperone regulator<br><b>Chain:</b> A: <b>PDB Molecule:</b> tim15;<br><b>PDBTitle:</b> solution nmr structure of yeast tim15, co-chaperone of2 mitochondrial hsp70                                                                                               |
| 31 | <a href="#">d1bwva2</a> | Alignment | not modelled | 5.9 | 26 | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> RuBisCO, large subunit, small (N-terminal) domain<br><b>Family:</b> Ribulose 1,5-bisphosphate carboxylase-oxygenase                                                                                                                                 |
| 32 | <a href="#">d1dbda</a>  | Alignment | not modelled | 5.8 | 13 | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> Viral DNA-binding domain<br><b>Family:</b> Viral DNA-binding domain                                                                                                                                                                                 |
| 33 | <a href="#">d1hk9a</a>  | Alignment | not modelled | 5.8 | 39 | <b>Fold:</b> Sm-like fold<br><b>Superfamily:</b> Sm-like ribonucleoproteins<br><b>Family:</b> Pleiotropic translational regulator Hfq                                                                                                                                                                   |
| 34 | <a href="#">d1f9fa</a>  | Alignment | not modelled | 5.7 | 5  | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> Viral DNA-binding domain<br><b>Family:</b> Viral DNA-binding domain                                                                                                                                                                                 |
| 35 | <a href="#">d1bxna2</a> | Alignment | not modelled | 5.7 | 24 | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> RuBisCO, large subunit, small (N-terminal) domain<br><b>Family:</b> Ribulose 1,5-bisphosphate carboxylase-oxygenase                                                                                                                                 |
| 36 | <a href="#">d2b59b2</a> | Alignment | not modelled | 5.6 | 28 | <b>Fold:</b> Prealbumin-like<br><b>Superfamily:</b> Carboxypeptidase regulatory domain-like<br><b>Family:</b> Pre-dockerin domain                                                                                                                                                                       |
| 37 | <a href="#">c3g23A</a>  | Alignment | not modelled | 5.6 | 23 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> ld-carboxypeptidase a;<br><b>PDBTitle:</b> crystal structure of a ld-carboxypeptidase a (saro_1426) from2 novosphingobium aromaticivorans dsm at 1.89 a resolution                                                                |
| 38 | <a href="#">c1rcxH</a>  | Alignment | not modelled | 5.6 | 24 | <b>PDB header:</b> lyase (carbon-carbon)<br><b>Chain:</b> H: <b>PDB Molecule:</b> ribulose bisphosphate carboxylase/oxygenase;<br><b>PDBTitle:</b> non-activated spinach rubisco in complex with its substrate2 ribulose-1,5-bisphosphate                                                               |
| 39 | <a href="#">c2q49B</a>  | Alignment | not modelled | 5.4 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> probable n-acetyl-gamma-glutamyl-phosphate reductase;<br><b>PDBTitle:</b> ensemble refinement of the protein crystal structure of gene product2 from arabidopsis thaliana at2g19940                                          |
| 40 | <a href="#">d1svda2</a> | Alignment | not modelled | 5.4 | 24 | <b>Fold:</b> Ferredoxin-like<br><b>Superfamily:</b> RuBisCO, large subunit, small (N-terminal) domain<br><b>Family:</b> Ribulose 1,5-bisphosphate carboxylase-oxygenase                                                                                                                                 |
| 41 | <a href="#">d2dtge4</a> | Alignment | not modelled | 5.4 | 21 | <b>Fold:</b> Leucine-rich repeat, LRR (right-handed beta-alpha superhelix)<br><b>Superfamily:</b> L domain-like<br><b>Family:</b> L domain                                                                                                                                                              |
| 42 | <a href="#">d2auna2</a> | Alignment | not modelled | 5.3 | 54 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> LD-carboxypeptidase A N-terminal domain-like                                                                                                                                              |
| 43 | <a href="#">c3b2ul</a>  | Alignment | not modelled | 5.2 | 14 | <b>PDB header:</b> immune system/transferase<br><b>Chain:</b> I: <b>PDB Molecule:</b> epidermal growth factor receptor;<br><b>PDBTitle:</b> crystal structure of isolated domain iii of the extracellular region2 of the epidermal growth factor receptor in complex with the fab3 fragment of imc-11f8 |