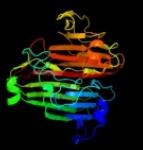
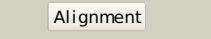
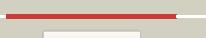
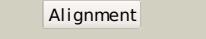
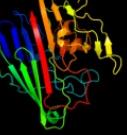
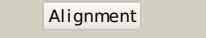
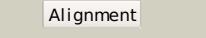
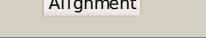
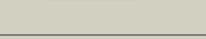


# Phyre<sup>2</sup>

Email	i.a.kelley@imperial.ac.uk
Description	P39173
Date	Thu Jan 5 11:58:21 GMT 2012
Unique Job ID	d92deb62fefb6fcb

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c2htbB_</a>			100.0	83	<b>PDB header:</b> isomerase <b>Chain:</b> B: <b>PDB Molecule:</b> putative enzyme related to aldose 1-epimerase; <b>PDBTitle:</b> crystal structure of a putative mutarotase (yead) from2 salmonella typhimurium in monoclinic form
2	<a href="#">d1jova_</a>			100.0	35	<b>Fold:</b> Supersandwich <b>Superfamily:</b> Galactose mutarotase-like <b>Family:</b> Hypothetical protein HI1317
3	<a href="#">c2cisA_</a>			100.0	28	<b>PDB header:</b> isomerase <b>Chain:</b> A: <b>PDB Molecule:</b> hexose-6-phosphate mutarotase; <b>PDBTitle:</b> structure-based functional annotation: yeast ymr099c codes2 for a d-hexose-6-phosphate mutarotase. complex with3 tagatose-6-phosphate
4	<a href="#">c3k25B_</a>			100.0	20	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> slr1438 protein; <b>PDBTitle:</b> crystal structure of slr1438 protein from synechocystis sp. pcc 6803,2 northeast structural genomics consortium target sgr112
5	<a href="#">c3dcda_</a>			100.0	19	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> galactose mutarotase related enzyme; <b>PDBTitle:</b> x-ray structure of the galactose mutarotase related enzyme q5fd7 from2 lactobacillus acidophilus at the resolution 1.9a. northeast3 structural genomics consortium target lar33.
6	<a href="#">c3os7B_</a>			100.0	19	<b>PDB header:</b> isomerase <b>Chain:</b> B: <b>PDB Molecule:</b> galactose mutarotase-like protein; <b>PDBTitle:</b> crystal structure of a galactose mutarotase-like protein (ca_c0697)2 from clostridium acetobutylicum at 1.80 a resolution
7	<a href="#">c3q1nA_</a>			100.0	21	<b>PDB header:</b> isomerase <b>Chain:</b> A: <b>PDB Molecule:</b> galactose mutarotase related enzyme; <b>PDBTitle:</b> crystal structure of a galactose mutarotase-like protein (lsei_2598)2 from lactobacillus casei atcc 334 at 1.61 a resolution
8	<a href="#">c3os7D_</a>			100.0	19	<b>PDB header:</b> isomerase <b>Chain:</b> D: <b>PDB Molecule:</b> galactose mutarotase-like protein; <b>PDBTitle:</b> crystal structure of a galactose mutarotase-like protein (ca_c0697)2 from clostridium acetobutylicum at 1.80 a resolution
9	<a href="#">c3nreB_</a>			100.0	17	<b>PDB header:</b> isomerase <b>Chain:</b> B: <b>PDB Molecule:</b> aldose 1-epimerase; <b>PDBTitle:</b> crystal structure of a putative aldose 1-epimerase (b2544) from2 escherichia coli k12 at 1.59 a resolution
10	<a href="#">c3mwxA_</a>			100.0	15	<b>PDB header:</b> isomerase <b>Chain:</b> A: <b>PDB Molecule:</b> aldose 1-epimerase; <b>PDBTitle:</b> crystal structure of a putative galactose mutarotase (bsu18360) from2 bacillus subtilis at 1.45 a resolution
11	<a href="#">c3imhB_</a>			100.0	16	<b>PDB header:</b> isomerase <b>Chain:</b> B: <b>PDB Molecule:</b> galactose-1-epimerase; <b>PDBTitle:</b> crystal structure of galactose 1-epimerase from lactobacillus2 acidophilus ncfm

12	<a href="#">d1nsza</a>			100.0	17	<b>Fold:</b> Supersandwich <b>Superfamily:</b> Galactose mutarotase-like <b>Family:</b> Aldose 1-epimerase (mutarotase)
13	<a href="#">d1lura</a>			100.0	15	<b>Fold:</b> Supersandwich <b>Superfamily:</b> Galactose mutarotase-like <b>Family:</b> Aldose 1-epimerase (mutarotase)
14	<a href="#">c1ygaA</a>			100.0	13	<b>PDB header:</b> isomerase <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical 37.9 kda protein in bio3-hxt17 <b>PDBTitle:</b> crystal structure of <i>saccharomyces cerevisiae</i> yn9a protein,2 new york structural genomics consortium
15	<a href="#">d1so0a</a>			100.0	13	<b>Fold:</b> Supersandwich <b>Superfamily:</b> Galactose mutarotase-like <b>Family:</b> Aldose 1-epimerase (mutarotase)
16	<a href="#">d1z45a1</a>			100.0	14	<b>Fold:</b> Supersandwich <b>Superfamily:</b> Galactose mutarotase-like <b>Family:</b> Aldose 1-epimerase (mutarotase)
17	<a href="#">c1z45A</a>			100.0	15	<b>PDB header:</b> isomerase <b>Chain:</b> A: <b>PDB Molecule:</b> gal10 bifunctional protein; <b>PDBTitle:</b> crystal structure of the gal10 fusion protein galactose2 mutarotase/udp-galactose 4-epimerase from <i>saccharomyces3 cerevisiae</i> complexed with nad, udp-glucose, and galactose
18	<a href="#">c3ty1B</a>			99.9	14	<b>PDB header:</b> isomerase <b>Chain:</b> B: <b>PDB Molecule:</b> hypothetical aldose 1-epimerase; <b>PDBTitle:</b> crystal structure of a hypothetical aldose 1-epimerase (kpn_04629)2 from <i>klebsiella pneumoniae</i> subsp. <i>pneumoniae</i> mgh78578 at 1.90 a3 resolution
19	<a href="#">c3bs6B</a>			96.6	11	<b>PDB header:</b> membrane protein, protein transport <b>Chain:</b> B: <b>PDB Molecule:</b> inner membrane protein oxaa; <b>PDBTitle:</b> 1.8 angstrom crystal structure of the periplasmic domain of2 the membrane insertase yidc
20	<a href="#">c3blcB</a>			96.4	10	<b>PDB header:</b> chaperone,protein transport <b>Chain:</b> B: <b>PDB Molecule:</b> inner membrane protein oxaa; <b>PDBTitle:</b> crystal structure of the periplasmic domain of the <i>escherichia coli</i> 2 yidc
21	<a href="#">d1ejxb</a>		not modelled	37.9	10	<b>Fold:</b> beta-clip <b>Superfamily:</b> Urease, beta-subunit <b>Family:</b> Urease, beta-subunit
22	<a href="#">d4ubpb</a>		not modelled	36.4	14	<b>Fold:</b> beta-clip <b>Superfamily:</b> Urease, beta-subunit <b>Family:</b> Urease, beta-subunit
23	<a href="#">c2yfnA</a>		not modelled	35.5	11	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> alpha-galactosidase-sucrose kinase agask; <b>PDBTitle:</b> galactosidase domain of alpha-galactosidase-sucrose kinase,2 agask
24	<a href="#">d1e9ya1</a>		not modelled	35.3	10	<b>Fold:</b> beta-clip <b>Superfamily:</b> Urease, beta-subunit <b>Family:</b> Urease, beta-subunit
25	<a href="#">d1jz8a4</a>		not modelled	32.7	15	<b>Fold:</b> Supersandwich <b>Superfamily:</b> Galactose mutarotase-like <b>Family:</b> beta-Galactosidase, domain 5
26	<a href="#">c2js4A</a>		not modelled	31.2	21	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> upf0434 protein bb2007; <b>PDBTitle:</b> solution nmr structure of <i>bordetella bronchiseptica</i> protein2 bb2007. northeast structural genomics consortium target3 bor54
27	<a href="#">c3qgaD</a>		not modelled	29.4	10	<b>PDB header:</b> hydrolase <b>Chain:</b> D: <b>PDB Molecule:</b> fusion of urease beta and gamma subunits; <b>PDBTitle:</b> 3.0 a model of iron containing urease urea2b2 from <i>helicobacter2 mustelae</i>
28	<a href="#">c1e9za</a>		not modelled	26.7	10	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> urease subunit alpha;

					<b>PDBTitle:</b> crystal structure of helicobacter pylori urease
29	<a href="#">d1fcqa</a>	Alignment	not modelled	21.2	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> (Trans)glycosidases <b>Family:</b> Bee venom hyaluronidase
30	<a href="#">c2jr6A</a>	Alignment	not modelled	18.6	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> upf0434 protein nma0874; <b>PDBTitle:</b> solution structure of upf0434 protein nma0874. northeast structural2 genomics target mr32
31	<a href="#">d2pk7a1</a>	Alignment	not modelled	17.7	<b>Fold:</b> Trm112p-like <b>Superfamily:</b> Trm112p-like <b>Family:</b> Trm112p-like
32	<a href="#">d2jnya1</a>	Alignment	not modelled	16.8	<b>Fold:</b> Trm112p-like <b>Superfamily:</b> Trm112p-like <b>Family:</b> Trm112p-like
33	<a href="#">d2hf1a1</a>	Alignment	not modelled	16.6	<b>Fold:</b> Trm112p-like <b>Superfamily:</b> Trm112p-like <b>Family:</b> Trm112p-like
34	<a href="#">c2k5rA</a>	Alignment	not modelled	14.6	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein xf2673; <b>PDBTitle:</b> solution nmr structure of xf2673 from xylella fastidiosa.2 northeast structural genomics consortium target xfr39
35	<a href="#">c2kpIA</a>	Alignment	not modelled	14.3	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein sco3027; <b>PDBTitle:</b> solution nmr structure of streptomyces coelicolor sco3027 modeled with zn+2 bound, northeast structural genomics3 consortium target rr58
36	<a href="#">d1pxva</a>	Alignment	not modelled	11.4	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Papain-like
37	<a href="#">c1y4hA</a>	Alignment	not modelled	9.8	<b>PDB header:</b> hydrolase/hydrolase inhibitor <b>Chain:</b> A: <b>PDB Molecule:</b> cysteine protease; <b>PDBTitle:</b> wild type staphopain-staphostatin complex
38	<a href="#">c1h4tD</a>	Alignment	not modelled	9.0	<b>PDB header:</b> aminoacyl-trna synthetase <b>Chain:</b> D: <b>PDB Molecule:</b> prolyl-trna synthetase; <b>PDBTitle:</b> prolyl-trna synthetase from thermus thermophilus complexed2 with l-proline
39	<a href="#">c1qf6A</a>	Alignment	not modelled	8.9	<b>PDB header:</b> ligase/rna <b>Chain:</b> A: <b>PDB Molecule:</b> threonyl-trna synthetase; <b>PDBTitle:</b> structure of e. coli threonyl-trna synthetase complexed with its2 cognate trna
40	<a href="#">c2qeab</a>	Alignment	not modelled	8.4	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> putative general stress protein 26; <b>PDBTitle:</b> crystal structure of a putative general stress protein 26 (jann_0955)2 from jannaschia sp. ccs1 at 2.46 a resolution
41	<a href="#">c1nj8C</a>	Alignment	not modelled	8.3	<b>PDB header:</b> ligase <b>Chain:</b> C: <b>PDB Molecule:</b> proline-trna synthetase; <b>PDBTitle:</b> crystal structure of prolyl-trna synthetase from2 methanocaldococcus janaschii
42	<a href="#">d1pgw21</a>	Alignment	not modelled	7.8	<b>Fold:</b> Nucleoplasmin-like/VP (viral coat and capsid proteins) <b>Superfamily:</b> Positive stranded ssRNA viruses <b>Family:</b> Comoviridae-like VP
43	<a href="#">d1ny721</a>	Alignment	not modelled	7.4	<b>Fold:</b> Nucleoplasmin-like/VP (viral coat and capsid proteins) <b>Superfamily:</b> Positive stranded ssRNA viruses <b>Family:</b> Comoviridae-like VP
44	<a href="#">d1pgl21</a>	Alignment	not modelled	7.3	<b>Fold:</b> Nucleoplasmin-like/VP (viral coat and capsid proteins) <b>Superfamily:</b> Positive stranded ssRNA viruses <b>Family:</b> Comoviridae-like VP
45	<a href="#">c3qbtH</a>	Alignment	not modelled	7.2	<b>PDB header:</b> protein transport/hydrolase <b>Chain:</b> H: <b>PDB Molecule:</b> inositol polyphosphate 5-phosphatase ocr1-1; <b>PDBTitle:</b> crystal structure of ocr1 540-678 in complex with rab8a:gppnpp
46	<a href="#">c3dmbA</a>	Alignment	not modelled	7.1	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> putative general stress protein 26 with a pnp-oxidase like <b>PDBTitle:</b> crystal structure of a putative general stress family protein2 (xcc2264) from xanthomonas campestris pv. campestris at 2.30 a3 resolution
47	<a href="#">c1yewl</a>	Alignment	not modelled	6.6	<b>PDB header:</b> oxidoreductase, membrane protein <b>Chain:</b> I: <b>PDB Molecule:</b> particulate methane monooxygenase, b subunit; <b>PDBTitle:</b> crystal structure of particulate methane monooxygenase
48	<a href="#">c3rgbA</a>	Alignment	not modelled	6.6	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> methane monooxygenase subunit b2; <b>PDBTitle:</b> crystal structure of particulate methane monooxygenase from2 methylococcus capsulatus (bath)
49	<a href="#">d1k1xa2</a>	Alignment	not modelled	6.6	<b>Fold:</b> Supersandwich <b>Superfamily:</b> Galactose mutarotase-like <b>Family:</b> 4-alpha-glucantransferase, C-terminal domain
50	<a href="#">c3ialB</a>	Alignment	not modelled	6.6	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> prolyl-trna synthetase; <b>PDBTitle:</b> giardia lamblia prolyl-trna synthetase in complex with prolyl-2 adenylate
51	<a href="#">d1th5a1</a>	Alignment	not modelled	6.4	<b>Fold:</b> Alpha-lytic protease prodomain-like <b>Superfamily:</b> Fe-S cluster assembly (FSCA) domain-like <b>Family:</b> NifU C-terminal domain-like
52	<a href="#">c3bmzA</a>	Alignment	not modelled	5.1	<b>PDB header:</b> biosynthetic protein <b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein; <b>PDBTitle:</b> violacein biosynthetic enzyme vioe
53	<a href="#">c2r5iL</a>	Alignment	not modelled	5.1	<b>PDB header:</b> viral protein <b>Chain:</b> L: <b>PDB Molecule:</b> l1 protein; <b>PDBTitle:</b> pentamer structure of major capsid protein l1 of human2 papilloma virus type 18