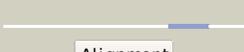
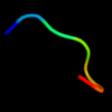
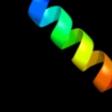
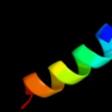


# Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P76445
Date	Thu Jan 5 12:23:00 GMT 2012
Unique Job ID	6429ddb82649195e

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">d1d2ta_</a>	 Alignment		99.6	11	<b>Fold:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Superfamily:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Family:</b> Type 2 phosphatidic acid phosphatase, PAP2
2	<a href="#">c2akcC_</a>	 Alignment		99.5	13	<b>PDB header:</b> hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> class a nonspecific acid phosphatase phon; <b>PDBTitle:</b> crystal structure of tungstate complex of the phon protein2 from s. typhimurium
3	<a href="#">d1qi9a_</a>	 Alignment		97.9	27	<b>Fold:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Superfamily:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Family:</b> Haloperoxidase (bromoperoxidase)
4	<a href="#">d1vnsa_</a>	 Alignment		97.7	16	<b>Fold:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Superfamily:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Family:</b> Chloroperoxidase
5	<a href="#">c1vngA_</a>	 Alignment		97.6	16	<b>PDB header:</b> haloperoxidase <b>Chain:</b> A: <b>PDB Molecule:</b> vanadium chloroperoxidase; <b>PDBTitle:</b> chloroperoxidase from the fungus curvularia inaequalis:2 mutant h404a
6	<a href="#">d1qhba_</a>	 Alignment		97.0	16	<b>Fold:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Superfamily:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Family:</b> Haloperoxidase (bromoperoxidase)
7	<a href="#">d1up8a_</a>	 Alignment		96.9	16	<b>Fold:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Superfamily:</b> Acid phosphatase/Vanadium-dependent haloperoxidase <b>Family:</b> Haloperoxidase (bromoperoxidase)
8	<a href="#">c2kncA_</a>	 Alignment		27.4	15	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> integrin alpha-iiB; <b>PDBTitle:</b> platelet integrin alfaIIb-beta3 transmembrane-cytoplasmic2 heterocomplex
9	<a href="#">c3fseB_</a>	 Alignment		22.5	19	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> two-domain protein containing dj-1/thij/pfpi-like and <b>PDBTitle:</b> crystal structure of a two-domain protein containing dj-1/thij/pfpi-2 like and ferritin-like domains (ava_4496) from anaebena variabilis3 atcc 29413 at 1.90 a resolution
10	<a href="#">c2ys9A_</a>	 Alignment		17.9	40	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> homeobox and leucine zipper protein homez; <b>PDBTitle:</b> structure of the third homeodomain from the human homeobox2 and leucine zipper protein, homez
11	<a href="#">d2a65a1</a>	 Alignment		17.5	14	<b>Fold:</b> SNF-like <b>Superfamily:</b> SNF-like <b>Family:</b> SNF-like

12	<a href="#">d1eh9a2</a>	Alignment		14.5	57	<b>Fold:</b> Glycosyl hydrolase domain <b>Superfamily:</b> Glycosyl hydrolase domain <b>Family:</b> alpha-Amylases, C-terminal beta-sheet domain
13	<a href="#">d1dsva_</a>	Alignment		14.3	43	<b>Fold:</b> Retrovirus zinc finger-like domains <b>Superfamily:</b> Retrovirus zinc finger-like domains <b>Family:</b> Retrovirus zinc finger-like domains
14	<a href="#">c1cl4A_</a>	Alignment		12.7	43	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> protein (gag polyprotein); <b>PDBTitle:</b> nucleocapsid protein from mason-pfizer monkey virus (mpmv)
15	<a href="#">c2oniA_</a>	Alignment		10.8	15	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> e3 ubiquitin-protein ligase nedd4-like protein; <b>PDBTitle:</b> catalytic domain of the human nedd4-like e3 ligase
16	<a href="#">c3gr1A_</a>	Alignment		10.8	21	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> protein prgh; <b>PDBTitle:</b> periplamic domain of the t3ss inner membrane protein prgh2 from s.typhimurium (fragment 170-392)
17	<a href="#">d2i3da1</a>	Alignment		10.4	24	<b>Fold:</b> alpha/beta-Hydrolases <b>Superfamily:</b> alpha/beta-Hydrolases <b>Family:</b> Atu1826-like
18	<a href="#">c2i3da_</a>	Alignment		10.4	24	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical protein atu1826; <b>PDBTitle:</b> crystal structure of protein of unknown function atu1826, a putative2 alpha/beta hydrolase from agrobacterium tumefaciens
19	<a href="#">c3ksrA_</a>	Alignment		10.1	19	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> putative serine hydrolase; <b>PDBTitle:</b> crystal structure of a putative serine hydrolase (xcc3885) from2 xanthomonas campestris pv. campestris at 2.69 a resolution
20	<a href="#">c3olmA_</a>	Alignment		9.6	13	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> e3 ubiquitin-protein ligase rsp5; <b>PDBTitle:</b> structure and function of a ubiquitin binding site within the2 catalytic domain of a hect ubiquitin ligase
21	<a href="#">c1zvdA_</a>	Alignment	not modelled	9.4	20	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> smad ubiquitination regulatory factor 2; <b>PDBTitle:</b> regulation of smurf2 ubiquitin ligase activity by anchoring the e2 to2 the hect domain
22	<a href="#">d2r4qa1</a>	Alignment	not modelled	9.2	22	<b>Fold:</b> Phosphotyrosine protein phosphatases I-like <b>Superfamily:</b> PTS system IIB component-like <b>Family:</b> PTS system, Fructose specific IIB subunit-like
23	<a href="#">d1puna_</a>	Alignment	not modelled	8.6	40	<b>Fold:</b> Nudix <b>Superfamily:</b> Nudix <b>Family:</b> MutT-like
24	<a href="#">c2k1aA_</a>	Alignment	not modelled	8.4	19	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> integrin alpha-iiB; <b>PDBTitle:</b> bicelle-embedded integrin alpha(iiB) transmembrane segment
25	<a href="#">c2y69Q_</a>	Alignment	not modelled	7.8	9	<b>PDB header:</b> electron transport <b>Chain:</b> Q: <b>PDB Molecule:</b> cytochrome c oxidase subunit 4 isoform 1; <b>PDBTitle:</b> bovine heart cytochrome c oxidase re-refined with molecular2 oxygen
26	<a href="#">c2k1kA_</a>	Alignment	not modelled	7.4	15	<b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> ephrin type-a receptor 1; <b>PDBTitle:</b> nmr structures of dimeric transmembrane domain of the2 receptor tyrosine kinase epha1 in lipid bicelles at ph 4.3
27	<a href="#">c2k1lA_</a>	Alignment	not modelled	7.4	15	<b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> ephrin type-a receptor 1; <b>PDBTitle:</b> nmr structures of dimeric transmembrane domain of the2 receptor tyrosine kinase epha1 in lipid bicelles at ph 6.3
28	<a href="#">c2k1kB_</a>	Alignment	not modelled	7.4	15	<b>PDB header:</b> signaling protein <b>Chain:</b> B: <b>PDB Molecule:</b> ephrin type-a receptor 1; <b>PDBTitle:</b> nmr structures of dimeric transmembrane domain of the2 receptor tyrosine kinase epha1 in lipid bicelles at ph 4.3

29	<a href="#">c2k1B</a>	Alignment	not modelled	7.4	15	<b>PDB header:</b> signaling protein <b>Chain:</b> B: <b>PDB Molecule:</b> ephrin type-a receptor 1; <b>PDBTitle:</b> nmr structures of dimeric transmembrane domain of the2 receptor tyrosine kinase epha1 in lipid bicelles at ph 6.3
30	<a href="#">d1v54d</a>	Alignment	not modelled	7.3	9	<b>Fold:</b> Single transmembrane helix <b>Superfamily:</b> Mitochondrial cytochrome c oxidase subunit IV <b>Family:</b> Mitochondrial cytochrome c oxidase subunit IV
31	<a href="#">c3a0hX</a>	Alignment	not modelled	7.2	24	<b>PDB header:</b> electron transport <b>Chain:</b> X: <b>PDB Molecule:</b> photosystem ii reaction center protein x; <b>PDBTitle:</b> crystal structure of i-substituted photosystem ii complex
32	<a href="#">c3a0bX</a>	Alignment	not modelled	7.2	24	<b>PDB header:</b> electron transport <b>Chain:</b> X: <b>PDB Molecule:</b> photosystem ii reaction center protein x; <b>PDBTitle:</b> crystal structure of br-substituted photosystem ii complex
33	<a href="#">c3a0bx</a>	Alignment	not modelled	7.2	24	<b>PDB header:</b> electron transport <b>Chain:</b> X: <b>PDB Molecule:</b> photosystem ii reaction center protein x; <b>PDBTitle:</b> crystal structure of br-substituted photosystem ii complex
34	<a href="#">c3a0hx</a>	Alignment	not modelled	7.2	24	<b>PDB header:</b> electron transport <b>Chain:</b> X: <b>PDB Molecule:</b> photosystem ii reaction center protein x; <b>PDBTitle:</b> crystal structure of i-substituted photosystem ii complex
35	<a href="#">c2b0tA</a>	Alignment	not modelled	7.1	31	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> nadp isocitrate dehydrogenase; <b>PDBTitle:</b> structure of monomeric nadp isocitrate dehydrogenase
36	<a href="#">d2ciwa2</a>	Alignment	not modelled	7.1	13	<b>Fold:</b> EF Hand-like <b>Superfamily:</b> Cloroperoxidase <b>Family:</b> Cloroperoxidase
37	<a href="#">d1nd7a</a>	Alignment	not modelled	6.9	13	<b>Fold:</b> Hect, E3 ligase catalytic domain <b>Superfamily:</b> Hect, E3 ligase catalytic domain <b>Family:</b> Hect, E3 ligase catalytic domain
38	<a href="#">c3q4iA</a>	Alignment	not modelled	6.8	16	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> phosphohydrolase (mutt/nudix family protein); <b>PDBTitle:</b> crystal structure of cdp-chase in complex with gd3+
39	<a href="#">d1c4za</a>	Alignment	not modelled	6.8	13	<b>Fold:</b> Hect, E3 ligase catalytic domain <b>Superfamily:</b> Hect, E3 ligase catalytic domain <b>Family:</b> Hect, E3 ligase catalytic domain
40	<a href="#">d2j7ja2</a>	Alignment	not modelled	6.8	16	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
41	<a href="#">d1itwa</a>	Alignment	not modelled	6.6	31	<b>Fold:</b> Isocitrate/Isopropylmalate dehydrogenase-like <b>Superfamily:</b> Isocitrate/Isopropylmalate dehydrogenase-like <b>Family:</b> Monomeric isocitrate dehydrogenase
42	<a href="#">c1s5lx</a>	Alignment	not modelled	6.5	24	<b>PDB header:</b> photosynthesis <b>Chain:</b> X: <b>PDB Molecule:</b> photosystem ii psbx protein; <b>PDBTitle:</b> architecture of the photosynthetic oxygen evolving center
43	<a href="#">c3esiD</a>	Alignment	not modelled	6.5	22	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> D: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of an uncharacterized protein from2 erwinia carotovora subsp. atroseptica. northeast3 structural genomics target ewr179
44	<a href="#">d1njqa</a>	Alignment	not modelled	6.4	8	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Plant C2H2 finger (QALGGH zinc finger)
45	<a href="#">c2jvbA</a>	Alignment	not modelled	6.3	21	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> mrna-decapping enzyme subunit 2; <b>PDBTitle:</b> solution structure of catalytic domain of ydcp2
46	<a href="#">c3g1nA</a>	Alignment	not modelled	6.3	16	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> e3 ubiquitin-protein ligase huwe1; <b>PDBTitle:</b> catalytic domain of the human e3 ubiquitin-protein ligase2 huwe1
47	<a href="#">c3hd6A</a>	Alignment	not modelled	6.3	10	<b>PDB header:</b> membrane protein, transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> ammonium transporter rh type c; <b>PDBTitle:</b> crystal structure of the human rhesus glycoprotein rhcg
48	<a href="#">c3aa6C</a>	Alignment	not modelled	6.2	50	<b>PDB header:</b> protein binding <b>Chain:</b> C: <b>PDB Molecule:</b> 23mer peptide from cd2-associated protein; <b>PDBTitle:</b> crystal structure of actin capping protein in complex with the cp-2 binding motif derived from cd2ap
49	<a href="#">c1bzka</a>	Alignment	not modelled	6.2	13	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> protein (band 3 anion transport protein); <b>PDBTitle:</b> structural studies on the effects of the deletion in the2 red cell anion exchanger (band3, ae1) associated with3 south east asian ovalocytosis.
50	<a href="#">d1x6fa1</a>	Alignment	not modelled	6.1	27	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
51	<a href="#">c3id9B</a>	Alignment	not modelled	5.9	21	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> mutt/nudix family protein; <b>PDBTitle:</b> crystal structure of a mutt/nudix family protein from2 bacillus thuringiensis
52	<a href="#">c1xaxA</a>	Alignment	not modelled	5.8	18	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical upf0054 protein hi0004; <b>PDBTitle:</b> nmr structure of hi0004, a putative essential gene product2 from haemophilus influenzae
53	<a href="#">d1ju3a2</a>	Alignment	not modelled	5.7	28	<b>Fold:</b> alpha/beta-Hydrolases <b>Superfamily:</b> alpha/beta-Hydrolases <b>Family:</b> PepX catalytic domain-like
54	<a href="#">d1l7aa</a>	Alignment	not modelled	5.7	27	<b>Fold:</b> alpha/beta-Hydrolases <b>Superfamily:</b> alpha/beta-Hydrolases <b>Family:</b> Acetyl xylan esterase-like
						<b>Fold:</b> SopE-like GEF domain

55	<a href="#">d1gzsb_</a>	Alignment	not modelled	5.7	57	<b>Superfamily:</b> SopE-like GEF domain <b>Family:</b> SopE-like GEF domain
56	<a href="#">d1oxwa_</a>	Alignment	not modelled	5.6	29	<b>Fold:</b> FabD/lysophospholipase-like <b>Superfamily:</b> FabD/lysophospholipase-like <b>Family:</b> Patatin
57	<a href="#">c3hvyC_</a>	Alignment	not modelled	5.6	6	<b>PDB header:</b> lyase <b>Chain:</b> C: <b>PDB Molecule:</b> cystathionine beta-lyase family protein, ynbB b.subtilis <b>PDBTitle:</b> crystal structure of putative cystathionine beta-lyase involved in 2 aluminum resistance (np_348457.1) from clostridium acetobutylicum at 3 2.00 a resolution
58	<a href="#">d1xm5a_</a>	Alignment	not modelled	5.6	13	<b>Fold:</b> Zincin-like <b>Superfamily:</b> Metalloproteases ("zincins"), catalytic domain <b>Family:</b> Predicted metal-dependent hydrolase
59	<a href="#">d1tvia_</a>	Alignment	not modelled	5.6	27	<b>Fold:</b> Zincin-like <b>Superfamily:</b> Metalloproteases ("zincins"), catalytic domain <b>Family:</b> Predicted metal-dependent hydrolase
60	<a href="#">c2qguA_</a>	Alignment	not modelled	5.6	18	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> probable signal peptide protein; <b>PDBTitle:</b> three-dimensional structure of the phospholipid-binding protein from 2 ralstonia solanacearum q8xv73_ralsq in complex with a phospholipid at 3 the resolution 1.53 a. northeast structural genomics consortium 4 target rsr89
61	<a href="#">d1r7ma1</a>	Alignment	not modelled	5.6	11	<b>Fold:</b> Homing endonuclease-like <b>Superfamily:</b> Homing endonucleases <b>Family:</b> Group I mobile intron endonuclease
62	<a href="#">c2e6kB_</a>	Alignment	not modelled	5.6	5	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> transketolase; <b>PDBTitle:</b> x-ray structure of thermus thermophilus hb8 tt0505
63	<a href="#">c1l7qA_</a>	Alignment	not modelled	5.5	19	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> cocaine esterase; <b>PDBTitle:</b> ser117ala mutant of bacterial cocaine esterase coce
64	<a href="#">c2fhwA_</a>	Alignment	not modelled	5.5	40	<b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> relaxin 3 (prorelaxin h3) (insulin-like peptide <b>PDBTitle:</b> solution structure of human relaxin-3
65	<a href="#">d2hu7a2</a>	Alignment	not modelled	5.5	8	<b>Fold:</b> alpha/beta-Hydrolases <b>Superfamily:</b> alpha/beta-Hydrolases <b>Family:</b> Acylamino-acid-releasing enzyme, C-terminal donain
66	<a href="#">d2joka1</a>	Alignment	not modelled	5.4	57	<b>Fold:</b> SopE-like GEF domain <b>Superfamily:</b> SopE-like GEF domain <b>Family:</b> SopE-like GEF domain
67	<a href="#">d1r6ea_</a>	Alignment	not modelled	5.4	57	<b>Fold:</b> SopE-like GEF domain <b>Superfamily:</b> SopE-like GEF domain <b>Family:</b> SopE-like GEF domain
68	<a href="#">d3buxb2</a>	Alignment	not modelled	5.3	40	<b>Fold:</b> N-cbl like <b>Superfamily:</b> N-terminal domain of cbl (N-cbl) <b>Family:</b> N-terminal domain of cbl (N-cbl)
69	<a href="#">c2w2hD_</a>	Alignment	not modelled	5.3	50	<b>PDB header:</b> rna-binding protein <b>Chain:</b> D: <b>PDB Molecule:</b> protein tat; <b>PDBTitle:</b> structural basis of transcription activation by the cyclin 2 t1-tat-tar rna complex from eiav
70	<a href="#">c3uk1A_</a>	Alignment	not modelled	5.3	8	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> transketolase; <b>PDBTitle:</b> crystal structure of a transketolase from burkholderia thailandensis 2 with an oxidized cysteinesulfonic acid in the active site
71	<a href="#">d1vk6a2</a>	Alignment	not modelled	5.3	0	<b>Fold:</b> Nudix <b>Superfamily:</b> Nudix <b>Family:</b> NADH pyrophosphatase
72	<a href="#">c3ib3A_</a>	Alignment	not modelled	5.2	24	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> coce/nond family hydrolase; <b>PDBTitle:</b> crystal structure of sac02612 - coce/nond family hydrolase from 2 staphylococcus aureus
73	<a href="#">c1ql1A_</a>	Alignment	not modelled	5.2	26	<b>PDB header:</b> virus <b>Chain:</b> A: <b>PDB Molecule:</b> pf1 bacteriophage coat protein b; <b>PDBTitle:</b> inovirus (filamentous bacteriophage) strain pf1 major coat 2 protein assembly
74	<a href="#">c2vlaA_</a>	Alignment	not modelled	5.1	15	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> restriction endonuclease r.bpuji; <b>PDBTitle:</b> crystal structure of restriction endonuclease bpuji2 recognition domain in complex with cognate dna
75	<a href="#">c2ww9B_</a>	Alignment	not modelled	5.1	9	<b>PDB header:</b> ribosome <b>Chain:</b> B: <b>PDB Molecule:</b> protein transport protein sss1; <b>PDBTitle:</b> cryo-em structure of the active yeast ssh1 complex bound to the 2 yeast 80s ribosome
76	<a href="#">c1fdFA_</a>	Alignment	not modelled	5.1	57	<b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> rhodopsin; <b>PDBTitle:</b> helix 7 bovine rhodopsin
77	<a href="#">d1lifya_</a>	Alignment	not modelled	5.0	23	<b>Fold:</b> RuvA C-terminal domain-like <b>Superfamily:</b> UBA-like <b>Family:</b> UBA domain