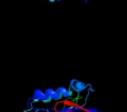
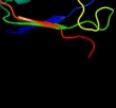


# Phyre<sup>2</sup>

Email	i.a.kelley@imperial.ac.uk
Description	P23930
Date	Thu Jan 5 11:40:39 GMT 2012
Unique Job ID	3a98b0592725910e

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1uf5a_	Alignment		100.0	18	<b>Fold:</b> Carbon-nitrogen hydrolase <b>Superfamily:</b> Carbon-nitrogen hydrolase <b>Family:</b> Carbamilate
2	c2plqA_	Alignment		100.0	15	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> aliphatic amidase; <b>PDBTitle:</b> crystal structure of the amidase from geobacillus pallidus rapc8
3	c2vhiG_	Alignment		100.0	17	<b>PDB header:</b> hydrolase <b>Chain:</b> G: <b>PDB Molecule:</b> cg3027-pa; <b>PDBTitle:</b> crystal structure of a pyrimidine degrading enzyme from2 drosophila melanogaster
4	c1emsB_	Alignment		100.0	17	<b>PDB header:</b> antitumor protein <b>Chain:</b> B: <b>PDB Molecule:</b> nit-fragile histidine triad fusion protein; <b>PDBTitle:</b> crystal structure of the c. elegans nithit protein
5	c2e2kC_	Alignment		100.0	18	<b>PDB header:</b> hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> formamidase; <b>PDBTitle:</b> helicobacter pylori formamidase amif contains a fine-tuned cysteine-2 glutamate-lysine catalytic triad
6	c2w1vA_	Alignment		100.0	15	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> nitrilase homolog 2; <b>PDBTitle:</b> crystal structure of mouse nitrilase-2 at 1.4a resolution
7	d1ems2	Alignment		100.0	17	<b>Fold:</b> Carbon-nitrogen hydrolase <b>Superfamily:</b> Carbon-nitrogen hydrolase <b>Family:</b> Nitrilase
8	c3hkxA_	Alignment		100.0	22	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> amidase; <b>PDBTitle:</b> crystal structure analysis of an amidase from nesterenkonia sp.
9	d1f89a_	Alignment		100.0	22	<b>Fold:</b> Carbon-nitrogen hydrolase <b>Superfamily:</b> Carbon-nitrogen hydrolase <b>Family:</b> Nitrilase
10	c2e11B_	Alignment		100.0	22	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> hydrolase; <b>PDBTitle:</b> the crystal structure of xc1258 from xanthomonas campestris: a cn-2 hydrolase superfamily protein with an arsenic adduct in the active3 site
11	d1j31a_	Alignment		100.0	17	<b>Fold:</b> Carbon-nitrogen hydrolase <b>Superfamily:</b> Carbon-nitrogen hydrolase <b>Family:</b> Carbamilate

12	<a href="#">c3n05B_</a>	Alignment		100.0	20	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> nh(3)-dependent nad(+) synthetase; <b>PDBTitle:</b> crystal structure of nh3-dependent nad+ synthetase from streptomyces2 avermitilis
13	<a href="#">c3dlaD_</a>	Alignment		100.0	17	<b>PDB header:</b> ligase <b>Chain:</b> D: <b>PDB Molecule:</b> glutamine-dependent nad(+) synthetase; <b>PDBTitle:</b> x-ray crystal structure of glutamine-dependent nad+ synthetase from2 mycobacterium tuberculosis bound to naad+ and don
14	<a href="#">c3i1vA_</a>	Alignment		100.0	14	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> glutamine-dependent nad(+) synthetase; <b>PDBTitle:</b> crystal structure of a glutamine-dependent nad(+) synthetase2 from cytophaga hutchinsonii
15	<a href="#">d1sgval</a>	Alignment		74.4	19	<b>Fold:</b> PUA domain-like <b>Superfamily:</b> PUA domain-like <b>Family:</b> PUA domain
16	<a href="#">d4pgaa_</a>	Alignment		58.7	13	<b>Fold:</b> Glutaminase/Asparaginase <b>Superfamily:</b> Glutaminase/Asparaginase <b>Family:</b> Glutaminase/Asparaginase
17	<a href="#">d1zq1a2</a>	Alignment		47.0	12	<b>Fold:</b> Glutaminase/Asparaginase <b>Superfamily:</b> Glutaminase/Asparaginase <b>Family:</b> Glutaminase/Asparaginase
18	<a href="#">c2wlTA_</a>	Alignment		45.4	13	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> l-asparaginase; <b>PDBTitle:</b> the crystal structure of helicobacter pylori l-asparaginase2 at 1.4 a resolution
19	<a href="#">d2d6fa2</a>	Alignment		43.1	10	<b>Fold:</b> Glutaminase/Asparaginase <b>Superfamily:</b> Glutaminase/Asparaginase <b>Family:</b> Glutaminase/Asparaginase
20	<a href="#">c1xf1A_</a>	Alignment		42.3	12	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> c5a peptidase; <b>PDBTitle:</b> structure of c5a peptidase- a key virulence factor from2 streptococcus
21	<a href="#">d1o7ja_</a>	Alignment	not modelled	40.0	16	<b>Fold:</b> Glutaminase/Asparaginase <b>Superfamily:</b> Glutaminase/Asparaginase <b>Family:</b> Glutaminase/Asparaginase
22	<a href="#">c1zq1B_</a>	Alignment	not modelled	39.9	13	<b>PDB header:</b> lyase <b>Chain:</b> B: <b>PDB Molecule:</b> glutamyl-tRNA(gln) amidotransferase subunit d; <b>PDBTitle:</b> structure of gatde tRNA-dependent amidotransferase from2 pyrococcus abyssi
23	<a href="#">d3dhwc1</a>	Alignment	not modelled	38.7	12	<b>Fold:</b> P-loop containing nucleoside triphosphate hydrolases <b>Superfamily:</b> P-loop containing nucleoside triphosphate hydrolases <b>Family:</b> ABC transporter ATPase domain-like
24	<a href="#">d1nnsa_</a>	Alignment	not modelled	36.4	11	<b>Fold:</b> Glutaminase/Asparaginase <b>Superfamily:</b> Glutaminase/Asparaginase <b>Family:</b> Glutaminase/Asparaginase
25	<a href="#">d2ocda1</a>	Alignment	not modelled	32.3	16	<b>Fold:</b> Glutaminase/Asparaginase <b>Superfamily:</b> Glutaminase/Asparaginase <b>Family:</b> Glutaminase/Asparaginase
26	<a href="#">c2d6fA_</a>	Alignment	not modelled	29.9	10	<b>PDB header:</b> ligase/rna <b>Chain:</b> A: <b>PDB Molecule:</b> glutamyl-tRNA(gln) amidotransferase subunit d; <b>PDBTitle:</b> crystal structure of glu-tRNA(gln) amidotransferase in the2 complex with tRNA(gln)
27	<a href="#">d1agxa_</a>	Alignment	not modelled	29.8	10	<b>Fold:</b> Glutaminase/Asparaginase <b>Superfamily:</b> Glutaminase/Asparaginase <b>Family:</b> Glutaminase/Asparaginase
28	<a href="#">c3qjaA_</a>	Alignment	not modelled	28.3	12	<b>PDB header:</b> lyase <b>Chain:</b> A: <b>PDB Molecule:</b> indole-3-glycerol phosphate synthase; <b>PDBTitle:</b> crystal structure of the mycobacterium tuberculosis indole-3-glycerol2 phosphate synthase (trpc) in apo form



55	<a href="#">d2zcta1</a>	<a href="#">Alignment</a>	not modelled	13.1	14	<b>Fold:</b> Thioredoxin fold <b>Superfamily:</b> Thioredoxin-like <b>Family:</b> Glutathione peroxidase-like
56	<a href="#">d1i4na_</a>	<a href="#">Alignment</a>	not modelled	13.0	18	<b>PDB header:</b> TIM beta/alpha-barrel <b>Superfamily:</b> Ribulose-phosphate binding barrel <b>Family:</b> Tryptophan biosynthesis enzymes
57	<a href="#">c2f9yB_</a>	<a href="#">Alignment</a>	not modelled	12.8	27	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> acetyl-coenzyme a carboxyl transferase subunit <b>PDBTitle:</b> the crystal structure of the carboxyltransferase subunit of acc from2 escherichia coli
58	<a href="#">d2f9yb1</a>	<a href="#">Alignment</a>	not modelled	12.8	27	<b>Fold:</b> ClpP/crotonase <b>Superfamily:</b> ClpP/crotonase <b>Family:</b> Biotin dependent carboxylase carboxyltransferase domain
59	<a href="#">d1sffa_</a>	<a href="#">Alignment</a>	not modelled	12.5	12	<b>Fold:</b> PLP-dependent transferase-like <b>Superfamily:</b> PLP-dependent transferases <b>Family:</b> GABA-aminotransferase-like
60	<a href="#">c1x0uB_</a>	<a href="#">Alignment</a>	not modelled	12.2	22	<b>PDB header:</b> lyase <b>Chain:</b> B: <b>PDB Molecule:</b> hypothetical methylmalonyl-coa decarboxylase alpha subunit; <b>PDBTitle:</b> crystal structure of the carboxyl transferase subunit of putative pcc2 of sulfobolus tokodaii
61	<a href="#">c3eurA_</a>	<a href="#">Alignment</a>	not modelled	12.0	0	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of the c-terminal domain of uncharacterized protein2 from bacteroides fragilis nctc 9343
62	<a href="#">d2acf1</a>	<a href="#">Alignment</a>	not modelled	11.8	10	<b>Fold:</b> Macro domain-like <b>Superfamily:</b> Macro domain-like <b>Family:</b> Macro domain
63	<a href="#">c1drwA_</a>	<a href="#">Alignment</a>	not modelled	11.8	12	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> dihydrodipicolinate reductase; <b>PDBTitle:</b> escherichia coli dhr/nhdh complex
64	<a href="#">c3ogfA_</a>	<a href="#">Alignment</a>	not modelled	11.6	22	<b>PDB header:</b> de novo protein <b>Chain:</b> A: <b>PDB Molecule:</b> de novo designed dimeric trefoil-fold sub-domain which <b>PDBTitle:</b> crystal structure of difoil-4p homo-trimer: de novo designed dimeric2 trefoil-fold sub-domain which forms homo-trimer assembly
65	<a href="#">c3u9rb_</a>	<a href="#">Alignment</a>	not modelled	11.6	26	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> methylcrotonyl-coa carboxylase, beta-subunit; <b>PDBTitle:</b> crystal structure of p. aeruginosa 3-methylcrotonyl-coa carboxylase2 (mcc), beta subunit
66	<a href="#">d4pfka_</a>	<a href="#">Alignment</a>	not modelled	11.5	20	<b>Fold:</b> Phosphofructokinase <b>Superfamily:</b> Phosphofructokinase <b>Family:</b> Phosphofructokinase
67	<a href="#">c1xnwD_</a>	<a href="#">Alignment</a>	not modelled	11.5	24	<b>PDB header:</b> ligase <b>Chain:</b> D: <b>PDB Molecule:</b> propionyl-coa carboxylase complex b subunit; <b>PDBTitle:</b> acyl-coa carboxylase beta subunit from s. coelicolor (ppcb),2 apo form #2, mutant d422i
68	<a href="#">c3trjC_</a>	<a href="#">Alignment</a>	not modelled	11.4	20	<b>PDB header:</b> isomerase <b>Chain:</b> C: <b>PDB Molecule:</b> phosphoheptose isomerase; <b>PDBTitle:</b> structure of a phosphoheptose isomerase from francisella tularensis
69	<a href="#">d1l2ta_</a>	<a href="#">Alignment</a>	not modelled	11.3	10	<b>Fold:</b> P-loop containing nucleoside triphosphate hydrolases <b>Superfamily:</b> P-loop containing nucleoside triphosphate hydrolases <b>Family:</b> ABC transporter ATPase domain-like
70	<a href="#">d1vrga1</a>	<a href="#">Alignment</a>	not modelled	11.1	22	<b>Fold:</b> ClpP/crotonase <b>Superfamily:</b> ClpP/crotonase <b>Family:</b> Biotin dependent carboxylase carboxyltransferase domain
71	<a href="#">c2a7sD_</a>	<a href="#">Alignment</a>	not modelled	11.1	27	<b>PDB header:</b> ligase <b>Chain:</b> D: <b>PDB Molecule:</b> probable propionyl-coa carboxylase beta chain 5; <b>PDBTitle:</b> crystal structure of the acyl-coa carboxylase, accd5, from2 mycobacterium tuberculosis
72	<a href="#">c2yyzA_</a>	<a href="#">Alignment</a>	not modelled	10.9	12	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> sugar abc transporter, atp-binding protein; <b>PDBTitle:</b> crystal structure of sugar abc transporter, atp-binding protein
73	<a href="#">c1od4C_</a>	<a href="#">Alignment</a>	not modelled	10.7	21	<b>PDB header:</b> ligase <b>Chain:</b> C: <b>PDB Molecule:</b> acetyl-coenzyme a carboxylase; <b>PDBTitle:</b> acetyl-coa carboxylase carboxyltransferase domain
74	<a href="#">c3fvqB_</a>	<a href="#">Alignment</a>	not modelled	10.4	18	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> fe(3+) ions import atp-binding protein fbpC; <b>PDBTitle:</b> crystal structure of the nucleotide binding domain fbpC2 complexed with atp
75	<a href="#">d1xnya1</a>	<a href="#">Alignment</a>	not modelled	10.3	24	<b>Fold:</b> ClpP/crotonase <b>Superfamily:</b> ClpP/crotonase <b>Family:</b> Biotin dependent carboxylase carboxyltransferase domain
76	<a href="#">c3ewlA_</a>	<a href="#">Alignment</a>	not modelled	10.3	0	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized conserved protein bf1870; <b>PDBTitle:</b> crystal structure of conserved protein bf1870 of unknown function from2 bacteroides fragilis
77	<a href="#">c2nq2C_</a>	<a href="#">Alignment</a>	not modelled	10.2	16	<b>PDB header:</b> metal transport <b>Chain:</b> C: <b>PDB Molecule:</b> hypothetical abc transporter atp-binding protein <b>PDBTitle:</b> an inward-facing conformation of a putative metal-chelate2 type abc transporter.
78	<a href="#">c1z47P</a>	<a href="#">Alignment</a>	not modelled	10.2	7	<b>PDB header:</b> ligand binding protein <b>Chain:</b> B: <b>PDB Molecule:</b> putative abc-transporter atp-binding protein;

78	<a href="#">c1z4vD</a>	Alignment	not modelled	10.2	7	<b>PDBTitle:</b> structure of the atpase subunit cysa of the putative2 sulfate atp-binding cassette (abc) transporter from3 alicyclobacillus acidocaldarius
79	<a href="#">d1nmpa</a>	Alignment	not modelled	10.0	12	<b>Fold:</b> NIF3 (NGG1p interacting factor 3)-like <b>Superfamily:</b> NIF3 (NGG1p interacting factor 3)-like <b>Family:</b> NIF3 (NGG1p interacting factor 3)-like
80	<a href="#">d1on3a1</a>	Alignment	not modelled	10.0	29	<b>Fold:</b> ClpP/crotonase <b>Superfamily:</b> ClpP/crotonase <b>Family:</b> Biotin dependent carboxyltransferase domain
81	<a href="#">c2d62A</a>	Alignment	not modelled	9.9	9	<b>PDB header:</b> sugar binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> multiple sugar-binding transport atp-binding <b>PDBTitle:</b> crystal structure of multiple sugar binding transport atp-2 binding protein
82	<a href="#">c3d34A</a>	Alignment	not modelled	9.8	44	<b>PDB header:</b> immune system <b>Chain:</b> A: <b>PDB Molecule:</b> spondin-2; <b>PDBTitle:</b> structure of the f-spondin domain of mindin
83	<a href="#">c3opyH</a>	Alignment	not modelled	9.2	20	<b>PDB header:</b> transferase <b>Chain:</b> H: <b>PDB Molecule:</b> 6-phosphofructo-1-kinase beta-subunit; <b>PDBTitle:</b> crystal structure of pichia pastoris phosphofructokinase in the t-2 state
84	<a href="#">c3opyB</a>	Alignment	not modelled	9.2	20	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> 6-phosphofructo-1-kinase beta-subunit; <b>PDBTitle:</b> crystal structure of pichia pastoris phosphofructokinase in the t-2 state
85	<a href="#">d1sgwa</a>	Alignment	not modelled	9.0	14	<b>Fold:</b> P-loop containing nucleoside triphosphate hydrolases <b>Superfamily:</b> P-loop containing nucleoside triphosphate hydrolases <b>Family:</b> ABC transporter ATPase domain-like
86	<a href="#">d2b7ka1</a>	Alignment	not modelled	9.0	9	<b>Fold:</b> Thioredoxin fold <b>Superfamily:</b> Thioredoxin-like <b>Family:</b> Glutathione peroxidase-like
87	<a href="#">c1m56G</a>	Alignment	not modelled	8.8	7	<b>PDB header:</b> oxidoreductase <b>Chain:</b> G: <b>PDB Molecule:</b> cytochrome c oxidase; <b>PDBTitle:</b> structure of cytochrome c oxidase from rhodobacter2 sphaeroides (wild type)
88	<a href="#">c3dhwC</a>	Alignment	not modelled	8.8	14	<b>PDB header:</b> membrane protein/hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> methionine import atp-binding protein metn; <b>PDBTitle:</b> crystal structure of methionine importer metni
89	<a href="#">c1uytC</a>	Alignment	not modelled	8.7	21	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> acetyl-coa carboxylase; <b>PDBTitle:</b> acetyl-coa carboxylase carboxyltransferase domain
90	<a href="#">c1piiA</a>	Alignment	not modelled	8.5	10	<b>PDB header:</b> bifunctional(isomerase and synthase) <b>Chain:</b> A: <b>PDB Molecule:</b> n-(5'phosphribosyl)anthranilate isomerase; <b>PDBTitle:</b> three-dimensional structure of the bifunctional enzyme2 phosphoribosylanthranilate isomerase;3 indoleglycerolphosphate synthase from escherichia coli4 refined at 2.0 angstroms resolution
91	<a href="#">c3h0jA</a>	Alignment	not modelled	8.5	21	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> acetyl-coa carboxylase; <b>PDBTitle:</b> crystal structure of the carboxyltransferase domain of2 acetyl-coenzyme a carboxylase in complex with compound 2
92	<a href="#">c3opyG</a>	Alignment	not modelled	8.3	10	<b>PDB header:</b> transferase <b>Chain:</b> G: <b>PDB Molecule:</b> 6-phosphofructo-1-kinase alpha-subunit; <b>PDBTitle:</b> crystal structure of pichia pastoris phosphofructokinase in the t-2 state
93	<a href="#">d1ohwa</a>	Alignment	not modelled	8.3	14	<b>Fold:</b> PLP-dependent transferase-like <b>Superfamily:</b> PLP-dependent transferases <b>Family:</b> GABA-amino transferase-like
94	<a href="#">c3ff6D</a>	Alignment	not modelled	8.3	26	<b>PDB header:</b> ligase <b>Chain:</b> D: <b>PDB Molecule:</b> acetyl-coa carboxylase 2; <b>PDBTitle:</b> human acc2 ct domain with cp-640186
95	<a href="#">d1xrsa</a>	Alignment	not modelled	8.1	20	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> Cobalamin (vitamin B12)-dependent enzymes <b>Family:</b> D-lysine 5,6-aminomutase alpha subunit, KamD
96	<a href="#">d2awna2</a>	Alignment	not modelled	8.0	10	<b>Fold:</b> P-loop containing nucleoside triphosphate hydrolases <b>Superfamily:</b> P-loop containing nucleoside triphosphate hydrolases <b>Family:</b> ABC transporter ATPase domain-like
97	<a href="#">c2p31B</a>	Alignment	not modelled	8.0	11	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> glutathione peroxidase 7; <b>PDBTitle:</b> crystal structure of human glutathione peroxidase 7
98	<a href="#">c2it1B</a>	Alignment	not modelled	8.0	10	<b>PDB header:</b> transport protein <b>Chain:</b> B: <b>PDB Molecule:</b> 362aa long hypothetical maltose/maltodextrin <b>PDBTitle:</b> structure of ph0203 protein from pyrococcus horikoshii
99	<a href="#">d1prxa</a>	Alignment	not modelled	7.8	23	<b>Fold:</b> Thioredoxin fold <b>Superfamily:</b> Thioredoxin-like <b>Family:</b> Glutathione peroxidase-like