














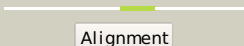



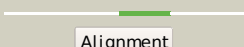
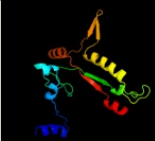

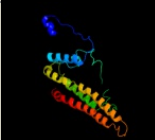
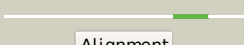

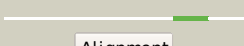
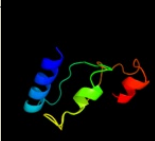






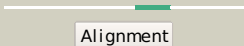

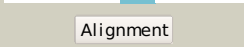
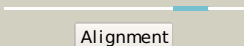
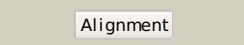


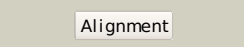


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P32674
Date	Thu Jan 5 11:50:01 GMT 2012
Unique Job ID	1779802ba0ed5d29

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1r9da_	 Alignment		100.0	42	Fold: PFL-like glycy radical enzymes Superfamily: PFL-like glycy radical enzymes Family: PFL-like
2	c2y8nC_	 Alignment		100.0	28	PDB header: lyase Chain: C: PDB Molecule: 4-hydroxyphenylacetate decarboxylase large subunit; PDBTitle: crystal structure of glycy radical enzyme
3	c2f3oB_	 Alignment		100.0	38	PDB header: unknown function Chain: B: PDB Molecule: pyruvate formate-lyase 2; PDBTitle: crystal structure of a glycy radical enzyme from archaeoglobus2 fulgidus
4	d1h16a_	 Alignment		100.0	24	Fold: PFL-like glycy radical enzymes Superfamily: PFL-like glycy radical enzymes Family: PFL-like
5	d1qhma_	 Alignment		100.0	21	Fold: PFL-like glycy radical enzymes Superfamily: PFL-like glycy radical enzymes Family: PFL-like
6	d1hk8a_	 Alignment		99.4	17	Fold: PFL-like glycy radical enzymes Superfamily: PFL-like glycy radical enzymes Family: Class III anaerobic ribonucleotide reductase NRDD subunit
7	c1hk8A_	 Alignment		99.4	17	PDB header: oxidoreductase Chain: A: PDB Molecule: anaerobic ribonucleotide-triphosphate reductase; PDBTitle: structural basis for allosteric substrate specificity2 regulation in class iii ribonucleotide reductases:3 nrdd in complex with dgtp
8	d1qkra_	 Alignment		85.3	24	Fold: Four-helical up-and-down bundle Superfamily: alpha-catenin/vinculin-like Family: alpha-catenin/vinculin
9	d1r0ka1	 Alignment		84.4	27	Fold: Left-handed superhelix Superfamily: 1-deoxy-D-xylulose-5-phosphate reductoisomerase, C-terminal domain Family: 1-deoxy-D-xylulose-5-phosphate reductoisomerase, C-terminal domain
10	d1q0qa1	 Alignment		83.0	17	Fold: Left-handed superhelix Superfamily: 1-deoxy-D-xylulose-5-phosphate reductoisomerase, C-terminal domain Family: 1-deoxy-D-xylulose-5-phosphate reductoisomerase, C-terminal domain
11	d1rlra2	 Alignment		73.7	14	Fold: PFL-like glycy radical enzymes Superfamily: PFL-like glycy radical enzymes Family: R1 subunit of ribonucleotide reductase, C-terminal domain

12	c1r0lD_	 Alignment		65.5	27	PDB header: oxidoreductase Chain: D: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: 1-deoxy-d-xylulose 5-phosphate reductoisomerase from2 zymomonas mobilis in complex with nadph
13	c2eghA_	 Alignment		61.8	16	PDB header: oxidoreductase Chain: A: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: crystal structure of 1-deoxy-d-xylulose 5-phosphate reductoisomerase2 complexed with a magnesium ion, nadph and fosmidomycin
14	c1xjeA_	 Alignment		55.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleotide reductase, b12-dependent; PDBTitle: structural mechanism of allosteric substrate specificity in a2 ribonucleotide reductase: dttp-gdp complex
15	c1tt9B_	 Alignment		53.2	11	PDB header: transferase, lyase Chain: B: PDB Molecule: formimidoyltransferase-cyclodeaminase PDBTitle: structure of the bifunctional and golgi associated2 formiminotransferase cyclodeaminase octamer
16	c3gr1A_	 Alignment		51.8	10	PDB header: membrane protein Chain: A: PDB Molecule: protein prgh; PDBTitle: periplasmic domain of the t3ss inner membrane protein prgh2 from s.typhimurium (fragment 170-392)
17	c2d2rA_	 Alignment		50.5	23	PDB header: transferase Chain: A: PDB Molecule: undecaprenyl pyrophosphate synthase; PDBTitle: crystal structure of helicobacter pylori undecaprenyl pyrophosphate2 synthase
18	d1u5tb1	 Alignment		45.2	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain
19	d1dq3a4	 Alignment		43.1	14	Fold: Homing endonuclease-like Superfamily: Homing endonucleases Family: Intein endonuclease
20	d1ueha_	 Alignment		42.6	9	Fold: Undecaprenyl diphosphate synthase Superfamily: Undecaprenyl diphosphate synthase Family: Undecaprenyl diphosphate synthase
21	d2gykb1	 Alignment	not modelled	41.9	12	Fold: His-Me finger endonucleases Superfamily: His-Me finger endonucleases Family: HNH-motif
22	d1jvaa3	 Alignment	not modelled	41.8	11	Fold: Homing endonuclease-like Superfamily: Homing endonucleases Family: Intein endonuclease
23	c2jcyA_	 Alignment	not modelled	39.7	22	PDB header: oxidoreductase Chain: A: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: x-ray structure of mutant 1-deoxy-d-xylulose 5-phosphate2 reductoisomerase, dxr, rv2870c, from mycobacterium3 tuberculosis
24	c1jp3A_	 Alignment	not modelled	39.1	11	PDB header: transferase Chain: A: PDB Molecule: undecaprenyl pyrophosphate synthase; PDBTitle: structure of e.coli undecaprenyl pyrophosphate synthase
25	c1k5hB_	 Alignment	not modelled	37.4	17	PDB header: oxidoreductase Chain: B: PDB Molecule: 1-deoxy-d-xylulose-5-phosphate reductoisomerase; PDBTitle: 1-deoxy-d-xylulose-5-phosphate reductoisomerase
26	c1rh1A_	 Alignment	not modelled	33.3	11	PDB header: antibiotic Chain: A: PDB Molecule: colicin b; PDBTitle: crystal structure of the cytotoxic bacterial protein2 colicin b at 2.5 a resolution
27	d1st6a7	 Alignment	not modelled	32.3	8	Fold: Four-helical up-and-down bundle Superfamily: alpha-catenin/vinculin-like Family: alpha-catenin/vinculin
28	c3au9A_	 Alignment	not modelled	31.9	14	PDB header: isomerase/isomerase inhibitor Chain: A: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: crystal structure of the quaternary complex-1 of an isomerase

29	c2vg2C_	Alignment	not modelled	29.3	17	PDB header: transferase Chain: C: PDB Molecule: undecaprenyl pyrophosphate synthetase; PDBTitle: rv2361 with ipp
30	c3odeA_	Alignment	not modelled	26.4	18	PDB header: dna binding protein/dna Chain: A: PDB Molecule: poly [adp-ribose] polymerase 1; PDBTitle: human parp-1 zinc finger 2 (zn2) bound to dna
31	c1v9xA_	Alignment	not modelled	25.9	16	PDB header: transferase Chain: A: PDB Molecule: poly (adp-ribose) polymerase; PDBTitle: solution structure of the first zn-finger domain of 2 poly(adp-ribose) polymerase-1
32	d1fi3a_	Alignment	not modelled	25.6	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
33	c2f40A_	Alignment	not modelled	25.4	29	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein pf1455; PDBTitle: structure of a novel protein from backbone-centered nmr data and nmr-2 assisted structure prediction
34	d1f75a_	Alignment	not modelled	23.4	16	Fold: Undecaprenyl diphosphate synthase Superfamily: Undecaprenyl diphosphate synthase Family: Undecaprenyl diphosphate synthase
35	d1nh2a2	Alignment	not modelled	22.7	29	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
36	c3gr0D_	Alignment	not modelled	22.6	12	PDB header: membrane protein Chain: D: PDB Molecule: protein prgh; PDBTitle: periplasmic domain of the t3ss inner membrane protein prgh from2 s.typhimurium (fragment 170-362)
37	c3thgA_	Alignment	not modelled	22.5	29	PDB header: protein binding Chain: A: PDB Molecule: ribulose bisphosphate carboxylase/oxygenase activase 1, PDBTitle: crystal structure of the creosote rubisco activase c-domain
38	c3ajfA_	Alignment	not modelled	21.6	27	PDB header: viral protein Chain: A: PDB Molecule: non-structural protein 3; PDBTitle: structural insights into dsrna binding and rna silencing suppression2 by ns3 protein of rice hoja blanca tenuivirus
39	c2dmjA_	Alignment	not modelled	21.6	11	PDB header: transferase Chain: A: PDB Molecule: poly (adp-ribose) polymerase family, member 1; PDBTitle: solution structure of the first zf-parp domain of human2 poly(adp-ribose)polymerase-1
40	d1mp9a1	Alignment	not modelled	21.5	29	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
41	d1nh2a1	Alignment	not modelled	21.4	25	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
42	d1l1la_	Alignment	not modelled	21.3	19	Fold: PFL-like glycol radical enzymes Superfamily: PFL-like glycol radical enzymes Family: B12-dependent (class II) ribonucleotide reductase
43	d1qnaa2	Alignment	not modelled	21.2	29	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
44	d1aisa1	Alignment	not modelled	20.9	18	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
45	d1vioa2	Alignment	not modelled	20.9	12	Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: Pseudouridine synthase RsaA N-terminal domain
46	d1rlfa_	Alignment	not modelled	20.3	13	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ras-binding domain, RBD
47	d1aisa2	Alignment	not modelled	20.0	29	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
48	d1pugb_	Alignment	not modelled	19.6	26	Fold: YbaB-like Superfamily: YbaB-like Family: YbaB-like
49	d1qnaa1	Alignment	not modelled	19.5	21	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
50	d1v5ra1	Alignment	not modelled	18.9	44	Fold: N domain of copper amine oxidase-like Superfamily: GAS2 domain-like Family: GAS2 domain
51	d2i15a1	Alignment	not modelled	18.7	30	Fold: MG296-like Superfamily: MG296-like Family: MG296-like
52	c1fuiB_	Alignment	not modelled	18.6	21	PDB header: isomerase Chain: B: PDB Molecule: l-fucose isomerase; PDBTitle: l-fucose isomerase from escherichia coli
53	c2cvuA_	Alignment	not modelled	18.5	16	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase large chain PDBTitle: structures of yeast ribonucleotide reductase i
54	d1mp9a2	Alignment	not modelled	18.2	29	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
55	c3hnfa_	Alignment	not modelled	17.7	16	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase large subunit;

						PDBTitle: crystal structure of human ribonucleotide reductase 1 bound to the2 effectors ttp and datp PDB header: ligase
56	c3mf2B_	Alignment	not modelled	17.5	17	Chain: B: PDB Molecule: blI0957 protein; PDBTitle: crystal structure of class ii aars homologue (blI0957) complexed with2 amp
57	d351ca_	Alignment	not modelled	17.3	8	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
58	d2g39a2	Alignment	not modelled	17.2	23	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: CoA transferase alpha subunit-like
59	d1cdwa1	Alignment	not modelled	17.0	25	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
60	c3inpA_	Alignment	not modelled	17.0	22	PDB header: isomerase Chain: A: PDB Molecule: d-ribulose-phosphate 3-epimerase; PDBTitle: 2.05 angstrom resolution crystal structure of d-ribulose-phosphate 3-2 epimerase from francisella tularensis.
61	d1lfda_	Alignment	not modelled	16.7	17	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ras-binding domain, RBD
62	d2bm3a1	Alignment	not modelled	16.2	29	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
63	c3kh0A_	Alignment	not modelled	16.2	22	PDB header: signaling protein Chain: A: PDB Molecule: ral guanine nucleotide dissociation stimulator; PDBTitle: crystal structure of the ras-association (ra) domain of2 ralgs
64	d1tyja1	Alignment	not modelled	15.6	29	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
65	d1uj8a1	Alignment	not modelled	15.5	24	Fold: Another 3-helical bundle Superfamily: IscX-like Family: IscX-like
66	c2b59A_	Alignment	not modelled	15.5	29	PDB header: hydrolase/structural protein Chain: A: PDB Molecule: cog1196: chromosome segregation atpases; PDBTitle: the type ii cohesin dockerin complex
67	c2cs2A_	Alignment	not modelled	15.4	18	PDB header: transferase Chain: A: PDB Molecule: poly [adp-ribose] polymerase-1; PDBTitle: solution structure of the second zn-finger domain of2 poly(adp-ribose) polymerase-1
68	c3hp7A_	Alignment	not modelled	15.3	29	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hemolysin, putative; PDBTitle: putative hemolysin from streptococcus thermophilus.
69	d1cdwa2	Alignment	not modelled	15.1	21	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: TATA-box binding protein (TBP), C-terminal domain
70	c3rmrA_	Alignment	not modelled	15.0	23	PDB header: protein binding Chain: A: PDB Molecule: avirulence protein; PDBTitle: crystal structure of hyaloperonospora arabidopsidis atr1 effector2 domain
71	c2jobA_	Alignment	not modelled	15.0	15	PDB header: lipid binding protein Chain: A: PDB Molecule: antilipopolysaccharide factor; PDBTitle: solution structure of an antilipopolysaccharide factor from2 shrimp and its possible lipid a binding site
72	c3ugsB_	Alignment	not modelled	14.9	11	PDB header: transferase Chain: B: PDB Molecule: undecaprenyl pyrophosphate synthase; PDBTitle: crystal structure of a probable undecaprenyl diphosphate synthase2 (upps) from campylobacter jejuni
73	d1ynra1	Alignment	not modelled	14.9	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
74	d1rypi_	Alignment	not modelled	14.8	19	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
75	c3ol0C_	Alignment	not modelled	14.6	17	PDB header: de novo protein Chain: C: PDB Molecule: de novo designed monomer trefoil-fold sub-domain which PDBTitle: crystal structure of monofoil-4p homo-trimer: de novo designed monomer2 trefoil-fold sub-domain which forms homo-trimer assembly
76	d2rgfa_	Alignment	not modelled	14.5	22	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ras-binding domain, RBD
77	c3fnkA_	Alignment	not modelled	14.5	36	PDB header: structural protein Chain: A: PDB Molecule: cellulosomal scaffoldin adaptor protein b; PDBTitle: crystal structure of the second type ii cohesin module from2 the cellulosomal adaptor scaa scaffoldin of acetivibrio3 cellulolyticus
78	c3ghpA_	Alignment	not modelled	14.4	36	PDB header: structural protein Chain: A: PDB Molecule: cellulosomal scaffoldin adaptor protein b; PDBTitle: structure of the second type ii cohesin module fromthe2 adaptor scaa scaffoldin of acetivibrio cellulolyticus3 (including long c-terminal linker)
79	d1q5qh_	Alignment	not modelled	14.0	6	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits PDB header: hydrolase

80	c3oryA_	Alignment	not modelled	14.0	19	Chain: A: PDB Molecule: flap endonuclease 1; PDBTitle: crystal structure of flap endonuclease 1 from hyperthermophilic2 archaeon desulfurococcus amylolyticus
81	d1lghb_	Alignment	not modelled	14.0	5	Fold: Light-harvesting complex subunits Superfamily: Light-harvesting complex subunits Family: Light-harvesting complex subunits
82	c2wghA_	Alignment	not modelled	14.0	17	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase large PDBTitle: human ribonucleotide reductase r1 subunit (rrm1) in complex2 with datp and mg.
83	c2vpmB_	Alignment	not modelled	13.9	17	PDB header: ligase Chain: B: PDB Molecule: trypanothione synthetase; PDBTitle: trypanothione synthetase
84	d1lrxa1	Alignment	not modelled	13.9	14	Fold: An anticodon-binding domain of class I aminoacyl-tRNA synthetases Superfamily: An anticodon-binding domain of class I aminoacyl-tRNA synthetases Family: C-terminal domain of class I lysyl-tRNA synthetase
85	d1yuaa2	Alignment	not modelled	13.8	56	Fold: Rubredoxin-like Superfamily: Zinc beta-ribbon Family: Prokaryotic DNA topoisomerase I, a C-terminal fragment
86	d1zv9a1	Alignment	not modelled	13.5	50	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
87	d1twda_	Alignment	not modelled	13.5	26	Fold: TIM beta/alpha-barrel Superfamily: CutC-like Family: CutC-like
88	d1nj1a3	Alignment	not modelled	13.5	15	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
89	c2qguA_	Alignment	not modelled	13.2	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: probable signal peptide protein; PDBTitle: three-dimensional structure of the phospholipid-binding protein from2 ralstonia solanacearum q8xv73_ralsq in complex with a phospholipid at3 the resolution 1.53 a. northeast structural genomics consortium4 target rsr89
90	c3nzwH_	Alignment	not modelled	13.0	19	PDB header: hydrolase/hydrolase inhibitor Chain: H: PDB Molecule: proteasome component pup1; PDBTitle: crystal structure of the yeast 20s proteasome in complex with 2b
91	d1xppa_	Alignment	not modelled	12.9	10	Fold: DCoH-like Superfamily: RBP11-like subunits of RNA polymerase Family: RBP11/RpoL
92	c2kwvA_	Alignment	not modelled	12.6	36	PDB header: protein binding/signaling protein Chain: A: PDB Molecule: dna polymerase iota; PDBTitle: solution structure of ubm1 of murine polymerase iota in complex with2 ubiquitin
93	c3eagA_	Alignment	not modelled	12.6	14	PDB header: ligase Chain: A: PDB Molecule: udp-n-acetylmuramate:l-alanyl-gamma-d-glutamyl-meso- PDBTitle: the crystal structure of udp-n-acetylmuramate:l-alanyl-gamma-d-2 glutamyl-meso-diaminopimelate ligase (mpl) from neisseria3 meningitides
94	d1i36a1	Alignment	not modelled	12.5	16	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: Conserved hypothetical protein MTH1747
95	c3a14B_	Alignment	not modelled	12.1	27	PDB header: oxidoreductase Chain: B: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: crystal structure of dxr from thermotoga maritima, in complex with2 nadph
96	d1w7pd1	Alignment	not modelled	12.1	21	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain
97	d1zsqaz	Alignment	not modelled	12.0	18	Fold: (Phosphotyrosine protein) phosphatases II Superfamily: (Phosphotyrosine protein) phosphatases II Family: Myotubularin-like phosphatases
98	d1seda_	Alignment	not modelled	12.0	9	Fold: Hypothetical protein YhaI Superfamily: Hypothetical protein YhaI Family: Hypothetical protein YhaI
99	c2hx6A_	Alignment	not modelled	11.9	38	PDB header: hydrolase Chain: A: PDB Molecule: ribonuclease; PDBTitle: solution structure analysis of the phage t42 endoribonuclease regb