











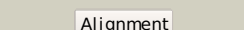
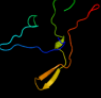

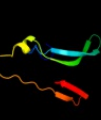





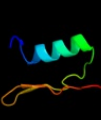








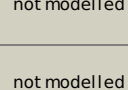


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P33346
Date	Thu Jan 5 11:51:48 GMT 2012
Unique Job ID	5d0884c69ccdca6e

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1uuha_	 Alignment		77.3	14	Fold: C-type lectin-like Superfamily: C-type lectin-like Family: Link domain
2	d2pf5a1	 Alignment		57.4	10	Fold: C-type lectin-like Superfamily: C-type lectin-like Family: Link domain
3	c3u5gB_	 Alignment		41.6	19	PDB header: ribosome Chain: B: PDB Molecule: 40s ribosomal protein s1-a; PDBTitle: the structure of the eukaryotic ribosome at 3.0 a resolution
4	d1oyza_	 Alignment		37.7	16	Fold: alpha-alpha superhelix Superfamily: ARM repeat Family: PBS lyase HEAT-like repeat
5	d2nrac1	 Alignment		36.2	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Replication initiation protein
6	d2awna1	 Alignment		36.1	8	Fold: OB-fold Superfamily: MOP-like Family: ABC-transporter additional domain
7	d1nosa_	 Alignment		35.2	22	Fold: Nitric oxide (NO) synthase oxygenase domain Superfamily: Nitric oxide (NO) synthase oxygenase domain Family: Nitric oxide (NO) synthase oxygenase domain
8	c2xzm4_	 Alignment		34.1	15	PDB header: ribosome Chain: 4: PDB Molecule: 40s ribosomal protein s3a; PDBTitle: crystal structure of the eukaryotic 40s ribosomal2 subunit in complex with initiation factor 1. this file3 contains the 40s subunit and initiation factor for4 molecule 1
9	c1yzxB_	 Alignment		30.6	23	PDB header: transferase Chain: B: PDB Molecule: glutathione s-transferase kappa 1; PDBTitle: crystal structure of human kappa class glutathione2 transferase
10	d1pc6a_	 Alignment		28.7	10	Fold: NinB Superfamily: NinB Family: NinB
11	d1jjcb1	 Alignment		25.9	21	Fold: Putative DNA-binding domain Superfamily: Putative DNA-binding domain Family: Domains B1 and B5 of PheRS-beta, PheT

12	d1xvla1	Alignment		22.5	17	Fold: Chelatase-like Superfamily: "Helical backbone" metal receptor Family: TroA-like
13	c2b0tA_	Alignment		22.4	18	PDB header: oxidoreductase Chain: A: PDB Molecule: nadp isocitrate dehydrogenase; PDBTitle: structure of monomeric nadp isocitrate dehydrogenase
14	d2cyva1	Alignment		22.4	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
15	d1te4a_	Alignment		21.7	12	Fold: alpha-alpha superhelix Superfamily: ARM repeat Family: PBS lyase HEAT-like repeat
16	d1itwa_	Alignment		21.2	18	Fold: Isocitrate/Isopropylmalate dehydrogenase-like Superfamily: Isocitrate/Isopropylmalate dehydrogenase-like Family: Monomeric isocitrate dehydrogenase
17	d2cg4a1	Alignment		21.2	28	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
18	d1vb5a_	Alignment		21.0	16	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: IF2B-like
19	d2b59b2	Alignment		20.2	19	Fold: Prealbumin-like Superfamily: Carboxypeptidase regulatory domain-like Family: Pre-dockerin domain
20	c2dbbA_	Alignment		19.8	17	PDB header: transcriptional regulator Chain: A: PDB Molecule: putative hth-type transcriptional regulator ph0061; PDBTitle: crystal structure of ph0061
21	c3somO_	Alignment	not modelled	19.6	14	PDB header: oxidoreductase Chain: O: PDB Molecule: methylmalonic aciduria and homocystinuria type c protein; PDBTitle: crystal structure of human mmachc
22	d2cfxa1	Alignment	not modelled	19.5	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
23	d1ilga1	Alignment	not modelled	19.0	21	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
24	c3f6wE_	Alignment	not modelled	18.8	23	PDB header: dna binding protein Chain: E: PDB Molecule: xre-family like protein; PDBTitle: xre-family like protein from pseudomonas syringae pv. tomato str.2 dc3000
25	c3gkuB_	Alignment	not modelled	18.2	9	PDB header: rna binding protein Chain: B: PDB Molecule: probable rna-binding protein; PDBTitle: crystal structure of a probable rna-binding protein from clostridium2 symbiosum atcc 14940
26	c1k98A_	Alignment	not modelled	17.5	24	PDB header: transferase Chain: A: PDB Molecule: methionine synthase; PDBTitle: adomet complex of meth c-terminal fragment
27	d1sbqa_	Alignment	not modelled	17.3	8	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: Methenyltetrahydrofolate synthetase
28	c1y9qA_	Alignment	not modelled	17.1	25	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator, hth_3 family; PDBTitle: crystal structure of hth_3 family transcriptional regulator2 from vibrio cholerae
						PDB header: transcription

29	c1l1gA_	Alignment	not modelled	16.6	21	Chain: A: PDB Molecule: transcriptional regulator lrpA; PDBTitle: crystal structure of the lrp-like transcriptional regulator from the 2 archaeon pyrococcus furiosus
30	c2wknE_	Alignment	not modelled	16.5	16	PDB header: hydrolase Chain: E: PDB Molecule: formamidase; PDBTitle: gamma lactamase from delftia acidovorans
31	d1ixsa_	Alignment	not modelled	16.3	35	Fold: RuvA C-terminal domain-like Superfamily: DNA helicase RuvA subunit, C-terminal domain Family: DNA helicase RuvA subunit, C-terminal domain
32	c3mfqB_	Alignment	not modelled	16.0	11	PDB header: metal binding protein Chain: B: PDB Molecule: high-affinity zinc uptake system protein znuA; PDBTitle: a glance into the metal binding specificity of troA: where elaborate behaviors occur in the active center
33	c2e1cA_	Alignment	not modelled	15.9	17	PDB header: transcription/dna Chain: A: PDB Molecule: putative hth-type transcriptional regulator ph1519; PDBTitle: structure of putative hth-type transcriptional regulator ph1519/dna2 complex
34	c2rliA_	Alignment	not modelled	15.8	5	PDB header: metal transport Chain: A: PDB Molecule: sco2 protein homolog, mitochondrial; PDBTitle: solution structure of cu(i) human sco2
35	d2hf3a1	Alignment	not modelled	15.8	21	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Actin/HSP70
36	c2l4aA_	Alignment	not modelled	15.5	17	PDB header: dna binding protein Chain: A: PDB Molecule: leucine responsive regulatory protein; PDBTitle: nmr structure of the dna-binding domain of e.coli lrp
37	d1z67a1	Alignment	not modelled	15.2	9	Fold: YidB-like Superfamily: YidB-like Family: YidB-like
38	d1f1sa2	Alignment	not modelled	15.2	31	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes
39	d1dzka_	Alignment	not modelled	15.1	22	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
40	c1u3fA_	Alignment	not modelled	14.8	9	PDB header: ligase Chain: A: PDB Molecule: 5,10-methenyltetrahydrofolate synthetase; PDBTitle: structural and functional characterization of a 5,10-2 methenyltetrahydrofolate synthetase from mycoplasma3 pneumoniae (gi: 13508087)
41	c3r0eC_	Alignment	not modelled	14.0	15	PDB header: sugar binding protein Chain: C: PDB Molecule: lectin; PDBTitle: structure of remusatia vivipara lectin
42	d1yt3a2	Alignment	not modelled	13.9	27	Fold: SAM domain-like Superfamily: HRDC-like Family: RNase D C-terminal domains
43	d1bj7a_	Alignment	not modelled	13.8	22	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
44	d1a0ia1	Alignment	not modelled	13.8	27	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: DNA ligase/mRNA capping enzyme postcatalytic domain
45	c3hpbA_	Alignment	not modelled	13.2	20	PDB header: protein transport Chain: A: PDB Molecule: snx5 protein; PDBTitle: crystal structure of snx5-px domain in p212121 space group
46	c2rfpA_	Alignment	not modelled	13.2	11	PDB header: hydrolase Chain: A: PDB Molecule: putative ntp pyrophosphohydrolase; PDBTitle: crystal structure of putative ntp pyrophosphohydrolase2 (yp_001813558.1) from exigubacterium sibiricum 255-15 at 1.74 a3 resolution
47	c3fiqA_	Alignment	not modelled	12.9	22	PDB header: transport protein Chain: A: PDB Molecule: odorant-binding protein 1f; PDBTitle: odorant binding protein obp1
48	d2d7va1	Alignment	not modelled	12.6	19	Fold: OsmC-like Superfamily: OsmC-like Family: Ohr/OsmC resistance proteins
49	c2p6tH_	Alignment	not modelled	12.6	24	PDB header: transcription Chain: H: PDB Molecule: transcriptional regulator, lrp/asnc family; PDBTitle: crystal structure of transcriptional regulator nmb0573 and l-leucine2 complex from neisseria meningitidis
50	c3odnA_	Alignment	not modelled	12.2	13	PDB header: membrane protein Chain: A: PDB Molecule: dally-like protein; PDBTitle: the crystal structure of drosophila dally-like protein core domain
51	c3bjxB_	Alignment	not modelled	12.0	26	PDB header: hydrolase Chain: B: PDB Molecule: halocarboxylic acid dehalogenase dehi; PDBTitle: structure of a group i haloacid dehalogenase from pseudomonas putida strain pp3
52	d2phcb1	Alignment	not modelled	11.6	28	Fold: Cyclophilin-like Superfamily: Cyclophilin-like Family: PH0987 C-terminal domain-like
53	c2vbzA_	Alignment	not modelled	11.5	28	PDB header: dna-binding protein Chain: A: PDB Molecule: transcriptional regulatory protein; PDBTitle: feast or famine regulatory protein (rv3291c)from m.2 tuberculosis complexed with l-tryptophan
54	c2r73C_	Alignment	not modelled	11.5	19	PDB header: transport protein Chain: C: PDB Molecule: trichosurin; PDBTitle: crystal structure of the possum milk whey lipocalin2

						trichosurin at ph 8.2
55	d1xkia_	Alignment	not modelled	11.2	43	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
56	c3ongA_	Alignment	not modelled	11.2	15	PDB header: ligase Chain: A: PDB Molecule: ubiquitin-activating enzyme e1-like; PDBTitle: crystal structure of uba2ufd-ubc9: insights into e1-e2 interactions in2 sumo pathways
57	d2a6ca1	Alignment	not modelled	11.1	32	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: NE1354
58	d2f2ea1	Alignment	not modelled	10.9	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: HxIR-like
59	d1jd0a_	Alignment	not modelled	10.8	17	Fold: Carbonic anhydrase Superfamily: Carbonic anhydrase Family: Carbonic anhydrase
60	c2kebA_	Alignment	not modelled	10.8	10	PDB header: dna binding protein Chain: A: PDB Molecule: dna polymerase subunit alpha b; PDBTitle: nmr solution structure of the n-terminal domain of the dna polymerase2 alpha p68 subunit
61	c3op9A_	Alignment	not modelled	10.8	26	PDB header: transcription regulator Chain: A: PDB Molecule: pli0006 protein; PDBTitle: crystal structure of transcriptional regulator from listeria innocua
62	c2cfxD_	Alignment	not modelled	10.8	14	PDB header: transcription Chain: D: PDB Molecule: hth-type transcriptional regulator lrpc; PDBTitle: structure of b.subtilis lrpc
63	d1ufma_	Alignment	not modelled	10.6	0	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: PCI domain (PINT motif)
64	c2e4jA_	Alignment	not modelled	10.6	21	PDB header: isomerase Chain: A: PDB Molecule: prostaglandin-h2 d-isomerase; PDBTitle: solution structure of mouse lipocalin-type prostaglandin d2 synthase
65	c1pbyA_	Alignment	not modelled	10.5	17	PDB header: oxidoreductase Chain: A: PDB Molecule: quinoxemoprotein amine dehydrogenase 60 kda PDBTitle: structure of the phenylhydrazine adduct of the2 quinoxemoprotein amine dehydrogenase from paracoccus3 denitrificans at 1.7 a resolution
66	d1mska_	Alignment	not modelled	10.5	24	Fold: Methionine synthase activation domain-like Superfamily: Methionine synthase activation domain-like Family: Methionine synthase SAM-binding domain
67	c2e7xA_	Alignment	not modelled	10.5	24	PDB header: transcription regulator Chain: A: PDB Molecule: 150aa long hypothetical transcriptional regulator; PDBTitle: structure of the lrp/asnc like transcriptional regulator from2 sulfolobus tokodaii 7 complexed with its cognate ligand
68	d1e5pa_	Alignment	not modelled	10.5	21	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
69	c3ooxA_	Alignment	not modelled	10.5	15	PDB header: oxidoreductase Chain: A: PDB Molecule: putative 2og-fe(ii) oxygenase family protein; PDBTitle: crystal structure of a putative 2og-fe(ii) oxygenase family protein2 (cc_0200) from caulobacter crescentus at 1.44 a resolution
70	d1rp3a1	Alignment	not modelled	10.5	44	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma3 domain
71	c2h43A_	Alignment	not modelled	10.5	23	PDB header: blood clotting Chain: A: PDB Molecule: fibrinogen alpha chain; PDBTitle: crystal structure of human relaxin at 1.5 angstroms. comparison to2 insulin and implications for receptor binding determinants
72	d1soua_	Alignment	not modelled	10.4	17	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: Methenyltetrahydrofolate synthetase
73	c6rlxA_	Alignment	not modelled	10.2	44	PDB header: hormone(muscle relaxant) Chain: A: PDB Molecule: relaxin, a-chain; PDBTitle: x-ray structure of human relaxin at 1.5 angstroms. comparison to2 insulin and implications for receptor binding determinants
74	c6rlxC_	Alignment	not modelled	10.2	44	PDB header: hormone(muscle relaxant) Chain: C: PDB Molecule: relaxin, a-chain; PDBTitle: x-ray structure of human relaxin at 1.5 angstroms. comparison to2 insulin and implications for receptor binding determinants
75	d2o38a1	Alignment	not modelled	10.2	32	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: NE1354
76	c2o38A_	Alignment	not modelled	10.2	32	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: putative xre family transcriptional regulator
77	d1r69a_	Alignment	not modelled	10.2	27	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
78	c2k9qB_	Alignment	not modelled	10.2	43	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: solution nmr structure of hth_xre family transcriptional2 regulator bt_p548217 from bacteroides thetaiotaomicron.3 northeast structural genomics consortium target btr244.
						PDB header: transferase inhibitor

79	c2zp2B_	Alignment	not modelled	10.0	44	Chain: B: PDB Molecule: kinase a inhibitor; PDBTitle: c-terminal domain of kipi from bacillus subtilis
80	c2gqaB_	Alignment	not modelled	10.0	17	PDB header: transcription Chain: B: PDB Molecule: leucine-responsive regulatory protein; PDBTitle: crystal structure of e. coli leucine-responsive regulatory protein2 (lrp)
81	d1sgva1	Alignment	not modelled	10.0	17	Fold: PUA domain-like Superfamily: PUA domain-like Family: PUA domain
82	c3gk6A_	Alignment	not modelled	9.9	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: integron cassette protein vch_cass2; PDBTitle: crystal structure from the mobile metagenome of vibrio cholerae.2 integron cassette protein vch_cass2.
83	c2bnoA_	Alignment	not modelled	9.9	24	PDB header: oxidoreductase Chain: A: PDB Molecule: epoxidase; PDBTitle: the structure of hydroxypropylphosphonic acid epoxidase2 from s. wedmorenisi.
84	d1gm6a_	Alignment	not modelled	9.8	7	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
85	c3qb0C_	Alignment	not modelled	9.8	19	PDB header: structural protein Chain: C: PDB Molecule: actin-related protein 4; PDBTitle: crystal structure of actin-related protein arp4 from s. cerevisiae2 complexed with atp
86	d1oh1a_	Alignment	not modelled	9.8	33	Fold: Streptavidin-like Superfamily: beta-Barrel protease inhibitors Family: Staphostatin
87	c1ocuA_	Alignment	not modelled	9.7	22	PDB header: sorting protein Chain: A: PDB Molecule: sorting nexin; PDBTitle: crystal structure of the yeast px-domain protein grd19p2 (sorting nexin 3) complexed to3 phosphatidylinositol-3-phosaphte.
88	d2o3ia1	Alignment	not modelled	9.7	14	Fold: CV3147-like Superfamily: CV3147-like Family: CV3147-like
89	d1whza_	Alignment	not modelled	9.6	19	Fold: dsRBD-like Superfamily: YcfA/nrd intein domain Family: YcfA-like
90	d1hcba_	Alignment	not modelled	9.5	16	Fold: Carbonic anhydrase Superfamily: Carbonic anhydrase Family: Carbonic anhydrase
91	c1jmxA_	Alignment	not modelled	9.5	15	PDB header: oxidoreductase Chain: A: PDB Molecule: amine dehydrogenase; PDBTitle: crystal structure of a quinoxinoprotein amine dehydrogenase2 from pseudomonas putida
92	c2cseW_	Alignment	not modelled	9.4	20	PDB header: virus Chain: W: PDB Molecule: major core protein lambda 1; PDBTitle: features of reovirus outer-capsid protein mu1 revealed by2 electron and image reconstruction of the virion at 7.0-a3 resolution
93	c3gknA_	Alignment	not modelled	9.4	9	PDB header: oxidoreductase Chain: A: PDB Molecule: bacterioferritin comigratory protein; PDBTitle: insights into the alkyl peroxide reduction activity of xanthomonas2 campestris bacterioferritin comigratory protein from the trapped3 intermediate/ligand complex structures
94	d2fswa1	Alignment	not modelled	9.4	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: HxIR-like
95	d2hy5a1	Alignment	not modelled	9.3	33	Fold: DsrEFH-like Superfamily: DsrEFH-like Family: DsrEF-like
96	c3clcC_	Alignment	not modelled	9.3	22	PDB header: transcription regulator/dna Chain: C: PDB Molecule: regulatory protein; PDBTitle: crystal structure of the restriction-modification controller protein2 c.esp1396i tetramer in complex with its natural 35 base-pair operator
97	c2jz8A_	Alignment	not modelled	9.2	24	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein bh09830; PDBTitle: solution nmr structure of bh09830 from bartonella henselae2 modeled with one zn+2 bound. northeast structural genomics3 consortium target bnr55
98	d1c0fa1	Alignment	not modelled	9.1	29	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Actin/HSP70
99	c3h32A_	Alignment	not modelled	9.1	23	PDB header: blood clotting Chain: A: PDB Molecule: fibrinogen alpha chain; PDBTitle: crystal structure of d-dimer from human fibrin complexed with gly-his-2 arg-pro-tyr-amide