








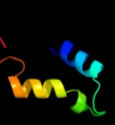




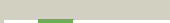


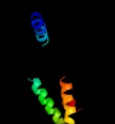








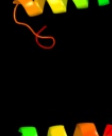



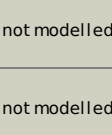


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P77562
Date	Thu Jan 5 12:30:35 GMT 2012
Unique Job ID	5ed76fbabc693a5e

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1qsaa2	 Alignment		93.0	25	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: Bacterial muramidase, catalytic domain
2	c1slyA	 Alignment		82.0	31	PDB header: glycosyltransferase Chain: A: PDB Molecule: 70-kda soluble lytic transglycosylase; PDBTitle: complex of the 70-kda soluble lytic transglycosylase with2 bulgecin a
3	c3ct5A	 Alignment		71.0	23	PDB header: hydrolase Chain: A: PDB Molecule: morphogenesis protein 1; PDBTitle: crystal and cryoem structural studies of a cell wall degrading enzyme2 in the bacteriophage phi29 tail
4	c2y8pA	 Alignment		70.1	11	PDB header: lyase Chain: A: PDB Molecule: endo-type membrane-bound lytic murein transglycosylase a; PDBTitle: crystal structure of an outer membrane-anchored endolytic2 peptidoglycan lytic transglycosylase (mlte) from3 escherichia coli
5	d1gbsa	 Alignment		70.0	11	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: G-type lysozyme
6	c3mgwA	 Alignment		69.0	13	PDB header: hydrolase Chain: A: PDB Molecule: lysozyme g; PDBTitle: thermodynamics and structure of a salmon cold-active goose-type2 lysozyme
7	c3gxkB	 Alignment		65.6	11	PDB header: hydrolase Chain: B: PDB Molecule: goose-type lysozyme 1; PDBTitle: the crystal structure of g-type lysozyme from atlantic cod2 (gadus morhua l.) in complex with nag oligomers sheds new3 light on substrate binding and the catalytic mechanism.4 native structure to 1.9
8	c3csqC	 Alignment		54.9	24	PDB header: hydrolase Chain: C: PDB Molecule: morphogenesis protein 1; PDBTitle: crystal and cryoem structural studies of a cell wall2 degrading enzyme in the bacteriophage phi29 tail
9	d1kyqa2	 Alignment		50.6	21	Fold: Siroheme synthase middle domains-like Superfamily: Siroheme synthase middle domains-like Family: Siroheme synthase middle domains-like
10	d2dt5a1	 Alignment		43.6	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Transcriptional repressor Rex, N-terminal domain
11	c1kyqC	 Alignment		36.9	23	PDB header: oxidoreductase, lyase Chain: C: PDB Molecule: siroheme biosynthesis protein met8; PDBTitle: met8p: a bifunctional nad-dependent dehydrogenase and2 ferrochelatase involved in siroheme synthesis.

12	c1ltkB_	Alignment		35.0	15	PDB header: oxidoreductase Chain: B: PDB Molecule: catalase-peroxidase; PDBTitle: crystal structure of catalase-peroxidase from haloarcula2 marismortui
13	c3bbzA_	Alignment		34.3	32	PDB header: viral protein, replication Chain: A: PDB Molecule: p protein; PDBTitle: structure of the nucleocapsid-binding domain from the mumps2 virus phosphoprotein
14	c2wscL_	Alignment		33.9	24	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem i reaction center subunit xi, PDBTitle: improved model of plant photosystem i
15	d1af7a1	Alignment		30.1	13	Fold: Chemotaxis receptor methyltransferase CheR, N-terminal domain Superfamily: Chemotaxis receptor methyltransferase CheR, N-terminal domain Family: Chemotaxis receptor methyltransferase CheR, N-terminal domain
16	c1ub2A_	Alignment		29.9	38	PDB header: oxidoreductase Chain: A: PDB Molecule: catalase-peroxidase; PDBTitle: crystal structure of catalase-peroxidase from synechococcus pcc 7942
17	d2eyqa6	Alignment		26.4	38	Fold: TRCF domain-like Superfamily: TRCF domain-like Family: TRCF domain
18	c3kxaD_	Alignment		26.3	25	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of ngo0477 from neisseria gonorrhoeae
19	d1tc3c_	Alignment		25.1	28	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Recombinase DNA-binding domain
20	d2evra2	Alignment		24.9	25	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: NIpC/P60
21	d1pdnc_	Alignment	not modelled	24.7	20	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
22	c2dw3A_	Alignment	not modelled	22.6	46	PDB header: photosynthesis Chain: A: PDB Molecule: intrinsic membrane protein pufx; PDBTitle: solution structure of the rhodobacter sphaeroides pufx2 membrane protein
23	c2qsrA_	Alignment	not modelled	22.5	10	PDB header: transcription Chain: A: PDB Molecule: transcription-repair coupling factor; PDBTitle: crystal structure of c-terminal domain of transcription-repair2 coupling factor
24	c2ql2A_	Alignment	not modelled	21.5	27	PDB header: transcription/dna Chain: A: PDB Molecule: transcription factor e2-alpha; PDBTitle: crystal structure of the basic-helix-loop-helix domains of2 the heterodimer e47/neurod1 bound to dna
25	c3h4zC_	Alignment	not modelled	20.8	12	PDB header: allergen Chain: C: PDB Molecule: maltose-binding periplasmic protein fused with allergen PDBTitle: crystal structure of an mbp-der p 7 fusion protein
26	c1n6dE_	Alignment	not modelled	19.8	10	PDB header: hydrolase Chain: E: PDB Molecule: tricorn protease; PDBTitle: tricorn protease in complex with tetrapeptide chloromethyl2 ketone derivative
27	c1k32E_	Alignment	not modelled	19.8	10	PDB header: hydrolase Chain: E: PDB Molecule: tricorn protease; PDBTitle: crystal structure of the tricorn protease
28	c6paxA_	Alignment	not modelled	19.6	17	PDB header: gene regulation/dna Chain: A: PDB Molecule: homeobox protein pax-6; PDBTitle: crystal structure of the human pax-6 paired domain-dna2 complex reveals a general model for pax protein-dna3 interactions
						Fold: alpha/beta knot

29	d2o3aa1	Alignment	not modelled	19.2	19	Superfamily: alpha/beta knot Family: AF0751-like
30	d1a6qa1	Alignment	not modelled	19.1	24	Fold: Another 3-helical bundle Superfamily: Protein serine/threonine phosphatase 2C, C-terminal domain Family: Protein serine/threonine phosphatase 2C, C-terminal domain
31	d1x2ma1	Alignment	not modelled	19.0	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
32	c1ee8A_	Alignment	not modelled	18.6	31	PDB header: dna binding protein Chain: A: PDB Molecule: mutm (fpg) protein; PDBTitle: crystal structure of mutm (fpg) protein from thermus thermophilus hb8
33	c3g9wA_	Alignment	not modelled	17.7	12	PDB header: cell adhesion Chain: A: PDB Molecule: taln-2; PDBTitle: crystal structure of taln2 f2-f3 in complex with the integrin beta1d2 cytoplasmic tail
34	c3dhiA_	Alignment	not modelled	17.1	17	PDB header: oxidoreductase Chain: A: PDB Molecule: toluene 4-monooxygenase hydroxylase alpha subunit; PDBTitle: crystal structure of reduced toluene 4-monooxygenase hydroxylase2 complexed with effector protein
35	d1txga1	Alignment	not modelled	17.0	31	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: Glycerol-3-phosphate dehydrogenase
36	d1rioa_	Alignment	not modelled	16.9	18	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
37	d1ul1x1	Alignment	not modelled	15.5	15	Fold: SAM domain-like Superfamily: 5' to 3' exonuclease, C-terminal subdomain Family: 5' to 3' exonuclease, C-terminal subdomain
38	c2dt5A_	Alignment	not modelled	15.4	19	PDB header: dna binding protein Chain: A: PDB Molecule: at-rich dna-binding protein; PDBTitle: crystal structure of ttha1657 (at-rich dna-binding protein) from2 thermus thermophilus hb8
39	c3ketA_	Alignment	not modelled	15.1	31	PDB header: transcription/dna Chain: A: PDB Molecule: redox-sensing transcriptional repressor rex; PDBTitle: crystal structure of a rex-family transcriptional regulatory protein2 from streptococcus agalactiae bound to a palindromic operator
40	c1go4F_	Alignment	not modelled	13.7	10	PDB header: cell cycle Chain: F: PDB Molecule: mad1 (mitotic arrest deficient)-like 1; PDBTitle: crystal structure of mad1-mad2 reveals a conserved mad22 binding motif in mad1 and cdc20.
41	d2cqxa1	Alignment	not modelled	13.5	21	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
42	d1liib_	Alignment	not modelled	13.3	16	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
43	d1s69a_	Alignment	not modelled	13.1	17	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
44	d1uhsa_	Alignment	not modelled	12.9	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
45	c2di7A_	Alignment	not modelled	12.6	22	PDB header: structural protein Chain: A: PDB Molecule: bk158_1; PDBTitle: solution structure of the filamin domain from human bk158_12 protein
46	c2bmmA_	Alignment	not modelled	12.6	11	PDB header: oxygen storage/transport Chain: A: PDB Molecule: thermostable hemoglobin from thermobifida fusca; PDBTitle: x-ray structure of a novel thermostable hemoglobin from the2 actinobacterium thermobifida fusca
47	c3mmyF_	Alignment	not modelled	12.5	33	PDB header: nuclear protein Chain: F: PDB Molecule: nuclear pore complex protein nup98; PDBTitle: structural and functional analysis of the interaction between the2 nucleoporin nup98 and the mrna export factor rae1
48	c3f6wE_	Alignment	not modelled	11.6	12	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
49	d1vhna_	Alignment	not modelled	11.5	12	Fold: TIM beta/alpha-barrel Superfamily: FMN-linked oxidoreductases Family: FMN-linked oxidoreductases
50	d1s95a_	Alignment	not modelled	11.2	18	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: Protein serine/threonine phosphatase
51	c2k25A_	Alignment	not modelled	10.7	18	PDB header: unknown function Chain: A: PDB Molecule: ubb; PDBTitle: automated nmr structure of the ubb by fapsy
52	d1k32a4	Alignment	not modelled	10.7	16	Fold: ClpP/crotonase Superfamily: ClpP/crotonase Family: Tail specific protease, catalytic domain
53	d1j5ya1	Alignment	not modelled	10.6	25	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Biotin repressor-like
54	c2fxhB_	Alignment	not modelled	10.2	29	PDB header: oxidoreductase Chain: B: PDB Molecule: catalase-peroxidase protein; PDBTitle: crystal structure of katg at ph 6.5

55	c2b2qB_	Alignment	not modelled	10.2	29	PDB header: oxidoreductase Chain: B: PDB Molecule: catalase-peroxidase; PDBTitle: crystal structure of native catalase-peroxidase katg at2 ph7.5
56	c2o01L_	Alignment	not modelled	10.1	24	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem i reaction center subunit xi, PDBTitle: the structure of a plant photosystem i supercomplex at 3.42 angstrom resolution
57	d1lmb3_	Alignment	not modelled	9.7	16	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
58	c1nnjA_	Alignment	not modelled	9.5	29	PDB header: hydrolase Chain: A: PDB Molecule: formamidopyrimidine-dna glycosylase; PDBTitle: crystal structure complex between the lactococcus lactis fpg and an2 abasic site containing dna
59	c2wusR_	Alignment	not modelled	9.3	19	PDB header: structural protein Chain: R: PDB Molecule: putative uncharacterized protein; PDBTitle: bacterial actin mreB assembles in complex with cell shape2 protein rodz
60	d1lkxa_	Alignment	not modelled	9.2	14	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Motor proteins
61	c2k1gA_	Alignment	not modelled	9.1	15	PDB header: lipoprotein Chain: A: PDB Molecule: lipoprotein spr; PDBTitle: solution nmr structure of lipoprotein spr from escherichia coli k12.2 northeast structural genomics target er541-37-162
62	d2ppxa1	Alignment	not modelled	9.0	22	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
63	c2ppxA_	Alignment	not modelled	9.0	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1735; PDBTitle: crystal structure of a hth xre-family like protein from agrobacterium2 tumefaciens
64	d2b5ea2	Alignment	not modelled	8.9	53	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
65	c2kscA_	Alignment	not modelled	8.7	11	PDB header: unknown function Chain: A: PDB Molecule: cyanoglobin; PDBTitle: solution structure of synechococcus sp. pcc 7002 hemoglobin
66	d3c5wc1	Alignment	not modelled	8.4	15	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: Protein serine/threonine phosphatase
67	c1fuiB_	Alignment	not modelled	8.3	18	PDB header: isomerase Chain: B: PDB Molecule: l-fucose isomerase; PDBTitle: l-fucose isomerase from escherichia coli
68	c2jf1A_	Alignment	not modelled	7.7	32	PDB header: cell adhesion Chain: A: PDB Molecule: filamin-a; PDBTitle: crystal structure of the filamin a repeat 21 complexed with2 the integrin beta2 cytoplasmic tail peptide
69	d1l8qa2	Alignment	not modelled	7.7	21	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Extended AAA-ATPase domain
70	d1u04a1	Alignment	not modelled	7.6	55	Fold: SH3-like barrel Superfamily: PAZ domain Family: PAZ domain
71	d1z3eb1	Alignment	not modelled	7.6	19	Fold: SAM domain-like Superfamily: C-terminal domain of RNA polymerase alpha subunit Family: C-terminal domain of RNA polymerase alpha subunit
72	c1th1C_	Alignment	not modelled	7.4	33	PDB header: cell adhesion/antitumor protein Chain: C: PDB Molecule: adenomatous polyposis coli protein; PDBTitle: beta-catenin in complex with a phosphorylated apc 20aa2 repeat fragment
73	d2hi3a1	Alignment	not modelled	7.2	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
74	d2b5aa1	Alignment	not modelled	7.2	18	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
75	d2ccaa2	Alignment	not modelled	7.2	23	Fold: Heme-dependent peroxidases Superfamily: Heme-dependent peroxidases Family: Catalase-peroxidase KatG
76	d2hddb_	Alignment	not modelled	7.2	25	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
77	d1xr4a2	Alignment	not modelled	7.1	17	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: CoA transferase alpha subunit-like
78	c2vt2A_	Alignment	not modelled	6.8	14	PDB header: transcription Chain: A: PDB Molecule: redox-sensing transcriptional repressor rex; PDBTitle: structure and functional properties of the bacillus2 subtilis transcriptional repressor rex
79	c1dlyA_	Alignment	not modelled	6.7	19	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin; PDBTitle: x-ray crystal structure of hemoglobin from the green2 unicellular alga chlamydomonas eugametos
80	d1dlyA_	Alignment	not modelled	6.7	19	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
						PDB header: transcription regulator/dna

81	c3clcC_	Alignment	not modelled	6.6	16	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
82	d2b3na1	Alignment	not modelled	6.6	26	Fold: Thioesterase/thiol ester dehydrase-isomerase Superfamily: Thioesterase/thiol ester dehydrase-isomerase Family: MaoC-like
83	c2ds4A_	Alignment	not modelled	6.3	32	PDB header: protein binding Chain: A: PDB Molecule: tripartite motif protein 45; PDBTitle: solution structure of the filamin domain from human2 tripartite motif protein 45
84	c1htjF_	Alignment	not modelled	6.2	19	PDB header: signaling protein Chain: F: PDB Molecule: kiaa0380; PDBTitle: structure of the rgs-like domain from pdz-rhogef
85	d1htjf_	Alignment	not modelled	6.2	19	Fold: Regulator of G-protein signaling, RGS Superfamily: Regulator of G-protein signaling, RGS Family: Regulator of G-protein signaling, RGS
86	c1t73B_	Alignment	not modelled	6.2	100	PDB header: hormone/growth factor receptor Chain: B: PDB Molecule: fxxff motif peptide; PDBTitle: crystal structure of the androgen receptor ligand binding2 domain in complex with a fxxff motif
87	d1rfya_	Alignment	not modelled	6.1	29	Fold: Long alpha-hairpin Superfamily: Transcriptional repressor TraM Family: Transcriptional repressor TraM
88	d1cooa_	Alignment	not modelled	6.1	24	Fold: SAM domain-like Superfamily: C-terminal domain of RNA polymerase alpha subunit Family: C-terminal domain of RNA polymerase alpha subunit
89	d1ub2a1	Alignment	not modelled	6.1	30	Fold: Heme-dependent peroxidases Superfamily: Heme-dependent peroxidases Family: Catalase-peroxidase KatG
90	c2jxuA_	Alignment	not modelled	6.0	19	PDB header: unknown function Chain: A: PDB Molecule: terb; PDBTitle: nmr solution structure of kp-terb, a tellurite resistance2 protein from klebsiella pneumoniae
91	c3s93B_	Alignment	not modelled	6.0	24	PDB header: transcription Chain: B: PDB Molecule: tudor domain-containing protein 5; PDBTitle: crystal structure of conserved motif in tdrd5
92	d1lb2b_	Alignment	not modelled	5.9	24	Fold: SAM domain-like Superfamily: C-terminal domain of RNA polymerase alpha subunit Family: C-terminal domain of RNA polymerase alpha subunit
93	d2di8a1	Alignment	not modelled	5.8	36	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Filamin repeat (rod domain)
94	d1ygea1	Alignment	not modelled	5.8	13	Fold: Phosphorylase/hydrolase-like Superfamily: AF0625-like Family: AF0625-like
95	d1xnya1	Alignment	not modelled	5.7	25	Fold: ClpP/crotonase Superfamily: ClpP/crotonase Family: Biotin dependent carboxylase carboxyltransferase domain
96	d2ozbb1	Alignment	not modelled	5.6	13	Fold: Nop domain Superfamily: Nop domain Family: Nop domain
97	c1wao4_	Alignment	not modelled	5.6	19	PDB header: hydrolase Chain: 4: PDB Molecule: serine/threonine protein phosphatase 5; PDBTitle: pp5 structure
98	d1k8rb_	Alignment	not modelled	5.6	15	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ras-binding domain, RBD
99	d1biaa1	Alignment	not modelled	5.6	25	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Biotin repressor-like