

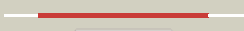



















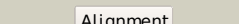






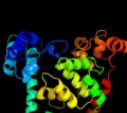













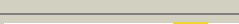


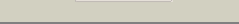




Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P00914
Date	Thu Jan 5 10:57:10 GMT 2012
Unique Job ID	ded564fc314165d0

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1dnpA_	 Alignment		100.0	100	PDB header: lyase (carbon-carbon) Chain: A: PDB Molecule: dna photolyase; PDBTitle: structure of deoxyribodipyrimidine photolyase
2	c3fy4C_	 Alignment		100.0	27	PDB header: lyase Chain: C: PDB Molecule: 6-4 photolyase; PDBTitle: (6-4) photolyase crystal structure
3	c1u3cA_	 Alignment		100.0	29	PDB header: signaling protein Chain: A: PDB Molecule: cryptochrome 1 apoprotein; PDBTitle: crystal structure of the phr domain of cryptochrome 1 from2 arabidopsis thaliana
4	c3cvyA_	 Alignment		100.0	28	PDB header: lyase/dna Chain: A: PDB Molecule: re11660p; PDBTitle: drosophila melanogaster (6-4) photolyase bound to repaired2 ds dna
5	c1tezB_	 Alignment		100.0	37	PDB header: lyase/dna Chain: B: PDB Molecule: deoxyribodipyrimidine photolyase; PDBTitle: complex between dna and the dna photolyase from anacystis nidulans
6	c1np7A_	 Alignment		100.0	30	PDB header: lyase Chain: A: PDB Molecule: dna photolyase; PDBTitle: crystal structure analysis of synechocystis sp. pcc6803 cryptochrome
7	c3tvsA_	 Alignment		100.0	24	PDB header: signaling protein Chain: A: PDB Molecule: cryptochrome-1; PDBTitle: structure of full-length drosophila cryptochrome
8	c2j4dA_	 Alignment		100.0	26	PDB header: dna-binding protein Chain: A: PDB Molecule: cryptochrome dash; PDBTitle: cryptochrome 3 from arabidopsis thaliana
9	c2e0iD_	 Alignment		100.0	34	PDB header: lyase Chain: D: PDB Molecule: 432aa long hypothetical deoxyribodipyrimidine photolyase; PDBTitle: crystal structure of archaeal photolyase from sulfolobus tokodaii with2 two fad molecules: implication of a novel light-harvesting cofactor
10	c1iqrA_	 Alignment		100.0	36	PDB header: lyase Chain: A: PDB Molecule: photolyase; PDBTitle: crystal structure of dna photolyase from thermus2 thermophilus
11	c2xrzA_	 Alignment		100.0	22	PDB header: lyase/dna Chain: A: PDB Molecule: deoxyribodipyrimidine photolyase; PDBTitle: x-ray structure of archaeal class ii cpd photolyase from2 methanosarcina maei in complex with intact cpd-lesion

12	c3umvB_		Alignment		100.0	21	PDB header: lyase Chain: B: PDB Molecule: deoxyribodipyrimidine photo-lyase; PDBTitle: eukaryotic class ii cpd photolyase structure reveals a basis for2 improved uv-tolerance in plants
13	d1dnpa1		Alignment		100.0	100	Fold: Cryptochrome/photolyase FAD-binding domain Superfamily: Cryptochrome/photolyase FAD-binding domain Family: Cryptochrome/photolyase FAD-binding domain
14	d1u3da1		Alignment		100.0	33	Fold: Cryptochrome/photolyase FAD-binding domain Superfamily: Cryptochrome/photolyase FAD-binding domain Family: Cryptochrome/photolyase FAD-binding domain
15	d1owla1		Alignment		100.0	48	Fold: Cryptochrome/photolyase FAD-binding domain Superfamily: Cryptochrome/photolyase FAD-binding domain Family: Cryptochrome/photolyase FAD-binding domain
16	d1np7a1		Alignment		100.0	34	Fold: Cryptochrome/photolyase FAD-binding domain Superfamily: Cryptochrome/photolyase FAD-binding domain Family: Cryptochrome/photolyase FAD-binding domain
17	d2j07a1		Alignment		100.0	45	Fold: Cryptochrome/photolyase FAD-binding domain Superfamily: Cryptochrome/photolyase FAD-binding domain Family: Cryptochrome/photolyase FAD-binding domain
18	d1dnpa2		Alignment		100.0	100	Fold: Cryptochrome/photolyase, N-terminal domain Superfamily: Cryptochrome/photolyase, N-terminal domain Family: Cryptochrome/photolyase, N-terminal domain
19	d1owla2		Alignment		100.0	23	Fold: Cryptochrome/photolyase, N-terminal domain Superfamily: Cryptochrome/photolyase, N-terminal domain Family: Cryptochrome/photolyase, N-terminal domain
20	d1u3da2		Alignment		100.0	24	Fold: Cryptochrome/photolyase, N-terminal domain Superfamily: Cryptochrome/photolyase, N-terminal domain Family: Cryptochrome/photolyase, N-terminal domain
21	d1np7a2		Alignment	not modelled	100.0	23	Fold: Cryptochrome/photolyase, N-terminal domain Superfamily: Cryptochrome/photolyase, N-terminal domain Family: Cryptochrome/photolyase, N-terminal domain
22	d2j07a2		Alignment	not modelled	100.0	26	Fold: Cryptochrome/photolyase, N-terminal domain Superfamily: Cryptochrome/photolyase, N-terminal domain Family: Cryptochrome/photolyase, N-terminal domain
23	c2gvsA_		Alignment	not modelled	75.2	15	PDB header: lipid binding protein Chain: A: PDB Molecule: chemosensory protein csp-sg4; PDBTitle: nmr solution structure of cspsg4
24	d1n8va_		Alignment	not modelled	72.0	17	Fold: alpha-alpha superhelix Superfamily: Chemosensory protein Csp2 Family: Chemosensory protein Csp2
25	d1kx9b_		Alignment	not modelled	68.0	17	Fold: alpha-alpha superhelix Superfamily: Chemosensory protein Csp2 Family: Chemosensory protein Csp2
26	c1ul1Y_		Alignment	not modelled	67.8	10	PDB header: hydrolase/dna binding protein Chain: Y: PDB Molecule: flap endonuclease-1; PDBTitle: crystal structure of the human fen1-pcna complex
27	c3obkH_		Alignment	not modelled	49.4	18	PDB header: lyase Chain: H: PDB Molecule: delta-aminolevulinic acid dehydratase; PDBTitle: crystal structure of delta-aminolevulinic acid dehydratase2 (porphobilinogen synthase) from toxoplasma gondii me49 in complex3 with the reaction product porphobilinogen
28	d1ul1x2		Alignment	not modelled	32.6	14	Fold: PIN domain-like Superfamily: PIN domain-like Family: 5' to 3' exonuclease catalytic domain
							PDB header: transferase

29	c3lgbB_	Alignment	not modelled	30.6	12	Chain: B: PDB Molecule: dna primase large subunit; PDBTitle: crystal structure of the fe-s domain of the yeast dna primase
30	c2l06A_	Alignment	not modelled	29.3	19	PDB header: protein binding Chain: A: PDB Molecule: phycobilisome lcm core-membrane linker polypeptide; PDBTitle: solution nmr structure of the pbs linker polypeptide domain (fragment 2 254-400) of phycobilisome linker protein apce from synechocystis sp.3 pcc 6803. northeast structural genomics consortium target sgr209c
31	c3oryA_	Alignment	not modelled	27.2	11	PDB header: hydrolase Chain: A: PDB Molecule: flap endonuclease 1; PDBTitle: crystal structure of flap endonuclease 1 from hyperthermophilic2 archaeon desulfurococcus amylolyticus
32	c2pbyB_	Alignment	not modelled	25.9	12	PDB header: hydrolase Chain: B: PDB Molecule: glutaminase; PDBTitle: probable glutaminase from geobacillus kaustophilus hta426
33	d1l6sa_	Alignment	not modelled	24.2	17	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinate dehydratase, ALAD (porphobilinogen synthase)
34	c2pfsA_	Alignment	not modelled	23.1	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: universal stress protein; PDBTitle: crystal structure of universal stress protein from nitrosomonas2 europaea
35	c2l3wA_	Alignment	not modelled	22.8	17	PDB header: photosynthesis Chain: A: PDB Molecule: phycobilisome rod linker polypeptide; PDBTitle: solution nmr structure of the pbs linker domain of phycobilisome rod2 linker polypeptide from synechococcus elongatus, northeast structural3 genomics consortium target snr168a
36	d1u7ia_	Alignment	not modelled	22.5	13	Fold: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Superfamily: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Family: 3-demethylubiquinone-9-3-methyltransferase
37	c1a77A_	Alignment	not modelled	21.3	13	PDB header: 5'-3' exo/endo nuclease Chain: A: PDB Molecule: flap endonuclease-1 protein; PDBTitle: flap endonuclease-1 from methanococcus jannaschii
38	d2d13a1	Alignment	not modelled	20.0	20	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
39	c3mwdA_	Alignment	not modelled	19.9	13	PDB header: transferase Chain: A: PDB Molecule: atp-citrate synthase; PDBTitle: truncated human atp-citrate lyase with citrate bound
40	c2ky4A_	Alignment	not modelled	19.9	13	PDB header: photosynthesis Chain: A: PDB Molecule: phycobilisome linker polypeptide; PDBTitle: solution nmr structure of the pbs linker domain of phycobilisome2 linker polypeptide from anabaena sp. northeast structural genomics3 consortium target nsr123e
41	d1gzga_	Alignment	not modelled	19.3	17	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinate dehydratase, ALAD (porphobilinogen synthase)
42	c3odhB_	Alignment	not modelled	17.9	47	PDB header: hydrolase/dna Chain: B: PDB Molecule: okrai endonuclease; PDBTitle: structure of okrai/dna complex
43	d1k8kd2	Alignment	not modelled	17.8	40	Fold: Secretion chaperone-like Superfamily: Arp2/3 complex subunits Family: Arp2/3 complex subunits
44	c2z86D_	Alignment	not modelled	17.4	12	PDB header: transferase Chain: D: PDB Molecule: chondroitin synthase; PDBTitle: crystal structure of chondroitin polymerase from2 escherichia coli strain k4 (k4cp) complexed with udp-glucua3 and udp
45	c2izoA_	Alignment	not modelled	16.7	13	PDB header: hydrolase Chain: A: PDB Molecule: flap structure-specific endonuclease; PDBTitle: structure of an archaeal pcna1-pcna2-fen1 complex
46	c2p9lD_	Alignment	not modelled	16.4	40	PDB header: structural protein Chain: D: PDB Molecule: actin-related protein 2/3 complex subunit 2; PDBTitle: crystal structure of bovine arp2/3 complex
47	d1b43a2	Alignment	not modelled	15.1	16	Fold: PIN domain-like Superfamily: PIN domain-like Family: 5' to 3' exonuclease catalytic domain
48	d1zela1	Alignment	not modelled	14.3	46	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Rv2827c N-terminal domain-like
49	c3dwlI_	Alignment	not modelled	14.2	40	PDB header: structural protein Chain: I: PDB Molecule: actin-related protein 2/3 complex subunit 2; PDBTitle: crystal structure of fission yeast arp2/3 complex lacking the arp22 subunit
50	d2bdua1	Alignment	not modelled	14.1	16	Fold: HAD-like Superfamily: HAD-like Family: Pyrimidine 5'-nucleotidase (UMPH-1)
51	d2fsqa1	Alignment	not modelled	13.2	32	Fold: LigT-like Superfamily: LigT-like Family: Atu0111-like
52	d2b8ea1	Alignment	not modelled	13.1	14	Fold: HAD-like Superfamily: HAD-like Family: Meta-cation ATPase, catalytic domain P
53	d2vkqa1	Alignment	not modelled	11.4	13	Fold: HAD-like Superfamily: HAD-like

						Family: Pyrimidine 5'-nucleotidase (UMPH-1)
54	c2qqcC_	Alignment	not modelled	11.3	13	PDB header: lyase Chain: C: PDB Molecule: pyruvoyl-dependent arginine decarboxylase (ec PDBTitle: e109q mutant of pyruvoyl-dependent arginine decarboxylase2 from methanococcus jannashii
55	c1b43A_	Alignment	not modelled	10.0	13	PDB header: transferase Chain: A: PDB Molecule: protein (fen-1); PDBTitle: fen-1 from p. furiosus
56	d1nyna_	Alignment	not modelled	9.2	0	Fold: FYSH domain Superfamily: FYSH domain Family: Hypothetical protein Yhr087W
57	c3ew8A_	Alignment	not modelled	9.1	16	PDB header: hydrolase Chain: A: PDB Molecule: histone deacetylase 8; PDBTitle: crystal structure analysis of human hdac8 d101l variant
58	d1t64a_	Alignment	not modelled	9.0	16	Fold: Arginase/deacetylase Superfamily: Arginase/deacetylase Family: Histone deacetylase, HDAC
59	d1sgma1	Alignment	not modelled	9.0	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
60	d1pv8a_	Alignment	not modelled	8.4	13	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinic dehydratase, ALAD (porphobilinogen synthase)
61	d2ipqx1	Alignment	not modelled	8.2	6	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: STY4665 C-terminal domain-like
62	d2vkva1	Alignment	not modelled	8.1	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
63	d1evsa_	Alignment	not modelled	8.0	17	Fold: 4-helical cytokines Superfamily: 4-helical cytokines Family: Long-chain cytokines
64	d1ru8a_	Alignment	not modelled	7.7	22	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
65	d1b74a2	Alignment	not modelled	7.5	25	Fold: ATC-like Superfamily: Aspartate/glutamate racemase Family: Aspartate/glutamate racemase
66	d2dy1a3	Alignment	not modelled	7.2	27	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Translational machinery components
67	d2bv3a3	Alignment	not modelled	7.1	50	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Translational machinery components
68	d2o7ta1	Alignment	not modelled	6.8	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
69	c3l9qB_	Alignment	not modelled	6.7	21	PDB header: transferase Chain: B: PDB Molecule: dna primase large subunit; PDBTitle: crystal structure of human polymerase alpha-primase p58 iron-sulfur2 cluster domain
70	c1p4eB_	Alignment	not modelled	6.5	30	PDB header: dna binding protein/recombination/dna Chain: B: PDB Molecule: recombinase flp protein; PDBTitle: flpe w330f mutant-dna holliday junction complex
71	c3q8lA_	Alignment	not modelled	6.2	20	PDB header: hydrolase/dna Chain: A: PDB Molecule: flap endonuclease 1; PDBTitle: crystal structure of human flap endonuclease fen1 (wt) in complex with2 substrate 5'-flap dna, sm3+, and k+
72	c2lmdA_	Alignment	not modelled	6.2	22	PDB header: transcription Chain: A: PDB Molecule: prospero homeobox protein 1; PDBTitle: minimal constraints solution nmr structure of prospero homeobox2 protein 1 from homo sapiens, northeast structural genomics consortium3 target hr4660b
73	c2ld7A_	Alignment	not modelled	6.1	28	PDB header: transcription Chain: A: PDB Molecule: histone deacetylase complex subunit sap30; PDBTitle: solution structure of the msin3a pah3-sap30 sid complex
74	d1g8fa3	Alignment	not modelled	6.1	10	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: ATP sulfurylase C-terminal domain
75	c1rxvA_	Alignment	not modelled	5.8	11	PDB header: hydrolase/dna Chain: A: PDB Molecule: flap structure-specific endonuclease; PDBTitle: crystal structure of a. fulgidus fen-1 bound to dna
76	c3lklB_	Alignment	not modelled	5.5	15	PDB header: transport protein Chain: B: PDB Molecule: antisigma-factor antagonist stas; PDBTitle: crystal structure of the c-terminal domain of anti-sigma factor2 antagonist stas from rhodobacter sphaeroides
77	d2i10a1	Alignment	not modelled	5.5	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
78	c3dloC_	Alignment	not modelled	5.2	8	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: universal stress protein; PDBTitle: structure of universal stress protein from archaeoglobus fulgidus
79	c3j09A_	Alignment	not modelled	5.1	13	PDB header: hydrolase, metal transport Chain: A: PDB Molecule: copper-exporting p-type atpase a; PDBTitle: high resolution helical reconstruction of the bacterial p-type atpase2 copper transporter copa