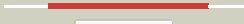



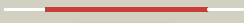












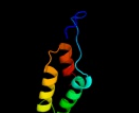




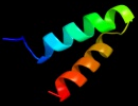










Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P39163
Date	Thu Jan 5 11:58:18 GMT 2012
Unique Job ID	a344c022454339fd

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2rbhA_	 Alignment		99.9	16	PDB header: transferase Chain: A; PDB Molecule: gamma-glutamyl cyclotransferase; PDBTitle: gamma-glutamyl cyclotransferase
2	c2qiqA_	 Alignment		99.7	24	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: upf0131 protein ykqa; PDBTitle: crystal structure of ykqa from bacillus subtilis. northeast2 structural genomics target sr631
3	c2g0qA_	 Alignment		98.9	18	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: at5g39720.1 protein; PDBTitle: solution structure of at5g39720.1 from arabidopsis thaliana
4	c2jqvA_	 Alignment		98.6	16	PDB header: structural genomics Chain: A; PDB Molecule: aig2 protein-like; PDBTitle: solution structure at3g28950.1 from arabidopsis thaliana
5	d1xhsa_	 Alignment		98.5	19	Fold: Gamma-glutamyl cyclotransferase-like Superfamily: Gamma-glutamyl cyclotransferase-like Family: Gamma-glutamyl cyclotransferase-like
6	c3jubA_	 Alignment		98.2	20	PDB header: transferase Chain: A; PDB Molecule: aig2-like domain-containing protein 1; PDBTitle: human gamma-glutamylamine cyclotransferase
7	d1vkba_	 Alignment		98.1	23	Fold: Gamma-glutamyl cyclotransferase-like Superfamily: Gamma-glutamyl cyclotransferase-like Family: Gamma-glutamyl cyclotransferase-like
8	d1v30a_	 Alignment		97.3	19	Fold: Gamma-glutamyl cyclotransferase-like Superfamily: Gamma-glutamyl cyclotransferase-like Family: Gamma-glutamyl cyclotransferase-like
9	c2x8qA_	 Alignment		55.1	10	PDB header: virus Chain: A; PDB Molecule: capsid protein p27; PDBTitle: cryo-em 3d model of the icosahedral particle2 composed of rous sarcoma virus capsid protein pentamers
10	d1em9a_	 Alignment		54.9	10	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
11	c2kgfA_	 Alignment		47.3	16	PDB header: viral protein Chain: A; PDB Molecule: capsid protein p27; PDBTitle: n-terminal domain of capsid protein from the mason-pfizer2 monkey virus

12	c2c2zB_	Alignment		44.8	21	PDB header: hydrolase/hydrolase inhibitor Chain: B: PDB Molecule: caspase-8 p10 subunit; PDBTitle: crystal structure of caspase-8 in complex with aza-peptide michael2 acceptor inhibitor
13	c3edyA_	Alignment		36.5	24	PDB header: hydrolase Chain: A: PDB Molecule: tripeptidyl-peptidase 1; PDBTitle: crystal structure of the precursor form of human tripeptidyl-peptidase 1
14	d1p7na_	Alignment		35.6	11	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
15	c3ee6A_	Alignment		35.4	24	PDB header: hydrolase Chain: A: PDB Molecule: tripeptidyl-peptidase 1; PDBTitle: crystal structure analysis of tripeptidyl peptidase -i
16	c3m66A_	Alignment		34.5	7	PDB header: transcription Chain: A: PDB Molecule: mterf domain-containing protein 1, mitochondrial; PDBTitle: crystal structure of human mitochondrial transcription termination2 factor 3
17	d1bdsa_	Alignment		33.9	35	Fold: Defensin-like Superfamily: Defensin-like Family: Defensin
18	d1gk8i_	Alignment		28.4	21	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
19	d1d1da2	Alignment		26.5	10	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
20	d2cvea2	Alignment		24.4	24	Fold: Ferredoxin-like Superfamily: EF-G C-terminal domain-like Family: YigZ C-terminal domain-like
21	d2plga1	Alignment	not modelled	22.5	44	Fold: Secretion chaperone-like Superfamily: Type III secretory system chaperone-like Family: TII0839-like
22	d1mpga1	Alignment	not modelled	22.2	21	Fold: DNA-glycosylase Superfamily: DNA-glycosylase Family: DNA repair glycosylase, 2 C-terminal domains
23	d1fp2a1	Alignment	not modelled	22.1	10	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Plant O-methyltransferase, N-terminal domain
24	d1wdds_	Alignment	not modelled	21.7	21	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
25	c2v4xA_	Alignment	not modelled	21.5	8	PDB header: viral protein Chain: A: PDB Molecule: capsid protein p27; PDBTitle: crystal structure of jaagsiekte sheep retrovirus capsid n-2 terminal domain
26	d2v6ai1	Alignment	not modelled	20.6	21	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
27	c2dwuA_	Alignment	not modelled	20.1	16	PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of glutamate racemase isoform race1 from bacillus2 anthracis
28	d1no5a_	Alignment	not modelled	20.1	25	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
29	d8rucj_	Alignment	not modelled	19.1	21	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit

						Family: RuBisCO, small subunit
30	c2jfoB_	Alignment	not modelled	19.0	16	PDB header: isomerase Chain: B: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of enterococcus faecalis glutamate2 racemase in complex with d- and l-glutamate
31	d1uzdc1	Alignment	not modelled	18.7	21	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
32	c1mpgB_	Alignment	not modelled	18.4	21	PDB header: hydrolase Chain: B: PDB Molecule: 3-methyladenine dna glycosylase ii; PDBTitle: 3-methyladenine dna glycosylase ii from escherichia coli
33	d1ej7s_	Alignment	not modelled	18.2	21	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
34	c2qljB_	Alignment	not modelled	17.6	23	PDB header: hydrolase/hydrolase inhibitor Chain: B: PDB Molecule: caspase-7; PDBTitle: crystal structure of caspase-7 with inhibitor ac-wehd-cho
35	c3c7bA_	Alignment	not modelled	17.0	23	PDB header: oxidoreductase Chain: A: PDB Molecule: sulfite reductase, dissimilatory-type subunit alpha; PDBTitle: structure of the dissimilatory sulfite reductase from archaeoglobus2 fulgidus
36	d1tlea2	Alignment	not modelled	16.3	10	Fold: Ferredoxin-like Superfamily: Protease propeptides/inhibitors Family: Subtilase propeptides/inhibitors
37	d1mm0a_	Alignment	not modelled	15.9	56	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Scorpion toxin-like Family: Insect defensins
38	c1b74A_	Alignment	not modelled	15.6	24	PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: glutamate racemase from aquifex pyrophilus
39	c3lehA_	Alignment	not modelled	15.4	32	PDB header: transferase Chain: A: PDB Molecule: putative hydroxymethyl glutaryl-coa synthase; PDBTitle: the crystal structure of smu.943c from streptococcus mutans ua159
40	d1p17b_	Alignment	not modelled	15.0	33	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
41	c3hfrA_	Alignment	not modelled	14.9	14	PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of glutamate racemase from listeria monocytogenes
42	c1kmcB_	Alignment	not modelled	14.6	23	PDB header: apoptosis/hydrolase Chain: B: PDB Molecule: caspase-7; PDBTitle: crystal structure of the caspase-7 / xiap-bir2 complex
43	c3degC_	Alignment	not modelled	14.5	16	PDB header: ribosome Chain: C: PDB Molecule: gtp-binding protein lepa; PDBTitle: complex of elongating escherichia coli 70s ribosome and ef4(lepa)-2 gmpnp
44	d1ucva_	Alignment	not modelled	14.2	13	Fold: SAM domain-like Superfamily: SAM/Pointed domain Family: SAM (sterile alpha motif) domain
45	c3nwuB_	Alignment	not modelled	14.1	16	PDB header: hydrolase Chain: B: PDB Molecule: serine protease htra1; PDBTitle: substrate induced remodeling of the active site regulates htra12 activity
46	d1pzma_	Alignment	not modelled	14.1	33	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
47	c2p2cD_	Alignment	not modelled	14.0	24	PDB header: hydrolase Chain: D: PDB Molecule: caspase-2; PDBTitle: inhibition of caspase-2 by a designed ankyrin repeat2 protein (darpin)
48	d2ibna1	Alignment	not modelled	13.9	29	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: MioX-like
49	c2ohoA_	Alignment	not modelled	13.8	27	PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: structural basis for glutamate racemase inhibitor
50	c3kopB_	Alignment	not modelled	13.3	23	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of protein with a cyclophilin-like fold2 (yp_831253.1) from arthrobacter sp. fb24 at 1.90 a resolution
51	d1tc1a_	Alignment	not modelled	13.3	33	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
52	c3d0wD_	Alignment	not modelled	13.3	24	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: yflh protein; PDBTitle: crystal structure of yflh protein from bacillus subtilis.2 northeast structural genomics consortium target sr326
53	d1riqa1	Alignment	not modelled	12.8	21	Fold: Putative anticodon-binding domain of alanyl-tRNA synthetase (AlaRS) Superfamily: Putative anticodon-binding domain of alanyl-tRNA synthetase (AlaRS) Family: Putative anticodon-binding domain of alanyl-tRNA synthetase (AlaRS)
54	c2ywtA_	Alignment	not modelled	12.2	33	PDB header: transferase Chain: A: PDB Molecule: hypoxanthine-guanine phosphoribosyltransferase; PDBTitle: crystal structure of hypoxanthine-guanine2 phosphoribosyltransferase with gmp from thermus3 thermophilus hb8

55	c3my3A_	Alignment	not modelled	12.1	4	PDB header: transcription Chain: A: PDB Molecule: nterfer domain-containing protein 1, mitochondrial; PDBTitle: crystal structure of human mitochondrial transcription termination2 factor 3
56	d1y88a1	Alignment	not modelled	11.8	14	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: Hypothetical protein AF1548, C-terminal domain
57	d2qf3a1	Alignment	not modelled	11.6	13	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Prokaryotic proteases
58	c2v4wB_	Alignment	not modelled	11.5	32	PDB header: transferase Chain: B: PDB Molecule: hydroxymethylglutaryl-coa synthase, PDBTitle: crystal structure of human mitochondrial 3-hydroxy-3-2 methylglutaryl-coenzyme a synthase 2 (hmgcs2)
59	c3n6sA_	Alignment	not modelled	11.4	14	PDB header: transcription, replication/dna Chain: A: PDB Molecule: transcription termination factor, mitochondrial; PDBTitle: crystal structure of human mitochondrial mterfer in complex with a 15-2 mer dna encompassing the trnaleu(uur) binding sequence
60	c3kb8A_	Alignment	not modelled	10.9	33	PDB header: transferase Chain: A: PDB Molecule: hypoxanthine phosphoribosyltransferase; PDBTitle: 2.09 angstrom resolution structure of a hypoxanthine-guanine2 phosphoribosyltransferase (hpt-1) from bacillus anthracis str. 'ames3 ancestor' in complex with gmp
61	c1ru7B_	Alignment	not modelled	10.8	28	PDB header: viral protein Chain: B: PDB Molecule: hemagglutinin; PDBTitle: 1934 human h1 hemagglutinin
62	c2c1eB_	Alignment	not modelled	10.8	17	PDB header: hydrolase/hydrolase inhibitor Chain: B: PDB Molecule: caspase-3 subunit p12; PDBTitle: crystal structures of caspase-3 in complex with aza-peptide michael2 acceptor inhibitors.
63	d1g9sa_	Alignment	not modelled	10.8	33	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
64	c2dl0A_	Alignment	not modelled	10.7	16	PDB header: signaling protein Chain: A: PDB Molecule: sam and sh3 domain-containing protein 1; PDBTitle: solution structure of the sam-domain of the sam and sh32 domain containing protein 1
65	c1x9eB_	Alignment	not modelled	10.6	27	PDB header: lyase Chain: B: PDB Molecule: hmg-coa synthase; PDBTitle: crystal structure of hmg-coa synthase from enterococcus2 faecalis
66	c2jfbB_	Alignment	not modelled	10.5	16	PDB header: isomerase Chain: B: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of helicobacter pylori glutamate racemase2 in complex with d-glutamate and an inhibitor
67	c3bt6B_	Alignment	not modelled	10.4	25	PDB header: viral protein Chain: B: PDB Molecule: influenza b hemagglutinin (ha); PDBTitle: crystal structure of influenza b virus hemagglutinin
68	c3o7mD_	Alignment	not modelled	10.4	50	PDB header: transferase Chain: D: PDB Molecule: hypoxanthine phosphoribosyltransferase; PDBTitle: 1.98 angstrom resolution crystal structure of a hypoxanthine-guanine2 phosphoribosyltransferase (hpt-2) from bacillus anthracis str. 'ames3 ancestor'
69	c2h51B_	Alignment	not modelled	10.3	6	PDB header: hydrolase/hydrolase inhibitor Chain: B: PDB Molecule: caspase-1; PDBTitle: crystal structure of human caspase-1 (glu390->asp and arg286->lys) in2 complex with 3-[2-(2-benzyloxycarbonylamino-3-methyl-butrylamino)-3 propionylamino]-4-oxo-pentanoic acid (z-vad-fmk)
70	c2gzmbB_	Alignment	not modelled	10.0	16	PDB header: isomerase Chain: B: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of the glutamate racemase from bacillus2 anthracis
71	c3outC_	Alignment	not modelled	9.9	19	PDB header: isomerase Chain: C: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of glutamate racemase from francisella tularensis2 subsp. tularensis schu s4 in complex with d-glutamate.
72	d1fp1d1	Alignment	not modelled	9.7	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Plant O-methyltransferase, N-terminal domain
73	d1pgw21	Alignment	not modelled	9.6	40	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP
74	d1pgl21	Alignment	not modelled	9.5	40	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP
75	d1ny721	Alignment	not modelled	9.5	40	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP
76	c2jhbA_	Alignment	not modelled	9.3	22	PDB header: transferase Chain: A: PDB Molecule: phosphoribosyltransferase domain-containing protein 1; PDBTitle: human phosphoribosyl transferase domain containing 1
77	d1hgxa_	Alignment	not modelled	9.3	50	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
78	d1ccwa_	Alignment	not modelled	9.2	10	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
						PDB header: viral protein

79	c2wrhl_	Alignment	not modelled	9.2	28	Chain: I: PDB Molecule: hemagglutinin ha2 chain; PDBTitle: structure of h1 duck albert hemagglutinin with human2 receptor
80	c1hgeD_	Alignment	not modelled	9.1	22	PDB header: viral protein Chain: D: PDB Molecule: hemagglutinin, (g135r), ha1 chain; PDBTitle: binding of influenza virus hemagglutinin to analogs of its cell-2 surface receptor, sialic acid: analysis by proton nuclear magnetic3 resonance spectroscopy and x-ray crystallography
81	c3s5oA_	Alignment	not modelled	9.1	12	PDB header: lyase Chain: A: PDB Molecule: 4-hydroxy-2-oxoglutarate aldolase, mitochondrial; PDBTitle: crystal structure of human 4-hydroxy-2-oxoglutarate aldolase bound to2 pyruvate
82	c3m5gD_	Alignment	not modelled	9.1	28	PDB header: viral protein Chain: D: PDB Molecule: hemagglutinin; PDBTitle: crystal structure of a h7 influenza virus hemagglutinin
83	c1jsdB_	Alignment	not modelled	9.1	31	PDB header: viral protein Chain: B: PDB Molecule: haemagglutinin (ha2 chain); PDBTitle: crystal structure of swine h9 haemagglutinin
84	c3sirD_	Alignment	not modelled	9.1	23	PDB header: hydrolase Chain: D: PDB Molecule: caspase; PDBTitle: crystal structure of drice
85	d1zs4a1	Alignment	not modelled	9.1	26	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Bacteriophage CII protein
86	c2ja9A_	Alignment	not modelled	8.9	8	PDB header: rna-binding protein Chain: A: PDB Molecule: exosome complex exonuclease rrp40; PDBTitle: structure of the n-terminal deletion of yeast exosome2 component rrp40
87	c2p8uB_	Alignment	not modelled	8.8	45	PDB header: transferase Chain: B: PDB Molecule: hydroxymethylglutaryl-coa synthase, cytoplasmic; PDBTitle: crystal structure of human 3-hydroxy-3-methylglutaryl coa synthase i
88	d1f1ja_	Alignment	not modelled	8.6	23	Fold: Caspase-like Superfamily: Caspase-like Family: Caspase catalytic domain
89	c2d9xA_	Alignment	not modelled	8.5	17	PDB header: lipid transport Chain: A: PDB Molecule: oxysterol binding protein-related protein 11; PDBTitle: solution structure of the ph domain of oxysterol binding2 protein-related protein 11 from human
90	d1nu0a_	Alignment	not modelled	8.4	35	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Putative Holliday junction resolvase RuvX
91	d1o5ka_	Alignment	not modelled	8.3	28	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
92	c2rq5A_	Alignment	not modelled	8.3	21	PDB header: transcription Chain: A: PDB Molecule: protein jumonji; PDBTitle: solution structure of the at-rich interaction domain (arid)2 of jumonji/jarid2
93	c3nziA_	Alignment	not modelled	8.3	21	PDB header: hydrolase/hydrolase substrate Chain: A: PDB Molecule: serine protease htra1; PDBTitle: substrate induced remodeling of the active site regulates htra12 activity
94	c3h9xB_	Alignment	not modelled	8.3	23	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein pspto_3016; PDBTitle: crystal structure of the pspto_3016 protein from2 pseudomonas syringae, northeast structural genomics3 consortium target psr293
95	c2funB_	Alignment	not modelled	8.2	24	PDB header: apoptosis/hydrolase Chain: B: PDB Molecule: caspase-8; PDBTitle: alternative p35-caspase-8 complex
96	c1htmB_	Alignment	not modelled	8.2	22	PDB header: viral protein Chain: B: PDB Molecule: hemagglutinin ha2 chain; PDBTitle: structure of influenza haemagglutinin at the ph of membrane2 fusion
97	d2ia7a1	Alignment	not modelled	7.9	20	Fold: gpW/gp25-like Superfamily: gpW/gp25-like Family: gpW/gp25-like
98	c3n7qA_	Alignment	not modelled	7.9	14	PDB header: transcription, replication/dna Chain: A: PDB Molecule: transcription termination factor, mitochondrial; PDBTitle: crystal structure of human mitochondrial mterf fragment (aa 99-399) in2 complex with a 12-mer dna encompassing the trnaleu(uur) binding3 sequence
99	c1yfa_	Alignment	not modelled	7.9	33	PDB header: transferase Chain: A: PDB Molecule: hypoxanthine-guanine phosphoribosyltransferase; PDBTitle: novel imp binding in feedback inhibition of hypoxanthine-guanine2 phosphoribosyltransferase from thermoanaerobacter tengcongensis