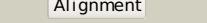
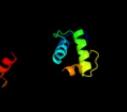
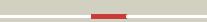
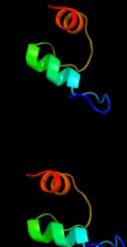
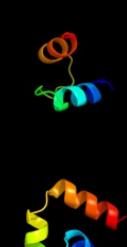
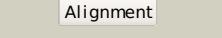
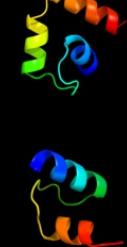
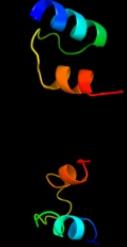
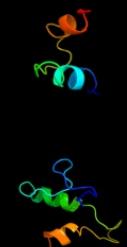
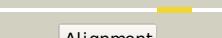
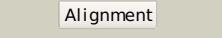
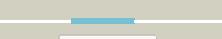
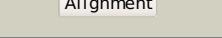


Phyre²

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 Date: Thu Jan 5 11:38:56 GMT 2012
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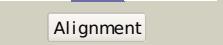
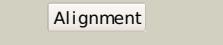
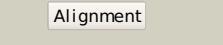
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2hkB			99.6	21	PDB header: transferase Chain: B; PDB Molecule: l,d-transpeptidase; PDBTitle: crystal structure of enterococcus faecium l,d-2 transpeptidase c442s mutant
2	d1zata1			99.5	24	Fold: L,D-transpeptidase catalytic domain-like Superfamily: L,D-transpeptidase catalytic domain-like Family: L,D-transpeptidase catalytic domain-like
3	d1lbua1			99.2	34	Fold: PGBD-like Superfamily: PGBD-like Family: Peptidoglycan binding domain, PGBD
4	c1y7mB			99.2	29	PDB header: structural genomics, unknown function Chain: B; PDB Molecule: hypothetical protein bsu14040; PDBTitle: crystal structure of the b. subtilis ykud protein at 2 a2 resolution
5	c1lbua			99.1	34	PDB header: hydrolase Chain: A; PDB Molecule: muramoyl-pentapeptide carboxypeptidase; PDBTitle: hydrolase metallo (zn) dd-peptidase
6	c3bkhA			99.1	29	PDB header: hydrolase Chain: A; PDB Molecule: lytic transglycosylase; PDBTitle: crystal structure of the bacteriophage phikz lytic2 transglycosylase, gp144
7	d1y7ma1			99.1	30	Fold: L,D-transpeptidase catalytic domain-like Superfamily: L,D-transpeptidase catalytic domain-like Family: L,D-transpeptidase catalytic domain-like
8	c2bh7A			98.2	19	PDB header: hydrolase Chain: A; PDB Molecule: n-acetyl muramoyl-l-alanine amidase; PDBTitle: crystal structure of a semet derivative of amid at 2.22 angstroms
9	c1l6jA			97.3	26	PDB header: hydrolase Chain: A; PDB Molecule: matrix metalloproteinase-9; PDBTitle: crystal structure of human matrix metalloproteinase mmp92 (gelatinase b).
10	d1eak1			97.1	16	Fold: PGBD-like Superfamily: PGBD-like Family: MMP N-terminal domain
11	d2ikba1			97.0	28	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: NMB1012-like

12	d1slma1			97.0	18	Fold: PGBD-like Superfamily: PGBD-like Family: MMP N-terminal domain
13	c1slmA_			97.0	18	PDB header: hydrolase Chain: A: PDB Molecule: stromelysin-1; PDBTitle: crystal structure of fibroblast stromelysin-1: the c-truncated human2 proenzyme
14	d1su3a1			96.8	22	Fold: PGBD-like Superfamily: PGBD-like Family: MMP N-terminal domain
15	c1su3A_			96.7	22	PDB header: hydrolase Chain: A: PDB Molecule: interstitial collagenase; PDBTitle: x-ray structure of human procollagen-1: new insights into2 collagenase action
16	c1eakA_			96.5	22	PDB header: hydrolase/hydrolase inhibitor Chain: A: PDB Molecule: 72 kda type iv collagenase; PDBTitle: catalytic domain of procollagen-2 e40q mutant
17	d2nr7a1			96.3	21	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: NMB1012-like
18	d1l6ja1			96.2	23	Fold: PGBD-like Superfamily: PGBD-like Family: MMP N-terminal domain
19	c1gxdA_			93.0	23	PDB header: hydrolase Chain: A: PDB Molecule: 72 kda type iv collagenase; PDBTitle: procollagen-2/timp-2 complex
20	c3a05A_			74.1	24	PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-tRNA synthetase; PDBTitle: crystal structure of tryptophanyl-tRNA synthetase from hyperthermophilic archaeon, aeropyrum pernix k1 complex3 with tryptophan
21	d2bgxa1		not modelled	67.0	20	Fold: PGBD-like Superfamily: PGBD-like Family: Peptidoglycan binding domain, PGBD
22	d2oo3a1		not modelled	49.4	27	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: LPG1296-like
23	c2rjbD_		not modelled	45.2	23	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of uncharacterized protein ydcj (sf1787)2 from shigella flexneri which includes domain duf1338.3 northeast structural genomics consortium target sfr276
24	c2juoA_		not modelled	40.4	33	PDB header: transcription Chain: A: PDB Molecule: ga-binding protein alpha chain; PDBTitle: gabpa ost domain
25	c3n9ia_		not modelled	38.2	15	PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-tRNA synthetase; PDBTitle: crystal structure of tryptophanyl-tRNA synthetase from yersinia pestis2 co92
26	c1wsuA_		not modelled	35.6	12	PDB header: translation/rna Chain: A: PDB Molecule: selenocysteine-specific elongation factor; PDBTitle: c-terminal domain of elongation factor selB complexed with2 seics rna
27	d2ns0a1		not modelled	34.4	22	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: RHA1 ro06458-like
28	d1rl1ga_		not modelled	30.2	67	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Scorpion toxin-like Family: Short-chain scorpion toxins

29	c1rlgB		Alignment	not modelled	30.2	67	PDB header: toxin Chain: B: PDB Molecule: neurotoxin bmk37; PDBTitle: crystal structure of the scorpion toxin bmbktx1
30	c1rlgA		Alignment	not modelled	30.2	67	PDB header: toxin Chain: A: PDB Molecule: neurotoxin bmk37; PDBTitle: crystal structure of the scorpion toxin bmbktx1
31	d2d69a1		Alignment	not modelled	29.3	19	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
32	c2d69B		Alignment	not modelled	25.9	19	PDB header: lyase Chain: B: PDB Molecule: ribulose bisphosphate carboxylase; PDBTitle: crystal structure of the complex of sulfate ion and octameric2 ribulose-1,5-bisphosphate carboxylase/oxygenase (rubisco) from3 pyrococcus horikoshii ot3 (form-2 crystal)
33	c2r5kE		Alignment	not modelled	25.8	27	PDB header: viral protein Chain: E: PDB Molecule: major capsid protein l1; PDBTitle: pentamer structure of major capsid protein l1 of human2 papilloma virus type 11
34	c3phuA		Alignment	not modelled	24.5	28	PDB header: hydrolase Chain: A: PDB Molecule: rna-directed rna polymerase I; PDBTitle: otu domain of crimean congo hemorrhagic fever virus
35	c2r5iL		Alignment	not modelled	23.8	24	PDB header: viral protein Chain: L: PDB Molecule: l1 protein; PDBTitle: pentamer structure of major capsid protein l1 of human2 papilloma virus type 18
36	c3pt2A		Alignment	not modelled	23.4	30	PDB header: hydrolase/protein binding Chain: A: PDB Molecule: rna polymerase; PDBTitle: structure of a viral otu domain protease bound to ubiquitin
37	c1dzIA		Alignment	not modelled	23.1	27	PDB header: virus Chain: A: PDB Molecule: late major capsid protein l1; PDBTitle: l1 protein of human papillomavirus 16
38	d1dzla		Alignment	not modelled	23.1	27	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Group I dsDNA viruses Family: Papovaviridae-like VP
39	c3qm2A		Alignment	not modelled	22.7	20	PDB header: transferase Chain: A: PDB Molecule: phosphoserine aminotransferase; PDBTitle: 2.25 angstrom crystal structure of phosphoserine aminotransferase2 (serc) from salmonella enterica subsp. enterica serovar typhimurium
40	c3jxeB		Alignment	not modelled	22.1	24	PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of pyrococcus horikoshii tryptophanyl-trna2 synthetase in complex with trpamp
41	c3hv0A		Alignment	not modelled	21.6	20	PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase from cryptosporidium parvum
42	c2yy5C		Alignment	not modelled	21.4	19	PDB header: ligase Chain: C: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of tryptophanyl-trna synthetase from mycoplasma2 pneumoniae
43	d1i6la		Alignment	not modelled	20.8	16	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
44	c2lafA		Alignment	not modelled	20.4	14	PDB header: membrane protein Chain: A: PDB Molecule: lipoprotein 34; PDBTitle: nmr solution structure of the n-terminal domain of the e. coli2 lipoprotein bamc
45	c2zviB		Alignment	not modelled	20.2	20	PDB header: isomerase Chain: B: PDB Molecule: 2,3-diketo-5-methylthiopentyl-1-phosphate PDBTitle: crystal structure of 2,3-diketo-5-methylthiopentyl-1-2 phosphate enolase from bacillus subtilis
46	d1ykwa1		Alignment	not modelled	20.0	12	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
47	d2p0la1		Alignment	not modelled	19.5	20	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: LplA-like
48	c3iyjE		Alignment	not modelled	19.2	18	PDB header: virus Chain: E: PDB Molecule: major capsid protein l1; PDBTitle: bovine papillomavirus type 1 outer capsid
49	d1ej7l1		Alignment	not modelled	18.2	17	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
50	c2qygC		Alignment	not modelled	17.8	16	PDB header: unknown function Chain: C: PDB Molecule: ribulose bisphosphate carboxylase-like protein 2; PDBTitle: crystal structure of a rubisco-like protein rlp2 from rhodopseudomonas2 palustris
51	c2j5bA		Alignment	not modelled	17.6	19	PDB header: ligase Chain: A: PDB Molecule: tyrosyl-trna synthetase; PDBTitle: structure of the tyrosyl trna synthetase from acanthamoeba2 polyphaga mimivirus complexed with tyrosynol
52	c2ip1A		Alignment	not modelled	17.2	34	PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure analysis of s. cerevisiae tryptophanyl trna2 synthetase
53	c3elyA		Alignment	not modelled	17.1	25	PDB header: transferase Chain: A: PDB Molecule: methyltransferase; PDBTitle: wesselsbron virus methyltransferase in complex with adohcy
							PDB header: lyase Chain: E: PDB Molecule: ribulose-1,5-bisphosphate

54	c1gehE	Alignment	not modelled	16.7	12	carboxylase/oxygenase; PDBTitle: crystal structure of archaeal rubisco (ribulose 1,5-bisphosphate2 carboxylase/oxygenase)
55	d3ci0j1	Alignment	not modelled	16.5	19	Fold: Pili subunits Superfamily: Pili subunits Family: EpsJ-like
56	c2xvsA	Alignment	not modelled	16.4	21	PDB header: antitumor protein Chain: A: PDB Molecule: tetratricopeptide repeat protein 5; PDBTitle: crystal structure of human ttc5 (strap) c-terminal ob2 domain
57	c1telA	Alignment	not modelled	16.4	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ribulose bisphosphate carboxylase, large subunit; PDBTitle: crystal structure of a rubisco-like protein from chlorobium2 tepidum
58	c2oxtC	Alignment	not modelled	16.2	28	PDB header: viral protein Chain: C: PDB Molecule: nucleoside-2'-o-methyltransferase; PDBTitle: crystal structure of meaban virus nucleoside-2'-o-2 methyltransferase
59	d1geha1	Alignment	not modelled	16.1	12	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
60	d1wuua1	Alignment	not modelled	16.0	26	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: GHMP Kinase, N-terminal domain
61	c2plyB	Alignment	not modelled	15.8	12	PDB header: translation/rna Chain: B: PDB Molecule: selenocysteine-specific elongation factor; PDBTitle: structure of the mrna binding fragment of elongation factor2 selb in complex with secis rna.
62	d1rlba1	Alignment	not modelled	15.8	17	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
63	d1pgsa2	Alignment	not modelled	15.4	26	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: PHM/PNGase F Family: Glycosyl-asparaginase
64	d1iufa2	Alignment	not modelled	14.4	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Centromere-binding
65	c2i6oA	Alignment	not modelled	14.2	18	PDB header: hydrolase Chain: A: PDB Molecule: sulfolobus solfataricus protein tyrosine PDBTitle: crystal structure of the complex of the archaeal sulfolobus2 ptp-fold phosphatase with phosphopeptides n-g-(p)y-k-n
66	d1vlra2	Alignment	not modelled	13.5	24	Fold: mRNA decapping enzyme DcpS N-terminal domain Superfamily: mRNA decapping enzyme DcpS N-terminal domain Family: mRNA decapping enzyme DcpS N-terminal domain
67	c1zswA	Alignment	not modelled	13.2	10	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: glyoxalase family protein; PDBTitle: crystal structure of bacillus cereus metallo protein from glyoxalase2 family
68	c3nwrA	Alignment	not modelled	13.2	16	PDB header: lyase Chain: A: PDB Molecule: a rubisco-like protein; PDBTitle: crystal structure of a rubisco-like protein from burkholderia fungorum
69	c3nk4B	Alignment	not modelled	12.8	25	PDB header: cell adhesion Chain: B: PDB Molecule: zona pellucida 3; PDBTitle: crystal structure of full-length sperm receptor zp3 at 2.0 a2 resolution
70	c2quiB	Alignment	not modelled	12.3	20	PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structures of human tryptophanyl-trna synthetase in2 complex with tryptophanamide and atp
71	c3hzrD	Alignment	not modelled	12.1	26	PDB header: ligase Chain: D: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase homolog from entamoeba histolytica
72	c1r6uB	Alignment	not modelled	11.9	24	PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of an active fragment of human tryptophanyl-trna2 synthetase with cytokine activity
73	d2p5ia1	Alignment	not modelled	11.8	19	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: LplA-like
74	d2z15a1	Alignment	not modelled	11.7	16	Fold: BTG domain-like Superfamily: BTG domain-like Family: BTG domain-like
75	d8ruca1	Alignment	not modelled	11.7	20	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
76	d3bl9a2	Alignment	not modelled	11.4	25	Fold: mRNA decapping enzyme DcpS N-terminal domain Superfamily: mRNA decapping enzyme DcpS N-terminal domain Family: mRNA decapping enzyme DcpS N-terminal domain
77	c2gezE	Alignment	not modelled	11.4	11	PDB header: hydrolase Chain: E: PDB Molecule: l-asparaginase alpha subunit; PDBTitle: crystal structure of potassium-independent plant asparaginase
78	c3sz3A	Alignment	not modelled	11.3	12	PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of tryptophanyl-trna synthetase from vibrio cholerae2 with an endogenous tryptophan
79	d3e9va1	Alignment	not modelled	11.1	23	Fold: BTG domain-like Superfamily: BTG domain-like Family: BTG domain-like

80	c3focB		Alignment	not modelled	11.1	26	PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase from giardia lamblia
81	c1rcxH		Alignment	not modelled	11.0	17	PDB header: lyase (carbon-carbon) Chain: H: PDB Molecule: ribulose bisphosphate carboxylase/oxygenase; PDBTitle: non-activated spinach rubisco in complex with its substrate2 ribulose-1,5-bisphosphate
82	d1latgA		Alignment	not modelled	10.7	15	Fold: Periplasmic binding protein-like II Superfamily: Periplasmic binding protein-like II Family: Phosphate binding protein-like
83	c1vqzA		Alignment	not modelled	10.7	15	PDB header: ligase Chain: A: PDB Molecule: lipoate-protein ligase, putative; PDBTitle: crystal structure of a putative lipoate-protein ligase a (sp_1160)2 from streptococcus pneumoniae tigr4 at 1.99 a resolution
84	d1bwva1		Alignment	not modelled	10.5	25	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
85	c2yfnA		Alignment	not modelled	10.4	18	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase-sucrose kinase agask; PDBTitle: galactosidase domain of alpha-galactosidase-sucrose kinase,2 agask
86	c1bqfA		Alignment	not modelled	10.0	57	PDB header: hormone/growth factor Chain: A: PDB Molecule: protein (growth-blocking peptide); PDBTitle: growth-blocking peptide (gbp) from pseudalelia separata
87	c2kimA		Alignment	not modelled	9.7	17	PDB header: transferase Chain: A: PDB Molecule: o6-methylguanine-dna methyltransferase; PDBTitle: 1.7-mm microcryoprobe solution nmr structure of an o6-2 methylguanine dna methyltransferase family protein from vibrio parahaemolyticus. northeast structural genomics4 consortium target vpr247.
88	c3qfwB		Alignment	not modelled	9.6	18	PDB header: lyase Chain: B: PDB Molecule: ribulose-1,5-bisphosphate carboxylase/oxygenase large PDBTitle: crystal structure of rubisco-like protein from rhodopseudomonas2 palustris
89	c3prhB		Alignment	not modelled	8.5	20	PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase val144pro mutant from b. subtilis
90	c1iuFA		Alignment	not modelled	8.5	18	PDB header: dna binding protein Chain: A: PDB Molecule: centromere abp1 protein; PDBTitle: low resolution solution structure of the two dna-binding2 domains in schizosaccharomyces pombe abp1 protein
91	d1vqza2		Alignment	not modelled	8.4	15	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: LplA-like
92	d1vlyA2		Alignment	not modelled	8.1	11	Fold: Folate-binding domain Superfamily: Folate-binding domain Family: Aminomethyltransferase folate-binding domain
93	c3tgoD		Alignment	not modelled	7.9	13	PDB header: membrane protein Chain: D: PDB Molecule: lipoprotein 34; PDBTitle: crystal structure of the e. coli bamcd complex
94	c3e4wB		Alignment	not modelled	7.9	21	PDB header: oxidoreductase Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of a 33kda catalase-related protein from2 mycobacterium avium subsp. paratuberculosis. p2(1)2(1)2(1) crystal3 form.
95	c1sghA		Alignment	not modelled	7.8	14	PDB header: structural protein Chain: A: PDB Molecule: moesin; PDBTitle: moesin ferm domain bound to ebp50 c-terminal peptide
96	c3m5wB		Alignment	not modelled	7.8	11	PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of tryptophanyl-trna synthetase from campylobacter jejuni
97	d2iba2		Alignment	not modelled	7.7	8	Fold: T-fold Superfamily: Tetrahydrobiopterin biosynthesis enzymes-like Family: Urate oxidase (uricase)
98	d1dgsa1		Alignment	not modelled	7.5	17	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: NAD+-dependent DNA ligase, domain 3
99	d1r8se		Alignment	not modelled	7.3	22	Fold: alpha-alpha superhelix Superfamily: Sec7 domain Family: Sec7 domain