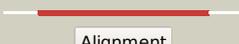
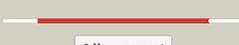
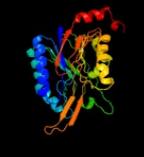
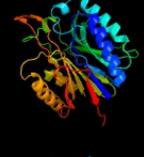
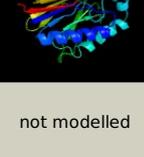


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD0480c_(-)_568967_569809
Date	Tue Jul 23 14:50:56 BST 2019
Unique Job ID	a62a31a44e006b1d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2vhiG_	 Alignment		100.0	18	PDB header: hydrolase Chain: G: PDB Molecule: cg3027-pa; PDBTitle: crystal structure of a pyrimidine degrading enzyme from2 drosophila melanogaster
2	c1emsB_	 Alignment		100.0	28	PDB header: antitumor protein Chain: B: PDB Molecule: nit-fragile histidine triad fusion protein; PDBTitle: crystal structure of the c. elegans nitfhit protein
3	c2vhhA_	 Alignment		100.0	18	PDB header: hydrolase Chain: A: PDB Molecule: cg3027-pa; PDBTitle: crystal structure of a pyrimidine degrading enzyme from2 drosophila melanogaster
4	c2w1vA_	 Alignment		100.0	33	PDB header: hydrolase Chain: A: PDB Molecule: nitrilase homolog 2; PDBTitle: crystal structure of mouse nitrilase-2 at 1.4a resolution
5	c6ftqA_	 Alignment		100.0	18	PDB header: hydrolase Chain: A: PDB Molecule: beta-ureidopropionase; PDBTitle: crystal structure of human beta-ureidopropionase (beta-alanine2 synthase) - mutant t299c
6	c5h8lM_	 Alignment		100.0	21	PDB header: hydrolase Chain: M: PDB Molecule: n-carbamoylputrescine amidohydrolase; PDBTitle: crystal structure of medicago truncatula n-carbamoylputrescine2 amidohydrolase (mtcpa) c158s mutant in complex with putrescine
7	d1uf5a_	 Alignment		100.0	24	Fold: Carbon-nitrogen hydrolase Superfamily: Carbon-nitrogen hydrolase Family: Carbamilase
8	c2plqA_	 Alignment		100.0	21	PDB header: hydrolase Chain: A: PDB Molecule: aliphatic amidase; PDBTitle: crystal structure of the amidase from geobacillus pallidus rapc8
9	c2e2kC_	 Alignment		100.0	17	PDB header: hydrolase Chain: C: PDB Molecule: formamidase; PDBTitle: helicobacter pylori formamidase amif contains a fine-tuned cysteine-2 glutamate-lysine catalytic triad
10	c4hg3C_	 Alignment		100.0	28	PDB header: hydrolase Chain: C: PDB Molecule: probable hydrolase nit2; PDBTitle: structural insights into yeast nit2: wild-type yeast nit2 in complex2 with alpha-ketoglutarate
11	c2e11B_	 Alignment		100.0	29	PDB header: hydrolase Chain: B: PDB Molecule: hydrolase; PDBTitle: the crystal structure of xc1258 from xanthomonas campestris: a cn-2 hydrolase superfamily protein with an arsenic adduct in the active3 site

12	c6mg6D_	Alignment		100.0	19	PDB header: hydrolase Chain: D: PDB Molecule: carbon-nitrogen hydrolase; PDBTitle: crystal structure of carbon-nitrogen hydrolase from helicobacter2 pylori g27
13	d1emsa2	Alignment		100.0	28	Fold: Carbon-nitrogen hydrolase Superfamily: Carbon-nitrogen hydrolase Family: Nitrilase
14	c5khaA_	Alignment		100.0	21	PDB header: ligase Chain: A: PDB Molecule: glutamine-dependent nad+ synthetase; PDBTitle: structure of glutamine-dependent nad+ synthetase from acinetobacter2 baumannii in complex with adenosine diphosphate (adp)
15	c3dlaD_	Alignment		100.0	21	PDB header: ligase Chain: D: PDB Molecule: glutamine-dependent nad(+) synthetase; PDBTitle: x-ray crystal structure of glutamine-dependent nad+ synthetase from2 mycobacterium tuberculosis bound to naad+ and don
16	d1f89a_	Alignment		100.0	25	Fold: Carbon-nitrogen hydrolase Superfamily: Carbon-nitrogen hydrolase Family: Nitrilase
17	c3wuyA_	Alignment		100.0	22	PDB header: hydrolase Chain: A: PDB Molecule: nitrilase; PDBTitle: crystal structure of nit6803
18	c4f4hA_	Alignment		100.0	23	PDB header: ligase Chain: A: PDB Molecule: glutamine dependent nad+ synthetase; PDBTitle: crystal structure of a glutamine dependent nad+ synthetase from2 burkholderia thailandensis
19	d1j31a_	Alignment		100.0	26	Fold: Carbon-nitrogen hydrolase Superfamily: Carbon-nitrogen hydrolase Family: Carbamilase
20	c3n05B_	Alignment		100.0	25	PDB header: ligase Chain: B: PDB Molecule: nh(3)-dependent nad(+) synthetase; PDBTitle: crystal structure of nh3-dependent nad+ synthetase from streptomyces2 avermitilis
21	c3hxxA_	Alignment	not modelled	100.0	30	PDB header: hydrolase Chain: A: PDB Molecule: amidase; PDBTitle: crystal structure analysis of an amidase from nesterenkonia sp.
22	c3ilvA_	Alignment	not modelled	100.0	16	PDB header: ligase Chain: A: PDB Molecule: glutamine-dependent nad(+) synthetase; PDBTitle: crystal structure of a glutamine-dependent nad(+) synthetase2 from cytophaga hutchinsonii
23	c4cyyA_	Alignment	not modelled	100.0	20	PDB header: hydrolase Chain: A: PDB Molecule: pantetheinase; PDBTitle: the structure of vanin-1: defining the link between metabolic disease,2 oxidative stress and inflammation
24	c5vrhA_	Alignment	not modelled	100.0	16	PDB header: transferase Chain: A: PDB Molecule: apolipoprotein n-acyltransferase; PDBTitle: apolipoprotein n-acyltransferase c387s active site mutant
25	c5n6mA_	Alignment	not modelled	100.0	20	PDB header: membrane protein Chain: A: PDB Molecule: apolipoprotein n-acyltransferase; PDBTitle: structure of the membrane integral lipoprotein n-acyltransferase lnt2 from p. aeruginosa
26	c5hyvA_	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: A: PDB Molecule: nta1p; PDBTitle: crystal structure of n-terminal amidase
27	c2csuB_	Alignment	not modelled	78.2	9	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: 457aa long hypothetical protein; PDBTitle: crystal structure of ph0766 from pyrococcus horikoshii ot3
28	d1s3la_	Alignment	not modelled	74.1	18	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: YfcE-like
						PDB header: phosphodiesterase

29	c1s3mA_	Alignment	not modelled	73.3	18	Chain: A; PDB Molecule: hypothetical protein mj0936; PDBTitle: structural and functional characterization of a novel2 archaeal phosphodiesterase
30	c3qfnA_	Alignment	not modelled	70.9	21	PDB header: hydrolase Chain: A; PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of streptococcal asymmetric ap4a hydrolase and2 phosphodiesterase spr1479/saph in complex with inorganic phosphate
31	d1uf3a_	Alignment	not modelled	68.8	22	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: TT1561-like
32	d1i60a_	Alignment	not modelled	60.9	11	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: loll-like
33	c1su1A_	Alignment	not modelled	59.9	27	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: hypothetical protein yfce; PDBTitle: structural and biochemical characterization of yfce, a phosphoesterase2 from e. coli
34	d1su1a_	Alignment	not modelled	59.9	27	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: YfceE-like
35	d1o60a_	Alignment	not modelled	58.1	10	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I DAHP synthetase
36	c6ncsB_	Alignment	not modelled	56.0	18	PDB header: biosynthetic protein Chain: B; PDB Molecule: n-acetylneuraminic acid (sialic acid) synthetase; PDBTitle: crystal structure of n-acetylneuraminic acid (sialic acid) synthetase2 from leptospira borgpetersenii serovar hardjo-bovis in complex with3 citrate
37	d1d9ea_	Alignment	not modelled	54.7	9	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I DAHP synthetase
38	d1t70a_	Alignment	not modelled	46.8	16	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: DR1281-like
39	d1gsaa1	Alignment	not modelled	42.9	11	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: Prokaryotic glutathione synthetase, N-terminal domain
40	c5zfsA_	Alignment	not modelled	42.4	17	PDB header: isomerase Chain: A; PDB Molecule: d-allulose-3-epimerase; PDBTitle: crystal structure of arthrobacter globiformis m30 sugar epimerase2 which can produce d-allulose from d-fructose
41	c3stgA_	Alignment	not modelled	40.6	14	PDB header: transferase Chain: A; PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase; PDBTitle: crystal structure of a58p, del(n59), and loop 7 truncated mutant of 3-2 deoxy-d-manno-octulosonate 8-phosphate synthase (kdo8ps) from3 neisseria meningitidis
42	c4lu0A_	Alignment	not modelled	39.6	12	PDB header: transferase Chain: A; PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase; PDBTitle: crystal structure of 2-keto-3-deoxy-d-manno- octulosonate-8-phosphate2 synthase from pseudomonas aeruginosa.
43	c2fu3A_	Alignment	not modelled	36.8	11	PDB header: biosynthetic protein/structural protein Chain: A; PDB Molecule: gephyrin; PDBTitle: crystal structure of gephyrin e-domain
44	c4k3zA_	Alignment	not modelled	36.5	13	PDB header: oxidoreductase Chain: A; PDB Molecule: d-erythrulose 4-phosphate dehydrogenase; PDBTitle: crystal structure of d-erythrulose 4-phosphate dehydrogenase from2 brucella melitensis, solved by iodide sad
45	c3dx5A_	Alignment	not modelled	36.0	9	PDB header: lyase Chain: A; PDB Molecule: uncharacterized protein asbf; PDBTitle: crystal structure of the probable 3-dhs dehydratase asbf involved in2 the petrobactin synthesis from bacillus anthracis
46	c2ou4C_	Alignment	not modelled	34.8	14	PDB header: isomerase Chain: C; PDB Molecule: d-tagatose 3-epimerase; PDBTitle: crystal structure of d-tagatose 3-epimerase from2 pseudomonas cichorii
47	c3vniC_	Alignment	not modelled	34.5	6	PDB header: isomerase Chain: C; PDB Molecule: xylose isomerase domain protein tim barrel; PDBTitle: crystal structures of d-psicose 3-epimerase from clostridium2 cellulolyticum h10 and its complex with ketohexose sugars
48	c4r8kC_	Alignment	not modelled	33.4	11	PDB header: hydrolase Chain: C; PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of the guinea pig l-asparaginase 1 catalytic domain
49	c2qw5B_	Alignment	not modelled	33.0	10	PDB header: isomerase Chain: B; PDB Molecule: xylose isomerase-like tim barrel; PDBTitle: crystal structure of a putative sugar phosphate isomerase/epimerase2 (ava4194) from anabaena variabilis atcc 29413 at 1.78 a resolution
50	c4yajA_	Alignment	not modelled	32.8	15	PDB header: ligase Chain: A; PDB Molecule: alpha subunit of acetyl-coenzyme a synthetase PDBTitle: ca. korarchaeum cryptofilum dinucleotide forming acetyl- coenzyme a2 synthetase 1 (apo form)
51	c3wqoB_	Alignment	not modelled	30.1	10	PDB header: unknown function Chain: B; PDB Molecule: uncharacterized protein mj1311; PDBTitle: crystal structure of d-tagatose 3-epimerase-like protein
52	c2ei9A_	Alignment	not modelled	29.2	23	PDB header: gene regulation Chain: A; PDB Molecule: non-ltr retrotransposon r1bmks orf2 protein;

						PDBTitle: crystal structure of r1bm endonuclease domain
53	d4pgaa_	Alignment	not modelled	29.1	13	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
54	d1t71a_	Alignment	not modelled	28.6	15	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: DR1281-like
55	c2ejcA_	Alignment	not modelled	28.6	9	PDB header: ligase Chain: A: PDB Molecule: pantoate--beta-alanine ligase; PDBTitle: crystal structure of pantoate--beta-alanine ligase (panc)2 from thermotoga maritima
56	d1agxa_	Alignment	not modelled	28.5	13	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
57	d2zdra2	Alignment	not modelled	28.1	16	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: NeuB-like
58	c2p2dA_	Alignment	not modelled	27.8	11	PDB header: transferase Chain: A: PDB Molecule: l-asparaginase i; PDBTitle: crystal structure and allosteric regulation of the cytoplasmic2 escherichia coli l-asparaginase i
59	d1v8fa_	Alignment	not modelled	27.0	21	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Pantothenate synthetase (Pantoate-beta-alanine ligase, PanC)
60	d1ihoA_	Alignment	not modelled	26.9	18	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Pantothenate synthetase (Pantoate-beta-alanine ligase, PanC)
61	d2yvta1	Alignment	not modelled	26.7	18	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: TT1561-like
62	c5hmqE_	Alignment	not modelled	26.2	15	PDB header: lyase Chain: E: PDB Molecule: 4-hydroxyphenylpyruvate dioxygenase; PDBTitle: xylose isomerase-like tim barrel/4-hydroxyphenylpyruvate dioxygenase2 fusion protein
63	c3mxtA_	Alignment	not modelled	25.3	15	PDB header: ligase Chain: A: PDB Molecule: pantothenate synthetase; PDBTitle: crystal structure of pantoate-beta-alanine ligase from campylobacter2 jejuni
64	c3uk2B_	Alignment	not modelled	25.3	9	PDB header: ligase Chain: B: PDB Molecule: pantothenate synthetase; PDBTitle: the structure of pantothenate synthetase from burkholderia2 thailandensis
65	c3vylB_	Alignment	not modelled	25.2	14	PDB header: isomerase Chain: B: PDB Molecule: l-ribulose 3-epimerase; PDBTitle: structure of l-ribulose 3-epimerase
66	c1gshA_	Alignment	not modelled	25.1	11	PDB header: glutathione biosynthesis ligase Chain: A: PDB Molecule: glutathione biosynthetic ligase; PDBTitle: structure of escherichia coli glutathione synthetase at ph 7.5
67	d2vgna3	Alignment	not modelled	24.6	11	Fold: Bacillus chorismate mutase-like Superfamily: L30e-like Family: ERF1/Dom34 C-terminal domain-like
68	c2zdsB_	Alignment	not modelled	24.5	14	PDB header: dna binding protein Chain: B: PDB Molecule: putative dna-binding protein; PDBTitle: crystal structure of sco6571 from streptomyces coelicolor a3(2)
69	c3o3cD_	Alignment	not modelled	24.3	13	PDB header: transferase Chain: D: PDB Molecule: glycogen [starch] synthase isoform 2; PDBTitle: glycogen synthase basal state udp complex
70	c2nqqA_	Alignment	not modelled	24.3	10	PDB header: biosynthetic protein Chain: A: PDB Molecule: molybdopterin biosynthesis protein moea; PDBTitle: moea r137q
71	c3qxbB_	Alignment	not modelled	23.9	11	PDB header: isomerase Chain: B: PDB Molecule: putative xylose isomerase; PDBTitle: crystal structure of a putative xylose isomerase (yp_426450.1) from2 rhodospirillum rubrum atcc 11170 at 1.90 a resolution
72	c3guzB_	Alignment	not modelled	23.0	18	PDB header: ligase Chain: B: PDB Molecule: pantothenate synthetase; PDBTitle: structural and substrate-binding studies of pantothenate2 synthenate (ps)provide insights into homotropic inhibition3 by pantoate in ps's
73	c3rqzC_	Alignment	not modelled	22.7	29	PDB header: hydrolase Chain: C: PDB Molecule: metallophosphoesterase; PDBTitle: crystal structure of metallophosphoesterase from sphaerobacter2 thermophilus
74	c5g2rA_	Alignment	not modelled	22.2	14	PDB header: transferase Chain: A: PDB Molecule: molybdopterin biosynthesis protein cnx1; PDBTitle: crystal structure of the mo-insertase domain cnx1e from2 arabidopsis thaliana
75	c3n8hA_	Alignment	not modelled	22.1	12	PDB header: ligase Chain: A: PDB Molecule: pantothenate synthetase; PDBTitle: crystal structure of pantoate-beta-alanine ligase from francisella2 tularensis
76	c3aytA_	Alignment	not modelled	21.8	15	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein tthb071; PDBTitle: tthb071 protein from thermus thermophilus hb8
77	d2a40b1	Alignment	not modelled	21.1	17	Fold: DNase I-like Superfamily: DNase I-like Family: DNase I-like
78	d2ocda1	Alignment	not modelled	21.1	8	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase

79	c4f1hA	Alignment	not modelled	20.9	10	PDB header: hydrolase/dna Chain: A: PDB Molecule: tyrosyl-dna phosphodiesterase 2; PDBTitle: crystal structure of tdp2 from danio rerio complexed with a single2 strand dna
80	d1yx1a1	Alignment	not modelled	20.8	12	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: KguE-like
81	c3sz8D	Alignment	not modelled	20.8	14	PDB header: transferase Chain: D: PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase 2; PDBTitle: crystal structure of 2-dehydro-3-deoxyphosphooctonate aldolase from2 burkholderia pseudomallei
82	c3tebA	Alignment	not modelled	20.4	10	PDB header: hydrolase Chain: A: PDB Molecule: endonuclease/exonuclease/phosphatase; PDBTitle: endonuclease/exonuclease/phosphatase family protein from leptotrichia2 buccalis c-1013-b
83	c6bngB	Alignment	not modelled	20.4	10	PDB header: transferase Chain: B: PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase; PDBTitle: structure of 2-dehydro-3-deoxyphosphooctonate aldolase from2 acinetobacter baumannii
84	c3pnxF	Alignment	not modelled	20.3	8	PDB header: transferase Chain: F: PDB Molecule: putative sulfurtransferase dsre; PDBTitle: crystal structure of a putative sulfurtransferase dsre (swol_2425)2 from syntrophomonas wolfei str. goettingen at 1.92 a resolution
85	c2o14A	Alignment	not modelled	20.3	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein yxim; PDBTitle: x-ray crystal structure of protein yxim_bacsu from bacillus subtilis.2 northeast structural genomics consortium target sr595
86	c5d95A	Alignment	not modelled	19.5	19	PDB header: transferase Chain: A: PDB Molecule: aminotransferase class-iii; PDBTitle: structure of thermostable omega-transaminase
87	c2nydB	Alignment	not modelled	19.4	12	PDB header: unknown function Chain: B: PDB Molecule: upf0135 protein sa1388; PDBTitle: crystal structure of staphylococcus aureus hypothetical protein sa1388
88	c1xuzA	Alignment	not modelled	18.4	18	PDB header: biosynthetic protein Chain: A: PDB Molecule: polysialic acid capsule biosynthesis protein siaC; PDBTitle: crystal structure analysis of sialic acid synthase (neub)from2 neisseria meningitidis, bound to mn2+, phosphoenolpyruvate, and n-3 acetyl mannosaminitol
89	d1vlia2	Alignment	not modelled	17.5	15	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: NeuB-like
90	c2odrC	Alignment	not modelled	16.9	20	PDB header: ligase Chain: C: PDB Molecule: phosphoseryl-trna synthetase; PDBTitle: methanococcus maripaludis phosphoseryl-trna synthetase
91	c4s1aB	Alignment	not modelled	16.7	11	PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a hypothetical protein cthe_0052 from2 ruminiclostridium thermocellum atcc 27405
92	c1vliA	Alignment	not modelled	16.4	17	PDB header: biosynthetic protein Chain: A: PDB Molecule: spore coat polysaccharide biosynthesis protein spse; PDBTitle: crystal structure of spore coat polysaccharide biosynthesis protein2 spse (bsu37870) from bacillus subtilis at 2.38 a resolution
93	c3ju2A	Alignment	not modelled	15.7	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein smc04130; PDBTitle: crystal structure of protein smc04130 from sinorhizobium meliloti 1021
94	c2issF	Alignment	not modelled	15.7	10	PDB header: lyase, transferase Chain: F: PDB Molecule: glutamine amidotransferase subunit pdxt; PDBTitle: structure of the plp synthase holoenzyme from thermotoga maritima
95	c2odrB	Alignment	not modelled	15.6	14	PDB header: ligase Chain: B: PDB Molecule: phosphoseryl-trna synthetase; PDBTitle: methanococcus maripaludis phosphoseryl-trna synthetase
96	c5tnvA	Alignment	not modelled	15.5	16	PDB header: isomerase Chain: A: PDB Molecule: ap endonuclease, family protein 2; PDBTitle: crystal structure of a xylose isomerase-like tim barrel protein from2 mycobacterium smegmatis in complex with magnesium
97	c2zsmA	Alignment	not modelled	15.3	21	PDB header: isomerase Chain: A: PDB Molecule: glutamate-1-semialdehyde 2,1-aminomutase; PDBTitle: crystal structure of glutamate-1-semialdehyde 2,1-2 aminomutase from aeropyrum pernix, hexagonal form
98	d1x52a1	Alignment	not modelled	15.2	7	Fold: Bacillus chorismate mutase-like Superfamily: L30e-like Family: ERF1/Dom34 C-terminal domain-like
99	c3cnyA	Alignment	not modelled	15.1	15	PDB header: biosynthetic protein Chain: A: PDB Molecule: inositol catabolism protein iole; PDBTitle: crystal structure of a putative inositol catabolism protein iole2 (iole, lp_3607) from lactobacillus plantarum wcf1 at 1.85 a3 resolution