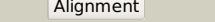
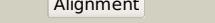
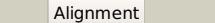
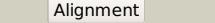


Phyre²

Email	mdejesus@rockefeller.edu
Description	RVBD2109c_(prcA)_2368991_2369737
Date	Mon Aug 5 13:25:22 BST 2019
Unique Job ID	c40a8dd9426e45b7

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1q5qa_			100.0	72	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
2	c1g5rD_			100.0	72	PDB header: hydrolase Chain: D; PDB Molecule: proteasome alpha-type subunit 1; PDBTitle: the rhodococcus 20s proteasome with unprocessed pro-peptides
3	c6qm7C_			100.0	19	PDB header: hydrolase Chain: C; PDB Molecule: proteasome alpha3 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit complexed with gsk3494245
4	c5ln3C_			100.0	19	PDB header: hydrolase Chain: C; PDB Molecule: proteasome subunit alpha type-4; PDBTitle: the human 26s proteasome at 6.8 ang.
5	d1rypb_			100.0	20	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
6	d1iruc_			100.0	19	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
7	d1irug_			100.0	13	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
8	c3bdmF_			100.0	17	PDB header: hydrolase Chain: F; PDB Molecule: proteasome component c1; PDBTitle: yeast 20s proteasome:glidobactin a-complex
9	d1rypg_			100.0	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
10	c6qm7A_			100.0	19	PDB header: hydrolase Chain: A; PDB Molecule: proteasome alpha1 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit complexed with gsk3494245
11	c1iruF_			100.0	18	PDB header: hydrolase Chain: F; PDB Molecule: 20s proteasome; PDBTitle: crystal structure of the mammalian 20s proteasome at 2.75 a2 resolution

12	d1iruf_	Alignment		100.0	18	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
13	d1irua_	Alignment		100.0	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
14	d1j2pa_	Alignment		100.0	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
15	d1irud_	Alignment		100.0	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
16	d1rypc_	Alignment		100.0	19	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
17	c6qm7T_	Alignment		100.0	19	PDB header: hydrolase Chain: T: PDB Molecule: proteasome alpha6 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit complexed with gsk3494245
18	c6qm8D_	Alignment		100.0	19	PDB header: hydrolase Chain: D: PDB Molecule: proteasome alpha4 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit apo structure
19	c6qm8B_	Alignment		100.0	21	PDB header: hydrolase Chain: B: PDB Molecule: proteasome alpha2 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit apo structure
20	d1irub_	Alignment		100.0	21	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
21	d1yara1	Alignment	not modelled	100.0	20	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
22	d1rype_	Alignment	not modelled	100.0	18	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
23	c6qm8U_	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: U: PDB Molecule: proteasome alpha7 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit apo structure
24	c5fmgQ_	Alignment	not modelled	100.0	17	PDB header: hydrolase Chain: Q: PDB Molecule: proteasome subunit alpha type; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
25	d1rypa_	Alignment	not modelled	100.0	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
26	c5fmgD_	Alignment	not modelled	100.0	17	PDB header: hydrolase Chain: D: PDB Molecule: proteasome subunit alpha type; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
27	d1rypf_	Alignment	not modelled	100.0	19	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
28	c6qm7E_	Alignment	not modelled	100.0	23	PDB header: hydrolase Chain: E: PDB Molecule: proteasome alpha5 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit complexed with gsk3494245

29	d1rypd	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
30	d1q5rh	Alignment	not modelled	100.0	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
31	d1rue	Alignment	not modelled	100.0	20	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
32	c3h4pB	Alignment	not modelled	100.0	19	PDB header: hydrolase Chain: B: PDB Molecule: proteasome subunit alpha; PDBTitle: proteasome 20s core particle from methanocaldococcus jannaschii
33	c5fmgT	Alignment	not modelled	100.0	20	PDB header: hydrolase Chain: T: PDB Molecule: proteasome subunit alpha type 1, putative; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
34	c5fmgB	Alignment	not modelled	100.0	20	PDB header: hydrolase Chain: B: PDB Molecule: proteasome subunit alpha type 2, putative; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
35	c5fmgA	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: A: PDB Molecule: proteasome subunit alpha, putative; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
36	c5fmgS	Alignment	not modelled	100.0	18	PDB header: hydrolase Chain: S: PDB Molecule: proteasome subunit alpha type; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
37	c5fmgU	Alignment	not modelled	100.0	15	PDB header: hydrolase Chain: U: PDB Molecule: proteasome component c8, putative; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
38	c3mka2	Alignment	not modelled	100.0	15	PDB header: hydrolase Chain: 2: PDB Molecule: proteasome subunit beta; PDB Fragment: 20s proteasome beta-subunit; PDBTitle: crystal structure of mycobacterium tuberculosis proteasome with2 proptide and an t1a mutation at beta-subunit
39	c2jayA	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: A: PDB Molecule: proteasome; PDBTitle: proteasome beta subunit prcb from mycobacterium2 tuberculosis
40	c2h6jl	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: I: PDB Molecule: proteasome beta-type subunit 1; PDBTitle: crystal structure of the beta f145a rhodococcus proteasome
41	d1j2qh	Alignment	not modelled	100.0	18	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
42	c6qm8Y	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: Y: PDB Molecule: proteasome beta4 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit apo structure
43	d1yahr1	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
44	c3nxzK	Alignment	not modelled	100.0	12	PDB header: hydrolase/hydrolase inhibitor Chain: K: PDB Molecule: proteasome component pre2; PDBTitle: crystal structure of the yeast 20s proteasome in complex with ligand2 2c
45	c3h4pj	Alignment	not modelled	100.0	13	PDB header: hydrolase Chain: J: PDB Molecule: proteasome subunit alpha; PDBTitle: proteasome 20s core particle from methanocaldococcus jannaschii
46	c6qm7Z	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: Z: PDB Molecule: proteasome beta5 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit complexed with gsk3494245
47	c2fhgC	Alignment	not modelled	100.0	15	PDB header: hydrolase Chain: C: PDB Molecule: proteasome, beta subunit; PDBTitle: crystal structure of mycobacterial tuberculosis proteasome
48	d1ryph	Alignment	not modelled	100.0	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
49	d1q5qh	Alignment	not modelled	100.0	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
50	d1rul	Alignment	not modelled	100.0	12	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
51	d1rypl	Alignment	not modelled	100.0	12	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
52	d1iruj	Alignment	not modelled	100.0	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
53	d1rypi	Alignment	not modelled	100.0	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits PDB header: hydrolase/hydrolase inhibitor

54	c6avoC	Alignment	not modelled	100.0	12	Chain: C: PDB Molecule: proteasome subunit beta type-8; PDBTitle: cryo-em structure of human immunoproteasome with a novel2 noncompetitive inhibitor that selectively inhibits activated lymphocytes
55	d1iru2	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
56	c6qm7V	Alignment	not modelled	100.0	14	PDB header: hydrolase Chain: V: PDB Molecule: proteasome beta1 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit complexed with gsk3494245
57	d1iruh	Alignment	not modelled	100.0	13	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
58	c3nzwH	Alignment	not modelled	100.0	17	PDB header: hydrolase/hydrolase inhibitor Chain: H: PDB Molecule: proteasome component pup1; PDBTitle: crystal structure of the yeast 20s proteasome in complex with 2b
59	d1ryp1	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
60	c2zcM	Alignment	not modelled	100.0	15	PDB header: hydrolase Chain: M: PDB Molecule: proteasome component pre4; PDBTitle: yeast 20s proteasome:syringolin a-complex
61	d1ryp2	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
62	d1rypk	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
63	c3unhb	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: B: PDB Molecule: proteasome subunit alpha type-4; PDBTitle: mouse 20s immunoproteasome
64	c6qm7N	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: N: PDB Molecule: proteasome beta7 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit complexed with gsk3494245
65	c6qm8a	Alignment	not modelled	100.0	12	PDB header: hydrolase Chain: A: PDB Molecule: proteasome alpha1 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit apo structure
66	d1iruk	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
67	c3unhV	Alignment	not modelled	100.0	20	PDB header: hydrolase Chain: V: PDB Molecule: proteasome subunit beta type-10; PDBTitle: mouse 20s immunoproteasome
68	c5fmvgV	Alignment	not modelled	100.0	12	PDB header: hydrolase Chain: V: PDB Molecule: proteasome, putative; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
69	d1irui	Alignment	not modelled	100.0	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
70	c5fmga	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: A: PDB Molecule: proteasome subunit alpha, putative; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
71	d1iru1	Alignment	not modelled	100.0	14	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
72	c6qm8W	Alignment	not modelled	100.0	17	PDB header: hydrolase Chain: W: PDB Molecule: proteasome beta2 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit apo structure
73	d1rypi	Alignment	not modelled	100.0	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
74	c5fmgK	Alignment	not modelled	100.0	13	PDB header: hydrolase Chain: K: PDB Molecule: proteasome subunit beta type; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
75	c6qm8X	Alignment	not modelled	100.0	14	PDB header: hydrolase Chain: X: PDB Molecule: proteasome beta3 chain; PDBTitle: leishmania tarentolae proteasome 20s subunit apo structure
76	c5nygF	Alignment	not modelled	100.0	13	PDB header: hydrolase Chain: F: PDB Molecule: anbu; PDBTitle: anbu (gly-1) mutant from hyphomicrobium sp. strain mc1 - sg p2(1)2(1)2 2(1)
77	c5fmgL	Alignment	not modelled	100.0	14	PDB header: hydrolase Chain: L: PDB Molecule: proteasome subunit beta type; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
78	c5fmgl	Alignment	not modelled	100.0	17	PDB header: hydrolase Chain: I: PDB Molecule: proteasome subunit beta type; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
79	c5fmgb	Alignment	not modelled	100.0	11	PDB header: hydrolase Chain: B: PDB Molecule: proteasome subunit alpha type 2, putative; PDBTitle: structure and function based design of plasmodium-

						selective proteasome2 inhibitors
80	c5loyD_	Alignment	not modelled	100.0	15	PDB header: hydrolase Chain: D: PDB Molecule: designed anbu protein; PDBTitle: helical assembly of a designed anbu protein
81	c5nywT_	Alignment	not modelled	100.0	11	PDB header: unknown function Chain: T: PDB Molecule: proteasome subunit; PDBTitle: anbu (ancestral beta-subunit) from yersinia bercovieri
82	c5fmgl_	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: J: PDB Molecule: beta3 proteasome subunit, putative; PDBTitle: structure and function based design of plasmodium-selective proteasome2 inhibitors
83	c5loxH_	Alignment	not modelled	100.0	17	PDB header: hydrolase Chain: H: PDB Molecule: peptidase; PDBTitle: helical assembly of the anbu complex from pseudomonas aeruginosa
84	c4hnzG_	Alignment	not modelled	100.0	17	PDB header: hydrolase Chain: G: PDB Molecule: hsvl complex proteolytic subunit, putative; PDBTitle: crystal structure of eukaryotic hsvl from trypanosoma brucei
85	d2z3ba1	Alignment	not modelled	100.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
86	c5ovuB_	Alignment	not modelled	99.9	16	PDB header: hydrolase Chain: B: PDB Molecule: beta-proteobacteria proteasome homologue; PDBTitle: cupriavidus metallidurans bph
87	c5ovsG_	Alignment	not modelled	99.9	14	PDB header: hydrolase Chain: G: PDB Molecule: bph; PDBTitle: thiobacillus denitrificans bph
88	d1e94a_	Alignment	not modelled	99.9	19	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
89	d1g3ka_	Alignment	not modelled	99.9	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
90	d1m4ya_	Alignment	not modelled	99.9	14	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
91	d1cka1	Alignment	not modelled	61.7	18	Fold: RuvA C-terminal domain-like Superfamily: DNA helicase RuvA subunit, C-terminal domain Family: DNA helicase RuvA subunit, C-terminal domain
92	c4nkpD_	Alignment	not modelled	59.4	20	PDB header: chaperone Chain: D: PDB Molecule: putative extracellular heme-binding protein; PDBTitle: crystal structure of a putative extracellular heme-binding protein2 (despig_02683) from desulfovibrio piger atcc 29098 at 1.24 a3 resolution
93	c3fpvC_	Alignment	not modelled	57.0	38	PDB header: heme binding protein Chain: C: PDB Molecule: extracellular haem-binding protein; PDBTitle: crystal structure of hbps
94	d2a2la1	Alignment	not modelled	56.0	16	Fold: Profilin-like Superfamily: GlcG-like Family: GlcG-like
95	c6bwsA_	Alignment	not modelled	51.3	27	PDB header: unknown function Chain: A: PDB Molecule: glycolate utilization protein; PDBTitle: crystal structure of efga from methylobacterium extorquens
96	c4eo3A_	Alignment	not modelled	47.1	21	PDB header: oxidoreductase Chain: A: PDB Molecule: bacterioferritin comigratory protein/nadh dehydrogenase; PDBTitle: peroxiredoxin nitroreductase fusion enzyme
97	c2zytA_	Alignment	not modelled	40.1	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative uncharacterized protein ttha1756; PDBTitle: crystal structure of uncharacterized conserved protein from thermus2 thermophilus hb8
98	d1u94a2	Alignment	not modelled	39.4	14	Fold: Anti-LPS factor/recA domain Superfamily: RecA protein, C-terminal domain Family: RecA protein, C-terminal domain
99	d1xp8a2	Alignment	not modelled	31.0	17	Fold: Anti-LPS factor/recA domain Superfamily: RecA protein, C-terminal domain Family: RecA protein, C-terminal domain
100	d1ubea2	Alignment	not modelled	28.6	23	Fold: Anti-LPS factor/recA domain Superfamily: RecA protein, C-terminal domain Family: RecA protein, C-terminal domain
101	d1mo6a2	Alignment	not modelled	27.3	23	Fold: Anti-LPS factor/recA domain Superfamily: RecA protein, C-terminal domain Family: RecA protein, C-terminal domain
102	c2rbgB_	Alignment	not modelled	26.8	15	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative uncharacterized protein st0493; PDBTitle: crystal structure of hypothetical protein(st0493) from2 sulfolobus tokodaii
103	d2odgc1	Alignment	not modelled	25.6	17	Fold: LEM/SAP HeH motif Superfamily: LEM domain Family: LEM domain
104	d2g84a1	Alignment	not modelled	24.5	30	Fold: Cytidine deaminase-like Superfamily: Cytidine deaminase-like Family: Deoxycytidylate deaminase-like
						PDB header: transcription Chain: A: PDB Molecule: transcription

105	c1wnmA_	Alignment	not modelled	24.3	59	Chain: A: PDB Molecule: ribroin-modulator binding-protein-1; PDBTitle: nmr structure of fmbp-1 tandem repeat 2 in 30%(v/v) tfe2 solution
106	c1hjpA_	Alignment	not modelled	22.3	19	PDB header: dna recombination Chain: A: PDB Molecule: ruva; PDBTitle: holliday junction binding protein ruva from e. coli