

Solution NMR Structure of the NlpC/P60 Domain of Lipoteichoic Acid Synthase from *Staphylococcus aureus*: Structural Evidence for a Novel Cysteine Peptidase

Biochemistry

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Structural elucidation of the Cys ⁵⁸ -His ⁵⁹ -Glu ⁶⁰ -Asn proteolytic relay in the secreted CHAP domain enzyme from the human pathogen <i>Staphylococcus saprophyticus</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2009, 74, 515-519.	2.6	30
2	Structure and Functional Regulation of RipA, a Mycobacterial Enzyme Essential for Daughter Cell Separation. <i>Structure</i> , 2010, 18, 1184-1190.	3.3	73
3	Solution structure of the N-terminal catalytic domain of human HsREV107: A novel circular permuted NlpC/P60 domain. <i>FEBS Letters</i> , 2010, 584, 4222-4226.	2.8	28
4	Structure of the β -D-glutamyl-L-diamino acid endopeptidase YkfC from <i>Bacillus cereus</i> in complex with L-Ala- β -D-Glu: insights into substrate recognition by NlpC/P60 cysteine peptidases. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 1354-1364.	0.7	64
5	Peptidoglycan Remodeling in Mycobacterium tuberculosis: Comparison of Structures and Catalytic Activities of RipA and RipB. <i>Journal of Molecular Biology</i> , 2011, 413, 247-260.	4.2	50
6	The phylogeny of Sodalis-like symbionts as reconstructed using surface-encoding loci. <i>FEMS Microbiology Letters</i> , 2011, 317, 143-151.	1.8	31
7	Solution Structure of IseA, an Inhibitor Protein of dl-Endopeptidases from <i>Bacillus subtilis</i> , Reveals a Novel Fold with a Characteristic Inhibitory Loop. <i>Journal of Biological Chemistry</i> , 2012, 287, 44736-44748.	3.4	13
8	Synthetic Lethality of the <i>lytE</i> <i>cwlO</i> Genotype in <i>Bacillus subtilis</i> Is Caused by Lack of <i>d</i> , <i>l</i> -Endopeptidase Activity at the Lateral Cell Wall. <i>Journal of Bacteriology</i> , 2012, 194, 796-803.	2.2	93
9	Structural Basis for the Acyltransferase Activity of Lecithin:Retinol Acyltransferase-like Proteins. <i>Journal of Biological Chemistry</i> , 2012, 287, 23790-23807.	3.4	64
10	Structure/Function Relationships of Adipose Phospholipase A2 Containing a Cys-His-His Catalytic Triad. <i>Journal of Biological Chemistry</i> , 2012, 287, 35260-35274.	3.4	45
11	Structural Insights into the <i>Pseudomonas aeruginosa</i> Type VI Virulence Effector Tse1 Bacteriolysis and Self-protection Mechanisms. <i>Journal of Biological Chemistry</i> , 2012, 287, 26911-26920.	3.4	43
12	Bacterial Cell Division Regulation by Ser/Thr Kinases: A Structural Perspective. <i>Current Protein and Peptide Science</i> , 2012, 13, 756-766.	1.4	52
13	Crystal structure of type VI effector Tse1 from <i>Pseudomonas aeruginosa</i> . <i>FEBS Letters</i> , 2012, 586, 3193-3199.	2.8	23
14	Mapping Inhibitor Binding Modes on an Active Cysteine Protease via Nuclear Magnetic Resonance Spectroscopy. <i>Biochemistry</i> , 2012, 51, 10087-10098.	2.5	13
15	Structure of a Peptidoglycan Amidase Effector Targeted to Gram-Negative Bacteria by the Type VI Secretion System. <i>Cell Reports</i> , 2012, 1, 656-664.	6.4	90
16	Three redundant murein endopeptidases catalyse an essential cleavage step in peptidoglycan synthesis of <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 2012, 86, 1036-1051.	2.5	199
17	Bacterial growth does require peptidoglycan hydrolases. <i>Molecular Microbiology</i> , 2012, 86, 1031-1035.	2.5	71
18	Structural Insights into the Effector Immunity System Tse1/Tsi1 from <i>Pseudomonas aeruginosa</i> . <i>PLoS ONE</i> , 2012, 7, e40453.	2.5	46

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19	One for All or All for One: Heterogeneous Expression and Host Cell Lysis Are Key to Gene Transfer Agent Activity in <i>Rhodobacter capsulatus</i> . <i>PLoS ONE</i> , 2012, 7, e43772.	2.5	57
20	MAP1272c Encodes an NlpC/P60 Protein, an Antigen Detected in Cattle with Johne's Disease. <i>Vaccine Journal</i> , 2012, 19, 1083-1092.	3.1	14
21	Catalytic Mechanisms of Cysteine Peptidases. , 2013, , 1773-1784.		14
22	Cathepsin B. , 2013, , 1784-1791.		3
23	Structural and Functional Studies of gpX of <i>Escherichia coli</i> Phage P2 Reveal a Widespread Role for LysM Domains in the Baseplates of Contractile-Tailed Phages. <i>Journal of Bacteriology</i> , 2013, 195, 5461-5468.	2.2	18
24	Structural insights into the inhibition of type VI effector Tae3 by its immunity protein Tai3. <i>Biochemical Journal</i> , 2013, 454, 59-68.	3.7	26
25	Cloning, expression, purification, crystallization and preliminary crystallographic analysis of the putative NlpC/P60 endopeptidase, TTHA0266, from <i>Thermus thermophilus</i> HB8. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2013, 69, 1291-1294.	0.7	2
26	Structure of the Type VI Effector-Immunity Complex (Tae4-Tai4) Provides Novel Insights into the Inhibition Mechanism of the Effector by Its Immunity Protein*. <i>Journal of Biological Chemistry</i> , 2013, 288, 5928-5939.	3.4	65
27	Crystal Structure of an Uncommon Cellulosome-Related Protein Module from <i>Ruminococcus flavefaciens</i> That Resembles Papain-Like Cysteine Peptidases. <i>PLoS ONE</i> , 2013, 8, e56138.	2.5	19
28	Bacterial Cell Division Regulation by Ser/Thr Kinases: A Structural Perspective. <i>Current Protein and Peptide Science</i> , 2013, 13, 756-766.	1.4	0
29	Integration of host strain bioengineering and bioprocess development using ultra-scale down studies to select the optimum combination: An antibody fragment primary recovery case study. <i>Biotechnology and Bioengineering</i> , 2014, 111, 1971-1981.	3.3	13
30	Structures of a Bifunctional Cell Wall Hydrolase CwlT Containing a Novel Bacterial Lysozyme and an NlpC/P60 dl-Endopeptidase. <i>Journal of Molecular Biology</i> , 2014, 426, 169-184.	4.2	25
31	RipD (Rv1566c) from <i>Mycobacterium tuberculosis</i> : adaptation of an NlpC/p60 domain to a non-catalytic peptidoglycan-binding function. <i>Biochemical Journal</i> , 2014, 457, 33-41.	3.7	21
32	Salinity-Dependent Impacts of ProQ, Prc, and Spr Deficiencies on <i>Escherichia coli</i> Cell Structure. <i>Journal of Bacteriology</i> , 2014, 196, 1286-1296.	2.2	24
33	Crystal structure of the lytic CHAPK domain of the endolysin LysK from <i>Staphylococcus aureus</i> bacteriophage K. <i>Virology Journal</i> , 2014, 11, 133.	3.4	47
34	House dust mites possess a polymorphic, single domain putative peptidoglycan endopeptidase belonging to the NlpC/P60 Superfamily. <i>FEBS Open Bio</i> , 2015, 5, 813-823.	2.3	7
35	Nlp-mediated modulation of outer membrane vesicle production through peptidoglycan dynamics in <i>Escherichia coli</i> . <i>MicrobiologyOpen</i> , 2015, 4, 375-389.	3.0	85
36	Insights into Substrate Specificity of NlpC/P60 Cell Wall Hydrolases Containing Bacterial SH3 Domains. <i>MBio</i> , 2015, 6, e02327-14.	4.1	46

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37	Structural and Functional Characterization of an Ancient Bacterial Transglutaminase Sheds Light on the Minimal Requirements for Protein Cross-Linking. <i>Biochemistry</i> , 2015, 54, 5723-5734.	2.5	21
38	NlpC/P60 domain-containing proteins of <i>Mycobacterium avium</i> subspecies <i>paratuberculosis</i> that differentially bind and hydrolyze peptidoglycan. <i>Protein Science</i> , 2016, 25, 840-851.	7.6	16
39	Functional and structural characterization of a novel putative cysteine protease cell wall-modifying multi-domain enzyme selected from a microbial metagenome. <i>Scientific Reports</i> , 2016, 6, 38031.	3.3	9
40	Transcriptomic analysis of human norovirus NS1-2 protein highlights a multifunctional role in murine monocytes. <i>BMC Genomics</i> , 2017, 18, 39.	2.8	32
41	Structural basis of adaptor-mediated protein degradation by the tail-specific PDZ-protease Prc. <i>Nature Communications</i> , 2017, 8, 1516.	12.8	46
42	Development of a high yielding <i>E. coli</i> periplasmic expression system for the production of humanized Fab' fragments. <i>Biotechnology Progress</i> , 2017, 33, 212-220.	2.6	28
43	Chemistry of Peptidoglycan in <i>Mycobacterium tuberculosis</i> Life Cycle: An off-balance of Synthesis and Degradation. <i>Chemistry - A European Journal</i> , 2018, 24, 2533-2546.	3.3	37
44	Muramyl Endopeptidase Spr Contributes to Intrinsic Vancomycin Resistance in <i>Salmonella enterica</i> Serovar Typhimurium. <i>Frontiers in Microbiology</i> , 2018, 9, 2941.	3.5	8
45	Solution scattering study of the <i>Bacillus subtilis</i> PgdS enzyme involved in poly- β -glutamic acids degradation. <i>PLoS ONE</i> , 2018, 13, e0195355.	2.5	2
46	P40 and P75 Are Singular Functional Muramidases Present in the <i>Lactobacillus casei</i> / <i>paracasei</i> /rhamnosus Taxon. <i>Frontiers in Microbiology</i> , 2019, 10, 1420.	3.5	26
47	The Cell Wall Hydrolytic NlpC/P60 Endopeptidases in Mycobacterial Cytokinesis: A Structural Perspective. <i>Cells</i> , 2019, 8, 609.	4.1	13
48	Peptidoglycan. <i>Sub-Cellular Biochemistry</i> , 2019, 92, 127-168.	2.4	48
49	The structure of <i>Erwinia amylovora</i> AvrRpt2 provides insight into protein maturation and induced resistance to fire blight by <i>Malus domestica</i> . <i>Journal of Structural Biology</i> , 2019, 206, 233-242.	2.8	12
50	The role of the bacterial protease Prc in the uropathogenesis of extraintestinal pathogenic <i>Escherichia coli</i> . <i>Journal of Biomedical Science</i> , 2020, 27, 14.	7.0	24
51	<i>Enterococcus</i> NlpC/p60 Peptidoglycan Hydrolase SagA Localizes to Sites of Cell Division and Requires Only a Catalytic Dyad for Protease Activity. <i>Biochemistry</i> , 2020, 59, 4470-4480.	2.5	4
52	In Silico Characterization of a Hypothetical Protein from <i>Shigella dysenteriae</i> ATCC 12039 Reveals a Pathogenesis-Related Protein of the Type-VI Secretion System. <i>Bioinformatics and Biology Insights</i> , 2021, 15, 117793222110111.	2.0	10
53	A Secreted NlpC/P60 Endopeptidase from <i>Photobacterium damsela</i> subsp. <i>piscicida</i> Cleaves the Peptidoglycan of Potentially Competing Bacteria. <i>MSphere</i> , 2021, 6, .	2.9	3
55	Cwl0971, a novel peptidoglycan hydrolase, plays pleiotropic roles in <i>Clostridioides difficile</i> R20291. <i>Environmental Microbiology</i> , 2021, 23, 5222-5238.	3.8	10

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56	MagC is a NlpC/P60-like member of the $\alpha_2\beta_2$ -macroglobulin Mag complex of <i>Pseudomonas aeruginosa</i> that interacts with peptidoglycan. FEBS Letters, 2021, 595, 2034-2046.	2.8	2
57	DisMeta: A Meta Server for Construct Design and Optimization. Methods in Molecular Biology, 2014, 1091, 3-16.	0.9	64
59	Structural Analysis of Papain-Like NlpC/P60 Superfamily Enzymes with a Circularly Permuted Topology Reveals Potential Lipid Binding Sites. PLoS ONE, 2011, 6, e22013.	2.5	22
60	Comparative Genome Analysis of <i>Enterobacter cloacae</i> . PLoS ONE, 2013, 8, e74487.	2.5	72
61	<i>Enterococcus faecium</i> secreted antigen A generates muropeptides to enhance host immunity and limit bacterial pathogenesis. ELife, 2019, 8, .	6.0	59
62	Structural implication of substrate binding by peptidoglycan remodeling enzyme MepS. Biochemical and Biophysical Research Communications, 2021, 583, 178-183.	2.1	0
63	The future of NMR. PSI Structural Genomics Knowledgebase, 2009, , .	0.0	0
68	Peptidoglycan NlpC/P60 peptidases in bacterial physiology and host interactions. Cell Chemical Biology, 2023, 30, 436-456.	5.2	5
69	Identification and classification of papain-like cysteine proteinases. Journal of Biological Chemistry, 2023, 299, 104801.	3.4	5
70	Chemical shift transfer: an effective strategy for protein NMR assignment with ARTINA. Frontiers in Molecular Biosciences, 0, 10, .	3.5	1
71	The 100-protein NMR spectra dataset: A resource for biomolecular NMR data analysis. Scientific Data, 2024, 11, .	5.3	0