Structureâ€“Function Profile of MmpL3, the Essential M
<i>Mycobacterium tuberculosis</i>

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Citation Report

#	Article	IF	Citations
1	Transport of outer membrane lipids in mycobacteria. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2017, 1862, 1340-1354.	1.2	26
2	PPE Surface Proteins Are Required for Heme Utilization by <i>Mycobacterium tuberculosis</i>. MBio, 2017, 8, .	1.8	69
3	Synergistic Interactions of MmpL3 Inhibitors with Antitubercular Compounds <i>In Vitro</i>. Antimicrobial Agents and Chemotherapy, 2017, 61, .	1.4	56
4	Identification of a Membrane Protein Required for Lipomannan Maturation and Lipoarabinomannan Synthesis in Corynebacterineae. Journal of Biological Chemistry, 2017, 292, 4976-4986.	1.6	23
5	The EXIT Strategy: an Approach for Identifying Bacterial Proteins Exported during Host Infection. MBio, 2017, 8, .	1.8	21
6	The diverse family of <scp>M</scp>mp<scp>L</scp> transporters in mycobacteria: from regulation to antimicrobial developments. Molecular Microbiology, 2017, 104, 889-904.	1.2	109
7	MmpL3 is the flippase for mycolic acids in mycobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7993-7998.	3.3	156
8	HC2091 Kills Mycobacterium tuberculosis by Targeting the MmpL3 Mycolic Acid Transporter. Antimicrobial Agents and Chemotherapy, 2018, 62, .	1.4	37
9	Covalent modifications of polysaccharides in mycobacteria. Nature Chemical Biology, 2018, 14, 193-198.	3.9	22
10	RND transporters in the living world. Research in Microbiology, 2018, 169, 363-371.	1.0	99
11	Evolution of structural fitness and multifunctional aspects of mycobacterial RND family transporters. Archives of Microbiology, 2018, 200, 19-31.	1.0	16
12	Easy-To-Synthesize Spirocyclic Compounds Possess Remarkable in Vivo Activity against <i>Mycobacterium tuberculosis</i>. Journal of Medicinal Chemistry, 2018, 61, 11327-11340.	2.9	22
13	Novel Acetamide Indirectly Targets Mycobacterial Transporter MmpL3 by Proton Motive Force Disruption. Frontiers in Microbiology, 2018, 9, 2960.	1.5	28
14	Optimization and Lead Selection of Benzothiazole Amide Analogs Toward a Novel Antimycobacterial Agent. Frontiers in Microbiology, 2018, 9, 2231.	1.5	28
15	Uncloaking an ancient adversary: Can pathogen biomarker elicitors play a role in confirming extrapulmonary TB and latent TB infection?. Tuberculosis, 2018, 113, 30-37.	0.8	1
16	Cell envelope lipids in the pathophysiology ofMycobacterium tuberculosis. Future Microbiology, 2018, 13, 689-710.	1.0	26
17	MmpL3 as a Target for the Treatment of Drug-Resistant Nontuberculous Mycobacterial Infections. Frontiers in Microbiology, 2018, 9, 1547.	1.5	40
18	Therapeutic potential of promiscuous targets in Mycobacterium tuberculosis. Current Opinion in Pharmacology, 2018, 42, 22-26.	1.7	25

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19	The Physiology of Mycobacterium tuberculosis in the Context of Drug Resistance: A System Biology Perspective. , 2018, , .		3
20	Identification of New MmpL3 Inhibitors by Untargeted and Targeted Mutant Screens Defines MmpL3 Domains with Differential Resistance. Antimicrobial Agents and Chemotherapy, 2019, 63, .	1.4	33
21	1 <i>H</i> -Benzo[<i>d</i>]Imidazole Derivatives Affect MmpL3 in Mycobacterium tuberculosis. Antimicrobial Agents and Chemotherapy, 2019, 63, .	1.4	25
22	The MmpL3 interactome reveals a complex crosstalk between cell envelope biosynthesis and cell elongation and division in mycobacteria. Scientific Reports, 2019, 9, 10728.	1.6	32
23	Identification of novel scaffolds targeting Mycobacterium tuberculosis. Journal of Molecular Medicine, 2019, 97, 1601-1613.	1.7	18
24	Heme and hemoglobin utilization by Mycobacterium tuberculosis. Nature Communications, 2019, 10, 4260.	5.8	55
25	Crystal Structures of Membrane Transporter MmpL3, an Anti-TB Drug Target. Cell, 2019, 176, 636-648.e13.	13.5	172
26	Novel Amphiphilic Cyclobutene and Cyclobutane cis-C18 Fatty Acid Derivatives Inhibit Mycobacterium avium subsp. paratuberculosis Growth. Veterinary Sciences, 2019, 6, 46.	0.6	5
27	MmpL3 is a lipid transporter that binds trehalose monomycolate and phosphatidylethanolamine. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11241-11246.	3.3	94
28	Disruption of the SucT acyltransferase in Mycobacterium smegmatis abrogates succinylation of cell envelope polysaccharides. Journal of Biological Chemistry, 2019, 294, 10325-10335.	1.6	19
29	Direct Inhibition of MmpL3 by Novel Antitubercular Compounds. ACS Infectious Diseases, 2019, 5, 1001-1012.	1.8	74
30	MmpL Proteins in Physiology and Pathogenesis of M. tuberculosis. Microorganisms, 2019, 7, 70.	1.6	63
31	Future Nontuberculous Mycobacteria DST and Therapeutic Interventions. , 2019, , 85-100.		0
32	Altered drug efflux under iron deprivation unveils abrogated MmpL3 driven mycolic acid transport and fluidity in mycobacteria. BioMetals, 2019, 32, 49-63.	1.8	15
33	Iron Acquisition in <i>Mycobacterium tuberculosis</i>. Chemical Reviews, 2019, 119, 1193-1220.	23.0	80
34	Computational studies on N-phenyl pyrrole derivatives as MmpL3 inhibitors in Mycobacterium tuberculosis. Computational Biology and Chemistry, 2019, 78, 81-94.	1.1	5
35	An overview of new antitubercular drugs, drug candidates, and their targets. Medicinal Research Reviews, 2020, 40, 263-292.	5.0	114
36	Active Benzimidazole Derivatives Targeting the MmpL3 Transporter in <i>Mycobacterium abscessus</i>. ACS Infectious Diseases, 2020, 6, 324-337.	1.8	44

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37	MmpL3 Inhibition: A New Approach to Treat Nontuberculous Mycobacterial Infections. International Journal of Molecular Sciences, 2020, 21, 6202.	1.8	21
38	Multiple Mutations in Mycobacterium tuberculosis MmpL3 Increase Resistance to MmpL3 Inhibitors. MSphere, 2020, 5, .	1.3	16
39	The Two-Component Locus MSMEG_0244/0246 Together With MSMEG_0243 Affects Biofilm Assembly in M. smegmatis Correlating With Changes in Phosphatidylinositol Mannosides Acylation. Frontiers in Microbiology, 2020, 11, 570606.	1.5	4
40	Drug discovery targeting drug-resistant nontuberculous mycobacteria. , 2020, , 361-376.		2
41	Promiscuous Targets for Antitubercular Drug Discovery: The Paradigm of DprE1 and MmpL3. Applied Sciences (Switzerland), 2020, 10, 623.	1.3	44
42	Comprehensive analysis of iron utilization by Mycobacterium tuberculosis. PLoS Pathogens, 2020, 16, e1008337.	2.1	58
43	Design, synthesis, and biological evaluation of novel arylcarboxamide derivatives as anti-tubercular agents. RSC Advances, 2020, 10, 7523-7540.	1.7	24
44	Transporters Involved in the Biogenesis and Functionalization of the Mycobacterial Cell Envelope. Chemical Reviews, 2021, 121, 5124-5157.	23.0	37
45	Structural and Functional Diversity of Resistanceâ€"Nodulationâ€"Cell Division Transporters. Chemical Reviews, 2021, 121, 5378-5416.	23.0	48
46	Two-Way Regulation of MmpL3 Expression Identifies and Validates Inhibitors of MmpL3 Function in <i>Mycobacterium tuberculosis</i>. ACS Infectious Diseases, 2021, 7, 141-152.	1.8	13
47	Multidrug Efflux Pumps and the Two-Faced Janus of Substrates and Inhibitors. Accounts of Chemical Research, 2021, 54, 930-939.	7.6	25
48	Structure, Assembly, and Function of Tripartite Efflux and Type 1 Secretion Systems in Gram-Negative Bacteria. Chemical Reviews, 2021, 121, 5479-5596.	23.0	103
49	Cryo-EM structure and resistance landscape of M.Âtuberculosis MmpL3: An emergent therapeutic target. Structure, 2021, 29, 1182-1191.e4.	1.6	25
50	Improved Synthesis of the Antitubercular Agent SQ109. SynOpen, 2021, 05, 321-326.	0.8	1
51	The thick waxy coat of mycobacteria, a protective layer against antibiotics and the host's immune system. Biochemical Journal, 2020, 477, 1983-2006.	1.7	86
52	Targeting MmpL3 for anti-tuberculosis drug development. Biochemical Society Transactions, 2020, 48, 1463-1472.	1.6	24
53	Mutations in MmpL3 alter membrane potential, hydrophobicity and antibiotic susceptibility in Mycobacterium smegmatis. Microbiology (United Kingdom), 2017, 163, 1065-1070.	0.7	30
57	Analysis of the oligomeric state of mycobacterial membrane protein large 3 and its interaction with SQ109 with native cell membrane nanoparticles system. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183793.	1.4	4

#	Article	IF	Citations
58	MmpL3, the trehalose monomycolate transporter, is stable in solution in several detergents and can be reconstituted into peptidiscs. Protein Expression and Purification, 2022, 191, 106014.	0.6	3
59	Advances in Key Drug Target Identification and New Drug Development for Tuberculosis. BioMed Research International, 2022, 2022, 1-23.	0.9	10
65	Proton transfer activity of the reconstituted <i>Mycobacterium tuberculosis</i> MmpL3 is modulated by substrate mimics and inhibitors. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	8
66	Novel chemical entities inhibiting Mycobacterium tuberculosis growth identified by phenotypic high-throughput screening. Scientific Reports, 2022, 12, .	1.6	4
67	MmpL3 Inhibition as a Promising Approach to Develop Novel Therapies against Tuberculosis: A Spotlight on SQ109, Clinical Studies, and Patents Literature. Biomedicines, 2022, 10, 2793.	1.4	9
68	Microbiological profile, preclinical pharmacokinetics and efficacy of CRS0393, a novel antimycobacterial agent targeting MmpL3. Tuberculosis, 2023, 138, 102288.	0.8	4
69	The pathogenic mechanism of Mycobacterium tuberculosis: implication for new drug development. Molecular Biomedicine, 2022, 3, .	1.7	4
70	Structural Determinants of Indole-2-carboxamides: Identification of Lead Acetamides with Pan Antimycobacterial Activity. Journal of Medicinal Chemistry, 2023, 66, 170-187.	2.9	4
71	Update on the Discovery of Efflux Pump Inhibitors against Critical Priority Gram-Negative Bacteria. Antibiotics, 2023, 12, 180.	1.5	23
72	Molecular Mechanisms of MmpL3 Function and Inhibition. Microbial Drug Resistance, 2023, 29, 190-212.	0.9	3
73	Insights into substrate transport and water permeation in the mycobacterial transporter MmpL3. Biophysical Journal, 2023, 122, 2342-2352.	0.2	4
74	Design, synthesis, and biological evaluation of 1,2,4-triazole derivatives as potent antitubercular agents. Chinese Chemical Letters, 2024, 35, 108464.	4.8	1