Dominique Mengin-Lecreulx

List of Publications by Year
in descending order

57 papers	3,695 citations	159585 30 h-index	149698 56 g-index
58 all docs	58 docs citations	58 times ranked	3508 citing authors

#	Article	IF	Citations
1	The Drosophila immune system detects bacteria through specific peptidoglycan recognition. Nature Immunology, 2003, 4, 478-484.	14.5	533
2	The biosynthesis of peptidoglycan lipid-linked intermediates. FEMS Microbiology Reviews, 2008, 32, 208-233.	8.6	364
3	The bacA Gene of Escherichia coli Encodes an Undecaprenyl Pyrophosphate Phosphatase Activity. Journal of Biological Chemistry, 2004, 279, 30106-30113.	3.4	170
4	Characterization of the Essential Gene glmM Encoding Phosphoglucosamine Mutase in Escherichia coli. Journal of Biological Chemistry, 1996, 271, 32-39.	3.4	166
5	Identification of Multiple Genes Encoding Membrane Proteins with Undecaprenyl Pyrophosphate Phosphatase (UppP) Activity in Escherichia coli. Journal of Biological Chemistry, 2005, 280, 18689-18695.	3.4	147
6	The essential peptidoglycan glycosyltransferase MurG forms a complex with proteins involved in lateral envelope growth as well as with proteins involved in cell division in Escherichia coli. Molecular Microbiology, 2007, 65, 1106-1121.	2.5	147
7	Purification and Characterization of the Bacterial MraY Translocase Catalyzing the First Membrane Step of Peptidoglycan Biosynthesis. Journal of Biological Chemistry, 2004, 279, 29974-29980.	3.4	145
8	Peptidoglycan Molecular Requirements Allowing Detection by the Drosophila Immune Deficiency Pathway. Journal of Immunology, 2004, 173, 7339-7348.	0.8	141
9	Factors essential for L,D-transpeptidase-mediated peptidoglycan cross-linking and Î²-lactam resistance in Escherichia coli. ELife, 2016, 5, .	6.0	137
10	Deciphering the Metabolism of Undecaprenyl-Phosphate: The Bacterial Cell-Wall Unit Carrier at the Membrane Frontier. Microbial Drug Resistance, 2014, 20, 199-214.	2.0	128
11	Periplasmic phosphorylation of lipid A is linked to the synthesis of undecaprenyl phosphate. Molecular Microbiology, 2008, 67, 264-277.	2.5	116
12	Colicin M Exerts Its Bacteriolytic Effect via Enzymatic Degradation of Undecaprenyl Phosphate-linked Peptidoglycan Precursors. Journal of Biological Chemistry, 2006, 281, 22761-22772.	3.4	106
13	BcrC from Bacillus subtilis Acts as an Undecaprenyl Pyrophosphate Phosphatase in Bacitracin Resistance. Journal of Biological Chemistry, 2005, 280, 28852-28857.	3.4	91
14	PGRP-SD, an Extracellular Pattern-Recognition Receptor, Enhances Peptidoglycan-Mediated Activation of the Drosophila Imd Pathway. Immunity, 2016, 45, 1013-1023.	14.3	77
15	Quantitative high-performance liquid chromatography analysis of the pool levels of undecaprenyl phosphate and its derivatives in bacterial membranes. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2009, 877, 213-220.	2.3	75
16	Probing the Role of Cysteine Residues in Glucosamine-1-Phosphate Acetyltransferase Activity of the Bifunctional GlmU Protein from Escherichia coli : Site-Directed Mutagenesis and Characterization of the Mutant Enzymes. Journal of Bacteriology, 1998, 180, 4799-4803.	2.2	72
17	Substrate Specificity and Membrane Topology of Escherichia coli PgpB, an Undecaprenyl Pyrophosphate Phosphatase. Journal of Biological Chemistry, 2008, 283, 16573-16583.	3.4	71
18	Human- and Plant-Pathogenic Pseudomonas Species Produce Bacteriocins Exhibiting Colicin M-Like Hydrolase Activity towards Peptidoglycan Precursors. Journal of Bacteriology, 2009, 191, 3657-3664.	2.2	68

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19	Purification and Characterization of the Bacterial UDP-GlcNAc:Undecaprenyl-Phosphate GlcNAc-1-Phosphate Transferase WecA. Journal of Bacteriology, 2008, 190, 7141-7146.	2.2	59
20	Weevilpgrp-lbprevents endosymbiont TCT dissemination and chronic host systemic immune activation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5623-5632.	7.1	56
21	The functional <scp>vanG_{Cd}</scp> cluster of <scp>C</scp>lostridium difficile does not confer vancomycin resistance. Molecular Microbiology, 2013, 89, 612-625.	2.5	53
22	Structure and metabolism of peptidoglycan and molecular requirements allowing its detection by the <I>Drosophila</I> innate immune system. Journal of Endotoxin Research, 2005, 11, 105-111.	2.5	47
23	Biochemical Characterization and Physiological Properties of Escherichia coli UDP- N -Acetylmuramate: l -Alanyl-Î³- d -Glutamyl- meso - Diaminopimelate Ligase. Journal of Bacteriology, 2007, 189, 3987-3995.	2.2	47
24	Functional and Biochemical Analysis of Chlamydia trachomatis MurC, an Enzyme Displaying UDP- N -Acetylmuramate:Amino Acid Ligase Activity. Journal of Bacteriology, 2003, 185, 6507-6512.	2.2	46
25	Structural basis of adaptor-mediated protein degradation by the tail-specific PDZ-protease Prc. Nature Communications, 2017, 8, 1516.	12.8	46
26	Catalytic mechanism of MraY and WecA, two paralogues of the polyprenyl-phosphate N-acetylhexosamine 1-phosphate transferase superfamily. Biochimie, 2016, 127, 249-257.	2.6	45
27	Critical Impact of Peptidoglycan Precursor Amidation on the Activity of <scp>l,d</scp>â€transpeptidases from Enterococcus faecium and Mycobacterium tuberculosis. Chemistry - A European Journal, 2018, 24, 5743-5747.	3.3	44
28	The Extended Conformation of the 2.9-Ã... Crystal Structure of the Three-PASTA Domain of a Ser/Thr Kinase from the Human Pathogen Staphylococcus aureus. Journal of Molecular Biology, 2010, 404, 847-858.	4.2	40
29	Deciphering the Catalytic Domain of Colicin M, a Peptidoglycan Lipid II-degrading Enzyme. Journal of Biological Chemistry, 2010, 285, 12378-12389.	3.4	36
30	Diaminopimelic Acid Amidation in Corynebacteriales. Journal of Biological Chemistry, 2015, 290, 13079-13094.	3.4	36
31	Inhibition of the Staphylococcus aureus c-di-AMP cyclase DacA by direct interaction with the phosphoglucosamine mutase GlmM. PLoS Pathogens, 2019, 15, e1007537.	4.7	35
32	Functional and Structural Characterization of PaeM, a Colicin M-like Bacteriocin Produced by Pseudomonas aeruginosa. Journal of Biological Chemistry, 2012, 287, 37395-37405.	3.4	33
33	Membrane Topology and Biochemical Characterization of the Escherichia coli BacA Undecaprenyl-Pyrophosphate Phosphatase. PLoS ONE, 2015, 10, e0142870.	2.5	32
34	Substrate-Induced Inactivation of the Escherichia coli AmiD N -Acetylmuramoyl-<scp>l</scp> -Alanine Amidase Highlights a New Strategy To Inhibit This Class of Enzyme. Antimicrobial Agents and Chemotherapy, 2009, 53, 2991-2997.	3.2	28
35	Purification and biochemical characterization of Mur ligases from Staphylococcus aureus. Biochimie, 2010, 92, 1793-1800.	2.6	28
36	X-Ray Structure and Site-Directed Mutagenesis Analysis of theEscherichia coliColicin M Immunity Protein. Journal of Bacteriology, 2011, 193, 205-214.	2.2	21

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37	Crystal structure and biochemical characterization of the transmembrane PAP2 type phosphatidylglycerol phosphate phosphatase from Bacillus subtilis. Cellular and Molecular Life Sciences, 2017, 74, 2319-2332.	5.4	20
38	Colicin M, a peptidoglycan lipid-II-degrading enzyme: potential use for antibacterial means?. Biochemical Society Transactions, 2012, 40, 1522-1527.	3.4	17
39	Toxicity of the Colicin M Catalytic Domain Exported to the Periplasm Is FkpA Independent. Journal of Bacteriology, 2010, 192, 5212-5219.	2.2	16
40	Structure and Function of a Novel <scp>ld</scp> -Carboxypeptidase A Involved in Peptidoglycan Recycling. Journal of Bacteriology, 2013, 195, 5555-5566.	2.2	16
41	Dual regulation of activity and intracellular localization of the PASTA kinase PrkC during Bacillus subtilis growth. Scientific Reports, 2018, 8, 1660.	3.3	16
42	Colicin M hydrolyses branched lipids II from Gram-positive bacteria. Biochimie, 2012, 94, 985-990.	2.6	15
43	The MurG glycosyltransferase provides an oligomeric scaffold for the cytoplasmic steps of peptidoglycan biosynthesis in the human pathogen Bordetella pertussis. Scientific Reports, 2019, 9, 4656.	3.3	15
44	Electrophilic RNA for Peptidylâ€RNA Synthesis and Siteâ€Specific Crossâ€Linking with tRNAâ€Binding Enzymes. Angewandte Chemie - International Edition, 2016, 55, 13553-13557.	13.8	11
45	HupA, the main undecaprenyl pyrophosphate and phosphatidylglycerol phosphate phosphatase in Helicobacter pylori is essential for colonization of the stomach. PLoS Pathogens, 2019, 15, e1007972.	4.7	11
46	MexAB-OprM Efflux Pump Interaction with the Peptidoglycan of Escherichia coli and Pseudomonas aeruginosa. International Journal of Molecular Sciences, 2021, 22, 5328.	4.1	10
47	Insight into the dual function of lipid phosphate phosphatase PgpB involved in two essential cell-envelope metabolic pathways in Escherichia coli. Scientific Reports, 2020, 10, 13209.	3.3	9
48	Electrophilic RNA for Peptidylâ€RNA Synthesis and Siteâ€Specific Crossâ€Linking with tRNAâ€Binding Enzymes. Angewandte Chemie, 2016, 128, 13751-13755.	2.0	8
49	Different Vancomycin-IntermediateStaphylococcus aureusPhenotypes Selected from the Same ST100-hVISA Parental Strain. Microbial Drug Resistance, 2017, 23, 44-50.	2.0	8
50	AsnB is responsible for peptidoglycan precursor amidation in Clostridium difficile in the presence of vancomycin. Microbiology (United Kingdom), 2020, 166, 567-578.	1.8	8
51	Synthesis of Analogues of Precursors of Bacterial Peptidoglycan. , 1983, , 311-314.		6
52	Identification and Partial Characterization of a Novel UDP-N-Acetylenolpyruvoylglucosamine Reductase/UDP-N-Acetylmuramate:l-Alanine Ligase Fusion Enzyme from Verrucomicrobium spinosum DSM 4136T. Frontiers in Microbiology, 2016, 7, 362.	3.5	6
53	Pectocin M1 (PcaM1) Inhibits Escherichia coli Cell Growth and Peptidoglycan Biosynthesis through Periplasmic Expression. Antibiotics, 2016, 5, 36.	3.7	5
54	Synthesis of Lipidâ€Carbohydrateâ€Peptidylâ€RNA Conjugates to Explore the Limits Imposed by the Substrate Specificity of Cell Wall Enzymes on the Acquisition of Drug Resistance. Chemistry - A European Journal, 2018, 24, 14911-14915.	3.3	5

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55	CbrA Mediates Colicin M Resistance in Escherichia coli through Modification of Undecaprenyl-Phosphate-Linked Peptidoglycan Precursors. Journal of Bacteriology, 2020, 202, .	2.2	3
56	Impact of FiuA Outer Membrane Receptor Polymorphism on the Resistance of Pseudomonas aeruginosa toward Peptidoglycan Lipid II-Targeting PaeM Pyocins. Journal of Bacteriology, 2019, 201, .	2.2	2
57	Functional analysis of the three major PGRPLC isoforms in the midgut of the malaria mosquito Anopheles coluzzii. Insect Biochemistry and Molecular Biology, 2020, 118, 103288.	2.7	2