Paul Blount

List of Publications by Year
in descending order

67 papers	4,325 citations	126907 33 h-index	110387 64 g-index
67 all docs	67 docs citations	67 times ranked	2276 citing authors

#	Article	IF	Citations
1	In Silico Screen Identifies a New Family of Agonists for the Bacterial Mechanosensitive Channel MscL. Antibiotics, 2022, 11, 433.	3.7	4
2	A native cell membrane nanoparticles system allows for high-quality functional proteoliposome reconstitution. BBA Advances, 2021, 1, 100011.	1.6	9
3	Cryo-EM Structure of Mechanosensitive Channel YnaI Using SMA2000: Challenges and Opportunities. Membranes, 2021, 11, 849.	3.0	10
4	Curcumin activation of a bacterial mechanosensitive channel underlies its membrane permeability and adjuvant properties. PLoS Pathogens, 2021, 17, e1010198.	4.7	9
5	Novel MscL agonists that allow multiple antibiotics cytoplasmic access activate the channel through a common binding site. PLoS ONE, 2020, 15, e0228153.	2.5	14
6	Life with Bacterial Mechanosensitive Channels, from Discovery to Physiology to Pharmacological Target. Microbiology and Molecular Biology Reviews, 2020, 84, .	6.6	41
7	Spectrin couples cell shape, cortical tension, and Hippo signaling in retinal epithelial morphogenesis. Journal of Cell Biology, 2020, 219, .	5.2	29
8	Interaction of the Mechanosensitive Channel, MscS, with the Membrane Bilayer through Lipid Intercalation into Grooves and Pockets. Journal of Molecular Biology, 2019, 431, 3339-3352.	4.2	24
9	An agonist of the MscL channel affects multiple bacterial species and increases membrane permeability and potency of common antibiotics. Molecular Microbiology, 2019, 112, 896-905.	2.5	16
10	Human mutations highlight an intersubunit cationâ€"Ï€ bond that stabilizes the closed but not open or inactivated states of TRPV channels. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9410-9416.	7.1	6
11	Novel compounds that specifically bind and modulate MscL: insights into channel gating mechanisms. FASEB Journal, 2019, 33, 3180-3189.	0.5	17
12	Engineering a pHâ€Sensitive Liposomal MRI Agent by Modification of a Bacterial Channel. Small, 2018, 14, e1704256.	10.0	16
13	Effects of Low Intensity Focused Ultrasound on Liposomes Containing Channel proteins. Scientific Reports, 2018, 8, 17250.	3.3	23
14	Dihydrostreptomycin Directly Binds to, Modulates, and Passes through the MscL Channel Pore. PLoS Biology, 2016, 14, e1002473.	5.6	35
15	Scanning MscL Channels with Targeted Post-Translational Modifications for Functional Alterations. PLoS ONE, 2015, 10, e0137994.	2.5	24
16	A new antibiotic with potent activity targets MscL. Journal of Antibiotics, 2015, 68, 453-462.	2.0	46
17	The mechanosensitive channel of small conductance (MscS) functions as a Jack-In-The Box. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 159-166.	2.6	32
18	Mutations in a Conserved Domain of E. coli MscS to the Most Conserved Superfamily Residue Leads to Kinetic Changes. PLoS ONE, 2015, 10, e0136756.	2.5	12

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19	Streptomycin potency is dependent on MscL channel expression. Nature Communications, 2014, 5, 4891.	12.8	51
20	Electrostatics at the membrane define MscL channel mechanosensitivity and kinetics. FASEB Journal, 2014, 28, 5234-5241.	0.5	9
21	Dynamics of Protein-Protein Interactions at the MscL Periplasmic-Lipid Interface. Biophysical Journal, 2014, 106, 375-381.	0.5	7
22	Chimeras Reveal a Single Lipid-Interface Residue that Controls MscL Channel Kinetics as well as Mechanosensitivity. Cell Reports, 2013, 3, 520-527.	6.4	21
23	Phosphatidylinositol Is Crucial for the Mechanosensitivity of <i>Mycobacterium tuberculosis</i> MscL. Biochemistry, 2013, 52, 5415-5420.	2.5	36
24	Improving the Design of a MscL-Based Triggered Nanovalve. Biosensors, 2013, 3, 171-184.	4.7	30
25	The dynamics of protein-protein interactions between domains of MscL at the cytoplasmic-lipid interface. Channels, 2012, 6, 255-261.	2.8	13
26	The MscS and MscL Families of Mechanosensitive Channels Act as Microbial Emergency Release Valves. Journal of Bacteriology, 2012, 194, 4802-4809.	2.2	189
27	Structure and molecular mechanism of an anion-selective mechanosensitive channel of small conductance. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18180-18185.	7.1	56
28	Three Routes To Modulate the Pore Size of the MscL Channel/Nanovalve. ACS Nano, 2012, 6, 1134-1141.	14.6	36
29	Sensing and Responding to Membrane Tension: The Bacterial MscL Channel as a Model System. Biophysical Journal, 2012, 103, 169-174.	0.5	72
30	The oligomeric state of the truncated mechanosensitive channel of large conductance shows no variance <i>in vivo</i>. Protein Science, 2011, 20, 1638-1642.	7.6	33
31	Manipulating the permeation of charged compounds through the MscL nanovalve. FASEB Journal, 2011, 25, 428-434.	0.5	14
32	An <i>in vivo</i> screen reveals proteinâ€lipid interactions crucial for gating a mechanosensitive channel. FASEB Journal, 2011, 25, 694-702.	0.5	23
33	S. aureus MscL Is a Pentamer In Vivo but of Variable Stoichiometries In Vitro: Implications for Detergent-Solubilized Membrane Proteins. PLoS Biology, 2010, 8, e1000555.	5.6	60
34	An openâ€pore structure of the mechanosensitive channel MscL derived by determining transmembrane domain interactions upon gating. FASEB Journal, 2009, 23, 2197-2204.	0.5	28
35	Voltage-induced gating of the mechanosensitive MscL ion channel reconstituted in a tethered lipid bilayer membrane. Biosensors and Bioelectronics, 2008, 23, 919-923.	10.1	38
36	On the Structure of the N-Terminal Domain of the MscL Channel: Helical Bundle or Membrane Interface. Biophysical Journal, 2008, 95, 2283-2291.	0.5	72

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37	Mechanosensitive Channels Gated by Membrane Tension. , 2008, , 71-101.		6
38	Mechanosensitive Channels and Sensing Osmotic Stimuli in Bacteria. Springer Series in Biophysics, 2008, , 25-45.	0.4	2
39	MscL: The Bacterial Mechanosensitive Channel of Large Conductance. Current Topics in Membranes, 2007, 58, 201-233.	0.9	7
40	Disulfide Trapping the Mechanosensitive Channel MscL into a Gating-Transition State. Biophysical Journal, 2007, 92, 1224-1232.	0.5	29
41	Mechanosensitive Channel Gating Transitions Resolved by Functional Changes upon Pore Modification. Biophysical Journal, 2006, 91, 3684-3691.	0.5	39
42	Pivotal role of the glycine-rich TM3 helix in gating the MscS mechanosensitive channel. Nature Structural and Molecular Biology, 2005, 12, 113-119.	8.2	125
43	Lactococcus lactis Uses MscL as Its Principal Mechanosensitive Channel. Journal of Biological Chemistry, 2005, 280, 8784-8792.	3.4	35
44	Assessment of Potential Stimuli for Mechano-Dependent Gating of MscL:â€‰ Effects of Pressure, Tension, and Lipid Headgroups. Biochemistry, 2005, 44, 12239-12244.	2.5	183
45	An in vivo assay identifies changes in residue accessibility on mechanosensitive channel gating. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 10161-10165.	7.1	61
46	Intragenic suppression of gain-of-function mutations in the Escherichia coli mechanosensitive channel, MscL. Molecular Microbiology, 2004, 53, 485-495.	2.5	32
47	Channels in microbes: so many holes to fill. Molecular Microbiology, 2004, 53, 373-380.	2.5	44
48	Defining the Physical Gate of a Mechanosensitive Channel, MscL, by Engineering Metal-Binding Sites. Biophysical Journal, 2004, 87, 3172-3180.	0.5	48
49	Cysteine Scanning of MscL Transmembrane Domains Reveals Residues Critical for Mechanosensitive Channel Gating. Biophysical Journal, 2004, 86, 2862-2870.	0.5	68
50	Molecular Mechanisms of Mechanosensation. Neuron, 2003, 37, 731-734.	8.1	35
51	Family ties of gated pores: evolution of the sensor module. FASEB Journal, 2002, 16, 1623-1629.	0.5	62
52	Functional Design of Bacterial Mechanosensitive Channels. Journal of Biological Chemistry, 2002, 277, 27682-27688.	3.4	79
53	How do membrane proteins sense water stress?. Molecular Microbiology, 2002, 44, 889-902.	2.5	130
54	Ionic regulation of MscK, a mechanosensitive channel from Escherichia coli. EMBO Journal, 2002, 21, 5323-5330.	7.8	123

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55	Correlating a Protein Structure with Function of a Bacterial Mechanosensitive Channel. Journal of Biological Chemistry, 2000, 275, 31121-31127.	3.4	92
56	Bacterial mechanosensitive channels: integrating physiology, structure and function. Trends in Microbiology, 1999, 7, 420-424.	7.7	114
57	Hydrophilicity of a Single Residue within MscL Correlates with Increased Channel Mechanosensitivity. Biophysical Journal, 1999, 77, 1960-1972.	0.5	187
58	[24] Mechanosensitive channels of bacteria. Methods in Enzymology, 1999, 294, 458-482.	1.0	118
59	Functional and structural conservation in the mechanosensitive channel MscL implicates elements crucial for mechanosensation. Molecular Microbiology, 1998, 28, 583-592.	2.5	126
60	Mutations in a Bacterial Mechanosensitive Channel Change the Cellular Response to Osmotic Stress. Journal of Biological Chemistry, 1997, 272, 32150-32157.	3.4	113
61	MECHANOSENSITIVE CHANNELS OFESCHERICHIA COLI:The MscL Gene, Protein, and Activities. Annual Review of Physiology, 1997, 59, 633-657.	13.1	289
62	Towards an understanding of the structural and functional properties of MscL, a mechanosensitive channel in bacteria. Biology of the Cell, 1996, 87, 1-8.	2.0	41
63	Towards an understanding of the structural and functional properties of MscL, a mechanosensitive channel in bacteria. Biology of the Cell, 1996, 87, 1-8.	2.0	11
64	A large-conductance mechanosensitive channel in E. coli encoded by mscL alone. Nature, 1994, 368, 265-268.	27.8	680
65	The roles of the putative third cytoplasmic loop and cytoplasmic carboxyl tail of NK-1 and NK-2 receptors in agonist stimulated second messenger responses in stably transfected CHO cells. Regulatory Peptides, 1993, 46, 447-449.	1.9	6
66	Molecular basis of the two nonequivalent ligand binding sites of the muscle nicotinic acetylcholine receptor. Neuron, 1989, 3, 349-357.	8.1	283
67	The Bacterial Mechanosensitive Channel MscS and Its Extended Family. , 0, , 247-258.		2