Lonny R Levin

List of Publications by Year
in descending order

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94	8,954	57631	49773
papers	citations	44 h-index	87 g-index

97	97	97	6089
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Soluble Adenylyl Cyclase as an Evolutionarily Conserved Bicarbonate Sensor. Science, 2000, 289, 625-628.	6.0	771
2	The Drosophila learning and memory gene rutabaga encodes a Ca2+calmodulin-responsive adenylyl cyclase. Cell, 1992, 68, 479-489.	13.5	561
3	The S. cerevisiae CDC25 gene product regulates the RAS/adenylate cyclase pathway. Cell, 1987, 48, 789-799.	13.5	523
4	Cyclic AMP Produced inside Mitochondria Regulates Oxidative Phosphorylation. Cell Metabolism, 2009, 9, 265-276.	7.2	422
5	Fungal Adenylyl Cyclase Integrates CO2 Sensing with cAMP Signaling and Virulence. Current Biology, 2005, 15, 2021-2026.	1.8	372
6	The â€œSolubleâ€•Adenylyl Cyclase in Sperm Mediates Multiple Signaling Events Required for Fertilization. Developmental Cell, 2005, 9, 249-259.	3.1	353
7	Kinetic Properties of â€œSolubleâ€•Adenylyl Cyclase. Journal of Biological Chemistry, 2003, 278, 15922-15926.	1.6	316
8	cAMP-independent control of sporulation, glycogen metabolism, and heat shock resistance in S. cerevisiae. Cell, 1988, 53, 555-566.	13.5	291
9	Molecular Details of cAMP Generation in Mammalian Cells: A Tale of Two Systems. Journal of Molecular Biology, 2006, 362, 623-639.	2.0	284
10	Compartmentalization of bicarbonateâ€sensitive adenylyl cyclase in distinct signaling microdomains. FASEB Journal, 2003, 17, 82-84.	0.2	259
11	Preferential expression of the drosophila rutabaga gene in mushroom bodies, neural centers for learning in insects. Neuron, 1992, 9, 619-627.	3.8	239
12	Metabolic Communication between Astrocytes and Neurons via Bicarbonate-Responsive Soluble Adenylyl Cyclase. Neuron, 2012, 75, 1094-1104.	3.8	225
13	Bicarbonate-regulated Adenylyl Cyclase (sAC) Is a Sensor That Regulates pH-dependent V-ATPase Recycling. Journal of Biological Chemistry, 2003, 278, 49523-49529.	1.6	202
14	Intracellular cAMP signaling by soluble adenylyl cyclase. Kidney International, 2011, 79, 1277-1288.	2.6	176
15	Bicarbonate-responsive â€œsolubleâ€•adenylyl cyclase defines a nuclear cAMP microdomain. Journal of Cell Biology, 2004, 164, 527-534.	2.3	157
16	Cryptococcus neoformans Senses CO 2 through the Carbonic Anhydrase Can2 and the Adenylyl Cyclase Cac1. Eukaryotic Cell, 2006, 5, 103-111.	3.4	156
17	Bicarbonate activation of adenylyl cyclase via promotion of catalytic active site closure and metal recruitment. Nature Structural and Molecular Biology, 2005, 12, 32-37.	3.6	149
18	cAMP and Mitochondria. Physiology, 2013, 28, 199-209.	1.6	129

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19	Cholesterol Stabilizes TAZ in Hepatocytes to Promote Experimental Non-alcoholic Steatohepatitis. Cell Metabolism, 2020, 31, 969-986.e7.	7.2	117
20	The Quorum-Sensing Molecules Farnesol/Homoserine Lactone and Dodecanol Operate via Distinct Modes of Action in Candida albicans. Eukaryotic Cell, 2011, 10, 1034-1042.	3.4	115
21	A Phosphodiesterase 2A Isoform Localized to Mitochondria Regulates Respiration. Journal of Biological Chemistry, 2011, 286, 30423-30432.	1.6	115
22	Crystal structures of human soluble adenylyl cyclase reveal mechanisms of catalysis and of its activation through bicarbonate. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3727-3732.	3.3	113
23	CO2/HCO3â^'- and Calcium-regulated Soluble Adenylyl Cyclase as a Physiological ATP Sensor. Journal of Biological Chemistry, 2013, 288, 33283-33291.	1.6	108
24	CO2/HCO3â^'-responsive soluble adenylyl cyclase as a putative metabolic sensor. Trends in Endocrinology and Metabolism, 2001, 12, 366-370.	3.1	105
25	Glucose and GLP-1 Stimulate cAMP Production via Distinct Adenylyl Cyclases in INS-1E Insulinoma Cells. Journal of General Physiology, 2008, 132, 329-338.	0.9	104
26	CO2 Acts as a Signalling Molecule in Populations of the Fungal Pathogen Candida albicans. PLoS Pathogens, 2010, 6, e1001193.	2.1	104
27	Physiological carbon dioxide, bicarbonate, and pH sensing. Pflugers Archiv European Journal of Physiology, 2010, 460, 953-964.	1.3	100
28	Soluble Adenylyl Cyclase Is Localized to Cilia and Contributes to Ciliary Beat Frequency Regulation via Production of cAMP. Journal of General Physiology, 2007, 130, 99-109.	0.9	99
29	Specific expression of soluble adenylyl cyclase in male germ cells. , 2000, 56, 6-11.		92
30	Endothelial CD99 signals through soluble adenylyl cyclase and PKA to regulate leukocyte transendothelial migration. Journal of Experimental Medicine, 2015, 212, 1021-1041.	4.2	92
31	Soluble adenylyl cyclase is required for netrin-1 signaling in nerve growth cones. Nature Neuroscience, 2006, 9, 1257-1264.	7.1	89
32	Compartmentalization of Distinct cAMP Signaling Pathways in Mammalian Sperm. Journal of Biological Chemistry, 2013, 288, 35307-35320.	1.6	88
33	Bicarbonate-sensing soluble adenylyl cyclase is an essential sensor for acid/base homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 442-447.	3.3	85
34	Pharmacological Distinction between Soluble and Transmembrane Adenylyl Cyclases. Journal of Pharmacology and Experimental Therapeutics, 2013, 347, 589-598.	1.3	82
35	Physiological Roles of Acid-Base Sensors. Annual Review of Physiology, 2015, 77, 347-362.	5.6	75
36	Discovery of LRE1 as a specific and allosteric inhibitor of soluble adenylyl cyclase. Nature Chemical Biology, 2016, 12, 838-844.	3.9	74

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37	Identification of Functional Domains of Adenylyl Cyclase Using in Vivo Chimeras. Journal of Biological Chemistry, 1995, 270, 7573-7579.	1.6	71
38	Somatic â€˜Solubleâ€™ Adenylyl Cyclase Isoforms Are Unaffected in Sacytm1Lex/Sacytm1Lex â€˜Knockoutâ€™ Mice. PLoS ONE, 2008, 3, e3251.	1.1	67
39	A Novel Mechanism for Adenylyl Cyclase Inhibition from the Crystal Structure of Its Complex with Catechol Estrogen. Journal of Biological Chemistry, 2005, 280, 31754-31759.	1.6	66
40	Soluble Adenylyl Cyclase Mediates Nerve Growth Factor-induced Activation of Rap1. Journal of Biological Chemistry, 2006, 281, 17253-17258.	1.6	64
41	Calcium-sensing soluble adenylyl cyclase mediates TNF signal transduction in human neutrophils. Journal of Experimental Medicine, 2005, 202, 353-361.	4.2	62
42	Modulation of NaCl absorption by [HCO₃^{â^’}] in the marine teleost intestine is mediated by soluble adenylyl cyclase. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 299, R62-R71.	0.9	51
43	Autoinhibitory regulation of soluble adenylyl cyclase. Molecular Reproduction and Development, 2006, 73, 361-368.	1.0	50
44	Metabolic changes in mouse sperm during capacitationâ€. Biology of Reproduction, 2020, 103, 791-801.	1.2	50
45	Regulation of Epithelial Na+ Transport by Soluble Adenylyl Cyclase in Kidney Collecting Duct Cells. Journal of Biological Chemistry, 2009, 284, 5774-5783.	1.6	47
46	Neuronal expression of soluble adenylyl cyclase in the mammalian brain. Brain Research, 2013, 1518, 1-8.	1.1	46
47	Pharmacological modulation of the CO2/HCO3â^’/pH-, calcium-, and ATP-sensing soluble adenylyl cyclase. , 2018, 190, 173-186.		46
48	Particulate and soluble adenylyl cyclases participate in the sperm acrosome reaction. Biochemical and Biophysical Research Communications, 2007, 358, 1128-1135.	1.0	45
49	Soluble Adenylyl Cyclase Defines a Nuclear cAMP Microdomain in Keratinocyte Hyperproliferative Skin Diseases. Journal of Investigative Dermatology, 2010, 130, 1279-1287.	0.3	45
50	Gastric Inhibitory Peptide Controls Adipose Insulin Sensitivity via Activation of cAMP-response Element-binding Protein and p110Î² Isoform of Phosphatidylinositol 3-Kinase. Journal of Biological Chemistry, 2011, 286, 43062-43070.	1.6	44
51	Regulation of Anterior Chamber Drainage by Bicarbonate-sensitive Soluble Adenylyl Cyclase in the Ciliary Body. Journal of Biological Chemistry, 2011, 286, 41353-41358.	1.6	40
52	Transient exposure to calcium ionophore enables in vitro fertilization in sterile mouse models. Scientific Reports, 2016, 6, 33589.	1.6	40
53	HCO 3 â^’ -dependent soluble adenylyl cyclase activates cystic fibrosis transmembrane conductance regulator in corneal endothelium. American Journal of Physiology - Cell Physiology, 2003, 284, C1114-C1122.	2.1	39
54	Physiological Sensing of Carbon Dioxide/Bicarbonate/pH via Cyclic Nucleotide Signaling. Sensors, 2011, 11, 2112-2128.	2.1	38

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55	pH sensing via bicarbonate-regulated â€œsolubleâ€•adenylyl cyclase (sAC). Frontiers in Physiology, 2013, 4, 343.	1.3	38
56	Crystal Structure and Regulation Mechanisms of the CyaB Adenylyl Cyclase from the Human Pathogen Pseudomonas aeruginosa. Journal of Molecular Biology, 2012, 416, 271-286.	2.0	36
57	A mitochondrial CO₂â€adenylyl cyclaseâ€cAMP signalosome controls yeast normoxic cytochromecoxidase activity. FASEB Journal, 2014, 28, 4369-4380.	0.2	35
58	Structure-Based Development of Novel Adenylyl Cyclase Inhibitors. Journal of Medicinal Chemistry, 2008, 51, 4456-4464.	2.9	33
59	Soluble adenylyl cyclase is essential for proper lysosomal acidification. Journal of General Physiology, 2016, 148, 325-339.	0.9	32
60	Transient Sperm Starvation Improves the Outcome of Assisted Reproductive Technologies. Frontiers in Cell and Developmental Biology, 2019, 7, 262.	1.8	32
61	A Soluble Adenylyl Cyclase Form Targets to Axonemes and Rescues Beat Regulation in Soluble Adenylyl Cyclase Knockout Mice. American Journal of Respiratory Cell and Molecular Biology, 2014, 51, 750-760.	1.4	28
62	Distinct intracellular sAC-cAMP domains regulate ER calcium signaling and OXPHOS function. Journal of Cell Science, 2017, 130, 3713-3727.	1.2	28
63	Mammalian pigmentation is regulated by a distinct cAMP-dependent mechanism that controls melanosome pH. Science Signaling, 2018, 11, .	1.6	28
64	Conservation of functional domain structure in bicarbonate-regulated ?soluble? adenylyl cyclases in bacteria and eukaryotes. Development Genes and Evolution, 2004, 214, 503-9.	0.4	27
65	Capacitation increases glucose consumption in murine sperm. Molecular Reproduction and Development, 2020, 87, 1037-1047.	1.0	27
66	Role of soluble adenylyl cyclase in the heart. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H538-H543.	1.5	26
67	Soluble adenylyl cyclase inhibition prevents human sperm functions essential for fertilization. Molecular Human Reproduction, 2021, 27, .	1.3	26
68	Bithionol Potently Inhibits Human Soluble Adenylyl Cyclase through Binding to the Allosteric Activator Site. Journal of Biological Chemistry, 2016, 291, 9776-9784.	1.6	25
69	Characterization of Plasmodium falciparum Adenylyl Cyclase-Î² and Its Role in Erythrocytic Stage Parasites. PLoS ONE, 2012, 7, e39769.	1.1	24
70	Soluble Adenylyl Cyclase Is Necessary and Sufficient to Overcome the Block of Axonal Growth by Myelin-Associated Factors. Journal of Neuroscience, 2014, 34, 9281-9289.	1.7	22
71	Identification of a haem domain in human soluble adenylate cyclase. Bioscience Reports, 2012, 32, 491-499.	1.1	21
72	Bicarbonate, carbon dioxide and pH sensing via mammalian bicarbonate-regulated soluble adenylyl cyclase. Interface Focus, 2021, 11, 20200034.	1.5	19

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73	The metabolic/pH sensor soluble adenylyl cyclase is a tumor suppressor protein. Oncotarget, 2016, 7, 45597-45607.	0.8	19
74	Optimization of lead compounds into on-demand, nonhormonal contraceptives: leveraging a publicâ€“private drug discovery institute collaborationâ€. Biology of Reproduction, 2020, 103, 176-182.	1.2	18
75	Discovery of TDI-10229: A Potent and Orally Bioavailable Inhibitor of Soluble Adenylyl Cyclase (sAC,) Tj ETQq1 1 0.784314 rgBT /Overlo	1.3	16
76	Cloning and characterization of aDrosophilaadenylyl cyclase homologous to mammalian type IX. FEBS Letters, 1997, 413, 104-108.	1.3	15
77	A calcium-inhibited Drosophila adenylyl cyclase. Biochimica Et Biophysica Acta - Molecular Cell Research, 2000, 1495, 125-139.	1.9	14
78	Activation of Soluble Adenylyl Cyclase Protects against Secretagogue Stimulated Zymogen Activation in Rat Pancreaic Acinar Cells. PLoS ONE, 2012, 7, e41320.	1.1	14
79	Differential Intraocular Pressure Measurements by Tonometry and Direct Cannulation After Treatment with Soluble Adenylyl Cyclase Inhibitors. Journal of Ocular Pharmacology and Therapeutics, 2017, 33, 574-581.	0.6	13
80	â€œSolubleâ€•adenylyl cyclaseâ€generated cyclic adenosine monophosphate promotes fast migration in PC12 cells. Journal of Neuroscience Research, 2008, 86, 118-124.	1.3	12
81	Soluble adenylyl cyclase regulates the cytosolic NADH/NAD+ redox state and the bioenergetic switch between glycolysis and oxidative phosphorylation. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148367.	0.5	12
82	Purification of Soluble Adenylyl Cyclase. Methods in Enzymology, 2002, 345, 95-105.	0.4	10
83	Nonpigmented Ciliary Epithelial Cells Respond to Acetazolamide by a Soluble Adenylyl Cyclase Mechanism. , 2014, 55, 187.		9
84	Using an Extracellular Flux Analyzer to Measure Changes in Glycolysis and Oxidative Phosphorylation during Mouse Sperm Capacitation. Journal of Visualized Experiments, 2020, , .	0.2	9
85	6 Genetic characterization of adenylyl cyclase function. Advances in Second Messenger and Phosphoprotein Research, 1997, 32, 121-135.	4.5	8
86	The Soluble Guanylyl Cyclase Activator YC-1 Increases Intracellular cGMP and cAMP via Independent Mechanisms in INS-1E Cells. Journal of Pharmacology and Experimental Therapeutics, 2011, 338, 925-931.	1.3	6
87	The role of soluble adenylyl cyclase in health and disease. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 2533-2534.	1.8	5
88	Fungal Adenylyl Cyclase Integrates CO2 Sensing with cAMP Signaling and Virulence. Current Biology, 2005, 15, 2177.	1.8	4
89	[51] Functional expression of mammalian adenosine cyclic monophosphate-dependent protein kinase in saccharomyces cerevisiae. Methods in Enzymology, 1991, 200, 605-627.	0.4	3
90	Identification of Transmembrane Adenylyl Cyclase Isoforms. Methods in Enzymology, 2002, 345, 150-159.	0.4	3

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91	CO2/HCO3â^'- and calcium-regulated soluble adenylyl cyclase as a physiological ATP sensor.. Journal of Biological Chemistry, 2014, 289, 12679.	1.6	0
92	Novel Regulation of the Epithelial Na + Channel by Soluble Adenylyl Cyclase in Kidney Collecting Duct Cells. FASEB Journal, 2008, 22, 934.3.	0.2	0
93	Glucose and GLP-1 Stimulate cAMP Production via Distinct Adenylyl Cyclases in INS-1E Insulinoma Cells. Journal of Cell Biology, 2008, 182, i10-i10.	2.3	0
94	Endothelial CD99 Signals Through Soluble Adenylyl Cyclase and PKA to Regulate Leukocyte Transendothelial Migration. FASEB Journal, 2015, 29, 285.1.	0.2	0