Sandip Patel

List of Publications by Year in descending order

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122 papers	7,529 citations	36271 51 h-index	54882 84 g-index
145 all docs	145 docs citations	145 times ranked	6899 citing authors

#	Article	IF	Citations
1	NAADP Mobilizes Ca2+ from Reserve Granules, Lysosome-Related Organelles, in Sea Urchin Eggs. Cell, 2002, 111, 703-708.	13.5	442
2	Molecular properties of inositol 1,4,5-trisphosphate receptors. Cell Calcium, 1999, 25, 247-264.	1.1	435
3	Essential requirement for two-pore channel 1 in NAADP-mediated calcium signaling. Journal of Cell Biology, 2009, 186, 201-209.	2.3	376
4	Leucine-rich repeat kinase 2 regulates autophagy through a calcium-dependent pathway involving NAADP. Human Molecular Genetics, 2012, 21, 511-525.	1.4	285
5	Acidic calcium stores open for business: expanding the potential for intracellular Ca2+ signaling. Trends in Cell Biology, 2010, 20, 277-286.	3.6	233
6	Probing the Complexities of Astrocyte Calcium Signaling. Trends in Cell Biology, 2016, 26, 300-312.	3.6	215
7	Organelle Selection Determines Agonist-specific Ca2+ Signals in Pancreatic Acinar and Î² Cells. Journal of Biological Chemistry, 2004, 279, 7234-7240.	1.6	192
8	Convergent regulation of the lysosomal two-pore channel-2 by Mg2+, NAADP, PI(3,5)P2 and multiple protein kinases. EMBO Journal, 2014, 33, 501-511.	3.5	162
9	Direct mobilisation of lysosomal Ca2+ triggers complex Ca2+ signals. Journal of Cell Science, 2013, 126, 60-66.	1.2	161
10	Sperm Deliver a New Second Messenger. Current Biology, 2003, 13, 125-128.	1.8	155
11	An NAADP-gated Two-pore Channel Targeted to the Plasma Membrane Uncouples Triggering from Amplifying Ca2+ Signals. Journal of Biological Chemistry, 2010, 285, 38511-38516.	1.6	153
12	Coordination of Ca2+ signalling by NAADP. Trends in Biochemical Sciences, 2001, 26, 482-489.	3.7	151
13	Photoaffinity Labeling of Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP) Targets in Mammalian Cells*. Journal of Biological Chemistry, 2012, 287, 2296-2307.	1.6	150
14	Dysregulation of lysosomal morphology by pathogenic LRRK2 is corrected by two-pore channel 2 inhibition. Journal of Cell Science, 2015, 128, 232-8.	1.2	148
15	Role of NAADP and cADPR in the Induction and Maintenance of Agonist-Evoked Ca2+ Spiking in Mouse Pancreatic Acinar Cells. Current Biology, 2005, 15, 874-878.	1.8	137
16	Function and dysfunction of two-pore channels. Science Signaling, 2015, 8, re7.	1.6	135
17	Decorin Activates the Epidermal Growth Factor Receptor and Elevates Cytosolic Ca2+ in A431 Carcinoma Cells. Journal of Biological Chemistry, 1998, 273, 3121-3124.	1.6	120
18	An Ancestral Deuterostome Family of Two-pore Channels Mediates Nicotinic Acid Adenine Dinucleotide Phosphate-dependent Calcium Release from Acidic Organelles. Journal of Biological Chemistry, 2010, 285, 2897-2901.	1.6	112

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19	Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP) Regulates Autophagy in Cultured Astrocytes. Journal of Biological Chemistry, 2011, 286, 27875-27881.	1.6	109
20	The Two-pore channel (TPC) interactome unmasks isoform-specific roles for TPCs in endolysosomal morphology and cell pigmentation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13087-13092.	3.3	109
21	Agonist-mediated switching of ion selectivity in TPC2 differentially promotes lysosomal function. ELife, 2020, 9, .	2.8	108
22	An Endosomal NAADP-Sensitive Two-Pore Ca 2+ Channel Regulates ER-Endosome Membrane Contact Sites to Control Growth Factor Signaling. Cell Reports, 2017, 18, 1636-1645.	2.9	105
23	Remodeling of secretory lysosomes during education tunes functional potential in NK cells. Nature Communications, 2019, 10, 514.	5.8	103
24	Nicotinic Acid Adenine Dinucleotide Phosphate Potentiates Neurite Outgrowth. Journal of Biological Chemistry, 2005, 280, 5646-5650.	1.6	101
25	Two-pore channels provide insight into the evolution of voltage-gated Ca ²⁺ and Na ⁺ channels. Science Signaling, 2014, 7, ra109.	1.6	98
26	Calcium signaling at ER membrane contact sites. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 2012-2017.	1.9	94
27	Messenger-specific Role for Nicotinic Acid Adenine Dinucleotide Phosphate in Neuronal Differentiation. Journal of Biological Chemistry, 2006, 281, 15923-15928.	1.6	92
28	Transient Receptor Potential Mucolipin 1 (TRPML1) and Two-pore Channels Are Functionally Independent Organellar Ion Channels. Journal of Biological Chemistry, 2011, 286, 22934-22942.	1.6	91
29	Ca2+/H+ exchange by acidic organelles regulates cell migration in vivo. Journal of Cell Biology, 2016, 212, 803-813.	2.3	91
30	Two-pore channels: Regulation by NAADP and customized roles in triggering calcium signals. Cell Calcium, 2010, 47, 480-490.	1.1	86
31	Evolution of acidic Ca2+ stores and their resident Ca2+-permeable channels. Cell Calcium, 2015, 57, 222-230.	1.1	74
32	Membrane Potential Regulates Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP) Dependence of the pH- and Ca2+-sensitive Organellar Two-pore Channel TPC1. Journal of Biological Chemistry, 2012, 287, 20407-20416.	1.6	71
33	Endoplasmic reticulum and lysosomal Ca2+ stores are remodelled in GBA1-linked Parkinson disease patient fibroblasts. Cell Calcium, 2016, 59, 12-20.	1.1	71
34	Essential requirement for JPT2 in NAADP-evoked Ca ²⁺ signaling. Science Signaling, 2021, 14, .	1.6	69
35	Recruitment of NAADP-sensitive acidic Ca2+ stores by glutamate. Biochemical Journal, 2009, 422, 503-512.	1.7	67
36	Cav2.3 channels contribute to dopaminergic neuron loss in a model of Parkinsonâ€™s disease. Nature Communications, 2019, 10, 5094.	5.8	65

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37	Coupling acidic organelles with the ER through Ca2+ microdomains at membrane contact sites. Cell Calcium, 2015, 58, 387-396.	1.1	64
38	Mining of Ebola virus entry inhibitors identifies approved drugs as two-pore channel pore blockers. Biochimica Et Biophysica Acta - Molecular Cell Research, 2019, 1866, 1151-1161.	1.9	62
39	NAADP-induced calcium release in sea urchin eggs. Biology of the Cell, 2000, 92, 197-204.	0.7	61
40	Acidic Ca2+ stores come to the fore. Cell Calcium, 2011, 50, 109-112.	1.1	61
41	The endo-lysosomal system as an NAADP-sensitive acidic Ca2+ store: Role for the two-pore channels. Cell Calcium, 2011, 50, 157-167.	1.1	60
42	Widespread Distribution of Binding Sites for the Novel Ca2+-mobilizing Messenger, Nicotinic Acid Adenine Dinucleotide Phosphate, in the Brain. Journal of Biological Chemistry, 2000, 275, 36495-36497.	1.6	57
43	Acidic NAADP-sensitive Calcium Stores in the Endothelium. Journal of Biological Chemistry, 2010, 285, 37133-37137.	1.6	57
44	Membrane Topology of NAADP-sensitive Two-pore Channels and Their Regulation by N-linked Glycosylation. Journal of Biological Chemistry, 2011, 286, 9141-9149.	1.6	57
45	Endo-lysosomal TRP mucolipin-1 triggers global ER Ca2+ release and Ca2+ influx. Journal of Cell Science, 2016, 129, 3859-3867.	1.2	57
46	Coordination of calcium signalling by endothelial-derived nitric oxide in the intact liver. Nature Cell Biology, 1999, 1, 467-471.	4.6	56
47	Degeneration of an Intracellular Ion Channel in the Primate Lineage by Relaxation of Selective Constraints. Molecular Biology and Evolution, 2010, 27, 2352-2359.	3.5	56
48	A computational model of lysosome-ER Ca2+ microdomains. Journal of Cell Science, 2014, 127, 2934-43.	1.2	56
49	Two-pore channels at the intersection of endolysosomal membrane traffic. Biochemical Society Transactions, 2015, 43, 434-441.	1.6	54
50	Insights into the early evolution of animal calcium signaling machinery: A unicellular point of view. Cell Calcium, 2015, 57, 166-173.	1.1	54
51	NAADP-mediated channel â€˜chatterâ€™ in neurons of the rat medulla oblongata. Biochemical Journal, 2009, 419, 91-99.	1.7	53
52	Two-pore channels and disease. Biochimica Et Biophysica Acta - Molecular Cell Research, 2018, 1865, 1678-1686.	1.9	52
53	Unique kinetics of nicotinic acidâ€“adenine dinucleotide phosphate (NAADP) binding enhance the sensitivity of NAADP receptors for their ligand. Biochemical Journal, 2000, 352, 725-729.	1.7	51
54	Solubilization of Receptors for the Novel Ca2+-mobilizing Messenger, Nicotinic Acid Adenine Dinucleotide Phosphate. Journal of Biological Chemistry, 2002, 277, 43717-43723.	1.6	51

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55	NAD kinase controls animal NADP biosynthesis and is modulated via evolutionarily divergent calmodulin-dependent mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1386-1391.	3.3	49
56	Modulation of spontaneous transmitter release from the frog neuromuscular junction by interacting intracellular Ca2+ stores: critical role for nicotinic acid-adenine dinucleotide phosphate (NAADP). Biochemical Journal, 2003, 373, 313-318.	1.7	46
57	Inhibition of NAADP signalling on reperfusion protects the heart by preventing lethal calcium oscillations via two-pore channel 1 and opening of the mitochondrial permeability transition pore. Cardiovascular Research, 2015, 108, 357-366.	1.8	44
58	Metabolism of the novel Ca2+-mobilizing messenger nicotinic acidâ€“adenine dinucleotide phosphate via a 2â€²-specific Ca2+-dependent phosphatase. Biochemical Journal, 2002, 365, 295-301.	1.7	43
59	NAADP-induced Ca2+ Release - A new signalling pathway. Biology of the Cell, 2004, 96, 19-28.	0.7	43
60	Signalling at membrane contact sites: two membranes come together to handle second messengers. Current Opinion in Cell Biology, 2016, 39, 77-83.	2.6	40
61	Determination of cellular nicotinic acid-adenine dinucleotide phosphate (NAADP) levels. Biochemical Journal, 2004, 380, 449-454.	1.7	39
62	Modulation of NAADP (nicotinic acidâ€“adenine dinucleotide phosphate) receptors by K+ ions: evidence for multiple NAADP receptor conformations. Biochemical Journal, 2003, 375, 805-812.	1.7	37
63	Iron overload causes endolysosomal deficits modulated by NAADP-regulated 2-pore channels and RAB7A. Autophagy, 2016, 12, 1487-1506.	4.3	37
64	Carbon nanopipettes characterize calcium release pathways in breast cancer cells. Nanotechnology, 2008, 19, 325102.	1.3	35
65	Domain assembly of NAADP-gated two-pore channels. Biochemical Journal, 2012, 441, 317-323.	1.7	32
66	Triggering of Ca2+ signals by NAADP-gated two-pore channels: a role for membrane contact sites?. Biochemical Society Transactions, 2012, 40, 153-157.	1.6	31
67	Molecular Characterization of a Novel Intracellular ADP-Ribosyl Cyclase. PLoS ONE, 2007, 2, e797.	1.1	29
68	Questioning Regulation of Two-Pore Channels by NAADP. Messenger (Los Angeles, Calif: Print), 2013, 2, 113-119.	0.3	28
69	Molecular and Functional Characterization of Inositol Trisphosphate Receptors during Early Zebrafish Development*. Journal of Biological Chemistry, 2007, 282, 13984-13993.	1.6	26
70	In with the TRP Channels: Intracellular Functions for TRPM1 and TRPM2. Science Signaling, 2009, 2, pe69.	1.6	26
71	A link between LRRK2, autophagy and NAADP-mediated endolysosomal calcium signalling. Biochemical Society Transactions, 2012, 40, 1140-1146.	1.6	26
72	NAADP on Target. Advances in Experimental Medicine and Biology, 2012, 740, 325-347.	0.8	26

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73	The N-terminal region of two-pore channel 1 regulates trafficking and activation by NAADP. Biochemical Journal, 2013, 453, 147-151.	1.7	26
74	Deviant Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP)-mediated Ca2+ Signaling upon Lysosome Proliferation. Journal of Biological Chemistry, 2010, 285, 13321-13325.	1.6	24
75	The intracellular Ca²⁺channels of membrane traffic. Channels, 2012, 6, 344-351.	1.5	24
76	The Molecular Basis for Ca²⁺ Signalling by NAADP: Two-Pore Channels in a Complex?. Messenger (Los Angeles, Calif: Print), 2012, 1, 63-76.	0.3	22
77	NAADP-evoked Ca 2+ signals through two-pore channel-1 require arginine residues in the first S4-S5 linker. Cell Calcium, 2017, 68, 1-4.	1.1	20
78	Unique kinetics of nicotinic acidâ€'adenine dinucleotide phosphate (NAADP) binding enhance the sensitivity of NAADP receptors for their ligand. Biochemical Journal, 2000, 352, 725.	1.7	19
79	Two-pore channels as master regulators of membrane trafficking and endocytic well-being. Current Opinion in Physiology, 2020, 17, 163-168.	0.9	19
80	A plastid two-pore channel essential for inter-organelle communication and growth of Toxoplasma gondii. Nature Communications, 2021, 12, 5802.	5.8	19
81	Two-pore Channels Enter the Atomic Era: Structure of Plant TPC Revealed. Trends in Biochemical Sciences, 2016, 41, 475-477.	3.7	18
82	Calcium Deregulation: Novel Insights to Understand Friedreichâ€™s Ataxia Pathophysiology. Frontiers in Cellular Neuroscience, 2018, 12, 264.	1.8	18
83	Does lysosomal rupture evoke Ca2+ release? A question of pores and stores. Cell Calcium, 2020, 86, 102139.	1.1	18
84	Methods for monitoring lysosomal morphology. Methods in Cell Biology, 2015, 126, 1-19.	0.5	17
85	Targeting Mitochondria for Neuroprotection in Parkinson Disease. JAMA Neurology, 2014, 71, 537.	4.5	16
86	NAADP-sensitive two-pore channels are present and functional in gastric smooth muscle cells. Cell Calcium, 2014, 56, 51-58.	1.1	16
87	Kinetic Analysis of Inositol Trisphosphate Binding to Pure Inositol Trisphosphate Receptors Using Scintillation Proximity Assay. Biochemical and Biophysical Research Communications, 1996, 221, 821-825.	1.0	15
88	Molecular characterization of a novel cell surface ADP-ribosyl cyclase from the sea urchin. Cellular Signalling, 2008, 20, 2347-2355.	1.7	15
89	NAADP-binding proteins find their identity. Trends in Biochemical Sciences, 2022, 47, 235-249.	3.7	15
90	The lysosomotrope GPN mobilises Ca2+ from acidic organelles. Journal of Cell Science, 2021, 134, .	1.2	14

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91	NAADP on the up in pancreatic beta cells?a sweet message?. BioEssays, 2003, 25, 430-433.	1.2	13
92	Discovery of lipophilic twoâ€pore channel agonists. FEBS Journal, 2020, 287, 5284-5293.	2.2	13
93	TRP Channels as Interior Designers: Remodeling the Endolysosomal Compartment in Natural Killer Cells. Frontiers in Immunology, 2020, 11, 753.	2.2	13
94	Time sensing by NAADP receptors. Biochemical Journal, 2006, 397, 313-320.	1.7	12
95	A Single Residue in a Novel ADP-ribosyl Cyclase Controls Production of the Calcium-mobilizing Messengers Cyclic ADP-ribose and Nicotinic Acid Adenine Dinucleotide Phosphate. Journal of Biological Chemistry, 2010, 285, 19900-19909.	1.6	11
96	Activation of endo-lysosomal two-pore channels by NAADP and PI(3,5)P2. Five things to know.. Cell Calcium, 2022, 103, 102543.	1.1	10
97	NAADP binding to its target protein in sea urchin eggs requires phospholipids. Biochemical Journal, 2005, 386, 497-504.	1.7	9
98	Isolated pores dissected from human two-pore channel 2 are functional. Scientific Reports, 2016, 6, 38426.	1.6	9
99	Two-pore channels open up. Nature, 2018, 556, 38-40.	13.7	9
100	Getting close. Lysosome-ER contact sites tailor Ca2+ signals. Cell Calcium, 2019, 80, 194-196.	1.1	9
101	Inducible Nitric-oxide Synthase Attenuates Vasopressin-dependent Ca2+ Signaling in Rat Hepatocytes. Journal of Biological Chemistry, 2002, 277, 33776-33782.	1.6	8
102	Deviant Lysosomal Ca2+ Signalling in Neurodegeneration. An Introduction. Messenger (Los Angeles,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.3	6
103	A â€œmix-and-matchâ€•approach to designing Ca²⁺microdomains at membrane-contact sites. Communicative and Integrative Biology, 2014, 7, e29586.	0.6	5
104	Poring Over Two-Pore Channel Pore Mutants. Messenger (Los Angeles, Calif: Print), 2015, 4, 46-52.	0.3	5
105	TPC1 Knockout Knocks Out TPC1. Molecular and Cellular Biology, 2015, 35, 1882-1883.	1.1	5
106	The Signaling Protein CD38 Is Essential for Early Embryonic Development. Journal of Biological Chemistry, 2012, 287, 6974-6978.	1.6	4
107	Teaming with NAADP. Science Signaling, 2021, 14, .	1.6	4
108	Methods in Cyclic ADP-Ribose and NAADP Research. , 2005, , 265-334.		4

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109	Probing Ca2+ release mechanisms using sea urchin egg homogenates. Methods in Cell Biology, 2019, 151, 445-458.	0.5	3
110	NAADP receptors: A one-two.. Cell Calcium, 2021, 100, 102478.	1.1	3
111	Measuring Single-Cell Cytosolic Ca²⁺ Concentration in Response to Proteoglycans. , 2001, 171, 435-448.		2
112	ADP-Ribosyl Cyclases Regulate Early Development of the Sea Urchin. Messenger (Los Angeles, Calif:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.3	2
113	Ins and outs of Ca²⁺ transport by acidic organelles and cell migration. Communicative and Integrative Biology, 2018, 11, e1331800.	0.6	2
114	Preventing a shock to the system. Two-pore channel 1 negatively regulates anaphylaxis. Cell Calcium, 2020, 92, 102289.	1.1	2
115	Spatial and Temporal Control of Calcium Signaling by NAADP. , 2002, , 199-215.		2
116	The secret life of calcium in cell signaling. Biochemist, 2019, 41, 34-37.	0.2	2
117	Thinking through acidic Ca ²⁺ stores. Science Signaling, 2018, 11, .	1.6	1
118	A Special Issue of Messenger 2016. Messenger (Los Angeles, Calif: Print), 2016, 5, 1-2.	0.3	0
119	Deviant lysosomal K+ fluxes and Parkinsonâ€™s. A calci-centric point of view. Cell Calcium, 2021, 97, 102418.	1.1	0
120	Measuring Single Cell and Subcellular Ca2+ Signals. , 2005, , 387-416.		0
121	Ca²⁺/H⁺exchange by acidic organelles regulates cell migration in vivo. Journal of Experimental Medicine, 2016, 213, 2134OIA28.	4.2	0
122	Plant and animal two-pore channels. , 2022, , 247-267.		0