Israel Sekler

List of Publications by Year
in descending order

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92 papers	5,839 citations	76326 40 h-index	79698 73 g-index
98 all docs	98 docs citations	98 times ranked	6433 citing authors

#	Article	IF	Citations
1	ZnT1 is a neuronal Zn2+/Ca2+ exchanger. Cell Calcium, 2022, 101, 102505.	2.4	12
2	SNAP23 regulates KCC2 membrane insertion and activity following mZnR/GPR39 activation in hippocampalneurons. IScience, 2022, 25, 103751.	4.1	7
3	ASIC1a senses lactate uptake to regulate metabolism in neurons. Redox Biology, 2022, 51, 102253.	9.0	10
4	Disrupted expression of mitochondrial NCLX sensitizes neuroglial networks to excitotoxic stimuli and renders synaptic activity toxic. Journal of Biological Chemistry, 2022, 298, 101508.	3.4	9
5	Frequency- and spike-timing-dependent mitochondrial Ca2+ signaling regulates the metabolic rate and synaptic efficacy in cortical neurons. ELife, 2022, 11, .	6.0	13
6	The ZIP3 Zinc Transporter Is Localized to Mossy Fiber Terminals and Is Required for Kainate-Induced Degeneration of CA3 Neurons. Journal of Neuroscience, 2022, 42, 2824-2834.	3.6	7
7	Differential signaling patterns of stimulated bone marrow-derived dendritic cells under Î±1-antitrypsin-enriched conditions. Cellular Immunology, 2021, 361, 104281.	3.0	1
8	Recent studies on NCLX in health and diseases. Cell Calcium, 2021, 94, 102345.	2.4	15
9	ZnR/GPR39 controls cell migration by orchestrating recruitment of KCC3 into protrusions, re-organization of actin and activation of MMP. Cell Calcium, 2021, 94, 102330.	2.4	7
10	Aberrant activity of mitochondrial NCLX is linked to impaired synaptic transmission and is associated with mental retardation. Communications Biology, 2021, 4, 666.	4.4	22
11	Sprinkling salt on mitochondria: The metabolic and pathophysiological roles of mitochondrial Na+ signaling mediated by NCLX. Cell Calcium, 2021, 97, 102416.	2.4	10
12	Novel humanin analogs confer neuroprotection and myoprotection to neuronal and myoblast cell cultures exposed to ischemia-like and doxorubicin-induced cell death insults. Peptides, 2020, 134, 170399.	2.4	7
13	Klotho rewires cellular metabolism of breast cancer cells through alteration of calcium shuttling and mitochondrial activity. Oncogene, 2020, 39, 4636-4649.	5.9	15
14	NCLX prevents cell death during adrenergic activation of the brown adipose tissue. Nature Communications, 2020, 11, 3347.	12.8	31
15	ASIC1a channels regulate mitochondrial ion signaling and energy homeostasis in neurons. Journal of Neurochemistry, 2020, 153, 203-215.	3.9	14
16	Elucidating the H+ Coupled Zn2+ Transport Mechanism of ZIP4; Implications in Acrodermatitis Enteropathica. International Journal of Molecular Sciences, 2020, 21, 734.	4.1	24
17	Dichotomous role of the human mitochondrial Na+/Ca2+/Li+ exchanger NCLX in colorectal cancer growth and metastasis. ELife, 2020, 9, .	6.0	39
18	Functional properties and mode of regulation of the mitochondrial Na+/Ca2+ exchanger, NCLX. Seminars in Cell and Developmental Biology, 2019, 94, 59-65.	5.0	40

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19	ZnR/GPR39 upregulation of K+/Clâ^'-cotransporter 3 in tamoxifen resistant breast cancer cells. Cell Calcium, 2019, 81, 12-20.	2.4	17
20	LRRK2 deficiency induced mitochondrial Ca2+ efflux inhibition can be rescued by Na+/Ca2+/Li+ exchanger upregulation. Cell Death and Disease, 2019, 10, 265.	6.3	50
21	Zinc transporter 10 (ZnT10)-dependent extrusion of cellular Mn2+ is driven by an active Ca2+-coupled exchange. Journal of Biological Chemistry, 2019, 294, 5879-5889.	3.4	30
22	Function, regulation and physiological role of the mitochondrial Na + /Ca 2+ exchanger, NCLX. Current Opinion in Physiology, 2018, 3, 63-70.	1.8	2
23	Crosslink between calcium and sodium signalling. Experimental Physiology, 2018, 103, 157-169.	2.0	70
24	Allosteric Regulation of NCLX by Mitochondrial Membrane Potential Links the Metabolic State and Ca2+ Signaling in Mitochondria. Cell Reports, 2018, 25, 3465-3475.e4.	6.4	56
25	Enhanced ZnR/GPR39 Activity in Breast Cancer, an Alternative Trigger of Signaling Leading to Cell Growth. Scientific Reports, 2018, 8, 8119.	3.3	18
26	Mitochondria control storeâ€operated Ca ²⁺ entry through Na ⁺ and redox signals. EMBO Journal, 2017, 36, 797-815.	7.8	82
27	The NCLX-type Na+/Ca2+ Exchanger NCX-9 Is Required for Patterning of Neural Circuits in Caenorhabditis elegans. Journal of Biological Chemistry, 2017, 292, 5364-5377.	3.4	17
28	Optogenetic control of mitochondrial metabolism and Ca ²⁺ signaling by mitochondria-targeted opsins. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5167-E5176.	7.1	52
29	The Zn 2+ -sensing receptor, ZnR/GPR39, upregulates colonocytic Cl â^' absorption, via basolateral KCC1, and reduces fluid loss. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2017, 1863, 947-960.	3.8	25
30	Identification of residues that control Li + versus Na + dependent Ca 2+ exchange at the transport site of the mitochondrial NCLX. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 997-1008.	4.1	23
31	Mitochondrial Calcium Dysregulation Contributes to Dendrite Degeneration Mediated by PD/LBD-Associated LRRK2 Mutants. Journal of Neuroscience, 2017, 37, 11151-11165.	3.6	100
32	The zinc sensing receptor, ZnR/GPR39, triggers metabotropic calcium signalling in colonocytes and regulates occludin recovery in experimental colitis. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150420.	4.0	36
33	Amyloid Î² attenuates metabotropic zinc sensing receptor, <scp>mZnR</scp>/<scp>GPR</scp>39, dependent Ca²⁺, <scp>ERK</scp>1/2 and Clusterin signaling in neurons. Journal of Neurochemistry, 2016, 139, 221-233.	3.9	26
34	Privileged crosstalk between TRPV1 channels and mitochondrial calcium shuttling machinery controls nociception. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 2868-2880.	4.1	33
35	The PP-motif in luminal loop 2 of ZnT transporters plays a pivotal role in TNAP activation. Biochemical Journal, 2016, 473, 2611-2621.	3.7	23
36	Plasmalemmal and mitochondrial Na⁺â€Ca²⁺ exchange in neuroglia. Glia, 2016, 64, 1646-1654.	4.9	25

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37	Regulation of neuronal pH by the metabotropic Zn²⁺â€sensing Gqâ€coupled receptor, mZnR/GPR39. Journal of Neurochemistry, 2015, 135, 897-907.	3.9	20
38	A crosstalk between Na+ channels, Na+/K+ pump and mitochondrial Na+ transporters controls glucose-dependent cytosolic and mitochondrial Na+ signals. Cell Calcium, 2015, 57, 69-75.	2.4	26
39	Standing of giants shoulders the story of the mitochondrial Na+Ca2+ exchanger. Biochemical and Biophysical Research Communications, 2015, 460, 50-52.	2.1	18
40	PKA Phosphorylation of NCLX Reverses Mitochondrial Calcium Overload and Depolarization, Promoting Survival of PINK1-Deficient Dopaminergic Neurons. Cell Reports, 2015, 13, 376-386.	6.4	136
41	Homeostatic regulation of KCC2 activity by the zinc receptor mZnR/GPR39 during seizures. Neurobiology of Disease, 2015, 81, 4-13.	4.4	66
42	NCLX Protein, but Not LETM1, Mediates Mitochondrial Ca2+ Extrusion, Thereby Limiting Ca2+-induced NAD(P)H Production and Modulating Matrix Redox State. Journal of Biological Chemistry, 2014, 289, 20377-20385.	3.4	102
43	Extreme Population Differences in the Human Zinc Transporter ZIP4 (SLC39A4) Are Explained by Positive Selection in Sub-Saharan Africa. PLoS Genetics, 2014, 10, e1004128.	3.5	34
44	The ZnR/GPR39 Interacts With the CaSR to Enhance Signaling in Prostate and Salivary Epithelia. Journal of Cellular Physiology, 2014, 229, 868-877.	4.1	32
45	Pancreatic Î²â€cell Na⁺channels control global Ca²⁺signaling and oxidative metabolism by inducing Na⁺and Ca²⁺responses that are propagated into mitochondria. FASEB Journal, 2014, 28, 3301-3312.	0.5	49
46	NCLX: The mitochondrial sodium calcium exchanger. Journal of Molecular and Cellular Cardiology, 2013, 59, 205-213.	1.9	132
47	Mitochondrial Exchanger NCLX Plays a Major Role in the Intracellular Ca²⁺Signaling, Gliotransmission, and Proliferation of Astrocytes. Journal of Neuroscience, 2013, 33, 7206-7219.	3.6	90
48	The mitochondrial Na+/Ca2+ exchangerâ€NCLX is an integrating hub for glucose dependent Na+ and Ca2+ signaling in pancreatic Î² cells. FASEB Journal, 2013, 27, 918.9.	0.5	1
49	Molecular Identity and Functional Properties of the Mitochondrial Na+/Ca2+ Exchanger. Journal of Biological Chemistry, 2012, 287, 31650-31657.	3.4	56
50	Histidine pairing at the metal transport site of mammalian ZnT transporters controls Zn ²⁺ over Cd ²⁺ selectivity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7202-7207.	7.1	117
51	Extracellular pH Regulates Zinc Signaling via an Asp Residue of the Zinc-sensing Receptor (ZnR/GPR39). Journal of Biological Chemistry, 2012, 287, 33339-33350.	3.4	22
52	The Mitochondrial Na+/Ca2+ Exchanger Upregulates Glucose Dependent Ca2+ Signalling Linked to Insulin Secretion. PLoS ONE, 2012, 7, e46649.	2.5	64
53	Zinc homeostasis and signaling in glia. Glia, 2012, 60, 843-850.	4.9	26
54	The mitochondrial Na+/Ca2+ exchanger. Cell Calcium, 2012, 52, 9-15.	2.4	69

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55	Zinc Sensing Receptor Signaling, Mediated by GPR39, Reduces Butyrate-Induced Cell Death in HT29 Colonocytes via Upregulation of Clusterin. PLoS ONE, 2012, 7, e35482.	2.5	44
56	The Mitochondrial Ca2+ Uniporter MCU Is Essential for Glucose-Induced ATP Increases in Pancreatic Î²-Cells. PLoS ONE, 2012, 7, e39722.	2.5	146
57	Tissue Nonspecific Alkaline Phosphatase Is Activated via a Two-step Mechanism by Zinc Transport Complexes in the Early Secretory Pathway. Journal of Biological Chemistry, 2011, 286, 16363-16373.	3.4	60
58	Upregulation of KCC2 Activity by Zinc-Mediated Neurotransmission via the mZnR/GPR39 Receptor. Journal of Neuroscience, 2011, 31, 12916-12926.	3.6	125
59	Coupling of mitochondria to store-operated Ca2+-signaling sustains constitutive activation of protein kinase B/Akt and augments survival of malignant melanoma cells. Cell Calcium, 2010, 47, 525-537.	2.4	59
60	Zinc homeostatic proteins in the CNS are regulated by crosstalk between extracellular and intracellular zinc. Journal of Cellular Physiology, 2010, 224, 567-574.	4.1	10
61	Zinc Released from Injured Cells Is Acting via the Zn2+-sensing Receptor, ZnR, to Trigger Signaling Leading to Epithelial Repair. Journal of Biological Chemistry, 2010, 285, 26097-26106.	3.4	94
62	NCLX is an essential component of mitochondrial Na ⁺ /Ca ²⁺ exchange. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 436-441.	7.1	683
63	Synaptically Released Zinc Triggers Metabotropic Signaling via a Zinc-Sensing Receptor in the Hippocampus. Journal of Neuroscience, 2009, 29, 2890-2901.	3.6	199
64	Identification of the Zn2+ Binding Site and Mode of Operation of a Mammalian Zn2+ Transporter. Journal of Biological Chemistry, 2009, 284, 17677-17686.	3.4	161
65	Cell death induced by zinc and cadmium is mediated by clusterin in cultured mouse seminiferous tubules. Journal of Cellular Physiology, 2009, 220, 222-229.	4.1	24
66	Intracellular zinc inhibits KCC2 transporter activity. Nature Neuroscience, 2009, 12, 725-727.	14.8	59
67	Zinc in the physiology and pathology of the CNS. Nature Reviews Neuroscience, 2009, 10, 780-791.	10.2	647
68	Glutamate Regulates the Activity of Topoisomerase I in Mouse Cerebellum. Molecular Neurobiology, 2008, 38, 242-252.	4.0	7
69	Extracellular zinc and zinc-citrate, acting through a putative zinc-sensing receptor, regulate growth and survival of prostate cancer cells. Carcinogenesis, 2008, 29, 1692-1700.	2.8	49
70	Targeting lipid rafts inhibits protein kinase B by disrupting calcium homeostasis and attenuates malignant properties of melanoma cells. Carcinogenesis, 2008, 29, 1546-1554.	2.8	35
71	The Zinc Sensing Receptor, a Link Between Zinc and Cell Signaling. Molecular Medicine, 2007, 13, 331-336.	4.4	83
72	Mechanism and Regulation of Cellular Zinc Transport. Molecular Medicine, 2007, 13, 337-343.	4.4	176

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73	Fluorescence-Based Zinc Ion Sensor for Zinc Ion Release from Pancreatic Cells. Analytical Chemistry, 2006, 78, 5799-5804.	6.5	42
74	Silencing of ZnT-1 expression enhances heavy metal influx and toxicity. Journal of Molecular Medicine, 2006, 84, 753-763.	3.9	66
75	Zinc ions are endogenous modulators of neurotransmitterâ€stimulated capacitative Ca²⁺ entry in both cultured and in situ mouse astrocytes. European Journal of Neuroscience, 2005, 21, 1626-1634.	2.6	34
76	Zinc-regulating Proteins, ZnT-1, and Metallothionein I/II Are Present in Different Cell Populations in the Mouse Testis. Journal of Histochemistry and Cytochemistry, 2005, 53, 905-912.	2.5	38
77	Role of GPR40 in fatty acid action on the Î² cell line INS-1E. Biochemical and Biophysical Research Communications, 2005, 335, 97-104.	2.1	201
78	Lithium-Calcium Exchange Is Mediated by a Distinct Potassium-independent Sodium-Calcium Exchanger. Journal of Biological Chemistry, 2004, 279, 25234-25240.	3.4	119
79	Inhibitory Mechanism of Store-operated Ca2+ Channels by Zinc. Journal of Biological Chemistry, 2004, 279, 11106-11111.	3.4	41
80	A Sodium Zinc Exchange Mechanism Is Mediating Extrusion of Zinc in Mammalian Cells. Journal of Biological Chemistry, 2004, 279, 4278-4284.	3.4	64
81	ZnT-1 expression in astroglial cells protects against zinc toxicity and slows the accumulation of intracellular zinc. Glia, 2004, 48, 145-155.	4.9	107
82	Histochemical and Histofluorescence Tracing of Chelatable Zinc in the Developing Mouse. Journal of Histochemistry and Cytochemistry, 2004, 52, 529-539.	2.5	21
83	A role for ZnT-1 in regulating cellular cation influx. Biochemical and Biophysical Research Communications, 2004, 323, 1145-1150.	2.1	66
84	Clioquinol effects on tissue chelatable zinc in mice. Journal of Molecular Medicine, 2003, 81, 637-644.	3.9	48
85	Metallothioneins in Neurodegeneration. , 2003, , 307-322.		0
86	Postnatal regulation of ZnT-1 expression in the mouse brain. Developmental Brain Research, 2002, 137, 149-157.	1.7	35
87	Distribution of the zinc transporter ZnT-1 in comparison with chelatable zinc in the mouse brain. Journal of Comparative Neurology, 2002, 447, 201-209.	1.6	90
88	A Cluster of Cytoplasmic Histidine Residues Specifies pH Dependence of the AE2 Plasma Membrane Anion Exchanger. Cell, 1996, 86, 929-935.	28.9	25
89	A Conserved Glutamate Is Responsible for Ion Selectivity and pH Dependence of the Mammalian Anion Exchangers AE1 and AE2. Journal of Biological Chemistry, 1995, 270, 28751-28758.	3.4	47
90	High Level Expression, Partial Purification, and Functional Reconstitution of the Human AE1 Anion Exchanger in Saccharomycescerevisiae. Journal of Biological Chemistry, 1995, 270, 21028-21034.	3.4	35

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91	Sulfate Transport Mediated by the Mammalian Anion Exchangers in Reconstituted Proteoliposomes. Journal of Biological Chemistry, 1995, 270, 11251-11256.	3.4	30
92	Characterization of a plasma membrane H+-ATPase from the extremely acidophilic algaDunaliella acidophila. Journal of Membrane Biology, 1991, 121, 51-57.	2.1	24