

Irene Frischauf

List of Publications by Year in descending order

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56
papers

2,620
citations

236925

25
h-index

302126

39
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62
all docs

62
docs citations

62
times ranked

2011
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic Coupling of the Putative Coiled-coil Domain of ORAI1 with STIM1 Mediates ORAI1 Channel Activation. <i>Journal of Biological Chemistry</i> , 2008, 283, 8014-8022.	3.4	366
2	A Cytosolic Homomerization and a Modulatory Domain within STIM1 C Terminus Determine Coupling to ORAI1 Channels. <i>Journal of Biological Chemistry</i> , 2009, 284, 8421-8426.	3.4	289
3	Proliferation of aligned mammalian cells on laser-nanostructured polystyrene. <i>Biomaterials</i> , 2008, 29, 1796-1806.	11.4	219
4	STIM1 couples to ORAI1 via an intramolecular transition into an extended conformation. <i>EMBO Journal</i> , 2011, 30, 1678-1689.	7.8	204
5	Molecular Determinants of the Coupling between STIM1 and Orai Channels. <i>Journal of Biological Chemistry</i> , 2009, 284, 21696-21706.	3.4	140
6	2-Aminoethoxydiphenyl Borate Alters Selectivity of Orai3 Channels by Increasing Their Pore Size. <i>Journal of Biological Chemistry</i> , 2008, 283, 20261-20267.	3.4	131
7	Mechanistic view on domains mediating STIM1-Orai coupling. <i>Immunological Reviews</i> , 2009, 231, 99-112.	6.0	97
8	The STIM/Orai coupling machinery. <i>Channels</i> , 2008, 2, 261-268.	2.8	92
9	Resting State Orai1 Diffuses as Homotetramer in the Plasma Membrane of Live Mammalian Cells*. <i>Journal of Biological Chemistry</i> , 2010, 285, 41135-41142.	3.4	92
10	STIM1 activation of Orai1. <i>Cell Calcium</i> , 2019, 77, 29-38.	2.4	75
11	Increased Hydrophobicity at the N Terminus/Membrane Interface Impairs Gating of the Severe Combined Immunodeficiency-related ORAI1 Mutant. <i>Journal of Biological Chemistry</i> , 2009, 284, 15903-15915.	3.4	72
12	Transmembrane helix connectivity in Orai1 controls two gates for calcium-dependent transcription. <i>Science Signaling</i> , 2017, 10, .	3.6	68
13	Plasticity in Ca ²⁺ selectivity of Orai1/Orai3 heteromeric channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 19623-19628.	7.1	61
14	Live-cell imaging of ER-PM contact architecture by a novel TIRFM approach reveals extension of junctions in response to store-operated Ca ²⁺ -entry. <i>Scientific Reports</i> , 2016, 6, 35656.	3.3	58
15	Cooperativeness of Orai Cytosolic Domains Tunes Subtype-specific Gating. <i>Journal of Biological Chemistry</i> , 2011, 286, 8577-8584.	3.4	51
16	A calcium-accumulating region, CAR, in the channel Orai1 enhances Ca ²⁺ permeation and SOCE-induced gene transcription. <i>Science Signaling</i> , 2015, 8, ra131.	3.6	51
17	Molecular Determinants within N Terminus of Orai3 Protein That Control Channel Activation and Gating. <i>Journal of Biological Chemistry</i> , 2011, 286, 31565-31575.	3.4	44
18	Canonical Transient Receptor Potential (TRPC) 1 Acts as a Negative Regulator for Vanilloid TRPV6-mediated Ca ²⁺ Influx. <i>Journal of Biological Chemistry</i> , 2012, 287, 35612-35620.	3.4	44

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19	Communication between N terminus and loop2 tunes Orai activation. Journal of Biological Chemistry, 2018, 293, 1271-1285.	3.4	44
20	A novel STIM1-Orai1 gating interface essential for CRAC channel activation. Cell Calcium, 2019, 79, 57-67.	2.4	44
21	Authentic CRAC channel activity requires STIM1 and the conserved portion of the Orai N terminus. Journal of Biological Chemistry, 2018, 293, 1259-1270.	3.4	40
22	The first ankyrin-like repeat is the minimum indispensable key structure for functional assembly of homo- and heteromeric TRPC4/TRPC5 channels. Cell Calcium, 2008, 43, 260-269.	2.4	36
23	Sequential activation of STIM1 links Ca ²⁺ with luminal domain unfolding. Science Signaling, 2019, 12, .	3.6	32
24	UV surface modification of a new nanocomposite polymer to improve cytocompatibility. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 453-468.	3.5	30
25	Blockage of Store-Operated Ca ²⁺ Influx by Synta66 is Mediated by Direct Inhibition of the Ca ²⁺ Selective Orai1 Pore. Cancers, 2020, 12, 2876.	3.7	30
26	STIM1 phosphorylation at Y316 modulates its interaction with SARAF and the activation of SOCE and CRAC. Journal of Cell Science, 2019, 132, .	2.0	25
27	The STIM1: Orai Interaction. Advances in Experimental Medicine and Biology, 2016, 898, 25-46.	1.6	24
28	Calcium Signals during SARS-CoV-2 Infection: Assessing the Potential of Emerging Therapies. Cells, 2022, 11, 253.	4.1	24
29	Electroporation chip for adherent cells on photochemically modified polymer surfaces. Applied Physics Letters, 2008, 92, 013901.	3.3	23
30	Luminal STIM1 Mutants that Cause Tubular Aggregate Myopathy Promote Autophagic Processes. International Journal of Molecular Sciences, 2020, 21, 4410.	4.1	20
31	CRAC channel opening is determined by a series of Orai1 gating checkpoints in the transmembrane and cytosolic regions. Journal of Biological Chemistry, 2021, 296, 100224.	3.4	20
32	Oxidative Stress-Induced STIM2 Cysteine Modifications Suppress Store-Operated Calcium Entry. Cell Reports, 2020, 33, 108292.	6.4	19
33	The polybasic lysine-rich domain of plasma membrane-resident STIM1 is essential for the modulation of store-operated divalent cation entry by extracellular calcium. Cellular Signalling, 2013, 25, 1328-1337.	3.6	18
34	More Than Just Simple Interaction between STIM and Orai Proteins: CRAC Channel Function Enabled by a Network of Interactions with Regulatory Proteins. International Journal of Molecular Sciences, 2021, 22, 471.	4.1	18
35	Orai1 Boosts SK3 Channel Activation. Cancers, 2021, 13, 6357.	3.7	6
36	Orai channels: key players in Ca ²⁺ homeostasis. Current Opinion in Physiology, 2020, 17, 42-49.	1.8	4

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37	Science CommuniCa ²⁺ tion Developing Scientific Literacy on Calcium: The Involvement of CRAC Currents in Human Health and Disease. <i>Cells</i> , 2022, 11, 1849.	4.1	3
38	Discovery of novel gating checkpoints in the Orai1 calcium channel by systematic analysis of constitutively active mutants of its paralogs and orthologs. <i>Cell Calcium</i> , 2022, 105, 102616.	2.4	2
39	Photochemical surface modification of polymers for biomedical applications. , 2006, , .		1
40	Interference In Coiled-coil Mediated Coupling Between Stim1 And Orai Channels. <i>Biophysical Journal</i> , 2009, 96, 115a-116a.	0.5	0
41	An Orai1 Activating Minimal Fragment Of Stim1. <i>Biophysical Journal</i> , 2009, 96, 116a.	0.5	0
42	Increased Hydrophobicity At The N-terminus/membrane Interface Impairs Gating Of The Scid-related Orai1 Mutant. <i>Biophysical Journal</i> , 2009, 96, 116a.	0.5	0
43	Regulatory Elements of TRPA1 Function. <i>Biophysical Journal</i> , 2009, 96, 268a.	0.5	0
44	Heteromeric channel assembly of Orai1 and Orai3 exhibits altered Ca ²⁺ selectivity. <i>Biophysical Journal</i> , 2009, 96, 559a-560a.	0.5	0
45	Conformational Rearrangement within STIM1 C-terminus Crucial for Coupling to Orai1. <i>Biophysical Journal</i> , 2010, 98, 676a-677a.	0.5	0
46	UV Laser Patterning for Biocompatibility Control of Polystyrene. <i>Biophysical Journal</i> , 2010, 98, 605a.	0.5	0
47	The Second Loop of Orai Channels Fine-Tunes Ca ²⁺ Feedback Regulation. <i>Biophysical Journal</i> , 2010, 98, 676a.	0.5	0
48	Cooperativeness of Orai Cytosolic Domains Tunes Subtype-Specific Gating. <i>Biophysical Journal</i> , 2011, 100, 181a-182a.	0.5	0
49	TRPC3 Expression Modulates Store-Operated Currents in RBL-2H3 Cells. <i>Biophysical Journal</i> , 2012, 102, 534a.	0.5	0
50	Flexibility of the Third Extracellular Loop Affects Permeation of Orai1 Channels. <i>Biophysical Journal</i> , 2012, 102, 314a.	0.5	0
51	TRPC 1 acts as a Negative Regulator for TRPV6 Mediated Ca ²⁺ Influx. <i>Biophysical Journal</i> , 2013, 104, 457a.	0.5	0
52	TRPC3 Modulates Association of Orai1 with Immunophilin FKBP12 and Orai-Mediated Ca ²⁺ -Transcription Coupling in Mast Cells. <i>Biophysical Journal</i> , 2014, 106, 755a.	0.5	0
53	Interplay of Orai1-Loop3 with Extracellular Ca ²⁺ Binding Sites in Loop1 Controls Crac Channel Activity. <i>Biophysical Journal</i> , 2014, 106, 316a.	0.5	0
54	Novel Trans-Membrane Mutation Switches Orai1 to a Constitutively Active and Ca ²⁺ Selective Channel. <i>Biophysical Journal</i> , 2014, 106, 316a.	0.5	0

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55	TRPC3-Calcineurin Microdomains Govern Orai1 Signaling in Mast Cells. Biophysical Journal, 2016, 110, 610a.	0.5	0
56	Molecular Insights into the Pathophysiology of the Ca ²⁺ Sensing Protein STIM1. Biophysical Journal, 2018, 114, 212a.	0.5	0