Irene Frischauf

List of Publications by Year
in descending order

56 papers	2,620 citations	236925 25 h-index	302126 39 g-index
62 all docs	62 docs citations	62 times ranked	2011 citing authors

#	Article	IF	Citations
1	Calcium Signals during SARS-CoV-2 Infection: Assessing the Potential of Emerging Therapies. Cells, 2022, 11, 253.	4.1	24
2	Science CommuniCa2+tion Developing Scientific Literacy on Calcium: The Involvement of CRAC Currents in Human Health and Disease. Cells, 2022, 11, 1849.	4.1	3
3	Discovery of novel gating checkpoints in the Orai1 calcium channel by systematic analysis of constitutively active mutants of its paralogs and orthologs. Cell Calcium, 2022, 105, 102616.	2.4	2
4	CRAC channel opening is determined by a series of Orai1Âgating checkpoints in the transmembrane and cytosolicÂregions. Journal of Biological Chemistry, 2021, 296, 100224.	3.4	20
5	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
6	Orai1 Boosts SK3 Channel Activation. Cancers, 2021, 13, 6357.	3.7	6
7	Oxidative Stress-Induced STIM2 Cysteine Modifications Suppress Store-Operated Calcium Entry. Cell Reports, 2020, 33, 108292.	6.4	19
8	Orai channels: key players in Ca2+ homeostasis. Current Opinion in Physiology, 2020, 17, 42-49.	1.8	4
9	Blockage of Store-Operated Ca2+ Influx by Synta66 is Mediated by Direct Inhibition of the Ca2+ Selective Orai1 Pore. Cancers, 2020, 12, 2876.	3.7	30
10	Luminal STIM1 Mutants that Cause Tubular Aggregate Myopathy Promote Autophagic Processes. International Journal of Molecular Sciences, 2020, 21, 4410.	4.1	20
11	A novel STIM1-Orai1 gating interface essential for CRAC channel activation. Cell Calcium, 2019, 79, 57-67.	2.4	44
12	STIM1 phosphorylation at Y316 modulates its interaction with SARAF and the activation of SOCE and ICRAC. Journal of Cell Science, 2019, 132, .	2.0	25
13	Sequential activation of STIM1 links Ca ²⁺ with luminal domain unfolding. Science Signaling, 2019, 12, .	3.6	32
14	STIM1 activation of Orai1. Cell Calcium, 2019, 77, 29-38.	2.4	75
15	Communication between N terminus and loop2 tunes Orai activation. Journal of Biological Chemistry, 2018, 293, 1271-1285.	3.4	44
16	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
17	Molecular Insights into the Pathophysiology of the Ca2+ Sensing Protein STIM1. Biophysical Journal, 2018, 114, 212a.	0.5	0
18	Transmembrane helix connectivity in Orai1 controls two gates for calcium-dependent transcription. Science Signaling, 2017, 10, .	3.6	68

#	Article	IF	Citations
19	Live-cell imaging of ER-PM contact architecture by a novel TIRFM approach reveals extension of junctions in response to store-operated Ca2+-entry. Scientific Reports, 2016, 6, 35656.	3.3	58
20	TRPC3-Calcineurin Microdomains Govern Orai1 Signaling in Mast Cells. Biophysical Journal, 2016, 110, 610a.	0.5	0
21	The STIM1: Orai Interaction. Advances in Experimental Medicine and Biology, 2016, 898, 25-46.	1.6	24
22	A calcium-accumulating region, CAR, in the channel Orai1 enhances Ca ²⁺ permeation and SOCE-induced gene transcription. Science Signaling, 2015, 8, ra131.	3.6	51
23	TRPC3 Modulates Association of Orai1 with Immunophilin FKBP12 and Orai-Mediated Ca2+-Transcription Coupling in Mast Cells. Biophysical Journal, 2014, 106, 755a.	0.5	0
24	Interplay of Orai1-Loop3 with Extracellular Ca2+ Binding Sites in Loop1 Controls Crac Channel Activity. Biophysical Journal, 2014, 106, 316a.	0.5	0
25	Novel Trans-Membrane Mutation Switches Orai1 to a Constitutively Active and Ca2+ Selective Channel. Biophysical Journal, 2014, 106, 316a.	0.5	0
26	TRPC 1 acts as a Negative Regulator for TRPV6 Mediated Ca2+ Influx. Biophysical Journal, 2013, 104, 457a.	0.5	0
27	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
28	Canonical Transient Receptor Potential (TRPC) 1 Acts as a Negative Regulator for Vanilloid TRPV6-mediated Ca2+ Influx. Journal of Biological Chemistry, 2012, 287, 35612-35620.	3.4	44
29	TRPC3 Expression Modulates Store-Operated Currents in RBL-2H3 Cells. Biophysical Journal, 2012, 102, 534a.	0.5	0
30	Flexibility of the Third Extracellular Loop Affects Permeation of Orai1 Channels. Biophysical Journal, 2012, 102, 314a.	0.5	0
31	Cooperativeness of Orai Cytosolic Domains Tunes Subtype-Specific Gating. Biophysical Journal, 2011, 100, 181a-182a.	0.5	0
32	STIM1 couples to ORAI1 via an intramolecular transition into an extended conformation. EMBO Journal, 2011, 30, 1678-1689.	7.8	204
33	Cooperativeness of Orai Cytosolic Domains Tunes Subtype-specific Gating. Journal of Biological Chemistry, 2011, 286, 8577-8584.	3.4	51
34	Molecular Determinants within N Terminus of Orai3 Protein That Control Channel Activation and Gating. Journal of Biological Chemistry, 2011, 286, 31565-31575.	3.4	44
35	Resting State Orai1 Diffuses as Homotetramer in the Plasma Membrane of Live Mammalian Cells*. Journal of Biological Chemistry, 2010, 285, 41135-41142.	3.4	92
36	Conformational Rearrangement within STIM1 C-terminus Crucial for Coupling to Orai1. Biophysical Journal, 2010, 98, 676a-677a.	0.5	0

#	Article	IF	Citations
37	UV Laser Patterning for Biocompatibility Control of Polystyrene. Biophysical Journal, 2010, 98, 605a.	0.5	0
38	The Second Loop of Orai Channels Fine-Tunes Ca2+ Feedback Regulation. Biophysical Journal, 2010, 98, 676a.	0.5	0
39	A Cytosolic Homomerization and a Modulatory Domain within STIM1 C Terminus Determine Coupling to ORAI1 Channels. Journal of Biological Chemistry, 2009, 284, 8421-8426.	3.4	289
40	Increased Hydrophobicity at the N Terminus/Membrane Interface Impairs Gating of the Severe Combined Immunodeficiency-related ORAI1 Mutant. Journal of Biological Chemistry, 2009, 284, 15903-15915.	3.4	72
41	Molecular Determinants of the Coupling between STIM1 and Orai Channels. Journal of Biological Chemistry, 2009, 284, 21696-21706.	3.4	140
42	Mechanistic view on domains mediating STIM1â€“Orai coupling. Immunological Reviews, 2009, 231, 99-112.	6.0	97
43	Interference In Coiled-coil Mediated Coupling Between Stim1 And Orai Channels. Biophysical Journal, 2009, 96, 115a-116a.	0.5	0
44	An Orai1 Activating Minimal Fragment Of Stim1. Biophysical Journal, 2009, 96, 116a.	0.5	0
45	Increased Hydrophobicity At The N-terminus/membrane Interface Impairs Gating Of The Scid-related Orai1 Mutant. Biophysical Journal, 2009, 96, 116a.	0.5	0
46	Regulatory Elements of TRPA1 Function. Biophysical Journal, 2009, 96, 268a.	0.5	0
47	Plasticity in Ca ²⁺ selectivity of Orai1/Orai3 heteromeric channel. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19623-19628.	7.1	61
48	Heteromeric channel assembly of Orai1 and Orai3 exhibits altered Ca2+ selectivity. Biophysical Journal, 2009, 96, 559a-560a.	0.5	0
49	Proliferation of aligned mammalian cells on laser-nanostructured polystyrene. Biomaterials, 2008, 29, 1796-1806.	11.4	219
50	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
51	Electroporation chip for adherent cells on photochemically modified polymer surfaces. Applied Physics Letters, 2008, 92, 013901.	3.3	23
52	2-Aminoethoxydiphenyl Borate Alters Selectivity of Orai3 Channels by Increasing Their Pore Size. Journal of Biological Chemistry, 2008, 283, 20261-20267.	3.4	131
53	Dynamic Coupling of the Putative Coiled-coil Domain of ORAI1 with STIM1 Mediates ORAI1 Channel Activation. Journal of Biological Chemistry, 2008, 283, 8014-8022.	3.4	366
54	The STIM/Orai coupling machinery. Channels, 2008, 2, 261-268.	2.8	92

#	Article	IF	Citations
55	UV surface modification of a new nanocomposite polymer to improve cytocompatibility. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 453-468.	3.5	30
56	Photochemical surface modification of polymers for biomedical applications. , 2006, , .		1