Isabella Derler

List of Publications by Year
in descending order

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54 papers	3,302 citations	172207 29 h-index	197535 49 g-index
56 all docs	56 docs citations	56 times ranked	2260 citing authors

#	Article	IF	Citations
1	Proteolysis of Orai1 controls cellular Ca2+ influx.. Cell Calcium, 2022, 102, 102535.	1.1	0
2	The Role of Lipids in CRAC Channel Function. Biomolecules, 2022, 12, 352.	1.8	3
3	CRAC channel opening is determined by a series of Orai1Âgating checkpoints in the transmembrane and cytosolicÂregions. Journal of Biological Chemistry, 2021, 296, 100224.	1.6	20
4	The Orai Pore Opening Mechanism. International Journal of Molecular Sciences, 2021, 22, 533.	1.8	15
5	Transmembrane Domain 3 (TM3) Governs Orai1 and Orai3 Pore Opening in an Isoform-Specific Manner. Frontiers in Cell and Developmental Biology, 2021, 9, 635705.	1.8	10
6	Isoform-Specific Properties of Orai Homologues in Activation, Downstream Signaling, Physiology and Pathophysiology. International Journal of Molecular Sciences, 2021, 22, 8020.	1.8	13
7	Defects in the STIM1 SOARÎ±2 domain affect multiple steps in the CRAC channel activation cascade. Cellular and Molecular Life Sciences, 2021, 78, 6645-6667.	2.4	12
8	Deciphering Molecular Mechanisms and Intervening in Physiological and Pathophysiological Processes of Ca2+ Signaling Mechanisms Using Optogenetic Tools. Cells, 2021, 10, 3340.	1.8	3
9	Orai1 Boosts SK3 Channel Activation. Cancers, 2021, 13, 6357.	1.7	6
10	Blockage of Store-Operated Ca2+ Influx by Synta66 is Mediated by Direct Inhibition of the Ca2+ Selective Orai1 Pore. Cancers, 2020, 12, 2876.	1.7	30
11	Inactivation-mimicking block of the epithelial calcium channel TRPV6. Science Advances, 2020, 6, .	4.7	22
12	Molecular Choreography and Structure of Ca2+ Release-Activated Ca2+ (CRAC) and KCa2+ Channels and Their Relevance in Disease with Special Focus on Cancer. Membranes, 2020, 10, 425.	1.4	9
13	Luminal STIM1 Mutants that Cause Tubular Aggregate Myopathy Promote Autophagic Processes. International Journal of Molecular Sciences, 2020, 21, 4410.	1.8	20
14	Natural photoswitches expose STIM1 activation steps. Cell Calcium, 2020, 90, 102240.	1.1	2
15	Review: Structure and Activation Mechanisms of CRAC Channels. Advances in Experimental Medicine and Biology, 2020, 1131, 547-604.	0.8	25
16	Critical parameters maintaining authentic CRAC channel hallmarks. European Biophysics Journal, 2019, 48, 425-445.	1.2	23
17	A novel STIM1-Orai1 gating interface essential for CRAC channel activation. Cell Calcium, 2019, 79, 57-67.	1.1	44
18	STIM1 phosphorylation at Y316 modulates its interaction with SARAF and the activation of SOCE and ICRAC. Journal of Cell Science, 2019, 132, .	1.2	25

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19	Sequential activation of STIM1 links Ca ²⁺ with luminal domain unfolding. Science Signaling, 2019, 12, .	1.6	32
20	Communication between N terminus and loop2 tunes Orai activation. Journal of Biological Chemistry, 2018, 293, 1271-1285.	1.6	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.	1.6	40
22	Rapid NMR-scale purification of 15N,13C isotope-labeled recombinant human STIM1 coiled coil fragments. Protein Expression and Purification, 2018, 146, 45-50.	0.6	10
23	The STIM-Orai Pathway: The Interactions Between STIM and Orai. Advances in Experimental Medicine and Biology, 2017, 993, 59-81.	0.8	17
24	Molecular mechanisms of STIM/Orai communication. American Journal of Physiology - Cell Physiology, 2016, 310, C643-C662.	2.1	110
25	Cholesterol modulates Orai1 channel function. Science Signaling, 2016, 9, ra10.	1.6	80
26	A calcium-accumulating region, CAR, in the channel Orai1 enhances Ca ²⁺ permeation and SOCE-induced gene transcription. Science Signaling, 2015, 8, ra131.	1.6	51
27	Cholesterol Regulates Orai1 Function. Biophysical Journal, 2014, 106, 317a.	0.2	0
28	The action of selective CRAC channel blockers is affected by the Orai pore geometry. Cell Calcium, 2013, 53, 139-151.	1.1	121
29	The Extended Transmembrane Orai1 N-terminal (ETON) Region Combines Binding Interface and Gate for Orai1 Activation by STIM1. Journal of Biological Chemistry, 2013, 288, 29025-29034.	1.6	101
30	The STIM1/Orai signaling machinery. Channels, 2013, 7, 330-343.	1.5	42
31	Novel pyrazole compounds for pharmacological discrimination between receptorâ€operated and storeâ€operated <scp><scp>Ca²⁺</scp></scp> entry pathways. British Journal of Pharmacology, 2012, 167, 1712-1722.	2.7	160
32	Gating and permeation of Orai channels. Frontiers in Bioscience - Landmark, 2012, 17, 1304.	3.0	19
33	Structure, Regulation and Biophysics of ICRAC, STIM/Orai1. Advances in Experimental Medicine and Biology, 2012, 740, 383-410.	0.8	30
34	Cooperativeness of Orai Cytosolic Domains Tunes Subtype-Specific Gating. Biophysical Journal, 2011, 100, 181a-182a.	0.2	0
35	STIM1 couples to ORAI1 via an intramolecular transition into an extended conformation. EMBO Journal, 2011, 30, 1678-1689.	3.5	204
36	Cooperativeness of Orai Cytosolic Domains Tunes Subtype-specific Gating. Journal of Biological Chemistry, 2011, 286, 8577-8584.	1.6	51

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37	Molecular Determinants within N Terminus of Orai3 Protein That Control Channel Activation and Gating. Journal of Biological Chemistry, 2011, 286, 31565-31575.	1.6	44
38	Resting State Orai1 Diffuses as Homotetramer in the Plasma Membrane of Live Mammalian Cells*. Journal of Biological Chemistry, 2010, 285, 41135-41142.	1.6	92
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.	1.6	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.	1.6	72
41	Molecular Determinants of the Coupling between STIM1 and Orai Channels. Journal of Biological Chemistry, 2009, 284, 21696-21706.	1.6	140
42	A Ca2+ Release-activated Ca2+ (CRAC) Modulatory Domain (CMD) within STIM1 Mediates Fast Ca2+-dependent Inactivation of ORAI1 Channels. Journal of Biological Chemistry, 2009, 284, 24933-24938.	1.6	115
43	Recent progress on STIM1 domains controlling Orai activation. Cell Calcium, 2009, 46, 227-232.	1.1	40
44	Mechanistic view on domains mediating STIM1â€“Orai coupling. Immunological Reviews, 2009, 231, 99-112.	2.8	97
45	Interference In Coiled-coil Mediated Coupling Between Stim1 And Orai Channels. Biophysical Journal, 2009, 96, 115a-116a.	0.2	0
46	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.	3.3	61
47	Heteromeric channel assembly of Orai1 and Orai3 exhibits altered Ca2+ selectivity. Biophysical Journal, 2009, 96, 559a-560a.	0.2	0
48	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.	1.1	36
49	CRAC inhibitors: identification and potential. Expert Opinion on Drug Discovery, 2008, 3, 787-800.	2.5	27
50	2-Aminoethoxydiphenyl Borate Alters Selectivity of Orai3 Channels by Increasing Their Pore Size. Journal of Biological Chemistry, 2008, 283, 20261-20267.	1.6	131
51	Dynamic Coupling of the Putative Coiled-coil Domain of ORAI1 with STIM1 Mediates ORAI1 Channel Activation. Journal of Biological Chemistry, 2008, 283, 8014-8022.	1.6	366
52	The STIM/Orai coupling machinery. Channels, 2008, 2, 261-268.	1.5	92
53	Dynamic but not constitutive association of calmodulin with rat TRPV6 channels enables fine tuning of Ca2+-dependent inactivation. Journal of Physiology, 2006, 577, 31-44.	1.3	106
54	TRPC3 and TRPC4 Associate to Form a Redox-sensitive Cation Channel. Journal of Biological Chemistry, 2006, 281, 13588-13595.	1.6	198