

Tibor Rohacs

List of Publications by Year in descending order

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81
papers

6,131
citations

71102

41
h-index

79698

73
g-index

100
all docs

100
docs citations

100
times ranked

5404
citing authors

#	ARTICLE	IF	CITATIONS
1	PI(4,5)P2 regulates the activation and desensitization of TRPM8 channels through the TRP domain. <i>Nature Neuroscience</i> , 2005, 8, 626-634.	14.8	535
2	PIP2 Activates KCNQ Channels, and Its Hydrolysis Underlies Receptor-Mediated Inhibition of M Currents. <i>Neuron</i> , 2003, 37, 963-975.	8.1	474
3	Alterations in Conserved Kir Channel-PIP2 Interactions Underlie Channelopathies. <i>Neuron</i> , 2002, 34, 933-944.	8.1	368
4	Rapidly inducible changes in phosphatidylinositol 4,5-bisphosphate levels influence multiple regulatory functions of the lipid in intact living cells. <i>Journal of Cell Biology</i> , 2006, 175, 377-382.	5.2	316
5	Transgenic expression of human APOL1 risk variants in podocytes induces kidney disease in mice. <i>Nature Medicine</i> , 2017, 23, 429-438.	30.7	282
6	Dual Regulation of TRPV1 by Phosphoinositides. <i>Journal of Neuroscience</i> , 2007, 27, 7070-7080.	3.6	241
7	Specificity of activation by phosphoinositides determines lipid regulation of Kir channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 745-750.	7.1	206
8	Distinct Specificities of Inwardly Rectifying K ⁺ Channels for Phosphoinositides. <i>Journal of Biological Chemistry</i> , 1999, 274, 36065-36072.	3.4	179
9	PIP2 hydrolysis underlies agonist-induced inhibition and regulates voltage gating of two-pore domain K ⁺ channels. <i>Journal of Physiology</i> , 2005, 564, 117-129.	2.9	164
10	Characteristic Interactions with Phosphatidylinositol 4,5-Bisphosphate Determine Regulation of Kir Channels by Diverse Modulators. <i>Journal of Biological Chemistry</i> , 2004, 279, 37271-37281.	3.4	162
11	Activation of TRPV1 channels inhibits mechanosensitive Piezo channel activity by depleting membrane phosphoinositides. <i>Science Signaling</i> , 2015, 8, ra15.	3.6	153
12	Gating of Transient Receptor Potential Melastatin 8 (TRPM8) Channels Activated by Cold and Chemical Agonists in Planar Lipid Bilayers. <i>Journal of Neuroscience</i> , 2010, 30, 12526-12534.	3.6	140
13	Inorganic Polyphosphate Modulates TRPM8 Channels. <i>PLoS ONE</i> , 2009, 4, e5404.	2.5	128
14	Understanding TRPV1 activation by ligands: Insights from the binding modes of capsaicin and resiniferatoxin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E137-45.	7.1	127
15	The $\beta_2\beta_3$ Subunits of G Proteins Gate a K ⁺ Channel by Pivoted Bending of a Transmembrane Segment. <i>Molecular Cell</i> , 2002, 10, 469-481.	9.7	123
16	Structural insights on TRPV5 gating by endogenous modulators. <i>Nature Communications</i> , 2018, 9, 4198.	12.8	118
17	Structural basis of TRPV5 channel inhibition by econazole revealed by cryo-EM. <i>Nature Structural and Molecular Biology</i> , 2018, 25, 53-60.	8.2	114
18	Molecular mechanism of TRPV2 channel modulation by cannabidiol. <i>ELife</i> , 2019, 8, .	6.0	106

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19	Regulation of transient receptor potential (TRP) channels by phosphoinositides. Pflugers Archiv European Journal of Physiology, 2007, 455, 157-168.	2.8	104
20	Phosphoinositide Regulation of TRP Channels. Handbook of Experimental Pharmacology, 2014, 223, 1143-1176.	1.8	104
21	Phospholipase C Mediated Modulation of TRPV1 Channels. Molecular Neurobiology, 2008, 37, 153-163.	4.0	91
22	TRPV1: A Target for Rational Drug Design. Pharmaceuticals, 2016, 9, 52.	3.8	85
23	Phosphoinositide regulation of non-canonical transient receptor potential channels. Cell Calcium, 2009, 45, 554-565.	2.4	81
24	Regulation of TRP channels by PIP2. Pflugers Archiv European Journal of Physiology, 2007, 453, 753-762.	2.8	80
25	Distinctive Changes in Plasma Membrane Phosphoinositides Underlie Differential Regulation of TRPV1 in Nociceptive Neurons. Journal of Neuroscience, 2013, 33, 11451-11463.	3.6	75
26	Decrease in phosphatidylinositol 4,5-bisphosphate levels mediates desensitization of the cold sensor TRPM8 channels. Journal of Physiology, 2011, 589, 6007-6027.	2.9	72
27	Phosphoinositide regulation of TRPV1 revisited. Pflugers Archiv European Journal of Physiology, 2015, 467, 1851-1869.	2.8	71
28	How Many Cell Types Are in the Kidney and What Do They Do?. Annual Review of Physiology, 2022, 84, 507-531.	13.1	69
29	Hydrolysis of Phosphatidylinositol 4,5-Bisphosphate Mediates Calcium-induced Inactivation of TRPV6 Channels. Journal of Biological Chemistry, 2008, 283, 14980-14987.	3.4	67
30	Tools for Understanding Nanoscale Lipid Regulation of Ion Channels. Trends in Biochemical Sciences, 2019, 44, 795-806.	7.5	66
31	Regulation of TRPM8 channel activity. Molecular and Cellular Endocrinology, 2012, 353, 68-74.	3.2	65
32	Inhibition of Transient Receptor Potential Melastatin 3 ion channels by G-protein $\beta\gamma$ subunits. ELife, 2017, 6, .	6.0	65
33	Transient receptor potential melastatin 3 is a phosphoinositide-dependent ion channel. Journal of General Physiology, 2015, 146, 65-77.	1.9	62
34	Regulation of transient receptor potential channels by the phospholipase C pathway. Advances in Biological Regulation, 2013, 53, 341-355.	2.3	59
35	Promiscuous Activation of Transient Receptor Potential Vanilloid 1 (TRPV1) Channels by Negatively Charged Intracellular Lipids. Journal of Biological Chemistry, 2013, 288, 35003-35013.	3.4	55
36	Protein Kinase A Modulates PLC-Dependent Regulation and PIP ₂ -Sensitivity of K ⁺ Channels. Channels, 2007, 1, 124-134.	2.8	53

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37	Intracellular ATP supports TRPV6 activity via lipid kinases and the generation of PtdIns(4,5)P ₂ . FASEB Journal, 2011, 25, 3915-3928.	0.5	50
38	Interplay between Calmodulin and Phosphatidylinositol 4,5-Bisphosphate in Ca ²⁺ -induced Inactivation of Transient Receptor Potential Vanilloid 6 Channels*. Journal of Biological Chemistry, 2013, 288, 5278-5290.	3.4	49
39	Polyester Modification of the Mammalian TRPM8 Channel Protein: Implications for Structure and Function. Cell Reports, 2013, 4, 302-315.	6.4	48
40	Sorcini Regulates Excitation-Contraction Coupling in the Heart. Journal of Biological Chemistry, 2003, 278, 28865-28871.	3.4	46
41	Structure-based characterization of novel TRPV5 inhibitors. ELife, 2019, 8, .	6.0	44
42	Assaying Phosphatidylinositol Bisphosphate Regulation of Potassium Channels. Methods in Enzymology, 2002, 345, 71-92.	1.0	43
43	Ion Channel Sensing: Are Fluctuations the Crux of the Matter?. Journal of Physical Chemistry Letters, 2018, 9, 1260-1264.	4.6	43
44	Phospholipase C-Mediated Regulation of Transient Receptor Potential Vanilloid 6 Channels: Implications in Active Intestinal Ca ²⁺ Transport. Molecular Pharmacology, 2009, 75, 608-616.	2.3	41
45	The G-protein-biased agents PZM21 and TRV130 are partial agonists of μ -opioid receptor-mediated signalling to ion channels. British Journal of Pharmacology, 2019, 176, 3110-3125.	5.4	36
46	Crowding-induced opening of the mechanosensitive Piezo1 channel in silico. Communications Biology, 2021, 4, 84.	4.4	35
47	Inhibitory G _{i/o} -coupled receptors in somatosensory neurons: Potential therapeutic targets for novel analgesics. Molecular Pain, 2018, 14, 174480691876364.	2.1	34
48	Phosphoinositide Sensitivity of Ion Channels, a Functional Perspective. Sub-Cellular Biochemistry, 2012, 59, 289-333.	2.4	33
49	A hypothetical molecular mechanism for TRPV1 activation that invokes rotation of an S6 asparagine. Journal of General Physiology, 2018, 150, 1554-1566.	1.9	30
50	TRPM3 Channels Play Roles in Heat Hypersensitivity and Spontaneous Pain after Nerve Injury. Journal of Neuroscience, 2021, 41, 2457-2474.	3.6	30
51	Disease-associated mutations in the human TRPM3 render the channel overactive via two distinct mechanisms. ELife, 2020, 9, .	6.0	29
52	A molecular determinant of phosphoinositide affinity in mammalian TRPV channels. Scientific Reports, 2016, 6, 27652.	3.3	26
53	Phospholipase C β 4 regulates cold sensitivity in mice. Journal of Physiology, 2016, 594, 3609-3628.	2.9	25
54	Structural basis of TRPV5 regulation by physiological and pathophysiological modulators. Cell Reports, 2022, 39, 110737.	6.4	22

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55	G α -coupled receptor activation potentiates Piezo2 currents via G $\beta\gamma$. EMBO Reports, 2020, 21, e49124.	4.5	20
56	Phosphoinositide signaling in somatosensory neurons. Advances in Biological Regulation, 2016, 61, 2-16.	2.3	18
57	The structural basis for an "off switch" controlling G $\beta\gamma$ -mediated inhibition of TRPM3 channels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29090-29100.	7.1	17
58	Dual regulation of TRPV1 channels by phosphatidylinositol via functionally distinct binding sites. Journal of Biological Chemistry, 2021, 296, 100573.	3.4	16
59	G $\beta\gamma$ Sensitizes TRPM8 to Inhibition by PI(4,5)P ₂ Depletion upon Receptor Activation. Journal of Neuroscience, 2019, 39, 6067-6080.	3.6	15
60	Diacylglycerol kinases regulate TRPV1 channel activity. Journal of Biological Chemistry, 2020, 295, 8174-8185.	3.4	15
61	The newest TRP channelopathy: Gain of function TRPM3 mutations cause epilepsy and intellectual disability. Channels, 2021, 15, 386-397.	2.8	11
62	Regulation of the cold-sensing TRPM8 channels by phosphoinositides and G $\beta\gamma$ -coupled receptors. Channels, 2020, 14, 79-86.	2.8	10
63	The TRPM3 ion channel mediates nociception but not itch evoked by endogenous pruritogenic mediators. Biochemical Pharmacology, 2021, 183, 114310.	4.4	9
64	Recording Macroscopic Currents in Large Patches from Xenopus Oocytes. Methods in Molecular Biology, 2013, 998, 119-131.	0.9	8
65	TMEM120A/TACAN inhibits mechanically activated PIEZO2 channels. Journal of General Physiology, 2022, 154, .	1.9	8
66	TRP Channels. Science Signaling, 2005, 2005, tr14-tr14.	3.6	7
67	Stimulus-Secretion Coupling and Mitochondrial Metabolism in Steroid-Secreting Cells. Physiology, 2001, 16, 197-200.	3.1	6
68	Methods to study phosphoinositide regulation of ion channels. Methods in Enzymology, 2021, 652, 49-79.	1.0	5
69	What structures did, and did not, reveal about the function of the epithelial Ca ²⁺ channels TRPV5 and TRPV6. Cell Calcium, 2022, 106, 102620.	2.4	4
70	Sphingosine and the transient receptor potential channel kinase(s). British Journal of Pharmacology, 2013, 168, 1291-1293.	5.4	3
71	TRPM3 joins the ranks of PI(4,5)P ₂ sensitive ion channels. Channels, 2015, 9, 233-234.	2.8	2
72	Signal termination: how many different ways can you hit the brakes in biological systems?. Acta Physiologica, 2012, 204, 465-465.	3.8	1

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73	Regulation of the Ion Channel TRPM3 by Phosphoinositides. <i>Biophysical Journal</i> , 2014, 106, 334a.	0.5	1
74	Calcium Signal and Mitochondrial Metabolism in Steroid Producing Cells. <i>Endocrine Research</i> , 2000, 26, 615-616.	1.2	0
75	Direct Activation of TRPV6 Channels by Phosphatidylinositol 4,5-Bisphosphate. <i>Biophysical Journal</i> , 2011, 100, 107a.	0.5	0
76	Molecular Mechanisms of Calmodulin Regulation of TRPV6. <i>Biophysical Journal</i> , 2012, 102, 343a.	0.5	0
77	The Roles Calmodulin and PI(4,5)P2 in Ca ²⁺ -Induced Inactivation of TRPV6 Channels. <i>Biophysical Journal</i> , 2013, 104, 457a.	0.5	0
78	The Role of PLC β 4 in the Activity of TRPM8 Expressing Sensory Neurons. <i>Biophysical Journal</i> , 2015, 108, 284a.	0.5	0
79	The Mechanism of Regulation of TRPV6 Channels by PI(4,5)P 2. <i>Biophysical Journal</i> , 2017, 112, 114a-115a.	0.5	0
80	Phosphatidylinositol Inhibits TRPV1 via its Vanilloid Binding Site. <i>Biophysical Journal</i> , 2019, 116, 536a.	0.5	0
81	Keeping pain away by distancing the plasma membrane from the endoplasmic reticulum. <i>Journal of Physiology</i> , 2021, 599, 1941-1942.	2.9	0