Petr Svoboda

List of Publications by Year
in descending order

110 papers	1,946 citations	304368 22 h-index	344852 36 g-index
113 all docs	113 docs citations	113 times ranked	1405 citing authors

#	Article	IF	Citations
1	Time-Dependent Changes in Protein Composition of Medial Prefrontal Cortex in Rats with Neuropathic Pain. International Journal of Molecular Sciences, 2022, 23, 955.	1.8	6
2	Alterations in the Proteome and Phosphoproteome Profiles of Rat Hippocampus after Six Months of Morphine Withdrawal: Comparison with the Forebrain Cortex. Biomedicines, 2022, 10, 80.	1.4	5
3	Tissue-specific protective properties of lithium: comparison of rat kidney, erythrocytes and brain. Naunyn-Schmiedeberg's Archives of Pharmacology, 2021, 394, 955-965.	1.4	3
4	The Altered Migration and Distribution of Systemically Administered Mesenchymal Stem Cells in Morphine-Treated Recipients. Stem Cell Reviews and Reports, 2021, 17, 1420-1428.	1.7	3
5	Impact of three-month morphine withdrawal on rat brain cortex, hippocampus, striatum and cerebellum: proteomic and phosphoproteomic studies. Neurochemistry International, 2021, 144, 104975.	1.9	8
6	Therapeutic lithium alters polar head-group region of lipid bilayer and prevents lipid peroxidation in forebrain cortex of sleep-deprived rats. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2021, 1866, 158962.	1.2	2
7	Expression of Opioid Receptors in Cells of the Immune System. International Journal of Molecular Sciences, 2021, 22, 315.	1.8	26
8	Na+/K+-ATPase and lipid peroxidation in forebrain cortex and hippocampus of sleep-deprived rats treated with therapeutic lithium concentration for different periods of time. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2020, 102, 109953.	2.5	14
9	The high-resolution proteomic analysis of protein composition of rat spleen lymphocytes stimulated by Concanavalin A; a comparison with morphine-treated cells. Journal of Neuroimmunology, 2020, 341, 577191.	1.1	0
10	Proteomic analysis of protein composition of rat hippocampus exposed to morphine for 10 days; comparison with animals after 20 days of morphine withdrawal. PLoS ONE, 2020, 15, e0231721.	1.1	10
11	Concurrent Compression of Phospholipid Membranes by Calcium and Cholesterol. Langmuir, 2019, 35, 11358-11368.	1.6	14
12	Determination of Î´-opioid receptor molecules mobility in living cells plasma membrane by novel method of FRAP analysis. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 1346-1354.	1.4	2
13	Na+/K+-ATPase level and products of lipid peroxidation in live cells treated with therapeutic lithium for different periods in time (1, 7, and 28Âdays); studies of Jurkat and HEK293 cells. Naunyn-Schmiedeberg's Archives of Pharmacology, 2019, 392, 785-799.	1.4	4
14	Up-regulation of Î¼-, Î´- and Îº-opioid receptors in concanavalin A-stimulated rat spleen lymphocytes. Journal of Neuroimmunology, 2018, 321, 12-23.	1.1	14
15	Induction of oxidative stress by long-term treatment of live HEK293 cells with therapeutic concentration of lithium is associated with down-regulation of Î´-opioid receptor amount and function. Biochemical Pharmacology, 2018, 154, 452-463.	2.0	5
16	The Impact of Morphine on the Characteristics and Function Properties of Human Mesenchymal Stem Cells. Stem Cell Reviews and Reports, 2018, 14, 801-811.	5.6	18
17	Effect of therapeutic concentration of lithium on live HEK293 cells; increase of Na + /K + -ATPase, change of overall protein composition and alteration of surface layer of plasma membrane. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 1099-1112.	1.1	8
18	Determination of Î¼-, Î´- and Îº-opioid receptors in forebrain cortex of rats exposed to morphine for 10 days: Comparison with animals after 20 days of morphine withdrawal. PLoS ONE, 2017, 12, e0186797.	1.1	9

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19	Plasma membrane cholesterol level and agonist-induced internalization of Î´-opioid receptors; colocalization study with intracellular membrane markers of Rab family. Journal of Bioenergetics and Biomembranes, 2016, 48, 375-396.	1.0	13
20	Proteomic analysis of protein composition of rat forebrain cortex exposed to morphine for 10 days; comparison with animals exposed to morphine and subsequently nurtured for 20 days in the absence of this drug. Journal of Proteomics, 2016, 145, 11-23.	1.2	21
21	Lithium â€" therapeutic tool endowed with multipleÂbeneficiary effects caused by multiple mechanisms. Acta Neurobiologiae Experimentalis, 2016, 76, 1-19.	0.4	33
22	TRH-receptor mobility and function in intact and cholesterol-depleted plasma membrane of HEK293 cells stably expressing TRH-R-eGFP. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 781-796.	1.4	16
23	High Efficacy but Low Potency of Î´-Opioid Receptor-G Protein Coupling in Brij-58-Treated, Low-Density Plasma Membrane Fragments. PLoS ONE, 2015, 10, e0135664.	1.1	5
24	Methodological Aspects of In Vitro Assessment of Bio-accessible Risk Element Pool in Urban Particulate Matter. Biological Trace Element Research, 2014, 161, 216-222.	1.9	20
25	High- and low-affinity sites for sodium in Î´-OR-Gi1Î± (Cys351-Ile351) fusion protein stably expressed in HEK293 cells; functional significance and correlation with biophysical state of plasma membrane. Naunyn-Schmiedeberg's Archives of Pharmacology, 2014, 387, 487-502.	1.4	12
26	Proteomic analysis of post-nuclear supernatant fraction and percoll-purified membranes prepared from brain cortex of rats exposed to increasing doses of morphine. Proteome Science, 2014, 12, 11.	0.7	20
27	FLIM studies of 22- and 25-NBD-cholesterol in living HEK293 cells: Plasma membrane change induced by cholesterol depletion. Chemistry and Physics of Lipids, 2013, 167-168, 62-69.	1.5	28
28	Up-regulation of adenylylcyclases I and II induced by long-term adaptation of rats to morphine fades away 20days after morphine withdrawal. Biochimica Et Biophysica Acta - General Subjects, 2011, 1810, 1220-1229.	1.1	13
29	Fluorescence spectroscopy studies of HEK293 cells expressing DOR-Gi1Î± fusion protein; the effect of cholesterol depletion. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2819-2829.	1.4	20
30	Early postnatal development of rat brain is accompanied by generation of lipofuscin-like pigments. Molecular and Cellular Biochemistry, 2011, 347, 157-162.	1.4	5
31	Stress proteins in the cytoplasmic membrane fraction of Bacillus subtilis. Folia Microbiologica, 2010, 55, 427-434.	1.1	4
32	Protein alterations induced by longâ€term agonist treatment of HEK293 cells expressing thyrotropinâ€releasing hormone receptor and G₁₁Î± protein. Journal of Cellular Biochemistry, 2010, 109, 255-264.	1.2	11
33	14-3-3 protein interacts with and affects the structure of RGS domain of regulator of G protein signaling 3 (RGS3). Journal of Structural Biology, 2010, 170, 451-461.	1.3	34
34	Long-term adaptation to high doses of morphine causes desensitization of mu-OR- and delta-OR-stimulated G-protein response in forebrain cortex but does not decrease the amount of G-protein alpha subunits. Medical Science Monitor, 2010, 16, BR260-70.	0.5	16
35	The effect of detergents on trimeric G-protein activity in isolated plasma membranes from rat brain cortex: Correlation with studies of DPH and Laurdan fluorescence. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 324-332.	1.4	18
36	Isolation of plasma membrane compartments from rat brain cortex; detection of agonist-stimulated G protein activity. Medical Science Monitor, 2009, 15, BR111-22.	0.5	5

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37	Maturation of rat brain is accompanied by differential expression of the long and short splice variants of GsÎ± protein: identification of cytosolic forms of GsÎ±. Journal of Neurochemistry, 2008, 79, 88-97.	2.1	19
38	Ca²⁺ responses to thyrotropinâ€releasing hormone and angiotensin II: the role of plasma membrane integrity and effect of G₁₁<i>Î±</i> protein overexpression on homologous and heterologous desensitization. Cell Biochemistry and Function, 2008, 26, 264-274.	1.4	11
39	Disruption of the Plasma Membrane Integrity by Cholesterol Depletion Impairs Effectiveness of TRH Receptor-Mediated Signal Transduction via Gq/G11Î± Proteins. Journal of Receptor and Signal Transduction Research, 2007, 27, 335-352.	1.3	12
40	Functional interactions between the Î±1b-adrenoceptor and GÎ±11 are compromised by de-palmitoylation of the G protein but not of the receptor. Cellular Signalling, 2006, 18, 1244-1251.	1.7	9
41	Prolonged Agonist Stimulation Does Not Alter the Protein Composition of Membrane Domains in Spite of Dramatic Changes Induced in a Specific Signaling Cascade. Cell Biochemistry and Biophysics, 2005, 42, 021-040.	0.9	7
42	The activity of inducible nitric oxide synthase in rejected skin xenografts is selectively inhibited by a factor produced by grafted cells. Xenotransplantation, 2005, 12, 227-234.	1.6	5
43	Modulation of adenylyl cyclase activity in young and adult rat brain cortex. Identification of suramin as a direct inhibitor of adenylyl cyclase. Journal of Cellular and Molecular Medicine, 2005, 9, 940-952.	1.6	8
44	Characterization of [3H]-forskolin binding sites in young and adult rat brain cortex: identification of suramin as a competitive inhibitor of [3H]-forskolin binding. Canadian Journal of Physiology and Pharmacology, 2005, 83, 573-581.	0.7	2
45	Dominant Portion of Thyrotropin-Releasing Hormone Receptor Is Excluded from Lipid Domains. Detergent-Resistant and Detergent-Sensitive Pools of TRH Receptor and GqÎ±/G11Î± Protein. Journal of Biochemistry, 2005, 138, 111-125.	0.9	17
46	Agonist-induced tyrosine phosphorylation of Gq/G11Î± requires the intact structure of membrane domains. Biochemical and Biophysical Research Communications, 2005, 328, 526-532.	1.0	5
47	Ligand binding to the human MT2 melatonin receptor: The role of residues in transmembrane domains 3, 6, and 7. Biochemical and Biophysical Research Communications, 2005, 332, 726-734.	1.0	27
48	Molecular modeling of human MT2 melatonin receptor: the role of Val204, Leu272 and Tyr298 in ligand binding. Journal of Neurochemistry, 2004, 91, 836-842.	2.1	33
49	Increased baclofen-stimulated G protein coupling and deactivation in rat brain cortex during development. Developmental Brain Research, 2004, 151, 67-73.	2.1	5
50	Long-term agonist stimulation of IP prostanoid receptor depletes the cognate GsÎ± protein in membrane domains but does not change the receptor level. Biochimica Et Biophysica Acta - Molecular Cell Research, 2004, 1691, 51-65.	1.9	14
51	Cardiomegaly induced by pressure overload in newborn rats is accompanied by altered expression of the long isoform of G(s)alpha protein and deranged signaling of adenylyl cyclase. Molecular and Cellular Biochemistry, 2003, 245, 157-166.	1.4	4
52	Î´â€Opioid receptors exhibit high efficiency when activating trimeric G proteins in membrane domains. Journal of Neurochemistry, 2003, 85, 34-49.	2.1	19
53	Different methods of membrane domains isolation result in similar 2-D distribution patterns of membrane domain proteins. Biochemistry and Cell Biology, 2003, 81, 365-372.	0.9	2
54	Altered myocardial Gs protein and adenylyl cyclase signaling in rats exposed to chronic hypoxia and normoxic recovery. Journal of Applied Physiology, 2003, 94, 2423-2432.	1.2	25

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55	Impaired noradrenaline-induced lipolysis in white fat of aP2-Ucp1 transgenic mice is associated with changes in G-protein levels. Biochemical Journal, 2002, 364, 369-376.	1.7	22
56	Micromachined Nanocalorimetric Sensor for Ultra-Low-Volume Cell-Based Assays. Analytical Chemistry, 2002, 74, 2190-2197.	3.2	75
57	Modulation of adenylyl cyclase activity by baclofen in the developing rat brain: difference between cortex, thalamus and hippocampus. Neuroscience Letters, 2002, 330, 9-12.	1.0	9
58	Opposing changes of trimeric G protein levels during ontogenetic development of rat brain. Developmental Brain Research, 2002, 133, 57-67.	2.1	21
59	Ontogenetic development of the G protein-mediated adenylyl cyclase signalling in rat brain. Developmental Brain Research, 2002, 133, 69-75.	2.1	20
60	Hormone-induced subcellular redistribution of trimeric G proteins. Cellular and Molecular Life Sciences, 2002, 59, 501-512.	2.4	20
61	Subcellular shifts of trimeric G-proteins following activation of Bakerâ€™s yeast by glucose. Folia Microbiologica, 2001, 46, 391-396.	1.1	1
62	Membrane-bound and cytosolic forms of heterotrimeric G proteins in young and adult rat myocardium: Influence of neonatal hypo- and hyperthyroidism. Journal of Cellular Biochemistry, 2001, 82, 215-224.	1.2	16
63	Differentiation of cultured brown adipocytes is associated with a selective increase in the short variant of GsÎ± protein. Evidence for higher functional activity of GsÎ±S. Molecular and Cellular Endocrinology, 2000, 167, 23-31.	1.6	12
64	The decrease in the short variant of gsalpha protein is associated with an increase in [3H]CGP12177 binding, [3H]ouabain binding and Na, K-ATPase activity in brown adipose tissue plasma membranes of cold-acclimated hamsters. Journal of Molecular Endocrinology, 1999, 22, 55-64.	1.1	6
65	Resolution and identification of Gq/G11alpha and Gialpha/Goalpha proteins in brown adipose tissue: effect of cold acclimation. Journal of Molecular Endocrinology, 1999, 23, 223-229.	1.1	7
66	Overexpression of the G protein G11Î± prevents desensitization of CA2+ response to thyrotropin-releasing hormone. Life Sciences, 1999, 65, 889-900.	2.0	4
67	Thyrotropin-releasing hormone-induced depletion of Gq Î±/G11 Î± proteins from detergent-insensitive membrane domains. FEBS Letters, 1999, 464, 35-40.	1.3	21
68	G Proteins,Î²-Adrenoreceptors andÎ²-Adrenergic Responsiveness in Immature and Adult Rat Ventricular Myocardium: Influence of Neonatal Hypo- and Hyperthyroidism. Journal of Molecular and Cellular Cardiology, 1999, 31, 761-772.	0.9	46
69	Visualization of distinct patterns of subcellular redistribution of the thyrotropin-releasing hormone receptor-1 and GqÎ± /G11Î± induced by agonist stimulation. Biochemical Journal, 1999, 340, 529-538.	1.7	36
70	Visualization of distinct patterns of subcellular redistribution of the thyrotropin-releasing hormone receptor-1 and GqÎ± /G11Î± induced by agonist stimulation. Biochemical Journal, 1999, 340, 529.	1.7	9
71	Agonist-induced Internalization of the G Protein G11Î± and Thyrotropin-releasing Hormone Receptors Proceed on Different Time Scales. Journal of Biological Chemistry, 1998, 273, 21699-21707.	1.6	42
72	The long (Gs(alpha)-L) and short (Gs(alpha)-S) variants of the stimulatory guanine nucleotide-binding protein. Do they behave in an identical way?. Journal of Molecular Endocrinology, 1998, 20, 163-173.	1.1	45

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73	Chapter 16 Activation, cellular redistribution and enhanced degradation of the G proteins Gqs and G11 by endogenously expressed and transfected phospholipase C-coupled muscarinic m1 acetylcholine receptors. Progress in Brain Research, 1996, 109, 181-187.	0.9	7
74	Cold-induced reduction in GiÎ± proteins in brown adipose tissue. Effects on the cellular hypersensitization to noradrenaline caused by pertussis-toxin treatment. Biochemical Journal, 1996, 314, 761-768.	1.7	12
75	Mechanisms of agonist-induced G-protein elimination. Biochemical Society Transactions, 1995, 23, 166-170.	1.6	12
76	Cold-shock response of protein, RNA, DNA and phospholipid synthesis inBacillus subtilis. Folia Microbiologica, 1995, 40, 627-632.	1.1	4
77	Effect of benzyl alcohol and ethanol on cold-shock response ofBacillus subtilis. Folia Microbiologica, 1995, 40, 633-638.	1.1	2
78	Agonist-induced Transfer of the alpha Subunits of the Guanine-nucleotide-binding Regulatory Proteins Gq and G11, and of Muscarinic m1 Acetylcholine Receptors from Plasma Membranes to a Light-vesicular Membrane Fraction. FEBS Journal, 1994, 224, 455-462.	0.2	35
79	Why are there so many adrenoceptor subtypes?. Biochemical Pharmacology, 1994, 48, 1059-1071.	2.0	49
80	The Short and Long Forms of the Î± Subunit of the Stimulatory Guanineâ€Nucleotideâ€Binding Protein are Unequally Redistributed During (â€")â€Isoproterenolâ€Mediated Desensitization of Intact S49 Lymphoma Cells. FEBS Journal, 1994, 226, 193-199.	0.2	8
81	The Short and Long Forms of the alpha Subunit of the Stimulatory Guanine-Nucleotide-Binding Protein are Unequally Redistributed During (-)-Isoproterenol-Mediated Desensitization of Intact S49 Lymphoma Cells. FEBS Journal, 1994, 226, 193-199.	0.2	20
82	Attenuation of Gs Î± coupling efficiency in brown-adipose-tissue plasma membranes from cold-acclimated hamsters. Biochemical Journal, 1993, 295, 655-661.	1.7	31
83	Ouabain Binding, ATP Hydrolysis, and Na+,K+-Pump Activity During Chemical Modification of Brain and Muscle Na+,K+-ATPase. Journal of Neurochemistry, 1992, 58, 1066-1072.	2.1	4
84	Plasma-membrane-independent pool of the alpha subunit of the stimulatory guanine-nucleotide-binding regulatory protein in a low-density-membrane fraction of S49 lymphoma cells. FEBS Journal, 1992, 208, 693-698.	0.2	22
85	Rotational relaxation rate of 1,6-diphenyl-1,3,5-hexatriene in cytoplasmic membranes ofBacillus subtilis. A new model of heterogeneous rotations. Folia Microbiologica, 1990, 35, 371-383.	1.1	2
86	Stimulation of beta-adrenergic receptors of S49 lymphoma cells redistributes the alpha subunit of the stimulatory G protein between cytosol and membranes.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 7900-7903.	3.3	141
87	Different sensitivity of ATP + Mg + Na (I) and Pi + Mg (II) dependent types of ouabain binding to phospholipase A2. Journal of Membrane Biology, 1988, 104, 211-221.	1.0	26
88	Membrane fluidity inBacillus subtilis. Physical change and biological adaptation. Folia Microbiologica, 1988, 33, 161-169.	1.1	23
89	Membrane fluidity inBacillus subtilis. Validity of homeoviscous adaptation. Folia Microbiologica, 1988, 33, 170-177.	1.1	16
90	Cytoplasmic membrane fluidity measurements on intact living cells ofBacillus subtilis by fluorescence anisotropy of 1,6-diphenyl-1,3,5-hexatriene. Folia Microbiologica, 1988, 33, 1-9.	1.1	13

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91	The role of carâ˜yl groups of Na+/K+-ATPase in the interaction with divalent cations. Biochimica Et Biophysica Acta - Biomembranes, 1988, 945, 367-370.	1.4	5
92	Lipid peroxidation inhibits norepinephrine-stimulated lipolysis in rat adipocytes. Reduction of beta-adreno-ceptor number. Biochemical and Biophysical Research Communications, 1988, 150, 802-810.	1.0	10
93	Arachidonate activates muscle electrogenic sodium pump and brain microsome Na+,K+-ATPase under suboptimal conditions. Brain Research, 1987, 436, 85-91.	1.1	8
94	Mg2+-induced changes of lipid order and conformation of (Na+ + K+)-ATPase. Biochimica Et Biophysica Acta - Biomembranes, 1987, 905, 376-382.	1.4	18
95	Effect of catecholamines and metal chelating agents on the brain and brown adipose tissue Na,K-ATPase. Comparative Biochemistry and Physiology Part C: Comparative Pharmacology, 1986, 84, 283-290.	0.2	7
96	On the mechanism of catecholamine-induced hyperpolarization of skeletal muscle cells. Naunyn-Schmiedeberg's Archives of Pharmacology, 1985, 329, 18-23.	1.4	14
97	The molecular basis for adrenergic desensitization in hamster brown adipose tissue: Uncoupling of adenylate cyclase activation. Comparative Biochemistry and Physiology Part C: Comparative Pharmacology, 1984, 78, 159-170.	0.2	8
98	Vanadyl (VO2+) and vanadate (VO3â˜) ions inhibit the brain microsomal Na,K-ATPase with similar affinities. Protection by transferrin and noradrenaline. Biochemical Pharmacology, 1984, 33, 2485-2491.	2.0	19
99	Vanadyl (VO2+) induced lipoperoxidation in the brain microsomal fraction is not related to VO2+ inhibition of Na,K-ATPase. Biochemical Pharmacology, 1984, 33, 2493-2497.	2.0	10
100	Bleomycin stimulates both membrane (Na+î—¸K+) ATPase and electrogenic (Na+î—¸K+) pump and partially removes the inhibition by vanadium ions. Biochemical and Biophysical Research Communications, 1983, 116, 783-790.	1.0	11
101	Stoicheiometry of dicyclohexylcarbodiimide-ATPase interaction in mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 1982, 680, 80-87.	0.5	13
102	Structure and function of the membrane-integral components of the mitochondrial H+-ATPase. Journal of Bioenergetics and Biomembranes, 1982, 14, 1-13.	1.0	23
103	Desensitisation of Î²â€Adrenergic Responsiveness <i>in vivo</i>. FEBS Journal, 1982, 128, 481-488.	0.2	44
104	Evaluation of the specific dicyclohexylcarbodiimide binding sites in brown adipose tissue mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 1981, 634, 321-330.	0.5	21
105	Differentiation of dicyclohexylcarbodiimide reactive sites of the ATPase complex in bovine heart mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 1981, 634, 331-339.	0.5	26
106	Catecholamines and the brain microsomal Na, K-adenosinetriphosphataseâ€"I. Protection against lipoperoxidative damage. Biochemical Pharmacology, 1981, 30, 427-432.	2.0	113
107	Catecholamines and the brain microsomal Na, K-adenosinetriphosphataseâ€"II. The mechanism of action. Biochemical Pharmacology, 1981, 30, 433-439.	2.0	23
108	High Number of High-Affinity Binding Sites for (-)-[3H]Dihydroalprenolol on Isolated Hamster Brown-Fat Cells. A Study of the beta-Adrenergic Receptors. FEBS Journal, 1979, 102, 203-210.	0.2	56

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109	Characterization of dicyclohexylcarbodiimide binding sites in beef-heart mitochondria. Biochemical and Biophysical Research Communications, 1979, 89, 981-987.	1.0	5
110	Preparation of oligomycin-sensitive ATPase enriched submitochondrial fraction from beef heart mitochondria. Collection of Czechoslovak Chemical Communications, 1979, 44, 2854-2860.	1.0	1