

Jiri Novotny

List of Publications by Year in descending order

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104
papers

1,217
citations

393982

19
h-index

525886

27
g-index

107
all docs

107
docs citations

107
times ranked

1077
citing authors

#	ARTICLE	IF	CITATIONS
1	Morphine as a Potential Oxidative Stress-Causing Agent. <i>Mini-Reviews in Organic Chemistry</i> , 2013, 10, 367-372.	0.6	77
2	G Proteins, β^2 -Adrenoreceptors and β^2 -Adrenergic Responsiveness in Immature and Adult Rat Ventricular Myocardium: Influence of Neonatal Hypo- and Hyperthyroidism. <i>Journal of Molecular and Cellular Cardiology</i> , 1999, 31, 761-772.	0.9	46
3	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?. <i>Journal of Molecular Endocrinology</i> , 1998, 20, 163-173.	1.1	45
4	Agonist-induced Internalization of the G Protein G11 β and Thyrotropin-releasing Hormone Receptors Proceed on Different Time Scales. <i>Journal of Biological Chemistry</i> , 1998, 273, 21699-21707.	1.6	42
5	Visualization of distinct patterns of subcellular redistribution of the thyrotropin-releasing hormone receptor-1 and Gq β /G11 β induced by agonist stimulation. <i>Biochemical Journal</i> , 1999, 340, 529-538.	1.7	36
6	Chronic Hypoxia Enhances Expression and Activity of Mitochondrial Creatine Kinase and Hexokinase in the Rat Ventricular Myocardium. <i>Cellular Physiology and Biochemistry</i> , 2014, 33, 310-320.	1.1	27
7	Altered myocardial Gs protein and adenylyl cyclase signaling in rats exposed to chronic hypoxia and normoxic recovery. <i>Journal of Applied Physiology</i> , 2003, 94, 2423-2432.	1.2	25
8	The Role of Lipid Environment in Ganglioside GM1-Induced Amyloid β Aggregation. <i>Membranes</i> , 2020, 10, 226.	1.4	25
9	Induction of Antibodies against Epitopes Inaccessible on the HIV Type 1 Envelope Oligomer by Immunization with Recombinant Monomeric Glycoprotein 120. <i>AIDS Research and Human Retroviruses</i> , 1998, 14, 1451-1456.	0.5	24
10	Right-To-Left Ventricular Differences in the Expression of Mitochondrial Hexokinase and Phosphorylation of Akt. <i>Cellular Physiology and Biochemistry</i> , 2013, 31, 66-79.	1.1	24
11	Acute morphine affects the rat circadian clock via rhythms of phosphorylated ERK1/2 and GSK3 β kinases and <i>P_{er}1</i> expression in the rat suprachiasmatic nucleus. <i>British Journal of Pharmacology</i> , 2015, 172, 3638-3649.	2.7	24
12	Heart rate changes mediate the embryotoxic effect of antiarrhythmic drugs in the chick embryo. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2013, 304, H895-H902.	1.5	23
13	Impaired noradrenaline-induced lipolysis in white fat of aP2-Ucp1 transgenic mice is associated with changes in G-protein levels. <i>Biochemical Journal</i> , 2002, 364, 369-376.	1.7	22
14	Thyrotropin-releasing hormone-induced depletion of Gq β /G11 β proteins from detergent-insensitive membrane domains. <i>FEBS Letters</i> , 1999, 464, 35-40.	1.3	21
15	Opposing changes of trimeric G protein levels during ontogenetic development of rat brain. <i>Developmental Brain Research</i> , 2002, 133, 57-67.	2.1	21
16	Global Changes in the Rat Heart Proteome Induced by Prolonged Morphine Treatment and Withdrawal. <i>PLoS ONE</i> , 2012, 7, e47167.	1.1	21
17	Ontogenetic development of the G protein-mediated adenylyl cyclase signalling in rat brain. <i>Developmental Brain Research</i> , 2002, 133, 69-75.	2.1	20
18	Hormone-induced subcellular redistribution of trimeric G proteins. <i>Cellular and Molecular Life Sciences</i> , 2002, 59, 501-512.	2.4	20

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19	Cardioprotective adaptation of rats to intermittent hypobaric hypoxia is accompanied by the increased association of hexokinase with mitochondria. <i>Journal of Applied Physiology</i> , 2015, 119, 1487-1493.	1.2	20
20	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. <i>FEBS Journal</i> , 1994, 226, 193-199.	0.2	20
21	μ-Opioid receptors exhibit high efficiency when activating trimeric G proteins in membrane domains. <i>Journal of Neurochemistry</i> , 2003, 85, 34-49.	2.1	19
22	Maturation of rat brain is accompanied by differential expression of the long and short splice variants of Gs α protein: identification of cytosolic forms of Gs α . <i>Journal of Neurochemistry</i> , 2008, 79, 88-97.	2.1	19
23	Selective replacement of mitochondrial DNA increases the cardioprotective effect of chronic continuous hypoxia in spontaneously hypertensive rats. <i>Clinical Science</i> , 2017, 131, 865-881.	1.8	19
24	Isoproterenol-induced subcellular redistribution of G-protein β subunits in S49 lymphoma cells demonstrated by a novel competitive ELISA. <i>Archives of Physiology and Biochemistry</i> , 1995, 103, 202-210.	1.0	18
25	Cardioprotective and nonprotective regimens of chronic hypoxia diversely affect the myocardial antioxidant systems. <i>Physiological Genomics</i> , 2015, 47, 612-620.	1.0	18
26	Chronic intermittent hypoxia affects the cytosolic phospholipase A2 β /cyclooxygenase 2 pathway via β 2-adrenoceptor-mediated ERK/p38 stimulation. <i>Molecular and Cellular Biochemistry</i> , 2016, 423, 151-163.	1.4	18
27	Dominant Portion of Thyrotropin-Releasing Hormone Receptor Is Excluded from Lipid Domains. Detergent-Resistant and Detergent-Sensitive Pools of TRH Receptor and Gq α /G11 α Protein. <i>Journal of Biochemistry</i> , 2005, 138, 111-125.	0.9	17
28	Membrane-bound and cytosolic forms of heterotrimeric G proteins in young and adult rat myocardium: Influence of neonatal hypo- and hyperthyroidism. <i>Journal of Cellular Biochemistry</i> , 2001, 82, 215-224.	1.2	16
29	Streptozotocin-Induced Astrocyte Mitochondrial Dysfunction Is Ameliorated by FTO Inhibitor MO-I-500. <i>ACS Chemical Neuroscience</i> , 2021, 12, 3818-3828.	1.7	16
30	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. <i>Medical Science Monitor</i> , 2010, 16, BR260-70.	0.5	16
31	The Effect of Chronic Morphine or Methadone Exposure and Withdrawal on Clock Gene Expression in the Rat Suprachiasmatic Nucleus and AA-NAT Activity in the Pineal Gland. <i>Physiological Research</i> , 2016, 65, 517-525.	0.4	15
32	Long-term agonist stimulation of IP prostanoid receptor depletes the cognate Gs α protein in membrane domains but does not change the receptor level. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2004, 1691, 51-65.	1.9	14
33	Antiarrhythmic effect of prolonged morphine exposure is accompanied by altered myocardial adenylyl cyclase signaling in rats. <i>Pharmacological Reports</i> , 2012, 64, 351-359.	1.5	14
34	Adaptation to chronic continuous hypoxia potentiates Akt/HK2 anti-apoptotic pathway during brief myocardial ischemia/reperfusion insult. <i>Molecular and Cellular Biochemistry</i> , 2017, 432, 99-108.	1.4	14
35	Biased μ -opioid receptor agonists diversely regulate lateral mobility and functional coupling of the receptor to its cognate G proteins. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2016, 389, 1289-1300.	1.4	13
36	Proteomic Analysis Unveils Expressional Changes in Cytoskeleton- and Synaptic Plasticity-Associated Proteins in Rat Brain Six Months after Withdrawal from Morphine. <i>Life</i> , 2021, 11, 683.	1.1	13

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37	Opioid receptor activation suppresses the neuroinflammatory response by promoting microglial M2 polarization. <i>Molecular and Cellular Neurosciences</i> , 2022, 121, 103744.	1.0	13
38	Differentiation of cultured brown adipocytes is associated with a selective increase in the short variant of GsI± protein. Evidence for higher functional activity of GsI±S. <i>Molecular and Cellular Endocrinology</i> , 2000, 167, 23-31.	1.6	12
39	Disruption of the Plasma Membrane Integrity by Cholesterol Depletion Impairs Effectiveness of TRH Receptor-Mediated Signal Transduction via Gq/G11I± Proteins. <i>Journal of Receptor and Signal Transduction Research</i> , 2007, 27, 335-352.	1.3	12
40	Protective Effect of Morphine Against the Oxidant-Induced Injury in H9c2 Cells. <i>Cardiovascular Toxicology</i> , 2018, 18, 374-385.	1.1	12
41	Ca ²⁺ responses to thyrotropin-releasing hormone and angiotensin II: the role of plasma membrane integrity and effect of G ₁₁ I± protein overexpression on homologous and heterologous desensitization. <i>Cell Biochemistry and Function</i> , 2008, 26, 264-274.	1.4	11
42	Protein alterations induced by long-term agonist treatment of HEK293 cells expressing thyrotropin-releasing hormone receptor and G ₁₁ I± protein. <i>Journal of Cellular Biochemistry</i> , 2010, 109, 255-264.	1.2	11
43	The day/night difference in the circadian clock's response to acute lipopolysaccharide and the rhythmic Stat3 expression in the rat suprachiasmatic nucleus. <i>PLoS ONE</i> , 2018, 13, e0199405.	1.1	11
44	Inhibition of $\hat{2}$ -Adrenergic Receptor-Mediated Signals by a Synthetic Peptide Derived from the $\hat{1}$ Subunit of the Stimulatory G-Protein. <i>Biochemical and Biophysical Research Communications</i> , 1996, 219, 619-624.	1.0	9
45	Visualization of distinct patterns of subcellular redistribution of the thyrotropin-releasing hormone receptor-1 and GqI± /G11I± induced by agonist stimulation. <i>Biochemical Journal</i> , 1999, 340, 529.	1.7	9
46	Modulation of adenylyl cyclase activity by baclofen in the developing rat brain: difference between cortex, thalamus and hippocampus. <i>Neuroscience Letters</i> , 2002, 330, 9-12.	1.0	9
47	Functional interactions between the $\hat{1}$ b-adrenoceptor and G $\hat{1}$ 11 are compromised by de-palmitoylation of the G protein but not of the receptor. <i>Cellular Signalling</i> , 2006, 18, 1244-1251.	1.7	9
48	Transgenic rescue of defective Cd36 enhances myocardial adenylyl cyclase signaling in spontaneously hypertensive rats. <i>Pflugers Archiv European Journal of Physiology</i> , 2013, 465, 1477-1486.	1.3	9
49	Alterations in the cardiac proteome of the spontaneously hypertensive rat induced by transgenic expression of CD36. <i>Journal of Proteomics</i> , 2016, 145, 177-186.	1.2	9
50	Social defeat stress affects resident's clock gene and bdnf expression in the brain. <i>Stress</i> , 2021, 24, 206-212.	0.8	9
51	Spectrophotometric study of phenothiazine derivatives and their cation radicals in micellar media. <i>Microchemical Journal</i> , 1986, 34, 180-189.	2.3	8
52	Modulation of adenylyl cyclase activity in young and adult rat brain cortex. Identification of suramin as a direct inhibitor of adenylyl cyclase. <i>Journal of Cellular and Molecular Medicine</i> , 2005, 9, 940-952.	1.6	8
53	The Short and Long Forms of the $\hat{1}$ Subunit of the Stimulatory Guanine-Nucleotide-Binding Protein are Unequally Redistributed During (\hat{a}) \hat{s} oprotrenol-Mediated Desensitization of Intact S49 Lymphoma Cells. <i>FEBS Journal</i> , 1994, 226, 193-199.	0.2	8
54	Mitochondrial genome modulates myocardial Akt/Glut/HK salvage pathway in spontaneously hypertensive rats adapted to chronic hypoxia. <i>Physiological Genomics</i> , 2018, 50, 532-541.	1.0	8

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55	$\hat{\imath}^2$ -Arrestin 2 and ERK1/2 Are Important Mediators Engaged in Close Cooperation between TRPV1 and $\hat{\mu}$ -Opioid Receptors in the Plasma Membrane. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4626.	1.8	8
56	COVID-19 impact on reproduction and fertility. <i>Jornal Brasileiro De Reproducao Assistida</i> , 2021, 25, 310-313.	0.3	8
57	Renal Sympathetic Denervation Attenuates Congestive Heart Failure in Angiotensin II-Dependent Hypertension: Studies with Ren-2 Transgenic Hypertensive Rats with Aortocaval Fistula. <i>Kidney and Blood Pressure Research</i> , 2021, 46, 95-113.	0.9	8
58	Impact of three-month morphine withdrawal on rat brain cortex, hippocampus, striatum and cerebellum: proteomic and phosphoproteomic studies. <i>Neurochemistry International</i> , 2021, 144, 104975.	1.9	8
59	Resolution and identification of Gq/G11alpha and G1alpha/Goalpha proteins in brown adipose tissue: effect of cold acclimation. <i>Journal of Molecular Endocrinology</i> , 1999, 23, 223-229.	1.1	7
60	Prolonged Agonist Stimulation Does Not Alter the Protein Composition of Membrane Domains in Spite of Dramatic Changes Induced in a Specific Signaling Cascade. <i>Cell Biochemistry and Biophysics</i> , 2005, 42, 021-040.	0.9	7
61	$\hat{\imath}^2$ -Adrenergic signaling in rat heart is similarly affected by continuous and intermittent normobaric hypoxia. <i>General Physiology and Biophysics</i> , 2016, 35, 165-173.	0.4	7
62	Gradual cold acclimation induces cardioprotection without affecting $\hat{\imath}^2$ -adrenergic receptor-mediated adenylyl cyclase signaling. <i>Journal of Applied Physiology</i> , 2020, 128, 1023-1032.	1.2	7
63	Proteome profiling of different rat brain regions reveals the modulatory effect of prolonged maternal separation on proteins involved in cell death-related processes. <i>Biological Research</i> , 2021, 54, 4.	1.5	7
64	Prolonged exposure of hamsters to cold changes the levels of g proteins in brown adipose tissue plasma membranes. <i>Life Sciences</i> , 1995, 57, 311-318.	2.0	6
65	The decrease in the short variant of galpha 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. <i>Journal of Molecular Endocrinology</i> , 1999, 22, 55-64.	1.1	6
66	Identification of a Preassembled TRH Receptor-Gq/11 Protein Complex in HEK293 Cells. <i>Cell Structure and Function</i> , 2012, 37, 1-12.	0.5	6
67	Increased baclofen-stimulated G protein coupling and deactivation in rat brain cortex during development. <i>Developmental Brain Research</i> , 2004, 151, 67-73.	2.1	5
68	Agonist-induced tyrosine phosphorylation of Gq/G11 $\hat{\imath}$ requires the intact structure of membrane domains. <i>Biochemical and Biophysical Research Communications</i> , 2005, 328, 526-532.	1.0	5
69	Prolonged morphine administration alters protein expression in the rat myocardium. <i>Journal of Biomedical Science</i> , 2011, 18, 89.	2.6	5
70	Bad and Bid " potential background players in preneoplastic to neoplastic shift in human endometrium. <i>Neoplasia</i> , 2014, 61, 411-415.	0.7	5
71	$\hat{\imath}^2$ -Adrenergic signaling, monoamine oxidase A and antioxidant defence in the myocardium of SHR and SHR-mtBN conplastic rat strains: the effect of chronic hypoxia. <i>Journal of Physiological Sciences</i> , 2018, 68, 441-454.	0.9	5
72	Downregulation of the Glo1 Gene Is Associated with Reduced Adiposity and Ectopic Fat Accumulation in Spontaneously Hypertensive Rats. <i>Antioxidants</i> , 2020, 9, 1179.	2.2	5

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73	Î²-Arrestin 1 and 2 similarly influence Î¼-opioid receptor mobility and distinctly modulate adenylyl cyclase activity. <i>Cellular Signalling</i> , 2021, 87, 110124.	1.7	5
74	Effects of Renal Denervation on the Enhanced Renal Vascular Responsiveness to Angiotensin II in High-Output Heart Failure: Angiotensin II Receptor Binding Assessment and Functional Studies in Ren-2 Transgenic Hypertensive Rats. <i>Biomedicines</i> , 2021, 9, 1803.	1.4	5
75	Isolation of plasma membrane compartments from rat brain cortex; detection of agonist-stimulated G protein activity. <i>Medical Science Monitor</i> , 2009, 15, BR111-22.	0.5	5
76	Alterations in the Proteome and Phosphoproteome Profiles of Rat Hippocampus after Six Months of Morphine Withdrawal: Comparison with the Forebrain Cortex. <i>Biomedicines</i> , 2022, 10, 80.	1.4	5
77	Overexpression of the G protein G11Î± prevents desensitization of CA2+ response to thyrotropin-releasing hormone. <i>Life Sciences</i> , 1999, 65, 889-900.	2.0	4
78	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. <i>Molecular and Cellular Biochemistry</i> , 2003, 245, 157-166.	1.4	4
79	Identification and subcellular localization of molecular complexes of Gq/11Î± protein in HEK293 cells. <i>Acta Biochimica Et Biophysica Sinica</i> , 2012, 44, 641-649.	0.9	4
80	Adenylyl Cyclase Signaling in the Developing Chick Heart: The Deranging Effect of Antiarrhythmic Drugs. <i>BioMed Research International</i> , 2014, 2014, 1-6.	0.9	4
81	Prenatal exposure to lipopolysaccharide induces changes in the circadian clock in the SCN and AA-NAT activity in the pineal gland. <i>Brain Research</i> , 2020, 1743, 146952.	1.1	4
82	Maternal morphine intake during pregnancy and lactation affects the circadian clock of rat pups. <i>Brain Research Bulletin</i> , 2021, 177, 143-154.	1.4	4
83	Circadian control of kynurenine pathway enzymes in the rat pineal gland, liver, and heart and tissue- and enzyme-specific responses to lipopolysaccharide. <i>Archives of Biochemistry and Biophysics</i> , 2022, 722, 109213.	1.4	4
84	Improvement of conditions for the determination of neurotransmitters in rat brain tissue by HPLC with fluorimetric detection. <i>Monatshefte Für Chemie</i> , 0, , .	0.9	4
85	TRH receptor mobility in the plasma membrane is strongly affected by agonist binding and by interaction with some cognate signaling proteins. <i>Journal of Receptor and Signal Transduction Research</i> , 2018, 38, 20-26.	1.3	3
86	Changes in the activity of some metabolic enzymes in the heart of SHR rat incurred by transgenic expression of CD36. <i>Journal of Physiology and Biochemistry</i> , 2018, 74, 479-489.	1.3	3
87	Protein profiling of SH-SY5Y neuroblastoma cells: The effect of rhein. <i>Journal of Biosciences</i> , 2019, 44, 1.	0.5	3
88	The dayâ€night differences in <sc>ERK1</sc>/2, <sc>GSK3Î²</sc> activity and <sc>câ€Fos</sc> levels in the brain, and the responsiveness of various brain structures to morphine. <i>Journal of Comparative Neurology</i> , 2020, 528, 2471-2495.	0.9	3
89	The cardioprotective effect persisting during recovery from cold acclimation is mediated by the Î²2-adrenoceptor pathway and Akt activation. <i>Journal of Applied Physiology</i> , 2021, 130, 746-755.	1.2	3
90	Characterization of [3H]-forskolin binding sites in young and adult rat brain cortex: identification of suramin as a competitive inhibitor of [3H]-forskolin binding. <i>Canadian Journal of Physiology and Pharmacology</i> , 2005, 83, 573-581.	0.7	2

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91	Antioxidant tempol suppresses heart cytosolic phospholipase A ₂ stimulated by chronic intermittent hypoxia. Canadian Journal of Physiology and Pharmacology, 2017, 95, 920-927.	0.7	2
92	Prolonged Morphine Treatment Alters Expression and Plasma Membrane Distribution of β^2 -Adrenergic Receptors and Some Other Components of Their Signaling System in Rat Cerebral Cortex. Journal of Molecular Neuroscience, 2017, 63, 364-376.	1.1	2
93	The effect of the cannabinoid receptor agonist and antagonist on the light-induced changes in the suprachiasmatic nucleus of rats. Neuroscience Letters, 2019, 703, 49-52.	1.0	2
94	The Circadian Rhythms of STAT3 in the Rat Pineal Gland and Its Involvement in Arylalkylamine-N-Acetyltransferase Regulation. Life, 2021, 11, 1105.	1.1	2
95	β^2 -Arrestin2 Is Critically Involved in the Differential Regulation of Phosphosignaling Pathways by Thyrotropin-Releasing Hormone and Taltirelin. Cells, 2022, 11, 1473.	1.8	2
96	Naloxone Is a Potential Binding Ligand and Activator of the Capsaicin Receptor TRPV1. Biological and Pharmaceutical Bulletin, 2020, 43, 908-912.	0.6	1
97	Excess ischemic tachyarrhythmias trigger protection against myocardial infarction in hypertensive rats. Clinical Science, 2021, 135, 2143-2163.	1.8	1
98	Circadian rhythms of locomotor activity in rats: Data on the effect of morphine administered from the early stages of embryonic development until weaning. Data in Brief, 2022, 40, 107812.	0.5	1
99	Coxsackievirus B3 entry into the host cell interferes with G-protein-mediated transmembrane signalling. Bioscience Reports, 1994, 14, 205-214.	1.1	0
100	Activated Gs but not Gi prevents the thermal inactivation of adenylyl cyclase in plasma membranes derived from S49 lymphoma cells. FEBS Letters, 1994, 343, 208-212.	1.3	0
101	The proteome differences – new trend of placenta examination. Bratislava Medical Journal, 2013, 114, 669-669.	0.4	0
102	COXSACKIE B3 VIRUS PENETRATION INTO RAT CARDIOCYTES ALTERS THE ADENYLYL CYCLASE SIGNALLING SYSTEM. Biomedical Research, 1994, 15, 213-221.	0.3	0
103	Protein profiling of SH-SY5Y neuroblastoma cells: The effect of rhein. Journal of Biosciences, 2019, 44, .	0.5	0
104	Disturbed angiogenesis in intrauterine growth restriction-compromised placentas at term. Clinical and Experimental Obstetrics and Gynecology, 2018, 45, 707-712.	0.1	0