Herbert Zimmermann

List of Publications by Year
in descending order

65 papers	7,663 citations	81900 39 h-index	98798 67 g-index
70 all docs	70 docs citations	70 times ranked	6114 citing authors

#	Article	IF	Citations
1	Cellular function and molecular structure of ecto-nucleotidases. Purinergic Signalling, 2012, 8, 437-502.	2.2	850
2	Extracellular metabolism of ATP and other nucleotides. Naunyn-Schmiedeberg's Archives of Pharmacology, 2000, 362, 299-309.	3.0	844
3	The E-NTPDase family of ectonucleotidases: Structure function relationships and pathophysiological significance. Purinergic Signalling, 2006, 2, 409-430.	2.2	795
4	Purinergic signalling in the nervous system: an overview. Trends in Neurosciences, 2009, 32, 19-29.	8.6	733
5	Signalling via ATP in the nervous system. Trends in Neurosciences, 1994, 17, 420-426.	8.6	418
6	Ectonucleotidases: Some recent developments and a note on nomenclature. Drug Development Research, 2001, 52, 44-56.	2.9	367
7	Targeted Disruption ofcd73/Ecto-5â€²-Nucleotidase Alters Thromboregulation and Augments Vascular Inflammatory Response. Circulation Research, 2004, 95, 814-821.	4.5	220
8	Extracellular nucleotide signaling in adult neural stem cells: synergism with growth factor-mediated cellular proliferation. Development (Cambridge), 2006, 133, 675-684.	2.5	193
9	Chapter 30 Ecto-nucleotidasesâ€"molecular structures, catalytic properties, and functional roles in the nervous system. Progress in Brain Research, 1999, 120, 371-385.	1.4	179
10	Polyoxometalatesâ€"a new class of potent ecto-nucleoside triphosphate diphosphohydrolase (NTPDase) inhibitors. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 5943-5947.	2.2	167
11	Expression of the ecto-ATPase NTPDase2 in the germinal zones of the developing and adult rat brain. European Journal of Neuroscience, 2003, 17, 1355-1364.	2.6	159
12	Ectonucleotidases in the Nervous System. Novartis Foundation Symposium, 2008, , 113-130.	1.1	157
13	Nucleotide signaling in nervous system development. Pflugers Archiv European Journal of Physiology, 2006, 452, 573-588.	2.8	147
14	Distribution of ectonucleotidases in the rodent brain revisited. Cell and Tissue Research, 2008, 334, 199-217.	2.9	140
15	Functional characterization of rat ecto-ATPase and ecto-ATP diphosphohydrolase after heterologous expression in CHO cells. FEBS Journal, 1999, 262, 102-107.	0.2	139
16	Î±,Î²-Methylene-ADP (AOPCP) Derivatives and Analogues: Development of Potent and Selective ecto-5â€²-Nucleotidase (CD73) Inhibitors. Journal of Medicinal Chemistry, 2015, 58, 6248-6263.	6.4	110
17	Polyoxometalatesâ€"Potent and selective ecto-nucleotidase inhibitors. Biochemical Pharmacology, 2015, 93, 171-181.	4.4	107
18	Trophic functions of nucleotides in the central nervous system. Trends in Neurosciences, 2009, 32, 189-198.	8.6	103

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19	Association of the ecto-ATPase NTPDase2 with glial cells of the peripheral nervous system. Glia, 2004, 45, 124-132.	4.9	100
20	Functional expression of the ecto-ATPase NTPDase2 and of nucleotide receptors by neuronal progenitor cells in the adult murine hippocampus. Journal of Neuroscience Research, 2005, 80, 600-610.	2.9	87
21	Hydrolysis of diadenosine polyphosphates by nucleotide pyrophosphatases/phosphodiesterases. FEBS Journal, 2003, 270, 2971-2978.	0.2	80
22	Extracellular ATP and other nucleotidesâ€"ubiquitous triggers of intercellular messenger release. Purinergic Signalling, 2016, 12, 25-57.	2.2	78
23	ATP and acetylcholine, equal brethren. Neurochemistry International, 2008, 52, 634-648.	3.8	70
24	Purinergic signaling in neural development. Seminars in Cell and Developmental Biology, 2011, 22, 194-204.	5.0	70
25	Uracil nucleotides stimulate human neural precursor cell proliferation and dopaminergic differentiation: involvement of MEK/ERK signalling. Journal of Neurochemistry, 2006, 99, 913-923.	3.9	68
26	P2X7 receptors at adult neural progenitor cells of the mouse subventricular zone. Neuropharmacology, 2013, 73, 122-137.	4.1	67
27	Coordinate pathways for nucleotide and EGF signaling in cultured adult neural progenitor cells. Journal of Cell Science, 2009, 122, 2524-2533.	2.0	66
28	Nucleoside-5â€²-monophosphates as Prodrugs of Adenosine A_{2A} Receptor Agonists Activated by ecto-5â€²-Nucleotidaseâ€Contribution to celebrate the 100th anniversary of the Division of Medicinal Chemistry of the American Chemical Society.. Journal of Medicinal Chemistry, 2009, 52, 7669-7677.	6.4	63
29	Sequencing, functional expression and characterization of rat NTPDase6, a nucleoside diphosphatase and novel member of the ecto-nucleoside triphosphate diphosphohydrolase family. Biochemical Journal, 2000, 351, 639-647.	3.7	61
30	Tissue-nonspecific Alkaline Phosphatase Regulates Purinergic Transmission in the Central Nervous System During Development and Disease. Computational and Structural Biotechnology Journal, 2015, 13, 95-100.	4.1	58
31	Knockdown of tissue nonspecific alkaline phosphatase impairs neural stem cell proliferation and differentiation. Neuroscience Letters, 2010, 485, 208-211.	2.1	56
32	Assignment of ectoâ€•nucleoside triphosphate diphosphohydrolaseâ€1/cd39 expression to microglia and vasculature of the brain. European Journal of Neuroscience, 2000, 12, 4357-4366.	2.6	55
33	Structureâ€“Activity Relationship of Purine and Pyrimidine Nucleotides as Ecto-5â€²-Nucleotidase (CD73) Inhibitors. Journal of Medicinal Chemistry, 2019, 62, 3677-3695.	6.4	53
34	5'-Nucleotidase from the electric ray electric lobe. Primary structure and relation to mammalian and procaryotic enzymes. FEBS Journal, 1991, 202, 855-861.	0.2	48
35	History of ectonucleotidases and their role in purinergic signaling. Biochemical Pharmacology, 2021, 187, 114322.	4.4	46
36	NTPDase2 and Purinergic Signaling Control Progenitor Cell Proliferation in Neurogenic Niches of the Adult Mouse Brain. Stem Cells, 2015, 33, 253-264.	3.2	45

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37	Ectonucleotidases in MÃ¼ller glial cells of the rodent retina: Involvement in inhibition of osmotic cell swelling. Purinergic Signalling, 2007, 3, 423-433.	2.2	43
38	Purinergic receptor activation inhibits osmotic glial cell swelling in the diabetic rat retina. Experimental Eye Research, 2008, 87, 385-393.	2.6	43
39	Ectonucleoside triphosphate diphosphohydrolases and ecto-5â€²-nucleotidase in purinergic signaling: how the field developed and where we are now. Purinergic Signalling, 2021, 17, 117-125.	2.2	41
40	Determination of native oligomeric state and substrate specificity of rat NTPDase1 and NTPDase2 after heterologous expression in Xenopus oocytes. FEBS Journal, 2003, 270, 1802-1809.	0.2	40
41	A new, sensitive ecto-5â€²-nucleotidase assay for compound screening. Analytical Biochemistry, 2014, 446, 53-58.	2.4	40
42	2-Substituted Î±,Î²-Methylene-ADP Derivatives: Potent Competitive Ecto-5â€²-nucleotidase (CD73) Inhibitors with Variable Binding Modes. Journal of Medicinal Chemistry, 2020, 63, 2941-2957.	6.4	37
43	ATP Inhibits NMDA Receptors after Heterologous Expression and in Cultured Hippocampal Neurons and Attenuates NMDA-Mediated Neurotoxicity. Journal of Neuroscience, 2003, 23, 4996-5003.	3.6	35
44	Disruption of the Microglial ADP Receptor P2Y13 Enhances Adult Hippocampal Neurogenesis. Frontiers in Cellular Neuroscience, 2018, 12, 134.	3.7	35
45	Prostatic acid phosphatase, a neglected ectonucleotidase. Purinergic Signalling, 2009, 5, 273-275.	2.2	34
46	Xâ€Ray Coâ€Crystal Structure Guides the Way to Subnanomolar Competitive Ectoâ€5â€²â€Nucleotidase (CD73) Inhibitors for Cancer Immunotherapy. Advanced Therapeutics, 2019, 2, 1900075.	3.2	33
47	5â€²-Nucleotidase Activates and an Inhibitory Antibody Prevents Neuritic Differentiation of PC12 Cells. European Journal of Neuroscience, 1995, 7, 1172-1179.	2.6	32
48	Nucleotides affect neurogenesis and dopaminergic differentiation of mouse fetal midbrain-derived neural precursor cells. Purinergic Signalling, 2010, 6, 417-428.	2.2	28
49	Assignment of ecto-nucleoside triphosphate diphosphohydrolase-1/cd39 expression to microglia and vasculature of the brain. European Journal of Neuroscience, 2000, 12, 4357-4366.	2.6	27
50	Sequencing, functional expression and characterization of rat NTPDase6, a nucleoside diphosphatase and novel member of the ecto-nucleoside triphosphate diphosphohydrolase family. Biochemical Journal, 2000, 351, 639.	3.7	24
51	Putative Synaptic Vesicle Nucleotide Transporter Identified as Glyceraldehydeâ€3â€Phosphate Dehydrogenase. Journal of Neurochemistry, 1994, 63, 1924-1931.	3.9	24
52	Activation of Adenylyl Cyclase Causes Stimulation of Adenosine Receptors. Cellular Physiology and Biochemistry, 2018, 45, 2516-2528.	1.6	20
53	In Memoriam Geoffrey Burnstock: Creator of Purinergic Signaling. Function, 2020, 1, .	2.3	20
54	Association of ecto-5?-nucleotidase with specific cell types in the adult and developing rat olfactory organ. , 1998, 393, 528-537.		17

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55	The medial habenula contains a specific nonstellate subtype of astrocyte expressing the ectonucleotidase NTPDase2. Glia, 2012, 60, 1860-1870.	4.9	16
56	NTPDase2 and the P2Y1 receptor are not required for mammalian eye formation. Purinergic Signalling, 2015, 11, 155-160.	2.2	15
57	Expression of ectonucleotidases in the prosencephalon of melatonin-proficient C3H and melatonin-deficient C57Bl mice: spatial distribution and time-dependent changes. Cell and Tissue Research, 2015, 362, 163-176.	2.9	11
58	Fluorescent Probes for Ecto-5â€²-nucleotidase (CD73). ACS Medicinal Chemistry Letters, 2020, 11, 2253-2260.	2.8	10
59	Tissue-Nonspecific Alkaline Phosphatase in the Developing Brain and in Adult Neurogenesis. Sub-Cellular Biochemistry, 2015, 76, 61-84.	2.4	8
60	Melatonin receptor deficiency decreases and temporally shifts ecto-5â€²-nucleotidase mRNA levels in mouse prosencephalon. Cell and Tissue Research, 2016, 365, 147-156.	2.9	7
61	Identification of adenine-N9-(methoxy)ethyl-Î²-bisphosphonate as NPP1 inhibitor attenuates NPPase activity in human osteoarthritic chondrocytes. Purinergic Signalling, 2019, 15, 247-263.	2.2	6
62	Victor P. Whittaker (1919-2016). Journal of Neurochemistry, 2016, 139, 333-335.	3.9	4
63	Maria Teresa Miras Portugal (1948â€“2021): in memoriam. Purinergic Signalling, 2021, 17, 515-517.	2.2	1
64	Victor P. Whittaker: The Discovery of the Synaptosome and Its Implications. Neuromethods, 2018, , 9-26.	0.3	1
65	Comments on Cui Qâ€Q etÂal : â€œHippocampal CD 39/ENTPD 1 promotes mouse depressionâ€like behavior â€¦â€• EMBO Reports, 2020, 21, e50737.	4.5	1