Eric Beitz

List of Publications by Year
in descending order

75 papers	2,849 citations	201674 27 h-index	182427 51 g-index
75 all docs	75 docs citations	75 times ranked	2562 citing authors

#	Article	IF	Citations
1	Point mutations in the aromatic/arginine region in aquaporin 1 allow passage of urea, glycerol, ammonia, and protons. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 269-274.	7.1	300
2	Characterization of Aquaporin-6 as a Nitrate Channel in Mammalian Cells. Journal of Biological Chemistry, 2002, 277, 39873-39879.	3.4	188
3	Structural determinants of the hydrogen peroxide permeability of aquaporins. FEBS Journal, 2014, 281, 647-656.	4.7	151
4	A Single, Bi-functional Aquaglyceroporin in Blood-stagePlasmodium falciparum Malaria Parasites. Journal of Biological Chemistry, 2002, 277, 4874-4882.	3.4	145
5	The effect of anti-diuretic hormone on the endolymphatic sac of the inner ear. Pflugers Archiv European Journal of Physiology, 1998, 436, 970-975.	2.8	111
6	Molecular dissection of water and glycerol permeability of the aquaglyceroporin from Plasmodium falciparum by mutational analysis. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1153-1158.	7.1	103
7	The aquaporin gene family of the ectomycorrhizal fungus Laccaria bicolor: lessons for symbiotic functions. New Phytologist, 2011, 190, 927-940.	7.3	88
8	Concerted action of two cation filters in the aquaporin water channel. EMBO Journal, 2009, 28, 2188-2194.	7.8	84
9	Expression pattern of aquaporin water channels in the inner ear of the rat. Hearing Research, 1999, 132, 76-84.	2.0	82
10	Aquaporins from pathogenic protozoan parasites: structure, function and potential for chemotherapy. Biology of the Cell, 2005, 97, 373-383.	2.0	81
11	Ammonia permeability of the aquaglyceroporins from Plasmodium falciparum, Toxoplasma gondii and Trypansoma brucei. Molecular Microbiology, 2006, 61, 1598-1608.	2.5	80
12	Cloning, Heterologous Expression, and Characterization of Three Aquaglyceroporins from Trypanosoma brucei. Journal of Biological Chemistry, 2004, 279, 42669-42676.	3.4	72
13	Identity of a Plasmodium lactate/H+ symporter structurally unrelated to human transporters. Nature Communications, 2015, 6, 6284.	12.8	62
14	Enhancement of Proton Conductance by Mutations of the Selectivity Filter of Aquaporin-1. Journal of Molecular Biology, 2011, 407, 607-620.	4.2	61
15	Mechanism of formateâ€“nitrite transporters by dielectric shift of substrate acidity. EMBO Journal, 2017, 36, 949-958.	7.8	61
16	Discovery of Novel Human Aquaporin-1 Blockers. ACS Chemical Biology, 2013, 8, 249-256.	3.4	58
17	Microwave-Assisted Ring Opening of Epoxides:â€‰ A General Route to the Synthesis of 1-Aminopropan-2-ols with Anti Malaria Parasite Activities. Journal of Medicinal Chemistry, 2007, 50, 4243-4249.	6.4	57
18	Aquaporin-mediated fluid regulation in the inner ear. Cellular and Molecular Neurobiology, 2003, 23, 315-329.	3.3	56

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19	Determinants of AQP6 trafficking to intracellular sites versus the plasma membrane in transfected mammalian cells. Biology of the Cell, 2006, 98, 101-109.	2.0	53
20	Dihydroxyacetone and methylglyoxal as permeants of the Plasmodium aquaglyceroporin inhibit parasite proliferation. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 1012-1017.	2.6	51
21	Challenges and achievements in the therapeutic modulation of aquaporin functionality. , 2015, 155, 22-35.		46
22	Pentamidine Is Not a Permeant but a Nanomolar Inhibitor of the Trypanosoma brucei Aquaglyceroporin-2. PLoS Pathogens, 2016, 12, e1005436.	4.7	46
23	Novel Channel Enzyme Fusion Proteins Confer Arsenate Resistance. Journal of Biological Chemistry, 2010, 285, 40081-40087.	3.4	45
24	Requirement for asparagine in the aquaporin NPA sequence signature motifs for cation exclusion. FEBS Journal, 2011, 278, 740-748.	4.7	45
25	Substrate-analogous inhibitors exert antimalarial action by targeting the Plasmodium lactate transporter PfFNT at nanomolar scale. PLoS Pathogens, 2017, 13, e1006172.	4.7	45
26	A single aquaporin gene encodes a water/glycerol/urea facilitator inToxoplasma gondiiwith similarity to plant tonoplast intrinsic proteins1. FEBS Letters, 2003, 555, 500-504.	2.8	39
27	Parasite aquaporins: Current developments in drug facilitation and resistance. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 1566-1573.	2.4	36
28	Aquaporins with anion/monocarboxylate permeability: mechanisms, relevance for pathogenÃ¢â‚¬â€œhost interactions. Frontiers in Pharmacology, 2014, 5, 199.	3.5	33
29	Electrostatic attraction of weak monoacid anions increases probability for protonation and passage through aquaporins. Journal of Biological Chemistry, 2017, 292, 9358-9364.	3.4	29
30	The intracellular parasite Toxoplasma gondii harbors three druggable FNT-type formate and l-lactate transporters in the plasma membrane. Journal of Biological Chemistry, 2018, 293, 17622-17630.	3.4	29
31	Targeting Channels and Transporters in Protozoan Parasite Infections. Frontiers in Chemistry, 2018, 6, 88.	3.6	29
32	Functional Characterization of a Novel Aquaporin from Dictyostelium discoideum Amoebae Implies a Unique Gating Mechanism. Journal of Biological Chemistry, 2012, 287, 7487-7494.	3.4	27
33	The role of alanine 163 in solute permeability of Leishmania major aquaglyceroporin LmAQP1. Molecular and Biochemical Parasitology, 2011, 175, 83-90.	1.1	26
34	Formateâ€“nitrite transporters carrying nonprotonatable amide amino acids instead of a central histidine maintain pH-dependent transport. Journal of Biological Chemistry, 2019, 294, 623-631.	3.4	26
35	Molar concentrations of sorbitol and polyethylene glycol inhibit the Plasmodium aquaglyceroporin but not that of E. coli: Involvement of the channel vestibules. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 1218-1224.	2.6	25
36	Aquaporin Water and Solute Channels from Malaria Parasites and Other Pathogenic Protozoa. ChemMedChem, 2006, 1, 587-592.	3.2	22

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37	Preparative scale production and functional reconstitution of a human aquaglyceroporin (AQP3) using a cell free expression system. New Biotechnology, 2013, 30, 545-551.	4.4	22
38	A widened substrate selectivity filter of eukaryotic formateâ€nitrite transporters enables highâ€level lactate conductance. FEBS Journal, 2017, 284, 2663-2673.	4.7	21
39	Fluorescent In Situ Folding Control for Rapid Optimization of Cell-Free Membrane Protein Synthesis. PLoS ONE, 2012, 7, e42186.	2.5	21
40	Formate-nitrite transporters: Monoacids ride the dielectric slide. Channels, 2017, 11, 365-367.	2.8	19
41	Number and Regulation of Protozoan Aquaporins Reflect Environmental Complexity. Biological Bulletin, 2015, 229, 38-46.	1.8	18
42	In Vitro Analysis and Modification of Aquaporin Pore Selectivity. Handbook of Experimental Pharmacology, 2009, , 77-92.	1.8	17
43	A yeast-based phenotypic screen for aquaporin inhibitors. Pflugers Archiv European Journal of Physiology, 2008, 456, 717-720.	2.8	16
44	Metalloid Transport by Aquaglyceroporins: Consequences in the Treatment of Human Diseases. Advances in Experimental Medicine and Biology, 2010, 679, 57-69.	1.6	15
45	Subfamily logos: visualization of sequence deviations at alignment positions with high information content. BMC Bioinformatics, 2006, 7, 313.	2.6	14
46	Functional analysis of novel aquaporins from Fasciola gigantica. Molecular and Biochemical Parasitology, 2011, 175, 144-153.	1.1	14
47	Transmembrane Facilitation of Lactate/H+ Instead of Lactic Acid Is Not a Question of Semantics but of Cell Viability. Membranes, 2020, 10, 236.	3.0	14
48	Basigin drives intracellular accumulation of l-lactate by harvesting protons and substrate anions. PLoS ONE, 2021, 16, e0249110.	2.5	13
49	High-level cell-free production of the malarial lactate transporter PfFNT as a basis for crystallization trials and directional transport studies. Protein Expression and Purification, 2016, 126, 109-114.	1.3	12
50	Introduction of Scaffold Nitrogen Atoms Renders Inhibitors of the Malarial l-Lactate Transporter, PfFNT, Effective against the Gly107Ser Resistance Mutation. Journal of Medicinal Chemistry, 2020, 63, 9731-9741.	6.4	12
51	A Fluorescence-Based Method to Measure ADP/ATP Exchange of Recombinant Adenine Nucleotide Translocase in Liposomes. Biomolecules, 2020, 10, 685.	4.0	12
52	Pentafluoroâ€3â€hydroxyâ€pentâ€2â€enâ€1â€ones Potently Inhibit FNTâ€Type Lactate Transporters from all Five Humanâ€Pathogenic Plasmodium Species. ChemMedChem, 2021, 16, 1283-1289.	3.2	12
53	Jammed traffic impedes parasite growth. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13855-13856.	7.1	11
54	Fluorescence Cross-Correlation Spectroscopy Yields True Affinity and Binding Kinetics of Plasmodium Lactate Transport Inhibitors. Pharmaceuticals, 2021, 14, 757.	3.8	11

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55	The arginine-facing amino acid residue of the rat aquaporin 1 constriction determines solute selectivity according to its size and lipophilicity. Molecular Membrane Biology, 2014, 31, 228-238.	2.0	10
56	Aquaporins with lactate/lactic acid permeability at physiological pH conditions. Biochimie, 2021, 188, 7-11.	2.6	10
57	Trypanosoma brucei aquaglyceroporins mediate the transport of metabolic end-products: Methylglyoxal, D-lactate, L-lactate and acetate. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 2252-2261.	2.6	8
58	Bi-functionality of Opisthorchis viverrini aquaporins. Biochimie, 2015, 108, 149-159.	2.6	7
59	Cysteine 159 delineates a hinge region of the alternating access monocarboxylate transporterÂ1 and is targeted by cysteineâ€modifying inhibitors. FEBS Journal, 2021, 288, 6052-6062.	4.7	7
60	The amoeboidal Dictyostelium aquaporin AqpB is gated via Tyr216 and aqpB gene deletion affects random cell motility. Biology of the Cell, 2015, 107, 78-88.	2.0	6
61	Degraded Arabinogalactans and Their Binding Properties to Cancer-Associated Human Galectins. International Journal of Molecular Sciences, 2021, 22, 4058.	4.1	6
62	Mutational widening of constrictions in a formateâ€“nitrite/H+ transporter enables aquaporin-like water permeability and proton conductance. Journal of Biological Chemistry, 2022, 298, 101513.	3.4	6
63	Discovery and Development of Inhibitors of the Plasmodial FNT-Type Lactate Transporter as Novel Antimalarials. Pharmaceuticals, 2021, 14, 1191.	3.8	5
64	Lactic Acid Permeability of Aquaporin-9 Enables Cytoplasmic Lactate Accumulation via an Ion Trap. Life, 2022, 12, 120.	2.4	5
65	Specific aquaporins increase the ammonia tolerance of aSaccharomyces cerevisiae mep1-3fps1deletion strain. Molecular Membrane Biology, 2013, 30, 43-51.	2.0	4
66	The C Isoform of Dictyostelium Tetraspanins Localizes to the Contractile Vacuole and Contributes to Resistance against Osmotic Stress. PLoS ONE, 2016, 11, e0162065.	2.5	3
67	Functional and evolutional implications of natural channel-enzyme fusion proteins. Biomolecular Concepts, 2011, 2, 439-444.	2.2	2
68	The Ionophores CCCP and Gramicidin but Not Nigericin Inhibit Trypanosoma brucei Aquaglyceroporins at Neutral pH. Cells, 2020, 9, 2335.	4.1	2
69	Attacking Aquaporin Water and Solute Channels of Human-Pathogenic Parasites: New Routes for Treatment?. , 2016, , 233-246.		1
70	Cell-Free and Yeast-Based Production of the Malarial Lactate Transporter, PfFNT, Delivers Comparable Yield and Protein Quality. Frontiers in Pharmacology, 2019, 10, 375.	3.5	1
71	Reducing isoform complexity of human tetraspanins by optimized expression in Dictyostelium discoideum enables high-throughput functional read-out. Protein Expression and Purification, 2017, 135, 8-15.	1.3	0
72	Aquaporins. , 2021, , 1-7.		0

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73	Structure memes: Intuitive visualization of sequence logo and subfamily logo information in a <scp>3D</scp> proteinâ€structural context. Proteins: Structure, Function and Bioinformatics, 2021, 89, 1262-1269.	2.6	0
74	Cover Image, Volume 89, Issue 10. Proteins: Structure, Function and Bioinformatics, 2021, 89, C1.	2.6	0
75	Aquaporins. , 2021, , 242-248.		0