Gerd Krause

List of Publications by Year
in descending order

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82

papers

4,906

citations

81900

39

h-index

95266

68

g-index

83

all docs

83

docs citations

83

times ranked

4305

citing authors

#	Article	IF	Citations
1	Structure and function of claudins. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 631-645.	2.6	646
2	Formation of tight junction: determinants of homophilic interaction between classic claudins. FASEB Journal, 2008, 22, 146-158.	0.5	351
3	Establishment of a Human Blood-Brain Barrier Co-culture Model Mimicking the Neurovascular Unit Using Induced Pluri- and Multipotent Stem Cells. Stem Cell Reports, 2017, 8, 894-906.	4.8	225
4	A Dileucine Sequence and an Upstream Glutamate Residue in the Intracellular Carboxyl Terminus of the Vasopressin V₂Receptor Are Essential for Cell Surface Transport in COS.M6 Cells. Molecular Pharmacology, 1998, 54, 525-535.	2.3	142
5	Pharmacochaperones Post-translationally Enhance Cell Surface Expression by Increasing Conformational Stability of Wild-type and Mutant Vasopressin V2 Receptors. Journal of Biological Chemistry, 2004, 279, 47254-47263.	3.4	141
6	The Tight Junction Protein Occludin and the Adherens Junction Protein Î±-Catenin Share a Common Interaction Mechanism with ZO-1. Journal of Biological Chemistry, 2005, 280, 3747-3756.	3.4	136
7	Thyrotropin and Homologous Glycoprotein Hormone Receptors: Structural and Functional Aspects of Extracellular Signaling Mechanisms. Endocrine Reviews, 2009, 30, 133-151.	20.1	130
8	Characterization of Determinants of Ligand Binding to the Nicotinic Acid Receptor GPR109A (HM74A/PUMA-G). Molecular Pharmacology, 2005, 68, 1271-1280.	2.3	114
9	Small-molecule agonists for the thyrotropin receptor stimulate thyroid function in human thyrocytes and mice. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12471-12476.	7.1	102
10	Molecular Determinants of the Interaction between Clostridium perfringens Enterotoxin Fragments and Claudin-3. Journal of Biological Chemistry, 2009, 284, 18863-18872.	3.4	101
11	Essential Molecular Determinants for Thyroid Hormone Transport and First Structural Implications for Monocarboxylate Transporter 8. Journal of Biological Chemistry, 2010, 285, 28054-28063.	3.4	97
12	Structure and Function of Extracellular Claudin Domains. Annals of the New York Academy of Sciences, 2009, 1165, 34-43.	3.8	91
13	A Low Molecular Weight Agonist Signals by Binding to the Transmembrane Domain of Thyroid-stimulating Hormone Receptor (TSHR) and Luteinizing Hormone/Chorionic Gonadotropin Receptor (LHCGR)*. Journal of Biological Chemistry, 2006, 281, 9841-9844.	3.4	90
14	A Low-Molecular-Weight Antagonist for the Human Thyrotropin Receptor with Therapeutic Potential for Hyperthyroidism. Endocrinology, 2008, 149, 5945-5950.	2.8	90
15	A conserved tyrosine residue (Y601) in transmembrane domain 5 of the human thyrotropin receptor serves as a molecular switch to determine Gâ€protein coupling. FASEB Journal, 1998, 12, 1461-1471.	0.5	81
16	Primary and secondary thyroid hormone transporters. Thyroid Research, 2011, 4, S7.	1.5	77
17	Evaluation of Small-Molecule Modulators of the Luteinizing Hormone/Choriogonadotropin and Thyroid Stimulating Hormone Receptors:Â Structureâˆ’Activity Relationships and Selective Binding Patterns. Journal of Medicinal Chemistry, 2006, 49, 3888-3896.	6.4	76
18	Mechanism of Clostridium perfringens Enterotoxin Interaction with Claudin-3/-4 Protein Suggests Structural Modifications of the Toxin to Target Specific Claudins. Journal of Biological Chemistry, 2012, 287, 1698-1708.	3.4	76

#	ARTICLE	IF	CITATIONS
19	Claudin-3 and Claudin-5 Protein Folding and Assembly into the Tight Junction Are Controlled by Non-conserved Residues in the Transmembrane 3 (TM3) and Extracellular Loop 2 (ECL2) Segments. Journal of Biological Chemistry, 2014, 289, 7641-7653.	3.4	76
20	On the Interaction of Clostridium perfringens Enterotoxin with Claudins. Toxins, 2010, 2, 1336-1356.	3.4	75
21	Structuralâ€"Functional Features of the Thyrotropin Receptor: A Class A G-Protein-Coupled Receptor at Work. Frontiers in Endocrinology, 2017, 8, 86.	3.5	73
22	Comparative Sequence and Structural Analyses of G-Protein-Coupled Receptor Crystal Structures and Implications for Molecular Models. PLoS ONE, 2009, 4, e7011.	2.5	72
23	Molecular architecture and assembly of the tight junction backbone. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183279.	2.6	67
24	Identification of a Novel Epitope in the Thyroid-stimulating Hormone Receptor Ectodomain Acting as Intramolecular Signaling Interface. Journal of Biological Chemistry, 2004, 279, 51590-51600.	3.4	65
25	The Signal Peptide of the G Protein-coupled Human Endothelin B Receptor Is Necessary for Translocation of the N-terminal Tail across the Endoplasmic Reticulum Membrane. Journal of Biological Chemistry, 2002, 277, 16131-16138.	3.4	59
26	Targeting and alteration of tight junctions by bacteria and their virulence factors such as Clostridium perfringens enterotoxin. Pflugers Archiv European Journal of Physiology, 2017, 469, 77-90.	2.8	55
27	A New Highly Thyrotropin Receptor-Selective Small-Molecule Antagonist with Potential for the Treatment of Graves' Orbitopathy. Thyroid, 2019, 29, 111-123.	4.5	55
28	Contacts between Extracellular Loop Two and Transmembrane Helix Six Determine Basal Activity of the Thyroid-stimulating Hormone Receptor. Journal of Biological Chemistry, 2007, 282, 518-525.	3.4	54
29	Principles and Determinants of G-Protein Coupling by the Rhodopsin-Like Thyrotropin Receptor. PLoS ONE, 2010, 5, e9745.	2.5	54
30	Implications for Molecular Mechanisms of Glycoprotein Hormone Receptors Using a New Sequence-Structure-Function Analysis Resource. Molecular Endocrinology, 2007, 21, 574-580.	3.7	50
31	GPCR-SSFE: A comprehensive database of G-protein-coupled receptor template predictions and homology models. BMC Bioinformatics, 2011, 12, 185.	2.6	50
32	Reversible opening of the blood-brain barrier by claudin-5-binding variants of Clostridium perfringens enterotoxin's claudin-binding domain. Biomaterials, 2018, 161, 129-143.	11.4	49
33	Extended and Structurally Supported Insights into Extracellular Hormone Binding, Signal Transduction and Organization of the Thyrotropin Receptor. PLoS ONE, 2012, 7, e52920.	2.5	48
34	Transport of Iodothyronines by Human L-Type Amino Acid Transporters. Endocrinology, 2015, 156, 4345-4355.	2.8	47
35	Signalingâ€sensitive amino acids surround the allosteric ligand binding site of the thyrotropin receptor. FASEB Journal, 2010, 24, 2347-2354.	0.5	46
36	Structural determinants of a conserved enantiomer-selective carvone binding pocket in the human odorant receptor OR1A1. Cellular and Molecular Life Sciences, 2017, 74, 4209-4229.	5.4	46

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37	In Colon Epithelia, Clostridium perfringens Enterotoxin Causes Focal Leaks by Targeting Claudins Which are Apically Accessible Due to Tight Junction Derangement. Journal of Infectious Diseases, 2018, 217, 147-157.	4.0	46
38	Directed structural modification of Clostridium perfringens enterotoxin to enhance binding to claudin-5. Cellular and Molecular Life Sciences, 2015, 72, 1417-1432.	5.4	45
39	TSH receptor mutation V509A causes familial hyperthyroidism by release of interhelical constraints between transmembrane helices TMH3 and TMH5. Journal of Endocrinology, 2005, 186, 377-385.	2.6	42
40	Evidence for cooperative signal triggering at the extracellular loops of the TSH receptor. FASEB Journal, 2008, 22, 2798-2808.	0.5	42
41	Specific binding of a mutated fragment of Clostridium perfringens enterotoxin to endothelial claudin-5 and its modulation of cerebral vascular permeability. Neuroscience, 2016, 327, 53-63.	2.3	39
42	Differences in Signal Activation by LH and hCG are Mediated by the LH/CG Receptorâ€™s Extracellular Hinge Region. Frontiers in Endocrinology, 2015, 6, 140.	3.5	36
43	The Specific Monomer/Dimer Equilibrium of the Corticotropin-releasing Factor Receptor Type 1 Is Established in the Endoplasmic Reticulum. Journal of Biological Chemistry, 2014, 289, 24250-24262.	3.4	35
44	GPCR-SSFE 2.0â€"a fragment-based molecular modeling web tool for Class A G-protein coupled receptors. Nucleic Acids Research, 2017, 45, W408-W415.	14.5	35
45	A Hydrophobic Cluster in the Center of the Third Extracellular Loop Is Important for Thyrotropin Receptor Signaling. Endocrinology, 2005, 146, 5197-5203.	2.8	34
46	Significance of Ectodomain Cysteine Boxes 2 and 3 for the Activation Mechanism of the Thyroid-stimulating Hormone Receptor. Journal of Biological Chemistry, 2006, 281, 31638-31646.	3.4	34
47	The Pseudo Signal Peptide of the Corticotropin-releasing Factor Receptor Type 2A Prevents Receptor Oligomerization. Journal of Biological Chemistry, 2012, 287, 27265-27274.	3.4	33
48	Determination of different putative allosteric binding pockets at the lutropin receptor by using diverse drug-like low molecular weight ligands. Molecular and Cellular Endocrinology, 2012, 351, 326-336.	3.2	33
49	A Heterozygous Mutation in the Third Transmembrane Domain Causes a Dominant-Negative Effect on Signalling Capability of the MC4R. Obesity Facts, 2008, 1, 155-162.	3.4	32
50	Mutations that silence constitutive signaling activity in the allosteric ligand-binding site of the thyrotropin receptor. Cellular and Molecular Life Sciences, 2011, 68, 159-167.	5.4	32
51	Requirement of Specific Intrahelical Interactions for Stabilizing the Inactive Conformation of Glycoprotein Hormone Receptors. Journal of Biological Chemistry, 2000, 275, 37860-37869.	3.4	31
52	Histidines in Potential Substrate Recognition Sites Affect Thyroid Hormone Transport by Monocarboxylate Transporter 8 (MCT8). Endocrinology, 2013, 154, 2553-2561.	2.8	31
53	Structural determinants for G-protein activation and specificity in the third intracellular loop of the thyroid-stimulating hormone receptor. Journal of Molecular Medicine, 2006, 84, 943-954.	3.9	30
54	Research Resource: Update and Extension of a Glycoprotein Hormone Receptors Web Application. Molecular Endocrinology, 2011, 25, 707-712.	3.7	28

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55	Polar and charged extracellular residues conserved among barrierâ€forming claudins contribute to tight junction strand formation. Annals of the New York Academy of Sciences, 2017, 1397, 143-156.	3.8	27
56	Thyroid hormone transport across L-type amino acid transporters: What can molecular modelling tell us?. Molecular and Cellular Endocrinology, 2017, 458, 68-75.	3.2	27
57	Structural determinants for selective recognition of peptide ligands for endothelin receptor subtypes ET_A and ET_B. Journal of Peptide Science, 2009, 15, 479-491.	1.4	25
58	Defining Structural and Functional Dimensions of the Extracellular Thyrotropin Receptor Region. Journal of Biological Chemistry, 2011, 286, 22622-22631.	3.4	25
59	From Molecular Details of the Interplay between Transmembrane Helices of the Thyrotropin Receptor to General Aspects of Signal Transduction in Family A G-protein-coupled Receptors (GPCRs). Journal of Biological Chemistry, 2011, 286, 25859-25871.	3.4	24
60	Claudins are essential for cell shape changes and convergent extension movements during neural tube closure. Developmental Biology, 2017, 428, 25-38.	2.0	24
61	Research Resource: Novel Structural Insights Bridge Gaps in Glycoprotein Hormone Receptor Analyses. Molecular Endocrinology, 2013, 27, 1357-1363.	3.7	23
62	Molecular sampling of the allosteric binding pocket of the TSH receptor provides discriminative pharmacophores for antagonist and agonists. Biochemical Society Transactions, 2013, 41, 213-217.	3.4	23
63	Differences between lutropinâ€mediated and choriogonadotropinâ€mediated receptor activation. FEBS Journal, 2014, 281, 1479-1492.	4.7	23
64	Involvement of the L-Type Amino Acid Transporter Lat2 in the Transport of 3,3â€²-Diiodothyronine across the Plasma Membrane. European Thyroid Journal, 2015, 4, 42-50.	2.4	22
65	Using ortholog sequence data to predict the functional relevance of mutations in Gâ€proteinâ€coupled receptors. FASEB Journal, 2012, 26, 3273-3281.	0.5	21
66	Molecular and structural transmembrane determinants critical for embedding claudin-5 into tight junctions reveal a distinct four-helix bundle arrangement. Biochemical Journal, 2014, 464, 49-60.	3.7	21
67	Structural Insights Into Thyroid Hormone Transport Mechanisms of the L-Type Amino Acid Transporter 2. Molecular Endocrinology, 2015, 29, 933-942.	3.7	20
68	An interactive web-tool for molecular analyses links naturally occurring mutation data with three-dimensional structures of the rhodopsin-like glycoprotein hormone receptors. Human Mutation, 2010, 31, E1519-E1525.	2.5	19
69	Thyrotropin Receptor: Allosteric Modulators Illuminate Intramolecular Signaling Mechanisms at the Interface of Ecto- and Transmembrane Domain. Molecular Pharmacology, 2019, 96, 452-462.	2.3	17
70	Targeting claudinâ€overexpressing thyroid and lung cancer by modified <i>ClostridiumÂperfringens</i> enterotoxin. Molecular Oncology, 2020, 14, 261-276.	4.6	17
71	Molecular features of the L-type amino acid transporter 2 determine different import and export profiles for thyroid hormones and amino acids. Molecular and Cellular Endocrinology, 2017, 443, 163-174.	3.2	14
72	Membrane-traversing mechanism of thyroid hormone transport by monocarboxylate transporter 8. Cellular and Molecular Life Sciences, 2017, 74, 2299-2318.	5.4	14

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73	A cCPEâ€based xenon biosensor for magnetic resonance imaging of claudinâ€expressing cells. Annals of the New York Academy of Sciences, 2017, 1397, 195-208.	3.8	14
74	Modulating TSH Receptor Signaling for Therapeutic Benefit. European Thyroid Journal, 2020, 9, 66-77.	2.4	13
75	Determinants contributing to claudin ion channel formation. Annals of the New York Academy of Sciences, 2012, 1257, 45-53.	3.8	10
76	Intervention Strategies into Glycoprotein Hormone Receptors for Modulating (Malâ€“)function, with Special Emphasis on the TSH Receptor. Hormone and Metabolic Research, 2018, 50, 894-907.	1.5	10
77	Use of Modified Clostridium perfringens Enterotoxin Fragments for Claudin Targeting in Liver and Skin Cells. International Journal of Molecular Sciences, 2019, 20, 4774.	4.1	10
78	Rescue of Function of Mutant Luteinising Hormone Receptors with Deficiencies in Cell Surface Expression, Hormone Binding, and Hormone Signalling. Neuroendocrinology, 2021, 111, 451-464.	2.5	10
79	Identification of Key Receptor Residues Discriminating Human Chorionic Gonadotropin (hCG)- and Luteinizing Hormone (LH)-Specific Signaling. International Journal of Molecular Sciences, 2021, 22, 151.	4.1	7
80	Molecular Mechanisms of Thyroid Hormone Transport by l-Type Amino Acid Transporter. Experimental and Clinical Endocrinology and Diabetes, 2020, 128, 379-382.	1.2	1
81	Molecular Modelling. , 2021, , 1-8.		0
82	Molecular Modelling. , 2021, , 986-993.		0