Martin Heck

List of Publications by Year
in descending order

33 papers	2,176 citations	257450 24 h-index	395702 33 g-index
33 all docs	33 docs citations	33 times ranked	1876 citing authors

#	Article	IF	Citations
1	A G protein-coupled receptor at work: the rhodopsin model. Trends in Biochemical Sciences, 2009, 34, 540-552.	7.5	328
2	Monomeric G protein-coupled receptor rhodopsin in solution activates its G protein transducin at the diffusion limit. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10859-10864.	7.1	196
3	G-protein-effector coupling: A real-time light-scattering assay for transducin-phosphodiesterase interaction. Biochemistry, 1993, 32, 8220-8227.	2.5	159
4	Maximal Rate and Nucleotide Dependence of Rhodopsin-catalyzed Transducin Activation. Journal of Biological Chemistry, 2001, 276, 10000-10009.	3.4	147
5	Interaction of glutamic-acid-rich proteins with the cGMP signalling pathway in rod photoreceptors. Nature, 1999, 400, 761-766.	27.8	146
6	Ligand Channeling within a G-protein-coupled Receptor. Journal of Biological Chemistry, 2003, 278, 24896-24903.	3.4	107
7	A Ligand Channel through the G Protein Coupled Receptor Opsin. PLoS ONE, 2009, 4, e4382.	2.5	102
8	Signaling States of Rhodopsin. Journal of Biological Chemistry, 2003, 278, 3162-3169.	3.4	101
9	Sequence of Interactions in Receptor-G Protein Coupling. Journal of Biological Chemistry, 2004, 279, 24283-24290.	3.4	78
10	Effect of channel mutations on the uptake and release of the retinal ligand in opsin. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5247-5252.	7.1	71
11	Distinct loops in arrestin differentially regulate ligand binding within the GPCR opsin. Nature Communications, 2012, 3, 995.	12.8	69
12	Calcium-Dependent Assembly of Centrin-G-Protein Complex in Photoreceptor Cells. Molecular and Cellular Biology, 2002, 22, 2194-2203.	2.3	64
13	Molecular Determinants of the Reversible Membrane Anchorage of the G-Protein Transducinâ€. Biochemistry, 1999, 38, 7950-7960.	2.5	51
14	Signal Transfer from GPCRs to G Proteins. Journal of Biological Chemistry, 2006, 281, 30234-30241.	3.4	49
15	Structural and kinetic modeling of an activating helix switch in the rhodopsin-transducin interface. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10660-10665.	7.1	47
16	Precision vs Flexibility in GPCR signaling. Journal of the American Chemical Society, 2013, 135, 12305-12312.	13.7	45
17	Secondary binding sites of retinoids in opsin: characterization and role in regeneration. Vision Research, 2003, 43, 3003-3010.	1.4	43
18	Arrestin-Rhodopsin Binding Stoichiometry in Isolated Rod Outer Segment Membranes Depends on the Percentage of Activated Receptors. Journal of Biological Chemistry, 2011, 286, 7359-7369.	3.4	43

#	Article	IF	Citations
19	Transition of Rhodopsin into the Active Metarhodopsin II State Opens a New Light-induced Pathway Linked to Schiff Base Isomerization. Journal of Biological Chemistry, 2004, 279, 48102-48111.	3.4	39
20	Helix Formation in Arrestin Accompanies Recognition of Photoactivated Rhodopsin. Biochemistry, 2009, 48, 10733-10742.	2.5	39
21	Explicit Spatiotemporal Simulation of Receptor-G Protein Coupling in Rod Cell Disk Membranes. Biophysical Journal, 2014, 107, 1042-1053.	0.5	38
22	It takes two transducins to activate the cGMP-phosphodiesterase 6 in retinal rods. Open Biology, 2018, 8, .	3.6	34
23	Signal Transduction in the Visual Cascade Involves Specific Lipid-Protein Interactions. Journal of Biological Chemistry, 2003, 278, 22853-22860.	3.4	33
24	Interaction with Transducin Depletes Metarhodopsin III. Journal of Biological Chemistry, 2004, 279, 48112-48119.	3.4	28
25	[22] Light scattering methods to monitor interactions between rhodopsin-containing membranes and soluble proteins. Methods in Enzymology, 2000, 315, 329-347.	1.0	25
26	Rhodopsinâ€"transducin coupling: Role of the GÎ± C-terminus in nucleotide exchange catalysis. Vision Research, 2006, 46, 4582-4593.	1.4	21
27	Implications of dimeric activation of PDE6 for rod phototransduction. Open Biology, 2018, 8, .	3.6	20
28	Alkylated Hydroxylamine Derivatives Eliminate Peripheral Retinylidene Schiff Bases but Cannot Enter the Retinal Binding Pocket of Light-Activated Rhodopsin. Biochemistry, 2011, 50, 7168-7176.	2.5	13
29	Not Just Signal Shutoff: The Protective Role of Arrestin-1 in Rod Cells. Handbook of Experimental Pharmacology, 2014, 219, 101-116.	1.8	13
30	Mechanistic insights into the role of prenyl-binding protein PrBP/Î´ in membrane dissociation of phosphodiesterase 6. Nature Communications, 2018, 9, 90.	12.8	13
31	Phototransduction gain at the G-protein, transducin, and effector protein, phosphodiesterase-6, stages in retinal rods. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8653-8654.	7.1	6
32	Asymmetric properties of rod cGMP Phosphodiesterase 6 (PDE6): structural and functional analysis. BMC Pharmacology & Toxicology, 2015, 16, .	2.4	5
33	Response to Comment â€œTransient Complexes between Dark Rhodopsin and Transducin: Circumstantial Evidence or Physiological Necessity?â€•byÂD. Dellâ€™Orco and K.-W. Koch. Biophysical Journal, 2015, 108, 778-779.	0.5	3