Carsten Hoffmann

List of Publications by Year
in descending order

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52	3,132	218677	223800
papers	citations	26 h-index	46 g-index

56	56	56	3536
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A FlAsH-based FRET approach to determine G proteinâ€“coupled receptor activation in living cells. Nature Methods, 2005, 2, 171-176.	19.0	471
2	Lack of beta-arrestin signaling in the absence of active G proteins. Nature Communications, 2018, 9, 341.	12.8	297
3	Fluorescence/Bioluminescence Resonance Energy Transfer Techniques to Study G-Protein-Coupled Receptor Activation and Signaling. Pharmacological Reviews, 2012, 64, 299-336.	16.0	279
4	Fluorescent labeling of tetracysteine-tagged proteins in intact cells. Nature Protocols, 2010, 5, 1666-1677.	12.0	192
5	Î²-Arrestin biosensors reveal a rapid, receptor-dependent activation/deactivation cycle. Nature, 2016, 531, 661-664.	27.8	190
6	Optical techniques to analyze real-time activation and signaling of G-protein-coupled receptors. Trends in Pharmacological Sciences, 2008, 29, 159-165.	8.7	119
7	The allosteric vestibule of a seven transmembrane helical receptor controls G-protein coupling. Nature Communications, 2012, 3, 1044.	12.8	117
8	Fluorescence Resonance Energy Transfer Analysis of Î±_{2a}-Adrenergic Receptor Activation Reveals Distinct Agonist-Specific Conformational Changes. Molecular Pharmacology, 2009, 75, 534-541.	2.3	103
9	Differential Signaling of the Endogenous Agonists at the Î²2-Adrenergic Receptor. Journal of Biological Chemistry, 2010, 285, 36188-36198.	3.4	101
10	FRET-based sensors for the human M1-, M3-, and M5-acetylcholine receptors. Bioorganic and Medicinal Chemistry, 2011, 19, 1048-1054.	3.0	79
11	Helix 8 is the essential structural motif of mechanosensitive GPCRs. Nature Communications, 2019, 10, 5784.	12.8	79
12	Minireview: GPCR and G Proteins: Drug Efficacy and Activation in Live Cells. Molecular Endocrinology, 2009, 23, 590-599.	3.7	73
13	Conformational changes in Gâ€proteinâ€coupled receptorsâ€”the quest for functionally selective conformations is open. British Journal of Pharmacology, 2008, 153, S358-66.	5.4	68
14	A Fluorescence Resonance Energy Transfer-based M2 Muscarinic Receptor Sensor Reveals Rapid Kinetics of Allosteric Modulation. Journal of Biological Chemistry, 2010, 285, 8793-8800.	3.4	66
15	Ligand Residence Time at G-proteinâ€“Coupled Receptorsâ€”Why We Should Take Our Time To Study It. Molecular Pharmacology, 2015, 88, 552-560.	2.3	66
16	Arrestin Interactions with G Protein-Coupled Receptors. Handbook of Experimental Pharmacology, 2014, 219, 15-56.	1.8	62
17	A Photoswitchable Dualsteric Ligand Controlling Receptor Efficacy. Angewandte Chemie - International Edition, 2017, 56, 7282-7287.	13.8	61
18	GPCR kinase knockout cells reveal the impact of individual GRKs on arrestin binding and GPCR regulation. Nature Communications, 2022, 13, 540.	12.8	54

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19	Intramolecular and Intermolecular FRET Sensors for GPCRs â€“ Monitoring Conformational Changes and Beyond. Trends in Pharmacological Sciences, 2018, 39, 123-135.	8.7	53
20	A New Generation of FRET Sensors for Robust Measurement of GÎ±i1, GÎ±i2 and GÎ±i3 Activation Kinetics in Single Cells. PLoS ONE, 2016, 11, e0146789.	2.5	50
21	FZD ₅ is a GÎ± _q -coupled receptor that exhibits the functional hallmarks of prototypical GPCRs. Science Signaling, 2018, 11, .	3.6	46
22	Dynamic ligand binding dictates partial agonism at a G proteinâ€“coupled receptor. Nature Chemical Biology, 2014, 10, 18-20.	8.0	45
23	Advanced fluorescence microscopy reveals disruption of dynamic CXCR4 dimerization by subpocket-specific inverse agonists. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29144-29154.	7.1	42
24	Structural insight into small molecule action on Frizzleds. Nature Communications, 2020, 11, 414.	12.8	38
25	Differential Regulation of GPCRsâ€”Are GRK Expression Levels the Key?. Frontiers in Cell and Developmental Biology, 2021, 9, 687489.	3.7	32
26	Comparison of the Activation Kinetics of the M₃Acetylcholine Receptor and a Constitutively Active Mutant Receptor in Living Cells. Molecular Pharmacology, 2012, 82, 236-245.	2.3	30
27	Context-Dependent Signaling of CXC Chemokine Receptor 4 and Atypical Chemokine Receptor 3. Molecular Pharmacology, 2019, 96, 778-793.	2.3	30
28	A Perspective on Studying G-Proteinâ€“Coupled Receptor Signaling with Resonance Energy Transfer Biosensors in Living Organisms. Molecular Pharmacology, 2015, 88, 589-595.	2.3	28
29	Contribution of Fluorophores to Protein Kinase C FRET Probe Performance. ChemBioChem, 2008, 9, 1379-1384.	2.6	26
30	Chemokine Receptor Crystal Structures: What Can Be Learned from Them?. Molecular Pharmacology, 2019, 96, 765-777.	2.3	25
31	Optical probes based on G proteinâ€coupled receptors â€“ added work or added value?. British Journal of Pharmacology, 2016, 173, 255-266.	5.4	24
32	Functional and structural characterization of axonal opioid receptors as targets for analgesia. Molecular Pain, 2016, 12, 174480691662873.	2.1	22
33	Dishevelled-3 conformation dynamics analyzed by FRET-based biosensors reveals a key role of casein kinase 1. Nature Communications, 2019, 10, 1804.	12.8	20
34	To sense or not to senseâ€”new insights from GPCR-based and arrestin-based biosensors. Current Opinion in Cell Biology, 2019, 57, 16-24.	5.4	19
35	FRET Studies of Quinolone-Based Bitopic Ligands and Their Structural Analogues at the Muscarinic M₁ Receptor. ACS Chemical Biology, 2017, 12, 833-843.	3.4	17
36	A split luciferase-based probe for quantitative proximal determination of GÎ±q signalling in live cells. Scientific Reports, 2018, 8, 17179.	3.3	16

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37	Ligand-Specific Allosteric Coupling Controls G-Protein-Coupled Receptor Signaling. ACS Pharmacology and Translational Science, 2020, 3, 859-867.	4.9	15
38	Ein photoschaltbarer Ligand zur Regulierung der Rezeptoraktivierung. Angewandte Chemie, 2017, 129, 7388-7393.	2.0	14
39	Kinetic Analysis of the Early Signaling Steps of the Human Chemokine Receptor CXCR4. Molecular Pharmacology, 2020, 98, 72-87.	2.3	13
40	Structure-based exploration and pharmacological evaluation of N-substituted piperidin-4-yl-methanamine CXCR4 chemokine receptor antagonists. European Journal of Medicinal Chemistry, 2019, 162, 631-649.	5.5	12
41	Muscarinic receptors promote pacemaker fate at the expense of secondary conduction system tissue in zebrafish. JCI Insight, 2019, 4, .	5.0	9
42	Enhanced Fluorescence Resonance Energy Transfer in G-Protein-Coupled Receptor Probes on Nanocoated Microscopy Coverslips. ACS Photonics, 2018, 5, 2225-2233.	6.6	7
43	The Role of Orthosteric Building Blocks of Bitopic Ligands for Muscarinic M1 Receptors. ACS Omega, 2020, 5, 31706-31715.	3.5	6
44	Suitability of GRK Antibodies for Individual Detection and Quantification of GRK Isoforms in Western Blots. International Journal of Molecular Sciences, 2022, 23, 1195.	4.1	4
45	Modulation of CXCR4-Mediated Gi1 Activation by EGF Receptor and GRK2. ACS Pharmacology and Translational Science, 2020, 3, 627-634.	4.9	3
46	G Proteinâ€Coupled Receptor Activation: Amino Acid Movements Caught Infraâ€Redâ€Handed. ChemBioChem, 2010, 11, 2247-2249.	2.6	0
47	Phosphorylation of the D ₁ Dopamine Receptor by G Proteinâ€Coupled Receptor Kinases: phosphorylation site identification and linkage to functional effects. FASEB Journal, 2021, 35, .	0.5	0
48	G proteinâ€coupled receptor kinase 2 can enhance Î²â€arrestin recruitment to the D ₂ dopamine receptor in the absence of receptor phosphorylation. FASEB Journal, 2021, 35, .	0.5	0
49	Direct Measurement Of Receptor/Gq Interaction. FASEB Journal, 2007, 21, A429.	0.5	0
50	Gqâ€coupled Receptor signaling â€“ A kinetic analysis in living cells. FASEB Journal, 2008, 22, 722.1.	0.5	0
51	Molecular determinants of the mechanosensitivity of G proteinâ€coupled receptors. FASEB Journal, 2020, 34, 1-1.	0.5	0
52	Using Intramolecular Fluorescence Resonance Energy Transfer to Study Receptor Conformation. , 0, , 133-146.		0