Aymelt Itzen

List of Publications by Year
in descending order

70 papers	3,145 citations	186265 28 h-index	168389 53 g-index
89 all docs	89 docs citations	89 times ranked	3326 citing authors

#	Article	IF	Citations
1	The <i>Legionella</i> Effector Protein DrrA AMPylates the Membrane Traffic Regulator Rab1b. Science, 2010, 329, 946-949.	12.6	319
2	Rab GTPaseâ€"Myo5B complexes control membrane recycling and epithelial polarization. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2789-2794.	7.1	168
3	RabGEFs are a major determinant for specific Rab membrane targeting. Journal of Cell Biology, 2013, 200, 287-300.	5.2	166
4	RabGDI Displacement by DrrA from Legionella Is a Consequence of Its Guanine Nucleotide Exchange Activity. Molecular Cell, 2009, 36, 1060-1072.	9.7	160
5	Phosphoproteomic screening identifies Rab <scp>GTP</scp>ases as novel downstream targets of <scp>PINK</scp>1. EMBO Journal, 2015, 34, 2840-2861.	7.8	160
6	Reversible phosphocholination of Rab proteins by<i>Legionella pneumophila</i>effector proteins. EMBO Journal, 2012, 31, 1774-1784.	7.8	101
7	Activation of Ran GTPase by a Legionella Effector Promotes Microtubule Polymerization, Pathogen Vacuole Motility and Infection. PLoS Pathogens, 2013, 9, e1003598.	4.7	94
8	Highâ€affinity binding of phosphatidylinositol 4â€phosphate by <i>Legionella pneumophila</i> DrrA. EMBO Reports, 2010, 11, 598-604.	4.5	92
9	Nucleotide exchange via local protein unfoldingâ€"structure of Rab8 in complex with MSS4. EMBO Journal, 2006, 25, 1445-1455.	7.8	89
10	GTPases involved in vesicular trafficking: Structures and mechanisms. Seminars in Cell and Developmental Biology, 2011, 22, 48-56.	5.0	86
11	Î±-Synuclein interacts with the switch region of Rab8a in a Ser129 phosphorylation-dependent manner. Neurobiology of Disease, 2014, 70, 149-161.	4.4	84
12	A structural basis for Lowe syndrome caused by mutations in the Rab-binding domain of OCRL1. EMBO Journal, 2011, 30, 1659-1670.	7.8	80
13	The role of the hypervariable C-terminal domain in Rab GTPases membrane targeting. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2572-2577.	7.1	79
14	Direct Targeting of Rabâ€GTPaseâ€"Effector Interactions. Angewandte Chemie - International Edition, 2014, 53, 2498-2503.	13.8	79
15	Protein LidA from Legionella is a Rab GTPase supereffector. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17945-17950.	7.1	72
16	Posttranslational modifications of Rab proteins cause effective displacement of GDP dissociation inhibitor. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5621-5626.	7.1	68
17	Diversity and plasticity in Rab GTPase nucleotide release mechanism has consequences for Rab activation and inactivation. ELife, 2014, 3, e01623.	6.0	63
18	Adenylylation: renaissance of a forgotten post-translational modification. Trends in Biochemical Sciences, 2011, 36, 221-228.	7.5	60

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19	Mechanism of Rab1b deactivation by the <i>Legionella pneumophila</i> GAP LepB. EMBO Reports, 2013, 14, 199-205.	4.5	60
20	Catalytic mechanism of a mammalian RabÂ·RabGAP complex in atomic detail. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 21348-21353.	7.1	56
21	Proximityâ€Triggered Covalent Stabilization of Lowâ€Affinity Protein Complexes In Vitro and In Vivo. Angewandte Chemie - International Edition, 2017, 56, 15737-15741.	13.8	56
22	Intermediates in the Guanine Nucleotide Exchange Reaction of Rab8 Protein Catalyzed by Guanine Nucleotide Exchange Factors Rabin8 and GRAB. Journal of Biological Chemistry, 2013, 288, 32466-32474.	3.4	55
23	Sec2 is a Highly Efficient Exchange Factor for the Rab Protein Sec4. Journal of Molecular Biology, 2007, 365, 1359-1367.	4.2	52
24	bMERB domains are bivalent Rab8 family effectors evolved by gene duplication. ELife, 2016, 5, .	6.0	51
25	The Legionella longbeachae Icm/Dot Substrate SidC Selectively Binds Phosphatidylinositol 4-Phosphate with Nanomolar Affinity and Promotes Pathogen Vacuole-Endoplasmic Reticulum Interactions. Infection and Immunity, 2014, 82, 4021-4033.	2.2	47
26	Oneâ€Pot Dualâ€Labeling of a Protein by Two Chemoselective Reactions. Angewandte Chemie - International Edition, 2011, 50, 8287-8290.	13.8	40
27	Covalent Protein Labeling by Enzymatic Phosphocholination. Angewandte Chemie - International Edition, 2015, 54, 10327-10330.	13.8	37
28	The protease GtgE from Salmonella exclusively targets inactive Rab GTPases. Nature Communications, 2018, 9, 44.	12.8	33
29	Membrane extraction of Rab proteins by GDP dissociation inhibitor characterized using attenuated total reflection infrared spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13380-13385.	7.1	31
30	Modulation of Small GTPases by Legionella. Current Topics in Microbiology and Immunology, 2013, 376, 117-133.	1.1	29
31	Covalent Coercion by Legionella pneumophila. Cell Host and Microbe, 2011, 10, 89-91.	11.0	28
32	Characterization of Enzymes from Legionella pneumophila Involved in Reversible Adenylylation of Rab1 Protein. Journal of Biological Chemistry, 2012, 287, 35036-35046.	3.4	28
33	Chaperone-assisted production of active human Rab8A GTPase in Escherichia coli. Protein Expression and Purification, 2009, 65, 190-195.	1.3	27
34	Molecular Perspectives on Protein Adenylylation. ACS Chemical Biology, 2015, 10, 12-21.	3.4	27
35	PINK1-dependent phosphorylation of Serine111 within the SF3 motif of Rab GTPases impairs effector interactions and LRRK2-mediated phosphorylation at Threonine72. Biochemical Journal, 2020, 477, 1651-1668.	3.7	26
36	The trimer to monomer transition of Tumor Necrosis Factor-Alpha is a dynamic process that is significantly altered by therapeutic antibodies. Scientific Reports, 2020, 10, 9265.	3.3	25

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37	Crystal structure of the Rab binding domain of OCRL1 in complex with Rab8 and functional implications of the OCRL1/Rab8 module for Lowe syndrome. Small GTPases, 2012, 3, 107-110.	1.6	22
38	Efficient Synthesis and Applications of Peptides containing Adenylylated Tyrosine Residues. Angewandte Chemie - International Edition, 2011, 50, 9200-9204.	13.8	21
39	Locking GTPases covalently in their functional states. Nature Communications, 2015, 6, 7773.	12.8	21
40	Identification of targets of AMPylating Fic enzymes by co-substrate-mediated covalent capture. Nature Chemistry, 2020, 12, 732-739.	13.6	21
41	Identification and characterisation of novel Mss4-binding Rab GTPases. Biological Chemistry, 2011, 392, 239-48.	2.5	19
42	The structure of the N-terminal domain of the Legionella protein SidC. Journal of Structural Biology, 2014, 186, 188-194.	2.8	17
43	Monoclonal Anti-AMP Antibodies Are Sensitive and Valuable Tools for Detecting Patterns of AMPylation. IScience, 2020, 23, 101800.	4.1	17
44	Conformational control of small GTPases by AMPylation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5772-5781.	7.1	16
45	Specificity of AMPylation of the human chaperone BiP is mediated by TPR motifs of FICD. Nature Communications, 2021, 12, 2426.	12.8	15
46	Exploring Adenylylation and Phosphocholination as Postâ€Translational Modifications. ChemBioChem, 2014, 15, 19-26.	2.6	14
47	ProximitÃtsâ€vermittelte kovalente Stabilisierung niedrigâ€affiner Proteinkomplexe inâ€…vitro und inâ€…vivo. Angewandte Chemie, 2017, 129, 15943-15947.	2.0	14
48	Rab1-AMPylation by Legionella DrrA is allosterically activated by Rab1. Nature Communications, 2021, 12, 460.	12.8	14
49	The versatile Legionella effector protein DrrA. Communicative and Integrative Biology, 2011, 4, 72-74.	1.4	13
50	Adenylylation of Tyr77 stabilizes Rab1b GTPase in an active state: A molecular dynamics simulation analysis. Scientific Reports, 2016, 6, 19896.	3.3	13
51	A pull-down procedure for the identification of unknown GEFs for small GTPases. Small GTPases, 2016, 7, 93-106.	1.6	12
52	Proteolysis of Rab32 by Salmonella GtgE induces an inactive GTPase conformation. IScience, 2021, 24, 101940.	4.1	12
53	<i>Legionella</i> effector AnkX displaces the switch II region for Rab1b phosphocholination. Science Advances, 2020, 6, eaaz8041.	10.3	12
54	Proteinâ€"DNA Arrays as Tools for Detection of Proteinâ€"Protein Interactions by Mass Spectrometry. ChemBioChem, 2013, 14, 92-99.	2.6	11

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55	Divergent Evolution of <i>Legionella</i> RCC1 Repeat Effectors Defines the Range of Ran GTPase Cycle Targets. MBio, 2020, 11, .	4.1	11
56	Key Determinants of Rab Specificity. Structure, 2008, 16, 1437-1439.	3.3	10
57	Reaction Mechanism of Adenylyltransferase DrrA from <i>Legionella pneumophila</i> Elucidated by Time-Resolved Fourier Transform Infrared Spectroscopy. Journal of the American Chemical Society, 2014, 136, 9338-9345.	13.7	10
58	The versatile Legionella effector protein DrrA. Communicative and Integrative Biology, 2011, 4, 72-4.	1.4	9
59	Phosphorylation of Ser111 in Rab8a Modulates Rabin8-Dependent Activation by Perturbation of Side Chain Interaction Networks. Biochemistry, 2019, 58, 3546-3554.	2.5	8
60	Exploring the Substrate Scope of the Bacterial Phosphocholine Transferase AnkX for Versatile Protein Functionalization. ChemBioChem, 2019, 20, 2336-2340.	2.6	7
61	Nucleotide exchange factor Rab3GEP requires DENN and non-DENN elements for activation and targeting of Rab27a. Journal of Cell Science, 2019, 132, .	2.0	6
62	Validation of the Slow Offâ€Kinetics of Sirtuinâ€Rearranging Ligands (SirReals) by Means of Labelâ€Free Electrically Switchable Nanolever Technology. ChemBioChem, 2020, 21, 1161-1166.	2.6	6
63	Revisiting AMPylation through the lens of Fic enzymes. Trends in Microbiology, 2022, 30, 350-363.	7.7	6
64	Specific localization of Rabs at intracellular membranes. Biochemical Society Transactions, 2012, 40, 1421-1425.	3.4	5
65	Atomic resolution structure of EhpR: phenazine resistance in Enterobacter agglomerans Eh1087 follows principles of bleomycin/mitomycin C resistance in other bacteria. BMC Structural Biology, 2011, 11, 33.	2.3	4
66	Current Advances in Covalent Stabilization of Macromolecular Complexes for Structural Biology. Bioconjugate Chemistry, 2021, 32, 879-890.	3.6	4
67	SopD from Salmonella specifically inactivates Rab8. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2021, 1869, 140661.	2.3	4
68	Purification, crystallization and preliminary X-ray crystallographic analysis of mammalian MSS4â€“Rab8 GTPase protein complex. Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 113-116.	0.7	3
69	Prenylation of RabGTPases, Their Delivery to Membranes, and Rab Recycling. , 2014, , 3-16.		2
70	Biochemie 2016: Posttranslationale Proteinmodifikationen bei Krankheiten. Nachrichten Aus Der Chemie, 2017, 65, 320-322.	0.0	0