Jonathan M Backer

List of Publications by Year
in descending order

66 papers	10,403 citations	66315 42 h-index	110317 64 g-index
66 all docs	66 docs citations	66 times ranked	13490 citing authors

#	Article	IF	Citations
1	Guidelines for the use and interpretation of assays for monitoring autophagy (4th) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 742	4.3	1,430
2	Distinct regulation of autophagic activity by Atg14L and Rubicon associated with Beclin 1â€"phosphatidylinositol-3-kinase complex. Nature Cell Biology, 2009, 11, 468-476.	4.6	845
3	Phosphatidylinositol-3-OH kinases are Rab5 effectors. Nature Cell Biology, 1999, 1, 249-252.	4.6	572
4	The regulation and function of Class III PI3Ks: novel roles for Vps34. Biochemical Journal, 2008, 410, 1-17.	1.7	534
5	Role of phosphatidylinositol 3-kinase and Rab5 effectors in phagosomal biogenesis and mycobacterial phagosome maturation arrest. Journal of Cell Biology, 2001, 154, 631-644.	2.3	479
6	Distinct roles of class I and class III phosphatidylinositol 3-kinases in phagosome formation and maturation. Journal of Cell Biology, 2001, 155, 19-26.	2.3	474
7	Regulation of the p85/p110 Phosphatidylinositol 3â€²-Kinase: Stabilization and Inhibition of the p110Î± Catalytic Subunit by the p85 Regulatory Subunit. Molecular and Cellular Biology, 1998, 18, 1379-1387.	1.1	452
8	hVps34 Is a Nutrient-regulated Lipid Kinase Required for Activation of p70 S6 Kinase. Journal of Biological Chemistry, 2005, 280, 33076-33082.	1.6	443
9	Rab5 regulates motility of early endosomes on microtubules. Nature Cell Biology, 1999, 1, 376-382.	4.6	433
10	Mechanism of Two Classes of Cancer Mutations in the Phosphoinositide 3-Kinase Catalytic Subunit. Science, 2007, 317, 239-242.	6.0	364
11	The class III PI(3)K Vps34 promotes autophagy and endocytosis but not TOR signaling in <i>Drosophila </i>. Journal of Cell Biology, 2008, 181, 655-666.	2.3	299
12	Somatic Mutations in p85Î± Promote Tumorigenesis through Class IA PI3K Activation. Cancer Cell, 2009, 16, 463-474.	7.7	291
13	Phosphoinositide 3-Kinase p110Î² Activity: Key Role in Metabolism and Mammary Gland Cancer but Not Development. Science Signaling, 2008, 1, ra3.	1.6	219
14	Regulation of Phosphatidylinositol 3â€²-Kinase by Tyrosyl Phosphoproteins. Journal of Biological Chemistry, 1995, 270, 3662-3666.	1.6	210
15	Role of Rab5 in the Recruitment of hVps34/p150 to the Early Endosome. Traffic, 2002, 3, 416-427.	1.3	187
16	The intricate regulation and complex functions of the Class III phosphoinositide 3-kinase Vps34. Biochemical Journal, 2016, 473, 2251-2271.	1.7	186
17	Histidine Phosphorylation of the Potassium Channel KCa3.1 by Nucleoside Diphosphate Kinase B Is Required for Activation of KCa3.1 and CD4 T Cells. Molecular Cell, 2006, 24, 665-675.	4.5	168
18	Regulation of the p85/p110Î± Phosphatidylinositol 3â€²-Kinase. Journal of Biological Chemistry, 1998, 273, 30199-30203.	1.6	164

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19	Inhibition of Autophagy in Mitotic Animal Cells. Traffic, 2002, 3, 878-893.	1.3	163
20	PI3K-C2Î³ is a Rab5 effector selectively controlling endosomal Akt2 activation downstream of insulin signalling. Nature Communications, 2015, 6, 7400.	5.8	155
21	The Late Endosome is Essential for mTORC1 Signaling. Molecular Biology of the Cell, 2010, 21, 833-841.	0.9	151
22	Distinct Roles for the p110Î± and hVPS34 Phosphatidylinositol 3â€²-Kinases in Vesicular Trafficking, Regulation of the Actin Cytoskeleton, and Mitogenesis. Journal of Cell Biology, 1998, 143, 1647-1659.	2.3	150
23	Class III PI-3-kinase activates phospholipase D in an amino acidâ€"sensing mTORC1 pathway. Journal of Cell Biology, 2011, 195, 435-447.	2.3	146
24	G Proteinâ€"Coupled Receptorâ€"Mediated Activation of p110Î² by GÎ²Î³ Is Required for Cellular Transformation and Invasiveness. Science Signaling, 2012, 5, ra89.	1.6	127
25	Molecular determinants of PI3KÎ³-mediated activation downstream of G-proteinâ€"coupled receptors (GPCRs). Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18862-18867.	3.3	118
26	Class IA PI3K p110Î² Subunit Promotes Autophagy through Rab5 Small GTPase in Response to Growth Factor Limitation. Molecular Cell, 2013, 50, 29-42.	4.5	112
27	hVps15, but not Ca2+/CaM, is required for the activity and regulation of hVps34 in mammalian cells. Biochemical Journal, 2009, 417, 747-755.	1.7	96
28	Mechanism of Constitutive Phosphoinositide 3-Kinase Activation by Oncogenic Mutants of the p85 Regulatory Subunit. Journal of Biological Chemistry, 2005, 280, 27850-27855.	1.6	80
29	Regulation of Class IA PI 3-kinases: C2 domain-iSH2 domain contacts inhibit p85/p110Î± and are disrupted in oncogenic p85 mutants. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20258-20263.	3.3	79
30	Specific Requirement for the p85-p110Î± Phosphatidylinositol 3-Kinase during Epidermal Growth Factor-stimulated Actin Nucleation in Breast Cancer Cells. Journal of Biological Chemistry, 2000, 275, 3741-3744.	1.6	77
31	Class I and class III phosphoinositide 3-kinases are required for actin polymerization that propels phagosomes. Journal of Cell Biology, 2010, 191, 999-1012.	2.3	76
32	Differential Enhancement of Breast Cancer Cell Motility and Metastasis by Helical and Kinase Domain Mutations of Class IA Phosphoinositide 3-Kinase. Cancer Research, 2009, 69, 8868-8876.	0.4	73
33	The Regulation of Class IA PI 3-Kinases by Inter-Subunit Interactions. Current Topics in Microbiology and Immunology, 2010, 346, 87-114.	0.7	73
34	NRBF2 regulates macroautophagy as a component of Vps34 Complex I. Biochemical Journal, 2014, 461, 315-322.	1.7	73
35	Phosphatidylinositol 4-phosphate and phosphatidylinositol 3-phosphate regulate phagolysosome biogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4636-4641.	3.3	72
36	Inactivation of the Class II PI3K-C2Î² Potentiates Insulin Signaling and Sensitivity. Cell Reports, 2015, 13, 1881-1894.	2.9	66

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37	Vps34 PI 3-kinase inactivation enhances insulin sensitivity through reprogramming of mitochondrial metabolism. Nature Communications, 2017, 8, 1804.	5.8	59
38	Coincident signals from GPCRs and receptor tyrosine kinases are uniquely transduced by PI3KÎ² in myeloid cells. Science Signaling, 2016, 9, ra82.	1.6	53
39	A biochemical mechanism for the oncogenic potential of the p110Î² catalytic subunit of phosphoinositide 3-kinase. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19897-19902.	3.3	51
40	Mutations in the Juxtamembrane Region of the Insulin Receptor Impair Activation of Phosphatidylinositol 3-Kinase by Insulin. Molecular Endocrinology, 1991, 5, 769-777.	3.7	49
41	Vps34p differentially regulates endocytosis from the apical and basolateral domains in polarized hepatic cells. Journal of Cell Biology, 2001, 154, 1197-1208.	2.3	48
42	GPCR Signaling Mediates Tumor Metastasis via PI3KÎ². Cancer Research, 2016, 76, 2944-2953.	0.4	47
43	Characterization of a Tumor-Associated Activating Mutation of the p110Î² PI 3-Kinase. PLoS ONE, 2013, 8, e63833.	1.1	42
44	The structure of the inter-SH2 domain of class IA phosphoinositide 3-kinase determined by site-directed spin labeling EPR and homology modeling. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3275-3280.	3.3	41
45	Phosphatidylinositolâ€3,4,5â€trisphosphate: Tool of choice for class I <scp>PI</scp> 3â€kinases. BioEssays, 2013, 35, 602-611.	1.2	38
46	PI3KÎ²â€"A Versatile Transducer for GPCR, RTK, and Small GTPase Signaling. Endocrinology, 2019, 160, 536-555.	1.4	35
47	Quantification of PtdIns(3,4,5)<i>P</i>3 dynamics in EGF-stimulated carcinoma cells: a comparison of PH-domain-mediated methods with immunological methods. Biochemical Journal, 2008, 411, 441-448.	1.7	31
48	The iSH2 domain of PI 3-kinase is a rigid tether for p110 and not a conformational switch. Archives of Biochemistry and Biophysics, 2004, 432, 244-251.	1.4	28
49	mTORC1 signals from late endosomes: Taking a TOR of the endocytic system. Cell Cycle, 2010, 9, 1869-1870.	1.3	26
50	Assembly and Molecular Architecture of the Phosphoinositide 3-Kinase p85Î± Homodimer. Journal of Biological Chemistry, 2015, 290, 30390-30405.	1.6	25
51	Rac1-stimulated macropinocytosis enhances GÎ²Î³ activation of PI3KÎ². Biochemical Journal, 2017, 474, 3903-3914.	1.7	24
52	In Vitro Binding and Phosphorylation of Insulin Receptor Substrate 1 by the Insulin Receptor. Role of Interactions Mediated by the Phosphotyrosine-Binding Domain and the Pleckstrin-Homology Domain. FEBS Journal, 1997, 245, 91-96.	0.2	23
53	Over-expression of the p110? but not p110? isoform of PI 3-kinase inhibits motility in breast cancer cells. Cytoskeleton, 2004, 59, 180-188.	4.4	21
54	S100A4 regulates macrophage invasion by distinct myosin-dependent and myosin-independent mechanisms. Molecular Biology of the Cell, 2018, 29, 632-642.	0.9	21

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55	Suppression of mTORC1 activation in acid-Î±-glucosidase-deficient cells and mice is ameliorated by leucine supplementation. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2014, 307, R1251-R1259.	0.9	20
56	PI3KÎ² is selectively required for growth factor-stimulated macropinocytosis. Journal of Cell Science, 2019, 132, .	1.2	14
57	Novel approaches to inhibitor design for the p110Î² phosphoinositide 3-kinase. Trends in Pharmacological Sciences, 2013, 34, 149-153.	4.0	11
58	PI3KÎ² links integrin activation and PI(3,4)P₂ production during invadopodial maturation. Molecular Biology of the Cell, 2019, 30, 2367-2376.	0.9	11
59	Myosin-IIA heavy chain phosphorylation on S1943 regulates tumor metastasis. Experimental Cell Research, 2018, 370, 273-282.	1.2	10
60	A single discrete Rab5-binding site in phosphoinositide 3-kinase Î² is required for tumor cell invasion. Journal of Biological Chemistry, 2019, 294, 4621-4633.	1.6	9
61	The Structure of p85ni in Class IA Phosphoinositide 3-Kinase Exhibits Interdomain Disorder. Biochemistry, 2010, 49, 2159-2166.	1.2	8
62	Absence of S100A4 in the mouse lens induces an aberrant retina-specific differentiation program and cataract. Scientific Reports, 2021, 11, 2203.	1.6	8
63	New methods for capturing the mystery lipid, PtdIns5<i>P</i>. Biochemical Journal, 2010, 428, e1-e2.	1.7	6
64	PI3KÎ² downstream of GPCRs - crucial partners in oncogenesis. Oncotarget, 2012, 3, 1485-1486.	0.8	6
65	Chemotaxis of Cancer Cells during Invasion and Metastasis. , 0, , 175-188.		1
66	PIP₃ abundance overcomes PI3K signaling selectivity in invadopodia. FEBS Letters, 2022, 596, 417-426.	1.3	0