

Jonathan M Backer

List of Publications by Year in descending order

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66
papers

10,403
citations

66343

42
h-index

110387

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 1,430	9.1	10,742
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.	10.3	845
3	Phosphatidylinositol-3-OH kinases are Rab5 effectors. Nature Cell Biology, 1999, 1, 249-252.	10.3	572
4	The regulation and function of Class III PI3Ks: novel roles for Vps34. Biochemical Journal, 2008, 410, 1-17.	3.7	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.	5.2	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.	5.2	474
7	Regulation of the p85/p110 Phosphatidylinositol 3â€“Kinase: Stabilization and Inhibition of the p110â€“Catalytic Subunit by the p85 Regulatory Subunit. Molecular and Cellular Biology, 1998, 18, 1379-1387.	2.3	452
8	hVps34 Is a Nutrient-regulated Lipid Kinase Required for Activation of p70 S6 Kinase. Journal of Biological Chemistry, 2005, 280, 33076-33082.	3.4	443
9	Rab5 regulates motility of early endosomes on microtubules. Nature Cell Biology, 1999, 1, 376-382.	10.3	433
10	Mechanism of Two Classes of Cancer Mutations in the Phosphoinositide 3-Kinase Catalytic Subunit. Science, 2007, 317, 239-242.	12.6	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.	5.2	299
12	Somatic Mutations in p85â€“Promote Tumorigenesis through Class IA PI3K Activation. Cancer Cell, 2009, 16, 463-474.	16.8	291
13	Phosphoinositide 3-Kinase p110â€“Activity: Key Role in Metabolism and Mammary Gland Cancer but Not Development. Science Signaling, 2008, 1, ra3.	3.6	219
14	Regulation of Phosphatidylinositol 3â€“Kinase by Tyrosyl Phosphoproteins. Journal of Biological Chemistry, 1995, 270, 3662-3666.	3.4	210
15	Role of Rab5 in the Recruitment of hVps34/p150 to the Early Endosome. Traffic, 2002, 3, 416-427.	2.7	187
16	The intricate regulation and complex functions of the Class III phosphoinositide 3-kinase Vps34. Biochemical Journal, 2016, 473, 2251-2271.	3.7	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.	9.7	168
18	Regulation of the p85/p110â€“Phosphatidylinositol 3â€“Kinase. Journal of Biological Chemistry, 1998, 273, 30199-30203.	3.4	164

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19	Inhibition of Autophagy in Mitotic Animal Cells. <i>Traffic</i> , 2002, 3, 878-893.	2.7	163
20	PI3K-C2 ^β is a Rab5 effector selectively controlling endosomal Akt2 activation downstream of insulin signalling. <i>Nature Communications</i> , 2015, 6, 7400.	12.8	155
21	The Late Endosome is Essential for mTORC1 Signaling. <i>Molecular Biology of the Cell</i> , 2010, 21, 833-841.	2.1	151
22	Distinct Roles for the p110 ^α and hVPS34 Phosphatidylinositol 3 ^α -Kinases in Vesicular Trafficking, Regulation of the Actin Cytoskeleton, and Mitogenesis. <i>Journal of Cell Biology</i> , 1998, 143, 1647-1659.	5.2	150
23	Class III PI-3-kinase activates phospholipase D in an amino acid ^α -sensing mTORC1 pathway. <i>Journal of Cell Biology</i> , 2011, 195, 435-447.	5.2	146
24	G Protein ^α -Coupled Receptor ^α -Mediated Activation of p110 ^β by G ^{βγ} Is Required for Cellular Transformation and Invasiveness. <i>Science Signaling</i> , 2012, 5, ra89.	3.6	127
25	Molecular determinants of PI3K ^β -mediated activation downstream of G-protein ^α -coupled receptors (GPCRs). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 18862-18867.	7.1	118
26	Class IA PI3K p110 ^β Subunit Promotes Autophagy through Rab5 Small GTPase in Response to Growth Factor Limitation. <i>Molecular Cell</i> , 2013, 50, 29-42.	9.7	112
27	hVps15, but not Ca ²⁺ /CaM, is required for the activity and regulation of hVps34 in mammalian cells. <i>Biochemical Journal</i> , 2009, 417, 747-755.	3.7	96
28	Mechanism of Constitutive Phosphoinositide 3-Kinase Activation by Oncogenic Mutants of the p85 Regulatory Subunit. <i>Journal of Biological Chemistry</i> , 2005, 280, 27850-27855.	3.4	80
29	Regulation of Class IA PI 3-kinases: C2 domain-iSH2 domain contacts inhibit p85/p110 ^α and are disrupted in oncogenic p85 mutants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 20258-20263.	7.1	79
30	Specific Requirement for the p85-p110 ^α Phosphatidylinositol 3-Kinase during Epidermal Growth Factor-stimulated Actin Nucleation in Breast Cancer Cells. <i>Journal of Biological Chemistry</i> , 2000, 275, 3741-3744.	3.4	77
31	Class I and class III phosphoinositide 3-kinases are required for actin polymerization that propels phagosomes. <i>Journal of Cell Biology</i> , 2010, 191, 999-1012.	5.2	76
32	Differential Enhancement of Breast Cancer Cell Motility and Metastasis by Helical and Kinase Domain Mutations of Class IA Phosphoinositide 3-Kinase. <i>Cancer Research</i> , 2009, 69, 8868-8876.	0.9	73
33	The Regulation of Class IA PI 3-Kinases by Inter-Subunit Interactions. <i>Current Topics in Microbiology and Immunology</i> , 2010, 346, 87-114.	1.1	73
34	NRBF2 regulates macroautophagy as a component of Vps34 Complex I. <i>Biochemical Journal</i> , 2014, 461, 315-322.	3.7	73
35	Phosphatidylinositol 4-phosphate and phosphatidylinositol 3-phosphate regulate phagolysosome biogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 4636-4641.	7.1	72
36	Inactivation of the Class II PI3K-C2 ^β Potentiates Insulin Signaling and Sensitivity. <i>Cell Reports</i> , 2015, 13, 1881-1894.	6.4	66

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37	Vps34 PI 3-kinase inactivation enhances insulin sensitivity through reprogramming of mitochondrial metabolism. <i>Nature Communications</i> , 2017, 8, 1804.	12.8	59
38	Coincident signals from GPCRs and receptor tyrosine kinases are uniquely transduced by PI3K ^{Î²} in myeloid cells. <i>Science Signaling</i> , 2016, 9, ra82.	3.6	53
39	A biochemical mechanism for the oncogenic potential of the p110 ^{Î²} catalytic subunit of phosphoinositide 3-kinase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 19897-19902.	7.1	51
40	Mutations in the Juxtamembrane Region of the Insulin Receptor Impair Activation of Phosphatidylinositol 3-Kinase by Insulin. <i>Molecular Endocrinology</i> , 1991, 5, 769-777.	3.7	49
41	Vps34p differentially regulates endocytosis from the apical and basolateral domains in polarized hepatic cells. <i>Journal of Cell Biology</i> , 2001, 154, 1197-1208.	5.2	48
42	GPCR Signaling Mediates Tumor Metastasis via PI3K ^{Î²} . <i>Cancer Research</i> , 2016, 76, 2944-2953.	0.9	47
43	Characterization of a Tumor-Associated Activating Mutation of the p110 ^{Î²} PI 3-Kinase. <i>PLoS ONE</i> , 2013, 8, e63833.	2.5	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. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 3275-3280.	7.1	41
45	Phosphatidylinositol(3,4,5)-trisphosphate: Tool of choice for class I <sc>PI</sc> 3-kinases. <i>BioEssays</i> , 2013, 35, 602-611.	2.5	38
46	PI3K ^{Î²} â€”A Versatile Transducer for GPCR, RTK, and Small GTPase Signaling. <i>Endocrinology</i> , 2019, 160, 536-555.	2.8	35
47	Quantification of PtdIns(3,4,5)P</i>3 dynamics in EGF-stimulated carcinoma cells: a comparison of PH-domain-mediated methods with immunological methods. <i>Biochemical Journal</i> , 2008, 411, 441-448.	3.7	31
48	The iSH2 domain of PI 3-kinase is a rigid tether for p110 and not a conformational switch. <i>Archives of Biochemistry and Biophysics</i> , 2004, 432, 244-251.	3.0	28
49	mTORC1 signals from late endosomes: Taking a TOR of the endocytic system. <i>Cell Cycle</i> , 2010, 9, 1869-1870.	2.6	26
50	Assembly and Molecular Architecture of the Phosphoinositide 3-Kinase p85 ^{Î±} Homodimer. <i>Journal of Biological Chemistry</i> , 2015, 290, 30390-30405.	3.4	25
51	Rac1-stimulated macropinocytosis enhances G ^{Î²} ^{Î³} activation of PI3K ^{Î²} . <i>Biochemical Journal</i> , 2017, 474, 3903-3914.	3.7	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. <i>FEBS Journal</i> , 1997, 245, 91-96.	0.2	23
53	Over-expression of the p110 ^{Î²} but not p110 ^{Î³} isoform of PI 3-kinase inhibits motility in breast cancer cells. <i>Cytoskeleton</i> , 2004, 59, 180-188.	4.4	21
54	S100A4 regulates macrophage invasion by distinct myosin-dependent and myosin-independent mechanisms. <i>Molecular Biology of the Cell</i> , 2018, 29, 632-642.	2.1	21

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55	Suppression of mTORC1 activation in acid- α -glucosidase-deficient cells and mice is ameliorated by leucine supplementation. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2014, 307, R1251-R1259.	1.8	20
56	PI3K β is selectively required for growth factor-stimulated macropinocytosis. <i>Journal of Cell Science</i> , 2019, 132, .	2.0	14
57	Novel approaches to inhibitor design for the p110 β phosphoinositide 3-kinase. <i>Trends in Pharmacological Sciences</i> , 2013, 34, 149-153.	8.7	11
58	PI3K β links integrin activation and PI(3,4)P ₂ production during invadopodial maturation. <i>Molecular Biology of the Cell</i> , 2019, 30, 2367-2376.	2.1	11
59	Myosin-IIA heavy chain phosphorylation on S1943 regulates tumor metastasis. <i>Experimental Cell Research</i> , 2018, 370, 273-282.	2.6	10
60	A single discrete Rab5-binding site in phosphoinositide 3-kinase β is required for tumor cell invasion. <i>Journal of Biological Chemistry</i> , 2019, 294, 4621-4633.	3.4	9
61	The Structure of p85 α in Class IA Phosphoinositide 3-Kinase Exhibits Interdomain Disorder. <i>Biochemistry</i> , 2010, 49, 2159-2166.	2.5	8
62	Absence of S100A4 in the mouse lens induces an aberrant retina-specific differentiation program and cataract. <i>Scientific Reports</i> , 2021, 11, 2203.	3.3	8
63	New methods for capturing the mystery lipid, PtdIns5 <i>P</i> . <i>Biochemical Journal</i> , 2010, 428, e1-e2.	3.7	6
64	PI3K β downstream of GPCRs - crucial partners in oncogenesis. <i>Oncotarget</i> , 2012, 3, 1485-1486.	1.8	6
65	Chemotaxis of Cancer Cells during Invasion and Metastasis. , 0, , 175-188.		1
66	PIP ₃ abundance overcomes PI3K signaling selectivity in invadopodia. <i>FEBS Letters</i> , 2022, 596, 417-426.	2.8	0