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	PIP₃ abundance overcomes PI3K signaling selectivity in invadopodia. FEBS Letters, 2022, 596, 417-426.	1.3	0
2	Absence of S100A4 in the mouse lens induces an aberrant retina-specific differentiation program and cataract. Scientific Reports, 2021, 11, 2203.	1.6	8
3	Guidelines for the use and interpretation of assays for monitoring autophagy (4th) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 662 T	4.3	1,430
4	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
5	PI3KÎ² is selectively required for growth factor-stimulated macropinocytosis. Journal of Cell Science, 2019, 132, .	1.2	14
6	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
7	PI3KÎ²â€"A Versatile Transducer for GPCR, RTK, and Small GTPase Signaling. Endocrinology, 2019, 160, 536-555.	1.4	35
8	S100A4 regulates macrophage invasion by distinct myosin-dependent and myosin-independent mechanisms. Molecular Biology of the Cell, 2018, 29, 632-642.	0.9	21
9	Myosin-IIA heavy chain phosphorylation on S1943 regulates tumor metastasis. Experimental Cell Research, 2018, 370, 273-282.	1.2	10
10	Rac1-stimulated macropinocytosis enhances GÎ²Î³ activation of PI3KÎ². Biochemical Journal, 2017, 474, 3903-3914.	1.7	24
11	Vps34 PI 3-kinase inactivation enhances insulin sensitivity through reprogramming of mitochondrial metabolism. Nature Communications, 2017, 8, 1804.	5.8	59
12	The intricate regulation and complex functions of the Class III phosphoinositide 3-kinase Vps34. Biochemical Journal, 2016, 473, 2251-2271.	1.7	186
13	Coincident signals from GPCRs and receptor tyrosine kinases are uniquely transduced by PI3KÎ² in myeloid cells. Science Signaling, 2016, 9, ra82.	1.6	53
14	GPCR Signaling Mediates Tumor Metastasis via PI3KÎ². Cancer Research, 2016, 76, 2944-2953.	0.4	47
15	Inactivation of the Class II PI3K-C2Î² Potentiates Insulin Signaling and Sensitivity. Cell Reports, 2015, 13, 1881-1894.	2.9	66
16	Assembly and Molecular Architecture of the Phosphoinositide 3-Kinase p85Î± Homodimer. Journal of Biological Chemistry, 2015, 290, 30390-30405.	1.6	25
17	PI3K-C2Î³ is a Rab5 effector selectively controlling endosomal Akt2 activation downstream of insulin signalling. Nature Communications, 2015, 6, 7400.	5.8	155
18	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

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19	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
20	NRBF2 regulates macroautophagy as a component of Vps34 Complex I. Biochemical Journal, 2014, 461, 315-322.	1.7	73
21	Phosphatidylinositolâ€3,4,5â€trisphosphate: Tool of choice for class I <scp>PI</scp> 3â€kinases. BioEssays, 2013, 35, 602-611.	1.2	38
22	Novel approaches to inhibitor design for the p110Î² phosphoinositide 3-kinase. Trends in Pharmacological Sciences, 2013, 34, 149-153.	4.0	11
23	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
24	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
25	Characterization of a Tumor-Associated Activating Mutation of the p110Î² PI 3-Kinase. PLoS ONE, 2013, 8, e63833.	1.1	42
26	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
27	PI3KÎ² downstream of GPCRs - crucial partners in oncogenesis. Oncotarget, 2012, 3, 1485-1486.	0.8	6
28	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
29	mTORC1 signals from late endosomes: Taking a TOR of the endocytic system. Cell Cycle, 2010, 9, 1869-1870.	1.3	26
30	New methods for capturing the mystery lipid, PtdIns5<i>P</i>. Biochemical Journal, 2010, 428, e1-e2.	1.7	6
31	The Late Endosome is Essential for mTORC1 Signaling. Molecular Biology of the Cell, 2010, 21, 833-841.	0.9	151
32	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
33	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
34	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
35	The Structure of p85ni in Class IA Phosphoinositide 3-Kinase Exhibits Interdomain Disorder. Biochemistry, 2010, 49, 2159-2166.	1.2	8
36	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

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37	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
38	Somatic Mutations in p85Î± Promote Tumorigenesis through Class IA PI3K Activation. Cancer Cell, 2009, 16, 463-474.	7.7	291
39	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
40	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
41	The regulation and function of Class III PI3Ks: novel roles for Vps34. Biochemical Journal, 2008, 410, 1-17.	1.7	534
42	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
43	Phosphoinositide 3-Kinase p110Î² Activity: Key Role in Metabolism and Mammary Gland Cancer but Not Development. Science Signaling, 2008, 1, ra3.	1.6	219
44	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
45	Mechanism of Two Classes of Cancer Mutations in the Phosphoinositide 3-Kinase Catalytic Subunit. Science, 2007, 317, 239-242.	6.0	364
46	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
47	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
48	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
49	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
50	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
51	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
52	Role of Rab5 in the Recruitment of hVps34/p150 to the Early Endosome. Traffic, 2002, 3, 416-427.	1.3	187
53	Inhibition of Autophagy in Mitotic Animal Cells. Traffic, 2002, 3, 878-893.	1.3	163
54	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

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55	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
56	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
57	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
58	Phosphatidylinositol-3-OH kinases are Rab5 effectors. Nature Cell Biology, 1999, 1, 249-252.	4.6	572
59	Rab5 regulates motility of early endosomes on microtubules. Nature Cell Biology, 1999, 1, 376-382.	4.6	433
60	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
61	Regulation of the p85/p110Î± Phosphatidylinositol 3â€²-Kinase. Journal of Biological Chemistry, 1998, 273, 30199-30203.	1.6	164
62	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
63	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
64	Regulation of Phosphatidylinositol 3â€²-Kinase by Tyrosyl Phosphoproteins. Journal of Biological Chemistry, 1995, 270, 3662-3666.	1.6	210
65	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
66	Chemotaxis of Cancer Cells during Invasion and Metastasis. , 0, , 175-188.		1