Datasheet for ABIN968519

anti-PIK3CA antibody (AA 101-300)

4 Images | 5 Publications

Go to Product page

Overview

Quantity:	150 µg
Target:	PIK3CA
Binding Specificity:	AA 101-300
Reactivity:	Human, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PIK3CA antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human PI3-Kinase p110alpha aa. 101-300
Clone:	19-PI3
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

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Product Details

chromatography.

Target Details

Target:	PIK3CA
Alternative Name:	PI3-Kinase p110 alpha (PIK3CA Products)
Background:	Phosphatidylinositol 3 (PI3) -kinase participates in insulin-stimulated glucose uptake, PDGF-induced membrane ruffling, and G-protein receptor signaling. It exists as a heterodimer of 85 kDa (p85) and 110 kDa (p110) subunits. The p85 subunit associates with and serves as a substrate for activated growth factor receptor tyrosine kinases. p85 regulates the p110 catalytic subunit by acting as the link between PI3-kinase and the ligand-activated receptor. Four isoforms of p110 have been identified (alpha, beta, gamma, and delta). The p110alpha isoform contains an N-terminal region involved in p85 binding and a C-terminal kinase domain. p85/p110alpha-type PI kinase phosphorylates the D-3 and D-4 position of the inositol ring of PI, thereby producing PtdIns(3)P, PtdIns(3,4)P[2], PtdIns(3,4,5)P[3], PtdIns(4)P, and PtdIns(4,5) P[2]. During induction of chemotaxis by the chemokine SDF-1alpha, PI3-kinase regulates adhesion and ERM protein redistribution in the lymphocyte plasma membrane. In addition, PI3-kinases activate other signaling molecules, such as p70 S6 kinase and Akt/protein kinase B. Thus, p85/p110alpha-type PI kinase is a ubiquitously expressed kinase that is involved in a variety of cell signaling cascades.
Molecular Weight:	110 kDa
Pathways:	PI3K-Akt Signaling, RTK Signaling, TCR Signaling, AMPK Signaling, Interferon-gamma Pathway, TLR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Inositol Metabolic Process, Hepatitis C, CXCR4-mediated Signaling Events, Signaling Events mediated by VEGFR1 and VEGFR2, Signaling of Hepatocyte Growth Factor Receptor, VEGFR1 Specific Signals, VEGF Signaling

Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid

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Handling

Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

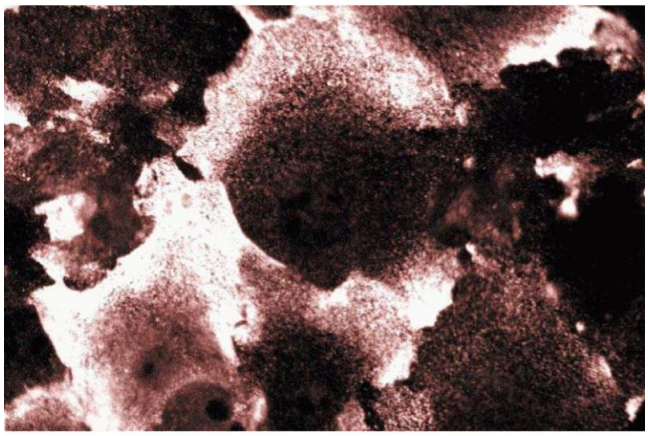
Funaki, Katagiri, Kanda, Anai, Nawano, Ogihara, Inukai, Fukushima, Ono, Yazaki, Kikuchi, Oka, Asano: "p85/p110-type phosphatidylinositol kinase phosphorylates not only the D-3, but also the D-4 position of the inositol ring." in: **The Journal of biological chemistry**, Vol. 274, Issue 31, pp. 22019-24, (1999) (PubMed).

Vicente-Manzanares, Rey, Jones, Sancho, Mellado, Rodriguez-Frade, del Pozo, Yáñez-Mó, de Ana, Martínez-A, Mérida, Sánchez-Madrid: "Involvement of phosphatidylinositol 3-kinase in stromal cell-derived factor-1 alpha-induced lymphocyte polarization and chemotaxis." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 163, Issue 7, pp. 4001-12, (1999) (PubMed).

Katagiri, Asano, Ishihara, Inukai, Shibasaki, Kikuchi, Yazaki, Oka: "Overexpression of catalytic subunit p110alpha of phosphatidylinositol 3-kinase increases glucose transport activity with translocation of glucose transporters in 3T3-L1 adipocytes." in: **The Journal of biological chemistry**, Vol. 271, Issue 29, pp. 16987-90, (1996) (PubMed).

Hu, Klippel, Muslin, Fantl, Williams: "Ras-dependent induction of cellular responses by constitutively active phosphatidylinositol-3 kinase." in: **Science (New York, N.Y.)**, Vol. 268, Issue 5207, pp. 100-2, (1995) (PubMed).

Volinia, Hiles, Ormondroyd, Nizetic, Antonacci, Rocchi, Waterfield: "Molecular cloning, cDNA sequence, and chromosomal localization of the human phosphatidylinositol 3-kinase p110 alpha (PIK3CA) gene." in: **Genomics**, Vol. 24, Issue 3, pp. 472-7, (1995) (PubMed).



Immunofluorescence

Image 1. Immunofluorescent staining of NIH-3T3 cells.

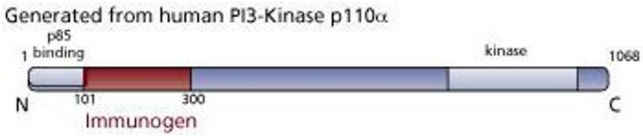


Image 2.

Western Blotting

Image 3. Western blot analysis of PI3-Kinase p110alpha on Jurkat lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-PI3-Kinase p110alpha.

Please check the product details page for more images. Overall 4 images are available for ABIN968519.

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