

Datasheet for ABIN7127762

Recombinant anti-PIK3CA antibody (Catalytic Subunit alpha)[Go to Product page](#)**2** Images

Overview

Quantity:	100 µL
Target:	PIK3CA
Binding Specificity:	Catalytic Subunit alpha
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This PIK3CA antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF)

Product Details

Immunogen:	A synthesized peptide derived from human PI 3 Kinase catalytic subunit alpha
Clone:	10E5
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	Affinity-chromatography

Target Details

Target:	PIK3CA
Alternative Name:	PIK3CA (PIK3CA Products)

Target Details

Background: Background: Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns (Phosphatidylinositol), PtdIns4P (Phosphatidylinositol 4-phosphate) and PtdIns(4,5)P₂ (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP₃). PIP₃ plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Participates in cellular signaling in response to various growth factors. Involved in the activation of AKT1 upon stimulation by receptor tyrosine kinases ligands such as EGF, insulin, IGF1, VEGFA and PDGF. Involved in signaling via insulin-receptor substrate (IRS) proteins. Essential in endothelial cell migration during vascular development through VEGFA signaling, possibly by regulating RhoA activity. Required for lymphatic vasculature development, possibly by binding to RAS and by activation by EGF and FGF2, but not by PDGF. Regulates invadopodia formation through the PDK1-AKT1 pathway. Participates in cardiomyogenesis in embryonic stem cells through a AKT1 pathway. Participates in vasculogenesis in embryonic stem cells through PDK1 and protein kinase C pathway. Also has serine-protein kinase activity: phosphorylates PIK3R1 (p85alpha regulatory subunit), EIF4EBP1 and HRAS. Plays a role in the positive regulation of phagocytosis and pinocytosis (By similarity).
Aliases: Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform (PI3-kinase subunit alpha) (PI3K-alpha) (PI3Kalpha) (PtdIns-3-kinase subunit alpha) (EC 2.7.1.153) (Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subunit alpha) (PtdIns-3-kinase subunit p110-alpha) (p110alpha) (Phosphoinositide-3-kinase catalytic alpha polypeptide) (Serine/threonine protein kinase PIK3CA) (EC 2.7.11.1), PIK3CA

UniProt: [P42336](#)

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

Application Notes: Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200,

Restrictions: For Research Use only

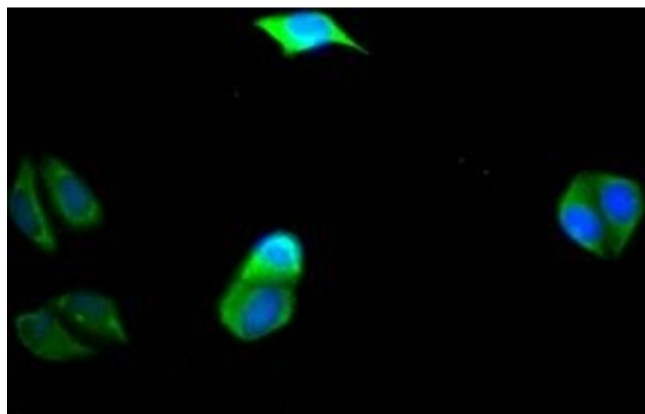
Handling

Format: Liquid

Handling

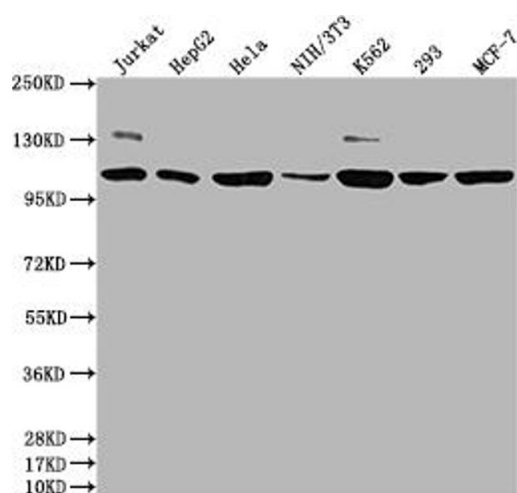
Buffer:	Rabbit IgG in phosphate buffered saline, pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunofluorescence

Image 1. Immunofluorescence staining of HeLa Cells with ABIN7127762 at 1:50, counter-stained with DAPI. The cells were fixed in 4 % formaldehyde, permeated by 0.2 % TritonX-100, and blocked in 10 % normal Goat Serum. The cells were then incubated with the antibody overnight at 4 °C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).



Western Blotting

Image 2. Western Blot Positive WB detected in: Jurkat whole cell lysate, HepG2 whole cell lysate, HeLa whole cell lysate, NIH/3T3 whole cell lysate, K562 whole cell lysate, 293 whole cell lysate, MCF-7 whole cell lysate All lanes: PIK3CA antibody at 1:1500 Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 125 kDa Observed band size: 110 kDa