

Product Datasheet

PI3KCA Polyclonal Antibody GRP454

Description

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 in breast cancer cells 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. Has also serine-protein kinase activity: phosphorylates PIK3R1 (p85alpha regulatory subunit), EIF4EBP1 and HRAS.

Species/Host

Rabbit

Reactivity

Human, Mouse, Rat

Conjugation

Unconjugated

Tested Applications

IHC-P, WB

Immunogen

KLH conjugated synthetic peptide derived from human PI3KCA (public_immunogen_range: 1010-1050/1068)

Form/Appearance

Aqueous buffered solution containing 1% BSA, 50% glycerol and 0.09% sodium azide.

Concentration

1ug/ul

Storage

Store at -20°C for 12 months.

Note

For research use only.

Isotype

IgG

Clonality

Polyclonal

Purity

Purified by Protein A.

Uniprot ID

P42336

