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PI3 kinase Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10747

Specification

PI3 kinase Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P42337
Other Accession	NP_032865
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**124412**

PI3 kinase Antibody - Additional Information

Gene ID 18706

Positive Control	**Western Blot: Jurkat cell lysate. IHC: colon tissue**
Application & Usage	**The antibody can be used for Western blot analysis (1-4 µg/ml) and Immunohistochemistry (5 µg/ml). However, the optimal conditions should be determined individually. Blocking peptide is available separately.**

Other Names
PIK3CA; MGC142161; MGC142163; PI3K

Target/Specificity
PI3 kinase

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit anti-P13 kinase polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 5 mM EDTA and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
PI3 kinase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PI3 kinase Antibody - Protein Information

Name Pik3ca

Function
Phosphoinositide-3-kinase (PI3K) phosphorylates phosphatidylinositol (PI) and its phosphorylated derivatives at position 3 of the inositol ring to produce 3-phosphoinositides. Uses ATP 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 PDPK1, 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 PDPK1-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 (PubMed:19604150).

PI3 kinase Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PI3 kinase Antibody - Images

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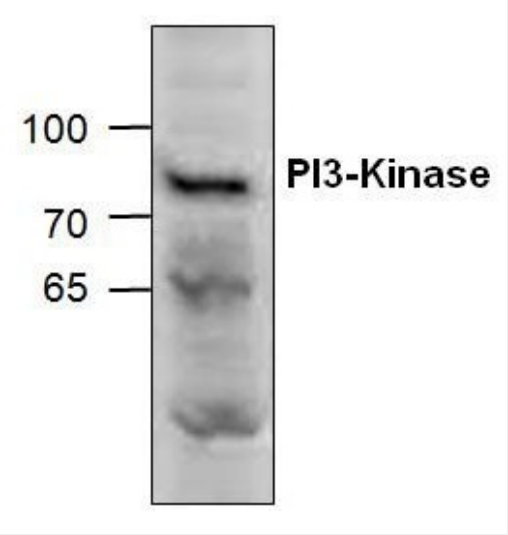

Western blot analysis of PI3-Kinase with lysate from Jurkat cells.

PI3 kinase Antibody - Background

Phosphatidylinositol 3-kinase (PI 3-kinase), is a phosphoinositide-specific protein kinase that plays a central role in mitogenic signal transduction leading to cellular regulation, cell growth and differentiation, and oncogenesis. PI 3-kinase associates with, and is activated by a wide range of tyrosine kinase receptors including EGF, PDGF, CSF-1, erbB-3 and insulin receptor, non-receptor protein-tyrosine kinases of the src family (e.g. pp60src), and crk and abl proto-oncogene products. PI 3-kinase is involved in signal transduction in terminally differentiated, activated cells like platelets and neutrophils.