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PIK3CB Antibody (N-term S139)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8017d

Specification

PIK3CB Antibody (N-term S139) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P42338
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**122762**
Antigen Region	**124-154**

PIK3CB Antibody (N-term S139) - Additional Information

Gene ID 5291

Other Names
Phosphatidylinositol 4, 5-bisphosphate 3-kinase catalytic subunit beta isoform, PI3-kinase subunit beta, PI3K-beta, PI3Kbeta, PtdIns-3-kinase subunit beta, Phosphatidylinositol 4, 5-bisphosphate 3-kinase 110 kDa catalytic subunit beta, PtdIns-3-kinase subunit p110-beta, p110beta, PIK3CB, PIK3C1

Target/Specificity
This PIK3CB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 124-154 amino acids from the N-terminal region of human PIK3CB.

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PIK3CB Antibody (N-term S139) is for research use only and not for use in diagnostic or therapeutic procedures.

PIK3CB Antibody (N-term S139) - Protein Information

Name PIK3CB

Synonyms PIK3C1

Function Phosphoinositide-3-kinase (PI3K) phosphorylates phosphatidylinositol derivatives at position 3 of the inositol ring to produce 3-phosphoinositides (PubMed:15135396). Uses ATP and PtdIns(4,5)P2 (phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3) (PubMed:15135396). 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. Involved in the activation of AKT1 upon stimulation by G- protein coupled receptors (GPCRs) ligands such as CXCL12, sphingosine 1-phosphate, and lysophosphatidic acid. May also act downstream receptor tyrosine kinases. Required in different signaling pathways for stable platelet adhesion and aggregation. Plays a role in platelet activation signaling triggered by GPCRs, alpha-IIb/beta-3 integrins (ITGA2B/ ITGB3) and ITAM (immunoreceptor tyrosine-based activation motif)-bearing receptors such as GP6. Regulates the strength of adhesion of ITGA2B/ ITGB3 activated receptors necessary for the cellular transmission of contractile forces. Required for platelet aggregation induced by F2 (thrombin) and thromboxane A2 (TXA2). Has a role in cell survival. May have a role in cell migration. Involved in the early stage of autophagosome formation. Modulates the intracellular level of PtdIns3P (phosphatidylinositol 3-phosphate) and activates PIK3C3 kinase activity. May act as a scaffold, independently of its lipid kinase activity to positively regulate autophagy. May have a role in insulin signaling as scaffolding protein in which the lipid kinase activity is not required. May have a kinase-independent function in regulating cell proliferation and in clathrin-mediated endocytosis. Mediator of oncogenic signal in cell lines lacking PTEN. The lipid kinase activity is necessary for its role in oncogenic transformation. Required for the growth of ERBB2 and RAS driven tumors. Also has a protein kinase activity showing autophosphorylation (PubMed:12502714).

Cellular Location
Cytoplasm. Nucleus. Note=Interaction with PIK3R2 is required for nuclear localization and export

Tissue Location
Expressed ubiquitously.

PIK3CB Antibody (N-term S139) - 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

PIK3CB Antibody (N-term S139) - Images

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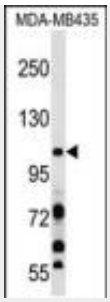
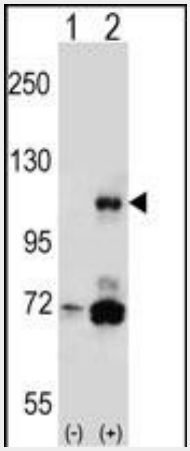
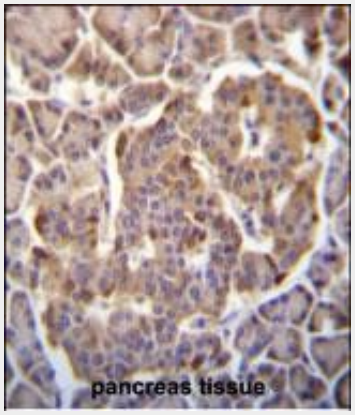


PIK3CB Antibody (N-term S139) (Cat. #AP8017d) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the PIK3CB antibody detected the PIK3CB protein (arrow).



Western blot analysis of PIK3CB (arrow) using rabbit polyclonal PIK3CB Antibody (N-term S139) (Cat. #AP8017d). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PIK3CB gene.



PIK3CB Antibody (N-term S139) (Cat. #AP8017d)immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PIK3CB Antibody (N-term S139) for immunohistochemistry. Clinical relevance has not been evaluated.

PIK3CB Antibody (N-term S139) - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8

major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains.