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PI4KCB Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8030a

Specification

PI4KCB Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9UBF8
Other Accession	O08561, Q8BKC8, O02810, Q5VWB9
Reactivity	**Human**
Predicted	**Bovine, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**20-51**

PI4KCB Antibody (N-term) - Additional Information

Gene ID 5298

Other Names
Phosphatidylinositol 4-kinase beta, PI4K-beta, PI4Kbeta, PtdIns 4-kinase beta, NPIK, PI4K92, PI4KB, PIK4CB

Target/Specificity
This PI4KCB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 20-51 amino acids from the N-terminal region of human PI4KCB.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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
PI4KCB Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PI4KCB Antibody (N-term) - Protein Information

Name PI4KB (HGNC:8984)

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Synonyms PIK4CB

Function Phosphorylates phosphatidylinositol (PI) in the first committed step in the production of the second messenger inositol- 1,4,5,-trisphosphate (PIP). May regulate Golgi disintegration/reorganization during mitosis, possibly via its phosphorylation. Involved in Golgi-to-plasma membrane trafficking (By similarity) (PubMed:10559940, PubMed:11277933, PubMed:12749687, PubMed:9405935). May play an important role in the inner ear development.

Cellular Location
Endomembrane system. Mitochondrion outer membrane; Peripheral membrane protein. Rough endoplasmic reticulum membrane; Peripheral membrane protein. Golgi apparatus. Golgi apparatus membrane. Cytoplasm, perinuclear region. Note=Found in the outer membrane of mitochondria and membranes of the rough endoplasmic reticulum. Recruited to the Golgi complex by the small GTPase ARF to stimulate the synthesis of phosphatidylinositol 4,5- bisphosphate (PIP2) on the Golgi complex. Recruited to the Golgi apparatus membrane by ACBD3 (PubMed:24672044, PubMed:27009356, PubMed:28289207). GGA2 is also involved in the recruitment (PubMed:28289207).

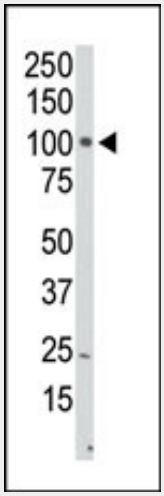
Tissue Location
Widely expressed with highest levels in heart, skeletal muscle, pancreas, testis and ovary. Weakly expressed in liver (PubMed:9020160, PubMed:9405935, PubMed:9405938). Expressed in the innear ear in the epithelium of the spinal organ of corti

PI4KCB Antibody (N-term) - 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

PI4KCB Antibody (N-term) - Images



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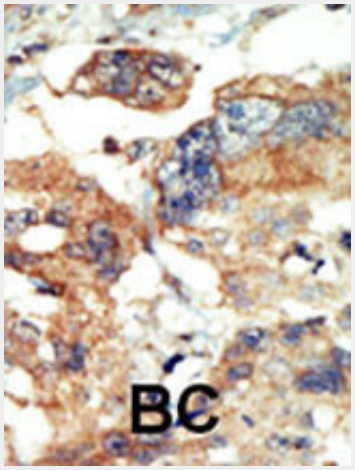
Western blot analysis of anti-PI4KCB Pab (Cat. #AP8030a) in A375 cell lysate. PI4KCB (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

PI4KCB Antibody (N-term) - Background

Phosphoinositides are pivotal precursors to important second messengers and as signaling and molecules. Phosphatidylinositol 4-kinases (PI4Ks) are are crucial regulators of the phosphoinsitide cascade. PI4KCB is a wortmannin-sensitive PI 4-kinase responsible for regulating the synthesis of agonist-sensitive pools of polyphosphoinositides. The cellular reservoir of PI4KCB is predominantly cytosolic, however the protein is is activated strongly by recruitment to the membrane to stimulate phosphatidylinositol 4,5-bisphosphate synthesis at the plasma membrane. PI4KCB contains an N-terminal lipid kinase unique domain, which is shared by members of both the PI3 kinase and PI4 kinase families, and a C-terminal catalytic domain, which defines this protein as a member of a much larger protein/lipid kinase family.

PI4KCB Antibody (N-term) - References

Wei, Y.J., et al., J. Biol. Chem. 277(48):46586-46593 (2002).
Balla, A., et al., J. Biol. Chem. 277(22):20041-20050 (2002).
Sorensen, S.D., et al., Mol. Pharmacol. 53(5):827-836 (1998).
Saito, T., et al., DNA Res. 4(4):301-305 (1997).
Suzuki, K., et al., DNA Res. 4(4):273-280 (1997).

PI4KCB Antibody (N-term) - Citations

- Phosphatidylinositol 4-kinase III beta is essential for replication of human rhinovirus and its inhibition causes a lethal phenotype in vivo.