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PI4KCB Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP8030a

Specification

PI4KCB Antibody (N-term) Blocking Peptide - Product Information

Primary Accession	Q9UBF8
Other Accession	Q5VWB9

PI4KCB Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 5298

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8030a was selected from the N-term region of human PI4KCB . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PI4KCB Antibody (N-term) Blocking Peptide - Protein Information

Name PI4KB (HGNC:8984)

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) Blocking Peptide - Protocols

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

- Blocking Peptides

PI4KCB Antibody (N-term) Blocking Peptide - Images

PI4KCB Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - 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).