

**PIP5K1B Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8038a****Specification**

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**PIP5K1B Antibody (N-term) Blocking Peptide - Product Information**

Primary Accession [O14986](#)  
Other Accession [O92749](#)

**PIP5K1B Antibody (N-term) Blocking Peptide - Additional Information**

**Gene ID** 8395

**Other Names**

Phosphatidylinositol 4-phosphate 5-kinase type-1 beta, PIP5K1-beta, PtdIns(4)P-5-kinase 1 beta, Phosphatidylinositol 4-phosphate 5-kinase type I beta, PIP5K1beta, Protein STM-7, Type I phosphatidylinositol 4-phosphate 5-kinase beta, PIP5K1B, STM7

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8038a](/product/products/AP8038a) was selected from the N-term region of human PIP5K1B . 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.

**PIP5K1B Antibody (N-term) Blocking Peptide - Protein Information**

**Name** PIP5K1B ([HGNC:8995](#))

**Function**

Catalyzes the phosphorylation of phosphatidylinositol 4- phosphate (PtdIns(4)P/PI4P) to form phosphatidylinositol 4,5- bisphosphate (PtdIns(4,5)P2/PIP2), a lipid second messenger that regulates several cellular processes such as signal transduction, vesicle trafficking, actin cytoskeleton dynamics, cell adhesion, and cell motility (By similarity). PtdIns(4,5)P2 can directly act as a second messenger or can be utilized as a precursor to generate other second messengers: inositol 1,4,5-trisphosphate (IP3), diacylglycerol (DAG) or phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3/PIP3) (By similarity). Mediates RAC1-dependent reorganization of actin filaments. Contributes to the activation of phospholipase PLD2. Together with PIP5K1A, is required, after stimulation by G-protein coupled receptors, for the

synthesis of IP3 that will induce stable platelet adhesion (By similarity).

**Cellular Location**

Cytoplasm, cytosol {ECO:0000250|UniProtKB:P70181}. Cell membrane {ECO:0000250|UniProtKB:P70181}. Endomembrane system. Note=Associated with membranes.

**Tissue Location**

Detected in heart, pancreas, brain, kidney, skeletal muscle and lung.

**PIP5K1B Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**PIP5K1B Antibody (N-term) Blocking Peptide - Images****PIP5K1B Antibody (N-term) Blocking Peptide - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  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.

**PIP5K1B Antibody (N-term) Blocking Peptide - References**

Blume-Jensen P, et al. Nature 2001. 411: 355. Cantrell D, J. Cell Sci. 2001. 114: 1439. Jhiang S. Oncogene 2000. 19: 5590. Manning G, et al. Science 2002. 298: 1912. Moller, D, et al. Am. J. Physiol. 1994. 266: C351-C359. Robertson, S. et al. Trends Genet. 2000. 16: 368. Robinson D, et al. Oncogene 2000. 19: 5548. Van der Ven, P, et al. Hum. Molec. Genet. 1993. 2: 1889. Vanhaesebroeck, B, et al. Biochem. J. 2000. 346: 561. Van Weering D, et al. Recent Results Cancer Res. 1998. 154: 271.