

**PIP5K1B Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP8038A**

## Specification

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### PIP5K1B Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	<a href="#">O14986</a>
Other Accession	<a href="#">O92749</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

### PIP5K1B Antibody (N-term) - 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

This PIP5K1B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PIP5K1B.

#### 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

PIP5K1B Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### PIP5K1B Antibody (N-term) - Protein Information

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

**Function** Catalyzes the phosphorylation of phosphatidylinositol 4- phosphate (PtdIns(4)P/PI4P) to form phosphatidylinositol 4,5- biphosphate (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

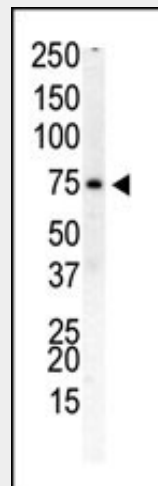
Detected in heart, pancreas, brain, kidney, skeletal muscle and lung.

### PIP5K1B Antibody (N-term) - Protocols

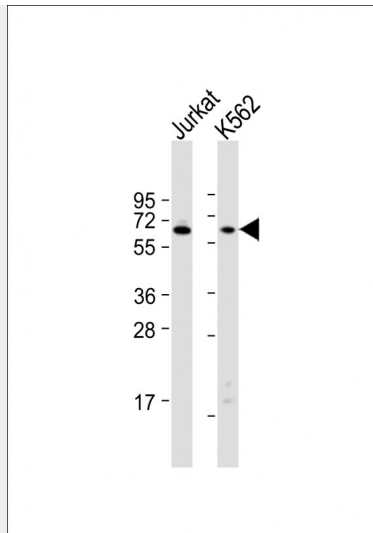
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

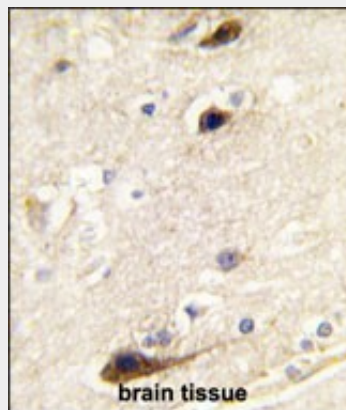
### PIP5K1B Antibody (N-term) - Images



Western blot analysis of anti-PIP5K1B Pab (Cat. #AP8038a) in human placenta cell lysate. PIP5K1B (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



All lanes : Anti-PIP5K1B Antibody (M1) at 1:1000 dilution Lane 1: Jurkat whole cell lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 61 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human brain tissue reacted with PIP5K1B antibody (N-term) (Cat.# AP8038a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

### PIP5K1B Antibody (N-term) - 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) - References

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Cantrell D, J. Cell Sci. 2001. 114: 1439.  
Jhiang S Oncogene 2000. 19: 5590.

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Van der Ven, P, et al. Hum. Molec. Genet. 1993. 2: 1889.  
Vanhaesebroeck, B, et al. Biochem. J. 2000. 346: 561.  
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**PIP5K1B Antibody (N-term) - Citations**

- [Regulation of phosphatidylinositol kinases and metabolism by Wnt3a and Dvl.](#)
- [Regulation of conformer-specific activation of the integrin LFA-1 by a chemokine-triggered Rho signaling module.](#)