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PIP5K1B Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8038A

Product Information

Application	WB, IHC-P, E
Primary Accession	O14986
Other Accession	Q92749
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	61036
Antigen Region	1-30

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, PIP5KIbeta, 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~~1:100~500 E~~Use at an assay dependent concentration.
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.

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.

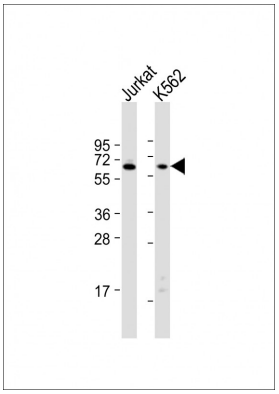
Background

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.

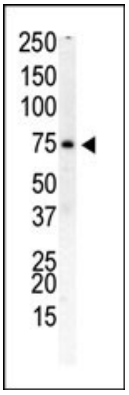
References

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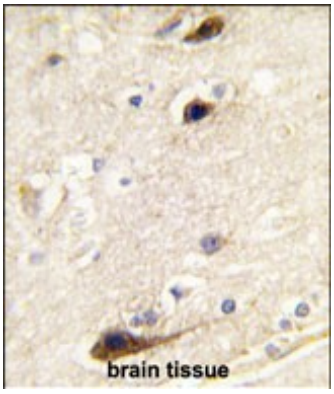
Images



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 µg 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.



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.



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.

Citations

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.