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ITPK1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18953a

Specification

ITPK1 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q13572
Other Accession	Q8BYN3, P0C0T1, NP_001136065.1
Reactivity	**Human**
Predicted	**Bovine, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**45621**
Antigen Region	**28-54**

ITPK1 Antibody (N-term) - Additional Information

Gene ID 3705

Other Names
Inositol-tetrakisphosphate 1-kinase, Inositol 1, 4-trisphosphate 5/6-kinase, Inositol-triphosphate 5/6-kinase, Ins(1, 4)P(3) 5/6-kinase, ITPK1

Target/Specificity
This ITPK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 28-54 amino acids from the N-terminal region of human ITPK1.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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
ITPK1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ITPK1 Antibody (N-term) - Protein Information

Name ITPK1 (HGNC:6177)

Function Kinase that can phosphorylate various inositol polyphosphate such as Ins(3,4,5,6)P4 or Ins(1,3,4)P3 (PubMed:11042108, PubMed:8662638). Phosphorylates Ins(3,4,5,6)P4 at position 1 to form Ins(1,3,4,5,6)P5 (PubMed:11042108). This reaction is thought to have regulatory importance, since Ins(3,4,5,6)P4 is an inhibitor of plasma membrane Ca(2+)-activated Cl(-) channels, while Ins(1,3,4,5,6)P5 is not. Also phosphorylates Ins(1,3,4)P3 on O-5 and O-6 to form Ins(1,3,4,6)P4, an essential molecule in the hexakisphosphate (InsP6) pathway (PubMed:11042108, PubMed:8662638). Also acts as an inositol polyphosphate phosphatase that dephosphorylates Ins(1,3,4,5)P4 and Ins(1,3,4,6)P4 to Ins(1,3,4)P3, and Ins(1,3,4,5,6)P5 to Ins(3,4,5,6)P4 (PubMed:11909533, PubMed:17616525). May also act as an isomerase that interconverts the inositol tetrakisphosphate isomers Ins(1,3,4,5)P4 and Ins(1,3,4,6)P4 in the presence of ADP and magnesium (PubMed:11909533). Probably acts as the rate-limiting enzyme of the InsP6 pathway. Modifies TNF-alpha-induced apoptosis by interfering with the activation of TNFRSF1A-associated death domain (PubMed:11909533, PubMed:12925536, PubMed:17616525). Plays an important role in MLKL-mediated necroptosis. Produces highly phosphorylated inositol phosphates such as inositolhexakisphosphate (InsP6) which bind to MLKL mediating the release of an N-terminal auto-inhibitory region leading to its activation. Essential for activated phospho-MLKL to oligomerize and localize to the cell membrane during necroptosis (PubMed:17616525).

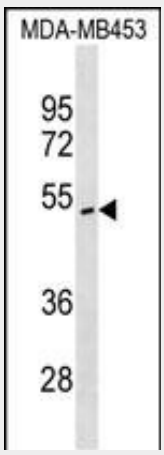
Tissue Location
Expressed in brain > heart > skeletal muscle = kidney = pancreas = liver = placenta > lung. In brain, it is expressed in cerebellum, cerebral cortex, medulla, spinal cord, occipital lobe, frontal lobe, temporal lobe and putamen.

ITPK1 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

ITPK1 Antibody (N-term) - Images



ITPK1 Antibody (N-term) (Cat. #AP18953a) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the ITPK1 antibody detected the ITPK1 protein (arrow).

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ITPK1 Antibody (N-term) - Background

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ITPK1 Antibody (N-term) - References

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Yoshida, T., et al. Int. J. Mol. Med. 25(4):649-656(2010)
Oguri, M., et al. Am. J. Hypertens. 23(1):70-77(2010)
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Chamberlain, P.P., et al. J. Biol. Chem. 282(38):28117-28125(2007)