

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 , POCOT1 , 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

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:[17616525](#), PubMed:[11909533](#)). 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

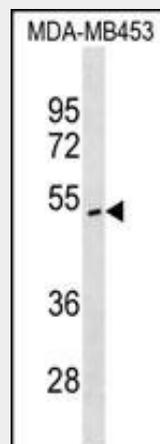
Expressed in brain > heart > skeletal muscle = kidney = pancreas = liver = placenta > lung. In brain, it is expressed in cerebellum, cerebral cortex, medulla, spinal cord, occipital lobe, frontal lobe, temporal lobe and putamen.

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 Cytometry](#)
- [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).

ITPK1 Antibody (N-term) - Background

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ITPK1 Antibody (N-term) - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
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)
Yoshida, T., et al. Int. J. Mol. Med. 24(4):539-547(2009)
Chamberlain, P.P., et al. J. Biol. Chem. 282(38):28117-28125(2007)