

**ITPK1 Antibody**  
**Rabbit mAb**  
**Catalog # AP92954****Specification****ITPK1 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q13572</a>
Clonality	Monoclonal
<b>Other Names</b>	
Inositol 1; itpk1; ITRPK1;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	45621 Da

**ITPK1 Antibody - Additional Information**

Dilution	WB~~1:1000 IHC~~1:100~500
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human ITPK1
Description	Kinase that can phosphorylate various inositol polyphosphate such as Ins(3,4,5,6)P4 or Ins(1,3,4)P3. Phosphorylates Ins(3,4,5,6)P4 at position 1 to form Ins(1,3,4,5,6)P5.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

**ITPK1 Antibody - 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:<a href="http://www.uniprot.org/citations/11042108" target="\_blank">11042108</a>, PubMed:<a href="http://www.uniprot.org/citations/8662638" target="\_blank">8662638</a>). Phosphorylates Ins(3,4,5,6)P4 at position 1 to form Ins(1,3,4,5,6)P5 (PubMed:<a href="http://www.uniprot.org/citations/11042108" target="\_blank">11042108</a>). 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:<a href="http://www.uniprot.org/citations/11042108" target="\_blank">11042108</a>, PubMed:<a href="http://www.uniprot.org/citations/11042108" target="\_blank">11042108</a>, PubMed:<a href="http://www.uniprot.org/citations/11042108" target="\_blank">11042108</a>).

href="http://www.uniprot.org/citations/8662638" target="\_blank">8662638</a>). 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:<a href="http://www.uniprot.org/citations/11909533" target="\_blank">11909533</a>, PubMed:<a href="http://www.uniprot.org/citations/17616525" target="\_blank">17616525</a>). 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:<a href="http://www.uniprot.org/citations/11909533" target="\_blank">11909533</a>). 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:<a href="http://www.uniprot.org/citations/11909533" target="\_blank">11909533</a>, PubMed:<a href="http://www.uniprot.org/citations/12925536" target="\_blank">12925536</a>, PubMed:<a href="http://www.uniprot.org/citations/17616525" target="\_blank">17616525</a>). 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:<a href="http://www.uniprot.org/citations/17616525" target="\_blank">17616525</a>).

### **Tissue Location**

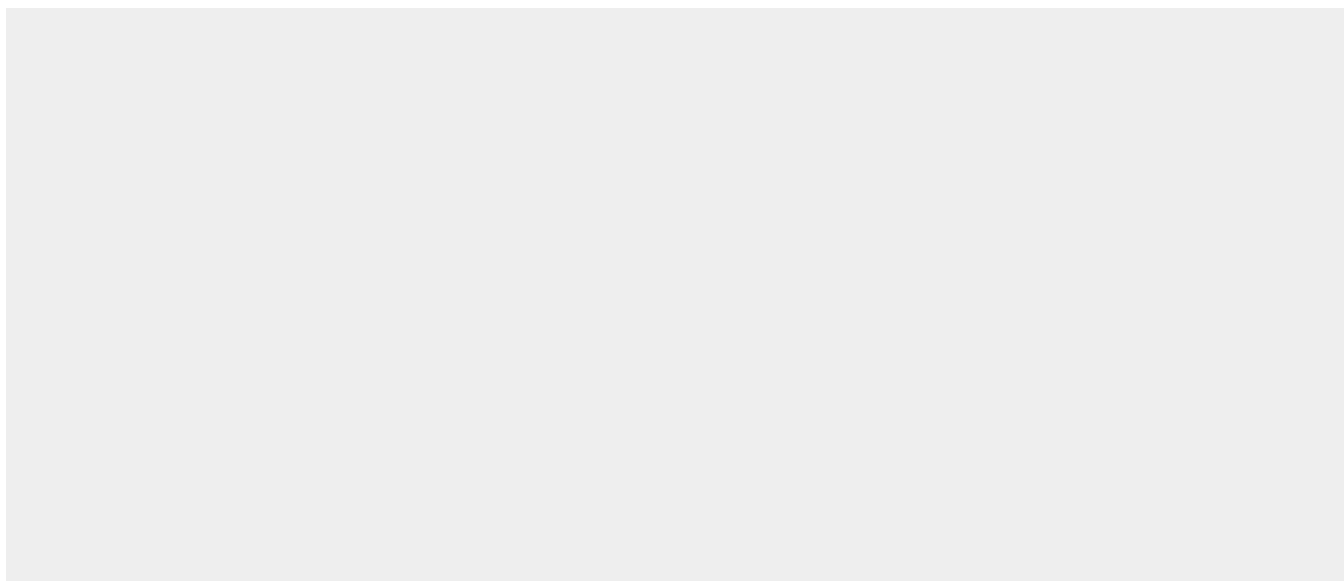
Expressed in brain > heart > skeletal muscle = kidney = pancreas = liver = placenta > lung. In brain, it is expressed in cerebellum, cerebral cortex, medulla, spinal cord, occipital lobe, frontal lobe, temporal lobe and putamen.

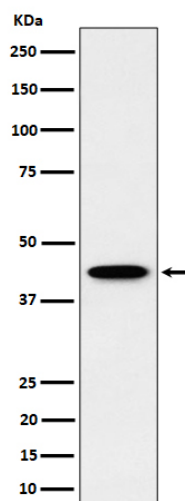
### **ITPK1 Antibody - Protocols**

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 - Images**





Western blot analysis of ITPK1 expression in HepG2 cell lysate.