

IPMK Polyclonal Antibody
Catalog # AP70567**Specification****IPMK Polyclonal Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	Q8NFU5
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal

IPMK Polyclonal Antibody - Additional Information**Gene ID** 253430**Other Names**

IPMK; IMPK; Inositol polyphosphate multikinase; Inositol 1; 3, 4, 6-tetrakisphosphate 5-kinase

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.

IHC-P~~N/A

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

IPMK Polyclonal Antibody - Protein Information**Name** IPMK**Synonyms** IMPK {ECO:0000303|PubMed:29883610}**Function**

Inositol phosphate kinase with a broad substrate specificity (PubMed:12027805, PubMed:12223481, PubMed:28882892, PubMed:30420721, PubMed:30624931).

Phosphorylates inositol 1,4,5-trisphosphate (Ins(1,4,5)P3) first to inositol 1,3,4,5-tetrakisphosphate and then to inositol 1,3,4,5,6-pentakisphosphate (Ins(1,3,4,5,6)P5) (PubMed:12027805, PubMed:12223481, PubMed:28882892, PubMed:30624931).

Phosphorylates inositol 1,3,4,6-tetrakisphosphate (Ins(1,3,4,6)P4) (PubMed:12223481). Phosphorylates inositol 1,4,5,6-tetrakisphosphate (Ins(1,4,5,6)P4) (By similarity). Phosphorylates glycerol-3-phospho-1D- myo-inositol 4,5-bisphosphate to glycerol-3-phospho-1D-myo-inositol 3,4,5-trisphosphate (PubMed:28882892, PubMed:30420721). Plays an important role in MLKL-mediated necroptosis via its role in the biosynthesis of inositol pentakisphosphate (InsP5) and inositol hexakisphosphate (InsP6). Binding of these highly phosphorylated inositol phosphates to MLKL mediates the release of an N-terminal auto- inhibitory region, leading to activation of the kinase. Essential for activated phospho-MLKL to oligomerize and localize to the cell membrane during necroptosis (PubMed:29883610). Required for normal embryonic development, probably via its role in the biosynthesis of inositol 1,3,4,5,6-pentakisphosphate (Ins(1,3,4,5,6)P5) and inositol hexakisphosphate (InsP6) (By similarity).

Cellular Location

Nucleus.

Tissue Location

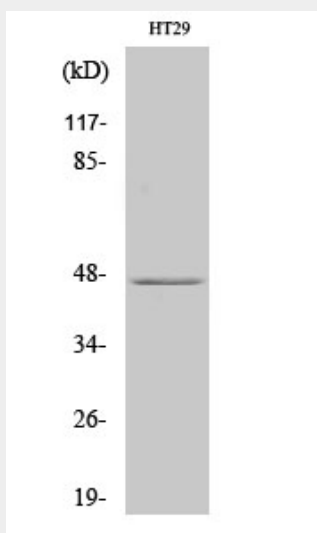
Ubiquitous, with the highest expression in skeletal muscle, liver, placenta, lung, peripheral blood leukocytes, kidney, spleen and colon.

IPMK Polyclonal 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](#)

IPMK Polyclonal Antibody - Images



Western Blot analysis of various cells using IPMK Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).

IPMK Polyclonal Antibody - Background

Inositol phosphate kinase with a broad substrate specificity. Has a preference for inositol 1,4,5-trisphosphate (Ins(1,4,5)P₃) and inositol 1,3,4,6-tetrakisphosphate (Ins(1,3,4,6)P₄) (PubMed:12027805, PubMed:12223481). 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:29883610).