10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IPMK Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8995c

Product Information

Application	WB, E
Primary Accession	Q8NFU5
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23341
Calculated MW	47222
Antigen Region	300-329

Additional Information

Gene ID	253430
Other Names	Inositol polyphosphate multikinase, Inositol 1, 6-tetrakisphosphate 5-kinase, IPMK, IMPK
Target/Specificity	This IPMK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 300-329 amino acids from the Central region of human IPMK.
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	IPMK Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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 glycero-3-phospho-1D- myo-inositol 4,5-bisphosphate to glycero-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.

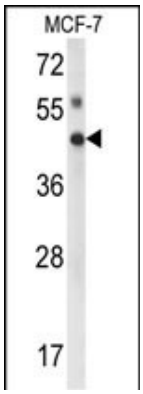
Background

IPMK is inositol phosphate kinase with a broad substrate specificity. It 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).

References

Chang,S.C., et.al., J. Biol. Chem. 277 (46), 43836-43843 (2002)
Nalaskowski,M.M., et.al., Biochem. J. 366 (PT 2), 549-556 (2002)

Images



Western blot analysis of IPMK Antibody (Center) (Cat. #AP8995c) in MCF-7 cell line lysates (35ug/lane). IPMK (arrow) was detected using the purified Pab.