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MTMR9 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6808a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96QG7
Other Accession	Q96QG7, NP_060147
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB0761
Calculated MW	63462
Antigen Region	518-549

Additional Information

Gene ID	66036
Other Names	Myotubularin-related protein 9, 313-, MTMR8
Target/Specificity	This MTMR8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 518-549 amino acids from the C-terminal region of human MTMR8.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	MTMR9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MTMR9
Synonyms	C8orf9, MTMR8
Function	Acts as an adapter for myotubularin-related phosphatases (PubMed:19038970, PubMed:22647598). Increases lipid phosphatase MTMR6

	catalytic activity, specifically towards phosphatidylinositol 3,5- bisphosphate and MTMR6 binding affinity for phosphorylated phosphatidylinositols (PubMed:19038970, PubMed:22647598). Positively regulates lipid phosphatase MTMR7 catalytic activity (By similarity). Increases MTMR8 catalytic activity towards phosphatidylinositol 3- phosphate (PubMed:22647598). The formation of the MTMR6-MTMR9 complex, stabilizes both MTMR6 and MTMR9 protein levels (PubMed:19038970). Stabilizes MTMR8 protein levels (PubMed:22647598). Plays a role in the late stages of macropinocytosis possibly by regulating MTMR6-mediated dephosphorylation of phosphatidylinositol 3-phosphate in membrane ruffles (PubMed:24591580). Negatively regulates autophagy, in part via its association with MTMR8 (PubMed:22647598). Negatively regulates DNA damage-induced apoptosis, in part via its association with MTMR6 (PubMed:19038970, PubMed:22647598). Does not bind mono-, di- and tri-phosphorylated phosphatidylinositols, phosphatidic acid and phosphatidylserine (PubMed:19038970).
Cellular Location	Cytoplasm. Cell projection, ruffle membrane {ECO:0000250|UniProtKB:Q9Z2D0}; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, perinuclear region Endoplasmic reticulum. Note=Localizes to ruffles during EGF-induced macropinocytosis (By similarity) Colocalizes with MTMR6 to the perinuclear region (PubMed:19038970) Partially localizes to the endoplasmic reticulum (PubMed:19038970) {ECO:0000250|UniProtKB:Q9Z2D0, ECO:0000269|PubMed:19038970}
Tissue Location	Expressed in many tissues.

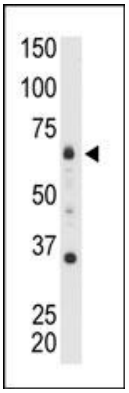
Background

MTMR8 is a myotubularin-related protein that is atypical to most other members of the myotubularin-related protein family because it has no dual-specificity phosphatase domain. The encoded protein contains a double-helical motif similar to the SET interaction domain, which is thought to have a role in the control of cell proliferation. In mouse, a protein similar to the encoded protein binds with MTMR7, and together they dephosphorylate phosphatidylinositol 3-phosphate and inositol 1,3-bisphosphate.

References

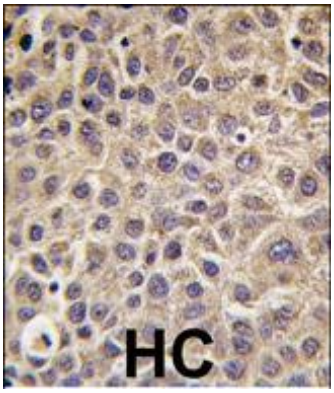
Appel, S., et al., Eur. J. Hum. Genet. 10(1):17-25 (2002).
Appel, S., et al., Genomics 75 (1-3), 6-8 (2001).

Images



Anti-MTMR9 Antibody (Cat. #AP6808a) is used in Western blot to detect MTMR9 in mouse heart tissue lysate.

Formalin-fixed and paraffin-embedded human



hepatocarcinoma tissue reacted with MTMR9 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.