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MTMR4 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17037c

Product Information

Application	WB, E
Primary Accession	Q9NYA4
Other Accession	NP_004678.3
Reactivity	Human
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36820
Calculated MW	133353
Antigen Region	695-723

Additional Information

Gene ID	9110
Other Names	Myotubularin-related protein 4, FYVE domain-containing dual specificity protein phosphatase 2, FYVE-DSP2, Zinc finger FYVE domain-containing protein 11, MTMR4, KIAA0647, ZFYVE11
Target/Specificity	This MTMR4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 695-723 amino acids from the Central region of human MTMR4.
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	MTMR4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MTMR4 (HGNC:7452)
Function	Lipid phosphatase that specifically dephosphorylates the D-3 position of

phosphatidylinositol 3-phosphate and phosphatidylinositol 3,5-bisphosphate, generating phosphatidylinositol and phosphatidylinositol 5-phosphate (PubMed:11302699, PubMed:16787938, PubMed:20736309, PubMed:27625994, PubMed:29962048, PubMed:30944173). Decreases the levels of phosphatidylinositol 3-phosphate, a phospholipid found in cell membranes where it acts as key regulator of both cell signaling and intracellular membrane traffic, in a subset of endosomal membranes to negatively regulate both endocytic recycling and trafficking and/or maturation of endosomes toward lysosomes (PubMed:16787938, PubMed:20736309, PubMed:29962048). Through phosphatidylinositol 3-phosphate turnover in phagosome membranes regulates phagocytosis and phagosome maturation (PubMed:31543504). By decreasing phosphatidylinositol 3-monophosphate (PI3P) levels in immune cells it can also regulate the innate immune response (PubMed:30944173). Beside its lipid phosphatase activity, can also function as a molecular adapter to regulate midbody abscission during mitotic cytokinesis (PubMed:25659891). Can also negatively regulate TGF-beta and BMP signaling through Smad proteins dephosphorylation and retention in endosomes (PubMed:20061380, PubMed:23150675).

Cellular Location

Early endosome membrane; Peripheral membrane protein. Recycling endosome membrane; Peripheral membrane protein. Late endosome membrane; Peripheral membrane protein. Cytoplasmic vesicle, phagosome membrane; Peripheral membrane protein

Tissue Location

Expressed in brain, heart, kidney, spleen, liver, colon, testis, muscle, placenta, thyroid gland, pancreas, ovary, prostate, skin, peripheral blood, and bone marrow

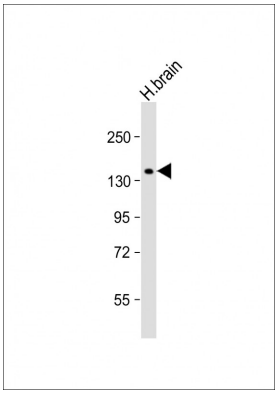
Background

Dephosphorylates proteins phosphorylated on Ser, Thr, and Tyr residues and low molecular weight phosphatase substrate para-nitrophenylphosphate. Phosphorylates phosphatidylinositol 3,4,5-trisphosphate (PIP3).

References

Yu, J., et al. J. Biol. Chem. 285(11):8454-8462(2010) Dolley, G., et al. Mol. Genet. Metab. 97(2):149-154(2009) Plant, P.J., et al. Biochem. J. 419(1):57-63(2009) Colland, F., et al. Genome Res. 14(7):1324-1332(2004) Zhao, R., et al. Exp. Cell Res. 265(2):329-338(2001)

Images



Anti-MTMR4 Antibody (Center) at 1:1000 dilution + human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 133 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.