

**MTMR4 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP17037c**

**Specification**

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**MTMR4 Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O9NYA4</a>
Other Accession	<a href="#">NP_004678.3</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	133353
Antigen Region	695-723

**MTMR4 Antibody (Center) - 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

**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.

**MTMR4 Antibody (Center) - 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

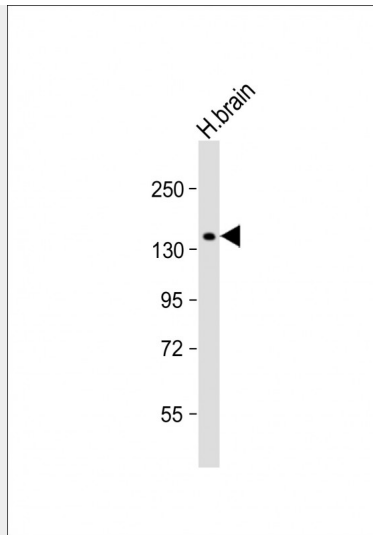
#### **MTMR4 Antibody (Center) - Protocols**

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](#)

#### **MTMR4 Antibody (Center) - Images**





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

#### **MTMR4 Antibody (Center) - 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).

#### **MTMR4 Antibody (Center) - 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)