

## MTMR4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6804a

## Specification

# MTMR4 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Antigen Region WB, IHC-P,E <u>O9NYA4</u> <u>NM\_004687</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 1155-1187

# MTMR4 Antibody (C-term) - 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 1155-1187 amino acids from the C-terminal region of human MTMR4.

**Dilution** WB~~1:1000 IHC-P~~1:10~50

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**

MTMR4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### MTMR4 Antibody (C-term) - Protein Information

Name MTMR4

Synonyms KIAA0647, ZFYVE11



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

## **Cellular Location**

Cytoplasm. Membrane; Peripheral membrane protein. Note=Localized to perinuclear region

Tissue Location

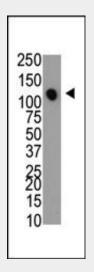
Expressed in brain, heart, kidney, spleen, liver, colon, testis, muscle, placenta, thyroid gland, pancreas, ovary, prostate, skin, peripheral blood, and bone marrow

# MTMR4 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

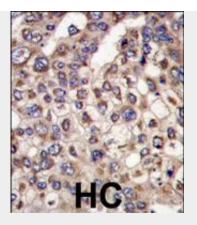
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# MTMR4 Antibody (C-term) - Images



The anti-MTMR4 Pab (Cat. #AP6804a) is used in Western blot to detect MTMR4 in mouse heart cell lysate.





Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with MTMR4 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.

# MTMR4 Antibody (C-term) - Background

MTMR, a member of the myotubularin family, encodes an intracellular protein of 1,195 amino acids, and shares approximately 47% sequence identity with MTMR3, spiking to over 70% identity in the catalytic domain and the double zinc finger (FYVE) motif. PCR analysis detects expression of MTMR4 in all human tissues examined except lung, small intestine, stomach, salivary gland, adrenal gland, and uterus. Subcellular localization of MTMR4 in transfected HeLa cells showed a perinuclear distribution, similar to that seen with MTMR3. MTMR4 dephosphorylates para-nitrophenylphosphate and phosphatidylinositol 3-phosphate.

MTMR4 Antibody (C-term) - Citations

- <u>PtdIns3P phosphatases MTMR3 and MTMR4 negatively regulate innate immune responses to</u> <u>DNA through modulating STING trafficking.</u>
- Myotubularin-related protein 4 (MTMR4) attenuates BMP/Dpp signaling by dephosphorylation of Smad proteins.
- MTMR4 attenuates transforming growth factor beta (TGFbeta) signaling by dephosphorylating R-Smads in endosomes.
- The inositol phosphatase MTMR4 is a novel target of the ubiquitin ligase Nedd4.