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MTMR6 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6806a

Specification

MTMR6 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9Y217

MTMR6 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 9107

Other Names
Myotubularin-related protein 6, 313-, MTMR6

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6806a was selected from the C-term region of human MTMR6 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MTMR6 Antibody (C-term) Blocking Peptide - Protein Information

Name MTMR6 (HGNC:7453)

Function
Phosphatase that acts on lipids with a phosphoinositol headgroup (PubMed:19038970, PubMed:22647598). Dephosphorylates phosphatidylinositol 3-phosphate (PtdIns(3)P) and phosphatidylinositol 3,5-bisphosphate (PubMed:19038970, PubMed:22647598) (Probable). Binds with high affinity to phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) but also to phosphatidylinositol 3-phosphate (PtdIns(3)P), phosphatidylinositol 4-phosphate (PtdIns(4)P), and phosphatidylinositol 5-phosphate (PtdIns(5)P), phosphatidic acid and phosphatidylserine (PubMed:19038970). Negatively regulates ER-Golgi protein transport (By similarity). Probably in association with MTMR9, plays a

role in the late stages of macropinocytosis by dephosphorylating phosphatidylinositol 3-phosphate in membrane ruffles (PubMed:24591580). Acts as a negative regulator of KCNN4/KCa3.1 channel activity in CD4(+) T-cells possibly by decreasing intracellular levels of phosphatidylinositol 3-phosphate (PubMed:15831468). Negatively regulates proliferation of reactivated CD4(+) T-cells (PubMed:16847315). In complex with MTMR9, negatively regulates DNA damage-induced apoptosis (PubMed:19038970, PubMed:22647598). The formation of the MTMR6-MTMR9 complex stabilizes both MTMR6 and MTMR9 protein levels (PubMed:19038970).

Cellular Location
Cytoplasm. Endoplasmic reticulum-Golgi intermediate compartment. Endoplasmic reticulum. Cell projection, ruffle membrane {ECO:0000250|UniProtKB:Q8VE11}; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, perinuclear region. Note=Localizes to ruffles during EGF-induced macropinocytosis (By similarity). Colocalizes with MTMR9 to the perinuclear region (PubMed:19038970). Partially localizes to the endoplasmic reticulum (PubMed:19038970). Co-localizes with RAB1B to the endoplasmic reticulum-Golgi intermediate compartment and to the peri- Golgi region (By similarity). {ECO:0000250|UniProtKB:A0A0G2JXT6, ECO:0000250|UniProtKB:Q8VE11, ECO:0000269|PubMed:19038970}

Tissue Location
Expressed in CD4+ T-cells.

MTMR6 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

MTMR6 Antibody (C-term) Blocking Peptide - Images

MTMR6 Antibody (C-term) Blocking Peptide - Background

The myotubularin (MTM) family constitutes one of the largest and most highly conserved protein-tyrosine phosphatase (PTP) subfamilies. Myotubularins, contain the consensus active site of tyrosine phosphatases but otherwise shows no homology to other phosphatases. PTP's usually act on substrates containing only phosphotyrosine sites, but myotubularins were shown to act on both phosphotyrosine and phosphoserine (dual specific). The enzymatic activity of myotubularins had not been demonstrated previously because it lacks catalytically active residues in tyrosine phosphatase/dual-specific phosphatase active site. The active site is however sufficiently preserved to bind phosphorylated substrates, and may protect from phosphatases. It was reported that interaction of myotubularin family members makes one of them catalytically active. The 4.8-kb MTMR6 mRNA is expressed ubiquitously. By analysis of radiation and somatic cell hybrids, the MTMR6 gene has been mapped to 13q12. MTMR6 corresponds to an EST located within a cloned region that encompasses a translocation breakpoint t(8;13) observed in 2 patients with an atypical myoproliferative disorder.

MTMR6 Antibody (C-term) Blocking Peptide - References

Nandurkar, H.H., et al., Proc. Natl. Acad. Sci. U.S.A. 100(15):8660-8665 (2003).Laporte, J., et al., Hum. Mol. Genet. 7(11):1703-1712 (1998).