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MTMR6 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16543a

Specification

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

Primary Accession Q9Y217

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

Gene ID 9107

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

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 (N-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

MTMR6 Antibody (N-term) Blocking Peptide - Background

Phosphatase that acts on lipids with a phosphoinositol headgroup. Acts as a negative regulator of KCNN4/KCa3.1 channel activity in CD4+ T-cells possibly by decreasing intracellular levels of phosphatidylinositol-3 phosphatase. Negatively regulates proliferation of reactivated CD4+ T-cells.

MTMR6 Antibody (N-term) Blocking Peptide - References

Zou, J., et al. J. Biol. Chem. 284(4):2064-2071(2009)Olsen, J.V., et al. Cell 127(3):635-648(2006)Olsen, J.V., et al. Cell 127(3):635-648(2006)Srivastava, S., et al. Mol. Cell. Biol. 26(15):5595-5602(2006)Srivastava, S., et al. Mol. Cell. Biol. 25(9):3630-3638(2005)

(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 (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides