

MTMR1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP6801a**Specification**

MTMR1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [O9Z2C4](#)**MTMR1 Antibody (N-term) Blocking Peptide - Additional Information**

Gene ID 53332

Other Names

Myotubularin-related protein 1, Phosphatidylinositol-3-phosphate phosphatase, Mtmr1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6801a](/product/products/AP6801a) was selected from the N-term region of human MTMR1. 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.

MTMR1 Antibody (N-term) Blocking Peptide - Protein Information

Name Mtmr1

Function

Lipid phosphatase that has high specificity for phosphatidylinositol 3-phosphate and has no activity with phosphatidylinositol 4-phosphate, phosphatidylinositol (4,5)- bisphosphate and phosphatidylinositol (3,4,5)-trisphosphate (PubMed:[12217958](http://www.uniprot.org/citations/12217958)). Activity with phosphatidylinositol (3,5)- bisphosphate is controversial; it has been shown for the human ortholog (By similarity). In contrast, PubMed:[12217958](http://www.uniprot.org/citations/12217958) find no activity with this substrate.

Cellular Location

Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm

Tissue Location

Widely expressed. Detected in skeletal muscle, heart, lung, liver and brain.

MTMR1 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

MTMR1 Antibody (N-term) Blocking Peptide - Images

MTMR1 Antibody (N-term) Blocking Peptide - Background

MTM1 gene mutations cause X-linked myotubular myopathy. The corresponding protein, myotubularin, contains the consensus active site of tyrosine phosphatases (PTP) and is a tyrosine/serine phosphatase. The 3.7-kb MTMR1 mRNA is expressed ubiquitously. An additional 3.1-kb transcript was detected only in placenta. Analysis of the genomic region containing MTM1 and MTMR1 reveals that the 2 genes share a similar structure, suggesting that they are related and arose from an intrachromosomal gene duplication. The 2 main MTMR1 protein muscular isoforms, like myotubularin, dephosphorylate PI(3)P in vitro. There is a striking reduction in the level of the muscle-specific isoform and the appearance of an abnormal MTMR1 transcript in cultured differentiated muscle cells and in skeletal muscle from congenital myotonic dystrophy patients. MTMR1 may play a role in muscle formation, and may represent another target for abnormal mRNA splicing in myotonic dystrophy.

MTMR1 Antibody (N-term) Blocking Peptide - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002). Laporte, J., et al., Hum. Mol. Genet. 7(11):1703-1712 (1998).