10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MTMR1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP6801a

Specification

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

Primary Accession Q9Z2C4

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 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 {ECO:0000312|MGI:MGI:1858271}

Function
Lipid phosphatase that specifically dephosphorylates the D-3 position of phosphatidylinositol 3-phosphate, generating phosphatidylinositol (PubMed:12217958). Could also dephosphorylate phosphatidylinositol 3,5-bisphosphate to produce phosphatidylinositol 5-phosphate (By similarity).

Cellular Location
Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm

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

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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).