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MTMR5 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6805a

Specification

MTMR5 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O95248

MTMR5 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 6305

Other Names
Myotubularin-related protein 5, SET-binding factor 1, Sbf1, SBF1, MTMR5

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6805a was selected from the C-term region of human MTMR5 . 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.

MTMR5 Antibody (C-term) Blocking Peptide - Protein Information

Name SBF1

Synonyms MTMR5

Function
Acts as an adapter for the phosphatase MTMR2 to regulate MTMR2 catalytic activity and subcellular location (PubMed:12668758). May function as a guanine nucleotide exchange factor (GEF) activating RAB28 (PubMed:20937701). Promotes the exchange of GDP to GTP, converting inactive GDP-bound Rab proteins into their active GTP-bound form (PubMed:20937701). Inhibits myoblast differentiation in vitro and induces oncogenic transformation in fibroblasts (PubMed:9537414).

Cellular Location
Cytoplasm. Cytoplasm, perinuclear region

MTMR5 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

MTMR5 Antibody (C-term) Blocking Peptide - Images

MTMR5 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. MTMR5 can interact with MTMR2 and regulates the enzymatic activity and the subcellular localization of MTMR2. MTMR5 inhibits myoblast differentiation in vitro and induces oncogenic transformation in fibroblasts.Other suggested roles for MTMR5 are in spermatogenesis and germ cell differentiation. Binding partners for MTMR5 include the SET domain of MLL/HRX and SUV39H1.

MTMR5 Antibody (C-term) Blocking Peptide - References

Ota, T., et al., Nat. Genet. 36(1):40-45 (2004).Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Firestein, R., et al., Mol. Cell. Biol. 20(13):4900-4909 (2000).Dunham, I., et al., Nature 402(6761):489-495 (1999).Laporte, J., et al., Hum. Mol. Genet. 7(11):1703-1712 (1998).