

MTMR4 (C-16): sc-51131

BACKGROUND

Myotubularin and the myotubularin-related proteins (MTMR1-9) belong to a highly conserved family of eukaryotic phosphatases. They are protein tyrosine phosphatases that utilize inositol phospholipids, rather than phosphoproteins, as substrates. MTMR family members hydrolyze both phosphatidylinositol 3-phosphate (PtdIns3P) and PtdIns(3,5)P₂. MTMR2 interacts with MTMR5, an inactive family member that increases the enzymatic activity of MTMR2 and dictates its subcellular localization. Mutations in MTMR2 cause autosomal recessive Charcot-Marie-Tooth type 4B1 (CMT4B1), which is characterized by reduced nerve conduction velocities, focally folded myelin sheaths and demyelination. MTMR3 and MTMR4 can either interact with each other or self-associate. MTMR6 regulates the activity of the calcium-activated potassium channel 3.1. MTMR9 regulates the activity of MTMR7 and MTMR8.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MTMR4 (human) mapping to 17q22; Mtmr4 (mouse) mapping to 11 C.

SOURCE

MTMR4 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MTMR4 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-51131 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

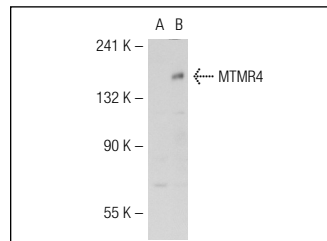
MTMR4 (C-16) is recommended for detection of MTMR4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MTMR4 (C-16) is also recommended for detection of MTMR4 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for MTMR4 siRNA (h): sc-61090, MTMR4 siRNA (m): sc-61091, MTMR4 shRNA Plasmid (h): sc-61090-SH, MTMR4 shRNA Plasmid (m): sc-61091-SH, MTMR4 shRNA (h) Lentiviral Particles: sc-61090-V and MTMR4 shRNA (m) Lentiviral Particles: sc-61091-V.

Molecular Weight of MTMR4: 133 kDa.

DATA



MTMR4 (C-16): sc-51131. Western blot analysis of MTMR4 expression in non-transfected: sc-117752 (A) and human MTMR4 transfected: sc-115138 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **MTMR4 (D-5): sc-373922**, our highly recommended monoclonal alternative to MTMR4 (C-16).