SANTA CRUZ BIOTECHNOLOGY, INC.

MTMR4 (h): 293T Lysate: sc-115138

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.

PRODUCT

MTMR4 (h): 293T Lysate represents a lysate of human MTMR4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MTMR4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MTMR4 antibodies. Recommended use: 10-20 µl per lane.

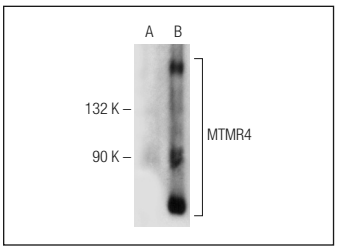
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MTMR4 (D-5): sc-373922 is recommended as a positive control antibody for Western Blot analysis of enhanced human MTMR4 expression in MTMR4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MTMR4 (D-5): sc-373922. 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 -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.