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- Expressversand

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# MTMR5 (h2): 293T Lysate: sc-177577

## 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)P<sub>2</sub>. 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

- Laporte, J., et al. 1997. Mutations in the MTM1 gene implicated in X-linked myotubular myopathy. ENMC international consortium on myotubular myopathy. european neuro-muscular center. Hum. Mol. Genet. 6: 1505-1511.
- Blondeau, F., et al. 2000. Myotubularin, a phosphatase deficient in myotubular myopathy, acts on phosphatidylinositol 3-kinase and phosphatidylinositol 3-phosphate pathway. Hum. Mol. Genet. 9: 2223-2229.
- Kim, S.A., et al. 2003. Regulation of myotubularin-related MTMR2 phosphatidylinositol phosphatase by MTMR5, a catalytically inactive phosphatase. Proc. Natl. Acad. Sci. USA 100: 4492-4497.
- Mochizuki, Y., et al. 2003. Characterization of myotubularin-related protein 7 and its binding partner, myotubularin-related protein 9. Proc. Natl. Acad. Sci. USA 100: 9768-9773.
- Srivastava, S., et al. 2005. Phosphatidylinositol 3-phosphate indirectly activates KCa3.1 via 14 amino acids in the carboxy-terminus of KCa3.1. Mol. Biol. Cell 17: 146-154.
- Lorenzo, O., et al. 2006. Systematic analysis of myotubularins: heteromeric interactions, subcellular localisation and endosomelated functions. J. Cell Sci. 119: 2953-2959.
- Berger, P., et al. 2006. Multi-level regulation of myotubularin-related protein-2 phosphatase activity by myotubularin-related protein-13/SET-binding factor-2. Hum. Mol. Genet. 15: 569-579.

## CHROMOSOMAL LOCATION

Genetic locus: SBF1 (human) mapping to 22q13.33.

## PRODUCT

MTMR5 (h2): 293T Lysate represents a lysate of human MTMR5 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## 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.

## APPLICATIONS

MTMR5 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive MTMR5 antibodies. Recommended use: 10-20 µl per lane.

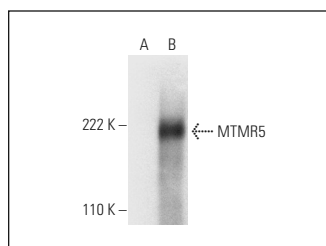
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MTMR5 (B-9): sc-393488 is recommended as a positive control antibody for Western Blot analysis of enhanced human MTMR5 expression in MTMR5 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



MTMR5 (B-9): sc-393488. Western blot analysis of MTMR5 expression in non-transfected: sc-117752 (A) and human MTMR5 transfected: sc-177577 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.