

## Product datasheet for **RC208703**

### MTMR2 (NM\_016156) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                      |
| Product Name:             | MTMR2 (NM_016156) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                  |
| Symbol:                   | MTMR2                                    |
| Synonyms:                 | CMT4B; CMT4B1                            |
| Mammalian Cell Selection: | Neomycin                                 |
| Vector:                   | pCMV6-Entry (PS100001)                   |
| E. coli Selection:        | Kanamycin (25 ug/mL)                     |



[View online »](#)

ORF Nucleotide  
Sequence:

>RC208703 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

ATGGAGACGAGCTCGAGCTGCGAGAGTCTTGGCTCCCAGCCGGCGGGCTCGGCCGCCAGCGTGGACT  
CCTTGTCCAGTGCCTCCACTTCTCATTCCAGAGAATTCAGTGCATACAAAATCAGCTTCTGTTGTATCATC  
AGATTCCATTTCAACTTCTGCCGACAACCTTTCTCCTGATTTGAGGGTCTCGAGGGAGTCTAACAAGTTA  
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TCAGAAAAAGTAGAGGAACTACAGAGAGAGATTTCTAACCGATCAACCTCATCCTCAGAGAGAGCCAGC  
TCTCCTGCACAGTGTGCTCACTCCTGTCCAACTGTTGTA

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC208703 protein sequence  
Red=Cloning site Green=Tags(s)

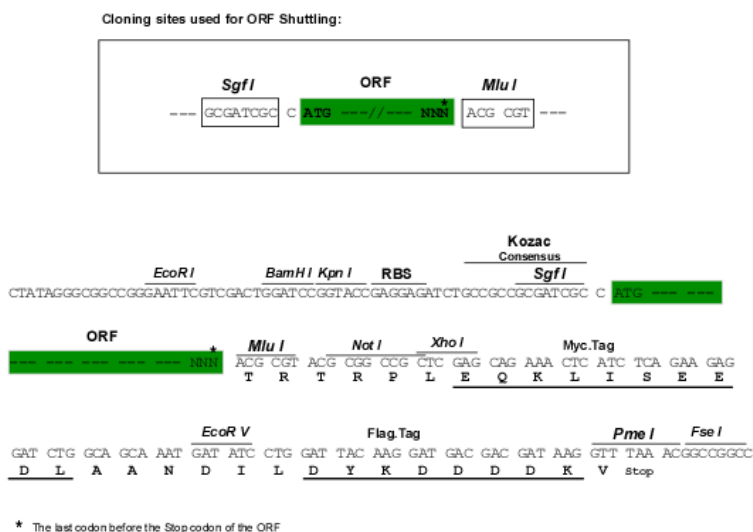
METSSSCESLGSQPAARPPSVDSLSSASTSHSENSVHTKSASVSSDSISTSDNFSPDLRVLRESNKL  
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 SPAQCVPVQTVV

TRTRPLEQKLISEEDLANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6224\\_h09.zip](https://cdn.origene.com/chromatograms/mk6224_h09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_016156

**ORF Size:** 1929 bp

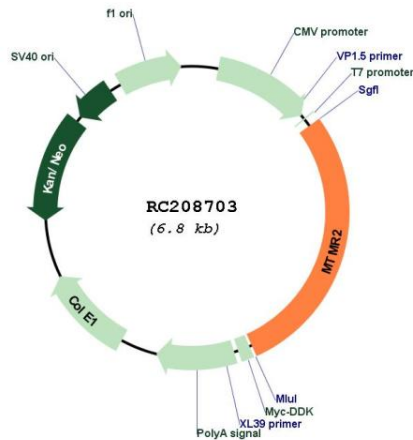
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

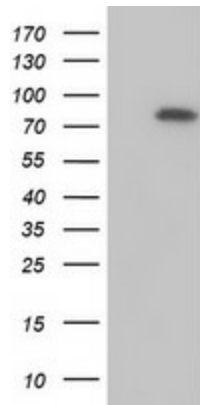
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

|                               |   |
|-------------------------------|---|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol> |
| <b>RefSeq:</b>                | <a href="#">NM_016156.2</a>   |
| <b>RefSeq Size:</b>           | 4603 bp   |
| <b>RefSeq ORF:</b>            | 1932 bp   |
| <b>Locus ID:</b>              | 8898  |
| <b>UniProt ID:</b>            | <a href="#">Q13614</a>  |
| <b>Cytogenetics:</b>          | 11q21   |
| <b>Domains:</b>               | PTPc_motif, GRAM  |
| <b>Protein Families:</b>      | Druggable Genome, Phosphatase   |
| <b>Protein Pathways:</b>      | Fructose and mannose metabolism, Metabolic pathways, Riboflavin metabolism, Thiamine metabolism   |
| <b>MW:</b>                    | 73.4 kDa  |
| <b>Gene Summary:</b>          | <p>This gene is a member of the myotubularin family of phosphoinositide lipid phosphatases. The encoded protein possesses phosphatase activity towards phosphatidylinositol-3-phosphate and phosphatidylinositol-3,5-bisphosphate. Mutations in this gene are a cause of Charcot-Marie-Tooth disease type 4B, an autosomal recessive demyelinating neuropathy. Alternatively spliced transcript variants encoding multiple isoforms have been found for this gene. [provided by RefSeq, Aug 2011]</p>             |

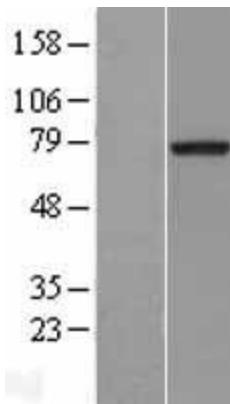
Product images:



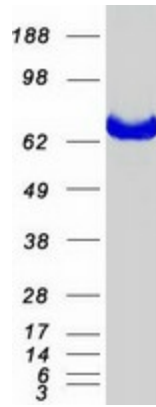
Circular map for RC208703



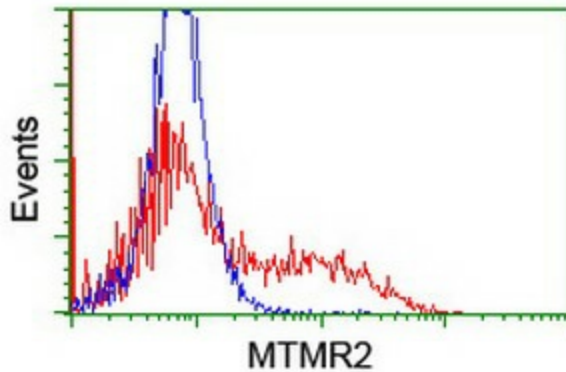
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MTMR2 (Cat# RC208703, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MTMR2 (Cat# [TA502204]). Positive lysates [LY414151] (100ug) and [LC414151] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414151]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208703 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MTMR2 protein (Cat# [TP308703]). The protein was produced from HEK293T cells transfected with MTMR2 cDNA clone (Cat# RC208703) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells transfected with either RC208703 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-MTMR2 antibody ([TA502204]), and then analyzed by flow cytometry.