

## Product datasheet for **RC208069**

### MTMR6 (NM\_004685) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MTMR6 (NM_004685) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTMR6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC208069 representing NM\_004685  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGCATATCCGGACGACCAAGTCTGAACAAGTAAAATTACTTGACCGATTAGTACCAGCAACAAGT  
 CATTAAACAGGAACACTGTATCTTACGGCTACACATCTATTATTTATCGACTCTCATCAAAAAAGAAACCTG  
 GATATTACACCACCATATTGCCTCAGTAGAGAACTTGCTTTGACTACTTCTGGATGCCCCCTTGTGATA  
 CAGTGAAGAAGTTCAGAACTGTGCATTTATTGTTCCAGAGAAAGAGATTGCCATGATTTTACAACCT  
 CTTTGCTACAACGTCAAAAACAAGCAAAAATGAAGATCTCTATGCATTTTCTTAATCCCAAACAAAA  
 TGATTCAGAACGACTACAAGGCTGGCAGCTCATTGATCTCGTGAGGAATATAAGAGGATGGGAGTGCCA  
 AACTCACACTGGCAGTTGTCTGATGCCAACGGGACTACAAGATTTGTGAACTTACCCAGAGAACTTT  
 ATGTTCCCGGATAGCAAGCAAACCAATAATTGTTGGTAGTTCAGTTCCGGAGCAAGGGAAGATTCCC  
 AGTTCTTTCTACTATCATCAAGATAAGGAGGCTGCCATTTGTCGATGTAGTCAGCCACTCTCTGGATTC  
 AGTGCCAGGTGCCTGGAGGATGAACATTTGCTTCAAGCCATTAGTAAAGCCAATCCAGTCAATCGCTATA  
 TGTACGTCATGGATACCAGGCCAAAAGTGAATGCAATGGCCAACAGAGCAGCTGGAAAAGGTTATGAAAA  
 TGAAGACAATATTCCAATATTAGATTTAGTTTGTGGAATTGAAAATATTCAATGTCATGAGGTCCAGC  
 CTTCAGAAATTATTGGAAGTCAATGGCACTAAAGGGCTTTCTGTCAATGATTTCTACTCCGGTTTGAGA  
 GCTCGGGATGGCTTCGCCATATCAAAGCTGTTATGGATGCTGCAGTCTTCTTGCCAAAGCAATAACAGT  
 TGAAAAAGCAAGTGTGTTGGTGCATTGTTCCGATGGTTGGGATAGGACTCCCAGTTTGTCCCTGGGT  
 TCTCTTTTATTGGATCCTACTACAGGACAATCAAAGGATTCATGGTTTTAATAGAAAAGGATGGATCT  
 CTTTGGACATAAATTTTCAGAGAGGTGGCCAGTTGGATGGTGACCCAAAGGAAGTCTCACCAGTGT  
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 TTTCTTCTCAGATCCATGAGCATATTCATTTCATGCCAGTTTGGAACTTCTTGGAAAATTGTCAGAAGG  
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 AATTTTAAAGTTTGGAGGAACATGTACCATCAGTTTGTGCAACACTGCATCCTAGGCAGTCTGTATTTA  
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 TAAACAACGCAAAAATAAGCAAACAGATGGCATCCTACCAAGGAATTGTTACATTCAGTTCATCCTGAA  
 TCACCTAACCTCAAACCTCCCTGTGTTTTAAAGAGCAGACTCTGCTACCCGTAATGATGCTCTTCGAA  
 CTATAGAGGGCAGCAGCCCGGCAGATAATCGTTATAGTGAATATGCAAGAAGATTTCTAAATCAGAACC  
 TGCTGTGGTCAGCTTAGAGTATGGTGTGGCAAGAATGACTTGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC208069 representing NM\_004685  
 Red=Cloning site Green=Tags(s)

MEHIRTTKVEQVKLLDRFSTSNKSLTGTLYL TATHLLFIDSHQKETWILHHHIASVEKLALTTSGCPLVI  
 QCKNFRVVFHIVPRERDCHDIYNSLLQLSKQAKYEDLYAFSYNPKQNDSERLQGWQLIDLAEYKRMGVP  
 NSHWQLSDANRDYKICETYPREL YVPRIASKPIIVGSSKFRSKGRFPVLSYYHQDKEAAICRCSQPLSGF  
 SARCLEDEHLLQAISKANPVNRYMYVMDTRPKLNAMANRAAGKGYENEDNYSNIRFQFVGIENIHMVRS  
 LQKLLLEVNGTKGLSVNDFYSGLESSGWLRIKAVMDAAVFLAKAITVENASVLVHCSGDGWDRTSQC  
 SLLLLDSYYRTIKGFVLEKDWISFGHKFSERCGQLDGDPEKVPVFTQFLECVWHLTEQFPQAFEFSEA  
 FLLQIHEHIHSCQFGNFLGNCQKEREELKLEKTYSLWPFLLLEDQKKYLNPLYSSESHRFTVLEPNTVSF  
 NFKFWRNMYHQFDRTLHPRQSVFNIIMNMNEQNKQLEKDIKDLSEKIKQRKNKQTDGILTKELLSVHPE  
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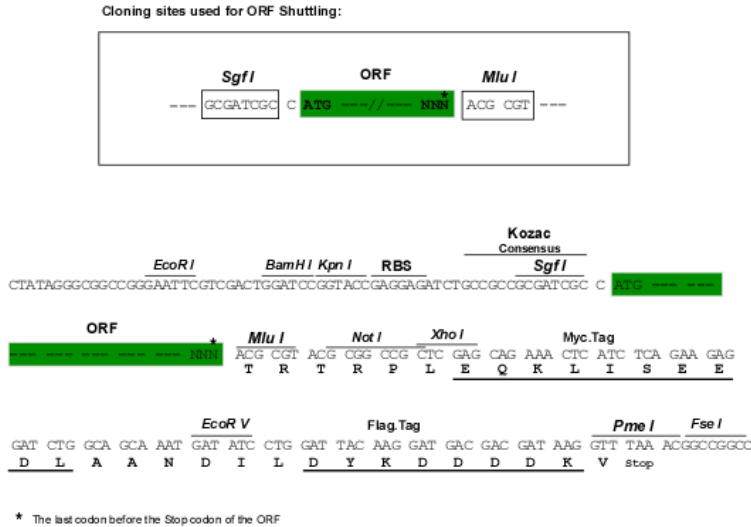
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg4286\\_b09.zip](https://cdn.origene.com/chromatograms/mg4286_b09.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_004685

ORF Size: 1863 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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM\\_004685.4](#)

RefSeq Size: 4201 bp

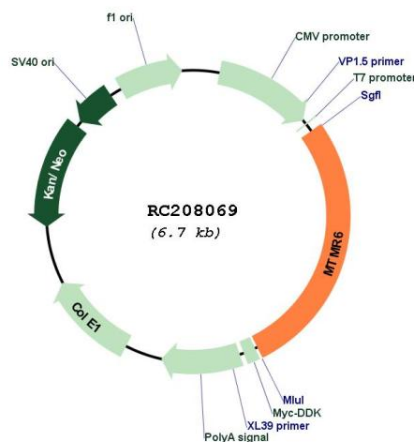
RefSeq ORF: 1866 bp

Locus ID: 9107

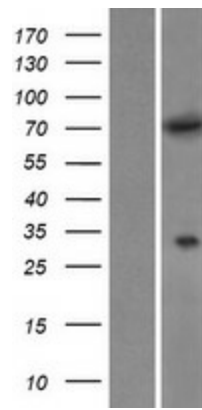
UniProt ID: [Q9Y217](#)

<b>Cytogenetics:</b>	13q12.13
<b>Domains:</b>	PTPc_motif
<b>Protein Families:</b>	Druggable Genome, Phosphatase
<b>Protein Pathways:</b>	Fructose and mannose metabolism, Metabolic pathways, Riboflavin metabolism, Thiamine metabolism
<b>MW:</b>	71.8 kDa
<b>Gene Summary:</b>	Phosphatase that acts on lipids with a phosphoinositol headgroup (PubMed:19038970, PubMed:22647598). Dephosphorylates phosphatidylinositol 3-phosphate (PtdIns(3)P) and phosphatidylinositol 3,5-bisphosphate (PubMed:19038970, PubMed:22647598) (Probable). Binds with high affinity to phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) but also to phosphatidylinositol 3-phosphate (PtdIns(3)P), phosphatidylinositol 4-phosphate (PtdIns(4)P), and phosphatidylinositol 5-phosphate (PtdIns(5)P), phosphatidic acid and phosphatidylserine (PubMed:19038970). Negatively regulates ER-Golgi protein transport (By similarity). Probably in association with MTMR9, plays a role in the late stages of macropinocytosis by dephosphorylating phosphatidylinositol 3-phosphate in membrane ruffles (PubMed:24591580). Acts as a negative regulator of KCNN4/KCa3.1 channel activity in CD4(+) T-cells possibly by decreasing intracellular levels of phosphatidylinositol 3-phosphate (PubMed:15831468). Negatively regulates proliferation of reactivated CD4(+) T-cells (PubMed:16847315). In complex with MTMR9, negatively regulates DNA damage-induced apoptosis (PubMed:19038970, PubMed:22647598). The formation of the MTMR6-MTMR9 complex stabilizes both MTMR6 and MTMR9 protein levels (PubMed:19038970). [UniProtKB/Swiss-Prot Function]

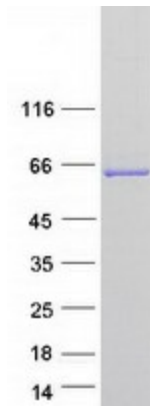
### Product images:



Circular map for RC208069



Western blot validation of overexpression lysate (Cat# [LY417810]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208069 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MTMR6 protein (Cat# [TP308069]). The protein was produced from HEK293T cells transfected with MTMR6 cDNA clone (Cat# RC208069) using MegaTran 2.0 (Cat# [TT210002]).