

Product datasheet for **RG208069**

MTMR6 (NM_004685) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTMR6 (NM_004685) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MTMR6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG208069 representing NM_004685
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGCATATCCGGACGACCAAGTCTGAACAAGTAAAATTACTTGACCGATTAGTACCAGCAACAAGT
 CATTAAACAGGAACACTGTATCTTACGGCTACACATCTATTATTTATCGACTCTCATCAAAAAGAAACCTG
 GATATTACACCACCATATTGCCTCAGTAGAGAACTTGCTTTGACTACTTCTGGATGCCCCCTTGTGATA
 CAGTGAAGAAGTTCAGAACTGTGCATTTATTGTTCCAGAGAAAGAGATTGCCATGATTTTACAACCT
 CTTTGCTACAACGTCAAAAACAAGCAAAAATGAAGATCTCTATGCATTTTCTTAATCCCAAACAAAA
 TGATTGCAAGACTACAAGGCTGGCAGCTCATTGATCTCGTGAGGAATATAAGAGGATGGGAGTGCCA
 AACTCACACTGGCAGTTGTCTGATGCCAACCGGGACTACAAGATTTGTGAACTTACCCAGAGAACTTT
 ATGTTCCCGGATAGCAAGCAAACCAATAATTGTTGGTAGTTCAGTCCGGAGCAAGGGAAGATTCCC
 AGTTCTTCTACTATCATCAAGATAAGGAGGCTGCCATTTGTCGATGTAGTCAGCCACTCTCTGGATTC
 AGTGCCAGGTGCCTGGAGGATGAACATTTGCTTCAAGCCATTAGTAAAGCCAATCCAGTCAATCGCTATA
 TGTACGTCATGGATACCAGGCCAAAAGTGAATGCAATGGCCAACAGAGCAGCTGGAAAAGGTTATGAAAA
 TGAAGACAATATTCCAATATTAGATTTAGTTTGTGGAATTGAAAATATTTCATGTGATGAGGTCCAGC
 CTTGAGAAATTATTGGAAGTCAATGGCACTAAAGGGCTTTCTGTCAATGATTTCTACTCCGGTTTGAGA
 GCTCGGGATGGCTTCGCCATATCAAAGCTGTTATGGATGCTGCAGTCTTCTTGCCAAAGCAATAACAGT
 TGAAAAAGCAAGTGTGTTGGTGCATTGTTCCGATGGTTGGGATAGGACTCCCAGTTTGTCCCTGGGT
 TCTCTTTTATTGGATCCTACTACAGGACAATCAAAGGATTCATGGTTTTAATAGAAAAGGATGGATCT
 CTTTGGACATAAATTTTCAGAGAGGTGGCCAGTTGGATGGTGACCCAAAGGAAGTCTACCAGTGTT
 TACTCAGTTCTTGAATGTGTGGCATTGACCGAACAGTTTCCACAAGCCTTTGAATTCAGTGAAGCA
 TTTCTTCTCAGATCCATGAGCATATTCATTTCATGCCAGTTTGGAACTTCTTGGAAAATTGTCAGAAGG
 AAAGAGAAGAGCTCAAGTTGAAGGAGAAGACTTATCCCTGTGGCCATTTCTTTTGAAGACCAAAAAGAA
 GTACTTAAATCCTCTCTACAGTCCGAATCTCACAGATTTACAGTTTTGGAGCCAAATACAGTATCTTTC
 AATTTTAAAGTTTGGAGGAACATGTACCATCAGTTTGTGCAACACTGCATCCTAGGCAGTCTGTATTTA
 ATATAATTATGAATATGAATGAGCAAAAATAACAATTAGAGAAAGATATTAAGACCTAGAATCTAAAAT
 TAAACAACGCAAAAATAAGCAAACAGATGGCATCCTACCAAGGAATTGTACATTCAGTTCATCCTGAA
 TCACCTAACCTCAAACTTCCCTGTGTTTTAAAGAGCAGACTCTGCTACCCGTAATGATGCTCTTCGAA
 CTATAGAGGGCAGCAGCCCGGCAGATAATCGTTATAGTGAATATGCAGAAGAGTTTTCTAAATCAGAACC
 TGCTGTGGTCAGCTTAGAGTATGGTGTGGCAAGAATGACTTGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG208069 representing NM_004685
 Red=Cloning site Green=Tags(s)

MEHIRTTKVEQVKLLDRFSTSNKSLTGTLYL TATHLLFIDSHQKETWILHHHIASVEKLALTTSGCPLVI
 QCKNFRVTVHFIVPRERDCHDIYNLLQLSKQAKYEDLYAFSYNPKQNDSERLQGWQLIDLAEYKRMGVP
 NSHWQLSDANRDYKICETYPRELYVPRIASKPIIVGSSKFRSKGRFPVLSYYHQDKEAAICRCSQPLSGF
 SARCLEDEHLLQAISKANPVNRYMYVMDTRPKLNAMANRAAGKGYENEDNYSNIRFQFVGIENIHVMRSS
 LQKLELVNGTKGLSVNDFYSGLESSGWLRIKAVMDAAVFLAKAITVENASVLVHCSDGWDRTSQVCSLG
 SLLLDSSYYRTIKGFMLIEKDWISFGHKFSERCGQLDGDPEKVPVFTQFLECVWHLTEQFPQAFEFSEA
 FLLQIHEHIHSCQFNGFLGNCQKEREELKLEKTYSLWPFLLLEDQKKYLNPLYSSESHRFTVLEPNTVSF
 NFKFWRNMYHQFDRTLHPRQSVFNIIIMNMNEQNKQLEKDIKDLKLEKIKQRKNKQTDGILTKELLSHVHPE
 SPNLKTSLCFKEQTLTPVDALRTIEGSSPADNRYSEYAEFVSKSEPAVVSLEYGVARMTG

TRTRPLE - GFP Tag - V

Restriction Sites:

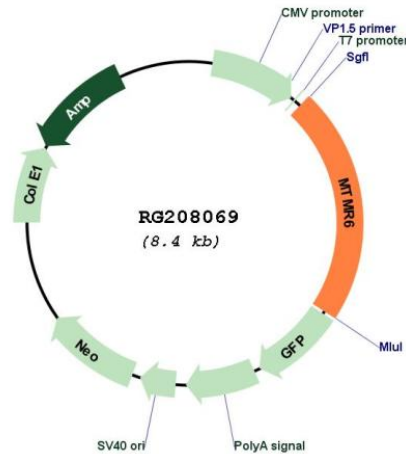
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



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:	<ol style="list-style-type: none">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_004685.2 , NP_004676.2
RefSeq Size:	4201 bp
RefSeq ORF:	1866 bp
Locus ID:	9107
UniProt ID:	Q9Y217
Cytogenetics:	13q12.13
Domains:	PTPc_motif
Protein Families:	Druggable Genome, Phosphatase
Protein Pathways:	Fructose and mannose metabolism, Metabolic pathways, Riboflavin metabolism, Thiamine metabolism

Gene Summary:

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]