

Product datasheet for **MG223839**

Mtm1 (NM_001164190) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mtm1 (NM_001164190) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mtm1
Synonyms:	AF073996; mKIAA4176; Mtm
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG223839 representing NM_001164190
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTTCTGCATCAGCATCTAAGTATAATTCACACTCCTTGGAGAATGAATCCATTAAGAAAGTGTCTC
 AAGATGGAGTCAGTCAGGATGTGAGTGAGACTGTCCCTCGGCTCCAGGGGAGTTACTAATTACTGAAAA
 AGAAGTTATTTACATATGTCCTTTCAATGGCCCCATTAAGGGAAGAGTTACATCACAAATTATCGTCTT
 TATTTAAGAAGTTTGGAAACGGATTCTGCTCTAATACTTGATGTTCTCTGGGTGTGATACAAGAATTG
 AAAAAATGGGAGGCGCGACAAGTAGAGGAGAAAAATTCCTATGGTCTAGATATTACTTGTAAGATTGAG
 AAACCTGAGGTTTGCATTGAAGCAAGAAGGCCACAGCAGAAGAGATATGTTTGAATCAATCAATCAAT
 GCCTTCTCTGGCACACAATCTGCCATTATTTGCATTTGTAATGAAGAGAAGTTAACGTGGATGGGT
 GGACTGTTTATAATCCAGTTGAAGAATATAGAAGGCAGGGCTGCCAATCACCATTGGAGGATAAGTTT
 TATTAACAAGTGCTATGAGCTCTGTGAGACATACCCTGCTCTTTGGTGGTTCCTATCGGACCTCAGAT
 GATGATCTTAGGAGGATCGCAACGTTTAGATCCCGAAATCGGCTTCTGTACTGTGCTGGATTACCCAG
 AAAACAAAATGGTCATTATGCGCTGCAGTCAGCCTCTTGTGCGTATGAGTGGTAAAAAGAAATAAAGATGA
 CGAGAAATACCTGGATGTGATCAGGAAACTAACAAACAACTTCTAAGCTCATGTTTATGATGCACGA
 CCCAGTGTAAATGCAGTCGCCAACCAAGGCAACAGGAGGAGGATATGAAAGTATGACGCATATCAAACT
 CAGAACCTTCTTCTTAGACATTCATAATTCATGTTATGCGAGAATCTTTAAAAAAGTGAAGATAT
 TGTTTATCCCAACATAGAAGAATCTCATTGGTTGCCAGTTTGGAGTCTACTCATTGGTTAGAACATATC
 AAGCTTGTCTGACCGGTGCCATTCAAGTGGCAGACCAAGTGTCTTCAGGAAAGAGCTCGGACTTGTGC
 ACTGCAGTGACGGATGGGACAGGACCGCTCAGCTGACATCCTTGGCCATGCTGATGTTGGACAGCTTCA
 CAGAACTATTGAAGCTTTGAGATATTGGTACAGAAAGAGTGGATAAGTTTTGGCCATAAAATTTGCATCT
 AGAATAGGTCATGGTGATAAAAACCATGCTGATGCTGATCGATCTCCTATTTTTCTTCAGTTTATTGACT
 GTGTGTGGCAGATGTCGAAACAGTTCCCCACAGCTTTTGGATTCAATGAAGGCTTTTTGATTACCGTTTT
 GGATCATCTGTATAGCTGTCGATTTGGTACTTTCTTATTCAACTGTGACTCGGCTCGAGAAAGACAGAAA
 CTTACAGAAAGAACAGTTTCTCTATGGTCGCTAATTAACAGCAATAAAGACAAATTCAAAAACCCCTTCT
 ATACAAAAGAAATCAATCGGTTTTGTATCCAGTTGCCAGCATGCGTCACTTGGAACTGTGGGTGAATTA
 TTACATCCGATGGAATCCAGGGTCAAGCAGCAACAGCCCAACCCAGTGGAGCAGCGTTACATGGAGCTT
 TTGGCCTTGCCTGACGATTATATAAAGAGGCTCGAGGAATTGCAGCTGGCCAACCCGCAAGCTTGCTG
 ATGCCCCCGCTTCGACTCCAGTTCGTCACAGATGGTGCCCCATGTGCAGACGCACCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG223839 representing NM_001164190
 Red=Cloning site Green=Tags(s)

MASASASKYNHSHLENESIKKVSQDGVSDVSETPRPLPGELLITEKEVIYICPFNGPIKGRVYITNYRL
 YLRSLETDSALILDVPLGVISRIEKMGGATSRGENSYGLDITCKDLRNLRFALKQEGHSRRDMFEILVKH
 AFPLAHNPLFAFVNEEFNVDGWTVYNPVEEYRRQGLPNHHWRISFINKCYELCETYPALLVVPYRTSD
 DDLRRIATFRSRNRLPVLWIHPENKVMIMRCSQPLVGMMSGKRNDDEKYLVDVIRETNKQTSKLMYDAR
 PSVNAVANKATGGGYESDDAYQNSELSFLDIHNIHVMRESLKKVKDIVYPNIEESHWSLESTHWLEHI
 KLVLTGAIQVADQVSSGKSSVLVHCSGDWDRTAQLTSLAMLMLDSFYRTIEGFEILVQKEWISFGHKFAS
 RIGHGDKNHADADRSPIFLQFIDCVWQMSKQFPTAFEFNEGFLITVLDHLYSCRFGTFLFNCD SARERQK
 LTERTVSLWLSLINSNKDKFKNPFYTKIINRVLYPVASMRHLELWVNYIIRWNPRVKQQPNPVEQRYMEL
 LALRDDYIKRLEELQLANS AKLADAPASTSSSSQMPVPHVQTHF

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001164190

ORF Size: 1809 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_001164190.1](#), [NP_001157662.1](#)

RefSeq Size: 3488 bp

RefSeq ORF: 1812 bp

Locus ID: 17772

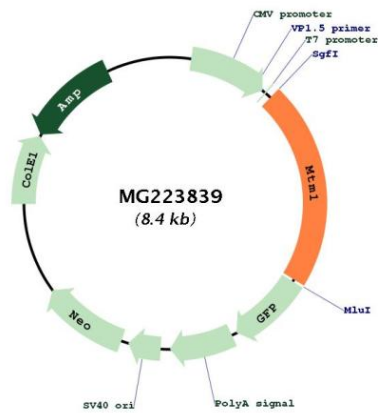
UniProt ID: [Q9Z2C5](#)

Cytogenetics: X 36.55 cM

Gene Summary:

Lipid phosphatase which dephosphorylates phosphatidylinositol 3-monophosphate (PI3P) and phosphatidylinositol 3,5-bisphosphate (PI(3,5)P2). Has also been shown to dephosphorylate phosphotyrosine- and phosphoserine-containing peptides. Negatively regulates EGFR degradation through regulation of EGFR trafficking from the late endosome to the lysosome. Plays a role in vacuolar formation and morphology (By similarity). Regulates desmin intermediate filament assembly and architecture. Plays a role in mitochondrial morphology and positioning (PubMed:21135508). Required for skeletal muscle maintenance but not for myogenesis (PubMed:12391329). In skeletal muscles, stabilizes MTMR12 protein levels (PubMed:23818870).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG223839