

Product datasheet for **MG223846**

Mtm1 (NM_001164192) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mtm1 (NM_001164192) 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:

>MG223846 representing NM_001164192
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTTCTGCATCAGCATCTAAGTATAATTCACACTCCTTGGAGAATGAATCCATTAAGAAAGTGTCTC
 AAGATGGAGTCAGTCAGGATGTGAGTGAGACTGTCCCTCGGCTCCAGGGAGTTACTAATTACTGAAAA
 AGAAGTTATTTACATATGTCCTTTCAATGGCCCCATTAAGGGAAGAGTTACATCACAAATTATCGTCTT
 TATTTAAGAAGTTTGGAAACGGATTCTGCTCTAATACTTGATGTTCTCTGGGTGTGATACAAGAATTG
 AAAAAATGGGAGGCGCGACAAGTAGAGGAGAAAAATTCCTATGGTCTAGATATTACTTGTAAGATTGAG
 AAACCTGAGGTTTGCATTGAAGCAAGAAGGCCACAGCAGAAGAGATATGTTTGAGATCCTTGTAACAT
 GCCTTCTCTGGCACACAATCTGCCATTATTTGCATTTGTAATGAAGAGAAGTTAACGTGGATGGGT
 GGACTGTTTATAATCCAGTTGAAGAATATAGAAGGCAGGGCTGCCCAATCACCATTGGAGGATAAGTTT
 TATTAACAAGTGCTATGAGCTCTGTGAGACATACCCTGCTCTTTGGTGGTTCCTATCGGACCTCAGAT
 GATGATCTTAGGAGGATCGCAACGTTTAGATCCCGAAATCGGCTTCTGTACTGTGCTGGATTACCCAG
 AAAACAAAATGGTCATTATGCGCTGCAGTCAGCCTCTTGTGCGTATGAGTGGTAAAAAGAAATAAAGATGA
 CGAGAAATACCTGGATGTGATCAGGAAACTAACAAACAACTTCTAAGCTCATGTTTATGATGCACGA
 CCCAGTGTAAATGCAGTCGCCAACCAAGGCAACAGGAGGAGGATATGAAAGTATGACGCATATCAAACT
 CAGAACTTTCCTTCTTAGACATTCATAATTCATGTTATGCGAGAATCTTAAAAAAGTGAAGATAT
 TGTTTATCCCAACATAGAAGAATCTCATTGGTTGCCAGTTTGGAGTCTACTCATTGGTTAGAACATATC
 AAGCTTGTCTGACCGGTGCCATTCAAGTGGCAGACCAAGTGTCTTCAGGAAAGAGCTCGGACTTGTGC
 ACTGCAGTGACGGATGGGACAGGACCGCTCAGCTGACATCCTTGGCCATGCTGATGTTGGACAGCTTCA
 CAGAACTATTGAAGCTTTGAGATATTGGTACAGAAAGAGTGGATAAGTTTTGGCCATAAAATTTGCATCT
 TCCCCACAGCTTTTGGATTCAATGAAGCTTTTTGATTACCGTTTTGGATCATCTGTATAGCTGTCGAT
 TTGGTACTTTCTTATTCAACTGTGACTCGGCTCGAGAAAGACAGAACTTACAGAAAGAAGCTTTCTCT
 ATGGTCGTAATTAACAGCAATAAAGACAAATCAAAAACCCCTTCTATACAAAAGAAATCAATCGGGT
 TTGTATCCAGTTGCCAGCATGCGTCACTTGGAACTGTGGTGAATTATTACATCCGATGGAATCCAGGG
 TCAAGCAGCAACAGCCCAACCCAGTGGAGCAGCGTTACATGGAGCTTTTGGCCTTGGCTGACGATTATAT
 AAAGAGGCTCGAGGAATGCAGCTGGCCAACTCCGCCAAGCTTGCTGATGCCCCGCTTCGACTTCCAGT
 TCGTCACAGATGGTGCCCATGTGCAGACGCATTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG223846 representing NM_001164192
 Red=Cloning site Green=Tags(s)

MASASASKYNSHLENESIKKVSQDGVSDVSETVPRLPGELLITEKEVIYICPFNGPIKGRVYITNYRL
 YLRSLETDSALILDVPLGVISRIEKMGGATSRGENSYGLDITCKDLRNLRFALKQEGHSRRDMFEILVKH
 AFPLAHNLPFAFVNEEKFNVDGWTVYNPVEEYRRQGLPNHHWRISFINKCYELCETYPALLVVPYRTSD
 DDLRRIATFRSRNRLPVL SWIHPENKVMIMRCSQPLVGMMSGKRNKDDEKYL DVIRETNKQTSKLMYDAR
 PSVNAVANKATGGGYESDDAYQNSELSFLDIHNIHVMRESLKKVKDIVYPNIEESHWSLESTHWLEHI
 KLVL TGAIQVADQVSSGKSSVLVHCSGDWDRTAQLTSLAMLMLDSFYRTIEGFEILVQKEWISFGHKFAS
 FPTAFEFNEGFLITVLDHLYSCRFGTFLFNCD SARERQKL TERTVSLWLSINSNKDKFKNPFYTKENRV
 LYPVASMRLHLELVWNYIRWNPVKQQPNPVEQRYMELLALRDDYIKRLEELQLANSAKLADAPASTSS
 SSQMVPHVQTHF

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001164192

ORF Size: 1716 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_001164192.1](#), [NP_001157664.1](#)

RefSeq Size: 3286 bp

RefSeq ORF: 1719 bp

Locus ID: 17772

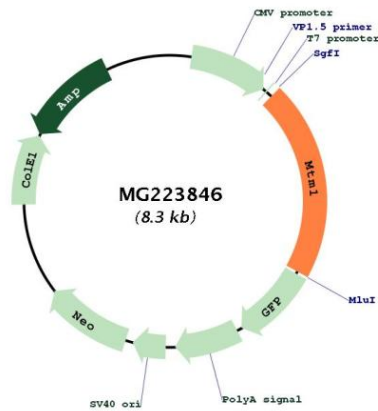
UniProt ID: [Q9Z2C5](#)

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 MG223846