

## Product datasheet for **MG224660**

### Mtm1 (NM\_001164193) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Mtm1 (NM\_001164193) 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)  
**ORF Nucleotide Sequence:** >MG224660 representing NM\_001164193  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTTCTGCATCAGCATCTAAGTATAATTCACACTCCTTGGAGAATGAATCCATTAAGAAAGTGTCTC  
AAGATGGAGTCAGTCAGGATGTGAGTGAGACTGTCCCTCGGCTCCAGGGGAGTTACTAATTACTGAAAA  
AGAAGTTATTTACATATGTCCTTCAATGGCCCCATTAAGGGAAGAGTTACATCACAAATTATCGTCTT  
TATTTAAGAAGTTTGAAACGGATTCTGCTCTAATACTTGATGTTCTCTGGGTGTGATATCAAGAATTG  
AAAAAATGGGAGGCGCGACAAGTAGAGGAGAAAATTCCTATGGTCTAGATATTACTTGTAAGATTTGAG  
AAACCTGAGGTTTGCAATTGAAGCAAGAAGGCCACAGCAGAAGAGATATGTTTGAGATCCTTGTAACAT  
GCCTTCTCTGGCACACAATCTGGCTAACCTGAACTCATGATCCTGTTACCTCGACCTCTGAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG224660 representing NM\_001164193  
Red=Cloning site Green=Tags(s)

MASASASKYNHSHLENESIKKVSQDGVSDVSETVPRLPGELLITEKEVIYICPFNGPIKGRVYITNYRL  
YLRSLTDSALILDVPLGVISRIEKMGGATSRGENSYGLDITCKDLRNLRFALKQEGHSRRDMFEILVKH  
AFPLAHNLANLKMILLPRPPE

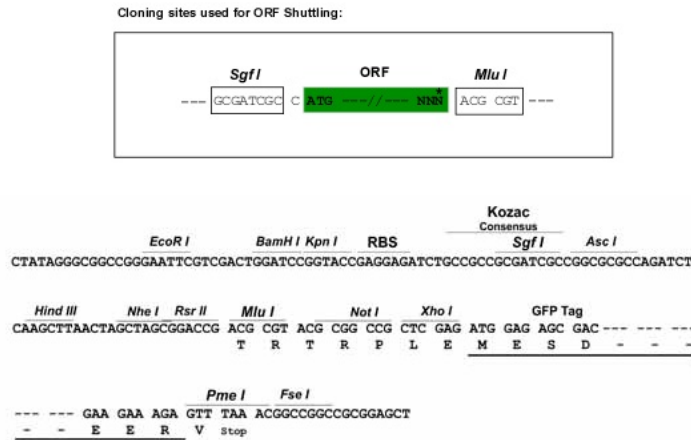
**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI

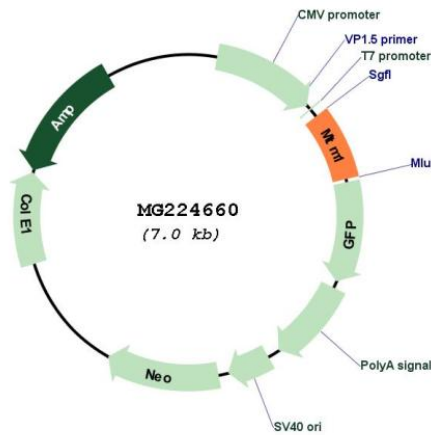


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001164193

ORF Size: 486 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.

<b>Components:</b>	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>	<u>NM_001164193.1, NP_001157665.1</u>
<b>RefSeq Size:</b>	770 bp
<b>RefSeq ORF:</b>	489 bp
<b>Locus ID:</b>	17772
<b>Cytogenetics:</b>	X 36.55 cM
<b>Gene Summary:</b>	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]