

## Product datasheet for **MR223846**

### Mtm1 (NM\_001164192) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mtm1 (NM_001164192) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mtm1
Synonyms:	AF073996; mKIAA4176; Mtm
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR223846 representing NM\_001164192  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTTCTGCATCAGCATCTAAGTATAATTCACACTCCTTGGAGAATGAATCCATTAAGAAAGTGTCTC  
 AAGATGGAGTCAGTCAGGATGTGAGTGAGACTGTCCCTCGGCTCCAGGGAGTTACTAATTACTGAAAA  
 AGAAGTTATTTACATATGTCCTTTCAATGGCCCCATTAAGGGAAGAGTTACATCACAAATTATCGTCTT  
 TATTTAAGAAGTTTGGAAACGGATTCTGCTCTAATACTTGATGTTCTCTGGGTGTGATACAAGAATTG  
 AAAAAATGGGAGGCGCGACAAGTAGAGGAGAAAAATTCCTATGGTCTAGATATTACTTGTAAGATTGAG  
 AAACCTGAGGTTTGCATTGAAGCAAGAAGGCCACAGCAGAAGAGATATGTTTGAGATCCTTGTAACAAT  
 GCCTTCTCTGGCACACAATCTGCCATTATTTGCATTTGTAATGAAGAGAAGTTAACGTGGATGGGT  
 GGACTGTTTATAATCCAGTTGAAGAATATAGAAGGCAGGGCTGCCCAATCACCATTGGAGGATAAGTTT  
 TATTAACAAGTGCTATGAGCTCTGTGAGACATACCCTGCTCTTTGGTGGTTCCTATCGGACCTCAGAT  
 GATGATCTTAGGAGGATCGCAACGTTTAGATCCCGAAATCGGCTTCTGTACTGTGCTGGATTACCCAG  
 AAAACAAAATGGTCATTATGCGCTGCAGTCAGCCTCTTGTGCGTATGAGTGGTAAAAAGAAATAAAGATGA  
 CGAGAAATACCTGGATGTGATCAGGAAACTAACAAACAACTTCTAAGCTCATGATTTATGATGCACGA  
 CCCAGTGTAAATGCAGTCGCCAACCAAGGCAACAGGAGGAGGATATGAAAGTGTGACGCATATCAAACT  
 CAGAACTTTCTTCTTAGACATTCATAATTCATGTTATGCGAGAATCTTAAAAAAGTGAAAGATAT  
 TGTTTATCCCAACATAGAAGAATCTCATTGGTTGCCAGTTTGGAGTCTACTCATTGGTTAGAACATATC  
 AAGCTTGTCTGACCGGTGCCATTCAAGTGGCAGACCAAGTGTCTCAGGAAAGAGCTCGGACTTGTGC  
 ACTGCAGTGACGGATGGGACAGGACCGCTCAGCTGACATCCTTGGCCATGCTGATTTGGACAGCTTCTA  
 CAGAACTATTGAAGCTTTGAGATATTGGTACAGAAAGAGTGGATAAGTTTGGCCATAAATTTGCATCT  
 TCCCCACAGCTTTTGGATTCAATGAAGCTTTTTGATTACCGTTTTGGATCATCTGTATAGCTGTCGAT  
 TTGGTACTTTCTTATTCAACTGTGACTCGGCTCGAGAAAGACAGAACTTACAGAAAGAAGCTTTCTCT  
 ATGGTCGTAATTAACAGCAATAAAGACAAATCAAAAACCCCTTCTATACAAAAGAAATCAATCGGGT  
 TTGTATCCAGTTGCCAGCATGCGTCACTTGGAACTGTGGTGAATTATTACATCCGATGGAATCCAGGG  
 TCAAGCAGCAACAGCCCAACCCAGTGGAGCAGCGTTACATGGAGCTTTTGGCCTTGGCTGACGATTATAT  
 AAAGAGGCTCGAGGAATGCAGCTGGCCAACTCCGCCAAGCTTGCTGATGCCCCCGCTTCGACTTCCAGT  
 TCGTCACAGATGGTGCCCATGTGCAGACGCACCTC

**ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT**  
**ACAAGGATGACGACGATAAGGTTTAA**

**Protein Sequence:**

>MR223846 representing NM\_001164192  
 Red=Cloning site Green=Tags(s)

MASASASKYNHSHLENESIKKVSQDGVSDVSETVPRLPCELLITEKEVIYICPFNGPIKGRVYITNYRL  
 YLRSLETDSALILDVPLGVISRIEKMGGATSRGENSYGLDITCKDLRNLRFALKQEGHSRRDMFEILVKH  
 AFPLAHNPLPLFAFVNEEKFNVDGWTVYNPVEEYRRQGLPNHHWRISFINKCYELCETYPALLVVPYRTSD  
 DDLRRIATFRSRNRLPVL SWIHPENKMVIMRCSQPLVMSGKRNKDDEKYL DVIRETNKQTSKLMYDAR  
 PSVNAVANKATGGGYESDDAYQNSELSFLDIHNIHVMRESLKKVKDIVYPNIEESHWSLESTHWLEHI  
 KLVLGTGAIQVADQVSSGKSSVLVHCSGDWDRTAQLTSLAMLMLDSFYRTIEGFEILVQKEWISFGHKFAS  
 FPTAFEFNEGFLITVLDHLYSCRFGTFLFNCD SARERQKLTERTVSLWLSINSNKDKFKNPFYTKENRV  
 LYPVASMRLHLELVWNYIRWNPVVKQQPNPVEQRYMELLALRDDYIKRLEELQLANSKADAPASTSS  
 SSQMVPHVQTHF

**TRTRPLEQKLI SEEDLAANDILDYKDDDDKV**

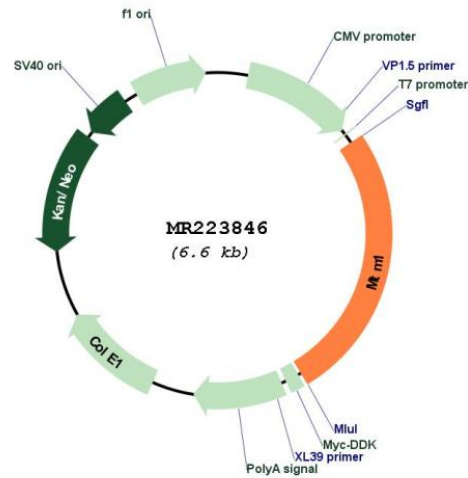
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001164192  
 ORF Size: 1716 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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>	<a href="#">NM_001164192.1</a> , <a href="#">NP_001157664.1</a>
<b>RefSeq Size:</b>	3286 bp
<b>RefSeq ORF:</b>	1719 bp
<b>Locus ID:</b>	17772
<b>UniProt ID:</b>	<a href="#">Q9Z2C5</a>
<b>Cytogenetics:</b>	X 36.55 cM
<b>MW:</b>	66.4 kDa
<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]