

Product datasheet for **RR212459**

Mtm1 (NM_001013047) Rat Tagged ORF Clone

Product data:

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|--------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Mtm1 (NM_001013047) Rat Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Mtm1 |
| Synonyms: | MGC108964 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



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ORF Nucleotide Sequence:

>RR212459 representing NM_001013047
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGTCTCGTCAGCCTCTGACTGTGATGCACACCCCGTGGAGCGTGAGTCCATGAGGAAGGTGTCTC
 AAGATGGAGTCCGTGAGGATATGAGCAAGAGTGGCCTCGCCTCCAGGGGAATCAGCCATCACTGACAA
 GGAAGTCATCTACATTTGTCCCTTCAGCGGCCCGTAAAGGGACGACTTTACATACCAATTACCGTCTC
 TACCTGAGAAGTCTGGAGACGGACTTGGCTCCGATTCTTGACGTCCCCCTAGGCGTGATATCGAGAATAG
 AGAAAAAGGGAGGCGTGACGAGTGCAGGAGAGAATTCCTACGGCCTTGATATCACCTGCAAGACCTGAG
 GAACCTGAGGTTCTGCTGAAGCAGGAAGGACACAGCAGGAGGGACATCTTTGACGTCTCACCAGACAC
 GCCTCCCCCTGGCTTACAACCTGCCGTTGTTTGCATTCTGTAACGAGGAGAAGTTTAAAGTGGATGGAT
 GGGCGATTTACAACCCGTTGAAGAGTACAGAAGGACAGGGCCTCCCCGATCGCCATTGGCGGATAAGTTT
 CGTCAATCAGCGCTACGAGCTCTGTGACACCTACCCTGCCCTCCTGGTCTGCCCTACCGTGCCTCCGAT
 GATGACCTCAGAAGAGTTGCAACCTTTAGTCCAGAAACCGGATTCGCCGTGCTGTGCTGGATCCACCCAG
 AGAACAGGGCGCGCATCATGCGGTGCAGTCAGCCTCTGGTTGGTGTGGGCGGGAAGAGAAGCAGAGATGA
 TGAGAGATACCTGGACATCATCCGGAAACCAATAAGCAGACCTCGAAGCTCACAATTTACGATGCGCGG
 CCCGGCGTCAATGCGGTGGCAACAAGGCAACGGGAGGCGGCTATGAGGGCGAGGACCGGTACCCCTCACG
 CGGAGCTCTCCTTCTGGACATCCACAACATCCACGTGATGCGGGAAATCCTTACGGAGGGTGAGGGACAT
 CGTGTACCCCCACGTGGAGGAAGCTCATTGGCTGTCCAGCTTGGAGTCCACCCATTGGTTAGAGCACATC
 AAGCTTCTCCTCACTGGTGCCATCCGGGTCGACAGCAAGGTGGCATCGGGGCTGAGTTTCACTCTCGTGC
 ACTGCAGTGACGGCTGGACCGGACGGCTCAACTGACCACGCTGGCCATGCTGATGCTGATGCTGATGCTA
 CCGCAGCATCGAGGGCTTTGAGATCCTGGTGCAGAAAGGAGTGGATCAGCTTCGGACACAAGTTTTTCATCT
 AGAATTGGCCACGGTGACAAGAACCACGCGGATGCCGACCGCTCCCCGATTTTCTCGACTTTCATCGACT
 GCGTGTGGCAGATGACGAAGCAGTTCCCCACAGCTTTCGAGTTCAACGAGTGCTTCTGTTGCCATCTT
 GGATCACCTGTACAGCTGCCGGTTCGGGACTTCTTACTAAACTGTGAGGCGGCACGGGAGAGACAGAGA
 CTCGCAGAAAGGACGGTGTCTGTGTGGTCCCTGATCAACAGCAACAAGACGAATTCACAAACCCGTTCT
 ACGCAAGGGAGAGCAACCGGTGATCTACCCGGTACCAGCGTGCACCCTGGAAGTGTGGGTGAATTA
 CTACATCCGGTGAACCCAGGATCCGGCAGCAGCAGCCACCCCATG

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR212459 representing NM_001013047
 Red=Cloning site Green=Tags(s)

MASSASDCDAHVERESMRKVSQDGVQRDMSKSGPRLPGESAITDKEVIYICPFSGPVKGRLYITNYRL
 YLRSLTDLAPILDVPLGVISRIEKMGGVTSRGENSYGLDITCKDLRNLRFALKQEGHSRRRIDFVLRH
 AFPLAYNLPLFAFVNEEKFKVDGWAIYNPVEEYRRQGLPDRHWISFVNQRYELCDTYALLVVPYRASD
 DDLRRVATFRSRNRIPVLSWIHPENRAAIMRCSQPLVGVGGKRSRDDERYLDIIRETNKQTSKLTIIYDAR
 PGVNAVANKATGGYEGEDAYPHAELSFLDIHNIHVMRESLRRVRDIVYPHVEEAHWLSSLESTHWLEHI
 KLLLGTGAIKVADKVASGLSSVLVHCSGDWDRTAQLTTLAMLMLDGFYRSIEGFEILVQKEWISFGHKFSS
 RIGHGDKNHADADRSPIFLQFIDCVWQMTKQFPTAFEFNECFVAILDHLYSCRFGTFLNCEAARERQR
 LAERTVSVWLSINSNKDEFTNPFYARESNRVIYPVTSVRHLELWVNYIRWNPRIQQQPHM

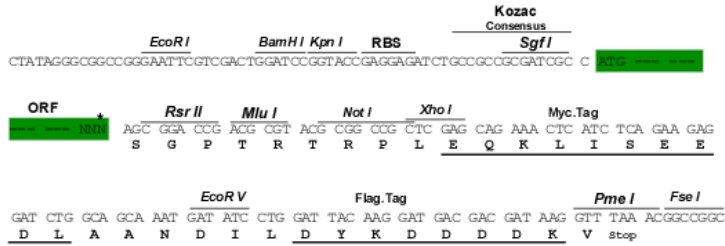
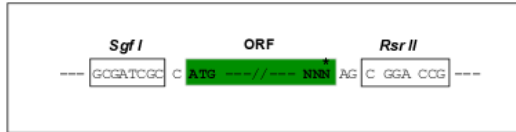
SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-RsrII

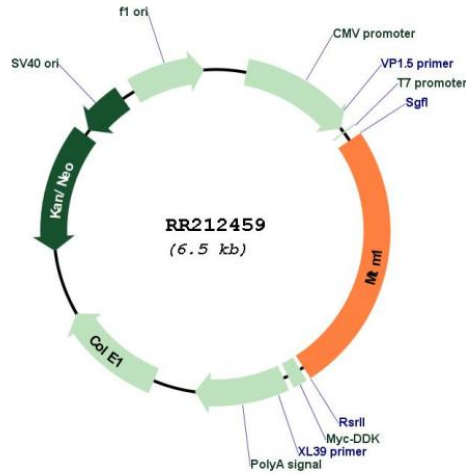
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



| | |
|-------------------------------|---|
| ACCN: | NM_001013047 |
| ORF Size: | 1659 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_001013047.1 , NP_001013065.1 |
| RefSeq Size: | 2536 bp |
| RefSeq ORF: | 1662 bp |
| Locus ID: | 288762 |
| UniProt ID: | Q6AXQ4 |
| Cytogenetics: | 6q12 |
| MW: | 63.8 kDa |
| 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. Regulates desmin intermediate filament assembly and architecture. Plays a role in mitochondrial morphology and positioning. Required for skeletal muscle maintenance but not for myogenesis. In skeletal muscles, stabilizes MTMR12 protein levels.[UniProtKB/Swiss-Prot Function] |