

## Product datasheet for **MG208808**

### **Msto1 (NM\_144898) Mouse Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                      |
| Product Name:             | Msto1 (NM_144898) Mouse Tagged ORF Clone |
| Tag:                      | TurboGFP                                 |
| Symbol:                   | Msto1                                    |
| Synonyms:                 | BC008103; mst                            |
| Mammalian Cell Selection: | Neomycin                                 |
| Vector:                   | pCMV6-AC-GFP (PS100010)                  |
| E. coli Selection:        | Ampicillin (100 ug/mL)                   |



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**ORF Nucleotide Sequence:**

>MG208808 representing NM\_144898  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGGCGGGGCCCGGAGGTGCTCAGCTGCAGTTGGACATTTCCGGGTTTCGTGGGGGCGCACT  
 GGTGGAACCAGCAGGATGCTGCGCTGGGACGCATGGCCGAGGACGAAGAGTCGCCAGGCGAGCTGTGCC  
 CGACGTCTGTACAGAACAGGCCGGACACTGCATGGCCAGGAACTATACGCCTCGACTCATCCTAATG  
 GATCTGAAAGGTAGTCTGAACACTCTAAAAGAAGAAGTAACTCTACAGAGACCGACAGCTAGAGGCTG  
 CAGTAGCGTGGCAGGGGAAGCTCAGCACACAGAGAAGACGCCAACCAAGAACCCTCCAGGG  
 CCTTCTGAGTGCAGAGGGAGTGCAGGAGTGTGACGGTGCCTGGAGGGCCAACTGATTGAGAAATCCAA  
 AATGGCAAAGAGAACAGCATCAAAGTCTGGTCAAGTCTCAGAGTCCATCTCCATCCACGGAGCATCT  
 GTGTGATCCACAAGTACCACCATGATGGGAGACAGGCCGGCTGGAGGCTTTGGCCAAGGGGAGAGTGT  
 CCTGAAGGAGCCAGGACTTGGAGAGCTGGAGGACAGACTACACTTCTATGTGGAGGAATGTGACTAC  
 TTGCAGGGCTTCCAGCTCCTGTGTGACCTGCACGATGGCTTCTCTGGAGTGGTGTAAAAGTGCAGAGC  
 TACTACAAGACGAGTATGCAGGGCGGGGAGTCTAACCTGGGGCCTGCTCCCGGGCCCTACAGTCTTGG  
 GGAGCCTCAGAAAAACATCTATCGTCTCTAAACACGGCATTGGTCTGGTGCACCTGACTGGATACAGC  
 TCCTTCGTCTGTCCCTTATCCCTTGGAGGGAACCTGGGCTGCGACCCAAGCCGCTGTCAACTCCCTT  
 CCCTACATTATGATGCCACTCTGCCCTTCCACTGTAGCGCCATCCTGGCGACAGCGCTGGACACGGTGAC  
 TGTTCCCTATCGCTGCGCTCCTCAATGGTTACCATGGCTCACTGGCTGATGTGCTAAGTTTCTCTGGG  
 AAAAAGGTGGTGACAGCAGAAGCAATCATCCCCTCCCCTGGTTCGAGGCCAGTCCCTTCTGACATCC  
 TGACGCAGCTTGGAGAAGCCACCCATGGACCTCCCTGTGGCATGCGGGGATTCTGCTGGACATCGGTG  
 CTTTGCCAGTCTGTGGTGTCTCAGAGGCATAGACAGAGCTAGCCACACCAGTAAGCTCAACCCAGGGACA  
 CCTCTGCCCTCTGCTCTCCACGATGCGCCTCTGGAGAAGAAGTCTTGGCCAGTACTTACAGCAGCAGC  
 ATCCTAGAGTCTTGTGATCGTACATCTGCTGCTGACTCCCTGCAAAGTGGCTCCTCCATACCCACACTT  
 CTTCTCAAGCTTCAGTCAGAAAGGGCTGGCCATGGACAGTACCCCAAGGGCGCAGCAGTACAGAGCATC  
 CCTGTGTTGGGGCCTTGCCTCAACTTCACTTGCACCGTACGCTGGGAGACTGGCTGAAGAGCTCA  
 GCAGACTTGACCTGCGGCCTGGCTAGCTTATGGACGCTGGCTGGAGCAGGATGACATGGAAGAGAT  
 GCTGCACGAGTTACACAGTTGGCCAGTGTACCAGGAGGGTGACAGTCTCTCGAAC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG208808 representing NM\_144898  
 Red=Cloning site Green=Tags(s)

MAGGAREVLTQLGHFAGFVGAHWWNQDAALGRMAEDEESPGELCPDVLVYRTGRTLHGQETYTPRLILM  
 DLKGSNLNLTKEEENLYRDRQLEAAVAWQKLSHREDAQPKNPQLQGLLSAEGVRSDDGAWRAKLIQNIQ  
 NGKENSIVWSDFLRVHLHPRISICVIHKYHHDGETGRLEAFQGGSVLKEPRYLEELEDRLHFYVEECDY  
 LQGFQLLCDLHDFSGVGAKTAELLQDEYAGRGVLTWGLLPYPYSLGEPQKNIYRLLNTAFGLVHLTGYS  
 SFVCPVSLGGNLGLRPKPPVNFPSLHYDATALPFHCSAILATALDVTVPYRLRSSMVTMAHLADVLSFSG  
 KKVVTAEAIIPFPLVRGQSLPDILTQLGEATPWTSLSACGDSAGHRCFAQSVVLRGIDRASHTSKLNPGT  
 PLPSALHACASGEEVLAQYLQQQHPVLSHLLLTCKVAPPYPHFFSSFSQKGLAMDSTPKGAAVQSI  
 PVFGALRSTSSLHRTLGDLAEEELSRDLRRWASFMDAGVEQDDMEEMLHELHRLAQCQYQEGDSLNS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_144898

**ORF Size:** 1668 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

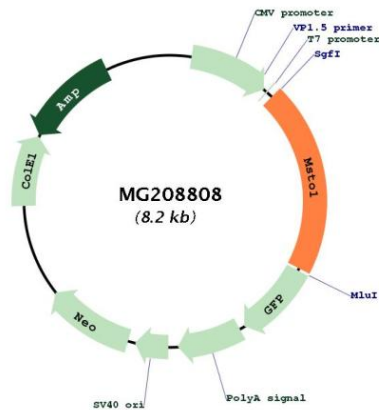
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**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\\_144898.1, NP\\_659147.1](#)  
**RefSeq Size:** 1791 bp  
**RefSeq ORF:** 1671 bp  
**Locus ID:** 229524  
**UniProt ID:** [Q2YDW2](#)  
**Cytogenetics:** 3 F1  
**Gene Summary:** Involved in the regulation of mitochondrial distribution and morphology. Required for mitochondrial fusion and mitochondrial network formation.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG208808