

## Product datasheet for **MR208350**

### Oma1 (NM\_025909) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Oma1 (NM_025909) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Oma1
Synonyms:	2010001O09Rik; MPRP-1; ZMPOMA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR208350 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCCTCCTTTATGGACTGCAGTCTACCAGGATAAATCGGTTTCTCTCTGGAGTGAATAACCTGGCCA  
 ACAGGAGACAGTGGACCCCCAGCAAGCTGTCCACTGGCACAAAGCTCCGAGCAGTAAATGCATACTG  
 GGGACTGAACACAGTCAGTCATTGTCTCAGTGACCTTACTGCCTAGAACTTTCTTTTCTGTAGGACT  
 CTCAATCACAAAAATCAAGATGCCCTCTCAAGTGCCAAAGCAAGGAATTGGGGGTGCTTACCTACAGAT  
 GTACTGTGCGGGGTGATTCTGTTCTAAGACAAGGAGCAAGGAAAGTGGCTGGCGTTCTGCTCTCGCGGC  
 CTCCTGTTCTCCAAGCTGTCTGCCGTAATAGAGGCCCGGAGTTCCGTACATCTGCAAGGGTTCAGGCT  
 GCCCAGTCCCTCTTGTCTGCTATTCTGAAGCCAGTGCAAAAGCTCCTTGCTATCATCGTGGCAGGG  
 GCATAAGGAAATGGTGGCAAGCACTTCCCCTAACAAGAAGGAGCTATTTAAAGACAGCGTGAGGAAGAA  
 CAAGTGGCGGCTGCTTCTTGGTCTGAGTGCATTTGGACTGCTTTGTAGTGTATTTACTCACCTG  
 GAAGTGAGCCCTGTCACCGGAAGGAGTAACTACTGTTAGTGGGCAAAGAACACTCCGACTTCTGTGAG  
 ACCTGGAATATGAAGTATGGATGGAAGAATTTAAGAACGATCTGCTGCCTGAGAGAGACCCCGCTACCT  
 GACTGTGAAAGAAATGGTTTATCATCTGACACAGTGAATCGAGACGTCACCGGGGATCTCGGAGACCAAC  
 TGGGTGGTTATGTGGTACTCCCCAGCCGTCATGCCTTTGTGCTCCCAAATGGACAAGTGTATTTATTT  
 TCACCGGGCTTCTGAATAGTGTGACGGAGTGCACAGCTGTCTTCTCCTGGGCCATGAGATCGCACA  
 CGCAGTCTGGGGCAGCCGAGAAAAGGCTAGCTTGGTTCATTTACTGGATTCCTTGGTATGATTTTT  
 CTCACAATGATTTGGGCCATTTGTCCCCGAGACAGCTTGGCAGTTTTGGCCAGTGGATACAGTCAAAGT  
 TGCAGGAGTACATGTTTGTATCGACCATAACAGTGAACATTGGAGGCCGAAGCTGACAAAGTTGGACTACA  
 GCTGGCTGCAAAGGCATGTGCCGATGTAAGAGCTAGTTCAAGTGTTTGGCAGCAGATGGAGTTCTCAGAG  
 AGTCTTATGGCTATCCCAAGTTGCCAGAGTGGCTGTGACACATCCTTCTCATGGGAACCGAGCTGAGT  
 ACTTGGATAGACTCATACCACAGGCTCTCAAACCTCCGGGAGGTCTGCAATTGCCCGCCACTCTCTGGCCC  
 AGACCCTCGGCTATTGTTCAAGGCTTACTGTGAAGCGTTTTCTTGAAGACTCGGAGAAAGAGGACCTAAAC  
 ATCACTGTCAAAAAGCAGAAAACGGATGCTCTCCCATGCAGAAGCAGGAGCAGATACCACTGACGTATG  
 TCCTAGAGAAGAGAAGTGCAGGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR208350 protein sequence  
 Red=Cloning site Green=Tags(s)

MSLLYGLQSTRINRFLSGVNNLANRRQWTPPASCPLAPKLRVNAVYWGLNTVSHCHSVTLLPRNFLFCRT  
 LNHKKSRLSSAQSKELGVLTYRCTVRGDSVLRQGARKVAGVPALAAASCPSPAVIEARFRTSARVQA  
 APVPLLLLILKPVQKLLAIIVGRGIRKWWQALPPNKKELFKDSVRKNKWRLLLGLSAFGLLFVVFYFTHL  
 EVSPVTGRSKLLL VGKEHFRLSDLEYEVWMEEFKNDLLPERDPRYLTVKEMVYHLTQCNRDVPGISETN  
 WVHVVDSPAVNAFVLPNGQVFI FTGLLNSVTDVHQLSFLLGHEIAHAVLGHAAEKASLVHLLDFLGMIF  
 L TMIWAICPRDSLAVLQWQI QSKLQEYMFDRPYSR TLEAEADKVLQLAAKACADVRASSVFWQQMEFSE  
 SLHGYPKLP EWLSTHPSHGNRAEYLDRLIPQALKLREVCNCPPLSGPDPRLLFRLTVKRFLEDSEKEDLN  
 ITVKKQKTDALPMQKQEIQIPLTYVLEKRTAG

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_025909

**ORF Size:** 1566 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.

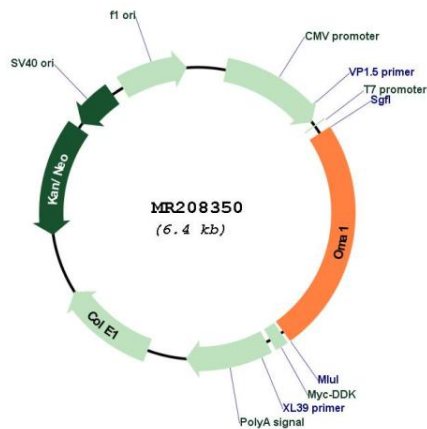
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_025909.3](#)  
**RefSeq Size:** 1866 bp  
**RefSeq ORF:** 1566 bp  
**Locus ID:** 67013  
**UniProt ID:** [Q9D8H7](#)  
**Cytogenetics:** 4 C6  
**MW:** 58.9 kDa

**Gene Summary:** Metalloprotease that is part of the quality control system in the inner membrane of mitochondria. Following stress conditions that induce loss of mitochondrial membrane potential, mediates cleavage of OPA1 at S1 position, leading to OPA1 inactivation and negative regulation of mitochondrial fusion (PubMed:22433842, PubMed:24616225, PubMed:26785494). May also cleave UQC3 under these conditions. Its role in mitochondrial quality control is essential for regulating lipid metabolism as well as to maintain body temperature and energy expenditure under cold-stress conditions.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR208350