

Product datasheet for **RC204507**

OMA1 (NM_145243) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OMA1 (NM_145243) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OMA1
Synonyms:	2010001O09Rik; DAB1; MPRP-1; MPRP1; peptidase; YKR087C; ZMPOMA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC204507 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGCTTCATCTGTGGATTGCAGTCTGCTGCTAGAAACCATGTTTTCTCCGATTAATCACTGTCTA
 ACTGGAGAAAATGTAACACATTAGCATCCACCTCACGGGGCTGTCATCAAGTACAAGTTAACCATATAGT
 AAATAAGTATCAGGGACTGGGAGTAAATCAGTGTGACAGGTGGAGTTTTCTGCCTGGAACTTTTCATTTT
 TATAGTACTTTTAAACAACAAAAGAACAGGAGGCCTCTCAAGTACCAAAAGTAAGGAAATTTGGAGGATTA
 CCAGCAAATGACTGTATGGAATGATGCTTTTTCAAGACAGCTGCTAATAAAAAGAAGTTACAGCAGTCCC
 TAGTCTGTCAGTATTGCATCCTTAAGCCCTGCTTCCATAAGAGCTATTAGGAATTTCCATACTTCTCCA
 CGGTTTCAAGCTGCTCCGGTTCCTCTTGTGATGATTCTTAAACCAGTACAGAAGTTATTTGCAATCA
 TTGTAGGCAGGGCATAAGGAAATGGTGGCAGGCCTTCTCCTAACAAGAAGGAAGTAGTTAAAGAAAA
 TATAAGGAAGAATAAATGGAAGCTATTCCTTGGTTTGAGTAGTTTGGATTGCTCTTTGGTGTTTTAT
 TTTACTCACCTGGAAGTAAGTCCAATCACAGGAAGGAGCAAGCTACTATTATTGGGGAAAGAACAGTTCA
 GACTTTTTATCGGAACTGGAATATGAAGCATGGATGGAAGAATTTAAAAATGATATGCTAACTGAGAAAGA
 TGCCCGATACCTGGCTGTTAAAGAAGTGCTTTGTGATCTAATTGAATGCAATAAAGATGTTCCAGGGATC
 TCTCAGATCAATTGGGTTATTCATGTGGTTGATCCCCAATTAATAATGCCTTCGTGCTTCCAAATGGAC
 AAATGTTTGTCTTCACTGGATTTTTAAATAGTGTAAACCGATATTCATCACTTTCTTTCTTCTGGGCCA
 TGAAATAGCACATGCAGTACTTGGGCATGCTGCAGAAAAGGCTGGCATGGTTCATTTGTTGGATTTCTTA
 GGTATGATTTTCTCACAAATGATTTGGGCCATTTGCTCGAGATAGCTTGGCAGTCTTTGTGCCAGTGGAA
 TACAGTCTAAATTCAGGAGTATATGTTAATAGACCATACAGCAGAAAATTTGGAGGCCGGAAGTGACAA
 AATTGGACTACTGCTTGCTGCAAAGCTTGTGCAGACATAAGAGCCAGTTCAGTGTTTTGGCAGCAAATG
 GAGTTCGTTGATAGCCTGCATGGCCAACCAAGATGCCAGAATGGTTATCTACACACCCTTCTCATGGCA
 ATCGAGTTGAGTACTTGGATAGACTTATACCTCAGGCTCTCAAAATAGAGAGATGTGTAATTGTCCACC
 ACTGTCTAATCCAGACCCTCGATTACTATTCAAACCTCAGCACGAAGCATTTTCTTGAAGAATCAGAGAAA
 GAAGACCTAAATATCACGAAGAAACAGAAAATGGATACTTCTTCTATTCAAAAACAGGAGCAAATACCAT
 TAACATACATAGTTGAGAAAAGAACGGGCAGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204507 protein sequence
 Red=Cloning site Green=Tags(s)

MSFICGLQSAARNHVFFRFNSLSNWRKCNLTLASTSRGCHQVQVNHIVNKYQGLGVNQCDRWSFLPGNFHF
 YSTFNNKRTGGLSSTKSKEIWRITSKCTVWDAFNRQLL IKEVTAVPSLSVLHPLSPASIRAIRNFHTSP
 RFQAAPVPLLLMILKPVQKLF AIIIVGRGIRKWWQALPPNKKEVVKENIRKNKWLFLGLSSFGLLFVVFY
 FTHLEVSPITGRSKLLLLGKEQFRLLSELEYEAWMEEFKNDMLTEKDARYLAVKEVLCHLIECNKDVPGI
 SQINWVIHVVDSP IINAFVLPNGQMFVFTGFLNSVTDIHQLSFLLGHEIAHAVLGHAAEKAGMVHLLDFL
 GMIFL TMIWAICPRDSLALLCQWIQSKLQEYMFNRPYSRKLAEADKIGLLLAACADIRASSVFWQQM
 EFVDSLHGQPKMPEWLSTHPSHG NRVEYLDRLIPQALKIREMNCPPLSNPDPRLFLKLSKHFLEESEK
 EDLNITKKQKMDTLPIQKQEIQIPLTYIVEKRTGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6311_a04.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_145243

ORF Size: 1572 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:

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_145243.5](#)

RefSeq Size: 1928 bp

RefSeq ORF: 1575 bp

Locus ID: 115209

UniProt ID: [Q96E52](#)

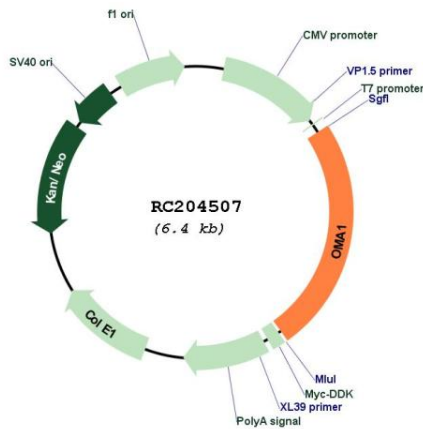
Cytogenetics: 1p32.2-p32.1

Protein Families: Druggable Genome, Protease, Transmembrane

MW: 60.1 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. May also cleave UQCC3 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 RC204507