

Product datasheet for **RC223246**

MMP12 (NM_002426) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMP12 (NM_002426) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MMP12
Synonyms:	HME; ME; MME; MMP-12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC223246 representing NM_002426
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGTTTCTTCTAATACTGCTCTGCAGGCCACTGCTTCTGGAGCTTCCCCTGAACAGCTCTACAA
 GCCTGGAATAAATAATGTGCTATTTGGTGAAAGATACTTAGAAAAATTTATGGCCTTGAGATAACAA
 ACTTCCAGTGACAAAAATGAAATATAGTGAACTTAATGAAGGAAAAATCCAAGAAATGCAGCACTTC
 TTGGGTCTGAAAGTGACCGGCAACTGGACACATCTACCCTGGAGATGATGCACGCACCTCGATGTGGAG
 TCCCCGATGTCCATATTCAGGAAAATGCCAGGGGGCCCGTATGGAGGAAACATTATACACCTACAG
 AATCAATAATTACACACCTGACATGAACCGTGAGGATGTTGACTACGCAATCCGGAAGCTTTCCAAGTA
 TGGAGTAATGTTACCCCTTGAATTCAGCAAGATTAACACAGGCATGGCTGACATTTTGGTGGTTTTTG
 CCCGTGGAGCTCATGGAGACTTCCATGCTTTTGGTGGCAAGGTGGAATCCTAGCCCATGCTTTTGGACC
 TGGATCTGGCATTGGAGGGGATGCACATTCGATGAGGACGAATCTGGACTACACATTCAGGAGGCACA
 AACTTGTTCCTCACTGCTGTTCCAGGATTTGGCCATTCCTTAGGTCTTGGCCATTCTAGTGATCCAAAGG
 CCGTAATGTTCCCCACCTACAAATATGTTGACATCAACACATTTGCGCTCTCTGCTGATGACATACGTGG
 CATTCACTCCCTGATGGAGACCCAAAAGAGAACAACGCTTGGCCAAATCCTGACAAATCAGAACCAGCT
 CTCTGTGACCCCAATTTGAGTTTTGATGCTGTCCTACTACCGTGGGAAATAAGATCTTTTTCTTCAAAGACA
 GTTTCTCTGGCTGAAGGTTTCTGAGAGACCAAGACCAGTGTTAATTTAATTTCTTCTTATGGCCAAC
 CTTGCCATCTGGCATTGAAGCTGCTTATGAAATGAAGCCAGAAATCAAGTTTTTCTTTTAAAGATGAC
 AAATACTGGTTAATTAGCAATTAAGACCAGAGCCAAATATCCCAAGAGCATACATCTTTTGGTTTTCT
 CTAACCTTTGTGAAAAAATGATGCAGCTGTTTTTAACCCAGTTTTTATAGGACCTACTCTTTTGTAGA
 TAACCAGTATTGGAGGTATGATGAAAGGAGACAGATGATGGACCCTGGTTATCCCAAACTGATTACCAAG
 AACTTCCAAGGAATCGGGCCTAAAATTGATGCAGTCTTCTACTCTAAAAACAAATACTACTATTTCTTCC
 AAGGATCTAACCAATTTGAATATGACTTCTACTCCAACGTATCACAAAACTGAAAAGCAATAGCTG
 GTTTGGTTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223246 representing NM_002426
 Red=Cloning site Green=Tags(s)

MKFLILLLLQATASGALPLNSSTSLEKNNVLFGERYLEKIFYGLEINKLPVTKMKYSGNLMKEKIQEMQHF
 LGLKVTGQLDSTLEMMHAPRCGVPDVHFFREMPGGPVWRKHYYTYRINNYTPDMNREDVDYAIRKAFQV
 WSNVTPPKFKSKINTGMADILVVFARGAHGDFHAFDGGKILAHAFGPGSGIGGDAHFFDEDEFWTHSGGT
 NLFLTAVHEIGHSLGLGHSSDPKAVMFPTYKYVDINTFRLSADDIRGIQSLYGPKNQRLPNPDNSEPA
 LCDPNLSFDAVTTVGNKIFFFKDRFFWLKVSERPKTSVNLISLWPTLPSGIEAAEIEARNQVFLFKDD
 KYWLISNLRPEPNPKSIHSFGFPNFVKKIDAAVFNPRFYRYYFFVDNQYWRYDERRQMMDPGYPKLIK
 NFQIGIPKIDAVFYSKNYYYYFFQGSNQFEYDFLLQRITKTLKSNSWFGC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6112_c09.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:


ACCN: NM_002426

ORF Size: 1410 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_002426.6](#)
RefSeq Size: 1825 bp

RefSeq ORF: 1413 bp

Locus ID: 4321

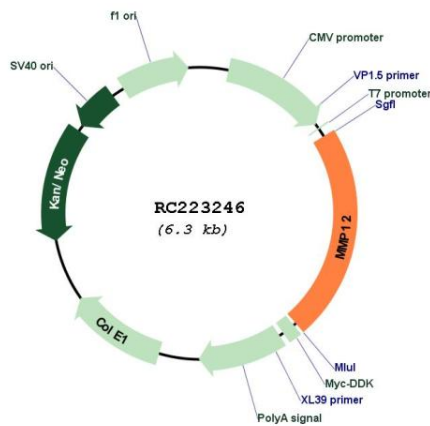
UniProt ID: [P39900](#)
Cytogenetics: 11q22.2

Protein Families: Druggable Genome, Protease

MW: 54 kDa

Gene Summary: This gene encodes a member of the peptidase M10 family of matrix metalloproteinases (MMPs). Proteins in this family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. The encoded preproprotein is proteolytically processed to generate the mature protease. This protease degrades soluble and insoluble elastin. This gene may play a role in aneurysm formation and mutations in this gene are associated with lung function and chronic obstructive pulmonary disease (COPD). This gene is part of a cluster of MMP genes on chromosome 11. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RC223246