

Product datasheet for **MR227427**

Mmp13 (NM_008607) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mmp13 (NM_008607) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mmp13
Synonyms:	Cl; Clg; Mmp; MMP-1; MMP-13; Mmp1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR227427 representing NM_008607
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCATTAGCTATCCTGGCCACCTTCTTCTTGTGAGCTGGACTCCCTGTTGGTCCCTGCCCTTCCCT
 ATGGTGATGATGATGATGATGACCTGTCTGAGGAAGACCTTGTGTTTGCAGAGCACTACTTGAAATCATA
 CTACCATCCTGCGACTCTTGCGGGAATCCTGAAGAAGTCTACAGTGACCTCCACAGTTGACAGGCTCCGA
 GAAATGCAATCTTTCTTTGGCTTAGAGGTGACTGGCAAACCTTGATGATCCCACCTTAGACATCATGAGAA
 AACCAAGATGTGGAGTGCCTGATGTGGGTGAATACAATGTTTTCCCTAGAACAACCTCAAATGGTCCCAAAC
 GAACTTAACCTACAGGATTGTGAACTATACTCCTGATATGTCCCATTCTGAAGTGGAGAAGGCCCTCAGA
 AAAGCCTCAAGGTCTGGTCTGATGTGACACCACTGAATTTACCAGAATCTATGATGGCACTGCTGACA
 TCATGATATCTTTGGGACTAAAGAACATGGTGACTTCTACCCATTTGATGGACCTTCTGGTCTTCTGGC
 ACACGCTTTTCTCCTGGACAAACTATGGTGGGGATGCCATTTTATGATGATGAAACCTGGACAAGC
 AGTTCCAAAGGCTACAACCTGTTTATTGTTGCTGCCATGAGCTTGGCCACTCCCTAGGTCTGGATCACT
 CCAAGGACCCAGGAGCCCTGATGTTTCCATCTATACCTACACTGGCAAAAGCCATTTTCATGCTTCTCTGA
 TGATGACGTTCAAGGAATTCAGTTTCTTATGGTCCAGGCGATGAAGACCCCAACCTAAGCATCCAAA
 ACACCAGAGAAGTGTGACCCAGCCCTATCCCTTGATGCCATTACCAGTCTCCGAGGAGAACTATGATCT
 TTAAGACAGATTCTTCTGGCGCTGCACCCTCAGCAGTTGAGGCTGAGCTCTTTTGCACAAAGTCCTT
 TTGGCCAGAACTCCCAACCATGGATGCTGCATATGAACATCCATCCCGTGACCTTATGTTTATCTTT
 AGAGGGAGAAAATCTGGGCTCTGAATGGTTATGACATTCTGGAAGGTTATCCAGAAAAATATCTGACC
 TGGGATCCCAAAAGAGGTGAAGAGACTGAGCGCTGCGGTTCACTTTGAGAACACGGGGAAGACCTCTT
 CTCTCTGAGAACCACGTGGAGTTATGATGATGTTAACCAGACTATGGACAAAAGATTATCCCGCCTC
 ATAGAAGAGGAATTCCTGGAATTGGCAACAAAGTAGATGCTGTCTATGAGAAAAATGGCTATATCTACT
 TTTTCAATGGGCCATACAGTTTGAATACAGTATCTGGAGTAATCGCATTGTGAGAGTCATGCCAACAAA
 TTCATATTGTGGTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR227427 representing NM_008607
 Red=Cloning site Green=Tags(s)

MHSAILATFFLLSWTPCWSLPLPYGDDDDDLSEEDLVFAEHLKSYHPATLAGILKKSTVTSTVDRLR
 EMQSFVGLVETGKLDLDDPTLDIMRKPRCGVPDVGGEYNVFPRTLKWSQTNLTYRIVNYTPDMSHSEVEKA
 KAFKVVSDVTPLNFTRIYDGTADIMISFGTKEHGFYFPDGP SGLLAHAFPPGPNYGGDAHFDDDETWS
 SSKGYNLFIVAAHELGHSLGLDHSKDPGALMFPIYTYTGKSHFMLPDDDVQGIQFLYGPGEDEPNPKHPK
 TPEKCDPALSLDAITSLRGETMIFKDRFFWRLHPQQVEAELFLTKSFWPELPNHVDAAYEHP SRDLMFIF
 RGRKFWALNGYDILEGYPRKISDLGFPKEVKRLSAAVHFENTGKTLFFSENHVWSYDDVNQTMKDYPRL
 IEEFPGIIGNKVDVYKNGYIYFFNGPIQFEYSIWSNRIVRVMPTNSILWC

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9044_b10.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_008607

ORF Size: 1416 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 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.

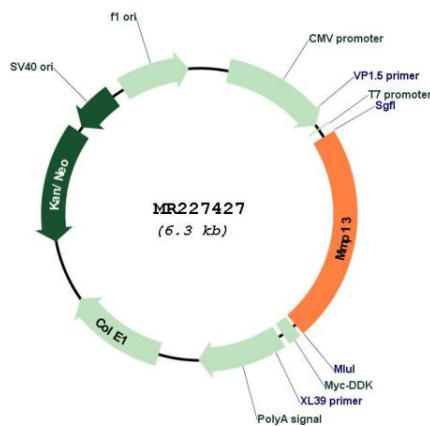
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_008607.2, NP_032633.1](#)
RefSeq Size: 2675 bp
RefSeq ORF: 1419 bp
Locus ID: 17386
UniProt ID: [P33435](#)
Cytogenetics: 9 A1
MW: 54.6 kDa

Gene Summary: This gene encodes a member of the matrix metalloproteinase family that plays a role in wound healing, skeletal development and bone remodeling. The encoded protein is activated by the removal of an N-terminal activation peptide to generate a zinc-dependent endopeptidase enzyme that can cleave various native collagens, including types I - IV, X and XIV. Mice lacking the encoded protein display profound defects in growth plate cartilage as well as a delay in the endochondral bone development. Lack of the encoded protein also impairs the wound healing process due to reduced keratinocyte migration and vascular density at the wound site. This gene is located in a cluster of other matrix metalloproteinase genes on chromosome 9. [provided by RefSeq, Jun 2015]

Product images:



Circular map for MR227427