

Product datasheet for **RG224156**

MMP13 (NM_002427) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMP13 (NM_002427) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MMP13
Synonyms:	CLG3; MANDP1; MDST; MMP-13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG224156 representing NM_002427
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCATCCAGGGTCTGGCTGCCTTCTTCTTCTGAGCTGGACTCATTGTCGGGCCCTGCCCTTCCCA
 GTGGTGGTGATGAAGATGATTTGTCTGAGGAAGACCTCCAGTTTGCAGAGCGCTACCTGAGATCATACTA
 CCATCCTACAAATCTCGCGGGAATCCTGAAGGAGAATGCAGCAAGCTCCATGACTGAGAGGCTCCGAGAA
 ATGCAGCTTTTCTCGGCTTAGAGGTGACTGGCAAACCTGACGATAACACCTTAGATGTCATGAAAAAGC
 CAAGATGCGGGTCTGATGTGGTGAATACAATGTTTTCCCTCGAACTCTAAATGGTCCAAAATGAA
 TTTAACCTACAGAATTGTGAATTACACCCTGATATGACTCATTCTGAAGTCGAAAAGGCATTCAAAAA
 GCCTTCAAAGTTTGGTCCGATGTAACCTCTGAATTTACCAGACTTACGATGGCATTGCTGACATCA
 TGATCTCTTTTGAATTAAGGAGCATGGCGACTTCTACCATTTGATGGGCCCTCTGGCCTGCTGGCTCA
 TGCTTTTCTCTGGGCCAAATTATGGAGGAGATGCCATTTTGTGATGATGAAACCTGGACAAGTAGT
 TCCAAAGGCTACAACCTGTTTCTTGTGCTGCGCATGAGTTCCGGCACTCCTTAGGTCTTGACCACTCCA
 AGGACCCTGGAGCACTCATGTTTCTATCTACACCTACACCGGCAAAAAGCCACTTATGTTCTCTGATGA
 CGATGTACAAGGGATCCAGTCTCTATGGTCCAGGAGATGAAGACCCCAACCCTAAACATCCAAAAACG
 CCAGACAAATGTGACCCTTCTTATCCCTTGTGATGCCATTACCAGTCTCCGAGGAGAAACAATGATCTTTA
 AAGACAGATTCTTCTGGCGCCTGCATCCTCAGCAGGTTGATGCGGAGCTGTTTTAACGAAATCATTTTG
 GCCAGAACTTCCCAACCGTATTGATGCTGCATATGAGCACCTTCTCATGACCTCATCTTCATCTTCAGA
 GGTAGAAAATTTGGGCTCTTAATGGTTATGACATTCTGGAAGGTTATCCCAAAAAATATCTGAACTGG
 GTCTTCCAAAAGAAGTTAAGAAGATAAGTGCAGCTGTTCACTTTGAGGATACAGGCAAGACTCTCCTGTG
 CTCAGGAAACCAGGCTGGAGATATGATGATACTAACCATATTATGGATAAAGACTATCCGAGACTAATA
 GAAGAAGACTTCCAGGAATTGGTGATAAAGTAGATGCTGCTATGAGAAAAATGTTATATCTATTTTT
 TCAACGGACCCATACAGTTGAATACAGCATCTGGAGTAACCGTATTGTTGCGTCATGCCAGAAATTC
 CATTTTGTGGTGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG224156 representing NM_002427
 Red=Cloning site Green=Tags(s)

MHPGVLA AFLFLSWTHCRALPLPSGGDEDDLSEEDLQFAERYLRSYYHPTNLAGILKENAASSMTERLRE
 MQSFFGLEVTGKLDNNTLDVMKKPRCGVPDVG EYVFPRTLKWSKMNLTYRIVNYTPDMTHSEVEKAFKK
 AFKVVSDVTPLNFTRLHDGIADIMISFGIKEHGDFYFPDGP SGLLAHAFPPGPNYGGDAHFDDDETWSS
 SKGYNLFLVAAHEFGHSLGLDHSKDPGALMFPIYTYTGKSHFMLPDDDVQGIQSLYGPGEDEPNPKHPKT
 PDKCDPSLSLDAITSLRGETMIFKDRFFWRLHPQQVDAELFLTKSFWPELPNRIDAAYEHP SHDLIFIFR
 GRKFWALNGYDILEGYPKKISELGLPKEVKKISA AVHFEDTGKLLFSGNQVWRYDDTNHIMDKDYPRLI
 EEDFPGIGDKVDVAYEKNGYIYFFNGPIQFEYSIWSNRIVRMPANSILWC

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_002427

ORF Size: 1413 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_002427.4](#)

RefSeq Size: 2722 bp

RefSeq ORF: 1416 bp

Locus ID: 4322

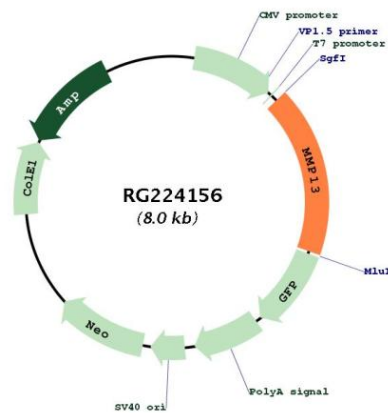
UniProt ID: [P45452](#)

Cytogenetics: 11q22.2

Protein Families: Druggable Genome, Protease

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 cleaves type II collagen more efficiently than types I and III. It may be involved in articular cartilage turnover and cartilage pathophysiology associated with osteoarthritis. Mutations in this gene are associated with metaphyseal anadysplasia. This gene is part of a cluster of MMP genes on chromosome 11. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RG224156