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Product datasheet for RC210235

MMP3 (NM_002422) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMP3 (NM_002422) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MMP3
Synonyms:	CHDS6; MMP-3; SL-1; STMY; STMY1; STR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC210235 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGAGTCTTCCAATCCTACTGTTGCTGTGCGTGGCAGTTTGCTCAGCCTATCCATTGGATGGAGCTG
CAAGGGGTGAGGACACCAGCATGAACCTTGTTCAGAAATATCTAGAAAACTACTACGACCTCGAAAAAGA
TGTGAAACAGTTTGTTAGGAGAAAGGACAGTGGTCCTGTTGTTAAAAAAATCCGAGAAATGCAGAAGTTC
CTTGGATTGGAGGTGACGGGGAAGCTGGACTCCGACACTCTGGAGGTGATGCGCAAGCCCAGGTGTGGAG
TTCCTGACGTTGGTCACTTCAGAACCTTTCCTGGCATCCCGAAGTGGAGGAAAACCCACCTTACATACAG
GATTGTGAATTATACACCAGATTTGCCAAAAGATGCTGTTGATTCTGCTGTTGAGAAAGCTCTGAAAGTC
TGGGAAGAGGTGACTCCACTCACATTCTCCAGGCTGTATGAAGGAGAGGCTGATATAATGATCTCTTTTG
CAGTTAGAGAACATGGAGACTTTTACCCTTTTGATGGACCTGGAAATGTTTTGGCCCATGCCTATGCCCC
TGGGCCAGGGATTAATGGAGATGCCCACTTTGATGATGATGAACAATGGACAAAGGATACAACAGGGACC
AATTTATTTCTCGTTGCTGCTCATGAAATTGGCCACTCCCTGGGTCTCTTTCACTCAGCCAACACTGAAG
CTTTGATGTACCCACTCTATCACTCACTCACAGACCTGACTCGGTTCCGCCTGTCTCAAGATGATATAAA
TGGCATTCAGTCCCTCTATGGACCTCCCCCTGACTCCCCTGAGACCCCCCTGGTACCCACGGAACCTGTC
CCTCCAGAACCTGGGACGCCAGCCAACTGTGATCCTGCTTTGTCCTTTGATGCTGTCAGCACTCTGAGGG
GAGAAATCCTGATCTTTAAAGACAGGCACTTTTGGCGCAAATCCCTCAGGAAGCTTGAACCTGAATTGCA
TTTGATCTCTTCATTTTGGCCATCTCTTCCTTCAGGCGTGGATGCCGCATATGAAGTTACTAGCAAGGAC
CTCGTTTTCATTTTTAAAGGAAATCAATTCTGGGCCATCAGAGGAAATGAGGTACGAGCTGGATACCCAA
GAGGCATCCACACCCTAGGTTTCCCTCCAACCGTGAGGAAAATCGATGCAGCCATTTCTGATAAGGAAAA
GAACAAAACATATTTCTTTGTAGAGGACAAATACTGGAGATTTGATGAGAAGAGAAATTCCATGGAGCCA
GGCTTTCCCAAGCAAATAGCTGAAGACTTTCCAGGGATTGACTCAAAGATTGATGCTGTTTTTGAAGAAT
TTGGGTTCTTTTATTTCTTTACTGGATCTTCACAGTTGGAGTTTGACCCAAATGCAAAGAAAGTGACACA
CACTTTGAAGAGTAACAGCTGGCTTAATTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210235 protein sequence
Red=Cloning site Green=Tags(s)

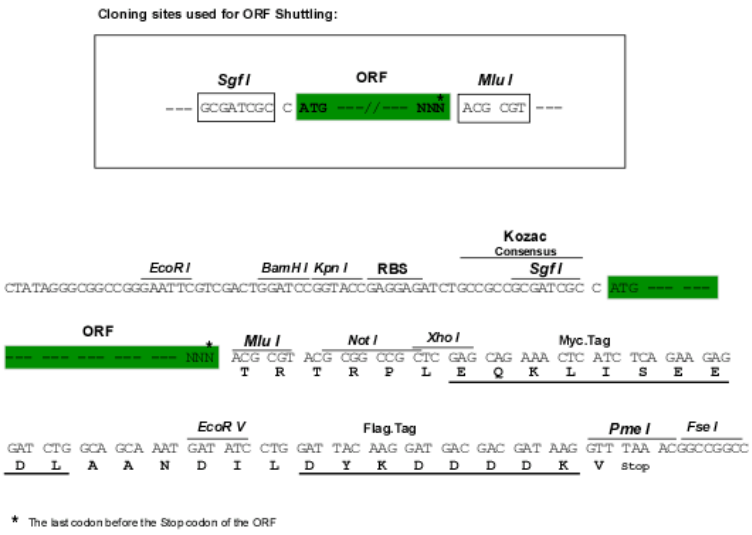
MKSLPILLLLCVAVCSAYPLDGAARGEDTSMNLVQKYLENYYDLEKDVKQFVRRKDSGPVVKKIREMQKF
LGLEVTGKLDSDTLEVMRKPRCGVPDVGHFRTFPGIPKWRKTHLTYRIVNYTPDLPKDAVDSAVEKALKV
WEEVTPLTFSRLYEGEADIMISFAVREHGDFYPFDGPGNVLAHAYAPGPGINGDAHFDDDEQWTKDTTGT
NLFLVAAHEIGHSLGLFHSANTEALMYPLYHSLTDLTRFRLSQDDINGIQSLYGPPPDSPETPLVPTEPV
PPEPGTPANCDPALSFDAVSTLRGEILIFKDRHFWRKSLRKLEPELHLISSFWPSLPSGVDAAYEVTSKD
LVFIFKGNQFWAIRGNEVRAGYPRGIHTLGFPPTVRKIDAAISDKEKNKTYFFVEDKYWRFDEKRNSMEP
GFPKQIAEDFPGIDSKIDAVFEEFGFFYFFTGSSQLEFDPNAKKVTHTLKSNSWLNC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6269_f08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002422

ORF Size: 1431 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_002422.5

RefSeq Size: 1828 bp

RefSeq ORF: 1434 bp

Locus ID: 4314

UniProt ID: P08254

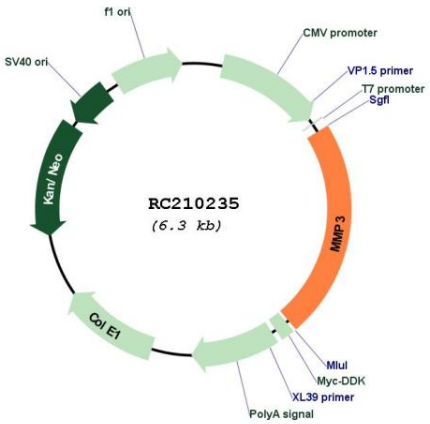
Cytogenetics: 11q22.2

Protein Families: Druggable Genome, Protease

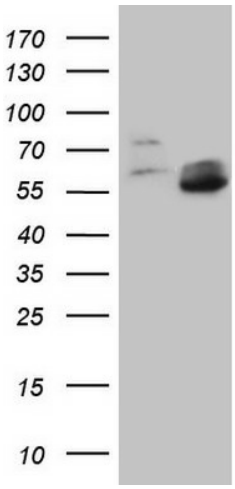
MW: 54 kDa

Gene Summary: Proteins of the matrix metalloproteinase (MMP) 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. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes an enzyme which degrades fibronectin, laminin, collagens III, IV, IX, and X, and cartilage proteoglycans. The enzyme is thought to be involved in wound repair, progression of atherosclerosis, and tumor initiation. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3. [provided by RefSeq, Jul 2008]

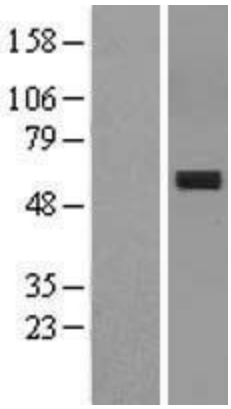
Product images:



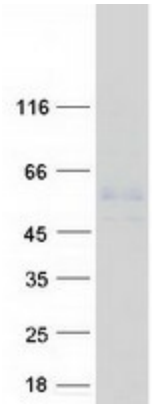
Circular map for RC210235



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MMP3 (Cat# RC210235, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MMP3(Cat# [TA806871]). Positive lysates [LY419341] (100ug) and [LC419341] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419341]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210235 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MMP3 protein (Cat# [TP310235]). The protein was produced from HEK293T cells transfected with MMP3 cDNA clone (Cat# RC210235) using MegaTran 2.0 (Cat# [TT210002]).