

Product datasheet for **RC202872**

MMP9 (NM_004994) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMP9 (NM_004994) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MMP9
Synonyms:	CLG4B; GELB; MANDP2; MMP-9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC202872 representing NM_004994
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCCTCTGGCAGCCCTGGTCTGGTCTCTGGTCTGGGCTGCTGCTTTGCTGCCCCAGACAGC
 GCCAGTCCACCCTTGTGCTCTTCCCTGGAGACCTGAGAACCAATCTCACCGACAGGCAGCTGGCAGAGGA
 ATACCTGTACCGCTATGGTTACACTCGGGTGGCAGAGATGCGTGGAGAGTCGAAATCTCTGGGGCCTGCG
 CTGCTGCTTCTCCAGAAGCAACTGTCCCTGCCGAGACCGGTGAGCTGGATAGCGCCACGCTGAAGGCCA
 TCGAACCACCGGTGCGGGTCCAGACCTGGGCAGATTCCAAACCTTTGAGGGCGACCTCAAGTGGCA
 CCACCACAACATCACCTATTGGATCCAAACTACTCGAAAGACTTGCCGCGGGCGGTGATTGACGACGCC
 TTTGCCCGCGCTTCGCACTGTGGAGCGCGGTGACGCCGCTCACCTTCACTCGCGTGTACAGCCGGGACG
 CAGACATCGTCATCCAGTTTGGTGTGCGGAGCACGGAGACGGGTATCCCTTCGACGGGAAGGACGGGT
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 TCCTGGCAAGGGCGTCTGGTTCCAACCTCGGTTTGGAAACGCAGATGGCGCGGCTGCCACTTCCCT
 TCATCTTCGAGGGCCGCTCCTACTCTGCCTGCACCACCGACGGTCTGCCGACGGCTTGCCTGGTGCAG
 TACCACGGCAACTACGACACCGACGACCGGTTTGGCTTCTGCCCGAGGAGACTCTACACCCGGGAC
 GGCAATGTGTATGGGAAACCTGCCAGTTTCCATTTCATCTTCAAAGGCCAATCTACTCCGCTGCACCA
 CGGACGGTCTCGCTCCGACGGTACCGTGGTGGCCACCACCGCAACTACGACGGGACAAGCTCTTCGG
 CTTCTGCCGACCCGAGCTGACTCGACGGTGTGGGGGCAACTCGGCGGGGAGCTGTGCGTCTTCCC
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 CTACCACCTGAACTTTGACAGCGACAAGAAGTGGGGCTTCTGCCCGACCAAGGATACAGTTTGTTCCT
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 CTGCCCCACCGGACCCCCACTGTCCACCCTCAGAGCGCCCCACAGCTGGCCCCACAGTCCCCCTCA
 GCTGGCCCCACAGGTCCCCCACTGTGGCCCTTCTACGGCCACTACTGTGCTTTGAGTCCGGTGGACG
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 CCCGCGTGGCCGCAAGCTGGACTCGGTCTTTGAGGAGCGCTCTCAAGAAGCTTTTCTTCTCTCTG
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 CGCCTCTGGAGGTTTCGACGTGAAGGCGCAGATGGTGGATCCCCGGAGCGCCAGCGAGGTGGACCGGATG
 TCCCCGGGGTGCCTTTGGACACGCACGACGTCTTCCAGTACCGAGAGAAAGCCTATTTCTGCCAGGACCG
 CTTCTACCGGCGCGTGTGTTCCCGGAGTGTGTTGAACCAGGTGGACCAAGTGGGTACGTGACCTATGAC
 ATCCTGCAGTGCCTGAGGAC

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202872 representing NM_004994
 Red=Cloning site Green=Tags(s)

MSLWQPLVLLVLLVGGCFAAPRQRQSTLVLPDGLRNLNLTDRQLAEEYLRYGYTRVAEMRGESKSLGPA
 LLLLQKQLSLPETGELDSATLKAMRTPRCGVLDLGRFQTFEGDLKWHHNITYWIQNYSEDLPRVIDDA
 FARAFALWSAVTPLTFTRVYSRDADIVIQFGVAEHGDPYFDGKDGLLAHAFPPGPGIQGDAHFDDELW
 SLGKGVVVPTFRGNADGAACHFPFIFEGRSYSACTTDGRSDGLPWCSTTANYDTDDRFGFCPSERLYTRD
 GNADGKPCQFPFIFQGSYSACTTDGRSDGYRWCAATTANYDRDKLFGFCPTRADSTVMGGNSAGELCVFP
 FTFLGKEYSTCTSEGRGDGRLWCATTSNFDSDDKKGWFCPDQGYSLFLVAAHEFGHALGLDHSSVPEALMY
 PMYRFTEGPPLHKDDVNGIRHLYGPRPEPEPRPPTTTTPQPTAPPTVCPTGPPTVHPSERPTAGPTGPPS
 AGPTGPPTAGPSTATTVPLSPVDDACNVNIFDAIAEIGNQLYLFKDGKYWRFSEGRGSRPQGFPLIADKW
 PALPRKLDVFEPLSKLFFSQRQVWVYTGASVLPVRRDLKGLGADVAQVTGALRSRGMKLLFSGR
 RLWRFVKAQMVDPVRSASEVDRMFGVPLDTHDVFQYREKAYFCQDRFYRRVSSRSELNQVDQVGYVTDY
 ILQCPED

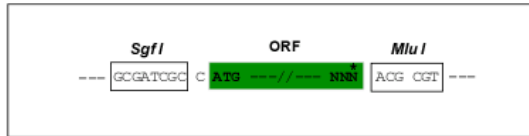
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2417_h06.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

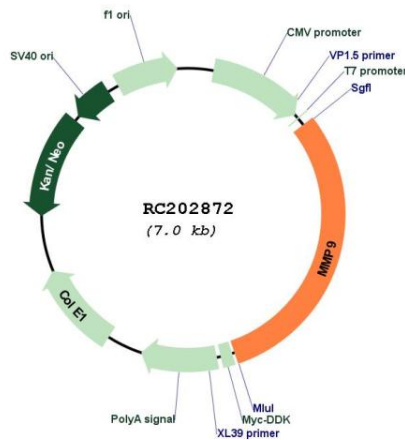
ACCN: NM_004994

ORF Size: 2121 bp

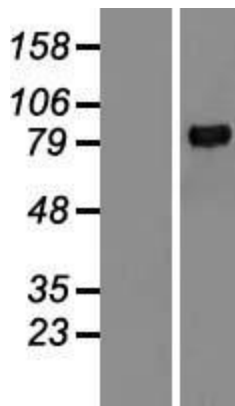
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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:	<ol style="list-style-type: none"> 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_004994.3
RefSeq Size:	2387 bp
RefSeq ORF:	2124 bp
Locus ID:	4318
UniProt ID:	P14780
Cytogenetics:	20q13.12
Domains:	FN2, hemopexin, Peptidase_M10, ZnMc, PT
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Bladder cancer, Leukocyte transendothelial migration, Pathways in cancer
MW:	78.3 kDa

Gene Summary:

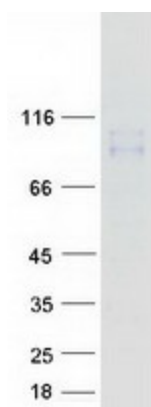
Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling. [provided by RefSeq, Jul 2008]

Product images:


Circular map for RC202872



Western blot validation of overexpression lysate (Cat# [LY401553]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202872 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MMP9 protein (Cat# [TP302872]). The protein was produced from HEK293T cells transfected with MMP9 cDNA clone (Cat# RC202872) using MegaTran 2.0 (Cat# [TT210002]).