

Product datasheet for **RC200720**

MMP2 (NM_004530) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMP2 (NM_004530) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MMP2
Synonyms:	CLG4; CLG4A; MMP-2; MMP-II; MONA; TBE-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC200720 representing NM_004530
 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >RC200720 representing NM_004530
Red=Cloning site Green=Tags(s)

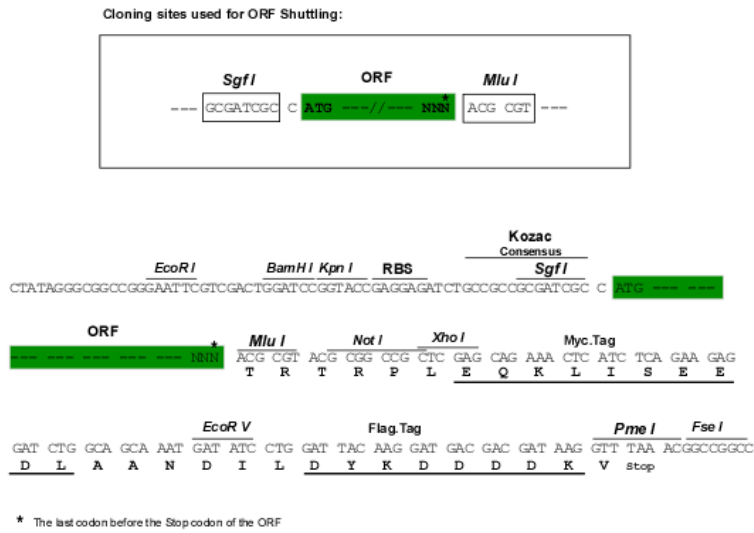
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Chromatograms: https://cdn.origene.com/chromatograms/mg3903_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



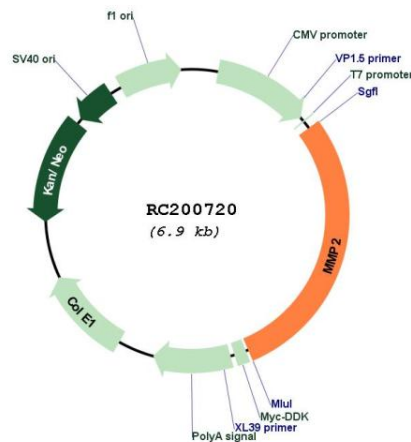
ACCN: NM_004530

ORF Size: 1980 bp

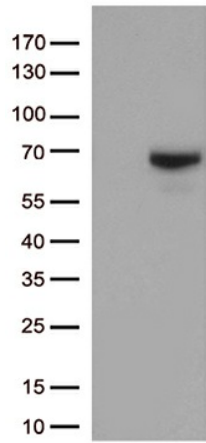
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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_004530.6
RefSeq Size:	3069 bp
RefSeq ORF:	1983 bp
Locus ID:	4313
UniProt ID:	P08253
Cytogenetics:	16q12.2
Domains:	FN2, hemopexin, Peptidase_M10, ZnMc
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Bladder cancer, GnRH signaling pathway, Leukocyte transendothelial migration, Pathways in cancer
MW:	73.88 kDa

Gene Summary:

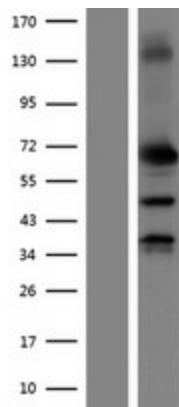
This gene is a member of the matrix metalloproteinase (MMP) gene family, that are zinc-dependent enzymes capable of cleaving components of the extracellular matrix and molecules involved in signal transduction. The protein encoded by this gene is a gelatinase A, type IV collagenase, that contains three fibronectin type II repeats in its catalytic site that allow binding of denatured type IV and V collagen and elastin. Unlike most MMP family members, activation of this protein can occur on the cell membrane. This enzyme can be activated extracellularly by proteases, or, intracellularly by its S-glutathiolation with no requirement for proteolytical removal of the pro-domain. This protein is thought to be involved in multiple pathways including roles in the nervous system, endometrial menstrual breakdown, regulation of vascularization, and metastasis. Mutations in this gene have been associated with Winchester syndrome and Nodulosis-Arthropathy-Osteolysis (NAO) syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Oct 2014]

Product images:


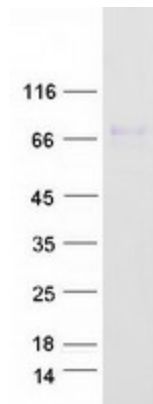
Circular map for RC200720



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MMP2 (Cat# RC200720, 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-MMP2 (Cat# [TA806846])(1:500).



Western blot validation of overexpression lysate (Cat# [LY417923]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200720 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MMP2 protein (Cat# [TP300720]). The protein was produced from HEK293T cells transfected with MMP2 cDNA clone (Cat# RC200720) using MegaTran 2.0 (Cat# [TT210002]).