

## Product datasheet for RC201225

### MMP7 (NM\_002423) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MMP7 (NM_002423) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MMP7
Synonyms:	MMP-7; MPLS1; PUMP-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201225 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGACTCACCGTGCTGTGTGCTGTGTGCCTGCTGCCTGGCAGCCTGGCCCTGCCGCTGCCTCAGGAGG  
CGGGAGGCATGAGTGAGCTACAGTGGGAACAGGCTCAGGACTATCTCAAGAGATTTTATCTATGACTC  
AGAAACAAAAATGCCAACAGTTTAGAAGCCAACTCAAGGAGATGCAAAAATCTTTGGCCTACCTATA  
ACTGGAATGTTAACTCCACGTCATAGAAATAATGCAGAAGCCAGATGTGGAGTGCCAGATGTTGCAG  
AATACTACTATTTCCAAATAGCCAAAATGGACTTCCAAAGTGGTCACCTACAGGATCGTATCATATAC  
TCGAGACTTACCGCATATTACAGTGGATCGATTAGTGTCAAAGGCTTTAAACATGTGGGGCAAGAGATC  
CCCCTGCATTTACAGAAAAGTTGTATGGGAACTGCTGACATCATGATTGGCTTTGCGCGAGGAGCTCATG  
GGGACTCCTACCCATTTGATGGGCCAGGAAACACGCTGGCTCATGCCTTTGCGCCTGGGACAGGTCTCGG  
AGGAGATGCTCACTTCGATGAGGATGAACGCTGGACGGATGGTAGCAGTCTAGGGATTAACCTCCTGTAT  
GCTGCAACTCATGAACCTGGCCATTCTTTGGGTATGGACATTCCTCTGATCCTAATGCAGTGATGTATC  
CAACCTATGAAAATGGAGATCCCCAAAATTTAACTTTCCAGGATGATTAAGGCATTCAGAACT  
ATATGAAAAGAGAAGTAATCAAGAAAGAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201225 protein sequence  
 Red=Cloning site Green=Tags(s)

MRLTVLCAVCLLPGLSALPLPQEAGGMSELQWEQAQDYLRKRYLYDSETKNANSLEAKLKEMQKFFGLPI  
 TGMLNSHVIEIMQKPRCGVPDVAEYSLFPNSPKWTSKVVTYRIVSYTRDLPHITVDRLVSKALNMWGKEI  
 PLHFRKVVWGTADIMIGFARGAHGDSYFPDGGPNTLAHAFAPGTGLGGDAHFDEDERWTDGSSLGINFLY  
 AATHELGHSLGMGHSSDPNAVMPYTYGNGDPQNFKLSQDDIKGIQKLYGKRNSNRKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6084\\_h04.zip](https://cdn.origene.com/chromatograms/mk6084_h04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_002423

**ORF Size:** 801 bp

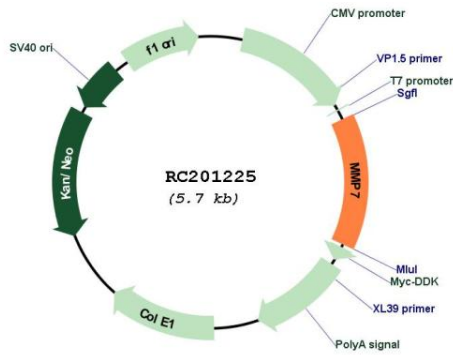
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

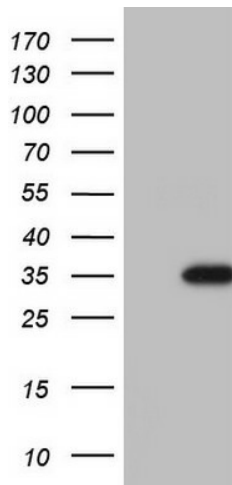
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_002423.5</a>
<b>RefSeq Size:</b>	1147 bp
<b>RefSeq ORF:</b>	804 bp
<b>Locus ID:</b>	4316
<b>UniProt ID:</b>	<a href="#">P09237</a>
<b>Cytogenetics:</b>	11q22.2
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Protein Pathways:</b>	Wnt signaling pathway
<b>MW:</b>	29.7 kDa
<b>Gene Summary:</b>	<p>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 secreted protease breaks down proteoglycans, fibronectin, elastin and casein and differs from most MMP family members in that it lacks a conserved C-terminal hemopexin domain. The enzyme is involved in wound healing, and studies in mice suggest that it regulates the activity of defensins in intestinal mucosa. The gene is part of a cluster of MMP genes on chromosome 11. This gene exhibits elevated expression levels in multiple human cancers. [provided by RefSeq, Jan 2016]</p>

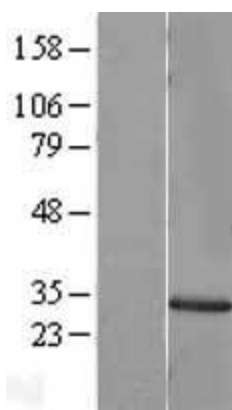
Product images:



Circular map for RC201225



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MMP7 (Cat# RC201225, 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-MMP7 (Cat# [TA804932]). Positive lysates [LY400865] (100ug) and [LC400865] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400865]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201225 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).