

## Product datasheet for **SC116990**

### **MMP14 (NM\_004995) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MMP14 (NM_004995) Human Untagged Clone
Tag:	Tag Free
Symbol:	MMP14
Synonyms:	MMP-14; MMP-X1; MT-MMP; MT-MMP 1; MT1-MMP; MT1MMP; MTMMP1; WNCHRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_004995 edited  
 ATGTCTCCCGCCCAAGACCCCTCCCGTTGTCTCCTGCTCCCCCTGCTCACGCTCGGCACC  
 GCGCTCGCTCCCTCGGCTCGGCCAAAGCAGCAGCTTCAGCCCCGAAGCCTGGCTACAG  
 CAATATGGCTACCTGCCTCCCGGGGACCTACGTACCCACACACAGCGCTCACCCAGTCA  
 CTCTCAGCGGCCATCGTGCCATGCAGAAGTTTACGGCTTGAAGTAACAGGCAAAGCT  
 GATGCAGACACCATGAAGGCCATGAGGCGCCCCGATGTGGTGTCCAGACAAGTTTGGG  
 GCTGAGATCAAGGCCAATGTTTGAAGGAAGCGCTACGCCATCCAGGGTCTCAAATGGCAA  
 CATAATGAAATCACTTTCTGCATCCAGAATTACACCCCAAGGTGGGCGAGTATGCCACA  
 TACGAGGCCATTGCAAGGCGTTCCGCGTGTGGGAGAGTGCCACACCACTGCGCTTCCGC  
 GAGGTGCCCTATGCCTACATCCGTGAGGGCCATGAGAAGCAGGCCGACATCATGATCTTC  
 TTTGCCGAGGGCTTCCATGGCGACAGCACGCCCTTCGATGGTGAAGGCGGCTTCTGGCC  
 CATGCCTACTTCCAGGCCCAACATTGGAGGAGACACCACTTTGACTCTGCCGAGCCT  
 TGGACTGTCAGGAATGAGGATCTGAATGGAAATGACATCTTCTGGTGGCTGTGCACGAG  
 CTGGGCCATGCCCTGGGCTCGAGCATTCCAGTGACCCCTCGGCCATCATGGACCCCTTT  
 TACCAGTGGATGGACACGAGAATTTTGTGCTGCCCGATGATGACCGCGGGGCATCCAG  
 CAACTTTATGGGGTGAGTCAGGGTTCCCAACCAAGATGCCCCCTCAACCCAGGACTACC  
 TCCCGGCTTCTGTTCTGATAAACCCAAAAACCCACCTATGGGCCCAACATCTGTGAC  
 GGGAACTTTGACACCGTGGCCATGCTCCGAGGGGAGATGTTTGTCTTCAAGGAGCGCTGG  
 TTCTGGCGGGTGAGGAATAACCAAGTGATGGATGGATACCAATGCCATTGGCCAGTTC  
 TGGCGGGGCTGCCTGCGTCCATCAACTGCCTACGAGAGGAAGGATGGCAAATTCGTC  
 TTCTTCAAAGGAGACAAGCATTGGGTGTTTGTGAGGCGTCCCTGGAACCTGGCTACCCC  
 AAGCACATTAAGGAGCTGGGCCGAGGGCTGCCTACCGACAAGATTGATGCTGCTCTTTC  
 TGGATGCCCAATGAAAGACCTACTTCTCCGTGGAACAAGTACTACCGTTTCAACGAA  
 GAGCTCAGGGCAGTGGATAGCGAGTACCCCAAGAACATCAAAGTCTGGGAAGGGATCCCT  
 GAGTCTCCAGAGGGTCATTATGGGCAGCGATGAAGTCTTCACTTACTTCTACAAGGGG  
 AACAAATACTGGAATTCACAACCCAGAAGCTGAAGGTAGAACCAGGGCTACCCCAAGTCA  
 GCCCTGAGGGACTGGATGGGCTGCCCATCGGGAGGCCGCGGATGAGGGGACTGAGGAG  
 GAGACGGAGGTGATCATATTGAGGTGGACGAGGAGGGCGGGGGCGGTGAGCGCGGCT  
 GCCGTGGTGTGCCCGTGTGCTGCTGCTCCTGGTGTGGCGGTGGGCTTGCAGTCTTC  
 TTCTTCAGACGCCATGGGACCCCAAGCGACTGCTCTACTGCCAGCGTTCCTGTGGAC  
 AAGGTCTGA

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3458\\_h11.zip](https://cdn.origene.com/chromatograms/ja3458_h11.zip)

**Restriction Sites:** NotI-NotI

**ACCN:** NM\_004995

**Insert Size:** 3500 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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_004995.2</a> , <a href="#">NP_004986.1</a>
<b>RefSeq Size:</b>	3558 bp
<b>RefSeq ORF:</b>	1749 bp
<b>Locus ID:</b>	4323
<b>UniProt ID:</b>	<a href="#">P50281</a>
<b>Cytogenetics:</b>	14q11.2
<b>Domains:</b>	hemopexin, Peptidase_M10, ZnMc
<b>Protein Families:</b>	Druggable Genome, Protease, Transmembrane
<b>Protein Pathways:</b>	GnRH signaling pathway

**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. However, the protein encoded by this gene is a member of the membrane-type MMP (MT-MMP) subfamily; each member of this subfamily contains a potential transmembrane domain suggesting that these proteins are expressed at the cell surface rather than secreted. This protein activates MMP2 protein, and this activity may be involved in tumor invasion. [provided by RefSeq, Jul 2008]