

## Product datasheet for **RG208917**

### **MMP14 (NM\_004995) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MMP14 (NM_004995) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MMP14
Synonyms:	MMP-14; MMP-X1; MT-MMP; MT-MMP 1; MT1-MMP; MT1MMP; MTMMP1; WNCHRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG208917 representing NM\_004995  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCTCCGCCCAAGACCCTCCCGTTGTCTCCTGCTCCCCCTGCTCAGCTCGGCACCGCGCTCGCCT  
 CCCTCGGCTCGGCCAAAGCAGCAGCTTACGCCCGAAGCCTGGCTACAGCAATATGGCTACCTGCCTCC  
 CGGGGACCTACGTACCCACACACAGCGCTACCCCACTACTCTCAGCGGCCATCGCTGCCATGCAGAAG  
 TTTTACGGCTTGAAGTAACAGGCAAAGCTGATGCAGACACCATGAAGGCCATGAGGCGCCCCGATGTG  
 GTGTTCCAGACAAGTTGGGGCTGAGATCAAGGCCAATGTTGGAAGGAGCGCTACGCCATCCAGGGTCT  
 CAAATGGCAACATAATGAAATCACTTTCTGCATCCAGAATTACACCCCAAGGTGGGCGAGTATGCCACA  
 TACGAGGCCATTCGAAGGCGTTCGCGTGTGGGAGAGTGCCACACCACTGCGCTTCCGCGAGGTGCCCT  
 ATGCCTACATCCGTGAGGGCCATGAGAAGCAGGCCGACATCATGATCTTCTTTGCCGAGGGCTTCCATGG  
 CGACAGCAGCCCTTCGATGGTGGGGCGGCTTCTGGCCATGCCTACTTCCCAGGCCCAACATTGGA  
 GGAGACACCCACTTTGACTCTGCCGAGCCTTGGACTGTCAGGAATGAGGATCTGAATGAAATGACATCT  
 TCTTGGTGGCTGTGCACGAGCTGGGCCATGCCCTGGGGCTCGAGCATTCCAGTGACCCCTCGGCCATCAT  
 GGCACCCCTTTTACCAGTGGATGGACACGGAGAATTTTGTGCTGCCCGATGATGACCGCGGGGCATCCAG  
 CACTTTATGGGGTGAGTCAAGGTTCCCAACAGATGCCCCCTCAACCCAGGACTACCTCCCGGCCTT  
 CTGTTCTGATAAACCACCAACCCACCTATGGGCCAACATCTGTGACGGGAACCTTTGACACCGTGGC  
 CATGCTCCGAGGGGAGATGTTTGTCTTCAAGGAGCGCTGGTTCTGGCGGGTGAGGAATAACCAAGTATG  
 GATGGATACCCAATGCCATTGGCCAGTCTGGCGGGCCTGCCTGCGTCCATCAACACTGCCTACGAGA  
 GGAAGGATGGCAAATTCGTCTTCTTCAAAGGAGACAAGCATTGGGTGTTTATGAGGCGTCCCTGGAAC  
 TGGCTACCCCAAGCACATTAAGGAGCTGGGCCGAGGGCTGCCTACCGACAAGATTGATGCTGCTCTTTC  
 TGGATGCCAATGAAAGACCTACTTCTCCGTGGAACAAGTACTACCGTTTCAACGAAGAGCTCAGGG  
 CAGTGGATAGCGAGTACCCCAAGAACATCAAAGTCTGGGAAGGGATCCCTGAGTCTCCAGAGGGTCAAT  
 CATGGGCAGCGATGAAGTCTTCACTTACTTCTACAAGGGGAACAATACTGGAAATCAACAACCAGAAG  
 CTGAAGGTAGAACCAGGGTACCCCAAGTCAAGCCTGAGGGACTGGATGGGCTGCCATCGGGAGGCCGGC  
 CGGATGAGGGGACTGAGGAGGAGACGGAGGTGATCATATTGAGGTGGACGAGGAGGGCGGGGGCGGT  
 GAGCGCGGCTGCCGTGGTGTGCTGCCGTGCTGCTGCTCCTGGTGTGGCGGTGGGCTTGCAGTCTTC  
 TTCTTACAGACCCATGGACCCCAAGCGACTGCTCTACTGCCAGCGTTCCTGCTGGACAAGGTC

**ACGCGTACGCGGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG208917 representing NM\_004995  
 Red=Cloning site Green=Tags(s)

MSPAPRPSRCLLLPLLLTLGTALASLGSASQSSFSPEAWLQYGYLPPGDLRHTQRSPQSLSAIIAMQK  
 FYGLQVTGKADATMKAMRRPRCGVDPKFGAEIKANVRRKRYAIQGLKWQHNEITFCIQNYTPKVEYAT  
 YEAIRKAFRVWESATPLRFREVPYAYIREGHEKQADIMIFFAEGFHGDSTPFDGEGGFLAHAYFPGPNIG  
 GDTHFDSAEPWTVRNEIDLNGNDIFLVAVHELGHALGLEHSSDPSAIMAPFYQWMDTENFVLPDDRRRIQ  
 QLYGGESGFPTKMPQPRTTSRPSVPDKPKNPTYGNICDGNFDTVAMLRGEMFVKERWFWRVRRNQVM  
 DGYPMPIGQFWRGLPASINTAYERKDGKVFVFKGDKHWVFDEASLEPGYPKHIKELGRGLPTDKIDAALF  
 WMPNGKTYFFRGNKYRFNEELRAVDSEYPKNIKVWEGIPESPRGSFMGSDEVFTYFYKGNKYWKFNQK  
 LKVEPGYPKSALRDWMCPSGGRPDEGTEETEVIIEVDEEGGAVSAAAVLPLVLLLLLVAVGLAVF  
 FRRRHGTPRRLLYCRSLLDKV

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_004995

**ORF Size:** 1746 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](mailto: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](#)

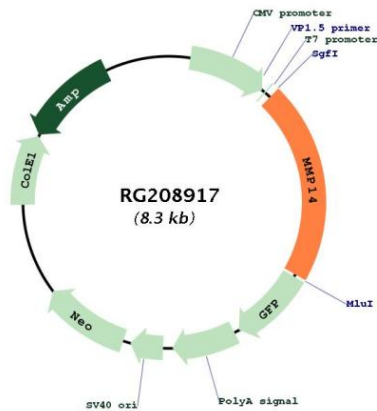
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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:**
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.

RefSeq:	<a href="#">NM_004995.2, NP_004986.1</a>
RefSeq Size:	3558 bp
RefSeq ORF:	1749 bp
Locus ID:	4323
UniProt ID:	<a href="#">P50281</a>
Cytogenetics:	14q11.2
Domains:	hemopexin, Peptidase_M10, ZnMc
Protein Families:	Druggable Genome, Protease, Transmembrane
Protein Pathways:	GnRH signaling pathway
Gene Summary:	<p>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]</p>

### Product images:



Circular map for RG208917