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# Product datasheet for SC336876

## MMP2 (NM_001302508) Human Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | MMP2 (NM_001302508) Human Untagged Clone |
| **Tag:** | Tag Free |
| **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) |

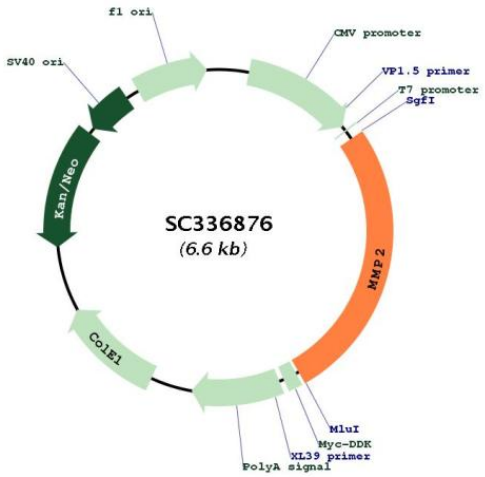
**Fully Sequenced ORF:**

>SC336876 representing NM_001302508.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCAGAAGTTCTTTGGACTGCCCCAGACAGGTGATCTTGACCAGAATACCATCGAGACCATGCGGAAG
CCACGCTGCGGCAACCCAGATGTGGCCAACTACAACTTCTTCCCTCGCAAGCCCAAGTGGGACAAGAAC
CAGATCACATACAGGATCATTGGCTACACACCTGATCTGGACCCAGAGACAGTGGATGATGCCTTTGCT
CGTGCCTTCCAAGTCTGGAGCGATGTGACCCCACTGCGGTTTTCTCGAATCCATGATGGAGAGGCAGAC
ATCATGATCAACTTTGGCCGCTGGGAGCATGGCGATGGATACCCCTTTGACGGTAAGGACGGACTCCTG
GCTCATGCCTTCGCCCCAGGCACTGGTGTTGGGGGAGACTCCCATTTTGATGACGATGAGCTATGGACC
TTGGGAGAAGGCCAAGTGGTCCGTGTGAAGTATGGGAACGCCGATGGGGAGTACTGCAAGTTCCCCTTC
TTGTTCAATGGCAAGGAGTACAACAGCTGCACTGATACCGGCCGCAGCGATGGCTTCCTCTGGTGCTCC
ACCACCTACAACTTTGAGAAGGATGGCAAGTACGGCTTCTGTCCCCATGAAGCCCTGTTCACCATGGGC
GGCAACGCTGAAGGACAGCCCTGCAAGTTTCCATTCCGCTTCCAGGGCACATCCTATGACAGCTGCACC
ACTGAGGGCCGCACGGATGGCTACCGCTGGTGCGGCACCACTGAGGACTACGACCGCGACAAGAAGTAT
GGCTTCTGCCCTGAGACCGCCATGTCCACTGTTGGTGGGAACTCAGAAGGTGCCCCCTGTGTCTTCCCC
TTCACTTTCCTGGGCAACAAATATGAGAGCTGCACCAGCGCCGGCCGCAGTGACGGAAAGATGTGGTGT
GCGACCACAGCCAACTACGATGATGACCGCAAGTGGGGCTTCTGCCCTGACCAAGGGTACAGCCTGTTC
CTCGTGGCAGCCCACGAGTTTGGCCACGCCATGGGGCTGGAGCACTCCCAAGACCCTGGGGCCCTGATG
GCACCCATTTACACCTACACCAAGAACTTCCGTCTGTCCCAGGATGACATCAAGGGCATTCAGGAGCTC
TATGGGGCCTCTCCTGACATTGACCTTGGCACCGGCCCCACCCCCACGCTGGGCCCTGTCACTCCTGAG
ATCTGCAAACAGGACATTGTATTTGATGGCATCGCTCAGATCCGTGGTGAGATCTTCTTCTTCAAGGAC
CGGTTCATTTGGCGGACTGTGACGCCACGTGACAAGCCCATGGGGCCCCTGCTGGTGGCCACATTCTGG
CCTGAGCTCCCGGAAAAGATTGATGCGGTATACGAGGCCCCACAGGAGGAGAAGGCTGTGTTCTTTGCA
GGGAATGAATACTGGATCTACTCAGCCAGCACCCTGGAGCGAGGGTACCCCAAGCCACTGACCAGCCTG
GGACTGCCCCCTGATGTCCAGCGAGTGGATGCCGCCTTTAACTGGAGCAAAAACAAGAAGACATACATC
TTTGCTGGAGACAAATTCTGGAGATACAATGAGGTGAAGAAGAAAATGGATCCTGGCTTCCCCAAGCTC
ATCGCAGATGCCTGGAATGCCATCCCCGATAACCTGGATGCCGTCGTGGACCTGCAGGGCGGCGGTCAC
AGCTACTTCTTCAAGGGTGCCTATTACCTGAAGCTGGAGAACCAAAGTCTGAAGAGCGTGAAGTTTGGA
AGCATCAAATCCGACTGGCTAGGCTGCTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

**Restriction Sites:** SgfI-MluI

Plasmid Map:

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| **ACCN:** | NM_001302508 |
| **Insert Size:** | 1755 bp |
| **OTI Disclaimer:** | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP). |
| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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:** | NM_001302508.1 |
| **RefSeq Size:** | 3230 bp |
| **RefSeq ORF:** | 1755 bp |
| **Locus ID:** | 4313 |
| **UniProt ID:** | P08253 |
| **Cytogenetics:** | 16q12.2 |
| **Protein Families:** | Druggable Genome, Protease |

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| **Protein Pathways:** | Bladder cancer, GnRH signaling pathway, Leukocyte transendothelial migration, Pathways in cancer |
| **MW:** | 65.8 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, intracellulary 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]<br>Transcript Variant: This variant (3) contains an alternate 5' terminal exon, and initiates translation at a downstream start codon, compared to variant 1. The encoded isoform (3) has a shorter N-terminus than isoform 1. Variants 3, 4, and 5 all encode the same isoform (3). |