

Product datasheet for **SC321560**

MMP2 (NM_004530) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: MMP2 (NM_004530) Human Untagged Clone
Tag: Tag Free
Symbol: MMP2
Synonyms: CLG4; CLG4A; MMP-2; MMP-II; MONA; TBE-1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC (PS100020)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_004530.1
 CTCAGGCGGTGGCTGGAGGCTGCGCATCTGGGGCTTTAAACATACAAAGGGATTGCCAGG
 ACCTGCGGCGGGCGGGCGGGCGGGGCTGGGGCGGGGGCCGGACCATGAGCCGCT
 GAGCCGGGCAAAACCCAGGCCACCGAGCCAGCGACCCTCGGAGCGCAGCCCTGCCCGC
 GGAGCAGGCTCCAACAGCGGGCAGCGGCCACACGCACCGAGCCAGCGACCCCGGGC
 GACGCGGGGGCCAGGGAGCGCTACGATGGAGGCGCTAATGGCCCGGGCGCGCTCACGG
 GTCCCCTGAGGGCGCTGTCTCCTGGGCTGCCTGCTGAGCCACGCCGCCCGCCGCGCGT
 CGCCCATCATCAAGTTCCCGGCGATGTCGCCCCAAAACGGACAAGAGTTGGCAGTGC
 AATACCTGAACACCTTCTATGGCTGCCCAAGGAGAGCTGCAACCTGTTTGTGCTGAAGG
 ACACACTAAAGAAGATGCAGAAGTTCTTTGGACTGCCCCAGACAGGTGATCTTGACCAGA
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 TCTTCCCTCGCAAGCCAAAGTGGGACAAGAACCAGATCACATACAGGATCATTGGCTACA
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 GCGATGTGACCCCACTGCGGTTTTCTCGAATCCATGATGGAGAGGCGAGACATCATGATCA
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 TATGGACCTTGGGAGAAGGCCAAGTGGTCCGTGTGAAGTATGGCAACCCGATGGGGAGT
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 CCTTCACTTCTGGGCAACAAATATGAGAGCTGCACAGCGCCGCCGAGTGACGGAA
 AGATGTGGTGTGCGACCACAGCCAACACGATGACGACCGCAAGTGGGGCTTCTGCCCTG
 ACCAAGGGTACAGCCTGTTCTCGTGGCAGCCACGAGTTTGGCCAGCCATGGGGCTGG
 AGCACTCCAAGACCCTGGGGCCCTGATGGCACCCATTTACACCTACACCAAGAAGTTC



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GTCTGTCCCAGGATGACATCAAGGGCATTGAGGCTCTATGGGCTCTCCTGACATTG
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ACATTGTATTTGATGGCATCGCTCAGATCCGTGGTGAGATCTTCTTCAAGGACCGGT
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CATGGGAAATGTCAACAAGTATGAATAAAGACACCTACTGAGTGAAAAAAAAAAAAAAAA
AAAAA
    
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Restriction Sites:

Please inquire

ACCN:

NM_004530

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 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.

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: [NM_004530.1](#), [NP_004521.1](#)

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

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]
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).