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Product datasheet for SC118645

MMP1 (NM_002421) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMP1 (NM_002421) Human Untagged Clone
Tag:	Tag Free
Symbol:	MMP1
Synonyms:	CLG; CLGN
Mammalian Cell Selection:	None
Vector:	pCMV6-XL6
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>OriGene ORF within SC118645 sequence for NM_002421 edited (data generated by NextGen Sequencing)

ATGCACAGCTTTCCTCCACTGCTGCTGCTGCTGTTCTGGGGTGTGGTGTCTCACAGCTTC
CCAGCGACTCTAGAAACACAAGAGCAAGATGTGGACTTAGTCCAGAAATACCTGGAAAAA
TACTACAACCTGAAGAATGATGGGAGGCAAGTTGAAAAGCGGAGAAATAGTGGCCCAGTG
GTTGAAAAATTGAAGCAAATGCAGGAATTCTTTGGGCTGAAAGTGACTGGGAAACCAGAT
GCTGAAACCCTGAAGGTGATGAAGCAGCCCAGATGTGGAGTGCCTGATGTGGCTCAGTTT
GTCCTCACTGAGGGGAACCCTCGCTGGGAGCAAACACATCTGACCTACAGGATTGAAAAT
TACACGCCAGATTTGCCAAGAGCAGATGTGGACCATGCCATTGAGAAAGCCTTCCAACTC
TGGAGTAATGTCACACCTCTGACATTCACCAAGGTCTCTGAGGGTCAAGCAGACATCATG
ATATCTTTTGTCAGGGGAGATCATCGGGACAACTCTCCTTTTGATGGACCTGGAGGAAAT
CTTGCTCATGCTTTTCAACCAGGCCCAGGTATTGGAGGGGATGCTCATTTTGATGAAGAT
GAAAGGTGGACCAACAATTTCAGAGAGTACAACTTACATCGTGTTGCGGCTCATGAACTC
GGCCATTCTCTTGGACTCTCCCATTCTACTGATATCGGGGCTTTGATGTACCCTAGCTAC
ACCTTCAGTGGTGATGTTCAGCTAGCTCAGGATGACATTGATGGCATCCAAGCCATATAT
GGACGTTCCCAAAATCCTGTCCAGCCCATCGGCCCACAAACCCCAAAAGCGTGTGACAGT
AAGCTAACCTTTGATGCTATAACTACGATTCGGGGAGAAGTGATGTTCTTTAAAGACAGA
TTCTACATGCGCACAAATCCCTTCTACCCGGAAGTTGAGCTCAATTTCATTTCTGTTTTC
TGGCCACAACTGCCAAATGGGCTTGAAGCTGCTTACGAATTTGCCGACAGAGATGAAGTC
CGGTTTTTCAAAGGGAATAAGTACTGGGCTGTTCAGGGACAGAATGTGCTACACGGATAC
CCCAAGGACATCTACAGCTCCTTTGGCTTCCCTAGAACTGTGAAGCATATCGATGCTGCT
CTTTCTGAGGAAAACACTGGAAAAACCTACTTCTTTGTTGCTAACAAATACTGGAGGTAT
GATGAATATAAACGATCTATGGATCCAGGTTATCCCAAAATGATAGCACATGACTTTCCT
GGAATTGGCCACAAAGTTGATGCAGTTTTCATGAAAGATGGATTTTTCTATTTCTTTCAT
GGAACAAGACAATACAAATTTGATCCTAAAACGAAGAGAATTTTGACTCTCCAGAAAGCT
AATAGCTGGTTCAACTGCAGGAAAAATTGA

Clone variation with respect to NM_002421.3
648 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002421 unedited

CTATCACCCGCCCGTTGCCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAG
CAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCCGC
GAATTCGGCACGAGGCAAGAGGCTGGGAAGCCATCACTTACCTTGCACTGAGAAAGAAGA
CAAAGGCCAGTATGCACAGCTTTCCTCCACTGCTGCTGCTGCTGTTCTGGGGTGTGGTGT
CTCACAGCTTCCCAGCGACTCTAGAAACACAAGAGCAAGATGTGGACTTAGTCCAGAAAT
ACCTGGAAAAATACTACAACCTGAAGAATGATGGGAGGCAAGTTGAAAAGCGGAGAAATA
GTGGCCCAGTGGTTGAAAAATTGAAGCAAATGCAGGAATTCTTTGGGCTGAAAGTGACTG
GGAAACCAGATGCTGAAACCCTGAAGGTGATGAAGCAGCCCAGATGTGGAGTGCCTGATG
TGGCTCAGTTTGTCCTCACTGAGGGGAACCCTCGCTGGGAGCAAACACATCTGACCTACA
GGATTGAAAATTACACGCCAGATTTGCCAAGAGCAGATGTGGACCATGCCATTGAGAAAG
CCTTCCAACTCTGGAGTAATGTCACACCTCTGACATTCACCAAGGTCTCTGAGGGTCAAG
CAGACATCATGATATCTTTTGTCAGGGGAGATCATCGGGACAACTCTCCTTTTGATGGAC
CTGGAGGAAATCTTGCTCATGCTTTTCAACCAGGCCCAGGTATTGGAGGGGATGCTCATT
TTGATGAAGATGAAAGGTGGACCAACAATTTCAGAGAGTACAACTTACATCGTGTTGCGG
CTCATGAACTCGGCCATTCTCTGGNACTCTCCNATTCTACTGATATCGGGGCTTTGATGT
ACCCTAGCTACACCTT

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_002421 unedited
TAACCTTAGGGANCGTCGGCCGCATCCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTAAAACAGTAAAAACAAGGGTGACTTTATTCCAAA
CATAAAACACTTATTTTGGGTTAAAAAAGTTATCCCTTGCCTATCCAGGGGGACACCAGT
GACTGCACATGTGTTCTTGAGCTGCTTTTCCTCCGGCAAAAACTCATGTCTCCTGTCTCT
TTCTGTCTTGAAAGGATATGTTTGTCACTGAAGCTGCTCTCTGGGATCAACGTCAGAGTT
GCATACTCTAAAAAAAAATCTTTGCAACTCTGGCCTATTTGAATCCATAAGCCACAAACTT
GACTTTTTGTACCCACCATTTGGGGAACTAAATTATATCAGTACAAAAAGGGCTACATTC
TAAATAGTAAAAAAATATGCAAACTGAGGTATAAATAAAATTATATTCTGGGTATCAGGG
ACTCTAGAGGTTAAAAATGACTGAGAAAATAGACAGTTCTTCAAGAAAACACCTCCTTTG
GACTCACACCATGTGTTTTCCATTCAAATTAGTAATGTTCAATTTTTCCTGCAGTTGAAC
CAGCTATTAGCTTTCTGGAGAGTCAAAATTCTCTTCGTTTTAGGATCAAATTTGTATTGT
CTTGTTCCATGAAAGAATAGAAAATCCATCTTTCATGAAAACTGCATCAACTTTGTGGCC
AATTCCAGGAAAGTCATGTGCTATCATTTTGGGATAACCCTGGATCCATAGATCGGTTAT
ATTCATCATACCCCCAGTATTTGTTAGCAACAAAGAAGTAGGTTTTTCCAGTGTTTTCCT
CAGAAGAGCAGCATCCATTTGCCTCACAGTTCTAGGGAACCAAAAGGAGCTGTAAATGTC
CTTGGGGAATCC
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Restriction Sites: NotI-NotI

ACCN: NM_002421

Insert Size: 2000 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 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

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_002421.2, NP_002412.1

RefSeq Size: 1973 bp

RefSeq ORF:	1410 bp
Locus ID:	4312
UniProt ID:	P03956
Cytogenetics:	11q22.2
Domains:	hemopexin, Peptidase_M10, ZnMc
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Bladder cancer, Pathways in cancer, PPAR signaling pathway
Gene Summary:	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 the interstitial collagens, including types I, II, and III. The gene is part of a cluster of MMP genes on chromosome 11. Mutations in this gene are associated with chronic obstructive pulmonary disease (COPD). Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is proteolytically processed. [provided by RefSeq, Jan 2016] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).