

Product datasheet for **RG227181**

MMP1 (NM_001145938) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMP1 (NM_001145938) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MMP1
Synonyms:	CLG; CLGN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG227181 representing NM_001145938
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGCACAGCTTCTCCACTGCTGCTGCTGTTCTGGGGTGTGGTGTCTCACAGCTTCCAGCGACTC
 TAGAAACAAGCAAGATGTGGACTTAGTCCAGAAATACCTGAAAAATACTACAACCTGAAGAATGA
 TGGGAGGCAAGTTGAAAAGCGGAGAAATAGTGGCCAGTGGTTGAAAAATTGAAGCAAATGCAGGAATTC
 TTTGGGCTGAAAGTACTGGAAACCAGATGCTGAAACCTGAAGGTGATGAAGCAGCCAGATGTGGAG
 TGCCTGATGTGGCTCAGTTTGCCTCACTGAGGGGAACCTCGCTGGGAGCAAACACATCTGACCTACAG
 GATTGAAATTACACGCCAGATTTGCCAAGAGCAGATGTGGACCATGCCATTGAGAAAGCCTTCAAACCTC
 TGGAGTAATGTCACACCTCTGACATTCACCAAGGTCTCTGAGGGTCAAGCAGACATCATGATATCTTTTG
 TCAGGGGAGATCATCGGACAACCTCTCTTTTATGGACCTGGAGGAAATCTTGCTCATGCTTTTCAACC
 AGGCCCAGGTATTGGAGGGGATGCTCATTTTATGAAGATGAAAGGTGGACCAACAATTTTCAGAGAGTAC
 AACTTACATCGTGTTCGGCTCATGAACTCGGCCATTCTCTGGACTCTCCCATCTACTGATATCGGGG
 CTTTGATGTACCTTAGCTACACCTTCAGTGGTGTGTTGAGTCTAGCTCAGGATGACATTGATGGCATCCA
 AGCCATATATGGACGTTCCCAAAATCCTGTCCAGCCCATCGGCCACAAACCCCAAAAGCGTGTGACAGT
 AAGCTAACCTTTGATGCTATAACTACGATTCGGGGAGAAGTGTGTTCTTTAAAGACAGATTCTACATGC
 GCACAAATCCCTTCTACCCGGAAGTTGAGCTCAATTTCAATTTCTGTTTCTGGCCACAACGCAAAATGG
 GCTTGAAGCTGCTTACGAATTTGCCGACAGAGATGAAGTCGGTTTTTCAAAGGGAATAAGTACTGGGCT
 GTTCAGGGACAGAATGTCTACACGGATACCCCAAGGACATCTACAGCTCCTTTGGCTTCCCTAGAAGT
 TGAAGCATATCGATGCTCTTTCTGAGGAAAACACTGAAAAACCTACTTCTTTGTTGTAACAAATA
 CTGGAGGTATGATGAATATAACGATCTATGGATCCAGGTTATCCCAAAATGATAGCACATGACTTTCTCT
 GGAATTGGCCACAAGTTGATGCAAGTTTTCATGAAAGATGGATTTTTCTATTTCTTTCATGGAACAAGAC
 AATACAAATTTGATCCTAAAACGAAGAGAATTTTACTCTCCAGAAAGCTAATAGCTGGTCAACTGCAG
 GAAAAAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG227181 representing NM_001145938
 Red=Cloning site Green=Tags(s)

MHSFPPLLLLLFWGVVSHSFPATLETQEQDVLVQKYLEKYYNLKNDGRQVEKRRNSGPPVEKLGKMQEF
 FGLKVTGKPDATLKVMPKQPRCGVPDVAQFVLTEGNPRWEQTHLTYRIENYTPDLPRADVDHAIEKAFQL
 WSNVTPLTFTKVSEGDADIMISFVRGDHRDNSPFDGPGGNLAHAFQPGPIGGDAHFDEDERWTNRFREY
 NLHRVAHELGHSLGLSHSTDIGALMYPSTYFSGDVQLAQDDIDGIQAIYGRSQNPVQPIGPQTPKACDS
 KLTFDAITIRGEVMFFKDRFYMRNPFYPEVELNFISVFWPQLPNGLEAAYEFADRDEVRFKGNKYWA
 VQGQNVLHGYPKDIYSSFGFPRTVKHIDAALSEENTGKTYFFVANKYWRVDEYKRSMDPGYPKMIHDFP
 GIGHKVDVAFMKDGFYFFHGTQRQYKFDPKTKRILTLQKANSWFNCRKN

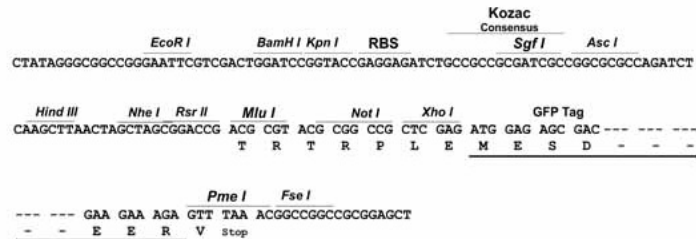
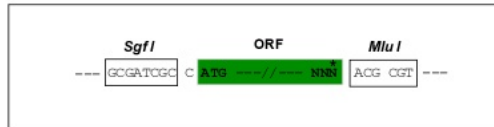
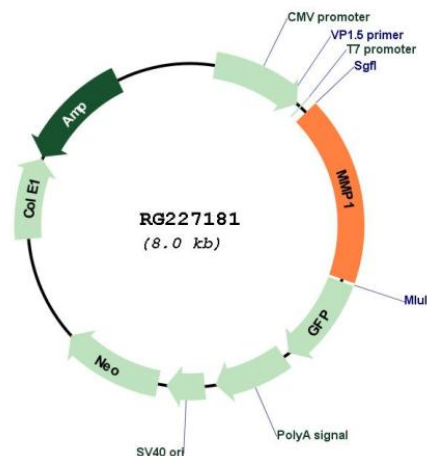
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:

ACCN: NM_001145938

ORF Size: 1209 bp

OTI Disclaimer: 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:	<ol style="list-style-type: none">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:	<u>NM_001145938.1</u> , <u>NP_001139410.1</u>
RefSeq Size:	1903 bp
RefSeq ORF:	1212 bp
Locus ID:	4312
Cytogenetics:	11q22.2
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Bladder cancer, Pathways in cancer, PPAR signaling pathway
Gene Summary:	<p>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]</p>