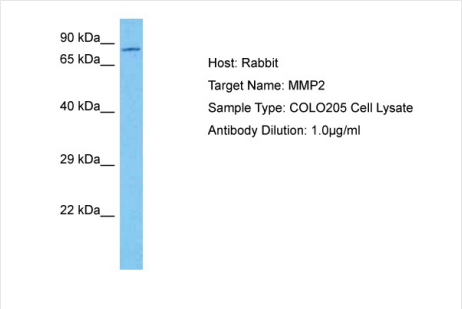
# MMP2 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | MMP2, Polyclonal Antibody |
| **Full Product Name** | MMP2 Antibody - N-terminal region |
| **Product Gene Name** | anti-MMP2 antibody |
| **Product Synonym Gene Name** | CLG4; MONA; CLG4A; MMP-2; TBE-1; MMP-II |
| **Immunogen Sequence** | Synthetic peptide located within the following region: MARGALTGPL RALCLLGCLL SHAAAAPSPI IKFPGDVAPK TDKELAVQYL |
| **Clonality** | Polyclonal |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. |
| **Purity/Purification** | Affinity purified |
| **Preparation and Storage** | For short term use, store at 2-8 degree C up to 1 week. For long term storage, store at -20 degree C in small aliquots to prevent freeze-thaw cycles. |
| **Antibody/Peptide Pairs** | MMP2 peptide (MBS3248536) is used for blocking the activity of MMP2 antibody (MBS3224201) |
| **Molecular Weight** | 74 kDa |
| **OMIM** | 120360 |
| **3D Structure** | ModBase 3D Structure for P08253 |
| **Immunogen** | The immunogen is a synthetic peptide directed towards the N terminal region of human MMP2 |
| **Product Categories/Family for anti-MMP2 antibody** | Polyclonal; Neurobiology; Signal Proteins; Signaling Intermediate; Cardiovascular; Signal Transduction; Disease Related |
| **Applications Tested/Suitable for anti-MMP2 antibody** | Western Blot (WB) |
| **Related Product Information for anti-MMP2 antibody** | 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. |
| **Other Notes** | Small volumes of anti-MMP2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for MMP2 purchase** | MBS3224201 is an antibody targeting MMP2. Also known as MMP2 Antibody - N-terminal region. Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-MMP2 antibody**
Host: RabbitTarget Name: MMP2Sample Tissue: Human COLO205 Whole Cell lysatesAntibody Dilution: 1ug/ml

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MMP2. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 189217853 |
| **NCBI GeneID** | 4313 |
| **NCBI Accession #** | NP_001121363.1 |
| **UniProt Primary Accession #** | P08253 |
| **UniProt Related Accession #** | P08253 |
| **GenBank Nucleotide #** | NM_001127891.2 |
| **NCBI Official Full Name** | 72 kDa type IV collagenase isoform 2 |
| **NCBI Official Synonym Full Names** | matrix metallopeptidase 2 |
| **NCBI Official Symbol** | MMP2 |
| **NCBI Official Synonym Symbols** | CLG4; MONA; CLG4A; MMP-2; TBE-1; MMP-II |
| **UniProt Protein Name** | 72 kDa type IV collagenase |
| **UniProt Synonym Protein Names** | 72 kDa gelatinase; Gelatinase A; Matrix metalloproteinase-2; MMP-2; TBE-1 |
| **Protein Family** | 72 kDa type IV collagenase |
| **UniProt Gene Name** | MMP2 |
| **UniProt Synonym Gene Names** | CLG4A; MMP-2 |
| **UniProt Entry Name** | MMP2_HUMAN |
| **NCBI Protein Information** | 72 kDa type IV collagenase |

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| **UniProt Comments for MMP2** | MMP2: Ubiquitinous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-\|-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro. Interacts (via the C-terminal hemopexin-like domains- containing region) with the integrin alpha-V/beta-3; the interaction promotes vascular invasion in angiogenic vessels and melamoma cells. Interacts (via the C-terminal PEX domain) with TIMP2 (via the C-terminal); the interaction inhibits the degradation activity. Interacts with GSK3B. Aspirin appears to inhibit expression. Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate. Inhibited by histatin-3 1/24 (histatin-5). Belongs to the peptidase M10A family.<br><br>Protein type: Cell development/differentiation; Apoptosis; Motility/polarity/chemotaxis; Protease; Secreted, signal peptide; EC 3.4.24.24; Secreted<br><br>Chromosomal Location of Human Ortholog: 16q12.2<br><br>Cellular Component: proteinaceous extracellular matrix; extracellular space; sarcomere; mitochondrion; extracellular region; plasma membrane; nucleus<br><br>Molecular Function: protein binding; zinc ion binding; metalloendopeptidase activity; serine-type endopeptidase activity<br><br>Biological Process: axon guidance; extracellular matrix organization and biogenesis; intramembranous ossification; proteolysis; blood vessel maturation; collagen catabolic process; extracellular matrix disassembly; cellular protein metabolic process; positive regulation of innate immune response; response to hypoxia; ephrin receptor signaling pathway; angiogenesis; embryo implantation<br><br>Disease: Multicentric Osteolysis, Nodulosis, And Arthropathy |
| **Research Articles on MMP2** | **1.** PAX6 overexpression increasing MMP2 and MMP9 expression. |
| **Precautions** | All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines. |
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