# TIMP2 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | TIMP2, Polyclonal Antibody |
| **Full Product Name** | TIMP2 Rabbit pAb |
| **Product Gene Name** | anti-TIMP2 antibody |
| **Product Synonym Names** | DDC8; CSC-21K |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Mouse, Rat |
| **Form/Format** | PBS with 0.02% Sodium Azide, 50% Glycerol, pH 7.3. |
| **Purity/Purification** | Affinity Purified |
| **Preparation and Storage** | Store at -20 degree C. Avoid freeze/thaw cycles. |
| **Molecular Weight** | 24kDa |
| **OMIM** | 188825 |
| **3D Structure** | ModBase 3D Structure for P16035 |
| **Immunogen** | A synthetic peptide corresponding to a sequence within amino acids 100-200 of human TIMP2 (NP_003246.1). |
| **Cellular Localization** | Secreted |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Applications Tested/Suitable for anti-TIMP2 antibody** | Western Blot (WB), Immunohistochemistry (IHC) |
| **Application Notes for anti-TIMP2 antibody** | WB: 1:500-1:2000<br>IHC: 1:50-1:200 |
| **Related Product Information for anti-TIMP2 antibody** | Complexes with metalloproteinases (such as collagenases) and irreversibly inactivates them by binding to their catalytic zinc cofactor. Known to act on MMP-1, MMP-2, MMP-3, MMP-7, MMP-8, MMP-9, MMP-10, MMP-13, MMP-14, MMP-15, MMP-16 and MMP-19. |
| **Other Notes** | Small volumes of anti-TIMP2 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 TIMP2 purchase** | MBS8550349 is an antibody targeting TIMP2. Also known as TIMP2 Rabbit pAb. Reactive in Mouse, Rat. Host: Rabbit. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TIMP2. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4507511 |
| **NCBI GeneID** | 7077 |
| **NCBI Accession #** | NP_003246.1 |

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| **UniProt Primary Accession #** | P16035 |
| **UniProt Related Accession #** | P16035 |
| **GenBank Nucleotide #** | NP_003246.1 |
| **NCBI Official Full Name** | metalloproteinase inhibitor 2 |
| **NCBI Official Synonym Full Names** | TIMP metallopeptidase inhibitor 2 |
| **NCBI Official Symbol** | TIMP2 |
| **NCBI Official Synonym Symbols** | DDC8; CSC-21K |
| **UniProt Protein Name** | Metalloproteinase inhibitor 2 |
| **UniProt Synonym Protein Names** | CSC-21K; Tissue inhibitor of metalloproteinases 2 |
| **Protein Family** | Metalloproteinase inhibitor |
| **UniProt Gene Name** | TIMP2 |
| **UniProt Synonym Gene Names** | TIMP-2 |
| **UniProt Entry Name** | TIMP2_HUMAN |
| **NCBI Protein Information** | metalloproteinase inhibitor 2 |
| **NCBI Summary for TIMP2** | This gene is a member of the TIMP gene family. The proteins encoded by this gene family are natural inhibitors of the matrix metalloproteinases, a group of peptidases involved in degradation of the extracellular matrix. In addition to an inhibitory role against metalloproteinases, the encoded protein has a unique role among TIMP family members in its ability to directly suppress the proliferation of endothelial cells. As a result, the encoded protein may be critical to the maintenance of tissue homeostasis by suppressing the proliferation of quiescent tissues in response to angiogenic factors, and by inhibiting protease activity in tissues undergoing remodelling of the extracellular matrix. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for TIMP2** | TIMP2: Complexes with metalloproteinases (such as collagenases) and irreversibly inactivates them by binding to their catalytic zinc cofactor. Known to act on MMP-1, MMP-2, MMP-3, MMP-7, MMP-8, MMP-9, MMP-10, MMP-13, MMP-14, MMP-15, MMP-16 and MMP-19. Interacts (via the C-terminal) with MMP2 (via the C- terminal PEX domain); the interaction inhibits the MMP2 activity. Down-regulated by TGFB1. Belongs to the protease inhibitor I35 (TIMP) family.<br><br>Protein type: Extracellular matrix; Inhibitor; Secreted; Motility/polarity/chemotaxis; Cell development/differentiation; Secreted, signal peptide<br><br>Chromosomal Location of Human Ortholog: 17q25<br><br>Cellular Component: proteinaceous extracellular matrix; extracellular space; cell surface; growth cone; cell soma; extracellular region; basement membrane<br><br>Molecular Function: metalloendopeptidase inhibitor activity; integrin binding; protein binding; protease binding; metal ion binding; enzyme activator activity<br><br>Biological Process: regulation of Rap protein signal transduction; response to drug; extracellular matrix organization and biogenesis; negative regulation of metalloenzyme activity; central nervous system development; response to hormone stimulus; negative regulation of membrane protein ectodomain proteolysis; negative regulation of cell proliferation; extracellular matrix disassembly; positive regulation of MAPKKK cascade; response to cytokine stimulus; negative regulation of Ras protein signal transduction; negative regulation of mitotic cell cycle; positive regulation of adenylate cyclase activity; positive regulation of neuron differentiation; aging |
| **Research Articles on TIMP2** | **1.** Imbalance in the metalloproteinase (MMP2, MMP9) to inhibitor tissue expression (TIMP1, TIMP2) in the vessel wall (the cross-sections of the internal thoracic artery, radial artery, and saphenous vein) might predispose to aortocoronary graft failure after coronary artery bypass grafting. A stronger expression of TIMPs than MMPs in the arterial grafts might explain favourable long-term outcomes. |

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