TIMP2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TIMP2, Polyclonal Antibody
Full Product Name	TIMP2 Conjugated Antibody
Product Gene Name	anti-TIMP2 antibody
Product Synonym Names	CSC-21K; TIMP2
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Specificity	The antibody detects endogenous level of total TIMP2 protein.
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	24,399 Da
Chromosome Location	Chromosome: 17; NC_000017.10 (76849059..76921472, complement). Location: 17q25
OMIM	188825
3D Structure	ModBase 3D Structure for P16035
Immunogen	Recombinant protein of human TIMP2.
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-TIMP2 antibody	Most Applications
Application Notes for anti-TIMP2 antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000
Related Product Information for anti-TIMP2 antibody	TIMPs are members of the family of tissue inhibitor of matrix metalloproteinases (MMPs) that includes TIMP1, TIMP2, TIMP3, and TIMP4. The main function of TIMPs is their inhibitory effect on MMPs. TIMPs irreversibly inactivate MMPs by direct binding to their catalytic zinc cofactor and resultant inhibition of proteinase function (1, 2). In addition to MMP inhibition, TIMPs have also been shown to interact with various membrane receptors on the cell surface. Some of these interactions include: TIMP1 with CD63, TIMP2 with alpha3beta 1 integrin, and TIMP3 with VEGFR2, all of which result in distinct cellular effects (3). TIMPs are involved in a wide variety of biological functions, such as tumor angiogenesis and progression (4, 5), wound healing, and vascular remodeling (6, 7). Mutations in TIMP3 are associated with Sorsby's fundus dystrophy (8, 9).

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	MBS9443440 is an antibody targeting TIMP2. Also known as TIMP2 Conjugated Antibody. Reactive in Human, 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.

NCBI GI #	4507511
NCBI GeneID	7077
NCBI Accession #	NP_003246.1
UniProt Primary Accession #	P16035
UniProt Secondary Accession #	Q16121; Q93006; Q9UDF7
UniProt Related Accession #	P16035; Q96MC4
GenBank Nucleotide #	NM_003255.4
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; TIMP-2; tissue inhibitor of metalloproteinase 2; tissue inhibitor of metalloproteinases 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. Protein type: Extracellular matrix; Inhibitor; Secreted; Motility/polarity/chemotaxis; Cell development/differentiation; Secreted, signal peptide Chromosomal Location of Human Ortholog: 17q25 Cellular Component: proteinaceous extracellular matrix; extracellular space; cell surface; growth cone; cell soma; extracellular region; basement membrane Molecular Function: metalloendopeptidase inhibitor activity; integrin binding; protein binding; protease binding; metal ion binding; enzyme activator activity 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.** The aim of our study was to compare the immunohistochemical expression of TIMP1 and TIMP2 between an uncontrollably invasive phenomenon (cancer) and an "in situ" process (trophoblast invasion)
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