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Datasheet for ABIN7317718
TIMP1 Protein (His tag)

Overview

Quantity:	20 µg
Target:	TIMP1
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This TIMP1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human TIMP-1/TIMP1 Protein (His Tag)(Active)
Sequence:	Met 1-Ala 207
Characteristics:	A DNA sequence encoding the human TIMP1 (NP_003245.1) (Met 1-Ala 207) with a C-terminal polyhistidine tag was expressed.
Purity:	> 97 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to inhibit human MMP-2 cleavage of a fluorogenic peptide substrate MCA-PLGL-DPA-AR-NH2 (R&D Systems, Catalog # ES001). The IC50 value is < 6 nM.

Target Details

Target:	TIMP1
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Target Details

Alternative Name: TIMP-1/TIMP1 ([TIMP1 Products](#))

Background: TIMP metalloproteinase inhibitor 1, also known as TIMP-1/TIMP1, Collagenase inhibitor 16C8 fibroblast Erythroid-potentiating activity, TPA-S1 TPA-induced protein Tissue inhibitor of metalloproteinases 1, is a natural inhibitors of the matrix metalloproteinases (MMPs), a group of peptidases involved in degradation of the extracellular matrix. TIMP-1/TIMP1 is found in fetal and adult tissues. Highest levels are found in bone, lung, ovary and uterus. Complexes with metalloproteinases and irreversibly inactivates them by binding to their catalytic zinc cofactor. TIMP-1/TIMP1 mediates erythropoiesis in vitro, but, unlike IL-3, it is species-specific, stimulating the growth and differentiation of only human and murine erythroid progenitors. In addition to its inhibitory role against most of the known MMPs, the protein is able to promote cell proliferation in a wide range of cell types, and may also have an anti-apoptotic function. Transcription of this protein encoding gene is highly inducible in response to many cytokines and hormones. In addition, the expression from some but not all inactive X chromosomes suggests that this gene inactivation is polymorphic in human females. This encoding gene is located within intron 6 of the synapsin I gene and is transcribed in the opposite direction. Complexes with metalloproteinases and irreversibly inactivates them by binding to their catalytic zinc cofactor. TIMP-1/TIMP1 is Known to act on MMP-1, MMP-2, MMP-3, MMP-7, MMP-8, MMP-9, MMP-10, MMP-11, MMP-12, MMP-13 and MMP-16. Synonym: Metalloproteinase Inhibitor 1, Erythroid-Potentiating Activity, EPA, Fibroblast collagenase Inhibitor, Collagenase Inhibitor, Tissue Inhibitor of Metalloproteinases 1, TIMP-1, TIMP1, CLGI, TIMP,CLGI,EPA,EPO,HCI

Molecular Weight: 22 kDa

NCBI Accession: [NP_003245](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile PBS, pH 7.4

Storage: 4 °C,-20 °C,-80 °C

Handling

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.