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Datasheet for ABIN7321226

TIMP1 Protein

1 Image

Overview

Quantity:	20 µg
Target:	TIMP1
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	Recombinant Rat TIMP-1/TIMP1 Protein (Active)
Sequence:	Met1-Ala217
Characteristics:	A DNA sequence encoding the rat TIMP1 (P01860) (Met1-Ala217) was expressed and purified.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method
Biological Activity Comment:	Measured by its ability to inhibit human MMP2 cleavage of a fluorogenic peptide substrate MCA-PLGLDPA-AR-NH ₂ , AnaSpec Catalog # 27076. The IC ₅₀ value is approximately 4 nM.

Target Details

Target:	TIMP1
Alternative Name:	TIMP-1/TIMP1 (TIMP1 Products)
Background:	Background: TIMP metallopeptidase inhibitor 1, also known as TIMP-1/TIMP1, Collagenase

Target Details

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: TIMP1, Timp-1

Molecular Weight: 21.5 kDa

UniProt: [P01860](#)

Application Details

Restrictions: For Research Use only

Handling

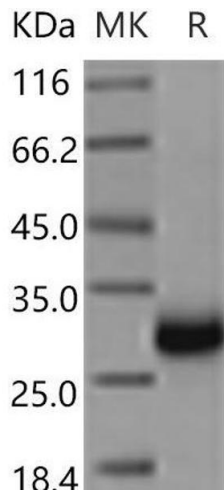
Format: Lyophilized

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

Buffer: Lyophilized from sterile 50 mM Tris, 100 mM NaCl, pH 7.0.

Storage: 4 °C, -20 °C, -80 °C

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.



Western Blotting

Image 1.