

TIMP-1 Active Protein | TIMP1 active protein

TIMP-1 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA257954

HOST
HEK293 Cells

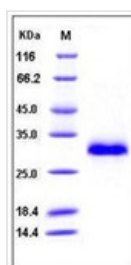
PRODUCT SYNONYMS

TIMP-1; TIMP-1 Protein; Human; Recombinant (His Tag); Human TIMP-1/TIMP1 Protein (His Tag); CLGI Protein; EPA Protein; EPO Protein; HCI Protein; TIMP Protein; TIMP metalloproteinase inhibitor 1; TIMP1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	≥ 97% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose, 5% mannitol and 0.01% Tween80
Sequence	Met1-Ala207
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Cys 24
Tag	C-His
Protein Construction	A DNA sequence encoding the human TIMP1 (NP_003245.1)(Met 1-Ala 207) with a C-terminal polyhistidine tag was expressed.
Reconstitution	Reconstituted with sterile deionized water to 0.25 mg/ml
Activity	Measured by its ability to inhibit human MMP-2 cleavage of a fluorogenic peptide substrate MCA-PLGL-DPA-AR-NH2 . The IC50 value is <6nM.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for TIMP1 active protein	Background: TIMP metalloproteinase inhibitor 1, also known as TIMP-1/TIMP1, Collagenase inhibitor 16C8 fibroblast Erythroid-potentiating activity, TPA-S1TPA-induced proteinTissue 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.
References	Hornebeck W (2004). Down-regulation of tissue inhibitor of matrix metalloprotease-1 (TIMP-1) in aged human skin contributes to matrix degradation and impaired cell growth and survival.. Pathol. Biol. 51 (10): 569-73.Soini Y, et al. (2001) Expression of MMP2, MMP9, MT1-MMP, TIMP-1, and TIMP2 mRNA in valvular lesions of the heart. J Pathol. 194(2):225-31.Wang X, et al. (1999) Analysis of coding sequences for tissue inhibitor of metalloproteinases 1 (TIMP-1) and 2 (TIMP2) in patients with aneurysms. Matrix Biol. 18(2):121-4.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507509
NCBI GeneID	7076
NCBI Accession #	NP_003245.1
NCBI GenBank Nucleotide #	NM_003254.2
UniProt Accession #	P01033; Q14252; Q9UCU1
Molecular Weight	22.16 kDa
NCBI Official Full Name	metalloproteinase inhibitor 1
NCBI Official Synonym Full Names	TIMP metalloproteinase inhibitor 1
NCBI Official Symbol	TIMP1
NCBI Official Synonym Symbols	EPA; EPO; HCI; CLGI; TIMP
NCBI Protein Information	metalloproteinase inhibitor 1; TIMP-1; collagenase inhibitor; erythroid potentiating activity; erythroid-potentiating activity; fibroblast collagenase inhibitor; tissue inhibitor of metalloproteinases 1
UniProt Protein Name	Metalloproteinase inhibitor 1
UniProt Gene Name	TIMP1
UniProt Synonym Gene Names	CLGI; TIMP; EPA; Collagenase inhibitor; TIMP-1
UniProt Entry Name	TIMP1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.