Elabscience®

Recombinant Rat TIMP-1/TIMP1 Protein

Catalog Number: PKSR030376

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Source HEK293 Cells-derived Rat TIMP-1/TIMP1 protein Met1-Ala217 Calculated MW 21,5 kDa Observed MW 28 kDa Accession P01860 Bio-activity Measured by its ability to inhibit human MMP2 cleavage of a fluorogenic peptide substrate MCA-PLGLDPA-AR-NH2, AnaSpec Catalog # 27076. The IC50 value is approximately 4 nM. Properties Particle Purity >97 % as determined by reducing SDS-PAGE. Endotoxin < 1.0 EU per µg of the protein as determined by the LAL method. Storage 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. Shipping This product is provided as lyophilized powder which is shipped with ice packs. Formulation Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 7.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information. Data Mathian and and a context and context and a context and context and a cont	Description	
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116 66.2	Data	
66.2		KDa M
		116
45.0		66.2
		45.0

> 97 % as determined by reducing SDS-PAGE.

35.0

25.0

18.4 14.4

Background

For Research Use Only

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TIMP metallopeptidase inhibitor 1, also known as TIMP-1/TIMP1, Collagenase inhibitor 16C8 fibroblast Erythroidpotentiating 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.