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Recombinant Human

TIMP metalloproteinase inhibitor 1 --- Western Blotting Control

Catalog No.	Size	Species	Protein Accession No.
230-00003-WBC	100 μ L (20 lanes)	Human	AAH00866

Synonyms

Tissue inhibitor of metalloproteinases 1 (TIMP-1); Collagenase inhibitor; Erythroid potentiating activity (EPA); Human collagenase inhibitor; Fibroblast collagenase inhibitor.

Description

TIMP1 is a glycoprotein expressed from the several tissues of organisms. It is one member of TIMP family. The glycoprotein is a natural inhibitor of the matrix metalloproteinases (MMPs), a group of peptidases involved in degradation of the extracellular matrix. In addition to its inhibitory role against most of the known MMPs, the encoded protein is able to promote cell proliferation in a wide range of cell types, and may also have an anti-apoptotic function.

Preparation

The human *TIMP-1* gene without signal peptide coding sequence was cloned and expressed in *Escherichia coli*. The recombinant protein (Cys24-Ala207) has an N-terminal 6 \times histidine tag and was purified by immobilized metal ion affinity chromatography (IMAC).

Source

Recombinant histidine-tagged protein, purified from *E. coli*.

Predicted Molecular Mass

~23.3 kDa with the 6 \times histidine tag.

Formulation

Liquid. Supplied in 1 \times SDS Loading Buffer (60 mM Tris-HCl, pH 6.8, 2% SDS, 10% glycerol, 5% 2-mercaptoethanol, 0.002% bromphenol blue).

Storage

The protein is stable at -20 $^{\circ}$ C freezer.

Purity

>95%, determined by SDS-PAGE and stained with Commassie blue.

Applications

Before use, heat the WBC control at 95 $^{\circ}$ C for 5 minutes. Spin down the sample and load 5 μ L per lane onto SDS-PAGE gel.

References

1. Hornebeck W (2004). Down-regulation of tissue inhibitor of matrix metalloproteinase-1 (TIMP-1) in aged human skin contributes to matrix degradation and impaired cell growth and survival. *Pathol. Biol.* **51** (10): 569–73.
2. Gardner J, Ghorpade A (2004). Tissue inhibitor of metalloproteinase (TIMP)-1: the TIMPed balance of matrix metalloproteinases in the central nervous system. *J. Neurosci. Res.* **74** (6): 801–6.

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