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Recombinant Human

Tissue Inhibitor of Metalloproteinase-2 --- Western Blotting Control

Catalog No.	Size	Species	Protein Accession No.
230-00004-WBC	100 μ L (20 lanes)	Human	AAH52605

Synonyms

Tissue inhibitor of metalloproteinases 2 (TIMP-2); metalloproteinase inhibitor TIMP-2.

Description

TIMP-2 is one member of TIMP family. So far TIMP-2 has been found A variety of distinct functions have been found in TIMP-2: 1) Complexes with some of metalloproteinases family (MMPs) and irreversibly inactivates them; 2) Up-regulate MMP-14 by promoting the availability of the enzyme at the cell surface and supporting pericellular proteolysis; 3) Inhibit angiogenesis and endothelial cell proliferation; 4) Antiapoptotic activity; 5) Block tumor cell invasion both in vitro and in vivo and may act as metastasis suppressor gene.

Preparation

The human *TIMP-2* gene without signal peptide coding sequence was cloned and expressed in *Escherichia coli*. The recombinant protein (Cys27-Pro220) 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

~24.1 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. Morgunova, E, et al. (2002). Structural insight into the complex formation of latent matrix metalloproteinase 2 with tissue inhibitor of metalloproteinase 2. *Proc. Natl. Acad. Sci.* 99 (11): 7414–9.
2. Zucker, S, et al. (1998). Tissue inhibitor of metalloproteinase-2 (TIMP-2) binds to the catalytic domain of the cell surface receptor, membrane type 1-matrix metalloproteinase 1 (MT1-MMP). *J. Biol. Chem.* 273 (2): 1216–22.
3. Hoek KS, et al. (2008). Novel MITF targets identified using a two-step DNA microarray strategy. *Pigment Cell Melanoma Res.* 21 (6): 665–76.

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