For Research Use Only Recombinant Human TIMP-1 protein oroteintech (His Tag) www.ptgcn.com Catalog Number: Eg0638 Species: Human Purity: >90 %, SDS-PAGE **Basic Information** Tag: His Tag Purity: >90 %, SDS-PAGE **Technical Specifications Endotoxin Level:** <0.1 EU/ µg protein, LAL method Source HEK293-derived Human TIMP-1 protein Cys24-Ala207 (Accession# P01033) with a His tag at the C-terminus. GenelD: 7076 Accession: P01033 Predicted Molecular Mass: 24.5 kDa **SDS-PAGE:** 28-30 kDa, reducing (R) conditions Formulation Lyophilized from 0.22 $\,\mu$ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization. **Biological Activity** Not tested Storage and Shipping Storage: It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. Until expiry date, -20°C to -80°C as lyophilized proteins. • 3 months, -20°C to -80°C under sterile conditions after reconstitution. Shippin The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

TIMP1 is a member of the family of matrix metalloproteinase inhibitors, which contains four members (TIMP1, TIMP2, TIMP3, and TIMP4). Tissue inhibitors of metalloproteinases (TIMPs) are multifaceted molecules that exhibit properties beyond their classical proteinase inhibitory function. TIMP1 has several MMP-independent functions such as modulation of angiogenesis, promotion of cell proliferation, and inhibition of apoptosis. TIMP1 plays important role in cell cycle regulation and cancer progression. Recently, clinical studies have shown that the aberrant expression of TIMP1 is associated with an unfavorable prognosis in a series of tumors, such as gastric cancer, papillary thyroid carcinoma, cutaneous melanoma and breast cancer. In pregnancy, TIMP1 plays a regulatory role in the process of implantation, particularly the cytotrophoblast invasion of the uterine endometrium.

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

 References
 1. Stetler-Stevenson WG. et al.(2008) Sci Signal.1(27):re6.

 2. Batra J. et al.(2012) 287(19):15935-46.

 3. Kim YS. et al. (2012) BMB Rep. 45(11):623-8.

 4. Graham CH. et al. (1991) J Cell Physiol. 148(2):228-34.

 5. Song G. et al. (2016) J Exp Clin Cancer Res. 35(1):148.

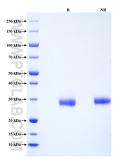
Synonyms

Reconstitution

Background

TIMP1, TIMP-1, CLGI, Collagenase inhibitor, EPA

Selected Validation Data



Purity of Recombinant Human TIMP-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.