Recombinant Human TIMP-2 Protein

Catalog No.: RP01370

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Sequence Information

Species
Human

Gene ID
7077

Swiss Prot
P16035

Tags
C-His

Synonyms
TIMP2,CSC-21K,DDC8

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE;≥95 % as determined by HPLC.

Calculated MW
22.59 kDa

Observed MW
25-30 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Tissue inhibitors of metalloproteinases (TIMP) family are natural inhibitors of the matrix metalloproteinases (MMPs), the zinc enzymes involved in extracellular matrix maintenance and remodeling. The TIMP family encompasses four members (TIMP1-4), and they inhibit most MMPs by forming non-covalent binary complex. TIMP2 is a 22 kDa non N-glycosylated protein expressed by a variety of cell types, and plays a unique role among TIMP family members owing to its functions to regulate cellular responses to growth factors. Findings establish an unexpected, MMP-independent mechanism for TIMP2 inhibition of endothelial cell proliferation in vitro and reveal an important component of the antiangiogenic effect of TIMP2 in vivo. TIMP-2 thus is critical to the maintenance of tissue homeostasis and is involved in the regulation of tumor microenvironment.

Basic Information

Description
Recombinant Human TIMP-2 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys27-Pro220) of human TIMP2/CSC-21K (Accession #NP_003246.1.) fused with a 6×His tag at the C-terminus.

Activity
1.Measured by its ability to inhibit human MMP-2 cleavage of a fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH2. The IC50 value is approximately 2.5 nM.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

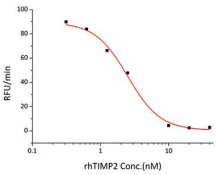
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

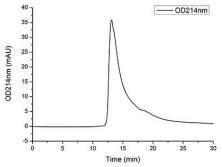
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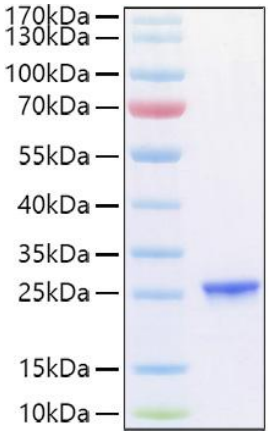
Validation Data



Recombinant Human TIMP-2 inhibit human MMP-2 cleavage of a fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH2. The IC50 value is approximately 2.5 nM.



The purity of Human TIMP2/CSC-21K Protein (Cat.RP01370) was greater than 95% as determined by SEC-HPLC.



Recombinant Human TIMP-2 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.