Recombinant Protein Technical Manual

Recombinant Human TIMP2/TIMP-2 Protein (Active)

RPES4350

Product Data:

Product SKU: RPES4350

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_003246.1

Protein Information:

Molecular Mass: 22 kDa

AP Molecular Mass: 20 kDa

Tag:

Bio-activity: Measured by its ability to inhibit human MMP-2 cleavage of a fluorogenic peptide substrate MCA-PLGL-DPA-AR-NH2(R&D Systems, Catalog # ES001). The IC50 value is < 4 nM.

Purity: > 96 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Metalloproteinase Inhibitor 2; CSC-21K; Tissue Inhibitor of Metalloproteinases 2;CSC-21K;DDC8

Immunogen Information:

Sequence: Cys 27-Pro 220

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.