

Active Recombinant Bovine TIMP3 protein, His-tagged

Cat. No. TIMP3-1271C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Bovine TIMP3 protein(P79121)(24~211 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Bovine
Source	E.coli
ProteinLength	24-211 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Tissue Inhibitors Of Metalloproteinase 3 (TIMP3) is an protein belongs to the tissue inhibitor of metalloproteinases family. They are inhibitors of the matrix metalloproteinases. TIMP-3 is the only member of the TIMP family which is found exclusively in the extracellular matrix (ECM). It is regulated in a cell cycle-dependent fashion in certain cell types and may serve as a marker for terminal differentiation. The activity of recombinant bovine TIMP3 was measured by its ability to inhibit rhMMP2 cleavage of a fluorogenic peptide substrate MCA-Pro-Leu-Gly-Leu-DPA-Ala-Arg-NH ₂ in the assay buffer 50 mM Tris, 10 mM CaCl ₂ , 150 mM NaCl, 0.05% (w/v) Brij-35, pH 7.5. rhMMP2 was diluted to 100 ug/ml and activated with 1 mM APMA at 37°C for 1 hour and rbTIMP3 (MW: 23.25 KD) was diluted to different concentrations with the assay buffer. Mix 8 µl of rbTIMP3 curve dilutions, 12.8 µl of activated rhMMP-2, and 59.2 µl of assay buffer, including a control containing assay buffer and the diluted rhMMP-2 and incubate the reactions

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for 2 hours at 37°C. Loading 50 µl of the incubated mixtures which were diluted five-fold in assay buffer into empty wells of a plate, and start the reaction by adding 50 µl of 200 µM substrate. Include a substrate blank containing 50 µl of assay buffer and 50 µl of 200 µM substrate. Then read at excitation and emission wavelengths of 320 nm and 405 nm, respectively, in kinetic mode for 5 minutes. The result was shown and it was obvious that recombinant bovine TIMP3 significantly decreased rhMMP2 activity. The inhibition IC₅₀ was <15 nM.

Molecular Mass 25.4kDa

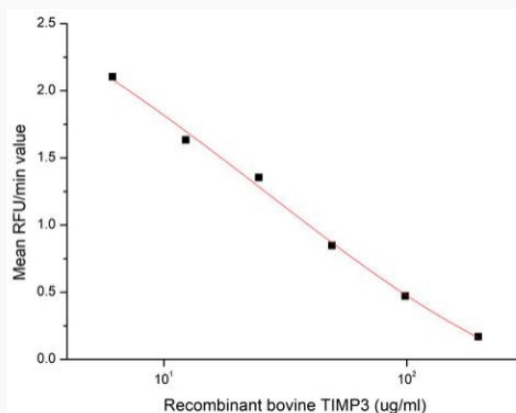
Endotoxin <1.0EU per 1µg (determined by the LAL method).

Purity > 95% as determined by SDS-PAGE.

Storage Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.

Reconstitution Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

Activity

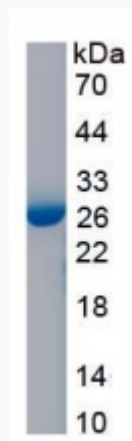


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SDS-PAGE



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