

Human MMP13 protein, His tag (active)

Cat. No. GTX00191-pro

Applications Functional Assay**Species** Human**Package**

10 µg

Applications

Application Note

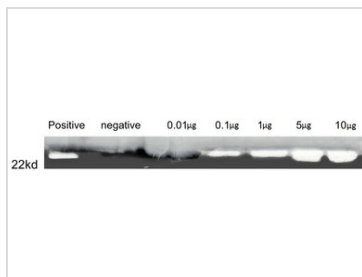
Matrix Metalloproteinase 13 (MMP13) is a member of the matrix metalloproteinase (MMP) family. MMP13 has been proposed to participate in aggrecan degradation associated with osteoarthritis and cleavage of type II collagen in osteoarthritic cartilage explants and in tumor progression and metastasis. MMP13 is likely to play a crucial role in the modulation of extracellular matrix degradation and cell-matrix interactions. In addition, it can cleave type I, III, IV, IX, X and XIV collagens and fibronectin. Thus we have chosen casein-zymography to measure the activity of MMP13. Briefly, various concentrations of MMP13 (10 µg, 5 µg, 1 µg, 0.1 µg, 0.01 µg) were denatured by SDS loading buffer, electrophoresed through sodium dodecylsulphate-polyacrylamide gel (SDS-PAGE; 15% gels) containing casein (1 mg/mL) with nonreducing conditions. After renaturation, incubation and CCB-stained, active MMP13 would hydrolyze casein nearby, which was indicated by the white bands on the gel. In the experiment, using a heat-denatured MMP13 protein as a negative control, and trypsin (1 µg/ml) as a positive control.

Observed MW (kDa) 25 kDa.

Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Glu103~Leu290 (NP_002418.1)**Expression System** E. coli**Purity** > 95%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

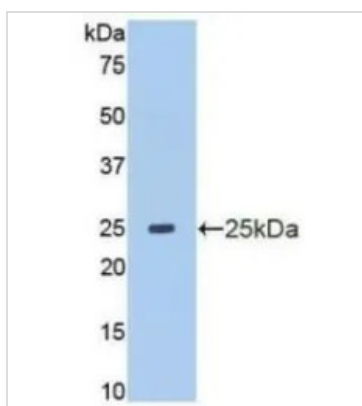
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DATA IMAGES

GTX00191-pro Functional Assay Image

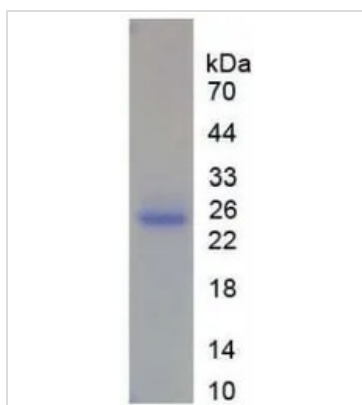
Gelatin hydrolysis by various concentrations of GTX00191-pro Human MMP13 protein (active).

Positive control: Trypsase (1 μ g/ml)

Negative control: Heat-denatured MMP13 protein


GTX00191-pro Image

WB analysis of GTX00191-pro Human MMP13 protein (active).


GTX00191-pro Image

SDS-PAGE analysis of GTX00191-pro Human MMP13 protein (active).



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