

Active Recombinant Rat Mmp13 protein, His-tagged

Cat. No. Mmp13-506R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Mmp13 protein(P23097)(14~466 aa), fused with N-terminal His tag, was expressed in HEK293.
Species	Rat
Source	HEK293
ProteinLength	14-466 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	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. In addition, it can cleave type I, III, IV, IX, X and XIV collagens and fibronectin. MMP13 is likely to play a crucial role in the modulation of extracellular matrix degradation and cell-matrix interactions. Although gelatin zymography is mainly used for the detection of the MMP2 and MMP9, it also can be used for MMP13 detection. Briefly, various concentrations of MMP13 (1000ng, 500ng, 250ng, 125ng) were denatured by SDS loading buffer, electrophoresed through sodium dodecylsulphat- polyacrylamide gel (SDS-PAGE; 10% gels) containing gelatin (1mg/mL) with nonreducing conditions. After renaturation, incubation and CCB-stained, active MMP13 would hydrolyze gelatin

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nearby, which was indicated by the white bands on the gel. In this experiment we use heat-denatured MMP13 protein as negative control, and blood sample as positive control.

Molecular Mass	53.4kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 97% 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 ddH ₂ O to a concentration of 0.1-0.5 mg/mL. Do not vortex.

GENE INFORMATION

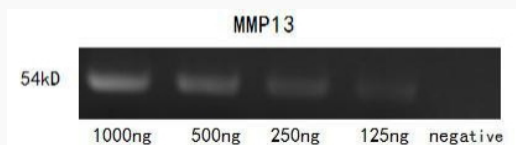
Gene Name	Mmp13 matrix metalloproteinase 13 [<i>Rattus norvegicus</i>]
Official Symbol	Mmp13
Synonyms	MMP13; matrix metalloproteinase 13; collagenase 3; MMP-13; UMRCASE; collagenase-3; matrix metalloproteinase 13; matrix metalloproteinase-13;
Gene ID	171052
mRNA Refseq	NM_133530
Protein Refseq	NP_598214

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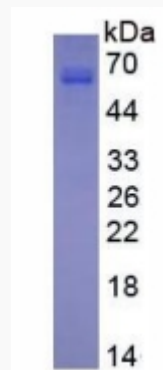
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Activity



SDS-PAGE



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