

Matrix Metalloproteinase 13 (MMP13) Active Protein | MMP13 active protein

Active Matrix Metalloproteinase 13 (MMP13)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA148163	293F cell	Rat	Activity Assay, Cell Culture

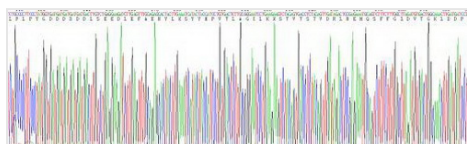
PRODUCT SYNONYMS

Matrix Metalloproteinase 13 (MMP13); Active Matrix Metalloproteinase 13 (MMP13); CLG3; Collagenase 3; MMP13 active protein

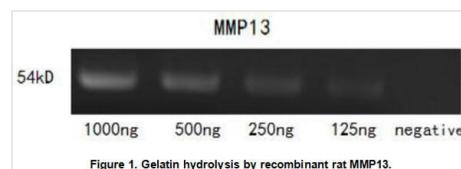
PRODUCT SPECIFICATIONS

Host	293F cell
Reactivity	Rat
Purity/Purification	> 97%
Form/Format	Freeze-dried powder
Sequence Length	466
Applicable Applications for MMP13 active protein	Activity Assay, Cell Culture
Tag	N-terminal His Tag
Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Fragment	Leu14~Cys466
Isoelectric Point	5.1

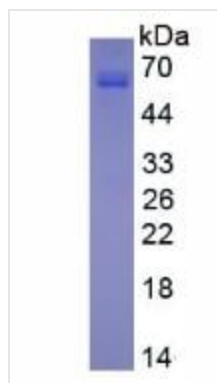
IMAGES



Application Data



Application Data



SDS-PAGE

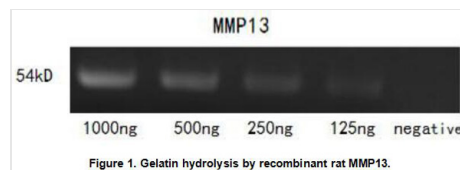


Figure 1. Gelatin hydrolysis by recombinant rat MMP13.

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 dodecylsulphate- polyacrylamide gel (SDS-PAGE; 10% gels) containing gelatin (1mg/mL) with nonreducing conditions. After renaturation, incubation and CCB-stained, active MMP13 would hydrolyze gelatin 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. Result: Gelatin hydrolysis by recombinant rat MMP13 was shown in figure 1.

ADDITIONAL INFORMATION

Product Categories/Family for MMP13 active protein

Enzyme & Kinase; Tumor immunity; Bone metabolism; Rheumatology

NCBI AND UNIPROT INFORMATION

NCBI GI #	116872
NCBI GeneID	171052
UniProt Accession #	P23097
Molecular Weight	Predicted Molecular Weight: 53.4kDa Accurate Molecular Weight: 60kDa
NCBI Official Full Name	Collagenase 3
NCBI Official Synonym Full Names	matrix metalloproteinase 13
NCBI Official Symbol	Mmp13
NCBI Protein Information	collagenase 3
UniProt Protein Name	Collagenase 3
UniProt Gene Name	Mmp13
UniProt Synonym Gene Names	MMP-13

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/293f-rat-active-protein/matrix-metalloproteinase-13-mmp13/148163>