

# Active Recombinant Human MMP13 protein, His-tagged

**Cat. No.** MMP13-2448H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Product Overview</b> | Active Recombinant Human MMP13 protein(P45452)(290~468 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>    | 290-468 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Form</b>             | Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Bio-activity</b>     | Matrix Metalloproteinase 13 (MMP13) is a member of the matrix metalloproteinase(MP) 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, I X, 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 non-reducing conditions. After renaturation, incubation and Coomassie Brilliant Blue (CBB)-stained, active MMP13 would hydrolyze gelatin nearby, which was indicated by the white band on the |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

e gel. In this experiment we use heat-denatured MMP13 protein as negative control, a nd blood sample as positive control.

**Molecular Mass** 20.9kDa

**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 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

**Gene Name** [MMP13 matrix metalloproteinase 13 \(collagenase 3\) \[ Homo sapiens \]](#)

**Official Symbol** [MMP13](#)

**Synonyms** MMP13; matrix metalloproteinase 13 (collagenase 3); matrix metalloproteinase 13 (collagenase 3); collagenase 3; CLG3; MMP-13; MANDP1;

**Gene ID** [4322](#)

**mRNA Refseq** [NM\\_002427](#)

**Protein Refseq** [NP\\_002418](#)

**MIM** [600108](#)

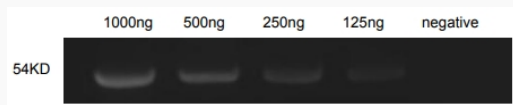
**UniProt ID** [P45452](#)

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## Activity



## SDS-PAGE

