

## 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 |

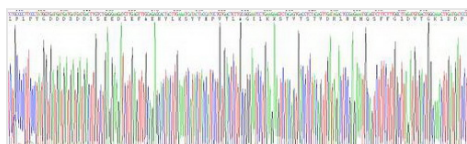
### PRODUCT SYNONYMS

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

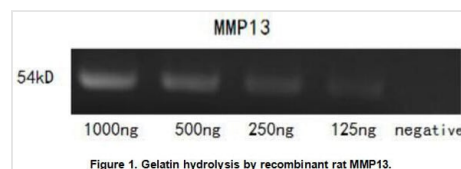
### PRODUCT SPECIFICATIONS

|                                                  |                                                                                                     |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 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                                                                                                 |

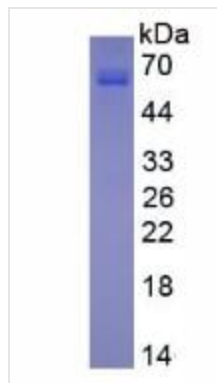
### IMAGES



Application Data



Application Data



SDS-PAGE

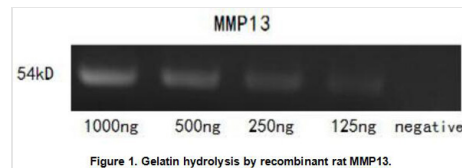


Figure 1. Gelatin hydrolysis by recombinant rat MMP13.

#### 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, 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<br>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                | <b>Mmp13</b>                                                            |
| 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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)

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