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# MMP13 Antibody (C-term)

**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP6197a**

## Specification

### MMP13 Antibody (C-term) - Product Information

| | |
|---|---|
| Application | **WB, IHC-P,E** |
| Primary Accession | P45452 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **53820** |
| Antigen Region | **295-324** |

### MMP13 Antibody (C-term) - Additional Information

**Gene ID** 4322

**Other Names**
Collagenase 3, 3424-, Matrix metalloproteinase-13, MMP-13, MMP13

**Target/Specificity**
This MMP13 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 295-324 amino acids from the C-terminal region of human MMP13.

**Dilution**
WB~~1:500
IHC-P~~1:50~100

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
MMP13 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### MMP13 Antibody (C-term) - Protein Information

**Name** MMP13

**Function** Plays a role in the degradation of extracellular matrix proteins including fibrillar collagen, fibronectin, TNC and ACAN. Cleaves triple helical collagens, including type I, type II and

type III collagen, but has the highest activity with soluble type II collagen. Can also degrade collagen type IV, type XIV and type X. May also function by activating or degrading key regulatory proteins, such as TGFB1 and CCN2. Plays a role in wound healing, tissue remodeling, cartilage degradation, bone development, bone mineralization and ossification. Required for normal embryonic bone development and ossification. Plays a role in the healing of bone fractures via endochondral ossification. Plays a role in wound healing, probably by a mechanism that involves proteolytic activation of TGFB1 and degradation of CCN2. Plays a role in keratinocyte migration during wound healing. May play a role in cell migration and in tumor cell invasion.

**Cellular Location**
Secreted, extracellular space, extracellular matrix. Secreted

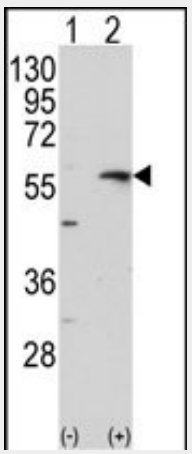
**Tissue Location**
Detected in fetal cartilage and calvaria, in chondrocytes of hypertrophic cartilage in vertebrae and in the dorsal end of ribs undergoing ossification, as well as in osteoblasts and periosteal cells below the inner periosteal region of ossified ribs Detected in chondrocytes from in joint cartilage that have been treated with TNF and IL1B, but not in untreated chondrocytes. Detected in T lymphocytes. Detected in breast carcinoma tissue

## MMP13 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## MMP13 Antibody (C-term) - Images




Western blot analysis of MMP13(arrow) using rabbit polyclonal MMP13 Antibody (Cat.#AP6197a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the MMP13 gene (Lane 2) (Origene Technologies).

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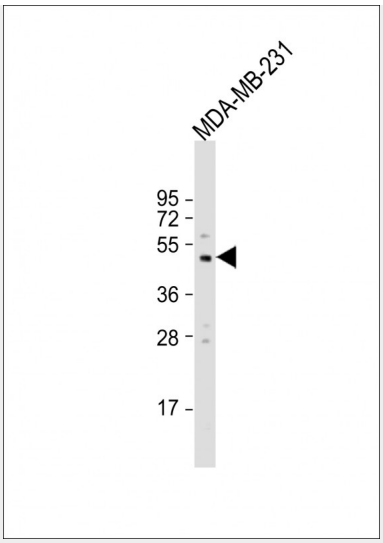
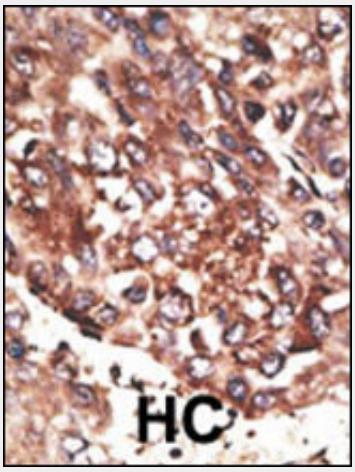
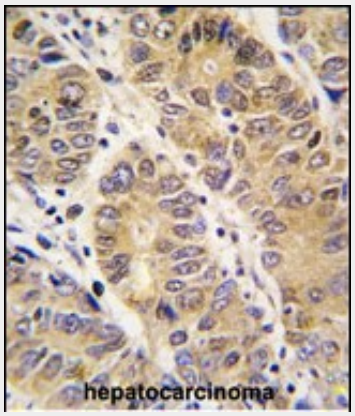



Anti-MMP13 Antibody (R310) at 1:500 dilution + MDA-MB-231 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.




Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with MMP13 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB

staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

**MMP13 Antibody (C-term) - Background**

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development,reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMPs are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The protein encoded by this gene cleaves type II collagen more efficiently than types I and III. It may be involved in articular cartilage turnover and cartilage pathophysiology associated with osteoarthritis. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3.

**MMP13 Antibody (C-term) - References**

Roy-Beaudry, M., et al., Arthritis Rheum. 48(10):2855-2864 (2003).
Liacini, A., et al., Exp. Cell Res. 288(1):208-217 (2003).
Hantke, B., et al., Biol. Chem. 384(8):1247-1251 (2003).
Im, H.J., et al., J. Biol. Chem. 278(28):25386-25394 (2003).
Tardif, G., et al., Osteoarthr. Cartil. 11(7):524-537 (2003).