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MMP13 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6197a

Product Information

Application	WB, IHC-P, E
Primary Accession	P45452
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2094
Calculated MW	53820
Antigen Region	295-324

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~~1:100~500 E~~Use at an assay dependent concentration.
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.

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

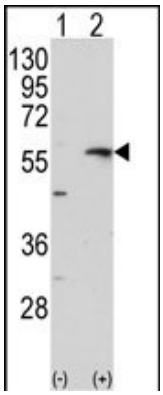
Background

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.

References

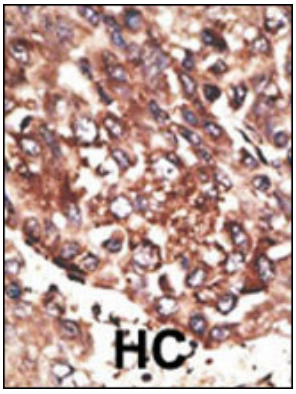
Roy-Beaudry, M., et al., Arthritis Rheum. 48(10):2855-2864 (2003).
Liacini, A., et al., Exp. Cell Res. 288(1):208-217 (2003).
Hantke, B., et al., Biol. Chem. 384(8):1247-1251 (2003).
Im, H.J., et al., J. Biol. Chem. 278(28):25386-25394 (2003).
Tardif, G., et al., Osteoarthr. Cartil. 11(7):524-537 (2003).

Images

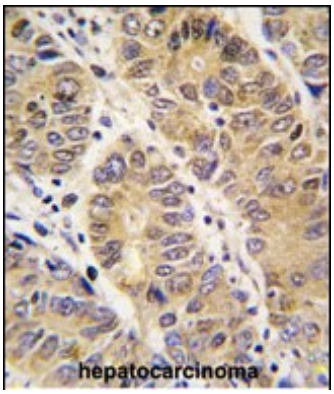


Western blot analysis of MMP13(arrow) using rabbit polyclonal MMP13 Antibody (Cat.#AP6197a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the MMP13 gene (Lane 2) (Origene Technologies).

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.