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MMP13 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP6197a

Specification

MMP13 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P45452

MMP13 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 4322

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6197a was selected from the C-term region of human MMP13 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MMP13 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- Blocking Peptides

MMP13 Antibody (C-term) Blocking Peptide - Images

MMP13 Antibody (C-term) Blocking Peptide - 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. MMP13 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) Blocking Peptide - 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).Im, H.J., et al., J. Biol. Chem. 278(28):25386-25394 (2003).Tardif, G., et al., Osteoarthr. Cartil. 11(7):524-537 (2003).Yu, Q., et al., J. Biol. Chem. 278(3):1579-1584 (2003).