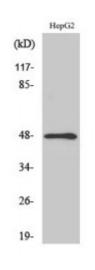


Anti-MMP-13 antibody



Description

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Rabbit polyclonal to MMP-13.

Model STJ94161

Host Rabbit

Reactivity Human

Applications ELISA, IF, IHC, WB

Immunogen Synthesized peptide derived from human MMP-13

Immunogen Region 10-90 aa, N-terminal

Gene ID <u>4322</u>

Gene Symbol MMP13

Dilution range WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:40000

Specificity MMP-13 Polyclonal Antibody detects endogenous levels of MMP-13 protein.

Tissue Specificity 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.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Collagenase 3 Matrix metalloproteinase-13 MMP-13

Molecular Weight 55 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links HGNC:7159OMIM:250400

Alternative Names Collagenase 3 Matrix metalloproteinase-13 MMP-13

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 CTGF. Plays a role in wound healing, tissue remodeling, cartilage degradation, bone development, bone mineralization and

remodeling, cartilage degradation, bone development, bone mineralization an 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 CTGF. Plays a role in keratinocyte migration during wound healing. May play a role in cell

migration and in tumor cell invasion.

Sequence and Domain Family The conserved cysteine present in the cysteine-switch motif binds the catalytic

zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme. The C-

terminal region binds to collagen.

Cellular Localization Secreted, extracellular space, extracellular matrix Secreted

Post-translational The proenzyme is activated by removal of the propertide; this cleavage can be

effected by other matrix metalloproteinases, such as MMP2, MMP3 and MMP14 and may involve several cleavage steps. Cleavage can also be autocatalytic, after partial maturation by another protease or after treatment with 4-aminophenylmercuric acetate (APMA) (in vitro).; N-glycosylated.

Tyrosine phosphorylated by PKDCC/VLK.

Modifications