

Rabbit anti-Human, Rat MMP 13 Polyclonal Antibody | anti-MMP13 antibody

MMP 13 Antibody

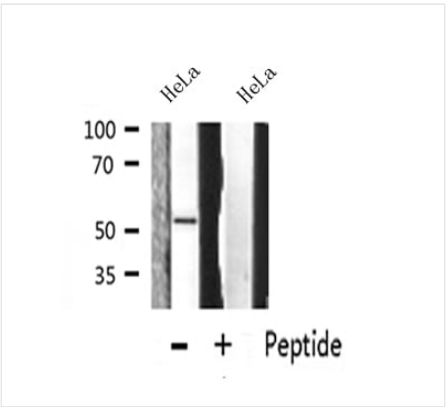
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322006	Rabbit	Human, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

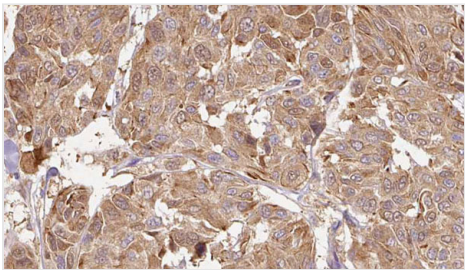
MMP 13; Polyclonal Antibody; MMP 13 Antibody; CLG 3; CLG3; Collagenase 3; Collagenase3; MANDP1; Matrix metalloproteinase 13 (collagenase 3); Matrix Metalloproteinase 13; Matrix metalloproteinase-13; MMP-13; Mmp13; MMP13_HUMAN; anti-MMP13 antibody

PRODUCT SPECIFICATIONS

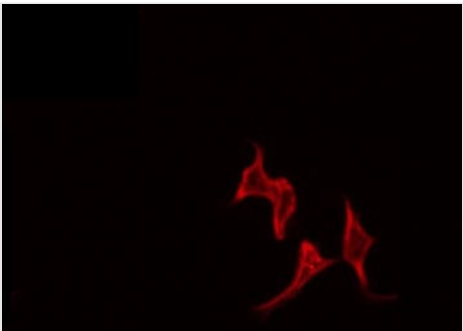
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MMP 13 antibody detects endogenous levels of total MMP 13
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	471
Applicable Applications for anti-MMP13 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MMP 13
Subcellular Location	Secreted > Extracellular Space > Extracellular Matrix.
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.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis on HeLa cell lysate using MMP-13 Antibody



IHC (Immunohistochemistry)
AAA322006 at 1/100 staining Human Melanoma tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IF (Immunofluorescence)
AAA322006 staining LOVO by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MMP13 antibody

Description: Defects in MMP13 are the cause of spondyloepimetaphyseal dysplasia Missouri type (SEMD-MO) [MIM:602111]. A bone disease characterized by moderate to severe metaphyseal changes, mild epiphyseal involvement, rhizomelic shortening of the lower limbs with bowing of the femora and/or tibiae, coxa vara, genu varum and pear-shaped vertebrae in childhood. Epimetaphyseal changes improve with age.

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 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.

Subunit Structure: Monomer. Interacts with TIMP1, TIMP2 and TIMP3. Binds (via the C-terminal region) to collagen.

Post-translational Modifications: The proenzyme is activated by removal of the propeptide; 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.

Similarity: 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 (By similarity).The C-terminal region binds to collagen. Belongs to the peptidase M10A family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505209
NCBI GeneID	4322
NCBI Accession #	NP_002418.1
NCBI GenBank Nucleotide #	NM_002427.3
UniProt Accession #	P45452; Q6NWN6; A8K846; B2RCZ3
Molecular Weight	Observed: 54 kDa Predicted: 54 kDa
NCBI Official Full Name	collagenase 3 preproprotein
NCBI Official Synonym Full Names	matrix metalloproteinase 13
NCBI Official Symbol	MMP13
NCBI Official Synonym Symbols	CLG3; MDST; MANDP1; MMP-13
NCBI Protein Information	collagenase 3
UniProt Protein Name	Collagenase 3
UniProt Gene Name	MMP13
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
Online datasheet: <https://www.aaabiotech.com/polyclonal/mmp-13-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/322006>