

MMP1 (Cleaved-Ile271) rabbit pAb

Cat No.: ES20022

For research use only

Overview

Product Name MMP1 (Cleaved-Ile271) rabbit pAb

Host species Rabbit

Applications WB;ELISA;IHC

Species Cross-Reactivity Human;Rat;Mouse;

Recommended dilutions WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000

Immunogen Synthesized peptide derived from human MMP1

(Cleaved-Ile271)

Specificity This antibody detects endogenous levels of Human

MMP1 (Cleaved-Ile271, protein was cleaved amino

acid sequence between 270-271)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and

0.02% sodium azide.

Storage Store at -20°C. Avoid repeated freeze-thaw cycles.

Protein Name MMP1 (Cleaved-Ile271)

Gene Name MMP1 CLG

Cellular localizationSecreted, extracellular space, extracellular matrix .PurificationThe antibody was affinity-purified from rabbit

antiserum by affinity-chromatography using

epitope-specific immunogen.

Clonality Polyclonal
Concentration 1 mg/ml
Observed band 22 53kD
Human Gene ID 4312
Human Swiss-Prot Number P03956

Alternative Names Interstitial collagenase (EC 3.4.24.7; Fibroblast

collagenase;Matrix metalloproteinase-1;MMP-1) [Cleaved into: 22 kDa interstitial collagenase; 27 kDa

interstitial collagenase]

Background catalytic activity: Cleavage of the triple helix of

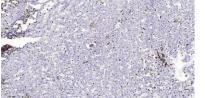
collagen at about three-quarters of the length of the molecule from the N-terminus, at 775-Gly-|-Ile-776 in the alpha-1(I) chain. Cleaves synthetic substrates and alpha-macroglobulins at bonds where P1' is a



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hydrophobic residue., cofactor: Binds 2 zinc ions per subunit.,cofactor:Binds 4 calcium ions per subunit.,domain: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.,domain:There are two distinct domains in this protein; the catalytic N-terminal, and the C-terminal which is involved in substrate specificity and in binding TIMP (tissue inhibitor of metalloproteinases).,enzyme regulation:Can be activated without removal of the activation peptide., function: Cleaves collagens of types I, II, and III at one site in the helical domain. Also cleaves collagens of types VII and X. In case of HIV infection, interacts and cleaves the secreted viral Tat protein, leading to a decrease in neuronal Tat's mediated neurotoxicity., online information: Collagenase entry, PTM: Undergoes autolytic cleavage to two major forms (22 kDa and 27 kDa). A minor form (25 kDa) is the glycosylated form of the 22 kDa form. The 27 kDa form has no activity while the 22/25 kDa form can act as activator for collagenase., similarity: Belongs to the peptidase M10A family., similarity: Contains 4 hemopexin-like domains., subunit: Interacts with HIV-1 Tat.,



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Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).

