



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 localization	Secreted, extracellular space, extracellular matrix .
Purification	The 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





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.,

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).

