



MMP1 (Cleaved-Ile271) mouse mAb

Catalog No	YP-mAb-02310
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	MMP1 CLG
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.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	MMP-1;MMP1 CLG;MMP1 (Cleaved-Ile271);Interstitial collagenase (EC 3.4.24.7; Fibroblast collagenase;Matrix metalloproteinase-1;MMP-1) [Cleaved into: 22 kDa interstitial collagenase;27 kDa interstitial collagenase]
Observed Band	22 53kD
Calculated Molecular Weight	22 53kD
Cell Pathway	Secreted, extracellular space, extracellular matrix .
Tissue Specificity	
Function	proteolysis, collagen catabolic process, collagen metabolic process, multicellular organismal metabolic process,multicellular organismal catabolic process, multicellular organismal macromolecule metabolic process,
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.,

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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