Product datasheet

Anti-MMP1 antibody ab137332

Overview

Product name: Anti-MMP1 antibody
Description: Rabbit polyclonal to MMP1
Host species: Rabbit
Tested applications: Suitable for: ICC/IF, IHC-P, WB
Species reactivity: Reacts with: Mouse, Human
Predicted to work with: Rabbit, Cow, Pig
Immunogen: Recombinant fragment, corresponding to a region within amino acids 42-244 of Human MMP1.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: pH: 7,00
Preservative: 0.01% Thimerosal (merthiolate)
Constituents: 0.75% Glycine, 1.21% Tris, 10% Glycerol
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab137332 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<th>Application</th>
<th>Abreviews</th>
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<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration. PubMed: 23902766</td>
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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.

Sequence similarities
Belongs to the peptidase M10A family.
Contains 4 hemopexin-like domains.

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). 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.

Post-translational modifications
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.

Cellular localization
Secreted > extracellular space > extracellular matrix.

Images

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cervical carcinoma tissue labelling MMP1 with ab137332 at a dilution of 1/500.
Western blot - Anti-MMP1 antibody (ab137332) at 1/1000 dilution + Raji whole cell lysate at 30 µg

Predicted band size: 54 kDa

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human endometrial carcinoma tissue labelling MMP1 with ab137332 at a dilution of 1/500.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of paraffin-embedded human breast cancer tissue labelling MMP1, using ab137332 at a 1/250 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse prostate tissue labelling MMP1 with ab137332 at a dilution of 1/500.

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