Product datasheet

Anti-MMP1 antibody ab38929

Overview

Product name          Anti-MMP1 antibody
Description           Rabbit polyclonal to MMP1
Host species          Rabbit
Specificity           This antibody binds to MMP1, but does not cross react with the other MMP family members (MMP2, MMP3, MMP9).
Tested applications   Suitable for: WB
Species reactivity    Reacts with: Horse, Dog, Human
Immunogen             Synthetic peptide corresponding to MMP1. based on the hemopexin domain of the human sequence
                       (Peptide available as ab41003)

Properties

Form                  Liquid
Storage buffer        Preservative: 0.05% Sodium azide
                       Constituent: 50% Glycerol
Purity                Immunogen affinity purified
Clonality             Polyclonal
Isotype               IgG

Applications

Our Abpromise guarantee covers the use of ab38929 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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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

Western blot - Anti-MMP1 antibody (ab38929)

All lanes: Anti-MMP1 antibody (ab38929)

Lane 1: Human MMP1.
Lane 2: Cell Media from human chondrosarcoma (no treatment).
Lane 3: Cell Media from human chondrosarcoma (treated with TPA).

Predicted band size: 54 kDa
Observed band size: 53 kDa

why is the actual band size different from the predicted?

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