Product datasheet

Anti-MMP1 antibody ab38929

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Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-MMP1 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit polyclonal to MMP1</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Specificity</td>
<td>This antibody binds to MMP1, but does not cross react with the other MMP family members (MMP2, MMP3, MMP9).</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Horse, Dog, Human</td>
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<tr>
<td>Immunogen</td>
<td>Synthetic peptide corresponding to MMP1. based on the hemopexin domain of the human sequence (Peptide available as ab41003)</td>
</tr>
<tr>
<td>General notes</td>
<td>Reproducibility is key to advancing scientific discovery and accelerating scientists’ next breakthrough. Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility. We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee. In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for. We are also updating the applications &amp; species that this product has been &quot;predicted to work with,&quot; however this information is not covered by our Abpromise guarantee. Applications &amp; species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&amp;As.</td>
</tr>
</tbody>
</table>

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](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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★☆☆</td>
<td>1/5000. Predicted molecular weight: 54 kDa. When used against the reduced protein this antibody identifies bands at 53 Kd and 51 Kd (the pro-form), as well as the initial active forms. Dilution optimised using Chromogenic detection.</td>
</tr>
</tbody>
</table>

Target

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?

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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