Product datasheet

Anti-Factor VIII antibody [GMA-012] ab78852

Overview

Product name: Anti-Factor VIII antibody [GMA-012]
Description: Mouse monoclonal [GMA-012] to Factor VIII
Host species: Mouse
Tested applications: Suitable for: WB, ELISA, IHC-P
Species reactivity: Reacts with: Human
Immunogen: Purified human Factor VIII
Positive control: Human Factor VIII. This antibody gave a positive result in IHC in the following FFPE tissue: Human normal liver.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer: pH: 7.40
Constituents: 1% Mannitol, 0.87% Sodium chloride, 0.164% Sodium phosphate
Purity: DEAE-Chromatography
Clonality: Monoclonal
Clone number: GMA-012
Isotype: IgG1

Applications

Our Abpromise guarantee covers the use of ab78852 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>
<th>Notes</th>
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<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 280 kDa (predicted molecular weight: 267 kDa).</td>
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<tr>
<td>ELISA</td>
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<td>Use at an assay dependent concentration.</td>
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Function
Factor VIII, along with calcium and phospholipid, acts as a cofactor for factor IXa when it converts factor X to the activated form, factor Xa.

Involvement in disease
Defects in F8 are the cause of hemophilia A (HEMA) [MIM:306700]. A disorder of blood coagulation characterized by a permanent tendency to hemorrhage. About 50% of patients have severe hemophilia resulting in frequent spontaneous bleeding into joints, muscles and internal organs. Less severe forms are characterized by bleeding after trauma or surgery. Note=Of particular interest for the understanding of the function of F8 is the category of CRM (cross-reacting material) positive patients (approximately 5%) that have considerable amount of F8 in their plasma (at least 30% of normal), but the protein is non-functional; i.e., the F8 activity is much less than the plasma protein level. CRM-reduced is another category of patients in which the F8C antigen and activity are reduced to approximately the same level. Most mutations are CRM negative, and probably affect the folding and stability of the protein.

Sequence similarities
Belongs to the multicopper oxidase family.
Contains 3 F5/8 type A domains.
Contains 2 F5/8 type C domains.
Contains 6 plastocyanin-like domains.

Domain
Domain F5/8 type C 2 is responsible for phospholipid-binding and essential for factor VIII activity.

Post-translational modifications
Sulfation on Tyr-1699 is essential for binding vWF.

Cellular localization
Secreted > extracellular space.

Images
Anti-Factor VIII antibody [GMA-012] (ab78852) at 1 µg/ml + human Factor VIII at 2 µg

Secondary
Goat anti-mouse HRP conjugated IgG

Predicted band size: 267 kDa
Observed band size: 280 kDa

why is the actual band size different from the predicted?
IHC image of Factor VIII staining in Human normal liver formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab78852, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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