## Overview

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

### General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, customer reviews and Q&As.

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## Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
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<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.</td>
</tr>
</tbody>
</table>
| **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.
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.

Application| Abrevviews | Notes |
---|---|---|
WB | | Use a concentration of 1 µg/ml. Detects a band of approximately 280 kDa (predicted molecular weight: 267 kDa). |
IHC-P | | Use a concentration of 5 µg/ml. |
Western blot - Anti-Factor VIII antibody [GMA-012] (ab78852)

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Factor VIII antibody [GMA-012] (ab78852)

IHC image of Factor VIII staining in Human normal liver formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ 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.

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

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