Product datasheet

Anti-Fibrinogen antibody ab34269

Overview

Product name
Anti-Fibrinogen antibody

Description
Rabbit polyclonal to Fibrinogen

Host species
Rabbit

Tested applications
Suitable for: IHC-P, ICC/IF, ELISA, Functional Studies, Sandwich ELISA

Species reactivity
Reacts with: Mouse, Rabbit, Human

Immunogen
Purified fibrinogen from human plasma.

Properties

Form
Liquid

Storage instructions

Storage buffer
Constituent: Whole serum

Purity
Whole antiserum

Clonality
Polyclonal

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab34269 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>IHC-P</td>
<td>★★★★☆☆</td>
<td>1/50. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>1/500.</td>
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</tbody>
</table>
**Function**
Fibrinogen has a double function: yielding monomers that polymerize into fibrin and acting as a cofactor in platelet aggregation.

**Tissue specificity**
Plasma.

**Involvement in disease**
Defects in FGA are a cause of congenital afibrinogenemia (CAFBN) [MIM:202400]. This is a rare autosomal recessive disorder characterized by bleeding that varies from mild to severe and by complete absence or extremely low levels of plasma and platelet fibrinogen. Note=The majority of cases of afibrinogenemia are due to truncating mutations. Variations in position Arg-35 (the site of cleavage of fibrinopeptide a by thrombin) leads to alpha-dysfibrinogenemias.
Defects in FGA are a cause of amyloidosis type 8 (AMYL8) [MIM:105200]; also known as systemic non-neuropathic amyloidosis or Ostertag-type amyloidosis. AMYL8 is a hereditary generalized amyloidosis due to deposition of apolipoprotein A1, fibrinogen and lysozyme amyloids. Viscera are particularly affected. There is no involvement of the nervous system. Clinical features include renal amyloidosis resulting in nephrotic syndrome, arterial hypertension, hepatosplenomegaly, cholestasis, petechial skin rash.

**Sequence similarities**
Contains 1 fibrinogen C-terminal domain.

**Domain**
A long coiled coil structure formed by 3 polypeptide chains connects the central nodule to the C-terminal domains (distal nodules). The long C-terminal ends of the alpha chains fold back, contributing a fourth strand to the coiled coil structure.

**Post-translational modifications**
The alpha chain is not glycosylated.
Forms F13A-mediated cross-links between a glutamine and the epsilon-amino group of a lysine residue, forming fibronectin-fibrinogen heteropolymers.
About one-third of the alpha chains in the molecules in blood were found to be phosphorylated. Conversion of fibrinogen to fibrin is triggered by thrombin, which cleaves fibrinopeptides A and B from alpha and beta chains, and thus exposes the N-terminal polymerization sites responsible for the formation of the soft clot. The soft clot is converted into the hard clot by factor XIIIA which catalyzes the epsilon-(gamma-glutamyl)lysine cross-linking between gamma chains (stronger) and between alpha chains (weaker) of different monomers.
Phosphorylation sites are present in the extracellular medium.

**Cellular localization**
Secreted.

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<tr>
<td>Functional Studies</td>
<td>Use at an assay dependent concentration. This antibody has been tested in plasma clotting assays. The plasma clotting time was prolonged (but not completely neutralized) by the antibody. Testing has indicated that these neutralisation assays work only when this antibody has been protein A column purified first.</td>
<td></td>
</tr>
<tr>
<td>Sandwich ELISA</td>
<td>1/200. For sandwich ELISA, use this antibody as Detection at 1/200 dilution with Mouse monoclonal [1F7] to Fibrinopeptide A (ab14790) as Capture.</td>
<td></td>
</tr>
</tbody>
</table>

**Target**

**Function**
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**Cellular localization**
Secreted.
Ab34269 staining human liver. Staining is localized to the cytoplasm.
Left panel: with primary antibody at 1/50. Right panel: isotype control.
Sections were stained using an automated system (Dako PT Link), at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 antigen retrieval buffer, citrate pH 6.0.
Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX.
Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.

Standard Curve for Fibrinogen (Analyte: Fibrinogen protein (Human) (ab84410)); dilution range 1pg/ml to 1µg/ml using Capture Antibody Mouse monoclonal [1F7] to Fibrinopeptide A (ab14790) at 5µg/ml and Detector Antibody Rabbit polyclonal to Fibrinogen (ab34269) at 1/2000.

ab34269 staining Fibrinogen in Human liver/placenta tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded tissue sections). The sections were fixed in formaldehyde and subjected to heat-mediated antigen retrieval in citrate buffer, pH 6.0 for 20 minutes at 100°C. The primary antibody was diluted 1/2000 and incubated with the sample for 20 minutes at 25°C. An HRP polymer-conjugated mouse anti-rabbit polyclonal IgG was used as the secondary antibody.
Immunohistochemical analysis of rat heart, staining Fibrinogen with ab34269.

Tissue was fixed with formaldehyde and blocked with 0.25% BSA for 15 minutes at room temperature; antigen retrieval was by heat mediation in citrate buffer. Samples were incubated with primary antibody (1.5 µg/ml in 1% BSA in TBS) for 20 minutes. An undiluted HRP-conjugated goat anti-rabbit polyclonal IgG was used as the secondary antibody.

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