

Product datasheet

Anti-Factor X antibody [EPR16249] ab196023

Recombinant RabMAb

5 Images

Overview

<b>Product name</b>	Anti-Factor X antibody [EPR16249]
<b>Description</b>	Rabbit monoclonal [EPR16249] to Factor X
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment within Human Factor X aa 150-300. The exact sequence is proprietary. Database link: <a href="#">P00742</a>
<b>Positive control</b>	Human fetal liver, Human blood, Human plasma and HepG2 lysates; Human liver tissue.
<b>General notes</b>	

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

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 & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise<sup>™</sup> guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & 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&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR16249
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab196023** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/20000. Detects a band of approximately 74 kDa (predicted molecular weight: 54 kDa).
IHC-P		1/1200. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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## Target

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<b>Function</b>	Factor Xa is a vitamin K-dependent glycoprotein that converts prothrombin to thrombin in the presence of factor Va, calcium and phospholipid during blood clotting.
<b>Tissue specificity</b>	Plasma; synthesized in the liver.
<b>Involvement in disease</b>	Defects in F10 are the cause of factor X deficiency (FA10D) [MIM:227600]. A hemorrhagic disease with variable presentation. Affected individuals can manifest prolonged nasal and mucosal hemorrhage, menorrhagia, hematuria, and occasionally hemarthrosis. Some patients do not have clinical bleeding diathesis.
<b>Sequence similarities</b>	Belongs to the peptidase S1 family. Contains 2 EGF-like domains. Contains 1 Gla (gamma-carboxy-glutamate) domain. Contains 1 peptidase S1 domain.

## Post-translational modifications

The vitamin K-dependent, enzymatic carboxylation of some glutamate residues allows the modified protein to bind calcium.

N- and O-glycosylated.

The activation peptide is cleaved by factor IXa (in the intrinsic pathway), or by factor VIIa (in the extrinsic pathway).

The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.

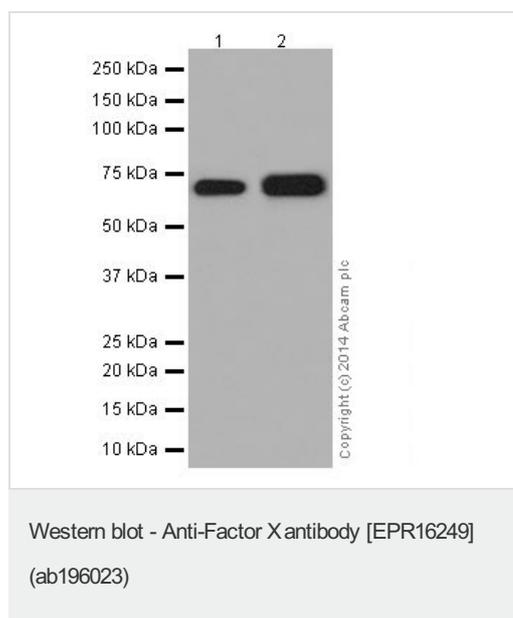
## Cellular localization

Secreted.

## Form

Cleaved into the following 3 chains: 1. Factor X light chain 2. Factor X heavy chain 3. Activated factor Xa heavy chain

## Images



**All lanes :** Anti-Factor X antibody [EPR16249] (ab196023) at 1/20000 dilution

**Lane 1 :** Human fetal liver lysate

**Lane 2 :** Human blood lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 54 kDa

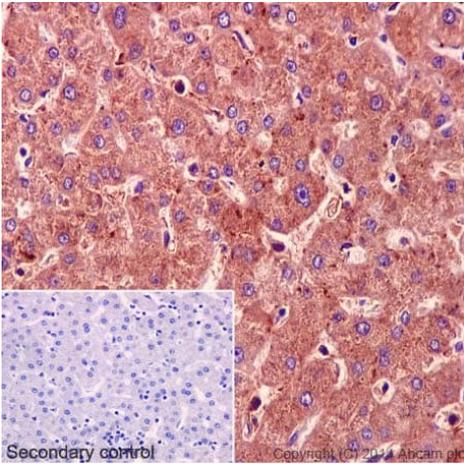
**Observed band size:** 74 kDa

[why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDM/TBST.

We hypothesis the 74 kDa band is the precursor of Factor X.

Factor X contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted. This is consistent with what has been seen in PMID: 19691479.

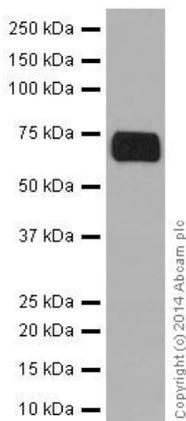


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Factor X antibody [EPR16249] (ab196023)

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Factor X with ab196023 at 1/1200 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Cytoplasm staining on Human liver tissue is observed. Counter stained with Hematoxylin.

Secondary control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-Factor X antibody [EPR16249] (ab196023)

Anti-Factor X antibody [EPR16249] (ab196023) at 1/20000 dilution + Human plasma lysate at 10 µg

**Secondary**

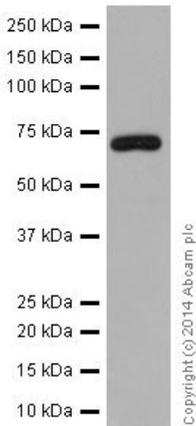
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

**Predicted band size:** 54 kDa

**Observed band size:** 74 kDa [why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDM/TBST.

We hypothesize the 74 kDa band is the precursor of Factor X. Factor X contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted. This is consistent with what has been seen in PMID: 19691479.



Western blot - Anti-Factor X antibody [EPR16249] (ab196023)

Anti-Factor X antibody [EPR16249] (ab196023) at 1/20000 dilution + HepG2 (Human liver hepatocellular carcinoma) cell lysate at 20 µg

**Secondary**

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 54 kDa

**Observed band size:** 74 kDa [why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDm/TBST.

We hypothesize the 74 kDa band is the precursor of Factor X. Factor X contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted. This is consistent with what has been seen in PMID: 19691479.

Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

Anti-Factor X antibody [EPR16249] (ab196023)

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

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