abcam

Product datasheet

Anti-Factor X antibody [EPR16249] ab196023

Recombinant RabMAb

5 Images

Overview

Product name	Anti-Factor X antibody [EPR16249]
Description	Rabbit monoclonal [EPR16249] to Factor X
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human fetal liver, Human blood, Human plasma and HepG2 lysates; Human liver tissue.
General notes	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® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR16249
Isotype	IgG

Applications

The Abpromise guarantee 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.

Target

Function 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.

Tissue specificity Plasma; synthesized in the liver.

Involvement in disease 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.

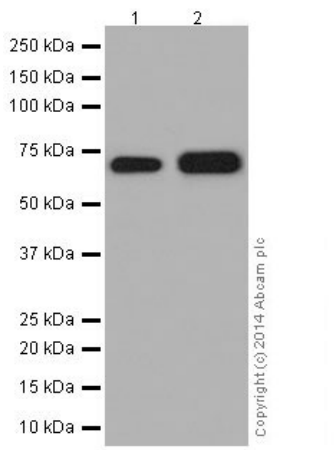
Sequence similarities Belongs to the peptidase S1 family.
Contains 2 EGF-like domains.
Contains 1 Gla (gamma-carboxy-glutamate) domain.
Contains 1 peptidase S1 domain.

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



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

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

Lane 1 : Human fetal liver lysate
Lane 2 : Human blood lysate

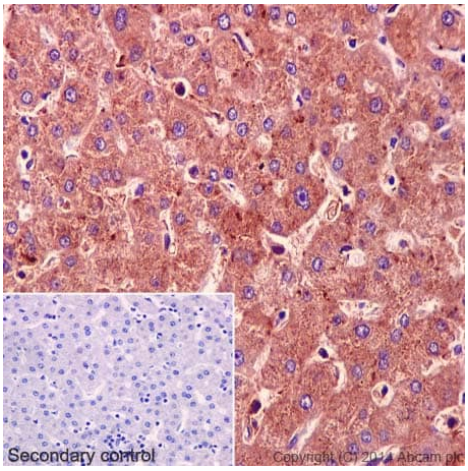
Lysates/proteins at 10 µg per lane.

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

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.

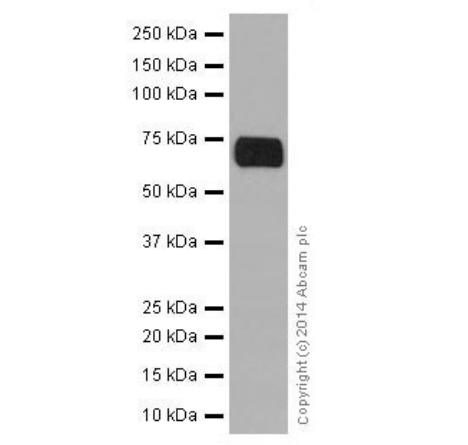


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Factor X antibody [EPR16249] (ab196023)

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

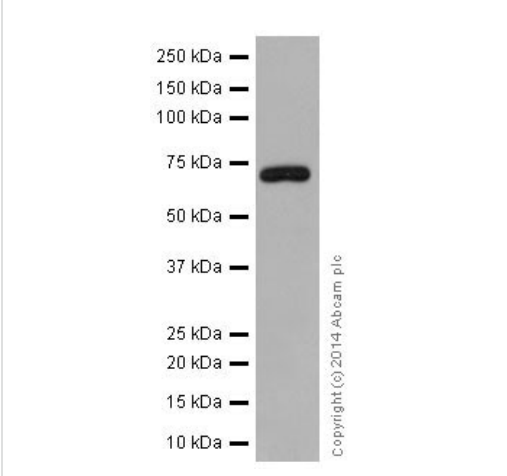
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 54 kDa

Observed band size: 74 kDa

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.



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

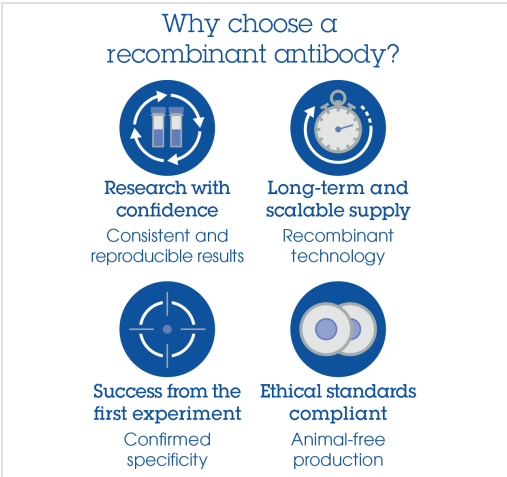
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 54 kDa

Observed band size: 74 kDa

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.



Anti-Factor X antibody [EPR16249] (ab196023)

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