

# Anti-Factor XII antibody [EPR22292-127] - BSA and Azide free ab242152

Recombinant RabMAb

[3 Images](#)

### Overview

<b>Product name</b>	Anti-Factor XII antibody [EPR22292-127] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR22292-127] to Factor XII - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP <b>Unsuitable for:</b> ICC/IF or IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IP: Human plasma and serum.
<b>General notes</b>	<p>ab242152 is the carrier-free version of <a href="#">ab242123</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22292-127
<b>Isotype</b>	IgG

## Applications

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**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab242152 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		Use at an assay dependent concentration. Detects a band of approximately 80, 50 kDa (predicted molecular weight: 67 kDa).
IP		Use at an assay dependent concentration.

**Application notes** Is unsuitable for ICC/IF or IHC-P.

## Target

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**Function** Factor XII is a serum glycoprotein that participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha-factor XIIa and then trypsin cleaves it to beta-factor XIIa. Alpha-factor XIIa activates factor XI to factor XIa.

**Involvement in disease** Defects in F12 are the cause of factor XII deficiency (FA12D) [MIM:234000]; also known as Hageman factor deficiency. This trait is an asymptomatic anomaly of in vitro blood coagulation. Its diagnosis is based on finding a low plasma activity of the factor in coagulating assays. It is usually only accidentally discovered through pre-operative blood tests. F12 deficiency is divided into two categories, a cross-reacting material (CRM)-negative group (negative F12 antigen detection) and a CRM-positive group (positive F12 antigen detection).

Defects in F12 are the cause of hereditary angioedema type 3 (HAE3) [MIM:610618]; also known as estrogen-related HAE or hereditary angioneurotic edema with normal C1 inhibitor concentration and function. HAE is characterized by episodic local subcutaneous edema, and submucosal edema involving the upper respiratory and gastrointestinal tracts. HAE3 occurs exclusively in women and is precipitated or worsened by high estrogen levels (e.g., during pregnancy or treatment with oral contraceptives). It differs from HAE types 1 and 2 in that both concentration and function of C1 inhibitor are normal.

**Sequence similarities** Belongs to the peptidase S1 family.  
Contains 2 EGF-like domains.

Contains 1 fibronectin type-I domain.  
Contains 1 fibronectin type-II domain.  
Contains 1 kringle domain.  
Contains 1 peptidase S1 domain.

## Post-translational modifications

Factor XII is activated by kallikrein in alpha-factor XIIa, which is then further converted by trypsin into beta-factor XIIa. Alpha-factor XIIa is composed of the NH<sub>2</sub>-terminal heavy chain (Coagulation factor XIIa heavy chain) and the COOH-terminal light chain (Coagulation factor XIIa light chain), connected by a disulfide bond. Beta-factor XIIa is composed of 2 chains linked by a disulfide bond, a light chain (Beta-factor XIIa part 2), corresponding to the COOH-terminal light chain (Coagulation factor XIIa light chain) and a nonapeptide (Beta-factor XIIa part 1).  
O- and N-glycosylated. The O-linked polysaccharides were not identified, but are probably the mucin type linked to GalNAc.

## Cellular localization

Secreted.

## Images



Immunoprecipitation - Anti-Factor XII antibody  
[EPR22292-127] - BSA and Azide free (ab242152)

Factor XII was immunoprecipitated from 0.35 mg of human serum with **ab242123** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab242123** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5000 dilution.

**Lane 1:** Human serum 10 µg (Input).

**Lane 2:** **ab242123** IP in human serum.

**Lane 3:** Rabbit monoclonal IgG (**ab172730**) instead of **ab242123** in human serum.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 5 seconds.

Factor XII is an 80kDa glycoprotein undergoes catalysis and forms the 70kDa cleavage and 50kDa heavy chain of alpha-factor XIIa. (PMID: 8049433, PMID 2473984).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab242123**).



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### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

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

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