abcam

Product datasheet

Anti-Factor XII heavy chain antibody [B7C9] ab1007

★★★★★ 2 Abreviews 6 References 1 Image

Overview

Product name	Anti-Factor XII heavy chain antibody [B7C9]
Description	Mouse monoclonal [B7C9] to Factor XII heavy chain
Host species	Mouse
Specificity	This antibody reacts with the heavy chain of human Factor XII (mw~50,000) with a KD of 9.8nM.
Tested applications	**Suitable for:** Other, ELISA, IP, Inhibition Assay, WB
Species reactivity	**Reacts with:** Rat, Human
Immunogen	Purified human Factor XII.
Epitope	The specific epitope for this antibody is located within a 20 amino acid sequence in the surface binding area of Factor XII.
General notes	Abcam is committed to meeting high standards of ethical manufacturing and as such, we will be discontinuing this product, which has been generated by the ascites method, within the next year. We are sorry for any inconvenience this may cause. If you would like help finding an alternative product, please do not hesitate to contact our scientific support team.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Constituents: PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Clone number	B7C9
Isotype	IgG1

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab1007 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
Other		Use at an assay dependent concentration.
AP		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
Inhibition Assay		Use at an assay dependent concentration.
WB	★★★★★ (2)	Use at an assay dependent concentration. Dilute in PBS or medium which is identical to that used in the assay system. This antibody partially blocks Factor XII activity.

Target

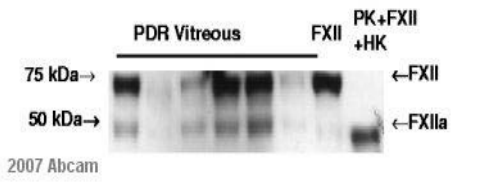
Relevance

Coagulation factor XII circulates in blood as a zymogen. This single chain zymogen is converted to a two chain serine protease with an heavy chain (alpha factor XIIa) and a light chain. The heavy chain contains two fibronectin type domains, two epidermal growth factor (EGF) like domains, a kringle domain and a proline rich domain, whereas the light chain contains only a catalytic domain. On activation, further cleavages takes place in the heavy chain, resulting in the production of beta factor XIIa light chain and the alpha factor XIIa light chain becomes beta factor XIIa heavy chain. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha factor XIIa and then to beta factor XIIa. The active factor XIIa participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. It activates coagulation factors VII and XI. Defects in Factor XII gene do not cause any clinical symptoms and the sole effect is that whole blood clotting time is prolonged.

Cellular localization

Secreted

Images



Western blot - Anti-Factor XII heavy chain antibody [B7C9] (ab1007)

This image is courtesy of an anonymous Abreview

ab1007 at 1/2000 staining Factror XII heavy chain by Western Blot.

Lanes 1-6: Human vitreous tissue lysate (2 ug/lane).

Lane 7: Factor XII

Lane 8: Factor XIIa.

A HRP conjugated goat anti-mouse antibody was used as the secondary.

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

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