

Sheep anti-human Factor XI (FXI)

Affinity Purified IgG

0.5 mg

Product #: SAFXI-AP

Lot #: XXXX

Expiry date: XXXX

Store at -10 to -20°C

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For Research Use Only.

Not for use in diagnostic procedures.

Description of Factor XI (FXI)

Factor XI (FXI, plasma thromboplastin antecedent) is a coagulation protein produced in the liver that circulates in plasma at approximately 5 µg/ml (30 nM). The mass of FXI is 160 kDa as determined by SDS-PAGE under non-reducing conditions and 80 kDa upon reduction. FXI consists of two identical 80 kDa subunits linked by disulphide bonds. Each subunit consists of a tandem repeat of four apple domains followed by a serine protease catalytic domain. Cleavage of FXI by activated factor XII or thrombin converts each subunit into a two-chain form and generates two active sites per FXIa molecule. The mass of FXIa is 160 kDa unreduced, but upon reduction FXIa migrates as a heavy chain of 50 kDa and a light chain of 30 kDa. The catalytic site of FXIa resides in the light chain. In plasma, FXI or FXIa circulates in non-covalent 1:1 complex with high molecular weight kininogen, which acts as a cofactor in the activation of FXI by activated factor XII. The activity of FXIa is regulated by platelets and by several proteinase inhibitors including, in order of decreasing importance, C1-inhibitor, α_2 antiplasmin, α_1 antitrypsin and antithrombin. Heparin has relatively little effect on the rate of inhibition of FXIa by antithrombin. The only known natural substrate for activated FXI (FXIa) is factor IX (Christmas factor) and the only cofactor required for this reaction is ionized calcium¹⁻³.

REFERENCES and REVIEWS

1. Wuillemin WA, Minnema M, Meijers JCM, Roem D, Erenberg AJM, Nuijens JH, ten Cate H, Hack EC; Inactivation of Factor XIa in Human Plasma Assessed by Measuring Factor XIa-Protease Inhibitor Complexes: Major Role for C1-Inhibitor. *Blood* 85:1517, 1995.
2. DeLa Cadena R, Watchfogel YT, Colman RW, in Hemostasis and Thrombosis, 3rd Edition, eds. RW Colman, J Hirsh, VJ Marder and EW Salzman, pp. 219-240, J.B. Lippincott Co., Philadelphia, 1994.
3. Baglia FA, Seaman FS, Walsh, PN; The Apple 1 and 4 domains of Factor XI Act to Synergistically Promote the Surface-Mediated Activation of Factor XI by Factor XIIa. *Blood* 85:2078, 1995.

Product Specifications

Description:

Vial containing XXXX ml of IgG purified by affinity-chromatography on immobilized FXI. Total protein is 0.5 mg.

Format:

Affinity-purified IgG (APIgG), clear liquid.

Host Animal:

Sheep

Immunogen:

Human Factor XI purified from plasma.

Concentration:

APIgG concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ($E_{280}^{1\%}$) of 13.4.

Buffer:

10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol.

Storage:

Store between -10 and -20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use.

Specificity:

This antibody is specific for FXI as demonstrated by immunoelectrophoresis and ELISA.

Applications:

Suitable as a source of enriched antibodies to human FXI.

Neutralizing activity:

XXXX Bethesda Units/ml IgG against normal plasma.

One Bethesda unit/ml is defined as the amount of inhibitor that resulted in 50% residual FXI activity after 2 hours at 37°C (Kasper CK *et al*, *Thromb Diath Haemorrh* 34:869, 1975).

Species Cross Reactivity: (immunodiffusion vs. citrated plasma)

Human:	XXXX	Mouse:	XXXX	Rat:	XXXX
Rabbit:	XXXX	Pig:	XXXX	Dog:	XXXX

Related Products:

Cat #: GAFXI-IG	Goat anti-human FXI, whole IgG from antiserum
Cat #: GAFXI-AP	Goat anti-human FXI, affinity purified IgG
Cat #: GAFXI-HRP	Goat anti-human FXI, IgG-peroxidase conjugate
Cat #: SAFXI-IG	Sheep anti-human FXI, IgG from antiserum
Cat #: FXI-EIA	Paired antibody set for ELISA of FXI, 5 x 96 wells
Cat #: FXI-DP	Human plasma deficient in FXI, immune depleted
Cat #: FXI-AG	VisuLize FXI Antigen ELISA Kit

Visit our site (www.affinitybiologicals.com) for details.

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