

# Factor XI (G-2): sc-365996

## BACKGROUND

Coagulation Factor XI (FXI) is a glycoprotein produced by platelets and megakaryocytes in the liver and circulates as a zymogen homodimer in plasma. Factor XI is a trypsin-like plasma serine protease that catalyzes the activation of the consolidation phase of blood coagulation through a Thrombin-generated feedback loop. The plasma half-life of Factor XI is about 52 hours, and plasma concentrations are usually 5 mg/l. During hemostasis, the coagulation protease factor (Factor XIa) activates Factor XI. Factor XI deficiency (hemophilia C) is an injury-related bleeding disorder that leads to a variable bleeding tendency which is inherited in an autosomal recessive manner, though is not completely recessive, because heterozygotes also have a mild but definite bleeding tendency.

## CHROMOSOMAL LOCATION

Genetic locus: F11 (human) mapping to 4q35.2.

## SOURCE

Factor XI (G-2) is a mouse monoclonal antibody raised against amino acids 111-186 mapping near the N-terminus of Factor XI of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Factor XI (G-2) is available conjugated to agarose (sc-365996 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365996 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365996 PE), fluorescein (sc-365996 FITC), Alexa Fluor® 488 (sc-365996 AF488), Alexa Fluor® 546 (sc-365996 AF546), Alexa Fluor® 594 (sc-365996 AF594) or Alexa Fluor® 647 (sc-365996 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365996 AF680) or Alexa Fluor® 790 (sc-365996 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Factor XI (G-2) is recommended for detection of Factor XI of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Factor XI siRNA (h): sc-60625, Factor XI shRNA Plasmid (h): sc-60625-SH and Factor XI shRNA (h) Lentiviral Particles: sc-60625-V.

Molecular Weight of Factor XI single subunit: 80 kDa.

Molecular Weight of Factor XI N-terminal heavy chain: 50 kDa.

Molecular Weight of Factor XI C-terminal light chain: 35 kDa.

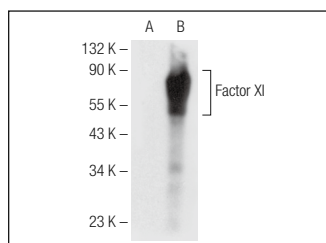
Positive Controls: human platelet extract: sc-363773 or human Factor XI transfected 293T whole cell lysate.

## RECOMMENDED SUPPORT REAGENTS

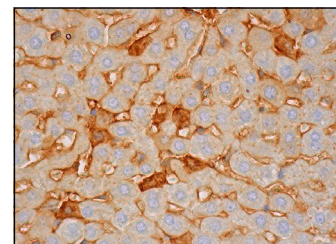
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.
- 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Factor XI (G-2): sc-365996. Western blot analysis of Factor XI expression in non-transfected (A) and human Factor XI transfected (B) 293T whole cell lysates.



Factor XI (G-2): sc-365996. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic and membrane staining of hepatocytes and hepatic sinusoids.

## SELECT PRODUCT CITATIONS

1. Preidis, G.A., et al. 2020. Coagulopathy in malnourished mice is sexually dimorphic and regulated by nutrient-sensing nuclear receptors. *Hepatol. Commun.* 4: 1835-1850.
2. Hayakawa, Y., et al. 2021. Essential role of a carboxyl-terminal  $\alpha$ -helix motif in the secretion of coagulation factor XI. *J. Thromb. Haemost.* 19: 920-930.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.