



Factor XI (G-19): sc-48156

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.

REFERENCES

- Podmore, A., Smith, M., Savidge, G. and Alhaq, A. 2004. Real-time quantitative PCR analysis of Factor XI mRNA variants in human platelets. *J. Thromb. Haemost.* 2: 1713-1719.
- Zivelin, A., Ogawa, T., Bulvik, S., Landau, M., Toomey, J.R., Lane, J., Seligsohn, U. and Gailani, D. 2004. Severe Factor XI deficiency caused by a Gly555 to Glu mutation (Factor XI-Glu555): a cross-reactive material positive variant defective in Factor IX activation. *J. Thromb. Haemost.* 2: 1782-1789.
- Dai, L., Mitchell, M., Savidge, G. and Alhaq, A. 2004. The profibrinolytic effect of plasma thrombomodulin in Factor XI deficiency and its implications in hemostasis. *J. Thromb. Haemost.* 2: 2200-2204.
- Salomon, O., Steinberg, D.M., Tamarin, I., Zivelin, A. and Seligsohn, U. 2005. Plasma replacement therapy during labor is not mandatory for women with severe Factor XI deficiency. *Blood Coagul. Fibrinolysis* 16: 37-41.
- Dossenbach-Glaninger, A. and Hopmeier, P. 2005. Coagulation Factor XI: a database of mutations and polymorphisms associated with Factor XI deficiency. *Blood Coagul. Fibrinolysis* 16: 231-238.
- Ghosh, K., Nair, S., Shetty, S., Rajapurkar, M. and Mohanty, D. 2005. Co-existence of Bernard Soulier syndrome and Factor XI deficiency in a family: a unified pathology? *Platelets* 16: 85-89.
- O'Connell, N.M., Saunders, R.E., Lee, C.A., Perry, D.J. and Perkins, S.J. 2005. Structural interpretation of 42 mutations causing Factor XI deficiency using homology modeling. *J. Thromb. Haemost.* 3: 127-138.
- Wang, X., Cheng, Q., Xu, L., Feuerstein, G.Z., Hsu, M.Y., Smith, P.L., Seiffert, D.A., Schumacher, W.A. and Ogletree, M.L. 2005. Effects of Factor IX or Factor XI deficiency on ferric chloride-induced carotid artery occlusion in mice. *J. Thromb. Haemost.* 3: 695-702.
- Jayandharan, G., Shaji, R.V., Nair, S.C., Chandy, M. and Srivastava, A. 2005. Novel missense mutations in two patients with Factor XI deficiency (Val271Leu and Tyr351Ser) and one patient with combined Factor XI and Factor IX deficiency (Phe349Val). *J. Thromb. Haemost.* 3: 808-811.

STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: F11 (human) mapping to 4q35; F11 (mouse) mapping to 17 A3.2.

SOURCE

Factor XI (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Factor XI of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48156 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Factor XI (G-19) is recommended for detection of Factor XI of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Factor XI siRNA (h): sc-60625 and Factor XI siRNA (m): sc-60626.

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 N-terminal light chain: 35 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.