

Factor XII (H-55): sc-135149

BACKGROUND

Homeostasis following tissue injury involves the deployment of essential plasma procoagulants (prothrombin, and factors X, IX, V and VIII), which are involved in a blood coagulation cascade leading to the formation of insoluble fibrin clots and the promotion of platelet aggregation. Coagulation factor VII (serum prothrombin conversion accelerator, proconvertin, F7, Factor VII) is a 406 amino acid, vitamin K-dependent, single chain serine protease that is synthesized in the liver and circulates as an inactive precursor. Factor IXa, factor Xa, factor XIIa, or thrombin mediated proteolytic cleavage of Factor VII at Arg152-Ile153 generates Factor VIIa, an active serine protease composed of a catalytic heavy chain disulfide linked to a light chain, containing 2 EGF-like domains. Coagulation factor XIII is a terminal effector in the blood coagulation cascade. Plasma factor XIII is a heterotetramer composed of 2 A subunits and 2 B subunits. The A subunits have catalytic function, and the noncatalytic B subunits may serve as plasma carrier molecules.

REFERENCES

1. Davie, E.W. and Fujikawa, K. 1975. Basic mechanisms in blood coagulation. *Annu. Rev. Biochem.* 44: 799-829.
2. Hagen, F.S., et al. 1986. Characterization of a cDNA coding for human factor VII. *Proc. Natl. Acad. Sci. USA* 83: 2412-2416.

CHROMOSOMAL LOCATION

Genetic locus: F12 (human) mapping to 5q35.3; F12 (mouse) mapping to 13 B1.

SOURCE

Factor XII (H-55) is a rabbit polyclonal antibody raised against amino acids 76-130 mapping near the N-terminus of Factor XII 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.

APPLICATIONS

Factor XII (H-55) is recommended for detection of Factor XII of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Factor XII (H-55) is also recommended for detection of Factor XII in additional species, including canine.

Suitable for use as control antibody for Factor XIII B siRNA (h): sc-40407, Factor XIII B siRNA (m): sc-40408, Factor XIII B shRNA Plasmid (h): sc-40407-SH, Factor XIII B shRNA Plasmid (m): sc-40408-SH, Factor XIII B shRNA (h) Lentiviral Particles: sc-40407-V and Factor XIII B shRNA (m) Lentiviral Particles: sc-40408-V.

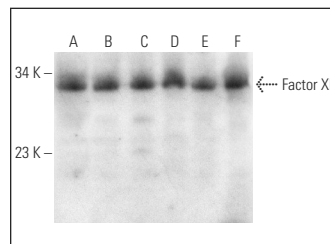
Molecular Weight of Factor XII: 28/50 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Factor XII (H-55): sc-135149. Western blot analysis of Factor XII expression in Hep G2 (A), Jurkat (B), CCRF-CEM (C), K-562 (D) and NIH/3T3 (E) whole cell lysates and mouse thymus tissue extract (F).

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 or our catalog for detailed protocols and support products.



Try **Factor XII (C-8): sc-376770** or **Factor XII (GMA-140): sc-65956**, our highly recommended monoclonal alternatives to Factor XII (H-55).