SANTA CRUZ BIOTECHNOLOGY, INC.

Factor XIII A (h): 293T Lysate: sc-114126

BACKGROUND

Hemostasis following tissue injury involves the deployment of essential plasma procoagulants (Prothrombin and Factors V, VIII, IX and X), 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 IX A-, Factor X A-, Factor XII A- or Thrombin-mediated proteolytic cleavage of Factor VII at Arg 152-Ile 153 generates Factor VII A, an active serine protease composed of a catalytic heavy chain disulfide linked to a light chain, containing two EGF-like domains. Coagulation Factor XIII is a terminal effector in the blood coagulation cascade. Plasma Factor XIII is a heterotetramer composed of two A subunits and two B subunits. The A subunits have catalytic function, and the noncatalytic B subunits may serve as plasma carrier molecules.

REFERENCES

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3. O'Hara, P.J., Grant, F.J., Haldeman, B.A., Gray, C.L., Insley, M.Y., Hagen, F.S. and Murray, M.J. 1987. Nucleotide sequence of the gene coding for human Factor VII, a vitamin K-dependent protein participating in blood coagulation. Proc. Natl. Acad. Sci. USA 84: 5158-5162.
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6. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 227500. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: F13A1 (human) mapping to 6p25.1.

PRODUCT

Factor XIII A (h): 293T Lysate represents a lysate of human Factor XIII A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Factor XIII A (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Factor XIII A antibodies. Recommended use: 10-20 µl per lane.

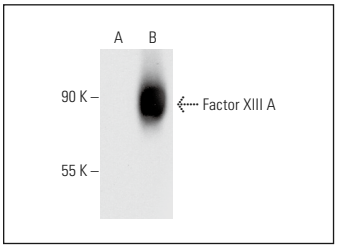
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Factor XIII A (A-4): sc-271122 is recommended as a positive control antibody for Western Blot analysis of enhanced human Factor XIII A expression in Factor XIII A transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

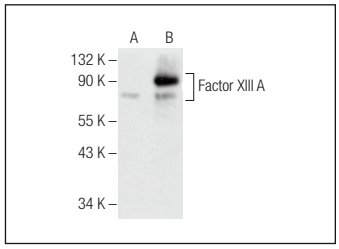
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Factor XIII A (A-4): sc-271122. Western blot analysis of Factor XIII A expression in non-transfected: sc-117752 (**A**) and human Factor XIII A transfected: sc-114126 (**B**) 293T whole cell lysates.



Factor XIII A (B-8): sc-376312. Western blot analysis of Factor XIII A expression in non-transfected: sc-117752 (**A**) and human Factor XIII A transfected: sc-114126 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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