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- Gefahrgutzuschlag
- Expressversand

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# Factor X (h): 293T Lysate: sc-116234

## BACKGROUND

Hemostasis 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 that leads to the formation of insoluble Fibrin clots and the promotion of platelet aggregation. Coagulation Factor X (Stuart Prower factor, FX, F10) is a vitamin K-dependent, single chain serine protease that is synthesized in the liver and circulates as an inactive precursor. The mature form of Factor X (Factor X A) is generated by Factor IX A- or Factor VII A-mediated cleavage at the tripeptide sequence, Arg-Lys-Arg, to yield a disulfide linked dimer. Together with the cofactor Factor V A and  $\text{Ca}^{2+}$  on the surface of platelets or endothelial cells, Factor X A coordinates as part of the prothrombinase complex, which mediates proteolysis of Prothrombin into active Thrombin. Mutations at the Factor X locus resulting in Factor X deficiencies can contribute to hemorrhagic diathesis.

## REFERENCES

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2. Di Scipio, R.G., et al. 1977. A comparison of human Prothrombin, Factor IX (Christmas factor), Factor X (Stuart factor), and Protein S. *Biochemistry* 16: 698-706.
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4. Macedo-Ribeiro, S., et al. 1999. Crystal structures of the membrane-binding  $\text{C}_2$  domain of human coagulation Factor V. *Nature* 402: 434-439.
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7. Todd, T., et al. 2006. Severe Factor X deficiency due to a homozygous mutation (Cys364-Arg) that disrupts a disulphide bond in the catalytic domain. *Haemophilia* 12: 621-624.
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## CHROMOSOMAL LOCATION

Genetic locus: F10 (human) mapping to 13q34.

## PRODUCT

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

## APPLICATIONS

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

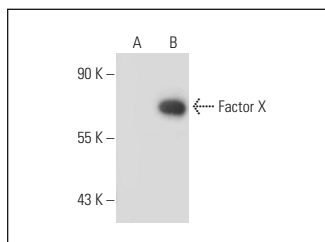
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Factor X (AHX-5050): sc-81739 is recommended as a positive control antibody for Western Blot analysis of enhanced human Factor X expression in Factor X 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 X (AHX-5050): sc-81739. Western blot analysis of Factor X expression in non-transfected: sc-117752 (A) and human Factor X transfected: sc-116234 (B) 293T whole cell lysates.

## 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.

## 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.