SANTA CRUZ BIOTECHNOLOGY, INC.

Factor IX (133-01): sc-59500

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 IX (plasma thromboplastic component, F9, F.IX, HEMB) is a vitamin K-dependent, single chain serine protease that is synthesized in the liver and circulates as an inactive precursor. Factor XI A mediated proteolytic cleavage of Factor IX generates Factor IX A, an active serine protease composed of a 145 amino acid light chain and a 236 amino acid catalytic heavy chain, linked through disulfide bonds. Genetic alterations at the Factor IX locus such as point mutations, insertions and deletions, can lead to hemophilia B, also known as Christmas disease.

REFERENCES

1. Davie, E.W. and Fujikawa, K. 1975. Basic mechanisms in blood coagulation. Annu. Rev. Biochem. 44: 799-829.
2. Kurachi, K. and Davie, E.W. 1982. Isolation and characterization of a cDNA coding for human Factor IX. Proc. Natl. Acad. Sci. USA 79: 6461-6464.
3. Jaye, M., de la Salle, H., Schamber, F., Balland, A., Kohli, V., Findeli, A., Tolstoshev, P. and Lecocq, J.P. 1983. Isolation of a human antihaemophilic Factor IX cDNA clone using a unique 52-base synthetic oligonucleotide probe deduced from the amino acid sequence of bovine Factor IX. Nucleic Acids Res. 11: 2325-2335.
4. Davie, E.W., Fujikawa, K. and Kisiel, W. 1991. The coagulation cascade: initiation, maintenance, and regulation. Biochemistry 30: 10363-10370.
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CHROMOSOMAL LOCATION

Genetic locus: F9 (human) mapping to Xq27.1-q27.2; F9 (mouse) mapping to X A6-A7.

SOURCE

Factor IX (133-01) is a mouse monoclonal antibody raised against full length native Factor IX of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Factor IX (133-01) is recommended for detection of native Factor IX of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Factor IX siRNA (h): sc-40403.

Molecular Weight of Factor IX: 59 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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.

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.