

# Factor IX (K-20): sc-16337

## 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 antihemophilic 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.
5. Chambers, R.C., Leoni, P., Blanc-Brude, O.P., Wembridge, D.E. and Laurent, G.J. 2000. Thrombin is a potent inducer of connective tissue growth factor production via proteolytic activation of protease-activated receptor-1. *J. Biol. Chem.* 275: 35584-35591.

## CHROMOSOMAL LOCATION

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

## SOURCE

Factor IX (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Factor IX 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-16337 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

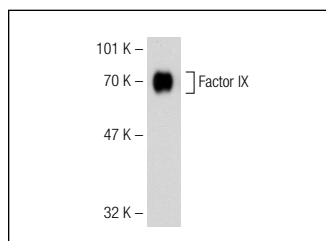
Factor IX (K-20) is recommended for detection of Factor IX of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 IX (K-20) is also recommended for detection of Factor IX in additional species, including equine, canine, porcine and feline.

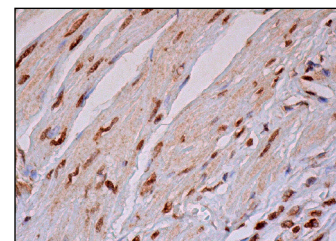
Suitable for use as control antibody for Factor IX siRNA (h): sc-40403, Factor IX siRNA (m): sc-40404, Factor IX shRNA Plasmid (h): sc-40403-SH, Factor IX shRNA Plasmid (m): sc-40404-SH, Factor IX shRNA (h) Lentiviral Particles: sc-40403-V and Factor IX shRNA (m) Lentiviral Particles: sc-40404-V.

Molecular Weight of Factor IX: 59 kDa.

## DATA



Factor IX (K-20): sc-16337. Western blot analysis of human recombinant Factor IX.



Factor IX (K-20): sc-16337. Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing cytoplasmic and nuclear staining of smooth muscle cells.

## 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) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **Factor IX (B-3): sc-377187** or **Factor IX (MA-HFIX): sc-81672**, our highly recommended monoclonal alternatives to Factor IX (K-20).