abcam

Product datasheet

Native human Factor IXa protein ab81593

1 References

Overview

Product name	Native human Factor IXa protein
Protein length	Full length protein

Description

Nature	Native
Source	Native
Amino Acid Sequence	
Species	Human
Amino acids	47 to 461

Specifications

Our Abpromise guarantee covers the use of **ab81593** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Biological activity	<1% Factor IXa activity. Assay is performed to determine percent contaminating IXa activity. IXa activity is based on a IXa standard curve. Chromagenic assay uses Spectrozyme-IXa (American Diagnostica) as substrate. Active site blocked by EGR.
Applications	SDS-PAGE Functional Studies
Purity	> 95 % SDS-PAGE.
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.40 Constituents: 0.476% HEPES, 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function	Factor IX is a vitamin K-dependent plasma protein that participates in the intrinsic pathway of blood coagulation by converting factor X to its active form in the presence of Ca(2+) ions, phospholipids, and factor VIIIa.
Tissue specificity	Synthesized primarily in the liver and secreted in plasma.
Involvement in disease	Defects in F9 are the cause of recessive X-linked hemophilia B (HEMB) [MIM:306900]; also known as Christmas disease. Note=Mutations in position 43 (Oxford-3, San Dimas) and 46 (Cambridge) prevents cleavage of the propeptide, mutation in position 93 (Alabama) probably fails to bind to cell membranes, mutation in position 191 (Chapel-Hill) or in position 226 (Nagoya OR Hilo) prevent cleavage of the activation peptide. Defects in F9 are the cause of thrombophilia due to factor IX defect (THR-FIX) [MIM:300807]. A hemostatic disorder characterized by a tendency to thrombosis.
Sequence similarities	Belongs to the peptidase S1 family. Contains 2 EGF-like domains. Contains 1 Gla (gamma-carboxy-glutamate) domain. Contains 1 peptidase S1 domain.
Domain	Calcium binds to the gamma-carboxyglutamic acid (Gla) residues and, with stronger affinity, to another site, beyond the Gla domain.
Post-translational modifications	Activated by factor XIa, which excises the activation peptide. The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.
Cellular localization	Secreted.

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