

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 -80°C. 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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