abcam

Product datasheet

Native Human Factor Va protein ab62415

Description

Product nameNative Human Factor Va protein

Purity > 95 % Affinity purified.

Purity is determined by SDS-PAGE analysis

Expression system Native

Protein length Full length protein

Animal free No

Nature Native

Specifications

Species

Our **Abpromise guarantee** covers the use of **ab62415** in the following tested applications.

Human

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

Applications SDS-PAGE

Functional Studies

Form Liquid

Additional notes Concentartion varies from lot to lot but is between 5-10mg/ml

Preparation and Storage

Stability and Storage Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Constituents: 0.0555% Calcium chloride, 50% Glycerol

General Info

Relevance Factor Va is a cofactor for the serine protease factor Xa, and in the presence of calcium ions they

collectively assemble on a phospholipid surface to form the prothrombinase complex. The prothrombinase complex is responsible for the rapid conversion of prothrombin to thrombin. Factor Va is derived from the pro-cofactor, factor V, upon limited proteolysis by alpha-thrombin. The thrombin cleavage of factor V liberates two heavily glycosylated activation peptides from the central portion of the molecule which have no cofactor function. Factor Va is comprised of an NH₂-

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terminal derived heavy chain (MW 94kDa) and a COOH-terminal derived light chain (MW 74kDa) which remain associated in the presence of calcium ions. The cofactor binds to phospholipid (cell membrane) surfaces and effectively serves as a receptor for membrane bound factor Xa. Complete assembly of the prothrombinase complex (factor Xa, factor Va, phospholipid, and calcium) results in a 300,000-fold increase in the rate of prothrombin conversion relative to the rate observed with factor Xa alone. The interaction between factor Va and factor Xa is mediated by both the heavy and light chain of factor Va, while the binding of prothrombin to factor Va is mediated solely by the heavy chain.

Cellular localization

Cell Membrane and Plasma membrane

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