Anti-Factor VIIa antibody ab7053

Overview

Product name: Anti-Factor VIIa antibody
Description: Rabbit polyclonal to Factor VIIa
Host species: Rabbit
Tested applications: Suitable for: Prothrombin Assay, Indirect ELISA, Inhibition Assay
Species reactivity: Reacts with: Rat, Human
Immunogen: Recombinant full length protein (Human) (NovoSeven®).
General notes: 0.02% sodium azide can be added as a preservative if storing at 4°C

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: pH: 7.40
Constituent: PBS
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab7053 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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### Application notes

I-ELISA: 1/15000 for antibodies at 0.1 mg/ml to generate absorbance 1.0 at 450 nm after 10 minutes of incubation with OPD tablets at room temperature.

Inhib: Use at an assay dependant dilution.

PA: Use at an assay dependant dilution.

Not tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

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### Target

#### Function

Initiates the extrinsic pathway of blood coagulation. Serine protease that circulates in the blood in a zymogen form. Factor VII is converted to factor VIIa by factor Xa, factor Xlla, factor IXa, or thrombin by minor proteolysis. In the presence of tissue factor and calcium ions, factor VIIa then converts factor X to factor Xa by limited proteolysis. Factor VIIa will also convert factor IX to factor IXa in the presence of tissue factor and calcium.

#### Tissue specificity

Plasma.

#### Involvement in disease

Defects in F7 are the cause of factor VII deficiency (FA7D) [MIM:227500]. A hemorrhagic disease with variable presentation. The clinical picture can be very severe, with the early occurrence of intracerebral hemorrhages or repeated hemarthroses, or, in contrast, moderate with cutaneous-mucosal hemorrhages (epistaxis, menorrhagia) or hemorrhages provoked by a surgical intervention. Finally, numerous subjects are completely asymptomatic despite very low factor VII levels.

#### 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.

#### Post-translational modifications

The vitamin K-dependent, enzymatic carboxylation of some glutamate residues allows the modified protein to bind calcium.

The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.

O- and N-glycosylated. N-glycosylation at Asn-205 occurs cotranslationally and is mediated by STT3A-containing complexes, while glycosylation at Asn-382 is post-translational and is mediated STT3B-containing complexes before folding. O-fucosylated by POFUT1 on a conserved serine or threonine residue found in the consensus sequence C2-X(4,5)-[S/T]-C3 of EGF domains, where C2 and C3 are the second and third conserved cysteines.

#### Cellular localization

Secreted.

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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