Product datasheet

Anti-Factor VII antibody ab97614

Overview

Product name: Anti-Factor VII antibody
Description: Rabbit polyclonal to Factor VII
Host species: Rabbit
Tested applications: Suitable for: ICC/IF, WB, IHC-P
Species reactivity: Reacts with: Mouse, Human
Predicted to work with: Monkey
Immunogen: Recombinant protein fragment corresponding to a region within amino acids 209 and 444 of Human Factor VII.
Positive control: WB: NIH 3T3, H1299, 293T, A431, HeLaS3, HepG2, MOLT4 or Raji cell lysate; IHC-P: gastric carcinoma tissue. IF/ICC: HepG2 cell line.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer: pH: 7.00
Preservative: 0.01% Thimerosal (merthiolate)
Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab97614 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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<th>Abreviews</th>
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<td>ICC/IF</td>
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<td>Use a concentration of 5 µg/ml.</td>
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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]. FA7D is a rare hereditary hemorrhagic disease. The clinical picture can be very severe, with the early occurrence of intracerebral hemorrhages or hemarthroses, or, in contrast, moderate with cutaneous-mucosal hemorrhages (epistaxis, menorrhagia) or hemorrhages provoked by a surgical intervention. Numerous subjects are completely asymptomatic despite a very low F7 level.

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.

Cellular localization
Secreted.

Images

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<td>IHC-P</td>
<td>1/100 - 1/500.</td>
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Anti-Factor VII antibody (ab97614) at 1/1000 dilution + NIH 3T3 whole cell lysate at 30 µg

Predicted band size: 52 kDa

10% SDS PAGE
ICC/IF image of ab97614 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab97614, 5µg/ml) overnight at +4°C. The secondary antibody (green) was ab96899, DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM

Western blot - Anti-Factor VII antibody (ab97614)

Anti-Factor VII antibody (ab97614) at 1/500 dilution + H1299 whole cell lysate at 30 µg

**Predicted band size:** 52 kDa

7.5% SDS PAGE

Immunohistochemistry analysis of paraffin-embedded N human (gastric carcinoma) tissue, using ab97614 at 1/100 dilution.

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