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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Factor I/CFI Antibody Picoband™

Catalog Number: PB9935

About CFI

Complement factor I, also known as C3b/C4b inactivator, is a protein that in humans is encoded by the CFI gene. This gene encodes a serine proteinase that is essential for regulating the complement cascade. The encoded preproprotein is cleaved to produce both heavy and light chains, which are linked by disulfide bonds to form a heterodimeric glycoprotein. This heterodimer can cleave and inactivate the complement components C4b and C3b, and it prevents the assembly of the C3 and C5 convertase enzymes. Defects in this gene cause complement factor I deficiency, an autosomal recessive disease associated with a susceptibility to pyogenic infections. Mutations in this gene have been associated with a predisposition to atypical hemolytic uremic syndrome, a disease characterized by acute renal failure, microangiopathic hemolytic anemia and thrombocytopenia. Primary glomerulonephritis with immune deposits and age-related macular degeneration are other conditions associated with mutations of this gene.

Overview

Product Name	Anti-Factor I/CFI Antibody Picoband™
Reactive Species	Human, Rat
Description	Boster Bio Anti-Factor I/CFI Antibody Picoband™ catalog # PB9935. Tested in Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human, Rat.
Application	Flow Cytometry, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P05156

Technical Details

Immunogen	E. coli-derived human Factor I recombinant protein (Position: K19-D220). Human Factor I shares 70.7% and 71.2% amino acid (aa) sequence identity with mouse and rat Factor I, respectively.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry, 0.5-1ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-Factor I/CFI Antibody Picoband™ (PB9935) Images

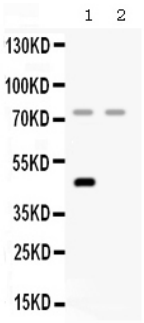

Figure 1. Western blot analysis of Factor I using anti-Factor I antibody (PB9935).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat liver tissue lysates,
Lane 2: HELA whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Factor I antigen affinity purified polyclonal antibody (Catalog # PB9935) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Factor I at approximately 75KD; 45KD. The expected band size for Factor I is at 66KD.

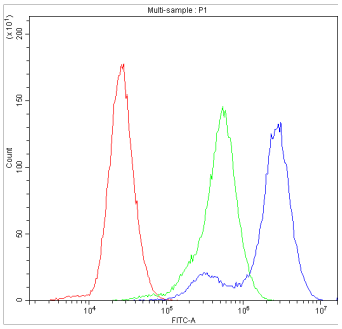

Figure 2. Flow Cytometry analysis of U-87 cells using anti-Factor I antibody (PB9935).
Overlay histogram showing U-87 cells stained with PB9935 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Factor I Antibody (PB9935,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

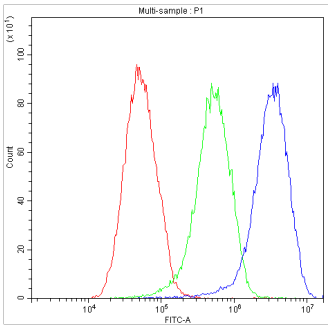

Figure 3. Flow Cytometry analysis of HEPG2 cells using anti-Factor I antibody (PB9935).
Overlay histogram showing HEPG2 cells stained with PB9935 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Factor I Antibody (PB9935,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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