BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Prothrombin/F2 Antibody Picoband®

Catalog Number: A00044

About F2

F2 (Coagulation Factor II), also known as thrombin, is a serine protease that in humans is encoded by the F2 gene. This gene for human prothrombin (F2) was assigned to chromosome 11p11-q12 by analysis of a panel of somatic cell hybrid DNAs and by in situ hybridization, using both cDNA and genomic probes. The activated thrombin enzyme plays an important role in hemostasis and thrombosis: it converts fibrinogen to fibrin for blood clot formation, stimulates platelet aggregation, and activates coagulation factors V, VIII (F8), and XIII (F13A1). Thrombin also inhibits coagulation by activating protein C.

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Overview

Product Name	Anti-Prothrombin/F2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Prothrombin/F2 Antibody Picoband® catalog # A00044. Tested in ELISA, Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 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	P00734

Technical Details

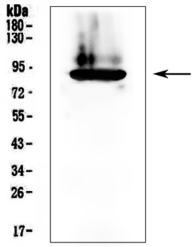
Immunogen	E. coli-derived human Prothrombin recombinant protein (Position: Y67-R124).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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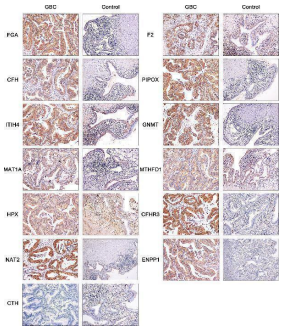
	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunohistochemistry (Frozen Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 cells ELISA, 0.1-0.5ug/ml Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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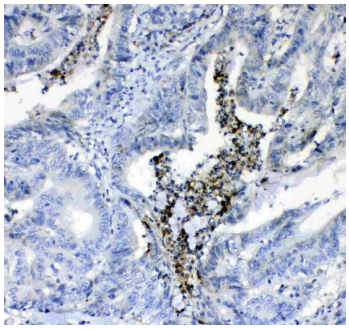
Anti-Prothrombin/F2 Antibody Picoband® (A00044) Images



Western blot analysis of Prothrombin using anti-Prothrombin antibody (A00044). 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: human plasma lysate. 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-Prothrombin antigen affinity purified polyclonal antibody (Catalog # A00044) 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 Prothrombin at approximately 85KD. The expected band size for Prothrombin is at 70KD.



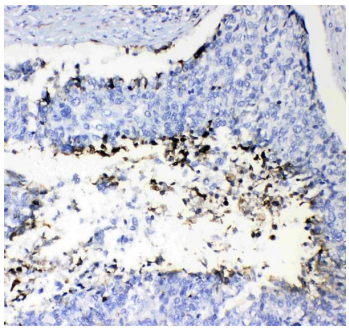
Immunohistochemistry of FGA, F2, CFH, PIPOX, ITIH4, GNMT, MAT1A, MTHFD1, HPX, CTH, CFHR3, ENNP1, and NAT2 in clinical GBC and control specimens.Index in PubMed under a CC BY license. PMID: 33718182



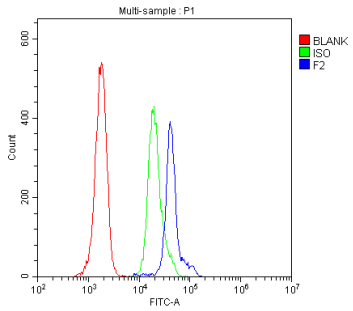
IHC analysis of Prothrombin using anti-Prothrombin antibody (A00044). Prothrombin was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Prothrombin Antibody (A00044) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

IHC analysis of Prothrombin using anti-Prothrombin antibody (A00044). Prothrombin was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Prothrombin Antibody (A00044) overnight at 4°C. Biotinylated goat anti-rabbit IgG

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was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



4. Flow Cytometry analysis of H-PBMC cells using anti-Prothrombin antibody (A00044). Overlay histogram showing H-PBMC cells stained with A00044 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Prothrombin Antibody (A00044,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

2 Publications Citing This Product

1. PubMed ID: 10.3389/fonc.2021.621806, Mining of RNA Methylation-Related Genes and Elucidation of Their Molecular Biology in Gallbladder Carcinoma

2. PubMed ID: 21642433, Heparin Impairs Angiogenesis through Inhibition of MicroRNA-10b

Visit bosterbio.com/anti-prothrombin-picoband-trade-antibody-a00044-boster.html to see all 2 publications.

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