BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Apolipoprotein B/APOB Antibody Picoband®

Catalog Number: PB10042

About APOB

Apolipoprotein B (ApoB) is a protein that in humans is encoded by the APOB gene. This gene product is the main apolipoprotein of chylomicrons and low density lipoproteins. It occurs in plasma as two main isoforms, apoB-48 and apoB-100: the former is synthesized exclusively in the gut and the latter in the liver. The intestinal and the hepatic forms of apoB are encoded by a single gene from a single, very long mRNA. The two isoforms share a common N-terminal sequence. The shorter apoB-48 protein is produced after RNA editing of the apoB-100 transcript at residue 2180 (CAA->UAA), resulting in the creation of a stop codon, and early translation termination. Mutations in this gene or its regulatory region cause hypobetalipoproteinemia, normotriglyceridemic hypobetalipoproteinemia, and hypercholesterolemia due to ligand-defective apoB, diseases affecting plasma cholesterol and apoB levels.

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Overview

Product Name	Anti-Apolipoprotein B/APOB Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Apolipoprotein B/APOB Antibody Picoband® catalog # PB10042. Tested in IHC, 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P04114

BOSTER
antibody and ELISA experts

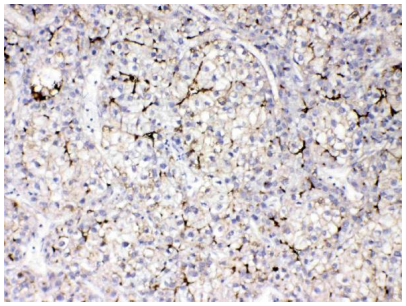
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Technical Details

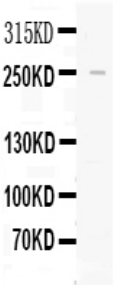
Immunogen	E. coli-derived human Apolipoprotein B recombinant protein (Position: Q246-N450). Human Apolipoprotein B shares 82.4% and 80.5% amino acid (aa) sequence identity with mouse and rat Apolipoprotein B, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human

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Anti-Apolipoprotein B/APOB Antibody Picoband® (PB10042) Images



IHC analysis of Apolipoprotein CIII using anti-Apolipoprotein CIII antibody (PB10042). Apolipoprotein CIII was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Apolipoprotein CIII Antibody (PB10042) 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.



Western blot analysis of Apolipoprotein CIII using anti-Apolipoprotein CIII antibody (PB10042). 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 30 ug of sample under reducing conditions. Lane 1: HELA whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-Apolipoprotein CIII antigen affinity purified polyclonal antibody (Catalog # PB10042) 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 1:5000 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 Apolipoprotein CIII at approximately 250 kDa. The expected band size for Apolipoprotein CIII is at 516 kDa.

2 Publications Citing This Product

1. PubMed ID: 33819629, Huang Y,Zhao C,Kong Y,Tan P,Liu S,Liu Y,Zeng F,Yuan Y,Zhao B,Wang J.Elucidation of the mechanism of NEFA-induced PERK-eIF2alpha signaling pathway regulation of lipid metabolism in bovine hepatocytes.J Steroid Biochem Mol Biol.2021 Apr 2:105893.doi:10.1016/j.jsbmb.2021.105893.Epub ahead of print.PMID:33819629.

2. PubMed ID: 33205615, Kong Y, Zhao C, Huang Y, Liu Y, Liu S, Guo Y, Li M, Xu T, Zhao B, Wang J. Angiopoietin-like protein 4 promotes very-low-density lipoprotein assembly and secretion in bovine hepatocytes in vitro. IUBMB Life. 2020 Nov 17. doi: 10.1002/iub.2403. Epub ahead o

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