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antibody and ELISA experts

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Anti-Apolipoprotein A I/APOA1 Antibody Picoband®

Catalog Number: PB9916

About APOA1

Apolipoprotein A-1, also known as APOA1, is a human protein with a specific role in lipid metabolism. It binds to lipopolysaccharide or endotoxin, and has a major role in the anti-endotoxin function of HDL. The gene is mapped to 11q23. And it is a single polypeptide chain with 243 amino acid residues of known primary amino acid sequence. The ApoA-I protein promotes cholesterol efflux from tissues to the liver for excretion. It is a cofactor for lecithin cholesterolacyltransferase (LCAT) which is responsible for the formation of most plasma cholesteryl esters. ApoA-I is also isolated as a prostacyclin (PGI2) stabilizing factor, and thus may have an anticlotting effect. Defects in the gene encoding it are associated with HDL deficiencies, including Tangier disease, and with systemic non-neuropathic amyloidosis. Additionally, ApoA-I overexpression promotes macrophage-specific reverse cholesterol transport.

Overview

Product Name	Anti-Apolipoprotein A I/APOA1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Apolipoprotein A I/APOA1 Antibody Picoband® catalog # PB9916. Tested in 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	Flow Cytometry, IHC, ICC, 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	P02647

Technical Details

Immunogen	E. coli-derived human APOA1 recombinant protein (Position: D25-Q267). Human APOA1 shares 64% and 61.7% amino acid (aa) sequence identity with mouse and rat APOA1, respectively.

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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), 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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human ELISA , 0.1-0.5ug/ml, Human, - Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry, 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human

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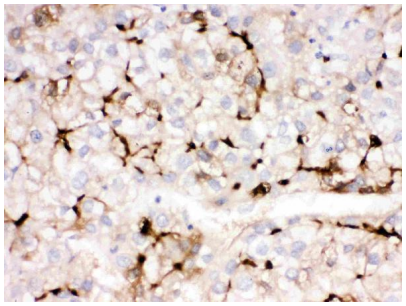
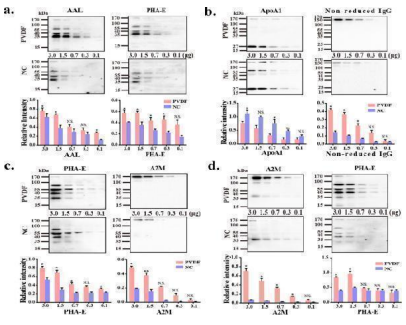
Anti-Apolipoprotein A I/APOA1 Antibody Picoband® (PB9916) Images

Western blot analysis of APOA1 using anti-APOA1 antibody (PB9916). 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: human placenta tissue 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-APOA1 antigen affinity purified polyclonal antibody (Catalog # PB9916) 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 APOA1 at approximately 26 kDa. The expected band size for APOA1 is at 31 kDa.



IHC analysis of APOA1 using anti-APOA1 antibody (PB9916). APOA1 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-APOA1 Antibody (PB9916) 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.



Comparison of the re-probed ability of PVDF membrane and NC membrane. The pooled sera proteins (3.0, 1.5, 0.7, 0.3 and 0.1 ug) were separated by 8% SDS-PAGE, and transferred to PVDF membranes (up) and NC membrane (down), respectively. (a) Staining with AAL and then re-probed with PHA-E; (b) staining with ApoA1 and then re-probing with IgG; (c) Staining with PHA-E and then re-probing with A2M; (d) staining with A2M and then re-probing with PHA-E. Band intensities were statistically analyzed (n = 3 individual experiments) and compared using Image Lab software (Bio-Rad Laboratories) and GraphPad Prism version 6. Pink bar, PVDF membrane; Blue bar, NC membrane. Band intensities were analyzed *Significantly different p

IHC analysis of APOA1 using anti-APOA1 antibody (PB9916). APOA1 was detected in a paraffin-embedded section of human renal 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

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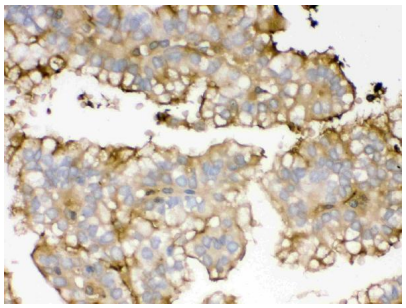
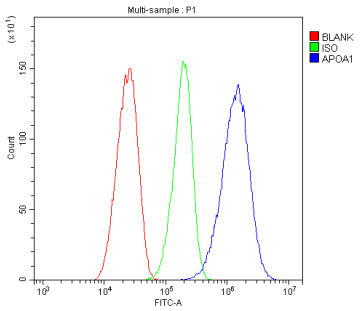


serum. The tissue section was then incubated with 1 ug/ml rabbit anti-APOA1 Antibody (PB9916) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



Flow Cytometry analysis of HepG2 cells using anti-APOA1 antibody (PB9916). Overlay histogram showing HepG2 cells stained with PB9916 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-APOA1 Antibody (PB9916, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

1 Publications Citing This Product

1. PubMed ID: 34103620, Xiang Y,Zheng Y,Liu S,Liu G,Li Z,Dong W.Comparison of the sensitivity of Western blotting between PVDF and NC membranes.Sci Rep.2021 Jun 8;11(1):12022.doi:10.1038/s41598-021-91521-8.PMID:34103620;PMCID:PMC8187435.

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Anti-Apolipoprotein A I/APOA1 Antibody

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