

Anti-Apolipoprotein E/APOE Antibody Picoband®

Catalog Number: PB9327

About APOE

APOE is also known as AD2 or LPG. The protein encoded by this gene is a major apoprotein of the chylomicron. It binds to a specific liver and peripheral cell receptor, and is essential for the normal catabolism of triglyceride-rich lipoprotein constituents. This gene maps to chromosome 19 in a cluster with the related apolipoprotein C1 and C2 genes. Mutations in this gene result in familial dysbetalipoproteinemia, or type III hyperlipoproteinemia (HLP III), in which increased plasma cholesterol and triglycerides are the consequence of impaired clearance of chylomicron and VLDL remnants. Alternative splicing results in multiple transcript variants.

Overview

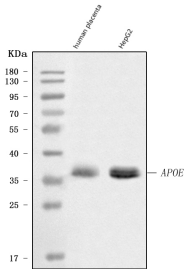
Product Name	Anti-Apolipoprotein E/APOE Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Apolipoprotein E/APOE Antibody Picoband® catalog # PB9327. Tested in ELISA, Flow Cytometry, IHC, IF, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium 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, IF, IHC, WB, ELISA (Cap)
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *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	P02649

Technical Details

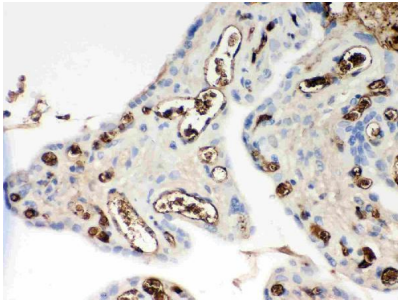
Immunogen	E.coli-derived human Apolipoprotein E recombinant protein (Position: K19-H317). Human Apolipoprotein E shares 73% and 72% amino acid (aa) sequence identity with mouse and rat Apolipoprotein E, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit 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	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunofluorescence, 5 ug/ml Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells ELISA (Cap), 1-5ug/ml

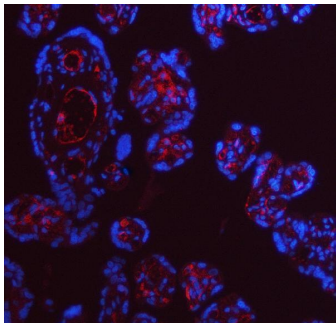
Anti-Apolipoprotein E/APOE Antibody Picoband® (PB9327) Images



Western blot analysis of Apolipoprotein E using anti-Apolipoprotein E antibody (PB9327). 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, Lane 2: human HepG2 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 E antigen affinity purified polyclonal antibody (Catalog # PB9327) 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 E at approximately 36 kDa. The expected band size for Apolipoprotein E is at 36 kDa.

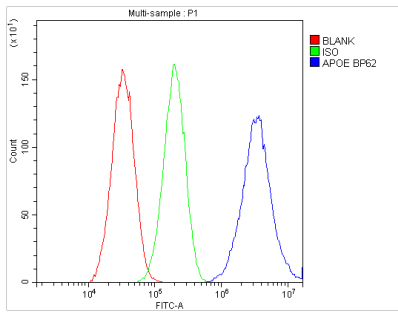


IHC analysis of Apolipoprotein E using anti-Apolipoprotein E antibody (PB9327). Apolipoprotein E was detected in paraffin-embedded section of Human Placenta Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Apolipoprotein E Antibody (PB9327) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

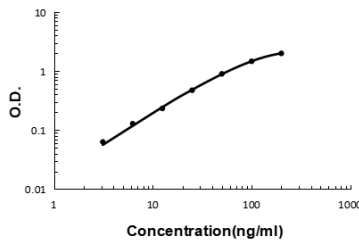


IF analysis of Apolipoprotein E using anti-Apolipoprotein E antibody (PB9327). Apolipoprotein E was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-Apolipoprotein E Antibody (PB9327) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Flow Cytometry analysis of HepG2 cells using anti-Apolipoprotein E antibody (PB9327). Overlay histogram showing HepG2 cells stained with PB9327 (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-Apolipoprotein E Antibody (PB9327, 1 μ g/1x10⁶ cells) for 30 min at 20°C. DyLight@488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μ g/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 μ g/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Sandwich ELISA - Recombinant human Apolipoprotein E/APOE protein standard curve. Use in combination with reagents from human APOE ELISA Kit EZ-Set (DIY Antibody Pairs) (EZ1455).

1 Publications Citing This Product

1. PubMed ID: 33061590, Xue Y, Huang S, Huang J, Li S, Zhang C, Zhou X. Identification of Apolipoprotein E as a Potential Diagnostic Biomarker of Nasopharyngeal Carcinoma. Cancer Manag Res. 2020 Sep 24;12:8943-8950. doi:10.2147/CMAR.S239479. PMID:33061590; PMCID:PMC7522425.

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