

Rabbit anti-Human APOE Polyclonal Antibody | anti-APOE antibody

Anti-APOE Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126961	Rabbit	Human	Western Blot, Immunofluorescence, Immunocytochemistry, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

APOE; Polyclonal Antibody; Anti-APOE Antibody Picoband; Receptor tyrosine-protein kinase erbB-2; hypoxia inducible factor 1 subunit alpha; Hypoxia-inducible factor 1-alpha; HIF-1-alpha; HIF1-alpha; ARNT-interacting protein; Basic-helix-loop-helix-PAS protein MOP1; Class E basic helix-loop-helix protein 78; bHLHe78; PAS domain-containing protein 8; HIF1A; BHLHE78; MOP1; anti-APOE antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Expressed in most tissues with highest levels in kidney and heart. Overexpressed in the majority of common human cancers and their metastases, due to the presence of intratumoral hypoxia and as a result of mutations in genes encoding oncoproteins and tumor suppressors. A higher level expression seen in pituitary tumors as compared to the pituitary gland.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Applicable Applications for anti-APOE antibody	WB (Western Blot), IF (Immunofluorescence), ICC (Immunocytochemistry), FCM/FACS (Flow Cytometry), ELISA
Immunogen	E coli-derived human APOE recombinant protein (Position: E95-Q222).
Subcellular Localization	Isoform 1: Cell membrane, Single-pass type I membrane protein. Cytoplasm, perinuclear region. Nucleus. Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Functions as a master transcriptional regulator of the adaptive response to hypoxia. Under hypoxic conditions, activates the transcription of over 40 genes, including erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, HILPDA, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease. Heterodimerizes with ARNT; heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters (By similarity). Activation requires recruitment of transcriptional coactivators such as CREBBP and EP300. Activity is enhanced by interaction with both, NCOA1 or NCOA2. Interaction with redox regulatory protein APEX seems to activate CTAD and potentiates activation by NCOA1 and CREBBP. Involved in the axonal distribution and transport of mitochondria in neurons during hypoxia.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of CACO-2 cells using anti-APOE antibody (AAA126961).Overlay histogram showing CACO-2 cells stained with AAA126961 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-APOE Antibody (AAA126961, 1ug/1x106 cells) for 30 min at 20 degree C. Dylight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of APOE using anti-APOE antibody (AAA126961).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 Caco-2 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-APOE antigen affinity purified polyclonal antibody (#AAA126961) at 0.5ug/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for APOE at approximately 36 kDa. The expected band size for APOE is at 36 kDa.



IF (Immunofluorescence)

Figure 2. IF analysis of APOE using anti-APOE antibody (AAA126961).APOE was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-APOE Antibody (AAA126961) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL INFORMATION

Related Product Information for anti-APOE antibody	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.
Product Categories/Family for anti-APOE antibody	Primary Antibodies; Cancer; Cell Type Markers; Growth Factors; Growth Factors/Hormones; Oncoproteins; Protein Phosphorylation; Receptor Tyrosine Kinases; Signal Transduction; Tags & Cell Markers; Tumor Associated; Tumor Biomarkers; Tumor Immunology; Tumor
References	1. APOE epsilon variants increase risk of warfarin-related intracerebral hemorrhage. Falcone GJ, et al. Neurology, 2014 Sep 23. 2. Calabuig-Navarro MV, et al. Apolipoprotein E genotype has a modest impact on the postprandial plasma response to meals of varying fat composition in healthy men in a randomized controlled trial. J Nutr, 2014 Nov.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557325
NCBI GeneID	348
NCBI Accession #	NP_000032.1
NCBI GenBank Nucleotide #	NM_000041.2
UniProt Accession #	P02649; Q9P2S4; B2RC15; C0JYY5
Molecular Weight	36,154 Da
NCBI Official Full Name	apolipoprotein E
NCBI Official Synonym Full Names	apolipoprotein E

NCBI Official Symbol	APOE
NCBI Official Synonym Symbols	AD2; LPG; LDLCQ5
NCBI Protein Information	apolipoprotein E; apo-E; apolipoprotein E3
UniProt Protein Name	Apolipoprotein E
UniProt Gene Name	APOE
UniProt Synonym Gene Names	Apo-E
UniProt Entry Name	APOE_HUMAN

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/apoe-antibody-western-blot-immunofluorescence-immunocytochemistry-flow-cytometry-elisa/126961>