



# ApoE Rabbit mAb

<b>Catalog No</b>	YP-rAb-17400
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human,Mouse,Rat
<b>Applications</b>	WB,IHC,IF,IP,ELISA
<b>Gene Name</b>	APOE
<b>Protein Name</b>	Apolipoprotein E
<b>Purification Process</b>	Protein A
<b>Specificity</b>	Endogenous
<b>Formulation</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source</b>	Monoclonal, Rabbit,IgG
<b>Dilution</b>	IHC 1:500-1:2000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
<b>Concentration</b>	0.5 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-15° C to -25° C/1 year(Do not lower than -25° C)
<b>Synonyms</b>	APOE ; Apolipoprotein E ; Apo-E
<b>Observed Band</b>	36kD
<b>Calculated Molecular Weight</b>	36kD
<b>Cell Pathway</b>	Secreted .extracellular space .extracellular matrix . In the plasma, APOE is associated with chylomicrons, chylomicrons remnants, VLDL, LDL and HDL lipoproteins (PubMed:1911868, PubMed:8340399). Lipid poor oligomeric APOE is associated with the extracellular matrix in a calcium- and heparan-sulfate proteoglycans-dependent manner (PubMed:9488694). Lipidation induces the release from the extracellular matrix (PubMed:9488694). .
<b>Tissue Specificity</b>	Produced by several tissues and cell types and mainly found associated with lipid particles in the plasma, the interstitial fluid and lymph (PubMed:25173806). Mainly synthesized by liver hepatocytes (PubMed:25173806). Significant quantities are also produced in brain, mainly by astrocytes and glial cells in the cerebral cortex, but also by neurons in frontal cortex and hippocampus (PubMed:3115992, PubMed:10027417). It is also expressed by cells of the peripheral nervous system (PubMed:10027417, PubMed:25173806). Also expressed by adrenal gland, testis, ovary, skin, kidney, spleen and adipose tissue and macrophages in various tissues (PubMed:25173806).
<b>Function</b>	Disease:Defects in APOE are a cause of hyperlipoproteinemia type III [MIM:107741]; also known as familial dysbetalipoproteinemia. Individuals with

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hyperlipoproteinemia type III, are clinically characterized by xanthomas, yellowish lipid deposits in the palmar crease, or less specific on tendons and on elbows. The disorder rarely manifests before the third decade in men. In women, it is usually expressed only after the menopause. The vast majority of the patients are homozygous for APOE\*2 alleles. More severe cases of hyperlipoproteinemia type III have also been observed in individuals heterozygous for rare APOE variants. The influence of APOE on lipid levels is often suggested to have major implications for the risk of coronary artery disease (CAD). Individuals carrying the common APOE\*4 variant are at higher risk of CAD. Disease: Defects in APOE are a cause of lipoprotein glomerulopathy (LPG) [MIM:611771]. LPG is an uncommon kidney disease characterized by proteinuria, progressive kidney failure, and distinctive lipoprotein thrombi in glomerular capillaries. It mainly affects people of Japanese and Chinese origin. The disorder has rarely been described in Caucasians. Disease: Defects in APOE are a cause of sea-blue histiocyte disease [MIM:269600]; also called sea-blue histiocytosis. This disorder is characterized by splenomegaly, mild thrombocytopenia and, in the bone marrow, numerous histiocytes containing cytoplasmic granules which stain bright blue with the usual hematologic stains. The syndrome is the consequence of an inherited metabolic defect analogous to Gaucher disease and other sphingolipidoses. Disease: The APOE\*4 allele is associated with late onset Alzheimer disease 2 (AD2) [MIM:104310]. The APOE\*4 allele is genetically associated with the common late onset familial and sporadic forms of Alzheimer disease (AD). Risk for AD increased from 20% to 90% and mean age at onset decreased from 84 to 68 years with increasing number of APOE\*4 alleles in 42 families with late onset AD. Thus APOE\*4 gene dose is a major risk factor for late onset AD and, in these families, homozygosity for APOE\*4 was virtually sufficient to cause AD by age 80. The mechanism by which APOE\*4 participates in pathogenesis is not known. Function: Mediates the binding, internalization, and catabolism of lipoprotein particles. It can serve as a ligand for the LDL (apo B/E) receptor and for the specific apo-E receptor (chylomicron remnant) of hepatic tissues. online information: Apolipoprotein E entry, online information: Tangled - Issue 83 of June 2007, online information: The Singapore human mutation and polymorphism database, polymorphism: Three common APOE alleles have been identified: APOE\*2, APOE\*3, and APOE\*4. The corresponding three major isoforms, E2, E3, and E4, are recognized according to their relative position after isoelectric focusing. Different mutations causing the same migration pattern after isoelectric focusing define different isoform subtypes. The most common isoform is E3 and is present in 40-90% of the population. Common APOE variants influence lipoprotein metabolism in healthy individuals. PTM: Glycated in plasma VLDL of normal subjects, and of hyperglycemic diabetic patients at a higher level (2-3 fold). PTM: Synthesized with the sialic acid attached by O-glycosidic linkage and is subsequently desialylated in plasma. similarity: Belongs to the apolipoprotein A1/A4/E family. tissue specificity: Occurs in all lipoprotein fractions in plasma. It constitutes 10-20% of very low density lipoproteins (VLDL) and 1-2% of high density lipoproteins (HDL). APOE is produced in most organs. Significant quantities are produced in liver, brain, spleen, lung, adrenal, ovary, kidney and muscle.

### Background

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. [provided by RefSeq, Jun 2016],

### matters needing attention

Avoid repeated freezing and thawing!

### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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### 检测服务:

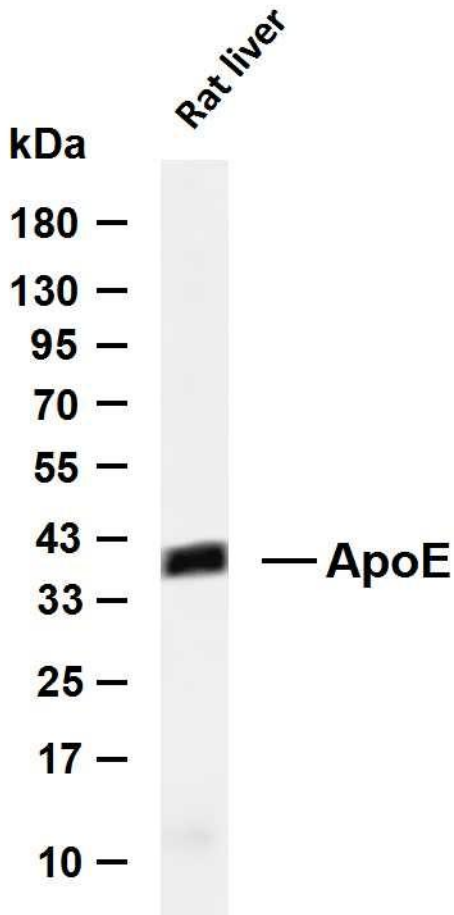
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| 宏基因组、转录组、基因组、蛋白组、代谢组测序



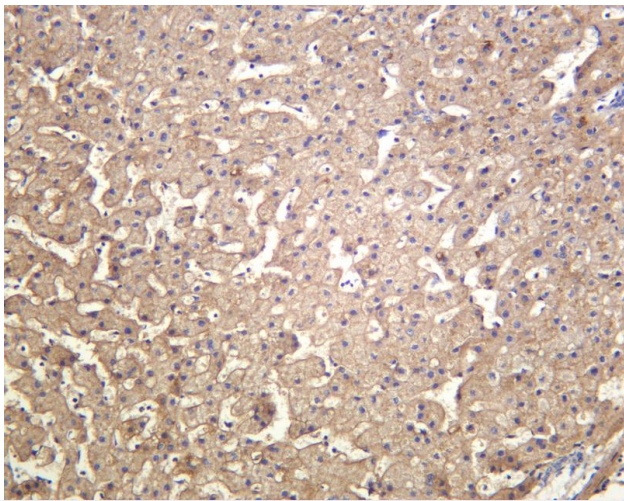
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Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-ApoE antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Rat liver Predicted band size: 36kDa Observed band size: 36kDa



Human liver was stained with anti-ApoE Rabbit antibody

