Immunoway
Best Tools for immunology Research

ApoE Monoclonal Antibody

Catalog No :	YM0037
Reactivity :	Human
Applications :	WB;IHC;IF;FCM;ELISA
Target :	ApoE
Fields :	>>Cholesterol metabolism;>>Alzheimer disease
Gene Name :	APOE
Protein Name :	Apolipoprotein E
Human Gene Id :	348
Human Swiss Prot No :	P02649
Mouse Swiss Prot No :	P08226
Immunogen :	Purified recombinant fragment of human ApoE expressed in E. Coli.
Specificity :	ApoE Monoclonal Antibody detects endogenous levels of ApoE protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000.. IF 1:50-200
Purification :	Affinity purification
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	36kD

Cell Pathway :   Alzheimer's disease;

P References :

1. Arch Dermatol Res. 2009 Jul;301(6):405-10.
2. Pharmacogenomics J. 2009 Aug;9(4):248-57.

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],

Function :

disease:Defects in APOE are a cause of hyperlipoproteinemia type III [MIM:107741]; also known as familial dysbetalipoproteinemia. Individuals with 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

Subcellular Location :

Secreted . Secreted, extracellular space . 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). .

Expression :

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).
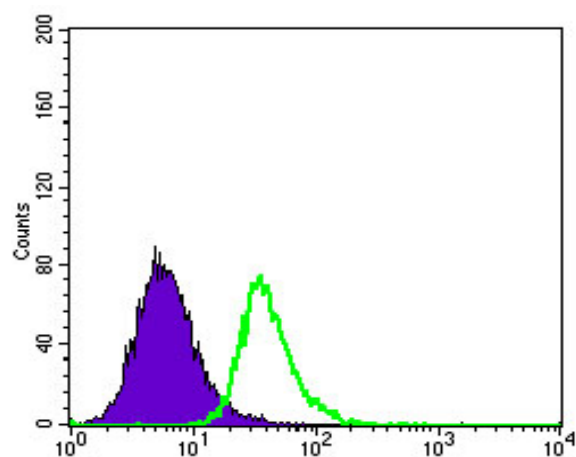
Products Images
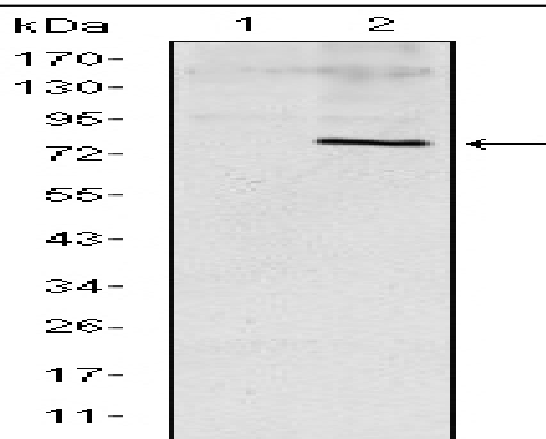
Western Blot analysis using ApoE Monoclonal Antibody against HEK293 (1) and ApoE (AA: 20-267)-hIgGFc transfected HEK293 (2) cell lysate.
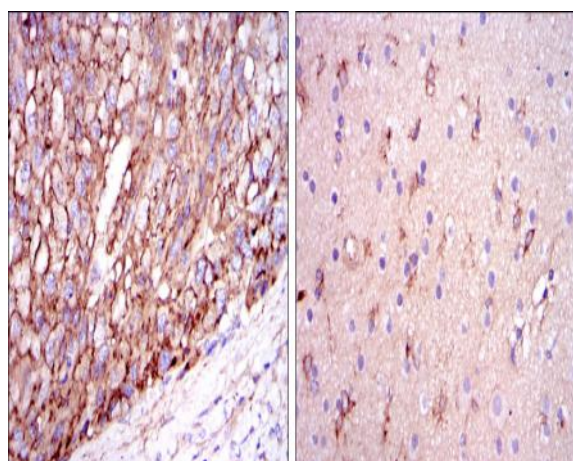
Immunohistochemistry analysis of paraffin-embedded liver cancer tissues (left) and brain tissues (right) with DAB staining using ApoE Monoclonal Antibody.

Flow cytometric analysis of HepG2 cells using ApoE Monoclonal Antibody (green) and negative control (purple).

ELISA Result

ELISA Result chart plotting O.D. Reading (y-axis, 0 to 1.6) against Serial Dilutions of Antibody (x-axis: 10^-2, 10^-3, 10^-4, 10^-5).

Legend:
- Control Antigen = 100ng
- Antigen = 10ng
- Antigen = 50ng
- Antigen = 100ng