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Apolipoprotein E (4Y14) Rabbit Monoclonal Antibody

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Catalog # AP93830

Product Information

Application	WB, IHC, IF, FC, ICC, IP
Primary Accession	P08226
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Calculated MW	35867

Additional Information

Gene ID	11816
Other Names	Apolipoprotein E, Apo-E, Apoe
Dilution	WB~~1:1000 IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50 ICC~~N/A IP~~N/A
Storage Conditions	-20℃

Protein Information

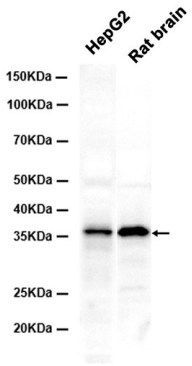
Name	Apoe
Function	APOE is an apolipoprotein, a protein associating with lipid particles, that mainly functions in lipoprotein-mediated lipid transport between organs via the plasma and interstitial fluids. APOE is a core component of plasma lipoproteins and is involved in their production, conversion and clearance. Apolipoproteins are amphipathic molecules that interact both with lipids of the lipoprotein particle core and the aqueous environment of the plasma. As such, APOE associates with chylomicrons, chylomicron remnants, very low density lipoproteins (VLDL) and intermediate density lipoproteins (IDL) but shows a preferential binding to high-density lipoproteins (HDL). It also binds a wide range of cellular receptors including the LDL receptor/LDLR and the very low-density lipoprotein receptor/VLDLR that mediate the cellular uptake of the APOE-containing lipoprotein particles (By similarity). Finally, APOE also has a heparin-binding activity and binds heparan-sulfate proteoglycans on the surface of cells, a property that supports the capture and the receptor-mediated uptake of APOE-containing lipoproteins by cells (PubMed:23676495).
Cellular Location	Secreted {ECO:0000250|UniProtKB:P02649}. Secreted, extracellular space {ECO:0000250|UniProtKB:P02649}. Secreted, extracellular space, extracellular matrix {ECO:0000250|UniProtKB:P02649}. Extracellular vesicle {ECO:0000250|UniProtKB:P02649}. Endosome, multivesicular body {ECO:0000250|UniProtKB:P02649}. Note=In the plasma, APOE is associated

with chylomicrons, chylomicrons remnants, VLDL, LDL and HDL lipoproteins. Lipid poor oligomeric APOE is associated with the extracellular matrix in a calcium- and heparan-sulfate proteoglycans- dependent manner. Lipidation induces the release from the extracellular matrix. Colocalizes with CD63 and PMEL at exosomes and in intraluminal vesicles within multivesicular endosomes {ECO:0000250|UniProtKB:P02649}

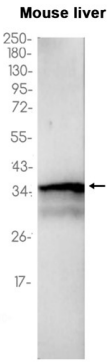
Background

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]

Images



Western blot analysis of extracts from HepG2 cells and Rat brain tissue using AP93830 at 1:1000.



Western blot analysis of extracts from Mouse liver tissue using AP93830 at 1:1000.