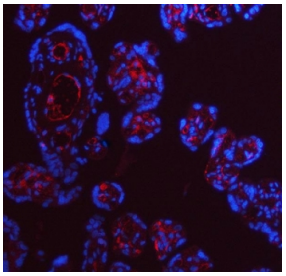
ApoE Antibody / Apolipoprotein E Antibody (R31740)

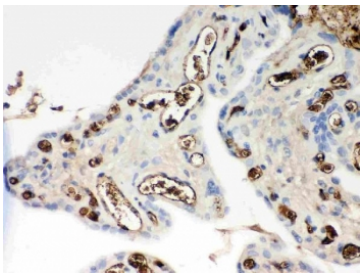
Catalog No.	Formulation	Size
R31740	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

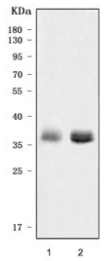
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
Gene ID	348
Localization	Cytoplasmic, membranous
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml ELISA (Capture; recombinant human protein): 1-5ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This ApoE Antibody / Apolipoprotein E Antibody is available for research use only.



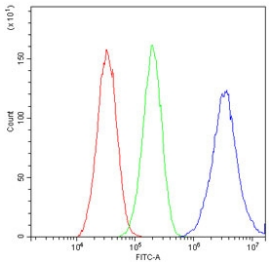
ApoE Antibody Human Placenta IF. Immunofluorescent staining of FFPE human placental tissue with ApoE antibody (red). Heat-induced epitope retrieval (HIER) was performed by steaming sections in pH 8 EDTA buffer for 20 minutes prior to staining. Nuclei are counterstained with DAPI (blue). ApoE immunoreactivity is observed predominantly within the cytoplasm of placental trophoblast cells, consistent with the expected localization of this lipid transport protein involved in cholesterol homeostasis and lipoprotein metabolism.



ApoE Antibody Human Placenta IHC. Immunohistochemical staining of FFPE human placental tissue with ApoE antibody. Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in pH 6 citrate buffer for 20 minutes and allowing them to cool prior to staining. ApoE immunoreactivity is observed predominantly within the cytoplasm and along the membranes of placental trophoblast cells, consistent with the expected localization of this lipid transport protein involved in cholesterol homeostasis and lipoprotein metabolism. Cell nuclei are counterstained with hematoxylin (blue).



ApoE Antibody Human Placenta and HepG2 WB. Western blot testing of 1) human placenta and 2) human HepG2 cell lysates with ApoE antibody. A prominent band is detected at approximately 35 kDa in both samples, consistent with the predicted molecular weight range of ApoE (34-37 kDa). The results demonstrate specific detection of this lipid transport protein, which plays a central role in cholesterol homeostasis and lipoprotein metabolism.



ApoE Antibody Human HepG2 FACS. Flow cytometric analysis of human HepG2 cells using ApoE antibody at 1 ug/10^6 cells following blocking with goat sera. Red: cells alone. Green: isotype control. Blue: ApoE antibody. The ApoE antibody produces a clear rightward shift in fluorescence intensity relative to the isotype control, demonstrating specific detection of this lipid transport protein involved in cholesterol homeostasis and lipoprotein metabolism.

Description

ApoE Antibody recognizes Apolipoprotein E (APOE), a secreted apolipoprotein that plays an essential role in lipid transport and cholesterol metabolism. ApoE serves as a structural component of several plasma lipoproteins, including chylomicrons, very low-density lipoproteins (VLDL), and selected high-density lipoproteins (HDL), where it mediates receptor-dependent uptake and redistribution of cholesterol and triglyceride-rich lipoproteins. Through interactions with members of the low-density lipoprotein receptor family, ApoE regulates systemic lipid homeostasis and facilitates lipid transport between tissues. Consequently, ApoE Antibody is widely used to investigate lipoprotein biology, cholesterol metabolism, cardiovascular disease, and neurodegeneration.

ApoE is synthesized primarily by hepatocytes, which supply most circulating ApoE, although significant expression also occurs in macrophages, astrocytes, microglia, and other cell types. Within the central nervous system, ApoE is the principal lipid carrier responsible for transporting cholesterol to neurons during development, synaptic remodeling, and tissue repair. Three common human isoforms, ApoE2, ApoE3, and ApoE4, exhibit distinct biological properties and clinical significance. In particular, the APOE4 allele is the strongest known genetic risk factor for late-onset Alzheimer's disease, whereas APOE2 is generally associated with reduced Alzheimer's disease risk but altered susceptibility to certain lipid disorders.

Beyond lipid metabolism, ApoE participates in numerous physiological and pathological processes including immune regulation, inflammatory signaling, neuronal repair, amyloid beta metabolism, vascular biology, and responses to tissue injury. Altered ApoE expression or function has been associated with Alzheimer's disease, atherosclerosis, hyperlipidemia, stroke, traumatic brain injury, age-related macular degeneration, and chronic inflammatory diseases. These diverse biological functions have made ApoE one of the most extensively studied proteins in both neuroscience and metabolism research.

NSJ Bioreagents offers highly validated ApoE Antibody products for reliable detection of endogenous Apolipoprotein E in

human and animal tissues. These antibodies support investigations into lipid metabolism, cholesterol homeostasis, cardiovascular disease, neurodegeneration, inflammation, and metabolic disorders while enabling accurate characterization of ApoE expression and localization. Researchers studying lipid transport, Alzheimer's disease, and lipoprotein biology can rely on ApoE Antibody for consistent and reproducible results.

Learn more about the role of Apolipoprotein E in lipid transport, cholesterol homeostasis and lipoprotein metabolism on our Apolipoprotein E Antibody / Lipid Transport Protein Antibody page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the ApoE Antibody / Apolipoprotein E Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 19-317) was used as the immunogen for this ApoE antibody.

Storage

After reconstitution, the ApoE antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

APOE antibody, Apolipoprotein E antibody, Apo-E antibody, Apolipoprotein E3 antibody, Lipoprotein Binding Protein antibody, Apolipoprotein E Isoform antibody

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