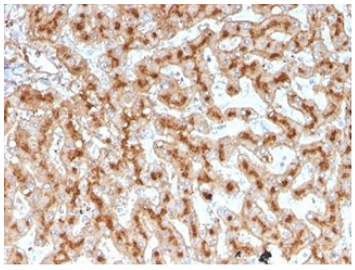
Apolipoprotein E Antibody / Lipid Transport Protein Antibody [clone APOE/3671] (V9533)

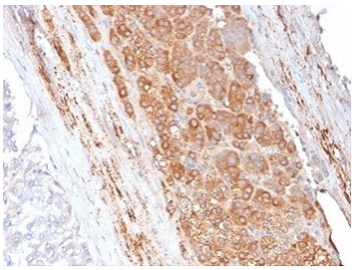
Catalog No.	Formulation	Size
V9533-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9533-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9533SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

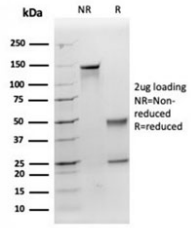
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	APOE/3671
Purity	Protein A/G affinity
UniProt	P02649
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This Apolipoprotein E Antibody / Lipid Transport Protein Antibody is available for research use only.



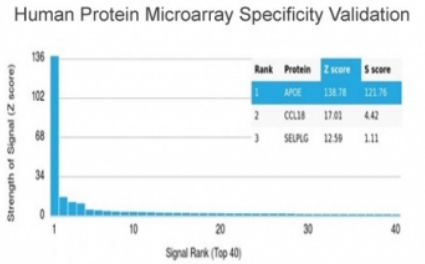
Apolipoprotein E Antibody Human Liver IHC. Immunohistochemical staining of FFPE human liver tissue with Apolipoprotein E antibody (clone APOE/3671). Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in pH 9, 10 mM Tris with 1 mM EDTA for 20 minutes and allowing them to cool prior to staining. Apolipoprotein E immunoreactivity is observed predominantly within the cytoplasm and along the cell membranes of hepatocytes, consistent with the expected localization of this lipid transport protein involved in cholesterol homeostasis and lipoprotein metabolism. Cell nuclei are counterstained with hematoxylin (blue).



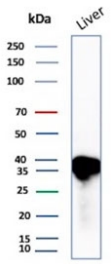
Apolipoprotein E Antibody Human Adrenal Gland IHC. Immunohistochemical staining of FFPE human adrenal gland tissue with Apolipoprotein E antibody (clone APOE/3671). Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in pH 9, 10 mM Tris with 1 mM EDTA for 20 minutes and allowing them to cool prior to staining. Apolipoprotein E immunoreactivity is observed predominantly within the cytoplasm and along the cell membranes of adrenal cortical 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).



SDS-PAGE analysis of purified, BSA-free Apolipoprotein E antibody (clone APOE/3671) as confirmation of integrity and purity.



Apolipoprotein E Antibody Protein Microarray Validation. Analysis of the HuProt human protein microarray containing more than 19,000 full-length human proteins using Apolipoprotein E antibody (clone APOE/3671). The antibody demonstrates exceptional specificity for APOE, with the strongest signal detected for the intended target and minimal cross-reactivity with other proteins on the array. HuProt validation reports both Z-score and S-score values, where the Z-score reflects the strength of antibody binding relative to all proteins on the array, while the S-score measures target specificity by comparing the highest-ranked signal with the next strongest signal. These results confirm the high specificity of clone APOE/3671 for APOE.



Apolipoprotein E Antibody Human Liver WB. Western blot testing of human liver tissue lysate with Apolipoprotein E antibody. A prominent band is detected at approximately 35 kDa, consistent with the predicted molecular weight range of Apolipoprotein E (34-37 kDa). The results demonstrate specific detection of this lipid transport protein, which plays a central role in cholesterol homeostasis and lipoprotein metabolism.

Description

Apolipoprotein E Antibody recognizes Apolipoprotein E (APOE), a multifunctional lipid transport protein that plays a central role in cholesterol metabolism, lipoprotein remodeling, and lipid homeostasis. APOE serves as a structural component of 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 lipid transport between the liver, peripheral tissues, and the central nervous system. Consequently, Apolipoprotein E Antibody is widely used to investigate lipid metabolism, cardiovascular disease, neurobiology, and metabolic disorders.

APOE is expressed predominantly by hepatocytes in peripheral tissues and by astrocytes and microglia within the central nervous system. Although the liver supplies most circulating APOE, local production within the brain is essential for neuronal maintenance, membrane repair, synaptic remodeling, and cholesterol transport between glial cells and neurons. Three common human isoforms, APOE2, APOE3, and APOE4, differ by only two amino acids yet exhibit distinct effects on lipid metabolism and disease susceptibility. Among these, APOE4 is the strongest known genetic risk factor for late-onset Alzheimer's disease, while APOE2 is generally associated with reduced Alzheimer's disease risk but increased susceptibility to certain lipid disorders. These clinical associations have established APOE as one of the most intensively

studied proteins in neuroscience and cardiovascular research.

Beyond lipid transport, APOE participates in numerous biological processes including immune regulation, inflammation, neuronal repair, amyloid beta metabolism, vascular integrity, and responses to tissue injury. Altered APOE expression has been linked to Alzheimer's disease, atherosclerosis, hyperlipidemia, stroke, traumatic brain injury, age-related macular degeneration, and several chronic inflammatory disorders. Because APOE influences both systemic and central nervous system lipid homeostasis, it remains an important biomarker and therapeutic target across multiple fields of biomedical research. Apolipoprotein E Antibody is therefore frequently employed to examine protein expression, localization, and disease-associated alterations in both normal and pathological tissues.

NSJ Bioreagents offers highly validated Apolipoprotein E Antibody products for reliable detection of endogenous APOE in human tissues and experimental models. Clone APOE/3671 is Protein Microarray Validated, demonstrating exceptional target specificity against thousands of human proteins. HuProt validation reports both Z-score and S-score values, where the Z-score reflects the strength of antibody binding relative to all proteins on the array and the S-score measures target specificity by comparing the top-ranked signal with the next highest signal. These antibodies support investigations into lipid transport, cholesterol metabolism, neurodegeneration, cardiovascular disease, and metabolic biology while providing dependable performance across multiple research applications.

Learn more about proteins involved in lipid transport, cholesterol homeostasis and metabolic regulation on our Metabolism Antibodies page.

Application Notes

Optimal dilution of the Apolipoprotein E Antibody / Lipid Transport Protein Antibody should be determined by the researcher.

Immunogen

A portin of amino acids 19-119 from the human protein was used as the immunogen for the Apolipoprotein E antibody.

Storage

Aliquot the Apolipoprotein E antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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