Apolipoprotein A4 Antibody APOA4/3654 / Lipid Transport Protein Antibody [clone APOA4/3654] (V5436)

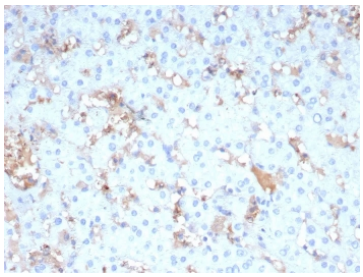
Catalog No.	Formulation	Size
V5436-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5436-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5436SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

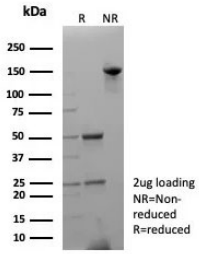
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	APOA4/3654
Purity	Protein A/G affinity
UniProt	P06727
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Apolipoprotein A4 Antibody APOA4/3654 is available for research use only.



Apolipoprotein A4 Antibody APOA4/3654 Protein Microarray Validated. Protein microarray analysis of Apolipoprotein A4 Antibody clone APOA4/3654 using a HuProt array containing more than 19,000 full-length human proteins demonstrates strong preferential recognition of APOA4. The Z-score represents signal strength in standard deviations above the mean signal across the array, while the S-score represents the difference between the intended target Z-score and the next highest-ranked signal, providing a measure of relative target specificity.



Apolipoprotein A4 Antibody APOA4/3654 / Lipid Transport Protein Antibody in Human Liver IHC. Immunohistochemistry staining of FFPE human liver tissue with Apolipoprotein A4 Antibody clone APOA4/3654 shows heterogeneous cytoplasmic staining in hepatocytes. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before testing. The staining demonstrates localized Apolipoprotein A4 immunoreactivity within the hepatic parenchyma.



Purified Apolipoprotein A4 Antibody APOA4/3654 SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free Apolipoprotein A4 Antibody clone APOA4/3654 under reduced (R) and non-reduced (NR) conditions demonstrates the integrity of the mouse monoclonal antibody preparation. Under reducing conditions, prominent immunoglobulin heavy- and light-chain bands are visible near 50 kDa and 25 kDa, respectively, while the intact non-reduced antibody migrates near 150 kDa.

Description

Apolipoprotein A4 Antibody APOA4/3654 recognizes apolipoprotein A-IV (ApoA-IV), a secreted lipid-binding protein encoded by the APOA4 gene. ApoA-IV is a member of the exchangeable apolipoprotein family and is synthesized predominantly by intestinal enterocytes. The protein contains amphipathic alpha-helical regions that facilitate interactions with lipids and lipoprotein particles and contribute to its functions in lipid transport and metabolic homeostasis.

ApoA-IV synthesis and secretion increase following intestinal lipid absorption. The protein is initially secreted in association with newly formed chylomicrons and can subsequently dissociate during lipoprotein metabolism, allowing ApoA-IV to circulate in lipid-poor forms and in association with other lipoprotein particles. These properties connect APOA4 with the transport and processing of dietary lipids as well as broader aspects of plasma lipoprotein metabolism.

Apolipoprotein A-IV has also been investigated for roles in cholesterol homeostasis. ApoA-IV can interact with phospholipids and has been reported to promote cholesterol efflux and activate lecithin-cholesterol acyltransferase (LCAT) under experimental conditions. In addition to lipid transport, studies have linked ApoA-IV with regulation of food intake and satiety, glucose homeostasis, antioxidant activity, inflammatory responses, and cardiovascular biology. These diverse functions have made APOA4 an important target for research into the connections between intestinal lipid absorption and systemic metabolic regulation.

Alternative forms of ApoA-IV can arise through genetic variation and post-translational processing, while the mature circulating protein has a molecular mass of approximately 46 kDa. Clone APOA4/3654 is a mouse monoclonal antibody generated against a region within amino acids 239-371 of human ApoA-IV. The antibody is Protein Microarray Validated using a HuProt array containing more than 19,000 full-length human proteins, providing additional evidence supporting recognition of its intended target. (nsjbio.com)

NSJ Bioreagents offers this Apolipoprotein A4 Antibody for research into ApoA-IV expression and apolipoprotein biology. The APOA4/3654 clone provides a distinct monoclonal reagent for studies involving lipid transport, intestinal metabolism, lipoprotein biology, and metabolic regulation.

For an alternative Protein Microarray Validated monoclonal clone with additional tissue validation, see our APOA4 Antibody APOA4/3372 / Apolipoprotein A-IV Antibody page.

Application Notes

Optimal dilution of the Apolipoprotein A4 Antibody APOA4/3654 / Lipid Transport Protein Antibody should be determined by the researcher.

Immunogen

A human recombinant APOA4 protein fragment (within amino acids 239-371) was used as the immunogen for the Apolipoprotein A4 Antibody APOA4/3654.

Storage

Aliquot the Apolipoprotein A4 Antibody APOA4/3654 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

APOA4 antibody, Apolipoprotein A4 antibody, Apolipoprotein A-IV antibody, ApoA-IV antibody, Apo-AIV antibody

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