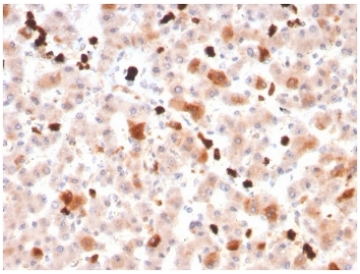
APOA1 Antibody APOA1/3661 / ApoA-I Antibody [clone APOA1/3661] (V8388)

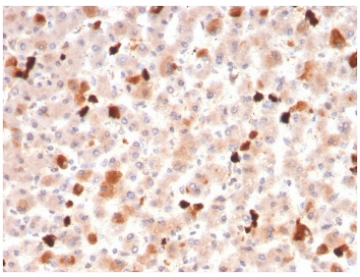
Catalog No.	Formulation	Size
V8388-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8388-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8388SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

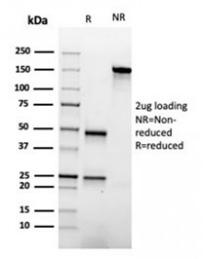
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	APOA1/3661
Purity	Protein G affinity chromatography
UniProt	P02647
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This APOA1 Antibody APOA1/3661 / ApoA-I Antibody is available for research use only.



APOA1 Antibody APOA1/3661 / ApoA-I Antibody in Human Liver IHC. Immunohistochemistry staining of FFPE human liver tissue with APOA1 Antibody clone APOA1/3661 shows granular cytoplasmic staining within hepatocytes, with variable staining intensity across the hepatic parenchyma. The pattern is consistent with intracellular ApoA-I associated with its synthesis and secretion by 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.



APOA1 Antibody APOA1/3661 in Human Hepatocytes IHC. Immunohistochemistry staining of FFPE human liver tissue with APOA1 Antibody clone APOA1/3661 shows heterogeneous granular cytoplasmic staining of hepatocytes, with strongly positive cells interspersed among more weakly stained cells. Nuclear staining is not prominent, consistent with the secreted nature of Apolipoprotein A-I. 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.



Purified APOA1 Antibody APOA1/3661 SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free APOA1 Antibody clone APOA1/3661 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 at approximately 50 kDa and 25 kDa, respectively, while the intact non-reduced antibody migrates predominantly near 150 kDa.

Description

APOA1 Antibody APOA1/3661 / ApoA-I Antibody recognizes apolipoprotein A-I, the major protein component of high-density lipoprotein (HDL). Encoded by the APOA1 gene, ApoA-I is a secreted apolipoprotein with a central role in lipid transport and cholesterol homeostasis. Its amphipathic alpha-helical structure enables interactions with phospholipids and cholesterol while maintaining solubility in the aqueous environment of plasma.

ApoA-I is a major participant in reverse cholesterol transport, through which excess cholesterol can be removed from peripheral cells and transported toward the liver. Lipid-poor ApoA-I interacts with the ATP-binding cassette transporter ABCA1 to acquire cellular cholesterol and phospholipids, initiating the formation of nascent HDL particles. Subsequent lipid acquisition and remodeling contribute to the generation of mature HDL.

APOA1 also functions as an important activator of lecithin-cholesterol acyltransferase (LCAT). LCAT converts free cholesterol associated with lipoproteins into cholesteryl esters, allowing cholesterol to move into the hydrophobic core of HDL particles. This process contributes to HDL maturation and supports continued movement of cholesterol through the reverse cholesterol transport pathway.

In addition to lipid transport, ApoA-I and HDL have been investigated in vascular biology, oxidative stress, inflammation, and immune regulation. Changes in APOA1 abundance, structure, or function can alter HDL composition and activity. These relationships have made ApoA-I an important research target in studies of atherosclerosis, cardiovascular disease, metabolic disorders, and mechanisms regulating plasma lipid homeostasis.

Genetic alterations involving APOA1 can affect plasma ApoA-I concentrations, HDL levels, and cholesterol transport. APOA1 also functions within a broader network of apolipoproteins, lipid transporters, enzymes, and receptors that regulate lipoprotein formation, remodeling, and clearance. Studying ApoA-I can therefore provide insight into both individual protein function and the larger pathways governing lipid metabolism.

NSJ Bioreagents offers clone APOA1/3661 as a monoclonal reagent for investigating apolipoprotein biology. An APOA1 Antibody can support research into HDL metabolism, cholesterol transport, lipid homeostasis, cardiovascular biology, and the molecular functions of ApoA-I.

For a broadly validated polyclonal option, see our APOA1 Antibody / Apolipoprotein A1 Antibody page.

Application Notes

Optimal dilution of the APOA1 Antibody APOA1/3661 / ApoA-I Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 83-167 from the human protein was used as the immunogen for the APOA1 antibody.

Storage

Store the APOA1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

APOA1 antibody, ApoA-I antibody, ApoA1 antibody, Apo AI antibody, Apolipoprotein A1 antibody, Apolipoprotein A-I antibody, Apolipoprotein A1 precursor antibody, HDL apolipoprotein antibody, High density lipoprotein apolipoprotein A-I antibody

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