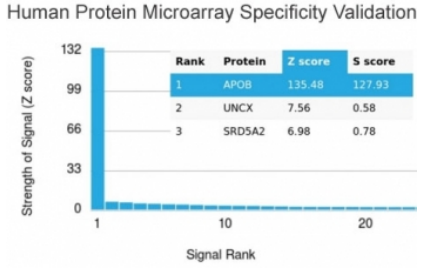
Apolipoprotein B Antibody APOB/4333 / ApoB Protein Antibody [clone APOB/4333] (V8609)

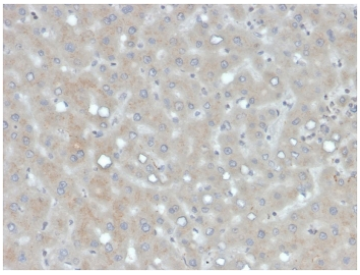
Catalog No.	Formulation	Size
V8609-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8609-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8609SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

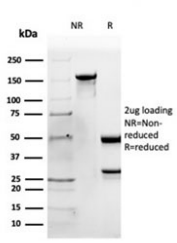
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	APOB/4333
Purity	Protein G affinity chromatography
UniProt	P04114
Localization	Cytoplasm, secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Apolipoprotein B Antibody APOB/4333 / ApoB Protein Antibody is available for research use only.



Apolipoprotein B Antibody APOB/4333 Protein Microarray Validated. Protein microarray analysis of Apolipoprotein B Antibody, clone APOB/4333, using the HuProt array containing more than 19,000 full-length human proteins. APOB produced the highest-ranked signal, with a Z-score of 136.46 and S-score of 127.93, demonstrating strong target recognition and separation from the next-highest signal. The Z-score represents signal strength in standard deviations above the array mean, while the S-score represents the difference between the intended target and the next-highest ranked protein. This result supports the specificity of the ApoB Protein Antibody.



Apolipoprotein B Antibody APOB/4333 in Human Liver IHC. Immunohistochemistry staining of FFPE human liver tissue with Apolipoprotein B Antibody, clone APOB/4333. Tissue sections underwent HIER by boiling in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing. The image shows widespread, relatively light cytoplasmic staining of hepatocytes with some variation in staining intensity between individual cells. The staining demonstrates detection of ApoB Protein in human liver tissue.



Purified Apolipoprotein B Antibody APOB/4333 SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free Apolipoprotein B Antibody, clone APOB/4333, under non-reducing (NR) and reducing (R) conditions. The non-reduced sample shows intact immunoglobulin migrating near approximately 150 kDa, while reduction produces the expected antibody heavy and light chain components near approximately 50 and 25 kDa, respectively. This analysis confirms the integrity and purity of the ApoB Protein Antibody preparation.

Description

Apolipoprotein B Antibody APOB/4333 / ApoB Protein Antibody recognizes apolipoprotein B, the large lipid-binding protein encoded by the APOB gene. ApoB is an essential structural component of several classes of lipoprotein particles and has a central role in the transport of cholesterol, triglycerides, and other lipids. Unlike exchangeable apolipoproteins, ApoB remains associated with the lipoprotein particle on which it is assembled, providing structural organization throughout the particle's lifecycle.

Two principal forms of the ApoB protein occur in humans, ApoB-100 and ApoB-48. ApoB-100 is the full-length protein and is incorporated into very-low-density lipoprotein during hepatic lipoprotein assembly. It is subsequently retained as these particles are remodeled into intermediate-density and low-density lipoproteins. ApoB-100 also contains the region responsible for interaction with the LDL receptor, facilitating receptor-mediated uptake of LDL particles.

ApoB-48 corresponds to the N-terminal portion of ApoB-100 and results from tissue-specific RNA editing of the APOB transcript. Introduction of a premature stop codon produces the shorter protein rather than the full-length ApoB-100 molecule. ApoB-48 is an essential structural component of chylomicrons and therefore contributes to the transport of dietary triglycerides and cholesterol from the intestine. Together, the two ApoB forms support distinct but related pathways of endogenous and dietary lipid transport.

Clone APOB/4333 is a mouse monoclonal antibody generated against a recombinant fragment corresponding to amino acids 592-689 of human apolipoprotein B. This sequence lies within the N-terminal region shared by ApoB-100 and ApoB-48, so the immunogen does not indicate specificity for only one of the two major forms. The ApoB Protein Antibody is also Protein Microarray Validated using the HuProt platform, providing additional evidence of target recognition and specificity.

NSJ Bioreagents offers clone APOB/4333 for research into apolipoprotein biology, lipid transport, and metabolic regulation. An Apolipoprotein B Antibody can support investigation of lipoprotein assembly, cholesterol homeostasis, triglyceride transport, and mechanisms associated with APOB-dependent lipid metabolism.

For an alternative Protein Microarray Validated monoclonal clone with additional tissue validation, see our APOB Antibody APOB/3300 / Lipoprotein B Antibody page.

Application Notes

Optimal dilution of the Apolipoprotein B Antibody APOB/4333 / ApoB Protein Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 592-689 from the human protein was used as the immunogen for the Apolipoprotein B Antibody APOB/4333.

Storage

Store the Apolipoprotein B Antibody APOB/4333 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Apolipoprotein B antibody, APOB antibody, ApoB antibody, ApoB protein antibody, Apolipoprotein B-100 antibody, ApoB-100 antibody, Apolipoprotein B-48 antibody, ApoB-48 antibody

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