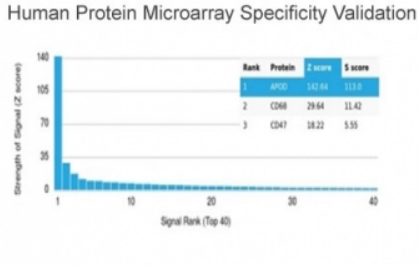
Apolipoprotein D Antibody [clone APOD/3413] (V9532)

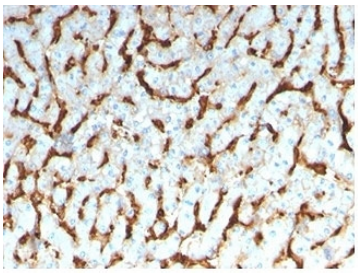
Catalog No.	Formulation	Size
V9532-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9532-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9532SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

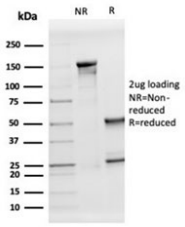
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	APOD/3413
Purity	Protein A/G affinity
UniProt	P05090
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Apolipoprotein D Antibody is available for research use only.



Apolipoprotein D Antibody Protein Microarray Specificity Validation. Protein microarray analysis of Apolipoprotein D Antibody using a HuProt microarray containing more than 19,000 full-length human proteins. APOD produced the highest-ranked signal with a Z-score of 142.44 and an S-score of 113.0. The Z-score represents signal strength in standard deviations above the mean signal generated on the array, while the S-score represents the difference between the intended target Z-score and the next-ranked signal. The strong separation between APOD and the next-ranked protein demonstrates high relative target specificity of clone APOD/3413 for Apolipoprotein D.



Apolipoprotein D Antibody in Human Liver IHC. Immunohistochemistry staining of FFPE human liver tissue with Apolipoprotein D Antibody (clone APOD/3413). Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min, followed by cooling before testing. Apolipoprotein D staining is observed throughout the liver tissue, with prominent staining associated with hepatocytes. This Apolipoprotein D Antibody demonstrates detection of APOD in human liver tissue.



SDS-PAGE analysis of purified, BSA-free Apolipoprotein D antibody (clone APOD/3413) as confirmation of integrity and purity.

Description

Apolipoprotein D Antibody targets APOD, a secreted glycoprotein and member of the lipocalin superfamily. Unlike many classical apolipoproteins, Apolipoprotein D is structurally related to lipocalins, proteins characterized by their ability to bind small hydrophobic molecules. APOD is expressed in a variety of tissues and has been studied in lipid transport, cellular lipid homeostasis, oxidative stress responses and nervous system biology. Clone APOD/3413 is a mouse monoclonal antibody directed against human APOD.

Apolipoprotein D can associate with lipoprotein particles and bind hydrophobic ligands, including arachidonic acid and other lipid molecules. These properties have connected the protein with lipid transport and the regulation of lipid-associated cellular processes. Its lipocalin structure distinguishes APOD from several other apolipoproteins and provides a molecular basis for its ligand-binding activity. An Apolipoprotein D Antibody can support investigation of the expression and distribution of this lipid-binding protein in cells and tissues.

APOD has also been investigated in cellular responses to oxidative stress. Its expression can change following tissue injury and under conditions associated with increased oxidative damage. Studies suggest that Apolipoprotein D may participate in mechanisms that limit lipid peroxidation and help maintain membrane lipid homeostasis. These functions have generated particular interest in aging and nervous system research, where oxidative damage and altered lipid metabolism can influence cellular function.

Changes in APOD expression have additionally been reported in cancer and other disease settings. The protein has been studied in relation to cellular proliferation, differentiation and tumor-associated phenotypes, although its biological effects can vary depending on tissue and cellular context. Together, its lipid-binding properties and associations with cellular stress make Apolipoprotein D relevant to research spanning metabolism, cell biology and disease.

Clone APOD/3413 has been evaluated for target specificity using a HuProt protein microarray containing more than 19,000 full-length human proteins. In this analysis, the Z-score represents antibody signal strength in standard deviations above the mean array signal, while the S-score measures the difference between the intended target Z-score and the next-ranked signal and therefore reflects relative target specificity. NSJ Bioreagents provides APOD/3413 for research use. An Apolipoprotein D Antibody can support studies of lipid binding, lipid transport, cellular stress responses and APOD-associated biology.

For broader research into APOD function, lipid transport and lipocalin biology, see our APOD Antibody / Lipocalin Family Protein Antibody page.

Application Notes

Optimal dilution of the Apolipoprotein D Antibody should be determined by the researcher.

Immunogen

A portin of amino acids 21-119 from the human protein was used as the immunogen for the Apolipoprotein D antibody.

Storage

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

Alternate Names

Apolipoprotein D antibody, APOD antibody, ApoD antibody, Apo-D antibody, GLC antibody

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