

apoD (L-16): sc-34760

BACKGROUND

Lipids, such as phospholipids, triacylglycerols and cholesterol, are weakly soluble in aqueous solution and therefore are transported by circulation as components of lipoproteins. Lipoproteins are globular particles that consist of a non-polar core of triacylglycerols and cholesterol esters surrounded by phospholipid, cholesterol and an amphiphilic coating of protein, known as apolipoprotein (apo). These complexes allow the dissolution and shuttling of their non-polar lipid components. At least nine different apo are distributed in significant amounts in different human lipoproteins. apoD is a member of the lipocalin superfamily of transporter proteins that bind small hydrophobic molecules, including arachidonic acid (AA). The ability of apoD to bind AA implicates it in pathways associated with membrane phospholipid signal transduction and metabolism. apoD expression has been shown to correlate both with cell cycle arrest and with prognosis in several types of malignancy, including central nervous system astrocytomas and medulloblastomas.

REFERENCES

1. Yao, J.K., et al. 2005. Association of plasma apoD with RBC membrane arachidonic acid levels in schizophrenia. *Schizophr. Res.* 72: 259-266.
2. Ganfornina, M.D., et al. 2005. Molecular characterization and developmental expression pattern of the chicken apoD gene: implications for the evolution of vertebrate lipocalins. *Dev. Dyn.* 232: 191-199.
3. Hildebrand, M.S., et al. 2005. Expression of the carrier protein apoD in the mouse inner ear. *Hear. Res.* 200: 102-114.
4. Utsunomiya, T., et al. 2005. Clinicopathologic and prognostic values of apoD alterations in hepatocellular carcinoma. *Int. J. Cancer* 116: 105-109.

CHROMOSOMAL LOCATION

Genetic locus: APOD (human) mapping to 3q29; Apod (mouse) mapping to 16 B2.

SOURCE

apoD (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of apoD of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34760 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

apoD (L-16) is recommended for detection of apoD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

apoD (L-16) is also recommended for detection of apoD in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for apoD siRNA (h): sc-45518, apoD siRNA (m): sc-45519, apoD shRNA Plasmid (h): sc-45518-SH, apoD shRNA Plasmid (m): sc-45519-SH, apoD shRNA (h) Lentiviral Particles: sc-45518-V and apoD shRNA (m) Lentiviral Particles: sc-45519-V.

Molecular Weight of apoD: 30 kDa.

Positive Controls: rat liver extract: sc-2395 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Zhao, J., et al. 2010. Small RNAs control sodium channel expression, nociceptor excitability, and pain thresholds. *J. Neurosci.* 30: 10860-10871.
2. Bajo-Grañeras, R., et al. 2011. Apolipoprotein D mediates autocrine protection of astrocytes and controls their reactivity level, contributing to the functional maintenance of paraquat-challenged dopaminergic systems. *Glia* 59: 1551-1566.
3. Bajo-Grañeras, R., et al. 2011. Apolipoprotein D alters the early transcriptional response to oxidative stress in the adult cerebellum. *J. Neurochem.* 117: 949-960.

RESEARCH USE

For research use only, not for use in diagnostic procedures.


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Try **apoD (C-1): sc-373965** or **apoD (D-12): sc-166612**, our highly recommended monoclonal alternatives to apoD (L-16).