

apoA-IV (N-20): sc-19036

BACKGROUND

Apolipoproteins are protein components of plasma lipoproteins. The human apoA-I gene encodes a single chain, 243 amino acid protein which promotes cholesterol efflux from tissues to the liver for excretion. Apolipoprotein A-I is the major protein component of high density lipoprotein (HDL) in the plasma. It can function as a cofactor for lecithin cholesterolacyltransferase (LCAT), which is responsible for the formation of most plasma cholesteryl esters. The human apoA-II gene encodes the second most abundant protein of HDL particles, where it influences plasma levels of free fatty acids (FFA). The human apoA-IV gene encodes a 396 amino acid preprotein which, after proteolytic processing, is secreted from the intestine in association with chylomicron particles. ApoA-IV is a potent activator of LCAT *in vitro*. The human apoA-V gene encodes a 366 amino acid protein that is believed to be an important determinant of plasma triglyceride levels.

CHROMOSOMAL LOCATION

Genetic locus: APOA4 (human) mapping to 11q23.3; ApoA4 (mouse) mapping to 9 A5.2.

SOURCE

apoA-IV (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of apoA-IV of human 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-19036 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.

APPLICATIONS

apoA-IV (N-20) is recommended for detection of apoA-IV of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

apoA-IV (N-20) is also recommended for detection of apoA-IV in additional species, including equine, canine and porcine.

Suitable for use as control antibody for apoA-IV siRNA (h): sc-41178, apoA-IV siRNA (m): sc-41179, apoA-IV shRNA Plasmid (h): sc-41178-SH, apoA-IV shRNA Plasmid (m): sc-41179-SH, apoA-IV shRNA (h) Lentiviral Particles: sc-41178-V and apoA-IV shRNA (m) Lentiviral Particles: sc-41179-V.

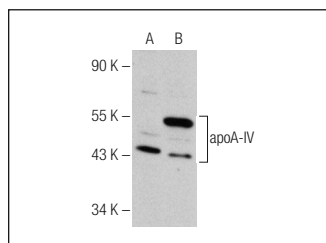
Molecular Weight of apoA-IV: 46 kDa.

Positive Controls: Y79 cell lysate: sc-2240, Hep G2 cell lysate: sc-2227 or apoA-IV (h): 293T Lysate: sc-373359.

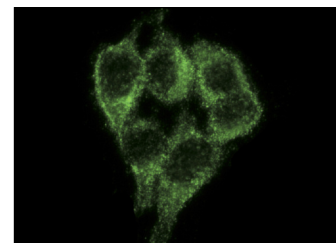
RESEARCH USE

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

DATA



apoA-IV (N-20): sc-19036. Western blot analysis of apoA-IV expression in non-transfected: sc-117752 (A) and human apoA-IV transfected: sc-373359 (B) 293T whole cell lysates.



apoA-IV (N-20): sc-19036. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Acín, S., et al. 2006. Hydroxytyrosol administration enhances atherosclerotic lesion development in apoE deficient mice. *J. Biochem.* 140: 383-391.
- Carnicer, R., et al. 2009. Nitric oxide-releasing agent, LA419, reduces atherogenesis in apolipoprotein E-deficient mice. *Naunyn Schmiedeberg Arch. Pharmacol.* 379: 489-500.
- Bertile, F., et al. 2009. A proteomic approach to identify differentially expressed plasma proteins between the fed and prolonged fasted states. *Proteomics* 9: 148-158.
- Sarr, O., et al. 2010. Prenatal exposure to maternal low or high protein diets induces modest changes in the adipose tissue proteome of newborn piglets. *J. Anim. Sci.* 88: 1626-1641.
- Nuño-Ayala, M., et al. 2010. Cysteinemia, rather than homocysteinemia, is associated with plasma apolipoprotein A-I levels in hyperhomocysteinemia: lipid metabolism in cystathionine β-synthase deficiency. *Atherosclerosis* 212: 268-273.
- Park, J.Y., et al. 2012. Apolipoprotein A-IV is a novel substrate for matrix metalloproteinases. *J. Biochem.* 151: 291-298.
- Martínez-Beamonte, R., et al. 2013. Postprandial changes in high density lipoproteins in rats subjected to gavage administration of virgin olive oil. *PLoS ONE* 8: e55231.

PROTOCOLS

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Try **apoA-IV (G-8): sc-374543**, our highly recommended monoclonal alternative to apoA-IV (N-20).