

apoA-I (G-11): sc-376811

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.

REFERENCES

1. Duriez, P. and Fruchart, J.C. 1999. High-density lipoprotein subclasses and apolipoprotein A-I. *Clin. Chim. Acta* 286: 97-114.
2. Maezawa, I., et al. 2004. apoE isoforms and apoA-I protect from Amyloid precursor protein carboxy-terminal fragment-associated cytotoxicity. *J. Neurochem.* 91: 1312-1321.
3. Maejima, T., et al. 2004. Effect of pitavastatin on apoA-I production in HepG2 cell. *Biochem. Biophys. Res. Commun.* 324: 835-839.

CHROMOSOMAL LOCATION

Genetic locus: APOA1 (human) mapping to 11q23.3.

SOURCE

apoA-I (G-11) is a mouse monoclonal antibody raised against amino acids 1-267 representing full length apoA-I of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

apoA-I (G-11) is recommended for detection of apoA-I of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for apoA-I siRNA (h): sc-41177, apoA-I shRNA Plasmid (h): sc-41177-SH and apoA-I shRNA (h) Lentiviral Particles: sc-41177-V.

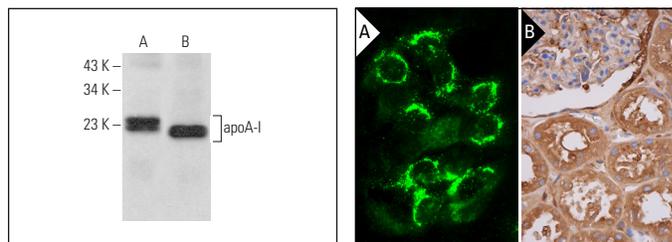
Molecular Weight of apoA-I: 28 kDa.

Positive Controls: human small intestine extract: sc-364225, HeLa whole cell lysate: sc-2200 or human stomach extract: sc-363780.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



apoA-I (G-11): sc-376811. Western blot analysis of apoA-I expression in human stomach (A) and human small intestine (B) tissue extracts.

apoA-I (G-11): sc-376811. Immunofluorescence staining of formalin-fixed HepG2 cells showing Golgi apparatus localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing extracellular staining of glomerulus cells and cytoplasmic staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

1. Bianchi, L., et al. 2021. Nusinersen modulates proteomics profiles of cerebrospinal fluid in spinal muscular atrophy type 1 patients. *Int. J. Mol. Sci.* 22: 4329.
2. Vantaggiato, L., et al. 2022. Serum proteomic profile of asthmatic patients after six months of benralizumab and mepolizumab treatment. *Biomedicines* 10: 761.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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