SANTA CRUZ BIOTECHNOLOGY, INC.

apoA-I (FL-267): sc-30089

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. ApoA-I is the major protein component of high density lipoprotein (HDL) in the plasma. ApoA-I 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. 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.

CHROMOSOMAL LOCATION

Genetic locus: APOA1 (human) mapping to 11q23.3; Apoa1 (mouse) mapping to 9 A5.2.

SOURCE

apoA-I (FL-267) is a rabbit polyclonal antibody raised against amino acids 1-267 representing full length apoA-I 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.

APPLICATIONS

apoA-I (FL-267) is recommended for detection of apoA-I 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-I (FL-267) is also recommended for detection of apoA-I in additional species, including canine.

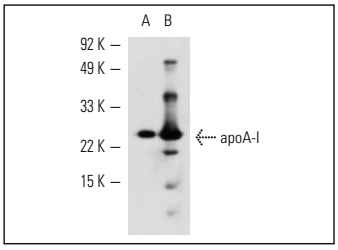
Suitable for use as control antibody for apoA-I siRNA (h): sc-41177, apoA-I siRNA (m): sc-63361, apoA-I shRNA Plasmid (h): sc-41177-SH, apoA-I shRNA Plasmid (m): sc-63361-SH, apoA-I shRNA (h) Lentiviral Particles: sc-41177-V and apoA-I shRNA (m) Lentiviral Particles: sc-63361-V.

Molecular Weight of apoA-I: 28 kDa.

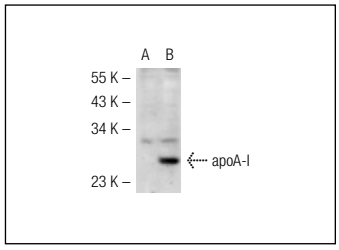
STORAGE

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

DATA



apoA-I (FL-267): sc-30089. Western blot analysis of apoA-I expression from purified human VLDL (**A**) and HDL (**B**).



apoA-I (FL-267): sc-30089. Western blot analysis of apoA-I expression in non-transfected: sc-117752 (**A**) and mouse apoA-I transfected: sc-118477 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tam, S.P., et al. 2006. ABCA1 mediates high-affinity uptake of 25-hydroxycholesterol by membrane vesicles and rapid efflux of oxysterol by intact cells. Am. J. Physiol., Cell Physiol. 291: C490-C502.
2. Evans, J.R., et al. 2008. RNA interference-mediated inhibition of hepatocyte nuclear factor 1α identifies target genes. Biochim. Biophys. Acta 1779: 341-346.
3. Chatterji, B., et al. 2009. A 2-DE MALDI-TOF study to identify disease regulated serum proteins in lung cancer of c-Myc transgenic mice. Proteomics 9:1044-1056.
4. Fukushima, M., et al. 2011. Gonadotropin-regulated testicular RNA helicase (GRTH/DDX25), a negative regulator of LH/hCG-induced steroidogenesis in Leydig cells: A central role of steroidogenic acute regulatory protein (StAR). J. Biol. Chem. 286: 29932-29940.
5. Zhang, H., et al. 2011. Complement component C4A and apolipoprotein A-I in plasmas as biomarkers of the severe, early-onset preeclampsia. Mol. Biosyst 7: 2470-2479.
6. Jun, J.Y., et al. 2011. Spontaneously diabetic Ins2(+/Akita):apoE-deficient mice exhibit exaggerated hypercholesterolemia and atherosclerosis. Am. J. Physiol. Endocrinol. Metab. 301: E145-E154.
7. Liu, J., et al. 2012. IMB2026791, a xanthone, stimulates cholesterol efflux by increasing the binding of apolipoprotein A-I to ATP-binding cassette transporter A1. Molecules 17: 2833-2854.

RESEARCH USE

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

PROTOCOLS

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