SANTA CRUZ BIOTECHNOLOGY, INC.

apoA-I (M-20): sc-19031

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.
3. Maiorano, J.N., et al. 2004. Identification and structural ramifications of a hinge domain in apoA-I discoidal high-density lipoproteins of different size. Biochemistry 43: 11717-11726.
4. Zhu, H.L., et al. 2004. Conformation and lipid binding of the N-terminal (1-44) domain of human apoA-I. Biochemistry 43: 13156-13164.
5. Maejima, T., et al. 2004. Effect of pitavastatin on apoA-I production in HepG2 cell. Biochem. Biophys. Res. Commun. 324: 835-839.
6. Cohen, J.C., et al. 2004. Multiple rare alleles contribute to low plasma levels of HDL cholesterol. Science 305: 869-872.
7. Fullerton, S.M., et al. 2004. The effects of scale: variation in the apoA1/C3/A4/A5 gene cluster. Hum. Genet. 115: 36-56.
8. Natarajan, P., et al. 2004. Identification of an apoA-I structural element that mediates cellular cholesterol efflux and stabilizes ATP binding cassette transporter A1. J. Biol. Chem. 279: 24044-24052.
9. Kockx, M., et al. 2004. apoA-I-stimulated apoE secretion from human macrophages is independent of cholesterol efflux. J. Biol. Chem. 279: 25966-25977.

CHROMOSOMAL LOCATION

Genetic locus: Apoa1 (mouse) mapping to 9 A5.2.

SOURCE

apoA-I (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of apoA-I of mouse origin.

RESEARCH USE

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

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-19031 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

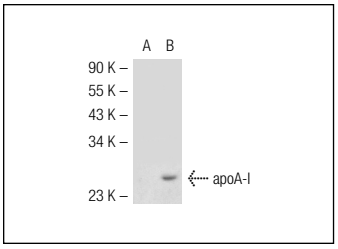
apoA-I (M-20) is recommended for detection of apoA-I of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of apoA-I: 28 kDa.

Positive Controls: apoA-I (m): 293T Lysate: sc-118477.

DATA



apoA-I (M-20): sc-19031. 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. Chen, Y.C., et al. 2006. Proteomic analysis of Down's syndrome patients with gout. Clin. Chim. Acta 369: 89-94.

STORAGE

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