SANTA CRUZ BIOTECHNOLOGY, INC.

apoA-I (K-20): sc-23606

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.

CHROMOSOMAL LOCATION

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

SOURCE

apoA-I (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of apoA-I 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-23606 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

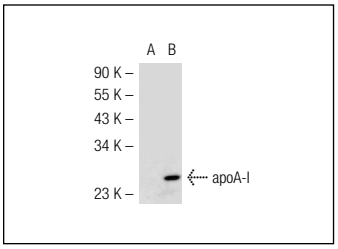
apoA-I (K-20) is recommended for detection of apoA-I of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and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

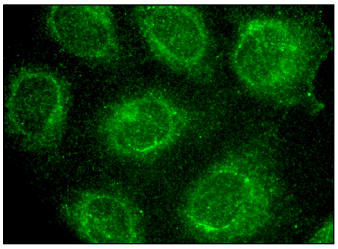
Molecular Weight of apoA-I: 28 kDa.

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

DATA



apoA-I (K-20): sc-23606. 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.



apoA-I (K-20): sc-23606. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Feng, Y., et al. 2009. Wild-type apoA-I and apoA-I(Milano) gene transfer reduce native and transplant arteriosclerosis to a similar extent. J. Mol. Med. 87: 287-297.
2. Côté, M., et al. 2011. Apolipoprotein A-I, A-II, and H mRNA and protein accumulation sites in the developing lung in late gestation. BMC Res. Notes 4: 235.
3. Feng, Y., et al. 2012. Hematopoietic stem/progenitor cell proliferation and differentiation is differentially regulated by high-density and low-density lipoproteins in mice. PLoS ONE 7: e47286.

STORAGE

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