SANTA CRUZ BIOTECHNOLOGY, INC.

apoA-I (E-20): sc-23605

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

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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.

CHROMOSOMAL LOCATION

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

SOURCE

apoA-I (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-23605 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.

RESEARCH USE

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

APPLICATIONS

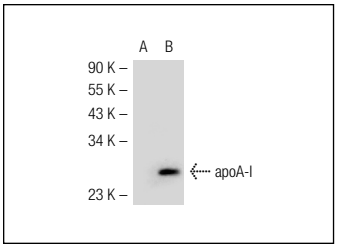
apoA-I (E-20) is recommended for detection of apoA-I of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range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

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.

Positive Controls: HeLa whole cell lysate: sc-2200, apoA-I (m): 293T Lysate: sc-118477 or rat liver extract: sc-2395.

DATA



apoA-I (E-20): sc-23605. 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

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2. Fioravanti, J., et al. 2011. Characterization of woodchuck apolipoprotein A-I: a new tool for drug delivery and identification of altered isoforms in the woodchuck chronic hepatitis model. J. Med. Virol. 83: 1221-1229.
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4. Ochoa, M.C., et al. 2012. Liver gene transfer of interkeukin-15 constructs that become part of circulating high density lipoproteins for immunotherapy. PLoS ONE 2012: e52370.
5. Zhou, L., et al. 2012. Cholecystokinin elevates mouse plasma lipids. PLoS ONE 7: e51011.
6. Dahabreh, D.F. and Medh, J.D. 2012. Activation of peroxisome proliferator activated receptor-γ results in an atheroprotective apolipoprotein profile in HepG2 cells. Adv. Biol. Chem. 2: 218-225.