SANTA CRUZ BIOTECHNOLOGY, INC.

apoA-V (1F1E8): sc-65992

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Apolipoproteins are protein components of plasma lipoproteins. The human apoA-I gene, which maps to chromosome 11q23-q24, 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 maps to chromosome 1q21-q23 and encodes the second most abundant protein of HDL particles, where it influences plasma levels of free fatty acids (FFA). The human apoA-IV gene maps to chromosome 11q23 and 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 lecithin-cholesterol acyltransferase *in vitro*. The human apoA-V gene maps to chromosome 11q23 and encodes a 366 amino acid protein that is believed to be an important determinant of plasma triglyceride levels.

REFERENCES

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2. Qin, S., et al. 2000. Phospholipid transfer protein gene knock-out mice have low high density lipoprotein levels, due to hypercatabolism, and accumulate apoA-IV-rich lamellar lipoproteins. J. Lipid Res. 41: 269-276.
3. Fournier, N., et al. 2000. Human apoA-IV overexpression in transgenic mice induces cAMP-stimulated cholesterol efflux from J774 macrophages to whole serum. Arterioscler. Thromb. Vasc. Biol. 20: 1283-1292.
4. Deeg, M.A., et al. 2001. GPI-specific phospholipase D associates with an apoA-I- and apoA-IV-containing complex. J. Lipid Res. 42: 442-451.
5. Verges, B., et al. 2001. Increased plasma apoA-IV level is a marker of abnormal postprandial lipemia: a study in normoponderal and obese subjects. J. Lipid Res. 42: 2021-2029.
6. Nazih, H., et al. 2001. Butyrate stimulates apoA-IV-containing lipoprotein secretion in differentiated Caco-2 cells: role in cholesterol efflux. J. Cell. Biochem. 83: 230-238.
7. Ezeh, B., et al. 2003. Plasma distribution of apoA-IV in patients with coronary artery disease and healthy controls. J. Lipid Res. 44: 1523-1529.
8. Gallagher, J.W., et al. 2004. ApoA-IV tagged with the ER retention signal KDEL perturbs the intracellular trafficking and secretion of apoB. J. Lipid Res. 45: 1826-1834.
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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: APOA5 (human) mapping to 11q23.3.

SOURCE

apoA-V (1F1E8) is a mouse monoclonal antibody raised against purified recombinant apoA-V of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

apoA-V (1F1E8) is recommended for detection of apoA-V of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for apoA-V siRNA (h): sc-44527, apoA-V shRNA Plasmid (h): sc-44527-SH and apoA-V shRNA (h) Lentiviral Particles: sc-44527-V.

Molecular Weight of apoA-V: 41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Y79 cell lysate: sc-2240 or human sera extract.

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.

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.