SANTA CRUZ BIOTECHNOLOGY, INC.

apoC-I (T-13): sc-162535

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Apolipoproteins are protein components of plasma lipoproteins. The apolipoprotein C gene family encodes four homologous proteins designated apoC-I to -IV, which specifically modulate the metabolism of triglyceride-rich lipoproteins. The human apoC-I gene maps to chromosome 19q13.2 and is exessed primarily in the liver where it is activated when monocytes differentiate into macrophages. The human apoC-II gene maps to chromosome 19q13.2 and encodes a 79 amino acid single chain protein that is a necessary cofactor for the activation of lipoprotein lipase, the enzyme that hydrolyzes triglycerides in plasma and transfers the fatty acids to tissues. The human apoC-III gene maps to chromosome 11q23 and encodes a protein that may delay catabolism of triglyceride-rich particles by inhibiting lipoprotein lipase and hepatic lipase. The human apoC-IV gene maps to chromosome 19q13.2 and encodes a 127 amino acid protein that is primarily expressed in the liver.

REFERENCES

1. Breckenridge, W.C., Little, J.A., Steiner, G., Chow, A. and Poapst, M. 1978. Hypertriglyceridemia associated with deficiency of apolipoprotein C-II. N. Engl. J. Med. 298: 1265-1273.
2. Allan, C.M., Walker, D., Segrest, J.P. and Taylor, J.M. 1995. Identification and characterization of a new human gene (APOC4) in the apolipoprotein E, C-I, and C-II gene locus. Genomics28: 291-300.
3. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 207750. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Jong, M.C. and Havekes, L.M. 2000. Insights into apolipoprotein C metabolism from transgenic and gene-targeted mice. Int. J. Tissue React. 22: 59-66.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 107710. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. LocusLink Report (LocusID: 344). http://www.ncbi.nlm.nih.gov/LocusLink

CHROMOSOMAL LOCATION

Genetic locus: APOC1 (human) mapping to 19q13.32.

SOURCE

apoC-I (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of apoC-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.

Blocking peptide available for competition studies, sc-162535 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.

APPLICATIONS

apoC-I (T-13) is recommended for detection of apoC-I of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other apoC family members .

Suitable for use as control antibody for apoC-I siRNA (h): sc-97370, apoC-I shRNA Plasmid (h): sc-97370-SH and apoC-I shRNA (h) Lentiviral Particles: sc-97370-V.

Molecular Weight of apoC-I: 9 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.