

## apoC-I (E-12): sc-162533



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 expressed primarily in the liver where it is activated when monocytes differentiate into macrophages. The human apoC-II gene maps to chromosome 19q13.32 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 19q13.32 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. *Genomics* 28: 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.

## CHROMOSOMAL LOCATION

Genetic locus: APOC1 (human) mapping to 19q13.32; Apoc1 (mouse) mapping to 7 A3.

## SOURCE

apoC-I (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of apoC-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-162533 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

apoC-I (E-12) is recommended for detection of apoC-I of mouse, rat and 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.

apoC-I (E-12) is also recommended for detection of apoC-I in additional species, including canine.

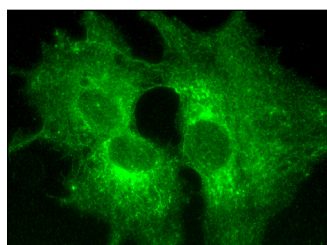
Suitable for use as control antibody for apoC-I siRNA (h): sc-97370, apoC-I siRNA (m): sc-141159, apoC-I shRNA Plasmid (h): sc-97370-SH, apoC-I shRNA Plasmid (m): sc-141159-SH, apoC-I shRNA (h) Lentiviral Particles: sc-97370-V and apoC-I shRNA (m) Lentiviral Particles: sc-141159-V.

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.

## DATA



apoC-I (E-12): sc-162533. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **apoC-I (Y-13): sc-101263**, our highly recommended monoclonal alternative to apoC-I (E-12).