

apoC-II (T-12): sc-19015

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 19q13.2 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

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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. Zhang, L.H., Kotite, L. and Havel, R.J. 1996. Identification, characterization, cloning, and expression of apolipoprotein C-IV, a novel sialoglycoprotein of rabbit plasma lipoproteins. *J. Biol. Chem.* 271: 1776-1783.
4. Dang, Q. and Taylor, J. 1996. *In vivo* footprinting analysis of the hepatic control region of the human apolipoprotein E/C-I/C-IV/C-II gene locus. *J. Biol. Chem.* 271: 28667-28676.
5. Allan, C.M. and Taylor, J.M. 1996. Expression of a novel human apolipoprotein (apoC-IV) causes hypertriglyceridemia in transgenic mice. *J. Lipid Res.* 37: 1510-1518.
6. 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/>

CHROMOSOMAL LOCATION

Genetic locus: Apoc2 (mouse) mapping to 7 A3.

SOURCE

apoC-II (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of apoC-II 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-19015 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

apoC-II (T-12) is recommended for detection of apoC-II of mouse and rat 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).

Suitable for use as control antibody for apoC-II siRNA (m): sc-41185, apoC-II shRNA Plasmid (m): sc-41185-SH and apoC-II shRNA (m) Lentiviral Particles: sc-41185-V.

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.

SELECT PRODUCT CITATIONS

1. Côté, M., Provost, P.R., Gérard-Hudon, M.C. and Tremblay, Y. 2010. Apolipoprotein C-II and lipoprotein lipase show a temporal and geographic correlation with surfactant lipid synthesis in preparation for birth. *BMC Dev. Biol.* 10: 111.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.