

apoB (C-20): sc-11797

BACKGROUND

Post-transcriptional editing of apolipoprotein B (apoB) mRNA is regulated by APOBEC1 (also designated human (or rat) small intestinal apolipoprotein B mRNA editing protein, HEPR, or REPR) in hepatic cells to achieve a steady state proportion of edited and unedited RNA molecules. Two forms of apoB are known to circulate in the plasma of mammals. apoB-100 is a protein primarily synthesized in the liver as a structural component of very-low-density lipoprotein particles. A truncated form of apoB-100, apoB-48, is synthesized in the small intestine and contains the amino-terminal 2,152 amino acids of the larger protein. This organ-specific partitioning of apoB production is the result of RNA editing of a common apoB gene.

REFERENCES

- Mehrabian, M., et al. 1985. Human apolipoprotein B: identification of cDNA clones and characterization of mRNA. *Nucleic Acids Res.* 13: 6937-6953.
- Law, S.W., et al. 1986. Human liver apolipoprotein B-100 cDNA: complete nucleic acid and derived amino acid sequence. *Proc. Natl. Acad. Sci. USA* 83: 8142-8146.
- Young, S.G., et al. 1986. Two new monoclonal antibody-based enzyme-linked assays of apolipoprotein B. *Clin. Chem.* 32: 1484-1490.
- Micic, S., et al. 1989. A-I and B in blood spotted on filter paper. *Clin. Chem.* 34: 2452-2455.
- Young, S.G. 1990. Recent progress in understanding apolipoprotein B. *Circulation* 82: 1574-1594.
- Anant, S. and Davidson, N.O. 2000. An AU-rich sequence element (UUUN[A/U]U) downstream of the edited C in apolipoprotein B mRNA is a high-affinity binding site for Apobec-1: binding of Apobec-1 to this motif in the 3' untranslated region of c-Myc increases mRNA stability. *Mol. Cell. Biol.* 20: 1982-1992.
- Yang, Y., et al. 2000. Induction of cytidine to uridine editing on cytoplasmic apolipoprotein B mRNA by overexpressing Apobec-1. *J. Biol. Chem.* 275: 22663-22669.
- Chen, Z., et al. 2007. ApoB mRNA editing is mediated by a coordinated modulation of multiple apoB mRNA editing enzyme components. *Am. J. Physiol. Gastrointest. Liver Physiol.* 292: G653-G665.
- Kurawski, M., et al. 2007. Apolipoprotein B (apoB) gene polymorphism in patients with gallbladder disease. *Arch. Med. Res.* 38: 360-363.

CHROMOSOMAL LOCATION

Genetic locus: APOB (human) mapping to 2p24.1.

SOURCE

apoB (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of apoB of human origin.

STORAGE

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

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-11797 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

apoB (C-20) is recommended for detection of apoB-100 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).

apoB (C-20) is also recommended for detection of apoB-100 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for apoB siRNA (h): sc-41180, apoB shRNA Plasmid (h): sc-41180-SH and apoB shRNA (h) Lentiviral Particles: sc-41180-V.

Molecular Weight of apoB: 512 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.



Try **apoB (C1.4): sc-13538** or **apoB (A-6): sc-393636**, our highly recommended monoclonal alternatives to apoB (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **apoB (C1.4): sc-13538**.