

# APOBEC1 (m): 293T Lysate: sc-118483

## BACKGROUND

Posttranscriptional 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. APOBEC1 has conserved histidine and cysteine residues, that are identified as a Zn<sup>2+</sup>-binding motif in other cytidine deaminases. APOBEC1 is predominantly expressed in the adult small intestine but is also found in the stomach, colon and testis. APOBEC1 exists as a dimer and shows structural homology to some known mammalian and bacteriophage deoxycytidylate deaminases which exist as homopolymers. APOBEC1 may be involved in other aspects of RNA metabolism, independent of its role as an apoB RNA-specific cytidine deaminase.

## REFERENCES

1. Hadjiagapiou, C., Giannoni, F., Funahashi, T., Skarosi, S.F. and Davidson, N.O. 1994. Molecular cloning of a human small intestinal apolipoprotein B mRNA editing protein. *Nucleic Acids Res.* 22: 1874-1879.
2. Lau, P.P., Zhu, H.J., Baldini, A., Charnsangavej, C. and Chan, L. 1994. Dimeric structure of a human apolipoprotein B mRNA editing protein and cloning and chromosomal localization of its gene. *Proc. Natl. Acad. Sci. USA* 91: 8522-8526.
3. Fujino, T., Navaratnam, N. and Scott, J. 1998. Human apolipoprotein B RNA editing deaminase gene (APOBEC1). *Genomics* 47: 266-275.
4. 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 APOBEC1: binding of APOBEC1 to this motif in the 3' untranslated region of c-Myc increases mRNA stability. *Mol. Cell. Biol.* 20: 1982-1992.
5. Yang, Y., Sowden, M.P. and Smith, H.C. 2000. Induction of cytidine to uridine editing on cytoplasmic apolipoprotein B mRNA by overexpressing APOBEC1. *J. Biol. Chem.* 275: 22663-22669.

## CHROMOSOMAL LOCATION

Genetic locus: *Apoec1* (mouse) mapping to 6 F1.

## PRODUCT

APOBEC1 (m): 293T Lysate represents a lysate of mouse APOBEC1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

APOBEC1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive APOBEC1 antibodies. Recommended use: 10-20 µl per lane.

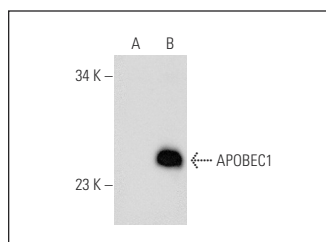
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

APOBEC1 (E-2): sc-166508 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse APOBEC1 expression in APOBEC1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## 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.

## DATA



APOBEC1 (E-2): sc-166508. Western blot analysis of APOBEC1 expression in non-transfected: sc-117752 (A) and mouse APOBEC1 transfected: sc-118483 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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](http://www.scbt.com) for detailed protocols and support products.