

apoE (m): 293T Lysate: sc-126430

BACKGROUND

Apolipoprotein-E (apoE) is a protein component of plasma lipoproteins that mediates the binding, internalization and catabolism of lipoprotein particles. It can serve as a ligand for several lipoprotein receptors, including the LDL (apoB/E) receptor and the hepatic apoE (chylomicron remnant) receptor. apoE is produced in most organs and occurs in all plasma lipoprotein fractions, constituting 10-20% of VLDL (very low density lipoprotein) and 1-2% of HDL (high density lipoprotein). Three major isoforms of apoE have been described in human (E2, E3 and E4), which differ by only one or two amino acids. Estrogen receptor has been shown to upregulate apoE gene expression via the ER α -mediated pathway, indicating a potential role for apoE in atherosclerosis. This is consistent with studies in mice in which plasma apoE levels were raised, thereby protecting the mice from diet-induced atherosclerosis. apoE has also been shown to be a potent inhibitor of proliferation, and thus may play a role in angiogenesis, tumor cell growth and metastasis.

REFERENCES

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2. Shimano, H., et al. 1992. Overexpression of apolipoprotein E in transgenic mice: marked reduction in plasma lipoproteins except high density lipoprotein and resistance against diet-induced hypercholesterolemia. *Proc. Natl. Acad. Sci. USA* 89: 1750-1754.
3. Vogel, T., et al. 1994. Apolipoprotein E: a potent inhibitor of endothelial and tumor cell proliferation. *J. Cell. Biochem.* 54: 299-308.
4. de Knijff, P., et al. 1994. Genetic heterogeneity of apolipoprotein E and its influence on plasma lipid and lipoprotein levels. *Hum. Mutat.* 4: 178-194.
5. Orth, M., et al. 1996. Clearance of postprandial lipoproteins in normolipemics: role of the apolipoprotein E phenotype. *Biochim. Biophys. Acta* 1303: 22-30.
6. Srivastava, R.A., et al. 1997. Estrogen up-regulates apolipoprotein E (apoE) gene expression by increasing apoE mRNA in the translating pool via the estrogen receptor A-mediated pathway. *J. Biol. Chem.* 272: 33360-33366.

CHROMOSOMAL LOCATION

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

PRODUCT

apoE (m): 293T Lysate represents a lysate of mouse apoE transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

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

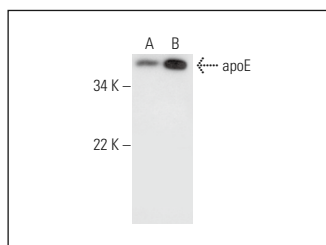
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

apoE (F-9): sc-390925 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse apoE expression in apoE 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



apoE (F-9): sc-390925. Western blot analysis of apoE expression in non-transfected: sc-117752 (A) and mouse apoE transfected: sc-126430 (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 for detailed protocols and support products.