



CETP siRNA (h): sc-45913

BACKGROUND

Cholesteryl ester transfer protein (CETP) is a circulating metabolic enzyme that transports cholesterol from the arteries to the liver. CETP converts cholesteryl esters from antiatherogenic high density lipoproteins (HDLs) to proatherogenic apolipoprotein B (apoB)-containing lipoproteins, including very low-, intermediate- and low-DLs. Efficient transfer and exchange of cholesteryl esters and triglycerides between the lipoprotein classes of human plasma is necessary to maintain healthy arteries.

REFERENCES

1. MacLean, P.S. and Barakat, H.A. 2000. Insulin does not regulate the promoter of cholesteryl ester transfer protein (CETP) in HIRc/pCETP-CAT cells. *Mol. Cell. Biochem.* 211: 1-7.
2. Barter, P. 2000. CETP and atherosclerosis. *Arterioscler. Thromb. Vasc. Biol.* 20: 2029-2031.
3. Wang, J., et al. 2002. CETP gene mutation (D442G) increases low-density lipoprotein particle size in patients with coronary heart disease. *Clin. Chim. Acta* 322: 85-90.
4. Cuchel, M., et al. 2002. The frequency of the cholesteryl ester transfer protein-TaqI B2 allele is lower in African Americans than in Caucasians. *Atherosclerosis* 163: 169-174.
5. Barter, P.J., et al. 2003. Cholesteryl ester transfer protein: a novel target for raising HDL and inhibiting atherosclerosis. *Arterioscler. Thromb. Vasc. Biol.* 23: 160-167.
6. Lira, M.E., et al. 2004. Highly polymorphic repeat region in the CETP promoter induces unusual DNA structure. *Biochim. Biophys. Acta* 1684: 38-45.
7. Zak, Z., et al. 2005. Effect of cholesteryl ester transfer protein (CETP) expression on diet-induced hyperlipidemias in transgenic rats. *Atherosclerosis* 178: 279-286.

CHROMOSOMAL LOCATION

Genetic locus: CETP (human) mapping to 16q13.

PRODUCT

CETP siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CETP shRNA Plasmid (h): sc-45913-SH and CETP shRNA (h) Lentiviral Particles: sc-45913-V as alternate gene silencing products.

For independent verification of CETP (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-45913A, sc-45913B and sc-45913C.

PROTOCOLS

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

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CETP shRNA (h) Lentiviral Particles is recommended for the inhibition of CETP expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CETP gene expression knockdown using RT-PCR Primer: CETP (h)-PR: sc-45913-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.