

apoF siRNA (m): sc-141160

BACKGROUND

Apolipoproteins are a family of fatty-acid binding proteins that transport fat through the bloodstream in the form of lipoproteins. apoF (apolipoprotein F), also known as LTIP (lipid transfer inhibitor protein), is a 308 amino acid secreted protein that belongs to the apolipoprotein family. Expressed in liver tissues and also existing in plasma, apoF inhibits the activity of CETP (cholesteryl ester transfer protein) and, via this inhibition, functions to regulate cholesterol transport. The gene encoding apoF maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

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2. Koren, E., et al. 1982. Isolation and characterization of simple and complex lipoproteins containing apolipoprotein F from human plasma. *Biochemistry* 21: 5347-5351.
3. Day, J.R., et al. 1994. Purification and molecular cloning of human apolipoprotein F. *Biochem. Biophys. Res. Commun.* 203: 1146-1151.
4. Wang, X., et al. 1999. Molecular cloning and expression of lipid transfer inhibitor protein reveals its identity with apolipoprotein F. *J. Biol. Chem.* 274: 1814-1820.
5. Paromov, V.M., et al. 2003. Lipid transfer inhibitor protein defines the participation of high density lipoprotein subfractions in lipid transfer reactions mediated by cholesterol ester transfer protein (CETP). *J. Biol. Chem.* 278: 40859-40866.
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CHROMOSOMAL LOCATION

Genetic locus: Apof (mouse) mapping to 10 D3.

PRODUCT

apoF siRNA (m) is a pool of 2 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 apoF shRNA Plasmid (m): sc-141160-SH and apoF shRNA (m) Lentiviral Particles: sc-141160-V as alternate gene silencing products.

For independent verification of apoF (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-141160A and sc-141160B.

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

apoF siRNA (m) is recommended for the inhibition of apoF expression in mouse 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.

GENE EXPRESSION MONITORING

apoF (B-6): sc-398151 is recommended as a control antibody for monitoring of apoF gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor apoF gene expression knockdown using RT-PCR Primer: apoF (m)-PR: sc-141160-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.

PROTOCOLS

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