SANTA CRUZ BIOTECHNOLOGY, INC.

apoL9b siRNA (m): sc-141172

BACKGROUND

Lipids, such as phospholipids, triacylglycerols and cholesterol, are weakly soluble in aqueous solution and, therefore, transported by circulation as components of lipoproteins. Lipoproteins are globular particles that consist of a non-polar core of triacylglycerols and cholesteryl esters surrounded by phospholipid, cholesterol and an amphiphilic coating of protein, known as apolipoproteins (apo). These complexes allow the dissolution and shuttling of their non-polar lipid components. At least nine different apolipoproteins are distributed in significant amounts in different human lipoproteins. A related family is the apolipoprotein L protein family, which is mainly present in plasma. The proteins in this family associate with large, high density lipoproteins and are involved in lipid movement and binding. Apolipoprotein L 9a (apoL9b) is a 310 amino acid protein that is encoded by a gene that maps to mouse chromosome 15.

REFERENCES

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2. Horrevoets, A.J., et al. 1999. Vascular endothelial genes that are responsive to tumor necrosis factor-α in vitro are expressed in atherosclerotic lesions, including inhibitor of apoptosis protein-1, stannin, and two novel genes. Blood 93: 3418-3431.
3. Page, N.M., et al. 2001. The human apolipoprotein L gene cluster: identification, classification, and sites of distribution. Genomics 74: 71-78.
4. Duchateau, P.N., et al. 2001. Apolipoprotein L gene family: tissue-specific expression, splicing, promoter regions; discovery of a new gene. J. Lipid Res. 42: 620-630.
5. Monajemi, H., et al. 2002. The apolipoprotein L gene cluster has emerged recently in evolution and is expressed in human vascular tissue. Genomics 79: 539-546.
6. Vanhamme, L., et al. 2003. Apolipoprotein L-I is the trypanosome lytic factor of human serum. Nature 422: 83-87.
7. Poelvoorde, P., et al. 2004. Distribution of apolipoprotein L-I and trypanosome lytic activity among primate sera. Mol. Biochem. Parasitol. 134: 155-157.
8. Albert, T.S., et al. 2005. Apolipoprotein L-I is positively associated with hyperglycemia and plasma triglycerides in CAD patients with low HDL. J Lipid Res 46: 469-474.

CHROMOSOMAL LOCATION

Genetic locus: Apol9b (mouse) mapping to 15 E1.

PROTOCOLS

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

PRODUCT

apoL9b siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see apoL9b shRNA Plasmid (m): sc-141172-SH and apoL9b shRNA (m) Lentiviral Particles: sc-141172-V as alternate gene silencing 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

apoL9b siRNA (m) is recommended for the inhibition of apoL9b 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 µM in 66 µl. 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 apoL9b gene expression knockdown using RT-PCR Primer: apoL9b (m)-PR: sc-141172-PR (20 µl). 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.