

# apoL2 siRNA (m): sc-141167

## BACKGROUND

Apolipoproteins are protein components of plasma lipoproteins. The apolipoprotein L gene family encodes six highly homologous proteins designated apoL1-6, which are associated with large high density type lipoproteins (HDL). The human apoL family maps to chromosome 22q12.1-13.1 within a 127,000 bp region. apoL2 and apoL3 may allow the binding of lipids to organelles or may be involved in the movement of lipids in the cytoplasm. apoL2 localizes to the cytoplasm and is widely expressed, with the highest levels observed in the lung, thymus, pancreas, placenta, adult brain and prostate. The apoL2 protein is also detected in the spleen, liver, kidney, colon, small intestine, uterus, spinal cord, adrenal gland, salivary gland, trachea, mammary gland, skeletal muscle, testis and fetal brain and liver. apoL3 also localizes to the cytoplasm and is widely expressed, with highest levels detected in the prostate, lung and placenta. It is also detected in kidney, bone marrow, spleen, thymus, spinal cord, adrenal gland, salivary gland, trachea and mammary gland. Lower levels of apoL3 are observed in the brain, heart, fetal liver, pancreas and testis.

## REFERENCES

1. Horrevoets, A.J., et al. 1999. Vascular endothelial genes that are responsive to tumor necrosis factor  $\alpha$  in vitro are expressed in atherosclerotic lesions, including inhibitor of apoptosis protein-1, Stannin, and two novel genes. *Blood* 93: 3418-3431.
2. 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.
3. Page, N.M., et al. 2001. The human apolipoprotein L gene cluster: identification, classification, and sites of distribution. *Genomics* 74: 71-78.
4. Collins, J.E., et al. 2004. A genome annotation-driven approach to cloning the human ORFeome. *Genome Biol.* 5: R84.
5. Panáková, D., et al. 2005. Lipoprotein particles are required for hedgehog and Wingless signalling. *Nature* 435: 58-65.

## CHROMOSOMAL LOCATION

Genetic locus: ApoL8 (mouse) mapping to 15 E1.

## PRODUCT

apoL2 siRNA (m) 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see apoL2 shRNA Plasmid (m): sc-141167-SH and apoL2 shRNA (m) Lentiviral Particles: sc-141167-V as alternate gene silencing products.

For independent verification of apoL2 (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-141167A, sc-141167B and sc-141167C.

## PROTOCOLS

See our web site at [www.scbt.com](http://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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

apoL2 siRNA (m) is recommended for the inhibition of apoL2 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  $\mu$ M in 66  $\mu$ 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 apoL2 gene expression knockdown using RT-PCR Primer: apoL2 (m)-PR: sc-141167-PR (20  $\mu$ 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.