SANTA CRUZ BIOTECHNOLOGY, INC.

# ApoER2 siRNA (m): sc-40098

## BACKGROUND

ApoER2 (apolipoprotein E receptor 2), also designated LRP8, is a member of the LDL receptor gene family, which includes LDL receptor, LRP, megalin, VLDLR and ApoER2. The LDL receptor family is characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. ApoER2 is expressed in brain and placenta and has several splice variants. ApoER2 is thought to mediate the interaction of extracellular Reelin and cytosolic mDab1 (mammalian disabled protein), which activates a tyrosine kinase. This pathway regulates the migration of neurons along the radial glial fiber network during brain development.

## REFERENCES


1. Trommsdorff, M., et al. 1999. Reeler/disabled-like disruption of neuronal migration in knockout mice lacking the VLDL receptor and apoE receptor 2. Cell 97: 689-701.
2. Mikhailenko, I., et al. 1999. Functional domains of the very low density lipoprotein receptor: molecular analysis of ligand binding and acid-dependent ligand dissociation mechanisms. J. Cell Sci. 112: 3269-3281.
3. Riddell, D.R., et al. 1999. Identification and characterization of LRP8 (ApoER2) in human blood platelets. J. Lipid Res. 40: 1925-1930.
4. D'Arcangelo, G., et al. 1999. Reelin is a ligand for lipoprotein receptors. Neuron 24: 471-479.
5. Hiesberger, T., et al. 1999. Direct binding of Reelin to VLDL receptor and apoE receptor 2 induces tyrosine phosphorylation of disabled-1 and modulates Tau phosphorylation. Neuron 24: 481-489.


## CHROMOSOMAL LOCATION

Genetic locus: Lrp8 (mouse) mapping to 4 C7.

## PRODUCT

ApoER2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ApoER2 shRNA Plasmid (m): sc-40098-SH and ApoER2 shRNA (m) Lentiviral Particles: sc-40098-V as alternate gene silencing products.

For independent verification of ApoER2 (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-40098A, sc-40098B and sc-40098C.

## 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

ApoER2 siRNA (m) is recommended for the inhibition of ApoER2 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 ApoER2 gene expression knockdown using RT-PCR Primer: ApoER2 (m)-PR: sc-40098-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS


1. Chen, X., et al. 2012. Up-regulation of ATP binding cassette transporter A1 expression by very low density lipoprotein receptor and apolipoprotein E receptor 2. J. Biol. Chem. 287: 3751-3759.


## 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.