SANTA CRUZ BIOTECHNOLOGY, INC.

# Fdx1 siRNA (m): sc-145154

## BACKGROUND

Adrenodoxin (ADX) is an acidic [2Fe-2S] adrenal ferredoxin that belongs to the vertebrate ferredoxin family. ADX functions as a soluble electron carrier between the NADPH-dependent adrenodoxin reductase and cytochrome P450. ADX localizes to the adrenal cortex mitochondrial matrix, where it participates in the synthesis of Vitamin D and bile acids. Human ADX maps to chromosome 11q22.3.

## REFERENCES


1. Morel, Y., Picado-Leonard, J., Wu, D.A., Chang, C.Y., Mohandas, T.K., Chung, B.C. and Miller, W.L. 1988. Assignment of the functional gene for human adrenodoxin to chromosome 11q13-qter and of adrenodoxin pseudogenes to chromosome 20cen-q13.1. Am. J. Hum. Genet. 43: 52-59.
2. Grinberg, A.V., Hannemann, F., Schiffler, B., Müller, J., Heinemann, U. and Bernhardt, R. 2000. Adrenodoxin: structure, stability, and electron transfer properties. Proteins 40: 590-612.
3. Beilke, D., Weiss, R., Löhr, F., Pristovsek, P., Hannemann, F., Bernhardt, R. and Rüterjans, H. 2002. A new electron transport mechanism in mitochondrial steroid hydroxylase systems based on structural changes upon the reduction of adrenodoxin. Biochemistry 41: 7969-7978.
4. LocusLink Report (LocusID: 2230). http://www.ncbi.nlm.nih.gov/LocusLink/


## CHROMOSOMAL LOCATION

Genetic locus: Fdx1 (mouse) mapping to 9 A5.3.

## PRODUCT

Fdx1 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 Fdx1 shRNA Plasmid (m): sc-145154-SH and Fdx1 shRNA (m) Lentiviral Particles: sc-145154-V as alternate gene silencing products.

For independent verification of Fdx1 (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-145154A, sc-145154B and sc-145154C.

## 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.

## PROTOCOLS

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

## APPLICATIONS

Fdx1 siRNA (m) is recommended for the inhibition of Fdx1 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 Fdx1 gene expression knockdown using RT-PCR Primer: Fdx1 (m)-PR: sc-145154-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.