



# CCDC83 siRNA (m): sc-142147

## BACKGROUND

The coiled-coil domain is a structural motif found in proteins that are involved in a diverse array of biological functions such as the regulation of gene expression, cell division, membrane fusion, and drug extrusion and delivery. CCDC83 (coiled-coil domain-containing protein 83), also known as HSD9, is 413 amino acid protein that exists as three alternatively spliced isoforms. The gene encoding CCDC83 maps to human chromosome 11q14.1-q14.2, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

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3. Mason, J.M., et al. 2004. Coiled coil domains: stability, specificity, and biological implications. *Chembiochem* 5: 170-176.
4. Wuyts, W., et al. 2004. Proximal 11p deletion syndrome (P11pDS): additional evaluation of the clinical and molecular aspects. *Eur. J. Hum. Genet.* 12: 400-406.
5. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
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7. Tang, L.Y., et al. 2007. Quantitative phosphoproteome profiling of Wnt3a-mediated signaling network: indicating the involvement of ribonucleoside-diphosphate reductase M2 subunit phosphorylation at residue serine 20 in canonical Wnt signal transduction. *Mol. Cell Proteomics* 6: 1952-1967.

## CHROMOSOMAL LOCATION

Genetic locus: Ccdc83 (mouse) mapping to 7 E1.

## PRODUCT

CCDC83 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 CCDC83 shRNA Plasmid (m): sc-142147-SH and CCDC83 shRNA (m) Lentiviral Particles: sc-142147-V as alternate gene silencing products.

For independent verification of CCDC83 (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-142147A, sc-142147B and sc-142147C.

## 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

CCDC83 siRNA (m) is recommended for the inhibition of CCDC83 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 CCDC83 gene expression knockdown using RT-PCR Primer: CCDC83 (m)-PR: sc-142147-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.