SANTA CRUZ BIOTECHNOLOGY, INC.

# DSCR 10 siRNA (h): sc-77184

## BACKGROUND

An extra copy of chromosome 21, the smallest human autosome chromosome, results in Down syndrome. Down syndrome is a genetic disorder characterized by congenital heart abnormalities and mental retardation. The Down syndrome critical region (DSCR) maps specifically to chromosme 21q22.2 and includes several genes which are likely associated with the pathogenesis of Down syndrome. Symptoms include abnormal neuronal differentiation and elevated apoptosis in the developing brain. DSCR 10 (Down syndrome critical region protein 10) is an 87 amino acid protein preferentially expressed in placenta and testis. The genes encoding DSCR 10 and DSCR 9 are not present in mice, suggesting that these genes have emerged during evolution in the primate lineage.

## REFERENCES


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5. Pfister, S.C., et al. 2003. Mutational analyses of the signals involved in the subcellular location of DSCR1. BMC Cell Biol. 3: 24.
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8. Park, J., et al. 2007. Dyrk1A overexpression in immortalized hippocampal cells produces the neuropathological features of Down syndrome. Mol. Cell. Neurosci. 36: 270-279.
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## CHROMOSOMAL LOCATION

Genetic locus: DSCR10 (human) mapping to 21q22.13.

## PROTOCOLS

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

## PRODUCT

DSCR 10 siRNA (h) 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 DSCR 10 shRNA Plasmid (h): sc-77184-SH and DSCR 10 shRNA (h) Lentiviral Particles: sc-77184-V as alternate gene silencing products.

For independent verification of DSCR 10 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-77184A, sc-77184B and sc-77184C.

## 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

DSCR 10 siRNA (h) is recommended for the inhibition of DSCR 10 expression in human 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 DSCR 10 gene expression knockdown using RT-PCR Primer: DSCR 10 (h)-PR: sc-77184-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.