SANTA CRUZ BIOTECHNOLOGY, INC.

# DRG11 siRNA (h): sc-90846

## BACKGROUND

The homeobox DNA-binding domain is a 60 amino acid motif that is conserved among many species and functions to bind DNA via a helix-turn-helix structure, thereby playing a role in transcriptional regulation and the control of gene expression. DRG11, also known as DRGX (dorsal root ganglia homeobox) or PRRXL1, is a 263 amino acid protein that contains one OAR domain and one homeobox DNA-binding domain and belongs to the paired homeobox family. Localized to the nucleus, DRG11 functions as a transcription factor that is essential for both the normal perception of pain and for the formation of nociceptive sensory neuron projections to the dorsal horn of the spinal cord. The gene encoding DRG11 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: DRGX (human) mapping to 10q11.23.

## PROTOCOLS

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

## PRODUCT

DRG11 siRNA (h) is a target-specific 19-25 nt siRNA 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 DRG11 shRNA Plasmid (h): sc-90846-SH and DRG11 shRNA (h) Lentiviral Particles: sc-90846-V as alternate gene silencing 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 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

DRG11 siRNA (h) is recommended for the inhibition of DRG11 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 DRG11 gene expression knockdown using RT-PCR Primer: DRG11 (h)-PR: sc-90846-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.