SANTA CRUZ BIOTECHNOLOGY, INC.

DPRX siRNA (h): sc-97879

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. DPRX (divergent-paired related homeobox), is a 191 amino acid protein that localizes to the nucleus and contains one homeobox DNA-binding domain, suggesting a role in transcriptional regulation. The gene encoding CPRX maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

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2. Spirov, A.V., Bowler, T. and Reinitz, J. 2000. HOX Pro: a specialized database for clusters and networks of homeobox genes. Nucleic Acids Res. 28: 337-340.
3. Holland, P.W., Booth, H.A. and Bruford, E.A. 2007. Classification and nomenclature of all human homeobox genes. BMC Biol. 5: 47.
4. Booth, H.A. and Holland, P.W. 2007. Annotation, nomenclature and evolution of four novel homeobox genes expressed in the human germ line. Gene 387: 7-14.
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CHROMOSOMAL LOCATION

Genetic locus: DPRX (human) mapping to 19q13.41.

PRODUCT

DPRX 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 DPRX shRNA Plasmid (h): sc-97879-SH and DPRX shRNA (h) Lentiviral Particles: sc-97879-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

DPRX siRNA (h) is recommended for the inhibition of DPRX 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 DPRX gene expression knockdown using RT-PCR Primer: DPRX (h)-PR: sc-97879-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.

PROTOCOLS

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