SANTA CRUZ BIOTECHNOLOGY, INC.

DPCD siRNA (h): sc-90803

BACKGROUND

DPCD (deleted in a mouse model of primary ciliary dyskinesia) is a 203 amino acid protein that is expressed at higher levels during ciliated cell differentiation, suggesting that DPCD plays a role in the function or formation of ciliated cells. In primary ciliary dyskinesia (PCD), an autosomal recessive disease that is caused by mutations affecting the proper function of cilia, an exon in the DPCD gene is deleted. The phenotype of PCD is variable, though it may include symptoms such as sinus inverse totalis, infertility or otitis media. In severe cases, patients develop end-stage bronchiectasis and require a lung transplantation. DPCD is highly expressed in testis, with weak expression in heart, pancreas and skeletal muscle.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DPCD (human) mapping to 10q24.32.

PRODUCT

DPCD 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 DPCD shRNA Plasmid (h): sc-90803-SH and DPCD shRNA (h) Lentiviral Particles: sc-90803-V as alternate gene silencing products.

For independent verification of DPCD (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-90803A, sc-90803B and sc-90803C.

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

DPCD siRNA (h) is recommended for the inhibition of DPCD 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 DPCD gene expression knockdown using RT-PCR Primer: DPCD (h)-PR: sc-90803-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.