SANTA CRUZ BIOTECHNOLOGY, INC.

DNLC2B siRNA (h): sc-93148

BACKGROUND

Dyneins are multisubunit, high molecular weight ATPases that interact with microtubules to generate force by converting the chemical energy of ATP into the mechanical energy of movement. There are two families of Dynein motor complexes: axonemal Dynein heavy, intermediate, light and light-intermediate chains and cytoplasmic Dyneins. Dynein heavy, intermediate, light and light-intermediate chains are all components of minus end-directed motors, while cytoplasmic Dyneins mainly function in intracellular transport. DNLC2B (Dynein light chain 2B, cytoplasmic), also known as roadblock domain-containing protein 2 (ROBLD2) or DYNLRB2, is a 96 amino acid member of the GAMAD protein family. Localized to the cytoplasm, DNLC2B is a homodimer that is a non-catalytic accessory component of the cytoplasmic Dynein 1 complex. DNLC2B is highly expressed in skeletal muscle, brain, placenta, heart small intestine and prostate. Expression of DNLC2B has been found to be significantly down-regulated in hepatocellular carcinoma (HCC) patients.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DYNLRB2 (human) mapping to 16q23.2.

PROTOCOLS

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

PRODUCT

DNLC2B siRNA (h) is a pool of 2 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 DNLC2B shRNA Plasmid (h): sc-93148-SH and DNLC2B shRNA (h) Lentiviral Particles: sc-93148-V as alternate gene silencing products.

For independent verification of DNLC2B (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-93148A and sc-93148B.

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

DNLC2B siRNA (h) is recommended for the inhibition of DNLC2B 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 DNLC2B gene expression knockdown using RT-PCR Primer: DNLC2B (h)-PR: sc-93148-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.