SANTA CRUZ BIOTECHNOLOGY, INC.

Dim2 siRNA (h): sc-93322

BACKGROUND

The Dim protein family consists of two classes, Dim1 and Dim2, which share a common thioredoxin-like fold, but most likely function in different biological pathways. Dim2, also known as TXNL4B (thioredoxin-like 4B), or DLP, is a 149 amino acid nuclear protein that exists as a homodimer and plays an essential role in pre-mRNA splicing. Evolutionarily related and sharing 38% sequence identity with Dim1, Dim2 is required for S/G_2 transition during the cell cycle and is able to bind the PRP6 (U5-102K) subunit of the spliceosome. The gene encoding Dim2 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The rare disorder Rubinstein-Taybi syndrome is associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TXNL4B (human) mapping to 16q22.2.

PRODUCT

Dim2 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 Dim2 shRNA Plasmid (h): sc-93322-SH and Dim2 shRNA (h) Lentiviral Particles: sc-93322-V as alternate gene silencing products.

For independent verification of Dim2 (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-93322A, sc-93322B and sc-93322C.

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

Dim2 siRNA (h) is recommended for the inhibition of Dim2 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 Dim2 gene expression knockdown using RT-PCR Primer: Dim2 (h)-PR: sc-93322-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.

ROTOCOLS

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