SANTA CRUZ BIOTECHNOLOGY, INC.

DNASE2B siRNA (m): sc-143117

BACKGROUND

DNase II is a ubiquitously expressed endonuclease that, in the absence of divalent cations, catalyzes DNA hydrolysis. DNASE2B (deoxyribonuclease II β), also known as DLAD, is a 361 amino acid protein that shares structural and sequence similarity to DNase II. Expressed at high levels in salivary gland and eye tissues and at lower levels in prostate, lung and lymph node, DNASE2B localizes to the lysosome and functions to catalytically cleave nucleoside 3'-phosphates and 3'-phosphooligonucleotides. Via its endonucleolytic activity, DNASE2B hydrolyzes DNA under acidic conditions and plays a role in the degradation of nuclear DNA during lens differentiation within the eye. DNASE2B exists as two isoforms produced by alternative splicing events. While isoform one is found in tissues throughout the body, isoform two is expressed primarily in the lungs.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Dnase2b (mouse) mapping to 3 H2.

PROTOCOLS

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

PRODUCT

DNASE2B siRNA (m) 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 DNASE2B shRNA Plasmid (m): sc-143117-SH and DNASE2B shRNA (m) Lentiviral Particles: sc-143117-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

DNASE2B siRNA (m) is recommended for the inhibition of DNASE2B expression in mouse 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 DNASE2B gene expression knockdown using RT-PCR Primer: DNASE2B (m)-PR: sc-143117-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.