SANTA CRUZ BIOTECHNOLOGY, INC.

NSUN2 siRNA (m): sc-75965

BACKGROUND

The nucleolus consists of a number of specific proteins that play a critical role in the assembly of ribosomes, as well as in the maintenance and structural integrity of the nucleolus. NSUN2 (NOL1/NOP2/Sun domain family, member 2), also known as MISU, SAKI, TRM4 (tRNA methyltransferase 4 homolog) or substrate of AIM1/Aurora kinase B is a 767 amino acid protein that belongs to the methyltransferase superfamily. NSUN2 is concentrated in the nucleolus during interphase and distributed in the perichromosome and cytoplasm during mitosis. Considered a RNA methyltransferase, NSUN2 methylates tRNAs, and possibly RNA polymerase III transcripts. It is suggested that NSUN2 may act downstream of Myc to regulate epidermal cell growth and proliferation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Nsun2 (mouse) mapping to 13 C1.

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.

PRODUCT

NSUN2 siRNA (m) 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 NSUN2 shRNA Plasmid (m): sc-75965-SH and NSUN2 shRNA (m) Lentiviral Particles: sc-75965-V as alternate gene silencing products.

For independent verification of NSUN2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-75965A, sc-75965B and sc-75965C.

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

NSUN2 siRNA (m) is recommended for the inhibition of NSUN2 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 NSUN2 gene expression knockdown using RT-PCR Primer: NSUN2 (m)-PR: sc-75965-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.