

NSUN5B siRNA (h): sc-89733

BACKGROUND

NSUN5 (NOL1/NOP2/Sun domain family, member 5), also known as NOL1, p120 or NOL1R, is a 429 amino acid protein that belongs to the methyltransferase superfamily and exists as multiple alternatively spliced isoforms. Expressed ubiquitously with higher expression in heart, placenta and skeletal muscle, NSUN5 is thought to function as an S-adenosyl-L-methionine-dependent methyl-transferase whose absence may be associated with the pathogenesis of Williams syndrome. NSUN5 is subject to post-translational phosphorylation, probably by ATM or ATR. NSUN5B and NSUN5C are truncated proteins that are also ubiquitously expressed, but with some tissue specific patterns.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NSUN5P1 (human) mapping to 7q11.23.

PRODUCT

NSUN5B siRNA (h) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NSUN5B shRNA Plasmid (h): sc-89733-SH and NSUN5B shRNA (h) Lentiviral Particles: sc-89733-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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NSUN5B siRNA (h) is recommended for the inhibition of NSUN5B 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 μ M in 66 μ l. 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 NSUN5B gene expression knockdown using RT-PCR Primer: NSUN5B (h)-PR: sc-89733-PR (20 μ l). 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.