SANTA CRUZ BIOTECHNOLOGY, INC.

NO66 siRNA (m): sc-75940

BACKGROUND

The nucleolus is an essential component of the nucleus which functions in the synthesis, processing and assembly of ribosomal RNAs with ribosomal proteins. NO66 (nucleolar protein 66 kDa), also known as C14orf169 (chromosome 14 open reading frame 169), is a 641 amino acid protein that localizes to nucleoplasmic foci and nucleoli, with specific localization to a granular part of the nucleolus. Expressed throughout the body, NO66 is thought to play a role in remodeling of certain heterochromatic regions, as well as in the synthesis of the large ribosomal subunit, suggesting involvement in replication-related events. NO66 contains one JmjC domain, two putative nuclear localization signals and several potential phosphorylation sites. Immunohistochemical analysis indicates that NO66 localizes to different subnuclear compartments in different cell lines. Homologs of NO66 have been detected in cell lines from a variety of species. NO66 may be a novel therapeutic target oncogene for lung cancer.

REFERENCES

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3. Suzuki, C., et al. 2007. Identification of Myc-associated protein with JmjC domain as a novel therapeutic target oncogene for lung cancer. Mol. Cancer Ther. 6: 542-551.
4. Boisvert, F.M., et al. 2007. The multifunctional nucleolus. Nat. Rev. Mol. Cell Biol. 8: 574-585.
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CHROMOSOMAL LOCATION

Genetic locus: 2410016O06Rik (mouse) mapping to 12 D1.

PRODUCT

NO66 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 NO66 shRNA Plasmid (m): sc-75940-SH and NO66 shRNA (m) Lentiviral Particles: sc-75940-V as alternate gene silencing products.

For independent verification of NO66 (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-75940A, sc-75940B and sc-75940C.

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

NO66 siRNA (m) is recommended for the inhibition of NO66 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 NO66 gene expression knockdown using RT-PCR Primer: NO66 (m)-PR: sc-75940-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.

PROTOCOLS

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