SANTA CRUZ BIOTECHNOLOGY, INC.

NAF1 siRNA (h): sc-89243

BACKGROUND

NAF1 (nuclear assembly factor 1), also known as H/ACA ribonucleoprotein complex non-core subunit NAF1 or hNAF1, is a 494 amino acid RNA-binding protein belonging to the NAF1 family. Encoded by a gene that maps to human chromosome 4q32.2, NAF1 associates with mature RNA in cell lysates and is essential for ribosome biogenesis, premessenger RNA splicing, stable RNA accumulation, maturation of box snoRNP complexes and telomere maintenance. NAF1 mobilizes at the site of transcription where it binds to and escorts the core protein Dyskerin between the nucleus and cytoplasm. NAF1 is replaced by GAR1, which binds competitively with NAF1, resulting in mature RNPs in Cajal bodies and nucleoli. NAF1 delocalizes to the cytoplasm during overexpression but NAF1 shuttling properties continue to be operative. Dyskeratosis congenita mutations in human telomerase RNA may affect NAF1 assembly function.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: NAF1 (human) mapping to 4q32.2.

PRODUCT

NAF1 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 NAF1 shRNA Plasmid (h): sc-89243-SH and NAF1 shRNA (h) Lentiviral Particles: sc-89243-V as alternate gene silencing products.

For independent verification of NAF1 (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-89243A, sc-89243B and sc-89243C.

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

NAF1 siRNA (h) is recommended for the inhibition of NAF1 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 NAF1 gene expression knockdown using RT-PCR Primer: NAF1 (h)-PR: sc-89243-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.