SANTA CRUZ BIOTECHNOLOGY, INC.

NFU1 siRNA (h): sc-94629

BACKGROUND

NFU1 (NFU1 iron-sulfur cluster scaffold homolog *(S. cerevisiae)),* also known as HIRIP5 (HIRA-interacting protein 5), MMDS1, NIFUC or CGI-33, is a 254 amino acid iron-sulfur cluster scaffold protein that plays an important role in the assembly of iron-sulfur clusters and their subsequent delivery to target proteins. Ubiquitously expressed, NFU1 is present in both embryonic and adult tissue, and belongs to the nifU family. NFU1 exists as three alternatively spliced isoforms and localizes to both the cytoplasm and mitochondria. The gene encoding NFU1 maps to human chromosome 2, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

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CHROMOSOMAL LOCATION

Genetic locus: NFU1 (human) mapping to 2p13.3.

PRODUCT

NFU1 siRNA (h) is a pool of 2 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 NFU1 shRNA Plasmid (h): sc-94629-SH and NFU1 shRNA (h) Lentiviral Particles: sc-94629-V as alternate gene silencing products.

For independent verification of NFU1 (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-94629A and sc-94629B.

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

NFU1 siRNA (h) is recommended for the inhibition of NFU1 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 NFU1 gene expression knockdown using RT-PCR Primer: NFU1 (h)-PR: sc-94629-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.