SANTA CRUZ BIOTECHNOLOGY, INC.

SF3B10 siRNA (h): sc-95374

BACKGROUND

SF3B10 (pre-mRNA-splicing factor SF3b 10 kDa subunit), also known as SF3B5 (splicing factor 3B subunit 5), is a 86 amino acid protein that belongs to the SF3B5 family. SF3B10 is a component of splicing factor SF3B which is composed of four subunits; SAP 49, SF3B3, SAP 145 and SAP 155. SF3B associates with the splicing factor SF3A and a 12S RNA unit to form the U2 small nuclear ribonucleoproteins complex (U2 snRNP). SF3B10 is also a component of the U11/U12 snRNPs that are part of the U12-type spliceosome. Localizing to nucleus, SF3B10 is phosphorylated upon DNA damage, probably by Atm or ATR. SF3B10, which contains no motifs indicative of function, is evolutionarily conserved, exhibiting 83 or 60% identity between humans and *Drosophila melanogaster* or *Arabidopsis thaliana,* respectively, or 50% between humans and *Schizosaccharomyces pombe*. The SF3B10 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito, *S. pombe, M. grisea, N. crassa, A. thaliana* and rice, and maps to human chromosome 6q24.2.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: SF3B5 (human) mapping to 6q24.2.

PRODUCT

SF3B10 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 SF3B10 shRNA Plasmid (h): sc-95374-SH and SF3B10 shRNA (h) Lentiviral Particles: sc-95374-V as alternate gene silencing products.

For independent verification of SF3B10 (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-95374A and sc-95374B.

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

SF3B10 siRNA (h) is recommended for the inhibition of SF3B10 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 SF3B10 gene expression knockdown using RT-PCR Primer: SF3B10 (h)-PR: sc-95374-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.