SANTA CRUZ BIOTECHNOLOGY, INC.

SPT3 siRNA (h): sc-106787

BACKGROUND

The *Saccharomyces cerevisiae* SAGA complex is a multifunctional coactivator that regulates transcription by RNA polymerase II. In yeast, SPT3 is a component of the multiprotein SPT-ADA-GCN5 acetyltransferase (SAGA) complex that integrates proteins with transcription coactivator/adaptor functions, histone acetyltransferase activity, and core promoter-selective functions involving interactions with the TATA-binding protein. The human STAGA complex contains homologs of most yeast SAGA components. STAGA has acetyl coenzyme A-dependent transcriptional coactivator functions from a chromatin-assembled template *in vitro* and associates in HeLa cells with spliceosome-associated proteins. Amino acid sequence comparisons between human SPT3 and its counterparts in yeast reveal three highly conserved domains, with the most conserved 92-amino acid N-terminal domain being 25% identical with human TAFII18.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SUPT3H (human) mapping to 6p21.1.

PROTOCOLS

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

PRODUCT

SPT3 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 SPT3 shRNA Plasmid (h): sc-106787-SH and SPT3 shRNA (h) Lentiviral Particles: sc-106787-V as alternate gene silencing products.

For independent verification of SPT3 (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-106787A, sc-106787B and sc-106787C.

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

SPT3 siRNA (h) is recommended for the inhibition of SPT3 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.

GENE EXPRESSION MONITORING

SPT3 (71-S): sc-101157 is recommended as a control antibody for monitoring of SPT3 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SPT3 gene expression knockdown using RT-PCR Primer: SPT3 (h)-PR: sc-106787-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.