SANTA CRUZ BIOTECHNOLOGY, INC.

TSSC1 siRNA (h): sc-94467

BACKGROUND

TSSC1 (tumor suppressing subtransferable candidate 1) is a 387 amino acid protein that contains five WD repeat domains—motifs that may be involved in protein-protein interactions. Expressed throughout the body, TSSC1 is composed of three exons and shares similarity with RbAp48 (a retinoblastoma binding protein) and the *Drosophila* protein Caf-1. The gene encoding TSSC1 is thought to be associated with a tumor-suppressing region that, if altered, can lead to lung, ovarian and breast cancer, rhabdomyosarcoma, Beckwith-Wiedemann syndrome, Wilms' tumor, low birth weight and adrenocortical carcinoma.

REFERENCES

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2. Scelfo, R., Sabbioni, S., Barbanti-Brodano, G. and Negrini, M. 1998. Subchromosomal assignment1 of the TSSC1 gene to human chromosome band 11p15.5 near the HBB gene cluster. Cytogenet. Cell Genet. 83: 52-53.
3. Sohal, J., Chase, A., Mould, S., Corcoran, M., Oscier, D., Iqbal, S., Parker, S., Welborn, J., Harris, R.I., Martinelli, G., Montefusco, V., Sinclair, P., Wilkins, B.S., van den Berg, H., Vanstraelen, D., Goldman, J.M. and Cross, N.C. 2001. Identification of four new translocations involving FGFR1 in myeloid disorders. Genes Chromosomes Cancer 32: 155-163.
4. Chan, A.S., Thorner, P.S., Squire, J.A. and Zielenska, M. 2002. Identification of a novel gene NCRMS on chromosome 12q21 with differential expression between rhabdomyosarcoma subtypes. Oncogene 21: 3029-3037.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608998. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: EIPR1 (human) mapping to 2p25.3.

PRODUCT

TSSC1 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 TSSC1 shRNA Plasmid (h): sc-94467-SH and TSSC1 shRNA (h) Lentiviral Particles: sc-94467-V as alternate gene silencing products.

For independent verification of TSSC1 (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-94467A, sc-94467B and sc-94467C.

PROTOCOLS

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

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

TSSC1 siRNA (h) is recommended for the inhibition of TSSC1 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

TSSC1 (C-7): sc-376124 is recommended as a control antibody for monitoring of TSSC1 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TSSC1 gene expression knockdown using RT-PCR Primer: TSSC1 (h)-PR: sc-94467-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.