SANTA CRUZ BIOTECHNOLOGY, INC.

TSSC4 siRNA (h): sc-96923

BACKGROUND

TSSC4 (tumor suppressing subtransferable candidate 4), also known as tumor-suppressing STF cDNA 4 protein, is a 239 amino acid protein that exists as two alternatively spliced isoforms and belongs to the TSSC4 family. Widely expressed in nearly all adult tissues, TSSC4 is also found in fetal liver, lung, kidney and brain. The gene encoding TSSC4 maps to human chromosome 11p15.5, in a region that 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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CHROMOSOMAL LOCATION

Genetic locus: TSSC4 (human) mapping to 11p15.5.

PRODUCT

TSSC4 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 TSSC4 shRNA Plasmid (h): sc-96923-SH and TSSC4 shRNA (h) Lentiviral Particles: sc-96923-V as alternate gene silencing products.

For independent verification of TSSC4 (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-96923A and sc-96923B.

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

TSSC4 siRNA (h) is recommended for the inhibition of TSSC4 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 TSSC4 gene expression knockdown using RT-PCR Primer: TSSC4 (h)-PR: sc-96923-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Chen, Y., Zhang, Z., Henson, E.S., Cuddihy, A., Haigh, K., Wang, R., Haigh, J.J. and Gibson, S.B. 2022. Autophagy inhibition by TSSC4 (tumor suppressing subtransferable candidate 4) contributes to sustainable cancer cell growth. Autophagy 18: 1274-1296.

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.