SANTA CRUZ BIOTECHNOLOGY, INC.

TSKS siRNA (h): sc-97664

BACKGROUND

TSKS (testis-specific kinase substrate), also known as STK22S1 and TSKS1, is a 592 amino acid protein that is highly expressed in human testicular tissue. Low levels of TSKS are detectable in prostate, placenta, fetal liver, thymus and mammary gland tissues. TSKS is found to be downregulated in cancerous testicular tissue from seminoma, teratocarcinoma, embryonal and Leydig cell tumors concurrently with high expression in neighboring premalignant carcinoma. TSKS protein contains an N-terminal signal peptide, but does not contain a transmembrane region. TSKS has many potential phosphorylation and glycosylation sites and is phosphorylated by soluble recombinant TSSK2 *in vitro*. It is thought that TSKS likely plays a physiological role in spermatogenesis or spermiogenesis.

REFERENCES

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5. Xu, B., Hao, Z., Jha, K.N., Digilio, L., Urekar, C., Kim, Y.H., Pulido, S., Flickinger, C.J. and Herr, J.C. 2007. Validation of a testis specific serine/threonine kinase [TSSK] family and the substrate of TSSK1 & 2, TSKS, as contraceptive targets. Soc. Reprod. Fertil Suppl. 63: 87-101.

CHROMOSOMAL LOCATION

Genetic locus: TSKS (human) mapping to 19q13.33.

PRODUCT

TSKS 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 TSKS shRNA Plasmid (h): sc-97664-SH and TSKS shRNA (h) Lentiviral Particles: sc-97664-V as alternate gene silencing products.

For independent verification of TSKS (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-97664A and sc-97664B.

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

TSKS siRNA (h) is recommended for the inhibition of TSKS 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 TSKS gene expression knockdown using RT-PCR Primer: TSKS (h)-PR: sc-97664-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.