SANTA CRUZ BIOTECHNOLOGY, INC.

TCP-11 siRNA (h): sc-95303

BACKGROUND

TCP-11 (t-complex protein 11), also known as D6S230E, is a 503 amino acid single-pass membrane protein expressed only in fertile adult testis and is a member of the TCP-11 family. Localized to the surface of mature epididymal spermatozoa, TCP-11 may be a receptor for the fertilization promoting peptide (FPP), a peptide produced by the prostate gland and then secreted into seminal plasma. The adenylate clyclase/cyclic AMP pathway is considered to be the signal transduction pathway that is activated by the association between FPP and TCP-11. TCP-11 is suggested to play a critical role in the regulation of sperm function and fertility. The gene encoding TCP-11 is located on human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Three isoforms of TCP-11 are produced by alternative splicing events.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: TCP11 (human) mapping to 6p21.31.

PRODUCT

TCP-11 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 TCP-11 shRNA Plasmid (h): sc-95303-SH and TCP-11 shRNA (h) Lentiviral Particles: sc-95303-V as alternate gene silencing products.

For independent verification of TCP-11 (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-95303A, sc-95303B and sc-95303C.

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

TCP-11 siRNA (h) is recommended for the inhibition of TCP-11 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 TCP-11 gene expression knockdown using RT-PCR Primer: TCP-11 (h)-PR: sc-95303-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.