SANTA CRUZ BIOTECHNOLOGY, INC.

TERC siRNA (h): sc-106994

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Telomeres, which are G-rich repetitive sequences at the ends of linear eukaryotic chromosomes, function as protective caps and facilitate chromosome replication. During conventional DNA replication, telomeres are not fully replicated at the 5' end. Telomerase, the specific DNA polymerase that elongates the shortened 5' end of telomeres by adding the TTAGGG telomere repeat, is composed of an RNA subunit and a reverse transcriptase catalytic subunit. TERC (telomerase RNA component), also known as TR, TRC3 or SCARNA19, is the RNA component of telomerase and serves as the template off of which the telomere repeat is synthesized. Defects in the gene encoding TERC that result in deregulated or retarded telomerase function may lead to oncogenesis, double-stranded DNA breaks, autosomal dominant dyskeratosis congenita, sporadic pulmonary fibrosis or aplastic anemia.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TERC (human) mapping to 3q26.2.

PRODUCT

TERC siRNA (h) is a target-specific 19-25 nt siRNA 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 TERC shRNA Plasmid (h): sc-106994-SH and TERC shRNA (h) Lentiviral Particles: sc-106994-V as alternate gene silencing 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

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

SELECT PRODUCT CITATIONS

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RESEARCH USE

For research use only, not for use in diagnostic procedures.