SANTA CRUZ BIOTECHNOLOGY, INC.

TP53TG3 siRNA (h): sc-93259

BACKGROUND

p53, a DNA-binding, oligomerization domain- and transcription activation domain-containing tumor suppressor, upregulates growth arrest and apoptosis-related genes in response to stress signals, thereby influencing programmed cell death, cell differentiation, and cell cycle control mechanisms. TP53TG3 (TP53-target gene 3 protein), also known as TP53-inducible gene 3 protein, is a 132 amino acid protein that interacts with p53 and may modulate p53 signaling pathways. Localizing to both cytoplasm and nucleus, TP53TG3 is expressed at highest levels in testis and is found at low levels in skeletal muscle, heart and placenta. TP53TG3 exists as three alternatively isoforms that are induced by p53 and are encoded by a gene located on human chromosome 16. The gene encoding CD2BP2 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. Rubinstein-Taybi syndrome and Crohn's disease are associated with defects in chromosome 16.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TP53TG3/TP53TG3C/TP53TG3B/LOC729264 (human) mapping to 16p11.2.

PROTOCOLS

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

PRODUCT

TP53TG3 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 TP53TG3 shRNA Plasmid (h): sc-93259-SH and TP53TG3 shRNA (h) Lentiviral Particles: sc-93259-V as alternate gene silencing products.

For independent verification of TP53TG3 (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-93259A, sc-93259B and sc-93259C.

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

TP53TG3 siRNA (h) is recommended for the inhibition of TP53TG3 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 TP53TG3 gene expression knockdown using RT-PCR Primer: TP53TG3 (h)-PR: sc-93259-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.