SANTA CRUZ BIOTECHNOLOGY, INC.

THADA siRNA (h): sc-94767

BACKGROUND

THADA (thyroid adenoma associated), also known as GITA, is a 1,953 amino acid protein that is expressed in testis, thyroid, pancreas, stomach and small intestine. Chromosomal aberrations in the gene encoding THADA are associated with benign thyroid adenomas, suggesting a potential role for THADA in tumorigenesis. The THADA gene maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the chromosome 2-localized ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes, which also map to chromosome 2.

REFERENCES

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4. Rippe, V., et al. 2003. Identification of a gene rearranged by 2p21 aberrations in thyroid adenomas. Oncogene 22: 6111-6114.
5. Drieschner, N., et al. 2006. Evidence for a 3p25 breakpoint hot spot region in thyroid tumors of follicular origin. Thyroid 16: 1091-1096.
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7. Grarup, N., et al. 2008. Association testing of novel type 2 diabetes risk alleles in the JAZF1, CDC123/CAMK1D, TSPAN8, THADA, ADAMTS9, and NOTCH2 loci with Insulin release, Insulin sensitivity, and obesity in a population-based sample of 4,516 glucose-tolerant middle-aged Danes. Diabetes 57: 2534-2540.

CHROMOSOMAL LOCATION

Genetic locus: THADA (human) mapping to 2p21.

PRODUCT

THADA 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 THADA shRNA Plasmid (h): sc-94767-SH and THADA shRNA (h) Lentiviral Particles: sc-94767-V as alternate gene silencing products.

For independent verification of THADA (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-94767A, sc-94767B and sc-94767C.

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

THADA siRNA (h) is recommended for the inhibition of THADA 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 THADA gene expression knockdown using RT-PCR Primer: THADA (h)-PR: sc-94767-PR (20 µl, 498 bp). 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.