SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF331 siRNA (h): sc-97397

BACKGROUND

ZNF331 (zinc finger protein 331), also known as ZNF361 (zinc finger protein 361), ZNF463 (zinc finger protein 463) or RITA, is a 463 amino acid nuclear protein that may be involved in transcriptional regulation and spermatogenesis. Specific to the testis, ZNF331 contains 12 C_2H_2-type zinc fingers, one KRAB domain and belongs to the Krüppel C_2H_2-type zinc-finger protein family. The gene that encodes ZNF331 consists of close to 60,000 bases and maps to human chromosome 19q13.42. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

REFERENCES

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2. Wang, L., et al. 2000. C-CAM1, a candidate tumor suppressor gene, is abnormally expressed in primary lung cancers. Clin. Cancer Res. 6: 2988-2993.
3. Wu, H., et al. 2001. Isolation, characterization, and mapping of a novel human KRAB zinc finger protein encoding gene ZNF463. Biochim. Biophys. Acta 1518: 190-193.
4. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606043. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Meiboom, M., et al. 2003. A 3.4-kbp transcript of ZNF331 is solely expressed in follicular thyroid adenomas. Cytogenet. Genome Res. 101: 113-117.
6. Meiboom, M., et al. 2004. Molecular characterization and mapping of the canine KRAB zinc finger gene ZNF331. Anim. Genet. 35: 262-263.

CHROMOSOMAL LOCATION

Genetic locus: ZNF331 (human) mapping to 19q13.42.

PRODUCT

ZNF331 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 ZNF331 shRNA Plasmid (h): sc-97397-SH and ZNF331 shRNA (h) Lentiviral Particles: sc-97397-V as alternate gene silencing products.

For independent verification of ZNF331 (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-97397A, sc-97397B and sc-97397C.

RESEARCH USE

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

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

ZNF331 siRNA (h) is recommended for the inhibition of ZNF331 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 ZNF331 gene expression knockdown using RT-PCR Primer: ZNF331 (h)-PR: sc-97397-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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