SANTA CRUZ BIOTECHNOLOGY, INC.

ZSCAN2 siRNA (m): sc-155834

BACKGROUND

Zinc finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. Zinc finger and SCAN domain-containing protein 2 (ZSCAN2), also known as ZNF29, is a 613 amino acid member of the Krüppel C_2H_2-type zinc finger protein family. Localized to the nucleus, ZSCAN2 contains 14 C_2H_2-type zinc fingers at the carboxy terminus and one SCAN box domain, a leucine rich region of about 80 amino acids, at the amino terminus through which it is thought to be involved in DNA-binding and transcriptional regulation during the post-meiotic stages of spermatogenesis. Three isoforms of ZSCAN2 exist as a result of alternative splicing events.

REFERENCES

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3. Rosenfeld, R. and Margalit, H. 1993. Zinc fingers: conserved properties that can distinguish between spurious and actual DNA-binding motifs. J. Biomol. Struct. Dyn. 11: 557-570.
4. Abrink, M., et al. 1995. Isolation of cDNA clones for 42 different Krüppel-related zinc finger proteins expressed in the human monoblast cell line U-937. DNA Cell Biol. 14: 125-136.
5. Williams, A.J., et al. 1995. Isolation and characterization of a novel zinc-finger protein with transcription repressor activity. J. Biol. Chem. 270: 22143-22152.
6. Walter, L. and Günther, E. 2000. Physical mapping and evolution of the centromeric class I gene-containing region of the rat MHC. Immunogenetics 51: 829-837.
7. Sander, T.L., et al. 2003. The SCAN domain defines a large family of zinc finger transcription factors. Gene 310: 29-38.
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CHROMOSOMAL LOCATION

Genetic locus: Zscan2 (mouse) mapping to 7 D3.

PRODUCT

ZSCAN2 siRNA (m) 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 ZSCAN2 shRNA Plasmid (m): sc-155834-SH and ZSCAN2 shRNA (m) Lentiviral Particles: sc-155834-V as alternate gene silencing products.

PROTOCOLS

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

ZSCAN2 siRNA (m) is recommended for the inhibition of ZSCAN2 expression in mouse 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 ZSCAN2 gene expression knockdown using RT-PCR Primer: ZSCAN2 (m)-PR: sc-155834-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.