SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF132 siRNA (h): sc-97195

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. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF132 (zinc finger protein 132) is a 706 amino acid nuclear protein that belongs to the Krüppel C_2H_2-type zinc-finger protein family. Containing 18 C_2H_2-type zinc fingers and one KRAB domain, ZNF132 may be involved in transcriptional regulation. ZNF132 exists as two alternatively spliced isoforms, and is encoded by a gene that maps to human chromosome 19. 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.

REFERENCES

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3. Sasai, N., et al. 2005. Identification of a novel BTB-zinc finger transcriptional repressor, CIBZ, that interacts with CtBP corepressor. Genes Cells 10: 871-885.
4. Li, J., et al. 2006. The zinc finger transcription factor 191 is required for early embryonic development and cell proliferation. Exp. Cell Res. 312: 3990-3998.
5. Filion, G.J., et al. 2006. A family of human zinc finger proteins that bind methylated DNA and repress transcription. Mol. Cell. Biol. 26: 169-181.
6. Wali, A., et al. 2007. Mapping of a gene for alopecia with mental retardation syndrome (APMR3) on chromosome 18q11.2-q12.2. Ann. Hum. Genet. 71: 570-577.
7. Rozsa, F.W., et al. 2007. Differential expression profile prioritization of positional candidate glaucoma genes: the GLC1C locus. Arch. Ophthalmol. 125: 117-127.
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CHROMOSOMAL LOCATION

Genetic locus: ZNF132 (human) mapping to 19q13.43.

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.

ZNF132 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 ZNF132 shRNA Plasmid (h): sc-97195-SH and ZNF132 shRNA (h) Lentiviral Particles: sc-97195-V as alternate gene silencing products.

For independent verification of ZNF132 (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-97195A, sc-97195B and sc-97195C.

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

ZNF132 siRNA (h) is recommended for the inhibition of ZNF132 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 ZNF132 gene expression knockdown using RT-PCR Primer: ZNF132 (h)-PR: sc-97195-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.