SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF468 siRNA (h): sc-97626

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. ZNF468 (zinc finger protein 468) is a 522 amino acid nuclear protein that contains 11 C_2H_2-type zinc finger motifs and one KRAB domain. As a result of alternative splicing, two ZNF468 isoforms exist. Isoform 1 and isoform 2 are expressed in placenta, pancreas, and small intestine with lower levels of expression in colon, ovary, testis, prostate, thymus, spleen, kidney, and liver, and no expression in heart or brain. The gene encoding ZNF468 maps to chromosome 19p13.2. Chromosome 19, which makes up over 2% of human genomic DNA, is the genetic home for a number of immunoglobulin superfamily members.

REFERENCES

1. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. Nature 428: 529-535.
2. Sarraf, S., et al. 2005. The human ovarian teratocarcinoma cell line PA-1 demonstrates a single translocation: analysis with fluorescence *in situ* hybridization, spectral karyotyping, and bacterial artificial chromosome microarray. Cancer Genet. Cytogenet. 161: 63-69.
3. Sun, L., et al. 2005. A novel zinc finger gene ZNF468 with two co-expressional splice variants, ZNF468.1 and ZNF468.2. Biochem. Genet. 43: 271-286.
4. Bechtel, S., et al. 2007. The full-ORF clone resource of the German cDNA Consortium. BMC Genomics 8: 399.
5. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. Nature 428: 529-535.

CHROMOSOMAL LOCATION

Genetic locus: ZNF468 (human) mapping to 19q13.41.

PRODUCT

ZNF468 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 ZNF468 shRNA Plasmid (h): sc-97626-SH and ZNF468 shRNA (h) Lentiviral Particles: sc-97626-V as alternate gene silencing products.

For independent verification of ZNF468 (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-97626A, sc-97626B and sc-97626C.

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

ZNF468 siRNA (h) is recommended for the inhibition of ZNF468 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 ZNF468 gene expression knockdown using RT-PCR Primer: ZNF468 (h)-PR: sc-97626-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.