SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF37A siRNA (h): sc-90767

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. ZNF37A, also called KOX21, is a member of the Krüppel C_2H_2-type zinc-finger family of transcriptional regulators. Located in the nucleus, ZNF37A is a 561 amino acid protein containing one KRAB domain and 12 C_2H_2-type zinc fingers. The gene encoding ZNF37A is found in a KOX zinc-finger cluster located on chromosome 10p11.1.

REFERENCES

1. Tunnacliffe, A., et al. 1993. Duplicated KOX zinc-finger gene clusters flank the centromere of human chromosome 10: evidence for a pericentric inversion during primate evolution. Nucleic Acids Res. 21: 1409-1417.
2. Becker, K.G., et al. 1995. Rapid isolation and characterization of 118 novel C_2H_2-type zinc finger cDNAs expressed in human brain. Hum. Mol. Genet. 4: 685-691.
3. Jackson, M.S., et al. 1997. A 9.75-Mb map across the centromere of human chromosome 10. Genomics 33: 258-270.
4. Jackson, M.S., et al. 1999. Sequences flanking the centromere of human chromosome 10 are a complex patchwork of arm-specific sequences, stable duplications and unstable sequences with homologies to telomeric and other centromeric locations. Hum. Mol. Genet. 8: 205-215.
5. Guy, J., et al. 2003. Genomic sequence and transcriptional profile of the boundary between pericentromeric satellites and genes on human chromosome arm 10p. Genome Res. 13: 159-172.
6. O'Green, H., et al. 2007. Genome-wide analysis of KAP1 binding suggests autoregulation of KRAB-ZNFs. PLoS Genet. 3: e89.

CHROMOSOMAL LOCATION

Genetic locus: ZNF37A (human) mapping to 10p11.1.

PRODUCT

ZNF37A 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 ZNF37A shRNA Plasmid (h): sc-90767-SH and ZNF37A shRNA (h) Lentiviral Particles: sc-90767-V as alternate gene silencing products.

For independent verification of ZNF37A (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-90767A, sc-90767B and sc-90767C.

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

ZNF37A siRNA (h) is recommended for the inhibition of ZNF37A 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 ZNF37A gene expression knockdown using RT-PCR Primer: ZNF37A (h)-PR: sc-90767-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.