SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF35 siRNA (h): sc-78554

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. ZNF35 (zinc finger protein 35), also known as HF.10, HF10 or Zfp105, is a zinc finger protein that localizes to the nucleus and belongs to the Krüppel C_2H_2-type zinc finger protein family. ZNF35 contains 11 C_2H_2-type zinc fingers and may play a role in transcriptional regulation as well as cell differentiation and proliferation. The gene encoding ZNF35 maps to chromosome 3 in the region often involved in deletions or karyotypic rearrangements that have been associated with a variety of tumors including renal and lung carcinoma. The mouse homolog of ZNF35, Zfp105, is highly expressed in testis, particularly in round spermatids and pachytene spermatocytes.

REFERENCES

1. Donti, E., et al. 1990. Localization of the human HF.10 finger gene on a chromosome region (3p21-22) frequently deleted in human cancers. Hum. Genet. 84: 391-395.
2. Lanfrancone, L., et al. 1992. Structural and functional organization of the HF.10 human zinc finger gene (ZNF3) located on chromosome 3p21-p22. Genomics 12: 720-728.
3. Pengue, G., et al. 1993. The ZNF35 human zinc finger gene encodes a sequence-specific DNA-binding protein. FEBS Lett. 321: 233-236.
4. Kohno, T., et al. 1993. Deletion mapping of chromosome 3p in human uterine cervical cancer. Oncogene 8: 1825-1832.
5. Pengue, G., et al. 1993. YAC-assisted cloning of transcribed sequences from the human chromosome 3p21 region. Hum. Mol. Genet. 2: 791-796.
6. Przyborski, S.A., et al. 1999. Differential expression of the zinc finger gene Zfp105 during spermatogenesis. Mamm. Genome 9: 758-762.
7. Zhong, Z., et al. 2007. Identification of a novel human zinc finger gene, ZNF438, with transcription inhibition activity. J. Biochem. Mol. Biol. 40: 517-524.

CHROMOSOMAL LOCATION

Genetic locus: ZNF35 (human) mapping to 3p21.31.

PRODUCT

ZNF35 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 ZNF35 shRNA Plasmid (h): sc-78554-SH and ZNF35 shRNA (h) Lentiviral Particles: sc-78554-V as alternate gene silencing products.

For independent verification of ZNF35 (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-78554A, sc-78554B and sc-78554C.

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

ZNF35 siRNA (h) is recommended for the inhibition of ZNF35 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.

GENE EXPRESSION MONITORING

ZNF35 (C-11): sc-376972 is recommended as a control antibody for monitoring of ZNF35 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ZNF35 gene expression knockdown using RT-PCR Primer: ZNF35 (h)-PR: sc-78554-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.

PROTOCOLS

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