SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF644 siRNA (h): sc-78921

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. ZNF644 (zinc finger protein 644), also known as Zep-2, is a 1,327 amino acid protein that may be involved in transcriptional regulation. A member of tthe Krüppel C_2H_2-type zinc-finger protein family, ZNF644 contains seven C_2H_2-type zinc fingers. Localizing to the nucleus, ZNF644 is expressed in liver, placenta, retina and retinal pigment epithelium. The gene encoding ZNF644, which may be involved in eye development, maps to human chromosome 1p22.2. Defects to the ZNF644 gene may be the cause of myopia type 21 (MYP21), a disorder characterized by refractive error of the eye. ZNF644 exists as three isoforms due to splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ZNF644 (human) mapping to 1p22.2.

PROTOCOLS

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

PRODUCT

ZNF644 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 ZNF644 shRNA Plasmid (h): sc-78921-SH and ZNF644 shRNA (h) Lentiviral Particles: sc-78921-V as alternate gene silencing products.

For independent verification of ZNF644 (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-78921A, sc-78921B and sc-78921C.

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

ZNF644 siRNA (h) is recommended for the inhibition of ZNF644 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 ZNF644 gene expression knockdown using RT-PCR Primer: ZNF644 (h)-PR: sc-78921-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.