SANTA CRUZ BIOTECHNOLOGY, INC.

FIZ1 siRNA (m): sc-145188

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. FIZ1 (FLT3-interacting zinc finger 1), also known as ZNF798 (zinc finger protein 798), is a 496 amino acid zinc-finger protein that contains 11 C_2H_2-type zinc fingers. Localized to both the cytoplasm and the nucleus and expressed in a wide variety of tissues, FIZ1 is thought to repress the function of Nrl (neural retina leucine zipper) in photoreceptors, possibly regulating the expression of rod-specific genes. Additionally, FIZ1 interacts with the receptor-related tyrosine kinase Flt-3/Flk-2 and, via this interaction, may be involved in the regulation of lymphoid and hematopoietc cells.

REFERENCES

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2. Wolf, I. and Rohrschneider, L.R. 1999. Fiz1, a novel zinc finger protein interacting with the receptor tyrosine kinase Flt3. J. Biol. Chem. 274: 21478-21484.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609133. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Mitton, K.P., et al. 2003. Interaction of retinal bZIP transcription factor NRL with Flt3-interacting zinc-finger protein Fiz1: possible role of Fiz1 as a transcriptional repressor. Hum. Mol. Genet. 12: 365-373.
5. Yee, K.W., et al. 2004. Synergistic effect of SU11248 with cytarabine or daunorubicin on FLT3 ITD-positive leukemic cells. Blood 104: 4202-4209.
6. Pittler, S.J., et al. 2004. Functional analysis of the rod photoreceptor cGMP phosphodiesterase α-subunit gene promoter: Nrl and Crx are required for full transcriptional activity. J. Biol. Chem. 279: 19800-19807.

CHROMOSOMAL LOCATION

Genetic locus: Fiz1 (mouse) mapping to 7 A1.

PRODUCT

FIZ1 siRNA (m) 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 FIZ1 shRNA Plasmid (m): sc-145188-SH and FIZ1 shRNA (m) Lentiviral Particles: sc-145188-V as alternate gene silencing products.

For independent verification of FIZ1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-145188A, sc-145188B and sc-145188C.

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

FIZ1 siRNA (m) is recommended for the inhibition of FIZ1 expression in mouse 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 FIZ1 gene expression knockdown using RT-PCR Primer: FIZ1 (m)-PR: sc-145188-PR (20 µl, 463 bp). 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.