SANTA CRUZ BIOTECHNOLOGY, INC.

RHOXF2 siRNA (h): sc-91112

BACKGROUND

RHOXF2 (rhox homeobox family, member 2), also known as THG1, CT107 or paired-like homeobox protein PEPP-2, is a 288 amino acid nuclear protein expressed in testis. RHOXF2 contains one homeobox DNA-binding domain and belongs to the paired-like homeobox family and PEPP subfamily. Highly expressed in testis and localized to the nucleus, RHOXF2 down-regulates UNC5C gene expression. The UNC5C encodes a pro-apoptotic receptor with tumor suppressor activity. RHOXF2 is encoded by a gene that maps to human chromosome X, which consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

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4. Wayne, C.M., et al. 2002. Two novel human X-linked homeobox genes, hPEPP1 and hPEPP2, selectively expressed in the testis. Gene 301: 1-11.
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CHROMOSOMAL LOCATION

Genetic locus: RHOXF2 (human) mapping to Xq24.

PRODUCT

RHOXF2 siRNA (h) is a pool of 2 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 RHOXF2 shRNA Plasmid (h): sc-91112-SH and RHOXF2 shRNA (h) Lentiviral Particles: sc-91112-V as alternate gene silencing products.

For independent verification of RHOXF2 (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-91112A and sc-91112B.

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

RHOXF2 siRNA (h) is recommended for the inhibition of RHOXF2 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 RHOXF2 gene expression knockdown using RT-PCR Primer: RHOXF2 (h)-PR: sc-91112-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.