SANTA CRUZ BIOTECHNOLOGY, INC.

REXO4 siRNA (h): sc-92768

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Proper DNA and RNA metabolism require nucleases which function in DNA replication, recombination and repair, as well as in RNA processing and degradation events. REXO4 (REX4, RNA exonuclease 4 homolog), also known as REX4, XPMC2 or XPMC2H, is a 422 amino acid nucleolar protein containing an exonuclease domain. REXO4 interacts with ERα and ERβ, however, this interaction is reversed by estrogen and augmented by tamoxifen treatment. Expressed as two alternatively spliced isoforms, REXO4 is encoded by a gene located on human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

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3. Wang, C., Francis, R., Harirchian, S., Batlle, D., Mayhew, B., Bassett, M., Rainey, W.E. and Pestell, R.G. 2000. The application of high density microarray for analysis of mitogenic signaling and cell-cycle in the adrenal. Endocr. Res. 26: 807-823.
4. Boube, M., Joulia, L., Cribbs, D.L. and Bourbon, H.M. 2002. Evidence for a mediator of RNA polymerase II transcriptional regulation conserved from yeast to man. Cell 110: 143-151.
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CHROMOSOMAL LOCATION

Genetic locus: REXO4 (human) mapping to 9q34.2.

PRODUCT

REXO4 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 REXO4 shRNA Plasmid (h): sc-92768-SH and REXO4 shRNA (h) Lentiviral Particles: sc-92768-V as alternate gene silencing products.

For independent verification of REXO4 (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-92768A, sc-92768B and sc-92768C.

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

REXO4 siRNA (h) is recommended for the inhibition of REXO4 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 REXO4 gene expression knockdown using RT-PCR Primer: REXO4 (h)-PR: sc-92768-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.