SANTA CRUZ BIOTECHNOLOGY, INC.

REXO1 siRNA (h): sc-97381

BACKGROUND

Proper DNA and RNA metabolism requires nucleases which function in DNA replication, recombination and repair, as well as in RNA processing and degradation events. REXO1 (REX1, RNA exonuclease 1 homolog), also known as REX1, TCEB3BP1 or ELOABP1, is a 1,221 amino acid protein that localizes to the nucleus and contains one exonuclease domain. Expressed ubiquitously, REXO1 interacts with TCEA2 and Elongin A and may influence transcriptional elongation. The gene encoding REXO1 maps to human chromosome 19, which is the genetic home for a number of immunoglobulin superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

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2. 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.
3. Tamura, K., Miyata, K., Sugahara, K., Onishi, S., Shuin, T. and Aso, T. 2003. Identification of EloA-BP1, a novel Elongin A binding protein with an exonuclease homology domain. Biochem. Biophys. Res. Commun. 309: 189-195.
4. Parham, P. 2005. Immunogenetics of killer cell immunoglobulin-like receptors. Mol. Immunol. 42: 459-462.
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CHROMOSOMAL LOCATION

Genetic locus: REXO1 (human) mapping to 19p13.3.

PRODUCT

REXO1 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 REXO1 shRNA Plasmid (h): sc-97381-SH and REXO1 shRNA (h) Lentiviral Particles: sc-97381-V as alternate gene silencing products.

For independent verification of REXO1 (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-97381A, sc-97381B and sc-97381C.

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

REXO1 siRNA (h) is recommended for the inhibition of REXO1 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

REXO1 (4H5): sc-130011 is recommended as a control antibody for monitoring of REXO1 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor REXO1 gene expression knockdown using RT-PCR Primer: REXO1 (h)-PR: sc-97381-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.