SANTA CRUZ BIOTECHNOLOGY, INC.

SEBOX siRNA (h): sc-106970

BACKGROUND

SEBOX is a 216 amino acid protein that belongs to the paired homeobox family. The human SEBOX protein contains a central homeodomain and shares 63% amino acid identity with mouse Sebox. Homeodomain proteins, such as SEBOX, play a key role in coordinating gene expression during development. Localizing to nucleus, SEBOX is a probable transcription factor involved in the control of specification of mesoderm and endoderm. SEBOX is the only member of the Sebox gene family in the human genome. Compared with mouse Sebox, the human protein has substitutions at the normally invariant residues Asn 51 and Arg 53, suggesting it may be nonfunctional. SEBOX expression has been detected in adult mouse brain, skin, ovary and liver. Containing three exons, the SEBOX gene is conserved in canine, bovine, mouse, rat and zebrafish, and maps to human chromosome 17q11.2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SEBOX (human) mapping to 17q11.2.

PRODUCT

SEBOX 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 SEBOX shRNA Plasmid (h): sc-106970-SH and SEBOX shRNA (h) Lentiviral Particles: sc-106970-V as alternate gene silencing products.

For independent verification of SEBOX (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-106970A and sc-106970B.

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

SEBOX siRNA (h) is recommended for the inhibition of SEBOX 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 SEBOX gene expression knockdown using RT-PCR Primer: SEBOX (h)-PR: sc-106970-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.