SANTA CRUZ BIOTECHNOLOGY, INC.

GCX-1 siRNA (m): sc-145368

BACKGROUND

Human reproduction is controlled by the hypothalamic-pituitary gonadal axis (HPGA) that is laid down early in fetal development. GCX-1 (granulosa cell HMG box protein 1), also designated TOX2 (TOX high mobility group box family member 2), is a 488 amino acid transcription activator that is restricted to expression in the hypothalamus, pituitary, ovary, testis and uterus. This expression pattern in the HPGA suggests that this nuclear protein is likely related to specific events in reproduction, particularly in the female. GCX-1 contains a HMG-box domain, which is commonly found in proteins that function as intercellular regulators and transcriptional co-regulators, and are found to be involved in important events such as sex determination and in the regulation of T cell differentiation. There are two isoforms of GCX-1 which are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Tox2 (mouse) mapping to 2 H3.

PRODUCT

GCX-1 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 GCX-1 shRNA Plasmid (m): sc-145368-SH and GCX-1 shRNA (m) Lentiviral Particles: sc-145368-V as alternate gene silencing products.

For independent verification of GCX-1 (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-145368A, sc-145368B and sc-145368C.

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

GCX-1 siRNA (m) is recommended for the inhibition of GCX-1 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 GCX-1 gene expression knockdown using RT-PCR Primer: GCX-1 (m)-PR: sc-145368-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.