SANTA CRUZ BIOTECHNOLOGY, INC.

Lutropin β siRNA (h): sc-39319

BACKGROUND

Various hormones are secreted from the anterior pituitary gland during development and growth. Lutropin, also called luteinizing hormone (LH), plays a role in spermato-genesis and ovulation by stimulating the testes and ovaries to produce steroids. LH, like many of the anterior pituitary hormones, consists of heterodimers formed from a common α chain and a unique β chain. Lutropin exists in a variety of isoforms, as the hormone is proteolytically processed and metabolized throughout circulation. LH modulates the processing of Amyloid-β precursor protein and Amyloid-β deposition. Pituitary exit of LH and FSH occur via different secretion pathways, and are released spatially from the pituitary via different circulatory routes.

REFERENCES

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3. Sherman, G.B., et al. 1997. Characterization and phylogenetic significance of rhinoceros luteinizing hormone β (LHβ) subunit messenger RNA structure, complementary DNA sequence and gene copy number. Gene 195: 131-139.
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5. Arnold, C.J., et al. 1998. The human follitropin α subunit C-terminus collaborates with a β subunit cystine noose and an α subunit loop to assemble a receptor-binding domain competent for signal transduction. Biochemistry 37: 1762-1768.
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7. Xing, Y., et al. 2004. Use of protein knobs to characterize the position of conserved α subunit regions in Lutropin receptor complexes. J. Biol. Chem. 279: 44427-44437.
8. Bernard, M.P., et al. 2004. Only a portion of the small seatbelt loop in human choriogonadotropin appears capable of contacting the Lutropin receptor. J. Biol. Chem. 279: 44438-44441.

CHROMOSOMAL LOCATION

Genetic locus: LHB (human) mapping to 19q13.33.

PRODUCT

Lutropin β siRNA (h) is a target-specific 19-25 nt siRNA 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 Lutropin β shRNA Plasmid (h): sc-39319-SH and Lutropin β shRNA (h) Lentiviral Particles: sc-39319-V as alternate gene silencing 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

Lutropin β siRNA (h) is recommended for the inhibition of Lutropin β 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

Lutropin β (C-6): sc-373941 is recommended as a control antibody for monitoring of Lutropin β 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Lutropin β gene expression knockdown using RT-PCR Primer: Lutropin β (h)-PR: sc-39319-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.