SANTA CRUZ BIOTECHNOLOGY, INC.

Lutropin β (B-6): sc-374017

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 testis 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

1. Couzinet, B., et al. 1993. The control of gonadotrophin secretion by ovarian steroids. Hum. Reprod. 8: 97-101.
2. Birken, S., et al. 1996. Metabolism of hCG and hLH to multiply urinary forms. Mol. Cell. Endocrinol. 125: 121-131.
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.
4. Hakola, K., et al. 1998. Recombinant forms of rat and human luteinizing hormone and follicle-stimulating hormone; comparison of functions *in vitro* and *in vivo*. J. Endocrinol. 158: 441-448.
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.

CHROMOSOMAL LOCATION

Genetic locus: LHB (human) mapping to 19q13.33; Lhb (mouse) mapping to 7 B4.

SOURCE

Lutropin β (B-6) is a mouse monoclonal antibodyspecific for an epitope mapping between amino acids 109-135 near the C-terminus of Lutropin of rat origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374017 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Lutropin β (B-6) is recommended for detection of Lutropin β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Lutropin β siRNA (h): sc-39319, Lutropin β siRNA (m): sc-39320, Lutropin β shRNA Plasmid (h): sc-39319-SH, Lutropin β shRNA Plasmid (m): sc-39320-SH, Lutropin β shRNA (h) Lentiviral Particles: sc-39319-V and Lutropin β shRNA (m) Lentiviral Particles: sc-39320-V.

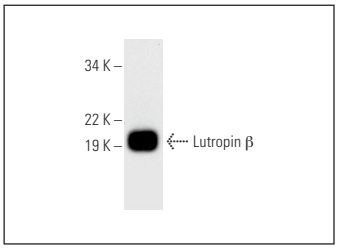
Molecular Weight of Lutropin β: 22 kDa.

Positive Controls: mouse pituitary gland extract: sc-364246 or rat pituitary gland extract: sc-364807.

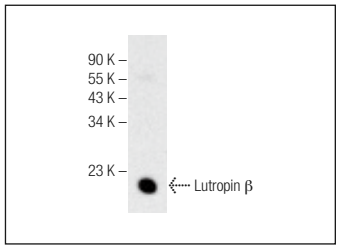
RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Lutropin β (B-6): sc-374017. Western blot analysis of Lutropin β expression in rat pituitary tissue extract.



Lutropin β (B-6): sc-374017. Western blot analysis of Lutropin β expression in mouse pituitary gland tissue extract.

SELECT PRODUCT CITATIONS

1. Han, L., et al. 2013. Characterization of the mechanism of inhibin α-subunit gene in mouse anterior pituitary cells by RNA interference. PLoS ONE 8: e74596.

RESEARCH USE

For research use only, not for use in diagnostic procedures.