BACKGROUND

Follicle-stimulating hormone (FSH), also called follitropin, belongs to the family of glycoprotein hormones that also includes luteinizing hormone and thyroid-stimulating hormone. These hormones are secreted by the pituitary and exist as heterodimers, consisting of a common \( \alpha \) subunit and a homologous but distinct \( \beta \) subunit. While the \( \alpha \) subunit of FSH is involved in the binding of FSH to the receptor (follicle-stimulating hormone receptor, also known as FSHR), the \( \beta \) subunit stabilizes this interaction. This heterodimer regulates a variety of processes, including secretion, posttranslational modification and signal transduction. Both FSH and FSHR are localized to Sertoli cells.

REFERENCES

2. Sugahara, T., et al. 1996. Expression of biologically active fusion genes encoding the common \( \alpha \) subunit and either the CG \( \beta \) or FSH \( \beta \) subunits: role of a linker sequence. Mol. Cell. Endocrinol. 125: 71-77.

CHROMOSOMAL LOCATION

Genetic locus: FSHB (human) mapping to 11p14.1; Fshb (mouse) mapping to 2 E3.

SOURCE

FSH\(\beta\) (C-12) is a mouse monoclonal antibody raised against amino acids 48-129 mapping at the C-terminus of FSH\(\beta\) of human origin.

PRODUCT

Each vial contains 200 \( \mu \)g IgG\(\kappa\) kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. FSH\(\beta\) (C-12) is available conjugated to agarose (sc-374452 AC), 500 \( \mu \)g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374452 HRP), 200 \( \mu \)g/ml, for WB, IHC(P) and ELISA; to either phycocerythrin (sc-374452 FITC), Alexa Fluor\(\circledR\) 488 (sc-374452 AF488), Alexa Fluor\(\circledR\) 546 (sc-374452 AF546), Alexa Fluor\(\circledR\) 594 (sc-374452 AF594) or Alexa Fluor\(\circledR\) 647 (sc-374452 AF647), 200 \( \mu \)g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor\(\circledR\) 680 (sc-374452 AF680) or Alexa Fluor\(\circledR\) 790 (sc-374452 AF790), 200 \( \mu \)g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor\(\circledR\) is a trademark of Molecular Probes, Inc., Oregon, USA.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

FSH\(\beta\) (C-12) is recommended for detection of FSH\(\beta\) of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 \( \mu \)g per 100-500 \( \mu \)g 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 FSH\(\beta\) siRNA (h): sc-39315, FSH\(\beta\) siRNA (m): sc-39316, FSH\(\beta\) shRNA Plasmid (h): sc-39315-SH, FSH\(\beta\) shRNA Plasmid (m): sc-39316-SH, FSH\(\beta\) shRNA (h) Lentiviral Particles: sc-39315-V and FSH\(\beta\) shRNA (m) Lentiviral Particles: sc-39316-V.

Molecular Weight of nonglycosylated FSH\(\beta\): 21 kDa.
Molecular Weight of glycosylated FSH\(\beta\): 24 kDa.
Positive Controls: rat pituitary extract: sc-364807.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG\(\kappa\) BP-HRP: sc-516102 or m-IgG\(\kappa\) B P-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker\(\text{TM}\) Molecular Weight Standards: sc-2035, UltraCruz\textsuperscript{®} 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-IgG\(\kappa\) BP-FITC: sc-516140 or m-IgG\(\kappa\) BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz\textsuperscript{®} Mounting Medium: sc-24941 or UltraCruz\textsuperscript{®} Hard-set Mounting Medium: sc-358850.

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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