

# FSH $\beta$ (C-12): sc-374452

## 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.

## 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<sub>2b</sub> 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 phycoerythrin (sc-374452 PE), fluorescein (sc-374452 FITC), Alexa Fluor® 488 (sc-374452 AF488), Alexa Fluor® 546 (sc-374452 AF546), Alexa Fluor® 594 (sc-374452 AF594) or Alexa Fluor® 647 (sc-374452 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374452 AF680) or Alexa Fluor® 790 (sc-374452 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## 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.

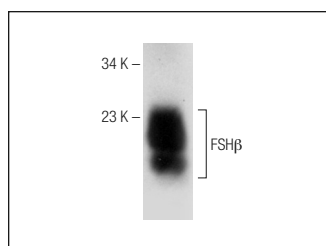
Molecular Weight of glycosylated FSH $\beta$ : 24 kDa.

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 $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



FSH $\beta$  (C-12): sc-374452. Western blot analysis of FSH $\beta$  expression in rat pituitary tissue extract.

## SELECT PRODUCT CITATIONS

- Wang, X., et al. 2017. Compounds from *Cynomorium songaricum* with estrogenic and androgenic activities suppress the oestrogen/androgen-induced BPH process. *Evid. Based Complement. Alternat. Med.* 2017: 6438013.
- Molina, E.M., et al. 2021. Effects of different DDE exposure paradigms on testicular steroid hormone secretion and hepatic oxidative stress in male Long-Evans rats. *Gen. Comp. Endocrinol.* 317: 113963.
- Xiong, J., et al. 2022. FSH blockade improves cognition in mice with Alzheimer's disease. *Nature* 603: 470-476.

## 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](http://www.scbt.com) for detailed protocols and support products.