## SANTA CRUZ BIOTECHNOLOGY, INC.

# FSHβ (1038): sc-52332



BACKGROUND

Follicle-stimulating hormone (FSH), also called follitropin, belongs to the family of glycoprotein hormones that also includes luteininizing 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 (FSHR), the  $\beta$  subunit stabilizes this interaction. This heterodimer regulates a variety of processes, including secretion, post-translational modification and signal transduction. Both FSH and FSHR are localized to Sertoli cells.

#### REFERENCES

- Dias, J.A. 1996. Human follitropin heterodimerization and receptor binding structural motifs: identification and analysis by a combination of synthetic peptide and mutagenesis approaches. Mol. Cell Endocrinol. 125: 45-54.
- 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.
- 3. Stanton, P.G., et al. 1996. Structural and functional characterisation of hFSH and hLH isoforms. Mol. Cell Endocrinol. 125: 133-141.
- 4. Arnold, C.J., et al. 1998. The human follitropin  $\alpha$  subunit C terminus collaborates with a  $\beta$  subunit cystine noose and an  $\alpha$  subunit loop to assemble a receptor-binding domain competent for signal transduction. Biochemistry 37: 1762-1768.
- Baccetti, B., et al. 1998. Localization of human follicle-stimulating hormone in the testis. FASEB J. 12: 1045-1054.
- Beau, I., et al. 1998. The basolateral localization signal of the folliclestimulating hormone receptor. J. Biol. Chem. 273: 18610-18616.

#### CHROMOSOMAL LOCATION

Genetic locus: FSHB (human) mapping to 11p14.1.

#### SOURCE

 $\text{FSH}\beta$  (1038) is a mouse monoclonal antibody raised against isolated human Follicle Stimulating Hormone.

#### PRODUCT

Each vial contains 500  $\mu$ l ascites containing IgG<sub>1</sub> with < 0.1% sodium azide.

#### **STORAGE**

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/ thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

#### PROTOCOLS

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

### APPLICATIONS

FSH $\beta$  (1038) is recommended for detection of FSH $\beta$  of human origin by immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200).

Suitable for use as control antibody for FSH $\beta$  siRNA (h): sc-39315, FSH $\beta$  shRNA Plasmid (h): sc-39315-SH and FSH $\beta$  shRNA (h) Lentiviral Particles: sc-39315-V.

Molecular Weight of nonglycosylated FSHB: 21 kDa.

Molecular Weight of glycosylated FSHB: 24 kDa.

#### **RESEARCH USE**

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