FSHα (BGN/F62/01): sc-80795



The Power to Question

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 α subunit and a homologous but distinct β subunit. While the α subunit of FSH is involved in the binding of FSH to the receptor (follicle-stimulating hormone receptor, also known as FSHR), the β 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

- 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., Grootenhuis, P.D., Sato, A., Kudo, M., Ben-Menahem, D., Pixley, M.R., Hsueh, A.J. and Boime, I. 1996. Expression of biologically active fusion genes encoding the common α subunit and either the CG β or FSH β subunits: role of a linker sequence. Mol. Cell. Endocrinol. 125: 71-77.
- Stanton, P.G., Burgon, P.G., Hearn, M.T. and Robertson, D.M. 1996. Structural and functional characterisation of hFSH and hLH isoforms. Mol. Cell. Endocrinol. 125: 133-141.
- 4. Arnold, C.J., Liu, C., Lindau-Shepard, B., Losavio, M.L., Patrascu, M.T. and Dias, J.A. 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.
- Baccetti, B., Collodel, G., Costantino-Ceccarini, E., Eshkol, A., Gambera, L., Moretti, E., Strazza, M. and Piomboni, P. 1998. Localization of human follicle-stimulating hormone in the testis. FASEB J. 12: 1045-1054.
- Beau, I., Groyer-Picard, M.T., Le Bivic, A,Vannier, B., Loosfelt, H., Milgrom, E. and Misrahi, M. 1998. The basolateral localization signal of the folliclestimulating hormone receptor. J. Biol. Chem. 273: 18610-18616.
- Orio, F., Jr., Ferrarini, E., Cascella, T., Dimida, A., Palomba, S., Gianetti, E., Colao, A., Agretti, P., Vitti, P., Lombardi, G., Pinchera, A. and Tonacchera, M. 2006. Genetic analysis of the follicle stimulating hormone receptor gene in women with polycystic ovary syndrome. J. Endocrinol. Invest. 29: 975-982.
- Thomas, R.M., Nechamen, C.A., Mazurkiewicz, J.E., Muda, M., Palmer, S. and Dias, J.A. 2007. Follice-stimulating hormone receptor forms oligomers and shows evidence of carboxyl-terminal proteolytic processing. Endocrinology 48: 1987-1995.
- 9. Ghosalkar, J.D., Dharma, S.J., Nandedkar, T.D. and Mahale, S.D. 2007. Identification of the region 285-309 of follicle stimulating hormone receptor as a bioneutralizing epitope. J. Reprod. Immunol. 74: 24-33.

RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: CGA (human) mapping to 6q15.

SOURCE

 $FSH\alpha$ (BGN/F62/01) is a mouse monoclonal antibody raised against native $FSH\alpha$ of human origin.

PRODUCT

Each vial contains 100 $\mu g\ lgG_1$ in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FSH α (BGN/F62/01) is recommended for detection of FSH α of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); also recommended for the detection of TSH, LH and Gonadotropin α .

Molecular Weight of FSHα: 13 kDa.

SELECT PRODUCT CITATIONS

 Hua, R., Liu, J., Li, Y., Fan, Y., Zeng, B., Geng, G. and Li, Q. 2021. Novel functional recombinant human follicle-stimulating hormone acquired from goat milk. J. Agric. Food Chem. 69: 2793-2804.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com