

## Follicle-Stimulating Hormone: FSH $\alpha/\beta$ Protein: Human, Recombinant

Catalog Number:	1014-E-FSH
Product Specification:	Follicle-stimulating hormone: FSH $\alpha/\beta$ Protein, Human, Recombinant, CHO,
Species:	Human FSH $\alpha$ (Ala25 Ser116), Ac # P01215 Human FSH $\beta$ (Cys21 Glu129), Ac # P01225
Expression System	Chinese Hamster Ovary (CHO) cell line
Purity (by SDS-PAGE):	95%
Molecular Weight:	Predicted: 10 kDa (FSH $\alpha$ ) & 12 kDa (FSH $\beta$ ), ~25.0 KDa by SDS-PAGE
Endotoxin Level:	<1.0 EU per 1 $\mu$ g of protein (by Limulus Amoebocyte Lysate Test)
Size:	<input type="checkbox"/> 100 IU <input type="checkbox"/> 200 IU <input type="checkbox"/> 600 IU
Biological Activity:	ED <sub>50</sub> = 0.1 to 0.4 ng/ml in human FSH receptor transfected HEK 293 cells.
Applications:	WB, ELISA, Cell culture
Formulation:	Prepared in PBS (1 mg/mL), Filtered (0.22 $\mu$ m) & lyophilized.
Reconstitution:	Reconstitute at 100 ug/ml in sterile water/PBS containing at least 0.1% human or bovine serum albumin.
Storage:	Store lyophilized and reconstituted proteins at -20°C for Long Term and at 4°C for < 2weeks. Avoid repeated freezing/thawing cycles.

### Background

Follicle-stimulating hormone (FSH) is a hormone found in humans and other animals. It is synthesized and secreted by gonadotrophs of the anterior pituitary gland. FSH is a glycoprotein. Each monomeric unit is a protein molecule with a sugar attached to it; two of these make the full, functional protein. The protein dimer contains 2 polypeptide units (1), labeled alpha and beta subunits. The alpha subunits contain 92 amino acids. The beta subunits vary. FSH has a beta subunit of 118 amino acids (FSH $\beta$ ), which confers its specific biologic action and is

responsible for interaction with the FSH-receptor. The sugar part of the hormone is composed of fucose, galactose, mannose, galactosamine, glucosamine, and sialic acid, the latter being critical for its biologic half-life. The half-life of FSH is 3–4 hours. FSH regulates the development, growth, pubertal maturation, and reproductive processes of the human body.

**References:**

1. Van de Wiel, D.F. et al. (1998) J. Mol. Endocrinol. 20:83.

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