

## Human FSH (natural)

### Human Follicle Stimulating Hormone, natural

Synonyms: Follitropin subunit beta, Follicle-stimulating hormone beta subunit, FSH-beta, FSH-B, Follitropin beta chain, FSH.

*PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING*

Size	Order #	Lot #	Expiry Date
100 IU	2265.959.107		
500 IU	2265.959.507		
5000 IU	2265.959.577		

Please enquire for bulk quantities and other vial sizes

### Description

Human Follicle Stimulating Hormone (hFSH) isolated from urine of postmenopausal women is a 30 kDa glycoprotein consisting of a 92 amino acids alpha-chain and 111 amino acids beta-chain. FSH is a hormone synthesized and secreted by gonadotropes in the anterior pituitary gland. FSH and LH act synergistically in reproduction: In women, in the ovary FSH stimulates the growth of immature Graafian follicles to maturation. As the follicle grows it releases inhibin, which shuts off the FSH production. In men, FSH enhances the production of androgen-binding protein by the Sertoli cells of the testes and is critical for spermatogenesis. In both males and females, FSH stimulates the maturation of germ cells. In females, FSH initiates follicular growth, specifically affecting granulosa cells. With the concomitant rise in inhibin-B FSH levels then decline in the late follicular phase. This seems to be critical in selecting only the most advanced follicle to proceed to ovulation. At the end of the luteal phase, there is a slight rise in FSH that seems to be of importance to start the next ovulatory cycle. Like its partner, LH, FSH release at the pituitary gland is controlled by pulses of gonadotropin-releasing hormone (GnRH). Those pulses, in turn, are subject to the estrogen feed-back from the gonads.

- **Biological Activity** Approximately 10,000 units/mg
- **Source** Urine of post-menopausal women
- **Purity** See below
- **Stabilizer** None
- **Buffer** None\*
- **Physical state** Lyophilized

### Biological Activity

The biological activity was determined in comparison with the IRP reference preparation 68/140. It corresponds to a specific activity of around 10,000 units/mg. The vialling is prepared according to the measured units.

### Reconstitution

We recommend a quick spin followed by reconstitution in sterile pyrogen free water at a concentration of 2000IU/ml. This solution can then be further diluted into other aqueous solutions.

### Stability

Lyophilized FSH although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FSH-beta should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA, order number: [2835.955.xyz](#) or [2835.958.xyz](#), or BSA, order number: [2835.919.xyz](#)). **Please avoid repeated freeze-thaw cycles.**

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

\*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.