



Product Data Sheet

Cat # RP-1483

Human Follicle Stimulating Hormone

Size: 10 ug

Follicle stimulating hormone (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.

Source: *Urine of post-menopausal women* FSH Human is a glycoprotein produced from urine of post-menopausal women and having a total molecular mass of 30,000 Dalton. FSH is a heterodimeric hormone consisting of 92 amino acids a chain and 111 amino acids b chain. The FSH is purified by proprietary chromatographic techniques. The FSH was lyophilized from a concentrated (1 mg/ml) solution with no additives.

Application and Suggested Dilution: It is recommended to reconstitute the lyophilized Follicle Stimulating Hormone in sterile 18MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize concentration and conditions for each assay.

Storage and 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 or BSA). **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

Biological Activity: The activity was found to be 626 IU/mg powder. The specific activity was found to be 10,000 IU/mg protein (IRP reference preparation 68/140).

Contaminants:

Less than: 0.1% hCG, 0.5%TSH, 0.5% LH, 0.5%GH and 0.5%PrL.

Free of HbsAg, antibodies to HIV and HCV

Usage:

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

RP-1483

110202V