UROFOLLITROPIN

Description:

Urofollitropin is a purified form of follicle-stimulating hormone (FSH) from the urine of post-menopausal women. FSH is important in the development of follicles (eggs) produced by the ovaries. Given by subcutaneous injection, it is used in combination with human chorionic gonadotrophin (hCG) to assist in ovulation and fertility. It is also used in vitro fertilization methods.

Application:

In both males and females, FSH stimulates the maturation of germ cells. In males, FSH induces Sertoli cells to secrete inhibin and stimulates the formation of sertoli-sertoli tight junctions (zonula occludens). 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.

MW: ~ 30,000 Daltons

Unit Definition:

The biological activity of urofollitropin is measured in animal models and the potency is declared in terms of the BP Reference Standard.

Available form:

Lyophilized powder confirming to BP specifications.

Solubility:

Freely soluble in water; soluble in aqueous glycerol and glycols. Insoluble in alcohol, acetone, ether.

Stability and Storage:

Stable for 3 years at 2-8° C in sealed tamper proof containers.

Reference:

1. Reproduction, 126, 689–699, (2003).
2. Pharmacotherapy: A Pathophysiologic Approach, Chapter 82, page 1313, (2007).
3. Medical Physiology: A Cellular And Molecular Approaoch. Elsevier/Saunders. pp. 1300, (2003).