



TEST: Follicle Stimulating Hormone (FSH)

PRINCIPLE:

FSH is secreted by the anterior pituitary under the control of hypothalamic gonadotrophin releasing hormone. The function of FSH in both males and females is to facilitate the development and maintenance of the gonadal tissues. These tissues synthesize and secrete steroid hormones, which in turn control FSH concentrations by negative feedback. At menopause, ovarian function and steroid secretion cease, causing FSH concentrations to rise due to a lack of negative feedback control. FSH concentrations are similarly raised in women of pre-menopausal age who suffer ovarian failure, or whose ovaries failed to mature during puberty. Elevated FSH concentrations are found in males when the testes have failed to develop to functional maturity, or, in cases of infertility due to primary testicular failure.

SPECIMEN REQUIREMENTS:

2 ml serum from blood collected in red top tube without additive or in a serum separator tube with gel barrier. Separate the serum from the clot to avoid hemolysis: red top tube – transfer serum into plastic transport vial, gel tube – spin. Transport to the lab at room temperature. Store at room temperature for up to 8h, refrigerate for up to 48h. Store frozen at -20°C or below for up to 30 days. Avoid repeated freeze-thaw cycles.

METHOD:

Enhanced Chemiluminescence.

REFERENCES:

1. Short, RV. The Control of Menstruation. *Br J Hosp Med.* 7:552-555; 1972.
2. Hillier SG. Current Concepts of the Roles of Follicle-Stimulating and Luteinizing Hormone in Folliculogenesis. *Human Reproduction.* 9:188-191; 1994.
3. Ahmed Ebbiary NA, et al. The significance of Elevated Basal Follicle-Stimulating-Hormone In Regularly Menstruating Infertile Women. *Human Reproduction.* 9: 245-252; 1994.

Normal Range:

Normal Female Mid Follicular phase: 3.85-8.78 mIU/ml
Normal Female Mid Cycle Peak: 4.54-22.51 mIU/ml
Normal Female Mid Luteal Phase: 1.79-5.12 mIU/ml
Postmenopausal Female: 21.5-131 mIU/ml
Normal Male 1.27-19.26 mIU/ml

Turnaround Time: 3 days