TEST: **LUTEINIZING HORMONE (LH)**

**PRINCIPLE:**
LH is a dimeric glycoprotein hormone secreted by the anterior pituitary in response to hypothalamic gonadotrophin releasing hormone. The α-subunit is common to other glycoprotein hormones, while the β-subunit, which confers biological activity, has some homology with that of human chorionic gonadotrophin. During the menstrual cycle, follicle stimulating hormone (FSH) stimulates growth of the ovarian follicle which, when mature, ovulates in response to a surge of LH and, to a lesser extent, of FSH. Ovarian steroids are the primary negative feedback control for LH secretion. At menopause, reduced ovarian negative feedback results in elevated LH concentrations. LH concentrations also tend to be elevated in women of pre-menopausal age who experience ovarian failure, or whose ovaries failed to mature during puberty.

**SPECIMEN REQUIREMENTS:**
2ml serum collected in a red top tube with no additive or in a serum separator tube (gel barrier). Serum should be separated from the clot as soon as possible to avoid hemolysis. Store/transport sample at room temperature (15-30°C) for no longer than 8 hours or at 2-8°C for up 48 hours. If testing is further delayed, sera should be frozen at -20°C or lower. Avoid repeat freeze-thaw cycles.

**METHOD:**
Enhanced Chemiluminescence.

**REFERENCES:**

**Normal Range:**
- Normal Female Mid Follicular Phase: 2.12-10.89 mIU/ml
- Normal Female Mid Cycle Peak: 19.18-103.03 mIU/ml
- Normal Mid Luteal Phase: 1.20-12.86 mIU/ml
- Postmenopausal Female: 10.87-58.64 mIU/ml
- Normal Male: 1.24-8.62 mIU/ml

**Turnaround Time:** 3 days