

TEST: PROLACTIN

PRINCIPLE:

Prolactin is released from the anterior pituitary under the inhibitory control of dopamine, which is secreted from the hypothalamus. When isolated from pituitary tissue, blood or amniotic fluid, prolactin has been found to exist in a number of molecular weight forms and has some structural similarities with human growth hormone. Prolactin plays a major role in the initiation and maintenance of lactation, where there is a physiological elevation of circulating concentrations. Pathological hyperprolactinemia occurs in hypothyroidism and renal failure. Hyperprolactinemia is also known to impair gonadal function in both sexes. Women may present with amenorrhea while men may suffer from impotence.

SPECIMEN REQUIREMENTS:

2ml serum collected in a red top tube with no additive or in a serum separator tube (gel barrier). Store in the refrigerator at 2°-8° for up to 5 days. For long term storage, freeze at -20° C or below. Avoid thaw freeze cycles.

METHOD: Enhanced Chemiluminescence

REFERENCES:

1. Frantz AG. Physiology in Medicine: Prolactin. *New Eng J Biol Sci.* 298: 201-207; 1978
2. Falconer IR. Aspects of Biochemistry, Physiology and Endocrinology Lactation. *Aust J Biol Sci.* 33: 71-84;1983
3. Rees LH. Prolactin-Recent Advances in Clinical Biochemistry. In Albert KG, Price P (eds). *Recent Advances in Clinical Biochemistry.* 153-167; 1981.

Normal Range:

Female: 3.0-18.6 ng/ml

Male: 3.7-17.9 ng/ml

Turnaround time: 1 day