

## Estradiol

**Analyte:** Estradiol

**Specimen Type:** Serum, Inquire for additional option(s)

**Optimum Volume:** 0.5 mL

2-8°C   -20°C   -70°C

2 days   6 months   3 years

**Reporting units:** pg/mL

**Method:** Electrochemiluminescence

**Biological or Clinical Significance:**

Estradiol (estradiol-17 $\beta$ , E2) is a steroidal estrogen with a molecular mass of 272.3 daltons which circulates predominantly protein-bound.

Estrogenic hormones are secreted at varying rates during the menstrual cycle throughout the period of ovarian activity. During pregnancy, the placenta becomes the main source of estrogens. At menopause, ovarian secretion of estrogens declines at varying rates. The gonadotropins of the anterior pituitary regulate secretion of the ovarian hormones, estradiol, and progesterone; hypothalamic control of pituitary gonadotropin production is in turn regulated by plasma concentrations of the estrogens and progesterone. This complex feedback system results in the cyclic phenomenon of ovulation and menstruation.

**Principle of Test Method:**

The estradiol assay is an automated sandwich immunoassay using electrochemiluminescent detection.