ARG80840
Human Estradiol (High sensitive) ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG80840 Human Estradiol (High sensitive) ELISA Kit is a high sensitive Enzyme immunoassay kit for the quantification of Estradiol in serum and plasma (EDTA, heparin, citrate).
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	Estradiol
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm
Sensitivity	1.4 pg/ml
Sample Type	Serum and plasma (EDTA, heparin, citrate).
Standard Range	3 - 200 pg/ml
Sample Volume	100 µl

Application Instructions

Assay Time	4 h, 30 min

Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Full Name	Estradiol, sensitive
Background	Estradiol (1,3,5(10)-estratriene-3,17β-diol; 17β-estradiol; E2) is a C18 steroid hormone with a phenolic A ring. This steroid hormone has a molecular weight of 272.4. It is the most potent natural Estrogen, produced mainly by the Graffian follicle of the female ovary and the placenta, and in smaller amounts by the adrenals, and the male testes. Estradiol (E2) is secreted into the blood stream where 98% of it circulates bound to sex hormone binding globulin (SHBG) and to a lesser extent to other serum proteins such as albumin. Only a small fraction circulates as free hormone or in the conjugated form. Estrogenic activity is affected via estradiol-receptor complexes which trigger the appropriate response at the nuclear level in the target sites. These sites include the follicles, uterus, breast, vagine, urethra, hypothalamus, pituitary and to a lesser extent the liver and skin. In non-pregnant women with normal menstrual cycles, estradiol secretion follows a cyclic, biphasic pattern with the highest concentration found immediately prior to ovulation. The rising estradiol concentration is understood to exert a positive feedback influence at the

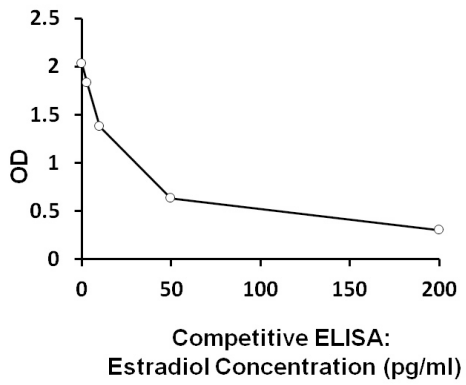
level of the pituitary where it influences the secretion of the gonadotropins, follicle stimulating hormone (FSH), and luteinising hormone (LH), which are essential for folicular maturation and ovulation, respectively. Following ovulation, estradiol levels fall rapidly until the luteal cells become active resulting in a secondary gentle rise and plateau of estradiol in the luteal phase. During pregnancy, maternal serum Estradiol levels increase considerably, to well above the pre-ovulatory peak levels and high levels are sustained throughout pregnancy.

Serum Estradiol measurements are a valuable index in evaluating a variety of menstrual dysfunctions such as precocious or delayed puberty in girls and primary and secondary amenorrhea and menopause. Estradiol levels have been reported to be increased in patients with feminising syndromes, gynaecomastia and testicular tumors.

In cases of infertility, serum Estradiol measurements are useful for monitoring induction of ovulation following treatment with, for example, clomiphene citrate, LH-releasing hormone (LH-RH), or exogenous gonadotropins. During ovarian hyperstimulation for in vitro fertislisation (IVF), serum estradiol concentrations are usually monitored daily for optimal timing of human chorionic gonadotropin (hCG) administration and oocyte collection.

Highlight	Related products: Estradiol antibodies; Estradiol ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
Research Area	Neuroscience kit

Images



ARG80840 Human Estradiol (High sensitive) ELISA Kit example of standard curve image

ARG80840 Human Estradiol (High sensitive) ELISA Kit results of a typical standard run with optical density reading at 450 nm.