

ARG82795 Human Progesterone ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG82795 Human Progesterone ELISA Kit provides materials for the quantification of Progesterone in Human serum and plasma (EDTA, lithium heparin, citrate).
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	Cross-Reactivity: Progesterone: 100% 17 α OH Progesterone: 0.3% Estriol: < 0.1% Estradiol 17 β : < 0.1% Testosterone: < 0.1% 11-Desoxycorticosterone: 1.1% DHEA-S: < 0.02% Cortisol: < 0.02% Corticosterone: 0.2% Pregnenolone: 0.35% Cortison: < 0.1% 11-Desoxycortisol: 0.1%
Target Name	Progesterone
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	0.045 ng/ml
Sample Type	Serum and plasma (EDTA, lithium heparin, citrate).
Standard Range	0.3 - 40 ng/ml
Sample Volume	25 μ l
Precision	Intra-Assay CV: 6.4% Inter-Assay CV: 6.6%

Application Instructions

Assay Time	1 hour 15 min
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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

Background

Progesterone (pregn-4-ene-3, 20-dione) is a C21 steroid hormone containing a keto-group (at C-3) and a double bond between C-4 and C-5 (Δ^4). This steroid hormone is a female sex hormone which, in conjunction with estrogens, regulates the accessory organs during the menstrual cycle and it is particularly important in preparing the endometrium for the implantation of the blastocyte and in maintaining pregnancy. In non-pregnant women progesterone is mainly secreted by the corpus luteum whereas in pregnancy the placenta becomes the major source.

Minor sources are the adrenal cortex for both sexes and the testes for males. Progesterone circulates in blood mainly bound to Corticosteroid Binding Globulin (CBG), Sex Hormone Binding Globulin (SHBG) and Albumin. Only 2-10% of the total concentration circulates as free hormone.

Blood progesterone concentrations vary widely according to the phases of menstrual cycle; they are lower than 1 ng/ml (3.2 nmol/L) in the follicular phase and around 10-20 ng/ml (32 -64 nmol/L) in the luteal phase. The maximal levels are achieved 4-7 days after ovulation and remain elevated for 4-6 additional days prior to falling to the preovulatory levels 24 hours before the onset of menstruation. Since the rise and fall of progesterone parallel the activity of ovarian follicle and corpus luteum, measurements of plasma progesterone are clinically used to confirm ovulation and normal function of the corpus luteum in non-pregnant women. If ovulation does not occur the corpus luteum is not formed and no cyclical rise of progesterone in plasma is observed. Abnormal progesterone secretion has been implicated in premenstrual tension, irregular shedding of endometrium, dysmenorrhoea, and luteal insufficiency.

Progesterone concentration can vary not only from subject to subject but also in the same person from day to day or even from hour to hour. Consequently, in gynecological disorders or abnormal pregnancies serial measurements rather than single ones are recommended for a proper interpretation of results. During pregnancy progesterone is widely produced by placenta, and plasma levels rise steadily achieving values as high as 200 ng/ml at term.

Highlight

Related products:

[Progesterone antibodies](#); [Progesterone ELISA Kits](#); [Progesterone Duos / Panels](#);

Related news:

[Molecular mechanisms of labor initiation found](#)

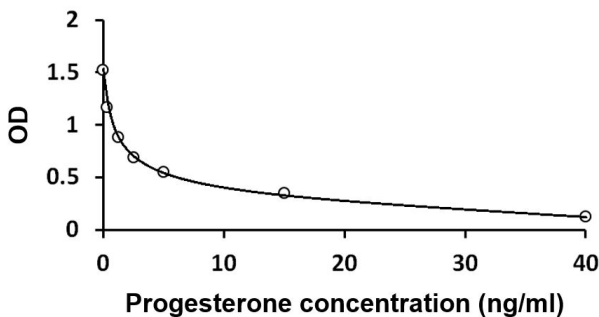
New ELISA data calculation tool:

[Simplify the ELISA analysis by GainData](#)

Research Area

Cancer kit; Gene Regulation kit; Neuroscience kit; Signaling Transduction kit

Images



ARG82795 Human Progesterone ELISA Kit standard curve image

ARG82795 Human Progesterone ELISA Kit results of a typical standard run with optical density reading at 450 nm.