

To Predict Estrus Cycle and Sufficient Specifications **Progesterone Levels in Mares**

Progesterone is initially produced by the primary corpus luteum. It begins to increase after ovulation in diestrus, irrespective of pregnancy status, with the development of the corpus luteum. Progesterone plays a crucial role in the maintenance of pregnancy until 120 days of gestation when the placenta becomes the primary maintainer.^{2,3} In non-pregnant mares, progesterone can also be used in tracking heat cycles and hormone influxes to detect if behavioral intervention is required.

Clinical Applications

- To predict estrus cycles in mares
- To predict progesterone levels in mares
- · To track heat cycles
- To monitor and manage behavior

Species Equine

Sample Type Serum, Plasma (heparin)

Measurement Quantitative Range 1~30 ng/ml **Testing Time** 15 minutes 2 ~ 8° C Storage Condition

Simple Testing Procedure



Dilute Sample

Add 50 µl of the sample to the assay diluent tube (100 µl)



Mix & Incubate

Mix throughly with 5 ~ 6 pipetting



Measure

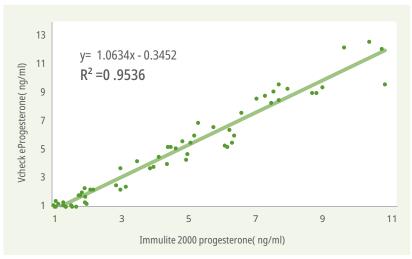
Add 100 µl of the mixed sample into the test device

Product Name	Product Number	Product Type	Packing Unit
Vcheck eProgesterone	VCF142DC	Device	5 Tests/Kit



A Closer Look: eProgesterone

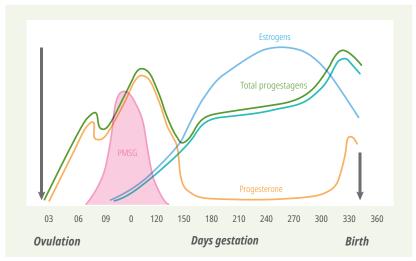
Vcheck eProgesterone has a strong correlation (R2=0.9536, y=1.0634x-0.3452) with the reference method (chemiluminescent assay), which has been used in reference laboratories.



*Internal Evaluation Data

Specific Clinical Application

A progesterone concentration of 2 ng/mL is considered the minimum endogenous amount necessary to support pregnancy. Generally, a progesterone concentration below 2 ng/ml in the blood is associated with embryonic loss, whereas a concentration above 4 ng/ml is considered to be adequate to maintain pregnancy. ^{2,4}



Hormone levels and corresponding ovarian activity in mares 5,6

Reference

1. Kelleman AA, Act D. Equine pregnancy and clinical applied physiology. In: Proceedings of the 59th Annual Convention of the American Association of Equine Practitioners (AAEP); 7-11 December, 2013. Nashville, Tennessee, USA. pp. 350-358 2. Grabowska A, Kozdrowski R. Relationship between estrus endometrial edema and progesterone production in pregnant mares two weeks after ovulation. BMC Veterinary Research. 2022 Nov;18(1):414. 3. Allen W. Luteal Deficiency and Embryo Mortality in the Mare. Reproduction in Domestic Animals 2001;36. https://doi.org/10.1046/j.1439-0531.2001.00312.x. 4. Shideler RK, Squires EL, Voss JL, et al. Progestogen therapy of ovariectomized pregnant mares. J Reprod Fertil Suppl 1982;32:459–464. 5. Michelle LeBlanc, Cheryl Lopate and Derek Knottenbelt. Pregnance Chapter 7. Posted in Jun 18, 2016. Veterian Key. 6. Equine Female Reproductive Testing. Animal Health Diagnostic Center (AHDC), Cornell University College of Veterinary Medicine.



For More Information on Vcheck V200 or V2400 analyzers visit: bionote.com customerservice@bionote.com 800-727-5169

