

# ELISA PROGESTERONE TEST FOR YOUR VETERINARY PRACTICE



**MiniReader**



**PipetButler**



A practical and reliable method to determine the optimal time for breeding in only 35 minutes.

## ELISA Progesterone test

The analysis of serum Progesterone concentration in the female dog allows determination of the optimal time for insemination or breeding.

Minitube's Progesterone test is based on an ELISA = Enzyme Linked Immunosorbent Assay.

## MINIREADER



**- MANUAL SAMPLE PREPARATION or  
- COMBINE WITH PIPETBUTLER**

The **MiniReader** is an affordable, accurate and reliable device to read and determine the results of Minitube's ELISA test within 35 minutes. It is used with ELISA test kits. 2 types of test kits are available: for manual pipetting and for use with the PipetButler.

### Application in female dogs:

- Determination of the ideal time for artificial insemination or natural breeding
- Detection of ovulation

### Your benefits

- The Progesterone concentration reading is based on a standard curve derived from three standards and is therefore very accurate.
- The colour change of the sample is automatically detected by the MiniReader and converted into ng/ml Progesterone.

**MiniReader**

REF. : **21900/0000**

## Accessories

Warming unit: Recommended for sample incubation during the ELISA reaction: +37° C is the optimum temperature for ELISA reactions and it takes place best in dark environment. The well holder is transferred directly to the MiniReader after the ELISA reaction is finished. The warming unit is only required if the test is prepared manually, without use of the PipetButler.

**Warming unit (37°C)**

REF. : **21900/0100**

**Digital pipette, 10 - 100 µl**

REF. : **12425/9000**

**Pipette tips, yellow, 1000/bag**

REF. : **12425/9409**



# PIPETBUTLER



The **PipetButler** automates sample preparation for Minitube's ELISA test and facilitates therefore the routine work in the lab. The test kit reagents are supplied individually and loaded easily into the PipetButler. The ELISA-reagents are automatically added to each serum sample by the PipetButler. The PipetButler can prepare 1 to 5 serum samples at a time. The serum samples are held in the well holder and after the ELISA reaction is finished, the well holder is directly transferred to the MiniReader for determination of the results. The PipetButler has a warming unit incorporated.

## Your benefits

- Automatic addition of the reagents avoids handling errors.
- The PipetButler is equipped with a heated well tray, set to +37°C, which is the optimum temperature for ELISA reactions.
- A diode display on the PipetButler indicates completion of processing steps.

**PipetButler**

REF. : **21900/1000**

## ELISA test kits

The ELISA test kits contain all reagents and consumables needed to perform the analysis of 10 serum samples:

- Standard 1, 2, 3
- Reagents, all individually packed in easy to open straws
- Washing solution
- Coated wells

**Test kit for measuring Progesterone in canine serum, for 10 samples, for manual pipetting** REF. : **21900/1110**

**Test kit for measuring Progesterone in canine serum, for 10 samples, for use with PipetButler** REF. : **21900/1210**



## Select your package

### Starter kit:

- MiniReader
- Warming unit
- Pipette + tips
- Test kit, Ref. 21900/1110

### Full package:

- MiniReader
- PipetButler
- Pipette + tips
- Test kit, Ref. 21900/1210

## Technical background

ELISA (Enzyme Linked Immunosorbent Assay) is an analytical assay to detect the presence of a specific substance in a liquid sample. This is performed by antigen-antibody binding, where the antibody is linked to an enzyme and added to the sample with the antigen. The reaction will produce a signal, most commonly a colour change, indicating the quantity of antigen (in this case Progesterone) in the sample. This change in colour is detected by the MiniReader through photometry. The result is displayed in ng/ml based on a specific

calibration curve derived using three standards.

The test kit used with the MiniReader includes reagents for the ELISA reaction, sample wells and three standards. The standards contain a defined concentration of synthetic progesterone and are prepared using the identical procedure as that for the samples. The standard values allow an adjustment of the internal calibration curve of the MiniReader to eliminate factors, other than progesterone concentration, which could influence the result.

### Comparison of MiniReader to a reference method

Serum samples (67) from female dogs were sent to a standard laboratory as reference. The same samples were analysed with the MiniReader test kit and measured with the MiniReader. A high conformity over the entire range could be confirmed (Figure).

The correlation is represented by the linear regression line. An  $R^2$  of 87.2 % indicates a very good correlation to the reference values.

The MiniReader and MiniReader test kits are a thoroughly tested and very reliable method for measuring the progesterone level in canine serum samples. The results shown in ng/ml on the display allow an immediate assessment of the Progesterone level. The MiniReader is a valuable diagnostic tool for deciding further treatment of the animal.

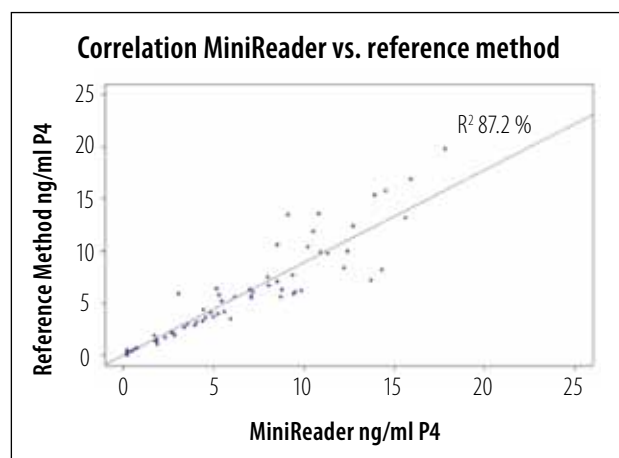


Figure: Correlation of standard laboratory vs. MiniReader values for 67 serum samples.

Complete Technical Report available as a download from [www.minitube.com](http://www.minitube.com).