

**- Mastigal Check -  
Mastitis Quantitative Test  
for reproductive animals**



BIOTECHNOLOGY PRODUCTS

**MenidiMedica**

Medical Instruments,  
Tools & Supplies

### Description

Mastitis is the persistent, inflammatory reaction of the udder tissue due to physical trauma or microorganisms infections. Mastitis, a potentially fatal mammary gland infection, is the most common disease in dairy cattle worldwide. It is also the most costly disease to the dairy industry. Milk from reproductive animals suffering from mastitis has an increased somatic cell count.

### Test Principle

Mastitis increases the permeability between the blood and milk compartments, resulting in extravasation of plasma proteins into the milk. Due to this, the colorimetric measurement of these proteins is equivalent to the degree of inflammation of the udder with quantitative results. The advantages of the method are:

1. The current method detects the presence of a blood protein in milk as a good indicator of ongoing inflammation. So, it can detect even early phases of mastitis occurrence precisely.
2. The test results are not influenced by the lactation or the seasonal variations

### Kit presentation

100 tests: R1 - 20 mL., R2 - 0.04 mL., R2 dilution - 8 mL., R3 - 8 mL. (82072-100)

500 tests: R1 - 5 x 20 mL., R2 - 0.2 mL., R2 dilution - 2 x 20 mL., R3 - 2 x 20 mL. (82072-500)

1000 tests: R1 - 10 x 20 mL., R2 - 0.4 mL., R2 dilution - 4 x 20 mL., R3 - 4 x 20 mL. (82072-1000)

### Reagent Composition and Preparation

R1 - Lysis reagent

R2 - Concentrated agglutination reagent

R2 dilution - Diluent for R2

R3 - Chromogen reagent

WR2 preparation: Mix R2 with R2 dilution at a ratio 1:200. Always, prepare fresh WR2. It is stable for 24 hours.

**Stability:** 24 months at 2-8°C. All the components of the kit are stable until the expiration date on the label. Protect them from light and contaminations during their use. Do not use reagents over the expiration date. Store the reagents at 2-8°C

**Samples:** Raw milk from different reproductive animals

### Sample preparation

Mix 0.2 mL. of R1 with 0.1 mL. of raw milk, mix and incubate at RT for 30 minutes. After that, centrifuge at 10.000g x 1' (using a microcentrifuge)

### Procedure

Collect 80 uL. of supernatant from the centrifuged tube, add 80 uL. WR2 and 80 uL. of R3. Mix, incubate for 180 minutes and read in Electra m2 Unified Analyzer choosing the parameter MASTQT or in a microplate reader at 405 nm. Application sheets are available for all the commercial spectrophotometers and microplate readers. Ask MenidiMedica or our exclusive representatives for details.

*\*Blank = reagent blank*



82072



24 months at 2-8°C



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