



Labmaster Ltd  
Rauhalinnantie 31  
20780 Kaarina, Finland  
Tel. +358 22 760 555  
E-mail: sales@labmaster.fi  
www.labmaster.fi

Labmaster Ltd, based in Kaarina, Finland, is a privately owned company focusing on delivering innovative diagnostics tools for applications in routine clinical diagnostics and research. Labmaster develops and commercializes the next generation of versatile detection tools based on its proprietary cathodic electrochemiluminescence-technology (LM-CECL). The superiority of LM-CECL technology allows it to overcome the performance limitations of previous generation's tests relating to sensitivity, accuracy, usability and cost efficiency.

Labmaster's quality management system is ISO 13485:2016 and 9001:2015 certified for the design and manufacture of *in vitro* diagnostic devices for detection of viral infections, immune response and inflammatory status as an aid in diagnosis.

**Legal disclaimer**

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**Equine rapid tests**  
Quick and accurate results –  
with ease.





“After transportation the horse was released out into paddock. She looked glum and we tested her SAA values immediately at the stable. The SAA value was above the measuring range, 1500 mg/L. Medication was started on the spot. The easy access to important health information is why I value rapid testing. In our case it was also helpful in monitoring treatment. It only took a few simple measurements to find out whether the medication was working. It is always important to ensure that the horse is healthy before training.”

Heidi Vuori, Harri Koivunen Racing

## SERUM AMYLOID A (SAA)

Serum amyloid A (SAA) is an equine acute phase protein. In the blood of healthy horses, SAA concentration is very low, but increases dramatically with inflammation. Circulating SAA concentrations may increase up to 1000-fold following inflammation, infection, tumors or tissue injury.

Due to the short half-life of SAA, changes in its concentration in blood closely reflect the onset of inflammation and, therefore, measurement of SAA is useful in the diagnosis and monitoring of disease and response to treatment. Increases in SAA concentration have been described in equine digestive, reproductive and respiratory diseases and following surgical procedures.

In just 6 minutes, this test delivers quantitative results to help you with:

- Detecting the presence of inflammation
- Monitoring post-operative effects and recovery after surgery
- Measuring the inflammation response to treatment

### SPECIFICATION OF THE TEST

SAMPLE TYPE	Whole Blood
SAMPLE VOLUME	10 µL
MEASURING RANGE	10–1500 mg/L
STORAGE	+2 – +8 °C

## FIBRINOGEN

Fibrinogen is an acute phase protein related to inflammation, trauma or stress. It also plays a crucial role in the blood clotting process.

Elevated fibrinogen levels are often indicative to inflammation and tissue damage. Fibrinogen levels peak in 48–72 hours after the onset of inflammation.

The fibrinogen level can be used to predict the time course of a bacterial infection as has been shown with *Escherichia coli* endotoxin (i). It has also been shown to be an effective screening tool to diagnose *Rhodococcus Equi* infections in foals (ii) and for monitoring horse health during training (iii).

Serial measurements of equine fibrinogen are useful in determining the kinetics of the inflammatory response and in monitoring of treatment response.

### SPECIFICATION OF THE TEST

SAMPLE TYPE	Whole Blood and Plasma
SAMPLE VOLUME	10 µL
MEASURING RANGE	100–1700 mg/dL
STORAGE	+2 – +8 °C

(i) Burrowes 1981 (ii) Heidmann et al. 2006 (iii) Anhold et al. 2014

## Labmaster LUCIA™ Vet rapid tests

Point-of-care (POC), or rapid tests, reduce the need for laboratory testing, speed up the decision making and increase the efficiency of patient follow-up.

Labmaster LUCIA™ Vet analyzer performs the measurement from whole blood or serum/plasma samples, giving a quantitative result within minutes.

Rapid tests can be done outside the laboratory. Labmaster LUCIA™ Vet analyzer is light and easy to transport, which makes it possible to perform the tests at clinics, veterinary hospitals or on-site at stables or animal care facilities.

## TRUE QUANTITATIVE RESULT IN 6 MINUTES

## FOAL IgG

Spring is the time of foaling, which means that a roughly 11-month pregnancy comes to an end for many horse mares.

Foals are born with no infection-fighting antibodies in their blood. Therefore, foals must consume colostrum to receive the antibodies they need (passive transfer). It is recommended that the IgG levels of newborn foals are monitored.

- Failure of passive transfer (FPT, FTPI) of antibodies occurs in 10 to 20% of newborn foals (i).
- Measure the foal's IgG levels between 18 and 24 hours of life to ensure sufficient passive transfer has been achieved.
- An adequate level of IgG is 800 mg/dL of IgG or greater. Levels less than 400 mg/dL indicate inadequate passive transfer (ii).

The Labmaster LUCIA™ Foal IgG test can be performed at the stable. It returns a quantitative result in 6 minutes.

### SPECIFICATION OF THE TEST

SAMPLE TYPE	Whole Blood and Serum/Plasma
SAMPLE VOLUME	10 µL
MEASURING RANGE	100–2500 mg/dL
STORAGE	+2 – +8 °C

(i) see e.g. McGuire, T. et al. (1977) (ii) Metzger, N. et al. (2020)

“Yes! It has arrived! Namely, the Labmaster LUCIA™ Vet Analyzer. We are able to study the SAA value of the horses here at the home stable and also measure the IgG of the foals. Both of these results can be obtained numerically. This is valuable information which we don't have to wait for long. Very important information, especially during foaling season.”

Riikka Takaneva  
Larva-Jussila, Finnish horse breeder



Photo: Larva-Jussila  
Foal “Larvan Ruusu”