SVANOVIR® *B. bigemina*-Ab

The ELISA for screening exposure to *Babesia bigemina*

SUMMARY | SVANOVIR® *B. bigemina*-Ab detects antibodies specific to *Babesia bigemina* (*B. bigemina*) in bovine serum samples. It is a robust assay with high sensitivity and specificity. These features are of major importance for confirming absence of infection prior to shipment of cattle. SVANOVA has developed the assay in collaboration with the International Livestock Research Institute (ILRI) in Kenya.

Your challenge is a blood parasite in cattle

B. bigemina is a tick-borne protozoan parasite of cattle, causing a disease variously referred to as Texas fever, Redwater fever or Cattle tick fever. The parasite is widely distributed, coinciding with the distribution of its main tick vectors. Economically, it causes heavy losses in susceptible cattle, particularly in imported taurine breeds. Babesiosis is controlled by treatment of the infected animal, eradication of the vector and/or vaccination with live attenuated strains of *B. bigemina*.

Your goal is to identify exposure to *B. bigemina*

Acutely infected animals are treated with chemotherapy and those that recover will develop a protective immunity that lasts for several years. However, these animals can become carriers of the parasite and thus are a source of further disease transmission by ticks. Diagnosis of acute infection is mostly done by light microscopy demonstration of intra-erythrocytic parasites in Giemsa stained blood smears, but with subclinical or latent infections, parasites may not always be observed due low parasitaemia. Therefore, ELISA and IFAT are the most widely used serologic techniques.

Diagnosing infection with B. bigemina

Identifies animals in all stages of seroconversion (incl. subclinically infected and carrier animals)

Screening of individuals and herds exposed to ticks

Objective, robust and easy to use compared to IFAT (Indirect Fluorescence Antibody Test)

Developed in collaboration with the International Livestock Research Institute (ILRI), Nairobi, Kenya

ASSAY OVERVIEW

SVANOVIR® *B. bigemina*-Ab

Species	Bovine
Samples	Serum
Type	Indirect ELISA using a recombinant immunodominant antigen

Article number	Samples*	Plates	Format
104900	184	2	Strips

*__Samples:__ Max. number of samples for analysis, wells for kit controls excluded

svanova

SVANOVIR® *B. bigemina*-Ab is an advantageous tool for detecting exposure of cattle to the blood parasite *B. bigemina*.

Work efficient due to easy protocol

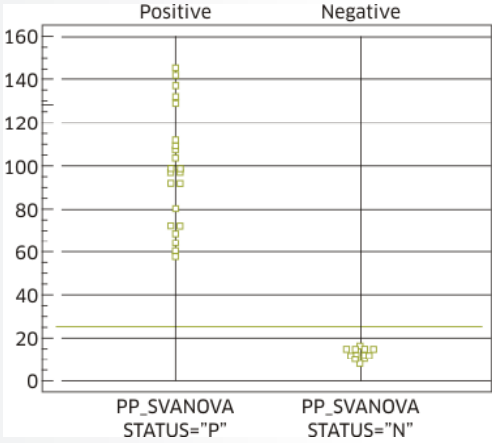
Optimised for small sample sizes – uses detachable strips

High quality – validated and manufactured under strict ISO 9001:2008 standardised procedures in Sweden

Multilingual labels

PERFORMANCE CHARACTERISTICS
SVANOVIR® *B. bigemina*-Ab

SVANOVIR® *B. bigemina*-Ab was developed together with experts at the International Livestock Research Institute (ILRI) in Nairobi, Kenya. The in-house ELISA assays used previously by ILRI was improved by using a recombinant antigen. SVANOVIR® *B. bigemina*-Ab provides the advantage of higher sensitivity and robustness of a commercial assay. In a study by Tebele (1996) the original ILRI assay already showed an estimated sensitivity and specificity of 96 % and 97.5 % respectively. The same study showed a high agreement of results with IFAT. With SVANOVIR® *B. bigemina*-Ab, antibodies can be detected in experimentally infected animals in early, subclinical stages of infection as well as late stages of seroconversion. The higher sensitivity of SVANOVIR® *B. bigemina*-Ab results in earlier detection as compared to the ILRI test.



ROC analysis: Determination of cut-off in negative and positive cattle serum samples.

YOUR SUPPORT

From 9am-4pm CET call:

☎ **+46 18 65 49 15**

✉ **customer.service@svanova.com**

Reference:

Tebele, N. (1996): Characterisation of the cDNA encoding a 200 kDa polypeptide of *Babesia bigemina* and generation of a recombinant antigen for the detection of antibodies in an enzyme linked immunosorbent assay, Ph.D. thesis. Brunel University, Uxbridge, United Kingdom.

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Complementary products for controlling parasites in cattle

SVANOVIR® *Neospora*-Ab	The highly specific assay for the detection of *Neospora caninum* in ruminant populations
SVANOVIR® *A. marginale*-Ab	Identifying *Anaplasma marginale* in cattle populations
SVANOVIR® *F. hepatica*-Ab	Predicting the economic impact of *Fasciola hepatica* infection
SVANOVIR® *O. ostertagi*-Ab	Monitoring and controlling gastrointestinal nematodes in grazing cattle

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