



SVANOVIR® *A. marginale*-Ab Identifying *Anaplasma marginale* in cattle populations

SUMMARY | SVANOVIR® *A. marginale*-Ab is an indirect ELISA for the detection of specific antibodies to *Anaplasma marginale* (*A. marginale*) in bovine serum samples. It is a robust, high standard assay with high sensitivity and specificity. These features are of major importance for confirming absence of infections prior to shipment of livestock cattle. Svanova has developed the assay in collaboration with the International Livestock Research Institute (ILRI) in Kenya.



Your challenge is a vector borne disease

A. marginale is the most prevalent tick-borne livestock parasite worldwide and poses a considerable challenge to animal health. Morbidity in ruminants is very high and recovered infected cattle may be carriers of the parasite for life. The control of vector populations and vaccination are the major ways of protecting cattle from infection.

Your goal is to evaluate exposure to *A. marginale*

There are several pathogens that can result in anemia in cattle including *Anaplasma spp.*, *Babesia spp.*, *Leptospira spp.* and *Theileria spp.*. Giemsa staining of blood is a common method for the investigation of blood parasites. It needs comprehensive training, the results are very subjective, and it can only be used to test individual animals. Serologic methods have the advantage of better standardisation and the ability to identify subclinically infected and carrier animals with higher specificity and sensitivity.

Test for diagnosing infection with *A. marginale*

Reliable identification of subclinically infected and carrier animals

Screening of individuals and herds exposed to ticks

Objective, robust and easy to use compared to microscopic analysis of Giemsa stained blood smears

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

ASSAY OVERVIEW

SVANOVIR® *A. marginale*-Ab



Species	Bovine		
Samples	Serum		
Type	Indirect ELISA using a recombinant immunodominant antigen		
Article number	Samples*	Plates	Format
104899	184	2	Strips

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

SVANOVIR® *A. marginale*-Ab is a field validated ELISA enabling the screening of cattle herds to assess exposure to ticks transmitting *A. marginale*.

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

YOUR SUPPORT

From 9am-4pm CET call:

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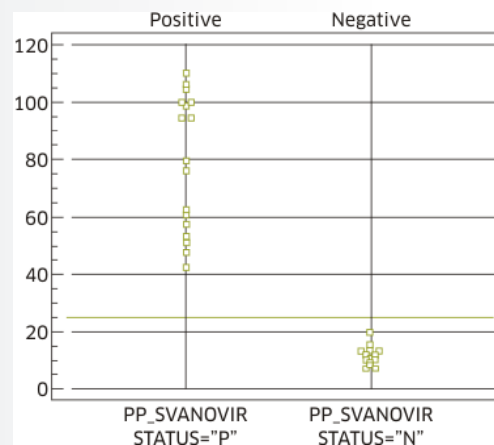
PERFORMANCE CHARACTERISTICS SVANOVIR® *A. marginale*-Ab

SVANOVIR® *A. marginale*-Ab is an assay developed together with experts from the International Livestock Research Institute (ILRI), Nairobi, Kenya. An in-house assay from ILRI with a sensitivity and specificity of > 90% (Morzaria *et al.*, 1999) was further enhanced using a recombinant immunodominant antigen. The higher sensitivity of this assay resulted in 4-7 days earlier detection of infection in experimentally infected cattle. The assay was internally validated on both Swedish and Kenyan serum samples. Of the 133 tested serum samples from cattle from Kenya, most were from experimentally infected and serial bled animals, but this study included also a number of field sera (n=40) with known status.

Determination of seroconversion in *A. marginale* experimentally infected cattle from Kenya:

day	cow 1 SVANOVIR	ILRI	cow 2 SVANOVIR	ILRI
0 ^a	neg	neg	neg	neg
3	neg	neg	neg	neg
6	neg	neg	pos	neg
9	neg	neg	pos	neg
13	neg	neg	pos	pos
17	pos	neg	pos	pos
20-174	pos	pos	pos	pos
181-237	pos	neg	pos	pos
360	-	-	pos	pos

^a day of experimental infection



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

Reference:

Morzaria, S.P., Katende, J., Musoke, A., Nene, V., Skilton, R. and Bishop, R. (1999): Development of sero-diagnostic and molecular tools for the control of important tick-borne pathogens of cattle in Africa. *Parasitologia* 41 (Suppl. 1): 73-80.

Complementary products for controlling parasites in cattle

SVANOVIR® *Neospora*-Ab The highly specific assay for the detection of *Neospora caninum* in ruminant populations

SVANOVIR® *B. bigemina*-Ab The ELISA for screening exposure to *Babesia bigemina*

SVANOVIR® *F. hepatica*-Ab Predicting the economic impact of *Fasciola hepatica* infection

SVANOVIR® *O. ostertagi*-Ab Monitoring and controlling gastrointestinal nematodes in grazing cattle