



## SVANOVIR® SBV-Ab

# The test for identifying exposure to Schmallenberg Virus

**SUMMARY** | SVANOVIR® SBV-Ab provides accurate information on the exposure to Schmallenberg Virus (SBV) in different ruminant species. With high specificity and sensitivity, the SVANOVIR® SBV-Ab is a superior tool for detection of antibodies to SBV in cattle, sheep and goats, as well as for confirming uninfected animals. The assay is validated for testing of serum samples, and both individual and bulk tank milk samples.



### Your challenge is a seasonally and regionally varying vector borne disease

SBV gets transmitted via vectors from the *Culicoides* genus, which show seasonal and regional variation. In adult cattle, clinical symptoms are either absent or only consist of non-specific symptoms such as a reduction of milk yield or diarrhea. In adult sheep and goat, the infection can be asymptomatic or might show non-specific symptoms such as dullness and mild diarrhea. Transplacental passage of the virus can lead to abortions, stillbirth or newborns that die within some days.

### Your goal is to identify the risk of virus exposure

Studies performed on experimentally infected animals have shown that the viremic period is quite short, between 2 and 5 days post infection. Consequently, the time window for detection of the virus is limited. Preliminary information suggests that animals acquire a long lasting protective immunity after infection, and that the disease is only seen when susceptible animals are infected. Identifying immuno-naïve ruminants and confirming SBV in sentinel animals is of great value for evaluating virus occurrence.

**Multispecies ELISA** – effective surveillance of SBV infection in cattle and small ruminants

**High sensitivity with no false negatives** – providing confidence in detecting exposure to SBV

**High specificity with no false positives** – confirming groups/herds free of the disease

**Thoroughly validated on naturally and experimentally infected animals** from different populations

**Test for screening sentinel animals** and confirming reoccurrence of SBV in a population

**Enables informed decision making** for controlling exposure, e.g. during trade, import/export

## ASSAY OVERVIEW

### SVANOVIR® SBV-Ab



<b>Species</b>	Cattle, sheep and goats		
<b>Samples</b>	Serum and plasma Milk, individual and bulk tank		
<b>Type</b>	Indirect ELISA		
<b>Article number</b>	<b>Samples*</b>	<b>Plates</b>	<b>Format</b>
113124	88	2	Strips

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

SVANOVIR® SBV-Ab for cattle and small ruminants sets a new standard for antibody detection of Schmallenberg Virus in both serum and milk samples, and provides more accurate results owing to a superior sensitivity and specificity of the assay.

**Dual functionality in sample type**

– testing of serum and both individual and bulk tank milk is possible in the same assay

**Effective handling** – ready- to- use conjugate and simple protocol, results in < 2 hrs

**High quality** - thoroughly validated and manufactured under strict ISO 9001:2008 standardised procedures in Sweden

**Multilingual labels**

**YOUR SUPPORT**

From 9am-4pm CET call:

 **+46 18 65 49 15**

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**PERFORMANCE CHARACTERISTICS**  
**SVANOVIR® SBV-Ab**

SVANOVIR® SBV-Ab showed very high sensitivity (97.2%- 100%) and specificity (100%) in positive and negative sheep, goat and cattle sera relative to the gold standard method Virus Neutralisation Test (VNT). Benchmarking studies performed on serum samples revealed that SVANOVIR® SBV-Ab has a higher sensitivity than other commercially available assays, with a sensitivity of 98% as compared to other ELISAs with a sensitivity of 79% and 86%, ensuring more accurate and reliable test results.

Benchmarking studies on large numbers of bulk tank milk samples (n=711) comparing SVANOVIR® SBV-Ab to the reference method assay developed inhouse by the Swedish National Veterinary Institute (SVA) also revealed the high sensitivity of SVANOVIR® SBV-Ab.

In contrast to two other ELISA-kits, SVANOVIR® SBV-Ab scored all serum samples from an ovine ring trial correctly. Furthermore, in a study performed on samples from experimentally infected sheep from Germany, SVANOVIR® SBV-Ab detected seroconversion at 2 weeks post infection, much earlier than another ELISA and had a high correlation to VNT results.

Specimen	Sensitivity	Specificity	Reference method
Bovine serum <sup>a</sup> n <sub>tot.</sub> = 118 / n <sub>pos.</sub> = 24	100 %	100 %	VNT*
Ovine serum <sup>a</sup> n <sub>tot.</sub> = 144 / n <sub>pos.</sub> = 36	97.2 %	100 %	VNT*
Caprine serum <sup>a</sup> n <sub>tot.</sub> = 99 / n <sub>pos.</sub> = 2	100 %	100 %	VNT*

<sup>a</sup> Samples from Sweden \* Virus neutralisation test

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