



## SVANOVIR® BCV-Ab

# A test for measuring circulating Bovine Coronavirus in cattle

**SUMMARY** | SVANOVIR® BCV-Ab detects antibodies to Bovine Coronavirus in serum/plasma, and milk (individual and bulk milk) of infected cattle. The test has been successfully used in longitudinal field studies on virus dynamics and evaluation of management routines. Benefits to control programs include the test's ability to detect changes in antibody levels by analysing paired samples and thereby identifying recent exposure to BCV.



### **YOUR CHALLENGE** is a contagious respiratory virus

Bovine Coronavirus is involved in several disease syndromes that cause economic loss in livestock production, including various degrees of respiratory disease in all age classes, winter dysentery in adult cattle, and diarrhoea in calves. BCV may be the sole agent causing respiratory disease; however it can be also part of a mixed infection. The virus often makes cattle predisposed to secondary bacterial infections, which aggravate the initial clinical situation.

### **YOUR GOAL** is to prevent BCV from infecting your herd

Clinical disease is most often apparent in previously non-exposed herds, in calves with diminishing maternal antibodies, and in immunocompromised herds. Studies show that seroconversion is a matter of recurrent virus introduction rather than of virus reactivation in carrier animals. This fact stresses the importance of biosecurity measures. Accurate diagnostic tests are essential to prevent the shipment of infected animals to susceptible herds.

**Highly specific** assay for detecting exposure of cattle to BCV

**Early detection of infection**  
IgG1 can be detected by day 9-11 *p.i.*

**Efficient screening** where validation of bulk milk enables classification of herds into susceptible and exposed

**Work-effective** assay with quantitative single-dilution

**Developed in collaboration with the Swedish Veterinary Institute**

## ASSAY OVERVIEW



### SVANOVIR® BCV-Ab

<b>Species</b>	Bovine		
<b>Samples</b>	Serum/plasma Milk, individual and bulk milk		
<b>Type</b>	Indirect ELISA detecting IgG <sub>1</sub>		
<b>Article number</b>	<b>Samples*</b>	<b>Plates</b>	<b>Format</b>
104887	88	2	Strips

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

SVANOVIR® BCV is a valuable tool for detecting BCV infections in cattle, and classifies herds into susceptible and exposed.

**Dual functionality** with analysis of serum/plasma and milk samples in the same assay

**Effective handling and convenient in use** with ready - to - use conjugate, results in <2,5 hours and simple protocol.

**High quality** with thorough validation and manufactured under strict ISO 9001:2008 standardised procedures in Sweden

**Multilingual labels**

## YOUR SUPPORT

From 9am-16pm CET call:

 +46 18 65 49 15

 [customer.service@svanova.com](mailto:customer.service@svanova.com)

## PERFORMANCE CHARACTERISTICS SVANOVIR® BCV-Ab

In a study of 91 sera from Swedish cattle, the ELISA demonstrated high sensitivity and specificity when compared to a virus neutralisation test (Alenius et al., 1991). The assay detects differences in antibody levels which enables the detection of current exposure to BCV (Ohlson et al., 2010a).

SVANOVIR® BCV-Ab was successfully applied in a 3-year longitudinal study using bulk tank milk to investigate dynamics of virus spread (Ohlson et al., 2010a) and to identify risk factors for virus prevalence in Swedish dairy herds (Ohlson et al., 2012b).

Specimen	Sensitivity	Specificity	Reference method
Serum n=91 <sup>a</sup>	84,6%	100%	VNT*

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

### References

Alenius, S., Niskanen, R., Juntti, N. & Larsson, B. (1991). Bovine coronavirus as the causative agent of winter dysentery: serological evidence. Acta Veterinaria Scandinavica 32, 163-70.

Ohlson, A. Tråvén, M., Emanuelson, U., Alenius, S. (2010a). A longitudinal study of the dynamics of bovine coronavirus and bovine respiratory syncytial virus infections in dairy herds in Ohlson, A. (2010): Bovine Coronavirus and Bovine Respiratory Syncytial Virus Infections in Dairy Herds. Doctorate thesis 2010:51.

Ohlson, A., Heuer, C., Lockhart, C., Tråvén, M., Emanuelson, U., Alenius, S. (2010b). Risk factors for seropositivity to bovine coronavirus and bovine respiratory syncytial virus in dairy herds. Veterinary Record 167, 201-6.

## COMPLIMENTARY DIAGNOSTIC SOLUTIONS

**SVANOVIR®BRSV-Ab** Detecting antibodies specific to Bovine Respiratory Syncytial Virus

**SVANOVIR®PIV3-Ab** Detecting antibodies specific to Bovine Parainfluenza Virus Type 3

**SVANOVIR®IBR-Ab** Detecting antibodies specific to Bovine Herpesvirus 1

Boehringer Ingelheim Svanova  
Box 1545  
SE-751 45 Uppsala, Sweden

[www.svanova.com](http://www.svanova.com)

svanova 