SVANOVIR® BCV-Ab

A test for measuring circulating Bovine Coronavirus (BCV) in cattle

SUMMARY | SVANOVIR® BCV-Ab detects antibodies to BCV 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

BCV 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 immuno-compromised 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.

High specificity - assay for detecting exposure of cattle to BCV

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

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

Work-effective – quantitative single-dilution assay

Developed in collaboration with the Swedish Veterinary Institute

ASSAY OVERVIEW

SVANOVIR® BCV-Ab

Species	Bovine
Samples	Serum/plasma
	Milk, individual and bulk milk
Type	Indirect ELISA detecting IgG_1

Article number	Samples*	Plates	Format
10-2400-02	88	2	Strips

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

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

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

Easy protocol – ready-to-use conjugate and results in < 2.5 hrs

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

Multilingual labels

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[a]	100%	84,6%	VNT*

[a] 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 Coronoavirus 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.

YOUR SUPPORT

From 9am-16pm CET call:

☎ **+46 18 65 49 15**

✉ **customer.service@svanova.com**

PIBCV/01

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