



SVANOVIR® *Neospora*-Ab

The highly specific assay for the detection of *Neospora caninum* in ruminant populations

SUMMARY | SVANOVIR® *Neospora*-Ab ELISA is based on a novel technology of antigen presentation (“iscom”) that results in high specificity of the assay. The possibility of testing serum and milk in the same assay and the test’s ability to differentiate between acute and chronic infections is a further benefit to control programs.



Your challenge is a parasite causing abortion in ruminants

Neospora caninum is associated with abortion and neonatal mortality in a variety of species including cattle, sheep and goats. It has a worldwide distribution and causes severe economic loss to farmers. It is important to prevent canids entering the cattle holding area because they can shed the parasite as well.

Your goal is to reliably detect *Neospora caninum*

Tests with high specificity are needed in order to reliably differentiate *Neospora caninum* to other parasites causing abortion e.g. *Toxoplasma gondii*. Detection of *Neospora*-infected cows has important implications in control, since repeated abortions and vertical transmission can occur in cattle. When transmission occurs horizontally, the disease shows epidemic patterns.

Reliably detects *N. caninum*

- minimal misidentification of antibodies to other closely related parasites

Anti-ruminant conjugate

– enabling the detection of *N. caninum* also in sheep and goat

Extra protocol allows discrimination between acute and chronic infections

Bulk milk screening - effective way for monitoring control plans

Developed in collaboration with experts from the Swedish Agricultural University and Veterinary Institute

ASSAY OVERVIEW



SVANOVIR® *Neospora*-Ab

Species	Bovine, ovine and caprine		
Samples	Serum and plasma, individuals and pools ≤10 Milk, individual and pools ≤50		
Type	Indirect ELISA based on <i>Neospora caninum</i> iscoms (membrane antigen incorporated into immune stimulating complexes)		
Article number	Samples*	Plates	Format
104898	184	2	Strips

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

SVANOVIR® *Neospora*-Ab provides reliable results in the detection of *N. caninum* in serum and milk of ruminants with reported disease and herds free of infection. It is a valuable tool for assessing prevalence of infection and monitoring effectiveness of control strategies.

Dual functionality - enables parallel testing of serum and milk in the same assay

Easy protocol and results in <2.5 hrs

High quality - manufactured under strict ISO 9001:2008 standardised procedures in Sweden

YOUR SUPPORT

From 9am-4pm CET call:

☎ +46 18 65 49 15

✉ customer.service@svanova.com

PERFORMANCE CHARACTERISTICS SVANOVIR® *Neospora*-Ab

Several studies examining demonstrated excellent performance of SVANOVIR® *Neospora*-Ab in serum and milk samples. The tests ability to detect *N. caninum* in both, milk and serum samples allows the parallel investigation of lactating cows, calves, bulls and dry cows. Antibodies to *Neospora* can also be detected in serum of aborted calves as confirmed by PCR detection of antigen. Bulk milk samples from 624 dairy farms in Italy demonstrate the ability of the test to screen for *N. caninum* in bulk milk samples and divide herds into different serological classes (Varcasia et al. 2005). Furthermore, the test can differentiate between acute and chronic infections by measuring avidity to different IgG subclasses (extra protocol available on request).

High sensitivity and specificity in serum and milk samples

Serum samples $n_{\text{pos}} = 121^a$	Sensitivity	Specificity	Detection limit
IFAT* and in-house ELISA	$n_{\text{pos}} = 45$	$n_{\text{neg}} = 76$	
SVANOVIR® <i>Neospora</i> -Ab	91 %	99 %	1/128
Competitor 1	84 %	95 %	1/256
Competitor 2	82 %	94 %	1/32

Samples from (a) Swedish cattle population *indirect fluorescent antibody test

SVANOVIR® *Neospora*-Ab shows a good correlation ($k=0.941$) in test results for serum and milk in samples from farms with confirmed abortion problems owing to *N. caninum* and from farms without clinical history

		Milk		Total
		+	-	
Serum	+	45	2	47
	-	1	54	55
Total		46	56	102

References

Varcasia A, Capelli G, Ruiu A, Ladu M, Scala A, Bjorkman C. (2006): Prevalence of *Neospora caninum* infection in Sardinian dairy farms (Italy) detected by iscom ELISA on tank bulk milk. Parasitol Res. 2006 Feb;98(3):264-7

COMPLIMENTARY PRODUCTS FOR in modern parasite diagnostics

Fasciolosis	Bovine and ovine/caprine serum, bovine milk (individual and bulk tank)	SVANOVIR® <i>F. hepatica</i> -Ab
Ostertagiosis	Bovine milk (bulk tank)	SVANOVIR® <i>O.ostertagi</i> -Ab
Babesiosis	Bovine serum	SVANOVIR® <i>B. bigemina</i> -Ab
Anaplasmosis	Bovine serum	SVANOVIR® <i>A. marginale</i> -Ab

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

www.svanova.com

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