



SVANOVIR® *F. hepatica*-Ab

Predicting the economic impact of *Fasciola hepatica* infection

SUMMARY | SVANOVIR® *F. hepatica*-Ab is based on the E/S protein and detects antibodies to *Fasciola hepatica* (*F. hepatica*) in dairy and beef cattle. The assay has been validated using naturally infected populations and is the first test enabling the identification of herds and individuals that exceed an acceptable level of infection.



YOUR CHALLENGE is a subclinical disease resulting in production loss

Cattle take up infectious stages of *F. hepatica* while grazing in wet pastures. Flukes affect the liver but fasciolosis is primarily subclinical with no obvious clinical signs. However, production loss increases in correlation to the numbers of flukes affecting the liver. In Western Europe herd-level prevalence varies between 30-80%.

YOUR GOAL is to identify herds with *F. hepatica*-induced production losses

F. hepatica cannot be eradicated, but it is possible to control the impact of infection on production output. Monitoring and maintaining herd infection at an acceptable level, where there is no loss of production, is a new way to manage fasciolosis. In order to ensure rational and selective use of anthelmintic treatment, it is essential that the effectiveness of the control strategies is monitored.

First test for economic diagnosis of *F. hepatica*

Enables monitoring of the effectiveness of control strategies

Thoroughly validated on naturally infected populations

Developed in collaboration with the Department of Virology, Parasitology and Immunology at Ghent University, Belgium.

ASSAY OVERVIEW



SVANOVIR® *F. hepatica*-Ab

Species	Bovine		
Samples	Serum/plasma Meat juice Milk, individual and bulk milk		
Type	Indirect ELISA based on E/S antigen		
Article number	Samples*	Plates	Format
104896	184	2	Strips

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

SVANOVIR® *F.hepatica*-Ab is an effective monitoring tool for detecting fasciolosis in dairy and beef herds and is providing a clear indication of exposure levels and the effectiveness of control strategies.

High sample throughput

- effective screening of herds and numerous individuals

Triple functionality

- milk, serum and meat juice samples can be run in the same assay

Effective handling - ready-to-use conjugate and flexible incubation times (short & overnight)

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® *F. hepatica*-Ab

SVANOVIR® *F. hepatica*-Ab has been validated in comprehensive studies on naturally infected populations. In these studies, a strong correlation between infection (number of flukes in the liver), antibody levels to *F. hepatica*, and loss of milk yield or carcass weight was demonstrated (Charlier et al., 2007; 2009). Cut-off values were determined to indicate when production loss from *F. hepatica* infection becomes economically relevant. Furthermore, those individuals could be identified that had most benefit from anthelmintic treatment (Charlier et al., 2012). SVANOVIR® *F. hepatica*-Ab has been validated in dairy and beef cattle using milk and serum/meat juice samples respectively, thus enabling the monitoring of fasciolosis at several different stages of the production chain, i.e., at the farm, at dairies and at slaughter.

	Milk (dairy cows) Serum, meat juice (beef cattle)	
SVANOVIR® <i>F.hepatica</i> -Ab antibody levels	ODR < cut-off	ODR > cut-off
Number of flukes in liver ^a	None to low	Medium to high
Results indicate	No economic impact	Economic impact
Decision-making support	No/low exposure, no control needed <i>or</i> Control is effective	Medium/high exposure, control needed <i>or</i> Ineffective control

^(a) Dissection of whole livers

References

Charlier, J., Duchateau, L., Claerebout, E., Williams, D., Vercruysse, J. (2007): Associations between anti-*Fasciola hepatica* antibody levels in bulk-tank milk samples and production parameters in dairy herds. Preventive Veterinary Medicine, 78, pp. 57-66.

Charlier, J., De Cat, A., Forbes, A., Vercruysse, J. (2009): Measurement of antibodies to gastrointestinal nematodes and liver fluke in meat juice of beef cattle and associations with carcass parameters. Veterinary Parasitology, 166, 235-240.

Charlier, J., Hostens, M., Jacobs, J., van Ranst, B., Duchateau, L., Vercruysse, J. (2012): Integrating fasciolosis control in the dry cow management: The effect of closantel treatment on milk Production, PLoS ONE, 7 (8), art. no. e43216.

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SVANOVIR® <i>O. ostertagi</i> -Ab	Bovine milk (bulk tank)	Ostertagiasis
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