



SVANOVIR® ASFV-Ab

The highly specific assay for detecting exposure to African Swine Fever Virus

SUMMARY | The SVANOVIR® ASFV-Ab assay is an indirect ELISA based on the recombinant p30 protein, enabling the detection of antibodies in domestic pigs and wild boars. The high specificity has been demonstrated under field conditions. With this test Svanova provides another valuable tool for disease surveillance, eradication and control programmes.



YOUR CHALLENGE is a a complex viral disease

African swine fever (ASF) is a notifiable disease according to OIE, with important socio-economic consequences. Depending on host factors and strain virulence, clinical signs can vary from almost inapparent infection to hemorrhagic fever like disease. Due to the current lack of an effective vaccine against this virus, ASF control relies only on early diagnosis and massive stamping-out of infected and in-contact animals.

YOUR GOAL is to detect exposure promptly

African Swine Fever Virus (ASFV) is widely present in Africa and countries historically free of infection are on risk for introduction. In the past and currently, ASFV is reported sporadically in the Russian Federation, Belarus, and Ukraine with a tendency of continuous spread to neighboring countries. Major routes are direct contact and vehicles (swill feeding), also argasid ticks can function as vectors. The virus affects both, domestic pigs and wild boars, the latter being an important source of (re-)transmission.

The pioneer test based on recombinant p30 antigen

Superior sensitivity and specificity resulting in less retesting

- Applicable for domestic and wild boars
- Detecting exposure as early as 7-14 days after exposure
- Validated with excellent results in OIE reference labs

ASSAY OVERVIEW

SVANOVIR® ASFV-Ab



| | | | |
|-----------------------|---|---------------|---------------|
| Species | Porcine (incl. wild boars) | | |
| Samples | Serum/plasma | | |
| Type | Indirect ELISA based on recombinant p30 protein | | |
| Article number | Samples* | Plates | Format |
| 10-7300-02 | 88 | 2 | Strips |
| 10-7300-10^ | 440 | 10 | Plates |

*Samples: Max. number of samples for analysis, wells for kit controls excluded
^Production on demand

The test was developed in collaboration with ALGENEX, an innovative company for antigen production, Madrid, Spain

This highly specific and sensitive assay is a reliable tool, on a representative sample size, to demonstrate population freedom of infection, in trading situations and surveillance programmes.

Ideal technology for screening and high sample throughput

Effective handling and convenient in use with ready-to-use conjugate and simple protocol

Flexibility in daily routines with short and overnight incubation

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

YOUR SUPPORT

From 9am-4pm CET call:

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PERFORMANCE CHARACTERISTICS SVANOVIR® ASFV-Ab

The SVANOVIR® ASFV-Ab was the pioneer assay using the recombinant protein p30 which enables the early detection of antibodies together with high specificity (Perez-Filgueira *et al.*, 2006). An experimental infection at the Animal Health Institute in Pirbright (UK) included exposure to an avirulent, virulent and highly virulent strain and SVANOVIR® ASFV-Ab assay revealed positive results already 7-14 days post challenge (data on file).

The studies on the samples from field infected animals included different geographic regions and a sound number of samples of domestic pigs and wild boars, all underlining the high specificity and sensitivity of the SVANOVIR® ASFV-Ab assay (Table). Benchmarking studies indicate that SVANOVIR® ASFV-Ab assay is superior to widely used commercially available tests. Studies on the precision of the assay show low intra- and inter assay variability. More information about the validation studies is provided in the "Performance Review" document.

Table: Performance of SVANOVIR® ASFV-Ab assay on serum samples from field infected pigs

| Sample specification | Sensitivity | Specificity | Reference method |
|--|-------------|-------------|--|
| Domestic pigs | | | |
| Serum ^{1,2} npos=92, nneg=40 | 100% | 100% | Commercially available ELISA, Western Blot |
| Serum ^{3,4} n=106 | n.a. | 100% | History of freedom of infection |
| Wild boars | | | |
| Serum ³ n=102 | n.a. | 99% | History of freedom of infection |

¹Congo, ²Mozambique, ³Sweden, ⁴Northern Ireland

Reference

Pérez-Filgueira D.M. *et al.* (2006). Optimization and Validation of Recombinant Serological Tests for African Swine Fever Diagnosis Based on Detection of the p30 Protein Produced in *Trichoplusia ni* Larvae. *Journal of Clinical Microbiology*, p3114-3121.

Complementary products

| | |
|-------------------------------|--|
| SVANOVIR® CSFV-Ab | The well-balanced assay from Svanova for detection of Classical Swine Fever Virus |
| SVANOVIR® PRV gB-Ab | Surveillance of exposure to PRV in non-vaccinated swine populations |
| SVANOVIR® PRV gE-Ab | A parallel test for DIVA vaccines enabling the detection of Aujeszky's disease in vaccinated swine populations |
| SVANOVIR® TGEV/PRCV-Ab | Svanova presents the first serological ELISA test that accurately differentiates between Transmissible Gastroenteritis Virus and Porcine Respiratory Coronavirus |