EXTERNAL REFERENCES

ID SCREEN® AFRICAN SWINE FEVER COMPETITION

Last update: April 2023

Publications / References:

1) Bourry O. *et al.* (2022). **Oronasal or Intramuscular Immunization with a Thermo-Attenuated ASFV Strain Provides Full Clinical Protection against Georgia 2007/1 Challenge**. Viruses, 14, 2777.	• Pigs were inoculated with an ASF attenuated strain called ASFV-989, either intramuscularly or oronasally. Specific immune response was followed using the ID Screen® ASF Competition. • *Results*: pigs inoculated with the ASFV attenuated strain developed an antibody response with seroconversion occurring between day7 and day11 post-inoculation for both intramuscular and oronasal inoculation routes.				Experimental study	
2) Pikalo J. et al. (2021). **African Swine Fever Laboratory Diagnosis—Lessons Learned from Recent Animal Trials** Pathogens 10, 177.	• 5 domestic pigs were experimentally infected with Belgium 2018/1 strain. Serum samples were tested using the ID Screen® ASF Competition, the ID Screen® ASF Indirect, another commercial Elisa test , a commercial Lateral Flow Device and the immunoperoxidase test. • *Results*: All samples taken at 4 dpi and 7 dpi were found negative in all assays applied. At 10 dpi, all three recovering animals showed positive results with all the assays; the indirect immunoperoxidase test was positive for all animals sampled at day 10 confirming their status as positive. **The ID Screen® ASF Competition is able to detect early seroconversion (10 dpi) and is well correlated with the immunoperoxidase test.**				Correlation with other techniques	Experimental study

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3) Pikalo J. et al. (2021). **Towards Efficient Early Warning: Pathobiology of African Swine Fever Virus "Belgium 2018/1" in Domestic Pigs of Different Age Classes**. Animals, 11, 2602.	• 8 subadult pigs were experimentally infected with Belgium 2018/1 strain. Sera were sampled at 0, 3, 7, 10, 14 and 18 dpi, then tested with the immunoperoxidase test, the ID Screen® ASF Competition, the ID Screen® ASF Indirect and another commercial Elisa test. • *Results:* Among commercial tests, ID Screen® ASF competitive shows the best performance, with an early seroconversion at 7-10 dpi. **The ID Screen® ASF Competition is able to detect early seroconversion (7-10 dpi) and is well correlated with the immunoperoxidase test.**	Correlation with other techniques			Experimental study	
4) Siengsanan-Lamont *et al.* (2021) **Abattoir-Based Serological Surveillance for Transboundary and Zoonotic Diseases in Cattle and Swine in Cambodia: A Pilot Study in Phnom Phen Province During 2019 and 2020.** DOI: https://doi.org/10.21203/rs.3.rs694599/v1	• serosurveillance was implemented at four abattoirs in Cambodia on 644 swine using the ID Screen® ASF Competition. • *Results*: apparent seroprevalence=2.6%.			Epidemiological study		
5) **Validation study report of the ID Screen® ASF Competition** (2018) performed by the CISA-INIA, European Union Reference Laboratory for ASF	• *Results* : - analysis of 177 ASF negative serum samples: the specificity using the the ID Screen® ASF Competition was 99.44%. - analysis of 213 ASF positive serum samples: the sensitivity using the ID Screen@ ASF Competition was 95.77%. - the intra and inter-assay CV values (less than 10%) are considered a reasonable target for %CV in routine testing. **From the results obtained we conclude that the ID Screen@ African Swine Fever Competition has appropriate sensitivity, specificity and reproducibility to give a confident ASF diagnosis based on the detection of specific antibodies against ASFV and showing almost perfect agreement with the reference test, the IPT.**					Performance evaluation

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