

MONOSCREEN^{Ab} ELISA - *Ascaris suum*

BIOK447-Ascaris suum_PP02_(EN)_V01
23/03/2021

Reference : BIO K 447

« An innovative serological approach in parasitology »

BRIEF OUTLOOK ON THE DISEASE

Ascaris suum is a nematode worm that infects pigs. It is spread worldwide and despite the availability of effective anthelmintics, it is still very prevalent. Most of the time, ascaridiosis is subclinical even if in the most serious cases, respiratory problems can develop following the migration of the larvae into the pulmonary parenchyma taking part of the Porcine Respiratory Disease Complex (1).

Ascaridiosis is responsible for significant economic losses for pig farmers that could be prevented by appropriate control measures. The detection of antibodies specific to the parasite's hemoglobin with an ELISA test is a sensitive technic which permits, if it is performed at the end of the fattening period, to estimate the infestation intensity of the pig group. This approach allows the farmer to adapt his deworming strategy for the following groups. Serology has proven its interest in order to evaluate by a semi quantitative approach the parasitic load with sensitivity and precocity (2).

Reference

(1) Vandekerckhove, E., & Geldhof, P. (2015). Novel insights in the prevalence of *Ascaris suum* in commercial pig farms in Europe. In 7th European symposium of Porcine Health Management (ESPHM 2015).

(2) Serological examination of fattening pigs reveals associations between *Ascaris suum*, lung pathogens and technical performance parameters Johnny Vlaminccka, Simon Düsselndorfb, Lourens Heresc, Peter Geldhofa,

AIM OF TEST

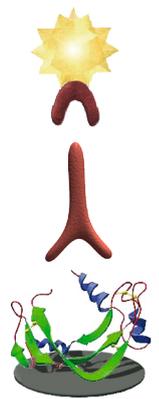
-  Serodiagnosis of infestation caused by *Ascaris suum* at the pig
-  Validation of the prevalence of intra-herd infestation in fattening station
-  Monitoring of control and treatment strategies

SPECIFICITY OF THE TEST

-  Indirect monowell test for pig serums
Intended for the detection of antibodies against adult and larval forms of the parasite (based on the parasite hemoglobin)
Coating : native *Ascaris suum* hemoglobin protein

-  Sample : serum
Dilution : 1/100

-  G Protein conjugate
Reading Wavelength: 450nm
Incubation time : 2*1h + 10 min
Substrate : Single component TMB



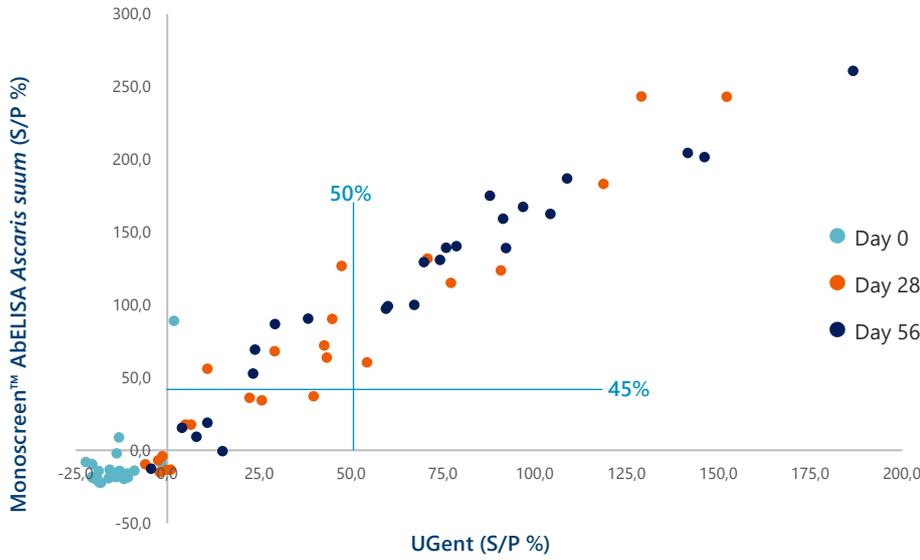
BIO K 447-*Ascaris suum* delivers a quick and accurate evaluation of the parasitics load.



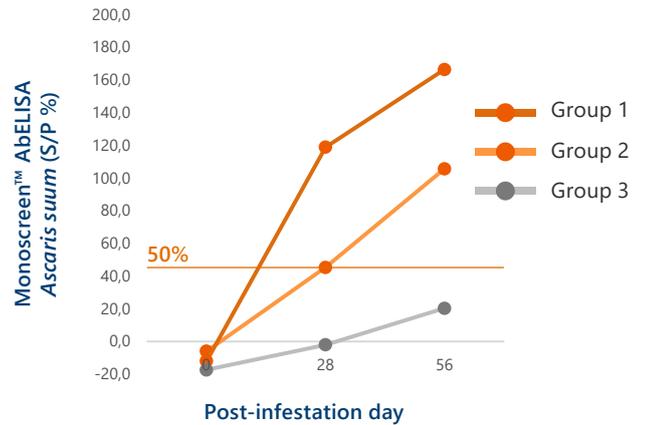
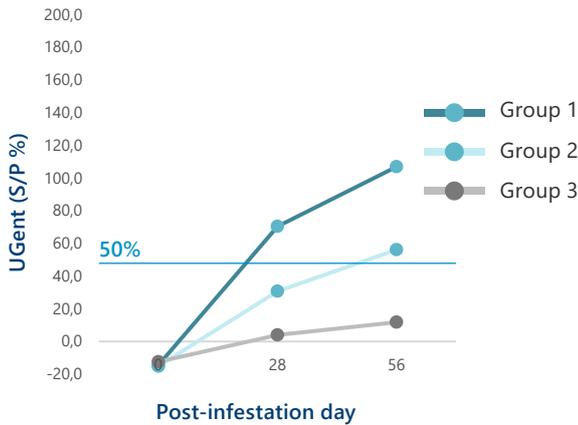
DETECTION

« MONOSCREEN™ AbELISA *Ascaris suum* offers a remarkably early detection. »

Comparative evolution of seroconversion from 0 to 56 days on three groups of challenged pigs on Day 0 and tested on days 0, 28 and 56 (group 1 - 10 pigs - 20 eggs; group 2 - 10 pigs - 100 eggs; group 3 - 5 pigs - control) between Monoscreen™ AbELISA *Ascaris suum* and an ELISA (UGent) used as reference.



Comparison of kinetics of seroconversion (S/P%) of the means of groups 1, 2 and 3 between Monoscreen™ AbELISA *Ascaris suum* (orange curves) and an ELISA (UGent, blue curves) used as reference.



The cut off (E/P) for seropositivity is established at 0,45 for Bio K 447 (towards 0,5 for the reference Serasca analysis from Gent University). This test has proven to give relevant diagnostic of pig batch infestation on a regular evaluation of 10 pigs blood samples.

If more than a half of the results appears to be positive, *Ascaris suum* is suspected to play a role in performance deterioration and a prevention strategy is strongly recommended.

TO PLACE AN ORDER

Code	Description	Number of reactions
BIO K 447/2	Monoscreen™ AbELISA <i>Ascaris suum</i>	2 plates / 192 tests



Smart solutions for sharp decisions

Contact us

✉ p.hivorel@biox.com

☎ +32 (0) 84 32 23 77

🌐 www.biox.com