

MONOSCREEN^{Ab} ELISA - *Ascaris suum*

BIOK447-Ascaris suum_PP01_(EN)_V01
23/03/2021

Reference : BIO K 447

« Innovation into parasitology through serology »

BRIEF OUTLOOK ON THE DISEASE

The infestation of pig farms with *Ascaris suum* is the most prevalent parasitosis worldwide. A study published by Vlamincq, Geldhof et al in 2015 (1) shows an average herd prevalence of 41% in Europe. The impact of the infestation on the ADG and the CI is clearly proven; an interaction between *Ascaris suum* and the intestinal microbiota is suspected, which can lead to abnormally high production of short-chain fatty acids (SCFAs).

The evaluation of the Parasite load is indeed a key part of conducting a reasoned pest management program. The piglet is likely to be infested as soon as it gets in the post-weaning phase, for a parasitic cycle from 35 to 42 days (50 days for the sow).

Conventional evaluation procedures are limited: counting of eggs lack sensitivity, and gross observation of the liver (presence of «white spots») is de facto post-mortem. Serology has showed to be interesting (2) in the semi-quantitative assessment of the parasitic load.

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) Elise Vandekerckhove, Johnny Vlamincq, Peter Geldhof "Evaluation of serology to measure exposure of piglets to *Ascaris suum* during the nursery phase". Veterinary Parasitology, September 2017

AIM OF TEST

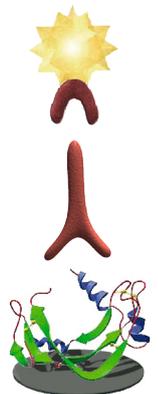
-  Serodiagnosis of infestation caused by *Ascaris suum* at the pig
-  Validation of the prevalence of intra-herd infestation in fattening station
-  Monitoring of control and treatment strategies

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

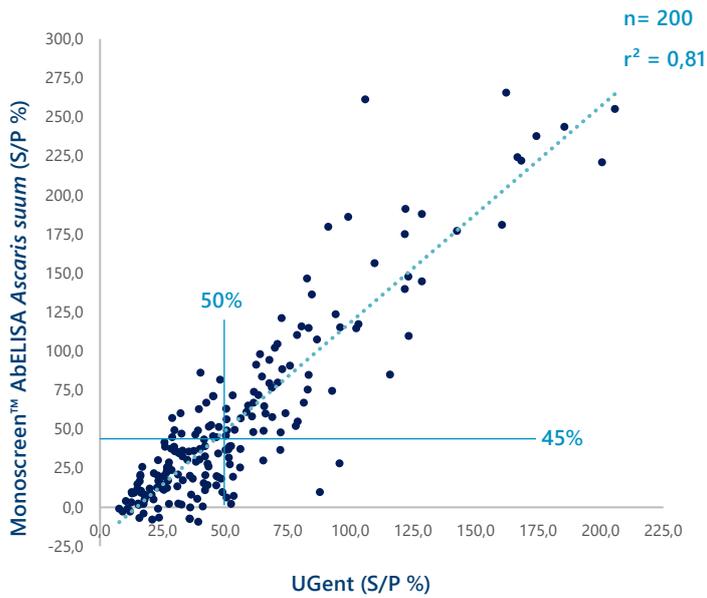


BIO K 447-*Ascaris suum* delivers a quick and accurate evaluation of the parasitics load.



CORRELATION

Correlation between Monoscreen™ AbELISA *Ascaris suum* and an ELISA (UGent) considered as reference on a cohort of 200 pigs.



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.

« MONOSCREEN™ AbELISA *Ascaris suum* is well correlated with the reference test developed by UGent »

		UGent		
		+	-	
Monoscreen™ AbELISA <i>Ascaris suum</i>	+	69	16	85
	-	16	99	115
		85	115	200

Se relative	81,2 %	PPV	81,2 %
Sp relative	86,1 %	NPV	86,1 %
Kappa	0,67	GOOD	

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

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