

MONOSCREEN^{Ab} ELISA - Neo Easy

 BIOK451-Neo_Easy_PP01_(EN)_V02
01/10/2025

Reference : BIO K 451

INFORMATION ON THE DISEASE

Neospora caninum is a protozoan initially described as being a parasite of dogs, in which it causes myositis and encephalitis. It is now known that bovine neosporosis is an important cause of abortion in cattle. It is strongly suspected in 20% of farms where there are repeat abortions, and a *Neospora caninum*-seropositive cow is 3 times more likely to abort than a seronegative cow. Vertical transmission is usual (at least 80% of the calves of seropositive cows are infected).

PURPOSE OF THE TEST


 Serological diagnosis of **bovine neosporosis**


Characterised by the official and self-control methods described in AFNOR standard NF U47-310.

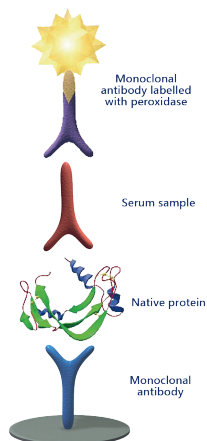

 Appropriate tests for herd screening.
Detection of vertical transmission of *Neospora* in calves less than one month old.

BIO K 451 - Neo Easy enables rapid and accurate detection. The IgG2 ELISA test can identify calves infected in utero.

CHARACTERISTICS OF THE TEST

IgG1

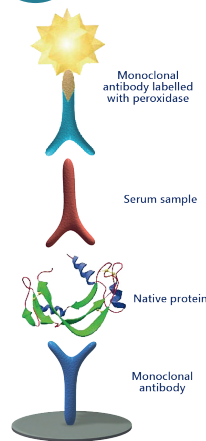
Use of serum and individual milk



	Results	Status
Serum	S/P % < 70%	Negative
	S/P % ≥ 70%	Positive
Milk	S/P % < 50%	Negative
	S/P % ≥ 50%	Positive

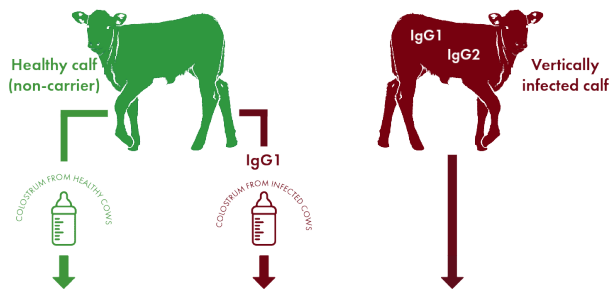
IgG2

Use on calves from birth to 1 month of age (serum)



	Results	Status
Serum	S/P % < 30%	Negative
	S/P % ≥ 30%	Positive

Differentiation possible thanks to immunoglobulin G2 (IgG2) testing



Blood drawn	IgG1- and IgG2-	IgG1+ and IgG2-	IgG1+ and IgG2+
Current total IgG test result	NEG	POS	POS
IgG2 test result	NEG	NEG	POS

The new test detects IgG2 and can distinguish healthy calves even if they have drunk colostrum from an infected cow (IgG1+).

Milk protocol

 150 µl of dilution buffer + 50 µl of milk (1/4)
190 µl of dilution buffer + 10 µl of references (1/20)

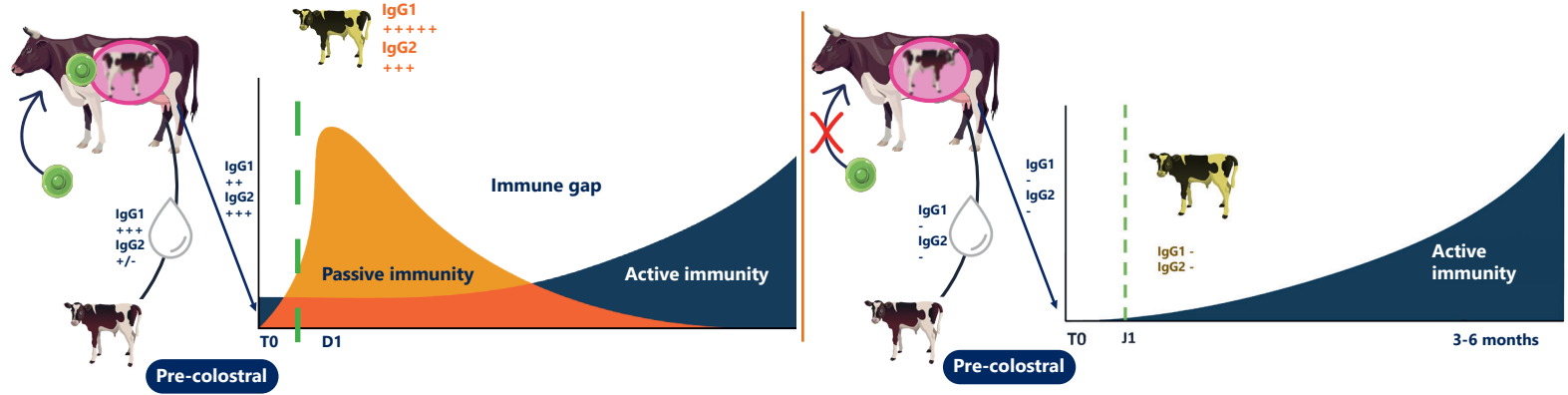

Serum protocol

 190 µl of dilution buffer + 10 µl of serum (1/20)
190 µl of dilution buffer + 10 µl of references (1/20)


CONTAMINATION BY NEOSPORA CANINUM IN UTERO

Primary infestation and contamination of the calf *in utero*

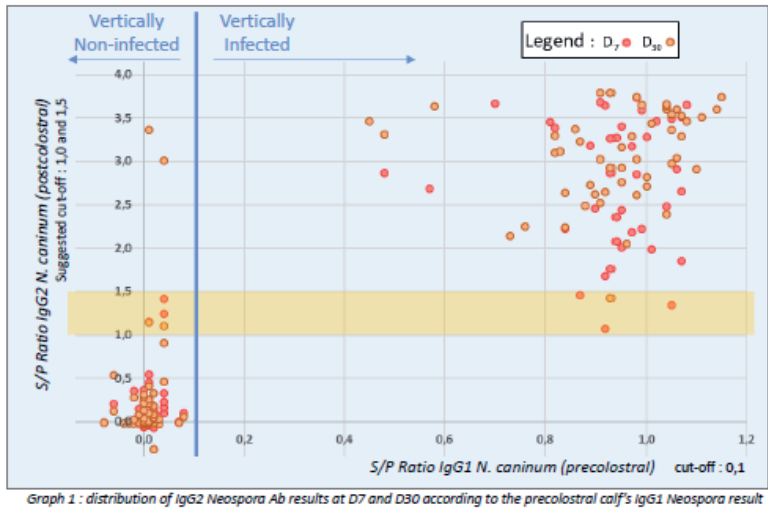
Absence of pre-calving contamination by *Neospora*



STUDIES & ANALYSIS

ARSIA asbl - Neosporosis: how IgG2 ELISA could contribute in the diagnosis of vertically infected calves?
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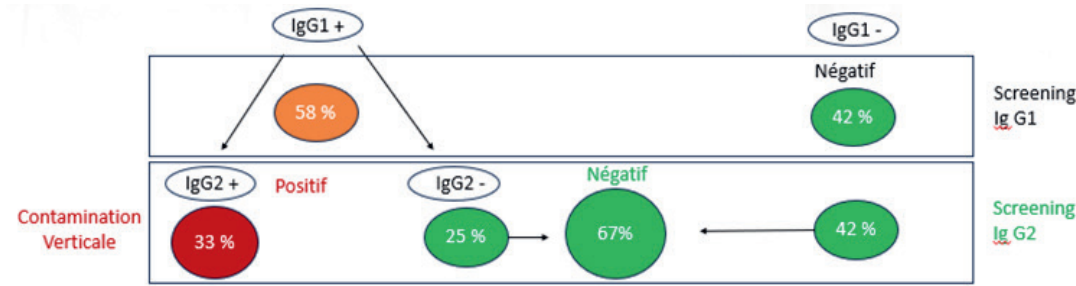
		IgG1 on Blotting paper (precolostral)		
		V. N-Infected	V. Infected	Total
IgG2 (D ₇ and D ₃₀) cut-offs: 1,0 and 1,5	Pos	2	86	88
	Inted	5	4	9
	Neg	131	0	131
	Total	138	90	228

Table 1: Concordance between IgG1 test (precolostral) and IgG2 at D7 & D30

In conclusion, for the control of neosporosis, the IgG2 ELISA appears to be a reliable and convenient tool for distinguishing the vertically infected calves (0-1 month) from the non-vertically infected ones.

Study on the detection of *Neospora caninum* using differentiated ELISA serology

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Use of early serology with an IgG2 conjugate can determine whether transmission of *Neospora caninum* is horizontal or vertical in a young calf.

TO ORDER :

Code	Description	Nb. of reactions
BIO K 451/5	MonoScreen™ AbELISA <i>Neospora Caninum</i> EASY	5 plates / 480 tests



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