EN

BIOK298-Cox_Phase_I+II_PP_(EN)_V01
04/10/2022

MONOSCREEN Ab ELISA - *Coxiella burnetii - phase I + II*

Reference : BIO K 298

BRIEF OUTLOOK ON THE DISEASE

Q fever mainly affects humans, cattle, sheep and goats. The etiological agent, Coxiella burnetii is a Gram-negative intracellular bacterium which multiplies in the macrophage phagolysosomes. Coxiella burnetii can occur in two antigenic forms: a pathogenic phase I, isolated from infected animals or individuals, and an avirulent phase II, obtained in ovo or in vitro. There are 2 forms of infection, acute and chronic, which have different serological profiles: during the acute phase of the disease, titers of type IgG antibodies are high against phase II, while during the chronic phase of the disease, elevated levels of anti-phase I and II IgG antibodies are observed. In cows, sheep and goats, Q fever has mostly been associated with late abortions and reproductive disorders such as premature birth, dead or weakened fetuses, metritis, and infertility. Nevertheless, in a given species the serological responses or the isolation of the bacterium do not necessarily correlate with the expression of the clinical disease. Serological analyzes are appropriate for screening herds, but the interpretation at the individual level can be difficult.

INTENDED USE OF TEST

Serological diagnosis of Q fever

Characterized by official and self-checking methods according to the AFNOR NF U47-310 standard.

Appropriate tests for herd screening

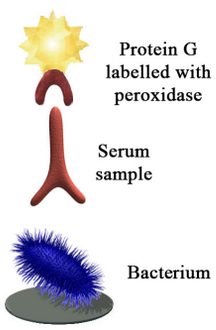
	Results	Status
Bovine, caprine and ovine serum	S/P % < 40%	Negative
	40% ≤ S/P % ≤ 60%	Doubtful
	S/P % > 60%	Positive
Bovine milk	S/P % < 30%	Negative
	30% ≤ S/P % ≤ 60%	Doubtful
	S/P % > 60%	Positive

SPECIFICITY OF TEST

Indirect monowell test
Detection of antibodies against phase I+II of *Coxiella burnetii*

For bovine, caprine and ovine sera (1/100 dilution) and bovine milk (1/1 dilution)

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

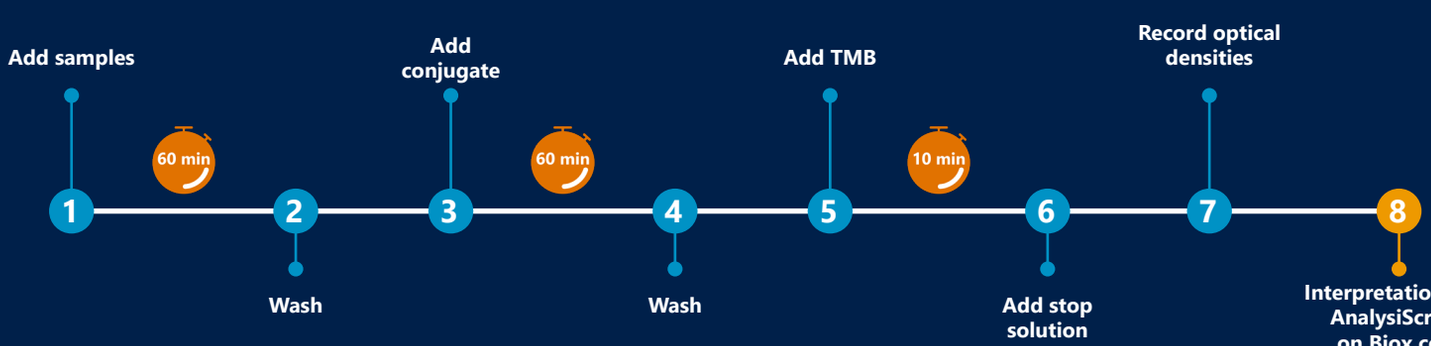


«A multi-species and multi-matrix serological approach»

Why BIO K 298?

- A new simplified user manual
- Updated validation files
- Revised cut-offs
- 1X « ready to use » solutions

BIO K 298-*Coxiella burnetii* phase I + II allows a fast and efficient detection.

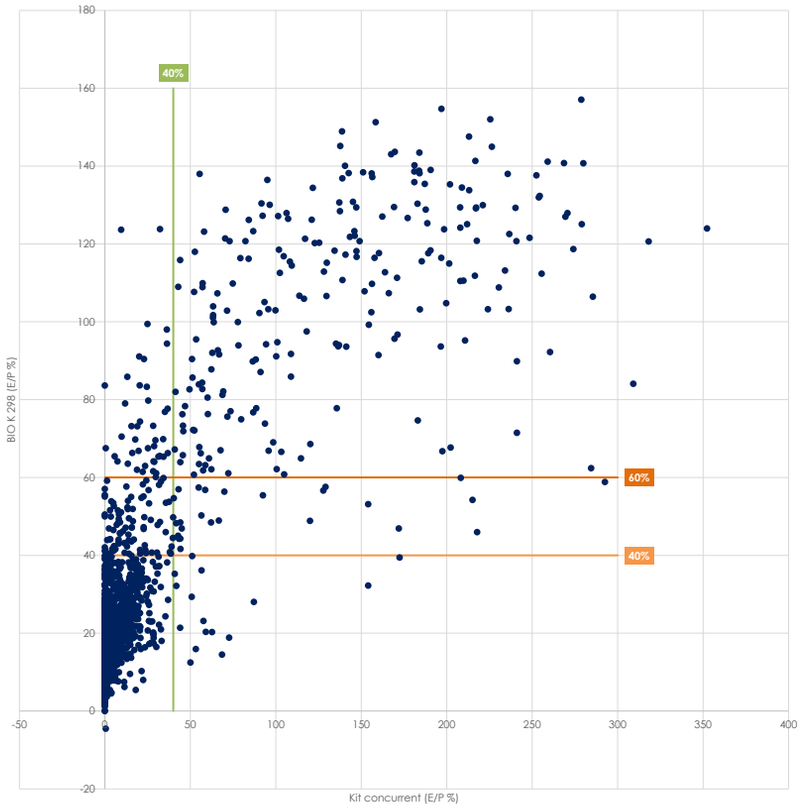


Smart solutions for sharp decisions

CORRELATION

Cohort A

A cohort composed of 1606 serums of adult cattle from different farms located in the Walloon region (Belgium) was analyzed with Monoscreen AbELISA Coxiella Ph I+II. The cohort was analyzed with a competitor kit to compare the relative sensitivity and specificity of Monoscreen AbELISA Coxiella – BIO K 298.



		Competitor		
		+	-	
Monoscreen™ AbELISA Coxiella Ph I+II	+	248	130	378
	-	16	1212	1228
with a threshold of 40%		264	1342	1606

Se relative	94 %	VPP	66 %
Sp relative	90 %	VPN	97 %
Kappa	0,72	GOOD	

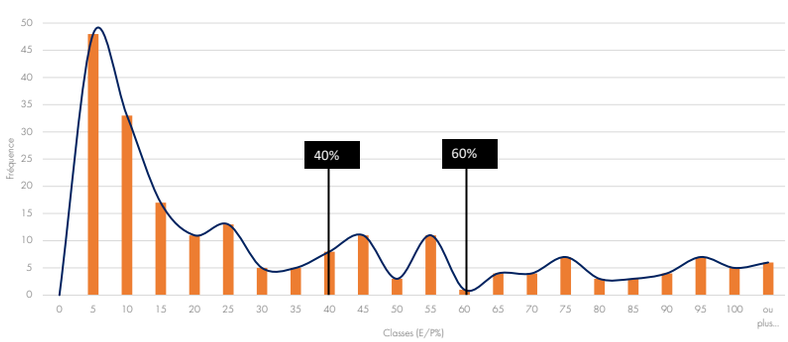
		Competitor		
		+	-	
Monoscreen™ AbELISA Coxiella Ph I+II	+	223	43	266
	-	41	1299	1340
with a threshold of 60%		264	1342	1606

Se relative	85 %	VPP	84 %
Sp relative	97 %	VPN	97 %
Kappa	0,81	EXCELLENT	

Cohort B

A cohort composed of serums of a panel of 209 goats from different French farms was analyzed with Monoscreen AbELISA Coxiella Ph I+II.

The cohort made it possible to plot the frequency chart below. A negative threshold below 40%, an equivocal zone between 40 - 60% and a positive threshold above 60% could be determined.



TO ORDER :

Code	Description	Nb. of reactions
BIO K 298/2	Monoscreen™ AbELISA *Coxiella burnetii* _ phase I+II	2 plates / 192 tests

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