RAINBOW

CALF SCOURS - BIO K 306

(5 DEVICES - 5 PATHOGENS)

STRIPS FOR THE DETECTION OF ROTAVIRUS, CORONAVIRUS, *E. COLI* F5 (K99), *CRYPTOSPORIDIUM* AND *CLOSTRIDIUM PERFRINGENS* IN CALF FAECES

Diarrhoea is a major cause of mortality in young cattle under one month. Bovine neonatal gastroenteritis is a multifactorial disease. It can be caused by viruses (coronavirus or rotavirus), by bacteria: (Salmonella, pathogenic strains of E. coli) or by protozoa such as Cryptosporidium.The diagnosis of the etiological agent of diarrhoea can be performed only in the laboratory because the clinical signs do not suffice to distinguish between these different microorganisms. It is possible to identify these agents by means of different techniques. The ELISA technique is rapid, reliable and particularly suited to the analysis of large numbers of samples. When the number of samples to be analyzed is low, the ELISA is often too expensive. Lateral immunochromatography is gradually emerging as a reliable alternative in the diagnosis of gastroenteritis due to its simplicity, rapidity, sensitivity and specificity. The strips are particularly easy to use.

Use of the kit

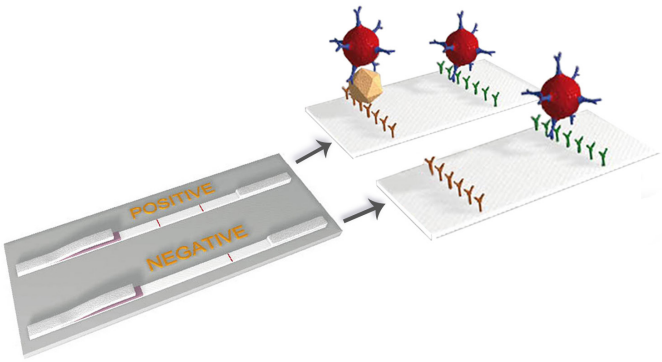
RAINBOW ™ Calf Scours-BIO K 306 is designed to detect rotavirus, coronavirus, F5 attachment factor of colibacillus, Cryptosporidium and *Clostridium perfringens* in faeces of calves.

Reliability of results

The excellent sensitivity and specificity of the RAINBOW™ Calf Scours-BIO K 306 are achieved by using monoclonal antibodies. They are used as conjugates and to capture pathogens on the membrane.
Following high quality standards, the RAINBOW™ Calf Scours-BIO K 306 is validated in comparison with the Multiscreen™ AgELISA Digestive-BIO K 348 and the Monoscreen™ AgELISA Clostridium perfringens-BIO K 269 on a large quantity of samples.

■ ABOUT THE PRODUCT : RAINBOW™ Calf Scours BIO K 306

RAINBOW™ Calf Scours-BIO K 306 strip is a vertical flow immunochromatographic device, where the antigen of interest is captured onto the membrane by a specific monoclonal antibody, whilst a second colloidal gold labelled antibody will allow the capture to be visible.



Comparaison with Monoscreen™ AgELISA Clostridium perfringens-BIO K 269 and Multiscreen™ AgELISA Digestive-BIO K 348:

- Criteria : relative sensitivity (SE), relative specificity (SP), positive predictive value (PPV), negative predictive value (NPV) and kappa concordance factor
- Scanned strips (using a strip reader)
- Validation :

E.COLI F5	REFERENCE ELISA		
RAINBOW CALF SCOURS	+	-	
+	58	8	66
-	0	44	44
	58	52	110

Se relative	100,00 %	PPV	87,88 %
Sp relative	84,62 %	NPV	100,00 %
Kappa	0,85	EXCELLENT	

CLOS. PERF.	REFERENCE ELISA		
RAINBOW CALF SCOURS	+	-	
+	137	26	163
-	25	175	200
	162	201	363

Se relative	84,57 %	PPV	84,05 %
Sp relative	87,06 %	NPV	87,50 %
Kappa	0,72	GOOD	

ROTA	REFERENCE ELISA		
RAINBOW CALF SCOURS	+	-	
+	89	5	94
-	19	268	287
	108	273	381

Se relative	82,41 %	PPV	94,68 %
Sp relative	98,17 %	NPV	93,38 %
Kappa	0,84	EXCELLENT	

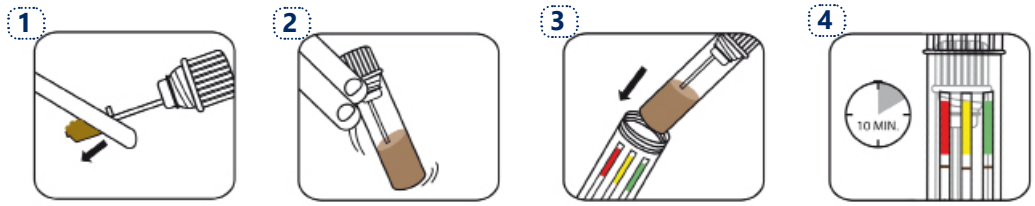
CORONA	REFERENCE ELISA		
RAINBOW CALF SCOURS	+	-	
+	38	6	44
-	6	51	57
	44	57	101

Se relative	86,36 %	PPV	86,36 %
Sp relative	89,47 %	NPV	89,47 %
Kappa	0,76	GOOD	

CRYPTO	REFERENCE ELISA		
RAINBOW CALF SCOURS	+	-	
+	132	10	142
-	12	227	239
	144	237	381

Se relative	91,67 %	PPV	92,36 %
Sp relative	95,78 %	NPV	94,98 %
Kappa	0,88	EXCELLENT	

Manipulation is extremely easy, prevents from any mistake and keeps the reading zone free from dirty marks.



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