
# RAINBOW

## CALF SCOURS - BIO K 371

*(5 DEVICES - 5 PATHOGENS)*

## STRIPS FOR THE DETECTION OF ROTAVIRUS, CORONAVIRUS, *E. COLI* F5 (K99), CS31A AND *CRYPTOSPORIDIUM* 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

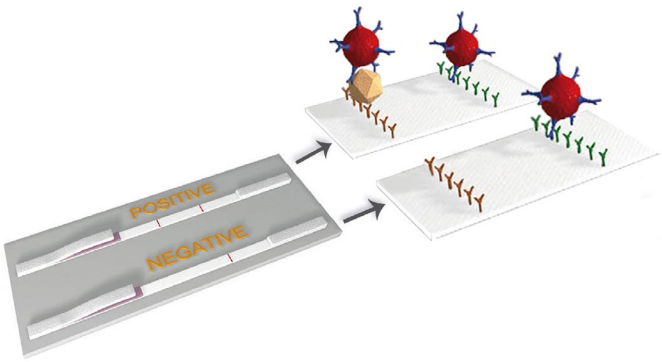
RAINBOW ™ Calf Scours-BIO K 371 is designed to detect rotavirus, coronavirus, F5 and CS31A attachment factor of colibacillus and Cryptosporidium in faeces of calves.

### Reliability of results

The excellent sensitivity and specificity of the RAINBOW™ Calf Scours-BIO K 371 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 371 is validated in comparison with the MULTISCREEN™ AgELISA Digestif-BIO K348 and the Multiscreen™ AgELISA Digestif-BIO K 366 on a large quantity of samples.

### ■ ABOUT THE PRODUCT : RAINBOW™ Calf Scours BIO K 371

**RAINBOW™ Calf Scours-BIO K 371** 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 Multiscreen™ AgELISA Digestif-BIO K 366 and Multiscreen™ AgELISA Digestif-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 | |

| E.COLI CS31A | | REFERENCE ELISA | | |
|---|---|---|---|---|
| RAINBOW CALF SCOURS | | + | - | |
| | + | 25 | 3 | 28 |
| | - | 6 | 104 | 110 |
| | | 31 | 107 | 138 |

| | | | |
|---|---|---|---|
| Se relative | 80,65 % | PPV | 89,29 % |
| Sp relative | 97,20 % | NPV | 94,55 % |
| Kappa | 0,81 | EXCELLENT | |

| 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 | |

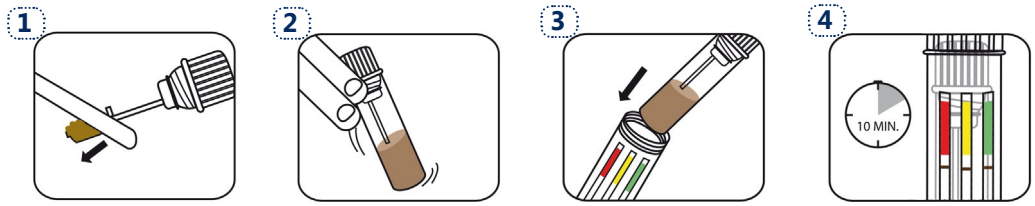
| CORONA | | REFERENCE ELISA | | |
|---|---|---|---|---|
| RAINBOW CALF SCOURS | | + | - | |
| | + | 38 | 6 | 44 |
| | - | 6 | 51 | 57 |
| | | 44 | 57 | 101 |

| | | | |
|---|---|---|---|
| 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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