



The PortaCheck RAINBOW Calf Scours is a solid phase immunochromatographic set of assays designed as a screening tool for the detection of rotavirus, coronavirus, *E. coli* F5 (K99), and *Cryptosporidium* in the feces of calves.

SUMMARY AND EXPLANATION

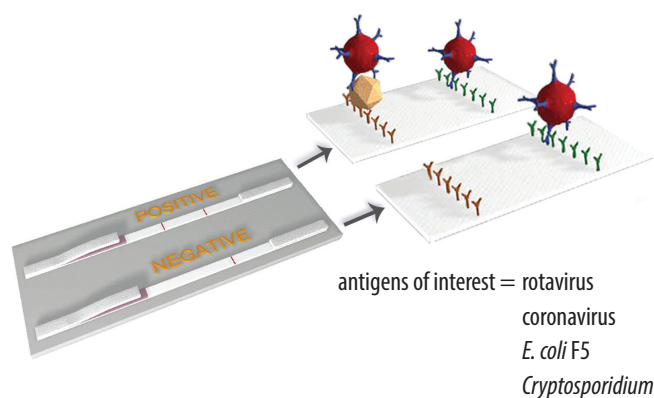
Calf scours (diarrhea) is a commonly reported disease in young animals and a major cause of productivity and economic loss to cattle producers. [Cho, Y & Yoon, K (2014) J Vet Sci] A report issued by the USDA in 2007 suggested that scours, diarrhea, or other digestive problems accounted for over half of unweaned calf deaths in the US.

Multiple pathogens are known to cause or contribute to the development of calf scours. Environment and management practices are also known to influence disease severity and outcomes. Testing is necessary for an accurate assessment of an underlying problem.

The new on-farm PortaCheck RAINBOW Calf Scours screening test provides veterinarians with information for the management of calf diarrhea.

TEST PRINCIPLE

The PortaCheck RAINBOW Calf Scours device consists of vertical flow immunochromatographic test strips. Each test strip has a specific monoclonal antibody (row of gold Y's) that captures the antigen of interest (gold tetrahedron) onto the membrane. At the same time, a second antibody labeled with colloidal gold (red sphere) is also binding to the antigen of interest and to the control line (row of green Y's), allowing one or two reddish-purple lines to become visible.



PRECAUTIONS

- For veterinary use only.
- Store kits in a dry place at room temperature.
- Do not use expired devices.
- Wear gloves while carrying out the test.
- Do not take a sample volume that is greater than a spoonful, otherwise the sample for analysis will be too concentrated.
- Dispose of the device in keeping with legislation on environmental protection and management of biological waste.

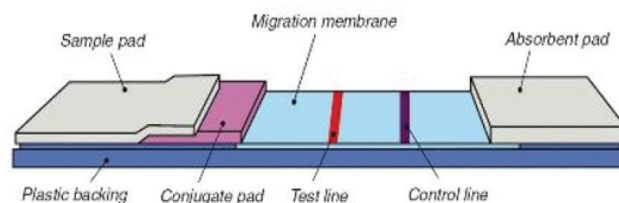
MATERIALS

Each PortaCheck RAINBOW Calf Scours device is packaged in a sealed foil pouch with desiccant and comes with a sample tube and wooden spatula. Each device consists of four vertical flow immunochromatographic test strips. Each test strip has a specific monoclonal antibody to capture an antigen of interest.

Not Provided

- *Gloves*
- *Timing device*

SCHEMATIC





PROCEDURE



- Take the feces directly from the rectum of the calf. If the samples are liquid, take a spoonful.



- If feces are solid, remove the excess amount using spatula.



- Add feces to the liquid in the small (sample) tube in order to dilute the fecal content.



- Shake the sample to homogenize well.



- Tap the sample tube on a hard surface so that all the liquid is collected at the bottom of the tube.



- Tear the aluminum pouch open at the notch. Once the device has been taken out of the pouch, it has a short stability, especially in a humid environment.



- Insert the sample tube into the strip tube.



- Screw the sample tube onto the strip tube. You must hear two separate clicks, indicating perforation of the superior and inferior septa of the sample tube.

Leave the device **standing on a flat surface** and wait 10 minutes.

The liquid contained in the sample tube moves to the strip tube and slowly migrates through the strips.

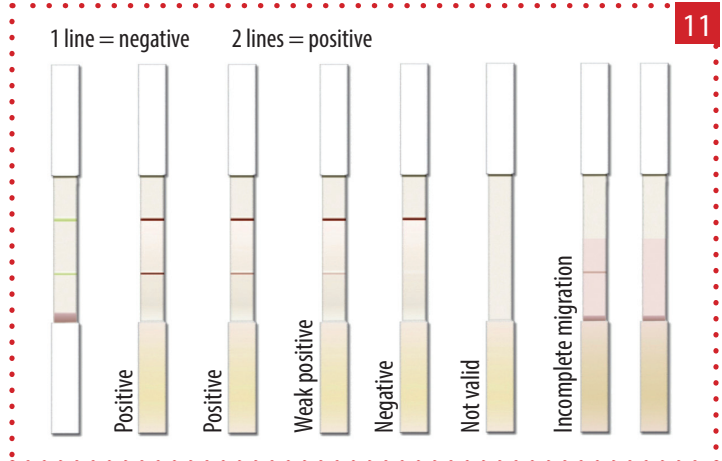


- Sometimes, especially when the sample is not homogenized, liquid migration can stop on one or more strips. In that case, tap the end of the strip tube on a hard surface to start migration again.



- After 10 minutes, read the results using picture 11 for guidance.

Rota	Red Strip
Corona	Yellow Strip
E. coli F5	Blue Strip
Crypto	Green Strip



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