

**Lateral flow test for detection antibodies to Foot and Mouth Disease Virus**  
**« LTFLOW FMD »**

**INTENDED USE**

«LTFLOW FMD» is an immunochromatographic assay for the detection of antibodies to Foot and Mouth Disease (FMD) virus in animal serum, plasma or whole blood.

Animal species: cattle, sheep, goats, camels, pigs and artiodactyls wildlife species

Sample: serum, plasma, whole blood.

Assay time: 15-20 minutes

Test sensitivity – 100%

Test specificity – 95%

**PRINCIPLE OF THE ASSAY**

«FMD Ltfow» is a recombinant antigen based lateral flow immunoassay. It is composed of a pad containing colloidal gold particles coated with recombinant 3ABC FMD virus antigen. A second area of the test strip has a membrane that is coated with the same FMD virus antigen. During the test, if non-structural 3ABC specific antibodies are present in the sample they bind to the antigens on the colored particles. The complex of antibody-antigen then migrates through the membrane and is captured by the recombinant antigens immobilized in the test region. This captured complex shows up as a pink to red line.

Absence of a line in the test region (T) suggests a negative result. The test contains an internal control in the control region (C) that should always show up as a pink-red line regardless of the test line result.

**KIT COMPONENT**

1. Lateral flow tests (35 strips in desiccant vial)
2. Assay buffer (12ml in bottle with dropper)
3. Disposable tube (35 pieces)
4. Product Manual

**ADDITIONAL MATERIALS AND EQUIPMENT REQUIRED**

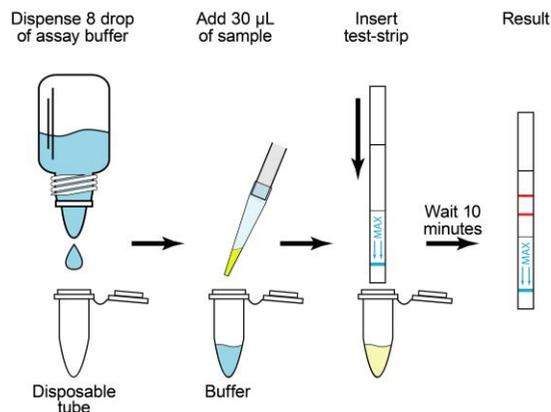
1. Automatic single-channel pipette (5-40 µL)
2. Disposable pipette tips (1-200 µL)
3. Microcentrifuge tube rack
4. Timer
5. Disposable gloves;
6. Disinfectants
7. Biohazard waste containers for potentially contaminated materials

**SAMPLE PREPARATION**

Collect animal serum, plasma or whole blood (with anticoagulant) for assay according to standard procedure. Do not use sample showing hemolysis or being contaminated with microbes.

**TEST PROCEDURE**

1. When sample and test kits are stored at cold circumstances, put them at room temperature for 15-30 minutes before use.
2. Using dropper, dispense 8 drop of assay buffer in a disposable tube.
3. Add 30 µL of serum (whole blood or plasma) into a buffer tube, mix.
4. Take out a test strip from a vial. Holding the strip vertically, dip it with the arrow end into the tube with sample.
5. Wait for 10 minutes and read results between 10 and 20 minutes. Don't read results after 20 minutes.

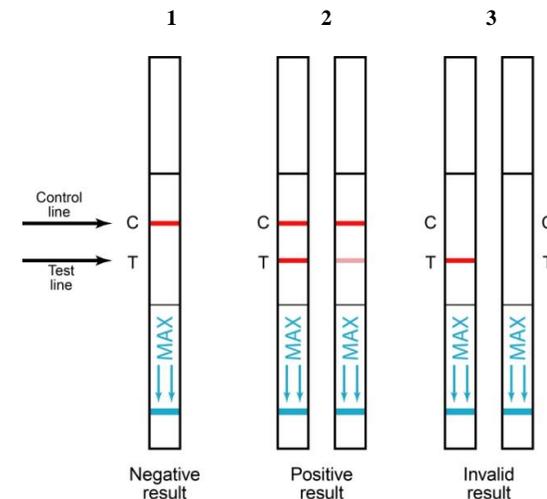


**INTERPRITATION OF RESULTS**

A purple band should appear on the control line regardless of the test result. The presence of another band on the test line determines the result.

**Control Line (C):** The line should always appear regardless of the presence of the antibodies of FMD virus. If this line does not appear, the test should be considered invalid. This might be because of impure or the lack of sample. It should be tested again with another kit.

**Test Line (T):** The presence of antibodies of FMD virus the test line



**1. Negative:** Control line only appears

**2. Positive:** Both Test and Control lines appear

**3. Retesting (invalid result):**

- Test line only appear
- Both Test and Control lines do not appear.

**NOTE**

In the case animals were vaccinated by vaccine contaminated with 3 ABC false positive results could appeared. Always positive samples must be confirmed by ELISA or/and PCR.

**PRECAUTIONS**

1. For the best results please strictly adhere to this instruction.
2. Use for in-vitro diagnostic purposes only.
3. Use within 10 minutes after opening the vial, because the test strips is very sensitive to moisture and its effect may diminish.
4. Do not use the kit when its expiration date is passed.
5. Be careful of not touching the test zone of the test-strips.
6. Every sample should be used with different pipette tips.
7. Do not use specimen showing hemolysis or being contaminated with microbes, which may cause false positive or false negative result.
8. Use disposable gloves when you suspect the infection caused by sample. And wash your hands later.
9. Dispose solid wastes after sterilizing them at 121 °C for over 1 hour.

**STORAGE**

The kit should be stored at temperature (8-25 °C). The test kit is stable during the expiration date (12 months) marked on the vial. Do not freeze. Do not store the kit in direct sunlight.