LOEWE®

Product Manual

LOEWE®FAST Lateral Flow Kit

Test Principle

LOEWE®FAST test kits are a serological diagnostic method based on the lateral flow technology using specific antibodies for rapid detection of plant pathogens. A positive sample will interact through antigen-antibody interaction at the test position (T) whereas a negative sample does not. In both cases a red line at the control position (C) should appear indicating that the test has been performed correctly.

Content of the Kit

	5 tests	20 tests	50 tests
Single-use test cassettes	5x	4x5	2x25
Pre-filled tubes with sample buffer (0.9 ml per tube)	5x	4x5x	50x
Single-use pipettes for sample application	5x	4x5x	50x

Handling and Storage of the Test Kit

- **Please carefully read the manual in order to get the best result possible from your test kit!**

- **Storage and Shelf Life:** up to 1 year at room temperature if unopend, do not freeze or refrigerate!

- **IMPORTANT**! Unpack the test cassettes only shortly prior usage and **reseal the pouch with test cassettes not immediately used! Do not remove desiccant bag(s) from the package!** Do not expose the test cassettes to moisture!

Sample Preparation

Depending on the test kit you have purchased there are different procedures for sample preparation.

Testing for BACTERIA in cultivated colonies from AGAR PLATES (for bacterial tests only)

- Carefully lift a colony from the surface of the agar-plate and resuspend the bacteria colony in the tube filled with sample buffer.
- The ideal concentration should be about 10^7-10^6 bacteria per ml. The sample is now ready for testing.

Testing suspicious PLANT MATERIAL

1. Method:

- By using the cap of the sample buffer pre-filled tube, punch out a piece of a symptomatic leaf or remove about 0.5 cm2 of tissue and place it into the tube pre-filled with sample buffer.
- Homogenize the tissue in the tube.

  (Suitable micro-pestles for homogenization can be purchased separately: Cat. No. LF07810.)

  ➔ The sample is now ready for testing.

2. Method – mixed samples

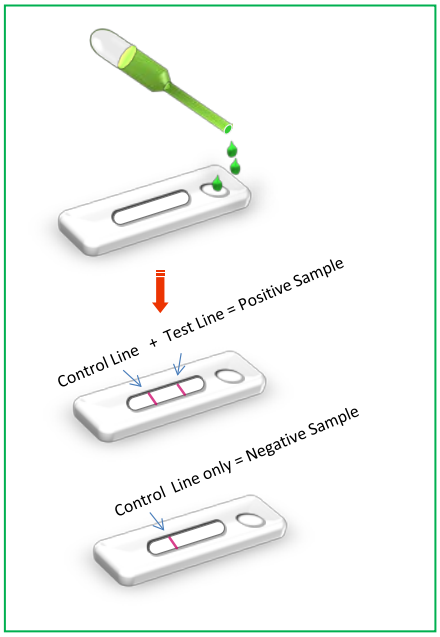
- Collect about 1 g of plant material from different portions of the plant, homogenize the tissue in a plastic bag, fill with 10 ml of 1 x PBS solution and mix.

  (*Buffer for the preparation of mixed samples can be ordered separately: Cat.No.: LF700BU/001)*

- Transfer 3 drops (or 100 µl) of this diluted plant sap to the tube pre-filled with sample buffer and mix thoroughly. Do not use any other buffer for this step to guarantee test performance!

  ➔ The sample is now ready for testing.

Running the Test



- Remove one test cassette and one pipette for each sample to be tested from the aluminium pouch. **Reseal the pouch tightly!**

  Place the cassette on a solid flat surface with the windows facing up. Slowly apply 3-4 drops of the prepared sample solution (see section Sample Preparation) into the circular sample application well with the provided pipette.

- Within 5 – 10 minutes one or two red lines should appear in the long window. The line closer to the sample application well is the Test Line and will only form in case the sample is positive. The second line is the Control Line and will always appear, to indicate that the test has been performed correctly.

  Note: Also see 'Interpretation of Results'

Interpretation of the Results

- After 15 minutes the test result can be interpreted. **Do not read test results after 30 minutes or more!**

- The formation of a red line at the T-position is interpreted as a positive sample, e.g. the pathogen is detectable in the sample.

  Note: A strong line indicates a high pathogen concentration in the sample. In this case the C-line often appears fainter than the T-line. If the infection level is very high, it is possible that only the T-line is visible. It is advisable to repeat the test with a higher dilution (e.g. 1:100 of the previous dilution).

Positive Sample *Negative Sample*

For questions or technical advice please contact us at service@loewe-info.com!

Watch our instruction videos here:

Plant Bacteria Plant Viruses