

AFM1 (Aflatoxin M1) Lateral Flow Assay Kit

Catalog No: E-TO-C009

50T

Version Number:	V1.4
Replace version:	V1.3
Revision Date:	2025.03.20

This manual must be read attentively and completely before using this product.

If you have any problems, please contact our Technical Service Center for help.

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017

Email: techsupport@elabscience.com

Website: www.elabscience.com

Please kindly provide us the lot number (on the outside of the box) of the kit for more efficient service.

Test principle

This kit uses the principle of Immunochromatography assay for the qualitative detection. It can detect Aflatoxin M1 (AFM1) in samples, such as raw milk, milk, etc. After adding the sample solution into the gold-labelled micro well, AFM1 in the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with AFM1 conjugate on the cellulose membrane. When the concentration of AFM1 in the sample solution is more than the detection limit, the detect line do not show color (or shows lighter color than control line) and the result is positive. When the concentration of AFM1 in the sample solution is less than the detection limit, the detect line show color (show equal or darker color than control line) and the result is negative.

Technical indicator

Detection limit: Raw milk, Milk, Milk powder---0.035 ppb

Kits components

Item	Specifications
Detection Card	50T
Gold-labelled micro well	50
Manual	1 copy

Other materials required but not supplied

Instruments: Incubator or water bath, Graduated pipette.

High-precision transferpettor: Single channel (20-200 μ L).

Notes

1. FOR RESEARCH USE ONLY. Do not use product out of date or in a broken aluminum foil.
2. The detection card should be adjusted to room temperature after removed from the refrigerator before opening. The opening detection card should be used as soon as possible so as not to be invalid because of moisture.
3. Avoid of contacting the white membrane at the middle of the sample well.
4. The tested sample should be clear, no turbidity particle and no bacterial pollution, otherwise it is easy to result in abnormal phenomena such as obstruction, unobvious color, etc., which affect the judgment of the experiment result.
5. If the samples are not indicated in the manual, a preliminary experiment to determine the validity of the kit is necessary.
6. The kit is used for rapid screening of actual samples. If the test result is positive, the instrument method such as HPLC, LC/MS, etc. can be used for quantitative confirmation.
7. Each reagent is optimized for use in the E-TO-C009. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-TO-C009 with different lot numbers.

Storage and expiry date

Storage: Store at 2-30℃. With cool and dry environment.

Expiry date: expiration date is on the packing box.

Sample pretreatment

Restore all reagents and samples to room temperature before use.

1. Sample pretreatment Notice:

Do not mix test cards and gold-labelled micro well from different batch numbers. Once opened, please use the test cards within 48 hours (at a humidity level below 60%).

2. Sample pretreatment procedure:

The temperature of the experimental environment must be more than 25℃. The frozen raw milk is obviously granules, which is easy to cause the running plate to be incomplete. At this time, the frozen raw milk must be heated or centrifuged to take the intermediate sample for testing.

Note: Detection limit: 0.035 ppb

Experiment procedure

For Raw milk, Milk:

1. Before conducting the test, please carefully read the product manual and allow both the milk samples to be tested and the kit components to reach room temperature (Note: Ensure that the milk samples do not have clumps, are not sour, or contain sediment).
2. Open the aluminum foil bag and take out the required number of **gold-labelled micro well** and test cards (Note: After removing the necessary micro-wells, immediately seal the aluminum foil bag to prevent moisture absorption).
3. Thoroughly shake the milk sample to ensure it is well-mixed, then pipette 200 µL into the **gold-labelled micro well**. Gently blow and aspirate to completely dissolve the purple-red particles at the bottom of the well (Note: Operate gently to avoid generating bubbles). Place the **gold-labelled micro well** in a 40 ℃ incubator for 10 minutes.
4. After incubation, pipette 140 µL of the liquid from the micro-well and add it to the sample application area of the test card. Allow it to react at room temperature for 10 minutes before interpreting the results.

For Milk powder:

1. Weigh 1.00 ± 0.05 g of milk powder and place it into a 10 mL centrifuge tube. Add 8 mL of deionized water and mix well.
2. Take 200 µL into the **gold-labelled micro well**. Gently blow and aspirate to completely dissolve the purple-red particles at the bottom of the well (Note: Operate gently to avoid generating bubbles). Place the **gold-labelled micro well** in a 40 ℃ incubator for 10 minutes.
3. After incubation, pipette 140 µL of the liquid from the micro-well and add it to the sample application area of the test card. Allow it to react at room temperature for 10 minutes before interpreting the results.

Judgment of result

1. **Negative:** The control line region (C) show color, the test line region (T) shows equal or darker than line C. It indicates the content of AFM1 in the sample is lower than detection limit or the sample doesn't contain AFM1.
2. **Positive:** The control line region (C) show color, the test line region (T) shows no color or lighter color than line C. It indicates the content of AFM1 in the sample is higher than detection limit.
3. **Invalid:** The control line region (C) shows no color. It indicates operation process is wrong or the test card is invalid.

