MEL (Melamine) Lateral Flow Assay Kit

Catalog No: E-FS-C009

20T/40T

Version Number:	V1.3
Replace version:	V1.2
Revision Date:	2026.02.27

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 Melamine (MEL) in raw milk, milk and feed sample. After adding the sample solution into the sample well of detection card, MEL of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with MEL conjugate on the cellulose membrane. When the concentration of MEL in the sample solution is more than the detection limit, the detect line do not show color and the result is positive. When the concentration of MEL in the sample solution is less than the detection limit, the detect line show color and the result is negative.

Technical indicator

Detection limit: Raw milk, Milk---100 ppb; Feed---1 ppm

Kits components

Item	Specifications
Detection Card (with disposable dropper)	20 T/40T kit
Reconstitution Buffer	30 ml/60 mL
Manual	1 copy

Note: All reagent bottle caps must be tightened to prevent evaporation and microbial pollution.

Other materials required but not supplied

Instruments: Homogenizer, Nitrogen Evaporators, Water bath, Centrifuge, Graduated pipette, Balance (sensibility 0.01g), Oscillators, EP tubes.

Micropipette: Single channel (20-200 μL, 100-1000 μL)

Reagent: HCl, NAOH

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 Do not use product out of date or in a broken aluminum foil.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 whitemembrane at the middle of the sample well.
4. The disposable dropper cannot be mixing to avoid the cross-contaminant.
5. 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.
6. **Each reagent is optimized for use in the E-FS-C009. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-FS-C009 with different lot numbers.**
7. 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**.**

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:

Experimental apparatus should be clean, and the disposable dropper should be disposable to avoid the experiment result be interfered by the contamination.

2. Sample pretreatment procedure:

The sample must be fresh and free of contamination and no deterioration.

2.1 Pretreatment of raw milk/milk (fat milk) sample:

Take a little amount of fresh raw milk/milk (fat milk) sample into centrifuge tube, centrifuge at 4000 r/min for 5 min. Add the milk sample solution which is only at the middle of the centrifuge tube into the sample well. (If no centrifuge is available, oscillate the sample and take 4-5 drops of the intermediate layer sample directly into the sample well)

Limit of detection: 100 ppb

2.2 If the sample does not penetrate the C line, just dilute the sample with deionized water (sample: deionized water =1:1, V/V), and then add 4-5 drops of the sample into the sample well directly.

Limit of detection: 200 ppb

2.3 Pretreatment of feed sample:

(1) Grind the feed sample, weigh 2.0±0.05g of ground feed sample, add 2 ml of 1M HC1, and homogenize with 16 ml of deionized water.

(2) Vortex for 1 min and oscillate on the oscillator for 2 min.

(3) Centrifuge at 4000 r/min for 15 min, take out 10 mL of supematant and adjust the pH to 6-8 with 1M NaOH.

Note: Due to different feed samples, the amount of 1M NaOH added may vary. Adjust according to the situation, and the general range of addition is between 0.5ml-1mL.

(4) Centrifuge at 4000r/min for 15 min and aspirate the supernatant (if the supemnatant is still turbid, increase the speed or filter with filter paper).

(5) Dilute the supematant 10 times with the reconstitution buffer (take 100 uL of supernatant and add 900 uL of reconstitution buffer, mix well), and use as the test sample.

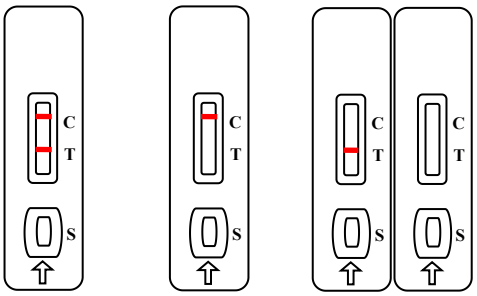
Limit of detection: 1 ppm

Experiment procedure

1. Tear the aluminum foil bag of the detection card and take out the detection card, and put it on a smooth, clean table.
2. Take the prepared sample liquid with the matching disposable dropper, add 4-5 drops (about 150 μL) of sample to the sample well (S) vertically and slowly (Avoid foaming).
3. Incubate for 5 to 8 minutes and then judge the results immediately.

Judgment of result

1. **Negative:** The control line region (C) and the test line region (T) both show a line. It indicates the content of MEL in the sample is lower than detection limit or the sample doesn't contain MEL.
2. **Positive:** Only the control line region (C) show a line. It indicates the content of MEL in the sample is higher than detection limit.
3. **Invalid:** The control line region (C) does not show a line. It indicates operation process is wrong or the test card is invalid.



Negative Positive Invalid