β-lactamase (Beta Lactamase) Lateral Flow Assay Kit

Catalog No: E-FS-C106

20T/40T/80T

Version Number:	V1.4
Replace version:	V1.3
Revision Date:	2026.04.22

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 β-lactamase (Beta-Lactamase) in milk samples. After adding the sample solution into the sample well of detection card, β-lactamase in the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with β-lactamase conjugate on the cellulose membrane. When the concentration of β-lactamase 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 β-lactamase in the sample solution is less than the detection limit, the detect line show color (shows equal or darker color than control line) and the result is negative.

Technical indicator

Detection limit:

Warm incubation time	Detection sensitivity
5 min	20 U/mL
10 min	10 U/mL
20 min	5 U/mL
30 min	3 U/mL

Kits components

Item	Specifications
Detection card (contains disposable dropper and gold-labelled micro well)	20/40/80 T/kit
1.5 mL graduated tube (containing drug-sensitive tablets)	20/40/80 pieces
Manual	1 copy

Other materials required but not supplied

Instruments: Homogenizer, Centrifuge, Graduated pipette, Balance (sensibility 0.01g), Water bath.

High-precision transferpettor: Single channel (20-200 μL, 100-1000 μL).

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 Do not use product out of date or in a broken aluminum foil.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 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. If the samples are not indicated in the manual, a preliminary experiment to determine the validity of the kit is necessary.
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.
8. Each reagent is optimized for use in the E-FS-C106. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-FS-C106 with different lot numbers.

Storage and expiry date

Storage: Store at 2-8℃. 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:**

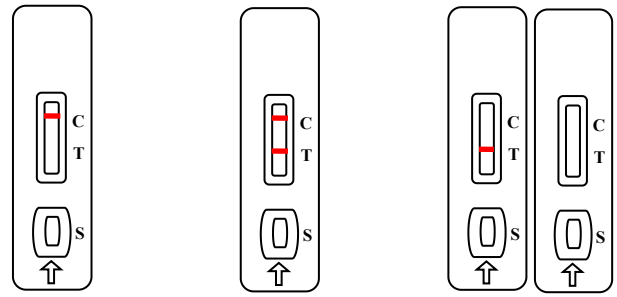
   Experimental apparatus should be clean, and the disposable dropper should be disposable to avoid the experiment result be interfered by the contamination. The samples to be tested must be uniform liquids without any agglomeration, sourness or sediment.
2. Take the matched 1.5 mL graduated tube (containing drug-sensitive tablets) from the kit (do not remove the small tablet inside the tube).
3. Pipette 1 mL of raw milk into the **1.5 mL graduated tube** (containing drug-sensitive tablets), and mix thoroughly with a dropper for 10 seconds; (ensure the tablet is fully immersed in the milk sample during incubation).
4. Select the warm incubation time according to the data in **Detection limit**.
5. After incubation, mix the sample thoroughly with a dropper for 10 seconds, then transfer 150 µL of the milk sample (7-8 drops with the matched dropper) into the **gold-labelled micro well** for testing.

Experiment procedure

1. Tear the aluminum foil bag of the detection card and take out the detection card, gold-labelled micro well and dropper, put them on a smooth, clean table. Please use it as soon as possible within 60 min.
2. Use the matched dropper to draw 150 μL (7-8 drops with the matched dropper) of the prepared milk sample liquid and add it into the **gold-labelled micro well**. After 2 minutes, thoroughly mix the gold conjugate and milk sample liquid in the micro well with the dropper. After another 2 minutes, draw all the test mixture from the gold-labelled micro well with the matched dropper and directly add it into the sample well (S) of the test strip.
3. Read the result after standing at room temperature for 10 minutes. Results obtained after 30 minutes are invalid.

Judgment of result

1. **Negative:** The control line region (C) show color, the test line region (T) shows no color. It indicates the content of β-lactamase in the sample is lower than detection limit or the sample doesn't contain β-lactamase。
2. **Positive:** The control line region (C) show color, the test line region (T) shows equal than line C. It indicates the content of β-lactamase 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.



Negative Positive Invalid