AF (Total Aflatoxin) Lateral Flow Assay Kit

Catalog No: E-TO-C005

20T/50T/80T

Version Number:	V1.4
Replace version:	V1.3
Revision Date:	2024.10.11

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 Total Aflatoxin (AF) in samples, such as grain, feed, etc. After adding the sample solution into the sample well of detection card, AF of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with AF conjugate on the cellulose membrane. When the concentration of AF in the sample solution is more than the Limit of Detection, the detect line do not show color and the result is positive. When the concentration of AF in the sample solution is less than the Limit of Detection, the detect line shows color and the result is negative.

Technical indicator

Limit of Detection: Grain, Feed, Oil ---5 ppb

Kits components

Item	Specifications
Detection Card (with disposable dropper)	20/50/80T /kit
Manual	1 copy

Other materials required but not supplied

Instruments: Homogenizer, Oscillators, Centrifuge, Graduated pipette, Balance (sensibility 0.01 g),
High-precision transferpettor: Single channel (20-200 μL, 100-1000 μL)
Reagents: Methanol, N-hexane

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 Do not use product out of date or in a broken aluminum foil.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-TO-C005. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-TO-C005 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.

Experimental preparation

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. **Solution preparation**

   Solution 1: 70% Methanol.

   Methanol (V): Deionized water (V) =7:3.

3. **Sample pretreatment procedure:**

3.1 Pretreatment of grain, feed sample:

(1) Weigh a certain amount of crushed homogenate, add **70% Methanol** (Solution 1) according to the different Limit of Detection as the following table:

Weight of sample	2 g	2 g	2 g	1 g	1 g
Limit of Detection	5 ppb	10 ppb	20 ppb	50 ppb	100 ppb
70% Methanol	4 mL	8 mL	16 mL	20 mL	40 mL

Vortex for 5 min. Centrifuge at 4000 g for 5 min at room temperature.

(2) Take 0.1 mL of the supernatant, add 0.15 mL of deionized water. Mix thoroughly for use.

Note: Limit of Detection: 5 ppb

3.2 Pretreatment of oil (vegetable oil, sesame oil, salad oil, peanut oil, etc.) sample:

(1) Weigh a certain amount of sample, add **70% Methanol** (Solution 1) according to the different Limit of Detection as the following table:

Weight of sample	1 g	1 g	1 g	0.5 g	0.5 g
Limit of Detection	5 ppb	10 ppb	20 ppb	50 ppb	100 ppb
70% Methanol	2 mL	4 mL	8 mL	20 mL	40 mL

Add 8 mL of **N- hexane**. Vortex for 5 min and centrifuge at 4000 g for 10 min at room temperature.

(2) Remove the supernatant and take 0.1 mL of the lower layer liquid. Add 0.15 mL of deionized water, mix thoroughly for use.

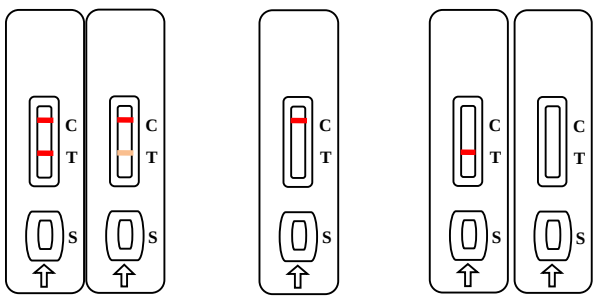
Note: Limit of Detection: 5 ppb

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 pretreated sample with the matching disposable dropper, add 3 drops (about 60 μL) of sample to the sample well (S) vertically and slowly (Avoid foaming).
3. Incubate for 8 to 10 minutes and then judge the results immediately.
   Note: Results over 10 minutes should only be used as a reference.

Judgment of result

1. **Negative:** The test line region (T) and the control line region (C) shows a line at the same time in the observation well. It indicates the content of AF in the sample is lower than Limit of Detection or the sample doesn't contain AF.
2. **Positive:** Only the control line region (C) shows a line in the observation well. It indicates the content of AF in the sample is higher than Limit of Detection.
3. **Invalid:** The control line region (C) does not show a line in the observation well. It indicates operation process is wrong or the test card is invalid.



Negative Positive Invalid