T-2 (T-2 Toxin) Lateral Flow Assay Kit
Catalog No: E-TO-C012
20T/50T/80T

Version Number:	V1.2
Replace version:	V1.1
Revision Date:	2024.03.14

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 T-2(T-2 Toxin) in samples, such as grain, feed, etc. After adding the sample solution into the sample well of detection card, T-2 in the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with T-2 conjugate on the cellulose membrane. When the concentration of T-2 in the sample solution is more than the detection limit, the detect line do not show color reaction (or shows lighter color than control line) and the result is positive. When the concentration of T-2 in the sample solution is less than the detection limit, the detect line shows color (shows equal or darker color than control line) and the result is negative.

Technical indicator

Detection limit: Grain, Feed---10 ppb.

Kits components

Item	Specifications
Detection card (with disposable dropper)	20/50/80 T/kit
Reconstitution Buffer	1/2/3 vials
Manual	1 copy

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

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 Do not use product out of date or in a broken aluminum foil.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-C012. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-TO-C012 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.

Other materials required but not supplied

Instruments: Homogenizer, Centrifuge, Graduated pipette, Balance (sensibility 0.01g), Oscillators, Nitrogen evaporators, water bath.

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

Reagent: Ethyl acetate

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**

2.1 Pretreatment of grain (rice, wheat, corn, etc.), Feed:

(1) Weigh 2±0.05 g of crushed sample into 15 mL centrifuge tube, add 3 mL of **Ethyl acetate**, and oscillate for 3 min.

(2) Centrifuge at 4000 r/min at room temperature for 3 min.

(3) Take 1 mL of supernatant to another 5 mL centrifuge tube, blow-dry in nitrogen evaporators/water bath at 50-60℃.(Part of the yellow grease on the bottom layer is normal)

(4) Dissolve the residual with 0.3 mL of **Reconstitution Buffer**, oscillate for 30 s.

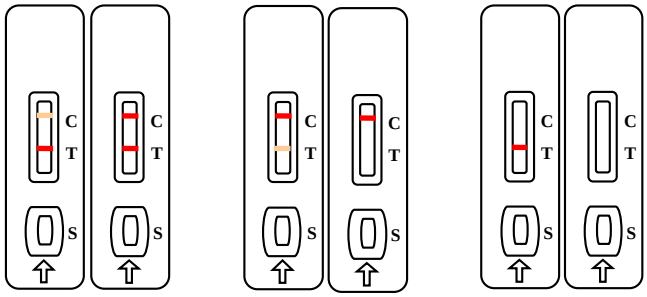
Note: Detection limit: 10 ppb

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 prepared sample with the matching disposable dropper, add 4-5 drops (about 120 μL) of sample to the gold-labelled micro well, wait for 2 min, whip the purple residual with a burette until it is completely dissolved (Avoid foaming), wait for 2 min again, remove all the liquid of the gold-labelled micro well into the sample well, count down at the same time.
3. Incubate for 5 to 8 minutes and then judge the results immediately.

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



Negative Positive Invalid