Elabscience®

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（FOR RESEARCH USE ONLY. DO NOT USE IT IN CLINICAL DIAGNOSIS !）

ZEN (Zearalenone)Rapid Test Kit

Catalog No: E-TO-C002

50T

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.

Phone: 240-252-7368(USA)240-252-7376(USA)
Email: techsupport@elabscience.com
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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 competitive-inhibition-GICA. It can detect Zearalenone(ZEN)in samples, such as grain, formula feed, etc.After adding the sample solution into the sample well of detect card, ZEN of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with ZEN conjugate on the cellulose membrane. When the concentration of ZEN in the sample solution is more than the detection limit, the detect line do not show color reaction and the result is positive. When the concentration of ZEN in the sample solution is less than the detection limit, the detect line shows purple and the result is negative.

Technical indicator

Sensitivity:10ppb (ng/mL)

Note: The final detection limit of sample equal to the result of sensitivity multiply by dilution ratio of sample pretreatment.

Detection limit: Grain/Formula feed (no need to be blow-dry) ---100ppb
Grain/formula feed (need to be blow-dry) ---60ppb
Oil ---100 ppb

Kits components

Item	Specifications
Detect card	50T/kit
Manual	1 copy

Other supplies required

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

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

Reagent: Methanol.

Sample pretreatment

1. **Sample pretreatment Notice:**Experimental apparatus should be clean, and the pipette should be disposable to avoid the experiment result be interfered by the contamination.

2. **Reagent preparation**
   Reagent 1(sample extracting solution):70% methanol. That is, methanol: deionized water(volume)=7:3.

3. **Sample pretreatment procedure:**

3.1 Grain, formula feed (no need to be blow-dry):

(1) Weigh 2g of crushed homogenate to a 50mL centrifuge tube, add sample extracting solution according to the different detection limit as the following table:

Detection limit	100ppb	200ppb	400ppb	500ppb
Sample extracting solution	3mL	6mL	12mL	15mL

(2) Oscillate hardly for 5min.Centrifuge at 4000r/min for 5min at room temperature.

(3) Take 0.15mL of the supernatant, add 0.85mLof deionized water. Mix thoroughly to be used.

Note: Sample dilution factor: 10, Detection limit: 100 ppb

3.2 Grain, formula feed (need to be blow-dry):

(1) Weigh 2g of crushed homogenate to a 50mL centrifuge tube, add 4mL of sample extracting solution. Oscillate hardly for 5min and centrifuge at 4000r/min for 5min at room temperature.

(2) Take 1mL of the supernatant, blow-dry the liquid with nitrogen or air at 50-60℃ condition.

(3) Add 0.45mLof 70% ethanol to dissolve the rest of the residue, oscillate strongly for 2min.

(4) Take 0.15mL of the supernatant, add 0.85mLof deionized water, mix thoroughly to be used.

Note: Sample dilution factor: 6, Detection limit: 60ppb

3.3 Oil (vegetable oil, sesame oil, salad oil, peanut oil, etc.):

(1) Weigh 2g of oil sample to a 50 mL centrifuge tube, add 4 mL of sample extracting solution. Oscillate for 5min and centrifuge at 4000r/min for 5min at room temperature.

(2) Take 0.15 mL of the supernatant, add 0.85 mL of deionized water. Add 2 mL of deionized water, mix thoroughly to be used.

Note: Sample dilution factor: 10, Detection limit: 100 ppb

Experiment procedure

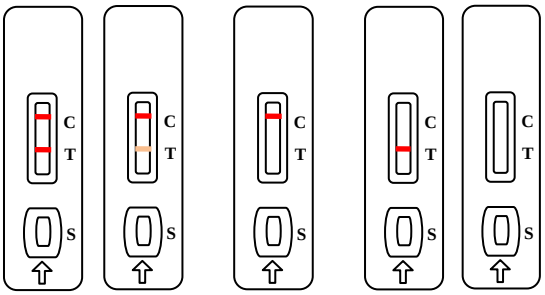
1. Tear the aluminum foil bag of the detect card and take out the detect card, and put it on a smooth, clean table.
2. Take the prepared clear sample supernatant with the matching straw, add 2-3 drops (about 60μL) of sample to the sample well (S) vertically and slowly.
3. Keep the detect card at room temperature for 8-10min, then judge the result. The result can only be considered as a reference if lasts for more than 10 min.

Judgment of result

Negative: the test line region (T) and the control line region (C) shows a purple line at the same time in the observation well.

Positive: only the control line region (C) shows a purple line in the observation well.

Invalid: the control line region (C) does not show a purple line in the observation well.



Negative Positive Invalid

Notes

1. Do not use product out of date or in a broken aluminum foil.
2. The detect card should be adjusted to room temperature after removed from the refrigerator before opening. The opening detect 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 droplets 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 inabnormal phenomena such as obstruction, unobvious color, etc., which affect the judgment of the experiment result.

Storage and valid period

Storage: Store at 2-30℃ with dry condition.

Valid Period: 1 year, production date is on the packing box.