

7th Edition, revised in April, 2017

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

DON (Deoxynivalenol) Rapid Test Kit (50ppb)

Catalog No: E-TO-C003

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

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 competitive-inhibition-GICA. It can detect Deoxynivalenol (DON) in samples, such as grain, formula feed, etc. After adding the sample solution into the sample well of detect card, DON of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with DON conjugate on the cellulose membrane. When the concentration of DON 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 DON in the sample solution is less than the detection limit, the detect line shows purple and the result is negative.

Technical indicator

Sensitivity: 50ppb (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 ---500ppb, Oil---250ppb

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 transferpette: Single channel(20-200 μ L, 100-1000 μ L)

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. **Sample pretreatment procedure:**

2.1 Grain, formula feed:

- (1) Take 1g of crushed homogenate to a 50mL centrifuge tube, add 10mL of deionized water. Oscillate for 5min and centrifuge at 4000r/min for 10min at room temperature.
- (2) Take 60 μ L of the supernatant to analyze.

Note: Sample dilution factor: 10, Detection limit: 500ppb

Dilute methods of different detection limit:

Crushed sample	1g	1g	1g	1g
Deionized water	5mL	10mL	20mL	40mL
Dilution factor	5	10	20	40
Detection limit	250ppb	500ppb	1ppm	2ppm

(**Note:** add 20 mL of water first, then oscillate and centrifuge, take the supernatant and adding the same volume of deionized water if the sample need to be diluted for 40 multiple.)

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

- (1) Take 1g of sample to a 50mL centrifuge tube, add 4mL of normal hexane and 5mL of ionized water. Oscillate for 5min and centrifuge at 4000r/min for 10min at room temperature.
- (2) Remove the supernatant and take the sublayer liquid to analyze.

Note: Sample dilution factor: 5, Detection limit:250ppb

Experiment procedure

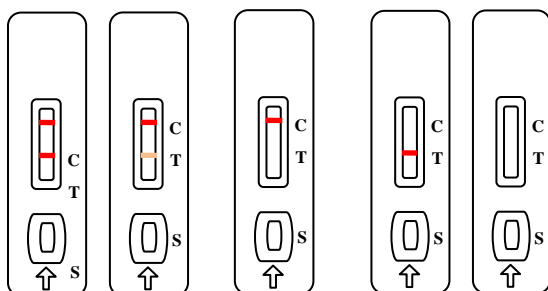
1. Tear the aluminum foil bag of the detect card and take out the detect card, and put it on a smooth, clean table.
2. Take the prepared clear sample supernatant with the matching straw, add 2-3 drops (about 60μL) of sample to the sample well (S) vertically and slowly.
3. Keep the detect card at room 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 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 in abnormal phenomena such as obstruction, unobvious color, etc., which affect the judgment of the experiment result.

Storage and valid period

Storage: Store at 2-30°C with dry condition.

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