

**DEOXYNIVALENOL (DON) RAPID  
TEST STRIP  
MANUAL**

## Deoxynivalenol (DON) Rapid Test Strip

**Catalogue Number. IP100115**

### **Brief**

This product, based on competitive inhibition of colloidal gold immunochromatography principle, is used for testing Deoxynivalenol(DON) residue in grain, feed and edible oil sample etc.

### **Principle**

The Deoxynivalenol rapid test strip is an immuno-chromatographic test, using colloidal gold immunoassay method. It relies on the competition between Deoxynivalenol residues in the sample and the Deoxynivalenol on T line, to the limited amount of dye-antibody. As a sufficient amount of drug in the sample is presenting, the drug will saturate the antibody. Consequently, it will show an extremely light or even invisible T line, indicating a positive result. On the other hand, if there is a negative sample (or the amount of the drug is lower than the minimum detectable concentration), it will generate two obvious lines in both the T and C line section.

### **Technical specifications**

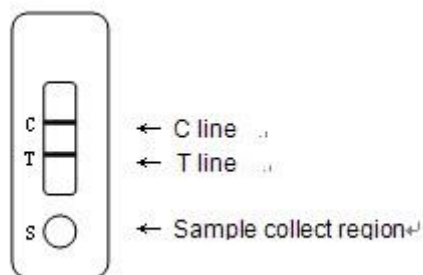
Sensitivity: 50ppb (ng/ml)

Detection limit= Sensitivity\* Sample dilution factor

Detection limit: Grain, feed: 500ppb; Edible oil: 250ppb

### **Components**

1	DON Test card	50 pieces
2	Manual	1 piece



### **Material required but not provided**

Instrument: homogenizer, oscillator, centrifuge, scale pipette, balance (0.01g)

Micro-pipettes: Single channel 20ul-200ul, 100ul-1000ul

Reagent: n-hexane

### Sample Preparation

Note: The experimental utensil must be clean and use disposable tips to avoid pollution and affect the result.

### Sample Treatment Procedure

#### 1. Grain, feed

- 1) Weigh 1g crushed sample into 50ml centrifuge tube, add 10ml deionized water, shake for 5min, Centrifuge at 4000r/min at room temperature for 10min;
- 2) Take 60ul up-layer clear liquid for test.

Sample Dilution factor: 10    Detection limit: 500ppb

Dilution method for 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: If sample need to dilute at 40 times, may add 20ml deionized water, shake and centrifuge firstly, then take 1ml up-layer liquid, add 1ml deionized water to dilute )

#### 2. Edible oil (vegetable oil, sesame oil, salad oil, peanut oil, etc.)

- 1) Weigh 1g sample into 50ml centrifuge tube, add 4ml n-hexane and 5ml deionized water, shake for 5min, Centrifuge at 4000r/min at room temperature for 10min;
- 2) Remove up-layer liquid, take 60ul down-layer liquid for test.

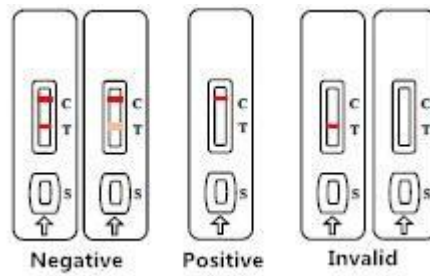
Sample Dilution factor: 5    Detection limit: 250ppb

### Operation Procedures

1. Take out the test card from Aluminum foil bag, put it on flat, clean desk.
2. Use dropper to drop 2~3 drops of sample drop-by-drop and slowly(about 60 ul, avoid bubble) in the Sample collect region vertically.
3. Wait for 8~10 min at room temperature to read the result. (Result beyond10 minutes can be as reference only)

### Test Result Interpretation

1. **Negative:** Red T line appears. It means there is no Deoxynivalenol residue in sample or the residue is lower than detection limit.
2. **Positive:** Red T line is invisible. It means the Deoxynivalenol residue is higher than detection limit.
3. **Invalidation:** C line isn't seen wine red. It means the test card is out of efficacy, out of date or improper operation. Please run the test again using another package. If the invalid tests keep happening, please contact the local distributor.



### **Precautions**

1. Do not use test card out of expiry date and in broken package;
2. Return the test card to room temperature if store in cold before use, use the test card soon to avoid moisture after open the package;
3. Do not touch the white membrane surface in the middle of test card;
4. Do not mix use the dropper to avoid cross pollution.
5. The sample liquid need to be clear, no turbid particles, no bacterial contamination, otherwise easily lead to blocking, color's not obvious etc., thus affecting the results

**Storage:** Store at 2-30 °C in dark, sealed, dry place, no frozen.

**Expiry date:** 12 months; date of production is on box.