

**ZEARALENONE (ZEN) RAPID
TEST STRIP
MANUAL**

Zearalenone (ZEN) Rapid Test Strip

Catalogue Number. IP100116

Brief

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

Principle

The Zearalenone rapid test strip is an immuno-chromatographic test, using colloidal gold immunoassay method. It relies on the competition between Zearalenone residues in the sample and the Zearalenone 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

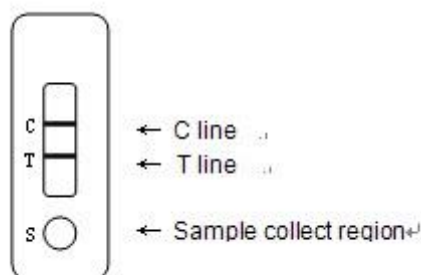
Sensitivity: 10ppb (ng/ml)

Detection limit= Sensitivity* Sample dilution factor

Detection limit: Grain, feed, edible oil: 100ppb; Grain, feed(Need blow to dry): 60ppb

Components

1	ZEN Test card	50 pieces
2	Manual	1 piece



Sample Preparation

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

Sample Treatment Procedure

a) Grain, feed

1. Weigh 2g crushed sample into 50ml centrifuge tube, add different volume of methanol upon detection limit request according to following Table

Detection limit	100ppb	200ppb	400ppb	500ppb
Methanol	3ml	6ml	12ml	15ml

Shake for 5min, Centrifuge at 4000r/min at room temperature for 5min;

2. Take 0.15ml up-layer clear liquid, add 0.85ml deionized water, mix it evenly, ready for use.

b) Grain, feed (Some sample of strongly absorbent)

1. Weigh 2g crushed sample into 50ml centrifuge tube, add 5ml 75% methanol, Shake for 5min, Centrifuge at 4000r/min at room temperature for 5min;

2. Take 0.15ml up-layer liquid, add 0.45ml deionized water, mix it evenly, ready for use.

Sample Dilution factor: 10 Detection limit: 100ppb

c) Grain, feed (need blow to dry)

1. Weigh 2g crushed sample into 50ml centrifuge tube, add 4ml methanol, Shake for 5min, Centrifuge at 4000r/min at room temperature for 5min;

2. Take 1ml up-layer liquid, blow to dry at 50-60°C by Nitrogen or air;

3. Add 0.45ml methanol to dissolve the dry residue, shake strongly for 2min;

4. Take 0.15ml liquid after shaking, add 0.85ml deionized water, mix it evenly, ready to use.

Sample Dilution Factor: 6 Detection limit: 60ppb

d) Edible oil (vegetable oil, sesame oil, salad oil, peanut oil, etc.)

1) Weigh 2g sample into centrifuge tube, add 4ml n-hexane and 3ml methanol, shake for 5min, Centrifuge at 4000r/min at room temperature for 5min;

2) Take 0.15ml up-layer liquid, add 0.85ml deionized water, mix it evenly, ready to use.

Sample Dilution Factor: 10 Detection limit: 100ppb

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.

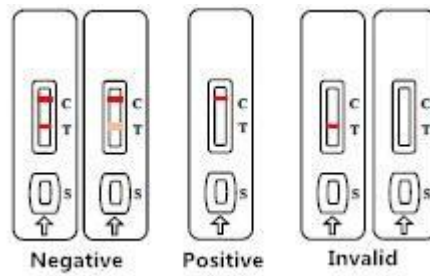
3. Wait for 8~10 min at room temperature to read the result. (Result beyond 10 minutes can be as reference only)

Test Result Interpretation

1. **Negative:** Red T line appears. It means there is no Zearalenone residue in sample or the residue is lower than detection limit.

2. **Positive:** Red T line is invisible. It means the Zearalenone 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.