

Total Aflatoxins Rapid Test Card

**INSTRUCTION MANUAL
FOR PRODUCT No: LT70002AYSL**



Arsh Biotech Pvt. Ltd.

308, Aggarwal City Mall, Road No.44,

Pitampura, Delhi-110034, India

Mobile: +91-98105-21400 | Fax: +91-11-42208444

info@arshbiotech.com

MANUAL VERSION 1.02

1. Brief

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

2. Technical indicator

2.1 Sensitivity: 1ppb (ng/ml)

Detection limit= Sensitivity * Sample dilution factor

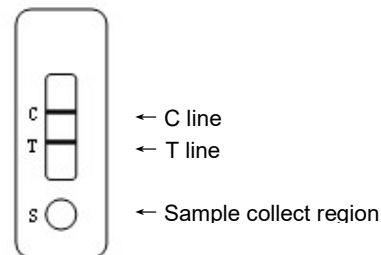
2.2 Detection limit: Grain, feed, edible oil: 5ppb

3. Principle

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

4. Contents

- | | |
|------------------|-----------|
| 1) TAF Test card | 50 pieces |
| 2) Manual | 1 piece |



5. Material required but not provided

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

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

5.3 Reagent: methanol, n-hexane

6. Sample preparation

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

6.2 Solution preparation

Sample extracting buffer: 70% methanol: $V_{\text{methanol}} : V_{\text{deionized water}} = 7:3$

6.3 Sample treatment procedure

6.3.1 Grain, feed

1) Weigh 1g crushed sample into centrifuge tube, add sufficient volume of Sample extracting buffer based upon detection limit required according to following table:

Detection limit	5ppb	10ppb	20ppb	50ppb
Sample extracting buffer	2ml	4ml	8ml	20ml

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

2) Take 0.1ml top-layer clear liquid, add 0.15ml deionized water, mix it evenly. Sample is now ready for use.

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

1) Weigh 1g sample into centrifuge tube, add sufficient volume of Sample extracting buffer based upon detection limit required according to following table

Detection limit	5ppb	10ppb	20ppb	50ppb
Sample extracting buffer	2ml	4ml	8ml	20ml

Then add 8ml n-hexane, shake for 5min, Centrifuge at 4000r/min at room temperature for 10min;

2) Remove top-layer liquid, take 0.1ml bottom-layer liquid, add 0.15ml deionized water, mix it evenly.

Sample is now ready to use.

7. Operation procedures

7.1 Take out the test card from Aluminum foil bag, put it on a flat and clean desk.

7.2 Use dropper to drop **2~3 drops** of sample drop-by-drop and slowly add (about 60 ul, avoiding bubbles) in the Sample collect region vertically.

7.3 Wait for 8~10 min at room temperature to read the result. (Result beyond 10 minutes can be used as

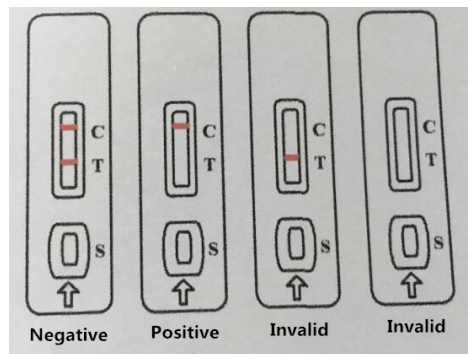
reference only)

8. Test Result Interpretation

8.1 Negative: Red T line appears. It means there is no Total aflatoxin residue in sample or the residue is lower than detection limit.

8.2 Positive: Red T line is invisible. It means the Total aflatoxin residue is higher than detection limit.

8.3 Invalidation: C line isn't seen with red. It means the test card is out of efficacy, out of date or there has been an improper operation. Please run the test again using another package. If the invalid tests keep happening, please contact us.



9. Precautions

- 1) Do not use test card out of expiry date and in broken package;
- 2) Return the test card to room temperature if stored in cold before use, use the test card soon to avoid moisture after opening 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 contamination.
- 5) The sample liquid need to be clear with no turbid particles and no bacterial contamination, otherwise it will lead to blocking and color will not be obvious etc., thus affecting the results and making interpretation difficult.

10. Storage and expiry date

Storage: Store at 2-30 °C in dark, sealed, dry place, not to be frozen.

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