



Manual of Aflatoxin B1 (AFB1) Lateral Flow Test Strip

1. Product Code: WSK-G14A

2. Summary

This product is widely used for on-site test on a large scale, because it is convenient to use, rapid to get result and high sensitivity. Antigen is fixed on nitrocellulose membrane test area, which is called T. Secondary antibody is fixed on control area, which is named C. Antibody conjugated with gold nanoparticles is fixed in microvoid.

T line is not colorful or its darkness is lighter than C line, when AFB1 content in sample is above limit of detection, then result is positive; T line appears amaranth or its darkness is similar or darker than C line, when AFB1 content in sample is below limit of detection, then result is negative.

3. Detection Range

5-100ppb (ug/kg)

4. Application

It is suitable to detect AFB1 in grain (brown rice, flour and wheat) and feedstuff and some finished feed (corn, livestock feed, ruminant feed, meal, DDGS, rice bran).

5. Product Composition

Product Name	QTY	Remark
Lateral Flow Test Strip	8pcs/ section, 12 sections	-
Microvoid in which antibody conjugated with gold nanoparticles is fixed	8pcs/section, 12 sections	-
1# Tips	100pcs	1000uL
2# Tips	100pcs	200uL
Sample Diluent	1bottle	500mL/bottle
Centrifuge Tube	100pcs	10mL
Manual	1pcs	-

6. Required Instrument

Analytical Balance, Centrifuge, 50mL Centrifugal Tube, 50mL Graduated Cylinder, Micropipettor (20-200uL, 100-1000uL).

7. Storage

Store at 2-8°C.



8. Expiry Date

Expiry Date is 1 year.

Manufacture Date refers to information on package.

Take out Lateral Flow Test Strip and Sample Diluent and do not open them until they reach at room temperature. If you do not need to use 8microvoid once at a time, then put back the rest and cover and seal well.

9. Preparation before Test

1) Solution Preparation

40% Ethyl Alcohol: Add 40mL absolute ethyl alcohol into 60mL pure water and mix well (The volume can be scaled up in proportion).

2) Product Preparation

Take out required Lateral Flow Test Strip and sample diluent, wait until they reach at room temperature.

3) Incubator Preparation

Add clear water into water channel until it reaches to 2/3 depth. Set at 25 °C and cover it. Then incubate for 10minutes at least when temperature is steady.

10. Sample Pretreatment

1) Pulverize & Screen: Take 100g typical sample and then pulverize it and later screen through 20mesh sieve.

2) Extract: Take 5g screened sample into 50mL centrifugal tube. Add 25mL 40% ethyl alcohol and then vibrate sharply over 2minutes.

3) Centrifuge: Centrifuge at 4000r/min for 5minutes or filter by filter paper.

4) Dilute: Add sample supernatant into sample diluent according to below chart. Mix well and then you get sample solution to be tested.

4.1) Sample: Feedstuff and some finished feed (corn, livestock feed, ruminant feed, meal, DDGS, rice bran).

A. 5-30ppb: Take 100uL supernatant and add amount of sample diluent according to detection range as listed below. Mix well.

Detection Range (ppb)	5	10	15	20	30
Amount of Sample Diluent (uL)	700	1500	2400	3100	4900

P.S: 15ppb is for duck feed only.

B. 40-100ppb: Take 20uL supernatant and add amount of sample diluent according to detection range as listed below. Mix well.

Detection Range (ppb)	40	50	100
Amount of Sample Diluent (uL)	1420	2480	4980

4.2) Sample: Grain (brown rice, flour and wheat)

5-50ppb: Add 50uL supernatant and add amount of sample diluent according to detection range as listed below. Mix well.

Detection Range (ppb)	5	10	20	30	40	50
Amount of Sample Diluent (uL)	350	750	1550	2450	3550	4450

11. Test Procedure

1) Pull transverse baffle of incubator to outermost place. Put required microvoid on hole of incubator, and then put corresponding test strip on guide slot of incubator (please refer to Chart 1).

- 2) Turn sample solution to be tested upside down for well mixing. Take 100uL sample solution to be tested into microvoid. Slowly blow over 5times to mix well. Cover it and wait for reaction for 4minutes.
- 3) Push transverse baffle to let test strip fall into microvoid so as to start reaction.
- 4) Take out test strip after reaction of 5minutes. Abandon sample pad and put test strip flat and then get result in 10minutes. Result is invalid after 10minutes.

P.S.: Do not take off cover of incubator nor let water channel dry during whole test!

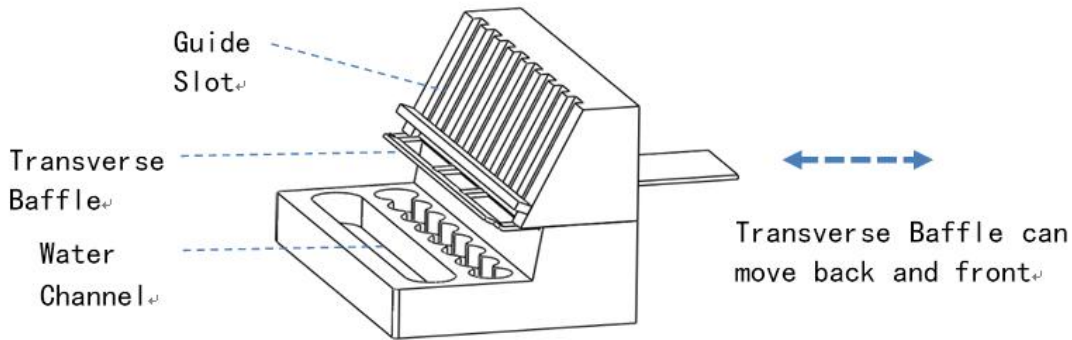
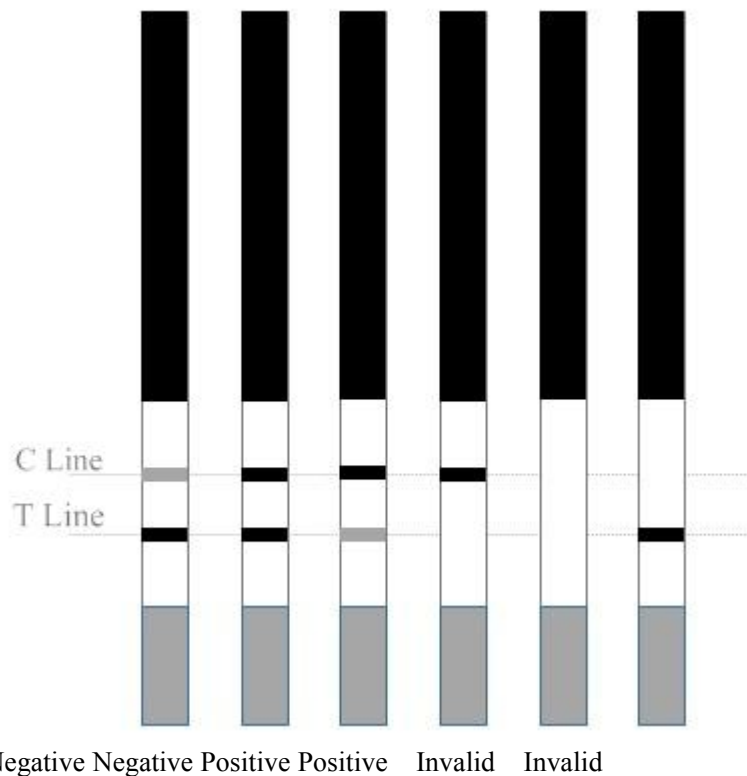


Chart 1: Incubator

12. Result Analysis



Negative (-): T line darkness is similar or darker than C line, which means AFB1 content in sample is below limit of detection.



Positive (+): T line is not colorful or its darkness is lighter than C line, which means AFB1 content in sample is above or equal to limit of detection.

Invalid Result: C line is not colorful or both lines (T&C) are not colorful, which means incorrect cooperation or invalid test strip. Please read the manual again and test with new test strip.

13. Note

- 13.1 Do not use test strip, microvoid and Sample Diluent from other batches.
- 13.2 Please strictly operate according to manual. Load too much or too few sample will influence result.
- 13.3 Do not touch test strip display area. Avoid direct sunlight or direct blow from fan.
- 13.4 This product is disposable. Do not use it again.
- 13.5 Please ask for replacement if you found product damaged or contaminated or expired useful life when you receive product.
- 13.6 Please note test result of this product is for reference only.