

Mycotoxin, naturally occurring metabolite produced by certain microfungi (i.e., molds) that is toxic to humans and other animals. Mycotoxins occur in great number and variety, though only a small number occur regularly in human foodstuffs and animal feeds. Foods that may be affected include barley, corn, groundnuts, oats, rice, rye, sorghum, sugar, and wheat. In US, EU and China, strict MRLs of mycotoxins are established to keep human and animal health.

This product utilizes the high affinity of monoclonal antibody against vomitoxin (DON), zearalenone (ZEN), and aflatoxin B1 (AFB1), which can easily identify their contamination in cereal and feed.

1. Detection Limit (LOD):

Mycotoxin	T line	LOD (ppb)
DON	T1	1000
ZEN	T2	100
AFB1	T3	5-8

2. Kit components

- Test Strip, 96 pcs in 12 plastic bottles, 8 pcs / bottle.
- Sample buffer (10x), 1bottle
- Kit insert
- NBReader (optional)

3. Reagents and instrument required but not provided:

- Methanol (anhydrous)
- Homogenizer
- Centrifuge

4. Sample preparation

- Diluent sample buffer:** Dilute the 10x sample buffer provided with deionized water in the volume ratio of 1:9, which is 10ml buffer + 90ml water, mix thoroughly. This prepared solution can be stored at 2-8°C for 1 month.
- Sample preparation:** Take 10g sample, homogenize to powder, and then take 5g into a centrifuge tube, add methanol (anhydrous) 20ml, mix thoroughly by shaking up and down for 2min. Then centrifuge at 6000rpm for 10min, take supernate 100ul and further mix with 400ul diluted sample buffer, mix thoroughly. The mixed sample solution will be used for assay.

5. Assay Steps

- Read the instructions before experiment. Bring the test kit and samples to room temperature.
- Take plastic vials needed from the kit package, take out required wells and strips, and make proper marks. Please use the test strips within 1h. Seal the cap of the bottles and store the unneeded kit.
- Take **200ul** of the prepared sample with micropipette into the microwell, and then repeatedly absorb up and down to mix the sample with the reagent in the wells completely. The mixture should be pink, and then start the timer.
- Incubate for **5min at room temperature**, and then insert the test strip into the well with the "Immersed" end fully dipped in to the mixed reagent and sample.
- Incubate for **5min at room temperature** again. Take out the strip; determine the result according to **Part 6**.

6. Result Determination

There are 4 lines on the strip, **Control line, DON Line, ZEN Line, and AFB1 Line** which are briefly used as "**Line C**", "**Line T1**", "**Line T2**" and "**Line T3**". The test results will depend on the color of these lines. The following diagram describes the result determination.

INVALID Line C has no color. In this case, the test will be invalid.

NEGATIVE

DON Negative: Compare the color of **Line T1** with Line C, if the color of Line T1 **is deeper than** Line C, the result will be negative.

ZEN Negative: Compare the color of **Line T2** with Line C, if the color of Line T2 **is deeper than** Line C, the result

will be negative.

AFB1 Negative: Compare the color of **Line T3** with Line C, if the color of Line T3 **is deeper than** Line C, the result will be negative.

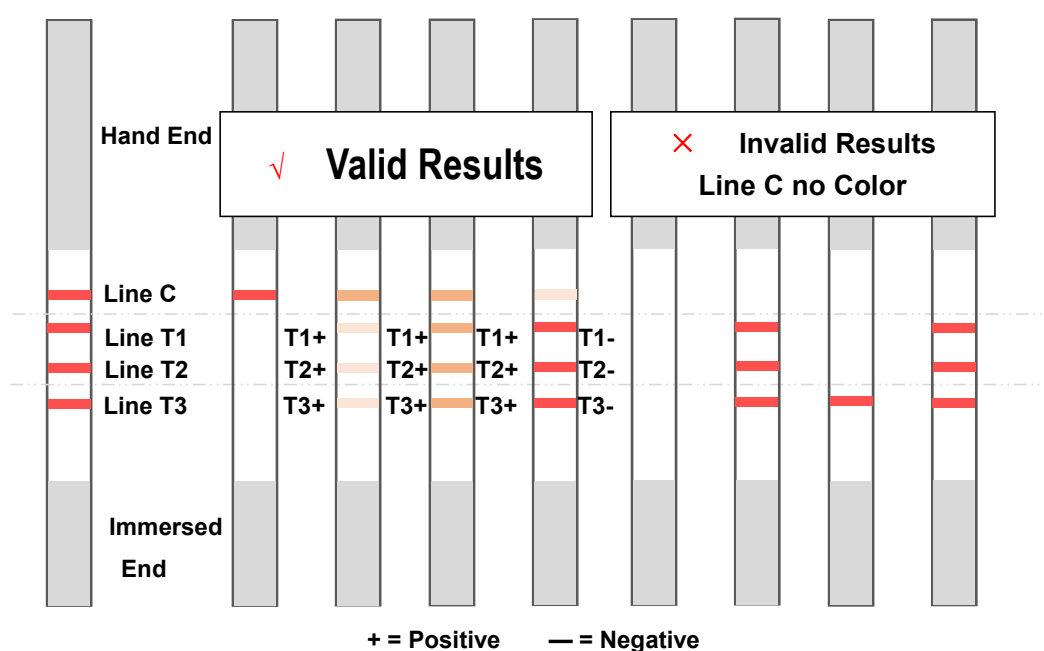
POSITIVE

DON Positive: Compare the color of Line T1 with Line C, if the color of Line T1 **is lighter than or the same as** Line C, the result will be positive. If there is **no Line T1**, the result is also **positive**.

ZEN Positive: Compare the color of Line T2 with Line C, if the color of Line T2 **is lighter than or the same as** Line C, the result will be positive. If there is **no Line T2**, the result is also **positive**.

AFB1 Positive: Compare the color of Line T3 with Line C, if the color of Line T3 **is lighter than or the same as** Line C, the result will be positive. If there is **no Line T3**, the result is also **positive**.

NOTICE **Line C is used as a quality indicator**, which will always appear regardless of the T1/T2/T3 line. If Control line does **NOT** appear, this indicates that the result is **invalid**. Users please check the kit insert again and repeat the assay with new test strip.



7. Specificity

The results are all negative when test fumonisins, ochratoxin and T2 toxin with the concentration of 500 ppb.

8. Storage

2-8°C in cool dark place, do not freeze. The kit is valid for 12 months. Lot number and expired date are printed on the package.

9. Notice and Precautions for a successful experiment.

Please perform the assay following the instruction, do not touch the membrane of the strip.

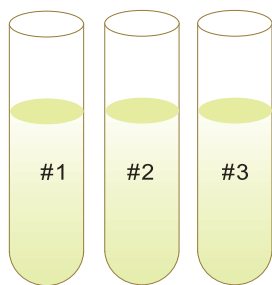
Please seal the bottle after taking out required strips.

This strip is used for only once; please do not use it repeatedly.

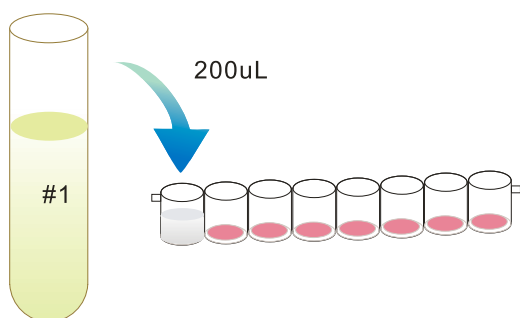
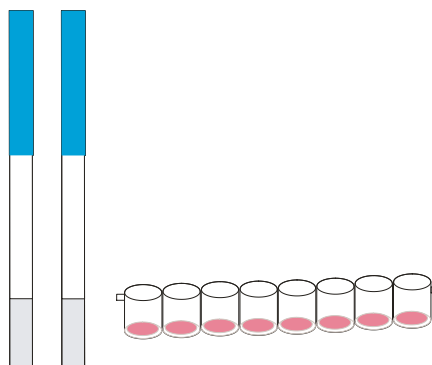
This kit is only for screening test, positive result should be further confirmed with other method.

Schematic Assay Steps

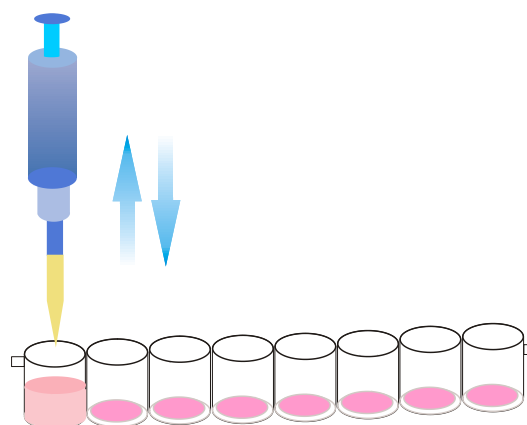
1. Bring all test samples to room temperature; number them to keep record.



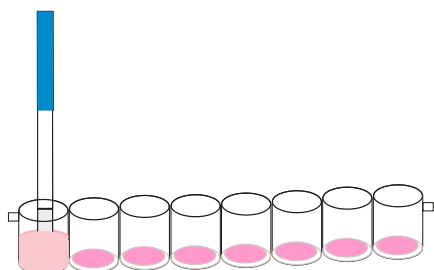
2. Take test kit according to your sample number and also number the kit wells to keep record and consistency.



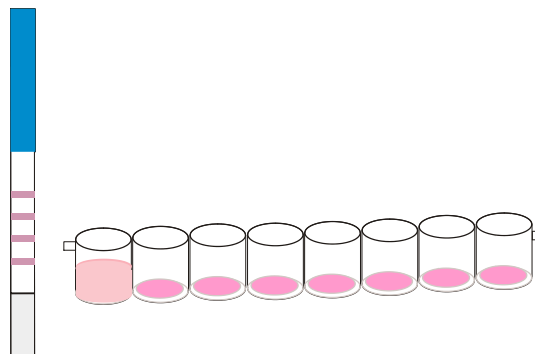
3. Take 200ul sample into the wells using pipet. You can also then put the well into the well holder to avoid sample spill.



4. Absorb up and down for 5 times to mix sample with reagent completely. Start the timer when the mixture is pink. **Incubate for 5 min at room temperature.**



5. Insert the "Immersed" end of the strip into the mixture; **Incubate for 5 min at room temperature again.**



6. Take out the strip; judge the result according to **kit instruction**.

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