Total Aflatoxin (AFT) Rapid Kit (Catalog #:T0003)

【Intended Application】

The test kit is used for detecting total aflatoxin(AFT) in cereal, feed and others.

【Principle】

The kit is using colloidal gold immunochromatography assay(GICA) based on competition. After sample solution is added to sample hole, if there is aflatoxin in the sample solution, it will combine with gold labeled antibodies, preventing the marked antibodies from combining the aflatoxin conjugates of nitrocellulose membrane.

If the content of aflatoxin in sample solution is less than detection limit, it will make the test ("T") line colored and the result is negative. If the content is greater than detection limit, no color reaction will be produced and the result is positive.

【Storage Conditions】

The kit shall be stored at 2 to 30℃ in dry environment.

Shelf life: 12 months. The date of manufacture is presented in the label of the box.

【Technique Data】

❖ Kit sensitivity: 1 ppb (ng/mL)

(Final detection limit = Kit sensitivity × dilution times of the sample)

❖ Detection Limits

Cereal, Feed, Edible oil ……..5ppb

【Kit Content】

Package specification	20T/Kit	40T/Kit
Test device (with dropper)	20	40
Instruction	1	1

【Materials Required but Not Supplied】

❖ Equipment: grinder (for crushing solid samples), vortex mixer (for shake and mix), centrifuge, graduated transfer pipette, and balance with a division value of 0.01 g.

❖ Micropipette: single-channel 20 to 200μL and 100 to 1000μL

❖ Reagents: methanol, N-hexane.

【Sample Pre-treatment】

❖ **Instructions**

Labware must be clean. Use disposable pipette tips to avoid contamination of interference results.

❖ **Solution preparation before sample pre-treatment**

Liquid 1: Solution for extracting samples:

70% Methanol solution, (Methanol/Deionized water= 7: 3）

❖ **Sample pretreatment step:**

1. Cereal, Feed:

Weigh 1g of crushed homogeneous samples into a centrifuge tube, add **Liquid 1** according to different detection limit requirements in the following table, shake for 5 min and centrifuge at 4000 r/min for 5 min at room

temperature.

Detection Limits	5ppb	10ppb	20ppb	50ppb
Liquid 1	2mL	4mL	8mL	20mL

Take 0.1mL of supernatant, then add 0.15mL of deionized water, and mix evenly.

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

Weigh 1g of samples into a centrifuge tube, add Liquid 1 according to different detection limit requirements in the following table. Then add 8mL of N-hexane, shake for 5min fully, and centrifuge at 4000 r/min for 10 min at room temperature.

Detection Limits	5ppb	10ppb	20ppb	50ppb
Liquid 1	2mL	4mL	8mL	20mL

Discard the supernatant, take 0.1mL of liquid in the lower, add 0.15mL deionized water, and mix fully.

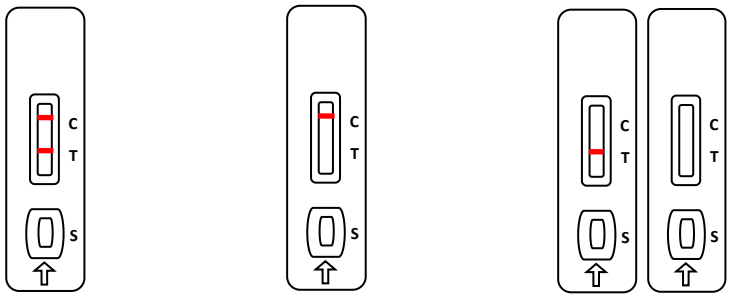
【Test Steps】

1)Tear the foil pouch, take out of the test card, and put on a flat, clean work surface.

2)Pipette the prepared sample solution with the provided dropper, then add 3 drops (approximately 60μL) vertically and slowly (Avoid the generation of bubbles) into the sample hole(“S”).

3)Read the result at room temperature in 8-10 minutes. Results over 10 minutes can only be used as reference.

【Results Judgement】



Negative Positive Invalid

- **Negative:** Test(“T”) line and control(“C”) line both appear in the result window. It indicates that the concentration of AFT in the sample is below the detection limit, or absent.
- **Positive**: Only control(“C”) line appears in the result window.
  It indicates that the concentration of AFT in the sample is above the detection limit (There is AFT in the sample).
- **Invalid**: If the control(“C”) line does not appear, the result might be considered invalid.

【Notice】

- Don’t use the expired or damaged products.
- When the test card is taken out of the refrigerator, it should be restored to the room temperature and then opened. The opened test card should be used as soon as possible to avoid failure after being affected by

moisture.

- Avoid touching the white nitrocellulose membrane in the middle of the detection card.
- In order to avoid cross-contamination, the droppers cannot pipet another liquid after pipetting one.
- The sample solution to be examined needs to be clear, free of turbid particles and without bacterial contamination. Otherwise, it is prone to lead to blockage, non-obvious color development and other abnormalities, affecting the determination of the experimental results.
- Avoid direct sunlight and direct exposure to electric fans during testing. Avoid direct sunlight and direct exposure to electric fans during testing.