

## Instructions for Use

Version: 2.1.3  
Revision date: 28-May-25

### Total Aflatoxin Rapid Test Kit

**Catalog No.:** abx092054

**Size:** 50 tests

**Detection Limit:** 5 ng/ml (Grain/Feed/Oil)

**Storage:** Store all reagents at 2-30 °C. Keep dry.

**Sensitivity:** 2 ng/ml

(ng/ml = ppb)

**Application:** For qualitative detection of Total Aflatoxin in food samples.

#### Introduction and assay principle

Abbexa's Total Aflatoxin Rapid Test Kit is a qualitative lateral flow immunochromatographic assay for the detection of Total Aflatoxin in food samples. The cassette contains a colloidal gold conjugated antibody against Aflatoxin, which combines with any Aflatoxin present in the samples, preventing the antibody binding with the Aflatoxin coated on the test region of the cassette. A colored band develops within 10 minutes in the test region if the concentration of Total Aflatoxin in the sample is lower than the detection limit. A control region on the upper end of the cassette confirms if the test has been successful.

#### Kit components

- Test cassettes (packaged in foil pouches containing disposable pipettes): 50

#### Materials required but not provided

- Deionized water
- Methanol
- N-hexane

#### Reagent preparation

Sample extraction solution (70% methanol): Add methanol to deionized water at a ratio of 7:3. Determine the volume of methanol required for 1 g of sample according to the table below.

Detection limit required	5 ng/ml	10 ng/ml	20 ng/ml	50 ng/ml
Volume of 70% methanol	2 ml	4 ml	8 ml	20 ml

#### Sample preparation

1. **Grain and Feed:** Weigh  $1 \pm 0.5$  g of crushed sample and add to a centrifuge tube. Add 70% methanol according to the table above. Vortex on a low speed for 5 minutes, then centrifuge at 4000 RPM for 5 minutes at room temperature. Take 0.1 ml of supernatant and add 0.15 ml of deionized water. Mix thoroughly.  
**Detection limit: 5 ng/ml**
2. **Oil:** Weigh  $1 \pm 0.5$  g of crushed sample and add to a centrifuge tube. Add 70% methanol according to the table above. Add 8 ml of N-hexane, then vortex for 5 minutes. Centrifuge at 4000 RPM for 10 minutes at room temperature. Discard the supernatant and take 0.1 ml of lower layer. Add 0.15 ml of deionized water and mix thoroughly.  
**Detection limit: 5 ng/ml**

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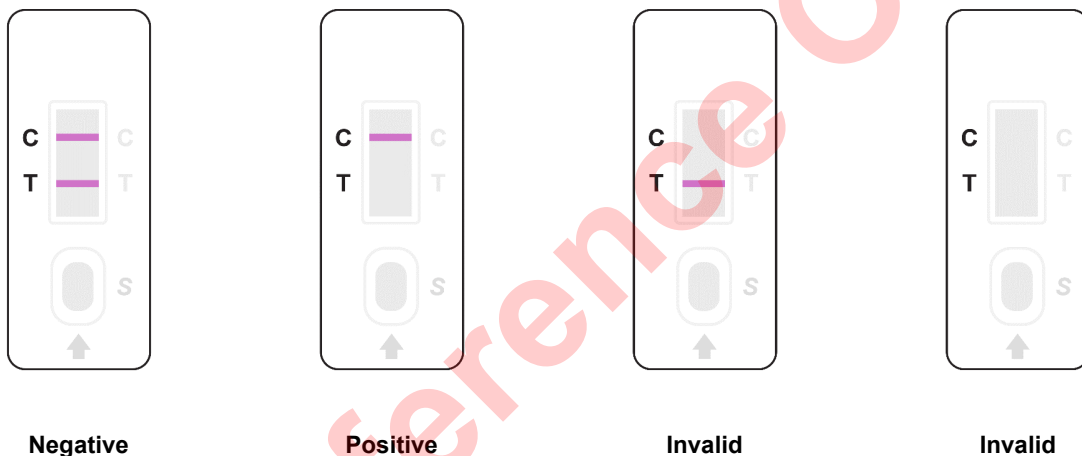
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### Assay procedure

1. Take a test cassette and lay it flat on a clean table. Using the provided pipette, add 2-3 drops (approximately 60  $\mu$ l) of prepared sample to the sample well on the test cassette. Avoid touching the membrane in the middle of the sample well, and avoid foaming.
2. Leave at room temperature for 8-10 min, then analyze the result.

### Results analysis

- **Negative result:** A line is observed in both the control (C) section and the test (T) section.
- **Positive result:** A line is observed in the control (C) section but not the test (T) section.
- **Invalid result:** No line is observed in the control (C) section.



### Notes

1. The test cassettes should be brought to room temperature before use.
2. After opening the aluminum foil, use the test cassette as soon as possible.
3. Samples should be clear with no visible particles, turbidity or bacterial pollution.
4. Do not mix or re-use the disposable pipettes to avoid cross-contamination.
5. For samples that are not grain, feed or oil, a preliminary experiment is recommended to determine the suitability of this kit with those samples.
6. Results should only be read within the 8-10 minute timeframe. After 10 minutes results should only be used as a reference.

### Technical Support

For troubleshooting and technical assistance, please contact us at [support@abbexa.com](mailto:support@abbexa.com).