

Instructions for Use

Version: 1.0.2
Revision date: 13-Aug-24

Tetracycline Rapid Test Kit

Catalog No.: abx092048

Size: 20 tests / 50 tests / 80 tests

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

Application: For qualitative detection of Tetracycline in Muscle, Honey and Egg samples.

Introduction and assay principle

Abbexa's Tetracycline Rapid Test Kit can detect Tetracycline in muscle, honey and egg samples. After the sample solution is added to the test cassette sample well, Tetracycline present in the sample will combine with the gold-labelled detection antibody, preventing the gold-labelled antibody binding to Tetracycline conjugated on the cellulose membrane of the test line. If the concentration of Tetracycline in the samples solution is higher than the detection limit, the test line will show no color, or a lighter color than the control line and the result is positive. If the concentration of Tetracycline in the sample is less than the detection limit, the test line shows color similar to or darker than the control line and the result is negative.

Kit Components

- Test cassettes
- Extraction Reagent
- Sample Buffer

Material Required But Not Provided

- High-precision pipette and sterile pipette tips
- Timer

A. Sample preparation

Muscle (livestock, fish, shrimp): Ensure all skin and fat has been removed from the sample, then homogenize manually. Before homogenizing, shrimp meat samples must be incubated in an 80°C water bath for 5 minutes – ensure the incubation tube is completely sealed, and no water enters the tube. Carefully weigh 4 g of the resulting homogenate into a 15 ml centrifuge tube, and add 2 ml of Extraction Reagent. Shake vigorously for 1 minute, then centrifuge at 4000 × g for 5 minutes. Transfer 200 µl of the resulting supernatant into a 1.5 ml centrifuge tube, and add 200 µl of Sample Buffer (Sample Buffer is not required for pork samples). Take the supernatant for analysis. *Detection limit: Muscle (beef) -- 20 ppb; Muscle (pork, fish, shrimp) -- 10 ppb.*

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Honey: For samples without crystallization, stir well. For crystallized samples, place in a closed water bath at 60°C – 80°C, and periodically shake or stir until the sample has melted, then cool to room temperature. Weigh 0.2 g of homogenized honey sample into a centrifuge tube. Add 0.8 ml of Sample Buffer. Shake for 4 minutes until mixed fully. Take the supernatant for analysis. *Detection limit -- 50 ppb.*

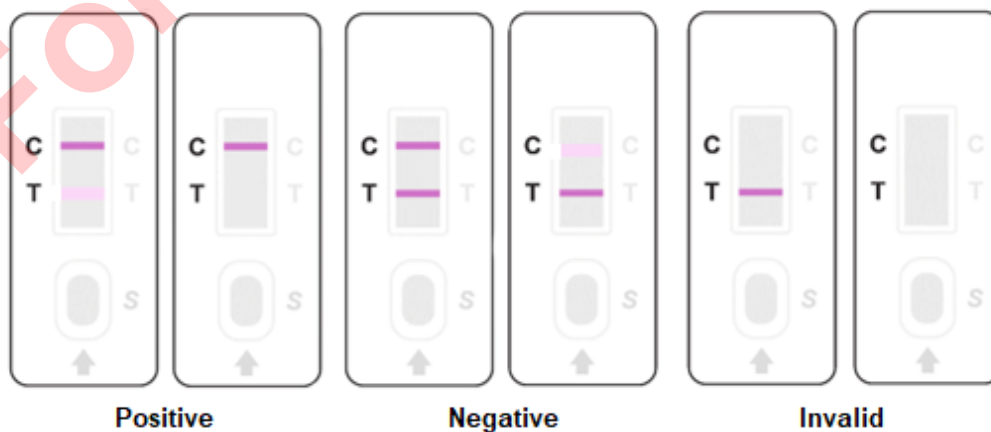
Egg: Weigh 0.2 g of homogenized egg sample into a centrifuge tube. Add 1 ml of Sample Buffer. Shake for 1 minute until mixed fully. Take the supernatant for analysis. *Detection limit -- 60 ppb.*

B. Assay procedure

1. Take a test cassette and lay it flat on a clean table. Using a pipette, slowly and vertically add 6 drops (approximately 150 µl) of sample to the separate microwell containing the purple residue.
2. Wait for 2 minutes, then stir with a clean pipette tip. Avoid foaming.
3. Wait for 2 minutes, then transfer all of the sample liquid from the microwell to the sample well on the test cassette. Avoid foaming.
4. Leave at room temperature for 5 – 8 minutes, then analyze the result immediately.

C. Results analysis

- **Positive result:** A colored line is observed in the control (C) section. The test region shows a colored line that is lighter than the control line, or no color at all.
- **Negative result:** A colored line is observed in the control (C) section. There is also a colored line on the test section, equal or darker than the line at C.
- **Invalid result:** No colored line is observed in the control (C) section.



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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. Avoid touching the cassette membrane through the sample well or test result window.
6. This kit is for qualitative detection of Tetracyclines in muscle, honey and egg samples. For other sample types, a preliminary experiment is recommended to determine compatibility with this kit. Positive samples can be tested with another method (e.g. HPLC, LC/MS) for quantitative results.
7. This kit is for research use only and the results are for reference only. It is recommended to use this kit in conjunction with another detection method.
8. All waste should be disposed of appropriately. Please note that you may need to follow special waste disposal procedures for infectious samples. Please check local disposal regulations.

Technical Support

For troubleshooting and technical assistance, please contact us at support@abbexa.com.