

# Quinolones Residue Rapid Test Strip (Honey) (DTS1023L)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

**Size** 96T

### Intended Use

Quinolones residue rapid test strip is developed for rapid test of quinolones contamination in honey.

### General Description

The quinolones are a family of synthetic broad-spectrum antibiotics. The term quinolone(s) refers to potent synthetic chemotherapeutic antibacterials. The first generation of the quinolones begins with the introduction of nalidixic acid in 1962 for treatment of urinary tract infections in humans. Nalidixic acid was discovered by George Lesher and coworkers in a distillate during an attempt at chloroquine synthesis. They prevent bacterial DNA from unwinding and duplicating. (See Mechanism of Action later.) Quinolones, in comparison to other antibiotic classes, have the highest risk of causing colonization with MRSA and Clostridium difficile. For this reason, a general avoidance of fluoroquinolones is recommended based on the available evidence and clinical guidelines. The majority of quinolones in clinical use belong to the subset fluoroquinolones, which have a fluorine atom attached to the central ring system, typically at the 6-position or C-7 position.

### Principles of Testing

Quinolones residue rapid test strip is based on competitive indirect colloid gold immunochromatography technology, in which quinolones in sample competes for the colloid gold labeled antibody with quinolone coupling antigen captured on test line. The test result can be observed by naked eye.

### Reagents And Materials Provided

1. Test strips (96tests): 8 strips/bottle, 12 bottles
2. Red powder microwells: 8 wells

3. Sample diluent(10x): 1 bottle
4. Sample Extraction Solution B: 1 bottle
5. Sample Extract Solution C: 1 bottle
6. Desiccants: 2 pieces/bottle
7. Product Manual: 1 pieces

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### Materials Required But Not Supplied

1. Balance
2. Pipette
3. Tip

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### Storage

The kit can be stored at room temperature (2-30°C). The test kit is stable through the expiration date marked on the foil pouch. DO NOT FREEZE. Do not store the test kit in direct sunlight.

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### Specimen Collection And Preparation

1. Weigh  $2 \pm 0.05$ g honey sample, add 3ml sample diluent, shake for 3min to mix well.
2. Add 300ul sample extraction solution B and shake for 1min;
3. Add 2ml of sample extraction solution C and shake for 1min to obtain the sample solution to be tested.

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### Reagent Preparation

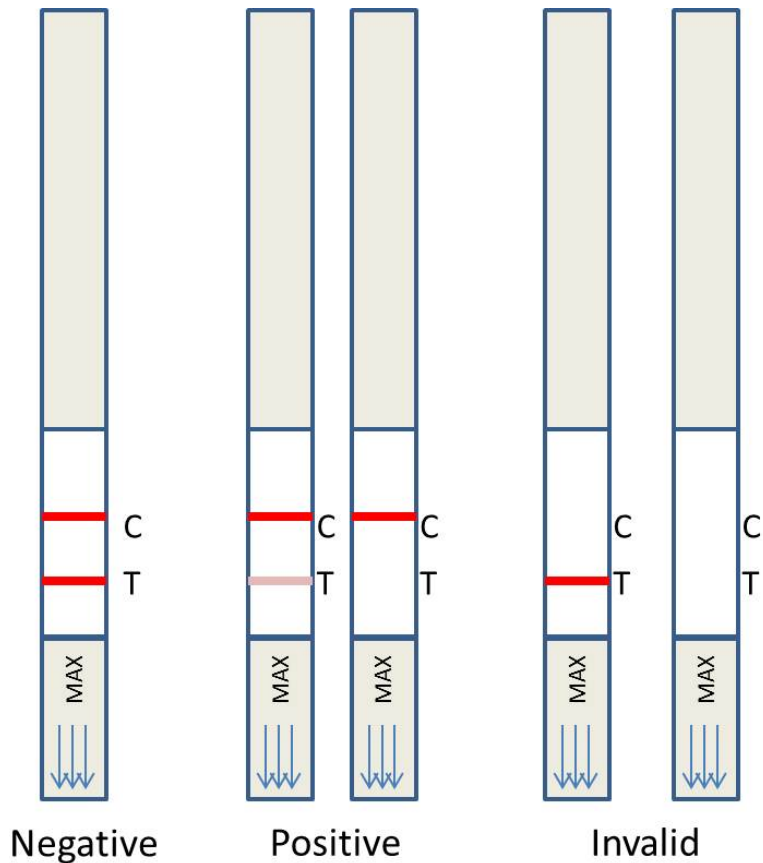
Sample diluent (1x): add 1 part of 10X sample diluent to 9 parts of deionized water to obtain 1x sample diluent.

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### Assay Procedure

1. Please read the instructions carefully before use and return the test strips and samples to room temperature.
2. Take out the required microwells and test strips from the kit, making proper marks. Then seal the cap of the bottles, avoid moisture. (Please use the strips as soon as possible within 1 hour).
3. Use a pipette to pipette 200 $\mu$ L of sample into the microwell, and slowly aspirate five times until the mixture is uniform and no solid can be observed with the naked eye (this step is very important).
4. After incubating for 5 minutes at room temperature (20-25°C), insert the labeled strip into the microwell (the end printed with MAX and completely immerse it in the solution).
5. After immersing the test paper in the micropore for 8-10 minutes, judge the result according to the "Interpretation of Results", and the interpretation at other times is invalid.

**Interpretation Of Results**



1. Negative: Both Control line (C line) and Test line (T line) developed red color, indicating that the sample does not contain quinolones residues or its concentration is below the detection limit.
2. Positive: Only Control line (C line) developed red color and Test line (T line) shows no color, or the color of T line is significantly weaker than C line, indicating that the quinolones residues concentration in the sample is equal to or higher than the detection limit.
3. Invalid: If there is no red line appears on Control line (C line), the result is invalid regardless of whether there is a red line on Test line (T line).

**Sensitivity**

The sensitivity of quinolones residues in honey is 3 ppb.

**Precautions**

1. Test strips are used at room temperature for one time; do not use expired test strips.
2. Disposable tips are not reusable to avoid cross-contamination.
3. Do not touch the white film surface in the center of the test strip during use; avoid direct sunlight and direct fan blow.
4. Tap water, distilled water or deionized water cannot be used as a negative control.
5. If you encounter any problems with the test, please contact the supplier.