

**QNs (Quinolones) Lateral Flow Assay Kit**

Catalog No: E-FS-C027

20T/50T/80T

<b>Version Number:</b>	V1.1
<b>Replace version:</b>	V1.0
<b>Revision Date:</b>	2024.3.11

This manual must be read attentively and completely before using this product.

If you have any problems, please contact our Technical Service Center for help.

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Please kindly provide us the lot number (on the outside of the box) of the kit for more efficient service.

### Test principle

This kit uses the principle of Immunochromatography assay for the qualitative detection. It can detect QNs (Quinolones) in samples, such as honey, muscle, etc. After adding the sample solution into the sample well of detection card, QNs of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with QNs conjugate on the cellulose membrane. When the concentration of QNs in the sample solution is more than the detection limit, the detect line do not show color reaction and the result is positive. When the concentration of QNs in the sample solution is less than the detection limit, the detect line shows purple and the result is negative.

### Technical indicator

**Detection limit of sample (based on ENR concentration):** Muscle, Honey, Egg---0.5 ppb;  
Milk---1 ppb.

#### Detection limit of quinolones:

Name	Detection limit (ppb)
Enrofloxacin	0.5
Norfloxacin	0.5
Ciprofloxacin	0.5
Flumequine	1
Danofloxacin	1
Peflacin	1
Enoxacin	1
Oxolinic acid	2.5
Ofloxacin (racemic modification)	1
Levofloxacin	10

### Kits components

Item	Specifications
Detection Card (with disposable dropper)	50 T/kit
Reconstitution Buffer	1 vial
Manual	1 copy

Note: All reagent bottle caps must be tightened to prevent evaporation and microbial pollution.

### Other materials required but not supplied

**Instruments:** Homogenizer, Oscillators, Centrifuge, Graduated pipette, Balance (sensitivity 0.01).

**High-precision transferpettor:** Single channel (20-200 µL, 100-1000 µL).

**Reagents:** Acetic acid (CH<sub>3</sub>COOH)

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## Notes

1. FOR RESEARCH USE ONLY. Do not use product out of date or in a broken aluminum foil.
2. The detection card should be adjusted to room temperature after removed from the refrigerator before opening. The opening detection card should be used as soon as possible so as not to be invalid because of moisture.
3. Avoid of contacting the white membrane at the middle of the sample well.
4. The disposable dropper cannot be mixing to avoid the cross-contaminant.
5. The tested sample should be clear, no turbidity particle and no bacterial pollution, otherwise it is easy to result in abnormal phenomena such as obstruction, unobvious color, etc, which affect the judgment of the experiment result.
6. **Each reagent is optimized for use in the E-FS-C027. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-FS-C027 with different lot number**
7. The kit is used for rapid screening of actual samples. If the test result is positive, the instrument method such as HPLC, LC/MS, etc. can be used for quantitative confirmation.

## Storage and expiry date

**Storage:** Store at 2-30°C. With cool and dry environment.

**Expiry date:** expiration date is on the packing box.

## Sample pretreatment

Restore all reagents and samples to room temperature (25°C) before use.

### 1. Sample pretreatment Notice:

Experimental apparatus should be clean, and the disposable dropper should be disposable to avoid the experiment result be interfered by the contamination.

### 2. Solution preparation

Solution 1: 0.1 % Acetic acid Solution

Dissolve 0.1 mL of **Acetic acid** to 100 mL with deionized water, mix fully.

### 3. Sample pretreatment procedure:

#### 3.1 pretreatment of muscle (fish, shrimp and livestock), honey, egg sample:

- (1) Remove the skin and fat of fish, shrimp and livestock, homogenize with homogenizer (exclude honey, egg sample).
- (2) Weigh  $1 \pm 0.05$  g of homogenate sample into 15 mL centrifuge tube. Add 1 mL of **0.1 % Acetic acid Solution** (Solution 1), oscillate for 5 min, and mix fully. Centrifuge at 4000 r/min at room temperature for 5 min.
- (3) Take 0.1 mL of clear supernatant into 1.5 mL centrifuge tube, add 0.2 mL of **Reconstitution Buffer**. Oscillate fully.
- (4) Take the liquid for analysis.

**Note: Detection limit: 0.5 ppb**

### 3.2 Pretreatment of milk sample:

- (1) Take fresh milk sample, dilute fresh milk with deionized water. (Fresh milk (V): Deionized water (V) = 1:1), and mix fully.
- (2) Take the liquid for analysis.

**Note: Detection limit: 1 ppb**

### Experiment procedure

1. Tear the aluminum foil bag of the detection card and take out the detection card, and put it on a smooth, clean table.
2. Take the prepared clear sample with the matching disposable dropper, add 2-3 drops (about 60  $\mu$ L) of sample to the sample well (S) vertically and slowly (Avoid foaming).
3. Incubate for 8 to 10 minutes and then judge the results immediately.

### Judgment of result

1. **Negative:** The control line region (C) and the test line region (T) both show a line. It indicates the content of QNs in the sample is lower than detection limit or the sample doesn't contain QNs.
2. **Positive:** Only the control line region (C) show a line. It indicates the content of QNs in the sample is higher than detection limit.
3. **Invalid:** The control line region (C) does not show a line. It indicates operation process is wrong or the test card is invalid.

