

Quinolones (QNs) Rapid Test Kit

Technical Manual

(GICA)



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1 Principle and Application |

The test kit is used for detecting Quinolones (QNs) in samples such as tissues (fish, shrimp, crab, livestock and poultry meat, organs), eggs, milk, and more.

The kit is developed using the principle of competitive colloidal gold immunochromatography assay (GICA). After the sample solution is added to sample hole, if QNs is present, it will bind with gold labeled antibodies, thereby preventing the labeled antibodies from binding to the QNs conjugates on the nitrocellulose membrane.

If the content of QNs 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.

2 Technique Data |

Kit Sensitivity:

Drug name	Kit Sensitivity(ppb)
Enrofloxacin	0.5
Norfloxacin	0.5
Ciprofloxacin	0.5
Flumequine	1
Danofloxacin	1
Pefloxacin	1
Enoxacin	1
Oxolinic acid	2.5
Ofloxacin	1
Levofloxacin	10

Limit of detection:

Tissues	6ppb
Poultry eggs	6ppb
Milk	4ppb

3 Kit Content |

Package specification	20T/Kit	40T/Kit
Test device (with disposable dropper)	20	40
Sample reconstitution buffer	30mL×1	30mL×1
Instruction	1	1

4 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.

Micropipettes: single-channel (20-200μL and 100-1000μL)

Reagents: Acetic Acid Solution (analytical grade).

5 Sample Pre-treatment |

Please note that the labware must be clean. Use disposable droppers to avoid contamination of interference results.

5.1 Solution preparation before sample pre-treatment

Solution 1: 0.1% Acetic Acid Solution:

Take 0.1 mL of acetic acid solution (analytical grade), add deionized water, mix well, and make up to 100 mL.

5.2 Sample pretreatment step:

5.2.1 Animal tissues, poultry eggs treatment:

(1) Take 1±0.05g crushed samples (for animal tissues, remove fat) in a 15 mL centrifuge tube, add 1 mL of 0.1% acetic acid solution, shake for 5 minutes (the sample should now have a uniform paste-like consistency), centrifuge at 4000r/min for 5 minutes at room temperature.

(2) Take 0.1 mL of the supernatant after centrifugation and transfer it to another 1.5 mL centrifuge tube. Add 0.2 mL of sample reconstitution buffer, mix thoroughly. The resulting mixture is the processed sample.

5.2.2 Milk treatment:

(1) Dilute the fresh milk with deionized water in a 1:1 ratio, mix thoroughly, and the resulting mixture is the processed sample.

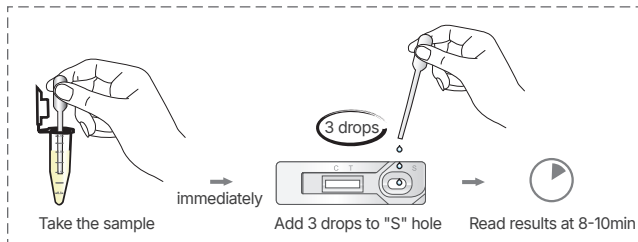
6 Test Steps |

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

(2) Pipette the processed sample with the provided dropper, then add 3 drops (approximately 60μL) vertically and slowly into the sample hole("S"). Please be aware to avoid the formation of foam during the process.

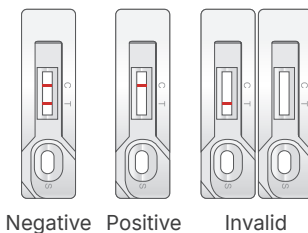
(3) Read the result at room temperature in 8 to 10

minutes. Results over 10 minutes can only be used as reference.



7 Results Judgement |

Negative: Test("T") line and control("C") line both appear in the result window. It indicates that the concentration of QNs 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 QNs in the sample is above the detection limit.

Invalid: If the control("C") line does not appear, the result might be considered invalid.

8 Notice |

8.1 Don't use the expired or damaged products.

8.2 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.

8.3 Avoid touching the white nitrocellulose membrane in the middle of the detection card.

8.4 In order to avoid cross-contamination, the droppers cannot pipet another Solution after pipetting one.

8.5 The sample solution to be examined needs to be clear and free of turbid particles. Otherwise, it is prone to lead to blockage, non-obvious color development and other abnormalities, affecting the determination of the experimental results.

9 Storage Conditions |

The kit shall be stored at 2°C to 30°C (35.6°F to 86°F) in dry environment.

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