Nitrofurans metabolites Rapid Test Kit Art. No.: E4701-16T

Nitrofurans are a class of drugs typically used as antibiotics or antimicrobials. The defining structural component is a furan ring with a nitro group.

This product utilizes the high affinity of monoclonal antibody against nitrofurans metabolites, which can easily identify its contamination in milk without any instrument.

1. Application

This kit can be used to qualitative detect nitrofurans metabolites in shrimp

2. Detection Limit (LOD) in Raw milk sample

Nitrofurans metabolites	T Lines	LOD (ppb)
Furaltadone metabolites	**T1**	**0.3**
Nitrofurazone metabolites	**T2**	**0.4**
Furazolidone metabolites	**T3**	**0.5**
Nitrofurantoin metabolites	**T4**	**0.2**

3. Kit components

- Test Strip, 16 pcs in 12 plastic bottles, 8 pcs / bottle.
- Reagent A: 10ml
- Reagent B: 100ml
- Reagent C: 8ml
- Derivative reagent: 4ml
- Extract reagent: 120ml
- Cleaning agent: 10ml
- Reconstitution fluid: 10ml
- 1 manual
- Reader (optional)

4. Sample pretreatment

- Remove the skin, take the meat, then treat it by a homogenizer.
- Weight 2.00±0.05 g of the homogenized sample into a 50 ml centrifuge tube, then add 4 ml deionized water, 0.5 ml reagent A and 0.2 ml derivative reagent successively, then vortex sample for 3 minutes.
- Incubate the sample at 60 ^{0}C for 15 minutes.
- Add 5 ml reagent B, 0.4 ml reagent C and 6 ml extract reagent successively, then vortex for 2 minutes.
- Centrifuge at 4000 rpm for 10 minutes.
- Take 3 ml of the upper yellow solution into a 15 ml centrifuge tube, dry the sample at 60 ^{0}C (the dried residue will be light red).
- Dissolve the dried residue in 0.5 ml cleaning agent, vortex for 1 minute.
- Then add 0.5 ml reconstitution fluid, vortex for 1 minute and centrifuge at 4000 rpm for 1 minute.
- Take the lower layer solution (around 500 µl) as the sample solution.

5. Operations

a) Please read the operating instructions carefully before the experiment. Bring the test kit and samples to room temperature.

b) Remove the reagent bucket from the original packaging, then open it, remove the required number of microwell reagents and test strips, and mark them. Please use it as soon as possible within 60min. Immediately after removing the test reagent, cover the reagent lid.

c) 200 µl of the sample solution was absorbed then tested into the microwells with a micropipette, slowly

aspirate and mix well with the reagents in the microwells.

d) After incubating for **5 min at room temperature (20-25 ºC)**, insert the labeled test strip into the microwell, allow it to fully immerse into the solution.

e) After incubating for **5 minutes at room temperature (20-25 ºC)** again, the test strip was taken out and judged according to the schematic diagram, and the other conditions was judged to be invalid.

6. Result Determination

Negative (-): Both the C and T lines (T1, T2, T3, T4) are colored, and the T line is stronger than the C line, indicating that the concentration of nitrofurans metabolites in the sample is below the detection limit.

Furaltadone metabolites Positive (+): T1 line color is the same as C line, T1 line color is weaker than C line or C line is colored and T1 line is not color, which means that the concentration of furaltadone metabolites in the sample is equal to or higher than the detection limit.

Nitrofurazone metabolites Positive (+): T2 line color is the same as C line, T2 line color is weaker than C line or C line is colored and T2 line is not color, which means that the concentration of nitrofurazone metabolites in the sample is equal to or higher than the detection limit.

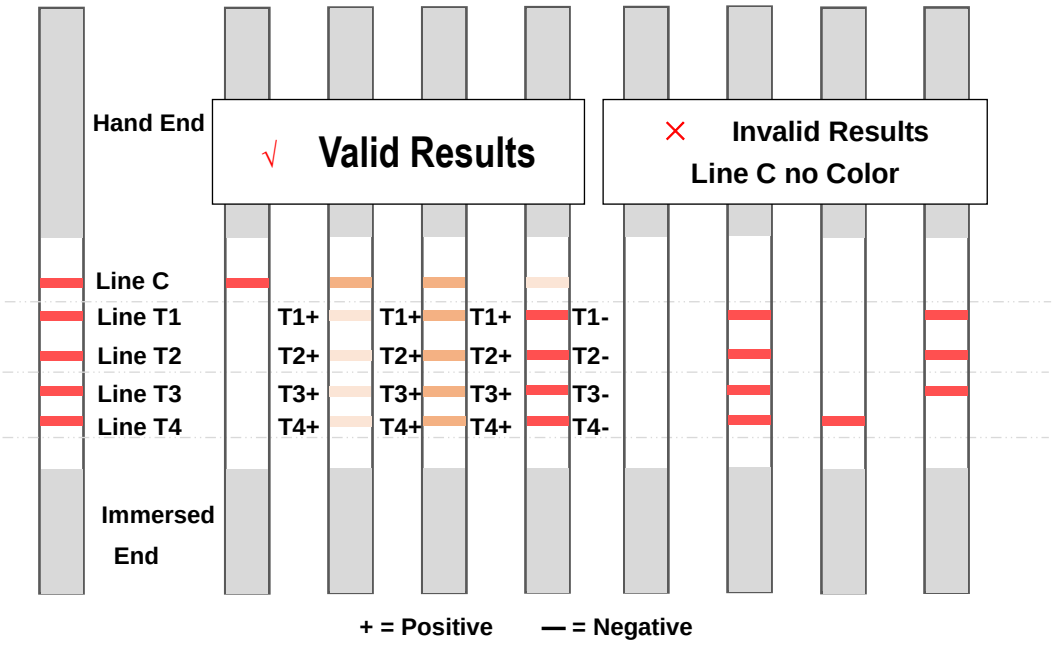
Furazolidone metabolites Positive (+): T3 line color is the same as C line, T3 line color is weaker than C line or C line is colored and T3 line is not color, which means that the concentration of furazolidone metabolites in the sample is equal to or higher than the detection limit.

Nitrofurantoin metabolites Positive (+): T4 line color is the same as C line, T4 line color is weaker than C line or C line is colored and T4 line is not color, which means that the concentration of nitrofurantoin metabolites in the sample is equal to or higher than the detection limit.

Invalid: The C line does not appear, indicating that the incorrect operation process or the test strip has deteriorated. In this case, read the instructions carefully and retest with a new test strip.

If the test strip needs to be recorded, please cut off the lower sponge pad immediately after the interpretation and dry it for archiving.

Remarks: In addition to the naked eye interpretation, you can use a special reader to make the result interpretation.



7. Specificity

The results are all negative when test sulfonamides, tetracyclines, aminoglycosides and florfenicol with the concentration of 500 μg/kg.

8. Storage

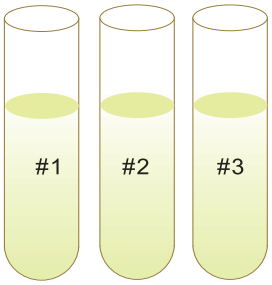
2-8^{o}C in cool dark place, do not freeze. The kit is valid for 12 months. Lot No. and expired date are printed on the package.

9. Notice and Precautions for a successful experiment.

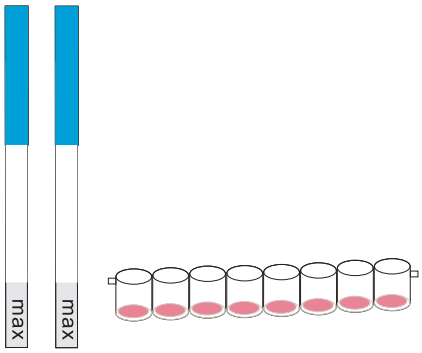
- Please test follow the operation steps. Do not touch the color zone of the strip.
- Immediately after the test reagent is removed, cover the reagent bucket lid. If you can't use 8 microwells at a time, immediately cover the remaining microwells with a microwell lid and put it back in the reagent bucket for sealed storage. When one bucket is used up, open another bucket to protect it from moisture.
- Do not mix test strips and microwell reagents with different batch numbers.
- This test strip is a one-off product and should not be reused.
- The test results of this product are for reference only. If you need to confirm, please refer to the relevant national standard methods.

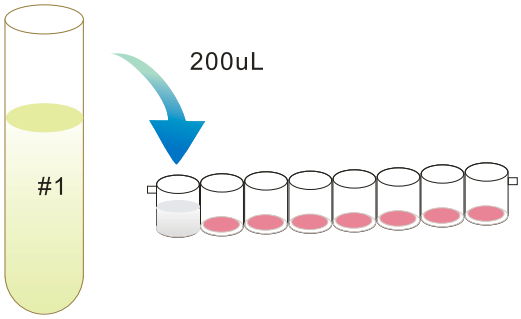
Schematic Assay Steps

1. Bring all test samples to room temperature; number them to keep record.

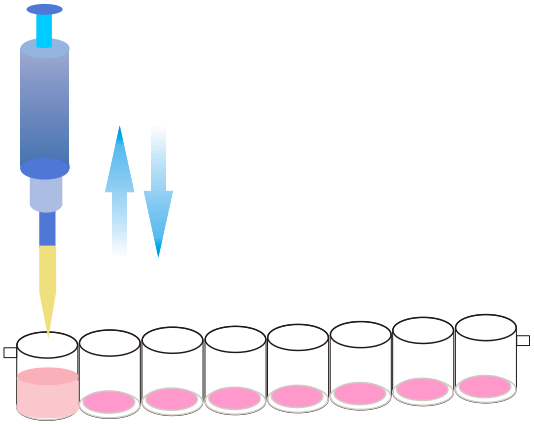


2. Take test kit according to your sample number and also number the kit wells to keep record and consistency.

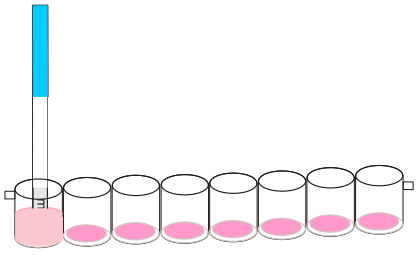




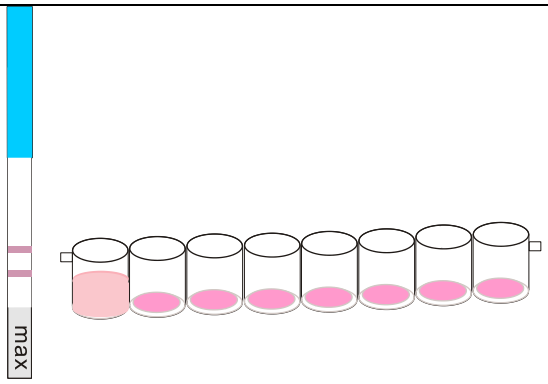
3. Take 200ul sample into the wells using pipet. You can also then put the well into the well holder to avoid sample spill.



4. Absorb up and down for 5 times to mix sample with reagent completely. Start the timer when the mixture is pink. **Incubate for 5 min at room temperature.**



5. Insert the "**Immersed**" end of the strip into the mixture; **Incubate for 5min at room temperature again.**



6. Take out the strip; judge the result according to **kit instruction.**

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