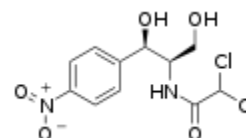


# Chloramphenicol Residue Rapid Test Strip (Milk)

Prod. No.: DTS028  
Pkg.Size: 40T



Chloramphenicol

## INTENDED USE

Chloramphenicol Residue Rapid Test Device is a rapid, one step test for the qualitative detection of 0.3 µg/kg Chloramphenicol in milk sample. It only takes approx. 30-40 min.

## GENERAL DESCRIPTION

Chloramphenicol(CAP), one kind of broad-spectrum antibiotic, is widely used in different lines of poultry, cattle, agriculture and beekeeping for its excellent antibacterial and pharmacokinetic properties. However, man would suffer from Aplastic Anemia or agranulocytopenia if the hematopoiesis function of marrow is inhibited. What's more, gastrointestinal tract and the nervous system will be affected. Therefore, it is possible that Chloramphenicol residues, after use in illegal practice, may lead to a risk for consumers.

## PRINCIPLE OF THE TEST

The test utilizes monoclonal gold conjugated antibody as a signal reagent and a Chloramphenicol protein conjugate as a solid phase capture reagent. As the sample flows through the absorbent sample pad, the liquid reconstitutes the dried monoclonal gold conjugate. The Chloramphenicol in the sample will bind to this conjugate antibody and migrate further up the membrane to the test line. If there is no Chloramphenicol in the sample, the antibody conjugate will bind to the test line giving a negative result, while in the opposite, the antibody conjugate will not bind to the test line giving a positive result.

## REAGENTS AND MATERIALS PROVIDED

**Chloramphenicol Residue Rapid Test Device:** 40 devices  
**PBST Buffer For CAP**

## ADDITIONAL MATERIALS

Ethyl acetate (A. P.)  
Any blower, such as hair drier  
Test tube clip  
N-hexane  
5M HCL solution  
Balance, centrifuge, a mild stream of nitrogen or atmosphere, transferpettor and so on.

## STORAGE

Store at 4-30°C, DO NOT FREEZE or use beyond the expiration date. The shelf life is 12 months.

## PRECAUTIONS

1. Do not use after the expiration date.
2. The test device should remain in the sealed pouch until use.
3. Use device as soon as possible but within 1 hour after removal from the pouch specially.
4. Do not touch the white membrane in the mid of the test device.
5. Use the plastic dropper for one time in case cross reaction happens.
6. It may lead into wrong result if there is bleach, oxydant, or fusty urine.
7. Do the test at room temperature. It takes longer time at high temperature, and shorter time at low temperature.
8. Different samples will influence the result on NC thecal. Read the result according to color differences of the color bar.
9. Be careful if you are allergic to antibiotics.

## SPECIMEN TREATMENT

1. Weigh 20 g milk into 50 ml test tube, and add 4 ml 5M HCl and 20 ml N-hexane, shake for 5 min to mix it.
2. Centrifuge for separation: 5 min / 4000 rpm / at room temperature. and suck 8ml of the under layer into the 50 ml test tube
3. Add 10 ml ethyl acetate, shake for 5 min, keep still for separation. Centrifuge for separation: 5 min / 4000 rpm / at room temperature if the separation is not clear
4. Suck 7 ml supernatant carefully into 5 ml test tube, dry it at 65°C with a mild stream of nitrogen or atmosphere.
5. Add 0.3 ml PBST only for CAP and 0.3 ml N-hexane. Dissolve the residue around the inner-tube. Keep still for 2 min.
6. Suck 100 µl under layer solution for test.

### Note:

- A. If for milk powder, dissolve the milk powder in water as 1:8. Get 20 g solution to do the sample treatment, so the sensitivity is 0.3 ppb multiplied by 9.
- B. If test the quality of the device with standard substance, please use the sealed PBST buffer to dilute.

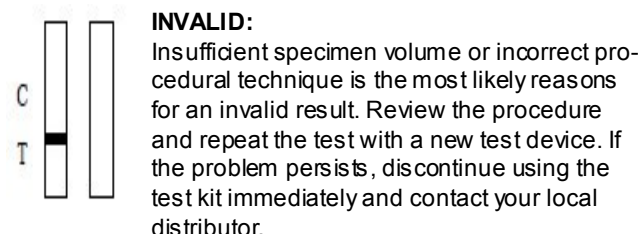
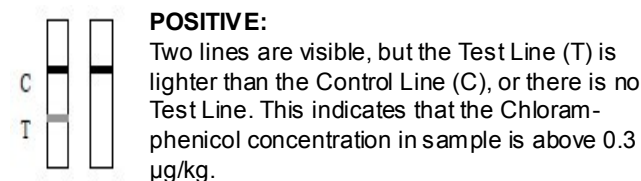
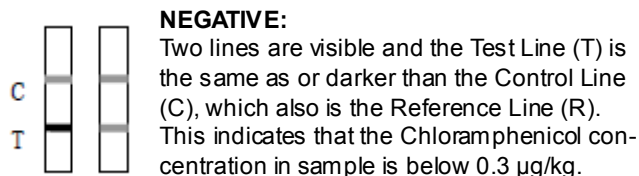
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## TEST PROCEDURE

1. Prepare samples according to **SPECIMEN TREATMENT**.
2. Remove the Residue Rapid Test Devices from sealed pouch.
3. Hold the dropper vertically and transfer 3 full drops of solution obtained from specimen treatment to the specimen well (S) of the test device, and then start the timer. Avoid trapping air bubbles in the specimen well (S).
4. Wait for red bands to appear. The result should be read in approximately 3~5 minutes. It is significant that the background is clear before reading the test. Do not interpret results after 5 minutes.

## INTERPRETATION OF RESULTS



## SENSITIVITY

To acquire the exact sensitivity, reduplicative experiment has been done on the sample containing 0.3 µg/kg Chloramphenicol.

## SPECIFICITY

No cross-reaction with standard Thiamphenicol (100 µg/kg) or Florfenicol (3000 µg/kg).

No cross-reaction with tetracyclines, gentamicin or ampicillin.

## QUALITY CONTROL

Procedural control is applied. A red band appears in the control region (C), which is also the reference region (R) that is for internal procedure control. It ensures efficiency and correct procedure technique.

Control standard is not supplied in this device. Proper laboratory practice is the confirmation of the test procedure and test performance.

## LIMITATION OF THE PROCEDURE

1. The Chloramphenicol Residue Rapid Test Device is only a preliminary analytical result. A secondary analytical method must be taken for confirmation. Gas or liquid chromatography and mass spectrometry method (GC/LC/MS) is preferred.
2. The Chloramphenicol Residue Rapid Test Device is a qualitative screening assay and cannot test the Chloramphenicol concentration in the specimen.
3. Technical or procedural errors, as well as other interfering substance in the specimen may cause falseness.

## PRECISION

A multi-center test evaluation is conducted between the Chloramphenicol Residue Rapid Test Device and other products. 566 specimen is tested, including 188 negative and 378 positive. 98.5% of the Chloramphenicol Residue Rapid Test Device is effective when comparing to other ELISA Chloramphenicol reagents.

## REFERENCE

1. Falagas ME, Grammatikos AP, Michalopoulos A (October 2008). "Potential of old-generation antibiotics to address current need for new antibiotics". *Expert Rev Anti Infect Ther* 6 (5): 593–600.
2. Nagao T, Mauer A (Jul 3 1969). "Concordance for drug-induced aplastic anemia in identical twins.". *N Engl J Med* 281 (1): 7–11.