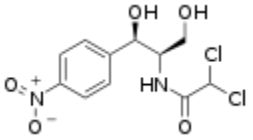
Chloramphenicol Residue Rapid Test Strip (Egg)

Prod. No.: DTS027
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 egg 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, gastrointesinal 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 principle of the test is the antigen-antibody reaction. The one step test device is a competitive immunoassay of which the detector reagent consists colloidal gold particles coated with affinity purified anti-Chloramphenicol antibodies. The reagent in the assay is a Chloramphenicol-protein conjugate, which is immobilised by the membrane of the test device. Specimens migrate through the membrane. The more analyte in the sample the more effective it will compete with the Chloramphenicol immobilised in the membrane for binding to the limited amount of antibodies of the detector reagent. If Chloramphenicol in the specimen is above 0.3 μg/kg, it will thus prevent the binding of the detector reagent to the Chloramphenicol immobilised on the membrane, resulting in positive.

REAGENTS AND MATERIALS PROVIDED

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

ADDITIONAL MATERIALS

1. Ethyl acetate (A. P.)
2. N-hexane
3. Any blower, such as hair drier
4. Balance
5. Pipette

STORAGE

Store at 4-30℃, 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 2 g of egg into a 15 ml centrifugal vial.
2. Add 10 ml of ethyl acetate and blend for approx. 10 min
3. Centrifuge for separation: 5 min / 4000 rpm / at room temperature
4. Transfer 5 ml of ethyl acetate supernatant into a rotary flask and dry it at 65°C with a mild stream of nitrogen or atmosphere.
5. Add 0.3 ml N-hexane and 0.3 ml PBST only for CAP orderly, dissolve the dried residue around the inner-tube, and keep still for 2 min.
6. Suck at least 100 μl of the under layer solution.

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.

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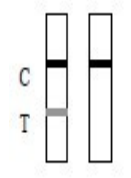
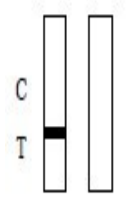
INTERPRETATION OF RESULTS

NEGATIVE:
Two lines are visible and the Test Line (T) is the same as or darker than the Control Line (C), which also is the Reference Line (R). This indicates that the Chloramphenicol concentration in sample is below 0.3 μg/kg.



POSITIVE:
Two lines are visible, but the Test Line (T) is lighter than the Control Line (C), or there is no Test Line. This indicates that the Chloramphenicol concentration in sample is above 0.3 μg/kg.



INVALID:
Insufficient specimen volume or incorrect procedural technique is the most likely reasons for an invalid result. Review the procedure and repeat the test with a new test device. If the problem persists, discontinue using the test kit immediately and contact your local distributor.

SENSITIVITY

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

SPECIFICITY

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

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.

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