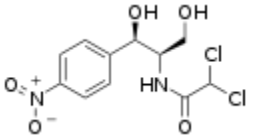
Chloramphenicol Residue Rapid Test Strip (Meat)

Prod. No.: DTS030
Pkg.Size: 40T



Chloramphenicol

INTENDED USE

Chloramphenicol Residue Rapid Test Device is a rapid test to qualitatively detect the Chloramphenicol in meat at the sensitivity of 0.1 μg/kg. It only takes approx. 30 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 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
5 ml graduated vial: 40 pieces/kit
N-hexane
Balance, centrifuge, a mild stream of nitrogen or atmos phere, transferpettor and so on.

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. Homogenize a reasonable amount of sample (e.g. 50 g) with a suitable equipment (e.g. ultra turrax or mixer).
2. Weigh 5 g of homogenized sample into a 50 ml centrifuge.
3. Add 10 ml ethyl acetate and blend for approx. 10 min .
4. Centrifuge for separation: 5 min / 4000 rpm / at room temperature.
5. Transfer 7 ml of ethyl acetate supernatant into a rotary flask and dry it at 65°C with a mild stream of nitrogen or atmosphere
6. 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.
7. Suck at least 100 μl of the under layer solution.

Note:
If test the quality of the device with standard substance, please use the sealed PBST buffer to dilute.
There is no 7ml solution
Solution: Be capped tightly after adding ethyl acetate in case the solution is filtered out when do shaking.
At least 6 ml solution.

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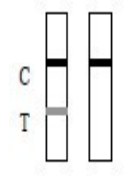
TEST PROCEDURE

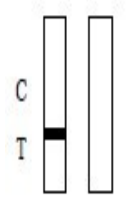
1. Prepare samples according to ***SPECIMEN TREATMENT***.
2. Remove the Residue Rapid Test Devices from sealed pouch.
3. Hold the dropper vertically and transfer 3 full drops of solution obtained from specimen treatment to the specimen well (S) of the test device, and then start the timer. Avoid trapping 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

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 0.1 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 0.1 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 0.1 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.

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