

Chloramphenicol Test Strip (Catalog TBS11121; 20 tests/kit)

For detection of chloramphenicol residue from meat samples (meat, fish, and shrimp).

INTRODUCTION

Chloramphenicol is a widely used broad-spectrum antibiotic effective against both Gram-positive and Gram-negative bacteria, and functions by inhibiting bacterial protein synthesis. It has been used to treat many infectious diseases in humans and animals, but serious side effects could result from its use. Its major toxic side effect is bone marrow suppression, lowering counts of white blood cells and platelets, and sometimes leading to fatal aplastic anemia. In addition, residual chloramphenicol can lead to an antibiotic-resistant bacterial population. As a result, usage of chloramphenicol has been forbidden in many countries, and no detectable amount is allowed in any food of animal origin. Still, because of its low cost and high availability, chloramphenicol is still used illegally in many parts of the world.

The Tribo™ chloramphenicol test strip provides a rapid and convenient test for chloramphenicol with a colloidal gold immunochromatographic design. It detects residual chloramphenicol in animal tissue such as meat, fish, or shrimp, providing a fast (results shown in 10 minutes), simple, high sensitive, and reliable detection approach for the presence of chloramphenicol.

The lower detection limit (LDL) of chloramphenicol in the sample is 0.1 ng/ml (0.1 ppb).

KIT APPLICATIONS

The Tribo™ chloramphenicol test strip is a lateral flow strip test for the detection of residual chloramphenicol in animal tissue (meat, fish, or shrimp).

Assay sensitivity: 0.1 ng/ml (0.1 ppb).

PRINCIPLE OF THE ASSAY

The assay principle of the Chloramphenicol Rapid Test is based on the principle of competitive lateral flow immunochromatography. A chloramphenicol antibody is conjugated to colloidal gold and placed on the conjugate pad. Colloidal gold provides red color to visualize antibody-antigen binding. Chloramphenicol antigen is immobilized on the nitrocellulose membrane. After testing, the sample is loaded onto the sample pad, where it mixes with the gold-antibody conjugate and migrates together along the membrane. If the sample contains no chloramphenicol, the antibody conjugated to colloidal gold will bind the antigen immobilized on the membrane, leading to a clear red color presented on the membrane detection line where the test antigen is immobilized (indicating a negative result). If chloramphenicol is present in the test sample, it will bind the gold-antibody conjugate and prevent its binding onto the antigen line on the membrane. As a result, no color will be visible on the detection line on the membrane (indicating a positive result).

KIT CONTENT AND STORAGE CONDITIONS

- 20×foil pouches/kit. Each pouch contains one cassette, one pipette and a desiccant.
- Assay buffer (10 mL)

Shelf-life: Storage at room temperature (20-25°C) is stable for one year.

PRECAUTIONS

Wear protective gloves, clothing, eye, and face protection. Wash hands thoroughly after handling.

SAMPLE PREPARATION AND TEST PROCEDURES

Bring test strip, samples, and all reagents to room temperature (20-25°C) before use.

Sample Preparation:

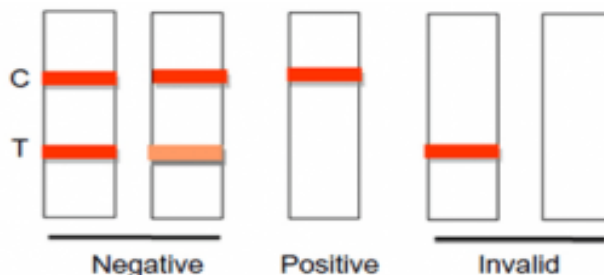
1. Cut 1 g of tissue sample into tiny pieces and put into a centrifuge tube.
2. Add 1 ml sample buffer, tighten the lid, and heat 5-10 min at 90°C (heating with water bath is recommended) before taking the tube out.
3. Centrifuge at 4,000 rpm for 10 min.
4. Cool down to room temperature.

Testing Procedures

1. Take out the cassette from the foil pouch and place it horizontally.
2. Gradually drip 3 drops of supernatant into the sample hole "S".
3. Interpret the result in 5-10 minutes.
4. Result Interpretation.

Test result is interpreted by observing test line and control line shown in result window as the below diagram (Fig. 1). **Negative (-):** both test (T) and control lines (C) are present, indicating "Negative" which means that the chloramphenicol concentration in sample is lower than the detectable amount (0.1ng/mL); **Positive (+):** control line(C) is present, and test line (T) is absent. This result indicates the chloramphenicol concentration is higher than the detectable line in sample (0.1ng/mL). **Invalid test:** no control line (C) is present. Please repeat the test using a new test strip following instructions in this user guide.

Fig. 1 Diagram for result interpretation



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RELATIVE PRODUCTS

Melamine Rapid Test (TBS11102)
Clenbuterol Rapid Test for urine (TBS11111)
OTA Rapid Test Strip (TBS11116)
Ractopamine Rapid Test (TBS11131)
Salbutamol Rapid Test Strip (TBS11141)
Shiga Toxin Test Strip (TBS11151)
Deoxynivalenol (DON) Test Strip (TBS11156)
Aflatoxin B1 Test Strip (TBS11166)
Zearalenone (ZEA) Test Strip (TBS11171)
Microbial Magnetic DNA Extraction (TBS6025)
Chloramphenicol Fast ELISA (TBS21121)
STEC-Salmonella qPCR kit (TBS42029)
4-in-1 Aspergillus qPCR kit (TBS42025)

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