



## *AccuDip*<sup>TM</sup> Chloramphenicol Test Strip User Guide

(Product No. AAF-11121)

### **General Description**

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 human and animals, but serious side effects could result from its usage. Its major toxic side effect is bone marrow suppression, lowering counts of white blood cells and platelets and sometime leading to fatal aplastic anemia. In addition, residual chloramphenicol can lead to 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 *AccuDip*<sup>TM</sup> 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**, **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).

### **Intended Use**

The *AccuDip*<sup>TM</sup> 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)

### **Safety Instructions**



To receive complete safety information on this product, contact AccuAffinity, Inc. and request Material Safety Data Sheet.

### **Assay Principles**

*AccuDip<sup>TM</sup>* chloramphenicol test strip is based on the principle of colloidal gold immunochromatography. An anti-chloramphenicol antibody is conjugated to colloidal gold and placed on conjugate pad. Colloidal gold provides red color to visualize antibody-antigen binding. Chloramphenicol antigen is immobilized on nitrocellulose membrane. After test sample is loaded onto sample pad, it mixes with gold-antibody conjugate and migrates along the membrane. If the sample contains no chloramphenicol or amount of chloramphenicol lower than detection limit, antibody conjugated to colloidal gold will bind the antigen immobilized on membrane, leading to clear red color presented on membrane detection line where the test antigen is immobilized. If chloramphenicol concentration is higher than detection limit in the test sample, it will bind gold-antibody conjugate and prevent its binding onto the antigen line on membrane. As a result, no color will be visible on detection line on membrane.

### **Reagents and Materials in each pack**

- a) 1 chloramphenicol test strip
- b) 1 dropper tube (disposable)
- c) 1 pack of desiccant
- d) 1 bottle of sample buffer

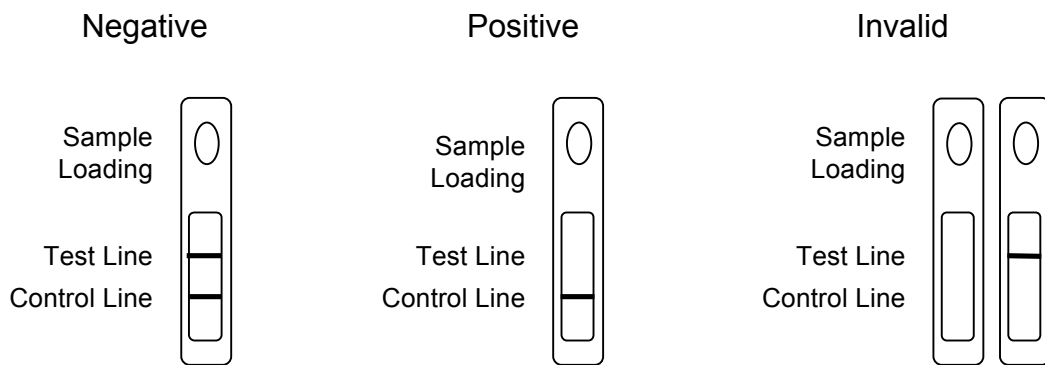
### **Sample Collection and Test Procedure**

- Equilibrate test strip to room temperature (20-25°C)
  - Equilibrate test sample to room temperature (20-25°C)
- a) Cut 1 g of tissue sample into tiny pieces and put into a centrifuge tube.
  - b) Add 1 ml sample buffer, tighten the lid, and heat 5-10 min at 90°C (heating with waterbath is recommended) before taking the tube out.
  - c) Centrifuge at 4,000 rpm for 10 min.
  - d) Cool down to room temperature, and add 2 drops of supernatant into the sample loading well of test strip and start timing. Observe results in 5 min.

### **Result Interpretation**



Test result is interpreted by observing test line and control line shown in result window.  
Negative (-): both test and control lines are present, and test line is darker than control line, or with darkness equal to control line. This demonstrates that chloramphenicol concentration in sample is lower than 0.1 ng/ml;  
Positive (+): control line is present, and test line is either absent or lighter than control line. This result indicates chloramphenicol concentration of higher than 0.1 ng/ml in sample;  
Invalid test: no control line is present. Please repeat the test using a new test strip following instructions on this user guide.



### Precautions

1. Test strip is for one-time use only. Please use the test strip on the same day the package is opened.
2. Do not use tap water, purified water, or distilled water as negative control.
3. Test should be performed at room temperature, and test strip and sample need to be equilibrated to room temperature before the test.
4. If no liquid movement is observed in the test window 30 seconds after test solution (supernatant) is added to sample loading well, add one more drop of test solution.
5. It is recommended that positive samples identified by test strip be re-tested with more accurate approaches (such as HPLC or GC-MS).

### Storage and Expiration Date

Storage: Room Temperature.

Expiration Date: 12 months after manufacturing date.



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## **Technical Assistance**

For ordering or technical assistance regarding this product, or for additional information about AccuAffinity products, please email [support@accuaffinity.com](mailto:support@accuaffinity.com) or call (408) 368-1364.

## **General Limited Warranty**

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