**INTENDED USE**

The Tetracycline Residue Rapid Test Device is a rapid, one step test for the qualitative (or quantitative) detection of most common Tetracyclines residues in tissues at the sensitivity of $10\mu$g/kg ($10$ppb). The total assay time takes approx. 10min.

**GENERAL DESCRIPTION**

Tetracyclines (TCs), is a broad spectrum antibiotic which is widely used as bacteriostatic agents in animal husbandry and veterinary practice. It may cause side effects on gastrointestinal tract, kidney, liver, hematological system. What is worse, it may cause allergic shock. Therefore, it is possible that Tetracycline 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 Tetracycline 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 Tetracycline in the sample will bind to this conjugate antibody and migrate further up the membrane to the test line. If there is no Tetracycline 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.

**TEST PROCEDURE**

Read the entire procedure carefully before performing any tests.

1. Prepare samples according to chapter 7 (Sample preparations).
2. Remove the Tetracyclines Residues Rapid Test Devices from sealed pouch.
3. Suck prepared meat sample, hold the dropper vertically and drop 3 full drops to the specimen well (S) of the test device (See the illustration upper right) 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. Do not interpret results after 5 minutes.

**SAMPLE PREPARATIONS**

1. Weigh 1g homogenized sample into 5ml tube
2. Add 1ml Tetracycline A, shake for 2min
3. Centrifuge at room temperature 4000 rpm/min for 5min
4. Transfer 0.5ml supernatant to another 5ml test tube, add 40 µL Tetracycline B, mix it
5. Suck at least 3 drops (around 100µL ) of mixed sample for test

**REAGENTS PROVIDED**

1. Tetracycline Residue Rapid Test Device (40 tests /kit)
2. Product Instruction (1 set /kit)
3. Disposable gloves (20 pieces /kit)
4. Tetracycline A(1bottle /kit)
5. Tetracycline B(1bottle /kit)

**MATERIALS REQUIRED BUT NOT PROVIDED**

Balance, Homogenizer, Centrifuge, Micro-pipettor, Test tubes

**EVALUATION**

**READING RESULTS**

**NEGATIVE:**

The Test Line (T) is the same as or darker than the Control Line (C). It is negative.

**POSITIVE:**

The Test Line (T) is lighter than the Control Line (C), or there is no Test Line. It is positive.
LIMITATIONS OF THE TEST

1. The Tetracycline Residue Rapid Test Device provides only a preliminary analytical result. A secondary analytical method must be used to obtain a confirmed result. Gas chromatography and mass spectrometry (GC/MS) are the preferred confirmatory methods.

2. The Tetracyclines Residues Rapid Test Device is a qualitative screening assay and cannot determine the Tetracyclines concentration in the specimen if without Colloidal Gold Reader.

3. Technical or procedural errors, as well as other interfering substances in the specimen may cause erroneous results.