

MilkGuard β -Lactams & Tetracyclines Combo Test Kit

1. Principle

This kit is based on the specific reaction of antibody-antigen and immunochromatography. β -lactams and tetracyclines antibiotics in the sample compete for the antibody with the antigen coated on the membrane of the test strip. Then after a color reaction, the result can be observed.

2. Applications

This kit is used for rapid qualitative analysis of β -lactams and tetracyclines in raw milk sample.

3. Detection Limit (LOD)

β -lactams	MRL(μ g/L)	LOD(μ g/L)	Cephalosporins	MRL(μ g/L)	LOD(μ g/L)
penicillin G	4	3-4	cefquinome	20	20-30
ampicillin	4	3-4	cefacetrile	125	40
amoxicillin	4	4-5	cefalonium	20	5-10
oxacillin	30	6-8	ceftriaxone	-	100
cloxacillin	30	6-8	cefoperazone	50	40-50
dicloxacillin	30	6-8	cephapirin	60	20
nafcillin	30	20-30	ceftiofur	100	90-100
Tetracyclines	MRL(μ g/L)	LOD(μ g/L)	Tetracyclines	MRL(μ g/L)	LOD(μ g/L)
tetracycline	100	40-60	doxycycline	100	40-60
oxytetracycline	100	80-100	chlortetracycline	100	40-60

4. Kit components

- 8-well strip and 8 test strip in one bottle. 12 bottles / kit.
- microwell holder, 1pcs
- Kit insert
- Plastic pipette, 96pcs

** Use one strip for one sample, the rest strips can be stored in the bottle for future use.

5. Assay operations

- (1) Read the instructions carefully before experiment. Bring the test kit and samples to room temperature. Milk samples should be fully liquid without any agglomeration or deposition.
- (2) Take bottles needed from the kit package, take out required wells and strips, and make proper marks. Please use these test strips within 1h. Seal the cap of the bottles. The rest strips can be stored for future use.
- (3) Take 200ul of the test samples into the wells, then repeatedly absorb and drop for 5 times to mix the sample with the reagent in the wells completely. The mixture should be pink, and then start the timer.
- (4) Incubate for 5min at room temperature (25°C); insert the test strips into the wells with the "MAX" end fully dipped in to the mixture.
- (5) Incubate for 5min at room temperature again. Take out the strip; judge the result according to **Part 6**.

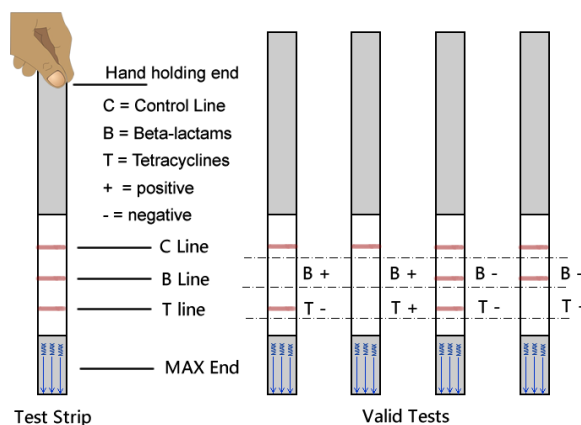
6. Results

There are 3 lines in the strip, **Control line**, **Beta-lactams Line** and **Tetracyclines Line**, which are briefly used as "C", "B" and "T". The test results will depend on the color of these lines. The following diagram describes the result identification.

Negative: Control line, B Line and T Line are all red;

Beta-lactams Positive: Control Line is red, B Line has no color;

Tetracyclines Positive: Control Line is red, T Line has no color;



Beta-lactams and Tetracyclines Positive: Control Line is red; B Line and T Line have no color;

Please notice: Control line is used as a quality indicator, which will always appear regardless of the B/T line. If Control line does **NOT** appear, this indicates that the result is **invalid**. Users please check the kit insert again and re-do the assay with new test strips.

7. Specificity

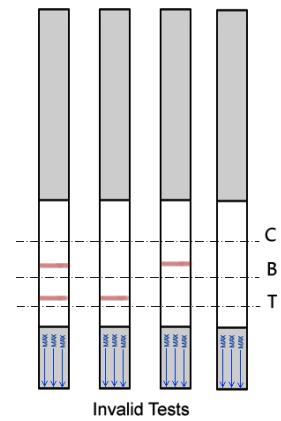
The kit has no cross reactions with clenbuterol, ractopamine, salbutamol, melamine, trenbolone, sulfonamides, chloramphenicol, macrolides and other drugs.

8. Storage

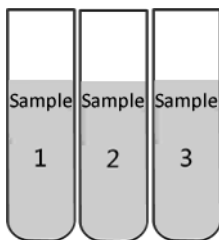
2-8°C in cool dark place, do not freeze. The kit will be valid in 12 months. The lot number and expired date are printed on the package.

9. Notice for operations

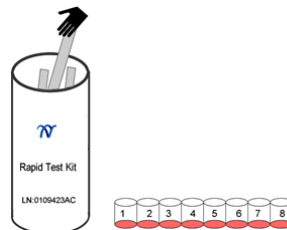
- (1) Please do the assay following the instruction, do not touch the membrane of the strip.
- (2) Please seal the bottle after taking out required strips.
- (3) This strip is used for only once; please do not use it repeatedly.
- (4) This kit is only for screening test, positive result should be further confirmed with other method.



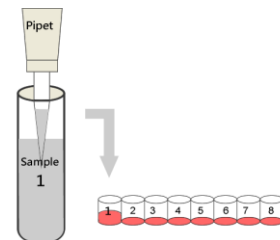
Assay Steps



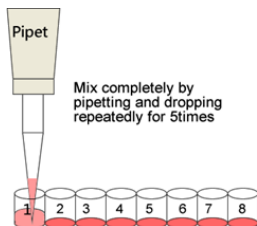
1. Prepare the test samples. Make proper marks, bring them to room temperature.



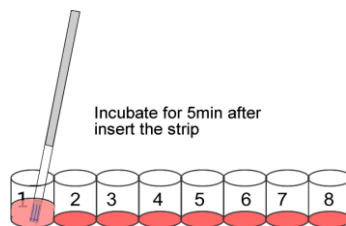
2. Take out required test wells, make proper marks.



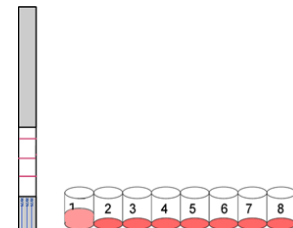
3. Take 200ul test sample into the wells



4. Mix the sample and reagent in the well completely by pipetting and dropping repeatedly for 5 times. Start the timer when the mixture is pink. Incubate for 5min at room temperature.



5. Insert the test strips into the wells with the "MAX" end fully dipped in to the mixture. Incubate for 5min at room temperature again.



6. Take out the strip; judge the result according to **Part 6**.