

# β-Lactams & Tetracyclines Combo Test Kit

(5'+5'-10ppbTC) Art. No.: 100002-96T

Being the result of obtaining high milk yield, cow mastitis is quite common in modern dairy industry, thus antibiotics like β-Lactams and tetracyclines, etc., are frequently administered in veterinary clinical practice. However, these antibiotics residues in milk may cause potential damage to human health, which is now strictly controlled and supervised in many countries.

This product utilizes the high affinity of β-Lactams capture protein against the antibiotics, which can easily identify these potential hazardous substances in milk without any instrument. The detection limit of the kit can meet both European and USA MRLs.

## 1. Detection Limit (LOD) in Raw milk sample

β-lactams	MRL(μg/L)	LOD(μg/L)	Cephalosporins	MRL(μg/L)	LOD(μg/L)
Penicillin G	4	2-4	Cefquinome	20	15-20
Ampicillin	4	3-4	Cefacetile	125	100
Amoxicillin	4	3-4	cefalonium	20	18-20
Oxacillin	30	6-8	cefoperazone	50	40-50
Cloxacillin	30	6-8	cephapirin	60	50-60
Dicloxacillin	30	6-8	Cefalotin	-	80
Nafcillin	30	20-30	ceftiofur	100	90-100
Tetracyclines	MRL(μg/L)	LOD(μg/L)	Tetracyclines	MRL(μg/L)	LOD(μg/L)
Tetracycline	100	8-10	Doxycycline	100	8-10
Oxytetracycline	100	8-10	Chlortetracycline	100	8-10

## 2. Kit components

- Test Strip, 96 pcs in 12 plastic bottles, 8 pcs / bottle.
- Kit insert

## 3. Operations

- Read the instructions before experiment. Bring the test kit and samples to room temperature. Milk samples should be fully liquid without any agglomeration and deposition.
- Take bottles needed from the kit package, take out required wells and strips, and make proper marks. Please use the test strips within 1h. Seal the cap of the bottles and store the rest of the unused kit.
- Take 200ul of the milk sample into the microwell, then repeatedly absorb up and down for 5 times to mix the sample with the reagent in the wells completely. The mixture should be pink, and then start the timer.

**Note:** In case you are sampling with plastic pipet, please add sample to the MARKER LINE on the microwell.

- Incubate for **5min** at room temperature, and then insert the test strip into the well with the "MAX" end fully dipped in to the mixed reagent and sample.
- Incubate for **5min** at room temperature again. Take out the strip; determine the result according to **Part 4**.

## 4. Result Determination

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

**INVALID** Line C has no color. **In this case, the test will be invalid.**

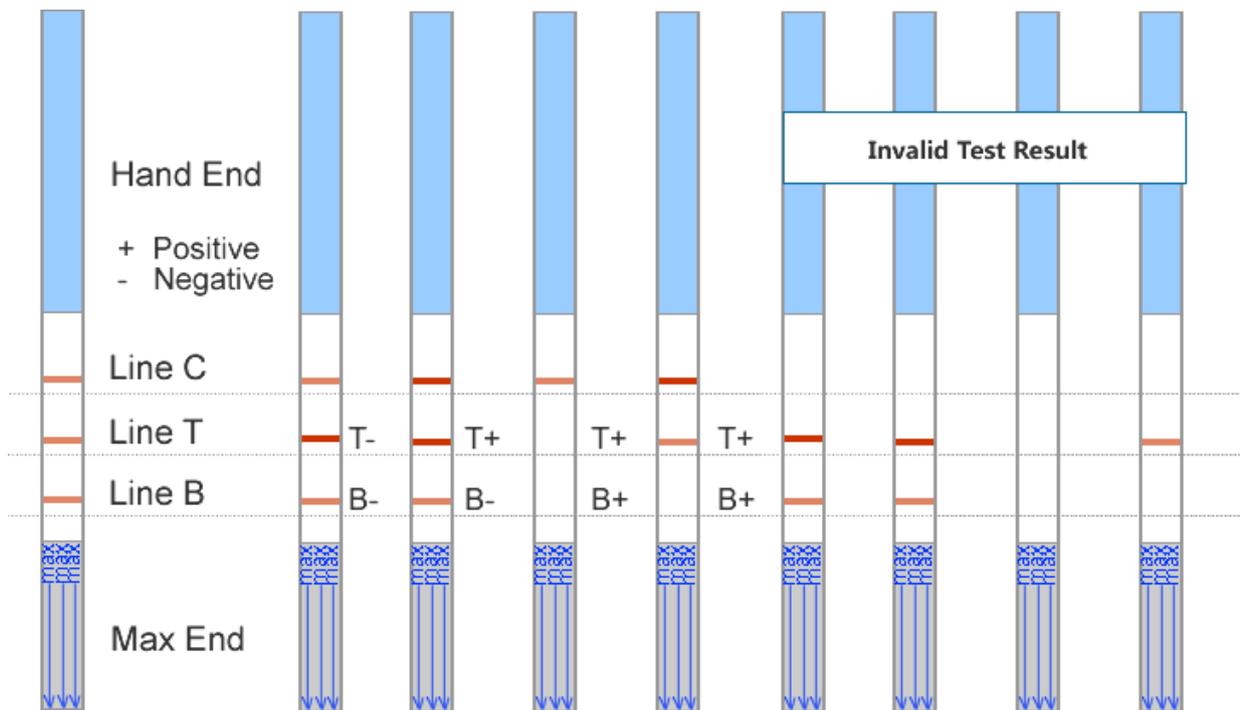
**NEGATIVE** **Beta Negative:** if Line B appears, the result will be negative.

**Tetra Negative:** Compare the color of Line T with Line C, if the color of Line T **is deeper than** Line C, the result will be negative.

**POSITIVE** **Beta Positive:** if Line B does not appear, the result will be positive.

**Tetra Positive:** Compare the color of Line T with Line C, if the color of Line T **is lighter than or Equal to** Line C, the result will be positive. If there is **no Line T**, the result is also **positive**.

**PLEASE NOTICE** **Line C 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 repeat the assay with new test strip.



## 5. Storage

2-8°C in cool dark place, do not freeze. The kit is valid for 12 months after manufacture date. Lot number and expired date are printed on the package.

## 6. Notice and Precautions for a successful experiment.

Please perform the assay following the instruction, do not touch the membrane of the strip.

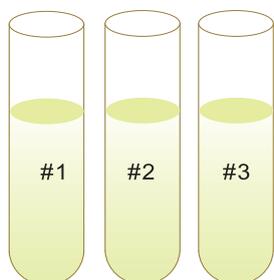
Please seal the bottle after taking out required strips.

This strip is used for only once; please do not use it repeatedly.

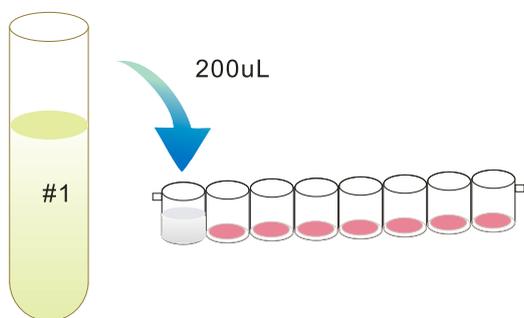
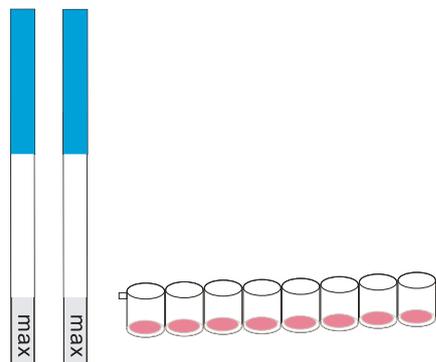
This kit is only for screening test, positive result should be further confirmed with other method.

## Schematic Assay Steps

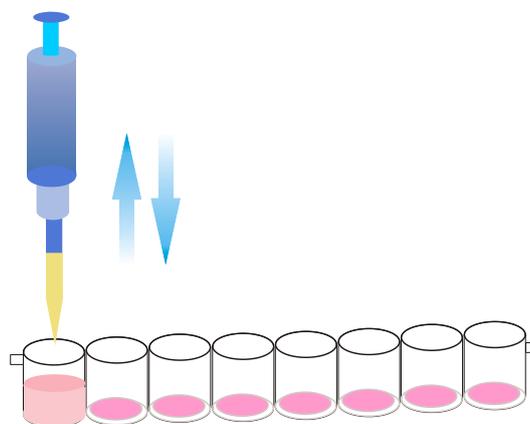
1. Bring all test samples to room temperature; number them to keep record.



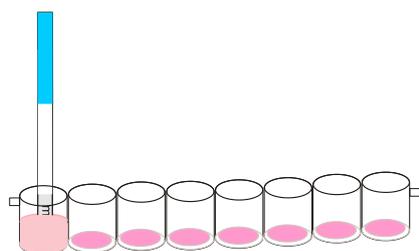
2. Take test kit according to your sample number and also number the kit wells to keep record and consistency.



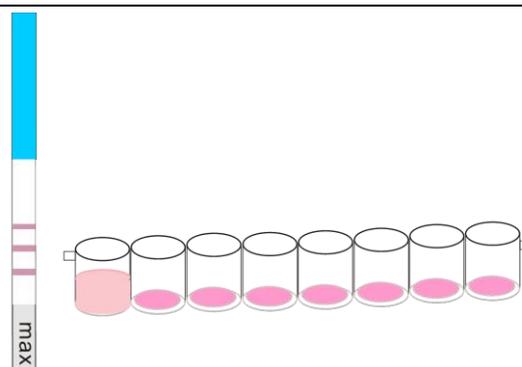
3. Take 200ul sample into the wells using pipet. You can also then put the well into the well holder to avoid sample spill.



4. Absorb up and down for 5 times to mix sample with reagent completely. Start the timer when the mixture is pink. **Incubate for 5 min.**



5. Insert the "MAX" end of the strip into the mixture; **Incubate for 5min at room temperature again.**



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

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