

**Principle**

This product utilizes the high affinity antibodies and capture protein against macrolides, tetracyclines and beta-lactams antibiotics, which can easily identify these potential hazardous substances in milk without any instrument.

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

$\beta$ -lactams	MRL( $\mu$ g/L)	LOD( $\mu$ g/L)	Cephalosporins	MRL( $\mu$ g/L)	LOD( $\mu$ g/L)
Penicillin G	4	2-4	Cefquinome	20	15-20
Ampicillin	4	3-4	Cefacetrile	125	100
Amoxicillin	4	4-5	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( $\mu$ g/L)	LOD( $\mu$ g/L)	Macrolides	LOD( $\mu$ g/L)	
Tetracycline	100	100	Tylosin	100	
Oxytetracycline	100	100	-	-	
Doxycycline	100	100	-	-	
Chlortetracycline	100	100	-	-	

**2. Kit components**

- Test Strip, 96 pcs / package.
- Kit instruction

**3. Operations**

- Bring all test samples to room temperature. (The optimum temperature for test is 20-25°C.)
- 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 out required wells and strips from the bottle, 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.
- Put the wells on the heater. 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 **5 min at 20-25°C**, and then insert the test strip into the well with the "Immersed" end fully dipped in to the mixed reagent and sample.
- Incubate for **5 min at 20-25°C**. Take out the strip; determine the result according to **Part 4**.

**4. Result Determination**

There are 4 lines on the strip, **Control Line**, **Tetracycline Line**, and **Beta-lactams Line**, **Macrolides Line** which are briefly used as "**Line C**", "**Line T**", "**Line B**" and "**Line M**". 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**

**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.

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

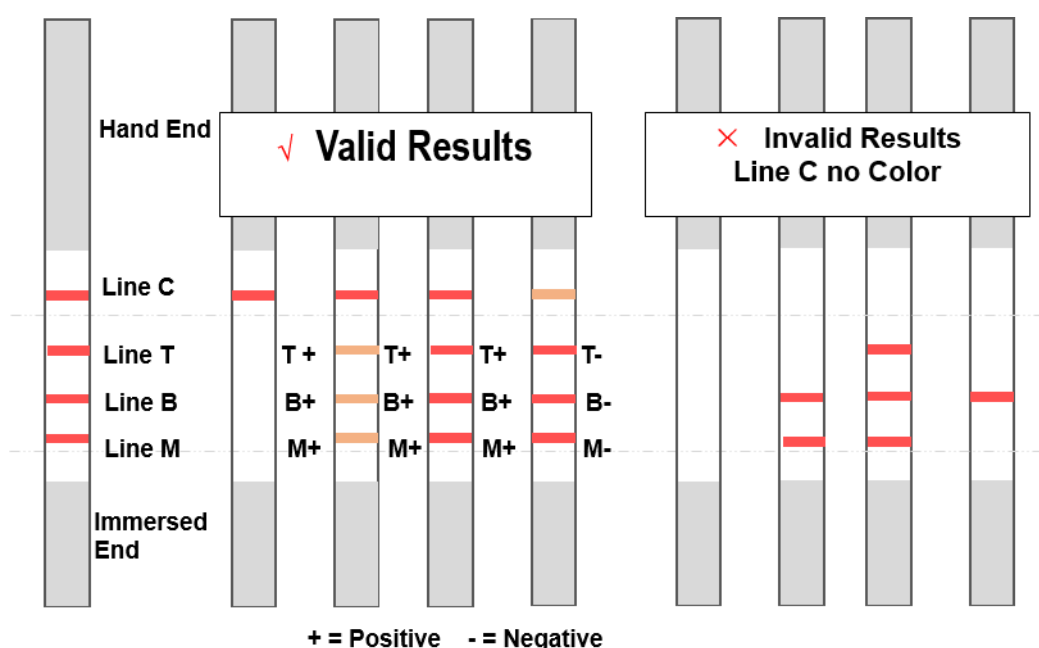
**Macrolides Negative:** Compare the color of Line M with Line C, if the color of Line M is deeper than Line C, the result will be negative.

### **POSITIVE**

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

**Beta Positive:** Compare the color of Line B with Line C, if the color of Line B is lighter than or the same as Line C, the result will be positive. If there is no Line B, the result is also **positive**.

**Macrolides Positive:** Compare the color of Line M with Line C, if the color of Line M is lighter than or the same as Line C, the result will be positive. If there is no Line M, the result is also **positive**.



**PLEASE NOTICE** Line C is used as a quality indicator, which will always appear regardless of the T/B/M 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.

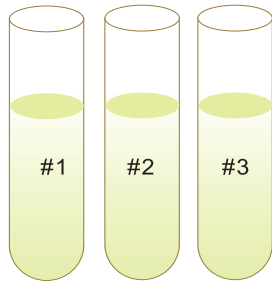
Please seal the bottle after taking out required strips.

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

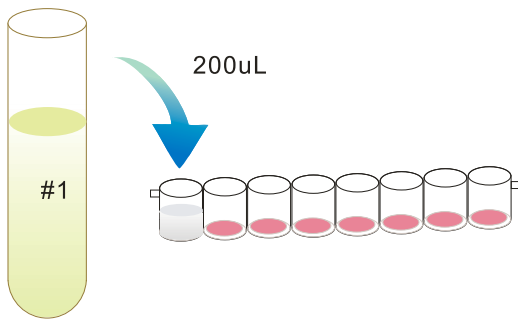
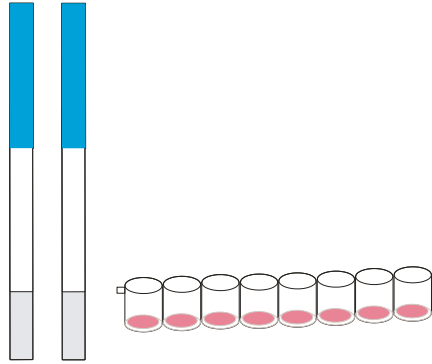
This kit is only for screening test, positive result should be further confirmed with other method.

## Schematic Assay Steps

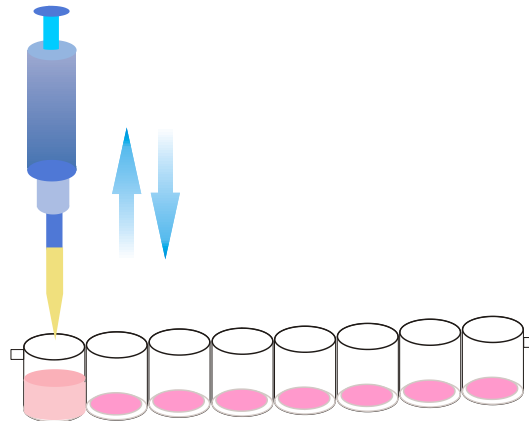
1. Bring all test samples to room temperature; number them to keep record.



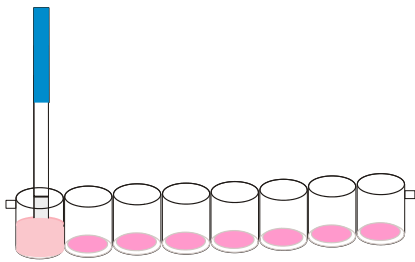
2. Take test kit according to your sample number and also number the kit wells to keep record and consistency.



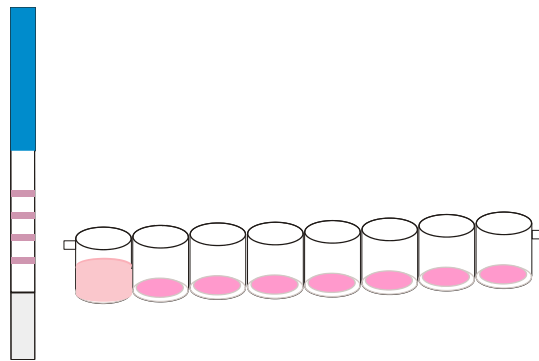
3. Take 200ul sample into the wells using pipet. You can also then put the well into the well holder to avoid sample spill.



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 "Immersed" 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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