



Milk Antibiotic Residues Rapid Test Kit

2IN1 BT (Beta-lactams+ Tetracyclines)



QuickBio Diagnostics Co., Ltd.



Beta-lactams & Tetracyclines Strip Test

USER MANUAL

Intended Use

The Beta-lactams & Tetracyclines Strip Test is a lateral flow assay that determines a qualitative level for the presence of beta-lactams and tetracyclines antibiotic residues in raw cow's milk. This test is designed for on-site rapid field detection or daily control in laboratories.

Limit of Detection ($\mu\text{g/kg}$ =ppb)

Penicillins		
Antibiotic	EU MRL ($\mu\text{g/kg}$)	LOD ($\mu\text{g/kg}$)
Penicillin G	4	2-3
Cloxacillin	30	3-6
Amoxicillin	4	3-4
Oxacillin	30	5-7
Nafcillin	30	15-20
Ampicillin	4	2-4
Dicloxacillin	30	3-6
Benzathine	/	2-4
Cefalosporins		
Antibiotic	EU MRL ($\mu\text{g/kg}$)	LOD ($\mu\text{g/kg}$)
Cefquinome	20	15-20
Cefalonium	20	3-5
Ceftiofur	100	80-100
Cefapirin	60	15-20
Cefazolin	50	40-50
Cefoperazone	50	3-5
Cefacetile	125	35-40
Tetracyclines		
Antibiotic	EU MRL ($\mu\text{g/kg}$)	LOD ($\mu\text{g/kg}$)
Tetracycline	100	15-25
Doxycycline	*	10-18

Oxytetracycline	100	15-25
Chlortetracycline	100	20-35

* This drug is not for use in animals from which milk is produced for human consumption.

/ No EU MRL.

Scope of Application

All types of milk

Kit Contents

NO.	Name	Specs	Remark
1	Test strips	96 strips in total	
2	Microwells	96 wells in total	
3	Negative control	1	
4	Positive control	1x8 wells	Penicillin G: 3ppb Tetracycline:25ppb
5	Pipette	1	
6	Pipette tips	100	
7	Microwell holder	1	

Sample Preparation

No sample preparation necessary.

Quality Control Preparation

- Negative Control**
Pipette 2mL of deionized water into the negative control bottle, blend vigorously until the solid content dissolves completely. Once dissolved, the negative control sample is ready for use.
- Positive Control**
Pipette 200 μL of the prepared liquid negative control into the positive control microwell. Pipette up and down until the solid content dissolves completely. Once the contents in the microwell are dissolved, the positive control sample is ready for use.

3 Pipette 200μL of each prepared control sample into the reaction microwell and follow the testing procedure.

IMPORTANT: The reconstituted positive control should be used immediately.

Test Procedure

Note: READ COMPLETELY BEFORE USE!

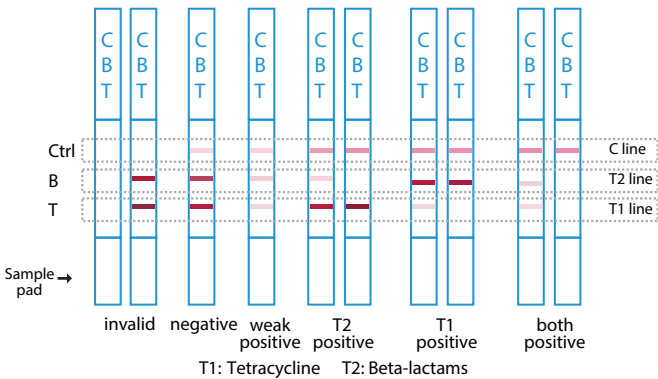
All reagents and kit components should reach room temperature (20-25°C) before use. Shake the milk vigorously to ensure sample homogeneity.

- 1 Remove the cover of the tube and take appropriate number of test strips and microwells and immediately cover the tube. Re-store the remaining components at 2-8°C.
- 2 Shake the milk vigorously to ensure sample homogeneity.
- 3 Using a single channel pipette (Optionally, using a disposable pipette), add 200μL of milk sample to each microwell. Dissolve the coating conjugate in the microwell by pipetting the content up and down for 5 or 6 times.
- 4 Incubate the sample for 3 minutes at room temperature (20-25°C) and then put one test strip into one well.
- 5 Let the test strip develop color for 5 minutes at room temperature (20-25°C).
- 6 Remove the absorbent pad and interpret test results within 1 minute.

Interpretation of the Results

- 1 Visual interpretation
Check whether the top control line (C line) is present. If there is normal C line, compare the color intensity of test line (T line) and C line and interpret the test based on following chart.
- 2. If there is no visible C line, the test is judged as invalid.

Interpretation Diagram



T1:Beta-lactams		T2: Tetracyclines
Color Intensity	Result	Analysis
T line > C line	Negative	Sample contains no antibiotics or contains antibiotics at lower level than the detection limits.
T line = C line	Weak Positive	The sample contains antibiotics close to the detection limits.
T<C or NO T	Positive	Milk sample contains antibiotics above the detection limits.

- 2 Interpretation by reader
Please read the result in 1 minute and refer to the instruction manual of the strip reader.

Precautions

- 1 Adhere to the instructions of the test procedures. Do not run more than 8 tests at one time.
- 2 Do not use the kits beyond the expiration date.
- 3 Please do not touch the membrane on the strips.
- 4 Slightly remove microwell sealer to prevent the powder from being released from the wells.
- 5 The sample to be tested must be a homogeneous liquid which cannot be agglomerated, fermented, rancid

precipitated, etc., and cannot be colostrum.

- 6 Avoid direct sunlight, drafts, or air vents during testing.
- 7 Do not re-use pipette tips, test strips or microwells.
- 8 The unsealed microwells should be used within 1 hour.
- 9 Do not use tap-water, distilled water, or deionized water as a negative control.
- 10 Always check that the milk flow has reached the central line before interpreting results.
- 11 This test method is intended for rapid screening; if positive results occur, please verify them by a quantitative method, such as HPLC or quantitative kit.
- 12 Consider that all materials, containers and devices exposed to the sample could be contaminated with harmful substances, please wear protective gloves and safety glasses while using the kit.
- 13 The components in this test kit have been quality control tested as a standard batch unit. Do not mix components from different lot numbers.
- 14 Any problem encountered during usage, please contact the supplier.

Storage and Shelf Life

- 1 Storage: The kits should be stored at a dry place away from the sunlight and the storage temperature is 2-8°C. DO NOT FREEZE!
- 2 Shelflife: 12 months.
- 3 Please refer to the label on the package for production date, expiration date, and lot number.



For More Info

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