Bioo Scientific®

AuroFlow™ BT Combo Strip Test Kit

Rapid Antibiotic Test for Raw Commingled Milk

Catalog #1087-01 (96 Strips) & #1087-02 (192 Strips)

This product is for laboratory & field use only.

Product Description

The AuroFlow™ BT Combo Strip Test Kit is a qualitative and rapid lateral flow assay designed to detect both beta-lactam and tetracycline antibiotic residues in raw commingled cow's milk. This test is designed for rapid field use or reference lab settings.

The features of the kit are:

- Simultaneous detection of beta-lactams and tetracyclines
- Rapid strip test method – 7 minutes
- Works in cold milk
- Detects 14 beta-lactams and 4 tetracyclines below EU MRL

Warnings and Precautions

Bioo Scientific recommends that you read the following warnings and precautions. Periodically, optimizations and revisions are made to the kit and manual. Therefore, it is important to follow the protocol included with the kit. If you need further assistance, you may contact your local distributor or Bioo Scientific at techsupport@biooscientific.com.

- Do not run more than 4 tests at one time.
- Do not use the kit past the expiration date.
- Do not re-use pipette tips or sample wells.
- Be sure unused wells remain tightly sealed with the plug caps.
- Incubations of assays should be timed as precisely as possible.
- Always store test strips in provided canisters to maintain stability.
- Positive samples should always be re-tested alongside a positive and negative control.
- Material safety data sheets (MSDS) are available for this kit.
- Quality control (QC) reports are available for this kit.

Kit Contents, Storage and Shelf Life

The AuroFlow™ BT Combo Strip Test Kit has the capacity for 96 (Cat #1087-01) or 192 (Cat #1087-02) determinations. The shelf life is 24 months when the kit is properly stored. The positive and negative control vials contain lyophilized raw milk samples and must be reconstituted with 1 mL of distilled water before use. The positive control vial is spiked with 4 ppb Penicillin G and 100 ppb of Oxytetracycline. The reconstituted raw milk controls are stable for 24 hours at 4°C. Additional positive and negative control vials are available separately (Cat #108710).

#1087-01/#1087-02

Kit Contents	#1087-01 (96 Strips)	#1087-02 (192 Strips)	Storage
Reaction wells	4 x 24 (96 total)	8 x 24 (192 total)	4°C
Test strips	4 x 24 strips (96 total)	8 x 24 strips (192 total)	4°C
Positive control	1 vial	2 vials	4°C
Negative control	1 vial	2 vials	4°C
Pipette tips	100 tips	200 tips	RT
Plastic Frame	1 frame	1 frame	RT

Required Materials Not Provided With the Kit

- Timer/Watch
- Additional positive and negative controls (Cat # 108710)
- Distilled water
- Scissors to cut strip caps

Optional Materials Not Provided With the Kit

- QuickSTAR™ Strip Reader (Cat # 1952-02)

Note: This product was developed using the QuickSTAR™ strip reader, which is highly recommended for optimal performance. For customers already possessing the QuickSTAR strip reader, please contact Bioo Scientific at techsupport@biooscientific.com for instructions on how to program the reader for use with this kit.

Sensitivity (Detection Limit)

Table 1: Detection limit by visual interpretation method for different beta-lactam and tetracycline antibiotics by AuroFlow™ BT Combo Strip Test Kit

BETA-LACTAM ANTIBIOTICS			
Penicillins		Cefalosporins	
Antibiotic (MRL)	Detection limit (µg/L)	Antibiotic (MRL)	Detection limit (µg/L)
Penicillin G (4)	3-4 ppb	Ceftiofur (100)	75-100 ppb
Ampicillin (4)	4-5 ppb	Cephapirin (60)	6-15 ppb
Amoxicillin (4)	4-5 ppb	Cefazolin (50)	35-50 ppb
Cloxacillin (30)	4-8 ppb	Cefoperazone (50)	5-20 ppb
Oxacillin (30)	4-8 ppb	Cephquinome (20)	10-20 ppb
Dicloxacillin (30)	5-8 ppb	Cephalonium (10)	4-8 ppb
Nafcillin (30)	15-30 ppb	Cefacetrile (125)	30-50 ppb

TETRACYCLINE ANTIBIOTICS	
Antibiotic (MRL)	Detection limit (µg/L)
Tetracycline (100)	50-100 ppb
Chlorotetracycline (100)	15-50 ppb
Doxycycline (0)	5-20 ppb
Oxytetracycline (100)	50-70 ppb

Strip Testing Procedure

1. Using scissors, carefully cut the number of reaction wells and remove test strips appropriate for the number of samples that will be tested and allow reagents to reach ambient temperature (25˚C +/- 5). Ensure that unused wells remain firmly capped. Promptly re-store the remaining components at 4˚C.
2. Shake the milk vigorously to ensure sample homogeneity.
3. Attach a disposable pipette tip to the end of the pipettetor (Cat # 106711).
4. Insert the pipette tip into the milk sample, depress the plunger of the pipettetor to the first stop, then slowly release the plunger to aspirate 200 µL of milk into the pipette tip.
5. Position the pipette tip (loaded with milk) over a reaction well and depress the plunger to completely expel the milk sample into the well. When more than one sample is being analyzed, note the order in which they are placed in the wells.
6. Using the same pipette tip, aspirate the sample up and down about 10 times to completely resuspend the lyophilized reaction particles in the milk, while avoiding bubble formation. The sample should turn a uniform pink color. After resuspending the particles, remove and discard the pipette tip.
7. Incubate the sample for 3 min at ambient temp (25˚C +/- 5). During this time, label one or more test strips as needed for the number of samples being tested.
8. After 3 min, insert the bottom of the test strip into the well containing the milk sample (see Figure 1). The strip should be inserted such that the arrows are pointing down. Be sure the strip is oriented vertically (not leaning to the side) and is inserted all the way to the bottom of the well. Set a timer for 4 min.
9. After 4 min, remove the strip and place it on a horizontal surface with the unmarked side facing up.
10. Immediately visually examine the intensity of the signal at each test line and compare the intensity to the C-line. Interpretation of results: Signal at a test line which is more intense than or equal to the signal at the C-line indicates the milk sample is negative for presence of that category of antibiotics. Signal at a test line which is clearly less intense than the signal at the C-line indicates the presence of that respective category of antibiotics in the milk sample. See Figure 1 for representative results.

Interpretation of Results

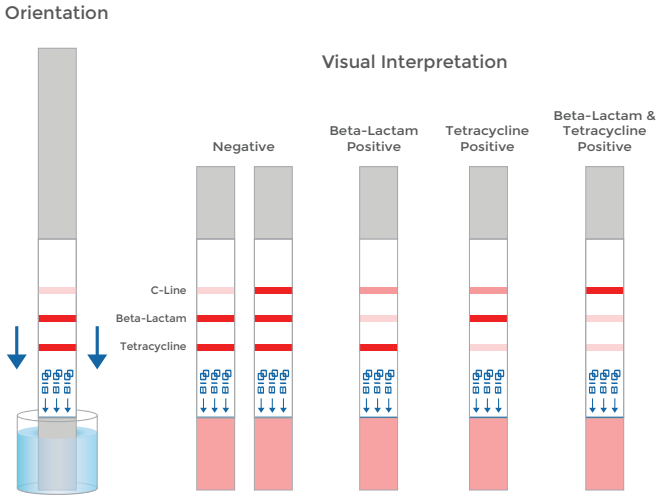

Figure 1. Test Strip Orientation and Test Interpretation

The above diagram is for visual interpretation only. If using the QuickSTAR strip reader, refer to reader instructions provided with the unit. If the β-lactam or tetracycline lines are clearly less intense than the C-line, then the milk sample is positive for the respective antibiotic class. If both test lines are less intense than the C-line, the milk sample is positive for both β-lactams and tetracyclines.

Invalid Results

The test is invalid if no colored line appears in the C-line area even if a colored line appears in the test line area. Re-test milk sample if broken lines are observed. Colored lines which appear after 20 minutes are not diagnostic and should be ignored. If the sample does not flow up the dipstick, the milk sample may be clotted, invalidating the test result. To avoid milk sample clotting, always use fresh raw milk.

Related Products - Milk Residue Testing

Catalog #	Product
1067-01	AuroFlow™ Beta-lactam Strip Test Kit (96 reactions)
1087-01	AuroFlow™ BT Combo Strip Test Kit (96 reactions)
1116-01	AuroFlow™ BTS Combo Strip Test Kit (96 reactions)
1091-01	AuroFlow™ Melamine Strip Test Kit (96 reactions)
1101-01	AuroFlow™ Aflatoxin M1 Strip Test Kit (96 reactions)
1102-01	AuroFlow™ Fluoroquinolone Strip Test Kit (96 reactions)
1111-01	AuroFlow™ Sulfonamide Strip Test Kit (96 reactions)
1952-02	QuickSTAR™ Strip Reader

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Your feedback is important to us. Tell us what you think of our kits by scanning the QR code or visiting our website at www.biooscientific.com/Lateral-Flow-Feedback. We can't wait to hear from you!

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LATERAL FLOW

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