



BALLYA

BALLYA MRL Test Kits

***The most reliable alternative capable to detect the
broadest range of antibiotic residues in milk.
Robust, easy to use and cost effective.***

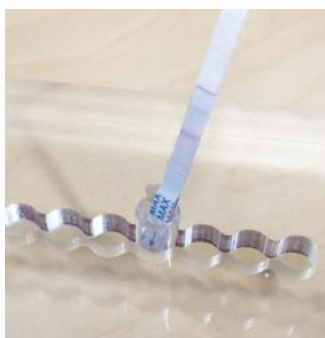
www.pacificlab.com.au

BALLYA

MRL Technology & Test Kits



Over the last few years **Ballya Bio** has focused on developing antibiotic residue tests for the dairy industry. The technology used is the Competitive Lateral Flow Immunoassay, based on receptor proteins or antibodies against antibiotics. A specific protein, named "Penicillin Receptor" has been found and can specifically bind to the Beta-Lactam ring structure, or Beta Lactam antibiotic, converting this into a successful technology for MRL tests. The test kits currently available are: Beta-Lactam, Tetracyclines, Beta Lactam & Tetracyclines, Sulphonamide, Aflatoxin M1, Gentamicin and Neomicin.



Ballya Test Kits consist of two components: Reagent well and Test Strip. All tests are carried out at room temperature, and so there is no need for a heater or incubator.

Results are available within 6 minutes and can be carried out both in the field as well as in the lab.



A Portable reader, based on a touch screen smartphone is able to electronically scan and interpret the Ballya test strips.

Results then can be transmitted via Bluetooth™ or wireless to any other device (computer) in-site for permanent record archiving, or can be uploaded to the cloud.

The Ballya Test Strips concept is a significant cost effective alternative when compared to other brands in the same category.

The reader is a key device as it provides more consistent readings, it also allows for effective sample traceability.

Procedure



- Open pack, make sure the reagent's consistency is dry. Confirm that the light blue line (control line) is visible in all strips.



- Break off one sample vial/well and place it in the rack.



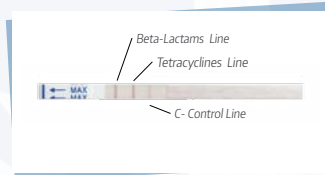
- Draw up 200µl milk sample using the transfer pipette. Avoid overfilling or air bubbles while pipetting. Stir well.



- Dip the test strip into the sample vial, wait for three (3) minutes.

⚠ Recommendations

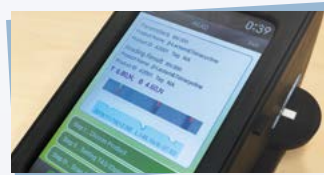
- Kits (strips and reagent wells) are single use, do not re-use.
- Do not use kits past their expiration dates. Using an expired strip may significantly influence test results and/or consequently causes false positive results.
- Keep the kits in sealed canisters when not in use.
- Do not mix strips/kits from different batch/lot numbers.
- Store at 2-8 °C out of sun light or moisture.
- Do not touch the strip field of control/test line while testing.



- After the time allowed for reaction is completed, read the strip.



- Once reagents have activated the result lines, read the strip using the MRL device.



- Results can now be uploaded to the cloud using the Ballya reader. The system allows to retrieve and analyze previous results.

* 6 minutes test results apply to the Beta-Lactams, Tetracyclines test.



MRL Test Kit

Results
in
6
minutes



Kit Components

1. Test strips, 12 canisters, each holding 8 strips. Total 96 pieces.

2. Sample wells with reagent. Each canister holds one 8 well strip with lids. Total 96 pieces.
3. Sample rack (Acrylic rack shown is not included but optional)
4. Instruction Manual



Tests are designed to be used **in-situ** for daily checks or in laboratories for analysis of series of milk samples.

Advantages

- Highly sensitive
- No extra device or equipment required
- No need to pre-heat or refrigerate the milk sample
- Quick, safe and easy to use
- Cost-effective
- Rapid One Step Assay
- Save milk, save time, save energy

Storage At 2~8°C, out of sun light & moisture. Maintain sealed, do not freeze.

Shelf Life 12 months

3 Sensors Test Kit - B.T.S. Combo

B-Lactams + Tetracyclines + Sulfonamides



The only MRL system capable to measure up to three types of antibiotic residue levels in a single test strip.

The **3 Sensors Test Kit** is a test specially designed to detect the **B-Lactams, Tetracyclines** and **Sulfonamides** in raw, commingled cow milk at or below established tolerance and/or safe levels.

The sulfonamide in the sample competes for the antibody with the antigen coated on the membrane of the test strip. Then after a color reaction, results are easily identified.

About Sulfonamide test Sulfonamides (drugs) are commonly used antibiotics on dairy farms to treat bacterial infections. The residues may cause allergic reactions in people.

β-Lactams	Results (µg/L)	Cephalosporin	Results (µg/L)
Penicillin G	1-1.5	Cefquinome	15-20
Ampicillin	4-5	Cefacetrile	100
Amoxicillin	4-5	Cefalonium	18-20
Oxacillin	6-8	Cefoperazone	40-50
Cloxacillin	6-8	Cephapirin	50-60
Dicloxacillin	6-8	Cefalotin	30-40
Nafcillin	20-30	Ceftiofur	90-100
Cefazolin	40-50	Cefuroxime	200-300
Tetracyclines	Results (µg/L)	Tetracyclines	Results (µg/L)
Tetracycline	100	Doxycycline	100
Oxytetracycline	100	Chlortetracycline	100
Sulfonamides	Results (µg/L)	Sulfonamides	Results (µg/L)
Sulfathaline	50	Sulfisomidine	30
Sulfadiazine	100	Sulfamonomethoxine	30
Sulfamethoxazole	50	Sulfamethoxyipyridazine	60
Sulfadimethoxine	100	Sulfaquinoxaline	100
Sulfadimidine	25	Sulfachloropyridazine	60
Sulfachloropyridazine	50	Sulfamethoxydiazine	40
Sulfadoxine	100		



BT Sensor

Beta-Lactams + Tetracyclines Combo Test Kit



Validated by MilkTestNZ Standards 2016
Designed and manufactured to EU 37/2010 MRL regulation



BT-SENSOR is specifically designed to detect antibiotics residues in milk.

It can quickly detect 14 primary B-lactams and 4 tetracyclines at or below maximum residue limits.

The test is widely used in farms, collecting centers, milk processing plants, dairy food enterprises, etc.

VALIDATED



MilkTest NZ 2016

β -Lactams	Results ($\mu\text{g/L}$)	Cephalosporin	Results ($\mu\text{g/L}$)
Penicillin G	1-1.5	Cefquinome	15-20
Ampicillin	3-4	Cefacetile	100
Amoxicillin	4-5	Cefalonium	18-20
Oxacillin	6-8	Cefoperazone	40-50
Cloxacillin	6-8	Cephapirin	50-60
Dicloxacillin	6-8	Cefalotin	30-40
Nafcillin	20-30	Ceftiofur	90-100
Cefazolin	40-50	Cefuroxime	200-300
Tetracyclines	Results ($\mu\text{g/L}$)	Tetracyclines	Results ($\mu\text{g/L}$)
Tetracycline	100	Doxycycline	100
Oxytetracycline	100	Chlortetracycline	100

Precise detection of Beta-Lactams + Tetracyclines at or below MRL

Aflatoxin M1

The Aflatoxin is consider an important test for dairy manufacturers considering to export their products. This kit is based on the specific reaction of antibody-antigen and immunochromatography. The Aflotoxin M1 in the sample competes for the antibody with the antigen coated on the membrane of the test strip. Then after a color reaction, results can be observed.



Mycotoxin	Results
Aflatoxin M1	500 ppt

Q-Beta™

Beta-Lactams Test Kit

Designed and manufactured to EU 37/2010 MRL regulation

The Q-Beta is the Beta-Lactam Test, an enzyme-linked receptor-binding assay able to detect penicillin G, ampicillin, amoxicillin, oxacillin, cloxacillin, dicloxacillin, nafcillin, cefquinome, cefacetile, cefalonium, cefazolin, cefoperazone, cephalirin, ceftiofur in raw, commingled cow milk at or below established tolerance and/or safe levels.



β -Lactams	Results ($\mu\text{g/L}$)	Cephalosporin	Results ($\mu\text{g/L}$)
Penicillin G	1-1.5	Cefquinome	15-20
Ampicillin	3-4	Cefacetile	100
Amoxicillin	4-5	Cefalonium	18-20
Oxacillin	6-8	Cefoperazone	40-50
Cloxacillin	6-8	Cephapirin	50-60
Dicloxacillin	6-8	Cefalotin	30-40
Nafcillin	20-30	Ceftiofur	90-100
Cefazolin	40-50	Cefuroxime	200-300

