

## Charm® MRLBL3 Beta-lactam Test for Milk

Charm MRLBL3 is a 3-minute beta-lactam test specifically engineered to meet EU/CODEX MRL levels. MRLBL3 detects 14 common beta-lactams at or below EU MRL, including cloxacillin, ceftiofur, cefalonium and cefquinome.

MRLBL3's unprecedented speed allows milk to be tested while the tanker is being prepared at the plant or at the farm. Use of MRLBL3 test helps the dairy industry lower operating costs by receiving milk faster, moving tankers more quickly, and expediting production of a safe, wholesome and quality product.

Speed, sensitivity and simplicity... all rolled into one test strip, the MRLBL3.

### MRLBL3 beta-lactam test at a glance

- › 3-minute test
- › Rapid One Step Assay (ROSA®)
- › Fast testing helps move tankers more quickly, expediting production of safe product
- › Simple procedure; add sample, incubate, read results



**Charm® MRLBL3 Test Strip**

## Sensitivity in Milk

Charm MRLBL3 beta-lactam test

Detection Ranges in Cow Milk at 0 to 7°C

Beta-lactam Drug	Detection Range† (ppb)	EU / CODEX MRL (ppb*)
Amoxicillin	3 to 5	4
Ampicillin	3 to 4	4
Cefacetrile	30 to 40	125
Cefalexin	>500	100
Cefalonium	8 to 12	20
Cefazolin	30 to 40	50
Cefoperazone	1 to 2	50
Cefquinome	15 to 25	20
Ceftiofur and Metabolite^	40 to 70	100 / 100
Cefuroxime	100 to 200	50
Cephapirin	6 to 10	60§
Cloxacillin	20 to 30	30
Dicloxacillin	15 to 25	30
Penicillin G	2 to 3	4 / 4

† Positive at least 95% of the time.

\*parts per billion, µg/kg (EU MRL) or µg/L (CODEX MRL)

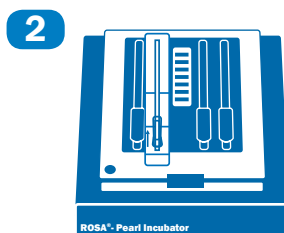
^Ceftiofur parent drug sensitivity is at levels approximately 1/2 those reported in the table.

§ U.S. Tolerance is 20 ppb cephapirin.

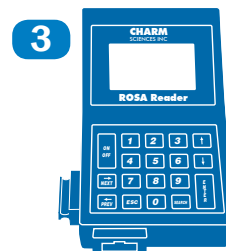
## Simple and fast test procedure



Add milk sample to ROSA strip



Incubate 3 minutes



Read the results!

### Charm Sciences, Inc.

659 Andover Street, Lawrence, MA 01843-1032, USA

Tel: +1.978.687.9200 | Fax: +1.978.687.9216 | Email: info@charm.com | www.charm.com

© 2012 Charm Sciences, Inc. Charm and ROSA are registered trademarks, and test strip product packaging is trade dress, of Charm Sciences, Inc. MRK-633-002 0512