

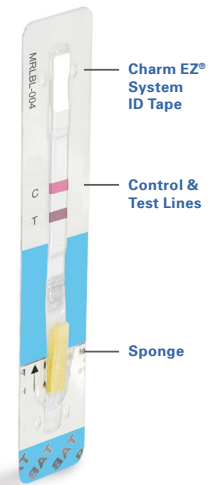


## Charm MRL Beta-lactam Test for Milk

### Product Overview

Charm® ROSA® (Rapid One Step Assay) technology is trusted by the dairy industry worldwide for fast and accurate milk residue screening.

The Charm MRL Beta-lactam Test (MRLBL) is the only test that detects 14 primary beta-lactams at or below EU and CODEX Maximum Residue Limits (MRLs) and is closer to established limits than any other milk test. The test is easy to use, requiring minimal equipment. The MRLBL test ensures that milk is safe for processing and consumption.



Charm ROSA Strip

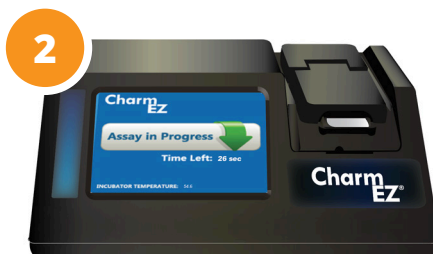
### Benefits of MRLBL Test Include:

- Achieves results in 8 minutes
- Detects beta-lactams
- Meets EU/MRL/CODEX

### Simple Procedure with the Charm EZ System



Add Sample



Incubate



Read Results in Less Than 5 Seconds



For Batch Processing

Incubate multiple strips simultaneously, then read results in the Charm EZ system.

## Sensitivity in Milk

Detection Ranges in Cow Milk at 0 to 7 °C		
Beta-lactam Drug	Detection Range (ppb*)	EU/CODEX MRL (ppb*)
Amoxicillin	3 to 4 ppb	4 ppb
Ampicillin	3 to 4 ppb	4 ppb
Cefacetrile	8 to 18 ppb	125 ppb
Cefalexin	30 to 60 ppb	100 ppb
Cefalonium	3 to 5 ppb	20 ppb
Cefazolin	12 to 20 ppb	50 ppb
Cefoperazone	5 to 9 ppb	50 ppb
Cefquinome	15 to 20 ppb	20 ppb
Ceftiofur and Metabolite <sup>^</sup>	10 to 20 ppb	100/100 ppb
Cefuroxime	3 to 5 ppb	50 ppb
Cephapirin	6 to 10 ppb	60 <sup>§</sup> ppb
Cloxacillin	25 to 35 ppb	30 ppb
Dicloxacillin	20 to 30 ppb	30 ppb
Penicillin G	2 to 3 ppb	4 ppb

<sup>^</sup> Ceftiofur parent drug sensitivity is approximately 1/2 that reported in the table  
<sup>§</sup> U.S. tolerance is 20 ppb cephalosporins  
 \* parts per billion, µg/kg or µg/L

## Ordering Information

Order Codes	Each Kit Includes
LF-MRLBL-40NSK	Test Strips
LF-MRLBL-100K	Test Strips and Positive Controls

See Operator's Manual for additional kits and order codes.