



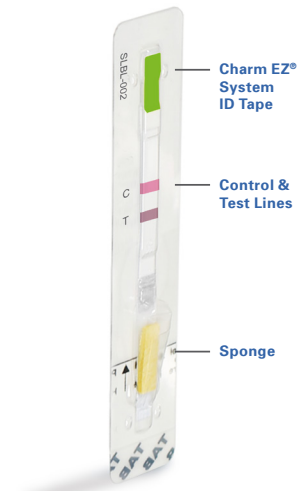
## Charm SL Beta-lactam Test for Milk

### 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 SL® Beta-lactam Test (SLBL) meets US Tolerance Levels and Canadian MRL for 5 of the most widely used beta-lactam drugs. The SLBL test is specifically designed to limit rejection of non-violative milk compared to overly sensitive screening tests. By providing a close match to Tolerance Levels, the SLBL test ensures milk is safe and wholesome for processing and consumption. The SLBL test is approved to screen multiple species of milk including raw commingled cow, goat, sheep, and buffalo under Appendix N of the US Pasteurized Milk Ordinance.

The SLBL test is easy to use, requires minimal equipment, and can be read visually. It is ideal for processors, haulers, and farms as it can be used for testing individual cow samples and pasteurized whole milk.



Charm ROSA Strip

### Benefits of SLBL Test Include:

- Achieves results in 8 minutes
- Detects 5 beta-lactams
- For use in cow, sheep, goat, and buffalo milk
- Incubates at  $56 \pm 1$  °C
- Meets NCIMS Approval for Appendix N Testing

### 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

| Tolerance Levels in Milk   |                             |                   |                     |
|--|-----------------------------|-------------------|---------------------|
| Beta-lactam Drug   | Charm SL Sensitivity (ppb*) | Safe Level (ppb*) | Canadian MRL (ppb*) |
| Amoxicillin  | 5.6 ppb                     | 10 ppb            | N/A                 |
| Ampicillin   | 8.5 ppb                     | 10 ppb            | 10 ppb              |
| Ceftiofur <sup>^</sup>   | 77 ppb                      | 100 ppb           | 100 ppb             |
| Cephapirin   | 13.7 ppb                    | 20 ppb            | 20 ppb              |
| Penicillin G   | 3.6 ppb                     | 5 ppb             | 5.5 ppb             |
| <sup>^</sup> Ceftiofur parent drug sensitivity is approximately 1/2 that reported in the table<br>* parts per billion, µg/kg or µg/L |                             |                   |                     |

## Cross Reactivity in Milk

| Intra-family Cross Reactivity Levels in Milk with High Confidence (ppb) |                |                    |
|---|----------------|--------------------|
| Beta-lactams  | Charm SL (ppb) | Canadian MRL (ppb) |
| Cefacetrile   | 30 ppb         |                    |
| Cefadroxil  | 50 ppb         |                    |
| Cefalexin   | 50 ppb         |                    |
| Cefalonium  | 4 ppb          |                    |
| Cefazolin   | 40 ppb         |                    |
| Cefoperazone  | 15 ppb         |                    |
| Cefquinome  | 30 ppb         |                    |
| Cefurozime  | 15 ppb         |                    |
| Cloxacillin   | 50 ppb         | 30 ppb             |
| Dicloxacillin   | 50 ppb         |                    |
| Nafcillin   | 100 ppb        |                    |
| Oxacillin   | 50 ppb         |                    |
| Ticarcillin   | 100 ppb        |                    |

## Ordering Information

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

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

[www.charm.com](http://www.charm.com)

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