



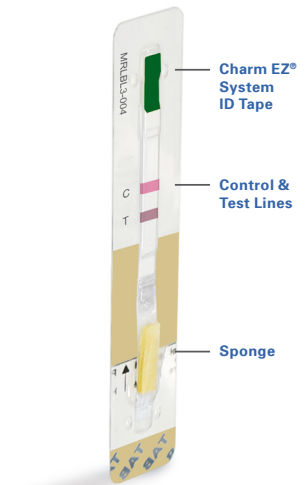
Charm MRL Beta-lactam 3-Minute Test for Milk

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 3-Minute Test (MRLBL3) is specifically engineered to meet EU/CODEX Maximum Residue Levels (MRL). The MRLBL3 test detects 14 common beta-lactams at or below EU MRL, including cloxacillin, ceftiofur, cefalonium, and cefquinome.

The unprecedented speed of the MRLBL3 test allows milk to be tested while the tanker is being prepared at the plant or at the farm. Use of the 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.



Charm ROSA Strip

Benefits of MRLBL3 Test Include:

- Achieves results in 3 minutes
- Detects 14 common beta-lactams
- Meets EU/CODEX MRL
- Validated by ILVO – Institute for Agricultural and Fisheries Research, Belgium

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 5 ppb	4 ppb
Ampicillin	3 to 4 ppb	4 ppb
Cefacetrole	30 to 40 ppb	125 ppb
Cefalexin	>500 ppb	100 ppb
Cefalonium	8 to 12 ppb	20 ppb
Cefazolin	20 to 40 ppb	50 ppb
Cefoperazone	1 to 2 ppb	50 ppb
Cefquinome	15 to 25 ppb	20 ppb
Ceftiofur and Metabolite [^]	40 to 70 ppb	100/100 ppb
Cephapirin	10 to 30 ppb	60 [§] ppb
Cloxacillin	20 to 30 ppb	30 ppb
Dicloxacillin	15 to 25 ppb	30 ppb
Oxacillin	10 to 30 ppb	30 ppb
Penicillin G	2 to 3 ppb	4/4 ppb

[^] Ceftiofur parent drug sensitivity is approximately 1/2 that reported in the table
[§] U.S. tolerance is 20 ppb cephalosporins
^{*} parts per billion, µg/kg or µg/L
[†] Positive at least 95% of the time

Ordering Information

Order Codes	Each Kit Includes
LF-MRLBL3-40NSK	Test Strips and Positive Controls
LF-MRLBL3-100K	Test Strips and Positive Controls

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