

ROSA®: MRL Beta-lactam Test for Milk



Charm MRL Beta-lactam Test

CHARM MRL BETA-LACTAM TEST SENSITIVITY LEVELS IN MILK (ppb)

Beta-lactam Drug	Detection Level†	EU/CODEX‡ MRL
Amoxicillin	3 - 4	4
Ampicillin	3 - 4	4
Cefacetrile	8 - 18	125
Cefalexin	30 - 60	100
Cefalonium	3 - 5	20
Cefazolin	12 - 20	50
Cefoperazone	5 - 9	50
Cefquinome	15 - 20	20
Ceftiofur + Metabolites^	10 - 20	100‡
Cefuroxime	3 - 5	50
Cephapirin	6 - 10	60
Cloxacillin	25 - 35	30
Dicloxacillin	20 - 30	30
Penicillin G	2 - 3	4‡

† Positive 90% of the time with 95% confidence

‡ CODEX MRL

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

AT A GLANCE

- ▶ Designed to meet EU and CODEX Maximum Residue Limits
- ▶ Rapid One Step Assay (part of ROSA family of tests)
- ▶ Minimal equipment required
- ▶ Results in 8 minutes!
- ▶ Continuity from farm to table

SAVE MILK WITH PRECISE TEST

Use of the Charm® MRL Beta-lactam Test limits rejection of non-violative milk compared to other overly-sensitive screening tests. Charm MRL is the only beta-lactam test that detects 14 primary beta-lactams at or below maximum residue limits. The test is easy to use, portable and requires minimal equipment. Charm MRL saves milk that is acceptable for processing and consumption.

OTHER AVAILABLE ROSA TESTS FOR:


- ▶ Beta-lactam (SL, SL-6®)
- ▶ 3-minute Beta-lactam (MRL-3, SL3)
- ▶ MRL Beta-lactam/Tetracycline Combo
- ▶ Aflatoxin M1
- ▶ Chloramphenicol
- ▶ Enrofloxacin
- ▶ Streptomycin
- ▶ Sulfonamides
- ▶ Tetracyclines




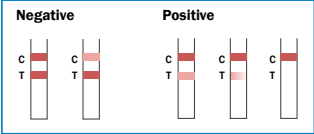
ROSA® Technology
RAPID ONE STEP ASSAY


ROSA: MRL Beta-lactam Test

TEST OVERVIEW

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1 Add milk sample to strip and close incubator lid to start timer.
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2 After 8 minutes, incubator beeps and 'test complete' light will flash. Remove strip.
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3 For Visual Reading:
For valid strips, compare Test Line (T) to the Control Line (C)
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4 With Reader: Insert valid test into ROSA Reader

EQUIPMENT



ROSA Pearl-X Reader

- ▶▶ Results in just 5 seconds
- ▶▶ Download to printer or computer
- ▶▶ Stores 4500 data points (tests)
- ▶▶ Records sample ID, test type, operator ID, date, time, lot number, reading and result interpretation



Incubators for Truck Testing

- ▶▶ Dual incubators
- ▶▶ Auto Shut-off
- ▶▶ Option with waterproof rating



ROSA Incubators

- ▶▶ Quad and dual incubators
- ▶▶ Self-timing with indicator lights/beeper
- ▶▶ Auto Start when lid closed
- ▶▶ Auto Reset when lid opened
- ▶▶ Count down timer display (on quad only)



ROSA Bar Code System

- ▶▶ Includes Barcoded Strips and Bar Code Reader
- ▶▶ Prevents duplicate readings
- ▶▶ Improves traceability
- ▶▶ Interface for LIMS integration

KIT INFORMATION

DESCRIPTION:	ORDER CODE:
<i>Kits with Positive Controls</i>	
Charm MRL Beta-lactam 500 Test Kit with 25 Positive Tablets	LF-MRLBL-500K
Charm MRL Beta-lactam 100 Test Kit with 5 Positive Tablets	LF-MRLBL-100K
Charm MRL Beta-lactam 20 Test Kit with 1 Positive Tablet	LF-MRLBL-20K
<i>Kits for Farm Use</i>	
Charm MRL Beta-lactam 100 Test Kit (test strips only)	LF-MRLBL-100NSK
Charm MRL Beta-lactam 100 Test Kit with 100 ROSA-Pipets	LF-MRLBL-100SUPK
Charm MRL Beta-lactam 20 Test Kit with 20 ROSA-Pipets	LF-MRLBL-20SUPK

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