

CowSide II - Broad Spectrum Antibiotic Test for Milk

CowSide[®] II t e s t

COWSIDE II AT A GLANCE

- Broad spectrum antibiotic inhibition test for the dairy industry
- Detect beta-lactams and other antimicrobial drugs near regulatory limits
- The most sensitive inhibition test for antimicrobial drugs in milk
- Color results are stable for up to 16 hours
- Runs on existing incubator equipment

CowSide II Sensitivity Levels

Concentration of Antimicrobial Drugs Detected in Milk

Antimicrobial* Drug	Positive Concentration (ppb)	EU MRL [†] (µg/kg)	US Safe Level/ Tolerance (ppb)
Amoxicillin	3 - 4	4	10
Ampicillin	3 - 4	4	10
Cefalonium	15 - 20	20	NA
Cefoperazone	20 - 30	50	NA
Ceftiofur [§]	50 - 100	100	100
Cephapirin	8 - 10	60	20
Chlortetracycline	200 - 300	100	300
Cloxacillin	10 - 25	30	10
Dapsone	1 - 2	0	NA
Dicloxacillin	5 - 10	30	NA
Erythromycin	75 - 100	40	50
Gentamicin	75 - 150	100	30
Nafcillin	5 - 10	30	NA
Neomycin	100 - 150	500	150
Oxacillin	5 - 10	30	NA
Oxytetracycline	75 - 100	100	300
Penicillin G	2 - 3	4	5
Pirlimycin	25 - 50	100	400
Sulfadiazine	40 - 60	100	10
Sulfadimethoxine	25 - 50	100	10
Sulfamethazine	75 - 125	100	10
Tetracycline	50 - 100	100	300
Tilmicosin	25 - 35	50	NA
Tylosin	20 - 30	50	50

*Antimicrobial drugs listed are representative of their respective drug families.

Other drugs will be detected at different levels.

[†]Maximum Reside Limit

[§]Total parent and metabolites concentration.

ABOUT COWSIDE II

The new Charm[®] CowSide II test has superior sensitivity to beta-lactams, sulfonamides, aminoglycosides and especially tetracyclines. Breakthrough sensitivity to tetracyclines makes it the first inhibition test to closely match EU MRL levels.

CowSide II consists of a single service vial that contains pre-measured bacterial spores, media, and a pH indicator. Reagents are unit dosed and compartmentalized to ensure uniformity. This eliminates reagent transfer steps and prevents inadvertent contamination and reagent loss.

HOW IT WORKS

The starting color in the vial is purple. Milk is added to the vial and incubated. The spores germinate and grow, generating acid, which is indicated by color change to yellow. If antibiotics are present in the milk, microbial growth is retarded and/or inhibited so that no acid is generated. Thus, antibiotic positive samples remain purple.



Charm CowSide® II Test

PROCEDURE

1



Cut or tear off individual test vials (one vial per test sample).

2



Place vial in holes in box. Pierce foil seal with pipet tip or pointed end of unused vial.

3



Shake milk sample and withdraw 100 µl of milk (at 0° to 15° C) using the 100 µl disposable single-use pipet provided with the CowSide II test.

4



Pipet 100 µl milk sample to agar at bottom of vial.
Transfer vial(s) to incubator.

5



Set timer for time specified on kit label (~3 hours) and incubate.
After incubation, remove vial(s) and interpret results.

6



Read results after removal from incubator. Compare to color interpretation card. The color results are stable for up to 16 hours.
▶ Yellow or yellow/green colors are negative.
▶ Blue/purple colors are suspect positive

INCUBATORS

CowSide 4-Place Incubator



Order Code: [INC-COWSIDE]

Charm 20-Place Digital Dry Block Incubator



Order Codes: [INC-110-20-LUM]
[INC-220-20-LUM]

CowSide II Test Kits Order Codes: [MI-COWSIDE-II-20]; [MI-COWSIDE-II-100]

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