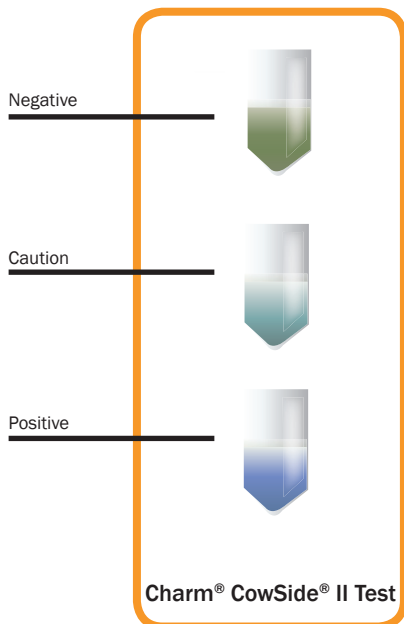


# Charm CowSide II Test

## for Antibiotic Testing in Milk

3  
hours

### Product Overview



The **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.

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.

#### CowSide II Test:

- Analyzes for a broad spectrum of antibiotics for the dairy industry
- Detects beta-lactams and other antimicrobial drugs near regulatory limits
- Features the most sensitive inhibition test for antimicrobial drugs in milk
- Produces results that are stable for up to 16 hours
- Runs on existing incubator equipment
- Requires no expensive reader/analyzer; Easy to read visual color results
- ILVO<sup>A</sup> approved

<sup>A</sup> ILVO-T&V Melle, Belgium

### Simple Procedure

Cut or tear individual test vials

Pipet 100 µL milk sample

Incubate

Read



# Sensitivity in Milk

## Sensitivity and Selectivity

**Selectivity** - Antimicrobial drug-free samples should yield 90% negative results with 95% confidence.

**Sensitivity** - Antimicrobial drugs detected as positive compared to regulatory levels.

Antimicrobial Drug <sup>A</sup>	Concentration <sup>B</sup> (ppb <sup>C</sup> )	US Safe Level/ Tolerance (ppb <sup>C</sup> )	EU/CODEX MRL <sup>D</sup> (µg/kg)	Antimicrobial Drug <sup>A</sup>	Concentration <sup>B</sup> (ppb <sup>C</sup> )	US Safe Level/ Tolerance (ppb <sup>C</sup> )	EU/CODEX MRL <sup>D</sup> (µg/kg)
Amoxicillin	3 to 4	10	4/4	Gentamicin	75 to 150	30	100 / 200
Ampicillin	3 to 4	10	4	Lincomycin	75 to 150	None	150
Cefacetile	10 to 15	None	125	Nafcillin	5 to 10	None	30
Cefalexin	75 to 100	None	100	Neomycin	100 to 150	150	1500 / 1500
Cefalonium	15 to 20	None	20	Oxacillin	5 to 10	None	30
Cefazolin	6 to 10	None	50	Oxytetracycline	75 to 100	300	100 / 100
Cefoperazone	20 to 30	None	50	Penethamate <sup>G</sup>	2 to 3	None	4
Cefquinome	40 to 60	None	20	Penicillin G	2 to 3	5	4 / 4
Ceftiofur & Metabolites <sup>E</sup>	50 to 100	100	100 / 100	Pirlimycin	25 to 50	None	100/100
Cefuroxime	20 to 25	None	None	Spiramycin	300 to 400	None	200 / 200
Cephapirin	8 to 10	20	60	Sulfadiazine	40 to 60	10	100
Chlortetracycline	200 to 300	300	100/100	Sulfadimethoxine	25 to 50	10	100
Cloxacillin	10 to 25	10	30	Sulfamethazine (Sulfadimidine)	75 to 125	10	100 / 25
Dapsone	1 to 2	None	0 <sup>F</sup>	Tetracycline	50 to 100	300	100 / 100
Dicloxacillin	5 to 10	None	30	Tilmicosin	25 to 35	None	50
Doxycycline	25 to 75	None	0 <sup>F</sup>	Trimethoprim	200 to 300	None	50
Erythromycin	75 to 100	50	40	Tylosin	20 to 30	50	50

<sup>A</sup>Antimicrobial drugs listed are representative of their respective drug families. Other drugs will be detected at different levels

<sup>B</sup>Positive 90% of the time with 95% confidence

<sup>C</sup>Parts per billion or µg/L

<sup>D</sup>Maximum Residue Limit

<sup>E</sup>Total parent and metabolites concentration

<sup>F</sup>Not for use in animals from which milk is produced for human consumption

<sup>G</sup>Penethamate is rapidly converted to benzylpenicillin, the marker residue in milk

## Ordering Info

Order Codes	Each Kit Includes
MI-COWSIDE-II-20 MI-COWSIDE-II-100	CowSide II Test Vials and disposable pipets



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