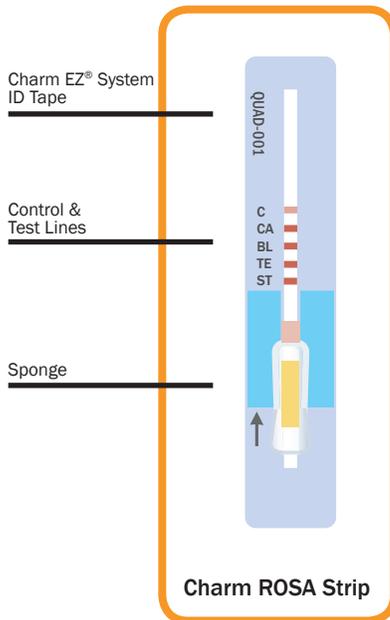


# Charm QUAD Test for Milk

5  
minutes

## 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 QUAD Test (QUAD)** detects chloramphenicol, beta-lactam, tetracycline, and streptomycin drugs in raw commingled milk meeting the Russian Technical Regulation of the Customs Union. The QUAD test may also be used to test at or below EU/CODEX Maximum Residue Limit (MRL) and EU Minimum Required Performance Limit (MRPL).

### Benefits of QUAD Test Include:

- Achieves results in 5 minutes
- Detects chloramphenicol, beta-lactam, tetracycline, and streptomycin drugs
- Incubate at  $56 \pm 1$  °C
- Meets Russian Technical Regulation of the Customs Union
- Meets EU/CODEX MRL and EU MRPL
- Independently validated by ILVO in Belgium

## Simple Procedure



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.



Rapid One Step Assay

# Sensitivity in Milk

Sensitivity-Detection in Cow Milk at 0 to 7 °C					
Beta-lactam Drug	Detection Range <sup>A</sup> (ppb <sup>B</sup> )	EU/CODEX MRL (ppb <sup>B</sup> )	Tetracycline Drug (ppb <sup>B</sup> )	Detection Range <sup>A</sup>	Russian Technical Regulation <sup>D</sup>
Amoxicillin	3 to 5	4	Chlortetracycline	4 to 6	10
Ampicillin	3 to 4	4	Doxycycline	6 to 10	10
Cefacetile	20 to 40	125	Oxytetracycline	4 to 6	10
Cefalonium	8 to 12	20	Tetracycline	3 to 6	10
Cefazolin	20 to 40	50	<b>Amphenicol Drug</b>	<b>Detection Range<sup>A</sup> (ppb<sup>B</sup>)</b>	<b>EU MRPL<sup>E</sup> and Russian Technical Regulation (ppb<sup>B</sup>)</b>
Cefoperazone	1 to 3	50	Chloramphenicol	0.2 to 0.3	0.3
Cefquinome	10 to 20	20			
Ceftiofur and Metabolites <sup>C</sup>	30 to 40	100 / 100	<b>Aminoglycoside Drug</b>	<b>Detection Range<sup>A</sup> (ppb<sup>B</sup>)</b>	<b>EU/CODEX MRL and Russian Technical Regulation<sup>D</sup> (ppb<sup>B</sup>)</b>
Cephapirin	20 to 35	60	Dihydro-streptomycin	75 to 150	200 / 200
Cloxacillin	20 to 30	30			
Dicloxacillin	20 to 30	30			
Penicillin G	2 to 3	4 / 4	Streptomycin	75 to 150	200 / 200

<sup>A</sup> Positive at least 95% of the time.

<sup>B</sup> parts per billion, µg/kg or µg/L

<sup>C</sup> Ceftiofur parent drug sensitivity is approximately 1/2 that reported in the table.

<sup>D</sup> Russian Technical Regulation of the Customs Union on Safety of Milk and Dairy Products (TR TS 033/2013)

<sup>E</sup> Minimum Required Performance Limit

## Ordering Info

Order Codes	Each Kit Includes
LF-QUAD-RUS-20K LF-QUAD-RUS-100K	Test Strips and Positive Controls

See Operator's Manual for additional kits and order codes



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