



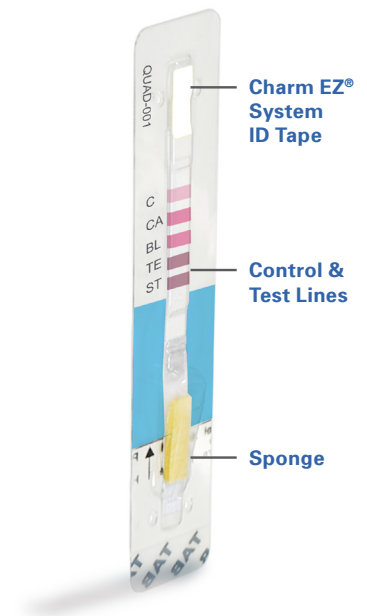
Charm QUAD Test for Milk

Product Overview

The Charm® QUAD® Test (QUAD) delivers rapid and accurate results using ROSA® (Rapid One Step Assay) lateral flow technology. The QUAD test 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
- Incubates at 40 ± 1 °C
- Meets Russian Technical Regulation of the Customs Union
- Meets EU/CODEX MRL and EU MRPL
- Validated by ILVO – Institute for Agricultural and Fisheries Research (ILVO), Belgium



Charm EZ® System ID Tape

Control & Test Lines

Sponge

Charm ROSA Strip

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 ^Ω (ppb*)	EU/CODEX MRL (ppb*)	Amphenicol Drug	Detection Range ^Ω (ppb*)	Russian Technical Regulation [‡] (ppb*)
Amoxicillin	3 to 4 ppb	4 ppb	Chloramphenicol	0.2 to 0.3 ppb	0.3 ppb
Ampicillin	3 to 4 ppb	4 ppb	Aminoglycoside Drug	Detection Range^Ω (ppb*)	EU MRPL[§] and Russian Technical Regulation (ppb*)
Cefacetrile	20 to 40 ppb	125 ppb	Dihydrostreptomycin	75 to 150 ppb	200/200 ppb
Cefalonium	8 to 12 ppb	20 ppb	Streptomycin	75 to 150 ppb	200/200 ppb
Cefazolin	20 to 40 ppb	50 ppb	Tetracycline Drug	Detection Range^Ω (ppb*)	EU MRPL[§] and Russian Technical Regulation (ppb*)
Cefoperazone	1 to 3 ppb	50 ppb	Chlortetracycline	4 to 6 ppb	10 ppb
Cefquinome	10 to 20 ppb	20 ppb	Doxycycline	6 to 10 ppb	10 ppb
Ceftiofur and Metabolites [^]	30 to 40 ppb	100/100 ppb	Oxytetracycline	4 to 6 ppb	10 ppb
Cephapirin	20 to 35 ppb	60 [§] ppb	Tetracycline	3 to 6 ppb	10 ppb
Cloxacillin	20 to 30 ppb	30 ppb			
Dicloxacillin	20 to 30 ppb	30 ppb			
Penicillin G	2 to 3 ppb	4/4 ppb			

^Ω Positive at least 95% of the time.
[^] Ceftiofur parent drug sensitivity is approximately 1/2 that reported in the table
[§] Minimum Required Performance Limit
^{*} parts per billion, µg/kg or µg/L
[‡] Russian Technical Regulation on Milk and Milk Products. Federal Law No. 88 FL 88 of 12 June 2008

Ordering Information

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

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