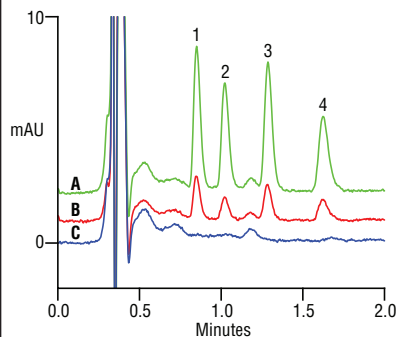


Recovery of Nitrofurantoin Antibiotics from Pet Food on a Thermo Scientific™ Acclaim™ 120 C18 RSLC Column



LC System: Thermo Scientific™ Dionex™
UltiMate™ 3000 RS
Column: Thermo Scientific™ Acclaim™ 120 C18,
2.2 μ m, 2.1 \times 50 mm
Mobile Phase: Acetonitrile:10 mM ammonium
acetate pH 5.0, 20:80 v/v; isocratic
Flow: 0.41 mL/min
Temperature: 30 °C
Injection: 1.2 μ L
Detection: DAD-3000 RS, UV at 365 nm
5 Hz data rate, 0.06 s time const.
Samples: A. Dry pet food spiked at 20 mg/kg
B. Dry pet food spiked at 5 mg/kg
C. Dry pet food control

Sample Prep: – 2.0 g ground guinea pig feed
in a 20 mL vial
– Add 6 mL water and let stand 5 min
– Add 14 mL methanol:acetonitrile 1:1
and extract for 50 min.
– Pass through cleanup cartridge
containing 0.5 g of neutral alumina;
discard first 0.5 mL,
retain next 0.7 mL.

Peaks:	Recovery
1. Nitrofurazone	105%
2. Nitrofurantoin	69%
3. Furazolidone	99%
4. Furaltadone	112%

Reference: R.J. McCracken, D.G. Kennedy;
J. Chromatogr. A, **1997**, 771:349-354.

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Nitrofurantoin antibiotics are now banned from use in many parts of the world, making it necessary to monitor for illegal or accidental contamination of animal feeds. The Acclaim 120 C18 RSLC column will resolve these four common drugs easily even in a complex feed matrix. The 2 μ m RSLC technology now lets this analysis be finished in only 2 minutes.