

## Tetracyclines in Meat by LC/MS/MS

**Column:** Gemini® 5 µm C18 110 Å, LC Column 50 x 4.6 mm, Ea

**Dimensions:** 50 x 4.6 mm ID

**Order No:** 00B-4435-E0

**Elution Type:** Gradient

**Eluent A:** 0.1% Formic Acid in Water

**Eluent B:** Acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	98	2
	2	2	98	2
	3	2.1	85	15
	4	6.5	50	50
	5	7.1	0	100
	6	8	0	100
	7	8.1	98	2
	8	10	98	2

**Flow Rate:** 0.8 mL/min

**Col. Temp.:** 40 °C

**Detection:** Tandem Mass Spec (MS-MS) @ (600 °C)

**Detector Info:** 3200 QTRAP LC/MS/MS

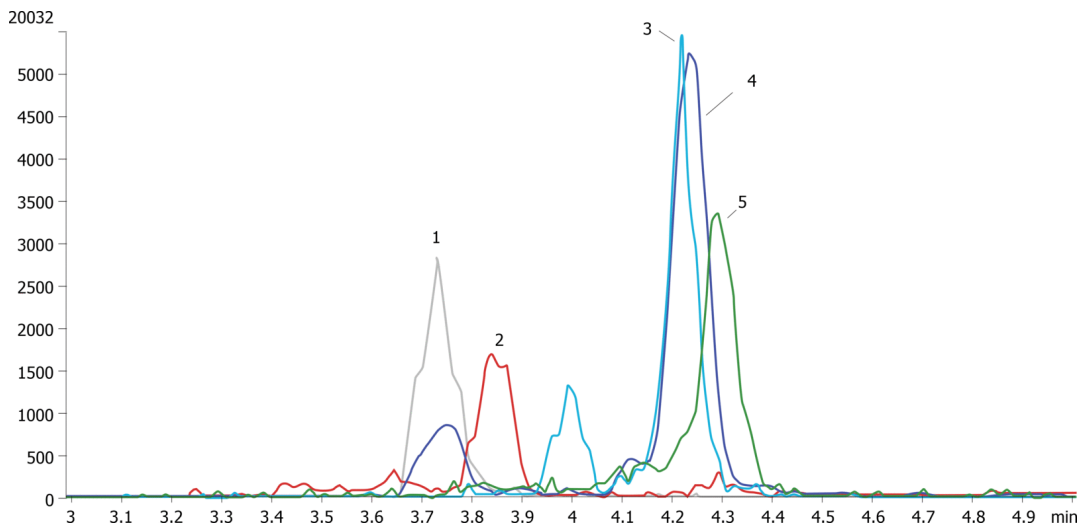
**Analyst Note:** SecurityGuard™ Guard Cartridge System extends column lifetime.

- SecurityGuard Cartridges, Gemini C18 4 x 3.0mm ID, 10/PK Part No.: AJ0-7597

- Holder Part No.: KJ0-4282



Products used in this application:



### ANALYTES:

- 1 Oxytetracycline  
Retention Time: 3.64 min
- 2 Tetracycline  
Retention Time: 3.71 min
- 3 Chlortetracycline  
Retention Time: 4.26 min
- 4 Methacycline  
Retention Time: 4.3 min
- 5 Doxycycline  
Retention Time: 4.42 min



# Sample Preparation Details

for HPLC Application ID No.: 20032

## Tetracyclines in Meat by LC/MS/MS

### PRODUCT DESCRIPTION:

Strata™-X 33 µm Polymeric Reversed Phase, 60 mg / 3 mL, Tubes , 50/Pk

Order No.: 8B-S100-UBJ

### SOLID PHASE EXTRACTION (SPE) PROCEDURE:

**Note:** The solvent volumes shown below are for a 60 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

#### Condition:

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#### Load:

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Measure 5 g of sample into an 85 mL centrifuge tube. Add 25 mL of acidified methanol/1M HCl mixture (0.833 mL of 1M HCl in a total volume of 200 mL methanol). Mix for 1 min using an Ultra-Turrax mixer at a velocity setting of 2. Agitate further for 5 min

#### Wash:

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#### Dry:

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Evaporate to dryness using an eppendorf concentrator set at 45C or blow dry with nitrogen.

#### Elute:

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#### Final Prep and Analysis:

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Inject: 50 µL on HPLC Tandem Mass Spec (MS-MS) @ (600°C)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Oxytetracycline	0				
2 Tetracycline	0				
3 Chlortetracycline	0				
4 Methacycline	0				
5 Doxycycline	0				

**Note:** This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals. Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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For more information contact your Phenomenex Representative at support@phenomenex.com



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