

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

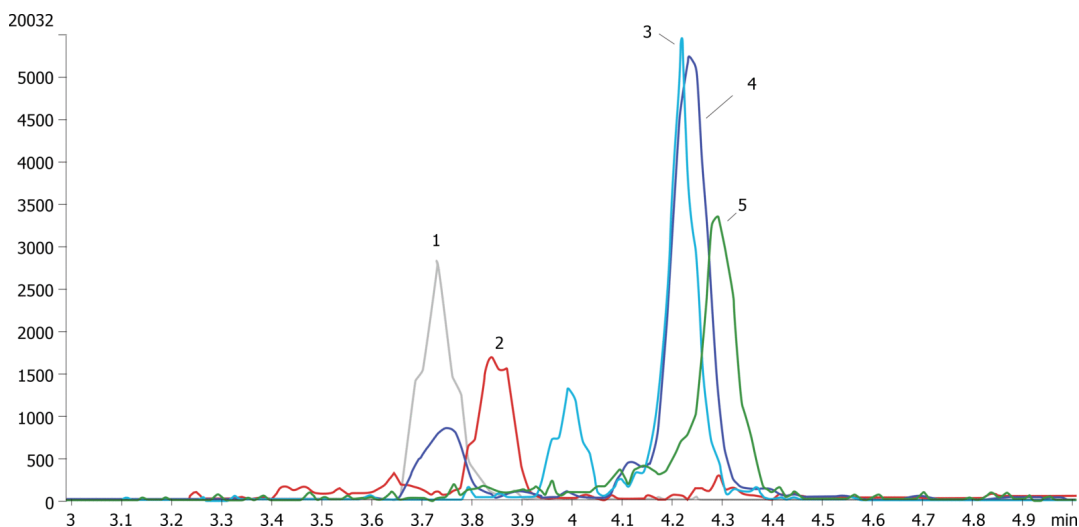
Flow Rate: 0.8 mL/min**Col. Temp.:** 40 °C**Detection:** Circular Dichroism @ 0.0000000000 (600 °C)**Analyst Note:** SecurityGuard™ Guard Cartridge System extends column lifetime.

- 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:

StrataTM-X 33 μ m 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:

Load:

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:

Dry:

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

Elute:

Final Prep and Analysis:

Inject: 50 μ L on HPLC Circular Dichroism @ 0.0000000000 (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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