

Penicillins in Meat by LC/MS/MS

Column: Gemini® 3 µm C18 110 Å, LC Column 150 x 4.6 mm, Ea

Dimensions: 150 x 4.6 mm ID

Order No: 00F-4439-E0

Elution Type: Gradient

Eluent A: 0.1% Ammonia in water

Eluent B: 95% Acetonitrile, 5% water and 0.1% ammonia

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	98	2
	2	2	98	2
	3	2.42	90	10
	4	6	50	50
	5	6.1	0	100
	6	6.6	0	100
	7	6.8	98	2
	8	8	98	2

Flow Rate: 0.8 mL/min

Col. Temp.: 40 °C

Detection: Circular Dichroism @ 0.0000000000 (600 °C)

Analyst Note: This separation uses IMethod Kit Part Number KH0-9047

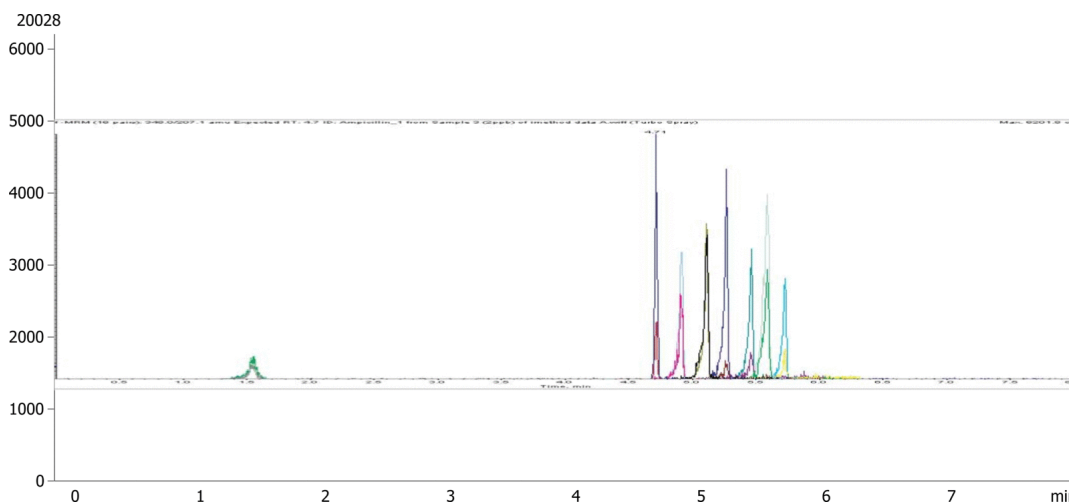
SecurityGuard™ Guard Cartridge System extends column lifetime.

- 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 Amoxicillin
Retention Time: 1.56 min
- 2 Ampicillin
Retention Time: 4.71 min
- 3 Penicillin G
Retention Time: 4.91 min
- 4 Penicillin V
Retention Time: 5.11 min
- 5 Oxacillin
Retention Time: 5.27 min
- 6 Cloxacillin
Retention Time: 5.46 min
- 7 Nafcillin
Retention Time: 5.59 min
- 8 Dicloxacillin
Retention Time: 5.73 min

©2025 Phenomenex Inc. All Rights Reserved.

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



Nafcillin

Phenomenex products are available worldwide.

Retention Time: 5.59 min

www.phenomenex.com

support@phenomenex.com

Sample Preparation Details

for HPLC Application ID No.: 20028

Penicillins in Meat by LC/MS/MS

PRODUCT DESCRIPTION:

Strata® C18-E (55 µm, 70 Å), 200 mg / 3 mL, Tubes , 50/Pk

Order No.: 8B-S001-FBJ

SOLID PHASE EXTRACTION (SPE) PROCEDURE:

Note: The solvent volumes shown below are for a 200 mg bed mass.

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

Condition:

Load:

Homogenize the sample using an electric mincer. Measure 4 g of the homogenized sample into an 85 mL centrifuge tube. Add 20 mL of acetonitrile/water (10:1). Mix for 1 min using an Ultra-Turrax mixer at a velocity setting of 2. Agitate further for 5 min using

Wash:

Dry:

Elute:

Final Prep and Analysis:

The equilibration time at condition 0 was 4 minutes before each injection.

Inject: 50 µL on HPLC Circular Dichroism @ 0.0000000000 (600°C)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Amoxicillin	0				
2 Ampicillin	0				
3 Penicillin G	0				
4 Penicillin V	0				
5 Oxacillin	0				
6 Cloxacillin	0				
7 Nafcillin	0				
8 Dicloxacillin	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.

©2025 Phenomenex Inc. All rights reserved.

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



Phenomenex products are available worldwide.

www.phenomenex.com

support@phenomenex.com