

HPLC Application

ID No.: 20028

Penicillins in Meat by LC/MS/MS

Column: Gemini[®] 3 μ m 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: Tandem Mass Spec (MS-MS) @ -4500 V (600 °C)

Detector Info: 3200 QTRAP

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

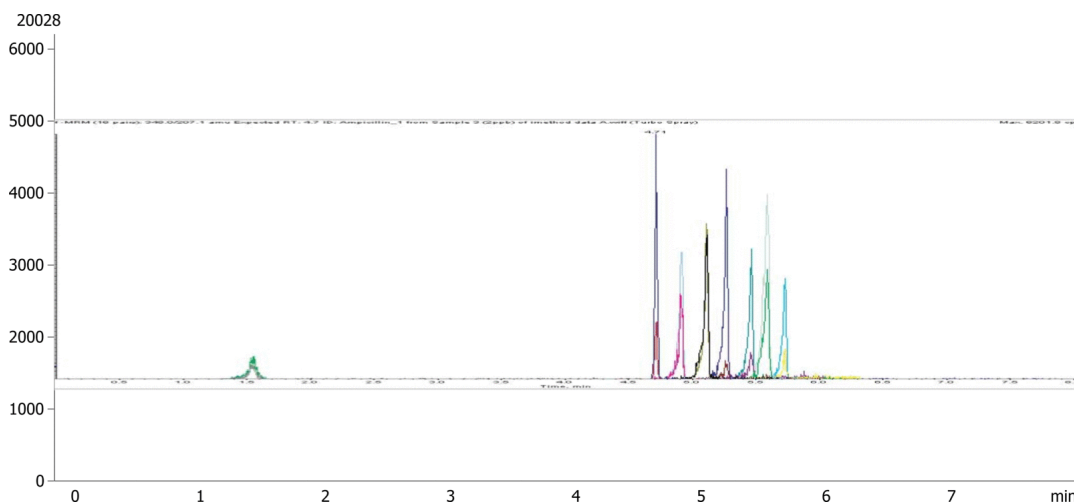
SecurityGuard[™] Guard Cartridge System extends column lifetime.

- 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:



Penicillins in Meat by LC/MS/MS

ANALYTES:

- 1 Amoxicillin
- 2 Ampicillin
- 3 Penicillin G
- 4 Penicillin V
- 5 Oxacillin
- 6 Cloxacillin
- 7 Nafcillin
- 8 Dicloxacillin



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 Tandem Mass Spec (MS-MS) @ -4500 V (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.

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



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