

## LC/MS/MS Analysis of Digoxin and Digitoxin in plasma (0.25 ng/mL) using Strata-X and Kinetex C8

**Column:** Kinetex® 2.6 µm C8 100 Å, LC Column 50 x 2.1 mm, Ea

**Dimensions:** 50 x 2.1 mm ID

**Order No:** 00B-4497-AN

**Elution Type:** Gradient

**Eluent A:** 10mM Ammonium acetate

**Eluent B:** 10mM Ammonium acetate in methanol

| Gradient Profile: | Step No. | Time (min) | Pct A | Pct B |
|-------------------|----------|------------|-------|-------|
|                   | 1        | 0          | 50    | 50    |
|                   | 2        | 2.5        | 0     | 100   |
|                   | 3        | 2.51       | 50    | 50    |
|                   | 4        | 5          | 50    | 50    |

**Flow Rate:** 400 µL/min

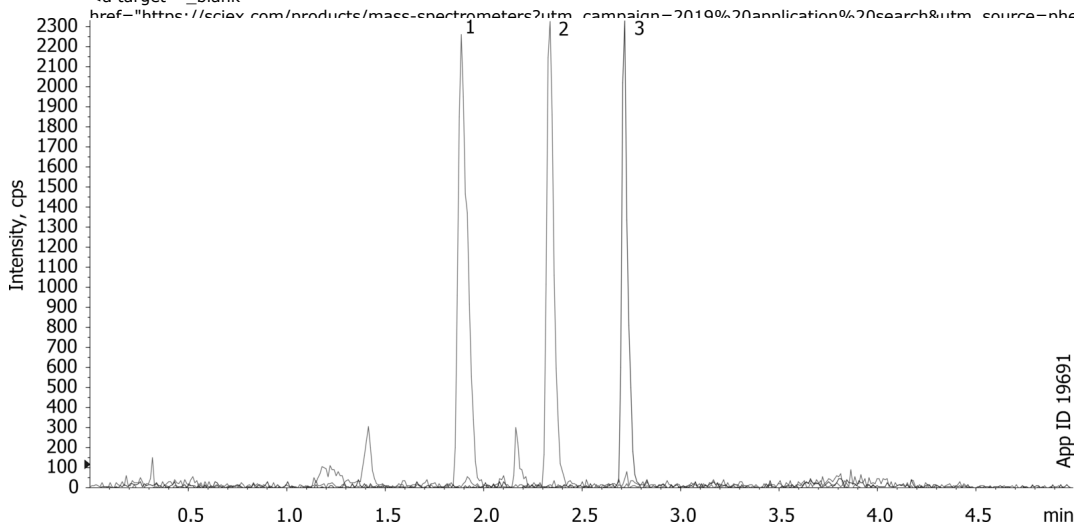
**Col. Temp.:** ambient

**Detection:** Mass Spectrometer (MS) @ (350 °C)

**Detector Info:** <a target="\_blank" href="https://sciex.com/products/mass-spectrometers?utm\_campaign=2019%20application%20search&utm\_source=phenomenex&utm\_medium=referral">SCIEX</a>



Products used in this application:



App ID 19691

### ANALYTES:

- 1 Digoxin  
Retention Time: 1.9 min
- 2 Oleandrin  
Retention Time: 2.35 min
- 3 Digitoxin  
Retention Time: 2.75 min



# Sample Preparation Details

for HPLC Application ID No.: 19691

## LC/MS/MS Analysis of Digoxin and Digitoxin in plasma (0.25 ng/mL) using Strata-X and Kinetex C8

### PRODUCT DESCRIPTION:

Strata™-X 33 µm Polymeric Reversed Phase, 30 mg / 3 mL, Tubes , 50/Pk

Order No.: 8B-S100-TBJ

### SOLID PHASE EXTRACTION (SPE) PROCEDURE:

**Note:** The solvent volumes shown below are for a 30 mg bed mass.

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

#### Condition:

#### Load:

#### Wash:

#### Dry:

10min at full vacuum

#### Elute:

#### Final Prep and Analysis:

Inject: 0 µL on HPLC Mass Spectrometer (MS) @ (350°C)

| ANALYTES:   | Spiked Conc.<br>(ng/mL) | Log P | pKa | % Rec | %RSC<br>(n=0) |
|-------------|-------------------------|-------|-----|-------|---------------|
| 1 Digoxin   | 0.25                    |       |     | 87    |               |
| 2 Oleandrin | 0.25                    |       |     |       |               |
| 3 Digitoxin | 0.25                    |       |     | 108   |               |

**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](http://www.phenomenex.com)

[support@phenomenex.com](mailto:support@phenomenex.com)