

## Nicotine and its Metabolites in Urine By LC/MS/MS Using Strata-X-C and Gemini-NX C18

**Column:** Gemini® 3 µm NX-C18 110 Å, LC Column 50 x 2 mm, Ea

**Dimensions:** 50 x 2 mm ID

**Order No:** 00B-4453-B0

**Elution Type:** Gradient

**Eluent A:** 20mM Ammonium bicarbonate

**Eluent B:** 100% Acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	90	10
	2	3	25	75
	3	3.1	90	10
	4	5	90	10

**Flow Rate:** 500

**Col. Temp.:** 25 °C

**Detection:** Circular Dichroism @ 0.0000000000 (550 °C)

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

- SecurityGuard Cartridges, Gemini-NX C18 4 x 2.0mm ID, 10/PK Part No.: AJ0-8367

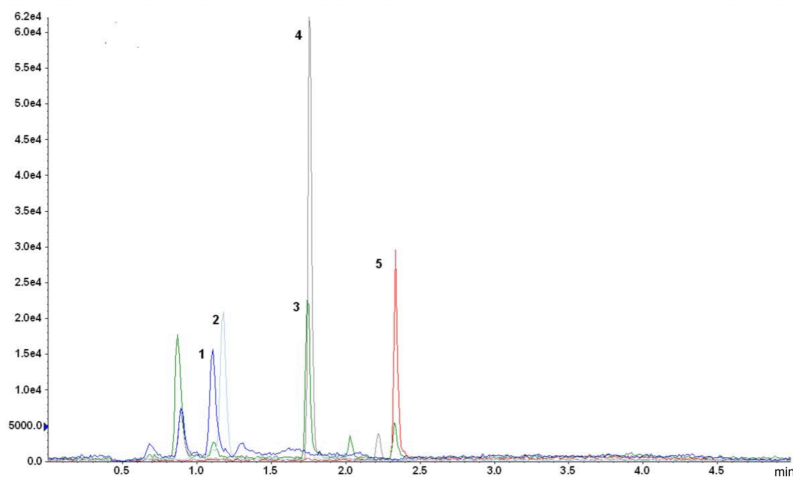
- Holder Part No.: KJ0-4282



Products used in this application:



19734



### ANALYTES:

- 1** Nornicotine  
Retention Time: 1 min
- 2** 3-Hydroxycotinine  
Retention Time: 1.16 min
- 3** Anabasine  
Retention Time: 1.68 min
- 4** Cotinine  
Retention Time: 1.73 min
- 5** Nicotine  
Retention Time: 2.31 min



# Sample Preparation Details

for HPLC Application ID No.: 19734

## Nicotine and its Metabolites in Urine By LC/MS/MS Using Strata-X-C and Gemini-NX C18

### PRODUCT DESCRIPTION:

Strata<sup>™</sup>-X-C 33 µm Polymeric Strong Cation, 60 mg / 3 mL, Tubes , 50/Pk

Order No.: 8B-S029-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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#### Wash:

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#### Dry:

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5min at full vacuum

#### Elute:

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#### Final Prep and Analysis:

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Inject: 10 µL on HPLC Circular Dichroism @ 0.0000000000 (550°C)

<b>ANALYTES:</b>	<b>Spiked Conc. (ng/mL)</b>	<b>Log P</b>	<b>pKa</b>	<b>% Rec</b>	<b>%RSC (n=0)</b>
1 Nornicotine	4			101.5	
2 3-Hydroxycotinine	4			103.1	
3 Anabasine	4			97.03	
4 Cotinine	4			94.8	
5 Nicotine	4			96.13	

**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 [international@phenomenex.com](mailto:international@phenomenex.com).



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