

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 µL/min

Col. Temp.: 25 °C

Detection: Mass Spectrometer (MS) @ amu (550 °C)

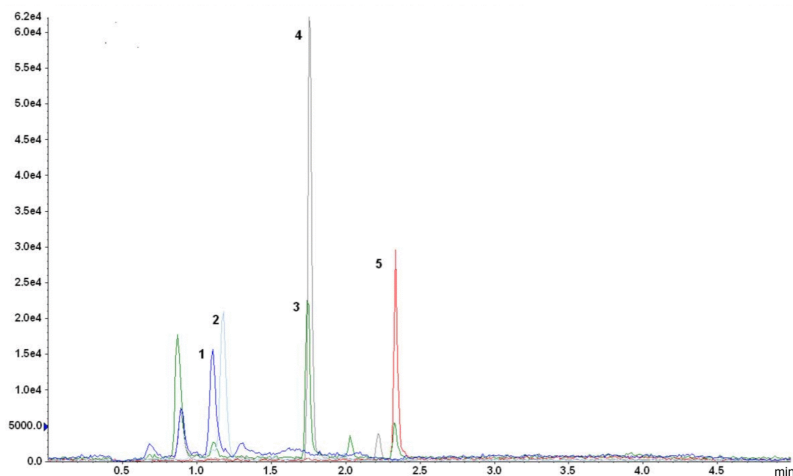
Detector Info: <a target="_blank"

Analyst Note: href="https://sciex.com/products/mass-spectrometers?utm_campaign=2019%20application%20search&utm_source=phenomenex&utm_medium=referral">SCIEX
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

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



Products used in this application:



Sample Preparation Details

for HPLC Application ID No.: 19734

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PRODUCT DESCRIPTION:

Strata[™]-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:

Load:

Wash:

Dry:

5min at full vacuum

Elute:

Final Prep and Analysis:

Inject: 10 µL on HPLC Mass Spectrometer (MS) @ amu (550°C)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
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 info@phenomenex.com



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