

MercuryMS - Luna 3µm C18(2) 20 x 2.0mm for Benzodiazepines in Plasma by LC/MS/MS

Column: Luna® 3 µm C18(2) 100 Å, LC Column 20 x 2 mm, Mercury, Ea

Dimensions: 20 x 2 mm ID

Order No: 00M-4251-B0-CE

Elution Type: Gradient

Eluent A: 0.1% Formic Acid in Water

Eluent B: 0.1% Formic Acid in Acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	85	15
	2	1	5	95
	3	1.01	85	15
	4	2	85	15

Flow Rate: 0.6 mL/min

Col. Temp.: ambient

Detection: Mass Spectrometer (MS) @ amu (ambient)

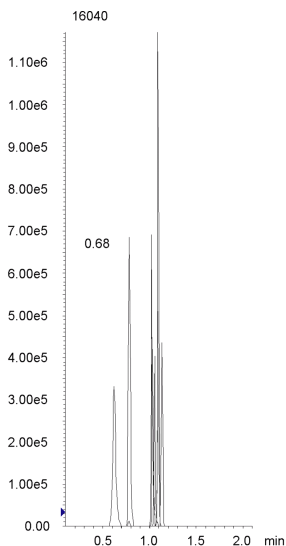
Analyst Note: SecurityGuard™ Guard Cartridge System extends column lifetime.

- SecurityGuard Cartridges, C8 4 x 2.0mm, 10/Pk Part No.: AJ0-4289

- Holder Part No.: KJ0-4282



Products used in this application:



ANALYTES:

- 1 7-Aminoflunitrazepam
Retention Time: 0.52 min
- 2 Chlordiazepoxide
Retention Time: 0.68 min
- 3 Oxazepam
Retention Time: 0.92 min
- 4 Nordazepam
Retention Time: 0.93 min
- 5 Clonazepam (internal standard)
Retention Time: 0.95 min
- 6 Temazepam
Retention Time: 0.99 min
- 7 Flunitrazepam
Retention Time: 0.99 min
- 8 Diazepam (Valium)
Retention Time: 1.03 min



Sample Preparation Details

for HPLC Application ID No.: 16040

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PRODUCT DESCRIPTION:

Strata[™]-X 33 µm Polymeric Reversed Phase, 30 mg / 1 mL, Tubes , 100/Pk

Order No.: 8B-S100-TAK

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:

Spiked different concentration levels of benzodiazepines, metabolites and 50ng/mL clonazepam as IS into 200µL human plasma; diluted to 1mL with water

Wash:

Dry:

Elute:

Final Prep and Analysis:

Inject: 10 µL on HPLC Mass Spectrometer (MS) @ amu (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 7-Aminoflunitrazepam	100				
2 Chlordiazepoxide	100				
3 Oxazepam	100				
4 Nordazepam	100				
5 Clonazepam	50				
6 Temazepam	100				
7 Flunitrazepam	100				
8 Diazepam	100				

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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