

# HPLC Application

ID No.: 19714

## Benzodiazepines from urine using Strata-X-Drug N on a Kinetex C18 2.6µm, 50x2.1mm

**Column:** Kinetex<sup>®</sup> 2.6 µm C18 100 Å, LC Column 50 x 2.1 mm, Ea

**Dimensions:** 50 x 2.1 mm ID

**Order No:** 00B-4462-AN

**Elution Type:** Gradient

**Eluent A:** 0.1% Formic acid

**Eluent B:** 0.1% Formic acid in methanol

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	65	35
	2	4	5	95
	3	4.01	65	35
	4	7	65	35

**Flow Rate:** 300 µL/min

**Col. Temp.:** ambient

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

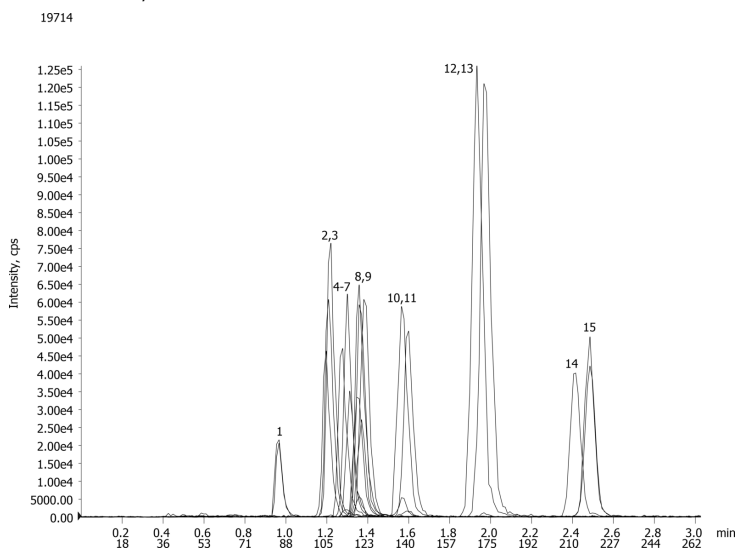
**Detector Info:** <a target="\_blank"

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

Source: Cur-11, CAD-12, IS-4500, Tem-450, NEB-12

Dwell: 25ms

Polarity: Positive



Products used in this application:



## Benzodiazepines from urine using Strata-X-Drug N on a Kinetex C18 2.6 $\mu$ m, 50x2.1mm

### ANALYTES:

- 1 alpha-Hydroxyalprazolam
- 2 Oxazepam-d5
- 3 Oxazepam
- 4 Alprazolam-d5
- 5 Alprazolam
- 6 Nordiazepam-d5
- 7 Nordiazepam
- 8 Lorazepam-d4
- 9 Lorazepam
- 10 Clonazepam-d4
- 11 Clonazepam
- 12 Temazepam-d5
- 13 Temazepam
- 14 Diazepam-d5
- 15 Diazepam



# Sample Preparation Details

for HPLC Application ID No.: 19714

## Benzodiazepines from urine using Strata-X-Drug N on a Kinetex C18 2.6µm, 50x2.1mm

### PRODUCT DESCRIPTION:

Strata<sup>™</sup>-X-Drug N 100 µm Polymeric Reversed Phase, 100 mg / 6 mL, Tubes , 30/Pk

Order No.: 8B-S129-ECH

### SOLID PHASE EXTRACTION (SPE) PROCEDURE:

**Note:** The solvent volumes shown below are for a 100 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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10 minutes @ full vacuum

#### Elute:

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### Final Prep and Analysis:

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Evaporate eluant under a stream of N<sub>2</sub> gas at 50°C. Reconstitute with 1mL of 35% methanol

Inject: 0 µL on HPLC Mass Spectrometer (MS) @ amu (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 alpha-Hydroxyalprazolam	300			92.4	
2 Oxazepam-d5	300			100	
3 Oxazepam	300			105.3	
4 Alprazolam-d5	300			100	
5 Alprazolam	300			98.4	
6 Nordiazepam-d5	300			100	
7 Nordiazepam	300			103.7	
8 Lorazepam-d4	300			100	
9 Lorazepam	300			101.1	
10 Clonazepam-d4	300			100	
11 Clonazepam	300			99.6	
12 Temazepam-d5	300			100	
13 Temazepam	300			104.6	
14 Diazepam-d5	300			100	
15 Diazepam	300			101.1	

**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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