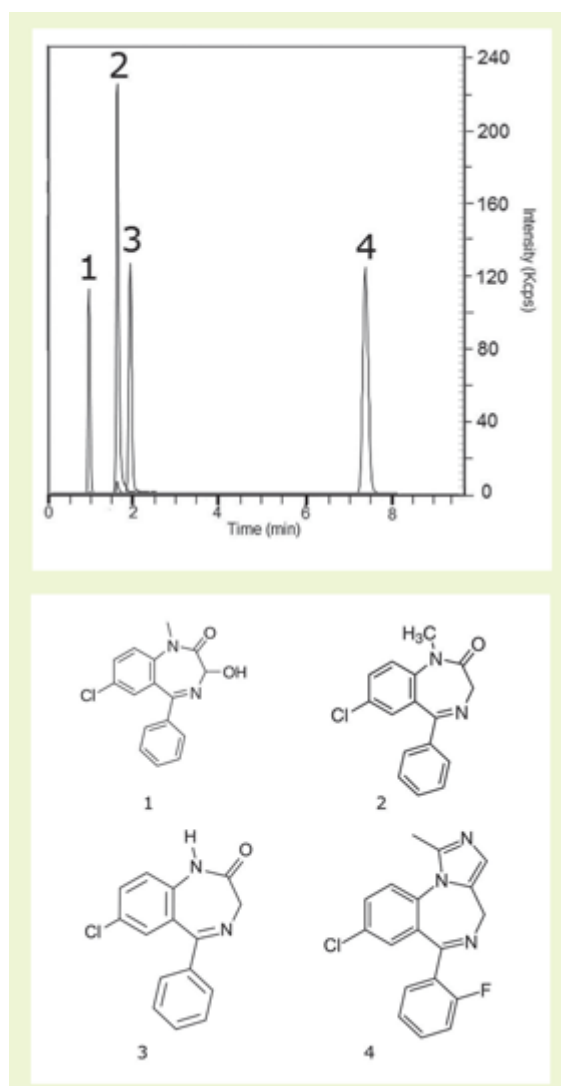


1,4-Benzodiazepines in Urine Analyzed with ANP – AppNote

1,4-Benzodiazepine compounds from Urine Samples were analyzed successfully after Solid Phase Extraction (SPE).

Four available Compounds (*shown below*) were well retained and separated. The procedure could be used for determination of this class of compounds in urine samples and other body fluids.



Peaks:

1. Temazepam 301.0739 m/z [M+H]⁺
2. Diazepam 285.0790 [M+H]⁺
3. Nordiazepam 271.0633 [M+H]⁺
4. Midazolam 326.0855 [M+H]⁺

Method Conditions

Column: Cogent Diamond Hydride 2.0™, 2.2μm, 120Å

Catalog No.: 70200-05P-2

Dimensions: 2.1 x 50mm

Solvents:

A: DI H₂O / 0.1% formic Acid (v/v)

B: Acetonitrile/ 0.1% formic Acid (v/v)

Gradient:

time	%B
0	85
6	70
7	20
9	20
10	85

Injection vol.: 1µL

Flow rate: 0.4 ml / minute

Detection: ESI - POS - Perkin Elmer AxION 2 TOF Mass Spectrometer

Samples:

Extraction method: Spiked urine sample was loaded into SPE cartridge I (Clean Screen Xcel™ purchased from UCT Bristol, PA, USA) and eluted with 0.78mL of acetonitrile, 200µL of 2-propanol, 20µL of ammonia.

After the elution, the sample was dried under N₂ gas and dissolved in 100µL of 50:50 methanol / DI H₂O / 0.1% formic acid.

NOTE: Before injection, the 10 ppm spiked sample was filtered through a 0.45µm AQ™ Brand Nylon Syringe Filter (MicroSolv Tech Corp).



Attachments

No 305 1,4-Benzodiazepines in Urine.pdf 0.3 Mb [Download File](#)

Printed from the Chrom Resource Center

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com

Date: 05-07-2024