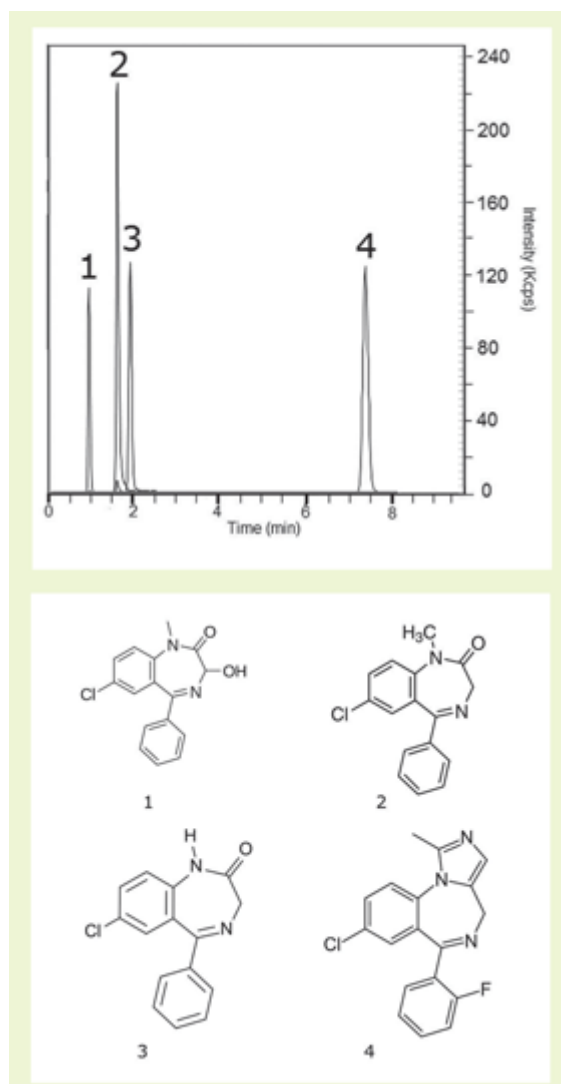


1,4-Benzodiazepines in Urine Analyzed with ANP – AppNote

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](#)

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