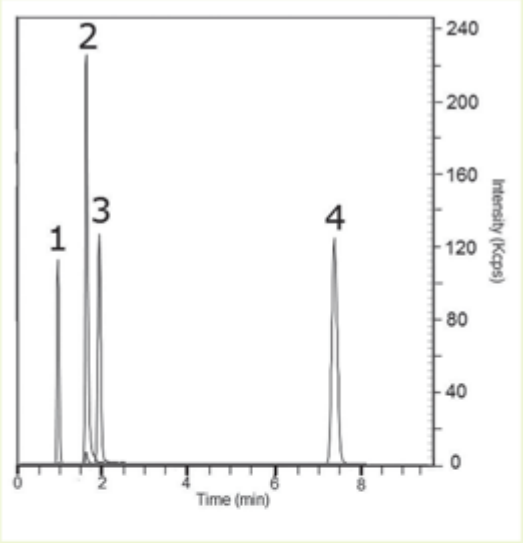
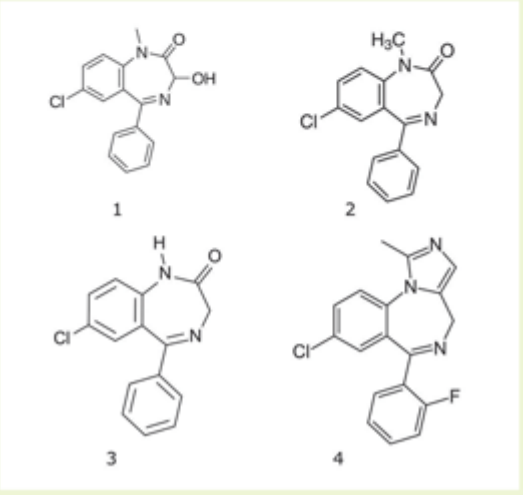
1,4-Benzodiazepines in Urine Analyzed with ANP – AppNote

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.





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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 H20 / 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.

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NOTE: *Before injection, the 10 ppm spiked sample was filtered through a 0 .45µm AQ™ Brand Nylon Syringe Filter (MicroSolv Tech Corp).*

COGENT HPLC Columns™

Attachments

No 305 1,4-Benzodiazepines in Urine.pdf 0.3 Mb Download File

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