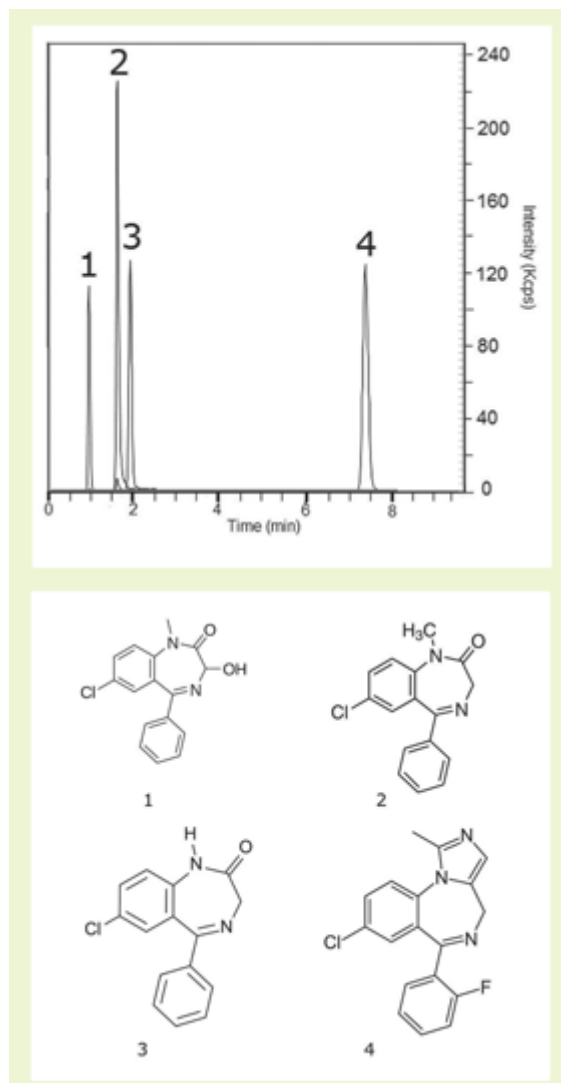


## 1,4-Benzodiazepines in Urine Analyzed with ANP – AppNote

**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]<sup>+</sup>
2. Diazepam 285.0790 [M+H]<sup>+</sup>
3. Nordiazepam 271.0633 [M+H]<sup>+</sup>
4. Midazolam 326.0855 [M+H]<sup>+</sup>

### Method Conditions

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

**Catalog No.:** 70200-05P-2

**Dimensions:** 2.1 x 50mm

**Solvents:**

A: DI H<sub>2</sub>O / 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 N<sub>2</sub> gas and dissolved in 100µL of 50:50 methanol / DI H<sub>2</sub>O / 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).



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**Attachments**

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

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