



SPEware uSPE (ultraSPE) Faster / Cleaner Sample Preparation

Benzodiazepines from Hair

For LC-MS or GC-MS confirmations using:
Trace-B 35mg.

PREPARE SAMPLE

To 0.5 ml of digest add internal standards(s) and 1ml of 100mM phosphate buffer (pH6.0). Mix/Vortex.
(Centrifuge sample for 2 minutes if cloudy.)

Extraction

Note: For Full Scan Mode, rinse columns with 2ml ETOAC followed by 2ml Meoh and 15 secs of drying at 25psig

1. Load sample onto columns at flow rates of 10-20ml/min
2. Wash each column with 1ml pH 9.0 buffer
3. (Prepared by dissolving 20g of KHCO_3 and 10g of K_2CO_3 in 500ml of water. Adjust the pH to 9.0 then bring the volume to 1000ml.)
4. Wash each column with 1ml water.
5. Dry columns for 15 minutes at 25psig.
6. Elute each column with 2.0ml Ethyl Acetate: NH_4OH (98:2)

Note: If you see water droplets in the bottom of the vial decant into a new vial leaving water droplets behind.

7. Evaporate samples to dryness using nitrogen blow down at 40°C.

Derivatization for GC/MS Analysis

1. Evaporate samples under nitrogen to dryness in a 50°C heating block.
2. Reconstitute each sample with 50ul ethyl acetate and transfer to a autosampler vial
3. To each autosampler vial add 25 μL of MTBSTFA+1% TBDMCS . Place in a 90°C heating block for 30 minutes.

For LC/MS, reconstitute with 100ul of mobile phase.