

SPESolid Phase
Extraction

Application Note

World Leaders in Sample Preparation

SPE226

ISOLATION OF COCAINE AND BENZOYLECGONINE FROM URINE

Spe-ed™ Cartridge	Cat. No. 2713- <i>Spe-ed</i> Scan ABN, 3mL; or Cat. No. 2714- <i>Spe-ed</i> Scan ABN, 6mL; or Cat. No. 3713- <i>Spe-ed</i> Scan ABN, LRC, 15mL; or Cat. No. 3723- <i>Spe-ed</i> Scan ABN LRC w/cap, 15mL. Process with <i>Spe-ed Mate</i> .
Sample Preparation	Add 2mL of 0.1 M Phosphate buffer (pH 6.0) to a 4mL sample of urine. Sample pH should be 6.0**
Cartridge Conditioning	2mL of methanol. 2mL of water. 2mL of 0.1 M phosphate buffer (pH 6.0)DO NOT ALLOW CARTRIDGE TO RUN DRY!
Sample Addition	Add to cartridge. Aspirate samples through the cartridge at 1mL per minute.
Cartridge Wash	2mL of water. 1mL of 1 N acetic acid. 2mL of methanol. Air-dry cartridge under vacuum for 10 minutes. At 15in. Hg. Vacuum.
Analyte Elution	3mL of 2% ammonium hydroxide in 80/20 methylene chloride/ isopropanol*.
Evaporation	Evaporate the eluate to dryness under N ₂ and <40°C.

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Derivatization

Add 50uL of ethyl acetate, and 50uL of BSTFA (with 1% TMCS) to residue under N₂ and cap. Mix. Heat for 15 minutes at 70°C. Cool. Inject 1-2uL

*Make new elution solvent daily.

**Adjust sample pH with 0.1 N HCl or 0.1 NaOH as necessary.

Note: *Since sample matrix interferences and concentrations may vary from sample to sample, it may be necessary to adjust the wash and elution solvent/solution strength and/or volume to optimize isolation.*

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