

SPESolid Phase
Extraction

Application Note

World Leaders in Sample Preparation

SPE228**ISOLATION OF ACIDIC, NEUTRAL,
AND BASIC DRUGS FROM WHOLE BLOOD**

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 2mL sample of whole blood. Mix. 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. 2mL of hexane. Place collection tubes in manifold.
Analyte Elution	3mL of 5% ethyl acetate in methylene chloride. Remove collection tubes from manifold. Dry eluate under nitrogen at <40°C. Reconstitute in a 100uL of ethyl acetate. Inject 1 to 2uL.

The logo for Applied Separations, featuring the company name in a bold, sans-serif font with horizontal lines above the word "Applied".930 Hamilton Street · Allentown, PA 18101
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Wash Cartridges

2mL methanol.
Air-dry cartridge under vacuum for 10 minutes at 15 In. Hg.
Place new collection tubes in manifold.

**Elute Analyte(s)
(Basic Drugs)**

3mL of 2% ammonium hydroxide in 80/20
methylene chloride / isopropanol*. Evaporate to dryness at
40°C. (Be careful not to evaporate amphetamines.)
Dissolve in 100uL methanol, 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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