

# SPE

Solid Phase  
Extraction

# Application Note

World Leaders in Sample Preparation

## SPE221

### ISOLATION OF SULFONAMIDES IN SERUM AND TISSUE

<b>Spe-ed™ Cartridge</b>	Cat. No. 2713 <i>Spe-ed Scan</i> ABN, 3mL; or cat. No. 3713- <i>Spe-ed Scan</i> ABN LRC, 15mL. Process with <i>Spe-ed Mate</i> .
<b>Sample Preparation</b>	Precipitate protein from sample using trichloroacetic acid. Centrifuge. Adjust pH to 5-6 with H <sub>3</sub> PO <sub>4</sub> .
<b>Cartridge Conditioning</b>	2mL of methanol, followed by 2mL of water, followed by 1mL of 1N acetic acid.
<b>Sample Addition</b>	Add sample to cartridge. Aspirate sample through the cartridge at 1mL per minute.
<b>Cartridge Wash</b>	2mL of water, followed by 1mL of N acetic acid, followed by 2mL of methanol. Air-dry cartridge under vacuum for 5 minutes. <b>Note: Save this wash to check as with eluted compounds. Prepare further in same fashion as with eluates.</b>
<b>Analyte Elution</b>	2mL of 2% ammonium hydroxide in 80/20 methylene chloride / isopropanol.
<b>Evaporation</b>	For CG, add 50uL of DMF to eluate and evaporate eluate to 50uL under nitrogen at <40°C. Inject to 2uL. For GC/MS, dry eluate under nitrogen at < 40°C. Inject to 2uL.
<b>Alternative Analyte Elution</b>	2mL of 2% ammonium hydroxide in methanol.
<b>Alternate Analyte Extractions</b>	Add 3mLs of water, followed by 0.2mLs of chloroform. Vortex for 20 seconds, and allow layers to separate. For GC inject 1 to 2uL of chloroform layer. For GC/MS transfer chloroform layer to another test tube, dry under nitrogen at < 40°C, derivatize and reconstitute in appropriate solvent. Inject 1 to 2uL.

**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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