



Discovery DSC-MCAX (Mixed-Mode Cation Exchange) SPE Products

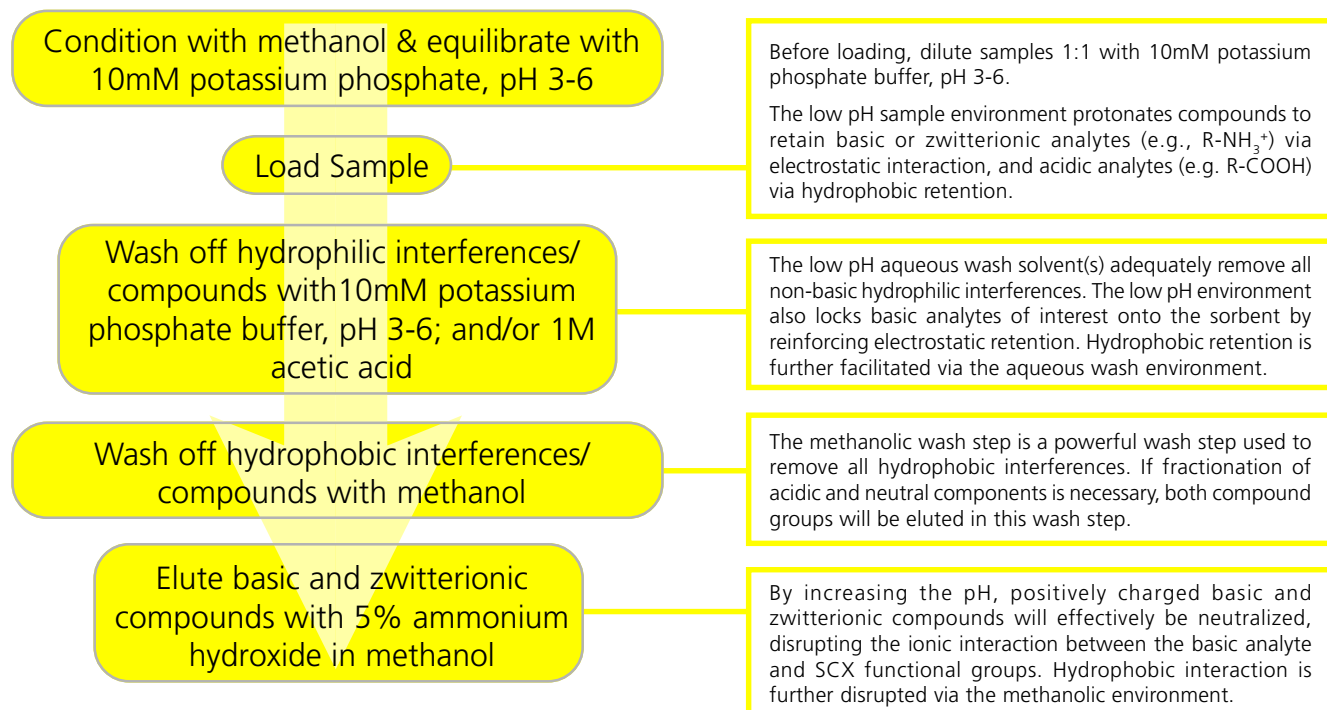
Base Silica: Irregular shaped, acid washed; 50 μ m particle size, 70Å pore diameter, 480m²/g specific surface area, 0.9cm³/g

Discovery DSC-MCAX SPE was developed, tested and quality controlled for pharmaceutical and clinical applications. The technology utilizes the dual mechanisms of both hydrophobic (reversed-phase) and electrostatic (ion-exchange) interaction to retain, basic, acidic, neutral and zwitterionic compounds from aqueous sample matrices. The packed bed contains both **octyl (C8)** and **benzene sulfonic acid (SCX)** bondings to offer one of the most selective SPE systems available.

Use Discovery DSC-MCAX SPE to:

- Achieve superior selectivity/sample clean-up when isolating basic/zwitterionic compounds.
- Experience greater and more reproducible recoveries of pharmaceutical compounds from biological samples
- Fractionate basic/zwitterionic compounds from acidic and neutral compounds.
- Adjust the protocol to permanently retain unwanted basic/ zwitterionic compounds while eluting acidic and neutral compounds of interest.

Recommended Generic Protocol:

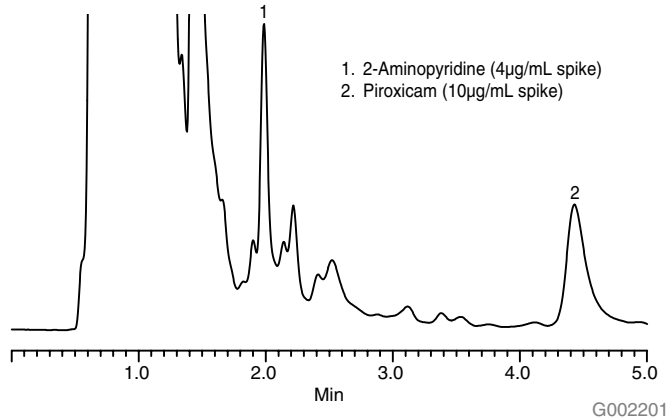


Here's the Proof:

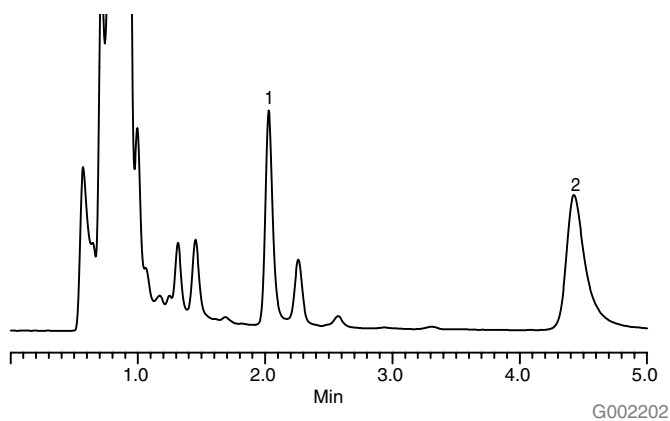
Competitor Comparison of 2-Aminopyridine and Piroxicam from Human Urine

SPE Tube: Discovery DSC-MCAX, 100mg/3mL
 HPLC Column: Discovery HS F5, 15cm x 4.6mm, 5µm particle size
 Mobile Phase: 10mM potassium phosphate, pH 6:MeCN (85:15)
 Flow Rate: 2mL/min
 Temp.: 25°C
 Det.: UV, 220nm
 Inj. Vol.: 10µL

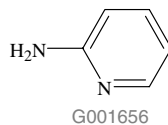
Spiked Urine Samples Before DSC-MCAX



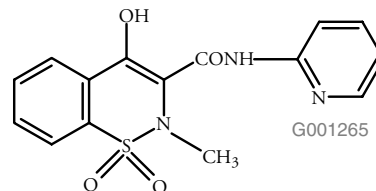
Spiked Urine Samples After DSC-MCAX



2-Aminopyridine



Piroxicam



Efficiency of Absolute Recovery (n=4)

	% Recovery ± RSD	
	2-Aminopyridine	Piroxicam
Discovery DSC-MCAX	102 ± 3.5%	101 ± 1.2%
Leading Competitor A	30 ± 52.5%	98 ± 3.2%
Leading Competitor B	36 ± 24.2%	83 ± 4.3%

Ordering Information

Description	Qty./Pk	Cat. No.
Discovery DSC-MCAX		
50mg/1mL	108	52781-U
100mg/1mL	108	52782-U
100mg/3mL	54	52783-U
300mg/3mL	54	52784-U
300mg/6mL	30	52786-U
1g/6mL	30	52788-U
Discovery DSC-MCAX SPE 96-Well Plate		
25mg/well	1 ea.	575639-U
50mg/well	1 ea.	575640-U
100mg/well	1 ea.	575641-U

Trademark

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