

EVOLUTE® WCX

IST Sample Preparation Products



Mixed-mode Selectivity, Generic Methodology and Efficient Extraction

EVOLUTE® WCX is a weak cation exchange mixed-mode resin-based SPE sorbent that extracts a range of strongly basic analytes and quaternary amines from biological fluids and other aqueous matrices using a generic procedure which minimizes method development time. EVOLUTE WCX removes matrix components such as proteins, salts, non-ionizable interferences and phospholipids, delivering cleaner extracts with reproducible recoveries for accurate quantitation.

- Removal of proteins, salts, non-ionizable interferences and phospholipids
- Fast, simple generic methodology
- Allows for acidic elution conditions suitable for LC-MS analysis
- Minimal ion suppression
- High, reproducible recoveries for a wide range of strongly basic drugs and quaternary amines

EVOLUTE WCX sample preparation products are available in a range of standard configurations and 2 different particle sizes (30 μm and 50 μm) depending on application.

High selectivity provides ultra-clean extracts

The mixed-mode sorbent chemistry and optimized pore size minimizes retention of high molecular weight matrix components present in the biological fluid samples (Figure 1).

The interferences including proteins, salts, non-ionizable molecules and phospholipids are removed during the interference elution step, thereby ensuring extremely clean extracts (Figure 2).

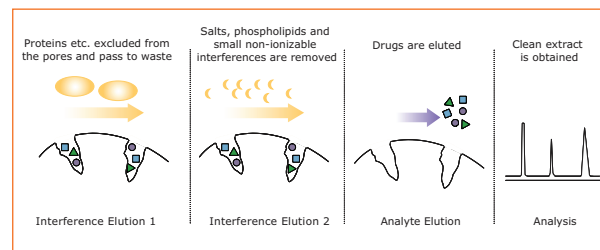


Figure 1. The combination of optimized pore structure and additional interference elution steps using mixed-mode sorbent chemistry guarantees extremely clean extracts.

High analyte recoveries

EVOLUTE WCX has a water-wettable surface to promote robust, reliable sample preparation. The combination of robust polymer chemistry, uniform coverage of carboxylic acid groups and optimum exchange capacity provide greater than 85% recovery for a wide range of strongly basic compounds and quaternary amines.

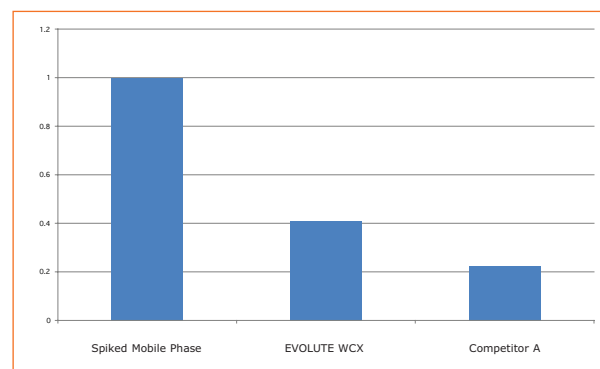


Figure 2. Total Ion Suppression as measured by FIA-MS/MS using phenacetin as the probe analyte. EVOLUTE WCX exhibits extracts that are twice as clean as the competitors product.

Excellent flow characteristics

Narrow particle size distribution provides consistent flow characteristics for a variety of sample matrices. Optimized packing techniques eliminate channelling, which can lead to analyte breakthrough. Additionally, larger particle EVOLUTE WCX 50 μm allows for increased flow rates when using particularly viscous samples or large sample volumes.



Batch-to-batch reproducibility

The surface characteristics of each batch of EVOLUTE WCX are quality controlled and tested to ensure consistency.

Bioanalysis - EVOLUTE WCX 30 µm

Biotage offers a range of EVOLUTE WCX columns and 96-well plates optimised for bioanalytical sample preparation. Request Chemistry Data Sheet **TN143** for more details.

Forensic, clinical, food and environmental applications - EVOLUTE WCX 50 µm

EVOLUTE WCX is also available in larger SPE formats suitable for the larger sample volumes and more viscous matrices common in forensic, clinical, food and environmental applications. Request Chemistry Data Sheet **TN143** for more details.

Ordering Information for EVOLUTE WCX 30 µm columns and 96-well plates

Description	Quantity	Part number
EVOLUTE CX Fixed Well Plate		
EVOLUTE WCX 10 mg Fixed Well Plate	1	602-0010-P01
EVOLUTE WCX 25 mg Fixed Well Plate	1	602-0025-P01
EVOLUTE WCX Array Plates and Wells		
EVOLUTE Array WCX 25 mg/1 mL wells	100	602-0025-R
Pre-assembled EVOLUTE Array plates are available. To order, add the suffix P to the equivalent loose well part number. e.g. 602-0025-RP.		
EVOLUTE Array Accessories		
EVOLUTE Array base plate	1	120-6000-P01
Strip of 8 base plate sealing plugs*	50	120-1200
Luer adaptors (fits standard sample processing manifold)	25	120-1201
Well removing tool*	1	120-1202
*Required when processing a partially populated EVOLUTE WCX Array plate.		
EVOLUTE WCX 1 mL SPE Columns		
EVOLUTE WCX 25 mg/1 mL SPE Columns	100	602-0001-A

Ordering Information for EVOLUTE WCX 50 µm columns

Description	Quantity	Part number
EVOLUTE WCX 50 µm 50 mg/3 mL SPE Columns	50	612-0005-B
EVOLUTE WCX 50 µm 100 mg/3 mL SPE Columns	50	612-0010-B
EVOLUTE WCX 50 µm 100 mg/10 mL SPE Columns	50	612-0010-H
EVOLUTE WCX 50 µm 200 mg/3 mL SPE Columns	50	612-0020-B
EVOLUTE WCX 50 µm 500 mg/6 mL SPE Columns	30	612-0050-C

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