

# EVOLUTE® AX

## IST Sample Preparation Products



## Generic Methodology and Efficient Extraction

EVOLUTE® AX mixed-mode resin-based SPE sorbent extracts a range of acidic analytes from biological fluids and other aqueous matrices using a generic procedure which minimizes method development time. EVOLUTE AX removes matrix components such as proteins, salts, non-ionisable 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
- Minimal ion suppression
- High, reproducible recoveries for a wide range of acidic analytes

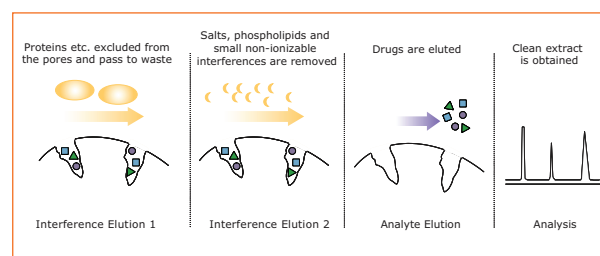
EVOLUTE AX sample preparation products are available in a range of standard configurations and 2 different particle sizes (30 µm and 50 µm) depending on application.

### High selectivity provides ultra-clean extracts

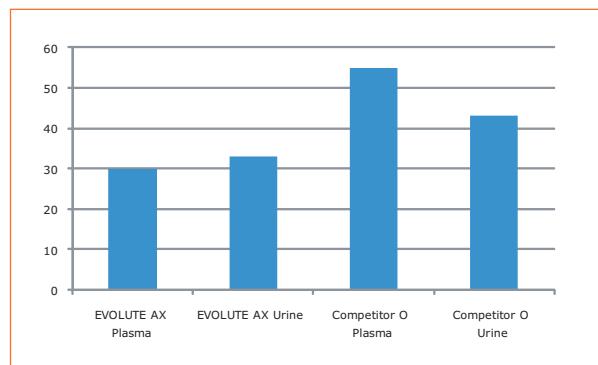
The mixed-mode sorbent chemistry and optimized pore size minimizes retention of high molecular weight matrix components present in the biological fluid samples (Figure 1). Interferences including proteins, salts, non-ionizable molecules and phospholipids are removed during the interference elution step, thereby ensuring extremely clean extracts (Figure 2).

### High analyte recoveries

EVOLUTE AX has a water-wettable surface to promote robust, reliable sample preparation. The combination of robust polymer chemistry, uniform coverage of quaternary amine groups and optimum exchange capacity provide greater than 85% recovery for a wide range of acidic analytes.



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



**Figure 2.** Total Ion Suppression as measured by FIA-MS/MS using caffeine as the probe analyte. EVOLUTE AX exhibits cleaner extracts from both urine and plasma compared with competitor 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 AX 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 AX are quality controlled and tested to ensure consistency and reproducible results.

### Bioanalysis - EVOLUTE AX 30 µm

Biotage offers a range of EVOLUTE AX columns and 96-well plates optimised for bioanalytical sample preparation. Request Chemistry Data Sheet **TN144** for more details.

### Forensic, clinical, food and environmental applications - EVOLUTE AX 50 µm

EVOLUTE AX 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 **TN144** for more details.

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

Description	Quantity	Part number
<b>EVOLUTE AX Fixed Well Plate</b>		
EVOLUTE AX 10 mg Fixed Well Plate	1	603-0010-P01
EVOLUTE AX 25 mg Fixed Well Plate	1	603-0025-P01
<b>EVOLUTE Array AX Plates and Wells</b>		
EVOLUTE Array AX 25 mg/1 mL wells	100	603-0025-R
Pre-assembled EVOLUTE Array plates are available. To order, add the suffix P to the equivalent loose well part number. e.g. 603-0025-RP.		
<b>EVOLUTE Array Accessories</b>		
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 AX Array plate.		
<b>EVOLUTE AX 1 mL SPE Columns</b>		
EVOLUTE AX 25 mg/1 mL SPE Columns	100	603-0002-A

#### Ordering Information for EVOLUTE AX 50 µm columns

Description	Quantity	Part number
EVOLUTE AX 50 µm 50 mg/3 mL SPE Columns	50	613-0005-B
EVOLUTE AX 50 µm 100 mg/3 mL SPE Columns	50	613-0010-B
EVOLUTE AX 50 µm 100 mg/10 mL SPE Columns	50	613-0010-H
EVOLUTE AX 50 µm 200 mg/3 mL SPE Columns	50	613-0020-B
EVOLUTE AX 50 µm 500 mg/6 mL SPE Columns	30	613-0050-C

### www.biotage.com

#### NORTH AMERICA

Main Office: +1 704 654 4900  
Toll Free: +1 800 446 4752  
Fax: +1 704 654 4917  
Order Tel: +1 704 654 4900  
press (4) at the auto attendant  
Order Fax: +1 434 296 8217  
ordermailbox@biotage.com

#### EUROPE

Main Office: +46 18 56 5900  
Fax: +46 18 59 1922  
Order Tel: +46 18 56 57 10  
Order Fax: +46 18 56 57 05  
order@biotage.com

#### JAPAN

Tel: +81 422 28 1233  
Fax: +81 422 28 1236  
jp\_order@biotage.com

To locate a distributor please  
visit our web site at  
www.biotage.com.