

EVOLUTE® ABN

IST Sample Preparation Products



Ultra-clean extracts, generic methodology and high reproducible recoveries

EVOLUTE® ABN is an advanced water-wettable polymer-based sorbent that extracts acidic, basic and neutral analytes from biological fluids and other aqueous matrices. Developed specifically for analyte quantification by LC-MS/MS, EVOLUTE products provide a highly effective solution to the problems of ion suppression and matrix effects from dirty extracts. These high performance products allow scientists to use a generic approach for a wide range of compounds, thus reducing method development time while producing super clean extracts.

- Minimal ion suppression
- Four times higher signal intensity in LC-MS/MS
- Fast, simple generic methodology
- High, reproducible recoveries for a wide range of analytes

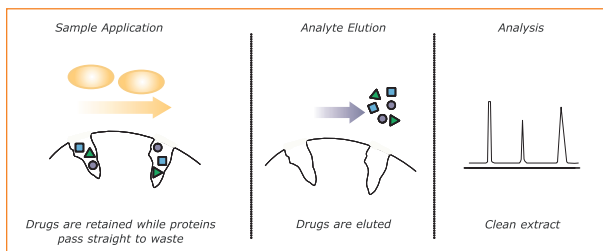


Figure 1. The optimized pore structure prevents retention of endogenous large molecular weight interferences, allowing analytes to be eluted in extremely clean extracts.

EVOLUTE ABN Sample Preparation Products are available in a range of Standard Configurations.

Ultra-Clean Extracts

EVOLUTE ABN's optimized pore structure minimizes the retention of high molecular weight endogenous materials present in complex sample matrices. See Figure 1.

The result is cleaner extracts, providing four times higher signal to noise and improved LC-MS/MS quantitation. See Figure 2 below.

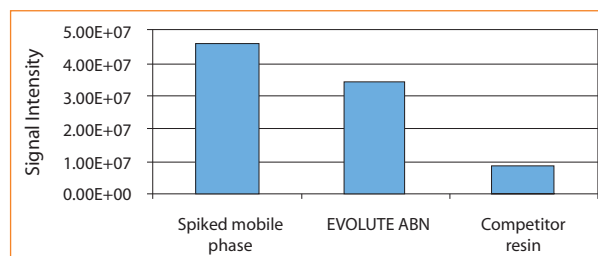


Figure 2. LC-MS/MS signal (m/z 195>138) for caffeine spiked plasma, compared to spiked mobile phase (flow injection analysis). EVOLUTE ABN gives four times higher s/n than a competitive resin-based product.

Simple and fast method development

EVOLUTE ABN uses a single generic procedure suitable for a wide range of analytes and aqueous matrices. Without secondary interactions, pure organic elution solvents can be used, reducing evaporation time and providing optimal LC-MS/MS compatibility, making the transfer to analysis more efficient.

High analyte recoveries

EVOLUTE ABN has a unique modified surface structure that is water-wettable to promote robust, reliable sample preparation. A balanced combination of polar (hydrophilic) and non-polar (hydrophobic) interactions allows efficient extraction of analytes of wide ranging polarity.

Excellent flow characteristics

EVOLUTE ABN's narrow particle size distribution provides consistent flow characteristics for a variety of sample matrices. Optimized packing techniques eliminate channeling, which can lead to analyte breakthrough.

Batch-to-batch reproducibility

The surface characteristics of every batch of EVOLUTE ABN are quality controlled and tested to ensure consistency.



Bioanalysis – EVOLUTE ABN 30 µm

Biotage offers a range of EVOLUTE ABN columns and 96-well plates optimized for bioanalytical sample preparation. Request Chemistry Data Sheet **TN131** for more details.

Ordering Information for EVOLUTE 30 µm columns

Description	Quantity	Part number
EVOLUTE ABN 1 mL SPE Columns		
EVOLUTE ABN 10 mg/1 mL SPE Columns	100	600-0001-A
EVOLUTE ABN 25 mg/1 mL SPE Columns	100	600-0002-A
EVOLUTE ABN Fixed Well Plate		
EVOLUTE ABN 10 mg Fixed Well Plate	1	600-0010-P01
EVOLUTE ABN 25 mg Fixed Well Plate	1	600-0025-P01
EVOLUTE Array ABN Loose Wells		
EVOLUTE Array ABN 10 mg/1 mL wells	100	600-0010-R
EVOLUTE Array ABN 25 mg/1 mL wells	100	600-0025-R
Pre-assembled EVOLUTE Array plates are available. To order, add the suffix P to the equivalent loose well part number.		
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 Array ABN plate.

Environmental Analysis – EVOLUTE ABN 50 µm

EVOLUTE ABN 200 mg/6 mL columns are ideally suited for trace enrichment analysis of environmental contaminants in large volume water samples. The 50 mg/10 mL columns are recommended for aqueous sample volumes less than 10 mL. Request Chemistry Data Sheet **TN136** for more details on the use of EVOLUTE ABN in environmental applications.

Forensic and Doping Control Analysis – EVOLUTE ABN 50 µm

Non-polar resin based SPE is well documented for screening banned substances in forensic toxicology and doping control applications. Viscous matrices such as biological fluids can be processed using the 3 mL and 10 mL (H) configurations without column blockage. Request Chemistry Data Sheet **TN137** for more details on the use of EVOLUTE ABN in forensic and clinical applications.

Other Application Areas – EVOLUTE ABN 50 µm

EVOLUTE ABN columns can be used in a variety of other application areas including food/agrochemical and industrial analysis. For more details on how to use these columns, request Chemistry Data Sheet **TN138** EVOLUTE ABN Columns for Solid Phase Extraction of Aqueous Samples.

Ordering Information for EVOLUTE ABN 50 µm Columns

Item	Description	Quantity	Part Number
EVOLUTE ABN	25 mg/10 mL (G) ¹	50	600-0002-G
EVOLUTE ABN 50 µm ³	50 mg/3 mL	50	610-0005-B
EVOLUTE ABN 50 µm ³	100 mg/3 mL	50	610-0010-B
EVOLUTE ABN 50 µm ³	100 mg/10 mL (H) ²	50	610-0010-H
EVOLUTE ABN 50 µm ³	200 mg/3 mL	50	610-0020-B
EVOLUTE ABN 50 µm ³	200 mg/6 mL	30	610-0020-C

¹ 25 mg/10 mL (G) columns have the same sorbent bed dimensions as a 1 mL SPE column, but with an expanded reservoir for loading sample volumes up to 10 mL in one aliquot

² 100 mg/10 mL (H) columns have the same sorbent bed dimensions as a 3 mL SPE column, but with an expanded reservoir for loading sample volumes up to 10 mL in one aliquot

³ The particle size is optimized for SPE columns with sorbent masses larger than 25 mg.

For custom configurations contact Biotage.

www.biotage.com

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