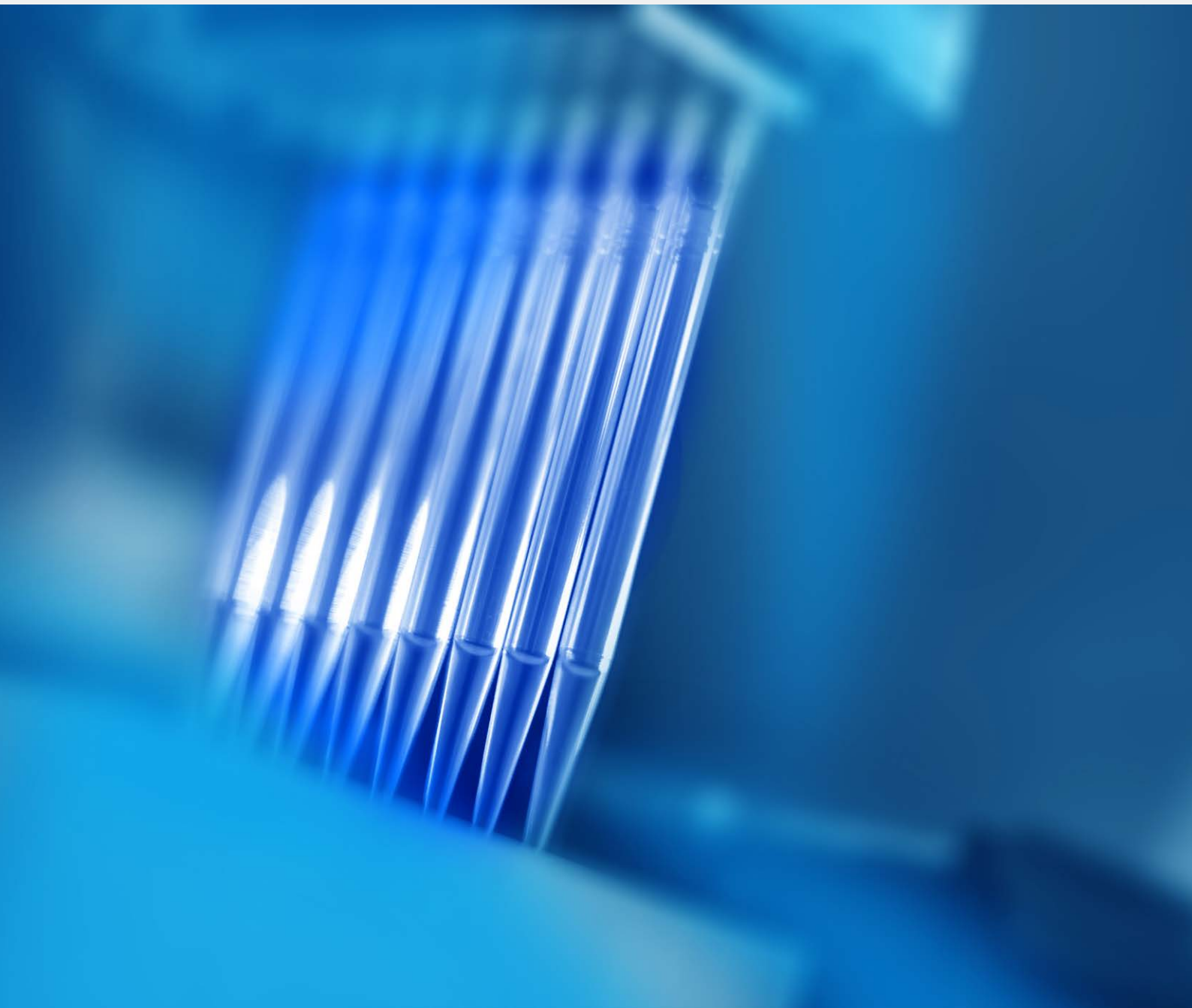


# Analytical Sample Preparation

2016 Catalog







Analytical Sample Preparation  
2016 Catalog

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# Biotage<sup>®</sup> 1-Point Support<sup>™</sup>

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The Answer to All Your Questions

# Customer Support and Resources

## Method Development and Troubleshooting Advice

Biotage is ready to assist you with our team of analytical chemists who have many years of experience in providing practical, theoretical and technical knowledge relating to sample preparation techniques.

If you need help choosing the best sample preparation method for your application, or want to solve an existing sample preparation problem, please contact your local Biotage 1-Point Support™ team who will ensure you receive fast advice from our sample preparation experts.

## Technical Information

Throughout this catalog, we highlight chemistry data sheets and application notes that provide detailed information on sample preparation techniques and SPE sorbents.

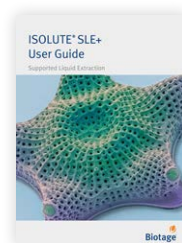
## Literature Library

Biotage's literature library is a vital resource for analytical chemists looking to optimize sample preparation procedures. As sample preparation experts, Biotage are dedicated to finding the ideal solution to your sample preparation requirements with a regularly updated library containing application notes, technical notes and scientific presentations. The Biotage literature library has been optimized to provide the most appropriate, efficient and effective sample preparation solutions, taking into consideration matrix effects, analyte structure/functionality and relevant regulatory requirements.

The Biotage literature library is fully searchable by keyword, analyte, matrix, analytical technique, format, product type and industry type. This search feature allows you to obtain relevant application notes suitable for your needs in an efficient and dynamic manner. Visit the Biotage literature library [www.biotage.com/applications](http://www.biotage.com/applications).

## ISOLUTE® SLE+ User Guide

Find out how to develop simple load-wait-elute extraction methods, and get the best results from ISOLUTE® SLE+ supported liquid extraction products. Literature part number UI304.



## EVOLUTE® EXPRESS User Guide

Learn how to optimize methods, and speed up your SPE by eliminating conditioning and equilibration steps using EVOLUTE® EXPRESS columns and 96-well plates. Literature part number UI330.



## QuickStart Guide to SPE

See our QuickStart Guide for a comprehensive introduction to solid phase extraction. Literature part number UI331.



## Avoiding Cross Talk in 96-well Sample Preparation

Use simple practical strategies, hints and tips to mitigate or avoid cross-well contamination or 'cross talk' in high throughput 96-well based sample preparation. Literature part number PPS387.



To download a copy of any of the above guides please visit [www.biotage.com](http://www.biotage.com).

## 1-Point Support™

### **www.biotage.com**

The Biotage web site offers our customers easy access to current information on new products, applications, and events.

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### **To locate a distributor**

Please visit our web site at

[www.biotage.com](http://www.biotage.com)



# How to Place Your Order

In this catalog product information is displayed with easy-to-follow application details and supporting documentation. Ordering information is found following each product listing.

## How to Order

You can order through our web site **www.biotage.com**. Alternatively you may place your order by telephone, email or fax.

### Europe

Main Office: +46 18 56 59 00  
Toll Free: +800 18 56 57 10  
Fax: +46 18 59 19 22  
Order Tel: +46 18 56 57 10  
Order Fax: +46 18 56 57 05  
order@biotage.com

### North & Latin America

Main Office: +1 704 654 4900  
Toll Free: +1 800 446 4752  
Fax: +1 704 654 4917  
Order Tel: +1 704 654 4900  
Order Fax: +1 434 296 8217  
ordermailbox@biotage.com

When placing your order please have available:

- Your purchase order number
- Biotage part number(s)
- Product description(s)
- Shipping address
- Billing address
- Contact person, including telephone number
- Product user name and department

### Japan

Tel: +81 3 5627 3123  
Fax: +81 3 5627 3121  
jp\_order@biotage.com

### China

Tel: +86 21 2898 6655  
Fax: +86 21 2898 6153  
cn\_order@biotage.com  
www.biotage.cn

### Distributors

Please visit our web site at  
www.biotage.com for contact details.

Orders can also be placed using your VISA or MasterCard account (and American Express **IN THE US ONLY**).





Biotage is committed to developing and manufacturing sample preparation products of the highest quality. State-of-the-art manufacturing techniques are supported by a comprehensive quality control (QC) testing program documented under our ISO9001:2008 registered Quality Management System.

All the components used to make our sample preparation products (tubes, frits, 96-well plates and sorbents) are rigorously cleaned and QC tested to ensure they meet our demanding purity specifications.

We use sophisticated instrumental techniques to confirm the physical and chemical nature of every batch of sorbent – ensuring reproducible performance in your application.

Every ISOLUTE® or EVOLUTE® EXPRESS product is accompanied by a detailed quality assurance (QA) report for your reference. This page explains the importance of the information it contains, and the impact this has on every sample preparation procedure you perform.

## Reproducible sorbent mass packed into SPE columns:

- » Column capacity and analyte elution volume requirements are constant
- » Consistent column-to-column and batch-to-batch recoveries

## Well controlled particle size distribution with minimal fines from column-to-column and batch-to-batch:

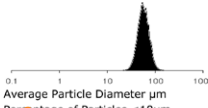
- » Reliable sample processing using manifolds and automated devices
- » Consistent flow through columns, from column-to-column and batch-to-batch
- » Low back pressure – automation friendly
- » Gravity loading of samples with some column configurations
- » No fines in final extract to plug injectors or absorb analytes when sample is reconstituted in another solvent
- » No channeling in sorbent beds minimizes sorbent mass requirements, reducing elution volumes and costs
- » Minimal drying time, reproducible from batch-to-batch
- » Large sorbent mass columns with good flow characteristics

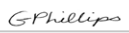


### Quality Assurance Report

**Part No.** 221-0010-A  
**Description** ISOLUTE C18(EC) 100mg 1ml SPE Columns  
**Lot No.** 10221002GP **Sorbent Batch No.** 221-0-02

This product has been manufactured, tested and assembled under the control of an ISO 9001:2008 registered quality system and has been subjected to the following QC tests:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Base Material Analysis</b><br>Pore Diameter (Å) <b>50</b><br>Surface Area (m <sup>2</sup> /g) <b>491</b><br>Surface pH <b>N/A</b><br><b>Elemental Analysis</b><br>Carbon Loading (%C) <b>1.5</b><br>Bonded Phase Coverage (μmol/m <sup>2</sup> ) <b>1.6</b><br>UV Abs. of MeOH Extract @ 254 nm <b>&lt;0.1</b><br>Extraction Residue (%) <b>&lt;0.1</b><br><b>Particle Size Analysis</b><br>C18(EC) BATCH No 221-0-02<br><br>Average Particle Diameter μm <b>53</b><br>Percentage of Particles <10μm <b>0.01</b><br>Percentage of Particles >90 <b>2.73</b><br>Percentage of Particles 30-90 <b>95.48</b><br>This ISOLUTE product has passed Biotage's rigorous QC tests. | <b>Material HPLC Analysis</b><br>Mobile Phase: 60%MeOH / 40%H2O<br>Uracil<br>Acetophenone<br>Nitrobenzene<br>Methyl Benzoate<br>Toluene<br>Capacity Factor K' <b>PASS</b><br>Selectivity, Alpha 4,3 <b>PASS</b><br>End Capping Test <b>PASS</b><br>Exchange Capacity <b>N/A</b><br>Special Recovery Test <b>N/A</b><br><b>Packed Column and Component Test</b><br>Column Flow Resistance <b>PASS</b><br>Column Purity Test (GC) <b>PASS</b><br>Frit Purity Test (GC) <b>PASS</b><br>Material Weight Check <b>PASS</b><br>N/A = Not Applicable<br>Biotage welcomes feedback on all quality issues. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

  
 Quality Control Manager

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## Reproducible, optimized chemistry for ISOLUTE® and EVOLUTE® sorbents:

- » Minimize method development time
- » Eliminate need for time-consuming method changes when different batches of sorbent are used

## High and reproducible capacities of ISOLUTE® and EVOLUTE® EXPRESS ion exchange sorbents:

- » Reproducible high recoveries in ion exchange SPE without using columns with excessively large sorbent mass
- » Saves time, money and increases analyte concentration in final extract

## High purity sorbents, frits, columns and 96-Well plates:

- » The purity of all the components used to manufacture ISOLUTE® and EVOLUTE® EXPRESS products are monitored to ensure compatibility with the most demanding applications

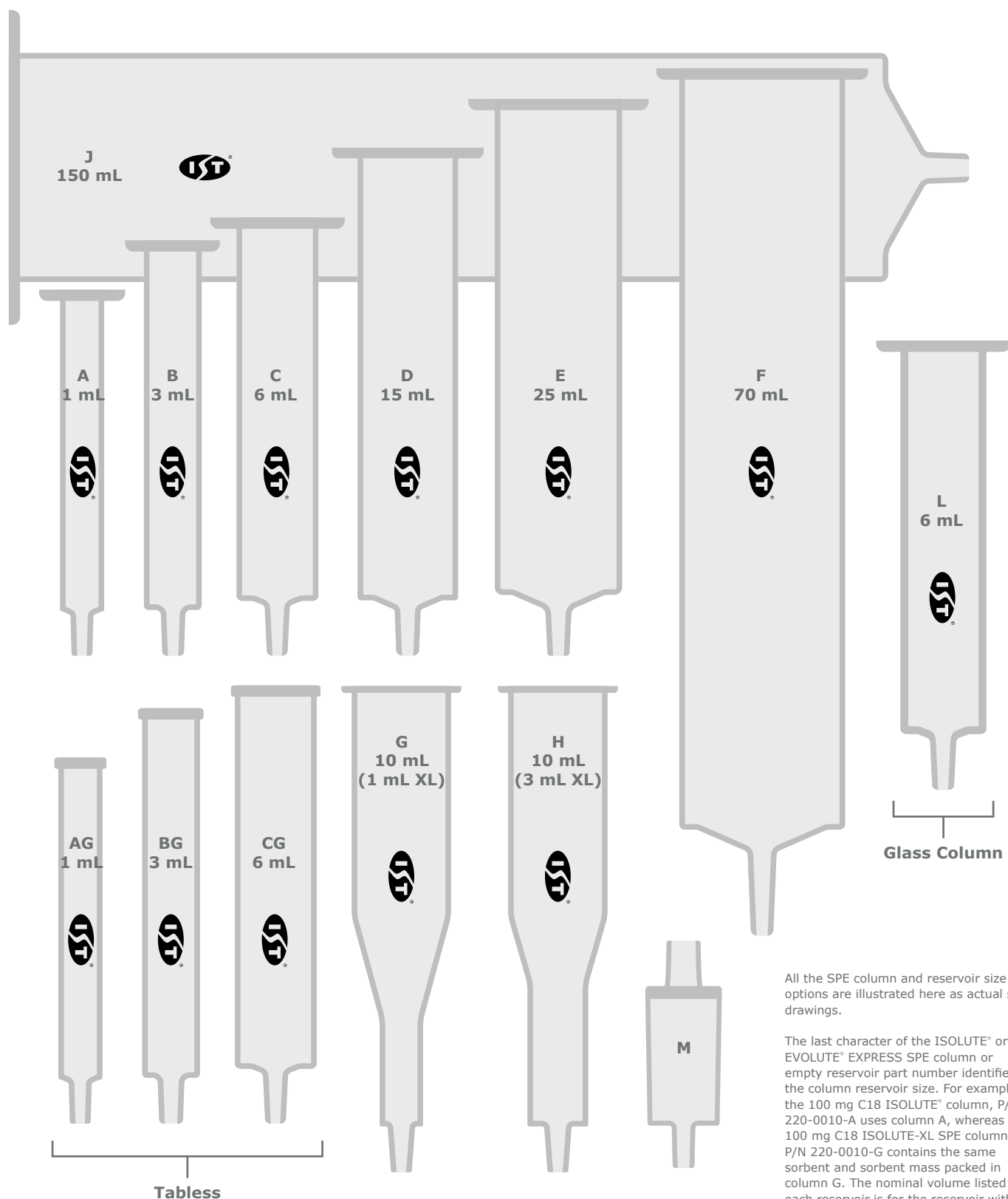


# Sample Preparation Format Options

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# Sample Preparation Format Options

## Actual Size Columns



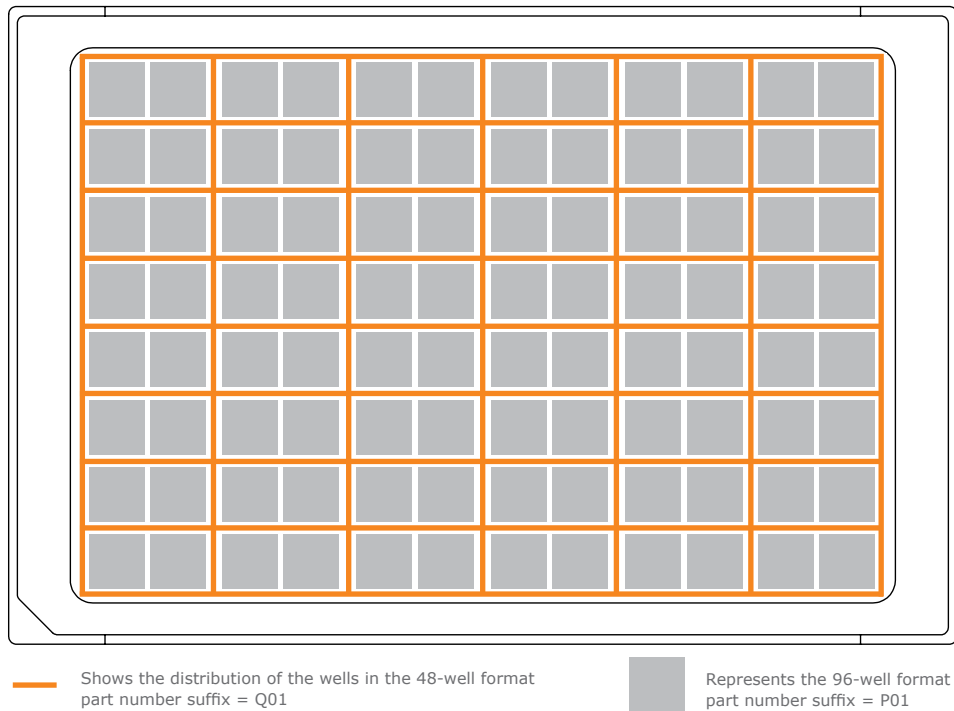
All the SPE column and reservoir size options are illustrated here as actual size drawings.

The last character of the ISOLUTE® or EVOLUTE® EXPRESS SPE column or empty reservoir part number identifies the column reservoir size. For example, the 100 mg C18 ISOLUTE® column, P/N 220-0010-A uses column A, whereas the 100 mg C18 ISOLUTE-XL SPE column P/N 220-0010-G contains the same sorbent and sorbent mass packed in column G. The nominal volume listed for each reservoir is for the reservoir without sorbent.

Tablets columns (1, 3 and 6 mL) for use on Biotage® PRESSURE+ and Biotage® ExtraHera® systems are also available.

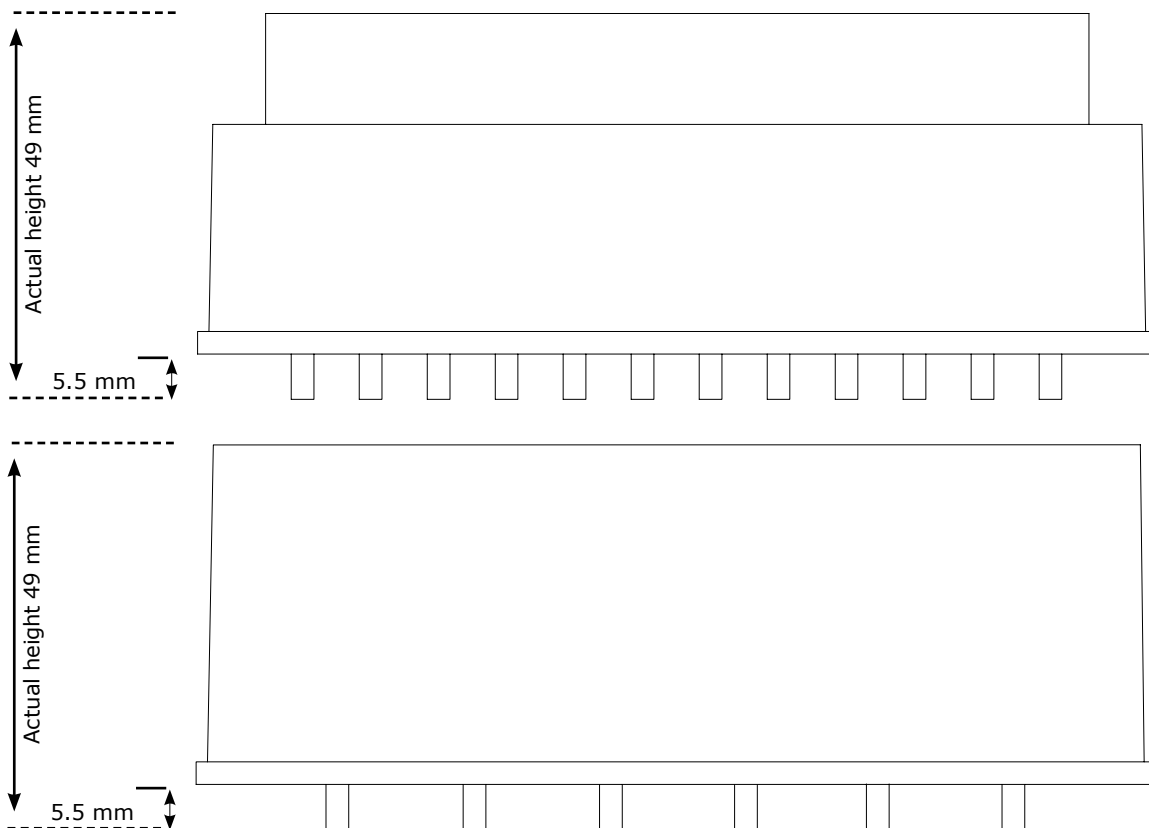
# Sample Preparation Format Options

## Actual Size 48- and 96-Well Plate



As with individual columns, the last character(s) of the part number identifies the format/column type. The suffix for 96-well plates is -P01; 48-well plates is -Q01.

**Scale diagrams** (actual size) of the 96-well and 48-well fixed well plates are shown below. To prevent cross talk when processing plates, well outlets should penetrate the collection plate correctly.



Side elevation (actual size) 96-well plate (top) and 48-well plate (bottom).





ISOLUTE® SLE+ 200µl  
Fixed Well Plate  
PART No. 820-0200-P01  
LOT No. 13021303SA



# ISOLUTE® SLE+ Supported Liquid Extraction Products

---

Simple Load-Wait-Elute Methodology

# Supported Liquid Extraction

## Achieving Simplicity and Success in Sample Preparation

### ISOLUTE® SLE+

#### Supported Liquid Extraction Columns and Plates

ISOLUTE® SLE+ Supported Liquid Extraction products are designed to provide stress free extraction of analytes from biological fluids, using a simple **Load-Wait-Elute** methodology.

The supported liquid extraction (SLE) process is analogous to traditional liquid-liquid extraction (LLE) and utilizes the same water immiscible solvent systems for analyte extraction. Instead of shaking the two immiscible phases together, in SLE, the aqueous sample is immobilized on an inert support, and the organic phase flows through the support, eliminating problems such as emulsion formation and low analyte recoveries.

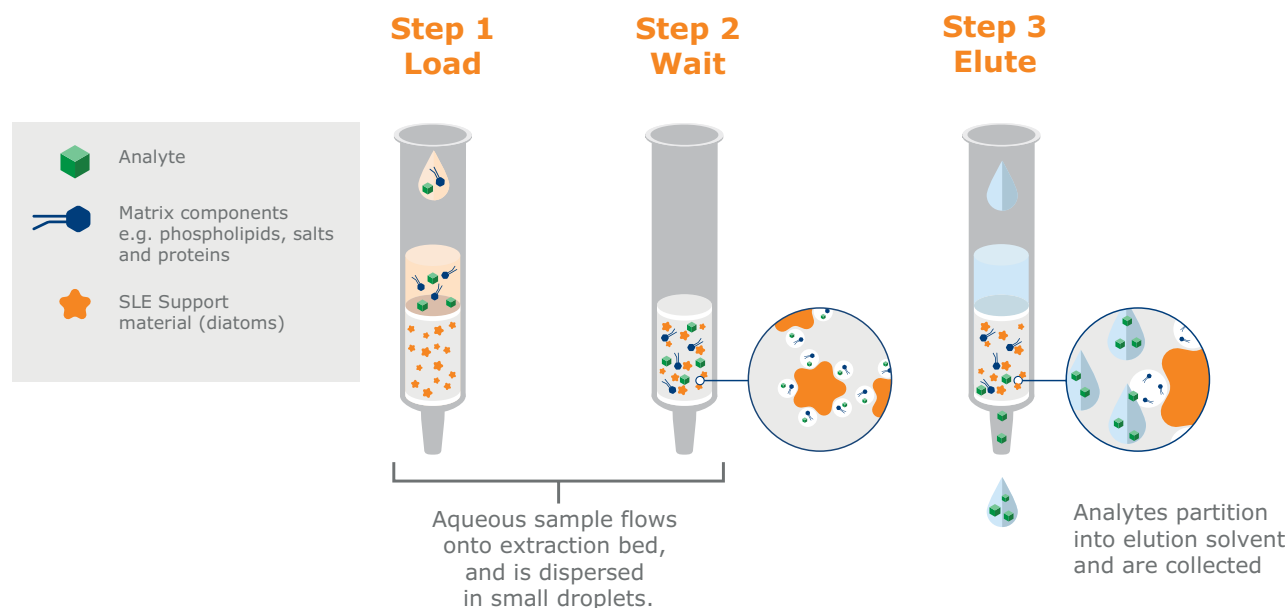
Methods with high analyte recoveries, and clean, protein and phospholipid free extracts, are easy to develop and automation is simple.

Select the correct ISOLUTE SLE+ product based on the volume of sample to be extracted (**see Table 1**). Extraction solvent volumes are also listed.

**Table 1.**

Recommended sample and elution volumes for ISOLUTE® SLE+ products.

| Product Description     | Maximum Load Volume | Elution Protocol/Volume  |
|-------------------------|---------------------|--------------------------|
| 200 µL 96-well plate    | 200 µL              | 1 x 1 mL                 |
| 400 µL 96-well plate    | 400 µL              | 2 x 900 µL or 3 x 700 µL |
| 1 mL 48-well plate      | 1 mL                | 5 x 1 mL                 |
| 200 µL Array well/plate | 200 µL              | 2 x 600 µL               |
| 400 µL Array well/plate | 400 µL              | 3 x 750 µL               |
| 400 µL column           | 400 µL              | 2 x 900 µL               |
| 1 mL column             | 1 mL                | 2 x 2.5 mL               |
| 2 mL column             | 2 mL                | 2 x 5 mL                 |
| 5 mL column             | 5 mL                | 3 x 8 mL                 |
| 10 mL column            | 10 mL               | 2 x 20 mL                |



Typical ISOLUTE SLE+ procedure.



# Supported Liquid Extraction

## Achieving Simplicity and Success in Sample Preparation



### 96-Well Plates

| Part Number  | Description                                           | Qty. |
|--------------|-------------------------------------------------------|------|
| 820-0200-P01 | ISOLUTE SLE+ 200 µL Supported Liquid Extraction Plate | 1    |
| 820-0400-P01 | ISOLUTE SLE+ 400 µL Supported Liquid Extraction Plate | 1    |

### 48-Well Plates

Extract 1 mL sample volumes in high throughput microplate format

| Part Number  | Description                                                   | Qty. |
|--------------|---------------------------------------------------------------|------|
| 820-1000-Q01 | ISOLUTE SLE+ 1 mL Supported Liquid Extraction Plate (48-well) | 1    |

### Columns

| Part Number | Description                                 | Qty. |
|-------------|---------------------------------------------|------|
| 820-0055-B  | ISOLUTE SLE+ 400 µL Sample Volume           | 50   |
| 820-0055-BG | ISOLUTE SLE+ 400 µL Sample Volume (Tabless) | 50   |
| 820-0140-C  | ISOLUTE SLE+ 1 mL Sample Volume             | 30   |
| 820-0140-CG | ISOLUTE SLE+ 1 mL Sample Volume (Tabless)   | 30   |
| 820-0290-D  | ISOLUTE SLE+ 2 mL Sample Volume             | 20   |
| 820-0690-E  | ISOLUTE SLE+ 5 mL Sample Volume             | 20   |
| 820-1420-F  | ISOLUTE SLE+ 10 mL Sample Volume            | 16   |

### Bulk Packs

To reduce packaging and improve workflow, ISOLUTE® SLE+ columns are available in bulk pack sizes

| Part Number      | Description                                 | Qty. |
|------------------|---------------------------------------------|------|
| 820-0055-B-500   | ISOLUTE SLE+ 400 µL Sample Volume           | 500  |
| 820-0055-BG-500  | ISOLUTE SLE+ 400 µL Sample Volume (Tabless) | 500  |
| 820-0140-C-1000  | ISOLUTE SLE+ 1 mL Sample Volume             | 1000 |
| 820-0140-CG-1000 | ISOLUTE SLE+ 1 mL Sample Volume (Tabless)   | 1000 |
| 820-0290-D-1000  | ISOLUTE SLE+ 2 mL Sample Volume             | 1000 |

### Array Wells

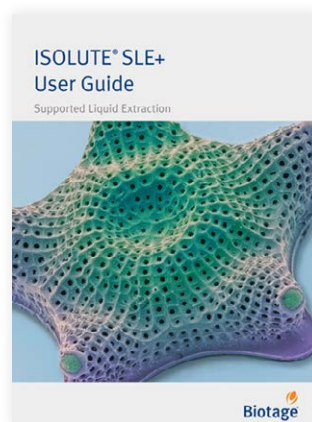
| Part Number | Description                     | Qty. |
|-------------|---------------------------------|------|
| 820-0200-T  | ISOLUTE SLE+ 200 µL Array Wells | 100  |
| 820-0400-T  | ISOLUTE SLE+ 400 µL Array Wells | 100  |

### Accessories

| Part Number | Description                     | Qty. |
|-------------|---------------------------------|------|
| 121-5202    | Collection plate, 1 mL, square  | 50   |
| 121-5203    | Collection plate, 2 mL, square  | 50   |
| 121-5213    | Collection plate, 2 mL, round   | 50   |
| 121-5210    | Collection plate, 5 mL, 48-well | 20   |

## ISOLUTE® SLE+ User Guide

For further information download the ISOLUTE® SLE+ User Guide from [www.biotage.com](http://www.biotage.com). Literature part number UI304.



ISOLUTE® PLD+ 50mg  
Fixed Well Plate  
PART No. 918-0050-P01  
LOT No. 13357302GA



Biotage 

# ISOLUTE® PLD+ Protein and Phospholipid Removal Products

---

Simple, Effective Sample Clean up for LC-MS/MS

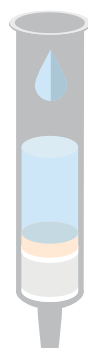
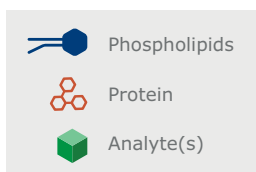
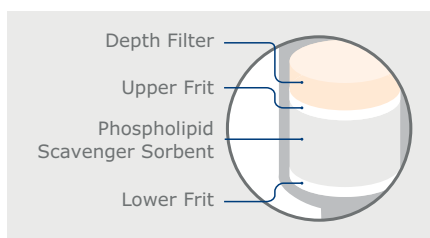
## ISOLUTE® PLD+

### Protein and Phospholipid Removal Columns and Plates

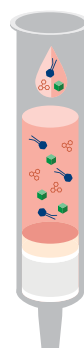
ISOLUTE® PLD+ Protein and Phospholipid Removal products provide a very effective but extremely simple sample clean up for blood based samples prior to LC-MS/MS analysis. Requiring next to no method development, ISOLUTE PLD+ can be integrated quickly and easily into routine workflow, increasing productivity and reducing instrument downtime. ISOLUTE PLD+ products remove >99 % of plasma proteins and phospholipids, the main causes of ion suppression, leading to cleaner extracts and increased sensitivity (signal-to-noise (S/N)) for a broad range of analytes.



#### Step 1 Dispense crash solvent



#### Step 2 Dispense sample matrix (e.g. plasma, blood)



Mix as required

#### Step 3 Apply low vacuum/ positive pressure



Precipitated proteins retained by depth filter  
Phospholipids retained



Collect purified analytes

Typical ISOLUTE® PLD+ procedure.

Using a simple solvent crash/filtration based procedure, proteins and phospholipids are simultaneously removed from plasma and other blood based samples while high, reproducible analyte recoveries are maintained. The optimized frit arrangement acts as a depth filter, efficiently trapping precipitated proteins, without blocking or plugging.

ISOLUTE PLD+ plates and columns can be processed using positive pressure or vacuum processing systems – see page 60 for ordering information.

### ISOLUTE PLD+ Protein and Phospholipid Removal Products

| Part Number  | Description                                                        | Qty. |
|--------------|--------------------------------------------------------------------|------|
| 918-0050-P01 | ISOLUTE PLD+ Protein and Phospholipid Removal Plate                | 1    |
| 918-0005-AG  | ISOLUTE PLD+ Protein and Phospholipid Columns 50 mg/1 mL (tabless) | 100  |

### Accessories

| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 121-5202    | Collection plate, 1 mL, square | 50   |
| 121-5203    | Collection plate, 2 mL, square | 50   |
| 121-5213    | Collection plate, 2 mL, round  | 50   |

For more information, visit [www.biotage.com](http://www.biotage.com)

# EVOLUTE<sup>®</sup> EXPRESS SPE Products

---

Load-Wash-Elute SPE Products

### EVOLUTE® EXPRESS

#### Load-Wash-Elute SPE Columns and Plates

EVOLUTE® EXPRESS represents a leap forward in high throughput solid phase extraction. The EVOLUTE EXPRESS range of SPE columns and 96-well plates combine powerful EVOLUTE sorbent chemistry with innovative features that enhance productivity. With improved flow-through characteristics and by eliminating the need for conditioning and equilibration, sample preparation time can be cut by more than 1/3 using the simplified **Load-Wash-Elute** procedure.

#### Step 1 Load



#### Step 2 Wash



#### Step 3 Elute



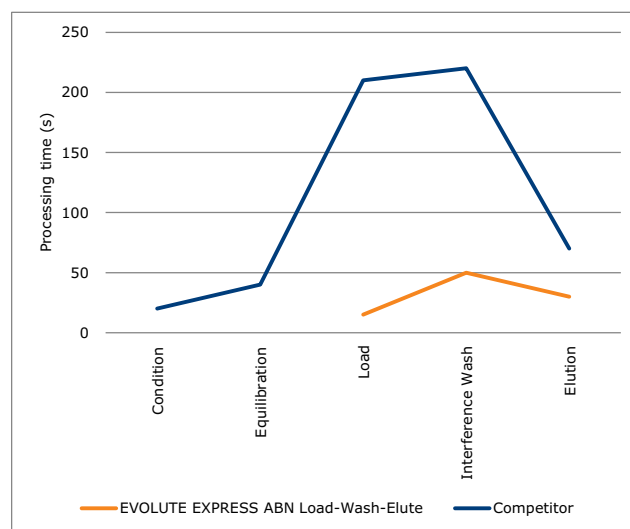
Interferences

Analyte of interest

| Standard SPE procedure | EVOLUTE® EXPRESS Load-Wash-Elute procedure |
|------------------------|--------------------------------------------|
| Condition              | Not required                               |
| Equilibrate            | Not required                               |
| Load                   | Load                                       |
| Wash                   | Wash                                       |
| Elute                  | Elute                                      |

#### Fast and Efficient Flow Rates

EVOLUTE® EXPRESS products dramatically improve flow characteristics and enhance sample preparation productivity. Flow rates are fast and consistent even when loading aqueous biological fluid sample directly onto a dry column.



**Figure 1.** 10 mg/1 mL EVOLUTE® EXPRESS vs. competitor 10 mg/1 mL equivalent. N=12 for each product. Columns processed using the Biotage® PRESSURE+ instrument. Columns processed at 1 psi unless otherwise stated. Sample was pooled human urine diluted 1:3 with water.

Due to the difficulty in measuring times for each individual column, figures for the time to complete flow for the slowest flowing column are shown. For example for 10 mg EVOLUTE EXPRESS ABN load-wash-elute method, all samples loaded in less than 15 s, whereas for the competitor product, sample loading on all columns was complete after 210 s, and increased pressure (up to 5 psi) was required to load the total volume.

EVOLUTE® polymer-based SPE sorbents extract neutral, acidic and basic analytes from biological fluids and other aqueous matrices, the EVOLUTE retention and elution characteristics are completely predictable and extractions on these robust sorbents are not affected by drying of the sorbent bed during sample processing.

#### EVOLUTE® EXPRESS ABN

» For simultaneous extraction of acidic, basic and/or neutral analytes

#### EVOLUTE® EXPRESS CX

» For extraction of basic analytes

#### EVOLUTE® EXPRESS WCX

» For extraction of strongly basic analytes

#### EVOLUTE® EXPRESS AX

» For extraction of acidic analytes

#### EVOLUTE® EXPRESS WAX

» For extraction of strongly acidic analytes

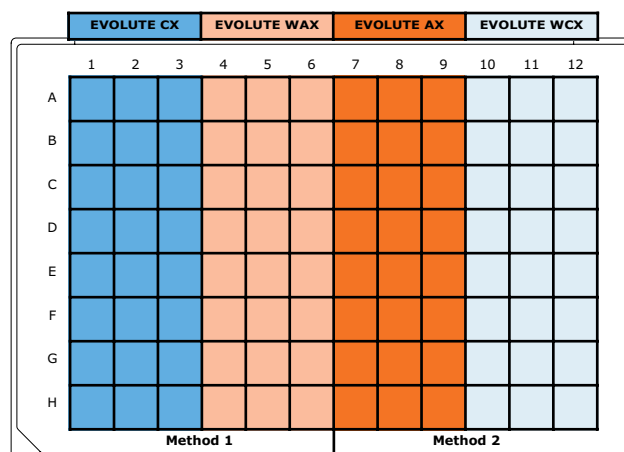


## Flexible Format for Cost Efficiency

EVOLUTE® EXPRESS columns are supplied as standard in the tabless (or flangeless) format. Up to 96 of the 1 mL format columns can populate a base plate for processing using the Biotage® Extrahera™, PRESSURE+ or vacuum manifold, as a cost effective, modular alternative to a 96-well plate.

## EVOLUTE® EXPRESS Sorbent Selection Plate

The EVOLUTE® EXPRESS Sorbent Selection plate contains the four mixed-mode EVOLUTE sorbents CX, WCX, AX and WAX on one plate.



## EVOLUTE EXPRESS Sorbent Selection Plate

| Part Number   | Description                                   | Qty. |
|---------------|-----------------------------------------------|------|
| 650-0010-PX01 | EVOLUTE EXPRESS 10 mg Sorbent Selection Plate | 1    |
| 650-0030-PX01 | EVOLUTE EXPRESS 30 mg Sorbent Selection Plate | 1    |

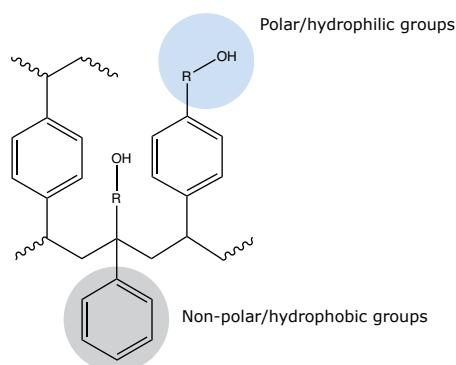
## EVOLUTE® EXPRESS User Guide

For more information download the EVOLUTE® EXPRESS User Guide from [www.biotage.com](http://www.biotage.com) **www.biotage.com**. Literature part number UI330.



Biotage are constantly developing new applications on EVOLUTE® EXPRESS products. Visit [www.biotage.com](http://www.biotage.com) for the latest information.

### EVOLUTE® ABN



Chemical structure of EVOLUTE® ABN

#### Chemical Description:

Water wettable polystyrene-divinylbenzene incorporating non-ionizable hydroxyl groups.

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Average particle size | 30 µm, 50 µm                                              |
| Pore diameter         | 40 Å                                                      |
| Sorbent Type          | Wettable non-polar sorbent with no secondary interactions |

**Application:** EVOLUTE® ABN can be used to extract a diverse range of acidic, neutral and basic analytes from biological fluids and other aqueous matrices. Performance is not adversely affected by drying the sorbent.

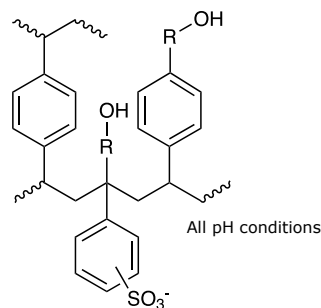
#### EVOLUTE EXPRESS ABN Tabless SPE Columns

| Part Number  | Description                     | Qty. |
|--------------|---------------------------------|------|
| 600-0001-AXG | EVOLUTE EXPRESS ABN 10 mg/1 mL  | 100  |
| 600-0003-AXG | EVOLUTE EXPRESS ABN 30 mg/1 mL  | 100  |
| 610-0006-BXG | EVOLUTE EXPRESS ABN 60 mg/3 mL  | 50   |
| 610-0015-CXG | EVOLUTE EXPRESS ABN 150 mg/6 mL | 30   |
| 610-0050-CXG | EVOLUTE EXPRESS ABN 500 mg/6 mL | 30   |

#### EVOLUTE EXPRESS ABN 96-well SPE Plates

| Part Number   | Description                     | Qty. |
|---------------|---------------------------------|------|
| 600-0010-PX01 | EVOLUTE EXPRESS ABN 10 mg Plate | 1    |
| 600-0030-PX01 | EVOLUTE EXPRESS ABN 30 mg Plate | 1    |

### EVOLUTE® CX



Chemical structure of EVOLUTE® CX

#### Chemical Description:

Sulfonic acid modified polystyrene-divinylbenzene incorporating non-ionizable hydroxyl groups.

|                       |                                             |
|-----------------------|---------------------------------------------|
| Average particle size | 30 µm, 50 µm                                |
| Pore diameter         | 40 Å                                        |
| Sorbent Type          | Mixed-mode non-polar/strong cation exchange |
| Exchange capacity     | 0.5 mmol/g                                  |

**Application:** EVOLUTE® CX can be used to extract basic analytes from biological fluids and other aqueous matrices. Performance is not adversely affected by drying the sorbent.

#### EVOLUTE EXPRESS CX Tabless SPE Columns

| Part Number  | Description                    | Qty. |
|--------------|--------------------------------|------|
| 601-0001-AXG | EVOLUTE EXPRESS CX 10 mg/1 mL  | 100  |
| 601-0003-AXG | EVOLUTE EXPRESS CX 30 mg/1 mL  | 100  |
| 611-0006-BXG | EVOLUTE EXPRESS CX 60 mg/3 mL  | 50   |
| 611-0015-CXG | EVOLUTE EXPRESS CX 150 mg/6 mL | 30   |
| 611-0050-CXG | EVOLUTE EXPRESS CX 500 mg/6 mL | 30   |

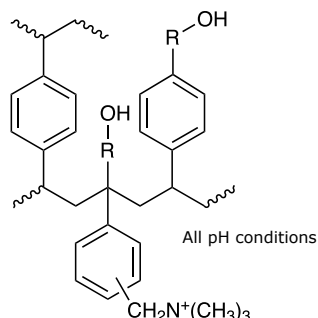
#### EVOLUTE EXPRESS CX 96-well SPE Plates

| Part Number   | Description                    | Qty. |
|---------------|--------------------------------|------|
| 601-0010-PX01 | EVOLUTE EXPRESS CX 10 mg Plate | 1    |
| 601-0030-PX01 | EVOLUTE EXPRESS CX 30 mg Plate | 1    |

EVOLUTE EXPRESS products can be used with the Load-Wash-Elute procedure. See [www.biotage.com](http://www.biotage.com) for more information.



## EVOLUTE® AX



Chemical structure of EVOLUTE® AX

### Chemical Description:

Quaternary amine modified polystyrene-divinylbenzene incorporating non-ionizable hydroxyl groups.

|                       |                                            |
|-----------------------|--------------------------------------------|
| Average particle size | 30 $\mu\text{m}$ , 50 $\mu\text{m}$        |
| Pore diameter         | 40 $\text{\AA}$                            |
| Sorbent Type          | Mixed-mode non-polar/strong anion exchange |
| Exchange capacity     | 0.7 mmol/g                                 |

**Application:** EVOLUTE® AX can be used to extract acidic analytes from biological fluids and other aqueous matrices. Performance is not adversely affected by drying the sorbent.

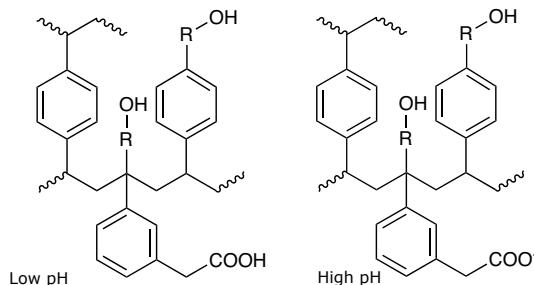
### EVOLUTE EXPRESS AX Tableless SPE Columns

| Part Number  | Description                    | Qty. |
|--------------|--------------------------------|------|
| 603-0001-AXG | EVOLUTE EXPRESS AX 10 mg/1 mL  | 100  |
| 603-0003-AXG | EVOLUTE EXPRESS AX 30 mg/1 mL  | 100  |
| 613-0006-BXG | EVOLUTE EXPRESS AX 60 mg/3 mL  | 50   |
| 613-0015-CXG | EVOLUTE EXPRESS AX 150 mg/6 mL | 30   |
| 613-0050-CXG | EVOLUTE EXPRESS AX 500 mg/6 mL | 30   |

### EVOLUTE EXPRESS AX 96-well SPE Plates

| Part Number   | Description                    | Qty. |
|---------------|--------------------------------|------|
| 603-0010-PX01 | EVOLUTE EXPRESS AX 10 mg Plate | 1    |
| 603-0030-PX01 | EVOLUTE EXPRESS AX 30 mg Plate | 1    |

## EVOLUTE® WCX



Chemical structure of EVOLUTE® WCX

### Chemical Description:

Carboxylic acid modified polystyrene-divinylbenzene incorporating non-ionizable hydroxyl groups.

|                       |                                                                    |
|-----------------------|--------------------------------------------------------------------|
| Average particle size | 30 $\mu\text{m}$ , 50 $\mu\text{m}$                                |
| Pore diameter         | 40 $\text{\AA}$                                                    |
| Sorbent Type          | Mixed-mode non-polar/weak cation exchange ( $\text{pK}_a \sim 5$ ) |
| Exchange capacity     | 0.4 mmol/g                                                         |

**Application:** EVOLUTE® WCX can be used to extract strongly basic analytes (e.g. quaternary amines) from biological fluids and other aqueous matrices. Performance is not adversely affected by drying the sorbent.

### EVOLUTE EXPRESS WCX Tableless SPE Columns

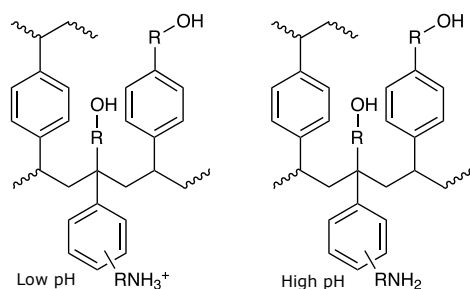
| Part Number  | Description                     | Qty. |
|--------------|---------------------------------|------|
| 602-0001-AXG | EVOLUTE EXPRESS WCX 10 mg/1 mL  | 100  |
| 602-0003-AXG | EVOLUTE EXPRESS WCX 30 mg/1 mL  | 100  |
| 612-0006-BXG | EVOLUTE EXPRESS WCX 60 mg/3 mL  | 50   |
| 612-0015-CXG | EVOLUTE EXPRESS WCX 150 mg/6 mL | 30   |
| 612-0050-CXG | EVOLUTE EXPRESS WCX 500 mg/6 mL | 30   |

### EVOLUTE EXPRESS WCX 96-well SPE Plates

| Part Number   | Description                     | Qty. |
|---------------|---------------------------------|------|
| 602-0010-PX01 | EVOLUTE EXPRESS WCX 10 mg Plate | 1    |
| 602-0030-PX01 | EVOLUTE EXPRESS WCX 30 mg Plate | 1    |

EVOLUTE EXPRESS products can be used with the Load-Wash-Elute procedure. See [www.biotage.com](http://www.biotage.com) for more information.

### EVOLUTE® WAX



Chemical structure of EVOLUTE® WAX

#### Chemical Description:

Primary-secondary amine modified polystyrene-divinylbenzene incorporating non-ionizable hydroxyl groups.

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Average particle size | 30 $\mu\text{m}$ , 50 $\mu\text{m}$                               |
| Pore diameter         | 40 $\text{\AA}$                                                   |
| Sorbent Type          | Mixed-mode non-polar/weak anion exchange ( $\text{pK}_a \sim 5$ ) |
| Exchange capacity     | 0.3 mmol/g, 0.7 mmol/g                                            |

**Application:** EVOLUTE® WAX can be used to extract strongly acidic analytes (e.g. sulfonic acids) from biological fluids and other aqueous matrices. Performance is not adversely affected by drying the sorbent.

#### EVOLUTE EXPRESS WAX Tableless SPE Columns

| Part Number  | Description                     | Qty. |
|--------------|---------------------------------|------|
| 604-0001-AXG | EVOLUTE EXPRESS WAX 10 mg/1 mL  | 100  |
| 604-0003-AXG | EVOLUTE EXPRESS WAX 30 mg/1 mL  | 100  |
| 614-0006-BXG | EVOLUTE EXPRESS WAX 60 mg/3 mL  | 50   |
| 614-0015-CXG | EVOLUTE EXPRESS WAX 150 mg/6 mL | 30   |
| 614-0050-CXG | EVOLUTE EXPRESS WAX 500 mg/6 mL | 30   |

#### EVOLUTE EXPRESS WAX 96-well SPE Plates

| Part Number   | Description                     | Qty. |
|---------------|---------------------------------|------|
| 604-0010-PX01 | EVOLUTE EXPRESS WAX 10 mg Plate | 1    |
| 604-0030-PX01 | EVOLUTE EXPRESS WAX 30 mg Plate | 1    |

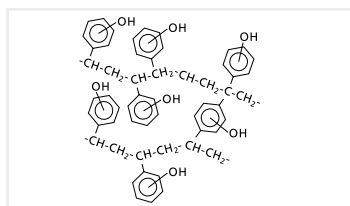
EVOLUTE EXPRESS products can be used with the Load-Wash-Elute procedure. See [www.biotage.com](http://www.biotage.com) for more information.

# ISOLUTE® SPE Products

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Sorbents and Formats for a Wide Range  
of Sample Preparation Applications

## ISOLUTE® ENV+

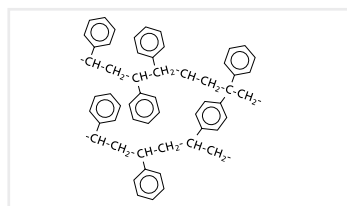


Chemical structure of ISOLUTE® ENV+, a hydroxylated polystyrene divinylbenzene co-polymer

|                       |           |
|-----------------------|-----------|
| Average particle size | 110 µm    |
| Pore diameter         | 800 Å     |
| Sorbent Type          | Non-Polar |

**Application:** Extraction of very polar compounds that are not retained by C8 and C18 non-polar silica based sorbents.

## ISOLUTE® 101



Chemical structure of ISOLUTE® 101, an unmodified polystyrene divinylbenzene co-polymer

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 100 Å     |
| Sorbent Type          | Non-Polar |

**Application:** Extraction of polar compounds from aqueous sample matrices.

### ISOLUTE ENV+ SPE Columns

| Part Number | Description                              | Qty. |
|-------------|------------------------------------------|------|
| 915-0001-A  | ISOLUTE ENV+ 10 mg/1 mL                  | 100  |
| 915-0002-A  | ISOLUTE ENV+ 25 mg/1 mL                  | 100  |
| 915-0002-G  | ISOLUTE ENV+ 25 mg/10 mL                 | 50   |
| 915-0005-A  | ISOLUTE ENV+ 50 mg/1 mL                  | 100  |
| 915-0005-AG | ISOLUTE ENV+ 50 mg/1 mL (Tabless)*       | 100  |
| 915-0005-B  | ISOLUTE ENV+ 50 mg/3 mL                  | 50   |
| 915-0005-G  | ISOLUTE ENV+ 50 mg/10 mL                 | 50   |
| 915-0010-A  | ISOLUTE ENV+ 100 mg/1 mL                 | 100  |
| 915-0010-B  | ISOLUTE ENV+ 100 mg/3 mL                 | 50   |
| 915-0010-BA | ISOLUTE ENV+ 100 mg/3 mL (ASPEC Adaptor) | 50   |
| 915-0010-BG | ISOLUTE ENV+ 100 mg/3 mL (Tabless)*      | 50   |
| 915-0010-C  | ISOLUTE ENV+ 100 mg/6 mL                 | 30   |
| 915-0010-H  | ISOLUTE ENV+ 100 mg/10 mL                | 50   |
| 915-0020-B  | ISOLUTE ENV+ 200 mg/3 mL                 | 50   |
| 915-0020-C  | ISOLUTE ENV+ 200 mg/6 mL                 | 30   |
| 915-0020-CD | ISOLUTE ENV+ 200 mg/6 mL (Depth filter)  | 30   |
| 915-0020-CG | ISOLUTE ENV+ 200 mg/6 mL (Tabless)*      | 30   |
| 915-0050-B  | ISOLUTE ENV+ 500 mg/3 mL                 | 50   |
| 915-0050-BG | ISOLUTE ENV+ 500 mg/3 mL (Tabless)*      | 50   |
| 915-0050-C  | ISOLUTE ENV+ 500 mg/6 mL                 | 30   |
| 915-0050-D  | ISOLUTE ENV+ 500 mg/15 mL                | 20   |
| 915-0100-C  | ISOLUTE ENV+ 1 g/6 mL                    | 30   |
| 915-0100-E  | ISOLUTE ENV+ 1 g/25 mL                   | 20   |

### ISOLUTE ENV+ Fixed Well Plates

| Part Number  | Description                 | Qty. |
|--------------|-----------------------------|------|
| 915-0010-P01 | ISOLUTE-96 ENV+ 10 mg plate | 1    |
| 915-0040-P01 | ISOLUTE-96 ENV+ 40 mg plate | 1    |

#### Support Documents for ISOLUTE® ENV+

**TN109:** Method Development in Solid Phase Extraction using ISOLUTE ENV+ SPE Columns for the Extraction of Aqueous Samples

### ISOLUTE 101 SPE Columns

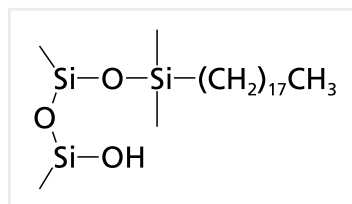
| Part Number | Description             | Qty. |
|-------------|-------------------------|------|
| 101-0002-A  | ISOLUTE 101 25 mg/1 mL  | 100  |
| 101-0010-B  | ISOLUTE 101 100 mg/3 mL | 50   |
| 101-0020-B  | ISOLUTE 101 200 mg/3 mL | 50   |
| 101-0020-C  | ISOLUTE 101 200 mg/6 mL | 30   |
| 101-0050-B  | ISOLUTE 101 500 mg/3 mL | 50   |
| 101-0050-C  | ISOLUTE 101 500 mg/6 mL | 30   |

#### Support Documents for ISOLUTE® 101

**TN119:** Method Development in Solid Phase Extraction using ISOLUTE 101 SPE Columns for the Extraction of Aqueous Samples

\*Tabless columns for use with PRESSURE+ Positive Pressure Manifolds and other automated SPE systems. Other tabless columns are available, contact Biotage for details.

## ISOLUTE® C18



Chemical structure of C18  
Octadecyl (non-encapped)  
silane covalently bonded to the  
surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Most commonly used C18 sorbent for the extraction of acidic, neutral and basic compounds from aqueous matrices. Secondary silanol or ionic interactions can be used to enhance extract purity and method robustness for basic compounds.

### ISOLUTE C18 SPE Columns

| Part Number  | Description                                         | Qty. |
|--------------|-----------------------------------------------------|------|
| 220-0002-A   | ISOLUTE C18 25 mg/1 mL                              | 100  |
| 220-0005-A   | ISOLUTE C18 50 mg/1 mL                              | 100  |
| 220-0010-A   | ISOLUTE C18 100 mg/1 mL                             | 100  |
| 220-0010-AGA | ISOLUTE C18 100 mg/1 mL<br>(Tabless, ASPEC Adaptor) | 100  |
| 220-0010-B   | ISOLUTE C18 100 mg/3 mL                             | 50   |
| 220-0010-BG  | ISOLUTE C18 100 mg/3 mL (Tabless)*                  | 50   |
| 220-0010-G   | ISOLUTE C18 100 mg/10 mL                            | 50   |
| 220-0020-B   | ISOLUTE C18 200 mg/3 mL                             | 50   |
| 220-0020-C   | ISOLUTE C18 200 mg/6 mL                             | 30   |
| 220-0020-H   | ISOLUTE C18 200 mg/10 mL                            | 50   |
| 220-0050-B   | ISOLUTE C18 500 mg/3 mL                             | 50   |
| 220-0050-BG  | ISOLUTE C18 500 mg/3 mL (Tabless)*                  | 50   |
| 220-0050-C   | ISOLUTE C18 500 mg/6 mL                             | 30   |
| 220-0050-CG  | ISOLUTE C18 500 mg/6 mL (Tabless)*                  | 30   |
| 220-0050-H   | ISOLUTE C18 500 mg/10 mL                            | 50   |
| 220-0100-B   | ISOLUTE C18 1 g/3 mL                                | 50   |
| 220-0100-C   | ISOLUTE C18 1 g/6 mL                                | 30   |
| 220-0100-CG  | ISOLUTE C18 1 g/6 mL (Tabless)*                     | 30   |
| 220-0200-C   | ISOLUTE C18 2 g/6 mL                                | 30   |
| 220-0200-D   | ISOLUTE C18 2 g/15 mL                               | 20   |
| 220-0500-E   | ISOLUTE C18 5 g/25 mL                               | 20   |
| 220-1000-F   | ISOLUTE C18 10 g/70 mL                              | 16   |
| 220-2000-F   | ISOLUTE C18 20 g/70 mL                              | 16   |

### ISOLUTE-96 C18 Fixed Well Plates

| Part Number  | Description                 | Qty. |
|--------------|-----------------------------|------|
| 220-0025-P01 | ISOLUTE-96 C18 25 mg plate  | 1    |
| 220-0050-P01 | ISOLUTE-96 C18 50 mg plate  | 1    |
| 220-0100-P01 | ISOLUTE-96 C18 100 mg plate | 1    |

Also available in bulk sorbent, see page 46.

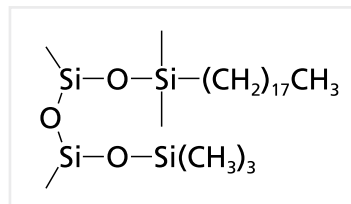
#### Support Documents for ISOLUTE® C18

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

**TN112:** General Approach to the Extraction of Basic Drugs from Biological Fluids using Non-polar Non-encapped Sorbents

**TN126:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Drugs from Biological Fluid Samples

## ISOLUTE® C18(EC)



Chemical structure of C18  
Octadecyl (endcapped) silane  
and trimethyl silyl group  
covalently bonded to the  
surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Extraction of polar compounds from aqueous sample matrices.

### ISOLUTE C18(EC) SPE Columns

| Part Number | Description                                   | Qty. |
|-------------|-----------------------------------------------|------|
| 221-0002-A  | ISOLUTE C18(EC) 25 mg/1 mL                    | 100  |
| 221-0005-A  | ISOLUTE C18(EC) 50 mg/1 mL                    | 100  |
| 221-0010-A  | ISOLUTE C18(EC) 100 mg/1 mL                   | 100  |
| 221-0010-B  | ISOLUTE C18(EC) 100 mg/3 mL                   | 50   |
| 221-0010-C  | ISOLUTE C18(EC) 100 mg/6 mL                   | 30   |
| 221-0010-G  | ISOLUTE C18(EC) 100 mg/10 mL                  | 50   |
| 221-0020-B  | ISOLUTE C18(EC) 200 mg/3 mL                   | 50   |
| 221-0020-C  | ISOLUTE C18(EC) 200 mg/6 mL                   | 30   |
| 221-0020-H  | ISOLUTE C18(EC) 200 mg/10 mL                  | 50   |
| 221-0050-B  | ISOLUTE C18(EC) 500 mg/3 mL                   | 50   |
| 221-0050-C  | ISOLUTE C18(EC) 500 mg/6 mL                   | 30   |
| 221-0050-CD | ISOLUTE C18(EC) 500 mg/6 mL<br>(Depth filter) | 30   |
| 221-0050-H  | ISOLUTE C18(EC) 500 mg/10 mL                  | 50   |
| 221-0100-B  | ISOLUTE C18(EC) 1 g/3 mL                      | 50   |
| 221-0100-C  | ISOLUTE C18(EC) 1 g/6 mL                      | 30   |
| 221-0100-CD | ISOLUTE C18(EC) 1 g/6 mL (Depth filter)       | 30   |
| 221-0100-L  | ISOLUTE C18(EC) 1 g/6 mL (Glass)              | 30   |
| 221-0200-C  | ISOLUTE C18(EC) 2 g/6 mL                      | 30   |
| 221-0200-D  | ISOLUTE C18(EC) 2 g/15 mL                     | 20   |
| 221-0500-E  | ISOLUTE C18(EC) 5 g/25 mL                     | 20   |
| 221-1000-F  | ISOLUTE C18(EC) 10 g/70 mL                    | 16   |

### ISOLUTE-96 C18(EC) Fixed Well Plates

| Part Number  | Description                     | Qty. |
|--------------|---------------------------------|------|
| 221-0025-P01 | ISOLUTE-96 C18(EC) 25 mg plate  | 1    |
| 221-0050-P01 | ISOLUTE-96 C18(EC) 50 mg plate  | 1    |
| 221-0100-P01 | ISOLUTE-96 C18(EC) 100 mg plate | 1    |

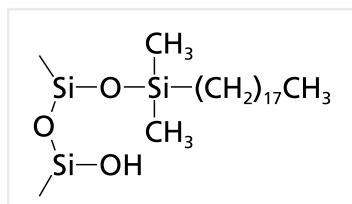
Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® C18(EC)

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

\*Tabless columns for use with PRESSURE+ Positive Pressure Manifolds and other automated SPE systems. Other tabless columns are available, contact Biotage for details.

## ISOLUTE® MFC18



Chemical structure of monofunctional C18 silane covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 125 Å     |
| Sorbent Type          | Non-Polar |

**Application:** Extraction from aqueous matrix using both non-polar interactions (for acidic, neutral and basic compounds) and readily accessible secondary silanol or ionic interactions (for basic compounds only). Not the ideal choice when working at extreme pH, C18 is the preferred option for these methods.

### ISOLUTE MFC18 SPE Columns

| Part Number | Description                              | Qty. |
|-------------|------------------------------------------|------|
| 240-0002-A  | ISOLUTE MFC18 25 mg/1 mL                 | 100  |
| 240-0005-A  | ISOLUTE MFC18 50 mg/1 mL                 | 100  |
| 240-0005-AA | ISOLUTE MFC18 50 mg/1 mL (ASPEC Adaptor) | 100  |
| 240-0005-G  | ISOLUTE MFC18 50 mg/10 mL                | 50   |
| 240-0010-A  | ISOLUTE MFC18 100 mg/1 mL                | 100  |
| 240-0010-B  | ISOLUTE MFC18 100 mg/3 mL                | 50   |
| 240-0010-G  | ISOLUTE MFC18 100 mg/10 mL               | 50   |
| 240-0050-B  | ISOLUTE MFC18 500 mg/3 mL                | 50   |
| 240-0050-C  | ISOLUTE MFC18 500 mg/6 mL                | 30   |
| 240-0050-H  | ISOLUTE MFC18 500 mg/10 mL               | 50   |
| 240-0100-C  | ISOLUTE MFC18 1 g/6 mL                   | 30   |
| 240-0200-D  | ISOLUTE MFC18 2 g/15 mL                  | 20   |

### ISOLUTE-96 MFC18 Fixed Well Plates

| Part Number  | Description                  | Qty. |
|--------------|------------------------------|------|
| 240-0025-P01 | ISOLUTE-96 MFC18 25 mg plate | 1    |

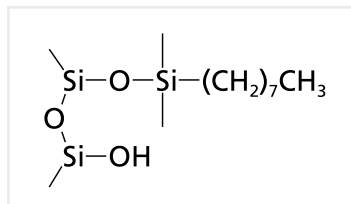
Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® MFC18

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

**TN112:** General Approach to the Extraction of Basic Drugs from Biological Fluids using Non-polar Non-encapped Sorbents

## ISOLUTE® C8



Chemical structure of C8 silane covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Most commonly used C8 sorbent for the extraction of acidic, neutral and basic compounds from aqueous matrices. Secondary silanol or ionic interactions can be used to enhance extract purity and method robustness for basic compounds.

### ISOLUTE C8 SPE Columns

| Part Number | Description                            | Qty. |
|-------------|----------------------------------------|------|
| 290-0002-A  | ISOLUTE C8 25 mg/1 mL                  | 100  |
| 290-0005-A  | ISOLUTE C8 50 mg/1 mL                  | 100  |
| 290-0010-A  | ISOLUTE C8 100 mg/1 mL                 | 100  |
| 290-0010-B  | ISOLUTE C8 100 mg/3 mL                 | 50   |
| 290-0010-BA | ISOLUTE C8 100 mg/3 mL (ASPEC Adaptor) | 50   |
| 290-0010-C  | ISOLUTE C8 100 mg/6 mL                 | 30   |
| 290-0020-B  | ISOLUTE C8 200 mg/3 mL                 | 50   |
| 290-0020-C  | ISOLUTE C8 200 mg/6 mL                 | 30   |
| 290-0020-H  | ISOLUTE C8 200 mg/10 mL                | 50   |
| 290-0050-B  | ISOLUTE C8 500 mg/3 mL                 | 50   |
| 290-0100-B  | ISOLUTE C8 1 g/3 mL                    | 50   |
| 290-0100-C  | ISOLUTE C8 1 g/6 mL                    | 30   |

### ISOLUTE-96 C8 Fixed Well Plates

| Part Number  | Description                | Qty. |
|--------------|----------------------------|------|
| 290-0025-P01 | ISOLUTE-96 C8 25 mg plate  | 1    |
| 290-0050-P01 | ISOLUTE-96 C8 50 mg plate  | 1    |
| 290-0100-P01 | ISOLUTE-96 C8 100 mg plate | 1    |

Also available in bulk sorbent, see page 46.

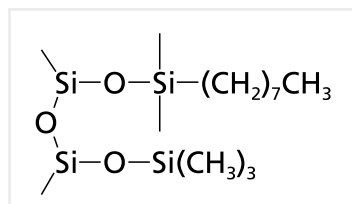
#### Support Documents for ISOLUTE® C8

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

**TN112:** General Approach to the Extraction of Basic Drugs from Biological Fluids using Non-polar Non-encapped Sorbents

**TN126:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Biological Fluid Samples

## ISOLUTE® C8(EC)

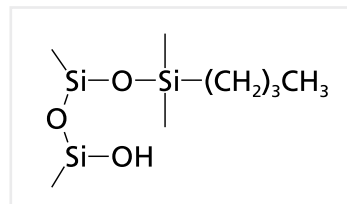


Chemical structure of C8 silane and trimethyl silyl group covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Extraction from aqueous matrix using non-polar interactions (for acidic, neutral and basic compounds).

## ISOLUTE® C4



Chemical structure of C4 silane covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Extraction from aqueous matrix using non-polar interactions (for acidic, neutral and basic compounds). Secondary silanol or ionic interactions can be used to enhance extract purity and method robustness for basic compounds.

### ISOLUTE C8(EC) SPE Columns

| Part Number | Description                | Qty. |
|-------------|----------------------------|------|
| 291-0002-A  | ISOLUTE C8(EC) 25 mg/1 mL  | 100  |
| 291-0010-A  | ISOLUTE C8(EC) 100 mg/1 mL | 100  |
| 291-0010-B  | ISOLUTE C8(EC) 100 mg/3 mL | 50   |
| 291-0020-B  | ISOLUTE C8(EC) 200 mg/3 mL | 50   |
| 291-0050-B  | ISOLUTE C8(EC) 500 mg/3 mL | 50   |
| 291-0050-C  | ISOLUTE C8(EC) 500 mg/6 mL | 30   |
| 291-0100-B  | ISOLUTE C8(EC) 1 g/3 mL    | 50   |
| 291-0100-C  | ISOLUTE C8(EC) 1 g/6 mL    | 30   |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® C8(EC)

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

### ISOLUTE C4 SPE Columns

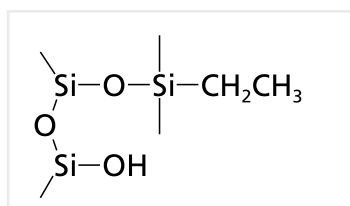
| Part Number | Description            | Qty. |
|-------------|------------------------|------|
| 390-0010-A  | ISOLUTE C4 100 mg/1 mL | 100  |
| 390-0010-B  | ISOLUTE C4 100 mg/3 mL | 50   |
| 390-0020-B  | ISOLUTE C4 200 mg/3 mL | 50   |
| 390-0050-C  | ISOLUTE C4 500 mg/6 mL | 30   |

#### Support Documents for ISOLUTE® C4

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

**TN112:** General Approach to the Extraction of Basic Drugs from Biological Fluids using Non-polar Non-encapped Sorbents

## ISOLUTE® C2



Chemical structure of C2 silane covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Most commonly used C2 sorbent for the extraction of acidic, neutral and basic compounds from aqueous matrices. Secondary silanol or ionic interactions can be used to enhance extract purity and method robustness for basic compounds.

### ISOLUTE C2 SPE Columns

| Part Number | Description             | Qty. |
|-------------|-------------------------|------|
| 320-0002-A  | ISOLUTE C2 25 mg/1 mL   | 100  |
| 320-0005-A  | ISOLUTE C2 50 mg/1 mL   | 100  |
| 320-0010-A  | ISOLUTE C2 100 mg/1 mL  | 100  |
| 320-0010-B  | ISOLUTE C2 100 mg/3 mL  | 50   |
| 320-0010-G  | ISOLUTE C2 100 mg/10 mL | 50   |
| 320-0050-B  | ISOLUTE C2 500 mg/3 mL  | 50   |

### ISOLUTE-96 C2 Fixed Well Plates

| Part Number  | Description                | Qty. |
|--------------|----------------------------|------|
| 320-0025-P01 | ISOLUTE-96 C2 25 mg plate  | 1    |
| 320-0100-P01 | ISOLUTE-96 C2 100 mg plate | 1    |

Also available in bulk sorbent, see page 46.

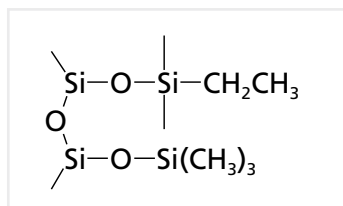
#### Support Documents for ISOLUTE® C2

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

**TN112:** General Approach to the Extraction of Basic Drugs from Biological Fluids using Non-polar Non-encapped Sorbents

**TN126:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Biological Fluid Samples

## ISOLUTE® C2(EC)



Chemical structure of C2 silane and trimethyl silyl group covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Extraction from aqueous matrix using non-polar interactions (for acidic, neutral and basic compounds).

### ISOLUTE C2(EC) SPE Columns

| Part Number | Description                | Qty. |
|-------------|----------------------------|------|
| 321-0002-A  | ISOLUTE C2(EC) 25 mg/1 mL  | 100  |
| 321-0010-B  | ISOLUTE C2(EC) 100 mg/3 mL | 50   |
| 321-0020-B  | ISOLUTE C2(EC) 200 mg/3 mL | 50   |
| 321-0050-B  | ISOLUTE C2(EC) 500 mg/3 mL | 50   |

### ISOLUTE-96 C2(EC) Fixed Well Plates

| Part Number  | Description                   | Qty. |
|--------------|-------------------------------|------|
| 321-0025-P01 | ISOLUTE-96 C2(EC) 25 mg plate | 1    |

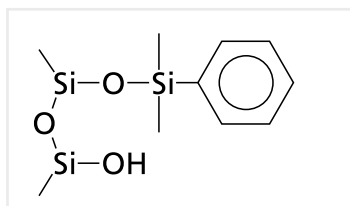
Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® C2(EC)

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples



## ISOLUTE® PH



Chemical structure of phenyl silane covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Extraction from aqueous matrix using both non-polar interactions (for acidic, neutral and basic compounds) and secondary silanol or ionic interactions (for basic compounds only). This sorbent exhibits a different selectivity compared with C18 and C8 phases when both aromatic and non-aromatic compounds are being extracted.

### ISOLUTE PH SPE Columns

| Part Number | Description            | Qty. |
|-------------|------------------------|------|
| 360-0002-A  | ISOLUTE PH 25 mg/1 mL  | 100  |
| 360-0010-B  | ISOLUTE PH 100 mg/3 mL | 50   |
| 360-0050-B  | ISOLUTE PH 500 mg/3 mL | 50   |
| 360-0050-C  | ISOLUTE PH 500 mg/6 mL | 30   |

### ISOLUTE-96 PH Fixed Well Plates

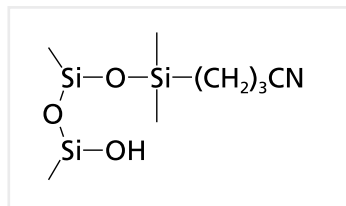
| Part Number  | Description                | Qty. |
|--------------|----------------------------|------|
| 360-0025-P01 | ISOLUTE-96 PH 25 mg plate  | 1    |
| 360-0050-P01 | ISOLUTE-96 PH 50 mg plate  | 1    |
| 360-0100-P01 | ISOLUTE-96 PH 100 mg plate | 1    |

#### Support Documents for ISOLUTE® PH

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

**TN112:** General Approach to the Extraction of Basic Drugs from Biological Fluids using Non-polar Non-encapped Sorbents

## ISOLUTE® CN



Chemical structure of cyanopropyl silane covalently bonded to the surface of a silica particle

|                       |           |
|-----------------------|-----------|
| Average particle size | 50 µm     |
| Pore diameter         | 60 Å      |
| Sorbent Type          | Non-Polar |

**Application:** Extraction from aqueous matrix using both non-polar interactions (for acidic, neutral and basic compounds) and secondary silanol or ionic interactions (for basic compounds only). Can also be used in polar SPE mode.

### ISOLUTE CN SPE Columns

| Part Number | Description            | Qty. |
|-------------|------------------------|------|
| 420-0005-A  | ISOLUTE CN 50 mg/1 mL  | 100  |
| 420-0050-B  | ISOLUTE CN 500 mg/3 mL | 50   |
| 420-0050-C  | ISOLUTE CN 500 mg/6 mL | 30   |
| 420-0100-C  | ISOLUTE CN 1 g/6 mL    | 30   |

### ISOLUTE-96 CN Fixed Well Plates

| Part Number  | Description                | Qty. |
|--------------|----------------------------|------|
| 420-0100-P01 | ISOLUTE-96 CN 100 mg plate | 1    |

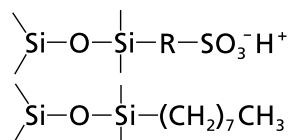
#### Support Documents for ISOLUTE® CN

**TN101:** Method Development in Solid Phase Extraction using Non-polar ISOLUTE® SPE Columns for the Extraction of Aqueous Samples

**TN102:** Method Development in Solid Phase Extraction using Polar ISOLUTE® SPE Columns for the Extraction of Non-aqueous Samples

**TN112:** General Approach to the Extraction of Basic Drugs from Biological Fluids using Non-polar Non-encapped Sorbents

## ISOLUTE® HCX



ISOLUTE® HCX combines C8 (Octyl) and sulfonic acid functionalities

|                       |            |
|-----------------------|------------|
| Average particle size | 50 µm      |
| Pore diameter         | 60 Å       |
| Sorbent Type          | Mixed-Mode |

**Application:** The first choice sorbent for extracting drugs of abuse from biological fluid samples.

### ISOLUTE HCX SPE Columns

| Part Number | Description              | Qty. |
|-------------|--------------------------|------|
| 902-0002-A  | ISOLUTE HCX 25 mg/1 mL   | 100  |
| 902-0005-A  | ISOLUTE HCX 50 mg/1 mL   | 100  |
| 902-0010-A  | ISOLUTE HCX 100 mg/1 mL  | 100  |
| 902-0010-B  | ISOLUTE HCX 100 mg/3 mL  | 50   |
| 902-0013-A  | ISOLUTE HCX 130 mg/1 mL  | 100  |
| 902-0013-B  | ISOLUTE HCX 130 mg/3 mL  | 50   |
| 902-0013-C  | ISOLUTE HCX 130 mg/6 mL  | 30   |
| 902-0013-H  | ISOLUTE HCX 130 mg/10 mL | 50   |
| 902-0020-B  | ISOLUTE HCX 200 mg/3 mL  | 50   |
| 902-0020-H  | ISOLUTE HCX 200 mg/10 mL | 50   |
| 902-0030-B  | ISOLUTE HCX 300 mg/3 mL  | 50   |
| 902-0030-C  | ISOLUTE HCX 300 mg/6 mL  | 30   |
| 902-0030-H  | ISOLUTE HCX 300 mg/10 mL | 50   |
| 902-0050-C  | ISOLUTE HCX 500 mg/6 mL  | 30   |

### ISOLUTE-96 HCX Fixed Well Plates

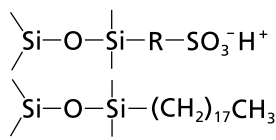
| Part Number  | Description                 | Qty. |
|--------------|-----------------------------|------|
| 902-0025-P01 | ISOLUTE-96 HCX 25 mg plate  | 1    |
| 902-0100-P01 | ISOLUTE-96 HCX 100 mg plate | 1    |

#### Support Documents for ISOLUTE® HCX

**TN116:** Generic Method for the Extraction of Basic Drugs from Biological Fluids using ISOLUTE® Mixed-mode SPE Columns and 96-well Plates

**TN125:** Method Development in Solid Phase Extraction using ISOLUTE® HCX for the Extraction of Drugs from Biological Fluid Samples

## ISOLUTE® HCX-3



ISOLUTE® HCX-3 combines C18 (Octadecyl) and sulfonic acid functionalities

|                       |            |
|-----------------------|------------|
| Average particle size | 50 µm      |
| Pore diameter         | 60 Å       |
| Sorbent Type          | Mixed-Mode |

**Application:** Extraction of basic analytes from aqueous matrix using dual non-polar and strong cation exchange interactions. A good alternative to HCX for basic compounds that require more retentive non-polar character from the mixed-mode sorbent.

### ISOLUTE HCX-3 SPE Columns

| Part Number | Description               | Qty. |
|-------------|---------------------------|------|
| 905-0002-A  | ISOLUTE HCX-3 25 mg/1 mL  | 100  |
| 905-0010-A  | ISOLUTE HCX-3 100 mg/1 mL | 100  |

### ISOLUTE-96 HCX-3 Fixed Well Plates

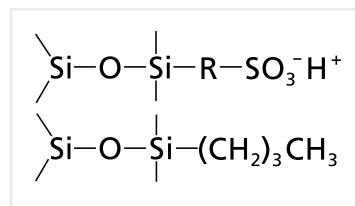
| Part Number  | Description                   | Qty. |
|--------------|-------------------------------|------|
| 905-0025-P01 | ISOLUTE-96 HCX-3 25 mg plate  | 1    |
| 905-0050-P01 | ISOLUTE-96 HCX-3 50 mg plate  | 1    |
| 905-0100-P01 | ISOLUTE-96 HCX-3 100 mg plate | 1    |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® HCX-3

**TN116:** Generic Method for the Extraction of Basic Drugs from Biological Fluids using ISOLUTE® Mixed-mode SPE Columns and 96-Well Plates

## ISOLUTE® HCX-5



ISOLUTE® HCX-5 combines C4 (Butyl) and sulfonic acid functionalities

|                       |            |
|-----------------------|------------|
| Average particle size | 50 µm      |
| Pore diameter         | 60 Å       |
| Sorbent Type          | Mixed-Mode |

**Application:** HCX-5 provides the cleanest extract of all the mixed-mode sorbents. Ideal choice where the basic analyte to be extracted has sufficient non-polar character to be well retained by the C4 non-polar component of the mixed-mode sorbent.

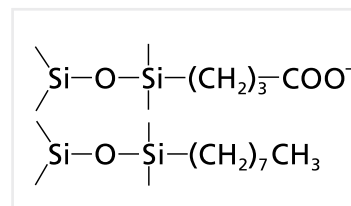
### ISOLUTE HCX-5 SPE Columns

| Part Number | Description                | Qty. |
|-------------|----------------------------|------|
| 906-0002-A  | ISOLUTE HCX-5 25 mg/1 mL   | 100  |
| 906-0010-A  | ISOLUTE HCX-5 100 mg/1 mL  | 100  |
| 906-0010-G  | ISOLUTE HCX-5 100 mg/10 mL | 50   |
| 906-0013-H  | ISOLUTE HCX-5 130 mg/10 mL | 50   |

#### Support Documents for ISOLUTE® HCX-5

**TN116:** Generic Method for the Extraction of Basic Drugs from Biological Fluids using ISOLUTE® Mixed-mode SPE Columns and 96-well Plates

## ISOLUTE® HCX-Q



ISOLUTE® HCX-Q combines C8 (Octyl) and carboxylic acid functionalities

|                       |            |
|-----------------------|------------|
| Average particle size | 50 µm      |
| Pore diameter         | 60 Å       |
| Sorbent Type          | Mixed-Mode |

**Application:** Extraction of quaternary amine and polybasic analytes from aqueous matrix using dual non-polar and weak cation exchange interactions.

### ISOLUTE HCX-Q SPE Columns

| Part Number | Description               | Qty. |
|-------------|---------------------------|------|
| 986-0002-A  | ISOLUTE HCX-Q 25 mg/1 mL  | 100  |
| 986-0005-A  | ISOLUTE HCX-Q 50 mg/1 mL  | 100  |
| 986-0010-A  | ISOLUTE HCX-Q 100 mg/1 mL | 100  |

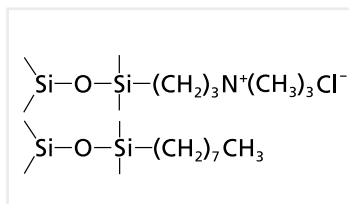
### ISOLUTE-96 HCX-Q Fixed Well Plates

| Part Number  | Description                   | Qty. |
|--------------|-------------------------------|------|
| 986-0025-P01 | ISOLUTE-96 HCX-Q 25 mg plate  | 1    |
| 986-0100-P01 | ISOLUTE-96 HCX-Q 100 mg plate | 1    |

#### Support Documents for ISOLUTE® HCX-Q

**TN129:** Generic Method for the Extraction of Quaternary Amine and Polybasic Drugs from Biological Fluids using ISOLUTE® HCX-Q SPE Columns and 96-well Plates

## ISOLUTE® HAX



ISOLUTE® HAX combines C8 (Octyl) and quaternary amine functionalities

|                       |            |
|-----------------------|------------|
| Average particle size | 50 µm      |
| Pore diameter         | 60 Å       |
| Sorbent Type          | Mixed-Mode |

**Application:** Extraction of acidic analytes from aqueous matrix using dual non-polar and strong anion exchange interactions. Suitable for a broad range of acidic compounds.

### ISOLUTE HAX SPE Columns

| Part Number | Description              | Qty. |
|-------------|--------------------------|------|
| 903-0002-A  | ISOLUTE HAX 25 mg/1 mL   | 100  |
| 903-0010-A  | ISOLUTE HAX 100 mg/1 mL  | 100  |
| 903-0020-B  | ISOLUTE HAX 200 mg/3 mL  | 50   |
| 903-0020-C  | ISOLUTE HAX 200 mg/6 mL  | 30   |
| 903-0020-H  | ISOLUTE HAX 200 mg/10 mL | 50   |
| 903-0050-B  | ISOLUTE HAX 500 mg/3 mL  | 50   |
| 903-0100-C  | ISOLUTE HAX 1 g/6 mL     | 30   |

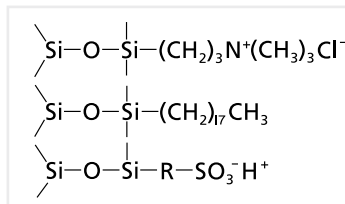
### ISOLUTE-96 HAX Fixed Well Plates

| Part Number  | Description                | Qty. |
|--------------|----------------------------|------|
| 903-0025-P01 | ISOLUTE-96 HAX 25 mg plate | 1    |

#### Support Documents for ISOLUTE® HAX

**TN127:** Method Development in Solid Phase Extraction using ISOLUTE® HAX for the Extraction of Drugs from Biological Fluid Samples

## ISOLUTE® Multimode



ISOLUTE® Multimode combines C18 (Octadecyl), quaternary amine and sulfonic acid functionalities

|                       |            |
|-----------------------|------------|
| Average particle size | 50 µm      |
| Pore diameter         | 60 Å       |
| Sorbent Type          | Mixed-Mode |

**Application:** Isolation of small neutral highly water soluble species from complex mixtures.

### ISOLUTE Multimode SPE Columns

| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 904-0010-A  | ISOLUTE Multimode 100 mg/1 mL  | 100  |
| 904-0030-B  | ISOLUTE Multimode 300 mg/3 mL  | 50   |
| 904-0030-C  | ISOLUTE Multimode 300 mg/6 mL  | 30   |
| 904-0030-H  | ISOLUTE Multimode 300 mg/10 mL | 50   |
| 904-0050-B  | ISOLUTE Multimode 500 mg/3 mL  | 50   |
| 904-0100-C  | ISOLUTE Multimode 1 g/6 mL     | 30   |

### ISOLUTE-96 Multimode Fixed Well Plates

| Part Number  | Description                       | Qty. |
|--------------|-----------------------------------|------|
| 904-0100-P01 | ISOLUTE-96 Multimode 100 mg plate | 1    |

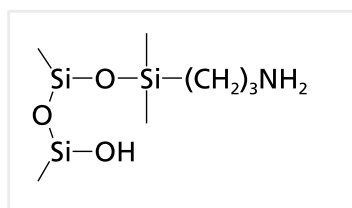
Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® Multimode

**IST1022:** Extraction of Aflatoxins from Cereals

**IST1076:** Extraction of Acrylamide from Cooked Foodstuffs

## ISOLUTE® NH2



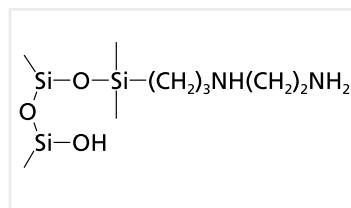
Chemical structure of NH2 aminopropyl silane covalently bonded to the surface of a silica particle

|                       |                                                    |
|-----------------------|----------------------------------------------------|
| Average particle size | 50 µm                                              |
| Pore diameter         | 60 Å                                               |
| Sorbent Type          | Weak anion exchange (pK <sub>a</sub> 9.8) or polar |
| Exchange capacity     | 0.6 meq/g                                          |

**Application:** Extraction of strong acids and polyacidic compounds from aqueous sample matrix. Analyte elution can be performed by neutralizing charge on the sorbent. Sorbent supplied as the free base.

Alternatively, ISOLUTE® NH2 can be used for extraction of polar compounds from a non-polar matrix using hydrogen bonding retention mechanism. Less retentive than SI.

## ISOLUTE® PSA



Chemical structure of PSA ethylenediamine-n-propyl silane covalently bonded to the surface of a silica particle

|                       |                                                              |
|-----------------------|--------------------------------------------------------------|
| Average particle size | 50 µm                                                        |
| Pore diameter         | 60 Å                                                         |
| Sorbent Type          | Weak anion exchange (pK <sub>a</sub> 10.1 and 10.9) or polar |
| Exchange capacity     | 0.4 meq/g                                                    |

**Application:** ISOLUTE® PSA can be used to extract strong acids and polyacidic compound from aqueous sample matrix. Analyte elution can be achieved by neutralizing the charge on the sorbent. Sorbent will complex with certain metal ions. Supplied as free base.

Alternatively, ISOLUTE® PSA can be used for extraction of polar compounds from a non-polar matrix using a hydrogen bonding retention mechanism. Less retentive than silica when used in this mode.

### ISOLUTE NH2 SPE Columns

| Part Number | Description                     | Qty. |
|-------------|---------------------------------|------|
| 470-0002-A  | ISOLUTE NH2 25 mg /1mL          | 100  |
| 470-0005-A  | ISOLUTE NH2 50 mg/1 mL          | 100  |
| 470-0005-G  | ISOLUTE NH2 50 mg/10 mL         | 50   |
| 470-0010-A  | ISOLUTE NH2 100 mg/1 mL         | 100  |
| 470-0010-B  | ISOLUTE NH2 100 mg/3 mL         | 50   |
| 470-0010-C  | ISOLUTE NH2 100 mg/6 mL         | 30   |
| 470-0010-G  | ISOLUTE NH2 100 mg/10 mL        | 50   |
| 470-0020-B  | ISOLUTE NH2 200 mg/3 mL         | 50   |
| 470-0050-B  | ISOLUTE NH2 500 mg/3 mL         | 50   |
| 470-0050-C  | ISOLUTE NH2 500 mg/6 mL         | 30   |
| 470-0050-H  | ISOLUTE NH2 500 mg/10 mL        | 50   |
| 470-0100-C  | ISOLUTE NH2 1 g/6 mL            | 30   |
| 470-0100-CG | ISOLUTE NH2 1 g/6 mL (Tabless)* | 30   |
| 470-0200-C  | ISOLUTE NH2 2 g/6 mL            | 30   |
| 470-0200-D  | ISOLUTE NH2 2 g/15 mL           | 20   |
| 470-0500-E  | ISOLUTE NH2 5 g/25 mL           | 20   |

### ISOLUTE-96 NH2 Fixed Well Plates

| Part Number  | Description                 | Qty. |
|--------------|-----------------------------|------|
| 470-0100-P01 | ISOLUTE-96 NH2 100 mg plate | 1    |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® NH2

**TN102:** Method Development in Solid Phase Extraction using Polar ISOLUTE® SPE Columns for the Extraction of Non-aqueous Samples

**TN104:** Method Development in Solid Phase Extraction using ISOLUTE® NH2 SPE Columns for the Extraction of Aqueous Samples

### ISOLUTE PSA SPE Columns

| Part Number | Description              | Qty. |
|-------------|--------------------------|------|
| 480-0020-B  | ISOLUTE PSA 200 mg/3 mL  | 50   |
| 480-0050-B  | ISOLUTE PSA 500 mg/3 mL  | 50   |
| 480-0050-C  | ISOLUTE PSA 500 mg/6 mL  | 30   |
| 480-0050-H  | ISOLUTE PSA 500 mg/10 mL | 50   |
| 480-0100-C  | ISOLUTE PSA 1 g/6 mL     | 30   |

Also available in bulk sorbent, see page 46.

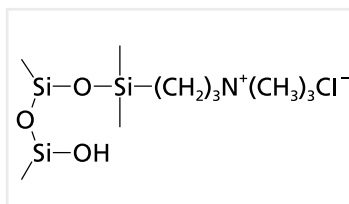
#### Support Documents for ISOLUTE® PSA

**TN102:** Method Development in Solid Phase Extraction using Polar ISOLUTE® SPE Columns for the Extraction of Non-aqueous Samples

**TN105:** Method Development in Solid Phase Extraction using ISOLUTE® PSA SPE Columns for the Extraction of Aqueous Samples

\*Tabless columns for use with PRESSURE+ Positive Pressure Manifolds and other automated SPE systems. Other tabless columns are available, contact Biotage for details.

## ISOLUTE® SAX



Chemical structure of SAX  
quaternary amine silane  
covalently bonded to the  
surface of a silica particle

|                       |                       |
|-----------------------|-----------------------|
| Average particle size | 50 µm                 |
| Pore diameter         | 60 Å                  |
| Sorbent Type          | Strong anion exchange |
| Exchange capacity     | 0.6 meq/g             |

**Application:** Extraction of acidic analytes from aqueous sample matrix. Supplied with chloride counter ion.

### ISOLUTE SAX SPE Columns

| Part Number | Description              | Qty. |
|-------------|--------------------------|------|
| 500-0002-A  | ISOLUTE SAX 25 mg/1 mL   | 100  |
| 500-0005-A  | ISOLUTE SAX 50 mg/1 mL   | 100  |
| 500-0010-A  | ISOLUTE SAX 100 mg/1 mL  | 100  |
| 500-0010-B  | ISOLUTE SAX 100 mg/3 mL  | 50   |
| 500-0010-C  | ISOLUTE SAX 100 mg/6 mL  | 30   |
| 500-0020-B  | ISOLUTE SAX 200 mg/3 mL  | 50   |
| 500-0050-B  | ISOLUTE SAX 500 mg/3 mL  | 50   |
| 500-0050-C  | ISOLUTE SAX 500 mg/6 mL  | 30   |
| 500-0050-H  | ISOLUTE SAX 500 mg/10 mL | 50   |
| 500-0100-B  | ISOLUTE SAX 1 g/3 mL     | 50   |
| 500-0100-C  | ISOLUTE SAX 1 g/6 mL     | 30   |
| 500-0200-D  | ISOLUTE SAX 2 g/15 mL    | 20   |
| 500-0500-E  | ISOLUTE SAX 5 g/25 mL    | 20   |

### ISOLUTE-96 SAX Fixed Well Plates

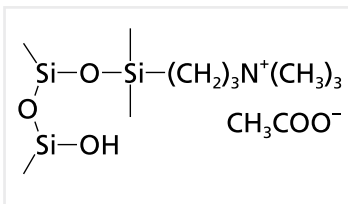
| Part Number  | Description                 | Qty. |
|--------------|-----------------------------|------|
| 500-0025-P01 | ISOLUTE-96 SAX 25 mg plate  | 1    |
| 500-0050-P01 | ISOLUTE-96 SAX 50 mg plate  | 1    |
| 500-0100-P01 | ISOLUTE-96 SAX 100 mg plate | 1    |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® SAX

**TN103:** Method Development in Solid Phase Extraction using ISOLUTE® PE-AX and SAX SPE Columns for the Extraction of Aqueous Samples

## ISOLUTE® PE-AX



Chemical structure of PE-AX  
quaternary amine silane  
covalently bonded to the  
surface of a silica particle

|                       |                       |
|-----------------------|-----------------------|
| Average particle size | 50 µm                 |
| Pore diameter         | 60 Å                  |
| Sorbent Type          | Strong anion exchange |
| Exchange capacity     | 0.6 meq/g             |

**Application:** Extraction of acidic analytes from aqueous sample matrix. Supplied with acetate counter ion for more efficient extraction of acidic analytes including those with polar/water soluble characteristics.

### ISOLUTE PE-AX SPE Columns

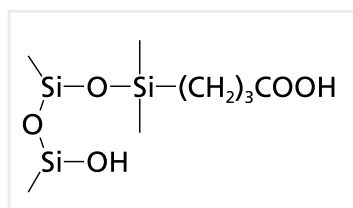
| Part Number | Description               | Qty. |
|-------------|---------------------------|------|
| 503-0002-A  | ISOLUTE PE-AX 25 mg/1 mL  | 100  |
| 503-0010-A  | ISOLUTE PE-AX 100 mg/1 mL | 100  |
| 503-0010-B  | ISOLUTE PE-AX 100 mg/3 mL | 50   |
| 503-0010-C  | ISOLUTE PE-AX 100 mg/6 mL | 30   |
| 503-0020-B  | ISOLUTE PE-AX 200 mg/3 mL | 50   |
| 503-0050-B  | ISOLUTE PE-AX 500 mg/3 mL | 50   |
| 503-0050-C  | ISOLUTE PE-AX 500 mg/6 mL | 30   |
| 503-0100-C  | ISOLUTE PE-AX 1 g/6 mL    | 30   |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® PE-AX

**TN103:** Method Development in Solid Phase Extraction using ISOLUTE® PE-AX and SAX SPE Columns for the Extraction of Aqueous Samples

## ISOLUTE® CBA



Chemical structure of CBA silane covalently bonded to the surface of a silica particle

|                       |                                                     |
|-----------------------|-----------------------------------------------------|
| Average particle size | 50 µm                                               |
| Pore diameter         | 60 Å                                                |
| Sorbent Type          | Weak cation exchange (pK <sub>a</sub> 4.8) or polar |
| Exchange capacity     | 0.6 meq/g                                           |

**Application:** Extraction of strong bases and polybasic compounds from aqueous sample matrix. Analyte elution can be performed by neutralizing charge on the sorbent.

### ISOLUTE CBA SPE Columns

| Part Number | Description              | Qty. |
|-------------|--------------------------|------|
| 520-0002-A  | ISOLUTE CBA 25 mg/1 mL   | 100  |
| 520-0005-A  | ISOLUTE CBA 50 mg/1 mL   | 100  |
| 520-0010-A  | ISOLUTE CBA 100 mg/1 mL  | 100  |
| 520-0010-B  | ISOLUTE CBA 100 mg/3 mL  | 50   |
| 520-0010-C  | ISOLUTE CBA 100 mg/6 mL  | 30   |
| 520-0020-B  | ISOLUTE CBA 200 mg/3 mL  | 50   |
| 520-0050-B  | ISOLUTE CBA 500 mg/3 mL  | 50   |
| 520-0050-C  | ISOLUTE CBA 500 mg/6 mL  | 30   |
| 520-0050-H  | ISOLUTE CBA 500 mg/10 mL | 50   |
| 520-0100-C  | ISOLUTE CBA 1 g/6 mL     | 30   |
| 520-0200-D  | ISOLUTE CBA 2 g/15 mL    | 20   |

### ISOLUTE-96 CBA Fixed Well Plates

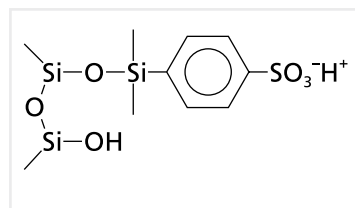
| Part Number  | Description                 | Qty. |
|--------------|-----------------------------|------|
| 520-0025-P01 | ISOLUTE-96 CBA 25 mg plate  | 1    |
| 520-0050-P01 | ISOLUTE-96 CBA 50 mg plate  | 1    |
| 520-0100-P01 | ISOLUTE-96 CBA 100 mg plate | 1    |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® CBA

**TN108:** Method Development in Solid Phase Extraction using ISOLUTE® CBA SPE Columns for the Extraction of Aqueous Samples

## ISOLUTE® SCX



Chemical structure of benzenesulfonic acid functional group covalently bonded to the surface of a silica particle

|                       |                        |
|-----------------------|------------------------|
| Average particle size | 50 µm                  |
| Pore diameter         | 60 Å                   |
| Sorbent Type          | Strong cation exchange |
| Exchange capacity     | 0.4 meq/g              |

**Application:** Extraction of basic analytes from aqueous or partially aqueous sample matrix. Supplied in the protonated form.

### ISOLUTE SCX SPE Columns

| Part Number | Description              | Qty. |
|-------------|--------------------------|------|
| 530-0005-A  | ISOLUTE SCX 50 mg/1 mL   | 100  |
| 530-0010-A  | ISOLUTE SCX 100 mg/1 mL  | 100  |
| 530-0010-B  | ISOLUTE SCX 100 mg/3 mL  | 50   |
| 530-0010-G  | ISOLUTE SCX 100 mg/10 mL | 50   |
| 530-0010-H  | ISOLUTE SCX 100 mg/10 mL | 50   |
| 530-0020-B  | ISOLUTE SCX 200 mg/3 mL  | 50   |
| 530-0020-H  | ISOLUTE SCX 200 mg/10 mL | 50   |
| 530-0050-B  | ISOLUTE SCX 500 mg/3 mL  | 50   |
| 530-0050-C  | ISOLUTE SCX 500 mg/6 mL  | 30   |
| 530-0050-H  | ISOLUTE SCX 500 mg/10 mL | 50   |
| 530-0100-B  | ISOLUTE SCX 1 g/3 mL     | 50   |
| 530-0100-C  | ISOLUTE SCX 1 g/6 mL     | 30   |
| 530-0200-D  | ISOLUTE SCX 2 g/15 mL    | 20   |
| 530-0500-E  | ISOLUTE SCX 5 g/25 mL    | 20   |

### ISOLUTE-96 SCX Fixed Well Plates

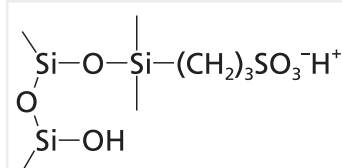
| Part Number  | Description                | Qty. |
|--------------|----------------------------|------|
| 530-0025-P01 | ISOLUTE-96 SCX 25 mg plate | 1    |
| 530-0050-P01 | ISOLUTE-96 SCX 50 mg plate | 1    |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® SCX

**TN106:** Method Development in Solid Phase Extraction using ISOLUTE® SCX and SCX-3 SPE Columns for the Extraction of Aqueous Samples

## ISOLUTE® SCX-2



Chemical structure of propylsulfonic acid functional group covalently bonded to the surface of a silica particle

|                       |                        |
|-----------------------|------------------------|
| Average particle size | 50 µm                  |
| Pore diameter         | 60 Å                   |
| Sorbent Type          | Strong cation exchange |
| Exchange capacity     | 0.6 meq/g              |

**Application:** Extraction of basic analytes from aqueous or partially aqueous sample matrix. Supplied in the protonated form. Sorbent of choice if strong cation exchange is primary retention mechanism, or, if aqueous conditions required for analyte elution. For methods listing PRS as the SPE sorbent, SCX-2 is a direct replacement.

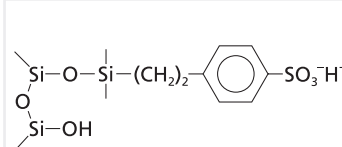
### ISOLUTE SCX-2 SPE Columns

| Part Number | Description                          | Qty. |
|-------------|--------------------------------------|------|
| 532-0002-A  | ISOLUTE SCX-2 25 mg/1 mL             | 100  |
| 532-0005-A  | ISOLUTE SCX-2 50 mg/1 mL             | 100  |
| 532-0010-A  | ISOLUTE SCX-2 100 mg/1 mL            | 100  |
| 532-0010-B  | ISOLUTE SCX-2 100 mg/3 mL            | 50   |
| 532-0020-A  | ISOLUTE SCX-2 200 mg/1 mL            | 100  |
| 532-0020-B  | ISOLUTE SCX-2 200 mg/3 mL            | 50   |
| 532-0050-B  | ISOLUTE SCX-2 500 mg/3 mL            | 50   |
| 532-0050-BG | ISOLUTE SCX-2 500 mg/3 mL (Tabless)* | 50   |
| 532-0050-C  | ISOLUTE SCX-2 500 mg/6 mL            | 30   |
| 532-0050-H  | ISOLUTE SCX-2 500 mg/10 mL           | 50   |
| 532-0100-B  | ISOLUTE SCX-2 1 g/3 mL               | 50   |
| 532-0100-C  | ISOLUTE SCX-2 1 g/6 mL               | 30   |
| 532-0200-C  | ISOLUTE SCX-2 2 g/6 mL               | 30   |

#### Support Documents for ISOLUTE® SCX-2

**TN107:** Method Development in Solid Phase Extraction using ISOLUTE® SCX-2 SPE Columns for the Extraction of Aqueous Samples

## ISOLUTE® SCX-3



Chemical structure of ethylbenzene sulfonic acid functional group covalently bonded to the surface of a silica particle

|                       |                        |
|-----------------------|------------------------|
| Average particle size | 50 µm                  |
| Pore diameter         | 60 Å                   |
| Sorbent Type          | Strong cation exchange |
| Exchange capacity     | 0.6 meq/g              |

**Application:** Extraction of basic analytes from aqueous or partially aqueous sample matrix. Supplied in the protonated form. Sorbent of choice where significant non-polar secondary interactions are required.

### ISOLUTE SCX-3 SPE Columns

| Part Number | Description               | Qty. |
|-------------|---------------------------|------|
| 533-0002-A  | ISOLUTE SCX-3 25 mg/1 mL  | 100  |
| 533-0005-A  | ISOLUTE SCX-3 50 mg/1 mL  | 100  |
| 533-0010-A  | ISOLUTE SCX-3 100 mg/1 mL | 100  |
| 533-0010-B  | ISOLUTE SCX-3 100 mg/3 mL | 50   |
| 533-0020-B  | ISOLUTE SCX-3 200 mg/3 mL | 50   |
| 533-0050-B  | ISOLUTE SCX-3 500 mg/3 mL | 50   |
| 533-0050-C  | ISOLUTE SCX-3 500 mg/6 mL | 30   |
| 533-0100-C  | ISOLUTE SCX-3 1 g/6 mL    | 30   |

### ISOLUTE-96 SCX-3 Fixed Well Plates

| Part Number  | Description                   | Qty. |
|--------------|-------------------------------|------|
| 533-0025-P01 | ISOLUTE-96 SCX-3 25 mg plate  | 1    |
| 533-0050-P01 | ISOLUTE-96 SCX-3 50 mg plate  | 1    |
| 533-0100-P01 | ISOLUTE-96 SCX-3 100 mg plate | 1    |

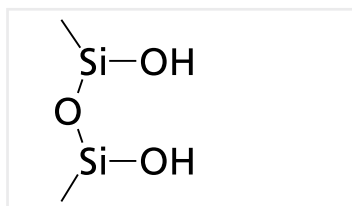
#### Support Documents for ISOLUTE® SCX-3

**TN106:** Method Development in Solid Phase Extraction using ISOLUTE® SCX and SCX-3 SPE Columns for the Extraction of Aqueous Samples

\*Tabless columns for use with PRESSURE+ Positive Pressure Manifolds and other automated SPE systems. Other tabless columns are available, contact Biotage for details.



## ISOLUTE® SI

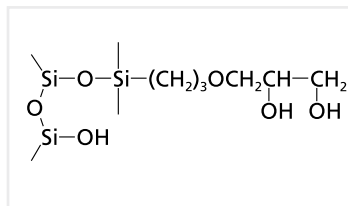


Chemical structure of silanol groups on the surface of a silica particle

|                          |       |
|--------------------------|-------|
| Average particle size    | 50 µm |
| Pore diameter            | 60 Å  |
| Sorbent Type             | Polar |
| Nominal moisture content | 7%    |

**Application:** Extraction of polar compounds from a non-polar sample matrix using hydrogen bonding retention mechanism.

## ISOLUTE® DIOL



Chemical structure of DIOL silane covalently bonded to the surface of a silica particle

|                       |       |
|-----------------------|-------|
| Average particle size | 50 µm |
| Pore diameter         | 60 Å  |
| Sorbent Type          | Polar |

**Application:** Extraction of polar compounds from a non-polar sample matrix using hydrogen bonding retention mechanism. Less retentive sorbent than SI. Can also be used as a non-polar sorbent with aqueous sample matrices.

### ISOLUTE SI SPE Columns

| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 460-0002-A  | ISOLUTE SI 25 mg/1 mL          | 100  |
| 460-0005-A  | ISOLUTE SI 50 mg/1 mL          | 100  |
| 460-0010-A  | ISOLUTE SI 100 mg/1 mL         | 100  |
| 460-0010-B  | ISOLUTE SI 100 mg/3 mL         | 50   |
| 460-0010-G  | ISOLUTE SI 100 mg/10 mL        | 50   |
| 460-0020-B  | ISOLUTE SI 200 mg/3 mL         | 50   |
| 460-0020-H  | ISOLUTE SI 200 mg/10 mL        | 50   |
| 460-0050-B  | ISOLUTE SI 500 mg/3 mL         | 50   |
| 460-0050-C  | ISOLUTE SI 500 mg/6 mL         | 30   |
| 460-0050-L  | ISOLUTE SI 500 mg/6 mL (Glass) | 30   |
| 460-0050-H  | ISOLUTE SI 500 mg/10 mL        | 50   |
| 460-0100-B  | ISOLUTE SI 1 g/3 mL            | 50   |
| 460-0100-C  | ISOLUTE SI 1 g/6 mL            | 30   |
| 460-0100-CG | ISOLUTE SI 1 g/6 mL (Tabless)* | 30   |
| 460-0100-L  | ISOLUTE SI 1 g/6 mL (Glass)    | 30   |
| 460-0100-D  | ISOLUTE SI 1 g/15 mL           | 20   |
| 460-0200-C  | ISOLUTE SI 2 g/6 mL            | 30   |
| 460-0200-L  | ISOLUTE SI 2 g/6 mL (Glass)    | 30   |
| 460-0200-D  | ISOLUTE SI 2 g/15 mL           | 20   |
| 460-0500-E  | ISOLUTE SI 5 g/25 mL           | 20   |
| 460-1000-F  | ISOLUTE SI 10 g/70 mL          | 16   |
| 460-2500-F  | ISOLUTE SI 25 g/70 mL          | 16   |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® SI

**TN102:** Method Development in Solid Phase Extraction using Polar ISOLUTE® SPE Columns for the Extraction of Non-aqueous Samples

### ISOLUTE DIOL SPE Columns

| Part Number | Description               | Qty. |
|-------------|---------------------------|------|
| 430-0010-A  | ISOLUTE DIOL 100 mg/1 mL  | 100  |
| 430-0010-B  | ISOLUTE DIOL 100 mg/3 mL  | 50   |
| 430-0020-B  | ISOLUTE DIOL 200 mg/3 mL  | 50   |
| 430-0050-B  | ISOLUTE DIOL 500 mg/3 mL  | 50   |
| 430-0050-C  | ISOLUTE DIOL 500 mg/6 mL  | 30   |
| 430-0050-H  | ISOLUTE DIOL 500 mg/10 mL | 50   |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® DIOL

**TN102:** Method Development in Solid Phase Extraction using Polar ISOLUTE® SPE Columns for the Extraction of Non-aqueous Samples

\*Tabless columns for use with PRESSURE+ Positive Pressure Manifolds and other automated SPE systems. Other tabless columns are available, contact Biotage for details.

## ISOLUTE® FL

|                          |            |
|--------------------------|------------|
| Average particle size    | 150–250 µm |
| Pore diameter            | 60 Å       |
| Nominal moisture content | <2%        |
| Surface pH               | 8          |
| Sorbent Type             | Polar      |

**Application:** Extraction of polar compounds from a non-polar sample matrix. Alternative to silica based polar sorbents. Minimal retention of basic compounds. Activated for separation of chlorinated pesticides.

### ISOLUTE FL SPE Columns

| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 712-0010-B  | ISOLUTE FL 100 mg/3 mL         | 50   |
| 712-0020-H  | ISOLUTE FL 200 mg/10 mL        | 50   |
| 712-0010-A  | ISOLUTE FL 100 mg/1 mL         | 100  |
| 712-0020-B  | ISOLUTE FL 200 mg/3 mL         | 50   |
| 712-0050-B  | ISOLUTE FL 500 mg/3 mL         | 50   |
| 712-0050-C  | ISOLUTE FL 500 mg/6 mL         | 30   |
| 712-0050-H  | ISOLUTE FL 500 mg/10 mL        | 50   |
| 712-0050-L  | ISOLUTE FL 500 mg/6 mL (Glass) | 30   |
| 712-0100-B  | ISOLUTE FL 1 g/3 mL            | 50   |
| 712-0100-C  | ISOLUTE FL 1 g/6 mL            | 30   |
| 712-0200-D  | ISOLUTE FL 2 g/15 mL           | 20   |
| 712-0500-E  | ISOLUTE FL 5 g/25 mL           | 20   |
| 712-2000-F  | ISOLUTE FL 20 g/70 mL          | 16   |

Also available in bulk sorbent, see page 46.

#### Support Documents for ISOLUTE® FL

**IST1080** Multi-residue Extraction and Clean up of Pesticides from Fruits and Vegetables

## ISOLUTE® HM-N

### Columns for Supported Liquid Extraction

| Part Number  | Description                             | Qty. |
|--------------|-----------------------------------------|------|
| 800-0040-BM  | ISOLUTE HM-N (300 µL sample)            | 100  |
| 800-0040-BMG | ISOLUTE HM-N (300 µL sample) (Tabless)* | 100  |
| 800-0100-CM  | ISOLUTE HM-N (1 mL sample)              | 100  |
| 800-0220-DM  | ISOLUTE HM-N (3 mL sample)              | 100  |
| 800-0350-EM  | ISOLUTE HM-N (5 mL sample)              | 100  |
| 800-0700-FM  | ISOLUTE HM-N (10 mL sample)             | 50   |
| 800-1300-FM  | ISOLUTE HM-N (20 mL sample)             | 50   |

Also available in bulk sorbent, see page 46.

\*Tabless columns for use with PRESSURE+ Positive Pressure Manifolds and other automated SPE systems. Other tabless columns are available, contact Biotage for details.

## ISOLUTE® Alumina

High activity, 50–200 µm particle size range alumina, available in acidic, neutral and basic surface pH options. The surface of the alumina can absorb molecules by interaction with the aluminum metal center, hydrogen bonding with surface hydroxyl groups, or by ion exchange if the surface carries a charge. The extent of these different interactions can be enhanced by control of the surface pH by treatment with acidic, basic or neutral solutions.

### ISOLUTE AL-A

Acid washing results in a surface with decreased capacity for basic compounds. Compounds are retained by ion exchange with the positively charged surface or by specific interactions with the metal center. ISOLUTE® AL-A has a nominal moisture content of <0.1% (Brockman Activity I/Super 1 grade), and surface pH of 4.5.

### ISOLUTE AL-N

Neutral surface allows interactions of the aluminum metal center with compounds whose heteroatoms are electronegative (e.g. N, O, P & S) or whose highly aromatic structure makes them “electron rich”. The adsorbent can be useful for retaining amines and aromatic compounds from either aqueous or non-aqueous solvents. ISOLUTE® AL-N has a nominal moisture content of <0.1% (Brockman Activity I/Super 1 grade), and surface pH of 7.5. Also available in bulk sorbent, see page 46.

### ISOLUTE AL-B

Washing this material with a basic solution results in a net negative charge. Cationic compounds are retained on the negatively charged surface or by specific interactions with the metal center. ISOLUTE® AL-B has a nominal moisture content of <0.1% (Brockman Activity I/Super 1 grade), and surface pH of 10.

| Column Configuration | Qty. | Part Numbers |            |            |
|----------------------|------|--------------|------------|------------|
|                      |      | AL-A         | AL-N       | AL-B       |
| 50 mg/1 mL           | 100  | 713-0005-A   | —          | —          |
| 100 mg/1 mL          | 100  | 713-0010-A   | —          | 715-0010-A |
| 200 mg/3 mL          | 50   | 713-0020-B   | 714-0020-B | 715-0020-B |
| 500 mg/3 mL          | 50   | 713-0050-B   | 714-0050-B | 715-0050-B |
| 500 mg/6 mL          | 30   | 713-0050-C   | 714-0050-C | —          |
| 1 g/3 mL             | 50   | —            | 714-0100-B | —          |
| 1 g/6 mL             | 30   | 713-0100-C   | 714-0100-C | 715-0100-C |
| 2 g/6 mL             | 30   | —            | 714-0200-C | —          |
| 2 g/15 mL            | 20   | 713-0200-D   | 714-0200-D | —          |
| 5 g/25 mL            | 20   | —            | 714-0500-E | 715-0500-E |
| 10 g/70 mL           | 16   | —            | 714-1000-F | 715-1000-F |

## ISOLUTE® EPH SPE Columns

Fractionate extractable petroleum hydrocarbons in soil extracts prior to GC analysis. ISOLUTE® EPH columns are optimized to ensure no breakthrough of lower MW aromatic hydrocarbons (PAHs) in the aliphatic fraction. Application notes with methodology optimized for automated SPE processing are available. See technical note TN142 for more information and download application note AN703 (ASPEC) or AN704 (RapidTrace) for automated methods.



| Part Number | Description                                             | Qty. |
|-------------|---------------------------------------------------------|------|
| 928-0145-B  | ISOLUTE EPH 1.45 g/3 mL<br>Columns for automated method | 50   |
| 928-0500-E  | ISOLUTE EPH 5 g/25 mL<br>Columns for manual method      | 20   |

## ISOLUTE® Layered SPE Columns

Simultaneously extract analytes with a broad range of polarity characteristics from aqueous samples or clean up complex solvent extracts.

| Part Number | Description                        | Qty. |
|-------------|------------------------------------|------|
| 933-0050-B  | ISOLUTE C2/C18(EC) 500 mg/3 mL     | 50   |
| 933-0100-C  | ISOLUTE C2/C18(EC) 1 g/6 mL        | 30   |
| 934-0040-C  | ISOLUTE C8/ENV+ 400 mg/6 mL        | 30   |
| 932-0035-B  | ISOLUTE C18(EC)/ENV+ 350 mg/3 mL   | 50   |
| 935-0040-C  | ISOLUTE C18/ENV+ 400 mg/6 mL       | 30   |
| 981-0100-B  | ISOLUTE SCX-2/SAX 1 g/3 mL         | 50   |
| 973-0170-B  | ISOLUTE ACSIL/SCX-2/SIL 1.7 g/3 mL | 50   |
| 973-0170-C  | ISOLUTE ACSIL/SCX-2/SIL 1.7 g/6 mL | 30   |

## ISOLUTE® PAH SPE Columns

Extract PAHs from water samples containing polar interferences such as humic acids. The layered column removes humic acids from the final extract, so that they cannot interfere in the final analysis. Download application note IST1025A for more information.

| Part Number | Description                            | Qty. |
|-------------|----------------------------------------|------|
| 927-0075-B  | ISOLUTE PAH 750 mg/3 mL                | 50   |
| 927-0075-BD | ISOLUTE PAH 750 mg/3 mL (Depth filter) | 50   |
| 927-0150-C  | ISOLUTE PAH 1.5 g/6 mL                 | 30   |
| 927-0150-CA | ISOLUTE PAH 1.5 g/6 mL (ASPEC Adapter) | 30   |

## ISOLUTE® SAX/PSA Columns

Remove polar interferences and pigments from plant extracts prior to pesticide residue analysis. Download application note IST1027A for more information.

| Part Number | Description              | Qty. |
|-------------|--------------------------|------|
| 924-0100-C  | ISOLUTE SAX/PSA 1 g/6 mL | 30   |
| 924-0200-C  | ISOLUTE SAX/PSA 2 g/6 mL | 30   |

## ISOLUTE® TPH SPE Columns

Extract total petroleum hydrocarbons from water samples and eliminate tedious shaking and emulsion problems common in liquid-liquid extraction methods. Manual and automated methodologies are available, download application notes IST1042 and IST1018 respectively for more information.

| Part Number | Description          | Qty. |
|-------------|----------------------|------|
| 752-0100-C  | ISOLUTE TPH 1 g/6 mL | 30   |

## ISOLUTE® O&G SPE Columns

Extract total Oil and Grease from water samples and fractionate into HEM and SGT-HEM fractions in one step. Application note IST1005 meets US EPA 1664 guidelines.



| Part Number | Description                          | Qty. |
|-------------|--------------------------------------|------|
| 753-0100-C  | ISOLUTE O&G 1 g/6 mL                 | 30   |
| 753-0100-CD | ISOLUTE O&G 1 g/6 mL (Depth filter)  | 30   |
| 753-0300-F  | ISOLUTE O&G 3 g/70 mL                | 16   |
| 753-0300-FD | ISOLUTE O&G 3 g/70 mL (Depth filter) | 16   |

## ISOLUTE® Na<sub>2</sub>SO<sub>4</sub>/FL SPE Columns

Remove halogenated interferences from mineral oil extracts. Application note IST1077 complies with the ISO9377-2:200 method.

| Part Number | Description                                          | Qty. |
|-------------|------------------------------------------------------|------|
| 976-0400-C  | ISOLUTE Na <sub>2</sub> SO <sub>4</sub> /FL 4 g/6 mL | 30   |

# ISOLUTE<sup>®</sup> Myco SPE Columns

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Solid Phase Extraction Columns for Mycotoxin Analysis

ISOLUTE® Myco SPE columns offer simple and efficient multiple mycotoxin sample preparation from a wide range of matrices, ideally suited for selective and fast LC-MS/MS analysis. ISOLUTE Myco SPE columns contain a novel polymer-based sorbent designed specifically to be selective enough to isolate a wide variety of different mycotoxins.

ISOLUTE Myco SPE columns are available in tabless (flangeless) format for use on both manual and automated sample processing manifolds and systems.

- » Matrix specific application notes: Each method confidently meets the maximum residue limits (MRL) set down by EU and US regulations in terms of detection limits, %RSD and recoveries, in most cases far exceeding these requirements.
- » ISOLUTE Myco clean up methods are quick, simple to use and require no offline steps; making the technique suitable for automation, especially useful for high throughput testing laboratories.
- » Unlike immunoaffinity columns, ISOLUTE Myco columns are cost effective, easy to use and have no special storage requirements.

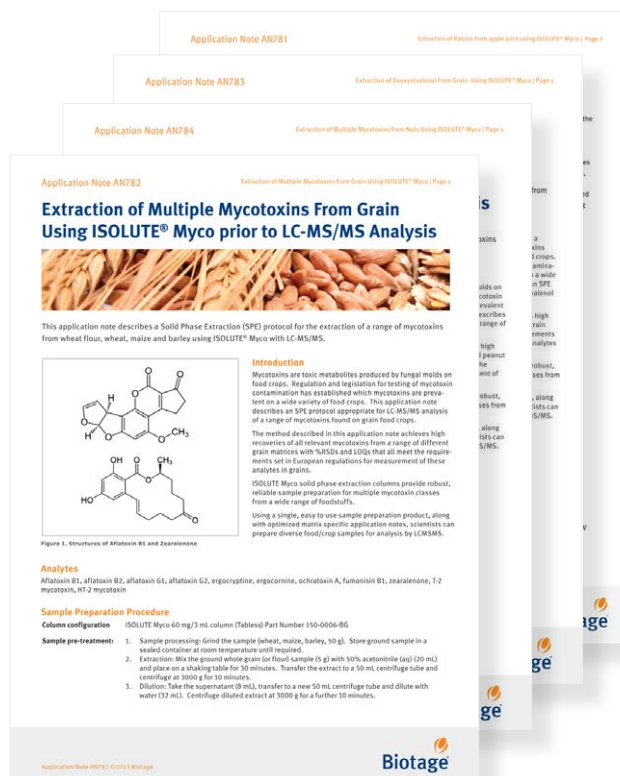


## ISOLUTE Myco Columns

| Part Number | Description                        | Qty. |
|-------------|------------------------------------|------|
| 150-0006-BG | ISOLUTE Myco 60 mg/3 mL (Tabless)* | 50   |

## Matrix Specific Application Notes

- » AN781 Extraction of Patulin from clear Apple Juice Using ISOLUTE® Myco prior to LC-MS/MS Analysis
- » AN782 Extraction of Multiple Mycotoxins From Grain Using ISOLUTE® Myco prior to LC-MS/MS Analysis
- » AN783 Extraction of Deoxynivalenol From Grain Using ISOLUTE® Myco prior to LC-MS/MS Analysis
- » AN784 Extraction of Multiple Mycotoxins From Nuts Using ISOLUTE® Myco prior to LC-MS/MS Analysis
- » AN785 Extraction of Aflatoxins and Ochratoxin from Dried Chili Using ISOLUTE® Myco prior to LC-MS/MS
- » AN804 Extraction of Multiple Mycotoxins From Animal Feed Using ISOLUTE® Myco SPE Columns prior to LC-MS/MS Analysis
- » AN807 Extraction of Aflatoxin M1 From Infant Formula Using ISOLUTE® Myco SPE Columns prior to LC-MS/MS Analysis
- » AN823 Extraction of Multiple Mycotoxins From Cereal Based Infant Food Using ISOLUTE® Myco prior to UHPLC MS/MS Analysis



\*Tabless columns for use with PRESSURE+ Positive Pressure Manifolds and other automated SPE systems. Other tabless columns are available, contact Biotage for details.

# ISOLUTE<sup>®</sup> Bulk Sorbents

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The same high quality sorbents used to manufacture ISOLUTE® SPE columns and 96-well plates are also available in bulk. The tightly controlled physical and chemical properties of these sorbents which provide reproducible performance in SPE procedures also ensure their suitability when used in applications that require loose material.

### Non-Polar Sorbents

| Part Number | Description                 | Qty.  |
|-------------|-----------------------------|-------|
| 9220-0025   | ISOLUTE C18, Bulk           | 25 g  |
| 9220-0100   | ISOLUTE C18, Bulk           | 100 g |
| 9370-0100   | ISOLUTE C18 MSPD, Bulk      | 100 g |
| 9221-0025   | ISOLUTE C18(EC)*, Bulk      | 25 g  |
| 9221-0100   | ISOLUTE C18(EC)*, Bulk      | 100 g |
| 9221-1000   | ISOLUTE C18(EC)*, Bulk      | 1 Kg  |
| 9371-0100   | ISOLUTE C18(EC)* MSPD, Bulk | 100 g |
| 9371-1000   | ISOLUTE C18(EC)* MSPD, Bulk | 1 Kg  |
| 9240-1000   | ISOLUTE MFC18, Bulk         | 1 Kg  |
| 9290-0100   | ISOLUTE C8, Bulk            | 100 g |
| 9291-0100   | ISOLUTE C8(EC)*, Bulk       | 100 g |
| 9320-0100   | ISOLUTE C2, Bulk            | 100 g |
| 9321-0100   | ISOLUTE C2(EC)*, Bulk       | 100 g |

\*(EC) - endcapped, a chemical process to reduce the concentration of silica surface silanol groups that provide polar and weak cation exchange secondary interactions. For more details see the QuickStart Guide to SPE. Literature part number UI331.

### Mixed-Mode Sorbents

| Part Number | Description             | Qty. |
|-------------|-------------------------|------|
| 9905-0010   | ISOLUTE HCX-3, Bulk     | 10 g |
| 9904-0025   | ISOLUTE Multimode, Bulk | 25 g |

### Polar Sorbents

| Part Number | Description        | Qty.  |
|-------------|--------------------|-------|
| 9460-0100   | ISOLUTE SI, Bulk   | 100 g |
| 9470-0025   | ISOLUTE NH2, Bulk  | 25 g  |
| 9470-0100   | ISOLUTE NH2, Bulk  | 100 g |
| 9480-0100   | ISOLUTE PSA, Bulk  | 100 g |
| 9712-0100   | ISOLUTE FL, Bulk   | 100 g |
| 9430-0025   | ISOLUTE DIOL, Bulk | 25 g  |
| 9430-0100   | ISOLUTE DIOL, Bulk | 100 g |
| 9714-0100   | ISOLUTE AL-N, Bulk | 100 g |

### Ion Exchange Sorbents

| Part Number | Description         | Qty.  |
|-------------|---------------------|-------|
| 9480-0100   | ISOLUTE PSA, Bulk   | 100 g |
| 9500-0025   | ISOLUTE SAX, Bulk   | 25 g  |
| 9500-0100   | ISOLUTE SAX, Bulk   | 100 g |
| 9503-0100   | ISOLUTE PE-AX, Bulk | 100 g |
| 9520-0100   | ISOLUTE CBA, Bulk   | 100 g |
| 9530-0025   | ISOLUTE SCX, Bulk   | 25 g  |
| 9530-0100   | ISOLUTE SCX, Bulk   | 100 g |



ISOLUTE HM-N, a modified form of diatomaceous earth, is also available in bulk. The material is used for applications requiring an inert support as part of the sample preparation process (e.g. SFE). For details of pre-packed columns containing ISOLUTE HM-N, see [page 40](#).

### Inert Support (modified diatomaceous earth)

| Part Number | Description        | Qty.  |
|-------------|--------------------|-------|
| 9800-0025   | ISOLUTE HM-N, Bulk | 25 g  |
| 9800-0500   | ISOLUTE HM-N, Bulk | 500 g |
| 9800-1000   | ISOLUTE HM-N, Bulk | 1 Kg  |
| 9800-5000   | ISOLUTE HM-N, Bulk | 5 Kg  |
| 9800-10000  | ISOLUTE HM-N, Bulk | 10 Kg |



# Protein Precipitation Products

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Fast, Simple Protein Removal

## Protein Precipitation Plates

The optimized filtration system in ISOLUTE® PPT+ plates provides an easy to automate solution for efficient protein removal from biological fluid samples.

### ISOLUTE PPT+ Protein Precipitation Plate

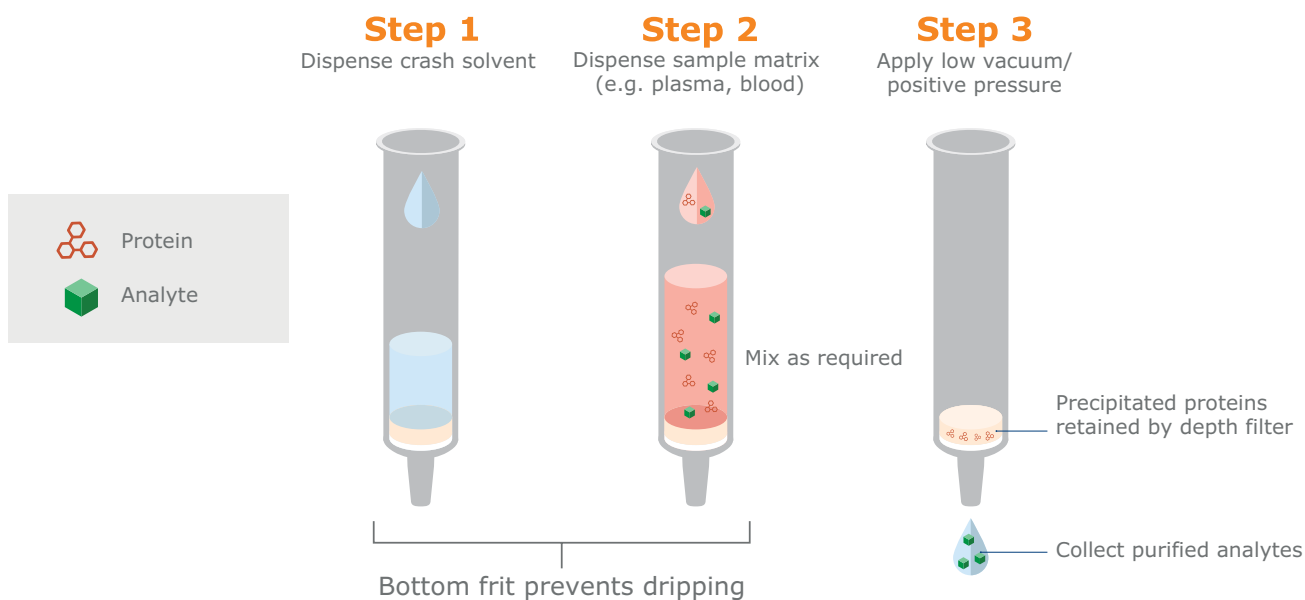
| Part Number  | Description                         | Qty. |
|--------------|-------------------------------------|------|
| 120-2040-P01 | ISOLUTE PPT+ fixed well plate, 2 mL | 1    |

### Accessories

| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 121-5202    | Collection plate, 1 mL, square | 50   |
| 121-5203    | Collection plate, 2 mL, square | 50   |
| 121-5213    | Collection plate, 2 mL, round  | 50   |

### Support Documents for ISOLUTE® PPT+

**TN130:** Sample Preparation using ISOLUTE PPT+ Protein Precipitation Plates.



Protein precipitation procedure using ISOLUTE® PPT+ plates.

# ISOLUTE® QuEChERS

---

Fast and Efficient Clean up of  
Complex Food Samples

## ISOLUTE® QuEChERS

ISOLUTE® QuEChERS (**Q**uick, **E**asy, **C**heap, **E**ffective, **R**ugged and **S**afe) products provide simple clean up of complex samples using salt assisted extraction and partitioning, followed by dispersive SPE. The pre-weighed extraction and clean up tubes conform to AOAC and EN methodologies, and include options for waxed and highly pigmented fruit and vegetable samples.



### Extraction Tubes

| Part Number | Description                                 | Tube  | Pack Size | MgSO <sub>4</sub> | Na Acetate | Na Citrate | Na Citrate sesqui-hydrate | NaCl |
|-------------|---------------------------------------------|-------|-----------|-------------------|------------|------------|---------------------------|------|
| Q0010-15V   | 15 g QuEChERS AOAC<br>15 mL Extraction Tube | 15 mL | 25        | 6 g               | 1.5 g      |            |                           |      |
| Q0020-15V   | 10 g QuEChERS EN<br>15 mL Extraction Tube   | 15 mL | 25        | 4 g               |            | 1 g        | 0.5 g                     | 1 g  |

### Clean up Tubes

| Part Number | Description                                               | Tube  | Pack Size | PSA    | MgSO <sub>4</sub> (purest) | C18(EC) | GCB    |
|-------------|-----------------------------------------------------------|-------|-----------|--------|----------------------------|---------|--------|
| Q0030-15V   | AOAC Fruit and Vegetables<br>Clean up Tube                | 15 mL | 25        | 400 mg | 1200 mg                    |         |        |
| Q0035-15V   | EN Fruit and Vegetable<br>Clean up Tube                   | 15 mL | 25        | 150 mg | 900 mg                     |         |        |
| Q0050-15V   | AOAC Waxed Fruit and Vegetables<br>Clean up Tube          | 15 mL | 25        | 400 mg | 1200 mg                    | 400 mg  |        |
| Q0060-15V   | EN Waxed Fruit and Vegetables<br>Clean up Tube            | 15 mL | 25        | 150 mg | 900 mg                     | 150 mg  |        |
| Q0070-15V   | AOAC Pigmented Fruit and<br>Vegetables Clean up Tube      | 15 mL | 25        | 400 mg | 1200 mg                    |         | 400 mg |
| Q0080-15V   | EN Pigmented Fruit and Vegetables<br>Clean up Tube        | 15 mL | 25        | 150 mg | 900 mg                     |         | 15 mg  |
| Q0090-15V   | EN Highly Pigmented Fruit and<br>Vegetables Clean up Tube | 15 mL | 25        | 150 mg | 900 mg                     |         | 45 mg  |

### Centrifuge Tubes

| Part Number | Description                        | Tube  | Pack Size |
|-------------|------------------------------------|-------|-----------|
| Q0000-50V   | 50 mL Centrifuge Tube<br>with Rack | 50 mL | 25        |

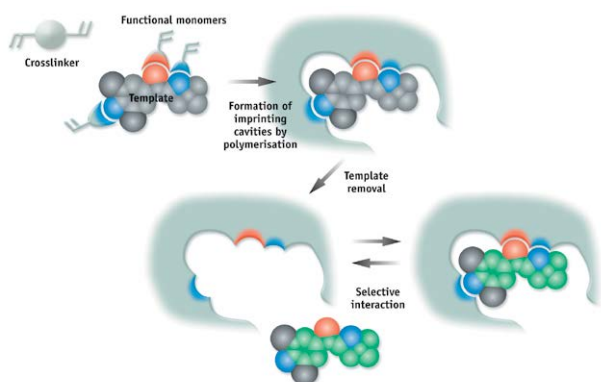
# AFFINILUTE™ MIP

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Molecularly Imprinted Polymers

## AFFINILUTE™ MIP

Biotage AFFINILUTE™ MIP products offer analytical chemists ultimate selectivity compared with standard solid phase extraction techniques. Unlike other methods, AFFINILUTE MIP products rely on the specific molecular structure of the analyte for targeted capture resulting in exceptional clean up. AFFINILUTE MIP columns combine high affinity with standard flow through sample preparation methodology.



**Mechanism of MIP formation.** Unlike most separation particles that exhibit only non-selective interactions, MIP particles have a selective synthetic recognition site (or imprint), which is sterically and chemically complementary to a particular analyte or class of analytes. The interactions mimic antibody or receptor binding and are stronger than interactions obtained with conventional separation materials.

| Part Number | Description                                   | Qty. |
|-------------|-----------------------------------------------|------|
| M01-0002-G  | AFFINILUTE MIP Clenbuterol<br>25 mg/10 mL     | 50   |
| M02-0002-B  | AFFINILUTE MIP Beta-agonists<br>25 mg/3 mL    | 50   |
| M02-0002-G  | AFFINILUTE MIP Beta-agonists<br>25 mg/10 mL   | 50   |
| M06-0002-B  | AFFINILUTE MIP NNAL<br>25 mg/3 mL             | 50   |
| M06-0002-G  | AFFINILUTE MIP NNAL<br>25 mg/10 mL            | 50   |
| M08-0002-G  | AFFINILUTE MIP Triazines<br>25 mg/10 mL       | 50   |
| M10-0002-B  | AFFINILUTE MIP Chloramphenicol<br>25 mg/3 mL  | 50   |
| M10-0002-G  | AFFINILUTE MIP Chloramphenicol<br>25 mg/10 mL | 50   |
| M18-0002-B  | AFFINILUTE MIP Beta-blockers<br>25 mg/3 mL    | 50   |
| M18-0002-G  | AFFINILUTE MIP Beta-blockers<br>25 mg/10 mL   | 50   |
| M21-0005-B  | AFFINILUTE MIP TSNAs<br>50 mg/3 mL            | 50   |
| M21-0005-G  | AFFINILUTE MIP TSNAs<br>50 mg/10 mL           | 50   |
| M28-0002-B  | AFFINILUTE MIP Amphetamines<br>25 mg/3 mL     | 50   |
| M34-0005-B  | AFFINILUTE MIP Nitroimidazoles<br>50 mg/3 mL  | 50   |
| M69-0002-B  | AFFINILUTE MIP Fluoroquinolones<br>25 mg/3 mL | 50   |
| M72-0002-B  | AFFINILUTE MIP NSAIDs<br>25 mg/3 mL           | 50   |
| M72-0002-G  | AFFINILUTE MIP NSAIDs<br>25 mg/10 mL          | 50   |
| M73-0002-B  | AFFINILUTE MIP PAH<br>25 mg/3 mL              | 50   |
| M73-0010-H  | AFFINILUTE MIP PAH<br>100 mg/10 mL            | 50   |



For more information, visit [www.biotage.com](http://www.biotage.com)

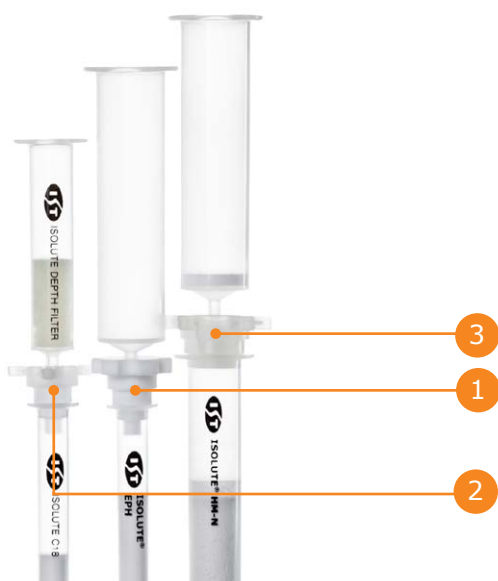
# Sample Preparation Accessories

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## ISOLUTE® Column Adaptors

Column adaptors attach empty reservoirs, filtration columns and depth filters to SPE columns.

| Part Number | Description                                                |   | Qty. |
|-------------|------------------------------------------------------------|---|------|
| 120-1100    | PTFE Adaptor - 1, 3 & 6 mL and XL (columns A, B, C, G & H) | 1 | 10   |
| 120-1101    | PE Adaptor - 1, 3 & 6 mL (columns A, B & C)                | 2 | 10   |
| 120-1102    | PE Adaptor - 15 & 25 mL (columns D & E)                    | 3 | 10   |



## ISOLUTE® Depth Filter Reservoirs

Reservoirs with pre-fitted depth filters remove particulate matter from aqueous samples, and prevent column blockage. Also allow for separate analysis of particulate bound compounds.

| Part Number | Description                 |   | Qty. |
|-------------|-----------------------------|---|------|
| 120-1003-CD | ISOLUTE depth filter, 6 mL  | 1 | 100  |
| 120-1009-FD | ISOLUTE depth filter, 70 mL | 2 | 50   |



## ISOLUTE® Column Caps

Seal prepared columns, sample loaded columns or immunoaffinity columns for transportation or storage.

| Part Number | Description                       | Column Type | Qty. |
|-------------|-----------------------------------|-------------|------|
| 1201-0120   | Bottom Luer cap, fits all columns | All         | 100  |
| 1201-0121-A | Top cap, 1 mL column              | A           | 100  |
| 1201-0122-B | Top cap, 3 mL column              | B           | 100  |
| 1201-0123-C | Top cap, 6 mL column              | C           | 100  |
| 1201-0125-H | Top cap, 10 mL - XL column        | G & H       | 100  |
| 1201-0126-D | Top cap, 15 mL column             | D           | 100  |
| 1201-0127-E | Top cap, 25 mL column             | E           | 100  |
| 1201-0128-F | Top cap, 70 mL column             | F           | 100  |





## ISOLUTE® Empty Reservoirs

Stack above SPE columns to increase the reservoir volume.

| Part Number | Description                      | Qty. |
|-------------|----------------------------------|------|
| 120-1001-A  | ISOLUTE Reservoir 1 mL           | 100  |
| 120-1002-B  | ISOLUTE Reservoir 3 mL           | 100  |
| 120-1003-C  | ISOLUTE Reservoir 6 mL           | 100  |
| 120-1003-CG | ISOLUTE Reservoir 6 mL (Tabless) | 100  |
| 120-1004-G  | ISOLUTE Reservoir 10 mL (G)      | 50   |
| 120-1005-H  | ISOLUTE Reservoir 10 mL (H)      | 50   |
| 120-1006-D  | ISOLUTE Reservoir 15 mL          | 100  |
| 120-1007-E  | ISOLUTE Reservoir 25 mL          | 100  |
| 120-1009-F  | ISOLUTE Reservoir 70 mL          | 50   |
| 120-1010-J  | ISOLUTE Reservoir 150 mL         | 25   |



## ISOLUTE® Frits

10 and 20 µm porosity sintered polyethylene frits to fit all SPE column sizes.

### ISOLUTE 10 µm Frits

| Part Number | Description                           | Qty. |
|-------------|---------------------------------------|------|
| 120-1061-A  | ISOLUTE Frits, 1 mL (6 mm) 10 µm PE   | 100  |
| 120-1062-B  | ISOLUTE Frits, 3 mL (9 mm) 10 µm PE   | 100  |
| 120-1063-C  | ISOLUTE Frits, 6 mL (13 mm) 10 µm PE  | 100  |
| 120-1065-D  | ISOLUTE Frits, 15 mL (16 mm) 10 µm PE | 100  |
| 120-1066-E  | ISOLUTE Frits, 25 mL (20 mm) 10 µm PE | 100  |
| 120-1067-F  | ISOLUTE Frits, 70 mL (27 mm) 10 µm PE | 100  |

### ISOLUTE 20 µm Frits

| Part Number | Description                           | Qty. |
|-------------|---------------------------------------|------|
| 120-1031-A  | ISOLUTE Frits, 1 mL (6 mm) 20 µm PE   | 100  |
| 120-1033-B  | ISOLUTE Frits, 3 mL (9 mm) 20 µm PE   | 100  |
| 120-1035-C  | ISOLUTE Frits, 6 mL (13 mm) 20 µm PE  | 100  |
| 120-1036-D  | ISOLUTE Frits, 15 mL (16 mm) 20 µm PE | 100  |
| 120-1037-E  | ISOLUTE Frits, 25 mL (20 mm) 20 µm PE | 100  |
| 120-1038-F  | ISOLUTE Frits, 70 mL (27 mm) 20 µm PE | 100  |

## ISOLUTE® Single Fritted Reservoirs

| Part Number                                | Description                                      | Qty. |
|--------------------------------------------|--------------------------------------------------|------|
| <b>ISOLUTE 10 µm PE Fritted Reservoirs</b> |                                                  |      |
| 120-1161-A                                 | ISOLUTE Single fritted reservoir, 1 mL/10 µm PE  | 100  |
| 120-1162-B                                 | ISOLUTE Single fritted reservoir, 3 mL/10 µm PE  | 100  |
| 120-1163-C                                 | ISOLUTE Single fritted reservoir, 6 mL/10 µm PE  | 100  |
| 120-1164-H                                 | ISOLUTE Single fritted reservoir, 10 mL/10 µm PE | 50   |
| 120-1165-D                                 | ISOLUTE Single fritted reservoir, 15 mL/10 µm PE | 100  |
| 120-1166-E                                 | ISOLUTE Single fritted reservoir, 25 mL/10 µm PE | 100  |
| 120-1167-F                                 | ISOLUTE Single fritted reservoir, 70 mL/10 µm PE | 50   |

### ISOLUTE 20 µm PE Fritted Reservoirs

|            |                                                  |     |
|------------|--------------------------------------------------|-----|
| 120-1122-B | ISOLUTE Single fritted reservoir, 3 mL/20 µm PE  | 100 |
| 120-1123-C | ISOLUTE Single fritted reservoir, 6 mL/20 µm PE  | 100 |
| 120-1124-G | ISOLUTE Single fritted reservoir, 10 mL/20 µm PE | 50  |
| 120-1124-H | ISOLUTE Single fritted reservoir, 10 mL/20 µm PE | 50  |
| 120-1125-D | ISOLUTE Single fritted reservoir, 15 mL/20 µm PE | 100 |
| 120-1126-E | ISOLUTE Single fritted reservoir, 25 mL/20 µm PE | 100 |
| 120-1128-F | ISOLUTE Single fritted reservoir, 70 mL/20 µm PE | 50  |

### ISOLUTE 5 µm PTFE Fritted Reservoirs

|             |                                                            |     |
|-------------|------------------------------------------------------------|-----|
| 120-1193-C  | ISOLUTE Single fritted reservoir, 6 mL/5 µm PTFE           | 100 |
| 120-1193-CG | ISOLUTE Single fritted reservoir, 6 mL (Tabless) 5 µm PTFE | 100 |

## ISOLUTE® Sodium Sulfate Drying Cartridges

Dry organic solvents with this easy to use format (contains 2.5 g of high purity sodium sulfate per cartridge). Stack beneath SPE columns during elution for efficient in-line solvent drying.

| Part Number | Description                             | Qty. |
|-------------|-----------------------------------------|------|
| 802-0250-M  | ISOLUTE Sodium Sulfate Drying Cartridge | 50   |



## ISOLUTE® Filtration Columns

Pre-fitted with two 20 µm polyethylene frits. Use as standalone filters or stacked above an SPE column.

| Part Number | Description                                              | Qty. |
|-------------|----------------------------------------------------------|------|
| 120-1021-A  | ISOLUTE double fritted filtration column, 1 mL/20 µm PE  | 100  |
| 120-1022-B  | ISOLUTE double fritted filtration column, 3 mL/20 µm PE  | 100  |
| 120-1023-C  | ISOLUTE double fritted filtration column, 6 mL/20 µm PE  | 100  |
| 120-1024-H  | ISOLUTE double fritted filtration column, 10 mL/20 µm PE | 50   |
| 120-1025-D  | ISOLUTE double fritted filtration column, 15 mL/20 µm PE | 100  |
| 120-1026-E  | ISOLUTE double fritted filtration column, 25 mL/20 µm PE | 100  |
| 120-1028-F  | ISOLUTE double fritted filtration column, 70 mL/20 µm PE | 50   |



## ISOLUTE® Filtration Plates

Each well contains a 20 µm polyethylene frit for high throughput filtration applications.

| Part Number  | Description                              | Qty. |
|--------------|------------------------------------------|------|
| 120-1022-P01 | Filtration plate, fixed well, 2 mL/20 µm | 1    |
| 120-1022-P05 | Filtration plate, fixed well, 2 mL/20 µm | 5    |



## Plate Sealing Accessories

Seal wells and Luer outlets of ISOLUTE®-96 fixed well plates. Piercable sealing cap can also be used to seal collection plates.

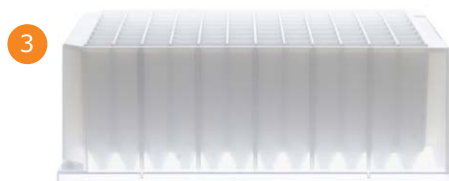
| Part Number | Description           | Qty. |
|-------------|-----------------------|------|
| 121-5204    | Piercable Sealing Cap | 50   |
| 121-5205    | Luer Cap Mat          | 25   |



## Deep Well Collection Plates

Constructed from high purity, solvent resistant polypropylene.

| Part Number | Description                     | Qty. |
|-------------|---------------------------------|------|
| 1 121-5201  | Collection plate, 350 $\mu$ L   | 50   |
| 2 121-5202  | Collection Plate, 1 mL Square   | 50   |
| 3 121-5203  | Collection Plate, 2 mL Square   | 50   |
| 4 121-5213  | Collection Plate, 2 mL Round    | 50   |
| 5 121-5210  | Collection Plate, 5 mL, 48-Well | 20   |
| 6 121-5208  | Collection Plate, 10 mL 24-Well | 50   |





PART NO. 820-0140-CG



LOT NO. 1110811000



| Solvent | Vol. | Conc. | Reagent |
|---------|------|-------|---------|
| Water   | 100  | 100%  | None    |

**ISOLUTE®**

**VacMaster - 96**

# Manual Sample Processing Products and Accessories

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# Biotage® PRESSURE+ 48 and PRESSURE+ 96

## Positive Pressure Manifolds

### Biotage® PRESSURE+ 48 and PRESSURE+ 96

Biotage® PRESSURE+ manifolds deliver positive pressure, parallel processing for 96 well plates, 1 mL, 3 mL and 6 mL column formats. The systems utilize a consistent, uniform flow of positive pressure to move both low and high viscosity liquids through SPE plates and columns.



### Biotage® PRESSURE+ 96

| Part Number | Description                                                                                                                                                                                                                                                                                                                        |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PPM-96      | PRESSURE+ 96 Positive Pressure Manifold 96 position. Includes 1 x 1 mL 96 well collection plate, 1 x 2 mL 96 well collection plate, 1 x 10 mL 24 well collection plate (waste plate), 96-column sealing gasket, gas supply adaptor kit (6' of 1/8" i.d. polyethylene tubing and 1/8" and 1/4" NPT connectors), User Manual CD-ROM. |

#### Accessories

|              |                                                      |
|--------------|------------------------------------------------------|
| PPM-A96-CH   | PRESSURE+ 96 Tabless 1 mL Column Holder              |
| PPM-A96-SPCR | PRESSURE+ 96 Spacer (16 mm) for $\mu$ Elution Plates |
| PPM-A96-GSKT | PRESSURE+ 96 Sealing Gasket 96 position              |
| PPM-A96-1024 | PRESSURE+ 96 Collection Tray 10 mL 24 well           |
| PPM-GA       | PRESSURE+ Gas Supply Adaptor for all models          |

### Biotage® PRESSURE+ 48

| Part Number | Description                                                                                                                                                                                                                                                                       |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PPM-48      | PRESSURE+ 48 Positive Pressure Manifold 48 position. Includes Sealing gasket 48 position, gas supply adaptor kit (6' of 1/8" i.d. polyethylene tubing and 1/8" and 1/4" NPT connectors), waste bin rack, waste bin inserts, User Manual CD-ROM. Racks must be ordered separately. |

#### Racks

|               |                                          |
|---------------|------------------------------------------|
| PPM-A48-1RCK  | PRESSURE+ 48 SPE Column Rack 1 mL        |
| PPM-A48-3RCK  | PRESSURE+ 48 SPE Column Rack 3 mL        |
| PPM-A48-6RCK  | PRESSURE+ 48 SPE Column Rack 6 mL        |
| PPM-A48-1232  | PRESSURE+ 48 Sample Vial Rack 12 x 32 mm |
| PPM-A48-1275  | PRESSURE+ 48 Collection Rack 12 X 75 mm  |
| PPM-A48-13100 | PRESSURE+ 48 Collection Rack 13 x 100 mm |
| PPM-A48-16100 | PRESSURE+ 48 Collection Rack 16 x 100 mm |

#### Accessories

|                |                                                     |
|----------------|-----------------------------------------------------|
| PPM-A48-GSKT   | PRESSURE+ 48 Sealing Gasket 48 position             |
| PPM-A48-WST    | PRESSURE+ 48 Waste Bin Inserts, pack of 3           |
| PPM-A48-WSTRCK | PRESSURE+ 48 Waste Bin Rack with Inserts, pack of 3 |
| PPM-GA         | PRESSURE+ Gas Supply Adaptor for all models         |



## Biotage® VacMaster™ 10 and 20

10 or 20 position vacuum manifolds for SPE, SLE and filtration applications.



### VacMaster 10 Sample Processing Manifold

| Part Number | Description                                               |
|-------------|-----------------------------------------------------------|
| 121-1010    | VacMaster-10 Sample Processing Manifold (with 10 mm rack) |
| 121-1012    | VacMaster-10 Sample Processing Manifold (with 12 mm rack) |
| 121-1016    | VacMaster-10 Sample Processing Manifold (with 16 mm rack) |
| 121-1025    | VacMaster-10 Sample Processing Station (with 25 mm rack)  |
| 121-1027    | VacMaster-10 Sample Processing Station (with 27 mm rack)  |

### VacMaster 10 Replacement Parts

| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 121-1039    | Replacement tank with fittings | 1    |
| 121-1045    | Replacement lid with fittings  | 1    |
| 121-1030    | Silicone Lid Gasket            | 1    |
| 121-1133    | Replacement rack, 12 mm        | 1    |
| 121-1134    | Replacement rack, 16 mm        | 1    |

### VacMaster 20 Sample Processing Manifold

| Part Number | Description                                              |
|-------------|----------------------------------------------------------|
| 121-2010    | Sample Processing Manifold (with 10 mm rack)             |
| 121-2012    | Sample Processing Manifold (with 12 mm rack)             |
| 121-2016    | Sample Processing Manifold (with 16 mm rack)             |
| 121-2020    | VacMaster-20 Sample Processing Station (with 20 mm rack) |

### VacMaster 20 Replacement Parts

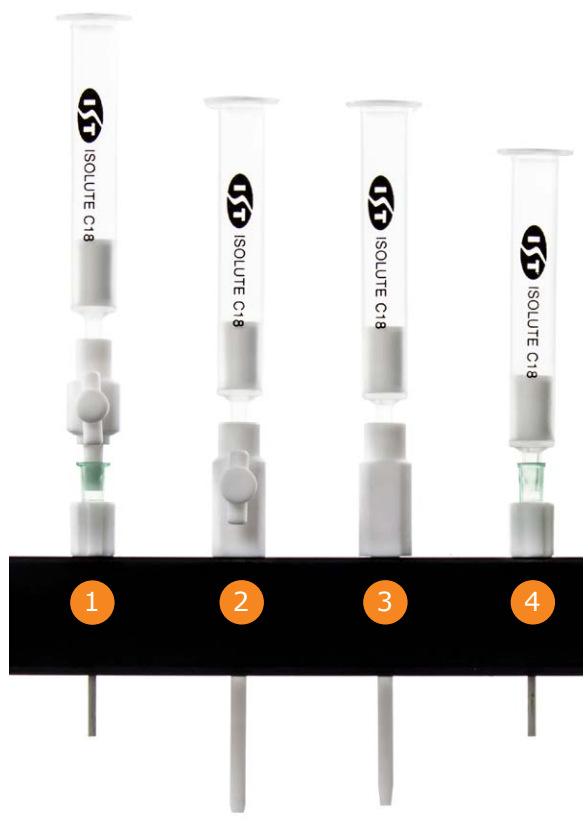
| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 121-2068    | Replacement tank with fittings | 1    |
| 121-2075    | Replacement lid with fittings  | 1    |
| 121-2059    | Silicone Lid Gasket            | 1    |
| 121-2161    | Replacement rack, 10 mm        | 1    |
| 121-2162    | Replacement rack, 12 mm        | 1    |
| 121-2163    | Replacement rack, 16 mm        | 1    |

### VacMaster Accessories

| Part Number | Description                             | Qty. |
|-------------|-----------------------------------------|------|
| 121-0010    | PTFE 'T' valve (for connecting 2 tanks) | 1    |

## PTFE Stopcock Option and Spare Parts

| Part Number | Description                       | Qty. |
|-------------|-----------------------------------|------|
| 1 121-0009  | Universal PTFE stopcock           | 10   |
| 2 121-0001  | PTFE stopcock/needle unit         | 10   |
| 3 121-0002  | PTFE needle                       | 10   |
| 4 121-0003  | Stainless steel needle            | 20   |
| 121-0004    | Stainless steel needle retainer   | 10   |
| 121-0005    | Port sealing plugs                | 30   |
| 121-0009-S  | PTFE stopcock - pressure positive | 10   |



# Biotage® VacMaster™ 96

## Sample Processing Manifold

### Biotage® VacMaster™ 96

Vacuum manifold for processing 96-well SPE, SLE or filtration plates.

| Part Number | Description                                                      | Qty. |
|-------------|------------------------------------------------------------------|------|
| 121-9600    | VacMaster-96 Sample Processing Manifold (without vacuum control) | 1    |

#### Vacuum Control Options

| Part Number | Description                                        | Qty. |
|-------------|----------------------------------------------------|------|
| 121-9601    | VacMaster VCU-1 Vacuum Control Unit                | 1    |
| 121-9602    | VacMaster VCU-2 Vacuum Control and Generation Unit | 1    |

#### 96 Well Collection Plates-Deep Well

| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 121-5202    | Collection plate, 1 mL, square | 50   |
| 121-5203    | Collection plate, 2 mL, square | 50   |
| 121-5213    | Collection Plate, 2 mL, round  | 50   |



### Replacement Parts

| Part Number | Description                                                        |   | Qty. |
|-------------|--------------------------------------------------------------------|---|------|
| 121-9612    | VacMaster-96 replacement gasket                                    | 1 | 1    |
| 121-9613    | VacMaster-96 replacement o-ring                                    | 2 | 1    |
| 121-9614    | Collection plate spacer (2 mm) for deep well collection plates     | 3 | 1    |
| 121-9610    | Array insert (6 mm), acetal                                        | 4 | 1    |
| 121-9615    | Collection plate spacer (29 mm) for shallow well collection plates | 5 | 1    |
| 121-9611    | VacMaster-96 insert (12 mm) for "shallow skirt" plates             | 6 | 1    |





## Biotage® VacMaster™ Drying Adaptor

Connect to laboratory air or nitrogen supply to dry 10 or 20 SPE columns simultaneously.

| Part Number | Description                                          | Qty. |
|-------------|------------------------------------------------------|------|
| 124-1001    | VacMaster-10 Drying Adaptor for 1, 3 & 6 mL columns  | 1    |
| 124-2001    | VacMaster-20 Drying Adaptor for 1, 3 & 6 mL columns  | 1    |
| 124-2002    | VacMaster-20 Drying Adaptor for 15 and 20 mL columns | 1    |



## Biotage® VacMaster™ Trap Kit

Waste traps should be installed between the outlet of the VacMaster™ sample processing manifold and the vacuum source, trapping all waste liquids exiting the manifold. Compatible with VacMaster 10 & 20 and -96 processing manifolds, VacMaster Trap Kits are available with 1 L or 10 L capacity.

| Part Number | Description             | Qty. |
|-------------|-------------------------|------|
| 121-2095    | VacMaster Trap Kit 1 L  | 1    |
| 121-2195    | VacMaster Trap Kit 10 L | 1    |



## Biotage® VacMaster™ Large Volume Extraction (LVE) Kit

For unattended loading of large volume samples. Inert PTFE tubing prevents sample contamination.

| Part Number | Description                                       | Qty. |
|-------------|---------------------------------------------------|------|
| 121-2090    | VacMaster LVE kit for 1, 3 and 6 mL columns       | 1    |
| 121-2091    | VacMaster LVE Kit for 15 mL and 25 mL SPE columns | 1    |
| 121-2092    | VacMaster LVE Kit for 70 mL SPE columns           | 1    |
| 121-2094    | VacMaster LVE Kit XL                              | 1    |



# Biotage® Gravity Rack

## Biotage® Gravity Rack

Process up to 20 samples simultaneously under gravity.

| Part Number | Description                                  | Qty. |
|-------------|----------------------------------------------|------|
| 123-2016    | Gravity Rack with 16 mm collection tube rack | 1    |
| 123-2019    | Gravity Rack with 19 mm collection tube rack | 1    |

### Accessories

| Part Number | Description                     | Qty. |
|-------------|---------------------------------|------|
| 121-0009    | Universal PTFE stopcock         | 10   |
| 121-0001    | PTFE stopcock/needle unit       | 10   |
| 121-0002    | PTFE needle unit                | 10   |
| 121-0003    | Stainless steel needle          | 20   |
| 121-0004    | Stainless steel needle retainer | 10   |



# Automated Sample Processing Products

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## **Biotage® Extrahera™**

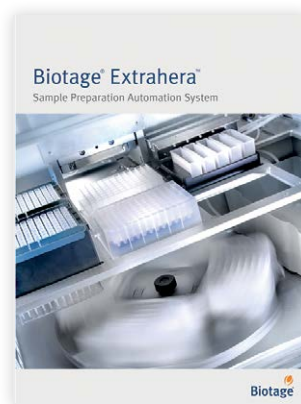
Biotage® Extrahera™ is a compact eight channel automation instrument, designed for speed, flexibility and with end user operation in mind. The system has been designed to automatically process methods using well plate or column consumables. Ideal for processing Supported Liquid Extraction (SLE), Solid Phase Extraction (SPE), Phospholipid Depletion (PLD) and Protein Precipitation (PPT) based methods. The system benefits from a compact two level layout for solvent and sample pipette tips, extraction consumables and samples. The lower level features an innovative carousel based design. Switching between processing either well plates or columns can be achieved in less than five minutes. The system processes a full standard SPE plate method in less than 30 minutes including sample pre-treatment, conditioning, equilibration, load, wash and elution steps – even when using volatile and low surface tension solvents.

- » Fully automated sample processing station
- » Supports 96 & 48 fixed well plates and 96 tableless 1 mL columns or 1, 3 and 6 mL industry standard columns
- » Features five automatically pump fed solvent reservoirs
- » Built in controller with 12" touch screen graphical user interface
- » Simple & intuitive method creation
- » Compact footprint
- » Built in fume-hood capabilities suitable for bench top usage
- » Positive pressure processing for accurate control of flow
- » Specified 50 to 1000 µL liquid handling performance
- » Aspirate/dispense mixing
- » Ultrasonic sensing
- » Three elution positions for fraction collection and multiple elution



## **Biotage® Extrahera™ Brochure**

For further information download the Extrahera brochure from [www.biotage.com](http://www.biotage.com). Literature part number PPS353.



| Part Number | Description                                                                    | Qty. |
|-------------|--------------------------------------------------------------------------------|------|
| 414001      | Biotage Extrahera                                                              | 1    |
| 414007      | Configuration Kit 96 Positions                                                 | 1    |
| 414008      | Configuration Kit 24 Positions                                                 | 1    |
| 414253SP    | Column Rack 96 x 1 mL (tabless)                                                | 1    |
| 414169SP    | Column Rack 24 x 1 mL                                                          | 1    |
| 414174SP    | Column Rack 24 x 3 mL                                                          | 1    |
| 413640SP    | Column Rack 24 x 6 mL (tabless)                                                | 1    |
| 414256SP    | Sample Rack 12 x 75 mm<br>24 Positions                                         | 1    |
| 414255SP    | Sample Rack 13 x 100 mm<br>24 Positions                                        | 1    |
| 414254SP    | Sample Rack 16 x 100 mm<br>24 Positions                                        | 1    |
| C44651      | 12 x 75 mm Test Tube                                                           | 1000 |
| C40707      | 13 x 100 mm Test Tube                                                          | 1000 |
| C40708      | 16 x 100 mm Test Tube                                                          | 1000 |
| 414574      | Collection Vials 18 x 75 mm                                                    | 304  |
| 121-5202    | 96-Well Collection Plate,<br>1 mL, Square                                      | 50   |
| 121-5203    | 96-Well Collection Plate,<br>2 mL, Square                                      | 50   |
| 121-5213    | 96-Well Collection Plate,<br>2 mL, Round                                       | 50   |
| 121-5210    | 48-Well Collection Plate, 5 mL                                                 | 20   |
| 121-5208    | 24-Well Collection Plate, 10 mL                                                | 25   |
| 414511SP    | Collection Rack 12 x 75 mm<br>24 Positions                                     | 1    |
| 414512SP    | Collection Rack 18 x 75 mm<br>24 Positions                                     | 1    |
| 414578SP    | Inserts for 12 x 32 mm vials for<br>Collection Rack 12 x 75 mm<br>24 Positions | 24   |
| 413629SP    | Pressure Head Seal 96 Positions                                                | 5    |
| 414148SP    | Pressure Head Seal 24 Positions                                                | 5    |
| 413991SP    | Solvent Rack for 25 mL<br>Reservoirs                                           | 1    |

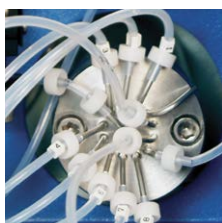
| Part Number | Description                                                         | Qty.    |
|-------------|---------------------------------------------------------------------|---------|
| 414045SP    | Solvent Reservoir 25 mL                                             | 25      |
| 414215SP    | Solvent Rack for 100 mL<br>Reservoirs                               | 1       |
| 414214SP    | Solvent Reservoir 100 mL                                            | 5       |
| 414330SP    | Kit, Solvent Inlet Lines (S1-S5)                                    | 5       |
| 414579      | Solvent Safety Kit (inc. GL45<br>Caps, Filters and Bottles, Qty. 5) | 1       |
| 414686SP    | Tip Rack Holder                                                     | 1       |
| 414141      | Biotage Disposable Tips<br>1000 µL Clear                            | 10 x 96 |
| 414201SP    | Flow-Through Plate 96                                               | 1       |
| 414516SP    | Flow-Through Plate 48                                               | 1       |
| 414203SP    | Flow-Through Plate 24                                               | 1       |
| 414703SP    | Spacer for µElution and SPEC<br>Fixed Well Plates                   | 1       |
| 414702SP    | Matrix Tube retaining Plate                                         | 1       |
| 414272SP    | Waste Kit incl. Waste Reservoir<br>5 L and Tubing                   | 1       |
| 414218SP    | Pipette Tip Waste Bin                                               | 1       |
| 414565SP    | Extraction Waste Collector<br>for Lifter                            | 1       |
| 414137SP    | Waste Tubing                                                        | 1       |
| 411916SP    | Fuse, 4A/250VAC, 5x20mm                                             | 5       |
| C67361      | Mains Cord-Set (EU)                                                 | 1       |
| C65902      | Mains Cord-Set (US/CA)                                              | 1       |
| C128195     | Mains Cord-Set (UK)                                                 | 1       |
| 356330SP    | Vacuum Pump ME1C, 100 to<br>230VAC 50/60Hz                          | 1       |
| SER-EX-SAP  | Service Agreement - Priority -<br>Extrahera                         |         |
| SER-EX-SAL  | Service Agreement - Limited -<br>Extrahera                          |         |
| SER-EX-FYMP | First Year Maintenance Package<br>Extrahera                         |         |
| SER-EX-IN   | Installation Extrahera                                              |         |
| SER-EX-IQOQ | IQ/OQ/PV on site Extrahera                                          |         |

# RapidTrace®+

## Automated High Throughput Solid Phase Extraction



Closed fluid path system with segregated waste lines maintain integrity of sample.



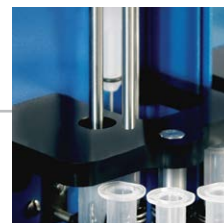
Eight solvent/reagent lines for maximum methods flexibility.



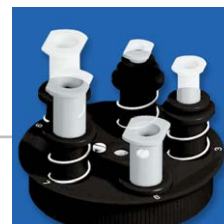
Magnetically encoded racks of routine samples.



Reagent mixing chamber allows automated online reagent blending in the method.



Positive pressure, stepper motor syringe pump delivers precise flow rates.



Compatible 1, 3 and 6 mL version SPE columns.

| Part Number | Description                                                                                                                              |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------|
| C50000      | RapidTrace+ Workstation, 1 mL and 3 mL (10 columns)                                                                                      |
| C125713     | RapidTrace+ Workstation, 6 mL (5 columns). 3 mL and 1 mL operation possible by purchasing appropriate plunger (see accessories brochure) |
| C52006      | RapidTrace Start-Up Kit with Software                                                                                                    |
| C52689      | RapidTrace Notebook Controller                                                                                                           |

## RapidTrace®+ Brochure

For further information download the RapidTrace+ brochure from [www.biotage.com](http://www.biotage.com). Literature part number PPS395.

| Part Number                                       | Description                                                                      | Qty. |
|---------------------------------------------------|----------------------------------------------------------------------------------|------|
| <b>Racks</b> (Each RapidTrace+ requires one rack) |                                                                                  |      |
| C50974                                            | 13 x 100 mm Sample Tube<br>12 x 75 Fraction Tube                                 | 1    |
| C50976                                            | 13 x 100 mm Sample Tube<br>12 x 75 Fraction Tube                                 | 1    |
| C58309                                            | 13 x 100 mm Sample Tube<br>13 x 100 mm Fraction Tube                             | 1    |
| C56786                                            | 16 x 100 mm Sample Tube<br>16 x 100 mm Fraction Tube                             | 1    |
| C56536                                            | 13 x 100 mm Sample Tube<br>12 x 75 mm Fraction Tube<br>(9 Position Chilled Rack) | 1    |
| C133968                                           | 40 mL Sample Flask (5 position)<br>16 x 100 Fraction Tube (10 position)          | 1    |



# Evaporation

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# Biotage® SPE Dry 96 and 96 Dual

## Sample Concentrator System

### Biotage® SPE Dry 96 Sample Concentrator System

| Part Number      | Description                                                                               |
|------------------|-------------------------------------------------------------------------------------------|
| SD-9600-DHS-NA   | SPE Dry 96 Sample Concentrator System, 100/120V                                           |
| SD-9600-DHS-EU   | SPE Dry 96 Sample Concentrator System, 220/240V                                           |
| SD-9600-DHS-T-NA | SPE Dry 96 Sample Concentrator System, with PTFE coated needles (Top Head Only), 100/120V |
| SD-9600-DHS-T-EU | SPE Dry 96 Sample Concentrator System, with PTFE coated needles (Top Head Only), 220/240V |

### Biotage® SPE Dry 96 Dual Sample Concentrator System

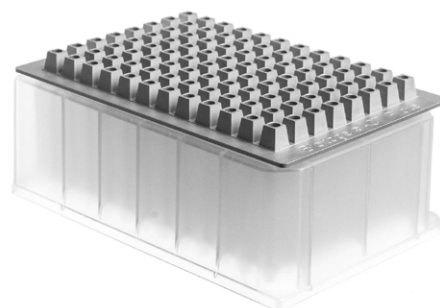
| Part Number       | Description                                                                                    |
|-------------------|------------------------------------------------------------------------------------------------|
| SD2-9600-DHS-NA   | SPE Dry 96 Dual Sample Concentrator System, 100/120V                                           |
| SD2-9600-DHS-EU   | SPE Dry 96 Dual Sample Concentrator System, 220/240V                                           |
| SD2-9600-DHS-T-NA | SPE Dry 96 Dual Sample Concentrator System, with PTFE coated needles (Top Head Only), 100/120V |
| SD2-9600-DHS-T-EU | SPE Dry 96 Dual Sample Concentrator System, with PTFE coated needles (Top Head Only), 220/240V |



Biotage® SPE Dry 96 Dual.

### Biotage® ACT Plate Adapter

Protect your samples from cross contamination (cross talk) during evaporation. Designed for use with square well collection plates, Biotage® ACT (Anti Cross Talk) Plate Adapter is compatible with Biotage® SPE Dry 96 and SPE Dry 96 Dual Sample Concentrator Systems.



| Part Number | Description                    | Qty. |
|-------------|--------------------------------|------|
| 414355SP    | Biotage® ACT Plate Adapter     | 1    |
| 121-5202    | Collection plate, 1 mL, square | 50   |
| 121-5203    | Collection plate, 2 mL, square | 50   |

### Avoiding Cross Talk Brochure

For further information download the Avoiding Cross Talk brochure from [www.biotage.com](http://www.biotage.com). Literature part number PPS387.





## TurboVap® Product Family



TurboVap® 96



TurboVap® II



TurboVap® LV

| Part Number | Description |
|-------------|-------------|
|-------------|-------------|

### TurboVap 96

|         |                       |
|---------|-----------------------|
| C103263 | TurboVap 96, 100/120V |
| C103264 | TurboVap 96, 220/240V |

### TurboVap II

|         |                                                         |
|---------|---------------------------------------------------------|
| C103186 | TurboVap II, 200 mL with 0.5 mL Endpoint Stem, 100/120V |
| C103187 | TurboVap II, 200 mL with 1.0 mL Endpoint Stem, 100/120V |
| C103188 | TurboVap II, 50 mL with 0.5 mL Endpoint Stem, 100/120V  |
| C103189 | TurboVap II, 50 mL with 1.0 mL Endpoint Stem, 100/120V  |
| C103190 | TurboVap II, 200 mL with 0.5 mL Endpoint Stem, 220/240V |
| C103192 | TurboVap II, 200 mL with 1.0 mL Endpoint Stem, 220/240V |
| C103193 | TurboVap II, 50 mL with 0.5 mL Endpoint Stem, 220/240V  |
| C103194 | TurboVap II, 50 mL with 1.0 mL Endpoint Stem, 220/240V  |
| C103196 | TurboVap II, 40 mL ASE/I Chem Vial Compatible, 100/120V |
| C103197 | TurboVap II, 40 mL ASE/I Chem Vial Compatible, 220/240V |

### TurboVap LV

|         |                                                  |
|---------|--------------------------------------------------|
| C103198 | TurboVap LV without Racks, 100/120V              |
| C103199 | TurboVap LV without Racks, 220/240V              |
| C103200 | TurboVap LV, ASE/I Chem, 40/60 mL vial, 100/120V |
| C103201 | TurboVap LV, ASE/I Chem, 40/60 mL vial, 220/240V |
| C112175 | TurboVap LV-PTFE, Bath & Manifold, 100/120V      |
| C133718 | TurboVap LV-PTFE, Bath & Manifold, 220/240V      |
| C55941  | PTFE Coated Upper Manifold Replacement Kit       |
| C109301 | PTFE Water Bath                                  |

| Part Number | Description |
|-------------|-------------|
|-------------|-------------|

### Tube Racks

|         |                                                                |
|---------|----------------------------------------------------------------|
| C134315 | Tube Rack (18 x 60/75 mm tubes) TV LV                          |
| C44139  | Tube Rack (16 x 100 mm tubes) TV LV                            |
| C44282  | Tube Rack (20 x 150 mm tubes) TV LV                            |
| C44283  | Tube Rack (16 x 100 mm Prelude) TV LV                          |
| C44577  | Tube Rack (12 x 75 mm tubes) TV LV                             |
| C44880  | Tube Rack (15 mL Conical) TV LV                                |
| C45269  | Tube Rack (16 x 125 mm tubes) TV LV                            |
| C45286  | Tube Rack (13 x 100 mm tubes) TV LV                            |
| C47818  | Tube Rack (15 mL Autotrace Conical) TV LV                      |
| C47820  | Tube Rack (10 mL Conical) TV LV                                |
| C48928  | Tube Rack (1.5 - 2.0 mL flip cap microcentrifuge tubes) TV LV  |
| C48929  | Tube Rack (1.5 - 2.0 mL screw cap microcentrifuge tubes) TV LV |
| C48950  | Tube Rack (10 x 75 mm tubes) TV LV                             |
| C59546  | Tube Rack (GC vials) TV LV                                     |
| C61345  | Tube Rack (ASE/I Chem), TV LV                                  |
| C79687  | Tube Rack (4 mL Vial, 14 x 45 mm) TV LV                        |

## Evaporation Brochure

For further information download the Evaporation brochure from [www.biotage.com](http://www.biotage.com). Literature part number PPS296.



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## Limited Warranty

Biotage warrants that Biotage Consumables, including all FLASH®, FLASH+®, ISOLUTE®, EVOLUTE® and Samplet® purification cartridges, scavenger resins, solid-bound reagents and microwave vials, will be of good quality and workmanship, and will meet the applicable product specification. This warranty applies only to the initial test performed at the Customer's facility upon the initial start-up of the consumables and expires at the time the user applies an actual sample to the consumable. If the cartridge is packed with media provided by the Customer, the Biotage warranty applies only to the plastic tube, frits, and labor required for packing and testing the cartridge. Biotage will not be liable for any damage to media provided by the Customer that may be caused when Biotage packs such media in accordance with Biotage's standard operating procedures.

Should any Biotage consumable fail to meet the limited warranty above after being tested in accordance with the applicable Biotage standard operating procedures, Biotage will provide, at its sole option, either a replacement cartridge or reaction vial. If a cartridge, it will be packed with the original media, or packed with new media, at no cost to the Purchaser. If such failed cartridge is packed with media provided by the Purchaser, Biotage will make a reasonable effort to re-pack the original media, or pack a replacement cartridge with new media provided by the Purchaser.

Returns of any Consumable must be authorized in advance. Please contact Biotage for a Return Authorization (RA) number and shipping instructions. All claims must be made within thirty (30) days of shipment from Biotage, or after the initial test of the cartridge at the Customer's facility, whichever is first.

BIOTAGE MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY OR SUITABILITY FOR ANY PURPOSE.

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## Notes







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