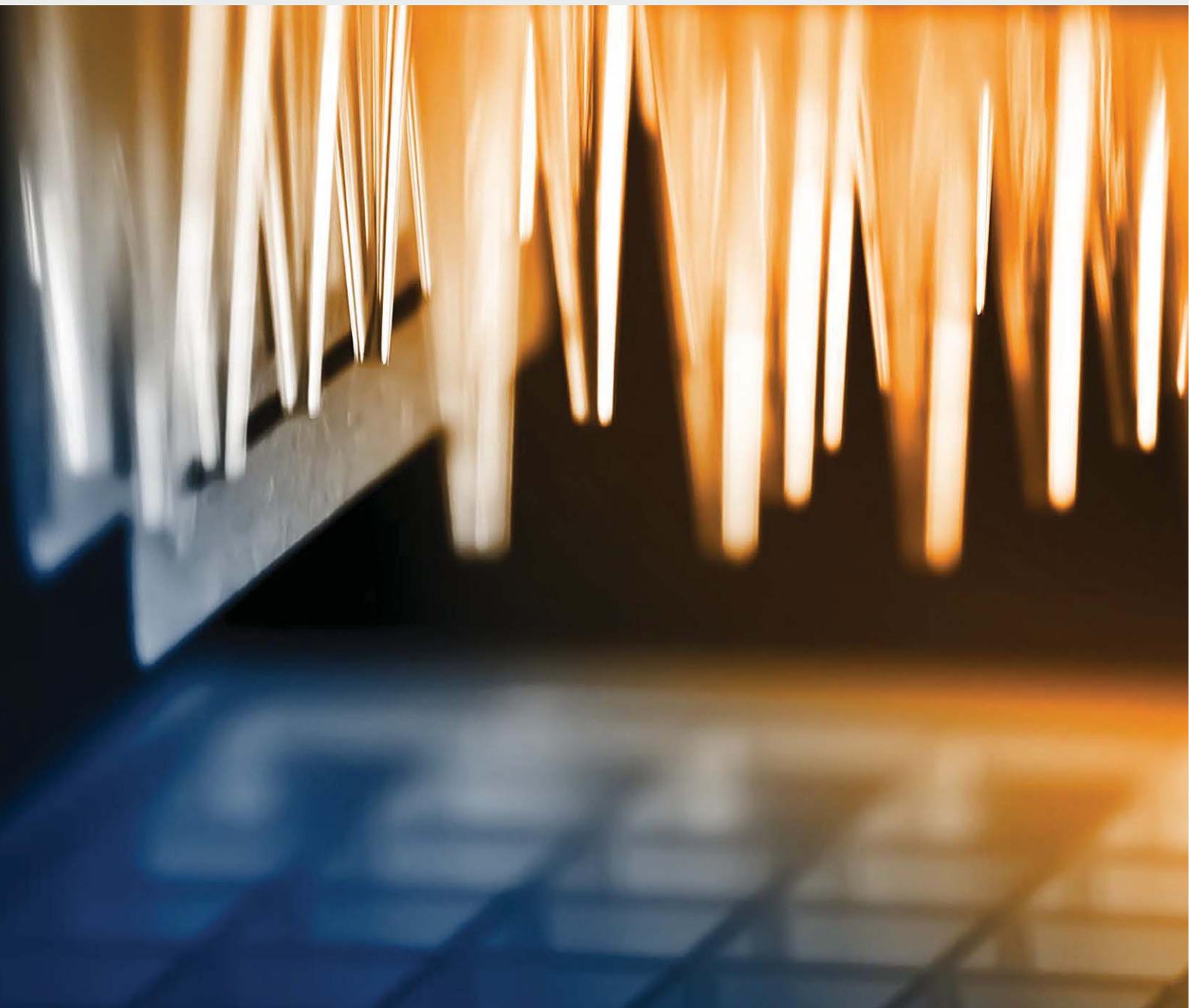


# Analytical Sample Preparation

2015 Catalog







Analytical Sample Preparation  
2015 Catalog

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# Biotage® 1-Point Support™

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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.

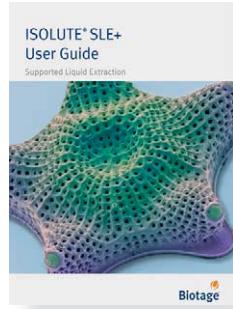
## Literature Library

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).

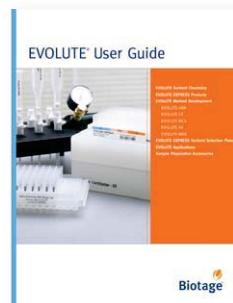
## ISOLUTE® SLE+ User Guide

Supported Liquid Extraction (SLE) is a quick, easy and cost effective sample preparation technique for analytical chemistry. This guide describes how to develop supported liquid extraction methods using ISOLUTE® SLE+ products, along with hints and tips for optimizing performance and extending the range of analytes that can be extracted. Literature part number UI304.V.2.



## EVOLUTE® User Guide

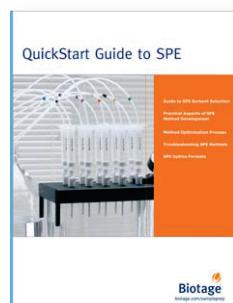
The EVOLUTE® User Guide contains a wealth of technical information and practical tips to make method development using EVOLUTE SPE products fast and simple. The guide describes generic methodologies and method optimization strategies for use with all the EVOLUTE sorbents, and introduces the streamlined Load-Wash-Elute procedure for EVOLUTE EXPRESS products. Literature part number EVO.UG\_2012.rev.1.



## SPE QuickStart Guide

Use our QuickStart Guide for an introduction to SPE. Literature part number QSG\_2013\_V.1.

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



# Contact Biotage® 1-Point Support™

## Contact Biotage® 1-Point Support™

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

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

### Europe

Service and Support

Telephone: +46 18 56 59 11

E-mail: eu-1-pointsupport@biotage.com

### North & Latin America

Service and Support

Telephone: +1 800 446 4752

Outside the USA: +1 704 654 4900

E-mail: us-1-pointsupport@biotage.com

### Japan

Service and Support

Telephone: +81 3 5627 3123

E-mail: jp-1-pointsupport@biotage.com

### China

Service and Support

Telephone: +86 21 2898 6655

E-mail: cn-1-pointsupport@biotage.com

### 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 now 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](mailto: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](mailto: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  
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### China

Tel: +86 21 2898 6655  
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[www.biotage.cn](http://www.biotage.cn)

### Distributors

Please visit our Web site at  
[www.biotage.com](http://www.biotage.com) for contact details.

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



# Product Quality

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 SPE 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 SPE sorbent – ensuring reproducible performance in your application.

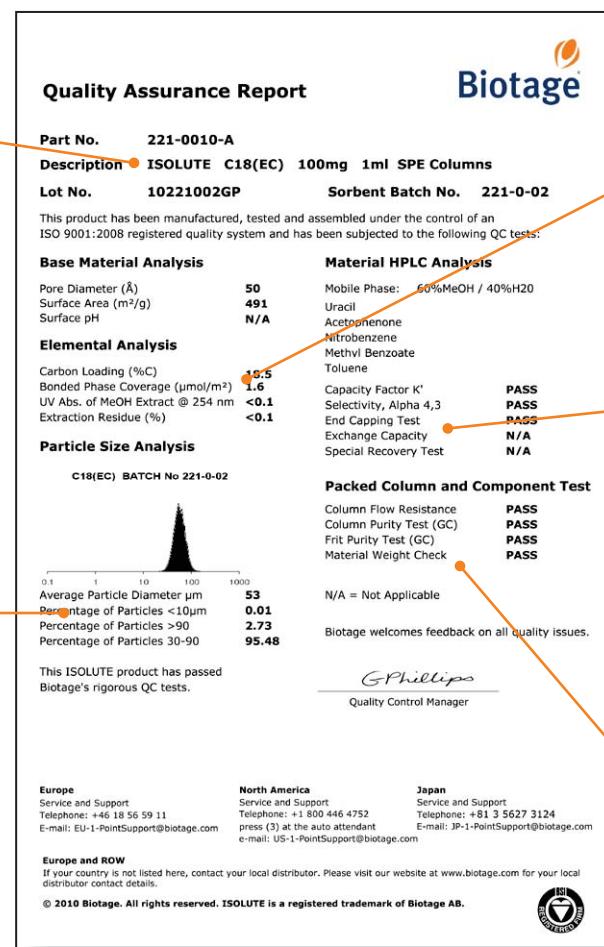
Every ISOLUTE® or EVOLUTE® SPE product is accompanied by a detailed Quality Assurance (QA) report for your reference. This page explains the importance of the information it contains, and the impact this has on every sample preparation procedure you perform.

## 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



## 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® 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 SPE plates:

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

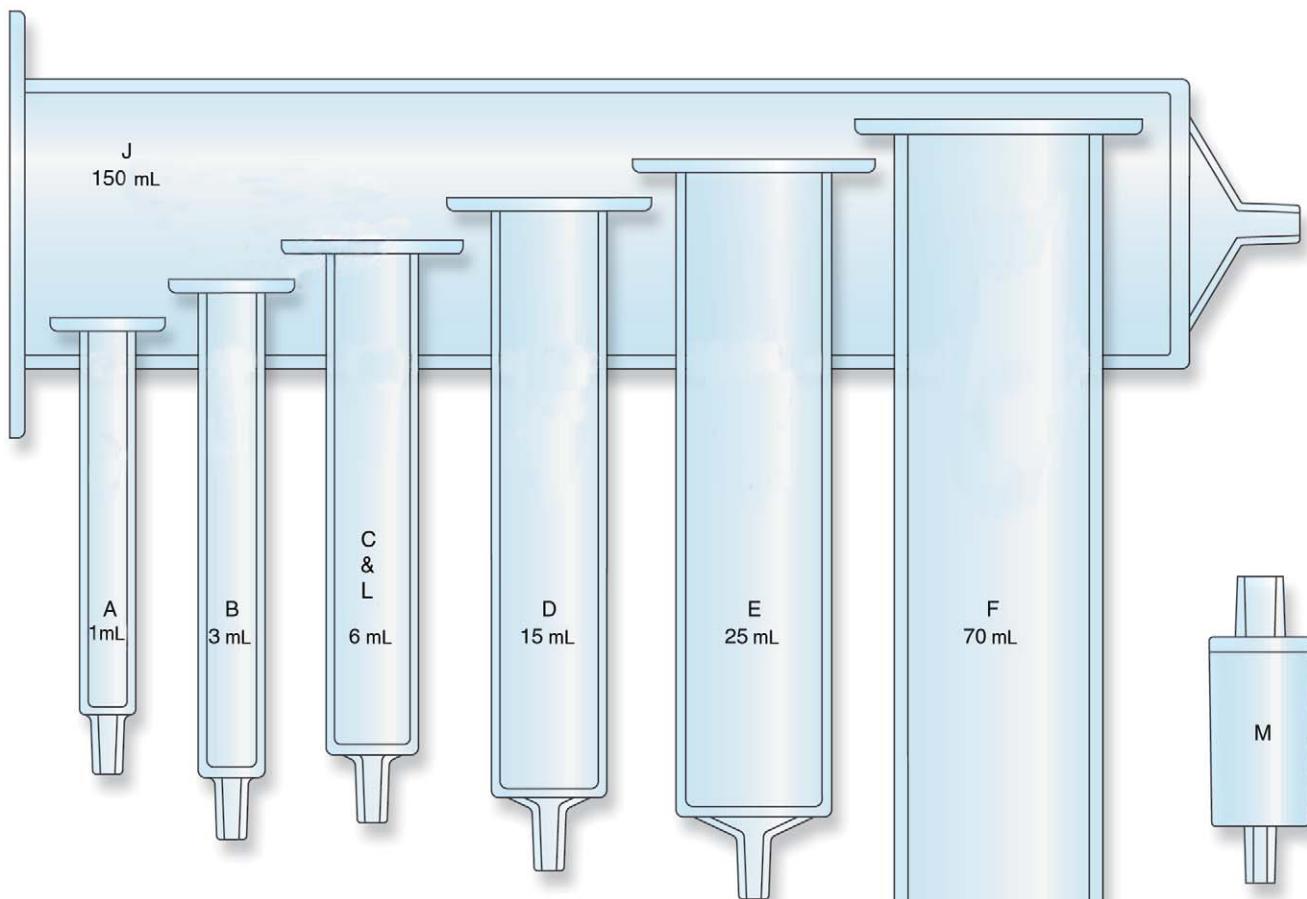


# Sample Preparation Format Options

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# Sample Preparation Format Options

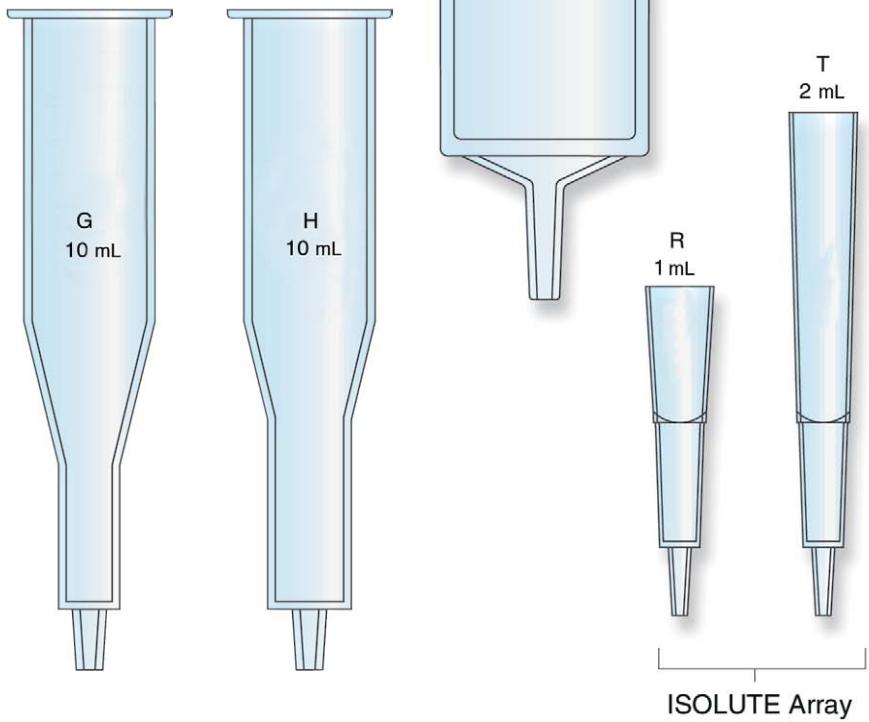
## Actual Size Columns



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

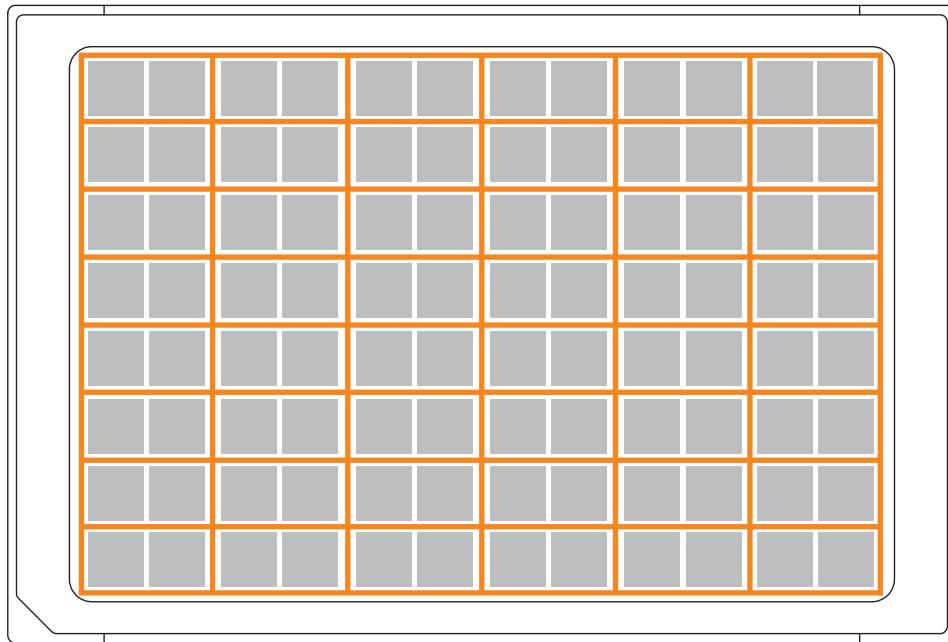
The last character of the ISOLUTE® or EVOLUTE® SPE column or empty reservoir part number identifies the column reservoir size. For example, the 100 mg C18 ISOLUTE® column, P/N 220-0010-A uses column A, whereas the 100 mg C18 ISOLUTE-XL SPE column P/N 220-0010-G contains the same sorbent and sorbent mass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

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



# Sample Preparation Format Options

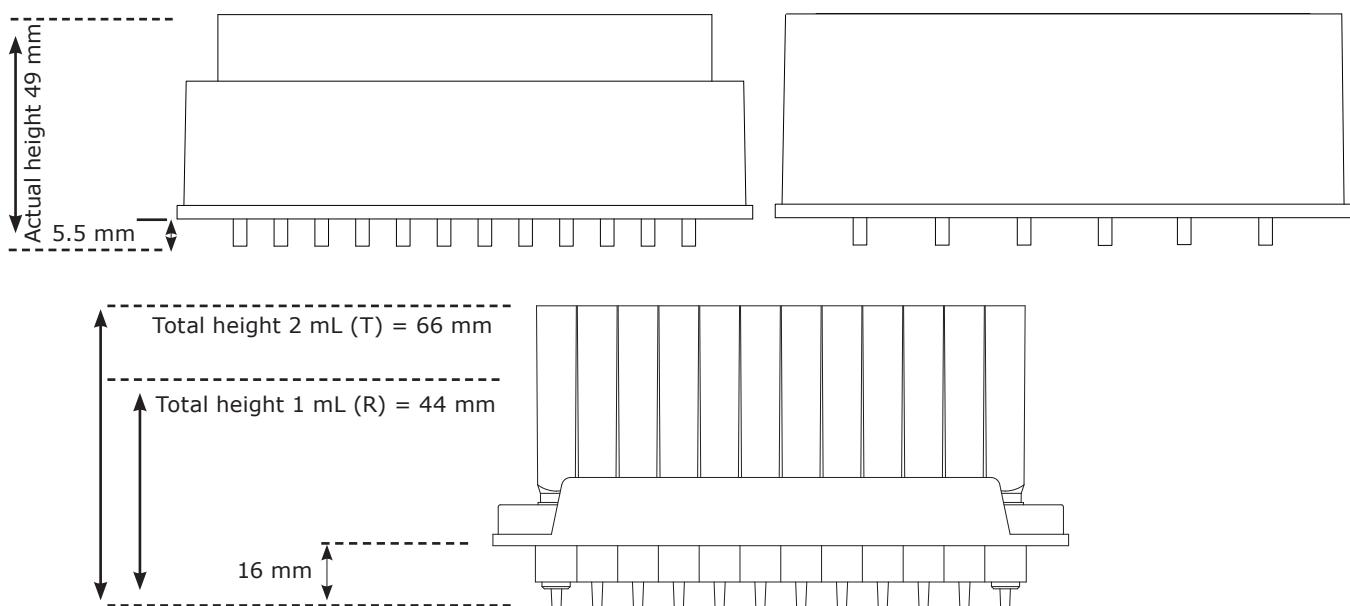
## Actual Size 48- and 96-Well Plate (Fixed Well and Array Plate)



Dimensions of both 96-well plates (fixed well and Array format) and 48-well plates are shown above. Orange outlines show the distribution of the wells in the 48-well format, grey squares represent the 96-well format.

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; and pre-assembled Array plates is -RP (1 mL) and -TP (2 mL).

**Scale diagrams** (60% of actual size) of the 96-well and 48-well fixed well plates, and the pre-assembled Array plate are shown below. Note the skirt height (distance from well outlet to sealing edge) differs between plate types. To prevent cross talk when processing plates, well outlets should penetrate the collection plate correctly. To accommodate the skirt height difference, the VacMaster™-96 is supplied complete with a spacer for use with the Array format. This spacer is not required for processing 96-well or 48-well plates.



Side elevation (60% of actual size) of populated Array plate (bottom), 96-well plate (top left) and 48-well plate (top right).



# ISOLUTE® SLE+ Supported Liquid Extraction Columns and Plates

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Simple Load-Wait-Elute Methodology

# Supported Liquid Extraction

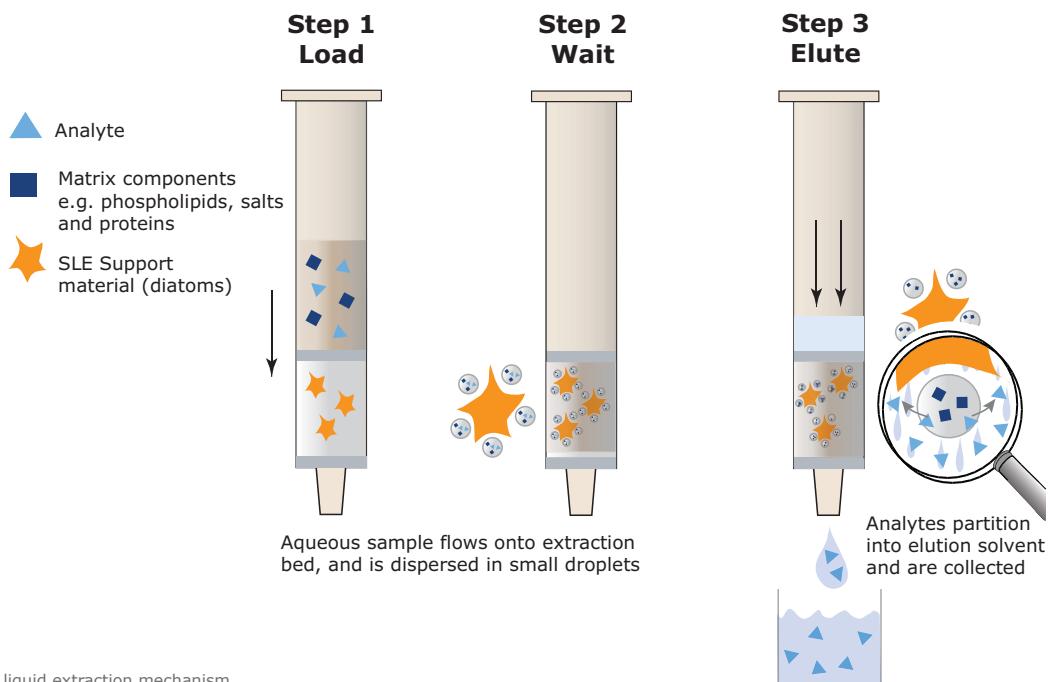
Achieving Simplicity and Success in Sample Preparation

## ISOLUTE® SLE+

### Plates and Columns for Supported Liquid Extraction

Improve productivity and maximize analyte recovery using a simple Load-Wait-Elute methodology.

**Chemical Description:**  
Modified form of diatomaceous earth.



The recommended workflow for processing ISOLUTE® SLE+ columns and plates:

1. Pre-treat sample as required
2. Ensure appropriate collection vessel is in place
3. Load sample onto ISOLUTE SLE+ column or plate
4. Apply vacuum (-15" Hg/-0.5 bar) or pressure (3–5 psi) for 5 seconds to initiate loading
5. Wait 5 minutes for sample to completely absorb and form extraction layer
6. Apply **water immiscible** extraction solvent and allow to flow for 5 minutes under gravity
7. Apply vacuum (-15" Hg/-0.5 bar) or pressure (10–15 psi) for 20–30 seconds to complete elution
8. Evaporate eluate to dryness and reconstitute as required.

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.

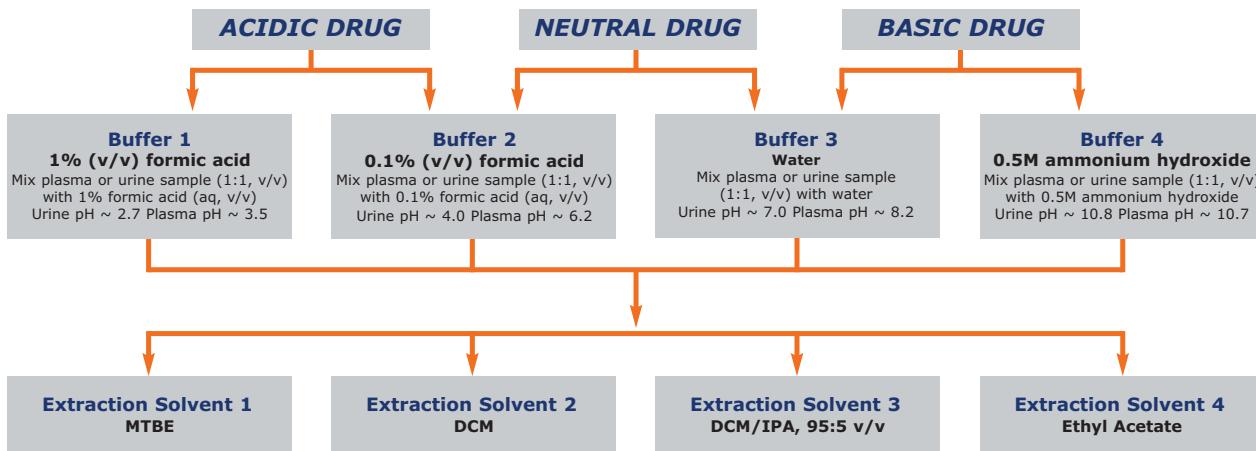
Recommended sample and elution volumes for ISOLUTE® SLE+ products.

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

# Supported Liquid Extraction

## Achieving Simplicity and Success in Sample Preparation

### ISOLUTE® SLE+ Supported Liquid Extraction Method Selection



#### 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

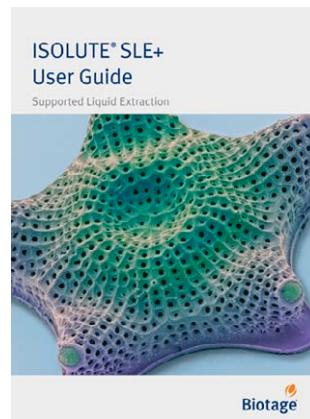
Part Number	Description	Qty.
820-0200-T	ISOLUTE SLE+ 200 µL Array Wells	100
820-0400-T	ISOLUTE SLE+ 400 µL Array Wells	100

#### Accessories

Part Number	Description	Qty.
121-5202	Collection plate, 1 mL	50
121-5203	Collection plate, 2 mL	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.V.2.



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



# ISOLUTE® PLD+ Protein and Phospholipid Removal Plates

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

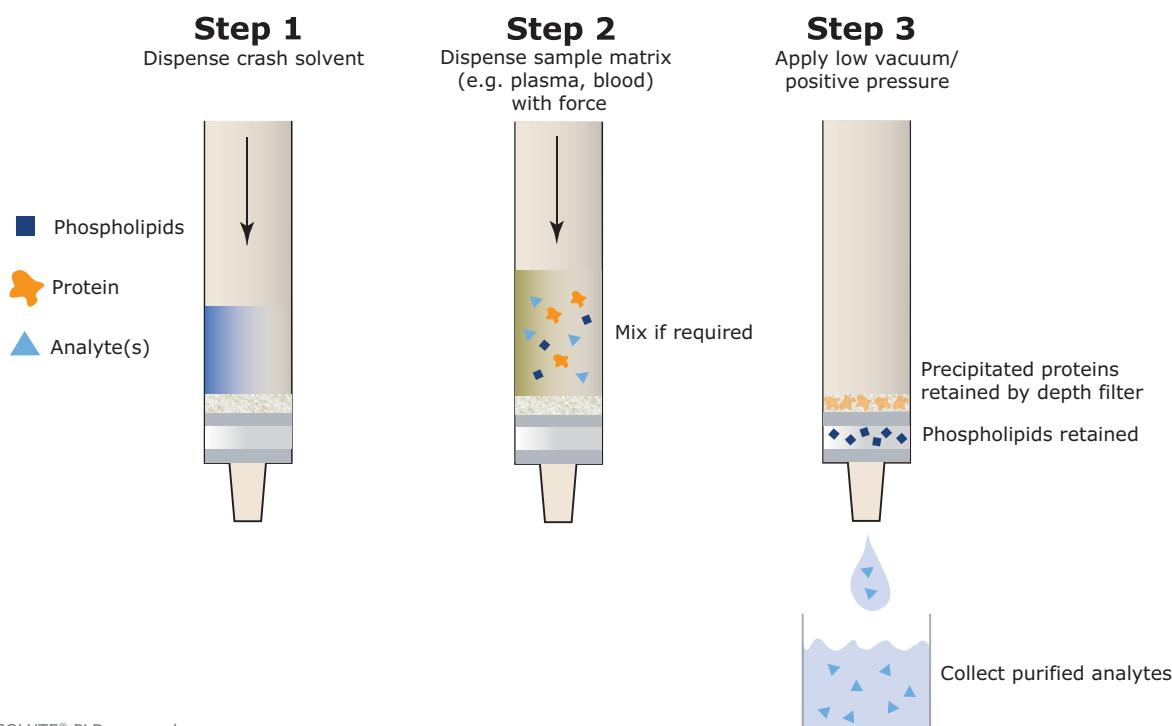
# ISOLUTE® PLD+

Effortlessly Improve Analyte Sensitivity

## ISOLUTE® PLD+

### Protein and Phospholipid Removal Plates

ISOLUTE® PLD+ Protein and Phospholipid Removal Plates provide a very effective but extremely simple sample clean up for 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+ plates 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.



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 can be processed using positive pressure or vacuum processing systems – see page 56 for ordering information.

Part Number	Description	Qty.
918-0050-P01	ISOLUTE PLD+ Protein and Phospholipid Removal Plate	1

#### Accessories

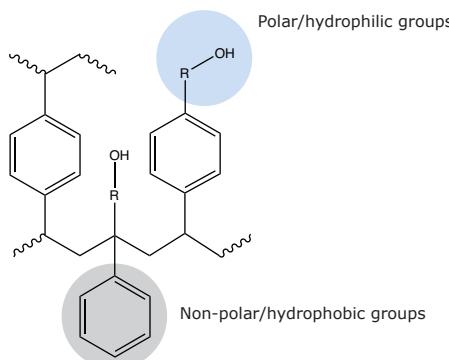
Part Number	Description	Qty.
121-5202	Collection plate, 1 mL	50
121-5203	Collection plate, 2 mL	50

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

# EVOLUTE® Sample Preparation Products

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Advanced Polymeric Sorbents

**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 affected by drying the sorbent.

**EVOLUTE ABN 30 µm SPE Columns**

Part Number	Description	Qty.
600-0001-A	EVOLUTE ABN 10 mg/1 mL	100
600-0002-A	EVOLUTE ABN 25 mg/1 mL	100
600-0002-AG	EVOLUTE ABN 25 mg/1 mL (Tableless)*	100
600-0002-B	EVOLUTE ABN 25 mg/3 mL	50
600-0002-H	EVOLUTE ABN 25 mg/10 mL XL	50

**EVOLUTE ABN 50 µm SPE Columns**

610-0005-B	EVOLUTE ABN 50 mg/3 mL	50
610-0005-BG	EVOLUTE ABN 50 mg/3 mL (Tableless)*	50
610-0010-B	EVOLUTE ABN 100 mg/3 mL	50
610-0010-H	EVOLUTE ABN 100 mg/10 mL XL	50
610-0020-B	EVOLUTE ABN 200 mg/3 mL	50
610-0020-C	EVOLUTE ABN 200 mg/6 mL	30
610-0050-C	EVOLUTE ABN 500 mg/6 mL	30

**EVOLUTE EXPRESS ABN 30 µm Fixed Well Plates**

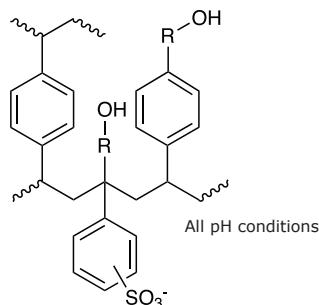
600-0010-PX01	EVOLUTE EXPRESS ABN 10 mg Fixed Well Plate	1
600-0030-PX01	EVOLUTE EXPRESS ABN 30 mg Fixed Well Plate	1

**EVOLUTE ABN 30 µm Pre-Assembled 96-Well Plates**

600-0010-RP	EVOLUTE Array ABN 10 mg/1 mL Plate	1
600-0025-RP	EVOLUTE Array ABN 25 mg/1 mL Plate	1

**EVOLUTE ABN 30 µm Array Loose Wells**

600-0010-R	EVOLUTE Array ABN 10 mg Wells	100
600-0025-R	EVOLUTE Array ABN 25 mg Wells	100

**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 affected by drying the sorbent.

**EVOLUTE CX 30 µm SPE Columns**

Part Number	Description	Qty.
601-0001-A	EVOLUTE CX 10 mg/1 mL	100
601-0001-AG	EVOLUTE CX 10 mg/1 mL (Tableless)*	100
601-0002-A	EVOLUTE CX 25 mg/1 mL	100
601-0002-AG	EVOLUTE CX 25 mg/1 mL (Tableless)*	100

**EVOLUTE CX 50 µm SPE Columns**

611-0005-B	EVOLUTE CX 50 mg/3 mL	50
611-0005-BG	EVOLUTE CX 50 mg/3 mL (Tableless)*	50
611-0010-B	EVOLUTE CX 100 mg/3 mL	50
611-0010-BG	EVOLUTE CX 100 mg/3 mL (Tableless)*	50
611-0010-H	EVOLUTE CX 100 mg/10 mL XL	50
611-0020-B	EVOLUTE CX 200 mg/3 mL	50
611-0020-C	EVOLUTE CX 200 mg/6 mL	30
611-0050-C	EVOLUTE CX 500 mg/6 mL	30
611-0050-CG	EVOLUTE CX 500 mg/6 mL (Tableless)*	30

**EVOLUTE EXPRESS CX 30 µm Fixed Well Plates**

601-0010-PX01	EVOLUTE EXPRESS CX 10 mg Fixed Well Plate	1
601-0030-PX01	EVOLUTE EXPRESS CX 30 mg Fixed Well Plate	1

**EVOLUTE CX 30 µm Pre-Assembled 96-Well Plates**

601-0010-RP	EVOLUTE Array CX 10 mg/1 mL Plate	1
601-0025-RP	EVOLUTE Array CX 25 mg/1 mL Plate	1

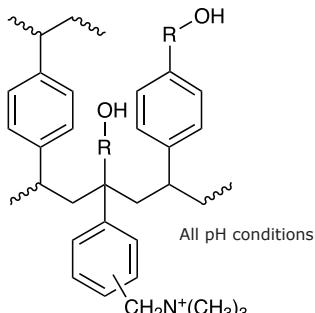
**EVOLUTE CX 30 µm Array Loose Wells**

601-0010-R	EVOLUTE Array CX 10 mg Wells	100
601-0025-R	EVOLUTE Array CX 25 mg Wells	100

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

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

# EVOLUTE® AX



### *Chemical structure of EVOLUTE® AX*

**Chemical Description:**

**Chemical Description:** Quaternary amine 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 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 affected by drying the sorbent.

## EVOLUTE AX 30 µm SPE Columns

<b>Part Number</b>	<b>Description</b>	<b>Qty.</b>
603-0002-A	EVOLUTE AX 25 mg/1 mL	100
603-0002-AG	EVOLUTE AX 25 mg/1 mL (Tablets)*	100

## **EVOLUTE AX 50 µm SPE Columns**

EVOLUTE AX 50 mg/3 mL		50
613-0005-B	EVOLUTE AX 50 mg/3 mL	50
613-0010-B	EVOLUTE AX 100 mg/3 mL	50
613-0010-BG	EVOLUTE AX 100 mg/3 mL (Tabless)*	50
613-0010-H	EVOLUTE AX 100 mg/10 mL XL	50
613-0020-C	EVOLUTE AX 200 mg/6 mL	30
613-0050-C	EVOLUTE AX 500 mg/6 mL	30
613-0050-CG	EVOLUTE AX 500 mg/6 mL (Tabless)*	30

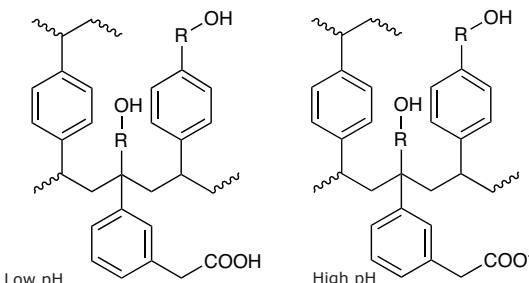
## **EVOLUTE EXPRESS AX 30 µm Fixed Well Plates**

603-0010-PX01	EVOLUTE EXPRESS AX 10 mg Fixed Well Plate	1
603-0030-PX01	EVOLUTE EXPRESS AX 30 mg Fixed Well Plate	1

#### EVO LITE AX 30 $\mu$ m Array Loose Wells

EVOLITE AX 25 µm Array 1000 Wells

# EVOLUTE® WCX



### *Chemical structure of EVOLUTE® WCX*

#### **Chemical Description:**

**Chemical Description:** Carboxylic 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/weak cation exchange ( $pK_a \sim 5$ )
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 affected by drying the sorbent.

## EVOLUTE WCX 30 $\mu\text{m}$ SPE Columns

Part Number	Description	Qty
602-0002-A	EVOLUTE WCX 25 mg/1 mL	100

## **EVOLUTE WCX 50 µm SPE Columns**

612-0005-B	EVOLUTE WCX 50 mg/3 mL	50
612-0010-B	EVOLUTE WCX 100 mg/3 mL	50
612-0010-H	EVOLUTE WCX 100 mg/10 mL XL	50
612-0020-C	EVOLUTE WCX 200 mg/6 mL	30
612-0050-C	EVOLUTE WCX 500 mg/6 mL	30
612-0050-CG	EVOLUTE WCX 500 mg/6 mL (Tablets)*	30

#### **EVOLUTE EXPRESS WCX 30 µm Fixed Well Plates**

602-0010-PX01 EVOLUTE EXPRESS WCX  
10 mg Fixed Well Plate 1

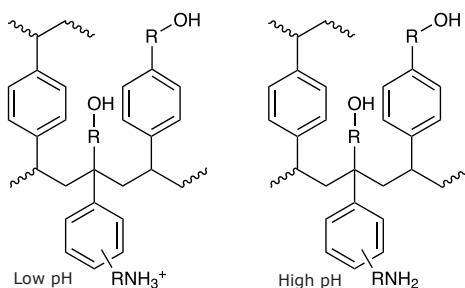
602-0030-PX01 EVOLUTE EXPRESS WCX  
30 mg Fixed Well Plate 1

## **EVOLUTE WCX 30 µm Array Loose Wells**

602-0025-R EVOLUTE Array WCX 25 mg/1 mL Wells 100

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

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

**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 cation exchange ( $\text{pK}_{\text{a}} \sim 5$ )
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 affected by drying the sorbent.

**EVOLUTE WAX 30  $\mu\text{m}$  SPE Columns**

Part Number	Description	Qty.
604-0002-A	EVOLUTE WAX 25 mg/1 mL	100

**EVOLUTE WAX 50  $\mu\text{m}$  SPE Columns**

614-0005-B	EVOLUTE WAX 50 mg/3 mL	50
614-0010-B	EVOLUTE WAX 100 mg/3 mL	50
614-0010-H	EVOLUTE WAX 100 mg/10 mL XL	50
614-0020-C	EVOLUTE WAX 200 mg/6 mL	30
614-0050-C	EVOLUTE WAX 500 mg/6 mL	30

**EVOLUTE EXPRESS WAX 30  $\mu\text{m}$  Fixed Well Plates**

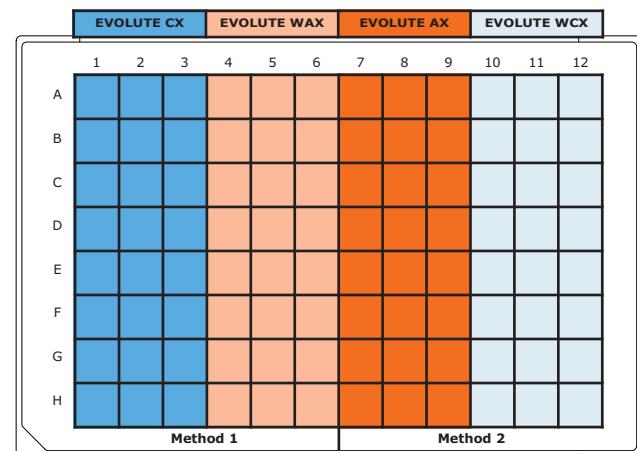
604-0010-PX01	EVOLUTE EXPRESS WAX 10 mg Fixed Well Plate	1
604-0030-PX01	EVOLUTE EXPRESS WAX 30 mg Fixed Well Plate	1

**EVOLUTE WAX 30  $\mu\text{m}$  Array Loose Wells**

604-0025-R	EVOLUTE Array WAX 25 mg/1mL Wells	100
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**EVOLUTE® EXPRESS  
Sorbent Selection Plate**

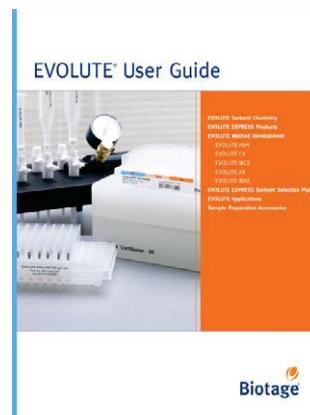
The EVOLUTE® EXPRESS Sorbent Selection plate contains the four mixed-mode EVOLUTE sorbents CX, WCX, AX and WAX on one plate.

**EVOLUTE WAX 30  $\mu\text{m}$  SPE Columns**

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® User Guide**

For further information download the EVOLUTE User Guide from [www.bioteage.com](http://www.bioteage.com). Literature part number EVO.UG\_2012.rev.1.



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

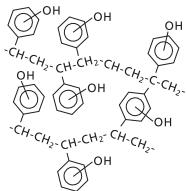
EVOLUTE EXPRESS products can be used with the Load-Wash-Elute procedure. See [www.bioteage.com](http://www.bioteage.com) for more information.

# ISOLUTE® SPE Columns and 96-Well Plates

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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 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-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-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
915-0050-L	ISOLUTE ENV+ 500 mg/6 mL (Glass)	30
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
915-0025-P01	ISOLUTE-96 ENV+ 25 mg plate	1

### ISOLUTE ENV+ Loose Wells

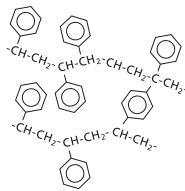
Part Number	Description	Qty.
915-0025-R	ISOLUTE Array ENV+ 25 mg/1 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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



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 101 SPE Columns

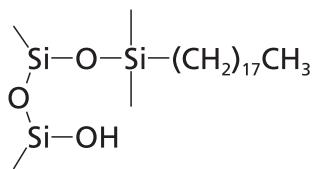
Part Number	Description	Qty.
101-0010-B	ISOLUTE 101 100 mg/3 mL	50
101-0020-B	ISOLUTE 101 200 mg/3 mL	50
101-0020-C	ISOLUTE 101 200 mg/6 mL	30
101-0050-B	ISOLUTE 101 500 mg/3 mL	50
101-0050-C	ISOLUTE 101 500 mg/6 mL	30

#### 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-endcapped) 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
220-0002-AG	ISOLUTE C18 25 mg/1 mL (Tabless)*	100
220-0005-A	ISOLUTE C18 50 mg/1 mL	100
220-0005-G	ISOLUTE C18 50 mg/10 mL	50
220-0010-A	ISOLUTE C18 100 mg/1 mL	100
220-0010-B	ISOLUTE C18 100 mg/3 mL	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-H	ISOLUTE C18 500 mg/10 mL	50
220-0050-L	ISOLUTE C18 500 mg/6 mL (Glass)	30
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

### 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

### ISOLUTE Array C18 Loose Wells

Part Number	Description	Qty.
220-0025-R	ISOLUTE Array C18 25 mg/1 mL wells	100
220-0050-R	ISOLUTE Array C18 50 mg/1 mL wells	100
220-0100-T	ISOLUTE Array C18 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

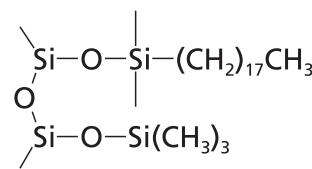
#### Support Documents for ISOLUTE® EC18

**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-endcapped 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
221-0005-G	ISOLUTE C18(EC) 50 mg/10 mL	50
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-BS	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 (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
221-0200-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

### ISOLUTE Array C18(EC) Loose Wells

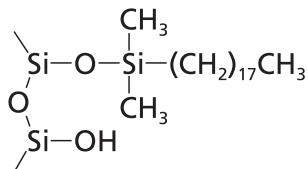
Part Number	Description	Qty.
221-0025-R	ISOLUTE Array C18(EC) 25 mg/1 mL wells	100
221-0100-T	ISOLUTE Array C18(EC) 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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

## 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.
240-0005-A	ISOLUTE MFC18 50 mg/1 mL	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
240-0020-B	ISOLUTE MFC18 200 mg/3 mL	50
240-0020-H	ISOLUTE MFC18 200 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

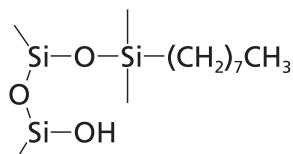
Part Number	Description	Qty.
240-0025-P01	ISOLUTE-96 MFC18 25 mg plate	1

#### 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-endcapped 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-C	ISOLUTE C8 100 mg/6 mL	30
290-0020-B	ISOLUTE C8 200 mg/3 mL	50
290-0020-H	ISOLUTE C8 200 mg/10 mL	50
290-0050-B	ISOLUTE C8 500 mg/3 mL	50
290-0050-C	ISOLUTE C8 500 mg/6 mL	30
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

### ISOLUTE Array C8 Loose Wells

Part Number	Description	Qty.
290-0025-R	ISOLUTE Array C8 25 mg/1 mL wells	100
290-0050-R	ISOLUTE Array C8 50 mg/1 mL wells	100
290-0100-T	ISOLUTE Array C8 100 mg/2 mL wells	100

*Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.*

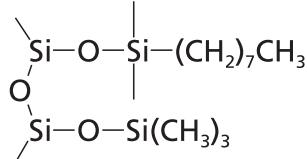
#### Support Documents for ISOLUTE® C8

**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-endcapped Sorbents

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

## ISOLUTE® C8(EC)

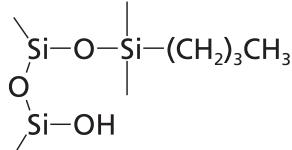


Chemical structure of C8 silane and trimethyl silyl group covalently bonded to the surface of a silica particle

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.
291-0010-A	ISOLUTE C8(EC) 100 mg/1 mL	100
291-0010-B	ISOLUTE C8(EC) 100 mg/3 mL	50
291-0010-G	ISOLUTE C8(EC) 100 mg/10 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-C	ISOLUTE C8(EC) 1 g/6 mL	30
291-0200-D	ISOLUTE C8(EC) 2 g/15 mL	20
291-0500-E	ISOLUTE C8(EC) 5 g/25 mL	20

### ISOLUTE-96 C8(EC) Fixed Well Plates

Part Number	Description	Qty.
291-0025-P01	ISOLUTE-96 C8(EC) 25 mg plate	1
291-0050-P01	ISOLUTE-96 C8(EC) 50 mg plate	1
291-0100-P01	ISOLUTE-96 C8(EC) 100 mg plate	1

### ISOLUTE Array C8(EC) Loose Wells

Part Number	Description	Qty.
291-0025-R	ISOLUTE Array C8(EC) 25 mg/1 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

### 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-B	ISOLUTE C4 500 mg/3 mL	50
390-0050-C	ISOLUTE C4 500 mg/6 mL	30
390-0100-C	ISOLUTE C4 1 g/6 mL	30

### ISOLUTE-96 C4 Fixed Well Plates

Part Number	Description	Qty.
390-0025-P01	ISOLUTE-96 C4 25 mg plate	1

### ISOLUTE Array C4 Loose Wells

Part Number	Description	Qty.
390-0025-R	ISOLUTE Array C4 25 mg/1 mL wells	100

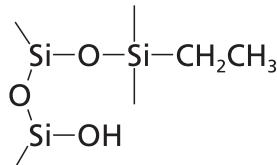
Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

### 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-endcapped Sorbents

## ISOLUTE® C2



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

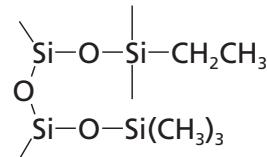
Average particle size 50 µm

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(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 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
320-0020-B	ISOLUTE C2 200 mg/3 mL	50
320-0050-B	ISOLUTE C2 500 mg/3 mL	50
320-0050-C	ISOLUTE C2 500 mg/6 mL	30
320-0100-C	ISOLUTE C2 1 g/6 mL	30
320-0200-D	ISOLUTE C2 2 g/15 mL	20

### ISOLUTE-96 C2 Fixed Well Plates

Part Number	Description	Qty.
320-0025-P01	ISOLUTE-96 C2 25 mg plate	1
320-0050-P01	ISOLUTE-96 C2 50 mg plate	1

### ISOLUTE Array C2 Loose Wells

Part Number	Description	Qty.
320-0025-R	ISOLUTE Array C2 25 mg/1 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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-endcapped Sorbents

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

### ISOLUTE C2(EC) SPE Columns

Part Number	Description	Qty.
321-0005-A	ISOLUTE C2(EC) 50 mg/1 mL	100
321-0010-A	ISOLUTE C2(EC) 100 mg/1 mL	100
321-0010-B	ISOLUTE C2(EC) 100 mg/3 mL	50
321-0010-G	ISOLUTE C2(EC) 100 mg/10 mL	50
321-0020-B	ISOLUTE C2(EC) 200 mg/3 mL	50
321-0050-B	ISOLUTE C2(EC) 500 mg/3 mL	50
321-0050-C	ISOLUTE C2(EC) 500 mg/6 mL	30
321-0050-H	ISOLUTE C2(EC) 500 mg/10 mL	50
321-0100-C	ISOLUTE C2(EC) 1 g/6 mL	30

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

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

### ISOLUTE Array C2(EC) Loose Wells

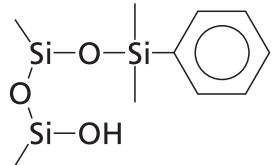
Part Number	Description	Qty.
321-0025-R	ISOLUTE Array C2(EC) 25 mg/1 mL wells	100
321-0100-T	ISOLUTE Array C2(EC) 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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
360-0005-A	ISOLUTE PH 50 mg/1 mL	100
360-0010-A	ISOLUTE PH 100 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
360-0100-C	ISOLUTE PH 1 g/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

### ISOLUTE Array PH Loose Wells

Part Number	Description	Qty.
360-0100-T	ISOLUTE Array PH 100 mg/2 mL wells	100

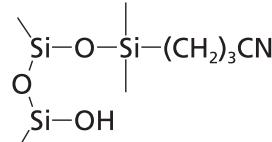
Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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-endcapped 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.
420-0010-A	ISOLUTE CN 100 mg/1 mL	100
420-0010-B	ISOLUTE CN 100 mg/3 mL	50
420-0020-B	ISOLUTE CN 200 mg/3 mL	50
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.
420-0025-P01	ISOLUTE-96 CN 25 mg plate	1
420-0100-P01	ISOLUTE-96 CN 100 mg plate	1

### ISOLUTE Array CN Loose Wells

Part Number	Description	Qty.
420-0100-T	ISOLUTE Array CN 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

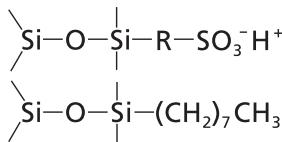
#### Support Documents for ISOLUTE® CN

**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-endcapped 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
902-0002-AG	ISOLUTE HCX 25 mg/1 mL (Tabless)*	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-BG	ISOLUTE HCX 130 mg/3 mL (Tabless)*	50
902-0013-C	ISOLUTE HCX 130 mg/6 mL	30
902-0013-CG	ISOLUTE HCX 130 mg/6 mL (Tabless)*	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-CG	ISOLUTE HCX 300 mg/6 mL (Tabless)*	30
902-0030-H	ISOLUTE HCX 300 mg/10 mL	30
902-0050-C	ISOLUTE HCX 500 mg/6 mL	30

### ISOLUTE-96 HCX Fixed Well Plates

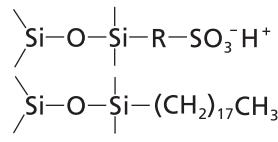
Part Number	Description	Qty.
902-0025-P01	ISOLUTE-96 HCX 25 mg plate	1
902-0050-P01	ISOLUTE-96 HCX 50 mg plate	1
902-0100-P01	ISOLUTE-96 HCX 100 mg plate	1

### ISOLUTE Array HCX Loose Wells

Part Number	Description	Qty.
902-0025-R	ISOLUTE Array HCX 25 mg/1 mL wells	100
902-0050-T	ISOLUTE Array HCX 50 mg/2 mL wells	100
902-0100-T	ISOLUTE Array HCX 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

## 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
905-0005-A	ISOLUTE HCX-3 50 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
905-0100-P01	ISOLUTE-96 HCX-3 100 mg plate	1

### ISOLUTE Array HCX-3 Loose Wells

Part Number	Description	Qty.
905-0025-R	ISOLUTE Array HCX-3 25 mg/1 mL wells	100
905-0100-T	ISOLUTE Array HCX-3 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

### Support Documents for ISOLUTE® HCX

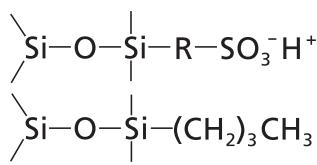
**TN116:** Generic Method for the Extraction of Basic Drugs from Biological Fluids using ISOLUTE® Mixed-mode SPE Columns and 96-Well Plates

### 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-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
906-0005-A	ISOLUTE HCX-5 50 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

### ISOLUTE-96 HCX-5 Fixed Well Plates

Part Number	Description	Qty.
906-0025-P01	ISOLUTE-96 HCX-5 25 mg plate	1
906-0100-P01	ISOLUTE-96 HCX-5 100 mg plate	1

### ISOLUTE Array HCX-5 Loose Wells

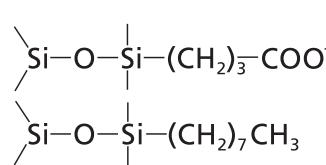
Part Number	Description	Qty.
906-0025-R	ISOLUTE Array HCX-5 25 mg/1 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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

### ISOLUTE Array HCX-Q Loose Wells

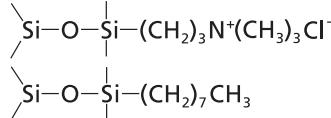
Part Number	Description	Qty.
986-0025-R	ISOLUTE Array HCX-Q 25 mg/1 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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.
903-0005-A	ISOLUTE HAX 50 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

### ISOLUTE-96 HAX Fixed Well Plates

Part Number	Description	Qty.
903-0025-P01	ISOLUTE-96 HAX 25 mg plate	1
903-0100-P01	ISOLUTE-96 HAX 100 mg plate	1

### ISOLUTE Array HAX Loose Wells

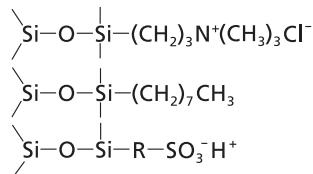
Part Number	Description	Qty.
903-0025-R	ISOLUTE Array HAX 25 mg/1 mL wells	100

*Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.*

#### 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

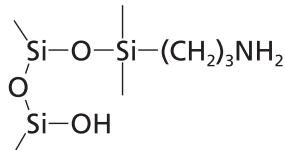
Part Number	Description	Qty.
904-0010-A	ISOLUTE Multimode 100 mg/1 mL	100
904-0030-B	ISOLUTE Multimode 300 mg/3 mL	50
904-0030-C	ISOLUTE Multimode 300 mg/6 mL	30
904-0050-B	ISOLUTE Multimode 500 mg/3 mL	50
904-0100-C	ISOLUTE Multimode 1 g/6 mL	30

#### Support Documents for ISOLUTE® Multimode

**IST1022:** Extraction of Aflatoxins from Cereals

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

## ISOLUTE® NH<sub>2</sub>



Chemical structure of NH<sub>2</sub> aminopropyl silane covalently bonded to the surface of a silica particle

Average particle size 50 µm

Pore diameter 60 Å

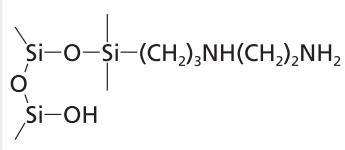
Sorbent Type Weak anion exchange  
(pK<sub>a</sub> 9.8) or polar

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® NH<sub>2</sub> 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 NH<sub>2</sub> SPE Columns

Part Number	Description	Qty.
470-0002-A	ISOLUTE NH <sub>2</sub> 25 mg/1 mL	100
470-0005-A	ISOLUTE NH <sub>2</sub> 50 mg/1 mL	100
470-0010-A	ISOLUTE NH <sub>2</sub> 100 mg/1 mL	100
470-0010-B	ISOLUTE NH <sub>2</sub> 100 mg/3 mL	50
470-0010-G	ISOLUTE NH <sub>2</sub> 100 mg/10 mL	50
470-0020-B	ISOLUTE NH <sub>2</sub> 200 mg/3 mL	50
470-0050-B	ISOLUTE NH <sub>2</sub> 500 mg/3 mL	50
470-0050-C	ISOLUTE NH <sub>2</sub> 500 mg/6 mL	30
470-0050-H	ISOLUTE NH <sub>2</sub> 500 mg/10 mL	50
470-0100-C	ISOLUTE NH <sub>2</sub> 1 g/6 mL	30
470-0200-C	ISOLUTE NH <sub>2</sub> 2 g/6 mL	30
470-0200-D	ISOLUTE NH <sub>2</sub> 2 g/15 mL	20

### ISOLUTE-96 NH<sub>2</sub> Fixed Well Plates

Part Number	Description	Qty.
470-0050-P01	ISOLUTE-96 NH <sub>2</sub> 50 mg plate	1
470-0100-P01	ISOLUTE-96 NH <sub>2</sub> 100 mg plate	1

#### Support Documents for ISOLUTE® NH<sub>2</sub>

**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® NH<sub>2</sub> SPE Columns for the Extraction of Aqueous Samples

### ISOLUTE PSA SPE Columns

Part Number	Description	Qty.
480-0010-A	ISOLUTE PSA 100 mg/1 mL	100
480-0010-B	ISOLUTE PSA 100 mg/3 mL	50
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
480-0100-C	ISOLUTE PSA 1 g/6 mL	30

### ISOLUTE-96 PSA Fixed Well Plates

Part Number	Description	Qty.
480-0025-P01	ISOLUTE-96 PSA 25 mg plate	1
480-0100-P01	ISOLUTE-96 PSA 100 mg plate	1

### ISOLUTE Array PSA Loose Wells

Part Number	Description	Qty.
480-0025-R	ISOLUTE Array PSA 25 mg/1 mL wells	100
480-0100-T	ISOLUTE Array PSA 100 mg/2 mL wells	100

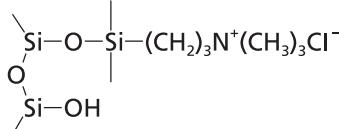
Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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

## 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
500-0005-G	ISOLUTE SAX 50 mg/10 mL	50
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
500-0010-G	ISOLUTE SAX 100 mg/10 mL	50
500-0020-B	ISOLUTE SAX 200 mg/3 mL	50
500-0020-H	ISOLUTE SAX 200 mg/10 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
500-0100-CG	ISOLUTE SAX 1 g/6 mL (Tabless)*	30
500-0200-D	ISOLUTE SAX 2 g/15 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

### ISOLUTE Array SAX Loose Wells

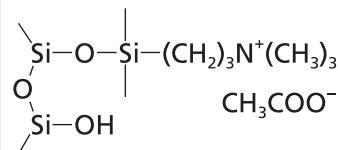
Part Number	Description	Qty.
500-0050-R	ISOLUTE Array SAX 50 mg/1 mL wells	100
500-0100-T	ISOLUTE Array SAX 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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
503-0005-A	ISOLUTE PE-AX 50 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
503-0200-D	ISOLUTE PE-AX 2 g/15 mL	20

### ISOLUTE-96 PE-AX Fixed Well Plates

Part Number	Description	Qty.
503-0025-P01	ISOLUTE-96 PE-AX 25 mg plate	1
503-0100-P01	ISOLUTE-96 PE-AX 100 mg plate	1

### ISOLUTE Array PE-AX Loose Wells

Part Number	Description	Qty.
503-0050-R	ISOLUTE Array PE-AX 50 mg/1 mL wells	100

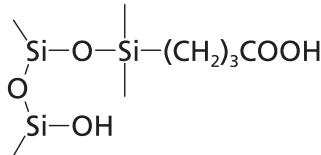
Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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

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

## 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 ( $pK_a$ 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
520-0020-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
520-0100-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

### ISOLUTE Array CBA Loose Wells

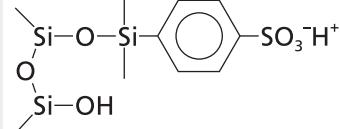
Part Number	Description	Qty.
520-0025-R	ISOLUTE Array CBA 25 mg/1 mL wells	100
520-0050-R	ISOLUTE Array CBA 50 mg/1 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

### 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
530-0020-B	ISOLUTE SCX 200 mg/3 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

### 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
530-0100-P01	ISOLUTE-96 SCX 100 mg plate	1

### ISOLUTE Array SCX Loose Wells

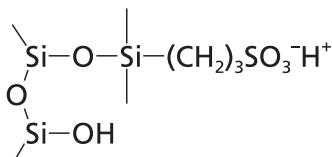
Part Number	Description	Qty.
530-0050-R	ISOLUTE Array SCX 50 mg/1 mL wells	100
530-0100-T	ISOLUTE Array SCX 100 mg/2 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

### 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-B	ISOLUTE SCX-2 200 mg/3 mL	50
532-0050-B	ISOLUTE SCX-2 500 mg/3 mL	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
532-0100-CG	ISOLUTE SCX-2 1 g/6 mL (Tabless)*	30
532-0200-D	ISOLUTE SCX-2 2 g/15 mL	20

### ISOLUTE-96 SCX-2 Fixed Well Plates

Part Number	Description	Qty.
532-0025-P01	ISOLUTE-96 SCX-2 25 mg plate	1
532-0050-P01	ISOLUTE-96 SCX-2 50 mg plate	1
532-0100-P01	ISOLUTE-96 SCX-2 100 mg plate	1

### ISOLUTE Array SCX-2 Loose Wells

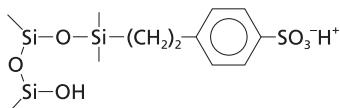
Part Number	Description	Qty.
532-0025-R	ISOLUTE Array SCX-2 25 mg/1 mL wells	100

Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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
533-0050-H	ISOLUTE SCX-3 500 mg/10 mL	50
533-0100-B	ISOLUTE SCX-3 1 g/3 mL	50
533-0100-C	ISOLUTE SCX-3 1 g/6 mL	30
533-0200-D	ISOLUTE SCX-3 2 g/15 mL	20

### 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

### ISOLUTE Array SCX-3 Loose Wells

Part Number	Description	Qty.
533-0025-R	ISOLUTE Array SCX-3 25 mg/1 mL wells	100
533-0100-T	ISOLUTE Array SCX-3 100 mg/2 mL wells	100

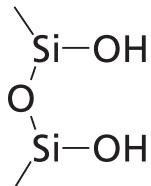
Pre-assembled ISOLUTE® Array plates are available. To order, add the suffix P to the equivalent loose well part number.

#### 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.

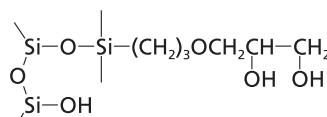
## ISOLUTE® SI



*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%

## 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.

### ISOLUTE SI SPE Columns

Part Number	Description	Qty.
460-0002-A	ISOLUTE SI 25 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-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
460-0200-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

### 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
430-0100-C	ISOLUTE DIOL 1 g/6 mL	30

### Support Documents for ISOLUTE® DIOL

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

## 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-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-BG	ISOLUTE FL 500 mg/3 mL (Tabless)*	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

#### 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
800-0100-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

\*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.

### 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
100 mg/1 mL	100	713-0010-A	714-0010-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	715-0050-C
1 g/3 mL	50	713-0100-B	714-0100-B	715-0100-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	715-0200-D
5 g/25 mL	20	713-0500-E	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. 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 Columns for automated method	50
928-0500-E	ISOLUTE EPH 5 g/25 mL Columns for manual method	20

## ISOLUTE® Layered SPE Columns

Simultaneously extract analytes with a broad range of polarity characteristics from aqueous samples.

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
935-0040-C	ISOLUTE C18/ENV+ 400 mg/ 6 mL	30
941-0020-B	ISOLUTE C2/ENV+ 200 mg/3 mL	50

## 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
927-0150-C	ISOLUTE PAH 1.5 g/6 mL	30
927-0150-CD	ISOLUTE PAH 1.5 g/6 mL (Depth filter)	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.
924-0050-C	ISOLUTE SAX/PSA 500 mg/6 mL	30
924-0100-C	ISOLUTE SAX/PSA 1 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.



## 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

Part Number	Description	Qty.
753-0100-CD	ISOLUTE O&G 1 g/6 mL	30
753-0300-FD	ISOLUTE O&G 3 g/70 mL	16

# ISOLUTE® Myco SPE Columns

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Solid Phase Extraction Columns for Mycotoxin Analysis

# ISOLUTE® Myco

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

Matrix specific application notes now available

- » AN781 Extraction of Patulin from 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

Application Note AN781  
Extraction of Patulin from Apple Juice using ISOLUTE® Myco | Page 1

Application Note AN783  
Extraction of Deoxynivalenol From Grain Using ISOLUTE® Myco | Page 1

Application Note AN784  
Extraction of Multiple Mycotoxins From Nuts Using ISOLUTE® Myco | Page 1

Application Note AN782  
Extraction of Multiple Mycotoxins From Grain Using ISOLUTE® Myco | Page 1

Application Note AN785  
Extraction of Aflatoxins and Ochratoxin from Dried Chili Using ISOLUTE® Myco | Page 1

Application Note AN804  
Extraction of Multiple Mycotoxins From Animal Feed Using ISOLUTE® Myco SPE Columns prior to LC-MS/MS Analysis | Page 1

Application Note AN807  
Extraction of Aflatoxin M1 From Infant Formula Using ISOLUTE® Myco SPE Columns prior to LC-MS/MS Analysis | Page 1

Application Note AN823  
Extraction of Multiple Mycotoxins From Cereal Based Infant Food Using ISOLUTE® Myco prior to UHPLC MS/MS Analysis | Page 1

Figure 1. Structures of Aflatoxin B1 and Zearalenone

Aflatoxin B1, Aflatoxin B2, aflatoxin G1, aflatoxin G2, ergocryptine, ergosceroline, ochratoxin A, fumonisin B1, zearalenone, T-2 mycotoxin, HT-2 mycotoxin

Sample Preparation Procedure

Column configuration: ISOLUTE Myco 60 mg/3 mL column (Tabless) Part Number 150-0006-BG

Column pre-treatment:

1. Sample processing: Grind the sample (wheat, maize, barley, 50 g). Store ground sample in a sealed container at room temperature until required.
2. Place 10 g of ground sample in a 50 mL centrifuge tube and add 10 mL 50% acetonitrile (v/v) (20 mL).
3. Centrifuge at 1000 g for 10 minutes.
4. Dilution: Take the supernatant (8 mL), transfer to a new 50 mL centrifuge tube and dilute with water (22 mL). Centrifuge diluted extract at 3000 g for a further 10 minutes.

Biotage

# ISOLUTE® 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.
9220-0100	ISOLUTE C18, bulk	100 g
9221-0100	ISOLUTE C18(EC)*, bulk	100 g
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 QSG\_2013.V1.

#### Polar Sorbents

Part Number	Description	Qty.
9460-0100	ISOLUTE SI, bulk	100 g
9470-0100	ISOLUTE NH2, bulk	100 g
9480-0100	ISOLUTE PSA, bulk	100 g
9712-0100	ISOLUTE FL, bulk	100 g

#### Ion Exchange Sorbents

Part Number	Description	Qty.
9470-0100	ISOLUTE NH2, bulk	100 g
9480-0100	ISOLUTE PSA, bulk	100 g
9500-0100	ISOLUTE SAX, bulk	100 g
9503-0100	ISOLUTE PE-AX, bulk	100 g
9520-0100	ISOLUTE CBA, bulk	100 g
9532-0100	ISOLUTE SCX-2, bulk	100 g
9533-0100	ISOLUTE SCX-3, bulk	100 g

ISOLUTE® sorbents are available in additional quantities to those detailed in the above table.

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 38**.

#### Inert Support (modified diatomaceous earth)

Part Number	Description	Qty.
9800-1000	ISOLUTE HM-N, bulk	1 kg
9800-5000	ISOLUTE HM-N, bulk	5 kg

ISOLUTE® HM-N is available in additional quantities to those detailed in the above table. Please contact your local Biotage representative.



# Protein Precipitation Products

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Fast, Simple Protein Removal

# ISOLUTE® PPT+

## 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.



### 96-Well Plates

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

### ISOLUTE Array Wells

Part Number	Description	Qty.
120-2040-R	ISOLUTE Array PPT+ wells, 1 mL	100
120-2040-T	ISOLUTE Array PPT+ wells, 2 mL	100

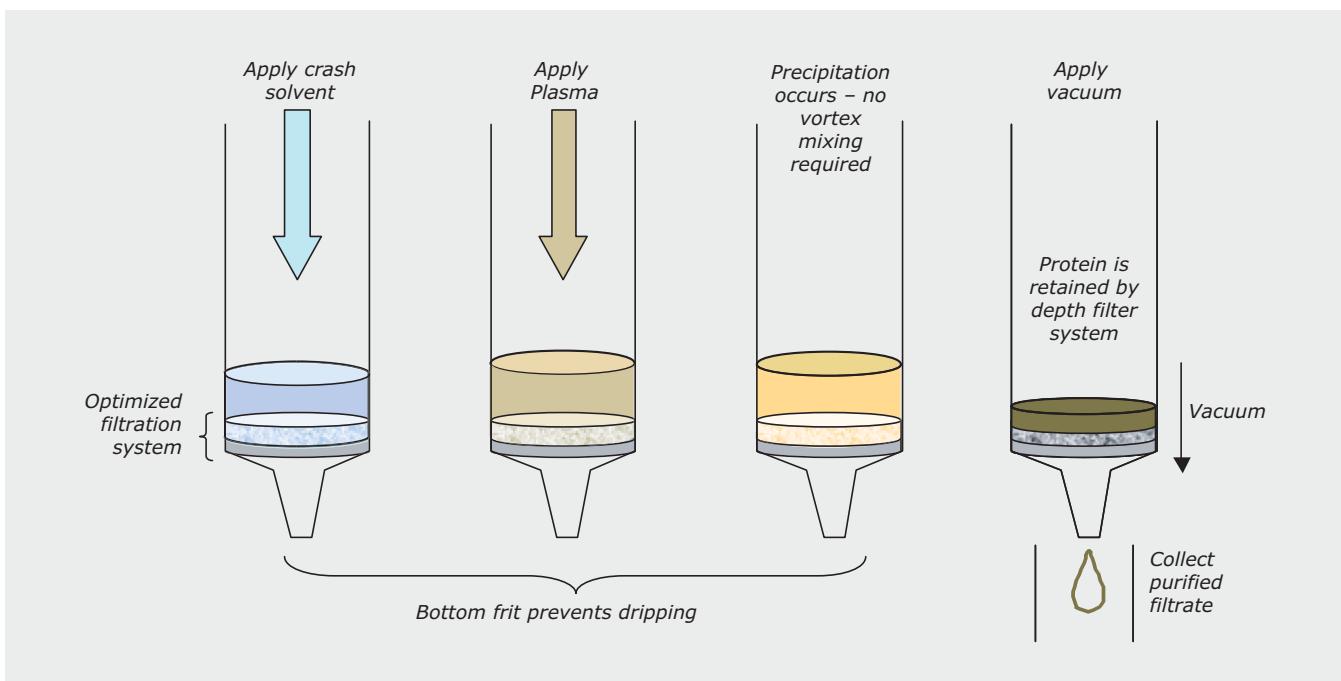
### ISOLUTE Array Accessories

Part Number	Description	Qty.
120-1000-P01	ISOLUTE Array base plate	100
120-1200	Strip of 8 base plate sealing plugs*	100
120-1201	Luer adaptors (to fit any standard sample processing manifold)	25
120-1202	Well removing tool	1

\*Required when processing a partially populated ISOLUTE Array PPT+ plate.

### Support Documents for ISOLUTE® PPT+

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



Protein precipitation procedure using ISOLUTE® PPT+ plates.

# ISOLUTE® QuEChERS

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Fast and Efficient Clean up of  
Complex Food Samples

# ISOLUTE® QuEChERS

## ISOLUTE® QuEChERS

ISOLUTE® QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe) 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 15 mL Extraction Tube	15 mL	25	6 g	1.5 g			
Q0020-15V	10 g QuEChERS EN 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 Clean up Tube	15 mL	25	400 mg	1200 mg		
Q0035-15V	EN Fruit and Vegetable Clean up Tube	15 mL	25	150 mg	900 mg		
Q0050-15V	AOAC Waxed Fruit and Vegetables Clean up Tube	15 mL	25	400 mg	1200 mg	400 mg	
Q0060-15V	EN Waxed Fruit and Vegetables Clean up Tube	15 mL	25	150 mg	900 mg	150 mg	
Q0070-15V	AOAC Pigmented Fruit and Vegetables Clean up Tube	15 mL	25	400 mg	1200 mg		400 mg
Q0080-15V	EN Pigmented Fruit and Vegetables Clean up Tube	15 mL	25	150 mg	900 mg		15 mg
Q0090-15V	EN Highly Pigmented Fruit and 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 with Rack	50 mL	25

# AFFINILUTE™ MIP

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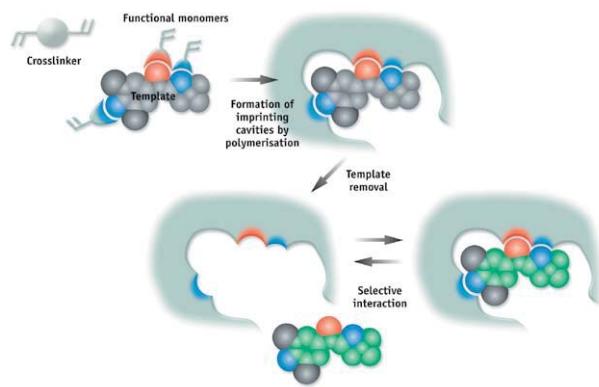
Molecularly Imprinted Polymers

# AFFINILUTE™ MIP

## 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 25 mg/10 mL	50
M02-0002-B	AFFINILUTE MIP Beta-agonists 25 mg/3 mL	50
M02-0002-G	AFFINILUTE MIP Beta-agonists 25 mg/10 mL	50
M06-0002-B	AFFINILUTE MIP NNAL 25 mg/3 mL	50
M06-0002-G	AFFINILUTE MIP NNAL 25 mg/10 mL	50
M08-0002-G	AFFINILUTE MIP Triazines 25 mg/10 mL	50
M10-0002-B	AFFINILUTE MIP Chloramphenicol 25 mg/3 mL	50
M10-0002-G	AFFINILUTE MIP Chloramphenicol 25 mg/10 mL	50
M18-0002-B	AFFINILUTE MIP Beta-blockers 25 mg/3 mL	50
M18-0002-G	AFFINILUTE MIP Beta-blockers 25 mg/10 mL	50
M21-0005-B	AFFINILUTE MIP TSNA 50 mg/3 mL	50
M21-0005-G	AFFINILUTE MIP TSNA 50 mg/10 mL	50
M28-0002-B	AFFINILUTE MIP Amphetamines 25 mg/3 mL	50
M34-0005-B	AFFINILUTE MIP Nitroimidazoles 50 mg/3 mL	50
M69-0002-B	AFFINILUTE MIP Fluoroquinolones 25 mg/3 mL	50
M72-0002-B	AFFINILUTE MIP NSAIDs 25 mg/3 mL	50
M72-0002-G	AFFINILUTE MIP NSAIDs 25 mg/10 mL	50
M73-0002-B	AFFINILUTE MIP PAH 25 mg/3 mL	50
M73-0010-H	AFFINILUTE MIP PAH 10 mL/100 mg	50



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

# Sample Preparation Accessories

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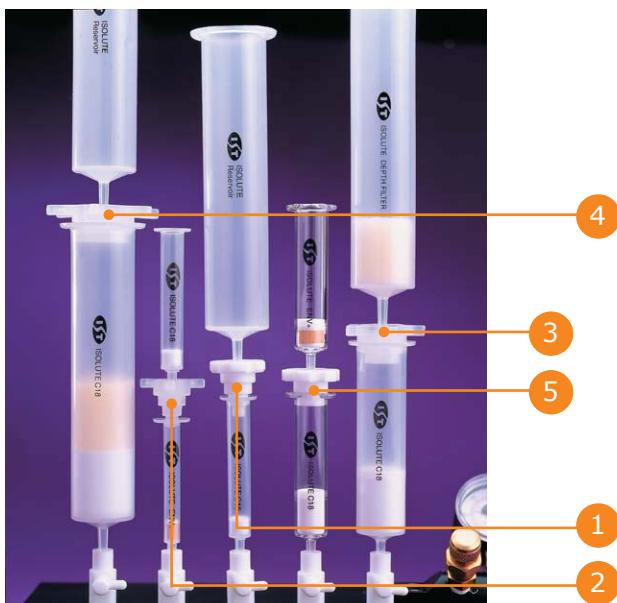
# Accessories

For SPE and Filtration

## 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)	10
120-1101	PE Adaptor - 1, 3 & 6 mL (columns A, B & C)	10
120-1102	PE Adaptor - 15 & 25 mL (columns D & E)	10
120-1103	PE Adaptor - 70 mL (column F)	10
120-1104	PTFE Adaptor - 6 mL Glass columns	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.



## 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
120-1006-D	ISOLUTE Reservoir 15 mL	100
120-1007-E	ISOLUTE Reservoir 25 mL	100
120-1009-F	ISOLUTE Reservoir 70 mL	50



## ISOLUTE® Frits

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

Part Number	Description	Column Type	Qty.
120-1031-A	ISOLUTE Frit, 6 mm (1/4") diameter – 20 µm PE	A (1 mL)	100
120-1032-G	ISOLUTE Frit, 6 mm (1/4") diameter – 20 µm PE	G (XL)	100
120-1033-B	ISOLUTE Frit, 9 mm (3/8") diameter – 20 µm PE	B (3 mL)	100
120-1034-H	ISOLUTE Reservoir 15 mL (3/8") diameter – 20 µm PE	H (XL)	100
120-1035-C	ISOLUTE Frit, 13 mm (1/2") diameter – 20 µm PE	C (6 mL)	100
120-1036-D	ISOLUTE Frit, 16 mm (5/8") diameter – 20 µm PE	D (15 mL)	100
120-1037-E	ISOLUTE Frit, 20 mm (13/16") diameter – 20 µm PE	E (25 mL)	100
120-1038-F	ISOLUTE Frit, 27 mm (11/16") diameter – 20 µm PE	F (70 mL)	100



## 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® 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



# Accessories

For SPE and Filtration

## 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



## 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

1 or 2 mL volume per well, constructed from high purity, solvent resistant polypropylene. Seal with piercable sealing cap.

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



## Array Accessories

Populate the reusable base plate to transfer individual Array wells into microplate format. Seal any unused positions with base plate plugs. Align wells and depopulate base plate after use with the well removing tool. Use Luer adaptors to process individual Array wells using a VacMaster-10 or -20 vacuum manifold.

Part Number	Description	Qty.
120-1000-P01	ISOLUTE Array base plate	1
120-1200	ISOLUTE base plate sealing strips (strips of 8)	50
120-1201	Luer Adaptors (to fit any vacuum manifold)	25
120-1202	Well removing tool	1

# 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-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
121-5202	96-well collection plate, 1 mL, pack of 50
121-5203	96-well collection plate, 2 mL, pack of 50



### 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-A48-1275	PRESSURE+ 48 Collection Rack 12 X 75 mm
PPM-A48-13100	PRESSURE+ 48 Collection Rack 13 x 100 mm
PPM-A48-1232	PRESSURE+ 48 Sample Vial Rack 12 x 32 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
PPM-GA	PRESSURE+ Gas Supply Adaptor for all models

# Biotage® VacMaster™ -10 & 20

## Sample Processing Manifolds

### 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

Part Number	Description	Qty.
121-1010	VacMaster-10 Sample Processing Manifold (with 10 mm rack)	1
121-1012	VacMaster-10 Sample Processing Manifold (with 12 mm rack)	1
121-1016	VacMaster-10 Sample Processing Manifold (with 16 mm rack)	1

#### 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
121-1132	Replacement rack, 10 mm	1
121-1133	Replacement rack, 12 mm	1
121-1134	Replacement rack, 16 mm	1

#### VacMaster-20 Sample Processing Manifold

##### Part Number Description

Part Number	Description	Qty.
121-2010	Sample Processing Manifold (with 10 mm rack)	1
121-2012	Sample Processing Manifold (with 12 mm rack)	1
121-2016	Sample Processing Manifold (with 16 mm rack)	1

#### 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.
121-0009	Universal PTFE stopcock	10
121-0001	PTFE stopcock/needle unit	10
121-0002	PTFE needle	10
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

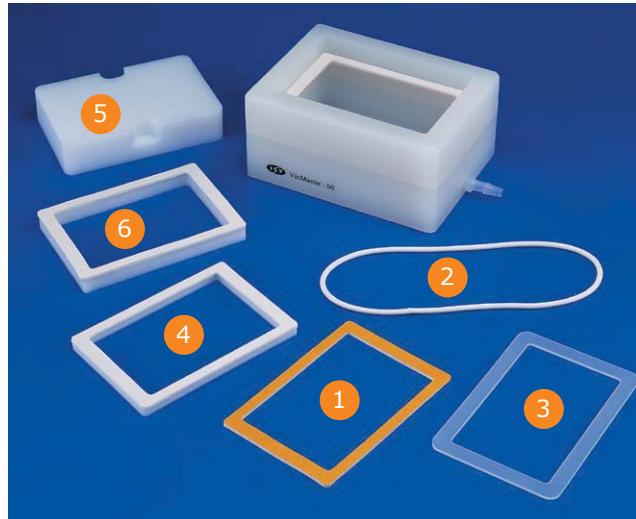
#### 96 Well Collection Plates - Deep Well

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



### Replacement Parts

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

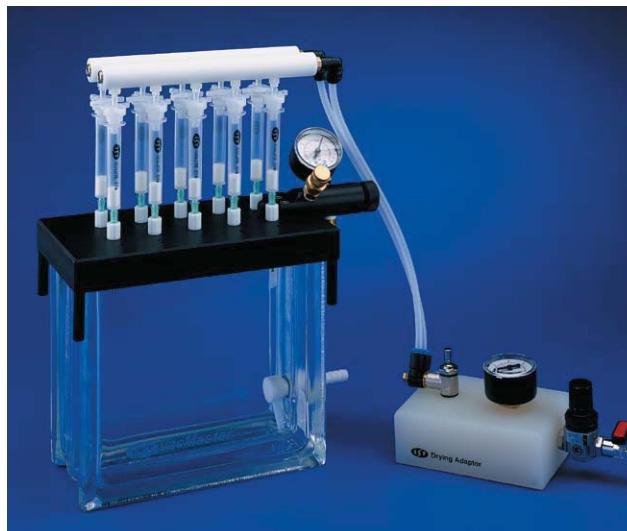


# Sample Processing Accessories

## 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



## 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 (complete) for 1, 3 and 6 mL columns	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) and Solid Phase Extraction (SPE) based methods. The system benefits from a compact two level layout for solvent and sample pipette tips, extraction consumables and samples. The system also features an innovative lower level carousel based design and is capable of switching between plates or column in a matter of 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 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
414141	Biotage Disposable Tips 1000 µL Clear	10 x Pk/96
413640SP	Column Rack 24 x 6 mL (tableless)	1
414174SP	Column Rack 24 x 3 mL	1
414169SP	Column Rack 24 x 1 mL	1
414253SP	Column Rack 96 x 1 mL (tableless)	1
414254SP	Sample Rack 16 x 100 mm 24 Positions	1
414255SP	Sample Rack 13 x 100 mm 24 Positions	1
414256SP	Sample Rack 12 x 75 mm 24 Positions	1
414257SP	Collection Rack 18 mm 24 Positions	1
414045SP	Solvent Reservoir 25 mL	Pk/25
414203SP	Flow Through Plate 24	1
414201SP	Flow Through Plate 96	1

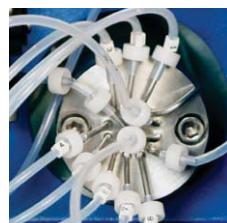


# RapidTrace®+

## Automated High Throughput Solid Phase Extraction



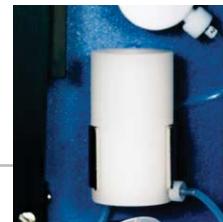
Closed fluid path system with segregated waste lines maintain integrity of sample.



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

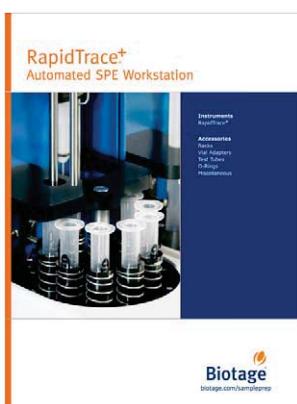
C50000	RapidTrace+ Workstation, 1 mL and 3 mL (10 columns)
C125713	RapidTrace+ Workstation, 6 mL (5 columns). 3 mL and 1 mL operation possible by purchasing appropriate plunger (see accessories brochure)
C52006	RapidTrace Start-Up Kit with Software
C52689	RapidTrace Notebook Controller

### Part Number Description

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

## RapidTrace®+ Brochure

For further information download the RapidTrace+ brochure from [www.biotage.com](http://www.biotage.com). Literature part number RT+\_10.2011.rev





# Evaporation

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# Biotage® SPE Dry 96 & 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 Dry 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.

## Evaporation Brochure

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



## TurboVap® Product Family



TurboVap® 500



TurboVap® 96



TurboVap® II



TurboVap® LV

Part Number	Description
<b>TurboVap 500</b>	
C103202	TurboVap 500, 100/120V, 50/60Hz
C103203	TurboVap 500, 220/240V, 50/60Hz
<b>TurboVap 96</b>	
C103263	TurboVap 96, 100/120V
C103264	TurboVap 96, 220/240V
<b>TurboVap II</b>	
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 Dionex ASE Vial Compatible, 100/120V
C103197	TurboVap II, 40 mL Dionex ASE Vial Compatible, 220/240V
<b>TurboVap LV</b>	
C103198	TurboVap LV without Racks, 100/120V
C103199	TurboVap LV without Racks, 220/240V
C103200	TurboVap LV, ASE, 40/60 mL vial, 100/120V
C103201	TurboVap LV, ASE, 40/60 mL vial, 220/240V
C112175	TurboVap LV, PTFE, 50 position, 100/120V
C133718	TurboVap LV, PTFE, 50 position, 220/240V
C55941	TurboVap LV, PTFE-Coated Upper Manifold Replacement Kit
C109301	TurboVap LV, Assy-Water Bath, PTFE Coated
<b>Tube Racks</b>	
C48950	Tube Rack (for 10 x 75 mm tubes P/N C48985)
C44577	Tube Rack (for 12 x 75 mm tubes P/N C44651)
C45286	Tube Rack (for 13 x 100 mm tubes P/N C40707)
C44139	Tube Rack (for 16 x 100 mm tubes P/N C40708)
C45269	Tube Rack (for 16 x 125 mm tubes P/N C45273)
C44282	Tube Rack (for 20 x 150 mm tubes P/N C40709)
C44283	Tube Rack (16 x 100 mm-Prelude compatible)
C44880	Tube Rack (for 15 mL Conical Centrifuge Tubes P/N C44941)
C47818	Tube Rack (15 mL Autotrace tubes with conical bottom, suitable for tubes C47816)
C47820	Tube Rack (10 mL conical tubes, suitable for tubes C47811)
C48928	Tube Rack (1.5-2.0 mL flip cap microcentrifuge tubes)
C48929	Tube Rack (1.5-2.0 mL screw cap microcentrifuge tubes)
C59546	Tube Rack (GC vials)
C61345	Tube Rack (ASE 40/60 mL IChem Vials)

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

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918-0050-P01	18	C44880	67	SD2-9600-DHS-T-EU	66
9220-0100	44	C45269	67	SD2-9600-DHS-T-NA	66
9221-0100	44	C45286	67	SD-9600-DHS-EU	66
924-0050-C	39	C47818	67	SD-9600-DHS-NA	66
924-0100-C	39	C47820	67	SD-9600-DHS-T-EU	66
927-0075-B	39	C48928	67	SD-9600-DHS-T-NA	66
927-0150-C	39	C48929	67		
927-0150-CD	39	C48950	67		
928-0145-B	39	C50000	63		
928-0500-E	39	C50974	63		
9290-0100	44	C50976	63		

## **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.**

**BIOTAGE WILL NOT BE LIABLE IN ANY EVENT FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHETHER ARISING IN TORT, UNDER ANY WARRANTY OR OTHERWISE.**

## Notes

## Notes





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#### Part Number: PPS354.V.1

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