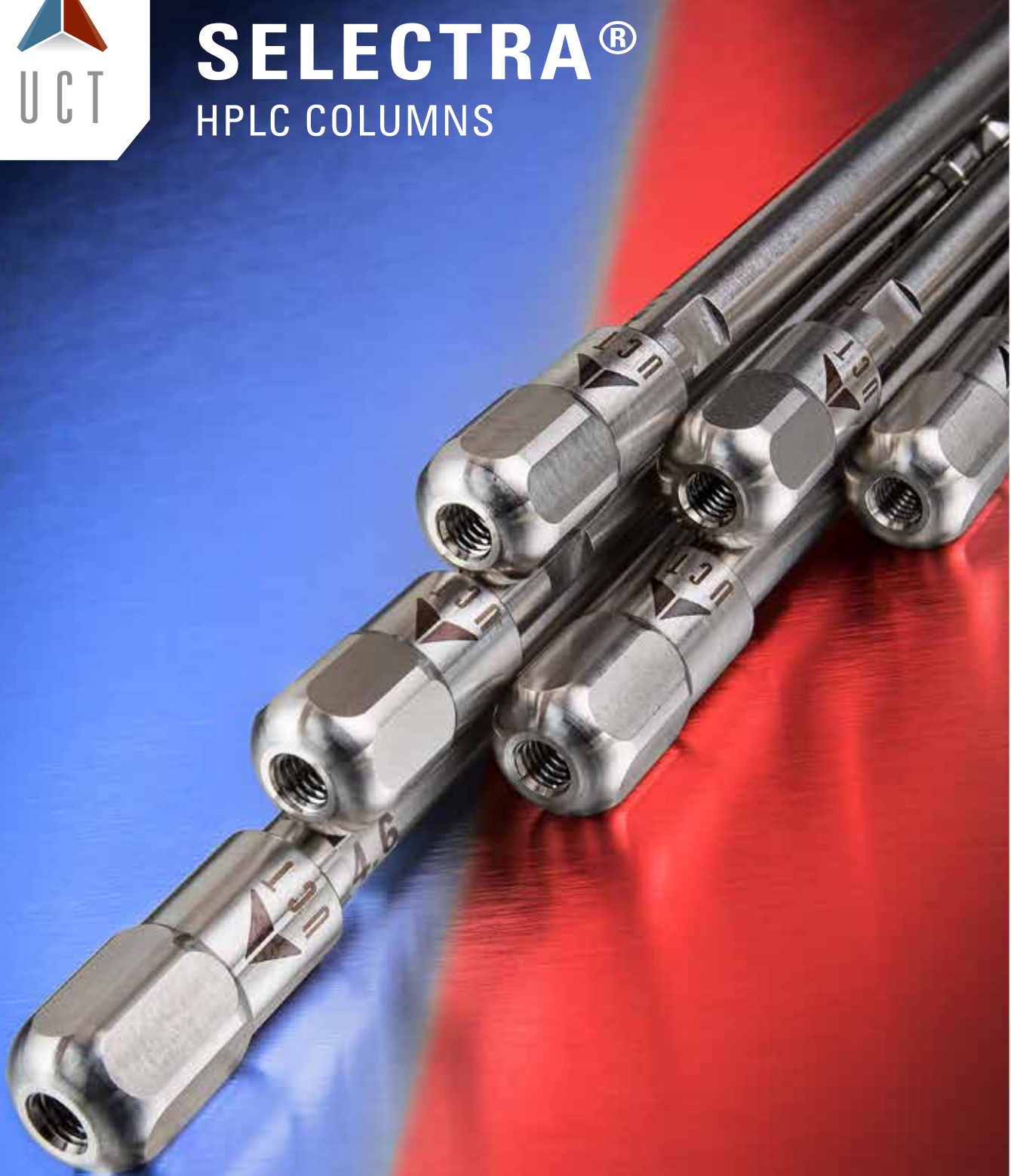




SELECTRA®

HPLC COLUMNS



INNOVATION THROUGH CHEMISTRY

PFPP

EtG

DA C18

AQC

C8

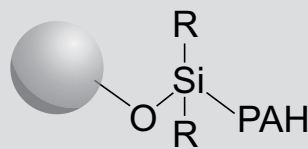


18

After more than 30 years, the UCT name continues to carry with it the same commitment to quality as it did when initially launching into the solid phase extraction market. The tradition continues with the release of the Selectra® HPLC column line. Manufacturing our own ultra-pure and highly reproducible silanes within an ISO 9001:2008 accredited facility, UCT then bonds these to the type B, spherical silica support to create stationary phases of unmatched quality. Currently, 1.8, 3 and 5 μm particle sizes are available. UCT continues to extend the range and capabilities of the Selectra family of columns with a growing number of chemistries, dimensions, and hardware formats to sustain the challenges of modern day chromatography.

All Selectra® HPLC columns are individually packed and QC tested to meet high standards for theoretical plate count and peak symmetry under Statistical Process Control. No batch column testing is ever executed, and each shipment comes with an individualized CoA containing data from the test mix run on that column.





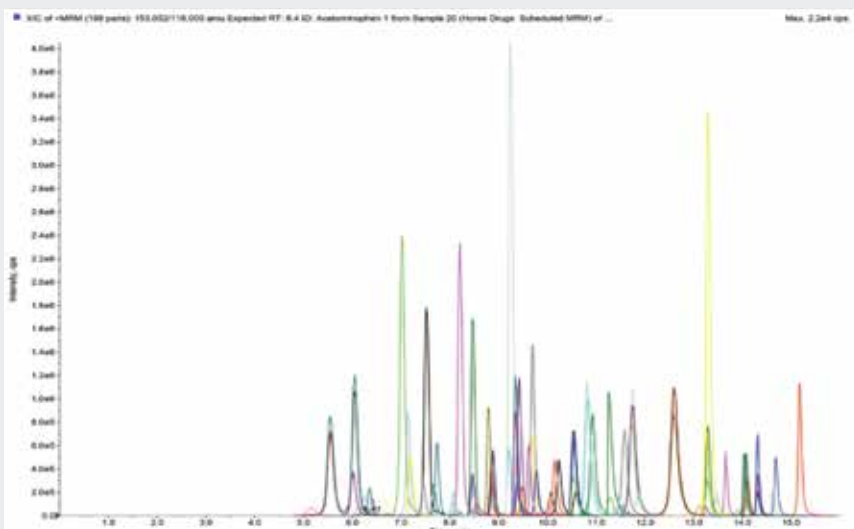
Stationary Phase Category: Polyaromatic
Particle Size: 1.8, 3, 5 μm
Pore Size: 100 \AA
Surface Area: 300 m^2/g
Carbon Load: 13%
USP: L11

Recommended Usage
pH Range: 2-8
Maximum Temperature: 60°C
Maximum Pressure: 1030 bar/15,000 psi (1.8-3 μm)
 or 275 bar/4,000 psi (5 μm)

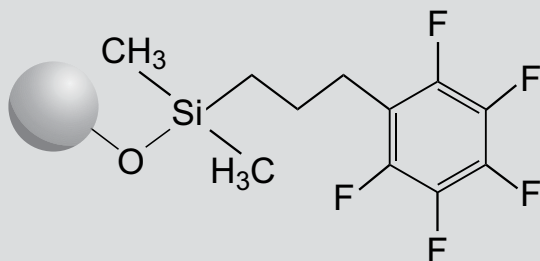
Product Benefits

- Unique polyaromatic stationary phase
- High degree of retention and selectivity for aromatic and moderately polar analytes that are difficult to resolve or elute early on standard C18 phases
- Typical compound classes include:
 - Therapeutic Drugs
 - Drugs of Abuse
 - Pesticides
 - Mycotoxins

Drug of Abuse Panel



Column: Selectra® DA 3 μm , 100 x 2.1 mm
Mobile Phase A: 0.1% Formic Acid in H_2O
Mobile phase B: 0.1% Formic Acid in MeOH
Gradient: 5-60% B in 5 minutes
 60% B hold 5 minutes
 100% B hold 0.1 minutes
Flow: 0.3mL/min
Detection: AB Sciex 4000 Qtrap
Analytes: Amphetamines/Sympaths
 Analgesics
 Benzodiazepines
 Cardiac Drugs
 Diuretics
 Muscle Relaxers
 NSAIDS
 Opiates
 TCA's



Stationary Phase Category: Pentafluorophenylpropyl

Particle Size: 1.8, 3, 5 μm

Pore Size: 100 \AA

Surface Area: 300 m^2/g

Carbon Load: 11%

USP: L43

Recommended Usage

pH Range: 2-8

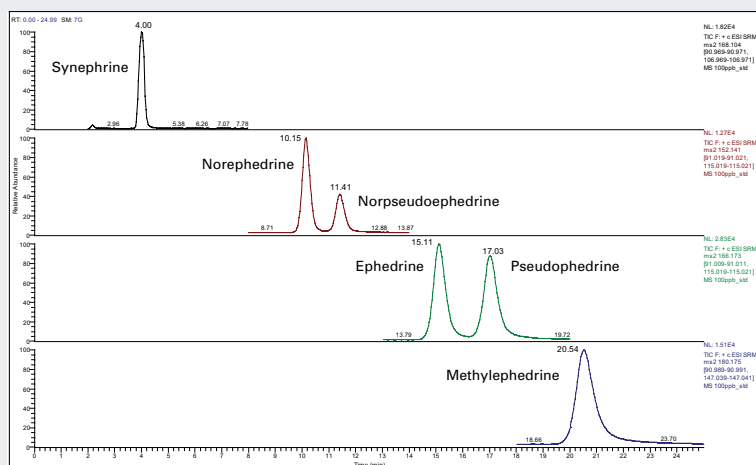
Maximum Temperature: 60°C

Maximum Pressure: 1030 bar/15,000 psi
(1.8-3 μm) or 275 bar/4,000 psi (5 μm)

Product Benefits

- Can be used for Reverse Phase, Normal Phase, or HILIC separations
- Exhibits multiple selectivity mechanisms including hydrogen bonding, dipole dipole, pi-pi overlap, hydrophilic (HILIC), and hydrophobic interactions
- Typical compound classes include:
 - Beta-blockers
 - Tricyclic -antidepressants
 - Benzodiazepines
 - Catecholamines

Ephedra Alkaloids



Column: Selectra® PFPP 3 μm , 100 x 2.1 mm

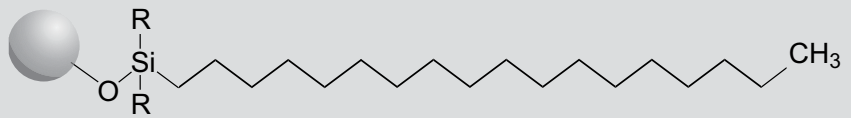
Mobile Phase A: 100 mM Ammonium Acetate

Mobile phase B: MeOH

Isocratic: 20%B

Flow: 0.3mL/min

Detection: Thermo Scientific TSQ Vantage



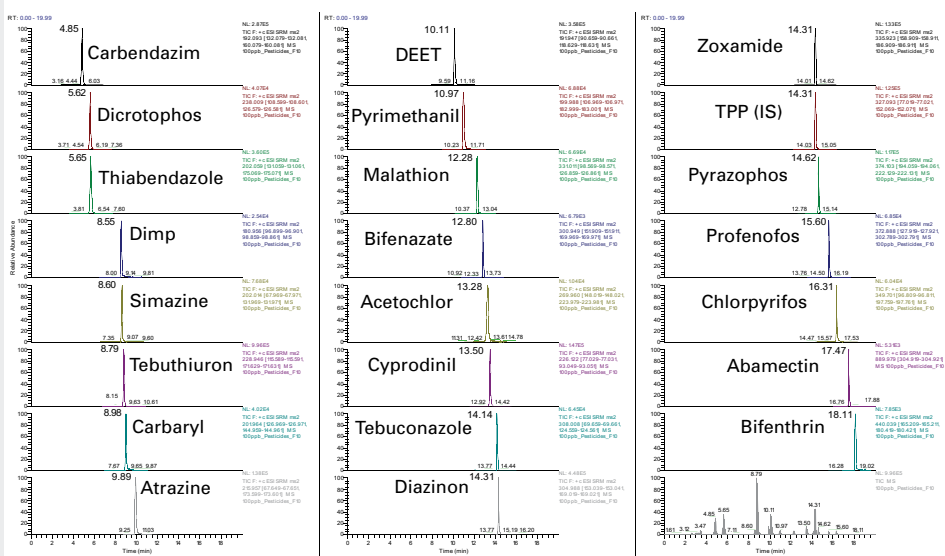
Stationary Phase Category: Octadecylsilane
Particle Size: 1.8, 3, 5 μm
Pore Size: 100 \AA
Surface Area: 300 m^2/g
Carbon Load: 20%
USP: L1

Recommended Usage
pH Range: 2-9.5
Maximum Temperature: 80°C
Maximum Pressure: 1030 bar/15,000 psi (1.8-3 μm)
 or 275 bar/4,000 psi (5 μm)

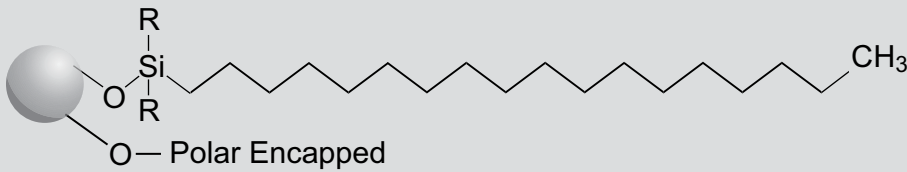
Product Benefits

- Optimum retention for traditional reverse phase analyses
- Highest hydrophobic interactions in the Selectra® column line
- Excellent carbon loading
- Fully endcapped.

Pesticide Panel



Column: Selectra® C18 3 μm , 100 x 2.1 mm
Mobile phase a: 0.3% Formic Acid and 0.1% Ammonium Formate
Mobile phase b: 0.1% Formic Acid in MeOH
Gradient: 5-30% B in 1 minute
 30-60% B in 1 minute
 60-100% B in 8 minutes
Flow: 0.3 mL/min
Detection: AB Sciex 4000 QTRAP



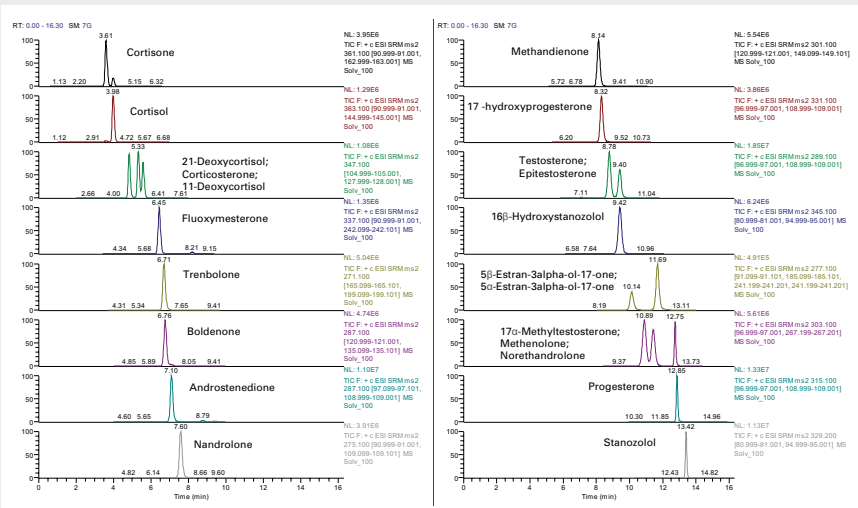
Stationary Phase Category: Polar Modified Octadecylsilane
Particle Size: 1.8, 3, 5 μm
Pore Size: 100 \AA
Surface Area: 300 m^2/g
Carbon Load: 11%
USP: L1

Recommended Usage
pH Range: 2-8
Maximum Temperature: 60°C
Maximum Pressure: 1030 bar/15,000 psi (1.8-3 μm) or 275 bar/4,000 psi (5 μm)

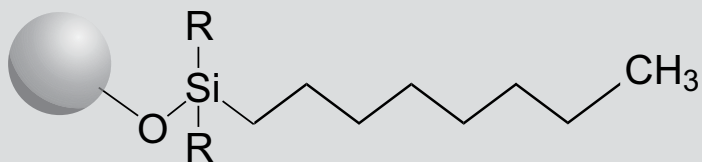
Product Benefits

- Similar non-polar retention to traditional C18
- Enhanced selectivity and retention for difficult to retain polar analytes
- Suitable in up to 100% aqueous mobile phases
- Greater range of mobile phase options

Anabolic Steroids



Column: Selectra® Aqueous C18 3 μm , 100 x 2.1 mm
Mobile Phase A: 20 mM Ammonium Formate
Mobile phase B: 0.1% Formic Acid in MeOH
Gradient: 50-60% B in 2 minutes
 60% B in 7 minutes
 60-100% B in 3 minutes
Flow: 0.3mL/min
Detection: Thermo Scientific TSQ Vantage



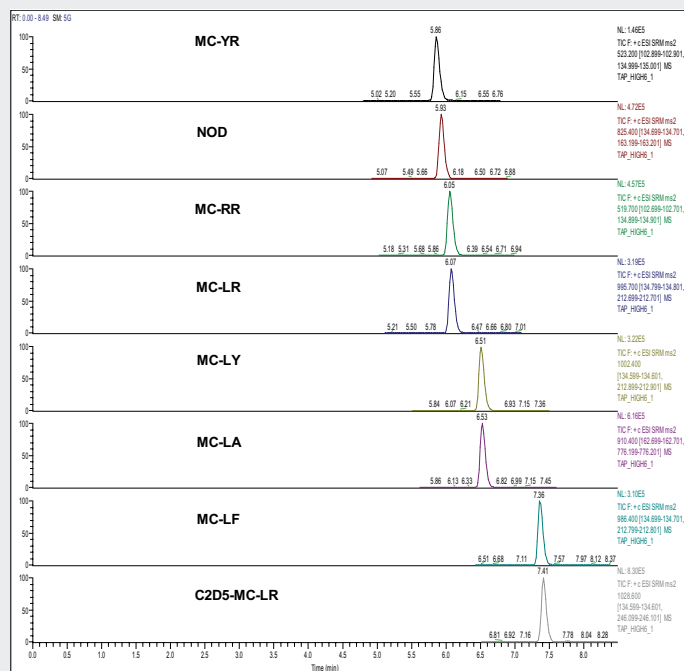
Stationary Phase Category: Octyl
Particle Size: 1.8, 3, 5 µm
Pore Size: 100Å
Surface Area: 300 m2/g
Carbon Load: 12%
USP: L7

Recommended Usage
Ph Range: 2-8
Maximum Temperature: 60°C
Maximum Pressure: 1030 bar/15,000 psi (1.8-3µm)
 or 275 bar/4,000 psi (5µm)

Product Benefits

- Selectivity similar to C18 for non-polar compounds
- Less retentive, less hydrophobic than standard C18 column
- Excellent carbon loading
- Fully endcapped

EPA Method 544: Determination of Microcystins and Nodularin (Hepatotoxins) in Drinking Water



Column: Selectra® C8 3 µm, 100 × 2.1 mm

Mobile Phase A: 20 mM Ammonium Formate

Mobile Phase B: MeOH

Gradient: 10% B for 1 minute

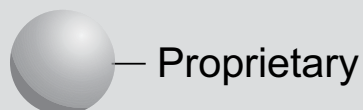
60% B in 0.5 minutes; Hold for 1 minute

90% B in 4 minutes; Hold for 1.5 minutes

10% B in 0.1 minutes

Flow: 0.3 mL/min

Detection: Thermo Scientific TSQ Vantage



Stationary Phase Category: Proprietary

Particle Size: 1.8, 3, 5 μm

Pore Size: 100 \AA

Surface Area: 300 m^2/g

Carbon Load: 11%

USP: L1

Recommended Usage

pH Range: 2-8

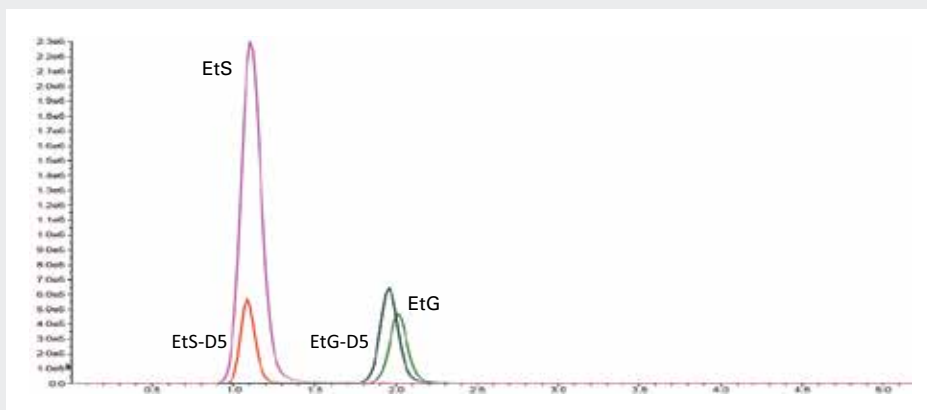
Maximum Temperature: 60°C

Maximum Pressure: 1030 bar/15,000 psi (1.8-3 μm)
or 275 bar/4,000 psi (5 μm)

Product Benefits

- Proprietary phase designed to maximize retention for polar EtG/EtS alcohol metabolites
- Baseline resolution differentiating EtG and EtS
- Suitable in up to 100% aqueous mobile phases

EtG/EtS Analysis



Column: Selectra® EtG 3 μm , 100 x 2.1 mm

Mobile Phase A: 0.1% Formic Acid in H_2O

Mobile phase B: 0.1% Formic Acid in ACN

Gradient: 0% B for 1.5 minutes
100% B in 0.2 minutes

Flow: 0.3mL/min

Detection: AB Sciex 4000 Qtrap

EQUIVALENCY CHART

VENDOR

COLUMNS

UCT

Agilent

Zorbax C8

SELECTRA® C8

Agilent

Polaris C18-A

SELECTRA® AQ

Agilent

Zorbax C18

SELECTRA® C18

Alltech

Alltima C18

SELECTRA® C18

GL Sciences

Inertsil C8

SELECTRA® C8

GL Sciences

Inertsil ODS3

SELECTRA® C18

Machery-Nagel

Nucleosil C8

SELECTRA® C8

Machery-Nagel

Nucleosil C18

SELECTRA® C18

Merck

Lichrosorb RP C18

SELECTRA® C18

Perkin Elmer

Brownlee Validated Aqueous C18

SELECTRA® AQ

Perkin Elmer

Choice PFPP

SELECTRA® PFPP

Phenomenex

Luna C8

SELECTRA® C8

Phenomenex

Luna C18

SELECTRA® C18

Phenomenex

Luna PFP(2)

SELECTRA® PFPP

Restek

Ultra C8

SELECTRA® C8

Restek

Ultra C18

SELECTRA® C18

Restek

Pinnacle DB Biphenyl

SELECTRA® DA

Restek

Pinnacle DB PFPP

SELECTRA® PFPP

Restek

ULTRA PFPP

SELECTRA® PFPP

Supelco

Ascentis C8

SELECTRA® C8

Supelco

Discovery HS F5

SELECTRA® PFPP

Thermo-Fisher

Hypersil GOLD C8

SELECTRA® C8

Thermo-Fisher

BDS Hypersil C18

SELECTRA® C18

Thermo-Fisher

Betasil C18

SELECTRA® C18

Thermo-Fisher

Hypersil Gold C18

SELECTRA® C18

Waters

Symmetry C8

SELECTRA® C8

Waters

Xttera C18 RP

SELECTRA® C18

YMC

YMC ODS-AQ

SELECTRA® AQ

ORDERING INFO

HPLC Guard Holder

HPLC Guard Cartridge Holder
UHPLC Direct Connect Guard Cartridge Holder
Replacement Peek Tip for Holder

Part Numbers

SLGRDHLDR
SLGRDHLDR-HPOPT
SLGRDHLDR-TIP (2/pk)

SELECTRA® DA HPLC Columns

| Dimensions | Particle Size | Part Numbers |
|--------------------------------------|---------------|-------------------|
| 50 x 2.1 mm | 1.8 µm | SLDA50ID21-18UM |
| 100 x 2.1 mm | 1.8 µm | SLDA100ID21-18UM |
| 50 x 4.6 mm | 1.8 µm | SLDA50ID46-18UM |
| 100 x 4.6 mm | 1.8 µm | SLDA100ID46-18UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 1.8 µm | SLDAGDC20-18UMOPT |
| 10 x 4.6 mm guard (sold as a 2 pack) | 1.8 µm | SLDAGDC46-18UMOPT |
| <hr/> | | |
| 50 x 2.1 mm | 3 µm | SLDA50ID21-3UM |
| 100 x 2.1 mm | 3 µm | SLDA100ID21-3UM |
| 50 x 4.6 mm | 3 µm | SLDA50ID46-3UM |
| 100 x 4.6 mm | 3 µm | SLDA100ID46-3UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 3 µm | SLDAGDC21-3UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 3 µm | SLDAGDC46-3UM |
| <hr/> | | |
| 50 x 2.1 mm | 5 µm | SLDA50ID21-5UM |
| 100 x 2.1 mm | 5 µm | SLDA100ID21-5UM |
| 50 x 4.6 mm | 5 µm | SLDA50ID46-5UM |
| 100 x 4.6 mm | 5 µm | SLDA100ID46-5UM |
| 150 x 4.6 mm | 5 µm | SLDA150ID46-5UM |
| 250 x 4.6 mm | 5 µm | SLDA250ID46-5UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 5 µm | SLDAGDC21-5UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 5 µm | SLDAGDC46-5UM |

SELECTRA® PFPP HPLC Columns

| Dimensions | Particle Size | Part Numbers |
|--------------------------------------|----------------------|---------------------|
| 50 x 2.1 mm | 1.8 µm | SLPFPP50ID21-18UM |
| 100 x 2.1 mm | 1.8 µm | SLPFPP100ID21-18UM |
| 50 x 4.6 mm | 1.8 µm | SLPFPP50ID46-18UM |
| 100 x 4.6 mm | 1.8 µm | SLPFPP100ID46-18UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 1.8 µm | SLPFPPGDC20-18UMOPT |
| 10 x 4.6 mm guard (sold as a 2 pack) | 1.8 µm | SLPFPPGDC46-18UMOPT |
| <hr/> | | |
| 50 x 2.1 mm | 3 µm | SLPFPP50ID21-3UM |
| 100 x 2.1 mm | 3 µm | SLPFPP100ID21-3UM |
| 50 x 4.6 mm | 3 µm | SLPFPP50ID46-3UM |
| 100 x 4.6 mm | 3 µm | SLPFPP100ID46-3UM |
| 150 x 4.6 mm | 3 µm | SLPFPP150ID46-3UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 3 µm | SLPFPPGDC20-3UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 3 µm | SLPFPPGDC46-3UM |
| <hr/> | | |
| 50 x 2.1 mm | 5 µm | SLPFPP50ID21-5UM |
| 100 x 2.1 mm | 5 µm | SLPFPP100ID21-5UM |
| 50 x 4.6 mm | 5 µm | SLPFPP50ID46-5UM |
| 100 x 4.6 mm | 5 µm | SLPFPP100ID46-5UM |
| 150 x 4.6 mm | 5 µm | SLPFPP150ID46-5UM |
| 250 x 4.6 mm | 5 µm | SLPFPP250ID46-5UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 5 µm | SLPFPPGDC20-5UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 5 µm | SLPFPPGDC46-5UM |

SELECTRA® C18 HPLC Columns

| Dimensions | Particle Size | Part Numbers |
|--------------------------------------|----------------------|---------------------|
| 50 x 2.1 mm | 1.8 µm | SLC-1850ID21-18UM |
| 100 x 2.1 mm | 1.8 µm | SLC-18100ID21-18UM |
| 50 x 4.6 mm | 1.8 µm | SLC-1850ID46-18UM |
| 100 x 4.6 mm | 1.8 µm | SLC-18100ID46-18UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 1.8 µm | SLC-18GDC20-18UMOPT |
| 10 x 4.6 mm guard (sold as a 2 pack) | 1.8 µm | SLC-18GDC46-18UMOPT |
| <hr/> | | |
| 50 x 2.1 mm | 3 µm | SLC-1850ID21-3UM |
| 100 x 2.1 mm | 3 µm | SLC-18100ID21-3UM |
| 50 x 4.6 mm | 3 µm | SLC-1850ID46-3UM |
| 100 x 4.6 mm | 3 µm | SLC-18100ID46-3UM |
| 150 x 4.6 mm | 3 µm | SLC-18150ID46-3UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 3 µm | SLC-18GDC20-3UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 3 µm | SLC-18GDC46-3UM |
| <hr/> | | |
| 50 x 2.1 mm | 5 µm | SLC-1850ID21-5UM |
| 100 x 2.1 mm | 5 µm | SLC-18100ID21-5UM |
| 50 x 4.6 mm | 5 µm | SLC-1850ID46-5UM |
| 100 x 4.6 mm | 5 µm | SLC-18100ID46-5UM |
| 150 x 4.6 mm | 5 µm | SLC-18150ID46-5UM |
| 250 x 4.6 mm | 5 µm | SLC-18250ID46-5UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 5 µm | SLC-18GDC20-5UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 5 µm | SLC-18GDC46-5UM |

SELECTRA® Aqueous C18 HPLC Columns

| Dimensions | Particle Size | Part Numbers |
|--------------------------------------|---------------|-------------------|
| 50 x 2.1 mm | 1.8 µm | SLAQ50ID21-18UM |
| 100 x 2.1 mm | 1.8 µm | SLAQ100ID21-18UM |
| 50 x 4.6 mm | 1.8 µm | SLAQ50ID46-18UM |
| 100 x 4.6 mm | 1.8 µm | SLAQ100ID46-18UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 1.8 µm | SLAQGDC20-18UMOPT |
| 10 x 4.6 mm guard (sold as a 2 pack) | 1.8 µm | SLAQGDC46-18UMOPT |

| | | |
|--------------------------------------|------|-----------------|
| 50 x 2.1 mm | 3 µm | SLAQ50ID21-3UM |
| 100 x 2.1 mm | 3 µm | SLAQ100ID21-3UM |
| 50 x 4.6 mm | 3 µm | SLAQ50ID46-3UM |
| 100 x 4.6 mm | 3 µm | SLAQ100ID46-3UM |
| 150 x 4.6 mm | 3 µm | SLAQ150ID46-3UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 3 µm | SLAQGDC20-3UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 3 µm | SLAQGDC46-3UM |

| | | |
|--------------------------------------|------|-----------------|
| 50 x 2.1 mm | 5 µm | SLAQ50ID21-5UM |
| 100 x 2.1 mm | 5 µm | SLAQ100ID21-5UM |
| 50 x 4.6 mm | 5 µm | SLAQ50ID46-5UM |
| 100 x 4.6 mm | 5 µm | SLAQ100ID46-5UM |
| 150 x 4.6 mm | 5 µm | SLAQ150ID46-5UM |
| 250 x 4.6 mm | 5 µm | SLAQ250ID46-5UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 5 µm | SLAQGDC20-5UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 5 µm | SLAQGDC46-5UM |

SELECTRA® EtG HPLC Columns

| Dimensions | Particle Size | Part Numbers |
|--------------------------------------|---------------|------------------|
| 100 x 2.1 mm | 3 µm | SLETG100ID21-3UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 3 µm | SLETGGDC20-3UM |

SELECTRA® C8 HPLC Columns

| Dimensions | Particle Size | Part Numbers |
|--------------------------------------|----------------------|---------------------|
| 50 x 2.1 mm | 1.8 µm | SLC-850ID21-18UM |
| 100 x 2.1 mm | 1.8 µm | SLC-8100ID21-18UM |
| 50 x 4.6 mm | 1.8 µm | SLC-850ID46-18UM |
| 100 x 4.6 mm | 1.8 µm | SLC-8100ID46-18UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 1.8 µm | SLC-8GDC21-18UMOPT |
| 10 x 4.6 mm guard (sold as a 2 pack) | 1.8 µm | SLC-8GDC46-18UMOPT |
| <hr/> | | |
| 50 x 2.1 mm | 3 µm | SLC-850ID21-3UM |
| 100 x 2.1 mm | 3 µm | SLC-8100ID21-3UM |
| 50 x 4.6 mm | 3 µm | SLC-850ID46-3UM |
| 100 x 4.6 mm | 3 µm | SLC-8100ID46-3UM |
| 150 x 4.6 mm | 3 µm | SLC-8150ID46-3UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 3 µm | SLC-8GDC21-3UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 3 µm | SLC-8GDC46-3UM |
| <hr/> | | |
| 50 x 2.1 mm | 5 µm | SLC-850ID21-5UM |
| 100 x 2.1 mm | 5 µm | SLC-8100ID21-5UM |
| 50 x 4.6 mm | 5 µm | SLC-850ID46-5UM |
| 100 x 4.6 mm | 5 µm | SLC-8100ID46-5UM |
| 150 x 4.6 mm | 5 µm | SLC-8150ID46-5UM |
| 250 x 4.6 mm | 5 µm | SLC-8250ID46-5UM |
| 10 x 2.1 mm guard (sold as a 2 pack) | 5 µm | SLC-8GDC21-5UM |
| 10 x 4.6 mm guard (sold as a 2 pack) | 5 µm | SLC-8GDC46-5UM |

SELECTRA® HPLC COLUMNS

PRICES AND TERMS

Our prices are subject to change without notice. The price in effect when we receive your order will apply. All prices are in US Dollars and are F.O.B. Terms of payment are net 30 days.

MINIMUM ORDERS

We welcome all orders, therefore, we do not have a minimum order requirement. When ordering, please include your purchase order number, complete "Ship To" and "Bill To" address, catalog number, quantity, and description of product(s). Also include your name and a phone number where you can be reached should we have any questions concerning your order.

SHIPMENTS

Normal processing is within 24 hours after receipt of an order. Unless special shipping requests have been made, our trained staff will send all orders by UPS Ground service. The appropriate shipping charges (freight & insurance costs) will be added to the invoice, unless otherwise instructed by the customer.

SPECIAL PRICING

We offer special pricing for volume purchases and standing orders. Please call a sales representative for more information on special pricing qualifications.

RETURN POLICY

Our Quality Manager will handle all returns. Before returning merchandise, please call to obtain a return authorization number from the quality manager. We will need to know the reason for the return, date of purchase, purchase order number and invoice number in order to issue a return authorization number. Return merchandise must be received before a credit can be issued. Returns will not be accepted after 90 days. A restocking fee of 25% of the price paid, or a minimum of \$25.00 (whichever is greater) will be charged on all returns.

WARRANTY

All products manufactured by UCT are guaranteed against defects in materials and workmanship for a period of 90 days after shipment. UCT will replace any items that prove to be defective during this time period. The exclusive remedy requires the end user to first advise UCT of the defective product by phone or in writing and must include order number, the lot number and the shipping date.

To initiate this action, photographs of the product, including packaging and labeling of the containers, must be submitted to the UCT Representative for approval. With approval a return authorization can be initiated, and must be received within 30 days. Once the materials arrive at UCT a further inspection of the materials must be completed and accepted by our Quality Manager prior to further action of credits or replacement. UCT's total liability is limited to the replacement cost of UCT products.

This warranty does not apply to damage resulting from misuse.

For the latest information on the complete line of Selectra® HPLC columns and supplies:

Phone: 215.781.9255
800.385.3153
Fax: 215.785.1226

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Bristol, PA 19007

Email: info@unitedchem.com
Web: www.unitedchem.com



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