

Premium Syringe Filters

- More choices. Captiva syringe filters are available in a wide range of sizes, formats, and membranes to cover every matrix and sample.
- Certified. All products are supplied with an HPLC or LC/MS Certificate, guaranteeing extremely low levels of observed extractables.
- Exceptional Flow Rate. Captiva syringe filters have excellent flow rates and maximum sample loading capacity.
- Highest Quality. Agilent Captiva syringe filters are constructed with the highest-grade virgin polypropylene housing, and are securely welded to prevent bursting and ensure sample integrity.



Sample filtration prior to HPLC, LC/MS, UHPLC, CE and ICP-MS analysis is critical to achieving optimal system performance, and Agilent Captiva Premium Syringe Filters make the process faster than ever with the industry's highest flow rates and loading capacities. Manufactured with the highest-grade virgin polypropylene, and all are HPLC or LC/MS certified to guarantee low levels of observed extractables. PES (part numbers 5190-5094, 5190-5095, 5190-5096 and 5190-5098) and Glass Fiber (5190-5120) premium syringe filters are LC/MS certified to be free of extractables. Choose from a variety of membranes to suit your needs.

Premium Filters, 100/pk

Description	Diameter (mm)	Pore Size (μm)	Certification	Housing	Part No.
PTFE	4	0.2	LC	Polypropylene	5190-5082
	4	0.45	LC	Polypropylene	5190-5083
	15	0.2	LC	Polypropylene	5190-5084
	15	0.45	LC	Polypropylene	5190-5085
	25	0.2	LC	Polypropylene	5190-5086
	25	0.45	LC	Polypropylene	5190-5087
Nylon	15	0.2	LC	Polypropylene	5190-5088
	15	0.45	LC	Polypropylene	5190-5091
	25	0.2	LC	Polypropylene	5190-5092
	25	0.45	LC	Polypropylene	5190-5093

(Continued)



Layered Filters with Pre-Filter

Layered Filters, 100/pk

Description	Diameter (mm)	Pore Size (μm)	Certification	Housing	Part No.
Glass Microfiber/PTFE	15	0.2	LC	Polypropylene	5190-5126
	15	0.45	LC	Polypropylene	5190-5127
	25	0.2	LC	Polypropylene	5190-5128
	25	0.45	LC	Polypropylene	5190-5129
Glass Microfiber/Nylon	15	0.2	LC	Polypropylene	5190-5132
	15	0.45	LC	Polypropylene	5190-5133
	25	0.2	LC	Polypropylene	5190-5134
	25	0.45	LC	Polypropylene	5190-5135

Captiva Disposable Syringes, 100/pk

Volume (mL)	Part No.
5	9301-6476
10	9301-6474
20	5062-8534



Captiva disposable syringe, 5 mL, 9301-6476



Captiva disposable syringe, 10 mL, 9301-6474



Captiva disposable syringe, 20 mL, 5062-8534



Econofilters

High quality Econofilters are shipped in large packs and are ideal for busy labs that need fast, efficient filtration at a reasonable price.

Econofilters, 1000/pk

Description	Diameter (mm)	Pore Size (μm)	Housing	Part No.
PVDF	13	0.2	Polypropylene	5190-5261
	13	0.45	Polypropylene	5190-5262
	25	0.2	Polypropylene	5190-5263
	25	0.45	Polypropylene	5190-5264
PTFE	13	0.2	Polypropylene	5190-5265
	13	0.45	Polypropylene	5190-5266
	25	0.2	Polypropylene	5190-5267
	25	0.45	Polypropylene	5190-5268
Nylon	13	0.2	Polypropylene	5190-5269
	13	0.45	Polypropylene	5190-5270
	25	0.2	Polypropylene	5190-5271
	25	0.45	Polypropylene	5190-5272
PES	13	0.2	Polypropylene	5190-5273
	13	0.45	Polypropylene	5190-5274
	25	0.2	Polypropylene	5190-5275
	25	0.45	Polypropylene	5190-5276
Polypropylene	13	0.2	Polypropylene	5190-5277
	13	0.45	Polypropylene	5190-5278
	25	0.2	Polypropylene	5190-5279
	25	0.45	Polypropylene	5190-5280
Regenerated cellulose	13	0.2	Polypropylene	5190-5281
	13	0.2	Polypropylene	5190-5282
	25	0.2	Polypropylene	5190-5283
	25	0.45	Polypropylene	5190-5284

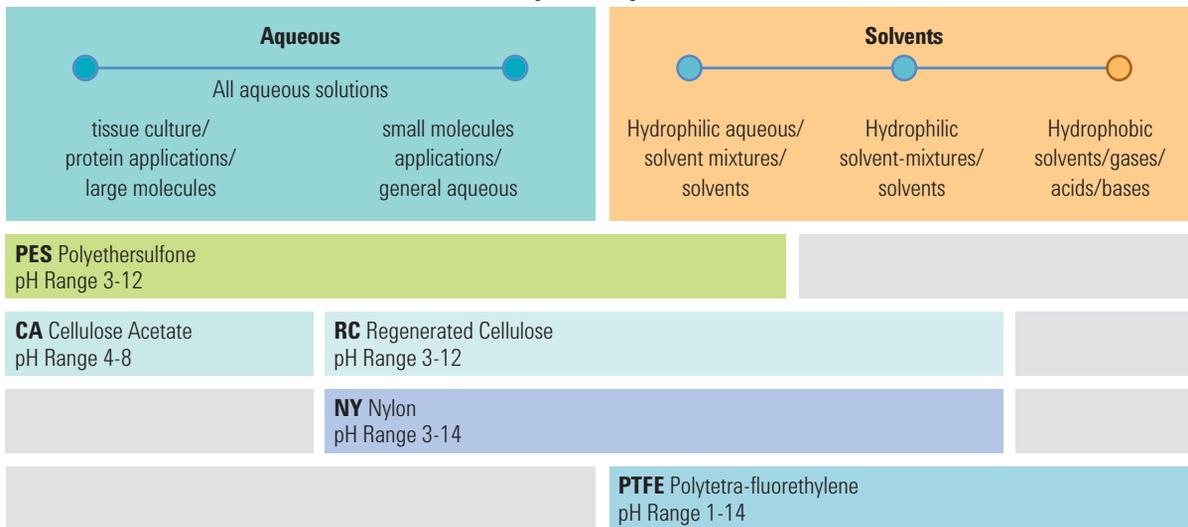


Econofilters, PES, 5190-5272

Agilent Captiva Syringe Filter Selection Guide

STEP 1

Sample Composition



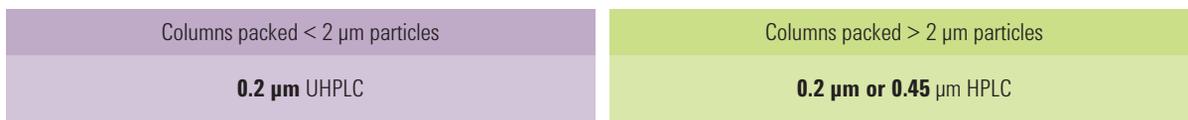
STEP 2

Sample Volume



STEP 3

What is the Particle Size of Your LC Column?



Applications

Type of Filtration	Recommended	Alternatives
HPLC • UHPLC • LC/MS • GC	RC	PTFE or Nylon
ICP-MS	PTFE	Glass Fiber/PTFE (High Particle Samples)
CE	RC	Nylon
Undiluted Organic Solvents	PTFE	Nylon
Protein Analysis • Samples with Biomolecules – Buffers	PES	RC or CA
Tissue Culture Media	PES	RC or CA
High Particle-Load Samples – Organic Solvents	Glass Fiber/PTFE	
High Particle-Load Samples – Aqueous Solutions	Glass Fiber/Nylon	

Proof of Performance: Filtration Efficiency

Testing Method

Sample preparation

The surfactant solution, 0.1% Triton X-100, was used to prepare 0.01% Latex Beads (0.3 µm and 0.5 µm) solution. The 0.1% Triton X-100 was used to maintain the homogeneity of Latex Beads solutions.

Filtration

The challenging solution was passed through each individual syringe filter and a 1 mL filtrate was collected in a 2 mL vial for HPLC run.

Ten different filters from each kind filter were tested.

Filtrate measuring on HPLC/UV

The maximum absorbance of the latex beads solutions was observed at 272 nm, which was used to correlate latex beads concentration with absorbance.

A simple HPLC method was used for automatic testing under UV 272 nm.

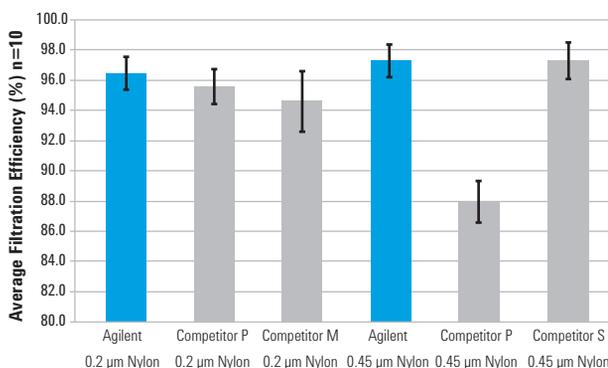
No column was used. The mobile phase was water, and the flow rate of 1.0 mL/min was used.

The eluted peak are at 272 nm was used for filtration efficiency calculation.

Blank 0.1% Triton X-100 was run to correct contributions from surfactant absorbance at 272 nm.

Agilent Captiva Syringe Filters provide equivalent or better filtration efficiency than competitors equivalent products on particulates removal

Average Filtration Efficiency of Agilent Captiva Syringe Filters vs. Competitors



Filtration efficiency (%) calculation

$$Filtration\ EFF\ (\%) = \frac{\left(\frac{PeakArea_{Unfiltered\ LBSolution} - PeakArea_{Unfiltered\ Blank}}{PeakArea_{Filtered\ LBSolution} - PeakArea_{Filtered\ Blank}} \right) - \left(\frac{PeakArea_{Unfiltered\ LBSolution} - PeakArea_{Unfiltered\ Blank}}{PeakArea_{Unfiltered\ LBSolution} - PeakArea_{Unfiltered\ Blank}} \right)}{\left(\frac{PeakArea_{Unfiltered\ LBSolution} - PeakArea_{Unfiltered\ Blank}}{PeakArea_{Unfiltered\ LBSolution} - PeakArea_{Unfiltered\ Blank}} \right)} \times 100\%$$

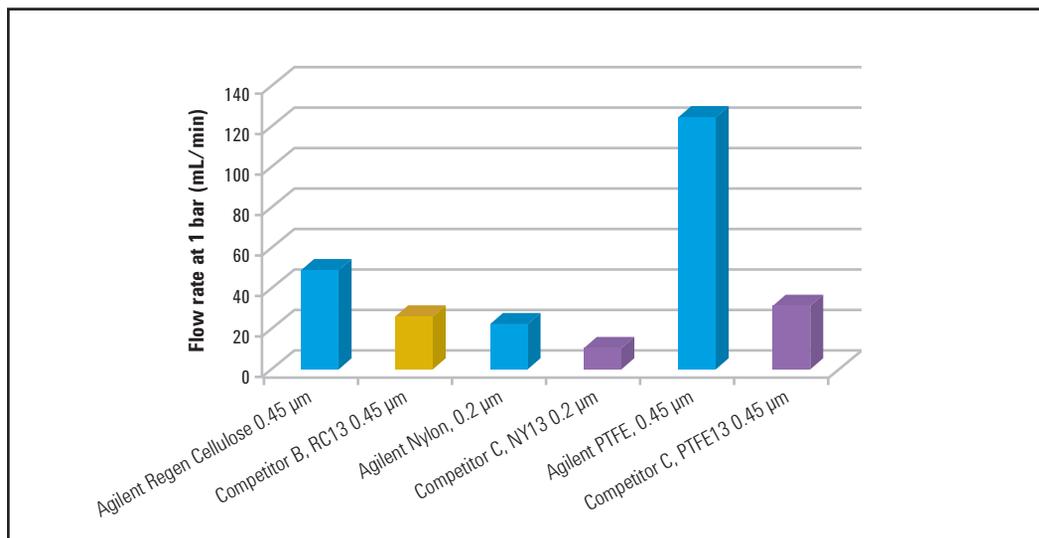
Agilent Captiva Syringe Filters provide consistent and higher than 90% filtration efficiency on particulate removal

	Agilent premium 0.2 µm syringe filters						Agilent premium 0.45 µm syringe filters					
	Nylon	PTFE	RC	PES	GF/NY	GF/PTFE	Nylon	PTFE	PES	CA	GF/NY	GF/PTFE
1	96.0	92.3	89.8	92.1	99	99.4	95.2	97	93.6	92.4	96.8	98.4
2	95.9	91.4	90.6	91.4	99	98.9	93.2	96.5	93.6	95.0	97.1	98.8
3	94.5	93.3	90.3	89.5	99.2	99.0	95.5	97.5	93.5	96.3	96.4	97.7
4	96.6	92.3	91.7	99.0	99.6	98.6	95.4	96.6	88.5	97.2	99.3	98.8
5	95.4	91.2	92.4	96.3	98.8	98.8	94.9	96.0	88.2	96	99.0	99.7
6	95.6	91.1	90.8	99.9	99.3	98.5	95.3	95.7	92.3	95.6	100	96.8
7	99.9	91.1	98.2	99.0	99.4	99.4	99.5	95.2	94.9	96.7	98.2	97.6
8	99.8	91.2	99.0	97.8	95.0	99.0	98.0	97.8	89.4	93.8	98.9	98.5
9	99.7	90.9	96.4	95.2	95.9	99.9	97.7	94.9	87.3	92.5	100.2	98.0
10	99.2	91.3	95.7	96.1	94.7	99.6	99.7	94.8	87.5	92.8	100.5	101.3
Average Eff (%)	97.3	91.6	93.5	95.6	98.0	99.1	96.4	96.2	90.9	94.8	98.6	98.6
RSD (%)	2.2	0.8	3.7	3.7	2.0	0.5	2.2	1.1	3.3	1.9	1.5	1.3

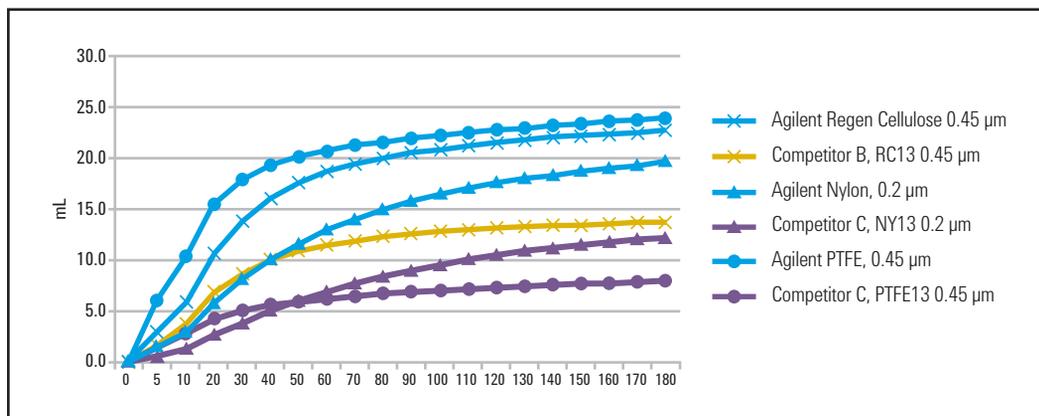
Proof of Performance: Flow Rate & Volume Capacity

Agilent Captiva Premium Syringe Filters provide incomparable loading capacity with the fastest flow rates in the market today to allow for maximum efficiency.

Flow rate for 15 mm Premium Syringe Filters



Capacity (volume) of 15 mm syringe filters over time (with Particulate-Laden Samples)



Filtration Impact on LC Column Life

Importance of Filtration

Column plugging is the most frequent cause of column failure encountered by analytical chemists. Injection of samples containing even small amounts of particulate will clog the column inlet, cause high column backpressure, retention time shift and loss of resolution, and subsequently shorten the normal column lifetime. This impact can be more significant for sub-2 μm columns. These smaller particle size columns are usually used under high pressure, thus are more sensitive to pressure increase caused by the accumulated particulates on column.

It is the intent of this work to demonstrate that sample filtration will lengthen the life of a column, not only the traditional LC columns by 0.45 μm filters, but also the sub-2 micron LC columns by 0.2 μm filters. In order to correlate the column life extend to the actual application, the plasma extracts by PPT treatment were tested also for the comparison of samples without filtration, samples with centrifugation and samples with filtration.



Testing Method

Sample preparation

A.) The surfactant solution, 0.002% Triton X-100, was used to prepare 0.05% Latex Beads (0.3 μm and 0.5 μm) solution.

B.) Latex Beads solution (0.3 μm) was used for sub-2 micron column life test. Unfiltered and filtered (by 0.2 μm filters) samples were used for comparison of impact on sub-2 micron column life.

C.) Human plasma extract was used for sub-2 micron column life actual application test. Unfiltered, centrifuged and filtered (by 0.2 μm filters) samples were used for comparison of impact on sub-2 micron column life. The sample was prepared following the below steps.

1. 2 mL of Human plasma was aliquoted in to a test tube.
2. 10 mL of Acetonitrile with 1% Acetic Acid was added.
3. Sample was vortexed vigorously and then centrifuged at 4000 rpm for 5 min.
4. The supernant was transferred into a clean test tube.
5. The supernant was blown dry with N2 flow at 37 °C.
6. The dried sample was reconstituted in 10:90 MeOH/H2O. Vortex and sonicate.

Filtration

The challenging solution was passed through each individual syringe filter and a 1 mL filtrate was collected in a 2 mL vial for HPLC run.

UHPLC instrumentation (for sub-2 column life test)

Column: Agilent Zorbax Eclipse Plus C18 RRHD column, 2.1 x 50 mm, 1.8 μm , P/N 959757-902
Column was disconnected from the detector and allowed to run to drain.

Mobile phase: Acetonitrile: Water (35:65, v/v)

Flow rate: 0.4 mL/min, isocratic

Injections: 10 μL per injection, 1 injection per minute

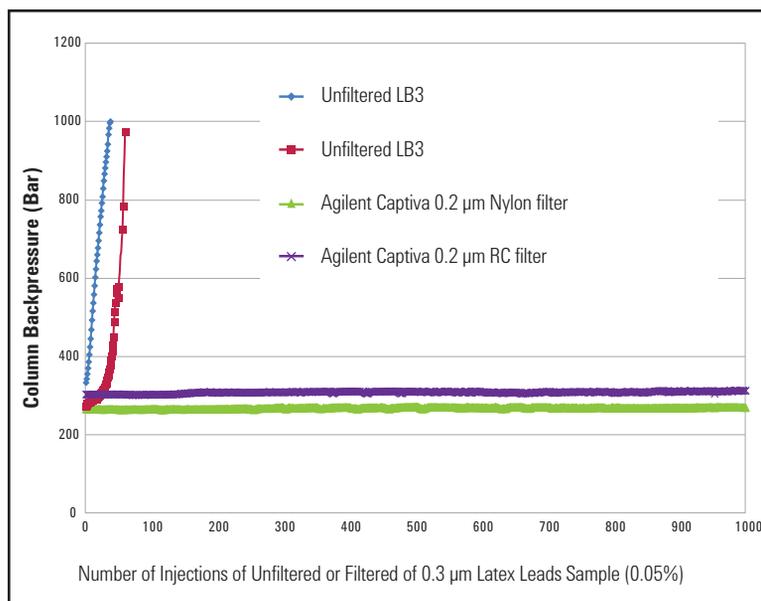
Monitoring: Column backpressure was recorded with the number of injections.

Column failure: When column back pressure exceed 1000 bar.

Sequence: A 1000 injections sequence was usually used, unless column failed in the middle due to high pressure. A new column was used for each individual sequence

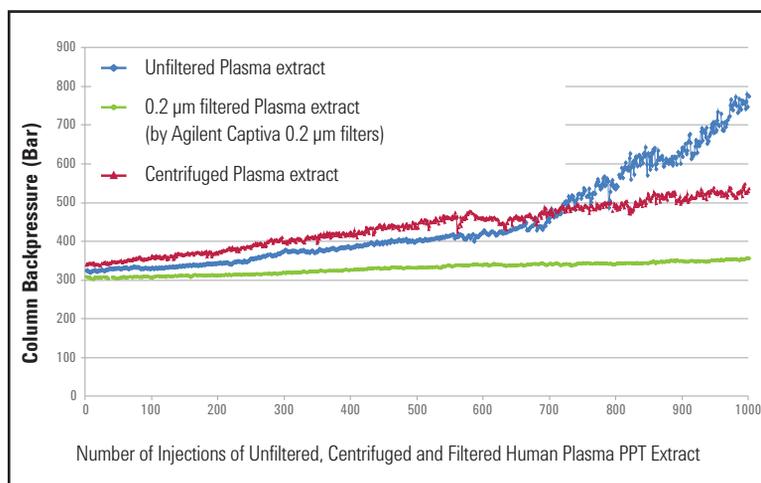
Results – Filtration impact on sub-2 micron column A by Latex Bead 0.3 μm solution

Effects on Filtration on sub-2 micron Column Life



Results – Filtration impact on sub-2 micron column B by Human Plasma PPT Extract

Effects of filtration on sub-2 column life time



Conclusion

Sample filtration prior to their introduction into an HPLC system was demonstrated to make significant improvement on the column usage life time.

Diatomaceous Earth Sorbents

Typical Matrices

Aqueous, biological fluids, organic reaction mixtures (scavenging)

Primary Extraction Mechanism

Solid supported LLE

Compound Types

Nitrosamines, pesticides, herbicides

Chem Elut and Hydromatrix

- High purity sorbent supported liquid extraction (SLE) applications
- Available in pre-packed cartridges or bulk
- Packing method delivers excellent tube-to-tube reproducibility
- Tox Elut cartridges are effective for forensic analysis of drugs in urine

Chem Elut is an economical broad performance sorbent for rapid, general sample preparation of biological samples such as plasma, serum, whole blood and urine. Chem Elut products are available in buffered and unbuffered formats. The buffered devices can be used for simple scrubbing operations on organic reactions. The base-treated cartridge can remove residual acid compounds from a variety of matrices.

Hydromatrix is a high purity, inert diatomaceous earth sorbent available in 96-well plates (Combilute and Chem Elut SLE Plates, which are designed for sample volumes of less than 80 μ L) and as bulk material, offering end user flexibility and an excellent diversity of applications.



Chem Elut cartridges, 12198006

Chem Elut Cartridges*

Buffered pH	Volume (mL)	Unit	Part No.
4.5	3	100/pk	12198004
9.0	3	100/pk	12198005
Unbuffered	0.3	100/pk	12198001
	1	100/pk	12198002
	3	100/pk	12198003
	5	100/pk	12198006
	10	100/pk	12198007
	20	100/pk	12198008
	50	50/pk	12198009
	100	25/pk	12198010
	300	15/pk	12198011

*For Chem Elut and Tox Elut cartridge, select the product which fits the total volume of the sample. Volumes stated here are not the actual cartridge size, but rather the volume available for sample.

Tox Elut Cartridges*

Buffered pH	Volume (mL)	Unit	Part No.
9.0	10	100/pk	12198014
9.0	20	100/pk	12198017
Unbuffered	10	100/pk	12198012
	10	100/pk	12198015

*For Chem Elut and Tox Elut cartridge, select the product which fits the total volume of the sample. Volumes stated here are not the actual cartridge size, but rather the volume available for sample.

Hydromatrix

Description	Part No.
Hydromatrix bulk material, 1 kg	198003
Hydromatrix bulk material, 4 kg	198004

Other Formats*

Description	Part No.
Combilute 96-well plate, 200 mg	65401507
Chem Elut SLE Plate, 50 mg	A4964050
Chem Elut SLE Plate, 150 mg	A4964150
Preassembled 96-well plate (VersaPlate tubes and base plate) 260 mg	75430260
VersaPlate tubes, 96/pk, tubes only, 260 mg	75530260

*Tubes need to be inserted into a VersaPlate base plate, P/N 75400000

References

Plum, J & Daldrup, T (1986) Detection of digoxin, digitoxin, their cardioactive metabolites and derivatives by high performance liquid chromatography and high performance liquid chromatography-radioimmunoassay. *J. Chromatogr. A*, 377, 221-231.

Biondi, PA, Guidotti, L, Montana, M, Manca, F, Brambilla, G & Lucarelli, C (1991) A derivatization procedure suitable for HPLC analysis of clenbuterol. *J. Chromatogr. Sci.*, 29(5), 190-193.

Raou, S, Gremaud, E, Biaudet, J & Turesky, R (1997) Rapid solid-phase extraction method for the detection of volatile nitrosamines in food. *J. Agricultural and Food Chem.*, 45, 4706-4713.

The prohibition on the use of certain azo dyes is laid down in Annex XVII to the EU Regulation (EC) 1907/2006 on the registration, evaluation and authorization of chemicals (REACH), which is directly applicable in all EU Member States. CEN Leather - Chemical tests - Determination of certain azo colourants in dyed leathers. Reference: CEN ISO/TS 17234:2003



Combilute plate, 200 mg, 65401507





ITLC SG paper, SGI0001

Chromatography Papers

Chromatography Paper is used in thin layer chromatography applications such as evaluating radioisotope purity. The porous paper is made of glass microfibers impregnated with silica gel. Agilent offers two kinds of paper: SA (contains sodium salt) and SG (contains potassium salt).

- More convenient with faster developing times than traditional TLC; no interference from organic binders
- Ideal for evaluating radioisotope QC testing
- Separates lipids and other non-polar compounds
- Can easily be cut to convenient testing sizes, and can be imprinted

Chromatography Papers

Description	Part No.
Chromatography paper (SA), 4.5 x 12 in, 50/pk	A120B12
ITLC SG paper, 4.5 x 12 in, 50/pk	SGI0001

Bond Elut Accessories

Bond Elut 96-well Accessories

Bond Elut 96-well Accessories

Description	Unit	Part No.
96-well manifold, acrylic	1/pk	5133000
96-well manifold, shimset	1/pk	12236104
Square-well collection plates, 2 mL	50/pk	5133009
Square-well collection plates, 1 mL	50/pk	5133008
Square-well collection plates, 350 μ L	50/pk	5133007
Sealing tape pad	10/pk	12143105
Square 96-well sealing caps, EVA, pierceable	50/pk	5133005
VersaPlate sealing strips, each covers one column	240/pk	12236108



Bond Elut 96-well manifold, acrylic, 5133000



96-well manifold, shimset, 12236104



Bond Elut 96 square-well plate, 5133009



Bond Elut 96 square-well plate, 5133008



Bond Elut 96 square-well plate, 5133007



Sealing tape pad, 12143105

Bond Elut Empty SPE Cartridges

- Made with high purity polypropylene for cleaner extracts
- Uniform batch-to-batch size for consistent performance
- Economical for everyday use

A variety of empty reservoirs is available for packing custom SPE cartridges with bulk Bondesil or other desired sorbents. Cartridges are available from 1 to 60 mL. Order frits separately, or see the table for reservoirs with pre-installed frits.



Empty SPE cartridges, 1 mL, 12131007



Empty SPE cartridges, 12 mL, 12131010



Empty SPE cartridges, 20 mL, 12131011



Empty SPE cartridges, 60 mL, 12131012

Bond Elut Empty SPE Cartridges

Volume (mL)	Unit	Part No.
1	100/pk	12131007
3	100/pk	12131008
6	100/pk	12131009
12	100/pk	12131010
20	100/pk	12131011
60	100/pk	12131012

Bond Elut Empty SPE Cartridges with Two Frits

- Pre-installed frits for ease-of-use
- Broad range of filtration operations for maximum flexibility
- Customizable packing for specific applications

These clean polypropylene reservoirs contain two 20 μm polyethylene frits pre-inserted, an ideal configuration for simple filtration. For custom sorbent packing, additional frits can be purchased separately. Available from 1 to 60 mL.

Bond Elut Empty SPE Cartridges with Two Pre-Installed Frits

Volume (mL)	Unit	Part No.
1	100/pkg	12131013
3	100/pkg	12131014
12	100/pkg	12131016
20	100/pkg	12131017
60	100/pkg	12131018
Bond Elut Empty SPE Cartridges with One Thick Frit		
6	100/pkg	12131015



Empty SPE cartridges with two frits (pre-inserted),
1 mL, 12131013



Empty SPE cartridges with two frits (pre-inserted),
20 mL, 12131017



Empty SPE cartridges with two frits (pre-inserted),
60 mL, 12131018



Polyethylene Frits, 12131021

20 μ m Polyethylene Frits for SPE Cartridges

- Made with high-grade, clean polyethylene for clean extracts
- Pre-cut to correct size for accuracy
- Use with reservoirs or custom packing

These frits are pre-cut to fit into Bond Elut reservoirs for use in filtration applications or for custom SPE sorbent packing.

20 μ m Polyethylene Frits for SPE Cartridges

Diameter (mm)	To Fit Tube Size (mL)	Unit	Part No.
6.4	1	100/pk	12131019
9.5	3	100/pk	12131020
12.7	6	100/pk	12131021
15.9	12	100/pk	12131022
20.6	20	100/pk	12131023
27.0	60	100/pk	12131024

Bond Elut Adapters

- Connect SPE cartridges in series for large samples
- Expand cartridge volume for even more applications
- Transfer large-volume samples to any SPE cartridge

Bond Elut Adapters

Description	Unit	Part No.
Adapter cap for 1, 3 and 6 mL Bond Elut cartridges	15/pk	12131001
Adapter cap for LRC 12, and 20 mL Bond Elut cartridges	10/pk	12131003
Adapter cap for 60 mL Bond Elut cartridges	10/pk	12131004

Bond Elut adapters fit on top of any Bond Elut cartridge and contain a female Luer fitting that accommodates the tip of another cartridge, allowing the following configurations:

Bond Elut Adapter Configurations

- Configuration 1:** Stack two cartridges to perform multi-sorbent methods
- Configuration 2 + 3:** Increase any cartridge's volume by stacking an empty reservoir on top of the device.
- Configuration 4:** Standard Luer-tipped syringes will fit into any Bond Elut adapter. Gentle pressure can then be used to apply conditioning solvents, samples, rinsing solvents and eluents. This configuration is particularly useful for single sample processing, where a vacuum manifold is not required.
- Configuration 5:** For excessively large sample volumes, 1/8 in od tubing can be connected to the end of an adapter and the sample can be drawn directly from the sample container via high vacuum.



Luer Stopcocks

- Control flow rates during SPE vacuum extraction
- Improve method reproducibility
- Instant isolation from vacuum reduces accidental tube drying

Luer stopcocks are used to provide independent flow control of each individual Bond Elut cartridge when used with vacuum manifolds. They are made from solvent resistant high-grade polypropylene, are reusable and can be readily cleaned using organic solvents such as methanol or acetone.



Luer stopcocks, 12131005

Luer Stopcocks

Description	Unit	Part No.
Luer stopcocks	15/pk	12131005

Adapter Caps for Gilson ASPEC SPE Systems

- Enhance the high-throughput compatibility of Bond Elut cartridges
- Converts 1, 3 and 6 mL cartridges for use in Gilson SPE systems
- Specially engineered for leak-free operation

Gilson-engineered caps produce a positive pressure seal with the needle in Gilson ASPEC, ASPEC XL and ASPEC XL4 solid phase extraction systems.



Gilson adapter cap, 12131034

Adapter Caps for Gilson ASPEC SPE Systems

Description	Unit	Part No.
Gilson adapter cap, 1 mL	1000/pk	12131034
Gilson adapter cap, 3 mL	1000/pk	12131035
Gilson adapter cap, 6 mL	1000/pk	12131036

Vac Elut Vacuum Extraction Manifolds

- Increased productivity/sample throughput
- Disposable needles eliminate cross contamination
- Rugged, reliable construction

Engineered to increase laboratory productivity, the corrosion-resistant Vac Elut vacuum extraction manifolds permit extraction of up to 12 or 20 samples at one time, for improved efficiency. The manifold's clear glass base allows careful monitoring of the entire sample collection process, and the compact design requires very little bench space.

To minimize the risk of sample carryover, low-cost, disposable, medical grade polypropylene delivery needles can be easily replaced. Polypropylene extender tips are also available as a replacement for the standard needle valves, ensuring a direct path into the collection tube. Correct sample identification is also ensured by an interlocking fit between the lid and internal test tube rack.

Vac Elut 20 Vacuum Extraction Manifolds

The Vac Elut 20 vacuum control valve, vacuum gauge, and quick release valve are mounted on the lid, away from the corrosive waste stream and within convenient reach. The solvent-resistant polypropylene rack is available in a variety of sizes to accommodate collection tubes commonly used in sample preparation. Manifold sets include the glass basin, lid cover, collection rack and vacuum gauge assembly.



Vac Elut 20 manifold with collection rack, 12234105



Vac Elut 20 collection rack, 12234517

Vac Elut 20 Manifold

Manifold Sets	Part No.
Vac Elut 20 manifold with collection rack for 10 x 75 mm test tubes	12234105
Vac Elut 20 manifold with collection rack for 13 x 75 mm test tubes	12234100
Vac Elut 20 manifold with collection rack for 13 x 100 mm test tubes	12234101
Vac Elut 20 manifold with collection rack for 16 x 75 mm test tubes	12234102
Vac Elut 20 manifold with collection rack for 16 x 100 mm test tubes	12234103
Accessories for Vac Elut 20 Manifold	
Standard glass basin	12234505
Collection rack for 10 x 75 mm test tubes	12234517
Collection rack for 13 x 75 mm test tubes	12234507
Collection rack for 16 x 100 mm test tubes	12234510
Replacement Components	
Polypropylene delivery needles, 25/pk	12234511
Replacement exit valve for glass basin	12234506
Replacement lid gasket	12234502
Vac Elut 20 lid cover	12234501
Vacuum gauge assembly	12234504

Vac Elut 20 Manifold with Tall Glass Basin

- For extractions greater than 10 mL
- Transparent glass base allows you to monitor the whole collection operation
- Simple vacuum adjustment

The Vac Elut 20 with a large glass basin and collection rack accommodates larger 16 x 150 mm test tubes. The same high quality material and features on the standard Vac Elut system are incorporated on this special unit. These collection vessels can be utilized in combinatorial chemistry applications using large boiling tubes for collection of purified synthesis mixtures, or for any SPE extraction in which an elution volume greater than 10 mL is required.

Vac Elut 20 Manifold with Tall Glass Basin

Manifold Set	Part No.
Vac Elut 20 Manifold with tall glass basin and collection rack for 16 x 150 mm test tubes, complete system	12234104



Vac Elut 20 manifold tall glass basin, 12234104



Vac Elut 12 manifold, 5982-9110

Vac Elut 12 Manifold

The Vac Elut 12 vacuum extraction manifold is a compact tool for small sample sets. The Vac Elut 12 offers the same durability of components and operation as the Vac Elut 20 manifolds, but works well when only a few samples need to be processed at a time. The Vac Elut has 12 sample positions, a clear glass basin for easy visualization of the extraction, and a gauge for precise vacuum settings.

Vac Elut 12 Manifold

Manifold Set	Part No.
Vac Elut 12 manifold with collection rack for 16 x 100 mm test tubes	5982-9110



12-port rack for 13 x 75 mm tubes, 5982-9114

Replacement Parts for Vac Elut Vacuum Manifolds

Description	Part No.
Manifold ball ring/vacuum quick release	5982-9106
Manifold exit valve replacement kit	5982-9107
Manifold vacuum gauge assembly with valve	5982-9108
White cover for 12-port manifold	5982-9111
Sealing gasket for 12-port manifold	5982-9112
Glass chamber for 12-port manifold	5982-9113
12-port rack for 13 x 75 mm tubes	5982-9114
12-port rack for 13 x 100 mm tubes	5982-9115
12-port rack for 16 x 75 mm tubes	5982-9116
12-port rack for 16 x 100 mm tubes	5982-9117

Parts and Disposables for Vac Elut Cartridge Manifolds

Description	Unit	Part No.
Disposable needle tip	20/pk	5982-9100
Stainless steel needle with polypropylene coating	20/pk	5982-9101
Short valve stopcock	20/pk	5982-9102
Long valve stopcock	20/pk	5982-9103
Male luer plugs	25/pk	5982-9104
Needle tip ejector tool		5982-9105
Cartridge stacking adapters	12/pk	5982-9109

Vac Elut SPS 24 Manifold

- Closed operation prevents cross contamination
- Stainless steel tips deliver maximum extract purity
- Range of rack sizes covers most tube configurations

The Vac Elut SPS 24 allows simultaneous processing of up to 24 SPE cartridges. Like all Vac Elut manifolds, the SPS 24 is made from durable, solvent-resistant materials and engineered to last. The glass sides allow easy viewing of the entire sample collection process.

The ultimate feature of the SPS 24 manifold is its waste diversion funnel, which enables all steps of the SPE procedure to be completed without removing the lid. Since the collection rack is placed inside the unit before extraction begins, splash back and cross contamination are eliminated, while hazardous waste and biohazard exposure are minimized. Wastes collect outside of the manifold itself, simplifying cleanup and reducing the time needed to extract and elute samples.

Complete with replacement stainless steel delivery tips for maximum extract purity, the Vac Elut SPS 24 system also includes a vacuum controller/release, collection rack, and port sealing plugs. Racks for several different collection tube configurations are available.



Vac Elut SPS 24 manifold

Vac Elut SPS 24 Manifold

Description	Part No.
Vac Elut SPS 24 manifold with collection rack for 10 x 75 mm test tubes	12234003
Vac Elut SPS 24 manifold with collection rack for 12 x 75 mm test tubes	12234041
Vac Elut SPS 24 manifold with collection rack for 13 x 100 mm test tubes	12234022
Vac Elut SPS 24 manifold with collection rack for 16 x 100 mm test tubes	12234004
Replacement Components	
Collection rack and funnel set for 12 or 15 mL conical tubes	12234027
Collection rack and funnel set for 12 x 75 mm test tubes	12234030
Collection rack and funnel set for 13 x 100 mm test tubes	12234031
Collection rack and funnel set for 16 x 100 mm test tubes	12234028
Elastic lid fasteners, 6/pk	12234034
Complete Upper Lid Assembly	12234025C
SPS 24 upper lid cover	12234025
SPS 24 waste tower repair kit	12234005
Includes base exit tube, hose connector, washer, center tube, 900 connector elbow	
Stainless steel delivery needles, 25/pk	12234038



SPS 24 waste tower repair kit, 12234005

96-Well Plate Vacuum Manifold Accessories

- Can handle 96-well fixed position plates or second version to handle 96-well flexible format plate
- Constructed with polypropylene base and polyethylene lid
- Small footprint
- Supplied with on/off valve, vacuum gauge, and fine vacuum control valve
- Disposable reservoir tray collects excess sample and wash solvents
- Spacer inserts can be placed into the base so that collection plates of differing heights can be processed (both deep-well and standard microtiter plates), ensuring maximum penetration of the SPE plate into the collection plate and reducing well-to-well contamination
- Resistant gasket in the manifold lid



Base O-ring, 5185-5779



96-well vacuum manifold, base assembly only, 5185-5797



Collection plate spacer in sizes to match the collection plate used

Vacuum Manifolds for 96-well Plates

Description	Part No.
Manifold for 96-well plates Includes base, vacuum gauge, needle valve and fixed lid	5185-5776

Parts and Disposables for 96-well Plate Manifolds

Description	Unit	Part No.
Base O-ring for 96-well plate manifold		5185-5779
Collection plate spacer for Agilent 1 mL deep-well, 12 mm		5185-5775
Collection plate spacer for microtiter plate and Agilent 0.5 mL shallow well plate, 29 mm		5185-5781
Collection plate spacer for most industry-standard deep-well plates, 2 mm		5185-5780
Disposable reservoir tray for 96-well manifold	25/pk	5185-5782
96-well vacuum manifold, base assembly only		5185-5797
Lid for 96-fixed well vacuum manifold		5185-5798
Lid gasket for 96-well plate manifold		5185-5778
Luer adapters for 96-well flexible cartridge	25/pk	5185-5789
Needle valve for 96-well manifold		5185-5783
On/off valve for 96-well manifold		5185-5785
Vacuum gauge for 96-well manifold		5185-5786
Vacuum outlet (Ni plated) for 96-well manifold		5185-5784

Sealing Mats

Sealing mats help prevent sample contamination or evaporation that can occur when plates are exposed to environmental conditions.

Sealing Mats

Description	Unit	Part No.
96-well plate sealing mats, round	50/pk	5042-1389



Collection plate, showing 96-position closing mat, 5042-1389