strata™

Strata SPE
Sample Preparation Products

- Clean Extracts
- Higher Recovery
- Better Reproducibility

phenomenex®
...breaking with tradition℠

Guaranteed Performance

Our Strata SPE product line embodies quality and performance. Its extensive quality control procedure provides trouble-free solid phase extraction methods. All Strata SPE phases and formats are the result of a sophisticated manufacturing process-eliminating variability.

Every product undergoes comprehensive QC testing to ensure reproducible product manufacturing

- Consistent flow characteristics
- Consistent phase selectivity
- Inert sorbent and materials

Cross Reference

Phenomenex Strata	Waters Sep-Pak	Varian Bond Elut	Supelco Discovery	UCT	JT BAKER Bakerbond	IST ISOLUTE	Macherey-Nagel Chromabond
Reversed Phase							
C18-E	tC18	C18	DSC-18	C18	Octadecyl	C18 (EC)	C18ec
C18-U					PolarPlus Octadecyl Lightload	C18	C18 C18 PAH
C18-T	C18		DStC-18Lt				
C8	C8	C8	DSC-8	C8	Octyl	C8(EC)	C8
Phenyl (PH)		PH	DSC-PH	Phenyl	Phenyl	PH(EC)	
SDB-L		ENV LMS	DSC-PS/DVB		H_2O-phobic DVB	101	HR-P
Normal Phase							
Si-1 (Silica)		Silica	DSC-Silica	Silica	Silica Gel	Silica	SiOH
FL-PR (Florisil®)	Florisil®	Florisil®		Florisil®	Florisil®	FL	Florisil®
NH_2	NH_2	NH_2	DSC-NH_2	Amino Propyl	Amino	NH_2	NH_2
CN	CN	CN-U	DSC-CN	CN	Cyano	CN	CN
Ion Exchange							
ABW						ENVOLUTE ABN	
SAX		SAX	DSC-SAX	Quaternary Amine	Quaternary Amine	SAX	SB
SCX		SCX	DSC-SCX	Benzene Sulfonic Acid	Aromatic Sulfonic Acid	SCX	SA
WCX		CBA	DSC-WCX	Carboxylic Acid	Carboxylic Acid	CBA	PCA
Screen-C		Certify I		Clean Screen DAU	Narc-2	HCX	Drug
Screen-C GF		Certify HF		Xtract DAU			
Screen-A		Certify II		Clean Screen THC	Narc-1	HAX	

guarantee

If Strata SPE or Sepra bulk products do not perform as well or better than your current SPE product of similar phase, mass and size, return the product with comparative data within 45 days for a FULL REFUND.

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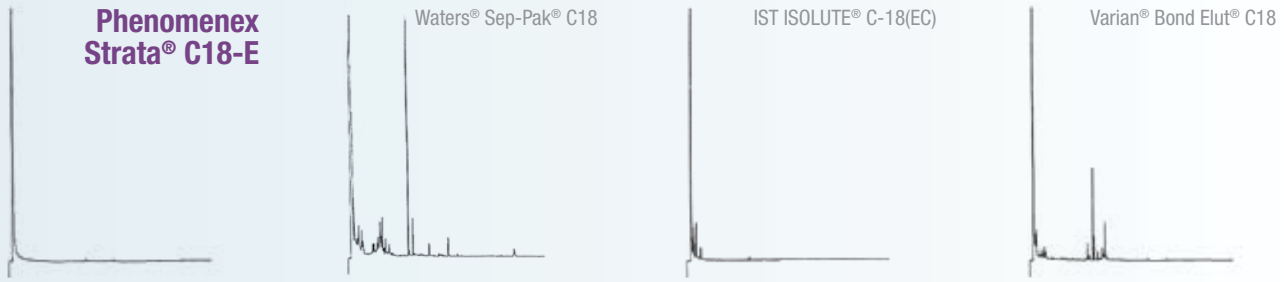
High Quality Economical Product Designed to Meet Your Sample Preparation Needs

Improve your results now with a change to Strata

Combining over 25 years of industry knowledge and chromatography experience, Phenomenex has developed the Strata SPE line within our extensive Sample Preparation product range. Strata SPE encompasses a variety of high quality sorbents and formats designed to effectively cleanup and concentrate samples from matrices encountered in all industries.

Inert material leads to cleaner extracts

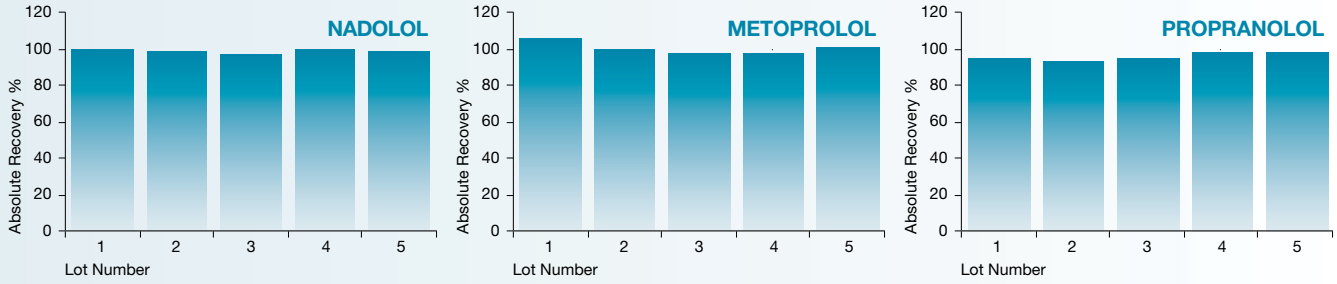
In this comparison test, Strata C18-E gives cleaner extracts than manufacturer's alternative solutions



Contact Phenomenex for details regarding this method.

Consistent manufacturing and QC ensures reproducible results

Recovery data for 3 different lots of Strata C18-E 200 mg/3 mL



Certificate of Analysis included with every box of Strata

Selecting the Right Strata SPE Product

- Sorbent bed mass
- Reservoir volume
- Wash/elution volume

Determining Proper Bed Mass

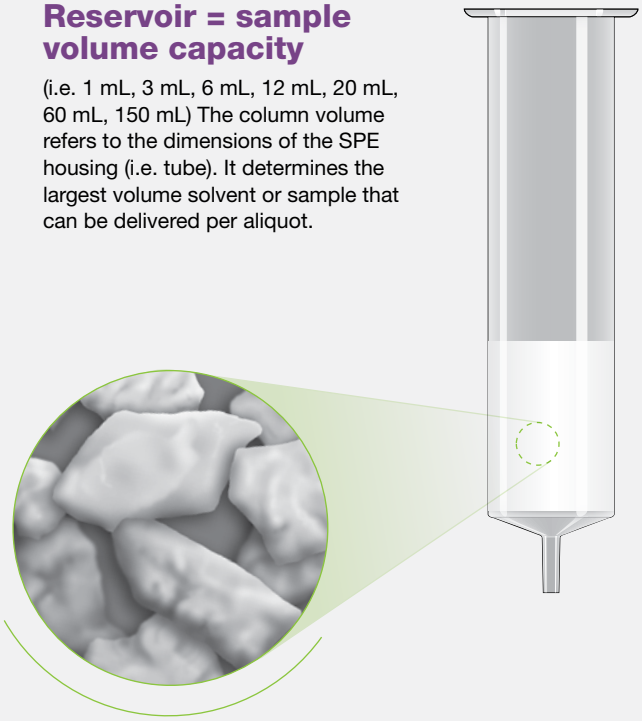
Sorbent Bed Mass = Analyte Capacity
(i.e. 30 mg, 50 mg, 60 mg, 100 mg, 150 mg, 200 mg, 500 mg, 1 g, 2 g, 5 g, 10 g, 20 g, 50 g, 70 g) The sorbent bed mass determines the maximum amount of analyte that can be retained by the sorbent.

Silica-based sorbents
Non-ionic sorbents retain a mass of solute (analyte plus retained contaminants) that is equivalent to approximately 5 % of the sorbent mass. Therefore, a 100 mg cartridge can retain approximately 5 mg of total solute mass.

Ion-exchange sorbents
Capacity is determined by the number of charged sites on the sorbent available to interact with the analyte.

Reservoir = sample volume capacity

(i.e. 1 mL, 3 mL, 6 mL, 12 mL, 20 mL, 60 mL, 150 mL) The column volume refers to the dimensions of the SPE housing (i.e. tube). It determines the largest volume solvent or sample that can be delivered per aliquot.



Suggested Loading Capacity

Silica-Based Sorbents
(Strata C18-E, C8, SCX, SAX, WCX, NH_2, etc.)

Sample Matrix	Sorbent Mass
Blood, serum, plasma	50 mg sorbent per 250 µL
Urine	50 mg sorbent per 500 µL
Filtered tissue homogenates	100 mg sorbent per 100 mg tissue

Environmental Samples	Sorbent Mass
Water (particulate-free) drinking	500 mg/ 100-500 mL sample
Water (particulate-laden) rivers, runoff, etc.	1 g/ 100-500 mL sample
Soil Extracts	1 g/ 100 mL of soil extract

Reduce breakthrough by selecting the proper bed mass!

Sorbent Wash & Elution Volumes*

The volume of solvent needed for SPE processing is directly related to the mass of sorbent in the SPE tube, and more specifically, the "bed volume" of the SPE device. Intuitively we know more sorbent requires more solvent, less sorbent = less solvent. Typically, 4 – 16 bed volumes are used in SPE methods.

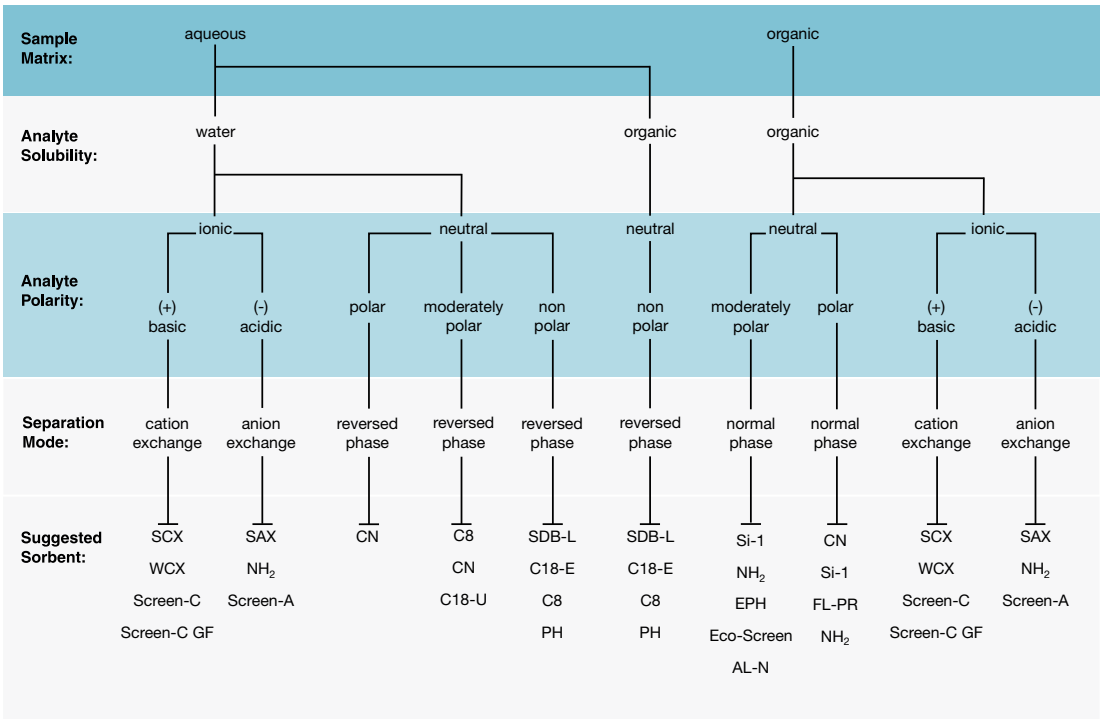
Silica-Based Sorbent Mass	Practical Minimum Wash and Elution Volume 4 bed volumes	Recommended Wash and Elution Volume 8 bed volumes	Polymer-Based Sorbent Mass*	Practical Minimum Wash and Elution Volume 4 bed volumes	Recommended Wash and Elution Volume 8 bed volumes
10 mg	60 µL	120 µL	10 mg	100 µL	200 µL
—	—	—	30 mg	300 µL	600 µL
50 mg	300 µL	600 µL	—	—	—
—	—	—	60 mg	600 µL	1.2 mL
100 mg	600 µL	1.2 mL	100 mg	1 mL	2 mL
150 mg	900 µL	1.8 mL	150 mg	1.5 mL	3 mL
200 mg	1.2 mL	2.4 mL	200 mg	2 mL	4 mL
500 mg	3 mL	6 mL	500 mg	5 mL	10 mL
1 g	6 mL	12 mL	1 g	10 mL	20 mL
2 g	12 mL	24 mL	—	—	—
5 g	30 mL	60 mL	—	—	—
10 g	60 mL	120 mL	—	—	—

*Strata polymeric resins have a larger surface area than Strata silica-based material hence requiring slightly more solvent per gram for processing. The elution volumes are specific to the chemical nature of the analyte being extracted, its concentration in the sample, the chemical nature of the eluting solvent and the bed mass used. The above is a guideline, an elution study should be conducted to determine the appropriate volume to use.

Selecting the Proper Strata Phase

Reversed Phase	Benefits	Typical Application
C18-E	Extraction of hydrophobic molecules from aqueous and biological samples.	**Extraction of hydrophobic or polar organic analytes from aqueous matrix**
C18-U	Increased extraction efficiency and enhanced clean-up of hydrophobic compounds that contain hydroxy or amine functional groups from water or biological fluids.	
C18-T	Wide pore. Extraction of large hydrophobic molecules (up to 75 kD) from water or biological matrices.	
C8	Extraction of hydrophobic compounds from water or biological fluids that are retained too strongly on Strata C18-E or Strata-X.	
Phenyl	Extraction of aromatic hydrophobic compounds.	
CN	Extraction of non-polar, compounds that are retained too strongly on Strata C18-E or C8.	
SDB-L	Styrene-divinylbenzene. Extraction of non-polar and polar molecules.	
Normal Phase	**Benefits**	**Typical Application**
CN	Normal phase sorbent that can effectively extract polar compounds from non-polar solvents.	**Extraction of polar analytes from non-polar organic solvents**
NH_2	Extraction of strong anions from aqueous samples.	
EPH	Fractionation of aliphatic and aromatic extractable hydrocarbons from environmental samples.	
Silica	Extraction of polar compounds that are similar in structure.	
Florisil® (FL-PR)	Extraction of pesticides from environmental samples.	
Alumina-N (AL-N)	Extraction of polar compounds from food and environmental samples.	
Eco-Screen	Extraction of naphthalene from environmental samples.	
Ion-Exchange	**Benefits**	**Typical Application**
WCX	Weak cation exchange. Extraction of quaternary amines.	**Extraction of charged analytes from aqueous or non-polar organic samples**
SCX	Strong cation exchange. Extraction of 1°, 2° and 3° amines from biological fluids.	
Screen-C	Mixed mode cation exchange. Extraction of basic drugs from biological matrices such as blood, serum and urine.	
WAX	Weak anion exchange. Extraction of strong and/or weak anions from aqueous solvent.	
SAX	Strong anion exchange. Extraction of organic acids.	
Screen-A	Mixed mode anion exchange. Extraction of acidic drugs from biological matrices such as blood, serum and urine.	
ABW	Specialty phase. Fractionation of neutral compounds such as amides from acidic and basic analytes.	

Strata Selection Tree



Quality Product Offerings

For Flash and Large Scale-up

- Available in 12, 20, 60, and 150 mL volume tube sizes
- Pre-packed formats eliminate excess labor associated with glass packed columns

For Traditional Sample Preparation

- Compatible with most manifolds and robotic workstations
- Consistent well-to-well and tube-to-tube flow

For On-line Screening

- 1-3 minute run time
- Direct inject analysis

For Flash Analysis

- Wide range of polar and non-polar selectivities
- Gram to kilogram quantities

Reversed Phase

Strata C18-E

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
50 mg	8B-S001-DAK	1 mL (100/box)	
100 mg	8B-S001-EAK	1 mL (100/box)	
100 mg	8B-S001-EBJ	3 mL (50/box)	
200 mg	8B-S001-FBJ	3 mL (50/box)	
500 mg	8B-S001-HBJ	3 mL (50/box)	
500 mg	8B-S001-HCH	6 mL (30/box)	
Giga™ Tube			
500 mg	8B-S001-HDG	12 mL (20/box)	
2 g	8B-S001-KDG	12 mL (20/box)	
5 g	8B-S001-LEG	20 mL (20/box)	
10 g	8B-S001-MFF	60 mL (16/box)	
20 g	8B-S001-VFF	60 mL (16/box)	
50 g	8B-S001-YSN	150 mL (8/box)	
70 g	8B-S001-ZSN	150 mL (8/box)	
96-Well Plate			
25 mg	8E-S001-CGB	2 Plates/Box	
50 mg	8E-S001-DGB	2 Plates/Box	
100 mg	8E-S001-EGB	2 Plates/Box	

On-Line Extraction Cartridge

Description	Part No.	Unit/ Box	Price
Strata C18 on-line extraction cartridge, 20 x 2.0 mm	00M-S039-B0-CB	ea	
Cartridge holder, 20 mm	CH0-5845	ea	

Strata C8

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S005-EAK	1 mL (100/box)	
200 mg	8B-S005-FBJ	3 mL (50/box)	
500 mg	8B-S005-HBJ	3 mL (50/box)	
500 mg	8B-S005-HCH	6 mL (30/box)	
1 g	8B-S005-JCH	6 mL (30/box)	
Giga™ Tube			
2 g	8B-S005-KDG	12 mL (20/box)	
5 g	8B-S005-LEG	20 mL (20/box)	
10 g	8B-S005-MFF	60 mL (16/box)	
96-Well Plate			
25 mg	8E-S005-CGB	2 Plates/Box	
50 mg	8E-S005-DGB	2 Plates/Box	
100 mg	8E-S005-EGB	2 Plates/Box	

On-Line Extraction Cartridge

Description	Part No.	Unit/ Box	Price
Strata C8 on-line extraction cartridge, 20 x 2.0 mm	00M-S101-B0-CB	ea	
Cartridge holder, 20 mm	CH0-5845	ea	

Strata C18-U

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S002-EAK	1 mL (100/box)	
200 mg	8B-S002-FBJ	3 mL (50/box)	
500 mg	8B-S002-HCH	6 mL (30/box)	
96-Well Plate			
50 mg	8E-S002-DGB	2 Plates/box	

Strata C18-T (wide pore)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S004-EAK	1 mL (100/box)	
200 mg	8B-S004-FBJ	3 mL (50/box)	
500 mg	8B-S004-HBJ	3 mL (50/box)	
500 mg	8B-S004-HCH	6 mL (30/box)	
1 g	8B-S004-JCH	6 mL (30/box)	

Strata Phenyl

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S006-EAK	1 mL (100/box)	
200 mg	8B-S006-FBJ	3 mL (50/box)	
500 mg	8B-S006-HBJ	3 mL (50/box)	
96-Well Plate			
50 mg	8E-S006-DGB	2 Plates/Box	
100 mg	8E-S006-EGB	2 Plates/Box	

Strata SDB-L

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S014-EAK	1 mL (100/box)	
200 mg	8B-S014-FBJ	3 mL (50/box)	
500 mg	8B-S014-HBJ	3 mL (50/box)	
500 mg	8B-S014-HCH	6 mL (30/box)	
1 g	8B-S014-JCH	6 mL (30/box)	
96-Well Plate			
50 mg	8E-S014-DGB	2 Plates/Box	

Strata CN

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S007-EAK	1 mL (100/box)	
500 mg	8B-S007-HBJ	3 mL (50/box)	
500 mg	8B-S007-HCH	6 mL (30/box)	

guarantee

If Strata SPE or Sepra bulk products do not perform as well or better than your current SPE product of similar phase, mass and size, return the product with comparative data within 45 days for a FULL REFUND.

Normal Phase

Strata NH_2 / WAX

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S009-EAK	1 mL (100/box)	
200 mg	8B-S009-FBJ	3 mL (50/box)	
500 mg	8B-S009-HBJ	3 mL (50/box)	
500 mg	8B-S009-HCH	6 mL (30/box)	
1 g	8B-S009-JCH	6 mL (30/box)	
Giga™ Tube			
500 mg	8B-S009-HDG	12 mL (20/box)	
2 g	8B-S009-KDG	12 mL (20/box)	
5 g	8B-S009-LEG	20 mL (20/box)	
96-Well Plate			
25 mg	8E-S009-CGB	2 Plates/Box	
50 mg	8E-S009-DGB	2 Plates/Box	
100 mg	8E-S009-EGB	2 Plates/Box	

Strata EPH (specialty phase)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
500 mg	8B-S031-HBJ	3 mL (50/box)	
Giga™ Tube			
5 g	8B-S031-LEG	20 mL (20/box)	

Strata CN

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S007-EAK	1 mL (100/box)	
500 mg	8B-S007-HBJ	3 mL (50/box)	
500 mg	8B-S007-HCH	6 mL (30/box)	

Strata Florisil®
(pesticide residue grade)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
500 mg	8B-S013-HBJ	3 mL (50/box)	
500 mg	8B-S013-HCH	6 mL (30/box)	
1g	8B-S013-JCB	6 mL (30/box)	
Giga™ Tube			
2 g	8B-S013-KDG	12 mL (20/box)	
5 g	8B-S013-LEG	20 mL (20/box)	
10 g	8B-S013-MFF	60 mL (16/box)	

Strata Silica (Si-1)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S012-EAK	1 mL (100/box)	
200 mg	8B-S012-FBJ	3 mL (50/box)	
500 mg	8B-S012-HBJ	3 mL (50/box)	
500 mg	8B-S012-HCH	6 mL (30/box)	
1 g	8B-S012-JCH	6 mL (30/box)	
Giga™ Tube			
500 mg	8B-S012-HDG	12 mL (20/box)	
2 g	8B-S012-KDG	12 mL (20/box)	
5 g	8B-S012-LEG	20 mL (20/box)	
10 g	8B-S012-MFF	60 mL (16/box)	
20 g	8B-S012-VFF	60 mL (16/box)	
50 g	8B-S012-YSN	150 mL (8/box)	
70 g	8B-S012-ZSN	150 mL (8/box)	
96-Well Plate			
100 mg	8E-S012-EGB	2 Plates/Box	

Cation Exchange

Strata WCX
(weak cation exchange)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S027-EAK	1 mL (100/box)	
200 mg	8B-S027-FBJ	3 mL (50/box)	
500 mg	8B-S027-HBJ	3 mL (50/box)	
500 mg	8B-S027-HCH	6 mL (30/box)	
1 g	8B-S027-JCH	6 mL (30/box)	
96-Well Plate			
25 mg	8E-S027-CGB	2 Plates/Box	
50 mg	8E-S027-DGB	2 Plates/Box	
100 mg	8E-S027-EGB	2 Plates/Box	

Strata SCX
(strong cation exchange)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S010-EAK	1 mL (100/box)	
100 mg	8B-S010-EBJ	3 mL (50/box)	
200 mg	8B-S010-FBJ	3 mL (50/box)	
500 mg	8B-S010-HBJ	3 mL (50/box)	
500 mg	8B-S010-HCH	6 mL (30/box)	
1 g	8B-S010-JCH	6 mL (30/box)	
Giga™ Tube			
2 g	8B-S010-KDG	12 mL (20/box)	
5 g	8B-S010-LEG	20 mL (20/box)	
10 g	8B-S010-MFF	60 mL (16/box)	
20 g	8B-S010-VFF	60 mL (16/box)	
96-Well Plate			
25 mg	8E-S010-CGB	2 Plates/Box	
100 mg	8E-S010-EGB	2 Plates/Box	

Strata Screen-C
(mixed-mode cation exchange)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S016-EAK	1 mL (100/box)	
100 mg	8B-S016-EBJ	3 mL (50/box)	
150 mg	8B-S016-SBJ	3 mL (50/box)	
200 mg	8B-S016-FBJ	3 mL (50/box)	
300 mg	8B-S016-RBJ	3 mL (50/box)	
150 mg	8B-S016-SCH	6 mL (30/box)	
500 mg	8B-S016-HCH	6 mL (30/box)	

Anion Exchange

Strata NH_2 / WAX

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S009-EAK	1 mL (100/box)	
200 mg	8B-S009-FBJ	3 mL (50/box)	
500 mg	8B-S009-HBJ	3 mL (50/box)	
500 mg	8B-S009-HCH	6 mL (30/box)	
1 g	8B-S009-JCH	6 mL (30/box)	
Giga™ Tube			
500 mg	8B-S009-HDG	12 mL (20/box)	
2 g	8B-S009-KDG	12 mL (20/box)	
5 g	8B-S009-LEG	20 mL (20/box)	
96-Well Plate			
25 mg	8E-S009-CGB	2 Plates/Box	
50 mg	8E-S009-DGB	2 Plates/Box	
100 mg	8E-S009-EGB	2 Plates/Box	

Strata SAX (strong anion exchange)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S008-EAK	1 mL (100/box)	
100 mg	8B-S008-EBJ	3 mL (50/box)	
200 mg	8B-S008-FBJ	3 mL (50/box)	
500 mg	8B-S008-HBJ	3 mL (50/box)	
500 mg	8B-S008-HCH	6 mL (30/box)	
1 g	8B-S008-JCH	6 mL (30/box)	
Giga™ Tube			
500 mg	8B-S008-HDG	12 mL (20/box)	
2 g	8B-S008-KDG	12 mL (20/box)	
5 g	8B-S008-LEG	20 mL (20/box)	
10 g	8B-S008-MFF	60 mL (16/box)	
20 g	8B-S008-VFF	60 mL (16/box)	
96-Well Plate			
25 mg	8E-S008-CGB	2 Plates/Box	
50 mg	8E-S008-DGB	2 Plates/Box	
100 mg	8E-S008-EGB	2 Plates/Box	

Strata Screen-A
(mixed-mode anion exchange)

Sorbent Mass	Part No.	Unit/Box	Price
Tube			
100 mg	8B-S019-EAK	1 mL (100/box)	
200 mg	8B-S019-FBJ	3 mL (50/box)	
500 mg	8B-S019-HCH	6 mL (30/box)	
96-Well Plate			
25 mg	8E-S019-CGB	2 Plates/Box	

Strata ABW (specialty phase)

Sorbent Mass	Part No.	Unit/Box	Price
Giga™ Tube			
2 g	8B-S030-KDG	12 mL (20/box)	
5 g	8B-S030-LEG	20 mL (20/box)	

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