

Sample Preparation

Solid Phase Extraction



SPE Cartridges

Solid Phase Extraction cartridges from CRS provide fast and efficient sample clean-up and concentration prior to analysis. Cartridges use medical grade polypropylene tubes, porous polyethylene frits, and highly reproducible sorbents. SPE syringe cartridges are equipped with male luer tips, for versatility in connections and processing.

Choosing the Proper Packing Type

Reversed Phase - C18, C8, and Phenyl bonded phases are available and offer a variety of selectivities. Non-polar to moderately polar compounds in a polar matrix are retained by reversed-phase sorbents. Reversed-phase packings require conditioning with an organic solvent followed by an aqueous solvent prior to use. Elution of moderately polar compounds is often accomplished with mid-polarity solvents while non-polar compounds require less polar solvents.

Normal Phase - Silica, Florisil, Amino, Cyano, Diol and Alumina are usually used to retain polar compounds from non-polar matrices. Conditioning is carried out with a non-polar solvent. Elution is accomplished with more polar solvents. Compounds with pH basic functional groups are readily retained by silica. However, very polar compounds such as carbohydrates can be irreversibly retained on silica surface. In this case, a bonded and mid-polarity phase such as Diol or Amino is a better choice.

Ion Exchange - Strong anion (SAX) and cation (SCX) exchangers are available. Anions and cations are retained on the corresponding resin by exchanging the anion or cation in the buffers, 0.1 M - 0.5 M, or by changing the pH of elution solvent such that the sample compound is no longer charged. These resins are silica based and lose some exchange capacity with increasing organic solvent content in the sample.

Reverse Phase SPE Cartridges, Non-Polar

Description	Qty	Item No.
C18 (ODS)		
C18, 100 mg/1 mL	100/pk	186311
C18, 200 mg/3 mL	50/pk	186312
C18, 500 mg/3 mL	50/pk	186313
C18, 500 mg/6 mL	50/pk	186314
C18, 1000 mg/6 mL	30/pk	186315
C8 (Octyl)		
C8, 100 mg/1 mL	100/pk	186321
C8, 200 mg/3 mL	50/pk	186322
C8, 500 mg/3 mL	50/pk	186323
C8, 500 mg/6 mL	50/pk	186324
C8, 1000 mg/6 mL	30/pk	186325
Phenyl		
Phenyl, 100 mg/1 mL	100/pk	186341
Phenyl, 200 mg/3 mL	50/pk	186342
Phenyl, 500 mg/3 mL	50/pk	186343
Phenyl, 500 mg/6 mL	50/pk	186344
Phenyl, 1000 mg/6 mL	30/pk	186345



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Non-Silica SPE Cartridges

Description	Qty	Item No.
Alumina A		
Alumina A, 100 mg/1 mL	100/pk	186461
Alumina A, 200 mg/3 mL	50/pk	186462
Alumina A, 500 mg/3 mL	50/pk	186463
Alumina A, 500 mg/6 mL	50/pk	186464
Alumina A, 1000 mg/6 mL	30/pk	186465
Alumina B		
Alumina B, 100 mg/1 mL	100/pk	186471
Alumina B, 200 mg/3 mL	50/pk	186472
Alumina B, 500 mg/3 mL	50/pk	186473
Alumina B, 500 mg/6 mL	50/pk	186474
Alumina B, 1000 mg/6 mL	30/pk	186475
Alumina N		
Alumina N, 100 mg/1 mL	100/pk	186481
Alumina N, 200 mg/3 mL	50/pk	186482
Alumina N, 500 mg/3 mL	50/pk	186483
Alumina N, 500 mg/6 mL	50/pk	186484
Alumina N, 1000 mg/6 mL	30/pk	186485
Florisil™		
Florisil, 100 mg/1 mL	100/pk	186491
Florisil, 200 mg/3 mL	50/pk	186492
Florisil, 500 mg/3 mL	50/pk	186493
Florisil, 500 mg/6 mL	50/pk	186494
Florisil, 1000 mg/6 mL	30/pk	186495

Normal Phase SPE Cartridges, Polar

Description	Qty	Item No.
Silica		
Silica, 100 mg/1 mL	100/pk	186361
Silica, 200 mg/3 mL	50/pk	186362
Silica, 500 mg/3 mL	50/pk	186363
Silica, 500 mg/6 mL	50/pk	186364
Silica, 1000 mg/6 mL	30/pk	186365
Diol		
Diol, 100 mg/1 mL	100/pk	186391
Diol, 200 mg/3 mL	50/pk	186392
Diol, 500 mg/3 mL	50/pk	186393
Diol, 500 mg/6 mL	50/pk	186394
Diol, 1000 mg/6 mL	30/pk	186395
Cyano (CN)		
Cyano, 100 mg/1 mL	100/pk	186381
Cyano, 200 mg/3 mL	50/pk	186382
Cyano, 500 mg/3 mL	50/pk	186383
Cyano, 500 mg/6 mL	50/pk	186384
Cyano, 1000 mg/6 mL	30/pk	186385
Amino (NH₂)		
Amino, 100 mg/1 mL	100/pk	186371
Amino, 200 mg/3 mL	50/pk	186372
Amino, 500 mg/3 mL	50/pk	186373
Amino, 500 mg/6 mL	50/pk	186374
Amino, 1000 mg/6 mL	30/pk	186375



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Ion Exchange SPE Cartridges

Description	Qty	Item No.
SAX		
SAX, 100 mg/1 mL	100/pk	186411
SAX, 200 mg/3 mL	50/pk	186412
SAX, 500 mg/3 mL	50/pk	186413
SAX, 500 mg/6 mL	50/pk	186414
SAX, 1000 mg/6 mL	30/pk	186415
SCX		
SCX, 100 mg/1 mL	100/pk	186421
SCX, 200 mg/3 mL	50/pk	186422
SCX, 500 mg/3 mL	50/pk	186423
SCX, 500 mg/6 mL	50/pk	186424
SCX, 1000 mg/6 mL	30/pk	186425