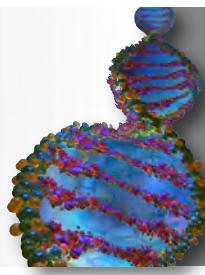


MiniSpin™ Columns



Ideal for quick desalting or removal of unbound reactants for the purification of Peptides, Proteins, Sugars or DNA!

This new generation of SpinColumns™ is designed for the purification of small samples (10µl to 150µl), in either single column or high-throughput, 96-well, formats. The MiniSpin™ and our storable BioPureSPN™ columns use centrifugal force to drive the separation process, so they are more efficient than Tips. Results are not as sample composition dependent as can happen when using Tips.

The Nest Group offers pre-filled MiniSpin™ Columns with a wide selection of chromatographic medias including gel-filtration, ion-exchange, silica-based reversed phase (C4 & C18) and HILIC materials contained by frits and/or caps. Specific materials are available for special applications such as desalting of sugars (charcoal & cellulose) or phospho-peptide isolation (PolyWAX LP). Empty columns can be customer-filled with unique resins, used as filters to remove gel particles, or supplied with caps to use as microchemical reaction & filtration devices.

To use, place the columns, with our supplied tubes, into a benchtop centrifuge, or use a plate centrifuge. Spin for two minutes. The column material binds and purifies the sample according to size, shape, chemical composition, charge or other physiochemical properties.

- Ultra-Micro SpinColumns™ Sample volumes 10 to 25µl
- Micro SpinColumns™ Sample volumes 25 to 75µl
- Macro SpinColumns™ Sample volumes 75 to 150µl
- 96-Well Micro SpinColumns™ Sample volumes 25 to 75µl
- 96-Well Macro SpinColumns™ Sample volumes 75 to 150µl

PACKING MATERIALS AVAILABLE

- Gel Filtration
- G-10, G-25, G-50, G-100, P-2, P-6
- Hydrophobic (non-polar)
- PROTO™ 300 C4 & C18, & Fast Equilibrating TARGA® C18
- Hydrophilic (polar)
- Silica, Cyano (CN), Amino (NH2), Hydrophilic
- Ion Exchange
- Strong Anion, Weak Anion, Strong Cation, Weak Cation
- Specialized
- Activated Charcoal, Cellulose, Detergent Removal, Empty



Ultra-Micro SpinColumn™



Micro SpinColumn™



Macro SpinColumn™



96-Well SpinColumn™

New Capacities!
Storable SPE Formats

HMM S04V
HEM S04V

HMM S18V
HEM S18V

HMM HIL
HEM HIL

HMM S18R
HEM S18R

HILIC PROTO™ C4/C18 TARGA®

Color Coded BioPureSPN™
Equilibrate & Store, or Run & Save

BioPureSPN™



MiniSpin™ Column Kits

Simple Solutions for Small Samples!

MiniSpin Column Kits

MiniSpin Columns are made in RPC solvent resistant polypropylene housings for SPE purification and desalting of small samples (5-200µL).

Applications:

- ◆ Affinity Chromatography
- ◆ Buffer Exchange
- ◆ Carbohydrate
- ◆ DNA
- ◆ Detergent Removal
- ◆ Nick Translation
- ◆ Peptide
- ◆ Primer Removal
- ◆ Protein
- ◆ Radiolabel Removal
- ◆ Removal of Salt
- ◆ Removal of Small Molecules
- ◆ Particle Removal

Product	Sample Capacity	Empty Volume	Void Vol.
Ultra MicroSpin™ Column	3-30µg	50µL	15µL
MicroSpin™ Column	5-60µg	200µL	30µL
MacroSpin™ Column	30-300µg	500µL	95µL
BioPureSPN™ Mini	7-70µg	300µL	20µL
BioPureSPN™ Midi	17-170µg	300µL	50µL
BioPureSPN™ Macro	35-350µg	300µL	100µL
BioPureSPE 96Well Mini	17-70µg	300µL	20µL
BioPureSPE 96Well MACRO	35-350µg	300µL	100µL
Histidine Removal Column	0.2 – 0.5mg	-	-
Empty µ-Reactors™ w/ caps	2-200µL	0.1µL	-
Page*Eraser™ µFilter Tips	2-200µL	0.1µL	-

UltraMicroSpin and UltraMicroTIP Columns:

UltraMicroSpin and UltraMicroTIP columns offer a wide variety of packing materials including ion-exchange, silica based reverse and normal phase materials, as well as custom materials like IMAC and activated charcoal. UltraMicroSpin columns have industry standard fittings which allow use with a syringe adapter or in a centrifuge (Figure 1).

MicroSpin Columns:

MicroSpin columns have a packing volume of 50µL, which allows SEC sample volumes of 5-25µL. When used in combination with columns of different gel materials, specific separations can be achieved (Figure 2). This process offers many types of separation phase combinations.

Use any of these columns with centrifugation, vacuum or pressure to clean up your protein, DNA, or carbohydrate samples. The recovery is reproducible and there is almost no sample loss.

PAGE*Eraser™ micro filter tips prolong the life of capillary LC-MS columns by removing gel particles from in-gel digests. Recovery of peptides is quantitative from this special low volume 5µm frit.

MacroSpin Columns:

MacroSpin columns have a packing volume of 185µL, suitable for 50-95µL SEC sample volumes or up to 0.35mL for RPC. Due to their size, MacroSpin columns cannot be attached to a syringe. Other materials such as amino acid specific resins from BioMolecular Technologies are available for proteome fractionation using their amino acid selective chemistries. See:

(<http://www.nestgrp.com/protocols/bmt/pi3index.shtml>)

96-Well Format MicroSpin Column Kits:

96-Well Format MicroSpin columns bring speed and low cost to parallel processing, micro sample preparation and are available with 20 different types of column materials. Extended tip wells eliminate cross contamination. Plates come with their own collection wells. Volume control for SEC use is recommended to improve desalting

Volume Dependent Salt Removal Results by SEC:

96-Well MACRO-Spin Plate:	Bed	Load	Desalt %
	125µL	125µL	100%
	125µL	225µL	>99%
	125µL	400µL	78%



Figure 1. Semi-Reusable, Color Coded BioPureSPN™

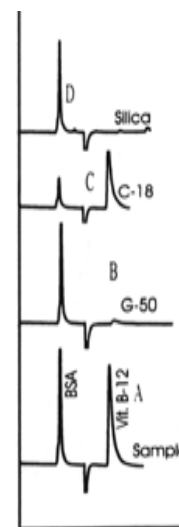
Figure 2. HPLC - Chromatograms after sample prep with MicroSpin column; Sample Vol. 20µL.

(A) Mixture of BSA (MW 68,000) and Vitamin B-12 (MW 1355).

(B) After centrifugation with G-50 (size exclusion) spin column: Smaller molecule (Vitamin B-12) is retained and BSA is eluted. This column can be used for the removal of small molecules such as salt.

(C) After centrifugation with a C18V (PROTO™300 reverse phase) spin column: BSA is retained and Vitamin B-12 is eluted. The C18R column (TARGA C18 reverse phase) can be used for the retention of small molecules in 100% water, after the removal of protein or large molecules.

(D) After centrifugation with Silica (normal phase) spin column: BSA is eluted and Vitamin B-12 is retained. The column can be used for the analysis of small as well as large molecules. By using different eluents, small molecules can be eluted from column after removal of large molecules.



MiniSpin Column Kits Part Numbers and Pricing

	Ultra MicroSpin BioPureSPN Mini		MicroSpin BioPureSPN Midi		96-Well SEC 5-25µL, or 40- 100µL (-L)		MacroSpin BioPureSPN Macro	
Description	Part No.	Price	Part No.	Price	Part No.	Price	Part No.	Price
Empty Col. (20µ frit)	SUM 0000	\$184	SEM 0000	\$184	SNS 0000	\$145	SMM 0020	\$184
	SUM 0000.25	\$68	SEM 0000.25	\$68	SNS 0000-L	\$153	SMM 0020.25	\$68
Empty Col. (40µ frit)	SUM 0040	\$184	SEM 0040	\$184	N/A		SMM 0000	\$184
	SUM 0040.25	\$68	SEM 0040.25	\$68	N/A		SMM 0000.25	\$68
PAGE*Eraser µFilters 5µ	SUM 0007	\$184	SEM 0007	\$184	SNS 0007	\$145	SMM 0007	\$184
	SUM 0007.25	\$68	SEM 0007.25	\$68	SNS 0005-L	\$153	SMM 0007.25	\$68
Empty µ-Reactors (96/pk)	SUM 0000-BW	\$201	N/A		N/A		SMM 0000	\$184
Desalt Protein DNA	Gel Filtration		Gel Filtration		Gel Filtration		Gel Filtration	
G-10 (>700Da)	SUM S010	\$420	SEM S010	\$371	SNS S010	\$162	HMM G010	\$425
	SUM S010.25	\$159	SEM S010.25	\$147	SNS S010-L	\$181	HMM G010.20	\$175
G-25 (>5KDa)	SUM S025	\$420	SEM S025	\$371	SNS S025	\$162	HMM G025	\$425
	SUM S025.25	\$159	SEM S025.25	\$147	SNS S025-L	\$181	HMM G025.20	\$175
G-50 (>30KDa)	SUM S050	\$420	SEM S050	\$371	SNS S050	\$162	HMM G050	\$425
	SUM S050.25	\$159	SEM S050.25	\$147	SNS S050-L	\$181	HMM G050.20	\$175
G-100 (>100KDa)	SUM S100	\$420	SEM S100	\$371	SNS S100	\$162	HMM G100	\$425
	SUM S100.25	\$159	SEM S100.25	\$147	SNS S100-L	\$181	HMM G100.20	\$175
Carbohydrate	Gel Filtration		Gel Filtration		Gel Filtration		Gel Filtration	
P-2 (>2KDa)	SUM P020	\$357	SEM P020	\$383	SNS P020	\$208	SMM P020	\$326
(for glycoproteins)	SUM P020.25	\$152	SEM P020.25	\$156	SNS P020-L	\$233	SMM P020.25	\$102
P-6 (>6KDa)	SUM P060	\$357	SEM P060	\$383	SNS P060	\$208	SMM P060	\$344
(for glycoproteins)	SUM P060.25	\$152	SEM P060.25	\$147	SNS P060-L	\$233	SMM P060.25	\$102
Active Graphite	HUM AC	\$380	HEM AC	\$390	HNS AC	\$420	HMM AC	\$500
BioPureSPN <i>Config'n</i>	HUM AC.20	\$125	HEM AC.20	\$125	SNS AC-L	\$500	SMM AC.20	\$150
Cellulose	SUM SCELL	\$383	SEM SCELL	\$342	SNS SCELL	\$162	SMM SCELL	\$309
	SUM SCELL.25	\$152	SEM SCELL.25	\$156	SNS SCELLL	\$224	SMM SCELL.25	\$106

Microchemical Extraction BioPureSPN 20-50µL (7-70µg) 50-100µL (17-170µg) 50-100µL (17-170µg) & 50-200µL (35-350µg)(-L) 50-200µL (35-350µg)

Reversed Phase								
C-18, 300Å (pept-prot)	HUM S18V	\$345	HEM S18V	\$345	HNS S18V (20mg)	\$210	HMM S18V	\$350
BioPureSPN <i>Config'n</i>	(20mg)		(50mg)		HNS S18V-M (50mg)	\$220	(100mg)	
BioPureSPN <i>Config'n</i>	HUM S18V.20	\$125	HEM S18V.20	\$125	HNS S18V-L (100mg)	\$280	HMM S18V.20	\$125
C-4, 300Å (pept-prot)	HUM S04V	\$345	HEM S04V	\$345	HNS S04V (20mg)	\$210	HMM S04V	\$350
BioPureSPN <i>Config'n</i>	(20mg)		(50mg)		HNS S04V-M (50mg)	\$220	(100mg)	
BioPureSPN <i>Config'n</i>	HUM S04V.20	\$125	HEM S04V.20	\$125	HNS S04V-L (100mg)	\$280	HMM S04V.20	\$125
TARGA C-18 (FastEquil.)	HUM S18R	\$345	HEM S18R	\$345	HNS S18R (20mg)	\$210	HMM S18R	\$350
BioPureSPN <i>Config'n</i>	(20mg)		(50mg)		HNS S18R-M (50mg)	\$220	(100mg)	
BioPureSPN <i>Config'n</i>	HUM S18R.20	\$125	HEM S18R.20	\$125	HNS S18R-L (100mg)	\$280	HMM S18R.20	\$125

Microchemical Extraction 12-100µL (3-30µg) 25-200µL (5-60µg) 25-200µL (5-60µg) & 50-400µL (30-300µg)(-L) 50-300µL (30-300µg)

C-18, 300Å (pept-prot)	SUM SS18V	\$351	SEM SS18V	\$371	SNS SS18V	\$218	SMM SS18V	\$440
	SUM SS18V.25	\$160	SEM SS18V.25	\$155	SNS SS18V-L	\$280	SMM SS18V.25	\$136
TARGA C-18 (sm. mol.)	SUM SS18R	\$441	SEM SS18R	\$474	SNS SS18R	\$351	SMM SS18R	\$530
	SUM SS18R.25	\$209	SEM SS18R.25	\$171	SNS SS18R-L	\$468	SMM SS18R.25	\$144
C4, 300Å (protein)	SUM SS04V	\$351	SEM SS04V	\$371	SNS SS04V	\$218	SMM SS04V	\$440
	SUM SS04V.25	\$160	SEM SS04V.25	\$155	SNS SS04V-L	\$245	SMM SS04V.25	\$136
CN, 125Å	SUM SSCN	\$351	SEM SSCN	\$371	SNS SSCN	\$162	SMM SSCN	\$353
	SUM SSCN.25	\$159	SEM SSCN.25	\$155	SNS SSCNL	\$197	SMM SSCN.25	\$113

Microchemical Extraction BioPureSPN 20-200µL (40-200µg IEX) (7-70µg HILIC) 50-200µL (100-500µg IEX) (17-170µg HILIC) 20-200µL (40-200µg IEX) & 50-200µL (100-500µg IEX)(-M) 100-400µL (200-1000µg IEX) (35-350µg HILIC)

Hydrophilic/IEX								
Graphite (glycans, PO4-)	HUM AC	\$380	HEM AC	\$390	HNS AC	\$420	HMM AC	\$420
BioPureSPN <i>Config'n</i>	HUM AC.20	\$125	HEM AC.20	\$125	HNS AC-M	\$500	HMM AC-M	\$500
HILIC/Deter Removal	HUM HIL	\$480	HEM HIL	\$480	HNS HIL	\$480	HMM HIL	\$500
BioPureSPN <i>Config'n</i>	HUM HIL.20	\$120	HEM HIL.20	\$120	HNS HIL-M	\$500	HMM HIL.20	\$125
HILIC-SCX	HUM HIL-SCX	\$480	HEM HIL-SCX	\$480	HNS HIL-SCX	\$480	HMM HIL-SCX	\$500
BioPureSPN <i>Config'n</i>	HUM HIL-SCX.20	\$120	HEM HIL-SCX.20	\$120	HNS HIL-SCX-M	\$500	HMM HIL-SCX.20	\$125
HILIC-WAX	HUM HIL-WAX	\$480	HEM HIL-WAX	\$480	HNS HIL-WAX	\$480	HMM HIL-WAX	\$500
BioPureSPN <i>Config'n</i>	HUM HIL-WAX.20	\$120	HEM HIL-WAX.20	\$120	HNS HIL-WAX-M	\$500	HMM HIL-WAX.20	\$125
HILIC-WCX	HUM HIL-WCX	\$480	HEM HIL-WCX	\$480	HNS HIL-WCX	\$480	HMM HIL-WCX	\$500
BioPureSPN <i>Config'n</i>	HUM HIL-WCX.20	\$120	HEM HIL-WCX.20	\$120	HNS HIL-WCX-M	\$500	HMM HIL-WCX.20	\$125

Microchemical Extraction 12-100µL (3-30µg) 25-200µL (5-60µg) 25-200µL (5-60µg) & 50-400µL (30-300µg)(-L) 50-300µL (30-300µg)

CN, 125Å	SUM SSCN	\$351	SEM SSCN	\$371	SNS SSCN	\$162	SMM SSCN	\$353
	SUM SSCN.25	\$159	SEM SSCN.25	\$155	SNS SSCNL	\$197	SMM SSCN.25	\$113
HILIC/Deter Removal	SUM HIL	\$506	SEM HIL	\$492	SNS HIL	\$506	SMM HIL	\$492
	SUM HIL.25	\$138	SEM HIL.25	\$160	SNS HIL-L	\$547	SMM HIL.25	\$138
DEAE PolyWAX ERLIC	SUM HIL-DE	\$492	SEM HIL-DE	\$492	SNS HIL-DE	\$506	SMM HIL-DE	\$492
	SUM HIL-DE.25	\$138	SEM HIL-DE.25	\$160	SNS HIL-DE-L	\$547	SMM HIL-DE.25	\$136
SCX (PolySULFO)	SUM HIL-SCX	\$492	SEM HIL-SCX	\$492	SNS HIL-SCX	\$506	SMM HIL-SCX	\$520

	SUM HIL-SCX.25	\$138	SEM HIL-SCX.25	\$160	SNS HIL-SCX-L	\$547	SMM HIL-SCX.25	\$148
WCX (PolyCAT A)	SUM HIL-WCX	\$492	SEM HIL-WCX	\$492	SNS HIL-WCX	N/A	SMM HIL-WCX	\$492
	SUM HIL-WCX.25	\$138	SEM HIL-WCX.25	\$160	SNS HIL-WCX-L	\$547	SMM HIL-WCX.25	\$129
	Ultra MicroSpin BioPureSPN Mini		MicroSpin BioPureSPN Midi		96-Well 5-25µL, 40-100µL (- L)		MacroSpin BioPureSPN Macro	

Microchemical Extraction 12-100µL (3-30µg) 25-200µL (5-60µg) 25-200µL (5-60µg) & 50-400µL (30-300µg)(-L) 50-300µL (30-300µg)

Non-Silica IEX								
SAX (CHO Based)	SUM SAX	\$398	SEM SAX	\$415	SNS SAX	\$203	SMM SAX	\$530
	SUM SAX.25	\$161	SEM SAX.25	\$165	SNS SAX-L	\$257	SMM SAX.25	\$125
WAX (CHO Based)	SUM WAX	\$375	SEM WAX	\$382	SNS WAX	\$203	SMM WAX	\$344
	SUM WAX.25	\$158	SEM WAX.25	\$154	SNS WAX-L	\$218	SMM WAX.25	\$120
SCX (CHO Based)	SUM SCX	\$375	SEM SCX	\$380	SNS SCX	\$203	SMM SCX	\$373
	SUM SCX.25	\$158	SEM SCX.25	\$158	SNS SCX-L	N/A	SMM SCX.25	\$120
WCX (CHO Based)	SUM WCX	\$375	SEM WCX	\$367	SNS WCX	\$203	SMM WCX	\$344
	SUM WCX.25	\$158	SEM WCX.25	\$154	SNS WCX-L	\$220	SMM WCX.25	\$120

ID Biologics Antibody Concentration Kits

115µL ---> 20µL

ConSep™ mAb Conc (100 pk)			ID-CS-100	\$475				
ConSep mAb Conc (25 pk)			ID CS-25	\$135				

Antibody Formulation Histidine Rmvl Kits

20-150µL (10-150µg)

Histidine Removal (100/pk)	N/A		ID-HS-100	\$395	N/A		N/A	
Histidine Removal (25/pk)	N/A		ID HS-25	\$110	N/A		N/A	
Histidine Removal (50/pk)	N/A		ID HS-250	\$395	N/A		N/A	

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