

# Higgins Analytical Sample Preparation Cartridges

## BioPureSPE™ PROTO™ Solid Phase Extraction Cartridges

- For extraction, concentration and cleanup of proteins, peptides and other biological samples

Higgins BioPureSPE Solid Phase Extraction (SPE) cartridges are disposable sample cleanup cartridges which complement Higgins Analytical, Inc. HPLC columns. BioPureSPE cartridges are made from the same high quality silica and bonded with the same chemistries used in PROTO™ 200 and PROTO™ 300 reversed-phase bioseparation HPLC columns. Used in the extraction, concentration or cleanup of proteins, peptides or other biological samples. BioPureSPE cartridges have similar selectivity and recovery as PROTO HPLC columns (see example).

### Applications

- Desalting polypeptide solutions
- Concentration of proteins & peptides
- Removal of HF and cleavage products from cleavage solutions
- Removal of lipids & strongly bound proteins
- Improvement of HPLC resolution by removal of early or late eluting by-products or reagents
- Also useful for preparation of environmental and food samples

## BioPureSPE PROTO™ RPC Cartridges

BioPureSPE are available in two pore and physical sizes:

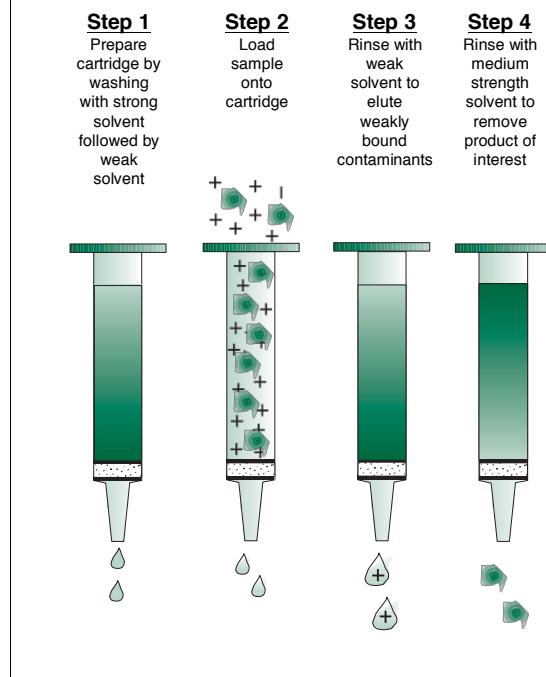
- 1-mL reservoir volume: 50 mg of 10µm material (peptide capacity: 0.5-0.75 mg), 50µL void volume
- 3-mL reservoir volume: 100 mg of 10µm material (peptide capacity: 1-1.5 mg), 100µL void volume.

BioPureSPE cartridges are packed five cartridges in a polyester bag with ten bags to a box.

### Selection Guide and Ordering Information

Phase	Tube Vol	Cat. No.	Adsorbent
C4	1 mL	PSPE-0150-W041	PROTO 300Å pore
	3 mL	PSPE-031C-W041	PROTO 300Å pore
C18	1 mL	PSPE-0150-W181	PROTO 300Å pore
	3 mL	PSPE-031C-W181	PROTO 300Å pore
C4	1 mL	PSPE-0150-D041	PROTO 200Å pore
	3 mL	PSPE-031C-D041	PROTO 200Å pore
C18	1 mL	PSPE-0150-D181	PROTO 200Å pore
	3 mL	PSPE-031C-D181	PROTO 200Å pore

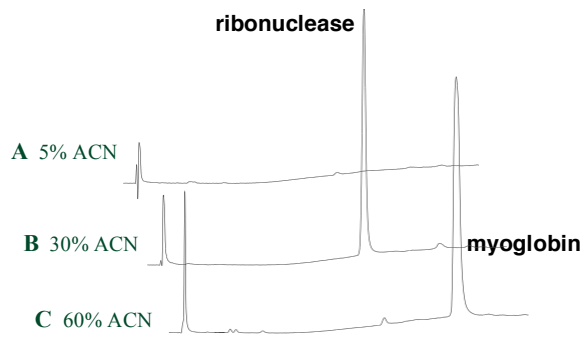
## Easy To Use BioPureSPE Cartridge



## Example

A 3 mL cartridge was conditioned with 1 mL of ACN followed by 1 mL of 5% ACN / 0.1% TFA. Then loaded 100 mg each, ribonuclease and myoglobin in 5% ACN / 0.1% TFA. The cartridge was eluted with 0.2 mL of 5% ACN / 0.1% TFA to remove weakly bound compounds. Elution with 0.2 mL of 30% ACN / 0.1% TFA eluted the ribonuclease. Myoglobin was eluted with 0.2 mL of 60% ACN / 0.1% TFA. Protein was measured in each wash by HPLC.

Analysis of the 5% ACN fraction (Figure A) revealed only a small amount of ribonuclease. Most of the ribonuclease eluted in the 30% ACN wash (Figure B). The myoglobin eluted entirely in the 60% ACN wash (Figure C).



### HPLC Conditions:

PROTO 200 C4 (C4, 5µm, 200Å, 4.6 mm x 50 mm). Gradient 15% to 70% ACN - 0.1% TFA in 10 min.