0.5 mL Micro Spin Desalting Column Kit
Catalog Number: C02027-01-(25/50)

Introduction

Attogene's 0.5mL Micro Spin Desalting Columns are convenient, simple, and ready to be used out of the box. We provide a product that facilitates equal, if not superior results to leading brands products at a significantly better cost. Superlative recovery of proteins and other macromolecules (>7000 MW) with greater than 95% retention of salts, and other small molecules (<1000 MW), are possible even with very dilute (25 ug/mL) samples. Our columns, which are constructed with a simple break away tab at the bottom, are comprised of polypropylene and contain our own proprietary resin slurry that we've developed in house to achieve optimal results. Sample volumes between 30-130uL can be loaded while still achieving expected purification numbers.

The kit provides rapid, simple, and reliable components for purification of protein samples.

Kit Contents: C02027-01-25 and C02027-01-50

Component	Amount	Storage Condition
C02027-01-25	25x Desalting Columns	2 - 8°C
C02027-01-50	50x Desalting Columns	2 - 8°C

Specifications:

Category	Description
Product Type	Spin Desalting Column
Purification	Used for Buffer Exchange, Proteins
Column Type	Size-exclusion, Proprietary Resin
MWCO	7.0 kDa
Quantity	25 to 50 columns (C02027-01-25/50)
Sample Volume (Metric)	30 to 130ul

Performance Comparison of Attogene Desalting Columns:

Attogene Micro Spin Columns		Percent Recovered	Average
1.0575	0.5806	91.1317	
1.0752	0.5983	93.9099	
1.0766	0.5997	94.12965	
1.0688	0.5919	92.90535	
1.0535	0.5766	90.50386	
1.0314	0.5545	87.035	91.60%
Zeba Column			
1.0783	0.6014	94.39649	
1.05	0.5731	89.95448	
1.0361	0.5592	87.77273	
1.0633	0.5864	92.04207	
1.0784	0.6015	94.41219	
1.0565	0.5796	90.97473	91.55%

Tested with 1mg/mL of Human IgG in a 100ul sample volume diluted in PBS.

Buffer Exchange Instructions:

Equipment Required:

- 1.5mL or 2.0 mL microcentrifuge tubes
- Variable-Speed Microcentrifuge

A. Spin Column Preparation

Step 1. Snap break away tab off from the bottom of the column and loosen cap on the top.

Step 2. Place column into a 1.5mL or 2mL centrifuge tube and run for one minute at 1,500 rcf.

Step 3. Remove contents of the centrifuge tube and add 300ul of either PBS lacking preservation agent, HEPES, or another buffer of your choice. Make sure you blot the bottom of the tube and avoid touching the sides.

Step 4. Spin columns down at 1,500rcf for one minute and repeat this step and step three two more times.

Step 5. Place a mark on the side of the column where the compacted resin is slanted upward. Place column in the microcentrifuge with the mark facing outward in all subsequent centrifugation steps. Improper orientation will result in reduced desalting efficiency.

B. Sample Loading

Step 1. Place your desalting column into a new centrifugation tube. Then apply 30-130uL of sample directly to the top of the resin bed.

Step 2. For sample volumes under 70uL apply a 15uL stacker of ultrapure water or buffer to the top of the gel bed after your sample has been fully absorbed. By doing so, this will ensure maximum protein recovery.

Step 3. Centrifuge at 1,500 rcf for two minutes to collect your sample. Discard the used desalting column after use.

Troubleshooting: For issues such as sample/buffer not flowing through resin, sample contamination, and low yields; be sure to carefully read instructions and follow each step as stated. Failure to do so will result in unexpected outcomes.

For Research Use Only. Not for use in diagnostic procedures.