

# 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	2 - 8°C
	Columns	
C02027-01-50	50x Desalting	2 - 8°C
	Columns	

**Specifications:** 

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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	

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# **Performance Comparison of Attogene Desalting Columns:**

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

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

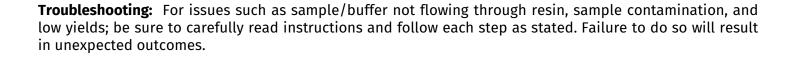
- Step 1. Place your desalting column into a new centrifugation tube. Then apply 30-130uL of sample directly to the top of the resin bed.
- Step 2. For sample volumes under 70uL apply a 15uL stacker of ultrapure water or buffer to the top of the gel bed after your sample has been fully absorbed. By doing 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.

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