INSTRUCTIONS



ZebaTM Spin Desalting Columns, 7K MWCO

89882 89883

Number Description

89882 Zeba Spin Desalting Columns, 0.5mL, 25 columns
89883 Zeba Spin Desalting Columns, 0.5mL, 50 columns

Note: Each column can process a 30-130 µL sample. The resin slurry contains 0.05% sodium azide.

This product is recommended for processing compounds > 7000Da.

Storage: Upon receipt store at 4°C. Product is shipped at ambient temperature.

Introduction

The Thermo Scientific Zeba Spin Desalting Columns contain a high-performance resin that offers exceptional desalting and protein recovery. Sample volumes (30-130 μ L) containing as low as 20 μ g/mL of protein can be processed with \geq 95% retention of salts and other small molecules (< 1000Da). These columns require no chromatography system or cumbersome column preparation or equilibration. Additionally, the spin-column method eliminates the need to wait for samples to emerge by gravity flow, allowing multiple-sample processing in ~6 minutes.

Desalting Procedure

A. Additional Materials Required

- Variable-speed bench-top microcentrifuge
- 1.5mL microcentrifuge collection tubes

A. Spin Column Preparation

- 1. Remove column's bottom closure and loosen cap (do not remove cap).
- 2. Place column in a 1.5-2.0mL collection tube. Centrifuge at $1500 \times g$ for 1 minute to remove storage solution.
- 3. Blot bottom of column to remove excess liquid.
- 4. 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

- 1. Place column in a new tube, remove cap and slowly apply 30-130μL of sample to the center of the compacted resin bed.
- 2. (Optional) For sample volumes $< 70\mu L$ apply a $15\mu L$ stacker of ultrapure water or buffer to the top of the resin bed after the sample has fully absorbed to ensure maximal protein recovery.
- 3. Centrifuge at $1500 \times g$ for 2 minutes to collect desalted sample. Discard desalting column after use.

Buffer Exchange Procedure

A. Additional Materials Required

- Variable-speed bench-top microcentrifuge
- 1.5-2.0mL microcentrifuge collection tubes
- Buffer for exchange



B. Protein Desalting Spin Column Preparation

- 1. Remove column's bottom closure and loosen cap (do not remove cap).
- 2. Place column in a 1.5-2.0mL collection tube. Centrifuge at $1500 \times g$ for 1 minute to remove storage solution.
- 3. 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.
- 4. Add 300μ L of buffer on top of the resin bed. Centrifuge at $1500 \times g$ for 1 minute to remove buffer.
- 5. Repeat Step 4 two to three additional times, discarding buffer from the collection tube.

C. Sample Loading

- 1. Place column in a new collection tube, remove cap and apply 30-130μL of sample to the top of the compact resin bed.
- 2. (Optional) For sample volumes $< 70\mu$ L apply a 15 μ L stacker of ultrapure water or buffer to the top of the gel bed after the sample has fully absorbed to ensure maximal protein recovery.
- 3. Centrifuge at $1500 \times g$ for 2 minutes to collect the sample. Discard desalting column after use.

Troubleshooting

Problem	Possible Cause	Solution
Sample or buffer does not flow through resin	Centrifugation problem	Ensure that centrifuge is in proper working condition
		Ensure bottom closure is removed
		Ensure top cap is loosened
Sample contamination	Improper sample loading	Load sample directly to the center of the resin bed; carefully touch pipette tip to resin to expel all sample
		Avoid contact with sides of column
	Centrifugation problem	Do not exceed recommended speed or centrifugation time
Low yield	No stacker used	Apply a 15μL water or buffer stacker after the sample has entered the gel bed

Related Thermo Scientific Products

Zeba Spin Desalting Plate, 96-well, 2 plates

Zeba Micro Spin Desalting Columns, 25 columns

69574 Slide-A-LyzerTM MINI Dialysis Units, 10K MWCO, 10 units

23225 BCA Protein Assay Kit

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