# **INSTRUCTIONS**



# Zeba<sup>TM</sup> Spin Desalting Plate

89807 89808

Number Description

**Zeba Spin Desalting Plate, 96-well,** 2 plates, each well contains ~550μL resin slurry in 0.05% sodium

azide and can process 20-100µL samples; package contains two wash plates and two collection plates

**Zeba Spin Desalting Plate, 96-well,** 4 plates, each well contains ~550μL resin slurry in 0.05% sodium

azide and can process 20-100µL samples; package contains two wash plates and four collection plates

**Note:** This product is recommended for processing compounds > 7000Da **Storage:** Upon receipt store at 4°C. Product shipped at ambient temperature.

#### Introduction

The Thermo Scientific Zeba Spin Desalting Plate contains a resin that offers high-performance desalting and protein recovery characteristics for multiple sample processing. Sample volumes from 20 to  $100\mu L$  can be processed with > 95% retention of salts and other small molecules (< 1000Da) and exceptional protein recovery. One plate containing 96 samples can be desalted in 5 minutes, enabling processing of multiple samples for downstream analysis, such as mass spectrometry, HPLC, capillary electrophoresis, metabolite screening and assay development. The resin is supplied ready to use with no hydrating or dispensing required.

#### **Additional Materials Required**

- Variable-speed centrifuge with rotor and carriers capable of handling stacked plates (4.4cm height) at  $1000 \times g$
- Multi-channel pipettor and tips

#### **Procedure for Desalting or Removing Small Molecules**

**Note:** To process > 96 samples, evenly divide samples among two plates in Step 7. To process  $\le$  96 samples, balance the centrifuge by using an unprocessed plate with the top and bottom seal in place.

- 1. Equilibrate Zeba Spin Desalting Plates to room temperature.
- 2. Use the tab to remove the sealing material from the bottom of the plate. Place the desalt plate on top of a wash plate.
- 3. Remove the sealing material from the top of the desalt plate.
- 4. Place the assembly into a centrifuge with 96-well plate-carrier rotor and centrifuge at  $1000 \times g$  for 2 minutes to remove the storage buffer. Discard the flow-through.
- 5. Rinse the wash plate three times with deionized water, dry and save for future use.
- 6. Stack the desalting plate on top of a sample collection plate (blue), aligning the alphanumeric indices on the plates.
- 7. Apply sample (20-100μL) to the center of the resin bed. To expel the entire sample, carefully touch pipette tip to the resin. For 20μL protein samples (> 300μg/mL), apply a 20μL stacker of water or buffer on top of the resin bed after the sample has fully absorbed to ensure maximal protein recovery.
- 8. Centrifuge the plate assembly at  $1000 \times g$  for 2 minutes to collect the desalted sample. Discard the desalting plate or reserve it for future balancing purposes.



### **Procedure for Buffer Exchange**

**Note:** To process > 96 samples, evenly divide samples among two plates in Step 7. To process  $\le$  96 samples, balance the centrifuge by using an unprocessed plate with the top and bottom seal in place.

- 1. Equilibrate the Zeba Spin Desalting Plates to room temperature.
- 2. Use the tab to remove the sealing material from the bottom of the plate. Place the desalt plate on top of a wash plate. Remove the sealing material from the top of the desalt plate.
- 3. Place the assembly into a centrifuge with a 96-well plate-carrier rotor and centrifuge at  $1000 \times g$  for 2 minutes to remove the storage buffer. Discard the flow-through.
- 4. Add  $250\mu$ L of buffer on top of the resin bed. Centrifuge at  $1000 \times g$  for 2 minutes and discard the flow-through.
- 5. Repeat Step 4 three additional times. Rinse the wash plate three times with deionized water, dry and save for future use.
- 6. Stack the desalting plate on top of a sample collection plate (blue), aligning the alphanumeric indices on the plates.
- 7. Apply sample (20-100μL) to the center of the resin bed. To expel the entire sample, carefully touch pipette tip to the resin. For 20μL protein samples (> 300μg/mL), apply a 20μL stacker of buffer on top of the resin bed after the sample has fully absorbed to ensure maximal protein recovery.
- 8. Centrifuge the plate assembly at  $1000 \times g$  for 2 minutes to collect processed sample. Discard the desalting plate or reserve it for future balancing purposes.

## **Troubleshooting**

Problem	Possible Cause	Solution
Sample or buffer does not flow through resin	Centrifugation problem	Ensure that centrifuge is properly working
Sample contamination	Improper sample loading	Apply sample directly to the center of the resin bed; carefully touch pipette tip to resin to expel the entire sample
		Avoid contact with sides of the plate wells

#### **Related Thermo Scientific Products**

89877	<b>Zeba Micro Spin Desalting Columns,</b> 25 columns, for 2-12μL samples
89882	Zeba Spin Desalting Columns, 0.5mL, 25 columns, for $30\text{-}130\mu\text{L}$ samples
69574	Slide-A-Lyzer® MINI Dialysis Units, 10K MWCO, 10 units
23225	Pierce® BCA Protein Assay Kit
28372	BupH <sup>TM</sup> Phosphate Buffered Saline Packs, 40 packs
28376	<b>BupH Tris Buffered Saline Packs</b> , 40 packs
24600	Pierce Silver Stain for Mass Spectrometry
89871	In-Gel ™ Tryptic Digestion Kit

This product ("Product") is warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts ("Documentation") and to be free from defects in material and workmanship. Unless otherwise expressly authorized in writing, Products are supplied for research use only. No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the original purchaser of the Product ("Buyer").

No other warranties, express or implied, are granted, including without limitation, implied warranties of merchantability, fitness for any particular purpose, or non infringement. Buyer's exclusive remedy for non-conforming Products during the warranty period is limited to replacement of or refund for the non-conforming Product(s).

There is no obligation to replace Products as the result of (i) accident, disaster or event of force majeure, (ii) misuse, fault or negligence of or by Buyer, (iii) use of the Products in a manner for which they were not designed, or (iv) improper storage and handling of the Products.

Current product instructions are available at <a href="www.thermoscientific.com/pierce">www.thermoscientific.com/pierce</a>. For a faxed copy, call 800-874-3723 or contact your local distributor. © 2011 Thermo Fisher Scientific Inc. All rights reserved. Unless otherwise indicated, all trademarks are property of Thermo Fisher Scientific Inc. and its subsidiaries. Printed in the USA.