



433PR-02

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A Geno Technology, Inc. (USA) brand name

SpinOUT™

For desalting and buffer exchange for protein samples

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ITEMS SUPPLIED

Cat. #	Description	# Supplied	Resin Bed Volume (ml)	Sample Load Volume (ml)
786-703	SpinOUT™ GT-600, 0.1ml	25	0.1	0.005-0.02
786-170	SpinOUT™ GT-600, 1ml	10	1	0.05-0.1
786-171	SpinOUT™ GT-600, 3ml	10	3	0.1-0.5
786-704	SpinOUT™ GT-600, 5ml	5	5	0.5-2
786-705	SpinOUT™ GT-600, 10ml	5	10	0.5-4
786-706	SpinOUT™ GT-1200, 0.1ml	25	0.1	0.005-0.02
786-172	SpinOUT™ GT-1200, 1ml	10	1	0.05-0.1
786-173	SpinOUT™ GT-1200, 3ml	10	3	0.1-0.5
786-707	SpinOUT™ GT-1200, 5ml	5	5	0.5-2
786-708	SpinOUT™ GT-1200, 10ml	5	10	0.5-4

INTRODUCTION

The SpinOUT™ columns are versatile, spin-format columns for the desalting and buffer exchange of protein solutions ranging from 5µl through to 4ml sample volumes. The SpinOUT™ columns are available in two MWCO sizes for >6,000 or >30,000 dalton proteins and are suitable for samples containing as little as 20µg protein/ml.

The SpinOUT™ columns are simply to use as the protein solution is applied and then centrifuged to recover protein with the column retaining >95% of the salts and small molecules (<1,000Da for GT-600 and <1,500 for GT-1200).

STORAGE CONDITIONS

The columns are shipped at ambient temperature. Upon arrival, store the columns at 4°C. If stored and handled correctly the columns have a shelf-life of 1 year.



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ITEMS NEEDED BUT NOT SUPPLIED

- Variable speed centrifuge
- 1.5-2ml microcentrifuge collection tubes for the 0.1ml (Cat. # 786-703, 786-706) and 1ml (Cat. # 786-170, 786-172) spin columns
- 15ml collection tubes for the 3ml (Cat. # 786-171, 786-173) and 5ml (Cat. # 786-704, 786-707) spin columns
- 50ml collection tubes for the 10 ml (Cat. # 786-705, 786-708) spin columns
- Buffer for buffer-exchange

PREPARATION BEFORE USE

1. Prepare the Spin-OUT™ column by removing the top and then bottom caps. Place into an appropriate collection tube.
2. Mark one side of the column and ensure in all centrifugations the mark is facing outwards during centrifugation.
3. Centrifuge the column at 1,000g for 2 minutes to remove the storage buffer. This compacts the resin and removes the storage buffer.

PROTOCOL: PROTEIN DESALTING

1. Place the column in a new collection tube and remove the cap.
2. Slowly, apply the protein solution to the center of the SpinOUT™ resin.
NOTE: See the table above for the recommended volumes to apply to the column.
3. OPTIONAL: For maximal protein recovery, particularly for small sample volumes, apply a stacker of deionized water or buffer to the resin bed after the sample has entered the resin.
 - a. For 0.1ml column, use a 4µl stacker for all samples
 - b. For 1ml column, use a 20µl stacker for samples <70µl
 - c. For 3ml column, use a 40µl stacker for samples <250µl
 - d. For 5ml column, use a 100µl stacker for samples <750µl
 - e. For 10ml column, use a 200µl stacker for samples <1.5ml
4. Centrifuge the column at 1,000g for 2 minutes to collect the desalted protein solution. Discard the column.

PROTOCOL: BUFFER EXCHANGE

1. Place the column in a new collection tube and remove the cap.
2. Add the buffer to be exchanged into to the column
 - a. For 0.1ml column, use 75µl buffer
 - b. For 1ml column, use 0.5ml buffer
 - c. For 3ml column, use 1ml buffer
 - d. For 5ml column, use 2.5ml buffer
 - e. For 10ml column, use 5ml buffer
3. Centrifuge the column at 1,000g for 2 minutes to remove the buffer.
4. Repeat steps 2 and 3 three more times, ensuring the buffer is discarded after each centrifugation.
5. Place the column in a new collection tube and remove the cap.
6. Slowly, apply the protein solution to the center of the SpinOUT™ resin.
NOTE: See the table above for the recommended volumes to apply to the column.

7. **OPTIONAL:** For maximal protein recovery, particularly for small sample volumes, apply a stacker of deionized water or buffer to the resin bed after the sample has entered the resin.
 - a. For 0.1ml column, use a 4µl stacker for all samples
 - b. For 1ml column, use a 20µl stacker for samples <70µl
 - c. For 3ml column, use a 40µl stacker for samples <250µl
 - d. For 5ml column, use a 100µl stacker for samples <750µl
 - e. For 10ml column, use a 200µl stacker for samples <1.5ml
8. Centrifuge the column at 1,000g for 2 minutes to collect the desalted protein solution. Discard the column.

RELATED PRODUCTS

1. **PAGE-Perfect™** (Cat. # 786-123): *A kit to clean up protein samples prior to 1D protein electrophoresis.*
2. **RED 660™ Protein Assay** (Cat. # 786-676): *A single reagent protein assay that has a higher tolerance for detergents and reducing agents.*

NOTE: For other related products, visit our web site at www.GBiosciences.com or contact us.

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