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A Geno Technology, Inc. (USA) brand name

# SpinOUT™

**For Desalting & Buffer Exchange  
for Peptide & Protein Samples**

**(Cat. # 786-170 to 786-173, 786-703 to 786-708,  
786-865 to 786-869)**



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## INTRODUCTION

The SpinOUT™ columns are versatile, spin-format columns for the desalting and buffer exchange of peptide and protein and other macromolecule solutions ranging from 5µl through to 3ml sample volumes. The SpinOUT™ columns are available in three MWCO sizes for >700, >6,000 or >30,000 dalton peptides or proteins and are suitable for samples containing as little as 20µg peptide or protein/ml.

The SpinOUT™ columns are simply to use as the peptide or protein solution is applied and then centrifuged to recover protein with the column retaining >95% of the salts and small molecules (<100Da for SpinOUT™ GT-100, <1,000Da for Spinout™ GT-600 and <1,500 for Spinout™ GT-1200).

## ITEMS SUPPLIED

| Cat. #  | Description             | # Supplied | Resin Bed Volume (ml) | Sample Load Volume (ml) |
|---------|-------------------------|------------|-----------------------|-------------------------|
| 786-865 | SpinOUT™ GT-100, 0.1ml  | 25         | 0.1                   | 0.005-0.03              |
| 786-866 | SpinOUT™ GT-100, 1ml    | 10         | 1                     | 0.03-0.3                |
| 786-867 | SpinOUT™ GT-100, 3ml    | 10         | 3                     | 0.3-0.9                 |
| 786-868 | SpinOUT™ GT-100, 5ml    | 5          | 5                     | 0.75-1.5                |
| 786-869 | SpinOUT™ GT-100, 10ml   | 5          | 10                    | 1-3                     |
| 786-703 | SpinOUT™ GT-600, 0.1ml  | 25         | 0.1                   | 0.005-0.03              |
| 786-170 | SpinOUT™ GT-600, 1ml    | 10         | 1                     | 0.03-0.3                |
| 786-171 | SpinOUT™ GT-600, 3ml    | 10         | 3                     | 0.3-0.9                 |
| 786-704 | SpinOUT™ GT-600, 5ml    | 5          | 5                     | 0.75-1.5                |
| 786-705 | SpinOUT™ GT-600, 10ml   | 5          | 10                    | 1-3                     |
| 786-706 | SpinOUT™ GT-1200, 0.1ml | 25         | 0.1                   | 0.005-0.03              |
| 786-172 | SpinOUT™ GT-1200, 1ml   | 10         | 1                     | 0.03-0.3                |
| 786-173 | SpinOUT™ GT-1200, 3ml   | 10         | 3                     | 0.3-0.9                 |
| 786-707 | SpinOUT™ GT-1200, 5ml   | 5          | 5                     | 0.75-1.5                |
| 786-708 | SpinOUT™ GT-1200, 10ml  | 5          | 10                    | 1-3                     |

## 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.

## SPECIFICATIONS

### **SpinOUT™ GT-100**

- Particle size: 55-165µm
- Exclusion limit ( $M_r$ ): 700

### **SpinOUT™ GT-600**

- Particle size: 20-130µm
- Exclusion limit ( $M_r$ ): 6,000

### **SpinOUT™ GT-1200**

- Particle size: 35-200µm
- Exclusion limit ( $M_r$ ): 30,000

## IMPORTANT INFORMATION

### **Sample Load Volume**

The recommended load volumes (see table) are a guideline. The actual volumes used will be dependent on your sample, the concentration of salts and contaminants to be removed and the recovered purity desired. For optimal removal of contaminants, we recommend using a sample volume of <20% of the resin bed volume.

**NOTE:** Loading more than the recommended load volume will result in a higher level of contaminating salts and other molecules.

## ADDITIONAL ITEMS NEEDED

- 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. Mark one side of the column and ensure in all centrifugations the mark is facing outwards during centrifugation.
2. Prepare the SpinOUT™ column by centrifuging the SpinOUT™ columns at 1,000g for 1 minute to compact the resin.
3. Remove the top and then bottom caps. Place into an appropriate collection tube.
4. Centrifuge the column at 1,000g for 2 minutes to remove the storage buffer.

## PROTOCOL: PROTEIN DESALTING

1. Equilibrate the column with the buffer of choice by applying at least 5 column volumes of buffer in batches of 1-2 column volumes. Centrifuge the column at 1,000g for 2 minutes to remove the buffer after each application.
2. Place the column in a new collection tube and remove the cap.
3. Slowly, apply the protein solution to the center of the SpinOUT™ resin.

**NOTE:** See the table above and Important Information for the recommended volumes to apply to the column.

4. Centrifuge the column at 1,000g for the indicated times in the table below to collect the desalted protein solution. Discard the column.

| Column size  | Centrifugation Time (mins) |
|--------------|----------------------------|
| 0.1ml column | 4                          |
| 1ml column   | 4                          |
| 3ml column   | 6                          |
| 5ml column   | 8                          |
| 10ml column  | 10                         |

Table 1: Centrifugation times for optimal sample recovery.

## 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 1.5ml 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, a further five more times, ensuring the buffer is discarded after each centrifugation.
5. Place the column in a new collection tube and remove the cap.

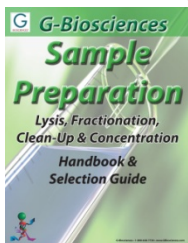
6. Slowly, apply the protein solution to the center of the SpinOUT™ resin.

**NOTE:** See the table above and Important Information for the recommended volumes to apply to the column.

7. Centrifuge the column at 1,000g for the indicated times shown in Table 1 to collect the protein solution. Discard the column.

## RELATED PRODUCTS

Download our Sample Preparation Handbook



<http://info.gbiosciences.com/complete-protein-sample-preparation-handbook/>

For other related products, visit our website at [www.GBiosciences.com](http://www.GBiosciences.com) or contact us.

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