

### Product Specification

Product Name: SpinDesalt Column  
Product Code: BPSE031025

**Product Description:**

The SpinDesalt Column is a disposable, easy to operate product suitable for desalting, buffer exchange or removal of small molecules of proteins or other macromolecule samples with a molecular weight greater than 5000Da.

The SpinDesalt Column contains 0.5ml of Smartdex G-25 medium. Smartdex G-25 series is a type of gel filtration chromatography medium made out of dextran. It works via the molecular mesh structure of dextran gel that has a gel structure to separate molecules based on the varying sizes.

*\*This protocol serves as a recommendation; Please modify specific aspects according to the requirements of your individual research.*

#### Characteristics of Prepacked Desalting Column

Item	Description
Medium	Smartdex G-25
Particle size, wet	85-260µm
Column volume	0.5ml
Maximum loading quantity	200µl
Desalting efficiency	>85%
Exclusion limit	Mr 5000
Storage	2-8°C
Quantity	50 columns/box

Rev 0

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**Things to take note:**

- a. Make sure to remove the lower plug of the centrifugal column before use
- b. Ensure 1000xg centrifugal force is used
- c. The column packing should be equilibrated with at least 2 column bed volumes of binding buffer.
- d. The sample range for each column is 100-200µl. If sample volume is less than 100µl, it is recommended to dilute with binding buffer till 100µl
- e. Ensure to promptly remove the liquid from the collection tube after each step.
- f. The protein recovery rate corresponds to the type of protein and biomolecules used, its recovery rate is usually more than 85%. Increasing the sample concentration and volume can increase its recovery rate.
- g. Each column can only be used once

**Procedures:**

1. Purification Procedure
  - a. *Buffer Preparation:* Binding buffer is recommended to run it through a 0.22µm or 0.45µm filter before use.
  - b. *Sample Preparation:* It is recommended to filter sample by running it through a 0.22 µm or 0.45µm filter before use.
  - c. *Sample Desalting:* Remove the bottom plug from the spin column and put it back into the collection tube. Centrifuge it at 1000xg for 1 minute. Discard the supernatant residue in the collection tube. Place the spin column back into the collection tube and add 250µl of binding buffer. Wait until the binding buffer has penetrated into the packing material and centrifuge it at 1000xg again. Repeat this process 3 more times. Place the spin column into a 1.5ml microcentrifuge tube, add 100-200µl of sample and centrifuge it 1000xg for 1 minute.