

ProteoSpin™ CBED (Concentration, Buffer Exchange and Desalting) Maxi Kit

The ProteoSpin™ CBED Maxi Kit provides a fast and simple procedure for concentrating large volumes of dilute protein solutions for buffer exchange, and for removing different types of salts from protein samples. The kit is based on spin-column chromatography using Norgen's patented protein resin as an ion exchanger. Salts such as MgCl₂, NaCl, KCl, CaCl₂, LiCl, and CsCl have poor affinities for Norgen's resin and are easily removed from the sample. The elution is performed with choices of several different buffer solutions. Each spin column can process 0.25 mg - 8 mg of protein from up to 100 mL of solution. The kit contains complete solutions for the preparation of both acidic and basic proteins. The ProteoSpin™ CBED Maxi Kit can be used to prepare protein samples for structural analysis when larger amounts of proteins are needed, such as x-ray crystallography, NMR spectroscopy and other applications



ProteoSpin™ CBED Maxi Kit Benefits

Fast and easy processing	Efficiently process multiple samples in about 30 minutes using an easy-to-use protocol.
No mixing or formulation	Solutions and protocols are provided for both acidic and basic proteins with no need for formulation.
No molecular weight cutoff	Based on an ion exchange mechanism, a broad size range of proteins (from peptides to large proteins) can be processed.
Proteins bind while salts are discarded in flowthrough	Norgen's resin has an inherent low affinity for salt but high affinity for proteins, providing salt removal and buffer exchange simultaneously
Suitable for downstream applications	Final elution performed with volatile or non-volatile buffers suitable for: <ul style="list-style-type: none">• Mass spectrometry• SDS-PAGE• Isoelectric focusing• X-ray crystallography• NMR spectroscopy

ProteoSpin™ CBED (Concentration, Buffer Exchange and Desalting) Maxi Kit

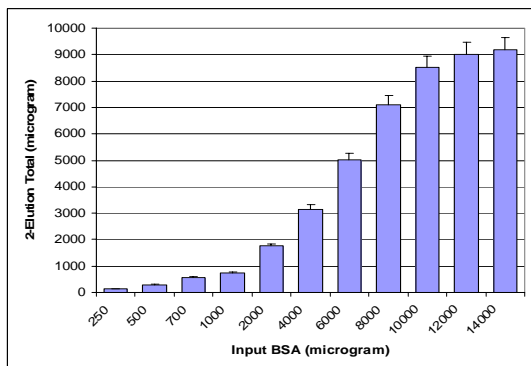


Figure 1. The columns used in the ProteoSpin™ CBED Maxi Kit have a high binding capacity. The saturation point of the columns is 8 mg of protein, as can be seen in the binding of increasing amounts of BSA. The maximum recovery efficiency for BSA was found to be 89% in the linear range.

CBED Maxi Kit Contents

1. Column Activation and Wash Buffer for Acidic Proteins
2. pH Binding Buffer for Acidic Proteins
3. Column Activation and Wash Buffer for Basic Proteins
4. pH Binding Buffer for Basic Proteins
5. Elution Buffer
6. Neutralizer
7. Micro Spin Columns
8. Elution Tubes
9. Short Protocol Card
10. Application Manual

Table 1. Example of BSA Concentration using the ProteoSpin™ CBED Maxi Kit

Volume Concentration
20 mL to 4 mL (5X)
Mass Concentration (µg/µL)
8 mg/20 mL to 7.89 mg/4 mL
0.4 µg/µL to 1.97 µg/µL (5X)

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- Micropipettors
- pH indicator paper
- Other elution buffers (optional)

Storage Conditions

For unopened solution containers, the reagents should remain stable for at least 1 year when stored at room temperature. Once opened, the solutions should be stored at 4°C when not in use. The binding buffers should remain at room temperature with the lids tightly closed. Salt crystal formation may occur when stored at 4°C. If crystals are visible, bring the entire bottle to room temperature and mix gently to redissolve.

Shipping Conditions

The ProteoSpin™ CBED Maxi Kit is shipped at room temperature.

Cat #	Description	Quantity
17000	ProteoSpin™ CBED Maxi Kit	4 samples