

ProteoSpin™ Detergent Clean-Up Maxi Kit

The ProteoSpin™ Detergent Clean-up Maxi Kit provides a fast and simple procedure for the effective removal of SDS, Triton® X-100 and other detergents from protein samples. The kit employs spin-column chromatography using Norgen's patented protein resin as an ion exchanger. Each column is capable of processing 0.25 - 8 mg of either acidic or basic protein. The ProteoSpin™ Detergent Clean-up Maxi Kit provides a convenient method for removing detergents from larger protein samples before running downstream applications including mass spectrometry, SDS-PAGE, proteolytic digestion, isoelectric focusing, x-ray crystallography and NMR spectroscopy.



ProteoSpin™ Detergent Clean-up Maxi Kit Benefits

Fast and easy processing	This easy-to-use procedure allows processing of a number of samples in about 40 minutes
No detergent carryover	Each sample is processed individually using its own spin tube, resulting in no carryover or column bleed from sample to sample.
Useable with a variety of detergents	The kit can be used to remove detergents including SDS, Triton® X-100, CHAPS, NP-40, and Tween 20.
Effective detergent removal	Removes more than 95% of detergents for many protein samples, allowing tryptic digestion.
High recovery	Protein recoveries of up to 100% (using initial detergent concentrations of 0.1% and 1.0%) for many proteins
Suitable for downstream applications	Final elution suitable for: <ul style="list-style-type: none">• Mass spectrometry• SDS-PAGE• Proteolytic digestion• Isoelectric focusing• X-ray crystallography• NMR spectroscopy

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Table 1. Efficient Removal of SDS

Sample	A ₆₀₀	% SDS Remaining	% SDS Removal	mg SDS Removed
Control (water)	0	0	0	0
0.1% SDS	0.271			
Sample 1 (0.1% SDS)	0.007	0.0026%	99.99%	4.987
Sample 2 (1.0% SDS)	0.002	0.007%	99.99%	49.97

Removal of SDS with the ProteoSpin™ Detergent Clean-Up Maxi Kit is greater than 99%, with up to 50 mg of SDS being removed.

Detergent Clean-up 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. Maxi Spin Columns
8. Elution Tubes
9. Short Protocol Card
10. Application Manual

Customer-Supplied Reagents and Equipment

- Benchtop centrifuge
- Micropipettors
- pH indicator paper
- Other optional elution buffers
- Isopropanol
- Sterile, deionized water or Milli-Q® water

Table 2. High Recovery of Proteins from as SDS-Containing Solution

Input Amount (mg)	% SDS	Eluted Amount (mg)	% Recovery
1 mg Lysosyme	0.1%	0.94 mg	94%
2 mg Lysozyme	1.0%	2 mg	100%
2 mg BSA	0.1%	2 mg	100%
4 mg BSA	1.0%	3.7 mg	92.5%

The recovery of both acidic and basic proteins from solutions containing SDS is high using the ProteoSpin™ Detergent Clean-up Maxi Kit. Recoveries up to 100% are often observed, as can be seen in Table 2.

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™ Detergent Clean-up Maxi Kit is shipped at room temperature.

Cat #	Description	Quantity
17100	ProteoSpin™ Detergent Clean-up Maxi Kit	4 samples