

ProteoSpin™ Detergent Clean-Up Micro Kit

The ProteoSpin™ Detergent Clean-up Micro Kit provides a fast and simple procedure for the effective removal of SDS, Triton® X-100 and other detergents from small protein samples. The kit employs spin-column chromatography using Norgen's patented protein resin as an ion exchanger. Each column is capable of processing up to 50 µg of either acidic or basic protein. The ProteoSpin™ Detergent Clean-up Micro Kit provides a convenient method for removing detergents from small protein samples before running downstream applications including mass spectrometry, SDS-PAGE, proteolytic digestion, isoelectric focusing, x-ray crystallography and NMR spectroscopy.



| Kit Specifications | | | |
|-------------------------|----------|----------------------------|------------|
| Maximum Protein Input | 50 µg | % Detergent Removal | > 95% |
| Protein Recovery | 80 - 95% | Minimum Elution Volume | 30 µL |
| Column Binding Capacity | 50 µg | Time to Process 12 Samples | 20 minutes |

ProteoSpin™ Detergent Clean-up Micro Kit Benefits

| | |
|--------------------------------------|--|
| Fast and easy processing | This easy-to-use procedure allows processing of up to 12 samples in only 20 minutes |
| No detergent carryover | Each sample is processed individually using its own spin column, 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 80-95% (using initial detergent concentrations of 0.1%) for many proteins (Figure 1). |
| 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 |

ProteoSpin™ Detergent Clean-up Micro Kit

| Sample | A ₆₀₀ | % SDS Remaining | % SDS Removal | mg SDS Removed |
|---------------------|------------------|-----------------|---------------|----------------|
| Control (water) | 0 | 0 | 0 | 0 |
| 0.1% SDS | 0.142 | | | |
| ProteoSpin sample 1 | 0.024 | 0.017% | 99.98% | 2.457 |
| ProteoSpin sample 2 | 0.030 | 0.02% | 99.98% | 2.458 |

Table 1. Efficient Removal of SDS

Removal of SDS with the ProteoSpin™ Detergent Clean-up Micro Kit is greater than 99%.

Detergent Clean-up Micro 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. Application Manual

Shipping Conditions

The ProteoSpin™ Detergent Clean-up Micro Kit is shipped at room temperature.

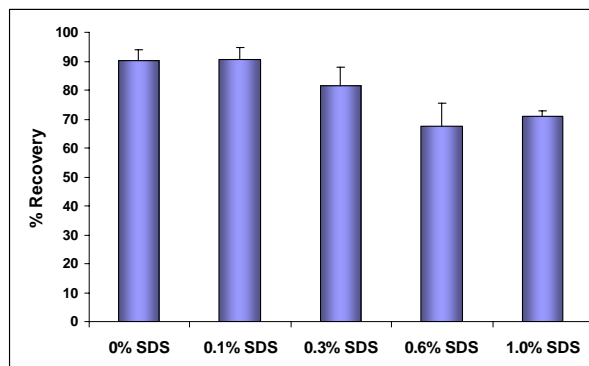


Figure 1. High Protein Recovery in the Presence of SDS

Solutions containing 50 µg BSA and 0-1.0% SDS were processed using the ProteoSpin™ Detergent Clean-up Micro Kit to remove SDS. High protein recovery was obtained even with original SDS concentration as high as 1%.

Customer-Supplied Reagents and Equipment

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

Storage Conditions

Unopened solutions should be stored at room temperature. Once opened, the solutions should be stored at 4°C when not in use, except for the Basic and Acidic Binding Buffers, which should be stored at room temperature.

| Cat # | Description | Quantity |
|-------|--|----------|
| 10200 | ProteoSpin™ Detergent Clean-up Micro Kit | 25 preps |
| 10500 | ProteoSpin™ Detergent Clean-Up Micro Kit | 50 preps |