

ProteoSpin™ Urine Protein Concentration Maxi Kit

The ProteoSpin™ Urine Protein Concentration Maxi Kit provides a fast and simple procedure for concentrating dilute solutions of urine proteins from large volumes of urine. Urine protein analysis can be used for the identification of potential biomarkers in urine, and to diagnose and/or monitor renal and other diseases. The purified urine proteins are both concentrated and free of salts, making this kit a convenient method for preparing proteins before running downstream proteomic applications including SDS-PAGE, 2D gels, whole protein mass spectrometry, and protein microarrays. Purification is based on spin column chromatography using



Norgen's proprietary resin as an ion exchanger. The resin has a poor affinity for monovalent and divalent cations, also making it an effective resin for the removal of salts. Thus in this case, urine proteins are preferentially purified from all other urine components including salts and other wastes.

Kit Specifications			
Maximum Urine Input Volume	20 mL	Minimum Elution Volume	2 mL
Maximum Recovered Protein	4 mg	Time to Process 4 Samples	45 minutes

ProteoSpin™ Urine Protein Concentration Maxi Kit Benefits

Fast and easy processing	Efficiently process 4 samples in approximately 45 minutes using an easy-to-use protocol.
Complete kit	All columns and solutions required are provided.
No molecular weight cutoff	Based on an ion exchange mechanism, a broad size range of proteins can be processed.
Proteins bind while salts are discarded in flowthrough	Norgen's resin has an inherent low affinity for salt, and high affinity for proteins - providing salt removal and protein concentration simultaneously.
Suitable for downstream applications	Final elution suitable for: <ul style="list-style-type: none"> • SDS-PAGE • 2D gel electrophoresis • Whole protein mass spectrometry • Protein microarrays

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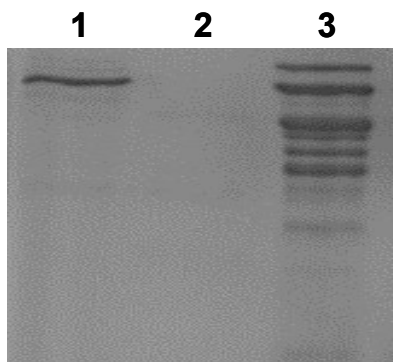


Figure 1. No Loss of Urine Proteins

No urine proteins are lost during the binding step, as can be seen by examining the binding flowthrough. Lane 1 is 25 μ L of input urine, Lane 2 is the binding flowthrough, and Lane 3 is 15 μ L of the concentrated eluted protein.

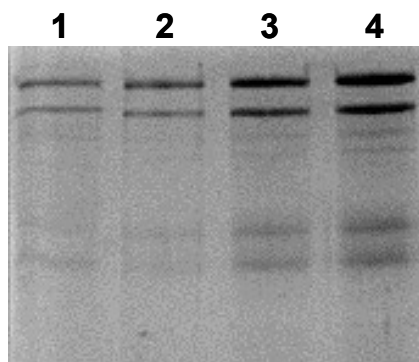


Figure 2. Concentration of Urine Proteins

Urine proteins are concentrated many-fold using the ProteoSpin Urine Protein Concentration Maxi Kit. Lane 1 contains 20 μ L of a urine sample that was used as the input, while Lane 2 contains 5 μ L of the elution, Lane 3 contains 10 μ L of the elution, and Lane 4 contains 20 μ L of the elution. By comparing lanes 1 and 4 (equal volume amounts of input and output), it can clearly be seen that the urine proteins have been highly concentrated through the use of the kit.

Urine Protein Concentration Maxi Kit Contents

1. Wash Solution C
2. Binding Buffer A
3. Elution Buffer C
4. Protein Neutralizer
5. Maxi Spin Columns (assembled with collection tubes)
6. Elution tubes (50 mL)
7. Product Insert

Customer-Supplied Reagents and Equipment

- Centrifuge with a swinging bucket rotor capable of 2,000 x g
- Micropipettors
- 50 mL conical tubes

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. Once opened, the solutions should be stored at 4°C. All reagents should remain stable for at least 1 year at room temperature.

Shipping Conditions

The ProteoSpin™ Urine Protein Concentration Maxi Kit is shipped at room temperature.

Cat #	Description	Quantity
21600	ProteoSpin™ Urine Protein Concentration Maxi Kit	4 preps