

## ProteoSpin™ Urine Protein Concentration Maxi Kit

Urine protein analysis can be used for the identification of potential biomarkers in urine, and to diagnose and/or monitor renal and other diseases. Due to the fact that urine can be collected more readily and conveniently than blood, it provides an attractive alternative to blood plasma as a potential source of disease biomarkers

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. The kit employs spin-column chromatography using Norgen's patented protein resin as an ion exchanger. Urine proteins will bind to the column, while non-specifically bound materials, such as salts, are easily removed from the sample. The simultaneous removal of salts while concentrating dilute urine protein solutions make the kit a convenient method for preparing urine proteins before running downstream proteomic applications. Each spin column is able to concentrate and desalt up to 4 mg of urine proteins.

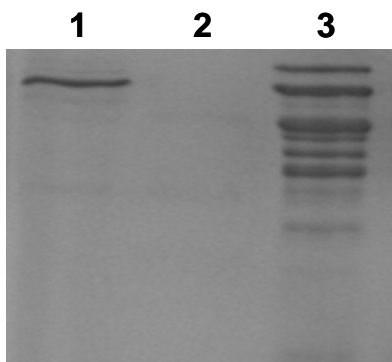


Kit Specifications			
Maximum Urine Input Volume	20 mL	Minimum Elution Volume	2 mL
Maximum Recovered Protein	4 mg	Time to Process 4 Samples	45 minutes

### ProteoSpin™ Urine Protein Concentration Maxi Kit Benefits

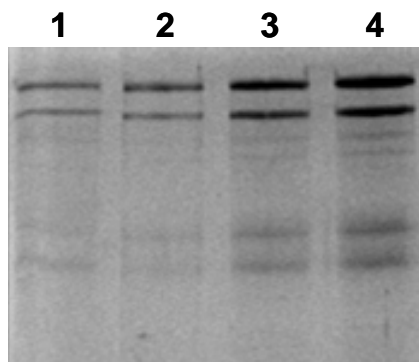
Fast and easy processing	Efficiently process 4 samples in approximately 45 minutes using an easy-to-use protocol.
Complete kit	All columns and solutions required are provided.
No molecular weight cutoff	Based on an ion exchange mechanism, a broad size range of proteins can be processed.
Proteins bind 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	<b>Final elution suitable for:</b> <ul style="list-style-type: none"> <li>• SDS-PAGE</li> <li>• 2D gel electrophoresis</li> <li>• Whole protein mass spectrometry</li> <li>• Protein microarrays</li> </ul>

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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 flow-through. Lane 1 is 25  $\mu$ L of input urine, Lane 2 is the binding flowthrough, and Lane 3 is 15  $\mu$ 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  $\mu$ L of a urine sample that was used as the input, while Lane 2 contains 5  $\mu$ L of the elution, Lane 3 contains 10  $\mu$ L of the elution, and Lane 4 contains 20  $\mu$ 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. pH Binding Buffer
2. Column Activation and Wash Buffer
3. Elution Buffer
4. Neutralizer
5. Maxi Spin Columns
6. Elution Tubes
7. Application Manual

### 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