

## ProteoSpin™ On-Column Proteolytic Digestion Kit

The ProteoSpin™ On-Column Proteolytic Digestion Kit provides a fast and simple procedure for the generation of purified peptides. The kit is highly efficient in the enzymatic digestion of simple and complex protein samples using trypsin, and the subsequent purification of the resulting peptides. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. Both the proteins and non-active enzyme are bound to the column, while salts and other non-specifically bound materials are washed away. The trypsin is then activated, and peptides are generated and purified on the column.



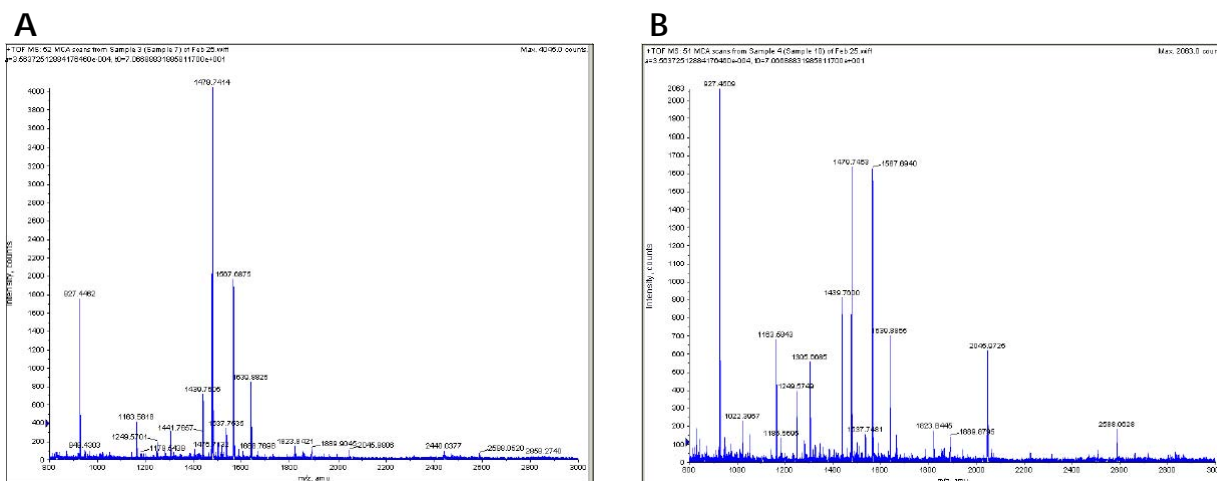
Each column in the ProteoSpin™ On-Column Proteolytic Digestion Kit is able to process, digest and purify samples containing up to 15 µg of protein. The peptides generated are complete, with no additional artifacts being detected in mass spectrometry. The simultaneous protein digestion and volumetric concentration of the purified peptides makes the kit a convenient method for preparing peptides to be analyzed by many downstream applications.

Kit Specifications			
Maximum Protein Input	15 µg	Minimum Elution Volume	30 µL
Minimum Protein Input	2 µg	Time to Process 10 Samples	20 minutes (plus a 1 hour incubation)

### ProteoSpin™ On-Column Proteolytic Digestion Kit Benefits

Fast method for generating peptides	Compared to traditional methods of peptide generation and purification, the ProteoSpin™ On-Column Proteolytic Digestion kit is very rapid.
Does not generate artifacts	Peptide generation is complete, with no generation of additional artifacts being detected in mass spectrometry.
Digestion and purification in a single column	The use of multiple columns and tubes for digestion and purification is avoided; lower cost and increased convenience for user.
Suitable for downstream applications	<b>Final elution suitable for:</b> <ul style="list-style-type: none"> <li>• Mass spectrometry (LC/MS and LC/MS/MS)</li> <li>• SDS-PAGE</li> <li>• MALDI-TOF</li> </ul>

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**Figure 1. Generation of Tryptic BSA Peptides Without the Generation of Artifacts**

MALDI-TOF spectra of the peptides that resulted after BSA was digested on-column with trypsin using the ProteoSpin™ On-Column Proteolytic Digestion Kit (Panel A) or digested in a typical liquid environment (Panel B). By comparing the spectra, it can be seen that the ProteoSpin™ kit (Panel A) resulted in the generation of the same peptide profile in MALDI-TOF as the liquid digestion did (Panel B). Furthermore, no artifacts were found to arise from the use of the column, and all the same peaks could be detected in both spectra.

### On-Column Proteolytic Digestion Kit Contents

1. Column Equilibration and Wash Buffer
2. Column pH Binding Buffer
3. Column Activation Buffer
4. Micro Spin Columns
5. Elution Tubes
6. Product Insert
7. Short Protocol Card

### Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- pH indicator paper
- 37°C incubator
- Trypsin (sequencing grade)

### Storage Conditions

For unopened solution containers, the reagents should remain stable for at least one year when stored at room temperature. Once opened, the solutions should be stored at 4°C when not in use.

### Shipping Conditions

The ProteoSpin™ On-Column Proteolytic Digestion Kit is shipped at room temperature.

Cat #	Description	Quantity
17500	ProteoSpin™ On-Column Proteolytic Digestion Kit	25 preps