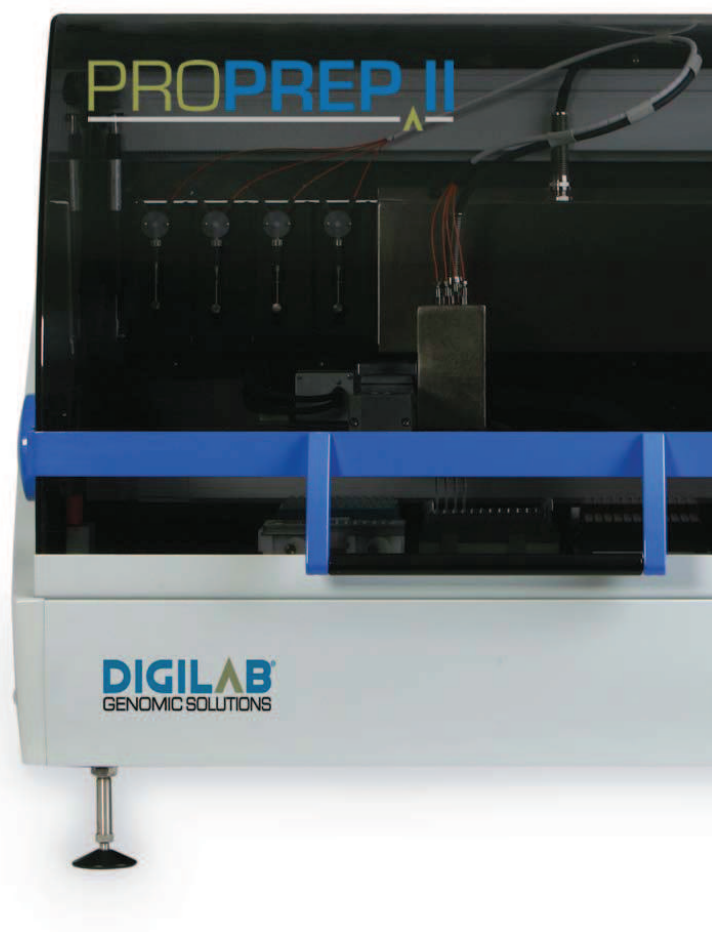


# PROPREP II

When it comes to reliable automation of protein digestion - the choice is simple.

If you are looking for the only way to reliably automate the preparation of your protein samples for downstream mass spectrometric analysis, then the ProPrep II is your Solution...period.

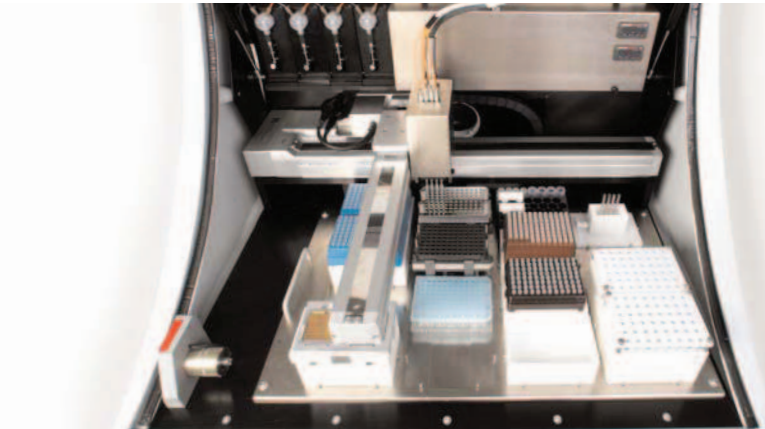
Take control of your protein samples!



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## The ProPrep II Features:

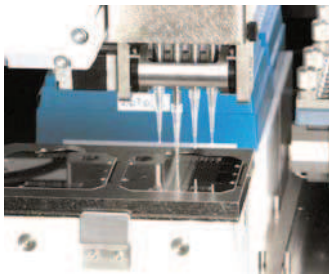
- Flow-through reaction blocks, 96 well format, temperature controlled
- Reagent chilling
- Multi-enzyme use
- Accurate liquid handling
- In-gel or in-solution digestion, optional sonication-enhanced digestion
- Spotting to MALDI targets, accommodating all models
- Transfer to LC, offline and online (optional)
- Sample splitting
- Customizable protocols
- Ability to run multiple protocols at once
- Fully enclosed & HEPA filtered



When it comes to reliable automation of in-gel and in-solution protein digestion followed by sample preparation for mass spectrometric analysis, the choice is simple. The ProPrep II is the only instrument that has been specifically designed for this purpose. Giving you piece of mind and your samples the best treatment.

## Typical Applications

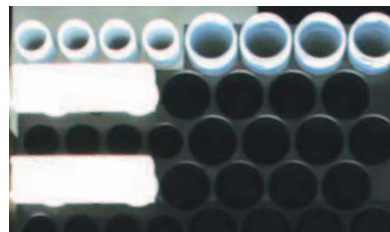
### In-gel or in-solution digestion & transfer to mass spectrometry



Gel plugs excised from 1D or 2D gels are washed and the proteins within are subsequently reduced, alkylated and proteolytically cleaved. A fraction of the extracted peptide solution can be mixed with matrix and directly spotted onto MALDI targets while the rest of the sample can be split between LC/MS and/or storage plates.

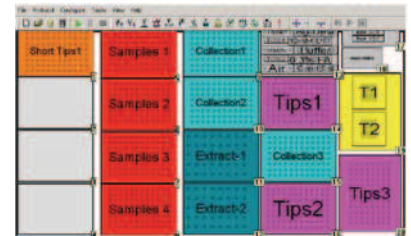
Digestion using the ProPrep II is not limited to proteins separated by gel electrophoresis but also includes proteins in solution that have been separated by LC, for example. In fact, both applications can be executed in the same run in two different reaction blocks.

### Protein modification



Taking advantage of the chilled reagent block that can hold ten or more different reagents, the ProPrep II can be used for protein modification (e.g. iTRAQ® reagents labeling for mud-pit applications, or biotinylation), prior to or during digestion. The use of multiple enzymes in a single protocol is possible too.

### Sample preparation

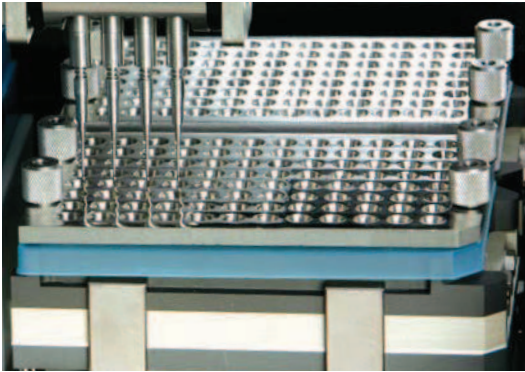


Based on its flexible bed configuration and liquid handling capabilities, the ProPrep II is an excellent choice for preparation of samples that don't require digestion prior to mass spectrometric analysis. The ProPrep II streamlines these protocols that require addition of various chemicals and/or incubation.

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## Making All the Difference...

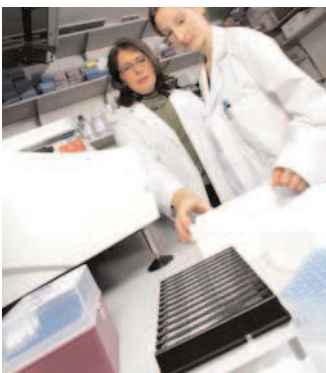
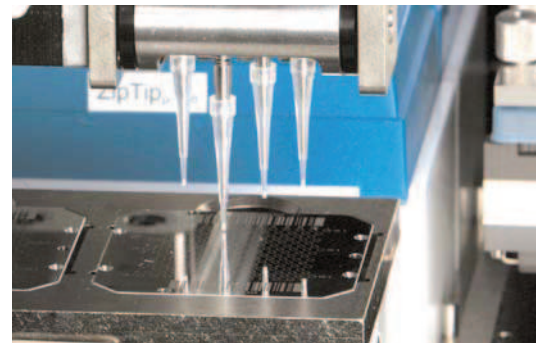


### Purpose-oriented design

- Each reaction block provides an optimal environment for all steps involved in protein digestion:
  - Integrated heating elements guarantee consistent temperature for all samples.
  - On-board vacuum pumps combined with pierced reaction plates and patented flow-through mechanism enable simultaneous and safe waste removal during in-gel digestion, avoiding any loss of sample.
- The four-channel liquid handling robot combined with precision syringe pumps enables accurate transfer of reagents from the temperature controlled reagent storage block.

### Flexibility

- Protein digestion and processing for MALDI targets or LC/MS - all steps of sample preparation are automated in a flexible manner, supported by pre-set or easily customized protocols.
- Proteins, in-gel, or in-solution can be processed in the same run.
- For a downstream detector equipped with a MALDI source, digested samples can be spotted onto all commercially available MALDI targets.
- Alternatively, transfer to sample formats suitable for LC/MS is possible.
- Digested samples can also be split up between MALDI targets, LC/MS and/or generic 96-well plates.



### Reliability

- The ProPrep II has been designed specifically for the purpose of high performance sample preparation for downstream mass spectrometric analysis. Taking no shortcuts, this makes it the most reliable system available.
- For example, the unique reaction block design allows the sample plate to stay in place during the whole process, shortening processing time, preventing cross contamination and virtually eliminating gel plug loss.
- Naturally, the processing environment of the ProPrep II is fully enclosed and HEPA filtered, taking another important step towards reliable and high quality downstream data.

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## ProPrep II Specifications

Reaction Block:	96 samples each, up to 4 reaction blocks Patented one-way, vacuum-based flow-through with simultaneous waste removal for all samples On-board vacuum pumps Equipped with incubation elements for consistent heating across all samples (up to 70°C with +/- 1°C resolution [3°C across the plate])	Liquid Handling:	Four-channel liquid handling robot with precision syringe pumps Positional accuracy of +/- 0.1 mm
In-Gel Digestion:	Yes (washing, reduction, alkylation and proteolytic digestion)	Tip Handling:	Disposable or C18 Millipore ZipTips Dispense head equipped with tip ejection mechanism (ejects tips to dump or returns tips to their holders for re-use)
In-Solution Digestion:	Yes (denaturation, reduction, alkylation and proteolytic digestion) optional sonication-enhanced digestion	Cooling/ Reagents:	Temperature controlled reagent storage block Maintains Trypsin at 6°C Maintains other solutions at 10-15°C
MALDI Spotting:	Yes (sample clean-up, addition of matrix, spotting) Up to two MALDI target holders on tabletop Spotting to up to four targets Accommodates all commercially available MALDI targets, in different combinations	Environmental Control:	Fully enclosed Built-in HEPA filtration (eliminates 99.97% of particles > 0.3 µm)
Transfer to LC/MS:	Yes (to LC vials or 96/384 MTP) offline or online (optional)	Run/Method Flexibility:	In the same run: in-gel and in-solution digestion (in different reaction blocks), MALDI spotting, transfer to LC vials, transfer to microtitre plates, sample splitting. In the same reaction block: different chemistries (e.g. alkylation and reduction, silver destaining, different enzymes.)
Sample Splitting:	Yes (between MALDI targets, LC/MS vials and 96-well output plates)	Bed Layout:	Variable number of input and output trays Fully modular bed lay out

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