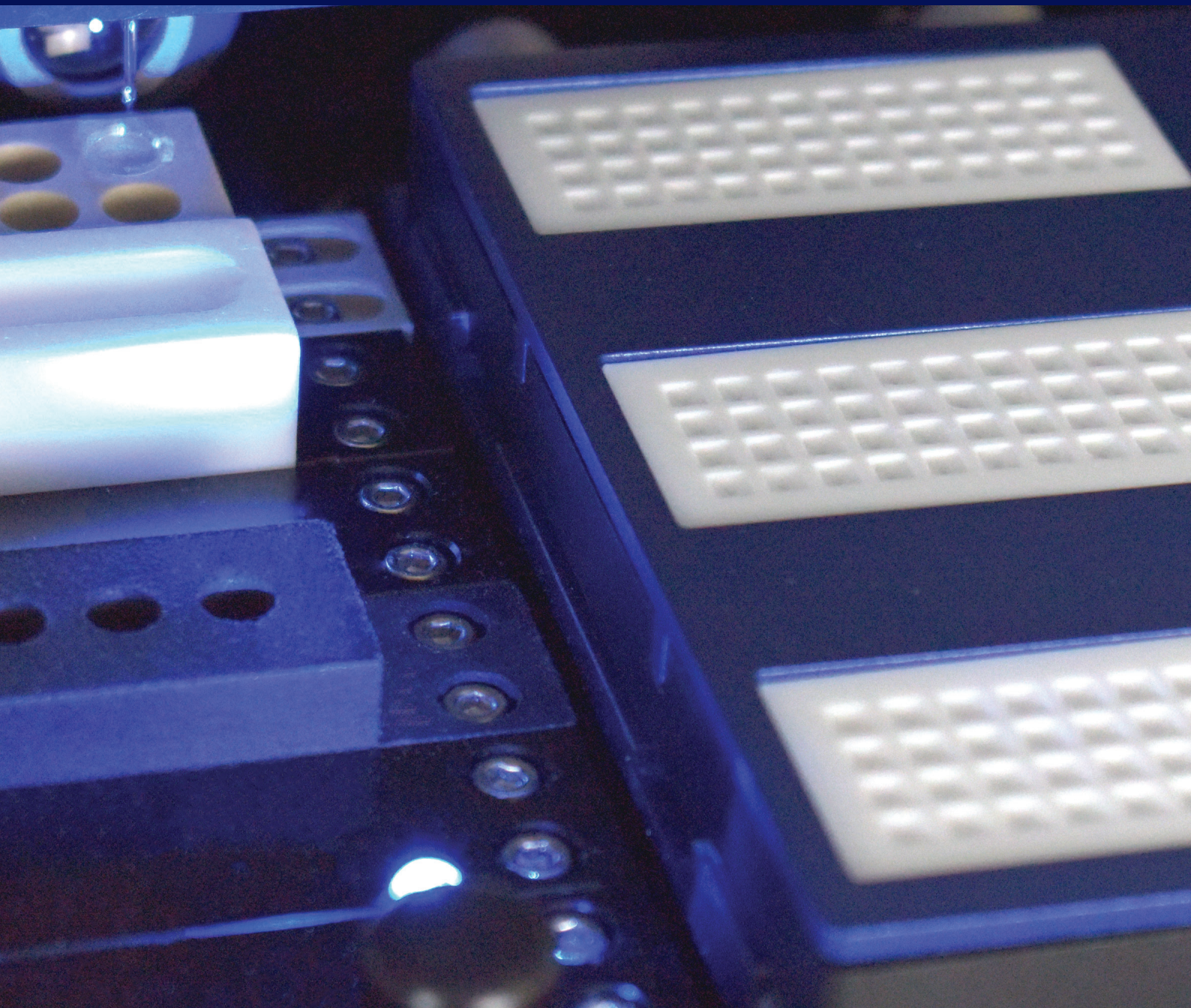


**CELLENION**   
A BICO COMPANY

# proteoCHIP LF 48

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Automated and miniaturized end-to-end sample  
preparation for label-free MS-based single cell proteomics



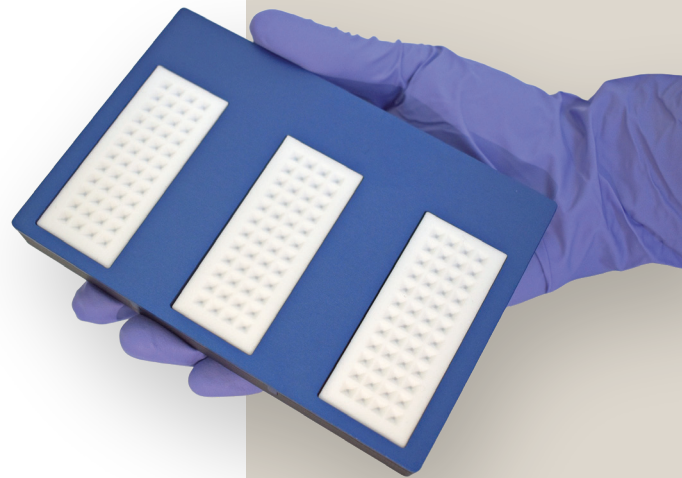


# About proteoCHIP LF 48

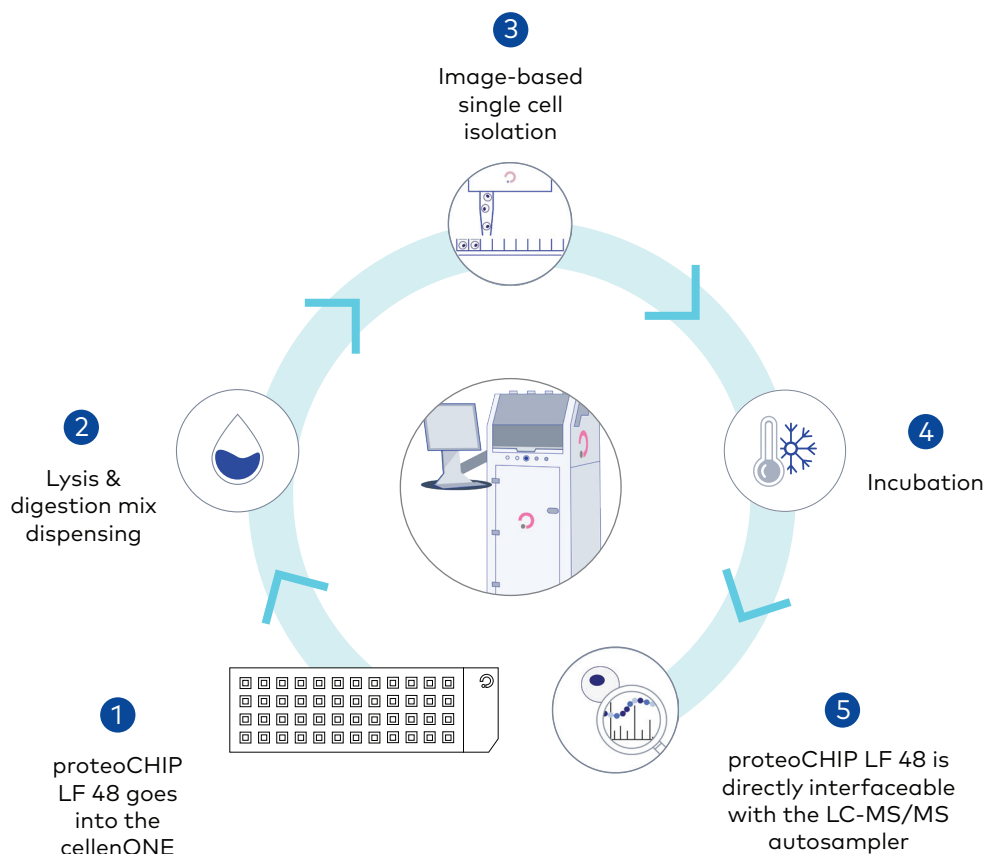
Cellenion's proteoCHIP product line is providing scientists with innovative tools to facilitate miniaturized sample preparation of individual cells for single cell proteomics workflows.

Recent improvements in sample processing and mass spectrometry instrumentation have enabled protein characterization at single cell resolution. Studying the proteome of individual cells enables the dissection of mechanisms concealed through bulk analysis. However, sample preparation workflows still harbor the potential to unleash the full capacities of single cell proteomics.

With its optimal design and accessories, the proteoCHIP LF 48 further extends the capabilities of cellenONE® single cell dispensing technology by enabling miniaturized sample preparation of individual cells in a label-free manner before mass spectrometry analysis.



## proteoCHIP LF 48 Workflow



Watch the  
workflow  
in this video

**Scan here**



# A versatile platform for single cell proteomics

With its microscope slide footprint, the proteoCHIP LF 48 allows novel miniaturized single cell proteomics applications in nanoliter-scale volumes.

## The combination of cellenONE® + proteoCHIP LF 48 enables:

- Selection and isolation of single cells of interest (size, shape, fluorescence)
- Preparation of up to 144 single cells per run (48 wells per proteoCHIP, up to 3 chips per run)
- Massive reduction of manual handling steps and contamination issues
- Dispensing exactly the number of single cells required into each well of the chip, in case users want to work with small bulks

## Benefits

### High Throughput Workflow

- Simultaneously processing 3 sets of 48 wells
- Preparation of up to 144 single cells per run
- Overcoming evaporation issues to prevent sample drying

### Miniaturization

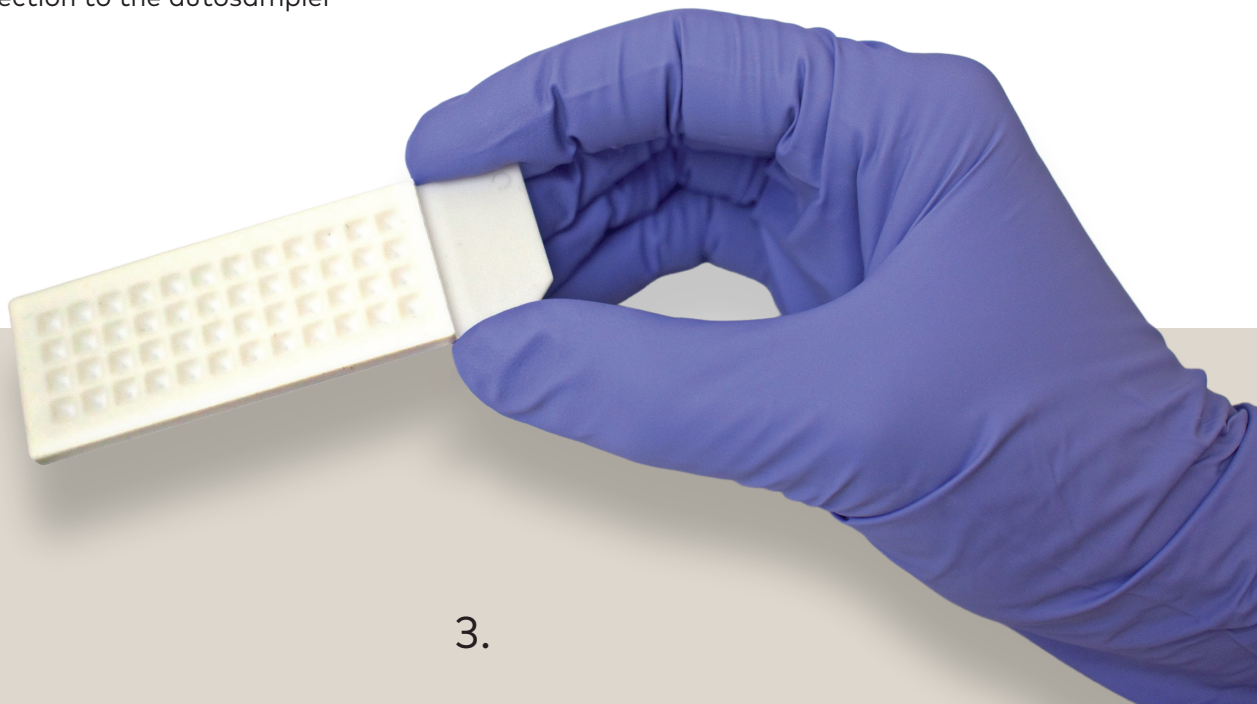
- Reducing reaction volume
- Saving sample and reagents
- Enhancing sensitivity

### Simplification

- No vial exchange
- Pooling via centrifugation
- Direct connection to the autosampler

### Automation

- No manual handling step
- No cross contamination



# Workflow performance

- Identification and quantification of > 1000 proteins per single cell
- Increasing ID numbers with increased peptide input
- Good clustering and differentiation of two cell types
- Identification of specific proteins for each cell type

Want to learn more  
about the results?

**Read our  
application note!**



## About cellenONE®



**cellenONE®** is a unique platform combining high accuracy single cell isolation and nanoliter reagent dispensing. Image-based cell isolation ensures only single cells of interest are isolated while gentle piezo-acoustic droplet generation preserves cell viability and gene expression. The same instrument also performs precision nanoliter dispensing of reagents (both aqueous and organic) allowing miniaturization of a range of single cell omics workflows.

**For more information, visit:**

<https://www.cellenion.com/products/cellenone/>

| Related Products               | Catalog Number |
|--------------------------------|----------------|
| proteoCHIP LF 48 Set           | C-PLF-48-3     |
| proteoCHIP LF 48 Accessory Kit | C-PLF-48-AK    |

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