## PreON
# Automated sample preparation

Standardized and reproducible sample preparation in drug discovery, research and applied proteomics

www.preomics.com

## The challenge

Sample preparation for LC-MS has many challenges. Manual methods are labor-intensive, unreliable and prone to lack of reproducibility. Additionally achieving a robust, reliable, reproducible workflow while starting from a wide range of biologically complex sample matrices is necessary to unlock the full power of proteomics analysis.

## The solution

Developing robust workflows via automation is the solution to improve reproducibility, process reliability and increase throughput of LC-MS sample preparation. PreON enables turn-key automation of proteomics sample processing at the push of a button for many complex sample types while decreasing hands-on time to 5 minutes.

## Key benefits

**Automation for all**
No specialist knowledge required. Optimized, pre-loaded programs for all sample types with just 5 minutes user operation time

**Rock solid results**
The power of automation combined with optimized PreOmics' reagent kits provides unparalleled reproducibility and standardization. Be confident in your results and avoid unnecessary sample preparation and LC-MS run times

**Improves productivity**
True automation leads to decreased failure rates in LC-MS sample preparation increasing lab efficiency

**No more manual pipetting**
Improve the reliability of results by decreasing the variation due to manual pipetting. In addition, decrease the incidence of user RSI (repetitive strain injury)

# Technical variability



%CV intensities

- PreON: 12.14
- Manual: 21.9
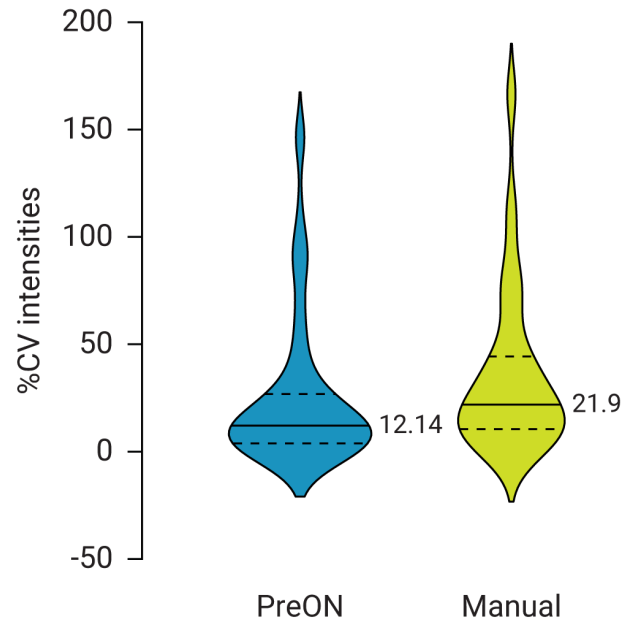
**Comparison of technical variability between manual and automated PreON sample preparation**

Plasma samples processed using the automated PreON platform showed a 1.8-fold improvement in sample-to-sample variation. Automation decreases the median %CV to 12.14 versus the 21.9 %CV when manually processing samples bringing reproducibility, reliability and robustness to LC-MS sample preparation.

# Performance advantage

- High reproducibility: $R^2 > 0.9$

- Optical and ultrasonic detectors for accurate labware and liquid detection

- Up to 36 unlabeled sample or 32 labeled samples per working day

- PreON installed and running samples in less than a day

# Technical specifications

- Compact instrument, fitting every lab bench:
  HxWxD: 81x65x62 cm (31.9x25.6x24.4 in)
  Weight 71.5kg (157lb)

- Working range: 1-100 µg input protein amount

- Integrated onboard centrifuge

- Onboard heater shaker for effective lysis and in-solution digestion steps

- Optional peptide evaporation and resuspension steps, achieving ready to inject peptides

# Versatility of sample types
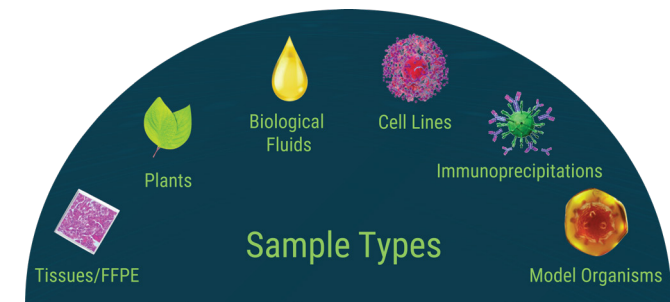


**PreON automation successfully applied from a wide range of sample types**

- Starting material: cells, biological fluids, pre-processed (e.g. with BeatBox) tissues, immunoprecipitations, model organisms and plants

- Pellet and liquid samples are both suitable

- Compatible with label-free and chemical labeling approaches

Learn more:

Visit our virtual showroom: