Meet BeatBox: PreOmics revolutionize tissue homogenization

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Do you have a limited amount of tissue sample? Do you need high-throughput processing?

Smile! Meet PreOmics BeatBox

PreOmics BeatBox completes tissue homogenization in a simple, fast and easy to use format. It processes 1-96 tissues in as little as 10 minutes with no cross contamination. The BeatBox is small, quiet and seamlessly integrates tissue preparation with PreOmics iST sample preparation workflows for Mass Spectrometry-based protein analysis. All in an automation friendly format.

Materials & Methods Protein quantification BeatBox comparison 4 mouse tissue types BeatBox Tissue Kit 1-2 mg of wet weight to other technologies Up to 96 samples in BCA assay one single run LC-MS analysis Proteomic sample preparation by iST kit

- Input: 1 2 mg of tissues (brain, jaw muscle, liver, quadricep muscle)
- Homogenization sample buffer: iST LYSE buffer
- Homogenization: BeatBox in comparison to two different commercial methods
- **Protein quantification method:** BCA assay
- Proteomic sample preparation: iST kit
- LC-MS analysis: Easy nLC1200 and timsTOF pro, data analyzed by DiaNN software

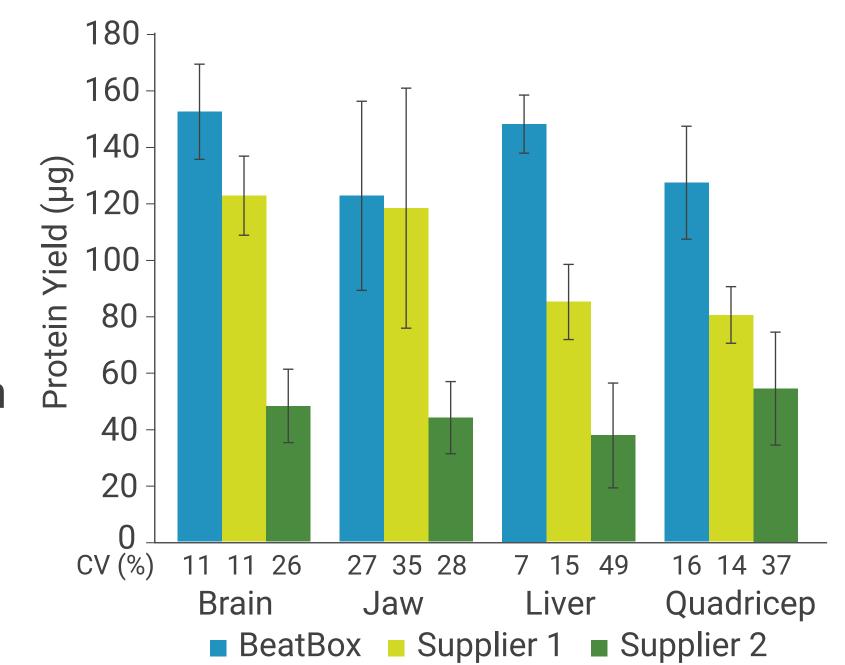
Results

Comparison between different homogenization methods

Protein amount in the sample

BeatBox homogenates show highest protein yields

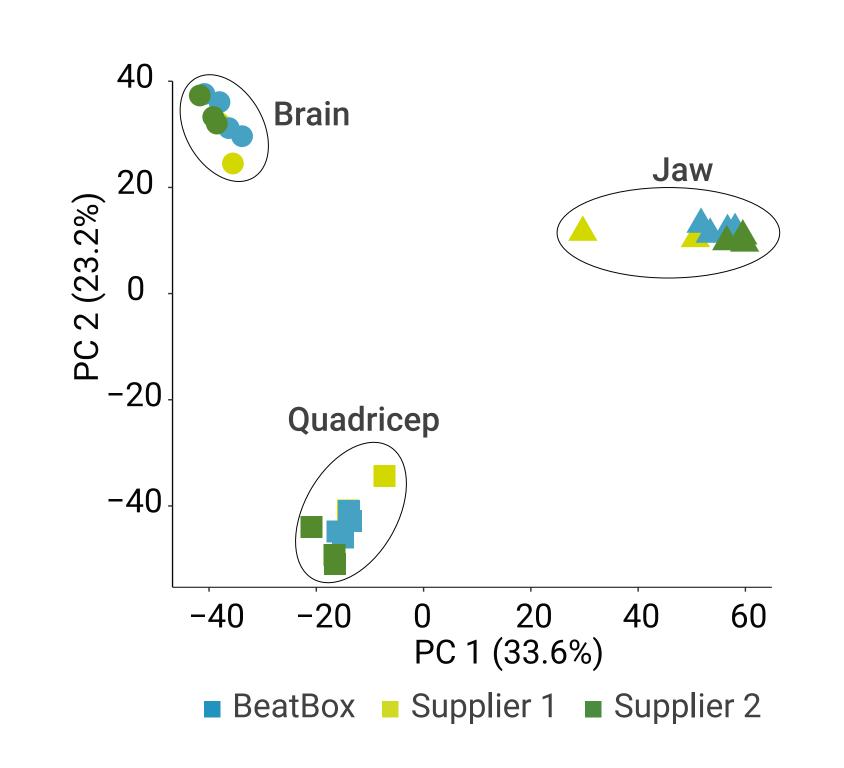
Reproducibility of the protein yields from different tissues were improved using BeatBox



Proteomic analysis of homogenized tissue samples

Equally high-quality proteomics data across methodologies

Protein subclasses are grouped based on tissue type, independent of methodology



Discussion

- BeatBox provides higher recovery of proteins from limited inputs of tissue samples, such as needle biopsies
- Proteomes are similar across different methodologies
- BeatBox showed extraordinary reproducibility across different tissues

Key features

- **Fast:** 1-96 samples in less than 10 minutes
- Easy-to-use: Select your settings in just two clicks
- Flexible: Homogenize everything from cell pellets to tough muscle tissue
- Efficient: 96 well format and can be integrated with PreOmics iST workflows
- **Revolutionary:** Small footprint and very quiet
- High-throughput: Compatible with available automations platforms





