

## BeatBox

### Tissue homogenization simplified

Easy to use, fast tissue homogenization for efficient and reproducible sample preparation.



## The challenge

Reproducible and reliable tissue homogenization needs to produce a smooth and easy to pipette homogenate and minimize the possibility of cross-contamination. A specific consideration for proteomics is the release of the maximum number of proteins to make them accessible for the next steps of sample preparation. Additionally, lab space, the requirement for chiller units, and the noise made by some processes can also impact instrument choice.

## The solution

PreOmics BeatBox is a fast and easy to use instrument for up to 96 samples, which completes the homogenization in as little as 10 minutes without sample cross contamination and minimal heat induction. The BeatBox has a surprisingly small footprint and quiet operation in comparison to traditional tissue processing machines. It allows tissue homogenization to be seamlessly integrated into the PreOmics iST sample preparation workflows.

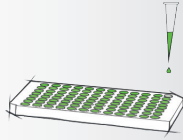
## BeatBox values

- **Fast**  
Homogenize up to 96 samples in less than 10 mins
- **Easy to use**  
Select your settings in just two clicks
- **Versatile**  
Suitable for all tissue types and cells
- **Minimize**  
No cross contamination  
Minimal sample loss
- **Revolutionary**  
It's tiny! It's quiet!
- **Compatible**  
Can be integrated with existing iST workflows

## How it works

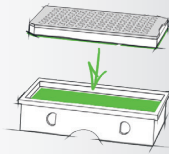
### Step 1

Add tissue sample and iST Lyse buffer to 96 well plate



### Step 2

Add plate to adaptor



### Step 3

Put plate on adaptor into BeatBox garage



### Step 4

Select level of homogenization  
Set the run time 1-10 mins  
Press Start



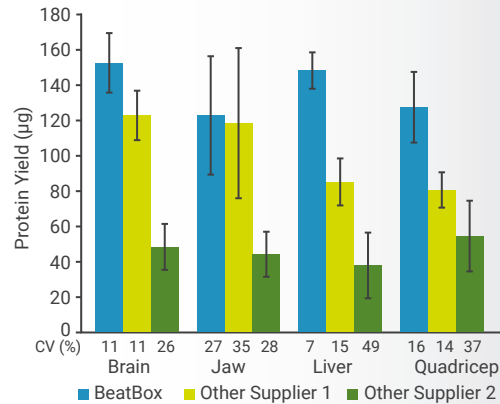
### Step 5

Collect proteins  
Continue with iST workflow



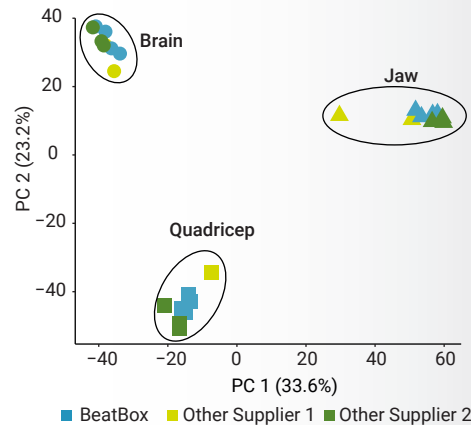
## Data

- BeatBox homogenates show the highest protein yields
- Reproducibility of protein yields from different tissues was improved 2.5x using BeatBox



Functional enrichment analysis across tissue types:

- Identical biological function per tissue
- Protein subclasses groups based on tissue



## BeatBox performance advantage

- Higher protein recovery from 1-5 mg tissue in plate format
- Comparable proteomics data across methodologies

## Technical specifications

- Standard 96-well plate format
- Working range:  
50 – 1000 µg protein starting material in  
100 – 300 µL iST LYSE buffer
- Benchtop footprint:  
26 x 26 x 40 cm ; 16 x 10 x 10 in (H x W x D)  
5,5 Kg - 12lbs
- Process time 1-10 min
- Predefined protocols
- Intuitive 7 inches touch screen

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