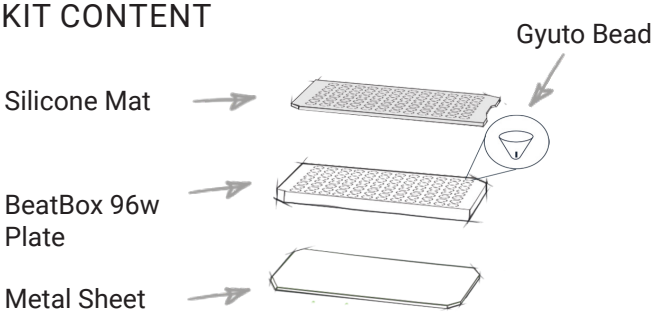
PREOMICS

BeatBox Tissue Kit **96x**

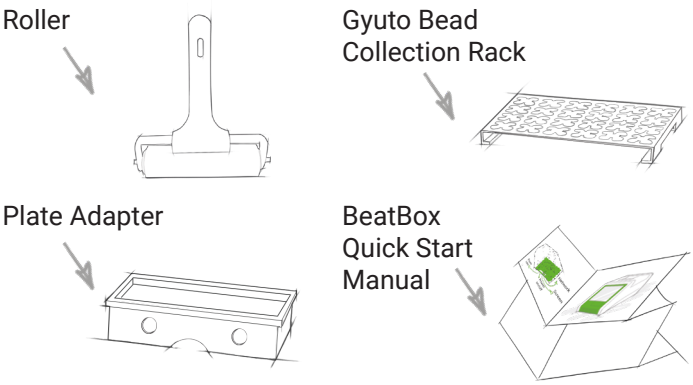
Cell lysis protocol - Eucaryotic and procaryotic cells

BeatBox Tissue www.preomics.com

KIT CONTENT



BEATBOX ACCESSORIES



Pre-Requisites

Common lab equipment is required for the sample preparation.

Equipment	Quantity and Description
CELL SAMPLE	Various cell types can be processed, including mammalian, bacterial, and yeast cells. For other sample types contact PreOmics for adapted protocols.
LYSIS BUFFER	iST LYSE BUFFER from PreOmics' iST kits. For SP3-iST kits, contact info@preomics.com for an adapted protocol.
2-FOLD iST LYSE BUFFER	Optional: Required to continue with iST sample preparation, if larger volume of cell suspension is used. See protocol for details. 2-fold iST LYSE needs to be ordered in addition to the PreOmics' iST kits.
CENTRIFUGE	Swing-bucket centrifuge for 96-well plate and adequate counterweight are required for spin-down of homogenate.

Method

For a detailed description and graphical representation on how to use the BeatBox, please refer to the BeatBox Quick Start Manual 96x.

1. PLATE PREPARATION *NOTE1*

1.1. Remove the **SILICONE MAT** from the **BEATBOX 96w PLATE** while keeping the **METAL SHEET** attached to the base of the **BEATBOX 96w PLATE**.

1.2. Resuspend CELL SAMPLE in 1x PBS buffer. Transfer up to 50 µL of cell suspension (equivalent to 100 µg protein) into the well of the **BEATBOX 96w PLATE**. *NOTE2*

1.3. Add PreOmics' LYSE BUFFER to the cell suspension as follows:

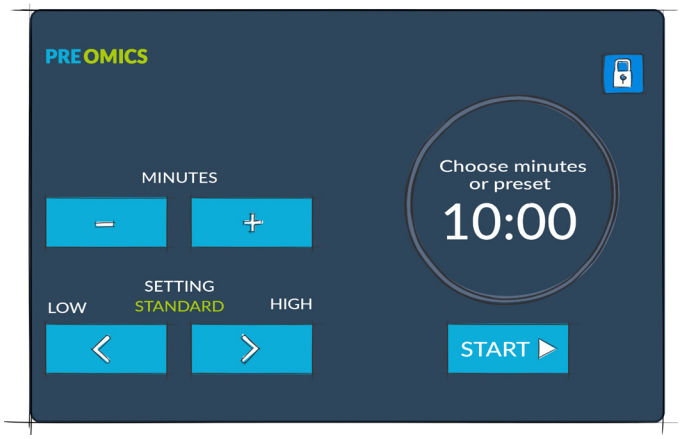
- For <= 10 µL cell suspension, add 100 µL of PreOmics' LYSE BUFFER.
- For 11 µL - 50 µL cell suspension, add 50 µL of 2-fold concentrated PreOmics' LYSE BUFFER and fill up to 100 µL with LC-MS water.

1.4. Cover the **BEATBOX 96w PLATE** with the **SILICONE MAT** and make sure that the plate is properly closed by using the ROLLER. Remove the **METAL SHEET** from the base of the **BEATBOX 96w PLATE**.

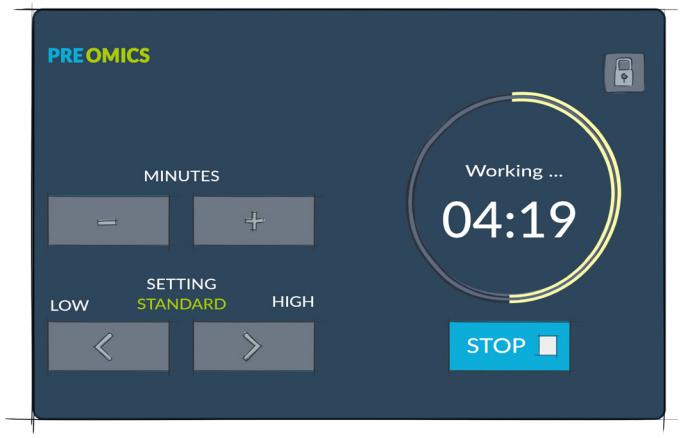
2. BEATBOX LYSIS

2.1. Turn on the BeatBox, place the **BEATBOX 96w PLATE** on the PLATE ADAPTER and insert the PLATE and ADAPTER assembly into the GARAGE.

2.2 Use default configurations (SETTING**:** standard**;** MINUTES**:** 10 minutes) or optimize lysis conditions for your samples by adjusting SETTING and MINUTES in the BeatBox menu:



BeatBox screen for settings



BeatBox screen during processing

SETTING: You can choose between LOW, STANDARD, HIGH. The power level increases from LOW to HIGH.
MINUTES: You can choose between 1 - 10 minutes (30 sec increments).

2.3. Insert the GARAGE into the BeatBox and press START.

2.4. After the BeatBox run is completed, remove the GARAGE from the instrument, and the **BEATBOX 96w PLATE** from the ADAPTER.

2.5. Spin down the **BEATBOX 96w PLATE** (500 rcf; 30 - 60 sec).

2.6. Place the **BEATBOX 96w PLATE** on the GYUTO BEAD COLLECTION RACK and remove the **SILICONE MAT**. *NOTE3*

2.7. Transfer the lysate into a new plate or tube for subsequent processing or analysis workflows.

3. CONTINUE WITH PREOMICS' KITS

3.1. Optional: Determine the protein concentration of the lysate.

3.2. Continue with PreOmics' kits:

- For iST kits, continue with the iST sample preparation workflow using up to 100 µg of extracted protein. Start with step "2. DIGEST" and follow the protocol.
- For SP3-iST kits: Please contact info@preomics.com.

NOTE1 **SINGLE USE ONLY:** Kits components cannot be re-used.

NOTE2 Various cell types can be processed on the BeatBox including mammalian, bacterial and yeast cells. Protein content varies considerably across distinct cell types and we recommend carrying out a protein concentration assay after the lysis step. A short overview of raw material amounts, as well as alternative buffers compatible with the iST workflow can be found in the FAQ (see www.preomics.com/resources).

NOTE3 In case of incomplete cell lysis, please repeat the BeatBox run (steps 2.1-2.6).