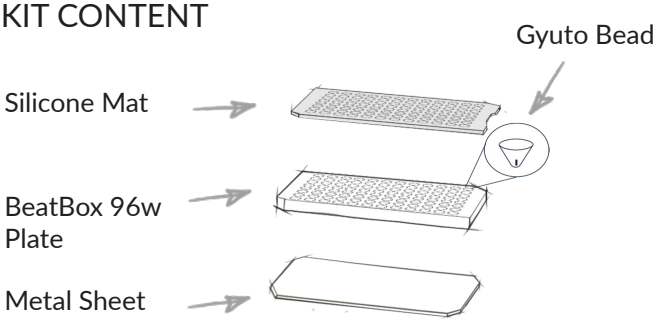
PREOMICS

BeatBox® Tissue Kit **96x**

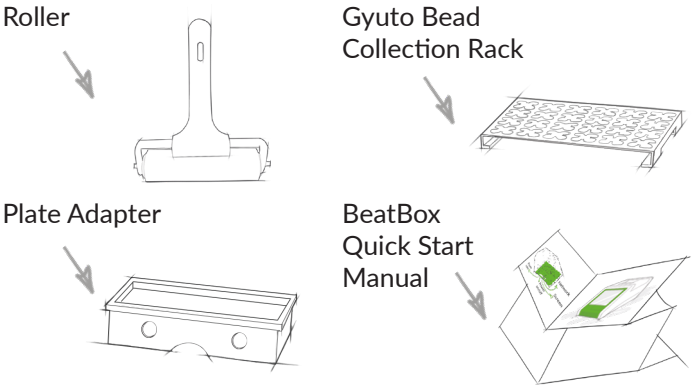
P.O.00121; P.O.00182

Eukaryotic and prokaryotic cells

KIT CONTENT



BEATBOX ACCESSORIES



Pre-Requisites

Common lab equipment is required for the sample preparation.

Equipment	Quantity and Description
SAMPLE	Eukaryotic and prokaryotic cells, including mammalian, bacterial, and yeast cells (1–100 µg protein starting material, max. 50 µL cell suspension in phosphate-buffered saline. For alternative buffers compatible with iST visit our FAQs). 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.
BeatBox instrument	Tissue homogenizer with accessory kit.
BEATBOX BEAD REMOVER	Optional: BeatBox accessory to remove all 96 Gyuto beads from the BEATBOX 96w PLATE after processing. Contact PreOmics for more information.
SONICATOR or NUCLEASE	If the sample is viscous, use a sonicator to shear DNA or add nuclease (e.g., Benzonase®). Visit our FAQ for more information.

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. 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 LYSIS BUFFER to the cell suspension as follows:

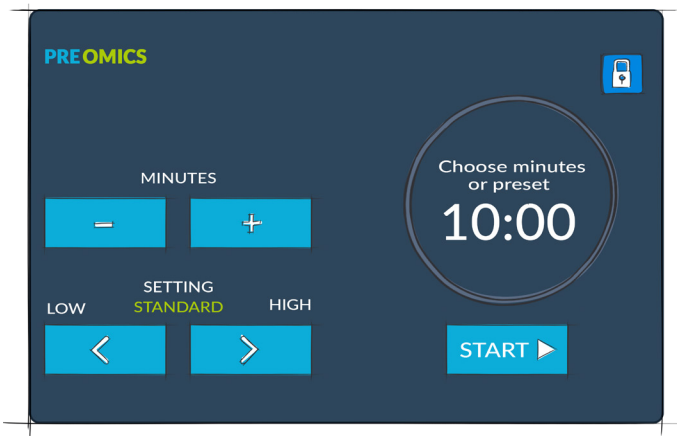
- For <=10 µL cell suspension, add 100 µL of LYSIS BUFFER.
- For 11–50 µL cell suspension, add 50 µL of 2-fold concentrated 2-FOLD iST LYSE BUFFER and fill up to 100 µL with LC-MS water.

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**.

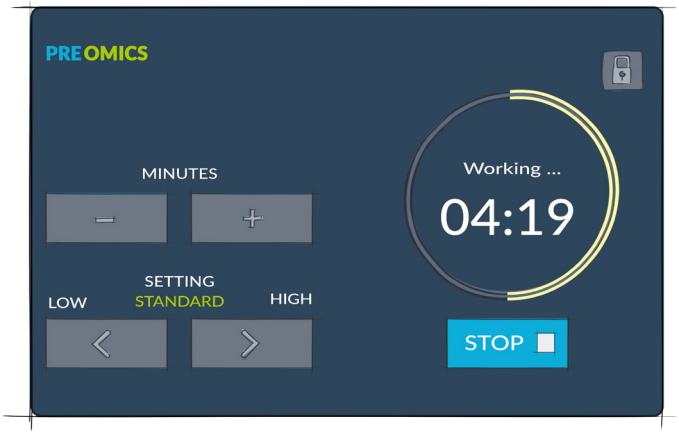
2. BEATBOX LYSIS

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

2.2 Use default configurations (SETTING**:** STANDARD; MINUTES**:** 10 min) 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: User can choose between LOW, STANDARD, or HIGH. The power level increases from LOW to HIGH.

MINUTES: User can choose between 1–40 min (up to 10 min in 30 sec increments; above 10 min in 5 min 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 **PLATE 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**. If intact tissue is visible, please repeat BeatBox run (steps 2.1–2.6).

2.7. If sample is viscous, use a SONICATOR or add NUCLEASE.

2.8. Transfer the lysate into a new plate or tube for subsequent processing or analysis workflows. Alternatively use the BEATBOX BEAD REMOVER to remove all 96 GYUTO BEADS from the wells.

3. CONTINUE WITH PREOMICS' KITS

3.1. Optional: Determine the protein concentration of the lysate. Visit our FAQ for compatible assays and more information.

3.2. Continue with PreOmics' kits:

- For iST kits, continue with the iST sample preparation workflow using up to 100 µg of extracted protein (if the volume is <50 µL, fill up to 50 µL with LYSE BUFFER). Start with step "2. DIGEST" and follow the protocol.
- For SP3-iST kits: Please contact info@preomics.com.

NOTE1	**SINGLE USE ONLY:** Each well and GYUTO BEAD can be used only once, but unused wells of the BEATBOX 96w PLATE can be used at a later timepoint. It is recommended not to run the BeatBox 96w PLATE more than 40 minutes in total (independent of the setting).
NOTE2	Protein content varies considerably across distinct cell types and we recommend to determine the protein concentration after the lysis step. A short overview of raw material amounts can be found in the FAQ.

For answers to frequently asked questions, please visit our FAQ page at www.preomics.com/faq.

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