THE FUTURE OF HIGH-THROUGHPUT HOMOGENIZATION

FastPrep-96™ Pro

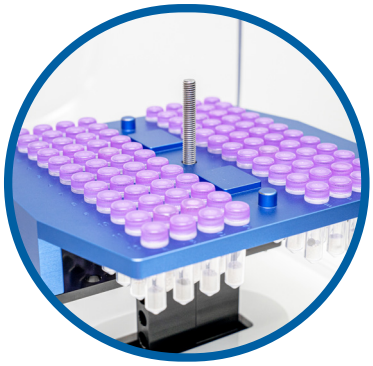
MP BIOMEDICALS

MPBRO-FPP202412-01

Introducing the FastPrep-96™ Pro by MP Biomedicals, an advanced and high-throughput homogenizer for the rapid and efficient lysis of even the toughest samples, facilitating the extraction of DNA, RNA, proteins, and small molecules.

Scan here to see how it works

MP Watch the Video

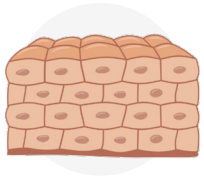


Utilizing swift linear motion, FastPrep-96™ Pro homogenizes samples in just seconds. When combined with specialized Lysing Matrix beads, it guarantees high yield of intact biomolecules, making it an indispensable tool for molecular biology laboratory.

LET FASTPREP-96™ PRO HELP YOU TO TACKLE YOUR MOST CHALLENGING SAMPLES

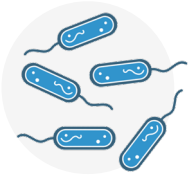
Key Features

- Processes up to 192 samples with excellent reproducibility.
- Enhances sample processing efficiency through true linear motion.
- User friendly touchscreen for simplified operation.
- Clear LED indicator status for easy monitoring.
- Various compatible accessories to accommodate different sample types and volume.
- Ensures maximized quality and yield of DNA, RNA, Proteins, and other biomolecules from cells and tissues.



Human, animal tissues

Plants, leaves, stem, roots



Cells, yeast, fungi, and bacteria

Feces, soil, sediments

Food

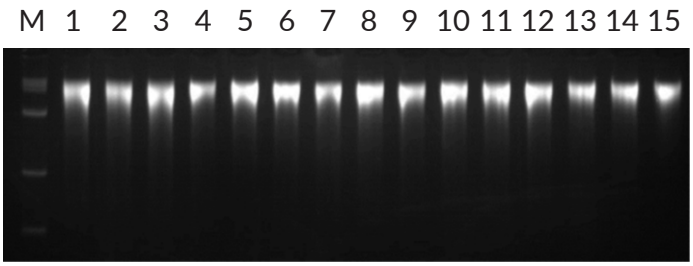
Water, sludge, waste

Which lysing matrix should I use?

MP Lysing Matrix

Sample disruption and lysis have never been easier!

Ensure success in every downstream application with effective sample disruption from the start!



Lanes	Speed and Time Setting
1-3	FastPrep-24™ 5G (5 m/s, 35s)
4-9	FastPrep-96™ Pro (1300 RPM, 3 min)
10-12	FastPrep-96™ Pro (1500 RPM, 2 min)
13-15	FastPrep-96™ Pro (1500 RPM, 1 min)

Figure 1. Gel electrophoresis of extracted DNA from 15 soil samples (250 mg each) homogenized using the FastPrep-24™ 5G (Lanes 1-3) and FastPrep-96™ Pro (Lanes 4-15) at different speed and time settings after extraction with SPINeasy® DNA Pro Kit for Soil.

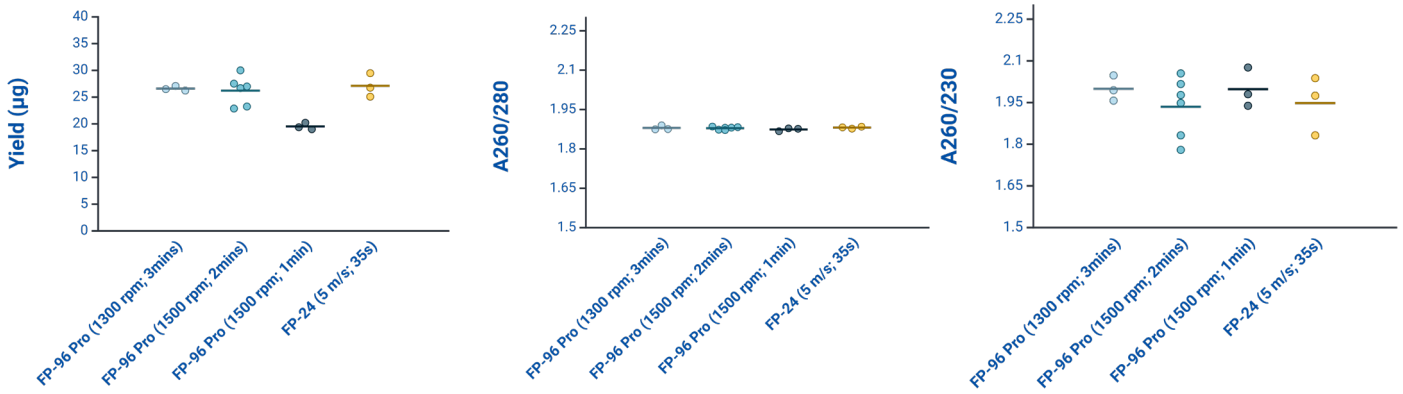


Figure 2. Effect of Homogenization Parameters and Systems on DNA Yield and Purity. Three primary homogenization methods were compared: FastPrep-96™ Pro (1300 rpm, 3 mins), FastPrep-96™ Pro (1500 rpm, 2 mins), FastPrep-96™ Pro (1500 rpm, 1 min), and FastPrep-24™ (5 m/s, 35s). Samples homogenization with FastPrep-96™ Pro (at 1500 rpm, 2 mins or 1300 rpm, 3 mins) and FastPrep-24™ (at 5 m/s, 35s) showed comparable yield (left) and purity (middle and right).

Optimized parameters setting during sample homogenization is crucial for maximizing the quality and quantity of extracted nucleic acids, directly affecting the success of downstream applications.

The FastPrep-96™ Pro consistently delivered the highest DNA yields across trials. All methods produced high-quality DNA, as reflected by A260/A280 ratio consistently above 1.8 and A260/A230 ratio around 2.0, indicating minimal protein contamination. Adequate DNA yield is essential for successful PCR or qPCR amplification and for generating robust sequencing libraries, particularly for whole-genome sequencing and transcriptomic analyses.

FastPrep-96™ Pro	Specifications
Motion	Linear Motion (Vertical)
Sample Capacity	192
Tube Volume	2 mL, 4.5 mL, 5 mL, 15 mL, 50 mL, 250 mL, 96-well plate
Interface	Touch-screen
Min/Max Speed	800 rpm / 1800 rpm
Increment Speed	50 rpm
Dimensions	400 mm x 660 mm x 540 mm (W x L x H)
Net Weight	30 kg (66 lbs)

Order Information	
FastPrep-96™ Pro	116014500