

#### **ABOUT**

## **BIOMURUN**

BioMuRun is a patented integrated 1-inch miniaturized all-in-one electrophoresis system with real-time imaging which enables analysis of DNA & RNA quickly and inexpensively using pre-cast polyacrylamide gel cassettes.

The BioMuRun is supplied with a BioMuRun instrument, a charging cable, a connector cable and pre-cast BioMuRun cassettes. In-built illumination from the blue LED light source provides an excitation wavelength of non-toxic fluorescent loading dye at 490nm and gives a higher sensitivity than the conventional toxic ethidium bromide. This instrument's sensitivity is comparable to that of a standard ultraviolet transilluminator. In contrast to UVtransilluminators, the BioMuRun blue-light does not emit UV light and does not necessitate the use of UV-protective apparatus.

### **BIOMURUN**

## PRECAST GEL

BioMuRun cassette is a pre-cast polyacrylamide 6% native gel cassette (customizable as per user need) that enables the rapid and cost-effective separation of DNA & RNA using the BioMuRun device.

The cassettes are comprised of bufferless acrylamide gel embedded with two ion exchange matrices (IEMs) in contact with the gel and electrodes. The IEMs provide a continuous flow of ions throughout the precast gel, resulting in the required sustained electric field for gel operation. It permits high-performance detection of 50-1000bp of nucleic acid ( $1\mu$ L sample volume) in only 5 minutes.



- ► ISO 9001-2015 & ISO 13485: 2016
- CE Certified

- ► Japan Patent 2022-195922
- India Design 392015-001

# **KEY FEATURES**

Complete handheld System
Ultra-compact size and ultra-light
weight all-in-one Polyacrylamide-GelElectrophoresis system

No gel preparation
Use Ready-to-use precast
gel cassettes with 1ml
sample volume

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Electrophoretic ru n time down to 5 min
1-inch-sized gel cassettes that runs in a buffer-free system

No post-run gel staining Uses simple fluorescence loading

dye for detection using integrated LED-induced light source

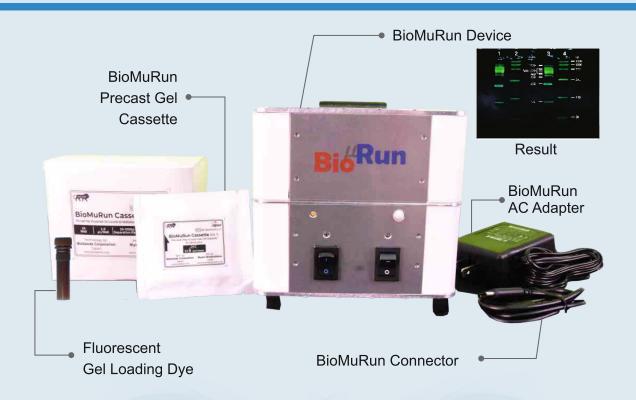


No External Power Supply

Real-time Gel documentation

Uses digital camera with smart operation panel and any camera based application that eliminates the use of Gel Doc system

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\*Biyani et al., Electrophoresis 2001:22,23; Chem. Lett 2001:2,138;

Anal. Methods 2019:11,4969; J. IEIE Jpn. 2022:42,109. #only with Advanced type Model

## **Technical Specifications**

	BioMuRun-Basic	BioMuRun-Advance
Dimensions (HxWxD)	10.8 x 12.5 x 12.5 cm	8.5 x 12.5 x 12.5 cm
Weight	Approx. 1300 g	Approx. 600 g
Operating Voltage	100 V	100 V
Power Supply	Battery powered (Lithium-ion polymer rechargeable Battery)	Electricity powered (DC 15V 1.5 Amp Power Adapter)
Current	Max. 50 mA	Max. 50 mA
Light Source	High Power Blue LED Panel	High Power Blue LED Panel
Operational & Imaging Control	Manual Operation	Dedicated software on Windows Tablet
Data Output	Visualize on fixed benchtop frame & capture with an external camera	Automatically record 16-bit or 8-bit JPEG image files with the built-in monochrome camera
Sample Slots per Cassette (Max.)	10 with 1 μL sample volume	1 with 10 μL sample volume
Temperature Gradients	Not available	Available (10°C - 70°C)

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