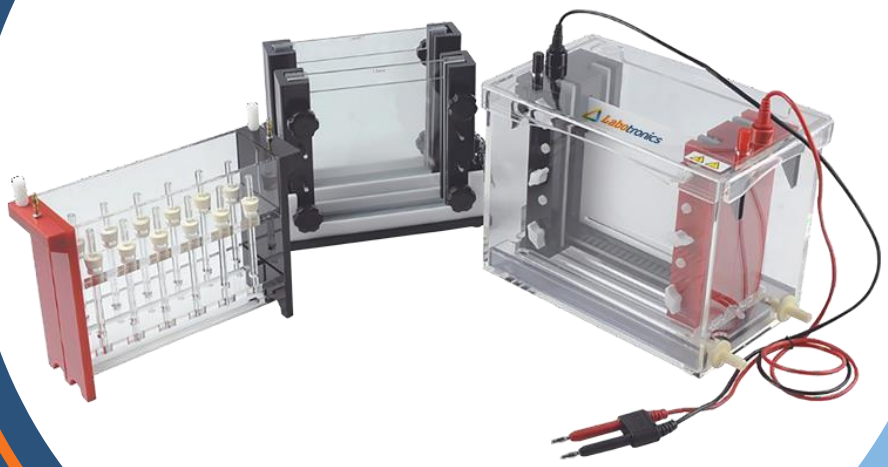
Labotronics



2D Gel Electrophoresis Unit

LB-10GEU

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1. Introduction

2D Gel Electrophoresis Unit LB-10GEU is a high-resolution analytical unit with a combination of isoelectric focusing electrophoresis and SDS-PAGE. Integrated gel caster prevents damaging of gel out of the second movement. External cooling and internal buffer ensure uniform temperature for reproducible results.

2. Features

1. Simple and leak proof assembly
2. Separate tank for 1D and 2D gel electrophoresis
3. Cooling water circulation (cooling effect)
4. Auto power off when lid is removed

3. Specifications

Model No.	LB-10GEU
Length of glass tube (1D tube gel)	120 mm
Gel diameter (1D tube gel)	1 mm, 2 mm
Gel size (W x L)	143 x 139 mm
Buffer volume	2500 mL
No of sample	17 to 58
Gel thickness	1 mm, 2 mm
Comb thickness	1 mm, 2 mm
Amount of gel	2 pieces
Dimensions (L x W x H)	460 x 230 x 400 mm
Weight	13.2 kgs

4. Applications

Used in molecular biology, life science, research and diagnostic lab for analysis of complex protein mixtures extracted from cells and other biological sample.

5. Installation

Installation Conditions

Voltage Settings

Reference Standard: Subject to the vertical distance between two glass plates.

1) 10-12V/cm, under room temperature.
2) 15V/cm, if the buffer was cooled overnight in the refrigerator at 4 ℃, constant voltage.
3) 20-25V/cm, if the unit is connected with a cooling circulator, constant voltage.

Note:

- The voltage setting conditions above are based on the gel concentration of 7.5%.
- If the gel concentration is higher, the electrophoresis time will be longer.

6. Operations

6.1 Experimental procedure:

1) Take out the balanced gel bars with a tweezer.

Figure-1

2) Place the gel bar on the plastic cushion plate and smooth the bar with another cushion plate.

Figure-2

3) Gently place the gel bars between the two glass plates in the vertical cell.

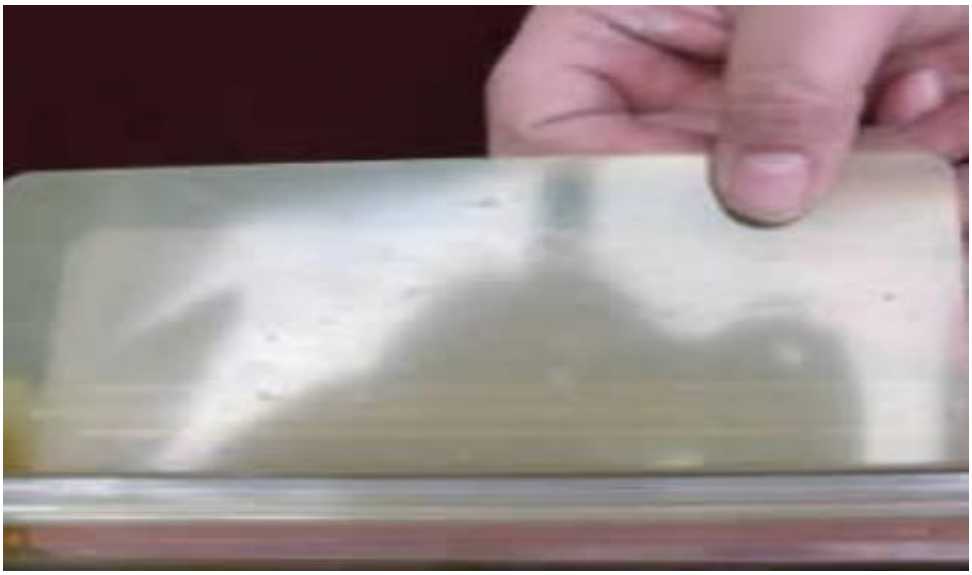

Figure-3

4) Sealing the gel bars with the solution of 1% agarose, glycerin, Coomassie Brilliant Blue, and SDS, and the indicator was sealed with 1% agarose.
5) The indicator can be also added to the buffer of the cell. 300 µl bromophenol blue indicator is added (0.1 g bromophenol blue was dissolved in 10 ml glycerol and 90 ml distilled water).

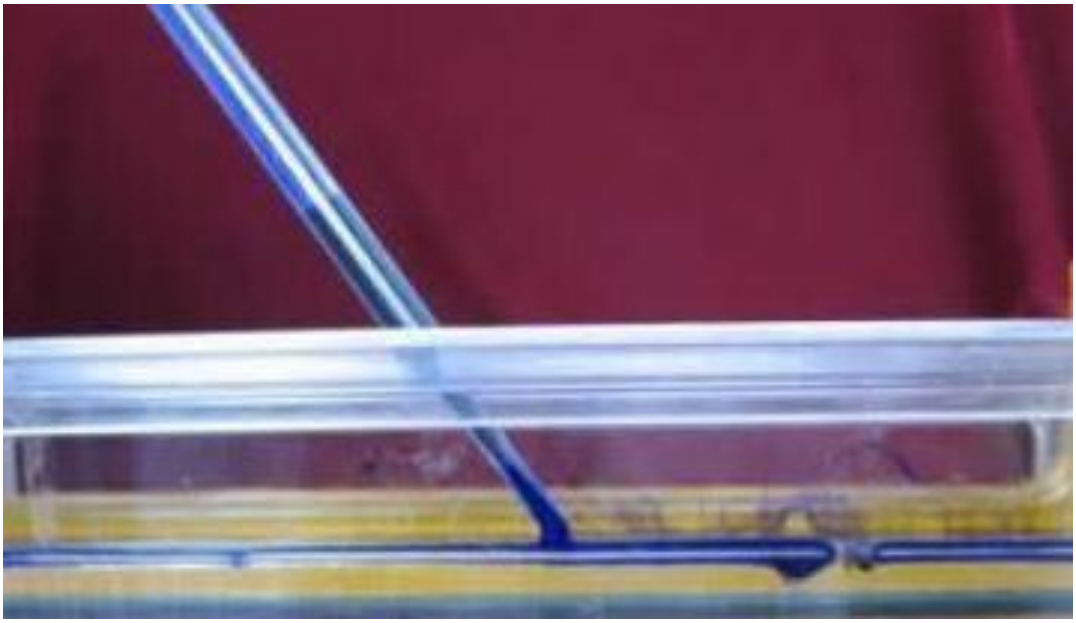

Figure-4

6.2 2-D Gel Electrophoresis Experimental Result

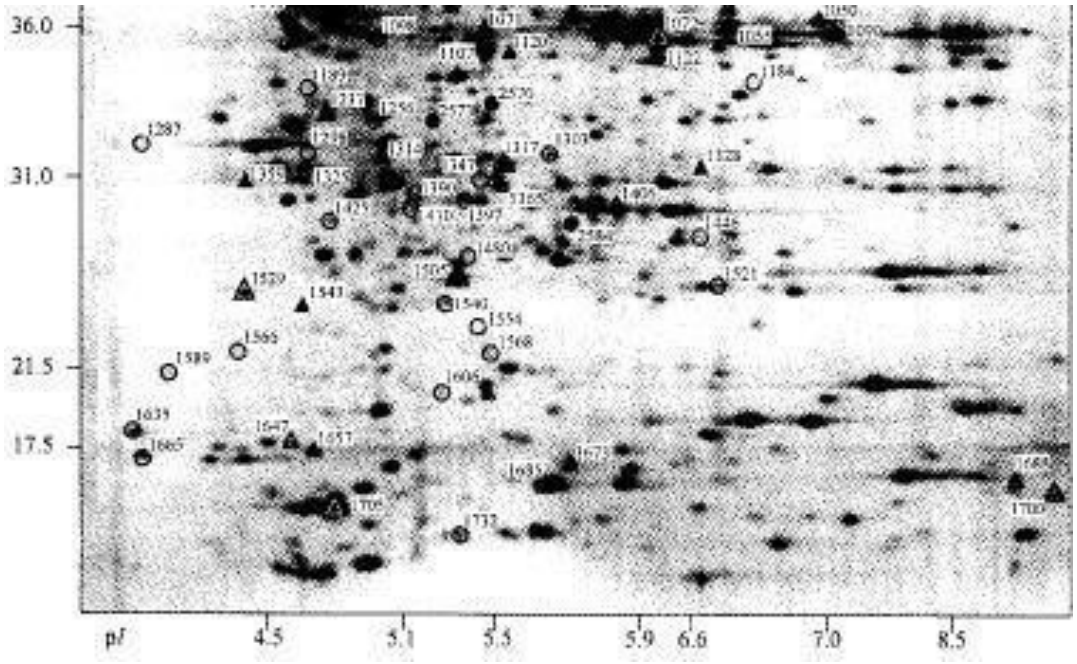

Figure-5

7. Accessories

Standard Accessories

Sr No	Accessory name	Quantity
1	Electrophoresis tank	1
2	Inner core 1D	1
3	Inner core 2D	1
4	Notched glass plates	4
5	1 mm bonded glass spacer	2
6	2 mm bonded glass spacer	2
7	1 mm thick 21 wells comb	2
8	2 mm thick 21 wells comb	2
9	1 mm thick 29 wells comb	2
10	2 mm thick 29 wells comb	2
11	1 mm diameter glass tube	12
12	2 mm diameter glass tube	12
13	Rubber plug	24
14	Gel casting	1
15	Silica gel tube	3
16	Electrical cables	1