horizontal electrophoresis cell with blue light optional

The main function ofhorizontal electrophoresis cell is to separate nucleic acid molecules by applying an electric field in the gel, according to the difference of molecular size and charge, so as to provide data support for subsequent experiments or analysis.

This horizontal electrophoresis cell is made of high-strength transparent plastic and high-purity platinum electrode, which has strong durability and efficient electrophoresis performance.

Main Features of Horizontal Electrophoresis Cell

1. high strength polycarbonate material: the tank body is injection molded with polycarbonate high-strength transparent plastic, which has the characteristics of high temperature resistance, impact resistance, and no leakage to ensure the stability of the equipment in long-term use, and the transparent design is easy to observe the electrophoresis process in real time.
2. blue light source: blue light electrophoresis light source can be purchased, when used with electrophoresis tank, it can effectively shield the influence of blue light on the experimental personnel, protect the eyesight at the same time, but also clearly observe the electrophoresis bands, reduce the interference of blue light irradiation on the experimental environment.

3. Professional blue light shielding cover design: The electrophoresis tank is equipped with specially designed blue light shielding cover, which not only prevents blue light from leaking out, but also provides heat dissipation in the process of experiment to avoid overheating of the equipment.
4. Leveling knob: The bottom of the electrophoresis tank is designed with adjustable leveling knob, which allows users to adjust the leveling of the tank according to their needs to ensure the uniform distribution of the electric field during the electrophoresis process.
5. Multi-specification gel size: It supports two different gel sizes, which can meet the different needs of routine experiments and high-throughput electrophoresis experiments, and increase the flexibility of experiments.
6. Space-saving cassette design: Equipped with front and back cassettes, it helps users to utilize the experimental space efficiently and simplify the gel making process at the same time.
7. Background strip design: The background strip on the bottom of the tray provides a clear visual reference, which helps to precisely apply the samples and ensure the accuracy of the experimental results.
8. High-purity platinum electrodes: The electrophoresis tank adopts 99.99% high-purity platinum electrodes, which not only improves the conductivity, but also enhances the corrosion resistance, so that the equipment still maintains high efficiency after a long time of use.

Advantages

1. High-efficiency electrophoretic separation effect: Through precise adjustment and high-purity electrodes, the electrophoresis tank provides stable and uniform electric field distribution, which can complete the separation of nucleic acid molecules rapidly and efficiently.
2. Safety and comfort: The design of blue light shielding cover and blue light source effectively reduces the influence of blue light on the experimenters and increases the safety of the experiment.
3. durability and stability: polycarbonate plastic material and the use of platinum electrodes, making the equipment has a strong impact resistance and corrosion resistance, greatly extending the service life.
4. easy to operate: the design of horizontal adjustment knob and background strip makes the electrophoresis tank operation easier and more accurate, saves the operation time and improves the experimental efficiency.
5. Flexible: two gel sizes and front and back design of the gel box provide more experimental options to meet the needs of different scale experiments.

Working Principle

The working principle of horizontal electrophoresis cell is based on the action of electric field on charged particles. The gel material in the tank provides a barrier mesh structure for the molecules. Larger molecules migrate more slowly due to greater resistance, while smaller molecules migrate more quickly. By applying an electric field, molecules are separated in the gel depending on their size, shape and charge distribution. A constant current in the electrophoresis bath ensures that the electrophoresis process is stable, and over time, the target molecules gradually form clear bands in the gel according to their size or charge differences. The background strip helps to observe the progress of the experiment and ensure the position of the electrophoretic bands and the accurate loading of samples.

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Model	**EH30**
Gel size	130x200mm, 130x150mm
Loading combs	1.0 mm: 14, 18, 26 teeth. 1.5 mm: 18 teeth
Buffer volume	800mL