

ELECTROPHORESIS

Genetic

Ref.:
708 150

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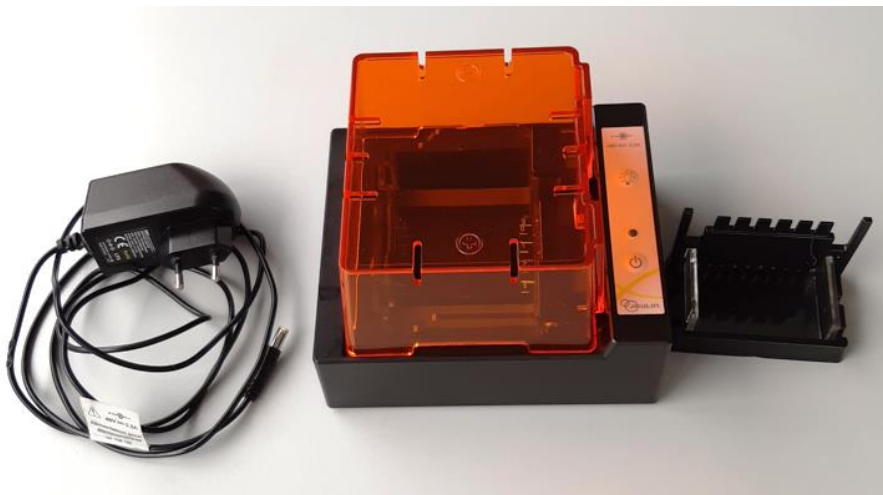
Version: 3220

Electrophoresis system phor**easy**

1. Presentation phorEasy

The PhorEasy electrophoresis system is an all-in-one electrophoresis system that combines the gel electrophoresis tank, power supply, transilluminator and orange filter in a single compact unit. This technology enables the student to monitor band migration throughout the electrophoresis process.

2. Composition



At reception, the product consists of the following components:

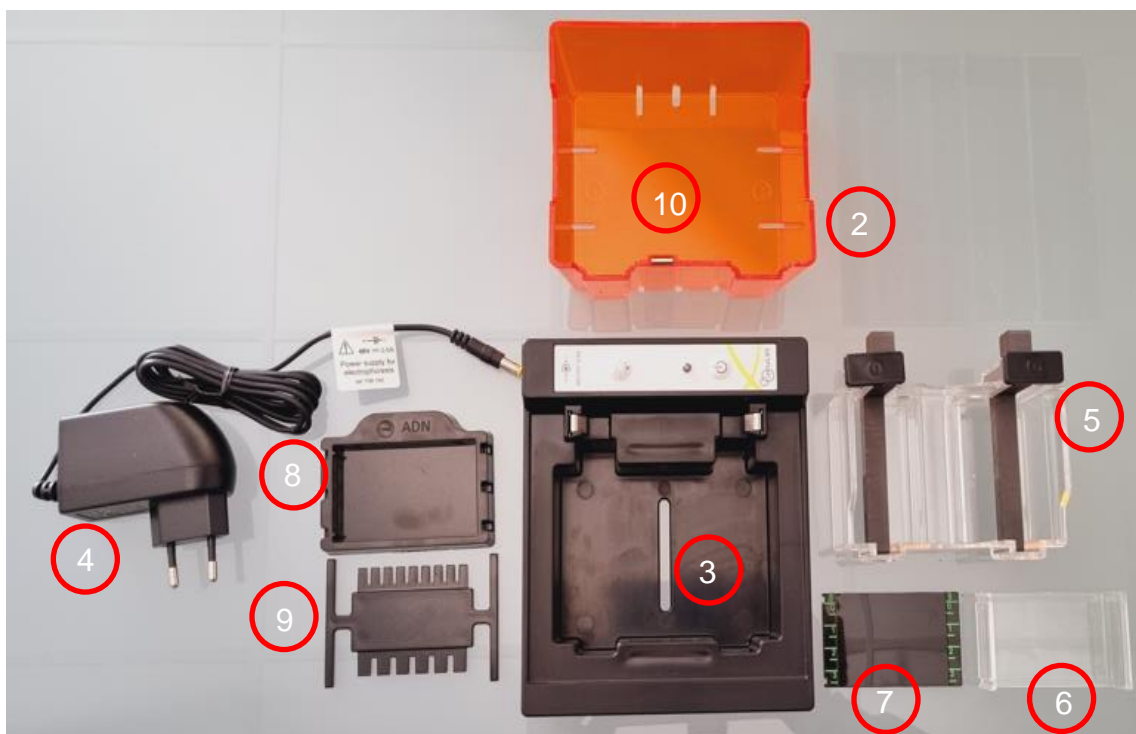
1. Storage case



PhorEasy electrophoresis system

Ref.: 708 150

2. Transilluminator blue light filter (cover)
3. Base: electrical connector and transilluminator
4. 48 V power supply
5. Electrophoresis cell, 145 mL capacity, fitted with 2 graphite electrodes
6. Gel holder
7. Viewing plate
8. Casting mold
9. Comb: 9 wells / 6 wells
10. Safety cut-off magnet



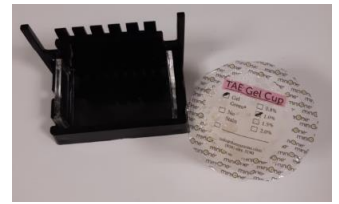
3. Gel casting

Optimal capacity: 15 ml

1. (Compatible with Jeulin 15 ml Easygreen gel or MiniOne® 12 ml gelcup)

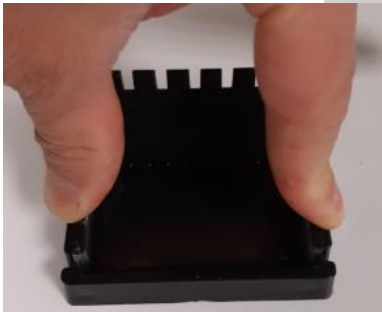


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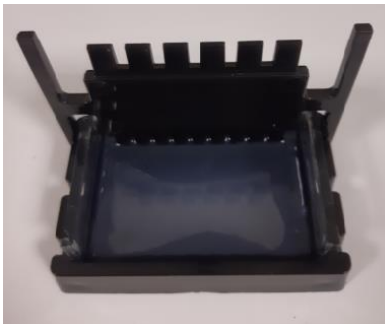
The orientation of the gel support is defined by the 2 coded pins, which then position the gel correctly in the cuvette without any possible error.

For DNA electrophoresis! Important! Place the comb in the marks near the - DNA sign.



Tip: after pouring the hot, liquefied gel into the mold, press firmly on the edges of the transparent support for 10 seconds.

Allow the casting assembly to cool (do not move it until it has completely solidified). The black color of the bottom of the mold allows you to see a slight opacification of the gel, indicating that it has solidified.



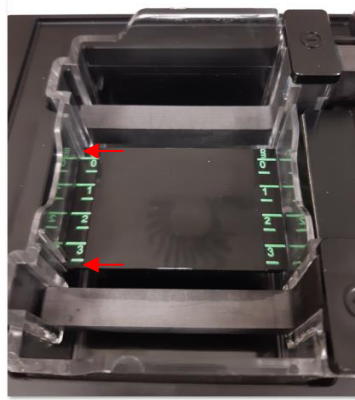
Demolding: gently remove the comb, then wipe away any residual gel from under the support.



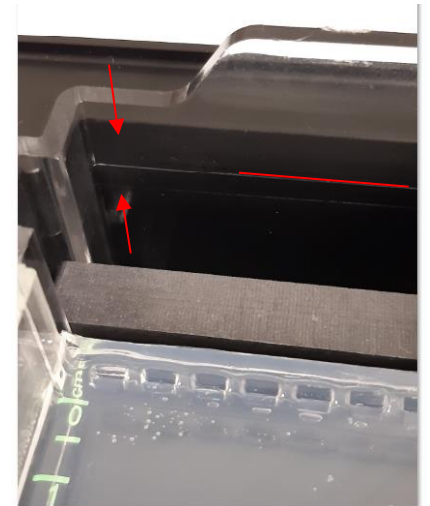
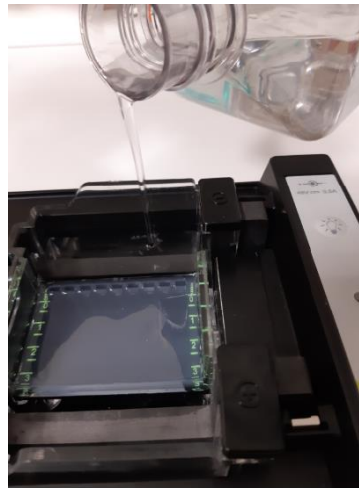
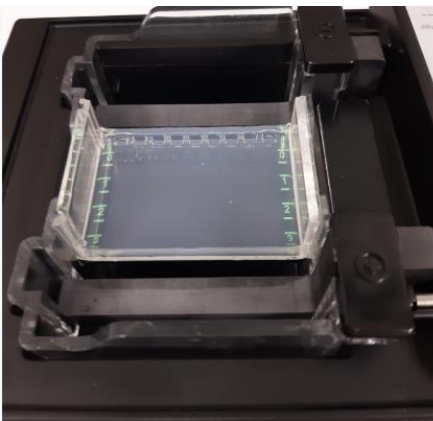
4. Performing electrophoresis

4.1 Place the gel in the tank

With the help of polarizers for guidance



4.2 Add buffer



Fill up to the 2 level lines on the front and rear walls of the transparent vessel.

This is the optimum level, as the agarose gel wells are normally covered with a few millimeters of buffer.

4.3 Powering up the unit

In the absence of the cover, the device is equipped with a safety cut-out. The indicator light is red to show that there is no voltage in the tank.

- Position cover on baseplate.
- Press start/stop button



Electrode side



The **green light** indicates that the unit is running.

If the **light is red** when the cover is in place, this indicates that the buffer level is not optimal, but electrophoresis has started.

! This red light is an indication, not a halt to the experiment!

If necessary, remove the cover (the instrument stops automatically).

Adjust buffer level, if necessary, e.g. if too low.

Replace the cover, and the experiment will restart automatically.

4-4 Using the transilluminator



The transilluminator is a device for visualizing fluorescent chromophore dyes, such as DNA developers (Gelgreen®, SYBRgreen® etc.).

Principle: blue light - a 470 nm LED - excites the dye, which then re-emits fluorescent radiation at a wavelength greater than 500 nm.

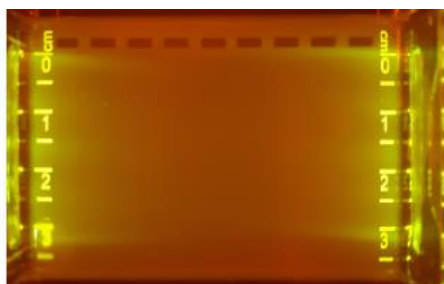
The orange filter hood stops radiation below 500 nm (from violet to blue), allowing only the re-emitted fluorescent light to pass through.

As with all devices equipped with blue LEDs, it's best to avoid direct exposure to LED radiation, and only switch on the LED side light once the cover is in place.

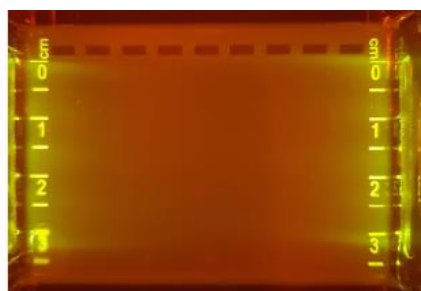
First press on button = maximum intensity light condition (e.g. direct sunlight on device)

Second press on button = minimum intensity, recommended for continuous visualization during migration.

Intensity max



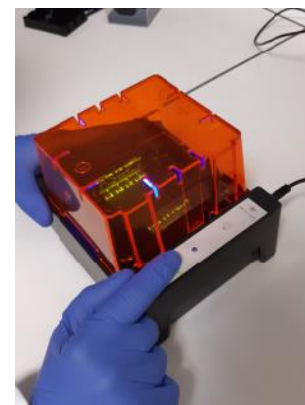
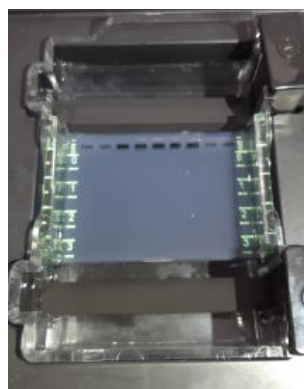
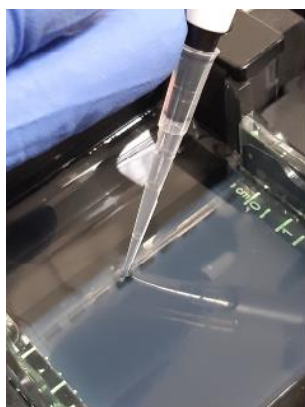
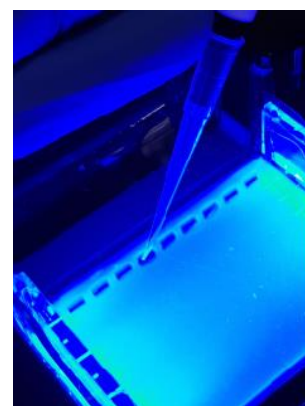
intensity min



Shooting: to quickly stabilize the automatic focus of a smartphone camera, use the marking as a focus marker.

For continuous visualization of real-time migration requiring uninterrupted lighting, use the minimum intensity setting.

4-5 Deposit and start-up images



For continuous visualization of real-time migration requiring uninterrupted lighting, the minimum intensity must be used.

4-6 Maintenance and cleaning

Do not let the buffer stagnate in the tank. Remove the transparent electrophoresis cuvette from the system, empty it and rinse it thoroughly with water before storing. If necessary, wipe down electrical connectors before storing.

Allow components to air-dry before reinserting them into the storage case.

Always disconnect the power supply before cleaning the system.

System components are not compatible with organic solvents such as acetone or ethanol.

Clean gel holder and casting tray with lukewarm water to remove any remaining agarose, then rinse with distilled water. Allow to air dry.

Do not immerse system in water.

Do not open the system.

5. Technical specifications

5.1 General specifications

All equipment is supplied in a protective storage case with foam padding.

Case dimensions	H : 100 mm x W : 215 mm x 310 mm
Electrophoresis dimensions	H : 116 mm x W : 155 x 130 mm
Electrophoresis tank	H : 59 mm x W : 101 x 97 mm
Electrodes	Graphite (2)
Light source	LED 470 nm
Filter	Orange filter 500 nm
Use	Indoors
Operating temperature	Between 5° and 40°C
Relative humidity max	80%

5.2 Power supply characteristics

Input	100-240V – 1.0A max 50-60HZ
Output	+48.0V – 0.5A
Power	24W max
Cable dimension	1,80 m
Certifications	CE

5.3 Characteristics of the gel casting assembly

Casting support	H : 19 mm x L : 79 x 60 mm
Comb	9 dents (4 x 1 mm) ou 6 dents (6 x 1 mm)
Gel tray	H : 23 mm x L : 68 x 41,5 mm

6. After-sales service

The warranty is 2 years.

For repairs, adjustments or spare parts, please contact:

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468 rue Jacques Monod
CS 21900
27019 EVREUX CEDEX France

09 69 32 02 10
Free call from France

