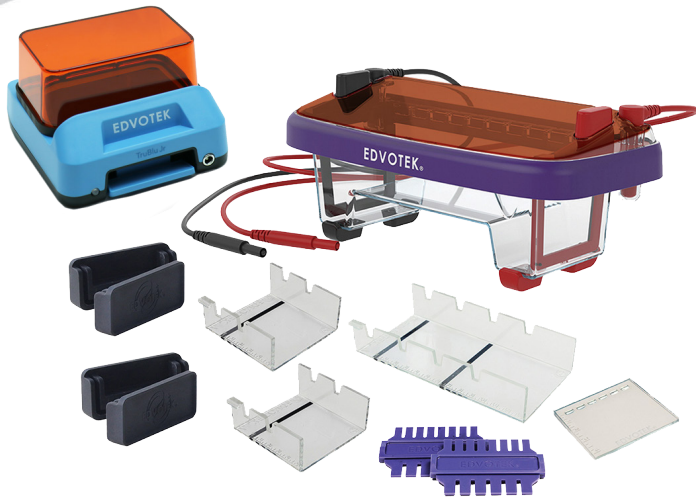


Catalog #505

# M12 Ultra™

## Electrophoresis and Visualization Package



The M12 Ultra™ includes the M12 Complete™ Electrophoresis Package and the all-new TruBlu™ Jr. Blue Light Transilluminator. This dynamic duo enables real-time visualization of SYBR® Safe or other blue light-reactive dye agarose gels.

For blue light-reactive gels, overlay the orange filter on the M12 lid and slide the TruBlu™ Jr. underneath for instant visualization!

The M12 Ultra™ offers the ultimate flexibility to either visualize gels in real-time with the orange contrast lid and TruBlu™ Jr., or to stain your gels post electrophoresis if you plan to use a traditional blue stain.

Bonus feature! The TruBlu™ Jr. can also be used to examine fluorescence from green fluorescent protein (GFP).

This package supports one or two student groups in two standard length gel trays for experiments that require less separation, or one long gel tray for experiments that require more. Produces excellent results in 15-30 minutes.

### M12 ULTRA™ INCLUDES:

- (1) Horizontal Electrophoresis Apparatus
- (2) 7 x 7 cm gel trays
- (1) 7 x 14 cm gel tray
- (4) Rubber end caps
- (2) 6/8 tooth combs
- (1) DNA DuraGel™ (Cat. #S-43)
- (1) TruBlu™ Jr.
- (1) Orange Contrast Lid
- (1) Orange Contrast Hood



### M12 FEATURES:

- New, sleek design
- Contoured lid enhances visualization
- Vented base
- Color coded push tabs
- Pour spout to pour out used buffer
- Replaceable electrode modules
- US Design Patent No. D749,235

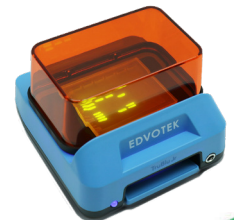
### M12 SPECS:

- Max Voltage: 150 Volts
- Max Current: 300 Milliamps
- Type Output: Constant Voltage
- Lead Inputs: 2 Sets, Recessed, Color Coded
- Fuse: 1.0 Amp
- Input Power: 50/60 Hz, 110/220 Volts
- Connection: 3-Wire Grounded Cord



### TRUBLU™ JR. FEATURES:

- Docks Seamlessly with the EDVOTEK® M12 Electrophoresis System
- Includes Orange Contrast Lid for M12 Cover
- Includes Orange Contrast Hood for TruBlu™ Jr.
- Battery operated for convenient use in the classroom
- Safe - Non-UV wavelength
- Blue Light Emission Spectrum Centered Around 470 nm
- Viewing Surface: 10 x 6 cm
- Universal Voltage for Worldwide Use



### TRUBLU™ JR. SPECS:

- LED wavelength: 470 nm +/- 10 nm
- LED Life: 50,000 hours
- Input voltage: 100-240V, 50/60 hz, 0.6A
- Output voltage: 5V DC, 0.5A
- Dimensions: 12 cm (w) x 14 cm (l) x 6 cm (h)
- Operating conditions: 4°C to 37°C, 75% max. humidity

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**M12 Ultra™****Electrophoresis and  
Visualization Package****TIPS FOR AGAROSE GEL CASTING:**

When casting an agarose gel, the temperature of the melted agarose which is poured into the gel tray should not exceed 60°C. **Hot agarose solution may irreversibly warp the gel tray!** After the agarose gel has been poured and the gel has solidified, carefully remove comb(s) as they can tear the gel. Likewise, remove the rubber dams from the tray slowly to avoid damaging and ripping the gel. When placing the gel tray into the chamber, make sure to align the tab on the side of the gel tray with the notch in the gel chamber (and not one of the side vents). The gel tray must sit completely level inside the gel chamber. Upon completion of the electrophoresis run, turn off and unplug the power source and disconnect the leads before removing the cover. Use the push tabs to gently raise the cover straight up to prevent pulling directly on the electrodes. Do not attempt to run the apparatus without the cover in place. The gel should be removed from the apparatus for blue staining.

**FOR VISUALIZING FLUORESCENTLY STAINED DNA GELS:**

1. Place the M12 electrophoresis unit on a flat, level surface and prepare the agarose gel and electrophoresis buffer according to the standard instructions.
2. Carefully slide the TruBlu™ Jr. under the M12 Electrophoresis System until the lip of the unit rests against the M12 tank.
3. Place the orange contrast lid on top of the M12 lid.
4. To visualize the DNA, press the ON/OFF paddle at the base of the TruBlu™ Jr. to illuminate the blue LEDs. Press the paddle again to turn off the LEDs.

**FOR VISUALIZING FLUORESCENTLY LABELED PROTEINS OR OTHER  
BLUE LIGHT-REACTIVE SAMPLES:**

1. Place the TruBlu Jr. on a flat, level surface.
2. Place the sample onto the blue filter.
3. Cover the unit with the orange contrast hood. DO NOT look directly at the blue LEDs without an orange filter. Be sure to use amber safety goggles.
4. To visualize the samples, press the ON/OFF paddle at the base of the TruBlu™ Jr. to illuminate the blue LEDs. Press the paddle again to turn off the LEDs.

**WARNINGS:**

- Although the TruBlu™ Jr. does not require specialized eyewear, the blue light is high intensity. DO NOT stare at the blue lights for a long period without the orange cover in place.
- DO NOT open the outer housing of the transilluminator. This product should only be dismantled by properly trained professionals.
- At all times, USE COMMON SENSE.
- DO NOT submerge the transilluminator in liquids or pour liquids onto the transilluminator.
- Whenever working with any type of stained DNA gel, WEAR disposable gloves.
- The blue and orange filters are scratch resistant but not scratch proof. DO NOT cut or use sharp objects on the plates. If you need to extract a band do so carefully and with a dull edge.

**USER MAINTENANCE:**

In the unlikely event that you experience any problems with your unit that cannot easily be remedied, you should contact EDVOTEK® immediately.

**CHARGING YOUR TRUBLU™ JR UNIT:**

1. Ensure that the surface is free from any liquids, including spilled water or electrophoresis buffer.
2. Firmly insert the charging cord into a grounded outlet using the appropriate plus (110 or 220V). Insert the barrel jack plug into the charging port on the TruBlu™ Jr. unit.
3. Confirm that the LED is glowing, indicating that the battery is charging.

Red = Battery is between 0-10% capacity  
Yellow = Battery is between 10-75% capacity  
Green = Battery is greater than 75% capacity

**NOTE: Make sure the unit is fully charged before each use.**

**CLEANING THE TRUBLU™ JR:**

Before cleaning your unit ALWAYS disconnect from the power supply. The unit can be cleaned by wiping with a lightly damp, soapy cloth. Care should be exercised to prevent water from running inside the unit. Do not use abrasive cleaners or strong solvents.

**CLEANING THE M12:**

To clean the electrophoresis apparatus chamber, gel bed and combs, wash with tap or distilled/deionized water and let the components air dry. Do not use detergents of any kind, or expose any part of the apparatus to any organic solvent, acid or alkali. The acrylic chamber of the apparatus is well sealed and will withstand normal intended use. However, should an unlikely leak develop, immediately shut off power. Do not use the apparatus.


 The logo for EDVOTEK, featuring the company name in a bold, blue, sans-serif font. To the right of the text is a circular emblem containing a stylized, grey, swirling graphic that resembles a DNA double helix or a molecular structure.
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