



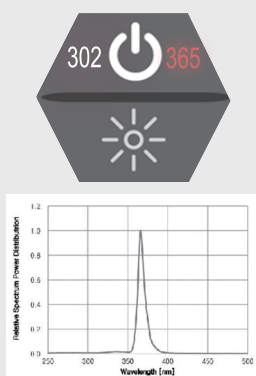
UVPAD Trio LED 365/302/300nm UV Transilluminator

Description

This UV transilluminator uses high-performance ultraviolet light-emitting diodes (UV-LEDs) as the excitation light source, replacing traditional mercury UV lamps. It offers advantages such as long lifespan, rapid start-up, and high energy efficiency. Its unique backlit illumination design combines three UV wavelengths: 302 nm, 365 nm, and high-power 300 nm, to deliver uniform and adjustable excitation light. This allows flexible adaptation to various fluorescent dyes, chemical stains, and sample conditions, meeting diverse experimental needs.

The device features a compact and durable body with three-level brightness adjustment, light shielding, and safety power cut-off functions, enhancing experimental sensitivity, operational convenience, and user safety. When used with a miniDarkroom, observation efficiency is further improved, and image capture can be completed quickly. As this device is specifically designed for the qualitative observation and quantitative analysis for both nucleic acids and proteins, it is widely applicable in molecular biology, proteomics, clinical research, and educational laboratories, which makes it an essential piece of device in modern life science research.

365 nm Wavelength Mode

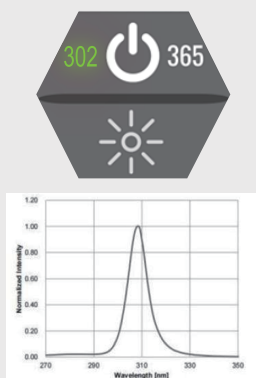


Activation: The red indicator light glows to indicate the 365 nm mode has been switched on by pressing the power button once.

This mode uses a UV-LED with a wavelength of 365 nm as the excitation light source, which is suitable for fluorescent dyes or luminescent chemical labels that can be excited by 365 nm UV light. Applicable samples include nucleic acids, proteins, or other target molecules labeled with fluorescent markers. It is ideal for both qualitative observation and quantitative analysis. This mode offers three levels of intensity, allowing users to select the optimal intensity based on sample concentration and imaging needs, enhancing contrast and image clarity to ensure optimal viewing and photo capture.

◀ Figure 1. Excitation Spectrum in 365 nm Wavelength Mode

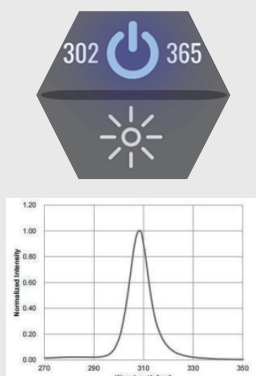
302 nm Wavelength Mode



Activation: The green indicator light glows to indicate the 302 nm mode has been switched on by pressing the power button twice, or once after the 365 nm mode. This mode uses a UV-LED with a wavelength of 302 nm as the excitation light source. It is suitable for fluorescent dyes, ethidium bromide (EtBr), or luminescent chemical labels that can be excited by 302 nm UV light. Applicable samples include stained nucleic acids, proteins, or other target molecules labeled with fluorescent markers. It is ideal for both qualitative observation and quantitative analysis. This mode also offers three levels of intensity, allowing users to select the optimal intensity based on sample concentration and imaging requirements, improving contrast and image clarity for optimal observation and photography.

◀ Figure 2. Excitation Spectrum in 302 nm Wavelength Mode

300 nm High-Power Wavelength Mode



Activation: The blue indicator light glows to indicate the 300 nm high-power mode has been switched on by pressing and holding the power button for 5 seconds, a design to prevent switching on accidentally.

This mode is equipped with a high-intensity 300 nm UV-LED as the excitation source, delivering an output intensity of 6,000–8,000 $\mu\text{W}/\text{cm}^2$. It is suitable for fluorescent dyes, luminescent chemical labels, or pre-cast gels that respond to high-energy UV light. This mode is especially ideal for applications where samples need to be quickly identified by the naked eye. It provides stable and concentrated UV energy, enabling fast imaging and high-efficiency observation to ensure accurate results and enhanced operational efficiency.

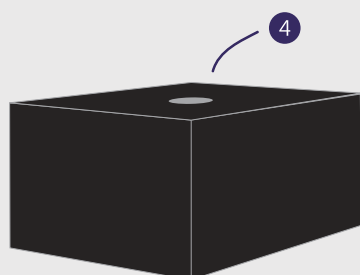
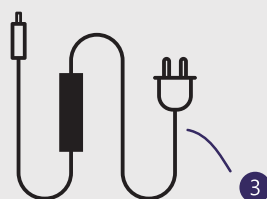
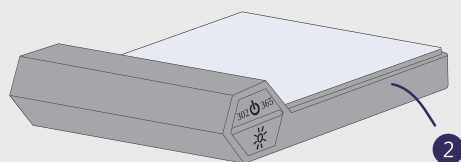
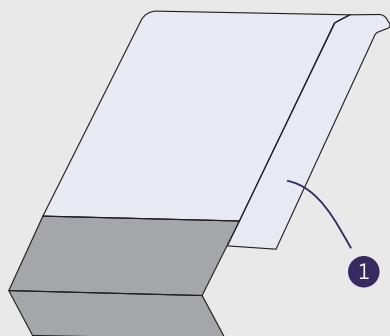
◀ Figure 3. Excitation Spectrum in 300 nm Wavelength Mode

【Note】: Brightness adjustment is not available in this mode.

【Note】: This mode is limited to the central area of $12.0(\text{W}) \times 10.0(\text{L}) \text{ cm}$.

Features

- ① UV-Shielding Cover
- ② Transilluminator Base
- ③ Power Adapter
- ④ miniDarkroom
- ⑤ Gel-Cutting Knife and Replacement Blades



Triple-Wavelength UV Design (365 nm / 302 nm / 300 nm)

Wide application range suitable for fundamental life sciences, medical diagnostics, molecular biology, and related research fields.

Magnetic Lid Design

Utilizes a hinge-free magnetic attachment structure for easy, safe, and durable operation. Equipped with a UV-Shielding Cover that enables direct sample observation, gel cutting, and photography while preventing biological damage.

Auto Power-Off When Lid Is Detached

The device will automatically shut down if the UV-Shielding Cover is not properly installed, preventing accidental UV leakage and enhancing operational safety.

Auto Shut-Off Function

To protect the device and prevent potential risks caused by oversight, this product is equipped with an auto shut-off feature.

- 365 nm / 302 nm Modes: Automatically shuts off after 5 minutes of operation.
- High-Power 300 nm Mode: Automatically shuts off after 7 minutes of operation.

Bottom-Illuminated LED Design

The system is equipped with long-lasting, maintenance-free, bottom-embedded LEDs, eliminating the need for tube replacement and the risk of harmful gas emissions. The bottom-up lighting design significantly reduces refraction and diffraction commonly associated with side lighting, thereby enhancing image clarity and photography quality. It contains no mercury or other harmful heavy metals, making it safer for both users and the environment.

Three-Level Brightness Adjustment

Brightness levels can be adjusted based on sample concentration or observation requirements by pressing the brightness button (as shown in the image below) when operating in the 302 nm or 365 nm wavelength modes. This function is not available in the 300 nm high-power wavelength mode. Brightness adjustment ensures optimal image contrast and viewing quality.



Durable and Lightweight for Versatile Use

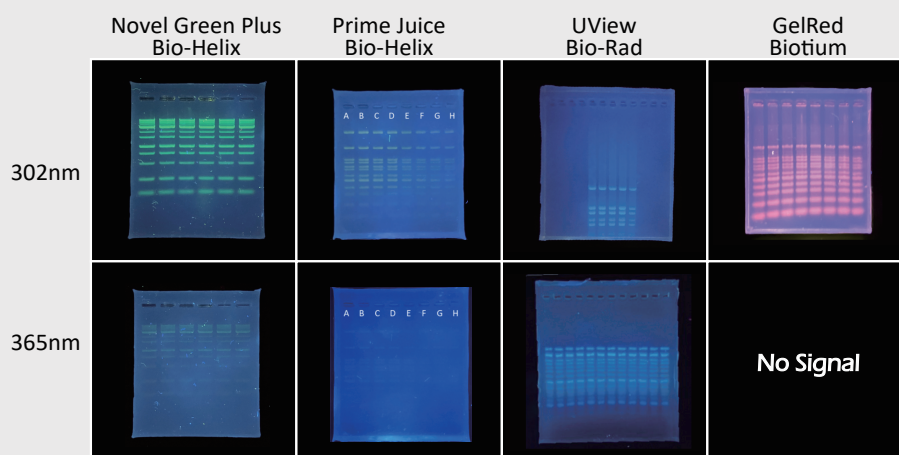
The alloy housing provides a balance of stability and portability. Its compact and durable design makes it suitable for both laboratory use and field applications.

Specifications

Unit Dimensions (W×L×H)	23.0 × 20.1 × 5.1 cm
Gel Viewing Dimensions (W×L)	365 nm / 302 nm Modes: 21.0 × 13.0 cm 300 nm Mode : 12.0 × 10.0 cm
Power Adapter Input	100–240 VAC ±10%, 50/60 Hz, 1.5-0.8A
Power Adapter Output	24V DC, 2.5A (60W)
LED Light Source	Built-in UV 365 nm, UV 302 nm, and UV 300 nm LED modules
LED Lifespan	>5,000 hours
Emission Wavelengths	365 nm / 302 nm / 300 nm
Auto Power-Off Time	365 nm / 302 nm Modes: 5 minutes High-Power 300 nm Mode: 7 minutes
Filter Type	UV-blocking Polycarbonate
Certifications	CE / ETL

Related Ordering Information

Cat. No.	Description
UP001-Base	UVPAD Transilluminator Base
UP-Blocker	UVPAD UV-Shielding Cover
UP-AC60W	UVPAD 60W 24V 2.5A Power Adapter
UP-miniDR	UVPAD miniDarkroom
UP-KNIFE	UVPAD Gel Cutting Knife Set



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High-power 300 nm enables rapid protein visualization in UV-activated polyacrylamide gels

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