

Product Information

Gel-Bright™ LED Gel Illuminator

Catalog Number: E90003

Specifications

General Dimensions (W x D x H)	7.1 x 9.5 x 4.3 inches (18 x 24 x 11 cm)
Gel Stage Dimensions (W x D)	5.5 x 5.1 inches (14 x 13 cm)
Voltage Input	100~240 V (converter included)

A universal outlet adaptor is provided for customers outside of North America. This product has a CE marking.

Product Description

The Gel-Bright™ LED Gel Illuminator is a non-UV illuminator for detection of fluorescently labeled nucleic acids and proteins. It is a safe alternative to UV transilluminators, because UV light can damage skin and eyes. UV light can also induce crosslinking and photo-nicking of DNA.

The Gel-Bright™ LED Gel Illuminator is optimized for green dyes, such as GelGreen™ and SYBR® Green. It is also compatible with red dyes such as GelRed™, ethidium bromide, and One-Step Lumitein™ Protein Gel Stain, but with reduced sensitivity. Other compatible fluorescent dyes are listed below.

The gel viewing area of the Gel-Bright™ illuminator contains an array of blue LED lights around the periphery of the gel box, casting light at a 45° angle to ensure even illumination. Above the gel box is a mounted amber filter that allows the visualization of the fluorescent signal. The filter can be tilted (Figure 1B) to allow easy access to the gel for processes such as band excision, or lowered to allow the gel to be photographed (Figure 1A).

Features:

- Safer than a UV transilluminator. UV protective eyewear or clothing are not required
- No UV-induced damage of DNA
- Adjustable light intensity
- Special light design for even illumination throughout the gel
- Optimized amber filter to improve signal to background ratio
- Broad dye compatibility: Optimized for green dyes, such as GelGreen™ and SYBR® Green, but also compatible with red dyes such as GelRed™ (with reduced sensitivity)
- Ergonomically designed for easy access to the gel, for gel slice excision
- Multi-hinged amber filter for maximum angle and height positioning options
- Unique moisture venting mechanism to prevent fogging of amber filter
- Can be used to facilitate generation of visible blue DNA bands when using DNAzure™ Blue Nucleic Acid Gel Stain

Compatible Dyes Include:

- GelGreen™ Nucleic Acid Gel Stain (Biotium)
- EvaGreen® Dye (Biotium)
- GelRed™ Nucleic Acid Gel Stain (with reduced sensitivity) (Biotium)
- One-Step Lumitein™ Protein Gel Stain (with reduced sensitivity) (Biotium)
- DNAzure™ Blue Nucleic Acid Gel Stain (as a developer) (Biotium)
- SYBR® Green, SYBR® Safe, SYBR® Gold and similar dyes
- SYPRO® Ruby Protein Gel Stain (with reduced sensitivity)



Figure 1. Gel-Bright™ LED Gel Illuminator.

Protocol for use

1. Run a gel according to your standard protocol and stain it with a fluorescent stain, such as GelGreen™ Nucleic Acid Gel Stain.
2. Place the provided glass plate into the gel staging area. Place the stained gel on the glass plate.
3. Turn on the Gel-Bright™ device and turn the dial until the desired light intensity is attained.
4. View the gel through the amber filter. For best results do this in a dimly lit, or dark room. If desired, the amber filter may be positioned close to the gel to obtain a better image (see Figure 1C). To adjust the position of the filter, push the Filter Adjustment Knob (Figure 2) up at a 45° angle, and then lower the filter.
5. The gel can be photographed with a regular camera.
6. When excising gel slices, the amber filter can be angled up for better access to the gel (see Figure 1B), or alternatively, the device may be turned around to gain access from the back of the device.

Note: When excising gel slices ALWAYS position the glass plate under the gel, as sharp blades will scratch the lower surface of the gel staging area.

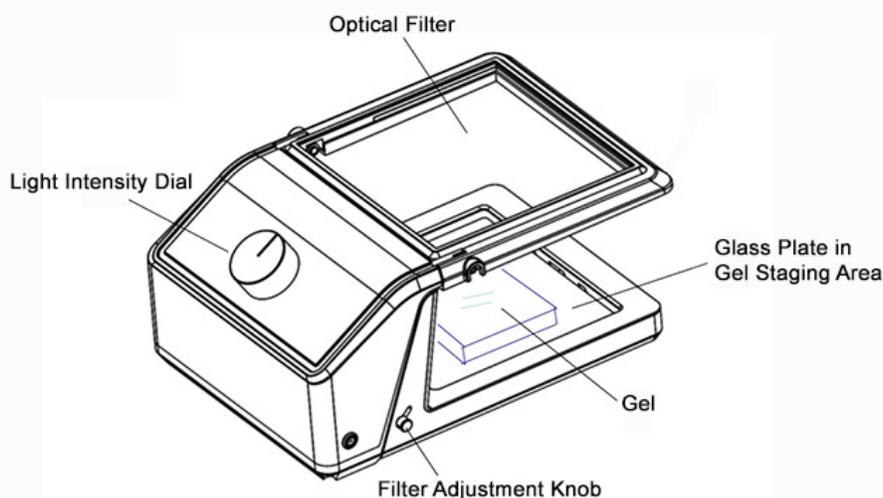


Figure 2. Diagram of Gel-Bright™ LED Gel Illuminator.

Safety Information

The Gel-Bright™ LED Gel illuminator is an electrical device. Plug the power cord into a properly grounded electrical outlet. Disconnect device from the electrical outlet before cleaning it. The Gel-Bright™ LED Gel illuminator is not water-proof. Do not submerge in water, or add buffer to the gel staging area.

Do not look directly at the blue LEDs for a prolonged period of time without the amber filter. Although no clinical studies have been published, bright blue light is a possible risk factor for macular degeneration.

Warranty

Biotium warrants that this product will be free from defects in material and workmanship for a period of two (2) years from date of purchase. If a defect is present, Biotium will, at its option, repair, replace, or refund the purchase price of this product at no charge to you, provided it is returned during the warranty period. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication, or from ordinary wear and tear. For your protection, items being returned must be insured against possible damage or loss. Biotium cannot be responsible for damage incurred during shipment of a repair instrument; It is recommend that you save the original packing material in which the instrument was shipped. This warranty shall be limited to the replacement of defective products. IT IS EXPRESSLY AGREED THAT THIS WARRANTY WILL BE IN LIEU OF ALL WARRANTIES OF FITNESS AND IN LIEU OF THE WARRANTY OF MERCHANTABILITY.

Obtaining Service

Contact Biotium Technical Support at 800-304-5357 or send an email to techsupport@biotium.com and describe the problem(s) you are experiencing. Carry out any suggested modifications or tests. DO NOT ship a device to us without first obtaining a Return Authorization from us. If it is determined by the Biotium Technical Support representative that the device should be returned for repair, a Return Authorization number will be assigned and you will receive instructions for the return. If the device is under warranty, Biotium will repair or replace the unit, and pay for return shipment. If the device is not under warranty, Biotium will give you a cost estimate before repairing the unit. Repair and shipping costs both ways are your responsibility if the device is not under warranty.

Related Products

Catalog number	Product
41005	GelGreen™ Nucleic Acid Gel Stain, 10,000X in water
31019	EvaGreen® Dye
41020	DNAzure™ Blue Nucleic Acid Gel Stain
41001	GelRed™ Nucleic Acid Gel Stain, 3X in water
41003	GelRed™ Nucleic Acid Gel Stain, 10,000X in water
21004-1L	One-Step Lumitein™ Protein Gel Stain, 1 L
41008-T	PAGE GelRed™ Nucleic Acid Gel Stain, 10,000X in water
31039	1 kb DNA Ladder in TE Buffer
31040	100 bp DNA Ladder in TE Buffer
41006	TBE, 5X
31028	AccuClear™ Ultra High Sensitivity dsDNA Quantitation Kit with 7 DNA Standards
31066-T	AccuGreen™ High Sensitivity dsDNA Quantitation Kit, trial size (for Qubit®)
31041-T	Forget-Me-Not™ qPCR Master Mix, trial size
31043-T	Forget-Me-Not™ Universal Probe Master Mix, trial size
40069	PMAxx™ dye, for viability PCR
E90002	PMA-Lite™ LED Photolysis Device
E90004	Glo-Plate™ Blue LED Illuminator
E90003	Gel-Bright™ LED Gel Illuminator

Please visit our website at www.biotium.com for information on our life science research products, including environmentally friendly EvaGreen® qPCR master mixes, fluorescent CF™ dye antibody conjugates and reactive dyes, apoptosis reagents, fluorescent probes, and kits for cell biology research.

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