GelGreen Nucleic Acid Stain (Aqueous Solution, 10,000×)

（R002）

Product Description

GelGreen Nucleic Acid Stain is a product designed to replace Ethidium Bromide (EB) for staining DNA and RNA in gels. It is a fluorescent dye that binds to the minor groove region of the nucleic acid double helix and shares the same spectral characteristics as EB, allowing it to be used with the same detection system as EB. Stained DNA bands exhibit green fluorescence under blue light illumination. This product is suitable for staining dsDNA, ssDNA and RNA in agarose and polyacrylamide gel electrophoresis.

Components

Product Name	Cat. No.	Volume
GelGreen Nucleic Acid Stain (Aqueous Solution, 10,000×)	R002	500 μL

Storage Conditions

Store at room temperature and transport at room temperature. The shelf life is two years.

Notes

1. This product is for scientific research use only and shall not be used in clinical diagnosis, treatment and other related fields.
2. The post-electrophoresis staining method shall be adopted when this product is used for polyacrylamide gels.
3. Wear a lab coat and disposable gloves during the operation.

Experimental Procedures

(1) Pre-electrophoresis Gel Staining

1. Prepare an agarose gel solution of appropriate concentration according to experimental requirements. After the agarose is completely dissolved, add GelGreen Nucleic Acid Stain at a ratio of 1:10000 (this product has excellent thermal stability and can be added directly without waiting for the solution to cool down).
2. Gently shake to mix the solution thoroughly, then pour the agarose gel solution into the gel casting mold. After the gel solidifies, electrophoresis can be performed by conventional methods.

(2) Post-electrophoresis Gel Staining

1. Add GelGreen Nucleic Acid Stain to 0.1 M NaCl solution at a ratio of 3:10000 to prepare a 3× staining solution (the

staining solution can be reused for 3 times and stored at room temperature or 4℃ in the dark for 1 week).

2. Transfer the agarose gel after electrophoresis to a suitable container, and add a sufficient amount of the prepared staining solution to submerge the gel completely. Stain the gel with shaking at room temperature for about 30 minutes (for gels containing 3.5% ~ 10% acrylamide, the staining time is usually 30 minutes ~ 1 hour, and the specific time is prolonged with the increase of acrylamide content). Observation can be carried out immediately after staining. For clearer bands, rinse the gel with water for 1 ~ 2 times for 3 ~ 5 minutes each time after staining to eliminate the background fluorescence.