Nucleic Acid Gel Stain II

FB02509040 400 µL

Stored at 2 to 25°C and protected from light. Stable for at least 6 months when stored as directed.

Nucleic Acid Gel Stain II is safer than ethidium bromide for staining DNA in gels. It can be used like ethidium bromide and offers comparable detection sensitivity. DNA bands stained with Nucleic Acid Gel Stain II can be detected using UV, visible-light transilluminators, or laser-based scanners. It is also suitable for staining RNA. Nucleic Acid Gel Stain II has fluorescence excitation maxima at 280 and 502 nm, and an emission maximum at 530 nm.

Kit Contents

Reagents	Volume	Concentration
Nucleic Acid Gel Stain II*	400 µL	10,000X

*Contains DMSO that freezes at low temperatures. Ensure product is completely thawed and mixed before use.

Protocol

Staining Nucleic Acid After Electrophoresis

1. Dilute the stock 10,000X Nucleic Acid Gel Stain II to 1X in TAE (FB02510100) or TBE (FB02511100) buffer prior to use.
2. Soak the gel in 1X Nucleic Acid Gel Stain II in a plastic container (Do not use glass as the dye may adsorb to the walls of the container). Add sufficient stain to cover the gel with 50 mL volume being sufficient for most standard minigels.
3. Increase the volume of staining solution in proportion to the increased gel volume, ensuring that the gel is fully immersed during staining.
4. Incubate for 30 min on an shaker, protected from light (cover with foil or keep in dark). Destaining not required.

Precasting Nucleic Acid Gel Stain II in Agarose Gels

1. Dilute the concentrated stain 1:10,000 in agarose gel buffer (e.g., 1X TBE or 1X TAE) and add the buffer plus stain mixture to the powdered agarose. The stain mixture with agarose can be heated in the microwave.
2. Run the gel using the running buffer appropriate to Nucleic Acid Gel Stain II formulation. No post-staining or destaining is needed.

Viewing and imaging the gel

1. View stained gel using a standard 300 nm transilluminator, a 254 nm epi- or transilluminator or a blue-light transilluminator. Imaging system equipped with an excitation source in the UV range or between 470-530 nm can also be used. Although, it is not recommended to use a UV light source for band excision as it can lead to reduced cloning efficiencies.
2. Gels stained with Nucleic Acid Gel Stain II can be documented using a CCD camera or laser scanner system equipped with the appropriate optical filters.