ZicherRed Nucleic Acid Safe Gel Stain

AMID BIOSCIENCES

Catalog # ZRGS-701

Product Description and Protocol

Product name: ZicherRed Nucleic Acid Safe Gel Stain

Product Description
ZicherRed is a highly sensitive and environmentally safe fluorescent nucleic acid dye for detection of DNA and RNA in agarose and polyacrylamide gels. ZicherRed Nucleic Acid Safe Gel Stain emits red fluorescence when bound to dsDNA, ssDNA, and RNA and replaces the need for the mutagenic ethidium bromide. DNA visualization after staining with ZicherRed can be done using common gel imaging instruments (UV transilluminators or blue LED illumination). The dye can be efficiently removed from DNA by gel extraction or ethanol precipitation, and therefore will not interfere with downstream DNA manipulations such as restriction digestion, PCR, sequencing, and cloning.
ZicherRed Nucleic Acid Safe Gel Stain, 10,000X stock is a concentrated solution that can be diluted 10,000 times for use in precast gel staining or 5,000 times for use in post gel staining according to the procedures described in the manual.

Applications
Detection of DNA and RNA in agarose and polyacrylamide gels.

Storage:
Room temperature or 4°C, protected from light.

Usage:
This product is intended for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.

Staining Protocols

A. Pre-cast Protocol
1. Prepare agarose gel solution using your standard protocol.
2. Let the gel solution cool down and add the ZicherRed Nucleic Acid Safe Gel Stain, 10,000X stock into the agarose gel solution at 1:10,000 (for example, add 5 μl of dye to 50 ml of agarose solution) and mix thoroughly.
3. Cast the gel and allow it to solidify.
4. Load samples and perform electrophoresis using your standard protocol.
5. Detect the bands in the stained gel with a standard 300 nm UV transilluminator or blue LED illuminator.
Note: The pre-cast protocol is not recommended for polyacrylamide gels. Use the post staining protocol for acrylamide gels.

B. Post-staining Protocol
1. Run gels as usual according to your standard protocol.
2. Dilute the ZicherRed Nucleic Acid Safe Gel Stain, 10,000X stock reagent 5,000 fold to make a 2X staining solution in TBE or TAE buffer.
3. Carefully place the gel in a suitable polypropylene container. Gently add a sufficient amount of the 2X staining solution to submerge the gel.
4. Agitate the gel gently at room temperature for 30 min.
5. Image the stained gel with a standard UV transilluminator or blue LED illuminator.
Note: Optimal staining time and the amount of stain may depend on the thickness of the gel and the percentage of agarose.