Datasheet

Gel RedSafe Stain (10000X in water)

Description:
Gel RedSafe Stain is a highly sensitive, eco friendly safe fluorescent nucleic acid stain for detection of DNA and RNA in agarose and polyacrylamide gels.
Gel RedSafe Stain has the same spectral characteristics as EB, and replaces EB without changing the imaging system.
Gel RedSafe Stain emits green fluorescence when it bound to dsDNA, ssDNA, and RNA. It is an uncompromising alternative to ethidium bromide. DNA visualization after staining with Gel RedSafe Stain can be done with standard UV transilluminators or blue LED transillumination.
For staining, Gel RedSafe Stain can directly be added to the gel. Alternatively, staining is possible after electrophoresis.
The dye can be efficiently removed from DNA by gel extraction or ethanol precipitation. Therefore, it does not interfere with subsequent DNA manipulations such as restriction digestion, PCR, sequencing and cloning.
Gel RedSafe Stain is a 10000X highly concentrated solution in H_2O. It can be diluted 10000X for use in pre-staining gels or 5000X for use in post-staining gels by following the procedures outlined in the manual.

Protocol:
A. Pre stain:
1. Prepare agarose gel solution using your standard protocol.
2. Let the gel solution cool down and add the Gel RedSafe Stain, 10000X in H_2O stock into the agarose gel solution at 1:10000 (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.

Note: The pre-stain protocol is not recommended for polyacrylamide gels. For acrylamide gels please use the post staining protocol.

B. Post stain:
1. Run gels as usual according to your standard protocol.
2. Dilute Gel RedSafe Nucleic Acid Dye 10,000 x stock solution approximately 3,300 times to make a 3 x staining solution (for example, add 15 µl of Gel RedSafe Nucleic Acid Dye 10,000 x stock solution to 50 mL of H_2O, TBE or TAE buffer.
3. Carefully place the gel into a suitable container and soak the gel with a sufficient amount of 3 x staining solution. In order to shorten the soaking time, the dyeing solution can be pre-heated to about 70℃, then put into the gel and incubate for 10 min to obtain the ideal effect (if not heated, incubate for 30 min in room temperature shaker; if it is acrylamide gel, incubate for 30-60 min and extend with the increase of acrylamide content).The amount of bubble dyeing dye is large, and the dyeing solution can be reused for about 3 times for a single use.
The 3×RedSafe stain solution can be prepared in large quantities and stored at room temperature until used up.

Note: The optimal staining time and amount of staining may depend on the texture of the gel.

Shipment: Room temperature
Storage: Room temperature or +4 °C, protect from light. If precipitation is found, please heat the dyes to 45-50°C for 2 min and shake to dissolve, which does not affect the use.

Disposal: Gel RedSafe Stain is not cassified as hazardous waste. It can be disposed as regular laboratory trash in accordance to the local regulations.
Limitation: This product can stain single-stranded DNA and RNA, but is less sensitive to single-stranded DNA or RNA than double-stranded DNA.

Cat.-no	Description	Amount
S445	Gel RedSafe Stain (10000X in water)	0,5 ml
S445L	Gel RedSafe Stain (10000X in water)	4 x 0,5 ml