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Red Bio Tech

آدرس:
تهران، صادقیه، بلوار فردوس شرق، خیابان ولیعصر، کوچه تقدیری، ساختمان سهند، پلاک 16، واحد 18

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SAFE STAIN

Name	blue Nucleic Acid Stain
Volume	600λ
Color	blue

Description

Red Nucleic Acid Stain is a sensitive, stable, and non-toxic fluorescent nucleic acid dye for staining nucleic acids (dsDNA, ssDNA, RNA) in agarose and polyacrylamide gels. Red has a sensitivity higher than EB (Ethyl Bromide). Red binds nucleic acid molecules by intercalation, and is no mutagenic at working concentrations, is safer and more environment-friendly than E.

Safety Description

Having a special molecular structure this product cannot pass through cell membranes or latex gloves.

This product has passed biosecurity tests, is non mutagenic at working concentrations. And it is environmentally safe and can be dumped directly into sewers.

Storage

This product is stored at room temperature (RT), protected from light, and it is stable for at least one year from the date it is received.

Staining Protocols

As nucleic acid molecules bind to the dye, it affects their own migration in the electrophoresis process, and also causes the adjacent nucleic acid bands to interact with each other, it is more recommended to use post-staining. For polyacrylamide gels, post staining is also recommended.

Post-Staining Protocol

- Gels should be run according to the standard protocol.
- To make 3× staining solution in H2O, dilute 10,000× Red solution 3,300 fold.
- For example, 50ml of 3× staining solution contains 15 µl 10,000× blue.

Note:

1. Diluting 10,000× Red solution by 0.1 M NaCl can enhance sensitivity, but may promote to precipitation if the gel stain is reused.
2. Put the gel in a suitable container, such as a polypropylene container, and add a sufficient amount of 3× staining solution to

submerge the gel.

3. Shake the gel gently at room temperature for about 30 minutes.
4. The staining time is related to the gel thickness and agarose concentration. For polyacrylamide gels containing 3.5%-10% of acrylamide, it usually takes 30 minutes to 1 hour.
5. Wash the stained gel gently with water to reduce background.
6. View the stained gel through the gel trans illuminator (302 nm) and save photos.
7. Staining solution can be reused at least 2-3 times. Store at room temperature, protected from light.
8. The structure of Red is proprietary and is difficult to penetrate the cell membrane, it's safe than EB, but also has a bigger impact on DNA migration than other smaller dyes.
9. Therefore, in order to avoid discrepant migration of DNA fragments, especially multi fragments DNA Marker, we recommend using post-staining method for dyeing.
10. Safe stain is prone to precipitate at low temperatures, so store at room temperature. In the event of precipitation, the dye can be heated to 45-50℃, 2 min and vortex to redissolve.
11. Because blue has a high sensitivity, the recommended loading amount of nucleic acid samples is 50-200 ng/lane. If the brightness of the sample at an unknown concentration is too high, reduce the sample amount.