

Safe Image Super™ DNA Stain

(Cat# M1198-1000; Substitute for Ethidium Bromide; Store at 4°C)

I. Introduction:

Safe Image Super™ DNA Stain represents the newest generation of biosafe nucleic acid stains. It can be safely and widely used for the visualization of double-stranded DNA, single-stranded DNA, and RNA in agarose and polyacrylamide gels. Safe Image Super™ was developed to replace toxic ethidium bromide (EtBr, a potent mutagen) and has higher sensitivity and enhanced performance than Safe Image™. Safe Image Super™ is used as a substitute for EtBr for post electrophoresis DNA staining. There is no need to add it to the electrophoresis buffer or casting gel. The fluorescence has an excitation maximum at approximately 490 nm.

Safe Image Super™ DNA Stain has an Excitation Wavelength of 490 nm and Emission Wavelength of 525 nm and its sensitivity range is between 0.05-0.1 ng. **It should be used in a post stain.**

II. Application:

- Safe Detection of dsDNA, ssDNA by all three and RNA in agarose and polyacrylamide gels
- Will work with blue light/LED

III. Package Contents:

Cat. No.	Quantity
M1198-1000	1.0 ml (10,000X)

IV. User Supplied Reagents and Equipment:

- UV and LED transilluminators
- Pipettes
- Agarose

V. Shipment and Storage:

Upon arrival, the Safe Image Super™ DNA Stain should be stored at 4°C. The Safe Image Super™ DNA Stain Pack is stable for 2 years from the date of shipping when stored and handled properly. Briefly centrifuge small vials prior to opening.

VI. Protocol:

1. Safe Image Super™ DNA Stain can be used as a substitute for ethidium bromide for post electrophoresis DNA staining. **There is no need to add it to the electrophoresis buffer or casting gel.** The fluorescence has an excitation maximum at approximately 490 nm
2. Prepare staining solution by diluting Safe Image Super™ (1:5000 - 1:10,000) in TE, TAE or TBE buffer
3. After performing electrophoresis, place the dye-free gel in a plastic container and cover with the staining solution. Ensure the box is covered to protect the contents from light. Agitate gently and incubate at room temperature for 10-40 min
4. No destaining is required - visualize results directly under UV light
5. The staining solution may be reused up to 4 times. Keep stored at 4°C and protected from light. Do not store the solution in glass containers, as these surfaces adsorb the dye in the solution, reducing the staining efficacy

VII. Related Products:

BV Cat. No.	Product Name
M1193-1000	Safe Image™ Basic DNA Stain
M1194-1000	Safe Image™ Green DNA Stain
M1195-1000	Safe Image™ Red DNA Stain
M1196-1000	Safe Image™ White DNA Stain
M1197-1000	Safe Image™ DNA Stain Pack
M1198-1000	Safe Image Super™ DNA Stain
M1199-1000	Safe Image™ Fire Red DNA Stain

FOR RESEARCH USE ONLY! Not to be used on humans.