

## Safe Image™ Fire Red DNA Stain

(Cat# M1199-1000; Substitute for Ethidium Bromide; Store at 4°C)

### I. Introduction:

Safe Image™ products represent a new and safe class of nucleic acid stains for the visualization of double-stranded DNA (dsDNA), single-stranded DNA (ssDNA), and RNA in agarose and polyacrylamide gels. The dyes have the capability to bind DNA and are thus developed to replace toxic Ethidium Bromide (EB, a potent mutagen), commonly used in gel electrophoresis for visualization of nucleic acids. Safe Image™ products are non-carcinogenic by the Ames-test. The results are negative in both the mouse marrow chromophilous erythrocyte micronucleus and mouse spermary spermatocyte chromosomal aberration tests. Safe Image™ Fire Red are used the same way as Ethidium Bromide in agarose and polyacrylamide gel electrophoresis.

**Safe Image™ Fire Red DNA Stain** is used the same way as Ethidium Bromide in agarose gel electrophoresis. **It is used directly in the gel and in the running buffer prior to the loading of the samples.** It emits red fluorescence when bound to dsDNA, ssDNA, and RNA.

### 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
M1199-1000	1.0 ml

### IV. User Supplied Reagents and Equipment:

- UV and LED transilluminators
- Pipettes
- Agarose

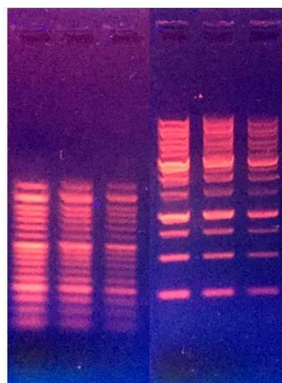
### V. Shipment and Storage:

Upon arrival, the Safe Image™ Fire Red should be stored at 4°C. The Safe Image™ Fire Red 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. Prepare a 100 ml agarose or polyacrylamide solution
2. **Add 5 µl Safe Image™ Fire Red Stain to the gel solution**
3. Mix gently; the solution should have no air bubbles
4. For agarose gel, let the solution cool down to 60-70°C and cast the gel. For polyacrylamide gel, add APS and TEMED and cast the gel according to regular polyacrylamide gel casting protocol
5. **Run gel electrophoresis with 5 µl Safe Image™ Fire Red Stain per 100 ml buffer**
6. View the results under UV or blue LED light

### VII. Data:



Safe Image™ Fire Red DNA Stain

### VIII. 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.