



Applied Biological Materials Inc.

Tel: 1-866-757-2414
Email: info@abmGood.com
Website: www.abmGood.com

Safe-Green, Red, White and Pack™ Nucleic Acid Stains

Replace Ethidium Bromide and Loading dye in one-step

Cat. No.	Description	Quantity
G108-G	Safe-Green™	1.0 ml
G108-R	Safe-Red™	1.0 ml
G108-W	Safe-White™	1.0 ml
G108-P	Safe-Pack™	G108-G,R,W

SafeView™ products replace toxic Ethidium Bromide (EtBr), a potent mutagen, for the visualization of double-stranded DNA, single-stranded DNA, and RNA in agarose and polyacrylamide gel electrophoresis. SafeView™ products are non-carcinogenic by the Ames-test. The results are negative in both the mouse marrow chromophilous erythrocyte micronucleus and mouse spermatocyte chromosomal aberration tests.

Simply mix Safe-Green™, Safe-Red™, or Safe-White™ with your samples before loading into the gel.

Technical Specifications

Storage	Store at 4 °C.
Shelf life	Two years from date of shipping.
Safety	Non-carcinogenic by the ames test. May cause skin and eye irritation. Always wear gloves when working with the product.
Disposal	Dispose of Safe-View™ products as you would any other non-carcinogenic fluorescent dye (eg. Acridine orange; Propidium iodide).

	Safe-Green™	Safe-Red™	Safe-White™
Excitation	490 nm, ~265 nm	540 nm, ~265 nm	370 nm, ~265 nm
Emission	525 nm (green)	630 nm (red)	470 nm (blue-white)
Light Source	UV and blue light	UV light	UV light
Sensitivity Limit	0.2 - 0.6 ng DNA per band	0.3 - 0.8 ng DNA per band	0.2 - 0.5 ng DNA per band

Protocol

1. Prepare a 100 ml agarose or polyacrylamide solution with no stain. Mix gently to avoid bubbles.
2. For agarose gels, let the solution cool down to 60 - 70 °C before casting the gel. For polyacrylamide gel, add APS and TEMED and cast the gel according to regular protocol.
3. Mix samples or DNA marker with SafeView™ dye at a 1:5 (dye : sample) dilution rate. To save a step, pre-stained Safe-Green™ 100 bp or 1 kb Opti-DNA Markers (G473 & G474) can also be used alongside Safe-Green™ dye.
4. Following electrophoresis, view the results under UV. Safe-Green™ can also be viewed under blue LED light.

Troubleshooting

Problem	Solution
Weak Signal	Safe-Green™, Safe-Red™, and Safe-White™ must be mixed with samples before loading the gel. Casting these dyes into the gel or soaking the gel post electrophoresis will result in little or no staining.
Inhibited Downstream Application	Use Safe-Green™ with blue light to visualize your gel for gel extraction. UV light excitation can cause nicking and mutations in DNA, which negatively impact enzymatic reactions and transformations.
Poor Image Quality	Many gel doc systems are optimized for EtBr, and so pictures taken with these settings favor EtBr over other stains. When possible adjust the system settings for the dye you are using.

Related Products

Safe-Green™ 100 bp Opti-DNA Marker (G473)

Safe-Green™ 1kb Opti-DNA Marker (G474)

Safe-Green™ 2X PCR Taq MasterMix (G472)

Safe-Green™ 2X PCR BesTaq MasterMix (G478)

*For laboratory research only. Not for clinical applications.
For technical questions, please email us at technical@abmgood.com
Or visit our website at www.abmGood.com*