

DNA Safe Stain Cat. No: FPLF018.0500 FPLF018.1000 FPLF018.2000 Contents:

Components	50 preps	100 preps	200 preps
DNA Safe Stain	0.5 ml	1 ml	2 ml

## Kit storage:

This kit should be Store under dark at 4°C or room temperature.

Alf properly stored, all kit components are stable until the expiration date printed on the label.

#### **Additional Equipment and Reagent required**

- LED light or UV light
- agarose gel solution

# **Application**

Kiagene SYBR Safe DNA Gel Stain is a highly sensitive stain for visualization of DNA in agarose or acrylamide gels. SYBR Safe stain is specifically formulated to be a less hazardous alternative to ethidium bromide that can be used with either blue-light or UV excitation.

DNA Safe Stain is a new and safe nucleic acid stain for visualization of double-stranded DNA, single-stranded DNA, and RNA in agarose gels. The dyes are developed to replace toxic ethidium bromide (EthBr, a potent mutagen), commonly used in gel electrophoresis for visualization of nucleic acids in agarose gels. DNA Safe Stain is non-carcinogenic by the Ames-test. The results are negative in both the mouse marrow chromophiles erythrocyte micronucleus and mouse spermary spermatocyte chromosomal aberration tests.

DNA Safe Stain emits green fluorescence when bound to DNA. It has two excitation wavelength peaks when bound

to nucleic acid, at 290nm and 490nm and the emission can be detected at 530nm.

# Handling Requirements and Safety Information

⚠ Do not use any modified Protocols.

⚠ Do not pool reagents from different lot numbers.

⚠ Immediately after usage, close all bottles in order to avoid leakage, varying buffer concentrations or buffer conditions.

⚠ After first opening store all bottles in an upright position.

Do not contaminate the reagents with bacteria, virus, or nucleases. Use disposable pipets and nuclease free pipet tips only, to remove aliquots from reagent bottles.

⚠ For best results, dilute the DNA Safe Stain 1:10,000 in your gel.

As is the case with EtBr; add more DNA Safe Stain, if brighter DNA bands are desired. To view the results, any conventional DNA gel viewing light box or gel documentation system should work well with the DNA Safe Stain; although, using a LED light instead of a UV light source is preferred due to the harmful nature of UV light.

## **Protocol**

- 1. Prepare xml of agarose gel solution.
- 2. dilute the DNA Safe Stain 1:10,000 in your gel. Swirl the flask gently to mix the solution and avoid forming bubbles.
- 3. While the agarose solution cools, pour it into the gel tray with a comb.
- 3. Allow the agarose gel to cool until solidified. Load samples on the gel and perform electrophoresis. Detect the bands under UV illumination or LED light instead.

Contact and Support: If you have questions or experience problems with Kiagene Fanavar products, please contact our Technical Support staff. Our scientists are committed to providing rapid and effective help. Website: www.kiagene.ir Email: Techsupport@kiagene.ir Tel: 02191010809