

SimplySafe™

Cat. No.

E4600-01

Size

1 ml

Storage Conditions: Store at room temperature for more than 12 months. For long-term, store at 4°C (stable for more than 24 months).

Contents: SimplySafe™ (20,000 x) – 1 ml.

SimplySafe™ is a new and safe nucleic acid stain, an alternative to the traditional ethidium bromide (EtBr) stain for detecting nucleic acid in agarose gels. It emits green fluorescence when bound to DNA or RNA. SimplySafe™ is excited by wavelengths emitted by traditional transilluminators. In addition, it has one visible excitation at 515 nm. SimplySafe™ is as sensitive as EtBr. The staining protocol for SimplySafe™ is similar to that for EtBr. Compared to EtBr, known as a strong mutagen, SimplySafe™ causes much fewer mutations in the Ames test. In addition, SimplySafe™ has a negative result in mouse marrow chromophilous erythrocyte micronucleus test and mouse primary spermatocyte chromosomal aberration test.

Description:

- Used for detecting double-strand DNA and single-stranded RNA.
- Alternative to the ethidium bromide staining.
- As sensitive as EtBr or more sensitive than that.
- Non-toxic, non-mutagenic and non-carcinogenic.
- No hazard waste.

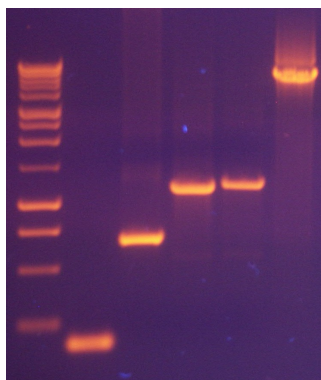
Precautions:

SimplySafe™ is non-carcinogenic but may cause skin and eye irritations. Please wear gloves when working with the product.

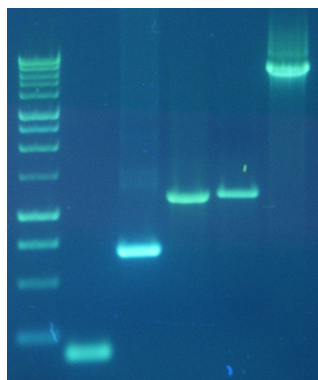
PROTOCOL

1. Prepare a 100 ml of agarose gel solution (concentration from 0.8~3%) in a 250 ml flask and mix it thoroughly. Place the flask in the microwave, heat it until the solution is completely clear and no small floating particles are visible (about 2~3 minutes). **Note:** The thickness of gel should be less than 0.5 cm since thick gels may decrease sensitivity.
2. Add 5 µl of SimplySafe™ to the agarose solution. Swirl the flask gently to mix the solution and avoid forming bubbles.
3. While the agarose solution cools, pour it into the gel tray until the comb teeth are immersed about 1/4~1/2 into the agarose. **Note:** Repeated melting of gels containing SimplySafe™ may result in low sensitivity.
4. Allow the agarose gel to cool until solidified. Load samples on the gel and perform electrophoresis.
5. Detect the bands under UV illumination. **Note:** SimplySafe™ allows visualization of DNA (>50ng) in the agarose gel under visible light. This eliminates the need for exposure to UV light, which may nick and damage DNA. The intact DNA fragments purified from agarose gel can increase the efficiency of subsequent molecular biology manipulations such as cloning, transformation and transcription.

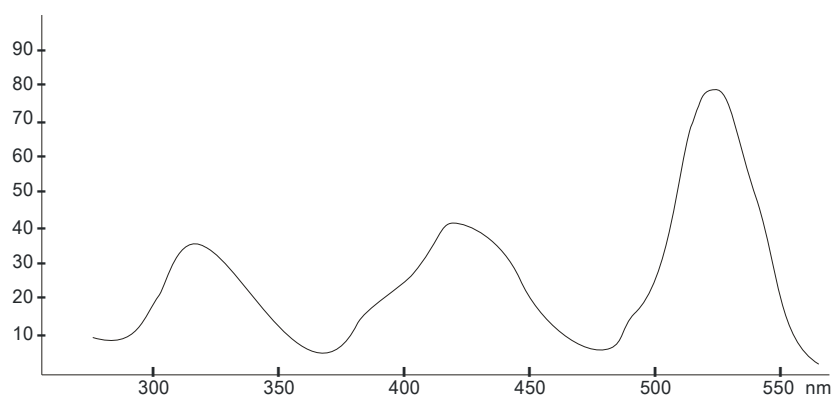
EtBr



SimplySafe™



Excitation wavelength (EX)



Emission wavelength (EM)

