



## GreenSafe Premium

**Catalogue number:** MB13201, 1 mL

**Description:** GreenSafe Premium is a new nucleic acid stain which can be used as a safer alternative to the traditional ethidium bromide for detecting nucleic acids in agarose gels. It is as sensitive as ethidium bromide and can be used exactly in the same way in agarose gel electrophoresis. GreenSafe Premium stain emits green fluorescence when bound to DNA or RNA. It has two secondary fluorescence excitation peaks ( $\approx 270$  nm and  $\approx 290$  nm) and one strong excitation peak at 490 nm. The fluorescence emission is similar to ethidium bromide when bound to DNA at  $\approx 530$  nm. Thus GreenSafe Premium stain is compatible with wide variety of gel reading instruments.

### Protocol:

1. Prepare 70 -100 mL of an agarose gel solution (concentration from 0.8-3.0%) and heat until the solution is completely clear and no small floating particles are visible.

2. Let the solution cool down and add 2-3  $\mu\text{L}$  of GreenSafe Premium to the gel solution.

3. Mix gently and cast into the tray.

4. When the gel is solid, load the samples and perform electrophoresis.

5. Detect the bands under an UV trans-illuminator.

### Protocol for post-staining:

- The post-staining solution may be used 2-3 times. Staining solution to be reused should preferably be stored at room temperature in the dark.

- For  $<0.5$  cm thick agarose gels, 10-15  $\mu\text{L}$  of stain should be used per 100 mL of buffer.

- Optimal staining time (5-60 minutes) and the amount of stain may depend on the thickness of the gel and the percentage of agarose.

**Storage conditions:** store at room temperature or a 2-8  $^{\circ}\text{C}$ , protected from light. Storage at temperatures below may degrade GreenSafe Premium.

**Shipping conditions:** blue ice to room temperature.

### Features:

- Used for detecting double-strand DNA and single-stranded RNA

- Alternative to the ethidium bromide staining

- As sensitive as EtBr

- Non-toxic, non-mutagenic and non-carcinogenic

- No hazardous waste

**Disposal:** Waste must be disposed in accordance with environmental control regulations.

**Notes:** 1 mL of GreenSafe Premium is sufficient for 17-25 litres of agarose. The thickness of the gel should be <0.5 cm. GreenSafe Premium is non-carcinogenic but may irritate skin and eyes. Please wear gloves while handling.

V2201

*For research use only.*



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