



## SafeGreen™ Loading Dye in 6X DNA Loading Buffer

Catalog Number	Packaging Size
D012	1 mL

### Storage upon receipt:

-20°C

Protect from light

**Ex/Em:** 500/530 nm, bound to nucleic acid

## User Manual

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866-360-9531

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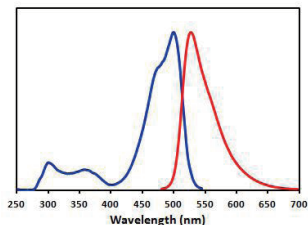
## I. Product Description

**SafeGreen Loading Dye** is a safe and highly sensitive fluorescent stain for detecting nucleic acids in agarose gel. This single stain gives high sensitivity detection of double-stranded or single-stranded DNA and RNA. The stain is simply mixed with DNA samples, and run the gels, providing a simple and fast protocol. **SafeGreen Loading Dye** is compatible with a standard 300 nm transilluminator, a 254 nm transilluminator, a blue-light transilluminator, or a gel reader equipped with visible light excitation such as a 488 nm laser-based gel scanner

**SafeGreen Loading Dye in 6X DNA Loading Buffer** is a ready-to-use solution. The stain is premixed with DNA samples and/or DNA ladder at 1:5 ratio before running the gel. For example, for every 5  $\mu\text{L}$  DNA samples, adding 1  $\mu\text{L}$  of stain reagent. One vial (1 mL) of stain reagent can be used to run at least 1000 DNA samples.

Gel staining with **SafeGreen Loading Dye** is compatible with downstream applications such as gel extraction and cloning. **SafeGreen Loading Dye** is efficiently removed from DNA by phenol/chloroform extraction and ethanol precipitation.

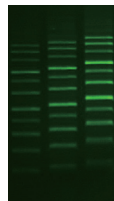
## II. Spectral Characteristics



Excitation (blue) and emission spectra (red) of SafeGreen bound to dsDNA in TBE buffer

## III. Protocol

1. Prepare molten agarose gel solution, cast the gel and allow it to solidify using your standard protocol. (Unnecessary to add any DNA stain reagent.)
2. Mix the DNA samples and/or DNA ladder with **SafeGreen Loading Dye** at 5:1 ratio.
3. Load samples and run the gels using your standard protocol.
4. Image the stained gel with a transilluminator, or a laser-based gel scanner using a long path green filter such as a SYBR Filter or GelStar filter.



SafeGreen Loading Dye

## IV. Related Products

Catalog Number	Product
D013	SafeRed™ Loading Dye in 6X DNA Loading Buffer, 1 mL