

GelFlamma™ DNA Gel Stain dye is a state-of-the-art nucleic acid staining dye that can be utilized as a safe alternative to conventional ethidium bromide (EtBr) staining for the nucleic acid detection in agarose gels. Upon binding to DNA, GelFlamma™ DNA Gel Stain dye emits a bright red fluorescence light.

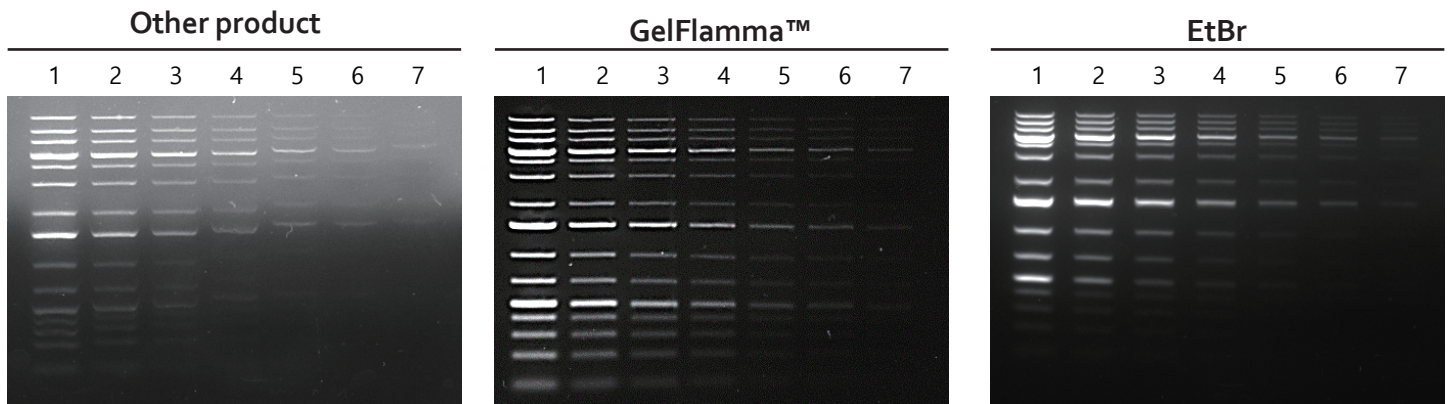


Figure 1. Serial dilutions of a 1kb DNA ladder were loaded for comparison. This comparison included comparable products such as GelFlamma™ and EtBr.

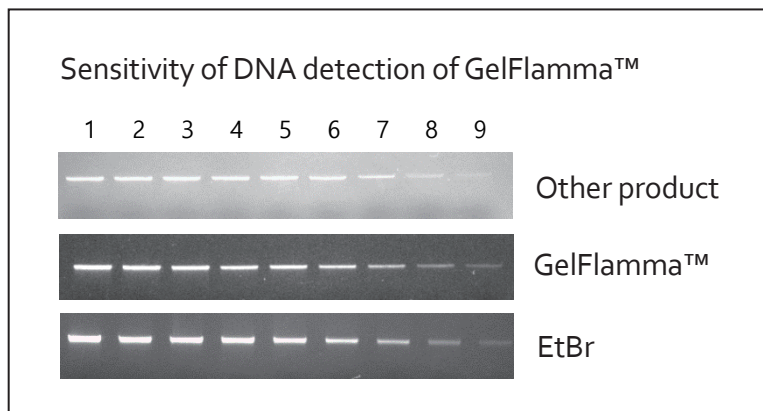


Figure 2. Gel analysis of serial diluted gDNA

- A safe alternative to EtBr for nucleic acid detection in agarose gels.
- Excitation at 480 nm, emission at 600 nm.
- Superior sensitivity against over EtBr
- Non-toxic, non-mutagenic, and non-carcinogenic
- An alternative choice for nucleic acid staining in agarose gels.

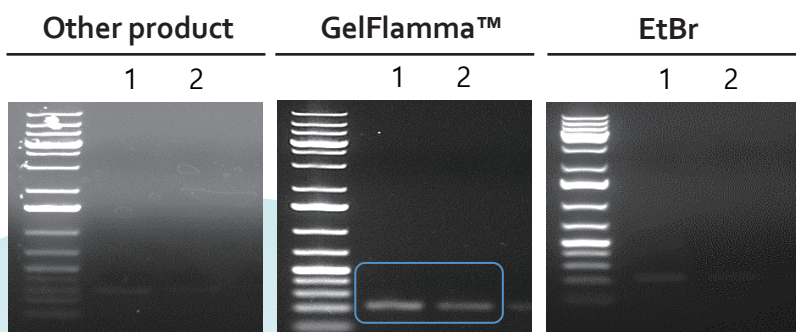


Figure 3. Gel analysis of PCR products using DNA staining solutions (Other, GelFlamma™, EtBr). Lane 1, 400 ng of PCR products; Lane 2, 200 ng of PCR products

## GelFlamma™ DNA Gel stain dye Protocol

1. Prepare a 100 ml agarose gel solution following your standard procedure.
2. Dilute GelFlamma™ with the gel solution at a 1:10,000 ratio (dye to solution), and mix well.
3. Slowly pour the mixed agarose gel solution into the gel tray to prevent bubbles.
4. Allow it to stand until the gel becomes hard.
5. Place the gel in a container with TAE/TBE running buffer and load your samples.
6. Run gel electrophoresis and Visualize bands using a UV transilluminator or other gel documentation system.

### NOTE:

- Insufficient GelFlamma™ Solution ratio can impact movement of DNA fragments.
- When increasing the agarose gel concentration, it is advisable to adjust the GelFlamma™ concentration accordingly
- Prolonged UV light exposure can harm DNA, so be cautious.
- Fluorescent dye can degrade when exposed to light, store in a dark.
- Store agarose gels in light-blocking containers and use them promptly (within 2 weeks).

## Storage and handling

- Store the product at 4 °C, protected from light, and it remains stable for a minimum of 6 months from the date of receipt when stored as recommended.
- While GelFlamma™ has undergone extensive safety testing, BioActs recommends following common safety precautions when working with it in a laboratory setting.

## Order information

Product name	Amount	Catalog number
GelFlamma™ Gel stain dye	10,000X / 1mL	TGFD0001
	10,000X / 10 µL (tester)	TGFD0001-T

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