

Floro⁺ Green Nucleic Acid Stain

Cat. No.: BIO-5172-60ul
BIO-5172-600ul

Concentration: 10,000X

Recommended Long Term Storage: 4°C. Protected from light.

Specifications

- High sensitivity
- High stability
- High signal-to-noise ratio
- Excitation wavelength: 471nm
- Emission wavelength: 540nm

1.0 DESCRIPTION

Floro⁺ Green Nucleic Acid Stain is a safer alternative to Ethidium Bromide for staining dsDNA, ssDNA or RNA. Due to its unique oily macromolecular structure, it is both non-cytotoxic and non-mutagenic. In addition, optimal detection of Floro⁺ Green is achieved by visualisation under LED light instead of UV light, thus protecting the nucleic acid sample and the user from the harmful effects of UV light exposure.

Applications

Floro⁺ Green Nucleic Acid Stain supplied in 10,000X concentration and can be used for pre-cast or post-gel staining. It is suitable for agarose or polyacrylamide gel electrophoresis and is compatible with commonly used electrophoresis buffer solutions.

Safety Test Report

- Ames test: Non-mutagenic
- Cell staining test: Non-cytotoxic
- Aquatic Toxicity Test: Non-hazardous to aquatic life at $\leq 3X$ concentration.

Protocols

Pre-cast (not recommended for polyacrylamide gels)

1. Prepare 100ml of 0.8 – 3.0% agarose gel solution.
2. Heat till solution is completely clear.
3. Add 10µl of Floro⁺ Green Nucleic Acid Stain to the gel solution and mix gently.
4. Cast gel and allow it to solidify.
5. Load samples into solidified gel and perform electrophoresis.
6. Detect bands with UV transilluminator.

Post-staining (recommended for better sensitivity and polyacrylamide gels)

1. Produce a 3X staining solution in a saline solution. (Recipe example: 15µl Floro⁺ Green Nucleic Acid Stain, 5ml 1M Sodium Chloride and 45ml H₂O.)
2. Place the gel in a polypropylene container and carefully pour the 3X staining solution till the gel is submerged.
3. Gently oscillate the gel at ambient temperature for approximately 30 minutes. Increase oscillation time for higher concentrations of acrylamide.
4. Visualise the gel with UV transilluminator.

Notes

1. Floro⁺ Green Nucleic Acid Stain can be used with UV, laser, or visible light imaging systems. For better results, it is recommended to use a UV imaging system with Floro⁺ Green Nucleic Acid Stain.
2. Floro⁺ Green Nucleic Acid Stain is stable at ambient temperature. For long-term storage, it is recommended to store at 4°C, away from light.
3. Floro⁺ Green Nucleic Acid is not designed for qPCR applications.

Recommended Products

Product Category	Product Code	Description
Ready Master-Mix	BIO-5185	REDiant 2X PCR Master Mix
	BIO-5186	exTEN 2X PCR Master Mix
Gel Electrophoresis	BIO-5130	ExactMark 100bp DNA Ladder (100-1,500 bp), Ready to Use
	BIO-5140	ExactMark 1kb DNA Ladder (250-10,000 bp), Ready to Use
	BIO-5160	Tri-Color 6X DNA Loading Dye
Buffers and Biochemicals	BUF-1180	Water, Biotech grade
	BUF-1170	Water, DEPC treated
	BIO-1000	Agarose
	BUF-3000	Tris-Acetate-EDTA (TAE) Buffer
	BUF-3010	Tris-Borate-EDTA (TBE) Buffer, pH 8.3