

JellyRed Nucleic Acid Gel Stain, 10,000 ×

Cat. No.	Product	Spec.
FLD0702	JellyRed , 10,000 × in water	0.5 mL
FLD0702-1	JellyRed , 10,000 × in water	1 mL

Storage and Handling

- JellyRed is a thermal stable dye. 10,000 × solution and dilute solution can be stored at **room temperature, protected from light** at least one year after receipt.
- If dye precipitation occurs at lower temperatures, warm the solution to 45–50 °C for one to two minutes and mix thoroughly to redissolve.

Product Description

JellyRed is a red fluorescent nucleic acid gel stain, characterized by extremely low cytotoxicity and mutagenicity, along with high sensitivity. It is designed as a safer and more sensitive alternative to traditional ethidium bromide (EtBr) dye for detecting dsDNA, ssDNA, and RNA in agarose or polyacrylamide gels. Its excitation and emission spectra closely match those of ethidium bromide (EtBr), allowing direct visualization with standard UV imaging systems. JellyRed supports both in-gel staining (precast method) and post-staining, and is fully compatible with downstream applications, including gel purification, restriction digest, sequencing, and cloning. For the complete safety report, please visit www.msbio.com.

Spectral Profile

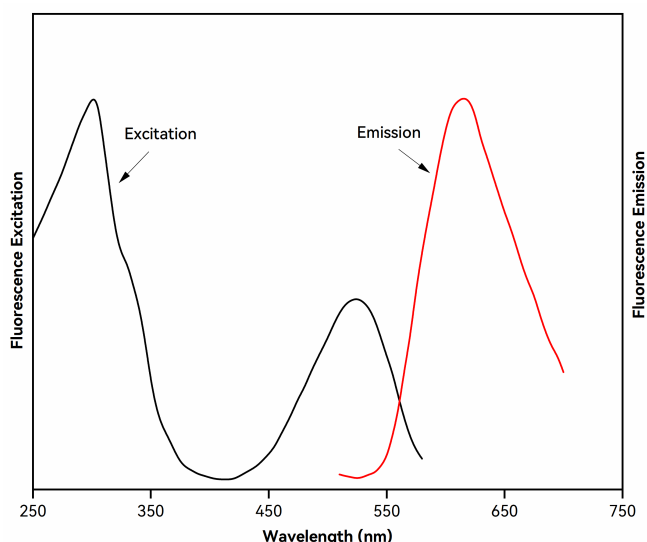


Figure 1: Excitation and emission spectra of JellyRed nucleic acid gel stain.

General Considerations

- JellyRed can be used in both in-gel staining protocol and post-staining protocol. Post-staining generally provides higher sensitivity and is recommended for detecting low DNA concentrations. In-gel staining is not recommended for use with polyacrylamide gels.

- JellyRed exhibits UV absorption between 250 nm and 300 nm, making it compatible with most UV imaging systems. For epillumination systems, we recommend excitation at 254 nm, while for transilluminators, 300 nm is preferred.
- Recommended DNA load is 10 to 200 ng DNA per lane, or 2 to 5 µL PCR product. For large DNA load or maximum sensitivity, post-staining is preferred.
- While JellyRed has passed multiple safety assessments at MSBIO, please follow all relevant laboratory safety practices and wear appropriate personal protective equipment (PPE).
- For disposal, dilute JellyRed to lower than 1 ×, and consult your institution's biosafety or environmental officer for local disposal procedures.

Post-Staining Protocol

- Run electrophoresis according to your standard protocol.
- Dilute JellyRed to a 3 × staining solution using electrophoresis buffer.
- Place the gel in a staining tray or suitable container and fully cover with the JellyRed 3 × staining solution.
- Stain at room temperature for 10 to 30 min, with gentle shaking.
- (Optional) Destain the gel with deionized water to reduce background.
- Image the gel using a UV imaging system.

In-Gel Staining Protocol

- Prepare molten agarose gel solution according to your standard procedure.
- Allow it to cool down to approximately 60 °C and add 10,000 × JellyRed at a 1:10,000 dilution.
- Mix thoroughly and cast the gel.
- Load samples and run electrophoresis.
- Image the gel using a UV imaging system.

Staining Results

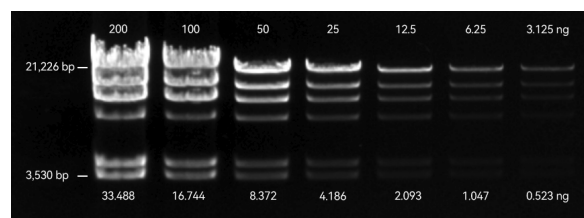


Figure 2: Post-staining of a 1 % agarose gel with JellyRed. Two-fold serial dilutions of λ-DNA/Hind III digest were loaded in amounts of 200, 100, 50, 25, 12.5, 6.25 and 3.125 ng from left to right.

Related Products

Cat. No.	Product
FLD0601	Thiazole Green I ,10,000 × in DMSO
FLD0602	Thiazole Green II ,10,000 × in DMSO
FLD0701	JellyGreen, 10,000 × in DMSO
FLD0702	JellyRed, 10,000 × in water
FLD0703	JellyRed , 10,000 × in water

For Research Use Only. This product is intended for laboratory research purposes only and is not intended for use in diagnostic procedures, therapeutic applications, or in humans or animals.