



Biomol F-BLUE for DNA Staining

Catalog No:	10010
Lot No:	XXXXX
Supplied as:	1 ml
Stability:	store at 4°C for 12 months or longer at -20°C, protect from light

Background

Biomol F-BLUE is a non-mutagenic fluorescent reagent that produces instant visualization of DNA bands upon Blue Light or UV illumination of agarose gels. Supplied in Biomol's 6X DNA Loading Buffer, F-BLUE is used to prepare DNA markers and samples for loading on agarose or polyacrylamide gels. Biomol F-BLUE is the most sensitive stain available for detecting the double-stranded DNA (dsDNA). It contains three tracking dyes (Bromophenol Blue, Xylene Cyanol FF, and Orange G) for visually tracking the DNA migration during the electrophoresis process. It is ideal for the environment requiring a safe, non-hazardous alternative to Ethidium Bromide.

Advantages

Safe – Absence of mutagenity and low toxicity (LC₅₀>5000 mg/kg) as compared to Ethidium Bromide.

Low Environmental Impact – Compliance with the Clean Water Act standards. No water pollution concern.

Sensitivity – High degree of sensitivity as Ethidium Bromide.

Convenience – Ready-to-Use; same application procedures as the 6X Loading Dye.

Speed – No de-staining requirement, low background value, and image displayed after coupling with the nucleic acid.

Compatibility – Use the Blue Light or UV to detect the signal; broad compatibility range.

Economic – Non-hazardous product; no expenses required for the waste management.

Tracking Dyes

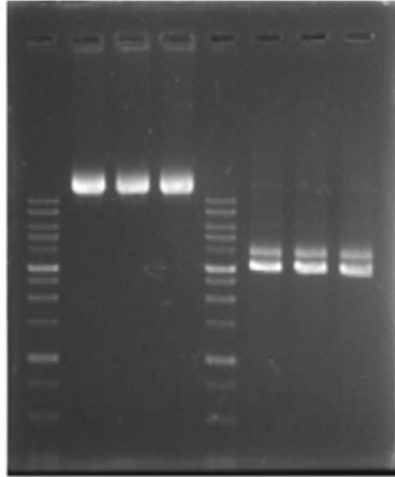
Bromophenol Blue, Xylene Cyanol FF and Orange G.

Protocol

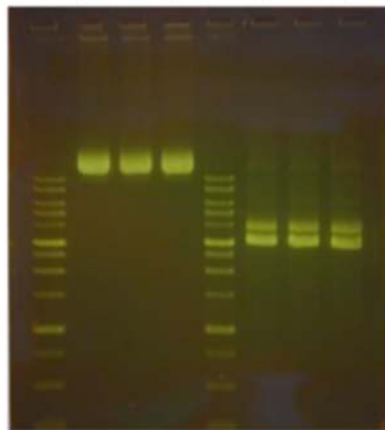
1. Vortex F-BLUE for 10 seconds prior to use.
2. Dilute 1 part F-BLUE with 5 parts DNA sample and mix.
Note: F-BLUE must be added to DNA markers in order to visualize the ladder bands simultaneously with the sample after electrophoresis.
3. Load sample and run according to standard procedures.
4. After the electrophoresis, remove gel and place on UV or a visible-light transilluminator to immediately visualize bands.
5. Gels can be post-stained with Ethidium Bromide if desired.



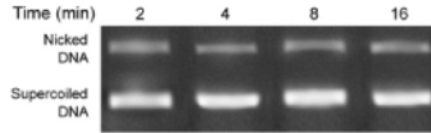
UV System



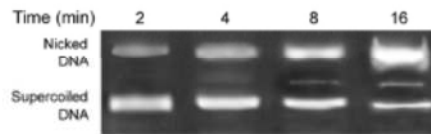
Plasmid PCR Products



BlueLight System

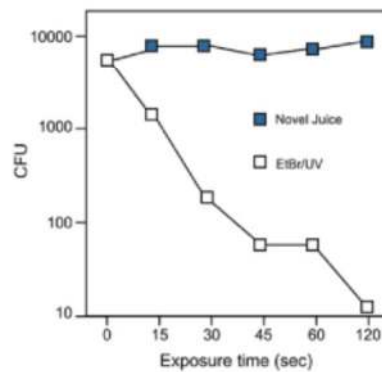


Novel Juice and blue-light exposure



Ethidium bromide-staining and UV exposure

Slower migrating species are indicative of a linear or relaxed circular vector resulting from DNA nicking or strand breaks.



PCR fragments separated on agarose gels containing ethidium bromide or F-Blue were exposed to UV or blue light for specific amounts of time, then used for subcloning. Even brief ethidium bromide/UV treatment yielded significantly fewer CFUs.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.