



Biomol FF-BLUE Preloading Fluorescent Stain

Catalog No:	10014
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 FF-BLUE is a non-mutagenic fluorescent reagent producing an instant visualization of DNA bands upon illuminating agarose gels on the Blue Light Transilluminator(470nm) or UV Transilluminator. Supplied in Biomol's 6X DNA Loading Buffer, is used to prepare DNA markers and samples for loading on agarose or polyacrylamide gels. It contains three tracking dyes (Bromophenol Blue, Xylene Cyanol FF, and Orange G) for visually tracking the DNA migration during the electrophoresis process and for detecting the double-stranded DNA (dsDNA), single-stranded DNA (ssDNA), and RNA at as low as 0.14ng DNA, thus rendering it the most sensitive stain available on the market.

The recommended DNA sample mass is at least 50 ng or more, thus not causing any obvious shift in the migration pattern. Regardless of the loaded DNA or RNA sample amount for staining, it achieves cogently consistent migration pattern without the "smiley signature" commonly identified with other competing stains on the market. It is the ideal non-hazardous alternative to Ethidium Bromide for protecting the environment and meeting with the local biosafety regulations/ESG practices/UN SDG Goals.

Advantages

Safe – Absence of mutagenity.

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

Sensitivity – High degree of sensitivity as Ethium 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

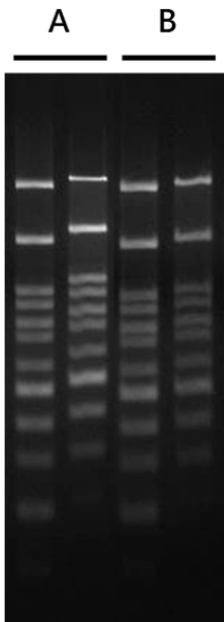
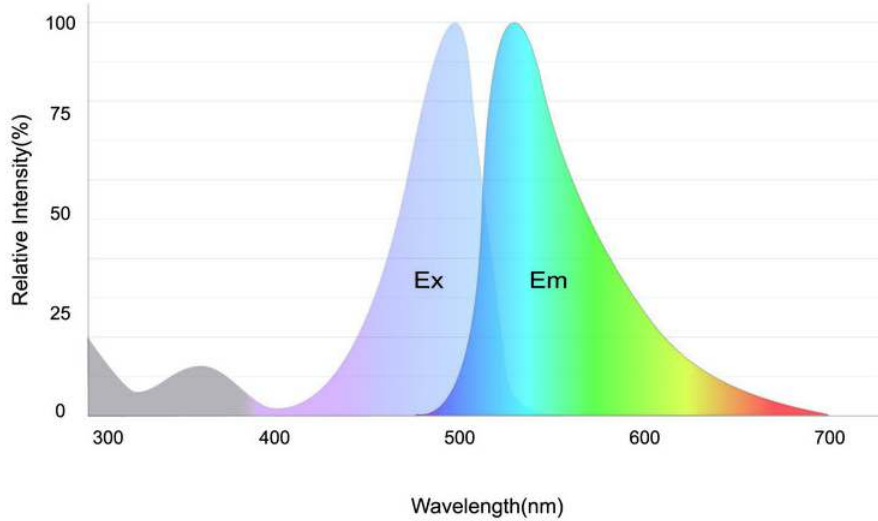
Bromophenol Blue, Xylene Cyanol FF and Orange G.

Protocol

1. Vortex FF-BLUE for 10 seconds prior to use.
2. Dilute 1 part FF-BLUE with 5 parts DNA sample and mix.
Note: FF-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.



Fluorescence Ex/Em spectra of Biomol FF-BLUE Preloading Fluorescent Stain nucleic acid gel stain bound to DNA



Each lane was loaded with 5ul of 100 bp Biomol 100bp DNA Ladder 2, ready-to-use (10003) and 1ul of Biomol FF-BLUE Preloading Fluorescent Stain (10014) and Biomol F-BLUE for DNA Staining (10010) in serial dilution. At low sample concentrations, Biomol FF-BLUE Preloading Fluorescent Stain shows better sensitivity, as elucidated by the comparison data.

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.