

ClearVision 6X Loading Dye

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Version: 22-01

Cat # : PT-D3001 / SA-D3001

Size : 1ML / 30 μ L

Product Description:

1. ClearVision 6X Loading Dye replace toxic Ethidium Bromide (EtBr), a potent mutagen, for the visualization of double-stranded DNA, single-stranded DNA, and RNA in agarose and polyacrylamide gel electrophoresis. ClearVision 6X Loading Dye is non-carcinogenic and the mutagenicity was determined by the Ames-test. The results are negative in both the mouse marrow chromophilous erythrocyte micronucleus and mouse spermatocyte chromosomal aberration tests.
2. ClearVision 6X Loading Dye emits green fluorescence when bound to DNA or RNA. It has two fluorescence excitation peaks, ~265 nm and 490 nm. The fluorescence emission is at ~520 nm. Thus, ClearVision 6X Loading Dye is compatible with a wide variety of gel reading instruments, UV or blue light illumination.
3. ClearVision 6X Loading Dye is supplied in 6X loading buffer. Simply mix dye with your samples before loading into the gel. There is no need to perform post-staining or destaining. Sensitivity of ClearVision 6X Loading Dye is 0.2 - 0.6 ng DNA per band.

Safety:

ClearVision 6X Loading Dye is a Non-carcinogenic by the ames test. May cause skin and eye irritation. Always wear gloves when working with the product.

Protocol:

- Prepare a 100 ml agarose or polyacrylamide solution with no stain. Mix gently to avoid bubbles.
- For agarose gels, let the solution cool down to 60 - 70 °C before casting the gel. For polyacrylamide gel, add APS and TEMED and cast the gel according to regular protocol.
- Mix samples or DNA marker with ClearVision 6X Loading Dye at a 1:5 (dye : sample) dilution rate.
- Following electrophoresis, view the results under UV or blue LED light.

Troubleshooting:

• **Weak Signal-**

ClearVision 6X Loading Dye must be mixed with samples before loading the gel. Casting the dyes into the gel or soaking the gel post electrophoresis will result in little or no staining.

• **Inhibited Downstream Application-**

Use ClearVision 6X Loading Dye with blue light to visualize your gel for gel extraction. UV light excitation can cause nicking and mutations in DNA, which negatively impact enzymatic reactions and transformations.

• **Poor Image Quality-**

Many gel doc systems are optimized for EtBr, and so pictures taken with these settings favor EtBr over other stains. When possible adjust the system settings for the dye you are using.

Form & Storage:

Liquid form (protected from light).

Store at 4°C. This product is stable for 1 year from the date of shipment.

Product Use Limitations:

This product is designed for research purposes and *in vitro* use only. According to common laboratory safety practice, it is recommended to wear protective clothing, gloves, and safety glasses.

Manufactured for and distributed by Protech Technology Enterprise Co.,Ltd

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