Storage

Store sample loading dye at 4 °C.

Product Information

Catalog Number	Product Description
162-0125-EDU	**High Strength Analytical Grade Agarose,** 100 g
161-0401-EDU	**DNA Electrophoresis Sample Loading Dye**
166-0199-EDU	**Agarose Gel Support film,** 8 sheets
161-0733-EDU	**TBE Buffer, 10x,** 1 Liter Tris Boric Acid
161-0743-EDU	**TAE Buffer, 10x, 1** Liter Tris Acetic Acid
166-0406-EDU	**Mini-Sub® Cell GT Agarose Electrophoresis Apparatus**
165-5050-EDU	**PowerPac 300 Power Supply**

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4006100 Rev A

BioTechnology Explorer™

DNA Electrophoresis Sample Loading Dye (6x)

Catalog Number 166-0401-EDU

BIO-RAD

Introduction

To monitor the progress of DNA fragment separation during gel electrophoresis, a visible dye is used. This is the sample loading dye. The sample loading dye actually contains two dyes; one purple colored dye (bromophenol blue) which migrates through the gel ahead of, or faster than, the DNA fragments and another blue-green colored dye (xylene cyanol) which moves more slowly than the DNA fragments. Bromophenol-blue migrates through the gel at the same rate as a fragment of DNA composed of 300 base pairs. Xylene cyanol migrates through the gel at a rate of 4,000 base pairs. When the purple dye reaches the end of the gel (about 2/3 of the way down) the electrophoresis run is finished. Agarose gels can then be stained with Bio-Safe™ DNA staining solution or ethidium bromide to visualize the DNA fragment patterns in the gel.

Directions For Use

1. Set the digital micropipet to 2.0 µl and transfer this amount of sample loading dye directly from the stock vial to each 10 µl sample of DNA. The final dilution should be 1 part dye to 5 parts DNA sample.
2. Mix the DNA and loading dye thoroughly in each tube before placing the samples in the gel wells for electrophoresis. This is easily accomplished by holding the top of a microtube between the index finger and thumb of one hand and flicking the bottom of the tube with the index finger of the other hand. Or, using a centrifuge, place the tubes which have DNA and loading dye into the centrifuge, being sure to space them evenly. Pulse spin the tubes (hold the button for a few seconds) to allow the DNA and loading dye to mix.