Gel Loading Dye, Blue (6x)

Technical Data Sheet

Catalogue	Pack Size
LD-BL-1	1 mL
LD-BL-5	5 x 1 mL

For research and educational use only.

Description

Loading dye is mixed with DNA samples for use in agarose gel electrophoresis. It contains a compound to make your samples denser than the running buffer, so that the samples sink in the well when loading; and a dye that migrates during electrophoresis at a similar rate to DNA, allowing assessment of the extent of DNA migration.

Gel Loading Dye, Blue (6x) is a 6x dye containing Bromphenol blue dye, which comigrates with DNA during gel electrophoresis; and Ficoll, which has improved resolution and room-temperature shelf life compared to alternatives such as glycerol.

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Application Recommendations

Gel electrophoresis

We recommend using Gel Loading Dye to allow easy loading and monitoring of DNA migration when running gel electrophoresis for DNA samples that do not already contain loading dye, such as PCR products amplified using PCR beads and dye-free PCR Master Mixes, or purified genomic DNA.

Loading dye can be mixed directly to PCR products post-PCR (e.g. 4 µL to a 20 µL PCR reaction). Alternatively, it can be mixed with a smaller aliquot of the DNA prior to loading to avoid contaminating the rest of the DNA sample (e.g. 1 µL mixed with 5 µL).

Reagent Composition

6x Gel Loading Dye (Bromphenol blue, Tris-HCl, EDTA and Ficoll)

Storage & Stability

Store at room temperature or at 4ºC. Long-term storage at –20ºC.

Shipping conditions

Shipped at room temperature.

Safety warnings and precautions

This product and its components are not considered hazardous in their given concentrations. However, as with all scientific reagents this product should be handled and stored with care as standard practice. Wear gloves. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water.

Quick Start Protocol

Loading dye can be added either to the complete DNA sample, or to a small aliquot to avoid contaminating the rest of the DNA sample.

If adding loading dye to the complete sample

1. Using a new pipette tip each time, pipette 1 of loading dye per 5 µL of DNA sample directly into a 0.2 mL PCR tube containing the DNA sample. For example, 4 µL can be added to a 20 µL PCR reaction.

2. Mix well by pipetting up and down a few times.

3. Adjust the pipettor to the desired volume (e.g. 5 µL). Be careful not to contaminate gloves, workspaces or surfaces with any PCR product on the pipette tip.

4. Load directly into the assigned well of an electrophoresis gel. Dispose of the pipette tip carefully to avoid PCR product contamination.

5. Repeat steps 1 – 4 for each sample.

6. Once all samples have been loaded, start the gel running.

If adding loading dye to a small aliquot of DNA sample

1. Pipette 2 µL droplets of loading dye onto a strip of smooth water-repellent sticky tape on a piece of card, with droplets spaced around 1.5 – 2 cm apart.

2. Using a new pipette tip each time, pipette up 5 µL of DNA sample. Pipette up and down on a loading dye droplet to mix. Be careful not to contaminate gloves, workspaces or surfaces with any DNA or PCR product on the pipette tip.

3. Adjust the micropipette to 7 µL and pipette up all of the mixture.

4. Load directly into the assigned well of an electrophoresis gel. Dispose of the pipette tip carefully to avoid spreading DNA or PCR product contamination

5. Repeat steps 2 to 4 for each sample.

6. Once all samples have been loaded into the electrophoresis gel, start the gel running.

7. Dispose of the strip of tape carefully to avoid spreading DNA or PCR product contamination. An easy way to do this is to pick up the strip of tape on the card in a gloved

hand, form a fist, and then take off the glove so that the tape remains safely sealed inside.