MB131_IFU_EN_V2401

6× NZYDNA loading dye

Catalogue number
MB13101

Presentation
5 x 1 mL

Description

6× NZYDNA loading dye is a ready-to-use buffer used to prepare DNA samples for loading on agarose gels. The buffer contains three different dyes (xylene cyanol, bromophenol blue and orange G) which migrate to the same point as dsDNA of the sizes indicated on the following table. Dye mobility depends on gel concentration. 6× NZYDNA loading dye allows users to monitor DNA migration distance and control the gel run time.

AGAROSE CONCENTRATION	XYLENE CYANOL FF	BROMOPHENOL BLUE	ORANGE G
0.8 %	5000 bp	800 bp	100 bp
1.0 %	3000 bp	400 bp	50 bp
1.5 %	1800 bp	250 bp	20 bp
2.0 %	1000 bp	200 bp	< 10 bp
2.5 %	700 bp	100 bp	< 10 bp

Shipping & Storage Conditions

This product can be shipped at a range of temperatures from dry ice to Room temperature. Upon receipt, store the product at -85 °C to -15 °C in a constant temperature freezer. The product will remain stable till the expiry date if stored as specified. In alternative, 6× NZYDNA loading dye can be stored at room temperature or at 2°C to 8°C for up to 12 months.

Components

COMPONENT	TUBES	VOLUME
6× NZYDNA loading dye	5	1 mL

Standard Protocol

1. Add 1 volume of loading dye to 5 volumes of sample.

2. Mix well by pipetting and spin briefly.

3. Load on agarose gel and run.

Quality control assays

Nucleases assay

To test for DNase contamination, 0.2-0.3 µg of pNZY28 plasmid DNA are incubated with the 6× NZYDNA loading dye in test for 14-16 h at 37 °C. Following incubation, the nucleic acids are visualized on a GreenSafe-stained agarose gel. There must be no visible

Functional assay

To check the viscosity and the pattern of the dye, 1 volume of 6× NZYDNA loading dye and 5 volumes of a DNA sample are loaded onto a 1% (w/v) agarose gel with TAE buffer and separated by agarose gel electrophoresis.

Troubleshooting

Troubleshooting is often a systematic, meticulous process where varying one parameter at a time and evaluating impacts can unveil the root cause of issues. These adjusted suggestions, incorporating a blend of specificity and exploratory approaches, aim to enhance the clarity and actionability of your troubleshooting guide. Should any other technical or procedural aspects require attention, your feedback and additional information will always be welcomed.

BUFFER IS NOT SINKING UPON LOADING
Vortex briefly before use.
HOW TO PREVENT DEGRADATION CAUSED BY DNASE CONTAMINATION AFTER OPENING
Make aliquots with a small quantity of the loading dye.