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B: Pre-casting gel

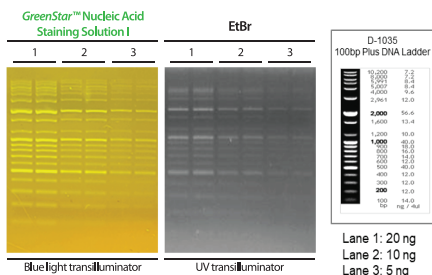


Fig. 2. Pre-casting gel analysis of two-fold serial diluted 100 bp Plus DNA Ladder (Cat. No. D-1035, Bioneer) using 1X *GreenStar™* Nucleic Acid Staining Solution I or 0.5 µg/ml EtBr.

7. Troubleshooting

7-1. Low fluorescence of stained DNA

- Reduce thickness of the gel. We recommend using a gel which thickness is less than 0.5 cm.
- Increase staining time. This depends on percentage of agarose. Increase the staining time as percentage of agarose increases.
- Increase the concentration of diluted *GreenStar™* Nucleic Acid Staining Solution I.
- Fluorescence is reduced when staining solution is exposed to heat and light. Diluted staining solution can be re-used within 24 hours when stored away from light and at room temperature. If diluted staining solution needs to be stored for a long period of time, store it away from light and at temperature between 2 and 6°C. If staining temperature is low, staining time may need to be increased.
- Repeated use may reduce staining ability. Make fresh staining solution then use it.
- Use pre-casted gel, made with *GreenStar™* Nucleic Acid Staining Solution I, within 24 hours.
- *GreenStar™* dye may have precipitated out of solution. Heat *GreenStar™* Nucleic Acid Staining Solution I to 45 - 50°C for five minutes and vortex to redissolve.

7-2. Stained loading lane

- High concentration of staining solution may induce dragging effect of the band. This is due to high sensitivity of *GreenStar™* Nucleic Acid Staining Solution I. Reduce the staining time or dilute the staining solution.

7-3. Different nucleic acid mobility on the gel

- We recommend loading 1 - 20 ng of sample when 5 mm comb is used for pre-casting gel. When a band is not straight, we recommend loading more than 10 µl of sample.
- We recommend using TAE buffer when DNA size is large.

8. Related Products

Cat. No.	Product
A-6020	DUALLED Blue/White Transilluminator
A-7020	Agarose-Power™ System
C-9029	6X Agarose Gel Loading Buffer 2 ml
C-9100	Agarose 100 g
C-9100-1	Agarose 500 g
D-1010	10 bp DNA Ladder 100 µl (522 ng/µl)
D-1020	25/100 bp Mixed DNA Ladder 500 µl (150 ng/µl)
D-1030	100 bp DNA Ladder 500 µl (100 ng/µl)
D-1035	100 bp Plus DNA Ladder 500 µl (80 ng/µl)
D-1040	1 kb DNA Ladder 500 µl (100 ng/µl)

9. Notice

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