

Bio-1000F Test Reference

MICROTEK
SCAN THE WORLD

- Stain : GelGreen™ Nucleic Acid Gel Stain
- Manufacturer : Biotium









DNA Electrophoresis

Precast Gel

Post-Staining

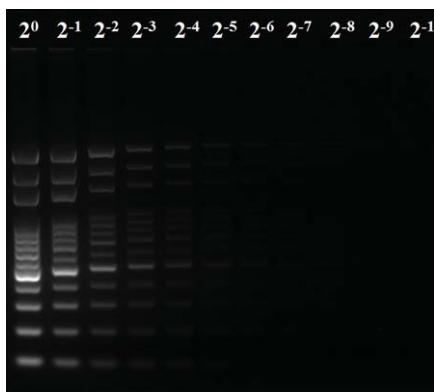
Protocol

-  3 μ l GelGreen™ Nucleic Acid Gel Stain in 60 ml 2% TAE agarose gel.
-  5 μ l of Bio100™ Mass DNA Ladder (Protech Technology Enterprise Co., Ltd.) was loaded into line 1 (2^0). Twofold serial dilutions of the ladder were prepared in 1x DNA loading dye and loaded into lanes 2 to 11 (2^{-1} to 2^{-10}).
-  Following electrophoresis (voltage: 50 V), the images were caught by Bio-1000F with different exposure times.

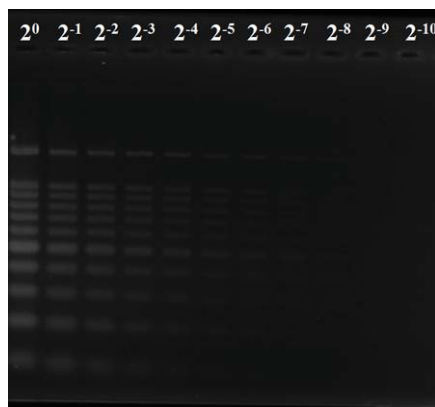
-  5 μ l of Bio100™ Mass DNA Ladder (Protech Technology Enterprise Co., Ltd.) was loaded into line 1 (2^0). Twofold serial dilutions of the ladder were prepared in 1x DNA loading dye and loaded into lanes 2 to 11 (2^{-1} to 2^{-10}).
-  Following electrophoresis (voltage: 50V), the gel were immersed into 1x TAE buffer with 1/20,000 GelGreen™ Nucleic Acid Gel Stain for 30 minutes at 30°C.
-  The images were caught by Bio-1000F with different exposure times.

Result

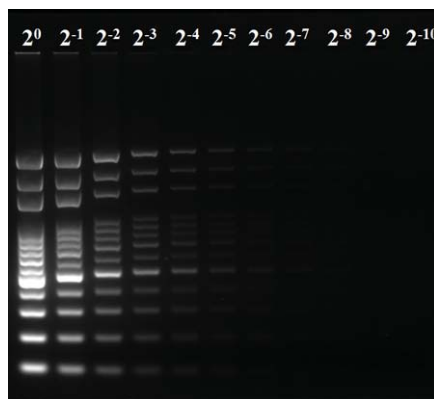
x2
Exposure
Time →



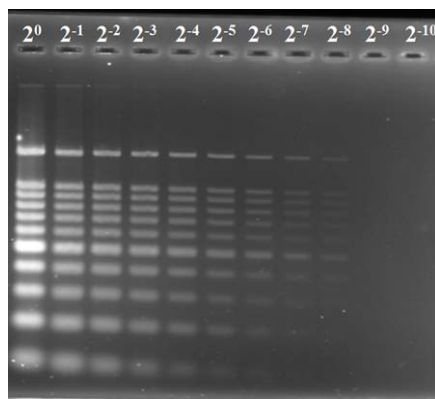
x4
Exposure
← Time



x4
Exposure
Time →



x24
Exposure
← Time



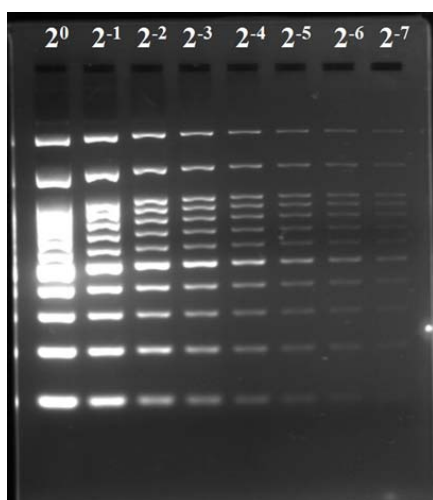
Improvements for Nucleic Acid Gel Stain

Decreasing the concentration of GelGreen™ Nucleic Acid Gel Stain in precast gels can solve the problem of smeared and discrepant DNA migration. (Exposure time: x4)

Result

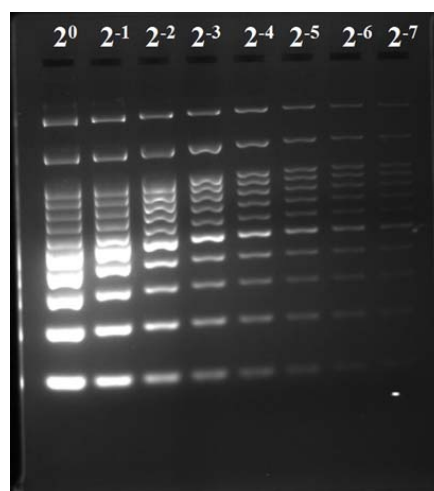
10^5

Dilution
Times →



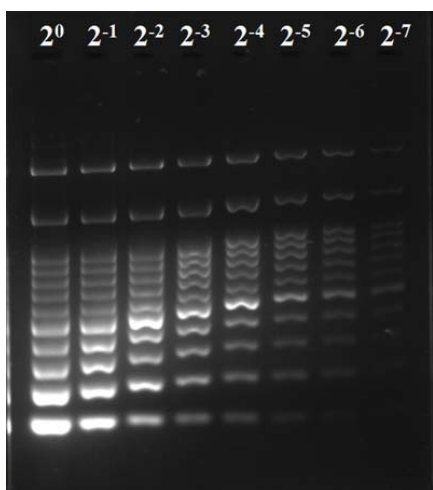
5×10^5

← Dilution
Times



10^6

Dilution
Times →



5×10^6

← Dilution
Times

