

Bio-1000F Test Reference

MICROTEK
SCAN THE WORLD

- ▶ Stain : Diamond™ Nucleic Acid Dye
- ▶ Manufacturer : Promega









DNA Electrophoresis

Precast Gel

Post-Staining

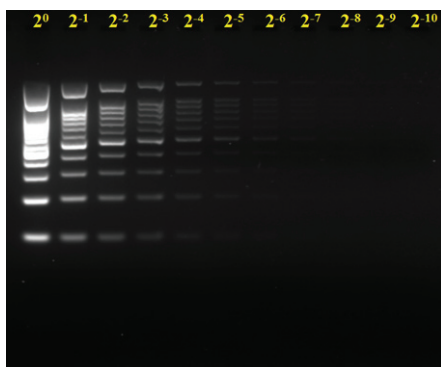
Protocol

-  3 μ l Diamond™ Nucleic Acid Dye 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.

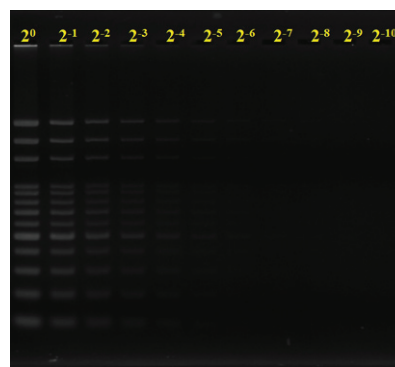
-  5 μ l of Bio100™ Mass DNA Ladder (Protech Technology Enterprise Co., Ltd.) was loaded into line 1 (2^0). Twofold serial dilutions of the ladder were prepared in 1x DNA loading dye and loaded into lanes 2 to 11 (2^{-1} to 2^{-10}).
-  Following electrophoresis (voltage: 50V), the gel were immersed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

Result

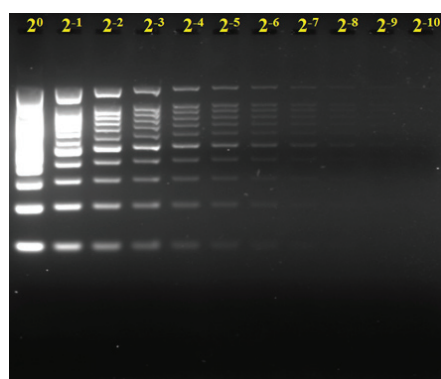
x2
Exposure
Time →



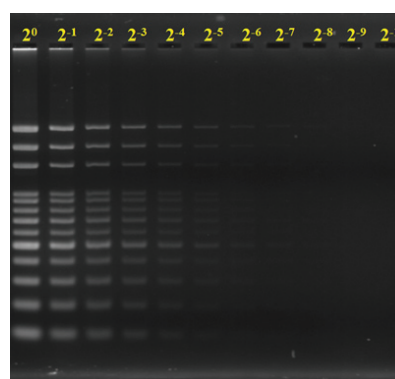
x2
Exposure
← Time



x4
Exposure
Time →



x4
Exposure
← Time



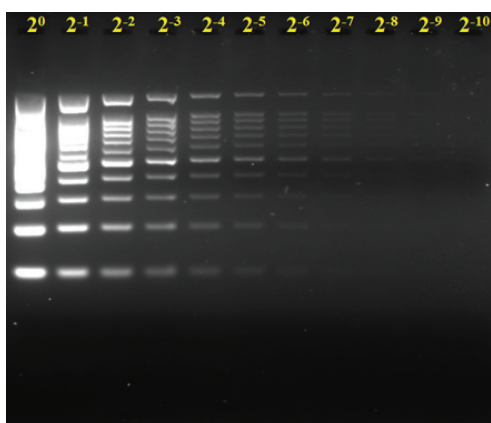
Improvements for Nucleic Acid Gel Stain

Decreasing the concentration of Diamond™ Nucleic Acid Dye in precast gels can solve the problem of smeared and discrepant DNA migration.

Result

10^4

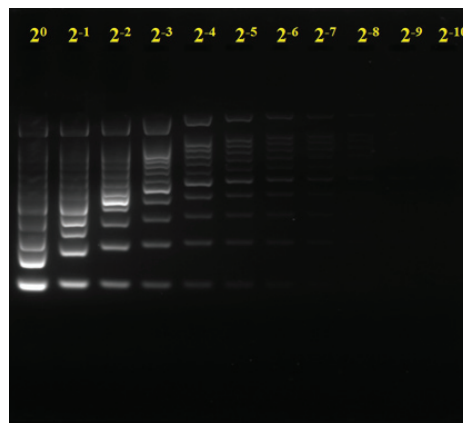
Dilution
Times →



(Exposure time: x4)

10^5

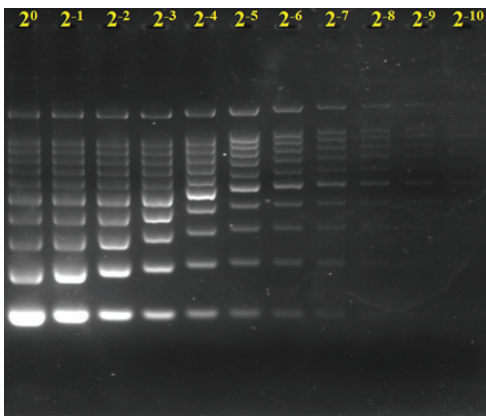
← Dilution
Times



(Exposure time: x4)

10^6

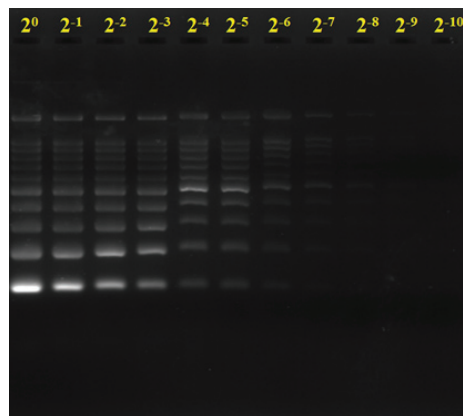
Dilution
Times →



(Exposure time: x12)

5×10^6

← Dilution
Times



(Exposure time: x12)

