



Technical Data

Performance evaluation of Midori Green Agarose tablet

Product

Midori Green Advance TBE Agarose Tablet (Cat No. AG09)

Purpose

The Midori Green Advance TBE Agarose tablet can be used to prepare a stained gel by a simple procedure.

This product performs electrophoresis and gel imaging results equivalent to self-prepared stained gels.

Method

“Tablet type stained gel” was made with Midori Green TBE Agarose tablet and “self prepared gel” with powder agarose and Midori Green Advance. DNA markers were applied at three different concentrations.

Afterwards, electrophoresis and gel imaging was performed.

Material & Method



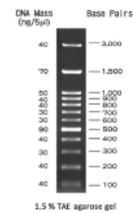
Midori Green Advance TBE Agarose Tablet (Cat No. AG09)



FastGene® Agarose (Cat No. AG02)



Midori Green Advance (Cat No. MG04)



FastGene® 1kb DNA Ladder (Cat No. MWD1)



Fas-Digi dark box (Cat No. GP05Top)

Fas-Digi dedicated digital camera (Cat No. GF7)

Blue/Green LED Illuminator 500nm (Cat No. FG-08)

UV Illuminator (FG-300)



FAS-V (Cat No. GP-FAS-V)

Experimental procedure

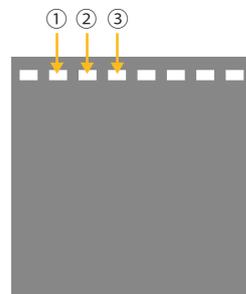
① Preparation of stained gel

- 1) Midori Green Advance TBE Agarose Tablet: 1 tablet / 50 mL DW
- 2) Self-prepared: Midori Green Advance (0.5 µL per 12.5 mL buffer) + Agarose (1%) + TBE (12.5 mL)

② Electrophoresis

- DNA sample

FastGene 1kb DNA Ladder (MWD1)
① 10µL, ② 5µL, ③ 2.5µL / lane



- Electrophoresis: SafeBlue Electrophoresis system (MBE-150Plus)
1.0% TBE agarose gel (AG02)
100V 30 min

③ Gel Documentation Instruments

- 1) FAS-V
- 2) FAS-Digi B/G LED
- 3) FAS-Digi UV Illuminator (302nm)

Three types of equipment was used. Exposure is adjusted respectively to verify a suitable setting (Exposure correction = EC).



Midori Green TBE Agarose Tablet - How to make a stained gel



After the tablet is added to pure water, please stir for complete dissolving (3 to 5 minutes) (Liquid gets cloudy when tablets are added to water).

↓
Heat the gel carefully until it becomes completely transparent.

↓
Cool the gel to 60 - 70°C and cast the gel into a tray. When the gel is solid, load the gel and perform electrophoresis.

Gel %	1 tablet	2 tablets
1%	50 mL water	100 mL water
1.5%	33 mL water	67 mL water

(From the instruction manual) In this case, a 1% gel was prepared

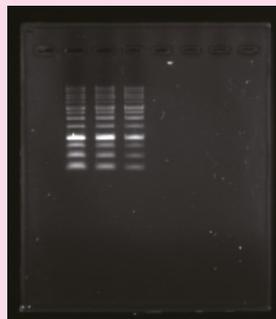
Caution

For solving the tablet **use pure water at room temperature.**
(Do not dissolve in hot water or buffer)

Result

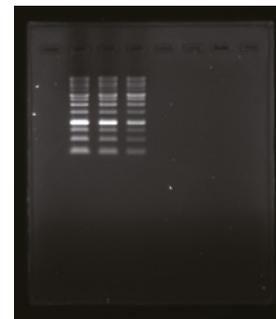
FAS-V (GP-FAS-V)
B/G LED Illuminator
(500nm)

Midori Green Advance TBE Agarose Tablet



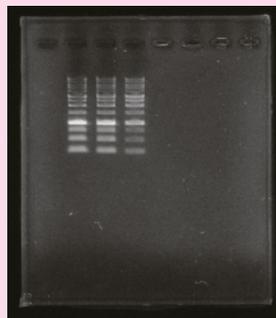
Exposure: 0.440
Aperture value : f/2.8

Self-prepared

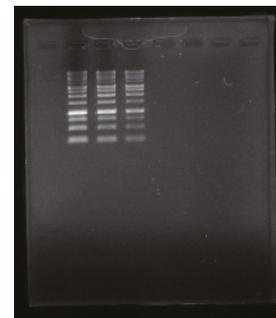


Exposure: 0.200
Aperture value: f/2.8

Fas-Digi (GP-05 LED)
B/G LED Illuminator
(500nm)



EC: -0.7EV
Aperture value: f/2.3
SS: 1/60 seconds
ISO:AUTO (-3200)



EC: -2.0EV
Aperture value: f/2.3
SS: 1/80 seconds
ISO:AUTO (-2000)

Fas-Digi (GP-05 LED)
UV Illuminator
(302nm)



EC: -0.7EV
Aperture value: f/2.3
SS: 1/10 seconds
ISO:AUTO (-3200)



EC: -1.3EV
Aperture value: f/2.3
SS: 1/15 seconds
ISO:AUTO (-3200)

Summary

The tablet "Midori Green Advance TBE Agarose Tablet" was able to prepare a stained gel easily and could be used in the same way as a self-prepared gel.

