



Product

**MIDORI<sup>Green</sup> Advance**

Catalog #

MG04 (1ml), MG03 (50 µl sample)

Category

DNA staining solution

#### Quick Notes

- MIDORI<sup>Green</sup> Advance is non-toxic and non-carcinogenic
- Perfect staining of DNA/RNA in agarose gels
- Compatible with all illuminators
- Optimal for UV-light

#### Note

1. Usage not recommended with SDS containing loading buffers because of band appearance caused by stain and SDS interaction.
2. Repeated melting of gels containing the stain may result in low sensitivity.
3. MIDORI<sup>Green</sup> Advance DNA may irritate skin and eyes.
4. Please wear gloves while handling

## Description

MIDORI<sup>Green</sup> Advance DNA Stain is a new nucleic acid stain which can be used as a safer alternative to the traditional ethidium bromide stain for detecting nucleic acid in agarose gels. It is as sensitive as ethidium bromide and can be used exactly the same way in agarose gel electrophoresis. MIDORI<sup>Green</sup> Advance DNA Stain emits green fluorescence when bound to DNA or RNA. It has two secondary fluorescence excitation peaks (~270 nm; ~290 nm) and one strong excitation peak centered around 490 nm. The fluorescence emission is centered at ~530 nm. Thus, MIDORI<sup>Green</sup> Advance DNA Stain is compatible with a wide variety of gel reading instruments.

MIDORI<sup>Green</sup> Advance DNA Stain can be used for precast agarose gels and when better sensitivity is needed - poststaining is recommended.

## Safety

MIDORI<sup>Green</sup> Advance DNA Stain is noncarcinogenic and according to the Ames test it causes significantly fewer mutations than ethidium bromide.

A detailed safety report can be downloaded at:

[www.nippongenetics.eu](http://www.nippongenetics.eu)

## Storage

Please store MIDORI<sup>Green</sup> Advance at 4 °C and protected from light.

## Protocol

### In-gel staining

1. Prepare 100 ml of agarose gel solution (concentration from 0.8-3.0%) and heat until the solution is completely clear and no small floating particles are visible.
2. Add 4-6 µl of MIDORI<sup>Green</sup> Advance DNA Stain to the gel solution and mix it gently.
3. Cool the gel to 60-70°C and cast the gel, into the gel tray. When the gel is solid, load the samples and perform electrophoresis.
4. After the electrophoretic run, view and document your result, using traditional UV light or non-hazardous FastGene® Blue or Blue/Green LED Illuminator for health and performance reasons.

### Poststaining

1. MIDORI<sup>Green</sup> Advance DNA Stain poststaining solution may be used 2-3 times. Staining solution to be reused should be preferably stored at RT in the dark. For <0.5 cm thick agarose gel, 10-25 µl of the stain should be used per 100 ml of buffer.
2. Optimal staining time (5 - 60 minutes) and the amount of the stain may depend on the thickness of the gel and the percentage of agarose.

