



## Technical Note

# Comparison of MIDORI<sup>Green</sup> dyes and ethidium bromide

Products

MIDORI<sup>Green</sup> Advance (MG04)

MIDORI<sup>Green</sup> Xtra (MG10)

Manufacturer

NIPPON Genetics EUROPE GmbH



The following data was provided by the manufacturer: NIPPON Genetics EUROPE GmbH

## Purpose

Comparison of DNA detection sensitivity of agarose gels pre-stained with the nucleic acid dyes MIDORI<sup>Green</sup> Advance, MIDORI<sup>Green</sup> Xtra and ethidium bromide.

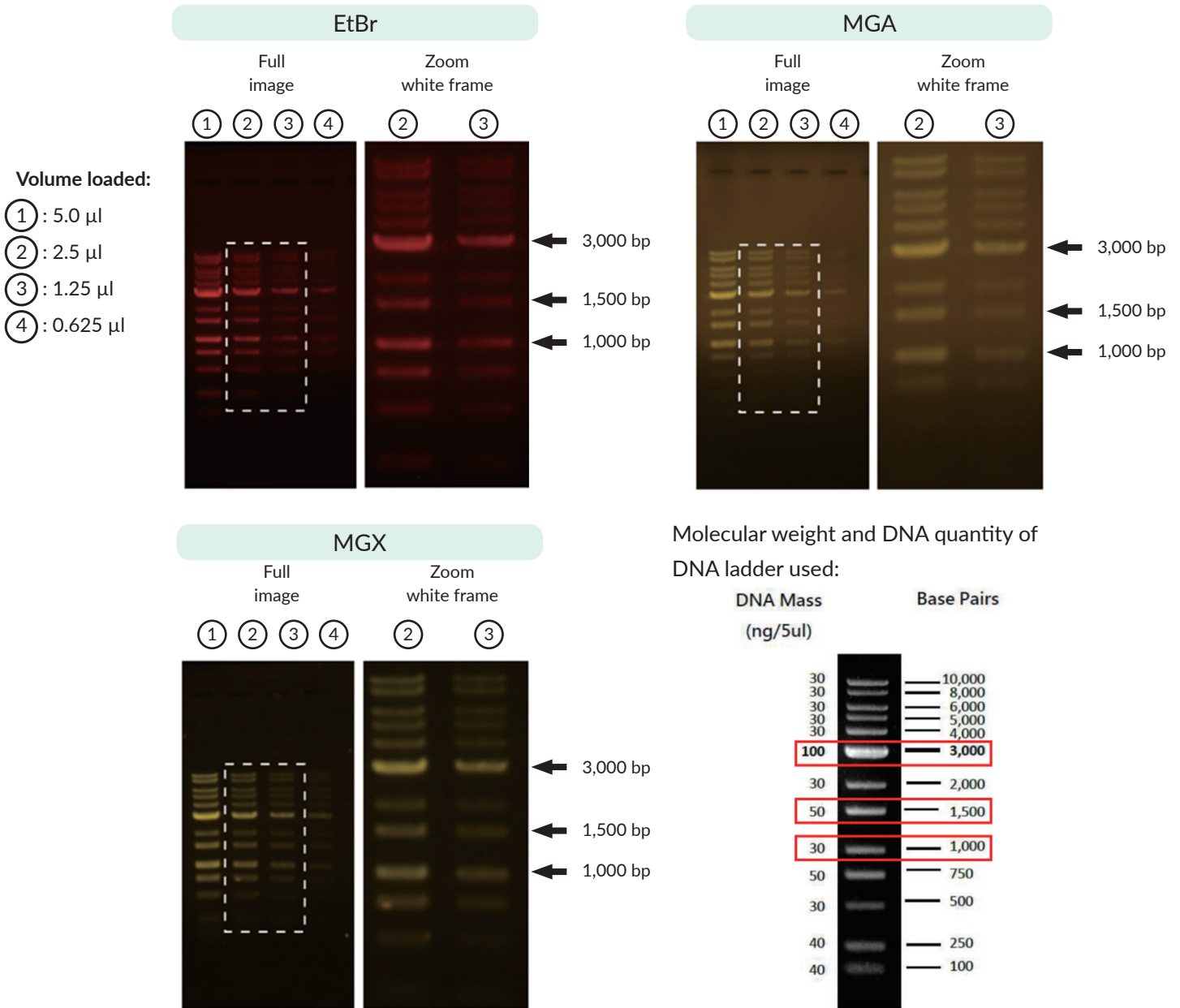
## Summary

MIDORI<sup>Green</sup> Advance (MGA) and MIDORI<sup>Green</sup> Xtra (MGX) are safe nucleic acid staining reagents that are an alternative to ethidium bromide (EtBr). For alternative reagents to EtBr, the comparability of DNA detection sensitivity is important. In this technical note, DNA ladder was separated on pre-stained gels prepared with standard amounts of MGA, MGX and EtBr. DNA was visualized by Blue/Green LED technology (GP-07LED) and the detection sensitivity was compared.

## Reagents

- MIDORI<sup>Green</sup> Advance (MGA)
- MIDORI<sup>Green</sup> Xtra (MGX)
- Ethidium bromide (EtBr)

## Experimental results



DNA visibility at each concentration:

Lane	Marker	Amount of DNA	EtBr	MGA	MGX
②	3,000 bp	(~25 ng/band)	✓	✓	✓
②	1,500 bp	(~12.5 ng/band)	✓	✓	✓
②	1,000 bp	(~7.5 ng/band)	✓	✓	✓
③	1,000 bp	(~3.75 ng/band)	✓	✓	✓

## Conclusion

It was shown that MGA and MGX can be used as safe alternatives to EtBr for pre-staining agarose gels.