

dsGreen Gel Staining Solution, 10000×

<http://www.lumiprobe.com/p/sybrgreen-i-gel-stain>

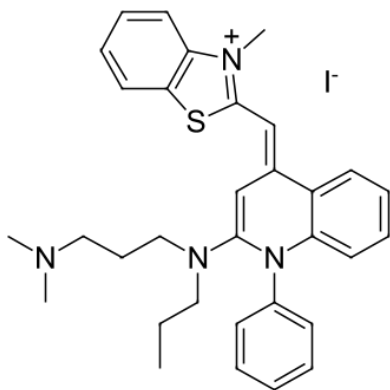
dsGreen, an equivalent of SYBR® Green I is a sensitive dsDNA binding dye, which can be used for routine DNA detection in agarose and polyacrylamide gels. A [qPCR grade reagent](#) is also available.

Unlike ethidium bromide, dsGreen is highly selective towards double stranded DNA, much less harmful, and offers better sensitivity.

Comparison between ethidium bromide and dsGreen

Feature	Ethidium Bromide	dsGreen
Fluorescence	Red (615 nm)	Green (524 nm)
Excitation maximum	302 nm	454 nm
Excitation light source	UV only	Blue light or UV
Sensitivity	2 ng / band (dsDNA) 100 ng / band (RNA)	0.08 ng / band (dsDNA) 1-2 ng / band (oligonucleotides)
Health hazard	High	Low

Note: Fluorescence properties of SYBR Green I bound to dsDNA below are taken from the following publication: Zipper, H.; Brunner, H.; Bernhagen, J.; Vitzthum, F. Investigations on DNA intercalation and surface binding by SYBR Green I, its structure determination and methodological implications. *Nucleic Acids Res.*, 2004, 32, e103.



dsGreen I structure

General properties

Appearance:	orange solution
Quality control:	NMR ¹ H, HPLC-MS (95%), functional testing
Storage conditions:	Storage: 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light.
TN VED Code:	3204190000

Spectral properties

Excitation maximum, nm:	454
ε, L·mol ⁻¹ ·cm ⁻¹ :	73000
Emission maximum, nm:	524
Fluorescence quantum yield:	0.8

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