GelStain-GREEN™ (V2), Nucleic acid Staining Solution (20,000X)

• W3212 **1 ml**

Description

GelStain-GREEN™ (V2) is a is a non-carcinogenic alternative to EtBr used for the detection of nucleic acids in agarose gels.
GelStain-GREEN™ (V2) is as sensitive as EtBr and it is used in the same way as EtBr in agarose gel electrophoresis .
It emits green fluorescence when bound to DNA and RNA.
It has a fluorescence excitation maxima when bound to nucleic acid at approx. 290-320 nm and emits at 525-530 nm.

Precautions

GelStain-GREEN™ (V2) is non–carcinogenic, but may cause skin and eye irritation. Always wear gloves when working with it.

Kit Contents

Contents	W3212
GelStain-GREEN™ (V2)	1 ml

Storage Conditions

- For long term storage, GelStain-GREEN™ (V2) should be stored at 4°C (stable for at least a year)
- For frequent usage, store at RT, where they are stable for up to 3~4 months

Spetral Properties

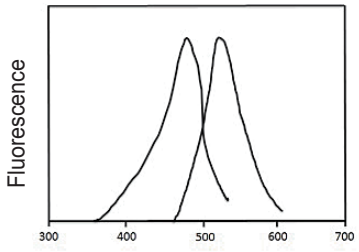


Fig 1. Excitation (left) and emission (right) profiles of GelStain-GREEN™ (V2) bound to dsDNA.

Ames Test

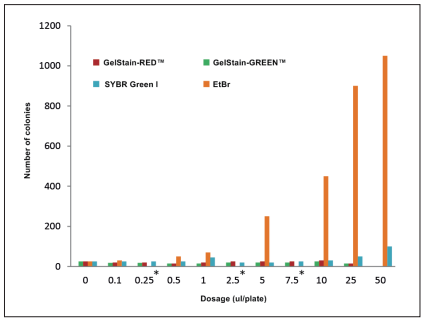
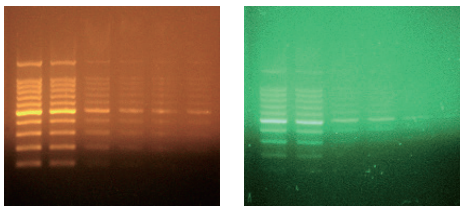


Fig 2. Summary of Ames test results for mutagenicity of GelStain-GREEN™ (V2), SYBR Green I and ethidium bromide (EtBr). Samples were pretreated with a +1 frameshift Salmonella indicator strain TA98 without the presence of S9 fraction and then tested using the indicated test strain.

Protocol

Precast Protocol :

1. Prepare 100 ml of agarose gel solution using your standard protocol and let solution cool down to 60~70°C.
2. Add 5~10µl of GelStain-GREEN™ (V2) to final 1X concentration.
3. Mix gently, the solution should have no air bubbles and cast gel.
4. Run gel in the running buffer.
5. View results under UV light or LED blue light and take picture as you do for EtBr.
   Note : Using 535nm filter get better results.



EtBr GelStain-GREEN™ (V2)

Fig 3. Comparision of ethidium bromide (EtBr) and GelStain-GREEN™ (V2) in 2% agarose gel in TAE buffer.
Serial dilution of 100 bp DNA Ladder were loaded in the amount of 650ng, 390ng, 130ng, 65ng, 32.5ng and 13ng.
Gels were imaged using UV transilluminator and photographed with 590nm (EtBr) and 520nm (GelStain-GREEN™ (V2)) filter.

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