



# Certificate of Analysis

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## PRODUCT: GelStain

**CAT. NO.**  
GS101

**AMOUNT**  
2\* 1 ml

**LOT NUMBER**  
O50923

**SHELF LIFE**  
Two years

**STORAGE CONDITIONS**  
at room temperature for two years

**SHIPPING CONDITIONS**  
at room temperature

## DESCRIPTION

GelStain is a sensitive, stable and relatively safe fluorescent nucleic acid dye designed to replace the highly toxic ethidium bromide (EtBr) for staining dsDNA, ssDNA or RNA in agarose gels or polyacrylamide gels. The sensitivity of GelStain is much higher than EB, and destaining is not required. GelStain and EB have virtually the same spectral properties.

- **Nontoxic:** Unique lipophilic and macromolecular properties of GelStain make it incapable of penetrating cell membranes. Ames test also shows the mutagenicity of GelStain is far less than that of EB.
- **Highly sensitive:** Suitable for staining fragments of different sizes in electrophoresis gel; less effect on nucleic acid migration compared with SYBR Green I.
- **Highly stable:** Suitable for using microwave or other heating methods to prepare agarose gel; extremely stable at room temperature under acidic or alkaline conditions; highly resistant to light.
- **High signal-to-noise ratio:** Strong fluorescence signal of the sample with low background signal
- **Simple operation:** Similar to ethidium bromide, the dye does not degrade during the process of preparing gel or electrophoresis. It only takes 30 minutes for staining after electrophoresis, and the fragment can be visualized by a UV-transilluminator directly without detaining or washing.
- **A broad range of applications:** Applicable for precast protocol (add dye during gel preparation) and post-stain protocol (submerge the gel in the staining solution); suitable for agarose gels and polyacrylamide gels electrophoresis; suitable for staining dsDNA, ssDNA or RNA.
- **Changing the existing imaging system is not required:** Suitable for both standard EB filter and SYBR filter; same with the standard UV-transilluminator used for EB staining observation; optimal excitation in the UV region around 300 nm.

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## QUALITY CONTROL DATA

Assay	Standard	Result
Appearance	The liquid should be clear and free of precipitates or floccules, and the color should not be significantly different from that of the control batch.	Meets standards
Post-staining method	Staining can be performed correctly within a specified time period (30 minutes), which shows no significant difference compared with the control batch.	Meets standards
Precast staining method	Staining can be applied to different types of fragments (PCR products, plasmids, genomic DNA, and RNA), which shows no significant difference compared with the control batch.	Meets standards

# Notice to Purchaser



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All products are for research use only. Caution: Not intended for human or animal diagnostic or therapeutic uses. If you have any further questions about this Certificate of Analysis, please contact us at +86-10-57815027 or +86-400-898-0321.

TransGen Biotech products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without prior written approval of TransGen Biotech Co., Ltd.

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A handwritten signature in black ink that reads "Heng Zheng".

Manager, Quality Control Department

23/09/2020