ML053 Hi-SYBr Safe Gel Stain (10,000X in DMSO)

Product Name	Product Code	Kit Packing
Hi-SYBr Safe Gel Stain (10,000X in DMSO)	ML053- 100µl	100 µl
Hi-SYBr Safe Gel Stain (10,000X in DMSO)	ML053- 500µl	500 µl

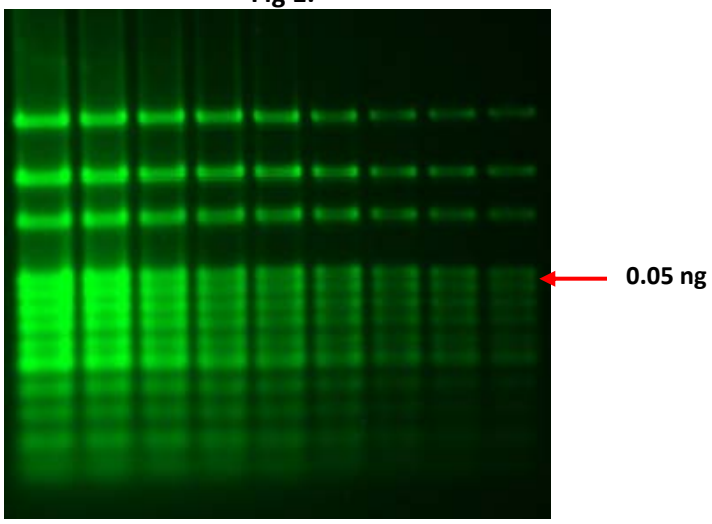
Description:

HiMedia's Hi-SYBr Safe Gel Stain is designed to be a safer alternative for the conventional Ethidium bromide which poses a significant health and safety hazard for the user. The gel stain offers 10 times greater sensitivity than can be achieved with ethidium bromide. It is compatible with both the conventional ultraviolet gel-illuminating system as well as blue light illumination system. The Hi-SYBr Safe Gel Stain shows a high specificity to the dsDNA, with negligible background signal.

Sensitivity:

Capable of detecting double stranded DNA (dsDNA) fragments **up to 0.1 ng** in electrophoresis analysis (see Fig. 1)

Fig 1.



Contents:

The dye is supplied as a 10,000X solution in dimethyl sulfoxide (DMSO).

ISO 9001-2008 CERTIFIED
WHO GMP CERTIFIED
ISO 13485-2003 CERTIFIED

Registered Office :
23, Vadhani Industrial Estate,LBS Marg,
Mumbai - 400 086, India.
Tel. : (022) 4017 9797 / 2500 1607
Fax : (022) 2500 2286

Commercial Office
A-516, Swastik Disha Business Park,
Via Vadhani Indl. Est., LBS Marg,
Mumbai - 400 086, India

Tel: 00-91-22-6147 1919
Fax: 6147 1920, 2500 5764
Email : info@himedialabs.com
Web : www.himedialabs.com

Storage conditions:

Upon receipt, store the Hi-SYBr Safe Gel Stain at -20^{O}C, protected from light in dessicator. When stored properly, the SYBR Green stain in DMSO is stable for 1 year.

General Preparation Instructions:

- Prior to opening the vial, warm to room temperature (15-25°C) to ensure that the solution is thawed thoroughly and the solution is homogeneous.
- Vortex and thoroughly spin down the contents of the vial.
- The staining solution should be prepared in a plastic container rather than glass, as the stain may adsorb to glass surface.

Procedure:

I. <u>Staining DNA following Electrophoresis:</u>

a) Prepare the 1X Staining Solution with a 1:10,000 dilution of the product in one of the following buffers:

- 1x TE buffer pH 8.0
- 1x TBE pH 8.0
- 1x TAE pH 8.0

NOTE: Staining solution prepared in water is less stable than those prepared in buffer and must be used within 24 hours to ensure maximal sensitivity.

b) <u>Staining of Gel</u>:

- Perform electrophoresis according to standard procedures.
- Place the gel in a plastic container. Immerse the gel in the staining solution (1X) and incubate at room temperature (15-25°C) for 10-30 minutes.
- Add enough staining solution to cover the gel. Protect the container from light by covering it with aluminum foil/black paper or placing it in dark conditions.
- Staining time will vary with the gel thickness & agarose percentage. Gently agitate the gel at room temperature (15-25°C).
- The staining solution may be stored in dark at low temperature (2-8°C) for a week.

NOTE: No Destaining is required.

- Visualize or take photograph of the stained gel with UV or blue light illumination.

NOTE: Always clean the illuminator surface before and after each use with deionized water. Video cameras and CCD cameras have a different spectral response as compared to the black & white image, and thus may not exhibit the same sensitivity.

2. <u>Staining DNA before Electrophoresis:</u>

In general, DNA can be incubated with 1:10,000x dilution of dye in TAE/TBE for atleast 15 minutes prior to electrophoresis.

Please refer disclaimer Overleaf.

3. <u>Precasting SYBR Green Gels:</u>

The Hi-SYBr Safe Gel Stain can also be used in precast agarose gels. Precast agarose or denaturing polyacrylamide gels with SYBR Green stock reagent 1:10,000 into the gel solution just prior to pouring of gel.

For e.g.: If you run TBE/TAE gels and require 30 ml of molten agarose for your tray, add 3µl of 10,000X Hi-SYBr Safe Gel Stain to 30 ml of 1X TBE/1X TBE, mix well and add to the powdered agarose.
NOTE: The agarose/ Hi-SYBr Safe Gel Stain mixture may be heated in the microwave.

However, the DNA detection limit may be slightly higher than for gels stained after electrophoresis. In addition, the rate of migration of DNA fragments may be significantly slower than the rate of migration of the same fragment in a gel without dye.

We, therefore, recommend to apply Hi-SYBr Safe Gel Stain after electrophoresis instead of precasting the gel with the dye.

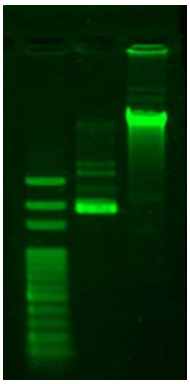


Fig 2: Representative data of Gel stained post electrophoresis (Lane1: Marker, Lane 2: plasmid DNA, Lane 3: Genomic DNA)

Technical Assistance

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at mb@himedialabs.com.

A-516, Swastik Disha Business Park, Via Vadhani Indl. Est., LBS Marg, Mumbai - 400 086, India Customer Care No.: 022-6147 1919 Email: techhelp@himedialabs.com