

HDGreen Plus DNA Stain



Storage:

Store at +4°C, protected from light. **Spin down before use.**

Description:

HDGreen Plus DNA Stain is a new nucleic acid stain which can be used as a safer alternative to the traditional Ethidium bromide stain for detecting nucleic acid in agarose gels. It is as sensitive as Ethidium bromide and can be used exactly the same way in agarose gel electrophoresis.

HDGreen Plus DNA Stain emits green fluorescence when bound to DNA or RNA. It has two secondary fluorescence excitation peaks (~270 nm; ~290 nm) and one strong excitation peak centered around 490 nm. The fluorescence emission is centered at ~530 nm. Thus, HDGreen Plus DNA Stain is compatible with a wide variety of gel reading instruments.

HDGreen Plus DNA Stain can be used for precast agarose gels and when better sensitivity is needed - poststaining is recommended.

Safety:

HDGreen Plus DNA Stain is non-carcinogenic and according to the Ames test it causes significantly fewer mutations than Ethidium bromide.

Protocol:

Precasting:

- Prepare 100 ml of agarose gel solution (concentration from 0.8-3.0%) and heat until the solution is completely clear and no small floating particles are visible.
- Add **4-6 µl** of HDGreen Plus DNA Stain to the gel solution and mix it gently.
- Cool the gel to 60-70°C and cast the gel, into the gel tray.
- When the gel is solid, load the samples and perform electrophoresis.
- Detect the bands under UV illuminator.

Poststaining:

- The HDGreen Plus poststaining solution may be used 2-3 times. Staining solution to be reused should be preferably stored at room temperature in the dark.
- For <0.5 cm thick agarose gel, 10-25 µl of the stain should be used per 100 ml of buffer.
- Optimal staining time (5 - 60 minutes) and the amount of the stain may depend on the thickness of the gel and the percentage of agarose.

Notes:

- 1 ml of HDGreen Plus DNA Stain is sufficient for 17-25 L of agarose gel.
- The thickness of gel should be <0.5cm.
- Repeated melting of gels containing HDGreen Plus DNA Stain may result in low sensitivity.
- HDGreen Plus DNA Stain is non-carcinogenic but may irritate skin and eyes. Please wear gloves while handling.