Atlas ClearSight DNA Stain *- Data Sheet*

Cat. No.	Pack Size
BHS0018	50 µl SAMPLE
BH40501	1 ml

Lot no:
Exp. Date:

Storage: Store at room temperature or at +4°C, protected from light.

Applications:

- Non-carcinogenic alternative to Ethidium bromide.

Description:

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

Atlas ClearSight 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, Atlas ClearSight DNA Stain is compatible with a wide variety of gel reading instruments.

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

Safety:

Atlas ClearSight 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 Atlas ClearSight DNA Stain to the gel solution and mix it gently.
- Cool the gel to 50-60ºC 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.

Post-staining:

- The Atlas ClearSight post-staining 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 ul 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 Atlas ClearSight DNA Stain is sufficient for 17-25 L of agarose gel.
- The thickness of gel should **< 0.5cm**.
- Repeated melting of gels containing Atlas ClearSight DNA Stain may result in low sensitivity.
- Atlas ClearSight DNA Stain is non-carcinogenic but may irritate skin and eyes. Please wear gloves while handing.

Safety warnings and precautions:

This product is designed for research purposes and *in vitro* use only.

Some applications this product is used in may require a license which is not provided by the purchase of this product. Users should obtain the license if required.