

# GoldView I Nuclear Staining Dyes,10000×

**Cat No.:** G8140

**Package:** 1.0ml(10000×)

**Storage:** Room temperature, valid for at least one year.

## Product Description

GoldView I is a novel and safe nucleic acid dye for detecting DNA and RNA in agarose gel, an alternative to the ethidium bromide(EB) with the same sensitivity, and can be used with the same method as EB.

It emits green fluorescence upon ultraviolet irradiation when bound to dsDNA and red fluorescence when bound to ssDNA or RNA. GoldView I has two fluorescence excitation maxima when bound to nucleic acid, 290nm and 490nm.

Compared to EB known as strong mutagen, GoldView I cause much fewer mutations in the Ames test. In addition, GoldView I has a negative test in mouse marrow chromophilous erythrocyte micronucleus test and mouse spermary spermatocyte chromosomal aberration test. So it is wise to choose GoldView I instead of EB for detecting nucleic acid in agarose gels.

## Protocol

1. Prepare 100 ml of agarose gel solution in the microwave (heat on high until the solution is completely clear and no small floating particles are visible, about 2-3 minutes).
2. Add 10  $\mu$ l of GoldView I to the gel solution when the temperature is down to about 50-60 °C. Swirl the flask gently to mix the solution and avoid forming bubbles.
3. Pour it into the gel tray and the comb teeth should be immersed into the gel solution. Allow the agarose gel to cool until solidified
4. Load samples on the gel and perform electrophoresis, then detect the bands under UV illumination.

## Notes

1. The thickness of gel should be less than 0.5cm since thick gels may decrease sensitivity.
2. Repeated melting of gels containing GoldView I may result in low sensitivity.
3. Fresh electrophoresis buffer is recommended for a better sensitivity.
4. GoldView I allows visualization of DNA(>50ng) in the agarose gel under visible light. This avoid direct exposure to ultraviolet light, which can nick and damage DNA.
5. Although it is noncarcinogenic, GoldView I may irritate skin and eyes. Please wear gloves while handing.
6. GoldView I is suitable for the detection of large DNA fragments (larger than 1kb), the detection sensitivity is lower than EB when DNA fragment is less than 1KB. Its not suitable for 500bp and less than 500bp.
7. G8142, GoldView II Nuclear Staining Dyes(5000×) is suitable for detecting DNA fragments of all size.
8. It is not suitable for gel recovery experiment, G8142 is better .