GoldView II Instructions for nucleic acid dyes

Item No. : G8142

Specification: 0.5mL (5000×)

Storage: -20℃, short term storage 2-8℃.

Note: This product belongs to the micro nucleic acid detection reagent, please strictly follow the instructions when using. Please melt and centrifuge before opening it for the first time.

Product Introduction:

GoldView II is a new anthocyanine nucleic acid dye that can replace ethidium bromide (EB). When detecting DNA by agarose electrophoresis, GoldView II can produce a strong fluorescence signal after combining with nucleic acid, and its sensitivity is 5-10 times stronger than EB. It is used in exactly the same way. After binding with nucleic acid, GoldView II has a maximum absorption peak of 497nm. In addition, it also has a strong absorption peak at 254 nm, and the emission wavelength is 520nm. Double-stranded DNA shows green fluorescence under ultraviolet transmitted light, and it can also be used to dye RNA.

The results of mutagenicity were negative by Ames test, micronucleus test of polychromatophil erythrocytes in mouse bone marrow and chromosome aberration test of spermatocyte in mouse testis. Ethidium bromide (EB) is a potent carcinogen. Therefore, Goldview II is a wise alternative to EB.

This product is dissolved in DMSO, solid state at low temperature, and can be melted when the temperature reaches 20℃ or above.

Usage method (for reference only) :

Adhesive staining:

Since the sensitivity of GoldView II is several times higher than EB, please dilute the commercial Marker with 1×DNA Loading Buffer for 5-10 times and load 1-10μL to obtain better results (usually dilute 10 times and load 5μL). For the sample to be tested, usually only 1-2μL is required. If the concentration is high, it must also be diluted by a certain multiple, otherwise it will cause irregular bands and affect the migration rate. Gel recovery please select the staining method.

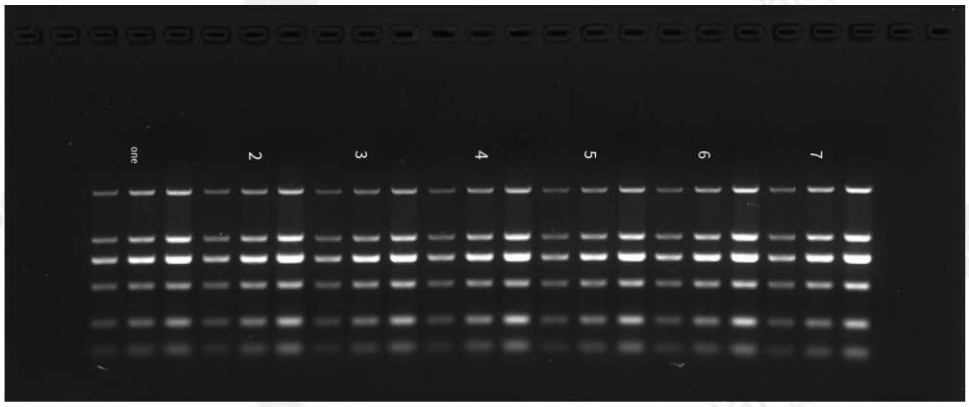
1. Melt 50mL agarose gel solution (the concentration is generally 0.8% to 2%) in the microwave oven.
2. Add 10-15μL of GoldView II (no less than 10μL) when it is not hot to handle and shake gently to avoid bubbles.
3. Pour the gel and allow the agarose gel to set completely before loading the sample for electrophoresis.
4. After electrophoresis, observe under ultraviolet lamp. If you use a digital camera to record pictures, turn off the camera flash and put it on automatic; If you use the gel imaging system to take photos, by adjusting the aperture, exposure time, select the appropriate filter, you can get a clear image of the photo.

Note: If the electrophoretic results show that the bottom strip is bright and the strip migration is greatly affected, it is recommended to dilute GoldView II stock solution with DMSO by 2-5 times, and then add the gel to mix well according to the above ratio. Or choose the staining method.

Spot dyeing:

This method is cheaper to dye, the strips are relatively clear and neat, and it is also suitable for gel recovery.

1. Agarose gel without any dye is prepared by conventional method.
2. Configuration of the working liquid: Take 2μL of dye stock and add 1ml of TE buffer or sterilized double steaming water, then add 1mL of 6×loading buffer, mix evenly (at this time the solution is 1:1000 dilution, that is, the working liquid.
3. After mixing the diluted working liquid with the electrophoresis sample according to the volume ratio of 1-2:5, it is left for 5min, and the sample size range is 5μL-10μL according to the concentration of nucleic



acid of the sample.

Foam dyeing:

1. Conventional methods prepare agarose gels without any dye.
2. Sample, after electrophoresis, put the gel in the dye diluted 2000 times by TAE and soak for 30 minutes.

Note:

1. When the dyeing effect of dye can not reach the expected result during long-term use, it is recommended to change the spot dyeing method for electrophoresis to help improve the experimental results.
2. The thickness of the glue should not exceed 0.5cm, too thick will affect the sensitivity of the detection.
3. Although GoldView II has not been found to have carcinogenic effect, it is dissolved by DMSO, which will stimulate the skin and eyes to a certain extent. Gloves should be worn during operation.

Schematic diagram of stippling (for reference only)

Note: From left to right 1-7 are different batches of D2000 marker (item No. : M1060), each group has 3 concentrations, and the loading quantities are 2.5, 5 and 10uL, respectively.