

Red Fluorescent Nucleic Acid Dye

Cat: E1020

Size: 5mL (10mg/mL)

Storage: RT, Store away from light, Valid for 1 year.

Introduction:

This product is a highly sensitive fluorescent stain commonly used for nucleic acid staining after electrophoresis of agarose gel and polyacrylamide gel. The dye, after binding with DNA, emits orange-red fluorescence under the excitation of ultraviolet light transmissometer. It can be photographed by Polaroid plate or gel imaging processing system with CCD imaging head. The fluorescence yield of complexes bound to DNA dye is 20-30 times higher than that of dyes without DNA binding, so bands as small as 10ng of DNA can be detected when free red fluorescent nucleic acid dye (0.5µg/mL) is contained in the gel.

Protocols:

1. Glue dyeing: Melt 100mL agar-agar gel solution (the concentration is generally 0.8%~2%) in the microwave oven, cool to about 60°C (when not hot), add 5-10µL dye, shake gently and pour glue (avoid bubbles), after the glue is completely set, sample electrophoresis, after electrophoresis, observe and take photos under the purple lamp (Note: Because in the presence of the dye, the electrophoretic mobility of linear DNA is reduced by about 15%).
2. Foam dyeing: After agarose gel electrophoresis, the gel is immersed in electrophoretic buffer containing dye (0.5µg/mL) or deionized water and stained at room temperature for 15-45min (depending on gel thickness). When decolorizing, soak in deionized water or 1mM MgSO₄ solution at room temperature for about 10-30min to reduce the background fluorescence (optional).

Note:

1. This product is a strong mutagen, please pay attention to safety when using.
2. For your safety and health, please wear a lab coat and disposable gloves.

Related Products:

T1050 5×TBE Buffer

T1060 50×TAE Buffer

D1010 6×DNA Loading Buffer

G8140 Green fluorescent nucleic acid dye (10000×)

G8142 GoldView Type I nucleic acid stain (5000×)

SY1020 SYBR Green I(10000×)

SY1040 SYBR Green II RNA

M1060 D2000 DNA Ladder

Related Literature:

- [1] Z.Y.Tang, M.J.Sheng, Y.X.Qi, et al. Metformin enhances inhibitive effects of carboplatin on Hela cell proliferation and increases sensitivity to carboplatin by activating mitochondrial associated apoptosis signaling pathway. *European Review for Medical and Pharmacological Sciences*. 2018; 22: 8, 104-8112. (IF 2.387)

Note: For more information about this product, please refer to the Solarbio website.