FT-B5Z1K0

Red Nucleic Acid Gel Stain (10,000X)

Nucleic acid stain that can be used as a safer alternative to the traditional ethidium bromide (EB) stain for detecting nucleic acids in agarose gels or polyacrylamide gels.

Product Description

Catalog #: B5Z1K0, 500µl
Name: **Red Nucleic Acid Gel Stain (10,000X)**
Storage: +4°C (1 years) Protect from light

For Research Use Only

Red Nucleic Acid Gel Stain (10,000 ×) (Red Stain) is a nucleic acid stain that can be used as a safer alternative to the traditional ethidium bromide (EB) stain for detecting nucleic acids in agarose gels or polyacrylamide gels. Compared to EB, Red Stain can't penetrate the cell membrane into cells well above the working concentrations used in gel staining. Red Stain has the same spectrum as EB and can be used exactly the same way in imaging system. Additionally, Red Stain is higher in sensitivity than EB.

Features

1) Impenetrable to cell membrane.
2) High sensitivity: more sensitively than EB.
3) High signal-to-noise ratio: strong fluorescence signal of the sample, low background signal.
4) Strong applicability: staining dsDNA, ssDNA or RNA.
5) Easy to use: similar to EB; no need to change the buffers or testing equipments.

Protocol

Because of strong DNA binding affinity, Red Stain can be used to stain DNA before electrophoresis (pre-staining), as well as after electrophoresis (post-staining).
1) Staining DNA before electrophoresis
a. Precast agarose gels with Red stain by diluting the Red Stain stock reagent 1:10,000 into the gel solution prior to pouring the gel.
b. When the gel is solid, load the samples and perform electrophoresis.
c. Detect the bands under UV illuminator.
Note:
a). The pre-staining protocol is not recommended for polyacrylamide gels. Polyacrylamide gels can be stained using the post-stain protocol.
b). Red Stain has good thermal stability, it can be added directly to hot agarose solution.
2) Staining DNA after electrophoresis
a. Perform electrophoresis in an agarose or nondenaturing polyacrylamide gel without any stain.
b. Dilute the Red Stain stock reagent with 0.1 M NaCl at a ratio of 1:3300, for example: add 15 µL Red Stain stock reagent into 50 mL 0.1 M NaCl and gently shake to form a staining solution.

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c. Cover the gel with staining solution in a suitable container such as a polypropylene staining tray and incubate at room temperature for 30 minutes with shaking. Staining time will vary depending on the thickness of the gel and the percentage of agarose or polyacrylamide.

d. Detect the bands under UV illuminator.

Note: Staining solution can be reused at least 2-3 times. Store staining solution at room temperature protected from light.

Precautions

1) Since Red Stain is very sensitive, reduce the amount of DNA loaded by one-third to one-fifth.
2) TBE buffer has a higher buffering capacity than TAE, because borate-containing reagents have better electrical conductivity.
3) Red Stain can be used to stain ssDNA and RNA, but it is twice as sensitive as for dsDNA than for ssDNA or RNA.
4) Red Stain may irritate skin and eyes. Please wear gloves while handling.
5) This product is for R&D use only, not for drug, household, or other uses.
Please consult the Material Safety Data Sheet for information regarding

Ordering information

Catalog size quantities and prices may be found at http://www.interchim.com.
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