Yeastern Biotech Co., Ltd

Product Use Limitation & Warranty

This product is intended to be used for life science research only. It has not been approved for drug or diagnostic purpose. YEASTERN's products should not be resold, modified for resale, or used to manufacture commercial products without written approval by YEASTERN. YEASTERN guarantees the performance of all products in the manner described in our protocol. The purchaser must determine the suitability of the product for its particular use. Should any product fail to perform satisfactorily due to any reason other than misuse, YEASTERN will replace it free of charge.

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EtB"Out"

Nucleic Acid Staining Solution 2.0

Cat. No.

FYD010-200P

SYD010-001

EtB“Out”Nucleic Acid Staining Solution 2.0

(20,000×, 1ml)

Storage: 4°C **Shipping:** 4°C or RT

Description

EtB“Out” Nucleic Acid Staining Solution 2.0 aims to replace traditional EtBr (ethidium bromide) in performing nucleic acid detection in agarose gels. EtBr has long been known as a strong mutagen, however EtB“Out” causes only neglectable mutations in the Ames test.

The sensitivity of EtB“Out” is identical to that of EtBr. Under UV light, EtB“Out” emits green fluorescence when bound to DNA or RNA. EtB“Out” can be excited at 290 nm and 490 nm. The fluorescence emission peak of EtB“Out” when bound to DNA is at 537 nm.

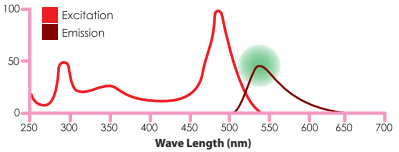
Features

- **Economic:** use only 5 µl in 100 ml of agarose gel
- **Sensitive:** sensitivity is comparable and even better than EtBr, DNA concentration as low as 5 ng can be detected
- **Safe:** non-mutagenic, non-toxic, non-carcinogenic
- **Green:** no hazardous waste

Application

Nucleic acids detection (dsDNA and ssRNA) within agarose gel after electrophoresis under UV illumination

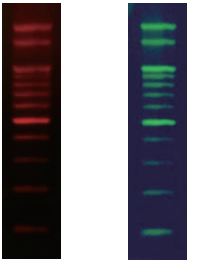
Excitation and Emission Wavelength



Protocol

1. Heat the agarose gel solution in the microwave until the solution is completely clear.
2. Add EtB“Out” Nucleic Acid Staining Solution (20,000×) to the agarose solution. (EtB“Out” : Agarose gel solution = 1 : 20,000)
3. Mix the solution gently without forming bubbles.
4. Wait until the solution is cooled down, pour it into the gel tray and allow the solution to solidify. (The optional thickness of the gel should be < 0.5 cm to avoid low sensitivity)
5. Perform electrophoresis and detect the result under UV illumination, green fluorescence bands are visible in the existence of nucleic acids. (DNA is observable under visible light when it is > 50 ng)

Experimental Result



Nucleic staining using EtB“Out” Nucleic Acid Staining Solution. Two individual agarose gels were prepared with 5 µl of EtBr and EtB“Out” respectively. Staining results were examined under UV illumination. Identical results were observed and EtB“Out” even showed a better staining result than using EtBr.

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