nbs biologicals

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SafeView Nucleic Acid Stain
Handbook (inc. protocol)

New Formulation
Please Check Protocol Inside

The Safer Alternative to Ethidium Bromide!

SafeView is a safe nucleic acid stain for the detection of double-stranded DNA, single-stranded DNA and RNA in Agarose gels. This dye replaces Ethidium Bromide (toxic, potential mutagen) for visualisation of DNA or RNA in Agarose gel. SafeView is non-carcinogenic and causes significantly fewer mutations in the Ames-test and tests negative in both the mouse marrow chromophilous erythrocyte micronucleus test and mouse spermary spermatocyte chromosomal aberration test. SafeView is as sensitive as Ethidium Bromide and it is used in the same way as Ethidium Bromide in Agarose gel electrophoresis.

SafeView emits green fluorescence when bound to dsDNA and ssDNA, and red fluorescence when bound to RNA. This stain has one excitation (290nm) and two emisson spectra (490nm and 605nm).

Cat. No	Quantity
NBS-SV1	1 x 1ml
NBS-SV5	5 x 1ml

Store at 4°C

Protocol

In Gel Staining

1. Prepare a 100ml agarose or polyacrylamide solution
2. Let solution cool down to 60-70°C
3. Add 5µl SafeView*
4. Mix gently (avoiding air bubbles) and cast the gel
   For polyacrylamide gel, add APS and TEMED and cast the gel according to regular polyacrylamide gel casting protocol
5. Run gel electrophoresis with 5 µl SafeView per 100ml buffer*
6. View results under UV or blue LED light

*Best results are achieved by adding 5µl to both gel and running buffer, you can however choose to add the full 10µl only to the gel with a minor reduction in band clarity.

Post Staining

Please note: Although post-staining is possible, a loss in sensitivity may occur.

1. Run Agarose gel using TBE or TAE
2. Prepare post-stain solution using 25µl SafeView per 100ml running buffer
3. Incubate gel for 5-20 minutes (depending on thickness/concentration of gel)

Staining solution may be stored at room temperature and reused.

SafeView is non-carcinogenic but may cause skin and eye irritations. Always wear gloves when working with the product.

This product is distributed for laboratory research only.
CAUTION: Not for diagnostic use. The safety and efficiency of this product in diagnostic or other clinical uses has not been established.

STORE REFRIGERATED AT 4°C
SafeView can be stored at room temparature for up to 1 week if necessary, we would recommend aliquoting out a suitable quantity from the stock vial.

SafeView Compatibility

SafeView has been tested for use with the following applications:

- ✓ In gel staining
- ✓ Post-staining
- ✓ Gel extraction
- ✓ Transformation
- ✓ Ligation
- ✓ Transfection

Prior to setting, SafeView/Agarose solution can be retained at 65°C for same day use.

Frequently Asked Questions

Q; How should I visualise the gels after staining?

A; Gels can be visualised using a standard UV transilluminator, no additional filters are required although an optional green filter can be used for aesthetic purposes. You can also visualise the gel under blue LED light.

Q; How Sensitive is SafeView?

A; SafeView, when used for in-gel-staining detects up to 1.5 ng/mm2 nucleic acid, which is approx. 0.2ng per band, and is therefore as sensitive as Ethidium Bromide. Post-staining with SafeView is slightly less sensitive.

Q; Can SafeView be used to stain DNA/RNA in Acrylamide gels?

A; Yes, the latest formulation of SafeView is compatible with polyacrylamide gel electrophoresis, please refer to the protocol.

Q; What if the bands are too faint?

A; Optimal band clarity is acheived by adding SafeView to both the gel and the running buffer (5µl to each), as per protocol. Previous formulations of SafeView recommended 10µl be added only to the gel, and while this protocol can still be used you may notice slightly fainter results.

Q; What is the shelf life of SafeView?

A; SafeView can be kept for 2 years at 4°C.

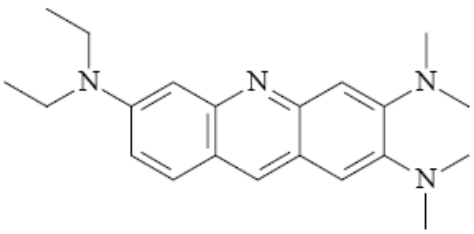
Q; How should I dispose of SafeView?

A; SafeView contains no substances known to be hazardous to the environment or non-degradable in waste water treatment plants. Dispose of in accordance with local regulations.

Additional Information

Product Name	SafeView Nucleic Acid Stain
CAS#	99643-38-6
Formula	$C_{21}H_{28}N_4$

Structure



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You may also be interested in some of our other Electrophoresis products....

Agarose - Low EEO; All-purpose Agarose for molecular biology.

SafeWhite; Uses the same technology as SafeView, a safe alternative to Ethidium Bromide but in the form of a 6X loading buffer.

DNA Ladder Plus; Extended range ladders in 50bp, 100bp and 1kb sizes.