

NBS

Electrophoresis

revised: 17/03/11

SafeView Nucleic Acid Stain Handbook (inc. protocol)

Revised Protocol

Now with a new formulation for greater detection sensitivity!

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, ssDNA and RNA. This stain has a fluorescence excitation maxima when bound to nucleic acid at approx. 290-320nm and emits at 515nm.

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 solution
2. Let solution cool down to 60-70°C
3. Add 10µl SafeView*
4. Mix gently (avoiding air bubbles) and cast the gel
5. Run gel
6. View results under UV light

*Best results are achieved using 10µl SafeView per 100ml Agarose, however many customers find 5µl sufficient.

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 Compatibility

SafeView has been tested for use with the following applications:

- | | |
|-------------------|------------------|
| ✓ In gel staining | ✓ Transformation |
| ✓ Post-staining | ✓ Ligation |
| ✓ Gel extraction | ✓ 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.

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; SafeView can only be used in Agarose gels. For Acrylamide gels we recommend our sister product SafeWhite, this utilises the same technology but in the form of a sample loading buffer.

Q; What if the bands are too faint?

A; To boost the visibility of bands, SafeView can also be added to the running buffer (5µl per 100ml) - alternatively you can post-stain after in-gel staining.

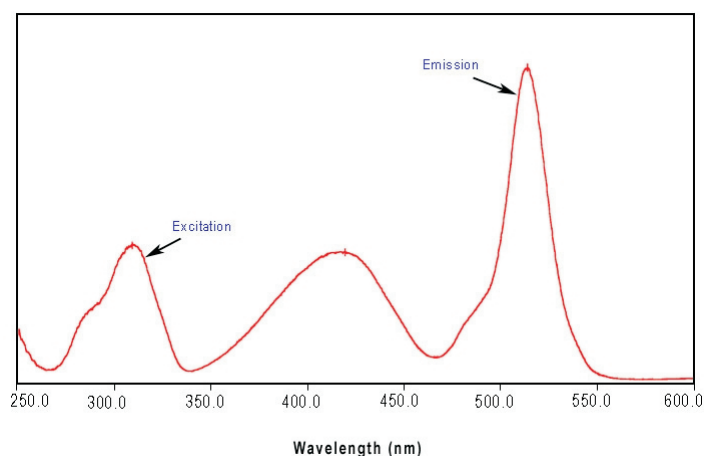
Q; What is the shelf life of SafeView?

A; SafeView can be kept for 1 year 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.

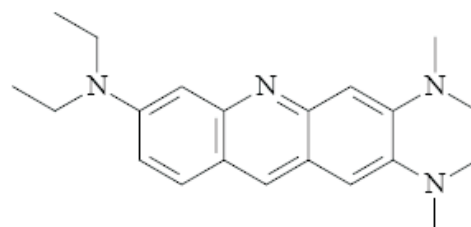
Additional Information



Product Name SafeView Nucleic Acid Stain
CAS# 99643-38-6

Formula C₂₁H₂₈N₄

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.