

NBS

Electrophoresis

revised: 17/01/12

SafeWhite Nucleic Acid Stain Handbook (inc. protocol)

SafeWhite 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.

SafeWhite is non-carcinogenic and causes significantly fewer mutations in the Ames-test, it also tests negative in both the mouse marrow chromophilous erythrocyte micronucleus test and mouse spermary spermatocyte chromosomal aberration test.

With SafeWhite you do not add dye to the gel matrix or running buffers, the dye is provided as a 6X concentrated sample loading buffer which you mix your samples. This significantly reduces possible contamination of glassware and gel running tank. After electrophoresis, view and document your results under UV as you would do with Ethidium Bromide stain.

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

Cat. No	Quantity
NBS-SW1	1 x 1ml
NBS-SW5	5 x 1ml

Store at 4°C

Protocol

1. Prepare a 100ml Agarose solution
2. Mix gently. Solution should have no air bubbles
3. Let the solution cool down to 60-70°C and cast the gel
4. Mix samples/ladders with 6X SafeWhite dye (2µl or 1:5 dilution)
5. Run gel and view the results under UV light

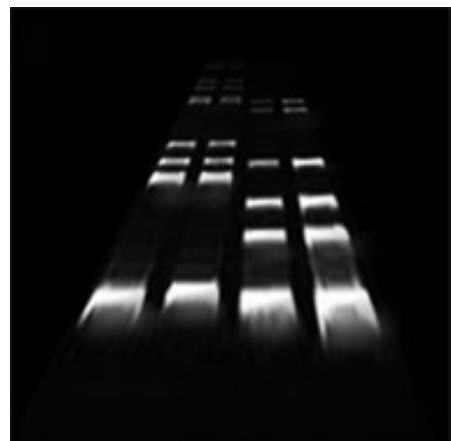
SafeWhite is non-carcinogenic but may cause skin and eye irritations. Always wear gloves when working with the product.

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

SafeWhite Compatibility

- ✓ In Buffer Staining
- ✓ Gel Extraction
- ✓ Ligation
- ✓ Transformation
- ✓ Transfection



Frequently Asked Questions

Q; How should I visualise the gels after staining?

A; Gels can be visualised using a standard UV transilluminator, no special filters are required.

Q; How Sensitive is SafeWhite?

A; The detection limit of SafeWhite is 0.1ng, it is therefore more sensitive than Ethidium Bromide

Q; What if the bands are too faint?

A; Increasing the quantity of SafeWhite used per lane will give brighter bands, and as this dye is added directly to the samples (rather than gel) there should be no issues with increased background.

Q; What is the shelf life of SafeWhite?

A; SafeWhite can be kept for 1 year at 4°C.

Q; How should I dispose of SafeWhite?

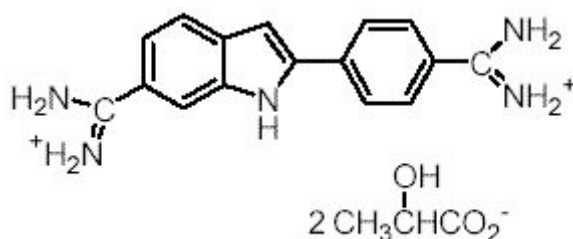
A; SafeWhite contains no substances known to be hazardous to the environment or non-degradable in water treatment plants. Dispose of in accordance with local regulations.

Additional Information

Product Name SafeWhite Nucleic Acid Stain

CAS# -

Formula $C_{22}H_{27}N_5O_6$





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

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

SafeView; Uses the same technology as SafeWhite, a safe alternative to Ethidium Bromide for in gel staining.

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