Check the product label for actual catalog number, lot and expiry date.

StainIN™ GREEN Nucleic Acid Stain

CAT.#	SIZE	COMPONENTS	COMPONENT COMPOSITION
NAS0201	1 ml	1ml - StainIN™ GREEN Nucleic Acid Stain	Aqueous solution of green DNA and RNA stain. Provided as 20000 X solution to be used at 1 X concentration in agarose or polyacrylamide gels and at 0,5 X concentration in electrophoresis buffers.

STORAGE: Store in the dark at +4°C for at least two years. DISPOSAL: 0,5 X dye solution (electrophoresis buffer) can be disposed with plenty of water directly down the drain, used gels can be discarded in the trash. Consult your safety office to match your local regulations, as they vary and change.

APPLICATIONS

- Staining of NA in agarose and polyacrylamide gels during electrophoresis for ssDNA, dsDNA and RNA visualization and gel documentation
- UV or Blue LED detection, excellent for cloning applications

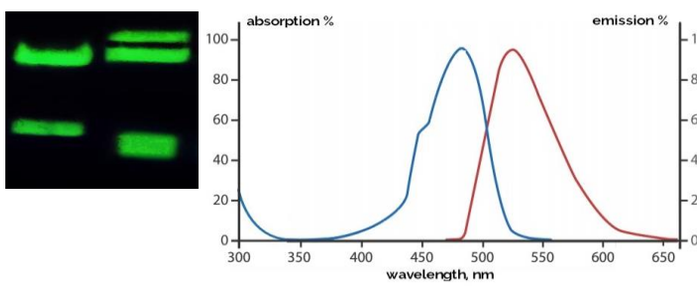
BENEFITS

- Non-carcinogen, safe alternative to ethidium bromide, more economical alternative to competing green dyes
- Unique – has two emission peaks, colors DNA in green, RNA in red
- Highly sensitive NA detection - up to 4x more sensitive than EtBr
- Time saving – in gel stain, no post- run staining, no destaining

PRODUCT DETAILS

StainIN™ GREEN Nucleic Acid Stain is a safe alternative to ethidium bromide. It is same easy to use, four times as sensitive and much more secure. Twice as economical as competing green dyes, this novel stain can be also used and disposed with less environmental and health concerns compared to ethidium bromide. It is a fluorescent dye that allows detection of >0,1 ng of DNA in both agarose and polyacrylamide gels. It binds to both dsDNA, ssDNA and RNA and emits green fluorescence when bound to DNA and red fluorescence when bound to RNA detectable under the UV or Blue light and documented with same filters as similar green dyes. Due to much less damage to DNA and blue light visualization, StainIN™ GREEN is ideal for DNA extraction from gels for cloning. The non-carcinogenicity of the dye has been proved by Ames-test. Both mouse marrow erythrocyte micronucleus and spermatocyte chromosomal aberration tests gave negative mutagenicity results.

PERFORMANCE



Left image - agarose gel stained with StainIN™ GREEN Nucleic Acid Stain
Right image - StainIN™ GREEN excitation maxima - 490 nm, and two emission maximas – bound to DNA - 520 nm; bound to RNA - 635 nm

PROTOCOL FOR AGAROSE GEL ELECTROPHORESIS

1. Wear gloves when working with all NA stains, buffers and gels.
2. Prepare the agarose gel solution like recommended by supplier.
3. Cool down the agarose after boiling to a hand-friendly temperature.
4. **Add 5µl of StainIN™ GREEN solution per 100 ml of the gel right before casting the gel.**
5. Mix the gel solution very gently to distribute the dye but not to produce air bubbles. Pour the gel, insert the combs.
6. Prepare the required volume of 1X TAE or 1X TBE buffer to be used in the electrophoresis tank.
7. **Add 2,5 - 3 µl of StainIN™ GREEN solution per 100 ml of the 1X electrophoresis running buffer.**
8. Add both gel and the buffer into the electrophoresis tank and run electrophoresis like usual.
9. Visualize nucleic acids under the UV or Blue light.

- Destaining is not needed, but it might help to reduce the background; post-run staining is not recommended.
- Use only Blue light if you intend to clone the DNA.
- Use SYBRGreen filters for gel photography.
- After a few runs refresh the electrophoresis buffer in electrophoresis tank prepared as in step 7.
- If you reuse the gel, add at least half a portion of the stain each time after boiling and cooling the gel solution down (like in step 4).

PROTOCOL FOR POLYACRYLAMIDE GEL ELECTROPHORESIS

1. Wear gloves when working with all NA stains, buffers and gels.
2. Prepare the native or denaturing PAA gel solution like recommended by supplier.
3. Add TEMED and APS and proceed to the next step immediately.
4. **Add 5µl of StainIN™ GREEN solution per 100 ml of the gel right before casting the gel.**
5. Mix the gel solution very gently to distribute the dye but not to produce air bubbles. Pour the gel, insert the combs.
6. Prepare the required volume of 1X TBE buffer to be used in the electrophoresis tank.
7. **Add 2,5 - 3 µl of StainIN™ GREEN solution per 100 ml of the 1X electrophoresis running buffer.**
8. Add both gel and the buffer into the electrophoresis tank and run electrophoresis like usual.
9. Visualize nucleic acids under the UV or Blue light.

- Destaining is not needed, post-run staining is not recommended.
- Use SYBRGreen filters for gel photography.
- After a few runs refresh the electrophoresis buffer in electrophoresis tank prepared as in step 7.

IN VITRO RESEARCH USE ONLY

ORDERING
T: +49 7250 33 13 401
F: +49 7250 33 11 413
order@highQu.com
www.highQu.com

SALES
T: +49 7250 33 13 401
F: +49 7250 33 11 413
sales@highQu.com

TECHNICAL SUPPORT
T: +49 7250 33 13 401
F: +49 7250 33 11 413
tech-support@highQu.com