

ReadiView™ Blue Color Nucleic Acid Gel Stain *100X Water Solution*

Catalog number: 17713
Unit size: 100 mL

Component	Storage	Amount (Cat No. 17713)
ReadiView™ Blue Color Nucleic Acid Gel Stain	Refrigerated (2-8 °C), Minimize light exposure	100 mL

OVERVIEW

ReadiView™ Blue Color Nucleic Acid Gel Stain is a visible-light nucleic acid gel stain formulated for post-electrophoresis detection of DNA in agarose or acrylamide gels. The stain is supplied as a 100X aqueous stock solution that can be diluted into standard electrophoresis buffers such as TAE, TBE, or TE. Following electrophoresis, gels are incubated in the 1X working solution to allow visualization of nucleic acids as deep blue-stained bands under white light illumination without requiring UV transillumination. The staining workflow involves simple post-run incubation and optional destaining steps that may be optimized depending on DNA concentration and desired signal resolution. ReadiView™ Blue Color Nucleic Acid Gel Stain provides a safer alternative to ethidium bromide-based staining workflows due to its nonhazardous formulation and eliminates the need for UV imaging systems during routine gel visualization. The stain is compatible with standard agarose gel electrophoresis workflows and supports gel imaging using white-light transilluminators, laboratory imaging systems, or cell phone cameras.

AT A GLANCE

1. Dilute the 100X stock reagent to a 1X working solution using TAE, TBE, or TE buffer
2. Stain the gel with gentle agitation for 15-30 minutes protected from light

PREPARATION OF WORKING SOLUTION

Make ReadiView™ Blue Color Nucleic Acid Gel Stain working solution by diluting the 100X stock reagent to 1X with a buffer of your choice in a pH range of 7.5-8.5 (e.g., TAE, TBE, or TE, preferably pH 8.2).

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol is recommended. However, some adjustments might be needed to better suit your needs.

1. Run gels according to your standard protocol.
2. Place the gel in a suitable gel staining tray. Gently add a sufficient amount of the 1X staining solution to submerge the gel.
3. Agitate the gel gently at room temperature for 15 to 30 minutes. Protect the staining container from light.

Note: To achieve optimal resolution and sensitivity with ReadiView™ Blue Color Nucleic Acid Gel Stain, the incubation time must be calibrated based on the DNA concentration.

4. Destain if necessary. Transfer the gel into a large container with clean, warm tap water. Gently rock or shake the gel on a rocking platform for 10 to 30 minutes.

Note: To achieve optimal resolution and sensitivity with ReadiView™ Blue Color Nucleic Acid Gel Stain, the washing time should be optimized.

5. The gel can be visualized on a light box or white surface and can

be imaged with a cell phone camera.

IMPORTANT NOTES

Safety & PPE: ReadiView™ Blue Color Nucleic Acid Gel Stain is nontoxic and noncarcinogenic. However, wear gloves and a lab coat to prevent staining your skin and clothes blue.

Cleanup: Remove stains from surfaces using a 10% bleach or 70% alcohol solution (test surface compatibility first).

Disposal: The waste is non-hazardous. Dispose of all solutions according to your facility's protocols.

EXAMPLE DATA ANALYSIS AND FIGURES

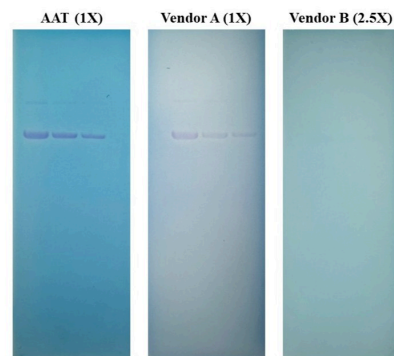


Figure 1. Comparison of DNA detection in 1% agarose gel in TAE buffer using ReadiView™ Blue Color Nucleic Acid Gel Stain and DNA gel stains from Vendor A and Vendor B. Two-fold serial dilutions of DNA were loaded in amounts of 1000 ng, 500 ng, and 250 ng from left to right. Gels were stained for 15 minutes with ReadiView™ Blue Color Nucleic Acid Gel Stain (1X working solution), Dyes from Vendor A (1X), and Vendor B (2.5X). The gel was placed on a white light transilluminator and imaged with a cell phone camera.

DISCLAIMER

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