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Produktinformation

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- Diagnostik & molekulare Diagnostik
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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Revised: August 20, 2013

Product Information

PAGE GelRed™ Nucleic Acid Gel Stain, 10,000X in water

Catalog Number: 41008-T, 41008-500uL

Unit Size: 100 uL, 500 uL

Concentration: 10,000X in water

Storage and Handling
Store at room temperature, protected from light. Product is stable for at least 12 months from date of receipt when stored as recommended. While PAGE GelRed™ has been shown in laboratory tests to be non-mutagenic and non-hazardous for waste disposal, we recommend using universal safety precautions when working in the laboratory.

Spectral Properties
Excitation/Emission: 308, 551/625 nm (with dsDNA) (Figure 1).

Product Description
PAGE GelRed™ is a non-toxic, non-mutagenic red DNA gel stain specifically designed to stain DNA in polyacrylamide gels (Figure 2). PAGE GelRed™ can be imaged using a 254 nm UV transilluminator with an ethidium bromide filter or with gel readers with visible light excitation. While PAGE GelRed™ also can be used to stain DNA in agarose gels, Biotium's original GelRed™ nucleic acid gel stain (catalog number 41003) is more sensitive for agarose gel applications. PAGE GelRed™ can be removed from DNA after agarose gel staining using commonly available gel extraction kits. PAGE GelRed™ is 6-8 times more sensitive for dsDNA over RNA.

PAGE GelRed™ was subjected to a series of tests at Biotium and two independent laboratories to assess the dye's safety for routine handling and disposal. Laboratory tests show that the dye is impenetrable to latex or nitrile gloves and cell membranes. Unlike the highly mutagenic EtBr and the reportedly mutation-enhancing SYBR® Green I (1), PAGE GelRed™ is non-toxic and non-mutagenic in bacterial AMES tests at concentrations well above the working concentrations used in gel staining. PAGE GelRed™ successfully passed environmental safety tests in compliance with CCR Title 22 Hazardous Waste Characterization, under which it is classified as non-hazardous waste. A complete safety report is available at www.biotium.com.

Figure 1. Absorbance (left) and emission (right) spectra of PAGE GelRed™ bound to dsDNA in water.

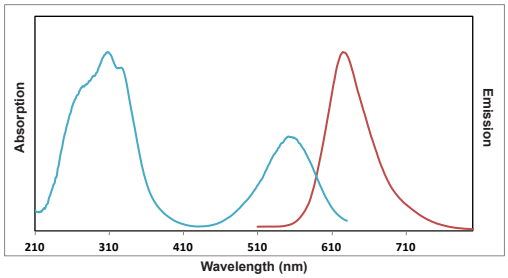
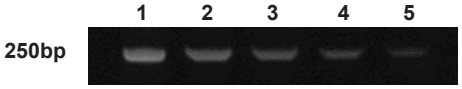


Figure 2. A 10% polyacrylamide gel was post-stained with 1X PAGE GelRed™. The 250bp band of 1kb DNA Ladder (Biotium) is shown. From left to right: 45ng, 18ng, 9ng, 4.5ng, and 2.25ng. Gel was imaged using a 254nm UV transilluminator and ethidium bromide emission filter.



PAGE GelRed™ staining of DNA in polyacrylamide gels

1. Run gels as usual according to your standard protocol.
2. Prepare 1X staining solution by diluting the PAGE GelRed™ 10,000X reagent 10,000-fold in water. For example, add 5 uL of 10,000X PAGE GelRed™ stock solution to 50 mL dH_2O.
3. Carefully place the gel in a suitable polypropylene container. Gently add a sufficient amount of the 1X staining solution to submerge the gel.
4. Agitate the gel gently at room temperature for ~30 minutes, protected from light.
5. Image the stained gel with a 254 nm transilluminator and ethidium bromide emission filter.

PAGE GelRed™ staining of DNA in agarose gels
While PAGE GelRed™ was specifically designed as a safe alternative for staining DNA in polyacrylamide gels, it also can be used to stain DNA in agarose gels using the staining protocol described above. Note that Biotium's original GelRed™ nucleic acid gel stain (catalog number 41003) is more sensitive than PAGE GelRed™ for staining DNA in agarose gels.

PAGE GelRed™ also can be added directly to molten agarose during gel casting (pre-casting). While the precast protocol is more convenient, some DNA samples may show migration retardation or compromised resolution in the presence of PAGE GelRed™. Staining of gels after electrophoresis (post-staining) is recommended for the best results. PAGE GelRed™ cannot be used to pre-stain DNA by adding dye directly to DNA samples before gel loading.

References
1. Ohta et al. (2001) Mutation Research 492, 91.

Related Products

Catalog number	Product
41014	PAGE GelRed™ Nucleic Acid Gel Stain, 1X in water (4 L)
31021	1 kb DNA Ladder (100ng/uL), 300 ug/300 uL
31022	Ready-to-Use 1 kb DNA Ladder, 150 applications (1.5 mL)
31031	100 bp DNA Ladder, 30 ug/300 uL
31032	Ready-to-Use 100 bp DNA Ladder, 150 applications (1.5 mL)
41003	GelRed™ Nucleic Acid Gel Stain, 10,000X in water, 0.5 mL
41001	GelRed™ Nucleic Acid Gel Stain, 3X in water, 4.0 L
41006	TBE Buffer, 5X, 4 L
31000-T	EvaGreen® Dye, 20X in water (trial size), 1 mL
31003-T	Fast EvaGreen® qPCR Master Mix (trial size, 100 rxn), 1 x 1 mL

Please visit our website at www.biotium.com for information on our life science research products, including environmentally friendly EvaGreen® qPCR master mixes, fluorescent CF™dye antibody conjugates and reactive dyes, apoptosis reagents, fluorescent probes, and kits for cell biology research.