Revised: July 22, 2024

Product Information

Oxazole Gold (SYBR® Gold), 10,000X in DMSO

Catalog Number: 40094

Unit Size: 500 uL

Storage and Handling

Store at -20°C or below, protected from light. Product is stable for at least 12 months from date of receipt when stored as recommended.

Oxazole Gold can penetrate live cells and may be toxic or mutagenic. Handle the dye using universal laboratory safety precautions and dispose of dye solutions as hazardous chemical waste according to your local regulations.

Molecular Information: $C_{32}H_{37}I_2N_3O_2$
Molecular Weight: 749
Color and Form: Orange liquid
Absorption/Emission: 496/539 nm with dsDNA

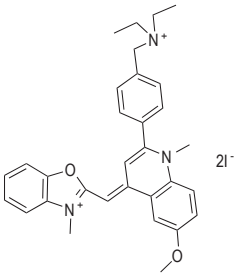

Figure 1. Oxazole Gold (SYBR® Gold)

Product Description

Oxazole Gold (SYBR® Gold) is an extremely sensitive nucleic acid binding dye that is useful for DNA and RNA gel staining, including standard agarose gels as well as denaturing gels. Oxazole Gold can be used for gel electrophoresis of dsDNA, ssDNA, ssRNA, and oligonucleotides. The dye exhibits >1000-fold fluorescence enhancement upon binding to nucleic acids and is 25-100 times more sensitive than ethidium bromide. It has also been used for selective staining of mitochondrial nucleoids in live cells.[1] For even more sensitive and more convenient gel electrophoresis of RNA, we recommend Biotium's EMBER™ Ultra RNA Gel Kit (see Related Products).

References

1. PLoS One 13, 9 (2018)

DNA/RNA Gel Staining Protocol for Oxazole Gold (SYBR® Gold)

Note: Adding Oxazole Gold to molten agarose (precast gel method) is not recommended because it will cause aberrant band migration.

1. Run gels as usual according to your standard protocol.
2. Before use, warm up the vial of Oxazole Gold, 10,000X to room temperature, mix well, and briefly centrifuge to collect the solution at the bottom of the vial.
3. Dilute Oxazole Gold to 1X concentration using working strength electrophoresis buffer or water. For example, add 5 uL of 10,000X Oxazole Gold dye to 50 mL of TAE, TBE, or water and mix completely.

   Note: For optimal sensitivity, verify that the pH of the Oxazole Gold staining solution is between 7.0 and 8.5.
4. Carefully place the gel in a suitable container such as a polypropylene staining tray. Add a sufficient amount of Oxazole Gold staining solution to submerge the gel.
5. Agitate the gel gently at room temperature and protected from light for ~10-40 minutes.
6. Destaining is not required, although the gel can be washed in water to reduce background if necessary.

   Note: Staining solutions prepared using buffer may be stored in a plastic container in the dark and can be reused 3-4 times. Storing in a glass container is not recommended because the dye may adsorb to the glass. For best results, a fresh staining solution is recommended.
7. Image gels using a blue light transilluminator or a UV transilluminator. A SYBR® Green filter is optimal for SYBR® Gold, but staining also can be imaged using an EtBr filter.

Related Products

Cat. No.	Product
41029	GelRed® Agarose LE
41030	GelGreen® Agarose LE
41028	Agarose LE, Ultrapure Molecular Biology Grade
41001	GelRed® Nucleic Acid Gel Stain, 3X in H_2O
41003	GelRed® Nucleic Acid Gel Stain, 10,000X in water
41005	GelGreen® Nucleic Acid Gel Stain, 10,000X in water
41011	GelRed® Prestain Plus 6X DNA Loading Dye
41010	6X GelRed® Prestain Loading Buffer, Orange Tracking Dye
31080	Ready-to-Use 1 KB DNA Ladder
31081	Ready-to-Use 100 bp DNA Ladder
41032	EMBER500™ RNA Prestain Loading Dye
41044	EMBER™ Ultra RNA Gel Kit
E90005	Gel-Bright™ Laser Diode Gel Illuminator
CD506	CELLDATA RNAstorm™ 2.0 FFPE RNA Extraction Kit
CD507	CELLDATA DNAstorm™ 2.0 FFPE DNA Extraction Kit
CD508	CELLDATA DNAstorm™/RNAstorm™ 2.0 Combination Kit
31028	AccuClear® Ultra High Sensitivity dsDNA Quantitation Kit with 7 DNA Standards
31006	AccuBlue® High Sensitivity dsDNA Quantitation Kit
31007	AccuBlue® Broad Range dsDNA Quantitation Kit
31060	AccuBlue® NextGen dsDNA Quantitation Kit
31066	AccuGreen™ High Sensitivity dsDNA Quantitation Kit
31069	AccuGreen™ Broad Range dsDNA Quantitation Kit
31073	AccuBlue® Broad Range RNA Quantitation Kit
31041	Forget-Me-Not™ EvaGreen® qPCR Master Mix, 2-Color Tracking
31043	Forget-Me-Not™ Universal Probe Master Mix
31077	EvaGreen® Plus Dye, 20X in Water
31000	EvaGreen® Dye, 20X in water
29050	Cheetah™ HotStart Taq DNA Polymerase, 500 U
40091	Oxazole Blue (PO-PRO™-1), 1 mM in DMSO
40093	Oxazole Blue Homodimer (POPO™-1), 1 mM in DMSO
40089	Oxazole Yellow (YO-PRO®-1), 1 mM in DMSO
40090	Oxazole Yellow Homodimer (YOYO®-1), 1 mM in DMSO
40077	Thiazole Orange, 10 mM in DMSO
40086	Thiazole Green (SYBR® Green I), 10,000X in DMSO
40088	TO Iodide (TO-PRO®-1), 1 mM in DMSO
40079	Thiazole Orange Homodimer (TOTO®-1), 1 mM in DMSO
40105	Oxazole Red (YO-PRO®-3), 1 mM in DMSO
40106	Oxazole Red Homodimer (YOYO®-3), 1 mM in DMSO
40087	Thiazole Red (TO-PRO®-3), 1 mM in DMSO
40080	Thiazole Red Homodimer (TOTO®-3), 1mM in DMSO

Please visit our website at www.biotium.com for information on our life science research products, including GelRed® and GelGreen® nucleic acid gel stains, environmentally friendly EvaGreen® qPCR master mixes, AccuBlue® and AccuClear® DNA quantitation kits, fluorescent probes, and kits for cell biology research.