



Ethidium Bromide Destaining Tea Bags

| Catalog No. | Quantity |
|-------------|-------------|
| 15007-25 | 25 Tea Bags |

Instruction Manual

Introduction

Ethidium Bromide is an easy to use but potentially hazardous dye for visualizing nucleic acids in agarose gels. It is also a powerful mutagen requiring safe methods of disposal. Purchasing the dye in solution reduces the hazards of use and handling, but safe and efficient disposal remains a problem. Failure to remove ethidium bromide from solutions prior to disposal contaminates municipal wastewater and may violate local water discharge regulations. Previous decontamination methods, such as addition of sodium hypochlorite (bleach) are no longer recommended due to the possible conversion of the dye to other mutagenic compounds.

MO BIO Laboratories now offers an easy and efficient method to remove ethidium bromide (also Coomassie Blue and other dyes) from solutions and gels for safe and easy disposal. Simply drop an absorbent bag into your solution and let it incubate overnight (stirring speeds the process). Typically, each bag will decontaminate 99% of the dye from 1 liter of a 0.5 μ g/ml solution of ethidium bromide overnight. After use, the destaining bag can then be safely disposed of as a biohazard waste and is usually destroyed by incineration through a licensed hazardous waste facility. The remaining solution is now safe to pour down the drain. Note that although each bag has a maximum capacity of 5 mg of ethidium bromide dye absorption, reusing the bag requires that an accurate quantity log be kept to avoid overloading the resin, resulting in incomplete decontamination of the solution.

Precautions: Wear gloves. If eye or skin contact occurs with the contaminated solutions, wash thoroughly with water.

Storage Conditions

Store at room temperature (15-30°C).

This product is for research purposes only. Not for diagnostic use.

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Technical Information: Toll free 1-800-606-6246, or 1-760-929-9911 Email: technical@mobio.com Website: www.mobio.com



Instructions for Use

Please wear gloves at all times

If decontaminating a stained gel, place gel into water or buffer solution. Place the destaining bag into a solution containing the dye or containing an ethidium bromide contaminated gel. Allow the solution with the bag to incubate overnight. Gentle mixing or stirring will increase the absorption efficiency. Remove the destaining bag and dispose of it as a biohazardous waste. Dispose of the solution and the destained gel as non-hazardous waste.

Absorption Data

| Initial Concentration (µg/ml) | Initial A285 | A285 @ 1 hour (% removed) | A285 @ 2 hour (% removed) | A285 @ 4 hour (% removed) | A285 @ overnight (% removed) |
|-------------------------------|--------------|---------------------------|---------------------------|---------------------------|------------------------------|
| 0.05 | 0.0089 | 0.0061(32%) | 0.0025(72%) | NA | 0.0008(92%) |
| 0.5 | 0.0586 | 0.0205(65%) | 0.0142(76%) | NA | 0.0001(99%) |
| 1.0 | 0.1186 | 0.0443(63%) | 0.0291(75%) | 0.0113(89%) | 0.0025(98%) |
| 8.8 | 0.8908 | 0.0692(92%) | 0.0464(95%) | 0.0413(95%) | NA |

Results are calculated based on the use of one destaining bag in 1 liter of solution containing the indicated starting concentration of ethidium bromide. Destaining bag efficiency is independent of salt concentration. (NA=results not available)

Contact Information

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| DNA Purification and Gel Extraction | Catalog No. | Quantity |
|------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------|
| PowerClean® DNA Clean-Up Kit | 12877-50 | 50 preps |
| UltraClean® 15 DNA Purification Kit | 12100-300 | 300 preps |
| UltraClean® PCR Clean-Up Kit | 12500-50 12500-100 12500-250 | 50 preps 100 preps 250 preps |
| UltraClean®-htp 96 Well PCR Clean-Up Kit | 12596-4 12596-12 | 4 x 96 preps 12 x 96 preps |
| UltraClean® GelSpin® DNA Extraction Kit | 12400-50 12400-100 12400-250 | 50 preps 100 preps 250 preps |
| Plasmid DNA Isolation | Catalog No. | Quantity |
| UltraClean® 6 Minute Mini Plasmid Prep Kit | 12300-50 12300-100 12300-250 | 50 preps 100 preps 250 preps |
| UltraClean® Standard Mini Plasmid Prep Kit | 12301-50 12301-100 12301-250 | 50 preps 100 preps 250 preps |
| UltraClean®-htp 96 Well Plasmid Prep Kit | 12396-4 12396-12 | 4 x 96 preps 12 x 96 preps |
| UltraClean® Midi Plasmid Prep Kit | 12700-20 12700-50 | 20 preps 50 preps |
| UltraClean® Maxi Plasmid Prep Kit | 12600-10 12600-20 | 10 preps 20 preps |
| UltraClean® Endotoxin-Free Mini Plasmid Prep Kit | 12311-100 12311-250 | 100 preps 250 preps |
| UltraClean® Endotoxin-Free Midi Plasmid Prep Kit | 12711-10 | 10 preps |
| UltraClean® Endotoxin-Free Maxi Plasmid Prep Kit | 12611-10 | 10 preps |
| UltraClean® Endotoxin Removal Kit | 12615 | 1 kit |
| UltraClean® Endotoxin-Free Ethanol Precipitation Kit | 12616 | 1 kit |
| UltraClean® Endotoxin Removal Reagent | 12625-25 | 25 ml |
| Endotoxin-Free Sodium Chloride | 12626-15 | 15 ml |
| Endotoxin-Free Centrifuge Tubes | 12617-100 12618-50 12619-25 | 100 each/2 ml tubes 50 each/15 ml tubes 25 each/50 ml tubes |
| RNA Isolation | Catalog No. | Quantity |
| PowerBiofilm™ RNA Isolation Kit | 25000-50 | 50 preps |
| LifeGuard™ Soil Stabilization Solution | 12868-10 12868-100 12868-1000 12868-7500 | 10 ml 100 ml 1 L 7.5 L |
| On-Spin Column DNase I Kit (RNase-Free) | 15100-50 | 50 preps |
| Bi Ostic® Stabilized Blood RNA Isolation Kit | 12231-20 12231-50 12231-100 | 20 preps 50 preps 100 preps |
| Bi Ostic® Blood Total RNA Isolation Kit | 12230-20 12230-50 | 20 preps 50 preps |
| RNA PowerSoil® DNA Elution Accessory Kit | 12867-25 | 25 preps |
| RNA PowerSoil® Total RNA Isolation Kit | 12866-25 | 25 preps |
| UltraClean® Microbial RNA Isolation Kit | 15800-50 15800-250 | 50 preps 250 preps |

| RNA Isolation ... Continued | Catalog No. | Quantity |
|------------------------------------------------------------------------------|-----------------------|-------------------------------|
| UltraClean® Tissue & Cells RNA Isolation Kit | 15000-50 15000-250 | 50 preps 250 preps |
| UltraClean® Plant RNA Isolation Kit | 13300-20 13300-50 | 20 preps 50 preps |
| Genomic DNA Isolation | Catalog No. | Quantity |
| PowerBiofilm™ DNA Isolation Kit | 24000-50 | 50 preps |
| PowerFood™ Microbial DNA Isolation Kit | 21000-50 21000-100 | 50 preps 100 preps |
| Bi Ostic® Bacteremia DNA Isolation Kit | 12240-50 | 50 preps |
| Bi Ostic® FFPE Tissue DNA Isolation Kit | 12250-50 | 50 preps |
| Bi Ostic® Paraffin Removal Reagent | 12251-50 | 2 x 25 ml |
| PowerMax® Soil DNA Isolation Kit | 12988-10 | 10 preps |
| PowerSoil® DNA Isolation Kit | 12888-50 12888-100 | 50 preps 100 preps |
| PowerSoil®-htp 96 Well Soil DNA Isolation Kit | 12955-4 12955-12 | 4 x 96 preps 12 x 96 preps |
| UltraClean® Soil DNA Isolation Kit | 12800-50 12800-100 | 50 preps 100 preps |
| UltraClean®-htp 96 Well Soil DNA Isolation Kit | 12896-4 12896-12 | 4 x 96 preps 12 x 96 preps |
| UltraClean® Mega Soil DNA Isolation Kit | 12900-10 | 10 preps |
| PowerClean® DNA Clean-Up Kit | 12877-50 | 50 preps |
| UltraClean® Fecal DNA Isolation Kit | 12811-50 12811-100 | 50 preps 100 preps |
| PowerMicrobial® Midi DNA Isolation Kit | 12225-25 | 25 preps |
| PowerMicrobial® Maxi DNA Isolation Kit | 12226-25 | 25 preps |
| UltraClean® Microbial DNA Isolation Kit | 12224-50 12224-250 | 50 preps 250 preps |
| UltraClean®-htp 96 Well Microbial DNA Isolation Kit | 10196-4 10196-12 | 4 x 96 preps 12 x 96 preps |
| PowerPlant® DNA Isolation Kit | 13200-50 13200-100 | 50 preps 100 preps |
| UltraClean® Plant DNA Isolation Kit | 13000-50 13000-250 | 50 preps 250 preps |
| UltraClean®-htp 96 Well Plant DNA Isolation Kit | 13096-4 13096-12 | 4 x 96 preps 12 x 96 preps |
| UltraClean® Tissue & Cells DNA Isolation Kit | 12334-50 12334-250 | 50 preps 250 preps |
| UltraClean®-htp 96 Well Tissue DNA Isolation Kit | 12996-4 12996-12 | 4 x 96 preps 12 x 96 preps |
| UltraClean® Blood DNA Isolation Kit (Non-Spin) | 12000-100 | 100 preps |
| UltraClean® Blood DNA Isolation Kit (Processes 1,000 ml of Blood) | 12000-1000 | 1 kit |
| UltraClean® Blood DNA Isolation Kit Plus RNase (Processes 1,000 ml of Blood) | 12002-1000 | 1 kit |

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| Genomic DNA Isolation ...Continued | Catalog No. | Quantity |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| UltraClean® BloodSpin® DNA Isolation Kit | 12200-50 12200-250 | 50 preps 250 preps |
| UltraClean®-htp 96 Well BloodSpin® DNA Isolation Kit | 12296-4 12296-12 | 4 x 96 preps 12 x 96 preps |
| UltraClean® Forensic DNA Isolation Kit | 14000-10 14000-20 | 10 isolations 20 isolations |
| PowerWater® DNA Isolation Kit | 14900-50-NF 14900-50-22 14900-50-45 14900-100-NF 14900-100-22 14900-100-45 | 50 preps (No filters) (0.22 µm) (0.45 µm) 100 preps (No filters) (0.22 µm) (0.45 µm) |
| RapidWater™ DNA Isolation Kit | 14810-50-NF 14810-50-22 14810-50-45 14810-100-NF 14810-100-22 14810-100-45 | 50 preps (No filters) (0.22 µm) (0.45 µm) 100 preps (No filters) (0.22 µm) (0.45 µm) |
| UltraClean® Water DNA Isolation Kit (0.45µm filters) | 14800-10 14800-25 | 10 preps 25 preps |
| UltraClean® Water DNA Isolation Kit (0.22 µm filters) | 14880-10 14880-25 | 10 preps 25 preps |
| UltraClean® Water DNA Isolation Kit (No filters) | 14800-10-NF 14800-25-NF | 10 preps 25 preps |
| Microbiological Culture Media | Catalog No. | Quantity |
| TB DRY® Powder Growth Media | 12105-05 12105-1 12105-5 | 500 g 1 kg 5 kg |
| LB Broth Powder Growth Media, pH 7 | 12106-05 12106-1 12106-5 | 500 g 1 kg 5 kg |
| LB Agar Powder Growth Media, pH 7 | 12107-05 12107-1 12107-5 | 500 g 1 kg 5 kg |
| LB Broth (Lennox) Powder Growth Media, pH 7 | 12108-05 12108-1 12108-5 | 500 g 1 kg 5 kg |
| LB Agar (Lennox) Powder Growth Media, pH 7 | 12109-05 12109-1 12109-5 | 500 g 1 kg 5 kg |
| Soybean-Casein Digest Medium (TSB), USP | 12114-05 12114-1 12114-5 | 500 g 1 kg 5 kg |
| Soybean-Casein Digest Agar Medium (TSA), USP | 12115-05 12115-1 12115-5 | 500 g 1 kg 5 kg |
| Yeast Extract | 12110-05 12110-1 12110-5 | 500 g 1 kg 5 kg |
| Tryptone | 12111-05 12111-1 12111-5 | 500 g 1 kg 5 kg |
| Agar, Bacteriological Grade | 12112-05 12112-1 12112-5 | 500 g 1 kg 5 kg |

| Other Reagents and Lab Accessories | Catalog No. | Quantity |
|---------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|
| 20 bp DNA Ladder | 17020-40 | 40 µg |
| 100 bp DNA Ladder | 17100-40 | 40 µg |
| 1 kb DNA Ladder | 17200-100 | 100 µg |
| UltraClean® Agarose, Molecular Biology Grade | 15003-50 15003-100 15003-500 15003-1000 | 50 g 100 g 500 g 1 kg |
| UltraClean® MS-8 Agarose | 15515-50 15515-100 15515-500 | 50 g 100 g 500 g |
| UltraClean® Forensic Agarose | 15505-50 15505-100 15505-500 | 50 g 100 g 500 g |
| UltraClean® Low Melt Agarose | 15005-50 15005-100 15005-500 | 50 g 100 g 500 g |
| UltraClean® Low Melt Sieve Agarose | 15004-50 15004-100 15004-500 | 50 g 100 g 500 g |
| Ethidium Bromide Solution | 15006-1 15006-10 | 1 ml 10 ml |
| Ethidium Bromide Destaining Tea Bags | 15007-25 | 25 bags |
| Bromophenol Blue Gel Loading Buffer | 15008-1 15008-5 | 1 ml 5 x 1 ml |
| Bromophenol Blue/Xylene Cyanol Gel Loading Buffer | 15009-1 15009-5 | 1 ml 5 x 1 ml |
| TAE Buffer, 50X (Tris-acetate-EDTA) | 15001-100 15001-500 15001-1000 | 100 ml 500 ml 1 liter |
| TBE Buffer, 10X (Tris-borate-EDTA) | 15002-100 15002-500 15002-1000 | 100 ml 500 ml 1 liter |
| RNase-Free Gloves | 1555-XS 1555-S 1555-M 1555-L | bag of 100 bag of 100 bag of 100 bag of 100 |
| UltraClean® Lab Cleaner | 12095-250 12095-500 12095-1000 | 250 ml squeeze bottle 500 ml spray bottle 1 liter bottle |
| KAPA PROBE FAST qPCR Kits | 51220-100 51220-500 51220-1000 | 100 reactions 500 reactions 1000 reactions |
| KAPA SYBR® FAST Universal 2X qPCR Master Mix | 51230-100 51230-500 51230-1000 | 100 reactions 500 reactions 1000 reactions |
| KAPA2G Robust HotStart ReadyMix | 51240-100 51240-500 | 100 reactions 500 reactions |



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| Other Reagents and Lab Accessories... Continued | Catalog No. | Quantity |
|------------------------------------------------------------|------------------------------------------------|-------------------------------------------------|
| KAPA HiFi HotStart ReadyMix | 51250-100 51250-500 | 100 reactions 500 reactions |
| KAPA2G FAST HotStart DNA Polymerase with dNTPs | 51260-100 51260-250 51260-500 | 100 reactions 250 reactions 500 reactions |
| KAPA2G FAST HotStart ReadyMix | 51270-100 51270-500 | 100 reactions 500 reactions |
| KAPA Long Range HotStart DNA Polymerase with dNTPs | 51280-100 51280-250 51280-500 | 100 reactions 250 reactions 500 reactions |
| KAPA Taq Polymerase ReadyMix | 51290-250 | 250 reactions |
| OmniTaq™ DNA Polymerase Enzyme | 1224-250 | 250 reactions (10 U/μl) |
| OmniTaq™ DNA Polymerase 2x Master Mix | 1226-250 | 250 reactions (5 x 1.25 ml/tube) |
| Omni KlenTaq™ DNA Polymerase Enzyme | 1225-250 | 250 reactions (25 U/μl) |
| Omni KlenTaq™ DNA Polymerase 2x Master Mix | 1227-250 | 250 reactions (5 x 1.25 ml/tube) |
| DNase (RNase-Free) | 15600-5 15601-100 | 5 mg 2500 units |
| Proteinase K | 1223-100 1222-2 | 100 mg 2 ml (20 mg/ml) |
| Ribonuclease A (25 mg/ml) | 1202-1 1202-5 | 1 ml 5 ml |
| PCR Water | 17000-1 17000-5 17000-10 17000-11 | 1 ml 5 x 1 ml 10 x 1 ml 10 ml bottle |
| Molecular Biology Grade Water | 17012-200 17012-5200 | 200 ml 5 x 200 ml |
| DEPC Treated Water | 17011-200 17011-5200 | 200 ml 5 x 200 ml |
| Endotoxin-Free Water | 17013-10 17013-50 17013-100 17013-500 | 10 ml 50 ml 100 ml 500 ml |
| Instrumentation and Accessories | Catalog No. | Quantity |
| PowerLyzer™ 24 Bench Top Bead-Based Homogenizer (110/220V) | 13155 | 1 unit |
| PowerLyzer™ Tube Holder | 13156 | 1 unit |
| PowerLyzer™ Tube Holder Stand | 13157 | 1 unit |
| PowerVac™ Mini System | 11992 | 1 unit + 20 adapters |
| PowerVac™ Manifold | 11991 | 1 unit |
| PowerVac™ Mini Spin Filter Adapters | 11992-10 11992-20 | 10 adapters 20 adapters |
| Ceramic Bead Tubes, 1.4 mm | 13113-50 | 50 bead tubes |
| Ceramic Bead Tubes, 2.8 mm | 13114-50 | 50 bead tubes |

| Instrumentation and Accessories... Continued | Catalog No. | Quantity |
|----------------------------------------------|------------------------------------------------|-------------------------------------------------------------------|
| Glass Bead Tubes, 0.5 mm | 13116-50 | 50 bead tubes |
| Glass Bead Tubes, 0.1 mm | 13118-50 | 50 bead tubes |
| Metal Bead Tubes, 2.38 mm | 13117-50 | 50 bead tubes |
| 2.0 ml Tough Tubes with Cap | 13119-500 13119-1000 | 500 1000 |
| Carbide Bead Tubes, 0.25 mm | 13121-50 | 50 x 0.5 ml tubes |
| Garnet Bead Tubes, 0.15 mm | 13122-50 | 50 x 0.5 ml tubes |
| Garnet Bead Tubes, 0.70 mm | 13123-50 | 50 x 2 ml tubes |
| Garnet + ¼ Ceramic 15 ml Bead Tubes, 0.70 mm | 13134-50 | 50 tubes |
| Garnet + ¼ Ceramic 50 ml Bead Tubes, 0.70 mm | 13144-10 13144-50 13144-100 13144-500 | 10 tubes 50 tubes 100 tubes 500 tubes |
| Glass 15 ml Bead Tubes, 0.1 mm | 13135-50 | 50 tubes |
| Glass 50 ml Bead Tubes, 0.1 mm | 13145-10 13145-50 13145-100 13145-500 | 10 tubes 50 tubes 100 tubes 500 tubes |
| Glass 15 ml Bead Tubes, 1.0 mm | 13136-50 | 50 tubes |
| Ceramic 15 ml Bead Tubes, 1.4 mm | 13137-50 | 50 tubes |
| Ceramic 50 ml Bead Tubes, 1.4 mm | 13147-10 13147-50 | 10 tubes 50 tubes |
| Metal 50 ml Bead Tubes, 2.38 mm | 13149-10 13149-50 | 10 tubes 50 tubes |
| PowerMix 15 ml Bead Tubes | 13138-50 | 50 tubes |
| PowerMix 50 ml Bead Tubes | 13148-10 13148-50 | 10 tubes 50 tubes |
| 2 ml Collection Tubes | 1200-100-T 1200-150-T 1200-250-T | 100 tubes 150 tubes 250 tubes |
| 2 ml Screw Cap Tubes | 12800-200-E | 200 tubes & caps |
| 15 ml Collection Tubes | 12700-T | 25 tubes |
| 50 ml Centrifuge Tubes | 12600-T | 25 tubes |
| Spin Filters (in 1.9 ml tubes) | 1200-50-SF 1200-100-SF 1200-250-SF | 50 filters 100 filters 250 filters |
| Endotoxin-Free Centrifuge Tubes | 12617-100 12618-50 12619-25 | 100 each/2 ml tubes 50 each/15 ml tubes 25 each/50 ml tubes |
| 15 ml Midi Spin Filters | 12700-SF | 25 spin filters |

