



Buffers & Chemicals

Buffers & Gel Stain
Chemicals





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Buffers & Gel Stain ●●●

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<i>SilverStar</i> [™] Staining Kit	6

Overview

Bioneer provides over 40 types of buffer and chemical essential for life science research. All Bioneer buffers and chemicals are produced under a strict quality control system and are provided to customers after passing the most stringent quality tests.

Cat. no.	Product	Size	Description
C-9001	40% Acrylamide	500 ml	<i>For acrylamide gel electrophoresis</i> Acrylamide Bis-acrylamide Filtered with 0.2 µm pore size Store at 4 °C
C-9002	5X TBE	1 Gal	<i>For agarose & acrylamide gel electrophoresis</i> Trizma base Boric acid 0.5 M EDTA (pH 8.0) Store at room temperature
C-9003	20X SSC	500 ml	<i>For hybridization</i> Sodium chloride Sodium citrate Adjust the pH to 7.0 with HCl Autoclaved Store at room temperature
C-9004	50X TAE	500 ml	<i>For agarose gel electrophoresis</i> Trizma base Acetic acid 0.5 M EDTA (pH 8.0) Autoclaved Store at room temperature
C-9005	TE (pH 8.0)	500 ml	10 mM Tris-HCl (pH 8.0) 1 mM EDTA Autoclaved Store at room temperature
C-9006	1 M Tris-HCl (pH 8.0)	500 ml	Trizma base Adjust the pH to 8.0 with HCl Autoclaved Store at room temperature
C-9006-1	1 M Tris-HCl (pH 7.6)	500 ml	Trizma base Adjust the pH to 7.6 with HCl Autoclaved Store at room temperature
C-9006-2	1 M Tris-HCl (pH 7.4)	500 ml	Trizma base Adjust the pH to 7.4 with HCl Autoclaved Store at room temperature
C-9007	0.5 M EDTA (pH 8.0)	500 ml	EDTA Adjust the pH to 8.0 with NaOH Autoclaved Store at room temperature
C-9008	3 M Sodium Acetate (pH 5.2)	500 ml	Sodium acetate Adjust the pH to 5.2 with acetic acid Autoclaved Store at room temperature

Cat. no.	Product	Size	Description
C-9009	EtBr (10 mg/ml)	25 ml	Ethidium bromide Distilled water Store at 4°C
C-9011	Deionized sterile DW	1 Gal	DI Water Filtered with 0.2 µm pore size Autoclaved Store at room temperature
C-9011-1	Deionized sterile DW	500 ml	DI Water Filtered with 0.2 µm pore size Autoclaved Store at room temperature
C-9012	Formamide	500 ml	Assay 98.5% Hygroscopic CH ₃ NO/FW : 45.04 Store at 4°C
C-9015	Equilibrated Phenol B	500 ml	Suitable for use in DNA purification Saturated with 0.1 M Tris-HCl (pH 8.0) Phenol phase is pH 8.0±0.2 C ₆ H ₆ O/FW : 94.1 Store at 4°C
C-9017	Phenol : Chloroform : Isoamylalcohol	500 ml	500 ml Suitable for use in DNA purification Saturated with 0.1 M Tris-HCl (pH 8.0) phenol phase is pH 8.0±0.2 Phenol:Chloroform:Isoamylalcohol (25:24:1) Store at 4°C
C-9022	1 M MgCl ₂ (Magnesium Chloride)	500 ml	MgCl ₂ ·6H ₂ O Autoclaved Dispense into aliquots Store at 4°C
C-9024	Phosphate-buffered Saline (PBS)	500 ml	Sodium chloride Potassium chloride Na ₂ HPO ₄ KH ₂ PO ₄ Adjust the pH to 7.4 with HCl Autoclaved Store at room temperature
C-9025	5M NaCl (Sodium chloride)	500 ml	Sodium chloride Autoclaved Store at room temperature
C-9026	1M KCl (Potassium chloride)	500 ml	Potassium chloride Autoclaved Store at room temperature
C-9027	10% Sodium dodecyl sulfate (SDS, Sodium lauryl sulfate)	500 ml	SDS Heat to 68°C to assist dissolution Adjust the pH to 7.0 with HCl Store at room temperature

Cat. no.	Product	Size	Description
C-9029	6X Agarose Gel Loading Buffer	2 ml	<i>For DNA electrophoresis</i> 40 % Sucrose 0.05 % Bromophenol blue 0.05 % Xylene cyanol FF Store at -20°C
C-9030	DEPC-DW	500 ml	<i>For RNA</i> Water DEPC (Diethyl pyrocarbonate) Stirred for overnight Autoclaved Store at room temperature
C-9031	10X MOPs Buffer	500 ml	<i>For denaturing agarose gel electrophoresis (for RNA)</i> 200 mM MOPs 50 mM Sodium acetate (pH 7.0), 10 mM EDTA Autoclaved Store at room temperature
C-9032	RNA Loading Buffer (without EtBr)	2 ml	<i>For RNA electrophoresis</i> Deionized formamide Formaldehyde 10X MOPs buffer 500 mM EDTA (pH 7.4) 0.025% Xylene cyanol FF 0.025% Bromophenol blue Store at -20°C
C-9034	10N NaOH (Sodium hydroxide)	500 ml	Sodium hydroxide Store at room temperature

■ Description



This kit is designed to increase DNA detection sensitivity over 20-fold by using US and Korean patented enhancing solution, compared to conventional silver staining system. *SilverStar*® Staining Kit enables detection of tiny amount of DNA (1 pg DNA/mm² band cross-selection) due to enhancing solution, and is applied to various analyses such as DDRT, SSCP, VNTR, and RAPD, as well as DNA sequencing gel.

With Bioneer *SilverStar*® Staining Kit you can get rapid analysis of your DNA. It takes only one and half hour to obtain the result with DNA silver staining, including three steps including fixing, staining, and developing of a gel, while it takes more than one day when radioisotope is used. In addition, you perform experiment safely since radioisotope is not required. It is also convenient to use since each reagent in the kit is packed separately and disposable.

■ Procedures

1. Glass Coat Treatment : for long glass (separaion)	15 min
2. Glass Bind Treatment : for short glass (binding)	15 min
3. Gel making & Pre-running/Running	2-4 hr
4. Fixing : by 10 % acetic acid	30 min
5. Enhancing : by Enhancing solution	30 min
6. Staining : by Silver Nitrate	30 min
7. Developing : by Sodium Carbonate	5-10 min
8. Stopping& Washing : 10 % acetic acid	5 min
9. Drying : on	

■ Ordering Information

Cat. no.	Product Description
K-1050	<i>SilverStar</i> ™ Staining Kit, 20 Gels

■ Storage:

Store at room temperature

Triple distilled water must be used for silver staining.

■ Experimental Data

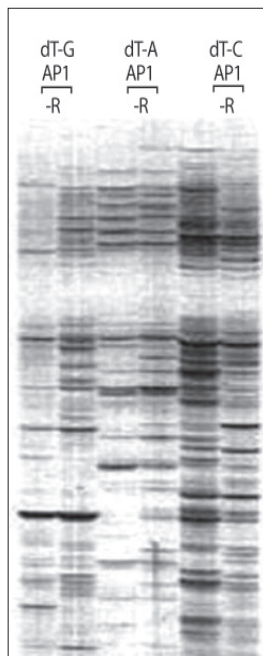


Figure. 1. Pattern of differentially displayed mRNA using RT/PCR PreMix.

A total RNA was purified from endothelial cell(-) and Ras induced endothelial cell(R). dT-(G/A/C) indicates oligo dT11-(G/A/C) primer and AP1 indicates arbitrary primer 1.



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Chemicals ●●●

Chemicals 8

IPTG (Isopropyl- β -D-thiogalactopyranoside)

IPTG is an inducer of β -galactosidase activity in many bacteria. It binds and inhibits lac repressor which prevents transcription of lac operon. IPTG-repressor complex does not bind to lac gene. IPTG is soluble in water.

Cat. no.	Product	Size	Description
C-8001	IPTG, 99% (Isopropyl- β -D-thiogalactopyranoside)	1 g	Formula : C ₉ H ₁₈ O ₅ S M.W. : 238.3 Form : Dry powder Store at 4°C
C-8001-1	IPTG, 99% (Isopropyl- β -D-thiogalactopyranoside)	5 g	Same as above
C-8001-2	IPTG, 99% (Isopropyl- β -D-thiogalactopyranoside)	25 g	Same as above

X-Gal (5-Bromo-4-chloro-3-indolyl- β -D-galactopyranoside)

X-Gal is a histochemical substrate for β -galactosidase activity which is expressed in lac gene. It is hydrolyzed in the presence of this enzyme. Colonies grown on agar medium containing X-Gal produce blue color. X-Gal is soluble in Dimethyl formamide (DMF).

Cat. no.	Product	Size	Description
C-8002	X-Gal (5-Bromo-4-chloro-3-indolyl- β -D-galactopyranoside)	100 mg	Formula : C ₁₄ H ₁₅ BrClNO ₆ M.W. : 408.6 Concentration: 50 mg/ml in dimethylformamide, Store at -20°C
C-8002-1	X-Gal (5-Bromo-4-chloro-3-indolyl- β -D-galactopyranoside)	500 mg	Same as above

Agarose

Cat. no.	Product	Size	Description
C-9100	Agarose	100 g	Form : White powder Sulphate 0.15% max. Gel strength (1%) > 1,200 g/cm ² Melting temp. (1.5%) 88 °C \pm 1.5°C Gel temp. (1.5%) 36 °C \pm 1.5°C Store at room temperature
C-9100-1	Agarose	500 g	Same as above