



## Certificate of Analysis & Product Manual

Electrophoresis Reagents, Polymerase Chain Reaction  
Custom Primers and Probes  
Hybridization and Detection Reagents

### DNA & RNA Reconstitution Solutions

Molecular Biology Grade

Store at Room Temperature

For Research Use Only. Not for use in diagnostic procedures for clinical purposes



## Material Supplied

Store at Room Temperature.

RNA Reconstitution Solution (1 mM Sodium Citrate pH 6.4); DEPC Treated water and Nuclease Free water of 10 X 1.6 mL package size can be stored at -20°C

DNA & RNA Reconstitution Solutions			
Content	Catalog No.	Description	Unit Size
<input type="checkbox"/>	40-5014-16	RNA Reconstitution Solution (1 mM Sodium Citrate pH 6.4); 10 X 1.6 mL	10 X 1.6 mL
<input type="checkbox"/>	40-5014-05	RNA Reconstitution Solution (1 mM Sodium Citrate pH 6.4); 50 mL	50 mL
<input type="checkbox"/>	40-3000-16	DEPC Treated Water; 10 X 1.6 mL	10 X 1.6 mL
<input type="checkbox"/>	40-3000-05	DEPC Treated Water; 50 mL	50 mL
<input type="checkbox"/>	40-3000-50	DEPC Treated Water; 500 mL	500 mL
<input type="checkbox"/>	40-3000-01	DEPC Treated Water; 1L	1 L
<input type="checkbox"/>	40-3001-16	Nuclease Free Water (DEPC Free); 10 X 1.6 mL	10 X 1.6 mL
<input type="checkbox"/>	40-3001-05	Nuclease Free Water (DEPC Free); 50 mL	50 mL
<input type="checkbox"/>	40-3001-50	Nuclease Free Water (DEPC Free); 500 mL	500 mL
<input type="checkbox"/>	40-3001-01	Nuclease Free Water (DEPC Free); 1L	1 L
<input type="checkbox"/>	40-5011-05	TE Buffer 1X solution pH 7.0; 50 mL	50 mL
<input type="checkbox"/>	40-5012-05	TE Buffer 1X solution pH 7.5; 50 mL	50 mL
<input type="checkbox"/>	40-5013-05	TE Buffer 1X solution pH 8.0; 50 mL	50 mL

## Certificate of Analysis & Product Specifications

Gene Link DEPC treated water and Nuclease Free water (DEPC free) are certified to be free of nucleases and nucleic acids. DEPC treated water has a residual distinct smell and is recommended specifically for RNA applications.

Nuclease Free water (DEPC free) has not been treated with DEPC and is certified for all molecular biology applications requiring nuclease and nucleic acid free water. The smaller 1.6 mL product size is specifically recommended for RT-PCR (QPCR) applications.

RNA Reconstitution Solution (1 mM Sodium Citrate) and TE buffers of various pH are prepared in autoclaved water and autoclaved again after preparations.

Quality Control includes RT-PCR, standard PCR and RNA gels without any degradation certifies the product to be free of non-specific endonuclease, exonuclease and RNase activity.

All products pass the above specifications and are certified to be nuclease free. Appropriate nuclease free handling, dispensing and storage conditions required.

**Manufacturing lot numbers are stated on the label of each product and accompanying packing slip.**

## Product Description & Application

### **RNA Reconstitution Solution (1 mM Sodium Citrate pH 6.4): Catalog No.: 40-5014-XX**

#### **RNA and RNA Oligonucleotide Reconstitution and Storage Solution**

Sodium citrate, 1 mM pH 6.4 is prepared in RNase free water and sealed in bottles after autoclaving. It is guaranteed RNase free and is the recommended solution for reconstitution and storage of RNA and RNA oligonucleotides. The low pH of 6.4 and low ionic strength of 1 mM Sodium citrate reduces base hydrolysis considerably and is an efficient chelating agent. Sodium citrate, 1 mM pH 6.4 as a reconstitution and storage solution is compatible with all RNA based applications.

RNA Reconstitution Solution (1 mM Sodium Citrate pH 6.4) is also available in convenient 10 tubes 1.6 mL aliquot packaging (Catalog No.: 40-5014-16) to meet the rigorous requirements of single use applications.

### **DEPC Treated Water: Catalog No.: 40-3000-XX**

#### **Nuclease Free Water (DEPC Free) : Catalog No.: 40-3001-XX**

The DNA & RNA reconstitution solutions are a must for all molecular biology laboratories and specifically for laboratories that are performing RNA based applications. All the DNA & RNA reconstitution solutions are prepared using nuclease free autoclaved water and undergo strict quality control measures. These solutions are molecular biology grade and not recommended for tissue culture applications.

DEPC treated water (Catalog No.: 40-3000-XX) is autoclaved after DEPC treatment and is specifically useful for preparation and dilution of laboratory reagents that are destined to be used for RNA based applications. For all other molecular biology water requirements we recommend Nuclease Free Water (DEPC Free) (Catalog No.: 40-3001-XX)

DEPC Treated water and Nuclease Free water are also available in convenient 10 tubes 1.6 mL aliquot packaging to meet the rigorous requirements of single use applications and specifically recommended for RT-PCR (QPCR) applications.

### **TE Buffer 1X solution pH 7.0, 7.5 and pH 8.0: Catalog No.: 40-5011-05; 40-5012-05 and 40-5013-05**

#### **DNA and DNA Oligonucleotide Reconstitution and Storage Solution**

TE pH 7.0 (10 mM Tris pH 7.0, 1 mM EDTA) buffer is the recommended buffer for all DNA and DNA oligonucleotide reconstitution while TE pH 7.0 is used widely for RNA reconstitution and storage; we recommend RNA reconstitution solution (1mM Sodium citrate; Catalog No.: 40-5014-05) specifically for RNA reconstitution and storage.

TE pH 7.5 and TE pH 8.0 buffers are convenient reconstitution reagents that can be used for specific applications requiring pH of 7.5 and 8.0.

## Ordering Information

## DNA &amp; RNA Reconstitution Solutions

Product	Catalog No.	Unit Size
<b>DNA &amp; RNA Reconstitution Solutions Pack</b> (contains 50 mL each of DEPC Treated Water [40-3000-05], Nuclease Free Water (DEPC Free) [40-3001-05], TE pH 7.0 [40-5011-05] and RNA Reconstitution Solution[40-5014-05])	40-3000-00	1 Pack
RNA Reconstitution Solution (1 mM Sodium Citrate pH 6.4) 10 X 1.6 mL	40-5014-16	10 X 1.6 mL
RNA Reconstitution Solution (1 mM Sodium Citrate pH 6.4); 50 mL	40-5014-05	50 mL
TE Buffer 1X solution pH 7.0; 50 mL	40-5011-05	50 mL
TE Buffer 1X solution pH 7.5; 50 mL	40-5012-05	50 mL
TE Buffer 1X solution pH 8.0; 50 mL	40-5013-05	50 mL
Nuclease Free Water (DEPC Free) 10 X 1.6 mL	40-3001-16	10 X 1.6 mL
Nuclease Free Water (DEPC Free) 50 mL	40-3001-05	50 mL
Nuclease Free Water (DEPC Free) 500 mL	40-3001-50	500 mL
Nuclease Free Water (DEPC Free); 1L	40-3001-01	1 L
DEPC Treated Water; 10 X 1.6 mL	40-3000-16	10 X 1.6 mL
DEPC Treated Water; 50 mL	40-3000-05	50 mL
DEPC Treated Water; 500 mL	40-3000-50	500 mL
DEPC Treated Water; 1L	40-3000-01	1 L

## Related Products Ordering Information

## DNA &amp; RNA Precipitation Solutions

Product	Catalog No.	Unit Size
<b>DNA &amp; RNA Precipitation Solutions Pack</b> (contains the following; Glycogen Solution 10 mg/mL; 1 mL [40-5112-01]; Linear Acrylamide Solution 5mg/mL; 1 mL [40-5113-01] LiCl RNA Precipitation Solution [40-5131-05]; Sodium Acetate DNA & RNA Precipitation Solution [40-5132-05]; Sodium Chloride DNA & RNA Precipitation [40-5134-05] and Ammonium Acetate 7.5M DNA & RNA Precipitation Solution [40-5135-05])	40-5130-00	1 Pack
Glycogen Solution 10 mg/mL; 1 mL	40-5112-01	1 mL
Linear Acrylamide Solution (Linear polyacrylamide, LPA; 5mg/mL); 1 mL	40-5113-01	1 mL
LiCl RNA Precipitation Solution (7.5M LiCl, 50 mM EDTA pH 8.0); 50 mL	40-5131-05	50 mL
Sodium Acetate DNA & RNA Precipitation Solution (3M Sodium Acetate pH 5.5); 50 mL	40-5132-05	50 mL
Potassium Acetate DNA & RNA Precipitation Solution ( 3M Potassium Acetate pH 5.5); 50 mL	40-5133-05	50 mL
Sodium Chloride DNA & RNA Precipitation (5M Sodium Chloride); 50 mL	40-5134-05	50 mL
Ammonium Acetate DNA & RNA Precipitation Solution (7.5M Ammonium Acetate); 50 mL	40-5135-05	50 mL
Ammonium Acetate DNA & RNA Precipitation Solution (5M Ammonium Acetate); 50 mL	40-5136-05	50 mL

**Related Products Ordering Information****PCR Additives & Reagents**

Product	Catalog No.	Unit Size
Taq DNA Polymerase 300 units; 5 $\mu$ /L; 60 $\mu$ L	40-5200-30	300 units
PCR Buffer Standard (10 X); 1.6 mL	40-3060-16	1.6 mL
PCR Buffer Mg Free (10 X); 1.6 mL	40-3061-16	1.6 mL
Taq Polymerase Dilution Buffer; 1 mL	40-3070-10	1 mL
dNTP 2mM (10X); 1.1 mL	40-3021-11	1.1 mL
MgCl <sub>2</sub> ; 25 mM; 1.6 mL	40-3022-16	1.6 mL
Omni-Marker™ Universal Unlabeled; 1 mL	40-3005-10	1 mL
Primer and Template Mix; 500 bp; 40 reactions	40-2026-60PT	100 $\mu$ L
Nuclease Free Water, 10 X 1.6 mL	40-3001-16	10 X 1.6 mL
DMSO, 1 mL	40-3031-10	1 mL
TMAC (Tetramethyl ammonium chloride) 100 mM; 1 mL	40-3053-10	1 mL
KCl 300 mM; 1 mL	40-3059-10	1 mL
Betaine 5M; 1 mL	40-3032-10	1 mL

**Omni-Marker™ ; Molecular Weight Size Standards for Gel Electrophoresis**

Product	Catalog No.	Unit Size
Omni-Marker™ DNA 1 kb mw Universal unlabeled; 500 $\mu$ L	40-3005-05	500 $\mu$ L
Omni-Marker™ DNA 1 kb mw Universal unlabeled; 1 mL	40-3005-10	1 mL
Omni-Marker™ DNA 100 bp mw Low unlabeled; 500 $\mu$ L	40-3006-05	500 $\mu$ L
Omni-Marker™ DNA 100 bp mw Low unlabeled; 1 mL	40-3006-10	1 mL

**Loading Buffers; DNA non-denaturing and denaturing buffers**

Product	Catalog No.	Unit Size
Loading Buffer 5X BPB/XC non-denaturing; 1 mL	40-3002-10	1 mL
Loading Buffer 5X BPB/XC non-denaturing; 15 mL	40-3002-15	15 mL
Loading Buffer 5X Orange G/XC non-denaturing; 1 mL	40-3004-10	1 mL
Loading Buffer 5X Orange G/XC non-denaturing; 15 mL	40-3004-15	15 mL
Loading Buffer 2X BPB/XC Denaturing for Sequencing; 1 mL	40-5027-10	1 mL
Loading Buffer 2X BPB/XC Denaturing for Sequencing; 15 mL	40-5027-15	15 mL

## Electrophoresis Buffers & Hybridization Reagents

Product	Catalog No.	Unit Size
Agarose LE Molecular Biology Grade; 100 g	40-3010-10	100 g
Agarose LE Molecular Biology Grade; 500 g	40-3010-50	500 g
Hybwash A, Hybridization Wash Solution; 200 mL	40-5020-20	200 mL
Hybwash B, Hybridization Wash Solution; 200 mL	40-5021-10	100 mL
TAE Buffer; 50X Concentrate; 100 mL	40-3007-01	100 mL
TAE Buffer; 50X Concentrate; 1 L	40-3007-10	1 L
TBE Buffer; 5X Concentrate; 1 L	40-3008-10	1 L
10x Washing buffer; 200 mL	40-5025-20	200 mL
10% Blocking solution; 100 mL	40-5026-10	100 mL
10x AP Detection buffer; 100 mL	40-5031-10	100 mL
Lumisol™ I Hybridization Solution; contains formamide; 200 mL	40-5022-20	200 mL
Lumisol™ II Hybridization Solution; for non-toxic hybridizations; 200 mL	40-5023-20	200 mL
Lumisol™ III Hybridization Solution; for oligo probes; 200 mL	40-5024-20	200 mL

## Warranty and Liability

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