# Fisher BioReagents®

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# **Fisher BioReagents**®

### End-to-end solutions for molecular biology, protein chemistry and cell biology

Agar Agarose Amino Acids Antibiotics: Bacterial Selection Antibiotics: Cell Culture **Biological Buffers** Cell Regulation Compounds DNA Electrophoresis Buffers DNA Electrophoresis Products DNA Ladders DNA Modifying Enzymes **DNA Precipitation Products** dNTPs Microbial Media Northern Blot Products Nucleic Acid Purification Nucleic Acid Sequencing Peptide Sequencing Products Peptide Synthesis Products PCR Enzymes Protein Electrophoresis Buffers Protein Purification Protein Stains **Restriction Enzymes** Reverse Transcriptases **RNA** Purification Kits **RNA** Purification Southern Blot Sugar Additives **Tissue Stains** Vitamins Water Western Blot



## Vital reagents for life science research

- Ultra-high purity
- Pregualified for the life science application
- Fisher BioReagents are among the finest in the industry

### **Over 1,000 products**

#### Our extensive line includes products for:

- Nucleic Acid Electrophoresis, Purification, Hybridisation and Sequencing
- Polymerase Chain Reaction (PCR)
- Protein Purification and Electrophoresis
- Buffers and Detergents
- Cell Biology/Cell Culture
- Microbiology/Immunology

#### Purity grades to meet your specific needs

Reagents are prequalified and guaranteed to be suitable for the designated technique.

#### Stringent specifications

Address critical factors such as purity, water content, levels of contaminants and absence of DNase, RNase or protease activity.

#### Innovative packaging design

Packaging designed for safety, convenient handling and storage, and preservation of product integrity.

#### Manufacturing quality

Rigorous QA standards, supplier certification process, customer site audit, cGMP-certified manufacturing facilities, ISO 9001:2008 Quality Management System.

#### Bench to batch

Fisher BioReagents are packaged in sizes to meet your needs.



#### Fisher BioReagents<sup>®</sup>: Purity Grades for Every Application

Material Grade	Definition
Certified	Reagent chemicals for which the purity standard is established by Fisher Chemical. Purity is guaranteed to meet published
	maximum limits of impurities.
DNA Grade	Designates reagents suitable for use in molecular biology applications involving the manipulation of DNA. Tested for
	specific contaminants, such as DNase and protease.
DNA Synthesis	Designates reagents suitable for use with automated DNA synthesis instrumentation.
Electrophoresis	Material used specifically for electrophoresis applications.
Genetic Analysis Grade	Material that is specially prepared for various molecular cloning applications. Tested for specific contaminants, such as
	DNase and RNase.
IEF Grade	Material suitable for use with isoelectric focusing of proteins.
Islet Isolation Grade	Material suitable for isolation of pancreatic islets.
Molecular Biology Grade	Designates reagents suitable for use in molecular biology applications. Tested for specific contaminants,
	such as nucleases and bacteria, where appropriate.
Molecular Genetics	Reagent chemicals that have been specifically purified and assayed for molecular genetics applications.
PCR Grade	Material suitable for use in Polymerase Chain Reaction (PCR).
Peptide Synthesis	Designates reagents suitable for use with protein synthesis instrumentation.
Protein Electrophoresis Grad	e Material used specifically for protein electrophoresis applications.
Sequencing	Material designed for use with automated DNA or protein sequencing equipment.
Super Pure	Material with a purity level exceeding the various monograph grades.
Tissue Culture Grade	Materials of superior quality where there are no published standards and that are suitable for use in tissue culture applications.

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#### Packaging for safety, convenience and product

Fisher BioReagents come in a wide variety of innovative packaging designed for safety, environmental protection, convenient handling and storage, and preservation of product integrity. The primary container is included in the product description of most chemicals in this catalogue.

#### Primary containers include:

- Plastic and glass bottles, jars
- Specialised acid containers
- Square poly bottles
- Sterility proof sachets
- Poly pails
- Polypac<sup>™</sup> containers
- Compact, laminated boxes

#### How to use this catalogue

3 Refer to the index page: "BioReagents by Product Name" to look for the page number of the product you're interested in. Products are also Categorised by application: Molecular Biology, Protein Chemistry, Cell Biology and Core BioReagents (used for multiple applications). Refer to the appropriate chapter to look for the product you're interested in.

5 Product specifications

Application information

8 Recommended storage conditions

6 GHS code

- 1 Product name 2 Quality grade 3 CAS number
- 4 Packaging and ordering information

quality	F	-
	1.0	
-		A

ackaging	Cat. No	Mfr. No
00 ç PolyBottle	1058-3355	BP1360-100
C,H <sub>8</sub> O,		
AS: 9012 36 6		
/W: 306.12		
Nase		Not detected
EO (-Mr)		
el Strength		>500g/cm2
elation Temperature		
Aelting Temperature		6510
Aoisture Content		<10%
Nase		Not detected
ulfate Content		<0.15%

# **Fisher BioReagents**<sup>®</sup>

# Your source for high purity products for nucleic acid electrophoresis

## All Fisher BioReagents agaroses are DNase- and RNase-free to ensure optimal results for your nucleic acid application.

Fisher BioReagents offers 3 different grades of agarose that are functionally tested and pre-qualified for specific applications:

- Genetic Analysis Grade Agarose that
- vields biologically active DNA or RNA. Testing includes enzymatic performance measurements.
- Molecular Biology Grade Agarose that is suitable for analytical separation of DNA or RNA.
- PCR Grade Agarose that is suitable for the analytical separation of PCR amplicons (<1kb).

#### **Buffers for DNA Electrophoresis Applications**

Two buffers commonly used for DNA electrophoresis are Tris-acetate with EDTA and Tris-borate with EDTA. Because the pH of these buffers is neutral, the phosphate backbone of DNA has a net negative charge and migrates to the anode. TAE and TBE have different properties which makes one more suitable than the other for a specific purpose.

#### TAE: DNase-, RNase- an Cat. No. Concent BP2434-4 1X 1X BP2434-20 10X BP1335-500 BP1335-1 10X BP1335-4 10X BP1335-20 10X BP1330-1 25X

50X

50X

50X

50X

25X

#### **Buffer Components** for DNA Electrophoresis

#### **Buffer Component**

BP1332-500

BP1332-1

BP1332-4

BP1332-20

BP1331-1

Tris Base Boric Acid EDTA Disodium Salt

Fisher BioReagents

Agarose Selection Gu	ide				
Type of Agarose	Low EEO	Low Melting (>200bp)	Low Melting (<1kb)	Wide Separation Range	PCR Grade
Cat. No	BP160	BP165	BP1360	BP1356	BP2410
Recovery of DNA or RNA	A •	٠	٠	•	٠
Southern and Northern E	Blots 🔹				
DNA/RNA			٠		٠
separation 50bp to 1kb					
DNA/RNA separation >1	kb 🔸	٠		•	
PCR fragment analysis	٠	٠	٠	•	٠
In-gel reactions (ligation	,		٠		
transformations, PCR)					
Colony lifts	٠				
Available pack sizes	100g and 500g	g 25g	100g	100g and 500g	100g
Agarose grade	Molecular	Molecular	Genetic	Genetic	PCR
	Biology	Biology	Analysis	Analysis	Grade

d Protease-free				
tration	Size			
	4L			
	20L			
	500mL			
	1L			
	4L			
	20L			
	1L			
	500mL			
	1L			
	4L			
	20L			
	1L**			

TBE: DNase- and RNase-free					
Cat. No.	Concentration	Size			
BP2430-1	1X	1L			
BP2430-4	1X	4L			
BP2430-20	1X	20L			
BP1396-86	5X	1L*			
BP1333-1	10X	1L			
BP1333-4	10X	4L			
BP1333-20	10X	20L			
BP1334-1	10X	1L**			

\*Pre-weighed powder in poly bottle. Dissolve in water. \*\*Pre-weighed powder in foil pack. Dissolve in water.

Size	Cat. No.
500g	BP152-500
1kg	BP152-1
5kg	BP152-5
10kg	BP152-10
25kg	BP152-25
500g	BP168-500
1kg	BP168-1
500g	BP120-500
1kg	BP120-1



#### **Buffers for RNA Electrophoresis Applications**

MOPS is a commonly used buffer system for RNA electrophoresis using formaldehyde or formamide-denatured RNA. It is important to use RNase-free chemicals, water and containers when preparing the buffer solution. The typical formulation of 10X MOPS running buffer is 0.4M MOPS (pH 7.0), 0.1M sodium acetate and 0.01M EDTA.

NOPS: DNase-, RNase- and Protease-free					
Cat. No.	Description	Size			
BP308-100	Powder	100g			
BP308-500	Powder	500g			
BP2900-500	10X Buffer Solution	500mL			
BP2900-1	10X Buffer Solution	1L			
Water					
BP2484-50	Nuclease-Free	50mL			
BP2484-100	Nuclease-Free	100mL			
BP2470-1	DNA Grade	1L			
BP561-1	RNA Grade	1L			
Formaldehyde					
BP531-25	37% by weight	25mL			
BP531-500	37% by weight	500mL			



NEW!
Ethanol, Molecular Biology Grade, is
an ultrapure molecular biology grade
ethanol used for the purification and
precipitation of biomolecules such as
nucleic acids and proteins.

at. No.	Size
P2818-100	100mL
P2818-500	500mL
P2818-4	4 L

he			bp	ng/1
op	ng/10µL		10000	58
1000	90		8000	53
900	66		5000	67
800	58	_	4000	56
700	48		3000	47
600	41		2500	41
500	69	_	2000	34
400	28		1500	29
300	21		1000	
200	28	_	1000	18
100	20		700	13
1.11	200		500	23
50	14		300	14
25	15			
		BP2578		
	bp 1000 900 800 700 600 500 400 300 200 100 50 25	bp         ng/10µL           1000         90           900         66           800         58           700         48           600         41           500         69           400         28           300         21           200         28           100         20           50         14           25         15	bp         ng/10µL           1000         90           900         66           800         58           700         48           600         41           500         69           400         28           300         21           200         28           100         20           50         14           25         15	bp         ng/10µL         bp           1000         90         10000         8000           900         66         3000         5000           800         58         3000         3000           700         48         2500         2000           600         41         2500         2000           400         28         1500         1000           300         21         1000         700           100         20         500         500         300           50         14         300         300         800           500         14         500         300         300

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## exACTGene<sup>®</sup> and routine DNA ladders

Ready-to-use (pre-mixed with loading dye), room temperature stable DNA ladders are available for all common electrophoresis applications.

#### exACTGene DNA ladders are ideal for qualitative analysis, quantitative estimation and size assessment

Cat. No.	Application	Size Range	Number of Bands	Number of Loadings
BP2570-100	PCR fragment analysis	25 to 650bp	14	100/10µL
BP2571-100	PCR fragment analysis, small DNA digests	25 to 1,000bp	12	100/10µL
BP2572-100	Quick check of PCR or enzyme digestion results	50 to 2,000bp	8	100/10µL
BP2573-100	General purpose, small DNA fragments	100 to 1,000bp	10	100/10µL
BP2574-100	Fast run times, small DNA fragments	100 to 2,000bp	11	100/10µL
BP2575-100	Clone identification	100 to 2,686bp	14	100/10µL
BP2576-100	Large size PCR or cloning	300 to 5,000bp	10	100/10µL
BP2577-100	Small and large cloning application	100 to 5,000bp	16	100/10µL
BP2578-100	General purpose, large digested DNA	300 to 10,000bp	13	100/10µL
BP2579-100	General purpose, wide separation range	100 to 10,000bp	19	100/10µL
BP2580-100	General purpose, extra large DNA fragments	300 to 24,000bp	15	100/10µL

# **Fisher BioReagents® Proteomics Products** Convenience, Quality and Consistency

#### EZ-Run<sup>™</sup> Protein Gel Solution

- Ready to use
- Superior resolution
- Wide separation range on same mini-gel
- No stacking gel required
- Proprietary gel chemistry
- Stable for two years at room temperature
- Compatible with all conventional staining methods
- Suitable for post-electrophoresis applications such as Western Blot transfer and MALDI analysis

Acrylamide, Bis-Ac	ylamide and	Catalysts
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Description	Quantity	Cat. No.
Acrylamide	100g	BP170-100
	500g	BP170-500
	5kg	BP170-500
Acrylamide Solution, 40%	1L	BP1402-1
Bis-Acrylamide	25g	BP171-25
	100g	BP171-100
Bis-Acrylamide Solution, 2%	250mL	BP1404-250
Acrylamide:Bis-Acrylamide, 19:1, Powder	100g	BP1364-100
Acrylamide:Bis-Acrylamide, 29:1, Powder	100g	BP1366-100
Acrylamide:Bis-Acrylamide, 37.5:1, Powder	100g	BP1368-100
Acrylamide:Bis-Acrylamide, 19:1, 40% Solution	1L	BP1406-1
Acrylamide:Bis-Acrylamide, 29:1, 40% Solution	1L	BP1408-1
Acrylamide:Bis-Acrylamide, 37.5:1, 40% Solution	1L	BP1410-1
Ammonium Persulfate	25g	BP179-25
	100g	BP179-100
Sodium Persulfate	1kg	BP2637-1
TEMED	20g	BP150-20
	100g	BP150-100



EZ-Run™ Protein Gel Solutions		
Description	Quantity	Cat. No.
10% EZ-Run Protein Gel Solution	100mL	BP7710-100
	500mL	BP7710-500
12.5% EZ-Run Protein Gel Solution	100mL	BP7712-100
	500mL	BP7712-500
15% EZ-Run Protein Gel Solution	100mL	BP7715-100
	500mL	BP7715-500
20X Running Buffer for EZ-Run Protein Gel Solutio	n 500mL	BP7700-500

Buffers for Protein Electrophoresis			
Description	Qua	ntity	Cat. No.
Tris-Glycine, 10X Solution		1L	BP1306-1
		4L	BP1306-4
		1L*	BP1307-1
Tris-Glycine-SDS, 10X Solution		1L	BP1341-1
		4L	BP1341-4
Tris-Glycine-SDS, 5X Solution, Pre-Weighed	Powder*	1L	BP1398-92
Tris-Glycine-SDS, 10X Solution, Pre-Weighed	d Powder*	1L	BP1342-1
PBS, 10X Solution	50	0mL	BP399-500
PBS, 10X Solution		1L	BP399-1
PBS, 10X Solution		4L	BP399-4
PBS, 10X Solution		20L	BP399-20
PBS Tablets, 1X Solution	100 ta	bs**	BP2944-100
PBS with Tween 20, 1X Solution,	10 foil pou	ches	BP2938-10
Pre-Weighed Powder*			
Tris-Buffered Saline, 10X (pH 7.4)	10	10mL	BP2471-100
	50	0mL	BP2471-500
		1L	BP2471-1
Tris Base	ļ	500g	BP152-500
		1kg	BP152-1
		5kg	BP152-5
		10kg	BP152-10
	:	25kg	BP152-25
Glycine	Ę	500g	BP381-500
		1kg	BP381-1
		5kg	BP381-5

\*Pre-weighed powder to make 1L. Dissolve in water.

\*\*One tablet dissolved in 200mL water yields 0.01M phosphate buffer, 0.0027M KCl, and 0.137M NaCl, pH 7.4 at 25°C.







Detergents and Denaturing Agents				
Description	Quantity	Cat. No.		
Brij 35	500g	BP345-500		
CHAPS	1g	BP571-1		
	5g	BP571-5		
SDS	100g	BP166-100		
	500g	BP166-500		
	5kg	BP166-5		
SDS, 10% Solution	200mL	BP2436-200		
	1L	BP2436-1		
SDS, 20% Solution	200mL	BP1311-200		
	1L	BP1311-1		
Triton X-100	100mL	BP151-100		
	500mL	BP151-500		
Tween 20	100mL	BP337-100		
	500mL	BP337-500		
Tween 80	500mL	BP338-500		

#### **EZ-Run<sup>™</sup> Protein Standards**

- Highly purified markers and ladders provide compact and clear bands
- Prestained standards are indispensable in monitoring protein separation and transfer efficiency
- Reference bands allow quick gel progress assessment
- Unstained standards are most suitable for precise sizing of proteins
- All standards are supplied in loading buffer and are ready to use

	1		
	- 200.0	=	- 170.0 - 135.0
	- 120.0		- 100.0
	- 100.0		- 72.0
=	- 70.0 - 60.0 - 50.0	=	- 55.0 - 40.0
	- 40.0		- 33.0
_	- 30.0 - 25.0	-	- 24.0
_	- 20.0	-	- 17.0
-	- 10.0		- 11.0
4-20% SDS-F	PAGE	4-20% SDS-P/	AGE
BP3602		BP3603	

Description	MW Range	No. of Bands	Reference Band	Source	Quantity	Cat. No.
Unstained Protein Standards	14.4 to 118.0 kDa	7		Native Proteins	500uL	BP3600-500
					2 x 500uL	BP3600-1
	10.0 to 200.0 kDa	14	50 kDa	Recombinant Proteins	500uL	BP3602-500
					2 x 500uL	BP3602-1
Prestained Protein Standards	20.0 to 118.0 kDa	6		Native Proteins	500uL	BP3601-500
					2 x 500uL	BP3601-1
	11.0 to 170.0 kDa	10	72 kDa	Recombinant Proteins	500uL	BP3603-500
					2 x 500uL	BP3603-1



Agarose Broad Separation Range for DNA/RNA	Genetic Analysis Grade	Agarose Intermediate Melting	PCR Grade
packaging	Mfr. No	packaging	Mfr. No
100 g PolyBottle	BP1356-100	100 g AmberGlass	BP2410-100
500 g PolyBottle	BP1356-500	C <sub>12</sub> H <sub>18</sub> O <sub>0</sub>	
C <sub>12</sub> H <sub>18</sub> O <sub>9</sub>		CÁS: 9012-36-6	
CÁS: 9012-36-6		MW: 306.12	
MW: 306.12			

	DNase	Not detected
DNase Not de	ected EEO (-Mr)	<=0.12
EEO (-Mr)	<0.15 Gel Strength	
Gel Strength	1/cm2 Gelation Temperature	
Gelation Temperature 34.5°-3	7.5°C Melting Temperature	
Moisture Content	<10% RNase	Not detected
RNase	ected Sulfate Content	<=0.11%
Sulfate Content	0.15%	

Applications: Routine nucleic acid electrophoresis; broad resolution range 500 bp to 25kb. Certified for recovery of DNA and RNA. Reliable digestion and ligation of recovered DNA or RNA fragments. Cloning. Recommended Storage: RT

		Agarose Low-Melting, Nucleic Acid Red	Molecular Biology Grade covery
		packaging	Mfr. No
Agarose	Protein Electrophoresis Grade	25 g PolyBottle	BP165-25
High-EEO		$C_{12}H_{18}O_9$	
packaging	Mfr. No	MW: 306.12	
100 g PolyBottle	BP162-100		
C <sub>12</sub> H <sub>18</sub> O <sub>9</sub>		DNase	Not detected
CAS: 9012-36-6		EEO (-Mr)	<0.10
MW: 306.12		Gel Strength	
		Gelation Temperature	
DNaco	Not detected	Melting Temperature	
		Moisture Content	<10%
Col Straw with	0.25-0.26	RNase	Not detected
Gei Strengtn		Sulfate Content	~0.10%

DNase	Not detected
EEO (-Mr)	0.23-0.26
Gel Strength	>650g/cm2
Gelation Temperature	34.5°-37.5°C
Moisture Content	<10%
RNase	Not detected
Sulfate Content	<0.15%

Applications: Immunoelectrophoresis (IEP). Crossed-IEP. Counter-immunoelectrophoresis (CIEP). Serum protein electrophoresis. Recommended Storage: RT

		Agarose Low-EEO/Multi-Purpose	Molecular Biology Grade
Agarose High Gelling Temperature	DNA Grade	packaging 100 g PolyBottle 500 g PolyBottle	Mfr. No BP160-100 BP160-500
packaging 25 g PolyBottle 100 g PolyBottle	Mfr. No BP164-25 BP164-100	C <sub>12</sub> H <sub>18</sub> O <sub>9</sub> CAS: 9012-36-6 MW: 306.12	
500 g PolyBottle C <sub>12</sub> H <sub>18</sub> O <sub>9</sub> CAS: 9012-36-6 MW: 306.12	BP164-500	DNase EEO (-Mr) Gel Strength Gelation Temperature Moisture Content	Not detected 0.09-0.13 >1200g/cm2 34°-45°C <10%
DNase EEO (-Mr) Gel Strength	Not detected <0.1 >800g/cm2	RNase Sulfate Content	Not detected

DNase	Not detected
EEO (-Mr)	<0.1
Gel Strength	>800g/cm2
Gelation Temperature	<40.5°-43.5°C
Moisture Content	
RNase	Not detected
Sulfate Content	<0.15%

Recommended Storage: RT

# Electrophoresis of Nucleic Acids | **Molecular Biology**

Applications: Separation of low MW DNA <100 bp. PCR analysis applications. Recommended Storage: RT

Applications: Original low melting temperature agarose. Nucleic acid separation from 200 bp to 25kb. Preparative DNA and RNA electrophoresis. Ideally suited for DNA and RNA recovery. Cloning of tissue culture cells and viral plaque assays. Recommended Storage: RT

Applications: Routine electrophoresis of DNA and RNA; wide resolution range 500 bp to 23kb. High gel strength ideal for Southern and Northern blotting. PCR >1kb. Immunoprecipitation techniques. Baculovirus screening. Colony lifts. Recommended Storage: RT

# Molecular Biology | Electrophoresis of Nucleic Acids

Agarose Low-Melting, <1kb DNA/RNA	Genetic Analysis Grade
packaging	Mfr. No
100 g PolyBottle	BP1360-100
C <sub>12</sub> H <sub>18</sub> O <sub>9</sub>	
CAS: 9012-36-6	
MW: 306.12	
DNase	Not detected
EEO (-Mr)	<0.15
Gel Strength	>500g/cm2
Gelation Temperature	<35℃
Melting Temperature	
Moisture Content	<10%
RNase	Not detected
Sulfate Content	<0.15%

Bromophenol Blue Free Acid	
packaging	Mfr. No
25 g AmberGlass	BP115-25
C <sub>19</sub> H <sub>10</sub> Br₄O₅S CAS: 115-39-9 MW: 669.96	EINECS: 204-086-2
E <sup>1%</sup> 1cm	>=1000g-1cm-1
Lambda Max.	
Loss on Drying (at 105°C)	<=5%
Solubility	

Applications: Used as a tracking dye in electrophoresis. Recommended storage: RT

Cicker Binfigunger	
Funder Dogestangenet	-

Ethidium Bromide			Assay (HCHO) Chloride (Cl)	>=36.5-38% <=5ppm
packaging           1 g         AmberGlass           5 g         AmberGlass           C <sub>21</sub> H <sub>20</sub> BrN <sub>3</sub> CAS: 1239-45-8           MW: 394.3         EINECS: 214-984-6	H341, H330, H302 P310, P281, P304+P340	Mfr. No BP102-1 BP102-5	Color (APHA) Heavy Metals (Pb) Iron Methanol pH (at 25°C) Residue after ignition Sulfate (SO <sub>4</sub> ) Titratable Acid	<=10 <=5ppm <=2ppm 10-15% 3 to 4 <=0.005% <=0.002% <=0.002%
E <sup>1%</sup> 1 <sub>cm</sub> Lambda Max. Loss on Drying (at 105°C) Solubility		>=100l g-1cm-1 480nm ±2nm <=5% To pass test	Applications: Molecular Biology-grade Form RNA. Components: 37% Formaldehyde, 15% Me [50-00-0 (Formaldehyde)]; [67-56-1 (Meth Recommended Storage: RT UN 1198; DOT Class 3:Flammable Liquid	naldehyde is used for denaturing hthyl Alcohol and 48% Water. hyl Alcohol)]

Applications: Fluorometric detection of double stranded nucleic acids. Also acts as an RNA polymerase inhibitor, and in separation of high molecular weight DNAs. Recommended storage: RT

Applications: Low melting temperature agarose.

Certified recovery of small nucleic acid fragments. Outstanding resolution of PCR and RT-PCR fragments from 50 to 1000 bp. In-gel PCR. In-gel ligations/transformations. Recommended Storage: RT

## **Bromophenol Blue Sodium Salt**

packaging		Mfr. No
25 g AmberGlass		BP114-2
C <sub>19</sub> H <sub>9</sub> Br₄NaO <sub>5</sub> S CAS: 62625-28-9 MW: 691.94 H335, H319, H315	P261, P302+P352, P280, P305+P351+P338	
Clarity of Solution E <sup>1%</sup> <sub>1cm</sub> Lambda Max. in 0.05M Sod Visual Transition Interval	ium Acetate	To pass tes >=800g-1cm- 585-595nn To pass tes

Applications: Commonly used as a tracking dye in electrophoresis. Recommended storage: RT

Agarose Medium-EEO	Protein Electrophoresis Grade
packaging	Mfr. No
100 g PolyBottle	BP161-100
C <sub>12</sub> H <sub>18</sub> O <sub>9</sub> CAS: 9012-36-6 MW: 306.12	

DNase	Not detected
EEO (-Mr)	0.16-0.19
Gel Strength	>1000g/cm2
Gelation Temperature	34.5°-3ॅ7.5℃
Moisture Content	<10%
RNase	Not detected
Sulfate Content	<0.15%

Applications: Ideal alternative to polyacrylamide for serum protein electrophoresis. Immunoelectrophoresis. Electrophoresis of nucleic acids. Recommended Storage: RT

<u> </u>
Mfr. No
BP633-5

description	Dark purple slightly viscous liquid
DNase	Not detected
Optical Absorbance (dilution 1:500 with deionized	water) at 525nm 0.3-0.6
Optical Absorbance (dilution 1:500 with deionized	water) at 588-594nm 0.5-0.8
Optical Absorbance (dilution 1:500 with deionized	water) at 635-641nm 0.5-0.7
RNase	Not detected

Applications: This tracking dye is added to DNA and RNA samples prior to electrophoresis on agarose gels. Components: Amaranth (<1.0%), Ficoll\* (15%), Proprietary Component

(<1.0%), and Water.

[915-67-3 (Amaranth)] ; [26873-85-8 (Ficoll\*)] Recommended Storage: RT

Crystalline		Electrophoresis
ackaging		Mfr. No
00 g PolyBottle		BP168-500
1 kg PolyBottle		BP168-1
l₃BO₃ AS: 10043-35-3 ſW: 61.83 INECS: 233-139-2	H360FD P310, P201, P308+P313, P304+P340	\$
ssay		>=99.0%
alcium (Ca)		<=0.005%
hloride (Cl)		<=0.001%
Nase		Not detected
lectrophoresis		To pass test
leavy Metals (Pb)		<=0.001%
soluble in Methanol		<=0.005%
on		<=0.001%
Ionvolatile with Methanol		<=0.05%
hosphate (PO₄)		<=0.001%
ulfate (SO)		<=0.010%

Applications: This high-purity electrophoresis-grade reagent is used in the preparation of Tris/Borate\_EDTA electrophoresis buffers. Recommended Storage: RT

Ethidium Bromide		Molecular Biology	Glycerol Gel-Loading Dye, 5X Molecular Bio Contains 30% Glycerol	logy
1% Solution			packaging M	lfr. No
packaging		Mfr. No	1 m <b>l</b> PolyTube BP	9645-1
10 ml AmberPolyBottle		BP1302-10	5 m <b>l</b> PolyBottle BP	645-5
C <sub>21</sub> H <sub>20</sub> BrN <sub>3</sub> CAS: 1239-45-8	H331, H341 P310, P281,			
MW: 394.3	P304+P340		DNase	tected
EINECS: 214-984-6		3	Optical Absorbance (dilution 1:500 with deionized water) at 525nm	5-0.45 0-0.45 5-0.40 tected
Appearance		Clear, reddish-brown liquid		
DNase		Not detected	Applications: This dye is added to DNA and RNA samples prior to	
Electrophoresis			electrophoresis on agarose gels.	
E <sup>1%</sup> 1cm			Components: Glycerol (30%), Proprietary Components (<6%), and Water	
Lambda Max.			[56-81-5 (Glycerol)]	
RNase		Not detected	Recommended Storage: RT	

Recommended storage: RT

			Glyoxal 40% w/v		Electrophoresis
Formaldehyde 37% by Weight		Molecular Biology	<b>packaging</b> 500 m <b>l</b> AmberGlass		Mfr. No BP1370-500
backaging           25 ml         AmberGlass           500 ml         AmberGlass, EcoSafPak*           CH2O         CAS: 50-00-0           VW: 30.02         CAS	P280, P301+P330+P331, P305+P351+P338, P304+P340 P302+P352	Mfr. No BP531-25 BP531-500	C <sub>2</sub> H <sub>2</sub> O <sub>2</sub> CAS: 107-22-2 MW: 58.04 EINECS: 203-474-9 H341, H332, H319, H315, H317	P280, P261, P308+P313, P305+P351+P338, P302+P352, P333+P313	() &
EINECS: 200-001-8 1226, H314, H317, H370, 1311, H331, H301, H351	P301+P312, P210		Density (at 20°C) Electrophoresis of RNA pH (at 25°C)		1.26-1.29g/ml To pass test 2.0 to 3.5
		3	Applications: Glyoxal is used to electrophoresis. Since Glyoxal is	denature RNA prior to agaro readily oxidized by air, it sh	ose gel ould be deionized

(FP)

# Electrophoresis of Nucleic Acids | Molecular Biology

EcoSafPak\* is an environmentally friendly packaging system made of 100% recyclable material by an SFI certified supplier.

with a mixed-bed resin, dispensed into aliquots, and then stored at -20°C. Recommended Storage: 4°C UN 1760; DOT Class 8:Corrosive

## Molecular Biology | Electrophoresis of Nucleic Acids

Methanol Peroxide-free		Sequencing
packaging		Mfr. No
1 <b>l</b> AmberGlass, EcoSafPak*		BP1105-1
4 <b>l</b> AmberGlass		BP1105-4
CH₄O	P301+P310, P280,	~
CAS: 67-56-1	P302+P350, P304+P340,	
MW: 32.04	P210, P240	~
EINECS: 200-659-6		~
nzzo, novi, noti, Hooi, Hooi, Hoo		(32)

Acetone	To pass test
Assay	>=99.9%
Color (APHA)	<=5
Fluorescence Background (as Quinine Sulfate)	To pass test
Fluorescent Derivatizable Amines	To pass test
IR	Conforms to standard
LC Gradient Suitability	To pass test
Optical Absorbance at 205nm	<=1.00
Optical Absorbance at 220nm	<=0.30
Optical Absorbance at 230nm	<=0.15
Optical Absorbance at 254nm	<=0.025
Peroxides	<=0.001%
Reactive Impurities with H <sub>2</sub> SO <sub>4</sub>	Not detected
Refractive Index (at 25°C)	
Residue after evaporation	<=3 ppm
Solubility in H <sub>2</sub> O	To pass test
Substances Reducing Permanganate	To pass test
Titratable Acid	<=0.0003mEq/g
Titratable Base	<=0.0002mEq/g
Water	<=0.1%

Applications: Used in staining and destaining protein electrophoresis gels, in HPLC, and in other biological applications.

Recommended storage: RT

Also available in recyclable FisherPak\* and NOWPak\* containers. EcoSafPak\* is an environmentally friendly packaging system made of 100% recyclable material by an SFI certified supplier.

TBE Buffer Mix	Electrophoresis
Dry Powder Mix of Tris/Boric Acid/EDTA	
packaging	Mfr. No
86.1 g PolyBottle	BP1396-86
CAS: 610769-35-2 H360FD, H315, H319, H335 P280, P305+P351+P338, P201, P308+P313	() &
DNase Electrophoresis of DNA with 5X diluted buffer pH (at 25°C) RNase	Not detected Pass test 8.3±0.2 Not detected
Solubility (in 1l final volume) Clear, colorless with no	suspending impurities

#### Recommended Storage: RT

Applications: Electrophoresis buffer. Makes 1 liter of 5X buffer. Final concentration of components in 1X buffer: 0.089M Tris, 0.089M Boric Acid, 0.002M EDTA. [77-86-1 (Tris)] ; [6381-92-6 (EDTA)] ; [10043-35-3 (Boric Acid)]

Tris-Acetate-EDTA 25X Powder	Electrophoresis	
packaging	Mfr. No	
1 FoilPack	BP1331-1	
CAS: 135852-26-5		
	1200-200 1 /	

conductivity of a TX solution (at 25 C)	1 300±200µ111103/CI11
Nase	Not detected
lectrophoresis	To pass test
H (1X solution) (at 25°C)	8.3±0.1
rotease	Not detected
Nase	Not detected
olubility	

Applications: Tris-Acetate-EDTA (TAE) is commonly used as a buffer for nucleic acid electrophoresis.

Each pack contains preweighed powder to make  $1\ell$  of a 25X solution (1M Tris-Acetate and 0.025M EDTA).

Components: Tris (64.36%), Acetic Acid, Sodium Salt (31.91%) and Ethylenediamine Tetraacetic Acid (3.72%). [77-86-1 (Tris)] ; [127-09-3 (Acetic Acid, Sodium Salt)] ; [60-00-4 (EDTA)]

Recommended Storage: RT

Tris-Borate-EDTA 10X Powder	Electrophoresis
packaging	Mfr. No
1	BP1334-1
CAS: 610769-35-2 H360FD, H315, H319, H335 2280, P305+P351+P338, P201,	$\Diamond$
2308+P313	3
	Not data at a

DNase	Not detected
Electrophoresis	To pass test
pH (1X solution) (at 25°C)	8.3±0.1
Protease	Not detected
RNase	Not detected
Solubility (1X concentration 1g/60ml $\rm H_2O)$ Clear, colorless with impurities	n no suspending

Applications: Tris-Borate-EDTA (TBE) is commonly used as a buffer for nucleic acid electrophoresis.

Each pack contains preweighed powder to make 1l of a 10X solution (0.89M Tris Base, 0.89M Boric Acid, and 0.02M EDTA). Components: Tris (63.91%), Boric Acid (32.54%), and EDTA (3.55%).

[77-86-1 (Tris)] ; [10043-35-3 (Boric Acid)] ; [60-00-4 (EDTA)] Recommended Storage: RT

Tris Buffer 2M Solution		Molecular Biology	Tris Hydrochloride 1M solution, High Pu	e Solution pH 7.0 rity, Low Metal	Molecu
packaging		Mfr. No	packaging		
100 m <b>l</b> PolyBottle		BP1759-100	100 m <b>l</b> PolyBottle		
500 m <b>l</b> PolyBottle		BP1759-500	500 m <b>l</b> PolyBottle		
CAS: 77-86-1 EINECS: 201-064-4 H315, H319, H335	P280, P305+P351+P338, P261, P302+P352, P264, P271	$\langle \mathbf{\hat{v}} \rangle$	CAS: 1185-53-1 EINECS: 214-684-5 H315, H319	P280, P305+P351+P33 P302+P352	8,
Arsenic		< 0.0005%	Arsenic		
Copper		<0.0001%	Calcium (Ca)		
DNase		Not detected	Copper		
Iron		<0.0001%	DNase		
Lead		<0.0001%	Iron		
Magnesium (Mg)		<0.0005%	Lead		
Optical Absorbance of a 1N	1 Solution at 280nm	<0.05	Magnesium (Mg)		
pH (at 25°C)			Molar Concentration		
Protease		Not detected	Protease		
RNase		Not detected	RNase		
Tris Concentration		2±0.05M	Zinc		

Applications: Tris is a buffer component in molecular biology, tissue culture, and Applications: Tris is a buffer component in molecular biology, tissue culture, and electrophoresis procedures. electrophoresis procedures. [77-86-1 (Tris)]; [1185-53-1 (Tris HCl)] Tris Solution, 2M, provides a convenient stock solution for preparing Tris **Recommended Storage:** RT Filtered through a 0.2-micron filter. buffers. Recommended Storage: RT

Tris Buffer 0.3M Solution	Molecular Biology	Tris Hydrochloride 1M solution, High Pu	Molecular Biology	
packaging       500 mℓ     PolyBottle       1 ℓ     PolyBottle	Mfr. No BP1761-500 BP1761-1	packaging 100 mℓ PolyBottle 500 mℓ PolyBottle		Mfr. No BP1757-100 BP1757-500
CAS: 77-86-1 EINECS: 201-064-4		CAS: 1185-53-1 EINECS: 214-684-5 H315, H319	P280, P305+P351+P338, P302+P352	$\langle \rangle$
DNase Molarity pH (at 25°C) Protease RNase	Not detected 0.3±0.010 10.1 to 11.1 Not detected Not detected	Arsenic Calcium (Ca) Copper DNase Iron Lead		<pre>&lt;0.0005% &lt;0.0002% &lt;0.0001% Not detected &lt;0.0001% &lt;0.0001% </pre>
Applications: Tris is a buffer component in molecular electrophoresis procedures. Tris Solution, 0.3M, provides a convenient stock solu Recommended Storage: RT	biology, tissue culture, and tion for these applications.	Magnesium (Mg) Molar Concentration Protease RNase Zinc		<0.0005% 1±0.04M Not detected Not detected <0.0001%

		, , , , , , , , , , , , , , , , , , , ,	· · · · · · · · · · · · · · · · · · ·	
packaging	Mfr. No	packaging		Mfr. No
500 m2 PolyBottle	BP1761-500	100 m <b>l</b> PolyBottle		BP1757-100
1 <b>ℓ</b> PolyBottle	BP1761-1	500 m <b>ℓ</b> PolyBottle		BP1757-500
CAS: 77-86-1 EINECS: 201-064-4		CAS: 1185-53-1 EINECS: 214-684-5 H315, H319	P280, P305+P351+P338, P302+P352	$\Diamond$
DNase	Not detected	Arsenic		<0.0005%
Molarity	0.3±0.010	Calcium (Ca)		<0.0002%
pH (at 25°C)	10.1 to 11.1	Copper		<0.0001%
Protease	Not detected	DNase		Not detected
RNase	Not detected	Iron		<0.0001%
		Lead		<0.0001%
Applications: Tris is a buffer component in molecular biology tissue	culture and	Magnesium (Mg)		<0.0005%
electrophoresis procedures	culture, una	Molar Concentration		1±0.04M
Tris Solution 0.3M provides a convenient stock solution for these a	applications	Protease		Not detected
Recommended Storage: RT	applications.	RNase		Not detected
Recommended Storage. N		Zinc		<0.0001%

Tris-EDTA 100X Powder	Molecular Biology
packaging	Mfr. No
1 FoilPack	BP1339-1
CAS: 38641-82-6 H315, H319, H335 P280, P261, P305+P351+P338, P302+P352, P264, P271	$\Diamond$

Conductivity of a 1X Solution (at 25°C)	560 to 740umhos/cm
DNase	Not detected
pH (1X solution) (at 23°C)	8.0±0.1
Protease	Not detected
RNase	Not detected
Solubility	To pass test

Applications: Tris-EDTA (TE) is routinely used for suspending nucleic acid samples.

Each pack contains preweighed powder to make 1l of a 100X solution (1.0M Tris Base and 0.1M EDTA).

[77-86-1 (Tris)] ; [60-00-4 (EDTA)] Recommended Storage: RT

Sequencing Gel-Loading Dye, 3X Contains 98% Formamide nackaging

backag	ing	Mfr. No
1 m <b>l</b>	PolyTube	BP639-1

DNase Not e	detected
Optical Absorbance (dilution 1250 with deionized water) at 525nm 0	.40-0.50
Optical Absorbance (dilution 1250 with deionized water) at 588-594nm 0	.60-0.75
Optical Absorbance (dilution 1250 with deionized water) at 635-641nm 0	.50-0.67
RNase Not e	detected

Applications: This loading dye also denatures nucleic acid samples prior to

electrophoresis on sequencing gels. Components: 98% Formamide (<90%), Proprietary Component (<3%), and Water.

[75-12-7 (98% Formamide)]

# Electrophoresis of Nucleic Acids | Molecular Biology

ar Biology

Mfr. No

BP1756-100

BP1756-500

 $\langle \mathbf{\hat{v}} \rangle$ <0.0005% <0.0002% <0.0001% Not detected <0.0001% <0.0001% <0.0005%

. 1±0.04M Not detected

Not detected

<0.0001%

Applications: Tris is a buffer component in molecular biology, tissue culture, and electrophoresis procedures. [77-86-1 (Tris)]; [1185-53-1 (Tris HCl)] **Recommended Storage:** RT Filtered through a 0.2-micron filter.

## Molecular Biology | Electrophoresis of Nucleic Acids

Tris Hydrochloride 1M solution, High Pur	Molecular Biology	
packaging		Mfr. No
100 m <b>l</b> PolyBottle 500 m <b>l</b> PolyBottle		BP1758-100 BP1758-500
CAS: 1185-53-1 EINECS: 214-684-5 H315, H319	P280, P305+P351+P338, P302+P352	$\diamond$
Arsenic		< 0.0005%
Calcium (Ca)		<0.0002%
Copper		<0.0001%
DNase		Not detected
Iron		<0.0001%
Lead		<0.0001%
Magnesium (Mg)		<0.0005%
Molar Concentration		1±0.04M
Protease		Not detected
RNase		Not detected
Zinc		<0.0001%

Applications: Tris is a buffer component in molecular biology, tissue culture, and electrophoresis procedures. [77-86-1 (Tris)]; [1185-53-1 (Tris HCl)]

Recommended Storage: RT

Filtered through a 0.2-micron filter.

Tris-Acetate-EDTA 10X Solution		Electrophoresis
packagi	ing	Mfr. No
500 m <b>l</b>	PolyBottle	BP1335-500
1 <b>l</b>	PolyBottle	BP1335-1
4 <b>l</b>	PolyPac*	BP1335-4
20 <b>l</b>	PolyPac*	BP1335-20
CAS: 13	35852-26-5	
H315, F	1319	
P264, P	280, P305+P351+P338,	$\mathbf{v}$
P302+P	352	

DNase	Not detected	
Electrophoresis	To pass test	
pH (1X solution) (at 25°C)	8.2-8.4	
Protease	Not detected	
RNase	Not detected	

Applications: Tris-Acetate-EDTA (TAE) is commonly used as a buffer for nucleic acid electrophoresis.

0.4M Tris-Acetate and 0.01M EDTA. Components: Tris (<5.0%), Acetic Acid (1.0%), and EDTA (<1%). [77-86-1 (Tris)]; [64-19-7 (Acetic Acid)]; [60-00-4 (EDTA)]

**Recommended Storage:** RT Filtered through a 0.2-micron filter.

Tris-Acetate-EDTA 25X Solution	Electrophoresis
ackaging	Mfr. No
1 l PolyBottle	BP1330-1
AS: 135852-26-5 315, H319 264, P280, P305+P351+P338, 302+P352	$\langle $
onductivity of a 1X Solution (at 25°C) Nase	Report Not detected
ectrophoresis	To pass test

8.3±0.1 pH (1X solution) (at 25°C) Protease Not detected RNase Not detected

Applications: Tris-Acetate-EDTA (TAE) is commonly used as a buffer for nucleic acid electrophoresis.

IM Tris-Acetate and 0.025M EDTA. Components: Tris (11.31%), EDTA Disodium Salt (0.87%), Acetic Acid, Sodium Salt (7.66%), and Hydrogen Chloride (3.74%). [77-86-1 (Tris)] ; [6381-92-6 (EDTA Disodium Salt)] ; [127-09-3 (Acetic Acid, Sodium Salt)] ; [7647-01-0 (Hydrogen Chloride)]

Recommended Storage: RT

Filtered through a 0.2-micron filter

Tris-Acetate-EDTA 50X Solution		Electrophoresis
packag	ing	Mfr. No
500 m <b>l</b>	PolyBottle	BP1332-500
1 <b>l</b>	PolyBottle	BP1332-1
4 <b>l</b>	PolyPac*	BP1332-4
20 <b>l</b>	PolyPac*	BP1332-20
CAS: 13	35852-26-5	
H315, I	H319	
P264, P	280, P305+P351+P338,	$\sim$
P302+F	2352	*
Condu	ctivity of a 1X Solution (at 25°C)	Papart

Conductivity of a TX Solution (at 25°C)	
DNase	Not detected
Electrophoresis	To pass test
pH (1X solution) (at 25°C)	8.2-8.4
Protease	Not detected
RNase	Not detected

Applications: Tris-Acetate-EDTA (TAE) is commonly used as a buffer for nucleic acid electrophoresis.

2M Tris-Acetate and 0.050M EDTA. Components: Tris (24%), Acetic Acid (5.0%), and EDTA (<2%). [77-86-1 (Tris)]; [64-19-7 (Acetic Acid)]; [60-00-4 (EDTA)] **Recommended Storage:** RT Filtered through a 0.2-micron filter.



Tris-Acetate-EDTA 1X Solution	Electrophoresis	Tris-EDTA 100X Solution	Molecular Biology
packaging	Mfr. No	packaging	Mfr. No
4 l PolyPac*	BP2434-4	1 l PolyBottle	BP1338-1
20 l PolyPac*	BP2434-20	4ℓ PolyPac*	BP1338-4
CAS: 135852-26-5 Conductivity of a 1X Solution (at 25°C)	Report Not detected To pass test	CAS: 38641-82-6 H315, H319 P280, P305+P351+P338, P302+P352	()
pH (1X solution) (at 25°C)	8.3±0.1	DNase	Not detected
Protease	Not detected	pH (1X solution) (at 23°C)	
RNase	Not detected	Protease RNase	Not detected Not detected
Applications: Tris-Acetate-EDTA (TAE) is common	ly used as a buffer for nucleic		

Tris-Acetate-EDTA 1X Solution	Electrophoresis	Tris-EDTA 100X Solution	Molecular Biology
packaging	Mfr. No	packaging	Mfr. No
4 l PolyPac*	BP2434-4	1 <b>ℓ</b> PolyBottle	BP1338-1
20 l PolyPac*	BP2434-20	4ℓ PolyPac*	BP1338-4
CAS: 135852-26-5 Conductivity of a 1X Solution (at 25°C) Nase	Report Not detected	CAS: 38641-82-6 H315, H319 P280, P305+P351+P338, P302+P352	\$
bH (1X solution) (at 25°C)	8.3±0.1	DNase	Not detected
Protease	Not detected	pH (1X solution) (at 23°C)	8.0±0.1
Nase	Not detected	Protease	Not detected
		RNase	Not detected
Applications: Tris-Acetate-EDTA (TAE) is commonl	y used as a buffer for nucleic		

acid electrophoresis. 0.04M Tris-Acetate and 0.001M EDTA. [77-86-1 (Tris)]; [64-19-7 (Acetic Acid)]; [60-00-4 (EDTA)] Recommended Storage: RT

Filtered through a 0.2-micron filter.

Tris-Borate-EDTA 10X Solution	Electrophoresis			
packaging	Mfr. No			
1 l PolyBottle	BP1333-1			
4 l PolyPac* 20 l PolyPac*	BP1333-4 BP1333-20	Xylene Cyanole FF		Electrophoresis
CAS: 610/69-35-2 H360FD, H315, H319	$\wedge$	bluish-green rowder		
P280, P305+P351+P338, P308+P313,	$\sim$	packaging		Mfr. No
P201	A	10 g AmberGlass		BP565-10
		C <sub>25</sub> H <sub>27</sub> N <sub>2</sub> NaO <sub>6</sub> S <sub>2</sub> CAS: 2650-17-1	H315, H319, H335 P280, P305+P351+P338	(1)
Conductivity of 1X solution (at 25°C)		EINECS: 220-167-5		~
DNase	Not detected	Absorption Maxima		614+2nm
Electrophoresis		DNase		Not detected
Protease	Not detected	Loss on Drying (at 105°C)		<=10.0%
RNase	Not detected	Molar Absorbance (Em, H2O) RNase		>30.000 Not detected
Applications: Tris-Borate-EDTA (TBE) is commonl acid electrophoresis. 0.89M Tris Base, 0.89M Boric Acid, and 0.02M E	by used as a buffer for nucleic	Applications: This dye is used i migration position of nucleic a Recommended Storage: RT	n electrophoretic application cid fragments.	s to mark the

nponents: Tris (10.8%), Boric Acid (5.5%), and EDTA (0.6%) [77-86-1 (Tris)] ; [10043-35-3 (Boric Acid)]; [60-00-4 (EDTA)]

**Recommended Storage:** RT Filtered through a 0.2-micron filter.

Tris-Borate-EDTA 1X Solution	Electrophoresis		
packaging	Mfr. No	100 Base-Pair Ladder	
1 <b>ℓ</b> PolyBottle	BP2430-1	packaging	Mfr. No
4 l PolyPac* 20 l PolyPac*	BP2430-4 BP2430-20	50 µg PolyMicroTube	BP2551-50
CAS: 610769-35-2			

DNase	Not detected
Electrophoresis	To pass test
pH of 1X solution (at 25°C)	
Protease	Not detected
RNase	Not detected

Applications: Tris-Borate-EDTA (TBE) is commonly used as a buffer for nucleic acid electrophoresis.

0.089M Tris Base, 0.089M Boric Acid, and 0.002M EDTA. [77-86-1 (Tris)] ; [6381-92-6 (EDTA)] ; [10043-35-3 (Boric Acid)] **Recommended Storage:** RT Filtered through a 0.2-micron filter.

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# Electrophoresis of Nucleic Acids | Molecular Biology

Applications: Tris-EDTA (TE) is routinely used for suspending nucleic acid samples. 1.0<sup>M</sup> Tris Base and 0.1M EDTA.

[77-86-1 (Tris)] ; [60-00-4 (EDTA)] Recommended Storage: RT

Filtered through a 0.2-micron filter.

Applications: For precise sizing of double-stranded DNA fragments from 100-2000 bp on agarose gels. Supplied at  $\mu g/\mu l$  in TE buffer. Consists of multiple repeats of a 100 bp fragment. Not designed for quantifying DNA content in a sample. Can be visualized by ethidium bromide staining or by autoradiography (after radiolabeling). Recommended Gel: 1.5% agarose with loading amount of 2.0µg/lane. Do not heat before loading. Recommended Storage: -20°C Not on TSCA inventory: for R and D use only; not for manufacturing or commercial purposes.



1000

900

800

700

600

500

400

300

200

100

MFR No.

BP2573-100

ng/10µL

2686 72

2000 55

1500 40

1200 45

18

1000 58

900 800 700 600 29 28 27 26

500 50

400

200 17

100 16

\_ 300 21

BP2573-100

# Fisher BioReagents\* exACTGene\* 50 bp Mini DNA Ladder

Ready-to-use DNA size standards
are stable at room temperature-
to need to thaw and refreeze

400 bo

Quantity

1000µ

## 25-650 bp range ► Number of Bands: 14 ► Higher intensity reference band at 200 and Ideal for size determination and quantitative determination of DNA mass ► Contain loading dye to reduce pipetting steps and save time ▶ Provided in sufficient quantity to load 100 lanes APPLICATIONS: PCB Size Confirmation INCLUDES: 1mL of premixed ladder (0.5µg/10µL) in loading dye (10mM EDTA, 10% glycerol, 0.015% bromophenol blue, 0.17% SDS). STORAGE CONDITIONS: Stable at room temperature for two years.

	and a second	and the second sec	
		ng/10µL	a
	650	62	n
	600	44	
	500	29	
_	450	36	
	400	86	•
	350	28	
	300	26	
_	250	15	
	200	55	1
	150	32	
_	100	20	A
-	50	16	or
_	25	15	IN
	- 11		in
			0
		600 550 450 450 250 200 150 200 150 25	630         62           600         44           550         36           500         29           450         36           400         86           350         28           300         26           250         15           200         55           150         32           100         20           50         16           25         15

MFR I

BP257

1000

900

800

700

600

500

400

300

200

100

50

25

BP2571-100

ng/10µL

90

66

58

48

41

69

28

21

28

20

14

15

# Fisher BioReagents\* exACTGene\* Low Range DNA Ladder

adv-to-use DNA size standards stable at room temperatureneed to thaw and refreeze )-2000 bp range

- umber of Bands: 8
- oher intensity reference band at 500 bp
- eal for size assessment and quantitative termination of DNA mass
- ontain loading dye to reduce pipetting steps id save time
- ovided in sufficient quantity to load 100 lanes LICATIONS: Quick Check of PCR Amplicons nzyme Digestion results

LUDES: 1mL of premixed ladder (0.5µg/10µL) ading dye (10mM EDTA, 10% glycerol, 5% bromophenol blue, 0.17% SDS).

#### RAGE CONDITIONS: Stable at room perature for two years.

lo.	Quantity	Packaging	MFR No.	
-100	1000µL	Poly Micro Tube	BP2572-100	

# Fisher BioReagents\* exACTGene\* 100 bp PCR DNA Ladder

Ready-to-use DNA size standards are stable at room temperatureno need to thaw and refreeze

Packaging

Poly Micro Tube

- ▶ 25-1000 bp range
- ► Number of Bands: 12
- Higher intensity reference band at 500 bp Ideal for size assessment and quantitative
- determination of DNA mass Contain loading dye to reduce pipetting steps
- and save time
- Provided in sufficient quantity to load 100 lanes

APPLICATIONS: PCR Size Confirmation and Small DNA Digests

INCLUDES: 1mL of premixed ladder (0.5µg/10µL) in loading dye (10mM EDTA, 10% glycerol, 0.015% bromophenal blue, 0.17% SDS).

Packaging

Poly Micro Tube

STORAGE CONDITIONS: Stable at room temperature for two years.

Fisher BioReagents*	exACTG ene*
ow Range Plus DNA	Ladder

Ready-to-use DNA size standards are stable at room temperatureno need to thaw and refreeze

## ▶ 100-2000 bp range

- ▶ Number of Bands: 11
- Higher intensity reference band at 500 bp Ideal for size assessment and quantitative
- determination of DNA mass ► Contain loading dye to reduce pipetting steps
- and save time Provided in sufficient quantity to load 100 lanes

APPLICATIONS: Fast Run Times, Small Size DNA

INCLUDES: 1mL of premixed ladder (0.5µg/10µL) in loading dye (10mM EDTA, 10% glycerol, 0.015% bromophenol blue, 0.17% SDS).

STORAGE CONDITIONS: Stable at room temperature for two years.

MFR No.	Quantity	Packaging	MFR No.
BP2571-100	1000µL	Poly Micro Tube	BP2574-100

#### 2000 1500 1000 57 800 52 700 41 600 36 500 52 400 24 300 19 200 22 100 27

ng/10µL

bp

2000 105

1500 87

1000 68

750 59

300 27

500 94

150 34

50 25

BP2572-100



INCLUDES: 1mL of premixed ladder (0.5µg/10µL)

in loading dye (10mM EDTA, 10% glycerol, BP2575-100 0.015% bromophenol blue, 0.17% SDS).

STORAGE CONDITIONS: Stable at room temperature for two years.

Quantity	Packaging	MFR No.
1000µL	Poly Micro Tube	BP2575-100

# Fisher BioReagents\* exACTGene\* **Cloning DNA Ladder**

Fisher BioReagents\* exACTGene\*

100 bp DNA Ladder

Ready-to-use DNA size standards

are stable at room temperature-

Higher intensity reference band at 500 bp

Ideal for size assessment and quantitative

· Contain loading dye to reduce pipetting steps

APPLICATIONS: General Purpose and Small

in loading dye (10mM EDTA, 10% glycerol,

STORAGE CONDITIONS: Stable at room

Packaging

Poly Micro Tube

0.015% bromophenol blue, 0.17% SDS).

temperature for two years.

Provided in sufficient quantity to load 100 lanes

INCLUDES: 1mL of premixed ladder (0.5µg/10µL)

no need to thaw and refreeze

► 100-1000 bp range

and save time

Size DNA

Quantity

1000ul

► Number of Bands: 10

determination of DNA mass

Ready-to-use DNA size standards are stable at room temperatureno need to thaw and refreeze

- ► 100-2686 bp range
- ► Number of Bands: 14 Higher intensity reference band at 500 and
- 1000 bo Ideal for size assessment and quantitative determination of DNA mass
- ► A 2686 bp (pUC 19) reference band for clone identification
- Contain loading dye to reduce pipetting steps and save time
- Provided in sufficient quantity to load 100 lanes
- **APPLICATIONS:** Clone Identification

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Quantity

# ng/10µl 77 67 63 55 47 70 34 26 33 28

ng/10µL BP2574-100

# Fisher BioReagents\* exACTGene\* Mid Range DNA Ladder

Ready-to-use DNA size standards are stable at room temperatureno need to thaw and refreeze

▶ 300-5000 bp range

- ► Number of Bands: 10
- Ideal for size assessment and quantitative determination of DNA mass
- ► Contain loading dye to reduce pipetting steps and save time
- Provided in sufficient quantity to load 100 lanes

APPLICATIONS: Large Size PCR confirmation or cloning application

INCLUDES: 1mL of premixed ladder (0.5ug/10uL) in loading dye (10mM EDTA, 10% glycerol, 0.015% bromophenol blue, 0.17% SDS).

STORAGE CONDITIONS: Stable at room temperature for two years.

5000 4000 3000	92 80
3000	
2500	65
2000	54 47
1500	44
1000	22
700	36
500	35
300	24

BP2576-100

uantity	Packaging	MFR No.
Ju00µL	Poly Micro Tube	BP2576-100

# Fisher BioReagents\* exACTGene\* Mid Range Plus DNA Ladder

Ready-to-use DNA size standards are stable at room temperatureno need to thaw and refreeze

► 100-5000 bp range

► Number of Bands: 16

 Higher intensity reference band at 500 and 1000 bo

Ideal for size assessment and quantitative determination of DNA mass

Contain loading dye to reduce pipetting steps and save time

Provided in sufficient quantity to load 100 lanes

APPLICATIONS: Small and Large Cloning Applications

INCLUDES: 1mL of premixed ladder (0.5µg/10µL) in loading dye (10mM EDTA, 10% glycerol, 0.015% bromophenol blue, 0.17% SDS).



BP2577-100

STORAGE CONDITIONS: Stable at room temperature for two years.

uantity	Packaging	MFR No.
300µL	Poly Micro Tube	BP2577-100



two years

# Fisher BioReagents\* exACTG ene\* 1kb Plus DNA Ladder

Ready-to-use DNA size standards are stable at room temperatureno need to thaw and refreeze

- ▶ 100-10,000 bp range
- ► Number of Bands: 19
- ▶ Higher intensity reference band at 500, 1000 and 5000 bp
- Ideal for wide range size assessment and guantitative determination of DNA mass
- ► Contain loading dye to reduce pipetting steps and save time
- ▶ Provided in sufficient quantity to load 100 lanes

APPLICATIONS: General Purpose, Wide DNA Size Range

INCLUDES: 1mL of premixed ladder (0.5µg/10µL) in loading dye (10mM EDTA, 10% glycerol, 0.015% bromophenol blue, 0.17% SDS).



## **Fisher BioReagents\* Routine DNA** Ladders



STORAGE CONDITIONS: Stable at room temperature for two years.

Quantity	Packaging	MFR No.
1000µL	Poly Micro Tube	BP2579-100

larker Base Pair Range)	No. of Bands	Application	Size	MFR No.
00 bp Low Scale DNA adder (50 to 2000 bp)	11	PCR Size Confirmation	1000µL (200 Ioadings)	BP2581-200
kb Full Scale DNA Ladder 10 to 10,000 bp)	16	General Purpose, Wide DNA Size Range	1000µL (200 Ioadings)	BP2582-200