1st BASE
YOUR RESEARCH, OUR BUSINESS

1st BASE
Biochemicals, Buffers And Reagents

*Where **Reliability** and **Convenience** count in your research work...*

Our products are applicable for use in routine laboratory applications

- *Nucleic Acid Analysis and Electrophoresis*
- *Protein Analysis and Electrophoresis*
- *Biological Buffers and Related Reagents*
- *Culture Media and Components*
- *Molecular Biology Reagents*

Features & Benefits

1. Freshly prepared finest and ultra-pure reagents suitable for biomolecular work
2. Use of Type 1 water which ensures that reagents are contaminant-free
3. Available in easy-to-use 500ml, 1-litre and 4-litre packaging
4. Storage life of between 6 months and 2 years
5. Customized formulation and packaging of reagents upon request

Our products are broadly classified into:

1. **BIO category** refers to fine chemicals and reagents commonly used in life science research applications, include bulk powders, dry media and high purity reagents
2. **BUF category** refers to ready-to-use reagents
3. **Molecular Biology Reagents** refers to reagents which are suited for molecular biology applications

To find the product most suited for your research, please refer to these product grades:

Product Grades	Product Description
ACS	**Materials conform to the specifications and procedures outlined in American Chemical Society Specifications, 10th edition, 2006. These inorganic chemicals are sold in powder or crystalline forms, suitable for general laboratory use.**
Ultra Pure	**Materials with a purity exceeding the specifications and procedures outlined in American Chemical Society Specifications, 10th edition, 2006. These include ready-to-use reagents of high quality suited for most laboratory applications, meeting requirements such as ultra-low levels of trace metal contaminants.**
Biotechnology	**Materials with purity comparable to Ultra Pure Grade particularly suited for molecular biology applications. Tested to show no detectable traces of DNase, RNase, Protease and endotoxins.**

Nucleic Acid Analysis and Electrophoresis Applications

	Product No.	Description	Packing Size
	BIO-1000	Agarose, Biotechnology Grade	100g/ 500g/ 1kg
★	BIO-1050	EDTA Disodium, Ultra Pure Grade	100g/ 500g/ 1kg
	BIO-1090	Sucrose, Ultra Pure Grade	500g/ 1kg/ 5kg
	BIO-1140	Boric Acid, ACS Grade	500g/ 1kg
	BIO-1150	Sodium Acetate, Anhydrous, ACS Grade	500g/ 1kg
	BIO-1160	Ammonium Acetate, ACS Grade	500g/ 1kg
	BIO-1200	Potassium Dihydrogen Phosphate, ACS Grade	500g/ 1kg
	BIO-1210	Potassium Phosphate, Dibasic, ACS Grade	500g/ 1kg
	BIO-1300	Potassium Chloride, ACS Grade	500g/ 1kg
	BIO-1530	Sodium Hydroxide Pellets, ACS Grade	500g/ 1kg
	BIO-1540	Sodium Phosphate, Dibasic, ACS Grade	500g/ 1kg
	BIO-1542	Sodium Phosphate, Monobasic, Anhydrous, ACS Grade	500g/ 1kg
	BIO-3040	MOPS, Ultra Pure Grade	50g/ 100g/ 500g
★	BUF-1051-pH7.0/8.0	0.1M EDTA, pH 7.0/8.0, Ultra Pure Grade	1L
	BUF-1051-pH7.4	0.1M EDTA, pH 7.4, Ultra Pure Grade	500ml/ 1L
	BUF-1052-pH8.0	0.5M EDTA, pH 8.0, Ultra Pure Grade	500ml/ 1L

★ *Popular items*

	Product No.	Description	Packing Size
	BUF-1053-pH8.0	0.5M EDTA, pH 8.0, Biotechnology Grade	100ml/ 1L
	BUF-1120	Glycerol, Biotechnology Grade	500ml/ 1L
	BUF-1151-pH5.2	3.0M Sodium Acetate Solution,pH5.2, Biotechnology Grade	1L
★	BUF-1170	Water, DEPC treated, Biotechnology Grade	200ml/ 1L
★	BUF-1180	Water, Biotechnology Grade	100ml/ 500ml/ 1L
★	BUF-1310	3M Potassium Chloride, Biotechnology Grade	100ml/ 1L
★	BUF-1313	1M Potassium Hydroxide Solution, Ultra Pure Grade	1L
	BUF-1530	3.0M Sodium Hydroxide Solution, Ultra Pure Grade	1L
	BUF-1550-pH8.0	1.0M Potassium Phosphate Buffer, pH 8.0, Ultra Pure Grade	1L
★	BUF-3000-10X	10X Tris-Acetate-EDTA (TAE) Buffer, pH 8.0, Ultra Pure Grade	1L/ 4L
	BUF-3000-1X	1X Tris-Acetate-EDTA (TAE) Buffer, pH 8.0, Ultra Pure Grade	1L
★	BUF-3000-50X	50X Tris-Acetate-EDTA (TAE) Buffer, pH 8.0, Ultra Pure Grade	1L/ 4L
	BUF-3001-10X	10X Tris-Acetate-EDTA (TAE) Buffer, pH 7.8, Ultra Pure Grade	1L
	BUF-3002-10X	10X Tris-Acetate-EDTA (TAE) Buffer, Premixed Powder, Ultra Pure Grade	1L
	BUF-3003-10X	10X Tris-Acetate-EDTA (TAE) Buffer, pH 8.0, Biotechnology Grade	100ml/ 1L
	BUF-3003-1X	1X Tris-Acetate-EDTA (TAE) Buffer, pH 8.0, Biotechnology Grade	1L
	BUF-3009-10X	10X Tris-Acetate-EDTA (TAE) Buffer, Premixed Powder (Sachet), Ultra Pure Grade	1L
★	BUF-3010-10X	10X Tris-Borate-EDTA (TBE) Buffer, pH 8.3, Ultra Pure Grade	1L/ 4L
	BUF-3010-1X	1X Tris-Borate-EDTA (TBE) Buffer, pH 8.3, Ultra Pure Grade	1L
	BUF-3011-10X	10X Tris-Borate-EDTA (TBE) Buffer, Premixed Powder, Ultra Pure Grade	1L
	BUF-3013-10X	10X Tris-Borate-EDTA (TBE) Buffer, pH 8.3, Biotechnology Grade, 100ml	100ml/ 1L
	BUF-3019-10X	10X Tris-Borate-EDTA (TBE) Buffer, Premixed Powder (Sachet), Ultra Pure Grade	1L
	BUF-3020-10X	10X Tris-EDTA (TE) Buffer, pH 8.0, Ultra Pure Grade	1L/ 4L
	BUF-3020-1X	1X Tris-EDTA (TE) Buffer, pH8.0, Ultra Pure Grade	1L
	BUF-3021-1X /10X	1X/10X Tris-EDTA (TE) Buffer with reduced EDTA, pH 8.0, Ultra Pure Grade	1L
	BUF-3024-1X	1X Tris-EDTA (TE) Buffer, pH 8.0, Biotechnology Grade	500ml
	BUF-3030-10X	10X Tris Buffered Saline (TBS) Buffer, Ultra Pure Grade	1L/ 4L
	BUF-3030-1X	1X Tris Buffered Saline (TBS) Buffer, Ultra Pure Grade	1L
	BUF-3030-20X	20X Tris Buffered Saline (TBS) Buffer, Ultra Pure Grade	1L/ 4L
	BUF-3050-1X/20X	1X/20X SSC Buffer, Biotechnology Grade	1L
	BUF-3051-20X	20X SSC Buffer, Ultra Pure Grade	1L
	BUF-3060-1X/20X	1X/20X SSPE Buffer, Biotechnology Grade	1L

Protein Analysis and Electrophoresis

	Product No.	Description	Packing Size
★	BIO-2050	Sodium Dodecyl Sulfate (SDS), Biotechnology Grade	100g/ 500g
	BIO-2070	Urea, Ultra Pure Grade	500g/ 1kg/ 5kg
★	BIO-2080	Glycine, Biotechnology Grade	500g/ 1kg/ 5kg
	BIO-2085	Glycine, Ultra Pure Grade	500g/ 1kg/ 5kg
	BUF-1115	1.0M Sodium Hydroxide, Biotechnology Grade	500ml/ 1L
	BUF-2000-10X	10X Tris Tricine Buffer, Ultra Pure Grade	1L
	BUF-2010-10X	10X Tris Tricine-Sodium Dodecyl Sulfate (TT-SDS) Buffer, Ultra Pure Grade	1L
★	BUF-2020-10X	10X Tris Glycine (TG) Buffer, Ultra Pure Grade	1L/ 4L
	BUF-2020-1X	1X Tris Glycine (TG) Buffer, Ultra Pure Grade	1L
★	BUF-2030-10X	10X Tris Glycine-Sodium Dodecyl Sulfate (TG-SDS) Buffer, Ultra Pure Grade	1L/ 4L
	BUF-2030-1X	1X Tris Glycine-Sodium Dodecyl Sulfate (TG-SDS) Buffer, Ultra Pure Grade	1L
	BUF-2030-5X	5X Tris Glycine-Sodium Dodecyl Sulfate (TG-SDS) Buffer, Ultra Pure Grade, 1L	1L
★	BUF-2040-10X	10X Phosphate Buffered Saline (PBS), Ultra Pure Grade	500ml/ 1L /4L
	BUF-2040-1X	1X Phosphate Buffered Saline (PBS), Ultra Pure Grade	500ml/ 1L
★	BUF-2041-10X	10X Phosphate Buffered Saline (PBS), Biotechnology Grade	500ml/ 1L
	BUF-2041-1X	1X Phosphate Buffered Saline (PBS), Biotechnology Grade	500ml/ 1L
	BUF-2047-10X	10X Phosphate Buffered Saline (PBS), Premixed Powder, Ultra Pure Grade	1L
	BUF-2049-10X	10X Phosphate Buffered Saline (PBS), Premixed Powder (Sachet), Ultra Pure Grade	1L
★	BUF-2051	10% (w/v) Sodium Dodecyl Sulfate (SDS) Solution, Biotechnology Grade	500ml/ 1L
	BUF-2052	20% (w/v) Sodium Dodecyl Sulfate (SDS) Solution, Biotechnology Grade	500ml/ 1L

★ *Popular items*

Biological Buffers and Related Reagents

	Product No.	Description	Packing Size
★	BIO-1400	Tris, Ultra Pure Grade	500g/ 1kg/ 5kg
	BIO-1401	Tris, Biotechnology Grade	500g/ 1kg/ 5kg
	BIO-1500	Tris HCL, Ultra Pure Grade	500g/ 1kg/ 5kg
	BIO-1825	HEPES, Ultra Pure Grade	100g/ 500g/ 1kg/ 5kg
	BIO-1826	HEPES, Biotechnology Grade	100g/ 500g
	BUF-1131-pH7.0/8.0	1.0M Sodium Phosphate Buffer, Ultra Pure Grade	500ml
	BUF-1132-pH7.0	0.1M Sodium Phosphate Buffer, Ultra Pure Grade	500ml
	BUF-1414-pH6.8/ 7.0/8.0/8.8	0.5M Tris Buffer, Ultra Pure Grade	1L
★	BUF-1415-pH6.8/7.0/ 7.4/7.5/7.8/8.0/8.8	1.0M Tris Buffer, Ultra Pure Grade	1L
	BUF-1415-pH6.8/7.0/ 7.4/7.5/8.0/8.8	1.0M Tris Buffer, Ultra Pure Grade	500ml
	BUF-1416-pH7.0/7.5	1.0M Tris Buffer, Biotechnology Grade	1L
	BUF-1416-pH8.0	1.0M Tris Buffer, Biotechnology Grade	500ml/ 1L
	BUF-1419-1L-6.8/7.0/ 8.0/8.8	1.5M Tris Buffer, Ultra Pure Grade	1L
	BUF-1821-pH7.5	1M HEPES Buffer, Ultra Pure Grade	100ml/ 500ml/ 1L

Culture Media and Components

	Product No.	Description	Packing Size
	BIO-1010	IPTG, Biotechnology Grade	1g / 5g/ 10g/ 20g
	BIO-1020	X-Gal, Biotechnology Grade	1g/ 5g
	BIO-1101	D-glucose, Anhydrous, ACS Grade	500g/ 1kg
★	BIO-1110	Sodium Chloride, Biotechnology Grade	500g/ 1kg/ 5kg
★	BIO-1111	Sodium Chloride, ACS Grade	1kg/ 5kg
★	BUF-1112	5.0M Sodium Chloride Solution, Biotechnology Grade	500ml/ 1L
★	BIO-4000	LB Broth Miller, Bacterial Culture Media	100g/ 500g/ 1kg
	BIO-4000	LB Broth Miller, pH 7.0, Bacterial Culture Media	500ml/ 1L
★	BIO-4010	LB Agar Miller, Bacterial Culture Media	100g/ 500g/ 1kg
★	BIO-4020	Bacteriological Agar, Bacterial Culture Media	500g/ 1kg
	BIO-4030	Yeast Extract, Bacterial Culture Media	500g/ 1kg
	BIO-4040	Tryptone, Bacterial Culture Media	500g/ 1kg
★	BUF-4100	Sterile Deionized Water, Biotechnology Grade	1L

Molecular Biology Reagents

To complement our established line of Biochemicals and Ready-to-Use Buffers, **1st BASE** is proud to launch a new range of reagents that are suited for molecular biology applications.

These high performance reagents are **quality tested** to perform well in routine molecular biology experiments.

Well suited for the following applications:

1. Endpoint PCR experiments
2. DNA Electrophoresis and Detection
3. Protein Electrophoresis and Detection by Western Blotting

Features:

- High performance and high purity reagents
- User Friendly, the reagents are well packaged for convenient transport and storage.
- Easy to use: Refer to the enclosed recommended protocols for our reagents, you can start work immediately!

High Performance Reagents for PCR

NEW! Colored PCR Reagent – REDiant Taq DNA Polymerase and REDiant PCR Master Mix

REDiant *Taq* DNA Polymerase

REDiant *Taq* DNA Polymerase is a unique blend of **1st BASE** *Taq* DNA polymerase and red inert dye, enabling visual confirmation of polymerase addition into PCR Master Mix. They red dye travels slightly faster than bromophenol blue at a rate similar to 125bp in 1% agarose gel. The dye does not inhibit PCR processes, sequencing, restriction digestion or other downstream applications.

Features:

1. Same great performance as *Taq* DNA Polymerase with additional inert red dye.
2. Ensure complete mixing by visualizing the addition of polymerase into PCR mix.
3. dA overhang on 3' ends during DNA fragment extension amplification reactions.
4. No additional loading dyes required and acts as a tracking dye during gel electrophoresis.
5. Red inert dye does not inhibit PCR.

REDiant PCR Master Mix

The REDiant PCR Master Mix is a unique blend of 1st BASE PCR Master Mix and the convenient benefits of the **1st BASE** REDiant *Taq* DNA Polymerase. It contains all the reagents required for PCR in a premixed format. With the additional inert red dye added to the enzyme for tracking, no loading buffer is required. This greatly reduces contamination risk caused by multiple pipetting and requires less preparation time with greater consistency.

Features:

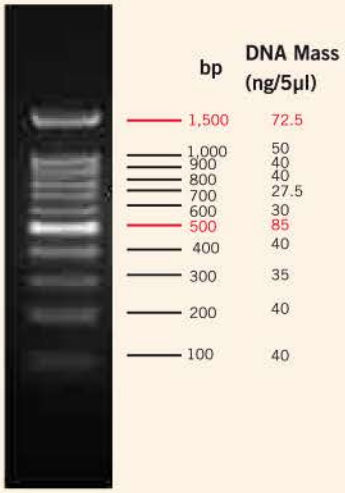
1. Minimal optimization requirements.
2. Wide choice of formats for convenience and ease of handling.
3. Direct loading of PCR products.
4. Reduces contamination risk with fewer pipetting steps.
5. Quick preparation with greater consistency.
6. Dye allows quick visual confirmation of enzyme addition and reaction mixing.
7. No additional loading dyes necessary.

M – ExactMark 100bp DNA Ladder, Ready To Use (C/No: BIO-5130)
1 – Positive control
2 – *Taq* DNA Polymerase (recombinant) (C/No: BIO-5110) + dNTP Mix (C/No: BIO-5120-1ml)
3 – REDiant *Taq* DNA Polymerase(recombinant) (C/No: BIO-5115) + dNTP Mix (C/No: BIO-5120-1ml)
4 – REDiant 2X PCR Master Mix (C/No: BIO-5185)

Gel running condition: 2% Agarose Gel, 10cm, 1X TAE, 8V/cm, 90mins and visualized by staining with FloroSafe DNA stain (BIO-5170-1ml) for 20mins

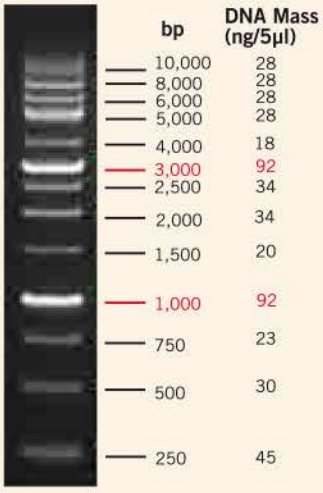
Product No.	Product Description	Packaging Size
BIO-5110	***Taq* DNA Polymerase (recombinant) - $MgCl_2$ Separate**	500U / 2500U
BIO-5115	**REDiant *Taq* DNA Polymerase (recombinant) - $MgCl_2$ separate, 500U, Packaging 1 x 500U**	500U
BIO-5120	**dNTP Mix, 10mM each, 1ml, Packaging 1 x 1ml**	1 ml
BIO-5125	**dNTP Set, 100mM each, 4 x 0.25ml, Packaging 4 x 0.25ml (dATP)**	1 ml
BIO-5180	**2X PCR Master Mix**	200rxns / 1000 rxns
BIO-5185	**REDiant 2X PCR Master Mix, 1000 reactions, Packaging 20 x 1.25ml**	200rxns / 1000 rxns

Products for DNA Electrophoresis



C/No. BIO-5130
ExactMark 100bp DNA Ladder (100-1,500 bp)

Gel running conditions:
1.7% Agarose gel (C/No: BIO-1000) 0.5µg/lane, 10cm gel, 1X TAE (C/No: BUF-3000/BUF-3001), 8V/cm, 2hrs



C/No. BIO-5140
ExactMark 1kb DNA Ladder (250-10,000 bp)

Gel running conditions:
1% Agarose gel (C/No: BIO-1000) 0.5µg/lane, 10cm gel, 1X TAE (C/No: BUF-3000/BUF-3001), 8V/cm, 2.5hrs

Product No.	Product Description	No. of Applications
BIO-5130-50ug	**ExactMark 100bp DNA Ladder, Ready to Use, 50ug**	~100 applications
BIO-5130-100ug	**ExactMark 100bp DNA Ladder, Ready to Use, 10ug**	~200 applications
BIO-5140-50ug	**ExactMark 1kb DNA Ladder, Ready to Use, 50ug**	~100 applications
BIO-5140-100ug	**ExactMark 1kb DNA Ladder, Ready to Use, 100ug**	~200 applications

Tri-Color 6X DNA Loading Dye, 6 x 1ml

Contains 3 tracking dyes for better visual tracking of DNA migration during electrophoresis

Composition: 0.4% Orange G, 0.03% Bromophenol blue, 0.03% Xylene cyanol FF, 36% Glycerol, 10Mm Tris-HCl (pH 7.4), 50mM EDTA (pH 8.0)

C/No. BIO-5160-6ml
Tri-Color 6X DNA Loading Dye

FloroSafe DNA Stain, 1ml

Features:

1. FloroSafe DNA Stain is a safer alternative to Ethidium Bromide used for detecting nucleic acid in agarose gels.
2. FloroSafe DNA Stain has two secondary fluorescence excitation peaks (~270 nm; ~295 nm) and one strong excitation peak centered around 490 nm. The fluorescence emission is similar to Ethidium Bromide when bound to DNA which is at about 530 nm.
3. FloroSafe does not create any toxic waste and may be disposed according to laboratory regulations.

Precasting method:

Add 3ul of Florosafe DNA Stain (BIO-5170-1ml) into 100ml of 1.7% agarose gel solution and allow the gel to cast before electrophoresis.

Gel running conditions:
Mixture of DNA size marker and Tri-Color 6X DNA Loading Dye (BIO-5160-6ml) was loaded (0.5ug/lane) on 10cm 1.7% Agarose gel (BIO-1000), mixed with 3ul of Florosafe DNA Stain (BIO-5170-1ml). 1X TAE running buffer (BUF-3000/BUF-3001), 8V/cm, 2hrs. Bands were visualized under UV illuminator.

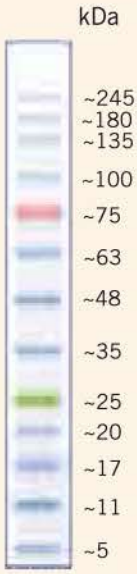
C/No. BIO-5170-1ml
FloroSafe DNA Stain

Product No.	Product Description	No. of Applications
BIO-5160-6ml	**Tri-Color 6X DNA Loading Dye, 6 X 1ml**	6,000 applications
BIO-5170-1ml	**FloroSafe DNA Stain, 1ml**	~200 applications (based on precasting protocol)

Products for Protein Electrophoresis

ExactPro Broad Range Prestained Protein Ladder (10-245KDa)

Broad range ladder with an orange reference band at ~75kDa and a green reference band at ~25kDa



Tris-Glycine 4-20%

Features:

1. Ready-to-use. No further dilution, addition of a reducing agent or heating is required.
2. Suitable for use in Western blotting with all common membranes.

Product No.	Product Description	No. of Applications
BIO-5150-250ul	**ExactPro Broad Range (10-245kDa) Prestained Protein Ladder, 250µl**	~50 applications
BIO-5150-500ul	**ExactPro Broad Range (10-245kDa) Prestained Protein Ladder, 500µl**	~100 applications

C/No. BIO-5150-250ul ExactPro Broad Range (10-245kDa) Prestained Protein Ladder

Gel running conditions:
5ul of ExactPro Broad Range (10-245kDa) Prestained Protein Ladder (BIO-5150) loaded into 10-well mini-gel of 4-20% SDS-PAGE with Tris-glycine buffer.

Customised Buffers

We offer customized formulations which are specific to your research needs, simply provide the following details:

- Buffer components, buffer recipes
- pH and concentration required
- Grade (ACS Grade, Ultra Pure Grade or Biotechnology Grade)
- Packing size order quantity

Freezer Programs

Our products are made more accessible to meet the demands of the fast paced research industry through our freezer program partnerships. Contact us to work out a 1st BASE freezer program today.

Ordering Information

Please contact our distributors below for orders and enquiries.

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If you are unable to locate a distributor, please **contact 1st BASE directly** at info@base-asia.com.

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