



Phyto Technology Laboratories<sup>®</sup> offers more than 30 different antibiotics for plant molecular biology research, seed testing and more. Some of our more popular antibiotics are listed below. Please visit www.phyotechlab.com for a complete listing of all of our antibiotics and our sterile filtered antibiotic solutions.

#### A116 Ampicillin

D(-)- $\beta$ -Aminobenzylpenicillin. Ampicillin is a broad spectrum  $\beta$ -lactam antibiotic. It is a semi synthetic derivative of penicillin and has a similar mode of action to that of benzylpenicillin against gram-positive organisms; however, it is more effective against gram-negative bacilli such as *Haemophilus influenza* and Enterobacteriaceae such as *Escherichia coli*.







Available Package Sizes:

5g

25g

#### C346 Carbenicillin

α-Carboxybenzylpenicillin, Disodium Salt. Carbenicillin is a derivative of penicillin with a mode of action similar to benzylpenicillin. It is the most commonly used antibiotic for the elimination of Argobacterium tumefaciens during plant transformation. Also available as a sterile filtered solution in a concentration of 100 mg/mL (product number C540).







Available Package Sizes:

5g

10g

25g

100g

Water 2

2 to 6 °C

C380 Cefotaxime

(6R,7R)-3-[(Acetyloxy)methyl]-7-[[(2Z)-(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic Acid. Cefotaxime is used in transformation research to eliminate *Agrobacterium tumefaciens*.



Gram ±





Available Package Sizes:

10

5g

25g

100a

Water

2 to 6 °C

C537

#### Cefotaxime Solution (100 mg/mL)

Sterile Filtered 100 mg/mL Solution. (6R,7R)-3-[(Acetyloxy)methyl]-7-[[(2Z)-(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic Acid. Cefotaxime is used in transformation research to eliminate Agrobacterium tumefaciens. This product ships via 1-Day Shipping on dry ice to ensure product integrity during shipping transit.







Available Package Sizes:

10ml

100mL

## C1880 Cefotaxime Solution (250 mg/mL)

Sterile Filtered 250 mg/mL Solution. (6R,7R)-3-[(Acetyloxy)methyl]-7-[[(2Z)-(2-amino-4-thi-azolyl)(methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic Acid. Cefotaxime is used in transformation research to eliminate *Agrobacterium tumefaciens*. This product ships via 1-Day Shipping on dry ice to ensure product integrity during shipping transit.



Gram ±





Available Package Sizes:

10x1mL

10mL

25mL

100mL

#### G570 Gentamicin Sulfate

Gentamycin Sulfate. Gentamicin sulfate is an aminoglycoside antibiotic that is effective against many gram-negative bacteria (e.g., Brucella, Escherichia, Enterobacter, Francisella, Yersinia, etc.) and some strains of staphylococci. Also available as a sterile filtered solution in a concentration of 50mg/mL (product number G3350) and 100 mg/mL (product number G3410).







Available Package Sizes:

5a

100

25a

#### H397 Hygromycin B

O-6-Amino-6-deoxy-L-glycero-D-galacto-heptopyranosylidene-(1-2-3)-O-β-D-talopyranosyl-(1-5)-2-deoxy-N3-methyl-D-Streptamine. Hygromycin B is effective against bacteria, fungi, and higher eukaryotic cells. Also available as a sterile filtered solution in a concentration of 100mg/mL in DI Water (product number H385) and 50 mg/mL in PBS Buffer (product number H370).







Selection

Water

2 to 6°C

Available Package Sizes:

#### K378 Kanamycin

O-3-Amino-3-deoxy-α-D-glucopyranosol-(1?6)-O-[6-amino-6-deoxy-α-D-glucopyranosyl-((1?4)-2deoxy-D-Streptamine Monosulfate. Kanamycin is effective against gram-positive and gram-negative bacteria and is used to select for the nptII gene. Also available as a sterile filtered solution in a concentration of 50mg/mL (product number K586) and 100 mg/mL (product number K4751).







Available Package Sizes:

5g

## M5600 Meropenem Trihydrate

Meropenem is a broad spectrum antibiotic with activity against Gram-positive and Gram-negative bacteria. It is a beta-lactam antibiotic which inhibits bacterial wall synthesis and belongs to the subgroup of carbapenem.







Available Package Sizes:

100mg

1g

5g

Gram ± Water -20 °C

T869 Timentin

Timentin is a mixture of ticarcillin and clavulanic acid and exhibits broad spectrum activity toward gram-negative bacteria. Timentin is used most commonly in the regeneration medium for elimination of the Agrobacterium post-transformation.



Gram





Available Package Sizes:

10a

25g

100g

Timentin Solution (50 mg/mL)

Sterile Filtered 50 mg/mL Solution. Timentin is a mixture of ticarcillin and clavulanic acid and exhibits broad spectrum activity toward gram-negative bacteria. Timentin is used most commonly in the regeneration medium for elimination of the Agrobacterium post-transformation. <mark>This product ships</mark> via 1-Day Shipping on dry ice to ensure product integrity during shipping transit.



Gram -





Available Package Sizes:

10mL

25<sub>m</sub>L

100mL

#### T767 Timentin Solution (100 mg/mL)

Sterile Filtered 100 mg/mL Solution. Timentin is a mixture of ticarcillin and clavulanic acid and exhibits broad spectrum activity toward gram-negative bacteria. Timentin is used most commonly in the regeneration medium for elimination of the Agrobacterium post-transformation. This product ships via 1-Day Shipping on dry ice to ensure product integrity during shipping transit.



Gram -





Available Package Sizes:

10<sub>m</sub>L

100mL

### V870 Vancomycin Hydrochloride

Vancomycin is a glycopeptide antibiotic produced by Streptomyces orientalis that is effective against most Gram-positive bacteria by blocking bacterial cell wall synthesis. Also available as a sterile filtered solution in a concentration of 100 mg/mL (product number V8370).







Available Package Sizes:

10g

25g

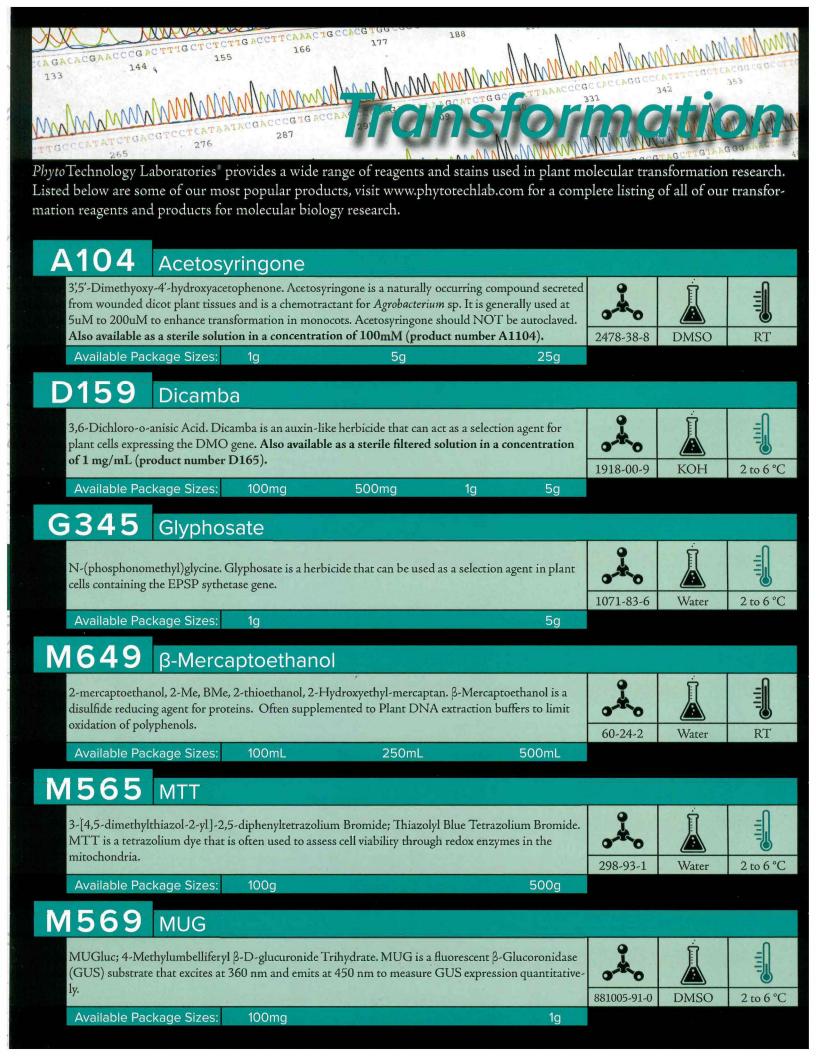
Indicates the storage temperature of the antibiotic. RT indicates room temperature.

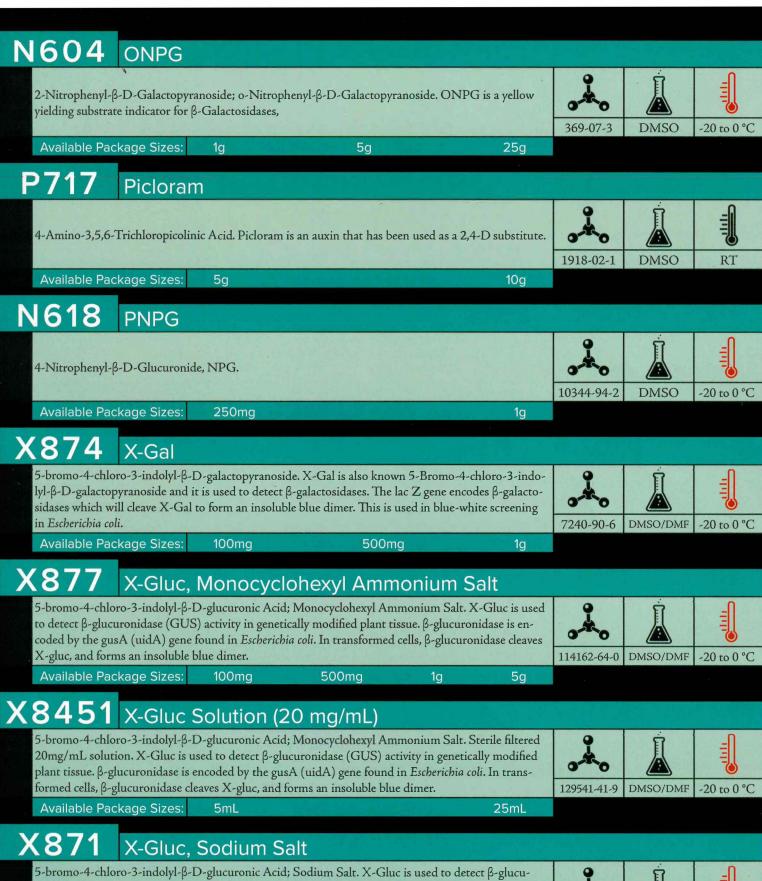


Indicates whether the antibiotic is used against with Gram +, Gram -, or as a selection agent.



Indicates the solubility or miscibility of the antibiotic or antibiotic solution.





ronidase (GUS) activity in genetically modified plant tissue. β-glucuronidase is encoded by the gusA (uidA) gene found in Escherichia coli. In transformed cells, β-glucuronidase cleaves X-gluc, and forms an insoluble blue dimer.







Available Package Sizes:

100mg

500mg

129541-41-9 DMSO/DMF



1q



5q

Indicates the storage temperature of the product. RT indicates room temperature.



Indicates the Chemical Abstracts Service (CAS) Number of the product.



Indicates the solubility or miscibility of the product.

# LB Broths & Agars

#### H289 Hanahan's Broth

Hanahan's Broth (SOB Medium) was developed by Douglas Hanahan (1983) for the cultivation of competent *Escherichia coli* cells prior to transformation. SOB Medium is a nutrient-rich, bacterial growth medium that is used for microbiological culture, generally of *E. coli*.







Available Package Sizes:

100a

500g

9 g/L Water 2 to

#### L5128 LB Agar, Lennox L Modification

Contains the nutrients as described by Bertani (1951), and Luria & Burrows (1955). Formulation modified by Lennox L (1955). This rich medium supports the rapid growth of *Escherichia coli* for molecular biology applications.







Available Package Sizes:

1L

500g

5Kg

#### L465 LB Agar, Miller Modification

3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate.
Non-denaturing zwitterionic detergent that is typically used to solubilize membrane proteins.







Available Package Sizes

1g

5g

10g

#### L 5138 LB Broth, Lennox L Modification

Contains the nutrients as described by Bertani (1951), and Luria & Burrows (1955). Formulation modified by Lennox L (1955). This rich medium supports the rapid growth of *Escherichia coli* for molecular biology applications.







Available Package Sizes

11

500

5Kg

#### L5190 LB Broth, Lennox L Modification, ADP-Free

Contains the nutrients as described by Bertani (1951), and Luria & Burrows (1955). The Lennox L Modification (1955) has been adapted to be free of animal derived products. This rich medium supports the rapid growth of *Escherichia coli* for molecular biology applications.



24.0 g/L





Available Package Sizes

1L

500a

#### L475 LB Broth, Miller Modification

Contains the nutrients as described by Bertani (1951), and Luria & Burrows (1955). Formulation modified by Miller (1972). This rich medium supports the rapid growth of *Escherichia coli* for molecular biology applications.



25.0 g/L





Available Package Size

1

500

5Ka

#### L585 LB Broth Solution (1x), Lennox L

Contains the nutrients as described by Bertani (1951), and Luria & Burrows (1955). Formulation modified by Lennox L (1955). This rich medium supports the rapid growth of *Escherichia coli* for molecular biology applications.





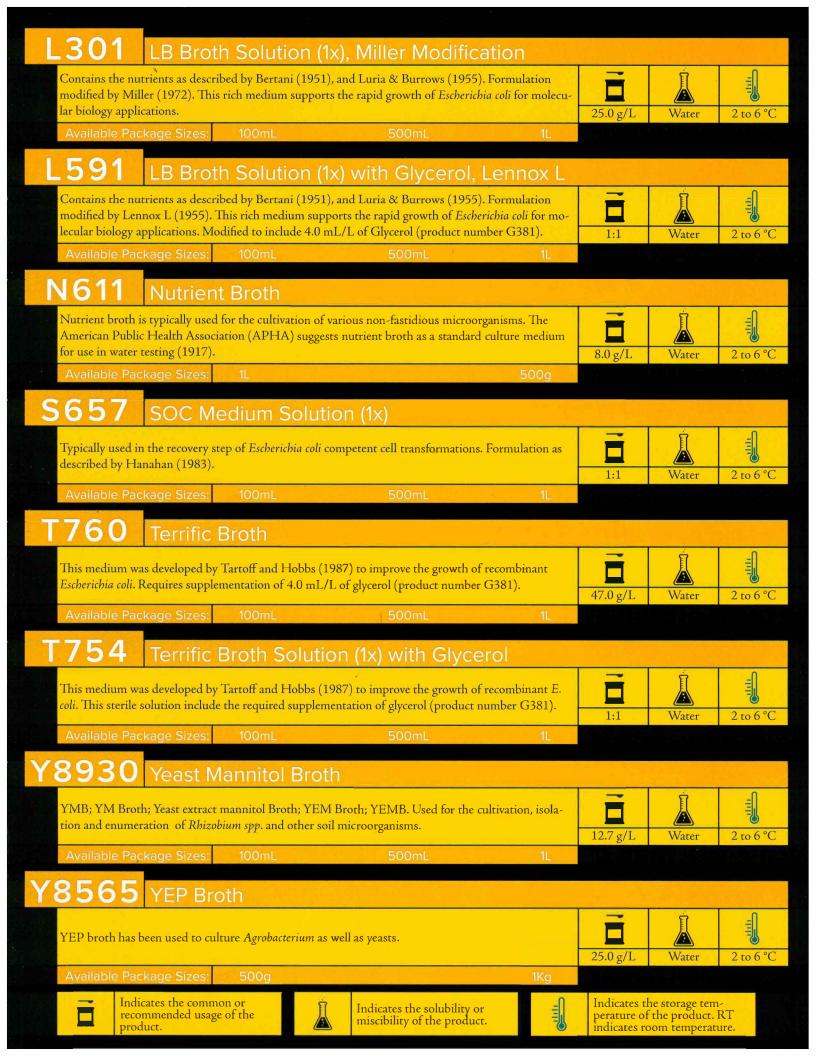


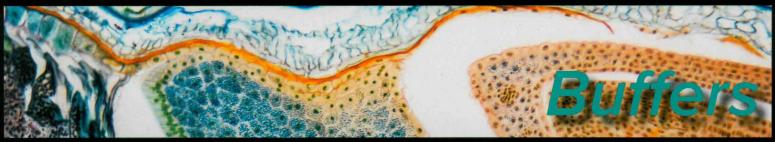
Available Package Sizes

100m

500ml

11.





PhytoTechnology Laboratories® buffers mixtures are manufactured in-house and in accordance to cGMP Guidelines and ISO standards of quality. PhytoTech™ buffers are manufactured from high quality, high purity biochemicals, meeting USP or ACS specifications as applicable. All buffers are intended for use in molecular biology research applications.



2,2-Bis-(hydroxymethyl)-2,2,2"-nitrilotriethanol. Plant Tissue Culture Tested.

pK<sub>A</sub>





Available Package Sizes:

100g

500g

1Kg

#### E316 Ethylenediaminetetraacetic Acid, Free Acid

EDTA; Edetic Acid. Used to chelate trace metals, which are known to damage nucleic acid. Plant Tissue Culture Tested.







Available Package Sizes:

100g

500g

1Kg

#### G3300 Guanidine Thiocyanate

Guanidinium rhodanide; Guanidinium thiocyanate. Guanidine thiocyanate is a powerful denaturing and chaotropic agent. It is used to extract nucleic acids.







Available Package Sizes:

100g

500g

1Kg

#### H326 HEPES

N-(2-Hydroxyethyl)Piperazine-N'-(2-Ethanesulfonic Acid); 4-(2-Hydroxyethyl)-1-Piperazineethanesulfonic Acid. One of the Good's Buffers used in molecular biology research. Molecular Biology Grade.







Available Package Sizes:

100g

500g

1Kg

#### M825 MES

2-(N-morpholino)ethanesulfonic Acid; Free Acid. One of the Good's Buffers used in molecular biology research. Plant Tissue Culture Tested.







Available Package Sizes:

100

500g

1Kg

#### M631 MOPS, Free Acid

3-[N-Morpholino]propanesulfonic Acid, Free Acid.
One of the Good's Buffers used in molecular biology research.







Available Package Sizes:

500g

1Kg



pH

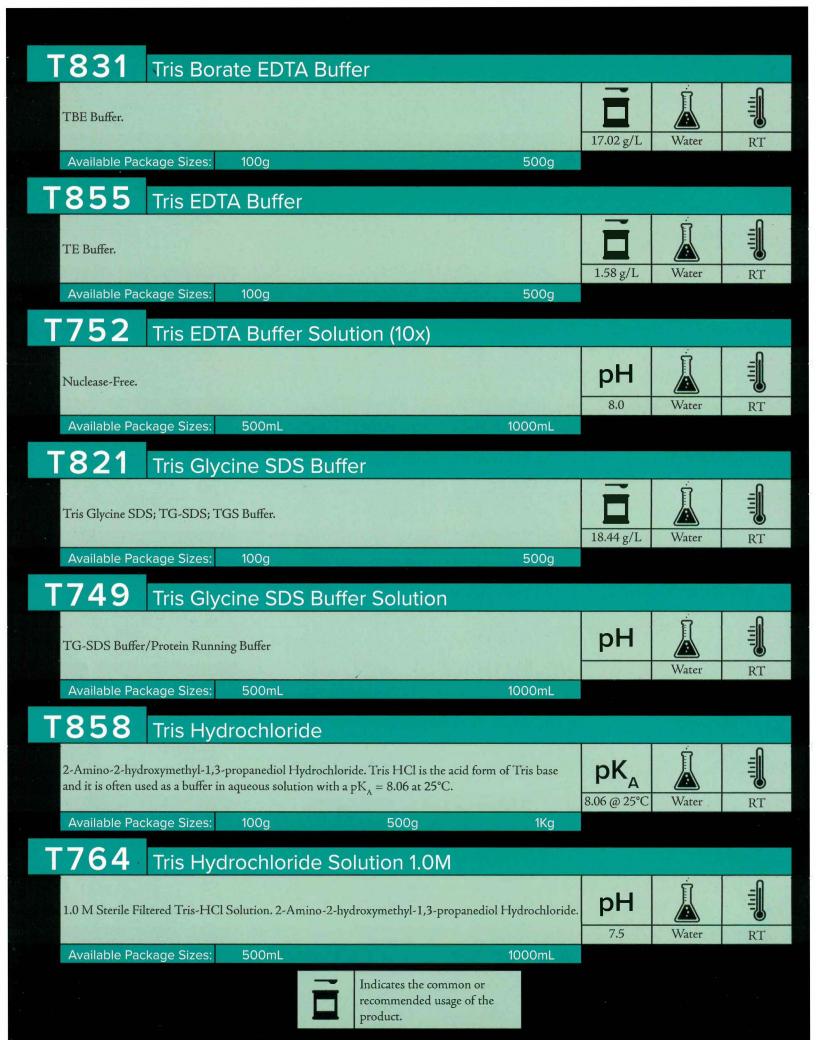
the pH of the product.



miscibility of the product.



perature of the product. RT indicates room temperature.





Phyto Technology Laboratories offers several different surfactants, or surface active agents, that can be used as detergents or wetting agents for use in plant molecular biology research. The products listed below meet specifications necessary to be used in molecular biology research applications.

#### C526 CHAPS

3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate.

Non-denaturing zwitterionic detergent that is typically used to solubilize membrane proteins.

75621-03-3





Available Package Sizes:

5q

10a

#### **H276** CTAB

Hexadecyltrimethylammonium Bromide, HTAB, Centimide, Cetrimide, Cetrimonium bromide, N,N,N-trimethyl-1-hexadecanaminium bromide. A cationic detergent with bactericidal activity against both gram-positive and gram-negative organisms. Molecular Biology Grade.







Available Package Sizes:

100g

500g

#### Polyoxyethlenesorbitan Monolaurate; Tween® 20

Polysorbate 20. Tween® 20 is a non-ionic surfactant often used to lower the surface tension of aqueous explant disinfectant solutions.

Plant Tissue Culture Tested.

9005-64-5





Available Package Sizes:

100mL

500mL

1L

RT

#### P738

#### Polyoxythylenesorbitan Monooleate; Tween® 80

Polysorbate 80. Tween® 80 is a non-ionic surfactant that can be used to lower the surface tension of aqueous explant disinfectant solutions or to stabilize protein solutions. Plant Tissue Culture Tested.







Available Package Sizes:

100mL

500mL

1L

#### **\$7777** Silwet® L-77

Alkoxylated trisilane. Silwet® L-77 is a non-ionic surfactant that is used in floral-dip transformation with Agrobacterium tumefacians. It can also be used as a wetting agent since it reduces the surface tension of aqueous solutions. Silwet® is a registered trademark of OSi Specialities.









Available Package Sizes:

100a

500g

1Kg

#### Triton X-100

X-100; 4-(1,1,3,3-Tetramethylbutyl)phenyl-polyethylene glycol; t-Octylphenoxypolyethoxyethanol; Polyethylene glycol tert-octylphenyl ether. Triton X-100 is a nonionic surfactant that has been used most often to stabilize proteins in aqueous solution.



9002-93-1





Available Package Sizes:

10<sub>m</sub>L

25<sub>m</sub>L

100mL

500mL



**Phyto**Technology Laboratories

PO Box 12205 Shawnee Mission, Kansas 66282-2205 913.341.5343 sales@phytotechlab.com



#### Your distributor in Switzerland

LubioScience GmbH Baumackerstrasse 24 8050 Zurich +41 41 417 02 80 info@lubio.ch www.lubio.ch

www.phytotechlab.com

## SCIENCE CAN BE CHALLENGING

PRODUCTS FROM PHYTOTECHNOLOGY LABORATORIES CAN HELP YOU PRODUCE

# RELIABLE RESEARCH

QUALITY

NNOVATION

#### SERVICE

More than just words, this is the backbone of our company culture. They are a part of our everyday decision making process from customer service to manufacturing to product development, as we strive to provide you with high-quality products that help you conduct **Reliable Research**. From innovative proprietary media, culture vessels, and chemicals, to custom media formulation and services, we provide the products and services you need, so that together, we can continue

"Helping Build a Better Tomorrow Through Plant Science"