## **MP Biomedicals**

## Lab essentials products



MP Biomedicals is a world-leading supplier of products for Life Science research for over 50 years. One source for all your research needs.



## Inside:

Cell Disruption
Extraction & Purification
Amplification
Microbiology
Cell Biology
Biochemicals
Food Quality
Diets

www.mpbio.com





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## **CELL DISRUPTION**

### FastPrep® Homogenizers

## FastPrep-24...5

Often imitated. Never duplicated.

Request a FREE DEMO!



- Most Powerful Highest speed available improves the quality, yield and purity of the resultant analyte
- Proven Performance Delivers the most DNA, RNA and Proteins from any sample type including the most resistant samples in 40 seconds or less easily and conveniently
- Unmatched Flexibility Industries largest variety of interchangeable sample holders, processing samples from 2 - 50 ml, in ambient or cryogenic temperatures
- Highest Yields Proven track record to obtain the highest quantities and purity of biologically active DNA, RNA and Proteins compared to other methods

The FastPrep-24<sup>™</sup> 5G Instrument is the latest version of the well-known FastPrep® system. This versatile sample disruption device gives the ultimate in speed and performance for the lysis of biological samples.

Samples and buffers are simply added to a Lysing Matrix tube containing specialized Lysing Matrix beads. The ergonomic design of the instrument ensures an easy loading of the sample tubes that remains securely sealed during the processing.

The homogenization speed and duration times are manually programmed using a **touchscreen visual display**. After setting your speed and time with the touch of a button, just push «run», and in less than a minute your samples are completely lysed!

Cat. No	Description
116005500	FastPrep-24 <sup>™</sup> 5G Instrument

#### FastPrep-96™

The Ultimate in High-Throughput Sample Preparation.



- ► **High Throughput** Process up to 192 samples simultaneously in 2 x 96 deep well plates
- ▶ Fast Processing Speed 1800 Oscillations/min
- Exceptional Versatility Interchangeable sample holders available for 2 x 96 deep well plates, 96 x 2 ml tubes, 48 x 4.5 ml tubes, 24 x 15 ml tubes, 8 x 50 ml tubes, and 2 x 250 ml flasks
- True Linear Motion Eliminates the need to re-orient plates mid-cycle

Cat. No.	Description			
116010500	FastPrep-96™ Instrument (includes 2 x 96 well plate sample holder)			

#### SuperFastPrep-2™

Lyse wherever you are!

- Thorough grinding Omnidirectional motion with a unique crankshaft-slider mechanism. Proceed up to 2 x 2 ml Lysing Matrix tubes.
- ▶ Time Saving Complete sample lysis of most difficult samples in 5 to 15 seconds.
- ▶ Portable Handheld system for lab and field use, with built-in battery power supply.
- ▶ No clean-up Single-use Lysing Matrix tubes containing an O-ring seal.
- Complete solution High number of ready-to-use Lysing Matrix tubes and wide range of purification kits for DNA, RNA and proteins designed to fit any sample and application

Cat. No.	Description		
116012500	SuperFastPrep-2™ Instrument		



## FastPrep® Sample Holders

Many interchangeable Sample Holders for any Sample Size and Extraction Temperature







Cat. No.	Temperature Conditions	Description		
116002528	444	CoolPrep™ Sample Holder (24 x 2 ml)		
116002530	Cryogenic Conditions	CoolTeenPrep™ Sample Holder (6 x 15 ml)		
116002531	Conditions	CoolBigPrep™ Sample Holder (2 x 50 ml)		
116002526		TeenPrep™ Sample Holder (12 x 15 ml)		
116002525	Room	BigPrep™ Sample Holder (2 x 50 ml)		
116002512	Temperature	QuickPrep™ Sample Holder (24 x 2 ml)		
116002527		HiPrep™ Sample Holder (48 x 2 ml)		
116002540		TallPrep™ Sample Holder (24 x 4.5 ml)		
116002545	60	All Metal QuickPrep™ Sample Holder (24 x 2 ml)		
116002546	45 300	All Metal TeenPrep™ Sample Holder (12 x 15 ml)		
116002547	W. FW	All Metal BigPrep™ Sample Holder (2 x 50 ml)		

www.mpbio.com/sampleprep



## **CELL DISRUPTION**

## FastPrep® Lysing Matrix Tubes





 $Lysing\ matrices\ are\ critical\ components\ of\ the\ FastPrep {\bf @\ System\ which\ are\ prepared\ and\ dispensed\ under\ rigorous\ conditions.}$ 

The result is a premium product that is ready to use with confidence.

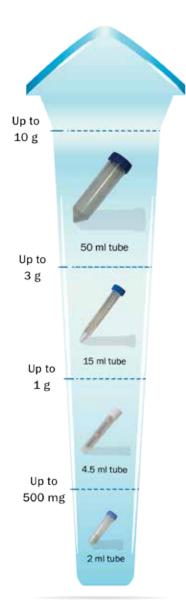
Matrices are available separately for use with your own unique buffers, and are also components of our complete purification kits. Depending on your sample type and size, the Lysing Matrix are available in 2 ml, 4.5 ml, 15 ml, 50 ml tubes or 96-well plates.

Thorough grinding of any sample on any bead beater.

Description	Pack Size	
2 ml	50, 100 and 500 x 2 ml tubes	
4.5 ml	25, 50 and 100 x 4.5 ml tubes	
15 ml	5, 25 and 50 x 15 ml tubes	
50 ml	10, 50, 100 and 500 x 50 ml tubes	
96-well plates (96 x 1.2 ml)	1 and 10 x 96-well plates	

#### **Lysing Matrix**

	Sample type	A	В	C	D	E	M	S	Y	Z
	Animal & Human tissues									
Soft tissues	Lung, Breast, Kidney, Heart, Intestine, Muscle, Spleen, Liver, Brain	х			х					x
	Skin	х			х					
	Nail							х		
	Tail, Ear	х						х		
Unique samples	Artery	х			х					х
sam	Hair							х		
ant	Bone	х					х	х		
- Pi	Tumor	х						х		
	Mammalian cell	х			х					х
	Infected tissue (isolation of viruse)						х			
	Microorganisms									
	Bacteria (gram+ and -)	х	х							
	Yeast, Mold	х		х					х	
	Bacterial & Fungal spore	х	х							
	Algae	х		х					х	
	Virus	х	х							
	Environmental samples									
S	oil, Marine sediment, Rhizosphere, Manure, Compost, Sludge, Feces, Wastewater					x				
	Plant tissues									
	Leave	х			х					х
	Seed	х					х	х		
	Root	х						х		
	Needle	х					х	х		
	Wood	х								
	Stem, Flower	х			х					х
	Insects & worms									
	Ticks, Fly	х			х					х
	Nematode	х		х	х					х
	Bee, Mosquitoe	х			x					x







## **EXTRACTION & PURIFICATION**

## **DNA/RNA & Protein Extraction Kits**

## Make your experiments easy with the FastPrep® Extraction kits

## Ready-to-Use Protocols for DNA, RNA and Protein Isolation

- Nucleic acids and proteins are ready-to-use in downstream applications
- Rapid and reproducible sample lysis and purification process
- No cross contamination with closed Lysing Matrix tubes
- Increased yields of high quality DNA, RNA and proteins
- Integrity and size of DNA, RNA and proteins are retained



Cat. No.	Description	Pack Size
116560200	FastDNA™ Spin Kit for Soil - Environmental samples	50 x 2 ml preps
116570200	FastDNA™ Spin Kit for Feces - Fecal samples	50 x 2 ml preps
116540600	FastDNA™ Spin Kit - Animal, plant tissues and microorganisms	100 x 2 ml preps
116560600	FastDNA™ 50 ml Spin Kit for Soil - Environmental samples	10 x 50 ml preps
116025050	FastRNA™ Pro Blue Kit - Bacteria	50 x 2 ml preps
116035050	FastRNA™ Pro Red Kit - Yeast	50 x 2 ml preps
116045050	FastRNA™ Pro Green Kit - Animal and plant tissues	50 x 2 ml preps
116070050	FastRNA™ Pro Soil-Direct Kit - Environmental samples	50 x 2 ml preps
116075050	FastRNA™ Pro Soil-Indirect Kit - Environmental samples	50 x 2 ml preps
116020050	FastRNA™ Spin Kit for Microbes	50 x 2 ml preps
116030050	FastRNA™ Spin Kit for Yeast	50 x 2 ml preps
116550600	FastPROTEIN™ Red Matrix - Yeast	50 x 2 ml preps
116550400	FastPROTEIN™ Blue Matrix - Bacteria	50 x 2 ml preps
116550900	FastGlycoProtein™ Isolation Kit WGA Resin - Animal, plant tissues and microorganisms	10 x 2 ml preps
116550800	FastGlycoProtein™ Isolation Kit ConA Resin - Animal, plant tissues and microorganisms	10 x 2 ml preps











To see the complete FastPrep® Purification kits selection, visit us on <a href="https://www.mpbio.com/fastprepkits">www.mpbio.com/fastprepkits</a>



## **EXTRACTION & PURIFICATION**

## **MPure-12**<sup>™</sup>- Automated DNA/RNA Extraction

## **MPure-12**<sup>™</sup>

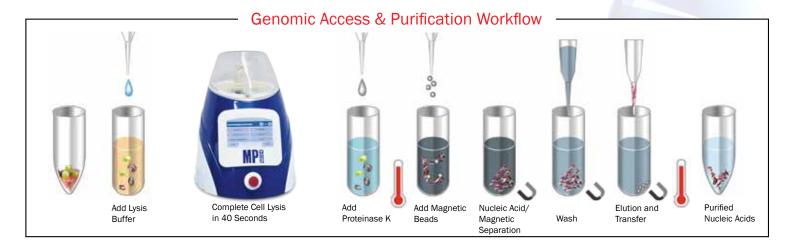
Magnetic Bead Technology with Advanced Liquid Handling

- Fully Automated
- High Reproducibility
- Highest Yield & Purity
- Flexibility & Simplicity
- No Cross-contamination
- Scalability, ease of use and convenience



#### **Process up to 12 samples in a true walk away system.**

The MPure-12<sup>™</sup> allows rapid purification of nucleic acids from a wide variety of samples using magnetic bead separation technology. Combined with a uniquely designed magnetic bead processing chamber, the fully integrated and easy-to-use pre-packaged reagent kits offer superior yields of nucleic acids and high-quality results at an affordable price.



### 15 Reagent Kits to Purify DNA & RNA from any Sample Type!



Cat. No.	Description	Pack Size
117002200	MPure-12™ system	1 unit
117022600	MPure-12™ Bacterial DNA extraction kit	48 preps
117022130	MPure-12™ Viral/Pathogen Nucleic Acids extraction kit B	48 preps
117022160	MPure-12 <sup>™</sup> Cell & Tissue total RNA extraction kit	48 preps

To see the complete list of reagent kits, visit us on www.mpbio.com/mpure12



### **DNA/RNA Extraction & PCR**

## **Phenois/Chloroform**

A wide range of products for DNA/RNA extraction.

Phenol/Chloroform are key reagents to perform DNA/RNA extraction with conventionnal method.

Cat. No.	Description	Pack Size
11AQUAPH01	AquaPhenol <sup>TM</sup> (Water saturated solution with pH maker)	250 ml
11RYRED001	Ready-Red <sup>™</sup> (Chloroform colored solution)	250 ml
11AQUARED1	AquaPhenol™ - Ready-Red Kit™	250 ml
0219400225		25 ml
0219400280	Chloroform Mol his reagant 0019/	100 ml
0219400290	Chloroform, Mol bio reagent 99+%	500 ml
0219400291		1 L
04802517	Phenol, chloroform saturated solution, pH 4.5	400 ml
04802514	DI	100 ml
04802515	Phenol, chloroform saturated solution, pH 5.2	400 ml
04802519	Phenol, chloroform saturated solution, pH 6.6	400 ml
04802521	Phenol, chloroform saturated solution, pH 6.7	400 ml

## Other reagents for DNA extraction

Cat. No.	Description	Pack Size
0219605780	Trichloroacetic acid solution	100 ml
04813061		100 g
04813063	Cesium chloride, ultra pure	500 g
04813069		1 kg

## **Taq DNA Polymerase**

Recombinant form of the thermostable DNA polymerase from Thermus aquaticus, expressed in E.Coli. The enzyme is highly purified and is free of non specific endo- or exonucleases.

- Highest performance and reliability
- Highly processive

#### Taq CORE kits: Taq DNA polymerase + dNTPs

Taq CORE kits contain all the reagents (presented as separate items) required for PCR:

- · High quality recombinant Taq DNA polymerase
- High purity dNTPs Mix at either 10 mM or 25 mM of each dNTP
- · Optimized incubation buffers with/without Mg
- Separate MgCl<sub>2</sub> solution

OODE Lit	Cat. No.		
CORE kit Components	Pack Size	With dNTPs 10 mM each	With dNTPs 25 mM each
Taq DNA Polymerase 5 U/µl 10 x Standard Buffer with Mg 10 x Standard Buffer without Mg 25 mM MgCl <sub>2</sub> , dNTPs mix	10 x 250 U	11EPTQK109	11EPTQK259

## Water (DNase, RNase-FREE)

Designed for critical applications where DNase and RNase contamination can be serious problems!

Deionized water treated with 0.001% diethylpyrocarbonate (DEPC). Filtered through 0.2 micron filter and autoclaved to yield a sterile solution completely free of detectable DNase (both exo and endo) and RNase.

Cat. No.	Description	Pack Size
04821739	Water (DNase, RNase-FREE)	500 ml







## **MICROBIOLOGY**

#### **Bacterial Media**

#### **CIRCLEGROW®**

#### **Superior Plasmid Yield Through Enhanced Cell Growth**

Perfect for overnight or weekend cultures, CIRCLEGROW® Medium is a super-rich bacterial growth medium that produces up to three times more plasmid DNA than traditional growth medium.

CIRCLEGROW® Medium consists of a protein and amino acid source, biological buffer, and a complex carbon source that gets metabolized at a much slower rate than glucose, thus prolonging the cell cycle and preventing cell death during the log phase of growth.

Cells grown with CIRCLEGROW® Medium remain healthy for more than two days and continue to divide slowly after the log phase of the growth has been completed.

#### **Reduce Hands-On Work and Preparation Time**

CIRCLEGROW® cultures do not need to be constantly monitored by O.D. readings due to the incremental post-log cell growth. Obtain excellent yields of plasmid DNA from smaller culture volumes, and confidently leave cultures overnight or over the weekend.

CIRCLEGROW® Broth			
Use 40 grams (40 capsules) per liter.			
Cat. No.	Size		
Caps	sules (1 g/capsule)		
113000121	250 caps		
113000131	1000 caps		
113000141	2500 caps		
Powder			
113000112	227 g (0.5 lb)		
113000122	454 g (1 lb)		
113000132	908 g (2 lb)		
113000142	2.3 kg (5 lb)		
113000152	5 kg (11 lb)		
113000162	15 kg (33 lb)		
Sterile Solution			
113000104	500 ml		

#### **LB Medium**

LB broth is the most widely used medium for the growth of bacteria. MP Biomedicals offers LB media in a variety of formats for convenience and ease of use.

Capsule format eliminates weighing, dust and cleanup. Simply drop capsules in water and autoclave.

LB Medium			
Use 25 grams (25 capsules or 5 large capsules) per liter. Contents/liter: 10 g tryptone, 5 g yeast extract, 10 g NaCl			
Cat. No. Size			
Ca	psules (1 g/capsule)		
113002011	227 g		
113002021	454 g (1 lb)		
113002031	1 kg (2.2 lb)		
113002041	5 kg (11 lb)		
113002051	15 kg (33 lb)		
Large Capsules (5 g/capsule)			
113002016	227 g (0.5 lb)		
113002026	454 g (1 lb)		
113002036	1 kg (2.2 lb)		
113002046	5 kg (11 lb)		
	Powder		
113002022	454 g		
113002032	1 kg (2.2 lb)		
113002042	5 kg (11 lb)		
Sterile Solution			
113002014	500 ml		



A large variety of LB Broth in stock or custom formulations available, visit us on www.mpbio.com



#### **Animal and Plant**

## **Lymphocyte Separation Medium (LSM)**

**Get Peace of Mind in Cell Separation.** 

MP Biomedicals offers the highest quality in multiple size packs.

- Now in NEW plastic bottle
  - Unbreakable
  - Light weight
  - Single-piece, self-sealing cap eliminates contamination
- Ready-to-use formulation
- One-step centrifugation
- Maximum lymphocyte yield

LSM™ has been cited in over 150 publications in the past 3 years!



Simple three-step procedure		
Step <b>1</b>	Step 3	
Add LSM to centrifuge tube	Layer blood over LSM	Centrifuge, lymphocytes are in mononuclear layer

Cat. No.	Description	Pack Size
0850494X	Lymphopite Congration Medium LCM™	100 ml
0850494	Lymphocyte Separation Medium - LSM™	5 x 100 ml
091692249	LymphoSep™ - Lymphocyte Separation	100 ml
091692254	Medium	500 ml

## MonoPoly® Resolving Medium

MonoPoly® Resolving Medium separates mononuclear and polymorphonuclear leukocytes from whole human blood in two distinct bands. MonoPoly® is highly versatile and can be used for a variety of research and clinical applications such as histocompatibility testing, lymphocyte studies, in vitro cell mediated immunity assays, or any procedure requiring pure white blood cell preparation.

It is the only Ficoll®-Hypaque medium which provides:

- Separation of mononuclear and polymorphonuclear leukocytes in two distinct bands
- Greater than 95% cell viability
- An easy, single step procedure
- No sample dilution requirement or lysis of red blood cells

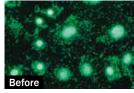
Cat. No.	Description	Pack Size
091698049	MonoPoly® Resolving Medium	100 ml

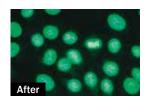
### **Mycoplasma Removal Agents (MRA)**

Eliminate mycoplasma contamination without harming your cell lines!



- Eliminate mycoplasma completely from contaminated cultures by inhibiting mycoplasma DNA gyrase
- Obtain clean cultures within a week
- Kills most common mycoplasma strains
- ▶ Prevents mycoplasma contamination with low cytotoxicity
- Prevents re-contamination with MRA at low doses





Cat. No.	Description	Pack Size
093050044	Mycoplasma Removal Agent (MRA)	5 ml

## Histopaque® 1077 (With density of 1,077 g/ml)

Histopaque® 1077 is a solution of polysaccharide (FicoII-400) and a radiopaque contrast medium (sodium diatrizoate).Low viscosity of FicoII® is used for lymphocyte isolation procedure involving a short, low speed centrifugation.



Cat. No.	Description	Pack Size
0219083780	Histopaque® 1077	100 ml



## **CELL BIOLOGY**

#### **Animal and Plant**

#### **PBS Tablets**

#### Ideal for any Immunoassay procedures!

Serves as an irrigating, transporting and diluting fluid while maintaining intra- and extracellular osmotic balance.



Cat. No.	Description	Pack Size
092810305		100 tabs
092810306	PBS Tablets	200 tabs
092810307		500 tabs

## **Zymolyase**

#### Lyse living yeast cell wall with ease!



Zymolyase is used to lyse living yeast cell walls to produce protoplast or spheroplast of various strains of yeast cells.

- Efficient lysis
- ▶ Lot to Lot conformity
- High reproducibility

Cat. No.	Description	Pack Size
08320921	Zymolyase 20T, from Arthrobacter luteus	1 g
08320932	Zvmolvase 100T. from Arthrobacter luteus	250 mg
08320931		500 mg

## **Mylar Plate Sealer**

Protect microplate well contents with the Mylar Plate Sealer from MP Biomedicals. Assure a tight seal in cell culture,

ELISA, incubation, Fluorescence, high-throughput, microbiology and PCR. Mylar plate sealers are gas permeable and not autoclavable.



Cat. No.	Description	Pack Size
097640205	Mylar Plate Sealer	100 pack

#### **PlantCon**<sup>™</sup>

PlantCon™ — a line of presterilized, disposable, plastic growth containers. This labware has been designed to reduce the time spent preparing an in vitro growth environment for plant cultures — and to minimize the risk of contamination.



Instead the PlantCon™ system permits you to start culturing plant cells and plantlets with the following advantages:

- Unbreakable
- > Safe to use, Presterilized
- Easy to use, Clear plastic
- Excellent light transmission, Disposable
- Eliminates messy glass cleanup, Space Saving
- Stackable, Manufactured under strict quality control procedures, Scientifically designed for plant cell culture, Special cover positioning
- Special lugs in the cover lip allow the user to snap on the cover tight for handling or loose for free exchange of atmospheres.

Cat. No.	Description	Pack Size
092672202		10 pk
092672204	Plantcon™ Plant Tissue Culture (Sterilized)	50 pk
092672206		200 pk



www.mpbio.com

#### **Animal and Plant**

## **Cell Culture Reagents**

Cat. No.	Description	Pack Size
0210138490	Choline bitartrate, Cell Culture Reagent, ≥98%	500 g
02199524.5	Coloium oblorido dibudroto LICD	500 g
0219952401	Calcium chloride, dihydrate, USP	1 kg
0219605580	Dimethyl sulfoxide, Cell Culture Reagent ≥99%	100 ml
0216000380	Ficoll® 400	100 g
091690049	Phenol red 0.5% (w/v) solution	100 ml
0215684625	Thiamphenicol	25 g
0210293390	Thioglycolic acid sodium salt Bacteriological Grade, ≥97%	500 g
091689149	Trypsin-EDTA Solution	100 ml

#### MP Biomedicals Free Product Sample Program\*

We want you to try our product for free because we know the product quality will give you confidence to come back to us and join millions of our satisfied customers worldwide.

- Cell Disruption
- Amplification
- Microbiology
- Cell Biology
- Biochemicals
- Extraction& Purification
- Food Quality
- Diets



## **Gelling Agents**

Agar is a polysaccharide complex extracted by bleaching and hot water treatment of agarocytes from the red alga Rhodophyceae, and usually consisting of the genera Gelidium, Acanthopeltis, Ceramium, Pterocladia and Gracilaria.

The algae are typically found in the Pacific and Indian Oceans and in the Sea of Japan.

Cat. No.	Description	Pack Size
0210026280		100 g
0210026283	Agar, USP grade, 80-100 mesh	250 g
0210026290		500 g
0210026291		1 kg

Gellan gum, is recommended as a gelling agent for use in place of agar in microbiological media. Gellan gum is used in a wide variety of immobilization matrices.

Cat. No.	Description	Pack Size
02180106.1		500 g
02180106.5	Gellan Gum, Agar substitute gelling agent	1 kg
0218010601		5 kg

#### **Accutase Cell Detachment Solution**

Accutase Cell Detachment Solution is effective in detaching primary fibroblasts, endothelial cells, neurons, tumor cells and insect cells. This reagent is useful for creating single cell suspensions from clumped cell cultures for accurate cell counting.

Cat. No.	Description	Pack Size
091000449	Accutase Cell Detachment Solution	100 ml

<sup>(\*)</sup> Free product samples are limited to 1 (one) sample per customer and is only available to customers residing in North America and in Europe.



## **BIOCHEMICALS**

#### **Buffers**

## **Trypan Blue**

Trypan Blue is used in dye exclusion procedures for viable cell counting. The dye permeates into the dead cells, leaving the viable cells uncolored.

Cat. No.	Description	Pack Size
091691049	Trypan Blue, 0,4% Solution in PBS	100 ml

#### **Urea Ultra Pure**

Urea Ultra pure is a mild agent usually used in the solubilization and denaturation of proteins. The proteins unfold and separate into their constituent poly peptide chains. It is commonly used to solubilize and denature proteins for denaturing isoelectric focusing and two-dimensional electrophoresis and in acetic acid-urea PAGE gels. Urea is used in cell or tissue culture media to increase the osmolality.

Cat. No.	Description	Pack Size
04821519		1 lb
04821527	Urea Ultra Pure	5 lb
04821528		1 kg
04821530		5 kg

#### Tris Ultra Pure

Tris is extensively used as buffers in a wide variety of biological systems. Tris is used in pH control in vitro and in vivo for body fluids and in buffering systems for electrophoresis applications. It is a component of TAE and TBE.

Cat. No.	Description	Pack Size
04819620		500 g
04819623	Tris Ultra Pure	1 kg
04819638		5 kg

## **Potassium Phosphate**

Potassium phosphate is widely used in molecular biology, biochemistry, and chromatography. It is typically used as a component for a wide variety of media used in the culture of microorganisms, also as a component in phosphate buffered saline (PBS). In addition to helping maintain pH, it supplies essential phosphate.

Cat. No.	Description	Pack Size
0219143001	Potassium Phosphate Monobasic	1 kg
0219143101	Potassium Phosphate Dibasic	1 kg
0219143201	Potassium Phosphate Dibasic Trihydrate	1 kg

Also available in 500 g and 5 kg.

## **Doxycycline Hydrochloride**

Doxycycline Hydrochloride is an antibiotic used to inhibit matrix metalloproteinases and used to inhibit the inflammatory response of Lyme Disease. This antibiotic is effective against gram + and gram - bacteria, and is commonly used to treat a variety of infections. It is a broad spectrum antibiotic and bacteriostatic.

Cat. No.	Description	Pack Size
0219504401		1 g
0219504405	Doxycycline Hydrochloride	5 g
0219504410		10 g

## **Glycine**

Glycine is commonly used in buffer solutions, in electrophoresis and preparative chromatography, such as in the purification of lipopolysaccharides, lipooligosaccharides, and lipid A. It is an amino acid for use in cell culture media development applications and existing media formulations. Glycine is commonly used as a component in Tris-glycine and Tris-glycine-SDS running buffers for polyacrylamide gel electrophoresis, a component of Towbin's transfer buffer for Western blots, a buffer substance in cryoenzymology, in osmotic pressure maintenance in isoelectric focusing of erythrocytes, salting-in effect in protein chemistry, and as a buffer component in the coupled phosphatase-kinase reaction for end labelling of restriction fragments. The growth requirements of various microorganisms is reported in the Handbook of Microbiology.

Cat. No.	Description	Pack Size
0219482580	Chaine Malegular Pialogy Paggent	100 g
0219482590	Glycine, Molecular Biology Reagent	500 g
04808822	Glycine	1 kg
04808831		5 kg



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\*TOLL FREE



11

#### **Buffers**

#### **More Buffers**

Cat. No.	Description	Pack Size
0219875980		100 ml
0219785991	Ammonium acetate, 7.5 M solution	1 L
0210100525		25 g
0210100580	Bicine	100 g
0210100583		250 g
0210103880	his Tais	100 g
0210103891	bis-Tris	1 kg
091810454	1X HBS without calcium, magnesium	500 ml
091810554	1X HBS without calcium, magnesium, phenol red	500 ml
0210192625		25 g
0210192650		50 g
0210192680		100 g
0210192683	HEPES, free acid	250 g
0210192690		500 g
0210192691		1 kg
0210192694		5 kg
0219483780	MOPS, free acid, molecular biology	100 g
0219483790	reagent	500 g
11RIST1370	10X PBD	500 ml
091861054	1X PBS, with magnesium chloride	500 ml
11PBS10X02	10X PBS	1 L
0219143101	Potassium phosphate dibasic, ACS reagent grade	1 kg
0219143001	Potassium phosphate monobasic, ACS reagent grade	1 kg
11SDS20002	20% SDS solution	1 L
0219486890	Sodium citrate, ACS reagent grade	500 g
02191440.5	Sodium phosphate dibasic (Na <sub>2</sub> HPO <sub>4</sub> ), ACS reagent grade	500 g
11RIST2050	20X SSC Buffer	500 ml
11SSC20X01	SSC Solution 20X	5 L
04821804	10X TAE Buffer	1 kit
11TAE50X01	50X TAE Buffer	1 L
11TBE10X03	10X TBE Buffer	5 L
04816721	10X TAE Buffer	1 L
04816724	TOV INC DUILE!	4 L

## **Trehalose Dihydrate**

Trehalose dihydrate is a natural alpha-linked non–reducing disaccharide formed by an  $\alpha,\alpha$ -1,1-glucoside bond between two  $\alpha$ -glucose units. It has 90% of the calorific content of sucrose. Inhibits polyglutamine-mediated protein aggregation both in vivo and in vitro.

Trehalose has also been used in several biopharmaceutical

monoclonal antibody formulations. It is also used as a proteinstabilizing agent in research. Use as a cryoprotectant in a variety of cell freezing media.



Cat. No.	Description	Pack Size
0210309780	D-(+)- Trehalose Dihydrate	100 g

#### **CHAPS**®

CHAPS® is a Zwitterionic detergent useful for solubilizing membrane proteins.

Frequently used prior to electrophoresis since it does not denature the proteins. It can also be



used as a non toxic stabilizing agent for growth factors.

CHAPS® combines features of bile salts and N-alkyl sulfobetaines. It is better at solubilizing proteins than structurally-related carboxylic acid anions and is much more effective at breaking protein-protein interactions than either sodium cholate or TRITON® X-100 Detergent. It can solubilize the opiate receptor to a state exhibiting reversible binding of opiates and also can disaggregate cytochrome P450 to its monomeric form without denaturation.

Cat. No.	Description	Pack Size
04808196	CHAPS®	5 g







## **BIOCHEMICALS**

#### **Electrophoresis**

## **Acrylamides & Bis-Acrylamides**

We offer the highest purity available in three different forms. Choose from traditional powder to use your own way, premixed powder which reduces spillage, waste and tedious weighing or premixed solutions for added convenience in your lab.

Cat. No.	Description	Pack Size
04814326	Acrylamide, Ultra Pure, ≥99.9%	500 g
04814329	Acrylamide, Oltra Pure, 299.9%	1 kg
04800175	Bis-Acrylamide, Ultra Pure, ≥99.9%	250 g

## **Premixed Acrylamide Formulations**

We supply Ultra Pure Acrylamide and Ultra Pure N, N'-Methylene-bis-acrylamide formulations in your choice of three different ratios. Just add the appropriate volume of deionized water to form a stock solution stable for up to one month at  $4^{\circ}\text{C}$ .

- ➤ For 30 g powder, add 73.5 ml deionized water to prepare 100 ml of stock solution.
- For 200 g powder, add 490 ml deionized water to yield 665 ml of stock solution.

Cat. No.	Form	Description	Pack Size
04800655		Acrylamide/Bis-Acrylamide 19:1	30 g
04800656	Powder	Acrylamide/ bis-Acrylamide 19.1	200 g
04800657	Powder	Acrylamide/Bis-Acrylamide 29:1	30 g
04800660		Acrylamide/Bis-Acrylamide 37.5:1	200 g
11BIAC1902		Acrylamide/Bis-Acrylamide 19:1	1 L
11BIAC2902	Solution	Acrylamide/Bis-Acrylamide 29:1	1 L
11BIAC3752		Acrylamide/Bis-Acrylamide 37.5:1	1 L

## **Electrophoresis Reagents**

Agarose gels are used in immunoelectrophoresis (IEP) and double-diffusion Ouchterlony plates to demonstrate antibody-antigen reactions. Used in chromatographic separations by either beading the agarose or cross-linking it.

Cat. No.	Description	Pack Size
04802811	Ammonium porquifato	25 g
04802829	Ammonium persulfate	100 g
04808211	A	1 kg
04808229	Ammonium sulfate, ultra pure	5 kg
0210128901	Casein, hammarsten grade	1 lb
04808274	Coomassie® Brilliant blue G-250	10 g
08980681	3,3'-diaminobenzidine (DAB)	100 tabs
04856126	DTT, electrophoresis grade	5 g

Cat. No.	Description	Pack Size
0219482105	DTT malagular biology reagent	5 g
0219482125	DTT, molecular biology reagent	25 g
04800682	EDTA	500 g
04800683	EDIA	1 kg
0219517480	EGTA	100 g
0219404790	Formaldehyde, ACS reag. grade	500 ml
04800687		500 ml
04800688	Glycerol, ultra pure	1 L
04800689		4 L
04820539	Cupriding hydrophleride ultre nure	500 g
04820540	Guanidine hydrochloride, ultra pure	1 kg
04820991	Guanidine thiocyanate, r.g.	500 g
0219483425	2-Mercaptoethanol	25 ml
0219064410	Ponceau S	10 g
04811032	Codings dodood outfate ultre pure	500 g
04811030	Sodium dodecyl sulfate, ultra pure	1 kg
0219895790	Sodium dodecyl sulfate, 20%	500 ml
0215004901	Chrombovidin	1 mg
0215004905	Streptavidin	5 mg
04805615	TEMED, electrophoresis grade	50 ml
0215234680	TMD, liquid substrate	100 ml

## **Agaroses**

As agarose gels have larger pore sizes than cross linked acrylamide gels at low concentration, agarose is very useful in separation of nucleic acids electrophoretically.



Cat. No.	Description	Pack Size
11AGAH0100	Agarose Mol Bio Grade	100 g
11AGAH0500	Agaiose Moi bio Grade	500 g
11AGAL0050	Agarose Low Melting Point	50 g
11AGAP0100	Agaraga Multinurnaga	100 g
11AGAP0300	Agarose Multipurpose	3 x 100 g
11AGAR0025	Azaman High Danahatian	25 g
11AGAR0050	Agarose High Resolution	50 g





## **Protease Inhibitors**

Cat. No.	Description	Pack Size
0219350380		100 mg
0219350390	AEBSF	500 mg
0219350391		1 g
0215284305	Antingia bydraeblarida	5 mg
0215284325	Antipain hydrochloride	25 mg
0219115810	Aprotinin, ~4 IU/mg	10 mg
0219115825	Aproditiin, ~4 to/ffig	25 mg
0219038250	Aprotinin, analytical grade	50 mg
0219077910	Apratinin colution, analytical grade	10 ml
0219077940	Aprotinin solution, analytical grade	40 ml
0219506825	Benzamidin hydrochloride hydrate	25 g
0215284405	Bestatin	5 mg
0215284425	Destatiii	25 mg
0215284610	E-64	10 mg
0215155305		5 mg
0215155325	Leupeptin hemisulfate	25 mg
0215155380		100 mg
0219536805		5 mg
0219536825	Pepstatin A	25 mg
0219536883		250 mg
0219538105	PMSF (phenylmethylsulfonyl fluoride)	5 g
0219538105	Finoi (prieriyimetriyistirioriyi iitoride)	25 mg
0215883701	Protease Inhibitor Cocktail Kit	1 kit

### **Solvents**

Commonly used solvents with various grades specially dedicated to analysis or molecular biology.

Cat. No.	Description	Pack Size
0230000804	Acetonitrile, HPLC/Spectro Grade,	4 L
0230000816	≥99.9%	4 x4 L
0219400225		25 ml
0219400280	Chloroform, Molecular Biology Reagent,	100 ml
0219400290	99+%	500 ml
0219400291		1 L
0215507880		100 ml
0215507891	Isoamyl alcohol, ≥99%	500 ml
0215507891		1 L
0219400690	Isopropyl alcohol, Molecular Biology Reagent, ≥99%	500 ml
0230014104	Mathanal IIDI C/Chastra Crada >00 00/	4 L
0230014116	Methanol, HPLC/Spectro Grade, ≥99.9%	4 x 4 L

## **Surfactants**

Cat. No.	Description	Pack Size
0210214783	Lecithin, from soybean	250 g
0210214790	Lecitiiii, iroiii soybeaii	500 g
0219859680	Igelpal® CA-630 (viscous liquid)	100 ml
0210316890	Palvaarhata 20	500 ml
0210306891	Polysorbate 20	1 L
02194724.5	Deliverable 20 Cell Culture Bengant	500 ml
0219472404	Polysorbate 20, Cell Culture Reagent	4 L
0219484180	Polysorbate 20, Molecular Biology Reagent	100 ml
04807423	TRITONIA V 100	100 ml
04807426	TRITON® X-100	500 ml
02194725.1	TWEEN® 80, Cell Culture Reagent	100 ml

## **Antibiotics**

Cat. No.	Description	Pack Size
0219014805	Ampicillin Sodium Salt	5 g
0219014825	Ampiciliii Sodium Sait	25 g
0219452605	Ampicillin Sodium Salt, Cell Culture Reagent	5 g
0215047750	Blasticidin S. Hydrochloride	50 mg
0219509205	Carbenicillin Disodium Salt	5 g
0215494691	Cefazolin Sodium Salt	1 g
0219032105	Chloromphonical	5 g
0219032125	Chloramphenicol	25 g
0215284505	Chymostatin	5 mg
0219116880	Clindamycin Hydrochloride	100 mg
0219415791	Colistin Sulfate Salt	1 g
0219504405	Dayyayalina Hydrochlarida	5 g
0219504410	Doxycycline Hydrochloride	10 g
0215507001	Ionomycin Calcium Salt	1 mg
0215961101	Ionomycin Free Acid	1 mg
0215002905	Kanamycin Monosulfate	5 g
0215002925	Kanamychi Monosunate	25 g
0215894805	Lincomycin Hydorchloride	5 g
0219453202	Mitomycin C, Cell Culture Reagent	2 mg
0215626810	Piperacillin sodium Salt	10 g
0219554001	Vancomycin Hydrochloride	1 g



## **BIOCHEMICALS**

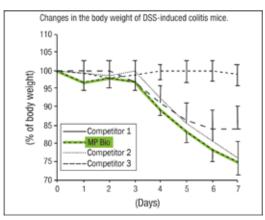
#### **Cancer Research**

## **MP Premium Dextran Sulfate Sodium Salt (DSS)**

## **Accelerate the research against Cancer!**

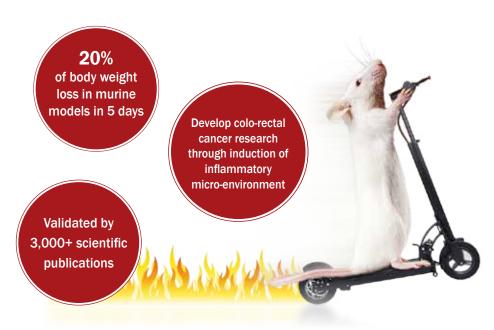
Dextran sulfate is a polyanionic derivative of dextran produced by esterification of Dextran with chlorosulphonic acid. MP Premium DSS is offered at the highest quality, purity and reproducible form which enable it for multiple applications in clinical, molecular biology, biomedical and possibly for cosmetic applications.

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The mice were fed normal chow and 2.0% wt/wt DSS in water for 1 week and then sacrificed. The weight of individual mice was monitored daily. The data represent means=SD (1).

1. Bamba S. et al., (2012). Dig Dis Sci, 57(2): 327-34



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- Highest chirality (+104° of specific rotation)

Cat. No.	Description	Pack Size
0216011050		50 g
0216011080	DSS - Colitis Grade	100 g
0216011090		500 g

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Just pump and go!

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Cat. No.	Description	Pack Size
097668093	7X <sup>™</sup> Ready To Use	1 gal
097667493	7X O-Matic®	1 gal
097667593	ES 7X O-Matic®	1 gal
097667193	ES 7X Liquid Concentrate	1 gal
097667093	7X™ Concentrate	1 gal

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A cleaning solution for removing DNA contamination and eliminating PCR artifacts from all laboratory surfaces, including benchtops, apparatus and pipettors.

#### RNase Erase™:

A novel RNase decontamination solution. Completely removes RNase contamination from glass and plastic surfaces, pipettes, and equipments that must be RNase-free.



Cat. No.	Description	Pack Size
04821805	DNA-Erase™	500 ml
04821682	RNase Erase™	250 ml

## **7X™ Products at a Glance!**

	7X™	ES 7X™	7X-0-Matic®	ES 7X-0-Matic®
Cleaning Applications	17	LOTA	7 A-O-Matic	LO TA-O-Matic
Cell Culture/Culture Media Breweries	X	Х	X	X
Ceramic	X	Х	X	X
Glass	X	Х	X	X
Machine/Sprayers (Low or controlled foaming)			X	X
Metal Equipment	X	Х	X	X
Phosphate Analysis Equipment		Х		X
Plastic	X	Х	Х	X
Porcelain	X	Х	X	X
Quartz	X	Х	Х	X
Stainless Steel (Process Equipment)	X	X	X	X





## **FOOD QUALITY**

### **SafTest<sup>™</sup> Platforms**

# Rapid analysis of fat quality and content. Consistent, reliable results. Versatile and easy to use.

## Internalize your quality tests and obtain reliable results in less than **30 minutes** for amount of:

- Malonaldehyde
- Peroxyde Value
- Alkenals
- Percent fat
- Free fatty acids

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Sample Type	Cat. No.	Description
Liquid	07LI2000	Liquid Sample Instrumentation Platform for Free Fatty Acid, Malonaldehyde, Percent Fat and Total Glycerin
Sample	07LI2020	Liquid Sample Instrumentation Platform for Peroxide and Alkenal
	07LC2000	Liquid Sample Consumables Platform for all Kits
Solid	07SI2000	Solid Sample Instrumentation Platform for Free Fatty Acid, Malonaldehyde, Percent Fat, and Total Glycerin
Sample	07SI2020	Solid Sample Instrumentation Platform for Peroxide and Alkenal
	07SC2000	Solid Sample Consumables Platform for all kits

#### SafTest™ Kits

## MP SafTest™ Kits offer distinct advantages for quality testing, including:



- Quick results, typically 10-30 minutes, compared to traditional methods
- Kits include all reagents, calibrators, and controls required for 110-120 tests

Cat. No.	Description	Pack Size
07KTPR2000	Peroxide Test Kit	110-120 tests
07KTFA2000	Free Fatty Acid Test Kit	110-120 tests
07KTMA2000	Malonaldehyde Test Kit	110-120 tests
07KTAK2000	Alkenal Test Kit	110-120 tests
07KTPF2000	Percent Fat Test Kit	110-120 tests
07KTTG2000	Total Glycerin Test Kit	110-120 tests





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#### **Customized Animal Research Diets Delivered Fresh to Your Lab!**

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The package size as well as the content of prepared diets is designed to meet the researchers' needs. Formulas are available in sizes as small as 1 kg to as large as several tons.

To ensure freshness, all diets are formulated upon receipt of order—no diets are kept in stock so they are always fresh. Diet pellets are available in a choice of three sizes and can be colored-coded to ease control of administration. In addition, MP is geared for quick turn around. For example, made-to-order standard diets are typically shipped within 7 days. It is our primary goal to assure that your diet arrives fresh: when you need it.

Cat. No.	Vitamin Mixes
02905454	AIN 76 Vitamin Mix
02960098	AIN 76A Vitamin Mix
02960402	AIN 93 Vitamin Mix
02904654	Vitamin Diet Fortification Mix
02903244	Vanderzant Vitamin Mix

Cat. No.	Common Formulations
02900454	Alphacel Hydrolyzed
02900453	Alphacel Non Nutritive Bulk
02903312	Brewers Yeast
02960128	Casein Low Trace Element
02901293	Casein Purified High Nitrogen
02904520	Casein Vitamin Free
02905417	Cocoa Butter
02901403	Coconut Oil
02901404	Coconut Oil Hydrogenated
02901405	Cod Liver Oil
02901411	Corn Ground Yellow
02901414	Corn Oil
02901415	Corn Oil Tocopherol Stripped
02901419	Cottonseed Oil
02190955	DL Methionine
02901520	Dextrin Type II
02960429	Dextrinized Corn Starch
02901521	D-(+)- Dextrose Anhydrous
02905594	Dextrose Monohydrate

Cat. No.	Common Formulations
02901633	Egg white Spray Dried
02902140	Lard
02902141	Lard Tocopherol Stripped
02900396	Liver Powder
02960120	Menhaden Oil
02902363	Milk Powder Whole
02902887	Milk Powder skim
02904684	Peanut Oil
02960024	Soybean meal Defatted
02104687	Soybean Oil
02902940	Soybean Protein
02905456	Soy Protein Isolated
02902956	Starch Corn
02904713	Sucrose
02903085	Torula Yeast
02903288	Wheat Germ
02103287	Wheat Germ Oil
02101815	Wheat Gluten

Cat. No.	Mineral Mixes
02960400	AIN 93G Mineral Mix
02902844	Salt Mix Phillips and Hart
02960401	AIN 93M Mineral Mix
02902842	Salt Mix Rogers and Harper
02905455	AIN 76 Mineral Mix
02902845	Salt Mix #2 USP XIII

Cat. No.	Mineral Mixes
02902843	Bernhart Tomarelli Salt Mix
02902850	Salt Mix USP XIV
02902834	Salt Mixture Briggs
02960352	Sodium Free Salt Mix for Rat Modified
02960285	Guinea Pig Mineral Mix
02902851	Salt Mix W
02902840	Salt Mix Hegsted
02902837	Salt mix Williams-Briggs
02902838	Salt Mix HMW
02960264	Trace Minerals for an Ultraclean Environment
02902110	Jones and Foster Salt Mix



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