



*“Biomatik brings you, the Researcher, the finest Life Science Products & Custom Services at competitive prices. Quality and customer satisfaction is at the core of our operations and customer service. We are convinced that the products and services we offer will meet and exceed your expectations.”*

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## CATALOGUE 2010-2011

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# ORDERING INFORMATION

## **Biomatik in USA**

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Wilmington, DE 19809  
USA

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Fax: 1-877-221-3515  
Email: cs@biomatik.com

## **Biomatik in Canada**

Biomatik Corporation  
3601 Highway 7 East, Suite 400  
Markham, Ontario L3R 0M3  
Canada

Tel: 1-416-273-4858  
Fax: 1-416-273-5162  
Email: order@biomatik.com

## TERMS AND CONDITIONS

### **Pricing and Terms**

All prices are in US dollars and are current at the date of printing. Prices are subject to change without notice. Applicable taxes, shipping charges and any special handling and packaging charges are excluded and will be added to the invoice. Terms: net 30 days. F.O.B Biomatik shipping point.

### **Bulk Order**

Special pricing is available on bulk orders.

### **Shipping**

Orders received are shipped the same day by the most efficient and cost effective means possible. For Express shipping, Biomatik recommends FedEx. Generally Biomatik has 40% off FedEx listed price. However we will ship by the method specified by the customer. For international shipping by air, there is minimum charge of \$150 for up to 10Kg, additional about \$7 per Kg to most major airports in the world. Most of Biomatik products are shipped at ambient temperature.

### **Conditions of Sales**

Biomatik products are for research use only, not intended for diagnostic or therapeutic purposes.

### **Return and Replacement Policy**

Please contact Customer Service for a return authorization number before returning any product. No returns will be accepted more than 30 days after shipping date. A restocking fee may be levied depending upon the nature of the return. We reserve the right not to accept the cancellation of orders, unless otherwise express in written.





### **Warranties and Liabilities**

Biomatik warrants that its products shall conform to the description as provided in our catalog. This warranty is exclusive and Biomatik makes no other warranty, expressed or implied, including any implied warranty of merchantability or fitness for any particular purpose. Biomatik's sole and exclusive liability, with respect to products proved to be Biomatik's satisfaction to be defective, shall be the replacement of such products without charge or refund of purchase price. Biomatik shall not be liable for any incidental, consequential or contingent damages.

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Coomassie® –Imperial Chemical Inc.  
Nonidet® –Shell International Petroleum Co  
SpinKlean® –Biomatik Corporation  
Triton® –Union Carbide Chemicals and Plastics  
Tween® –ICI Americas Inc.

# 1- BIOCHEMICALS

Code	Product Description		Size
A2102	<b>ACES</b> N-(Carbamoylmethyl)-2-Aminoethane Sulfonic Acid Useful pH range: 6.1-7.5 C <sub>4</sub> H <sub>10</sub> N <sub>2</sub> O <sub>4</sub> S Purity >99.0% pH (1% water, 25°C) 3.5-4.5 pKa (20°C) 6.58-6.98	High Purity [7365-82-4]	50g 250g
A2103	<b>ACETIC ACID, GLACIAL</b> Meet ACS specifications. CH <sub>3</sub> COOH Purity >99.7% Residue after evaporation <0.001% Acetic anhydride <0.1% Chloride <1ppm Sulfate <1ppm Heavy metals <0.5ppm Iron <0.2ppm	Reagent [64-19-7] 	500ml 1L
A4150	<b>ACETONE</b> (CH <sub>3</sub> ) <sub>2</sub> CO Purity >99.0% Color(APHA) <10 Methanol <0.05% Water <0.5%	ACS [67-64-1] 	500ml 1L
A2104	<b>ACRIDINE ORANGE, HEMI ZINC CHLORIDE SALT</b> C <sub>17</sub> H <sub>19</sub> N <sub>3</sub> pH (1% water, 25°C) approx. 4.0 Solubility(water) 28g/L	Molecular Biology [10127-02-3]	10g 50g
A2105	<b>ACRIFLAVINE, NEUTRAL</b> C <sub>14</sub> H <sub>14</sub> N <sub>3</sub> Cl Residue on Ignition <1.0% Moisture(LOD) <6.5% Chlorine 13.3-15.8%	Ultra Pure [8048-52-0]	10g 50g 100g
A2115	<b>ACRYLAMIDE</b> C <sub>3</sub> H <sub>5</sub> NO Purity >99.9% Conductivity (40% water) <5µmhos Acrylic acid <0.001% Insolubles <0.005% DNase & RNase none detected	Ultra Pure [79-06-1] 	100g 500g 1kg 2.5kg 10kg
A2118	<b>ACRYLAMIDE</b> C <sub>3</sub> H <sub>5</sub> NO Purity >99.5% Conductivity (40% water) <5µmhos	Electrophoresis [79-06-1] 	500g 2.5kg
A2119	<b>ACTINOMYCIN D</b> From streptomyces species, antibiotic. Inhibits cell growth by complexing with DNA and interfering with RNA synthesis. At high dose of 2µg/ml, it inhibits the transcription of all RNA species. At a lower dose of 40ng/ml it inhibits the synthesis of rRNA. Used in cell culture as a selection agent. Soluble in DMSO and ethanol. C <sub>62</sub> H <sub>86</sub> N <sub>12</sub> O <sub>16</sub> Purity (HPLC) >98.0%	Ultra Pure [50-76-0] Store: 4°C	5mg 25mg
A2121	<b>ADENINE, FREE BASE (VITAMIN B4)</b> C <sub>5</sub> H <sub>5</sub> N <sub>5</sub> Purity >98.0% Heavy metals <0.001% Sulfate <0.03% pH <1.0	High Purity [73-24-5]	25g 100g
A2122	<b>ADENINE SULFATE, DIHYDRATE</b> C <sub>10</sub> H <sub>12</sub> N <sub>10</sub> SO <sub>4</sub> 2H <sub>2</sub> O MW 404.37	High Purity [321-30-2]	25g 100g



# 1- BIOCHEMICALS

Code	Product Description	Size
A2125	Purity >99.0% <b>ADENOSINE, FREE BASE</b> $C_{10}H_{13}N_5O_4$ MW 267.24 Purity >99.0% Heavy metals <10ppm High Purity [58-61-7] Store: 4°C	25g 100g
A2123	<b>ADENOSINE 5'-DIPHOSPHATE, DISODIUM DIHYDRATE (ADP)</b> $C_{10}H_{13}N_5O_{10}P_2Na_2 \cdot 2H_2O$ MW 507.17 Purity >98% Em (259nm, Phosphate buffer, pH 7.0) >14,500 ATP <1.0% Heavy metals <10ppm Ultra Pure [16178-48-6] Store: -20°C	1g 5g 25g
A2124	<b>ADENOSINE-5'-MONOPHOSPHATE, DISODIUM HEXAHYDRATE (AMP)</b> $C_{10}H_{12}N_5O_7PNa_2 \cdot 6H_2O$ MW 499.19 Purity >99% Em (258nm, Phosphate buffer, pH 7.0) >11,000 Heavy metals <0.002% Solubility (5% water) (P/F) pass Ultra Pure [4578-31-8] Store: -20°C	1g 10g 50g 100g
A2160	<b>ADENOSINE-5'-TRIPHOSPHATE, DISODIUM TRIHYDRATE (ATP)</b> $C_{10}H_{14}O_{13}N_5P_3Na_2 \cdot 3H_2O$ MW 605.24 Purity >98.0% AMP & ADP <0.5% Em (259nm, Phosphate buffer, pH 7.0) >14,700 Heavy metals <0.003% Ultra Pure [987-65-5] Store: -20°C	1g 5g 25g 100g
A2127	<b>AGAROSE T1</b> Standard and all purpose agarose, suitable for most molecular biology applications: routine nucleic acid and protein analytical preparative applications. Electrophoresis conditions: 1XTAE Buffer, 4.5V/cm, 2 hours 30 min. Suggested gel strength: 0.75%, 1%, 1.25%, 1.5% Gel strength (1.5%) >1200g/cm <sup>2</sup> Gelling range (1.5%) 36-39°C Melting range 87-89°C EEO <0.12 Sulfate <0.15% DNase & RNase none detected Biotechnology [9012-36-6]	50g 100g 500g 1kg
A2132	<b>AGAROSE T3</b> Suitable for general electrophoresis applications. Electrophoresis conditions: 1XTAE Buffer, 4.5V/cm, 2 hours 30 min. Suggested gel strength: 0.75%, 1%, 1.25%, 1.5% Gel strength (1.5%) >1000g/cm <sup>2</sup> Gelling range 36-39°C Melting range 87-89°C EEO <0.15 Sulfate <0.12% DNase & RNase none detected Electrophoresis [9012-36-6]	50g 100g 500g 1kg
A2128	<b>AGAROSE T2</b> High gel strength allowing for lower gel concentration (0.3%). Suitable for Pulse Field Electrophoresis and the separation of high molecular weight DNA at lower concentrations. For general nucleic acid separation. Exceptionally low absorption of staining agents. Electrophoresis conditions (I): submarine gel, 16 hours, 1 V/cm in 1X TAE buffer. Suggested gel strength: 0.3%, 0.5%, 0.8%. Electrophoresis condition (II): submarine gel, 2 hours, 4.5 V/cm in 1X TAE buffer. Suggested gel strength: 0.5%, 1%, 1.5%. Gel strength (1.5%) >2200g/cm <sup>2</sup> Gelling range 36-39°C Melting range 87-89°C Biotechnology [9012-36-6]	50g 500g 1kg




# 1- BIOCHEMICALS

Code	Product Description	Size
A2129	<p>EEO &lt;0.12 Sulfate &lt;0.12% DNase &amp; RNase none detected</p> <p><b>AGAROSE T4, HIGH GEL STRENGTH</b> Agarose T4 has highest gel strength and is suitable for Pulsed Field applications and high molecular weight DNA. Electrophoresis condition (I): submarine gel, 16 hours, 1 V/cm in 1X TAE buffer. Suggested gel strength: 0.3%, 0.5%, 0.8%. Electrophoresis condition (II): submarine gel, 2 hours, 4.5 V/cm in 1X TAE buffer. Suggested gel strength: 0.5%, 1%, 1.5%. Gel strength (1.5%) &gt;3200g/cm<sup>2</sup> Gelling range 34.5-37.5°C Melting range 86.5-89.5°C</p>	<p>Biotechnology [9012-36-6] 50g 500g</p>
A2131	<p>EEO &lt;0.12 DNase &amp; RNase none detected</p> <p><b>AGAROSE T5, LOW MELTING</b> A super fine resolution, highest clarity, low melting point agarose. It is ideal for applications requiring maximal resolution between 200 - 1000 bp. This agarose is suitable for the analysis of AFLP's (Amplified Fragment Length Polymorphisms), STR's (Short Tandem Repeats) and tetranucleotide repeats. The low melting temperature makes it an excellent medium for analytical and preparative electrophoresis. Gel strength (1.5%) &gt;500g/cm<sup>2</sup> Gelling temperature (1.5%) &lt;30.0°C Melting temperature &lt;70.0°C</p>	<p>Biotechnology [9012-36-6] 10g 25g 100g 500g</p>
A2134	<p>EEO &lt;0.12 Sulfate &lt;0.11% Moisture &lt;7.0% Conductivity (1% water) &lt;10µmhos DNase, RNase &amp; Protease none detected</p> <p><b>ALBUMIN, BOVINE SERUM (BSA), FRACTION V, PH 7.0</b> Heat Shock Isolation. A general purpose purified albumin, suitable for Westerns, enzyme systems and as a protein supplement. Also suitable as a nutrient in cell culture media. Purity &gt;98.0% pH (2% water, 25°C) 6.5-7.5 Heavy metals &lt;0.001%</p>	<p>Biotechnology [9048-46-8] Store: 4°C 25g 50g 100g 250g 500g</p>
A2136	<p>C<sub>56</sub>H<sub>68</sub>N<sub>16</sub>S<sub>4</sub>Cl<sub>4</sub>C<sub>U</sub> MW1298.88 Dye Content Approx. 50%</p> <p><b>ALCIAN BLUE 8 GX (Ingrain Blue 1)</b> Used to stain glucosaminoglycans and other acidic polysaccharides in tissue samples. It can also be used as a bacterial stain.</p>	<p>Reagent [33864-99-2] 5g 25g 50g</p>
A1130	<b>ALKALINE PHOSPHATASE</b> see 'Modifying Enzymes' section for details	
A2141	<p>C<sub>22</sub>H<sub>14</sub>N<sub>6</sub>O<sub>9</sub>S<sub>2</sub>Na<sub>2</sub> MW 616.50 Dye Content Approx. 80%</p> <p><b>AMIDO BLACK 10B (NAPHTOL BLUE BLACK)</b> Used for staining protein after electrophoresis</p>	<p>High Purity [1064-48-8] 5g 25g 100g</p>
A2142	<p>C<sub>2</sub>H<sub>7</sub>NO<sub>2</sub> MW 77.08 Purity &gt;98.0% Insolubles &lt;0.01% pH (5% ,water, 25°C) 6.7-7.3 Chloride &lt;0.001% Sulfate &lt;0.001% Heavy metals &lt;20ppm</p> <p><b>AMMONIUM ACETATE</b></p>	<p>ACS [631-61-8] 500g 2.5kg</p>
A4136	<p>C<sub>2</sub>H<sub>7</sub>NO<sub>2</sub> MW 77.08</p> <p><b>AMMONIUM ACETATE</b></p>	<p>Biotechnology [631-61-8] 500g 2.5kg</p>



# 1- BIOCHEMICALS

Code	Product Description	Size
	Purity >98.0% Insolubles <0.01% pH (5% water, 25°C) 6.7-7.3 Chloride <0.001% Sulfate <5ppm Iron <1ppm Solubility (1M) clear/colorless DNase, RNase & Protease none detected	Store: 4°C
A4151	<b>AMMONIUM CARBONATE</b> Assay(NH <sub>3</sub> ) >30%	ACS 500g [506-87-6] 1kg
A2143	<b>AMMONIUM CHLORIDE</b> NH <sub>4</sub> Cl MW 53.49 Purity >99.5% Insolubles <0.005% pH (5% water, 25°C) 4.5-5.5 Sulfate <0.002% Heavy metals (as Pb) <0.001%	ACS 500g [12125-02-9] 1kg
A2326	<b>AMMONIUM CITRATE, DIBASIC</b> (NH <sub>4</sub> ) <sub>2</sub> HC <sub>6</sub> H <sub>5</sub> O <sub>7</sub> MW 226.19 Purity >98.0% Chloride <0.001% Sulfate <0.005% Heavy metals <5ppm	Ultra Pure 500g [3012-65-5] 2.5kg
A2146	<b>AMMONIUM PERSULFATE (APS)</b> (NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub> MW 228.20 Purity >98.0% Insolubles <0.005% Heavy metals (as Pb) <0.005%	Electrophoresis 25g [7727-54-0] 100g  500g
A2149	<b>AMMONIUM SULFATE</b> (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> MW 132.14 Purity >99.5% Insolubles <0.005% pH (5% water, 25°C) 5.0-6.0 Chloride <5ppm Heavy metals (as Pb) <2ppm	Ultra Pure 500g [7783-20-2] 1kg 5kg
A2147	<b>AMMONIUM PHOSPHATE, DIBASIC</b> (NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub> MW 132.06 Purity >98.0% Insolubles <0.005% pH (5% water, 25°C) 7.7-8.1 Chloride <0.001% Nitrate <0.003% Sulfur(as SO <sub>4</sub> ) <0.01% Heavy metals (as Pb) <0.001% Iron <0.001% Potassium <0.005% Sodium <0.005% Precipitate (in NH <sub>4</sub> OH) <0.005%	ACS 500g [7783-28-0] 2.5kg
A2148	<b>AMMONIUM PHOSPHATE, MONOBASIC</b> NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> MW 115.03 Purity >98.0% Insolubles <0.005% pH (5% water, 25°C) 3.8-4.4 Chloride <5ppm Nitrate <0.001% Sulfur(as SO <sub>4</sub> ) <0.01%	ACS 500g [7722-76-1] 2.5kg



# 1- BIOCHEMICALS

Code	Product Description	Size
	Heavy metals (as Pb) <5ppm Iron <0.001% Potassium <0.005% Sodium <0.005% Precipitate (in NH <sub>4</sub> OH) <0.005%	
A2151	<b>AMPHOTERICIN B</b> Anti-fungal agent. Fungizone C <sub>47</sub> H <sub>73</sub> NO <sub>17</sub> MW 924.09 Potency (Anhydrous) >750µg/mg Amphotericin A <15.0% Loss on drying <5.0% Residue after ignition <0.5%	USP 100mg [1397-89-3] 500mg Store: 4°C 1g
A2154	<b>AMPICILLIN, SODIUM SALT</b> Derivative of Penicillin. Inhibits cell-wall synthesis in Gram-negative and Gram-positive bacteria. Used to select drug resistant plasmid bearing bacteria. Suggested stock solutions: 50mg/ml. Store stock solution at -20°C. Stable at 37°C for 3 days. Working concentration for E.Coli: 20-50µg/ml C <sub>16</sub> H <sub>18</sub> N <sub>3</sub> NaO <sub>4</sub> S MW 371.39 Potency 900µg/mg pH (1% water, 25°C) 8.0-10.0 Dimethylaniline <0.002% Solution (50mg/ml) clear/colorless	USP 5g [69-52-3] 25g Store: 4°C 100g
A2158	<b>ANTIPAIN HYDROCHLORIDE, DIHYDRATE</b> General serine and cysteine protease inhibitor. Inhibits trypsin, papain, cathepsin A. Solubility in water: 50mg/ml, soluble in DMSO and methanol. Working concentration: 10-50µg/ml. Typical stock solution can be prepared at concentration of 10mg/ml.	High Purity 5mg [37682-72-7] 25mg Store: -20°C
A2159	<b>APROTININ</b> Source: Bovine lung. Highly purified by chromatography.  A serine protease inhibitor that inhibits trypsin, chymotrypsin, kallikrein and plasmin. Binding is reversible with most aprotinin-protease complexes dissociating at pH > 10 or < 3. It does not inhibit Factor Xa and thrombin. One Kallikrein Inhibitory Unit (KIU) is identical to the quantity of protease inhibitor that has the ability to inhibit two kallikrein units by 50% under optimal conditions. Effectively inhibits target proteases at equimolar concentration.  Soluble in water, 10mg/ml; also soluble in 70% methanol and 70% ethanol. Working concentration: 2-10µg/ml. Stability/Storage: lyophilized powder at 4°C, indefinitely. Stock solution in saline or buffer solutions (10mg/ml) pH5-8, it may stored at 4°C for 1 month or -20°C for 1 year. Avoid freeze/thaw cycles. C <sub>27</sub> H <sub>44</sub> N <sub>10</sub> O <sub>6</sub> HCl 2H <sub>2</sub> O MW 677.19	High Purity 50mg [9087-70-1] 100mg Store: 4°C 1g
A2161	<b>AVIDIN, CHICKEN EGG WHITE</b> Affinity purified. Avidin binds with biotin, which is useful in protein purification applications and diagnostic industry. Avidin is used for the targeting of solid tumors and for applications in vitro such as protein purification and labeling. Affinity purified. Activity >10 units/mg protein. Unit definition: One unit binds 1.0µg of D-biotin.	Reagent 5mg [1405-69-2] 25mg Store: 4°C




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Code	Product Description	Size
A2203	<b>BASIC FUCHSIN</b> C <sub>20</sub> H <sub>20</sub> ClN <sub>3</sub> Solubility Dye content	High Purity [632-99-5] 5g 25g
A2205	<b>BCIP, TOLUIDINE SALT</b> 5-Bromo-4-Chloro-3-Indolyl Phosphate, Toluidine Salt. Used as a substrate for alkaline phosphatase. Insoluble in water. Solubility in dimethylformamide: 20mg/ml. 1mg/ml in 0.1M phosphate buffer gives a haze free solution. C <sub>8</sub> H <sub>6</sub> BrClNO <sub>4</sub> PC <sub>7</sub> H <sub>9</sub> N	MW 337.85 Passes >80%
A2206	<b>BENZAMIDE HYDROCHLORIDE</b> C <sub>7</sub> H <sub>8</sub> N <sub>2</sub> HCl · H <sub>2</sub> O Purity Solubility (1% water)	MW 433.62 MW 156.61 >98.0% clear and haze-free
A2207	<b>BENZOIC ACID</b> C <sub>6</sub> H <sub>5</sub> COOH Purity Insolubles (methanol) Heave metals (as Pb)	Ultra Pure [1670-14-0] Store: 4°C 5g 25g 100g
A5116	<b>BES, FREE ACID</b> N,N-Bis(2-hydroxyethyl)-2-amino ethanesulfonic acid C <sub>6</sub> H <sub>15</sub> NO <sub>5</sub> S Purity pKa (20°C) pH (10% water, 25°C) Solubility (10% water)	MW 213.25 >99.0% 7.0-7.2 3.5-5.0 clear/colorless
A2208	<b>BESTATIN</b> Inhibitor for Aminopeptidase B and Leucine aminopeptidase. Suggested starting concentration: 40µg/ml. Soluble in MeOH. Soluble in DMSO C <sub>16</sub> H <sub>24</sub> N <sub>2</sub> O <sub>4</sub> Purity	High Purity [58970-76-6] 5mg 25mg
A4153	<b>BETAINE HYDROCHLORIDE</b> C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> HCl Purity Residue after ignition Heavy metals	Reagent [590-49-5] 100g 500g 1kg
A2210	<b>BICINE</b> N,N-Bis(2-hydroxyethyl)Glycine Useful pH: 7.6-9.0 C <sub>6</sub> H <sub>13</sub> NO <sub>4</sub> Purity pKa (20°C) Solubility (1M water)	High Purity [150-25-4] 100g 500g 1kg
A2212	<b>BIGCHAP</b> (N,N-Bis (3-D-Gluconamidopropyl)cholamide) C <sub>42</sub> H <sub>75</sub> N <sub>3</sub> O <sub>16</sub> Purity	MW 163.20 >99.0% 8.3 clear/colorless
A2406	<b>D-BIOTIN (VITAMIN H)</b> Suitable for tissue culture. Used as a growth factor in mammalian cell culture. Used in affinity chromatography. Used in numerous immunological and protein purifications. Slightly soluble in water 0.2mg/ml, soluble in acids and bases. Insoluble in ethanol. C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>3</sub> S Purity Heavy metals (as Pb)	High Purity [86303-22-2] 250mg 1g 5g
A2214	<b>BIS-ACRYLAMIDE</b> C <sub>7</sub> H <sub>10</sub> O <sub>2</sub> N <sub>2</sub> Purity	Reagent [58-85-5] Store: 4°C 100mg 500mg 1g 5g
		Ultra Pure [110-26-9] 50g 250g




# 1- BIOCHEMICALS

Code	Product Description	Size
A2215	<p>A<sub>290</sub> (1% water) &lt;0.2            Conductivity (2%,water) &lt;5µmhos            Acrylic acid &lt;0.001%</p> <p><b>BIS-TRIS</b>            Bis-(2-Hydroxyethyl)Amino-Tris(Hydroxymethyl)Methane            Important buffer for protein and nucleic acid systems.            Useful pH range: 5.8-7.2</p> <p>C<sub>8</sub>H<sub>19</sub>NO<sub>5</sub> MW 209.20            Purity &gt;99.0%            pKa (25°C) 6.45-6.65            pH (1% water, 25°C) 8.8-9.6            Heavy metals &lt;5ppm</p>	<p>Ultra Pure            [6976-37-0]            50g            250g</p>
A4166	<p><b>BLASTICIDIN S, HYDROCHLORIDE</b>            Blastcidin, from Streptomyces griseochromogenes is an antibiotic commonly used in gene selection. Blastcidin is active against both prokaryotic and eukaryotic. Resistance to blastcidin is conferred by the blastcidin resistance gene from bacillus cereus (bsr). Bsr codes for blastcidin deaminase. Solubility: Blastcidin.HCl is soluble in water, dilute acetic acid. Insoluble in organic solvents. Normally, bacteria are sensitive to blastcidin concentrations of 25-100µg/ml. Mammalian cells demonstrate sensitivity at concentrations of 1-10µg/ml.</p> <p>C<sub>17</sub>H<sub>26</sub>N<sub>8</sub>O<sub>5</sub>.HCl MW 458.90            Purity &gt;98%</p>	<p>High Purity            [3513-03-9]            25mg            100mg</p>
A2217	<p><b>BORIC ACID</b>            H<sub>3</sub>BO<sub>3</sub> MW 61.83            Purity &gt;99.5%            Heavy metals (as Pb) &lt;5ppm            Insolubles &lt;0.005%</p>	<p>ACS            [10043-35-3]            500g            1kg            5kg</p>
A4137	<p><b>BORIC ACID</b>            H<sub>3</sub>BO<sub>3</sub> MW 61.83            Purity &gt;99.5%            Insolubles &lt;0.005%            Heavy metals (as Pb) &lt;5ppm            Solubility(1M water) clear/colorless            DNase, RNase &amp; Protease none detected</p>	<p>Biotechnology            [10043-35-3]            500g            1kg            5kg</p>
A2218	<p><b>BRADFORD REAGENT</b>            Ready-to-use, 1X concentrate. Bradford method utilizes Coomassie Brilliant Blue G-250 dye binding to an unknown protein and forming a complex which can be detected spectrophotometrically at 595nm. Method of choice for protein quantitation. Designed to quantitate 1 to 10µg/ml protein but can be scaled up to quantitate 10 to 100µg/ml simply by increasing the volume of the dye generating a standard curve in the 10 to 100 µg/ml range.</p>	<p>Biotechnology            Store: 4°C            100ml            500ml            1L</p> 
A2219	<p><b>BRIJ-35</b>            Polyoxyethylene Lauryl Ether            (C<sub>2</sub>H<sub>4</sub>O)<sub>n</sub>C<sub>12</sub>H<sub>25</sub>OH            Hydroxyl number 40-60            Water &lt;3.0%</p>	<p>High Purity            [9002-92-0]            250g            1kg</p>
A4154	<p><b>BRILLIANT GREEN</b>            A stain for differentiation of <i>E.coli</i> from <i>S.typhosa</i>. Also used in bacteriological media.</p> <p>C<sub>27</sub>H<sub>34</sub>N<sub>2</sub>O<sub>4</sub>S MW 482.60            Dye content &gt;85.0%</p>	<p>Certifiable            [633-03-4]            25g            100g            250g</p>
A2220	<p><b>BROMOCRESOL GREEN, FREE ACID</b>            A tracking dye for RNA gels. pH range 3.8(yellow) to 5.4(blue).</p> <p>C<sub>21</sub>H<sub>14</sub>Br<sub>4</sub>O<sub>5</sub>S MW 698.02</p>	<p>ACS            [76-60-8]            5g            25g</p>
A2221	<p><b>BROMOCRESOL GREEN, SODIUM SALT</b></p>	<p>ACS            5g</p>



# 1- BIOCHEMICALS

Code	Product Description		Size
	A tracking dye for RNA gels. pH range 3.8(yellow) to 5.4(blue). C <sub>21</sub> H <sub>13</sub> Br <sub>4</sub> O <sub>5</sub> Na MW 720.06	[62625-32-5]	25g
A2222	<b>BROMOPHENOL BLUE</b> Suitable for gel electrophoresis. Soluble in ethanol, slightly soluble in water. C <sub>19</sub> H <sub>10</sub> Br <sub>4</sub> O <sub>5</sub> S MW 669.96	ACS [115-39-9]	5g 25g 100g
A2223	<b>BROMOPHENOL BLUE, SODIUM SALT</b> Suitable for gel electrophoresis. Soluble in water, slightly soluble in ethanol. C <sub>19</sub> H <sub>9</sub> Br <sub>4</sub> O <sub>5</sub> Na MW 691.94	ACS [62625-28-9]	5g 25g 100g
A2224	<b>BROMOTHYMOL BLUE</b> Soluble in ethanol, and diluted ammonium an alkaline solution. pH6.0 (yellow)-pH7.6 (blue). C <sub>27</sub> H <sub>28</sub> Br <sub>2</sub> O <sub>5</sub> S MW 624.38	ACS [76-59-5]	5g 25g 50g
A2225	<b>BROMOTHYMOL BLUE , SODIUM SALT</b> Soluble in water, slightly soluble in ethanol. pH6.0 (yellow)-pH7.6 (blue). C <sub>27</sub> H <sub>27</sub> Br <sub>2</sub> O <sub>5</sub> Na MW 646.38	ACS [34722-90-2]	5g 25g 50g
A2304	<b>CACODYLIC ACID</b> C <sub>2</sub> H <sub>7</sub> AsO <sub>2</sub> Purity >99.0%	Ultra Pure [75-60-5]	5g 25g 100g
A2303	<b>CACODYLIC ACID, SODIUM SALT, TRIHYDRATE</b> C <sub>2</sub> H <sub>6</sub> AsO <sub>2</sub> Na 3H <sub>2</sub> O Purity >98.0% pH (5% water ) 8.0-9.0	Ultra Pure [124-65-2]	10g 25g 100g
A4155	<b>CAFFEINE, ANHYDROUS</b> Solubility in water >15mg/ml C <sub>8</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub> Purity >99.0%	Reagent [58-08-2]	100g 500g
A2305	<b>CALCIUM CARBONATE, ANHYDROUS</b> CaCO <sub>3</sub> Purity >99.0% Chloride <0.001% Sulfate <0.005% Sodium <0.01% Iron <0.002% Heavy metals <10ppm	Reagent [471-34-1]	100g 500g 1kg
A2306	<b>CALCIUM CHLORIDE, DIHYDRATE</b> CaCl <sub>2</sub> 2H <sub>2</sub> O Purity 99.0 % pH (5% water, 25°C) 4.5-8.5 Sulfate <0.01% Heavy metals (as Pb) <5ppm	ACS [10035-04-8]	500g 1kg 2.5kg
A4156	<b>CALCIUM HYDROXIDE</b> Ca(OH) <sub>2</sub> Purity 95.0-100.5% Acid insolubles <0.5% Heavy metals <0.002% Magnesium & alkali salts <4.8%	USP [1305-62-0] 	100g 500g 1kg
A2307	<b>CALCIUM PHOSPHATE, DIBASIC, DIHYDRATE</b> CaHPO <sub>4</sub> 2H <sub>2</sub> O Purity >98.0% Acid insolubles <0.2% Heavy metals <0.003%	Reagent [7789-77-7]	500g 2.5kg
A2308	<b>CAPS, FREE ACID</b> 3-(Cyclohexylamino)-1-Propane-Sulfonic Acid Useful pH range: 9.7-11.1 C <sub>9</sub> H <sub>19</sub> NO <sub>3</sub> S Purity >99.0%	High Purity [1135-40-6]	50g 250g 1kg






# 1- BIOCHEMICALS

Code	Product Description	Size
A2311	<p>pKa ( 20°C) 10.3-10.5</p> <p><b>CARBENICILLIN, DISODIUM SALT</b></p> <p>USP [4800-94-6] Store: 4°C</p> <p>Carbenicillin is a semi-synthetic antibiotic used for gene expression research utilizing carbenicillin-resistant plasmids. Carbenicillin is recommended for use in place of ampicillin to maintain the selective marker bla (b-lactamase or ampicillin resistance). Carbenicillin demonstrates antibacterial activity and is effective against a variety of both gram-positive and gram-negative bacteria. Carbenicillin is less sensitive to low pH and has low toxic effects on plant cells.</p> <p>Soluble in water 50mg/ml. Working concentration: 30-50µg/ml. Stability/Storage: more than 1 year in powder at 4°C; 73 hours in solution at 4°C.</p> <p><math>C_{17}H_{16}N_2O_6SNa_2</math> MW 422.36 Purity &gt;95.0%</p>	250mg 1g 5g 10g
A2313	<p><b>CESIUM CHLORIDE</b></p> <p>Biotechnology [7647-17-8]</p> <p>Suitable for plasmid and lambda phage preparation using density gradient centrifugation.</p> <p>CsCl MW 168.36 Purity &gt;99.9% <math>A_{260}</math> (50% water) &lt;0.1 Lead &lt;1ppm Sodium &lt;0.1% Rubidium &lt;0.1% Potassium &lt;0.05% Lithium &lt;0.005% Magnesium &lt;1ppm Nickel &lt;1ppm</p>	25g 100g 500g 1kg
A4185	<p><b>CESIUM CHLORIDE</b></p> <p>Ultra Pure [7647-17-8]</p> <p>Suitable for plasmid and lambda phage preparation using density gradient centrifugation.</p> <p>CsCl MW 168.36 Purity &gt;99.9% <math>A_{260}</math> (50% water) &lt;0.05 Lead &lt;1ppm Iron &lt;1ppm Copper &lt;1ppm Chromium &lt;1ppm Sodium &lt;0.03% Rubidium &lt;0.03% Potassium &lt;0.001% Lithium &lt;0.001% Magnesium &lt;1ppm Nickel &lt;1ppm</p>	25g 100g 500g 1kg
A2314	<p><b>CESIUM SULFATE</b></p> <p>Biotechnology [10294-54-9]</p> <p><math>Cs_2SO_4</math> MW 361.89 Purity &gt;99.5% <math>A_{260}</math> (50% water) &lt;0.1 Sodium &lt;0.2% Iron &lt;0.002% Heavy metals &lt;0.002% DNase &amp; RNase none detected</p>	10g 50g 100g
A2315	<p><b>CETYLDIMETHYLETHYL AMMONIUM BROMIDE</b></p> <p>High Purity [124-03-8]</p> <p><math>C_{20}H_{44}NBr</math> MW 378.49 Purity &gt;99.0% Insolubles &lt;0.1% Sulfate &lt;0.05% Heavy metals &lt;0.001%</p>	100g 500g
A2317	<p><b>CETYLTRIMETHYL AMMONIUM BROMIDE (CTAB)</b></p> <p>High Purity</p>	100g



# 1- BIOCHEMICALS

Code	Product Description	Size
A2318	<p><math>C_{19}H_{42}NBr</math> MW 364.09 [57-09-0]</p> <p>Purity &gt;99.0% </p> <p>Chloride &lt;0.01% </p> <p>Sulfate &lt;0.01%</p> <p>Heavy metals &lt;10ppm</p> <p><b>CHAPS</b>            CHAPS is a zwitterionic detergent that combines the features of bile salts and N-alkyl sulfobetaines. CHAPS can be easily removed from gels or protein solutions by dialysis across a membrane.</p>	500g Ultra Pure [75621-03-3] 1g 5g 10g 50g 100g
A2319	<p><math>C_{32}H_{58}N_2SO_7</math> MW 614.89</p> <p>Purity &gt;99.0%</p> <p>pH (10% water, 25°C) 5.0-7.0</p> <p>Conductivity (10% water) &lt;50µmhos</p> <p>Residue on ignition &lt;0.1%</p> <p>DNase, RNase &amp; Protease none detected</p> <p><b>CHAPSO</b>            3-(3-Chloamidopropyl)-Dimethylammonio-2-hydroxy-1-propanesulfonate. Nondenaturing zwitterionic detergent. Similar to CHAPS but more soluble.</p>	500mg Ultra Pure [82473-24-3] 1g 5g
A2323	<p><math>C_{32}H_{58}N_2SO_8</math> MW 630.90</p> <p>Conductivity (1) &lt;100µmhos</p> <p><math>A_{260}</math> (1% water) &lt;0.05</p> <p>Residue upon ignition &lt;0.1%</p> <p>Water ( Karl Fisher ) &lt;7.5%</p> <p>Solubility (0.5M water) clear/colorless</p> <p><b>CHLORAMPHENICOL</b>            Antibiotic. Used for the amplification of vectors in Gram negative bacteria. Soluble in absolute ethanol or methanol. Stock solution: 10-20mg/ml, working solution: 10-30µg/ml.</p>	25g 100g 500g USP [56-75-7]
A4119	<p><math>C_{11}H_{12}Cl_2N_2O_5</math> MW 323.13</p> <p>Purity 97.0-103.0%</p> <p>pH (2.5% water, 25°C) 4.5-7.5</p> <p><b>CHLOROFORM</b>            Density: 1.47g/ml</p>	1L 4L Biotechnology [67-66-3]
A2324	<p><math>CHCl_3</math> MW 119.38</p> <p>Purity &gt;99.8% </p> <p>Moisture &lt;0.02%</p> <p><math>A_{400}</math> &lt;0.01</p> <p><math>A_{290}</math> &lt;0.02</p> <p><math>A_{280}</math> &lt;0.05</p> <p><math>A_{260}</math> &lt;0.15</p> <p><math>A_{254}</math> &lt;0.25</p> <p><math>A_{245}</math> &lt;1.0</p> <p><b>CHOLESTEROL</b>  <math>C_{27}H_{46}O</math> MW 386.67</p> <p>Purity &gt;98.0%</p> <p>Moisture (60°C, 4hrs) &lt;0.3%</p>	5g 25g 100g 250g 5mg Reagent [57-88-5]
A2325	<p><b>CHYMOSTATIN</b>            A reversible serine protease inhibitor of chymotrypsin, papain and cathepsin A, B, and C.            Working range: 10-100µM. Soluble in DMSO and <math>CH_3COOH</math>. May store stock solution at -20°C for over 3 months.</p>	5mg Ultra Pure [9076-44-2] Store: -20°C
A4127	<p><b>CHYMOTRYPSIN</b>            From Bovine Pancrease</p> <p>Activity &gt;1,000U/mg</p> <p>Loss on drying &lt;5.0%</p> <p>Residue on ignition &lt;2.5%</p> <p>Trypsin &lt;1.0%</p> <p>Solubility (water, 10,000U/ml) pass</p>	1g 5g USP [9004-07-3] Store: 4°C




# 1- BIOCHEMICALS

Code	Product Description		Size
A2327	<b>CITRIC ACID</b> C <sub>6</sub> H <sub>8</sub> O <sub>7</sub> Purity >99.5% Insolubles <0.005% Chloride <0.001% Phosphate <0.001% Sulfate <0.002%	MW 192.13	ACS [77-92-9] 500g 1kg 5kg
A2328	<b>CITRIC ACID, TRISODIUM DIHYDRATE (SODIUM CITRATE)</b> C <sub>6</sub> H <sub>5</sub> Na <sub>3</sub> O <sub>7</sub> · 2H <sub>2</sub> O Purity >99.5% Insolubles <0.001% Heavy metals (as Pb) <10ppm DNase, RNase & Protease none detected	MW 294.10	Biotechnology [6132-04-3] 500g 1kg 5kg
A2329	<b>COOMASSIE® BRILLIANT BLUE G-250</b> Suitable for protein electrophoresis C <sub>47</sub> H <sub>48</sub> N <sub>3</sub> O <sub>7</sub> S <sub>2</sub> Na E <sub>m</sub> (595nm, water) >36,300	MW 854.04	Ultra Pure [6104-58-1] 5g 25g 100g
A2330	<b>COOMASSIE® BRILLIANT BLUE R-250</b> Suitable for protein electrophoresis C <sub>45</sub> H <sub>44</sub> N <sub>3</sub> O <sub>7</sub> S <sub>2</sub> Na E <sub>m</sub> (595nm, water) >33,000	MW 825.99	Ultra Pure [6104-59-2] 5g 25g 100g
A2331	<b>CREATINE PHOSPHATE, DISODIUM SALT, TETRAHYDRATE</b> C <sub>4</sub> H <sub>8</sub> N <sub>3</sub> O <sub>5</sub> PNa <sub>2</sub> · 4H <sub>2</sub> O Purity >98.0% Loss on drying <5% Heavy metals <10ppm	MW 327.14	High Purity [922-32-7] Store: -20°C 1g 5g 25g
A2332	<b>CRESOL RED, FREE ACID</b> Soluble in ethanol. C <sub>21</sub> H <sub>18</sub> O <sub>5</sub> S	MW 382.40	ACS [1733-12-6] 5g 25g
A2333	<b>CRESOL RED, SODIUM SALT</b> Soluble in water, slightly soluble in ethanol. C <sub>21</sub> H <sub>17</sub> O <sub>5</sub> SNa	MW 404.40	ACS [62625-29-0] 5g 25g
A2334	<b>CRYSTAL VIOLET</b> Soluble in water and ethanol. C <sub>25</sub> H <sub>30</sub> N <sub>3</sub> Cl Purity >98.0%	MW 407.99	ACS [548-62-9] 25g 100g 500g
A2336	<b>CUPRIC CHLORIDE, DIHYDRATE</b> CuCl <sub>2</sub> · 2H <sub>2</sub> O Purity >98.0% Sulfate <0.1% Calcium <0.01% Sodium <0.05% Iron <0.005%	MW 170.48	ACS [10125-13-0] 100g 500g
A2337	<b>CUPRIC SULFATE, PENTAHYDRATE</b> CuSO <sub>4</sub> · 5H <sub>2</sub> O Purity 98.0-102.0% Insolubles <0.005%	MW 249.68	ACS [7758-99-8] 250g 1kg
A4167	<b>CYCLOHEXIMIDE</b> Streptomyces griseus. Strong Protein synthesis inhibitor. Used in the selective isolation of Listeria species. Soluble in ethanol or methanol. C <sub>15</sub> H <sub>23</sub> NO <sub>4</sub> Purity >95.0%	281.35	High Purity [66-81-9] Store: 4°C 100mg 1g 5g
A2339	<b>CYTIDINE</b> C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>5</sub> Purity >98.0% Chloride <0.01% Sulfate <0.01% Heavy metals <10ppm	MW 243.22	High Purity [65-46-3] 5g 10g 50g





# 1- BIOCHEMICALS

Code	Product Description	Size
A4192	<b>CYTOCHROME C</b> Cytochrome c is a hemoprotein. Cytochrome c is found in animal cells in the mitochondrial protein-lipid complex. Cytochrome c is extracted from porcine heart, and further purified by chromatographic method to remove contaminating proteases. Purity >95.0% Appearance carmine lyophilized Identification complies Iron 0.40%-0.60% Bacterial endotoxin <5 EU/mg	[9007-43-6] Store: -20°C 100mg 1g
A2340	<b>CYTOSINE</b> C <sub>4</sub> H <sub>5</sub> N <sub>3</sub> O Em (275n, 0.1N HCl)	Ultra Pure [71-30-7] 1g 5g 25g
A2404	<b>DANSYL CHLORIDE</b> A fluorogenic reagent C <sub>12</sub> H <sub>12</sub> ClNO <sub>2</sub> S Purity >99.0% Melting range 70-72°C	Ultra Pure [605-65-2] Store: -20°C 1g 5g 
A2408	<b>DEAE DEXTRAN</b> Made from MW 500,000 Dextran Loss on drying <5% pH (1%, 1M KCl, 25°C) 4.0-6.0 Residue on ignition <1.0	High Purity 10g 50g 100g 250g
A2409	<b>DENHARDT'S SOLUTION, 100X CONCENTRATE</b> Suitable for molecular biology applications. Acts as blocking reagent in hybridizations to help prevent probe binding to open membrane space and non-target acids.	Ultra Pure Store: -20°C 50ml
A2411	<b>DEOXY BIG CHAP</b> C <sub>42</sub> H <sub>75</sub> N <sub>3</sub> O <sub>15</sub> Purity >99.0% Solubility (10% water) pass	Ultra Pure [86303-22-2] 250mg 1g
A2405	<b>dATP SOLUTION, 100mM</b>	Ultra Pure Store: -20°C 0.5ml 5x0.5ml
A2407	<b>dCTP SOLUTION, 100mM</b>	Ultra Pure Store: -20°C 0.5ml 5x0.5ml
A2422	<b>dGTP SOLUTION, 100mM</b>	Ultra Pure Store: -20°C 0.5ml 5x0.5ml
A2453	<b>dTTP SOLUTION, 100mM</b>	Ultra Pure Store: -20°C 0.5ml 5x0.5ml
A2446	<b>dNTP MIX, 10mM</b>	Ultra Pure Store: -20°C 0.5ml 5x0.5ml
A2447	<b>dNTP MIX, 25MM</b>	Ultra Pure Store: -20°C 0.5ml 5x0.5ml
A2412	<b>DEOXYCHOLIC ACID, SODIUM SALT</b> C <sub>24</sub> H <sub>39</sub> O <sub>4</sub> Na Purity >99.0% Sodium cholate <2.0% Heavy metals <0.005%	High Purity [302-95-4] 10g 25g 100g 500g
A1105	<b>DNA POLYMERASE I LARGE FRAGMENT</b> see 'Modifying Enzymes' section for details	
A2442	<b>DNASE I, BOVINE PANCREAS, &gt;500U/MG</b> see 'Modifying Enzymes' section for details	
A2443	<b>DNASE II, PORCINE PANCREAS, &gt;800U/MG</b> see 'Modifying Enzymes' section for details	
A2444	<b>DNASE II, PORCINE PANCREAS, &gt;12,000U/MG</b> see 'Modifying Enzymes' section for details	
A2417	<b>DEXTRAN SULFATE</b> Made from MW 500,000 Dextran. Suitable for nucleic acid hybridization. Improves the hybridization rate of nucleic acids. Purity >98.0% pH (1% water, 25°C) 6.4-8.0 Iron <0.001% Heavy metals <0.005%	Ultra Pure [9011-18-1] 25g 100g 250g 500g




# 1- BIOCHEMICALS

Code	Product Description	Size
A2403	<b>DAB TETRAHYDROCHLORIDE, HYDRATE</b> C <sub>12</sub> H <sub>14</sub> N <sub>4</sub> 4HCl XH <sub>2</sub> O Purity >98.0%	Reagent [868272-85-9] Store: -20°C 1g 5g
A2423	<b>DIETHANOLAMINE</b> HN(C <sub>2</sub> H <sub>4</sub> OH) <sub>2</sub> Purity >98.50	Reagent 100g 500g
A2416	<b>DIETHYLPYROCARBONATE (DEPC)</b> Strong inhibitor of RNase activity. Density: 1.12g/ml. To treat water with DEPC, add 1ml of DEPC to 1 Liter of deionized water (0.1%). Stir overnight, Autoclave to remove DEPC. Caution: CO <sub>2</sub> pressure may build up in the package as a result of hydrolysis of the product. C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> Purity >97.0%	High Purity [1609-47-8] Store: 4°C  25ml
A2425	<b>N,N-DIMETHYLFORMAMIDE (DMF)</b> Meets ACS Specifications. Density: 0.94g/ml. C <sub>3</sub> H <sub>7</sub> NO Purity >99.8% Residue after evaporation <0.005% Water (KF) <0.15% Color (APHA) <15	Reagent [68-12-2]  500ml
A2424	<b>DIMETHYL SULFOXIDE (DMSO)</b> Suitable for molecular biology experiments. Density: 1.10g/ml. C <sub>2</sub> H <sub>6</sub> SO Purity >99.9% Residue after evaporation <0.01% Water (KF) <0.1% Titratable free acid <0.001meq/g	ACS [67-68-5] 500ml
A2452	<b>DL-DITHIOTHREITOL (DTT)</b> Suitable for electrophoresis, protein work and most molecular biology applications. CAS# is also identified as [27565-41-9]. C <sub>4</sub> H <sub>10</sub> O <sub>2</sub> S <sub>2</sub> Purity >99.0% A <sub>283</sub> (0.2M water) <0.05 Solution (5% water) clear/colorless Protease none detected Melting point 40-44°C Loss on drying <0.50%	Biotechnology [3483-12-3] Store: 4°C 1g 5g 25g 100g
A2501	<b>E-64</b> Trans-Epoxy succinyl-L-leucylamido(4-guanidino)butane Irreversible protease inhibitor of several cysteine proteases like papain, calpain, and cathepsin B, H, L and S. Concentrations of 10-30 μM will completely inhibit proteases within 30 minutes. Solubility/Stability: 1-10mM stock solutions in DMSO or 50% ethanol are stable for several days at 4°C and several months at -20°C. 1mM aqueous solutions are stable for several months at -20°C. E-64 is stable in the presence of reducing agents. C <sub>15</sub> H <sub>27</sub> N <sub>5</sub> O <sub>5</sub> Purity >99.0%	Biotechnology [66701-25-5] Store: -20°C 5mg 25mg
A2504	<b>EDTA, FREE ACID</b> Ethylenediaminetetraacetic Acid C <sub>10</sub> O <sub>16</sub> N <sub>2</sub> O <sub>8</sub> Purity >99.5% pH (5% , water, 25°C) 2.5-3.5 Heavy metals <0.001% Iron <0.005% Residue on ignition <0.2% Magnesium <5ppm DNase, RNase & Protease none detected	Ultra Pure [60-00-4] 500g 2.5kg



# 1- BIOCHEMICALS

Code	Product Description		Size
A2503	<b>EDTA, DISODIUM, DIHYDRATE</b> Ethylenediaminetetraacetic acid, disodium, dihydrate C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>8</sub> Na <sub>2</sub> 2H <sub>2</sub> O MW 372.24 Purity >99.0% Insolubles <0.005% pH (5% water, 25°C) 4.0-6.0 Heavy metals (as Pb) <0.005% Iron <0.01% DNase, RNase & Protease none detected	Biotechnology [6381-92-6]	500g 2.5kg
A2506	<b>EGTA</b> Ethylene glycol bis(2-aminoethyl ether)-N,N',N' tetraacetic acid. A calcium specific chelator. Because of its low affinity for Mg <sup>+</sup> , EGTA inhibits metalloproteases. Soluble in water, more soluble as pH increases. Typical solution: 100mM EGTA in 100mM NaOH. C <sub>14</sub> H <sub>24</sub> N <sub>2</sub> O <sub>10</sub> MW 380.35 Purity >97.0% Melting Point >238 °C	Ultra Pure [67-42-5]	10g 25g 100g
A4126	<b>ELASTASE, PORCINE PANCREAS</b> Activity >30 units/mg. For tissue dissociation and cell isolation applications. Purified by affinity chromatography to remove trace contaminating proteases. Unstable at < pH 3.5. Unit Definition: one unit corresponds to the amount of enzyme which liberates 1 μmol 4-nitroaniline per minute at 25°C and pH 7.8.	USP [39445-21-1] Store: 4°C	100mg 500mg 1g
A2507	<b>EOSIN Y, SODIUM SALT, CERTIFIED</b> Counterstain to hematoxylin, water soluble. Used for staining exfoliative cytology. C <sub>20</sub> H <sub>6</sub> O <sub>5</sub> Br <sub>4</sub> Na <sub>2</sub> MW 691.86	High Purity [17372-87-1]	25g
A2508	<b>ERYTHROMYCIN</b> C <sub>37</sub> H <sub>67</sub> NO <sub>13</sub> MW 733.94 Purity 85.0-100.5% Water (KF) <10.0% Residue on ignition <0.2%	USP [114-07-8]	10g 25g 100g
A2509	<b>ETHANOL ANHYDROUS, DENATURED</b> C <sub>2</sub> H <sub>5</sub> OH MW 46.07 Purity >85.0% Methanol (by volume) <15.0% Water (by volume) <0.14% Color (APHA) <5	Biotechnology [64-17-5] 	500ml 1L
A5110	<b>EASYSTAIN™ I</b> Equaling to SYBR® Green I. The nucleic acid gel stain is the most sensitive stain available for detecting nucleic acids in agarose and polyacrylamide gels. Less than 20 pg of double-stranded DNA can be detected in a single band of an EasyStain I-stained gel using 254 nm epi-illumination, black and white Polaroid® 667 print film and an EasyStain photographic filter.	Store: -20°C [163795-75-3] Store: -20°C	0.1ml 0.5ml
A4182	<b>EASYSTAIN™ II (ETHIDIUM BROMIDE ALTERNATIVE)</b> Alternative to Ethidium Bromide. EasyStain II is non-carcinogenic, is as sensitive as EB and used the same way in agarose gel electrophoresis. Because this dye has the same excitation maximum as EB (290-320 nm), you generate equivalent signal in your current gel documentation system. The stain emits green fluorescence when bound to dsDNA and red fluorescence when bound to ssDNA or RNA. Other dyes are safe, but not all are stable in storage; they can also exhibit excitation characteristics that could require costly adjustments to your data acquisition system. It is both safe and stable when stored at room temperature.	Molecular Biology	1ml 5ml
A2512	<b>ETHIDIUM BROMIDE (EB)</b> Suitable for electrophoresis. At 0.5 μg/ml, it is useful in agarose or acrylamide gels for band detection of as little as 10ng of nucleic	Biotechnology [1239-45-8]	5g



# 1- BIOCHEMICALS

Code	Product Description	Size
A2510	acid at 312nm. C <sub>21</sub> H <sub>20</sub> BrN <sub>3</sub> MW 394.32 Purity >98.0% DNase & RNase none detected	10ml 4x10ml
A4158	<b>ETHIDIUM BROMIDE (EB), 10MG/ML SOLUTION</b> Suitable for electrophoresis. DNase & RNase: none detected.	1pk
A4158	<b>ETHIDIUM BROMIDE DESTAINING BAGS</b> 1 Bag will remove 5 mg of Ethidium Bromide from 1L of solution. 1Pk contains 5bags.	
A2513	<b>ETHYLENE GLYCOL</b> Density: approx. 1.11g/ml. HOCH <sub>2</sub> CH <sub>2</sub> OH MW 62.07 Purity >99.0% Acidity <0.01%	500ml
A2604	<b>FERRIC CHLORIDE, HEXAHYDRATE</b> FeCl <sub>3</sub> 6H <sub>2</sub> O MW 270.30 Purity 97.0-102.0% Insolubles <0.01% Sulfate <0.01% Copper <0.003% Ferrous iron <0.002%	250g 1kg
A2606	<b>FERRIC SULFATE, HYDRATE</b> Fe <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> ·XH <sub>2</sub> O MW 399.88 Content ( as Fe ) 21.0-23.0% Insolubles <0.02% Chloride <0.01% Heavy metals <10ppm	250g 1kg
A2607	<b>FERROUS SULFATE, HEPTAHYDRATE</b> FeSO <sub>4</sub> 7H <sub>2</sub> O MW 278.01 Purity >99.0% Insolubles <0.01%	250g 1kg
A2611	<b>FORMALDEHYDE, 37% SOLUTION</b> Suitable for use in Formaldehyde-Agarose Gel Electrophoresis of RNA. Density: 1.08g/ml CH <sub>2</sub> O MW 30.03 Formaldehyde 36.5-38.0% Methanol 10.5-13.0% Color (APHA) <10 Residue after ignition <0.005% Heavy metals <5ppm	1L
A2613	<b>FORMAMIDE</b> Density: 1.13g/ml CH <sub>3</sub> NO MW 45.04 Purity >99.0% Freezing range 1-3 °C Iron <0.001% Copper <0.001% Lead <0.001% Color (APHA) <10	500ml 1L
A2612	<b>FORMAMIDE, DEIONIZED</b> Density: 1.13g/ml CH <sub>3</sub> NO MW 45.04 Purity >99.5% Conductivity <100µmhos A <sub>280</sub> <0.05 Freezing range 1-3°C DNase & RNase none detected	100ml 500ml
A2419	<b>D-FRUCTOSE</b> C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> MW 180.16	500g 1kg



Biotechnology

Reagent  
[107-21-1]

ACS  
[10025-77-1]

Reagent  
[10028-22-5]

High Purity  
[7782-63-0]

Reagent  
[50-00-0]



ACS  
[75-12-7]  
Store: 4°C

Biotechnology  
[75-12-7]  
Store: 4°C

High Purity  
[57-48-7]



# 1- BIOCHEMICALS

Code	Product Description	Size
	Purity 98.0-102.0%	5kg
	Moisture <0.5%	
	Residue on ignition <0.5%	
	Chloride <0.02%	
	Heavy metals <0.05%	
A2702	<b>G418 SULFATE</b> An aminoglycoside related to gentamycin. Used as a selection agent in bacterial genetics. Suitable for cell culture. Soluble in water and most aqueous buffers. Suggested working concentrations are 100µg-800µg/ml. A concentration of ~400µg/ml is needed for selection and ~200µg/ml for maintenance in mammalian cells. Stability: powder is stable for over 2 years at room temperature; solution is stable for at least 3 months if kept at 4°C. C <sub>20</sub> H <sub>40</sub> N <sub>4</sub> O <sub>10</sub> ·2H <sub>2</sub> SO <sub>4</sub> MW 692.70 Potency >650µg/mg pH 4.0-6.0 Loss on drying <10.0%	High Purity [108321-42-2] Store: 4°C 100mg 500mg 1g 5g
A2401	<b>D(+)</b> GALACTOSE C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> MW 180.16 Purity >99.0%	High Purity [59-23-4] 50g 250g 500g
A2209	<b>BETA-GALACTOSIDASE</b> From E. coli Activity >600U/mg Aggregation <3.0%	Conjugation [9031-11-2] Store: -20°C 1KU 5KU
A2703	<b>GELATIN</b> Type A, 225 Bloom	High Purity [9000-70-8] 100g 500g
A2704	<b>GENTAMYCIN SULFATE</b> Aminoglycoside antibiotic. Inhibits Gram-negative, Gram-positive bacteria and mycoplasma by blocking protein synthesis. Soluble in water 50mg/ml, typical working concentration: 15µg/ml Potency >590µg/mg pH (4%, water, 25°C) 3.5-5.5 Residue on ignition <1.0%	USP [1405-41-0] Store: 4°C 1g 5g 10g
A2420	<b>D-GLUCOSE, ANHYDROUS</b> C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> MW 180.16 Purity >99.8% Insolubles <0.005% Loss on drying <0.2% Residue on ignition <0.02% Chloride <0.01% Sulfate <0.005% Iron <5ppm Arsenic <0.4ppm Heavy metals (as Pb) <5ppm DNase & RNase none detected	Biotechnology [50-99-7] 500g 1kg 5kg
A2421	<b>D-GLUCOSE, MONOHYDRATE</b> C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> · H <sub>2</sub> O MW 198.17 Purity >99.5% Insolubles <0.005% Loss on drying 8-9% DNase & RNase none detected	Biotechnology [5996-10-1] 500g 1kg 5kg
A4149	<b>GLUCOSE OXIDASE</b> From Aspergillus Niger. Activity >225 U/mg. Applications: in the determination of glucose biosensors; In the determination of glucose in colorimetric assays in conjunction with Peroxidase; For use as an enzyme label, e.g. in ELISA systems. Solubility: Dissolves readily at 5mg/ml in 0.1M potassium phosphate buffer, pH 7.0, to give a yellow, clear solution.	High Purity [9001-37-0] Store: -20°C 100KU 250KU 500KU 1MU



# 1- BIOCHEMICALS

Code	Product Description	Size
A4147	<p>Unit Definition: The amount of enzyme which causes the oxidation of one micromole of glucose per minute at 25°C, pH 7.0.</p> <p><b>BETA-GLUCOSIDASE</b> Dissolves readily at 5mg/ml in 0.1M sodium acetate buffer, pH5.0, to give a clear solution.</p> <p>Activity &gt;1000U/mg material</p>	<p>Biotechnology [9001-22-3] Store: -20°C</p> <p>100KU 500KU</p>
A2710	<p><b>GLUTATHIONE, OXIDIZED</b> C<sub>20</sub>H<sub>32</sub>N<sub>6</sub>O<sub>12</sub>S<sub>2</sub> MW 612.63 Purity &gt;95.0% Moisture &lt;1% Iron &lt;0.002% Lead &lt;0.001%</p>	<p>High Purity [27025-41-8] Store: 4°C</p> <p>1g 5g</p>
A2711	<p><b>GLUTATHIONE, REDUCED</b> C<sub>10</sub>H<sub>17</sub>N<sub>3</sub>O<sub>6</sub>S MW 307.33 Purity &gt;98.5% Heavy metals &lt;10ppm Solubility clear/colorless</p>	<p>High Purity [70-18-8] Store: 4°C</p> <p>1g 5g 10g 50g 250g</p>
A2713	<p><b>GLYCEROL</b> Used in gel electrophoresis to facilitate samples to the bottom of the gel well. Used as a protein stabilizer and storage buffer component. Density: 1.25g/ml C<sub>3</sub>H<sub>8</sub>O<sub>3</sub> MW 92.09 Purity &gt;99.7% Heavy metals (as Pb) &lt;5ppm DNase, RNase &amp; Protease none detected</p>	<p>Biotechnology [56-81-5]</p> <p>500ml 1L 4L</p>
A2714	<p><b>GLYCEROL</b> Used in gel electrophoresis to facilitate samples to the bottom of the gel well. Used as a protein stabilizer and storage buffer component. Density: 1.25g/ml C<sub>3</sub>H<sub>8</sub>O<sub>3</sub> MW 92.09 Purity &gt;99.0% Heavy metals (as Pb) &lt;5ppm Color (APHA) &lt;10</p>	<p>Reagent [56-81-5]</p> <p>500ml 1L</p>
A2715	<p><b>GLYCINE</b> C<sub>2</sub>H<sub>5</sub>NO<sub>2</sub> MW 75.07 Purity &gt;99.0% Solubility (10% water) clear/haze free A<sub>280</sub> (1M water) &lt;0.10 Heavy metal &lt;0.002% DNase, RNase &amp; Protease none detected</p>	<p>Biotechnology [56-40-6]</p> <p>500g 2.5kg</p>
A2716	<p><b>GLYCINE</b> Suitable as a buffer in most applications. C<sub>2</sub>H<sub>5</sub>NO<sub>2</sub> MW 75.07 Purity &gt;99.0% Heavy metal &lt;0.002%</p>	<p>Electrophoresis [56-40-6]</p> <p>500g 2.5kg</p>
A2717	<p><b>GLYCYLGLYCINE</b> C<sub>4</sub>H<sub>8</sub>N<sub>2</sub>O<sub>3</sub> MW 132.12 Purity &gt;99.0% Heavy metal &lt;0.002% Chloride &lt;0.02% Solubility (10% water) clear/haze free</p>	<p>High Purity [556-50-3]</p> <p>25g 100g 250g</p>
A2719	<p><b>GUANIDINE HYDROCHLORIDE</b> A strong denaturant used to solubilize proteins. CH<sub>5</sub>N<sub>3</sub> HCl MW 95.53 Purity &gt;99.5% pH (6M water) 4.5-6.0 A<sub>260</sub> (6M water) &lt;0.01 A<sub>230</sub> (6M water) &lt;0.06 Heavy metals (as Pb) &lt;5ppm</p>	<p>Biotechnology [50-01-1]</p> <p>100g 500g</p>






# 1- BIOCHEMICALS

Code	Product Description	Size
A2722	DNase , RNase & Protease none detected <b>GUANIDINE THIOCYANATE (GUANIDINE ISOTHIOCYANATE)</b> Biotechnology CH <sub>5</sub> N <sub>3</sub> HSCN MW 118.16 [593-84-0] Purity >99.0% pH (6M water) 4.5-7.0 A <sub>260</sub> (6M water) <0.03 A <sub>230</sub> (6M water) <0.15 Sodium <0.5% Potassium <1ppm Copper <5ppm Iron <5ppm Heavy metals <10ppm	50g 100g 250g 1kg
A2724	DNase , RNase & Protease none detected <b>GUANINE</b> High Purity C <sub>5</sub> H <sub>5</sub> N <sub>5</sub> O MW 151.13 [73-40-5] Purity >99.0% Chloride <0.01% Sulfate <0.01% Heavy metals <10ppm	10g 25g 100g
A2726	<b>GUANOSINE</b> High Purity C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>5</sub> MW 283.24 [118-00-3] Purity >98.0% Chloride <0.01% Sulfate <0.01% Heavy metals <10ppm	25g 100g
A2802	<b>HEPES, FREE ACID</b> High Purity N-(2-hydroxyethyl) piperazine-N'-(2-ethanesulfonic acid) [7365-45-9] Useful pH range: 6.8-8.2 C <sub>8</sub> H <sub>18</sub> N <sub>2</sub> O <sub>4</sub> S MW 238.31 Purity >99.0% pKa (25°C) 7.5 Chloride <0.05% Heavy metals <5ppm DNase , RNase & Protease none detected	25g 100g 250g 1kg
A2803	<b>HEPES, SODIUM SALT</b> ACS C <sub>8</sub> H <sub>17</sub> N <sub>2</sub> O <sub>4</sub> SNa MW 260.30 [75277-39-3] Purity >99.0% pH (1% water) 9.5-11.0 Solubility (5% water) clear/colorless pKa (25°C) 7.45-7.65 Chloride <0.001% Heavy metals (as Pb) <10ppm DNase , RNase & Protease none detected	25g 100g 500g
A2804	<b>HEPPS (EPPS)</b> Biotechnology Propane analog of Hepes. Useful pH range: 7.3-8.7 [16052-06-5] C <sub>9</sub> H <sub>20</sub> N <sub>2</sub> O <sub>4</sub> S 252.30 Purity >99.5% pKa (25°C) 8.0 DNase , RNase & Protease none detected	10g 25g 100g 250g
A2811	<b>HYDROCHLORIC ACID</b> Reagent Density: 1.17g/ml. [7647-01-0] HCl MW 36.46 Purity 36.5-38.0% Color (APHA) <10 Bromide <0.005% Sulfate <1ppm Heavy metals <1ppm	500ml
A4190	<b>HYDROGEN PEROXIDE 3%</b> USP Stabilized [7722-84-1]	500ml





# 1- BIOCHEMICALS

Code	Product Description	Size
	H <sub>2</sub> O <sub>2</sub> Assay MW 34.01 3%	
A4171	<b>HYDROXYPROPYL-β-CYCLODEXTRIN (HPCD)</b> Freely soluble in water, ethanol, DMF and in propylene glycol. Molecular weight range: 1380-1540. CAS# also identified as [128446-35-5] Purity >98.0% Heavy metals <10ppm Residue on ignition <0.5% Chloride <0.02% β-Cyclodextrin <1.0%	High Purity [94035-02-6] 1g 5g 25g
A2813	<b>HYGROMYCIN B</b> Cell culture tested. The working Hygromycin B concentration, for the purpose of selection, varies with cell type, media, growth conditions and cell metabolic rate. Recommended hygromycin concentration for the selection of resistant cells is 25-1000µg/ml. Commonly used concentrations for selection are 200µg/ml for mammalian cells, 20-200µg/ml for plant cells & bacteria cells and 200-1000µg/ml for fungi. Your optimum hygromycin concentration should be tested experimentally. C <sub>20</sub> H <sub>37</sub> N <sub>3</sub> O <sub>13</sub> MW 527.53 Purity >90.0% Potency >1100µg/mg	Molecular Biology [31282-04-9] Store: 4°C  100mg 1g 5g
A2901	<b>IMIDAZOLE</b> Useful pH: 6.2-7.8 C <sub>3</sub> H <sub>4</sub> N <sub>2</sub> MW 68.08 Purity >99.0% pKa (25°C) 6.95 Melting range 88-92°C Insolubles <0.1% Solubility (0.1M water) clear/colorless Color white to slight off white DNase & RNase none detected	Biotechnology [288-32-4]  25g 100g 500g 2.5kg
A2902	<b>IODONITROTETRAZOLIUM CHLORIDE (INT DYE)</b> Soluble in DMSO, methanol/water (1:1). C <sub>19</sub> H <sub>13</sub> N <sub>5</sub> O <sub>2</sub> Cl MW 505.71 Purity >99.0% Solubility (1% DMSO) pass Em (250nm, pH 1) >34,000	High Purity [146-68-9] Store: -20°C 250mg 1g 5g
A4170	<b>INDOLE-3-BUTYRIC ACID [IBA]</b> Used in plant cell culture. C <sub>12</sub> H <sub>13</sub> NO <sub>2</sub> MW 203.24 Purity >98.0 Heavy metals <10ppm	Reagent [133-32-4] 1g 5g 25g 100g
A2903	<b>ISOPROPYL-β-D-THIOGALACTOPYRANOSIDE (IPTG)</b> IPTG is used in conjunction with X-Gal in the Blue/White colony screening assay. X-Gal is metabolized by the enzyme, β-galactosidase, and it produces a by product this is a bright blue color. β-galactosidase is coded for in the LacZ gene. This LacZ gene also provides multiple cloning sites where the plasmid may be cut and DNA may be added. These two points prove ideal for the scientist; The scientist now only needs to induce expression of the LacZ gene. That turns out to be the inducer, IPTG. The scientist now has a manner to clearly identify cells that have incorporated his/her gene of interest. C <sub>9</sub> H <sub>18</sub> O <sub>5</sub> S MW 238.31 Purity >99.5% Melting range 110-114°C	Ultra Pure [367-93-1] Store: 4°C 1g 5g 25g 100g




# 1- BIOCHEMICALS

Code	Product Description	Size
A2904	<p>Water (KF) &lt;1.0%  Dioxane &lt;1ppm  pH (5% water, 25°C) 5-7  Solubility (1% water) clear/colorless</p> <p><b>ISOAMYL ALCOHOL</b>  Suitable for use in nucleic acid purification.  C<sub>5</sub>H<sub>12</sub>O MW 88.15  Purity &gt;99.0%  Color (APHA) &lt;20</p>	<p>Ultra Pure  [123-51-3] 500ml  1L</p> 
A2905	<p><b>ISOPROPYL ALCOHOL</b>  Density: 0.782-0.788 g/ml  C<sub>3</sub>H<sub>7</sub>OH MW 60.09  Purity &gt;99.5%  Color (APHA) &lt;10  Acidity &lt;0.002%  Water &lt;0.1%</p>	<p>Biotechnology  [67-63-0] 500ml  1L  4L</p> 
A3102	<p><b>KANAMYCIN SULFATE</b>  Streptomyces kanamyceticus.  Stock solution: 10-50mg/ml; Working solution: 10-50µg/ml  C<sub>18</sub>H<sub>36</sub>N<sub>4</sub>O<sub>11</sub> H<sub>2</sub>SO<sub>4</sub> MW 582.58  Potency &gt;750µg/mg  pH (1% water, 25°C) 5.5-7.5  Loss on drying &lt;5%</p>	<p>USP  [25389-94-0] 5g  10g  25g  100g</p>
A3208	<p><b>LEUPEPTIN, HEMISULFATE</b>  Ac-Leu-Leu-argininal. 0.5H<sub>2</sub>SO<sub>4</sub>, Synthetic. A reversible inhibitor of serine and cysteine proteases. Often used for the inhibition of plasmin, trypsin, papain, kallikrein and cathepsin B. No inhibition found with pepsin, cathepsins A and D, elastase, renin or chymotrypsin. Purity determined using three main peaks. Soluble in water: 50 mg/ml. Working concentration: 10-100µM. Solution stability 6 months at -20°C.  C<sub>20</sub>H<sub>38</sub>N<sub>6</sub>O<sub>4</sub> 1/2H<sub>2</sub>SO<sub>4</sub> MW 475.59  Purity &gt;90.0%</p>	<p>Biotechnology  [103476-89-7] 5mg  25mg  100mg  Store: -20°C</p>
A3216	<p><b>LITHIUM CHLORIDE</b>  LiCl MW 42.39  Purity &gt;99.0%  Insolubles ( in water) &lt;0.01%  Iron &lt;10ppm</p>	<p>Biotechnology  [7447-41-8] 100g  500g  1kg</p>
A3222	<p><b>LOADING DYE, 5X, 30% GLYCEROL</b>  For most DNA and RNA applications.  Exclusive blend of three tracking dyes: Dye #1 –A light blue dye that migrates at 4000 bps in 1% agarose; Dye #2 –An indigo dye that migrates at about 600bp in 1% agarose and Dye #3 –A magenta dye that migrates at 150 bp in 1% agarose.  DNase, RNase and Protease Free.</p>	<p>Ultra Pure  Store: 4°C 5ml</p>
A3224	<p><b>LOADING DYE, 6X, 15% FICOLL</b>  For DNA and RNA gels.  Exclusive blend of three tracking dyes: Dye #1 –A light blue dye that migrates at 4000 bps in 1% agarose; Dye #2 –An indigo dye that migrates at about 600bp in 1% agarose and Dye #3 –A magenta dye that migrates at 150 bp in 1% agarose.  DNase, RNase and Protease Free.</p>	<p>Ultra Pure 5ml</p>
A3233	<p><b>LYSOZYME, EGG WHITE</b> see 'Modifying Enzymes' section for details</p>	
A3302	<p><b>MAGNESIUM ACETATE, TETRAHYDRATE</b>  C<sub>4</sub>H<sub>6</sub>O<sub>4</sub>Mg 4H<sub>2</sub>O MW 214.45  Purity &gt;99.0%  Heavy metals &lt;5ppm  Chloride &lt;0.001%</p>	<p>Biotechnology  [16674-78-5] 500g  1kg</p>





# 1- BIOCHEMICALS

Code	Product Description	Size
	Sulfate <0.005%	
	Sodium <0.005%	
	Iron <5ppm	
A3303	<b>MAGNESIUM CHLORIDE, HEXAHYDRATE</b> MgCl <sub>2</sub> · 6H <sub>2</sub> O Purity 99.0-102.0% Insolubles <0.005% Sulfate <0.002% Heavy metals (as Pb) <5ppm	ACS [7791-18-6] 100g 500g 2.5kg
A3304	<b>MAGNESIUM SULFATE, HEPTAHYDRATE</b> MgSO <sub>4</sub> · 7H <sub>2</sub> O Purity 98.0-102.0% Insolubles <0.005% Heavy metals (as Pb) <5ppm DNase, RNase & Protease none detected	Biotechnology [10034-99-8] 500g 2.5kg
A2430	<b>DL-MALIC ACID</b> C <sub>4</sub> H <sub>6</sub> O <sub>5</sub> Purity >99.0% Residue on ignition <0.05% Sulfate <0.03% Maleic acid <0.05%	High Purity [617-48-1] 250g 500g 1kg
A3307	<b>MALTOSE, MONOHYDRATE</b> C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> · H <sub>2</sub> O Purity >85.0% Chloride <0.1% Heavy metals <10ppm	Reagent [6363-53-7] 100g 500g 2.5kg
A3308	<b>MANGANESE SULFATE, MONOHYDRATE</b> MnSO <sub>4</sub> · H <sub>2</sub> O Purity >98.0% Heavy metals <0.05% Chloride <0.005% Calcium <0.005% Iron <0.002% Sodium <0.02%	ACS [10034-96-5] 500g
A2431	<b>D-MANNITOL</b> Suitable for cell culture C <sub>6</sub> H <sub>14</sub> O <sub>6</sub> Purity 96.0-101.50% Reducing sugars pass Melting range 164-169°C Acidity pass Loss on drying <0.3% Chloride <0.007% Sulfate <0.01% Arsenic <1ppm	USP [69-65-8] 100g 500g 2.5kg
A2432	<b>D-MANNOSE</b> C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> Purity >99.0% Melting range 125-131°C Loss on drying <1.0%	High Purity [3458-28-4] 25g 100g 250g
A2008	<b>2-MERCAPTOETHANOL</b> Approx. 14.3M liquid, Density: 1.11g/ml C <sub>2</sub> H <sub>6</sub> OS Purity >99.0% Water <0.5% DNase, RNase & Protease none detected	Biotechnology [60-24-2] 100ml 500ml 
A4135	<b>MES, FREE ACID, MONOHYDRATE</b> 2-(N-Morpholino)ethanesulfonic acid C <sub>6</sub> H <sub>13</sub> NO <sub>4</sub> S · H <sub>2</sub> O MW 213.25	Ultra Pure [145224-94-8] 50g 100g 500g



# 1- BIOCHEMICALS

Code	Product Description	Size
A4160	Purity >99.0% pKa (25°C) 5.9-6.3 DNase , RNase & Protease none detected <b>METHANOL</b> CH <sub>3</sub> OH MW 32.04 Purity >99.85% Water <0.1% Acidity, wt <0.003% Acetone, wt <0.003% Color (APHA) <5	Reagent [67-56-1]  500ml 1L
A3327	<b>METHYLENE BLUE, CHLORIDE, TRIHYDRATE</b> C <sub>16</sub> H <sub>18</sub> ClN <sub>3</sub> S 3H <sub>2</sub> O MW 373.91 Dye content >80%	ACS [7220-79-3] 25g 100g 500g
A3329	<b>MINERAL OIL, LIGHT</b> Density: 0.834-0.850g/ml, suitable for overlaying aqueous reactions. RNase, DNase & Protease: none detected	Molecular Biology [8042-47-5] 100ml 500ml
A4161	<b>MITOMYCIN C</b> (Streptomyces caespitosus) Antibacterial. Inhibitor of DNA synthesis. Antineoplastic agent. Also used as a selection agent in cell culture. Soluble in water: 0.5mg/ml C <sub>15</sub> H <sub>18</sub> N <sub>4</sub> O <sub>5</sub> MW 334.33 Purity >98.0%	USP [50-07-7] Store: 4°C  10mg 50mg
A1111	<b>M-MULV REVERSE TRANSCRIPTASE</b> see 'Modifying Enzymes' section for details	
A3332	<b>MOLYBDIC ACID, AMMONIUM SALT, TETRAHYDRATE</b> (Ammonium Molybdate) (NH <sub>4</sub> ) <sub>6</sub> Mo <sub>7</sub> O <sub>24</sub> 4H <sub>2</sub> O MW 1235.86 Content of MoO <sub>3</sub> 81.0-83.0% Insolubles <0.005% Heavy metals (as Pb) <0.001%	Reagent [12027-67-7] 100g 500g
A3333	<b>MOLYBDIC ACID, SODIUM SALT, DIHYDRATE</b> (Sodium Molybdate) Na <sub>2</sub> MoO <sub>4</sub> 2H <sub>2</sub> O MW 241.95 Purity >99.5% Insolubles <0.005% Heavy metals (as Pb) <5ppm	Reagent [10102-40-6] 100g 500g
A3335	<b>MOPS</b> 3-(N-Morpholino) Propane Sulfonic Acid C <sub>7</sub> H <sub>15</sub> NO <sub>4</sub> S MW 209.27 Purity >99.0% Solubility (1M water) clear/colorless pH (1M water) 2.5-4.0 Heavy metals <20ppm pKa (25°C) 7.0-7.4 DNase & RNase none detected	Ultra Pure [1132-61-2] 50g 100g 250g 1kg
A3334	<b>MOPS, SODIUM SALT</b> 3-(N-Morpholino) Propane Sulfonic Acid, Sodium Salt C <sub>7</sub> H <sub>14</sub> NO <sub>4</sub> SNa MW 231.25 Purity >99.0% pH (0.1M water, 25°C) 9.5-10.5 Heavy metals <10ppm pKa (20°C) 7.0-7.4 DNase & RNase none detected	High Purity [71119-22-7] 50g 100g 250g 1kg
A3338	<b>MTT</b> (Thiazolyl Blue Tetrazolium Bromide) C <sub>18</sub> H <sub>16</sub> N <sub>5</sub> SBr MW 414.32 Purity >98.0% Melting range >187°C	Ultra Pure [298-83-1] Store: 4°C 500mg 1g 5g 25g
A4129	<b>MUG</b> 4-Methylumbelliferyl-β-D-Gluconic Acid.	Ultra Pure [6160-80-1] 100mg 1g






# 1- BIOCHEMICALS

Code	Product Description	Size
A3339	Substrate for glucuronidase. Test for coliform bacterial water. C <sub>16</sub> H <sub>16</sub> O <sub>9</sub> MW 352.29 Purity >99.0% <b>MYCOPHENOLIC ACID</b> From Penicillium brevicompactum. Used in mammalian expression. Inhibits inosinate dehydrogenase. Working range: 25µg/ml in MeOH.	Store: -20°C Ultra Pure [24280-93-1] Store: 4°C 100mg 1g
A3401	C <sub>17</sub> H <sub>20</sub> O <sub>6</sub> MW 320.34 Purity >98.0% <b>NAD</b> β-Nicotinamide Adenine Dinucleotide, Trihydrate	Reagent [53-84-9] Store: -20°C 1g 5g
A3402	C <sub>21</sub> H <sub>27</sub> O <sub>14</sub> N <sub>7</sub> P <sub>2</sub> 3H <sub>2</sub> O MW 717.47 Purity >97.0% Heavy metals <0.002% <b>NADH</b> β-Nicotinamide Adenine Dinucleotide, Reduced, Disodium Salt, Trihydrate	Store: -20°C Reagent [606-68-8] Store: -20°C 500mg 1g 5g
A3404	C <sub>21</sub> H <sub>27</sub> O <sub>14</sub> N <sub>7</sub> P <sub>2</sub> Na <sub>2</sub> 3H <sub>2</sub> O MW 763.40 Purity >92.0% Thin layer chromatography one spot <b>NALIDIXIC ACID</b> C <sub>12</sub> H <sub>12</sub> N <sub>2</sub> O <sub>3</sub> MW 232.24 Purity >98.0% Melting range 225-231°C Moisture <0.5% Heavy metals (as Pb) <0.002%	High Purity [389-08-2] 10g 25g 100g 250g
A3408	<b>NEOMYCIN SULFATE</b> Antibiotic which inhibits Gram-negative and Gram-positive bacteria. Inhibits protein synthesis. Light sensitive. Protect from moisture. Solubility in water: 50mg/ml C <sub>23</sub> H <sub>46</sub> N <sub>6</sub> O <sub>13</sub> 3H <sub>2</sub> SO <sub>4</sub> MW 908.90 Potency >600µg/mg pH (3.3% water, 25°C) 5.0-7.5 Moisture <8.0%	USP [1405-10-3] 10g 25g 100g
A4120	<b>NITROBLUE TETRAZOLIUM CHLORIDE (NBT)</b> Used to enhance the color development of BCIP products in the determination of phosphatase activity. C <sub>40</sub> H <sub>30</sub> N <sub>10</sub> O <sub>6</sub> Cl <sub>2</sub> MW 817.65 Purity >98.0% E <sub>m</sub> ( Lambda max, methanol) >54000 Loss on drying <10.0%	Ultra Pure [298-83-9] Store: 4°C 500mg 1g 5g
A4188	<b>o-NITROPHENYL-β-D-GALACTOPYRANOSIDE (oNPG)</b> Substrate used in the detection of β-Galactosidase. C <sub>12</sub> H <sub>15</sub> NO <sub>8</sub> MW 301.25 Solubility (1% water) pass	Ultra Pure [369-07-3] Store: -20°C 1g 5g
A3413	<b>NONIDET P-40 (SUBSTITUTE)</b> Suitable for electrophoresis. Density: 1.06g/ml Refractive index 1.48-1.52 HLB Number 13.1 Solubility (5% water) clear	Reagent 50ml 100ml 500ml
A5115	<b>ORANGE G, SODIUM SALT</b> Suitable for use as tracking dye in nucleic gel electrophoresis. C <sub>16</sub> H <sub>10</sub> N <sub>2</sub> O <sub>7</sub> S <sub>2</sub> Na MW 452.38 Dye content >80.0%	High Purity [1936-15-8] 25g 100g
A3509	<b>OXALIC ACID, DIHYDRATE</b> C <sub>2</sub> H <sub>2</sub> O <sub>4</sub> 2H <sub>2</sub> O MW 126.07 Purity >99.0% Insolubles <0.05% Heavy metals <10ppm	Reagent [6153-56-6] 100g 500g



# 1- BIOCHEMICALS

Code	Product Description	Size
A3604	<b>PENICILLIN G, SODIUM SALT</b> Inhibits cell wall synthesis in Gram-positive bacteria. $C_{16}H_{17}N_2NaO_4S$ MW 356.37 Activity >1600U/mg pH (5% water, 25 °C) 5.0-7.5	USP [69-57-8] 25MU 100MU 500MU
A3609	<b>PEPSTATIN A</b> Aspartic acid protease inhibitor. Soluble in acetic acid, ethanol, methanol. $C_{34}N_6O_9$ MW 685.90 Purity >90.0%	High Purity [26305-03-3] Store: 4°C 5mg 25mg
A3608	<b>PEPSIN 1:3000</b> Porcine Source Activity 1:3000-1:3500 Heavy metals <0.004% E. Coli <none detected Salmonella <none detected	High Purity [9001-75-6] Store: 4°C 100g 500g
A3610	<b>PEROXIDASE, HORSERADISH (HRP)</b> Activity >250 U/mg. Purity: RZ>3.0. Unit Definition: One unit corresponds to the amount of enzymes which oxidase 1µmole ABTS per minute at 25°C and pH 7.0. Superior to alkaline phosphatase and β-galactosidase conjugates due to the higher specific enzyme activity. Small molecular size (MW 40,000) allows excellent cellular penetration. Variety of substrates available. Ideal in immunoblotting and immunocytochemistry applications. Used as the reporter enzyme for supersignalchemiluminescent substrates. Conjugates compatible with a number of substrates.	High Purity [9003-99-0] Store at -20°C 10KU 25KU 100KU 500KU
A1006	<b>PFU DNA POLYMERASE</b> see 'Modifying Enzymes' section for details	
A3611	<b>PH STANDARD, 10.0</b> pH (25°C): 9.97-10.03, color coded, accuracy to NIST standards.	500ml
A3612	<b>PH STANDARD, 4.0</b> pH (25°C): 3.97-4.03, color coded, accuracy to NIST standards.	500ml
A3613	<b>PH STANDARD, 7.0</b> pH (25°C): 6.97-7.03, color coded, accuracy to NIST standards.	500ml
A3614	<b>PH STANDARD KIT</b> Contains 500ml each of pH4.0, pH7.0 and pH10.0 standards. Color coded, accuracy to NIST standards.	1kit
A3651	<b>PHENOL, CRYSTALLINE</b> $C_6H_6O$ MW 94.11 Purity >99.0% Melting range 40-41°C Heavy metals <0.01% Water (K/F) <0.5%	Ultra Pure [108-95-2] Store: 4°C   500g
A3616	<b>PHENOL RED</b> Soluble in ethanol, acetone, Insoluble in water. pH range 6.8(yellow) to 8.2(red). $C_{19}H_{14}O_5S$ MW 354.37	ACS [143-74-8] 5g 25g 50g
A3619	<b>PHENOL RED, SODIUM SALT</b> Soluble in water. pH range 6.8(yellow) to 8.2(red). $C_{19}H_{13}O_5SNa$ MW 376.37	ACS [34487-61-1] 5g 25g 50g
A3620	<b>PHENYLMETHYLSULFONYL FLUORIDE (PMSF)</b> Inhibits methine and cysteine proteases like trypsin, chymotrypsin, kallikrein and thrombin. $C_6H_5CH_2SO_2F$ MW 174.19 Purity >99.0% Melting range 91-95°C TLC one spot	High Purity [329-98-6]  5g 25g 100g
A3621	<b>PHOSPHATE BUFFERED SALINE POWDER</b> 1X PBS Solution contains 137mM Sodium Chloride, 2.7mM	Ultra Pure 1PK




# 1- BIOCHEMICALS

Code	Product Description	Size
A3602	<p>Potassium Chloride and 10mM Phosphate Buffer. Each pack prepares 1L of 10X concentrate. pH (1.0% water, 25°C) 7.3-7.5 Conductivity (1.0% water) 13500-17000µmhos</p> <p><b>PBS Tablets, 100ml</b> 1X PBS Solution contains 137mM Sodium Chloride, 2.7mM Potassium Chloride and 10mM Phosphate Buffer. 1 tablet prepares 100ml of 1X PBS. pH (100ml water, 25°C) 7.3-7.5</p>	<p>Biotechnology 50Tabs</p>
A3625	<p><b>PIPES, SODIUM SALT</b> Useful pH range: 6.1-7.5 C<sub>8</sub>H<sub>17</sub>N<sub>2</sub>O<sub>6</sub>S<sub>2</sub> 1.5Na MW 335.34 Purity &gt;99.0% pKa (25°C) 6.7-6.9 Chloride &lt;1.0% Heavy metals &lt;1ppm</p>	<p>High Purity 50g [100037-69-2] 100g</p>
A3631	<p><b>POLYETHYLENE GLYCOL 8000 (PEG 8000)</b> avg. MW 8,000 Purity &gt;99.0% pH (5% water, 25°C) 5.0-7.0 DNase &amp; RNase none detected</p>	<p>Biotechnology 500g [25322-68-3]</p>
A3633	<p><b>POLYVINYLPIRROLIDONE (PVP)</b> Common reagent used in nucleic acid hybridization for the detection of DNA or RNA. avg. MW 30,000 Purity &gt;99.0% pH (5% water, 25°C) 3.0-7.0 Heavy metals &lt;0.001%</p>	<p>High Purity 100g [9003-39-8] 500g</p>
A3634	<p><b>PONCEAU S</b> Used as a stain for rapid reversible staining of protein bands on nitrocellulose or PVDF. C<sub>22</sub>H<sub>12</sub>N<sub>4</sub>Na<sub>4</sub>O<sub>13</sub>S<sub>4</sub> MW 760.61 Em (520mm, water) &gt;27,000 Loss on drying &lt;5.0%</p>	<p>High Purity 10g [6226-79-5] 25g 50g</p>
A3637	<p><b>POTASSIUM ACETATE</b> K C<sub>2</sub>H<sub>3</sub>O<sub>2</sub> MW 98.14 Purity &gt;99.0% pH ( 5% water, 25°C) 6.5-9.0 Chloride &lt;0.003% Sulfate &lt;0.002% Heavy metals &lt;5ppm</p>	<p>ACS 500g [127-08-2] 2.5kg</p>
A4174	<p><b>POTASSIUM ACETATE</b> K C<sub>2</sub>H<sub>3</sub>O<sub>2</sub> MW 98.14 Purity &gt;99.0% pH ( 5% water, 25°C) 6.5-9.0 Chloride &lt;0.003% Sulfate &lt;0.002% Heavy metals &lt;5ppm DNase &amp; RNase none detected</p>	<p>Biotechnology 500g [127-08-2] 2.5kg</p>
A3638	<p><b>POTASSIUM CARBONATE, ANHYDROUS</b> K<sub>2</sub>CO<sub>3</sub> MW 138.21 Purity &gt;99.0% Insolubles &lt;0.01% Chloride &lt;0.003% Sulfur compounds &lt;0.004% Sodium &lt;0.02% Calcium &lt;0.005% Iron &lt;5ppm Magnesium &lt;0.002% Heavy metals &lt;5ppm</p>	<p>ACS 500g [584-08-7] 2.5kg</p>




# 1- BIOCHEMICALS

Code	Product Description	Size
A3639	Phosphate <b>POTASSIUM CHLORIDE</b> KCl Purity Insolubles pH (5% water, 25 °C) Heavy metals DNase, RNase & Protease	<0.001% Biotechnology [7447-40-7] 500g 1kg 2.5kg
A3640	<b>POTASSIUM FERRICYANIDE</b> K <sub>3</sub> Fe(CN) <sub>6</sub> Purity Insolubles Chloride Sulfate Ferro compounds	ACS [13746-66-2] 50g 100g 500g
A3641	<b>POTASSIUM HYDROXIDE</b> KOH Purity Heavy metals Loss on drying Arsenic Mercury	Reagent [1310-58-3] 500g 1kg 
A3642	<b>POTASSIUM IODIDE</b> KI Purity Insolubles pH (5% water, 25 °C) Chloride Sulfate Heavy metals (as Pb)	ACS [7681-11-0] 50g 100g 500g 1kg
A3643	<b>POTASSIUM NITRATE</b> KNO <sub>3</sub> Purity Insolubles pH (5% water, 25 °C) Chloride Sulfate Nitrite Heavy metals (as Pb)	ACS [7757-79-1] 500g 1kg
A3644	<b>POTASSIUM PERMANGANATE</b> KMnO <sub>4</sub> Purity Insolubles Chloride and chlorate Nitrogen compounds Sulfate	Reagent [7722-64-7] 100g 500g
A3645	<b>POTASSIUM PERSULFATE</b> K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> Purity Insolubles Heavy metals (as Pb) Iron Manganese Nitrogen compounds Chlorine compounds	ACS [7727-21-1] 100g 500g 1kg
A3646	<b>POTASSIUM PHOSPHATE, DIBASIC, ANHYDROUS</b> K <sub>2</sub> HPO <sub>4</sub> Purity Insolubles	ACS [7758-11-4] 250g 500g 2.5kg




# 1- BIOCHEMICALS

Code	Product Description	Size
	pH (5% water, 25 °C) 8.5-9.6	
	Chloride <0.003%	
	Sulfate <0.005%	
	Heavy metals <5ppm	
A4175	<b>POTASSIUM PHOSPHATE, DIBASIC, ANHYDROUS</b> Biotechnology 250g	
	K <sub>2</sub> HPO <sub>4</sub> MW 174.18 [7758-11-4] 500g	
	Purity >99.0% 2.5kg	
	Insolubles <0.01%	
	pH (5% water, 25 °C) 8.5-9.6	
	Solubility clear/colorless	
	Heavy metals <5ppm	
	DNase, RNase & Protease none detected	
A3647	<b>POTASSIUM PHOSPHATE, MONOBASIC, ANHYDROUS</b> ACS 250g	
	KH <sub>2</sub> PO <sub>4</sub> MW 136.09 [7778-77-0] 500g	
	Purity >99.0% 2.5kg	
	Insolubles <0.05%	
	Heavy metals <10ppm	
	pH (5% water, 25°C) 4.1-4.5	
	Chloride <0.001%	
	Sulfate <0.003%	
A4176	<b>POTASSIUM PHOSPHATE, MONOBASIC, ANHYDROUS</b> Biotechnology 250g	
	KH <sub>2</sub> PO <sub>4</sub> MW 136.09 [7778-77-0] 500g	
	Purity >99.5% 2.5kg	
	Insolubles <0.05%	
	Heavy metals <10ppm	
	pH (5%, water, 25°C) 4.1-4.5	
	Chloride <0.001%	
	Sulfate <0.003%	
	Solubility (1M water) clear/colorless	
	DNase, RNase & Protease none detected	
A3650	<b>PROTEINASE K</b> see 'Modifying Enzymes' section for details	
B2143	<b>RANDOM PRIMER</b> Store: -20°C 10.D.	
	5'-d (NNNNNN)-3'. Purified by PAGE. 10.D.=33µg	
B2145	<b>RANDOM PRIMER</b> Store: -20°C 10.D.	
	5'-d (NNNNNNNN)-3'. Purified by PAGE. 10.D.=33µg	
B2144	<b>RANDOM PRIMER</b> Store: -20°C 10.D.	
	5'-d (NNNNNNNNNN)-3'. Purified by PAGE. 10.D.=33µg	
B2201	<b>OLIGO(dT)<sub>18</sub> PRIMER</b> Store: -20°C 10.D.	
	Purified by PAGE. 10.D.=33µg	
B2202	<b>OLIGO(dT)<sub>36</sub> PRIMER</b> Store: -20°C 10.D.	
	Purified by PAGE. 10.D.=33µg	
A4168	<b>PUROMYCIN, DIHYDROCHLORIDE</b> High Purity 10mg	
	From Streptomyces alboniger. Fast acting nucleoside antibiotic that [58-58-2] 25mg	
	inhibits protein synthesis. Soluble in water 50mg/ml, in methanol Store: -20°C 100mg	
	20mg/ml. Stable more than 1 year in powder. 500mg	
	Purity >98.0%	
A3804	<b>RIBOFLAVIN (VITAMIN B2)</b> USP 25g	
	C <sub>17</sub> H <sub>20</sub> N <sub>4</sub> O <sub>6</sub> MW 376.37 [83-88-5] 100g	
	Purity >98.0% 500g	
A3806	<b>RNASE A</b> see 'Modifying Enzymes' section for details	
A3808	<b>RNASE INHIBITOR</b> see 'Modifying Enzymes' section for details	
A3904	<b>SILVER NITRATE</b> ACS 10g	
	Light sensitive [7761-88-8] 25g	
	AgNO <sub>3</sub> MW 169.87  100g	
	Purity >99.0% 500g	
	Chloride <5ppm	
	Sulfate <0.002%	
	Copper <2ppm	
	Iron <2ppm	



# 1- BIOCHEMICALS

Code	Product Description	Size
A3905	Lead <0.001% <b>SODIUM ACETATE, ANHYDROUS</b> C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> Na MW 82.03 Purity >99.0% Insolubles <0.01% Chloride <0.002% Sulfate <0.003% Heavy metals <0.001%	ACS [127-09-3] 500g 2.5kg
A4177	<b>SODIUM ACETATE, ANHYDROUS</b> C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> Na MW 82.03 Purity >99.0% Insolubles <0.01% pH (5% water, 25°C) 7.0-9.2 Chloride <0.002% Sulfate <0.003% Heavy metals <0.001% Solubility (1M water) clear/colorless DNase, RNase & Protease none detected	Biotechnology [127-09-3] 500g 2.5kg
A3907	<b>SODIUM AZIDE</b> NaN <sub>3</sub> MW 65.01 Purity >99.0% Solubility (20% water) clear/colorless	High Purity [26628-22-8] 50g 250g 
A4164	<b>SODIUM BENZOATE</b> Purity >99.0% Sulfate <0.01% Heavy metals <10ppm	Reagent [532-32-1] 500g 1kg
A3908	<b>SODIUM BICARBONATE, ANHYDROUS</b> NaHCO <sub>3</sub> MW 84.01 Purity >99.7% Insolubles <0.05% Sulfate <0.003% Phosphate <0.001% Heavy metals(as Pb) <5ppm Solubility (1M water) clear/colorless DNase, RNase & Protease none detected	Biotechnology [144-55-8] 500g 2.5kg
A3909	<b>SODIUM BORATE, DECAHYDRATE</b> Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> 10H <sub>2</sub> O MW 381.37 Purity >99.5% Insolubles <0.005%	ACS [1303-96-4] 500g 2.5kg
A3910	<b>SODIUM CARBONATE, ANHYDROUS</b> Na <sub>2</sub> CO <sub>3</sub> MW 105.99 Purity >99.5% Insolubles <0.01% Loss on drying <1.0% Chloride <0.001% Sulfate <0.003% Potassium <0.005% Calcium <0.003% Iron <5ppm Heavy metals (as Pb) <5ppm	ACS [497-19-8] 500g 2.5kg
A3911	<b>SODIUM CHLORIDE</b> NaCl MW 58.44 Purity >99.9% Phosphate <5ppm Calcium <0.005% Magnesium <0.005% Iron <2ppm Sulfate <4ppm Iodide <0.002%	Biotechnology [7647-14-5] 500g 1kg 5kg



# 1- BIOCHEMICALS

Code	Product Description	Size		
A3912	Nitrogen compounds	<0.001%		
	Heavy metals	<5ppm		
	DNase, RNase & Protease	none detected		
	<b>SODIUM CHLORIDE</b>	ACS	500g	
	NaCl	MW 58.44 [7647-14-5]	1kg	
	Purity	>99.5%	5kg	
	Calcium	<0.005%		
A3901	Magnesium	<0.005%		
	Iron	<2ppm		
	Sulfate	<0.004%		
	<b>SODIUM DODECYL SULFATE (SDS)</b>	Biotechnology	100g	
	C <sub>12</sub> H <sub>25</sub> NaO <sub>4</sub> S	MW 288.38 [151-21-3]	250g	
	Purity	>99.0%	500g	
	Solubility (10% water)	pass	1kg	
	A <sub>260</sub> (3% water)	<0.10%		
	A <sub>280</sub> (3% water)	<0.10%		
	Chloride	<0.10%		
	Copper	<5ppm		
A3903	Heavy metals (as Pb)	<5ppm		
	Iron	<1ppm		
	Phosphate	<5ppm		
	DNase, RNase & Protease	none detected		
	<b>SODIUM DODECYL SULFATE (SDS)</b>	Reagent	100g	
	C <sub>12</sub> H <sub>25</sub> NaO <sub>4</sub> S	MW 288.38 [151-21-3]	250g	
	Purity	>99.0%	500g	
	Insolubles	<0.003%		
	A3913	<b>SODIUM HYDROXIDE, PELLETS</b>	ACS	500g
		NaOH	MW 40.00 [1310-73-2]	1kg
		Purity	>97.0%	2.5kg
Sodium carbonate		<1.0%		
Chloride		<0.005%		
Phosphate		<0.001%		
Sulfate		<0.003%		
Heavy metals		<0.002%		
Iron		<0.001%		
Mercury		<0.1ppm		
Nickel		<0.001%		
Potassium		<0.02%		
A4187		<b>SODIUM HYDROXIDE, BEADS</b>	Reagent	500g
	NaOH	MW 40.00 [1310-73-2]	1kg	
	Purity	>98.5%		
	Sodium carbonate	<0.90%		
	Chloride	<0.05%		
	Sulfate	<0.005%		
	Heavy metals	<0.006%		
A3914	Potassium	<0.1%		
	<b>SODIUM IODIDE</b>	Ultra Pure	100g	
	Nal	MW 149.89 [7681-82-5]	500g	
	Purity	>99.0%		
	Heavy metals	<5ppm		
	Iron, copper	<3ppm%		
A3916	Sulfate	<0.005%		
	Phosphate	<0.001%		
	<b>SODIUM NITRATE</b>	High Purity	500g	
	NaNO <sub>3</sub>	MW 84.99 [7631-99-4]	2.5kg	
	Purity	>99.0%		
	Chloride	<0.05%		
Sulfate	<0.05%			
pH (5% water)	5.5-8.3			




# 1- BIOCHEMICALS

Code	Product Description	Size
A3920	<b>SODIUM PHOSPHATE, DIBASIC, ANHYDROUS</b> $\text{Na}_2\text{HPO}_4$ Purity >99.0% Insolubles <0.01% pH (5% water, 25°C) 8.7-9.3 Chloride <0.002% Sulfate <0.005% Heavy metals (as Pb) <0.001% MW 141.96	ACS [7558-79-4] 500g 2.5kg
A4133	<b>SODIUM PHOSPHATE, MONOBASIC, MONOHYDRATE</b> $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$ Purity >99.5% Insolubles <0.01% pH (5% water, 25°C) 4.1-4.5 Heavy metals (as Pb) <0.001% MW 137.99	ACS [10049-21-5] 500g 2.5kg
A3922	<b>SODIUM SULFATE, ANHYDROUS</b> $\text{Na}_2\text{SO}_4$ Purity >99.0% Insolubles <0.01% Heavy metals (as Pb) <5ppm Residue on Ignition <0.5% pH (5% water, 25°C) 5.2-9.2 Chloride <0.001% Iron <0.001% Phosphate <0.001% Calcium <0.01% Magnesium <0.005% Potassium <0.002% MW 142.04	ACS [7757-82-6] 500g 1kg 2.5kg
A2450	<b>D-SORBITOL</b> $\text{C}_6\text{H}_{14}\text{O}_6$ Purity >99.0% Water (KF) <1.0% Heavy metals (as Pb) <10ppm Residue on ignition <0.1% Chloride <0.005% Sulfate <0.01% Arsenic <3ppm MW 182.17	High Purity [50-70-4] 500g 2.5kg
A3929	<b>STREPTAVIDIN</b> Streptomyces avidinii. Streptavidin is able to bind one molecule of biotin with each subunit, useful in affinity chromatography, immunohistochemical, ELISA, and western blotting procedures using biotin-labeled antibodies and enzymes. Unit definition: One unit will bind 1.0µg biotin. Activity >17U/mg protein DNase, RNase & Protease none detected Electrophoresis one band	Biotechnology [9013-20-1] Store: -20°C 1mg 5mg
A3931	<b>STREPTOMYCIN SULFATE</b> Antimicrobial inhibiting prokaryotic protein synthesis in Gram-negative and Gram-positive bacteria. Recommended usage: for cell culture 100mg/L. Stability: Sterile filtered stock solutions store at 4°C, 1month; at -20°C for longer stability. $(\text{C}_{21}\text{H}_{39}\text{N}_7\text{O}_{12})_2 \cdot 3\text{H}_2\text{SO}_4$ Potency 650-850µg/mg pH (20% water, 25°C) 4.5-7.0 Loss on drying <5.0% MW 1457.38	USP [3810-74-0] Store: 4°C 25g 100g 250g
A3932	<b>SUCCINIC ACID</b> $\text{C}_4\text{H}_6\text{O}_4$ Purity >99.0% Heavy metals (as Pb) <0.001% Residue on ignition <0.025% MW 118.09	High Purity [110-15-6] 250g 1kg



# 1- BIOCHEMICALS

Code	Product Description	Size
A3934	<b>SUCROSE</b> C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> Purity >99.9% Insolubles <0.005% Heavy metals (as Pb) <5ppm Iron <5ppm Chloride <0.005% Residue on ignition <0.01% Loss on drying <0.03%	Ultra Pure [57-50-1] 500g 1kg 5kg
A3933	<b>SUCROSE</b> C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> Purity >99.9% Insolubles <0.005% Heavy metals (as Pb) <5ppm Iron <5ppm Chloride <0.005% Residue on ignition <0.01% Loss on drying <0.03% DNase, RNase & Protease none detected	Biotechnology [57-50-1] 500g 1kg 5kg
A1113	<b>T4 DNA LIGASE</b> see 'Modifying Enzymes' section for details	
A4002	<b>TAPS, FREE ACID</b> Useful pH range: 7.7-9.1 C <sub>7</sub> H <sub>17</sub> NO <sub>6</sub> S Purity >99.0% Heavy metals <10ppm pKa (25°C) 8.4 Solubility (1M water) clear/colorless DNase, RNase & Protease none detected	High Purity [29915-38-6] 25g 100g 250g
A4003	<b>TAPS, SODIUM SALT</b> C <sub>7</sub> H <sub>16</sub> NO <sub>6</sub> SNa Purity >99.0%	High Purity [91000-53-2] 25g 100g 250g
A1003	<b>TAQ DNA POLYMERASE</b> see 'Modifying Enzymes' section for details	
A1005	<b>TAQ PLUS DNA POLYMERASE</b> see 'Modifying Enzymes' section for details	
A4144	<b>HOTSTART TAQ PLUS DNA POLYMERASE</b> see 'Modifying Enzymes' section for details	
A4008	<b>TEMED</b> C <sub>6</sub> H <sub>16</sub> N <sub>2</sub> Purity >99.0% Reactive index 1.417-1.419 Boiling range 119-121°C	Ultra Pure [110-18-9] 25ml 100ml 
A4009	<b>TES, SODIUM SALT</b> (N-tris-(Hydroxymethyl)-2-aminoethanesulfonic acid) Useful pH range: 7.7-9.1 C <sub>6</sub> H <sub>14</sub> NO <sub>6</sub> SNa Purity >99.0% Heavy metals <10ppm DNase, RNase & Protease none detected	Biotechnology [70331-82-7] 25g 100g 500g
A4010	<b>TETRACYCLINE HYDROCHLORIDE</b> Water soluble. Stock solution: 10mg/ml. C <sub>22</sub> H <sub>24</sub> N <sub>2</sub> O <sub>8</sub> HCl Potency >900µg/mg pH (1% water, 25°C) 1.8-2.8 Loss on drying <2.0% Heavy metals <0.005%	USP [64-75-5] 25g 100g
A4128	<b>3,3', 5,5'-TETRAMETHYLBENZIDINE DIHYDROCHLORIDE(TMB)</b> C <sub>16</sub> H <sub>20</sub> N <sub>2</sub> 2HCl Purity >98.0% Residue on ignition <0.1% Em (285nm) >18,000	High Purity [64285-73-0] 500mg 1g 5g
A4180	<b>THIAMINE, HYDROCHLORIDE (VITAMIN B1)</b>	USP 5g



# 1- BIOCHEMICALS

Code	Product Description	Size
A4018	Suitable for cell culture C <sub>12</sub> H <sub>17</sub> ClN <sub>4</sub> O <sub>5</sub> .HCl Purity >98.0%	[67-03-8] 25g 100g
	<b>TRICINE</b> Useful pH range: 7.4-8.8 C <sub>6</sub> H <sub>13</sub> NO <sub>5</sub> Purity >99.0% Chloride <0.1% Sulfate <0.05%	Ultra Pure [5704-04-1] 100g 500g
A4020	<b>TRIS (BASE)</b> Tris(hydroxymethyl)aminomethane C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> Purity >99.9% Insolubles <0.005% A <sub>290</sub> (1M water) <0.05 Solubility (1M solution) clear/colorless Heavy metals (as Pb) <10ppm DNase, RNase & Protease none detected	Biotechnology [77-86-1] 500g 2.5kg
A4021	<b>TRIS (BASE)</b> Tris(hydroxymethyl)aminomethane C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> Purity >99.9% Insolubles <0.005% A <sub>290</sub> (1M water) <0.05 Solubility (1M solution) clear/colorless Heavy metals (as Pb) <10ppm	Ultra Pure [77-86-1] 500g 2.5kg
A4019	<b>TRIS ACETATE</b> C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> C <sub>2</sub> H <sub>4</sub> O <sub>2</sub> Purity >98.0% pH (0.1M water, 25°C) 6.0-7.0 Heavy metals <10ppm	High Purity [6850-28-8] 50g 100g 500g
A4023	<b>TRIS HYDROCHLORIDE</b> C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> HCl Purity >99.5% Insolubles <0.001% Iron <5ppm Lead <5ppm Copper <1ppm Magnesium <1ppm Zinc <1ppm pH (0.1M water, 25°C) 4.2-4.9	Ultra Pure [1185-53-1] 250g 1kg 5kg
A4025	<b>TRITON® X-100</b> C <sub>34</sub> H <sub>62</sub> O <sub>11</sub> pH (5%, water, 25°C) 6.0-8.0 Color (APHA) <100	Reagent [9002-93-1] 100ml 500ml
A4026	<b>TRITON® X-114</b> C <sub>14</sub> H <sub>22</sub> O(C <sub>2</sub> H <sub>4</sub> O) <sub>7-8</sub> Color (APHA) <100	Reagent [9036-19-5] 100ml 500ml
A4029	<b>TRYPSIN</b> From Bovine Pancreas, activity >2500U/mg. Highly purified by affinity chromatography. Hymotrypsin <50 U/mg. The optimum pH is 8.0. Unit Definition: One unit hydrolyzes 1µM of p-toluene-sulfony-L-arginine methyl ester (TAME) per minute at 25°C, pH 8.2, in the presence of 10mM calcium ion.	USP [9002-07-7] Store: 4°C 1g 5g
A4027	<b>TRYPSIN 1: 250</b> From Porcine Pancreas Trypsin >250U/mg Chymotrypsin <75U/mg	Tissue Culture [9002-07-7] Store: 4°C 25g 100g 250g



# 1- BIOCHEMICALS

Code	Product Description	Size
A4028	Loss on drying <5.0% <b>TRYPSIN 1: 300</b> Porcine pancreas for single cell suspension Trypsin >300U/ mg Chymotrypsin <90U / mg Loss on drying <5.0%	Tissue Culture [9002-07-7] Store: 4°C 25g 100g 250g
A5107	<b>TRYPSIN INHIBITOR, SOYBEAN</b> A dialyzed, lyophilized powder. No less than 7,000 BAEE units of inhibition/mg material. Unit definition: The amount of inhibitor that will inhibit one unit of Trypsin activity (BAEE Units)	[9035-81-8] Store: -20°C 100mg 500mg 1g
A4031	<b>TWEEN® 20</b> Polyoxyethylene-20-sorbitan monolaurate Hydroxyl number 96-108 HLB number 16.7 Water (KF) <3.0% Heavy metals <0.001% DNase, RNase & Protease none detected	Biotechnology [9005-64-5] 100ml 500ml
A4032	<b>TWEEN® 80</b> Polyoxyethylene-20-sorbitan monolaurate Hydroxyl number 65-80 HLB Number 15.0 Water (KF) <3.0% Heavy metals <0.001%	Reagent [9005-65-6] 100ml 500ml
A1127	<b>URACIL DNA GLYCOSYLASE (UDG)</b> see 'Modifying Enzymes' section for details	
A4105	<b>UREA</b> CH <sub>4</sub> N <sub>2</sub> O MW 60.06 Purity >99.0% Chloride <0.05% Sulfate <0.05% Heavy metals <0.001%	Reagent [57-13-6] 500g 2.5kg
A4103	<b>UREA</b> CH <sub>4</sub> N <sub>2</sub> O MW 60.06 Purity >99.5% Insolubles <0.005% Chloride <5ppm Iron <1ppm Heavy metals <5ppm Conductivity (5M water) <15µhmos DNase, RNase & Protease none detected	Ultra Pure [57-13-6] 250g 500g 2.5kg
A4109	<b>WATER, STERILE</b> Sterilized with DEPC treated. H <sub>2</sub> O MW 18.02 DNase & RNase none detected	Molecular Biology [7732-18-5] 100ml 500ml
A4110	<b>X-GAL</b> 5-Bromo-4-chloro-3-indolyl-β-D-galactopyranoside X-Gal is a substrate for B-galactosidase producing a blue color. Used as a selection agent in cloning experiments utilizing the LacZ vector. Stock solutions can be made in dimethylformamide (40mg/ml) or DMSO (20mg/ml). Final concentrations in LB/Ampicillin plates 20-40µg/ml. Thin Layer Chromatogram: single spot C <sub>14</sub> H <sub>15</sub> BrClNO <sub>6</sub> MW 408.64 Purity >99.0% Solution (1% in DMF/water 1:1) clear/colorless Water (KF) <0.30%	Ultra Pure [7240-90-6] Store: -20°C 250mg 1g 5g 10g
A4113	<b>X-GLUC</b> 5-bromo-4-chloro-3-indolyl-β-D-glucuronic acid, cyclohexylammonium salt. Chromogenic substrate for β-glucuronidase.	Ultra Pure [18656-96-7] Store: -20°C 100mg 500mg 1g



# 1- BIOCHEMICALS

Code	Product Description		Size
A4115	C <sub>14</sub> H <sub>13</sub> BrClNO <sub>7</sub> .C <sub>6</sub> H <sub>13</sub> N	MW 521.80	
	Assay (perchloric acid titration)	>96.5%	
	Thin Layer Chromatogram	single spot	
A4189	<b>XYLENECYANOL FF</b>		Ultra Pure
	Acid Blue 147		[2650-17-1]
	C <sub>25</sub> H <sub>27</sub> N <sub>2</sub> O <sub>6</sub> S <sub>2</sub> N <sub>a</sub>	MW 538.61	
A4189	Em (614nm, methanol)	>46,000	10g
	<b>XTT, SODIUM SALT</b>		Molecular Biology
	Used to measure cell viability and growth.		[111072-31-2] Store:4°C
A4165	C <sub>22</sub> H <sub>16</sub> N <sub>7</sub> O <sub>13</sub> S <sub>2</sub> N <sub>a</sub>	MW 673.52	1g
	Purity	>90%	
	<b>ZINC SULFATE, HEPTAHYDRATE</b>		Reagent
A4165	ZnSO <sub>4</sub> 7H <sub>2</sub> O	MW 287.54	[7446-20-0]
	Purity	>99.0%	100g
	Insolubles	<0.02%	500g



## 2- MODIFYING ENZYMES

### MODIFYING ENZYMES

Code	Description	Size
A1003	<p><b>Taq DNA Polymerase<sup>1</sup></b>                      5 U/μl. Taq DNA Polymerase is a highly thermostable DNA polymerase isolated from an E. coli strain that carries thermostable DNA polymerase gene. Taq DNA Polymerase catalyzes the 5' to 3' synthesis of DNA. The enzyme has no detectable 3' to 5' proofreading exonuclease activity, and possesses low 5' to 3' exonuclease activity. PCR products, amplified up to 6kb in length with Taq DNA Polymerase, generate a single base (A) 3' overhang. The error rate of this PCR amplification is 2.2x10<sup>-5</sup> per nucleotide per cycle. Store at -20°C.</p>	500U 4X500U 10X500U 50x500U 100x500U
A1005	<p><b>Taq Plus DNA Polymerase<sup>1</sup></b>                      5 U/μl. Taq Plus is a mixture of Tag and Pfu. The two enzymes act synergistically during PCR to generate more accurate and longer PCR products with greater yields compared to Taq DNA Polymerase alone. Taq Plus is used to improve reliability and yield of conventional primer extension reaction. Taq Plus has two following advantages: high fidelity with an error frequency 7.5x10<sup>-5</sup> during DNA synthesis. Taq Plus increases the efficiency of polymerization reaction, resulting in a great percentage of extenuation reaction completion up to 20kb. Store at -20°C.</p>	250U 4X250U
A4144	<p><b>HotStart Taq DNA Polymerase<sup>1</sup></b>                      5 U/μl. HotStart Taq DNA Polymerase is a chemically modified Taq DNA Polymerase whose enzyme activities can only be activated after 3-5 minutes of incubation at 94°C. This enzyme therefore inhibits polymerase reaction before the onset of thermal cycling, preventing nonspecific DNA amplification and primer dimmer formation. Amplification with this polymerase generates PCR products with 3'-A overhangs. Store at -20°C.</p>	250U 4X250U
A1006	<p><b>HIFI DNA Polymerase<sup>2</sup></b>                      5 U/μl. Equivalent to Pfu DNA Polymerase.                      Pfu DNA polymerase is isolated from the pyrococcus furiosus. The multifunctional thermostable enzyme possesses both of 5'- to 3'-DNA polymerase and 3'- to 5'-exonuclease activity, which results in a 12-fold increase in fidelity of DNA synthesis over Taq DNA polymerase. The Pfu DNA polymerase has a temperature optimum between 72°C and 78°C, and remains more than 95% active following one hour incubation at 95°C. Store at -20°C.</p>	100U 500U 10X500U
A4145	<p><b>Taq PCR Master Mix, 2X<sup>1</sup></b>                      25μl/Rxn. Save preparation time by combining Taq, dNTPs and reaction buffer in a 2X concentrate mixture, ready to use. It contains all the necessary reagents for amplification of DNA. To set up a PCR reaction, just add DNA template, primers and water. Amplification with this mix generates PCR products with 3'-A overhangs. Store at -20°C.</p>	40Rxns 5x40Rxns
A1130	<p><b>Alkaline Phosphatase, 2 Component System</b>                      It includes 30 U/ μl of Alkaline Phosphatase in a 50% Glycerol solution and a dilution buffer that allows end user to prepare a 3U/μl solution for use in DNA modification. Store at 4°C. DO NOT FREEZE. [9001-78-9]</p>	1KU 5KU
A1105	<p><b>DNA Polymerase I, Large (Klenow) Fragment</b>                      5 U/μl, supplied with 10x Reaction Buffer.                      DNA Polymerase I, Large (Klenow) Fragment is a proteolytic product of E. coli DNA Polymerase I which retains polymerization and 3' to 5' exonuclease activity, but has lost 5' to 3' exonuclease activity. Klenow retains the polymerization fidelity of the holoenzyme without degrading 5' termini.</p> <p>Unit Definition: One unit is the amount of enzyme required to convert 10 nmole of dNTPs to an acid-insoluble form in 30 minutes at 37°C.                      Store at -20°C.</p>	200U 1KU



## 2- MODIFYING ENZYMES

- A2442 DNase I (Deoxyribonuclease I)**  
 A dialyzed lyophilized powder from Bovine Pancreas. Purified by chromatography. Activity >500U/mg. Loss on Drying <5.0%, Residual on Ignition <1.0%.  
 100mg  
 500mg  
 1g
- Unit Definition: One Kunitz unit will produce  $A_{260}$  of 0.001 per minute at pH 5.0 at 25°C using DNA, type I or III as the substrate.
- Bovine pancreatic deoxyribonuclease (DNase) is an endonuclease which splits phosphodiester linkages, preferentially adjacent to a pyrimidine nucleotide yielding polynucleotides with free hydroxyl group at the 3' position and phosphate group at the 5' position. The optimum pH is 7.8. DNase I is activated by bivalent metals, and inhibited by chelating agents such as EDTA and sodium dodecyl sulfate. DNase I can be stabilized against proteolytic digestion by 5 mM  $Ca^{2+}$ . Biomatik's Deoxyribonuclease I has been chromatographically purified to remove trace contaminating proteases. Store at 4°C. [9003-98-9]
- A4193 DNase I (Deoxyribonuclease I)**  
 A dialyzed lyophilized powder from Bovine Pancreas. Purified by chromatography. Activity >2000U/mg. Loss on Drying <5.0%, Residual on Ignition <1.0%.  
 100mg  
 500mg  
 1g
- Unit Definition: One Kunitz unit will produce  $A_{260}$  of 0.001 per minute at pH 5.0 at 25°C using DNA, type I or III as the substrate. Store at 4°C. [9003-98-9]
- A2444 DNase II (Deoxyribonuclease II), Purified**  
 Activity >12,000 U/mg. A dialyzed, lyophilized powder from Porcine Spleen, highly purified by chromatography.  
 20KU  
 Store at -20°C. [9025-64-3]
- A3233 Lysozyme, Egg White, Ultra Pure**  
 Appearance: White to off white powder; Activity >22,000U/mg; Albumin: none detected; Salmonella: none detected.  
 1g  
 5g  
 10g  
 25g  
 100g  
 250g
- Unit Definition: One unit causes a decrease in absorbance of 0.001 per min at 450 nm, 25°C and pH 7.0 with *Micrococcus lysodeikticus* as the substrate. Store at -20°C. [12650-88-3]
- A1111 M-MuLV Reverse Transcriptase**  
 250 U/μl, supplied with 5x Reaction Buffer.  
 5KU  
 25KU
- The enzyme is purified from an E.coli strain carrying a Moloney Murine Leukemia Virus (M-MuLV) reverse transcriptase overproducing plasmid. M-MuLV Reverse Transcriptase is an RNA-directed DNA polymerase. This enzyme can synthesize a complementary DNA strand initiating from a primer using either RNA (cDNA synthesis) or single-stranded DNA as a template. M-MuLV Reverse Transcriptase lacks 3' to 5' exonuclease activity. No detectable DNase and RNase contamination. Store at -20°C.
- A3650 Proteinase K, Biotechnology Grade**  
 Activity >30 U/mg. One unit is defined as the amount of enzyme that will liberate 1.0 mmol of tyrosine per minute at 37°C, pH 7.5.  
 100mg  
 250mg  
 500mg  
 1g  
 5g
- Proteinase K is stable, highly reactive non-specific serine protease, used in the preparation of genomic DNA. It is stable in a wide variety of pH's, temperatures, detergents and buffer salts. It is active with or without the presence of SDS, EDTA and Urea. Proteinase K is inactivated by PMSF, AEBSF, or DFP.
- DNase/RNase Activity: No detectable nicking activity with pBR322 after incubation for 6 hour at 37°C. No detectable ribonuclease activity after incubation for 16 hour at 25°C. Store at 4°C. [39450-01-6]



## 2- MODIFYING ENZYMES

A3806	<b>RNase A, Molecular Biology Grade</b> Activity (Kunitz) >70 U/mg. An essentially protease-free, chromatographically prepared Lyophilized powder from Bovine Pancreas. Store at -20°C. [9001-99-4]	50mg 100mg 250mg 500mg 1g 5g
A3808	<b>RNase Inhibitor</b> E. Coli strain carrying the gene of RNase Inhibitor. Activity >40U/μl. One unit will reduce the activity of 5ng of RNase A by 50% in a cytidine 2' 3'Cyclic monophosphate system. Molecular weight approx 50 KDa. Exonuclease/Endonuclease/Nickases: none detected. Store at -20°C.	2KU 10KU 20KU
A1113	<b>T4 DNA Ligase</b> 5 Weiss U/μl, supplied with 10x Reaction Buffer. One Weiss unit is defined as the amount of enzyme required to catalyze the exchange of 1 nmole of 32P from pyrophosphate to ATP, into Norit-adsorbable material in 20 minutes at 37°C. One Weiss Unit is equivalent to approximately 67 cohesive-end ligation units. Store at -20°C.	200U 1KU 5KU
A1127	<b>Uracil DNA Glycosylase (UDG)</b> 50 U/μl, supplied with 10X Reaction Buffer. One unit of enzyme catalyzes the degradation of 1μg single-stranded uracil-containing DNA in 60 minutes at 37°C.  Purified from E.coli strain K12. Catalyzes the hydrolysis of N-glycosylic bond between uracil and sugar, leaving an apyrimidinic site in uracil-containing single or double-stranded DNA. It shows no activity for RNA. Store at -20°C. [117681-65-9]	200U 1KU

<sup>1</sup> The PCR process is covered by US. Patent numbers 4683195 and 4683202 issued to Cetus and owned by Hoffman-La Roche Inc. Biomatik Corporation does not encourage or support the unauthorized use of the PCR process. Use of this product is recommended for persons that either have a license to perform PCR or are not required to obtain a license. Sale of this product is restricted in regions or countries where native Taq DNA Polymerase patents have been invalidated.

<sup>2</sup> Sale of this product is restricted in regions or countries where the corresponding patent has not been registered or has been invalidated.



## 3- BIODATA

Code	Description	Size
K5101-100P	SpinKlean™ PCR Purification Kit	100 Preps
K5111-100P	SpinKlean™ Gel Extraction Kit	100 Preps
K5113-100P	SpinKlean™ Plasmid Miniprep Kit	100 Preps
K5144-20R	First Strand cDNA Synthesis Kit (AMV)	20 Rxns
K5144-50R	First Strand cDNA Synthesis Kit (AMV)	50 Rxns
K5146-20R	First Strand cDNA Synthesis Kit (M-MuLV)	20 Rxns
K5146-50R	First Strand cDNA Synthesis Kit (M-MuLV)	50 Rxns
K5161-100ML	TRIGent (Total RNA Isolation Reagent)	100 ml



## 3- BIOKITS

### **K5101 - SpinKlean™ PCR Purification Kit**

For DNA purification from PCR products and DNA cleanup from enzymatic reactions.  
Simple bind-wash-elute procedure. Store: 4-25°C

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**Kit Contents:**

Binding Solution  
Wash Solution  
Elution Buffer  
SpinKlean Mini-Column & Collection Tube

**Product Description:**

SpinKlean column purification kits utilize a silica-gel membrane that selectively absorbs up to 10ug of DNA fragments in the presence of specialized binding buffers. Nucleotides, oligos, enzymes, mineral oil and other impurities do not bind to the membrane and are washed away. The DNA fragments can then be eluted off the column in small volume and used in almost any downstream applications.

**Features:**

- Simple, fast, efficient and cost effective. The entire procedure takes 20 minutes.
- High purification capacity. Up to 10ug of DNA per mini-column.
- Preparation of high quality DNA which can be used in any downstream application such as sequencing (automatic and manual), PCR, transformation, restriction enzymatic digestions, or ligation.
- No phenol / chloroform extraction or ethanol precipitation is required.

### **K5111 - SpinKlean™ Gel Extraction Kit**

For isolation and recovery of DNA fragments from agarose gels.  
Simple solubilization-bind-wash-elute procedure. Store: 4-25°C

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**Kit Contents:**

Binding Buffer  
Wash Solution  
Elution Buffer  
SpinKlean Mini-Column & Collection Tube

**Product Description:**

SpinKlean column purification kit utilizes silica-gel based membrane, which adsorbs selectively up to 10ug DNA fragments in the presence of specialized binding buffers. Nucleotides, enzymes, mineral oil and other impurities do not bind to the membrane. DNA fragments can be eluted readily with elution buffer.

**Features:**

- Simple, fast, efficient and cost effective. The entire procedure takes 20 minutes.
- High purification capacity. Up to 10ug of DNA per mini-column.
- Preparation of high quality DNA which can be used in any downstream application such as sequencing (automatic and manual), PCR, transformation, restriction enzymatic digestions, or ligation.
- No phenol / chloroform extraction or ethanol precipitation is required.



## 3- BIOKITS

### **K5113 - SpinKlean™ Plasmid MiniPrep Kit**

For purification of plasmid DNA from bacterial cultures.

Simple lyse-bind-wash-elute procedure. Store: 4-25°C. Solution I (with RNase A) may be refrigerated for long term storage.

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#### **Kit Contents:**

RNase A (10mg/ml)

Solution I

Solution II

Solution III

Wash Solution

Elution Buffer

SpinKlean Mini-Column & Collection Tube

#### **Description:**

This kit provides a simple and efficient method for a small amount of plasmid DNA purification. DNA fragments are selectively adsorbed in silica gel-based column and other impurities such as proteins, salts and nucleotides do not bind. Plasmid DNA can be eluted in a small volume of Tris buffer.

#### **Applications:**

- Plasmid DNA purification
- Recovery of DNA fragments from reaction solutions

#### **Features:**

- Simple, fast, efficient and cost effective. The entire procedure takes 20 minutes.
- High purification capacity. Up to 10ug of DNA per mini-column.
- Preparation of high quality DNA which can be used in any downstream application such as sequencing (automatic and manual), PCR, transformation, restriction enzymatic digestions, or ligation.
- No phenol / chloroform extraction or ethanol precipitation is required.

### **K5144 – First Strand cDNA Synthesis Kit, AMV**

Store: -20°C.

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#### **Kit Contents:**

AMV Reverse Transcriptase (5U/ul)

5×AMV Reaction Buffer

dNTP Mix, 10mmol/L

Oligo-p(dT)18 Primer, 0.5µg/µl

Random Primer p(dN)9, 0.2µg/µl

RNase Inhibitor, 40U/µl

RNase-free ddH<sub>2</sub>O

#### **Description:**

The Cloned AMV First-Strand cDNA Synthesis Kit is designed for the sensitive and reproducible detection and analysis of RNA molecules in a two-step process. Cloned Avian Myeloblastosis Virus (AMV) Reverse Transcriptase is purified to near homogeneity from baculovirus-infected insect cells containing the pol gene of AMV. cDNA synthesis is performed in the first step using either total RNA or poly(A)<sup>+</sup>-selected RNA primed with oligo(dT), random primers, or gene-specific primers, at 45-55°C. In the second step, PCR is performed in a separate tube using primers specific for the gene of interest. RNA targets from 100 bp to >9.4 kb can be detected with this kit, using 1 pg to 5 µg of total RNA. The PCR reaction can be performed with Platinum Taq DNA Polymerase or Platinum Taq DNA Polymerase High Fidelity. Platinum Taq DNA Polymerase High Fidelity is suitable for the amplification of templates from 100 bp to >12 kb and has a fidelity five times higher than Taq DNA polymerase alone. Platinum Taq DNA Polymerase provides automatic hot-start conditions for increased specificity up to 3 kb.



## 3- BIOKITS

### **K5146 – First Strand cDNA Synthesis Kit, M-MuLV**

Store: -20°C.

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**Kit Contents:**

M-MuLV Reverse Transcriptase , 200u/ul  
5x M-MuLV Reaction Buffer  
RNase Inhibitor, 40U/μl  
dNTP Mix, 10mM each  
Oligo-(dT)18 Primer, 0.5μg/μl  
Random Primer p(dN)6, 0.2μg/μl  
RNase-free ddH<sub>2</sub>O, DEPC Treated

**Description:**

The Cloned M-MULV First-Strand cDNA Synthesis Kit is designed for the sensitive and reproducible detection and analysis of RNA molecules in a two-step process. Cloned Moloney Murine Leukemia Virus (M-MULV) Reverse Transcriptase is purified to near homogeneity from baculovirus-infected insect cells containing the pol gene of M-MULV. cDNA synthesis is performed in the first step using either total RNA or poly(A)<sup>+</sup>-selected RNA primed with oligo(dT), random primers, or gene-specific primers, at 45-55°C. In the second step, PCR is performed in a separate tube using primers specific for the gene of interest. RNA targets from 100 bp to >9.4 kb can be detected with this kit, using 1 pg to 5 μg of total RNA. M-MULV RT is the preferred reverse transcriptase for long mRNA templates because the RNase H activity of M-MULV RT is weaker than the commonly used Avian Myeloblastosis Virus (AMV) reverse transcriptase. The PCR reaction can be performed with Platinum Taq DNA Polymerase or Platinum Taq DNA Polymerase High Fidelity. Platinum Taq DNA Polymerase High Fidelity is suitable for the amplification of templates from 100 bp to >12 kb and has a fidelity five times higher than Taq DNA polymerase alone. Platinum Taq DNA Polymerase provides automatic hot-start conditions for increased specificity up to 3 kb.

- No phenol / chloroform extraction or ethanol precipitation is required.

### **K5161 - Total RNA Isolation Reagent (TRIGent )**

For total RNA isolation from cells and tissues. **Store:** 4°C.

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**Description:** Total RNA Isolation Reagent is a ready-to-use reagent for the isolation of total RNA from cells and tissues. This reagent performs well with small quantities of tissue (50~100 mg) and cells ( $5 \times 10^6$ ), and large quantities of tissue ( $\geq 1$  g) and cells ( $> 10^7$ ), of human, animal, plant, or bacterial origin. The simplicity of the Total RNA Isolation Reagent method allows simultaneous processing of a large number of samples. The entire procedure can be completed in one hour. Total RNA isolated by Total RNA Isolation Reagent is free of protein and DNA contamination. It can be used for Northern blot analysis, dot blot hybridization, poly (A)<sup>+</sup> selection, in vitro translation, RNase protection assay, and molecular cloning. For use in the polymerase chain reaction (PCR), treatment of the isolated RNA with amplification grade DNase I is recommended when the two primers lie within a single exon.

Total RNA Isolation Reagent facilitates isolation of a variety of RNA species of large or small molecular size. For example, RNA isolated from rat liver, electrophoresed on an agarose gel, and stained with ethidium bromide, shows discrete bands of high molecular weight RNA between 7 kb and 15 kb in size, (composed of mRNA's and hnRNA's) two predominant ribosomal RNA bands at ~5 kb (28S) and at ~2 kb (18S), and low molecular weight RNA between 0.1 and 0.3 kb (tRNA, 5S). The isolated RNA has an  $A_{260/280}$  ratio of 1.6~1.8 when diluted into distilled water. The expected yield of RNA per mg of tissue is: liver and spleen, 6~10μg; kidney, 3~4μg; skeletal muscles and brain, 1~5μg; placenta, 1~4μg. The expected yield of RNA from  $1 \times 10^6$  Cultured cells is: epithelial cells, 8~15μg; fibroblasts, 5~7μg.



## 4- MARKERS AND VECTORS

### DNA SIZE MARKERS

► Ready to Use ► Quantitative ► Stable at Room Temperature

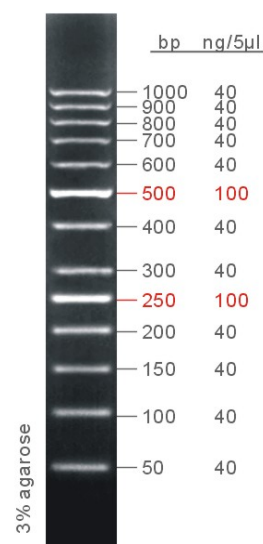
#### 50bp DNA Ladder Plus, Quantitative, 13 Bands, 50bp-1kb, Ready to Use

Code	Size
M7507-50Loads	50 Loads (250µl)
M7507-5x50Loads	5x100 Loads (5x250µl)

**Description:** 50bp DNA ladder plus (Quantitative) is ideal for determining the size of double-stranded DNA from 50 to 1000 base pairs. The ladder consists of 13 linear double-stranded fragments. The intensity of the 250bp and 500bp has been increased to serve as a reference for easy identification. All fragments are precisely quantified and mixed during the production. For 5µl loading, all fragments except 250bp and 500bp are at 40ng. The 250bp and 500bp fragments are at 100ng. This ladder is pre-mixed with loading dye and is ready to use.

Store at -20°C.

#### 50bp ladder plus



5 µl/Lane, 8 cm Gel  
0.5×TAE, 5 V/cm, 1 h

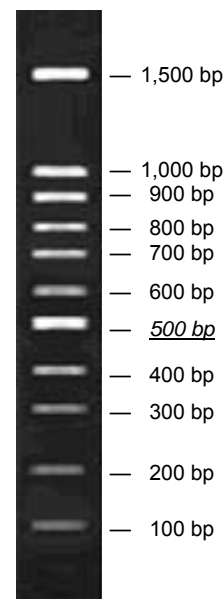
#### 100bp DNA Ladder, 11 Bands, 100bp-1.5kb, Ready to Use

Code	Size
M6123-100Loads	100 Loads (600µl)
M6123-5x100Loads	5x100 Loads (5x600µl)

**Description:** 11 DNA fragments: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000 and 1500bp. The intensity of the 500bp band has been increased to serve as a reference for easy identification.

**Recommended Loading:** 6µl/load, which yields at least 30ng DNA for any single band. Add at least 6µl 100bp DNA Ladder directly to wells designated for markers. You may need more than 6µl of ladder, depending on well size and level of dye used to visualize the bands. Dilute each of your samples with 6x Loading Buffer before loading on a gel.

Store at -20°C.



100bp DNA Ladder  
500ng  
1.5% agarose gel



## 4- MARKERS AND VECTORS

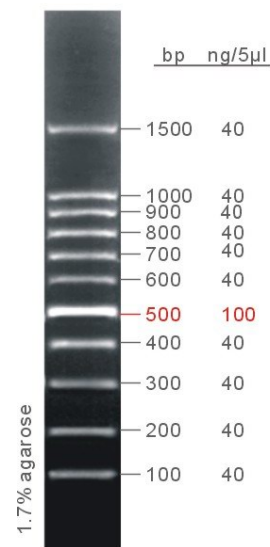
### 100bp DNA Ladder, Quantitative, 11 Bands, 100bp-1.5kb, Ready to Use

Code	Size
M7123-100Loads	100 Loads (500µl)
M7123-5x100Loads	5x100 Loads (5x500µl)

**Description:** 100bp DNA ladder (Quantitative) is ideal for determining the size of double-stranded DNA from 100 to 1500 base pairs. The ladder consists of 11 linear double-stranded fragments. The intensity of the 500bp has been increased to serve as a reference for easy identification. All fragments are precisely quantified and mixed during the production. For 5µl loading, all fragments except 500bp are at 40ng. The 500bp fragment is at 100ng. This ladder is pre-mixed with loading dye and is ready to use.

Store at -20°C.

### 100bp ladder



5 µl/Lane, 8 cm Gel  
0.5×TBE, 5 V/cm, 1 h

### 100bp DNA Ladder Plus, 14 Bands, 100bp-3kb, Ready to Use

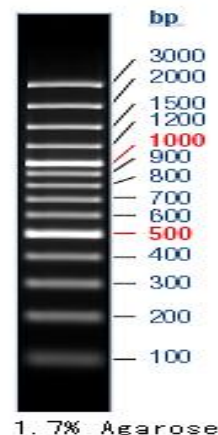
Code	Size
M6506-50Loads	50 Loads (300µl)
M6506-5x50Loads	5x50 Loads (5x300µl)

**Description:** 14 DNA fragments: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1200, 1500, 2000 and 3000bp. The intensity of the 500bp and 1000bp band has been increased to serve as a reference for easy identification.

Recommended Loading: 6µl/load, which yields at least 75ng of each DNA fragments and 150ng of 500bp and 1000bp band.

Add at least 6µl 100bp DNA Ladder directly to wells designated for markers. You may need more than 6µl of ladder, depending on well size and level of dye used to visualize the bands. Dilute each of your samples with 6x Loading Buffer before loading on a gel.

Store at -20°C.



## 4- MARKERS AND VECTORS

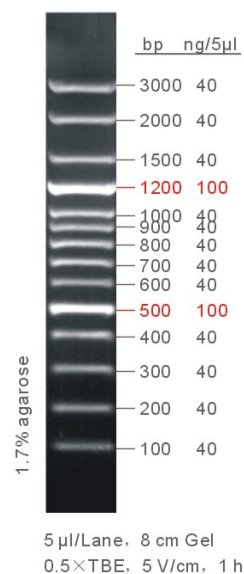
### 100bp DNA Ladder Plus, Quantitative, 14 Bands, 100bp-3kb, Ready to Use

Code	Size
M7506-50Loads	100 Loads (500µl)
M7506-5x50Loads	5x100 Loads (5x500µl)

**Description:** 100bp ladder plus is ideal for determining the size of double-stranded DNA from 100 to 3000 base pairs. The ladder consists of 14 linear double-stranded fragments. The 500bp and 1200bp fragment are present at increased intensity to allow easy identification. All fragments are precisely quantified and mixed during the production. For 5µl loading, all fragments except 500bp and 1200bp are 40ng. The 500bp and 1200bp fragment are 100ng. This ladder is pre-mixed with loading dye and is ready to use.

Store at -20°C.

### 100bp ladder plus

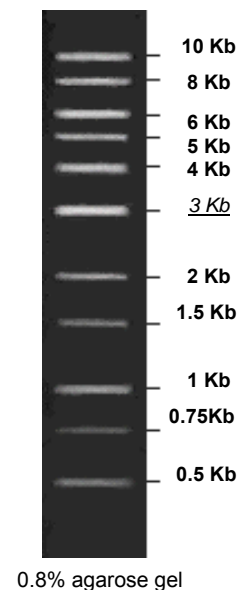


### 1kb DNA Ladder, 11 Bands, 500bp-10kb, Ready to Use

Code	Size
M6508-100Loads	100 Loads (600µl)
M6508-5x100Loads	5x100 Loads (5x600µl)

**Description:** The DNA Ladder is a proprietary mixture of several plasmids digested to completion with specific restriction enzymes to produce a ladder with 11 fragments ranging from 0.5-10Kb, producing the most complete and convenient ladder in the 1Kb DNA ladder family. The intensity of the some bands has been increased to yield internal reference indicators. 6µl will yield at least of 30ng DNA in any single DNA band.

Store at -20°C.



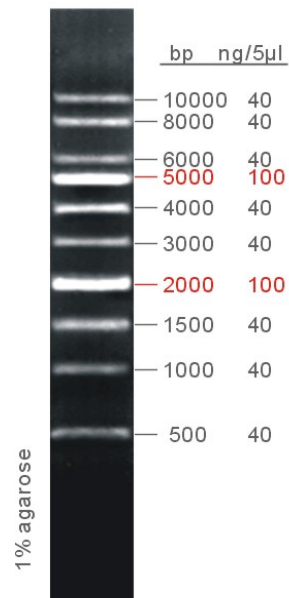
## 4- MARKERS AND VECTORS

### 1kb DNA Ladder, Quantitative, 10 Bands, 500bp-10kb, Ready to Use

Code	Size
M7508-100Loads	100 Loads (500µl)
M7508-5x100Loads	5x100 Loads (5x500µl)

**Description:** 1Kb DNA ladder (Quantitative) is ideal for determining the size of double-stranded DNA from 500bp to 10Kb. The ladder consists of 10 chromatography-purified DNA fragments. The intensity of the 2Kb and 5Kb has been increased to serve as a reference for easy identification. All fragments are precisely quantified and mixed during the production. For 5µl loading, all fragments except 2Kb and 5Kb are at 40ng. The 2Kb and 5Kb fragment are at 100ng. This ladder is pre-mixed with loading dye and is ready to use.

### 1kb ladder



5 µl/Lane, 8 cm Gel  
1×TAE, 7 V/cm, 45 min

### 100bp-10kb Quantitative DNA Marker, 16 Bands, Ready to use

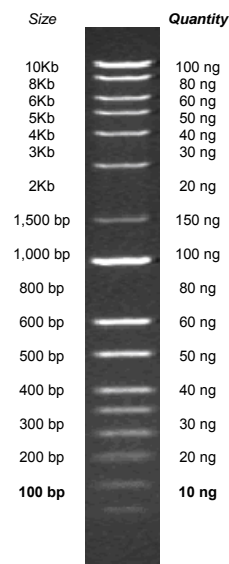
Code	Size
M6113-100Loads	100 Loads (600µl)
M6113-5x100Loads	5x100 Loads (5x600µl)

**Description:** 16 DNA fragments: 100, 200, 300, 400, 500, 600, 800bp, 1kb, 1.5kb, 2kb, 3kb, 4kb, 5kb, 6kb, 8kb, and 10kb. This molecular weight marker is specially formulated so that each band contains an amount of DNA that correlates logically to its size, allowing the user to estimate both the size and the quantity of specific fragments at a glance. It is particularly useful for protocols such as: probe labeling, DNA sequencing, and optimizing insert/vector ratio in ligation reactions, where DNA concentration must be taken into consideration.

Recommended Loading: 920ng/6µl/load

Add at least 6µl 100bp DNA Ladder directly to wells designated for markers. You may need more than 6µl of ladder, depending on well size and level of dye used to visualize the bands. Dilute each of your samples with 6x Loading Buffer before loading on a gel.

Store at -20°C.



Logic DNA Marker  
920ng  
0.9% agarose gel



## 4- MARKERS AND VECTORS

### Lambda DNA/Hind III Marker, 7 bands, Ready to use

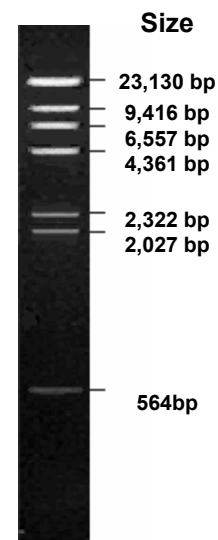
Code	Size
M6135-100Loads	100 Loads (600µl)
M6135-5x100Loads	5x100 Loads (5x600µl)

**Description:** 7 DNA fragments: 564, 2027, 2322, 4361, 6557, 9416, and 23130bp. It is made by digesting Lambda DNA to completion with the restriction enzyme Hind III, followed by phenol/chloroform extraction to inactivate the enzyme and dialyzed in TE buffer. The final DNA concentration is measured by OD<sub>260</sub> and compared to other DNA standards for accuracy.

Recommended Loading: 500ng/6µl/load

Add at least 6µl 100bp DNA Ladder directly to wells designated for markers. You may need more than 6µl of ladder, depending on well size and level of dye used to visualize the bands. Dilute each of your samples with 6x Loading Buffer before loading on a gel.

Store at -20°C.

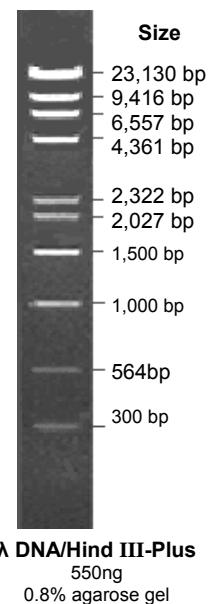


### Lambda DNA/Hind III Plus Marker, 10 bands, Ready to use

Code	Size
M6137-100Loads	100 Loads (600µl)
M6137-5x100Loads	5x100 Loads (5x600µl)

**Description:** 10 DNA fragments: 300, 564, 1000, 1500, 2027, 2322, 4361, 6557, 9416, 23130bp. Lambda DNA/Hind III Plus Marker fills gaps in conventional Lambda DNA/Hind III markers with DNA bands added at 1.5kb, 1kb and 300bp. The final DNA concentration is measured by OD<sub>260</sub> and compared to other DNA standards for accuracy. 6µl contains 500ng of Hind III digested Lambda DNA and 50ng of the additional unique DNA bands.

Store at -20°C.



## 4- MARKERS AND VECTORS

### Protein Markers

#### Low Range Protein Marker, 6 Bands

Code	Size
M6431-50Loads	50 Loads (250µl)
M6431-5x50Loads	5x50 Loads (5x250µl)

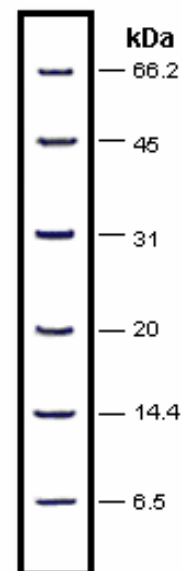
**Description:** The Low Range Protein Marker is a mixture of purified proteins of known molecular weights used as standards in determining the molecular weight of unknown proteins run on SDS-polyacrylamide gel electrophoresis (SDS-PAGE). The Low Range Marker displays 6 protein bands from 6.5-66.2kDa, and is useful on acrylamide gels of varying concentrations. **Recommended loading:** 5µl/load

**Tech Note:** The marker is in a ready-to-use format. Load the marker into the designated lane(s) for the protein standard. However, it can be diluted into the same buffer used for sample preparation. This protein marker mixture is custom-blended to yield protein bands of clear intensity when stained using standard Coomassie Brilliant Blue staining procedures.

#### Gel Loading Procedure:

Heat an aliquot of Low Range Protein Markers at 95°C for 5 minutes. Load the marker into the designated lane(s) for the protein standard.

Store at -20°C



#### Mid-Range Protein Marker, Prestained, 6 Bands

Code	Size
M6432-50Loads	50 Loads (250µl)
M6433-5x50Loads	5x50 Loads (5x250µl)

**Description:** Mid-Range Prestained Protein Marker is a mixture of prestained proteins covalently coupled to blue and red dyes. 78kDa show red band and others show blue bands. The Marker resolves into six distinct bands after SDS-polyacrylamide gel electrophoresis. The protein concentrations are carefully balanced for clear visualization directly in the gel. The marker is supplied in gel loading buffer and is ready-to-use.

**Recommended loading:** 5µl/load

**Application:** Mid-Range Prestained Protein Marker is suitable for visualizing proteins during electrophoresis without staining and for monitoring transfer onto membrane.

#### Note:

1. The marker should not be used in a native polyacrylamide gel electrophoresis to determine native molecular weight of proteins. For that application, unstained protein markers may be used.
2. The covalent coupling of the dye to the proteins may affect their electrophoretic behavior in SDS-PAGE gels relative to unstained proteins. The apparent molecular weights of the prestained proteins are given in the figure.

Store at -20°C



## 4- MARKERS AND VECTORS

### High Range Protein Marker, 5 bands

Code	Size
M6434-50Loads	50 Loads (250µl)
M6434-5x50Loads	5x50 Loads (5x250µl)

**Description:** The High Range Protein Marker is a mixture of purified proteins of known molecular weights used as standards in determining the molecular weight of unknown proteins run on SDS-polyacrylamide gel electrophoresis (SDS-PAGE). The High Range marker displays 5 protein bands from 45-212Kda, and is useful on acrylamide gels of varying concentrations. **Recommended loading:** 5µl/load

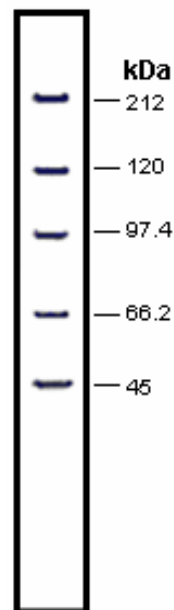
#### Tech Note:

The marker is in a ready-to-use format and can be loaded directly into the designated lane(s) for the protein standard. However, it can be diluted into the same buffer used for sample preparation. This protein marker mixture is made in such a way that it will yield protein bands of clear intensity when stained, using standard Coomassie Brilliant Blue staining procedures.

#### Gel Loading Procedure:

Heat an aliquot of High Range Protein Markers at 95°C for 5 minutes.  
Load the marker into the designated lane(s) for the protein standard.

Store at -20°C



### Wide Range Protein Marker, 9 Bands

Code	Size
M6435-50Loads	50 Loads (250µl)
M6435-5x50Loads	5x50 Loads (5x250µl)

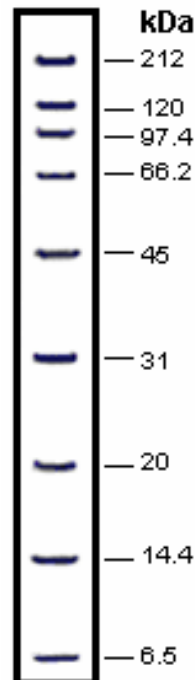
**Description:** The Wide Range Protein Marker is made by mixing nine purified proteins of known molecular weights. It is used as a standard in determining the molecular weight of unknown proteins run on SDS-polyacrylamide gel electrophoresis (SDS-PAGE). The wide range marker displays nine protein bands ranging from 6.5-212KDa and is useful on acrylamide gels of varying concentrations. **Recommended loading:** 5µl/load

**Tech note:** The marker is in a ready-to-use format. It can be loaded directly into the designated lane(s) for the protein standard. However, it can be diluted into the same buffer used for sample preparation. This protein marker is custom-blended to yield protein bands of clear intensity when stained using standard Coomassie Brilliant Blue staining procedures.

#### Gel Loading Procedure for High Range Protein Markers:

Heat an aliquot of High Range Protein Markers at 95°C for 5 minutes.  
Load the marker into the designated lane(s) for the protein standard.

Store at -20°C



## 4- MARKERS AND VECTORS

### Broad Range Protein Marker, Prestained, 9 Bands

Code	Size
M6442-50Loads	50 Loads (250µl)
M6442-5x50Loads	5x50 Loads (5x250µl)

**Description:** Prestained Protein Markers are a mixture of purified proteins covalently coupled to blue or violet dyes that resolve into nine distinct bands when electrophoresed. The protein concentrations are carefully balanced for even intensity. 37.8 kDa and 90.5kDa show violet bands, others show blue bands. The covalent coupling of the dye to the proteins affects their electrophoretic behavior in SDS-PAGE gels, relative to unstained proteins. The apparent molecular weights of the prestained proteins are given in the figures. **Recommended loading:** 5µl/load

**Application:** Prestained Protein Marker is suitable for visualizing proteins during electrophoresis without staining and for monitoring transfer onto membrane.

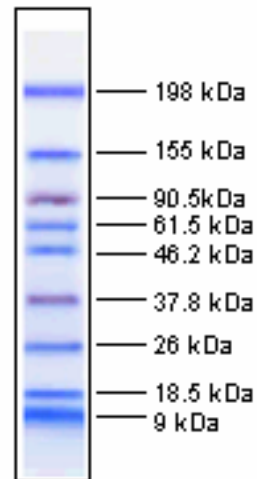
#### Instruction for Use:

1. Thaw the marker at room temperature, or in 37°C water bath. Do not heat the marker over 60°C, or boil.
2. Mix gently to make sure the solution is homogeneous.
3. Load the marker directly on a SDS-PAGE gel and run. For mini gel, a minimum of 5µl will be sufficient for each lane. For large wells, more volume of the marker will be needed for each application.

#### Note:

1. The marker should not be used in a native polyacrylamide gel electrophoresis to determine native molecular weight of proteins. For that application, unstained protein markers may be used.
2. The covalent coupling of the dye to the proteins may affect their electrophoretic behavior in SDS-PAGE gels relative to unstained proteins. The apparent molecular weights of the prestained proteins are given in the figure.

Store at -20°C



## 4- MARKERS AND VECTORS

### DNA VECTORS

M6201	<b>Lambda DNA</b> Lambda DNA is used as one of the substrates in restriction enzymes research and for testing of restriction enzymes activity. Phage is isolated from heat inducible lysogen E.coli W3350 (cl857 Sam7). DNA is isolated from purified phage by phenol extraction and dialyzed against 10mM Tris-HCl (pH 7.6) and 1mM EDTA. It contains 48502 base pairs. Store: -20°C	100µg 500µg
M6203	<b>Lambda DNA (dam<sup>-</sup>, dcm<sup>-</sup>)</b> Lambda DNA (dam <sup>-</sup> , dcm <sup>-</sup> ) is used as one of the substrates in restriction enzymes research and for testing of restriction endonuclease's sensitivity to dam or dcm methylation activity. Phage is isolated from heat inducible lysogen E.coli GM2163 (cl857 Sam7). DNA is isolated from purified phage by phenol extraction and dialyzed against 10mM Tris-HCl (pH 7.8) and 1mM EDTA. It contains 48502 base pairs. Store: -20°C	100µg 500µg
M6205	<b>pUC18 DNA</b> pUC18 DNA is isolated from E.coli strain DH5α. Purified by ultracentrifugation through a cesium chloride gradient in the presence of ethidium bromide. The molecule is double-stranded, 2686 base pairs in length. Store: -20°C	50µg 250µg
M6207	<b>pUC19 DNA</b> pUC19 DNA is isolated from E.coli strain DH5α. Purified by ultracentrifugation through a cesium chloride gradient in the presence of ethidium bromide. The molecule is double-stranded, 2686 base pairs in length. Store: -20°C	50µg 250µg
M6211	<b>pUC57 DNA</b> pUC57 DNA is isolated from E.coli strain DH5α. Purified by ultracentrifugation through a cesium chloride gradient in the presence of ethidium bromide. The molecule is double-stranded, 2710 base pairs in length. Store: -20°C	50µg 250µg
M6213	<b>pBR322 DNA</b> pBR322 DNA is isolated from E.coli (dam <sup>+</sup> , dcm <sup>+</sup> ). Purified by centrifugation. The molecule is double-stranded, 4361 base pairs in length. Store: -20°C	50µg 250µg
M6214	<b>pUCm-T Vector</b> For directly cloning PCR products with an overhang dA residue at 3' ends produced by Taq or other DNA polymerases. This vector can also be used for cloning the blunt-ended DNA fragments which is needed to be added an A-residue by using A-Tailing kit before cloning. 2773 base pairs in length. Store: -20°C	1µg 5µg



## 5- CULTURE MEDIA

Code	Description	Size
A8502	<b>AGAR</b> Bacteriological Grade Suitable for most cell culture and molecular biology applications. After autoclaving, a solution of 1.5% is a light amber color completely free of insoluble particles. Agar solidifies into a haze-free, firm-surface gel. Color: white or light cream. [9002-18-0]	100g 500g 4x500g
A8503	<b>AGAR</b> Laboratory Grade Suitable for general microbiological and tissue media. Color: white or light cream. [9002-18-0]	100g 500g 4x500g
A8505	<b>AGAR, NOBLE, PURIFIED</b> Biotechnology Grade A highly purified agar. The Agar is completely nutrient-free, most often used in defined media formulations where traces of nutrients can not be tolerated. Some of labs use this purified agar as substitute of agarose. [9002-18-0]	50g 100g 500g
A8506	<b>BEEF EXTRACT</b> High Purity Grade A dried replacement for infusion of meat. A completely water soluble powder. Total nitrogen: approx: 12.5%. pH (10% water): 4.6-6.0	100g 500g
A8507	<b>CASAMINO ACIDS</b> Bacteriological Grade Acid hydrolyzed casein containing low concentration of sodium chloride and iron.	100g 500g
A8523	<b>LB Agar (Lennox)</b> Tissue Culture Grade Used for the propagation and maintenance of E. coli. Widely used for the preparation of plasmid DNA and recombinant proteins. Usage: 35gm/L. Composition: Tryptone 10g/L, Yeast Extract 5g/L, Sodium Chloride 5g/L, and Agar 15g/L.	100g 500g
A8521	<b>LB Broth (Lennox)</b> Tissue Culture Grade Used for the propagation and maintenance of E. coli. Widely used for the preparation of plasmid DNA and recombinant proteins. Usage: 20gm/L. Composition: Tryptone 10g/L, Yeast Extract 5g/L, and Sodium Chloride 5g/L.	500g 4x500g
A8517	<b>LB Agar (Miller)</b> Tissue Culture Grade Used for the propagation and maintenance of E. coli. Widely used for the preparation of plasmid DNA and recombinant proteins. Usage: 40gm/L. Composition: Tryptone 10g/L, Yeast Extract 5g/L, and Sodium Chloride 10g/L, and Agar 15g/L.	100g 500g
A8515	<b>LB Broth (Miller)</b> Tissue Culture Grade Used for the propagation and maintenance of E. coli. Widely used for the preparation of plasmid DNA and recombinant proteins. Usage: 25gm/L. Composition: Tryptone 10g/L, Yeast Extract 5g/L, and Sodium Chloride 10g/L.	500g 4x500g
A8536	<b>MALT EXTRACT</b> Bacteriological Grade Used for the preparation of media for the detection of yeasts and molds.	100g 500g
A8550	<b>PEPTONE</b> Bacteriological Grade The Peptone is suitable for the preparation of general culture media. It contains at least 13.0% total nitrogen in a readily available form for bacteria and has peptides and amino acids content. pH (2% solution): 6.5-7.1 [73049-73-7]	500g 4x500g
A8556	<b>SOB MEDIA</b> Biotechnology Grade A rich medium used for growing competent host cells prior to transformation. Usage: 30.5g/L. Composition: Tryptone 20g/L, Yeast Extract 5g/L, Sodium Chloride 0.5g/L, and MgSO <sub>4</sub> ·7H <sub>2</sub> O 5g/L.	500g



## 5- CULTURE MEDIA

Code	Description	Size
A8562	<p><b>SUPER BROTH</b> Biotechnology Grade Version of LB Broth containing increased amounts of tryptone and yeast extract. Usage: 60g/L. Composition: Tryptone 35g/L, Yeast Extract 20g/L, and Sodium Chloride 5g/L.</p>	500g
A8564	<p><b>TERRIF BROTH</b> Biotechnology Grade Used for the preparation of molecular genetic strains of E.coli. Supports higher density of cells to increase plasmid yield. pH (4.7% water): 7.0-7.4 Usage: 47.6g/L. Composition: Tryptone 12g/L, Yeast Extract 24g/L, Potassium Phosphate Monobasic 2.2g/L and Potassium Phosphate Dibasic 9.4g/L.</p>	500g
A8566	<p><b>TRYPTONE</b> Bacteriological Grade A pancreatic digest of casein. [9000-71-9] Total Nitrogen &gt;13.0% Amino Nitrogen &gt;4.0% pH (2% solution): approx. 7.0 Standard Plate Count &lt;500 CFU/g Mold and Yeast &lt;100 CFU/g Coliforms &lt;10 CFU/g E. coli: negative Salmonella: none detected</p>	500g 4x500g
A8569	<p><b>YEAST EXTRACT</b> Bacteriological Grade Autolyzed yeast extract. Suitable for cell culture and bacteriological use.]  Total Nitrogen &gt;110% pH (2% solution): 6.0-7.5 Solubility (10% Solution): clear and complete upon heating</p>	500g 4x500g



## 6- AMINO ACIDS

Code	Description		Size
A3201	<b>L-ALANINE</b> C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub> Purity Specific rotation pH (5% water, 25°C) Residue on ignition Sulfate Heavy metals	MW 89.09 >98.5% 13.7-15.2° 5.5-7.0 <0.15% <0.03% <10ppm	High Purity [56-41-7] 50g 250g 1kg
A3203	<b>L-ARGININE</b> Animal Free C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub> Purity Specific rotation Residue on ignition Sulfate Heavy metals	MW 210.66 >98.5% 21.4-23.6° <0.1% <0.03% <0.002%	USP [74-79-3] 100g 500g 1kg
A3233	<b>L-ARGININE, MONOHYDROCHLORIDE</b> Animal Free C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub> HCl Purity Specific rotation Residue on ignition Sulfate Heavy metals	MW 210.70 >98.0% 26.3-27.7° <0.3% <0.03% <15ppm	USP [1119-34-2] 100g 500g 1kg
A3205	<b>L-ASPARAGINE</b> C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub> Purity Specific rotation Heavy metals	MW 132.12 >98.0% 33-36.5° <0.002%	High Purity [70-47-3] 50g 250g 1kg
A3206	<b>L-ASPARTIC ACID</b> C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub> Purity Specific rotation Heavy metals	MW 133.11 >99.0% 24.8-25.8° <15ppm	USP [56-84-8] 250g 1kg
A3207	<b>L-CYSTINE</b> C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>4</sub> Purity Specific rotation Residue on ignition Heavy metals	MW 240.30 >98.5% 215-225° <0.1% <10ppm	USP [56-89-3] 50g 250g 1kg
A3234	<b>CYSTINE</b> C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>5</sub> Purity Heavy metals	MW 243.22 >98.0% <0.002%	Ultra Pure [65-46-3] 1g 5g 25g
A3209	<b>L-GLUTAMIC ACID</b> C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub> Purity Specific rotation Moisture Heavy metals	MW 147.13 >98.5% 30.5-32.5° 0.5% <10ppm	USP [56-86-0] 500g 2.5kg
A3210	<b>L-GLUTAMINE</b> C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub> Purity Specific rotation Residue on ignition Heavy metals	MW 146.15 >98.0% 6.3-7.3° 0.1% <10ppm	USP [56-85-9] 100g 500g 1kg
A2715	<b>GLYCINE</b>		Biotechnology 500g



## 6- AMINO ACIDS

Code	Description		Size
	C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub>	M MW 75.07	[56-40-6]
	Purity	>99.0%	2.5kg
	Solubility (10% water)	clear/haze frees	10kg
	A <sub>280</sub> (1M water)	<0.10	
	Heavy metal	<0.002%	
	DNase, RNase & Protease	none detected	
A3211	<b>L-HISTIDINE</b>		High Purity
	C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub>	MW 155.16	[71-00-1]
	Purity	>99.0%	25g
A3235	<b>L-HISTIDINE, MONOHYDROCHLORIDE, MONOHYDRATE</b>		High Purity
	C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub> HCl H <sub>2</sub> O	MW 209.63	[5934-29-2]
	Purity	>98.0%	25g
A3215	<b>L-ISOLEUCINE</b>		USP
	C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	MW 131.18	[73-32-5]
	Purity	>99.0%	50g
	Specific rotation	38.9-41.8°	100g
	Residue on ignition	0.1%	250g
	Heavy metals	<10ppm	
A3217	<b>L-LEUCINE</b>		USP
	Animal Free		[61-90-5]
	C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	MW 131.17	50g
	Purity	>98.5%	250g
	Specific rotation	14.9-17.3°	1kg
	Residue on ignition	0.4%	
	Heavy metals	<0.0015%	
A3218	<b>L-LYSINE, MONOHYDROCHLORIDE</b>		USP
	C <sub>6</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub> HCl	MW 182.65	[657-27-2]
	Purity	>98.0%	100g
	Specific rotation	20.4-21.4°	500g
	Residue on ignition	0.1%	1kg
A3254	<b>L-METHIONINE</b>		USP
	Animal Free		[63-68-3]
	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> S	MW 149.21	25g
	Purity	>99.0%	100g
	Specific rotation	23.0-24.5°	500g
	Residue on ignition	0.1%	
	Heavy metals	<10ppm	
A3225	<b>L-PHENYLALANINE</b>		USP
	C <sub>9</sub> H <sub>11</sub> NO <sub>2</sub>	MW 165.19	[63-91-2]
	Purity	>98.5%	50g
	Specific rotation	-34.7- -32.7°	250g
	Residue on ignition	0.4%	1kg
	Heavy metals	<15ppm	
A3226	<b>L-PROLINE</b>		USP
	C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub>	MW 115.13	[147-85-3]
	Purity	>98.0%	50g
	Specific rotation	84.5-86.0°	250g
	Heavy metals	<10ppm	1kg
A3227	<b>L-SERINE</b>		USP
	C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub>	MW 105.09	[56-45-1]
	Purity	>98.5%	25g
	Specific rotation	14.0-15.6°	100g
	Residue on ignition	<0.1%	500g
	Heavy metals	<15ppm	
A3255	<b>L-THREONINE</b>		USP
	Animal Free		[72-19-5]
			25g
			100g



## 6- AMINO ACIDS

Code	Description		Size
	C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>	MW 119.12	500g
	Purity	>99.0%	
	Specific rotation	-29.0- -27.6°	
	Residue on ignition	<0.1%	
	Heavy metals	<10ppm	
A3256	<b>L-TRYPTOPHAN</b>		50g
	Animal Free		250g
	C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	MW 204.23	1kg
	Purity	>98.5%	
	Specific rotation	-32.8- -29.4°	
	Residue on ignition	<0.1%	
	Heavy metals	<15ppm	
A3253	<b>L-TYROSINE</b>		50g
	Animal Free		250g
	C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub>	MW 181.19	1kg
	Purity	>98.5%	
	Specific rotation	-11.2- -9.8°	
	Residue on ignition	<0.4%	
	Heavy metals	<15ppm	
A3231	<b>L-VALINE</b>		50g
	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>	MW 117.15	250g
	Purity	>98.5%	1kg
	Specific rotation	26.7-29.0°	
	Residue on ignition	<0.1%	
	Heavy metals	<10ppm	



## 7- TAG ANTIBODIES

Code	Product Description	Size
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<b>SA210001</b>	<b>Chicken Anti-GFP Tag Polyclonal Antibody, unconjugated</b>	<b>0.1mg</b>
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**Description:** Chicken Polyclonal (IgY)  
**Immunogen:** The anti-GFP immunogen is a Green Fluorescent Protein (GFP) fusion protein corresponding to the full length amino acid sequence (246aa) derived from the jellyfish *Aequorea victoria*.  
**Specificity:** Recognize GFP and its variants.  
**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.  
**Storage/Stability:** Stable for 1 year at -20°C from the date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  
**Application:** This antibody can be used to detect GFP by ELISA and immunoblotting. Optimal working dilutions should be determined by experimenter. Suggested starting dilution for Western Blot 1:1000 and for Immunoprecipitation 1:200.

<b>SA210002</b>	<b>Mouse Anti-GFP Tag Monoclonal Antibody, HRP conjugated</b>	<b>0.1mg</b>
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**Description:** Mouse Monoclonal. Conjugated (FITC, Texas Red, Biotin, Peroxidase or Alk. Phos.)  
**Immunogen:** Green Fluorescent Protein (GFP) fusion protein corresponding to the full length amino acid sequence (246aa) from the jellyfish *Aequorea victoria*.  
**Specificity:** Anti-GFP antibody detects GFP and its variants.  
**Formulation:** 1mg/ml in PBS (pH 7.2) with 0.1% sodium azide. Frozen liquid.  
**Storage/Stability:** Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  
**Application:** Optimal working dilutions should be determined experimentally by the investigator. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot at dilutions of 1:1000. Immunoprecipitation and immunostaining at dilutions of 1:200.

<b>SA210003</b>	<b>Mouse Anti-GFP Tag Monoclonal Antibody, unconjugated</b>	<b>0.1mg</b>
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**Description:** Mouse Monoclonal (IgG1)  
**Immunogen:** GFP from the jellyfish *Aequorea victoria* N-Terminal peptide-KLH conjugates.  
**Specificity:** Recognizes native and denatured forms of GFP and its variants EGFP, YFP, EYFP, and CFP.  
**Formulation:** PBS, pH 7.4 with 0.05% sodium azide.  
**Storage/Stability:** Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  
**Application:** Optimal working dilutions should be determined experimentally by the investigator. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot at dilutions of 1:1000. Immunostaining at dilutions of 1:200.

<b>SA210004</b>	<b>Goat Anti-GFP Tag Polyclonal Antibody, unconjugated</b>	<b>0.1mg</b>
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**Description:** Goat Polyclonal  
**Immunogen:** The anti-GFP immunogen is a Green Fluorescent Protein (GFP) fusion protein corresponding to the full length amino acid sequence (246aa) derived from the jellyfish *Aequorea victoria*.  
**Specificity:** Recognize GFP and its variants.  
**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.  
**Storage/Stability:** Stable for 1 year at -20°C from the date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  
**Application:** This antibody can be used to detect GFP by ELISA and immunoblotting. Optimal working dilutions should be determined by experimenter. Suggested starting dilution for Western Blot 1:1000 and for Immunoprecipitation 1:200.



## 7- TAG ANTIBODIES

Code	Product Description	Size
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SA210005	Mouse Anti-HA Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse Monoclonal (IgG3)

**Clone:** HA.C5

**Immunogen:** A synthetic peptide from influenza hemagglutinin epitope (YPYDVPDYA) coupled to KLH.

**Specificity:** HA-tag monoclonal antibody. Recognizes HA-tagged tagged proteins overexpressed in cells, including both amino- or carboxy-termini of targeted proteins in transfected mammalian cells.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Western blot (1:1000), Immunoprecipitation and immunostaining (1:200).

SA210006	Mouse Anti-HA Tag Monoclonal Antibody, HRP conjugated	0.1mg
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**Description:** Mouse Monoclonal (IgG3)

**Clone:** HA.C5

**Immunogen:** A synthetic peptide from influenza hemagglutinin epitope (YPYDVPDYA) coupled to KLH.

**Specificity:** HA-tag monoclonal antibody. Recognizes HA-tagged tagged proteins overexpressed in cells, including both amino- or carboxy-termini of targeted proteins in transfected mammalian cells.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Western blot (1:1000), Immunoprecipitation and immunostaining (1:200).

SA210022	Rabbit Anti-HA-Tag Polyclonal Antibody, unconjugated	0.1mg
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**Description:** Rabbit Polyclonal (IgG)

**Immunogen:** The antiserum was produced by immunizing rabbit with synthesized peptide containing the influenza hemagglutinin epitope (Y-P-Y-D-V-P-D-Y-A).

**Specificity:** HA-Tag polyclonal antibody detects HA-tagged proteins overexpressed in cells. The antibody recognizes the HA-tag fused to either the amino- or carboxy-terminus of targeted proteins in transfected mammalian cells.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.02% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Applications:** WB 1:500~1:1000

SA210007	Mouse Anti-His Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse Monoclonal (IgG2b)

**Clone:** HIS.H8

**Immunogen:** 6x His synthetic peptide.

**Specificity:** His-tag fusion protein

**Formulation:** 1mg/ml in PBS (pH 7.2) with 0.1% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Optimal working dilutions should be determined experimentally by the investigator. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot at dilutions of 1:1000. Immunoprecipitation and immunostaining at dilutions of 1:200.



## 7- TAG ANTIBODIES

Code	Product Description	Size
SA210008	Mouse Anti-His Tag Monoclonal Antibody, HRP conjugated	0.1mg
<p><b>Description:</b> Mouse Monoclonal (IgG2b)  <b>Clone:</b> HIS.H8  <b>Immunogen:</b> 6x His synthetic peptide.  <b>Specificity:</b> His-tag monoclonal antibody  <b>Formulation:</b> 1mg/ml in PBS (pH 7.2) with 0.1% sodium azide. Frozen liquid.  <b>Storage/Stability:</b> Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  <b>Application:</b> Optimal working dilutions should be determined experimentally by the investigator. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot at dilutions of 1:1000. Immunoprecipitation and immunostaining at dilutions of 1:200.</p>		
SA210023	Rabbit Anti-His Tag Polyclonal Antibody, unconjugated	0.1mg
<p><b>Description:</b> Rabbit Polyclonal (IgG)  <b>Immunogen:</b> The antiserum was produced by immunizing rabbit with synthesized peptide containing the His epitope (H-H-H-H-H-H).  <b>Specificity:</b> His-Tag polyclonal antibody detects His-tagged proteins overexpressed in cells. The antibody recognizes the His-tag fused to either the amino- or carboxy- terminus of targeted proteins in transfected mammalian cells.  <b>Storage/Stability:</b> Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  <b>Applications:</b> WB 1:500~1:1000</p>		
SA210009	Mouse Anti-GST Tag Monoclonal Antibody, unconjugated	0.1mg
<p><b>Description:</b> Mouse Monoclonal IgG2a  <b>Clone:</b> GST.B6  <b>Immunogen:</b> Anti-GST antibody was produced by immunizing mice with a GST peptide.  <b>Specificity:</b> GST-tag monoclonal antibody detects over expressed glutathione- transferase (GST) fusion proteins.  <b>Formulation:</b> 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.  <b>Storage/Stability:</b> Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  <b>Application:</b> Western blot (1:1000), Immunoprecipitation and Immunostaining (1:200).</p>		
SA210024	Rabbit Anti-GST Tag Polyclonal Antibody, unconjugated	0.1mg
<p><b>Description:</b> Rabbit Polyclonal (IgG)  <b>Immunogen:</b> The antiserum was produced by immunizing rabbit with synthesized peptide containing the His epitope (H-H-H-H-H-H).  <b>Specificity:</b> This antibody is specific for the GST protein from Schistosoma japonicum and is useful for detecting GST and GST-fusion proteins. Cross-reactivity with cell lysate of E. coli bacteria, sf21 cell and yeast have not been observed.  <b>Formulation:</b> 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.  <b>Storage/Stability:</b> Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  <b>Application:</b> Western blot, ELISA, IP, and IHC in obesity research.</p>		



## 7- TAG ANTIBODIES

Code	Product Description	Size
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SA210010	Mouse Anti-Myc Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse Monoclonal (IgG1)

**Clone:** Myc.A7

**Immunogen:** A synthetic peptide corresponding to residues 410-419 (EQKLISEEDL) coupled to KLH.

**Specificity:** Myc-tag Monoclonal Antibody. Recognises over-expressed proteins containing Myc epitope tag fused to either amino- or carboxy-termini of targeted proteins in transfected mammalian cells.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Western Blot (1:1000), Immunoprecipitation and Immunostaining (1:200).

SA210011	Rabbit Anti-Myc Tag Polyclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse Monoclonal (IgG)

**Immunogen:** A synthetic peptide corresponding to residues EQKLISEEDL (C-MYC) coupled to KLH.

**Specificity:** ELISA: Antibody specificity was verified by ELISA against the peptide (EQKLISEEDL). A 1:60,000 dilution of the antibody gave an O.D.=1.0 in a 15 minute reaction using HRP-conjugated Goat Anti Rabbit IgG at 1:20,000 and TMB as the substrate. Appropriate specificity controls were run.

**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** IHC: Use at an assay dependent dilution. WB: Use up to 1:10,000. 293T cells were transfected with three different constructs of differing sizes. Whole cell extracts were analyzed and the results compared with lysates from non-transfected cells. IP: use at 1:250. (See review by Martha Holley.)IF: use at 1:200. (See review by Martha Holley.)Not tested in other applications. Optimal dilutions/concentrations should be determined by the end user.

SA210012	Goat Anti-V5 Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Goat Polyclonal

**Immunogen:** Goats were immunized with a synthetic peptide representing amino acid residues 95 to 108 (GKPIPPLLGLDST) of RNA polymerase alpha subunit of simion virus 5 conjugated to KLH. Antibody was isolated by affinity chromatography using the peptide immobilized on solid support.

**Specificity:** Anti-V5 Antibody detects (GKPIPPLLGLDST) tag fusion protein.

**Formulation:** 1mg/ml in PBS (pH 7.2) with 0.1% Sodium Azide. Frozen liquid.

**Storage/Stability:** Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Western Blots: Colorimetric detection: 1:1,000 - 1:10,000 Chemiluminescent detection: 1:1,000 - 1:30,000. ELISA: Coating: 1:100 - 1:500 Primary: 1:1,000 - 1:30,000 Immunochemistry: 1:100 - 1:400 In some cases, the antibody may be diluted further than indicated.

SA210013	Mouse Anti-V5 Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse Monoclonal (IgG1)

**Clone:** E10

**Immunogen:** Anti-V5 is a mouse monoclonal antibody, affinity purified from culture supernatant of hybridoma cells grown in a bioreactor.

**Specificity:** Anti-V5 Antibody detects (GKPIPPLLGLDST) tag fusion protein.

**Formulation:** 1mg/ml in 10mM PBS, PH 7.2

**Storage/Stability:** Stable for 1 year at -20°C from the date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Western blot analysis: 1:1000-2000; ELISA: 1:5000-10,000; IHC: 1:50-1:100



## 7- TAG ANTIBODIES

Code	Product Description	Size
<b>SA210014</b>	<b>Mouse Anti-D Tag Monoclonal Antibody, unconjugated</b>	<b>0.1mg</b>
<p><b>Description:</b> Mouse Monoclonal (IgG2b)  <b>Immunogen:</b> A synthetic peptide (DYKDDDDK) coupled to KLH.  <b>Specificity:</b> Anti-D tag Antibody recognises over-expressed proteins containing D epitope tag fused to either amino- or carboxy-termini of targeted proteins in transfected mammalian cells.  <b>Formulation:</b> 1mg/ml in PBS (pH 7.2) with 0.1% sodium azide. Frozen liquid.  <b>Storage/Stability:</b> Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  <b>Application:</b> Optimal working dilutions should be determined experimentally by the investigator. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot at dilutions of 1:1000; Immunoprecipitation and immunostaining at dilutions of 1:200.</p>		
<b>SA210015</b>	<b>Rabbit Anti-D Tag Polyclonal Antibody, unconjugated</b>	<b>0.1mg</b>
<p><b>Description:</b> Rabbit Polyclonal  <b>Immunogen:</b> A synthetic peptide (DYKDDDDK) coupled to KLH.  <b>Specificity:</b> Anti-D tag Antibody recognises over-expressed proteins containing D epitope tag fused to either amino- or carboxy-termini of targeted proteins in transfected mammalian cells.  <b>Formulation:</b> 1mg/ml in PBS (pH 7.2) with 0.1% sodium azide. Frozen liquid.  <b>Storage/Stability:</b> Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  <b>Application:</b> Optimal working dilutions should be determined experimentally by the investigator. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot at dilutions of 1:1000. Immunoprecipitation and immunostaining at dilutions of 1:200.</p>		
<b>SA210016</b>	<b>Mouse Anti-RFP Tag Monoclonal Antibody, unconjugated</b>	<b>0.1mg</b>
<p><b>Description:</b> Mouse monoclonal(IgG1)  <b>Clone:</b> F9  <b>Immunogen:</b> Recombinant Red Fluorescent Protein (dsRed) expressed from bacteria.  <b>Specificity:</b> Designed to detect RFP and its variants in ELISA (sandwich or capture), immunoblotting, immunoprecipitation and immunohistochemistry.  <b>Formulation:</b> 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.  <b>Storage/Stability:</b> Stable for 1 year at -20oC from the date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 40C for 3 months.  <b>Application:</b> Optimal working dilutions should be determined experimentally by investigators. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot: 1:1,000; Immunoprecipitation: 5 µg/mg lysate; Histo/Cytochemistry: 1:200.</p>		
<b>SA210017</b>	<b>Rabbit Anti-β-Galactosidase Tag Polyclonal Antibody, unconjugated</b>	<b>0.1mg</b>
<p><b>Description:</b> Rabbit Polyclonal(IgG)  <b>Immunogen:</b> Recombinant β-Galactosidase protein.  <b>Specificity:</b> Recognize β-Galactosidase protein from bacteria β-Galactosidase gene.  <b>Formulation:</b> 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.  <b>Storage/Stability:</b> Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to opening the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.  <b>Application:</b> Optimal working dilutions should be determined experimentally by investigators. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot: 1:1,000; Immunoprecipitation: 5 µg/mg lysate; Histo/Cytochemistry: 1:200</p>		



## 7- TAG ANTIBODIES

Code	Product Description	Size
SA210019	Rabbit Anti-Maltose Binding Protein Tag Polyclonal Antibody, unconjugated	0.1mg

**Description:** Rabbit Polyclonal (IgG)

**Immunogen:** MBP epitope tag recombinant protein.

**Specificity:** Anti-MBP is optimally suited for monitoring the expression of MBP tagged fusion proteins. As such, anti-MBP/MBP can be used to identify fusion proteins containing the MBP epitope. The antibody recognizes the MBP epitope tag fused to the amino- or carboxy- termini of targeted proteins. This antibody has been tested by ELISA and western blotting against MBP containing recombinant proteins. Although not tested, this antibody is likely functional for immunoprecipitation and immunocytochemistry, and other immunodetection techniques. Maltose binding protein is a bacterial protein, which is often used in protein expression studies because it creates a stable fusion product that does not appear to interfere with the bioactivity of the protein of interest. It also allows for its easy purification from bacterial extracts under mild conditions. Anti-MBP is a companion to the pMAL protein expression system and can be used for the detection and purification of MBP-fusion proteins expressed in *E. coli*. By Western blot, a band is seen at ~ 42 kDa representing MBP.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Optimal working dilutions should be determined experimentally by investigators. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot: 1:1,000; Immunoprecipitation: 5 µg/mg lysate; Histo/Cytochemistry: 1:200

SA210018	Goat Anti-VSVG Tag Polyclonal Antibody, unconjugated	0.1mg
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**Description:** Goat Polyclonal (IgG)

**Immunogen:** Goats were immunized with VSV-G (YTDIEMNRLGK) conjugated to KLH. Antibody was isolated by affinity chromatography using the peptide immobilized on solid support.

**Specificity:** Recognize fusion proteins containing VSVG tag.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Application:** Optimal working dilutions should be determined experimentally by investigators. Prepare working dilution immediately before use. Suggested starting dilutions are as follows: Western Blot: 1:1,000; Immunoprecipitation: 5 µg/mg lysate; Histo/Cytochemistry: 1:200

SA210020	Mouse Anti-Yellow Fluorescent Protein Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse monoclonal(IgG)

**Immunogen:** GFP from the jellyfish *Aequorea victoria* N-Terminal peptide-KLH conjugates.

**Specificity:** Recognizes native and denatured forms of GFP and its variants EGFP, YFP, EYFP, and CFP.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Tested Applications:** WB, ELISA, Dot Blot, IPP, Immunostaining

**Application:** WB 1:1000. For other applications, the researcher should determine the optimal working dilution

**Relevance:** Has sensitivity of 1-10ng of purified GFP or GFP fusion protein (from a western blot developed with ECL)



## 7- TAG ANTIBODIES

Code	Product Description	Size
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SA210021	Mouse Anti-Cyan Fluorescent Protein Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse monoclonal(IgG)

**Immunogen:** GFP from the jellyfish *Aequorea victoria* N-Terminal peptide-KLH conjugates.

**Specificity:** Recognizes native and denatured forms of GFP and its variants EGFP, YFP, EYFP, and CFP.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Tested Applications:** WB, ELISA, Dot Blot, IPP, Immunostaining

**Application:** WB 1:1000. For other applications, the researcher should determine the optimal working dilution.

**Relevance:** Has sensitivity of 1-10ng of purified GFP or GFP fusion protein (from a western blot developed with ECL)

SA210025	Rabbit Anti-Flag Tag Polyclonal Antibody, unconjugated	0.1mg
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**Description:** Rabbit Polyclonal

**Immunogen:** GTX82897 immunizing peptide corresponds to the epitope tag sequence DYKDDDDK.

**Specificity:** GTX82897 detects the DYKDDDDK epitope tag sequence

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Tested Application:** Immunofluorescence, Western blot. The usefulness of this product in other applications has not been determined.

**Application:** GTX82897 has been successfully used in Western blot and immunofluorescence procedures to detect the presence of fusion proteins containing the epitope tag sequence DYKDDDDK. Suggested dilutions: IF - 1 ug/ml, WB - 1:500.

SA210026	Mouse Anti-Flag Tag Monoclonal Antibody, unconjugated	0.1mg
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**Description:** Mouse monoclonal

**Immunogen:** A synthetic peptide (DYKDDDDK) coupled to KLH.

**Specificity:** Recognises over-expressed proteins containing DYKDDDDK epitope tag fused to either amino- or carboxy-terminal of targeted proteins.

**Formulation:** 1mg/ml in PBS, pH 7.4 with 0.05% sodium azide. Frozen liquid.

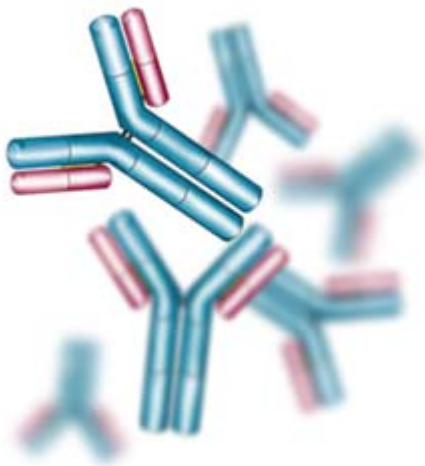
**Storage/Stability:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing. Aliquot will be stable at 4°C for 3 months.

**Tested Application:** Immunofluorescence, Western blot. The usefulness of this product in other applications has not been determined.

**Application:** Western blot: 1:1,000; Immunoprecipitation: 1:200; Immunostaining: 1:200



# CUSTOM SERVICES



## Custom Services



# CUSTOM SERVICES

## 8- Oligo Synthesis Service

When it comes to oligonucleotide synthesis, Biomatik has its innovative purification *BAP* method –Biomatik Affinity Purification. Oligos produced by the *BAP* method can directly be used for any downstream experiments such as PCR, DNA Sequencing, Gene Synthesis and Mutagenesis.

With *BAP*, Biomatik delivers non-modified oligos with purity greater than 98%, yet our price is lower than desalted oligos provided by our competitors. All modified oligos are purified by DDHPLC (WAVE system)..

FORMULA: X nmol = VALUE OF OD X100 / NUMBER OF BASES

### Regular Bases (<=60 bases)

Scale	Purification	OD Unit	Purity	Comments
50nmol	BAP	2	>98%	Cost doubled if oligo < 15 bases
100nmol	BAP	5	>98%	Cost doubled if oligo < 10 bases
200nmol	BAP	10	>98%	
1umol	BAP	25	>98%	
10umol	BAP	50	>98%	

### Regular Bases (61-90 bases)

Scale	Purification	OD Unit	Purity	Comments
200nmol	PAGE	1	>99%	
1umol	PAGE	5	>99%	

### Regular Bases (91-110 bases)

Scale	Purification	OD Unit	Purity	Comments
1umol	PAGE	1	>99%	

### DNA Modification List:

3' or 5' Biotin  
3' or 5' Phosphate  
Phosphorothioated  
3' or 5' Amine  
3' or 5' Cholesterol  
5' Cy3 or Cy5  
3' Dabcyl  
5' or 3' Digoxigenin  
dU or dI  
3' or 5' FAM  
5' FAM-3' DABCYL  
5' FAM -3' TAMRA  
3' or 5' FITC  
3' or 5' HEX  
3' or 5' ROX  
3' or 5' TAMRA  
3' or 5' TET  
5' or 3' THIOL  
5' FAM – 3' BHQ1  
5' HEX – 3' BHQ1  
5' TexasRed – 3' BHQ2  
5' Cy5 – 3' BHQ2



# CUSTOM SERVICES

## 9- Custom Gene Synthesis

Now with GeneMatik platform, Biomatik brings quality custom gene synthesis service that is affordable and fast! Biomatik particularly specializes in lengthy, high/low GC content and repetitive sequences, so you can always come to us if your current service provider has turned you down. Genes up to 1Kb are normally shipped in 2-3 weeks! Customer satisfaction is at the core of our service -this is why over 90% of our orders come from returning clients.

### Highlights of Our Gene Synthesis Service

- Free codon optimization if required;
- Extensive experience in high GC content or repetitive sequences;
- Cloning into our standard vector or any vector of your choice;
- 100% accuracy, we deliver exact sequences and never failed!
- Faster delivery time than industry average.



### Delivery Includes

- 10 µg of lyophilized plasmid containing the gene insert, sequence verified.
- QC Documentation: QA Certificate +Synthesis Report with Construct Map +Sequence Chromatograms +Alignment File.

### Regular Gene Synthesis Turnaround

Length	Standard Turnaround
<440bp	<2 weeks
440bp-1kb	3 weeks
1kb-2kb	3-4 weeks
2kb-3kb	4 weeks
>3kb	please inquire

### Specifications of Gene Synthesis Service

Step 1-Free codon optimization upon request: Codon preference for host organism, secondary structure removal, GC content adjustment, addition or removal of restrictions sites.

Step 2-Gene construction: Using proprietary gene synthesis software to design and construct the entire gene. Clone the synthetic gene into our standard vector or the vector of your choice.

Step 3-DNA Sequencing: To verify the integrity of the synthetic gene sequence. 100% matching your requested sequence guarantee. We sequence both strands to ensure NO MUTANTS.



# CUSTOM SERVICES

## 10- Custom Peptide Synthesis

Biomatik is the world's leading supplier of quality peptide synthesis service for academia and industry. Most purified peptides under 30aa are delivered in 2-3 weeks.

### Highlights of Peptide Synthesis Service

- High success rate (96.2% in year 2008 )
- Microwave technology for regular peptides
- Purity by HPLC from crude to 99+%
- High quality peptide at very competitive price
- For peptides up to 130 amino acids
- Scales from milligrams to kilograms

### Wide Range of Peptide Modification Services

Terminal Modifications	Cost
Acetylation (N-Terminal)	1aa
Amidation (C-Terminal)	1aa
Formylation (N-Terminal)	\$65
Fatty acid (N-Terminal)	\$65
Palmytolyl (N-Terminal)	\$65
Succinylation(N-Terminal)	\$20
Myristic acid (N-Terminal)	\$65
Acryl (N-Terminal)	\$175
Thioglycollic acid (N-Terminal)	\$210
D(+)-Glucose (N-Terminal)	\$270
AMC (C-Terminal)	\$175
p-Nitroanilide (pNA,C-Terminal)	\$125
NHS (OSu,C-Terminal)	\$450
Ethylamine (C-Terminal)	\$125
Methyl ester (C-Terminal)	\$175
Other Amino Acid Modifications	Cost
Phosphorylation -Tyr,Ser, Thr	\$175
Lys(Me <sub>2</sub> )	\$175
Arg(Me <sub>2</sub> )	\$225
Lys(Ac)	\$65
Dinitrobenzoylation(Lys)	\$175
Ser(Octanoic acid)	\$475
Benzyloxycarbonylation (CBZ)	\$50
Cys(Acm)	\$65
Cys(tBu)	\$65
Lys(Fmoc)	\$90
Met(O), Ser(Ac)	\$175
Tyr(Nitrated), Tyr(OEt), K(Acryl)	\$175
Isotope Labeled amino acid	Quoted
MAP System	Cost
Asymmetric 4 branches	\$175
Asymmetric 8 branches	\$175

Fluorescence/Dye Modifications	Cost
Biotin (N-Terminal, w or w/o Ahx)	\$50
Biotin (Lys)	\$175
FITC/5-FAM (N-Terminal, w or w/o Ahx)	\$150
FITC/5-FAM (Lys)	\$210
Dansyl (N-Terminal, w or w/o Ahx)	\$150
TAMRA (N-Terminal)	\$210
Carboxy Fluoresein (N-Terminal)	\$320
Fluorescein (N-Terminal)	\$150
MCA (N-Terminal)	\$150
HYNIC (N-Terminal)	\$210
Quenched Fluorescent Peptide	Cost
Abz/Tyr(3-NO <sub>2</sub> )	\$210
EDANS or DABCYL	\$425
Cyclic Peptides	Cost
Disulfidebridge-1st	\$210
Disulfidebridge-2nd	\$500
Disulfidebridge-3rd	\$2,500
Amide cyclic	\$600
Special Amino Acids	Cost
D-Ala, D-Phe, D-Met, D-Pro, D-Leu, D-Val, Beta-Ala, pGlu, Hyp	\$30
D-Arg, D-Asp, D-Cys, D-Glu, D-Thr, D-Asn, D-Gln, D-Ser, D-His, D-Trp, D-Lys, D-Tyr, D-Orn, (D)1-Nal, (D)2-Pal, (D)4-Cl-Phe, Orn, Abu, Aib, Nva, Nle, Hse, Hcy, Mpa, Pen	\$60
D-Ile	\$90
N-Methyl amino acid (Ala,Phe,Leu,Ile,Val,Gly,Met)	\$450
other amino acids	Quoted
Conjugation/Carriers	Cost
BSA (1-10mg)	\$150
KLH (1-10mg)	\$150
OVA (1-10mg)	\$200

\* The above modification prices are for up to 49mg of final peptide product.



# CUSTOM SERVICES

## 11- Custom Antibody Service

Biomatik has set higher standards for its custom antibody production service. We focus on providing guaranteed antibodies with revolutionizing antibody discovery technologies. An engineering approach has been taken to build industrialized, standardized assembly lines for producing low cost antibodies -especially monoclonal antibodies, so that we can provide competitive price for your antibody production projects.

### 1. Polyclonal Antibody Packages

Biomatik guarantees the qualities of antibody for its polyclonal antibody production with higher quality standard than industry average. We will meet the following validation criteria or free of charge:

- 1) ELISA titer >1:10,000 OD>1.0 if peptide antigens designed and synthesized at Biomatik. ELISA titer >1:20,000 is available upon request with extended timeline.
- 2) Positive Western Blot results and ELISA titer >1:10,000 if provided with protein antigens (>5mg, >85% of purity).

Polyclonal Antibody Package	Package Description /Deliverables
<p><b>Code#SA0033</b> <b>(** Most Wanted **)</b></p> <p><b>Antigen:</b> 1 peptide <b>From:</b> Peptide/Protein Sequence <b>To:</b> Affinity Purified Antibody</p> <p>Price: \$945.00 Timeline: 13-15 weeks * Rapid protocol available for faster delivery. * 2 peptide antigens as mixture for immunization can be arranged at additional cost.</p>	<p><b>Service Includes:</b></p> <ol style="list-style-type: none"> <li>1) Peptide design &amp; synthesis</li> <li>2) Peptide KLH conjugation</li> <li>3) Immunization (3-4 boosts) for 2 rabbits</li> <li>4) Titer monitoring</li> <li>5) Terminal bleed collection</li> <li>6) Antigen-Affinity purification</li> </ol> <p><b>Deliverables:</b></p> <ol style="list-style-type: none"> <li>1) ≥2.5mg peptide;</li> <li>2) 0.5ml pre-bleed and Day 38 serum per rabbit;</li> <li>3) ≥2mg affinity purified antibody each rabbit;</li> <li>4) ELISA data;</li> <li>5) Project report.</li> </ol>
<p>Code#SA0034</p> <p><b>Antigen:</b> 2 Peptides <b>From:</b> Peptide/Protein Sequence <b>To:</b> Affinity Purified Antibody</p> <p>Price: \$1690.00 Timeline: 13-15 weeks * Rapid protocol available for faster delivery.</p>	<p><b>Service Includes:</b></p> <ol style="list-style-type: none"> <li>1) Peptide design &amp; synthesis</li> <li>2) Peptide KLH conjugation</li> <li>3) Immunization (3-4 boosts) for 2 rabbits each antigen, total 4 rabbits</li> <li>4) Titer monitoring</li> <li>5) Terminal bleed collection</li> <li>6) Antigen-Affinity purification</li> </ol> <p><b>Deliverables:</b></p> <ol style="list-style-type: none"> <li>1) ≥2.5mg each peptide;</li> <li>2) 0.5ml pre-bleed and Day 38 serum each rabbit;</li> <li>3) ≥2mg affinity purified antibody per rabbit;</li> <li>4) ELISA data;</li> <li>5) Project report.</li> </ol>
<p>Code#SA0035</p> <p><b>Antigen:</b> 1 Phosphorylated Peptide <b>From:</b> Peptide/Protein Sequence <b>To:</b> Affinity Purified Antibody</p> <p>Price: \$1375.00 Timeline: 13-15 weeks</p>	<p><b>Service Includes:</b></p> <ol style="list-style-type: none"> <li>1) Peptide design &amp; synthesis of phosphorylated &amp; non-phosphorylated peptide</li> <li>2) Peptide KLH conjugation</li> <li>3) Immunization (3-4 boosts) for 2 rabbits</li> <li>4) Titer monitoring</li> <li>5) Terminal bleed collection</li> <li>6) Antigen-Affinity purification</li> </ol>



# CUSTOM SERVICES

	<b>Deliverables:</b> 1) ≥2.5mg of phosphorylate peptide & non-phosphorylated peptide; 2) 0.5ml pre-bleed and Day 38 serum each rabbit; 3) ≥2mg affinity purified antibody per rabbit; 4) ELISA data; 5) Project report.
Code#SA0051  Antigen: protein antigen <b>From:</b> Gene PCR templates <b>To:</b> Affinity Purified Antibody  Price: \$1995.00 Timeline: 15-18 weeks  * Rapid protocol available for faster delivery.	<b>Service Includes:</b> 1) protein production 2) Immunization (3-4 boosts) for 2 rabbits 3) Titer monitoring 4) Terminal bleed collection 5) Antigen-Affinity purification 6) Antibody assay by using Western Blot  <b>Deliverables:</b> 1) ≥1mg protein; 2) 0.5ml pre-bleed and Day 38 serum per rabbit; 3) ≥6mg affinity purified antibody per protein; 4) ELISA data, Western Blot report. 5) Project report.

## 2. Monoclonal Antibody Packages

Biomatik is proud to be the first company to provide application guaranteed monoclonal antibody. A successful monoclonal antibody production requires extensive experience, advanced designing tool and platform. Biomatik sets higher standards in the industry:

- Biomatik will design and synthesize 2-3 peptide antigens to immunize 6 Balb/c mice for each antigen.
- Produced antibodies are screened and optimized for the designated applications.
- Biomatik guarantees that the antibody will work for the designated applications or FREE OF CHARGE.

Elisa Guaranteed Monoclonal Antibody	Package Description
Code#SA0133 ELISA Guaranteed Antibody ELISA titer >1:80000  <b>Antigen:</b> peptide, or recombinant protein  <b>To:</b> hybridoma & affinity purified antibody  <b>Customer to provide:</b> Name, species, and NBI No. of target protein; If use protein antigen, plasmid containing full length cDNA is also required.  <b>Price:</b> \$4250.00 <b>Timeline:</b> 5~6 months  * Rapid protocol available for faster delivery.	<b>Service Includes:</b> 1) Peptide or recombinant protein antigen design and synthesis 2) Immunization of 6 Balb/c mice with ELISA screening 3) Fusion of spleen cells from 1 mouse with highest ELISA titer with SP2/0 4) 4-6 rounds of sub-cloning and ELISA screening to establish hybridomas 5) Cryopreservation of cell lines 6) Preparation of ascites 7) Antigen affinity purification (or protein A/G purification if preferred)  <b>Final Deliverables:</b> 1) ≥1mg peptide or 0.5mg recombinant protein 2) 1 hybridoma & ≥2mg affinity purified antibody 3) ELISA report
WB Guaranteed Monoclonal Antibody	Validation Criteria /Deliverables
Code#SA0134	Specifically recognizes target protein overexpressed in mammalian



## CUSTOM SERVICES

<p>WB Guaranteed Antibody (Type I) For Overexpressed Protein Targets</p> <p><b>Customer to provide:</b> Name, species, and NBI No. of target protein; Plasmid containing full length cDNA;</p> <p>Price: \$6999.00 Timeline: ~7 months</p>	<p>cell lines in Western Blotting assay.</p> <p><b>Deliverables:</b> 1) 1mg peptide, or 0.5mg recombinant protein; 2) 1 hybridom cell line &amp; 2mg affinity purified antibody; 3) Antibody validation: ELISA, WB report.</p>
<p>Code#SA0135 WB Guaranteed Antibody (Type II) For Endogenous Protein Targets</p> <p><b>Customer to provide:</b> Name, species, and NBI No. of target protein; Plasmid containing full length cDNA; Tissue or cell line sample for antibody validation (if the testing or cell line is not within Biomatik sample bank; At least one published paper or original data about the gene expression profile at mRNA/protein level in the cell line or type of tissue sample to be tested.</p> <p>Price: \$7999.00 Timeline: ~7 months</p>	<p>Specifically recognizes endogenous target protein in cell lines or tissue samples in Western Blotting assay.</p> <p><b>Deliverables:</b> 1) 1mg peptide, or 0.5mg recombinant protein; 2) 1 hybridom cell line and 2mg affinity purified antibody; 3) Antibody validation: ELISA, WB report.</p>

### Additional Monoclonal Antibody Packages

Biomatik to further screen hybridoma lines for IP/IF/ICC applications

IP/IF/ICC Guaranteed mAb Packages	Validation Criteria
<p>Code#SA0322 IP Guaranteed Antibody Price: \$3299.00</p>	<p>Specifically recognizes target protein overexpressed in cell lines in immunoprecipitation assay.</p> <p><b>Deliverables:</b> 1) 1 hybridom cell line &amp; 2mg affinity purified antibody; 2) Antibody validation report.</p>
<p>Code#SA0323 IF/IHC/ICC Guaranteed Antibody Price: \$3299.00</p>	<p>Specifically recognizes target protein overexpressed in mammalian cell lines in IF/IHC/ICC assay.</p> <p><b>Deliverables:</b> 1) 1 hybridom cell line &amp; 2mg affinity purified antibody; 2) Antibody validation report.</p>

