Nucleic Acid Analysis

This section contains a compilation of special products and reagents frequently used by molecular biologists. These products have been arranged in the following categories:

- Nucleic Acid Analysis
- Nucleic Acid Isolation/Purification
- Enzymes
- PCR Reagents
- Restriction Enzymes
- DNA and Nucleic Acid Modifying Enzymes
- RNA Modifying Enzymes
- Cloning and Expression Vectors
- DNA Plasmid Vectors
- Oligonucleotides
  - DNA Linkers
  - DNA Primers
- Molecular Biology Cell Culture Components
- Molecular Biology Kits
  - DNA Purification
  - DNA Labeling
  - Chemiluminesent
  - Bioluminesent
- Additional Reagents

NUCLEIC ACID ANALYSIS

CATALOG NUMBER

150254 RT **ACRIDINE ORANGE BASE** — 5 g, 25 g, 100 g
[494-38-2]
(3,6-bis(Dimethylamino)acridine)
C.I. 46005
Fluorescent stain for proteins.
RNA Polymerase inhibitor
Dye content approx. 78%
Nature, **187**, 964 (1960).
$C_{17}H_{19}N_3$ MW 265.4

193982 RT **ACRYLAMIDE** — 25 g, 100 g, 500 g, 1 kg
[79-06-1]
Molecular Biology Reagent
Purity: >99%
No detectable DNase, RNase, or protease.
$E^{1\%}_{1cm}$ (290 nm): <0.10
Acrylic acid content: <0.001%
C_3H_5NO MW 71.08

ACRYLAMIDE/BIS PREMIX
Premix Ratio: 19:1
For convenience and safety, ICN is pleased to offer premixed acrylamide and methylene-bis-acrylamide.
Avoid handling of toxic powders, tedious weighings, and concern over spillage and waste. Each bottle contains our *Ultra Pure* Acrylamide and *Ultra Pure* N,N′-Methylene-bis-acrylamide in a choice of two sizes and three different ratios.
Just add the appropriate volume of deionized water to form a stock solution stable for up to one month at 4°C. For the 30 gm size, addition of 73.5 ml of deionized water will prepare 100 ml of stock solution. For the 200 gm size, addition of 490 ml deionized water will prepare approx. 665 ml of stock solution.

800655 — 30 g
800656 — 200 g

ACRYLAMIDE/BIS PREMIX
Premix Ratio: 29:1

800657 — 30 g
800658 — 200 g

ACRYLAMIDE/BIS PREMIX
Premix Ratio: 37.5:1

800659 — 30 g
800660 — 200 g

193983 RT **AGAROSE** — 10 g, 25 g, 50 g, 100 g, 250 g, 500 g
[9012-36-6]
Molecular Biology Reagent
Ideal for nucleic acid electrophoresis, analysis and purification.
EEO: 0.09-0.13
Moisture: <10%
No detectable DNase, RNase, or protease.

193984 **AGAROSE** — 25 g, 100 g
[9012-36-6]
High Resolution
Molecular Biology Reagent
EEO: ≤0.12
Gel Temperature (1%): <30°C
A 1% solution remains fluid at 37°C for up to 24 hours. Will set to a firm gel at <25°C, and not remelt until temperatures exceed 65°C. This ability to remain in solution at 30-37°C allows a second digest on a restriction enzyme fragment without need to recover it from the gel. Separates small DNA fragments (200-800 bp) with a resolution comparable to acrylamide.

193985 **AGAROSE** — 25 g, 100 g, 250 g
[9012-36-6]
Pulsed Field Electrophoresis
Molecular Biology Reagent
Ideal for high molecular weight DNA separation.
EEO: 0.1±0.02; Gel Temperature (1.5%): 36°C
Also, suitable for RID, counterelectrophoresis, double diffusion and other immunological procedures.

193986 **AGAROSE** — 500 mg, 1 g
[9012-36-6]
Pulsed Field Electrophoresis Sample Preparation
Molecular Biology Reagent
Gel Temperature (1%): <30°C
Excellent for making gel plugs for high molecular weight DNA separation. When embedded in plugs constructed from this agarose, cells are easily lysed and the resulting DNA released may be digested with restriction enzymes.

CATALOG NUMBER

193987 RT **AGAROSE** — 5 g, 10 g, 25 g, 100 g, 500 g
[9012-36-6]
Molecular Biology Reagent
EEO: <0.15
Gel Temperature: ≤35°C
This is a general use agarose capable of separating DNA from 50 to 1,000 base pairs on a 3% gel.

801676 **AGAROSE GEL FILM (AMP)** — 12/box
Pre-cast, ready-to-use thin film agarose gel in 2-amino-2-methyl-propanol buffer, pH 8.6. 0.4 mm thin agarose gels, 11.4 cm x 12.7 cm size. Ideal for rapid, reproducible electrophoresis work.

801677 **AGAROSE GEL FILM (BSE)** — 12/box
Pre-cast, ready-to-use thin film agarose gel in Barbital-Sucrose-EDTA buffer, pH 8.6. 0.4 mm thin agarose gels, 11.4 cm x 12.7 cm size. Ideal for rapid, reproducible electrophoresis work.

801675 **AGAROSE GEL FILM (TBE)** — 12/box
Pre-cast, ready-to-use thin film agarose gel in Tris-Borate-EDTA buffer, pH 8.8. 0.4 mm thin agarose gels, 11.4 cm x 12.7 cm size. Ideal for rapid, reproducible electrophoresis work.

193988 RT **AMMONIUM PERSULFATE** — 25 g, 100 g, 500 g
[7727-54-0]
Molecular Biology Reagent
Purity: >98%
Polymerization catalyst used with TEMED for polyacrylamide gel formation.
$(NH_4)_2S_2O_8$ MW 228.2

821559 0-5°C **AURORA™ SOUTHERN BLOT KIT** — 10 blot
For Chemiluminescent Nucleic Acid Detection
Capacity: 10-20 blots or 50-100 blots
(10x10 cm membrane)
The Aurora™ Southern Blot Kit is a highly sensitive and versatile NON-isotopic chemiluminescence-based system for the detection of biotinylated nucleic acids in Southern and Northern blotting. This system offers convenience and speed over isotopic methods by utilizing the StarLight™ high performance chemiluminescent substrate and ActiBind™-AP streptavidin-alkaline phosphatase conjugate for maximum signal intensity and low background results. As little as 1 pg of hybridized DNA and even sub-picogram quantities of biotinylated DNA bound to the membrane have been detected. Exposures require less than 60 minutes on either standard X-ray or instant film. The chemiluminescence emission will last for several days permitting multiple exposures and easy stripping and reprobing.

Kit Contents:

- StarLight™ substrate
- ActiBind™-AP
- Aurora™ Blocking reagent
- Diethanolamine

A complete protocol booklet is supplied with each kit.
See also Biotrans Nylon and PVDF Transfer Membranes.

CATALOG NUMBER

821560 0-5°C **AURORA™ SOUTHERN BLOT KIT** — 50 blot
For Chemiluminescent Nucleic Acid Detection
Capacity: 10-20 blots or 50-100 blots
(10x10 cm membrane)
The Aurora™ Southern Blot Kit is a highly sensitive and versatile NON-isotopic chemiluminescence-based system for the detection of biotinylated nucleic acids in Southern and Northern blotting. This system offers convenience and speed over isotopicemethods by utilizing the StarLight™ high performance chemiluminescent substrate and ActiBind™-AP streptavidin-alkaline phosphatase conjugate for maximum signal intensity and low background results. As little as 1 pg of hybridized DNA and even sub-picogram quantities of biotinylated DNA bound to the membrane have been detected. Exposures require less than 60 minutes on either standard X-ray or instant film. The chemiluminescence emission will last for several days permitting multiple exposures and easy stripping and reprobing.

Kit Contents:

- StarLight™ substrate
- ActiBind™-AP
- Aurora™ Blocking reagent
- Diethanolamine

A complete protocol booklet is supplied with each kit.
See also Biotrans Nylon and PVDF Transfer Membranes.

194771 0-5°C **ALBUMIN, BOVINE** — 5 g, 10 g, 50 g, 100 g, 500 g
[9048-46-8]
From Bovine Plasma
Cell Culture Reagent
Purity: 96-99%
Prepared fresh by the Cohn cold ethanol fractionation method followed by crystallization at low temperature from an alcohol containing solution. The material is not heated at any stage in the process. It can be utilized as a nutrient for tissue culture, for preparation of protein standards, and as an antigen in immunological studies in sensitive research applications.
pH 1% solution: 5.2 ±0.2
Sulfated Ash: <0.5%
Carbohydrates: <0.1%
Moisture: <5.2%

193989 0°C **5-BROMO-4-CHLORO-3-INDOLYL PHOSPHATE** — 25 mg, 100 mg, 500 mg
[102185-33-1]
Molecular Biology Reagent
Disodium Salt
Purity: >98%
Chromogenic substrate for alkaline phosphatase in ELISA.
$C_8H_4BrClNO_4PNa_2$ MW 370.4

193991 RT **5-BROMO-4-CHLORO-3-INDOLYL PHOSPHATE** — 25 mg, 100 mg, 500 mg
[6578-06-9]
Molecular Biology Reagent
p-Toluidine Salt
Purity: ≥98%
A chromogenic substrate for alkaline phosphatase in ELISA.
$C_8H_6BrClNO_4P \bullet C_7H_9N$ MW 433.6

193990 RT **BROMOPHENOL BLUE** — 5 g, 10 g, 25 g
[62625-28-9]
Molecular Biology Reagent
Sodium Salt
Ideal tracking dye for nucleic acid gel electrophoresis.
$C_{19}H_9Br_4O_5SNa$ MW 692.0

CATALOG NUMBER

193992 RT **DEXTRAN SULFATE** — 5 g, 10 g, 50 g, 100 g, 500 g
[9011-18-1]
Molecular Biology Reagent
Sodium Salt
Avg Mol. Weight: 500,000
Ideal for nucleic acid hybridizations.

157574 0°C **4′,6-DIAMIDINO-2-PHENYLINDOLE** — 1 mg, 5 mg, 10 mg, 25 mg
[28718-90-3]
(DAPI)
Dihydrochloride
Crystalline
$C_{16}H_{15}N_5 \bullet 2HCl$ MW 350.2

193993 RT **ETHIDIUM BROMIDE** — 250 mg, 1 g, 5 g, 25 g
[1239-45-8]
(2,7-Diamino-10-ethyl-9-phenylphenanthridinium bromide; Homidium bromide)
Molecular Biology Reagent
Purity: 98%
Ideal for fluorometric detection of double stranded nucleic acids in gel electrophoresis. Also acts as an RNA polymerase inhibitor, and in separation of high molecular weight DNA's.
$C_{21}H_{20}N_3Br$ MW 394.3

802511 RT **ETHIDIUM BROMIDE SOLUTION** — 10 ml
[1239-45-8]
A 10mg/ml easy-to-use solution of ethidium bromide in specially filtered, deionized water.
- Excellent for nucleic acid electrophoresis and purification applications.
- Eliminates the dust hazard associated with powdered ethidium bromide
- Saves time spent on weighing and mixing.

$C_{21}H_{20}BrN_3$ MW 394.3

ETHIDIUM BROMIDE TABLETS
[1239-45-8]
(2,7-Diamino-10-ethyl-9-phenylphenanthridinium bromide)
Syn: Homidium bromide
Ethidium Bromide tablets from ICN are the safest and most convenient way to prepare DNA staining solutions when using genetic molecular biochemistry procedures. The tablet form of Ethidium Bromide makes it safer and easier to dispense chemicals and enhances accuracy of results without exposure to Ethidium Bromide powder.
Ethidium Bromide tablets are useful for all applications requiring nucleic acid staining, including CsCl plasmid DNA isolation and gel electrophoresis. ICN's Ethidium Bromide confers a deep red stain to DNA by acting as an intercalating agent between the starch bases. Subsequent fluorescence techniques enable the extraction and characterization of DNA bands.

Key Benefits:

- Minimizes risk of dust inhalation
- Simplifies dispensing
- Extremely convenient & accurate
- Fast dissolving

100 mg per tablet

806808 10 tab.
806810 25 tab.
806812 50 tab.
806814 100 tab.

CATALOG NUMBER

194047 RT **FORMALDEHYDE, ACS** — 100 ml, 500 ml
[50-00-0]
Formalin
ACS Reagent Grade
37% Solution
Purity: 36.5-38%
Contains 10-15% methanol.
CH_2O MW 30.03

193995 RT **FORMAMIDE** — 100 g, 250 g, 500 g, 1 kg
[75-12-7]
Molecular Biology Reagent
Purity: ≥99.5%
Ideal for sequencing, denaturing polyacrylamide gels, and nucleic acid hybridization.
CH_3NO MW 45.0

193996 RT **GLYCEROL** — 100 ml, 500 ml, 1 liter
[56-81-5]
Molecular Biology Reagent
Purity: 99+%
Heavy metals (Pb): <5 ppm
No detectable DNase, RNase, or protease.
Prevents back-diffusion and protein samples into the buffer.
$C_3H_8O_3$ MW 92.09

193997 RT **N,N′-METHYLENE-*bis*-ACRYLAMIDE** — 10 g, 25 g, 100 g, 250 g
[110-26-9]
Molecular Biology Reagent
Purity: 98+%
Ideal for precise, critical PAGE gels.
Acrylic acid content: <0.1%
$C_7H_{10}N_2O_2$ MW 154.2

193998 RT **METHYLENE BLUE** — 5 g, 25 g, 100 g
[61-73-4]
(Methylthionine chloride; C.I. 53015)
Trihydrate
Molecular Biology Reagent
An ethidium bromide alternative for the visualization of nucleic acids in gels.
- Gels are viewable in visible light
- Does not require a darkroom
- No UV induced DNA damage
- Gels can be stored for several days
- Only 30 minute destaining time for PAGE gels

Ref.: Peacock, A.C. and Dingman, C.W., Biochemistry, **6**, 1818 (1967).
$C_{16}H_{18}ClN_3S \bullet 3H_2O$ MW 373.9

193999 0-5°C **p-NITRO BLUE TETRAZOLIUM** — 50 mg, 250 mg, 1 g
[298-83-9]
(3,3′-(3,3′-Dimethoxy-4,4′-biphenylene)-bis-(2-p-nitrophenyl)-5-(phenyl)-2H-tetrazolium chloride)
Molecular Biology Reagent
Ideal for alkaline phosphatase conjugate detection in nucleic acid probe detection systems.
$C_{40}H_{30}Cl_2N_{10}O_6$ MW 817.6

194014 RT **ORANGE G** — 25 g, 100 g
[1936-15-8]
(Acid Orange 10; 7-Hydroxy-8-phenylazo-1,3-naphthalenedisulfonic acid; C.I. 16230)
Molecular Biology Reagent
Sodium Salt
A tracking dye in nucleic acid gel electrophoresis which runs significantly faster than bromophenol blue.
$C_{16}H_{10}N_2O_7S_2Na_2$ MW 452.4

CATALOG NUMBER

194015 0-5°C **PAGE SOLUTION FOR DNA SEQUENCING** — 100 ml, 5x100 ml
6% PAGE Solution
Acrylamide/bis-Acrylamide (19:1) solution in TBE with 7M urea. Simply add TEMED and fresh ammonium persulfate and you are ready to pour a sequencing gel. No DNase, RNase, or protease detected.

194016 0-5°C **PAGE SOLUTION FOR DNA SEQUENCING** — 100 ml, 5x100 ml
8% PAGE Solution
Acrylamide/bis-Acrylamide (19:1) solution in TBE with 7M urea. Simply add TEMED and fresh ammonium persulfate and you are ready to pour a sequencing gel. No DNase, RNase, or protease detected.

194017 RT **POLYVINYLPYRROLIDONE** — 100 g, 500 g, 1 kg
[9003-39-8]
Molecular Biology Reagent
Average MW 360,000
Suitable for nucleic acid hybridizations. No detectable nuclease activity.

800506 **PYRONIN Y** — 5 g
[92-32-0]
Molecular Biology Reagent
A marker dye for acid buffer systems which indicates the migrating boundary during electrophoresis.
$C_{17}H_{19}N_2OCl$ MW 302.8

193994 0-5°C **STAINS-ALL** — 250 mg, 1 g, 5 g
[7423-31-6]
(1-Ethyl-2-(3-[1-ethylnaphtho(1,2-d)thiazolin-2-ylidene]-2-methyl-propenyl)naphtho(1,2-d)thiazolium bromide; 3,3′-Diethyl-9-methyl-4,5,4′,5′-dibenzothia-carbocyanine)
Molecular Biology Reagent
Purity: ~95%
Cationic carbocyanine dye used as stain in electrophoresis. Differentially stains proteins and nucleic acids.
$C_{30}H_{27}BrN_2S_2$ MW 559.6

194018 RT **SUCROSE** — 500 g, 1 kg, 5 kg
[57-50-1]
Molecular Biology Reagent
Purity: 99+%
Glucose: <.1%
Heavy metals (Pb): <5 ppm
DNase, RNase, and protease free.
$C_{12}H_{22}O_{11}$ MW 342.30

194019 RT **N,N,N′,N′-TETRAMETHYL-ETHYLENEDIAMINE** — 25 ml, 50 ml, 100 ml
[110-18-9]
(TEMED; TMEDA)
Molecular Biology Reagent
Purity: ~99%
Polyacrylamide gel formation catalyst.
1 ml = approx. 0.77 g
$C_6H_{16}N_2$ MW 116.2

152113 RT **TETRAMETHYLAMMONIUM CHLORIDE** — 100 g, 250 g, 500 g, 1 kg
[75-57-0]
Crystalline
Purity: ~98%
$C_4H_{12}NCl$ MW 109.6

CATALOG NUMBER

816202 **TRIS-BORATE-EDTA BUFFER** — 1 box
0.089M Tris
0.089M Boric acid
0.0025M EDTA
Empty contents of 1 packet into a 4-liter flask and add deionized water. Four liters of pH 8.3 TBE buffer is now ready to use. This non-SDS based buffer is commonly used for Polyacrylamide Gel Electrophoresis.
(1 box contains 12 packets)

821581 RT **TRIS-BORATE-EDTA GEL RUNNING BUFFER SYSTEM** — 1 kit
A Tris-Borate-EDTA 5X concentrated running buffer, consisting of 2 x 500 ml of Tris-Borate-EDTA 5X, and 1 x 25 ml Tris-Borate-EDTA 2X sample solubilization buffer.

821697 **TRIS-BORATE-EDTA SAMPLE SOLUBILIZATION BUFFER** — 25 ml
This is a prepared solution for dissolving samples prior to electrophoresis. Samples should be mixed in a 1:1 ratio with this sample solubilization buffer. This buffer contains Tris 0.18M, Boric Acid 0.16M, EDTA 0.0052, Sodium Azide 0.01%, Sucrose 10.0%, Bromophenol Blue 0.02%, and it is tritrated to pH 8.0 with HCl.

816204 **TRIS-EDTA BUFFER** — 1 box
10 mM Tris HCl
0.1 mM EDTA
Empty contents of 1 packet into a 4-liter flask and add deionized water. Four liters of pH 7.4 buffer is now ready for use. This buffer is useful for DNA extractions from Low Gelling Temperature (LGT) Agarose gels.
Note: If contents of 1 packet are dissolved in only 2 liters of deionized water, this buffer is then useful for DNA isolations with cesium chloride protocols.
(1 box contains 12 packets)

816200 **TRIS-GLYCINE BUFFER** — 1 box
0.025M Tris
0.192M Glycine
Empty contents of 1 packet into a 4-liter flask, add 800 ml of methanol, and quesce to volume with deionized water. Four liters of pH 8.3 buffer is now ready to use.
This buffer is routinely used for electroblotting of proteins (Western Protein Transfer). Recommended buffer for use with our Biotrans™ Membranes for Western Transfers.
(1 box contains 12 packets)

821580 RT **TRIS-GLYCINE-SDS GEL RUNNING BUFFER SYSTEM** — 1 kit
A Tris-Glycine-SDS 10X concentrated running buffer, consisting of 1 x 500 ml of 10X Tris-Glycine-SDS, 1 x 25 ml Tris-Glycine-SDS 2X sample solubilization buffer, and 1 x 25 ml Tris-Glycine-SDS 2X sample solubilization buffer with 2-mercaptoethanol.

816201 **TRIS-GLYCINE-SDS BUFFER** — 1 box
0.025M Tris
0.192M Glycine
0.1% SDS
Empty contents of 1 packet into a 4-liter flask and add deionized water. Four liters of buffer is now ready to use. This is a commonly used protein running buffer in electrophoresis.
(1 box contains 12 packets)

CATALOG NUMBER

194020 RT **XYLENE CYANOLE F.F.** — 10 g
[2650-17-1]
(C.I. 42135, Acid Blue 147)
Molecular Biology Reagent
Dye Content: ~75%
A tracking dye for DNA sequencing in agarose or polyacrylamide gels.
$C_{25}H_{27}N_2O_6S_2Na$ MW 538.6

NUCLEIC ACID ISOLATION/ PURIFICATION REAGENTS

194000 RT **AMMONIUM ACETATE** — 100 g, 250 g, 500 g
[631-61-8]
Purity: ~98%
Molecular Biology Reagent
$NH_4C_2H_3O_2$ MW 77.1

194001 RT **n-BUTANOL** — 25 ml, 100 ml, 500 ml
[71-36-3]
(1-Butanol; Butyl Alcohol)
Molecular Biology Reagent
Purity: 99+%
Useful for ethidium bromide removal from DNA purified by CsCl gradient ultracentrifugation. It may also be used in the concentrationof dilute nucleic acid solutions by repeated extractions. Improved recovery by ethanol precipitation results from increased nucleic acid concentration.
$C_4H_{10}O$ MW 74.12

150589 RT **CESIUM CHLORIDE** — 5 g, 25 g, 100 g, 500 g, 1 kg
ULTRA PURE
[7647-17-8]
Ultra Pure
Purity: 99.999%
A_{260} of 50% solution < 0.02
Solutions are clear and colorless. Especially suited for critical density gradient techniques.
CsCl MW 168.4

101321 RT **CESIUM CHLORIDE** — 25 g, 100 g, 250 g, 500 g, 1 kg
[7647-17-8]
Reagent Grade
Purity: 99.0%
Solubility: Clear, colorless (50% aqueous solution)
pH: 5.5-6.5 (1% aqueous solution)
CsCl MW 168.4

194002 RT **CHLOROFORM** — 25 ml, 100 ml, 500 ml
[67-66-3]
Molecular Biology Reagent
Purity: 99+%
For nucleic acid purification. Improves extraction of crude DNA when used with phenol.
$CHCl_3$ MW 119.4

190176 RT **CETYLDIMETHYLETHYL-AMMONIUM BROMIDE** — 25 g, 100 g, 500 g
[124-03-8]
(Hexadecyldimethylethylammonium bromide)
Approx. 85% Cetyl (C_{16}); balance: Stearyl (C_{18}) homolog
Phase transfer catalyst.
$C_{20}H_{44}BrN$ MW 378.4

CATALOG NUMBER

194003 RT **GUANIDINE THIOCYANATE** — 100 g, 250 g, 500 g
[593-84-0]
Molecular Biology Reagent
Purity: ≥99%
Strong protein denaturant which inactivates nucleases approximately 2.5 times faster than guanidine hydrochloride.
$CH_5N_3 \bullet HSCN$ MW 118.2

194005 RT **ISOAMYL ALCOHOL** — 25 ml, 100 ml, 500 ml
[123-51-3]
(Isopentyl alcohol; 3-Methyl-1-butanol)
Molecular Biology Reagent
Purity: ≥98%
Ideal for nucleic acid purification.
$C_5H_{12}O$ MW 88.15

194006 RT **ISOPROPYL ALCOHOL** — 25 ml, 100 ml, 500 ml
[67-63-0]
(Isopropanol; 2-Propanol)
Molecular Biology Reagent
Purity: 99+%
Ideal for precipitating nucleic acids. In comparison to ethanol, approximately half the amount is required for precipitation which minimizes the total volume for recovery.
C_3H_8O MW 60.1

194008 RT **N-LAUROYLSARCOSINE** — 50 g, 100 g, 250 g
[7631-98-3]
Molecular Biology Reagent
Sodium Salt
Purity: ≥97%
Useful in concentrated salt solutions used in the cell lysis step during RNA purification.
$C_{15}H_{28}NO_3Na$ MW 293.4

800800 RT **LIQUACRYL™** — 500 ml
A 40% (W/V) solution of Ultra Pure Acrylamide in specially-prepared deionized water.
How to Use:

$$\text{ml of LiquAcryl to use} = \frac{(MC)\left(\text{Final desired gel concentration}\right)\left(\text{Final ml of gel to be prepared}\right)}{(40\%)}$$

Where *MC*

$$\left(\text{Monomer Content}\right) = \frac{(\text{Parts of monomer in final gel})}{\left(\text{Parts of Monomer content}\right) + \left(\text{Parts of Cross-linker content}\right)}$$

Example: A 19:1 mixture would have a 0.95 MC (Monomer Content)

800801 RT **LIQUABIS™** — 500 ml
A 2%(W/V) solution of Ultra Pure *bis*-Acrylamide (N,N′-Methylene-*bis*-Acrylamide) solution in specially-prepared deionized water.
How to Use:

$$\text{ml of LiquaBis to use} = \frac{(CC)\left(\text{Final desired gel concentration}\right)\left(\text{Final ml of gel to be prepared}\right)}{(2\%)}$$

Where *CC*

$$\left(\text{Cross-linker Content}\right) = \frac{(\text{Parts of Cross-Linker in final gel})}{\left(\text{Parts of Cross-linker content}\right) + \left(\text{Parts of Monomer content}\right)}$$

For Example: A 19:1 mixture would have a 0.05 CC (Cross-linker Content)

CATALOG NUMBER

800802 RT **LIQUI-GEL™ 19:1** — 500 ml

A 40% (W/V) solution of Ultra Pure Acrylamide (38%) and *bis*-Acrylamide (2%) in specially deionized water.
Final ratio is 19:1
How to Use:

$$\text{ml of Liqui-Gel}_{19:1\ use} = \frac{(\text{Final desired gel concentration})(\text{Final ml of gel to be prepared})}{(40\%)}$$

800803 RT **LIQUI-GEL™ 29:1** — 500 ml

A 40% (W/V) solution of Ultra Pure Acrylamide (38.67%) and *bis*-Acrylamide (1.33%) in specially-prepared deionized water. Final ratio is 29:1.
How to Use:

$$\text{ml of Liqui-Gel}_{29:1\ use} = \frac{(\text{Final desired gel concentration})(\text{Final ml of gel to be prepared})}{(40\%)}$$

800804 RT **LIQUI-GEL™ 37.5:1** — 500 ml

A 40% (W/V) solution of Ultra Pure Acrylamide (38.96%) and *bis*-Acrylamide (1.04%) in specially-prepared deionized water. Final ratio is 37.5:1.
How to Use:

$$\text{ml of Liqui-Gel}_{37.5:1\ use} = \frac{(\text{Final desired gel concentration})(\text{Final ml of gel to be prepared})}{(40\%)}$$

LIQUI-GENE™ 4%

A premixed liquid acrylamide denaturing gel mix containing *bis*acrylamide, 1x TBE as a buffer, and 7M urea for use in polyacrylamide gel electrophoresis. It is available in three concentrations allowing for flexible applications and efficiency.

- Saves Time - Comes ready-to-use, no mixing or filtering necessary. Just de-gas, polymerize, and pour.
- Economical - Eliminates waste and the need for numerous separate reagents.
- Safer To Use - No exposure to acrylamide dust or concentrated solutions.
- Variable Concentrations - 4%, 6%, and 8% for different applications. The 4% gel strength suitable for traditional DNA and RNA isolation applications.

802522 5x100ml
802523 4x500ml

LIQUI-GENE™ 6%

This is a premixed liquid acrylamide denaturing gel mix for use in polyacrylamide gel electrophoresis prepared at a 6% gel strength. This concentration is optimal for DNA sequencing applications.

802524 5x100ml
802525 4x500ml

LIQUI-GENE™ 8%

This is a premixed liquid acrylamide denaturing gel mix for use in polyacrylamide gel electrophoresis prepared at an 8% gel strength. This concentration is suitable for traditional DNA and RNA isolation applications.

802526 5x100ml
802527 4x500ml

CATALOG NUMBER

LIQUI-PRO™ 6%

A premixed liquid denaturing acrylamide gel mix for the discontinuous polyacrylamide gel electrophoresis of proteins containing 0.375M Tris (pH 8.8), 0.1% SDS as a denaturing agent, and ultra pure acrylamide in filtered, distilled, and deionized water. Additionally, each resolving mix is supplied with 4% acrylamide stacking gel made with 0.125M Tris (pH 6.8). Available in four convenient strengths.

- Saves Time - No need to prepare separate gel mixes. It is ready-to-use.
- Economical - Eliminates numerous individual reagents and reduces risk of costly errors associated with inconsistent reagent quality and concentrations.
- Safer To Use - No exposure to acrylamide dust or concentrated solutions.
- Excellent Reproducibility - Ultra Pure reagents and strict quality control of formulation assures lot-to-lot consistency.
- Choice of Strengths - 6%, 8%, 10%, and 12% resolving gels allows for flexibility.

802528 5x100ml
802529 4x500ml

LIQUI-PRO™ 8%

This is a premixed liquid denaturing acrylamide gel mix for the discontinuous polyacrylamide gel electrophoresis of proteins prepared essentially the same as Liqui-Pro™ 6%, only this one is at an 8% strength. Additionally, it is supplied with 4% acrylamide stacking gel made with 0.125M Tris (pH 6.8).

802530 5x100ml
802531 4x500ml

LIQUI-PRO™ 10%

This is a premixed liquid denaturing acrylamide gel mix for the discontinuous polyacrylamide gel electrophoresis of proteins prepared at a 10% strength. It is also supplied with 4% acrylamide stacking gel.

802532 5x100ml
802533 4x500ml

LIQUI-PRO™ 12%

This is a premixed liquid denaturing acrylamide gel mix for the discontinuous polyacrylamide gel electrophoresis of proteins prepared at a 12% strength. It is also supplied with 4% acrylamide stacking gel.

802534 5x100ml
802535 4x500ml

158386 -20°C **OLIGO (dT) CELLULOSE** — 100 mg, 250 mg, 500 mg, 1 g

ICN's Oligo (dT) Cellulose has the advantages of specificity of binding, quantitative binding, dependability, simplicity of use and economy (can be recycled many times).
Applications:
- large scale isolation of mRNA
- poly (rA) binding
- [^{3}H] HeLa mRNA binding (*see radiochemicals section*)

Binds chains up to 18 nucleotides long
Binds minimum ≥100 A_{260}/gm

ICN's Oligo dT Cellulose has a 2 fold higher binding activity than most other products. Compare it with the material you are now using and you may be in for a pleasant surprise!

194011 **PHENOL** — 25 g, 100 g, 500 g

[108-95-2]
Molecular Biology Reagent
Purity: 99+%
Melting Point: 40.0°C
Water: <0.5%
Heavy Metals: <0.01%
Nuclease Content: None detected
Distilled in glass into argon purged containers to yield a highly purified phenol for critical nucleic acid extractions. Useful for extraction of viral, plasmid and phage DNAs, and to solubilize and dissociate proteins.
C_6H_6O MW 94.1