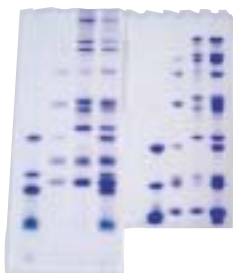


DNA analysis - Electrophoresis

Acrylamides

Technical tip

Gel electrophoresis is a technique in which the molecules are separated and moved through a gelatinous medium under the influence of an electric field. Particles with a positive charge move toward the cathode and negative to the anode. Smaller fragments migrate faster, so molecules are separated according to their size. At the completion of a period of electrophoresis, the gel, may be manipulated as a single object, permitting the substances contained within to be detected or visualized by a variety of methods, and their relative mobilities determined. It is therefore a popular analytic tool in biochemistry, and has many variants. Popular substances used to create the gel are starch, polyacrylamide, and agarose. Polyacrylamide gel can be made with different concentrations and different degrees of cross-linking, the pore size of the gel can be controlled to provide special properties appropriate to separation of specific molecules, as for example optimization for separation within a particular molecular weight range.



Related product for polymerization :

Ammonium Persulfate	
Cat.#	UP306098
Qty	25 g
ACS Grade	
(NH ₄) ₂ S ₂ O ₈	
MW	228.20
Purity	98.0 %

Ammonium Persulfate	
Cat.#	GS3600
APS tablets	100 mg
Qty	100 tablets

TEMED (N,N,N',N'-TetraMethylEthyleneDiamine)	
Cat.#	UP15413D
Qty	25 ml
Ultra pure grade	
C ₆ H ₁₆ N ₂	
MW	116.21
Purity (Anhydrous Basis)	99.0 %

Interchim offers an extensive line of acrylamides, pre-weighed powder blends, premixed stock solutions, and ready-to-use solutions for customized PAGE of nucleic acids and proteins. Our ultra pure acrylamide and bis-acrylamide powders provide the flexibility to prepare solutions having concentrations and ratios for all electrophoresis applications. The convenient powder and liquid blends maximize productivity and consistency while minimizing the handling of neurotoxic acrylamide.

Acrylamides powders

- ◆ Ultrapure powders with acrylamide purity >99.9%
- ◆ High solubility, producing haze-free solutions
- ◆ Tested for low conductivity and low acrylic acid content.

Description	Cat.#	Qty
Acrylamide ultrapure powder	598444	100 g
	598446	500 g
	598447	1 kg
Bis-Acrylamide	05379E	50 g
	05379F	100 g
	05379G	250 g
Acrylamide/Bis-Acrylamide 19:1 premixed powder	875992	40 g
	875991	200 g
Acrylamide/Bis-Acrylamide 29:1 premixed powder	876000	40 g
	876001	200 g

Acrylamides solutions

Liquid Acrylamide products were designed to replace powdered materials with convenient, "user friendly" solutions. These solutions are provided in a ready-to-use format, thereby eliminating inhalation hazards associated with handling acrylamide and bis-acrylamide powders.

Liquid Acrylamides produce highly reproducible gels with excellent band mobility and resolution. Concentrations are carefully controlled for maximum lot-to-lot consistency and all solutions are 0.2 µm filtered prior to packaging.

Liquid Acrylamide products are prepared from Ultra Pure Grade components in specially treated, deionized water and are guaranteed stable for at least one year when properly stored.

Acrylamide/Bis-Acrylamide 19:1 is a 40% solution containing 38% (w/v) acrylamide and 2% (w/v) bis-acrylamide. Optimized for nucleic acid electrophoresis. Final ratio of monomer to cross-linker is 19:1.

Acrylamide/Bis-Acrylamide 29:1 is a 40% solution containing 38.67% (w/v) acrylamide and 1.33% (w/v) bis-acrylamide. Excellent for many protein electrophoresis applications and can also be used for nucleic acid electrophoresis. Monomer to cross-linker final ratio is 29:1.

Description	Cat.#	Qty
Acrylamide Solution 4X-40%	UP873376	500 ml
Bis-Acrylamide Solution 2%	UP864965	500 ml
Acrylamide/Bis-Acrylamide 19:1 Solution 40%	UP86489B	500 ml
Acrylamide/Bis-Acrylamide 29:1 Solution 40%	UP864927	500 ml

Special matrices

PAGE-PLUS

PAGE-PLUS is a high-resolution matrix specifically designed for superb resolution of DNA sequencing products and low molecular weight DNA.

The unique matrix of PAGE-PLUS gels leads to improved resolution, consistent band spacing, and faster running time over standard bis-acrylamide cross-linked gels. This novel matrix also exhibits increased mechanical strength to resist tearing during post-electrophoresis manipulations.

Description	Cat.#	Qty
PAGE-PLUS concentrate 40% solution	990606	100 ml
	990601	500 ml

DNA analysis - Electrophoresis

Acrylamides



EZ Squeeze™ products make pouring gels safer, simpler, and faster. Each single-use bottle contains enough solution to pour 2-3 gels depending upon the application.

Simple 3-Step Process

STEP 1.



Add Initiator and Polymerisation Disc

STEP 2.



Mix by Inversion for 2 minutes

STEP 3.



Pour the Gel

D.78

Gene-PAGE-PLUS

Gene-PAGE-PLUS is a ready-to-use formulation for DNA sequencing and DNA fragment analysis that is blended from PAGE-PLUS concentrate.

The acrylamide denaturing gel mix is available with 4.8 to 8 % acrylamide concentration. Premixed using an acrylamide:bis-acrylamide ratio 19:1, Gene-PAGE already contains 1X TBE buffer and 7M Urea denaturing agent. Simply add the polymerizing agents (APS and TEMED) to the desired amount of gel solution, mix and pour.

5% Gene-PAGE-PLUS with TTE buffer combines the outstanding PAGE-PLUS concentrate with TTE protocol for superior results.

Description	Cat.#	Qty
4% Gene-PAGE-PLUS 7M Urea	963860	5 x 100 ml
	963861	2 x 500 ml
4.8% Gene-PAGE-PLUS 6M Urea	374810	5 x 100 ml
	374811	2 x 500 ml
5% Gene-PAGE-PLUS 6M Urea	N14070	5 x 100 ml
	N14071	2 x 500 ml
5% Gene-PAGE-PLUS with TTE buffer	R67840	5 x 100 ml
	R67841	2 x 500 ml
5.25% Gene-PAGE-PLUS 6M Urea	844531	5 x 100 ml
	844532	2 x 500 ml
5.5% Gene-PAGE-PLUS 8M Urea	981950	5 x 100 ml
	981951	2 x 500 ml
6% Gene-PAGE-PLUS 7M Urea	963341	5 x 100 ml
	963342	2 x 500 ml
8% Gene-PAGE-PLUS 7M Urea	963870	5 x 100 ml
	963871	2 x 500 ml
4% Gene-PAGE	900790	5 x 100 ml
	900791	4 x 500 ml
6% Gene-PAGE	900800	5 x 100 ml
	900801	4 x 500 ml
8% Gene-PAGE	900810	5 x 100 ml
	900811	4 x 500 ml

There is also a special ratio of Gene-PAGE 29:1 available as follows :

Description	Cat.#	Qty
4.5% Gene-PAGE 29:1	N14990	5 x 100 ml
	N14991	4 x 500 ml

EZ squeeze

- ◆ A novel delivery system for sequencing gels pouring
- ◆ Increase laboratory productivity by saving time and money
- ◆ A safer product that offers incredible convenience

Gene-PAGE, Gene-PAGE PLUS, Gene-PAGE 29:1 sequencing matrices are available in easy, convenient, single-use disposable squeeze bottles. EZ squeeze packaging provides all the components necessary for pouring gels in minutes. Simply add the initiator and catalyst discs for polymerization, invert and mix for 2 minutes then pour the gel.

Description	Cat.#	Qty
4% Gene-PAGE-PLUS EZ squeeze	N14910	5 x 75 ml
	N14911	10 x 75 ml
4.8% Gene-PAGE-PLUS EZ squeeze	N14920	5 x 75 ml
	N14921	10 x 75 ml
5% Gene-PAGE-PLUS EZ squeeze	N14930	5 x 75 ml
	N14931	10 x 75 ml
5.25% Gene-PAGE-PLUS EZ squeeze	N14980	5 x 75 ml
	N14981	10 x 75 ml
5.5% Gene-PAGE-PLUS EZ squeeze	N14940	5 x 75 ml
	N14941	10 x 75 ml
6% Gene-PAGE-PLUS EZ squeeze	N14950	5 x 75 ml
	N14951	10 x 75 ml
8% Gene-PAGE-PLUS EZ squeeze	N14960	5 x 75 ml
	N14961	10 x 75 ml
4% Gene-PAGE EZ squeeze	N14880	5 x 75 ml
	N14881	10 x 75 ml
6% Gene-PAGE EZ squeeze	N14890	5 x 75 ml
	N14891	10 x 75 ml
8% Gene-PAGE EZ squeeze	N14900	5 x 75 ml
	N14901	10 x 75 ml

Thermo-PAGE

Thermo-PAGE is a novel acrylamide blend designed for use in gel sequencing applications that requires high voltage, or shorter runs. These faster runs generate more data in less time. It provides a quality matrix for the short, fast, hot runs on the ABI 377 4X and 2X run modules.

Thermo-PAGE is available as a 40% concentrate or as a convenient 5% premix solution which contains 6M urea and 1X TBE.

At 5% acrylamide solution, urea 6M and 1X TBE, Thermo-PAGE has been shown to generate up to 700bp read lengths when using the run conditions below :

- ◆ Voltage : 3000 Volts
- ◆ Run time : 3.5 hours

Description	Cat.#	Qty
Thermo-PAGE concentrate 40% solution	880070	100 ml
	880071	500 ml
Thermo-PAGE 5% premix	904060	5 x 100 ml
	904063	2 x 500 ml

Pre-cast acrylamide gels

RITE-gels w/TBE

RITE-gels are manufactured as pre-poured glass cassettes with a 1mm gel thickness and an overall dimension of 10 x 10 cm to fit most vertical electrophoresis systems. All of RITE-gels have 12 lanes on the gel cassettes, allowing for easy sample loading of up to 25 µl per lane. The pre-packed gels are also convenient in that they require no time-consuming preparation.

2 formats available

- ◆ Gradients : 4-20% for separation range : 100-1000 bp
- ◆ Non gradient : 10% for separation range : 200-1500 bp

Description	Cat.#	Qty
RITE-GEL TBE buffer 4-20%	T37470	5 gels
RITE-GEL TBE buffer 10%	T37480	5 gels



RITE-Gels™ use glass cassettes instead of plastic in order to provide the best clarity and thermal conductivity. Glass allows heat to dissipate much faster and produce more quantifiable and accurate results. And unlike plastic, the glass cassettes do not leak electrical current, thereby avoiding distorted band patterns and allowing for a much more accurate interpretation of the results.



In the photo above, E. coli proteins were electrophoresed on a 12% RITE-Gel™ with TG-SDS. Proteins were visualized by staining with Coomassie® Blue.