

STRATAGENE: The New Leader in

Electrophoresis

Stratagene has innovative products for all your electrophoresis needs. We save you time and improve your results with two acrylamide gel systems, offering both precast large-format gels and precast minigels. These systems can be powered by our all-purpose power supply, which is ideal for large or small laboratories. Or, save time and space with our versatile horizontal minigel system with built-in power supply.

Our electroelution capsules make recovering nucleic acids or proteins from agarose gels faster and more efficient. And we offer you two new safe and convenient ways to remove dyes from your buffer solutions and gels.



Joule Box™ Minigel Electrophoresis System

- Horizontal gel electrophoresis device with built-in mini power supply
- Versatile— easily pour and run both agarose and polyacrylamide gels
- Compact, lightweight and easy to use
- Includes gel casting set for pouring up to 6 gels simultaneously

The Joule Box™ unit contains a built-in, dedicated power supply designed specifically for running gels with low voltage requirements. The simplified circuitry of this power supply makes the all-in-one design of the system reliable, compact and low-cost. Gels can be run at 50 or 100 volts and the polarity of the power supply can be changed by simply flipping a switch.

Each gel casting tray has migration distance index lines to easily determine gel running distance at a glance, in addition to a shaded comb insertion area



to improve visibility of the sample wells. The minigel electrophoresis tank is lightweight and compact, with a footprint of less than 20 cm x 14 cm, including the power supply attachment.



MVP™ Mini Vertical Polyacrylamide Gel System

Precast Minigels

- Single gel formulation: compatible with Tris-Glycine, Tris-Glycine SDS and TBE running buffers
- Glass cassettes for unbeatable clarity and easier separation than plastic
- Integrated measuring for quick determination of run distance
- Pre-marked wells make gel loading easier
- Gels available in 5 percentages: 4-20% gradient, 10-20% gradient, 7.5%, 10%, and 12.5%
- Gel size: 10 x 10 cm
- Sample capacity: 12 wells, 25 ml/well

All MVP™ precast minigels are made of the basic Laemmli polyacrylamide formulation without SDS and are buffered at pH 8.8 with 0.375 M Tris-HCl. The minigels are poured with a low percentage overlayer that serves as the stacking gel without sacrificing resolving length. MVP gels fit most minigel electrophoresis apparatus.

The MVP Gel Apparatus

The MVP gel apparatus accepts one or two minigels that slide right in and are held in place by simply inserting the acrylic wedges, which provide a leak-proof seal every time. The gel device has been CE marked to ensure safe operation and the sturdy acrylic design resists breakage.

Separation Ranges of Proteins and Nucleic Acids on MVP Gels		
MVP™ precast minigel	Proteins (Daltons)	Nucleic acids (bp)
4-20% precast minigel	20,000-200,000	100-1000
10-20% precast minigel	15,000-100,000	90-700
7.5% precast minigel	50,000-200,000	300-1500
10% precast minigel	35,000-150,000	200-1500
12.5% precast minigel	25,000-100,000	150-1000

Electrophoresis



CastAway™ Precast Gels*

- Precast sequencing gels for multiple applications
- Complete system saves more than 4 hours
- Ready to load in less than 5 minutes
- Minimizes exposure to neurotoxic acrylamide
- Consistent, reproducible results
- Gels are fixed to the glass plate—no more filter paper or gel tearing
- Gel size: 41.5 cm (H) x 17.5 cm (W) x 0.25 mm thick
- Gel configurations:
 - 6% denaturing polyacrylamide gels with or without preformed wells
 - 6% nondenaturing polyacrylamide gels
 - 4.5% denaturing polyacrylamide gels with or without preformed wells
 - 5.5% denaturing Long Ranger™ gels**
 - 12% denaturing polyacrylamide gels with preformed wells

CastAway™ Precast Gel System

The CastAway™ precast gels are convenient, prepoured polyacrylamide gels designed for multiple applications. CastAway gels are ideal for DNA sequencing, differential display, SSCP, DNA fingerprinting, DNA footprinting, RNase protection assays and many other applications. Precast gels eliminate the need to work with toxic acrylamide and since the CastAway

gels are fixed to the glass plate, there is no need to transfer to filter paper. The CastAway sequencing system has been designed to cut electrophoresis and gel-drying times in half. The system includes a novel vertical sequencing device, high-speed gel dryer and a large assortment of accessories, all optimized to rapidly produce superior results.

* Patent pending

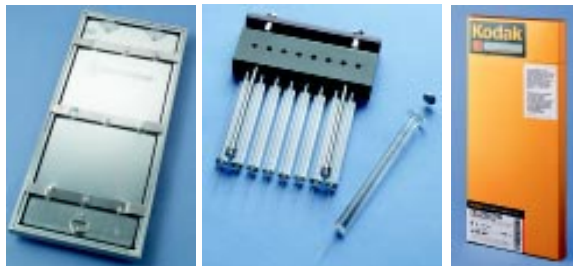
** This CastAway gel is made with FMC's Long Ranger™ sequencing gel solution, a high-performance gel matrix that delivers superior resolution and longer read length.

Process/Step	Conventional	CastAway System
Prepare plates, mix solutions, degas, pour, polymerize, and load gel	120 minutes	<5 minutes
Electrophoresis	150 minutes	75 minutes
Transfer and dry	120 minutes	50 minutes
Total Time	6 hours, 30 minutes	2 hours, 10 minutes

Choose the Right CastAway™ Precast Gel for Your Application

APPLICATION	6% gel 7M Urea with or without 32 preformed wells	6% nondenaturing gel	4.5% gel 7M Urea with or without 32 preformed wells	12% gel 7M Urea 32 preformed wells	5.5% Long Ranger™ gel 8.3M Urea
Sequencing	★		★	★	★
Silver staining	★	★	★	★	★
Differential Display/ RAP-PCR	★	★	★		
DNA Fingerprinting	★		★		
AFLP Technique	★		★		
SSCP		★			
RNase Protection Assay	★	★			
DNA Footprinting				★	
Primer Extensions	★		★	★	
Oligonucleotide Analysis				★	
Microsatellite DNA Analysis	★			★	

CastAway™ System Accessories



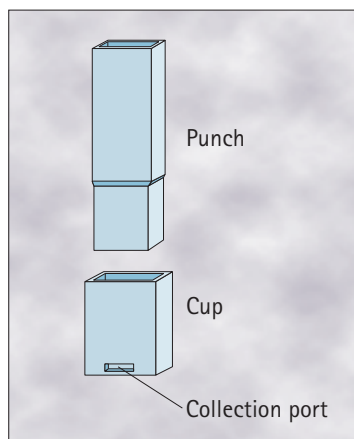
Autorad Cassette Gel-Loading Syringe Kodak Film

Choose from a complete line of accessories, including X-ray film, autoradiography film cassettes and gel-loading syringes.

CastAway™ Precast Gels for the LI-COR System

Introducing the newest addition to the CastAway gel family: Precast gels for the LI-COR IR² System, the first precast gels for automated sequencing and genetic analysis. Stratagene has joined forces with LI-COR to design gels specifically to fit the LI-COR system.

- All of the benefits of regular CastAway gels, plus automation
- Gel size: 25cm (H) X 20cm (W) X 0.25mm thick
- Gel formulation: 5.5% Long Ranger™ gel, 8.3M urea, 1X TBE
- Read lengths >500 bp
- 32 sequencing samples or 128 genotyping lanes with IR² system



Quik-Pik™ Electroelution Capsules*

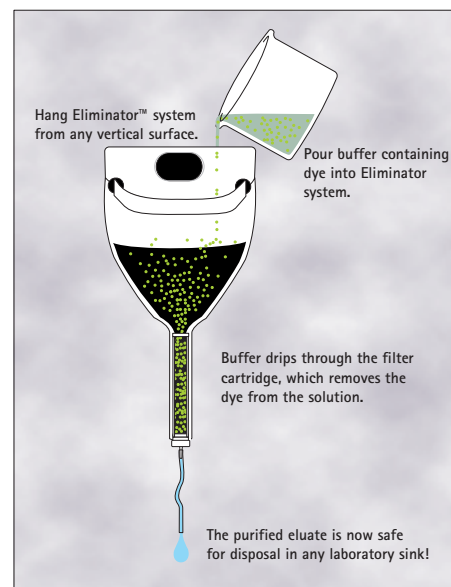
- For rapid recovery of DNA and RNA from gels
- As little as 5 minutes hands-on time
- No more spinning, washing, heating or precipitations that can harm DNA
- Up to 95% recovery

The Quik-Pik™ electroelution method eliminates washing, spinning, heating and precipitations that can harm DNA.

The method is simple: excise a band of interest with the capsule, put the band in the cup and place on top of the submerged gel, with the cup facing the flow of current. Reapply current to move the sample out of the gel. Collect the eluted sample by

punching a hole at the collection port and aspirating your sample. Recovered high-quality DNA is now ready for ligation, restriction enzyme digestion, sequencing, amplification, random priming or other enzymatic reactions.

* This product is licensed from *Geno Technology Inc. USA* under U.S. Patent No. 5,635,045.

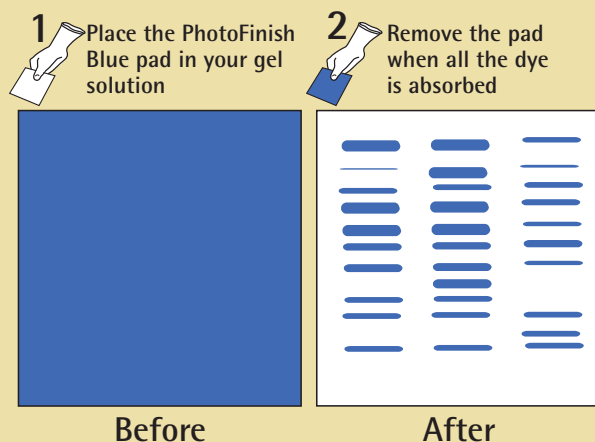


PhotoFinish Blue™ Dye Removal Pads

- Quick and easy absorption of Coomassie® Blue dye from gels
- 20% faster than conventional methods
- No need to change destain solution
- No charcoal or dye residues
- Reduces hazardous waste

The 3 x 3-inch pads can be simply added to the destaining solution. The

PhotoFinish Blue™ pads turn blue as they soak up the free dye in the destaining solution, leaving the solution colorless. The blue-stained PhotoFinish Blue pad can be discarded and the destaining solution reused, saving valuable reagents and eliminating hazardous waste disposal. Each pad will bind enough dye to destain up to 10 minigels.



Eliminator™ Dye Removal System

- Safely removes up to 99% of EtBr dye from buffer solutions
- Convenient alternative to other decontamination procedures
- No more vacuum pumps, stir plates or accidental spills
- Saves valuable bench space — set up anywhere in the lab



The Eliminator™ dye removal system consists of a funnel-shaped vinyl sleeve with a cartridge attached at the narrow end. After filtering the buffer through the Eliminator filtration system, ethidium bromide is permanently retained in the filter cartridge. The used filter and sleeve can be safely disposed of as solid hazardous waste. The Eliminator system can decontaminate up to one liter of dye at a time. Each disposable vinyl sleeve will remove up to 99% of dye from 20 liters of solution before needing replacement.

SYBR® is a registered trademark of Molecular Probes, Inc.



SmartPower™ 4000 Power Supply

- Runs horizontal agarose, DNA sequencing and protein gels
- Runs up to 4 gels simultaneously
- Monitors current and power for each gel independently
- Regulates gel temperature with built-in, patented StrataTherm® temperature controller*
- Produces superior quality sequencing data with CastAway™ precast gels**
- For any electrophoretic application

The SmartPower™ 4000 power supply combines the power of a 4000-volt power supply with the patented StrataTherm® temperature controller. This combination produces high-quality sequencing data, while reducing the likelihood of band compressions. A voltage range of 25-4000 volts makes the SmartPower 4000 power supply ideal for a wide variety of applications.

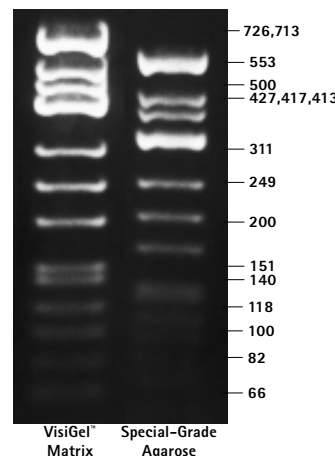
* U.S. Patent No. 5,328,581

** Patent pending

VisiGel™ Separation Matrix

- Permits high resolution of DNA fragments smaller than 2000 bp
- Unmatched flexibility and strength
- Higher resolution than expensive special-grade agarose gels
- Clearer gels result in superior imaging

VisiGel™ separation matrix is designed for the separation of nucleic acid fragments from 100-1200 bp and outperforms special-grade agarose in the resolution of DNA under 1000 bp. The improved clarity of VisiGel gels results in superior imaging. Tear-resistant and easy-to-handle, VisiGel gels are ideal for electrophoresis of PCR fragments. VisiGel matrix is a concentrated liquid slurry, eliminating the need to weigh out powders. Simply pipet out the desired amount, add buffer and microwave.



Horizontal Electrophoresis Apparatus

- Unique casting-clamp system for leakproof casting
- Safety-plus lid with attached power cords
- Removable gel-casting tray
- Trays with 2 comb-height settings for pouring thick and thin gels
- UV-transparent acrylic gel bed
- Easy viewing of EtBr-stained bands
- 10 x 10 cm, 20 x 10 cm and 20 x 20 cm formats

Electrophoresis Reagents

Reagent	Quantity	Catalog
VisiGel™ Separation Matrix	for 100 50-ml gels	#400750
Low EEO Agarose	100 grams	#300013
	500 grams	#300014
Ethidium Bromide	powder 5 grams	#300081
	liquid 5 ml	#300083
	10 ml	#300084
Acrylease	200 ml	#300132
6% Polyacrylamide Gel Mix	for 5 100-ml gels	#300009
Acrylamide	500 grams	#300011
	2 kilograms	#300012
Bisacrylamide	25 grams	#300033
	100 grams	#300034
Urea	1 kilogram	#300191
	5 kilograms	#300192
Ammonium Persulfate	25 grams	#300022
TEMED	50 ml	#300161




Ordering information

Joule Box™ Minigel Electrophoresis Unit			
Gel box, gel box cover, power supply, use set, comb set, gel casting set, anti-fogging agent	Joule Box Unit Dimensions: (WxDxH) 199 x 75 x 137 mm Buffer volume: 250 ml Weight: 1 lb 3 oz. Input: 100/110 V AC, 50/60 Hz requires a step-down transformer for use at 220/240 V (not supplied) Output: 50 or 100 V DC Fuse: 0.8A	120V	#400390
Joule Box™ Accessories			
Comb Set	2 combs each containing all well configurations (for 6-well 25 ml, 8-well 15 ml, 12-well 30 ml and 17-well 15 ml)		#400393
Gel Casting Set	1 gel casting cassette 4 small gel trays and covers (15 ml gel volume for 4 mm gels) 2 large gel trays and covers (25 ml gel volume for 4 mm gels)		#400394
Preparative Comb Set	2 preparative combs		#400395
Anti-fogging Agent	1 bottle		#400396
MVP™ Mini Vertical Polyacrylamide Gel System			
MVP™ Minigel Apparatus	MVP Unit Dimensions: (LxWxH) 15.2 x 10.8 x 12.1 cm Includes: Apparatus, 2 sets of acrylic wedges, and a blocking plate		#401170
MVP™ Precast Polyacrylamide Minigels			
4-20% MVP Gradient Precast Polyacrylamide Minigels	5 gels		#401171
10-20% MVP Gradient Precast Polyacrylamide Minigels	5 gels		#401172
7.5% MVP Precast Polyacrylamide Minigels	5 gels		#401173
10% MVP Precast Polyacrylamide Minigels	5 gels		#401174
12.5% MVP Precast Polyacrylamide Minigels	5 gels		#401175
Horizontal Electrophoresis Apparatus			
10 x 10, includes 1 16-well comb	Gel bed (WxDxH): 10 x 10 x 3 cm, Exterior (WxDxH): 26 x 17.5 x 8.5 cm		#400440
20 x 10, includes 1 32-well comb	Gel bed (WxDxH): 20 x 10 x 3 cm, Exterior (WxDxH): 30 x 28 x 9 cm		#400445
20 x 20, includes 1 16-well comb	Gel bed (WxDxH): 20 x 20 x 3 cm, Exterior (WxDxH): 42 x 28 x 10.5 cm		#400450
PhotoFinish Blue™ Dye Removal Pads			
25 pads			#400481
Quik-Pik™ Electroelution Capsules			
54 of the following: punches, cups, pins, pipet tips 1 plunger			#400855
Eliminator™ Dye Removal System			
5 Eliminator units, mounting hook, mounting screws, tube clamp			#400480

Electrophoresis Accessories			
Autoradiograph Storage Binder			
• Conveniently stores and safeguards autoradiographic films • Holds up to 40 14" x 17" X-ray films (2 per sheet protection) • Allows easy archiving and viewing of data	1 binder, 10 sheet protectors		#400410
Film Sheet Protectors			
• Clear sheet protectors can be labeled and separated by tab dividers	20 protectors		#400411
Glass Drying Racks			
• For vertical drying and storage of gel plates • Holds up to 10 plates • No fipping, even with plates stored at only one end • Not damaged by ethanol-based cleaners	Large 1 rack: Dimensions (WxDxH): 16.0 x 28.0 x 25.5 cm Small 2 racks: Dimensions (WxDxH): 9.0 x 21.0 x 13.5 cm		#400300
GloGos™ II Autorad Markers			
• Luminescent peel-off stickers for marking and aligning autoradiographs • Easily affixed to plastic wrap or paper • Convenient, nonhazardous alternative to messy radioactive ink • Adaptable for long or short exposures • Usage range of -10°C to room temperature	100 markers 300 markers 1000 markers		#420201 #420202 #420203
Gel Scoops			
• Made of UV-transparent acrylic with a beveled edge • For easy transfer of gels from an electrophoresis box to UV monitor	7 cm (narrow) 15 cm (wide) 4 gel scoops 4 gel scoops		#400057 #400052

SmartPower™ 4000 Power Supply			
• All-purpose power supply with built-in StrataTherm® temperature controller (113 mA at 4000V) Power range: 0-450 W Weight: 5 kg Dimensions (WxDxH): 30 x 44 x 13 cm	Voltage range: 25-4000 V Current range: 0.25-450 mA 25-1000 V, 450 mA max 1000-4000 V, limited by power 230V	100/120V	#400690 #400692
CastAway™ SmartPower™ 4000 Power Supply Combo			
• Includes: Complete CastAway Sequencing System and SmartPower 4000 Power Supply		100/120V 230V (non CE marked)	#401180 #401182

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CastAway™ Sequencing System			
CastAway™ Sequencing System (Complete System)			
• Sequencing device • Gel dryer • Radiation storage container • 2 fixing trays • Shark-Tooth Comb Set • Gasket lubricant, leads	100/120V 230V		#401098 #401099
CastAway™ System Components			
CastAway™ Sequencing Device • Sequencing device • Shark-Tooth Comb Set • Gasket lubricant, leads			#401070
CastAway™ Gel Dryer	• Gel dryer and Power cord 100/120V 230V		#401080 #401082
CastAway™ Fixing Trays	• 2 trays		#401072
CastAway™ Radiation Storage Container	• 1 box		#401071
CastAway™ System Accessories			
CastAway™ Autoradiography Cassette	1 cassette		#401116
Kodak® BioMax MR film for the CastAway™ System	50 sheets		#401117
Single-Channel Gel-Loading Syringe 0.2 mm needle	1 syringe		#401086
8-Channel Gel-Loading Syringe 0.2 mm needle	1 syringe		#401087
CastAway™ Rehydration Kit	• 1 liter 10X rehydration buffer • gel blades • 2 scraping trays		#401076
10X Rehydration Buffer	1 liter		#401077
Gel Blade	5 blades		#401078
Scraping Tray	2 trays		#401079
Shark-Tooth Comb Set for 8-Channel Pipettors	5 combs		#401083
Shark-Tooth Comb Set	3 each 20 - 32 - and 48-well combs		#401074
20-Well Shark-Tooth Combs	5 combs		#401119
32-Well Shark-Tooth Combs	5 combs		#401118
48-Well Shark-Tooth Combs	5 combs		#401121
High-Voltage Leads	1 set		#401073
Gasket Lubricant	1 tube		#401075
StrataTIPS® Pipet Tips	flat, 200 tips 0.1-10 ml		#410005
ART® Seal-Sealing Barrier Tips	960 tips/pk, 10 ml		#410136
CastAway™ Service Agreement (North America only)			#400573
CastAway™ Precast Gels			
6% Polyacrylamide Gels	5 gels		#401090
6% Polyacrylamide Gels with 32 Preformed Wells	5 gels		#401094
6% Nondenaturing Polyacrylamide Gels	5 gels		#401096
4.5% Polyacrylamide Gels	5 gels		#401091
4.5% Polyacrylamide Gels with 32 Preformed Wells	5 gels		#401092
12% Polyacrylamide Gels with 32 Preformed Wells	5 gels		#401093
5.5% Long Ranger™ Gels	5 gels		#401097
25-cm gels for the LI-COR System	5 gels		#409009

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